Mountlake Terrace Planning Commission

Meeting Agenda
Monday, January 12, 2026, 7:00 PM
Mountlake Terrace City Hall, and via Telephone or Teleconference

AGENDA

1. Call to Order
2. Attendance Roll Call
3. Approval of the 12/22/25 Meeting Minutes
4. Public Comment (No person shall make personal attacks, or threatening remarks while addressing the Planning Commission, which disrupts, disturbs, or otherwise impedes the orderly conduct of the meeting. Any person who is engaging in conduct that disturbs, disrupts, or impedes the business of the Planning Commission or whose comments have been ruled out of order by the presiding officer, shall immediately cease and refrain from further improper comments or inappropriate conduct. All hate speech will be construed as threatening remarks.)
5. Chair and Vice Chair Elections
6. Presentation of Engineering Development Manual (EDM) & Associated Code Amendments
7. 2026 Work Plan and Recommendations
8. Director's Report
9. Miscellaneous Business by Call of Planning Commissioners
10. Adjournment

If the public would like to listen via telephone, call 1-253-215-8782. To watch the meeting online: 1) Go to https://zoom.us/join; 2) Enter meeting ID 832 0588 1330 and click "join" (you will be prompted to install the Zoom application if you do not already have it).

The City of Mountlake Terrace strives to provide access and services to all members of the public. Please notify the City at least one week prior to the event if reasonable accommodations are needed.

City of Mountlake Terrace
Guidelines on Addressing the Planning Commission

The Planning Commission welcomes public input at the appropriate time during a public meeting. If you wish to address the Commission, you will be called on when your hand is raised and recognized by the Planning Commission Secretary.

Anyone who is addressing the Planning Commission will need to state their name and address at the beginning of their testimony, or comments.

To comment on an item not listed on the agenda, please address the Planning Commission at the time listed on the agenda as public comment.

To comment on an item listed on the agenda, please do so when the Chair calls for public comment during that particular agenda item.

Unless the Planning Commission Chair directs otherwise, comments on any item should not exceed five minutes per person.

To give public hearing testimony remotely (via Zoom), complete the Request Form for Remote Public Comment on the city's Planning Commission web page, at least 24 hours before the meeting. You will then be contacted via email to confirm your participation. Your reply to the confirmation email must be received by 4 p.m. on the day of meeting to be acknowledged that same evening. To give public hearing testimony at a meeting in-person, sign up at the meeting (no 24-hour notice required).

To submit written public hearing testimony, mail to/drop off at City Hall (23204 58th Avenue W., Mountlake Terrace, WA 98043) or email remarks to Shannon Olsen, solsen@mltwa.gov, no later than 4 p.m. on the public hearing date.

Purpose of Work Sessions

Occasionally the Planning Commission will discuss City topics in the form of a Work Session. The purpose of Work Sessions is for the Commission to collectively discuss ideas with each other, as well as observe staff presentations on selected topics. While the Planning Commission cannot take any official actions during a Work Session, the public is welcome to speak regarding an item before the Work Session begins. The public is always welcome to attend and monitor Planning Commission Work Sessions.

MOUNTLAKE TERRACE PLANNING COMMISSION
MEETING MINUTES

DECEMBER 22, 2025

1. Call to Order

   Chair Bautista called the meeting to order at 7:03 pm.

2. Attendance Roll Call

   Commissioners Present
   Chair Bautista
   Vice Chair Bettcher (via Zoom)
   Commissioner Stenson
   Commissioner Thompson (via Zoom)
   Commissioner Wu (via Zoom)
   Commissioner Finch

   Commissioners Absent
   Commissioner Morgan

   A **motion** was made to excuse Commissioner Morgan. **Motion** passed 6:0.

   Consulting Staff
   None.

   City Staff Present
   Building Official Matthew Gisle
   Civil Engineer Lucas Kragt
   Planning Commission Secretary Shannon Olsen

3. Approval of the 11/24/25 Meeting Minutes

   The 11/24/25 meeting minutes were accepted as presented.

4. Public Comment (No person shall make personal attacks, or threatening remarks while addressing the Planning Commission, which disrupts, disturbs, or otherwise impedes the orderly conduct of the meeting. Any person who is engaging in conduct that disturbs, disrupts, or impedes the business of the Planning Commission or whose comments have been ruled out of order by the presiding officer, shall immediately cease and refrain from

further improper comments or inappropriate conduct. All hate speech will be construed as threatening remarks.)

None.

5. Presentation of Engineering Development Manual (EDM) & Associated Code Amendments

   Civil Engineer Lucas Kragt presented on this topic to include a history on Development Standards, the key code changes being made in the MTMC code in chapters 13, 17, 18, and 19, and changes to the Engineering Development Manual (EDM) including chapters 7, 11, 19, 24, the standard plans, and staff recommendation.

   Kragt and Building Official Matthew GIsle responded to questions and comments from the Planning Commission.

6. Director's Report

   Building Official Matthew Gisle presented on this topic to include when the 2026 work plan will be coming up on the Planning Commission calendar.

   Gisle responded to questions and comments from the Planning Commission.

7. Miscellaneous Business by Call of Planning Commissioners

   Planning Commission welcomed the new commissioner, Chris Finch.

8. Adjournment

   Meeting adjourned at 7:37 pm.

These minutes are subject to approval at the next Mountlake Terrace Planning Commission meeting.

Chapter 13.50

IMPROVEMENTS*

Sections:
13.50.010 Definitions.
13.50.020 Permits and bonds.
13.50.030 Fees – General.
13.50.040 Fees for public and privately owned utilities.
13.50.050 Fee refunds.
13.50.060 Construction on public right-of-way.
13.50.070 Inspection – Approval – Violation.

*Prior legislation: Ords. 1857 and 1946.

13.50.010 Definitions.
A. For the purpose of this chapter, "public or private improvements" are defined as all construction constituting a valuable addition to or modification of all public and private lands by the installation of any and all facilities conveying water, sanitary sewage, stormwaters, grading, clearing, electricity, heating gases, telephone and television signals, and vehicular and pedestrian traffic, and by creating in accordance with City ordinances vehicular parking, landscaping, irrigation, and sight-screening on private property. (Ord. 2190 Ch. I, 1998).

13.50.020 Permits and bonds.
A. Permits. A permit is required for the construction of all public and private improvements where earth is disturbed on or under public or private properties unless meeting any of the exemptions below on private property. A permit is required if any of these exemptions are exceeded within any three-year period.

1. The total disturbed area is less than 2,000 SF and does not add hard surface within the front yard setback.

2. The total grading is less than 50 cubic yards and does not create or modify a slope over 15%, direct additional stormwater runoff offsite, or create hazardous conditions.

B. Applications. Applications for such permits shall be filed with the City ~~a minimum of 15 days~~ prior to the anticipated commencement of construction. ~~Plans and profiles as required by the Engineering Division shall accompany said application delineating all proposed construction.~~

C. ~~Assuring~~ Performance Guarantee shall follow MTMC 15.35. ~~Prior to starting any associated building construction and upon approval of all required plans by the Engineering Division, all applicants except public or private utilities will assure the City that all water mains, sanitary sewers, storm drain systems, public roadways and emergency vehicle access required by ordinance and development conditions will be installed in accordance with City standards by either:~~

~~1. Installation of all improvements as delineated on the approved plan and profile;~~

~~2. Performance guarantee as provided in the City's current ordinance establishing acceptable types of guarantees.~~

D. Maintenance Guarantee shall follow MTMC 15.35. ~~Prior to acceptance by the City of any newly constructed public improvements to be deeded to the City, the developer shall file with the City a construction maintenance guarantee as provided in the City's current ordinance establishing acceptable types of guarantees in the amount of 20 percent of the estimated construction cost, said maintenance guarantee to be held by the City for a period of two years from the date of acceptance of said improvements. Should any failures occur within this two-year period, the City shall require the applicant, at his cost, to correct all failures. Should the applicant fail to perform within a period of 15 days of notice from the City, the City shall use said maintenance guarantee to correct any failures.~~

E. Validity of Permit. The issuance of a permit based upon approved plans, specifications, and other data shall not prevent the City Engineer from thereafter requiring the correction of errors in said plans, specifications, and other

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data, or from preventing construction being carried on thereunder when in violation of this chapter or any other ordinance or standard of the City.

F. Approvals and Expirations.

1. Application for Construction Permits and Expiration of Plans in Review. Prior to issuance of construction permits for public or private improvements, applications and plans for the construction shall be submitted for approval by the City Engineer or theirhis designated representative. All plans shall conform with the City's Comprehensive Plans, ordinances, adopted standards, and applicable conditions of approval and mitigation measures. Applications and plan reviews for which no meaningful action to advance the application has been taken by the applicant within 180 days of the date of application, or the date of the most recent written directive from the City's plan reviewer, shall expire by limitation. Plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the City Engineer. The City Engineer may extend the time for action by the applicant for a period not exceeding 180 days upon request by the applicant showing that circumstances beyond the control of the applicant have prevented action being taken. No application and plan review shall be extended more than once. In order to renew action on any application after expiration, the applicant shall resubmit applications and plans and pay a new filing and plan check fee.

2. Approval of Plans and Expiration of Approved Plans. Upon completion of review for conformance, the City Engineer, or histheir designee, will affix histheir/her signature and date of approval to the construction drawings. Approval for plans for which no permit is issued within 180 days following the date of approval shall expire by limitation, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the City Engineer. The City Engineer may extend the time for action by the applicant for a period not exceeding 180 days upon request by the applicant showing that circumstances beyond the control of the applicant have prevented action being taken. No plan approval shall be extended more than once. In order to renew action on any application after expiration, the applicant shall resubmit plans and pay a new filing and plan check fee.

3. Expiration of Permits. Every permit issued by the City Engineer, or histheir designee, under the provisions of this chapter shall expire by limitation and become null and void if the construction authorized by such permit is not commenced within 180 days from the date of such permit, or if the construction authorized by such permit is suspended at any time after the work is commenced for a period of 180 days. Before such construction can be recommenced, a new permit shall be first obtained to do so, and the fee therefor shall be one-half the amount required for a new permit for such work; provided, no changes have been made or will be made in the original plans and specifications for such work; and provided, that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after expiration resulting from suspension or abandonment exceeding one year, the permittee shall submit a new application and plans, pay a filing and plan check fee and, upon approval of the plans, pay a permit fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which he may commence work under that permit when he is unable to commence work within the time required by this section for good and satisfactory reasons. The City Engineer may extend the time for action by the permittee for a period not exceeding 180 days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

4. Current Approved Plans and Issued Permits. All applications, plan reviews, approved plans or construction permits issued prior to the date of effect of the ordinance codified in this chapter are hereby placed under the conditions of this chapter with the time limitations beginning on the date of effect of the ordinance codified in this chapter.

5. Investigations of Work without a Permit. Whenever any work for which a construction permit is required by this chapter has been commenced without first obtaining said construction permit, a special inspection shall be made before a construction permit may be issued for such work. (Ord. 2190 Ch. II, 1998).

The Mountlake Terrace Municipal Code is current through Ordinance 2891, passed June 26, 2025.

13.50.030 Fees – General.

A. Fees – General. Fees for permits shall follow the adopted fee schedule. ~~for said improvements shall consist of a plan check fee, construction permit fee and, when applicable, hourly fees for work not covered under the plan check and construction permit fee, including, but not limited to, inspections outside normal business hours; reinspections; additional plan review required by changes, additions, revisions to plans and supporting documents; and requested time extensions. If work has commenced without a construction permit, an investigation fee shall also be assessed. All fees shall be payable to the City of Mountlake Terrace.~~

~~B. Plan Check Fee. In addition to the filing fee, a plan check fee in accordance with the adopted City fee schedule shall be assessed at the time of application.~~

~~C. Construction Permit Fees. After review and approval by the City Engineer and/or Planning Manager, or their designees, as applicable, of the application and plans, a construction permit will be issued upon payment of construction permit fees.~~

~~1. Construction permit fees for improvements required by ordinance, such as water, sanitary sewage, vehicular traffic facilities, clearing, grading, pedestrian traffic facilities, retaining walls, parking, landscaping, and irrigation shall be assessed in accordance with the adopted City fee schedule.~~

~~2. Construction Cost Estimate. To assure that accurate permit fees are assessed, each application for said permits shall be accompanied by a detailed breakdown of the total estimated construction cost. Each cost breakdown shall include major items of each improvement showing quantities, unit prices, and total item cost. The City Engineer, or his designee, will determine if said cost breakdown is accurate. When the City has established standardized unit prices and values for various components of construction, those shall be used by the applicant in preparing the cost breakdown.~~

~~D. Hourly Fees. Fees for work including, but not limited to, inspections outside normal business hours; reinspections; additional plan review required by changes, additions, or revisions to plans and supporting documents; and requested time extensions shall be in accordance with the adopted City fee schedule.~~

~~E. Fees for Investigations of Work without a Permit. An investigation fee, in addition to the construction permit fees, shall be collected whether or not a construction permit is then or subsequently issued. The investigation fee shall be equal to the amount of the construction permit fee required by this chapter. The minimum investigation fee shall be the same as the minimum construction permit fee required by this chapter for the classification of work, and shall be in accordance with the adopted City fee schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this chapter nor from any penalty prescribed by law. (Ord. 2190 Ch. III, 1998).~~

13.50.040 Fees for public and privately owned utilities.

A. Where a public or privately owned utility company such as Washington Natural Gas Company, Snohomish County P.U.D. No. 1, General Telephone Company, etc., provides its own operational acceptance testing and inspections and owns, operates, and maintains the facility constructed, the fees shall consist of a plan check and construction permit fee and, when applicable, hourly fees for work not covered under the plan check and construction permit fee. These fees and street invasion deposits, if required, shall be payable to the City as billed monthly or quarterly at the option of the utility.

B. Plan Check and Construction Permit Fees for Underground Distribution Lines with or without Services. A plan check and construction permit fee for the underground installation including extension, repair, or modification of any system, including such building services as have been included in the application, shall be assessed in accordance with the adopted City fee schedule.

C. Plan Check and Construction Permit Fees for Overhead Distribution Lines with or without Services. A plan check and construction permit fee for the overhead installation, including extension, repair, or modification of any system including such building services as have been included in the application, shall be assessed in accordance with the adopted City fee schedule.

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D. Plan Check and Construction Permit Fees for Individual Underground Service. A plan check and construction permit fee in accordance with the adopted City fee schedule shall be assessed for each underground building service not disturbing an improved portion of public right-of-way or other improvement. For each building service disturbing an improved portion of public right-of-way, a plan check and construction permit fee shall be assessed in accordance with the adopted City fee schedule when such services are constructed separate from a distribution line installation.

E. Plan Check and Construction Permit Fees for Individual Overhead Service. A plan check and construction permit fee in accordance with the adopted City fee schedule shall be assessed for each individual service where overhead service is authorized by City policy and when such services are constructed separate from a distribution line installation.

F. Hourly Fees. Fees for work including, but not limited to, inspections outside normal business hours; reinspections; additional plan check required by changes, additions, or revisions to plans and supporting documents; and requested time extensions shall be in accordance with the adopted City fee schedule. (Ord. 2190 Ch. IV, 1998).

13.50.050 Fee refunds.

A. Erroneously Collected or Paid Fees. The City Engineer may authorize refunding of any fee paid specified in this chapter which was erroneously paid or collected.

B. Plan Check Fees. The City Engineer may authorize refunding of not more than 80 percent of the plan review fee paid when the application is withdrawn or canceled before any plan reviewing is done.

C. Permit Fees. The City Engineer may authorize refunding of not more than 80 percent of the construction permit fee when no work has been done under a construction permit issued in accordance with this chapter. (Ord. 2190 Ch. IV, 1998).

13.50.060 Construction on public right-of-way.

A. The City shall exercise full control of all excavating, construction, and other invasions of City rights-of-way. The Engineering Division shall be notified a minimum of 48 hours prior to commencing construction.

~~B. No open-cut crossings of City streets shall be made without the approval of the Engineering Division.~~

~~C. All open cuts of City streets shall be in accordance with the current adopted edition of the City of Mountlake Terrace Engineering Details and Specifications and the current edition of the Washington State Department of Transportation/APWA Standard Specifications for Road, Bridge, and Municipal Construction.~~

~~D. Shoulders disturbed by excavation shall be reshaped to the satisfaction of the Engineering Division and followed with a minimum four-inch compacted crushed rock top course.~~

~~E. All backfill of trenches within the improved roadway shall be compacted by mechanical means to the minimum density of 95 percent.~~

~~Upon request, the contractor shall, at his expense, furnish the Engineering Division as many compaction tests as the Engineering Division may deem necessary for proof of minimum compaction. Compaction by water settling or wheel rolling shall be permitted only with the consent of the Engineering Division.~~

~~F. Backfilling and restoration of trenches authorized within the utility strip on fully improved streets shall be accomplished as follows:~~

~~1. Areas shown on the drawing or as required by the Engineering Division to receive seeding or sodding shall receive topsoil. Areas to be seeded shall receive four inches of topsoil; areas to be sodded shall receive three inches of topsoil.~~

~~G. Existing drainage ditches, culverts, etc., shall be kept clean at all times. Temporary diversion of any drainage system shall not be permitted without the consent of the City Engineer. Any drainage culverts, catch basins, manholes, etc., disturbed by excavation shall be replaced with new material, or repaired as directed by the Engineering Division.~~

H. If, in the opinion of the Engineering Division, it appears that the traveled roadway is, or may become, unsafe for the traveling public due to weather or other reasons, excavation shall cease immediately and cleanup shall be promptly accomplished.

I. Maximum lengths of open trenches on streets shall be 200 lineal feet.

J. All pipe strung along City rights-of-way shall be placed at a safe distance from traveled roadways in such a manner as to avoid accidental rolling onto roadways.

K. Final cleanup, including complete restoration of shoulders, cleaning of ditches, culverts, and catch basins, and removal of loose material from back slope of ditches, shall not exceed 1,500 lineal feet, behind excavating operations.

L. If, in the opinion of the Engineering Division, the final restoration of open cuts is inadequate to protect the base of the street from erosion caused by seepage of water, the contractor shall be required to seal coat the full width of the street a distance to be determined by the Engineering Division.

M. Street surface shall be cleaned at the end of each day's operation with a power broom or other approved means.

N. No excess material or unsuitable material shall be wasted on City rights-of-way without expressed consent of the Engineering Division.

O. Signs and traffic control devices shall be in accordance with regulations established by the Washington State Department of Labor and Industry or the latest edition of the Manual on Uniform Traffic Control Devices, whichever is more restrictive.

P. All materials shall be readily available to the job site, and provisions shall be made to complete the construction in one continuous operation. Failure to comply shall result in excavation being halted until such time as the conditions are corrected.

Q. The Police and Fire Departments shall be notified 24 hours prior to barricading or closing of streets. Proper provisions shall be made for the public convenience, safety, and travel.

R. All unattended excavations shall be properly barricaded as to prevent accidents. (Ord. 2792 § 6, 2021; Ord. 2190 Ch. VI, 1998).

13.50.070 Inspection – Approval – Violation.

A. The Engineering Division shall be notified 24 hours prior to any requested inspection, except where emergency repairs in existing systems are necessary to maintain normal operation.

B. Prior to final approval of construction, the applicant shall furnish the Engineering Division all tests the City deems necessary to assure proper installation of all improvements. Should any improvements be rejected, the applicant shall make required repairs and retest the rejected portion of the improvement. The applicant shall also submit to the City for its permanent file as-built drawings on mylar media of archival quality from which additional copies can be made.

AC. All violations of this chapter shall be deemed a misdemeanor punishable by a fine not to exceed $300.00 or by imprisonment not to exceed 90 days, or by both fine and imprisonment. (Ord. 2190 Ch. VII, 1998).

Chapter 15.05

BUILDING CODE

Sections:

15.05.010 Purpose.
15.05.020 Definitions.
15.05.030 Referenced codes.
15.05.040 International Building Code.
15.05.050 Amendments – Additions to IBC.
15.05.060 International Residential Code.
15.05.070 Amendments – Additions to IRC.
15.05.080 International Mechanical Code.
15.05.090 Uniform Plumbing Code.
15.05.100 International Performance Code for Buildings and Facilities.
15.05.110 International Green Construction Code.
15.05.120 International Fuel Gas Code.
15.05.130 National Electrical Code.
15.05.140 Amendments – Additions to National Electrical Code.
15.05.150 Nonliability.
15.05.155 International Existing Building Code.
15.05.160 International Energy Conservation Code and Washington State Energy Code.
15.05.170 Accessibility standards.
15.05.180 Uniform Code for the Abatement of Dangerous Buildings.
15.05.190 International Property Maintenance Code.
15.05.200 Conflicts – How resolved.
15.05.210 Permits required.
15.05.220 Permit fees.
15.05.230 Professional preparation of plans.
15.05.240 Publications and standards adopted.
15.05.250 Reserved.
15.05.260 Protection of natural watercourses.
15.05.270 Regulation of removal of trees.
15.05.280 Development within flood hazard areas.
15.05.290 Performance guarantees and warranties.
15.05.300 Public right-of-way – Private encroachment.
15.05.310 Public/site improvements – Relation to building permit.
15.05.320 Nonconforming structures.
15.05.330 Underground utility services.
15.05.340 Sanitary convenience.
15.05.350 Authority.
15.05.360 Appeal from decision of authority.
15.05.370 Violations.

15.05.010 Purpose.

The City of Mountlake Terrace finds that building codes protect lives, property, and the public interest. The purpose of this chapter is to identify references, standards and procedures that will enable building codes to be implemented within the City. (Ord. 2453 § 1, 2007).

15.05.020 Definitions.

For the purposes of this chapter, certain abbreviations, terms, phrases, words and their derivatives shall be construed as specified in the codes referenced in MTMC 15.05.030, except as follows:

“Board of Appeals” shall mean the City Hearing Examiner.

“City” or “the City” shall mean the City of Mountlake Terrace.

“City Engineer” shall mean the Engineering Services Director for the City of Mountlake Terrace or the designee of said director.

“City Manager” shall mean the City Manager of the City of Mountlake Terrace or the designee of said manager.

“Community Development Director” shall mean the Community and Economic Development Director for the City of Mountlake Terrace or the designee of said director.

“MTMC” shall mean the municipal code of Mountlake Terrace.

“NFIP” shall mean the National Flood Insurance Program.

“RCW” shall mean the Revised Code of Washington.

“WAC” shall mean the Washington Administrative Code.

“Zoning” shall mean the general development code of MTMC Title 19. (Ord. 2621 § 2, 2013; Ord. 2453 § 1, 2007).

15.05.030 Referenced codes.

The following codes are referenced for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use, occupancy, location and maintenance of buildings and structures:

A. International Building Code, 2021 Edition, published by the International Code Council, with state of Washington amendments;

B. International Residential Code, 2021 Edition, published by the International Code Council, with state of Washington amendments;

C. International Mechanical Code, 2021 Edition, published by the International Code Council, with state of Washington amendments;

D. International Fire Code, 2021 Edition, published by the International Code Council, with state of Washington amendments, as adopted in Chapter 15.10 MTMC;

E. Uniform Plumbing Code, 2021 Edition, with state of Washington amendments, and Uniform Plumbing Code Standards, published by the International Association of Plumbing and Mechanical Officials;

F. International Performance Code for Buildings and Facilities, 2021 Edition, published by the International Code Council;

G. International Green Construction Code, 2021 Edition, published by the International Code Council;

H. International Fuel Gas Code, 2021 Edition, published by the International Code Council, with state of Washington amendments;

I. National Electrical Code, 2023 Edition, published by the National Fire Protection Association; and the Washington Cities Electrical Code, 2020 Edition, published by Washington Association of Building Officials;

J. International Energy Conservation Code, 2021 Edition, published by the International Code Council;

K. International Existing Building Code, 2021 Edition, published by the International Code Council;

L. Washington State accessibility provisions for physically disabled or elderly persons as provided in RCW 70.92.100 through 70.92.160;

M. Uniform Code for Abatement of Dangerous Buildings, 1997 Edition, published by the International Conference of Building Officials;

N. International Property Maintenance Code, 2021 Edition, published by the International Code Council; and

O. Washington State Energy Code (Commercial and Residential), 2021 Editions, International Energy Conservation Code, with state of Washington amendments. (Ord. 2877 § 2, 2025; Ord. 2794 § 2, 2021; Ord. 2707 § 1, 2017; Ord. 2672 § 1, 2015; Ord. 2621 § 3, 2013; Ord. 2543 § 1, 2010; Ord. 2453 § 1, 2007).

15.05.040 International Building Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Building Code (IBC), 2021 Edition, as published by the International Code Council and amended by Chapter 51-50 WAC, and specifically including Appendices F (Rodent Proofing), G (Flood-Resistant Construction), H (Signs), and J (Grading); provided, that certain sections of the IBC are amended as set forth in MTMC 15.05.050. (Ord. 2877 § 3, 2025; Ord. 2794 § 3, 2021; Ord. 2707 § 2, 2017; Ord. 2621 § 4, 2013; Ord. 2543 § 2, 2010; Ord. 2453 § 1, 2007).

15.05.050 Amendments – Additions to IBC.
The following sections of the IBC as adopted in MTMC 15.05.040 shall be amended or replaced to read as follows:

A. Section [A]101.4.7.

> [A]101.4.7. Existing buildings or structures. Additions or alterations to any building or structure shall comply with the requirements of the International Existing Building Code (IEBC) code for new construction. Additions or alterations shall not be made to an existing building or structure that will cause the existing building or structure to be in violation of any provisions of this code. An existing building plus additions shall comply with the height and area provisions of IBC Chapter 5. Portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements for a new structure.
>
> Exceptions: Buildings or structures to which, in any five-year period, additions, alterations, improvements, and repairs exceed 50 percent of the assessed building value, as determined at the beginning of the five-year period, shall comply with all the requirements for new buildings.

B. Section 105.2.

> 105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of the City of Mountlake Terrace. Permits shall not be required for the following:
>
> 1. Buildings: One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 80 square feet and no side wall exceeds 6 feet in height.

C. Maximum Square Footage Without Sprinklers – All Buildings Constructed for All Occupancies.

> 1. In all new buildings and structures with a fire area of 5,000 or greater square feet regardless of type or use.
>
> 2. In existing buildings, structures or suites that undergo an addition where the new total fire area is 5,000 square feet or greater.
>
> 3. When required by the International Existing Building Code (IEBC) for existing buildings and structures undergoing additions, alterations, repairs, or changes of occupancy. The classification of work level shall be determined by the building and fire code official.
>
> 4. In existing buildings, structures, or suites having an existing automatic fire sprinkler system that does not protect all areas, when the unprotected areas undergo an alteration, repair,

modification, or similar improvement requiring a building permit, those unprotected areas shall be provided with protection as approved by the fire code official.

5. Where required, the fire access road grade is 12 percent or greater.

6. When adequate fire protection is not available for vehicles parked in an open air parking garage from fire apparatus at street level, approved dry standpipes shall be installed.

7. One and two family dwellings and townhomes constructed under the International Residential Code shall be provided with automatic fire sprinkler systems according to MTMC 15.05.060 and 15.05.070 Amendments – Additions to IRC.

D. Section 508.1.

508.1 General. Where a building or portion thereof contains two or more occupancies or uses, the building or portion thereof shall comply with the applicable provisions of Section 508. Notwithstanding, any mixed use building constructed under the IBC and which contains an R occupancy shall be sprinkler protected throughout, per IBC 903.3.1.1.

Exception: Mixed use buildings with predominantly R occupancy areas may be protected with residential sprinkler systems when design fire flows can be shown and all other building code requirements are met as approved by the Fire Marshall and Building Official.

E. Section 602.1.

602.1 General. Buildings and structures erected or to be erected, altered, or extended in height or area shall be classified in one of the five construction types defined in Sections 602.2 through 602.5. The building elements shall have a fire-resistance rating not less than that specified in Table 601 and exterior walls shall have a fire-resistance rating not less than that specified in Table 602. All occupancies, except U occupancies and buildings constructed under the IRC, shall be Type I-A, II-A, III-A, Type IV, Type V-A or V-B and II-B and III-B fully sprinklered buildings.

F. Section 602.1.1.

602.1.1 Minimum requirements. A building or portion thereof shall not be required to conform to the details of a type of construction higher than that type, which meets the minimum requirements based on occupancy even though certain features of such a building actually conform to a higher type of construction. Any structural steel in any unsprinklered buildings except type II-B buildings shall be one-hour protected.

G. Section 705.3.

705.3 Buildings on the same lot. For the purposes of determining the required wall and opening protection and roof-covering requirements, buildings on the same lot shall be assumed to have an imaginary line between them. Where a new building is to be erected on the same lot as an existing building, the location of the assumed imaginary line with relation to the existing building shall be such that the exterior wall and opening protection of the existing building meet the criteria as set forth in Sections 705.5 and 705.8.

Exception: Two or more buildings on the same lot shall either be regulated as separate buildings or shall be considered as portions of one building if the aggregate area of such buildings is within the limits specified in Chapter 5 for a single building. Where the buildings contain different occupancy groups or are of different types of construction, the area shall be that allowed for the most restrictive occupancy or construction.

H. Section 705.5.

705.5 Fire-resistance ratings. Exterior walls shall be fire-resistance rated in accordance with Tables 601 and 602. The fire-resistance rating of exterior walls with a fire separation distance of greater than 5 feet (1,524 mm) shall be rated for exposure to fire from the inside. The fire-resistance rating of exterior walls with a fire separation distance of 5 feet (1,524 mm) or less and subject to the IBC shall be of two-hour construction.

I. Section 901.2.

901.2 Fire protection systems. Fire protection systems shall be installed, repaired, operated and maintained in accordance with this code and the International Fire Code. Any existing building which is vacant for a period of 90 days or longer, or any existing structure which has a change in occupancy classification, shall have an automatic fire detection system installed prior to occupancy where otherwise required by this code. Any fire protection system for which an exception or reduction to the provisions of this code has been granted shall be considered to be a required system. Exception: Any fire protection system or portion thereof not required by this code shall be permitted to be installed within prescriptive standards for partial or complete protection provided that such system meets the requirements of this code.

J. Table 601 Footnote "g."

g. All new buildings, except U occupancies and buildings constructed under the International Residential Code, shall have one-hour exterior walls, except in Type V-B, II-B and III-B sprinklered buildings.

(Ord. 2877 § 4, 2025; Ord. 2794 § 4, 2021; Ord. 2707 § 3, 2017; Ord. 2621 § 5, 2013; Ord. 2543 § 3, 2010; Ord. 2453 § 1, 2007).

15.05.060 International Residential Code.

There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Residential Code (IRC), 2021 Edition, as published by the International Code Council and amended by Chapter 51-51 WAC, and specifically including Appendices G (Swimming Pools), J (Existing Buildings and Structures), R (Dwelling Unit Fire Sprinkler Systems), and S (Fire Sprinklers); provided, that certain sections of the IRC are amended as set forth in MTMC 15.05.070. (Ord. 2877 § 5, 2025; Ord. 2794 § 5, 2021; Ord. 2707 § 4, 2017; Ord. 2621 § 6, 2013; Ord. 2543 § 4, 2010; Ord. 2453 § 1, 2007).

15.05.070 Amendments – Additions to IRC.

A. The following section of the IRC, as adopted in MTMC 15.05.060, is amended to include the insertion of Table R301.2(1) for climatic and geographic design criteria, as follows:

Climatic and Geographic Design Criteria for Mountlake Terrace									
Ground Snow Load	Wind Speed (Mph)	Seismic Design Category	Subject To Damage From				Winter Design Temperature	Ice Shield Underlayment Required	Flood Hazards
			Weathering	Frost Line Depth	Termite	Decay			
25 lbs./sq. foot	85	D_2	Moderate	12"	Slight	Moderate	27° F	No	Current version of flood hazard map

B. R105.2, Work Exempt from Permit, shall be amended to delete item number 5 regarding sidewalks and driveways and replace it with a new number 5 to read as follows:

5. Sidewalks and driveways, except for required civil permits.

C. Residential buildings or structures outside of the Town Center (TC) zoning districts, per the City's Zoning Map, to which, in any three-year period, additions, alterations, or repairs exceed 50 percent of the assessed building value, as determined at the beginning of the three-year period, shall comply with all safety requirements of the IRC for new

buildings. Residential buildings or structures within the TC zoning districts, per the City's Zoning Map, to which, in any five-year period, additions, improvements, alterations or repairs exceed 50 percent of the assessed value, as determined at the beginning of the five-year period, shall comply with all safety requirements of the IRC for new buildings.

D. The following section of the IRC, as adopted in MTMC 15.05.060, is amended to include, effective January 1, 2011, the insertion of Appendices R and S, as adopted in WAC 51-51-60105 and 51-51-60107, for residential fire sprinkler systems; provided, that Appendix S shall apply only to one- family dwellings that are 3,000 square feet or greater in size. (Ord. 2877 § 6, 2025; Ord. 2794 § 6, 2021; Ord. 2707 § 5, 2017; Ord. 2621 § 7, 2013; Ord. 2543 § 5, 2010; Ord. 2453 § 1, 2007).

15.05.080 International Mechanical Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Mechanical Code (IMC), 2021 Edition, as published by the International Code Council, with any amendments established by Chapter 51-52 WAC. (Ord. 2877 § 7, 2025; Ord. 2794 § 7, 2021; Ord. 2707 § 6, 2017; Ord. 2621 § 8, 2013; Ord. 2543 § 6, 2010; Ord. 2453 § 1, 2007).

15.05.090 Uniform Plumbing Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the Uniform Plumbing Code (UPC), 2021 Edition, as published by the International Association of Plumbing and Mechanical Officials, except as otherwise provided in RCW 19.27.170 and Chapters 51-56 and 51-57 WAC, including that provisions affecting sewers or fuel gas piping are not adopted. (Ord. 2877 § 8, 2025; Ord. 2794 § 8, 2021; Ord. 2707 § 7, 2017; Ord. 2621 § 9, 2013; Ord. 2543 § 7, 2010; Ord. 2453 § 1, 2007).

15.05.100 International Performance Code for Buildings and Facilities.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Performance Code for Buildings and Facilities, 2021 Edition, published by the International Code Council. (Ord. 2877 § 9, 2025; Ord. 2794 § 9, 2021; Ord. 2707 § 8, 2017; Ord. 2621 § 10, 2013; Ord. 2543 § 8, 2010; Ord. 2453 § 1, 2007).

15.05.110 International Green Construction Code.*
Reserved. (Ord. 2621 § 11, 2013; Ord. 2453 § 1, 2007).

*Code reviser's note: Ordinance 2621 removed provisions adopting the Uniform Housing Code and reserved this section for provisions concerning the International Green Construction Code.

15.05.120 International Fuel Gas Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Fuel Gas Code, 2021 Edition, as published by the International Code Council and amended by RCW 19.27.170 and Chapter 51-57 WAC. (Ord. 2877 § 10, 2025; Ord. 2794 § 10, 2021; Ord. 2707 § 9, 2017; Ord. 2621 § 12, 2013; Ord. 2543 § 9, 2010; Ord. 2453 § 1, 2007).

15.05.130 National Electrical Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the 2023 National Electrical Code (NEC), published by the National Fire Protection Association. The State of Washington Department of Labor and Industries, Electrical Inspection Section, Rules and Regulations for Installing Electric Wiring and Equipment, and the Washington Cities Electrical Code, 2020 Edition, are hereby adopted as part of the electrical code of the City of Mountlake Terrace; provided, that certain sections of the NEC are amended as set forth in MTMC 15.05.140. (Ord. 2877 § 11, 2025; Ord. 2794 § 11, 2021; Ord. 2672 § 2, 2015; Ord. 2621 § 13, 2013; Ord. 2543 § 10, 2010; Ord. 2453 § 1, 2007).

15.05.140 Amendments – Additions to National Electrical Code.
A. Smoke alarms in existing dwellings shall be provided as required under Section R314.1 of the 2018 International Residential Code.

B. At each new or upgraded service, provisions for a spare circuit must be located in the attic or crawl space, if such space exists.

C. Installation of electric vehicle charging infrastructure, as required in Chapter 19.126 MTMC, shall be consistent with the NEC. (Ord. 2794 § 12, 2021; Ord. 2672 § 3, 2015; Ord. 2621 § 14, 2013; Ord. 2543 § 11, 2010; Ord. 2453 § 1, 2007).

15.05.150 Nonliability.
This chapter shall not be construed to relieve or lessen the responsibility of any person owning, operating or installing any electrical equipment for damages to anyone injured by a defect of the equipment, nor shall the City or its agent be held as assuming any such liability by reason of the inspection under this code or the certificate of inspection issued by the Building Department. (Ord. 2453 § 1, 2007).

15.05.155 International Existing Building Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Existing Building Code (IEBC), 2021 Edition, as published by the International Code Council, with any amendments established by Chapter 51-50 WAC. (Ord. 2877 § 12, 2025; Ord. 2794 § 13, 2021; Ord. 2707 § 10, 2017; Ord. 2621 § 15, 2013; Ord. 2543 § 12, 2010).

15.05.160 International Energy Conservation Code and Washington State Energy Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Energy Conservation Code, 2021 Edition, and the Washington State Energy Code, 2018 Edition, with any amendments established by Chapters 51-11C and 51-11R WAC, as now exist or shall be amended. (Ord. 2877 § 13, 2025; Ord. 2794 § 14, 2021; Ord. 2707 § 11, 2017; Ord. 2621 § 16, 2013; Ord. 2543 § 13, 2010; Ord. 2453 § 1, 2007).

15.05.170 Accessibility standards.
The rules adopted by the Washington State Building Code Council for making buildings and facilities accessible to and usable by physically disabled or elderly persons as provided in RCW 70.92.100 through 70.92.160 are hereby adopted by reference without amendments, additions, or deletions except as may hereinafter be provided. (Ord. 2453 § 1, 2007).

15.05.180 Uniform Code for the Abatement of Dangerous Buildings.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the 1997 Uniform Code for the Abatement of Dangerous Buildings, as published by the International Conference of Building Officials; provided, that certain amendments are made as follows:

A. To “Section 302 Dangerous Buildings,” an addition is made to the definition of a dangerous building as follows:

1. Blighted Property.

Whenever any property, dwelling, building, or structure has been determined to constitute a blight on the surrounding neighborhood. A “blight on the surrounding neighborhood” is any property, dwelling, building, or structure that meets any two of the following factors:

a. A dwelling, building, or structure exists on the property, the dwelling, building, or structure that has not been lawfully occupied for a period of one year or more;

b. The property, dwelling, building, or structure constitutes a threat to the public health, safety, or welfare as determined by the executive authority of the city or the designee of the executive authority; or

c. The property, dwelling, building, or structure is or has been associated with illegal drug activity during the previous twelve months, as determined by the chief of police or the health department.

In conformance with RCW 35.80A.010, the City of Mountlake Terrace may acquire by condemnation, in accordance with the notice requirements and other procedures for condemnation provided in RCW Title 8, any property, dwelling, building, or structure that has been determined to constitute a blight on the surrounding neighborhood. Prior to such condemnation, the City Council shall adopt a resolution declaring that the acquisition of

the real property described therein is necessary to eliminate neighborhood blight. Condemnation of property, dwellings, buildings, and structures for the purposes described in this chapter is declared to be for a public use. (Ord. 2453 § 1, 2007).

15.05.190 International Property Maintenance Code.
There is adopted and by this reference made a part of this chapter as though fully set forth herein, at length, that code known as the International Property Maintenance Code (IPMC), 2021 Edition, as published by the International Code Council. (Ord. 2877 § 14, 2025; Ord. 2794 § 15, 2021; Ord. 2707 § 12, 2017; Ord. 2621 § 17, 2013; Ord. 2453 § 1, 2007).

15.05.200 Conflicts – How resolved.
A. In case of conflict between codes enumerated in MTMC 15.05.030(A), (B), (C) and (D), the first named code shall govern over those following.

B. In case of conflict between the aforementioned codes and other codes adopted in this chapter, the code that, in the opinion of the Building Official, is more restrictive or more protective of public safety shall prevail.

C. In case of conflict between the codes referenced in this chapter and other development codes adopted by the City, the code that, in the opinion of the Community Development Director, is more restrictive or more protective of public safety shall prevail. (Ord. 2453 § 1, 2007).

15.05.210 Permits required.
No person, firm, or corporation shall construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or erect, install, enlarge, alter, repair, convert, or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this chapter, or cause any such work to be done, without first making application to the Building Official and obtaining the required permit. All such work is subject to inspection by the City and must conform with the applicable adopted codes. (Ord. 2453 § 1, 2007).

15.05.220 Permit fees.
A. Permit fees partly or fully pay for City services to ensure development is appropriately planned, built, installed, inspected, or otherwise carried out consistent with applicable codes. Permit fees are established pursuant to MTMC 3.150.090. Whenever a permit is required under this chapter, the appropriate fees shall be paid to the City.

B. Whenever any work for which a permit is required by this code has been commenced without first obtaining said permit, a special investigation shall be made before a permit may be issued for such work. The Building Official may require the collection of an investigation fee, in addition to the permit fee, in an amount equal to the permit fee required by this code. Payment of the investigation fee does not vest the illegal work with any legitimacy, nor does it establish any right to a permit for continued development of that project.

C. The Building Official may authorize the refunding of: (1) 100 percent of any fee erroneously paid or collected; (2) up to 75 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code; and (3) up to 75 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review is done. The Building Official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment. (Ord. 2453 § 1, 2007).

15.05.230 Professional preparation of plans.
A design professional, licensed in Washington under the provisions of Chapter 18.08 or 18.43 RCW, or Chapter 308-12 WAC, is required to: (A) prepare or oversee the preparation of plans for the design and construction of any building or structure containing five or more residential dwelling units; and/or (B) prepare or oversee the plans and construction contract documents and administer the contract for construction, erection, enlargement, alteration, or repairs to any building of any occupancy over 4,000 square feet of construction. (Ord. 2453 § 1, 2007).

15.05.240 Publications and standards adopted.
A. For construction, maintenance, or alterations within the City’s right-of-way, for construction, maintenance, or alteration of utilities and for construction, maintenance, or alterations on private property, the following publications and standards, and any amendments thereto, shall apply:

1. 2004 American Water Works Association's Cross-Connection Control Manual, Accepted Procedure and Practice;

2. Current version of the American Water Works Association Standards;

3. 2008 Washington State Department of Ecology's Criteria for Sewage Works Design;

~~4. 2021 City of Mountlake Terrace Engineering Details and Specifications;~~

~~5. Washington State Department of Ecology's Stormwater Management Manual for Western Washington as adopted by reference in Chapter 16.20 MTMC; and~~

~~4~~6. Standards and publications adopted in MTMC 19.95.010(E).

B. Publications listed in subsections (A)(1) through (4) of this section shall be interpreted by the Engineering Services Director. The publication listed in subsection (A)(5) of this section shall be interpreted by the Community and Economic Development Director; provided, that for purposes of Chapter 16.21 MTMC, Illicit Discharge Detection and Elimination and Operation, Maintenance and Inspection of Storm Drainage Facilities, the Washington State Department of Ecology's Stormwater Management Manual for Western Washington shall be interpreted by the Public Works Director.

C. The City Engineer is hereby directed to administratively establish, update and amend, interpret, and apply the City of Mountlake Terrace Engineering Development Manual~~Details and Specifications~~.

D. If any conflicts in design or construction standards occur, the more restrictive standard will govern. (Ord. 2792 § 2, 2021; Ord. 2707 § 13, 2017; Ord. 2621 § 18, 2013; Ord. 2599 § 2, 2012; Ord. 2453 § 1, 2007).

15.05.250 Reserved.*
(Ord. 2621 § 19, 2013; Ord. 2453 § 1, 2007).

*Code reviser's note: Ordinance 2621 removed provisions concerning house move-ins and reserved this section for future use.

15.05.260 Protection of natural watercourses.
Reserved. (Ord. 2543 § 14, 2010; Ord. 2453 § 1, 2007).

15.05.270 Regulation of removal of trees.
A. The purpose of this section is to protect and preserve the environment of the City of Mountlake Terrace. The presence of trees contributes positively to the aesthetic appearance of the City and to the residential climate within the City. It is the intent of the City Council to ensure that desirable trees shall remain on undeveloped land through the development process, to the extent that subsequent development might economically permit.

B. Provisions.

1. This section shall apply only to undeveloped parcels of land greater than 9,000 square feet.

2. This section shall not be construed to conflict with the responsibilities of the City Planning Commission to approve landscaping plans for subdivisions or for planned unit developments.

3. No owner shall remove or permit or allow the removal of any tree greater than 15 feet in natural height, other than alder and/or wild cherry, without the prior approval of the City Planning Commission.

C. Permission granted pursuant to this section shall be granted by a grading permit. Applications for such grading permits shall be submitted to the Community Development Director, who shall, prior to taking final action thereon, refer the said application for permit to the City Planning Commission. Each application for such permit shall be accompanied by an engineer's sketch showing the location of each tree governed by the provisions of this section. No such permit shall be granted without the prior approval of the Planning Commission, and shall be subject to any condition imposed by such Commission.

D. The acceptance of any grading permit shall constitute an agreement by the owner to be bound by each and every provision hereof, the responsibility for which may not be delegated by said owner to any independent contractor, subcontractor, employee or agent.

E. Must comply with MTMC 16.20.080(D) (Clearing and Grading Permit). (Ord. 2729 § 3, 2018; Ord. 2453 § 1, 2007).

15.05.280 Development within flood hazard areas.
Development within flood hazard areas is strictly regulated under MTMC Title 16 and Appendix G of the IBC. (Ord. 2543 § 15, 2010; Ord. 2453 § 1, 2007).

15.05.290 Performance guarantees and warranties.
Before any City permit is issued, the applicant shall satisfy the applicable requirements of Chapter 15.35 MTMC. (Ord. 2621 § 20, 2013; Ord. 2453 § 1, 2007).

15.05.300 Public right-of-way – Private encroachment.
It shall be unlawful for any person, firm, or corporation to erect, construct, or maintain any building, fence, structure, or thing encroaching upon, under, or over any land that is part of the public right-of-way, except as permitted under Chapter 32 of the IBC or subsections A and B of this section.

A. Rockeries, plantings, and fences shall not encroach on a City right-of-way and/or easement, except as provided in subsections B and C of this section.

B. Any rockeries, plantings, and fences that were previously authorized by a hold harmless agreement between the City and property owner and/or a right-of-way encroachment permit shall be allowed to remain; provided, that the City or franchise utilities may remove said encroachments at any time for the installation or repair of street improvements and utilities, for the construction of new street and utility facilities, for the expansion of facilities, or to reduce hazards. Neither the City nor the franchise agencies are required to replace or restore any encroachments that are damaged or removed; however, the City or franchise holder must repair, to the satisfaction of the City Engineer, any damaged area within the public right-of-way or easement.

C. The planting or maintenance of trees and other plants within the public right-of-way does not require a permit; provided, that such planting or maintenance conforms with all other applicable codes and standards. Trees and other plants with invasive roots shall not be allowed on or within 10 feet of the public rights-of-way and public easements where the invasive roots of such trees or plants may damage public facilities. The Community and Economic Development Department may compile a list of acceptable trees and other plants that have noninvasive roots and that are generally compatible with the function of the public right-of-way or easement. Where plants with invasive roots damage the storm lines, sanitary sewer lines, water lines, or any other underground facility, the owner of such plantings is required to remove them, and is held liable for all repair and replacement costs for City-owned facilities. (Ord. 2543 § 16, 2010; Ord. 2453 § 1, 2007).

15.05.310 Public/site improvements – Relation to building permit.
A. No building permit shall be issued for any new construction, including the construction of single-family residences on lots platted in accordance with MTMC Title 17 (Subdivisions), until all rights-of-way have been dedicated as determined by the City Council and all plans for public and site improvements, including, but not limited to, streets, curbs and gutters, sanitary sewers, storm sewers, sidewalks, water mains, hydrants, parking lots, driveways, landscaping, and other improvements required by the municipal code or as part of a project approval by the Planning Commission, City Council or Hearing Examiner, meeting City standards for the design, size or capacity required to serve the proposed development, or sized in accordance with any Comprehensive Plan of the City, whichever is greater, are submitted and approved by the appropriate City staff. All such improvements shall be extended throughout the parcel under development. In conjunction with development in the TC zoning districts, the applicant shall be responsible for installing underground power infrastructure.

B. Public Site Improvements – Relation to Certificate of Occupancy. Except as noted below, a certificate of occupancy shall not be issued until all public and site improvements serving or associated with a development, as outlined in subsection A of this section, are installed, completed, and approved, as indicated by the initialing of the copy of the proposed certificate of occupancy by the appropriate representatives of the Fire Department and the

Department of Community Development. In some instances, a certificate of occupancy may be issued prior to completion of all improvements when all of the following are satisfied, as determined by the Community and Economic Development Director, or his/her designee, and the Fire Chief, or his/her designee:

1. Public and site improvements for the development are substantially complete;

2. The improvements remaining to be completed are not related to health, safety, or water quality;

3. The improvements remaining to be completed are not critical to the proper functioning of the development; and

4. The developer submits a performance guarantee as provided by the City's current ordinance establishing acceptable types of guarantees to ensure completion of the unfinished improvements within six months of the date of issuance of the certificate of occupancy, or sooner if so determined by the Community and Economic Development Director or Fire Chief. If the improvements are not completed within the time frame stated, the City may utilize the funds provided by the performance guarantee for completion of the required improvements.

C. Applicability. Subsections A and B of this section shall apply to all subdivisions, planned unit developments, multifamily, commercial, industrial, and institutional developments, or any other development for which site or public improvements are required. The requirements of subsections A and B of this section shall in no way relieve the obligations required of developments by other City regulations, codes, or standards, including, but not limited to, MTMC Title 16 (Environment), Title 17 (Subdivisions), and Title 19 (Zoning) as adopted and amended by the City.

D. Violation. Occupancy of projects in violation of subsections B and C of this section shall be cause for immediate termination of all occupancy of the project upon notice by the Community and Economic Development Director or his/her designee, in addition to any penalties imposed under MTMC 15.05.370. (Ord. 2794 § 16, 2021; Ord. 2621 § 21, 2013; Ord. 2481 § 8, 2008; Ord. 2453 § 1, 2007).

15.05.320 Nonconforming structures.

No nonconforming structure shall be enlarged, altered, or repaired except as provided in MTMC Title 19 (Zoning). (Ord. 2453 § 1, 2007).

15.05.330 Underground utility services.

A. The intent of this section is to provide for the undergrounding of power and other wireline services (data and communications) to the greatest extent practical and to avoid unnecessary extensions of overhead wireline services across City rights-of-way.

B. Where new electrical service to a property is underground, any other wireline service shall also be provided underground.

C. New Development. Any electrical or wireline service connecting to a new development or its accessory structure(s) shall be placed underground when the service is new, provided to a new or replaced building, or relocated by the property owner or their agent.

D. Modifications to Electrical Service for Existing Single-Family Dwellings.

1. Where there are modifications to electrical service for an existing single-family dwelling/accessory structure(s), and project improvements (remodels or other construction improvements) are made in excess of 50 percent of the assessed value of the single-family dwelling, utilities shall be undergrounded. Project improvement valuation will accumulate over a consecutive three-year period.

Exceptions:

a. When the nearest point of connection to the distribution system is an overhead facility on a utility pole and is greater than 100 feet away from the single-family dwelling, the property will be exempt from requiring undergrounding of power and other wireline services.

2. Where there are modifications to electrical service for an existing single-family dwelling/accessory structure(s) in town center zones, the property shall be required to provide for undergrounding of power and other wireline services, except in the case of a life safety situation.

E. No additional utility poles, traffic signal poles, or poles of similar type shall be installed for any reason without plans being first approved by the City and, as required, a utilities permit issued.

F. Any preexisting or new proposed overhead utility lines and services which are under 20,000 volts, and which go over and through a subdivision, planned unit development, or through commercial or industrial development, shall be placed underground as a requirement of approval of such development.

G. When and where overhead wires are being undergrounded in the public right-of-way, all other existing overhead lines shall be undergrounded as provided in MTMC 12.20.200.

H. Night Lights. Night lights, yard lights, etc., shall not be powered by means of overhead wiring when the primary service to the house is already underground. (Ord. 2823 §§ 2 – 4, 2023; Ord. 2621 § 22, 2013; Ord. 2599 § 7, 2012; Ord. 2453 § 1, 2007).

15.05.340 Sanitary convenience.
The existence or use of outhouses or privies is prohibited, except for temporary use associated with construction projects or for special events lasting less than four days in any given month. Otherwise, sanitary conveniences must be incorporated within the building which they serve and must consist of a chemical toilet or plumbing properly connected to a sewer line. (Ord. 2621 § 23, 2013; Ord. 2453 § 1, 2007).

15.05.350 Authority.
The Building Official, as appointed by the City Manager, is charged with the enforcement of the provisions of this chapter. (Ord. 2453 § 1, 2007).

15.05.360 Appeal from decision of authority.
An owner, or his/her agent, may appeal a decision of the Building Official to the Hearing Examiner by filing an appeal with the City Clerk. An appeal to the Hearing Examiner shall be governed by the procedures set forth in MTMC 18.05.240 and shall be accompanied by the required fee established in the City's fee schedule. The Hearing Examiner shall have no authority relative to interpretation of the administrative provisions of this code nor shall the Hearing Examiner be empowered to waive requirements of this code. Both parties shall submit their case materials for the record at least two weeks prior to the date set by the Hearing Examiner for hearing of the case. An appeal from the Hearing Examiner's decision shall be brought before the Superior Court of Snohomish County in accordance with the Land Use Petition Act, Chapter 36.70C RCW, and shall include any amendment to such section that has been or will be enacted. (Ord. 2621 § 24, 2013; Ord. 2481 § 9, 2008; Ord. 2453 § 1, 2007).

15.05.370 Violations.
A. Any person who shall violate any of the provisions of the code hereby adopted or fail to comply therewith, or who shall violate or fail to comply with any order made thereunder, or who shall build in violation of any detailed statement of specifications or plans submitted and approved thereunder, or any certificate of permit issued thereunder, and from which no appeal has been taken, or who shall fail to comply with such an order as affirmed or modified by the Building Official or by a court of competent jurisdiction, within the time fixed herein, shall severally for each and every such violation and noncompliance respectively be guilty of a misdemeanor, punishable by a fine of not more than $1,000 and/or up to 90 days in jail. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and, when not otherwise specified, each 10 days that prohibited conditions are maintained shall constitute a separate offense.

B. The application of the above penalty shall not be held to prevent the City's enforced removal of prohibited conditions. (Ord. 2453 § 1, 2007).

Chapter 15.35

PERFORMANCE GUARANTEES AND WARRANTIES

Sections:

15.35.010 Performance guarantees.
15.35.020 Maintenance guarantees and warranty guarantees against defects in materials and/or workmanship.
15.35.030 Exceptions.
15.35.040 Termination date for guarantee.
15.35.050 Time extensions to performance guarantees.
15.35.060 Utilization of funds provided by guarantees.
15.35.070 Reimbursement of City's costs incurred to obtain funds provided by guarantees.
15.35.080 Administration.

15.35.010 Performance guarantees.

All performance guarantees except for Erosion Control and Street Invasion Control (per subsection B of this section) shall be for 150 percent of a written estimate of the cost of construction of the required improvements associated with any development project. Said written cost estimate shall be provided by the developer and is subject to review and acceptance by the City.

A. The following forms of guarantees may be accepted by the City to require completion of required improvements associated with any development project; provided, that the funds cannot be withdrawn, spent, or committed to any third party, or, for any escrow or bank account assigned to the City, cannot be blocked as to withdrawal by the secured party without the City's approval, unless required by court order:

1. Bond;

2. Escrow or assigned bank account;

3. Approved set aside letter from bank;

4. Certified or cashier's check;

5. Cash deposit to the City of Mountlake Terrace;

6. Local Improvement District (LID) subject to City Council approval;

7. Letter of credit; or

8. A combination of the above.

B. Special Provisions for Erosion Control and Street Invasion ~~Control~~ Performance Guarantees.

1. Erosion Control Performance Guarantee. In lieu of ~~addition to~~ any other required performance and maintenance guarantees, and in conjunction with a clearing and grading permit, the developer shall be required to make a cash deposit to the City for assurance of proper erosion/siltation control and protection of creeks and improved public right-of-way during the course of a development project. The cash deposit shall be made prior to the issuance of any clearing and grading permit. The amount of the deposit shall be in accordance with the adopted City fee schedule. The City shall give the developer 24 hours' notice of any required corrective or clean-up work related to erosion/siltation control, except that this shall be reduced to a four-hour notice if there is obvious hazard to health, safety or water quality. If the developer fails to adequately respond within the given time frame, the City will perform the work and any costs incurred will come out of the cash deposit. If there is any possibility of reoccurrence of similar problems, the City shall then give the developer written notice to replenish the cash deposit to its original level within five calendar days. If the developer fails to replenish as required, the City reserves the right to stop any work on the project that could contribute to such problems.

2. Street Invasion Performance Guarantee. In lieu of~~addition to~~ any other required performance and maintenance guarantees, and in conjunction with associated Right of Way use ~~utility construction~~ permit(s), the developer shall be required to make a cash deposit to the City for assurance of proper street invasion controls to protect improved public rights-of-way during the course of a development project. The developer shall make a deposit for each invasion of a public street in accordance with the adopted City fee schedule. Said cash deposit shall be made prior to issuance of any associated utility construction permit. The City shall give the developer 24 hours' notice of any required corrective or clean-up work related to street invasion episodes, except that this shall be reduced to a four-hour notice if there is obvious hazard to health and safety. If the developer fails to adequately respond within the given time frame, the City will perform the work and any costs incurred will come out of the cash deposit. If there is any possibility of reoccurrence of problems associated with the street invasion incident, the City shall then give the developer written notice to replenish the cash deposit to its original level within five calendar days. If the developer fails to replenish the cash deposit as required, the City reserves the right to stop any work on the project that is related to the street invasion incident. (Ord. 2599 § 3, 2012; Ord. 2185 § 1, 1998; Ord. 1659 § 1, 1986).

15.35.020 Maintenance guarantees and warranty guarantees against defects in materials and/or workmanship.

All maintenance and warranty guarantees shall be for 20 percent of the estimated cost of construction of the required improvements associated with any development project. The following forms of guarantees are acceptable to the City to assure proper maintenance of required improvements associated with any development project, or to assure good quality materials and workmanship for required improvements:

1. Bond;

2. Escrow or assigned bank account;

3. Cash deposit to the City of Mountlake Terrace;

4. A combination of the above. (Ord. 1659 § 2, 1986).

15.35.030 Exceptions.

Any state agency or local unit of government shall be exempt from the requirements of this chapter to provide a financial security device for assuring performance or maintenance as a condition of issuing a permit to that entity for a construction project. The agency or government shall provide written assurance to the City that adequate provisions have been made to guarantee the required performance or maintenance. (Ord. 2103, 1996; Ord. 1659 § 3, 1986).

15.35.040 Termination date for guarantee.

Regardless of the form or type of guarantee, the City shall establish a termination date for the guarantee. The maximum time period for a performance guarantee shall be 36~~12~~ months. The maximum time period for a maintenance guarantee or a warranty guarantee against defects in materials and/or workmanship shall be two years. An extension of the guarantee may be allowed pursuant to MTMC 15.35.050. (Ord. 2599 § 4, 2012; Ord. 2103, 1996; Ord. 1659 § 4, 1986).

15.35.050 Time extensions to performance guarantees.

A. Intent and Purpose. The intent and purpose of this section is to establish minimum performance criteria to allow consideration by the City Engineer~~Community and Economic Development Director~~ of requests for time extensions to performance guarantees while required improvements or repairs are being completed.

B. Extension Requirements and Criteria.

1. All of the following must be satisfied in order for any element covered by the time extension request to receive consideration for approval:

a. The request must be made in writing to the City Engineer~~Community and Economic Development Director~~ in the form of a letter. The letter shall identify the project, the length of time extension requested

up to, but no longer than, six months, and address all time extension requirements, as set forth in the remainder of subsection B and, when applicable, subsection D of this section; and

b. Satisfactory description of the unforeseen circumstances or conditions beyond the control of the applicant/developer that necessitate the extension; and

c. Sufficient description of why an extension will not cause substantial detriment to existing uses on or in the immediate vicinity of the subject property; and

d. A demonstration that the public health, safety, and general welfare of the public is not compromised; and

e. A complete and sufficient application as determined by the Community and Economic Development Director is received a minimum of 15 days prior to the expiration of the current time limit; and

f. Application is accompanied by the required fee.

2. Evaluation and action on the extension request may include review of the SEPA environmental determination, if any, for the proposal. If necessary, adequate mitigation measures may be added in order to minimize any potential adverse impact associated with the proposed time extension.

3. Economic hardship or market conditions shall not be considered as criteria for approval.

C. Review and Approval. All extension requirements must be met for approval to be considered. After reviewing the proposed time extension for conformance with the extension requirements, the Community and Economic Development Director shall issue a determination of approval, partial approval or denial of the time extension request. The determination shall be made in writing within 15 days of a receipt of a complete and sufficient written request. The extension granted may be for only portions of the outstanding work and for less than six months. Any items not accepted for a time extension must be completed within the original time frame permitted by the guarantee. Under no circumstances shall any time extension approval become effective until and unless a performance guarantee is submitted for review and acceptance by the City prior to the expiration of the previous guarantee.

D. Limitations on Extension. No more than two extensions may be granted. The second extension may be granted if, and only if:

1. The requirements listed in subsection B of this section are met; and

2. The applicant has demonstrated reasonable diligence in attempting to complete items covered by the performance guarantee within the specified time. (Ord. 2599 § 5, 2012; Ord. 2103, 1996; Ord. 1659 § 5, 1986).

15.35.060 Utilization of funds provided by guarantees.

A. Performance Guarantees. If the required improvements associated with a development project are not completed by the termination date of the performance guarantee, the City shall use said guarantee to construct the improvements in accordance with the City's standards. In the case of Erosion Control and Street Invasion Control performance guarantees, if the developer fails to adequately respond within the specified time frame of the City's notification of required corrective or cleanup work, the City shall apply these funds toward the cost of performing this work.

B. Maintenance Guarantees. In the event that required improvements are not properly maintained during the required maintenance guarantee period, the City shall notify the developer/owner. If the developer/owner fails to correct the problem within a period of 15 days, the City shall use said maintenance guarantee to perform the maintenance work.

C. Warranty Guarantees Against Defects in Materials and/or Workmanship. Should any failures occur in regard to required improvements associated with a development project within the warranty period, the City shall require the developer/owner to correct all failures. Should the developer/owner fail to perform within a period of 15 days, the City shall use said warranty guarantee to correct any failures. (Ord. 2103, 1996; Ord. 1659 § 6, 1986).

15.35.070 Reimbursement of City's costs incurred to obtain funds provided by guarantees.

If the City finds it necessary to utilize funds provided for any guarantee, and incurs expenses in obtaining and administering such funds, a portion of these monies shall also be used to reimburse the City for such costs. If the guarantee is not adequate to cover all necessary costs, the developer/owner shall be required to make up the deficit in cash within 30 days of receipt of written notice from the City. (Ord. 2103, 1996; Ord. 1659 § 7, 1986).

15.35.080 Administration.

This chapter shall be administered by the City Engineer~~Community and Economic Development Director~~. (Ord. 2599 § 6, 2012; Ord. 2103, 1996; Ord. 1659 § 8, 1986).

Chapter 17.01

GENERAL PROVISIONS

Sections:
17.01.010 Purpose.
17.01.020 Definitions.
17.01.030 Applicability.
17.01.040 Administration.
17.01.050 Compliance with City standards.
17.01.060 Consent to access.
17.01.070 Effect of filing a complete application – Vesting.
17.01.080 Transfer and development of lots not divided according to this chapter.
17.01.090 Monuments.

17.01.010 Purpose.

This title shall be known as the subdivision code, and shall supplement and implement Chapter 58.17 RCW. The purpose of this title is as follows:

A. To regulate the subdivision of land;

B. To promote the public health, safety and general welfare in accordance with standards established by the state;

C. To prevent the overcrowding of land;

D. To manage congestion in the streets and highways;

E. To promote effective use of land;

F. To promote safe and convenient travel by the public on streets and highways;

G. To provide for adequate light and air;

H. To facilitate adequate provision for water, sewerage, parks and recreation areas, sites for schools and school grounds and other public requirements;

I. To provide for proper ingress and egress;

J. To provide for the expeditious review and approval of proposed subdivisions which conform to zoning standards and local comprehensive plans and Comprehensive Plan policies;

K. To adequately provide for the housing and commercial needs of the citizens of the state;

L. To require uniform monumenting of land subdivisions and conveyance of properties by accurate legal description;

M. To further the Comprehensive Plan policies addressing subdivisions and sustainability;

N. To promote the preservation of critical areas and encourage low impact development;

O. To serve to maintain the current character of the City;

P. To encourage efficient and cost-effective provisions for installing infrastructure, limit the development impact area and minimize impervious surfaces;

Q. To encourage sustainable site design which will protect critical areas and the larger environment, including the preservation of natural site amenities such as watercourses, wetlands, and topographic and geologic features;

R. To encourage low impact development (LID) practices when providing for sewer and water, utilities, stormwater management, streets and sidewalks;

S. To protect and preserve trees and the urban forest for its environmental and economic benefits;

T. To encourage site design that can make the best use of renewable energy resources including solar and geothermal; and

U. To provide adequate siting for park and recreation areas, sites for schools and playgrounds and other public requirements. (Ord. 2658 § 2, 2015).

17.01.020 Definitions.
As used in this title, unless the context or subject matter clearly requires otherwise, the words or phrases defined in this chapter shall have the indicated meanings. If there are conflicts between the definitions of this title and other titles of the Mountlake Terrace Municipal Code, the provisions of this title shall prevail.

“Adequate public facilities” means facilities which have the capacity to serve development without decreasing levels of service below minimums established by the City in the Comprehensive Plan.

“Alley” means a public or private right-of-way used primarily as a secondary means of vehicular access to residences and business establishments for provision of services (e.g., deliveries, trash collection, utility service) and for access to private driveways. Alleys are not the sole means of access to property.

“Applicant” means the owner of land proposed to be subdivided or its representative who shall have express written authority to act on behalf of the owner.

“Available public facilities” means that facilities or services are in place or that a financial commitment is in place to provide the facilities or services within a specified time. In the case of transportation, the specified time is six years from the time of development.

“Binding site plan” is a drawing to scale which (1) identifies and shows the areas and locations of all streets, roads, improvements, utilities, open spaces, and any other matters identified in Chapter 17.07 MTMC; (2) contains inscriptions or attachments setting forth such appropriate limitations and conditions for the use of the land as are established by the decision-maker with authority to approve the site plan; and (3) contains provisions making any development be in conformity with the site plan.

“Block” is a group of lots, tracts or parcels within well-defined and fixed boundaries.

“Bond” means any form of surety bond or acceptable guarantee of an amount and form satisfactory to the City.

“Boundary line adjustment” means the shifting or elimination of lot lines between adjacent parcels, resulting in the same or less number of lots that existed before the adjustment or elimination of lot lines.

“Building setback line” means a line parallel to the property line in front of which no structure shall be erected. The location of such line shall be determined from the regulations of the Zoning Ordinance of the City.

“Building site” means real property upon which structures are permitted subject to conformance with all applicable development standards, and which satisfies, or at one time satisfied, the applicable zoning code standards for physical placement, lot coverage, construction of structures and all other location and dimensional requirements for the structure.

“City” means the City of Mountlake Terrace.

“Common ownership” means ownership by the same person, corporation, firm, entity, partnership or unincorporated association, or ownership by different corporations, firms, partnerships, entities or unincorporated associations, in which a stockbroker, partner or associate, or a member of his family owns an interest in each corporation, firm, partnership, entity or unincorporated association.

“Comprehensive Plan(s)” mean the adopted plans of the City of Mountlake Terrace for the orderly growth of the City and shall include but not be limited to comprehensive, water, road, drainage, sewer, open space, and land use plans as adopted or amended at the time of consideration of any preliminary plat or short subdivision.

“Concurrency” means that adequate public facilities are available when the impacts of development occur. This definition includes the two concepts of “adequate public facilities” and of “available public facilities” as defined above.

“Condominium,” pursuant to RCW 64.34.020(9), means real property, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of those separate portions. Real property is not a condominium unless the undivided interests in the common elements are vested in the unit owners, and unless a declaration and a survey map and plans have been recorded against the property, pursuant to this title and other applicable law.

“Consistency” means that no feature of a plan or regulation is incompatible with any other feature of a plan or regulation. Consistency is indicative of a capacity for orderly integration or operation with other elements in a system.

“Corner lot” means a lot which abuts on two or more intersecting streets.

“County” means the County of Snohomish, Washington.

“Days” shall mean calendar days unless otherwise defined. If a period ends on a legal holiday or Saturday or Sunday, the last day shall be the next business day.

“Dedication” is the deliberate appropriation of land or rights in land by its owner for any general and public use, reserving to himself or herself no other rights than such as are compatible with the full exercise and enjoyment of the public use to which the property has been devoted.

“Domestic water system” means any system providing a supply of potable water which is deemed adequate pursuant to RCW 19.27.097 for the intended use of the development.

“Driveway” means a private vehicular travel way across a site, or providing vehicular access to not more than one abutting noncommercial site or two additional single-family residential lots if contained in an access easement.

“Easement” means an authorization by a property owner for another to use the owner’s property for a specified purpose.

“Escrow” means a deposit of cash with the City or escrow agent, pursuant to a written agreement, in order to secure the promise to perform some act.

“External buffer” means a naturally vegetated area or vegetated area along the exterior boundaries of an entire development processed in accordance with a subdivision application which is landscaped and maintained as open space in order to eliminate or minimize conflicts between such development and adjacent land uses.

“Fee simple unit lot subdivision” means a division of land for purposes of individual ownership of residential single-family, townhouse or cottage house units that are otherwise collectively permitted on a single parcel of land.

“Final plat” is the final drawing of the subdivision and dedication prepared for filing of record with the County Auditor, and containing all elements and requirements set forth in Chapter 58.17 RCW and this title.

“Financial commitment” means that sources of public or private funds or combinations thereof have been identified which will be sufficient to finance public facilities necessary to support development and that there is a reasonable assurance that such funds will be timely put to that end.

“Flag lot” is a lot configured with a narrow extension of land connecting the main buildable area of the lot to a street, private street, or alley. The narrow extension of land in a flag lot provides for vehicular and/or utility access

to the main buildable area of the lot, but is not wide enough for development and does not meet minimum lot width requirements. Flag lots are also known as “pan-handle” or “pipe stem” lots.

“Improvement” means the installation, construction or placement of any structure, building, pavement or other object that is erected, affixed, poured, formed or otherwise placed on or in the ground as a permanent or long-term feature of a site. The term does not include vegetation or other organic landscaping features.

“Interior lot” means a lot which has frontage on one street or private street only. The term also includes “through lots.”

“Irregular lot” means one which is shaped so that application of setback requirements is difficult. Examples include a lot with a shape that is not close to rectangular, or a lot with no readily identifiable rear lot line, or a flag lot.

“Legal lot or lot of record” means a parcel of land satisfying the requirements of MTMC 17.01.080.

“Level of service” means an established minimum capacity of public facilities or services that must be provided per unit of demand or other appropriate measure of need.

“Lot” is a fractional part of legally divided lands having fixed boundaries, being of sufficient area and dimension to meet minimum zoning requirements for width and area. The term shall include tracts or parcels.

“Lot frontage” means any boundary of a lot that is along an existing or dedicated street or private street.

“Lot line, front” means that boundary of a lot which is along an existing street or private street (including streets on corner lots), or, in the case of through lots or lots where no public or private street exists, it is the line first crossed when gaining legal vehicular access to the property.

“Lot line, rear” means that boundary of a lot most nearly opposite and distant from the front lot line. In the case of corner lots, the rear lot line is the line most distant and opposite of the narrower of the two frontages. In the case of through lots, it is the line most nearly opposite the front lot line. In the case of three-sided, triangular, or pie shaped lots having boundaries that converge to the rear, there is no rear lot line, in which case the provisions of MTMC 19.120.190(C)(4) apply. In the case of other irregular shaped lots, the rear lot line shall be determined by the Director based upon an examination of existing or likely setbacks of surrounding development.

“Lot line, side” means any boundary of a lot that is not defined as a front lot line or rear lot line.

“Lot width” means any straight-line dimension between side lot lines located between and generally parallel to front and/or rear setback lines.

“Low impact development” means a stormwater management and site design strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns. The goal is to manage stormwater where it falls by reducing effective impervious surfaces and maintaining and/or re-establishing native vegetation.

“Metes and bounds” means a description of real property which starts at a known point of beginning and describes the compass bearings and distances of the lines forming the boundaries of the property, and is completed when the description returns to the point of beginning.

“Mid-block connection” means an easement or tract of land connecting two sides of a residential block, usually located near the middle of said block and typically intended for pedestrian and bicycle use.

“Model home” means a dwelling unit used initially for display purposes which typifies the type of units that will be constructed in the subdivision and which will not be permanently occupied during its use as a model.

“Monument” means an object used to permanently mark a surveyed location.

“Nonconforming lot” means one which met applicable dimensional requirements of the Zoning Ordinance at the date on which it was created but which, due to the passage of a Zoning Ordinance, the amendment thereof, the

acquisition of a portion of the lot for right-of-way purposes, or the annexation of legally divided property to the City, no longer conforms to the current provisions of the City's Zoning Ordinance.

"Off site" means any premises not located within the bounds of the property to be subdivided, whether or not in the common ownership of the applicant for subdivision approval.

"Open space" means a portion of land excluding building sites and parking areas which is designated and maintained as an area for natural preserve, leisure, recreation and/or other activities normally carried on outdoors. Open space may include greenbelt and recreational areas.

Parcel. See definition of "lot."

"Pavement width" means the actual paved surface measured from edge to edge of driveway, street or alley road surfaces.

"Person" means every natural person, firm, partnership, association, social or fraternal organization, corporation, estate, trust, receiver, syndicate, branch of government, or any other group or combination acting as a unit.

"Plat" is a map or representation showing thereon the division of a tract or parcel of land into lots, blocks, streets and alleys or other divisions and dedications.

"Plat certificate" means a title report by a title insurance company certifying the ownership, deed restrictions, covenants, etc., of the land being subdivided.

"Preliminary plat" is a neat and approximate drawing of a proposed subdivision showing the general layout of streets, private streets, alleys, lots, blocks and other elements of a subdivision consistent with the requirements of this title. The preliminary plat shall be the basis for the approval or disapproval of the general layout of a subdivision of 10 or more lots.

"Private street" means a privately owned tract of land that provides vehicular, bicycle, pedestrian and utility access for up to four residential units and meets the requirements of adopted City street standards.

"Public facilities" means streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities and schools.

"Right-of-way" or "R/W" means a strip of land deeded or dedicated to the City or other entity for street, utility and/or drainage purposes.

"Road" or "roadway" is a street or private street.

"Sale or lease" means any immediate or future transfer of ownership, or any possessory interest in land, including contract of sale, lease, devise, intestate succession, or other transfer of an interest in a subdivision or part thereof, whether by metes and bounds or lot and block description.

"Sanitary sewer systems" means all facilities, including approved on-site disposal facilities, used in the collection, transmission, storage, treatment, or discharge of any water borne waste, whether domestic in origin or a combination of domestic, commercial or industrial waste.

"Setback" means the minimum distance that buildings, structures or improvements must be setback from a lot line. Setback is measured perpendicular to the lot line at any point along the lot line, resulting in a continuous line or arc running parallel to said lot line. Where setback lines intersect with other setback lines, the more restrictive setback standard applies.

"Setback, front" means the minimum distance required by this code for a building, structure or improvement to be set back from the front lot line. Front setback is measured from the front property line or, in the case of flag lots, from the point beyond the front lot line at which the lot widens to the minimum required lot width.

"Setback, rear" means the minimum distance required by this code for a building, structure or improvement to be set back from the rear lot line.

"Setback, side" means the minimum distance required by this code for a building, structure or improvement to be set back from a side lot line.

"Short plat" is the map or representation of a short subdivision.

"Short subdivision" means the division or re-division of land into nine or fewer lots, tracts, parcels or divisions for the purpose of sale or lease.

"Street" means a dedicated and accepted public right-of-way for vehicular, bicycle and pedestrian traffic, and also for utility services. See also definition of "private street."

"Street standards" means the requirements contained in MTMC 19.95. ~~Chapter 17.10 MTMC, and in the standard drawings and documents specified in the Transportation Master Plan adopted by City Ordinance No. 2465 and as may be subsequently amended.~~

"Subdivider" means any person, firm or corporation who divides or subdivides any land deemed to be a subdivision or short subdivision.

"Subdivision" means the division or redivision of land into 10 or more lots, tracts, parcels, sites or divisions for the purpose of sale or lease, or transfer of ownership, except as provided in MTMC 17.01.030(E), and includes all resubdivision of land.

"Subdivision improvement agreement" means a contract between the City and applicant/developer pursuant to Chapter 17.06 MTMC, by which the applicant agrees to complete the required public improvements in the subdivision within a specified time period following final subdivision plat approval and posts security to ensure such completion.

"Surveyor" means a registered professional land surveyor licensed to practice surveying in the state of Washington.

"Through lot" means a lot fronting on two streets and/or private streets that is not a corner lot.

"Tract" is a nonbuildable unit of land created by a subdivision, short subdivision, deed, or other instrument recorded with the appropriate County Recorder. Tracts are usually held in common by the owners of an organization, such as a homeowners' association, for common benefit and are not required to meet minimum lot size and dimensional requirements of the applicable zone.

"Transportation facilities" includes capital facilities related to air, water or land transportation.

"Transportation level of service standards" means a measure which describes the operational condition of the travel stream and acceptable adequacy requirements, as identified in the City's Comprehensive Plan (as required by RCW 36.70A.070(6)(b)).

"Utilities" or "public utilities" means enterprises or facilities serving the public by means of an integrated system of collection, transmission, distribution and processing facilities through more or less permanent physical connections between the plant of the serving entity and the premises of the customer. Included are systems for the delivery of natural gas, electricity, telecommunications services and water, and for the disposal of sewage. (Ord. 2658 § 2, 2015).

17.01.030 Applicability.

A. The provisions of this title shall apply to all divisions of land within the corporate limits of the City of Mountlake Terrace, except as expressly stated in this title.

B. No persons shall sell, lease or transfer the ownership of, or offer for sale, lease or transfer of ownership, any real property that is subject to this title without full compliance with this title and the applicable portions of the City of Mountlake Terrace Comprehensive Plan, MTMC Title 16 (the City's environmental regulations), MTMC Title 18

(the City's Land Use Planning and Development Code), MTMC Title 19 (the City's Zoning Code), Chapter 15.35 MTMC (insofar as there are no conflicts with this title; otherwise this title shall prevail), and Chapter 58.17 RCW.

C. Divisions of land into nine or fewer lots shall be in compliance with the regulations and standards governing short subdivisions set out in Chapter 17.03 MTMC, unless the binding site plan procedures of Chapters 17.05 and 17.07 MTMC are followed. Division of land into 10 or more lots shall comply with regulations and standards pertaining to subdivisions contained herein and must follow the preliminary and final procedures set forth in Chapters 17.04 and 17.07 MTMC, or, if applicable, the binding site plan process.

D. Sale of land is prohibited unless it is a legally platted parcel of land or lot or is a parcel of land divided under the provisions of this title, or unless such agreement for sale complies with RCW 58.17.205.

E. Exemptions. The provisions of this title shall not apply to the activities described in subsections (E)(1) through (6) of this section.

1. Cemeteries and other burial plots while used for that purpose;

2. Divisions of land into lots or tracts each of which is one-one-hundred-twenty-eighth of a section of land or larger, or five acres or larger if the land is not capable of description as a fraction or a section of land; provided, that for purposes of computing the size of any lot under this item which borders on a street or road, the lot size shall be expanded to include that area which would be bounded by the center line of the road or street and the side lot lines of the lot running perpendicular to such center line;

3. Divisions made by testamentary provisions, or the laws of descent;

4. A division for the purpose of leasing land for facilities providing personal wireless services while used for that purpose. "Personal wireless service" means any federally licensed personal wireless service. "Facilities" means unstaffed facilities that are used for the transmission or reception, or both, of wireless communication services including, but not necessarily limited to, antenna arrays, transmission cables, equipment shelters and support structures;

5. A division of land into lots or tracts of less than three acres that is recorded in accordance with Chapter 58.09 RCW and is used or will be used for the purpose of establishing a site for construction and operation of consumer-owned or investor-owned electric utility facilities. For purposes of this subsection, "electric utility facilities" means unstaffed facilities, except for the presence of security personnel, that are used for or in connection with or to facilitate the transmission, distribution, sale or furnishing of electricity including, but not limited to, electric power substations. This subsection does not exempt a division of land from the zoning and permitting laws and regulations of the City. Furthermore, this subsection only applies to electric utility facilities that will be placed into service to meet the electrical needs of a utility's existing and new customers. New customers are defined as electric service locations not already in existence as of the date that electric utility facilities subject to the provisions of this subsection are planned and constructed;

6. Right-of-Way Acquisition and Condemnation.

a. A division of land related to the acquisition or exchange of land by public agencies, for public use except human occupancy, including but not limited to subdivisions made for road construction purposes;

b. A division of land for the sole use of the installation of linear utility facilities, such as electric power lines, telephone lines, water supply lines, sewer service lines, cable lines or other utility facilities of a similar or related nature; and

c. Division of land due to condemnation or sale under threat thereof by an agency or division of government vested with the power of condemnation; if sale is made under threat of condemnation, such threat must be evidenced by the government agency filing affidavit so stating with the County Auditor. (Ord. 2658 § 2, 2015).

17.01.040 Administration.

A. Delegation of Responsibility. The Directors of Community and Economic Development and Engineering Services, hereinafter the "Director," and/or his/her designee(s), are delegated the responsibility for administration, coordination and enforcement contained in this title, pursuant to Chapter 58.17 RCW. The Director of Engineering Services shall have primary responsibility for compliance with the provisions of Mountlake Terrace Engineering Details and Specifications and all other applicable standards, including but not limited to WSDOT Standard Specifications, Department of Ecology's Stormwater Management Manual for Western Washington, etc. The Director of Community and Economic Development shall have primary responsibility for compliance with the procedural and nonengineering aspects of this title, and for all other applicable nonengineering standards, including but not limited to the City's Comprehensive Plan, Zoning Code, Shoreline Master Program, and environmental standards including SEPA.

B. Enforcement. This title shall be enforced pursuant to Chapter 19.140 MTMC. (Ord. 2792 § 8, 2021; Ord. 2679 § 4, 2016; Ord. 2658 § 2, 2015).

17.01.050 Compliance with City standards.

In addition to compliance with this title, all subdivisions, short subdivisions, boundary line adjustments, binding site plans, fee simple unit lot subdivisions, preliminary plat amendments, subdivision alterations and vacations shall adhere to all applicable adopted City standards and regulations, including, but not limited to, the Comprehensive Plan, the Shoreline Master Program, the sewer comprehensive plan, the water system plan, the comprehensive stormwater drainage plan, the City's street and utility standards, the City's Zoning and Building Codes, the City's Concurrency Ordinance, public works and street standards, stormwater drainage code, and Critical Areas Ordinance, all of which have been adopted by ordinance and are on file with the City Clerk. (Ord. 2658 § 2, 2015).

17.01.060 Consent to access.

All persons applying for approvals under this title shall permit free access to the land subject to the application to all agencies with jurisdiction considering the proposal for the period of time extending from the date of application to the time of final action. (Ord. 2658 § 2, 2015).

17.01.070 Effect of filing a complete application – Vesting.

A complete application for a short plat, preliminary plat or binding site plan shall be considered under the subdivision, short subdivision or preliminary binding site plan regulations and zoning or other land use control ordinances in effect on the land at the time the fully completed application for the preliminary plat approval of the subdivision, short plat approval of the short subdivision, or a preliminary binding site plan has been submitted to the Community Development Department. The limitations imposed by this section shall not restrict conditions imposed under Chapter 43.21C RCW (the State Environmental Policy Act). (Ord. 2658 § 2, 2015).

17.01.080 Transfer and development of lots not divided according to this chapter.

No building permit, or other development permit, shall be issued for any lot, tract or parcel of land divided in violation of this title unless the Director finds that the public interest will not be adversely affected thereby. This prohibition shall not apply to lots of record as described in subsection A of this section, or to innocent purchasers without actual notice of such violation, as described in subsection B of this section.

A. Legal Lot Criteria for Building or Transfer of Ownership. A lot is considered a lot of record if it meets any one of the criteria listed below in this subsection A. Lots of record may be transferred and developed as separate legal lots even though such lots may not have been created according to this chapter. Even though a lot may be deemed legal, development on said lot shall be subject to all applicable sections of the City's Zoning Code and development standards.

1. Lots of record include:

    a. Any lot, the legal description of which has been recorded in a plat or short subdivision filed with the County Auditor after June 1937;

    b. Any lot created and separately developed before June 9, 1937;

    c. Lots created by court order for adverse possessions or divorces;

d. Lots exempted under subsection A of this section and lots transferred to a bona fide innocent purchaser for value in accordance with this title; and

e. Any lot created prior to October 21, 1979, and not otherwise meeting the criteria set forth above; provided, that there must be no adjoining lots of record of contiguous boundary in the same ownership to which the substandard lot can be merged in title or with which the lot lines can be adjusted to create lots of record that would comply with this title.

B. Innocent Purchaser and Public Interest.

1. Innocent Purchasers. Where the purchase value of a parcel and subsequent tax assessments are consistent with a buildable lot of record, the Director may determine that a parcel owned by an innocent purchaser without actual notice (that the parcel has been divided in violation of this title) may be developed as lots of record. The Director's decision shall be based on the following criteria:

a. Zoning.

i. The parcel meets minimum zoning and dimensional requirements, including lot size, dimensions and frontage width, which are currently in effect or which were in effect at the time the parcel was created;

ii. The parcel lacks sufficient area or dimension to meet current zoning requirements but the parcel size is consistent with surrounding lots of record.

b. Public Health.

i. The parcel meets minimum public health dimensional requirements currently in effect or which were in effect at the time the parcel was created;

ii. The Director finds that the parcel does not adversely affect public health or safety or interfere with the implementation of the Comprehensive Plan.

c. Status.

i. The current property owner purchased the property for value and in good faith, and did not have knowledge of the fact that the property acquired was divided from a larger parcel in violation of the regulations listed under "lots of record" in subsection A of this section;

ii. The Director determines that improvements or conditions of approval, which would have been imposed if the parcel had been established through platting, are already present and completed;

iii. The property owner completes improvements which the Director determines would otherwise be imposed if the parcel had been established through platting under current standards. (Ord. 2658 § 2, 2015).

17.01.090 Monuments.

A. Permanent survey control monuments shall be provided for all land divisions at:

1. All controlling corners on the boundaries of the land division;

2. The intersection of centerline of rights-of-way within and/or associated with the land division; and

3. The beginning and ends of curves on centerlines or points of intersections on tangents.

B. Permanent survey control monuments shall be set in two-inch pipe, 30 inches long with a brass cap, filled with concrete, or shall be constructed of an approved equivalent. Permanent survey control monuments within a street shall be set after the street is paved. Every lot corner shall be marked by a three-quarter-inch galvanized iron pipe or approved equivalent, driven into the ground. If any land in a land division is contiguous to a meandered body of

water, the meander line shall be re-established and shown on the final plat, short plat or other recorded land division instrument. (Ord. 2658 § 2, 2015).

Chapter 17.06

CONSTRUCTION PLANS, BONDS AND SUBDIVISION IMPROVEMENT AGREEMENTS

Sections:

17.06.010 Purpose.
17.06.020 Construction plans – Engineering review.
17.06.030 Completion of public facilities and other improvements.
17.06.040 Bonds.
17.06.050 Subdivision improvement agreement.
17.06.060 Temporary improvements.
17.06.070 Cost of improvements.
17.06.080 Acceptance of dedication offers.
17.06.090 Inspection and acceptance of improvements.

17.06.010 Purpose.

The purpose of this chapter is:

A. To require the subdivider's submission of construction plans for development of the subdivision to the City for review and approval of specific construction details for all public facilities;

B. To ensure that the public facilities required as part of approvals granted under this title are built according to City standards;

C. To allow subdivision improvement agreements (or development agreements) between the City and property owners for phasing of a preliminary plat or to address any other situation in MTMC 17.06.050;

D. To address bonds and subdivision improvement agreements between the City and property owners/subdividers, allowing a limited deferral for the construction of public facilities associated with the approval; and

E. To ensure that the required public facilities and public utilities are ready and available for use when needed by the users of the subdivision. (Ord. 2658 § 2, 2015).

17.06.020 Construction plans – Engineering review.

A. Construction plans are required per the Engineering Development Manual adopted in MTMC 19.95. ~~for all applications which seek to divide land and/or create parcels, tracts or lots under this title. Following approval of the application, the applicant shall submit the applicable plan and review fees to the City Engineer, as well as four complete sets and an electronic submittal of construction plans and specifications (sheet size 22 inches by 34 inches) prepared by an engineer registered in the state of Washington, showing all public facilities or other improvements required by the approval. The applicant shall identify, either on the plans or by separate document, the engineer retained by the applicant to provide certification of all public facilities and improvements.~~

B. The City Engineer's review of the plans shall not be subject to the permit processing requirements of Chapter 36.70B RCW, Chapter 18.05 MTMC, or this title. Such plans must be approved by the City Engineer prior to the initiation of any work, including grading, on the subject site. Approval of the construction plans shall expire according to the deadlines established in this title for the underlying application.

~~C. After the City Engineer has approved the construction plans and specifications, the applicant may proceed as follows:~~

~~1. Prior to the submission of a final plat or final binding site plan application for approval, or a short plat for recording, all streets, alleys, sidewalks, pedestrian/bike connections, landscaping, storm drainage, utilities, monumentation, street lights, trees, and any other public facilities or improvements shall be installed to the satisfaction of the City Engineer, in conformance with the City street standards and this title. If the applicant desires to defer construction for a limited time in order to obtain final plat or final binding site plan approval, the applicant shall submit a request for a subdivision improvement agreement under MTMC 17.06.050.~~

2. The applicant's engineer shall provide two sets of as-built drawings (sheet size 22 inches by 34 inches) and an electronic submittal of all public facilities, and all other improvements to be dedicated to and maintained by the City, to the City Engineer for approval, in conformance with the public works standards and this chapter. (Ord. 2658 § 2, 2015).

17.06.030 Completion of public facilities and other improvements.

Before a short plat can be recorded or a final plat of a subdivision or final binding site plan approved, all applicants are required to install all of the public facilities or other improvements, as specified in the short plat, preliminary plat or preliminary binding site plan approval, the Municipal Code or other applicable City standards. As an alternative to such installation, the applicant may post a bond or a subdivision improvement agreement with appropriate security in order to record the short plat or obtain approval of the final plat or binding site plan. Another prerequisite to such recording or approval is the dedication of those improvements to the City or other utility, free and clear of all liens and encumbrances on the dedicated property and public facilities. (Ord. 2658 § 2, 2015).

17.06.040 Bonds.

A. Bonds shall follow MTMC 15.35.

A. Performance Bond May Be Posted in Lieu of Construction. The City, in its sole discretion, may waive the requirement that the public facilities or other improvements and dedications be completed/satisfied prior to the recording of the short plat or approval of the final plat or final binding site plan, as long as the applicant posts a bond in accordance with this section. The City's decision to allow the applicant to post a bond allows the applicant to apply for building permits for lots in the plat or binding site plan before the dedications have been made or the improvements constructed, subject to the following provisions:

1. Building permits shall not be issued until improvements necessary for vehicular access, emergency access, stormwater management, and general safety as determined by the City Engineer and City Public Works Director are constructed.

2. Sidewalks may be deferred under a performance bond to allow flexibility in the placement of driveways in relation to chosen house plans and to avoid damage to sidewalks during site development; provided, that:

a. Sidewalks are installed along individual property frontages prior to occupancy of development on said property, and

b. Sidewalks for any undeveloped lots are installed when either (i) 90 percent of lots in the subdivision have been developed and there are no active permits for remaining vacant lot(s), or (ii) within three years of plat recordation, whichever occurs first.

B. When Performance Bond Is Appropriate. The City may consider a number of factors in the determination whether to allow a bond to be posted by an applicant, including, but not limited to:

1. The date of the applicant's request to post a bond in light of the deadline for recording of the short plat, or the deadline for submission of final plat or final binding site plan applications, and the applicant's progress to date toward the completion of the public facilities;

2. The consequences that could result from the applicant's construction of the homes or other development contemplated by the proposed approval before the necessary public facilities are completed/installed; and

3. Any other issues that may affect the public health and safety.

C. Acceptable Bonds. No bond shall be accepted by the City unless it is submitted on the form approved in advance by the City Attorney and from a bonding company licensed to do business in the state of Washington. The City Engineer shall determine the amount of the bond, which shall be no less than 150 percent of the estimated cost of the public facilities or improvements. The City Engineer shall make a recommendation as to the length of the bond, which shall be no longer than two years after the final approval.

D. Warranty Bond. Once the public facilities have been constructed, the dedications made and City has inspected and approved the public facilities, the applicant shall provide the City with a warranty bond of an amount at least 20

~~percent of the cost of all public facilities meeting all the requirements of this section to ensure the successful operation of the public facilities, for a period of two years after such inspection and approval. (Ord. 2658 § 2, 2015).~~

17.06.050 Subdivision improvement agreement.

A. Purpose. A subdivision improvement agreement may be entered into by and between the City and the owner of property within the City, to address such project elements as those set forth in RCW 36.70B.170(B)(3). The subdivision improvement agreement shall be consistent with the applicable development regulations of the City. The consideration provided by the property owner for the City's decision to enter into the subdivision improvement agreement may vary, depending on the benefits that the agreement will provide to the City and/or the public in general. The City may require a subdivision improvement agreement in those situations where the developer chooses to post a bond or other security, in order to ensure that the requirement for installation of the subdivision improvements is an obligation that runs with the subject property.

B. Duration. The subdivision improvement agreement shall have a duration of not longer than two years after short plat, preliminary or final subdivision plat approval. No subdivision improvement agreement may extend the deadlines for recording of a short plat in MTMC 17.03.080, or for submission of a final plat in MTMC 17.04.090, or for submission of a final binding site plan in MTMC 17.05.100. Execution of a subdivision improvement agreement as provided in this section or posting of a performance bond does not eliminate the requirement for the applicant to post a warranty bond, pursuant to MTMC 17.06.040(D). However, the property owner may choose to address the requirement for a maintenance bond in the subdivision improvement agreement, as provided below.

C. Form. All subdivision improvement agreements shall be on the standard form, approved in advance by the City Attorney.

D. Effect. Subdivision improvement agreements are not project permit applications and are not subject to the permit processing procedures in Chapter 36.70B RCW and Chapter 18.05 MTMC. A subdivision improvement agreement shall constitute a binding contract between the City and the property owner (and/or subsequent owners of any later-acquired interests in the property identified in the subdivision improvement agreement). A subdivision improvement agreement governs the construction of the project identified in the agreement during the term of the agreement, or for all or that part of the build-out period specified in the agreement. A permit or approval granted by the City after execution of a valid subdivision improvement agreement must be consistent with the agreement.

E. Limitations. Any provision of the subdivision improvement agreement which requires the City to: (1) refrain from exercising any authority; (2) forgo adoption of any development regulations affecting the property identified in the agreement; (3) allow vesting beyond the applicable deadlines for a phased development; shall be limited to a period of 10 years. The agreement shall also contain a proviso that the City may, without incurring any liability, engage in action that would otherwise be a breach of the agreement if the City makes a determination on the record that the action is necessary to avoid a serious threat to public health and safety, or if the action is required by federal or state law.

F. Termination and Modification. Every subdivision improvement agreement shall have an identified, specific termination date. Upon termination, any further development of the property shall conform to the development regulations applicable to the property. The City shall not modify any agreement by extending the termination date except in certain limited circumstances where additional consideration has been provided to the City. Any request for modification of the agreement, and any required application revision, shall be consistent with the City's development regulations applicable to the property at the time of the request, not the original execution date of the agreement or earlier.

G. Application Requirements. A complete application for a subdivision improvement agreement shall consist of the following:

1. Name, address, telephone number and e-mail address of the property owner. If the applicant is not the property owner, the applicant must submit a verified statement from the property owner that the applicant has the property owner's permission to submit the application;

2. Address, parcel number and legal description of the property proposed to be subject to the subdivision improvement agreement;

3. Recent title report confirming that the property identified in the application is owned by the applicant/property owner signing the verified statement;

4. SEPA checklist;

5. Identification of the application that is related to the subdivision improvement agreement;

6. A completed application form and application fee established by the City in a resolution adopted for this purpose;

7. Any other information requested by the Community and Economic Development Director relevant to the processing of the subdivision improvement agreement.

H. Covenants Recorded Against the Property. The subdivision improvement agreement must be signed by the owner(s) of the property, shall run with the land and bind all heirs or successors of the property.

I. Security Required. The City may require that the developer provide a letter of credit or cash escrow as security for the promises contained in the subdivision improvement agreement. Either security shall be in an amount equal to 150 percent of the estimated cost of completion of the required public improvements.

1. Letter of Credit. If the applicant chooses to post a letter of credit, as security for the subdivision improvement agreement, such form shall be approved in advance by the City Attorney. The letter of credit shall be (a) irrevocable; (b) for a term sufficient to cover the completion, maintenance and warranty periods for the improvements; and (c) require only that the City present the letter of credit with a sight draft and an affidavit signed by the City Attorney, attesting to the City's right to draw funds under the letter of credit.

2. Cash Escrow. If the applicant posts a cash escrow as security for the subdivision improvement agreement, such form shall be approved in advance by the City Attorney. The escrow instructions shall provide that (a) the subdivider will have no right to a return of any of the funds except as provided herein; and (b) that the escrow agent shall have a legal duty to deliver the funds to the City whenever the City Attorney presents an affidavit to the agent, attesting to the City's right to receive funds, whether or not the subdivider protests that right.

3. Residual Funds as Maintenance Security. If and when the City accepts the offer of dedication for the last completed required public facility, the City shall execute a waiver of its right to receive all but a prearranged amount of the "residual" portion of the funds. The residual funds shall be security for the applicant's covenant to maintain the required public facilities and to warrant that the same will be free from any defects for the required two-year period.

J. Phased Development.

1. In order to phase a project to extend the vested rights associated with an underlying project permit application, a subdivision improvement agreement is required. This ensures the availability of public facilities and services to all of the property in the identified individual phases, allows tracking of the available capacity of public facilities and utilities during each phase of construction, and with the extension of the vested rights associated with the project, provides certainty to the developer in the subsequent development approval process.

2. The deadlines in this title shall be consulted to establish the baseline vesting period. The City is not required to extend these vesting periods. If the City decides to do so in a subdivision improvement agreement, it must be in exchange for the property owner's provision of corresponding benefits to the City in the form of, for example, contributions to public facilities and amenities over and above what would normally be required. In any event, the City shall not allow vesting to extend beyond the 10-year period established in subsection E of this section.

3. A subdivision improvement agreement for a phased development shall include (in addition to the requirements for a complete application in subsection G of this section) all of the following:

a. Identification of the phasing schedule;

b. Identification of the number of phases and lots included in each phase;

c. Identification of the approximate dates for construction of public streets, public utilities and other improvements in each phase;

d. Identification of the approximate dates for commencement of development of each lot, lot sales and building occupancy;

e. Identification of the benefits that the property owner will provide to the City in exchange for permission to phase the development according to the proposed schedule;

f. Establishment of the deadline for the property owner to submit development applications;

g. A description of the manner in which each phase is designed such that all site requirements are satisfied independently of phases yet to be given final approval and constructed; and

h. A description of the manner in which the property owner will ensure that adequate public facilities are available when the impact of development occurs. The property owner shall acknowledge in the subdivision improvement agreement that if the demand for public facilities or services needed to accommodate a subsequent development phase increases following the issuance of a development permit for a prior phase in the approval process, or if public facilities or services included in a concurrency or SEPA determination are not constructed as scheduled in the City's capital facilities plan, final development approval may have to be delayed for future phases pending the achievement of the adopted levels of service.

K. Processing Procedures.

1. Consolidation. Whenever possible, the subdivision improvement agreement shall be consolidated for processing with an underlying project permit application or other application for approval. If consolidated, the property owner must agree to waive the deadline for a final decision on the underlying project permit application, as well as the prohibition on no more than one open record hearing and one closed record hearing on the underlying project permit application in RCW 36.70B.080 and 36.70B.060(3).

2. Public Hearing. While the Director or the Planning Commission may provide a recommendation on a subdivision improvement agreement (even if the Director or Planning Commission makes the final decision on the underlying project permit application), the City Council shall make the final decision whether to approve the agreement by ordinance or resolution after a public hearing. Modifications to the agreement shall be in writing, signed by the duly authorized representatives of the parties, be consistent with this title and follow the same procedures set forth in this title.

3. Appeal. A subdivision improvement agreement associated with an underlying project permit application may be appealed in the same manner and within the same deadline as the underlying project permit application. (Ord. 2658 § 2, 2015).

17.06.060 Temporary improvements.

The applicant shall pay for and build all temporary improvements required by any approval, and shall maintain those improvements as set forth in the approval. Prior to the construction of any temporary improvement, the applicant shall provide a bond, or subdivision improvement agreement with a cash escrow or cash set aside in an amount established by the City Engineer to ensure that the temporary facilities/improvements will be properly constructed, maintained and timely removed. (Ord. 2658 § 2, 2015).

17.06.070 Cost of improvements.

All required public facilities or other improvements shall be constructed by the applicant/property owner, at its expense, without reimbursement by the City, unless otherwise specified in the project permit approval or subdivision improvement agreement with the City. To the extent allowed by law, the City may form or cause to be formed a local improvement district or latecomers' agreement for the construction and financing of the required public facilities, excluding on-site improvements on individual lots. If such district is formed or latecomer agreement

signed, the applicant/property owner shall not be released from its obligation (as set forth in the bonds, cash escrow or cash set aside) to construct the public facilities until complete or the City is satisfied that a subsequent guarantee will cover performance. (Ord. 2658 § 2, 2015).

17.06.080 Acceptance of dedication offers.

Acceptance of formal offers of dedication of streets, public areas, easements and parks shall be by ordinance or resolution of the City Council. The approval of the final plat shall not be deemed to constitute or imply acceptance by the City of any street, easement or park shown on the plat. (Ord. 2658 § 2, 2015).

17.06.090 Inspection and acceptance of improvements.

A. General Procedure. The subdivider/property owner shall pay an inspection fee based on the estimated cost of the inspection, which fees shall be due and payable upon inspection. No building permits or certificates of occupancy shall issue until the fees are paid. If the City Engineer finds that one or more of the required public facilities or other improvements have not been constructed in accordance with the City's approval of the plans and specifications or the applicable standards and/or approval, the subdivider/property owner shall be responsible for any corrections and completion of the improvements.

B. Release of Security. The City will not accept dedication of required public facilities or improvements, nor release nor reduce the amount of any security posted by the subdivider, until the City Engineer has submitted a certificate stating:

1. That all required public facilities or other improvements have been satisfactorily completed; and

2. The subdivider's engineer or surveyor has certified to the City Engineer, through the submission of a detailed "as-built" survey plat of the subdivision, indicating location, dimensions, materials and other information required by the City's public works standards, that the layout of the line and grade of all transportation facilities, public facilities or other improvements is in accordance with the approved construction plans for the subdivision or binding site plan.

C. City's Acceptance. Upon the recommendation for approval of the City Engineer, the City Council shall thereafter accept the improvements for dedication in an ordinance or resolution adopted for this purpose.

D. Maintenance of Improvements. The subdivider/property owner shall be required to maintain all required public facilities until the dedication of same is formally accepted by the City. Following the acceptance of the public facilities, the subdivider shall provide a warranty bond or other security to the City as required by MTMC 17.06.040(D).

E. Issuance of Building Permits and Certificates of Occupancy. When a bond and/or other security with a subdivision improvement agreement have been accepted by the City for the construction of public facilities or other improvements in a short plat, final plat or final binding site plan, the City may issue building permits for development within the subdivision, but the City shall not issue a certificate of occupancy for any building in the development prior to the completion of the required public facilities or improvements and the acceptance of the dedication of those facilities or improvements by the City. The City Engineer may authorize the issuance of up to 50 percent of the building permits for the lots in the subdivision if: (1) the applicant is not in default of the subdivision improvement agreement; and (2) the applicant has constructed and the City has inspected/accepted the public facilities or other improvements necessary to serve the lots for which such building permit applications have been submitted. (Ord. 2658 § 2, 2015).

Chapter 17.10

STANDARDS AND DESIGN CRITERIA

~~Sections:~~
~~17.10.010 Applicability.~~
~~17.10.020 General layout.~~
~~17.10.030 Specific standards—Streets.~~
~~17.10.040 Specific standards—Lots.~~
~~17.10.050 Minimum improvements.~~
~~17.10.060 Minimum improvements—When applicable.~~
~~17.10.070 Deviations and variances from these standards.~~

~~17.10.010 Applicability.~~

~~The standards and design criteria of this chapter shall be met for all subdivisions unless variances from these standards are approved in accordance with MTMC 17.10.070. (Ord. 2658 § 2, 2015).~~

~~17.10.020 General layout.~~

~~The subdivider shall ensure that the plat conforms to the following standards:~~

~~A. Lots shall provide suitable areas for buildings in areas of the lot that avoid geologic hazard areas, or follow the procedures for alteration or development described in Chapter 16.15 MTMC (Critical Areas).~~

~~B. The site shall have suitable access and circulation, as follows:~~

~~1. Where possible, streets shall run parallel to topography requiring minimum cuts or fills.~~

~~2. Finished grade of streets shall not exceed 15 percent.~~

~~3. Streets shall continue to boundaries of tract unless it can be demonstrated that no future connections to the abutting property are planned or otherwise feasible.~~

~~4. Streets shall intersect at right angles with no variations of more than 25 degrees.~~

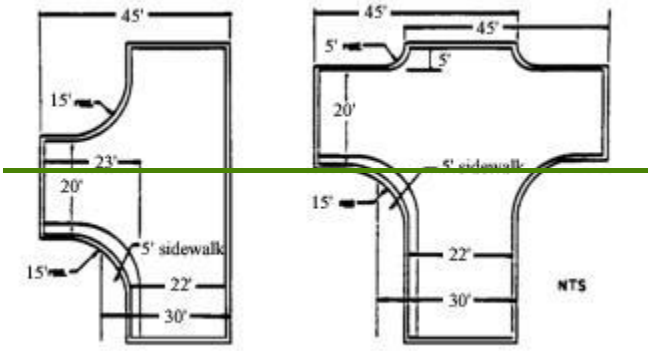
~~5. Streets should be located so that jogs are avoided at intersections.~~

~~6. Where possible all lots shall be served by streets within the subdivision rather than having numerous access points on an existing City street.~~

~~7. Cul-de-sacs having a maximum length of 300 feet must have a minimum radius of 35 feet, and a minimum right-of-way width of 50 feet. Cul-de-sacs of a length greater than 300 feet shall have a minimum radius of 45 feet, and a minimum right-of-way width of 60 feet.~~

~~C. Vehicle turnaround easements provided on private property shall generally be designed as illustrated in Figure 1. Variations for this design may be allowed if the City Engineer determines that the proposed turnaround easement design satisfies the intent of the design shown in Figure 1:~~

Figure 1



Note: Two lot subdivisions utilizing flag lots shall be exempt from this requirement, unless specifically required as a condition of approval of the subdivision. (Ord. 2729 § 10, 2018; Ord. 2701 § 2, 2016; Ord. 2658 § 2, 2015).

17.10.030 Specific standards—Streets.
The following specific standards shall apply in the design of streets:

A. Intersections. At street intersections, property line corners shall be rounded by an arc, the minimum radius of which shall be 10 feet. For intersections of arterial streets, the minimum radii shall be 20 feet.

B. Streets and rights-of-way shall conform to the cross-section designs of the current Engineering Development Manual at the time of application submittal.

C. Access easements serving no more than two nonresidential lots or three single-family lots shall have a minimum width as specified in MTMC 19.95.030(K).

D. Flag or panhandle lots may be permitted where the total division consists of two lots with a minimum panhandle width of 12 feet. (Ord. 2861 § 1, 2024; Ord. 2792 § 9, 2021; Ord. 2729 § 11, 2018; Ord. 2701 § 3, 2016; Ord. 2658 § 2, 2015).

17.10.040 Specific standards—Lots.
A. Minimum lot size and dimensions shall conform to the zoning district in which the subdivision is proposed.

B. Density shall relate to the zoning district in which the subdivision is located, subject to density modification allowable under a planned unit development.

C. Each lot shall have frontage on a public street, private street, or an access easement, which frontage shall be no less than 12 feet for panhandle lots, or the minimum lot width at the street frontage specified in the zoning district in which it is located. (Ord. 2729 § 12, 2018; Ord. 2701 § 4, 2016; Ord. 2658 § 2, 2015).

17.10.050 Minimum improvements.
A. Streets and associated right-of-way improvements shall be constructed and graded to full width of the cross-section specified for the street type and surfaced with asphalt, concrete or LID paver system, as approved by the City Engineer, to the width prescribed by MTMC 17.10.030(B).

B. Curbs and gutter sections as prescribed by MTMC 17.10.030(B).

C. Stormwater systems designed to meet LID standards of Stormwater Manual.

D. A water distribution system, providing connections for each lot, including the locations of fire hydrants.

E. All basic utilities including water, sewer, natural gas, and electricity, and also easements for accessory utilities including telephone and cable television transmission lines. All utilities shall be placed underground. Where

~~subdivisions necessitate frontage improvements, such improvements shall include conduit as specified by the City Engineer to facilitate future undergrounding of existing overhead utilities.~~

~~F. Complete half-street improvements along the full frontage of the property to be divided, including installation of all improvements as prescribed in MTMC 17.10.030(B). In this context, half-street improvements mean all prescribed improvements to the centerline of the right-of-way and as additionally needed to facilitate two-way traffic.~~

~~G. Sanitary Sewer Facility Extensions. Every subdivision shall be provided sanitary sewer facilities and the subdivider shall extend main lines where necessary to achieve this improvement.~~

~~H. Monuments shall be placed at all street intersections, boundary angle points, points of curves in streets, and at such intermediate points as required by the City Engineer. The monuments shall be of stone or concrete filled pipe or tile, weighing at least 50 pounds, capped with standard markers. Street monuments shall be finished street grades and in paved streets shall be enclosed in a standard monument case. All lot and block corners shall be set with an iron pipe at least 18 inches in length after all grading work is finished. (Ord. 2729 § 13, 2018; Ord. 2701 § 5, 2016; Ord. 2658 § 2, 2015).~~

~~17.10.060 Minimum improvements—When applicable.~~

~~The minimum improvements included in MTMC 17.10.050 shall apply to all subdivision types except for boundary line adjustments. The developer shall be required to improve all existing rights-of-way adjacent to or within the property being subdivided to meet the standards included in MTMC 17.10.050, unless those standards are already met. All proposed access routes, whether intended to be public right-of-way or private easement, shall be improved by the developer in a manner consistent with the standards included in MTMC 17.10.050. (Ord. 2701 § 6, 2016; Ord. 2658 § 2, 2015).~~

~~17.10.070 Deviations and variances from these standards.~~

~~Deviations from the dimensional standards of this chapter may be considered under either the provisions of planned unit development in Chapter 19.115 MTMC, or the variance procedures of Chapter 19.110 MTMC. Variances from all other standards of this chapter may be considered only under the variance provisions of Chapter 19.110 MTMC. (Ord. 2658 § 2, 2015).~~

Chapter 18.05

ADMINISTRATION AND PROCEDURES

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Article I. General Provisions

18.05.010 Purpose.
The purpose of this chapter is to establish standard procedures, decision criteria, public notification, and timing for development decisions made by the City of Mountlake Terrace. These procedures are intended to:

A. Promote timely and informed public participation;

B. Eliminate redundancy in the application, permit review, and appeals processes;

C. Process permits equitably and expediently;

D. Ensure that decisions are made consistently and predictably; and

E. Result in development that furthers City goals as set forth in the Comprehensive Plan;

F. Ensure that the City's development regulations remain in compliance with the provisions of Chapter 36.70B RCW.

These procedures provide for an integrated and consolidated land use permit process. The procedures integrate the environmental review process with land use procedures, decisions, and consolidated appeal processes. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.020 Administration.
The provisions of this chapter supersede all other procedural requirements that may exist in other sections of the City Code.

When interpreting and applying the standards of this Code, its provisions shall be the minimum requirements. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.025 Definitions.
"Applicant" means person(s) seeking development approval from the City.

"Binding site plan" means a type of property division as set forth in Chapter 17.05 MTMC.

"Boundary line adjustment" means the adjustment of a boundary line between existing lots which results in no more lots than existed before the adjustment.

"Building" means a structure having a roof for the shelter of persons or property.

"City" means the City of Mountlake Terrace.

"City Council" means the City Council of the City of Mountlake Terrace.

"Closed record appeal" means an appeal to the appropriate authority, based on the existing record.

"Comprehensive Plan" means the adopted Mountlake Terrace Comprehensive Plan as amended and updated in conformance with the Growth Management Act.

"Comprehensive Plan amendment" means an amendment or change to the text or maps of the Comprehensive Plan.

"Conditional use permit" means a permit as defined in the Zoning Code that allows specific uses following a review to ensure that such use is appropriately designed and located to be compatible with adjacent uses.

"Consolidated project permit application" combines all the development approvals and environmental review for concurrent review and approval.

"Critical areas" means areas of environmental sensitivity, which include the following areas and ecosystems:

A. Wetlands;

B. Areas with a critical recharging effect on aquifers used for potable water;

C. Fish and wildlife habitat conservation areas;

D. Frequently flooded areas; and

E. Geologically hazardous areas.

"Date of decision, effective date" means the date on which final action occurs and from which the appeal period is calculated. Specific ordinances may define effective dates of orders. If the effective date of a decision is in question, the pertinent ordinance shall prevail.

"Director" means the Director of Community and Economic Development or his/her designee.

"Docket" means a list of items to be considered for Comprehensive Plan and Map and Zoning Ordinance and Map updates.

"Effective date" means the date a final decision becomes effective.

"Essential public facilities" means essential public facilities, as defined in RCW 36.70A.200, as now or hereinafter may be amended. Such facilities may be owned or operated by a unit of local, state, or federal government, by a public utility or transportation company, or by any other entity providing a public service as its primary mission; provided, that the facility is either a necessary facility or a component of a necessary system to meet a public need.

"Final decision" means the final action by the City on a permit application.

"Hearing Examiner" means the individual(s) appointed pursuant to MTMC 2.120.030 and empowered to conduct open record hearings or review appeals from orders, recommendations, permits, decisions or determinations made by a City official, applications for variances, and applications for conditional use permits or any other class of applications for or pertaining to development of land or land use.

"Intensity of land use" includes but is not limited to the following: lot coverage by structures or impervious area, trip generation, and need for performance standards to control noise, glare, traffic, air, and water quality.

"Lot consolidation" means the process by which two or more lots are combined into one or more lots. Lot lines are eliminated but none are relocated or moved.

"Open record public hearing" means a hearing, conducted by a single hearing body or officer authorized by the local government to conduct such hearings, that creates the local government's record through testimony and submission of evidence and information.

"Party of record" means any person who has testified at a hearing or has submitted a written statement related to a development action and who provides the City with a complete address. Persons or entities who signed "form letters" and/or petitions do not become a party of record.

"Person" means any person, firm, business, corporation, partnership of other associations or organizations, marital community, municipal corporation or governmental agency.

"Planned action" means a significant development proposal as defined in RCW 43.21C.031 as amended.

"Planning Commission" means the body appointed pursuant to Chapter 2.55 MTMC.

"Planning Division" means the Planning Division of the Community Development Department.

"Plat" means a map or representation showing thereon the division of a tract or parcel of land into lots, blocks, streets and alleys or other divisions and dedications.

"Plat, final" is the final drawing of the subdivision and dedication prepared for filing of record with the County Auditor, and containing all elements and requirements set forth in Chapter 58.17 RCW and MTMC Title 17.

"Plat, preliminary" is a neat and approximate drawing of a proposed subdivision showing the general layout of streets, private streets, alleys, lots, blocks and other elements of a subdivision consistent with the requirements of MTMC Title 17. The preliminary plat shall be the basis for the approval or disapproval of the general layout of a subdivision of five or more lots.

"Plat, short" is the map or representation of a short subdivision.

"Project" means a proposal for development or redevelopment with buildings, structures, or other site improvements.

"Public hearing" means an open record hearing at which evidence is presented and testimony is taken.

"Rezone" means a change in classification from one zoning district to another.

"Secure facilities use permit" means a land use permit for a secure community transition facility, pursuant to Chapter 18.20 MTMC.

"Special use permit – wireless" means a process similar to conditional use permit providing for administrative and Hearing Examiner review for selected wireless communication facilities.

"Structure" means a combination of materials constructed and erected permanently in or on the ground or attached to something having a permanent location on the ground, not including utility poles and related ground- or pad-mounted equipment, residential fences less than six feet high, retaining walls, rockeries and other similar improvements of a minor character less than three feet high.

"Subdivision" means the division or redivision of land into five or more lots, tracts, parcels, sites or divisions for the purpose of sale or lease, or transfer of ownership, except as provided in MTMC 17.01.030(D), and includes all resubdivision of land.

"Use" of property means the purpose or activity for which the land, or building thereon, is occupied, maintained, designed, arranged or intended.

"Variance" means an adjustment in the application of the specific provisions of an ordinance applied to a particular piece of property. A variance may apply to a particular piece of property which, because of its unique physical character, is deprived of privileges commonly enjoyed by other properties in similar circumstances. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.030 Basis.
There are four types of actions (or permits) that are reviewed under the provisions of this chapter. The types of actions are based on who makes the decision, the amount of discretion exercised by the decision-making body, the level of impact associated with the decision, the amount and type of public input sought, and the type of appeal opportunity. (Ord. 2811 § 2 (Exh. 1), 2022).

Article II. Permit Types

18.05.040 Ministerial decisions – Type A.
These decisions are based on compliance with specific, nondiscretionary and/or technical standards that are clearly enumerated. The decisions made by the Director under Type A actions shall be final. The Director's decision shall be based upon findings that the application conforms (or does not conform) to all applicable regulations and standards.

An administrative appeal process is not provided for any Type A actions that are categorically exempt from environmental review under Chapter 43.21C RCW. An appeal of any Type A action that requires environmental review shall be filed in conjunction with MTMC 16.05.140. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.050 Administrative decisions – Type B.
The Director makes these decisions based on standards and clearly identified criteria.

Type B decisions require that the Director issues a written decision that approves, approves with modifications, or denies an application. The Director's written decision shall also include the City's determination under any required SEPA review.

All Director's decisions made under Type B actions are appealable in an open record appeal hearing. Such hearing shall consolidate with any appeals of SEPA negative threshold determinations, or mitigated determinations on nonsignificance. SEPA determinations of significance are appealable in an open record appeal prior to the project decision.

All appeals shall be heard by the Hearing Examiner except appeals of shoreline substantial development permits, shoreline conditional use permits, and shoreline variances which shall be appealable to the State Shorelines Hearings Board. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.060 Quasi-judicial decisions – Type C.
Type C decisions are made by the Hearing Examiner, and involve the use of discretionary judgment in the review of each specific application.

Type C decisions require findings, conclusions, an open record public hearing and recommendations prepared by the review authority for the final decision made by the Hearing Examiner. Any administrative appeal of a SEPA threshold determination shall be consolidated with the open record public hearing on the project permit, except a determination of significance, which is appealable under MTMC 18.05.050.

There is no administrative appeal of Type C actions. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.070 Legislative decisions – Type D.
These decisions are legislative, nonproject decisions made by the City Council under its authority to establish policies and regulations regarding future private and public developments, and management of public lands.

Legislative decisions include a hearing and recommendation by the Planning Commission and action by the City Council.

The City Council shall take legislative action on the proposal in accordance with state law.

There is no administrative appeal of legislative actions of the City Council but such actions may be appealed together with any SEPA threshold determination according to state law. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.075 Type A – D permit actions, notice requirements, hearing procedures and timelines.

Action	Permit Type	Notice Requirements[1]	Open Record Hearing/ Recommendation	Open Record Decision Hearing or Appeal Hearing	Closed Record Appeal	Target Time for Permit Decision
Accessory Use[5]	A	NOAA	NA	HE	Court	30 days
Administrative Design Review[5]	A	NOAA	NA	HE	Court	28 days
Accessory Dwelling Unit	B	P	NA	HE	Court	60 days
Amendments to Comprehensive Plan	D	N	PC[2]	CC	Court/ GMA Board	Once Annually

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Action	Permit Type	Notice Requirements[1]	Open Record Hearing/ Recommendation	Open Record Decision Hearing or Appeal Hearing	Closed Record Appeal	Target Time for Permit Decision
Amendments to Development Code	D	N	PC[2]	CC	Court/ GMA Board	Legislative Process
Binding Site Plan	B	M	NA	HE	Court	90 days
Boundary Line Adjustment/Lot Consolidation	A	NA	NA	HE	Court	30 days
Building Permit[6]	A	NA	NA	NA	Court	120 days
Clearing and Grading Permit[5]	A	NOAA	NA	NA	Court	60 days
Conditional Use Permit (CUP)	C	M, P, N	NA	HE	Court	120 days
Critical Areas Reasonable Use Permit	C	M, P, N	NA	HE	Court	120 days
Critical Areas Special Use Permit	C	M, P, N	NA	HE	Court	120 days
Deviation from Development Standards[5]	A	NOAA	NA	HE	Court	30 days
Development Agreements	D	N	PC[2]	CC	Court	Legislative Process
Development Engineering Permit	A	NA	NA	NA	Court	~~90~~120 days
Driveway Permit	A	NA	NA	NA	Court	30 days
Essential Public Facility – Special Use Permit	C	M, P, N	NA	HE	Court	120 days
Fence Permit	A	NOAA	NA	HE	Court	30 days
Final Plat[5]	A	NOAA	NA	HE	Court	30 days
Floodplain Development Permit[5]	A	NOAA	NA	HE	Court	30 days
Floodplain Variance[5]	A	NOAA	NA	HE	Court	30 days
Interpretation of Development Code	A	NA	NA	HE	Court	15 days
Master Development Plan	C	M, P, N	NA	HE	Court	120 days
Mobile Home Park	C	M, P, N	NA	HE	Court	120 days
Noise Variance	A	NA	NA	HE	Court	30 days
Planned Action Determination	A	NA	NA	HE	Court	14 days
Planned Unit Development	C	M, P, N	NA	HE	Court	120 days
Plat Alteration[4]	B	M	NA	HE	NA	120 days
Plat Alteration With Public Hearing[4]	C	M, P, N	NA	HE	Court	120 days
Preliminary Plat	C	M, P, N	NA	HE	Court	90 days
Preliminary Fee Simple Major Plat	C	M, P, N	NA	HE	Court	90 days
Residential Projects With 9 or Fewer Units	A	NOAA	NA	HE	Court	60 days
Residential Projects With 10 or More Units	C	M, P, N	NA	HE	Court	120 days
Rezone of Property	C	M, P, N	HE[2]	CC	Court	120 days

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Action	Permit Type	Notice Requirements[1]	Open Record Hearing/ Recommendation	Open Record Decision Hearing or Appeal Hearing	Closed Record Appeal	Target Time for Permit Decision
Right-of-Way Use	A	NA	NA	HE	Court	30 days
Secure Community Transitional Facility – Special Use Permit	C	M, P, N	NA	HE	Court	120 days
SEPA Threshold Determination	B	M, P, N	NA	HE	Court	60 days
Sign Plan[5]	A	NOAA	NA	HE	Court	120 days
Shoreline Exemption	A	NA	NA	NA	Shoreline Hearings Board	15 days
Shoreline Substantial Development Permit, Shoreline Variance and Shoreline CUP	B	M, P, N	NA	NA	Shoreline Hearings Board	120 days
Short Plat[5]	A	NOAA	NA	HE	Court	60 days
Sign Permit	A	NA	NA	NA	Court	30 days
Site Development Plan	A	NA	NA	NA	Court	60 days
Site Plan, Large Scale	C	M, P, N	HE	NA	Court	120 days
Site Plan, Small Scale[5]	A	NOAA	NA	HE	Court	120 days
Site-Specific Comprehensive Plan Map Amendment	C	M, P, N	HE	CC	GMA Board	Once Annually
Special Use Permit (SUP)	C	M, P, N	NA	HE	Court	120 days
Special Use Sign Permit[5]	A	NOAA	NA	HE	Court	120 days
Temporary Use	A	NA	NA	NA	Court	15 days
Time Extension	A	NA	NA	NA	Court	60 days
Tree Removal Plan[7]	A	NA	NA	NA	Court	60 days
Zoning Variances	B	M, P, N	NA	HE	Court	90 days

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1. M = Mailed Notice; P = Notice Posted on Property; N = Notice Published in Newspaper; NOAA = Notice of Administrative Approval. Notice requirements listed in this table apply to the notice of application. Information included in the notice of application shall be as set forth in MTMC 18.05.120. Requirements for issuing a notice of administrative approval are set forth in MTMC 18.05.125. When a notice of public hearing is required, it shall follow the requirements established in MTMC 18.05.127 and when a notice of decision is required, it shall follow the requirements established in MTMC 18.05.128.

2. HE = Hearing Examiner; PC = Planning Commission. As indicated either Hearing Examiner or Planning Commission conducts open record public hearing and provides recommendation to City Council which serves as the City's decision-making authority.

3. HE = Hearing Examiner. Examiner conducts open record hearing and makes the City's final permit decision.

4. The plat alteration or preliminary plat is processed as a Type B action unless a request is filed with the City to hold a public hearing. In that event, the application becomes a Type C action.

5. A Type A permit that is exempt from SEPA review (see MTMC 16.05.080) is also exempt from notice requirements.

6. Building permit includes both permit issuance and issuance of certificate of occupancy.

7. When an application for tree removal is filed concurrently with a Type B or C permit application, the tree removal plan will be evaluated using the Type B or C permit procedures.

(Ord. 2811 § 2 (Exh. 1), 2022).

Article III. Permit Review Procedures

18.05.080 Preapplication meeting.

A preapplication meeting is required prior to submitting an application for any Type B or Type C action and/or for an application for a project that may impact a critical area or its buffer consistent with Chapter 16.05 MTMC. The requirement for a preapplication meeting may be waived by the Director upon the written request of an applicant.

Applicants for development permits under Type A actions may choose to participate in preapplication meetings with the City.

Preapplication meetings with staff provide an opportunity to discuss the proposal in general terms, identify the applicable City requirements and the project review process including the permits required by the action, timing of the permits and the approval process.

The Director shall specify submittal requirements for preapplication meetings, which shall include a critical areas worksheet and, if available, preliminary critical area reports. Generally, the more complete and accurate the information presented at a preapplication meeting is, the more detailed and complete City responses will be.

City staff are not liable for failing to inform an applicant regarding specific code requirements. It is the applicant's sole responsibility to understand City Development Code requirements.

Plans presented at the preapplication meeting are nonbinding and do not "vest" an application. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.090 Application.

A. Who May Apply.

1. The property owner or an agent of the owner with authorized proof of agency may apply for a Type A, B, or C action, or for a site-specific Comprehensive Plan amendment.

2. Prior to purchase, acquisition, or owner authorization, a public agency may apply for a Type A, B, or C action, or for a site-specific Comprehensive Plan amendment in order to develop an essential public facility for property that has been duly authorized by the public agency for acquisition or use. No work shall commence in accordance with issued permits or approvals until all of the necessary property interests are secured and/or access to the property for such work has been otherwise approved by the owner of the property.

3. Nothing in this subsection shall prohibit a public agency and City from entering into an agreement to the extent permitted by the Code or other applicable law.

4. The City Council or the Director may apply for a project-specific or site-specific rezone or for an area-wide rezone.

5. Any person may propose an amendment to the Comprehensive Plan except that map amendments to the Comprehensive Plan may only be initiated by a person or persons with an ownership interest in the property in question. The amendment(s) shall be considered by the City during the annual review of the Comprehensive Plan.

6. Any person may request that the City Council, Planning Commission, or Director initiate amendments to the text of the Development Code or mapping amendments to the Comprehensive Plan and/or Zoning Map.

7. Application(s) for any Type A, B, or C permits shall not be accepted and/or issued for any lot, tract, or parcel of land following the issuance of a notice and order to correct regarding activity occurring on that lot, tract or parcel of land, unless the identified violations are corrected or required to be corrected as a condition of approval and all fees or penalties satisfied prior to application except when the permit is required to obtain compliance or where an enforceable compliance plan to resolve the violation(s) has been entered into by the City.

B. All applications for permits or actions within the City shall be submitted on official forms prescribed and provided by the Department. At a minimum, each application shall include:

1. An application form with the authorized signature of the applicant.

2. The appropriate application fee based on the City's adopted fee schedule.

C. The Director shall specify submittal requirements, including type, detail, and number of copies for an application to be complete. The permit application forms, copies of all current regulations, and submittal requirements that apply to the subject application shall be made available by the Department.

D. It is the applicant's responsibility to learn the provisions of the Mountlake Terrace ordinances relating to the application. The ordinances are available on the City's website and at City Hall.

E. Absent statute or ordinance provisions to the contrary, any application for which a determination of completeness has been issued and for which no substantial steps have been taken by the applicant to provide information required by the City to meet permit approval requirements for a period of 180 days after issuance of the determination of completeness will expire and become null and void. The Director may grant a 180-day extension upon the written request of the applicant. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.110 Determination of completeness and requests for additional information.

A. An application shall be determined complete when:

1. It meets the procedural requirements of the City of Mountlake Terrace;

2. All required information for the application has been provided, and is sufficient for processing the application, even though additional information may be required. The City may, at its discretion and at the applicant's expense, retain a qualified professional to review and confirm the applicant's reports, studies and plans.

B. Within 28 days of receiving a permit application for Type A, B and/or C applications, the City shall mail a written determination to the applicant stating whether the application is complete or incomplete and specifying what is necessary to make the application complete. If the Department fails to provide a determination of completeness, the application shall be deemed complete on the twenty-ninth day after submittal.

C. If the applicant fails to provide the information required by the City within 90 days of the date of the written notice that the application is incomplete, the application shall be deemed void and shall be returned to the applicant together with 80 percent of the application fees that were submitted with the application. Time extensions may be granted by the Director upon the written request of the applicant; provided, that such requests are made prior to the 90-day expiration date.

D. The determination of completeness shall not preclude the City from requesting additional information or studies if new information is required or substantial changes are made to the proposed action. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.120 Public notices of application.

A. Within 14 days of the determination of completeness, the City shall issue a notice of application for all Type B and C applications.

B. The notice of application shall include the following information:

1. The dates of application, determination of completeness, and the notice of application;

2. The name of the applicant;

3. The location and description of the project;

4. The requested actions and/or required studies;

5. The date, time, and place of an open record hearing, if one has been scheduled;

6. Identification of environmental documents, if any;

7. A statement identifying the starting and ending dates of the public comment period which shall not be less than 14 days nor more than 30 days. The public comment period shall be 30 days for a shoreline substantial development permit, shoreline variance, or a shoreline conditional use permit;

8. A statement of the rights of individuals to comment on the application, receive notice of and participate in any hearings, request a copy of the decision (once made) and to appeal a permit decision;

9. The name of the City staff contact and phone number;

10. Identification of the development regulations used in determining consistency of the project with the City's Comprehensive Plan; and

11. Any other information that the City determines to be appropriate.

C. The notice of application shall be made available to the public by the Department, through any or all of the following methods (as specified in MTMC 18.05.075):

1. Mail. Mailing to owners of real property (for site specific proposals) located within 300 feet of the subject property. Notice of application for essential public facilities, special use permits, and master development plan permits shall be mailed to property owners within 1,000 feet of the proposed site;

2. Post Site. Posting the property (for site-specific proposals). For Type A essential public facilities, special use permits, and master development plan permits, rezones, site specific comprehensive plan amendments, shoreline substantial and conditional development permits, and site development plans for projects containing more than 50 dwelling units, or 50,000 square feet of gross floor area for nonresidential projects enlarged notice of application signs (a minimum of four feet by four feet) as approved by the City shall be posted on all sides of the parcel(s) that front on a street. The Director may require additional signage on large or unusually shaped parcels. Specific requirements for posting signs for such major land use actions are found in Chapter 18.25 MTMC.

3. Newspaper. The Department shall publish a notice of the application in the newspaper of general circulation for the general area in which the proposal is located.

D. All comments received on the notice of application by 5:00 p.m. on the last day of the comment period shall be considered by the City in the review of the application. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.125 Notice of administrative approval.
Public notification of some Type A permit applications which are approved administratively shall be provided by a notice of administrative approval. The purpose of the notice is to inform the public of a Type A permit application. The notice shall be made as follows:

A. The notice shall identify the applicant, location and nature of the proposal, City contact and the deadline to request an appeal (open record hearing).

B. Notification shall be provided by mail, to all immediately adjacent property owners.

C. Notice shall be posted on site.

D. Notice shall be provided no less than 10 days before City approval becomes effective. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.127 Notice of public hearing.
Notice of a public hearing for all open record hearings shall be given as follows:

A. Time of Notice. Except as otherwise required, notification of public hearings shall be provided no less than 10 days before the date of the public hearing and shall include the following:

1. Publication in the official newspaper of general circulation; and

2. Mailing to all property owners as shown on the records of the County Assessor and to all street addresses of properties within 300 feet of the boundaries of the property which is the subject of the meeting or pending action. Addressed, prestamped envelopes shall be provided by the applicant; and

3. Posting in the official City information distribution sites; and

4. Posting at least one notice on the subject property.

B. Content of Notice. The public notice shall include a general description of the proposed project, action to be taken, a nonlegal description of the property or a vicinity map or sketch, the time, date and place of the public hearing and the place where further information may be obtained.

C. Continuations. If, for any reason, a public hearing on a pending action cannot be completed on the date set in the public notice, the hearing may be continued to a date certain and no further notice under this section is required. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.128 Notice of decision.

A. A written notice for all final decisions, which includes threshold determinations and procedures for administrative appeals, shall be sent to the applicant, all parties of record and any person who, prior to the rendering of the decision requested notice of the decision.

B. For development applications requiring Planning Commission or Hearing Examiner review and City Council approval, the notice shall summarize the action taken by the decision-making body and reference where copies of the signed ordinance, resolution, meeting minutes or similar documents recording the City's decision may be available.

C. For the purposes of this chapter, the date on which a permit decision is issued is:

1. Three days after a written decision is mailed by the local jurisdiction or, if not mailed, the date on which the local jurisdiction provides notice that a written decision is publicly available;

2. If the permit decision is made by ordinance or resolution by the City Council, the date the Council passes the ordinance or resolution; or

3. If neither subsection (C)(1) nor (2) of this section applies, the date the decision is entered into the public record. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.130 Optional consolidated permit process.

An applicant may elect to submit a consolidated project permit application. Such request shall be presented by the applicant in writing and simultaneously with submittal of all applications to be consolidated. The Director shall determine the appropriate procedures for consolidated review and actions. Application for consolidated permit process shall only include Type A, B and C permit actions. Public hearings required for a consolidated permit application shall be conducted by the Hearing Examiner. Type D permit actions are legislative in nature and shall be completed prior to any permit review activity of Type A, B or C permit actions. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.140 Permit processing time limits.

A. For Type A, B or C permit applications, the City shall take every reasonable action to arrive at a permit decision within 120 days from the date that the application was deemed to be complete. Exceptions to this 120-day time limit are:

1. Substantial project revisions made or requested by an applicant, in which case the 120 days will be calculated from the time that the City determines the revised application to be complete.

2. The time required to prepare and issue a draft and final Environmental Impact Statement (EIS) in accordance with the State Environmental Policy Act.

3. Any period for administrative appeals of project permits.

4. An extension of time mutually agreed upon in writing by the Department and the applicant.

5. Amendments to the Comprehensive Plan or Code.

6. Projects involving the siting of an essential public facility.

7. A remand.

8. Any time required to obtain a variance, unless a variance application is consolidated with the project review.

B. The time limits set for Type A, B, and C actions do not include:

1. Any period of time during which the applicant has been requested by the Department to correct plans, perform studies or provide additional information. This period of time shall be calculated from the date the Department notifies the applicant of the need for additional information, until the date the Department determines that the additional information satisfies the request for such information or 14 days after the date the information has been provided to the Department, whichever is earlier.

2. If the Department determines that the additional information submitted to the Department by the applicant under subsection (B)(1) of this section is insufficient, the Department shall notify the applicant of the deficiencies, and the procedures provided in subsection (B)(1) of this section shall apply as if a new request for studies has been made.

C. If the Department is unable to issue its final decision on a project permit application within the time limits provided for in this section, it shall provide written notice of this fact to the project applicant. The notice shall include a statement of reasons why the time limit has not been met and an estimated date for issuance of the notice of decision. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.160 Expiration of vested status of land use permits and approvals.

Except for subdivisions, master development plans and special use permits for public agency uses or where a different duration of approval is indicated in this Code, vested status of an approved land use permit under Type A, B, and C actions shall expire two years from the date of the City's final decision, unless an application for completion of the permitted action is filed before the end of the two-year term. An application that would complete the development contemplated in the permitted action in most cases would be a building permit, but may also be a site development permit, a grading permit or a similar approval that would authorize the construction activity contemplated in the Type A, B or C action. In the event of an administrative or judicial appeal, the two-year term shall not expire. Continuance of the two-year period may be reinstated upon resolution of the appeal.

If a complete development permit application is filed before the end of the two-year term, the vested status of the permit shall be automatically extended for the time period during which the development permit application is pending prior to issuance; provided, that if the development permit application expires or is canceled, the vested status of the permit or approval under Type A, B, and C actions shall also expire or be canceled. If a building permit is issued and subsequently renewed, the vested status of the subject permit or approval under Type A, B, and C actions shall be automatically extended for the period of the renewal. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.165 Time extensions.

A. Intent and Purpose. The intent and purpose of this section is to establish minimum performance criteria to allow consideration by the Planning Department of time extensions for conditions of approval associated with land use applications and authorizations. All requests for time extensions must be made to the Planning Department in writing and be accompanied by the required fee, prior to the expiration of the initial time limit.

B. Review by Decision-Making Body. After reviewing the proposed time extensions, the Planning Department may, at their discretion, refer the item to the decision-making body that granted prior approval of the land use application, for their review and consideration.

C. Extension Criteria.

1. The application may be extended for a time period not to exceed one year, if:

a. Unforeseen circumstances or conditions necessitate the extension; and

b. An extension will not cause substantial detriment to existing uses in the immediate vicinity of the subject property; and

c. The SEPA environmental determination for the proposal has been reevaluated and reaffirmed and, if necessary, adequate mitigation measures added in order to minimize any potential adverse impact associated with the proposed time extension.

2. The Planning Department, or their assignee, may grant no more than two extensions on any single land use permit approval. A second extension may be granted only if:

a. The criteria listed in subsection (C)(1) of this section are met; and

b. The applicant has demonstrated reasonable diligence in attempting to meet the time limit imposed; and

c. Conditions in the immediate vicinity of the subject property have not changed substantially since the application was first approved. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.170 Revocation.

A. An approved land use permit may be revoked by the Planning Department based on any one or more of the following grounds:

1. That the approval of the application was based on misinformation;

2. That the use for which an approval was granted has ceased to exist, or has been suspended or abandoned for one year;

3. That the application granted is being used contrary to the terms or conditions of an approval, or in violation of this title or law;

4. That the use for which the approval was granted became detrimental to the public health, safety, or welfare, or so as to constitute a nuisance.

B. The Planning Department shall notify the land use permit holder in writing by certified mail of the revocation of his/her/its land use permit and the grounds therefor.

C. The affected land use permit holder may, within 10 days after receipt of such notice of revocation, appeal to the Hearing Examiner by filing a written notice of appeal setting forth the grounds therefor with the secretary to the Hearing Examiner and the secretary shall set a date within 20 days for the hearing of such appeals before the Hearing Examiner, and the secretary shall notify the permit holder by mail of the time and place of hearing. After the hearing thereon, the Hearing Examiner shall, after appropriate findings of fact and conclusions of law, affirm, modify, or overrule the revocation and reinstate the land use permit, and may impose any terms upon the continuance of the land use permit which, to the Hearing Examiner, may seem advisable. Such decision of the Hearing Examiner is appealable to the Superior Court of Snohomish County. No revocation of a land use permit shall take effect until 10 days after receipt of the notice thereof by the permit holder and if appeal is taken as herein prescribed the revocation shall be stayed pending final action by the Hearing Examiner. Exception: If the land use permit allows activity on the site or in site conditions potentially life threatening or injurious, access to the site or the permitted use shall cease until the dangerous condition is corrected or the appeal is addressed. (Ord. 2811 § 2 (Exh. 1), 2022).

Article IV. Hearing Procedures

18.05.175 Limitations on the number of hearings.
No more than one open record hearing shall be heard on any land use application. The appeal hearing on SEPA threshold determination of nonsignificance shall be consolidated with any open record hearing on the project permit. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.180 Procedures for public hearings.
Public hearings shall be conducted in accordance with the hearing body's rules of procedure and shall serve to create or supplement an evidentiary record upon which the body will base its decision. The Chair shall open the public hearing and, in general, observe the following sequence of events:

A. Staff presentation, including submittal of any administrative reports. Members of the hearing body may ask questions of the staff.

B. Applicant presentation, including submittal of any materials. Members of the hearing body may ask questions of the applicant.

C. Testimony or comments by the public germane to the matter. Members of the hearing body may ask questions. Questions directed to the staff or the applicant shall be posed by the Chair at its discretion.

D. Rebuttal, response or clarifying statements by the staff and the applicant.

E. The evidentiary portion of the public hearing shall be closed before the hearing body shall deliberate on the matter before it. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.185 Factors for hearing body to consider.
A. The hearing body shall consider and base its recommendations or decision on any permit action coming before it on the following factors:

1. Type of land use;

2. The density or intensity of use;

3. The availability and adequacy of public facilities;

4. Compliance with specific development and Comprehensive Plan standards;

5. That the environmental impacts are consistent with applicable development regulations or, in the absence of applicable regulations, the adopted Comprehensive Plan; and

6. Other factors relevant to the proposal, e.g., previous approvals, Engineering Details and Specifications, other City codes, regulations and standards.

B. In the evaluation of any Type A, B or C permit action, the Hearing Examiner shall not approve or deny a proposed development unless it first makes findings of fact and conclusions of law consistent with the evidence and determination made. The findings of fact and conclusions of law shall address:

1. The development is consistent or is not consistent with Comprehensive Plan goals and policies.

2. The development meets or does not meet the requirements and intent of the applicable City ordinances.

3. The development makes or does not make adequate provisions for open space, drainage ways, streets and other public ways, transit stops, water supply, sanitary wastes, parks and recreation facilities, playgrounds, sites for schools and school grounds as applicable.

4. The development adequately mitigates or does not adequately mitigate impacts identified under the Critical Area Ordinance and SEPA determination.

5. The development is or is not beneficial to the public health, safety and welfare and is in the public interest.

6. The development does or does not lower the level of service of transportation and/or neighborhood park facilities below the minimum standards established within the Comprehensive Plan. If the development results in a level of service lower than those set forth in the Comprehensive Plan, the development may be approved if improvements or strategies to raise the level of service to meet or exceed the minimum standard are made concurrent with the development. For the purpose of this section, "concurrent with the development" is defined as the required improvements or strategies are in place at the time of occupancy, or a financial commitment is in place to complete the improvements or strategies within six years of approval of the development.

7. The area, location and features of any land proposed for dedication are a direct result of the development proposal, are reasonably needed to mitigate the effects of the development, and are proportional to the impacts created by the development.

8. The development satisfactorily addresses or does not satisfactorily address criteria for review and consideration set forth in subsection A of this section as applicable.

C. Following review of a development proposal or action, the hearing body shall make written findings of fact and conclusions of law and shall make a determination to approve, approve with conditions or deny the development proposal or action. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.190 Hearing Examiner actions.

A. Actions. Upon receiving an application or report from City staff on a proposal or action, the Hearing Examiner shall hold an open record public hearing.

B. Required Findings of Fact and Conclusions of Law. The Hearing Examiner shall make findings of fact and conclusions of law on applications or proposals before him/her. The findings of fact and conclusions of law shall be consistent with MTMC 2.120.110 and 18.05.185.

C. Closed Record Appeals. Upon receiving a request to appeal a decision by City staff, the Hearing Examiner shall hold a closed record public hearing and may remand or overturn the staff decision if it is not consistent with City codes, regulations, and standards. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.200 City Council actions.

A. Actions. Upon receiving a recommendation from the Planning Commission or notice of any other matter requiring the Council's attention, the Council shall perform the following actions as appropriate:

1. Hold an open record public hearing and make a determination on the Planning Commission recommendation.

2. Hold a closed record appeal and make a decision.

B. Required Findings and Conclusions. The City Council shall make findings of fact and conclusions of law on applications and/or consider any Planning Commission or Hearing Examiner report on those applications. The findings of fact and conclusions of law shall be consistent with MTMC 18.05.185. The City Council may accept, reject, or modify the findings of fact and conclusions of law.

C. Decisions. The City Council shall make its decision by motion, resolution, or ordinance as appropriate.

1. A Council decision based on a report filed by the Planning Commission or Hearing Examiner with recommendations, or following a public hearing on a proposal or action, shall be made by taking one of the following actions:

a. Approve as recommended.

b. Approve with additional conditions.

c. Modify, with or without the applicant's concurrence; provided, that the modifications do not:

i. Enlarge the area or scope of the project.

ii. Increase the density or proposed building size.

iii. Significantly increase adverse environmental impacts as determined by the responsible official.

d. Deny (reapplication or resubmittal is permitted).

e. Deny with prejudice (reapplication or resubmittal is not allowed for one year).

f. Remand for further proceedings and/or evidentiary hearing.

2. A Council decision following a closed record appeal shall be made by taking one of the following actions:

a. Grant the appeal in whole or in part.

b. Deny the appeal in whole or in part.

c. Remand for further proceedings and/or evidentiary hearing. (Ord. 2811 § 2 (Exh. 1), 2022).

Article V. General Provisions for Appeals

18.05.205 Effective date of decision.
Unless an administrative appeal is timely filed, a land use decision of the City shall be effective on the date the written decision is issued. When a permit requires a notice of decision, the effective date of the written decision is the date that the notice of decision is issued. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.210 General description of appeals.
A. Administrative decisions (Type B) are appealable to the Hearing Examiner who conducts an open record appeal hearing.

B. Appeals of City Council decisions, ministerial decisions (Type A) without an administrative appeal, and appeals of a Hearing Examiner's decisions shall be made to the Superior Court. In the case of a shoreline substantial development permit, shoreline conditional use permit or shoreline variance, appeals shall be filed with the Shorelines Hearings Board. In the case of amendments to the Comprehensive Plan and/or development regulations designed to implement the Comprehensive Plan, appeals shall be filed with the Growth Management Hearings Board.

In the case of ministerial decisions (Type A) and administrative decisions with an administrative appeal process as defined in the table found in MTMC 18.05.075, the Hearing Examiner shall conduct an open record appeal hearing. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.220 Grounds for administrative appeal.
Any administrative appeal shall be linked to the criteria of the underlying land use decision. The grounds for filing an appeal shall be limited to the following:

A. The Director exceeded its jurisdiction or authority;

B. The Director failed to follow applicable procedures in reaching the decision;

C. The Director committed an error of law; or

D. The findings, conclusions or decision prepared by the Director or review authority are not supported by substantial evidence. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.230 Filing administrative appeals.
A. Notification of permit decisions for ministerial (Type A) permits are issued through a notice of administrative approval. Notification of permit decisions on administrative (Type B) permits are issued through a notice of

decision. Appeals shall be filed within 14 calendar days from the date of the mailing of the notice. Appeals shall be filed in writing with the City Clerk.

B. Appeals shall be accompanied by a filing fee in the amount to be set in the City's fee schedule.

C. Within 10 calendar days following timely filing of a complete appeal with the City Clerk, notice of appeal shall be mailed by the City Clerk to all parties of record. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.240 Appeal process.
A. An appeal shall be heard and decided within 90 days from the date the appeal is filed.

B. Timely filing of an appeal shall delay the effective date of the Director's decision until the appeal is ruled upon or withdrawn.

C. Notice of hearing shall be mailed to all parties of record at least 10 calendar days before the appeal hearing by the City Clerk.

D. The hearing shall be limited to the issues included in the written appeal statement. Participation in the appeal shall be limited to the City, including all staff, the applicant for the proposal subject to appeal, and those persons or entities which have timely filed complete written appeal statements and paid the appeal fee. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.250 Judicial review.
No person may seek judicial review of any decision of the City, unless that person first exhausts the administrative remedies provided by the City. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.260 Judicial appeals.
Any judicial appeal shall be filed in accordance with state law. If there is not a statutory time limit for filing a judicial appeal, the appeal shall be filed within 21 calendar days after a final decision is issued by the City. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.280 Dismissals.
The appeal authority may dismiss an appeal in whole or in part without a hearing, if the appeal authority determines that the appeal or application is untimely, frivolous, beyond the scope of the appeal authority's jurisdiction, brought merely to secure a delay, or that the appellant lacks standing. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.290 Conflicts.
In the event of any conflict between any provision of this chapter and any other City ordinance, the provisions of this chapter shall control. Specifically, but without limitation, this means that the provisions of this chapter shall control with reference to authority to make decisions and the timeframe for making those decisions, including the requirements to file an appeal. (Ord. 2811 § 2 (Exh. 1), 2022).

Article VI. Land Use Plans and Implementation

18.05.300 Comprehensive Plan and Map.
A. Frequency and Content for Updating the Comprehensive Plan. The Comprehensive Plan shall be updated no more often than once every year. The update shall consider levels of service for transportation, sewer and water and may consider other levels of service such as police and fire services, park facilities and programs, planning, engineering, and building services, and financial office services. The purpose of considering levels of service is to assure concurrency of development with levels of service.

B. Docket. The Comprehensive Plan shall also consider a docket of items which may be used to add to, or change, the Comprehensive Plan. The docket is maintained by the Director. The need for change may relate to a need to change the Comprehensive Plan Map, or a need to change the Plan to provide consistency with a change, or need to change, the zoning text.

C. Update Procedure. Approximately nine months after the last Comprehensive Plan and Map update, the Director shall review items that have accumulated in the docket.

The Director shall inform the public, through public notice in a paper of general circulation, as an information item on the agendas of the City Council, Planning Commission, and Hearing Examiner, and in regular posting places of the City, that the City shall consider an update of the Comprehensive Plan and Map. This notice shall include the purpose(s) of updating the Comprehensive Plan and Map, a deadline for submitting recommended changes, adding to the docket, and a tentative hearing schedule.

D. Planning Commission. The Planning Commission shall hold at least one public meeting on the docket of items and/or recommendations to change the plan and map, and may request City Council to recommend any areas for study.

The Planning Commission may establish sub-committees for study which shall include members of the public and at least two Planning Commissioners. In all cases, the sub-committee shall have a majority representing residents of the City.

At the public meetings, the Planning Commission shall consider the information from public testimony, subcommittees, and staff. Following consideration of changes and verifying concurrency of recommended change with levels of service for transportation, sewer, and water, the Planning Commission shall recommend changes in the Comprehensive Plan and Map to City Council.

E. The City Council shall review the recommendation of the Planning Commission in a regularly scheduled meeting and set a public hearing to consider changes to update the Comprehensive Plan and Map. The public hearing for changes in the Comprehensive Plan and Map may be held at the same meeting when recommended changes to the zoning text and map consistent with the Comprehensive Plan amendments are also heard.

F. A sub-area plan may be adopted at any time as long as it is generally consistent with the Comprehensive Plan and concurrency is provided with appropriate levels of service. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.310 Zoning text and map.

A. The zoning text may be changed at any time as long as the change is consistent with the Comprehensive Plan. Immediately following a change(s) in the Comprehensive Plan and Map, the Zoning Ordinance text and map must be changed to be consistent with the Comprehensive Plan and Map.

B. When the docket is reviewed and the public is informed of the update for the Comprehensive Plan and Map, the public shall also be notified that:

1. Any rezone requests should be consistent with the Comprehensive Plan Map; and

2. A request to change the Zoning Map may involve a change in the Comprehensive Plan Map.

C. The Planning Commission shall have a public hearing and make a recommendation to City Council consistent with MTMC 18.05.180 and 18.05.300(D).

D. The City Council shall hold a public hearing and make a final determination on the zoning text or map changes consistent with MTMC 18.05.200.

E. Criteria for Review and Conclusions of Law. The Hearing Examiner shall consider the following criteria in making their recommendation to the City Council on any Zoning Map change. The Council may approve the rezone request only if the proposal conforms to all of the following criteria. The Council shall adopt findings and conclusions for the record which support their decision.

1. The proposal is in accordance with the Comprehensive Plan;

2. Any parcel of land contained in this request, whether under single or unified ownership, is not receiving special or privileged treatment;

3. The proposal will not be materially detrimental to properties in the vicinity or the community based on the entire range of uses allowed in the proposed zone;

4. Adequate public services will be available to serve the full range of proposed uses;

5. The reclassification is warranted because of a change in circumstances, or because of a need for additional property in the proposed zoning district classification, or because the proposed zoning classification is appropriate for reasonable development of the subject property; and

6. The proposed rezone would promote the general health, welfare, and safety of the community. (Ord. 2811 § 2 (Exh. 1), 2022).

18.05.320 Annexation.

A. The City's annexation procedures shall follow the requirements of state law.

B. An annexation shall be adopted by ordinance. First reading of the ordinance shall occur following a public hearing on the annexation per state law. The proposed ordinance shall be forwarded to the Boundary Review Board of Snohomish County together with any application materials required. Following Boundary Review Board action, if any, the City shall have a second reading and consider adopting the ordinance to annex.

C. The Comprehensive Plan Map shall be used to establish the zoning classification for an area to be annexed. The zoning shall be consistent with the Comprehensive Plan Map.

D. The City shall adopt zoning for the annexation area in a separate ordinance. Planning Commission should consider and recommend an appropriate zoning classification to the City Council. Planning Commission's consideration shall include review for concurrency and consistency of the proposed zoning or use, if known, with the Comprehensive Plan and Map and any applicable levels of service. If the applicant requests a zoning classification other than that shown on the Comprehensive Plan Map the applicant shall make a concurrent application for a Comprehensive Plan amendment. (Ord. 2811 § 2 (Exh. 1), 2022).

Chapter 19.95

TRANSPORTATION CODE

Sections:

19.95.010 General provisions.
19.95.020 Definitions.
19.95.030 Street design and access standards.
19.95.040 Street excavation and construction standards.
19.95.050 Performance and maintenance guarantees.
19.95.060 Streets – Special regulations.
19.95.070 Right-of-way use permits.
19.95.080 Transportation mitigation and impact fees.
19.95.090 Transportation concurrency requirements.
19.95.100 Conflicts.

19.95.010 General provisions.

A. Intent and Authority.

1. The intent of this chapter is to provide appropriately for transportation facilities to serve current and future public needs, while protecting the integrity of the public right-of-way.

2. The City Engineer and/or Community and Economic Development Director are authorized to administer, coordinate, and enforce this chapter, except as otherwise provided herein.

B. Any violations of this chapter shall be unlawful.

C. Applicability. The standards in this chapter shall be used for all public and private street improvements within the City of Mountlake Terrace, except as provided in this chapter.

1. Whenever a building permit is applied for or application is made for a short plat or a full subdivision, the applicant for such permit and/or application shall build and install certain street improvements, as required by the Mountlake Terrace Municipal Code, within the public right-of-way or area that will be dedicated for public right-of-way or within dedicated access easements, as approved by the City Engineer and/or Community and Economic Development Director.

2. Exemptions to this chapter may be authorized by the City Engineer for City-initiated street, sidewalk, and utility projects that meet the criteria of MTMC 19.95.030(E)(3).

D. Permits.

1. Permits issued by the Community and Economic Development Department are required for all construction, demolition, repair, or alterations within the public right-of-way or City easement, for any use of the public right-of-way other than for lawfully authorized travel purposes, and for the conduct of any activities that impact transportation facilities or utilities, except as provided in subsection (D)(2) of this section.

2. The following activities are exempt from the permit requirement of subsection (D)(1) of this section, except a building permit if required:

a. The duly authorized work of City employees or the City's contractors to carry out right-of-way and utility projects initiated by the City.

b. Activities that are specifically exempted from obtaining a permit under the Mountlake Terrace Municipal Code or applicable state and federal laws.

E. Referenced Standards.

1. For improvements, maintenance, or alterations impacting the public right-of-way, City easements, and transportation facilities, the City of Mountlake Terrace hereby adopts by reference the following publications and standards and any amendments thereto:

a. 20264 Mountlake Terrace Engineering Development Manual, as amended;

~~b. 2012 Washington State Department of Transportation and American Public Works Association's Standard Specifications for Road, Bridge and Municipal Construction, as amended;~~

~~c. 2012 Washington State Department of Transportation's Standard Plans, as amended;~~

~~d. 2011 American Association of State Highway and Transportation Officials' Policy on Geometric Design of Highways and Streets, and other AASHTO guidelines and publications referenced therein, as amended;~~

~~e. 2023 Manual for Uniform Traffic Control Devices, as amended;~~

bf. Town Center streetscape classifications and standards, as amended;

cg. Mountlake Terrace Town Center Design Standards, as amended;

dh. Mountlake Terrace General Commercial Design Standards, as amended;

ei. Mountlake Terrace Freeway/Tourist Design Standards, as amended;

fj. Mountlake Terrace Community Business Design Standards, as amended;

gk. Mountlake Terrace ~~Smaller Lot~~ Residential Design Standards, as amended; and

hl. Mountlake Terrace Multifamily Development Design Standards, as amended.

2. Publications listed in subsections (E)(1)(a) and (E)(1)(b) of this section shall be interpreted by the City Engineer. The referenced publications in subsections (E)(1)(c) through (E)(1)(h) of this section shall be interpreted by the Community and Economic Development Director; provided, that for purposes of Chapter 16.21 MTMC, Illicit Discharge Detection and Elimination and Operation, Maintenance and Inspection of Storm Drainage Facilities, the Washington State Department of Ecology's Stormwater Management Manual for Western Washington shall be interpreted by the City Engineer.

3. If any conflicts in design or construction standards occur, the more restrictive standard shall prevail and govern. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2792 § 12, 2021; Ord. 2755 § 22, 2019; Ord. 2597 § 2, 2012).

19.95.020 Definitions.

"Access approach" means that portion of the right-of-way between the pavement edge of the intersecting street and the right-of-way/property line.

"Amenity zone" means the area adjacent to the curb or paved roadway and within the right-of-way, which is commonly landscaped, but may include other features for the City's benefit such as utilities, traffic signs, bioretention facilities and mailboxes.

"Building permit" means any permit required by Chapter 15.05 MTMC.

"City Engineer" means the Public Works Department City Engineer as appointed by the Public Works Director or the City Engineer's designee.

"City-initiated" means an action that the City initiates as part of its capital investment or maintenance program.

"Community and Economic Development Director" means the Community and Economic Development Department Director as appointed by the City Manager or the Community and Economic Development Director's designee.

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"Crosswalk" means the portion of the roadway between the intersection area and a prolongation or connection of the farthest sidewalk line or in the event there are no sidewalks then between the intersection area and a line 10 feet therefrom, except as modified by a marked crosswalk (RCW 46.04.160).

"Crosswalk, marked" means the crosswalk identified by the City through signage and surface materials, striping or other markings at street intersections and mid-block crossings.

"Cycle tracks" means facilities exclusively for the use of bicyclists and that combine the user experience of a separated path with the on-street infrastructure of a conventional bike lane.

"Driveway" means the on-site vehicular access connecting a property to a street. A driveway is privately owned and maintained.

"Driveway approach" ~~means that portion of the right-of-way~~a driveway between the pavement edge of the ~~intersecting street and the right-of-way/property line~~See Access approach.

"Easement" means a grant of an interest in land by the property owner for a specific use by another person, entity, or for the public in general.

"Engineering Details and Specifications" See Standard Plans. ~~means the specification and plan details approved by the City Engineer to establish engineering requirements for work done within or for the City.~~

"Inadequate road (or roadway) conditions" means streets and nonmotorized transportation facilities that do not meet the City's adopted standards pursuant to this chapter or that have unsafe conditions.

"Landscape buffer" means the area or strip of land that separates a sidewalk or other nonmotorized transportation facility from the parcel.

"Micromobility devices" refers to a range of small, lightweight vehicles operating at speeds typically below 15 miles per hour and driven by users personally.

"Multi-use path" means a paved path, lane, or trail provided exclusively for nonmotorized use and available for multiple forms of nonmotorized travel, including but not limited to use by pedestrians and bicyclists.

"Municipal Code" means the Mountlake Terrace Municipal Code as adopted by the City Council.

"Public Works Director" means the Public Works Department Director as appointed by the City Manager or the Public Works Director's designee.

"Reviewing Official" or "Reviewing Authority" means the person designated by the Community and Economic Development Director to review plans, permit applications, or other development proposals; provided, that the City Engineer shall designate the person to review plans for City-initiated right-of-way and utility projects.

"Right-of-way" means "right-of-way" as defined in Chapter 19.15 MTMC.

"Sidewalk" means a constructed walkway provided for pedestrians along public or private streets.

"Street" means a public or recorded private thoroughfare providing pedestrian and vehicular access to and through neighborhoods and communities and abutting property. See also WAC 468-34-110(1) and Section 1C.02(100) of the MUTCD.

"Standard Plans" means the specification and plan details approved by the City Engineer to establish engineering requirements for work done within or for the City as adopted within the Engineering Development Manual.

"Town Center" means the area designated as "Town Center" in the City's Comprehensive Plan, including the Town Center Subarea Plan, and which is identified on the City's Official Zoning Map as TC – Town Center.

"Traffic Engineer" means the same as "Transportation Engineer."

"Transportation Engineer" means the Transportation Engineer or Traffic Engineer, as appointed by the City Engineer, or the Transportation Engineer's designee.

"Transportation Master Plan" means the Mountlake Terrace Transportation Master Plan, and any amendments thereto as adopted by the City Council. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2792 § 13, 2021; Ord. 2755 § 23, 2019; Ord. 2597 § 2, 2012).

19.95.030 Street design and access standards.

A. Purpose. It is the purpose of this section to establish design standards and development requirements for street improvements to provide for reasonable and safe access to public and private properties. These improvements include appropriately scaled sidewalks and landscape buffers related to the urban context, curbs, gutters, street paving, monumentation, and lighting, consistent with complete streets principles and fostering a sense of place in the public realm through attractive design amenities.

B. Exemptions. Exemptions to this section shall be authorized by the Community and Economic Development Director for development comprised of the following:

1. New construction or addition with valuation less than 50 percent of assessed value that occurs or is permitted within any three-year period;

2. Within the TC zoning district, interior remodels with valuation less than 50 percent of assessed value that occur or are permitted within any five-year period;

3. Outside of the TC zoning district, interior remodels of any valuation; or

4. The construction of one single-family house, including ~~one~~ two accessory dwelling units, or the modification of or addition to an existing house; provided, that the lot on which a new house would be constructed is not part of a subdivision that occurred within the previous three years.

C. Right-of-Way Dedication Required.

1. Dedication Required for Development. Where the existing width for any right-of-way adjacent to a development site is less than the City's minimum standards, additional right-of-way dedication to provide an easement for roadway and public use will be required for the proposed development.

2. Waiver of Dedication. The Community and Economic Director, in consultation with the City Engineer, may waive the requirement for up to one-half of the right-of-way dedication needed to accommodate a full street right-of-way where he/she determines that either: (a) future development is reasonably feasible on the opposite side of the right-of-way from the site being developed and such future development can reasonably provide for the additional required right-of-way; or (b) due to geographic constraints, future development is not reasonably feasible on the opposite side of the right-of-way being developed.

D. Public Street Right-of-Way Design Standards.

1. Type of Improvements. The required minimum street improvements shall include but not be limited to curbs, gutters, landscape buffers, sidewalks, and lighting on each side of the street, except as provided under subsection (D)(2) of this section. Required improvements shall be designed and constructed in conformance with this chapter and other applicable statutes.

2. Unless required by another chapter of the Zoning Code, the requirement for amenity zones, landscape buffers, sidewalks, and lighting on either or both sides of a street may be waived by the City Engineer for development projects where he/she has determined that geographic constraints make installation not reasonably feasible or there is no need, including future need, for pedestrian access or circulation. For City-initiated street, sidewalk, or utility projects, the City Engineer may waive the requirement for amenity zones, landscape buffers, sidewalks, and lighting on either or both sides of the street pursuant to the criteria in subsection (E)(3) of this section.

3. Length of Improvements. Improvements required per subsection (D)(1) of this section shall extend along the full frontage of such property to be improved upon and sought to be occupied as a building site or parking area for the aforesaid building or platting purposes, and which may abut property dedicated as a public street. For properties with multiple street frontages, all frontages must be improved to the City's standards. Improvements shall be transitioned to existing facilities immediately outside of the property's street frontage; provided, that the Reviewing Official may waive this requirement where such a transition is not reasonably feasible or where future development is not likely to occur due to geographic constraints.

4. Minimum Sidewalk Measurements and Features. Sidewalks shall be a minimum of six feet wide and constructed of concrete unless another material has been approved by the City Engineer for the specific location; provided, that in certain zoning districts, as required by the Municipal Code or adopted design standards, sidewalk width shall be greater than six feet.

a. Where vertical obstructions less than seven feet in height occur, a minimum of four feet of horizontal clearance from the obstruction is required for pedestrian passage.

b. Bulb-outs may be required by the City's Transportation Engineer at street intersections, including but not limited to intersections where vehicle parking is allowed nearby, and at mid-block crossings, based on at least one of the following criteria: (i) the bulb-out will increase safety for the pedestrian attempting to cross the street at an intersection or marked crosswalk; or (ii) the bulb-out location is consistent with guidance from a referenced standard pursuant to MTMC 19.95.010(E). In addition, bulb-outs may be required by zoning district regulations.

c. Any pedestrian facilities, including curb ramps and pedestrian push buttons, immediately adjacent to or contained within the project boundaries shall be replaced with ADA-compliant pedestrian facilities.

d. Any curb ramp constructed must have an ADA-compliant companion ramp at the other side of the crossing. If there is an existing ramp at the other side of the crossing that does not meet current ADA criteria, the project will be required to remove and replace it with an ADA-compliant ramp.

5. Amenity zones shall be installed between the street curb and sidewalk or multi-use path, except where the City Engineer determines that amenity zones are not reasonably feasible due to geographic or right-of-way constraints. Amenity zones shall include grass or low-growing vegetation; provided, that in the Town Center, as well as along arterials and collectors in other areas approved by the City Engineer, the amenity zones may consist primarily of hardscape, rather than vegetation, and with trees protected in tree grates. Amenity zones shall be at least five feet in width; provided, that up to a two-foot reduction may be allowed where the full five-foot width is not reasonably feasible due to geographic or right-of-way constraints.

6. Multi-Use Paths. A minimum 12-foot-wide multi-use path may be installed along streets in place of the minimum six-foot sidewalk path where the City Engineer has determined that such a multi-use path would best accommodate a bicycle route that has been identified in the Comprehensive Plan and where pedestrian safety can be maintained.

7. Driveways. Driveway locations and dimensions are subject to requirements of the zoning district in which the driveways are located, pursuant to this title and other requirements of the City Code and state or federal statutes, and to traffic engineering criteria including roadway functional classifications, traffic volumes, sight distance, proximity to intersections and driveway spacing.

8. Bicycle Facilities. Bicycle facilities may be provided or required by the City in the form of bicycle lanes within the street, cycle tracks, multi-use paths, or any means indicated in the Comprehensive Plan or the Transportation Master Plan or approved by the City Engineer.

9. Vehicular Access and Connection Points to and From the State Highway System.

a. Chapter 47.50 RCW, Highway Access Management, and any amendments thereto, is hereby adopted by reference to provide for the regulation and control of vehicular access and connection points of ingress to and egress from the state highway system within the incorporated areas of the City of Mountlake Terrace.

b. Chapters 468-51 and 468-52 WAC, and any amendments thereto, are hereby adopted and incorporated by reference.

E. Complete Streets.

1. Principles. The City of Mountlake Terrace will plan for, design, and construct all new City transportation improvement projects with complete streets principles.

2. Department Implementation.

a. The Public Works Department will incorporate complete streets principles into the design and implementation of capital projects and the development of Engineering Details and Specifications and other rules, procedures, and standards, as appropriate.

b. The Public Works Department will uphold complete streets principles in developing and implementing City plans and in conducting its plan review and permitting responsibilities for transportation improvement projects.

c. The Public Works Department will carry out its activities to provide for sidewalks to be maintained free of obstructions and to inspect, repair, and replace sidewalks as appropriate. The Department will also prioritize maintenance of crosswalks, bike lanes, and other pavement markings, commensurate with available resources.

3. Exceptions. Complete streets principles, including the provision of amenity zones, will not apply:

a. To repairs made to the right-of-way;

b. To ordinary maintenance activities designed to keep assets in serviceable condition (e.g., mowing, cleaning, spot repair, and surface treatments including but not limited to chip seal treatments, or interim measures for detours, haul routes, and street closures);

c. To improvements solely for traffic signals or signage; provided, that such improvements shall consider the needs of pedestrians and bicyclists, as well as motorists, including mass transit users; or

d. Where the City Engineer, after consultation with the Community and Economic Development Director, issues a documented site-specific exception concluding that application of complete streets principles is unnecessary or inappropriate because:

i. It would be contrary to public safety or to requirements of a grant or law;

ii. The cost is excessively disproportionate to the project or possible use;

iii. The City cannot feasibly attain the additional right-of-way that would be needed;

iv. Other available means or factors indicate an absence of need, including future need; or

v. The City Council has directed that complete streets principles not be applied due to other special factors for a particular street or street segment.

4. Exceptions authorized under subsection (E)(3) of this section are site-specific and shall not constitute general changes to the minimum street standards established in this chapter or other chapters of the Municipal Code.

5. Timing and Funding. Complete streets may be achieved through single projects or incrementally through a series of smaller improvements or maintenance activities over time. Improvements to pedestrian and bicycle facilities shall be a priority for available funding, while balancing the need to meet other City responsibilities.

F. Street Design Standards. Streets and associated facilities, including but not limited to sidewalks, shall be designed in accordance with the City Engineering Development Manual and consistent with the Comprehensive Plan.

G. Access Improvements Required.

1. When nonresidential zoned property does not have frontage on an existing public right-of-way or when the City has identified a potential new street connection in its Comprehensive Plan to access nonresidential zoned property but the street has not yet been constructed, any development or change in use shall require the owner/developer to design and construct full-width street improvements through the property and to a point of appropriate connection with an existing public right-of-way. The improvements shall be designed so as to establish an interconnected network of public streets and shall be constructed in accordance with this chapter and any other applicable City regulations and state or federal laws.

2. Once a street is constructed pursuant to subsection (G)(1) of this section, the property owner shall dedicate the right-of-way and its improvements to the City.

H. Private Streets – When Permitted.

1. Streets designed or constructed after November 1, 2012, shall be public and built to City standards; provided, that the Community and Economic Development Director may allow local access streets serving three or fewer single-family houses to be private when he/she determines that:

a. Geographic constraints or other practical difficulties would make City maintenance reasonably impractical; or

b. No existing or future need exists for additional traffic and/or pedestrian connections or to serve adjacent property.

2. Signage Required. Appurtenant traffic control devices including installation of traffic and street name signs shall be provided by the developer to mitigate traffic impacts, as required by the Traffic Engineer. The street name signs shall include a sign labeled “Private Street.”

3. Easement Required. An easement will be required to create the private street.

4. Timing of Improvements. The private street must be installed prior to recording of the plat unless deferred through a process that includes a security device pursuant to Chapter 15.35 MTMC.

5. The private street must meet public street standards, except as otherwise provided by this chapter.

6. Private access street design and installation shall meet ADA requirements.

7. Private streets shall be paved.

8. The acceptance of an existing private street as a public street shall be based on the street being determined by the City Engineer to meet at least one of the following criteria:

a. Street is constructed to City standards; or

b. Street is classified as an arterial or collector (or meets criteria for being so classified) and assumption of maintenance does not create an undue burden for the City.

9. Any research performed by the City at an applicant’s request to establish or verify that a street has been constructed to City standards, pursuant to subsection (H)(8)(a) of this section, is subject to the applicant’s payment to the City of the hourly rate established in the development fee schedule, as adopted by the City Council.

I. Timing for Installation of Improvements. No building shall be granted a certificate of final occupancy, or plat or short plat recorded, until all the required street improvements are constructed in a satisfactory manner and approved by the responsible departments unless those improvements that remain unconstructed have been deferred by the Department of Community and Economic Development Director subject to security devices authorized under Chapter 15.35 MTMC.

J. Review of Construction Plans.

1. Submittal. All street improvement plans, excluding those prepared by the City or its designee for City capital improvements, shall be submitted for review and approval to the Community and Economic Development Department. All plans and specifications for such improvements are to be submitted at the time application for a building permit is made or, for plats, prior to construction (street/utility) permit issuance. All street improvement plans prepared by the City or its designee for City capital improvements shall be submitted for review and approval to the City Engineer.

2. Fees and Submittal Requirements. All permits required for the construction of street improvements shall be applied for and obtained through the Community and Economic Development Department. Activities requiring permits shall include but are not limited to cutting, excavating or disturbing of streets, alleys, pavement or improvements within the public right-of-way and to the alteration, expansion, or creation of public or private transportation facilities, including driveways. Fees shall be as stipulated pursuant to MTMC 3.150.090.

K. Inspections. An inspector designated by the Community and Economic Development Director shall be responsible for the supervision, inspection and acceptance of all street improvements listed in this section, and shall make a charge therefor to the applicant pursuant to fee requirements under MTMC 3.150.090; provided, that for any City-initiated street or utility projects, an inspector appointed by the City Engineer shall be responsible for the supervision and inspection of street or utility improvements.

L. Deferral of Improvement Installation. Improvements may be deferred only as provided in Chapter 15.35 MTMC.

M. Relationship to Other Codes. Where, related to streets, access easements, and rights-of-way, any conflicts exist between MTMC Title 17 (Subdivisions) and this section, requirements of this section shall prevail and govern.

N. Appeals – Violations.

1. Any decisions made in the administrative process described in this section may be appealed to the Hearing Examiner pursuant to Chapter 2.120 MTMC, Hearing Examiner.

2. Unless otherwise specified, violations of this chapter are misdemeanors, and, upon conviction thereof, shall be punished by a fine not to exceed $1,000 or 90 days in jail, or both such fine and jail. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2792 § 14, 2021; Ord. 2755 §§ 24, 25, 2019; Ord. 2662 § 2, 2015; Ord. 2597 § 2, 2012).

19.95.040 Street excavation and construction standards.
Reserved. (Ord. 2597 § 2, 2012).

19.95.050 Performance and maintenance guarantees.
A. Intent. The intent of this section is to ensure that, when development occurs, a form of security is in place to provide for the required improvements to be completed, as well as any necessary repairs to be made to City facilities should the required improvements or repairs not be completed to the City's standards by a specified period of time.

B. Performance and Maintenance Guarantees. The City's requirements for performance and maintenance guarantees are established in Chapter 15.35 MTMC and shall be applied to this chapter. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2597 § 2, 2012).

19.95.060 Streets – Special regulations.
A. Street Names. The naming of streets and assigning of addresses is a responsibility of the Community and Economic Development Department consistent with Chapter 12.25 MTMC.

B. Functional Classification. Designation of streets by functional classification shall be as identified in the Transportation Element of the Comprehensive Plan; provided, that the City Engineer may identify additional or alternate designations to be used when a new federal functional classification is approved after the adoption of the City's last annual Comprehensive Plan amendment(s). Such additional or alternate designations shall be included in the next Comprehensive Plan amendment process.

C. Monuments. No surface monuments or hubs found on the line of excavation work shall be disturbed unless the disturbance is ordered by the City Engineer. All street monuments, property corners, bench marks, and any other monuments disturbed during the progress of the work or any other activity shall be replaced by a licensed surveyor to meet requirements of the City Engineer and the cost of the same shall be paid by the person that disturbed the monument or by another party on the person's behalf.

D. Trees in Town Center Pedestrian Activity Areas. Within the BC/D zoning district, street trees within any pedestrian activity area and constructed in accordance with Town Center Design Standards shall be maintained by the adjacent property owner. Such trees shall not be trimmed, cut, removed, or damaged unless the City determines such action is needed. The City may require an arborist's opinion before making a determination. Any removed trees shall be replaced by the adjacent property owner pursuant to City standards within 60 days of the tree removal; provided, that the City may grant a longer replacement period if necessary due to severe weather or other conditions that would affect the health of the replaced tree(s).

E. Bus Stops.

1. Bus stops shall be accommodated at appropriate places within the street network, as determined by the Traffic Engineer, taking into account transit service needs, public safety, and traffic flow.

2. Convenient pedestrian access between any commercial or multifamily residential buildings and adjacent bus stops shall be provided as a condition of development.

3. Dedication of an easement or right-of-way to locate bus stops and related appurtenances may be required by the Traffic Engineer where a transit agency serving the City has identified such stops as necessary to reasonably accommodate its bus service for routes consistent with the transit agency's six-year plan.

F. Street Signs. City street signs shall be maintained and installed per direction of the City Engineer. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2597 § 2, 2012).

19.95.070 Right-of-way use permits.

A. Use of the public right-of-way is subject to permitting and other requirements of this chapter, Chapter 10.20 MTMC, and other regulations of the City.

B. The following types of right-of-way use permits are established for right-of-way use not provided for by another permit issued by the City:

1. Type A – Short-Term.

a. Type A permits may be issued for use of right-of-way for 72 or fewer continuous hours for purposes that do not involve the physical disturbance of the right-of-way and that are not subject to a special event permit or block party permit pursuant to Chapter 10.20 MTMC.

b. Use under a Type A permit may involve disruption of pedestrian and vehicular traffic, vehicular parking, or access to private property and may require inspections, clean-up and police surveillance. For periods longer than 72 hours these uses will be considered Type C, long-term or permanent.

c. Type A permits include, but are not limited to, the following:

i. House moves;

ii. Temporary right-of-way closures not approved as part of another permit or a City-initiated street or utility project; and

iii. Dumpsters.

2. Type B – Disturbance of City Right-of-Way.

a. Type B permits may be issued for use of right-of-way for activities that will alter the appearance of or disturb the surface, supersurface or subsurface of the right-of-way on a temporary or permanent basis.

b. Type B permits may be for either single uses or multiple uses. Type B single-use permits will be issued to approved applicants who are planning a single type B activity at a single location in a short period of time.

c. Type B multiple-use permits will be issued to approved applicants who are planning many Type B routine maintenance activities at several different locations in a short period of time.

d. Type B permits include but are not limited to:

i. Boring;

ii. Culverts;

iii. Curb cuts/driveways;

iv. Drainage facilities;

v. Landscaping;

vi. Painting;

vii. Sidewalks;

viii. Street trenching; and

ix. Utility installation.

3. Type C – Long-Term and Permanent.

a. Type C permits may be issued for use of right-of-way for activities for extended periods of time but which will not physically disturb the right-of-way.

b. The use of right-of-way for structures, facilities, and uses that involve capital expenditures and long-term commitments of use require this type of permit.

c. Type C permits include but are not limited to:

i. Air rights;

ii. Bus shelters/stops;

iii. Construction site/haul roads;

iv. Loading zones;

v. Recycle facilities;

vi. Sales or vending structures;

vii. Sidewalk cafes;

viii. Special and unique structures including but not limited to: fountains, clocks, flagpoles, awnings, marquees, benches, kiosks, signs, mailboxes, banners, street furniture, and decorations;

ix. Underground rights;

x. Utility facilities; and

xi. Waste facilities.

d. Type A uses that exceed 72 hours will be treated as Type C uses.

C. Applications and Processing of Permits.

1. To obtain a right-of-way use permit, the applicant shall file an application with the Community and Economic Development Department.

2. Every application shall include the location of the proposed right-of-way use, a description of the use, the planned duration of the use, applicant contact information, and all other information which may be required as specified in procedures adopted hereunder, and shall be accompanied by payment of the required fees.

Certain applicants such as utilities or franchised utilities may be involved in frequent use of the right-of-way for repair, maintenance and construction in a short period of time. To avoid the issuance of a new permit for each use, the City may issue a 90-day permit for multiple use.

3. Specifications. All work to be performed under any permit issued under this chapter shall conform to all other City code chapters, standards referenced in MTMC 19.95.010(E), and applicable state and federal statutes.

4. Permit Exception. A right-of-way use permit shall not be required of utilities or franchised utilities prior to commencing work in the right-of-way when responding to emergencies, such as water or sewer main breaks, gas leaks, downed power lines or similar emergencies; provided, that the City shall be notified by the responding utility or City contractor verbally or in writing, as soon as practicable following onset of an emergency. Nothing herein shall relieve a responding utility or City contractor from the requirement to apply for a right-of-way use permit within 48 hours after beginning emergency work in the right-of-way. The City and its contractors are not required to obtain a right-of-way use permit for work being done as part of City-initiated street or utility projects. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2597 § 2, 2012).

19.95.080 Transportation mitigation and impact fees.

A. Transportation Mitigation Requirements. All development activities in the City are subject to the following requirements:

1. Traffic Impact Analysis (TIA) Required. In order to provide sufficient information to assess a development's impact on the roadway system and right-of-way, any development activity adding to a corridor ~~10~~20 or more vehicle trips during the weekday peak hours of 4:00 p.m. to 6:00 p.m., adding 40 or more vehicle trips during any weekday, or adding 50 or more vehicle trips during any weekend day shall be required to provide a traffic impact analysis; provided, that such requirement shall not apply to projects within the locations and development thresholds of planned actions adopted by the City pursuant to the State Environmental Policy Act (SEPA), RCW 43.21C.031. The required traffic impact analysis shall identify any street improvements that may be needed to reduce transportation impacts from the development and to improve nonmotorized transportation facilities related to the development. The City Engineer or designee, in consultation with the Traffic Engineer, may require that the TIA include an evaluation of any potential traffic and parking impacts from the development on arterial or local access streets. The City Engineer or designee is authorized to adopt administrative policies and technical procedures specifying the contents and scope of the TIA, the methodologies to be used in preparing a TIA, and the nature and extent of the improvement(s) necessary to meet the requirements of this chapter.

2. Level-of-Service Policy. The City shall maintain or achieve the level of service (LOS) adopted in the Transportation Element of the Comprehensive Plan.

3. Development Mitigation Obligations. Frontage improvements, including the upgrading of substandard frontage improvements, will be required of all proposed developments, pursuant to this chapter.

The City Engineer or designee shall require mitigation of direct traffic impacts of any development as provided in this section. Mitigation of off-site impacts to City streets will be in the form of transportation impact fees pursuant to Chapter 18.30 MTMC; provided, that mitigation of site-specific impacts to the City's transportation system also may be required under the State Environmental Policy Act (SEPA) for impacts that are not associated with the transportation impact fees. Such SEPA mitigation may be required on arterial streets, collectors, or local access streets. Mitigation of off-site impacts to state highways or other jurisdiction streets may also be required, as specified in this chapter. Development may have the option to provide mitigation for off-site impacts directly by constructing the improvements that offset the direct traffic impact of the development. Development mitigation requirements may be reduced by the City Engineer or designee if the development implements transportation demand management and/or transportation system management strategies to the extent such strategies would reduce off-site traffic impacts not associated with the transportation impact fees.

4. Inadequate Road Condition(s).

a. A development's access onto a public road shall be designed so as not to create or aggravate an inadequate road condition. Developments shall be designed so that inadequate road conditions are not created.

b. Mitigation of direct project impacts resulting in inadequate road conditions is required. If such conditions are found to be existing in the development's road system at the time of development application review, and the development shall put through the identified locations at the time of full occupancy of the development 10 or more vehicle trips during the weekday peak hours of 4:00 p.m. to 6:00 p.m. or 40 or more vehicle trips during any weekday or 50 or more vehicle trips during any weekend day, the development shall only be approved if provisions are made in accordance with this chapter for improving the inadequate road conditions.

B. Total Mitigation Limits. The total amount of off-site improvement cost for which a development is responsible is limited to the development's proportionate fair share amount for mitigation of its impacts on the transportation and right-of-way system. An applicant who volunteers to pay and/or construct more than their share of the road system mitigation may apply for a street assessment reimbursement agreement. Said applicant shall agree to participate in applicable transportation improvement districts.

C. Transportation Impact Fees. The applicant for any development activity shall be required to pay transportation impact fees required pursuant to Chapter 18.30 MTMC.

D. SEPA Mitigation – City Streets. The applicant for any development activity shall be required to provide mitigation identified through a SEPA review process, except as otherwise provided by this section. Such mitigation may include site-specific access and safety improvements, mitigation of impacts to neighborhood or local access streets, or improvements to nonmotorized transportation systems. Such mitigation may be identified as part of the traffic impact analysis pursuant to subsection (A)(1) of this section.

E. Mitigation – State Highways. Mitigation requirements for impacts on state highways and at intersections of City roadways with state highways may be established by the Washington State Department of Transportation (WSDOT) rather than by the provisions of this chapter.

F. Mitigation – Other Jurisdictions. When a development activity may adversely impact the roadway facilities of other jurisdictions, the City Engineer or designee shall forward the traffic impact analysis or other information to the affected jurisdiction for review and comment.

G. Mitigation – Administration.

1. Timing of Determination. The determination of developer obligations shall be made by the City before approval of all short plats, preliminary subdivisions, planned unit developments, site development plans, conditional and special use permits, and binding site plans or before the issuance of a building permit, whichever occurs first.

2. Administration of Payments. Payments made pursuant to this section, excluding subsection C of this section, shall be subject to the following provisions:

a. The payment is required prior to issuance of a building permit or commencement of on-site development, whichever occurs first, unless the development is a subdivision, wherein the payment is required prior to the recording of the subdivision.

b. The payment and accrued earnings shall be held in a reserve account and shall be expended to fund improvements on the road system, including any nonmotorized transportation facilities, as specified in a written agreement between the developer and the City.

c. Payments made pursuant to this section shall include an amount to reimburse the City for the costs of administration of this section, as so provided in a fee resolution adopted by the City Council. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2597 § 2, 2012).

19.95.090 Transportation concurrency requirements.

A. Authority and Purpose. This section is enacted pursuant to the Washington State Growth Management Act, Chapter 36.70A RCW, at RCW 36.70A.070. The purpose is to require that the Mountlake Terrace transportation level of service standards are achieved concurrently with development, or within a reasonable time after development occupancy and use.

B. Development shall not be approved if the development would cause the level of service on a locally owned transportation facility to decline below the standards adopted in the Transportation Element of the City's Comprehensive Plan unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. "Concurrent" means, for purposes of this section, that improvements or strategies are in place at the time of development or that a financial commitment is in place to complete the improvements or strategies within six years.

C. Strategies. Strategies that may be used pursuant to subsection B of this section may include increased public transportation service, ride-sharing programs, demand management and other transportation system management strategies, as approved by the City Engineer or designee to mitigate the transportation impacts of the development.

D. Analysis of transportation impacts from development shall be conducted under the authority of the City Engineer or designee pursuant to MTMC 19.95.080. (Ord. 2863 § 1 (Exh. A), 2024; Ord. 2597 § 2, 2012).

19.95.100 Conflicts.

If a conflict exists between this chapter and either the Engineering Development Manual or the Comprehensive Plan, this chapter shall control. (Ord. 2863 § 1 (Exh. A), 2024).

Chapter 19.120

GENERAL PROVISIONS

Sections:

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Article I. General Performance Standards

19.120.010 Purpose and intent.

The intent and purpose of this section is to provide performance standards applicable to all uses irrespective of zoning classifications in order to minimize potential environmental impacts associated with land uses located in the City. (Ord. 2074 § 9.1(A), 1995).

19.120.020 Air quality regulations.

State Regulation. Air quality is regulated by the Washington Clean Air Act, Chapter 70.94 RCW. Any inquiry, complaint, or violation regarding air quality will be referred to the Puget Sound Air Pollution Control Authority. (Ord. 2074 § 9.1(B), 1995).

19.120.030 Artificial light and glare.

Uses producing artificial light, utilizing light for night operation, or causing glare shall:

A. Not impair use of or safety of any road due to strong dazzling artificial light directed at oncoming motor vehicles, or strobe lights projecting off-site or toward streets, or lights imitating traffic signal lights.

B. Protect residential uses from artificial light during periods of darkness by shading the luminaire and/or screening abutting property lines.

C. Shield light generated by arc welding, acetylene torch cutting, or similar processes in a manner which prevents such light from being visible from any point beyond the outside of the property.

D. External lighting on residential property shall be directed and shielded appropriately to avoid creating a nuisance or hazard to passing traffic and neighboring properties. (Ord. 2074 § 9.1(C), 1995).

19.120.040 Dust and smoke.
A. All uses which produce emissions shall comply with the requirements of the Environmental Protection Agency for the prevention of significant deterioration due to particulates, and of the State Implementation Plan for Air Quality as issued by the Puget Sound Air Pollution Control Agency.

B. Air pollution from private roads, parking lots, and open areas shall be controlled as follows:

1. Visible dust generated by construction, repair, or cleaning of roads and parking areas shall be minimized by means that minimize detrimental effects to water quality. The use of chemical dust suppressants shall be prohibited in all cases.

2. Private roads shall be controlled by providing paving or other surface treatment which minimizes visible dust emissions and mud tracking. Housekeeping measures shall be used to minimize the accumulation of mud or dust on the surface of roads.

3. Unpaved shoulders shall be maintained in such a way as to minimize visible dust being generated by wind or traffic. Unpaved nonvehicular areas shall be controlled by vegetation cover or other equally effective methods of minimizing windblown dust.

C. Air emissions from manufacturing uses or other activities shall be controlled. No emissions shall exceed the allowances set forth by the Environmental Protection Agency and/or the Puget Sound Air Pollution Control Agency. (Ord. 2074 § 9.1(D), 1995).

19.120.050 Electromagnetic radiation.
No use of electromagnetic radiation shall be permitted for such purposes as communication, experimentation, entertainment, broadcasting, hearing, therapy, vehicle velocity measurement, weather survey, topographic survey, personal pleasure, or any other use directly or indirectly associated with these purposes which does not comply with the current regulations of the Federal Communication Commission (FCC) regarding such sources of electromagnetic radiation. The FCC enforces these regulations within the City. (Ord. 2074 § 9.1(E), 1995).

19.120.060 Fire and explosion hazards.
All activities involving flammable and explosive materials shall provide adequate safety devices against the hazard of fire and explosion and shall provide adequate fire fighting and fire suppression equipment as required by other ordinances of the City.

In terms of fire and safety hazards, the storage and handling of inflammable liquids, liquified petroleum, gases, and explosives shall comply with rules and regulations followed under the jurisdiction of the City ordinances and the laws of the state and other applicable ordinances. (Ord. 2074 § 9.1(F), 1995).

19.120.070 Interference.
Provisions must be made for necessary shielding or other preventive measures in order to avoid interferences caused by mechanical and electrical equipment, use, or processes with electrical apparatus in nearby buildings or land uses. (Ord. 2074 § 9.1(G), 1995).

19.120.080 Liquid and solid wastes.
Storage of animal or vegetable waste shall be managed and maintained in a manner that does not create a health hazard. Industrial uses shall indicate the method of storage and disposal of all industrial waste prior to project approval.

The discharge of any materials into any manmade or natural water or drainage system shall be regulated by the state of Washington Department of Ecology or City ordinances. (Ord. 2074 § 9.1(H), 1995).

19.120.090 Odor.
The emission of obnoxious odors or any toxic or corrosive fumes or gases that may injure shall not be permitted. (Ord. 2074 § 9.1(I), 1995).

19.120.100 Toxic chemicals.
The use of toxic chemicals including but not limited to chemical sprays, paints, automotive, cleaning, pesticides, herbicides, and all types of hazardous household products recognized by the State Department of Ecology and fertilizers shall be allowed in residential areas, subject to compliance with applicable operating, handling, storage and disposal procedures for each chemical compound. The use of such chemicals shall be limited to the subject property and shall not impact, damage or endanger the health, lives, property, or the environment of the adjacent or surrounding properties and its occupants. Alternative methods of controlling insects, weeds, and other plant diseases are encouraged in lieu of the application of toxic chemicals in residential areas. A substance is hazardous if it is: toxic, ignitable, corrosive, or reactive. (Ord. 2074 § 9.1(J), 1995).

19.120.110 Vibration.
Any use permitted by this title which causes ground vibration or concussion that is detectable beyond the property lines without the aid of instruments shall not be permitted except as exempted herein.

The following conditions shall be exempted:

A. Vibration originating from heavy transport vehicles such as trains or trucks;

B. Vibration originating from site construction activity;

C. Vibration from heavy equipment which occurs no more than once daily for a period not to exceed 15 minutes. (Ord. 2074 § 9.1(K), 1995).

Article II. Specific Standards

19.120.120 Purpose and intent.
The intent and purpose of this section is to establish standards applicable to special uses that, by their nature, necessitate specific land use regulations that address the development and operation of such uses and activities in order to accomplish the purposes of this title. (Ord. 2074 § 9.2(A), 1995).

19.120.130 Accessory buildings.
The following regulations apply to detached accessory buildings such as sheds and garages associated with single-household residences in all zone districts.

A. An accessory building that is both less than 80 square feet in size and with each side wall less than six feet in height does not require an approved building permit; however, such structures must meet the minimum front yard setback requirement in the applicable zone district.

B. An accessory building that does not meet the criteria described in subsection A of this section for area and building wall height shall meet the minimum front and side yard setbacks in the applicable zone district with the exception of corner lots where the minimum side yard setback from the interior lot line shall be five feet.

C. An accessory building that does not meet the criteria described in subsection A of this section for area and building wall height shall meet a minimum rear yard setback of 15 feet, except if the accessory building is less than 250 square feet in area and less than 12 feet in height, it shall meet a minimum five-foot setback in the rear yard.

D. The maximum building footprint of an accessory building shall be no greater than the building footprint of the principal structure, not to exceed 800 square feet. The size of Accessory dwelling units is subject to 19.30.050 MTMC.

E. The maximum height of an accessory building shall be 25 feet.

F. An accessory building shall not be designed, constructed, or used as a habitable structure for eating, cooking, or sleeping, except as otherwise provided by this title.

G. An accessory building in excess of 12 feet in height or 200 square feet in area shall feature exterior siding similar in appearance to and compatible with the building materials of the primary structure.

H. Storage within a carport must be fully enclosed and not visible from the right-of-way or adjoining properties. Tent structures are prohibited for vehicle or storage uses. (Ord. 2788 § 3, 2021; Ord. 2393 § 1, 2005; Ord. 2074 § 9.2(B), 1995).

19.120.140 Accessory housing units.
Repealed by Ord. 2447. (Ord. 2074 § 9.2(C), 1995).

19.120.150 Animals.
Repealed by Ord. 2547. (Ord. 2481 § 49, 2008; Ord. 2074 § 9.2(D), 1995).

19.120.160 Ham or amateur radio vertical tower antennas.
Antennas may extend to a height of 50 feet as measured from ground level; provided, that the base of such system is located no closer than 20 feet to any property line. The height may extend above 50 feet; provided, that it does not exceed a vertical distance equal to 80 percent of the lot width at the proposed antenna location, and the base of the antenna is set back from each property line at least one-half the height of the antenna. In no event shall a ham or amateur radio vertical tower antenna exceed a height of 100 feet. (Ord. 2174 § 5, 1997; Ord. 2074 § 9.2(E), 1995).

19.120.165 Television (TV) satellite dish antennas.
A. Purpose. The purpose of this section is to provide for safety and minimize the adverse visual and physical impacts of dish and satellite television antennas associated with providing television reception without disrupting signal reception for the user and the surrounding neighborhood. Dish antennas and similar structures are permitted in any zoning district.

B. Permits. A building permit shall be required for installation of any dish or satellite antenna, or similar structure larger than 39 inches in diameter. All antennas shall comply with all applicable provisions of the Uniform Building Code and National Electrical Code, as adopted by the City of Mountlake Terrace.

C. Guidelines. The following guidelines shall be utilized in determining a proper location for small (39 inches and larger) or large dish or satellite antenna systems:

1. Satellite dish antennas may be mounted on buildings, but should be placed toward the rear or side of the buildings as much as possible to minimize the visual impact from the street.

2. No portion of any support or safety structures, including any guy wires and anchor points, may be placed closer than five feet to any side or rear property line and are prohibited within the minimum required front yard building setback area for the zone in which the system is located.

3. Ground-mounted satellite dish antennas shall be screened with sight-obscuring fences and/or landscaping to make them as inconspicuous as possible from the street and abutting properties.

4. Satellite dish systems or standard TV antennas shall not exceed the height limits for the zone in which they are located.

5. TV satellite dish antenna systems are not to be located within any easement area.

6. A maximum of one television satellite dish antenna per lot is allowed; however, this may be exceeded for sites in excess of one acre, at the discretion of the City.

7. The use of satellite or standard antenna systems for the support of signs or lights, except those required for aircraft warning or others required by the Federal Communications Commission (FCC), shall be prohibited. (Ord. 2174 § 5, 1997; Ord. 2074 § 9.2(F), 1995).

19.120.170 Day care facilities.
A. Evidence of the necessary state license is required prior to issuance of a City business license, conditional use permit, or certificate of occupancy for any day care facility including day care homes and day care centers.

B. A fenced and screened outdoor play area shall be provided in compliance with state licensing requirements.

C. Day care centers shall provide an off-street loading area for the safety of children and separation from vehicular traffic. (Ord. 2174 § 5, 1997; Ord. 2074 § 9.2(G), 1995).

19.120.180 Critical areas.
Any development or redevelopment proposed within a critical area shall conform to the applicable regulations of this title and all City codes and regulations. (Ord. 2174 § 5, 1997; Ord. 2074 § 9.2(H), 1995).

19.120.190 Exceptions to height, yard, and area requirements.
A. Exceptions to the Height Requirements. The following types of structures or structural parts shall not be subject to height limitations; provided, that structures or parts shall be 20 feet or more from any adjoining lot line; and provided, no usable floor space above the height limitations of such zoned district classification is added. See Chapter 19.137 MTMC (Wireless Communication Facilities) for regulations regarding heights of facilities for wireless communication.

1. Chimneys;

2. Church spires;

3. Fire or parapet walls;

4. Flagpoles;

5. Mechanical and elevator equipment;

6. Skylights;

7. Smoke and ventilating fans or similar equipment required to operate and maintain the building;

8. Stairways;

9. Tanks;

10. Utility and transmission line towers and poles.

B. Exception to Yard Requirements.

1. Yards and Open Spaces. Every required yard and required open space shall be unobstructed from the ground to the sky, except as provided in this section. No such yard or space shall be considered as providing required yard or open space for any other building or adjoining lot or parcel.

2. Consolidated Lots. When the common property line between two contiguous lots under common ownership is covered by a permitted building or group of buildings, such lots shall constitute a single building site, and the yard space as required by this title shall then not apply to such common property line.

3. Greater Yards and Open Space Not to Be Separated. Where a greater height of buildings has been accomplished by reason of providing increased yard or open spaces, or greater yards or open spaces are otherwise required by this title, no property may be separated from the lot or building site which would reduce the yards or open spaces so required.

4. Building Setbacks. Shall be measured from the edge of the public right-of-way as indicated by this title. No building permit shall be issued for construction upon any property where the required right-of-way as determined by this title or modified by the Planning Commission has not been deeded for public use. Existing buildings shall not be rendered nonconforming due to substandard setbacks or lot size when such substandard condition is the sole result of the public right-of-way acquisition.

5. Yard Exceptions – General.

a. Architectural features of buildings such as chimneys, ornamental features, window awnings, roof overhangs, garden windows, or similar projections may project no more than two feet into a required yard.

b. Uncovered porches, decks, steps, patios, and similar structures may extend into a required yard setback; provided, that they project into the front or side yard setback not more than four feet and/or a rear yard setback not more than 15 feet. Said structures shall not exceed 30 inches in height above the ground level at the building setback line, except for hand rails which may project 36 inches above said structure when installed for safety purposes.

c. Covered Porches and Patios. Covered porches and patios may project into the required front yard setback not more than six feet. Such porches or patios may not be entirely enclosed, but may have a solid barrier or railing up to 36 inches in height above the walking surface. No other barriers of any type may be allowed above 36 inches from the walking surface. Such structures are limited to 15 feet in height to the midpoint of a pitched roof, or 12 feet in height for a shed roof.

d. Bus Shelters. Bus shelters which are intended for use by the general public and are under the ownership and/or control of a City, County, or municipal corporation are exempt from the front yard setback requirement in the applicable zone district.

e. Service Station Pump Islands. Service station pump islands shall be located a minimum of 15 feet from the front property line, and canopies, as measured from the outer edge, shall be located a minimum of 10 feet from the front property line provided sight area clearance requirements are met.

C. Yard Exceptions for Special Lots.

1. Lots Accessed by Private Roads/Easements. Flexibility in determining the front lot line and subsequent side and rear lot lines of property adjacent to private roads and access easements shall be provided where, due to special circumstances associated with the physical character of the site, the front lot line is not located along the private road/easement. Requests to vary the location of the front lot line may be approved in order to accommodate emergency access vehicles, minimize the number of variances, and ensure compatibility of the proposed lot configuration with the surrounding area. Said requests shall not be considered a request to vary the setback requirements specified in each zone district classification.

2. Corner Lots. Front lot lines on corner lots shall extend along both street frontages. The lot lines not considered front lot lines, located in the interior of the property, are deemed the side lot lines.

3. Irregular-Shaped Lots. For irregular-shaped lots, the line which is most clearly parallel to the street from which primary access is provided to the lot shall be deemed the front lot line. The line which is most parallel and opposite the front lot line shall be deemed the rear lot line. All other property lines shall be deemed side lot lines.

4. Triangular-Shaped Lots. For triangular-shaped lots which are not corner lots and for which no definite rear lot line exists, the required rear yard shall be determined as follows: an imaginary line shall be drawn which

connects two points both measured along the property lines 40 feet from the intersection of the two property lines which are not the front lot lines. This line shall represent the limit of the required rear yard.

D. Exceptions to Lot Area Requirements. In any zone, a single-household dwelling may be constructed or enlarged, including accessory uses, on a lot which cannot satisfy the lot area requirements of the zone where the lot was legally created prior to the effective date of the ordinance codified in this title. This section shall not waive the dimensional requirements for yards, lot coverage, or height, etc. of the applicable zone in which the lot is located. (Ord. 2788 § 4, 2021; Ord. 2174 § 5, 1997; Ord. 2074 § 9.2(I), 1995).

19.120.200 Fences, hedges, and rock walls.

A. Height and Setback Limitations. Fences located on private property within 20 feet of any public right-of-way shall not exceed four feet in height. Exceptions to the four-foot height limitation include fences located along the street on the side of homes on corner lots, and fences located along the street in the rear of homes located on through lots. Fences located outside of the 20-foot front setback area and in the interior of the lot shall not exceed six feet in height.

B. Fence height shall be the vertical distance between the top of the screening portion (including horizontal, vertical boards and lattice work) and the ground level directly below the screening portion of the fence, measured on the inside of the fence.

C. Posts and Caps. Fence posts and decorative caps may extend not more than six inches in height above the maximum allowable height of the fence.

D. Construction. Fences shall be constructed so the decorative side will be facing the street. In such case the decorative side shall be placed along the exterior side while the fence framing structure and cross braces shall face the interior side.

E. Barbed Wire and Electric Fences.

a. Commercial and industrial/office zoned property may use barbed wire fencing for security purposes when used in conjunction with other fencing materials, such as chain link. However, barbed wire is prohibited adjacent to residential uses and residential zone districts.

b. Barbed wire shall be placed no closer than six feet six inches to the ground and may extend above this height no more than 18 inches.

c. Barbed wire may be allowed for the containment of large domestic animals when approved as part of a conditional use permit.

d. In all cases “razor wire” fences and electric fences shall be prohibited.

F. Hedges. Hedges and rock walls shall meet the same requirements as fences for height and location. For hedges, it is recommended that the plant materials selected be such that at maturity they will be within the height requirements for the desired location.

G. Special Locational Provisions. No fence, hedge or rock wall shall be permitted which interferes with the sight area triangle, impedes the use of fire hydrants or blocks their view from the street, obstructs access to water meters, or overhangs pedestrian use areas so as to impede pedestrian circulation.

H. Maintenance. All fences, hedges and rock walls shall be kept in a proper state of preservation and order so as not to be dangerous to human life or constitute a public nuisance or infringe upon the public’s right of passage on sidewalks and streets. The area along fences located at, on, or near interior property lines shall be kept free of piled dirt and debris in order to provide fence owners access for maintenance purposes and prevent the deterioration of the fencing materials.

I. Public Right-of-Way. All fences, hedges and rock walls constructed within the City right-of-way or easement areas shall comply with the regulations of Chapter 15.05 MTMC.

J. Swimming Pools, Fences Required. Swimming pools must be enclosed within a fence that meets the height requirements of this title and all other City codes and regulations.

K. Tennis Courts, Parks, or Athletic Fields. The type, size, location, and height of fencing proposed for tennis courts, parks, or athletic fields shall be exempt from the requirements of this section and shall comply with MTMC 19.75.070(B). (Ord. 2074 § 9.2(I), 1995).

19.120.210 Garage sales.

A. Restrictions. No person shall operate, conduct, manage or permit a garage sale upon his/her premises or other property under his/her control more than three times per calendar year. The length of time for each garage sale shall not exceed three consecutive days (72 consecutive hours) per garage sale event. Goods displayed in any garage sale may not be displayed in the public right-of-way; provided, however, that the City Council may, upon adoption by proper motion, declare a specific day or days as a Mountlake Terrace City Wide Garage Sale Day(s) setting the time, dates and hours thereof, which shall not be included in the calculation of the restriction of three garage sales per year as provided in this subsection. Garage sales may only be conducted between the hours of 8:00 a.m. to 7:00 p.m.

B. Garage Sale Signs.

1. Off-Premises Signs. No person shall place more than two garage sale signs, cards or placards advertising a garage sale on any property other than the property owned by the person conducting the sale. The person shall obtain the consent of the owner prior to posting any off-premises sign on private property. Said signs shall not be posted more than 48 hours prior to the sale and shall be removed within 12 hours after the close of the sale event. Said sign(s) may be placed within the public right-of-way; provided, that the sign(s) does not encroach into a driveway, sidewalk, identifiable unimproved pedestrian walkway, or vehicular travel lanes; and is at least six feet from the outer pavement edge of a roadway when curb and gutter are not present. No signs shall be posted, tacked, nailed, or in any manner affixed upon any telephone or utility pole, street sign pole or any other public sign, pole or post and shall not exceed a maximum sign area of two feet square in area and four feet in height.

2. On-Premises Signs. No person shall place more than two garage sale signs, cards or placards advertising a garage sale on the property where the sale is to take place. Maximum sign area for on-premises sign(s) is two feet square per sign, and no more than six feet in height. Said signs shall not be posted more than 48 hours prior to the sale and shall be removed within 12 hours after the close of the sale event All signs shall comply with the "sight area" restrictions under MTMC 19.120.290, as amended. (Ord. 2233 § 1, 1999; Ord. 2074 § 9.2(J), 1995).

19.120.220 Grading, filling, and drainage.

A. Clearing, Grading, Filling. An applicant shall indicate in the application for site plan or plat approval, the extent to which the land in the development is to be cleared, graded, or filled. The following are to be used as guidelines in evaluating site plans and plats where such activities are to occur:

1. Any site alteration or site preparation is prohibited when it is accomplished prior to having an approved erosion control plan, grading permit, and site plan or tree removal plan. Minor site alteration which is necessary for boundary review or engineering studies is exempt from this subsection.

2. In order to maintain natural drainage systems and to prevent surface water pollution caused by increased runoff or fill materials, setbacks shall be required and maintained in any development having a ravine, steep slope, wetland, stream, or lake to preserve the natural system. In addition, grass-lined swales shall be required in conjunction with all major site development in order to filter impurities from water entering the stormwater system. Maintenance shall be assured through covenants, homeowner associations, or other means approved by the City of Mountlake Terrace.

3. Land designated as natural open space designated for preservation shall be protected from clearing, grading, and filling during the construction period. Soil, material, or equipment shall not be moved across or through

any area designated as natural open space, except for the purpose of placing underground utilities or construction of certain community facilities or improvements specifically approved by City Engineering staff.

B. Additional Regulations. Additional regulations concerning drainage and erosion control are contained in the City's Stormwater Drainage Ordinance (Chapter 16.20 MTMC), Shoreline Management Act Implementation Ordinance (Chapter 16.10 MTMC), Critical Areas Ordinance (Chapter 16.15 MTMC), Chapter 15.05 MTMC and approved Engineering Details and Specifications as amended. (Ord. 2792 § 15, 2021; Ord. 2074 § 9.2(K), 1995).

19.120.230 Home occupations.

A. Purpose. The purpose of this section is to prescribe the conditions and regulations under which home occupations may be conducted when accessory to a residential use. The conduct of business within a residential dwelling or accessory building may be permitted in residential and commercial districts under the provisions of this section as long as the home occupation is consistent with the existing character of the surrounding neighborhood as defined by the approval criteria. Using the approval criteria, it is the intent of this section to:

1. Maintain and preserve the character of residential neighborhoods;

2. Ensure the compatibility of home occupations with other uses permitted in the residential and commercial districts;

3. Promote the efficient use of public services and facilities while assuring that home occupation users do not reduce the City's public services and facilities level of service to intended residential users; and

4. Encourage flexibility in the workplace and creativity in careers by permitting home occupations.

B. General Restrictions and Approval Criteria. Only home occupations that have a valid home occupation permit or conditional use permit shall be allowed in a residential zone. Home occupations shall not be approved or allowed unless they meet the following criteria and conditions:

1. On-site operations of a home occupation must be conducted solely by the full-time resident(s) of the dwelling unit, except that one on-site nonresident employee is allowed.

2. Home occupations may utilize a maximum of 25 percent of the total square footage (up to 500 square feet) of all principal and accessory buildings on the property. Day care homes, as defined by this title, are exempt from meeting this requirement.

3. Home occupations shall not incorporate activity or equipment which creates visible or audible interference in radio or television receivers or causes fluctuations in line voltage outside the dwelling unit, nor shall any home occupation require the use of electrical service and/or consumption that exceeds typical standards for residential use.

4. Home occupations shall not create noise, vibration, dust, fumes, odor, smoke, glare, fire hazard, or any other hazard or nuisance not normally associated with residential uses. Home occupations shall not use or store any hazardous material not allowed in residential dwellings as specified in the current edition of the International Fire Code.

5. The establishment and conduct of a home occupation shall not change the appearance and character of any dwelling unit as a residential use.

6. The conduct of any home occupation shall not reduce or render unusable areas provided for required off-street parking including, but not limited to, storage of vehicles or equipment. The applicant shall demonstrate that adequate parking exists for persons employed on the premises.

7. There shall be no exterior signs and not more than one interior sign visible from the exterior. The visible interior sign shall not exceed two square feet in area nor be illuminated by artificial light.

8. The home occupation, by itself, shall not generate more than 16 vehicular trips per day, unless otherwise authorized by federal or state "reasonable accommodation" rules. As used here, a trip is considered either the

arrival or departure of a vehicle from the household. For example, one vehicle making a delivery and then leaving immediately would be considered two trips.

9. A business license shall be purchased from the City Clerk's office and be maintained through the purchase of an annual renewal. If the license is not renewed within 30 days of expiration, the home occupation approval shall become null and void and a new application shall be required to reestablish the use.

10. A home occupation shall involve no outdoor storage of materials or supplies, construction materials, unfinished goods, or other items.

11. No direct retail sales of any product shall be conducted from the structure or premises unless clearly incidental to any services rendered, except that sales of products produced on the premises and mail or phone order sales shall not be so limited.

12. Not more than one home occupation business-related vehicle that has a gross vehicle weight of 10,000 or more pounds is permitted on-site and any such vehicle shall be wholly enclosed within a structure or building.

13. With the exception of the vehicle(s) of the home occupation residents and one on-site nonresident employee, no parking or storage of any home occupation-related vehicles or vehicles of home occupation-related persons is permitted on-site for more than two hours in any eight-hour period.

14. A home occupation shall not increase water or sewer use so that the combined total use for the dwelling and home occupation is significantly more than the average for residences in the neighborhood.

15. A home occupation shall not require the use of electrical or mechanical equipment that would change the fire rating of the dwelling or accessory building.

16. A home occupation shall not make use of automated or production line equipment at the home occupation site. All stock in trade that is produced on-site for resale purposes must be made by hand.

C. Approval Process and Inspections.

1. No later than 10 days prior to rendering a decision for a home occupation that is subject to administrative review, a notice of intent to approve the administrative home occupation shall be posted on the subject site. Comments received will be considered in the preparation of a decision to approve or deny.

2. In granting approval for a home occupation, the administrator or decision body may attach additional conditions to ensure the home occupation will not be detrimental to the character of the residential neighborhood.

3. Any home occupation authorized under the provisions of this code shall be open to inspection (within 24 hours' notice) and review at all reasonable times by an authorized City official for purposes of verifying compliance with the approval criteria and other code provisions.

D. Home Occupations Subject to Administrative Approval. The following home occupations are subject to administrative review and approval, including any conditions, by the Planning Department. For occupations not included in this subsection, the applicant may seek a conditional use permit, as provided in subsection H of this section.

1. Arts and crafts (handmade only);

2. Barber shops;

3. Beauty shops;

4. Bookkeepers;

5. Cabinet, carpentry work;

6. Catering;

7. Ceramic shops;

8. Composer;

9. Computer consultants;

10. Contractors, limited to back-office and administrative duties;

11. Day care;

12. Dog or cat grooming;

13. Dressmaker, seamstress, tailor;

14. Insurance agent;

15. Janitorial services;

16. Landscaping;

17. Lawyers;

18. Massage therapy;

19. Medical services provided on premises;

20. Photographer (no production studio);

21. Physicians;

22. Preschool;

23. Professional services (engineer, planner, architect);

24. Psychologist;

25. Radio, TV, musical instrument and small appliance repair;

26. Real estate licensee;

27. Tax accountants;

28. Teacher;

29. Transcription services;

30. Typing/word processing services.

E. Any home occupation not shown under subsection D of this section may be approved only through a conditional use permit, consistent with conditional use permit requirements of Chapter 18.05 MTMC.

F. Prohibited Home Occupations. The following uses are not permitted as a home occupation:

1. Kennels;

2. Stables;

3. Manufacturing processes or the handling or storage of substances that may be potentially hazardous or noxious to the residents or surrounding neighborhood, unless the method and amount of such substances to be manufactured, handled, or stored is similar to that which occurs in an ordinary household;

4. Restaurants;

5. Vehicle body repair;

6. Vehicle motor repair and service;

7. Spray painting;

8. Microbrewers;

9. Repair of large appliances (refrigerators, stoves, etc., and other repair that would create noise, fumes, etc., such as lawn mower repair);

10. Veterinary clinic or hospital;

11. Machine and sheet metal shops;

12. Uses that may include hazardous chemicals, dispensing of medical drugs, or other items that may potentially be hazardous to the surrounding area.

G. Exceptions. The following activities, so long as they do not exceed three consecutive days in duration and do not operate for more than twelve days in any one calendar year, shall be exempt from the requirements of this section:

1. Garage and Yard Sales. To qualify for this exemption, all garage and yard sales must involve only the sale of household goods, none of which were purchased for the purpose of resale;

2. Temporary home boutiques or bazaars for handcrafted items;

3. Parties for the display of domestic products;

4. Other similar short-term uses or sales.

H. Conditional Use Permit Process. An applicant may seek approval of any home occupation that is not included in subsections D or F of this section through the conditional use permit process, pursuant to applicable provisions of MTMC Title 18.

I. Denial of Application. An application for a home occupation shall be denied if the administrator or decision body finds that the application fails to comply with the provisions of this section. A denial shall include a statement of the specific reasons for denial of a home occupation and shall cite the specific provisions and sections of this title on which the denial is based. Such decision is final unless appealed pursuant to MTMC Title 18, as amended.

J. Rescission of Permit. The home occupation must continue to meet the criteria and conditions of this section, including any additional conditions specified at the time of approval. A home occupation permit may be rescinded if the appropriate administrator or decision body finds that the home occupation is not being conducted in compliance with provisions of this section. Such decision is final unless appealed pursuant to MTMC Title 18.

K. Annual Review. An annual review of a home occupation may be done concurrently with the renewal of the business license. This review by the City shall include an assessment to ensure the home occupation is in compliance with the original approval criteria. If the review indicates that the home occupation is not being conducted according to the approval criteria, or the use has become detrimental to the residential neighborhood, the renewal of the business license shall be denied, or shall have conditional approval after the situation has been addressed and corrected. (Ord. 2410 § 1, 2005; Ord. 2233 § 2, 1999; Ord. 2074 § 9.2(L), 1995).

19.120.240 Mailbox standards for new residential areas.
The purpose of this section is to establish uniform provisions consistent with the U.S. Postal Service requirements for residential mailboxes in new developments (door delivery will no longer be extended to new areas). It is intended to set forth requirements for mailbox standards to create convenient mail delivery points in new residential areas which will promote and protect the physical appearance of the community, protect property values, and facilitate rapid mail service.

A. The developer must arrange with the local Postmaster an acceptable plan for providing mail service in new residential areas.

B. The developer, after coordinating with the local Postmaster, must submit this approved mail service plan to the City for review. All approved mail service plans must be in conformance with MTMC 19.95~~the City's approved Engineering Details and Specifications.~~ (Ord. 2792 § 16, 2021; Ord. 2074 § 9.2(M), 1995).

19.120.250 Nonconformances.
A. Purpose and Intent. This section sets forth the legal status of nonconforming uses, structures, and other site improvements and establishes when and under what circumstances nonconforming aspects of a use, structure, or development must be brought into conformance with the provisions of this title.

B. Nonconforming Status. A legal nonconforming status shall exist under the following four provisions of this title:

1. When a use, structure or site improvement was lawfully in existence and operating prior to the adoption of the ordinance codified in this title or subsequent amendment and, because of a change in the zoning regulations, no longer conforms to the regulations that applied in the district in which such use, structure or site improvement is located.

2. When on the effective date of the ordinance codified in this title the use, structure or site improvement was a legal nonconforming use, structure or site improvement thereunder, and which use, structure or site improvement still does not conform to the regulations of this title herein prescribed for the zoning district in which such use, structure or site improvement is located.

3. When a use, structure or site improvement, which does not conform to the regulations prescribed in the zoning district in which such use, structure or site improvement is located, was in existence at the time of annexation to the City of Mountlake Terrace and conformed to the Snohomish County regulations and has since been in regular and continuous use.

4. When a use lawfully existed or operated, and was legally permitted, prior to the adoption of the ordinance codified in this title, but which requires a conditional use permit under this title; unless and until that use is either terminated, abated, or is granted a conditional use permit. Any other nonconformance shall be treated as a violation and shall be subject to the enforcement provisions of this title.

C. Abandonment, Discontinuance, or Termination. A nonconforming use, structure, or building which has been abandoned, vacated, discontinued, or terminated for a continuous period of six months shall not be resumed, rebuilt or reoccupied except in conformance with the regulations of this title. The legal status of a nonconforming use, structure, or building that has been abandoned, discontinued or terminated for a period of six months shall expire and shall not be revived regardless of the owner's intent to abandon or not, except that the six-month period of abandonment, vacation, discontinuance or termination may be extended to a period not to exceed 12 months if the building is being actively repaired or renovated under an approved and active building permit, or is being actively marketed by a listing agent and has an active listing. A nonconforming building, structure or site improvement that has been demolished, disassembled, or otherwise removed, whether by intent or neglect, may not be reestablished except in the following situations:

1. The pavement of a nonconforming parking lot that has been in continuous active use for the past two years and that is associated with a permanent use of a site may be removed for repair or re-pavement purposes; provided, that it is repaved within 30 days of the removal of said pavement.

Commented [JM1]: It's not clear which subsection covers this. Can we include that?

Commented [LK2R1]: EDM 15.3 covers this, but I would rather not call out the specific section in case it changes later.

2. Structures or buildings that are damaged and that have not been otherwise abandoned or terminated for a period described in subsection C of this section may be restored pursuant to the provisions of subsection I of this section.

D. Additions – Enlargements.

1. A nonconformance related to the use of a property shall not be added to, enlarged, increased or extended in any manner to occupy a greater area of land or structure than was occupied on the effective date of the zoning code or amendment that made the use no longer permissible.

2. No nonconforming building, structure or site improvement shall be altered or changed in any way that increases its nonconformity.

E. Moving a Nonconformance. If a nonconforming structure or building is moved, it shall conform to the zoning district regulations in which it is to be located.

F. Change of Nonconformance. A nonconformance shall not be changed to another nonconformance. Any part of a building, structure, site improvement, or land area occupied by a nonconforming use may be changed to a use which is of the same or of a more restricted nature; but where the use of a nonconforming building, structure, site improvement, or land area is hereafter changed to a more restricted classification, it shall not thereunder be changed to a use of a less restricted classification.

G. Change of Tenancy or Ownership. There may be a change of tenancy, ownership, or management of an existing nonconforming use, structure or building, provided there is no change in the nature or character of such nonconforming use except to a conforming use.

H. Prior Nonconformance. Any nonconformance which under the prior Zoning Ordinance was nonconforming and was required to terminate by a certain date shall continue to be subject to the amortization provisions of the prior Zoning Ordinance.

I. Restoration of a Damaged Building.

1. If a nonconforming building that has not been otherwise abandoned or terminated under the provisions of subsection C of this section is damaged by sudden, accidental cause and the value of the damage repair does not exceed 50 percent of the assessed value of that building at the time of the damage according to the Snohomish County Assessor, the applicant may reconstruct that building. The reconstructed improvement may not be more nonconforming than it was immediately prior to the damage, and any improvements beyond restoration to the predamaged condition shall not exceed the allowances under subsection L of this section. A building permit to rebuild the nonconforming structure or building must be applied for within six months from the day of the damage event, or the nonconformance shall be considered to be terminated and shall not be resumed or rebuilt.

2. If the value of the damage repair exceeds 50 percent of the assessed value of the structure or building at the time the damage occurs, the structure, the building, the use conducted in the building, and other site improvements that are accessory to the damaged building must conform to this title.

J. Repair, Maintenance, and Safety of Nonconformance. Repair and maintenance work may be undertaken on a nonconforming building, structure or site improvement in accordance with the requirements of the International Building Code or standard maintenance practices. Maintenance includes painting, patchwork, replacement of isolated and individual boards, trim, and siding pieces, replacement of flooring, roofing, furnaces, water heaters and similar products that naturally wear out and require replacement over time; provided, that replacement products and materials are of similar kind and quality as original products and materials.

K. Demolition by Neglect. Lack of maintenance either by the owner or the owner’s agent that results in deterioration of structural members due to exposure to water or the elements, or that results in settling or sagging of roofs or foundations due to unchecked erosive or settling soils, and that subsequently requires replacement of more than isolated individual parts, components or material pieces, shall be considered demolition by neglect. Buildings,

structures and site improvements so neglected may not be restored under the repair and maintenance provisions of subsection J of this section and are subject to the provisions of subsection C of this section. Nothing shall prevent the City from requiring repairs on any nonconformance to protect the public health and safety.

L. Improvement of Nonconforming Structures or Buildings. Improvements to nonconforming structures or buildings, including but not limited to upgrades in interior fixtures, installation of more energy efficient components such as windows, furnaces, water heaters and built-in appliances, and upgrading of doors, siding or roofing materials, are permitted in accordance with the International Building Code; provided, that (1) the improvements do not include any structural alterations to the structure or building (other than adjustment of demising walls and partitions), (2) the value of such improvements do not exceed 10 percent of the assessed value of the structure or building at the time of the improvement, (3) the cumulative value of all improvements made since the structure or building became nonconforming does not exceed 25 percent of the value of the structure or building at the time of the latest proposed improvement, and (4) that the applicant agrees to an inspection of the nonconforming structure or building by City staff to evaluate and assess any previous improvements that may have been made to the structure or building. The City may require evidence of the cost or value of previous and/or proposed improvements prior to granting permits for proposed improvements.

M. Exempt Improvements. Certain improvements that are specific to tenant or business needs may be exempt from the improvement value limitations under subsection L of this section if they are (1) the personal property of the tenant, (2) designed for easy removal upon a tenant's vacation of the premises, and (3) are removed upon tenant vacation of the premises. Such improvements include mounted booths, tables, seating, display cases, specialty tools, equipment and appliances (excluding ducted hoods) and similar items that are not vented or hard-wired, do not require structural alteration to install other than common blocking behind wall board, and that do not penetrate walls, floors or ceilings for any purpose other than mounting bolts that can be easily removed, with the resultant holes easily repaired by common spackling and paint methods. Also exempt are improvements that bring the structure or building closer to conformance with fire codes including alarm systems, fire sprinkler systems, and installation of egress doors and windows, when such features do not already exist.

N. Nonconforming Lots of Record. Lots of record that do not conform to the dimensional requirements of this title may be used as otherwise permitted by this title if they conform to the provisions of MTMC 17.01.080.

O. Abatement of Nonconformance. Land uses, structures, site improvements or developments which do not conform to the regulations of this title can become nuisances, disrupt the orderly development of the City, and create unsafe, hazardous, and unhealthful conditions. The City of Mountlake Terrace declares that all nonconforming aspects of a structure, land use, site improvement or development shall be terminated as soon as it is reasonable, with consideration of the owner(s) and operator(s) of the nonconformances and the general welfare of the City. The specific process and procedure for abatement of violations of this title is outlined in Chapter 19.140 MTMC (Enforcement).

P. Other Nonconformances. For regulations pertaining specifically to nonconforming parking situations, see MTMC 19.125.030. For regulations pertaining specifically to nonconforming signs, see MTMC 19.135.050(E). (Ord. 2680 § 2, 2016; amended by City request, 1/11; Ord. 2485 § 1, 2008).

19.120.260 Outdoor storage.

A. Residential Zones.

1. All various and sundry items (i.e., recreational equipment, lawn/garden care materials, firewood, household goods) that are traditionally associated with the primary use of a single or multi-household zoned property shall be permitted to be stored out-of-doors and shall be adequately screened from view from the street and adjacent properties. This provision does not pertain to such objects as landscaping figurines, permanent recreational facilities, or permanent lighting fixtures. Outside storage of materials associated with a home occupation, which is an accessory use to the principal use of the property, shall be prohibited. Vehicle storage shall comply with the requirements of MTMC 19.125.070 and all related City codes and regulations.

2. Garbage Receptacles. It shall be unlawful to create junkyard conditions as defined in Chapter 19.15 MTMC by storing garbage not contained in an appropriate receptacle. All garbage dumpsters must be screened from view of the street and adjacent properties by a six-foot high sight-screening fence.

B. Commercial and Light Industrial/Office Park Uses. Outdoor uses and activities that are permitted in Commercial and Light Industry/Office Park zone districts shall be subject to the following requirements:

1. Specific Use and Development Requirements. The City will administratively review and either approve or deny any application for outdoor use, activity, and storage based on the following standards:

a. All outdoor use, activity, and storage areas except garbage receptacles must comply with required building setbacks for the primary use in accordance with the requirements of Chapters 19.20 through 19.105 MTMC.

b. The height of outdoor use, activity, or storage areas shall not exceed six feet above finished grade; provided, that if such outdoor area is surrounded on all sides by property zoned for industrial use and is screened from view from public streets, then the height may be increased to a maximum height equal to the primary structure.

c. The outdoor use, activity, or storage area shall not inhibit the safe vehicular and pedestrian movement to, from, and on the subject property in accordance with the requirements of the Zoning Code and standards of the Fire Department, Building Department, and the Public Works Department.

d. If located on an unimproved area of the site, the underlying ground must be improved as required by the Planning Department.

e. All open storage areas in LI/OP zoned properties shall be enclosed by a solid screen such as a wire and wooden slat fence or an attractive hedge or board fence at least six feet high.

f. In case of the open storage of lumber, coal, or other combustible material, a roadway shall be provided, graded, surfaced, and maintained from the street to the rear of the storage area to permit free access of fire trucks at any time.

g. All garbage dumpsters must be screened from view of the street and adjacent property, if said property is zoned other than LI/OP, by a minimum six-foot high sight-screening fence.

2. Modification. The applicant may request a modification of the requirements of subsection (B)(1) of this section by submitting a written request with their site plan to the Planning Department for review. The Planning Department may approve a modification if:

a. The modification will not create a greater impact on any nearby residential use than would be created without the modification; and

b. The modification will not detract from the character of nearby uses; and

c. The modification will not be injurious to public health, safety, or welfare; and

d. The modification complies with the Comprehensive Plan. (Amended by City request, 1/11; Ord. 2074 § 9.2(O), 1995).

19.120.270 Public right-of-way requirements, public property, and conservation easements.

A. This title hereby establishes the Transportation Element of the City's Comprehensive Plan as the official Roadway Functional Classification Map. Minimum standards for street right-of-way are established in the City's Transportation Code, Chapter 19.95 MTMC, and supplemented by other regulations, as applicable.

B. Public property and public rights-of-way shall not be used for camping, campfires, bonfires, or barbecues, except as allowed pursuant to MTMC 19.111.030(B) or pursuant to a special event permit, or in City parks pursuant to MTMC 12.10.010(J).

C. Within any area for which conservation easements have been established by the City, no camping or campfires are allowed. (Ord. 2627 § 2, 2013; amended by City request, 1/11; Ord. 2074 § 9.2(P), 1995).

19.120.280 Recycling services.

A. Recycling Collection Stations. Receptacles for the collection of paper, metal, and glass shall be permitted in any RM, BC, CG, LI/OP, F/T, SDD, REC or PFS zones. Recycling receptacles may be permitted in an RS zone subject to an approved conditional use permit.

B. Use Restrictions. Activities conducted in conjunction with recycling collection stations shall be limited to the collection, sorting, loading, and transport of materials and maintenance of the recycling area. No processing of materials shall occur at the collection site.

C. Approval Process. Prior to the placement or operation of any recycling collection stations on any property, a drawing of the proposed stations' receptacles and a site plan indicating the proposed location of the receptacles shall be submitted to the Planning Department for their review and approval. The Planning Department or their designee may impose whatever conditions he/she feels necessary for the proper location and operation of recycling collection stations. Conditions may pertain to on-site location, setbacks from surrounding properties, sight-screening, receptacle design, size, and construction materials, types of materials collected, hours and days of operation, maintenance, number of receptacles, and termination of operation. Where the Planning Department determines that the proposed recycling collection stations are not compatible with other land uses in the immediate vicinity or not in the public interest, the request may be denied.

D. General Standards. No recycling collection station may be located in any area used to satisfy requirements of Mountlake Terrace development codes, including but not limited to required driveway, parking stalls, or landscape areas without an approved variance from the Hearing Examiner processed in accordance with the regulations of Chapter 19.110 MTMC (Zoning Permits).

E. Specific Standards.

1. Site Area Requirements. Recycling collection stations shall be provided in conjunction with all multi-household residential, commercial, and industrial site plan approvals subsequent to the adoption of the ordinance codified in this title. The collection area shall be adequately sized to serve the needs of the site based on the projected number of occupants.

2. Receptacles. All receptacles shall be constructed to be water-tight, including a cover for the protection against rain. Receptacles shall be designed to discourage entry by animals and small children. Each receptacle shall be visibly labeled to identify the type of material collected, as well as the name, address, and telephone number, and the party responsible for the maintenance and operation of the receptacle.

3. Maintenance. All recycling collection stations and the grounds appurtenant thereto shall be maintained in a safe and sanitary condition. All materials to be recycled shall be kept inside the receptacles, with the surrounding premises kept free of debris.

F. Retroactive Requirements. All existing multi-household residential, commercial, industrial and public use (churches, schools, municipal) facilities shall provide recycling collection stations on-site and conform to the regulations of this section to the greatest extent practical and without significantly compromising full compliance with other applicable zoning regulations. (Ord. 2481 § 49, 2008; Ord. 2074 § 9.2(Q), 1995).

19.120.290 Sight areas – Intersections – Restrictions.

A. Purpose and Intent. The purpose of the following regulations is to ensure that adequate sight clearance is provided for motorists approaching intersecting streets and driveways from all directions of travel. Private driveways associated with single-household residences shall be specifically exempted from the following sight area triangle requirements.

B. Sight Area Triangle Measurements.

1. Street Intersections. Except as further described, sight area triangles shall be calculated consistent with intersection sight triangle procedures presented in the latest edition of "A Policy on Geometric Design of Highways and Streets" published by the American Association of State Highway Transportation Officials and be based on the appropriate stopping sight distance defined in this publication.

2. Street/Driveway Intersections. Where a private driveway serving more than eight dwelling units or any nonresidential driveway intersects with a street, roadway, or highway, the sight area triangle shall be measured as described in the City's Engineering Details and Specifications.

C. Restrictions on Obstructions. The following restrictions apply to all sight area triangles:

1. It shall be unlawful to set out or maintain any fence, sign, hedge, shrubbery, natural growth, or other obstruction to the view between three and one-half and eight feet above the elevation of the center of the roadways or roadways and driveways forming the sight area triangle.

2. Exceptions. The restriction of obstructions shall not extend to existing permanent structures, public utility poles, traffic signs, trees trimmed (to the trunk) at least eight feet above the elevation of the pavement edge, saplings or plant species of open growth habits and not planted in the form of a hedge which are so planted or trimmed as to leave, at all seasons, a clear and unobstructed cross-view; under signs mounted more than 10 feet above the ground and whose supports do not constitute an obstruction.

D. Special Cases. Where unusual conditions preclude the application of the foregoing provisions of this section in a reasonable manner, or where special viewing problems may exist, the City of Mountlake Terrace Traffic Engineer will determine an appropriate sight area triangle based on the intent of this section. (Ord. 2792 § 17, 2021; Ord. 2726 § 2, 2018; Ord. 2481 § 49, 2008; Ord. 2074 § 9.2(R), 1995).

19.120.300 Street lighting.
Street lighting shall be provided along public rights-of-way in conjunction with single-family subdivisions consisting of three or more lots, all multi-household residential, commercial, and industrial development approved subsequent to the adoption of the ordinance codified in this title in conformance with approved Engineering Details and Specifications. (Ord. 2792 § 18, 2021; Ord. 2074 § 9.2(S), 1995).

19.120.310 Low impact development.
In order to increase opportunity for LID implementation, flexibility may be provided by the Community and Economic Development Director or Public Works Director regarding locations of building footprints, walkways, easements, landscaping, or utilities. This incentive applies to the portion of the project site utilizing LID principles. The remainder of the project site must comply with the underlying zoning and stormwater development regulations. No changes that negatively impact International Fire Code standards as adopted in Chapter 15.10 MTMC will be permitted. (Ord. 2729 § 18, 2018).

Chapter 19.125

OFF-STREET PARKING AND LOADING*

Sections:
19.125.010 Intent and purpose.
19.125.020 Location.
19.125.030 Preexisting spaces.
19.125.040 General provisions.
19.125.050 Design standards for off-street parking facilities.
19.125.060 Shared use of parking facilities.
19.125.070 Parking and storage of vehicles in residential zones.
19.125.080 Loading spaces.
19.125.090 Barrier-free parking requirements.
19.125.100 Signage.
19.125.110 Maximum grades permitted.
19.125.120 Required off-street parking spaces.
19.125.130 Bicycle parking.
19.125.140 Electric vehicle parking.

*Prior legislation: Ord. 2697.

19.125.010 Intent and purpose.
The intent and purpose of off-street parking and loading requirements is to provide for well-designed, safe, and efficient off-street parking areas and encourage the use of transportation management systems to serve all land uses and thus help alleviate congestion on City streets. Every building hereafter erected, moved, reconstructed, or structurally altered shall provide off-street parking areas as provided in this chapter, and such parking areas shall be made permanently available and maintained for parking purposes. The City has the right to review access locations for public safety considerations. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2074 § 7.1, 1995).

19.125.020 Location.
Required off-street parking facilities shall be located as specified below. Where a distance is specified, such distance shall be the walking distance measured from the nearest point of the parking facility to the nearest point of the building that such facility is required to serve:

A. For dwelling units on the same lot as the building the parking will serve;

B. For multi-household developments containing three or more units: not more than 200 feet from the building the parking will serve;

C. For religious facilities, hospitals, bed and breakfast inns, rooming and boarding houses, and long-term care facilities: not more than 150 feet from the facility the parking will serve; and

D. For private recreational facilities in residential zones, parking shall be located on the same lot as the buildings or facilities it will serve. Parking on public streets shall not be counted toward parking requirements. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2875 § 2, 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2840 § 6, 2024; Ord. 2476 § 5, 2008).

19.125.030 Preexisting spaces.
For development in existence prior to the adoption of the ordinance codified in this title which does not have sufficient off-street parking on the basis of the requirements in this chapter, the following regulations shall apply:

A. When an existing use or building is enlarged by 25 percent or less of the total floor area of the use or building, including any outdoor sales area, and when such expansion results in the requirement for additional parking, the requirements of this chapter shall apply only to the enlargement. If the use is enlarged more than 25 percent of the

gross floor area including outdoor sales areas, the entire project shall comply in full with the parking requirements of this title;

B. When a preexisting use is terminated or changed, the area vacated shall not be occupied by a new use unless the number of required parking spaces are provided in full; and

C. When a preexisting building is remodeled or rehabilitated but not enlarged, the existing use of the building may continue without providing additional parking unless the proposed remodeling equals greater than 50 percent of the assessed value of the existing building, in which case the entire project shall comply in full with the parking requirements of this title. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2074 § 7.3, 1995).

19.125.040 General provisions.

A. Parking facilities shall be provided and maintained to accommodate motor vehicles and bicycles used by occupants, customers, clientele, and employees associated with the structure or use as required by this chapter. Parking may not be leased or otherwise made available to users not associated with the on-site use, residence or activity, except in the following circumstances:

1. The parking is being used by individuals that are patrons of a commercial or mixed-use district who park in one location as they shop or patronize multiple businesses in the vicinity (not to exceed four hours);

2. The parking spaces are not required spaces for the residential units on the premises. Required on-site parking spaces shall be provided for and made available to the tenants of residential units at all times.

B. When the unit of measurement determining the number of required parking spaces results in a fractional number of spaces, any fraction up to and including one-half shall be disregarded, and fractions over one-half shall require an additional parking space.

C. For facilities containing mixed uses, the off-street parking requirement shall be calculated pursuant to MTMC 19.125.060.

D. The property owner shall be responsible for maintaining parking areas in good condition including traffic control devices, signs, lighting, fences, walls, surfacing materials, curbs, and railings. Areas shall be free of refuse and debris. All landscaping shall be kept in a healthy condition and properly maintained and replaced when necessary.

E. No obstructions shall be permitted within any designated parking space and circulation areas. No parking space may block access to other parking spaces unless the parking lot is supervised by an attendant with access to the keys of all vehicles.

F. The City of Mountlake Terrace, or Washington State Department of Transportation, may limit the number, location, and width of curb cuts along a public right-of-way.

G. Parking Area Improvements to Be Installed Prior to Granting of a Certificate of Occupancy. A certificate of occupancy for a new building or for a change of occupancy in an existing building shall not be issued until all surfacing, parking lot landscaping, and traffic control devices and any other required parking lot improvements are installed and completed as shown on the approved plans or the necessary guarantees provided.

H. Transportation Demand Management (TDM) Parking Reduction. Residential dwellings are not eligible for TDM parking reduction. The total number of required parking spaces may be reduced up to 25 percent for commercial uses when (1) the development is within one-third mile of the Mountlake Terrace Transit Center located at 236th Street SW and I-5 or (2) as approved by the Director, when the applicant provides some or all of the following TDM programs: vanpools, fleet ride, subscription bus, regular transit subsidy, and parking management programs such as carpooling; provided, that the applicant demonstrates that the use of these programs is likely to correspondingly reduce the need for the minimum number of parking spaces otherwise required by this chapter. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2669 § 2, 2015; Ord. 2569 § 2, 2011; Ord. 2074 § 7.4, 1995).

Commented [GU1]: I believe we wanted to change this so TDM parking reductions are allowable for residential dwellings instead or or addition to commercial.

Commented [GU2R1]: We also talked about putting this in the EDM instead...

Commented [LK3R1]: @Rich Meredith @John Marek Can we talk about this 11/4?

19.125.050 Design standards for off-street parking facilities.

A. Parking Plans – General Requirements. Prior to the approval of a required land use permit and/or authorization, the applicant shall present evidence in writing that arrangements have been made to provide off-street parking

and/or loading space in accordance with this chapter. Parking area plans shall be submitted to the Planning Department for their review. The required parking lot landscaping is described in Chapter 19.130 MTMC. Record of approval by the Planning Department shall be written on the face of the plan and filed with the City. If an applicant is required to submit an application that requires a public hearing, then the approval authority for the conceptual parking plan will be with the appropriate entity.

B. Parking Plans – Specific Design Standards.

1. Parking Restrictions. Parking of vehicles shall be restricted to within designated stalls; other surfaced areas where parking is prohibited such as an emergency vehicle access area shall be marked in a manner to prohibit parking.

2. Common Driveways. Common driveways shall be encouraged for adjacent lots in order to minimize the number of curb cuts along the street. To create a common driveway, adjacent property owners shall grant easements to each other on the common driveway. Such easements shall be recorded with the Snohomish County Auditor's Office and a copy provided to the City in connection with any permit application. See MTMC 19.30.045(I) for shared driveway developmental bonus.

3. Street Access. Parking facilities shall be designed so exiting vehicles are not required to back into streets, other than an alley. This restriction does not apply for residential uses of less than four dwellings per lot on local streets or small-scale commercial development.

4. Entrances and Exits to Parking Areas. The City Engineer shall have the authority to fix the location, width, turning movements (right and left), and manner of approach of vehicular ingress or egress from a building or parking area to a public street and to alter existing ingress and egress as may be required to control street traffic in the interest of public safety and general welfare.

5. Internal Circulation. Internal circulation of the parking facility shall be so designed as to minimize in-and-out driving time, idling time, and time spent looking for a parking space and to accommodate a variety of vehicle sizes. Parking lots shall be designed to optimize pedestrian access to the lot and within the lot area. Safe pedestrian circulation shall be provided by use of signs, crosswalks, and walkways which are raised or otherwise designed to separate or protect pedestrians from vehicular traffic.

6. Drive-In Businesses. For any drive-in or drive-through service bay associated with a use such as a bank, gas station, or fast-food restaurant, there shall be provided stacking space for vehicles waiting for service which is sufficient to prevent any such vehicles from extending onto the public right-of-way. At least four stacking spaces shall be provided for each such service bay on the entrance side, and one space on the exit side. No bays designed to be entered from more than one direction shall be permitted.

7. Dimensional Requirements. The minimum dimensional requirements for parking stalls and aisle widths for standard, compact, and barrier-free parking are provided by the figures at the end of this section. The Director is authorized to develop, consistent with this chapter, any additional dimensional or similar standards that may be necessary for implementation of this chapter.

8. Modifications to Dimensional Requirements. Any parking stalls abutting a planter island, wall, column or other obstruction on the driver or passenger side of the vehicle shall provide an additional 12~~8~~ inches of stall width above the minimum stall width requirement to provide a place to step. The additional width shall be distinguished by pedestrian walkway pavement striping. The parking stall depth requirement may be reduced when vehicles overhang a walkway or landscaped area under the following conditions:

a. Wheel stops or curbs are installed;

b. The amount of stall depth reduction is limited to a maximum of two feet for standard parking spaces and compact spaces measured from the base of the face of the curb or wheel stop (see figures located at the end of this chapter); and

c. Any abutting walkway shall provide a minimum of three feet of unimpeded passageway for pedestrians and a minimum of four feet of unimpeded passageway where barrier-free access is provided beyond the overhang area.

9. All parking areas and paved surfaces within a site with more than six units shall be separated from landscaped areas by a curb or raised sidewalk in accordance with approved engineering requirements to protect landscape plant material, prevent soil or mulch in landscape areas from washing onto paved surfaces, protect asphalt pavement edges from crumbling, and/or direct surface water runoff, unless a curbless edge is essential for stormwater flow into a bioswale, rain garden or other LID stormwater feature. If a curbless design is needed, a concrete ribbon shall be provided along all parking spaces, and the landscaped area shall either be stabilized with ground cover plantings or be graded away from the pavement area to prevent soil and mulch washout onto pavement areas.

10. Compact Parking Stalls. Up to 50 percent of the required spaces may be designed and designated as compact stalls. Compact parking spaces shall be clearly identified by painting the word “COMPACT” in capital letters, a minimum of eight inches high, on the pavement at the base of the parking stall, centered between the striping.

11. Bicycles. Where provided, bicycle parking facilities shall be located near building entrances rather than in remote areas and shall not impede pedestrian or vehicle traffic flow or cause damage to landscaped areas.

12. Surface Treatment. All parking lots and driveways shall be surfaced in accordance with LID principles as prescribed in the ~~Stormwater Manual, MTMC 19.30.090(B), and~~ approved engineering requirements. Surface treatment requirements for parking lots and driveways planned for heavier vehicle use shall be determined by the City Engineer. No gravel-surfaced parking lots are permitted.

Commented [RM4]: Why delete these?

Commented [LK5R4]: I deleted these as a strict interpretation would say the applicant only had to follow the Stormwater Manual, and not any modifications to the Stormwater Manual in the EDM.

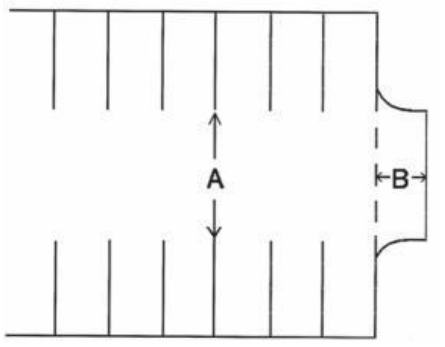
13. Traffic Control Devices. All traffic control devices, such as parking stripes designating car stalls, directional arrows, signs, curbs, and other improvements, shall be MUTCD compliant and installed as approved. Paint or similar devices shall be used to delineate car stalls and directional arrows. Where pedestrian walks are used in parking lots for the use of foot traffic only, they shall be curbed or raised six inches above the lot surface.

14. Striping. All striping in off-street parking areas shall be installed per the requirements of this chapter and maintained in good condition.

15. Lighting. Lighting shall be provided in accordance with approved engineering requirements as necessary for safety of circulation on the site. Any lighting provided shall be designed so as to prevent light from directly illuminating adjacent properties and not create a nuisance or safety hazard to passing traffic.

16. Landscaping and Irrigation. Parking areas shall include landscaping and irrigation improvements as required by Chapter 19.130 MTMC.

Figure 1



A	B
24' or less	6'
25'	5'
26'	4'
27'	3'
28'	2'
29'	1'
30' or more	0'

All parking stalls located at the end of a dead-end parking aisle must be provided with adequate backing and turnaround space. The required depth of the turnaround space shall be determined as follows:

WIDTH OF DRIVING AISLE	DEPTH OF TURNAROUND SPACE
24' or less	6'
25'	5'
26'	4'
27'	3'
28'	2'
29'	1'
30'	0'

Figure 2
ONE-WAY TRAFFIC – STANDARD SIZE STALL (8.5' X 18.5')

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
0°	8.5'	18.5'	27.0'	8.5'	18.5'	35.5'
30°	9.5'	18.5'	28.0'	9.5'	18.5'	37.5'
35°	10.0'	18.5'	28.5'	10.0'	18.5'	38.5'
40°	11.0'	18.5'	29.5'	11.0'	18.5'	40.5'
45°	12.0'	18.5'	30.5'	12.0'	18.5'	42.5'
50°	13.0'	18.5'	31.5'	13.0'	18.5'	44.5'
55°	14.0'	18.5'	32.5'	14.0'	18.5'	46.5'
60°	15.0'	18.5'	33.5'	15.0'	18.5'	48.5'
65°	16.0'	19.5'	35.5'	16.0'	19.5'	51.5'

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
70°	16.5'	20.0'	36.5'	16.5'	20.0'	53.0'
75°	17.0'	20.5'	37.5'	17.0'	20.5'	54.5'
80°	17.5'	21.0'	38.5'	17.5'	21.0'	56.0'
85°	18.0'	21.5'	39.5'	18.0'	21.5'	57.5'
90°	18.5'	22.0'	40.5'	18.5'	22.0'	59.0'

*The Fire Department may require a minimum driving aisle width of 20 feet for access of fire apparatus to the structure(s).

*For a double-loaded aisle containing standard size stalls on one side and compact size stalls on the other side, the required driving width (Column E) shall be the required width for standard size stalls.

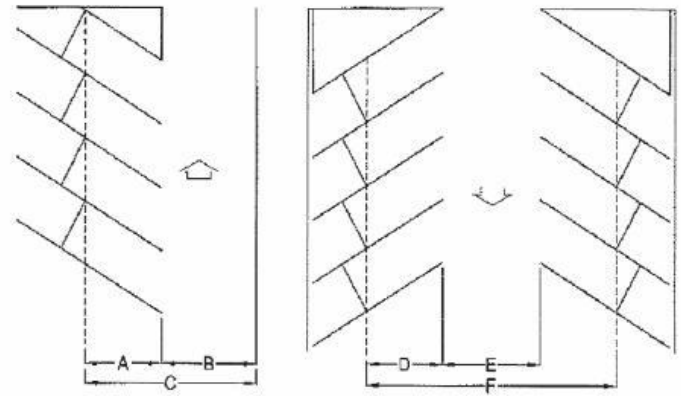


Figure 3

TWO-WAY TRAFFIC – STANDARD SIZE STALL (8.5' X 18.5')

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
0°	8.5'	24'	32.5'	8.5'	24'	41'
30°	9.5'	24'	33.5'	9.5'	24'	43'
35°	10.0'	24'	34.0'	10.0'	24'	44'
40°	11.0'	24'	35.0'	11.0'	24'	46'
45°	12.0'	24'	36.0'	12.0'	24'	48'
50°	13.0'	24'	37.0'	13.0'	24'	50'

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
55°	14.0'	24'	38.0'	14.0'	24'	52'
60°	15.0'	24'	39.0'	15.0'	24'	54'
65°	16.0'	24'	40.0'	16.0'	24'	56'
70°	16.5'	24'	40.5'	16.5'	24'	57'
75°	17.0'	24'	41.0'	17.0'	24'	58'
80°	17.5'	24'	41.5'	17.5'	24'	59'
85°	18.0'	24'	42.0'	18.0'	24'	60'
90°	18.5'	24'	42.5'	18.5'	24'	61'

*For a double-loaded aisle containing standard size stalls on one side and compact size stalls on the other side, the required driving width (Column E) shall be the required width for standard size stalls.

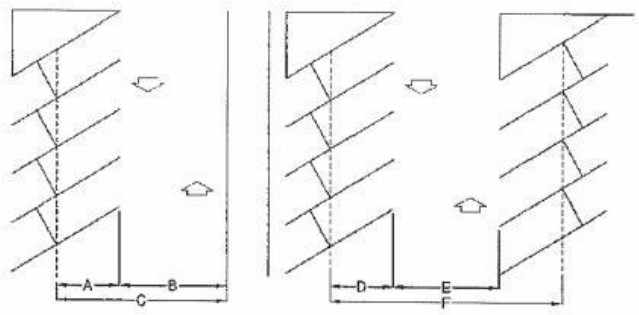


Figure 4

ONE-WAY TRAFFIC – COMPACT STALL (8' X 16')

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
0°	8'	17'	25'	8'	17'	33'
30°	8'	17'	25'	8'	17'	33'
35°	9'	17'	26'	9'	17'	35'
40°	10'	17'	27'	10'	17'	37'
45°	11'	17'	28'	11'	17'	39'
50°	12'	17'	29'	12'	17'	41'
55°	13'	17'	30'	13'	17'	43'

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
60°	13'	17'	30'	13'	17'	43'
65°	14'	17'	31'	14'	17'	45'
70°	15'	17'	32'	15'	17'	47'
75°	15'	17'	32'	15'	17'	47'
80°	16'	18'	34'	16'	18'	50'
85°	16'	18'	34'	16'	18'	50'
90°	16'	18'	34'	16'	18'	50'

*The Fire Department may require a minimum driving aisle width of 20 feet for access of fire apparatus to the structure(s).

*For a double-loaded aisle containing standard size stalls on one side and compact size stalls on the other side, the required driving width (Column E) shall be the required width for standard size stalls.

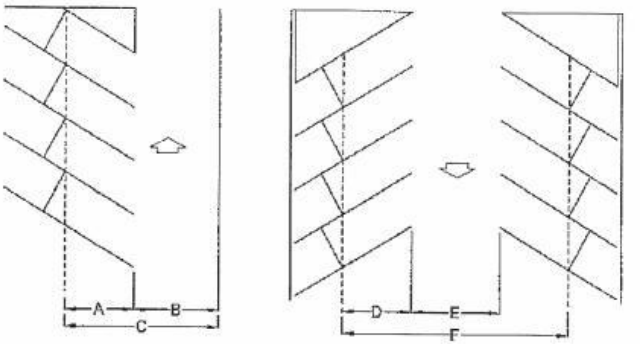


Figure 5

TWO-WAY TRAFFIC – COMPACT STALL (8' X 16')

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
0°	8'	20'	28'	8'	20'	36'
30°	8'	20'	28'	8'	20'	36'
35°	9'	20'	29'	9'	20'	38'
40°	10'	20'	30'	10'	20'	40'
45°	11'	20'	31'	11'	20'	42'
50°	12'	20'	32'	12'	20'	44'

Parking Angle	Single-Loaded Aisle			Double-Loaded Aisle		
	A	B	C	D	*E	F
55°	13'	20'	33'	13'	20'	46'
60°	13'	20'	33'	13'	20'	46'
65°	14'	20'	34'	14'	20'	48'
70°	15'	20'	35'	15'	20'	50'
75°	15'	20'	35'	15'	20'	50'
80°	16'	20'	36'	16'	20'	52'
85°	16'	20'	36'	16'	20'	52'
90°	16'	20'	36'	16'	20'	52'

*For a double-loaded aisle containing standard size stalls on one side and compact size stalls on the other side, the required driving width (Column E) shall be the required width for standard size stalls.

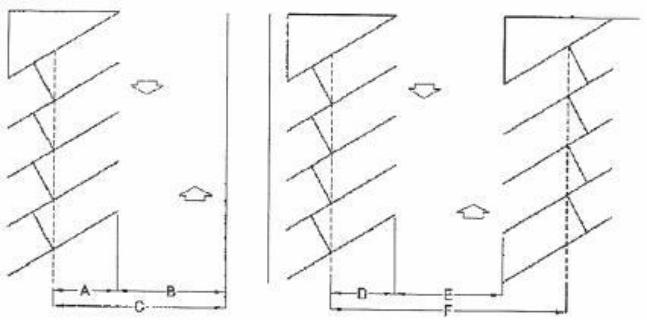
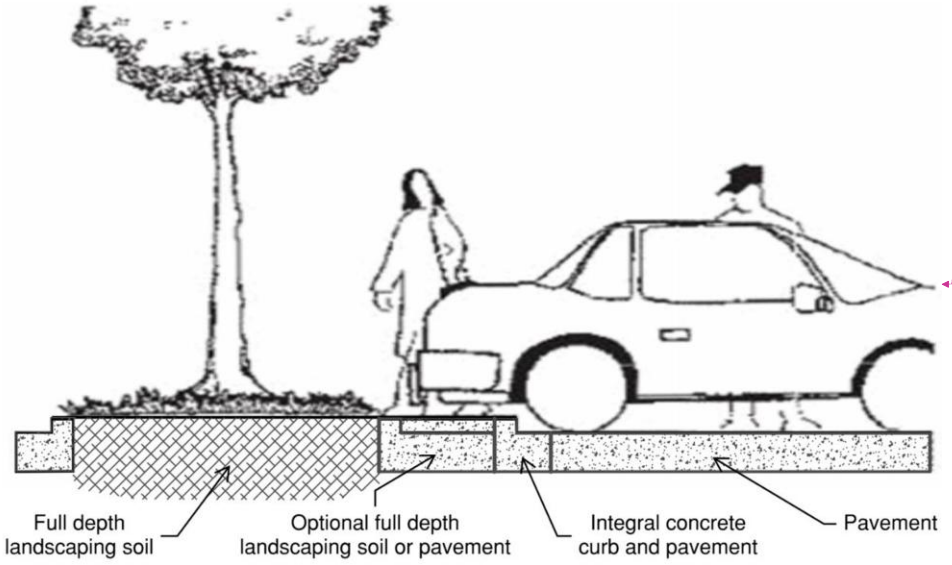


Figure 6



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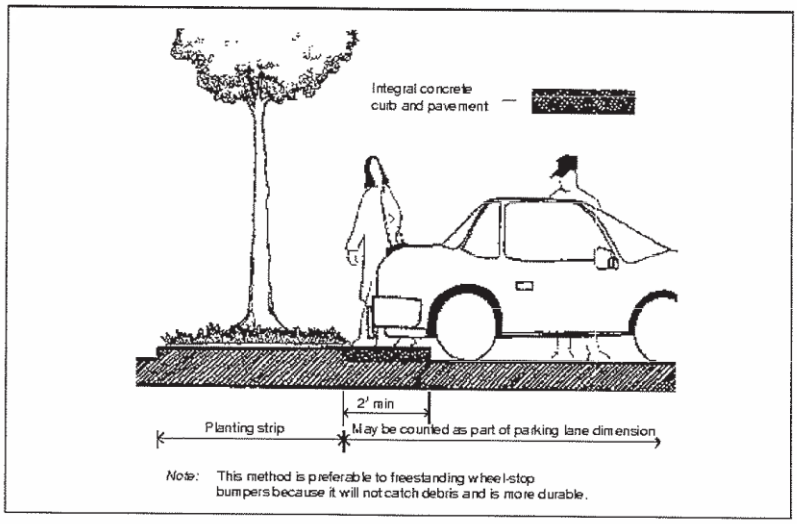
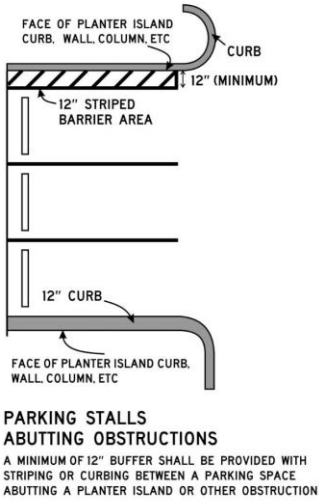
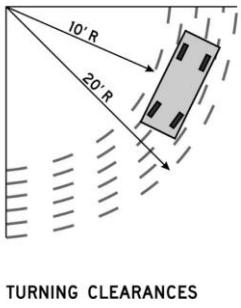


Figure 7





The above illustrations apply to standard, compact, and barrier-free parking stalls and parking lots.

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Figure 8

Vehicle Parking Dimensions Table		
Outdoor Parking Spaces	**Minimum Dimensions**	
Single parking space	8.5' wide × 18.5' deep[1]	
Double parking space	17' wide × 18.5' deep[1]	
Garage Parking Spaces	**With Bicycle Storage Space**	**Without Bicycle Storage Space[2]**
Single parking space	11' wide × 19' deep[3] or 10' wide × 20' deep[3]	10' wide × 18.5' deep[3]
Double parking spaces	19' wide × 19' deep[4] or 17' wide × 20' deep[4]	17' wide × 18.5' deep[4]
Tandem parking spaces	11' wide × 36' deep[3] or 10' wide × 37' deep[3]	10' wide × 36' deep[3]

[1]Applies to either standard or compact spaces. When a parking space is located next to a building with a projection or overhang, the parking surface must be separated by least three feet horizontally from that building wall by a curb or other approved barrier. The aforesaid requirement does not apply in front of a vehicular garage door, and does not apply when the projection of overhang provides at least eight feet of clearance above the grade of the parking surface.

[2]Alternative provisions for bicycle storage must be demonstrated per MTMC 19.125.130 to apply these dimensions.

[3]This space must be clear of obstructions such as, but not limited to, water heaters or mechanical equipment.

[4]This space must be clear of obstructions such as, but not limited to, water heaters or mechanical equipment; provided, that such obstructions may extend up to 36 inches maximum into one of the parking spaces.

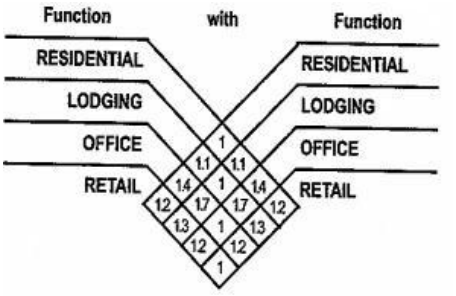
(Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2792 § 19, 2021; Ord. 2729 § 19, 2018; Ord. 2698 § 3, 2016; Ord. 2486 § 4, 2008).

19.125.060 Shared use of parking facilities.

A. For shared parking facilities, parking requirements specified in MTMC 19.125.120 may be met by adding the number of all such required spaces for each separate function and dividing the total by the appropriate factor from the shared factor matrix in subsection B of this section; provided, that the Director at his sole discretion may determine that any proposed shared parking use has special characteristics that need to be taken into account and, in such cases, shall require a parking study to be submitted for review and shall make a determination whether the shared factor matrix or other information shall be used to determine the amount of required off-street parking spaces for shared or joint use. In so doing, the Director may require more parking spaces than would otherwise be required through use of the shared factor matrix. The Director shall determine which functions, if any, from said matrix are most appropriate to the proposed development or use, taking into account any site-specific factors.

B. The shared factor matrix below provides for shared off-street parking based on function, in conjunction with other requirements of this chapter.

Shared Factor Matrix



C. The following conditions shall apply to shared vehicle parking provided to meet the minimum number of off-street parking spaces required pursuant to subsection B of this section, the shared parking provisions:

1. The building or use shall be located on the same lot as the off-street parking, except as provided pursuant to subsection (C)(2) of this section.

2. Required parking facilities for any building or use shall be allowed on a separate lot subject to all of the following conditions:

a. The building or use must be within an 800-foot radius of the parking facilities, but not across an arterial road unless within one block of a signalized intersection.

b. The applicant shall present to the Department for recording with the County Auditor or successor agency a properly drawn legal instrument, consistent with the requirements of this chapter, conveying an easement that is forfeitable only upon approval by the Director and that runs with the land to provide for a certain number of parking spaces that shall be available for parking by the applicant or his successors on the site containing the easement. The document must show the location of any alternative site and the number and location of parking spaces being provided on the alternative site, excluding any spaces that are otherwise required for another use pursuant to the provisions of this chapter. The document is subject to review and approval by the City Engineer. The cost of the City's review and recording of said document shall be paid by the applicant.

c. If for any reason the parking being provided on the alternative site becomes unavailable, the property owner of the site for which the parking is not available shall provide additional parking elsewhere, consistent with the requirements of this chapter.

3. Parking spaces shared in common among more than one business or organization on any site shall not be designated for exclusive use by any individual business or organization, except as one of the following conditions applies: (a) the parking facilities were legally established for multiple owners or tenants prior to April 30, 2008, in association with the use of a building built prior to April 30, 2008; (b) the number of parking spaces provided on the site has not been reduced from any number that would otherwise be required, pursuant to MTMC 19.125.120, for each individual business or use on the site; or (c) joint parking facilities are provided pursuant to subsection (C)(2)(a) of this section.

4. In mixed-use development, at least one parking space per dwelling unit must be designated exclusively for residential use and shall not count in the calculation of shared parking spaces pursuant to subsection B of this section. A deviation may be allowed for a structure that contains park and ride facilities, if a parking study demonstrates the adequacy of an alternative ratio acceptable to the City's Traffic Engineer or designee.

5. Religious facilities that operate primarily on a Saturday or Sunday may share their parking facilities with other uses that operate primarily on weekdays or a weekend time that is separate from the religious facility's use by at least one hour; provided, that the facility has an adequate amount of parking for its own regular use, including the required spaces for any school or other regular operations of the religious facility. Sharing of

parking spaces for such uses is subject to review and approval by the department to ensure an adequate amount of off-street parking is provided pursuant to MTMC 19.125.120.

6. For governmental facilities that include two or more uses with parking needs separated by at least one hour from each other, such as a public assembly area that is primarily used on evenings or weekends and an office area that is primarily used on weekdays, the required parking spaces for the public assembly area and the office area may be entirely shared. Sharing of parking spaces for such uses is subject to review and approval by the Department to ensure an adequate amount of off-street parking is provided pursuant to MTMC 19.125.120.

7. During construction work on a site, parking for the affected use may be shared temporarily at a ratio that is less than would otherwise be required for a period not to exceed one month, unless a temporary use permit has been granted. If shared parking to accommodate construction is needed for a period longer than one month, an applicant shall apply to the Department for a temporary use permit. This requirement does not apply to any temporary parking facilities approved by the Department prior to April 30, 2008. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2476 § 5, 2008).

19.125.070 Parking and storage of vehicles in residential zones.

A. In a residential zone, any number of recreational or utility vehicles may be parked within a building that has been legally permitted and built to provide vehicle storage. Recreational or utility vehicles outside of a building in a residential zone shall be parked in compliance with all applicable codes and regulations, including the following:

1. A maximum of two recreational or utility vehicles are allowed to be located on a residential lot;

2. Recreational or utility vehicles shall be parked on an improved surface, except: (a) where an existing maintained surface was constructed prior to July 1, 2006, the recreational or utility vehicle may park on the existing maintained surface; or (b) where a recreational or utility vehicle is legally parked in a rear or side yard, it may be on either an improved surface as defined in this section or an unimproved surface as defined in MTMC 8.15.030;

3. Recreational or utility vehicles shall not intrude into the public right-of-way or public property or obstruct sight visibility from adjacent driveways, in accordance with MTMC 19.120.290 as now or hereafter amended;

4. A recreational or utility vehicle shall not be occupied by any person or persons unless said vehicle is entirely located on a lot that contains a single-family detached house and the lawful occupant of the house has given permission for the person or persons to occupy the recreational or utility trailer; provided, that such occupancy does not create a public health hazard or nuisance and this occupancy shall not exceed two weeks within any six-month period.

B. Commercial vehicles shall not be parked on public or private property in residential zones unless actively engaged in loading or unloading, except that a variance for the parking of a commercial vehicle may be granted based on hardship and other conditions pursuant to MTMC 19.110.210.

C. Off-street vehicle parking in residential zones is subject to the following standards:

1. A minimum of one off-street parking spaces on an improved surface is required to be provided per each dwelling unit. The area included in a garage may satisfy the requirement for providing one of the required off-street parking spaces. If there is no garage to store vehicles, a minimum area of 154 square feet of improved surface shall satisfy this requirement. The requirement for an improved surface shall be enforced in conjunction with property improvements and nonconformance requirements under MTMC 19.120.250.

2. Any parking space or driveway that adjoins a public street right-of-way must be designed in a manner that accommodates a 20-foot-long vehicle without the vehicle protruding into the public right-of-way. In no case shall a vehicle be parked in such a manner as to obstruct a sidewalk or other public right-of-way.

3. No more than 50 percent of the front yard shall consist of an improved surface to be used for the parking or driving of vehicles. An exception shall be made in cases where because of the lot's configuration, for instance in a cul-de-sac development, the front yard does not have adequate area to simultaneously comply with the

minimum parking requirement prescribed under subsection (D)(1) of this section and the 50 percent limit described above. In such cases, the 50 percent limit may be exceeded subject to the department's issuance of a driveway permit that specifically allows the additional improved surface or maintained surface within the front yard.

4. Auxiliary parking spaces and auxiliary driveways must consist of an improved surface, except that any auxiliary parking or auxiliary driveway installed prior to July 1, 2006, may continue to consist of a maintained surface until such time as a new building or a building addition is constructed or permitted for construction on the same lot.

5. No more than two vehicles may be parked in the rear yard of a residence unless contained in a legal and fully enclosed structure.

6. When located behind the front building line, all parked or stored vehicles shall provide at least three feet of clear, unobstructed access between the building wall and the vehicle for fire protection purposes. This requirement is not applicable to vehicles parked within a garage.

7. Installation of an improved surface is subject to a City permit and inspection.

~~8. Driveway frontage a maximum of 16 feet of driveway width per 60 linear feet of lot street frontage.~~

D. A driveway that provides direct vehicular access from a street or other improved public right-of-way to a parking space on any given lot shall consist entirely of an improved surface, for a distance of at least 50 feet from such street or improved public right-of-way. The requirement for an improved surface shall be enforced in conjunction with property improvements and pursuant to nonconformance requirements under MTMC 19.120.250. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2792 § 20, 2021; amended by City request, 1/11; Ord. 2451 § 1, 2007).

19.125.080 Loading spaces.

A. The City Engineer may require an applicant to provide an off-street loading space having access to a public thoroughfare. Such loading space shall be of adequate size to accommodate the maximum number and size of vehicles which would be simultaneously loaded or unloaded in connection with the business conducted in such building. No part of a truck or van using the loading space may back up out of or project into the public thoroughfare.

1. For residential uses ranging in size from 50 to 199 dwelling units, at least one off-street loading space that can accommodate an SU-30 design vehicle is required.

2. For residential uses ranging in size from 200 to 399 dwelling units, at least two off-street loading spaces that can accommodate an SU-30 design vehicle are required.

3. For residential uses with greater than 400 dwelling units, at least three off-street loading spaces that can accommodate an SU-30 design vehicle are required.

B. Specific Requirements. Each off-street loading space shall measure not less than 30 feet by 12 feet and shall have an unobstructed height of 14 feet, six inches and shall be made permanently available for such purposes, and shall be surfaced, improved and maintained in conformance with approved engineering requirements. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2792 § 21, 2021; Ord. 2074 § 7.8, 1995).

19.125.090 Barrier-free parking requirements.

All applicants shall provide parking and access for physically handicapped persons in accordance with Chapter 51-50 WAC, as amended, relating to barrier-free facilities and all other applicable local, state, and federal requirements. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2074 § 7.9, 1995).

19.125.100 Signage.

Directional signs and pavement markings shall be used to control vehicular movement in a parking area. Directional signs shall conform with the MUTCD and be provided in accordance with the requirements in Chapter 19.135 MTMC (Sign Regulations). (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2074 § 7.10, 1995).

19.125.110 Maximum grades permitted.

~~A. Wherever access is from a street, alley, or driveway to an off-street parking area serving any use except residential uses of four or fewer dwelling units, the driveway or other vehicular access way shall have a maximum grade of not more than 12 percent, measured from the street, alley, or driveway grade at centerline, for a distance of not less than 18 feet from the right-of-way line. Exceptions to this requirement may be granted upon approval by the City Engineer.~~

AB. Off-street parking spaces required for all development, except single-household residences, shall have a maximum cross-slope grade of six percent. Said grade shall be measured across the width of the parking space. Exceptions to this requirement may be granted upon approval by the City Engineer. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2074 § 7.11, 1995).

19.125.120 Required off-street parking spaces.

A. Except within the BC/D district or as otherwise provided by this chapter, each development must provide a minimum number of off-street parking spaces in proportion to specific types of functions based on the following table. The Director has the sole discretion to determine which function applies to any development. In this section, "GFA" is an abbreviation for gross floor area of the building or portion of building that will be used for a function. Calculation of the minimum number of parking spaces shall not include stacking lanes or loading dock spaces.

Function	Minimum Number of Parking Spaces
Auto-related services:	5 spaces for each 1,000 square feet of GFA
Offices and medical clinics:	3 spaces for each 1,000 square feet of GFA
Retail (excluding eating/drinking uses):	3.5 spaces for each 1,000 square feet of GFA
Eating/drinking establishments:	5 spaces for each 1,000 square feet of GFA or 6 spaces for each 1,000 square feet of GFA for any facility with more than 1,000 square feet of GFA
Lodging (hotel, motel, inn):	1 space for each unit/suite
Dwelling unit, multi-household:	1 space per dwelling
Single-unit dwellings and duplexes:	1 space per dwelling
Accessory dwelling units:	0
Public assembly areas:	1 space for each 4 seats
Light manufacturing:	2 spaces for each 1,000 square feet of GFA

Exceptions to the table in this subsection include the following:

1. For any use that does not clearly match with a more general function listed in said table or for any specific use that has special characteristics that may require a different amount of parking than would typically be needed by the more general function, as either is determined by the Director, a parking study shall be required; provided, that, as an alternative, the Director may require the development to provide a certain amount of parking spaces for the specific function or use based on nationally accepted standards.

2. For purposes of this section, eating/drinking establishments that include other uses, such as gaming or recreation, that are more than incidental, shall have 12 parking spaces per 1,000 square feet of GFA, unless the Director approves a different number based on the findings of a submitted parking study.

3. For public assembly areas, the Director may impose a requirement of one parking space for each 50 square feet of GFA, instead of one space for each four seats, or may determine an alternative parking requirement, based on findings of a submitted parking study or nationally accepted standards.

4. For office, medical, retail, restaurant, light manufacturing, or similar uses, the applicant may submit a parking study to demonstrate a parking demand that varies from the minimum number of spaces otherwise

required by this chapter. Pursuant to subsection (B)(1) of this section, the Director may approve a different number of parking spaces than otherwise required, based on the findings of the submitted parking study.

5. For public parks, no specific minimum number of off-street parking spaces is required.

6. For transportation facilities and parking garages, no minimum number of off-street parking spaces is required.

7. Stacking lanes shall be required in addition to the minimum number of parking spaces for all drive-in or drive-through facilities.

8. No off-street parking shall be required for middle housing units in residential districts within one-half mile walking distance of the Mountlake Terrace Transit Center located at 236th Street SW.

9. No off-street parking shall be required for middle housing units in the residential district that are deemed affordable pursuant to Chapter 3.96 MTMC.



Figure 9: Middle housing parking radius is only applicable to residential districts

B. The following conditions shall apply to review and enforcement of the number of parking spaces required pursuant to this chapter:

1. When a parking study is submitted by an applicant pursuant to the provisions of this chapter, the study shall be reviewed by the City's Traffic Engineer or designee, who shall do one of the following: (a) accept the findings of the study; (b) require a new parking study by a qualified professional acceptable to both the applicant and the City's Traffic Engineer; or (c) take other appropriate action. The costs of any parking study and the City's review time for the study shall be paid by the applicant.

2. Approval of business licenses and certificates of occupancy is subject to verification that the required parking spaces are provided consistent with this chapter or that the Director determines the use will not otherwise create actual parking deficiencies, taking into account all uses on the site. Noncompliance with applicable provisions of this chapter is cause for denial or revocation of the business license or certificate of occupancy.

C. Exceptions for Housing for Senior Citizens.

1. The requirement of one space per dwelling unit that would normally apply to housing for senior citizens because it is considered an "apartment/multi-household" use, according to subsection A of this section, may be

reduced to no less than one space for every three dwelling units as determined by the Planning Commission. The Commission shall base their decision on the following:

a. Availability of private, convenient, regular transportation services to meet the needs of the occupant;

b. Accessibility to and frequency of public transportation;

c. Pedestrian access to health, medical, and shopping facilities; and

d. Age and mobility of the resident.

2. In the event that a facility providing housing for senior citizens is no longer used for such purposes, then additional parking spaces and landscaping may be required depending on the planned new use(s), per the requirements in this title. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2476 § 5, 2008; Ord. 2460 §§ 2, 3, 2007; Ord. 2105, 1996; Ord. 2074 § 7.12, 1995)

19.125.130 Bicycle parking.

A. Purpose. The purpose of this section is to ensure that bicycle parking and storage facilities are safe, convenient, and provided in adequate quantity to meet the needs of residents, employees, and visitors.

B. Applicability. This section applies to all new developments, changes in use, or expansions that are subject to the off-street parking requirements of this chapter.

C. Minimum Required Bicycle Parking. The minimum requirements are based upon gross floor area of the use in a structure, or the square footage of the use when located outside of an enclosed structure, or as otherwise specified. Bicycle parking shall be provided, except as otherwise exempted by this subsection:

1. For household dwellings units, bicycle parking facilities are not required, on sites less than 1,000 square feet.

2. For development legally established prior to April 30, 2008, bicycle parking facilities are not required, except that if an existing building is expanded after said date by at least 500 square feet, bicycle parking requirements shall apply.

3. For development of any new building greater than 500 square feet on a site, bicycle parking facilities must be provided.

D. Residential Bicycle Parking.

1. Single-Unit Dwellings and Duplexes:

a. One bicycle (storage) for units that are less than 1,000 square feet. Two secured storages for units 1,000 square feet or more.

b. The storage may be provided in a garage that is sized to include bicycle storage per the Vehicular Parking Dimensions Table in MTMC 19.125.050. Otherwise, each unit must have access to designated bicycle storage that is at least three by six feet with a vertical clearance of 48 inches; provided, that for sloping height storage spaces, such as under a stairwell, the vertical clearance must be a minimum of 32 inches where the width of the storage space under the stairwell (or similar) begins and is least six feet in width assuming the sloping roof continues at least at the same gradient a staircase typically gains elevation or equivalent clearance.

c. Bicycle storage may be in a shared facility; provided, that the storage of each bike unit is at least three feet by six feet with a vertical clearance of 48 inches and is accessible to the unit it serves, which may require a three-foot-wide access aisle between the bicycle storage area provided for each unit.

d. Bicycle storage shall not be allowed on a deck or balcony.

2. Dwelling Unit, Multi-Household (e.g., Apartments, Condominiums, Courtyard Housing, and Stacked Flats, Triplexes Through Sixplexes):

a. Bicycle parking shall be provided at the following minimum rates:

i. One-half spaces per studio.

ii. One space per one-bedroom unit.

iii. Two spaces per two-bedroom or larger unit.

b. ~~Bicycle storage may be in a shared facility; provided, that the bicycle storage in each unit is at least three feet by six feet with a vertical clearance of 48 inches and is accessible to the unit it serves, which may require a three-foot-wide access aisle between the bicycle storage area provided for each unit.~~ Bicycle storage spaces shall consist of storage racks, lockers, or other secure space as approved by the Department to provide sheltered, safe, and convenient bicycle storage for building residents. Such space may be in a vehicle parking garage or another appropriate location.

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c. Bicycle storage shall not be allowed on a deck or balcony.

E. Commercial and Institutional Bicycle Parking.

1. Applicability. This subsection applies to all nonresidential development including but not limited to offices, retail, restaurants, civic, educational, and public facilities.

2. Minimum Requirements. Off-street parking areas shall contain at least one bicycle parking space for every 12 spaces required for motor vehicles. The following standards apply:

a. All bicycle parking facilities shall be securely anchored to the ground or to a structure.

b. Bicycle facilities for patrons shall be located to the extent possible within 100 feet of a building entrance and shall be designed to allow either a bicycle frame or wheels to be locked to a structure attached to the pavement.

c. All bicycle parking and storage shall be located in secure locations that do not impede pedestrian or vehicle traffic flow, and shall be well lit for nighttime use. Except as required otherwise, the facilities may be located on private property or within the planting area of a public right-of-way.

d. The installation of bicycle parking facilities is subject to approval through the City's permitting process.

3. Bicycle storage spaces shall consist of storage racks, lockers, or other secure space as approved by the Department to provide sheltered, safe, and convenient bicycle storage for building residents. Such space may be in a vehicle parking garage or another appropriate location.

F. Mixed-Use Development. Bicycle parking for mixed-use developments shall comply with both residential and commercial standards based on the proportion of floor area or number of dwelling units assigned to each use. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2476 § 5, 2008).

19.125.140 Electric vehicle parking.
Electric vehicle parking shall be provided in accordance with Chapter 19.126 MTMC. (Ord. 2887 § 2 (Exh. A), 2025; Ord. 2864 § 1 (Exh. A), 2024; Ord. 2553 § 1, 2010).

Chapter 12.05

SIDEWALKS – REPAIR AND MAINTENANCE RESPONSIBILITY

Sections:
12.05.010 Definitions.
12.05.020 Purpose.
12.05.030 Standards for construction.
12.05.040 Standards for maintenance.
12.05.050 Liability and duty to reconstruct or repair.

12.05.010 Definitions.

A. "Abutting property" means all property having frontage on any portion of a street right-of-way.

B. "Sidewalk" is defined in MTMC 19.95.~~means an improved surface specifically constructed for use by pedestrians.~~

C. "Sidewalk area" means any and all structures or form of improvement in the space between the paved portion and the outer edge of the public right-of-way including but not limited to the sidewalk, curb,~~ gutter,~~ access approach~~driveway~~ and amenity zone~~parking strip~~.

D. "Street" is defined in MTMC 19.95.~~means a public thoroughfare which provides the principal means of access to abutting properties.~~ (Ord. 1871 § 1, 1990).

E. "Amenity Zone" is defined in MTMC 19.95.

12.05.020 Purpose.

The purpose of this chapter is to establish a comprehensive City-wide policy towards sidewalk maintenance and repair that addresses standards for construction, responsibilities of abutting property owners, and a process by which sidewalks are to be repaired or replaced. (Ord. 1871 § 2, 1990).

12.05.030 Standards for construction.

All sidewalk area improvements constructed, repaired or replaced shall conform to MTMC 19.95.~~approved City Engineering Details and Specifications.~~ (Ord. 2792 § 4, 2021; Ord. 1871 § 3, 1990).

12.05.040 Standards for maintenance.

All sidewalks shall be maintained by abutting property owners in the following manner:

A. All motorized vehicles shall be prohibited from parking on top of the curb, amenity zone~~parking strip~~, or any portion of the sidewalk area.

B. Trees and shrubs shall not be planted in the public right-of-way or on private property of such a variety or in such a manner that would result in damage to the sidewalk area.

C. The full width of the sidewalk along the entire length of any abutting property shall remain clear of any obstacles or obstructions to allow safe and easy passage of pedestrians.

D. Plant material such as grass shall be removed from cracks that may develop at the sidewalk surface. (Ord. 1871 § 4, 1990).

12.05.050 Liability and duty to reconstruct or repair.

A. Whenever a sidewalk or portion thereof is in need of repair as a direct result of neglect on the part of the abutting property owner to fulfill his or her maintenance obligations, as defined by MTMC 12.05.040, the abutting property owner shall bear the burden and expense of the prompt reconstruction or repair of such sidewalk.

B. Whenever a sidewalk is need of repair due to causes that are not a direct result of neglect on the part of an abutting property owner to fulfill his or her maintenance obligations, the City shall be responsible for repairs or reconstruction. (Ord. 1871 § 5, 1990).

Chapter 13.05

UTILITY RATES

Sections:
13.05.010 Purpose.
13.05.020 Definitions.
13.05.030 Utility confirmed.
13.05.040 Utilities funds established and maintained.
13.05.050 Transfer of property to respective utility funds.
13.05.060 Authority – Construction.
13.05.070 Applications – Water, sanitary sewer and stormwater service.
13.05.080 Water meters.
13.05.090 Water service to City residents solely unless approved.
13.05.100 Water service connection/installation – General.
13.05.110 Water service capital improvement and installation fees.
13.05.120 Water service fees – General.
13.05.130 Utility charges – Water service.
13.05.140 Cross-connections eliminated.
13.05.150 Unlawful acts.
13.05.160 Sanitary sewer service to City residents solely unless approved.
13.05.170 Sanitary sewer capital facilities charges and sewer installations – General.
13.05.180 Sanitary sewer capital facilities charge.
13.05.190 Sanitary sewer service fees – General.
13.05.200 Unlawful acts.
13.05.210 Exception to connections to sanitary sewer system.
13.05.220 Stormwater utility – Administration.
13.05.230 Liability disclaimer.
13.05.240 Storm utility charge system established – Charges imposed.
13.05.250 Stormwater capital facilities charge.
13.05.260 Description of stormwater rate structure.
13.05.270 Stormwater service charge changes and discounts.
13.05.280 Request for water, sewer, or stormwater utility service charge adjustment.
13.05.290 Billing, payment and delinquency for water, sewer, and stormwater.
13.05.300 Utility discount for low income senior and disabled citizens.
13.05.310 Utility illegal connections.
13.05.320 Utility violations – Penalty.

13.05.010 Purpose.

This chapter is intended to establish rates and charges to provide a method for payment of all or any part of the cost and expense of water, sanitary sewer, and stormwater, and to secure issuance of general obligation or revenue bonds for such services as the need should arise. Imposition of these rates and charges is also necessary in order to promote the public health, safety and welfare by minimizing uncontrolled stormwater, erosion, and water pollution to preserve and utilize the many values of the City's natural drainage system including water quality, open space, fish and wildlife habitat, recreation, education, and urban separation and drainage facilities; and to provide for the comprehensive management and administration of water service, sanitary sewer and stormwater. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 1, 2005).

13.05.020 Definitions.

A. "Backflow" means the flow, other than the intended direction of flow, of any foreign liquids, gases or substances into the distribution system of a public water supply.

B. "Buy-in fee" means an amount charged to new development in order to reimburse the City's water, sanitary sewer and stormwater utilities for a proportionate share of past and future utility improvements designed to serve development. Also referred to as a "capital improvement fee."

C. “Capital improvement fee” means an amount charged to new development in order to reimburse the City’s water, sanitary sewer and stormwater utilities for a proportionate share of past and future utility improvements designed to serve development. Also referred to as a “buy-in fee.”

D. “Comprehensive stormwater program” means a plan and all implementing regulations and procedures including but not limited to capital projects, public education activities, and land use management regulations adopted by ordinance for managing stormwater facilities and features within the City.

E. “Commercial” or “industrial” means nonresidential establishments other than single-family residences or multifamily structures including, but not limited to, churches, schools or institutions.

F. “Connection fee” means the combined charge of the “capital improvement fee” and “installation fee.”

G. “Cross-connection” means any physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply system which may be capable of imparting contamination to the public water supply as a result of backflow, by-pass arrangements, jumper connections, and other temporary or permanent devices through which, or because of which, backflow could occur.

H. “Developed parcel” means any parcel altered from the natural state by the construction, creation, or addition of impervious surfaces.

I. “Domestic sewage” means sanitary waste normally collected from residential establishments, and shall include commercial and industrial wastes of similar strength or quality and other commercial and/or industrial wastes that are pretreated in accordance with King County/Metro, City of Edmonds and City of Mountlake Terrace requirements meeting the Washington State Department of Ecology and United States Environmental Protection Agency guidelines.

J. “Drainage basin” means the geographic region within which water drains into a particular aquatic system or other body of water.

K. “Drainage facility” means the system of collecting, conveying, and storing stormwater runoff. Drainage facilities shall include but not be limited to all stormwater conveyance and congruent facilities including streams, pipelines, channels, ditches, swamps, lakes, wetlands, closed depressions, infiltration facilities, retention/detention facilities, water quality treatment facilities, erosion/sedimentation control facilities, and other drainage structures and appurtenances, both natural and constructed.

L. “Duplex” means a building occupying a lot containing two dwelling units.

M. “Dwelling unit” means a building or portion thereof providing complete housekeeping facilities for one family.

N. “Impervious surface” means a hard surface area which either prevents or retards the entry of water into the soil mantle as it entered under natural conditions prior to development, and/or a hard surface area which causes water to run off the surface in greater quantities or at an increased area of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roofs, walkways, patios, driveways, parking lots, storage areas, areas which are paved, graveled or made of packed or oiled earthen materials, or other surfaces which similarly impede the natural infiltration of surface and stormwater. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purpose of this chapter.

O. “Installation fee” means the amount charged by the City for physically extending a service connection from a public water, sanitary sewer, or stormwater facility to a right-of-way margin or edge of utility easement.

P. “Maintenance” means the act or process of cleaning, repairing or preserving a system, unit, facility, structure, or piece of equipment.

Q. “Mixed-use development” means the development of a tract of land or building or structure with two or more different uses, such as but not limited to residential, office, retail, public, or entertainment, in a compact urban form.

R. “Mixed-use structure” means a building that contains both commercial and residential uses, other than a single-family home that contains a home occupancy.

S. “Multifamily” means a building occupying a lot containing two or more dwelling units.

T. “Natural surface water drainage system” means such landscape features as rivers, streams, lakes, and wetlands. This system circulates water in a complex hydrological cycle.

U. “Parcel” means the smallest separately segregated unit or plot of land having an identified owner, boundaries and surface area which is documented for property tax purposes and given a tax lot number by the Snohomish County Assessor.

V. “Person” means every person, firm, partnership, association, institution, or corporation in the City. The term shall also mean the occupant and/or the owner of the premises for which service herein mentioned is rendered.

W. “Property owner of record” means a person or persons shown in the records of the County Assessor to be the owner of property and to whom property tax statements are directed.

X. “Rate category” means the classification in this chapter given to a parcel in the service area based upon the parcel and the percentage of impervious surface area contained on the parcel.

Y. “Rates” means the dollar amount charged per unit of service.

Z. “Residence” means a building or structure, or portion thereof, designed for and used to provide a place of abode for human beings. The term “residence” includes the term “residential” or “residential unit” as referring to the type of, or intended use of, a building or structure.

AA. “Retention/detention facility” means a type of drainage facility designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration and/or infiltration into the ground; or to hold runoff for a short period of time and then release it to the stormwater system.

BB. “Service charges” means charges and user fees to property owners for water service, sanitary sewer service and stormwater services.

CC. “Single-family residence” means a detached building containing one dwelling unit.

DD. “Stormwater” means the water originating from rainfall and other precipitation that is found in drainage facilities, rivers, streams, springs, seeps, ponds, lakes, and wetlands as well as shallow ground water.

EE. “Stormwater services” means the services provided by the stormwater utility, including but not limited to basin planning, facilities maintenance, regulation, financial administration, public involvement, drainage investigation and enforcement, aquatic resource restoration, surface and stormwater quality and environmental monitoring, natural surface water drainage system planning, intergovernmental relations, and facility design and construction.

FF. “Stormwater system” means constructed drainage facilities and any natural surface water drainage features which collect, store, control, treat and/or convey surface and stormwater.

GG. “Undeveloped parcel” means any parcel that has not been altered from its natural state by the construction, creation, or addition of impervious surface(s).

HH. “Utility” means the Mountlake Terrace water, sanitary sewer and stormwater utility created under the provisions of this chapter. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2644 § 2, 2014; Ord. 2394 § 2, 2005).

13.05.030 Utility confirmed.

A water utility, a sanitary sewer utility, and a stormwater utility, as originally established by Ordinances 1710 and 2077 of the City of Mountlake Terrace, are hereby reestablished and confirmed. The utilities herein created or reestablished shall be administered and enforced by the Mountlake Terrace Public Works Director or their duly authorized designee. The Public Works Director, or their duly authorized designee, shall be responsible for the

operation, maintenance, repair and construction of the City water, sanitary sewer and stormwater system of the City of Mountlake Terrace. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 3, 2005).

13.05.040 Utilities funds established and maintained.
The following utilities are hereby created and separate funds shall be established as follows:

A. "Water Fund" is hereby reestablished, confirmed and maintained.

B. "Sanitary Sewer Fund" is hereby reestablished, confirmed and maintained.

C. "Stormwater Fund" is hereby reestablished, confirmed and maintained.

All service charges for the respective funds shall be deposited in that fund, to be used only for the purpose of paying all or any part of the cost and expense of providing services or to pay or secure the payment of all or any portion of any issue of general obligation or revenue bonds issued for each respective utility. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2496 § 1, 2008; Ord. 2394 § 4, 2005).

13.05.050 Transfer of property to respective utility funds.
The City Council directs that the funds currently held for City water, sanitary sewer and stormwater be transferred to the appropriate respective funds established and created herein. Accordingly, all the City's above-mentioned facilities pertaining to the respective utilities, including the rights and interests as a part thereof or as they relate to or concern water, sanitary sewer, and stormwater, are hereby directed to be transferred to their respective utility funds created by this chapter. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 5, 2005).

13.05.060 Authority – Construction.
This chapter constitutes an exercise of the police power of the City to promote the public health, safety and welfare, and its provisions shall be liberally construed for the accomplishment of that purpose. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 6, 2005).

13.05.070 Applications – Water, sanitary sewer and stormwater service.
All applications for water, sanitary sewer and stormwater service shall be made at the City on the electronic forms furnished by the City by the owner or agent of the property to be served. Each single-family residence, multifamily residential unit, and nonresidential structure shall be considered an individual consumer. Each single-family residence, multiple-family residential structure and nonresidential structure shall be supplied water through a separate meter and service connection. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 7, 2005).

13.05.080 Water meters.
All water meters shall be, and remain, the property and responsibility of the City. Owners of water services are responsible for all leaks or damage from privately owned services defined as those lines between the water meter and the structure or use being served. Property owners shall be responsible for ensuring that the City-owned water meter(s) are kept free of any and all obstructions and/or coverings that would prevent in any manner access, inspection or reading, maintenance or replacement of the water meter(s) by City personnel. An area around the meter shall be kept clear; this clearance area shall be a minimum of three feet on three sides of the meter and one-half foot on the fourth side and six feet in height. Meters installed after December 1, 2005, and meters not enclosed by a fence prior to that date, shall not be enclosed by fencing. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 8, 2005).

13.05.090 Water service to City residents solely unless approved.
Water service shall be provided only to structures within the corporate limits unless otherwise approved by the City Council. Properties completely surrounded by the corporate limits of the City and connected to City water mains shall have their water service metered and billed by the City whether they are formally annexed into the City or not. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 2, 2019; Ord. 2394 § 9, 2005).

13.05.100 Water service connection/installation – General.
The fee for new water services shall consist of a "capital improvement/buy-in fee" plus the cost of any improvements installed by the City, referred to as an "installation fee." These two fees (capital improvement/buy-in and installation) combined are referred to as the "connection fee." (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2644 § 3, 2014; Ord. 2394 § 10, 2005).

13.05.110 Water service capital improvement and installation fees.
Water capital improvement fees shall be imposed on new water connections and installations as follows:

A. Meters shall be charged according to the schedule of capital improvement (water connection fees). The fees are fully due and payable prior to the installation.

B. Meters installed by City Public Works shall be charged a fee as adopted by City Council resolution. The customer shall also be required to pay the capital improvement fee.

C. Owners or developers of single-family residential homes with residential fire sprinkler systems shall be charged only one equivalent residential unit (ERU) for up to a one-inch meter at the time of service connection.

The capital improvement (buy-in) fee and installation fee, which is effective January 1, 2019, unless and until amended by the City Council, shall be as adopted in the most recent Utility Connection Fees Developer Installation document. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2799 § 2, 2021; Ord. 2738 § 1, 2018; Ord. 2644 § 4, 2014; Ord. 2556 § 1, 2010; Ord. 2394 § 11, 2005).

13.05.120 Water service fees – General.
The charges for water service shall be comprised of a base bimonthly charge and a commodity charge based on the metered volume of water consumption. Bimonthly billing will commence at the time the water service, meter and meter box are installed.

A. Upon shutoff of a water supply due to nonpayment or an approved request, the consumer will continue to be billed the bimonthly water service charge for the entire period of disconnection.

B. Bimonthly water service charges shall not be applied to a customer who has their meter removed and the service line is capped. The customer shall incur and be responsible for the charges associated with the removal of the meter and capping of the service line. The customer shall also be responsible for the charges associated with reinstallation of the meter and reactivation of the account.

C. Bimonthly water service charges shall not be applied upon demolition of the structure or upon declaration by the Building Official that the unit is uninhabitable.

D. An account charge based upon cost of service for time and materials will be made for each customer request to have the accuracy of the service meter checked. If the test results indicate that the allowable error of measurement is greater than that set by the American Water Works Association (AWWA), such that the account has been overcharged, the account charge will be rescinded.

E. In the event any connection to the City water system is made without paying the charges required by this chapter, the owners of the property to which the connection is made shall be guilty of a violation of this chapter and be subject to a civil infraction in an amount not to exceed $1,000 for each violation. A person is guilty of a separate violation for each day during which he commits, continues, or permits a violation of any provision or regulation made pursuant to this chapter. The City Hearing Examiner is authorized to hear and decide contested civil infractions issued for any violations of this chapter. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 12, 2005).

13.05.130 Utility charges – Water service.
The base charge (billed bimonthly) for water service for each service shall be as shown in the most recently adopted Utility Rates Update. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2738 § 2, 2018; Ord. 2540 § 1, 2010; Ord. 2435 § 1, 2006; Ord. 2394 § 13, 2005).

13.05.140 Cross-connections eliminated.
WAC 248-54-285 mandates that water purveyors protect their customers from contamination due to cross-connections. WAC 248-54-285 and Chapter 13.45 MTMC require that all potential and actual cross-connections be eliminated, or that state-approved backflow prevention assemblies be installed.

A. Furnishing of service shall be contingent upon the customer providing cross-connection control approved by the appropriate health authority and the City for protecting the City water supply from backflow. Backflow prevention

assemblies required to be installed shall be models approved by the Washington State Department of Social and Health Services.

B. When inspection and annual testing of backflow prevention assemblies are required by these regulations, water customers with water systems containing these assemblies shall be responsible for having the inspections and tests performed, and filing the inspection and test results with the City to document that the assemblies are functioning properly. The cost of inspecting, testing, repairing, replacing and maintaining the assemblies, and filing the results, shall be borne by the water customer. Filing of inspection and test results shall be done within 30 days of notification from the City. Inspection and testing of backflow prevention assemblies shall be performed by a state-certified backflow assembly tester (BAT).

C. City personnel will maintain and conduct a program of inspections of premises of water customers to identify cross-connections. If potential or actual cross-connections exist, the water customer shall be notified and directed to eliminate the condition. The water supply shall be discontinued (terminated) to any premises for failure to comply with the provisions of this section.

D. If in the opinion of the City an immediate hazard to health is caused by the cross-connection, water service to the premises shall be immediately discontinued (terminated) until the cross-connection has been eliminated or protected. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 17, 2005. Formerly 13.05.170).

13.05.150 Unlawful acts.

It is unlawful for any person, firm, corporation, or other organization of any type whatsoever to take, or allow to be taken, water from the Mountlake Terrace water system without a valid approval by the City of Mountlake Terrace.

A. Any person, including the officers and/or directors of any firm, corporation or other organization of any type, who shall take water from the City of Mountlake Terrace water system without such permit shall be guilty of a misdemeanor and subject to a penalty of up to $1,000 and/or 90 days in jail. In addition to such penalties, there shall be a charge by the City of Mountlake Terrace for the taking of such water at a minimum of $200.00 plus a charge at double (two times) the current rate of water taken. Said water charge may be charged against the premises from which the water was taken and enforced by available liens or, where applicable, against the individual, firm, corporation or other organization of any type, including the officers and directors thereof, who took, or caused to be taken, said unauthorized water.

B. In addition to any penalty provided for in this chapter, any person violating or failing to comply with any of the provisions of this chapter may be assessed a civil penalty by the Public Works Director, or their designee, in the maximum amount of $1,000 per violation. For continuing violations, each day of violation shall be considered a separate offense and a separate civil penalty may be assessed for each day the violation continues. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 18, 2005. Formerly 13.05.180).

13.05.160 Sanitary sewer service to City residents solely unless approved.

Sanitary sewer service shall be provided only to structures within the corporate limits unless otherwise approved by the City Council. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 19, 2005. Formerly 13.05.190).

13.05.170 Sanitary sewer capital facilities charges and sewer installations – General.

The fee for sanitary sewer services shall consist of a capital facilities charge and other fees identified in the then current schedule of fees.

A. All sanitary sewer service laterals from existing mains to the property line or easement edges to existing single-family residential uses shall be installed by a qualified contractor or the owner/developer.

B. All sanitary sewer services for subdivisions, site developments, and other non-single-family residential uses shall be installed by the owner/developer.

C. All materials for sanitary sewer installation shall be in compliance with City standards.

D. All sanitary sewer installations performed by owners/developers shall be subject to appropriate plan review and permit fees, in addition to capital facilities charge and other fees as set forth in the current fee schedule. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 3, 2019; Ord. 2394 § 20, 2005. Formerly 13.05.200).

13.05.180 Sanitary sewer capital facilities charge.
Sewer capital facilities charges shall be imposed on sewer connections. The sanitary sewer capital facilities charges and permit schedule fees are fully due and payable prior to installation/connection.

Fees shall be charged according to the most recently adopted Utility Connection Fees Developer Installation document. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 4, 2019; Ord. 2644 § 6, 2014; Ord. 2556 § 2, 2010; Ord. 2394 § 21, 2005. Formerly 13.05.210).

13.05.190 Sanitary sewer service fees – General.
The charges for sewer service shall be comprised of a base bimonthly charge and a treatment charge based on the metered volume of water consumption. Specific charges shall be as shown in the most recently adopted Utility Rates Update.

A. Bimonthly billing for sewer will commence at the time the water meter is connected, or at the time the sewer connection is completed, or upon expiration of the 90-day period following written notice that sewer service is available if no connection is made. When connection to the sewer system is delayed as allowed in accordance with MTMC 13.20.040, the bimonthly billing for sewer will be at 50 percent of the base rate for the period of approved delay.

B. Upon shutoff of a water supply due to nonpayment or an approved request, the consumer will continue to be billed the base bimonthly sewer service charge for the entire period of disconnection.

C. Bimonthly sewer service charges shall not be applied to a customer who has their water meter removed and the water service line capped. The customer shall incur and be responsible for the charges associated with the removal of the water meter and capping of the water service line. The customer shall also be responsible for the charges associated with reactivation of the account.

D. Bimonthly sewer service charges shall not be applied upon demolition of the structure, or upon determination by the Building Official that a unit is uninhabitable. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 23, 2005. Formerly 13.05.230).

13.05.200 Unlawful acts.
The following connections to the sanitary sewer system are prohibited and unlawful: gutter drains, down spouts, stormwater collection systems, cesspools, septic tank privy vaults, cisterns, footing drains or any other connection determined by the City Engineer, or their designee, to be principally a storm drain or which is principally a conduit for stormwater.

In addition to any penalty provided for in this chapter, any person violating or failing to comply with any of the provisions of this chapter may be assessed a civil penalty by the Public Works Director, or their designee, in the maximum amount of $1,000 per violation. A person is guilty of a separate violation for each day during which he commits, continues, or permits a violation of any provision or regulation made pursuant to this chapter. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 29, 2005. Formerly 13.05.290).

13.05.210 Exception to connections to sanitary sewer system.
MTMC 13.05.200 is not applicable to commercial or industrial customers who presently have approval, or obtain approval, from the City to divert stormwater runoff to the sanitary sewer system. Those customers with valid approval shall pay on a special basis and have special rates set for the particular single-family residences, multifamily structures, commercial businesses, industries or manufacturing concerns by the Public Works Director, or their designee, and the Public Works Director, or their designee, is authorized and directed to administratively set such fees. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 30, 2005. Formerly 13.05.300).

13.05.220 Stormwater utility – Administration.
The Mountlake Terrace stormwater utility shall be administered and enforced by the Mountlake Terrace City Engineer or their designee. The Public Works Director, or their designee, is hereby authorized to specify such stormwater facility operation, maintenance, and performance standards as necessary to implement the requirements of this chapter. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 31, 2005. Formerly 13.05.310).

13.05.230 Liability disclaimer.
Floods from stormwater runoff may occasionally occur which exceed the capacity of storm drainage facilities constructed and maintained by funds made available under this chapter. The City's adoption of the ordinance codified in this chapter does not imply that property liable for the stormwater drainage charge shall always be free from stormwater flooding or flood drainage. Further, this chapter does not purport to reduce the need or the necessity for any property owner to obtain flood insurance. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 32, 2005. Formerly 13.05.320).

13.05.240 Storm utility charge system established – Charges imposed.
Effective January 1, 2000, the Public Works Director, or their designee, shall classify all properties in the City into rate categories according to their degree of impervious surface coverage. Effective January 1, 2000, the City will impose on all property located within the City limits a stormwater service charge. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2394 § 33, 2005. Formerly 13.05.330).

13.05.250 Stormwater capital facilities charge.
Stormwater capital facilities charges shall be imposed on all new development. The charge for stormwater capital facilities shall be established by the most recently adopted Utility Connection Fees Developer Installation document. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 11, 2019; Ord. 2394 § 34, 2005. Formerly 13.05.340).

13.05.260 Description of stormwater rate structure.
A stormwater ERU is equal to 2,282 square feet of impervious surface in the City of Mountlake Terrace. All single unit ~~family~~ residential and townhome accounts shall be considered equal to one equivalent residential unit (ERU) for billing purposes. All ADU's shall be considered half an equivalent residential unit (ERU) for billing purposes. Duplexes shall be considered equal to two equivalent residential units (ERU) for billing purposes. For all other parcels, the total amount of impervious surface and the percentage of the parcel which is impervious will be used to calculate the applicable stormwater service charge.

A. Calculation of Billable ERUs for Non-Single-Family, Non-Duplex Parcels. The following method shall be used to establish billable ERUs for each account:

Step 1: Total ERUs are determined by calculating the following equation: Impervious area per lot (in square feet)/2,282 square feet (base ERU equivalent) = Total ERUs.

Step 2: Determine the total billable ERUs by applying the appropriate impervious surface coverage factor, based on the percentage of impervious surface on the property. The following table provides the impervious surface coverage factors:

Impervious Surface Coverage	Factor
1% – 20%	0.50
21% – 40%	1.00
41% – 70%	1.50
Over 70%	2.00
Total ERUs × Impervious Surface Coverage Factor = Total Billable ERUs.	

Step 3: Total Billable ERUs × ERU Bimonthly Rate = Total Bimonthly Bill.

B. The service charge (billed bimonthly) for each parcel within the service area shall be as shown in the most recently adopted Utility Rates Update. Rates listed for each subsequent year shall be in effect on January 1st of the year listed, unless and until amended by City Council action.

C. Start of Bimonthly Service Charge. Bimonthly billing shall commence no earlier than the point in time that the parcel is one percent impervious, nor later than the time of completion of construction, as determined by the Public Works Director, or their designee.

D. City Reserves the Right to Make Changes. The City may supplement or alter charges within subareas of the City so as to charge properties or parcels of one subarea for improvements, studies, or maintenance which the City Council deems to provide service or that benefit the property owners of one subarea. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 12, 2019; Ord. 2585 § 1, 2011; Ord. 2509 § 1, 2009; Ord. 2490 § 1, 2008; Ord. 2435 § 9, 2006; Ord. 2394 § 35, 2005. Formerly 13.05.350).

13.05.270 Stormwater service charge changes and discounts.

A. Periodically, the Public Works Director, or their designee, may audit stormwater accounts for accuracy and address any discrepancies. In addition, any person billed for stormwater service charges may file a "request for rate adjustment" with the Public Works Director, or their designee, within two years of the first billing issued for the underlying rate charge. However, filing of such a request does not extend the period for payment of charges.

B. Requests for fee adjustment may be granted or approved by the Public Works Director, or their designee, only when one or more of the following conditions exist:

1. The acreage of the parcel charged is in error.

2. The impervious area of the parcel charged is in error.

3. The parcel is non-single-family residential and the actual impervious surface coverage of the parcel charged places it in a different rate category than the rate category assigned by the Public Works Director or their designee.

4. Non-single-family residential parcels may be eligible for the following reduction in charges, set forth as follows:

a. Properties are eligible for a 25 percent reduction in the total stormwater service charge if the following conditions are met:

i. The property must have a stormwater flow control or stormwater water quality improvement system, for example, a detention pond, pipe, or vault; water quality treatment system; biofiltration swale; or other stormwater facility for the purpose of flow control and/or runoff treatment. The private facility may be on site or off site.

ii. Collection and conveyance stormwater systems without flow control or water quality features are not eligible for stormwater service charge reductions.

iii. Stormwater facilities are operated and maintained by the property owner in accordance with the City's National Pollutant Discharge Elimination System (NPDES) permit from the Washington Department of Ecology. Maintenance shall be verified by City staff on an annual basis.

b. For all parcels currently receiving 50 percent reductions which also meet the conditions set in subsections (B)(4)(a)(i) through (B)(4)(a)(iii) of this section, the stormwater service charge reduction will be decreased by five percent each year beginning January 1, 2020, and each year thereafter on January 1st, to a 25 percent reduction on January 1, 2024.

c. New or remodeled commercial buildings utilizing a permissive rainwater harvesting system, properly sized to utilize the available roof surface of the building, are eligible for a 10 percent reduction in total stormwater service charge, as per RCW 35.67.020(3). The City will consider rate reductions in excess of

10 percent dependent upon the amount of rainwater harvested. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 13, 2019; Ord. 2394 § 36, 2005. Formerly 13.05.360).

13.05.280 Request for water, sewer, or stormwater utility service charge adjustment.

Requests for utility service charge adjustments shall be in accordance with RCW 4.16.040(2), statute of limitations for underpayments, and RCW 4.16.080(4), overpayments, and shall be conditioned on the following:

A. The property owner shall have the burden of proving that the adjustment sought should be granted.

B. Decisions on requests for service charge adjustments shall be made by the Public Works Director, or their designee, based on information submitted by the applicant and by the City within 30 days of the adjustment request except when additional information is needed. The applicant shall be notified in writing of the Public Works Director's, or their designee's, decision. If an adjustment is granted which reduces the charge, the property owner shall be refunded the amount overpaid for up to the applicable statute of limitations period.

C. If the Public Works Director, or their designee, finds that a service charge bill has been undercharged, then either an amended bill shall be issued which reflects the increase in the service charge or the undercharged amount shall be billed to the property owner for up to the applicable statute of limitations. This amended bill shall be due and payable under the provisions set forth herein.

D. Decisions of the Public Works Director, or their designee, on requests for rate adjustments shall be final unless, within 30 days of the date the decision was mailed, the applicant files a petition for a writ of certiorari in the superior court with jurisdiction. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 14, 2019. Formerly 13.05.365).

13.05.290 Billing, payment and delinquency for water, sewer, and stormwater.

A. All accounts for utilities shall be kept in the name of the owner of the property, and the current owner shall be held responsible for all utility charges. The tenant may be a secondary name on the utility account, although the addition of a tenant name does not release the property owner from any responsibilities for fees and charges or penalties.

B. There is authorized and directed the establishment of a consolidated utility billing for water, sanitary sewer, and stormwater.

C. All charges for each utility service shall be due and payable on or before the thirtieth day after the billing date. Any charges not paid before the thirty-first day after the billing date shall be delinquent. An additional charge of 10 percent of the current charges shall be added to any account not paid before the thirty-first day after the billing date.

D. All charges for connection and services provided in this chapter, or as may be hereafter amended, together with penalties and interest thereon, shall be a lien upon the property with which such connections are made or to which such services are rendered, superior to all other liens and encumbrances whatsoever, except for general taxes and local special assessments. Enforcement of such lien or liens shall be in the manner provided by law. As an additional and concurrent method of enforcing the lien of said delinquent charges, the Public Works Director or representative is authorized after the date of the first delinquency to shut off the water service.

E. All sums received on the utility billing shall be applied to each account in the following order:

1. Penalties;

2. Service fees;

3. Stormwater charges;

4. Sewer charges;

5. Water or irrigation charges.

F. The City will provide notification of service termination due to nonpayment of the utility bill to the property owner and tenant of record, if any. In addition, a notice will also be sent to the occupant. Notices will be sent via

U.S. mail. Any customer may, within 10 days of written notification, appeal the pending termination of water service to the Public Works Director, or their designee, by filing a written notice of appeal setting forth the grounds therefor with the City Clerk. The Public Works Director, or their designee, shall respond within 10 days of receiving the written notice of appeal. After considering the appeal, the Public Works Director shall, after appropriate findings of fact and conclusions of law, affirm, modify, or overrule the termination of water service and may impose any terms upon the continuance of water service which the Public Works Director may deem advisable. No termination of water/sewer shall take effect until 10 days after mailing of the notice of the Public Works Director's determination to the customer.

G. Except in case of danger to life or property, no disconnection shall be accomplished on Saturdays, Sundays, legal holidays, or on any other day on which the utility cannot reestablish service on the same or following day.

H. When the City Manager, or their designee, declares a public epidemic, arson threat, or public disaster, no water service shall be turned off unless it is in the interest of public protection until such time as the City Manager, or their designee, determines the disaster or the threat is ended.

I. The Public Works Director, or their designee, is authorized to administratively set the fee for the following occurrences which shall include recovery of costs for field and office time:

1. Delinquent account turn-off/on occurring during regular posted business hours.

2. Delinquent account turn-on after regular posted business hours.

3. Delinquent account lock-off/meter pull.

4. Broken padlock/angle stops.

5. Current account turn-off/on after regular posted business hours.

6. New account setup for changing account records to reflect change of property owner or change of tenant.

7. In addition, the Public Works Director is authorized to set other cost-based service fees as the need arises.

J. In addition, in the event that a utility customer has permitted a utility account to become delinquent as hereinabove defined, then the Public Works Director, or their designee, may at their discretion require a security deposit in an amount equal to the estimated bimonthly charge therefor as a condition to continuance of utility service. Notice of the requirement of such security deposit shall be given to the customer in writing by mail addressed to the premises served.

K. The delinquent account turn-off fee applies at the moment of dispatch.

L. Emergency turn-off and turn-on requests, which necessitate immediate action, will be completed without fee during regular posted business hours.

M. A new account set-up fee of $10.00 will be charged for changing account records to reflect change of property owner or change of tenant. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2843 § 1, 2024; Ord. 2759 § 15, 2019; Ord. 2394 § 37, 2005. Formerly 13.05.370).

13.05.300 Utility discount for low income senior and disabled citizens.

Mountlake Terrace property owners over the age of 62 living on the property in a household with an aggregate income as shown in the table below as now or hereafter amended shall be eligible to qualify for a 30 percent discount on water, sewer and stormwater charges. Mountlake Terrace disabled property owners who qualify for special parking as defined by RCW 46.16.381, are blind as defined by RCW 74.18.020, or are disabled, handicapped, or incapacitated as defined by any other existing state or federal program and are living on the property in a household with an aggregate income as shown in the table below as now or hereafter amended shall be eligible to qualify for a 30 percent discount on water, sewer and stormwater charges. To qualify for the 30 percent discount, applicants must complete an application form provided by the City and submit proof of income to the

Public Works Director or designee. The discount will be effective with the next regular billing following approval of an application.

Household Size	Income Threshold
1 Person	Income threshold 1 per RCW 84.36.383
2 People	Income threshold 1 per RCW 84.36.383
3 People	Income threshold 2 per RCW 84.36.383
4 People	Income threshold 2 per RCW 84.36.383
5 People	Income threshold 3 per RCW 84.36.383
6 People	Income threshold 3 per RCW 84.36.383

(Ord. 2855 § 1 (Exh. A), 2024; Ord. 2829 § 1, 2023; Ord. 2783 § 1, 2021; Ord. 2759 § 16, 2019; Ord. 2738 § 7, 2018; Ord. 2435 § 10, 2006. Formerly 13.05.375).

13.05.310 Utility illegal connections.

No person shall make any connection with either the water, stormwater or sanitary sewer system, or add to an existing connection, without first obtaining a permit as herein required. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 17, 2019; Ord. 2394 § 38, 2005. Formerly 13.05.380).

13.05.320 Utility violations – Penalty.

In addition to all civil rights of collection, liens, shutoff and other remedies available to the City of Mountlake Terrace as prescribed by Washington statute and ordinance for unauthorized use and/or nonpayment of charges, and/or unlawful acts prescribed by this chapter, any person, firm, corporation or other organization, including any officers, directors and managers thereof, who violates any provision of this chapter shall be guilty of a misdemeanor and subject to penalties of up to $1,000 and/or 90 days in jail. (Ord. 2855 § 1 (Exh. A), 2024; Ord. 2759 § 18, 2019; Ord. 2394 § 39, 2005. Formerly 13.05.390).

Chapter 13.20

SANITARY SEWERS

Sections:

13.20.010 Purpose.
13.20.020 Definitions.
13.20.030 Unlawful to interfere with public sewer.
13.20.040 Connection required when.
13.20.050 Public Works Director – Duty to compel connection.
13.20.060 Notice to connect.
13.20.070 Connection authorized by Public Works Director.
13.20.080 Responsibility for maintenance.
13.20.090 Permit required.
13.20.100 Connection/sewer plan/as-built drawing.
13.20.110 Posting of permit card.
13.20.120 Work subject to City Engineer approval.
13.20.130 Inspection.
13.20.140 Filling or covering after inspection.
13.20.150 Construction standards.
13.20.160 Violation – Penalties.
13.20.170 Inspections – Side sewer or sewer service lateral.
13.20.180 Restoration.
13.20.190 Removal of trees and shrubs.

13.20.010 Purpose.

This chapter is declared to be an exercise of the police power of the state of Washington and the City of Mountlake Terrace to promote the public health, safety and welfare, and its provisions shall be liberally construed for the accomplishment of that purpose. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 1, 1959).

13.20.020 Definitions.

Words and phrases used herein, unless the same shall be contrary to or inconsistent with the context, shall mean as follows:

A. “Public Works Director” includes and means the Public Works Director, City Engineer, Superintendent of Water or Sewer Departments, Sewer Inspector, or any other person acting under the authority of the Public Works Director.

B. “Sanitary sewer system” means that system of pipes, manholes and pumping stations as part of an integral municipal sewer system which has been authorized pursuant to ordinances enacted during the years 1958 and 1959.

C. *Repealed by Ord. 2857.*

D. “Side sewer” means that sewer pipe which extends from the Right of Way ~~point of connection to the sewer main~~ to the point of connection to the plumbing from a building or residence, said point of connection to the plumbing not to exceed 30 inches from the foundation.

E. “Repair and maintenance” means the opening of any sewer line for the purpose of cleaning, replacement, or repair of the line.

F. “Private sewer main” means a sewer owned, operated, and maintained by a private entity.

G. “Public sewer main” means a sewer owned, operated, and maintained by the City that collects sewage from side sewers, sewer laterals, or private sewer mains. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 20, 2019; Ord. 158 § 2, 1959).

13.20.030 Unlawful to interfere with public sewer.
It shall be unlawful for any person or persons to make any connection with, or in any way obstruct or interfere with, any public sewer except as hereinafter provided. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 3, 1959).

13.20.040 Connection required when.
Every dwelling, house, hotel, apartment, tenement, factory, store, or other building in which plumbing arrangements have been or are to be placed, shall be connected with the municipal sanitary sewerage system within 90 days after written notice that sewer service is available to said building; and provided, that any such building or part of building shall be located within 200 feet of a sewer main or a street where a sewer main is located; and provided further, that if any such building is constructed after sewer service is available to the property upon which it is located, then the connection shall be made immediately as an integral part of the construction; and provided further, that these properties annexed into the City by the provisions of RCW 35A.14.295 through 35A.14.299, or newly provided sewer service, shall be allowed to delay connection to the Mountlake Terrace sewer system for a period of up to three years following the date of notification provided:

A. There shall be an annual filing with the City of certification by the Snohomish County Health District that there is a properly functioning septic tank.

B. There is confirmation that the septic tank has been pumped at least every three years.

C. There is no further development of the property on which the dwelling exists.

Sewer fees at 50 percent of the base rate shall be billed and paid to offset capital and service costs for the sanitary sewer utility. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 1838, 1989; Ord. 158 § 4, 1959).

13.20.050 Public Works Director – Duty to compel connection.
The Public Works Director is hereby empowered, and it is hereby made his duty in all cases where sewer service is available within the distances of a building prescribed in MTMC 13.20.040, to compel every owner or occupant of land, buildings or premises situated within such distance to connect or cause to be connected by a sufficient sewer in the manner hereinafter required, which shall connect such lands, buildings or premises with such nearest accessible public sewer. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 5, 1959).

13.20.060 Notice to connect.
Prior to completion of construction of the sanitary sewer system, whenever any land, buildings or premises is required to be connected with the public sewer as provided in this chapter, the Public Works Director shall serve upon the owner, agent or occupant of said land, buildings or premises a notice in writing specifying the time within which such connection must be made, which time shall be not more than 90 days from the date of delivery of such notice. Service of such notice shall be deemed sufficient if mailed to the occupant of the premises, or left at the premises in a visible and conspicuous place. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 6, 1959).

13.20.070 Connection authorized by Public Works Director.
If any owner, agent, or occupant shall fail and neglect or refuse to connect said lands, buildings or premises with the public sewer within the time specified in MTMC 13.20.060, the Public Works Director may cause such connection to be made and the cost thereof shall be charged to the owner or occupant, and a bill showing the amount thereof mailed or delivered to him, or posted upon the premises in a conspicuous and visible place. If said charge is not paid within 10 days of the mailing, delivery or posting of the bill as aforesaid, the same shall be deemed to be delinquent, and subject to a penalty charge in the amount of five percent of said bill. The entire amount, including penalties, shall draw interest at the rate of six percent per annum from the date of rendering the bill until paid. Any such delinquent charge shall constitute a lien upon the premises, which said lien shall be filed and enforced in the manner prescribed by the laws of the state of Washington. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 7, 1959).

13.20.080 Responsibility for maintenance.
Property owners are responsible for keeping side sewers and sewer laterals unclogged and free-flowing at all times at their sole expense. All expense and liability for loss or damage related to side sewers which are not maintained in an unclogged and free-flowing condition shall be the responsibility of the property owner(s). (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 22, 2019; Ord. 158 § 11, 1959. Formerly 13.20.090).

13.20.090 Permit required.
No person shall connect with or open or penetrate any public sewer, construct, repair, or perform maintenance on any service lateral or side sewer without first obtaining a permit at the then-current permit fee. The City shall keep record of all fees charged, giving the name of the person paying said fee, the amount charged, and stating the date and number of the permit.

Applications for such permits shall be obtained prior to starting any work; except, where repairs or maintenance of an emergency nature are required to be made during such hours that the City is closed, the application and permit shall be obtained during the next regular work day. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 23, 2019; Ord. 702, 1969; Ord. 158 § 14, 1959. Formerly 13.20.120).

13.20.100 Connection/sewer plan/as-built drawing.
Before any such permit is granted, the applicant must pay the City such fees as are specified in other applicable ordinances or resolutions, and furnish a plan of the proposed connection or sewer in accordance with the then-current permit application requirements, together with whatever other information is required on application forms furnished by the City to the applicant. Said plan shall show the course of the sewer from the connection with the street main or service lateral to its other terminus, with the location of all branches, cleanouts, traps and fixtures to be connected therewith. Said plan shall be correct, and conform to the Engineering Details and Specifications of the City.

It shall be the responsibility of the contractor or owner to provide the City with an as-built drawing of all repair work including any changes made in the routing or materials of any side sewer or service lateral sewer or the relocation, deletion, or addition of any cleanouts. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2792 § 5, 2021; Ord. 2759 § 24, 2019; Ord. 702, 1969; Ord. 158 § 15, 1959. Formerly 13.20.130).

13.20.110 Posting of permit card.
The permit card required by this chapter must be at all times during the performance of the work and until the completion thereof and approval of the City Engineer posted in some conspicuous place at or near the work and must be readily and safely accessible to the City Engineer. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 16, 1959. Formerly 13.20.140).

13.20.120 Work subject to City Engineer approval.
All work done in pursuance of any permit granted as heretofore prescribed shall be under the inspection and subject to the approval and acceptance of the City Engineer. The grade, materials, size of pipe, and manner of construction of any sewer or drain built under permit shall be subject to the approval or rejection of said City Engineer. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 17, 1959. Formerly 13.20.150).

13.20.130 Inspection.
Any person performing work under permit pursuant to the provisions of this chapter shall notify the City Engineer when the work will be ready for inspection, and shall specify in such notification the location of the premises by address and file number of the permit. If the City Engineer finds the work or material used is not in accordance with this chapter, he shall notify the person doing the work, and also the owner of the premises, by posting a written notice on the permit card and such posted notice shall be all the notice that is required to be given of the defects in the work or materials found in such inspection. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 18, 1959. Formerly 13.20.160).

13.20.140 Filling or covering after inspection.
No trench shall be filled nor any sewer covered until the work shall have been inspected and approved by the City Engineer. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 158 § 19, 1959. Formerly 13.20.170).

13.20.150 Construction standards.
All service laterals and side sewers shall be constructed in compliance with City standards. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 26, 2019; Ord. 1145, 1977; Ord. 238, 1961; Ord. 158 §§ 20, 20-A, 20-B, 20-C, 20-D, 1959. Formerly 13.20.180).

13.20.160 Violation – Penalties.
Violations of any provision of this chapter shall be subject to the penalties as set forth in MTMC 13.05.320. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 28, 2019; Ord. 158 § 23, 1959. Formerly 13.20.210).

13.20.170 Inspections – Side sewer or sewer service lateral.
The City shall be notified as to when the side sewer or sewer service lateral will be ready for inspection and no closure of any ditch, hole, or opening shall be performed until the inspector or the person acting under the authority of the City Engineer has approved such installation or repair for cover. In those cases where a repair was of an emergency nature, done during the hours the City offices were closed, the ditch, hole, or opening shall be left open and properly protected by barricades or some other means until permit is obtained and repair approved. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 29, 2019. Formerly 13.20.220).

13.20.180 Restoration.
It shall be the contractor's responsibility that care be taken in the removing of sod, shrubs, flowers, etc., so that these items can be replaced and the area left in as good or better condition than prior to the starting of the repair. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 30, 2019. Formerly 13.20.230).

13.20.190 Removal of trees and shrubs.
If, during or after the installation or repair, it is found that the problem was created by a tree, shrub, or some other growth, it shall be the responsibility of the property owner, upon notification by the City, to remove said tree, shrub, or growth to prevent reoccurrence. If the owner fails to do so, and damage results to property owned by others, or if the main sewer line is plugged or damaged as a result of such failure, the owner shall be in violation of this chapter and shall be subject to the penalties set forth in Chapter 13.05 MTMC. (Ord. 2857 § 1 (Exh. A), 2024; Ord. 2759 § 31, 2019. Formerly 13.20.240).

CITY OF
MOUNTLAKE
TERRACE

CITY OF MOUNTLAKE TERRACE

PRESENTATION TITLE

Planning Commission Work Session: December 22, 2025

Lucas Kragt, Civil Engineer II, Engineering Services

PURPOSE

- To review the proposed MTMC updates
- To review the proposed EDM updates

CITY OF MOUNTLAKE TERRACE

AGENDA

- Present brief history on Development Standards
- Present substantial code updates
- Present substantial EDM changes
- Discussion and answer questions

CITY OF MOUNTLAKE TERRACE

COUNCIL GOALS

- Growing a vibrant community.
- Responsible governance to ensure desired level of service

CITY OF MOUNTLAKE TERRACE

TIMELINE FOR UPDATES

Task	Date
Present to Planning Commission at work session	12/22/2025
Review with Planning Commission at work session	1/12/2026
Open Record Hearing for Planning Commission Action	1/26/2026
Present to City Council at work session	2/12/2026
Open Record Hearing for City Council Action	3/5/2026

CITY OF MOUNTLAKE TERRACE

LEGISLATIVE HISTORY

- Previous Engineering Development Standards are located within MTMC
  - Previous code implementations in 2005, 2015
  - Some repealed in 2024 with adoption of 2024 EDM, but others were left in

CITY OF MOUNTLAKE TERRACE

SUBJECT SUMMARY

- Update MTMC to have all reference documents in one location in 19.95
- Address conflicting sections in MTMC
- Repeal old development standards currently in MTMC, that currently override previously adopted standards in the 2024 EDM

CITY OF MOUNTLAKE TERRACE

KEY MTMC CHANGES

Chapter 13.05

- Define all ADU's to be ½ ERU for Stormwater Billing and Capital Facility Charges

Chapter 13.50

- Allow 2,000 Square feet of disturbance and 50 Cubic Yards of material moved without a permit
- Repeal development requirements out of code

CITY OF MOUNTLAKE TERRACE

KEY MTMC CHANGES

Chapter 17.06

- Redirect plan review to the standard in the EDM
- Redirect bond process to a single section in MTMC 15.35

Chapter 17.10

- Repeal development requirements out of code

CITY OF MOUNTLAKE TERRACE

KEY MTMC CHANGES

Chapter 18.05

- Add permit types to match current processes
- Redirect bond process to a single section in MTMC 15.35

Chapter 19.95

- Call out the 2026 EDM as the adopted standard

CITY OF MOUNTLAKE TERRACE

KEY EDM CHANGES

Chapter 7.6

- Added language clarifying overhead utility undergrounding requirements

Chapter 7.11

- Allow pavement cuts to recently constructed streets as long as a grind and overlay is performed for 50 feet in both directions

CITY OF MOUNTLAKE TERRACE

KEY EDM CHANGES

Chapter 11

- Revised driveway and driveway approach standards for residential uses
  - Residential Minimum Driveway width is now 12 to 20 feet wide

Required Parking Spaces	Driveway Length (ft)	Minimum Driveway Width (ft)
5 or less	less than 100	12
5 or less	100 or more	16
6 or more	Any Length	20

  - Maximum Driveway Approach width shall be the minimum driveway width

CITY OF MOUNTLAKE TERRACE

KEY EDM CHANGES

Chapter 19

- Stormwater thresholds are now evaluated based on the last 3 years of added impervious area

Chapter 24

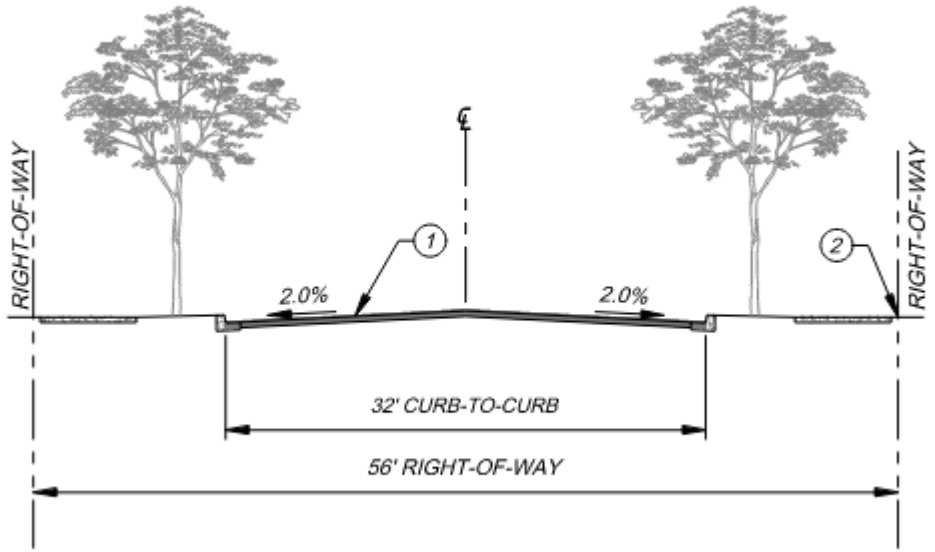
- Change name of Sanitary Sewer “Manhole” to gender neutral “Maintenance Hole”

CITY OF MOUNTLAKE TERRACE

KEY EDM CHANGES

Standard Plans

- Local Access Street Section reduced from 36 feet curb to curb to 32 feet curb to curb
- Local Access Street required ROW width reduced from 60 feet to 56 feet



CITY OF MOUNTLAKE TERRACE

STAFF RECOMMENDATION

Staff recommends Planning Commission recommend approval to City Council

CITY OF MOUNTLAKE TERRACE

DISCUSSION & QUESTIONS

CITY OF MOUNTLAKE TERRACE

Thank you

CITY OF MOUNTLAKE TERRACE

2026

ENGINEERING DEVELOPMENT MANUAL



Public Works Department
City of Mountlake Terrace
23204 58th Avenue W
Mountlake Terrace, WA 98043

2026 EDM and relevant Tables, Figures, and Appendices: Effective 3/5/2026

CITY OF MOUNTLAKE TERRACE

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FOREWORD

This Engineering Development Manual (EDM) provides information to the development community to help with the processes, administration, engineering, and inspection that apply to private development within the City of Mountlake Terrace (City).

This manual has five divisions that provides standards and policies on the following topics:

Division 1: Administration

Division 2: Right-of-Way

Division 3: Stormwater

Division 4: Sanitary Sewer

Division 5: Water

Division 6: Construction and Inspection

Division 7: Permit Close-Out

The appendices contain information that supplements Divisions 1 through 7.

DIVISION 1 – ADMINISTRATION

Chapter 1. Introduction

1.1. General Authority

MTMC 19.95.020(1.a) authorizes the preparation, administration, interpretation, and amendment of the Engineering Development Manual (EDM).

The EDM addresses permitting and engineering requirements for site and right-of-way work related to development within the City. While the EDM is geared toward the Applicant/Permittee and the Applicant/Permittee's engineer, the EDM is intended to provide information to a wide group of users.

The EDM sets forth minimum engineering criteria and specifications and supplements the Mountlake Terrace Municipal Code (MTMC); it does not replace or supersede the MTMC. These standards do not substitute for sound engineering design, nor are these standards intended to limit innovative design where equal performance in value, safety, and maintenance can be demonstrated.

The Director of Public Works (Director) reserves the right to substitute more stringent design standards and specifications where special conditions warrant.

The City's website provides access to the EDM, the MTMC, informational handouts, permit applications, and other guidance documents.

- City's website:
  http://www.cityofmlt.com
- Mountlake Terrace Fee Schedules:
  https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules
- Mountlake Terrace Municipal Code:
  https://www.codepublishing.com/WA/MountlakeTerrace
- Mountlake Terrace Permits and Licenses:
  https://www.cityofmlt.com/1993/Permits-Licenses
- Construction Permit Frequently Asked Questions:
  https://www.cityofmlt.com/DocumentCenter/View/21045/Construction-Permit-Frequently-Asked-Questions

1.2. Revising the EDM

The City always accepts public feedback to inform future revisions to the EDM. To share your comments, please send email to engineeringreports@mltwa.gov.

1.3. Contact Information

The contact information in Table 1 is provided as assistance during project planning and development and is not a comprehensive list of contacts.

Table 1. – Contact Information

Community and Economic Development Department 23204 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/169/Community-and-Economic-Development (425) 744-6207	Engineering Services 23204 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/203/Engineering-Services (425) 776-1161
South County Fire 12425 Meridian Avenue S Everett, WA 98208 https://www.southsnofire.org/home (425) 551-1264	Mountlake Terrace Police Department 23250 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/182/Police (425) 407-3999
Natural Gas Purveyor: Puget Sound Energy P.O. Box 91269 Bellevue, WA 98009-9269 https://www.pse.com/ (888) 225-5773	Solid Waste Purveyor: Waste Management NW email: pnwrsservices@wm.com https://www.wmnorthwest.com/mountlaketerrace/index.html (800) 592-9995
Electric Purveyor: Snohomish County PUD PO Box 1107 Everett, WA 98206-1107 https://www.snopud.com/ (425) 783-1000	Electrical Permits: City of Mountlake Terrace 23204 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/177/Building-Permits (425) 744-6207
Public Works Department 6204 215th Street SW Mountlake Terrace, WA 98043 https://www.cityofmlt.com/333/Public-Works (425) 670-8264	

Chapter 2. Permits

The information in this chapter summarizes the requirements in the MTMC. If there are any conflicts between this EDM and the MTMC, the MTMC shall prevail. Prior to beginning a residential, commercial, or industrial development, or a project requiring construction of or connection to public infrastructure within the City, the Applicant shall prepare and submit a complete permit application, plans, and specifications to the Community and Economic Development Department for review and approval. Permits are also required for the repair, alteration, or addition of connections to public utilities.

An approved permit authorizes the Applicant to proceed in accordance with the terms and conditions of the permit. If the Applicant proceeds in any manner other than as authorized, the City may require the Applicant to correct any work that is not in accordance with the permit, or may require the owner to expose any work to allow inspection. The City may cause the work to be stopped if the work, in the opinion of the City, constitutes a violation of the permit or a hazard to public safety.

2.1. Non-City Agencies

It is the Applicant's responsibility to obtain permits from non-City agencies that may involve work within the right-of-way. Permit plans shall show installation locations as approved by each utility provider.

In addition to non-City utilities, other required permits may be required such as:

A. Washington State Department of Transportation (WSDOT):
    1. Any work on WSDOT right-of-way, within WSDOT's limited access area, or that will be maintained by WSDOT.

B. Washington State Department of Fish and Wildlife (WDFW):
    1. Any work below the Ordinary High-Water Mark (OHWM) of surface waters including intermittent streams (work that uses, diverts, obstructs or changes natural flow or bed of State waters); or
    2. Any work that uses, diverts, obstructs, or changes the natural flow or bed of any of the salt or fresh waters of state requires a Hydraulic Project Approval (HPA) permit. Download the application for an individual permit, called a Joint Aquatic Resource Permit Application (JARPA), from the WDFW website.

C. Washington State Department of Ecology (Ecology):

1. The National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSWGP) Notice of Intent (NOI) is administered by Ecology. Refer to Ecology's website for information regarding applying for an NOI: https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit.

2.2. Emergency Work

Permits shall be obtained prior to starting any work; except, where repairs or maintenance of an emergency nature are required to be made while the City is closed. In such cases, the application and permit shall be obtained within 48 hours after beginning emergency work per MTMC 19.95.070.C.4.

Chapter 3. Permit Process

This chapter describes how the Applicant and the City work together during the permit process. The Community and Economic Development Permit Services can provide process information related to a specific permit. Contact Community and Economic Development for more information.

3.1. Permit Process

Refer to Table 2, Permit Process Outline for a general outline of the application review process. The outline may be adjusted to meet particular project circumstances. Not all the steps listed below are required for all permits. A description of various elements of the permit process is included in the sections following Table 2.

Table 2. – Permit Process Outline

	Activity	Responsible Party
I.	Pre-Application Conference: • Schedule a pre-application conference when required (or when desired).	Applicant
II.	Project Proposal: • Prepare studies and reports; • Prepare Project Plans	Applicant
III.	Submit Application(s): • Only applications meeting the submittal requirements shall be processed. • Refer to the applicable permit submittal checklist for required submittal information and materials. https://www.cityofmlt.com/174/Land-Use-Permits-Approvals https://www.cityofmlt.com/535/Engineering-Construction-Permits https://www.cityofmlt.com/177/Building-Permits	Applicant
IV.	Review: • Determine completeness; • Coordinate reviews (for example Fire Department, Planning, Public Works, and Building and Inspection teams); • Approve permit or send a comment letter to designated contact; • Redlined plans may accompany the comment letter.	City

	Activity	Responsible Party
V.	Revision and Re-submittal: • Revise plans per the City's comments; • Submit revised plans and provide revised supporting documents within 180 days; • Submit redlined plans that were provided by the City.	Applicant
VI.	Revision and Re-submittal Review • Coordinate plan review and verify that all comments have been satisfactorily addressed; • Approve permit or send a comment letter to designated contact; • Redlined plans may accompany the comment letter.	City
VII.	Notification: • Notify Applicant's designated contact regarding outstanding items needed for issuance; • Before the permit is issued, all requirements for issuance shall be met. These may include proof of insurance, posting of financial guarantee(s), draft covenants, easements, permits from other agencies, payment of fees, and/or dedications; • When all conditions for issuance are met, and the permit(s) is ready to issue, a representative from Community and Economic Development shall notify the designated contact person that the permit is ready. At this time, Community and Economic Development shall notify the Applicant of fees owed.	City
VIII.	Obtain Permit • Provide outstanding items; • Pay any remaining fees; • Receive the permit.	Applicant
IX.	Pre-Construction Meeting: • Schedule a pre-construction meeting; • Construction may not begin before having a pre-construction meeting.	Applicant
X.	Construction: • Complete all activities identified in the approved plans to the City's satisfaction; • Notify the City Inspector assigned to the project when elements are ready for inspection.	Applicant

	Activity	Responsible Party
XI.	Inspections: • Perform all required inspections including final inspection.	City
XII.	Close-out: • Complete any remaining conditions of the permit; • Record any remaining easements or dedications; • Provide maintenance/monitoring financial guarantee, per MTMC 13.50.020 (D); • Provide as-constructed/record drawings in accordance chapter 31.3; • Provide Bill of Sale for improvements transferred to City ownership.	Applicant
XIII.	Release Performance Financial Guarantee (if applicable).	City
XIV.	Cancel expired permit applications when applicable. See EDM Section 3.12, Permit Timing and Expiration.	City

3.2. Pre-application Meeting

Not all projects require a pre-application conference, but many projects benefit from this service. See MTMC 18.05.080 for projects that require a pre-application meeting. A pre-application meeting allows the potential Applicant, City representatives, and external agencies an opportunity to discuss a proposed project before a permit application is submitted. The pre-application conference provides the project proponent information regarding permits, permit processes, codes, and standards that apply to the proposed project.

The conference is scheduled at the time the Applicant submits an application for the meeting. Refer to the pre-application conference checklist available in the Permit Center or online at: https://www.cityofmlt.com/DocumentCenter/View/10037/Pre-Application-Conference-Checklist.

3.3. Permit Review

Community and Economic Development shall review permit submittals or coordinate review with other departments and/or external agencies for compliance with applicable standards

following the general outline in Table 2, Permit Process Outline and after applicable fees have been paid.

3.4. Plan Approval

Plan approval or issuance does not relieve the Applicant/Permittee, the Applicant/Permittee's engineer, or the Contractor from the responsibility to ensure all facilities are safe and that calculations, plans, specifications, construction drawings and record drawings with as-constructed information are in compliance with accepted engineering practices, this EDM, and applicable federal, state, and local laws and codes. The City Engineer may require corrections, as necessary, to plans and/or specifications to meet applicable requirements.

3.5. Plan Revisions to Issued Permits

To help with plan review on issued permits only, any revisions shall be called out on the plans using "clouds" or some other indicator. The revised plan(s) shall include the revision number and date particular to that plan set.

3.6. Independent Review

Depending on the site conditions and design complexity, the City may determine that reports, such as geotechnical, stream or wetland reports, require independent (third party) review. Third party review is at the Applicant's cost and expense.

3.7. Permit Issuance

Before a permit is issued, all requirements for issuance shall be met. Requirements may include proof of liability insurance, financial guarantees, draft covenants, easements or dedications, permits from other agencies, and/or payment of any outstanding fees. When a permit is ready to be issued, a representative from Community and Economic Development shall notify the designated contact person.

3.8. Pre-construction Meeting

Many projects may require a pre-construction meeting. Depending on the project scope, more than one meeting may be required. Construction may begin only after the required

pre-construction meeting(s). The Permittee is responsible for scheduling the pre-construction meeting(s) through the City's permit portal.

3.9. Permit Inspections

A. Inspections are scheduled through the City's Permit Portal. Applicant shall submit an inspection request prior to 3:00 p.m. the day prior to the requested inspection.

B. Inspections are usually performed Monday through Friday, from 8:30 a.m. to 4:00 p.m.

C. Some projects may require special inspections performed by pre-approved third parties.

D. For more information on inspections, refer to EDM Chapter 30, Inspection.

3.10. Project Close-out

Close-out requirements are covered in EDM Division 7.

3.11. Permit Timing and Expiration

The following provides general guidelines regarding application and permit expiration. For specific information contact Community and Economic Development or refer to MTMC 13.50.020(F).

A. Issuance Notification:
Following plan approval, a representative of Community and Economic Development notifies the contact indicated on the permit application that the permit is ready to issue and of any fees owed. Following notification, the Applicant has 180 calendar days to obtain the permit. If a permit is pending issuance for more than 180 calendar days without issuance and the Applicant has not requested an extension, the permit is null and void per MTMC 18.05.090 (E).

B. Issued Permit:
Permits are valid for the periods specified by ordinance. If the proposed work cannot be completed within the time covered by the permit, the City may grant an extension per MTMC 18.05.090 (E). The Permittee shall submit a written extension request to Community and Economic Development Permit Services **prior to the expiration date of the issued permit**. The City may assess additional fees for permit extension and inspection.

3.12. Appeals

In the event of a permit denial, the City shall state the reasons for the denial and measures necessary to attain permit approval. The applicant shall have the right to appeal the denial with the Hearing Examiner, in accordance with MTMC 18.05.210.

Chapter 4. Permit Submittals

Checklists with the required submittal materials are available on the City's Engineering Construction Permits website: https://www.cityofmlt.com/535/Engineering-Construction-Permits.

The checklists provide a list of the typical submittal materials. Some items are not applicable to all projects, and the City may request additional submittal materials for some projects. Contact Community and Economic Development with any questions regarding submittal materials.

4.1. Design Professionals

State law requires that certain work be performed by or under the direction of a professional licensed to practice in the State of Washington, including engineering and land surveying.

A. Activities requiring design by a licensed Professional Engineer include:
    1. Nearly all right-of-way design, except simple activities such as installation of a driveway approach;
    2. Design of treatment facilities, flow control facilities (detention ponds or infiltration basins), structural source control Best Management Practices (BMPs), or drainage conveyance systems; and
    3. Construction Stormwater Pollution Prevention Plans (SWPPPs) that involve engineering calculations.

B. Activities requiring a licensed Land Surveyor include:
    1. Nearly all right-of-way work. The survey work includes setting right-of-way lines, locating conveyance systems and setting elevations, locating curbs and setting curb elevations, locating drainage improvements and recording elevations, and providing as-constructed information on record drawings;
    2. Construction of treatment facilities or flow control facilities (detention ponds or infiltration basins), structural source control BMPs, or drainage conveyance systems to set locations and elevations;
    3. Cuts on slopes steeper than 15 percent require a professional surveyor to set the slope stakes to confirm top and toe of cuts;

4. Survey marks such as property corners, right-of-way lines, subgrade elevations, and slope stakes;
5. Placement, protection, and replacement of survey monuments;
6. When no profile has been established for the streets abutting and leading to a development site, the City may require a survey of the street area by a licensed surveyor for the purpose of establishing the proposed centerline profile and the transition between the right-of-way and on-site;
7. Flood Zone Elevation Certificates require surveyed finished floor elevations to confirm that structures meet the elevations set by the City; and
8. Record drawings with as-constructed (surveyed) information shall be provided for private infrastructure that connects to the City's infrastructure, for public facilities, and for work in the right-of-way.

4.2. Plans and Specifications

Plans shall clearly indicate the location, nature, and extent of the proposed work and shall provide sufficient detail to show that all provisions of the standards and codes are met. Specifications shall accompany the plans if the plans and notes do not adequately describe the proposed work and materials.

4.3. Survey

A. Surveys shall meet the following requirements:
    1. Horizontal Datum: All survey work, including but not limited to mapping, platting, planning, design, right-of-way surveys, and construction surveys, shall be in the Washington State Plane Coordinate System, North Zone, using North American Datum (NAD), horizontal, 1983 (2011);
    2. The plans shall show the horizontal control used to establish ties to the datum, with type, size and location, date visited, and the State Plane coordinates for each monument used;
    3. Vertical Datum: All survey work, including but not limited to mapping, platting, planning, design, right-of-way surveys, and construction surveys, shall be in the 1988 North America Vertical Datum (NAVD);

4. The plans shall show the benchmarks used to establish ties to the datum, with reference number, description, location and elevation of each benchmark used, and any project site benchmarks. A map of City benchmarks is provided at the following link: https://www.cityofmlt.com/DocumentCenter/View/254/City-Benchmark-Locations; and
5. For Flood Elevation certificates, a conversion from 1988 NAVD to 1929 NAVD may be provided.

B. All real properties, including lots, right-of-way, and easements shall be located or staked on the ground, starting from a monument.

C. Legal descriptions of the horizontal and vertical locations require the location of a monument as their beginning point of reference.

D. Refer to Appendix B – Survey Criteria.

4.4. Site Assessment

Refer to Division 3 – Stormwater and the Department of Ecology's 2019 Stormwater Management Manual for Western Washington (Stormwater Manual) for site assessment requirements.

4.5. Stormwater Report

The scope of drainage review varies with the project complexity and potential surface water impacts. A drainage report may be required. Refer to Division 3 – Stormwater and Appendix C – Stormwater Report Guidelines for design and report requirements.

4.6. Geotechnical Report

A geotechnical report helps determine if the proposal for a site is appropriate. Geotechnical reports shall comply with MTMC 16.15.430 (D). In addition to geotechnical reports required for structural designs of buildings, a geotechnical report is required for:

A. Land fill or excavation over 500 cubic yards;

B. Paving projects;

C. Public utility projects;

D. Retaining walls that require a building permit;

E. Work on sites containing or adjacent to slopes that are 15 percent or steeper. Refer to MTMC Chapter 16.15 for critical area regulations; and

F. Some storm drainage design.

For site development on a site with no steep slopes, erosion hazards, or critical areas, a report previously prepared for that site may be accepted if:

A. The report is less than five (5) years old and no significant changes to the site have occurred; or

B. The geotechnical engineer/engineering geologist who signed the report provides a letter stating the report is still applicable to the site and currently proposed project.

Refer to Appendix D – Geotechnical Report Guidelines for the approved report format.

4.7. Transportation Impact Analysis

A Transportation Impact Analysis (TIA) is required for each development or redevelopment pursuant to MTMC 19.95.080. The TIA shall be consistent with the most current edition of the Trip Generation Manual, published by the Institute of Traffic Engineers (ITE).

Refer to EDM Chapter 8, Transportation Impact Analysis and Appendix E – Transportation Impact Analysis Report Guidelines for guidance.

4.8. Traffic Control Plan

Prior to beginning any activity which might affect City right-of-way, the Applicant shall provide the City, for review and approval as part of a Right-of-way Use Permit, a traffic control plan that meets the most current Manual of Uniform Traffic Control Devices (MUTCD) standards. Refer to the EDM Section 29.3 - Temporary Traffic Control and Appendix J – Traffic Control Plan Submittals.

The traffic control plan shall accurately reflect existing right-of-way conditions including accesses, channelization, sidewalks, bike/pedestrian paths, bus zones, hydrants, trees, poles, and pavement edge. The traffic control plan shall allow for continued emergency

services. For pedestrian and business disruption, the plan shall contain adequate connections and clear signage.

4.9. Covenants

The City requires a covenant to be recorded for all permanent stormwater BMPs. The covenant is a legal document that grants the City permission to access the property to inspect BMPs. The facility owner is responsible for operating and maintaining all BMPs to the standards set forth in the Stormwater Manual.

Upon verification of the constructed items and prior to final approval of the project, the Applicant shall proceed with recording the covenant with the Snohomish County Auditor's office. After recording, the Permittee shall provide the City with a copy of the recorded document prior to final acceptance.

For subdivision projects, the recorded covenant shall be stated on the face of the Final Plat.

4.10. Easements

Easements shall be provided when facilities on private property are to be used by more than one (1) lot or will benefit the public.

A. Utilities:
   Each utility (water, sewer, power, stormwater, etc.) determines the minimum width for an easement.

B. Pedestrian/Bicycle:
   For traffic safety or access to schools, playgrounds, urban trails, shopping facilities, or other community facilities, bike routes or walkways shall be a minimum of five (5) feet wide. Additional width may be required.

C. Non-motorized:
   Non-motorized easements facilitate pedestrian circulation between neighborhoods, schools, shopping centers, and other activity centers. A non-motorized easement shall be wide enough to include the trail plus at least two (2) feet on each side.

D. Roadway**:**
   Either the street's functional classification or the streets particular design features may necessitate slope, sight distance, wall, or drainage easements beyond the right-

of-way line. Such easements may be required in conjunction with dedication or acquisition of right-of-way.

4.11. Tracts

Tracts should be used for facilities used by a broader group of individuals than easements, may have some degree of access by the public, and typically require regular maintenance activities. Examples of facilities that may be located in tracts include private streets or drainage facilities serving more than one (1) lot. Tracts shall be large enough to accommodate and maintain the facilities and activities located within them.

A publicly maintained stormwater facility shall be located in the street right-of-way or in a tract dedicated to the City. At a minimum, the tract shall include the entire facility, site access area, and at least five (5) feet around the facility. In limited cases, an easement may be permitted. If an easement is permitted, dimensions shall be determined by the City.

4.12. Dewatering Plan

Dewatering is defined as the removal and appropriate discharge and release of stormwater and subsurface water. Temporary dewatering that occurs during construction shall have a Temporary Dewatering Plan reviewed and approved by the City before dewatering begins.

4.13. Financial Guarantee

The City determines the performance and maintenance financial guarantee amounts. The performance guarantee shall be submitted before permit issuance. The maintenance guarantee shall be provided before final approval.

A. Performance Guarantee:
    1. The City requires a performance guarantee to cover the construction costs of proposed right-of-way and public utility improvements pursuant to MTMC 15.35.010.
    2. A performance guarantee, in the form of a surety bond, performance bond, and/or maintenance bond, may be required for proposed critical area mitigation pursuant to MTMC 16.15.340.
    3. Performance financial guarantees remain in full force and effect until:

a. The obligations secured are fully performed as determined by the City's inspection program;
b. A guarantee for maintenance and operation of all improvements for a guarantee period have been submitted to the City; and
c. The City has released the guarantee in writing.

4. The guarantee may be released in increments as improvements are completed and have satisfactorily met all inspection requirements of the City.
5. The guarantee estimate is submitted by the Developer and reviewed and approved by the City.

B. Maintenance Guarantee:

1. A maintenance guarantee in the amount of 20 percent of construction costs shall be required to guarantee maintenance and operation for a period of two (2) years maximum per MTMC 15.35.040.

4.14. Insurance

As a condition of the City permitting work within the public right-of-way, a Certificate of Liability Insurance shall be provided indicating that the Applicant and/or Contractor are covered by a Commercial General Liability insurance policy.

Additionally, when the City determines that the nature of any work on public or private property is such that it may create a hazard to human life, endanger adjoining property, street, street improvement, or any other public property, the City may require the Permittee to provide a Certificate of Liability Insurance. In this case, the City shall determine the amount of insurance based on the nature of risks involved.

The minimum Commercial General Liability insurance limits are to be no less than $2,000,000 each occurrence, $2,000,000 general aggregate and $2,000,000 products completed operation aggregate limits.

The required liability insurance shall be maintained for the duration of construction activities.

The City shall be named as an insured under the Commercial General Liability insurance policy using ISO Additional Insured-State or Political Subdivisions-Permits CG 20 12 or a substitute that provides an equivalent endorsement.

Chapter 5. Permit Fees

Plan review and permit fees are collected when an application is submitted. See Permit FAQs and Impact Fee Schedules. Additional fees, discussed below, are due prior to permit issuance.

5.1. Fee-in-lieu of Frontage Improvements

In the instance where streets are to be improved as a whole through a Capital Improvement Project (CIP) or local improvement district within five (5) years of permit issuance, the City Engineer may approve a contribution to be paid in lieu of the improvements. The fee shall be approved by the City Engineer and calculated based on the cost of the improvements requested for the development.

5.2. Impact Fees

The City collects impact fees for transportation and park/recreation improvement projects. Impact fees are collected at the time of building permit issuance unless a specific exemption applies. Fees are calculated based on the type of development listed in the fee schedule in effect at the time of complete application. Fee amounts are calculated by the City during permit review. See Chapter 18.30 MTMC and Permit FAQs and Impact Fee Schedules.

5.3. Capital Facilities Charge

Prior to making a water, sewer, or stormwater connection, all property owners who have a change of use of the property, connect to, or establish a new connection shall pay a capital facilities or capital improvement (buy-in) fee per Chapter 13.05 MTMC. The purpose of the charges is to recover costs already paid by present and past customers for building system capacity to serve newly connected customers and to ensure that all customers pay their share of the cost of capital improvements to provide utility services.

5.4. Revisions to Issued Permits

The cost to review revisions to an issued permit is charged at the currently adopted hourly review rates. These fees shall be paid before the permit revisions are issued.

DIVISION 2 – RIGHT-OF-WAY

Division 2 – Right-of-Way sets forth minimum engineering design criteria to support public safety and welfare within the right-of-way. Every effort has been made to ensure that these standards are in line with AASHTO, FHWA, ITE, and WSDOT standards.

The City Engineer shall have the authority to administer the provisions of these technical standards, to determine applicability, to interpret unclear provisions, to determine the level of detail and methodologies for required analysis, and to promulgate procedures and rules for unique circumstances not anticipated within the standards and procedures contained within this Engineering Development Manual (EDM).

These standards do not substitute for engineering design, nor are these standards intended to limit innovative design where equal performance in value, safety, and maintenance can be demonstrated. More stringent design standards or specifications may be required where special conditions warrant.

All facilities in the right-of-way, unless specifically excluded, shall be designed by or under the direct supervision of a Professional Engineer licensed in the State of Washington. All right-of-way drawings, designs, sections, details, standard plans, and supporting data submitted to the City for approval, unless specifically excluded, must be stamped, signed, and dated by the engineer of record.

Chapter 6. Standards

Design detail, construction workmanship, and materials shall be in accordance with these technical standards and the most current edition of the companion documents listed herein. Design and construction shall meet the applicable standards and codes, and the recommendations in specific reports, such as the geotechnical report, the traffic impact analysis, and the surface water report.

The following documents and/or regulations provide the basis for design and construction requirements for public or private development within the City:

A. City of Mountlake Terrace Comprehensive Plan
B. City of Mountlake Terrace Transportation Master Plan
C. City of Mountlake Terrace Municipal Code

6.1. Companion Documents

When standards or other design criteria are not specifically addressed in the EDM, then the most current editions of the following shall govern the design.

A. Transportation design standards:
    1. *Design Manual*, WSDOT; available online at https://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm
    2. *Standard Plans*, WSDOT; available online at https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/standard-plans
    3. *A Policy on Geometric Design of Highways and Streets*, AASHTO; available online at https://www.fhwa.dot.gov/programadmin/standards.cfm
    4. *Urban Street Geometric Design Handbook*, ITE; available online at https://www.ite.org/technical-resources/topics/geometric-design/
    5. *Guide for the Development of Bicycle Facilities*, AASHTO; available online at AASHTO Store: Browse Transportation Publications and Online Training
    6. *Public Right-of-Way Accessibility Guidelines*, United States Access Board; available online at https://www.access-board.gov/prowag/

7. *Americans with Disabilities Act (ADA) Standards for Accessible Design*; available online at https://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm
8. *Small Town and Rural Multimodal Networks Guide*, FHWA; available online at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf
9. *Urban Bikeway Design Guide*, National Association of City Transportation Officials (NACTO); available online at https://nacto.org/publication/urban-bikeway-design-guide/
10. *Urban Street Design Guide*, NACTO; available online at https://nacto.org/publication/urban-street-design-guide/

B. Surface water design standards:

1. *2019 Stormwater Management Manual for Western Washington* (Stormwater Manual), Department of Ecology, as amended in EDM Chapter 19, Stormwater Manual Additional Requirements; available online at https://www.ecy.wa.gov/programs/wq/stormwater/manual.html
2. *Highway Runoff Manual,* (HRM) M31-16.04, WSDOT; Only publicly funded linear transportation projects may use the BMPs and minimum design requirements, except LID Feasibility (HRM Section 405.2 and within individual BMP design criteria in Section 5-4) available online at https://www.wsdot.wa.gov/Publications/Manuals/M31-16.htm

C. Traffic control design standards:

1. *Manual on Uniform Traffic Control Devices*, FHWA; available online at https://mutcd.fhwa.dot.gov

D. State highway guidelines:

1. *Local Agency Guidelines*, WSDOT; available online at https://www.wsdot.wa.gov/Publications/Manuals/M36-63.htm

E. Construction specifications:

1. *Standard Specifications for Road, Bridge, and Municipal Construction* M 41-10, WSDOT; WSDOT Manuals are available online at https://www.wsdot.wa.gov/Publications/Manuals

F. The following shall be applicable when pertinent, when specifically cited in these standards, or when required by state or federal funding authority:

1. *Highway Capacity Manual*, Transportation Research Board; available online at https://www.trb.org/Main/Blurbs/175169.aspx
2. *Rockery Design and Construction Guidelines,* FHWA; available online at https://www.fhwa.dot.gov/clas/pdfs/RockeryDesignandConstructionGuidelines013007.pdf
3. *National Electrical Installation Standards* (NEIS); available online at https://www.neca-neis.org/
4. American Society for Testing and Materials (ASTM); available online at https://www.astm.org/Standard/standards-and-publications.html
5. Design criteria of federal agencies including the Federal Housing Administration, Department of Housing and Urban Development, Federal Highway Administration (FHWA), and US Department of Transportation.

6.2. Deviation from Engineering Standards

A deviation from Engineering Standards is a mechanism to allow the City to grant an adjustment in the application of engineering standards where there are unique circumstances relating to the proposal. Refer to MTMC 17.10.070.

Deviations are submitted through a permit application and reviewed to determine that all requirements are met. All deviations must be approved by the City Engineer in writing prior to the start of construction.

The City Engineer may grant a deviation from the Engineering Standards only if the applicant demonstrates all of the following;

1. The granting of such deviation will not be materially detrimental to the public welfare or injurious or create adverse impacts to the property or other property(s) and improvements in the vicinity in which the subject property is located.

2. The authorization of such deviation will not adversely affect the implementation of the Comprehensive Plan adopted in accordance with State Law.

3. The deviation shall not conflict with the standards of the critical areas regulations in Chapter 16.15 MTMC.

4. Deviation from the Public Works Standards may only be granted if the proposal meets the following:

    a. Conform to the intent and purpose of the Mountlake Terrace Municipal Code;

    b. Produce a compensating or comparable result which is in the public interest; and

    c. Meets the objectives of safety, function and maintainability based upon sound engineering judgement.

5. Deviation from roadway design standards must meet the objectives for fire protection. Any deviation that does not meet the International Fire Code requires approval by the Fire Code official.

It is recommended that an Applicant discuss a potential deviation with the City Engineer prior to submitting the application.

6.3. Variances from Development Standards

A variance from Development Standards is a mechanism to allow the City to grant an adjustment in the application of development standards where there are unique circumstances relating to the proposal.

A. Refer to MTMC Chapter 17.10.070, MTMC Chapter 19.100, and MTMC Chapter 19.110 for information related to the variance process.
B. See MTMC 18.05.075 for more information related to notice requirements and hearing procedures.

Chapter 7. General Requirements

This chapter provides general requirements related to right-of-way improvements.

7.1. Americans with Disabilities Act

All designs shall meet the current ADA requirements and standards. The City standard for ADA requirements is the Public Right-of-Way Accessibility Guidelines (PROWAG) as approved by final rule in the Federal Register August 8, 2023.

When pedestrian access route features are impacted, the pedestrian access route and all affected traffic control devices shall be improved to current ADA standards. Pedestrian access route features and possible affected traffic control devices may include, but are not limited to sidewalks, driveways, pavement markings, traffic signal systems, illumination systems, communication systems, traffic signs, and enhanced traffic control devices.

In the event field conditions prohibit meeting the ADA requirements, the Applicant's/Permittee's engineer shall submit documentation for City review that the designed and constructed improvements meet ADA to the maximum extent feasible (MEF). MEF approval(s) shall be obtained prior to construction. After construction, the as-built conditions shall be surveyed by a surveyor licensed in the State of Washington. The Applicant's/Permittee's engineer shall revise the MEF documentation to reflect the as-built conditions.

7.2. Low Impact Development

Requirements for LID apply to both onsite improvements and improvements in the right-of-way. Low impact development BMPs are preferred over conventional stormwater management systems that rely on detention structures and closed conveyance systems. Use of LID BMPs may reduce or eliminate the need for conventional detention facilities but does not remove the obligation to comply with the minimum requirements of the Stormwater Manual. Refer to the Stormwater Manual as adopted and amended in Division 3 –Stormwater.

Infiltration is required to the maximum extent practicable. The approval of any infiltration project shall not constitute approval of any means by which unstable subsurface conditions

may occur; such conditions resulting from infiltration projects not constructed by the City shall remain the responsibility of the Developer.

Bioretention features installed in the right-of-way shall follow MLT Standard Plans 444 - Bioretention Facility and 446 - Bioretention In-Line Curb Cut.

Proprietary emerging stormwater treatment technologies that have received Ecology General Use Level Designation may be installed in the right-of-way with approval of the City Engineer.

7.3. Maintenance

See MTMC Chapter 12.05 for information regarding the construction and maintenance of sidewalks.

7.4. Tree Removal/Pruning

Tree removal and pruning in the right-of-way is regulated by MTMC Chapter 16.30. All trees planned for removal from the right-of-way shall be posted with the Right-of-Way Tree Removal Notification notice at least 14 days prior to removal unless part of an existing permit approved by the City.

7.5. Connectivity

In order to provide connectivity, street layouts shall continue streets in adjoining developments(s) or their anticipated locations where adjoining property is not yet developed.

A. Where existing adjoining properties have planned road and trail systems, connections shall be required.

B. Connection to existing roadway ends by new development shall be required when alignment between the roadways exist.

    1. Aesthetic and environmental character between existing and new development shall be maintained.

    2. Pedestrian facilities shall connect or have an approved transition where there is none in the existing development.

3. Traffic mitigation shall be reviewed as part of the traffic study for the new development when connecting to an existing adjacent neighborhood. Vehicle and pedestrian safety elements shall be included in the review.

C. When a connecting road serves 100 residential units or more, a secondary access point shall be required.

7.6. Underground Utilities

Refer to MTMC 15.05.330 for new service connections on private property.

Existing aboveground wiring and related equipment for electrical distribution facilities, communication facilities, and other purposes, except for wireless communication facilities, transformers, junction boxes and the like, shall be relocated underground along the property frontage including up to 50 feet beyond the property line on either side of the street frontage to connect to logical points of the existing utility system, or crossing the street within the frontage extents, when the development or redevelopment requires a subdivision, a short subdivision, a site plan, or a conditional use permit. It is recommended that applications for undergrounding permits be submitted as early as possible.

A. Undergrounding will not be required when the right-of-way frontage of the new development or redevelopment is less than 80 feet in width along the frontage containing the aboveground wiring; and:

    a. The new development or redevelopment does not require relocation of the existing aboveground wiring to accommodate the required site or street frontage improvements; or

    b. The City Engineer determines that the undergrounding of the portion of the existing aboveground wiring along the development or redevelopment's street frontage would require undergrounding portions of the existing aboveground wiring beyond the development's street frontage, unless such additional undergrounding is no more than 50 feet beyond the property line on either end of the street frontage to connect to logical points of the existing utility system;

B. Where undergrounding is not required for a new development or redevelopment under one of the exemptions listed in subsection A of this section, and street frontage improvements are required, the applicant shall provide conduit within the street frontage improvements for the future undergrounding of the aboveground wiring. The conduit shall be of sufficient size and dimension to accommodate the projected maximum line size required for all franchise utility facilities to be undergrounded;

All new utility lines, including transmission facilities, must be installed underground. Existing transmission facilities may remain above ground.

7.7. Frontage Improvements

A. Certain activities require the installation of frontage improvements. Refer to MTMC 17.03.050(A)(8), 17.04.050.A.8, 17.05.060.A.8 and 19.95.030(D). Frontage improvements may include street improvements, as described below in 7.7 (B) as well as water line, sewer, drainage and dry utility improvements along each right-of-way boundary.

B. Standard frontage improvements consist of dedication of right-of-way, curb, gutter, sidewalk, amenity zone and landscaping, drainage improvements, and pavement overlay up to one-half (0.5) of each right-of-way abutting a property. Additional improvements may be required to ensure safe movement of traffic, pedestrians, bicycles, transit, and nonmotorized vehicles. The improvements can include transit bus shelters, bus pullouts, utilities, undergrounding, street lighting, signage, and channelization.

C. When a development proposal requires frontage improvements, existing frontage improvements shall be upgraded to current standards.

D. When frontage improvements are required, City staff shall review the required improvements for consistency with MTMC 19.95.030(E) regarding Complete Streets. The Complete Streets policy strives to provide an integrated multimodal transportation system that provides for the safe accommodation of pedestrians, bicyclists, transit users, motorists and users of all ages and abilities.

E. Acknowledging that the City is a built environment, design and installation of new or replaced frontage improvements may be adjusted during design or installation, with approval from the City Engineer, to meet the existing conditions. Approval may

require a formal Deviation from Engineering Standards, as determined by the City Engineer.

F. Appendix F – Street Matrix defines street widths, curb locations, sidewalk widths and other right-of-way requirements for all streets. The Street matrix currently shows the streets in Town Center. Remaining roadways will be included with the next edition of the EDM.

G. The frontage improvements run the full length of the property line(s)/right-of-way line(s) in order to service adjacent tributary areas as may be warranted. Transitions to existing conditions occur outside the development frontage.

H. An amenity zone is required, except where an alternate street design has been approved, or where protection of critical areas requires special consideration.

I. Required frontage improvements shall be installed, inspected and approved by the City prior to final approval of the related building/site development permits and before a Certificate of Occupancy is issued or a permit receives final approval.

J. The installation of required frontage improvements shall not create flooding, ponding, or other drainage issues.

K. The design of frontage improvements shall address the access needs of the adjacent land use such as mail collections, solid waste and recycling services, and deliveries.

L. Private irrigation systems installed in the amenity zone shall be maintained by the abutting property owner and shall be connected to the water line servicing that abutting property.

7.8. Dedication of Right-of-Way

A. Dedication shall occur at the time of recording for subdivisions and binding site plans, or prior to permit issuance for construction projects.

B. The City may require right-of-way dedication to incorporate necessary transportation and frontage improvements. If they are part of a current Capital Improvement project, and/or part of an overall master transportation plan.

C. The City Engineer may grant some reduction in the minimum right-of-way requirement where it can be demonstrated that sufficient area has been provided for all frontage improvements, including utilities, within the right-of-way.

D. Dedications may be required in the following situations:

1. Accommodation of motorized, pedestrian and bicycle transportation, landscaping, utility, street lighting and traffic control devices, and buffer requirements;
2. The development project abuts an existing substandard public street and the additional right-of-way is necessary to incorporate future frontage improvements for public safety;
3. Right-of-way is needed for the extension of existing public street improvements necessary for public safety; or
4. Right-of-way is needed in order to incorporate improvements that are reasonably necessary to mitigate the direct impacts of development.

7.9. Illumination

A. SnoPUD maintains and establishes service connections for street lighting within the City. When new street lighting is required, the Applicant/Permittee works with the Public Works Department and SnoPUD regarding design and installation. The Applicant pays the costs associated with the design and installation of the light(s). These costs may include new electrical service, underground facilities and/or a new pole(s) as required.

B. Where a half-street improvement is required in conjunction with a development, the roadway width to be used for illumination design purposes shall be the actual width of the roadway at the time of design and not half of the ultimate width. All existing luminaires shall be evaluated for upgrades to present standards.

C. Projects that underground utilities shall provide new street lighting. Projects within mixed-use or commercial zoned areas that are located along an arterial street shall provide pedestrian scale lighting.
    1. Pedestrian scale luminaires shall be placed within the amenity zone at a 50-foot maximum spacing on center. Lighting calculations are not required for pedestrian scale luminaires.
    2. If the 50-foot maximum spacing cannot be achieved, pedestrian lighting shall be designed to meet the following performance standards in Table 3, Pedestrian Lighting Requirements.

Table 3. – Pedestrian Lighting Requirements

Parameter	Performance Standard
Calculated "Illumination Path" Width	10'
Maintained Average Horizontal Measured at Pavement	1.0 foot-candle
Average: Minimum Uniformity Ratio	6.0: 1
Calculation Grid Size	5' on center
Applied Light Loss Factor	0.85
Color Temperature	3000K

D. All new and retrofitted lighting systems shall be Light Emitting Diode (LED).

E. All lighting shall conform to NEIS standards. Street lighting system designs shall be stamped by a Professional Engineer licensed in the State of Washington experienced with lighting design and shall include the following: luminary spacing, illumination level, uniformity ratio, line losses, power source, the electrical and physical layout, installation details, plans and specifications. All designs shall be approved by the City Engineer.

F. For City-owned illumination systems, lighting level requirements for roadways are defined in Appendix I – Street Lighting Levels Criteria. Other criteria are as follows:

    1. Intersections shall have a minimum light level equal to one and one-half (1.5) times the average light level requirement of the intersecting street with the highest classification. Intersection uniformity shall be less than or equal to the uniformity of the intersecting street with the highest classification.
    2. All marked crossings shall be illuminated with at least one (1) luminaire oriented parallel to the crossing. Average maintained light levels within pedestrian facilities shall be as shown in Table 4, Pedestrian Facility Light Levels.

Table 4. – Pedestrian Facility Light Levels

Pedestrian Facility Type	Minimum Maintained Avg. (fc)	Uniformity Ratio (Avg/Min)
Marked intersection or mid-block crossing	1.0	3:1
Unmarked crosswalk at intersection	Same as adjacent intersection	
Sidewalk adjacent to commercial use	1.0	4:1
Sidewalk adjacent to residential use	0.4	4:1

G. As-constructed street lighting plans for City-owned systems shall be provided to the City. Refer to Appendix H – Record Drawing Criteria for as-built guidelines.

H. Street lighting systems shall be designed to be accessible by a wheeled vehicle weighing 30,000 lbs.

I. Contractor installed, City owned service cabinets equipped with electrical meters, circuit breakers, and other required components are required on arterial installations of five (5) or more streetlights. Installations with less than 5 streetlights shall be designed as directed by the City Engineer and may still require Contractor installed, City owned service cabinets equipped with electrical meters, circuit breakers, and other required components.

J. The exact location of the power source for all roadway or pedestrian lights shall be indicated together with the remaining capacity of that circuit. System continuity and extension shall be provided.

K. Street lighting may be required along private streets. Street lighting systems for private streets shall be designed and constructed on a separate power source from the public street lighting system. All streetlight maintenance, installation, and power costs for private street systems shall be paid by the property owner, homeowner, or homeowners' association.

7.10. Curbing

A. Curb and gutter shall be consistent with Standard Plan 133 - Cement Concrete Traffic Curb and Gutter on all street classifications. A 24-inch wide Curb and Gutter may be used as an option for uniformity or replacement.

B. Rolled curb is not allowed, unless it replaces or matches existing, and/or it is approved by the City Engineer.

C. Extruded curb is not allowed in public right-of-way, unless it is temporary, and/or approved by the City Engineer.

7.11. Pavement Cut Moratorium

The following applies to a utility doing work, such as system repair or expansion, within the right-of-way. This moratorium does not apply to utility service installation required for new development or redevelopment.

A. Any street that has been constructed, reconstructed, resurfaced, overlaid or paved within the past five (5) years cannot be cut for five (5) years from the date of project completion unless:
    1. A Deviation from Engineering Standards is approved; or
    2. It is allowed through a valid franchise agreement.
    3. A grind and overlay is performed for 50 feet in either direction from the extents of the pavement cut for the entire width of the street
B. Emergency situations are exempt from the five (5) year moratorium. A right-of-way permit shall be applied for within 48 hours after beginning emergency work in the right-of-way pursuant to MTMC 19.95.070 (C)(4).

Chapter 8. Transportation Impact Analysis

A Transportation Impact Analysis (TIA) may be required to inform the City of the need for additional improvements to meet concurrency requirements pursuant to MTMC 19.95.080.

A. Pursuant to MTMC 19.95.080, a TIA is required if a development proposal would generate:
    1. 20 or more new vehicle trips during the p.m. peak hour; or
    2. 40 or more trips during any weekday, or
    3. 50 or more trips during any weekend day, or
    4. 20 or more trips during the peak hour of the development, or

B. A Regional Transportation Analysis (RTA) is required if:
    1. A development or project would generate 100 peak hour trips or more; or
    2. The City Engineer determines the project may have significant impacts to the regional system. This may be required at the discretion of the City Traffic Engineer for projects that generate between 20 and 100 trips.

C. In addition to the general TIA criteria, an RTA shall have an expanded study area for impacted intersections and roadways and shall include a thorough assessment of impacts to safety, pedestrians, bicyclists, transit, local access streets, and parking.

The TIA or RTA scope is developed with the City Traffic Engineer. Please contact the City Traffic Engineer for details including background traffic growth information, trip distribution and assignment assumptions, and intersections and/or roadways required for study.

If the proposed project is changed by type or size or the TIA or RTA is older than two (2) years, updates to the TIA or RTA shall be required.

The level of detail to be included in the TIA depends on the complexity of the proposed project. See Appendix E for Transportation Impact Analysis guidelines.

Chapter 9. Street Classification

Federal and State guidelines require that streets be classified based on function. The City mainly classifies streets as arterial or non-arterial (local). Other classifications include alley and private streets. Street classifications are approved through the TMP process. The street classification map is available on the City's website: http://www.cityofmlt.com/181/Maps-Planning-and-Engineering

9.1. Arterial Streets

Arterials provide a high degree of vehicular mobility through effective street design and by limiting property access to the right-of-way. Most vehicle trips on arterials are through-traffic. Arterials are divided into three classes: Principal, Minor and Collector Arterials.

A. Principal Arterials:
    1. Principal Arterials have higher levels of local land access controls, with limited driveway access, and have regional significance as major vehicular travel routes that connect metropolitan areas.
    2. An example is 220th St SW.

B. Minor Arterials:
    1. Minor Arterials generally provide a high degree of intra-community connections and are less significant than Principal Arterials when considering regional mobility.
    2. Examples include: 44th Ave W, 56th Ave W, and 236th St SW.

C. Collector Arterials:
    1. Collector Arterials assemble traffic from the interior of an area/community and deliver it to the closest Minor or Principal Arterial. Collector Arterials provide mobility, and access to property.
    2. Examples include: 48th Ave W, 58th Ave W, and 216th St SW.

9.2. Non-Arterial Streets

Streets that are not designated as arterials are non-arterial streets, also known as Local Access streets. Refer to the City's TMP for more detail on street classifications.

9.3. Alley

The Revised Code of Washington (RCW) 46.04.020 defines an alley as a public right-of-way "not designed for general travel and used primarily as a means of access to the rear of residences and business establishments". The City does not maintain alleys.

9.4. Private Street

A private street is a privately owned and maintained street providing vehicular access within a property or properties. The City may approve a private street under certain conditions (see MTMC 19.95.030 (H)). Refer to EDM Section 12.8, Private Streets for more information.

Chapter 10. Access Management

Access management recognizes the need to balance access to private properties with the maintenance of safety, capacity and Level of Service (LOS) on the streets that provide access. Property owners abutting City right-of-way generally have a right to access, but the means of access shall be reviewed and approved by the City.

Safety and the function (both current and future) of each street are the foremost factors in determining the number, location, and design of street accesses. Roadway design elements such as auxiliary lanes, medians, channelization, and safe stopping and turning sight distances are also factors in access management, as are the elements of land development, such as internal site circulation and parking layout. Access management is implemented via the Right-of-Way Use Permit, Site Development Permit, Building Permit, and Subdivision review processes.

10.1. General

A. Authority:

1. City Rights-of-Way:
   The City Engineer approves the design, number, and location of access points to City rights-of-way. When changes in land use result in changes to the type and operation of access, the access location and design shall be reviewed with the development plans and shall be constructed or modified to meet current standards.
2. State Highways:
   Access to State highways is regulated by WSDOT pursuant to RCW Chapter 47.50 and Washington Administrative Code (WAC) Chapters 468-51 and 468-52. Two classifications of State highway exist relative to the City: *Limited Access* and *Managed Access*. Interstate 5 is the only Limited Access Highway within the City. SR 99 and SR 104 (Ballinger Way NE) are *Managed Access Highways* within or adjacent to the City. For information on access permitting through WSDOT, please visit the WSDOT Access Management website: https://wsdot.wa.gov/engineering-standards/design-topics/right-way-access-control

3. Construction or improvement of an access, approach or driveway, or construction of any classification of street that will intersect a State highway shall be designed in accordance with this EDM and WSDOT requirements. Where applicable state or federal standards exceed the requirements of the EDM, state or federal standards shall govern.

B. Consolidation of Access:

1. In the interest of safety and efficient traffic operations, access to individual and contiguous lots should be consolidated to the extent practicable. Access shall be reviewed and approved to minimize conflicts between vehicles, pedestrian and bicycle traffic, and traffic entering and exiting adjacent driveways.
2. Each lot shall have access to a public right-of-way by:
    a. Direct access to a right-of-way;
    b. By a recorded easement providing shared access; or
    c. By a recorded tract providing shared access.
3. No more than one (1) access shall be provided to an individual lot, to contiguous lots under the same ownership, or to lots that are included in the same subdivision or project, unless approved by the City Engineer. Additional access may be granted to contiguous lots if the minimum spacing requirements are met or if a traffic engineering study acceptable to the City Engineer demonstrates that the additional access will not adversely affect safe operation of the street.

C. Required Access:

All new development shall be served by adequate vehicular access as follows:

1. Every lot upon which one (1) or more building(s) is proposed to be erected, or where a traffic generating use is proposed, shall establish direct access from the street right-of-way, access easement, or fire lane, as needed to provide public services such as fire protection, emergency medical service, mail delivery, or trash collection.
2. The circulation system of the proposed development shall intersect with existing and planned streets abutting the site at approved locations.

3. The circulation system within the proposed development shall provide direct connections to adjacent developments (inter-lot) where appropriate and/or required.

D. Maintenance:
Property owners are responsible for the maintenance of their driveway approaches.

E. Restriction of Turning Movements:

1. Conflict reduction measures may be required to safely manage turning traffic to and from the development site. Raised medians and driveway channelization are examples of appropriate measures to help reduce turning vehicle conflicts.
2. Traffic control devices controlling traffic from private property shall be installed and maintained by the property owner at no cost to the City.

F. Abandoned Access:
All abandoned accesses on the same frontage shall be removed within 30 days after abandonment and the curbing, sidewalk, and amenity zone, or shoulder and ditch section shall be restored to meet current standards.

G. Temporary Access:
The City Engineer may grant temporary access to accommodate phased development of a site in accordance with an approved phasing plan. Temporary access shall be removed, relocated, redesigned, or reconstructed after permanent, approved access is constructed.

Chapter 11. Access Design

All accesses shall be located, designed, and constructed to minimize traffic congestion and maximize public safety on the street system. This chapter provides location and design criteria for access at the right-of-way line, driveway approach in the right-of-way, and driveways internal to a property.

11.1. General

A. Access to the right-of-way shall be designed as a driveway approach.

B. Design of access shall comply with required grade transitions while considering building setback, terrain, and existing and designed grades.

C. All accesses shall be located and designed to readily accommodate emergency vehicles that would ordinarily respond at the particular establishment. The International Fire Code, as adopted by MTMC 15.10.010, shall also apply to driveways designated as fire lanes and/or fire apparatus access roads.

D. All on-site traffic control devices, including signs and pavement markings, shall conform with MUTCD standards and criteria.

11.2. Access Width

The access width is measured at the right-of-way/property line. Maximum/minimum access widths shall be designed per section 11.4. The City Engineer may approve a wider access when the traffic study or the appropriate design vehicle warrants the wider access.

11.3. Access Clearance and Spacing

A. Minimum Offset Distance from Side Property Lines:
The edge of the driveway access shall be offset a minimum of five (5) feet from side property lines, measured at the prolongation of the driveway's intersection with the right-of-way line with the following exceptions:

1. Zero (0) feet (minimum) for cul-de-sacs, flag lots, lots with a width of 30 feet or less, shared driveways, and for attached single-unit dwellings;
2. Three (3) feet (minimum) for lot widths between 30 feet and 50 feet.

B. Minimum Clearance from Intersections:

1. Local Streets:

Driveways accessing Local Access streets shall be located at least 50 feet from the right-of-way line of the nearest street intersection, or at the minimum offset distance from the lot's side property line that is farthest from the intersection.

2. Arterial Streets:
   Driveways accessing Arterial streets shall be located at least 150 feet from the right-of-way line of the nearest signalized intersection, or 100 feet from the nearest un-signalized intersection, or at the minimum offset distance from the lot's side property line that is farthest from the intersection, whichever is greater. Left-turn restrictions may be imposed at driveways for traffic flow, to improve safety, or when the foregoing criteria is not met.

C. Minimum Access Spacing:
   The minimum distance between access connections for the same parcel is 50 feet from nearest point to nearest point on the same side of the street. When the subject property is bounded by neighboring properties on both sides serving only one (1) single-family residence for each driveway, a reduced spacing may be approved by the City Engineer.

D. Multiple Frontages and Corner Parcels:
   1. Access for projects with multiple frontages shall be off the lower classified road. Additional access may be allowed provided spacing requirements are met.
   2. Access to corner lots shall be located on the lower-classification street at the property line most distant from the right-of-way line.

11.4. Driveway Approach

The number of permitted access points to a parcel is determined by whether the access is for residential or nonresidential use, and by the zoning in which the use is located. If a driveway approach is used for more than one use, the requirements for the use with the largest access width requirement shall apply.

A. Residential Uses:
   1. Number of access points.
      a. Up to two access points are allowed

b. Access point shall be made from the lowest street classification for a parcel that is adjacent to more than one street

c. Access spacing shall meet requirements of section 11.3

2. Driveway approach width shall not exceed a maximum width of 12 feet except:

   a. For lots on principal arterials as designated by the current City of Mountlake Terrace Roadway Classification Map, the maximum approach width is 23 feet;

   b. A greater width may be specifically permitted by the development standards in a zone;

   c. If section 11.5 requires a driveway greater than 12 feet in width, the driveway approach may be as wide as the required width of the driveway; and

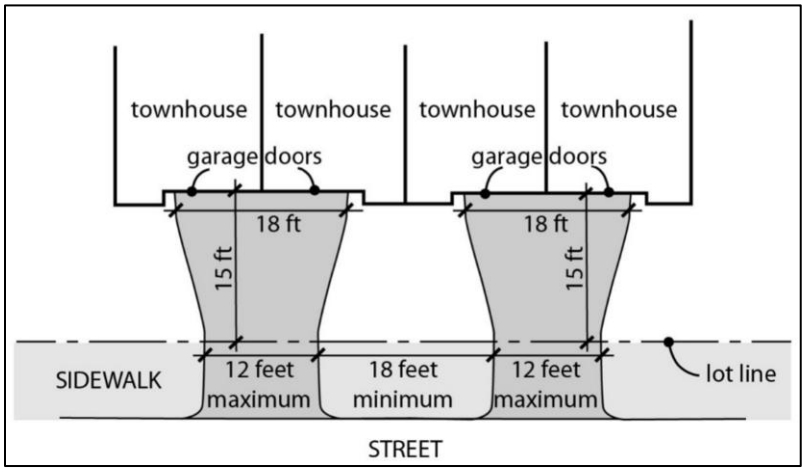
   d. A driveway approach may be less than the maximum width permitted but shall be at least as wide as the minimum required width of the driveway it serves.

3. Distance between driveway approaches

   a. The minimum distance between any two approaches located on a lot is 50 feet, except as provided in section 11.4.A.3.b.

   b. For rowhouse and townhouse developments located on single or abutting lots, the minimum distance between driveway approaches is 18 feet (See Figure 1).

Figure 1. – Paired Driveways for Attached Units



B. Nonresidential uses:

1. Driveway Approach widths

    a. For one-way traffic, the minimum driveway approach width is 12 feet, and the maximum width is 15 feet.

    b. For two-way traffic, the minimum driveway approach width is 22 feet, and the maximum width is 25 feet, except that the maximum width may be increased to 30 feet if truck and auto access are combined.

    c. For fire and police stations, the City Engineer may allow curb cuts up to, and no wider than, the minimum width necessary to provide access for official emergency vehicles that have limited maneuverability and that must rapidly respond to emergencies. Driveway approaches for fire and police stations are considered to accommodate two-way traffic.

    d. If one of the following conditions applies, the City Engineer may require a curb cut of up to 30 feet in width, if it is found that a wider curb cut is necessary for safe access:

        i. The abutting street has a single lane on the side that abuts the lot; or

        ii. The curb lane abutting the lot is less than 11 feet wide; or

        iii. The proposed development is located on an arterial with an average daily traffic volume of over 7,000 vehicles; or

2. The entrance heights to all garages accessory to nonresidential uses and the entrances to all flexible-use parking garages shall be at least 7 feet.

3. All uses in industrial zones

    a. The number and location of access points will be determined by the City Engineer.

    b. Number and size of driveway approaches will be based on the TIA, including design vehicle size, volumes, and routing

C. Driveway approaches for access easements

1. If a lot is crossed by an access easement serving other lots, the driveway approach serving the easement may be as wide as the easement roadway.

2. The driveway approach serving an access easement shall not be counted against the number or amount of driveway approaches permitted to a lot if the lot is not itself served by the easement.

11.5. Driveway

A driveway, including the landing, extends from the access point at the property line/right-of-way line onto the property. Driveway requirements for residential and nonresidential uses are described below. When a driveway is used for both residential and nonresidential parking, it shall meet the standards for nonresidential uses described in section 11.5.B

A. Residential Uses:

1. Minimum Driveway width shall be as specified in Table 5

Table 5. – Residential Minimum Driveway Width

Access Types		Width (ft)
Required Parking Spaces	Driveway Length (ft)	Minimum Driveway Width (ft)
5 or less	Less than 100	12
5 or less	100 or more	16
6 or more	Any Length	20

2. Driveways with a turning radius of more than 35 degrees shall conform to the minimum turning path radius shown in MTMC 19.125.
3. Vehicles may not back onto a street from a parking area unless meeting 11.5.A.4:
    a. Vehicles may back onto a street from a parking area serving less than 6 parking spaces, provided that the street is not an arterial as defined in the current City of Mountlake Terrace Roadway Classification Map,
    b. Traffic volumes greater than 5,000 AADT on the access roadway, or
4. Nonconforming driveways. The number of parking spaces served by an existing driveway that does not meet the standards of this section 11.5.A shall not be increased. This prohibition may be waived by the Director of the Community and Economic Development Department after consulting with the City Engineer, based on a safety analysis.

B. Nonresidential Uses.

1. Driveway Widths
    a. The minimum width of driveways for one-way traffic shall be 12 feet and the maximum width shall be 15 feet.
    b. The minimum width of driveways for two-way traffic shall be 22 feet and the maximum width shall be 25 feet.
2. Driveways shall conform to the minimum turning path radius shown in Exhibit A for 11.5.A.
3. For driveways that provide access to a solid waste management use the Director may allow both a maximum driveway width greater than the limits set in section 11.5.B.1 and appropriate turning path radii, as determined necessary for truck maneuvering.

C. Driveway slope for all uses. No portion of a driveway, whether located on a lot or on a right-of-way, shall exceed a slope of 15 percent, except as provided in this section 11.5.C. The maximum 15 percent slope shall apply in relation to both the current grade of the right-of-way to which the driveway connects, and to the proposed finished grade of the right-of-way if it is different from the current grade. The ends of a driveway shall be adjusted to accommodate an appropriate crest and sag. The Director may permit a driveway slope of more than 15 percent if it is found that:
    1. The topography or other special characteristic of the lot makes a 15 percent maximum driveway slope infeasible;
    2. The additional amount of slope permitted is the least amount necessary to accommodate the conditions of the lot; and
    3. The driveway is still useable as access to the lot.

D. Backing distances and moving other vehicles.
    1. Adequate ingress to and egress from all parking spaces shall be provided without having to move another vehicle, except in the case of multiple spaces provided for one dwelling unit or in the case of tandem parking.
    2. Adequate ingress to and egress from all parking spaces shall be provided for the expected vehicle use. Turning analysis may be required to demonstrate this access.

3. Except for lots with fewer than three parking spaces, ingress to and egress from all parking spaces shall be provided without requiring backing more than 50 feet.

11.6. Parking Lot Throat Lengths

A. Traffic channelization and signage in a parking lot shall meet MUTCD requirements.

B. The required throat length at a parking lot access to public right-of-way is determined during the permit review process and is based on a TIA.

C. The throat length vehicle storage in parking lots is based on a typical vehicle spacing of 22 feet but may be increased where larger vehicles can be expected.

D. The City may adjust the on-site throat lengths for accesses with two (2) approach lanes, subject to the traffic analysis findings, roadway geometry, traffic volumes, and site layout.

E. On-site storage is measured from the right-of-way line to the first parking stall or drive aisle in a parking lot.

F. Outbound: The throat shall be of sufficient length to provide adequate storage of outbound vehicles without interference with on-site circulation. Outbound vehicle storage areas shall be provided to minimize backup and delay of vehicles within the development.

G. Inbound: The throat shall be of sufficient length to prevent vehicles from spilling onto the street system and from obstructing the adjacent street, sidewalk, or circulation within the facility.

Chapter 12. Street Design

This chapter sets the minimum standards for the geometric street design. The most current WSDOT Design Manual shall be used where additional roadway geometric design guidance is necessary.

12.1. Reconstruction

A. Reconstructed roadways shall be brought up to current standards.

B. Transitions or tapers necessary to connect with an existing roadway of a different width shall meet AASHTO and MUTCD standards.

12.2. Widths

A. Typical lane widths are defined in Table 6.

Table 6. – Typical Lane Widths

Lane Type	Width (ft)
Parking	7-8*
Bus Only	12
Vehicle Lane	10-12
Bicycle	5-6
Bicycle/Vehicle	14
Bicycle Buffer	2-3

** Additional parking width may be required to provide accessible parking.*

12.3. Vertical Alignment

A. Curve length and stopping sight distance shall be designed to ensure proper drainage, clear sight distance, and safety for vehicles and pedestrians.

B. The maximum profile grades in Table 7 may be exceeded for 300 feet or less, upon showing that no practical alternative exists. Exceptions exceeding 12 percent shall require approval by South County Fire for additional fire protection features.

C. Grade transitions shall be constructed as smooth vertical curves except, upon approval of the City Engineer, in intersections where the difference in grade is one (1) percent or less.

Table 7. – Maximum Profile Grade

Local Access	Arterial – Collector	Arterial – Minor	Arterial – Principal
14%	12%	10%	9%

12.4. Vertical Curve Criteria

A. The minimum vertical curve length for roadways is 75 feet.

B. The point of vertical curvature (PVC) shall not encroach into a cross street any further than the center of pavement of the cross street.

C. Cross Slope: The typical cross slope is two (2) percent crown to provide for adequate drainage to the pavement edge. The maximum cross slope on the tangent sections shall not exceed four (4) percent. The minimum cross slope shall be one (1) percent.

D. Stopping Sight Distance: SSD applies as shown on Table 8, Vertical Curve – Minimum Stopping Sight Distance.

E. SSD is based on an eye height of three and one-half (3.5) feet and the height of an object at one-half (0.5) foot.

F. For downgrades exceeding three (3) percent, the SSD shall be increased by the values shown in Table 8, Vertical Curve – Minimum Stopping Sight Distance.

G. The City Engineer may approve sag vertical curves on Local Access Streets with SSD less than that in Table 8 if no practical design exists and if acceptable road lighting is provided throughout the curve.

Table 8. – Vertical Curve - Minimum Stopping Distance (ft)

Design Speed (mph)	Flat		Downgrade	
	0%	3%	6%	9%
25	165	165	175	185
30	200	210	220	230
35	250	265	280	305
40	325	345	365	400
45	400	425	455	505

12.5. Horizontal Curve Criteria

A. Superelevation is not required in the design of horizontal curves of Local Access Streets, but may be needed to meet terrain and right-of-way conditions.

B. Calculate superelevation according to AASHTO "Low Speed Urban Streets" design methodology.

C. See Table 9 for horizontal curve standards.

Table 9. – Horizontal Curve Design

Minimum Design Speed (mph)	20[1] Grades >10%	25[1]	30[1]	35	40
Minimum Center line Radius[2] (ft)	100	150	300	470	See note[3]
Minimum Horizontal Sight Distance (ft)	150	200	200	250	325
Minimum Reverse Curve Tangent (ft)	0	0	0	200	200
Minimum Approach Tangent at Intersections[3, 4] (ft)	50	75	100	200	300
Minimum Tangent between Curves (ft)	N/A	50	50	N/A	N/A
Minimum Run-Off Length (ft)	N/A	80	90	100	115
Superelevation	N/A	Not Required	Not Required	8% Maximum Calculate run-off lengths	
6% Superelevation Horizontal Curvature Radius (ft)	N/A	185	275	380	510
8% Superelevation, Horizontal Curvature for Radius (ft)	N/A	170	250	350	465

1 Use these criteria without superelevation.

2 Radii based on crown section with two (2) percent slope on each side of crown.

3 Where superelevation is used, calculate runoff lengths according to the WSDOT Design Manual.

4 Where a curved road approaches an intersection, these tangent sections shall be provided on the approach to the intersection to provide for adequate sight distance for traffic control devices at the intersection. The distance shall be measured from the flow line of the through street. Where superelevation is used, calculate runoff lengths according to the WSDOT Design Manual intersection. The distance shall be measured from the flow line of the through street. Where superelevation is used, calculate runoff lengths according to the WSDOT Design Manual.

12.6. Street Ends

Streets should end in a turn-around facility, such as cul-de-sac, an eyebrow, or a hammerhead.

A. A turnaround facility shall be provided at public or private street ends where the street length from the nearest intersection is more than 150 feet measured from the face of curb to end of dead-end street pavement, and shall be constructed as follows:
    1. Minimum right-of-way diameter across bulb section: 93 feet in a permanent cul-de-sac; 84 feet in a temporary cul-de-sac, with bulb area lying outside straight-street right-of-way provided as temporary easement pending forward extension of the street.
    2. Right-of-way may be reduced, if utilities and necessary drainage are accommodated on permanent easements within the development.
    3. Minimum diameter of surfacing across bulb: 80 feet of paving in curb type road.
    4. Cul-de-sac Island (Optional). If provided,
        a. Island shall have full-depth vertical curb.
        b. Minimum diameter shall be 20 feet and there shall be at least 30 feet of paved traveled way in a curb type section around the circumference.
        c. Island shall be landscaped. The adjoining property owners shall maintain the island through a maintenance agreement.
        d. Cul-de-sac island shall accommodate design fire vehicle with approval by South County Fire.
    5. Sidewalks shall be constructed on both sides of the stem and on the bulb.
B. Dead-end Local Access streets shall not be longer than 600 feet, measured from the centerline of the intersecting street to center of cul-de-sac. The maximum length may be extended to 1,000 feet if 50 or fewer potential units are to be served and there is provision for emergency vehicle turnaround near mid-length.
C. A public pedestrian connection or an emergency vehicle access to connect a street at its terminus with other streets, parks, schools, bus stops, or other pedestrian trip

generators shall be required. Off-street sidewalks shall be contained in the right-of-way or a sidewalk easement.

D. If a street temporarily terminated at a property boundary during development serves more than three (3) lots or is longer than 150 feet, a temporary bulb shall be constructed near the subdivision boundary. The paved bulb shall be 80 feet in diameter with sidewalks terminated at the point where the bulb radius begins. Removal of the temporary cul-de-sac, restoration, and extension of the sidewalk shall be the responsibility of the Applicant/Permittee who extends the road.

E. The maximum cross grade of a street at the street end shall be eight (8) percent.

F. Partial bulbs or eyebrows shall have a minimum paved radius and an island configuration. Island shall be offset two (2) feet from edge of traveled way.

G. A hammerhead may be used to fulfill the requirement to provide a turnaround facility where the street serves (or will serve) four (4) or fewer single-family residential units.

H. Pedestrian access shall be required to connect a street end to adjacent streets, parks, schools, or other pedestrian facilities. The pedestrian access shall be in right-of-way or, if approved, may be placed in a sidewalk easement.

12.7. Utility Locations

A. Utility structures shall be located in the amenity zone, at the back of sidewalk without encroaching onto private property, in the gutter line, or within the roadway as specified in Table 10, Underground Utility Locations.

B. New utility structures are not allowed in sidewalks, driveways, driveway approaches, or curb ramps.

C. Underground systems shall be located at least five (5) feet away from the road centerline and where the system will not otherwise disturb existing survey monuments.

Table 10. – Underground Utility Locations

Utility	Location from Centerline	Cover	Notes
Water Main[1]	5 to 10 feet north and east	Minimum 36-inch cover from finished grade	
Water Service	N/A	Minimum 30-inch cover from finished grade.	Stub out perpendicular to water main preferred
Water Meter Box	In the right-of-way, at right-of-way line/property line in the one-foot setback between the back of sidewalk and right-of-way line. Not to be located within a driveway.		
Sanitary Main[1, 2]	5 feet south and west	Design for minimum 96-inch cover from finished grade, ditch bottom or natural ground. 60 in cover may be allowed due to site constraints	Stub out perpendicular to water main preferred
Force Main Side Sewer	Within 10 degrees of perpendicular-to-road centerline and extend to right-of-way line.	Minimum 36-inch cover from finished grade, ditch bottom or natural ground,	If nonmetallic, install wire or other acceptable proximity detection features; or place in a cast iron or other acceptable metal casing.
Gas Main	5 to 10 feet south and west	Minimum 24-inch cover	
Power, telephone, fiber-optic cable, cable TV	Either side	Minimum 36-inch cover	

1 Sanitary sewer and water lines shall be separated by a minimum of ten (10) feet in accordance with the most current edition of the Criteria for Sewage Work Design, Washington Department of Ecology.
2 Gravity systems, whether sanitary or stormwater, shall have precedence over other systems in planning and installation except where a non-gravity system has already been installed under previous approved permit and subject to applicable provisions of such permits or franchises.

D. Electric utilities, power, telephone, fiber-optic cable, cable TV:

1. Utility poles or other appurtenances shall be located as far from the travel lane or auxiliary lane as conditions allow. No pole or appurtenance shall be

located where it poses a hazard to the general public. Utilities shall place and replace poles with primary consideration given to public safety.

2. Locations of poles shall be compatible with driveways, intersections, and other road features. A pole shall not interfere with sight distances, road signing, traffic signals, culverts, trees, etc.
3. Utility poles shall not be placed in sidewalks, curb ramps, or landing areas. Utility poles shall not impede ADA access in any way. Existing poles that are aligned with proposed sidewalk locations shall be relocated.
4. On roadways having vertical curb, poles and obstacles shall be placed clear of sidewalks.
5. On arterials and non-arterial streets, poles and obstructions shall be placed at least five (5) feet from edge of travel way.
6. Deviations from the pole and obstacle clearance criteria may be requested by utilities when there are no other viable alternatives and shall identify adequate protection for motorized and nonmotorized users.

12.8. Private Streets

Private streets shall conform with MTMC 19.95.030 (H)

A. For private streets with a dead-end, refer to EDM Section 12.6, Street Ends.
B. Pedestrian sidewalk at least four (4) feet wide shall be provided on at least one (1) side of the private street. The pedestrian sidewalk shall be separated by a curb or other acceptable physical barrier. Parking is not permitted in the pedestrian sidewalk area.
C. Street lighting systems for private streets shall be designed and constructed on a separate power source from the public street systems and shall be the responsibility of the property owner, homeowner, or homeowner's association.
D. Private streets shall be designed to provide adequate access for trash collection and merchandise deliveries.
E. See EDM Section 11.2, Access Width for access width requirements.
F. See EDM Section 15.1, Table 16 for vertical clearance requirements.

12.9. Woonerf

A woonerf (also known as a home zone, living street, or shared street) is a street that facilitates pedestrian, bicycle, and vehicular traffic within a shared space. Woonerfs typically lack separate pavement zones for different travel modes (i.e., walking, bicycling, and driving) and include a variety of surface treatments, bollards, street lighting, and landscaping to define a shared space.

Woonerfs can be private or public and are intended to be designed to meet the needs of the immediate community. The following standards are generalized and provide a starting point for woonerf design. Each woonerf is a unique shared space.

Woonerfs designs should achieve the following objectives:

A. Shared pedestrian, vehicular, and bicycle traffic;
B. Safe transitions for between woonerfs and standard facilities;
C. Traffic calming measures, such as sitting areas, planters, parking spaces, and bollards; and
D. ADA-compliant access.

Woonerf design requirements include the following:

A. Entrance/Exit:
    1. The international woonerf sign is required at all entrances and exits. Informational signs may be placed under the international woonerf sign.
    2. Traffic calming measures may be required at entrances and exits.
B. Designated Spaces:
    1. The design shall not give the impression of a curbed roadway and elevated sidewalk.
    2. To designate pedestrian-only spaces, the use of bollards, landscaping, and other protection are required.
    3. Parking and/or loading spaces are acceptable. Parking spaces shall be distinguished by pavement markings, surface treatments, or other means.
C. Surface Treatments: The use of a variety of surface treatments is encouraged.

D. Other Amenities: Pedestrian-scale lighting is required consistent with EDM Section 7.9, Illumination.

E. The Applicant shall coordinate with the Fire Code official to ensure adequate access is provided for emergency services.

Chapter 13. Intersection Design

The design criteria in this chapter apply to street intersections. Intersections include driveway access as well as an approach to a street.

To the extent feasible, intersection design shall conform to the guidelines set forth in the most current versions of the WSDOT Design Manual, AASHTO Policy on Geometric Design, the ITE Urban Street Geometric Design Handbook, and the MUTCD, including alignment, sight distance, and geometric elements.

13.1. Alignment

A. The angle of an intersection of two (2) streets shall be 85 degrees to 95 degrees.

B. It desirable that entering through traffic is aligned with the exit lanes at an intersection. However, the entering and exit lanes may be offset up to six (6) feet as shown in Figure 1, Maximum Intersection Lane Alignment Offset, when the following conditions are met:

1. Illumination is provided;
2. The intersection is not within a horizontal curve, nor is it within a crest vertical curve; and
3. The taper rates provided in Table 11 are used.

Figure 2. – Maximum Intersection Lane Alignment Offset

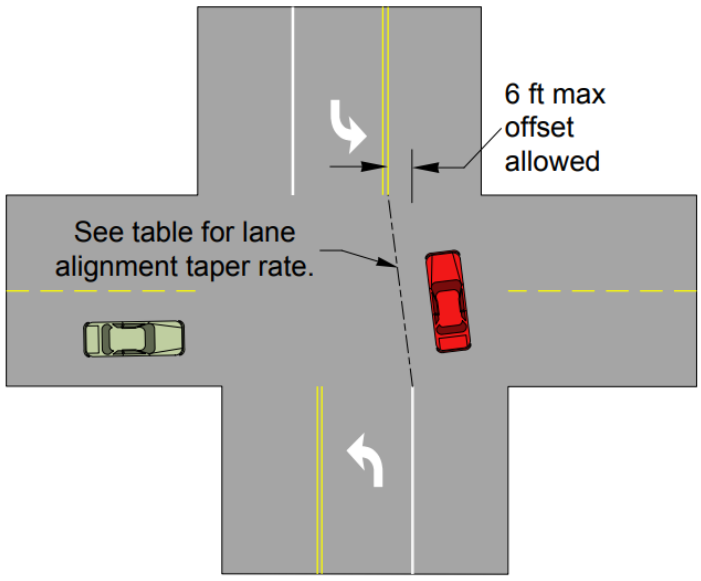


Table 11. – Intersection Alignment Taper Rates

Posted Speed Limit (mph)	Taper Rate
45	45:1
40	27:1
35	21:1
30	15:1
25	11:1

C. Dotted extension lines may be required when the travel lanes are offset.

D. Special consideration shall be made when the exit lanes have been shifted to the right to ensure vehicles can safely traverse the intersection without conflicting with on-coming traffic.

13.2. Spacing

The minimum distance between adjacent parallel private or Local Access Streets shall be 150 feet, measured from nearest curb edge to nearest curb edge. For all other intersections, the spacing shall be determined during preliminary design.

13.3. Design Vehicles

A. Where applicable, the intersection design shall accommodate the use of the roadway as a designated truck route, bus route, or school bus route.

B. The City's standard design vehicle is the AASHTO SU-30, although use of larger design vehicles may be required depending on roadway classification, transit routes, and adjacent land use.

C. All elements of the intersection shall be designed so the design vehicle will not encroach onto curbs, sidewalks, traffic control devices, medians, or the travel lanes of opposing travel flow, unless otherwise approved by the City Engineer.

13.4. Curb Radii

Curb radii design shall balance vehicle turning movements with pedestrian safety. Typically, it is appropriate to use the smallest turn radii possible that still accommodates the Design Vehicle.

A. Curb radius design shall be verified with AASHTO turning template for the design vehicle.

B. Turning simulations should demonstrate that design vehicles do not cross over centerline markings of arterial roadways when making right turns.

C. For design, round curb radii to the nearest five (5) foot increment.

D. Typical curb radii based on street classification are shown in Table 12. However, these values may be impacted by site conditions, including width of receiving lanes, on-street parking, and angle of intersecting roadways.

Table 12. – Typical Curb Radii Design Values

Street Classification (for highest street classification at intersection)	Radius
Arterial to Arterial	25 feet
Arterial to Local Street	20 feet
Local Street to Local Street	20 feet
Where vehicular turn is prohibited	10 feet
Radii for curb setbacks and bulb-outs	15 feet

13.5. Drainage

A. An intersection shall be laid out and graded so that stormwater drains and the intersection is safe and accessible for pedestrians and bicyclists.

B. Drainage structures shall not be placed in an ADA ramp or landing area.

C. Unless otherwise approved by the City Engineer, drainage structures shall be located outside the corner radii.

D. Drainage structures shall be placed at upstream side of curb ramps to reduce runoff or ponds in ADA ramp area.

E. ADA ramps shall slope so that drainage is toward the gutter.

F. When new curbs and gutters are installed as part of frontage improvements, drainage shall be addressed to avoid ponding upstream and flooding downstream. This typically involves the installation of catch basins and/or inlets at the extents of the frontage improvements.

13.6. Intersection Grades

A. Intersections shall be on grades as flat as practical.

B. At an unsignalized intersection, the maximum allowable grade in the intersection is four (4) percent extending a minimum of 50 feet in each direction, measured from the outside edge of the travel lane of the intersecting street.

C. At signalized intersections, the maximum grade is two (2) percent within the intersection and extends 20 feet in each direction. Grades above four (4) percent shall be allowed only in areas with steep topography or other unusual circumstances that prevent a flatter grade.

D. On sloping approaches at an intersection, landings shall be provided with grade not to exceed one (1) foot difference in elevation for a distance of 30 feet approaching an arterial or 20 feet approaching a Local Access Street, measured from future right-of-way line (extended) of intersecting street.

E. The point of vertical curvature shall not encroach into a cross street any further than the center of pavement of the cross street.

13.7. Pedestrian Accommodations

In order to provide pedestrian safety, accommodations for pedestrians shall be designed into all intersections. Pedestrian accommodations include sidewalks, crosswalks, and pedestrian refuge islands. Pedestrian accommodations shall meet ADA guidelines.

A. Vaults, covers, castings, or drainage grates shall not be placed within the crosswalk, or within crosswalk curb ramps or landing areas.

B. Two (2) ADA compliant curb ramps with tactile warning strips shall be installed at each corner, where possible, and corresponding companion ADA compliant ramps shall adhere to RCW 35.68.075. This may require construction or retrofit of companion ramps.

C. When street paving impacts an intersection or modification to a curb ramp occurs, the curb ramps shall be retrofitted to meet the current ADA criteria. Impact to an intersection is defined as:

    1. Nine (9) SF or more of disturbance to the sidewalk within the area bounded by the curb, the right-of-way or property lines, and the extensions of right-of-way/property lines (across the sidewalk); or

2. Three (3) linear feet (LF) of disturbance to the curb; or
3. Development projects requiring installation of frontage improvements; or
4. Roadway resurfacing defined as an alteration by the 2013 Department of Justice/ Department of Transportation Joint Technical Assistance on Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered though Resurfacing. This includes asphalt overlays or addition of new asphalt/concrete roadway surface.

13.8. Clear Sight Triangle

A. General:

These guidelines establish clear sight triangles around all intersections and driveways, which shall be kept clear of sight obstructions. The clear sight triangle is determined by the type of intersection control and the speed limit on the major road or street entered upon.

In cases involving grades greater than three (3) percent, number of lanes greater than two (2), skewed intersections, or for design vehicles other than passenger cars, the below sections shall be adjusted based on the sight distance procedures in the most current edition of *A Policy on Geometric Design*, AASHTO.

For sight triangle requirements as they relate to bicycle facilities, refer to the most current edition of *A Guide for the Development of Bicycle Facilities*, AASHTO.

B. Obstructions:

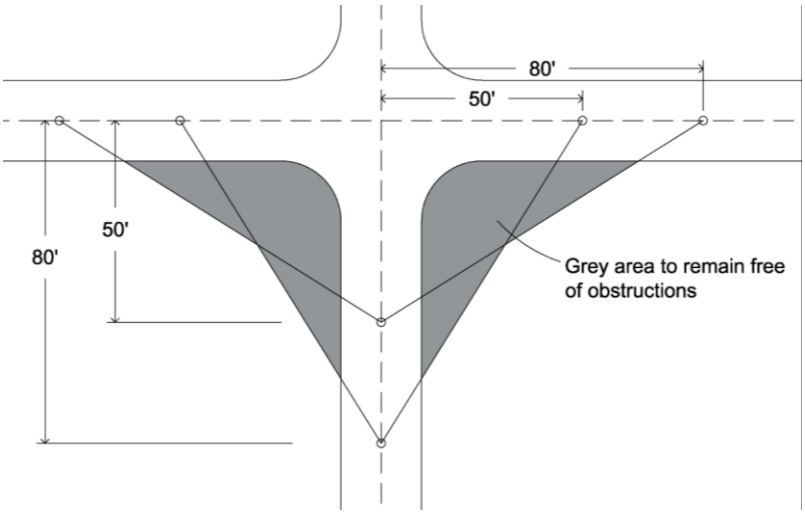
Unless specifically approved by the City Engineer, no structure, improvement, vegetation or other object greater than 18 inches wide between two and a half (2.5) feet and eight (8) feet above street grade may be within the clear sight triangle. The driver's eye height position shall be taken from a position three and a half (3.5) feet above pavement grade.

C. Clear Sight Triangle Dimensions – Intersections:

1. Uncontrolled Intersection.

For intersections with no traffic control on any approach the clear sight triangle for vehicles shall be defined as shown in Figure 2, Sight Triangles for Uncontrolled or Yield Controlled Intersections.

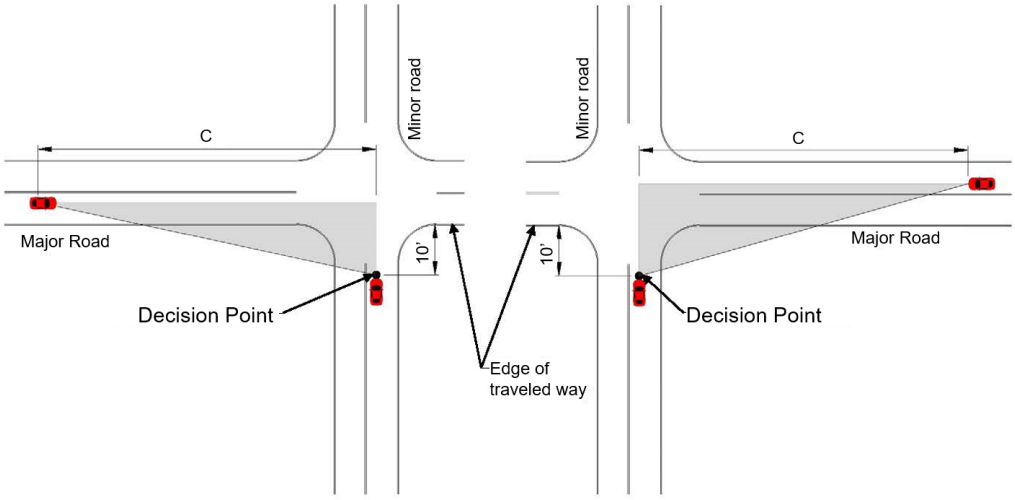
Figure 3. – Sight Triangles for Uncontrolled or Yield Controlled Intersections



2. Stop Control on Minor Street:

   For intersections with stop control on the minor street only, the clear sight triangle for vehicles shall be defined as shown in Figure 3 and Table 13. For stop controlled intersections, the decision point shall be ten (10) feet back from the edge of the traveled way. The minimum required sight distance is the SSD for the major roadway, shown in Table 13.

Figure 4. – Departure Sight Triangles for Stop Control on Minor Street



3. The traveled way is the portion of the road intended for the movement of vehicles and bicycles exclusive of shoulders, turn lanes, and on-street parking.

Table 13. – Sight Distance for Stop Control on Minor Street

Posted Speed Limit (mph) on Major Road	Recommended C (ft) *Desirable*	Required C (ft) *Minimum**
25	280	145
30	335	180
35	390	220
40	445	260

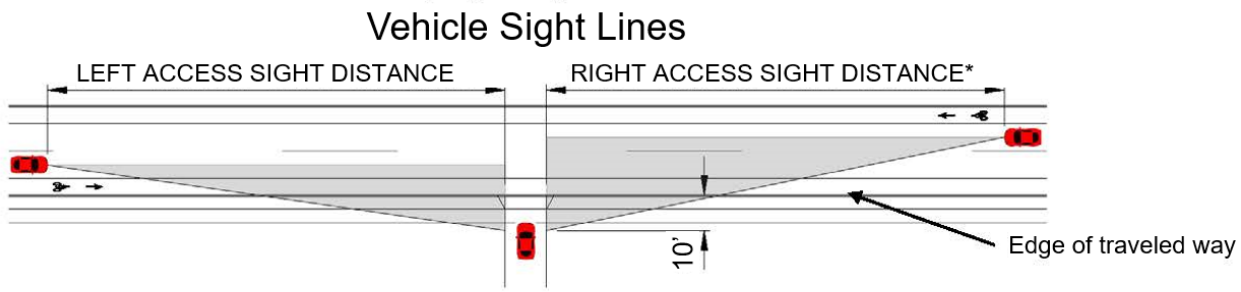
**Minimum shall only be used to evaluate existing conditions or when Desirable can not be obtained.*

4. Signalized Intersection:
   At signalized intersections, the first vehicle stopped on one approach shall be visible to the driver of the first vehicle or bicycle stopped on each of the other approaches. The first stopped vehicle on one approach shall also be able to see pedestrians within the legal crosswalk on all of the approaches. Left-turning vehicles shall have sufficient sight distance to select gaps in oncoming traffic and complete left turns. For sight lines to traffic signal displays, refer to the most current WSDOT Design Manual. For right turn on red movements, criteria for stop control on minor streets (Figure 3 and Table 13) shall apply.
5. All-Way Stop Intersection:
   At intersections with all-way stop control, the first stopped vehicle on one approach shall be visible to the drivers of the first stopped vehicles or bicycles on each of the other approaches. The first stopped vehicle on one approach shall also be able to see pedestrians within the legal crosswalk on all of the approaches.

D. Clear Sight Triangle Dimensions – Driveways:

Driveways not controlled by traffic signals operate like intersections with stop control on the minor approach. The applicable sight distance triangles for vehicles exiting driveways from surface lots, parking structures, etc, are shown in Figure 4 and Table 14.

Figure 5. – Driveway Sight Triangles



*Right Access Sight Distance is not required if left turns into/out of the driveway are prohibited.

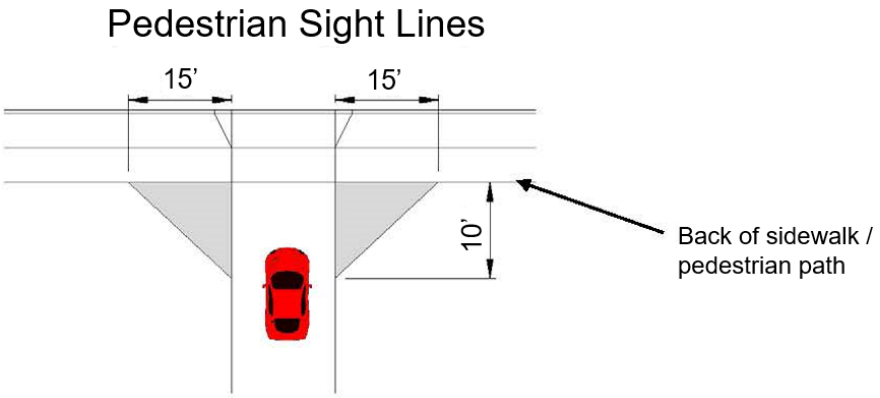


Table 14. – Clear Sight Distance for Driveways

Major Road Volume (ADT)	Major Road Speed Limit (mph)	Driveway Access Sight Distance (ft) *Desirable*	Driveway Access Sight Distance (ft) *Minimum**
<6000	25	155	155
	30	200	200
	35	250	250
>6000	25	280	155
	30	335	200
	35	390	250
	40	445	305

**Minimum shall only be used when Desirable can not be obtained.*

13.9. Pedestrian Sight Distance

A. The minimum sight distance for pedestrian safety shall be determined as follows: the driver of an existing vehicle shall be able to view a one (1) foot high object 15 feet from either edge of the exit lane at the driveway throat when the driver's eye is ten (10) feet behind the back of the pedestrian walkway as shown in Figure 4.

B. The minimum sight distance shall be maintained at all driveways, buildings, and garage entrances where structures, wing walls, etc., are located adjacent to or in close proximity to a pedestrian walkway.

Chapter 14. Pedestrian and Bicycle Facilities

14.1. General

A. Non-motorized facilities and associated amenities shall be provided when required by state or federal regulations, the municipal code, when planned in an adopted City plan, or when needed to ensure safe walking/biking conditions as mitigation through a traffic impact analysis.

B. Pedestrian and bicycle facilities may use developed or unopened right-of-way, or in some circumstances may be located across private property within an easement.

C. All facilities shall meet Americans with Disabilities (ADA) requirements and/or Forest Service Trail Accessibility Guidelines (FSTAG), as applicable.

14.2. Sidewalks

Sidewalks are required on all streets, except alleys. Sidewalk shall be required on private street and street endings, See Chapter 12 Street Design

A. All designs shall meet the current Americans with Disabilities Act (ADA) and Public Right of Way Accessibility Guidelines (PROWAG) requirements and standards. Refer to EDM Chapter 13, Intersection Design for curb ramp requirements.

B. Sidewalk design should address opportunities to maximize the retention of significant trees in the City right-of-way. Alternatives could include narrower sidewalk widths and/or moving sidewalk to front or back of tree. The City may require an arborist report to assess the health and condition of street trees.

C. Sidewalks shall be located between the property/right-of-way line and the amenity zone unless otherwise approved by the City Engineer.

D. Sidewalks abutting single-family residential uses shall be at least six (6) feet wide.

E. Sidewalks abutting uses other than single-family residential shall be at least eight (8) feet wide.

F. The required width of a sidewalk is defined for many streets in Appendix F – Street Matrix. Sidewalks may be greater than eight (8) feet when the City determines that greater widths are warranted due to expected pedestrian traffic volume.

G. Sidewalks installed immediately adjacent to curb shall have a minimum width of eight (8) feet to provide adequate space for signs, fire hydrants, utilities, tree grates, and door swing.

H. Sidewalks shall maintain their full width around obstructions that cannot be relocated.

I. When a sidewalk must transition to frontage that does not have a sidewalk, the transition shall meet ADA requirements. Unless the City requires a different transition, an asphalt transition is acceptable.

J. Parking stalls shall be designed and constructed so that no part of any parked vehicle obstructs the Pedestrian Access Route as defined by ADA or the sidewalk.

K. Sidewalks shall be constructed with concrete, unless otherwise approved by the City Engineer.

14.3. Pedestrian Paths

A. All designs shall meet the current ADA requirements and standards.

B. Paths designated for pedestrian use shall be at least six (6) feet wide and have a minimum of one (1) foot wide shoulders on each side.

C. The maximum grade shall not exceed five (5) percent. Depending on site conditions, stairs, ramps with landings, and/or switchbacks may be required.

D. Acceptable surface materials are asphalt concrete (asphalt) and Portland cement concrete (concrete).

14.4. Shared-Use Paths

A. Shared-use paths shall be designed for pedestrian and bicycle use.

B. All designs shall meet the current ADA requirements and standards.

C. Shared-use paths shall be at least ten (10) feet; an eight (8) foot minimum is allowed at pinch points. A minimum two- (2) foot graded or paved shoulder is required on either side of a shared-use path. A wider graded shoulder may be required when heavy pedestrian use is anticipated. If the shoulder is paved and adjacent to a bank slope greater than 6H:1V, a longitudinal pavement marking or surface treatment shall be used to differentiate between the path and the shoulder.

D. The maximum grade shall not exceed five (5) percent. Depending on site conditions, stairs, ramps with landings, and/or switchbacks may be required.

E. Acceptable surface materials are asphalt concrete (asphalt) and Portland cement concrete (concrete).

14.5. Bicycle Facilities

A. Bicycle facilities shall be provided in accordance with the AASHTO Guide for the Development of New Bicycle Facilities, MUTCD – Manual for Unified Traffic Control Devices, and WSDOT – Washington State Department of Transportation.

B. The direction of travel for bicycle facilities shall be in the same direction as motor vehicle traffic, unless the bicycle facilities are protected from vehicular traffic by a physical barrier.

C. Vaned grates or solid lids shall be used on all catch basins located within bicycle facilities and/or roadways.

Chapter 15. Roadside Features

15.1. Fixed Objects

A. Locate fixed objects so that vehicle and pedestrian sight distance meets the standards in EDM Chapter 13, Intersection Design.

B. Standard clearances shall be met in accordance with Table 15 and Table 16 unless approved otherwise to accommodate existing site conditions.

Table 15. – Standard Lateral Clearances (minimum)

From	To	Standard Clearance
Curb face (corner radius)	Closest part of any fixed object	3 feet
Curb face	Closest part of any fixed object	2 feet
Textured surface of wheelchair ramp	Closest part of any fixed object	1 foot
Edge of sidewalk	Stair riser	2 feet
Pole face, fire hydrant	Closest part of any fixed object (excluding traffic control signs and parking meter posts)	5 feet

Table 16. – Standard Vertical Clearances (minimum)

From	To	Standard Clearance
Roadway surfaces, including private accesses	Any horizontal projection over surface: measured from the crown of the street to the lowest portion of the structure.	22 feet
Sidewalk surfaces, including private walkways	Any horizontal projection over the surface	14 feet
Roadway surfaces	Tree limbs	14 feet
Alley surfaces	Any horizontal projection over paved surface	14 feet
Bicycle path surfaces	Any horizontal projection over surface	10 feet

C. Electrical Facilities. For projects that require installation of or adjustments to SnoPUD facilities, the Applicant/Permittee shall coordinate this activity with

SnoPUD. Please visit the SnoPUD website or SnoPUD engineering for the most recent information on clearance requirements.

SnoPUD and City staff should work closely with the Applicant/Permittee to accomplish appropriate clearances required for design, during construction, and at final build-out. Communication and resolution of required clearances are critical to final design and construction approval of the proposal.

15.2. Landscaping

The landscaping design criteria in this section are based on transportation safety requirements and on minimum requirements for plants to achieve mature growth.

For landscaping requirements on private property, contact Community and Economic Development.

Right-of-way landscaping plans shall meet the following design requirements:

A. General:
    1. Any existing right-of-way landscaping disturbed by construction activity shall be replaced or restored to the same or better condition as before construction started.
    2. All landscaping shall meet the sight distance and sight triangle requirements in EDM Chapter 13, Intersection Design.

B. Landscaping Plan:
    1. The right-of-way landscaping plan shall be drawn to an engineering scale, and shall show property lines, plant and tree locations, right-of-way infrastructure, driveways, and intersections, as well as all specifications needed to install and inspect the installation.
    2. Coordinate landscaping with transportation and utility plans. Adjust locations of trees to accommodate utilities, pedestrians, and sight distance.
    3. Preserve existing trees and landscaping where possible.

C. Plant Selection:
    1. All plants shall conform to the standards as published in the most current edition of the *American Standard for Nursery Stock* manual, provided that existing healthy vegetation used to augment new plantings shall not be

required to meet these standards. The *American Standard for Nursery Stock* manual is available online at: https://www.americanhort.org/nursery-standards.

2. Plant selection shall consider adaptability to climatic, geology, and topographic conditions of the site.
3. Tree and shrub canopies, upon maturity, shall not reach an above ground utility such as streetlights and power lines.

D. Soil:

1. The landscaping plan shall provide soil specifications, including soil depths. Refer to BMP T5.13 Post Construction Soil Quality and Depth (Stormwater Manual) for general soil specifications. Improvements that include biofiltration require specific specifications for the soils. Refer to Standard Plan 452 - Soil Amendment and Depth.

E. Street Trees:

1. New trees shall be at least two-inch caliper and selected from the City-approved street tree list in Appendix G – Right-of-way Street Tree List.
2. Street trees shall be spaced a minimum of 25 feet on center.
3. The standard clearance from underground stormwater and sewer utilities often is not enough space to minimize the effects of utility maintenance and repair and ensure longevity of the tree. When right-of-way width allows, additional clearance distance shall be provided.
4. When right-of-way width is limited and the eight (8) feet clearance cannot be met, the City shall evaluate site conditions and may permit one (1) or both of the following:
    a. Tree installation less than eight (8) feet from ductile iron or Polyvinyl Chloride (PVC) pipe;
    b. Tree installation less than eight (8) feet from concrete pipe that has rubber gaskets; or
    c. The City may allow the separation to be reduced to three (3) feet when root barriers are installed.

5. Adjust placement to avoid conflict with driveways, utilities, and other functional needs. Trees shall be placed:
    a. Centered within the amenity zone between the curb and sidewalk;
    b. Outside of the sight distance triangles per EDM Sections 13.8, Clear Sight Triangle and 13.9, Pedestrian Sight Distance;
    c. Eight (8) feet from underground utility lines or three (3) feet with root barriers;
    d. Ten (10) feet from power poles (15 feet recommended);
    e. Seven and one-half (7.5) feet from driveway edges (10 feet recommended);
    f. 25 feet from streetlights or existing trees;
    g. 30 feet from curb or travel lane street intersections (when no curb);
    h. Ten (10) feet from roadway edge where no curb is present; and
    i. 20 feet from marked or unmarked crosswalks.

15.3. Mailboxes

A. United States Postal Service (USPS) shall approve all mailbox locations.
B. Clustered mailboxes are preferred.
C. The approach to mailboxes shall be clear of obstruction.
D. Mailboxes shall not be installed adjacent to ditches unless approved by the City Engineer.

15.4. Steps and Stairways

A. Steps and stairways, and associated landings from private property shall not extend into the right-of-way.
B. The first riser shall be at least two (2) feet clear of a public walk. Steeper grades may require three feet or more clear for transitions.
C. A minimum five (5) feet by five (5) feet landing shall be provided after each 20 risers.
D. Pedestrian lighting may be required for stairways.

15.5. Railing

A. Railings on private property shall be consistent with guard requirements of the construction and building codes. Railings shall have a maximum spacing of four (4) inches for vertical elements of the railing.

B. Railings in the right-of-way shall be consistent with the most current City and WSDOT Standard Specifications.

C. Railing in the right-of-way shall be installed along a nonmotorized transportation facility when there is a loss in elevation from the facility of 30 inches or more and:

   1. The vertical wall face is less than four (4) feet in horizontal distance from the facility.
   2. The vertical wall face is greater than four (4) feet horizontally to the facility and the slope to the wall top is steeper than 1V:3H.
   3. The slope(s) adjacent to the facility average greater than 1V:2H.

15.6. Cut-and-fill Slopes

A. Side slopes shall be 2H:1V or flatter on both fill slopes and cut slopes.

B. Steeper slopes may be approved by the City Engineer when supported by a geotechnical report and engineering recommendations.

C. Side slopes shall be stabilized by grass sod or seed, or by other approved plant or surface materials.

15.7. Guardrail

Guardrail shall be provided and installed by the Applicant/Permittee as directed by the City Engineer. For purposes of warrants, design, and location, all guardrails along public and private roadways shall conform to the criteria of the most current editions of the WSDOT Design Manual, WSDOT Roadside design guide, and WSDOT Standard Plans and Standard Specifications.

Chapter 16. Surface Treatment

This chapter provides criteria for paving and for restoring traveled ways within the City's right-of-way.

16.1. General

A. Hard surfacing such as asphalt concrete or Portland concrete cement (PCC) is required within the right-of-way.

B. Gravel surfacing may be allowed in right-of-way that the City does not maintain, such as alleys.

C. When approved by the City, grades steeper than 15 percent shall be paved with PCC.

D. Use of permeable pavements in the right-of-way may be utilized, subject to approval of the City Engineer. Refer to EDM Section 7.2, Low Impact Development.

16.2. Asphalt Pavement Design

Minimum asphalt pavement sections are identified in Table 17:

A. Arterial Streets:

1. Any pavement for arterial streets shall consider the load bearing capacity of the soils, based on actual field tests, and the traffic-carrying requirements of the roadway.
2. The analysis shall include the traffic volume and axle loading, the type and thickness of roadway materials and the recommended method of placement. Pavement sections shall not be less than those required for collector arterials.
3. Pavement design shall be prepared by a Professional Engineer licensed in the State of Washington who is proficient in pavement design. Soils tests are required to assess the California Bearing Ratio (CBR) for the subgrade.

B. Local Access Streets:

1. Local Access Streets that carry truck traffic shall use Commercial/Industrial pavement design standards.
2. Unless otherwise approved by the City, in areas of pavement restoration or adjacent to existing pavement, reconstruction shall, at a minimum, match

existing roadway sections, provided it exceeds the minimum pavement section.

C. Poor Subgrade:

1. The minimum material thicknesses indicated are not acceptable if there is any evidence of instability in the subgrade. This includes, but is not limited to, free water, swamp conditions, fine-grained or organic soil, slides, or uneven settlement. If there are any of these characteristics, the soil shall be sampled and tested sufficiently to establish a pavement design that will support the proposed construction. Any deficiencies, including an R-value of less than 55 or a CBR of less than 20, shall be fully considered and compensated for in the design.

Table 17. – Pavement Thickness (minimum)

	THICKNESS		
	HMA Class ½" PG 58H-22 (IN.)	CSBC WSDOT Standard Spec 9-03.9(3)	Concrete CL. 4000 per WSDOT Standard Spec 6-02.3(1) (See Note 1)
Arterial (Principal/Minor)	9	6	9
Local Access (Public)	6	6	6
Transit/Truck Route	9	6	9
Commercial/Industrial	9	6	9
Private Access/Parking Lot	3	4	6

1. *Concrete pavement may be used instead of HMA with approval from City Engineer.*

16.3. Pavement Widening

A. Any widening of an existing roadway, either to add traveled way or paved shoulder, shall have the same surfacing material as the existing roadway.

B. When an existing shoulder is to become part of a proposed traveled way, a pavement evaluation shall be performed. The shoulder area shall match the existing roadway section or the depths shown in Table 17, whichever is greater. The responsibility for any shoulder material thickness improvement shall be considered part of the requirement for roadway widening.

Chapter 17. Traffic Control Devices

All traffic control devices shall conform to the MUTCD and the standards in this EDM.

17.1. Signs

A. All signs, such as street name, parking, stop, dead end, speed limit, and nonmotorized indicators shall be approved as part of the project plan. The channelization plan showing paving markings, permanent signing, and crosswalk locations shall be prepared by a Professional Engineer licensed in the State of Washington

B. Temporary traffic control to ensure traffic safety during construction activities shall be provided by the Permittee and installed per MUTCD standards, or as directed by the City's Inspector.

17.2. Traffic Signals

The following apply to new or modified traffic signals:

A. A signal warrant study prepared by a Professional Engineer licensed in the State of Washington is required for all new traffic signal installations. The City Engineer shall review and approve the study.

B. Signal design shall meet ADA, MUTCD, and WSDOT Design Manual 13.30 requirements.

C. Emergency vehicle preemptions systems are required for all new signal installations and may be required for signal modifications.

D. Signal structures consisting of poles and mast arms shall be required for all new installations.

E. Stop bar and advanced loop detection is required for all signalized approaches. Camera detection may be installed by request subject to review and approval by the City Engineer.

F. Transit Signal Priority capability may be required at intersections which serve transit routes. Bicycle loop detection is required for all bike lane approaches to signalized intersections. If a predominant left turning movement for bicyclists is present, bicycle push buttons or channelized bike boxes may be required.

G. Traffic signal equipment, including cabinets, controllers and other components, shall be reviewed and approved by the City Traffic Engineer.

DIVISION 3 – STORMWATER

Chapter 18. Standards

18.1. Design Requirement

Division 3 – Stormwater applies to public and private development within the City.

The City has adopted the *2019 Department of Ecology Stormwater Management Manual for Western Washington* (Stormwater Manual) and, for general guidance, refers to the *2012 Low Impact Development Technical Guidance Manual for Puget Sound* (LID Manual).

Basin plans shall provide a mechanism by which the minimum requirements and BMP implementation for a project may be refined based on the analysis of a basin or watershed. Basin plans may also be used to develop control strategies to address impacts from future development and to correct specific problems whose sources are known or suspected.

Appendix 1 and Appendix 10 of the National Pollution Discharge Elimination System (NPDES) permit issued by the Department of Ecology are adopted, including the thresholds, definitions, minimum requirements and exceptions, adjustment and variance criteria that it contains.

A. For stormwater design:
    1. 2019 Stormwater Manual, Department of Ecology. The City's modifications to the Stormwater Manual are itemized in EDM Chapter 19, Stormwater Manual Additional Requirements. The Stormwater Manual is available on Ecology's website: http://www.ecy.wa.gov/programs/wq/stormwater/manual.html
    2. The 2012 LID Manual may be used for guidance on LID site design. The LID Manual is available on the Puget Sound Action Team website: https://www.psp.wa.gov/downloads/LID/20121221_LIDmanual_FINAL_secure.pdf

18.2. Adjustments and Deviations

Adjustments to the minimum requirements may be granted by the City Engineer. Applicants must provide a narrative and any necessary supporting documentation describing the desired adjustment as written findings of fact, demonstrating that the adjustment:

A. Will neither seriously nor adversely impact the water quality conditions of any affected receiving bodies of water.

B. Will not alter the drainage patterns, increase the runoff volume or peak discharge, or cause any other adverse effects in the drainage area.

C. Will not cause runoff exceeding the available capacity of the existing drainage system where such system was designed to serve the proposed development area.

D. Will not reduce the flood-carrying capacity of any watercourse.

Variances may be permitted only after a determination by the City Engineer of the validity of a variance. The City Engineer may grant a variance if such application imposes a severe and unexpected economic hardship which prohibits reasonable use of the applicant's property. To determine whether the application imposes a severe and unexpected economic hardship on the project applicant, the applicant must provide the City Engineer with a narrative and any necessary supporting documentation, including written findings of fact, for the following information:

A. The current (pre-project) use of the site; and

B. How the application of the minimum requirement(s) per MTMC 16.20.020 restricts the proposed use of the site compared to restrictions that existed prior to the adoption of the minimum requirements; and

C. The possible remaining uses of the site if the exception were not granted; and

D. The uses of the site that would have been allowed prior to the adoption of the minimum requirements; and

E. A comparison of the estimated amount and percentage of value loss as a result of the minimum requirements versus the estimated amount and percentage of value loss as a result of requirements that existed prior to adoption of the minimum requirements; and

F. Whether or not there are special physical circumstances or conditions affecting the property such that the application of the minimum requirement would deprive the applicant of all reasonable use of the site in question; and

G. Whether or not every effort to find creative ways to meet the intent of this chapter's provisions has been made; and

H. The feasibility for the owner to alter the project to apply the minimum requirements; and

I. How the exception is the least possible exception that could be granted to comply with the intent of the minimum requirements; and

J. How the exception will not increase risk to the public health and welfare, nor be injurious to other properties in the vicinity and/or downstream, or to the quality of waters of the state.

Requests for variance shall be filed in writing with the City Engineer, including the payment of any fees established by the City, and shall adequately detail the basis of granting a variance. Variances require public notice (as described in Chapter 18.05 MTMC, Article III, Permit Review Procedures) for the variance application, public notice of the City Engineer's decision on the application, and written findings of fact that document the determination by the City Engineer to grant the variance. The decision of the City Engineer concerning a request for a variance shall be made in writing.

When the City Engineer determines that the City's standards will deny all reasonable use of the property, the restriction of development may be waived only by the Hearing Examiner; provided, that the resulting development shall be subject to all of the remaining standards.

Chapter 19. Stormwater Manual Additional Requirements

This chapter lists the City's amendments to the Stormwater Manual. All requirements in the Stormwater Manual are applicable in the City, including any guidelines or requirements that Ecology recommends or encourages, unless otherwise noted herein.

Thresholds for determination of project minimum requirements will be calculated based on all development activity from the past 3 years.

Per Section I-12.15 and MTMC chapter 16.20, the City has adopted the following additional requirements:

A. Section I-3.4.2 MR2: Construction SWPPP Supplemental Guidelines:
    1. The City has developed a single-family erosion control plan sheet (Construction SWPPP) for use by single unit detached homes.
    2. The Ecology SWPPP template is required unless the city's construction inspector or stormwater program manager approves use of the single family template.
    3. Element 2 – Establish Construction Access:
        a. Street washing is not permitted, even after shoveling or sweeping.
        b. During construction, if material is repeatedly being deposited on off-site streets and current implementation of SWPPP BMPs does not fix the problem, additional strategies may be required, including:
            i. Regenerative-type vacuum sweepers and repeated or continuous sweeping.
            ii. Special site procedures and provisions (such as transferring haul-outs to trucks that travel only on paved and maintained surfaces in the site).
    4. Element 7 – Protect Drain Inlets:
        a. Adjustable frame drain inlet protectors required (the felt flaps type tend to bypass flow and clog more easily.)
        b. Note on the TESC plan that the Contractor shall remove inlet protection at the end of the project without releasing captured sediment into the storm system.

5. Element 9 – Control Pollutants:
    a. All projects which have the potential to be active during the wet season must have a wet weather plan with specific BMPs listed in the SWPPP. The wet weather plan must be approved by the city before earthwork can begin.
    b. For projects at high risk of exporting sediment from the site during wet weather, water quality treatment located downstream of temporary flow control required during wet season construction (October 1-April 30), or until city construction inspector determines the site to be fully stabilized. Determination of the degree of risk associated with a project is to be assessed by city based on size of project, steep slopes, and other site attributes that increase risk of erosion. If Ecology thresholds for pH and/or turbidity on stormwater discharges for the site are exceeded more than once a year, additional flow control and/or water quality treatment/filtration are required.
6. Element 13 – Protect LID BMPs:
    a. All proposed and existing LID BMPs shall be shown on the Applicant/Permittee's erosion control plan. The erosion control plan shall detail the protection and cleaning of all LID BMPs.
7. Additional requirements for all projects:
    a. Dust is controlled and is in compliance with the Puget Sound Clean Air Agency; and
    b. Work in Critical Areas conforms to requirements of the City's Critical Areas Ordinance (CAO).

B. Section I-3.4.6 MR6: Runoff Treatment:
    1. The Lake Ballinger Watershed has a Total Maximum Daily Load (TMDL) for phosphorous. Whenever MR6 applies for a site that ultimately drains to Lake Ballinger, phosphorus treatment is required.
    2. If the runoff from the new impervious surfaces and converted pervious surfaces is not separated from runoff from other surfaces on the project site, the stormwater treatment facilities must be sized for the entire flow that is directed to them.

C. Section I-3.4.7 MR7: Flow Control:

1. Refer to the Stormwater Manual Vol. I: 3.4.7 for the thresholds that trigger flow control requirements. If a project exceeds **any** one of the three thresholds, the project triggers the requirement for flow control facilities.
2. Where detention facilities are incorporated into the property development in the form of ponds, lakes, or fountains, they shall be designed so as to avoid algae blooms and prevent stagnation. This shall be addressed in the permit application and may include requirements for maintenance.
3. The minimum orifice size for flow control restrictors is 0.5 inches

D. Section I-3.4.8 MR8: Wetlands Protection:

1. Many known wetlands in the City are shown online in the Property Information Interactive Map: https://cityofmlt.maps.arcgis.com/apps/webappviewer/index.html?id=2a6bc5d323a7416a9c57b7636fecabd9

E. Section I-3.4.9 MR9: Operation and Maintenance (O&M):

1. For public facilities, including public facilities built by private development:
    a. A copy of the draft O&M Manual shall be submitted with the permit submittal. The final O&M Manual shall be submitted for review and approval prior to acceptance of the completed construction project. The final approved O&M Manual shall be submitted with one (1) hard copy and one (1) electronic copy.
    b. At a minimum, the O&M Manual shall include:
        i. Party/parties responsible for facility maintenance, including phone numbers and addresses;
        ii. Maintenance cost distribution for shared stormwater BMPs and drainage facilities;
        iii. Site map showing BMPs, critical area(s), buildings, affected lots, and dimensions;
        iv. A list of BMPs and facilities installed on-site and purpose of each;

i. For each BMP or facility, the required maintenance activities and schedule meeting the minimum requirements given in the Stormwater Manual Appendix V-A;

ii. List of any proprietary components along with vendor's contact information and the vendor's maintenance schedule and costs;

iii. Inspection and maintenance schedules including recommended maintenance schedules per vendor specifications for proprietary components;

iv. Care and maintenance of any powered devices (e.g., pumps, aeration);

v. Inspection procedures and how the maintenance schedule will be modified if inspections determine the facility is not operating properly;

vi. The final O&M manual shall incorporate any comments made during the development review process and shall incorporate any field changes made to the facilities during construction.

F. Section I-3.5.3 APM2: Off-Site Analysis Report:

1. The City may require quantitative analysis and mitigation based on the results of the preliminary off-site analysis.

G. Section I-4 Underground Injection Control (UIC) Program:

1. The UIC Program applies to the entire City. All UICs shall be registered with Ecology. Refer to WAC Chapter 173-218.

H. Section I-4.17 Classification of Vadose Zone Treatment Capacity:

1. Geotechnical analysis from the project site is required to classify the vadose zone. Analysis from a nearby site is not acceptable.
2. A two-stage drywell is not acceptable for UIC pollutant loading treatment. At a minimum, pretreatment is required for all infiltration facilities, including UICs.

I. Appendix I-E Introduction to the Stormwater Control Transfer Program:

1. The City does not have a Stormwater Control Transfer Program.

J. Section V-5.4 Determining the Design Infiltration Rate of the Native Soils:

1. Grain size analysis shall not be used for UICs with low to high pollutant loading.

K. Section III-1.2 Step 4: Determine if a Phosphorus Treatment BMP is required:

1. Phosphorus treatment is required for all projects requiring MR# 6 Runoff Treatment which ultimately discharge to Lake Ballinger.

L. Section V-1.2 Setbacks, Slopes, and Embankments:

1. The City has adopted the setbacks in this section. Reductions in these setbacks may be approved if evaluated by a Professional Engineer licensed in the State of Washington with geotechnical expertise.

M. Section V-5.2 Step 8. Construct the Infiltration BMP & Conduct Performance Testing:

1. The excavation and installation of all infiltration facilities proposed for commercial, industrial, and multi-family development and in the right-of-way shall be observed by a licensed geotechnical engineer. The geotechnical engineer shall conduct an additional infiltration test in accordance with the Ecology Manual after the Contractor has excavated to the bottom of the proposed infiltration facility (prior to the installation of the infiltration facility). The geotechnical engineer shall submit an updated report that verifies that the design infiltration rate is equal to or greater than infiltration rate in the approved design. If the infiltration rate is less than the approved design, a revision to the stormwater design shall be submitted for City review and approval. Alternatively, other measures to improve the infiltration capacity may be taken.

Chapter 20. General Requirements

20.1. Licensed Professionals

A. State law requires engineering work be performed by or under the direction of a Professional Engineer licensed to practice in the State of Washington. Plans involving construction of treatment facilities or flow control facilities, structural source control BMPs or drainage conveyance systems generally involve engineering principles and should be prepared by or under the direction of a licensed engineer.

B. Construction SWPPPs that involve engineering calculations shall also be prepared by or under the direction of a Professional Engineer licensed in the State of Washington.

C. Infiltration testing shall be performed by a licensed professional. Refer to the Stormwater Manual Section V-5.4.

D. Depending on project scope and location characteristics, the City Engineer may require a licensed professional for any project. All credentials shall be current and issued by the State of Washington.

E. A State of Washington licensed civil engineer with geotechnical expertise is required for site assessment for site work within or adjacent to slopes steeper than 15 percent and higher than ten (10) feet.

F. In addition to Department of Ecology NPDES Construction General Permit requirements, the City Engineer may require a designated CESCL when disturbance is proposed on a site that contains or abuts a critical area. Refer to the Stormwater Manual Section II-3.2, BMP C160: CESCL.

G. The City may require planting plans and specifications to be prepared by a licensed Landscape Architect or a qualified professional working in the field of landscape design or horticulture.

20.2. Grading

Any grading activity, whether or not it requires a permit, shall prevent soils leaving the site or entering drainage facilities, streets and roads, water resources, or adjacent properties.

20.3. Separated Runoff

A. Project design shall keep runoff from public right-of-way separate from on-site, private stormwater runoff.

B. Stormwater controls for one (1) private property shall not be placed in public right-of-way or on other public property. The City Engineer may grant an exception if the facilities are part of a comprehensive LID approach to stormwater design for the abutting site and associated right-of-way.

20.4. Sump Pumps

Uncontaminated discharge from sump pumps may connect to the City's stormwater system when approved by a permit.

20.5. Footing Drains

For single-family residences, footing drains may connect to the downspouts on the property or at a covered catch basin or yard drain that is located no closer than five (5) feet to the foundation. Care shall be taken to ensure that slopes carry the water away from the building during high flows.

20.6. Maintenance Access

A. All stormwater facilities shall be accessible to maintenance vehicles, unless specifically waived by the City. If not located in or adjacent to an existing accessible access, an improved roadway surface shall be provided.

B. The access shall be designed to carry H20 loading. The approved surfaces include asphalt concrete, cement concrete, pervious concrete, pervious asphalt, structurally stabilized vegetated surface, or crushed surfacing.

C. A stormwater covenant shall be required for all privately constructed storm facilities for all permanent stormwater BMPs on all projects. Refer to EDM Section 4.9, Covenants.

D. All drainage easements granted to the City shall be at least 20 feet in width for operation and maintenance of open-channel or closed-system installation. Easements shall be obtained at the developer's expense. Recorded easements shall be delivered to the City prior to acceptance of the project's construction and shall

provide for the perpetual access of the City for maintenance, alteration, repair, and replacement of drainage pipes and facilities.

20.7. Watercourses

A. Streams shall be preserved in their existing channels, unless expressly authorized by Ecology and WDFW.

B. Any alteration to a stream channel, piped watercourse, or associated setbacks requires approval by Ecology and the WDFW.

C. A copy of the WDFW approval shall be submitted prior to permit issuance. Refer to MTMC 16.15 for critical area regulations.

20.8. Flood Control

Projects in the special flood hazard areas, as defined in MTMC 16.18, shall submit a development permit application.

The City shall review the application for compliance with FEMA floodplain development requirements and MTMC Chapter 16.18. Development in areas where the 100-year floodplain has been established, that are frequently flooded areas, or where the Public Works Department has determined that drainage or erosion conditions present an imminent potential of harm to the welfare and safety of the surrounding community, shall meet special drainage conditions set by the Public Works Department. Conditions may include the limitation of the volume of discharge from the developed property to be predevelopment levels, preservation of wetlands or other natural drainage features, or other controls necessary to protect against a community hazard.

Due to the detrimental effect on upstream and downstream properties, filling, grading or construction within the established floodplains shall conform with MTMC 16.18. The developer must provide information, plans and calculations to satisfy the Floodplain Administrator that development within the floodplains is not detrimental by increasing the flooding occurring upstream or downstream from the site.

20.9. Use of Storm and Surface Water Runoff

Storm and surface water runoff may be drawn in any quantity from manmade storage devices on private property which release directly into the drainage system or which are

completely enclosed. No water may be drawn from the watercourses, sloughs, streams, ponds, lakes, or swamps that make up the public drainage system except under the provisions of approved state water rights permits. Storm and surface water runoff that can legally be drawn off from the project area may be used for any non-potable purposes. The distribution system employed shall be separate from the City water system.

20.10. Subdivisions

A. Construction of the lot drainage connection systems shall be feasible and allow connection to the proposed formal and short subdivision improvements or to the documented infiltration areas.

B. When a subdivision stormwater plan includes piped connections, provide a connection stub to each lot. A maximum of three (3) lots may be connected to a common private collection pipe, six (6) inches or more in diameter. For subdivisions, no more than three (3) roof drain stubs are allowed on a single roof drain collection pipe.

C. Roof and footing drain connection stubs shall be at least one (1) foot below the lowest existing elevation of the building envelope on all newly created lots, unless a different elevation is approved or required by the City.

D. Easements for the specific drainage systems shown on the site development documents shall be provided as part of the formal or short subdivision.

E. Where the stormwater plan and flow control calculations for a subdivision include assumptions about the size, location, or performance of permeable pavement, rain gardens, or bioretention facilities on individual lots, the surface water plan and site development plan shall identify the obligation of each lot. The Applicant shall record a deed restriction against each lot for the maintenance of those facilities by subsequent owners.

20.11. Phased Projects

A. For projects proposed to be built in phases, but are part of a Common Plan of Development or Sale per the Stormwater Manual, the Applicant/Permittee shall provide plans that show the overall project as well as the project phases. The plan shall clearly delineate phase boundaries and provide estimates for construction dates for the phases.

B. Phasing of projects shall not result in a reduction of stormwater and/or erosion control requirements.

C. The Applicant/Permittee shall consider all phases when calculating thresholds for stormwater management.

20.12. Protect Vegetation Post-Construction

A. Mechanisms shall be put in place to assure long-term protection of vegetation retention areas. Mechanisms to protect conservation areas include setting aside conservation areas into separate tracts, permanent easements, homeowner covenants, maintenance agreements, and education.

B. Permanent signs shall be installed indicating that removal of trees or vegetation is prohibited within a native vegetation retention area.

C. Permanent fencing is required around the limits of any native vegetation retention area. The type, size, and location of the fencing shall be approved by City review staff and should be made of materials that blend in with the natural surroundings. For example, wood split-rail, pinned if necessary, and located in such a manner as to not impede the movement of wildlife within the vegetation retention areas.

20.13. Infiltration Facilities

Infiltration of stormwater into the ground is required to the maximum extent practicable. Infiltration potential for all projects shall be reviewed according to the requirements of the Stormwater Manual. Approved infiltration projects shall have an inflow capacity sufficient to handle the design storm. Mountlake Terrace details 460 and 461 show infiltration designs that may be considered for single unit homes.

The approval of any infiltration project shall not constitute approval of any means by which unstable subsurface conditions may occur; such conditions resulting from infiltration projects not constructed by the City shall remain the responsibility of the developer.

Infiltration facilities are prohibited under the following conditions:

A. Infiltration rates lower than three-tenths (0.3) inches per hour may be allowed to meet MR5 and MR7 if the design is modeled in WWHM2012 and the geotechnical

engineer has confirmed the design shall not have any adverse impacts to the subject property or adjacent properties.

B. Infiltration is not permitted within 100 feet of landslide hazard areas, per SWMMWW. Note: Other critical areas may have infiltration restrictions.

C. Infiltration is not permitted within ten (10) feet of underground storage tanks.

D. Contaminated soil or groundwater:
Infiltration has the potential to mobilize contaminants present in soil and groundwater. Unless a different setback is given in an approved cleanup plan, the following setbacks apply to areas with known soil or groundwater contamination (typically federal Superfund sites or state cleanup sites under the Model Toxics Control Act (MTCA):

    1. Areas known to have deep soil contamination:
        a. Bioretention, permeable pavement, and other infiltration facilities serving less than 5,000 SF of impervious surface are not permitted within 100 feet of an area known to have deep soil contamination.
        b. Other infiltration facilities serving 5,000 SF or more of impervious surface are not permitted within 500 feet of an area known to have deep soil contamination.
    2. Where groundwater modeling indicates infiltration will likely increase or change the direction of the migration of pollutants in the groundwater.
    3. Within ten (10) feet (horizontal) of contaminated surface soils.

20.14. Regional Facilities

Where there would be a public benefit and the project would better implement the stormwater comprehensive plan, the City may assume some responsibility for the further design, construction, operation and maintenance of a separate regional or subregional drainage facility either on the subject property or elsewhere in the drainage basin. Refer to MTMC 16.20.120 for additional information.

Chapter 21. Construction Stormwater Pollution Prevention Plan

21.1. Stormwater Pollution Prevention Plan Requirements

Refer to the Stormwater Manual Section II-2, Construction SWPPPs.

A. All development shall comply with the conditions of MR2, even when a formal SWPPP is not required.

B. The SWPPP shall include plans and a narrative.

C. The following are minimum requirements need to be shown on the SWPPP for all projects:

1. Site areas which do not need to be disturbed shall remain undisturbed (clearing limits are defined and maintained);
2. Runoff from areas not under construction does not flow over disturbed soils;
3. Temporary cover on disturbed soils that are not being worked;
4. Permanent cover installed without unnecessary delay on all areas at final grade;
5. Off-site streets are kept free of dirt and mud originating from the construction site, using sweeping, not flushing, in the streets and, if appropriate, on-site wheel wash facilities;
6. Dust is controlled and is in compliance with the Puget Sound Clean Air Agency; and
7. Work in Critical Areas conforms to requirements of the City's critical areas ordinance (CAO).
8. Plans need to show construction BMP's to be used during construction.

D. If construction is being phased, the City Engineer may require separate erosion and sediment control plans to address the specific needs for each phase of construction.

Chapter 22. Conveyance System

22.1. Open Channel Construction

Where open channel construction is used to handle drainage within the subject property, and where LID BMPs cannot otherwise be used to handle drainage, the following standards shall apply:

A. A minimum of 15 feet will be provided between any structures and the top of the bank of the defined channel.

B. In open channel work the water surface elevation will be indicated on the plan and profile drawings. The configuration of the finished grades constituting the banks of the open channel will also be shown on the drawings.

C. The proposed cross-section of the channel will be shown with stable side slopes as approved by the Department.

D. The water surface elevation of the flow for the design storm will be indicated on the cross-section.

22.2. Piped Conveyance

A. The Applicant is responsible for determining adequate pipe sizes. The City Engineer may require the Applicant to verify the adequacy of the pipe size and expand the conveyance system, such as adding pipe or catch basins. Nothing shall preclude the City from requiring the installation of a larger diameter main if the City determines a larger size is needed to serve adjacent areas or for future service.

B. Minimum pipe diameter for public facilities is twelve (12) inches.

C. For private stormwater pipe, the minimum size shall be six (6) inches. Footing and wall drains may be four (4) inches.

D. Minimum pipe slope shall be one-half (0.5) percent. Pipes larger than 12 inches in diameter may be designed for slopes lower than one-half (0.5) percent based on a minimum velocity of three (3) feet per second, if approved by the City Engineerr.

E. Catch basins shall be spaced no greater than 150 feet for grades less than one (1) percent, 200 feet for grades between one (1) percent and three (3) percent and 300 feet for grades three (3) percent and greater.

F. If two (2) feet of cover cannot be achieved, pipe material shall be ductile iron. Ductile iron pipe shall have six (6) inches minimum cover.

G. The table below shows required vertical clearances between piped stormwater conveyance and other utilities.

Table 18. – Conveyance System Vertical Clearances (minimum)

Utility	Location (Above or below Storm Pipe)	Minimum Clearance	Special Requirement
Storm	Above or below	12 inches	N/A
Electrical	Above or below	12 inches	N/A
Communications	Above or below	12 inches	N/A
Water main or gas main	Above or below	12 inches[1]	N/A
Water main or gas main	Above or below	6 inches[1]	Ethafoam pad
Sanitary Sewer	Below	12 inches[1]	N/A
Sanitary Sewer	Above	18 inches[1]	N/A
Sanitary Sewer	Above or below	6 inches[1]	Pipe sleeve and Ethafoam pad
Liquid petroleum	Above or below	18 inches	N/A

1 If 12" or 18" minimum clearance cannot be met, then special requirements must be met. The 6" minimum clearance cannot be waived except by City Engineer.

22.3. Pump Systems

Pump systems may be used for on-site conveyance if a gravity system is not feasible. Pumps shall comply with the following criteria:

A. The pump system shall not be used to circumvent any code, engineering standard, or permit condition. The construction and operation of the pump system shall not violate any other City requirements.

B. Pump systems shall be owned, operated, maintained, repaired, and replaced (as needed) by property owner(s) served by such system.

C. Storm detention facilities with flow restrictors shall be installed upstream and discharge by gravity to the pump system.

D. If a flow control system is not required, the pump system shall have a storage facility (such as a pond, tank, or vault) sized to hold 25 percent of the total volume of runoff for the developed tributary drainage area for the two-(2) year storm.

E. The pump system shall have dual, alternating pumps with emergency on-site, automatic back-up power supply, and an external alarm system for the high-water level indicator and system failure.

F. Each pump shall be capable of discharging the design flow rate for the 100-year, 24-hour design storm. Pumped flows shall not exceed the allowable discharge rate.

G. A safe emergency overflow route shall be provided, if possible, and shown on the plans.

H. The pump system shall discharge to an elevation higher than the downstream design water surface elevation to prevent backwater or backflow conditions.

I. The pump operations and maintenance requirements shall be included within a covenant.

J. A note on the approved plans and in the O&M Manual shall stipulate that the private property owner(s) shall be responsible for any and all claims for injuries and damage due to the operation or failure of the pump system.

K. The pump system force main shall connect into a private catch basin and gravity flow to the public stormwater system. Direct pressure discharge to a gutter, ditch, or stream shall not be allowed.

22.4. Rockeries/Retaining Walls Crossing

Crossing of rockery/retaining wall and drain pipe should be perpendicular. Depending on conditions, the drain pipe may need a steel casing per engineer recommendation.

Rockeries and retaining walls may have foundation drains, when required by the design engineer. The foundation drain outlets shall connect to an approved outfall.

22.5. Ditch Modifications

Ditches are an integral part of the stormwater conveyance system within the right-of-way and as such, modifications shall be reviewed and approved through the permit process.

Ditches having ten (10) percent or flatter longitudinal slopes shall remain open. The City may approve enhancement when either a “natural drainage system” swale design or a “bioretention swale” design is proposed.

Chapter 23. Inspections and Testing

23.1. Request Inspection

After issuance of the initial civil site construction permit for drainage conveyance, stormwater storage, or water quality facilities, the City shall be notified at the time any construction or alteration affecting drainage on the site shall begin and shall have the right to make periodic inspections during the construction or alteration to ensure that all requirements are met. All inspections shall be charged at the current hourly rate.

No person shall cover or backfill any subsurface drainage facility without having first requested an inspection and having received written permission and approval to backfill from the City. If any person covers or backfills any drainage facility without inspection and without having obtained approval, the City shall require the person to uncover the work so that a proper inspection can be made.

Inspections after regular office hours or on weekends are at the option of the City inspector by appointment. No inspections will be performed on legal holidays.

23.2. Testing and Approval

After construction of the stormwater facilities, inspections and tests will be conducted to verify that the constructed stormwater facilities function in accordance with the approved plans, specifications, and hydraulic computations and that all erosion control measures are operating efficiently. If all inspections and tests indicate that the projects and facilities have been completed in accordance with the requirements in MTMC 16.20.190, a final approval shall be given.

If the inspection and testing reveal deficiencies, no occupancy permit for the use of the property or any structures draining to the facilities will be granted until the deficiencies are corrected. If the owner does not correct deficiencies within 30 days, the City may correct the stormwater system to perform as required by the permit. All costs for corrective measures and enforcement actions shall be borne by the property owner and must be paid in full prior to granting an occupancy permit.

DIVISION 4 – SANITARY SEWER

Chapter 24. Public Sanitary Sewer

24.1. General Requirements

A. A permit is required to connect with, construct, open, or penetrate any public sewer or to repair or perform maintenance on any private sewer main or side sewer.

B. A licensed professional civil engineer shall certify that the design and construction of the sewer collection system meets or exceeds all applicable standards approved by the City.

C. All main lines must be designed to provide for proper collection of sewers from all lands served by the development. Extensions shall be required through and to the extremes of the property for future service as determined by the City. Depths of proposed sewer shall be adequate to serve upstream development within the basin.

D. Maintenance holes shall be placed at every angle point, street, and alley intersection, and in no case shall maintenance holes be spaced greater than 300 feet apart. A connection larger than 6" diameter shall require a maintenance hole.

E. All public maintenance holes shall have vehicular access within ten feet of the structure unless otherwise approved by the City Engineer.

F. Widths of public sanitary easements shall be twice the nominal depth to the invert, but shall not be less than 15 feet wide. Construction easements shall be 30 feet minimum in total width, including the permanent easement.

G. All public sanitary sewer main pipe shall have a minimum diameter of 8" or the size indicated in the City's most recently adopted Comprehensive Sewer System Plan Update, whichever is greater. All sewer laterals shall have a minimum diameter of 6" or the size of the side sewer connecting into it, whichever is greater.

H. Except for side sewers, new 8" sewer pipe and maintenance holes shall be publicly owned and maintained, with a public sewer and access easement granted to the City.

I. In general, parallel construction requires a minimum horizontal separation of ten feet between proposed sewer and water mains.

J. If a sewer main is replaced by a developer, all sewer laterals and sewer mains shall be reconnected to the new main, and the road shall be restored per City standards.

K. The terms “maintenance hole” and “manhole” shall be used interchangeably with “maintenance hole” being the preferred term

L. All sewer pipes shall be designed and constructed with minimum grades indicated in the Table 18: Pipe Slopes (minimum).

Table 19. – Pipe Slopes (minimum)

Pipe	Minimum Slope	
Inside Diameter	Percent (%)	FT/FT
8”	0.80	0.0080
12”	0.44	0.0044
15”	0.34	0.0034
16”	0.28	0.0028
18”	0.24	0.0024
21”	0.20	0.0020
24”	0.16	0.0016
27”	0.14	0.0014
30”	0.12	0.0012

Chapter 25. Connection to Public Sanitary Sewers

25.1. General Provisions

The standards below are only for gravity lines and are not intended for pressure mains. Pressure mains, if allowed by the City Engineer, shall meet ASTM specifications and/or specifications established by the City Engineer.

Private sewer easements shall be twice the depth to invert or 10 feet wide, whichever is greater.

25.2. Required Connection

Any person owning property with structures containing facilities for the disposal of sewer discharge within the city's municipal boundaries shall connect to the public sanitary sewer system, at the point designated by the City, when:

A. New construction occurs; or

B. Redevelopment of a structure occurs, and public sewer service is within a horizontal distance of 200 feet from the structure; or

C. Property containing a structure with an on-site septic system is ordered to do so by the Snohomish County Health Department, or its successor agency.

Refer to https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules for utility connection fees.

25.3. Cleanouts

A cleanout is required for the following conditions:

A. When a sewer lateral in the public right-of-way or in a public easement crosses onto private property. The cleanout shall be located at the property line.

B. Whenever more than a 45-degree bend is used;

C. Immediately outside a house or structure;

D. Every 100 feet for side sewers which are in excess of 100 feet in length; or

E. At the end of a line with multiple connections.

Additional cleanouts may be required by the City. All cleanouts within paved areas shall be brought to surface. The cleanout shall have a locking metal lid.

25.4. Maintenance Holes

A maintenance hole is required for eight (8)-inch diameter or greater connections to the public sewer.

25.5. Side Sewers Lengths

Six (6) inch side sewer shall not be more than 150 feet in length, except in such cases as may be approved in writing by the City Engineer.

Any side sewer more than 150 feet in length shall be at least eight (8) inches in diameter with maintenance holes on each end and at intervals of not more than 400 feet. Those lines shall be installed with both vertical and horizontal alignment.

25.6. Mobile Homes

Mobile homes situated on an individual single-family lot shall meet the same side sewer requirements as single-family structures.

25.7. Recreational Vehicle Sewer Disposal

Installation of a RV sewer disposal system for intermittent use requires a side sewer permit and inspection. The installation shall include a screw-on cap.

25.8. Prohibited Connections and Discharges

The following connections to the public sewer system are prohibited: gutter drains, downspouts, stormwater collection systems, cesspools, septic tank privy vaults, cisterns, footing drains or any other connection determined by the City Engineer to be principally a storm drain.

No user or domestic user shall discharge any pollutant or sewage that will interfere with or pass through the wastewater treatment facility inadequately treated. Specific prohibitions are listed in MTMC 14.10.010.

25.9. Sewer Replacement

The Developer shall provide a video inspection of a sewer main or side sewer from the proposed connection point to the next downstream maintenance hole. If, in the opinion of the City Engineer or their designee, the integrity of the public sewer main or existing side sewer is deteriorated, structurally unsound, cracked, leaking, or shows other indications that the useful life is short, it shall be replaced at the Developer's expense prior to connection. Additionally, sewer replacement or improvements may be required downstream of a proposed development if required by the City Engineer. This requirement shall only apply to developments that require land use approval

25.10. Pretreatment for FOG

In accordance with MTMC 14.10.080, some property owners shall be required to install, at the owner's expense, oil/water, sand and grease interceptor-separators when, in the opinion of the City, they are necessary for the proper handling of liquid wastes containing FOG in excessive amounts or any flammable wastes, sand, and other harmful ingredients.

Businesses requiring pretreatment include all commercial and retail food preparation operations, self-service car washes, automobile or truck repair facilities, steam cleaning facilities, and any other businesses which release FOG, chemicals, sand, or metals. The City will determine the type of pretreatment equipment required according to the criteria in MTMC 14.10.080. Detailed plans of proposed pretreatment facilities shall be provided for review and approval before a side sewer permit will be issued.

25.11. Side Sewer Testing

After pipe inspection, pipe shall be secured with backfill prior to pressure test.

A. All tests shall be conducted in the presence of the City. The person authorized to complete the work shall be present during the inspection and testing periods.
B. Tests shall be made for minimum grade. Visual inspections shall be conducted on all alignment, grade, backfill, and other items the City deems relevant.

C. Water tests shall be completed by plugging the side sewer and filling with water to the point of overflow. The sewer shall be tested in its entirety or in sections as directed by the City. Water shall be kept in the side sewer for a minimum of 15 minutes. The system shall be water tight with no visual or measurable leakage.

D. An alternate to water testing is a standard air pressure test of 4 pounds per square inch of pressure for a 5-minute period with no measurable loss of pressure.

E. Grinder pump pressure lines shall be water tested at 80 psi for 5 minutes.

Chapter 26. Side Sewer Maintenance and Repairs

26.1. Side Sewer and Lateral Cleaning or Rodding

Maintenance of side sewers and sewer laterals to be free and clear from roots, debris, and other obstructions is the responsibility of the property owner, as described in MTMC 13.20.090. All side sewer or sewer lateral cleaning or rodding contractors shall notify the City at 425-670-8264 prior to start of work.

26.2. Repairs

A defect or break in the side sewer is the responsibility of the property owner to fix. A defect or break in the sewer lateral is the responsibility of the City to fix.

A side sewer repair permit is required for any repairs. Inspection of the repair is required prior to backfill. If the side sewer is backfilled prior to inspection, uncovering and inspection of the repair will be required.

Any repairs to a side sewer required by the City shall be made within 30 days after the date of notice to the owner. In the event of an emergency, the City may establish a shorter period of time for the repair to be made.

For repair work the contractor or owner shall provide an as-built plan showing any changes, including rerouting, cleanouts, maintenance holes, etc.

26.3. Hold Harmless and Indemnification

Where physical conditions render compliance with the provisions of these standards impracticable, the City may issue a special permit for installation of a side sewer requiring compliance with special provisions insofar as is reasonably possible. Such a permit shall be issued only upon the condition that the property owner execute and deliver to the City an instrument, in the form furnished by the City, agreeing to save harmless and indemnify the City for any damage or injury resulting from such sub-standard installation.

DIVISION 5 – WATER

Chapter 27. Public Water System

27.1. General Requirements

Where practical, water mains shall be looped to increase reliability and fire flow capacity, and to decrease head losses. Off-site extensions may be required to hydraulically loop the existing with the proposed water system.

All water mains not in the public right-of-way require a public easement with a minimum width of 10 feet.

All water mains shall have a minimum cover of 36 inches between the pipe crown and finished grade.

Pipe deflection at joints shall be no more than four degrees (14-Inch per 18 feet).

If a water main is replaced by a developer, the old water main shall be abandoned. In addition, all water services, connections, hydrants, and appurtenances shall be reconnected to the new main, and if necessary, the road shall be restored per City standards. New and existing copper water services may be joined within the right of way. Polyethylene water services shall be replaced from the main to the meter box. The diameter of a new service may be the same diameter as the service it is replacing.

27.2. Diameter

Diameters of proposed water main shall be the larger of the following:

A. Diameter proposed in the City's current Comprehensive Water System Plan, or
B. Diameter required by the City's hydraulic water system model, assuming fire flow conditions with velocities not exceeding 10 feet per second

The minimum pipe diameter required for a water main is 8 inches, except that a dead-end water main not providing supply to a hydrant may be 6 inch diameter.

27.3. Restrained Joints

All water main joints shall be restrained within fill areas.

Where slopes are twenty (20) percent or greater, all pipes shall be restrained with both joint restraints as well as anchor blocks. A pipe anchor shall be installed at every pipe bell.

Where soil bearing capacity is 2,000 pounds per square foot (psf) or less, pipe joints shall be restrained. In addition, all fittings and valves shall be double restrained with concrete thrust blocks and a bolt restraint system.

Ductile iron pipe sleeves shall be restrained with bolt restraint systems. See the details and specifications in Appendix L for specific pipe joint and bolt restraint requirements.

27.4. Valves

Maximum valve spacing shall be 350 feet, or as necessary to require isolation for repair or shut down.

Unless otherwise approved by the City Engineer, gate valves are required on all legs of tees and crosses, including tees serving a fire hydrant or flushing location.

27.5. Clearances

In general, there shall be a minimum horizontal separation of ten feet between proposed sewer and water mains. Horizontal separation between water and all other utilities shall be a minimum of five feet.

Crossings with other utilities at highly acute angles shall be avoided. The smallest angle measured between a water main and a crossing utility shall be 45 degrees. At crossings, the following is the order of preference for vertical separation:

A. Water shall be a minimum of 12 inches over any other utility.
B. Water shall cross under another utility, with a vertical separation of at least 18 inches.
C. The City may approve, on a case-by-case basis, a pipe crossing over a water main with less than 18 inches of vertical separation. In such cases, the upper utility shall be Class 52 ductile iron or C900 for 10 feet on either side of crossing. The pipes shall be centered during installation for maximum joint separation
D. Where concrete thrust restraint is used, the minimum clearance between the back of the concrete blocking and other buried utilities or structures shall be five feet.

27.6. Fireflow and Hydrants

Final fireflow and hydrant locations shall be determined by the Fire Marshal, and IFC, as adopted and amended, per MTMC 15.10. All hydrants must connect to a water main that has a minimum diameter of 8 inches.

27.7. Connections to Existing System

Connections to the existing water system shall be made with cut-in connections unless otherwise approved. The connection time shall be approved by the City Engineer, and the connection shall be completed in such a manner as to minimize the interruption of service.

Where tap connections are allowed, the branch diameter of tapping sleeves shall be at least one pipe diameter smaller than the main being tapped.

Refer to https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules for current connection fees.

27.8. Corrosion Protection

Water main may not be installed parallel to and within 10 feet of surface light rail track or elevated light rail columns. Valves and other appurtenances shall not be placed within 10 feet of the track.

Water main crossing light rail track must cross at a perpendicular angle and must be within a casing for a minimum of ten feet on either side of the track. Cathodic protection shall be provided for both the casing and the ductile iron carrier pipe. All pipe joints and fittings shall be restrained. Ductile iron main within the casing shall be Class 56.

Any water line proposed within 25 feet of surface light rail shall include a plan for corrosion protection, which will be reviewed by the City.

27.9. Water System Facilities

Water system facilities, such as booster pump stations or pressure reducing stations, may be required by the City Engineer.

Chapter 28. Services

28.1. Water Service Requirements

All service lines shall be installed perpendicular to the water main.

All new single unit dwellings and/or ADU's are required to have individual water meters, and service lines shall be one inch diameter minimum. If sprinklers are not required, and the Uniform Plumbing Code (UPC) indicates that plumbing fixture counts are low enough to use a 0.625 or 0.75 inch meter, the capital improvement charge shall be for a 0.625 or 0.75 inch connection.

Sizes of other domestic water meters and service lines shall be determined per the current version of the UPC and American Water Works Association, or other methods approved by the City.

For commercial and multi-family developments, fire services shall have a separate water main connection and service line.

Water meters and meter boxes installed by owners/developers shall be subject to approval by the City prior to their installation. All materials for water installation shall be in compliance with City standards.

All water installations performed by owners/developers shall be subject to appropriate plan review and permit fees, in addition to capital improvement fees and appropriate installation fees. Refer to https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules for current fees.

Mixed-use structures shall have separate water services and meters for each specific use.

Fire system connections to the City's water system shall be owned and maintained by the property owner, beginning immediately downstream of the gate valve where the system connects to the City's water main.

All water services from water mains shall be accomplished by the owner/developer at the expense of the owner/developer. Water meters, two (2) inches in size or smaller, shall be installed by the City.

All private water service easements shall be a minimum of 5 feet wide.

28.2. Backflow Prevention

Backflow prevention devices shall be installed where, in the judgment of the City Engineer or Public water system Purveyor, there would be an immediate and dangerous hazard to health should a cross-connection occur. Typical uses requiring backflow prevention assemblies include uses such as fire sprinkler systems, irrigation systems, and medical facilities. MTMC 13.45 includes more details and specific requirements.

Installation of backflow shall be inspected by the City. After installation, annual inspection and tests are required to be submitted to the City per MTMC 13.45.130.

28.3. Pressure Regulating Valves

A pressure regulating valve is required on any water service where a static pressure in excess of 80 pounds per square inch may be expected. The pressure regulating valve shall be designed and installed such that a pressure below 80 pounds per square inch is maintained at every fixture within the building or structure regardless of any variation in water flows. The cost of the pressure regulating valves and their installation shall be borne by the property owner or developer.

28.4. Irrigation

Irrigation shall be permitted with landscaping and shall meet the requirements of MTMC 19.130.120.

Irrigation for commercial, institutional, or industrial uses shall be supplied through a separate water meter and service line.

DIVISION 6 – CONSTRUCTION AND INSPECTION

Chapter 29. Construction

29.1. Standards

Construction, workmanship, and materials shall be in accordance with the approved plans, permit conditions, and the standards referenced below. Any change to these standards during construction activities in the right-of-way shall be approved by the City Engineer.

A. Latest edition of WSDOT Standard Specifications for Road, Bridge, and Municipal Construction M 41-10

B. Latest edition FHWA Manual on Uniform Traffic Control Devices (MUTCD): http://mutcd.fhwa.dot.gov/

C. WAC 468.95 for adopted revisions to MUTCD for Washington State

D. 2019 Department of Ecology Stormwater Management Manual for Western Washington

29.2. General

A. Work Hour Restrictions:

1. Noise originating from construction sites, including but not limited to sounds from construction equipment, power tools and hammering between the hours of 10:00 p.m. and 7:00 a.m. are considered public nuisance (MTMC 8.20.010).
2. Construction activities on weekends and Federal-recognized holidays are not allowed within the right of way, unless approved at least 72 hours in advance. If approved, any weekend or holiday work will only be allowed between 9 a.m. and 10 p.m.

B. Survey Monuments:

1. Anyone performing construction, maintenance, or other work in the City shall protect all survey monuments within the area of work.
2. The Permittee is responsible for all contractors working on the project. If it is necessary to disturb a survey monument, the Inspector shall be notified and a permit from the DNR shall be obtained before the disturbance occurs.
3. Failure to comply with RCW 58.04.015 regarding monument removal or destruction is a gross misdemeanor and is punishable by a fine and/or imprisonment, and liability for the cost of reestablishment.

C. Cleanup, incidental and collateral damage:

4. The street right-of-way, material storage sites, construction staging areas, and all other areas affected by the work shall be left neat and presentable and shall be fully restored to pre-existing or better condition.
5. The applicant is responsible for all cleanup costs. Should the City be required to step in and incur cleanup costs, those costs shall be borne by the applicant. The City may choose to deduct costs from erosion control or street invasion deposits, per MTMC 15.35.010 (B).

   Further, except as provided in RCW 19.122.030, any damage or destruction to existing public or private facilities by the applicant shall be restored at the applicant's expense. This includes restoration of all traffic devices and pavement markings. The City shall determine the extent of damage and the type of restoration required.

D. Tower Cranes:

1. The use of tower cranes requires review and approval by the City Engineer.
2. An airspace/swing agreement with the City is required for tower cranes operating over City owned property or ROW.
3. Provisions for cranes shall be determined during land use permit review, as there may be significant construction or design impacts.

29.3. Temporary Traffic Control

A. A temporary traffic control plan (TCP) for the work zone shall be submitted for review at least 10 days prior to anticipated traffic disruption. Temporary traffic control plans must be approved before beginning any work requiring disruption to traffic and pedestrians.

B. Work in arterial roadways is limited to the hours between 9:00 a.m. and 3:00 p.m. unless otherwise approved in the traffic control plan or by the City Traffic Engineer.

C. The Inspector may approve field adjustments to traffic control to meet actual conditions.

D. The traffic control plan shall be consistent with the standards defined in the MUTCD. The following basic principles and standards shall be observed by all those who perform work within a street right-of-way.

1. Work areas are safe, and congestion is minimized;
2. Motorized and non-motorized traffic is warned, controlled, and protected;
3. Emergency access is maintained; and
4. All traffic is expedited through the work zone to the extent possible.
5. Temporary pedestrian routes must be compliant with ADA.

E. The traffic control plan shall allow for continued emergency services. For business disruption, the plan shall contain adequate connections and clear signage.

F. If steel plates are approved for use, the plates shall be pinned and shimmed, and cold mix asphalt shall be added to provide suitable transition from the roadway to the top of the steel plates.

G. If the roadway conditions in the work zone include grooved pavement, abrupt lane edges, steel plates, or loose gravel, signs shall be posted stating the condition as required by RCW 47.36.200.

H. Coordination of disruptions to signal loops during construction shall occur at the project's pre-construction meeting. Temporary video detection may be required for long-term vehicle detection disruptions or lane shifts affecting detection.

29.4. Truck Traffic

A. Truck haul route plans must be approved by the City before beginning hauling activities.

B. The City's Freight Route map is located at the following link: https://www.cityofmlt.com/DocumentCenter/View/9059/TR-4-WSDOT-Freight-Route-Identification-byTonnage-Map.

C. All truck traffic within the City shall proceed only over an established freight route and shall deviate only at the intersection with the street nearest to the destination point.

29.5. Staking

A. At a minimum, items that require staking include property corners, subgrade elevations, slope (grade) stakes, right-of-way location, proposed utilities, top and toe of walls, drainage structures and other permanent structures.

B. Staking of property corners shall be maintained until final acceptance of the project.

C. All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The Professional Engineer or Land Surveyor directing such work shall be licensed by the State of Washington.

D. A pre-construction meeting shall be held with the City prior to commencing staking. The minimum staking of streets shall be as follows:

1. Stake centerline alignment every 25 feet (50 feet in tangent sections) with cuts and/or fills to subgrade;
2. Stake top of ballast and top of crushed surfacing at centerline and edge of pavement every 25 feet;
3. Stake top back of curb at a consistent offset for vertical and horizontal alignment; and
4. Staking shall be maintained throughout construction.

29.6. Trenches

A. General:

1. When groundwater is anticipated or is encountered during trenching, a dewatering plan shall be provided for approval.

B. Temporary Trench Closure:

1. Trenches that will receive traffic or that will be left overnight before final restoration shall be covered by a temporary patch or by installation of steel plates. The temporary patch material can be hot mix or cold mix placed directly into the trench, bladed out, and compacted. The trench shall be filled flush to the surrounding surfaces to provide a smooth riding surface.
2. Use of steel plates requires approval from the Inspector. If approved, the Applicant/Contractor shall follow the EDM section titled Temporary Traffic Control.
3. If CDF is used, Steel plate(s) shall cover CDF for at least 48 hours prior to pavement placement.
4. Prior to predicted or possible snow events, all steel plates in the right of way must be removed and trenches backfilled.

29.7. Abandoned Utilities

All abandoned utilities shall be removed to the fullest extent possible. However, if it is not possible to remove abandoned pipe, the pipe shall be abandoned in place by filling the ends with concrete per WSDOT Standard Specification 7-08.3(4).

29.8. Sidewalks

A. Where approved, temporary sidewalks shall be at least five feet wide and comply with ADA criteria. If not connecting to an existing sidewalk, sidewalk transitions shall be constructed according to MLT standard plan 184.

B. Permanent sidewalks

1. During removal, panels should be removed to the nearest complete and competent panel.
2. Installation:
    a. See Standard Plan 131 - Typical Sidewalk Detail;
    b. Install an 18-inch root barrier placed between trees and sidewalks/curbs/driveways;
    c. Surfacing shall be Portland cement concrete. The concrete shall be placed and finished per WSDOT Standard Specifications 8-14.3 (3);
    d. All concrete shall be free of postmarks, graffiti, footprints, and tire marks prior to acceptance;
    e. Concrete sidewalks shall be cured for at least 72 hours. During curing time, sidewalk shall be protected from pedestrian and vehicle traffic;
    f. Expansion joints shall consist of 3/8 inch wide full depth pre-molded material. Expansion joints shall be placed around fire hydrants, poles, posts, and utility castings; and
    g. Expansion joints in sidewalks shall be located so as to match the joints in the curb whether the sidewalk is adjacent to curb or separated by an amenity zone.

29.9. Landscaping

A. Soil:

1. All disturbed soils that do not have structures on them shall be remediated according to BMP T5.13 Post Construction Soil Quality and Depth (Stormwater Manual); except
2. Soils for improvements, such as biofiltration and raingardens, shall meet specified material and installation requirements.

B. New Street Tree Installation:

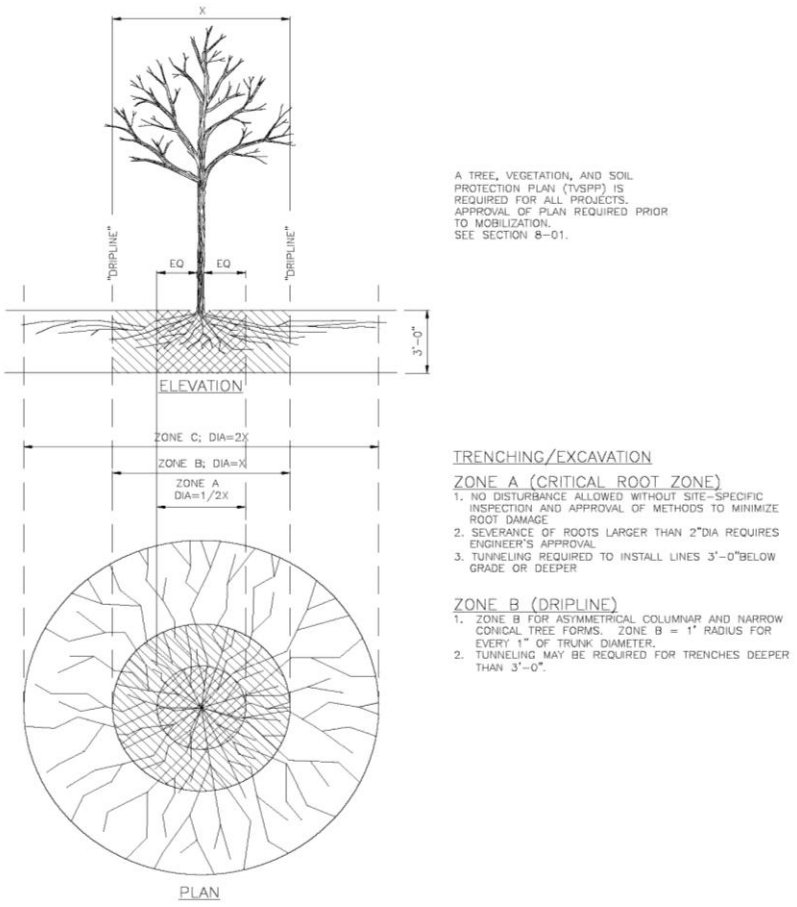
1. See MTMC 16.30;
2. Refer to Standard Plan 180, Street Trees.
3. Refer to EDM Section 15.2, Landscaping for street tree clearance requirements.
4. Mature tree and shrub root mats may overlap utility trenches, as long as approximately 80 percent of the root mat area is unaffected.
5. Trees shall be staked using five (5) foot staking and root barriers between the tree and the sidewalk and curb.
6. All new street trees are required to have a ten (10) foot long root barrier, centered on both sides of the tree.

C. Existing street trees and tree root systems shall be protected during construction utilizing the following methods:

1. Reducing soil compaction during the construction phase by protecting critical tree root zones that usually extend beyond the tree's canopy or drip line.
2. Prohibiting stockpiles or disposal of excavated or construction materials in the vegetation retention areas to prevent contaminants from damaging vegetation and soils.
3. Avoiding excavation or changing the grade near trees that have been designated for protection. If the grade level around a tree is to be raised, a dry rock wall or rock well shall be constructed around the tree. The diameter of this wall or well should be at least equal to the diameter of the tree canopy plus five (5) feet.

4. Restricting trenching and excavation in critical tree root zone areas or designate use of air spade for excavation and/or root pruning. (See Figure 5, Tree Protection - Right-of-Way).
5. Preventing wounds to tree trunks and limbs during the construction phase. In the event that a tree is damaged during construction, a licensed arborist shall inspect and determine if replacement or other mitigation is needed.
6. Prepare tree conservation areas to better withstand the stresses of the construction phase by fertilizing, pruning, and mulching around them well in advance of construction activities.
7. The following guidelines are provided as acceptable measures to help protect trees from construction impacts:
    a. Place tree protection fences around each tree or group of trees to be retained. Place four (4) to six (6) foot high temporary chain link or polyethylene laminar fencing five (5) feet (if possible) outside the drip line(s) or a plywood box around the tree or group of trees. Install fence posts using pier block only. Avoid driving posts or stakes into major roots.
    b. Tree protection fences need to be clearly marked as “Tree Protection Areas” with four (4) inch or larger letters.
    c. Where there is not enough space to erect tree protection fencing, alternative methods may be approved.

Figure 6. – Tree Protection – Right-of-Way



D. Amenity zone: The final grade of soil surfaces in planting strips shall accommodate runoff from sidewalk surfaces cross-sloped to drain toward the street.

E. Tree pits shall be graded to provide a soil surface two (2) inches below the adjacent sidewalk and curb elevation and shall then be top-dressed with bark or wood chips to surrounding grade.

F. Protect Vegetation During Construction: The following steps shall be taken to protect vegetation during construction:

    1. Map natural resource protection areas on all plans and delineate these areas on the site with silt, construction, or other appropriate fencing to protect soils and vegetation from construction damage.
    2. Before any groundwork begins, meet and walk property with equipment operators to clarify construction boundaries and limits of disturbance.

3. Protect drainage areas during construction. If an area has any type of channel/drainage swale that provides a hydrologic connection to vegetation protection area(s), then the channel shall also be protected throughout the construction phase by fencing and use of erosion control measures to prevent untreated runoff from the construction site flowing into the channel.

G. City owned irrigation systems shall be protected during construction.
    1. Prior to construction, the Permittee shall request a pre-construction irrigation test conducted by City staff to confirm system functionality.
    2. Prior to final acceptance of right-of-away permit, the irrigation shall be tested by City staff to confirm system functionality.
    3. If irrigation systems are damaged or modified, the Permittee shall restore systems to City standards. City irrigation standards will be provided upon request.

29.10. Curb, Gutter, and Driveway Approach

A. Vertical curb and gutter shall be used on all street classifications. Refer to Standard Plan 133 - Cement Concrete Traffic Curb and Gutter.

B. All curb and gutter shall be constructed with Class 3000 concrete furnished and placed in accordance with WSDOT Standard Specifications, Sections 6-02, 8-04, and 8-14. Cold weather precautions as set forth in WSDOT Standard Specifications Sections 5-05.3(14) and 6-02.3(6) shall apply.

C. Subgrade compaction for curbs, gutters, driveway approaches, and sidewalks shall meet a minimum 95 percent of maximum density per ASTM D1557. Compaction shall be tested by an independent testing laboratory.

D. Extruded curb is not allowed in the public right-of-way, unless it is temporary and/or approved by the City Engineer.
    1. When used, extruded cement concrete curb shall be anchored to existing pavement by either steel tie bars or adhesive in conformance with WSDOT Standard Specification Section 8-04.
    2. When used, extruded asphalt concrete curb shall be anchored by means of a tack coat of asphalt in accordance with WSDOT Standard Specification Section 8-04.

3. When used, one side of extruded curb shall be supported with material, such as asphalt, crushed surfacing, soil, etc.

E. A concrete driveway approach shall have a construction joint at the right-of-way line.

29.11. Pavement Restoration

A. General:

1. Anyone creating an opening in the right-of-way is responsible for permanent restoration.
2. Temporary cold mix patches shall be maintained at all times by the Permittee.
3. Pavement restoration shall be completed within 30 days unless approved by the permit or by the Inspector.

B. Cement Concrete Pavement:

1. Cement concrete roadway shall be restored to the nearest half panel.
2. Cement concrete shall be replaced or patched with concrete.
3. Any cement concrete pavement traffic lane affected by the trenching shall have all affected panels replaced.
4. Cement concrete pavement shall be connected to existing concrete pavement with dowels and epoxy and restored with mix per WSDOT Standard Specification 9-01.2(1).
5. Concrete pavement shall be restored consistent with WSDOT Standard Plan A-60.10-03.

C. Asphalt Concrete Pavement:

1. Refer to Standard Plans for pavement restoration.
2. Asphalt concrete pavement removal may be by full depth saw cut or drum grinder.
3. Asphalt concrete pavement cut widths, based on the final trench width, for pavement restoration/patching shall be according to Standard Plans 162, 163, and 164. The Inspector may extend cut limits to competent roadway pavement.
4. The Inspector shall approve the restoration limits before restoration begins.

5. Cuts in asphalt shall be wide enough to accommodate compaction equipment.
6. Cuts shall be expanded to include joints, panel edges, existing patches or cracks within four (4) feet of the opening.
7. Cuts shall be expanded to ensure that new longitudinal joints are not located in a wheel path.
8. The cut face shall be neat, straight and vertical. The corners shall be square.
9. When an existing asphalt paved street is to be widened, the edge of pavement shall be saw-cut to provide a clean, vertical edge for joining to the new asphalt at the time of the placement of the new asphalt. After placement of the new asphalt section, the joint shall be sealed.

D. Overlay:

1. A public street shall be overlaid when any one of the following conditions applies:
    a. Utility installation parallel to the pavement centerline requires half street overlay from the centerline to the curb line for the entire length of the utility installation.
    b. If the utility trenching encroaches on both sides of the centerline, a full street overlay along the entire length of the utility installation shall be required.
    c. Utility installation consisting of three or more perpendicular (transverse) trenches within 150 feet, measured along the pavement centerline, requires overlay from the curb line to the centerline for the full length of the utility installation. If a trench extends beyond the centerline, the City Engineer may require a full street overlay.
    d. Utility installed at an angle to the pavement centerline requires an overlay from the centerline to the curb line for the entire length of the utility installation. If the utility trenching encroaches on both sides of the centerline, the City Engineer may require a full street overlay.
    e. When the permit conditions require street improvements and the existing pavement has alligator cracking, the existing pavement shall be removed and paved from the centerline to the new curb line.

f. A minimum half street overlay from property line to property line is required if the project requires frontage improvements.

g. Additional pavement restoration may be required to include any pavement damaged during construction and/or to include pavement patches per the Right-of-Way Inspectors.

2. Cold-plane both ends of the overlay perpendicular to the roadway for at least 15 feet to provide a flush transition. For half-street or full-street overlays, cold-planing (grinding) of the entire paving area is required (centerline to gutter or gutter to gutter). When curb and gutter does not exist, the new overlay surface may, at the City Engineer's discretion, be tapered to meet the elevation of adjacent paved surfaces. All asphalt joints and tapered transitions shall be sealed with AR4000 or equivalent.

3. Where curb and gutter does not exist, the shoulder shall be restored with crushed rock.

E. Monitoring Wells and Potholing:

1. Decommissioned monitoring wells or resource protection wells shall be decommissioned adhering to the requirements of WAC 173-160-460. Once the well has been decommissioned, the pavement restoration shall adhere to the City's Details and Specifications.

2. Vertical potholing from vacuum excavations shall be backfilled. All subgrade shall be compacted to 95 percent maximum density as described in Section 2-03 of the latest version of the WSDOT Standard Specifications. Once backfilled, the pavement restoration shall adhere to the City's Details and Specifications.

F. Channelization:

1. All channelization and pavement markings such as raised pavement markers, paint, thermoplastics, etc., shall be pre-marked by a City-approved striping contractor, and the layout approved by the Inspector, prior to permanent installation by the Contractor. Approval may require a three-(3) working day notice for layout approval.

G. Testing:

1. Prior to placing any asphalt surface materials on the roadway, the Inspector shall review and approve density test reports, certified by a professional engineer, for the crushed surface base course and the crushed surface top course.
2. Testing shall be performed by a certified independent testing laboratory. The cost of testing is the responsibility of the franchise utility or Contractor. The testing is not intended to relieve the Contractor from any liability for the trench restoration.
3. Material testing may be required for trench backfill (native or imported), asphalt, and concrete.
4. All densities shall be determined by testing specified in WSDOT Standard Specifications.
5. Compaction of all lifts of asphalt shall be at an average of 91 percent of maximum density as determined by WSDOT Standard Specifications.
6. The compaction tests shall be performed in maximum increments of two (2) feet. The number of tests required per SF of material are defined in Table 21 or as directed by the Inspector.

Table 20. – Number of Compaction Tests

Total Amount of Material (SF)	Number of Tests
Less than 50	1
50 – 100	2
100 – 300	3
Greater than 300	3, plus 1 for every additional 200 SF

29.12. Stop Work

If a permit is issued and the City subsequently issues three (3) stop-work orders for that permit or if three (3) illicit discharges are reported due to insufficient erosion prevention and sedimentation control, the permit maybe suspended until the dry season, or, if violations occurred in the dry season, until weather conditions are favorable and effective erosion and sedimentation control is in place. The suspension shall be removed at the end of the rainy season or upon the City's determination that appropriate BMP's have been

installed and are working and that the Permittee has adequate resources and abilities to manage BMPs effectively without further discharges that do not meet requirements.

Chapter 30. Inspection

The City's inspectors inspect work performed under an approved permit. Any inspections resulting from any cause shall be charged at the current hourly rate. No inspections will be performed on legal holidays unless previously approved.

30.1. Authority and Duties of Inspectors

A. The Inspector functions as a resource for the Permittee and Contractor. The duties of the Inspector include, but are not limited to:

1. Conducts field investigations;
2. Interprets and applies standards;
3. Monitors compliance with permit conditions;
4. Monitors utilities protection;
5. Monitors traffic control and pedestrian access;
6. Monitors excavation, shoring, backfill and restoration, and public safety;
7. Enforces the Stormwater Pollution Prevention Plan during construction;
8. Reviews material submittals;
9. Coordinates material inspections; and
10. Reviews as-constructed drawings (record drawings).

B. The Inspector shall have access, at reasonable times, for the purpose of inspecting the site and ascertaining whether provisions of the standards and specifications have been complied with.

C. The Inspector has the authority to reject defective material and suspend work that is being done improperly. The Inspector may advise the Permittee or Contractor of any faulty work or materials; failure of the Inspector to advise the Permittee or Contractor does not constitute acceptance or approval. The Inspector has the authority to require revisions to approved engineering plans when necessary due to conflicting field conditions. Any revisions required by the inspector shall be reviewed and approved by the City Engineer

D. The Inspector is not authorized to revise, alter, or relax the provisions of these standards or the MTMC.

30.2. Inspection Requirements

A. At all times during construction, the Permittee/Contractor shall have issued permits and approved plans and specifications on the job site.

B. Tree protection and erosion control measures shall be installed and inspected prior to any clearing or grading activities.

C. All construction or work for which a permit is required shall be subject to inspection by the City. The City may inspect any project at any stage of the work to determine that adequate control is being exercised.

D. It shall be the duty of the Permittee to ensure that the work remains accessible and exposed for inspection purposes. Failure to notify the City of readiness for inspection in a timely manner may result in the requirement to remove and/or replace buried or hidden elements. The City shall not be liable for the expense entailed in the removal or replacement of any material required to allow for inspection.

E. Specific inspections are determined at the pre-construction meeting. Inspection of construction in the right-of-way may include the items listed below:

1. Survey monuments;
2. Survey stakes: Construction staking prior to construction;
3. Stormwater Pollution Prevention Plan implementation, including installation and maintenance of BMPs;
4. Staging and stockpile areas;
5. Construction traffic routing, traffic control, signage and channelization;
6. Drainage facilities – materials and installation;
7. Utility installation, depth and location;
8. Utility testing and flushing per the Engineering Details and Specifications;
9. Pavement cuts;
10. Roadway centerline elevations;
11. Elevations at curb radii PVC's, Points of Vertical Intersection (PVI), and Points of Vertical Tangency (PVT);
12. Concrete forms for sidewalks, ramps, and driveways;
13. Right-of-way pavement restoration;
14. Channelization;

15. Landscaping installation and restoration, plants, root barriers, and irrigation;
16. Permanent stabilization of the site;
17. Clean-up;
18. Record drawing with as-constructed information; and
19. Inspector will provide punch list to Permittee/Contractor after receipt of draft record drawings.

DIVISION 7 – PERMIT CLOSE-OUT

Chapter 31. Overview of Close-out

After the completion of construction and passing the appropriate inspections and tests, as described in previous chapters, the close-out process may begin. Draft record drawings are required prior to requesting a construction punch list. The other requirements may be submitted earlier during the project.

31.1. Close-out

Typical close-out requirements include:

A. Final record drawings - See Appendix H for record drawing requirements

B. Completion of all construction punch list items

C. Documentation showing that all necessary testing was passed

D. Bill of sale for public improvements

E. Easements reviewed, approved, and recorded

F. Dedications reviewed, approved, and recorded

G. O&M manuals, covenants, and other paperwork deemed necessary for the project

H. Any additional conditions listed on the permit

I. Two-year maintenance bond for 20 percent of costs of public improvements

J. Payment of any remaining fees

Note that once any water system improvements are accepted by the City, they may only be operated by City personnel.

31.2. Construction Punch List

The contractor may request a punch list inspection once preliminary record drawings have been submitted to the City.

If the owner or developer has not corrected deficiencies within 30 days, the City may take the necessary corrective measures to make the system perform as required by the permit. All costs for corrective measures and enforcement actions shall be borne by the property owner and must be paid in full prior to granting an occupancy permit.

If all inspections and tests indicate that the improvements have been completed in accordance with the requirements of the permit, the EDM, and the MTMC, the punch list is considered complete.

31.3. Record Drawings

Record drawings shall be provided for private infrastructure that connects to the City's infrastructure, for public facilities, and for right-of-way work. Refer to Appendix H – Record Drawing Criteria for more information

A. Record drawings should accurately reflect revisions made during construction. The record drawings should show all newly installed, existing, and abandoned utilities encountered during construction, even if they were not shown on the approved plans.
B. As-constructed survey information provided on a record drawing shall be provided by a licensed land surveyor. Information from sources such as the Contractor's red-lined drawings, for which the surveyor is not responsible, shall be clearly noted/identified on the face of the record drawings.
C. The Permittee shall provide the City with preliminary record drawings via an electronic PDF.
D. Once the City approves the preliminary submittal, the Permittee shall provide a flattened digital PDF drawing of the approved as-builts, and AutoCAD version 2018 compatible files.
E. Permittee is responsible for all costs associated with recording documents.

APPENDIX A - ACRONYMS AND DEFINITIONS

These acronyms and definitions are for use with this EDM. Unless specifically defined below, words or phrases used in this EDM shall be interpreted to give them the meaning they have in common usage and to give this EDM its most reasonable application.

Acronyms

AASHTO: American Association of State Highway and Transportation Officials

ADA: Americans with Disabilities Act

ADT: Average Daily Traffic

APM: Additional Protective Measure

ASTM: American Society for Testing and Materials

BMP: Best Management Practice

BOD: Biochemical Oxygen Demand

CAO: Critical Areas Ordinance

CBR: California Bearing Ratio

CDF: Controlled Density Fill

CEC: Cation Exchange Capacity

CESCL: Certified Erosion and Sediment Control Lead

CFR: Code of Federal Regulations

CIP: Capital Improvement Project

CIPP: Cured in Place Pipe

CMP: Corrugated metal pipe

CPEP: Corrugated Polyethylene Pipe

CSWGP: Construction Stormwater General Permit

DNR: Department of Natural Resources

DR: Dimension Ratio

EDM: Engineering Development Manual

EWWTP: City of Edmonds Wastewater Treatment Plant

FEMA: Federal Emergency Management Agency

FHWA: Federal Highway Administration

FOG: Fat, Oil, and Grease

HDPE: High-density polyethylene

HPA: Hydraulic Project Approval

HRM: Highway Runoff Manual

HSPF: Hydrological Simulation Program-Fortran

ITE: Institute of Traffic Engineers

JARPA: Joint Aquatic Resource Permit Application

LED: Light Emitting Diode

LF: linear foot / feet

LID: Low Impact Development

LOS: Level of Service

MEF: Maximum extent feasible

mg/L: milligrams per liter

MPH: Miles per hour

MR: Minimum Requirement

MTCA: Model Toxics Control Act

MTMC: Mountlake Terrace Municipal Code

MUTCD: Manual of Uniform Traffic Control Devices

NACTO: National Association of City Transportation Officials

NAD: North American Datum, horizontal, of 1983/1991

NAVD: North America Vertical Datum

NEIS: National Electrical Installation Standards

NOAA: National Oceanic and Atmospheric Administration

NOI: Notice of Intent

NPDES: National Pollutant Discharge Elimination System

NTSP**: Neighborhood Traffic Safety Projects**

NTU: Nephelometric Turbidity Unit

O&M: Operation and Maintenance

O.D.: outside diameter

OHWM: Ordinary High-Water Mark

PCC: Portland concrete cement

PIT: Pilot Infiltration Test

PROWAG: Public Right-of-Way Accessibility Guidelines

PVC: Point of Vertical Curvature

PVC: Polyvinyl Chloride

PVI: Point of Vertical Intersection

PVT: Points of Vertical Tangency

RCW: Revised Code of Washington

RTA: Regional Transportation Analysis

SDR: Standard Dimension Ratio

SEPA: State Environmental Policy Act

SF: square foot / feet

SSD: Stopping Sight Distance

SWMP: Surface Water Master Plan

SWPPP: Stormwater Pollution Prevention Plan

TDA: Threshold Discharge Area

TIA: Transportation Impact Analysis

TMDL: Total Maximum Daily Load

TMP: Transportation Master Plan

UIC: Underground Injection Control

ULID: Utility Local Improvement District

UPC: Uniform Plumbing Code

USPS: United States Postal Service

WDFW: Washington State Department of Fish and Wildlife

WISHA: Washington Industrial Safety and Health Administration

WSDOT: Washington State Department of Transportation

WWHM: Western Washington Hydrology Model

Definitions

Access. The safe, adequate, and usable ingress/egress (entrance/exit) point between private property and the public street system. Usually defined at the right-of-way.

Actual elevation. The elevation in relationship to mean sea level.

Adverse effect or Adverse impact. Effect that is a direct or indirect result of a proposed action, or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. In the event that the overall effect of the proposed action is beneficial, but is also likely to cause some adverse effects, then the proposed action is considered to result in an adverse effect.

Alignment. The route of the road, defined as a series of horizontal tangents and curves.

Alley. A service roadway, not designed for general travel, providing a primary or secondary means of automobile, service vehicle, or emergency vehicle access to abutting property and not intended for primary traffic or pedestrian circulation.

Amenity zone. That area, adjacent to the curb or paved roadway and within the right-of-way, which is commonly landscaped, but may include other features for the City's benefit such as utilities, traffic signs, bioretention facilities and mailboxes.

Applicant. Any person, governmental agency, or other entity that executes the necessary forms to procure official approval of a project or a permit to carry out construction of a project.

As-built. Actual surveyed locations of constructed elements. As-constructed information is included on Record Drawings.

Auxiliary lane. The portion of the roadway adjoining the traveled way for parking, turning or other purposes supplementary to through-traffic movement.

Availability; Certificate of Sewer. A City issued document stating what types of sewer service are available to a property such as: main, stub, tee, saddle to main, what conditions shall be met before a permit will be issued in compliance with City rules and regulations, and it may also state if sewer service is not available.

Backup. A sanitary sewer overflow resulting from an obstruction in a sewer line, a failure of a pump system, or other cause.

Best Management Practices (BMPs). Schedules of activities, restrictions, maintenance procedures, and structural and/or managerial practices, that when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to Waters of the State.

Bike facilities. A general term denoting improvements and provisions to accommodate or encourage bicycling, including parking and storage facilities, and shared roadways specifically designated for bicycle use. (AASHTO)

Bike lane. A portion of a roadway which has been designated by pavement markings and, if used, signs, for the preferential or exclusive use of bicyclists. (AASHTO)

Bike path. A pathway that is exclusively used by bicyclists, where a separate, parallel path is provided for pedestrians and other wheeled users. Most pathways are shared between bicyclists and other users: see Shared-Use Path. (AASHTO)

Bike route. A roadway or bike route designated by the jurisdiction having authority, either with a unique route designation or with BIKE ROUTE signs, along which bicycle guide signs may provide directional and distance information. Signs that provide directional, distance, and destination information for cyclists do not necessarily establish a bicycle route.

Bike network. A system of bike routes designated by the jurisdiction having authority. This system may include bike lanes, bicycle routes, shared-use paths, and other identifiable bicycle facilities. (AASHTO)

Bioretention. Engineered facilities that store and treat stormwater by passing it through a specified soil profile. Refer to the Stormwater Manual Vol. V, Chapter 7 for bioretention practices and design specifications.

Bulb. Area for vehicle turnaround typically located at the end of a cul-de-sac street.

Bulb-out. (Also known as “curb bulb” or “sidewalk bulb”) means sidewalk areas extended at intersections or mid-block locations to narrow the crossing for pedestrians.

Bus and Turn (BAT) lane. Traffic lane dedicated for bus travel with a provisional use for general-purpose vehicle right turns.

Capital Facility (Improvement) Charge. A one-time charge at the time of development for new or expanded connections that recovers a proportionate share of the past and planned capital costs of the public utility system other than costs paid by grants, developer donations, or property assessments.

Chlorinated. Water that contains more than ten (10) mg/Liter chlorine.

City. The City of Mountlake Terrace.

City capital improvements. means improvements that are part of the City's capital improvements program.

City Engineer. The City Engineer or their designee.

Clear sight triangle. An area of unobstructed vision at street intersections or street and driveway intersections defined by lines of sight between points at a given distance from the intersection of street and/or driveway lines.

Clearance. The minimum distance between elements in, under and above the street right-of-way.

Clearing. Removal of vegetation from a site by physical, mechanical, chemical, or other means which exposes the earth's surface or any actions which disturb the existing ground surface. This does not mean landscape maintenance or pruning consistent with accepted horticultural practices.

Community and Economic Development Director. The Community and Economic Development Department Director or their designee.

Comprehensive Plan. The plan and amendments as described in MTMC Chapter 18.05.300.

Conveyance system. Natural and man-made drainage features that collect, contain, and convey stormwater. Natural drainage features include swales, streams, rivers, lakes, and

wetlands. Man-made features include swales, gutters, ditches, pipes, and detention/retention facilities.

Corner clearance. The distance between a driveway and the nearest intersecting street.

Cover. The depth of material lying between the top of the sewer and the finish grade immediately above it.

Critical areas. Critical areas as defined in MTMC 16.15.

Cross section. Vertical section of a roadway showing the position and number of vehicle and bike lanes, curb and gutter, amenity zones, and sidewalks, along with their cross slope or banking. Cross sections also show drainage features, pavement structure and other items outside the category of geometric design.

Cul-de-sac. The circular turnaround at the terminus of a street end.

Crosswalk. The portion of the roadway between the intersection area and a prolongation or connection of the farthest sidewalk line or in the event there are no sidewalks then between the intersection area and a line ten (10) feet there from, except as modified by a marked crosswalk. (RCW 46.04.160)

Daily Traffic – Annual Average (AADT). Daily traffic that is averaged over one (1) calendar year.

Daily Traffic – Average (ADT). The average number of vehicles passing a specified point during a 24-hour period.

Dangerous Waste. Those solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous or extremely hazardous or mixed waste, as further defined under WAC 173-303-040.

Dead End. Street End. A road or street without an exit.

Covenant. A legal document between the City and persons holding title to the property requiring the title holder to perform required maintenance and repairs on drainage facilities necessary to meet the City's specified standards within a reasonable time limit. The

covenant also grants the City permission to access the property to inspect drainage features.

Design speed. A selected speed used to determine the various geometric features of the roadway.

Detention facility. A permanent facility designed to store runoff and discharge storage at controlled rates.

Development. The construction, reconstruction, conversion, structural alteration, relocation or enlargement of a structure; the division of a parcel of land into two or more parcels; any mining, excavation, landfill, or land disturbance; or use, conversion, or extension of the use of land. (MTMC 19.15.050)

Deviation from Engineering Standards. Written permission from the City to depart from the requirements of the Engineering Development Manual.

Director. The Public Works Director or their designee.

Discharge. Runoff leaving a new development or redevelopment via overland flow, built conveyance systems, or infiltration facilities. (Stormwater Manual)

Downspout. A pipe which conducts water from the roof of a structure.

Drainage. Collection, conveyance, containment, and/or discharge of surface water and stormwater runoff. (Stormwater Manual)

Drainage facility. A constructed or engineered feature that collects, conveys, stores, or treats stormwater runoff. "Drainage facility" includes, but is not limited to, a constructed or engineered stream, pipeline, channel, ditch, gutter, lake, wetland, closed depression, flow control or water quality treatment facility, erosion and sediment control facility and other structure and appurtenance that provides for drainage.

Driveway. The on-site vehicular access connecting a property to a street. Driveway is privately owned and maintained.

Driveway/Access – Approach. That portion of a driveway between the pavement edge of the intersecting roadway and the right-of-way/property line.

Driveway – **Apron.** See Driveway/Access – Approach.

Driveway – **Shared.** A jointly owned and maintained tract or easement serving two to four single-family detached units.

Dwelling, Accessory or ADU. A housing unit that is accessory to a single-unit dwelling. See definition(s) in MTMC 19.15.

Dwelling unit, Multiple-Family-household. A building designed to house two or more households living independently of each other and includes duplexes, triplexes, fourplexes, and apartment buildings. See definition(s) in MTMC 19.15.

Dwelling unit, Single. See definition(s) in MTMC 19.15.

Easement. A grant of an interest in land by the property owner for a specific use by another person or persons, entity, or for the public in general.

Emergency Generator. An alternate source of electrical power used to operate City equipment and pump stations during electrical failures.

Engineer – **Geotechnical.** A practicing, professional civil engineer licensed by the State of Washington, who has knowledge and practice of geotechnical engineering.

Engineer – **Professional.** An engineer, licensed to practice in the State of Washington as a Professional Engineer.

Engineer – **Soils.** Geotechnical Engineer.

Engineering Details and Specifications. means the specifications and plan details approved by the City Engineer to establish engineering requirements for work done within or for the City. (See Appendix L).

Engineering Geologist. A geologist certified by the State as experienced and knowledgeable in engineering geology.

Engineering geology. The application of geologic knowledge in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

Engineering – Geotechnical. The application of soil mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection or testing of the construction thereof.

Extension. An addition to the City's system that is constructed by an owner or developer to be conveyed to the City upon inspection and acceptance.

Eyebrow. A partial bulb located adjacent to the serving road that provides access to lots and serves as a vehicle turnaround.

Financial guarantee. A surety, bond, cash deposit, assignment of funds, or other means acceptable to the City to guarantee acceptable performance, execution, completion of the work and maintenance, in accordance with the project's approved plans and in accordance with all applicable governmental requirements. (MTMC Chapter 15.35 and 17.06.040).

Fire apparatus access road. As defined in the International Fire Code.

Fire lane. As defined in the International Fire Code.

Fixed object. An object, when struck, can result in impact forces on a vehicle's occupants that may result in injury or place the occupants in a situation that has a high likelihood of injury. Refer to WSDOT Design Manual for examples and mitigation.

Flow attenuation. Detaining or retaining runoff to reduce the peak discharge.

Frontage. Any lot line abutting street right-of-way.

Frontage improvements. Motorized and nonmotorized facilities, transit facilities, utilities, landscaping, and other such features located within the public right-of-way.

Grading. See Land Disturbing Activity.

Gravity Service. Sewer service which may be obtained between a property and the City's existing system of sewers in accordance with the City's Rules and Regulations without use of a pump.

Grease Interceptor. An appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oil, and grease (FOG) from the discharge.

Grinder Pump. The pump, wet well, alarm, panel, valve vault, and appurtenances located on private property for the purpose of grinding and transporting sewer discharge into the sanitary sewer system.

Ground disturbance. See Land Disturbing Activity.

Half-street. A street constructed utilizing at least half the regular width of the right-of-way and permitted as an interim facility pending construction of the other half.

Hard surface. An impervious surface, a permeable pavement, or a vegetated roof. (Stormwater Manual)

Illicit Connection. Any artificially constructed conveyance that is connected to the public sewer system without a permit, or that is not intended for collecting and conveying only sewer discharge. Examples of illicit connections include storm sewer connections, exterior floor drains, channels, pipelines, conduits, footing drains, downspouts, inlets, or outlets that should be connected directly to the municipal separate storm sewer system.

Illicit Discharge. Any direct or indirect discharge into the public sewer system that is not composed entirely of sewer flows, except discharges pursuant to a NPDES permit, or any discharge prohibited by the Code of Federal Regulations, such as 40 CFR 403.5 and MTMC 16.21.050, and any regulation adopted to implement those laws, all as amended from time to time.

Impervious surface. A non-vegetated surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated area which causes water to run off the surface in greater quantities or at an increased rate of flow from those present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purposes of determining whether the thresholds for application of MRs are exceeded. Open, uncovered retention/detention facilities shall be considered impervious surfaces for purposes of runoff modeling. (Stormwater Manual)

Improvements. Any improvement to public, real, or personal property, including but not limited to, installation of streets, roads, pedestrian/bike facilities, streetlights, landscape features, sewer and waterlines, bridge structures, stormwater facilities, and traffic control devices.

Industrial Waste. Any liquid, solid, or gaseous substances or combination thereof, resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including, but not limited to, development, recovery, or processing of natural resources, leachate from landfills or disposal sites, decant water, contaminated non-process water, and contaminated stormwater or ground water.

Infiltration. The downward movement of water from the surface to the subsoil. (Stormwater Manual)

Inspector. The City's Building Inspector or a designee of the Director.

Internal road. A road that is contained within the development.

Interceptor. A sewer that receives flow from other large sewers or outlets and conveys the sewer discharge to a point for treatment or disposal.

Intersection. The area from the intersection of a roadway to the radius tangent point or stop bar on each approach, whichever is greater.

Land disturbing activity. For the purposes of this Engineering Development Manual, any activity that results in movement of earth, or a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling, and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices are not considered land disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

Land Surveying. Establishment of corners, lines, boundaries, and monuments, the laying out and subdivision of land, the defining and locating of corners, lines, boundaries and monuments of land after they have been established, the survey of land areas for the purpose of determining the topography thereof, the making of topographical delineations

and the preparing of maps and accurate records thereof, when the proper performance of such services requires technical knowledge and skill.

Landing. A road or driveway approach area to any public or private road or intersection.

Local Improvement District. A type of district established by ordinance pursuant to Chapter 3.110 MTMC for the purpose of assisting property owners within a defined geographical area in financing capital improvements by the levying of a special assessment.

Lift Station. A facility used to pump sewage to a higher elevation when it cannot flow by gravity through the City's sewer system. The design requirements are to be determined by the City Engineer and shall include an emergency generator and overflow storage facilities.

Loop. Road of limited length forming a loop, having no other intersecting road, and functioning mainly as direct access to abutting properties. A loop may be designated for one-way or two-way traffic.

Lot. A fractional part of legally divided lands having fixed boundaries, being of sufficient area and dimension to meet minimum zoning requirements for width and area. The term shall include tracts or parcels. (MTMC17.01.020)

Low Impact Development (LID). A stormwater management and site design strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns. The goal is to manage stormwater where it falls by reducing effective impervious surfaces and maintaining and/or re-establishing native vegetation. (MTMC17.01.020)

Low Impact Development (LID) Best Management Practices (BMPs). Distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to, bioretention/rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, minimal excavation foundations, vegetated roofs, and water re-use. (Stormwater Manual)

Low Impact Development (LID) principles. Land use management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and stormwater runoff. (Stormwater Manual)

Maintenance. Repair and maintenance includes activities conducted on currently serviceable structures, facilities, and equipment that involves no expansion or use beyond that previously existing and results in no significant adverse hydrologic impact. It includes those usual activities taken to prevent a decline, lapse, or cessation in the use of structures and systems. Those usual activities may include replacement of dysfunctional facilities, including cases where environmental permits require replacing an existing structure with a different type structure, as long as the functioning characteristics of the original structure are not changed. One example is the replacement of a collapsed, fish blocking, round culvert with a new box culvert under the same span, or width, of roadway. In regard to stormwater facilities, maintenance includes assessment to ensure ongoing proper operation, removal of built up pollutants (i.e., sediments), replacement of failed or failing treatment media, and other actions taken to correct defects as identified in the maintenance standards of Chapter 4, Volume V of the Stormwater Manual. See also Pavement Maintenance exemptions in Section 2.2, Volume I of the Stormwater Manual.

Micromobility. A range of small, lightweight vehicles operating at speeds typically below 15 miles per hour and driven by users personally.

Mobile Home. A vehicle equipped as a dwelling place. Does not include campers, vacation or travel trailers, or motor homes, etc. (MTMC 15.30.010).

Mountlake Terrace Municipal Code (MTMC). The City of Mountlake Terrace Municipal Code, as it currently exists and as amended from time to time.

Multimodal. Pertains to diverse transportation options, typically including walking, cycling, public transit, and automobile, and accounts for land use factors that affect accessibility.

Municipal Separate Stormwater System (MS4). A conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), owned or operated by the state, City, county, or special purpose district having jurisdiction over disposal of wastes, stormwater, or other wastes, or a designated and approved management agency under section 208 of the Clean Water Act that discharges to waters of the United States; designed or used for collecting or conveying stormwater; which is not a combined sewer; and which is not part of a Publicly Owned Treatment Works as defined at 40 Code of Federal Regulations (CFR) 122.2.

National Pollutant Discharge Elimination System (NPDES). The national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in the State of Washington, are administered by the Washington Department of Ecology.

Native vegetation. Vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed. (Stormwater Manual).

Nephelometric Turbidity Units (NTU). These units are a quantitative measure of water clarity based on the scattering of a standard beam of light directed into a standard sample of the water when the scattering is measured at right angle to the beam. See also the definition for “turbidity” included below.

Occupant. Any person or owner in physical possession of a structure to which sewer service is available.

Off-Street Bike Path. A bike path physically separated from motorized vehicular traffic by an amenity zone or barrier and either within the roadway right-of-way or within an independent right-of-way. Off-street Bike Paths may be used by people bicycling, skateboarding, scootering, operating wheelchairs, or other micromobility devices.

Off-Street Parking Space. An area accessible to vehicles, exclusive of right-of-way, that is improved, maintained, and used for the purpose of parking a motor vehicle.

Operation and Maintenance (O&M) Plan. A set of instructions and schedules to keep drainage facilities working to meet the design performance criteria.

Outfall. Point source as defined by 40 CFR 122.2 at the point where a discharge leaves the MS4 and discharges to waters of the State. Outfall does not include pipes, tunnels, or other

conveyances which connect segments of the same stream or other surface waters and are used to convey primarily surface waters (i.e., culverts). (Stormwater Manual)

Overflow Storage. A facility built to store sewage flow during a high flow event or failure of any part of a sewer system.

Pavement width. Paved area on shoulder-type roads or paved surface between curb, thickened edge, or gutter flow line on all other roads.

Performance guarantee. A financial guarantee in a form acceptable to the City, ensuring that all improvements, facilities, or work shall be completed in compliance with regulations, and approved plans and specifications.

Permeable pavement. Pervious concrete, porous asphalt, permeable pavers or other forms of pervious or porous paving material intended to allow passage of water through the pavement section. It often includes an aggregate base that provides structural support and acts as a stormwater reservoir.

Permittee. Any person, governmental agency, or other entity that is performing, or plans to perform, permitted work within the City.

Person. Any individual, a homeowner or a representative of any of the following: company, partnership, corporation, association, society or group and the singular term shall include the plural and reference to any gender shall mean all genders.

Plans. The plans, profiles, cross sections, elevations, details, and supplementary specifications showing the location, character, dimensions, and details of the work to be performed.

Plumbing Outlet. The part of the lowest horizontal piping of a sewer system that receives the discharge waste pipes from inside the walls of the structure and connects to the side sewer.

Pollution. Contamination or other alteration of the physical, chemical, or biological properties of waters of the state that will or is likely to create a nuisance or render waters harmful, detrimental, or injurious 1) to public health, safety, or welfare, or 2) to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or 3) to

livestock, wild animals, birds, fish, or other aquatic life. Contamination includes discharge of any liquid, gas, or solid, radioactive, or other substance. Alteration includes temperature, taste, color, turbidity, or odor. (Stormwater Manual)

Pretreatment Device. Any approved device, structure, system, or method used and maintained for the purpose of bringing a waste stream within acceptable limits and standards of quality prior to its discharge to the public sewer system.

Profile. When referring to roadway design: Vertical aspect of the road, including crest and sag curves, and the straight grades connecting them. When referring to utility design: vertical alignment of the utility, including connections, crossings, and proposed cover.

Prohibited Discharge. Any liquid, solid, or material other than discharge intended from domestic plumbing fixtures, or as permitted by an Industrial Waste Discharge Permit, prohibited by the Code of Federal Regulations, such as 40 CFR 403.5, Snohomish County 7.53.070, MTMC 16.21.050 (B), and any regulation adopted to implement those laws, all as amended from time to time.

Project. Activity encompassing all phases of the work to be performed and is synonymous to the term “improvement” or “work.”

Project Manager. City staff member responsible for coordinating City review of a development project.

Project site. That portion of a property, properties, or rights-of-way subject to land disturbing activities, new hard surfaces, or replaced hard surfaces. (Stormwater Manual)

Public Sewer System. The City of Mountlake Terrace’s public system providing sewer services for areas within its municipal boundaries or in other areas under contract.

Rainy Season. The period starting on October 1 of each year and ending April 30 of each following year. These dates may be adjusted by the City Engineer based on climatic conditions for a particular year.

Receiving waters. Naturally and/or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, lakes, wetlands, estuaries, and marine waters, or groundwater, to which a municipal separate storm sewer discharges.

Record drawings. Drawings that document as-constructed conditions of a permitted development or redevelopment project.

Recreational Vehicle (RV). A vehicle which is designed and intended for shelter purposes during travel. Recreational vehicles shall include, but not necessarily be limited to, campers, motor homes, and travel trailers. (MTMC 19.15.190)

Redevelopment. For stormwater purposes: on a site that is already substantially developed (i.e., has 35 percent or more of existing impervious surface coverage), the creation or addition of impervious surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities. (Stormwater Manual)

Replaced hard surface or Replaced impervious surface. For structures, the removal and replacement of hard surfaces down to the foundation. For other hard surfaces, the removal down to bare soil or base course and replacement. (Stormwater Manual)

Revised Code of Washington (RCW). The Revised Code of Washington, as it currently exists and as amended.

Right-of-way. Property deeded or dedicated to the City or other entity for street, utility and/or drainage purposes. (MTMC 19.15.190)

Road. Interchangeable with "Street".

Runoff. Water that travels across the land surface and discharges to water bodies either directly or through a collection and conveyance system. See also "Stormwater."

Saddle. A mechanical device acceptable to the City to install a tee onto a sewer main.

Sanitary Sewage or Sanitary Sewer System. Water carrying waste discharged from sanitary facilities.

Sediment. Soils or other materials transported or deposited by the action of wind, water, ice, or gravity.

Service, Residential. Any sanitary sewerage system serving a single dwelling or multiple dwelling containing four units or less.

Service, Commercial. All sanitary sewerage systems other than residential.

Sewer Lateral. The portion of the sewer system between the city's sewer main and the property line or the edge of a perpetual easement on the property being served.

Sewer, Private. Sewer conveyance facilities which are owned, operated, maintained, and controlled by the property owner served by those facilities.

Sewer, Public. Any sanitary sewerage system, including but not limited to interceptors, mains, laterals, pump stations and force mains constructed by the City or by any person and conveyed to the City lying within the right-of-way or a perpetual easement obtained by or granted to the City.

Shared lane. A lane of a traveled way that is open to both bicycle and motor vehicle travel. (AASHTO)

Shared roadway. A roadway that is open to both bicycle and motor vehicle travel. This may be an existing roadway, a street with wide curb lanes, or a road with paved shoulders. (AASHTO)

Shared-Use Path. A path physically separated from motorized vehicular traffic by an open space or barrier and either within the roadway right-of-way or within an independent right-of-way. Shared-use paths may be used by people walking, jogging, bicycling, skateboarding, operating wheelchairs, or other micromobility devices.

Sharrow. A pavement marking symbol that indicates an appropriate bicycle positioning in a shared lane. (AASHTO)

Shoulder. The paved or unpaved portion of the roadway outside the traveled way that is available for parking or nonmotorized use.

Side Sewer, Private. A privately owned and maintained pipe system designed to convey sewer discharge to the public sewer system and includes, the pipe system up to, but not including, the tee, wye, or connection to the sewer lateral.

Sidewalk. Any and all structures or form of improvement in the space between the paved portion and the outer edge of the public right-of-way including but not limited to the sidewalk, curb, gutter, driveway and parking strip. (MTMC 12.05.010)

Sight distance. The distance along a roadway throughout which an object of specified height is continually visible. This distance depends on the height of the driver's eye above the road surface, the height of the specified object above the road surface, and the height and lateral positions of obstructions within the driver's line of sight. (AASHTO A Policy on Geometric Design)

Sight distance – Decision. The distance needed for a driver to ascertain and safely respond to an unexpected difficult or unfamiliar situation. Regarding access location, sight distance should give familiar and unfamiliar drivers enough distance to safely turn into the desired access. (Transportation Research Board, 2003. Urban Street Geometric Design Handbook, ITE)

Sight distance – Intersection. The distance needed to safely make a right turn or a left turn from an access or to a cross street, or for a driver to safely make a left turn from a street to an access. (Urban Street Geometric Design Handbook, ITE)

Sight distance – Stopping. The distance needed for a driver to perceive and react to a discernible hazard and then brake to a stop before reaching the hazard. (Urban Street Geometric Design Handbook, ITE)

Site. Any tract, lot, or parcel of land, or combination of tracts, lots, or parcels of land which are in one ownership, or are contiguous and in diverse ownership, where development is to be performed as a part of a unit, subdivision, or project.

Site plan. The development plan for one or more lots on which is shown the existing and proposed conditions of the lot, topography, vegetation, drainage, flood plains, walkways; means of ingress and egress; circulation; utility services; structures and buildings; signs and lighting; berms, buffers, and screening devices; surrounding development; or any other information that reasonably may be required in order that an informed decision can be made by the reviewing authority.

Stabilization. The prevention of soil movement by any various vegetative and/or structural means.

Storm Drain. A public or private drain which carries storm and surface waters or drainage effluent from storm plumbing outlets and other water unpolluted by sanitary or industrial waste.

Stormwater plan. A set of drawings and documents submitted as a prerequisite to obtaining a development permit. The plan contains all of the information and specifications pertaining to stormwater management on-site and offsite.

Stormwater. See "surface water."

Stormwater Manual. The current Department of Ecology Stormwater Management Manual for Western Washington adopted by MTMC 16.20.

Street. A public or recorded private thoroughfare providing pedestrian and vehicular access to and through neighborhoods and communities and abutting property. See also WAC 468-34-110(1) and section 1C.02(100) of the MUTCD.

Street – **Arterial.** Provides a high degree of vehicular mobility by limiting property access. The vehicles on arterials are predominantly for through traffic. Arterials are generally connected with interstate freeways or limited access expressways.

Street – **Arterial** – **Minor.** Provide intra-community connections and are less significant from a perspective of a regional mobility.

Street – **Arterial** – **Principal.** Provide major vehicular travel routes between cities within a metropolitan area.

Street – **Collector.** Connect traffic from the interior of an area/community to the closest Minor or Principal Arterials.

Street – **Local.** Provides local access connections to higher classification streets.

Street – **Non-Arterial.** Provide local access to residential areas. The City classifies local streets as Local Access Streets.

Street – Private. A privately-owned and maintained access provided for by a tract, easement or other legal means.

Structure. Anything constructed or erected on property within the City, designed, intended, or in any manner capable of being used for human occupation, recreation, employment, or other similar purposes and shall include but not be limited to trailers, mobile homes, house trailers, carports, and garages but shall not include fences and walls.

Surface water. Water originating from rainfall and other precipitation that is found on ground surfaces and in drainage facilities, creeks, rivers, streams, springs, seeps, ponds, lakes, wetlands, as well as shallow ground water. (Stormwater Manual)

Surveyor. A person licensed by the State of Washington to engage in the practice of land surveying, as defined by RCW 18.43.020.

Threshold Discharge Area (TDA). An on-site area draining to a single natural discharge location or multiple natural discharge locations that combine within one-quarter (1/4) mile downstream (as determined by the shortest flowpath.) The purpose of this definition is to clarify how the thresholds of the Stormwater Manual are applied to project sites with multiple discharge points. (Stormwater Manual)

Traveled way. The part of the road made for vehicle travel excluding shoulders and auxiliary lanes.

Trunk. A sanitary sewer that receives flow from multiple tributary sewer line branches.

Turbidity. The visual cloudiness of the runoff especially as caused by suspended solids and settle-able solids that are being carried by the runoff.

Turbidity meter. A portable, electric, hand-held measuring device designed to give a numerical value of the turbidity (cloudiness) of a sample of water. The numerical values are expressed in units known as Nephelometric Turbidity Units (NTUs).

Utility. Private or municipal corporations owning, operating or proposing to own or operate facilities that comprise a system or systems for public service. Private utilities include gas, electric, telecommunications, or water companies that are subject to the jurisdiction of the

State Utilities and Transportation Commission and that have not been classified as competitive by the commission.

Sewer Discharge. The water carried waste that is contained in and conveyed by any part of a wastewater system from residential, commercial, or industrial facilities. This term is used interchangeably with the term “sewage.”

Sewer Conveyance Facilities. Facilities such as side sewers, sewer pipes, maintenance holes, grinder pumps, and other facilities.

Sanitary Sewer Facility. Any facility for the conveyance or storage of sewage, whether part of the public sewer system or a private sewer system, which is connected to or intended to be connected to the public sewer system. Also referred to as a sewer facility.

Sewer Pretreatment. The treatment of industrial waste before discharge to the public sewer system.

Sewer Service. Providing for the conveyance of sewer from a structure into the public sewer system.

Sewer System, Public. The sewer facilities which are operated, maintained, and controlled by the City of Mountlake Terrace’. Such facilities typically include sewer mains, pump or lift stations, and side sewer stubs.

Waters of the State. Those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of the State of Washington and "waters of the state" as defined in RCW Chapter 90.48 which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington.

APPENDIX B - SURVEY CRITERIA

Survey Format and Content

The following requirements apply to surveys performed for development projects. Review of the survey shall be conducted as part of the plan review process. Survey requirements vary A survey acceptable to the City shall contain the elements listed below:

1. The surveyor's stamp, signature, contact information and the date signed (See Note 1)
2. North arrow, graphic scale, legend, and vicinity map
3. Legal Description, if needed (See Note 2)
4. NAVD 88 and NAD83/91 are required (See Note 3)
5. Monuments within the project area (See Note 4)
6. Site benchmarks (See Note 5)
7. Right-of-way with dimensions, source references, and methods used to determine (See Note 6)
8. Easements with type, dimensions, and source references (See Note 7)
9. Property lines with bearings and distances (See Note 8)
10. Buildings (See Note 9)
11. Streets and street improvements (See Note 10)
12. Utilities (See Note 11)
13. Contours (See Note 12)
14. Steep slopes (See Note 13)
15. Topography (See Note 14)
16. Significant Trees (See Note 15)
17. Water features (See Note 16)
18. Protected areas, if required, including wetland boundaries (See Note 17)
19. Setbacks (See Note 18)
20. Underground hazards (See Note 19)
21. Any monuments in the project area that may be disturbed, destroyed, or removed shall be noted on the plans as requiring replacement. An application for a permit to remove or destroy a survey monument shall be filed with the State of

Washington DNR, pursuant to RCW 58.24.040(8). Under such conditions add Note 21 to General Notes on plan (See Note 20).

See below for the notes referenced above:

Note 1. Land Surveyor's Stamp – Work consisting of the Practice of Land Surveying shall be done by or under the direction of a Surveyor licensed to practice in the State of Washington (RCW 18.43.010), and shall conform to all RCWs and WACs pertaining to surveying and engineering. Plans, specifications, plats and reports prepared by the Surveyor shall be signed, dated and stamped with the Surveyors' seal. (RCW 18.43.070) State of Washington law defines the "practice of land surveying" as "assuming responsible charge of the surveying of land for the establishment of corners, lines, boundaries, and monuments, the laying out and subdivision of land, the defining and locating of corners, lines, boundaries and monuments of land after they have been established, the survey of land areas for the purpose of determining the topography thereof, the making of topographical delineations and the preparing of maps and accurate records thereof, when the proper performance of such services requires technical knowledge and skill." (RCW 18.43.020(9))

Note 2. Legal Description – Legal Descriptions are needed for plats, short plats, easements containing City utilities, etc. Include the plat name or short plat number, block number if any, and lot number or lot letter, or the metes and bounds description of the lot.

Note 3. Data – The Washington State Lambert Grid Coordinate System North Zone, using the NAD83 (1991) datum as established in accordance with RCW Chapter 58.20. The unit of measurement shall be the U.S. Survey Foot. The plans shall show the horizontal control used to establish ties to the datum, with type, size, and location, date visited, and the State Plane coordinates for each monument used. Show at least two monuments on each street in the project.

Project control may be shown in the design drawings, or on its own sheet. The Vertical datum for all survey work (including but not limited to mapping, platting, planning design, right-of-way surveys, and construction surveys) shall be the North American Vertical Datum of 1988 (NAVD 1988). The plans shall show the benchmarks used to establish ties to the datum, with reference number,

description, location and elevation of each benchmark used, and any project site benchmarks. Information on horizontal and vertical control monuments can be found at https://www.cityofmlt.com/DocumentCenter/View/254/City-Benchmark-Locations or in the Washington Council of County Surveyors Data Warehouse.

Other acceptable sources for benchmarks are WSDOT, Snohomish County, and NOAA. When another benchmark is used, establish one benchmark for each datum and show on the plans. Include a local conversion factor between the two data. The benchmark used to establish the conversion factor shall be the benchmark nearest to the project site.

Note 4. Monuments – The plans shall show all monuments, geometry and references used to establish the right-of-way, lines referencing the right-of-way, property lines, easements and any rights in real property shown. The plans shall show bearing and distance on monument lines, or radius, delta angle, and curve length on curving monument lines, and the station at each monument. If construction baselines other than the monument line are used, show the relation of each baseline to the monument line. Survey control and boundary information may be shown on the design drawings, the vicinity map, or on its own sheet.

Note 5. Benchmarks – Show site benchmarks. Project site benchmarks shall be established by measurement from two local benchmarks, meeting the requirements of the Geospatial Positioning Accuracy Standards by the Federal Geographic Data Committee. Site benchmarks shall be set in a location that shall not be disturbed by the proposed construction.

Note 6. Right-of-way – Show the width on each side of the monument line, and the references used. If the right-of-way is of variable width, show the width at each end of the block.

Note 7. Easements – Show easements Native Growth Retention Areas, and critical area buffers within the project area, with type, dimensions, and source reference.

Note 8. Property Lines – Show bearings and distances for straight property lines, and radius, delta angle, and arc length for curves.

Note 9. Buildings – Show the location of all existing buildings, including projections, roof overhangs, and covered breezeways. Show the perpendicular distance to the property and right-of-way lines when significant to development. Show footprints of recently demolished buildings.

Note 10. Streets – Show the right-of way lines, monument lines, concrete surfaces, asphalt surfaces, gravel surfaces, channelization, centerlines, pavement edges, pavement widths, shoulders, ditch lines, curbs, sidewalks, access locations, and street names.

Show the curbs, curb cuts, wheelchair ramps, gutter and flow lines, sidewalks, landscape areas, pedestrian and bike paths.

Note 11. Utilities – Field locate and show all visible utilities, structure, and appurtenances. Show buried utilities and the source of the information used. Show the location, size, and description of all utilities including water, power, sewer, and stormwater systems and appurtenances. Show elevations at rim and inverts of maintenance holes, catch basins, and inlets. Locate and dimension all fire hydrants, vaults, utility poles, etc.

Note 12. Contours – Show existing and proposed contours at two (2)-foot intervals for portions of the site with slopes greater less than 40 percent, and for those areas exceeding 40 percent that will be graded. Show five (5)-foot intervals for portions of the site with slopes that exceed 40 percent but will not be disturbed.

Note 13. Steep Slopes – Identify slopes 15 percent and steeper. Show the top of slopes 40 percent or steeper.

Note 14. Topography – Show rockeries, retaining walls, fences, bridges, swales, culverts, etc. Show the location, length, and height above finished grade of all fences, rockeries, and retaining walls. Note heights at end and mid points.

Note 15. Significant Trees – Show trees that are six (6) inches or more in diameter and coniferous trees that are at least ten feet in height. Diameter is measured four (4) feet above existing grade. Label each tree with common name and diameter. Show drip lines.

Note 16. Water Features – Show lakes, rivers, streams, ditches, ponds, and other surface water features. Show the line of ordinary high water and the top of any well-defined banks. Show the 100-year floodplain, and show wetland boundaries. Show buffers as defined in MTMC 16.15.410(D).

Note 17. Environmentally Sensitive Areas – Show areas defined in the City's Critical Areas Ordinance (MTMC Chapter 16.15). If the survey shows protected areas on or adjacent to the site, contact the Community and Economic Development Department for boundary verification prior to designing the project.

Note 18. Setbacks – Show the required primary setbacks from the protected areas.

Note 19. Underground Hazards – Show areaways, tunnels, mines and other underground hazards.

Note 20. Survey Monuments – Survey Monuments shall not be removed, disturbed, covered, or destroyed before a permit is obtained from the State of Washington DNR. At least four (4) working days before a monument is removed, disturbed, covered, or destroyed, provide a copy of the DNR permit to the City representative assigned to the project.

APPENDIX C - STORMWATER REPORT GUIDELINES

Stormwater Report Guidelines

The stormwater report is a comprehensive report that documents the technical information and analysis related to the stormwater design of a project.

The standard report format below is an outline of the required documentation to be included in the stormwater report. The specific content in each section depends on the complexity of the project and site conditions.

The report shall address each section in the outline. If a section does not apply, the engineer may simply state that the section does not apply with a brief explanation. This standardized report format allows a quicker, more efficient review of the stormwater design.

General report requirements are listed below:

- The report shall be prepared, stamped, signed and dated by a Professional Engineer licensed in the State of Washington.
- All revisions shall be submitted in a complete revised report.
- The report shall be bound.
- The report shall be 8.5" x 11". Figures may be on 11" x 17" sheets.
- Each page shall be numbered.

Cover Sheet

The cover sheet has the:

- Project name and address;
- Applicant/Permittee's name, address, and telephone number;
- Engineering firm’s name, address, and contact information;
- Engineer's name and license number;
- Report date and revision dates.

Table of Contents

Show the page number for each section of the report, including appendices.

1.0 Project Overview

Introduce the formal project name, address and lot numbers.

The project overview shall provide a general description of the project, redeveloped and developed conditions of the site, site area and size of the improvements, and the pre- and post-developed stormwater runoff conditions.

The overview should summarize difficult site parameters, the natural drainage system, and drainage to and from adjacent properties, including bypass flows. Include drainage requirements and restrictions from other agencies.

Provide a table of existing and proposed land cover, including improvement areas. The table shall identify pervious land cover, impervious land cover, and pollution generating areas all noted in square footage. The values in this table shall match those identified in Section 8.0, Figure 3 of this appendix.

2.0 Minimum Requirements

Discuss minimum requirements (MRs) that apply to the project, as well as additional requirements from basin plans, critical areas, plat/short plat approvals, conditional use permits, and SEPA mitigations. Additional information regarding minimum requirements may be found in Appendix M of this EDM. Discuss any engineering deviations and any specific site conditions that affect design requirements. Discuss any assumptions used in design.

Provide the following (highlighting or otherwise denoting the flow path on each figure):

A. Flow Chart for Determining Requirements for New Development (Figure I-3.1) or the Flow Chart for Determining Requirements for Redevelopment (Figure I-3.2) from the Stormwater Manual;
B. Flow Chart for Determining LID MR5 Requirements (Figure I-3.3);
C. Runoff Treatment BMP Selection Flow Chart (Figure III-1.1) if the threshold for MR6 is triggered;
D. Flow Chart for Determining Wetland Protection Level Requirements (Figure I-3.5) if the threshold for MR8 is triggered.

3.0 Site and Basin Assessment

The site assessment provides the baseline information necessary to preserve natural resources, preserve areas most appropriate to evaporate, transpire, and infiltrate stormwater, and help to achieve the goal of maintaining or restoring predevelopment natural hydrologic conditions on the site.

Describe existing conditions including relevant hydrologic conditions. The discussion should include hydrology, topography, soils, vegetation, water features, and drainage patterns. Include site visit dates, observations, and weather.

Describe the following:

A. Topography
B. Existing ground cover, including pervious, impervious, and pollution generating areas
C. Describe the natural features of the lot (i.e., woods, pasture, and brush) and give the approximate area covered by those features
D. Offsite drainage to the property
E. Creeks, lakes, ponds, wetlands, ravines, gullies, steep slopes, springs, and other environmentally sensitive areas on or down gradient of the property
F. Drains, channels, and swales, within the project site and immediately adjacent
G. Points of exit for existing drainage from the property
H. Any known historical drainage problems such as flooding, erosion, etc.
I. Any known contaminated soils
J. Existing Structures/Improvements: List any existing buildings, driveways (dirt, gravel, etc.), sidewalks, etc. and their area size in square feet or acres
K. New structures or improvements: List new buildings and their sizes along with any size changes in existing driveways, parking areas, landscaped areas, etc.
L. Remaining Undisturbed Land: List and provide the size of the land (woods, pasture) not covered by buildings or improvements.

3.1 Off-site Analysis Report

Provide an off-site analysis performed according to the Stormwater Manual I-3.5.3 AMP2. A qualitative off-site analysis for each downstream system leaving the project site is required

with initial permit submittal. The qualitative analysis shall include a site visit on a rainy day with pictures of the upstream and downstream conveyance systems within the study limits. A quantitative analysis may be required upon review.

3.2 Soils/Infiltration Rates

Discuss soils. Provide results of infiltration test(s), including observations made during the test(s). Note the date or dates of testing. Provide measured infiltration rates. Provide design infiltration rates and justification for the correction factors used. For any project proposing infiltration from pollution generating surfaces provide cation exchange capacity and organic matter content for each soil type and strata where distinct changes in soil properties occur, to a depth below the base of the BMP of at least two and one-half (2.5) times the maximum design water depth, but not less than six (6) feet.

Sites proposing the construction of one single-family home or ADU may use a licensed on-site sewage designer for preparation of the soil analysis.

Subdivision projects may need to evaluate the soils on each lot for infiltration BMP applicability.

3.3 Critical Areas and Floodplain

Discuss all critical areas and buffers within and adjacent to the site. If the project is within the 100-year floodplain, show the 100-year flood hazard area on the plans.

3.4 Assessment Summary

This section should define the study area, describe the drainage system (including conveyance), identify problems, and define mitigation. Figure 2, Site Assessment and Summary, should represent the information contained in the site assessment and summary.

Summarize evaluation of impacts to fish habitat, groundwater levels, groundwater quality, or other environmental features expected to be significantly impacted by the proposed project due to its size or proximity to such features. Describe proposed mitigation for the impacts.

Provide all assumptions used.

Identify and discuss difficult site parameters and how the plan incorporates the following criteria:

A. Conserve existing habitat and vegetation.
B. Protect areas conducive to infiltration and preserve these areas during site design and construction.
C. Limit ground disturbance areas to road, utility, building pad, landscape areas, and the minimum additional area needed to maneuver equipment. (A ten (10) foot perimeter around the building site can provide adequate workspace for most activities.)
D. Reduce impervious surfaces.
E. Place structures as close to the public access point as possible to minimize road/driveway length.
F. Limit vehicular and pedestrian infrastructure, such as roads, driveways, parking areas and sidewalks, to the minimum functional needs.
G. Utilize porous paving options wherever possible.
H. Slope paved areas to facilitate drainage to stormwater management areas.
I. Reduce building footprints whenever possible. Utilize basements or taller structures with lofts or second stories to achieve square footage goals.
J. Orient buildings on slopes with long-axis along topographic contours to reduce grading requirements.
K. Amending disturbed soils according to BMP T5.13 in the Stormwater Manual: Volume V.

4.0 CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN

An adequate construction SWPPP includes both a narrative and drawings. Describe how each of the 13 Elements in a SWPPP are being met, where and when the various BMPs should be installed, expected performance of each BMP, and actions to be taken if the performance goals are not achieved.

State the name and contact information of the SWPPP Supervisor or CESCL. (See EDM Chapter 21, Construction Stormwater Pollution Prevention Plan.)

The SWPPP should be a stand-alone document.

4.1 Rainy Season Requirements

Describe how the rainy season requirements for land disturbing work from October 1 to April 30 will be met.

5.0 PERMANENT STORMWATER CONTROL

Describe how natural drainage systems and outfalls will be preserved.

Describe design measures taken to create facilities that are aesthetically pleasing, how facilities will provide useable open space, and how the facilities will fit into the landscaping plan for the property, and how the facilities are in keeping with any approved community plan.

Describe how utilities will be installed to ensure no conflicts with proposed stormwater quantity and quality control measures.

5.1 Low Impact Development and Flow Control

Describe the flow control system, including LID techniques and BMPs, outlet works and spillways, flow path lengths, and the safety factors used.

List the method used to comply with MR5 (List Approach or the LID Performance Standard).

If flow control BMP credits are used, explain how the credits will be used and how the criteria for use of credits will be met. If the flow control system is an infiltration facility, provide the soils data, groundwater mounding analysis, or other calculations used to determine the design infiltration rate.

5.2 Water Quality

This section should list receiving waters and pollutants of concern, discuss oil control facilities, describe the selection process for treatment options, and discuss how the water quality plan meets required enhanced treatment.

5.3 Source Control

Pollution source control is the application of pollution prevention practices on a developed site to reduce contamination of stormwater runoff at its source. List the possible sources of

pollution after construction. Provide supporting information (site conditions, calculations, etc.) for the selection and sizing of pollution prevention BMPs.

5.4 Conveyance System Analysis and Design

Describe capacities, design flows, and velocities. Specify materials for the design (e.g., rock lining for channels when velocity is exceeded; high density polyethylene pipe needed for steep slope). Present analysis in a clear, concise manner that can be easily followed, checked, and verified.

6.0 SPECIAL REPORTS AND STUDIES

Cite special reports and studies used as reference when preparing the Stormwater Site Plan(s), such as the following:

- Critical areas analysis and delineation
- Geotechnical/soils
- Structural design
- Structural fill

7.0 OTHER PERMITS

Include a list of other necessary permits and approvals as required by other regulatory agencies, if those permits or approvals include conditions that affect the stormwater plan, or contain more restrictive drainage-related requirements.

8.0 FIGURES

The following figures are required. Additional figures may be provided.

Figure 1. Vicinity Map

A vicinity map should clearly locate the property and any pertinent locations near the site.

Figure 2. Site Assessment and Summary

Figure 2, Site Assessment and Summary, should represent the information contained in the site assessment and summary. Provide a map at a scale that clearly shows the contour intervals and other information. At a minimum the map shall show the following:

- Topography
- The direction of flow, for all drainage
- Boundaries of basins, sub basins, the site and the project site
- Acreage of sub basins and areas contributing runoff to the site
- Existing discharge points to and from the site
- Downstream drainage system for the distance of the downstream analysis
- Locations of existing utilities, existing improvements, and access
- Critical areas, natural streams and drainage features on and adjacent to the site
- Areas that cannot be developed due to conditions such as slopes or critical area buffers
- Areas to be preserved (infiltration, vegetation, soils).

Figure 3. Site Development

The drainage design on the construction drawings can substitute for this figure. Designate on the plans the areas of proposed pervious, impervious, and pollution generating surfaces in square footages. These areas should match the areas provided in Section 1 of the report and include any frontage improvements.

Figure 4. Planting Plan

Provide a planting plan and specifications for each vegetated stormwater facility. Refer to Appendix K - Approved Stormwater Facility Planting List.

APPENDICES

Appendix A – Infiltration Testing

Provide the results of the infiltration test(s). Include on-site observations of soils and groundwater. All test reports shall be signed and dated, with credentials and license number or certification number for person or persons responsible for performing the testing. Include a site plan showing locations of PIT(s).

Appendix B – Geotechnical Report

Include a copy of the geotechnical report prepared for the project site.

Appendix C – Documentation

Provide the methods used for analysis, and information showing that facilities meet the performance standards. Include all supporting documentation such as assumptions, computer printouts, calculations, equations, references, storage/volume tables, duration analyses, graphs, and any other aides necessary to clearly show results used to design flow control and water quality facilities.

Appendix D – Covenants, Dedications, Easements

Include copies of legal instruments needed to guarantee construction of on-site stormwater management BMPs on individual lots, preservation of drainage systems, ongoing maintenance, and access for inspection and maintenance purposes (attach copies). The draft covenant for the stormwater maintenance shall be included in the stormwater report. This document is not required to be recorded with Snohomish County until after the final as-built inspection.

Appendix E – Property Owners' Association Articles of Incorporation

Attach a copy of the Articles of Incorporation, when applicable and if available.

APPENDIX D - GEOTECHNICAL REPORT GUIDELINES

Geotechnical Report Guidelines

The City may require a geotechnical investigation and report based on the nature of the proposal. For site development for one (1) single-family residence on a site with no steep slopes, erosion hazards, or critical areas, a report previously prepared for that site, may be accepted if:

The report is less than five (5) years old and no significant changes have occurred;

The geotechnical engineer/engineering geologist who signed the report provides a letter stating the report is still applicable to the site and currently proposed project.

The report shall be stamped, signed and dated by a Professional Engineer licensed in the State of Washington, who meets the City's criteria for geotechnical engineer. The attached report outline describes the contents for the elements in a geotechnical report; the report submitted to the City address each element in the outline.

The content under each element shall depend on the complexity of the project and site conditions. For example, a single-family residence on a glacial till site without groundwater issues warrants a short, simple report; while a high-rise structure with a deep excavation on an alluvial site warrants a longer, more detailed report. The report should state "Not applicable" for each outline element that does not apply.

The Geotechnical Engineer determines the actual scope of investigation, analysis and reporting necessary to meet the Standard of Practice with respect to the project and its geotechnical requirements.

GEOTECHNICAL ENGINEER means a practicing geotechnical/civil engineer licensed as a professional civil engineer by the State of Washington who has at least four (4) years of professional employment as a geotechnical engineer.

GEOTECHNICAL ENGINEERING means the application of soil mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection or testing of the construction thereof.

Please use double-sided printing for the report.

Number each page.

COVER SHEET

The cover sheet has the:

- Project name and address;
- Applicant/Permittee's name, address, and telephone number;
- Engineering firm's name, address, and contact information;
- Engineer's name and license number;
- Report date and revision dates.

1.0 SUMMARY

The summary presents the major conclusions of the investigation and their bases. This section should be included in all lengthy or complex reports.

2.0 INTRODUCTION

The introduction sets the stage for the entire report and contains the following sections:

2.1 Overview

- Introduce the formal project name, address and lot numbers.
- Describe slope classification(s) according to MTMC 16.15.430 Geologic Hazard Areas.
- Describe briefly the current or previous work used to form the basis for the conclusions and recommendations contained in the report.

2.2 Background

- Describe the project's history when relevant to the reason for the investigation.
- List other reports completed for the site or adjacent sites and note whether any environmental site assessments or other environmental work has been completed.
- Describe the scope of work, including grading, retaining walls, structures, construction materials and utilities. Include dimensions, quantities, proposed finish floor elevations, maximum depth of cut or fill, foundation and floor loads, etc.
- Describe all assumptions that were relied upon to develop the conclusions and recommendations contained in the report.

2.3 Purpose And Scope Of Services

- State succinctly the primary purpose for the geotechnical engineering services.
- Summarize the scope of geotechnical engineering services that form the basis for the conclusions and recommendations contained in the report.
- Indicate any limitations to the scope of geotechnical engineering services provided, particularly if the scope represents a departure from service typically provided on similar projects.

2.4 Investigations Summary

- Provide the dates, general nature and extent of the geotechnical investigation. This section should include data research, borings, test pits, geophysics, physical laboratory testing, chemical testing, field instrumentation or testing, etc.
- If the investigation was complex, present a complete and detailed explanation and results in the form of an appendix.

2.5 Report Overview

- Introduce and describe other sections of the report, directing the reader to critical sections, if appropriate.
- Identify and describe all attachments and appendices.

3.0 SITE CONDITIONS

Describe all site features relevant to the study and the geotechnical engineering conclusions and recommendations. Terminology should be clear and consistent through the entire Report.

3.1 Location and Surface Conditions

- Provide the cross streets, addresses and lot numbers in order to locate the site.
- Describe the site and adjoining properties, including surface elevation, topography and drainage.
- Provide current uses of the site and adjacent properties.
- Identify all current structures, subsurface utilities, wells, manmade fills and other surface features.
- Describe vegetation, topsoil, paving and other surface coverings.
- Describe any indications of historic geological processes or hazards on or near the site (e.g., slope instability, landslides, liquefaction, flooding, etc.)
- Describe any indications of surface releases or other contamination or potential contamination sources.
- Describe any planned changes to the surface conditions described above which will take place after the investigation.

3.2 Geological Setting

- Provide an overview of regional geology, local stratigraphy, groundwater occurrence, etc.

3.3 Subsurface Soil Conditions

- Describe each soil or geologic unit encountered by their classifications and group units with respect to the properties that are most relevant to the conclusions and

recommendations. Give each unit group a unique, clear, common title and consistently refer to this unit by its given title throughout the report.

- Provide important results of the laboratory physical property testing and its indications of soil behavior.
- Provide design infiltration rate per the Stormwater Manual.
- Avoid detailed descriptions of the sequence of units found in individual borings; rather, focus on variations in the units across the site, if appropriate. Refer the reader to the exploration logs for details.
- Describe any expected changes in subsurface conditions that may occur with time after the investigation.

3.4 Groundwater Conditions

- Describe the nature and occurrence of groundwater.
- Provide an opinion on likely seasonal variations in groundwater levels or flows, and the possibility for changes from those encountered at the time of exploration.
- Show groundwater levels on soil logs.

3.5 Subsurface Contamination

- Describe the nature and extent of soil and/or groundwater contamination as revealed by the explorations. Reference any applicable Environmental Assessments if performed.
- Provide important results of the analytical laboratory testing and indications about contamination distribution and concentration.
- Indicate limitations of knowledge on the nature and extent of contamination.
- Discuss possible changes that may occur in these conditions over time.

4.0 DISCUSSION AND CONCLUSIONS

The Discussion and Conclusions should set out major geotechnical issues and alternatives for the project, along with the Geotechnical Engineer's conclusions, in a succinct and clear manner. This section shall clearly describe the logic and reasoning supporting the recommended approach, or alternative approaches. Specific recommendations should be presented in the Recommendations section.

Discussions and Conclusions should:

- Build on information described in the previous sections;
- Describe project features, soils and construction materials using consistent terminology;
- Explain any apparent inconsistencies in the data or investigations;
- Describe clearly any limitations or restrictions to the conclusions and recommendations.

4.1 Slope Stability

- Summarize data and analysis used to evaluate slope stability.
- Provide an opinion regarding the risk of instability on the site or adjacent properties currently, during construction, and after the project is completed.

- Describe how design and construction recommendations will reduce or eliminate the risk of stability.
- Discuss any construction or post-construction measures necessary to verify slope stability.

4.2 Seismic Considerations

- Provide an opinion on the expected level of ground motion during a major earthquake.
- Describe any seismic risks associated with an earthquake such as liquefaction, lateral spreading, landslides, or flooding.
- Describe how design and construction recommendations will reduce or eliminate the impact of seismic risks.

4.3 Site Work

- Describe proposed site grading and earthwork and provide an opinion on the proper sequence and approach to accomplish the site work.
- Describe key issues which will impact earthwork, including short-term slope stability, on-site and import fill materials, groundwater and drainage, rainfall and moisture sensitive soils, and erosion.
- Describe how these key issues should be addressed during construction, including dewatering, temporary retaining structures and erosion control.
- Include specific recommendations for on-site erosion control based on soil erodibility and the presence of groundwater, surface water and slopes.
- Include statements regarding the importance of construction monitoring by a geotechnical engineering firm.

4.4 Retaining Structures

- Recommend appropriate temporary retaining systems.
- Recommend the most appropriate permanent retaining system or systems and describe their expected performance with respect to stability and deflection.
- Summarize the data and analysis used to evaluate permanent retaining systems.
- Clearly define all limitations on backfill materials, reinforcement, and drainage for reinforced soil slopes and reinforced soil backfill.
- Describe the limitations on such systems.
- Emphasize any aspects of site work, particularly with respect to the native soil materials, backfill and drainage, which could impact performance of the retaining structures.
- Include statements regarding the importance of construction monitoring by a geotechnical engineering firm.

4.5 Rockeries

- Emphasize that rockeries usually protect a slope face from erosion. Indicate which rockeries will protect the slope face by preventing soil erosion and sloughing.
- Include the design criteria for rockeries that serve as retaining structures. Indicate which rockeries will function as retaining structures.
- Recommend locations for rockeries such that a Contractor can reach them for maintenance and repair.
- Discuss what type of inspection and testing may be required during rock wall construction.

4.6 Foundation Support

- Summarize the data and analysis used to evaluate foundation systems.
- Provide an opinion on the most appropriate foundation system and possible alternatives, along with the expected level of performance with respect to load capacity and settlement.
- Emphasize any aspects of site work that could impact the performance of foundations.
- Include statements regarding the importance of construction monitoring by a geotechnical engineering firm.

5.0 RECOMMENDATIONS

The Recommendations should present all detailed geotechnical engineering recommendations for design and construction in a clear and logical sequence.

For each item covered in the recommendation sections, present the following:

- Specific design recommendations along with their limitations, factors of safety, minimum dimensions and effect of expected variations in actual conditions.
- Specific construction recommendations including definitions, materials, execution, monitoring testing, or other quality control measures and any other construction requirements to support the design recommendations
- Responsibility for seeing that each recommendation is met, such as owner, geotechnical engineer or other design consultant or Contractor.

5.1 Site Grading and Earthwork

All design and construction methodologies should be specific and identifiable; generalized or vague statements are NOT acceptable.

Provide specific design recommendations for:

1. Depth of stripping,
2. Soil excavation limits and slopes,
3. Depth and lateral limits of over-excavation to remove unsuitable materials,
4. Preload fills,
5. Location and thickness of particular fill material or compaction requirements,
6. Maximum temporary and permanent slopes,
7. Permanent surface and subsurface drainage systems, and
8. Permanent erosion controls.

Provide specific construction recommendations for:

1. Clearing,
2. On-site and/or import fill materials,
3. Excavation and compaction equipment,
4. Fill material moisture conditioning, placement, and compaction,
5. Proof-rolling, in-place density testing and other quality control measures,
6. Temporary seepage and drainage control measures,
7. Permanent surface of subsurface drainage system installation (as appropriate), and
8. Temporary slope protection and erosion control measures.

5.2 Temporary Shoring and Retaining Walls

Provide specific design recommendations for:

1. Active and passive earth pressures,
2. Surcharge pressures,
3. Bearing capacity,
4. Minimum or maximum dimensions and depth of penetration,
5. Lateral support,
6. Wall or backfill drainage systems, and
7. Any other appropriate structured details.

If appropriate, provide specific design recommendations for tie-back anchors including:

1. Anchor inclination,
2. No load zones,
3. Minimum anchor length,
4. Anchor bond zone,
5. Anchor adhesions, and
6. Corrosion protection.

Provide specific construction recommendations for:

1. Installation,
2. On-site and/or import backfill materials,
3. Backfill material moisture conditioning, placement, and compaction,
4. In-place density testing or other control measures, and
5. Seepage and drainage control.

If appropriate, provide construction recommendations for tie-back anchors including:

1. Anchor installation methods,
2. Anchor testing, and
3. Monitoring.

5.3 Rockeries

Rockeries shall follow the requirements shown in Mountlake Terrace Detail 610.

When a geotechnical engineer is required, they shall provide direct input to the design of the rockeries and provide construction monitoring and testing as appropriate. Specific design parameters may include: rock quality, density, frequency of testing, slopes, keyways, surcharges, drainage, rock sizes, face inclination and surface drainage.

5.4 Reinforced Soil Structures

Geogrid or geotextile fabric may be used to reinforce a fill. If reinforced slopes are used, the geotechnical engineer shall specify, at a minimum, the fill soil materials, vertical spacing of the reinforcement, the specific type of reinforcement and the distance to which it must extend into the fill, the amount of overlap at the reinforcement joints, and the construction sequence. Additional design parameters shall be required for each specific site.

5.5 Structure and Foundations

Provide seismic design recommendations for:

1. Building Code soil type and site coefficients, and
2. Any specific recommendations to reduce the risk of damage due to earthquakes.

Spread footing foundations – provide design recommendations for:

1. Bearing soils,
2. Bearing capacity,
3. Minimum footing depths and widths for both interior and exterior footings,
4. Lateral load resistance,
5. Foundation drainage systems, and
6. Frost protection.

Mat foundations – provide design recommendations for:

1. Bearing soils,
2. Bearing capacity,
3. Modulus of subgrade reaction,
4. Minimum dimensions, and

5. Lateral load resistance.

Pile foundations – provide design recommendations for:

1. Type of pile,
2. Means of support (end of friction),
3. Minimum dimensions and depths,
4. Allowable vertical and uplift capacity,
5. Allowable lateral loads and deflections, and
6. Group effects and minimum spacing.

Spread footing or mat foundations – provide construction recommendations for:

1. Foundation subgrade preparation and protection,
2. Verification of bearing capacity, and
3. Installation of foundation drainage system.

Pile foundations – provide construction recommendations for:

1. Pile driving equipment,
2. Pile installation,
3. Pile load tests or verification piles, and
4. Monitoring and testing during pile installation.

5.6 Floors

Slab-on-Grade Floors – provide design recommendations for:

1. Slab base rock thickness,
2. Capillary break,
3. Vapor barrier, and
4. Floor system drainage.

Supported Wood Floors – provide design recommendations for:

1. Vapor barrier and
2. Crawl space drainage.

Slab-On-Grade Floors – provide construction recommendations for:

1. Subgrade preparation,
2. Slab base rock placement and compaction,

3. Capillary break and vapor barrier installation, and
4. Floor drainage system installation (when appropriate).

5.7 Pavements

Provide design recommendations for:

1. Pavement design section, and
2. Pavement drainage.

Provide construction recommendations for:

1. Pavement subgrade preparation and verification, and
2. Pavement base and subbase materials, placement and compaction.

5.8 Utilities

Provide construction recommendations for:

1. Utility excavation,
2. Bedding material placement, and
3. Backfill material, placement and compaction.

5.9 Drainage

Recommend provisions for subsurface drainage at walls, floors and footings.

Evaluate permanent and temporary surface and subsurface drainage for both walls and floors if applicable. Provide approximate flow rates in gallons per minute and pipe sizes if required by design.

Provide design and recommendation for infiltration facilities, including setbacks from structures, walls, and critical areas and their buffers.

Provide all characteristics of the vadose zone layer for UICs per Table I-4.2: Vadose Zone Treatment Capacity of the Stormwater Manual.

5.10 Hazards

Present additional information if natural or man-made hazards exist on the property. The City's critical areas maps identify hazards such as wetlands, streams and flood hazards, erosion, and steep slopes. Recommendations should be general, and further studies may be required.

6.0 FIGURES AND ILLUSTRATIONS

6.1 Vicinity Map

Include a vicinity or location map that presents adequate street and/or other physical references to allow clear identification of the project's location. This map may be an individual figure or may be included on the site plan.

6.2 Site Plan

Show the project boundaries, property lines, existing features and the proposed development and structures. A north arrow and scale should be included along with all subsurface exploration locations. The accuracy of exploration locations should be indicated on the site plan or in the report.

6.3 Exploration Logs

Include logs of all explorations describing soil units encountered, soil classification, density or stiffness, moisture conditions, groundwater levels, stratigraphic sequence, common geologic unit name, and other descriptive information.

For soil logs, saturated hydraulic conductivity, hydraulic restriction layer, and monitoring wells, refer to the soils report requirements in Section III-3.2 of the Stormwater Manual.

6.4 Laboratory Test Data

If presenting of all the data in text would require more than a simple paragraph, include figures or tables of laboratory test results.

6.5 Cross Sections

Include cross sections to visually present all but the simplest subsurface conditions.

6.6 Details

Include figures, graphs and other visual aids to clearly present detailed recommendations. Provide design details (stamped by a Professional Engineer licensed in the State of Washington) on drawings such as: rockeries, reinforced earth, interceptor trenches, wall and footing drains, utility backfill, and other details used for a particular design.

7.0 PROJECT ENGINEER'S CERTIFICATION

The report shall contain a page with the project engineer's seal, signature, and date signed, with the following statement:

"I hereby state that this geotechnical report for _____ (name of project) has been prepared by me or under my supervision and meets the standard of care and expertise which is usual and customary in this community for professional engineers. I understand that the City of Mountlake Terrace does not and will not assume liability for the sufficiency, suitability, or performance of facilities prepared based on this report."

APPENDIX E - TRANSPORTATION IMPACT ANALYSIS REPORT GUIDELINES

Transportation Impact Analysis Guidelines

GENERAL REQUIREMENTS

- Provide two (2) copies, printed double-sided and one (1) electronic copy in PDF format.
- The estimate of vehicle trips shall be conducted in accordance with the most recent version of the Trip Generation Manual, published by the Institute of Transportation Engineers.
- Traffic LOS analysis shall be conducted using methodology consistent with the most recent version of the Highway Capacity Manual.
- Forecast and analysis shall include existing year, opening year, and horizon year
- The year of completion of the project's final phase shall be used as the opening year. The horizon year shall be five years after completion.
- Phased projects may have multiple horizon years.
- Shall be prepared by a Professional Engineer licensed in the State of Washington with a background in traffic analysis.

TRANSPORTATION IMPACT ANALYSIS OUTLINE

Regional/ Standard	Section	Content to include, but not limited to:
Standard	Cover Page	• Applicant/Permittee's name • Project title • Project address • Preparer's contact information, signature, and Professional Engineer stamp.

Standard	Introduction	• Complete project description
		  ○ Current and proposed zoning, Comprehensive Plan Designation;
		  ○ Proposed land use(s);
		  ○ Size of development such as number and type of housing units and/or gross floor area;
		  ○ Phasing plan for complex projects.
		• Project location and study area boundary.
		• Executive summary of findings and mitigations, if applicable.

Standard	Site Evaluation	• Roadway and turning movement traffic volumes collected within previous three years (excluding 3/2020 thru 12/2021). • Sight distance evaluation for all access points; include plan showing required sight triangles and any obstructions located within. • Access design and vehicle queueing. • Pedestrian and bicycle access from the public right-of-way and adjacent land uses to all principal entrances.

Regional/ Standard	Section	Content to include, but not limited to:

Standard	Traffic Impacts	**Existing conditions**
		• Identification and description of critical intersections and roadways;
		• Identification of peak usage period(s)
		• Identify City capital projects and planned transportation improvements located in the study area;
		• Identify transportation improvements in the study area planned by other private developers or by public agencies other than the City;
		• Identify existing roadway volumes as well as entering and exiting volumes from the site during the p.m. and peak usage period(s). Existing trips shall be measured assuming full occupancy of the existing use on site. If the site and/or existing buildings have been vacant for more than one (1) year, the trips associated with the site and/or use will not be utilized to determine net new trips resulting from the proposed development.
		• Existing LOS at intersections and applicable roadway segments in the study area.
		• Description of other travel modes and facilities serving the project location within one-quarter (0.25) mile of the project site. (If Regional analysis is required, this element may be covered in other sections.)
		• If applicable, a gap analysis, transportation network model analysis may be required at the discretion of the City Engineer.
		Safety
		• Document collisions within the study area boundary for the most recent three (3) years of collision data available.
		Future conditions
		• Trip generation
		• Background traffic growth
		• Forecast traffic volumes for opening and horizon years.
		• Pipeline project growth
		• Trip distribution
		  ○ Determined by existing characteristics if proposal is consistent with existing land uses in the study area;
		  ○ Origin/destination studies;
		  ○ Trip distribution models; or
		  ○ Market studies.

Regional	Pedestrian Facility Impacts	**Existing conditions** • Within one-quarter (0.25) mile of the project, specifically describe the characteristics of the pedestrian facilities on all arterial streets. For local streets, summarize pedestrian facilities. Note any important characteristics of specific local streets; • Summary of pedestrian counts at study intersections and on trails, if within the one-quarter (0.25) mile study area; • Identify key pedestrian trip generators within one-half (0.5) mile of the project.

Regional/ Standard	Section	Content to include, but not limited to:

		Accessibility
		• In accordance with 2011 PROWAG, inventory barriers to accessibility along all arterials within one-quarter (0.25) mile of the project. Barriers include but are not limited to:
		  ○ Non-accessible or missing curb ramps;
		  ○ Obstructions within the sidewalk or pedestrian pathway;
		  ○ Vertical discontinuities;
		  ○ Non-standard cross slopes and/or running slopes;
		  ○ Sub-standard pedestrian pushbuttons at signalized intersections.
		
		Safety
		Within one-quarter (0.25) mile of the project:
		• Inventory all locations with pedestrian related collisions within the most recent five (5) years of collision data available.
		• Inventory all locations along arterials where there is no buffer between the pedestrian space and traffic.
		• For intersections greater than 250 feet from a signalized crossing or grade separated crossing, identify all legal crossings where pedestrians must cross more than one (1) lane in each direction and/or locations where the posted speed limit is greater than 25 mph.
		• Identify all school crossings.
		
		Pedestrian Network Gaps
		Describe all bike facilities within one-quarter (0.25) mile of the project that are identified within the Transportation Master Plan pedestrian element, and which have not yet been constructed and/or planned improvements will not be constructed by the horizon year.

Regional	Bicycle Facility Impacts	**Existing Conditions** • Describe all bicycle facilities within one-quarter (0.25) mile of the project that are present on arterials. **Safety** Within one-half (0.5) mile of the project: • Inventory all locations with bicycle related collisions within the most recent five (5) years of available collision data. • Inventory all locations along arterials where there is no buffer between the bicycle facility and traffic. • Identify any locations with significant pavement irregularities. **Bicycle Network Gaps** Describe all bike facilities within one-quarter (0.25) mile of the project that are identified within the Transportation Master Plan bicycle element and which have not yet been constructed and/or planned improvements will not be constructed by the horizon year.

Regional/ Standard	Section	Content to include, but not limited to:

Regional	Transit Impacts	**Existing Conditions**
		• Inventory all transit routes and stops within one-quarter (0.25) mile of the project.
		• Inventory all Park & Ride locations and usage within one-half (0.5) mile of the project.
		Accessibility
		• For all transit stops within one-quarter (0.25) mile of the project, identify barriers to accessibility including but not limited to:
		  ○ Bus zone front door landing.
		  ○ Access to and from bus shelter where applicable.
		Future Conditions
		Considering results of traffic modeling, report on added delay to transit routes within the study area.

Regional	Parking Impacts	**Existing Conditions** Within one-quarter (0.25) mile of the project, inventory all available on-street parking and parking restrictions. **Parking Demand** • Forecast anticipated parking demand for opening year and horizon year build out. • Compare project's proposed parking provisions with forecasted parking demand and with Mountlake Terrace's Code.
Standard	Neighborhood Impacts	**Existing Conditions** • Identify neighborhoods within one-quarter (0.25) mile of the project with active Neighborhood Traffic Safety Projects (NTSP) (To be supplied by City). • Identify which elements of the neighborhood's Traffic Action Plan have not yet been completed. • Identify neighborhood streets where project traffic is anticipated. Document speeds and traffic volumes for these streets. **Neighborhood Outreach and Action Plan** A public meeting shall be arranged for residents within one-quarter (0.25) mile of the project to explain the project, gather feedback, and develop an action plan for project impacts. An alternative outreach strategy may submitted in writing with adequate documentation for review by the City Engineer. An Action Plan shall be consistent with the City's NTSP criteria available on the Traffic Services webpage.
Standard	Conclusions	Describe project impacts and proposed plans and/or mitigations. In addition, all projects should strive to incorporate Transportation Demand Management strategies – describe how this will be achieved.

APPENDIX F – STREET MATRIX

Master Street Plan

The Master Street Plan identifies specific roadway cross sections for all Arterial Streets in the City. It is intended to guide the development of streets throughout the City. The planned cross sections for these streets establish the location of future curbs so that streets can be constructed in the proper location.

The Master Street Plan also identifies a general cross section for Local Streets, which provide for travel in each direction, on-street parking, and sidewalks on each side of the street. Due to the large number of Local Streets in the City, a determination of the appropriate cross section for a given Local Street shall be made at the time modifications to the street are funded or redevelopment occurs. Additionally, because the needs and conditions of the Local Streets vary greatly throughout the City, the design criteria may be flexible.

In accordance with the adopted policies and implementation strategies associated with the Master Street Plan, the following principles accompany its implementation:

A. Frontage improvements shall support the adjacent land uses and fit the character of the areas in which they are located. Six (6) feet is the standard sidewalk width adjacent to single-family residential land uses, and eight (8) feet is the standard sidewalk width adjacent to all land uses other than single-family residential. Increased width may be required if determined by a traffic study.

B. Where an amenity zone is not provided adjacent to edge of roadway curb, the minimum standard sidewalk width shall be eight (8) feet is the standard sidewalk width.

C. The amenity zone should be developed in a manner that is appropriate and complimentary to the adjacent land uses and use of the street. The minimum width for amenity zones is five (5) feet. Amenity zones should generally be landscaped and, where possible, utilized for stormwater management purposes. Amenity zones adjacent to roadways that do not have off-street parking shall be landscaped as much as possible. In areas where a wide pedestrian walking surface is desired, such as commercial areas, the amenity zone may be a hard surface treatment with trees in pits. Amenity zones that are adjacent to on-street parking areas should be landscaped as much as possible but may include limited hard surface areas for drivers or passengers exiting vehicles.

D. Cross sections may be adjusted based on site specific context and the City's Complete Streets policy.

Town Center Plan

Town Center frontage requirements and dimensions shall be as shown in MTMC 19.50, Town Center Zones and MTMC 19.123 Town Center Design Standards

Bus Zones within Frontage Improvements

Any frontage improvements where an existing bus zone is located shall improve the bus zone to current standards. Some variations to the plan are acceptable depending on site constraints, however a minimum requirement of a ten (10) foot by ten (10) foot landing pad shall be required for all front door access points where bus zones are located.

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Local Access Town Center Street Landscape frontage	55th Ave W	230th St SW	237th St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Minor Arterial Main Street Primary Street As designated	56th Ave W	230th St SW	237th St SW	varies		North	0.5’	10’	5’	0.5’		6’	10.5’	11’	10.5’	6’		0.5’	5’	10’	0.5’	76’	44’	Storefront corners at: - 232nd St SW – NE, NW, SW, SE - 234th St SW – NE, NW, SW, SE - 236th St SW – NE, NW, SW, SE
Local Access Town Center Street Landscape frontage	57th Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	Storefront corners at: - 232nd St SW – NE, NW
Local Access Pedestrian Core Street	57th Ave W (proposed)	232nd St SW	236th St SW	60’		North				0.5’			10.5’		10.5’			0.5’				60’	36’ or 38’	Storefront corners at: - 236th St SW – NE, NW
Collector Arterial Town Center Street	58th Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Collector Arterial Town Center Street	58th Ave W	232nd St SW	235th St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	62’	36’	
Collector Arterial Town Center Street	58th Ave W	235th St SW	236th St SW	60’		North	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	64’	36’	Storefront corners at: - 236th St SW – NE, NW
Local Access Town Center Street	58th Ave W	236th St SW	237th St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Access Town Center Street	59th Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Access Town Center Street	60th Ave W	230th St SW	233rd Pl SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Collector Arterial Town Center Street	61st Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Collector Arterial Town Center Street Landscape frontage	230th St SW	55th Ave W	61st Ave W	60’ 64’	45’	East	0.5’	6’	4’	0.5’	8’	5’	11’		11’	5’	8’	0.5’	4’	6’	0.5’	70’	48’	
Access Corridor Landscape	231st St SW (proposed)	55th Ave W	56th Ave W	40’		East																40’	’	
Local Access Town Center Street Landscape	231st St SW	56th Ave W	57th Ave W	60’		East	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Access Town Center Street Landscape	231st St SW (proposed)	57th Ave W	60th Ave W	60’		East																60’		
Access Corridor Landscape	231st St SW (proposed)	60th Ave W	61st Ave W	40’		East																40’		
Local Access Town Center Street	232nd St SW	55th Ave W	61st Ave W	60’		East	0’	8.5’	5’	0.5’	0’	0’	11’	10’	11	0’	8	0.5’	5’	8.5’	0’	64’	40’	Storefront corners at: 56th Ave W – NE, NW, SW, SE 57th Ave W – NE, NW
Local Access Town Center Street Access Corridor	233rd St SW (proposed)	55th Ave W	56th Ave W	40’		East																40’		
Pedestrian Core Street	233rd St SW (proposed)	56th Ave W	58th Ave W	60’		East																60’		
Town Center Street	234th St SW	55th Ave W	58th Ave W	60’		East	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	64’	36’	Storefront corners at: 56th Ave W – NE, NW, SW, SE
Local Access Town Center Street Access Corridor	235th St SW	55th Ave W	56th Ave W	40’		East	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	60’		
Local Access Town Center Street Storefront Frontage	235th St SW	56th Ave W	58th Ave W	60’		East	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	64’	36’	

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Minor Arterial Main Street Primary Street	236th St SW	55th Ave W	58th Ave W	varies		East	0’	8.5’	5’	0.5’	0’	6’	11’	11’	11’	6’	0’	0.5’	5’	8.5’	0’	73’	44’	Storefront corners at: 56th Ave W – NE, NW, SW, SE 57th Ave W – NE, NW 58th Ave W – NE, NW
Minor Arterial Main Street Primary Street	236th St SW	58th Ave W	Van Ry Blvd	66’		East	0’	8.5’	5’	0.5’	0’	6’	22’	11’	11’	6’	0’	0.5’	5’	8.5’	0’	84’	44’	
Town Center Street	237th St SW	56th Ave W	Van Ry Blvd	60’		East	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Street	Generic Cross Section See standard Plan 111			Varies	Varies		0.5’	6	5.0’	0.5	7.5	0	8.5	0	8.5	0	7.5	0.5	5.0’	6	0.5’	56	32	6’ sidewalk adjacent to SF residential land uses; 8’ sidewalk adjacent to all other land uses..
Collector Arterial Minor Arterial	Generic Cross Section See standard Plan 112			Varies	Varies																	64	40	
Minor Arterial	Generic Cross Section See standard Plan 114			Varies	Varies																	86	60	

APPENDIX G – RIGHT-OF-WAY STREET TREE LIST

Street Tree List last updated in 2024.

Deciduous Trees

Medium Trees

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer rubrum	October Glory or Red Sunset Maple	40	20	No	6	Red		Excellent urban tree, tolerates all soil types. Brilliant deep scarlet fall color, leaves have distinct 3-lobed shape.
Carpinus betulus ‘Fastigiata'	Pyramidal European Hornbeam	40	15	No	5	Yellow		Broadens when older with other, wider varieties available. Nice yellow fall color.
Malus tschonoskii	Crabapple	30	15	Yes	5	Y / O / Pur	White	Very pyramidal with beautiful fall color - Pink-tinged, white flowers emerge in May followed by yellow- green crabapples
Oxydendron arboreum	Sourwood	35	12	No	5	R / Pur	White	Consistent and brilliant fall color - very open form, slow growing
Rhamnus purshiana	Cascara	30	20	Yes	5	O / R / Y		Native tree - fall color depends on exposure - purplish fruit feeds many native birds
Tilia cordata	De Groot Littleleaf Linden	30	20	Yes	5	Yellow		One of the smaller stature little leaf lindens.
Ulmus parvifolia 'Emer I'	Athena Classic Elm	30	35	No	5	Y / Br		High resistance to Dutch Elm Disease. Drought resistant. Cinnamon colored exfoliating bark for seasonal interest.

Medium/Large Trees

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer freemanii	Autumn Blaze Maple	50	40	No	6	Red		Cross between red and silver maple - fast growing with good fall color.
Acer rubrum ‘Scarsen’	Scarlet Sentinal Maple	40	25	No	6	R / Pur		Leaves are darker green and larger than those of other Red Maples, and hold up well in summer heat.
Betula jacquemontii	Jacquemontii Birch	40	30	No	5	Yellow		White bark makes for good winter interest - best for aphid resistance, but does have issues with Bronze Birch Borer.
Fraxinus americana	Autumn Applause Ash	45	25	No	6	Red		Purple fall foliage with compact canopy.
Ginko bilboa	Ginko	50	30	No	8	Y / G		Veined, fan-shaped leaf; bright green in spring, yellow gold in fall. Plant only males.
Tilia cordata	Greenspire Linden	40	30	No	6	Yellow		Symmetrical, pyramidal form - sometimes has structural issues due to tight branch attachments.
Ulmus parvifolia ‘Emer II’	Allee Elm	45	35	No	5	Yellow		Exfoliating bark peels off in puzzle piece type shapes, deep green foliage turning to nice fall color - Resistant to Dutch Elm Disease.

Large Trees (not suitable as street trees without special planting specifications)

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer saccharum	Commemoration Sugar Maple	50	35	No	6	O / R		Thick leathery leaves resistant to leaf tatter, turns bright pumpkin orange with hues of red in fall. Good shade tree.
Acer saccharum	Green Mountain Sugar Maple	45	35	No	6	O / R / Y		Pleasing fall color, sensitive to drought when planted in compacted soil / constrained areas.
Acer saccharum	Bonfire Sugar Maple	50	40	No	6	O / R		Fastest growing sugar maple. Deciduous; leaves emerge burgundy in spring, quickly changing to green through summer, orange to red in fall.
Fagus sylvatica 'Asplenifolia'	Fernleaf Beech	60	50	No	6	Br / Y / C		Beautiful cut leaf, maintains low branches through development. Very pyrimidal structure with dense branching. Grows best in well drained, not-compacted soil.
Fagus sylvatica	Green Beech	50	40	No	6	Br / Y / C		Silvery-grey bark, adapts well to urbanized environment. Resistant to drought and disease once established.
Fagus sylvatica 'Rohanii'	Purple Oak Leaf Beech	50	30	No	6	Br / Y / C		Excellent larger tree for residential use. Thrives in typical moist, well drained soils. Attractive purple leaves with wavy, incised margins.
Fagus sylvatica ‘Dawyck Purple Beech'	Dawyck Purple Beech	40	12	No	6	Br / Y / C		Tall, columnar tree with purple foliage all year long. Thrives in typical moist, well drained soils. Doesn't require high maintenance after established.
Fraxinus latifolia	Oregon Ash	60	35	No	6	Yellow		Only native ash in PNW, provides food and shelter for native animals. Does best is moist/wet sites. Nice yellow fall color.
Fraxinus pennsylvanica	Patmore Ash	45	35	No	6	Yellow		Extremely hardy tree, able to adapt to most soil conditions. Flakey, silvery bark provides nice winter aesthetics. Less reliable fall color, nice yellow in good years.
Fraxinus pennsylvanica	Urbanite Ash	50	40	No	6	Yellow		Excellent urban compatible tree. Green foliage with silver undersides provides nice contrast when breezy. Tolerable of varied climatic and soil conditions.
Ginko bilboa	Ginko	50	30	No	8	Y / G		Veined, fan-shaped leaf; bright green in spring, yellow gold in fall. Plant only males
Liquidambar styraciflua	Sweetgum	60	40	No	8	Y / R / Pur		Prefers deep, moist soils but tolerant of other conditions including minor drought. Rigid bark, with yellow to red fall leaf color. Hard spiny fruit ball can be nuisance
Quercus coccinea	Scarlet Oak	60	40	No	6	Red		Best oak for fall color, bright scarlet foliage. Adapted to medium/coarse, well-drained soils and had medium drought tolerance.
Quercus garryana	Oregon Oak	50	40	No	8	Red		Native to Pacific Northwest.
Quercus robur	English Oak	60	40	No	8	R / Br		Large, sturdy tree. Acorns do not need dormant cold period to germinate, so can be invasive.
Quercus robur 'Fastigiata'	Skyrocket Oak	45	15	No	8	R / Br		Tough urban tree that works well in urban / drought conditions.
Quercus borealis	Red Oak	60	45	No	8	Red		Fast growing oak - large tree that needs space.
Zelkova serrata	Village Green	40	40	No	6	O / R / Pur		Green vase, Mussichino and Halka are improved forms.
Zelkova serrata	Greenvase	45	40	No	6	O / R / Pur		Attractive exfoliating bark provides Winter appeal. Dark green leaves turn orange-red and purple in Fall.

Small Trees

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer campestre	Hedge Maple	25	25	No	5	Yellow		Nice overall shape and structure, can be planted in rows to establish privacy.
Acer campestre ‘Evelyn’	Queen Elizabeth Hedge Maple	30	30	No	5	Yellow		More upright branching than the other hedge maple varieties. Also good for privacy.
Acer ginnala ‘Flame’	Flame Amur Maple	25	20	Yes	5	Red	White	Clusters of small cream colored flowers in spring - very fragrant. Nice red fall color. Informal branch structure.
Acer palmatum	Japanese Maple	20	25	Yes	5	O / R / Pur		Many varieties available - select larger varieties for street planting.
Amelanchier x grandiflora	Princess Diana Serviceberry	20	15	Yes	4	Red	White	Good for narrower planting strips.
Amelanchier x grandiflora	Autumn Brilliance Serviceberry	20	15	Yes	4	Red	White	Good for narrower planting strips - reliable bloom and fall color, showy 5-petaled flowers.
Carpinus caroliniana	American Hornbeam	25	20	Yes	5	O / R / Y		Outstanding fall color, nice small tree. Prefers very wet soil.
Carpinus japonica	Japanese Hornbeam	20	25	Yes	5	O / Y		Wide spreading, slow growing, also available in columnar varieties.
Cornus alternifolia	Pagoda Dogwood	25	25	Yes	5	R / Pur	White	Small white flowers in flat clusters - fall color is varied, prefers partial to full shade.
Cornus kousa ‘Chinensis'	Chinese / Korean Dogwood	20	20	Yes	4	R / Pur	White	Does not do well on harsh, dry sites. Large conspicuous flowers after it leafs out, more drought tolerant than flowering dogwood.
Malus ‘Golden Raindrops'	Golden Raindrops Crabapple	20	15	Yes	4	Orange	White	Disease resistant - persistent yellow fruit in fall and winter, not to be planted along street.
Parrotia persica	Persian Parrotia	30	20	No	5	O / R / Y	Red	Blooms before it leafs out, drought tolerant. Varied fall color.
Stewartia monodelpha	Orange Bark Stewartia	30	20	Yes	5	Red	White	Extraordinary cinnamon colored bark - avoid hot, dry sites. Provides all season interest due to leaf and bark coloring.
Stewartia psuedocamellia	Japanese Stewartia	25	15	Yes	5	Br / Pur	White	Patchwork bark, white flower in spring. Bronze to dark purple fall color, prefers rich, organic well drained soil.

Evergreen Trees[1]

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Abies amabilis	**Grand Fir**	**50-60**	**30**	**No**	**X**			**Northwest native, needs ample space to grow. Needles dark green on top with whitish underside.**
Pseudotsuga menziesii	**Douglas Fir**	**70-100**	**30-40**	**No**	**X**			**Northwest native, moderate to fast growth, older trees may drop branches.**
Taxus baccata	**Yew**	**30**	**15**	**No**	**X**			**Dense shrub, casts deep shade. Dark green needles - Male plants only (seed is very poisonous). Tolerates sun and shade, very drought tolerant, tolerates heavy pruning.**
Thuja occidentalis	**Aborvitae**	**20-50**	**10-15**	**No**	**X**			**Often used as a visual or wind buffer, tolerates pruning and moderate drought conditions.**
Thuja plicata	**Western Red Cedar**	**60-100**	**40**	**No**	**X**			**Northwest native, fast growth, cinnamon red shredding bark, shallow root system. Hard to plant under tree.**
Tsuga heteophylla	**Western Hemlock**	**70-100**	**20-40**	**No**	**X**			**Northwest native, elegant, lacy evergreen tree. Shallow root system makes it susceptible to windthrow in wet soil w/ windy conditions.**

[1] ***Evergreen trees should not be planted near sidewalks, streets, driveways or buildings. Recommend to maintain at least 10' from any structure and 20' from sidewalks. Best used to provide winter wind break or deep shade. Young evergreens carry branches to the ground.***

Prohibited Trees

The City prohibits certain tree species from being planted in the street right-of-way and over public utilities and recommends they not be planted on other properties. Common prohibited trees include:

- Alder
- Black Locust
- Catalpa
- Cottonwood
- Elm, Siberian
- Maple, Silver
- Maple, Bigleaf
- Pine, Black
- Pine, Austraian
- Popular, Lombardy
- Popular, Balsam
- Willows, esp. Weeping

APPENDIX H - RECORD DRAWING CRITERIA

Record Drawing Requirements (As-Builts)

A. Record drawings are required prior to request for final inspection or issuance of Certificate of Occupancy for all right-of-way construction projects and for stormwater drainage systems that connect to City infrastructure.

B. Record drawings should accurately reflect revisions made to approved plans during construction. The record drawings should locate all newly installed, existing, and abandoned utilities encountered during construction, but not shown on the approved plans.

C. Record drawings shall be stamped, signed, and dated by a Professional Engineer licensed in the State of Washington.

D. As-constructed survey information provided on a record drawing shall be provided by a licensed land surveyor. Information from sources such as the Contractor's red-lined drawings, for which the surveyor is not responsible, shall be clearly noted/identified on the face of the record drawings.

E. The Permittee shall provide the City Inspector preliminary record drawings on paper or an electronic PDF. Once the City approves the preliminary submittal, the Permittee shall provide a flattened digital 11"x17" PDF drawing of the approved as-builts.

F. Each sheet of the record drawings shall include the following statement, preferably located in the bottom right-hand corner of each sheet.

"These plans are record drawings and the information shown accurately reflects existing field conditions as of this date _____."

APPENDIX I – STREET LIGHTING LEVELS CRITERIA

Lighting Level Requirements

ROADWAY CLASSIFICATION	Area Classification[1]	Target Light Levels		Luminaire Mounting Height (ft)	Maximum Arm Length (ft)	Maximum Wattage[4]
		Minimum Maintained Average (fc)	Uniformity Ratio (Avg/Min)			
PRINCIPAL ARTERIAL	Commercial	1.6	3:1	40	12	271
	Residential	0.8	3:1	40[3]	16	271
				35[2]	12	183
MINOR ARTERIAL	Commercial	1.1	3:1	40	12	271
	Residential	0.5	4:1	35[3]	12	183
				35[2]	12	135
COLLECTOR ARTERIAL	Commercial	1.1	3:1	40	12	271
	Residential	0.6	4:1	35	12	135
LOCAL STREET	Commercial	0.8	6:1	35	12	183
	Residential	0.4	6:1	25	12	92
		Decision Point Lighting[5]		12-35	n/a	112

1. *See City Zoning Map; Industrial, Business, and Mixed Business are to be considered Commercial. All others, including Mixed Use are considered residential for the purposes of lighting standards.*
2. *Use for roadway width of 36 ft or less.*
3. *Use for roadway width over 36 ft.*
4. *Maximum wattage values are for LED fixtures only. Coordinate with the City for High Pressure Sodium and Metal Halide maximum wattage values.*
5. *Decision Point Lighting may be applied to residential local access streets with 300 ft maximum spacing between luminaires. Luminaires are placed at intersections, crossings, changes in roadway geometry, dead ends, hazards, etc.*

APPENDIX J – TRAFFIC CONTROL PLAN SUBMITTALS

Typical Elements for Traffic Control Plan Submittals

This section provides information about elements that should be included in all traffic control plans submitted for review. Incorporating these elements into the plan may reduce delay in the review process and reduce the need for possible re-submittal of the plans.

All plans shall be consistent with the MUTCD.

Basic Elements of a Traffic Control Plan

- A clear and accurate plan view representation of the streets and the intersection where the temporary traffic control plan will be implemented. Include the following:
    - Street names
    - Lane configurations
    - Existing channelization devices (include pavement markings such as crosswalks)
    - Traffic signals
- Clearly indicate the active work area and the proposed temporary channelization device set up.
- Include a legend indicating symbols used to represent various traffic control device elements.
- Clearly indicate the temporary signing to be used. Label sign by appropriate sign codes per MUTCD, and include size and color of signs. (Size and color can be referenced in the general notes shown on the plan.) Using both a sign image and sign code will help clarify the appropriate sign intended.
- Include all applicable tables, including channelizing device spacing, sign spacing, buffer data, and minimum lane closure taper length.
- Label sign spacing on plan and clearly indicate the applicable length in the table.
- Label all transition and/or taper length and clearly indicate the applicable length in table.
- Label buffer dimensions on plan and clearly indicate the applicable lengths and dimensions in table.

- Per RCW 47.36.200, include special warning signs for motorcycles (W21-1701 – "Motorcycles Use Extreme Caution") if any of the following conditions exist at the work zone:
    - Grooved Pavement
    - Abrupt land edge
    - Steel Plates
    - Loosed material (such as gravel or dirt) on roadway
- Indicate approved work hours. Typical work hours are 9:00 a.m. to 3:00 p.m. unless otherwise approved.
- Include in general notes that a minimum of 11-foot lanes shall be maintained, unless otherwise approved.
- All cones shall be orange in color, at least 28 inches tall and have two (2) retroreflective bands.
- Where bike lanes are present, temporary traffic control addressing bike traffic is required.
- All traffic control plans shall address pedestrian access. This includes complete pedestrian detour routes, temporary ADA compliant ramps, and temporary pedestrian tunnels where applicable. In some cases, pedestrian access can be addressed by using a flagger to assist pedestrians through the work zone. This should be noted on plans.

Signalized Intersection Impacts

- Uniformed police officers are required for traffic control plans that affect the operation of the traffic signal, or countermand regulatory traffic control device
- Uniformed police officers are required for workzones at or within 100 feet of a traffic signal controlled intersection.
- The City shall be notified a minimum of three (3) business days prior to impact.

Bus Stop and Bus Route Impacts

Transit agencies, including Community Transit, Sound Transit, King County Metro, and school district shall be notified to coordinate bus zone closures and reroutes.

Minimum notification requirements are listed below:

- Three (3) business days: For work resulting in a temporary closure/relocation to a bus stop or for work within an area of a bus zone that will limit full access to the zone by coaches and pedestrians/passengers. Relocated bus stop location shall be ADA accessible if the affected stop is designated as such.
- Five (5) business days: For work resulting in a road closure that buses operate on which will require them to be detoured.
- 15 business days: For work resulting in removing any transit facility structures (e.g., shelters, benches, information boards/kiosks and bus stop signs).

APPENDIX K – APPROVED STORMWATER FACILITY PLANTING LIST

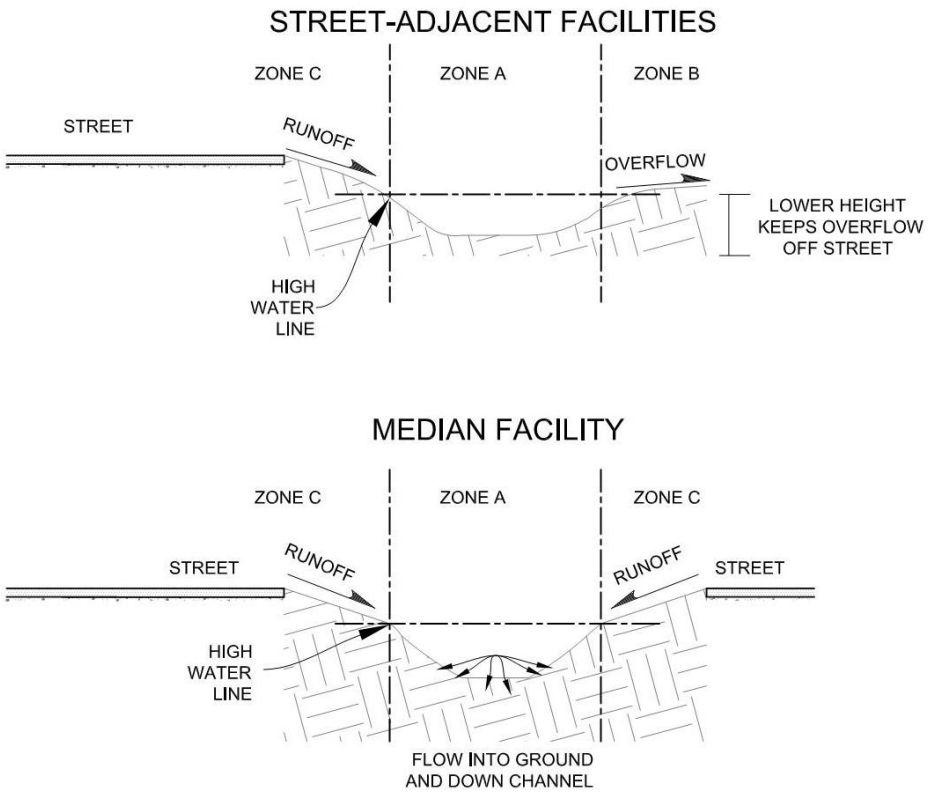
Stormwater Facility Plantings

The following tables were compiled to specify the approved plants for bioretention and rain garden facilities in the right-of-way. Height, spread, shade tolerance, time of bloom, descriptions, and special considerations for these plants can be found in the tables. Other species and cultivars may be appropriate for larger bioretention areas if approved by the City Engineer.

Stormwater facilities in the right-of-way shall only use plants from the approved plant list. Trees have been completely excluded from bioretention and rain gardens due to sight distance issues and because tree roots can push up pavement as they mature. Native species are preferred and have therefore been placed higher on the tables. Natives are labeled with an "N", and low-growing, spreading groundcover plants are labeled "G". An additional label has been included for the appropriate planting zone as referenced in Figure K1 and in Standard Plan 444 - Bioretention Facility:

- Zone A: Area of periodic or frequent standing or flowing water. Many Zone A plants will also tolerate the seasonally dry periods of summer without extra watering and may also be applicable in Zones B or C.
- Zone B: Periodically moist or saturated during larger storms. Plants under Zone B will also be applicable in Zone C.
- Zone C: Dry soils, infrequently subject to inundation or saturation. This area should blend with the existing landscape.

Figure K1. Bioretention Planting Zones



The approved plant list is separated into four tables:

- Emergents: This table contains plants that can thrive in saturated soil.
- Herbaceous Perennials/Grasses/Ferns: This table contains any plants without woody stems that are not emergent.
- Compact shrubs: This table contains woody perennials with a maximum height below six (6) feet.
- Groundcovers: This table contains herbaceous and woody perennials with recumbent form.

Emergents

Species	Common Name	Planting Zone	Native
Acorus calamus 'Variegatus'	Sweet flag	B, C	No
Acorus gramineus 'Ogon'	Golden variegated sweet flag	A, B	No
Aquilegia formosa	Western columbine	B, C	Yes

Species	Common Name	Planting Zone	Native
Carex comans	New Zealand hair sedge	A, B, C	No
Carex oshimensis 'Evergold'	Variegated Japanese sedge	B, C	No
Carex stipata	Sawbeak sedge	A	Yes
Carex testacea	Orange New Zealand sedge	A, B, C	No
Eleocharis palustris	Creeping spike-rush	A	Yes
Juncus acuminatus	Taper-tipped rush	A	Yes
Juncus effusus 'Quartz Creek'	Common rush	A	No
Juncus ensifolius	Dagger-leaf rush	A	Yes
Lysichiton americanus	Western Skunk Cabbage	A	Yes
Petasites frigidus	Palmate Coltsfoot	A	Yes
Sidalcea hendersonii	Henderson's checker-mallow	A	Yes
Viola palustris	Marsh Violet	A	Yes

Herbaceous Perennials/Ornamentals/Ferns

Species	Common Name	Planting Zone	Native
Achillea millefolium	Western yarrow	C	Yes
Adiantum aleuticum	Western maidenhair fern	B	Yes
Anaphalis margaritacea	Pearly everlasting	C	Yes
Aster chilensis	Common California aster	B, C	Yes
Aster subspicatus	Douglas' aster	B, C	Yes
Athyrium filix-femina	Lady fern	B, C	Yes
Blechnum spicant	Deer fern	B, C	Yes
Camassia leichtlinii	Large or giant camas	B, C	Yes
Camassia quamash	Common camas	B, C	Yes
Dicentra formosa	Western or Pacific bleeding-heart	B, C	Yes
Echinacea purpurea	Purple coneflower	C	No
Echinops	Globe thistle	C	No
Erigeron speciosus	Showy fleabane	B, C	Yes
Erythranthe ssp.	Monkey-flower	A, B, C	Varies
Gaura lindheimeri	Gaura or wand flower	B, C	No

Geranium macrorrhizum	Hardy geranium, crane's bill	C	No
Geum macrophyllum	Large-leaved avens	C	Yes
Gymnocarpium disjunctim	Common Oak Fern	B, C	Yes
Hakonechloa macra	Japanese forest grass	B, C	No
Helictrotrichon sempervirens	Blue oat grass	C	No
Helleborus argutifulius	Corsican Hellebore	B, C	No
Hosta	Plantain lily	B, C	No
Hyssopus officinalis 'Rosea' or 'Nana'	Hyssop (pink or blue)	B, C	No
Iris douglasiana	Douglas Iris	A, B, C	No
Iris foetidissima	Gladwin iris; stinking iris	B, C	No
Iris tenax	Oregon or tough-leaf iris	A, B, C	Yes
Lupinus bicolor	Two-color lupine	B, C	Yes
Lupinus latifolius	Broadleaf lupine	B, C	Yes
Lupinus polyphyllus	Large-leafed lupine	C	Yes
Nepeta x faassenii	Catmint	C	No
Ophiopogon planiscapus	Black mondo grass	C	No
Pennisetum orientale	Oriental fountain grass	C	No
Penstemon cardwellii	Cardwell's penstemon, beard tongue	C	Yes
Penstemon davidsonii	Davidson's penstemon	C	Yes
Smilacina racemosa	False Solomon's seal	C	Yes
Solidago canadensis	Canadian goldenrod	C	Yes
Symphyotrichum chilense	Pacific aster	B, C	Yes
Tellima grandiflora	Fringecup	B, C	Yes
Trientalis arctica	Northern starflower	B	Yes
Heuchera	Coral bells or alumroot	B, C	Varies
Tolmiea menziesii	Youth-on-age/Piggyback plant	B	Yes
Polystichum munitum	Western sword fern	B, C	Yes

Compact Shrubs

Species	Common Name	Planting Zone	Native
Andromeda polifolia	Bog rosemary	A	Yes
Cornus sericea 'Kelseyi'	Dwarf red-twig dogwood	A, B, C	Yes
Escallonia x exoniensis 'fradesii'	Pink princess	C	No
Gaultheria shallon	Salal	B, C	Yes
Hamamelis intermedia	Diane witchhazel	B, C	No
Helichrysum italicum	Curry plant	C	No
Lavandula angustifolia	English Lavendar	C	No
Lavandula stoechas	Spanish lavendar	C	No
Ledum groenlandicum	Labrador tea	A	Yes
Lonicera pileata	Boxwood honeysuckle	B, C	No
Mahonia aquifolium 'Compacta'	Compact or dwarf tall Oregon grape	B, C	Yes
Myrica gale	Sweet gale	A, B, C	Yes
Oplopanax horridus	Devil's club	A, B	Yes
Osmanthus dalavayi	Dalavay Osmanthus	C	No
Osmanthus x burkwoodii	Devil wood	C	No
Perovskia atriplicifolia	Russian sage	C	No
Philadelphus x lemoinei	Belle Etoile' Mock-orange	B, C	No
Pinus mugo	Dwarf mugho pine	C	No
Potentilla gracilis	Graceful cinquefoil	C	No
Potentilla palustris	Marsh cinquefoil	A	Yes
Ribes sanguineum 'King Edward VII'	Red-flowering currant	B, C	Yes
Rosa pisocarpa	Clustered wild rose	A, B, C	Yes
Rubus parviflorus	Thimbleberry	B, C	Yes
Spiraea splendens	Rose meadowsweet	B, C	Yes
Symphoricarpos albus	Snowberry	B, C	Yes
Vaccinium ovatum 'Thunderbird'	Evergreen huckleberry	B, C	Yes
Viburnum opulus 'Nana'	Dwarf cranberry bush	B, C	No

Groundcovers

Species	Common Name	Planting Zone	Native
Arctostaphylos uvaursi	Kinnikinnick	B, C	Yes
Asarum caudatum	Wild ginger	B, C	Yes
Cornus canadensis	Bunch berry	B, C	Yes
Eriophyllum lanatum	Oregon Sunshine	C	Yes
Gaultheria ovatifolia	Oregon wintergreen/Western teaberry	B, C	Yes
Helianthemum nummularium	Sunrose	C	No
Kalmia microphylla ssp occidentalis	Swamp-laurel	A	Yes
Linnaea borealis	Twinflower	B	Yes
Mahonia nervosa	Cascade/Dull/Low Oregon grape	B, C	Yes
Mahonia repens	Creeping mahonia	B, C	No
Maianthemum dilatatum	False lily-of-the-valley	C	Yes
Tiarella trifoliata	Foamflower	B, C	Yes
Vancouveria hexandra	Inside-out flower or duck's foot	B, C	Yes

APPENDIX L – DETAILS AND SPECIFICATIONS

Details and Specifications

Standard Plan Number	Title	Revision / Adoption Date
111	Street Section & Frontage - Local Access	Jan, 2026
112	Street Section & Frontage - Minor Arterial & Collector	June, 2024
114	Street Section & Frontage - Principal Arterial	June, 2024
122	Roadway Feature Clearances	June, 2024
131	Typical Sidewalk Detail	Jan, 2026
133	Cement Concrete Traffic Curb and Gutter	Jan, 2026
134	Cement Concrete Pedestrian Curbs and Valley Gutter	Jan, 2026
135	Concrete Extruded Curb	June, 2024
151	Cement Concrete Driveway Entrance	Jan, 2026
152	Cement Concrete Driveway Entrance with Planter	Jan, 2026
153	Cement Concrete Driveway Entrance - Commercial	June, 2024
154	Cement Concrete Driveway Entrance with Planter-Commercial	June, 2024
162A	Pavement Restoration - Longitudinal Trenches	Jan, 2026
162B	Pavement Restoration - Longitudinal Trenches	Jan, 2026
163A	Pavement Restoration - Arterials & Collectors: Transverse Trenches	Jan, 2026
163B	Pavement Restoration - Arterials & Collectors: Transverse Trenches	Jan, 2026
164	Pavement Restoration - Local Streets Trench Detail	June, 2024
165	Thickened Edge Detail	June, 2024
180	Street Trees	Jan, 2026
184	Sidewalk Transition	Jan, 2026
200	Water General Notes	Jan, 2026
210	Water Service Installation Notes	Jan, 2026
211A	1"Ø Water Service Installation Details	Jan, 2026
211B	1"Ø Water Service Installation Details	Jan, 2026
212	1 1/2" And 2" Water Service	Jan, 2026
213	3" And 4" Water Service	Jan, 2026
214	1" Single Family Fire Sprinkler Service Connection Assemblies	June, 2024
215	Water Meter Manifold	Jan, 2026
221	Detector Check, Backflow Prevention & Fire Flow Detail	June, 2024
222	Double Detector Check Valve Assembly, Fire Lines (2" to 10")	June, 2024
223	Double Check Valve Assembly, Irrig or Domestic, (3/4" to 2")	June, 2024
224	Double Check Valve Assembly, for Irrig and Domestic (3" to 10")	June, 2024
225	Inside Installation (Double Check Valve)	June, 2024

Standard Plan Number	Title	Revision / Adoption Date
231	Water Main Thrust Block	Jan, 2026
232	Water Main Vertical (Anchor) Thrust Block	Jan, 2026
233	Valve Nut Operator Extension and Valve Marker Post	June, 2024
234	Air & Vacuum Release Valve Assembly	June, 2024
235	2" Blowoff Assembly for Permanent Dead End Installations	Jan, 2026
251	Fire Hydrant Assembly	Jan, 2026
252	Fire Hydrant Location and Guard Post	June, 2024
300	Sanitary Sewer General Notes	Jan, 2026
311	Side Sewer Installation, Single Family	Jan, 2026
312	Side Sewer Installation, Multi-Family	Jan, 2026
321	Typical Sewer Lateral Connection	Jan, 2026
322	Sewer Lateral Connection Details (15 Ft Deep Or More)	Jan, 2026
323	Sewer Cleanout Box Details	Jan, 2026
324	Cleanout Detail for Residential Side Sewer Upgrade	June, 2024
331	Maintenance Holes Type III	Jan, 2026
332	Manhole Installation and Ladder Details	Jan, 2026
333	Vertical Connection	June, 2024
334	Drop Connections (Outside of Maintenance Hole)	Jan, 2026
335	Drop Connection (Inside of Maintenance Hole)	Jan, 2026
400	Storm Drainage General Notes	Jan, 2026
401	Temporary Erosion/Sediment Control General Notes	Jan, 2026
411	Storm Drain Inlet Protection, With Frame	Jan, 2026
412	Filter Fabric Fence	June, 2024
413	Temporary Tree Protection/High Visibility Fence	Jan, 2026
414	Nets, Blankets, & Temporary Stabilization	Jan, 2026
415	Straw Wattles	June, 2024
416	Temporary Swale	Jan, 2026
417	Temporary Check Dam	Jan, 2026
418	Temporary Interceptor Ditch with Rock Check Dams	June, 2024
419	Stabilized Construction Entrance	Jan, 2026
420	Temporary Stockpile Protection	June, 2024
421	Yard Drain	Jan, 2026
441	Bioretention Check Dam	June, 2024
442	Bioretention Cleanout	June, 2024

Standard Plan Number	Title	Revision / Adoption Date
443	Bioretention Curb Extension	June, 2024
444	Bioretention Facility with Underdrain	June, 2024
445	Bioretention Hydrant Access	June, 2024
446	Bioretention In-Line Curb Cut	June, 2024
447	Bioretention Outlet Structure	June, 2024
448	Bioretention Side Curb Cut	June, 2024
449	Permeable Pavement Section	June, 2024
450	Permeable Pavement on Slopes	Jan, 2026
451	Pervious Sidewalk Alternate Design	June, 2024
452	Soil Amendment and Depth	June, 2024
453	Perforated Pipe Connection	Jan, 2026
454	Reverse Slope Sidewalk	June, 2024
455	Roof Rain Harvesting	Jan, 2026
456	Bioretention Planter - Infiltration	June, 2024
457	Overflow Configurations for Biofiltration	June, 2024
458	Observation Port for Permeable Pavement	Jan, 2026
460	Infiltration Trench	Jan, 2026
461	Infiltration Drywell	Jan, 2026
471	Water Quality Filter Vault Access	Jan, 2026
472	Flow Control Structure	Jan, 2026
473	Stormwater Shear Gate for Flow Control Structure	Jan, 2026
475	Detention Vault	Jan, 2026
476	Detention Pipe	Jan, 2026
477	Driveway Culvert	June, 2024
501	Traffic Sign Installation - Sign Install Hardware & General Notes	June, 2024
502	Traffic Sign Installation - Pole and Foundation Details	June, 2024
504	Traffic Signs - General Notes - Street Name and Parking Signs	June, 2024
521A	Longitudinal Marking Details with RPM's	Jan, 2026
521B	Longitudinal Marking Details with RPM's	Jan, 2026
521C	Longitudinal Marking Details with RPM's	Jan, 2026
523	Crosswalk & Stop Bar Delineations	June, 2024
524	Parking and Edgelines	Jan, 2026
531	Conduit Trench Detail - Street Crossing	Jan, 2026
532	Small Cable Vault Installation Detail	June, 2024

Standard Plan Number	Title	Revision / Adoption Date
533A	Service Cabinet	Jan, 2026
533B	Service Cabinet	Jan, 2026
534	Service Cabinet Foundation	Jan, 2026
541	Street Light Standard - No Mast Arm	Jan, 2026
542	Street Light Standard - With Mast Arm	Jan, 2026
543	Street Light Standard – Town Center Combination	June, 2024
544	Street Light Standard – Town Center Pedestrian	June, 2024
581	RRFB Post and Footing Detail	Jan, 2026
582	Sight Triangle Dimensions (Private Streets and Driveways)	June, 2024
600	Grading General Notes	Jan, 2026
610	Rockery Detail	June, 2024
611	Mailbox Stand Installation (Residential)	June, 2024
612	Access Control Gate	June, 2024
613	Survey Control Monument	June, 2024
614	Water Valve Box, Cleanout & Monument Adjustment Detail	Jan, 2026
615	Typical Pipe Bedding and Trench Restoration Detail	June, 2024
616	Circular Frame (Ring) and Locking Cover With Pick Bar	June, 2024
617	Gas Crossing with Public Utilities	June, 2024
618	Maintenance Hole and Catch Basin Adjustment Detail	Jan, 2026
620	Bench Detail – Town Center	June, 2024
621	Trash Receptacle Detail - Town Center	June, 2024

APPENDIX M – STORMWATER DEVELOPMENT GUIDELINES

CITY HALL
23204 58TH AVENUE W
MOUNTLAKE TERRACE, WA 98043
425-744-6226
WWW.CITYOFMLT.COM

STORMWATER DEVELOPMENT GUIDELINES

In the City of Mountlake Terrace, low impact development (LID) best management practices (BMPs) are preferred. Conventional stormwater management systems rely on detention structures and closed conveyance systems. Low impact development (LID) refers to systems and practices that use or mimic natural processes, resulting in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat.

This guidance document is designed to help you meet state requirements and city code, protect downstream properties from flooding, and preserve clean water in local creeks, Lake Ballinger, and Lake Washington. Please determine which LID stormwater BMPs are feasible for your project, and incorporate them into your design.

A. **Review and determine which minimum stormwater requirements apply.** The minimum stormwater requirements are dependent on the amount of new or replaced impervious surface and/or land disturbance created by your project. To make this determination, use the New Development or Redevelopment requirement flow charts (whichever is more applicable to your site) at the end of this document.
B. **Prepare and submit requirements as needed.** The stage in the review process for when to submit the information on each minimum requirement is shown in *italics*.

Minimum Requirement #1 *(Required at MLT land use review)* Preparation of a Stormwater Drainage Report (aka Stormwater Site Plan.)

A. Executive summary: Please provide square footage for roofs, driveways, roads, and other hard surfaces, as well as pervious surface square footage. Include area of impervious pollution-generating surfaces (these will primarily be anywhere a car can drive outside), non-pollution-generating hard surfaces (most roofs, sidewalks), and pollution-generating pervious surfaces (lawns/landscaped areas, permeable pavement, sports fields).
B. Your permanent stormwater control plan for the site (a short narrative).

C. Calculations for any permanent stormwater facilities to demonstrate capability to store required volume (if flow control is required).

D. LID BMPs and Infiltration Testing Documentation. This is an MLT-specific form, which documents how the project meets the requirements of on-site stormwater management (Minimum Requirement #5). If a BMP from the list is determined to be infeasible, please describe the conditions on your site that meet specific infeasibility criteria from the manual, and cite the section of the manual.

E. Survey prepared by a registered land surveyor, civil engineer, or other qualified professional.

F. Soils report by a professional soil scientist certified by the Soil Science Society of America (or equivalent national program) or by other suitably trained persons working under the supervision of a professional engineer, geologist, hydrogeologist, or engineering geologist registered in the State of Washington.[1] Soils report shall identify:

    1. Underlying soils (soil surveys, soil test pits, soil borings, or soil grain analyses)[2]
    2. Results of infiltration testing with small-scale or large-scale Pilot Infiltration Test (PIT). Instructions are available in Ecology's 2019 Stormwater Manual. Grain size analysis may substitute for infiltration tests ONLY on sites with soils unconsolidated by glacial advance. Infiltration testing is not required if other infeasibility criteria, such as contaminated soils, high groundwater, or steep slopes, make infiltration BMPs infeasible. Thoroughly document which infeasibility criteria apply to your site if infiltration testing is not proposed.
    3. Results of testing for a hydraulic restriction layer (groundwater close to surface, soil with infiltration rate of less than 0.3 in/hr, bedrock, etc.)

G. Survey of existing vegetation by a qualified individual (on project site AND for off-site significant trees with driplines inside project limits).

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[1] If the project is required to meet minimum requirements 1-5 only, the soils report may be prepared by a locally licensed on-site sewage designer.

[2] If the project is required to meet minimum requirements 1-9, the soils report must also include detailed logs (depth of pit or boring, soil descriptions, depth to water if present, and presence of stratification.) Soil stratigraphy must be assessed for low and high permeability layers. Soil characterization for each soil unit must include: grain size, textural class, % clay content, % organic content, cation exchange capacity, color/mottling, and variations/nature of stratifications.

H. Preliminary development layout, considering:

1. Minimization of land disturbance and impervious areas
2. Protection of critical areas
3. Preservation of natural vegetation
4. Location of impervious areas over less permeable soil
5. Building clustering
6. Preserving natural drainage patterns

I. If site adds 5,000 sq ft of new hard surface, an off-site analysis is required. Describe potential flow impacts downstream of the project to receiving water body or 0.25 mile (whichever is less).

J. Maps prepared as part of the Stormwater Drainage Report must include:

7. Existing public and private development including utility infrastructure on or adjacent to the site (check: https://www.cityofmlt.com/181/Maps-Planning-and-Engineering.)
8. Minor and major hydrologic features (seeps, springs, closed depressions, swales, streams, wetlands, critical area buffers)
9. Flood hazard areas on or adjacent to site
10. Geologic hazard areas and associated buffers
11. Aquifer and wellhead protection areas, if present
12. Topographic information (>10% slope, 2 ft. contours); 10%-20%, (5 ft. contours, >20%, 10 ft. contours.) Elevations at 25 ft. intervals.

Minimum Requirement #2 *(Required at MLT civil plan review)* Construction Stormwater Pollution Prevention Plan (SWPPP). Prepare a SWPPP in the form of a narrative report to address all 13 elements for protection of stormwater during construction, using the Ecology CSWGP-SWPPP template. Waiver of the use of the Ecology SWPPP template for small sites with simple pollution prevention requirements (example: single-family homes) may be granted by the MLT stormwater program manager upon request.

The 13 elements which will need to be addressed are: preserve vegetation/mark clearing limits; establish construction access; control flow rates; install sediment controls; stabilize soils; protect slopes; protect drain inlets; stabilize channels and outlets; control pollutants;

control dewatering; maintain erosion control BMPs; manage the project; and protect low impact development BMPs.

Minimum Requirement #3 *(Required at MLT civil plan review)* Source Control of Pollution. Describe all known, available, and reasonable operational and structural source control best management practices (BMPs) to be used on site when the project is completed.

Minimum Requirement #4 *(Required at MLT land use review)* Preservation of Natural Drainage Systems and Outfalls. Describe how the project will maintain existing natural stormwater drainage and outfalls. If a new outfall to the stormwater system is required by the project, describe how the project will protect downstream properties from impacts as per page 115 of the 2019 Ecology Stormwater Manual.

Minimum Requirement #5 *(Required at MLT land use review)* On-site Stormwater Management. Projects may use the LID BMPs from List #1 or List #2 below for all surface types below, OR use any Flow Control BMP desired to achieve the LID Performance Standard[3] and apply BMP T5.13: Post-Construction Soil Quality and Depth. For each surface, consider the BMPs in the order listed for that type of surface. Use the first BMP that is considered feasible. No other on-site stormwater management BMP is necessary for that surface.

[3] LID Performance Standard: stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 8% of the 2-year peak flow to 50% of the 2-year peak flow.

List #1 (for projects triggering Minimum Requirements #1-#5)	List #2 (for projects triggering Minimum Requirements #1-#9)
Lawn and Landscaped Areas	
BMP T5.13: Post-Construction Soil Quality and Depth	BMP T5.13: Post-Construction Soil Quality and Depth
Roofs	
1. BMP T5.30: Full Dispersion, or BMP T5.10A: Downspout Full Infiltration	1. BMP T5.30: Full Dispersion, or BMP T5.10A: Downspout Full Infiltration
2. BMP T5.14: Rain Gardens, or BMP T7.30: Bioretention	2. BMP T7.30: Bioretention
3. BMP T5.10B: Downspout Dispersion Systems	3. BMP T5.10B: Downspout Dispersion Systems
Other Hard Surfaces	
1. BMP T5.30: Full Dispersion	1. BMP T5.30: Full Dispersion
2. BMP T5.15: Permeable Pavements, or BMP T5.14: Rain Gardens, or BMP T7.30: Bioretention	2. BMP T5.15: Permeable Pavements
3. BMP T5.12: Sheet Flow Dispersion, or BMP T5.11: Concentrated Flow Dispersion	3. BMP T7.30: Bioretention
	4. BMP T5.12: Sheet Flow Dispersion, or BMP T5.11: Concentrated Flow Dispersion
Notes for using the List Approach: 1. BMP T5.14: Rain Gardens and BMP T7.30: Bioretention used in the List Approach must be sized to have a minimum horizontal projected surface area below the overflow of at least 5% of the area it drains. 2. BMP T5.15: Permeable Pavements in the List Approach is not a requirement to pave these surfaces. Where pavement is proposed, it must be permeable to the extent feasible unless BMP T5.30: Full Dispersion is employed.	

Minimum Requirement #6 *(Required at MLT land use review)* Runoff Treatment. If your site has more than 5,000 square feet of pollution-generating hard surface, determine appropriate runoff treatment and show the location on the plans.

Minimum Requirement #7 *(Required at MLT land use review)* Flow Control. If the following conditions apply to your site, then determine flow control needs and show appropriate flow control on plans.

A. Has more than 10,000 square feet of effective impervious surface; or

B. Converts 0.75 acres or more of vegetation to lawn or landscape; or

C. Converts 2.5 acres or more of native vegetation to pasture in a threshold discharge area; or

D. Through a combination of effective hard surfaces and converted vegetation areas causes a 0.10 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area. Must be estimated using the Western Washington

Hydrology Model or other approved model and 1 hour time steps (or a 0.15 cfs increase using 15-minute time steps.)[4]

Use of tree retention/planting, permeable pavement, or other BMPs may allow developers to reduce the size and cost of required flow control facilities. Please consult the 2019 Ecology Stormwater Manual or contact Laura Reed, Stormwater Program Manager, at lreed@mltwa.gov or 425-744-6226 to discuss options.

Minimum Requirement #8 *(Required at MLT land use review)* Wetlands Protection. If your site discharges stormwater to wetlands directly or indirectly via a conveyance system, special conditions apply. Describe how these conditions will be met, using the guidance on wetlands from the 2019 Ecology Stormwater Manual.

Minimum Requirement #9 *(Required at MLT civil plan review)* Operation and Maintenance. Develop an O&M manual for all proposed stormwater facilities on your site.

Other requirements:

Right of entry authorization *(required on final plat/binding site plans)*

Specify which stormwater facilities are present on site, and include a statement that responsibility for maintenance of the stormwater facility rests with the property owners or the homeowner association. Add right of entry for city staff for the purpose of inspection, auditing, maintenance, or repair of storm drainage facilities (emergency and non-emergency.) In the event of failure to repair or maintain storm drainage facilities within a reasonable time period, include the city's right to repair or maintain storm drainage facilities at the expense of the owners or homeowner association.

Application for coverage under Ecology's Construction Stormwater General Permit

Construction site operators are required to apply for and be covered by this permit if both of these conditions apply:

[4] The 0.10 cfs (1-hour time steps) or 0.15 cfs (15-minute time steps) increase should be a comparison of the post-project runoff to the existing condition runoff. For the purpose of applying this threshold, the existing condition is either the pre-project land cover, or the land cover that existed at the site as of a date when the local jurisdiction first adopted flow control requirements into code or rules.

A. Your construction project disturbs land[5] through clearing, grading, excavating, or stockpiling of fill material.

   1. Sites that disturb one acre or more.
   2. Sites that are smaller than one acre that are part of a larger common plan of development – which will ultimately disturb one acre or more and discharge stormwater to surface waters – must apply for a permit.
   3. Sites of any size discharging polluted stormwater to waters of the state.
   4. Sites of any size that can be reasonably expected to cause a violation of any water quality standard.

B. There is any possibility that during construction, stormwater could run off your site or enter a conveyance system that leads to surface waters. In almost every case it does. If the location of your site poses no possibility that rainfall or snowmelt could leave the site or enter a waterway, you do not need a permit.

MTMC 13.05.340 Stormwater capital facilities charge

Stormwater capital facilities charges shall be imposed on all new development. The equivalent residential unit (ERU) for stormwater (equal to 2,282 square feet of impervious surface in the City of Mountlake Terrace) shall be the unit for capital facilities charges. The charge for stormwater capital facilities shall be $3,003/per ERU.

A. Single-Family Residential. Each single-family residential lot will be assessed a capital facilities charge equal to $3,003 (equal to one ERU.) The charge will be due when a lot is developed or redeveloped and new water and/or new sanitary sewer service is initiated for the parcel.
B. Multifamily, Industrial and Commercial. The total stormwater capital facility charge for a parcel will equal: Total impervious surface/2,282 x $3,003. The charge will be due upon construction permit issuance for the parcel.

DEFINITIONS

[5] Count the cumulative acreage of the whole project, whether single or multi-phase. Include off-site disturbance acreage from support activities related to the construction site. This applies if your project is a portion (less than 1 acre) of a larger project planned over time.

Redevelopment: Construction activity on a site that is already substantially developed (has 35% or more existing hard surface coverage).

Hard surface: An impervious surface, a permeable pavement, or a vegetated roof.

Impervious surface: A non-vegetated surface area that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions before development. A non-vegetated surface area that prevents the entry of water into the soil. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, or other surfaces, which similarly impede the natural infiltration of stormwater.

Land disturbing activity: Any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include (but are not limited to) compaction, clearing, grading, filling, and excavation. Vegetation maintenance practices, including landscaping and gardening, are not considered land disturbing activity.

For more information, please contact:

Laura Reed
Stormwater Program Manager
City of Mountlake Terrace
Email: lreed@mltwa.gov
Phone: 425-744-6226

For more information about any of the stormwater minimum requirements or other stormwater technical requirements, please consult the city's adopted stormwater management manual, Ecology's 2019 Stormwater Management Manual for Western Washington.

Figure I-3.1: Flow Chart for Determining Requirements for New Development

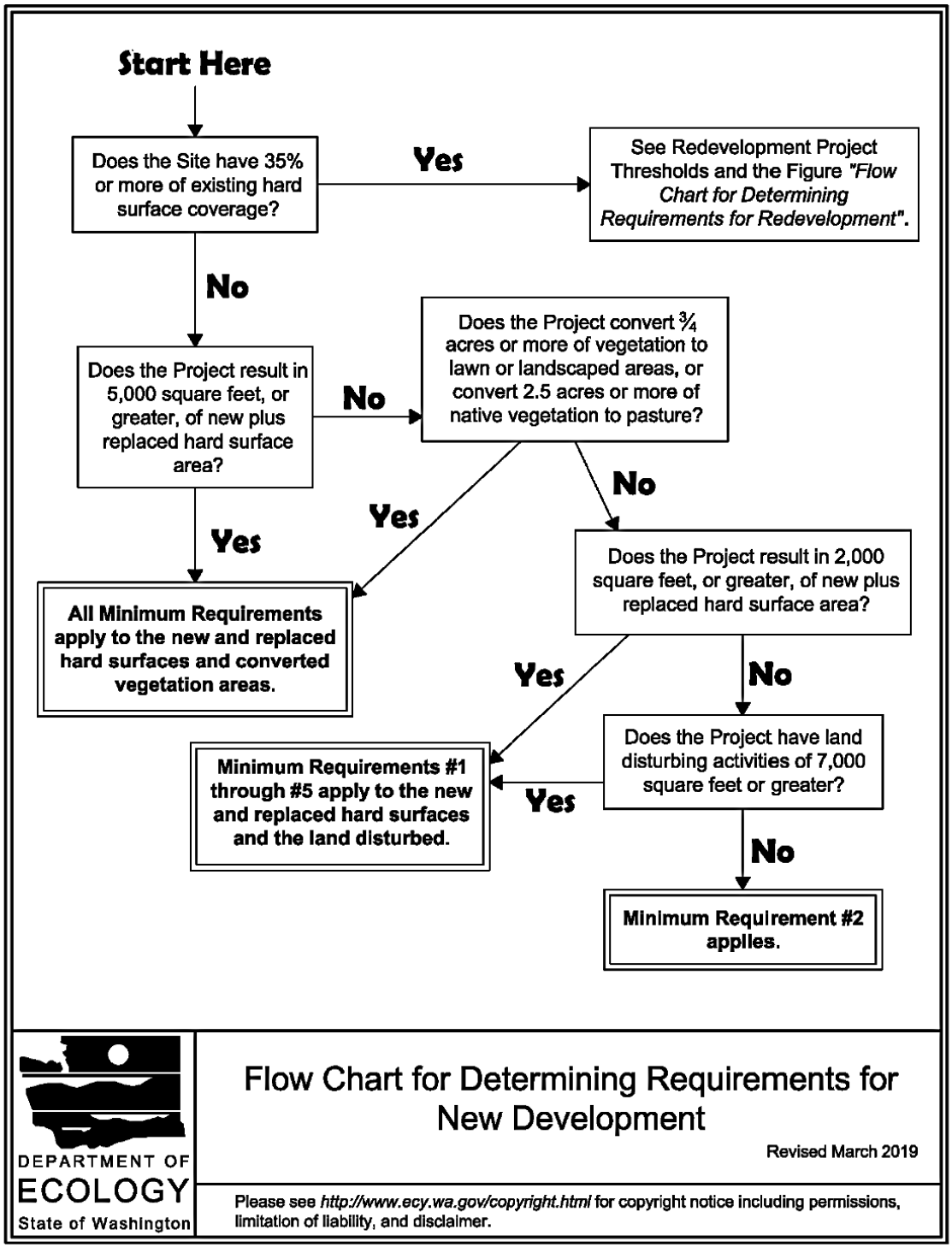
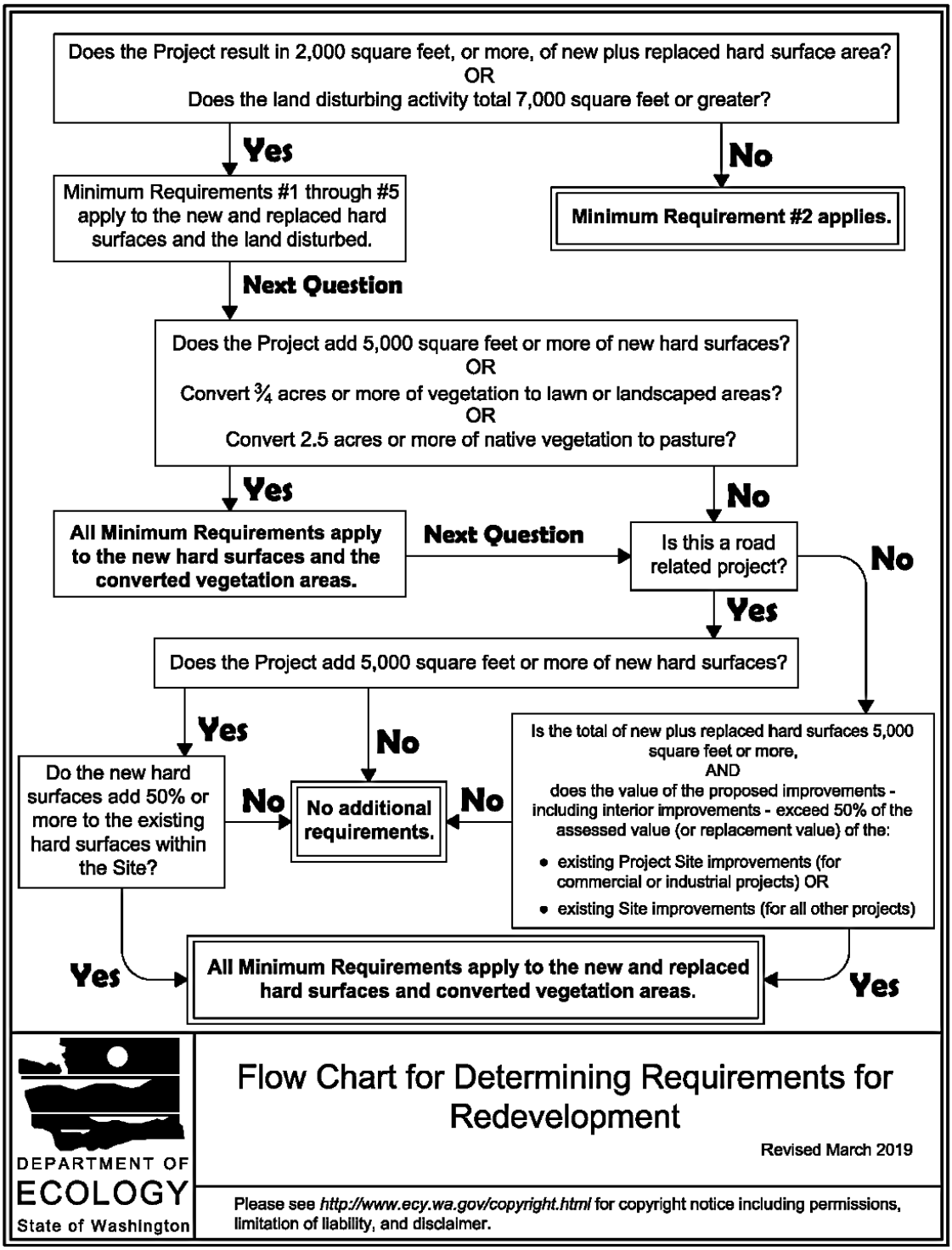


Figure I-3.2: Flow Chart for Determining Requirements for Redevelopment



2026

STANDARD PLANS

CITY OF MOUNTLAKE TERRACE

ENGINEERING SERVICES DIVISION

INTRODUCTION

Pursuant to Mountlake Terrace Municipal Code 15.05.240, The City of Mountlake Terrace ***Standard Plans*** (formerly known as “Details & Specifications”), shall be required of all construction, maintenance, or alterations within the City’s right-of-way or on private properties, as well as construction, maintenance and alteration of utilities. The City Engineer establishes the standard plans presented in this document in consideration of public health and safety, ongoing maintenance, and current engineering knowledge and practices.

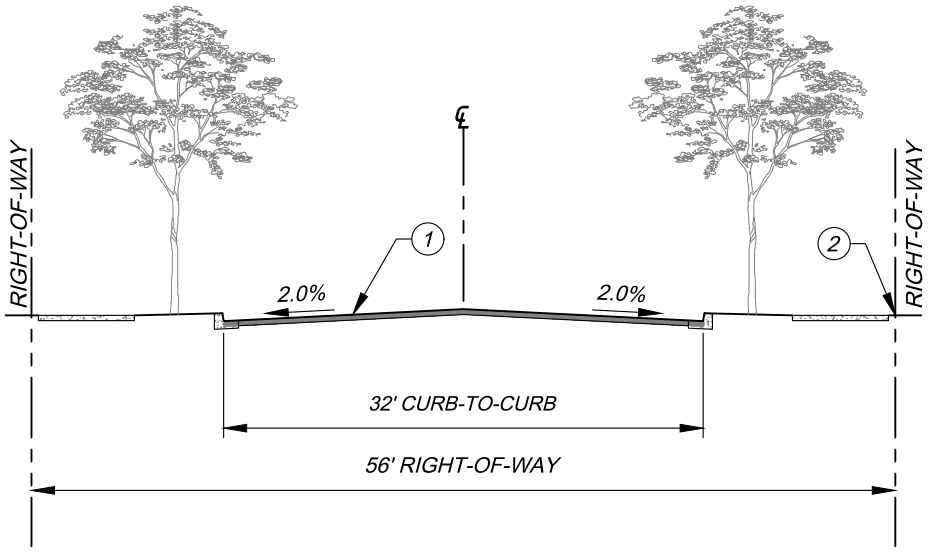
These ***Standard Plans*** were incorporated into the Mountlake Terrace Engineering Development Manual on June 20, 2024

Unless an exception from these standards has been approved by the City Engineer, the design, construction, and materials used shall conform to the City of Mountlake Terrace ***Standard Plans***, and all the publications adopted by reference under the Mountlake Terrace Municipal Code 19.95.010. This includes WSDOT and APWA Standard Specifications for Road and Bridge and Municipal Construction, Washington State Department of Ecology’s Storm Water Management Manual for Western Washington, Manual for Uniform Traffic Control Devices and others. Requirements vest at the time the city determines a permit application is complete or when a city-initiated project is advertised. All design and construction occurring after permit approval or advertisement may optionally follow the most current edition of this document when approved by the City Engineer, but may not revert to the earlier requirement following any such approval.

The City of Mountlake ***Standard Plans*** set forth minimum criteria for construction, maintenance and alterations, and are intended to assist but not substitute competent work by design professionals and contractors. Therefore, compliance with these requirements does not relieve the design professional or contractor of the responsibility to apply conservative and professional judgment.

SECTION 1

ROADWAY



GENERAL NOTES:

1. SEE OTHER PLANS FOR SIDEWALK, CURB, PAVEMENT, STREET TREES, AND OTHER DETAILS.
2. RIGHT-OF-WAY SHALL EXTEND A MINIMUM OF 6 INCHES (0.5 FEET) BEYOND THE BACK OF SIDEWALKS. WHERE ADDITIONAL RIGHT-OF-WAY IS PROVIDED THE EXTRA WIDTH SHALL BE IN MULTIPLES OF 2 FOOT INCREMENTS.
3. REFER TO MTMC 19.50.080 FOR TOWN CENTER STREET SECTIONS & FRONTAGE.

(#) DETAIL NOTES:

1. NO PAVEMENT MARKINGS EXCEPT AS DIRECTED BY THE ENGINEER.
2. RIGHT-OF-WAY SHALL EXTEND A MINIMUM OF 6 INCHES (0.5 FEET) BEYOND THE BACK OF SIDEWALKS. WHERE ADDITIONAL RIGHT-OF-WAY IS PROVIDED THE EXTRA WIDTH SHALL BE IN MULTIPLES OF 2 FOOT INCREMENTS.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

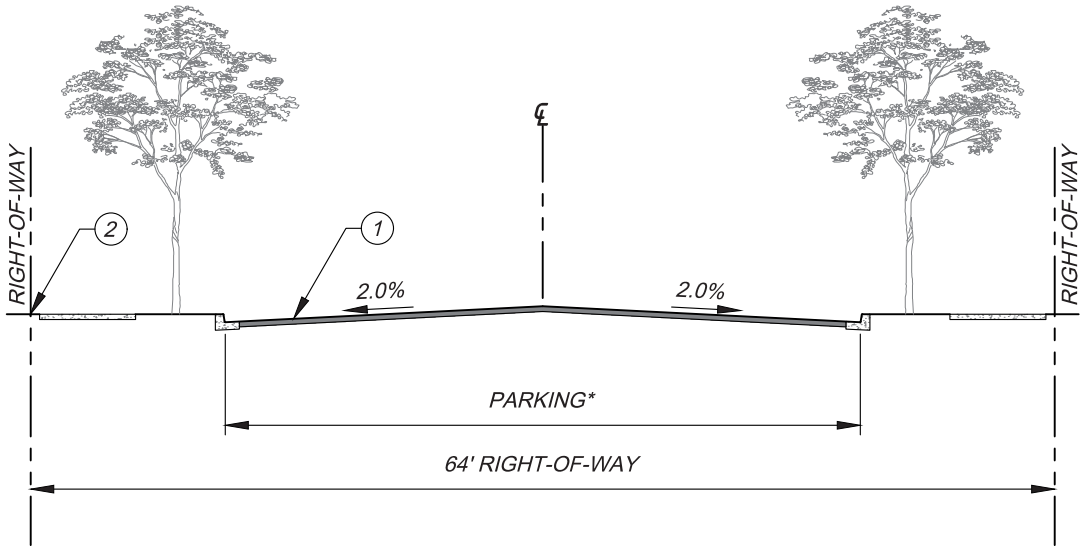
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

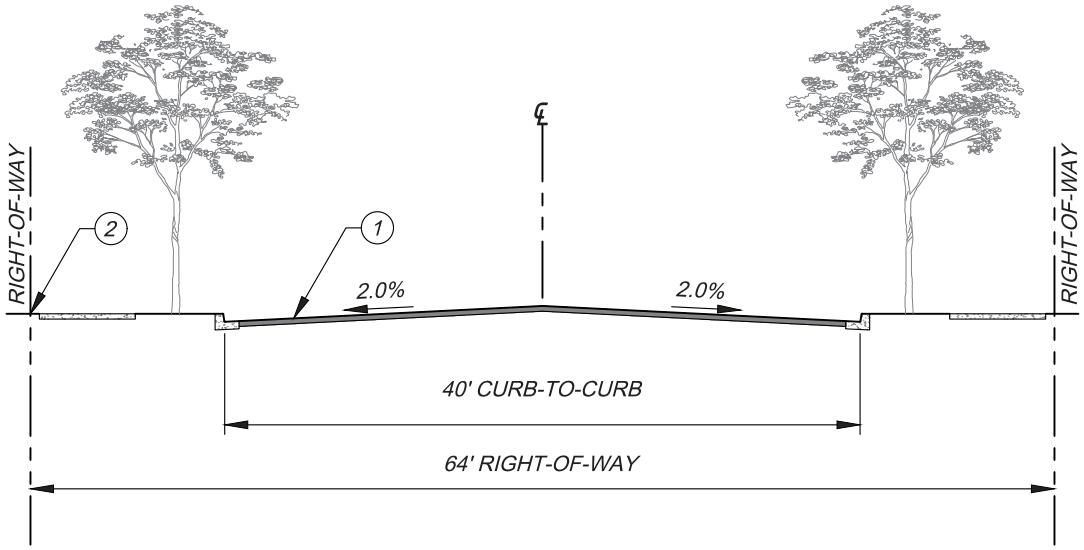
D&S DRAWING TITLE:
STREET SECTION & FRONTAGE
LOCAL ACCESS

SCALE: N.T.S.

D&S Drawing No.
111

EFFECTIVE DATE:
JANUARY 2026





GENERAL NOTES:

1. SEE OTHER PLANS FOR SIDEWALK, CURB, PAVEMENT, STREET TREES, AND OTHER DETAILS.
2. REFER TO MTMC 19.50.080 FOR TOWN CENTER STREET SECTIONS & FRONTAGE.

(#) DETAIL NOTES:

1. NO PAVEMENT MARKINGS EXCEPT AS DIRECTED BY THE ENGINEER.
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APPROVED BY
Richard Meredith, PE, RTOE

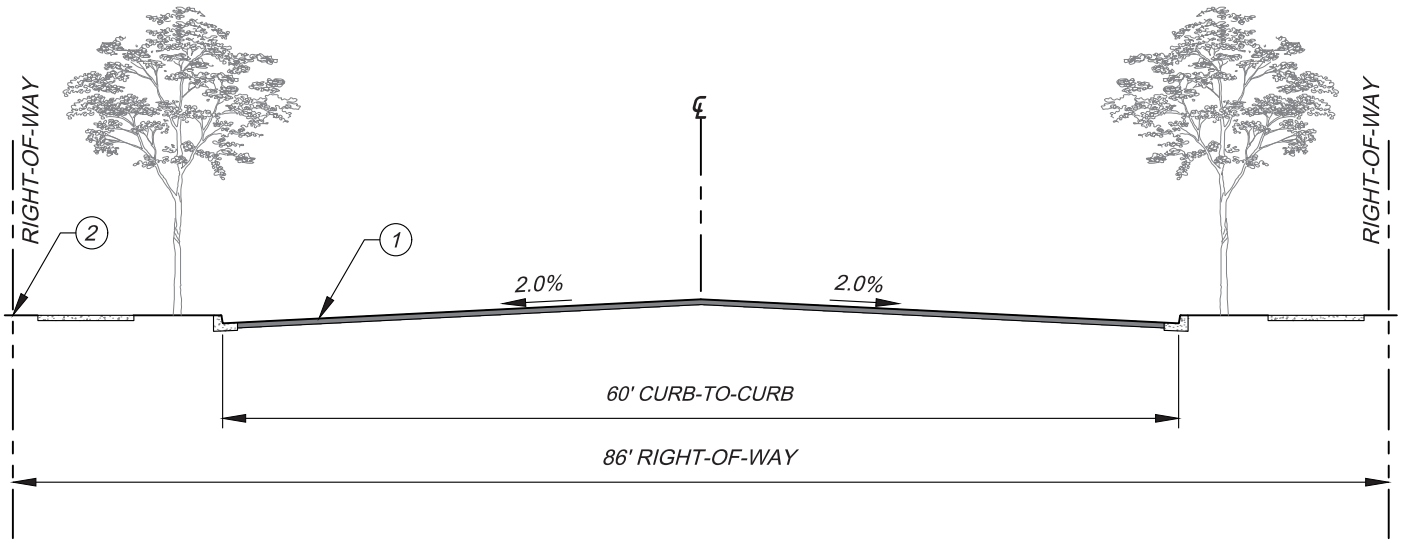
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STREET SECTION & FRONTAGE
MINOR ARTERIAL & COLLECTOR

SCALE: N.T.S.

D&S Drawing No.
112

EFFECTIVE DATE:
JUNE, 2024



GENERAL NOTES:

1. SEE OTHER PLANS FOR SIDEWALK, CURB, PAVEMENT, STREET TREES, AND OTHER DETAILS.
2. REFER TO MTMC 19.50.080 FOR TOWN CENTER STREET SECTIONS & FRONTAGE.

(#) DETAIL NOTES:

1. NO PAVEMENT MARKINGS EXCEPT AS DIRECTED BY THE ENGINEER.
2. RIGHT-OF-WAY SHALL EXTEND A MINIMUM OF 6 INCHES (0.5 FEET) BEYOND THE BACK OF SIDEWALKS. WHERE ADDITIONAL RIGHT-OF-WAY IS PROVIDED THE EXTRA WIDTH SHALL BE IN MULTIPLES OF 2 FOOT INCREMENTS.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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Richard Meredith, PE, RTOE

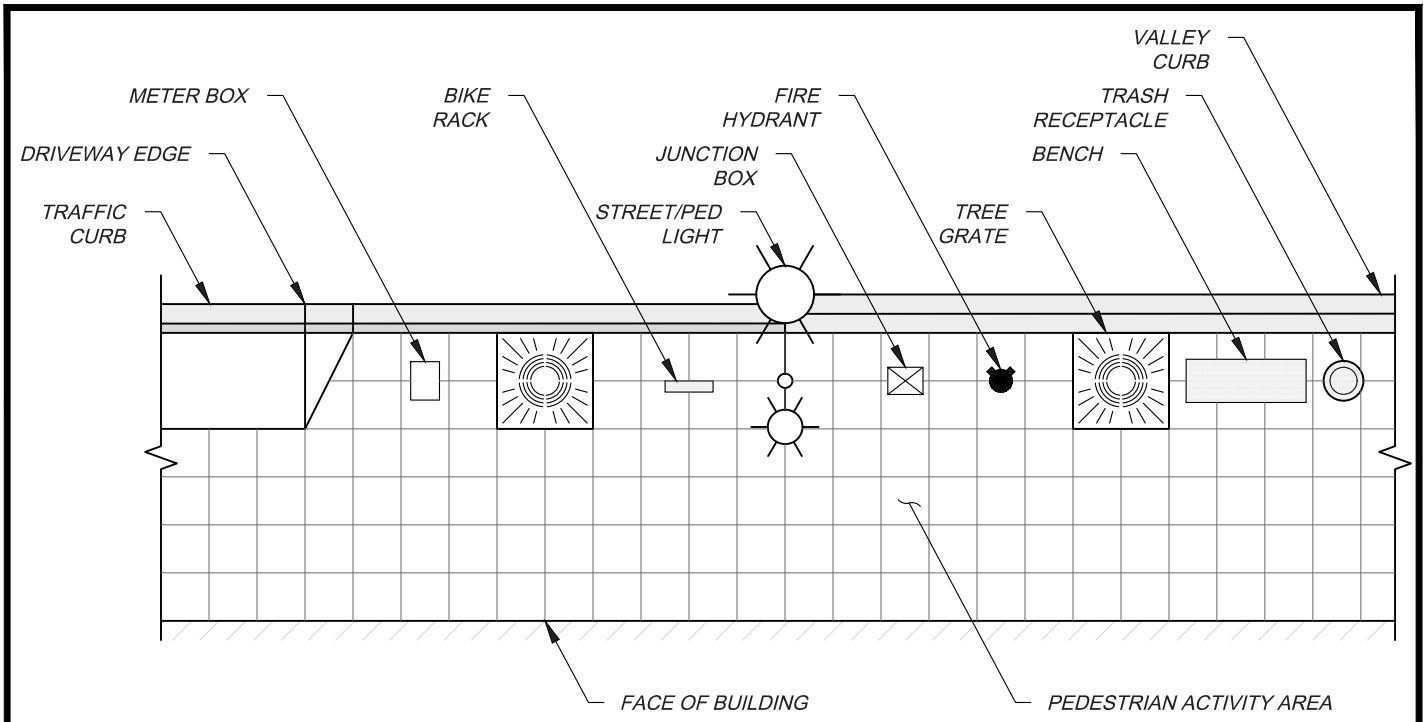
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STREET SECTION & FRONTAGE
PRINCIPAL ARTERIAL

SCALE: N.T.S.

D&S Drawing No.
114

EFFECTIVE DATE:
JUNE, 2024



STANDARD HORIZONTAL CLEARANCES

	BENCH EDGE	BIKE RACK EDGE	DRIVEWAY EDGE	FIRE HYDRANT CENTERLINE	LIGHT POLE CENTERLINE	TREE CENTERLINE	WASTE RECEPTICAL CENTERLINE
BENCH EDGE		5'	10'	5'	4'	3'	3'
BIKE RACK EDGE	5'		10'	5'	6'	6'	6'
DRIVEWAY EDGE	10'	10'		5'	7.5'	7.5'	10'
FIRE HYDRANT CENTERLINE	5'	5'	5'		5'	5'	5'
LIGHT POLE CENTERLINE	4'	6'	7.5'	5'	60'	15'	5'
TREE CENTERLINE	3'	6'	7.5'	5'	15'	30'	5'
WASTE RECEPTACLE CENTERLINE	3'	6'	10'	5'	5'	5'	

GENERAL NOTES:

1. *ALL FEATURES SHALL BE CENTERED WITHIN PLANTER/LANDSCAPE BETWEEN FACE OF CURB AND BUILDING OR BACK OF SIDEWALK, OR SHALL BE NO CLOSER THAN 2' BEHIND FACE OF CURB,*
2. *BIKE RACKS SHALL BE PLACED ON THE DOWNSTREAM TRAFFIC SIDE OF ALL INTERSECTION LEGS AND AT THE PRIMARY ENTRANCE TO ALL BUILDINGS.*
3. *WASTE RECEPTACLES SHALL BE PLACED ON BOTH SIDES OF THE MAJOR STREET (QTY=2) AT INTERSECTIONS AND DOWNSTREAM FROM ANY BIKE RACKS.*
4. *FIRE HYDRANTS SHALL BE LOCATED CONSISTENT WITH MTMC 13.55.*

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

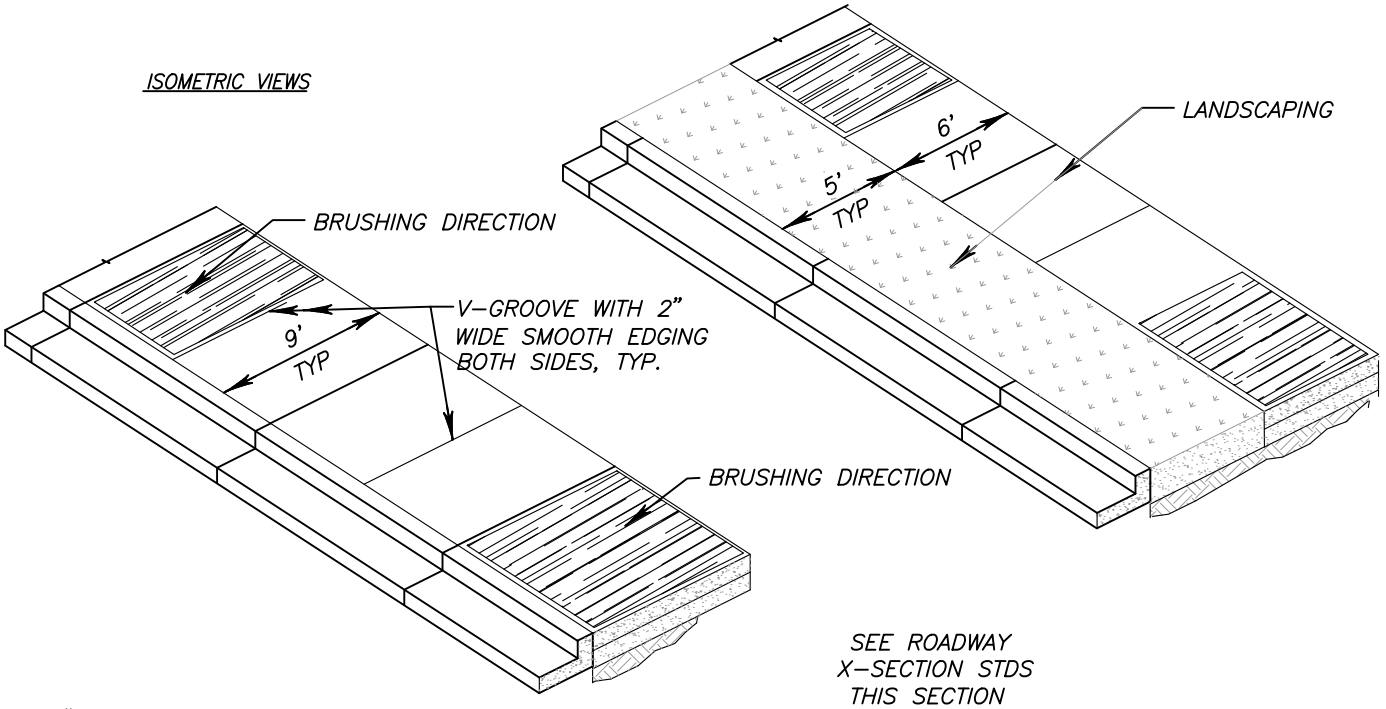
D&S DRAWING TITLE: ROADWAY FEATURE CLEARANCES

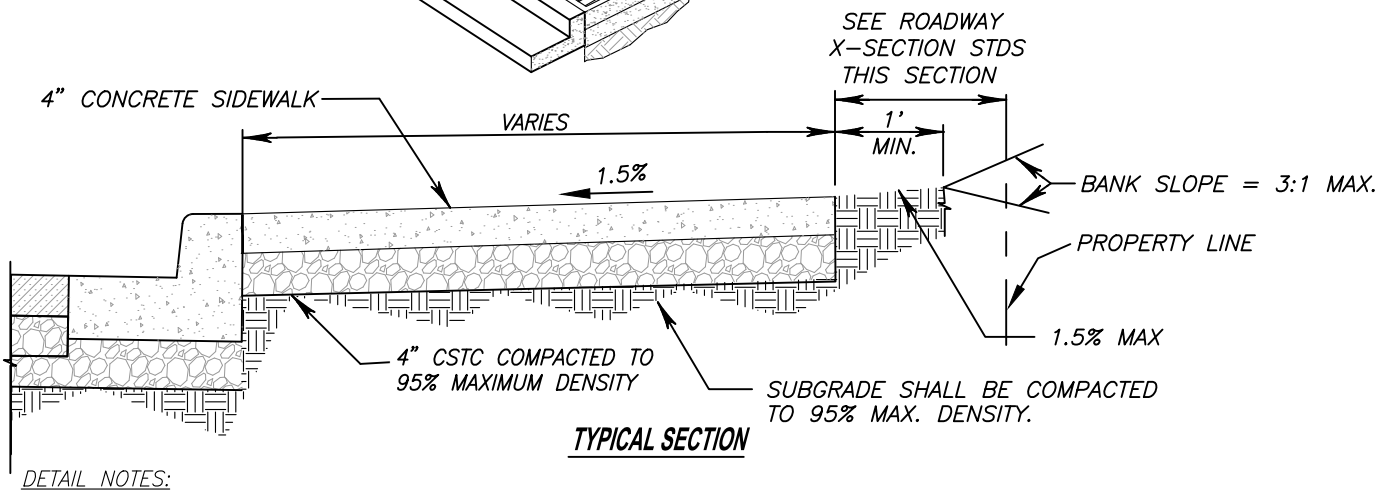
SCALE: N.T.S.

D&S Drawing No. 122

EFFECTIVE DATE: JUNE, 2024

ISOMETRIC VIEWS





TYPICAL SECTION

DETAIL NOTES:

1. SEE TYPICAL SECTION FOR EXACT DIMENSIONS. LANDSCAPING AREAS ARE TYPICALLY 5' WIDE OR AS SPECIFIED IN CITY CODE OR ZONING DESIGN STANDARDS.
2. SIDEWALKS SHALL BE CLASS 3000 CONCRETE WITH AIR ENTRAINMENT TO ACHIEVE A 4.5%–7.5% AIR CONTENT.
3. SIDEWALK JOINTS SHALL BE EDGED WITH A 1/4" RADIUS EDGER. SIDEWALK EDGES SHALL BE TOOLED WITH A 1/2" RADIUS EDGER.
4. ALL CONTRACTION JOINTS SHALL BE 3/8" WIDE, A MINIMUM DEPTH OF 2", AND 10' O.C. FROM EXPANSION JOINTS.
5. ALL "V" GROOVES SHALL BE PLACED 5' FROM EXPANSION JOINTS AND CONTRACTION JOINTS.
6. ALL EXPANSION JOINTS SHALL BE 3/8" WIDE, FULL DEPTH OF CONCRETE AND 30' O.C.
7. PREMOLDED JOINT FILLER FOR CONTRACTION AND EXPANSION JOINTS SHALL BE INSTALLED AND CONFORM TO AASHTO M213.
8. THE FINISHED SURFACE SHALL BE BRUSHED IN A TRANSVERSE DIRECTION ALONG FULL SIDEWALK SECTIONS, EXCEPT AT DRIVEWAYS AND ALLEY CROSSINGS, WHERE IT SHALL BE BRUSHED LONGITUDINALLY. EDGE THE OUTSIDE OF THE SIDEWALK AFTER BROOMING, SMOOTH 4" EDGE AROUND PANEL EDGES AND ON BOTH SIDES OF EXPANSION AND CONTRACTION JOINTS.
9. THE FINISHED SIDEWALK SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND AND COVERED BY WATERPROOF PAPER OR PLASTIC SHEETING IN THE EVENT OF RAIN OR OTHER INCLEMENT WEATHER. CURING TIME SHALL BE FOR A MINIMUM OF 72 HOURS.
10. SIDEWALK TRANSITIONS TO EXISTING FACILITIES BEYOND THE PROJECT SCOPE SHALL TAPER AT 2:1 MIN AND 4:1 MAX.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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Richard Meredith, PE, RTOE

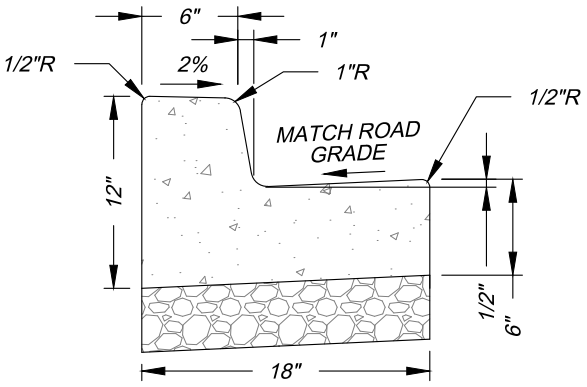
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: TYPICAL SIDEWALK DETAIL

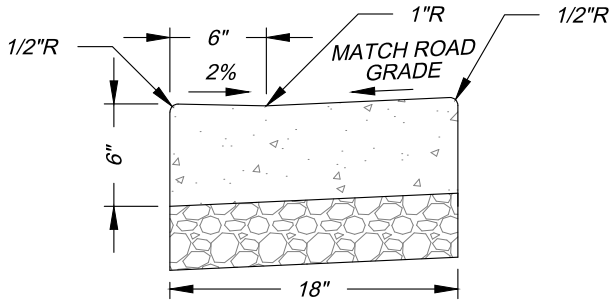
SCALE: N.T.S.

D&S Drawing No. 131

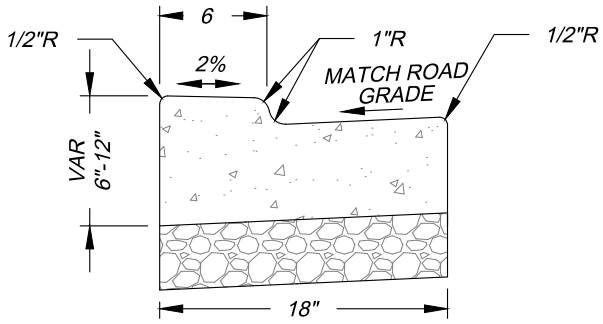
EFFECTIVE DATE: JANUARY 2026



TRAFFIC CURB & GUTTER



DEPRESSED CURB & GUTTER



DRIVEWAY CURB

GENERAL NOTES:

1. SEE MLT D&S NO. 134 FOR ADDITIONAL CURB DETAILS.
2. SEE WSDOT STD SPEC SECTIONS 8-04 AND 9-04 FOR MATERIAL REQUIREMENTS.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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Richard Meredith, PE, RTOE

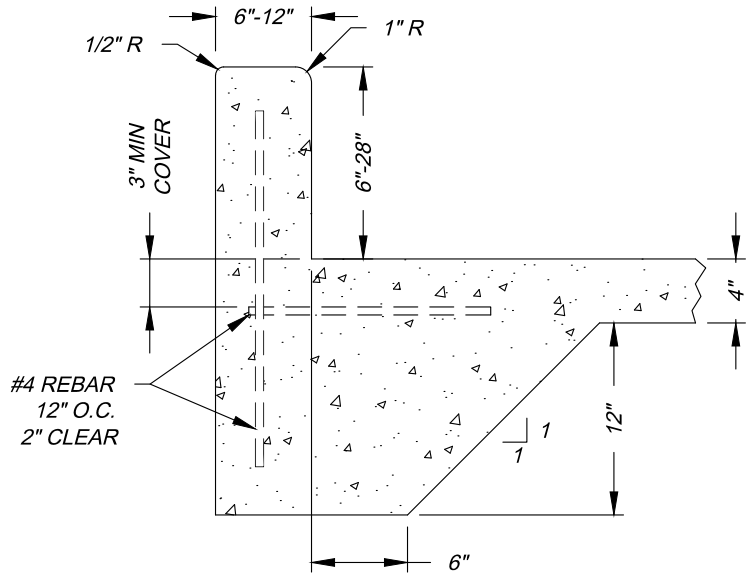
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
CEMENT CONCRETE TRAFFIC CURBS

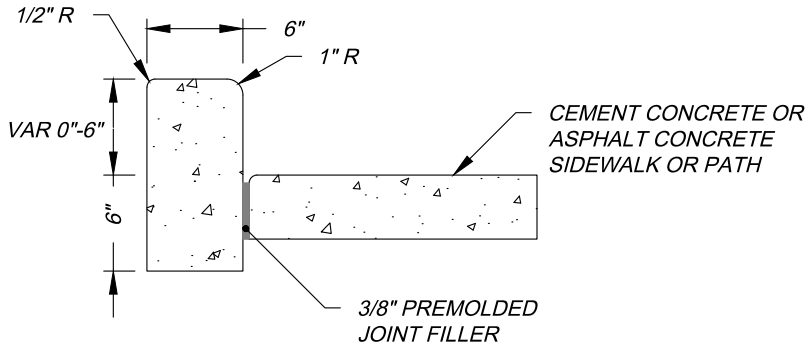
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D&S Drawing No.
133

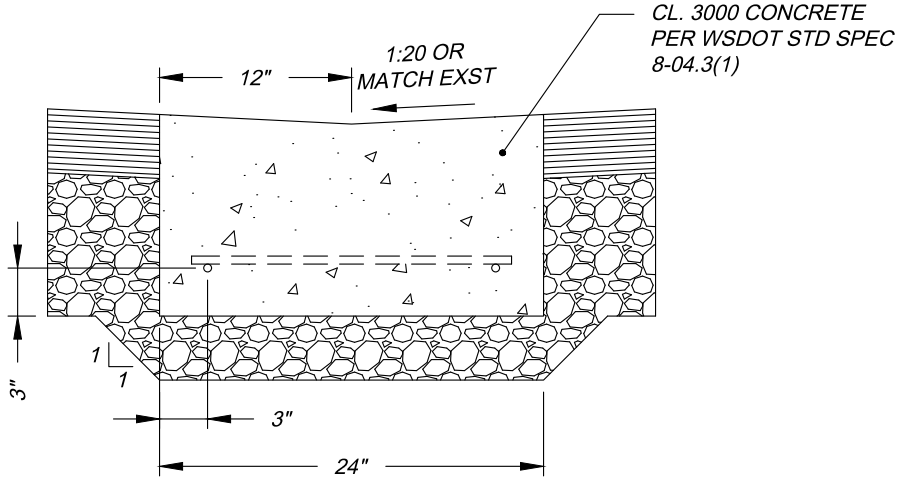
EFFECTIVE DATE:
JANUARY 2026



THICKENED EDGE WITH PEDESTRIAN CURB



CEMENT CONCRETE PEDESTRIAN CURB



CEMENT CONCRETE VALLEY GUTTER

GENERAL NOTES:

1. SEE MLT D&S NO. 133 FOR ADDITIONAL CURB DETAILS.
2. SEE WSDOT STD SPEC SECTIONS 8-04 AND 9-04 FOR MATERIAL REQUIREMENTS.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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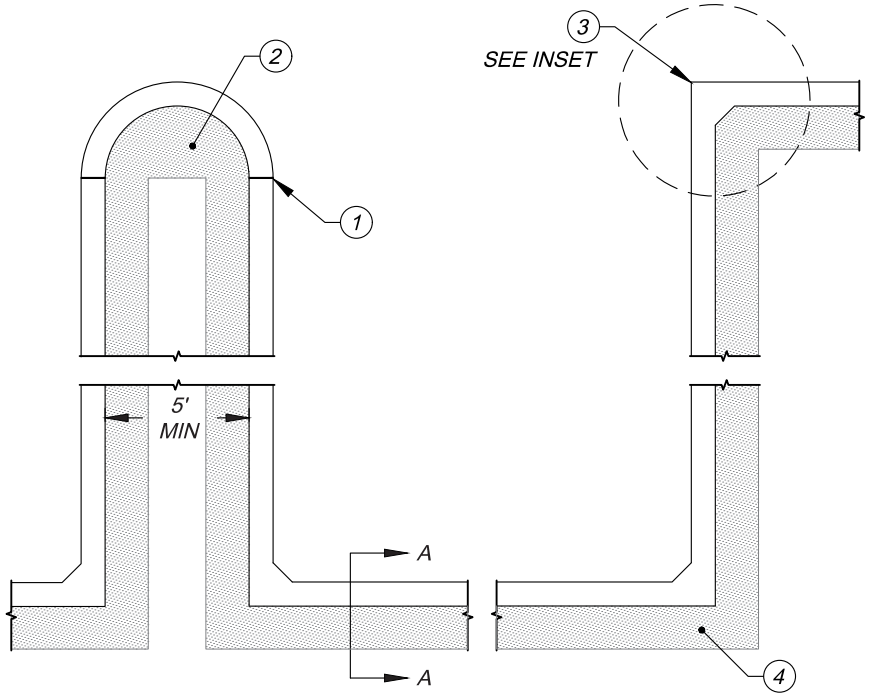
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

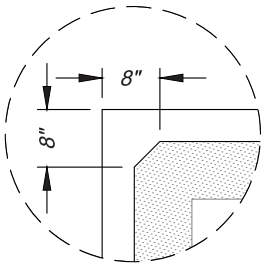
D&S DRAWING TITLE:
CEMENT CONCRETE PEDESTRIAN CURBS AND VALLEY GUTTER

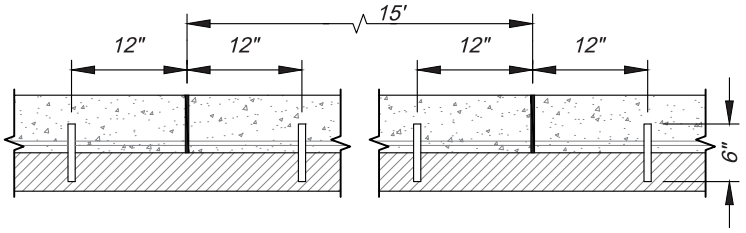
SCALE: N.T.S.

D&S Drawing No.
134

EFFECTIVE DATE:
JANUARY 2026

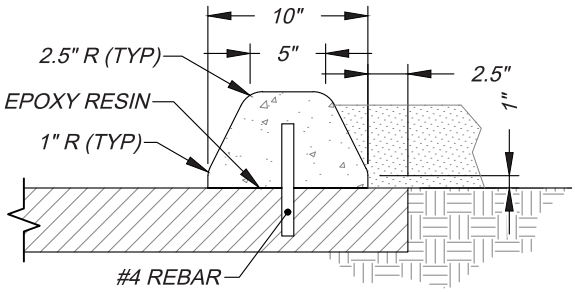






ANCHOR BAR SPACING DETAIL

NTS



SECTION A-A

NTS

GENERAL NOTES:

1. CONCRETE SHALL BE CLASS 3000 OR COMMERCIAL WITH AIR ENTRAINMENT.
2. 2" DRAIN HOLES SHALL BE INSTALLED WHERE NECESSARY FOR DRAINAGE. BACKFILL DRAINS WITH 3/4" WASHED ROCK.
3. FOR USE ON PRIVATE PROPERTY ONLY.
4. ALL PAVED AREAS SHALL BE GRADED TO DRAIN TO CATCHBASINS.
5. NO PAVED AREA SHALL ALLOW WATER TO POOL.

(#) DETAIL NOTES:

1. CONTROL JOINTS SHALL BE PLACED NOT EXCEEDING 15' ON CENTERS. THROUGH JOINTS SHALL BE PLACED ONLY AT PT OR PC ON STREET, ALLEY, AND DRIVEWAY RETURNS AND WHERE EXPANSION JOINTS OCCUR IN THE PAVEMENT SLAB.
2. CURB PLACED IN A RADIUS SHALL HAVE JOINTS AT THE PC AND PC
3. CORNER REINFORCEMENT REQUIRED ON ALL CORNERS SUBJECT TO WHEEL IMPACT.
4. CURB SHALL BE BACKSTOPPED WITH CONCRETE OR OTHER MATERIAL AS DIRECTED BY THE ENGINEER.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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Richard Meredith, PE, RTOE

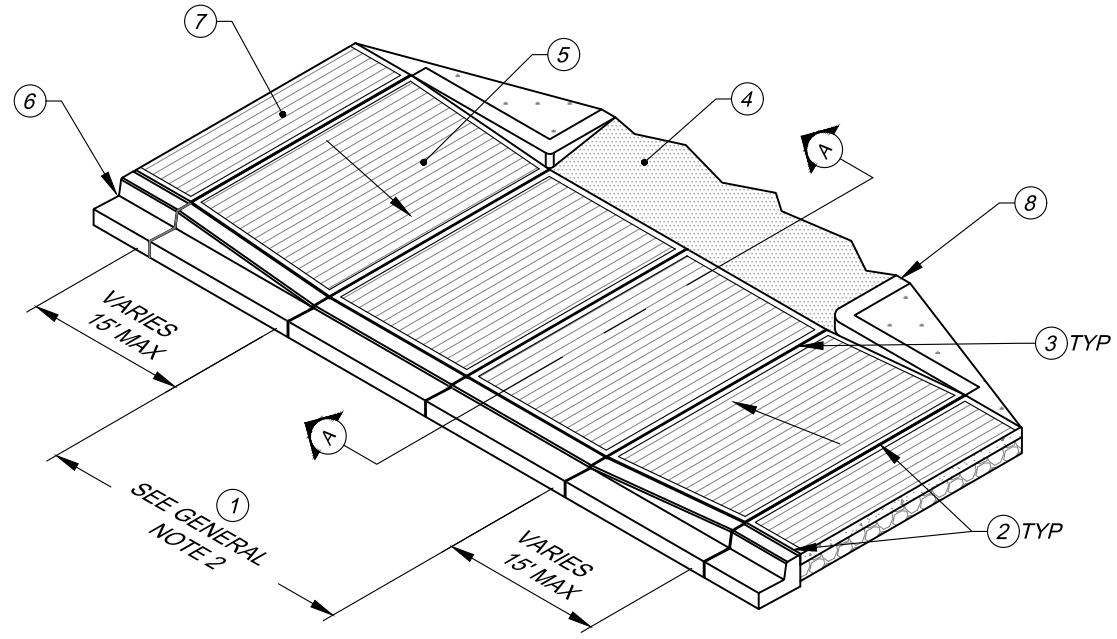
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

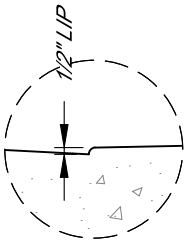
D&S DRAWING TITLE: CONCRETE EXTRUDED CURB

SCALE: N.T.S.

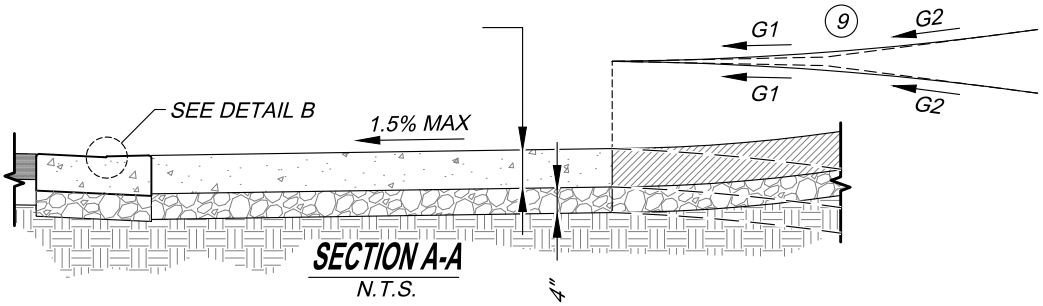
D&S Drawing No. 135

EFFECTIVE DATE: JUNE, 2024





DETAIL B
N.T.S.



SECTION A-A
N.T.S.

(#) DETAIL NOTES:

1. WIDTH OF DRIVEWAY AT PROPERTY LINE. MIN WIDTH=12', MAX WIDTH=30' (COMMERCIAL DRIVEWAYS).
2. 3/8" WIDE FULL DEPTH EXPANSION JOINT.
3. 3/8" WIDE CONTRACTION JOINT, 2" MIN DEPTH.
4. DRIVEWAY TO BE ASPHALT OR CONCRETE.
5. BROOM FINISH DIRECTION.
6. CEMENT CONC. CURB & GUTTER, MLT D&S NO. 133.
7. CEMENT CONC. SIDEWALK, MLT D&S NO. 131.
8. PED CURB PER MLT D&S NO. 134 WHERE SPECIFIED.
9. ALGEBRAIC DIFFERENCE ACROSS GRADE BREAK (G2-G1) SHALL BE 11% MAX.

GENERAL NOTES:

1. DRIVEWAY DEPTH SHALL BE A MIN. OF 6" (MIN. OF 10" FOR COMMERCIAL) FOR SIDEWALK SECTION, INCLUDING PEDESTRIAN RAMP.
2. DRIVEWAY SHALL BE CLASS 3000 CONCRETE WITH AIR ENTRAINMENT TO ACHIEVE A 4.5%-7.5% AIR CONTENT. 3-DAY MIX CONC. IS REQUIRED FOR ALL CITY PROJECTS.
3. SUBGRADE AND CRUSHED SURFACING TOP COURSE SHALL BE COMPACTED TO NOT LESS THAN 95% MAX DENSITY.
4. DRIVEWAY JOINTS SHALL BE EDGED WITH A 1/4" RADIUS EDGER. DRIVEWAY EDGES SHALL BE TOOLED WITH A 1/2" RADIUS EDGER.
5. DRIVEWAY AND ALLEY CROSSINGS SHALL BE BRUSHED PERPENDICULAR TO THE SIDEWALK. EDGE THE OUTSIDE OF SIDEWALK AFTER BROOMING, SMOOTH 4" EDGE AROUND PANEL EDGES AND ON BOTH SIDES OF EXPANSION & DUMMY JOINTS.
6. THE SIDEWALK BETWEEN TWO ADJACENT DRIVEWAYS SHALL BE NO LESS THAN 5' IN LENGTH.
7. THE FINISHED DRIVEWAY SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND COVERED BY WATERPROOF PAPER OR PLASTIC SHEETING IN THE EVENT OF RAIN OR OTHER INCLEMENT WEATHER. CURING TIME SHALL BE FOR A MINIMUM OF 72 HOURS.
8. PREMOLDED JOINT FILLER FOR CONTRACTION AND EXPANSION JOINTS SHALL BE INSTALLED AND CONFORM TO AASHTO M213.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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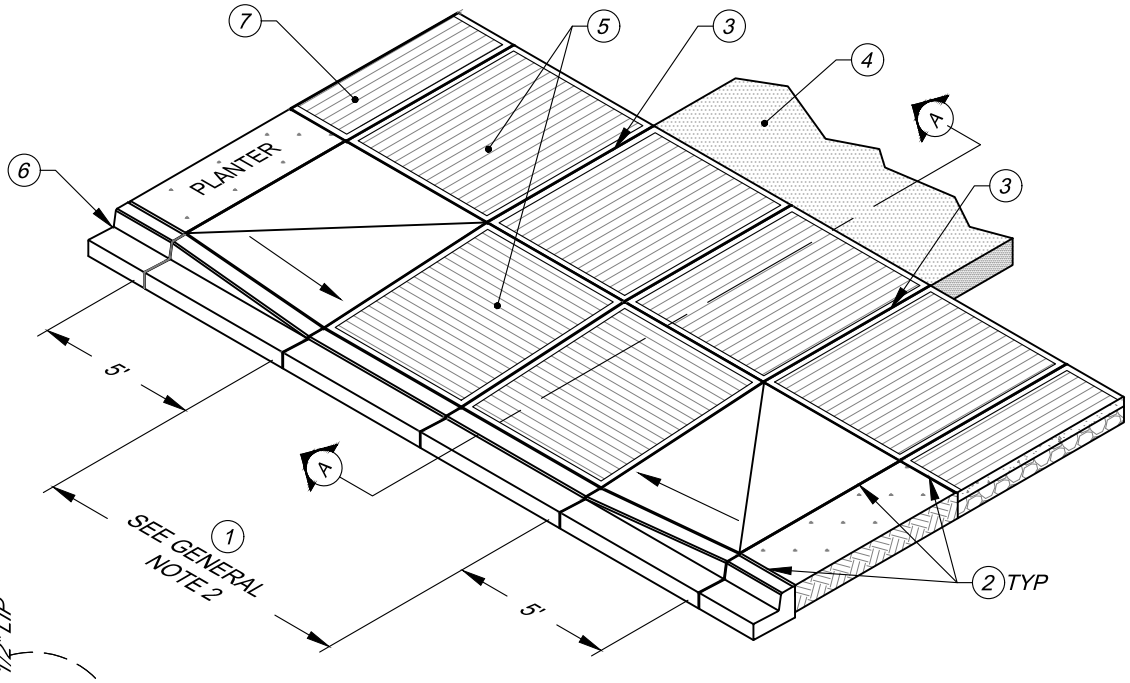
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

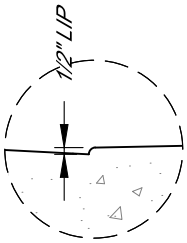
D&S DRAWING TITLE:
CEMENT CONCRETE DRIVEWAY ENTRANCE

SCALE: N.T.S.

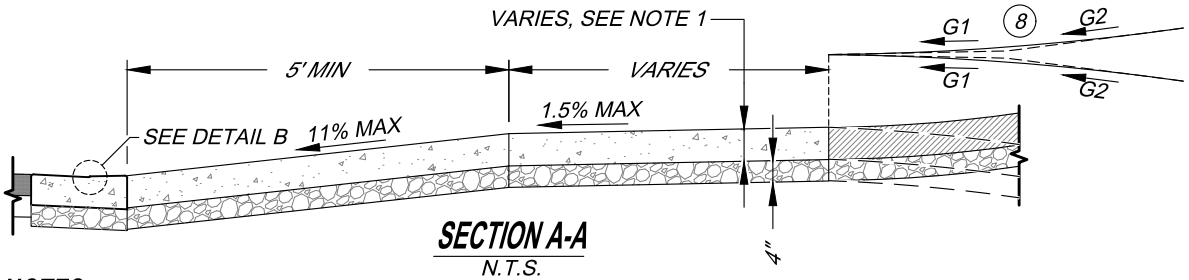
D&S Drawing No.
151

EFFECTIVE DATE:
JANUARY 2026





DETAIL B
N.T.S.



SECTION A-A
N.T.S.

(#) DETAIL NOTES:

1. WIDTH OF DRIVEWAY AT PROPERTY LINE. MIN WIDTH=12', MAX WIDTH=30' (COMMERCIAL DRIVEWAYS).
2. 3/8" WIDE FULL DEPTH EXPANSION JOINT.
3. 3/8" WIDE CONTRACTION JOINT, 2" MIN DEPTH.
4. DRIVEWAY TO BE ASPHALT OR CONCRETE.
5. BROOM FINISH DIRECTION.
6. CEMENT CONC. CURB & GUTTER, MLT D&S NO. 133.
7. CEMENT CONC. SIDEWALK, MLT D&S NO. 131.
8. ALGEBRAIC DIFFERENCE ACROSS GRADE BREAK (G2-G1) SHALL BE 11% MAX.

GENERAL NOTES:

1. DRIVEWAY DEPTH SHALL BE A MIN. OF 6" (MIN. OF 10" FOR COMMERCIAL) FOR SIDEWALK SECTION, INCLUDING PEDESTRIAN RAMP.
2. DRIVEWAY SHALL BE CLASS 3000 CONCRETE WITH AIR ENTRAINMENT TO ACHIEVE A 4.5%-7.5% AIR CONTENT. 3-DAY MIX CONC. IS REQUIRED FOR ALL CITY PROJECTS.
3. SUBGRADE AND CRUSHED SURFACING TOP COURSE SHALL BE COMPACTED TO NOT LESS THAN 95% MAX DENSITY.
4. DRIVEWAY JOINTS SHALL BE EDGED WITH A 1/4" RADIUS EDGER. DRIVEWAY EDGES SHALL BE TOOLED WITH A 1/2" RADIUS EDGER.
5. DRIVEWAY AND ALLEY CROSSINGS SHALL BE BRUSHED PERPENDICULAR TO THE SIDEWALK EXCEPT AS SHOWN. EDGE THE OUTSIDE OF SIDEWALK AFTER BROOMING, SMOOTH 4" EDGE AROUND PANEL EDGES AND ON BOTH SIDES OF EXPANSION & DUMMY JOINTS.
6. THE SIDEWALK BETWEEN TWO ADJACENT DRIVEWAYS SHALL BE NO LESS THAN 5' IN LENGTH.
7. THE FINISHED DRIVEWAY SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND COVERED BY WATERPROOF PAPER OR PLASTIC SHEETING IN THE EVENT OF RAIN OR OTHER INCLEMENT WEATHER. CURING TIME SHALL BE FOR A MINIMUM OF 72 HOURS.
8. PREMOLDED JOINT FILLER FOR CONTRACTION AND EXPANSION JOINTS SHALL BE INSTALLED AND CONFORM TO AASHTO M213.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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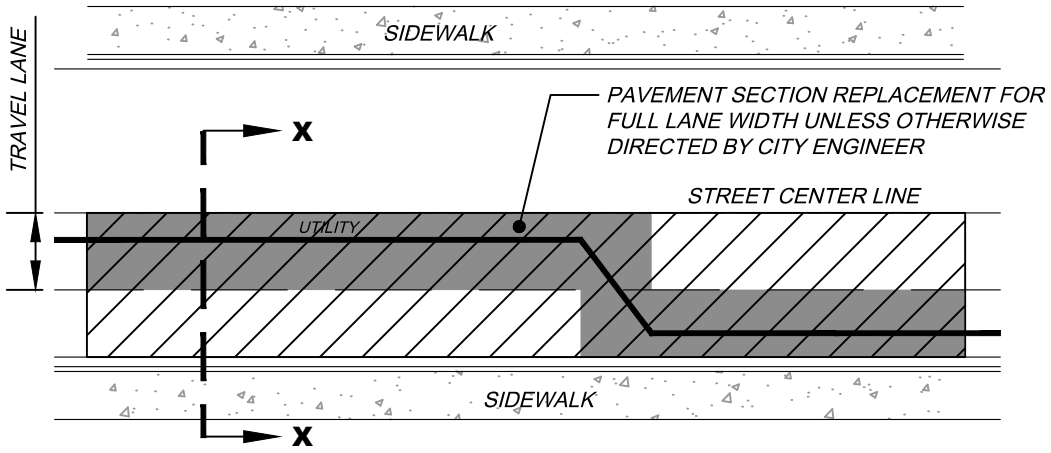
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
CEMENT CONCRETE DRIVEWAY ENTRANCE WITH PLANTER

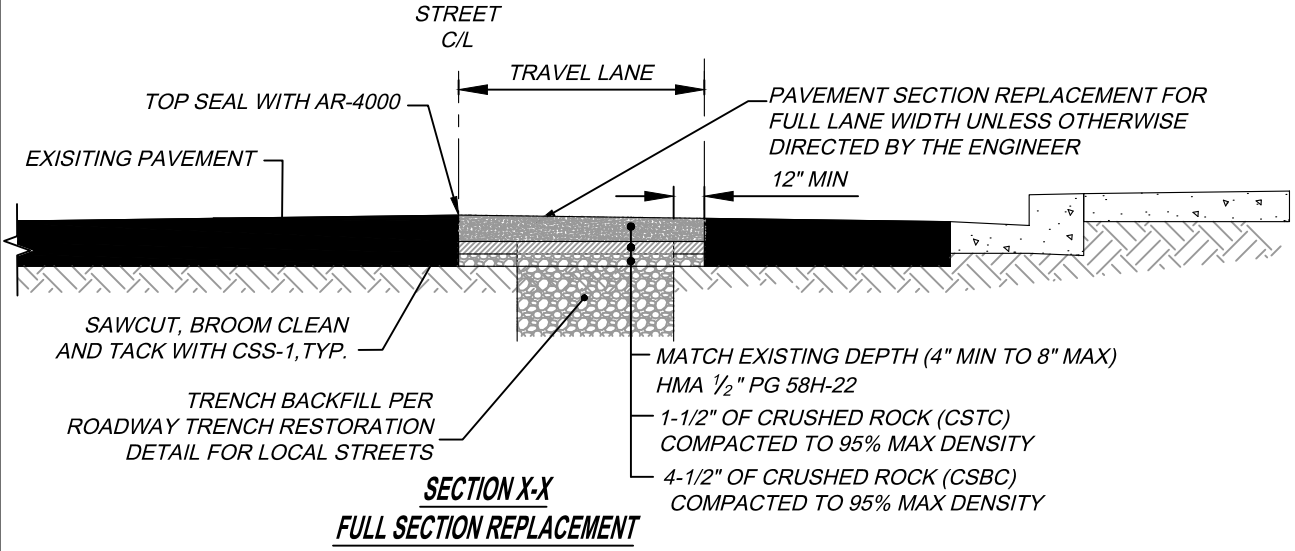
SCALE: N.T.S.

D&S Drawing No.
152

EFFECTIVE DATE:
JANUARY 2026



LONGITUDINAL TRENCH PLAN VIEW



SECTION X-X
FULL SECTION REPLACEMENT

GENERAL NOTES:

1. PAVEMENT REPAIR WIDTH SHALL EXTEND TO LANE EDGE FOR EACH LANE DISTURBED BUT SHALL BE OFFSET IF SAWCUT FALLS ON A MARKED LANE LINE.
2. CONSTRUCT WITH 12" MINIMUM CUTBACK FROM EDGE OF TRENCH.
3. CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 7 DAYS UNLESS APPROVED BY THE ENGINEER, AND SHALL BE THE THICKNESS OF THE ORIGINAL ASPHALT, OR FOUR (4) INCHES, WHICHEVER IS GREATER. A 2" THICK ATB TEMPORARY PATCH MAY BE USED IN LIEU OF A COLD MIX PATCH.
4. SEE MLT D&S NO. 133 (TRAFFIC CURB & GUTTER) FOR MINIMUM PAVEMENT RESTORATION WIDTH ADJACENT TO CURB.

EXCEPTIONS:

1. BEYOND THE 12" CUTBACK FROM EDGE OF TRENCH PAVEMENT RESTORATION MAY BE BY FULL PAVEMENT SECTION REPLACEMENT OR BY 2" GRIND AND OVERLAY.
2. PAVEMENT REMOVAL AND REPLACEMENT FOR ADJUSTING UTILITY CASINGS SHALL BE AS DIRECTED BY THE ENGINEER.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

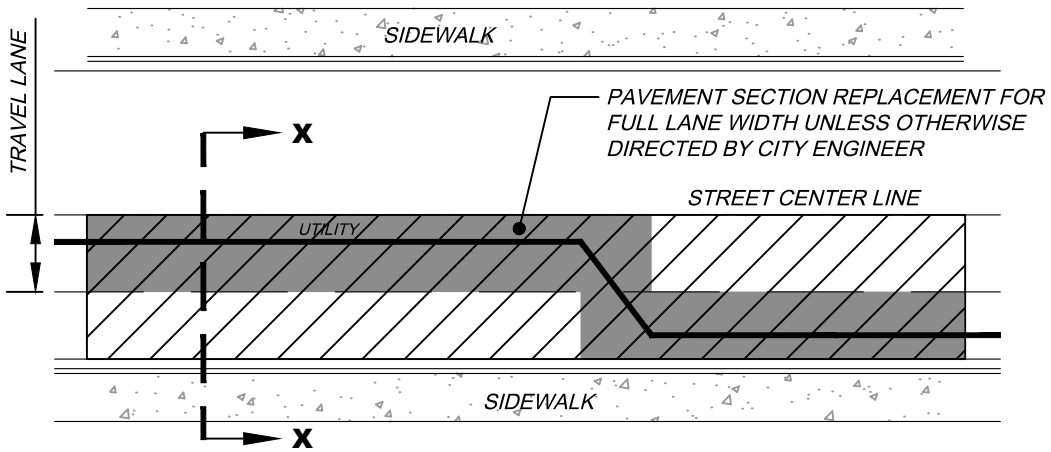
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PAVEMENT RESTORATION - ARTERIALS & COLLECTORS: LONGITUDINAL TRENCHES

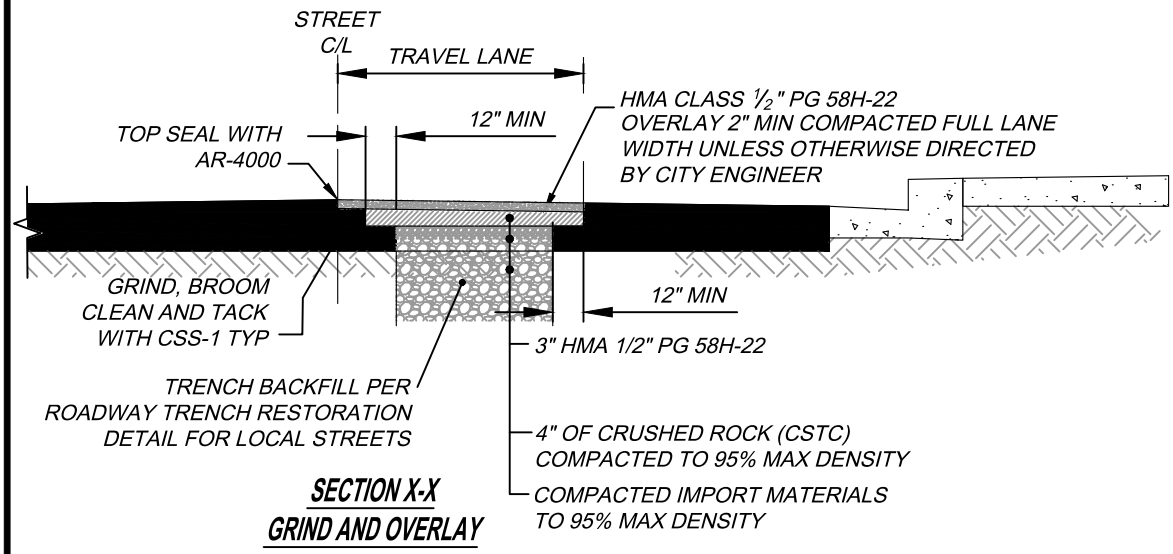
SCALE: N.T.S.

D&S Drawing No.
162-1

EFFECTIVE DATE:
JANUARY 2026



LONGITUDINAL TRENCH PLAN VIEW



SECTION X-X
GRIND AND OVERLAY

GENERAL NOTES:

1. PAVEMENT REPAIR WIDTH SHALL EXTEND TO LANE EDGE FOR EACH LANE DISTURBED BUT SHALL BE OFFSET IF SAWCUT FALLS ON A MARKED LANE LINE.
2. CONSTRUCT WITH 12" MINIMUM CUTBACK FROM EDGE OF TRENCH.
3. CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 7 DAYS UNLESS APPROVED BY THE ENGINEER, AND SHALL BE THE THICKNESS OF THE ORIGINAL ASPHALT, OR FOUR (4) INCHES, WHICHEVER IS GREATER. A 2" THICK ATB TEMPORARY PATCH MAY BE USED IN LIEU OF A COLD MIX PATCH.
4. SEE MLT D&S NO. 133 (TRAFFIC CURB & GUTTER) FOR MINIMUM PAVEMENT RESTORATION WIDTH ADJACENT TO CURB.

EXCEPTIONS:

1. BEYOND THE 12" CUTBACK FROM EDGE OF TRENCH PAVEMENT RESTORATION MAY BE BY FULL PAVEMENT SECTION REPLACEMENT OR BY 2" GRIND AND OVERLAY.
2. PAVEMENT REMOVAL AND REPLACEMENT FOR ADJUSTING UTILITY CASINGS SHALL BE AS DIRECTED BY THE ENGINEER.

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APPROVED BY
Richard Meredith, PE, RTOE

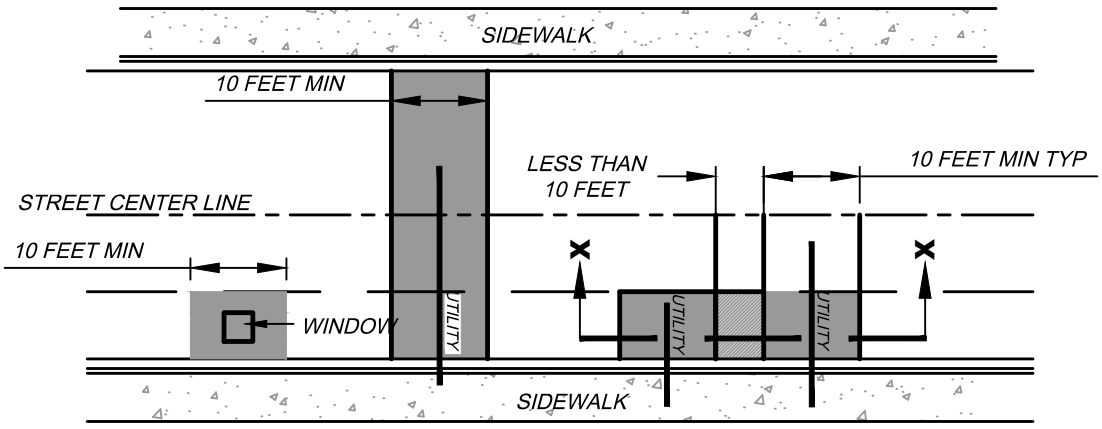
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PAVEMENT RESTORATION - ARTERIALS & COLLECTORS: LONGITUDINAL TRENCHES

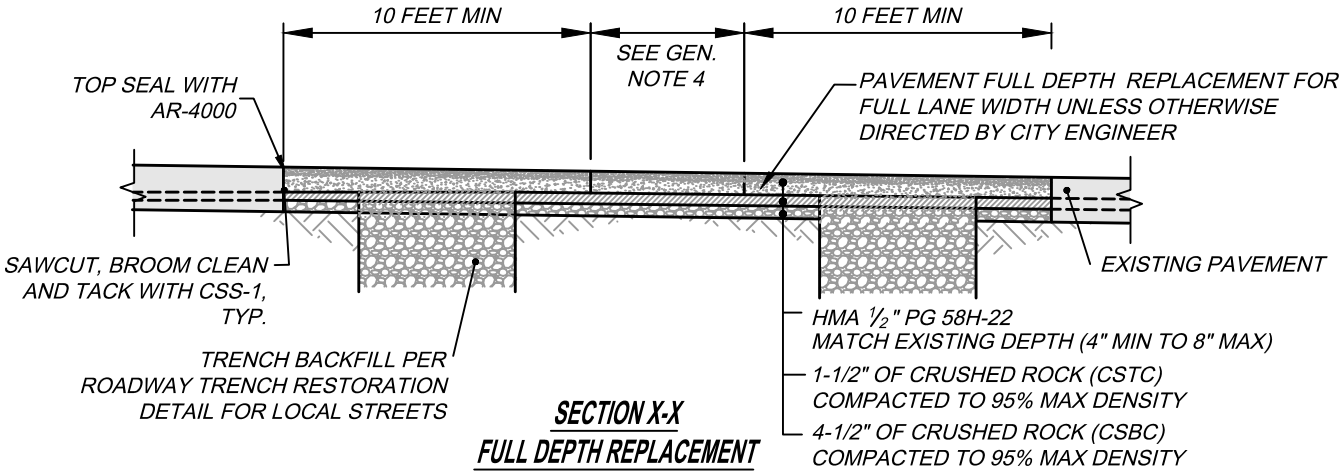
SCALE: N.T.S.

D&S Drawing No.
162-2

EFFECTIVE DATE:
JANUARY 2026



TRANSVERSE TRENCH PLAN VIEW



SECTION X-X
FULL DEPTH REPLACEMENT

GENERAL NOTES:

1. PAVEMENT PATCHES SHALL BE 10' WIDE MIN. CENTERED ON TRENCH AND SHALL EXTEND TO NEAREST LANE EDGE.
2. EDGE OF PATCH SHALL BE OFFSET IF SAWCUT FALLS ON MARKED LANE LINE.
3. PATCHES SHALL HAVE MIN. 12" CUTBACK FROM TRENCH EDGE
4. WHERE PAVEMENT BETWEEN ADJACENT PATCHES IS LESS THAN 10' WIDE THEN ALL PAVEMENT BETWEEN PATCHES SHALL BE REPLACED.
5. EXTEND PATCH TO EXISTING EDGE OF PAVEMENT OR EXISTING CRACK WHEN EITHER IS WITHIN 2 FEET AS DIRECTED BY ENGINEER.
6. CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 7 DAYS UNLESS APPROVED BY THE ENGINEER, AND SHALL BE THE THICKNESS OF THE ORIGINAL ASPHALT, OR FOUR (4) INCHES, WHICHEVER IS GREATER. A 2" THICK ATB TEMPORARY PATCH MAY BE USED IN LIEU OF A COLD MIX PATCH.
7. CONSTRUCT HALF STREET GRIND AND OVERLAY AS REQUIRED BY CITY ENGINEER.
8. SEE MLT D&S NO. 133 (TRAFFIC CURB & GUTTER) FOR MINIMUM PAVEMENT RESTORATION WIDTH ADJACENT TO CURB.

EXCEPTIONS

1. BEYOND THE 12" CUTBACK FROM EDGE OF TRENCH PAVEMENT RESTORATION MAY BE BY FULL PAVEMENT SECTION REPLACEMENT OR BY 2" GRIND AND OVERLAY.

2. PAVEMENT REMOVAL AND REPLACEMENT FOR ADJUSTING UTILITY CASINGS SHALL BE AS DIRECTED BY THE ENGINEER.

3. IF STREET IS SCHEDULED FOR PAVING WITHIN 4 YEARS THE PAVEMENT RESTORATION REQUIREMENTS FOR LOCAL STREETS MAY BE USED.

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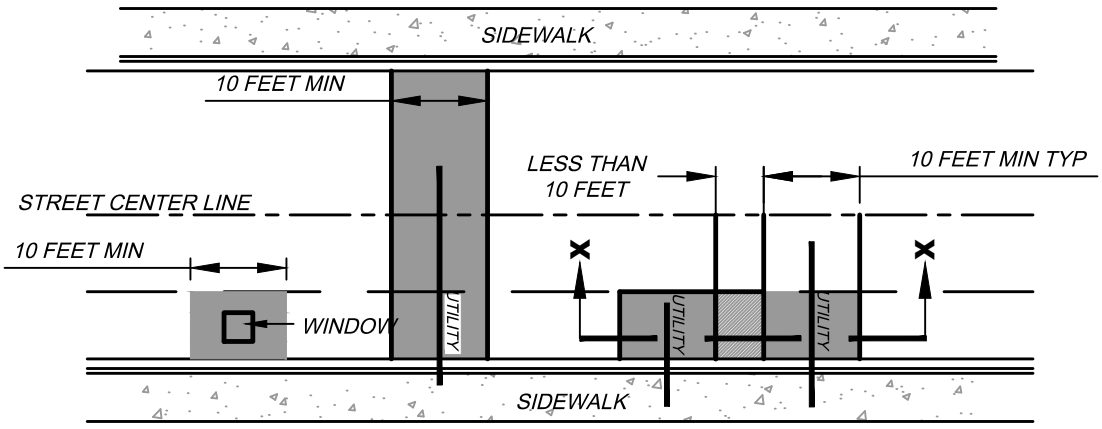
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PAVEMENT RESTORATION - ARTERIALS & COLLECTORS: TRANSVERSE TRENCHES
FULL DEPTH REPLACEMENT

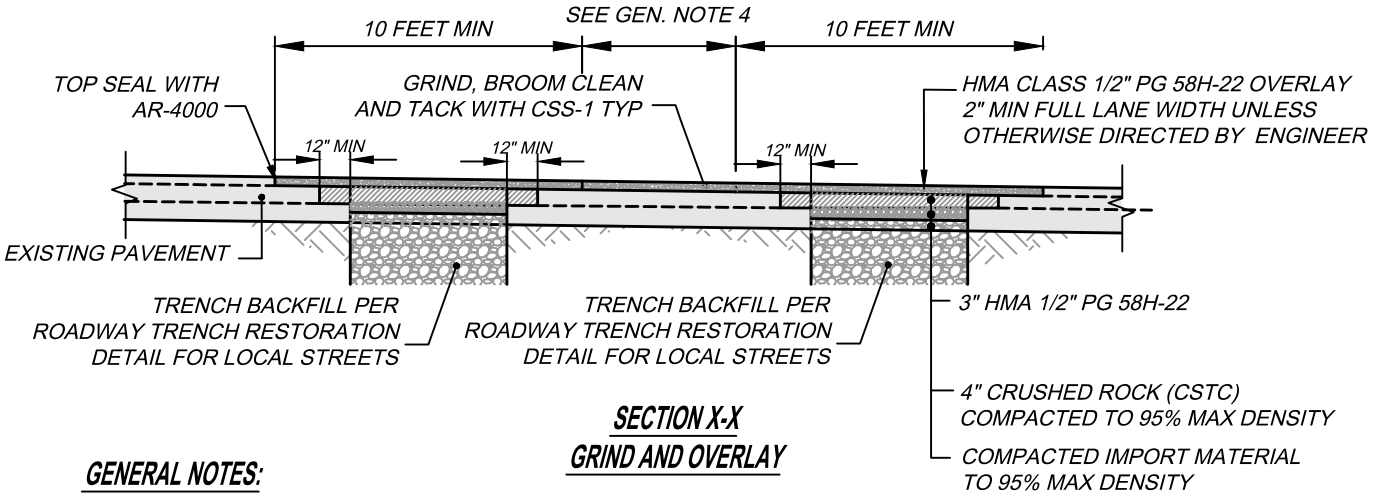
SCALE: N.T.S.

D&S Drawing No.
163-1

EFFECTIVE DATE:
JANUARY 2026



TRANSVERSE TRENCH PLAN VIEW



SECTION X-X
GRIND AND OVERLAY

GENERAL NOTES:

1. PAVEMENT PATCHES SHALL BE 10' WIDE MIN. CENTERED ON TRENCH AND SHALL EXTEND TO NEAREST LANE EDGE.
2. EDGE OF PATCH SHALL BE OFFSET IF SAWCUT FALLS ON MARKED LANE LINE.
3. PATCHES SHALL HAVE MIN. 12" CUTBACK FROM TRENCH EDGE
4. WHERE PAVEMENT BETWEEN ADJACENT PATCHES IS LESS THAN 10' WIDE THEN ALL PAVEMENT BETWEEN PATCHES SHALL BE REPLACED.
5. EXTEND PATCH TO EXISTING EDGE OF PAVEMENT OR EXISTING CRACK WHEN EITHER IS WITHIN 2 FEET AS DIRECTED BY ENGINEER.
6. CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW IN A CONTINUOUS LINE. A TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 7 DAYS UNLESS APPROVED BY THE ENGINEER, AND SHALL BE THE THICKNESS OF THE ORIGINAL ASPHALT, OR FOUR (4) INCHES, WHICHEVER IS GREATER. A 2" THICK ATB TEMPORARY PATCH MAY BE USED IN LIEU OF A COLD MIX PATCH.
7. CONSTRUCT HALF STREET GRIND AND OVERLAY AS REQUIRED BY CITY ENGINEER.
8. SEE MLT D&S NO. 133 (TRAFFIC CURB & GUTTER) FOR MINIMUM PAVEMENT RESTORATION WIDTH ADJACENT TO CURB.

EXCEPTIONS

1. BEYOND THE 12" CUTBACK FROM EDGE OF TRENCH PAVEMENT RESTORATION MAY BE BY FULL PAVEMENT SECTION REPLACEMENT OR BY 2" GRIND AND OVERLAY.

2. PAVEMENT REMOVAL AND REPLACEMENT FOR ADJUSTING UTILITY CASINGS SHALL BE AS DIRECTED BY THE ENGINEER.

3. IF STREET IS SCHEDULED FOR PAVING WITHIN 4 YEARS THE PAVEMENT RESTORATION REQUIREMENTS FOR LOCAL STREETS MAY BE USED.

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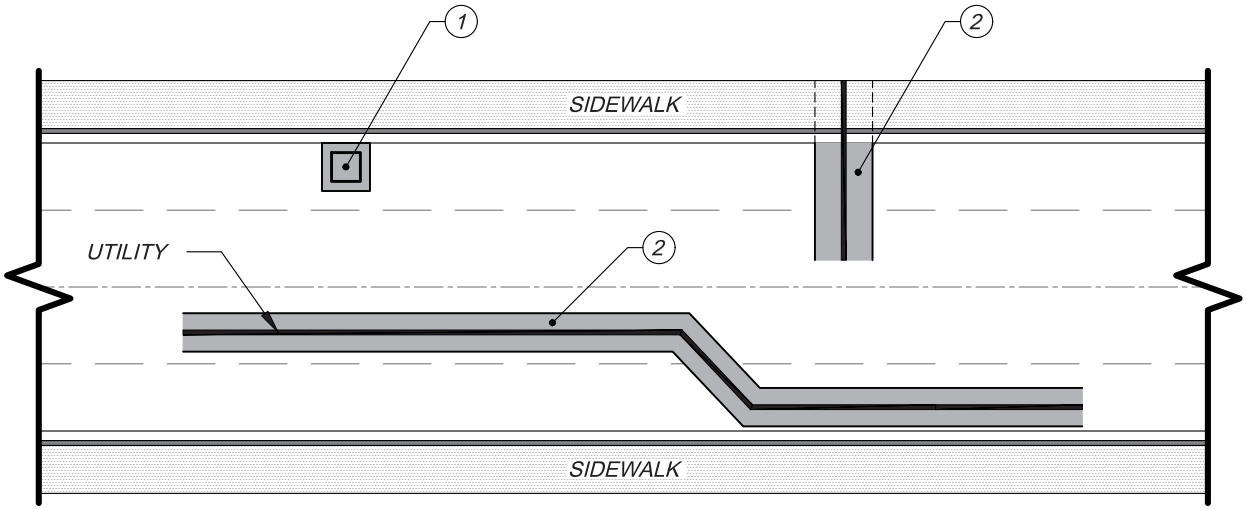
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PAVEMENT RESTORATION - ARTERIALS & COLLECTORS: TRANSVERSE TRENCHES
GRIND AND OVERLAY

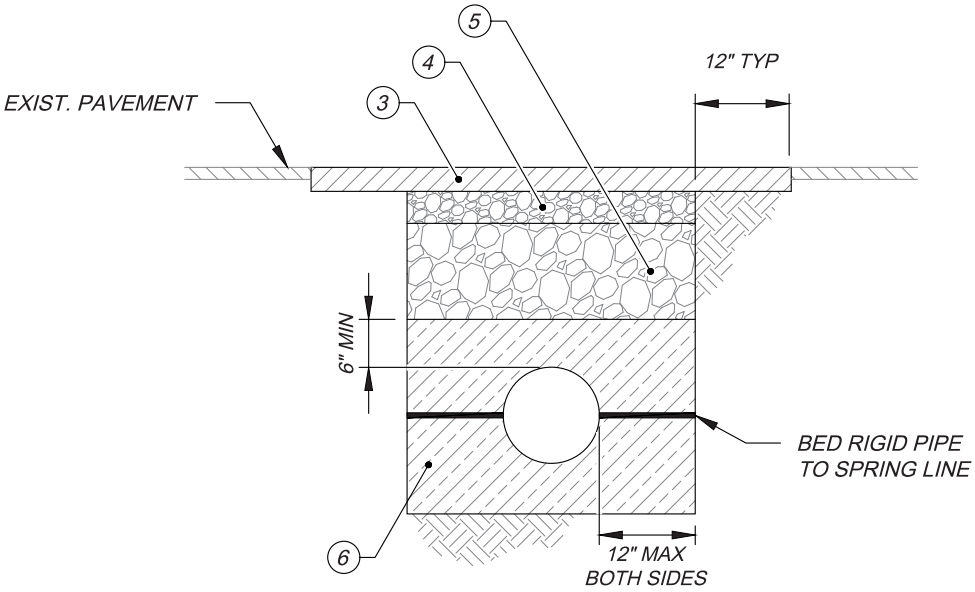
SCALE: N.T.S.

D&S Drawing No.
163-2

EFFECTIVE DATE:
JANUARY 2026



LONGITUDINAL AND TRANSVERSE TRENCH
PLAN VIEW
N.T.S.



TRENCH RESTORATION SECTION
N.T.S.

GENERAL NOTES:

1. WHERE MULTIPLE PAVEMENT CUTS ARE MADE AND IF THE REMAINING PAVEMENT WIDTH BETWEEN PATCHES IS LESS THAN 10' WIDE THE PAVEMENT BETWEEN PATCHES SHALL BE REPLACED..
2. EXTEND PATCH TO EXISTING EDGE OF PAVEMENT OR INSIDE EDGE OF LANE LINE WHERE EITHER ARE WITHIN 2' OF PATCH.
3. SAWCUTS SHALL BE NEAT LINE AND CONTINUOUS.
4. A TEMPORARY COLD MIX PATCH OR 2" THICK ATB PATCH SHALL BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 30 DAYS AND SHALL BE 4" THICK OR THE THICKNESS OF THE ORIGINAL ASPHALT, WHICHEVER IS THICKER BUT NOT TO EXCEED 8" THICK.
5. SEE MLT D&S NO. 133 FOR MINIMUM PAVEMENT RESTORATION WIDTH ADJACENT TO CURB.

(#) DETAIL NOTES:

1. WINDOW PATCH SIZE: WINDOW WIDTH + LENGTH PLUS 12" ALL AROUND.
2. TRENCH PATCH WIDTH:TRENCH WIDTH PLUS 12" EACH SIDE .
3. HMA CL. 1/2" PG 58H-22, DEPTH PER GENERAL NOTE 4 ABOVE.
4. 4" CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAX DENSITY.
5. BACKFILL TRENCH WITH 1-1/2" MINUS IMPORTED MATERIALS COMPACTED TO 95% MAX DENSITY.
6. PIPE BEDDING PER MLT D&S NO. 615.

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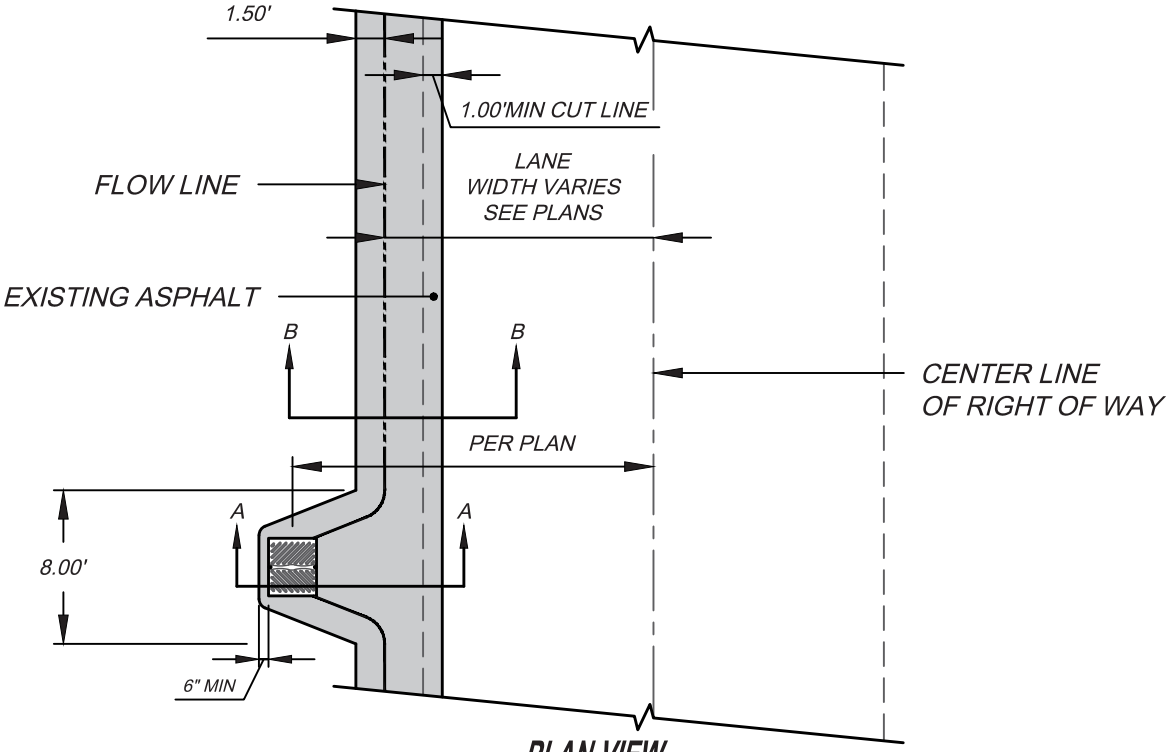
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PAVEMENT RESTORATION - LOCAL STREETS
TRENCH RESTORATION DETAIL

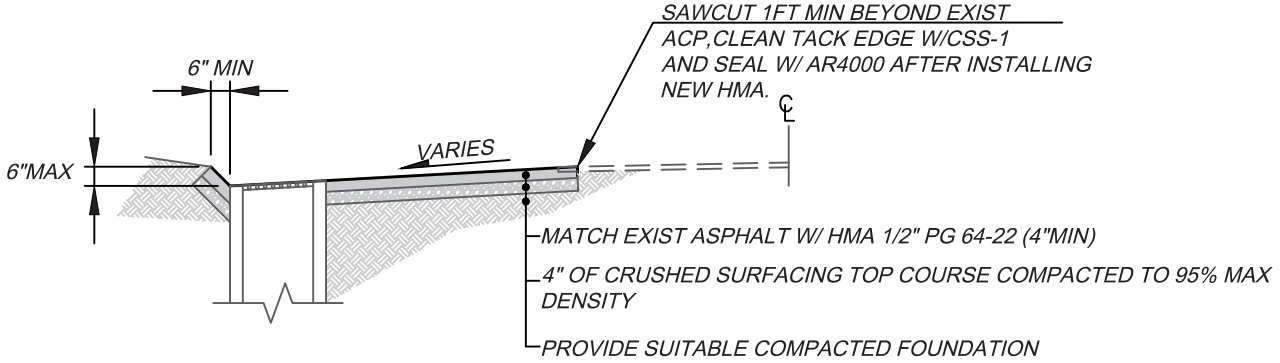
SCALE: N.T.S.

D&S Drawing No.
164

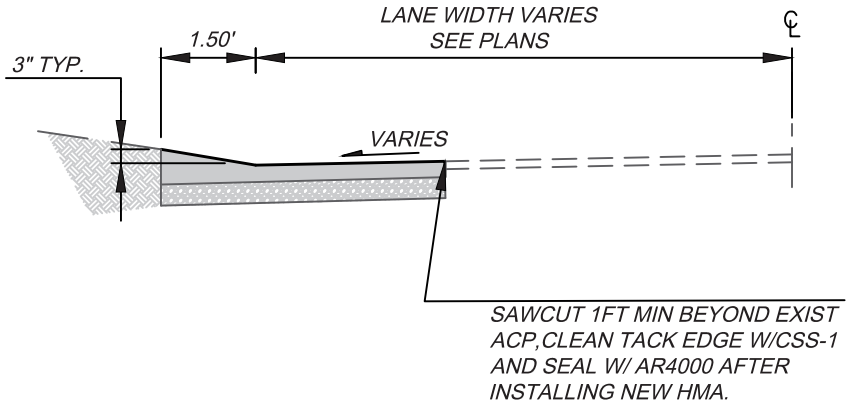
EFFECTIVE DATE:
JUNE, 2024



PLAN VIEW



SECTION A-A



SECTION B-B

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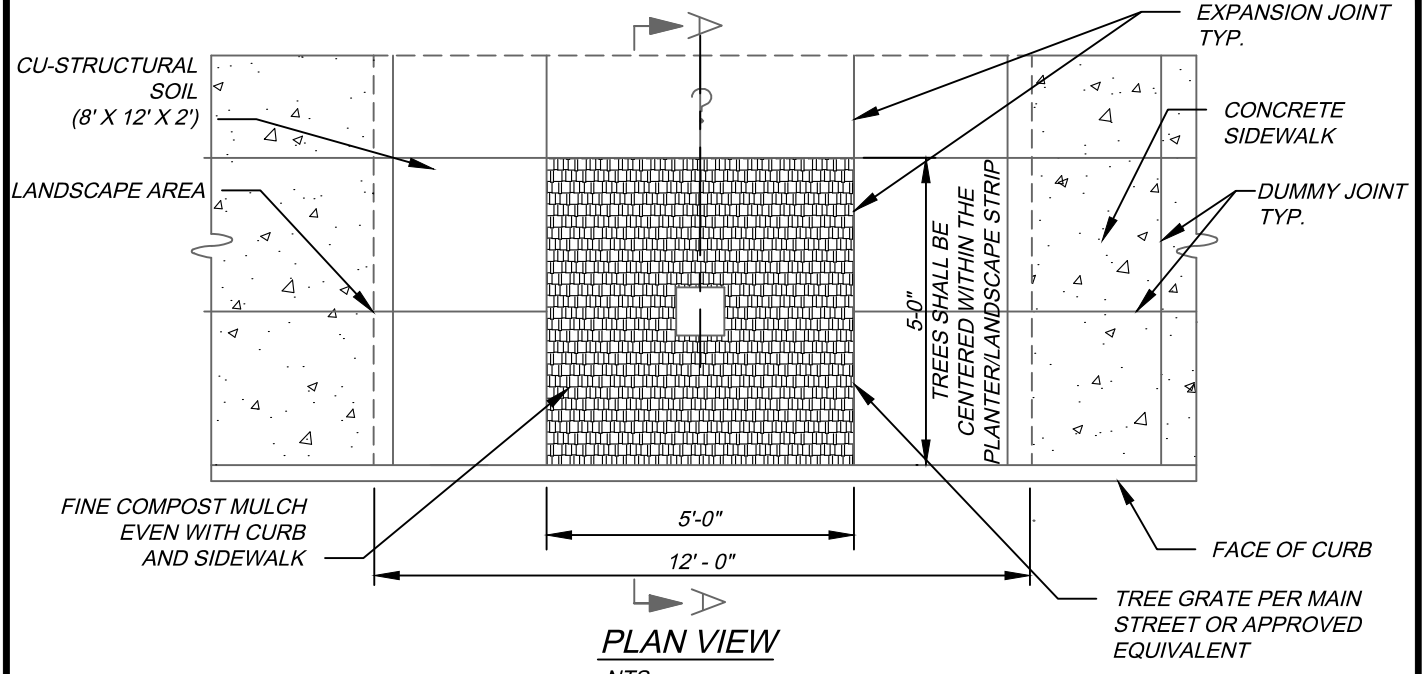
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: THICKENED EDGE DETAIL

SCALE: N.T.S.

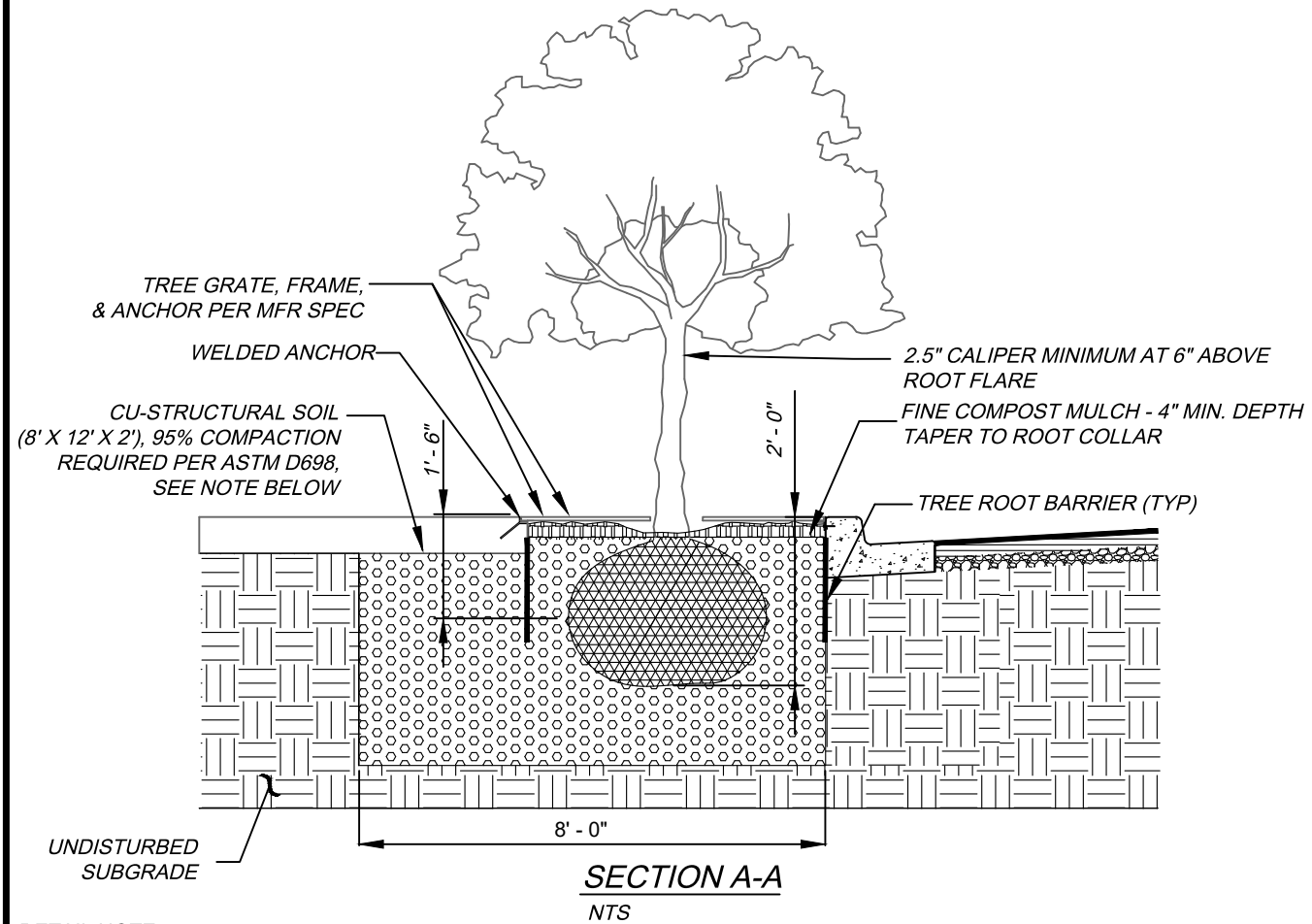
D&S Drawing No. 165

EFFECTIVE DATE: JUNE, 2024



PLAN VIEW

NTS



SECTION A-A

NTS

DETAIL NOTE:

1. TREES MUST BE PLANTED SUCH THAT THE ANTICIPATED DRIP LINE AT MATURITY IS AT LEAST 20 FEET FROM STREET LIGHTS OR OTHER EXISTING TREES, 30 FEET FROM MOST STREET INTERSECTIONS (CURB TANGENT POINT), AND 50 FEET FROM CONTROLLED STREET INTERSECTIONS (STOP & SIGNALS).

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CITY OF MOUNTLAKE TERRACE

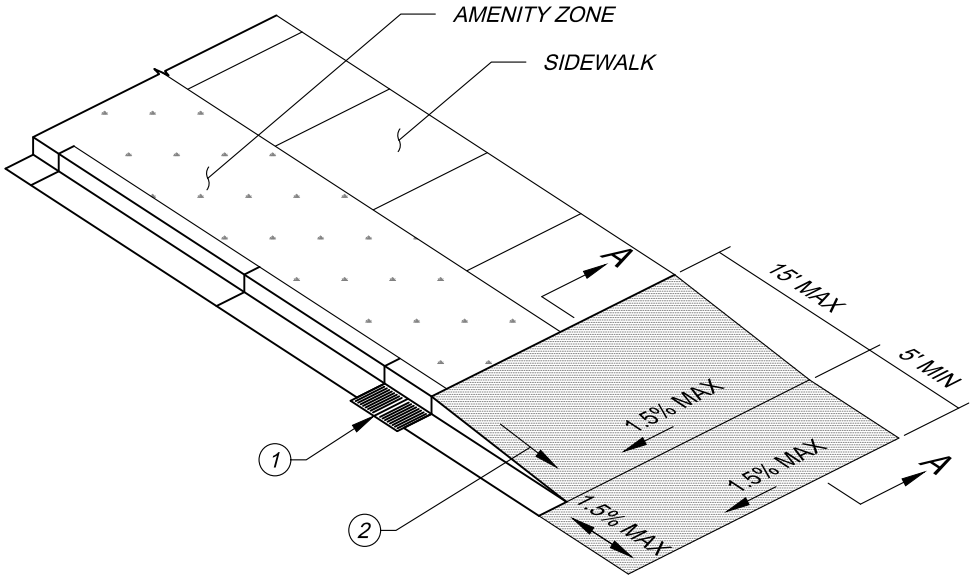
ENGINEERING SERVICES DEPARTMENT

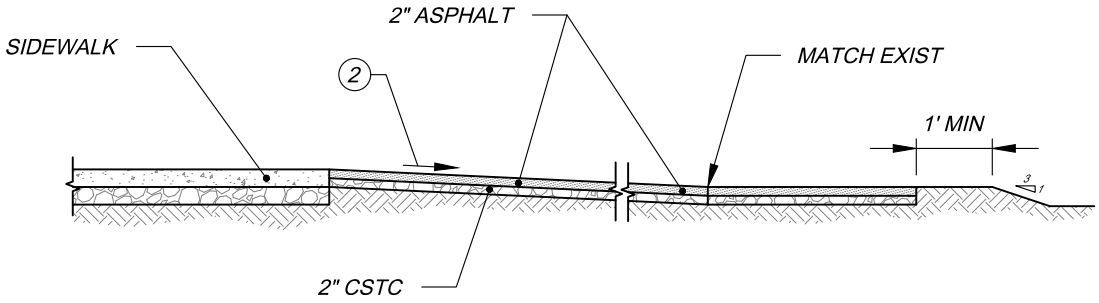
D&S DRAWING TITLE: STREET TREES

SCALE: N.T.S.

D&S Drawing No. 180

EFFECTIVE DATE: JANUARY 2026





SECTION A-A

GENERAL NOTES:

1. SIDEWALK SHALL BE PER MLT D&S NO. 131
2. RAMP, CURB TAPER, AND LANDING SHALL BE 2" ASPHALT OVER 2" CSTC.
3. FOR TRANSITIONS ADJACENT TO DITCHES DITCH SLOPING (3:1 TYP) 1' SETBACK, AND PIPE W/ BEVELED END MAY BE REQUIRED.
4. RESTORE SHOULDER WITH CSTC AS REQUIRED.

(#) DETAIL NOTES:

1. LOCATE CATCH BASIN AT END OF IMPROVEMENTS TO FACILITATE FUTURE EXTENSION/CONNECTION.
2. RAMP SLOPE SHALL NOT EXCEED 7.5% EXCEPT THAT RAMP IS NOT REQUIRED TO EXCEED 15'. WHEN APPLYING THE 15' MAX LENGTH THE RAMP SLOPE IS ALLOWED TO EXCEED 8.3%. USE A CONSTANT SLOPE ALONG THE ENTIRE RAMP AND DO NOT INCLUDE THE LANDING LENGTH IN THE 15' MEASUREMENT.

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SIDEWALK TRANSITION
ASPHALT RAMP TO SHOULDER

SCALE: N.T.S.

D&S Drawing No.
184

EFFECTIVE DATE:
JANUARY 2026

SECTION 2

WATER

WATER GENERAL NOTES

1.All work and materials shall be in accordance with the "Standard Specifications for Road, Bridge, and Municipal Construction," Washington State Department of Transportation, current edition.

2. A copy of the approved plans must be on site whenever construction is in progress.

3. It shall be the sole responsibility of the contractor to obtain the appropriate permits prior to any construction activity.

4. Prior to any construction activity, a pre-construction meeting shall be requested via the online permit center. Follow the instructions below to create your online account:

   A. Visit the Permits & Licenses website: https://www.cityofmlt.com/1993/

   B. Click on the green Permit Portal box



   This takes you to the portal account page.

   C. At the top left above the header select **Setup an Account** to create your account.

   D. Contractors: Use the link for Contractor Application in the blue pane on the left to apply for a new AEC account.



5. Locations of all existing underground utilities, whether obtained by field survey or available records, are considered approximate and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations, and to further discover and avoid any other utilities not shown which may be affected by the work implementation. The contractor shall contact the utilities underground location service (1-800-424-5555) prior to construction. The owner or their representative shall be immediately contacted if a utility conflict exists.

6. The water main distribution system shall be constructed according to the approved plans which are on file with the City of Mountlake Terrace Engineering Department. Any deviation from the approved plans requires written approval from the City Engineer.

7. Connections to existing facilities shall be sealed off until construction is completed. No connections will be allowed until the new water mains have passed all pressure and purity tests.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
WATER GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 200-1

EFFECTIVE DATE: JANUARY 2026

WATER GENERAL NOTES

8. The Contractor shall notify the City two working days prior to any planned connection to an existing water main. The City will be responsible for all tasks involved with shut-off and turn-on of the existing water mains. Unless otherwise directed by the Engineer, the Contractor shall not operate existing water system valves. The City will determine the extent of the affected customers. The Contracting Agency will notify the owners and tenants of affected properties of water main shut downs. The Contractor shall be responsible for notifying affected owners and tenants of affected properties of service interruptions necessary for water service transfers.

9. Prior to commencement of any work on a connection to an existing water main, the Contractor shall assemble all materials, equipment, and labor necessary to properly complete the work. Once the water has been shut off, the Contractor shall have one working day to complete the connection. All connections to existing water mains shall be completed the same day that they are started. The Contractor shall time their operations so that the water will not be shut off over weekends, or during holidays. Water shall not be shut off earlier than 9:00 AM and must be turned back on no later than 4:00 PM the same day.

10. Water main pipe, bedding and trench compaction:

    A. All water main pipes to be cement lined, Class 52 ductile iron, conforming to Standard Specifications 9-30.1(1). Cement mortar lining and seal coating shall conform to ANSI/AWWA C104, or latest revision.

    B. Pipe joints to be push-on, mechanical or flange joints. Where restrained pipe is required, pipe shall be restrained with Field Lok 350 ® gaskets.

    C. All water main pipe fittings shall meet ANSI/AWWA C110, and to be cement mortar lined and seal coated conforming to ANSI/AWWA C104 or latest revisions.

    D. Pipe bedding shall be 5/8" minus crushed surfacing top course (CSTC) or as directed by the engineer or as designated on the plan.

    E. All water main cement concrete thrust blocks to conform to standard details shown on MLT D&S No. 231 and 232.

    F. Pipe sleeves shall be Class 53 ductile long body sleeves and restrained with bolt restraint system Uni-Flange 1400 MJ Restrainer Glands

    G. All water main trench backfill shall be compacted to minimum 95% dry optimum density per ASTM D1557, or latest revision, (modified proctor) prior to testing water mains for acceptance.

    H. All new or replaced water mains shall have 14 AWG locate wire buried in the trench and shall have detectable warning tape buried in the trench one foot above the main.

11. Where utility conflicts occur, utilities other than sanitary sewer water mains shall be lowered to clear. See "Criteria for Sewage Design", Washington State Department of Ecology for sewer conflicts. Lines shall be marked and staked for line and grade.

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APPROVED BY
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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
WATER GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 200-2

EFFECTIVE DATE: JANUARY 2026

WATER GENERAL NOTES

12. All water mains shall be pressure tested and disinfected in accordance with the specifications of the Washington State Health Department and WSDOT Standard Specifications. All inspection and pressure testing shall be done in the presence of, and under the supervision of, the City Engineer or his/her representative. See **Testing and Flushing** at the end of these notes.

13. Contractor shall provide plugs and/or temporary blow-off assemblies for testing and purity acceptance prior to final tie in.

14. All gate valves shall be resilient seated and shall be manufactured to meet or exceed the requirements of ANSI/AWWA C509, or latest revision.

15. Fire Hydrants:

    A. All fire hydrants shall conform to the City of Mountlake Terrace D&S No. 251.

    B. All fire hydrant ports shall face perpendicular to curb and toward driveway as shown on the plans.

16. Water Main Services:

    A. All water main service lines shall be type "K" copper. Service connections shall be in accordance with MLT D&S No's. 211-1, 211-2, 212, or 213.

    B. Water meters 2" and smaller to be supplied and installed by the City of Mountlake Terrace.

17. All valves, existing and new, shall be operated **only** by the City of Mountlake Terrace. **NO EXCEPTIONS!**

18. A State-approved backflow prevention device must be installed on all irrigation systems, fire systems, industrial water systems, and any other water connection that may have a possibility of a cross contamination connection as determined by the City's certified cross connection technician.

19. Construction of dewatering systems shall be in accordance with WSDOT Standard Specification Section 7-09.3(7)A.

20. An as built water plan shall be submitted for all developments, short plats and subdivisions.

21. All tapping sleeves shall be stainless steel with full circle rubber gasket per D&S No. 251.

22. Where the underground supply tees off to service only a fire sprinkler system, a separate detailed plan must be submitted and approved by the Fire Marshal prior to installation.

23. Wedding Rings shall be Class 52 ductile pipe and equal to or less than two inches wide. Gaps between wedding ring and pipe shall be equal to or less than 0.0625" (1/16 inch).

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
WATER GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 200-3

EFFECTIVE DATE: JANUARY 2026

TESTING & FLUSHING

Hydrostatic pressure test:

1. The contractor shall provide and operate all necessary equipment for performing the test.
2. The main shall be tested against all valves, including hydrant valves, with all services, blowoffs and air release valves installed.
3. Chlorine must be used in test water.
4. No air will be allowed in the line.
5. The pressure test shall be 150 psi over operating pressure, but not be less than 225 psi, and shall not exceed the rated line pressure when testing against resilient valves.
6. Line pressure shall not drop more than 15 pounds in 15 minutes.
7. The contractor shall bring the line to test pressure to insure that all equipment is in good working order and that all air has been released prior to requesting the inspector to witness the test.
8. The maximum length of pipe tested at one time shall be 1,500 feet.

Sterilization and flushing:

1. The contractor shall sterilize all water mains in accordance with the specifications approved by the Washington State Department of Health and in a manner satisfactory to the City Engineer.
2. Sterilization shall be between adjacent gate valves unless otherwise approved by the Engineer.
3. Chlorine shall be applied either in solution and fed at one end with a valve or hydrant open at the opposite end to permit a continuous flow during application, or by placement of dry hypochlorite granules in each length of dry pipe as it is laid. The number of ounces of 65% calcium hypochlorite required for an 18 foot length of pipe equals $0.0075879d^2$, where d is the diameter of the pipe in inches.
4. When a chlorine concentration of 50 ppm is reached, the line shall sit undisturbed for 24 hours. During this period, hydrant valves in the chlorinated section shall be operated to disinfect the appurtenances. The line shall be thoroughly flushed, refilled with pure water and left undisturbed for an additional 24 hours prior to taking a purity sample.
5. All water used for flushing shall come from the city water supply using a fill line with a double check valve assembly and hand operated gate valve installed at the hydrant. Water shall be flushed into a sewer manhole.
6. At no time shall chlorinated water enter the storm sewer system or into any surface water.
7. Samples will be collected and taken for testing by city employees on Tuesday mornings. Should the initial treatment result in an unsatisfactory bacteriological test, the line shall be rechlorinated and procedure repeated until satisfactory results are obtained. See AWWA standard C-601.

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
WATER
GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No.
200-4

EFFECTIVE DATE:
JANUARY 2026

WATER SERVICE INSTALLATION NOTES

LEGEND:

(1) WHEN CONNECTING TO EXISTING CORPORATION STOP: REUSE EXISTING CORPORATION STOP. REMOVE RIBBED ADAPTER. INSTALL 3/4"ø STRAIGHT COUPLING, COPPER X FEMALE I.P.T. (FORD C-28-33, OR APPROVED EQUAL) OR FITTINGS AS NECESSARY.
WHEN CONNECTING TO NEW MAIN OR TAPPING NEW SERVICE: CORP STOP SHALL BE 1"ø MUELLER H9996 OR EQUAL AWWA TAPERED THREAD x MALE IRON PIPE THREAD, WITH $\frac{3}{4}$" REDUCER AS NECESSARY.

(2) MUELLER 110 FEMALE ADAPTER H15451 OR EQUAL.

(3) INSTALL 1"ø COPPER PIPE, TYPE "K" ASTM B-88 WITH 2 FT. HORIZONTAL WAVE (NOT SHOWN).

(4) MUELLER 110 COMPRESSION FITTING x MALE IRON PIPE OR EQUIVALENT.

(5) METER SETTER WITH ANGLE METER STOP, LOCKWINGS AND HORIZONTAL CHECK VALVE OUTLET. 5/8" x 3/4" SETTER: FORD VBH 92-12W-11-33A FOR 3/4"ø (VBH 94-15W-11-44A FOR 1"ø) OR EQUAL.

(6) METER BOX IN UNPAVED AREA: METER BOX IN UNPAVED AREA SHALL BE CARSON PLASTIC METER BOX. CARSON PLASTIC METER BOX SHALL BE MADE FROM HDPE AND DISTRIBUTED BY OLDCASTLE ENCLOSURE SOLUTIONS (OR EQUIVALENT). METER BOX COVER SHALL BE FLUSHED COVER WITH BOLT DOWN AND PLASTIC METER READER.

METER BOX IN UNPAVED AREA - CARSON METER BOX		
3/4"ø SIZE	1.0"ø SIZE	1 $\frac{1}{2}$"ø & 2.0"ø SIZE
BOX No. L-SERIES 1419-12 BOX SIZE: 12" x 17"	BOX No. L-SERIES 1220-12 BOX SIZE: 14 $\frac{3}{4}$" x 21 $\frac{7}{16}$"	BOX No. L-SERIES 1730-18 BOX SIZE: 19 $\frac{7}{16}$" x 32 $\frac{1}{2}$"

(7) INSTALL 1"ø COPPER LINE, TYPE "K", FROM SETTER TO EXISTING SERVICE OR TO PROPERTY LINE, WHICHEVER IS LONGER (MIN. 2 FT. BEYOND METER).

(8) INSTALL MUELLER 110 COMPRESSION FITTING OR EQUIVALENT.

(9) PRE-MOLDED JOINT MATERIAL.

(10) METER BOX IN TRAVELED OR PAVED AREA: METER BOX IN TRAVELED OR PAVED AREA SHALL BE POLYMER COMPOSITE CONCRETE METER BOX. THE POLYMER METER BOX SHALL BE DISTRIBUTED BY ARMORCAST PRODUCTS COMPANY (OR EQUAL) AND DESIGNED TO HANDLE H20-44 LOADING (16 KIPS OF CONCENTRATED LOAD PER SINGLE WHEEL).

METER BOX IN TRAVELLED OR PAVED AREA - POLYMER COMPOSITE CONCRETE METER BOX	
1.0"ø SIZE	1 $\frac{1}{2}$"ø & 2.0"ø SIZE
BOX No. A6001946PCx12 BOX SIZE: 13" x 24 x 12" COVER No. A6001969TRCI COVER SIZE: 13" x 24"	BOX No. A6001640PCx12 (STACK TWO BOXES) BOX SIZE: 17" x 30" x 12" COVER No. A6001947TRCI COVER SIZE: 17" X 30"

(11) CUT BACK EXISTING CUSTOMER SERVICE TO PROVIDE ADEQUATE CLEARANCE BEHIND A RETAINING WALL AS NECESSARY, WITH 24" OF MINIMUM DISTANCE.

(12) MUELLER ADAPTER TO SUIT SERVICE LINE.

(13) FOR SERVICES UNDER A RETAINING WALL, INSTALL A 2"ø POLYETHYLENE SLEEVE FROM SETTER TO 2 FT. PAST WALL.

DETAIL NOTES:

1. A 2 FT. HORIZONTAL WAVE SHALL BE PROVIDED AT THE CONNECTION TO THE NEW MAIN.
2. NO SPLICES SHALL BE MADE UNDER ROADWAY, CEMENT CONCRETE WALKWAYS, CURBS, STRUCTURES, OR UNDER ROCKERIES.
3. IF UNIONS ARE NECESSARY FOR SERVICE CONSTRUCTION THEY SHALL BE: 3-PART UNION (COPPER x COPPER) MUELLER H-15400, OR EQUAL.
4. NO SWEAT FITTINGS ALLOWED.
5. WHEN A SERVICE TO A METER IS TO BE TRANSFERRED FROM A MAIN THAT WILL REMAIN ACTIVE TO ANOTHER MAIN, THE CORPORATION STOP NO LONGER SERVING THE METER SHALL BE EXPOSED AND SHUT OFF.
6. LOW LEAD (LESS THAN 2%) SOLDERED FITTINGS ALLOWED ON METER SETTER ONLY.
7. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATER MAIN UNLESS OTHERWISE APPROVED BY THE ENGINEER. BURY SERVICE LINE 30" MIN. BELOW SURFACE GRADE IN RIGHT-OF-WAY, 24" MIN. OUTSIDE RIGHT-OF-WAY.
8. EXISTING AND NEW WATER METER SUPPLIED AND INSTALLED BY CITY. WATER METER PERMIT REQUIRED.
9. WHEN INSTALLATION IS ADJACENT TO SUBSURFACE DRAIN, PROVIDE CLEARANCE AS SPECIFIED ON THE APPROVED PLANS.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

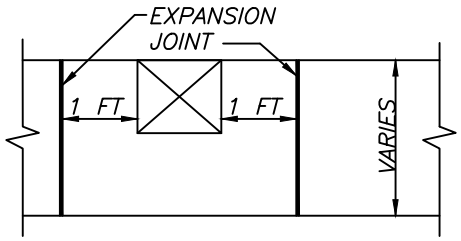
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: WATER SERVICE INSTALLATION NOTES

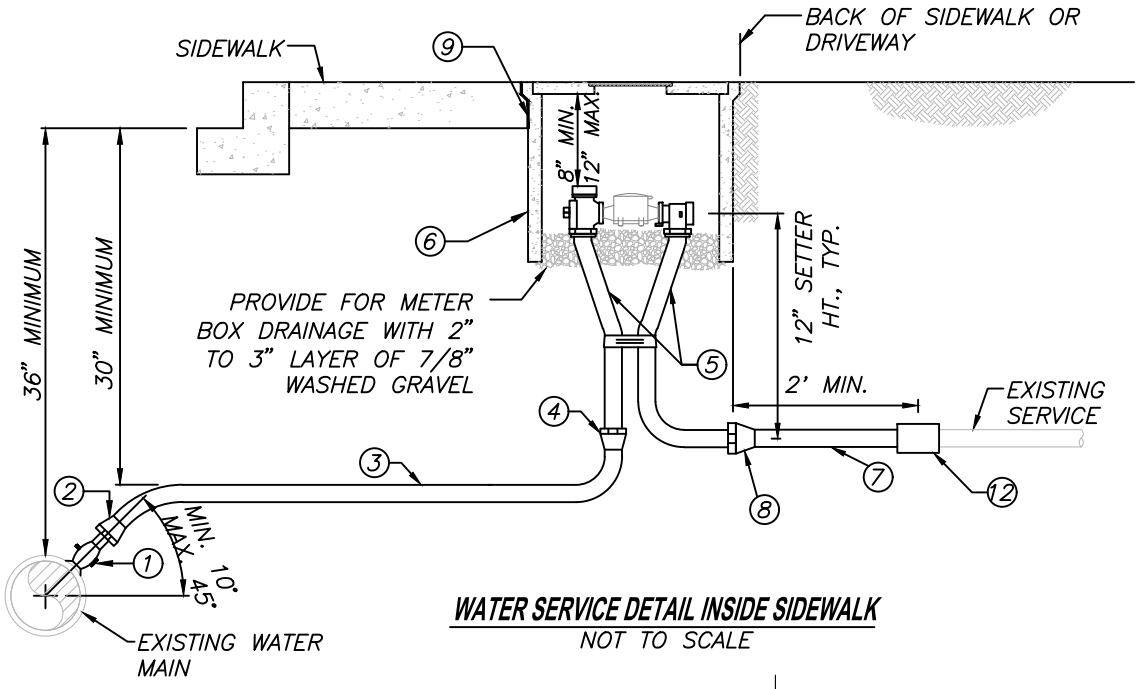
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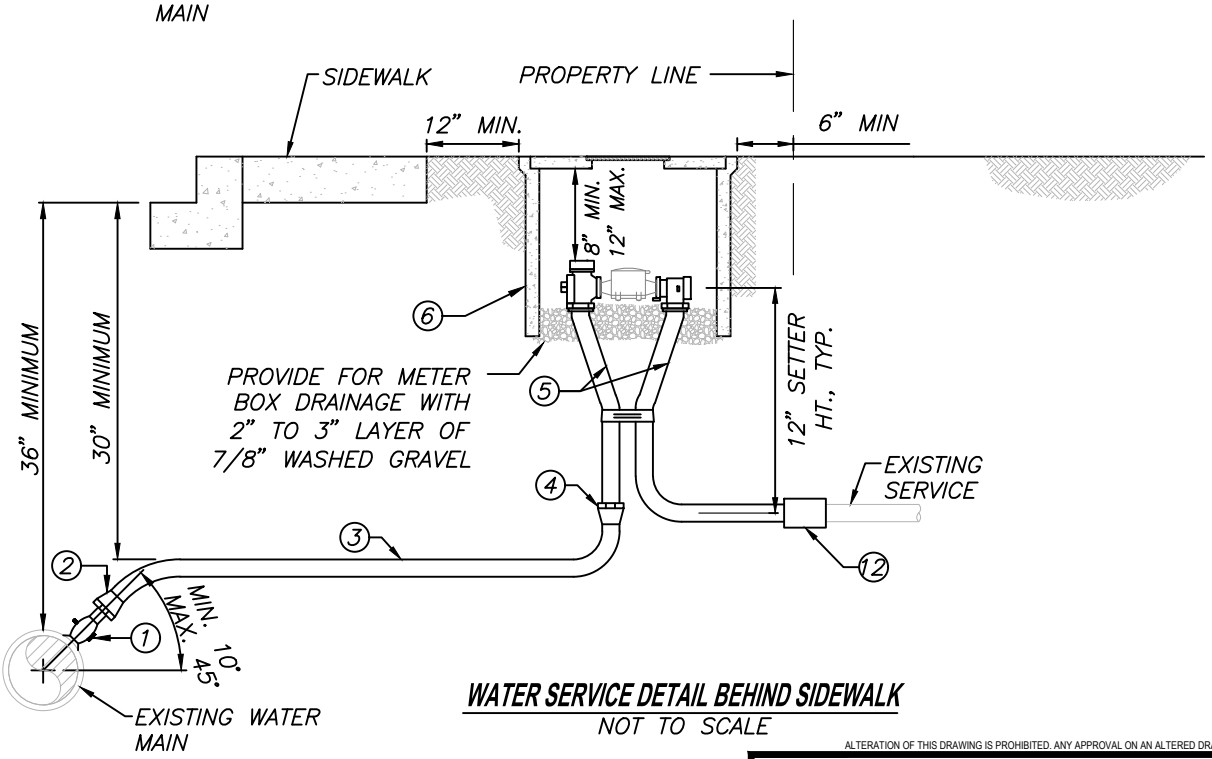
EFFECTIVE DATE: JANUARY 2026



WATER METER LOCATION IN SIDEWALK AREAS
TYPICAL PLAN APPLICATION
NOT TO SCALE



WATER SERVICE DETAIL INSIDE SIDEWALK
NOT TO SCALE



WATER SERVICE DETAIL BEHIND SIDEWALK
NOT TO SCALE

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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REFER TO MLT D&S NO. 210 FOR INSTALLATION NOTES

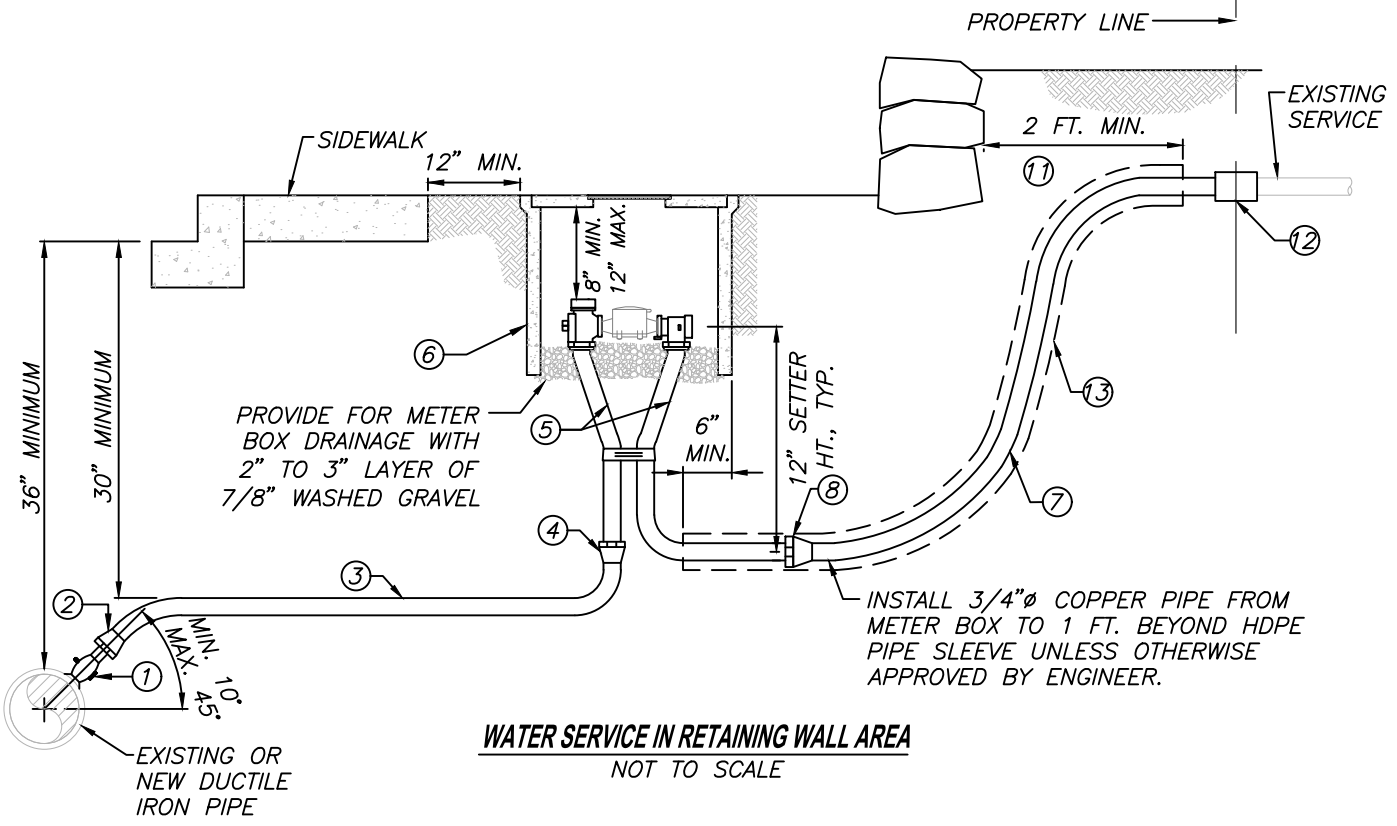
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D&S DRAWING TITLE:
1" Ø WATER SERVICE INSTALLATION DETAILS

SCALE: N.T.S.

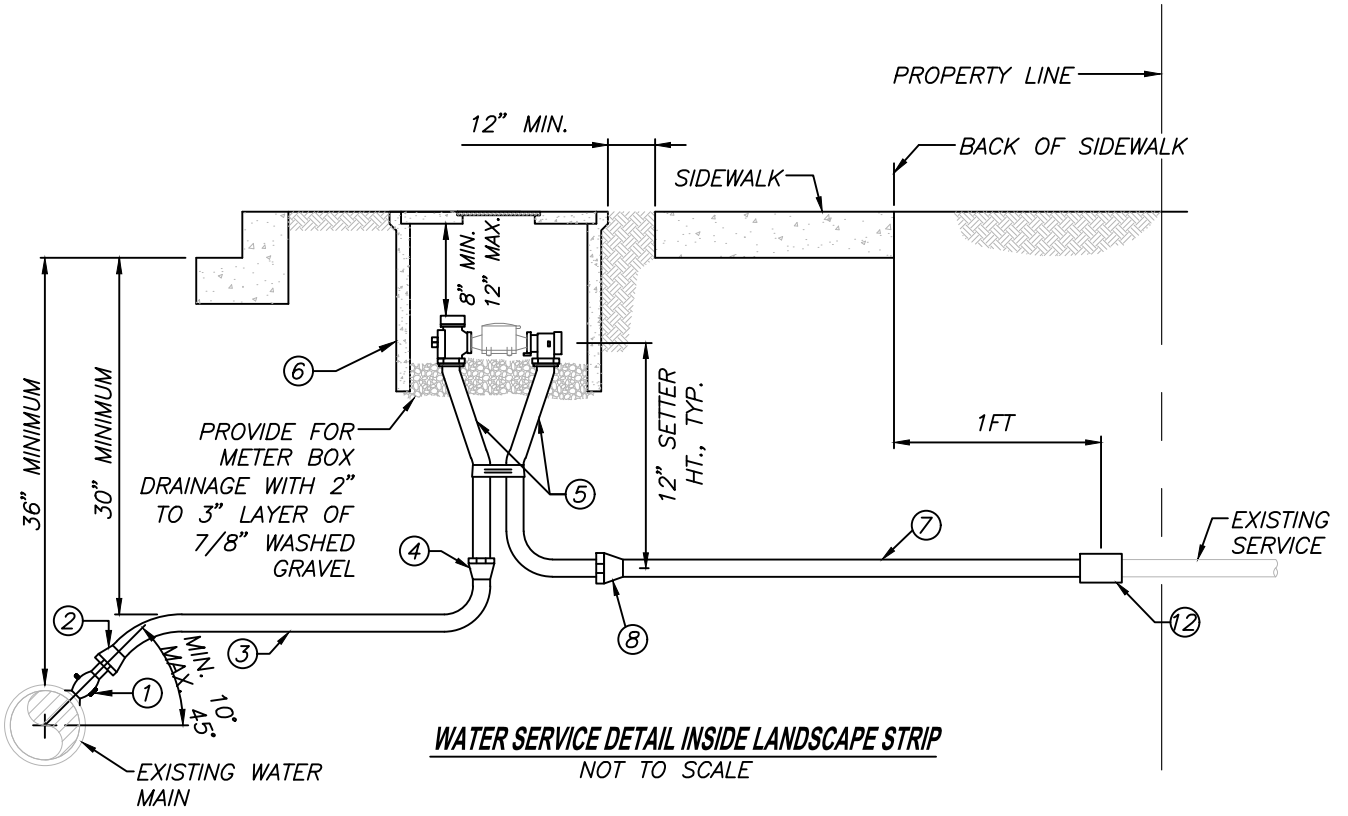
D&S Drawing No.
211-1

EFFECTIVE DATE:
JANUARY 2026



WATER SERVICE IN RETAINING WALL AREA

NOT TO SCALE



WATER SERVICE DETAIL INSIDE LANDSCAPE STRIP

NOT TO SCALE

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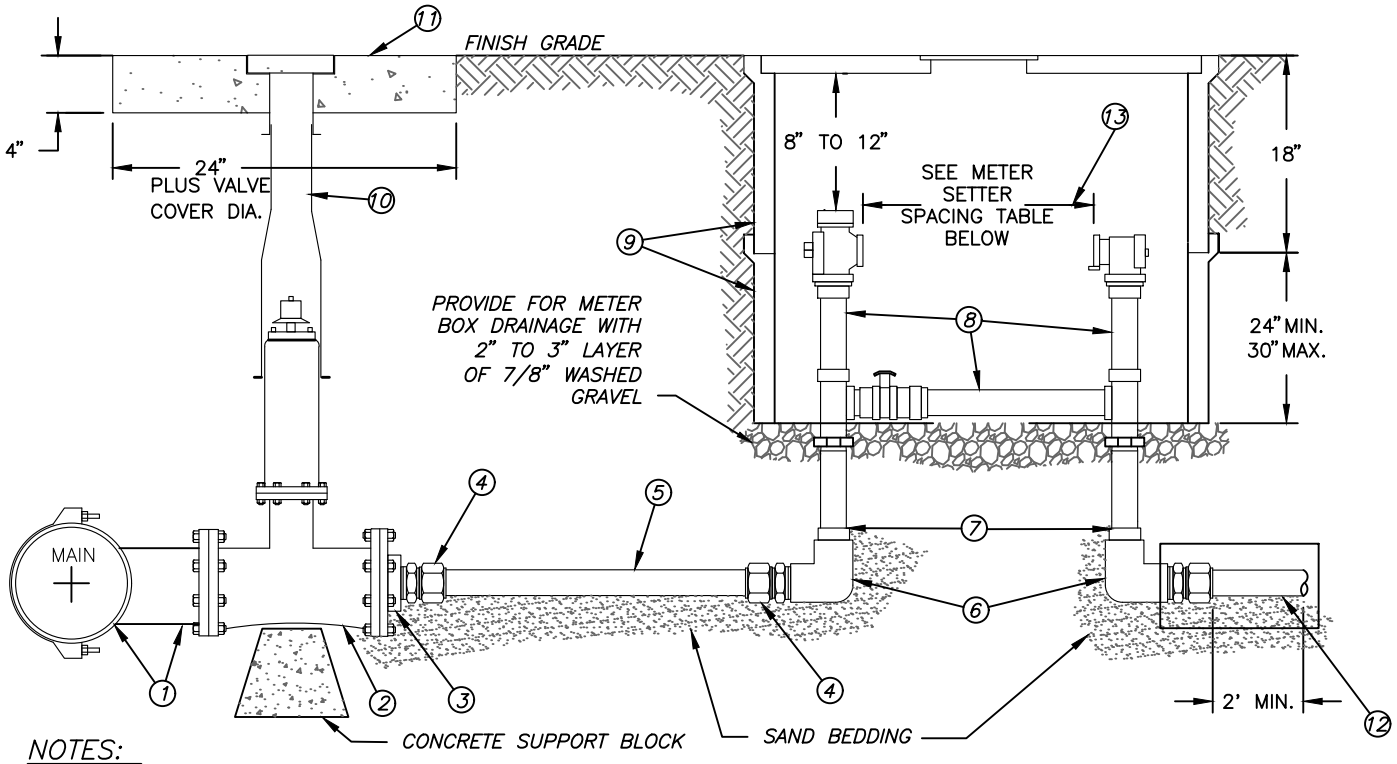
D&S DRAWING TITLE:

1" Ø WATER SERVICE INSTALLATION DETAILS

SCALE: N.T.S.

D&S Drawing No. 211-2

EFFECTIVE DATE: JANUARY 2026



NOTES:

1. FULL CIRCLE SS TAPPING SLEEVE OR INLINE T (4" BRANCH)
2. 4" FL x FL GATE VALVE, RESILIENT WEDGE, EPOXY COATED VALVE, NON–RISING STEM, AWWA STANDARD SPECIFICATIONS.
3. 4" FL x 2" OR 1–1/2" SCRW COMPANION FLANGE
4. 1 1/2" OR 2" MIP x COMPRESSION, GRIP JOINT, OR PACK JOINT (BRASS).
5. 1 1/2" OR 2" COPPER LINE, AWWA TYPE K, SPEC 7S–CR
6. 1 1/2" OR 2" 90 DEGREE BRASS ELBOW.
7. 1 1/2" OR 2" BRASS NIPPLES OF SUFFICIENT LENGTH TO ALLOW FOR PROPER GRADE SET AND CONNECTION TO COPPER SERVICE LINE.
8. METER SETTER WITH FLANGED ANGLE BALL VALVE ON INLET, FLANGED ANGLE CHECK VALVE ON OUTLET, BALL VALVE BYPASS AND LOCKWINGS:
   1 1/2": FORD A–95–147–02 OR EQUIVALENT.
   2": FORD A–95–147–01, OR EQUIVALENT.
9. CARSON METER BOX IN UNPAVED AREAS, AND ARMORCAST BOX IN AREAS PAVED STACK TWO BOXES, SEE NOTES 6 AND 10 ON MLT D&S NO. 210 FOR METER BOX.
10. CAST IRON VALVE BOX, 940 OR EQUIVALENT
11. INSTALL 1" CONCRETE COLLAR PER MLT D&S NO. 614.
12. MINIMUM 2' HORIZONTAL COPPER STUB TO BE INSTALLED ON SERVICE SIDE OF METER.
13. WATER METER SPACING

METER SETTER SPACING	
METER	SPACING
1–1/2"	13–1/4"
2"	17–1/4"

GENERAL NOTES:

1. NO SPLICES SHALL BE MADE UNDER ROADWAY, CEMENT CONCRETE WALKS, CURBS, STRUCTURES OR UNDER ROCKERIES.
2. IF UNIONS ARE NECESSARY FOR SERVICE CONSTRUCTION THEY SHALL BE THREE PART UNION (COPPER X COPPER) MUELLER H–15400 OR EQUAL.
3. LOW LEAD (LESS THAN 2%) SOLDERED FITTINGS ALLOWED ON METER SETTER ONLY.
4. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATERMAIN UNLESS OTHERWISE APPROVED BY THE ENGINEER. BURY SERVICE LINE 30" MINIMUM BELOW SURFACE GRADE.
5. METER SUPPLIED AND INSTALLED BY THE CITY.
6. FOR METER BOX INSTALLATION IN THE SIDEWALK, INSTALL EXPANSION JOINTS WITH A MINIMUM OF 12" BETWEEN BOX AND JOINT.
7. FOR SERVICES UNDER A RETAINING WALL, INSTALL A 2" POLYETHYLENE TUBE SLEEVE FROM SETTER TO 2' PAST WALL.

REFER TO MLT D&S NO. 210 FOR INSTALLATION NOTES

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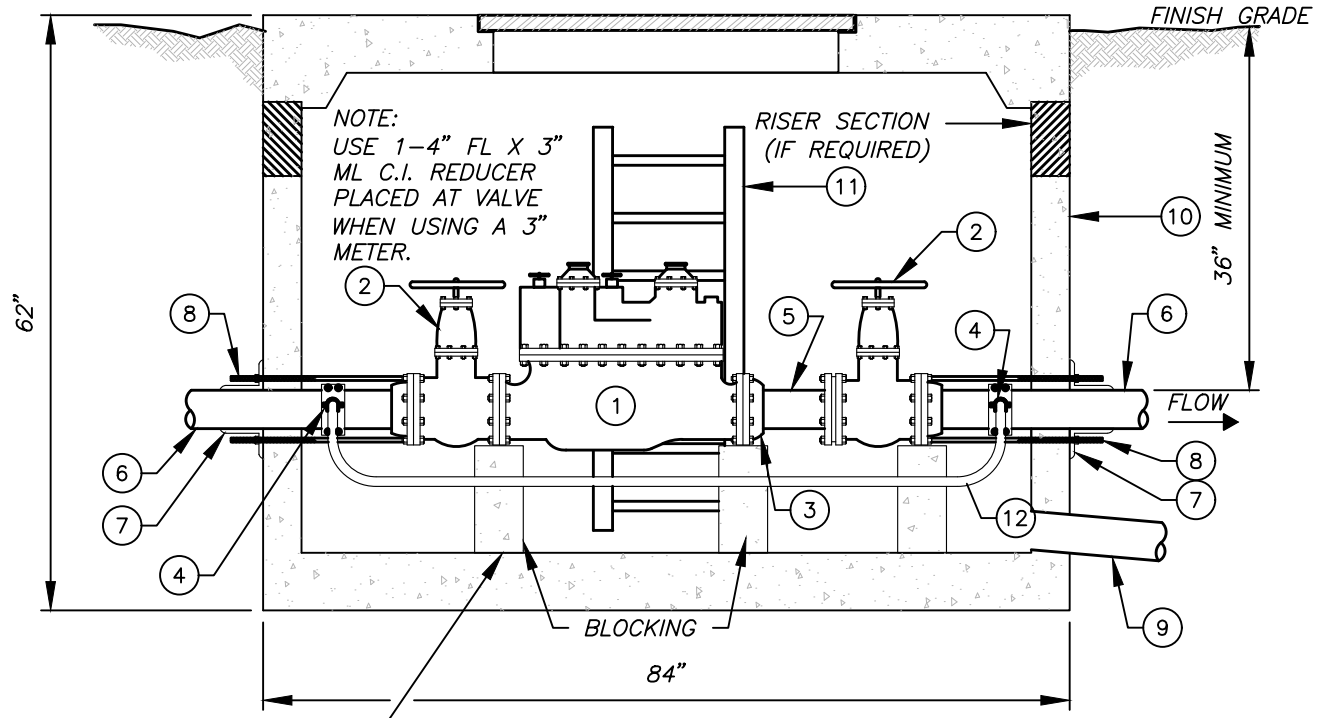
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
1-1/2" Ø AND 2" Ø WATER SERVICE

SCALE: N.T.S.

D&S Drawing No.
212

EFFECTIVE DATE:
JANUARY 2026



3" AND 4" WATER SERVICE

SOLID CONCRETE OR METAL PIPE STANCHION IN CONTACT WITH THE METER ASSEMBLY AND THE FLOOR OF THE VAULT

LEGEND:

1. METER SHALL BE HERSEY AS DESIGNATED BY THE CITY ENGINEER.
2. AWWA APPROVED GATE VALVE FL X MJ, SEE ABOVE.
3. FL X MJ COUPLING ADAPTER
4. 1" CORPORATION STOP, COPPER SERVICE THREAD X COPPER FLARE WITH STRAIGHT COUPLING NUT, FORD 600 OR EQUAL. DOUBLE STRAP SERVICE SADDLE WITH CORPORATION THREAD.
5. 4" DIP SPOOL PE X FL, 12" MINIMUM LENGTH WITH FL X MJ ADAPTER.
6. 4" CLASS 52 DIP.
7. 4–3" X 3" X 3/8" GALVANIZED ANGLES, 60" LONG.
8. 4–5/8" DIAMETER GALVANIZED RODS. BOLT FLANGE THROUGH WALL TO ANGLE.
9. 4" SCHEDULE 80 PVC, DRAIN TO DAYLIGHT OR STORM DRAIN. IF PUMP IS NECESSARY, IT SHALL BE REVIEWED AND APPROVED BY THE CITY.
10. UTILITY VAULT CO. VAULT #575–LA WITH LW PRODUCTS FULL OPEN SINGLE OR DOUBLE DOOR
11. 3 1/2' GALVANIZED LADDER, SECURE TO VAULT WALL IN AT LEAST 3 PLACES.
12. 1" COPPER LINE, AWWA TYPE K.

DETAIL NOTES:

1. VERTICAL BENDS BETWEEN MAIN AND METER WILL NOT BE ALLOWED.
2. AFTER INSTALLATION, METER SHALL BE CLEANED, TESTED AND CERTIFIED IN WRITING BY APPROVED METER SERVICE COMPANY PRIOR TO ACCEPTANCE BY THE CITY OF MOUNTLAKE TERRACE.
3. PROVIDE A RESTRAINED VALVE BETWEEN THE VAULT AND THE NEAREST "T" OR MAINLINE ON THE INLET SIDE.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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REFER TO MLT D&S NO. 210 FOR INSTALLATION NOTES

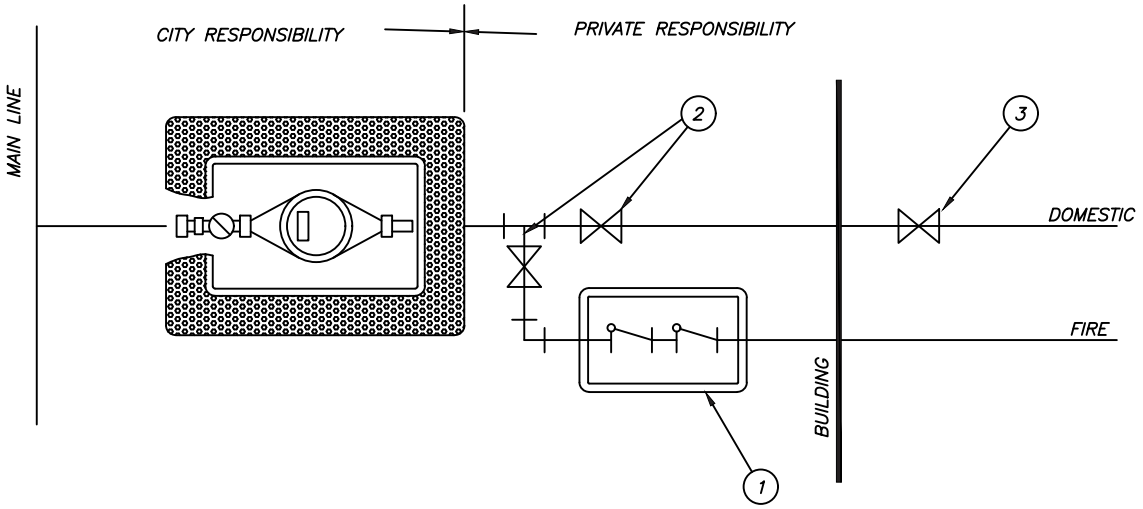
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ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: 3" Ø AND 4" Ø WATER SERVICE

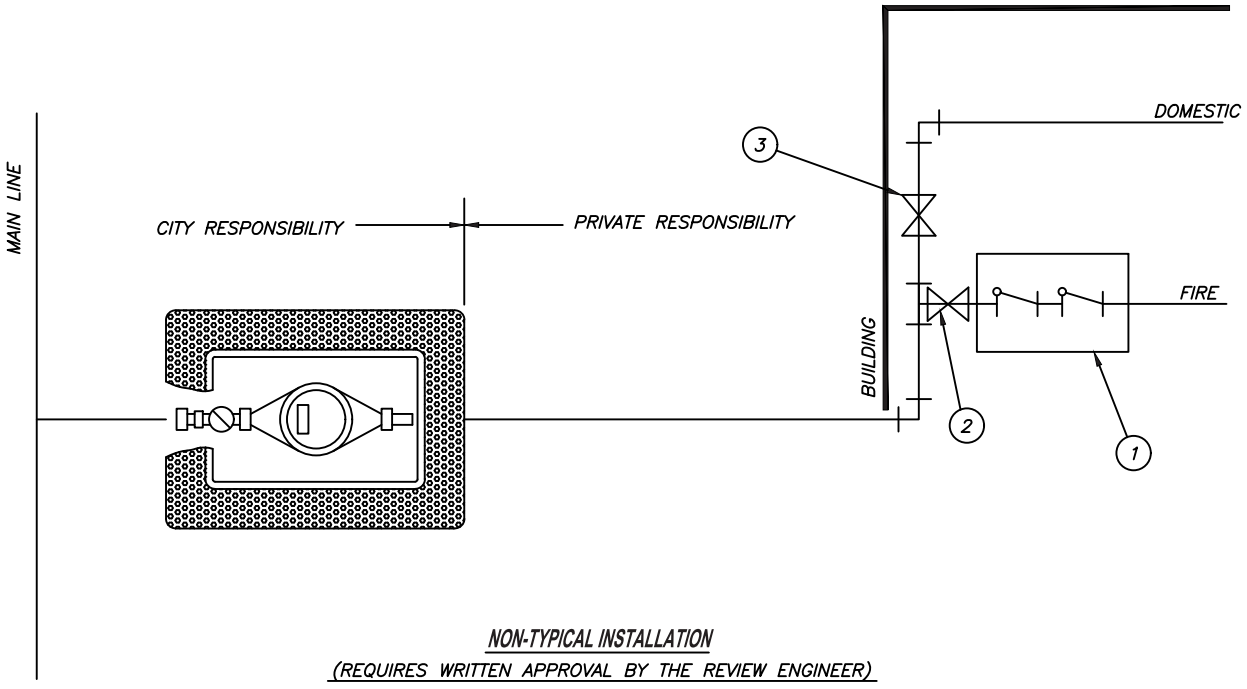
SCALE: N.T.S.

D&S Drawing No. 213

EFFECTIVE DATE: JANUARY 2026



TYPICAL INSTALLATION



NON-TYPICAL INSTALLATION
(REQUIRES WRITTEN APPROVAL BY THE REVIEW ENGINEER)

NOTES:

1. STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY, TO BE INSTALLED PER MLT D&S NO. 223. CERTAIN FLOW THROUGH SYSTEMS MAY NOT REQUIRE DOUBLE CHECK VALVE ASSEMBLIES, FIRE DISTRICT AND ENGINEERING APPROVAL IS REQUIRED.
2. INSTALL IN-LINE BALL VALVE WITH LOCKING EARS WITH 9" ROUND, GREEN ECONO-BOX, SET TO FINISH GRADE WHEN OUTDOOR USE.
3. LOCATION OF CUSTOMER SHUT-OFF VALVE.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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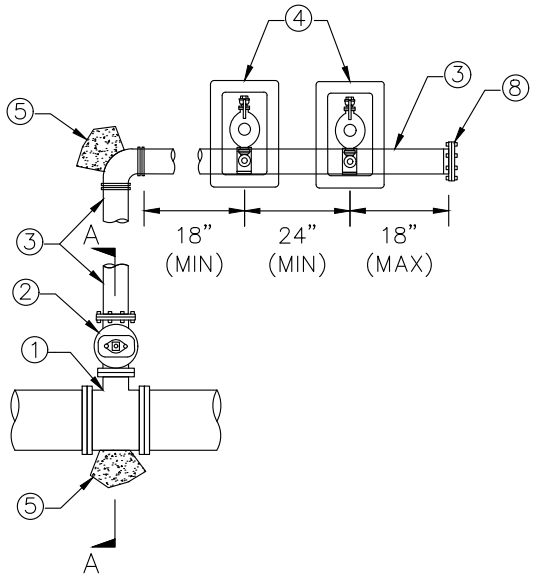
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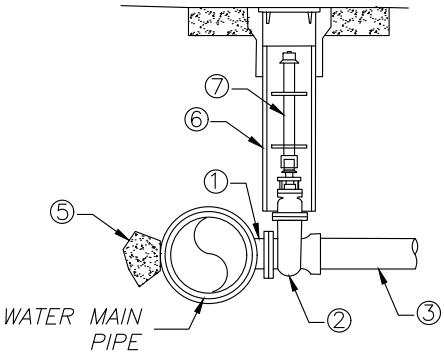
D&S DRAWING TITLE:
1" Ø SINGLE FAMILY SPRINKLER SERVICE CONNECTION ASSEMBLIES

SCALE: N.T.S.

D&S Drawing No.
214

EFFECTIVE DATE:
JUNE, 2024





SECTION A–A

N.T.S.

MANIFOLD TABLE			
UNITS	PIPE SIZE	TEE	GATE VALVE
1–4	4"ø	4" FLxMJ	4" FLxMJ
5+	6"ø	6" FLxMJ	6" FLxMJ

DETAIL NOTES:

1. TEE, CLASS 350, SEE MANIFOLD TABLE
2. GATE VALVE, FLxMJ, CLASS 350, RESILIENT WEDGE, DISTRIBUTED BY MUELLER COR. SEE MANIFOLD TABLE
3. CLASS 52 DUCTILE PIPE, SEE MANIFOLD TABLE. SHALL BE 8"ø IF FIRE HYDRANT CONNECTED.
4. 3/4"ø OR 1"ø WATER SERVICE CONNECTION PER MLT D&S NO. 211
5. THRUST BLOCK PER MLT D&S NO. 231
6. VALVE BOX PER MLT D&S NO. 614
7. VALVE STEM EXTENSION PER MLT D&S NO. 233, WHERE APPLICABLE
8. CAP END W/ SUITABLE CAP
9. 4"ø GATE VALVE, FLxFL, CLASS 350, RESILIENT WEDGE, DISTRIBUTED BY MUELLER CORP., WITH BLIND FLANGE, SEE MLT D&S 235
10. ADAPTER, MJxFL, CLASS 350, WITH BOLT RESTRAINT SYSTEM (UNI–FLANGE 1400 MJ RETAINER GLANDS)
11. CONCENTRIC REDUCER IS REQUIRED IF CLASS 52 D.I. IS 6"ø

GENERAL NOTES:

1. THIS ASSEMBLY SHALL NOT BE USED FOR FEWER THAN 4 OR MORE THAN 8 SERVICE CONNECTIONS UNLESS PREVIOUSLY APPROVED BY CITY ENGINEER.
2. WRAP ALL FITTINGS WITH PLASTIC.
3. MEGALUG AND FIELD–LOC GASKETS REQUIRED AT FITTINGS.
4. METERS SHALL HAVE 10' MIN SEPARATION FROM STRUCTURE.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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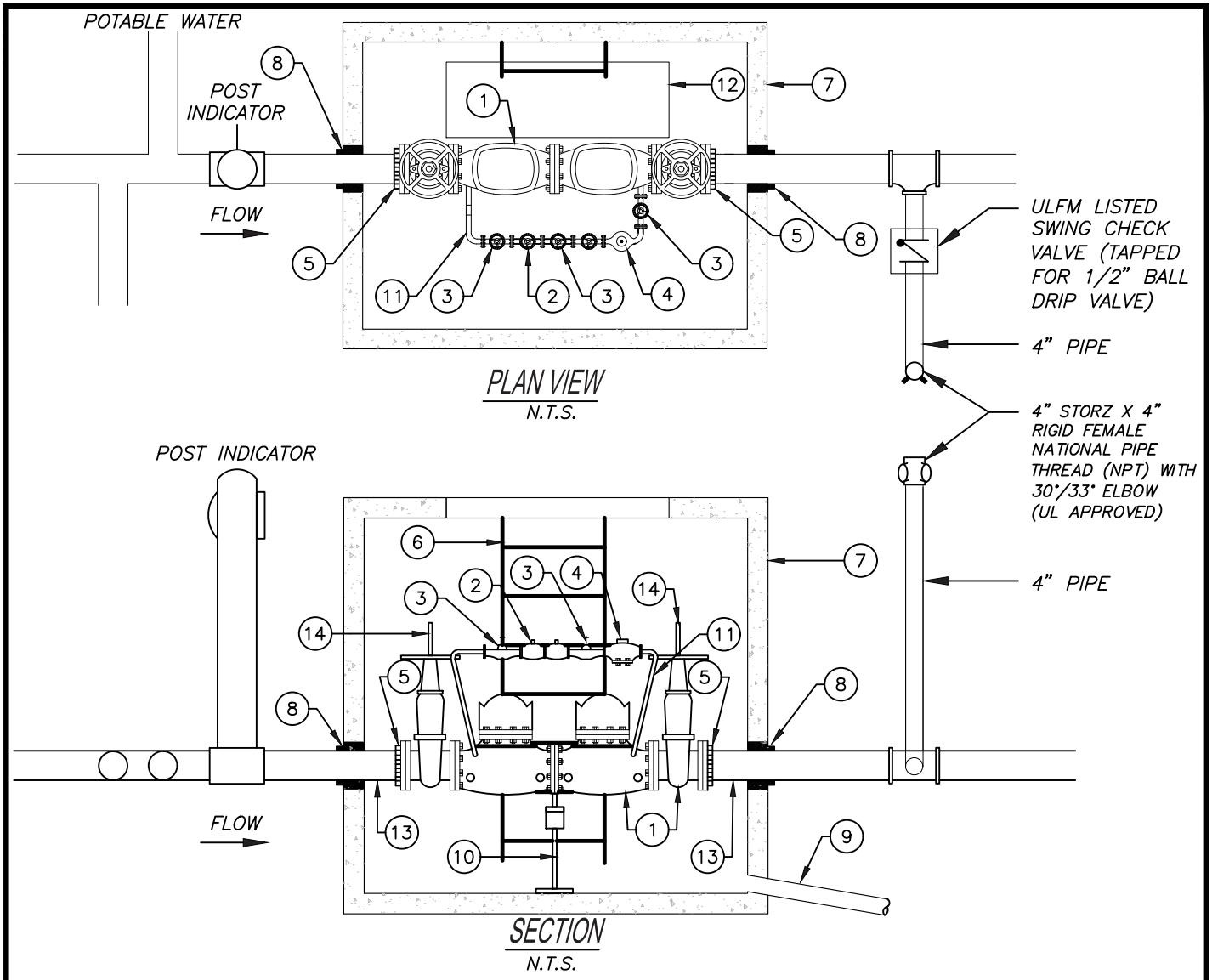
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: WATER METER MANIFOLD

SCALE: N.T.S.

D&S Drawing No. 215

EFFECTIVE DATE: JANUARY 2026



LEGEND:

1. STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY, COMPLETE WITH O.S. & Y. RESILIENT TYPE VALVES AND BRASS OR COPPER DETECTOR BY–PASS.
2. STATE APPROVED 3/4" DOUBLE CHECK VALVE ASSEMBLY.
3. VARIOUS SHUTOFF VALVES. (GLOBE 3/4")
4. 5/8" METER (CUBIC FEET READING) AS REQUIRED.
5. UNIFLANGE WITH SET SCREWS.
6. ONE GALVANIZED STEEL LADDER TO BE SECURED TO VAULT.
7. CONCRETE VAULT (8'–8" X 6'–8" X 8'–6") UTILITY VAULT CO. #687. TL–2–332 OR EQUAL, WITH CENTER OFFSET ACCESS AND LW PRODUCTS DOUBLE DOORS.
8. WATER TIGHT GROUT. RESTRAIN INLET/OUTLET PIPE WITH WELDED FLANGE OR ANCHOR BLOCKS.
9. DRAIN. SLOPE TO DAYLIGHT, TIE TO STORM SYSTEM OR INSTALL LISTED ELECTRICAL SUMP PUMP ON GFCI CIRCUIT.
10. ONE ADJUSTABLE PIPE STANCHION CENTERED ON FLANGE AS SHOWN. 4. VALVE ASSEMBLY TO BE CENTERED IN VAULT, MINIMUM OF 18" OFF FLOOR.
11. ALL PLUMBING FOR 3/4" BY–PASS ASSEMBLY TO BE COPPER OR BRASS.
12. ACCESS TO BE CENTERED OVER LADDER.
13. CL. 52 D.I., M.J. WITH RETAINER GLANDS.
14. NFMA APPROVED AND MONITORED TAMPER SWITCHES TO BE INSTALLED ON VALVE STEM.

DETAIL NOTES:

1. ASSEMBLY TO BE MAINTAINED BY OWNER AND ANNUAL CERTIFICATION REQUIRED.
2. FIRELINE SHALL NOT BE PUT INTO SERVICE UNTIL THE BACKFLOW PREVENTION DEVICE IS APPROVED BY CITY CROSS CONNECTION INSPECTOR.
3. TEE AND GATE VALVE REQUIRED ON MAIN BETWEEN VAULT AND TEE, WITH RESTRAINTS.

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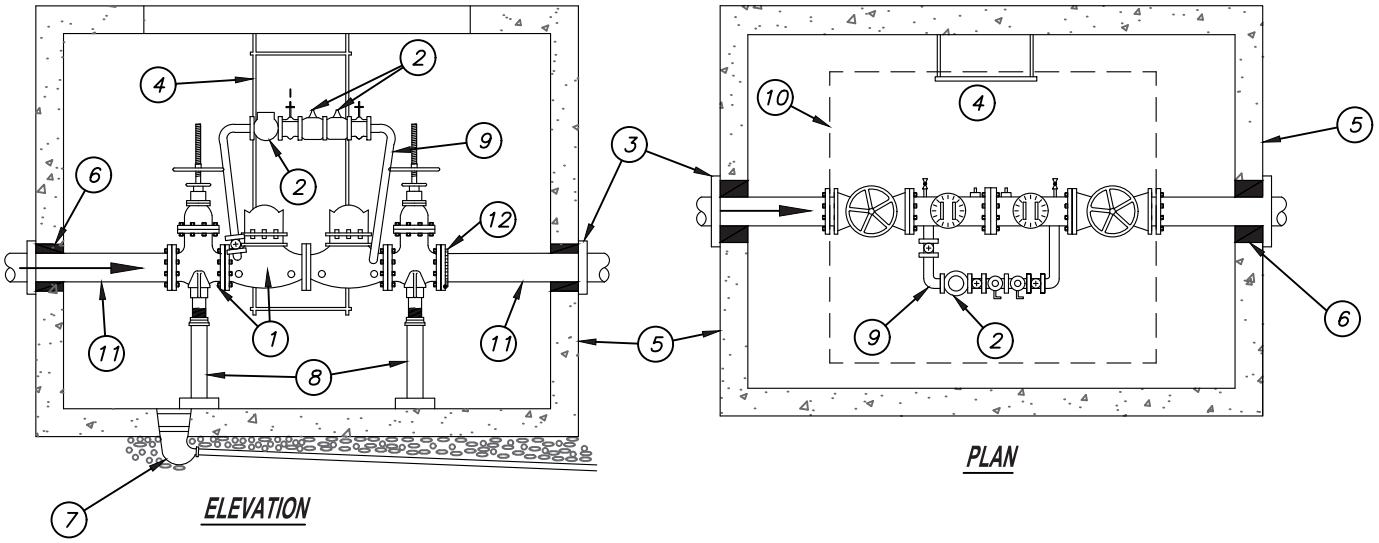
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
DETECTOR CHECK, BACKFLOW PREVENTION AND SUPPLEMENTAL FIRE FLOW DETAIL

SCALE: N.T.S.

D&S Drawing No.
221

EFFECTIVE DATE:
JUNE, 2024



SIZE	MIN. VAULT SIZE (INSIDE) W	L	H	UTIL. VAULT CO. MODEL	UTIL. VAULT CO. COVER
2"	4'–2"	4'–8"	3'–3"	675–WA	675–TL–2–332P
3"	4'–2"	4'–8"	3'–3"	675–WA	675–TL–2–332P
4"	4'–6"	5'–3"	3'–8"	675–WA	675–TL–2–332P
6"	4'–8"	6'–6"	4'–5"	675–WA	675–TL–2–332P
8"	5'–0"	7'–8"	5'–3"	687–LA	687–TL–2–332P
10"	5'–2"	8'–8"	6'–1"	5106–LA	5106–TL–2–332P

LEGEND:

(1) STATE APPROVED DOUBLE CHECK DETECTOR ASSEMBLY.

(2) 3/4" METER (CUBIC FEET READING) .

(3) SET SCREW RETAINER GLANDS.

(4) ONE GALVANIZED STEEL LADDER TO BE SECURED TO VAULT.

(5) CONCRETE VAULT WITH A MINIMUM OF 2, 3'x3' DIAMOND PLATE DOORS RATED FOR H20 LOADING, MARKED "WATER". VAULT SHALL BE EQUAL TO UTILITY VAULT CO. MODEL LISTED IN TABLE.

(6) WATER TIGHT GROUT.

(7) DRAIN, SLOPE TO DAYLIGHT WHERE APPLICABLE, SOME MAY REQUIRE PUMP.

(8) TWO ADJUSTABLE PIPE STANCHIONS.

(9) ALL PLUMBING FOR BY–PASS TO BE COPPER AND BRASS.

(10) ACCESS TO BE CENTERED OVER METER.

(11) CL. 52 D.I., M.J.

(12) UNIFLANGE WITH SET OF SCREWS.

DETAIL NOTES:

1. EACH ASSEMBLY SHALL BE EQUIPPED WITH (4) RESILIENT SEATED TEST COCKS WITH PLUGS INSTALLED, (FINGER TIGHT), ON THE MAINLINE DEVICE AND ON THE METERED BYPASS DEVICE.
2. A MIN. OF A 12" CLEARANCE IS REQUIRED. BETWEEN THE DEVICES AND THE BOTTOM OF THE VAULT.
3. TEE AND GATE VALVE REQUIRED ON CONNECTION TO MAINLINE.
4. THE DDCVA CHOSEN MUST BE ON THE MOST RECENT WA. STATE APPROVAL LISTING.
5. THE DDCVA MUST BE TESTED BY A WA. STATE CERTIFIED BACKFLOW ASSEMBLY TESTER, AT THE TIME OF INSTALLATION, ANNUALLY, AND WHEN MOVED OR REPAIRED.
6. ALL INSTALLATIONS MUST MEET MANUFACTURERS SPECIFICATIONS AND THE MIN. STANDARDS OF THE UNIFORM PLUMBING CODE AND MUST CONFORM TO THE REQUIREMENTS AND GUIDELINES OUTLINED BY THE NATIONAL FIRE PROTECTION ASSOCIATION.
7. DRAIN SHALL BE CONNECTED TO STORM OUTFALL.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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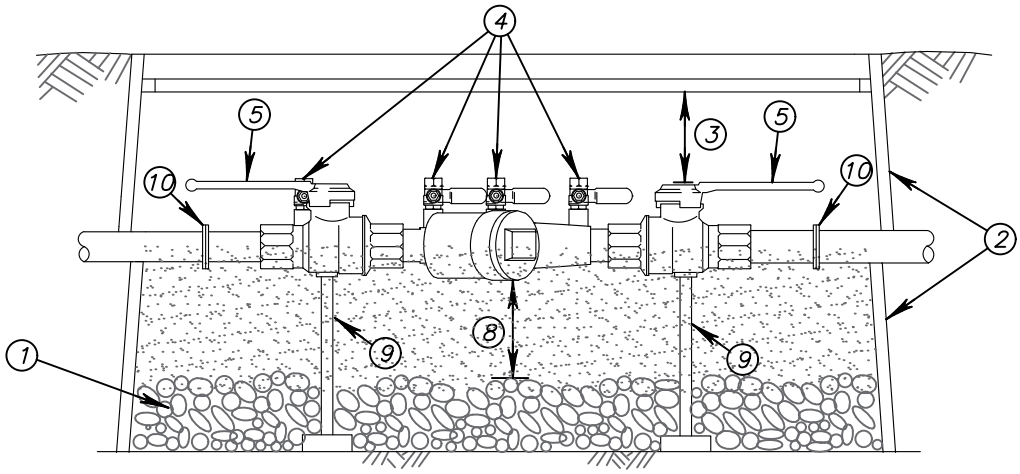
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
DOUBLE DETECTOR CHECK VALVE ASSEMBLY
FIRE LINES 2" Ø TO 10" Ø

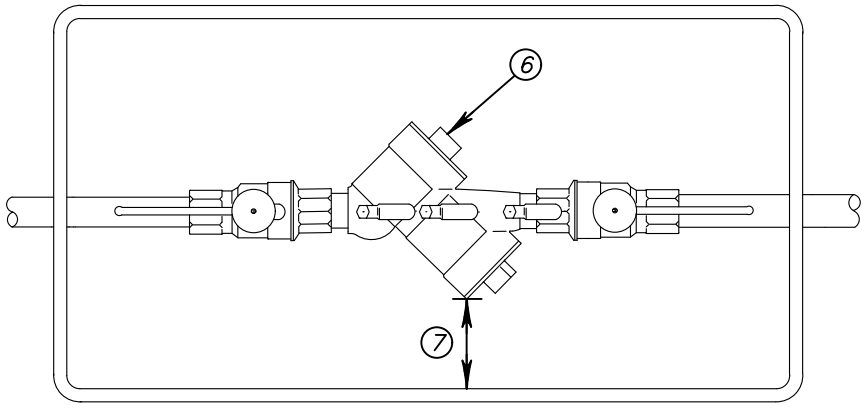
SCALE: N.T.S.

D&S Drawing No.
222

EFFECTIVE DATE:
JUNE, 2024



SECTION



PLAN

LEGEND:

(1) IF DAYLIGHT DRAIN SYSTEM CANNOT BE PROVIDED THEN INSTALL A 6" MIN. LAYER OF 1" ROUND WASHED GRAVEL AT THE BOTTOM OF THE BOX.

(2) TWO NO. 2 METER BOXES STACKED ON TOP OF EACH OTHER OR APPROVED EQUAL.

(3) A MAX. DISTANCE OF 12" BETWEEN THE UNDERSIDE OF THE LID AND THE HIGHEST POINT OF THE DEVICE IS REQUIRED.

(4) THE DEVICE MUST BE EQUIPPED WITH FOUR RESILIENT SEATED TEST COCKS WITH PLUGS INSTALLED. THE ASSEMBLY MUST ALSO BE INSTALLED WITH THE TEST COCKS FACING UP OR TO ONE SIDE.

(5) THE DEVICE MUST ALSO BE EQUIPPED WITH TWO RESILIENT SEATED SHUT OFF VALVES.

(6) THE DEVICE MUST BE INSTALLED HORIZONTALLY.

(7) A MIN. DISTANCE OF 6" BETWEEN THE SIDE OF THE BOX AND THE TEST COCKS WHEN THEY ARE INSTALLED SIDE WAYS.

(8) A MIN. DISTANCE OF 1' BETWEEN THE LOWEST POINT OF THE ASSEMBLY AND THE DRAIN ROCK, FILLED WITH FINE BARK OR SAWDUST TO PROVIDE FREEZE PROTECTION.

(9) SUPPORTS WILL BE REQUIRED ON 2" DEVICES AS SHOWN.

(10) UNION FOR EASE OF REMOVAL,

DETAIL NOTES:

1. THE D.C.V.A. CHOSEN MUST BE ON THE MOST RECENT WASHINGTON STATE APPROVAL LISTING.
2. THE D.C.V.A. MUST BE TESTED BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER AT THE TIME OF INSTALLATION, ANNUALLY, AND WHEN MOVED OR REPAIRED.
3. ALL INSTALLATION MUST MEET MANUFACTURER'S SPECIFICATIONS AND MINIMUM STANDARDS OF THE U.P.C.

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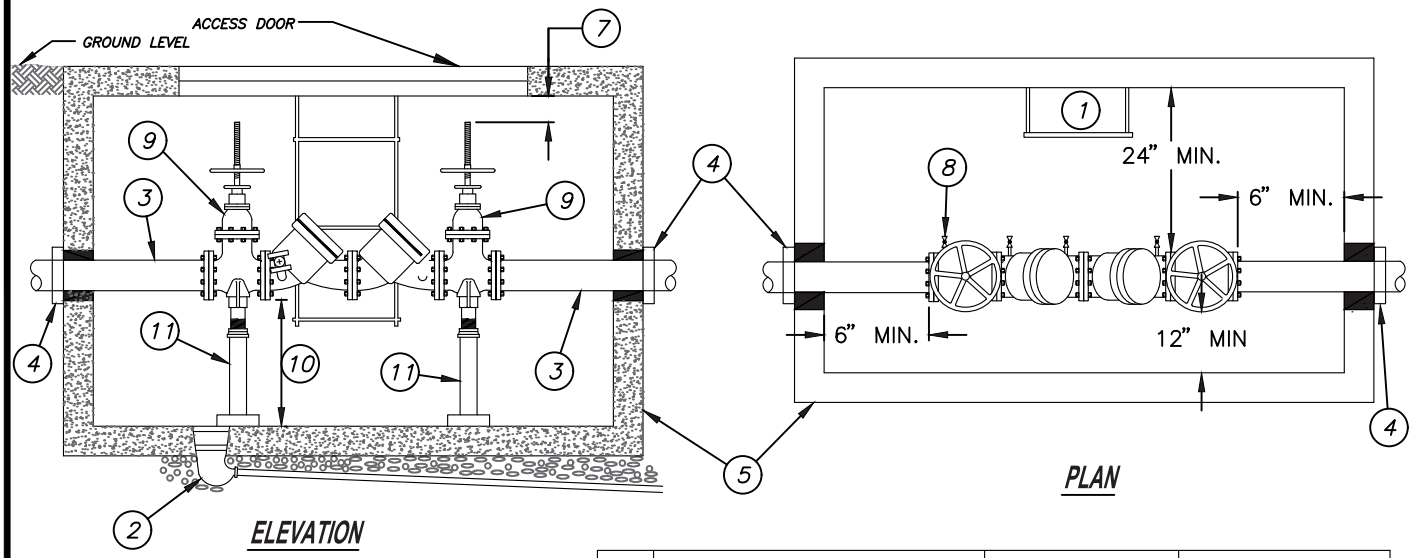
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
DOUBLE CHECK VALVE ASSEMBLY
IRRIGATION OR DOMESTIC, 3/4" Ø TO 2" Ø

SCALE: N.T.S.

D&S Drawing No.
223

EFFECTIVE DATE:
JUNE, 2024



ELEVATION

PLAN

SIZE	MIN. VAULT SIZE (INSIDE) W	L	H	UTIL. VAULT CO. MODEL	UTIL. VAULT CO. COVER
3"	3'–8"	4'–8"	3'–3"	644–LA	64–2–332P
4"	3'–10"	5'–3"	3'–8"	575–LA	57TL–2–332P
6"	4'–0"	6'–6"	4'–5"	577–LA	57TL–2–332P
8"	4'–5"	7'–8"	5'–3"	4484–LA	4484–TL2–332P
10"	4'–8"	8'–8"	6'–1"	5106–LA	5106–TL3–332

LEGEND:

(1) ONE GALVANIZED STEEL LADDER TO BE SECURED TO VAULT.

(2) DRAIN SLOPE TO DAYLIGHT, WHEN POSSIBLE – (SUMP PUMP MAY BE REQUIRED).

(3) CLASS 52 DUCTILE IRON PIPE REQUIRED (SIZED AS REQUIRED)

(4) UNIFLANGE WITH SET SCREWS OR MJ X FL ADAPTERS WITH MEGALUG OR GALVANIZED SHACKLE TO MAIN WITH (2) 3/4" RODS OR MJ RETAINER GLANDS.

(5) PRECAST CONCRETE VAULT WITH A MINIMUM OF TWO, 3' X 3' DIAMOND PLATE DOORS RATED FOR H20 LOADING. MARKED "WATER". VAULT SHALL BE EQUAL TO UTILITY VAULT CO. MODEL LISTED IN TABLE PROVIDED.

(6) WATER TIGHT GROUT SHALL BE USED IN ALL VAULT PENETRATIONS.

(7) A MINIMUM OF 3" BETWEEN THE UNDERSIDE OF THE LID, OR VAULT, AND THE HIGHEST POINT OF VALVING AND ASSEMBLY IS REQUIRED.

(8) THE DEVICE MUST BE EQUIPPED WITH (4) RESILIENT SEATED TEST COCKS WITH PLUGS INSTALLED.

(9) THE DEVICE MUST ALSO BE EQUIPPED WITH (2) RESILIENT WEDGE STANDARD SHUT OFF VALVES, WITH STEM AND HAND WHEEL, WHICH SHALL BE COATED WITH A MINIMUM OF 4MLS. OF EPOXY OR EQUIVALENT POLYMERIZED COATING.

(10) A MINIMUM OF A 12" CLEARANCE IS REQUIRED BETWEEN THE LOWEST POINT OF THE DEVICE AND TO THE BOTTOM OF THE VAULT.

(11) TWO ADJUSTABLE PIPE STANCHIONS REQUIRED AND SIZED APPROPRIATELY.

DETAIL NOTES:

1. VAULT ASSEMBLY TO BE CENTERED IN VAULT.
2. TEE AND GATE VALVE REQUIRED ON CONNECTION TO MAINLINE.
3. THE D.C.V.A. CHOSEN MUST BE THE MOST RECENT WA. STATE APPROVAL LISTING.
4. THE D.C.V.A. MUST BE TESTED BY A WA. STATE CERTIFIED BACKFLOW ASSEMBLY TESTER AT TIME OF INSTALLATION, ANNUALLY, AND WHEN MOVED OR REPAIRED
5. ALL INSTALLATIONS MUST MEET MANUFACTURERS SPECIFICATIONS AND MEET THE MINIMUM STANDARDS OF THE UNIFORM PLUMBING CODE.

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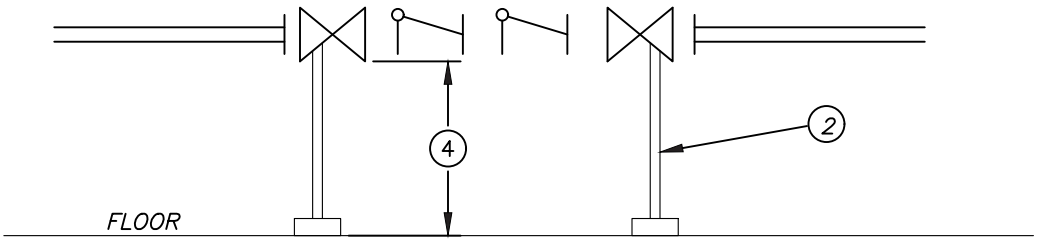
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
DOUBLE CHECK VALVE ASSEMBLY FOR IRRIGATION AND DOMESTIC, 3" TO 10"

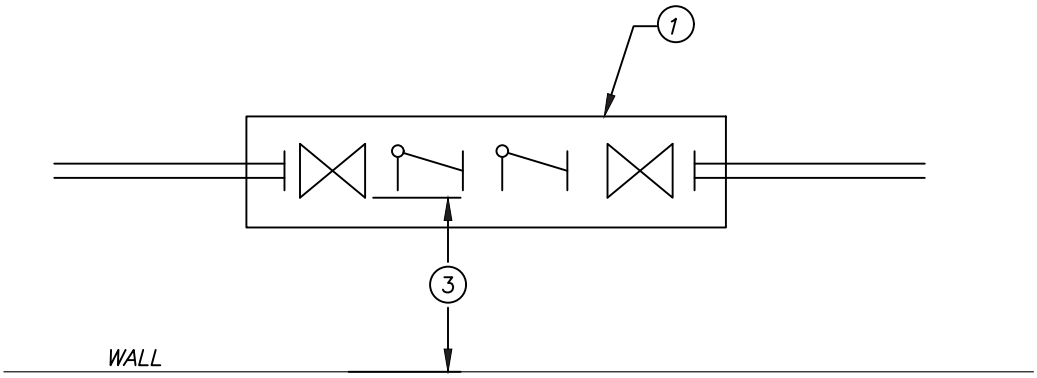
SCALE: N.T.S.

D&S Drawing No. 224

EFFECTIVE DATE: JUNE, 2024



PROFILE



PLAN

LEGEND:

(1) STATE APPROVED DOUBLE CHECK VALVE ASSEMBLY OR REDUCED PRESSURE BACKFLOW ASSEMBLY.

(2) (2) SUPPORTS (EITHER WALL OR FLOOR) ONE ON EACH SIDE OF ASSEMBLY. MUST FIRMLY ANCHOR ASSEMBLY.

(3) PROVIDE A MINUMUM OF 6" SIDE CLEARANCE BETWEEN ASSEMBLY AND WALL OR OBSTRUCTION.

(4) CLEARANCE BETWEEN FLOOR AND ASSEMBLY MUST BE A MINIMUM OF 12" AND A MAXIMUM OF 5'.

DETAIL NOTES:

1. THE ASSEMBLY MUST BE INSTALLED HORIZONTALLY UNLESS OTHERWISE APPROVED FOR VERTICAL INSTALLATION.
2. WATER QUALITY SECTION MUST BE CERTIFIED AND TESTED BEFORE USE.
3. PROTECT AGAINST FREEZING OR DAMAGE. USE HEAT TAPE IF AREA IS SUBJECT TO FREEZING, BUT DO NOT OVER LAP HEAT TAPE.
4. THE ASSEMBLY MUST BE TESTED BY A WA. CERTIFIED BACK FLOW ASSEMBLY TESTER AT THE TIME OF INSTALLATION, ANNUALLY, AND WHEN MOVED OR REPAIRED.
5. INTERIOR WATER APPURTENANCES MUST CONFORM TO UNIFORM PLUMBING CODE REQUIREMENTS.
6. ALL RELIEF PORTS MUST BE KEPT CLEAN AND FREE FROM DEBRIS AND A LEGAL AIR GAP MUST BE MAINTAINED.

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
INSIDE INSTALLATION: DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW ASSEMBLIES

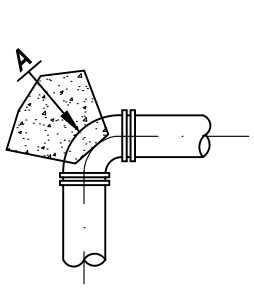
SCALE: N.T.S.

D&S Drawing No.
225

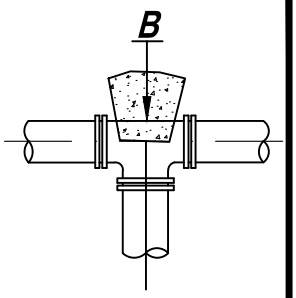
EFFECTIVE DATE:
JUNE, 2024

THRUST BLOCK - TABLE

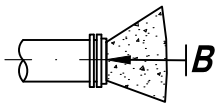
PIPE SIZE	PRESSURE PSI	MINIMUM BEARING AREA AGAINST UNDISTURBED SOIL SQUARE FEET A	B	C	D	E
4"	200 300	2/(1) 3/(2)	1/(NONE) 2/(2)	1/(NONE) 2/(1)	NONE 1/(1)	NONE NONE
6"	200 300	4/(3) 6/(4)	3/(2) 4/(3)	3/(1) 3/(2)	1/(1) 2/(1)	1/(NONE) 1/(NONE)
8"	200 300	7/(5) 11/(8)	5/(3) 8/(5)	4/(3) 6/(4)	2/(2) 3/(2)	1/(1) 2/(1)
10"	200 275	11/(8) 16/(11)	8/(6) 11/(7)	6/(4) 9/(6)	3/(2) 5/(3)	2/(1) 3/(2)
12"	200 250	16/(11) 24/(16)	11/(8) 17/(11)	9/(6) 13/(9)	5/(3) 7/(5)	3/(2) 4/(3)
14"	200 250	22/(13) 33/(22)	16/(11) 23/(16)	12/(8) 18/(12)	6/(4) 9/(6)	3/(2) 5/(3)
16"	200 225	29/(19) 23/(16)	21/(14) 23/(16)	16/(11) 17/(12)	8/(6) 9/(6)	5/(3) 5/(3)
18"	200	36/(24)	26/(17)	20/(13)	10/(7)	5/(4)
20"	200	45/(29)	32/(21)	24/(16)	13/(8)	7/(4)
24"	200	64/(43)	46/(30)	35/(23)	18/(12)	9/(6)



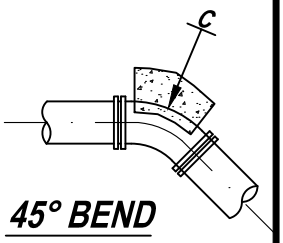
90° BEND



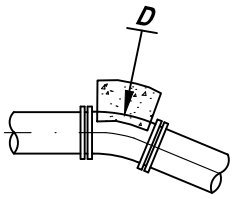
TEE



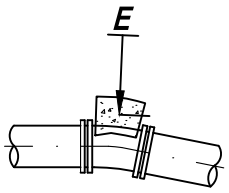
BLIND FLANGE



45° BEND



22 1/2° BEND



11 1/4° BEND

NOTES:

1. BLOCKING SHALL USE Fc = 3000 PSI(MIN) CONCRETE.
2. SQUARE FEET OF CONCRETE THRUSTS – BLOCK AREA BASED ON SAFE BEARING LOAD OF 2000/(3000) POUNDS PER SQUARE FOOT.
3. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPE, PRESSURES & SOIL CONDITIONS.
4. CONCRETE BLOCKING SHALL BE CAST IN PLACE & HAVE MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.
5. BLOCK SHALL BEAR AGAINST FITTINGS ONLY & SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING JOINT.
6. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
7. 8 MIL PLASTIC OR CONSTRUCTION FABRIC WILL BE WRAPPED AROUND PIPE AND FITTINGS BEFORE THRUST BLOCKS ARE POURED.

SAFE BEARING LOADS IN LB./SQ. FT.

THE SAFE BEARING LOADS GIVEN IN THE FOLLOWING TABLE ARE FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET.

SOIL	SAFE BEARING LOAD LB. PER SQ. FT.
* MUCK, PEAT, ETC.	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

* IN MUCK OR PEAT, ALL THRUSTS SHALL BE RESTRAINED BY PILES OR TIE RODS TO SOLID FOUNDATIONS OR BY REMOVAL OF MUCK OR PEAT AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THRUST.

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: WATER MAIN THRUST BLOCKING

SCALE: N.T.S.

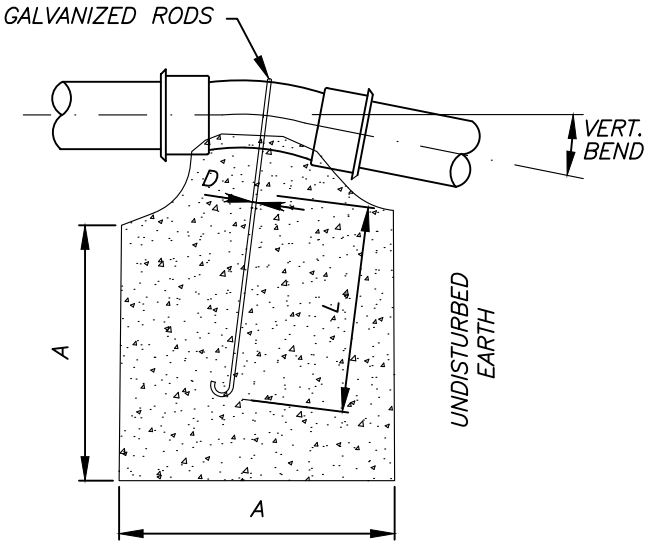
D&S Drawing No. 231

EFFECTIVE DATE: JANUARY 2026

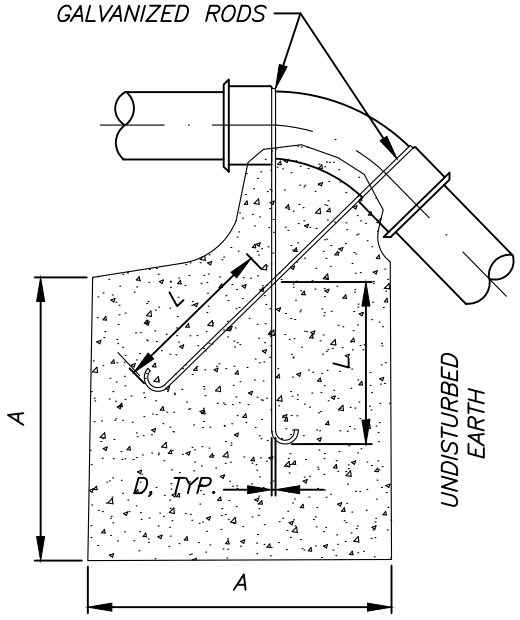
VERTICAL (ANCHOR) BLOCKING FOR 11 1/4°-22 1/2° BENDS					
PIPE SIZE	V B	CU FT	A	D	L
4"	11 ¼°	8	2.0'	¾"	1.5'
	22 ½°	11	2.2'		2.0'
6"	11 ¼°	11	2.2'	¾"	2.0'
	22 ½°	25	2.9'		
8"	11 ¼°	16	2.5'	¾"	2.0'
	22 ½°	47	3.6'		
12"	11 ¼°	32	3.2'	¾"	2.0'
	22 ½°	88	4.5'	⅞"	3.0'
16"	11 ¼°	70	4.1'	⅞"	3.0'
	22 ½°	184	5.7'	1 ⅛"	4.0'
20"	11 ¼°	91	4.5'	⅞"	3.0'
	22 ½°	225	6.1'	1 ¼"	4.0'
24"	11 ¼°	128	5.0'	1"	3.5'
	22 ½°	320	6.8'	1 ⅜"	4.5'
VERTICAL (ANCHOR) BLOCKING FOR 45° BENDS					
4"	45°	30	3.1'	¾"	2.0'
6"		68	4.1'		
8"		123	5.0'		
12"		232	6.1'	¾"	2.5'
16"		478	7.8'	1 ⅛"	4.0'
20"		560	8.2'	1 ¼"	
24"		820	9.4'	1 ⅜"	4.5'

NOTES:

1. BLOCKING SHALL USE Fc = 3000 PSI(MIN) CONCRETE.



VERTICAL (ANCHOR) BLOCKING FOR 11 1/4°, 22 1/2° BENDS



VERTICAL (ANCHOR) BLOCKING FOR 45° BENDS

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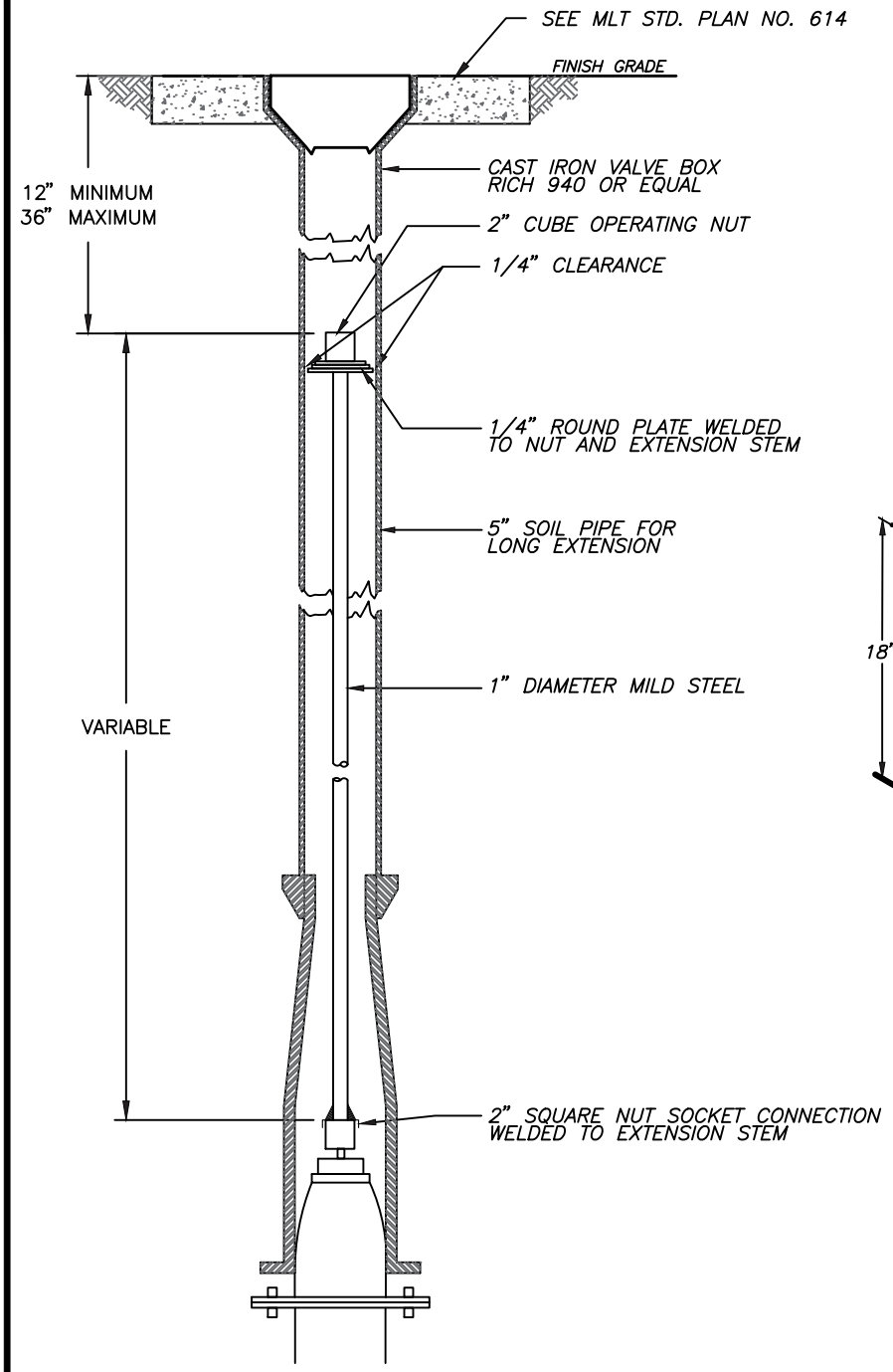
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ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
WATER MAIN VERTICAL (ANCHOR) THRUST BLOCKING

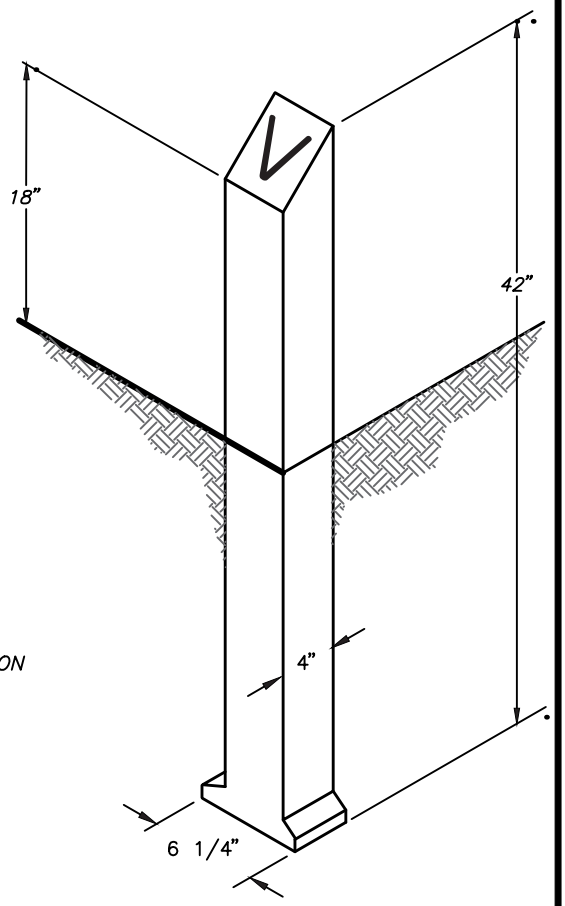
SCALE: N.T.S.

D&S Drawing No. 232

EFFECTIVE DATE: JANUARY 2026



VALVE NUT OPERATOR EXTENSION



VALVE MARKER POST

NOTES:

1. MINIMUM EXTENSION LENGTH 12".
2. ONLY ONE EXTENSION PER VALVE.
3. POST SHALL BE FOGTITE VALVE MARKER OR EQUAL. PAINT VALVE MARKER WITH RUSTOLEUM BLUE. PAINT THE DISTANCE FROM THE VALVE MARKER TO THE VALVE ON THE POST WITH BLACK ENAMEL PAINT.
4. VALVE MARKER POST TO BE USED FOR ALL MAINLINE VALVES OUTSIDE PAVED AREAS.

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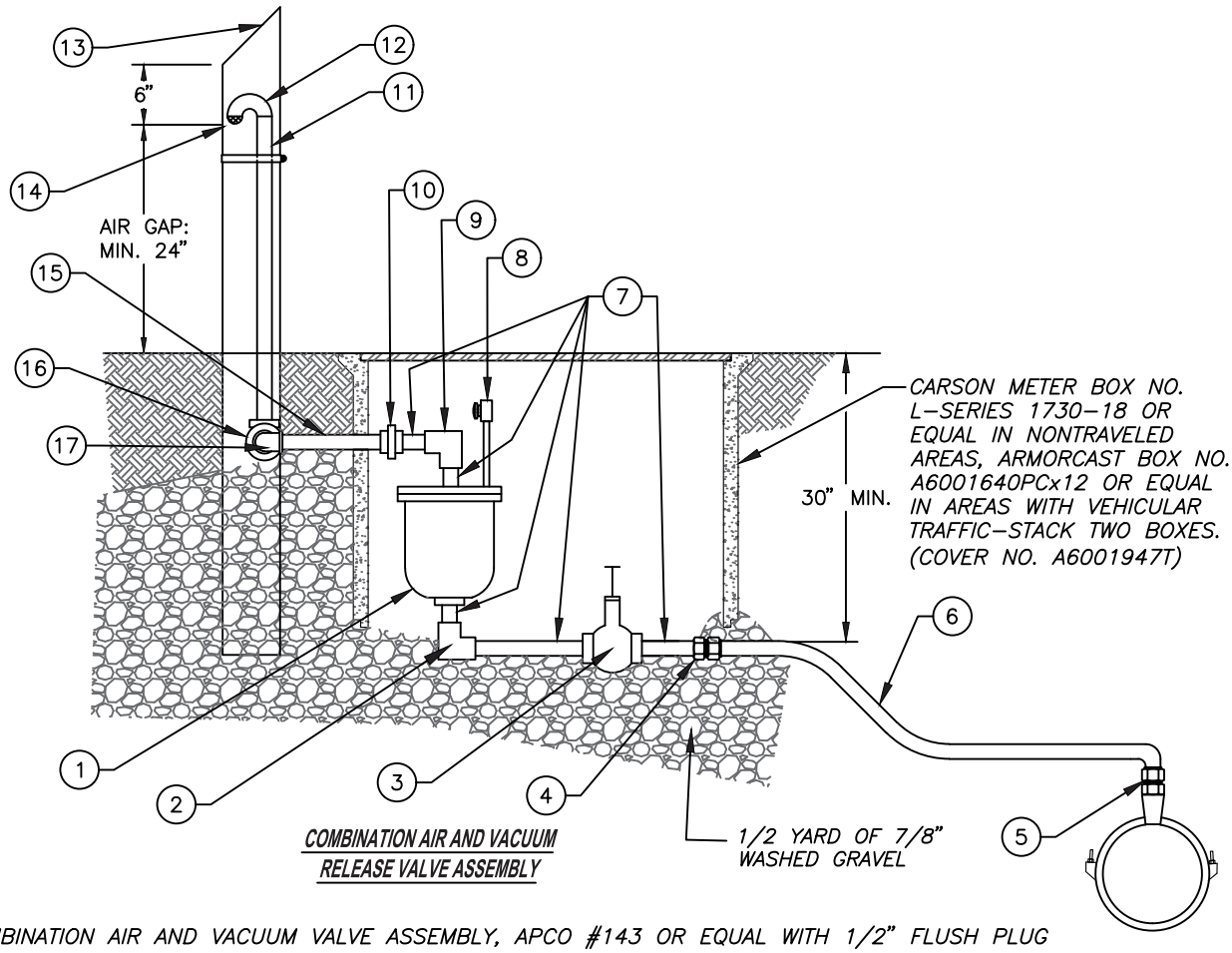
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
VALVE NUT OPERATOR EXTENSION AND VALVE MARKER POST

SCALE: N.T.S.

D&S Drawing No.
233

EFFECTIVE DATE:
JUNE, 2024



COMBINATION AIR AND VACUUM RELEASE VALVE ASSEMBLY

NOTES:

(1) 1" COMBINATION AIR AND VACUUM VALVE ASSEMBLY, APCO #143 OR EQUAL WITH 1/2" FLUSH PLUG

(2) 1" 90° BRASS ELBOW

(3) 1" GATE OR BALL VALVE

(4) 1" COMPRESSION COPPER CONNECTION X MIP ADAPTER OR MUELLER 110 FITTINGS

(5) 1" CORPORATION STOP, FORD FB1000–4 OR EQUAL. AWWA/CC X PACKING JOINT, COMPRESSION, OR GRIP JOINT

(6) 1" COPPER LINE AWWA TYPE K, POSITIVE SLOPE TO AIR VAC

(7) 1" BRASS NIPPLE

(8) 1/4" BALL VALVE WITH BRASS NIPPLE TO FLUSH AIR VAC

(9) 1" 90° BRASS ELBOW

(10) 1" UNION, DIELECTRIC

(11) 2" GALV. IRON PIPE, FIELD LOCATE

(12) 2" 180° OPEN PATTERN RETURN BEND

(13) INSTALL VALVE MARKER POST AND STRAP PIPE TO WITH S.STL STRAPPING OR HOSE CLAMP

(14) 2" BEEHIVE STRAINER

(15) 1" GALV. IRON PIPE TO FIT

(16) 1" CLOSE NIPPLE, 1" 90° ELBOW

(16) DRILL 1/8" HOLE AT THE BOTTOM OF BEND FOR DRAINAGE

GENERAL NOTES:

1. 2" GALVANIZED PIPE ABOVE GRADE TO BE ACID ETCHED, CLEANED AND PAINTED WITH TWO COATS RUSTOLEUM HIGH GLOSS WHITE PAINT.
2. AIR AND VACUUM RELEASE VALVE ASSEMBLY MUST BE INSTALLED AT THE HIGHEST POINT IN THE LINE. IF THE HIGH POINT FALLS IN A LOCATION WHERE THE ASSEMBLY CANNOT BE INSTALLED, PROVIDE ADDITIONAL DEPTH OF LINE TO CREATE A HIGH POINT WHERE THE ASSEMBLY CAN BE INSTALLED.

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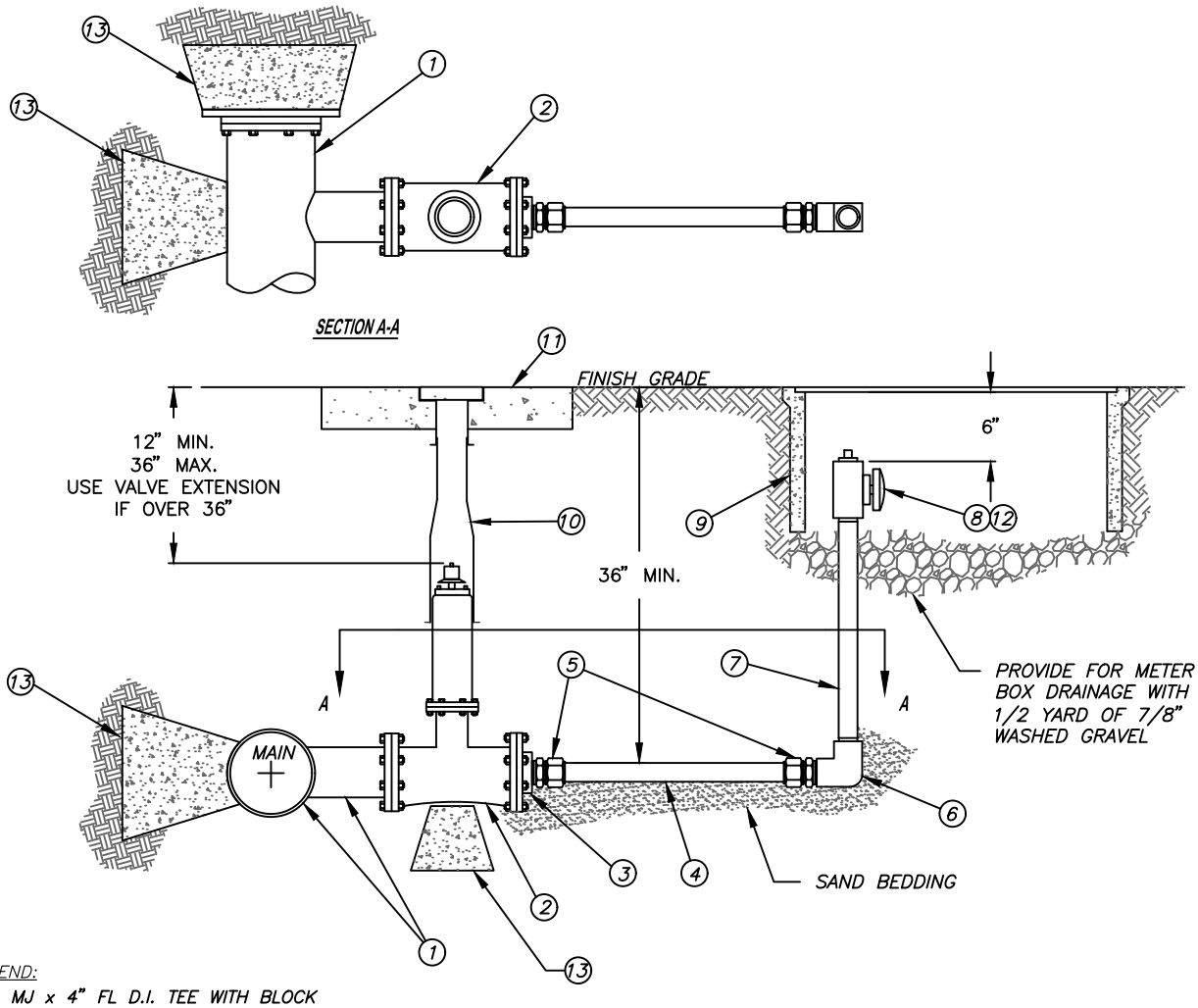
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
AIR & VACUUM RELEASE VALVE ASSEMBLY

SCALE: N.T.S.

D&S Drawing No.
234

EFFECTIVE DATE:
JUNE, 2024



LEGEND:

(1) MJ x 4" FL D.I. TEE WITH BLOCK

(2) 4" FL x FL GATE VALVE, RESILIENT WEDGE, EPOXY COATED VALVE, NON-RISING STEM, AWWA STANDARD SPECIFICATIONS.

(3) 4" FL x 2" SCREW COMPANION FLANGE

(4) 2" COPPER LINE, AWWA TYPE K, SPEC 7S-CR

(5) 2" MIP x COMPRESSION, GRIP JOINT, OR PACK JOINT

(6) 2" 90 DEGREE BRASS ELBOW

(7) 2" BRASS NIPPLE OF SUFFICIENT LENGTH

(8) 2" GATE VALVE

(9) ARMORCAST BOX NO. A6001640PCx12 OR EQUAL-STACK TWO BOXES. (COVER NO. A6001947T).

(10) CAST IRON VALVE BOX, EJ IRON WORKS 8555 SERIES OR EQUAL WITH DEEP SKIRT LID

(11) SEE MLT D&S NO. 614 VALVE BOX ADJUSTMENT.

(12) 2" PVC OR BRASS PIPE SQUARE HEAD PLUG HAND TIGHTENED.

(13) CLASS 3000 CONCRETE SUPPORT BLOCK

DETAIL NOTES:

1. WRAP ALL FITTINGS WITH PLASTIC.
2. NO SPLICES SHALL BE MADE UNDER ROADWAY, CEMENT CONCRETE WALKS, CURBS, STRUCTURES OR UNDER ROCKERIES.
3. IF UNIONS ARE NECESSARY FOR SERVICE CONSTRUCTION THEY SHALL BE 3 PART UNION (COPPER X COPPER) MUELLER H-15400 OR EQUAL.
4. LINE SHALL BE PERPENDICULAR TO THE WATER MAIN UNLESS OTHERWISE APPROVED BY THE ENGINEER. BURY SERVICE LINE 30" MINIMUM BELOW SURFACE GRADE.
5. FOR METER BOX INSTALLATION IN THE SIDEWALK, INSTALL EXPANSION JOINTS WITH A MINIMUM OF 12" BETWEEN BOX AND JOINT.

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Richard Meredith, PE, RTOE

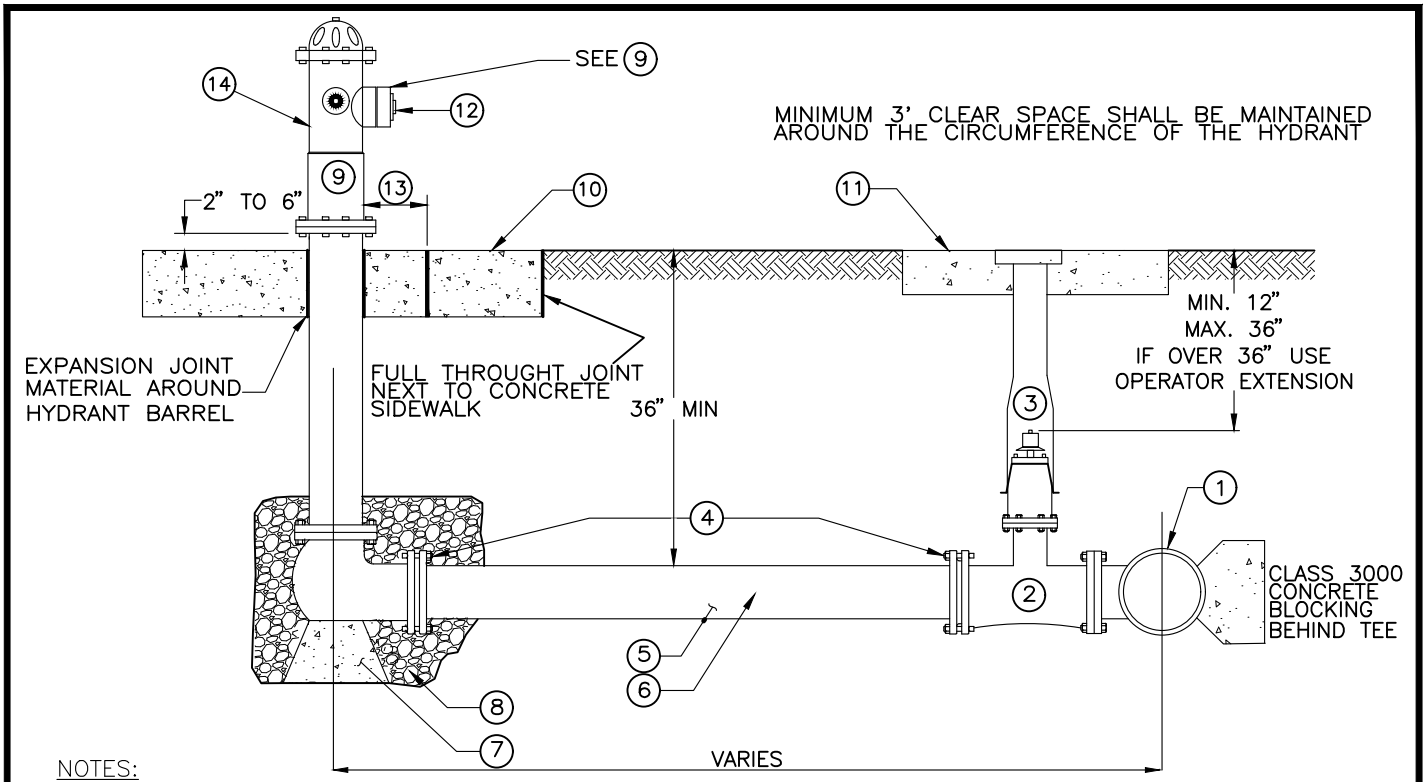
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
2" Ø BLOW OFF ASSEMBLY FOR PERMANENT DEAD END INSTALLATIONS

SCALE: N.T.S.

D&S Drawing No. 235

EFFECTIVE DATE: JANUARY 2026



NOTES:

(1) MAIN DIA. MJ X 6" FL DUCTILE IRON TEE OR TAPPING TEE. IF TAPPING TEE, THEN USE STAINLESS STEEL FULL CIRCLE RUBBER GASKET.

(2) 6" GATE VALVE FL X MJ, NONRISING STEM, BRONZE MOUNTED, RESILIENT TYPE AWWA STANDARD SPECIFICATION RW C 509 OR C 515. VALVES SHALL OPEN LEFT AND BE EQUIPPED WITH 2" SQUARE OPERATING NUTS.

(3) CAST IRON VALVE BOX, EJ 8555 SERIES OR APPROVED EQUAL.

(4) 5/8" X 3" BOLTS WITH NUTS FOR FLANGED CONNECTION, ZINC OR CADMIUM PLATED OR EQUAL. RING GASKET 1/16" RUBBER CLOTH INSERTED.

(5) 6" DI PIPE, CL 52, PLAIN ENDS, VARIABLE LENGTH OF SPOOL. IF SPOOL IS MADE OF MORE THAN ONE PIPE, PUSH ON PIPE SHALL BE MADE WITH "FIELD LOK" GASKET OR APPROVED EQUAL.

(6) CONNECTIONS OF HYDRANTS AND HYDRANT VALVES TO SPOOL SHALL BE MADE WITH BOLTED RESTRAINT SYSTEMS, UNI-FLANGE SERIES 1400 RETAINER GLANDS OR APPROVED EQUAL.

(7) SUPPORT BLOCK, 12" CONCRETE PIER BLOCK, ON UNDISTURBED EARTH.

(8) MINIMUM OF ONE CUBIC YARD OF 7/8" WASHED GRAVEL FOR HYDRANT FOOT VALVE DRAINAGE WRAPPED IN FABRIC.

(9) APPROVED HYDRANTS: AMERICAN WATEROUS PACER, MUELLER SUPER CENTURION A-423. 5-1/4" MINIMUM MAIN VALVE OPENING; 6" MJ OR FL INLET CONNECTION; TWO 2-1/2" NATIONAL STANDARD THREAD HOSE CONNECTIONS AND ONE 4-1/2" PUMP CONNECTION WITH 1-1/4" OPERATING NUT, NATIONAL STANDARD THREAD. PUMPER TO FACE STREET, OR AS DIRECTED BY THE FIRE DEPARTMENT. THE HYDRANT SHALL BE LEFT IN THE STANDARD YELLOW COLOR AS IT ARRIVES FROM THE MANUFACTURER. STORZ ADAPTER SHALL NOT BE PAINTED.

(10) CONCRETE PAD AROUND HYDRANT IN UNPAVED AREAS. 36" SQUARE X 6" THICK CLASS 3000 CONCRETE.

(11) SEE MLT D&S NO. 605.

(12) 4" STORZ PERMANENT MOUNT PUMPER ADAPTER WITH BLIND CAP AND CABLE.

(13) LOCATE 2 FEET BACK OF SIDEWALK.

(14) SEE MLT D&S NO. 252 FOR HYDRANT PROTECTION.

(15) ALL HYDRANTS SHALL CONNECT TO 8" MAIN MIN.

DETAIL NOTE:

1. BLUE RETROREFLECTIVE RAISED PAVEMENT MARKER TYPE II (PER WSDOT STD SPECIFICATION) TO BE INSTALLED ALONG THE ROADWAY, WHERE DIRECTED BY ENGINEER.
2. FIRE HYDRANTS SHALL BE LOCATED CONSISTENT WITH MTMC 13.55.

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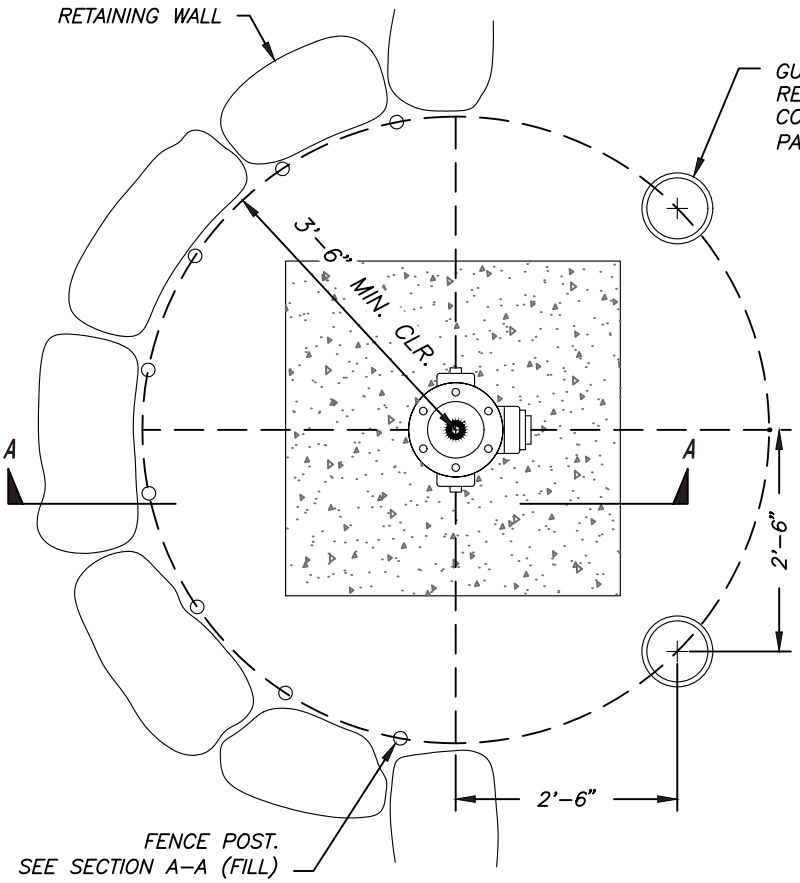
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
FIRE HYDRANT ASSEMBLY

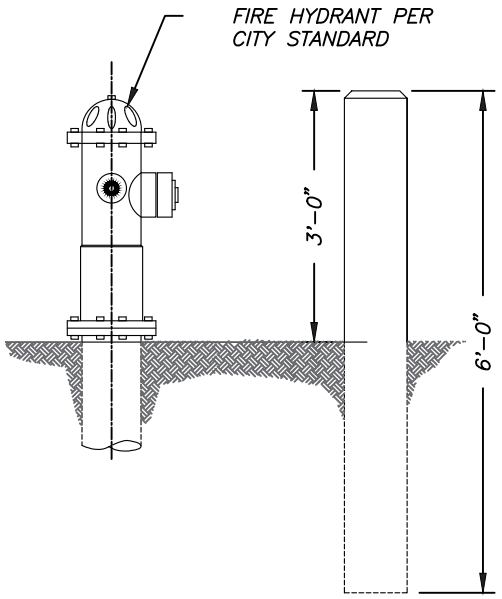
SCALE: N.T.S.

D&S Drawing No.
251

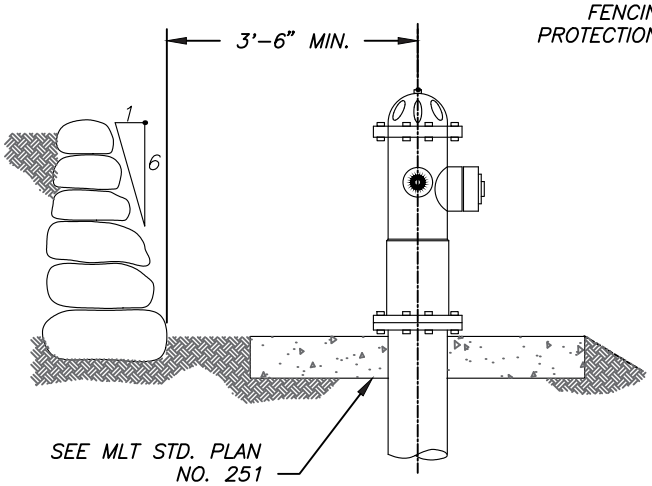
EFFECTIVE DATE:
JANUARY 2026



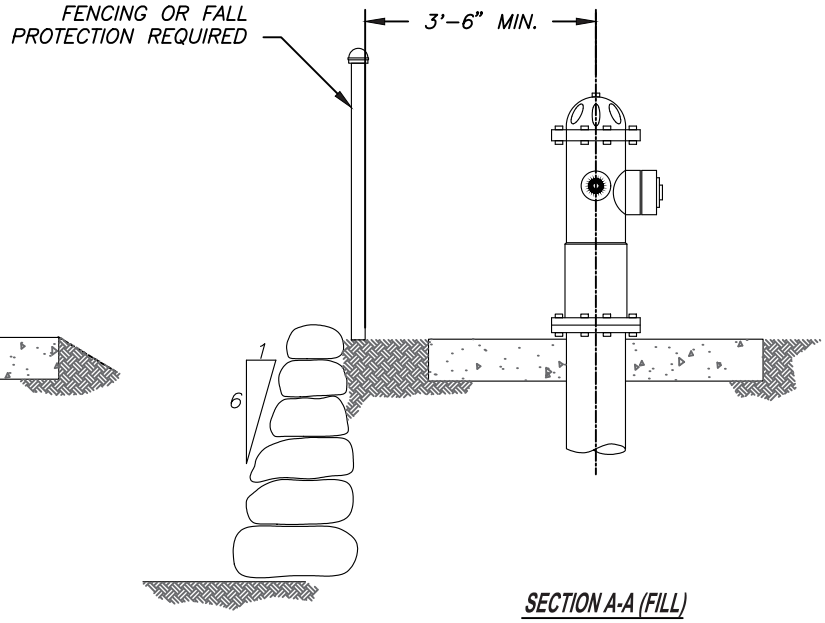
PLAN VIEW



GUARD POST ELEVATION



SECTION A-A (CUT)



SECTION A-A (FILL)

FIRE HYDRANT LOCATION IN CUT OR FILL AND GUARD POST DETAIL

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Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
FIRE HYDRANT LOCATION & GUARD POSTS

SCALE: N.T.S.

D&S Drawing No.
252

EFFECTIVE DATE:
JUNE, 2024

SECTION 3

SANITARY SEWER

SANITARY SEWER GENERAL NOTES

All work and materials shall be in accordance with the "Standard Specifications for Road, Bridge, and Municipal Construction," Washington State Department of Transportation, current edition.

A copy of the approved plans shall be on site whenever construction is in progress.

It shall be the sole responsibility of the contractor to obtain street use and any other related permits prior to any construction activity in City right-of-way.

Prior to any construction activity a pre-construction meeting shall be requested via the online permit center. Follow the instructions below to create your online account:

A. Visit the Permits & Licenses website: https://www.cityofmlt.com/1993/

B. Click on the green Permit Portal box



This takes you to the portal account page.

C. At the top left above the header select **Setup an Account** to create your account.

D. Contractors: Use the link for Contractor Application in the blue pane on the left to apply for a new AEC account.



All locations of existing utilities shall be verified by field survey or obtained from available records and should therefore be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations, and to further discover and avoid any other utilities not shown which may be affected by the work implementation. The contractor shall contact the utilities underground location service (1-800-424-5555) prior to construction. The owner or his representative shall be immediately contacted if a utility conflict exists.

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SANITARY SEWER GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No.
300-1

EFFECTIVE DATE:
JANUARY 2026

SANITARY SEWER GENERAL NOTES

The sanitary sewer system shall be staked by a Washington State licensed land surveyor and constructed according to the approved plans which are on file in the City of Mountlake Terrace Engineering Department. Any deviation from the approved plans will require written approval from the proper agency.

All new sanitary sewer lines shall be sealed off at the existing trunk connection point until all upstream construction is completed, cleaned, tested, lamped, and accepted by the City of Mountlake Terrace. All construction debris and water shall be removed from pipe prior to opening seal. At the end of the project and prior to acceptance, all sanitary sewer lines shall be inspected by TV viewing and submitted to the City as a permanent record on DVD or removable flash memory.

Manhole and Lids:

A. All manholes shall be MLT D&S No. 331 type, with eccentric cone.

B. Outside drop connections must be approved by the City and constructed in conformance to MLT D&S No. 334.

C. All manholes shall have a minimum drop of 0.10 feet between inverts.

D. All manholes not in paved areas shall have bolt down lids.

E. The contractor shall adjust all manhole tops to match final asphalt elevations and ground elevations in landscaped areas.

Sewer pipe, bedding, and trench compaction:

A. All sewer pipe shall be one of the following:

1. P.V.C., conforming with ASTM D-3034, SDR 35 to a maximum depth of 16 feet.
2. Ductile Iron, Class 52, conforming to ANSI/AWWA C151.

3. Pipe may be any of the above provided:

   a) Adjoining pipe lengths must be of the same materials and be provided with rubber gasket joints.

   b) Where a pipe material is specifically shown on the plan, that material must be used. Any change to the pipe material shown on the plan must be pre-approved.

B. Pipe bedding shall be 5/8" minus crushed surfacing top course (CSTC) or as directed by the engineer or as designated on the plan.

C. Trench backfill shall be compacted to minimum 95% dry optimum density per ASTM D1777, or latest revision, (modified Proctor) prior to testing sewer lines for acceptance.

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SANITARY SEWER GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 300-2

EFFECTIVE DATE: JANUARY 2026

SANITARY SEWER GENERAL NOTES

. Side sewer laterals:

A. Side sewers shall be 6" minimum diameter within City right-of-way with 1.0% minimum slope. Side sewers may be 4" minimum diameter with 2.0% minimum slope on private property.

B. Side sewers shall be tested for leakage at the same time the main line sewer is tested. If not tested together, provide test tees at sewer connections.

C. Buildings with greater than 8 units shall be serviced by one of the following methods:

1. Single 8" diameter service with cleanout connected to trunk into manholes only.

2. Alternate connection methods in compliance with "Criteria for Sewage Design", Washington State Department of Ecology.

D. All lateral connections to sewer mains shall be made with a tee. Where no tee is available, use an approved saddle for sewer connection. Laterals 8" diameter or larger require a manhole at the connection.

E. 6" cleanouts must be provided at the right-of-way line for laterals extending from City owned mains. All cleanouts must be brought to the surface in accordance with MLT D&S No. 323.

F. All side sewers shall have 12 gauge stranded green locate wire and detectable locate tape in the trench.

. Whenever sewers must cross under water main the sewer shall be laid as specified in "Criteria for Sewage Design", Washington State Department of Ecology.

. Sand collars or other City approved couplings are required on all PVC pipe connections to concrete manholes.

. An as-built sanitary sewer drawing shall be submitted for all developments, short plats and subdivisions.

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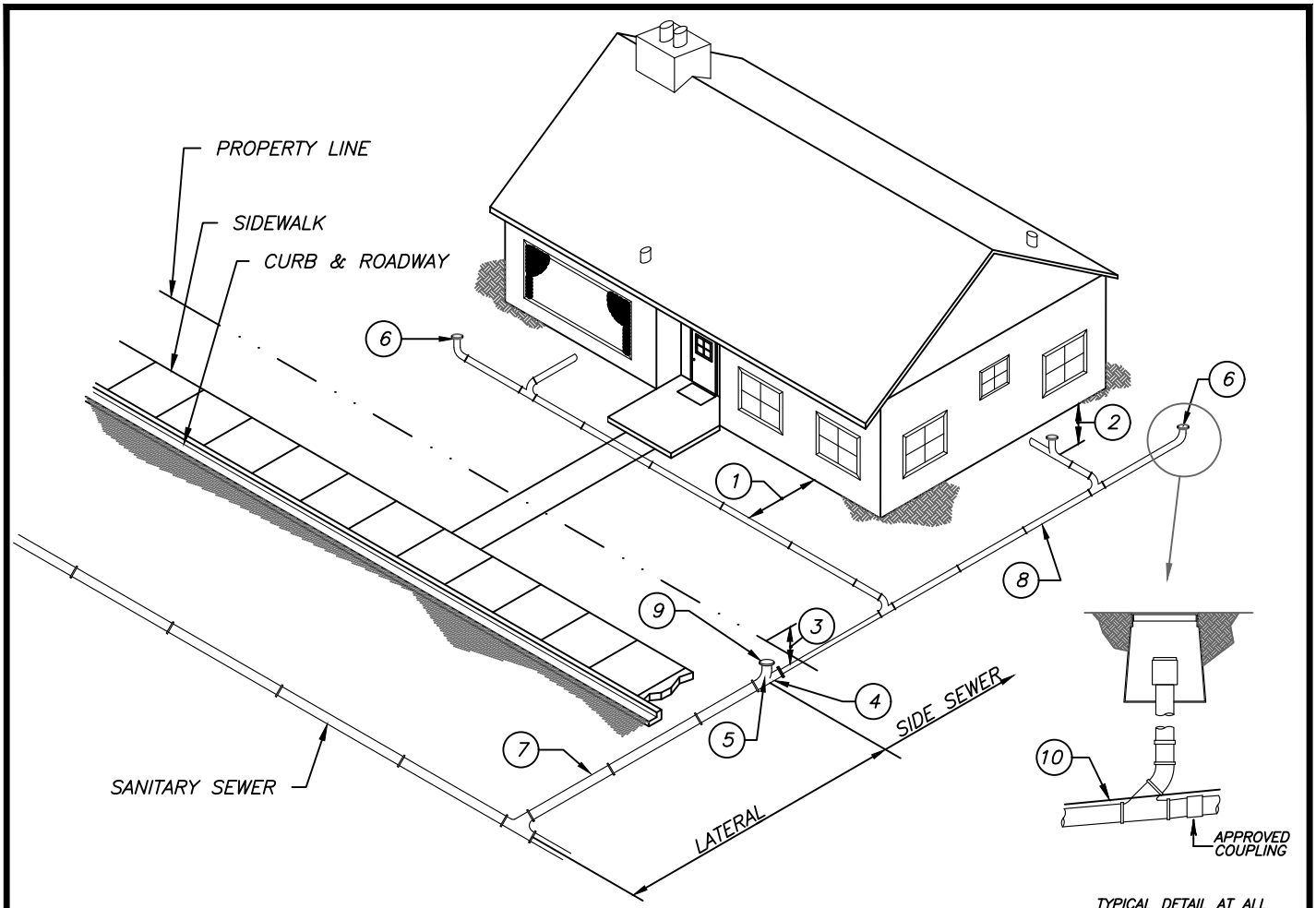
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SANITARY SEWER GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 300-3

EFFECTIVE DATE: JANUARY 2026



TYPICAL DETAIL AT ALL CLEANOUTS

NOTES:

1. 30" MINIMUM DISTANCE FROM HOUSE.
2. 18" MINIMUM COVERAGE OF PIPE.
3. 24" MINIMUM COVERAGE AT PROPERTY LINE.
4. STANDARD 6" TO 4" REDUCER AND TEST TEE. AT THE DISCRETION OF THE CITY INSPECTOR THE TEST TEE SHALL BE PLUGGED AND TESTED WITH WATER.
5. 6" CLEANOUT WITH 22° OR 45° RISER BROUGHT TO THE SURFACE INSIDE A CLEANOUT BOX. SEE MLT D&S No.323.
6. CLEANOUT WITH 22° OR 45 ° RISER BROUGHT WITHIN 6" OF SURFACE IN UNPAVED AREAS, WITH PVC ADAPTER AND THREADED PLUG, ENCLOSED IN CARSON 910 (10" RND) WITH LID MARKED "SEWER" OR EQUAL.
7. 6" MINIMUM SEWER PIPE FOR STREET INSTALLATIONS AND MULTIPLE SERVICES, ELSEWHERE AS DIRECTED.
8. 4" MINIMUM SEWER PIPE ON PROPERTY. 2% MINIMUM GRADE, 100% MAXIMUM GRADE. (SEE DETAIL).
9. CLEANOUT AT THE PROPERTY LINE UNDER PAVED SURFACE SHALL BE INSTALLED IN A CAST IRON CLEANOUT RING AND COVER. CLEANOUT AT THE PROPERTY LINE IN DIRT OR GRASS SHALL BE INSTALLED IN A FOGTITE 01 BOX. SEE MLT D&S NO. 323.
10. SIDE SEWER SHALL HAVE 12 AWG STRANDED GREEN LOCATE WIRE AND DETECTABLE LOCATE TAPE IN THE TRENCH.

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SIDE SEWER INSTALLATION
SINGLE FAMILY

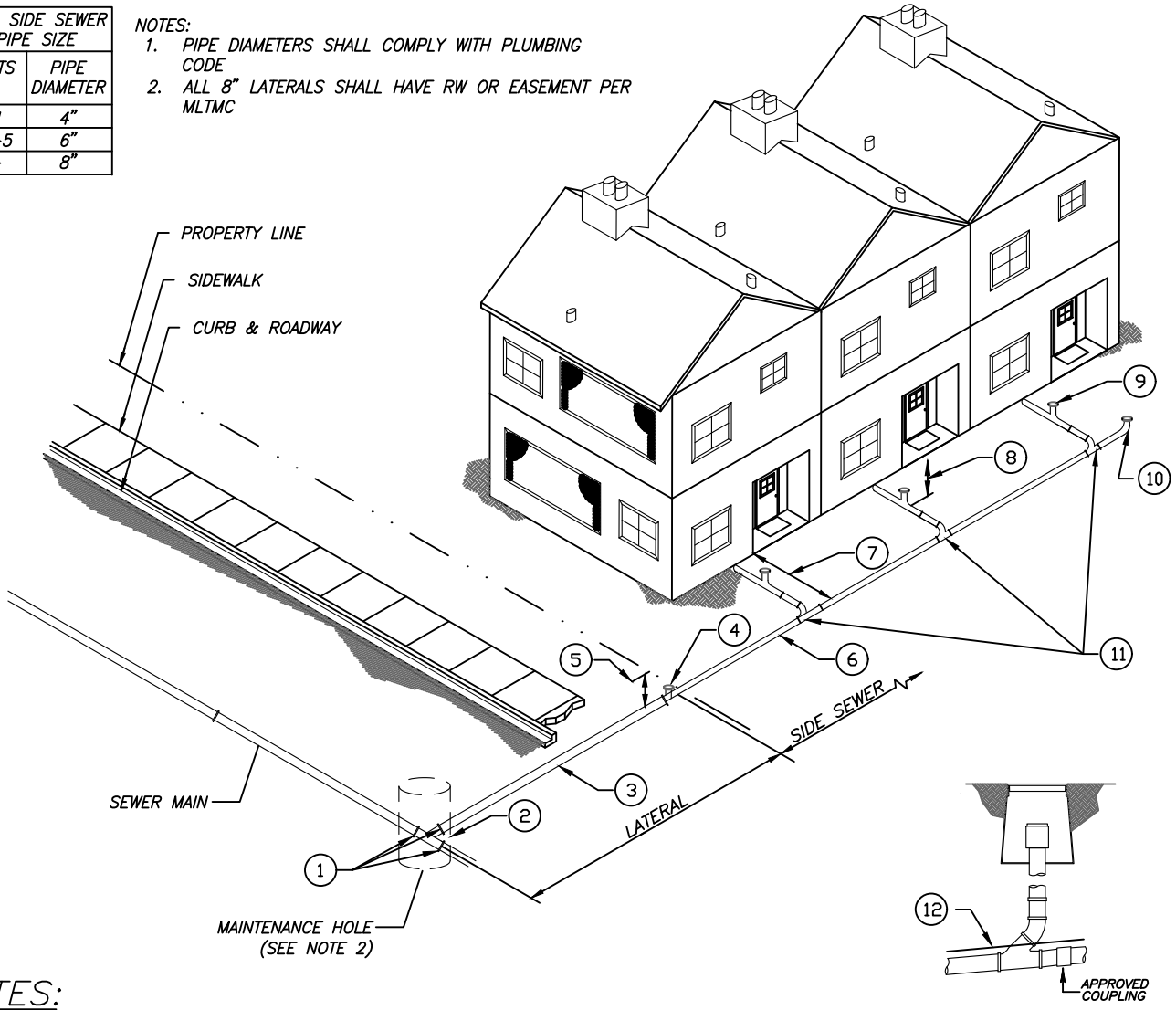
SCALE: N.T.S.

D&S Drawing No.
311

EFFECTIVE DATE:
JANUARY 2026

MIN. SIDE SEWER PIPE SIZE	
UNITS	PIPE DIAMETER
1	4"
2–5	6"
6+	8"

NOTES:
1. PIPE DIAMETERS SHALL COMPLY WITH PLUMBING CODE
2. ALL 8" LATERALS SHALL HAVE RW OR EASEMENT PER MLTMC



TYPICAL DETAIL AT ALL CLEANOUTS

NOTES:

1. RIGID COUPLINGS REQUIRED FOR CONNECTION TO MAIN (ROMAC COUPLING FOR PVC UNLESS APPROVED OTHERWISE BY AN ENGINEER)
2. TEE. MAINTENANCE HOLE REQUIRED WHEN 8" LATERAL IS REQUIRED
3. 6" MIN. SEWER LATERAL (IF SIDE SEWER > 6", LATERAL SHALL MATCH SIDE SEWER DIAMETER), SEE D&S NO. 321
4. CLEAN OUT REQUIRED AT ROW WHERE NO MAINTENANCE HOLE USED AT CONNECTION TO MAIN.
5. 24" MIN. COVERAGE REQUIRED IN ROW
6. SEE TABLE ABOVE FOR MIN. PIPE DIAMETER. 4" MIN. SIDE SEWER ON PRIVATE PROPERTY. 2% MIN. GRADE, 100% MAX. GRADE (SEE DETAIL)
7. 30" MIN. DISTANCE FROM FOUNDATION (UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER)
8. 18" MIN. COVERAGE REQUIRED AT UNIT CLEAN OUT
9. CLEAN OUT PER MLT D&S NO. 321 FOR INDIVIDUAL UNITS
10. CLEAN OUT PER MLT D&S NO. 321 AT THE END OF THE SIDE SEWER, OR EVERY 100'
11. WYE
12. SIDE SEWER SHALL HAVE 12 AWG STRANDED GREEN LOCATE WIRE AND DETECTABLE LOCATE TAPE IN THE TRENCH.

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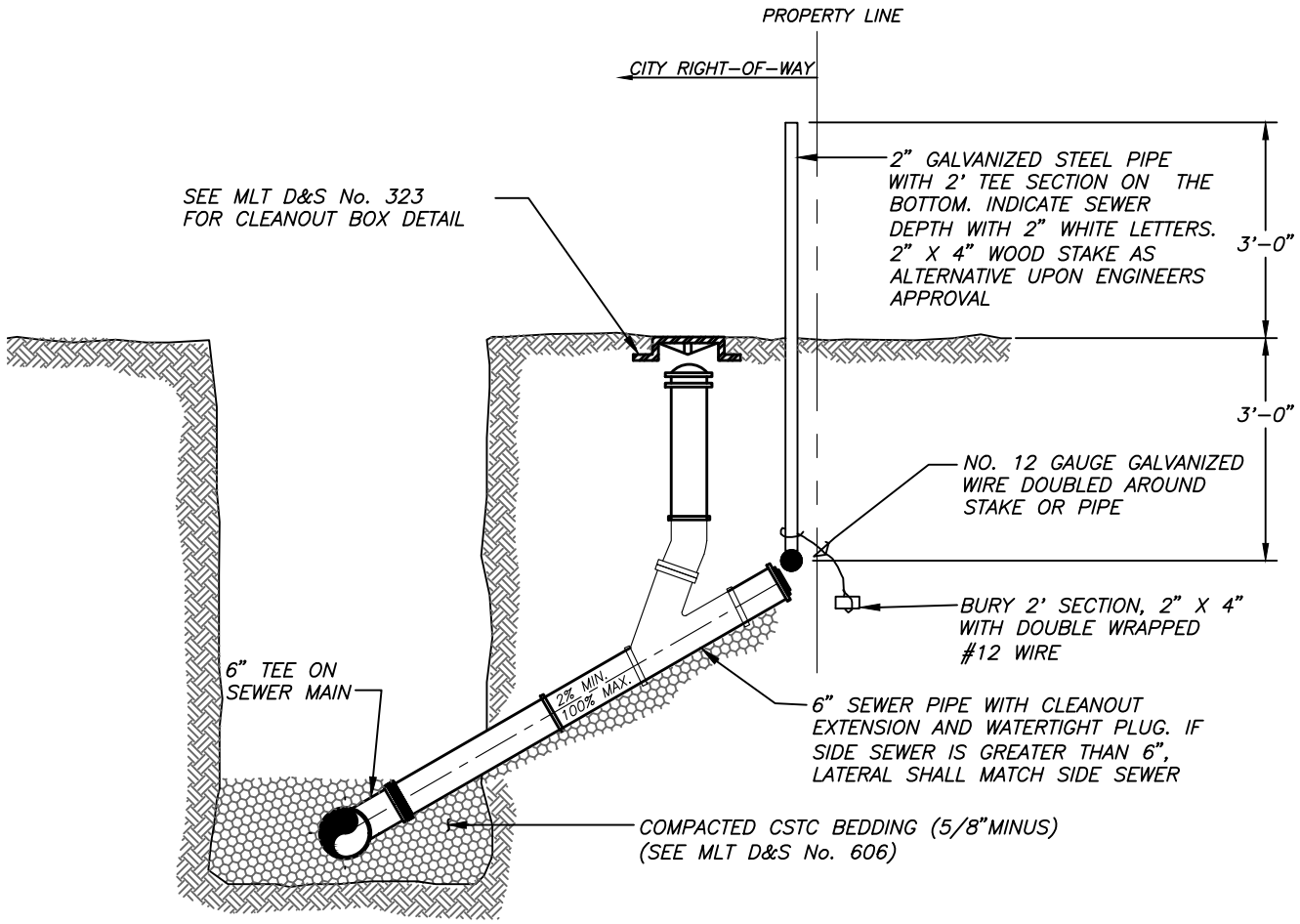
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SIDE SEWER INSTALLATION, MULTI FAMILY

SCALE: N.T.S.

D&S Drawing No.
312

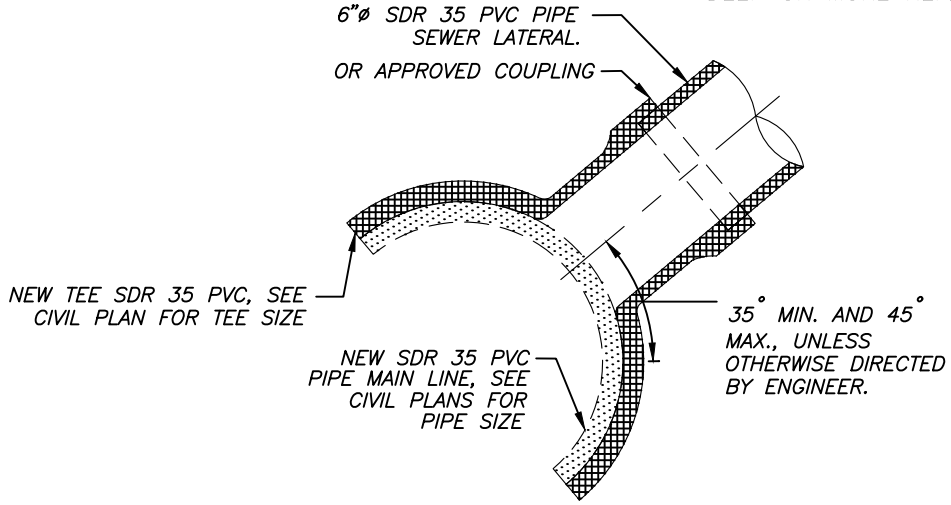
EFFECTIVE DATE:
JANUARY 2026



SECTION VIEW
SCALE: N.T.S.

NOTE:

FOR DETAIL OF SEWER LATERAL CONNECTION 15FT DEEP OR MORE REFER TO MLT D&S No. 322.



MAINLINE TEE CONNECT DETAIL
SCALE: N.T.S.

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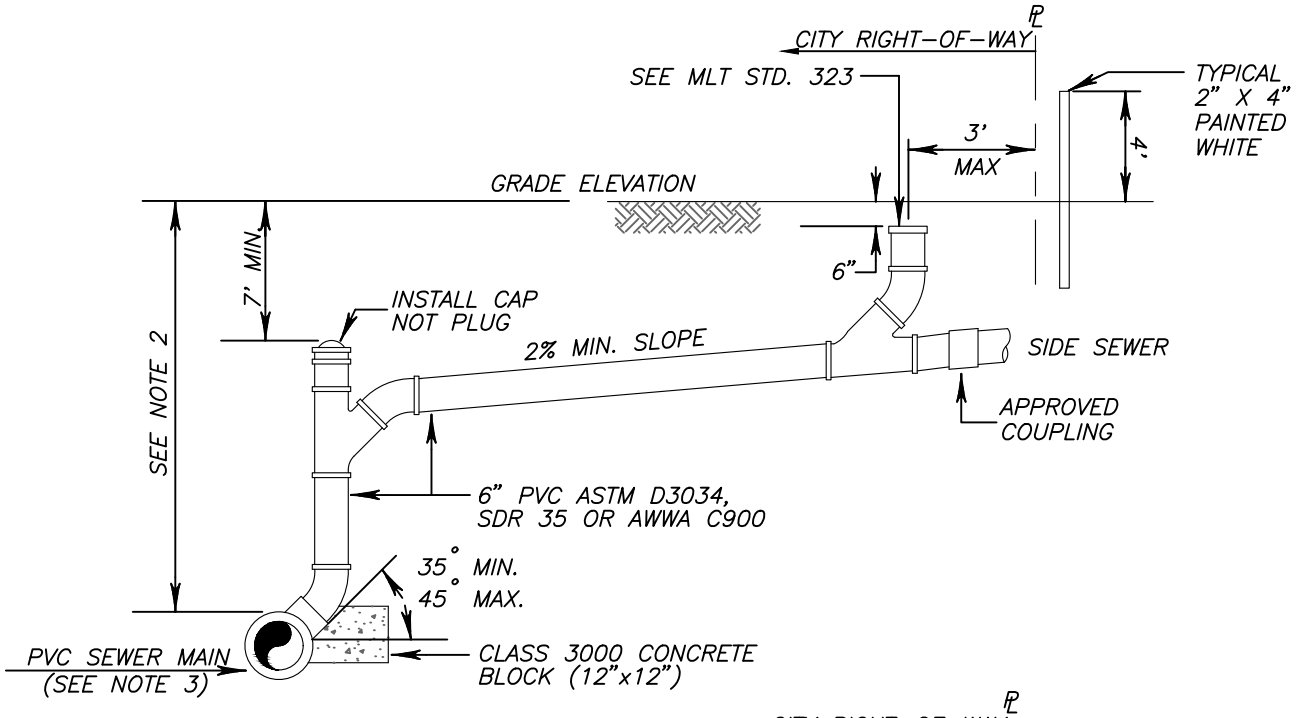
CITY OF MOUNTLAKE TERRACE
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D&S DRAWING TITLE:
TYPICAL SEWER LATERAL CONNECTION

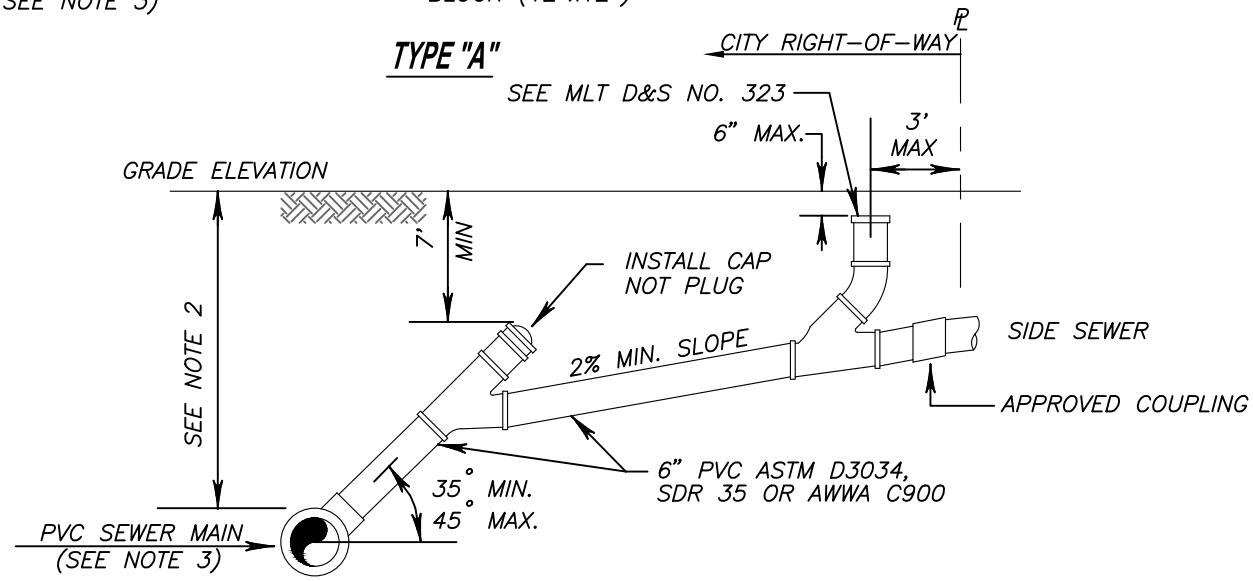
SCALE: N.T.S.

D&S Drawing No.
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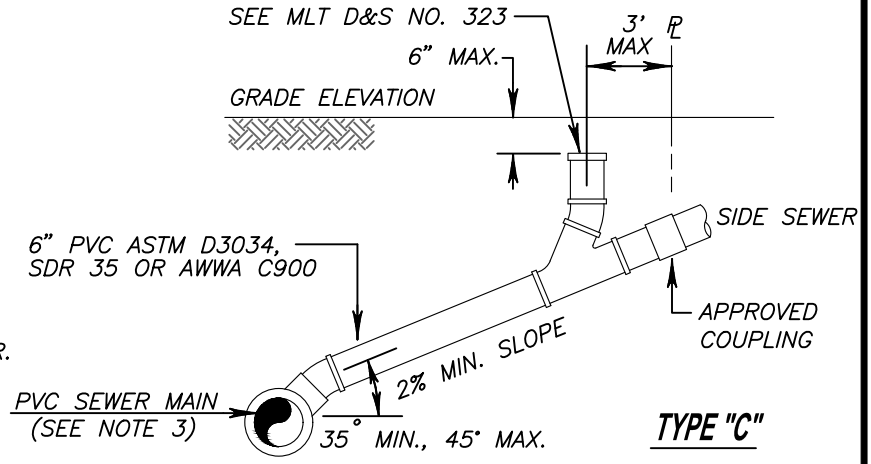
EFFECTIVE DATE:
JANUARY 2026



TYPE "A"



TYPE "B"



TYPE "C"

DETAIL NOTES:

1. PVC SIDE SEWER CONNECTIONS TO NEW MAINS SHALL BE FACTORY TEES.
2. TYPE A & B SHALL BE USED ONLY WHEN MAIN DEPTH EXCEEDS 15 FEET OR AS APPROVED BY THE CITY ENGINEER.
3. CONNECTIONS TO CONCRETE SEWER MAINS SHALL BE MADE BY CUT IN TEE
4. CSTC SHALL BE USED FOR ALL PIPE BEDDING

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ENGINEERING SERVICES DEPARTMENT

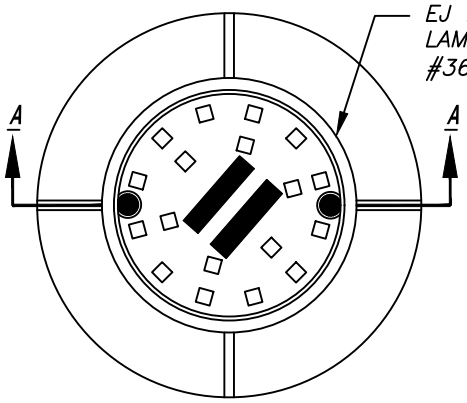
D&S DRAWING TITLE:
SEWER LATERAL CONNECTION DETAILS
15 FT DEEP OR GREATER

SCALE: N.T.S.

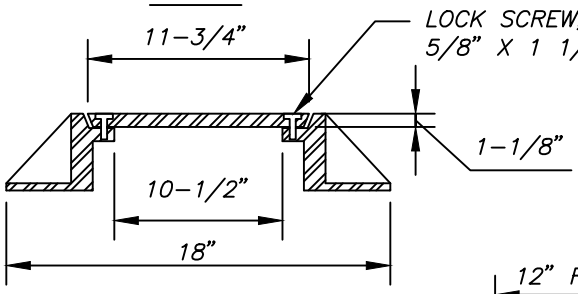
D&S Drawing No.
322

EFFECTIVE DATE:
JANUARY 2026

LOCKING CAST IRON RING AND COVER FOR ALL AREAS PAVED WITH CONCRETE OR ASPHALT

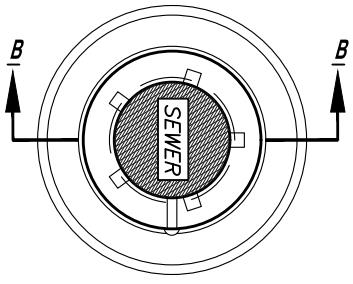


PLAN VIEW

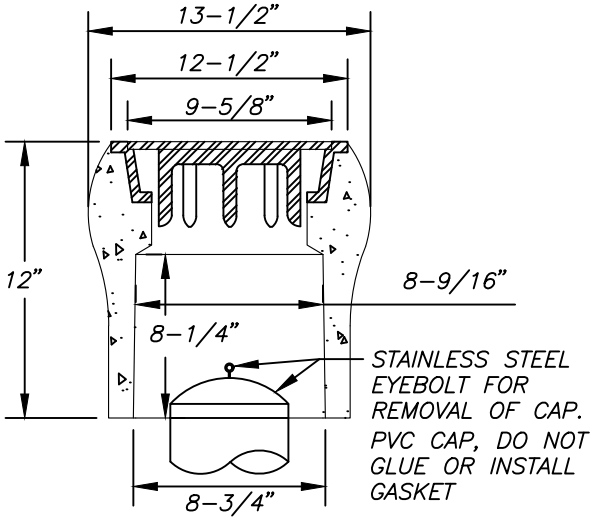


SECTION A-A

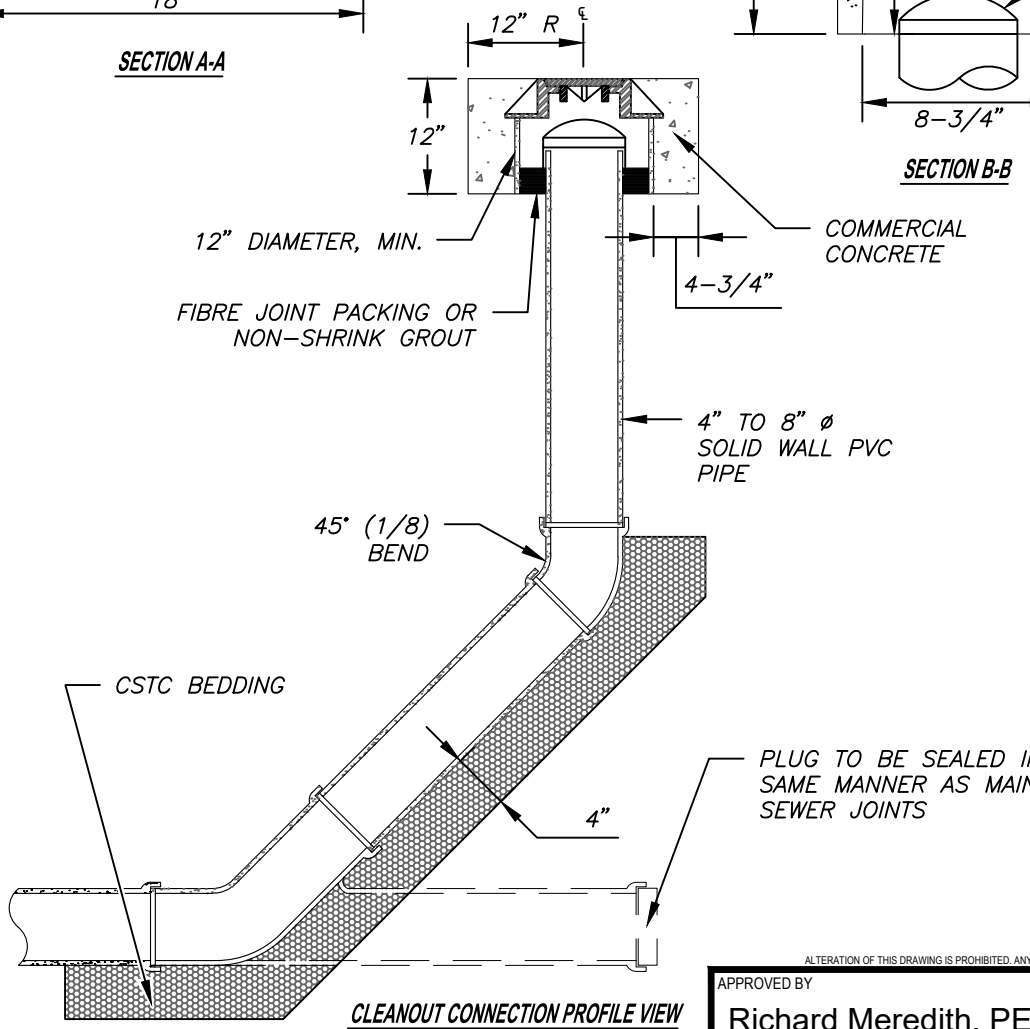
FOGTITE 01 BOX FOR AREAS NOT PAVED WITH CONCRETE OR ASPHALT



PLAN VIEW



SECTION B-B



CLEANOUT CONNECTION PROFILE VIEW

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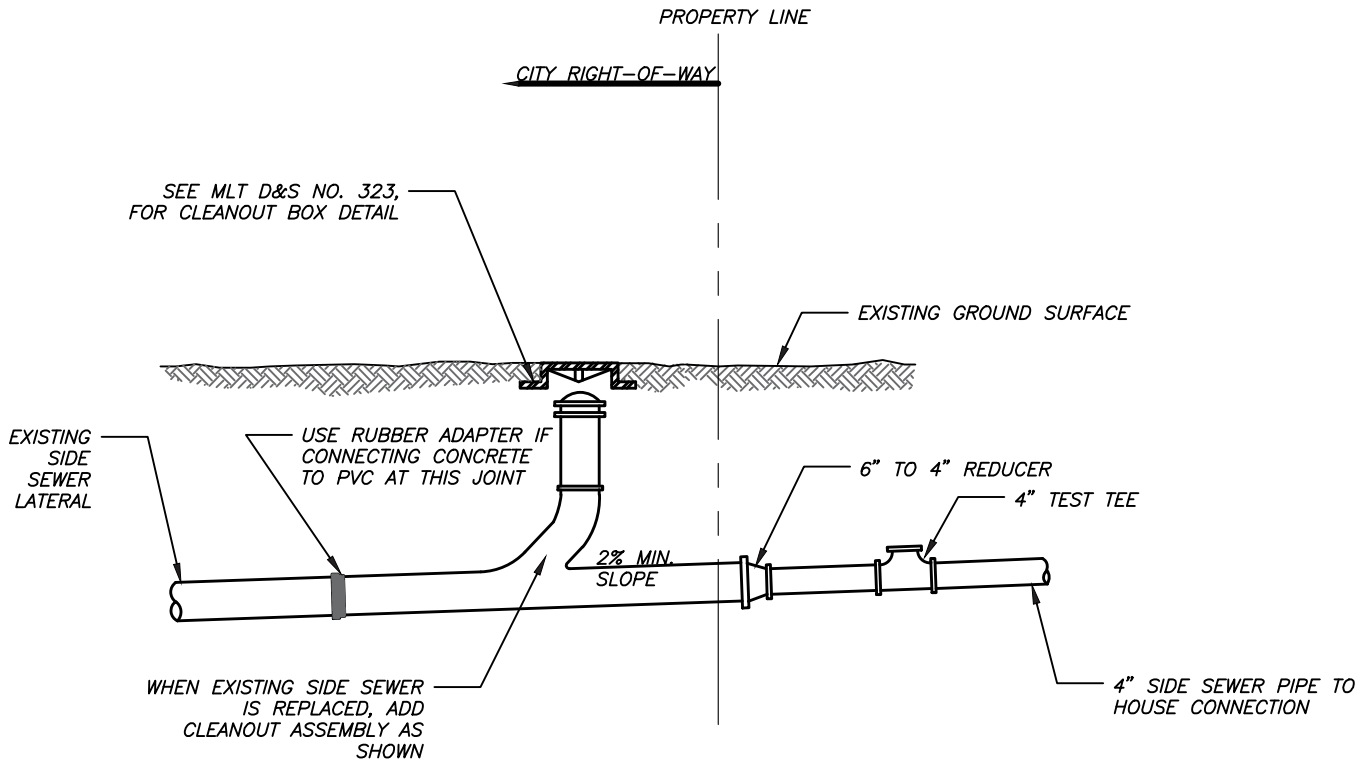
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SEWER CLEANOUT BOX DETAILS

SCALE: N.T.S.

D&S Drawing No.
323

EFFECTIVE DATE:
JANUARY 2026



NOTE:

1. INSPECTION OF THE LATERAL BY CITY INSPECTOR IS REQUIRED.
2. CSTC SHALL BE USED FOR ALL PIPE BEDDING.

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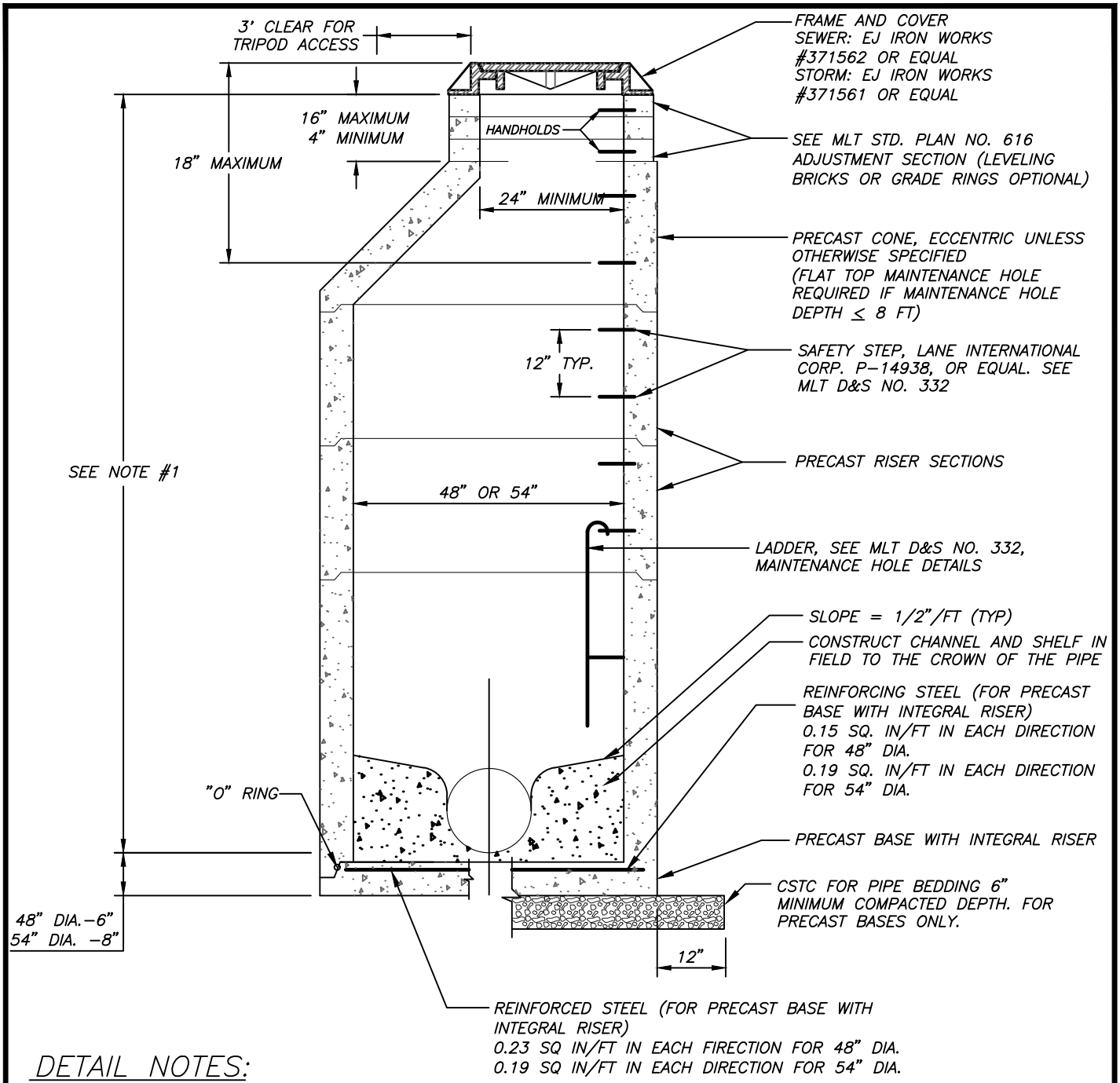
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
CLEANOUT DETAIL FOR RESIDENTIAL SIDE SEWER UPGRADE

SCALE: N.T.S.

D&S Drawing No.
324

EFFECTIVE DATE:
JUNE, 2024



DETAIL NOTES:

1. DESIGN ASSUMES 8' TO 12' HEIGHT FOR SOIL BEARING VALUE OF 3300 PSF (MIN.) AND 12' TO 25' MAX. HEIGHT FOR SOIL BEARING VALUE OF 3800 PSF (MIN.).
2. NON-REINFORCED CONCRETE SHALL BE CLASS 3000.
3. SEE WSDOT DESIGN STANDARD PLAN B-15.40-01 FOR TYPE 2 MAINTENANCE NHOLES. SEE WSDOT DESIGN STANDARD PLAN B-15.60-01 FOR TYPE 3 MAINTENANCE HOLES.
4. FOR INSTALLATIONS LESS THAN 8' IN HEIGHT A FLAT TOP SECTION SHALL BE USED IN PLACE OF A PRECAST CONE.
5. MAINTENANCE HOLE CONNECTIONS 18" DIA. AND LESS, USE KOR-N SEAL OR EQUAL. CONNECTIONS GREATER THAN 18" DIA., SEAL WITH WATER TIGHT GROUT.
6. SADDLE MAINTENANCE HOLES ARE PROHIBITED. A BYPASS PLAN APPROVED BY THE CITY ENGINEER IS REQUIRED FOR ALL NEW MAINTENANCE HOLE INSTALLATIONS ON EXISTING MAINS.

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APPROVED BY
Richard Meredith, PE, RTOE

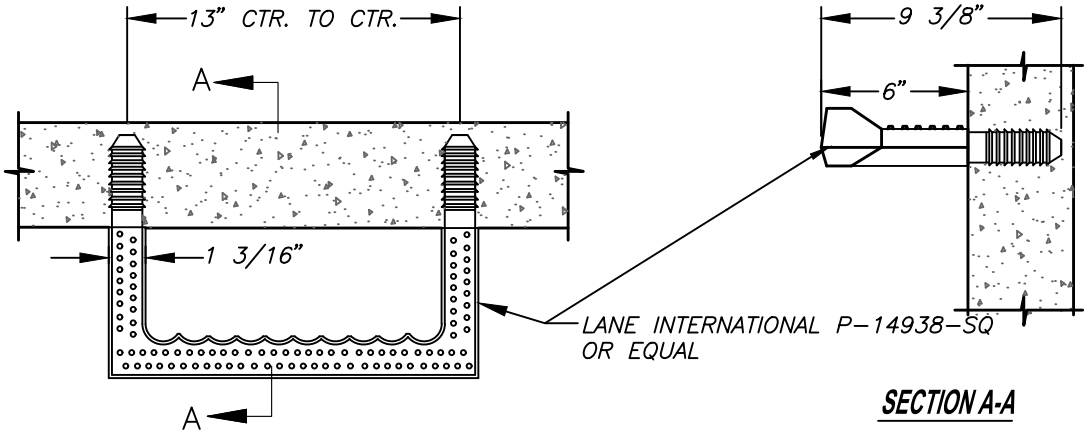
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
MAINTENANCE HOLE TYPE 1 (48" & 54")

SCALE: N.T.S.

D&S Drawing No.
331

EFFECTIVE DATE:
JANUARY 2026

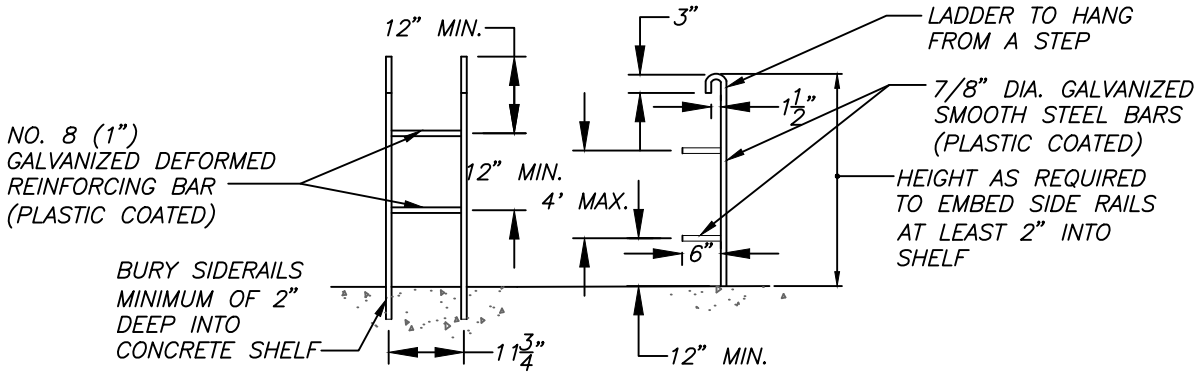


PLAN VIEW

SECTION A-A

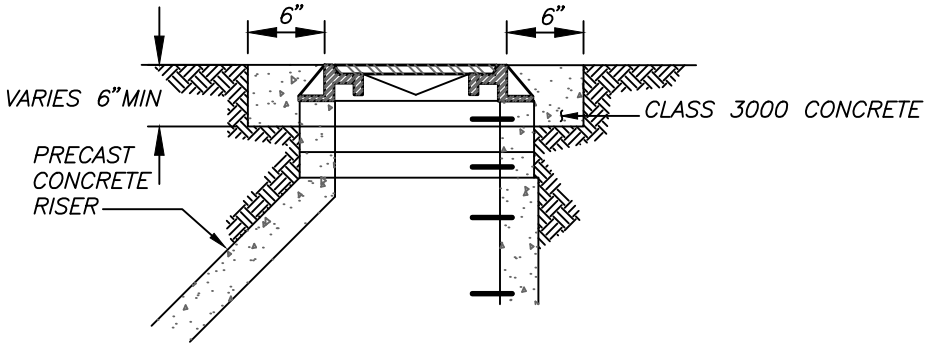
SAFETY STEP DETAILS

NTS



LADDER DETAILS

NTS



MAINTENANCE HOLE INSTALLATION FOR UNPAVED AREAS

NTS

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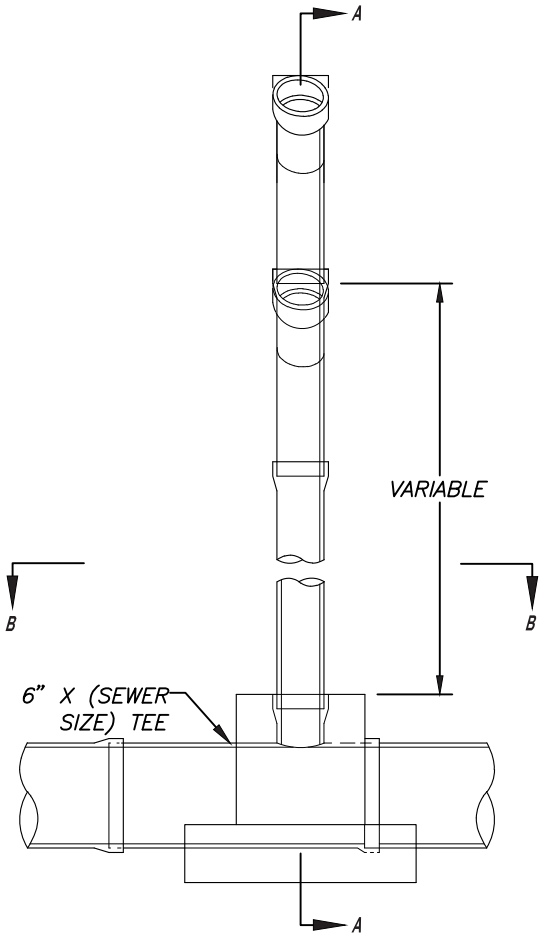
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
MAINTENANCE HOLE INSTALLATION AND LADDER DETAILS

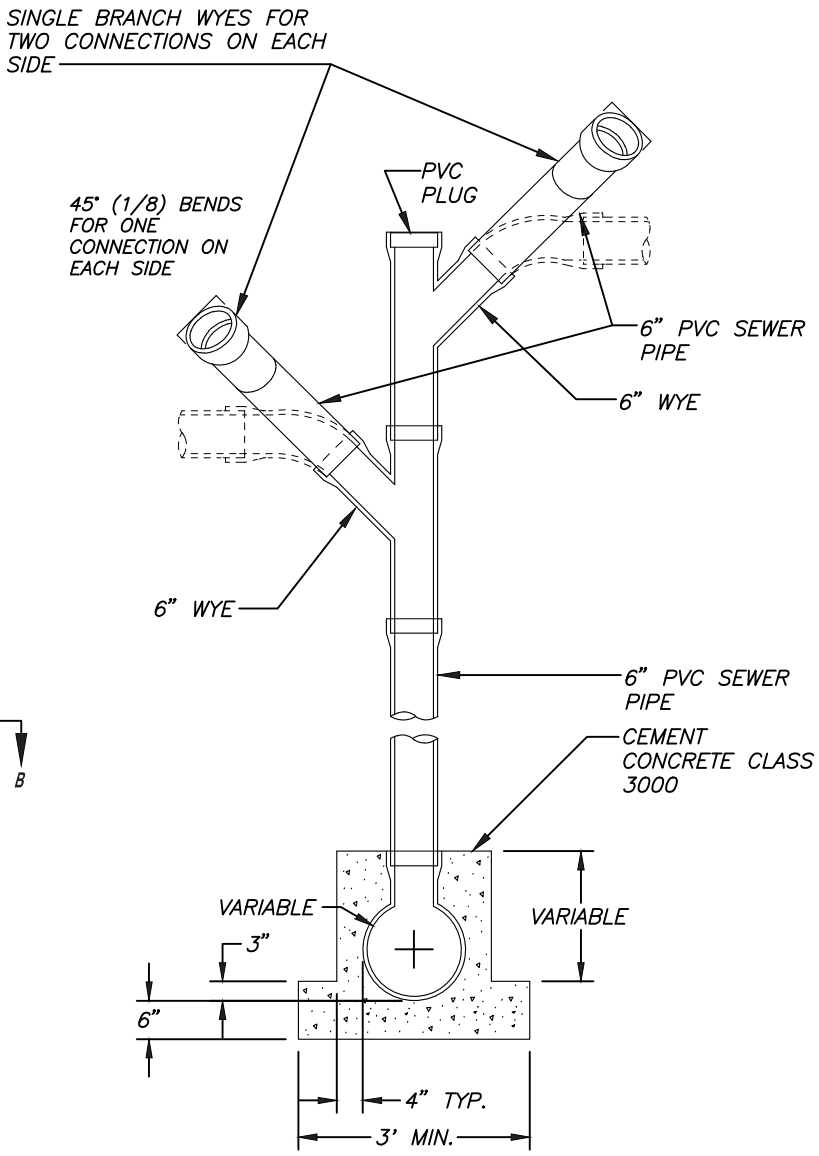
SCALE: N.T.S.

D&S Drawing No.
332

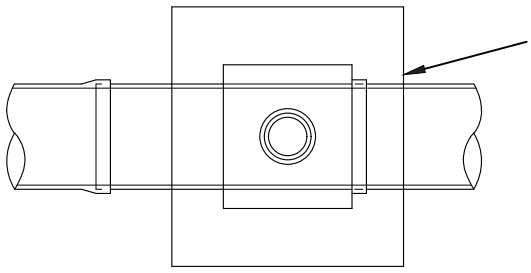
EFFECTIVE DATE:
JANUARY 2026



ELEVATION



SECTION A-A



SECTION B-B

DETAIL NOTES:

1. VERTICAL CONNECTIONS SHOULD BE CONSIDERED WHEN THE MAIN DEPTH EXCEEDS 15' AND BY ENGINEERING APPROVAL.
2. SEE MLT D&S NO. 321 & 322 FOR SIDE SEWER CONNECTIONS.

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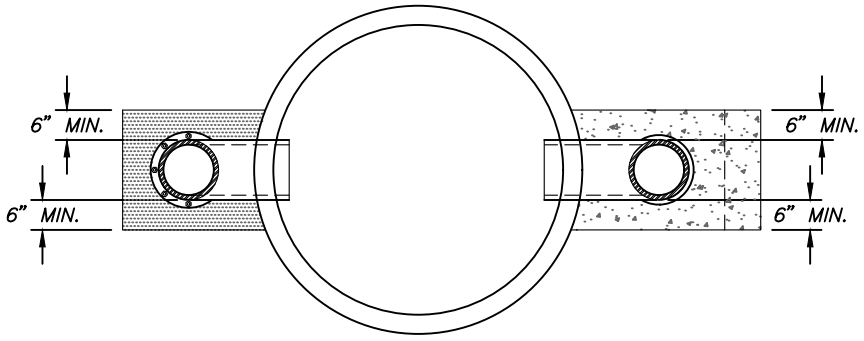
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
VERTICAL CONNECTION

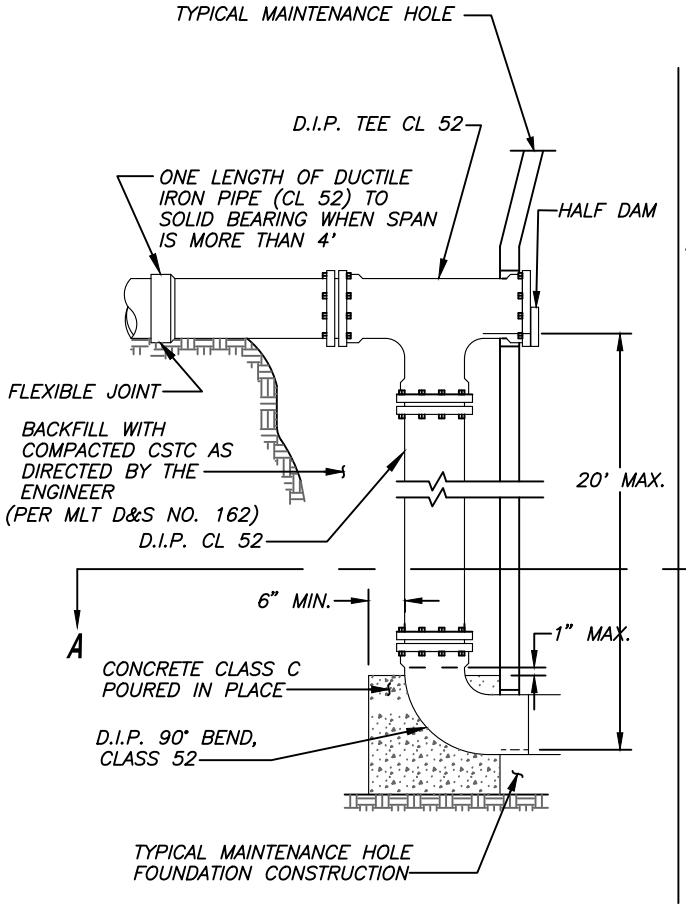
SCALE: N.T.S.

D&S Drawing No.
333

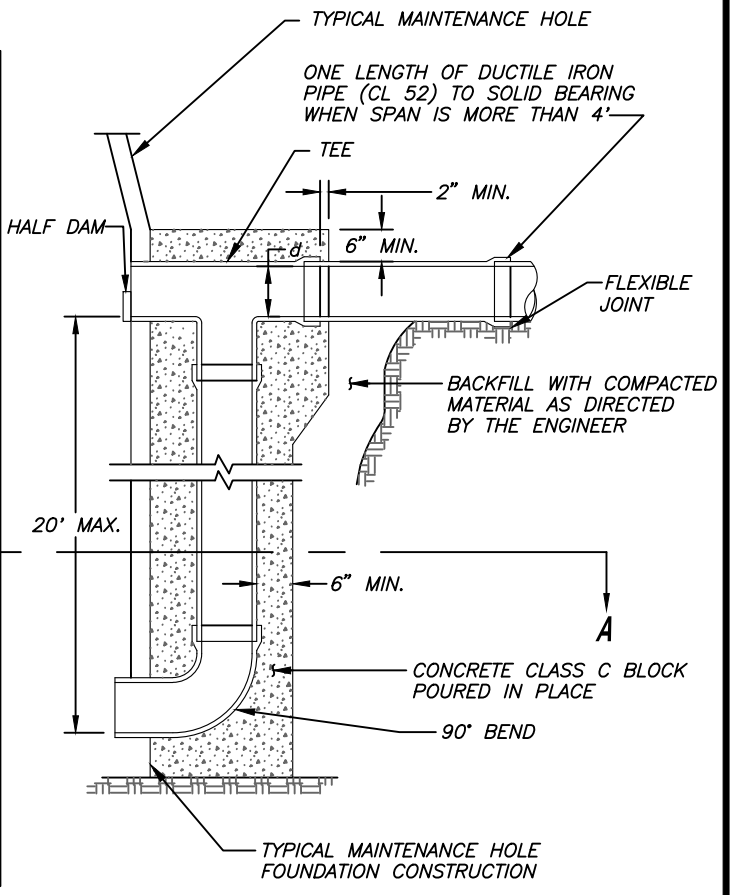
EFFECTIVE DATE:
JUNE, 2024



SECTION A-A
N.T.S.



DUCTILE IRON DROP CONNECTION
N.T.S.



CONCRETE ENCASED DROP CONNECTION
N.T.S.

DETAIL NOTES:

1. ALL PIPE EXCEPT DUCTILE IRON PIPE SHALL BE CONCRETE ENCASED.

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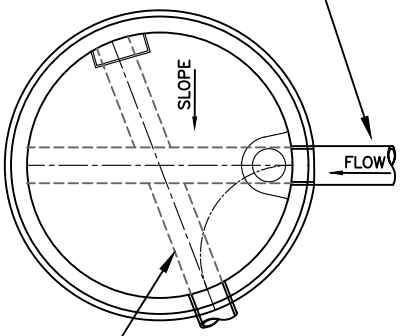
D&S DRAWING TITLE:
DROP CONNECTIONS OUTSIDE OF MAINTENANCE HOLE

SCALE: N.T.S.

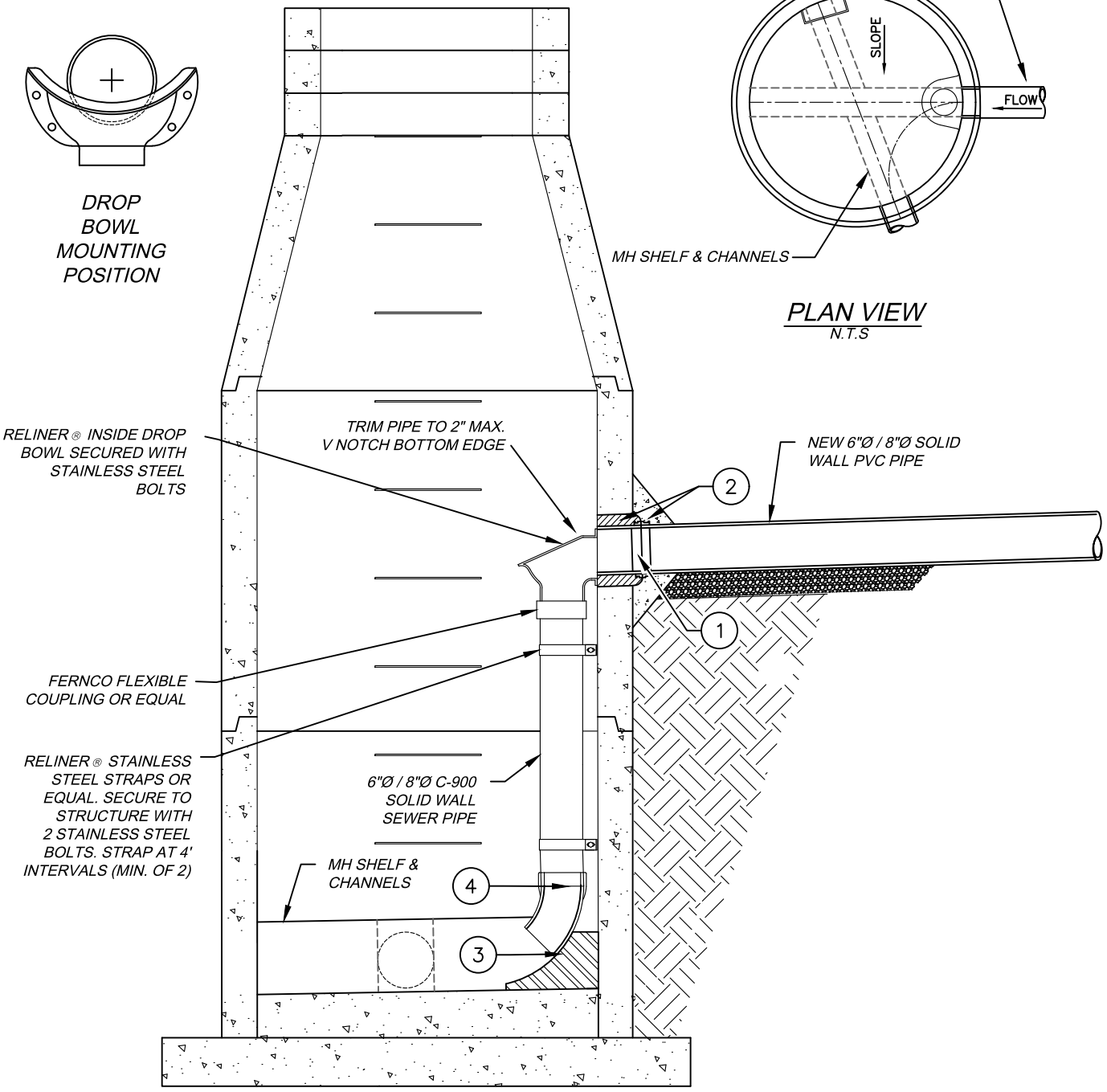
D&S Drawing No. 334

EFFECTIVE DATE: JANUARY 2026

DROP BOWL MOUNTING POSITION



PLAN VIEW
N.T.S



INSIDE DROP CONNECTION
N.T.S

GENERAL NOTES :

MINIMUM MAINTENANCE HOLE SIZE FOR DROP CONNECTION IS 60"Ø.

DETAIL NOTES :

(1) CORE 12"Ø HOLE IN EXIST. MAINT. HOLE WALL & INSTALL 6"Ø / 8"Ø KOR-N-SEAL MANHOLE TO PIPE CONNECTION PER MFG. #S406-12AWP.

(2) INSTALL NON-SHRINKING GROUT.

(3) CHANNEL TO DIRECT FLOW FROM DROP CONNECTION.

(4) INSTALL 6"Ø / 8"Ø 45° BEND PVC PIPE USING SUITABLE GLUE.

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
DROP CONNECTION
INSIDE OF MAINTENANCE HOLE

SCALE: N.T.S.

D&S Drawing No.
335

EFFECTIVE DATE:
JANUARY 2026

SECTION 4

STORM SEWER, EROSION CONTROL, AND LOW IMPACT DEVELOPMENT

1. All work and materials shall be in accordance with the "Standard Specifications for Road, Bridge, and Municipal Construction," Washington State Department of Transportation, current edition.

2. A copy of the approved plans shall be on site whenever construction is in progress.

3. It shall be the sole responsibility of the contractor to obtain street use and any other related permits prior to any construction activity in City right-of-way.

4. Prior to any construction activity a pre-construction meeting shall be requested via the online permit center. Follow the instructions below to create your online account:

   A. Visit the Permits & Licenses website: https://www.cityofmlt.com/1993/

   B. Click on the green Permit Portal box



   This takes you to the portal account page.

   C. At the top left above the header select **Setup an Account** to create your account.

   D. Contractors: Use the link for Contractor Application in the blue pane on the left to apply for a new AEC account.



5. All locations of existing utilities shall be verified by field survey or obtained from available records and should therefore be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations, and to further discover and avoid any other utilities not shown which may be affected by the work implementation. The contractor shall contact the utilities underground location service (1-800-424-5555) prior to construction. The owner or his representative shall be immediately contacted if a utility conflict exists.

6. Catch basins, inlets, yard drains, and grates:

   A. All catch basins, inlets, or yard drains shall be one of the following:

      1. Yard drain - City of MLT D&S No. 421 or approved equivalent.

      2. Concrete Inlet – WSDOT Std Plan B-25.60 or equal.

      3. Catch basin - type I – WSDOT Std Plan B-5.20 or equal.

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STORM DRAINAGE GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 400-1

EFFECTIVE DATE: JANUARY 2026

4. Catch basin - type IL – WSDOT Std Plan B-5.40 or equal.

5. Catch basin - type II – WSDOT Std Plan B-10.20 or equal.

6. Other catch basin types shall be approved for installation by the City Engineer.

7. All Type II catch basins shall have ladders or safety steps per City of MLT D&S No. 332 or equal.

B. Locking grates are required on installations within all City right-of-way and City easement. All grates shall be one of the following:

1. Catch basins in the curb line shall have a frame per WSDOT Std Plan B-30.10 and vaned grate per Std Plan B-30.30 except for low spots bidirectional vaned grate per B-30.40 shall be used.

2. Where higher flow is required or the above grates can not be used then combination inlet with vaned grate per WSDOT Std Plan B-25.20 shall be used.

3. All catch basin frame and grates in the curb line shall be flush with the pavement/curb level. Solid frame and lids in the traveled roadway shall be flush.

4. All oil/water separator and detention control catch basin grates shall be of the locking type.

7. Storm Sewer Pipe:

A. All storm sewer conveyance pipe shall be one of the following:

1. Concrete, per A.S.T.M. C-14, Class II, non-reinforced bell and spigot (with bell flush with C.B. wall if used), with rubber gaskets.

2. PVC conforming to A.S.T.M. D-3034 - SDR 35.

3. Ductile iron Class 50 conforming to AWWA C 151.

4. Pipe may be any of the above provided:

a) Pipe joints must be of the same materials.

b) Where a pipe material is specifically shown on the plan, that material must be used. Any changes to the pipe material shown on the plan must be pre-approved.

5. Minimum pipe cover for all pipe types shall be 24” except ductile iron shall be 12”.

6. Minimum pipe diameter permitted for public facilities is 12”.

8. All pipe bedding shall conform to WSDOT Standard Specifications Section 7-08.3(1)C, Bedding the Pipe. All trench backfill shall be compacted minimum 95% dry optimum density per ASTM D1557, or latest revision, (modified proctor).

9. All pipe shall be laid on a properly prepared foundation according to WSDOT Standard Specifications Section 7-08.3(2)B Pipe Laying - General. This shall include necessary leveling of the trench bottom

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STORM DRAINAGE GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 400-2

EFFECTIVE DATE: JANUARY 2026

or the top of the foundation material as well as placement and compaction of required bedding material to uniform grade so that the entire length of the pipe will be supported on a uniformly dense unyielding base.

10. If the native material in the bottom of the trench meets the requirements for WSDOT Standard Specifications Section 9-03.12(3) Gravel Backfill for Pipe Zone Bedding, the first lift of pipe bedding may be omitted, provided the material in the bottom of the trench is loosened, regraded, and compacted to form a dense unyielding base.

11. All roof and footing drains shall be located in the field and adjusted as necessary to avoid impacting existing trees to be saved as denoted on the grading plan. Drain lines should be located outside the dripline of trees to be saved whenever possible.

12. Buildings shall not be permitted within 10 feet of the spring line of any storm drain pipe larger than 6" diameter, or within 15 feet of the top of a channel bank. Storm sewers 6" diameter or less may be located within 30" of a structure provided that the soil support prism is not disturbed for the adjacent foundation.

13. Prior to occupancy or final approval, the permanent storm drainage system must be cleaned out by pumping. **(Do not pump or dispose of this waste into any stream, storm sewer, or sanitary sewer system.)**

14. Rip rap rock for erosion protection shall be of sound quarry rock placed to a minimum depth of one (1) foot. Rock aggregate to be as follows:

Rock Size	Percentage
1/2" to 2"	10% to 40%
2" to 4"	20% to 40%
8"	40% to 70%

15. Testing of all storm sewer pipe will be at the option of the City of Mountlake Terrace. All pipe will be inspected by TV viewing and submitted to the City as a permanent record on removable flash memory

16. When plain aluminum pipe arch will be in contact with concrete or concrete pipe, all aluminum surfaces in contact with the concrete or concrete pipe shall be cleaned with solvent and painted with two coats of paint. Paint shall conform to Federal Specification TT-P-645 (Primer, Paint, Zinc Chromate, Alkyd Vehicle).

17. An as built storm sewer drawing shall be submitted for all developments, short plats, and subdivisions.

18. Sand collars or other City approved couplings are required on all PVC pipe connections to concrete catch basins or manholes.

19. For City maintained storm systems, trash racks shall be installed on the upstream end of pipes or culverts.

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ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STORM DRAINAGE GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 400-3

EFFECTIVE DATE: JANUARY 2026

1. Prior to any construction, reconstruction, or renovation activity, contact a City of Mountlake Terrace Permit Specialist to schedule a preconstruction meeting PermitSpecialist@mltwa.gov

2. A copy of the approved plans must be on site whenever construction is in progress.

3. All limits of clearing and areas of vegetation preservation as prescribed on the plans shall be clearly flagged in the field and maintained during construction.

4. **Where possible, maintain natural vegetation for silt control and to minimize erosion control measures, and direct surface runoff away from the exposed areas, steep slopes, or erosion hazard area.**

5. All required sedimentation/erosion control facilities must be constructed and in operation prior to any land clearing and/or other construction to ensure that sediment-laden water does not enter the natural drainage system or off-site storm drains (See construction sequence). All erosion and sediment facilities shall be maintained in satisfactory condition until such time that clearing and/or construction is completed and the potential for on-site erosion has passed. System implementation, maintenance, and replacement shall be the responsibility of the permittee, along with any required additions.

6. The erosion and sedimentation control systems depicted are intended to be minimum requirements to meet anticipated site conditions. As construction progresses and unexpected or seasonal conditions dictate, the permittee should anticipate that more erosion and sedimentation control facilities may be necessary to insure complete erosion and sediment control on the site. During the course of construction, it shall be the obligation and responsibility of the permittee to address any new conditions that may be created by their activities and to provide additional facilities, over and above minimum requirements shown, as may be needed to protect adjacent properties and water quality of the receiving drainage system. Additional measures may also be required by the City of Mountlake Terrace Inspector.

7. Approval of the plan is for erosion/sedimentation control only. It does not constitute an approval of storm drainage design, size or location of pipes, restrictors, channels, or retention facilities.

8. Soils must not remain exposed and unworked for more than the time periods set forth to prevent erosion: during the dry season (May 1 – September 30): 7 days and during the wet season (October 1 – April 30): 2 days. All disturbed areas must be immediately stabilized by mulching, hydroseeding, or other approved erosion control measure applicable to the time of year in question. Grass seeding alone will be acceptable only during the months of April through September inclusive. Seeding may proceed whenever it is in the interest of the permittee, but must be augmented with mulching, netting, or other measures approved by the City of Mountlake Terrace, outside of the specified time period.

9. Grass seeding shall be done using an approved type hydro-seeder, or as otherwise approved by the City of Mountlake Terrace. Temporary and permanent seeding must follow BMP guidance from the city's approved stormwater manual.

10. Straw mulch shall consist of a minimum thickness of four (4) inches spread evenly over the surface to be protected. Mulch must be properly anchored to the ground. Netting may be required to hold mulch in place on steep slopes.

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
TEMPORARY EROSION/SEDIMENT CONTROL GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No.
401-1

EFFECTIVE DATE:
JANUARY 2026

11. A minimum three (3) foot high chain link fence shall be constructed around any temporary pond used for sedimentation and/or detention when it can be expected that the water depth will exceed one (1) foot.

12. The contractor shall assure that no concrete or concrete by-products, chemicals, paints, glues, or any other pollutants enter the storm drainage system or natural stream courses.

13. Remove all temporary erosion control measures when the erosion hazard is completely over. Remove all deposited sediment and debris and rehabilitate the disturbed areas by planting vegetative cover as required by the City of Mountlake Terrace.

14. The Applicant shall provide for a certified professional in erosion and sediment control to be on-site or on-call at all times.

15. A spill control kit shall be kept on-site for all construction equipment.

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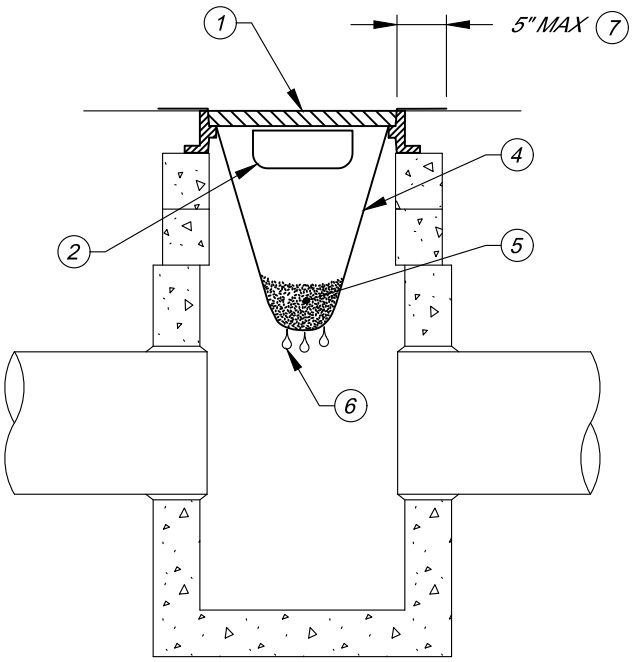
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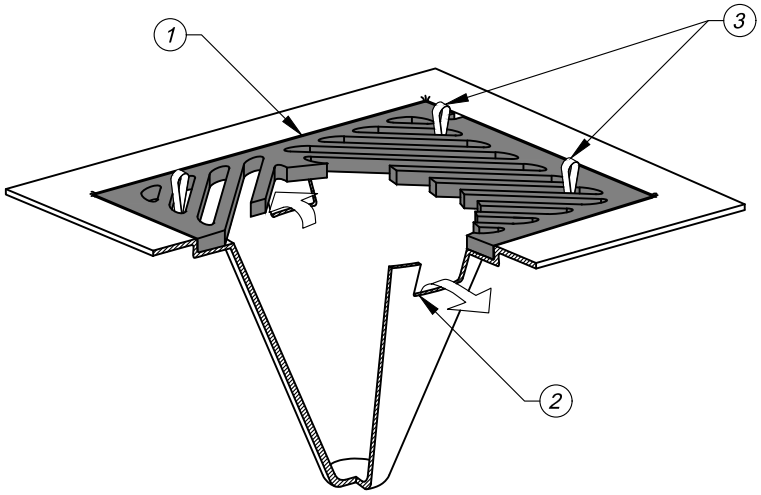
D&S DRAWING TITLE:
TEMPORARY EROSION/SEDIMENT CONTROL GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No.
401-2

EFFECTIVE DATE:
JANUARY 2026





GENERAL NOTES:

1. SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORMWATER STRUCTURE IT WILL SERVICE.
2. THE BIGD SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
3. THE RETRIEVAL SYSTEM SHALL ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL.
4. PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STD. SPEC SEC. 8-01.3(15).

DETAIL NOTES:

(#)

1. DRAINAGE GRATE (RECTANGULAR GRATE SHOWN).
2. OVERFLOW BYPASS.
3. RETRIEVAL SYSTEM (TYP).
4. BELOW INLET GRATE DEVICE (BIGD)
5. SEDIMENT AND DEBRIS.
6. FILTERED STORMWATER.
7. TRIM OUTSIDE OF BIGD AS REQUIRED.

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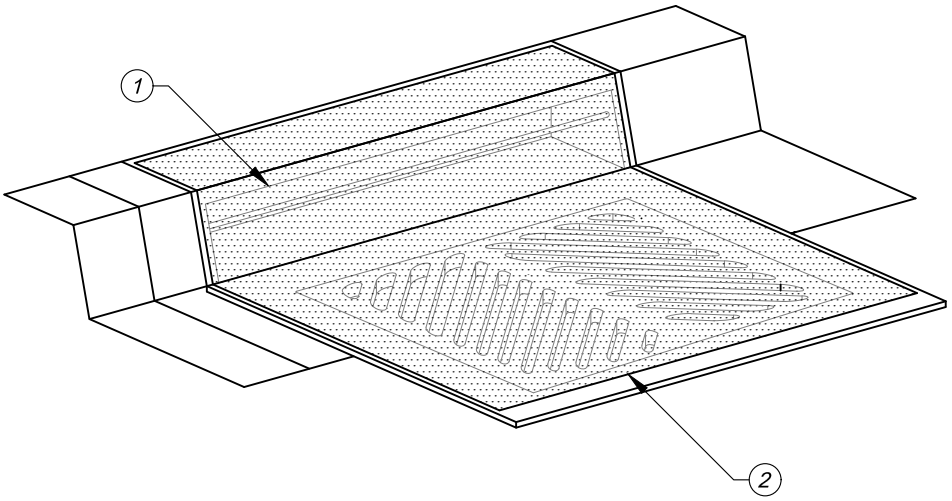
D&S DRAWING TITLE:

STORM DRAIN INLET PROTECTION WITH FRAME

SCALE: N.T.S.

D&S Drawing No.
411-1

EFFECTIVE DATE:
JANUARY 2026



GENERAL NOTES:

1. *INLET PROTECTION MAY BE AN APPROVED INLET PROTECTION DEVICE. ALTERNATELY INLET PROTECTION MAY BE PER D&S NO 411-1 AND SANDBAGS USED TO BLOCK THE THROUGH-CURB PORTION OF THE INLET.*
2. *PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STD. SPEC SEC. 8-01.3(15).*

DETAIL NOTES:

(#)

1. *COMBINATION INLET DRAINAGE GRATE*
2. *COMBINATION INLET PROTECTION*

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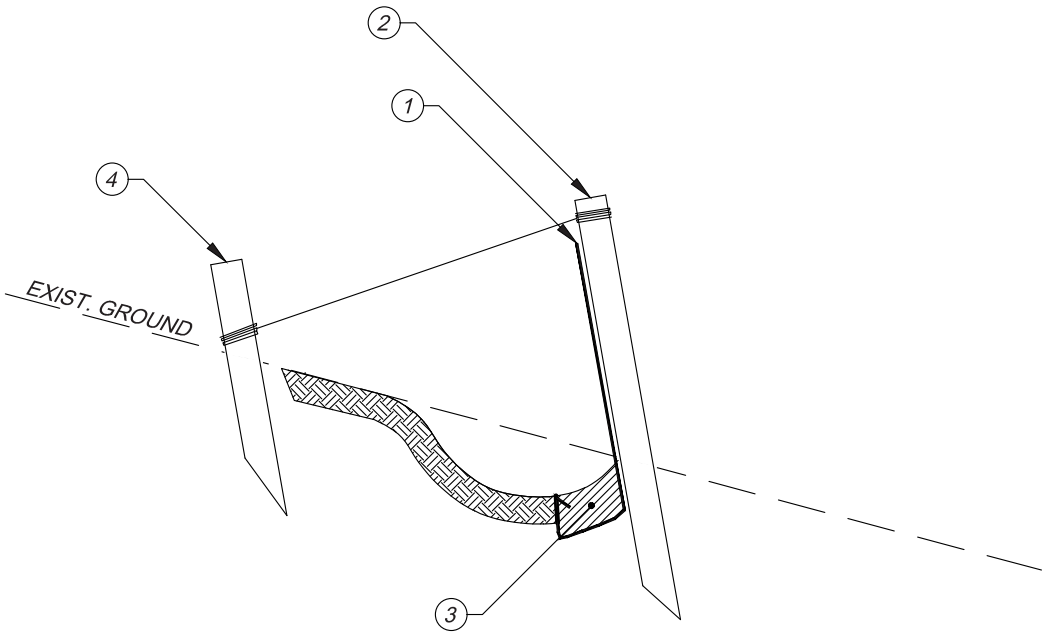
D&S DRAWING TITLE:

STORM DRAIN INLET PROTECTION
COMBINATION FRAME & GRATE

SCALE: N.T.S.

D&S Drawing No.
411-2

EFFECTIVE DATE:
JANUARY 2026



GENERAL NOTES:

1. SEE OTHER PLANS FOR SIDEWALK, CURB, PAVEMENT, STREET TREES, AND OTHER DETAILS.
2. RIGHT-OF-WAY SHALL EXTEND A MINIMUM OF 6 INCHES (0.5 FEET) BEYOND THE BACK OF SIDEWALKS. WHERE ADDITIONAL RIGHT-OF-WAY IS PROVIDED THE EXTRA WIDTH SHALL BE IN MULTIPLES OF 2 FOOT INCREMENTS.
3. REFER TO MTMC 19.50.080 FOR TOWN CENTER STREET SECTIONS & FRONTAGE.

(#) DETAIL NOTES:

1. FILTER FABRIC: TECATE MIRAFI FW700 OR APPROVED EQUAL
2. 2" X 4" WOOD OR METAL POST, 5' O.C.
3. BACKFILL DITCH TO ANCHOR BOTTOM OF FILTER FENCE USING NATIVE MATERIAL.
4. STAKE AND TIE REQUIRED FOR SLOPES EXCEEDING 10%.

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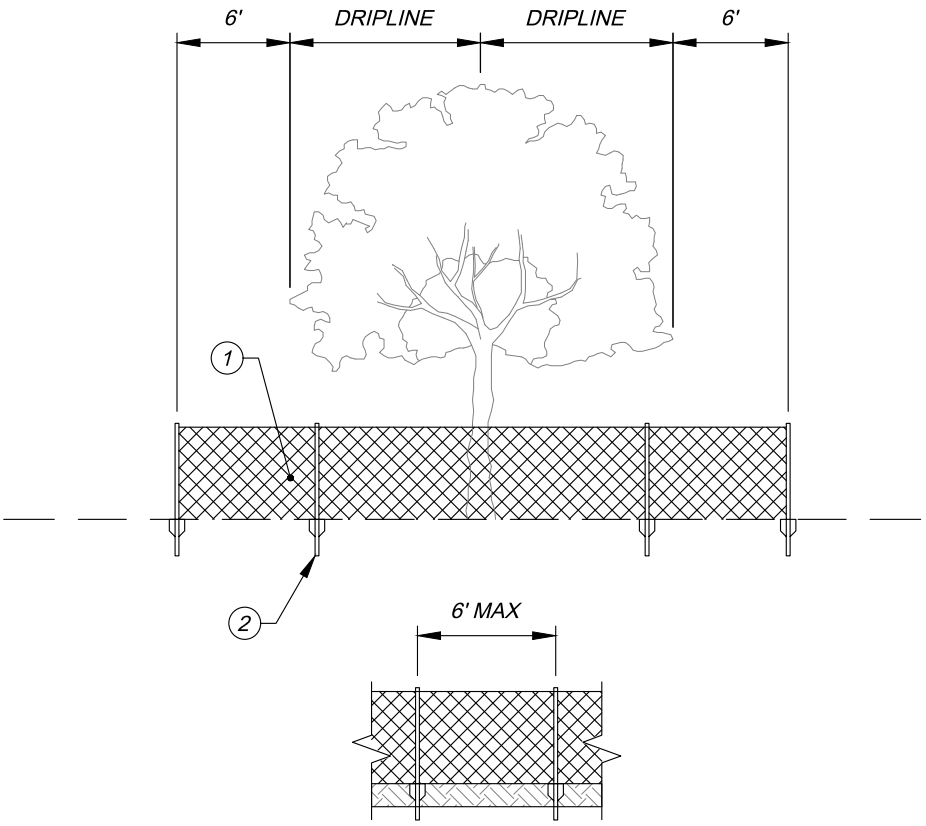
CITY OF MOUNTLAKE TERRACE
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D&S DRAWING TITLE: FILTER FABRIC FENCE DETAIL

SCALE: N.T.S.

D&S Drawing No. 412

EFFECTIVE DATE: JUNE, 2024



GENERAL NOTES:

1. WIRE FENCE TO FENCE POST WITH SELF-LOCKING UV-STABILIZED NYLON TIE,16" O.C. EACH POST.
2. 6' CHAIN LINK FENCING MAY BE USED IN PLACE OF HIGH-VIZ FENCING.
3. ALL CONSTRUCTION ACTIVITIES INCLUDING STAGING AND TRAFFIC SHALL BE PROHIBITED WITHIN FENCED AREA.
4. FENCING LIMITS FOR STREET TREES TO BE ADJUSTED BY THE INSPECTOR.

(#) DETAIL NOTES:

1. 6' CHAIN LINK FENCE AND HIGH-VIZ FENCE PER WSDOT STD. PLAN I-10.10.
2. STEEL T-BAR POST.

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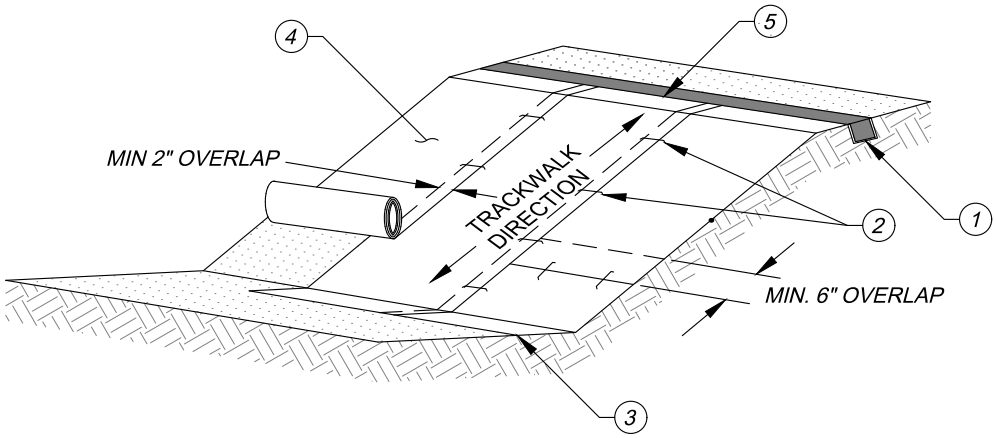
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: TEMPORARY TREE PROTECTION

SCALE: N.T.S.

D&S Drawing No. 413

EFFECTIVE DATE: JANUARY 2026



NET AND BLANKET INSTALLATION

NTS

GENERAL NOTES:

1. IF BLANKET IS NOT LONG ENOUGH TO COVER ENTIRE SLOPE, TRAILING EDGE OF UPPER BLANKET SHALL OVERLAP LEADING EDGE OF LOWER BLANKET AND BE STAPLED.
2. ALL BLANKETS AND NETTING SHALL BE MADE OF NATURAL PLANT FIBERS UNALTERED BY SYNTHETIC MATERIALS.
3. NETS AND BLANKETS SHALL MAINTAIN GOOD CONTACT WITH THE GROUND. EROSION MUST NOT OCCUR BENEATH BLANKET.
4. INSPECT NETS AND BLANKETS AFTER EACH SIGNIFICANT STORM EVENT AND REPAIR PROMPTLY IF DAMAGED.
5. STRAW, WOOD FIBER CELLULOSE, COMPOST, AND CHIPPED SITE VEGETATION USED FOR TEMPORARY STABILIZATION SHALL BE PLACED A MINIMUM OF 4" THICK, ACROSS AREA TO BE STABILIZED.
6. HYDRAULIC MATRICES SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATION.
7. BLANKETS AND MATS SHALL NOT BE STRETCHED TIGHT, ALLOW ROLLS TO FOLLOW IRREGULARITIES.
8. FOR SLOPES LESS THAN 3H:1V ROLLS MAY BE PLACED HORIZONTALLY.
9. LIME, FERTILIZE, AND SEED BEFORE INSTALLATION. PLANTING OF TREES OR SHRUBS SHALL BE AFTER INSTALLATION.

INSTALLATION NOTES:

1. COMPLETE FINAL GRADE AND TRACKWALK SLOPE (PERPENDICULAR? How to phrase this?)
2. INSTALL HYDROMULCH WITH SEED AND FERTILIZER.
3. INSTALL TRENCH APPROX. 6" DEEP X 12" WIDE ALONG TOP OF SLOPE.
4. INSTALL LEADING EDGE OF NET/BLANKET IN TRENCH, COVER, AND STAPLE 18" O.C. STAPLES SHALL BE METAL, U-SHAPED, MIN 6" LONG. BIODEGRADABLE STAKES ARE AN ACCEPTABLE SUBSTITUTE.

(#) DETAIL NOTES:

1. ANCHOR IN 6" X 6" MIN. TRENCH AND STAPLE AT 12" INTERVALS.
2. STAPLE OVERLAPS, SPACING PER MANUFACTURER'S RECOMMENDATION.
3. BRING MATERIAL DOWN TO LEVEL AREA, FOLD END UNDER 4" AND STAPLE AT 12" INTERVALS
4. SLOPE SURFACE SHALL BE SMOOTH BEFORE PLACEMENT.
5. ANCHOR UPSLOPE OF BERM, IF ONE IS PRESENT.

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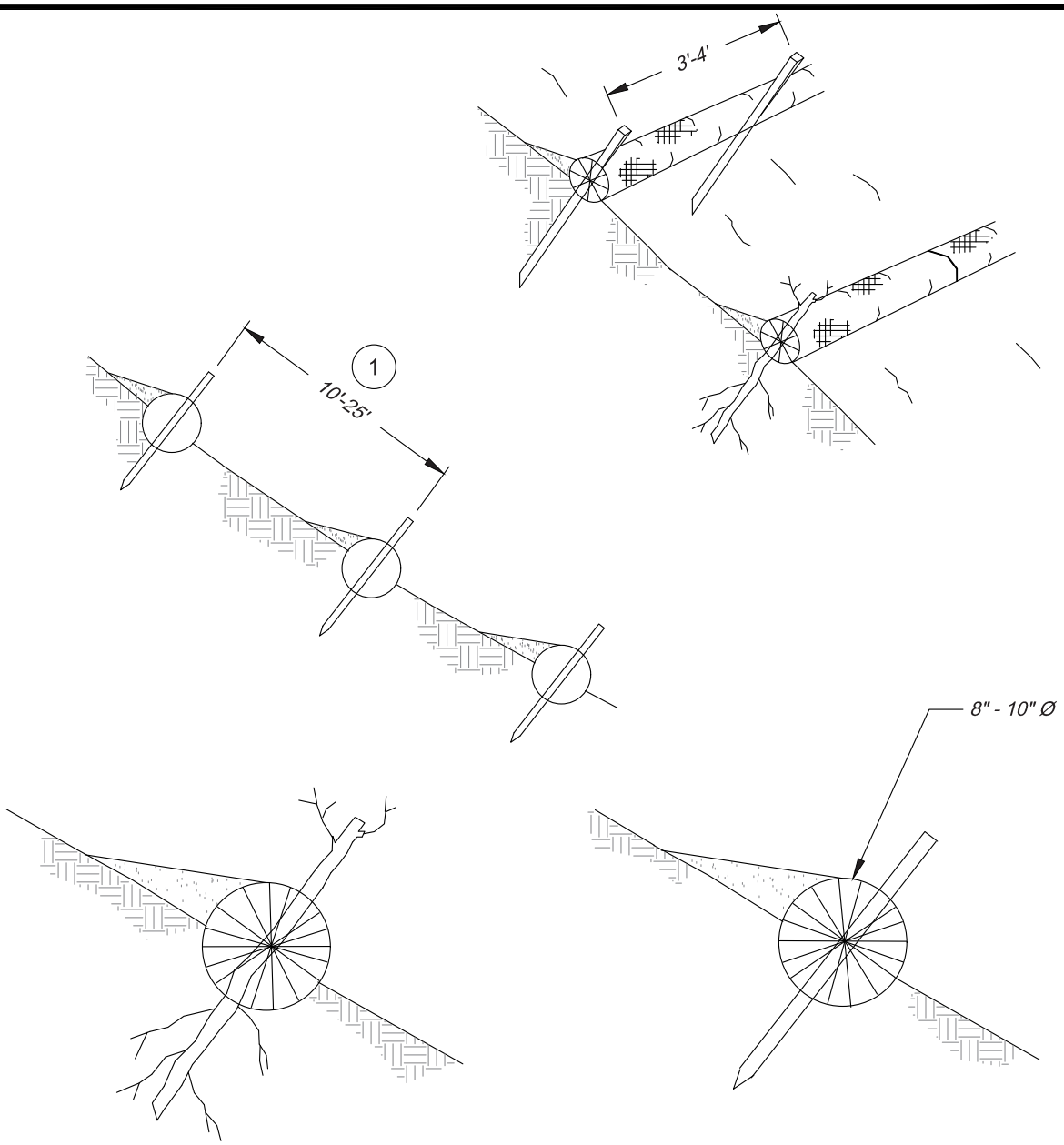
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
TEMPORARY SLOPE STABILIZATION WITH NETS OR BLANKETS

SCALE: N.T.S.

D&S Drawing No.
414

EFFECTIVE DATE:
JANUARY 2026



LIVE STAKE

1" x 1" STAKE

GENERAL NOTES:

1. *STRAW WATTLES SHALL BE PLACED ALONG SLOPE CONTOURS.*
2. *STRAW WATTLE INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE WATTLE IN A TRENCH, 3" - 5" DEEP, DUG ON CONTOUR. RUNOFF SHALL NOT RUN UNDER OR AROUND WATTLE.*
3. *DRIVE STAKE THROUGH MIDDLE OF WATTLE, LEAVE 2"-3" OF STAKE PROTRUDING ABOVE WATTLE.*

(#) *DETAIL NOTES:*

1. *WATTLE SPACING DEPENDENT ON SOIL TYPE AND SLOPE STEEPNESS.*

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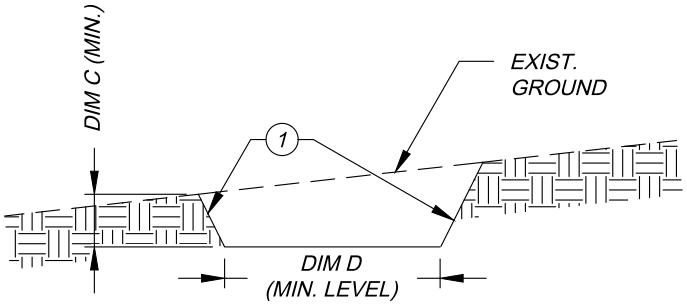
D&S DRAWING TITLE: STRAW WATTLES

SCALE: N.T.S.

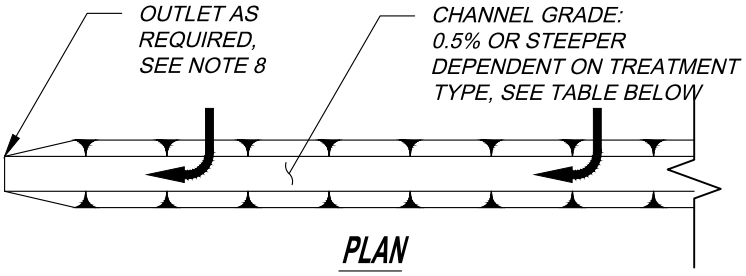
D&S Drawing No. 415

EFFECTIVE DATE: JUNE, 2024

SWALE DIMENSIONS		
DIM	SWALE A	SWALE B
C	1'	2'
D	4'	6'



CROSS SECTION



PLAN

FLOW CHANNEL STABILIZATION			
TYPE OF TREATMENT	CHANNEL GRADE	SWALE A (5 AC. OR LESS)	SWALE B (5 AC. - 10 AC.)
1	0.5% - 3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1% - 5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	3.1% - 5.0%	SEED USING JUTE OR EXCELSIOR; SOD	LINED 4" - 8" RIP-RAP, RECYCLED CONCRETE OR EQUIVALENT
4	3.1% - 5.0%	LINED 4" - 8" RIP-RAP	ENGINEERED DESIGN

GENERAL NOTES:

1. *ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.*
2. *DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.*
3. *DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITIES.*
4. *ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.*
5. *THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS-SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.*
6. *FILLS SHALL BE MECHANICALLY COMPACTED MIN. 95%.*
7. *ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE SWALE.*
8. *STABILIZATION SHALL BE PER THE CHART ABOVE.*
9. *PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.*

(#) DETAIL NOTES:

1. *SIDE SLOPES 2:1 MAX.*

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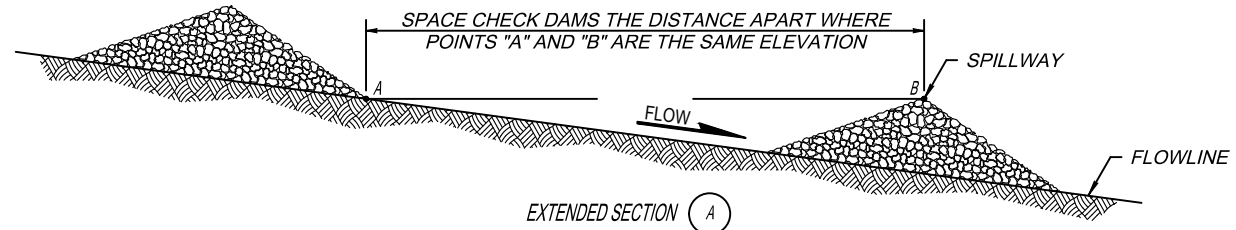
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: TEMPORARY SWALE

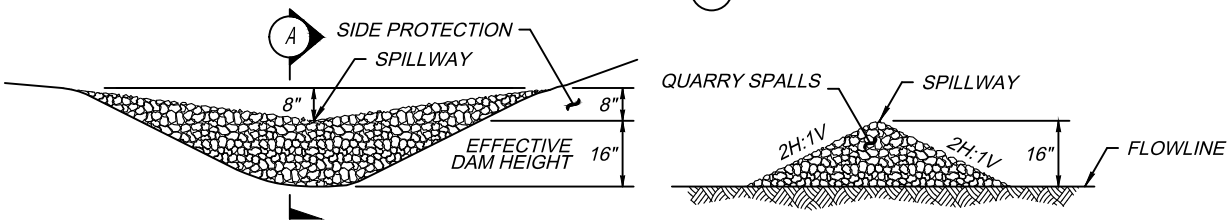
SCALE: N.T.S.

D&S Drawing No. 416

EFFECTIVE DATE: JANUARY 2026



EXTENDED SECTION (A)

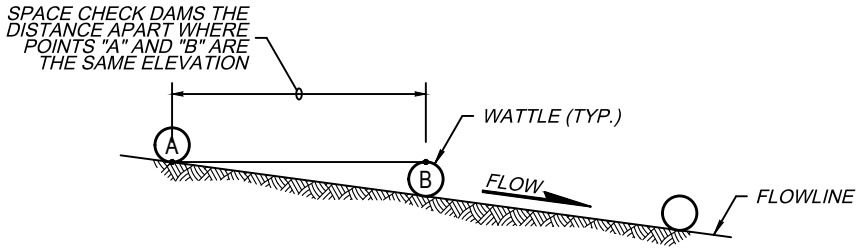


ELEVATION

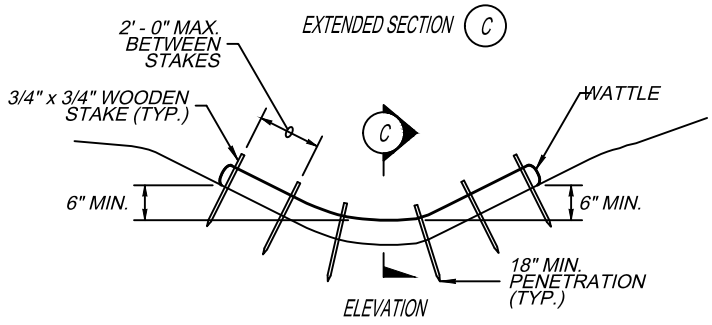
DETAIL NOTE:
ROCK CHECK DAMS SHALL BE PLACED OUTSIDE OF THE CLEAR ZONE, OR BEHIND TRAFFIC BARRIER.

SECTION (A)

ROCK CHECK DAM

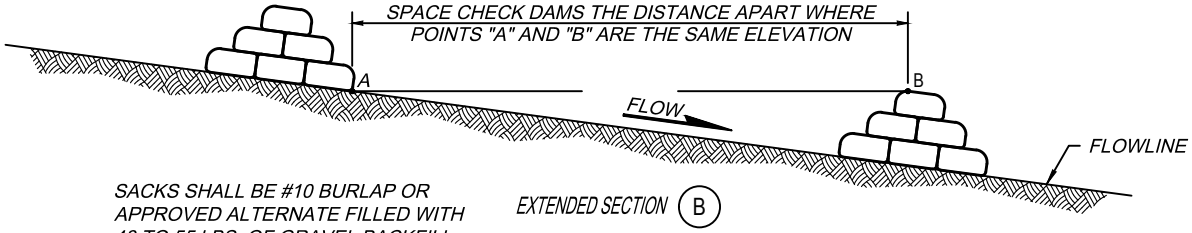


EXTENDED SECTION (C)



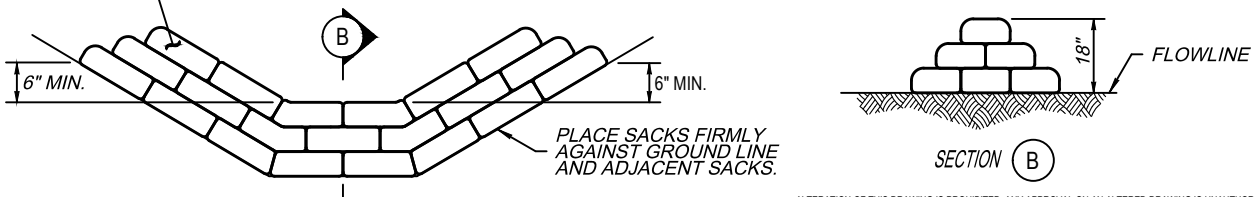
ELEVATION

WATTLE CHECK DAM



EXTENDED SECTION (B)

SACKS SHALL BE #10 BURLAP OR APPROVED ALTERNATE FILLED WITH 48 TO 55 LBS. OF GRAVEL BACKFILL FOR DRAINS.
(WSDOT STD. SPEC. 9-03.12(4))



ELEVATION

SECTION (B)

SANDBAG CHECK DAM

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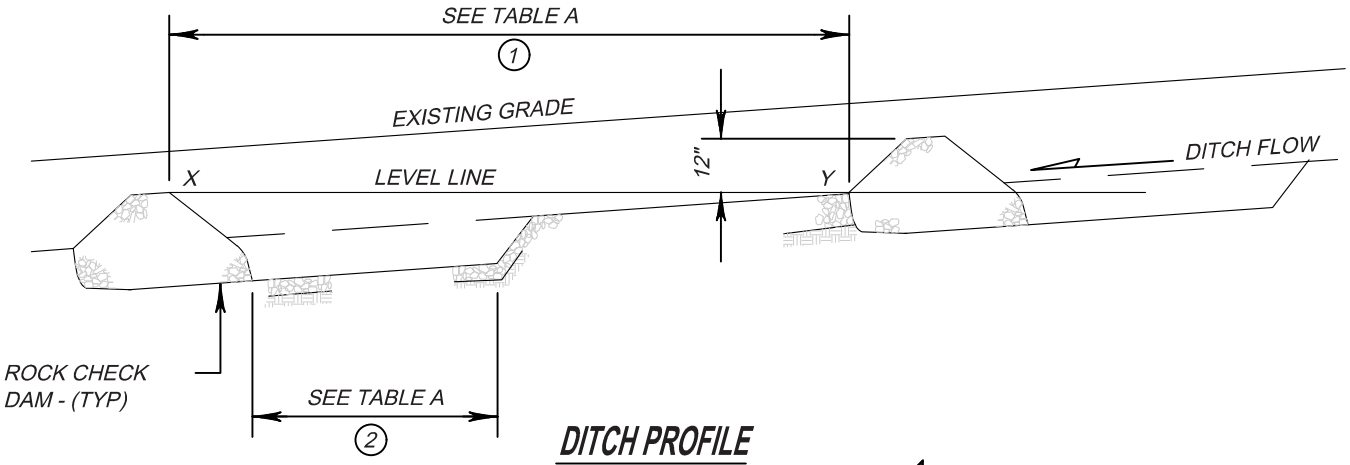
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D&S DRAWING TITLE: TEMPORARY CHECK DAM

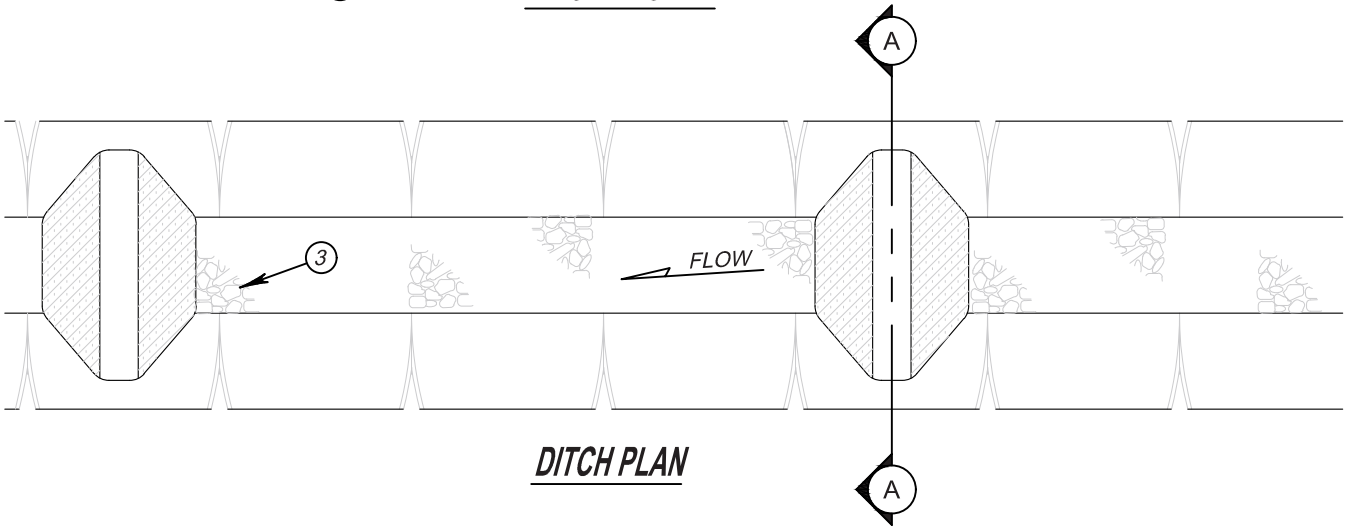
SCALE: N.T.S.

D&S Drawing No. 417

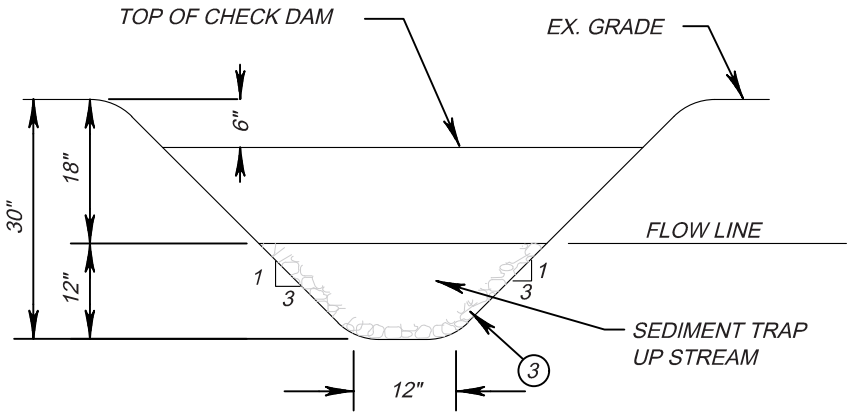
EFFECTIVE DATE: JANUARY 2026



DITCH PROFILE



DITCH PLAN



SECTION A-A

TABLE A

SLOPE FT/FT	1	2
1:100	100	10
1:50	50	10
1:25	25	5
1:20	20	4
1:15	15	3
1:10	10	2
1:5	5	0

GENERAL NOTES:

1. SUMP BEHIND ROCK CHECK DAM SHALL BE INSPECTED DAILY, AND CLEANED WHEN COLLECTED DEBRIS EXCEEDS 1/2 OF ITS DEPTH.

DETAIL NOTES:

1. DAM SPACING
2. SEDIMENT TRAP LENGTH
3. LINE THE BOTTOM OF THE SWALE WITH 4" C.S.B.C

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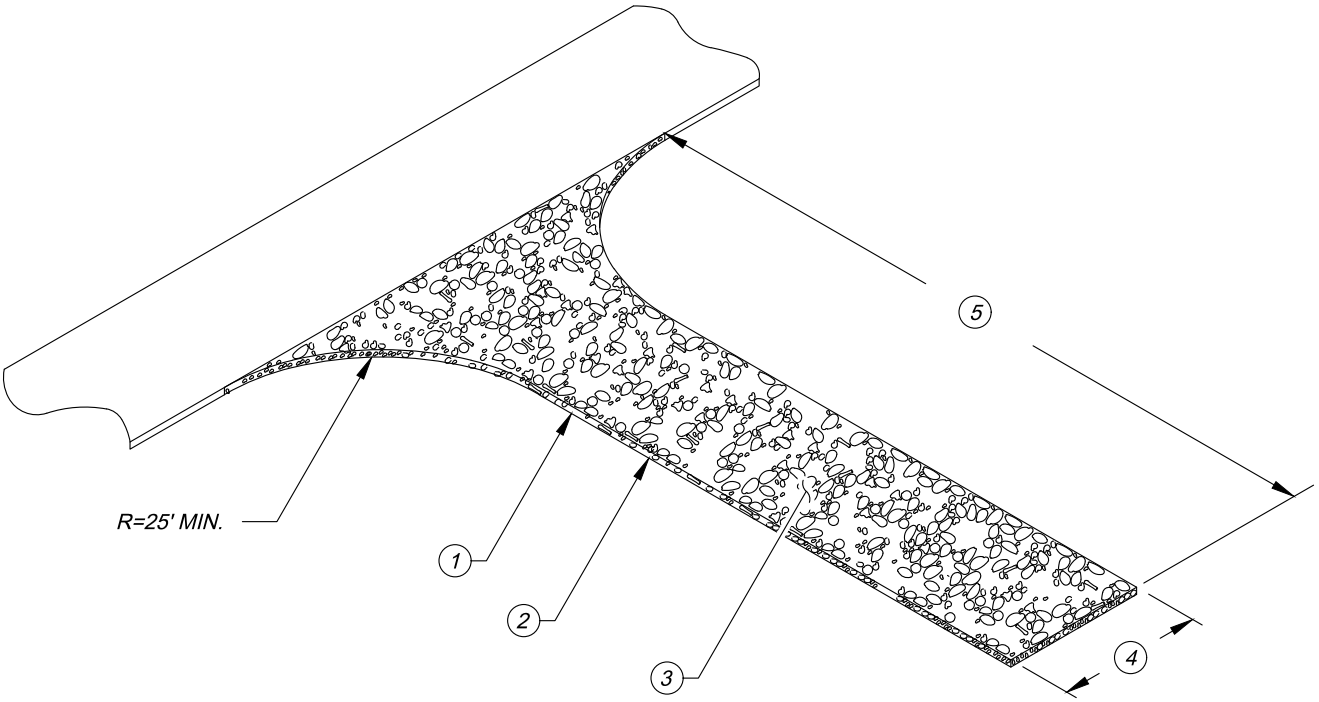
CITY OF MOUNTLAKE TERRACE
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D&S DRAWING TITLE:
TEMPORARY INTERCEPTOR DITCH WITH ROCK CHECK DAMS

SCALE: N.T.S.

D&S Drawing No.
418

EFFECTIVE DATE:
JUNE, 2024



GENERAL NOTES:

1. *SIZE- USE 2" - 4" FRACTURED ROCK.*
2. *LENGTH - AS REQUIRED BUT NOT LESS THAN 50' (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).*
3. *THICKNESS - NOT LESS THAN 12".*
4. *WIDTH - 20' MINIMUM BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.*
5. *FILTER FABRIC SHALL BE WOVEN STABILIZATION FABRIC WITH A MINIMUM PERMEABILITY OF 0.9. PLACE FILTER FABRIC OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT*
6. *MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.*
7. *WHEEL WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.*
8. *PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.*
9. *THE CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED SO THAT THE RUNOFF DRAINS OFF THE PAD AND IS CONTAINED WITHIN THE PROJECT SITE, PER THE CITY'S APPROVED STORMWATER MANUAL.*

DETAIL NOTES:

1. *FILTER FABRIC UNDER QUARRY SPALLS.*
2. *12" MIN. THICKNESS.*
3. *4" - 8" QUARRY SPALLS PLACED WITH TOP AT SUBGRADE WHERE POSSIBLE.*
4. *PROVIDE FULL WIDTH OF INGRESS/EGRESS AREA.*
5. *100' MIN. EXCEPT MAY BE REDUCED TO 50' MIN. FOR SITES WITH LESS THAN ONE ACRE OF EXPOSED SOIL.*

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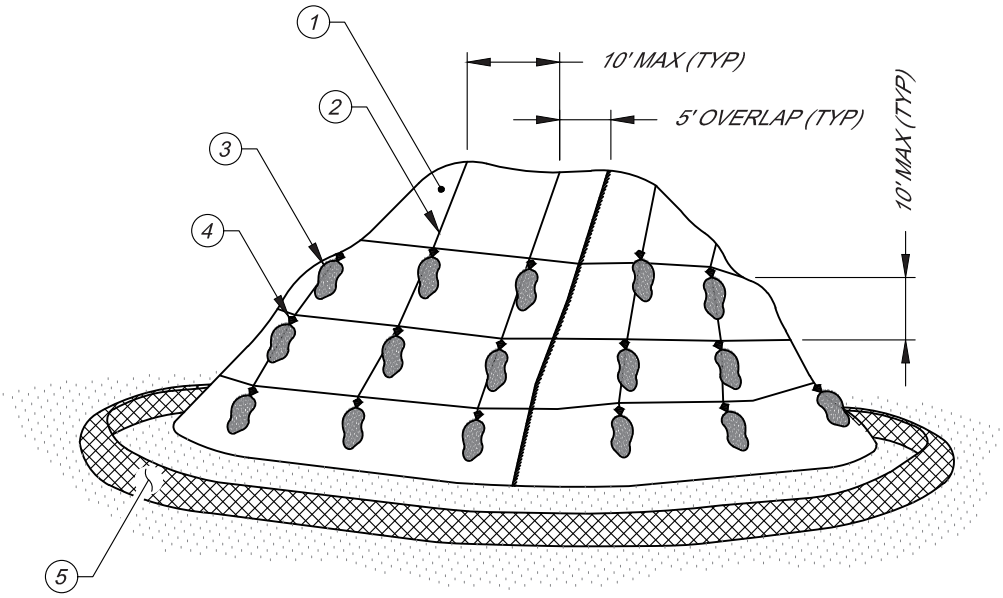
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ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STABILIZED CONSTRUCTION ENTRANCE

SCALE: N.T.S.

D&S Drawing No.
419

EFFECTIVE DATE:
JANUARY 2026



GENERAL NOTES:

1. INSTALL PLASTIC SHEETING LONG AXIS VERTICALLY DOWNSLOPE.
2. INSTALL PLASTIC SHEETING SO EDGES OVERLAP 5' MIN. AND ARE SHINGLED AWAY FROM PREVAILING WINDS.
3. PLASTIC SHEETING SHALL BE MIN. 6 MILS THICK.

DETAIL NOTES:

1. PLASTIC SHEETING (TYP.)
2. ROPE (TYP.)
3. SANDBAGS (TYP.)
4. TIE SANDBAGS TO ROPES. STAKE ROPES 12" MIN AWAY FROM EDGE OF SHEETING.
5. INSTALL SEDIMENT BARRIER (WATTLE OR COMPOST FILTER SOCK) AT TOE OF SLOPE.

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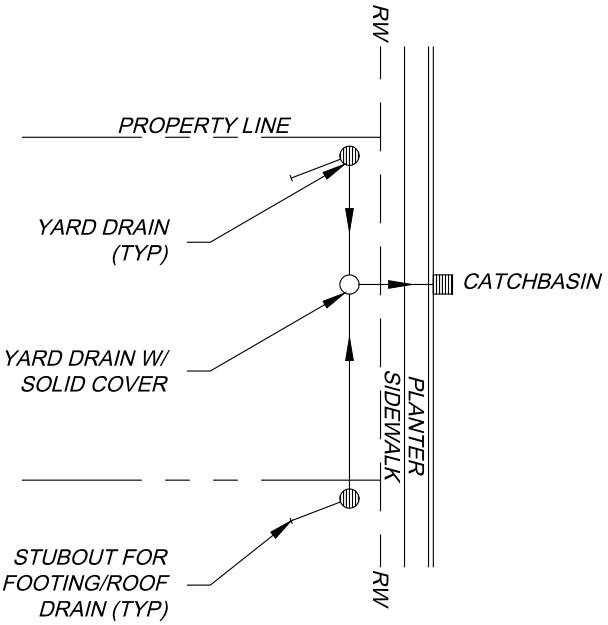
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D&S DRAWING TITLE:
TEMPORARY STOCKPILE PROTECTION

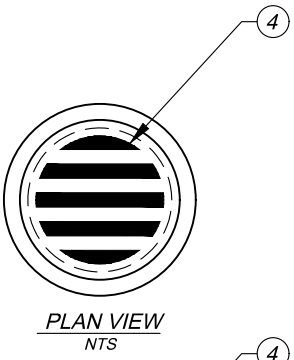
SCALE: N.T.S.

D&S Drawing No.
420

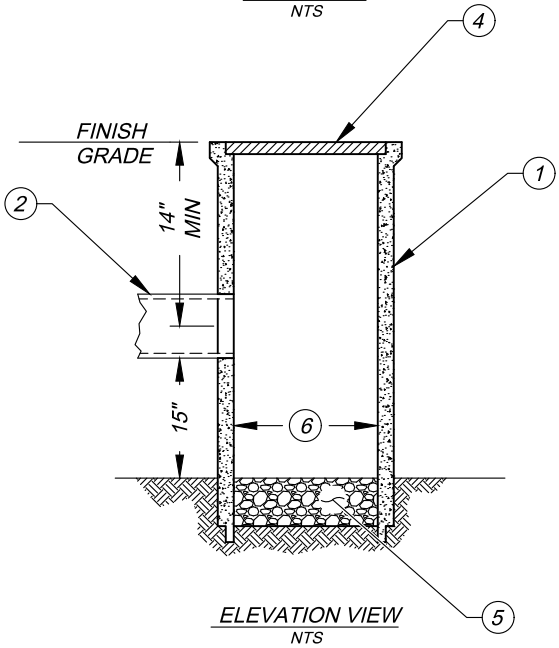
EFFECTIVE DATE:
JUNE, 2024



TYPICAL LOT PLACEMENT
NTS



PLAN VIEW
NTS



ELEVATION VIEW
NTS

GENERAL NOTES:

1. DRAIN PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PER ASTM C 14.
2. SPECIAL CAST YARD DRAIN MAY BE REQUIRED FOR MULTIPLE PIPE CONNECTIONS.
3. CLEAN OUT REQUIRED FOR DEPTHS OVER 42 INCHES.

(#) DETAIL NOTES:

1. HIGH DENSITY POLYETHYLENE (HDPE) N-12 PIPE PER ASTM C 14.
2. OUTLET PIPE CUTOUT EQUALS OUTLET PIPE OD PLUS YARD DRAIN WALL THICKNESS.
3. .OUTLET PIPE CONNECTION SHALL BE FLUSH AND BE MORTARED TO YARD DRAIN PIPE.
4. CAST IRON BELL GRATE. GRATE SHALL FIT INTO BELL END RECESS AND SHALL BE FLUSH TO FACE OF BELL. GRATE SHALL HAVE SLOTS OR HOLES EQUAL TO 50% OF AREA OF GRATE. INLET BELL SURFACE SHALL BE FINISHED TO ASSURE NON-ROCKING FIT IN ANY COVER POSITION.
5. WASHED DRAIN ROCK, 6 IN. MIN DEPTH.
6. VARIES 12 IN. TO 18 IN.

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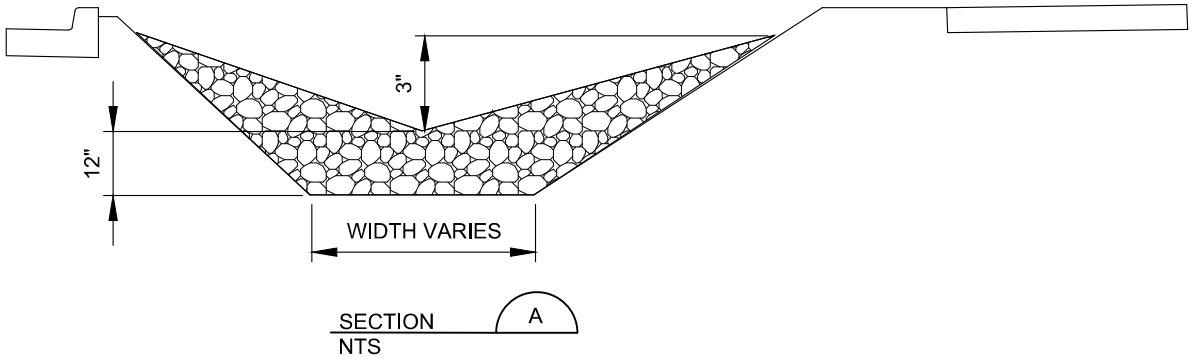
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D&S DRAWING TITLE: YARD DRAIN

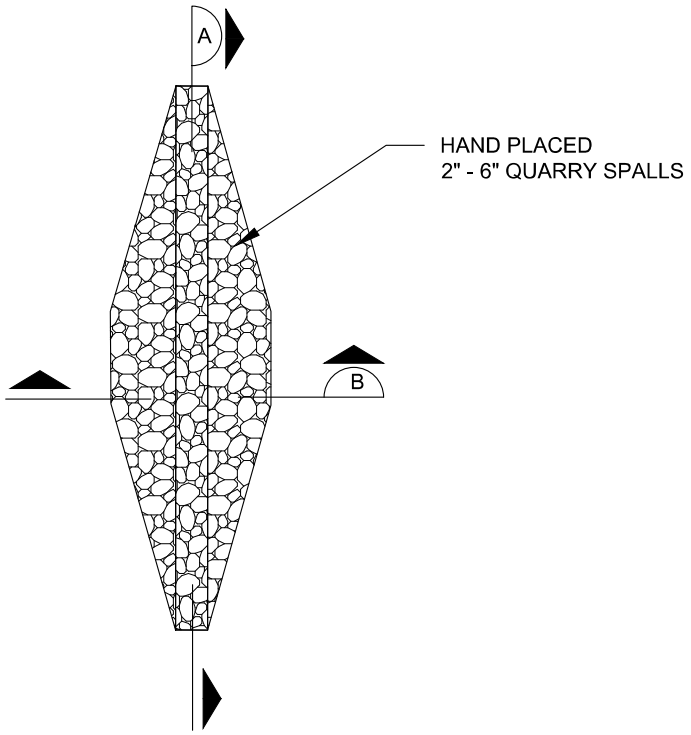
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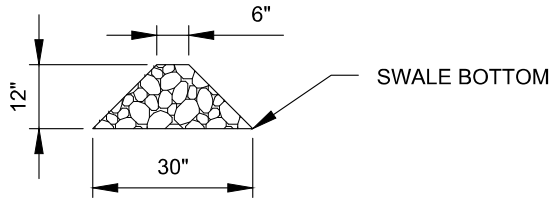
D&S Drawing No. 421

EFFECTIVE DATE: JANUARY 2026



SECTION A
NTS





SECTION B
NTS

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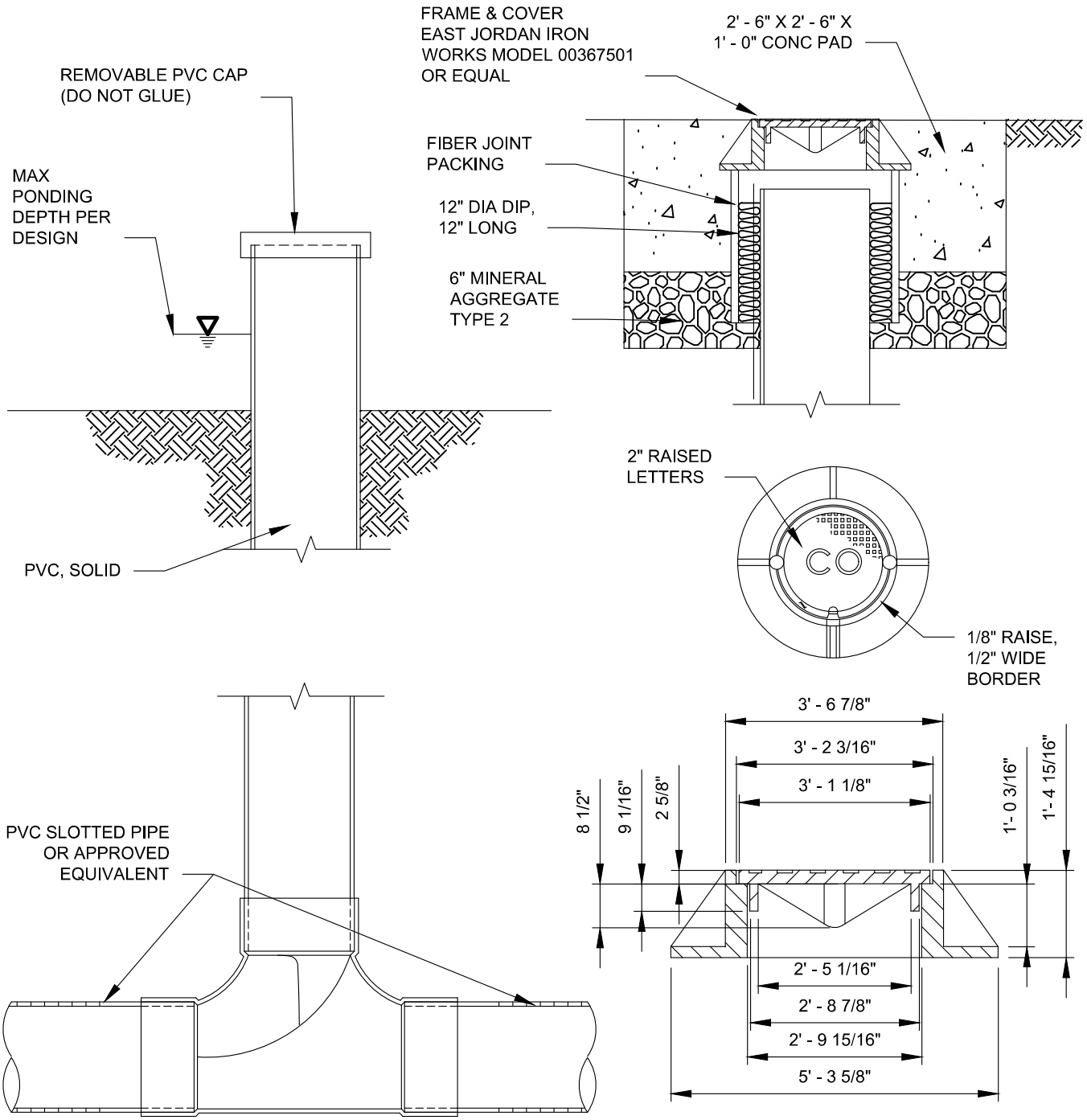
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ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
BIORETENTION CHECK DAM

SCALE: N.T.S.

D&S Drawing No.
441

EFFECTIVE DATE:
JUNE, 2024



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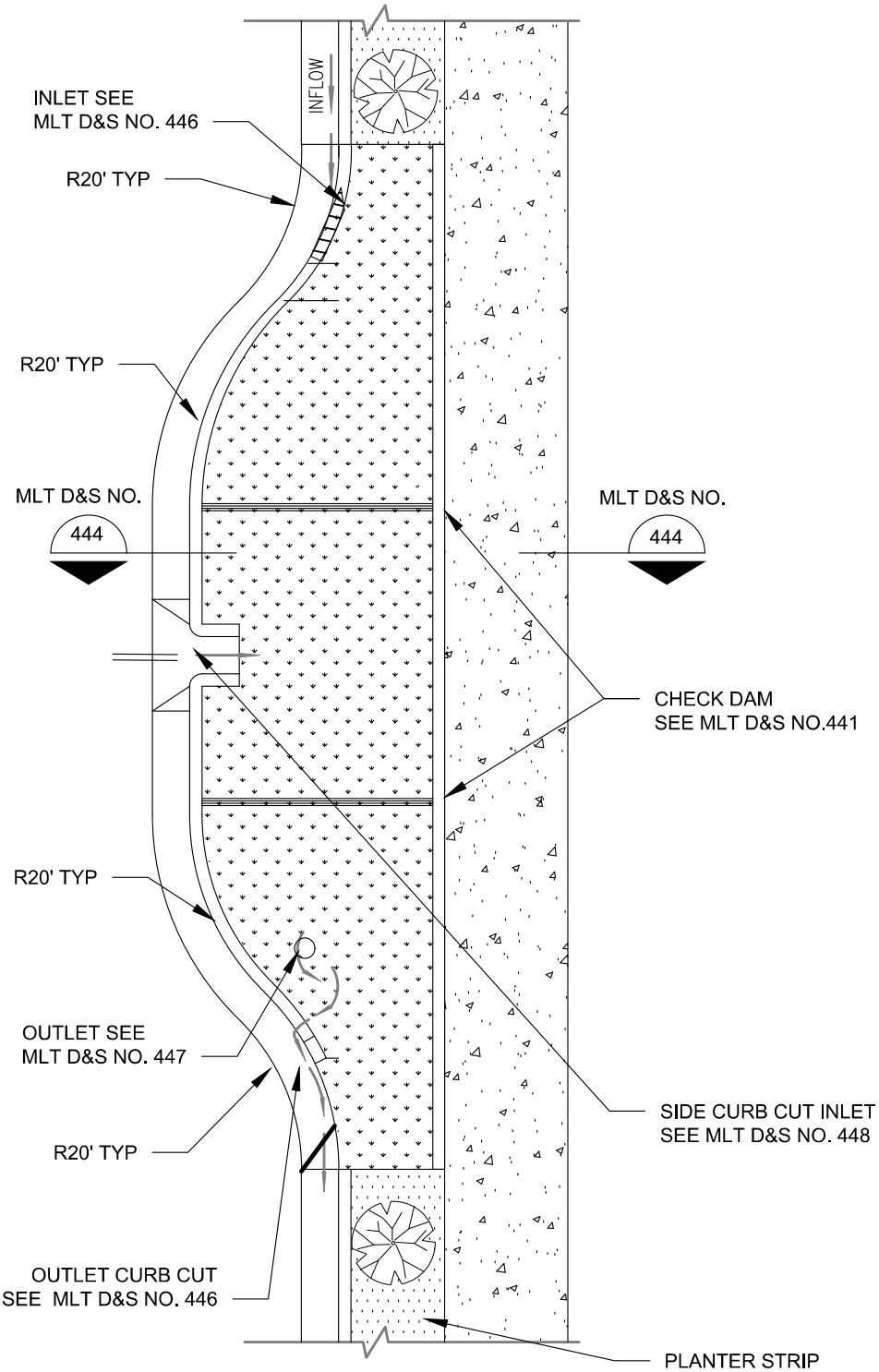
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ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
BIORETENTION CLEANOUT

SCALE: N.T.S.

D&S Drawing No.
442

EFFECTIVE DATE:
JUNE, 2024



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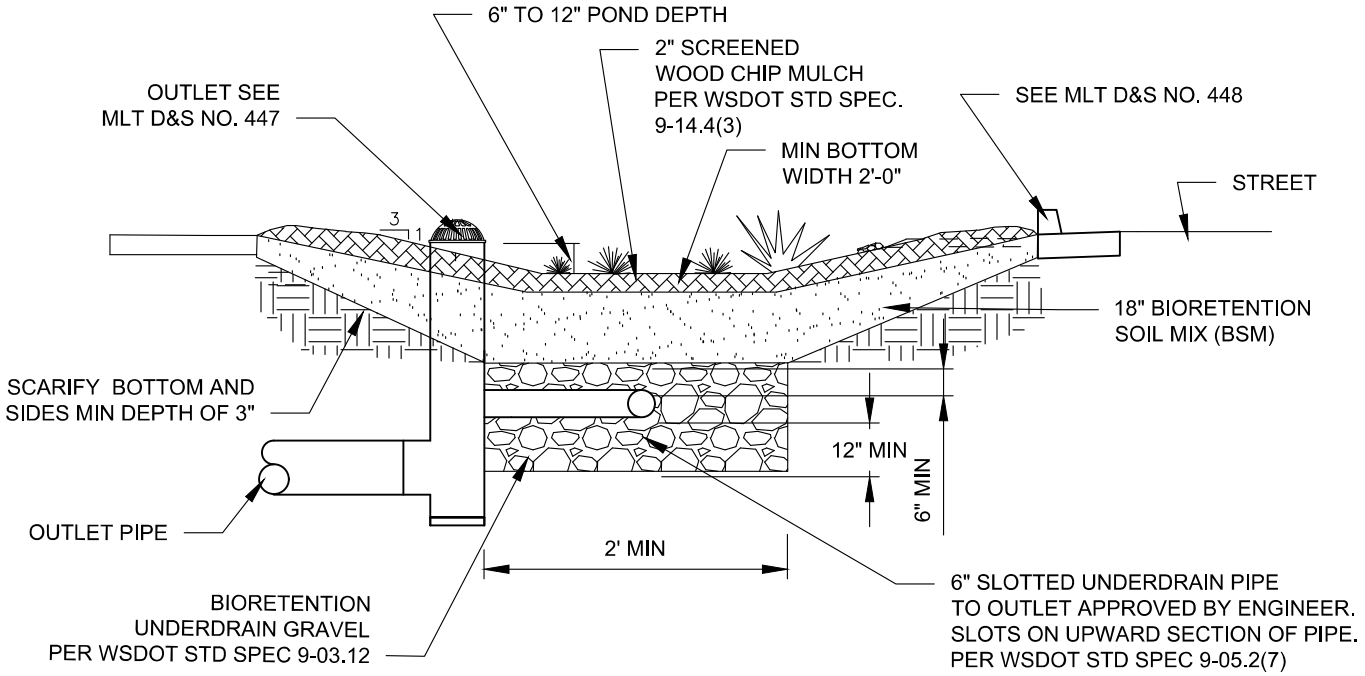
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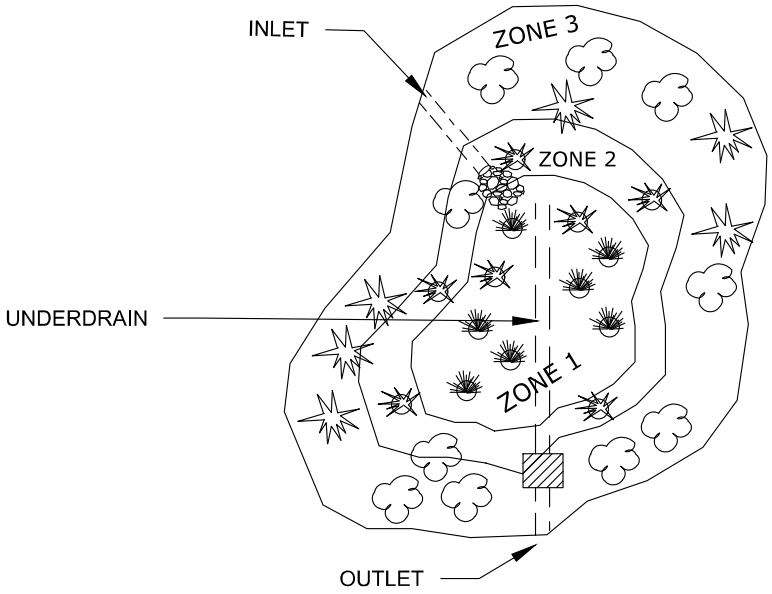
D&S DRAWING TITLE:
BIORETENTION CURB EXTENSION

SCALE: N.T.S.

D&S Drawing No.
443

EFFECTIVE DATE:
JUNE, 2024





GENERAL NOTES:

1. MAXIMUM BOTTOM SLOPE OF CELL IS 0.5%
2. OVERFLOW POINT SHALL BE AT LEAST 6 INCHES BELOW ANY ADJACENT PAVEMENT AREA.
3. INSTALL STREAMBED COBBLE (1" - 4") AT INLET TO DISSIPATE RUNOFF
4. IF OPTIONAL UNDERDRAIN IS USED:
   - 4.1. 0.5% MIN SLOPE
   - 4.2. PROVIDE A CLEAN OUT EVERY 250-300 FEET
5. MINIMUM 3 FOOT DEPTH BETWEEN UNDERDRAIN (IF PRESENT) OR BOTTOM OF BIORETENTION SOIL MIX (BSM) AND WATER TABLE.
6. MINIMUM SETBACK OF 5 FEET FROM TOP OF BIORETENTION CELL TO BUILDING STRUCTURES AND PROPERTY LINES. DO NOT LOCATE IMMEDIATELY UP SLOPE OF BUILDING STRUCTURES.
7. AVOID COMPACTION OF EXISTING SUBGRADE BELOW PLANTER DURING CONSTRUCTION.
8. SEE CURRENT LID TECHNICAL GUIDANCE MANUAL FOR PUGET SOUND FOR PLANT LIST. PLANT SPECIES SHALL BE REVIEWED AND APPROVED BY CITY STAFF.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

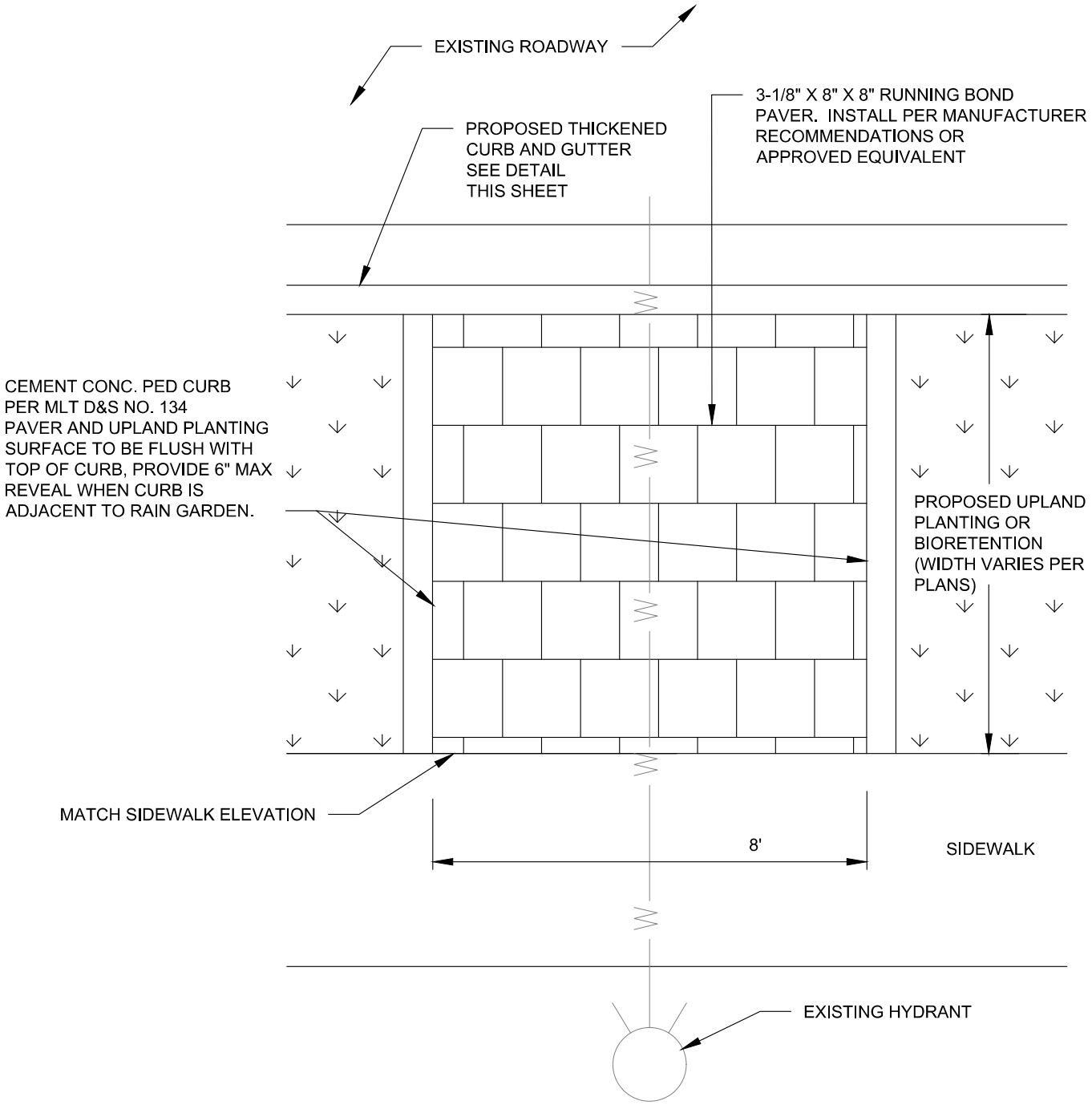
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
BIORETENTION FACILITY
WITH UNDERDRAIN

SCALE: N.T.S.

D&S Drawing No.
444

EFFECTIVE DATE:
JUNE, 2024



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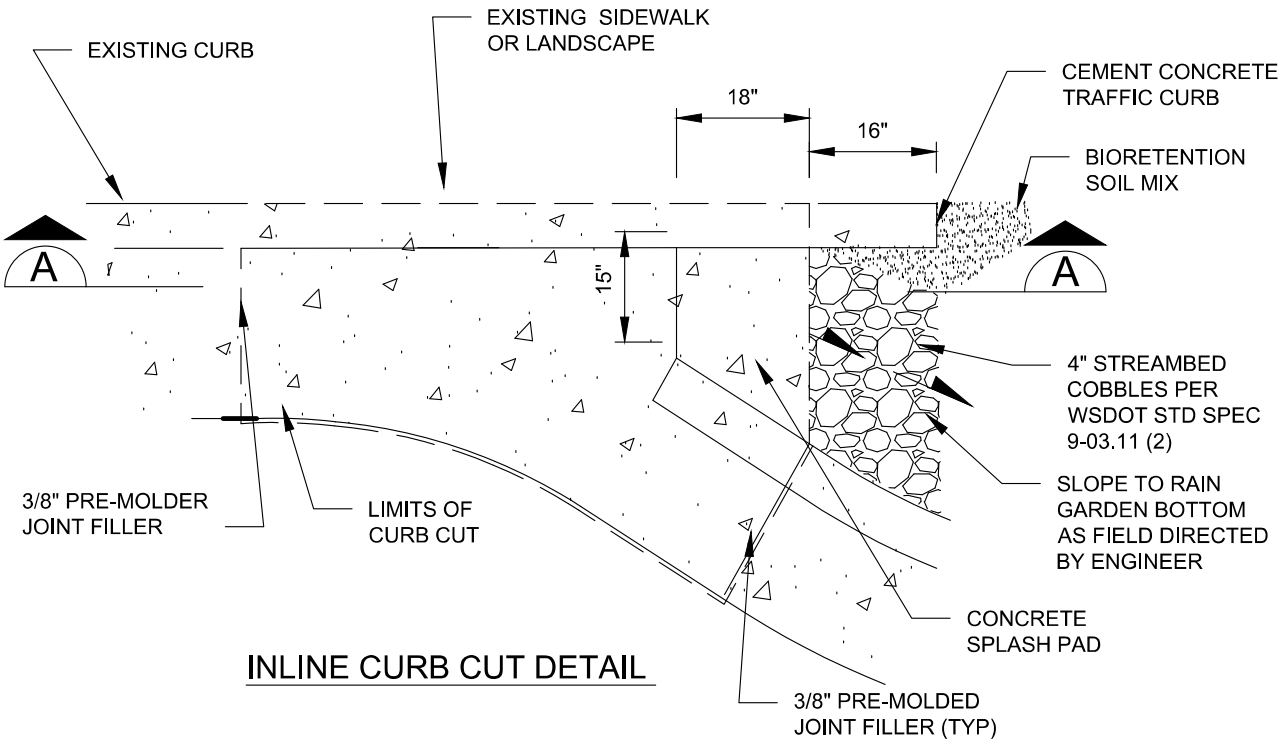
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
FIRE HYDRANT ACCESS AT BIORETENTION FACILITY

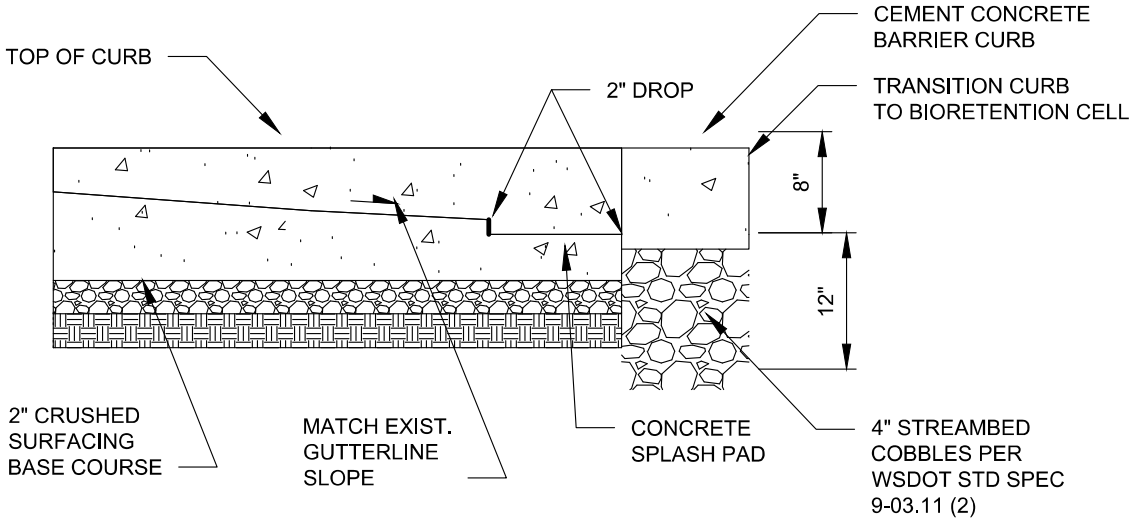
SCALE: N.T.S.

D&S Drawing No.
445

EFFECTIVE DATE:
JUNE, 2024



INLINE CURB CUT DETAIL



INLINE CURB CUT SECTION A-A

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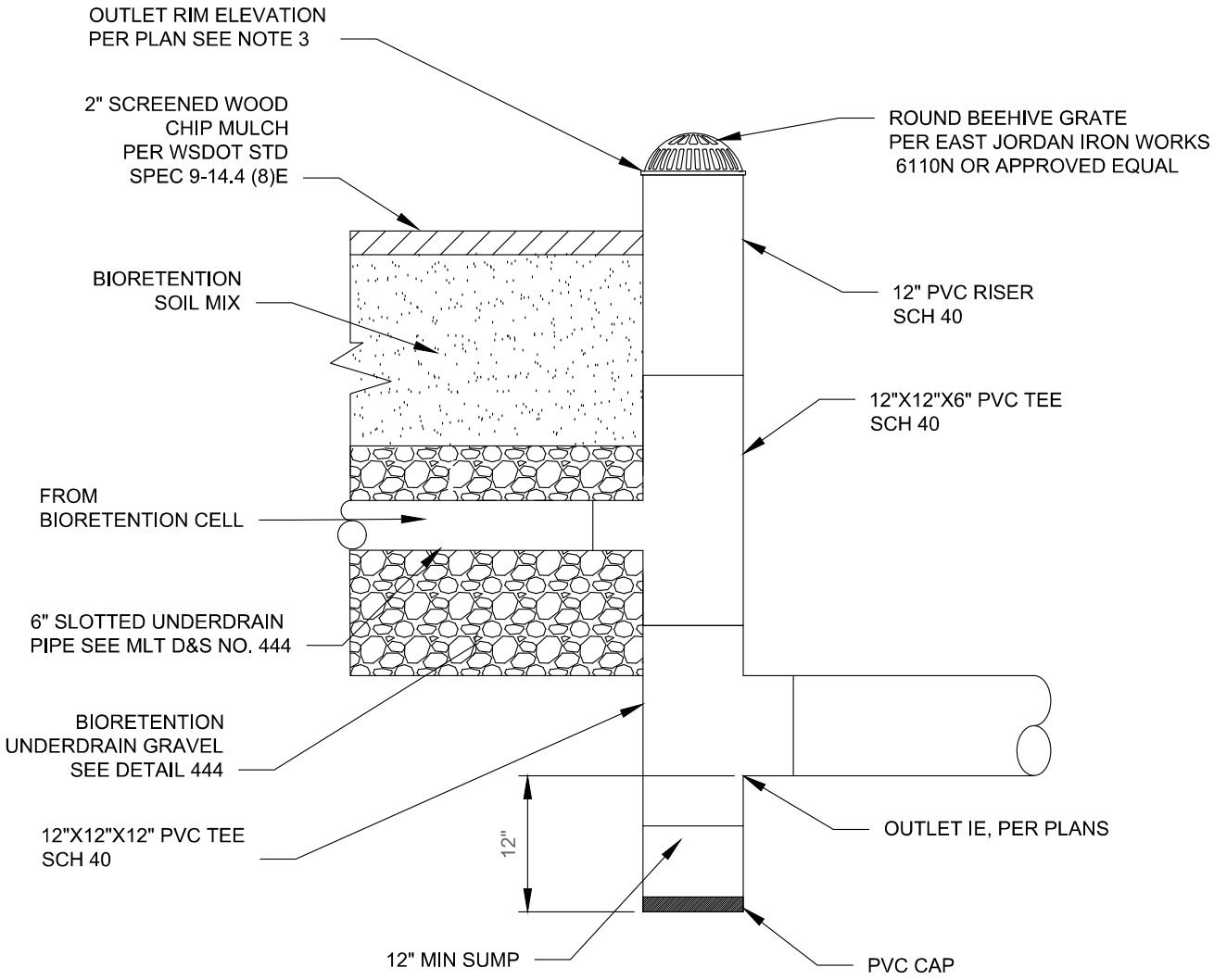
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
INLINE CURB CUT AT
BIORETENTION FACILITY

SCALE: N.T.S.

D&S Drawing No.
446

EFFECTIVE DATE:
JUNE, 2024



DETAIL NOTES:

1. ALL FITTINGS TO BE RUBBER GASKETED.
2. ALL PVC RISERS AND FITTINGS INSTALLED ABOVE GRADE SHALL HAVE PROTECTIVE ULTRAVIOLET COATING, OPAQUE LATEX WATER BASED PAINT OR APPROVED EQUIVALENT.
3. OUTLET RIM 3 INCH MINIMUM BELOW ADJACENT PAVEMENT OF SIDEWALK.

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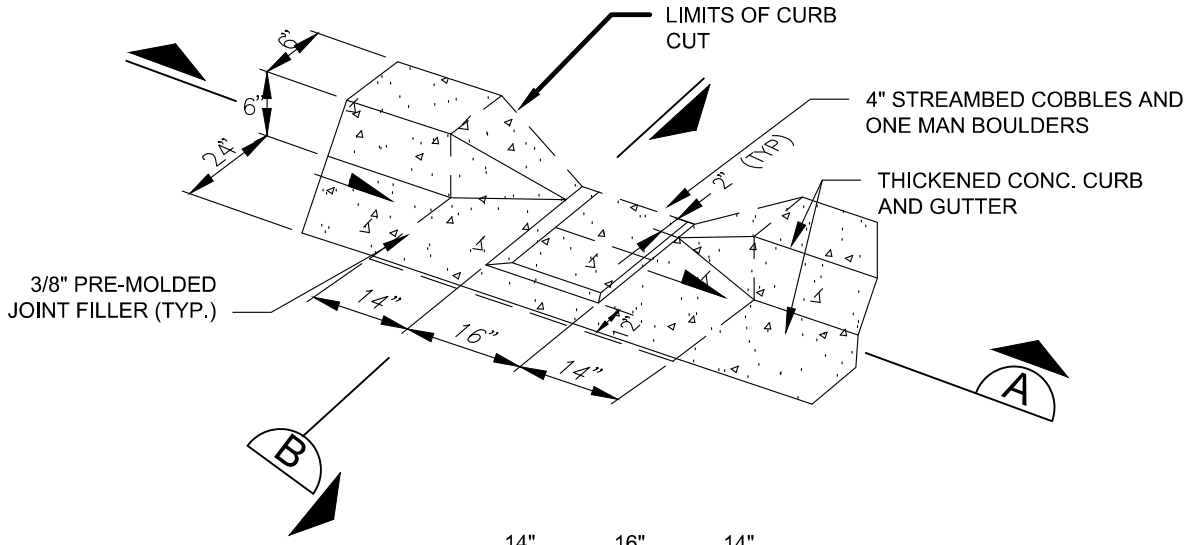
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

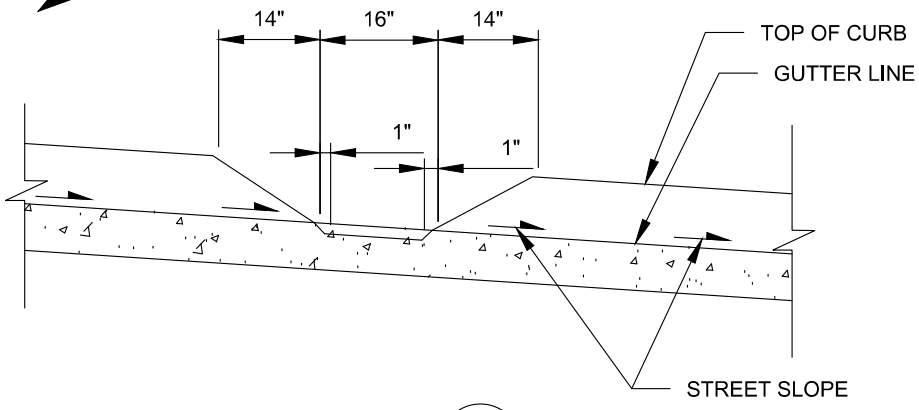
D&S DRAWING TITLE:
BIORETENTION OUTLET STRUCTURE

SCALE: N.T.S.

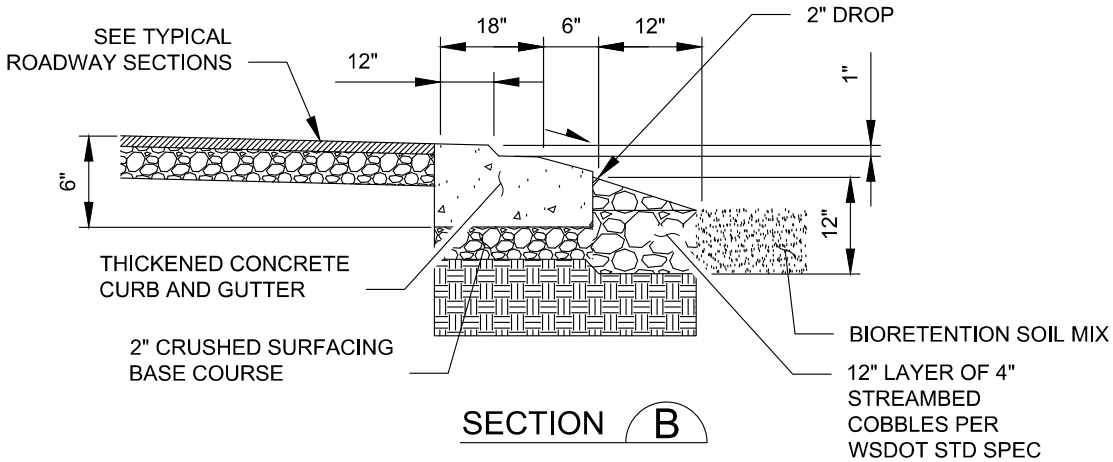
D&S Drawing No.
447

EFFECTIVE DATE:
JUNE, 2024





SECTION A



SECTION B

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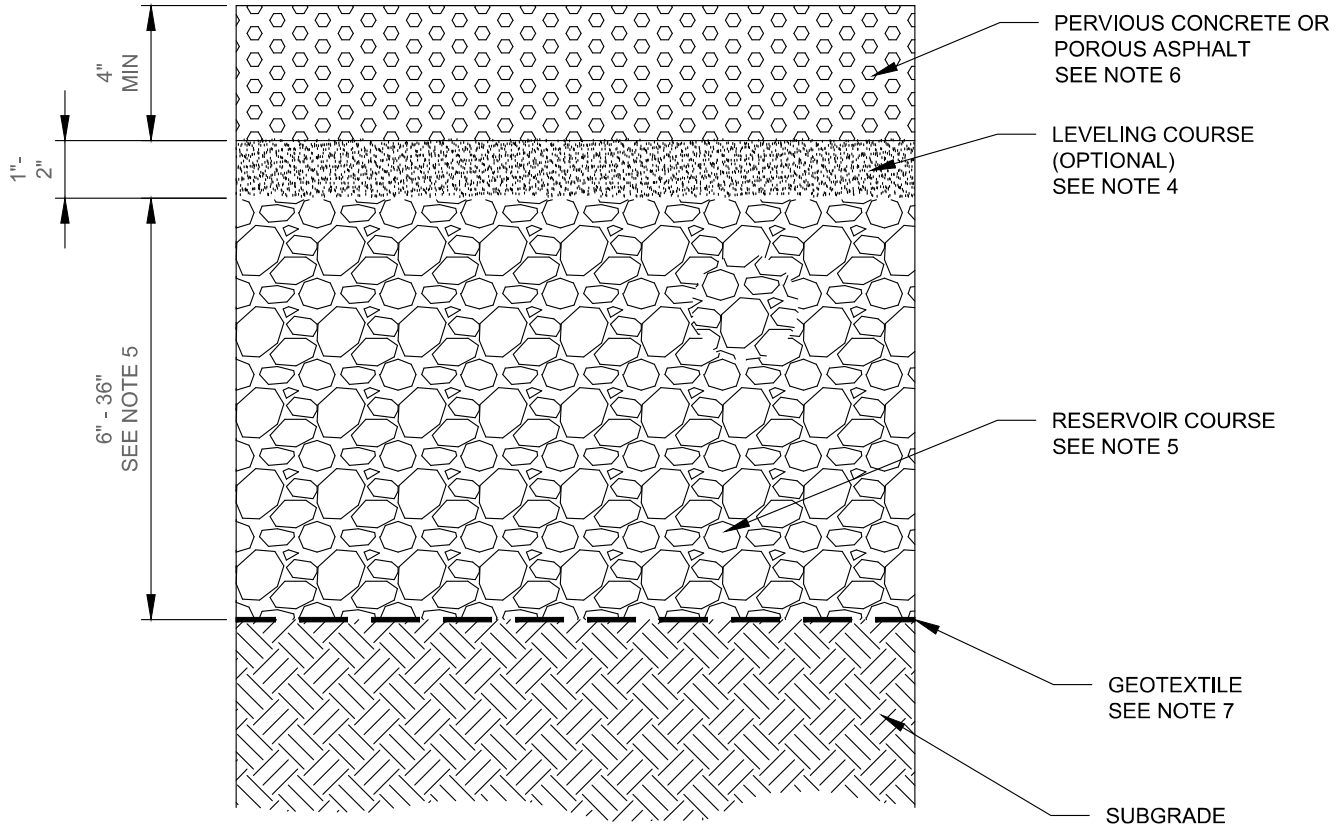
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SIDE CURB CUT AT BIORETENTION FACILITY

SCALE: N.T.S.

D&S Drawing No.
448

EFFECTIVE DATE:
JUNE, 2024



DETAIL NOTES:

1. THESE GUIDELINES PROVIDE A MINIMUM DEPTH FOR THE HYDROLOGIC PERFORMANCE. THE STRUCTURAL CAPACITY OF PAVEMENT SECTIONS WHEN SUBJECT TO VEHICULAR LOADS DEPENDS ON SEVERAL FACTORS AND MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER.
2. LONGITUDINAL SLOPE, 0 TO 5% MAX FOR POROUS ASPHALT, 10% MAX FOR PERVIOUS CONCRETE.
3. USE CHECK DAM OR OTHER METHODS TO MAXIMIZE PONDING IN THE SUBSURFACE FOR LONGITUDINAL SLOPES EXCEEDING 2%. SEE MLT D&S NO. 450.
4. LEVELING COURSE MATERIALS: GRAVEL BACKFILL FOR WALLS PER WSDOT STD SPEC 9-03.12(2)
5. RESERVOIR COURSE MINIMUM DEPTH OF 6" PERMEABLE BALLAST PER WSDOT STD SPEC 9-03.9(2)
6. PERVIOUS CONCRETE MUST BE INSTALLED BY A CERTIFIED PERVIOUS CONCRETE INSTALLER. POROUS ASPHALT MUST BE INSTALLED BY AN EXPERIENCED POROUS ASPHALT INSTALLER. (NRMCA OR EQUIVALENT).
7. INSPECTOR MAY WAIVE GEOTEXTILE DEPENDING ON SUBGRADE. GEOTEXTILE CAN BE REMOVED WITH CITY APPROVAL.

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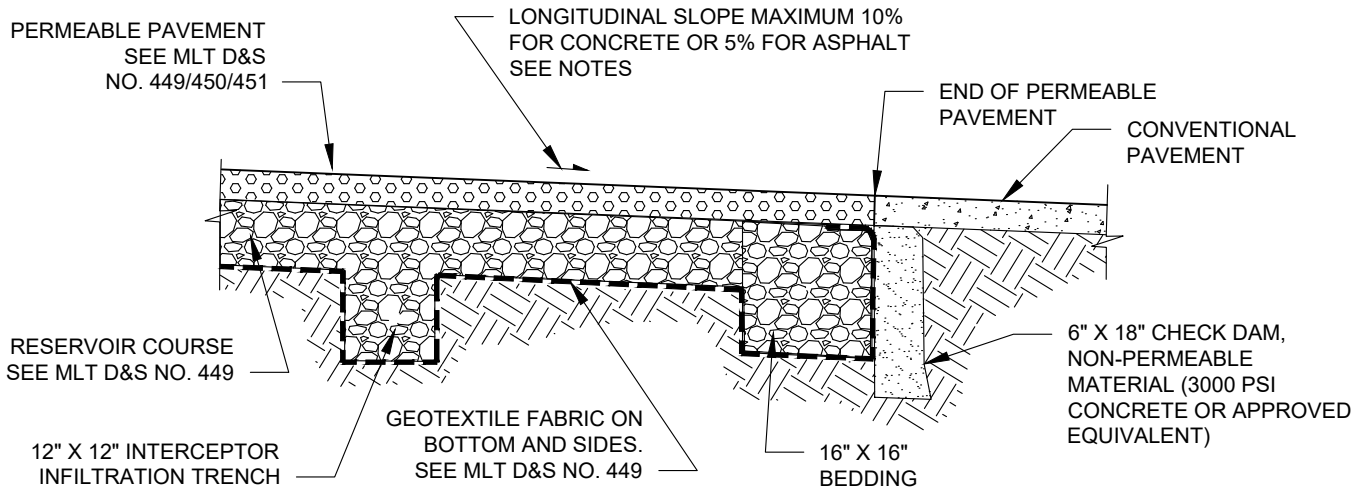
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PERMEABLE SIDEWALK SECTION

SCALE: N.T.S.

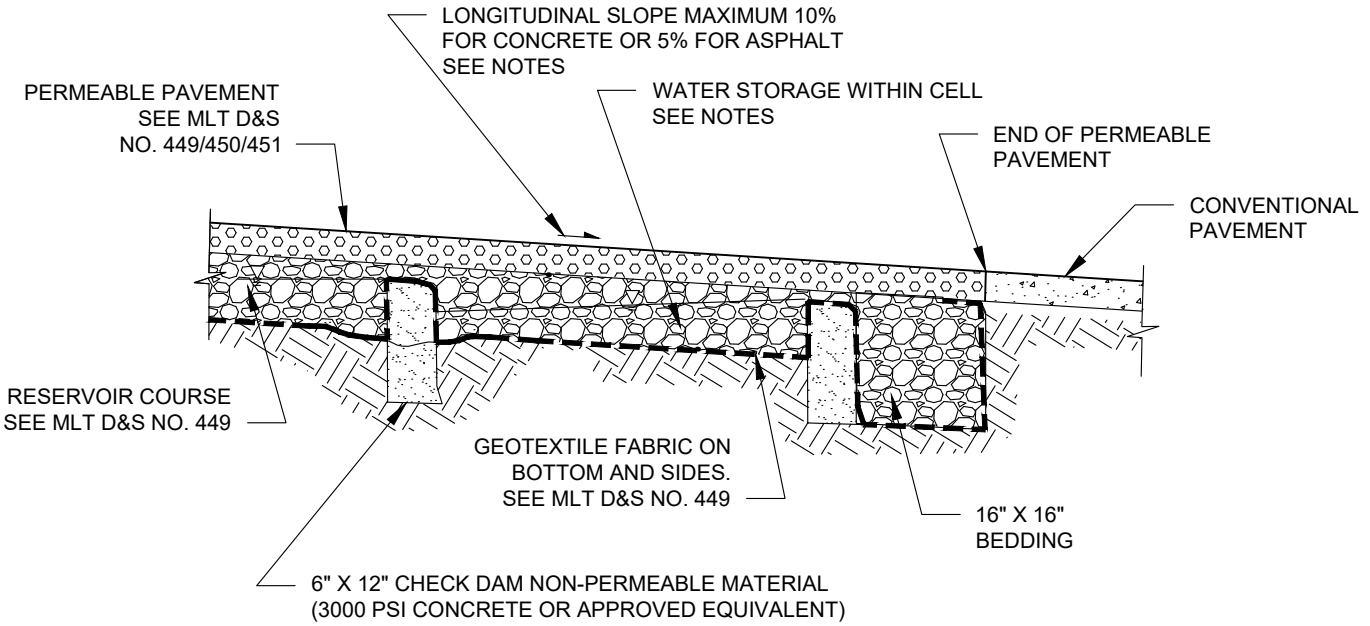
D&S Drawing No.
449

EFFECTIVE DATE:
JUNE, 2024



INTERCEPTOR INFILTRATION TRENCH

NTS



CHECK DAM

NTS

DETAIL NOTES:

1. CHECK DAM OR INTERCEPTOR REQUIRED FOR LONGITUDINAL SLOPES > 2%.
2. SPACE CHECK DAMS BASED ON SLOPE TO ACHIEVE DESIGN AVERAGE PONDING DEPTH BEFORE OVERTOPPING DAM.
3. CALCULATE STORAGE VOLUME BETWEEN CHECK DAMS BASED ON CHECK DAM HEIGHT AND SLOPE FOR MODELING.
4. 6" PVC PERF PIPE WITH CLEANOUTS AND CONNECTION TO STORM.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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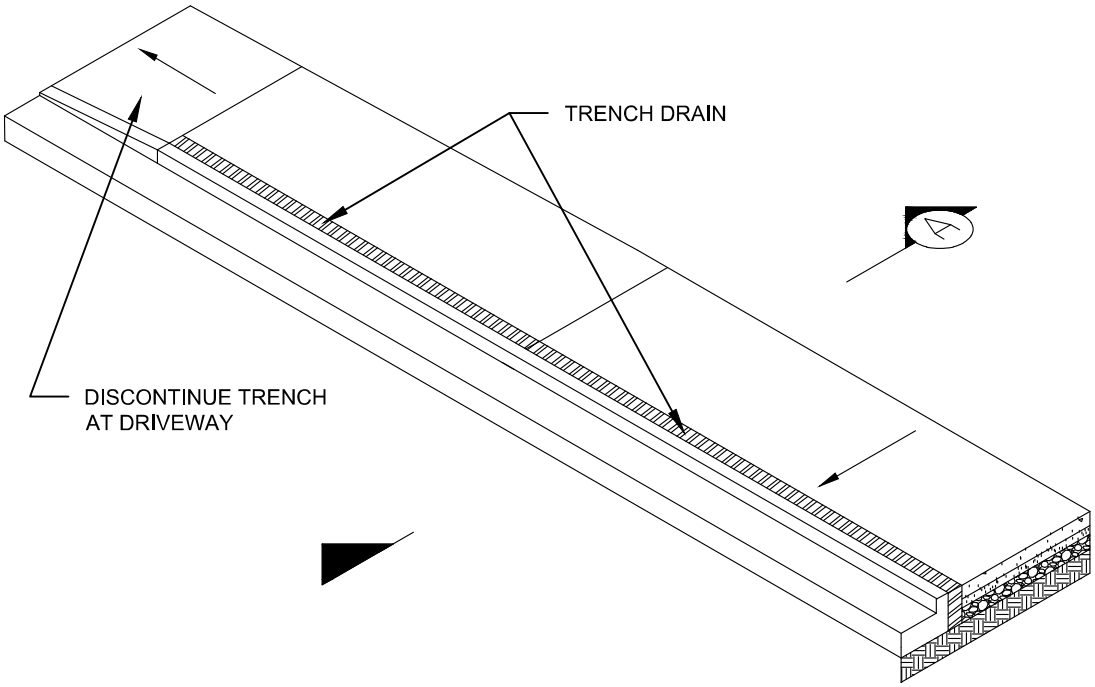
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: PERMEABLE SIDEWALK ON SLOPES

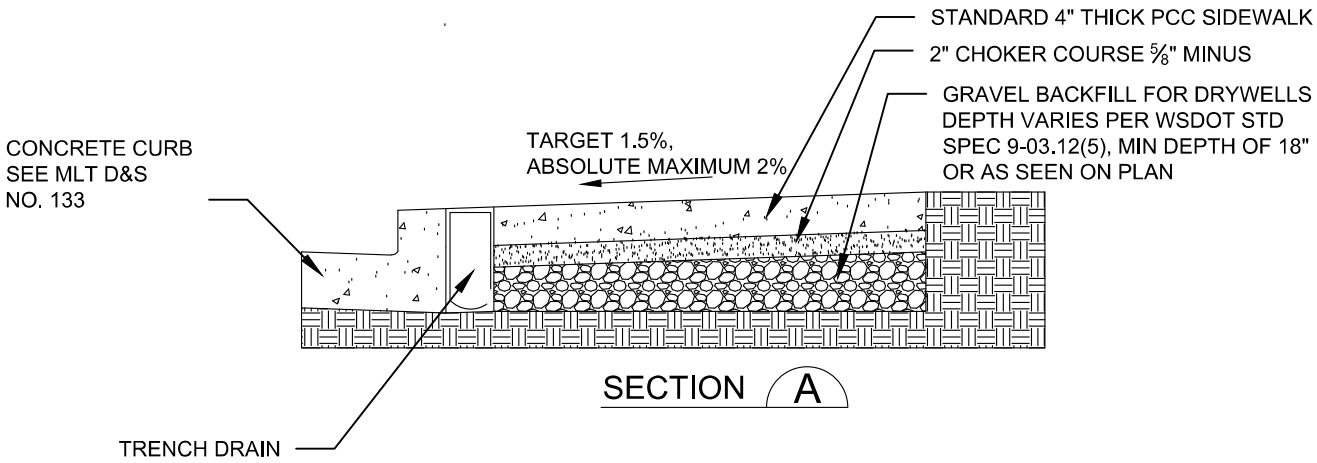
SCALE: N.T.S.

D&S Drawing No. 450

EFFECTIVE DATE: JANUARY 2026



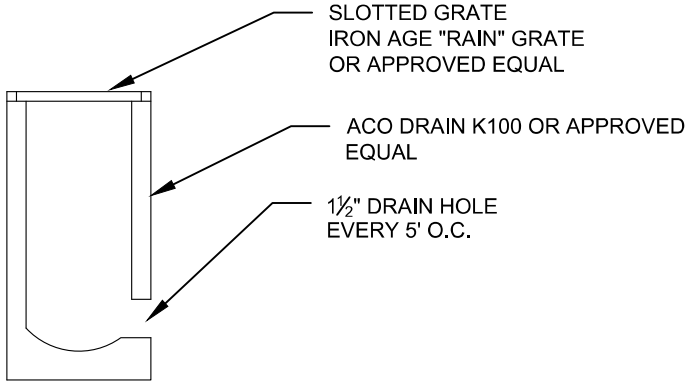
ISOMETRIC VIEW



SECTION A

NOTES:

1. USE CHECK DAM OR OTHER METHODS TO MAXIMIZE PONDING IN THE SUBSURFACE FOR LONGITUDINAL SLOPES EXCEEDING 2%. SEE MLT D&S NO. 450.



TRENCH DRAIN

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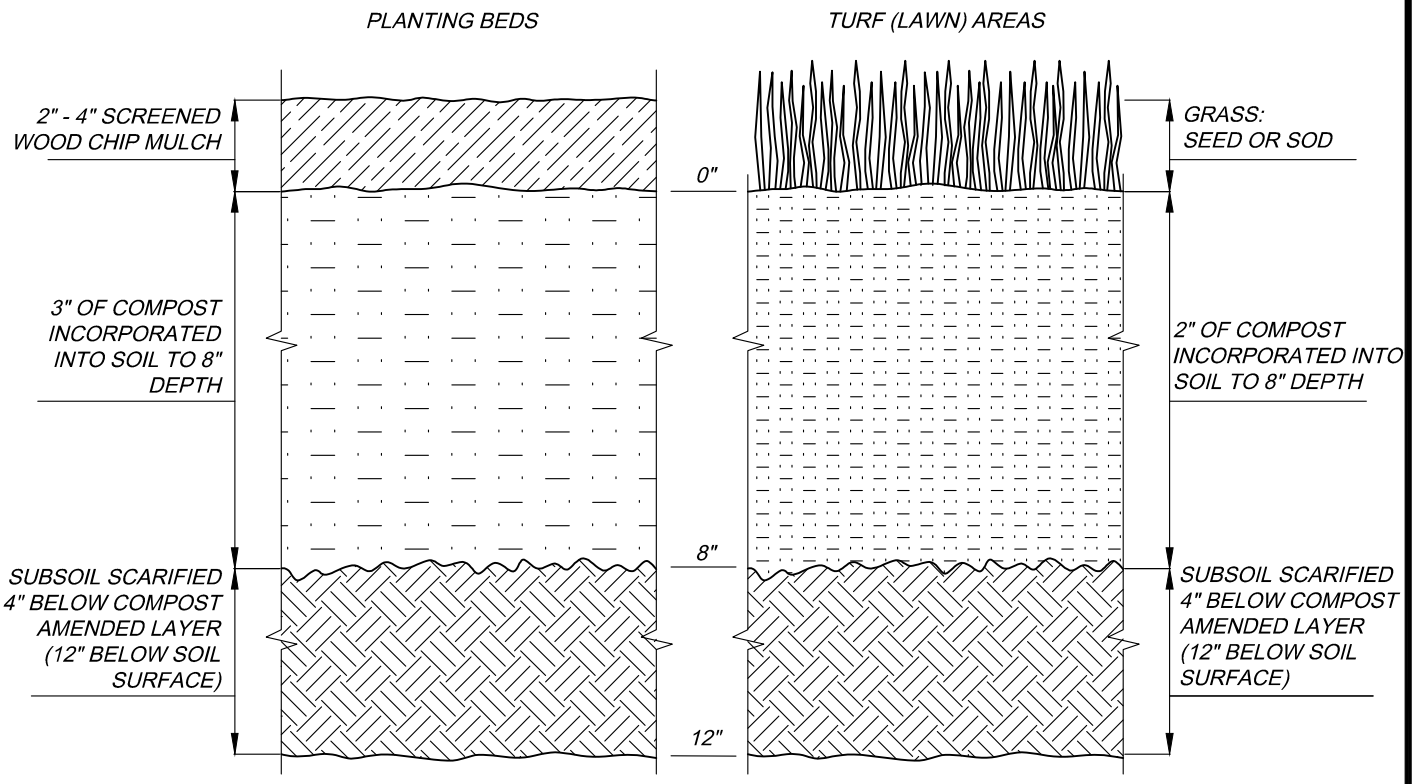
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PERVIOUS SIDEWALK ALTERNATE DESIGN

SCALE: N.T.S.

D&S Drawing No.
451

EFFECTIVE DATE:
JUNE, 2024



SOIL AMENDMENT AND DEPTH

DETAIL NOTES:

1. *ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST TO A MINIMUM 8 INCH DEPTH, AND SUBSOIL SCARIFIED 4 INCH BELOW THAT COMPOST-AMENDED LAYER, FOR A FINISHED 12 INCH OF UN-COMPACTED DEPTH IN ALL LANDSCAPE AREAS.*
2. *PLANTING BED AND TURF AREA SOIL PREPARATION ARE THE SAME, EXCEPT FOR AMOUNT OF COMPOST AMENDMENT, AND MULCH ADDED TO PLANTING BEDS.*
3. *COMPOST SHALL BE TILLED INTO 8 INCH DEPTH INTO EXISTING SOIL, OR PLACE 8 INCHES OF COMPOST-AMENDED SOIL, PER SOIL SPECIFICATION. SUBSOIL SHALL BE SCARIFIED (LOOSENED) 4 INCHES BELOW AMENDED LAYER, TO PRODUCE 12-INCH DEPTH OF UN-COMPACTED SOIL, EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS.*
4. *TURF AREAS SHALL RECEIVE 2 INCHES OF COMPOST TILLED INTO 8-INCH DEPTH, OR PLACE 8 INCHES OF IMPORTED SOIL CONTAINING 20-25% COMPOST BY VOLUME. THEN PLANT GRASS SEED OR SOD PER SPECIFICATIONS.*
5. *PLANTING BEDS SHALL RECEIVE 3 INCHES OF COMPOST TILLED INTO 8-INCH DEPTH, OR PLACE 8 INCHES OF IMPORTED SOIL CONTAINING 35-40% COMPOST BY VOLUME. MULCH AFTER PLANTING, WITH 2-4 INCHES OF ARBORIST WOOD CHIP MULCH OR APPROVED EQUAL.*

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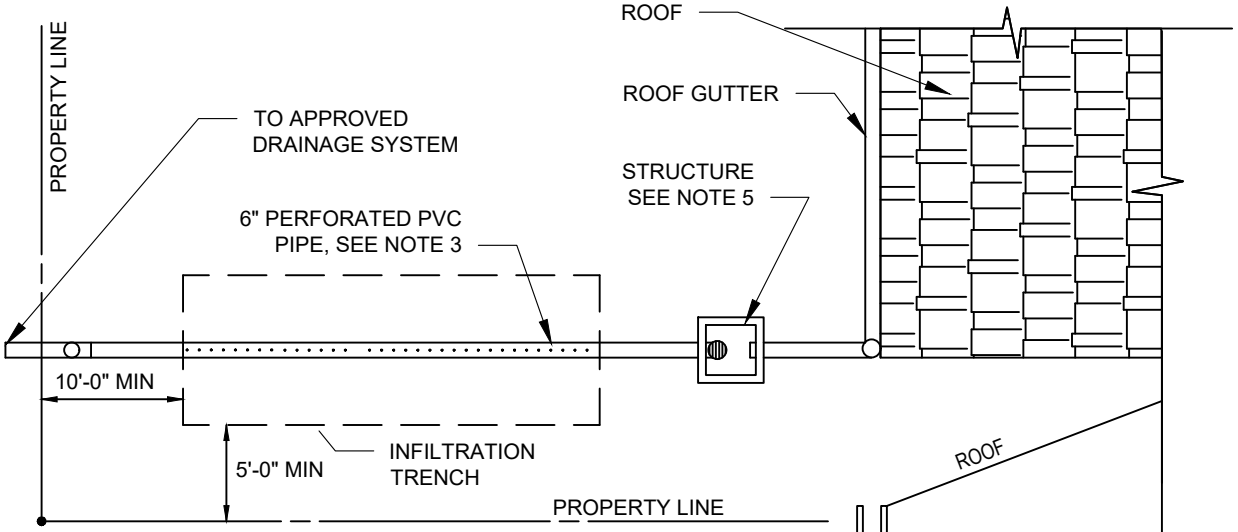
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: SOIL AMENDMENT AND DEPTH

SCALE: N.T.S.

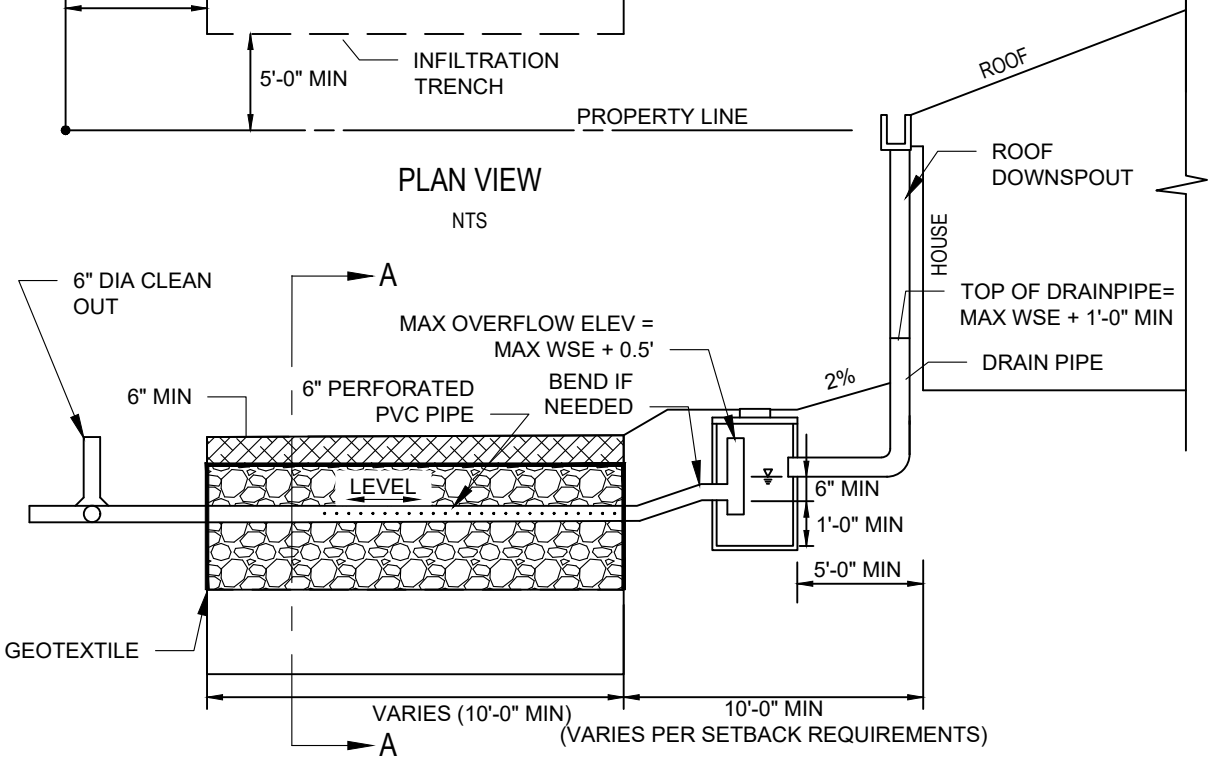
D&S Drawing No. 452

EFFECTIVE DATE: JUNE, 2024



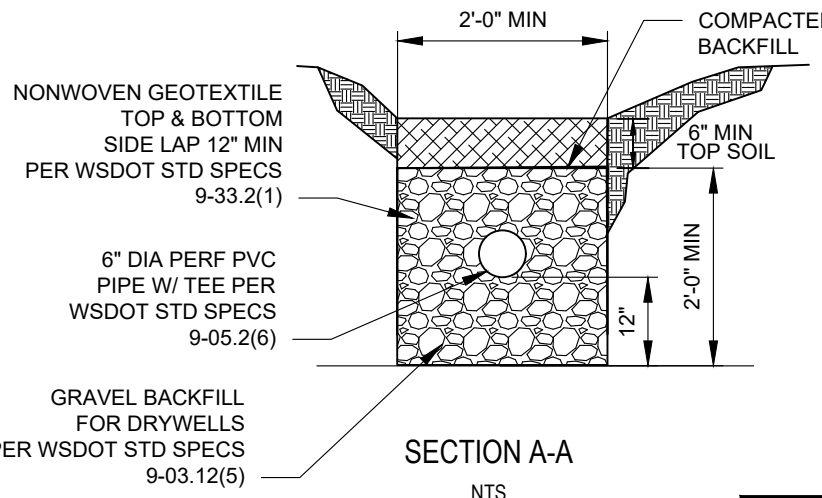
PLAN VIEW

NTS



PROFILE VIEW

NTS



SECTION A-A

NTS

DETAIL NOTES:

1. TRENCH SHALL NOT BE LOCATED WITHIN 100 FEET OF A WELL OR 30 FEET FROM ANY PART OF A SEPTIC SYSTEM.
2. CENTER PERFORATED PIPE HORIZONTALLY IN TRENCH.
3. REMOVE SEDIMENT AND FLOATABLES FROM TYPE 1 CATCH BASIN AT LEAST ANNUALLY
4. KEEP 5 FOOT SEPARATION BETWEEN EDGE OF TRENCH AND OTHER UTILITIES
5. TYPE 1 CATCHBASIN IF LOCATED IN DRIVEWAY. YARD DRAIN IF LOCATED IN LANDSCAPE - 18" NDS MODEL 1882 OR EQUAL

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CITY OF MOUNTLAKE TERRACE

ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:

PERFORATED PIPE CONNECTION

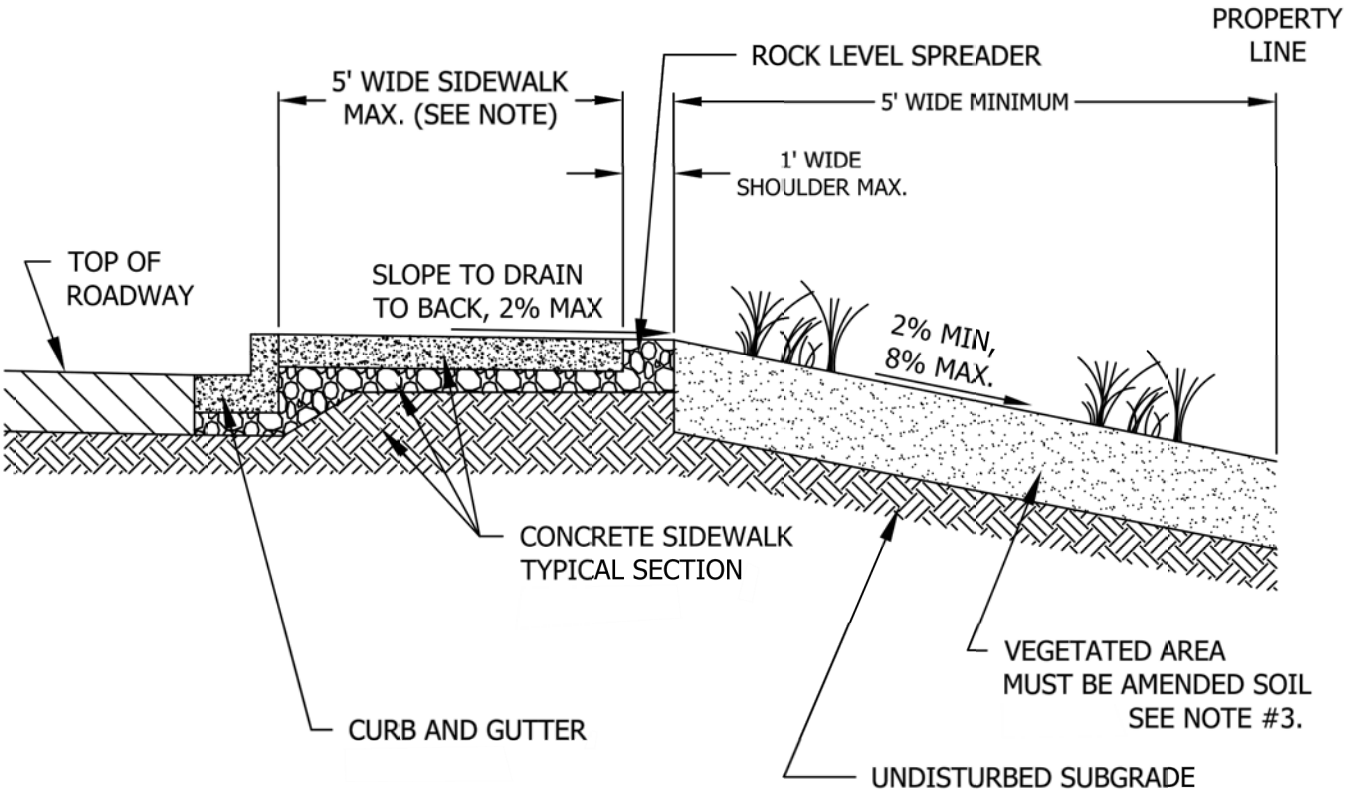
SCALE: N.T.S.

D&S Drawing No.

453

EFFECTIVE DATE:

JANUARY 2026



PROFILE VIEW

DETAIL NOTES:

1. LONGITUDINAL SLOPE SHALL BE 10% MAXIMUM.
2. THE USE OF REVERSE SLOPE SIDEWALK REQUIRES APPROVAL FROM COK PUBLIC WORKS DEPARTMENT ON CASE-BY-CASE BASIS.
3. IF THIS AREA REMAINS UNDISTURBED AND NATIVE VEGETATION REMAINS, AMENDED SOILS ARE NOT REQUIRED.

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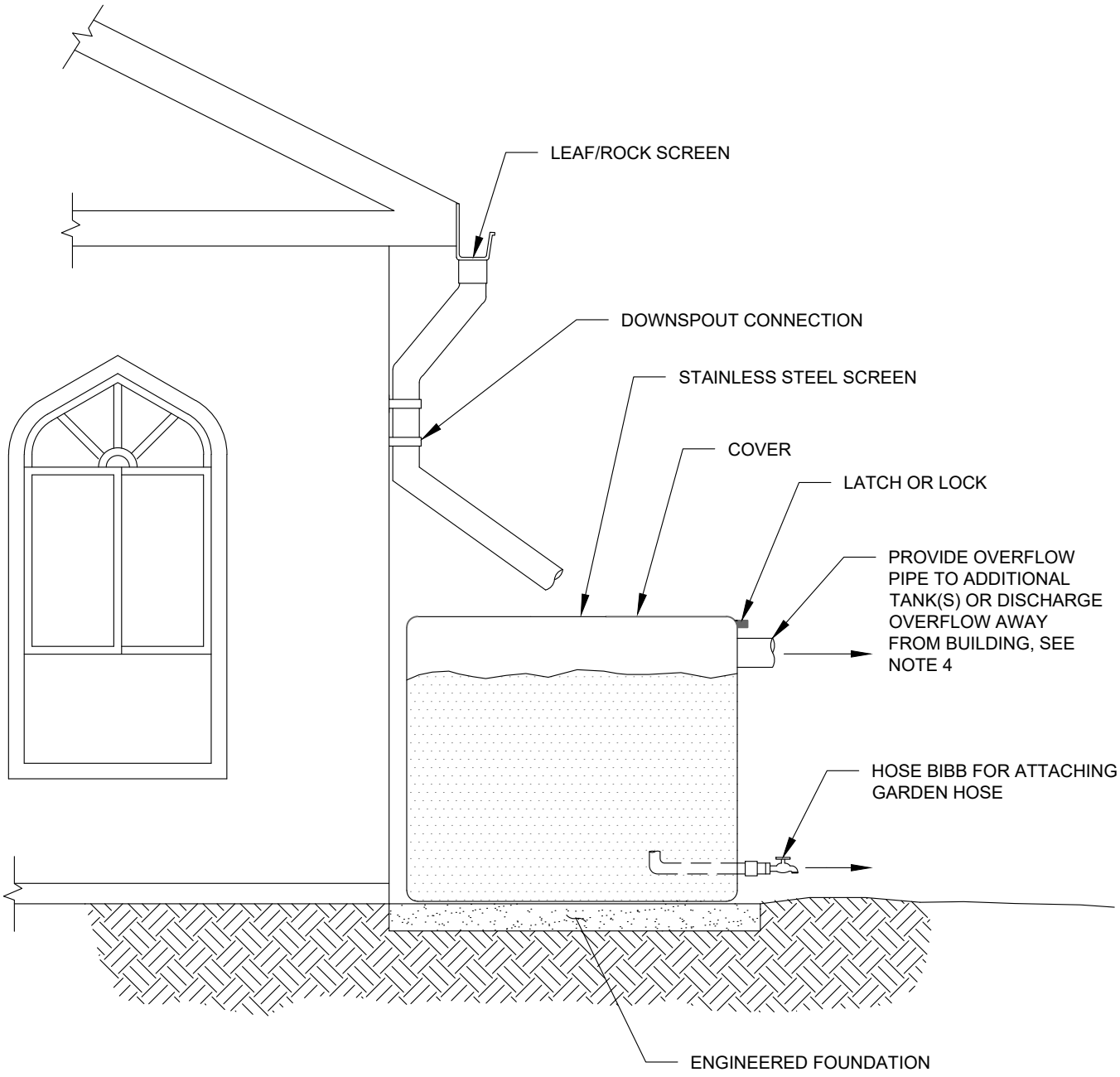
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: REVERSE SLOPE SIDEWALK

SCALE: N.T.S.

D&S Drawing No. 454

EFFECTIVE DATE: JUNE, 2024



DETAIL NOTES:

1. ELECTRICAL PERMIT REQUIRED IF WATER PUMP IS TO BE INSTALLED.
2. ENGINEERING DESIGN IS REQUIRED FOR CISTERNS GREATER THAN 60 GALLONS OR FOR BELOW GROUND SYSTEMS.
3. THERE SHALL BE NO CONNECTION BETWEEN RAIN HARVESTING SYSTEM AND POTABLE WATER SUPPLY.
4. THE OWNER IS RESPONSIBLE FOR ENSURING SAFE DISCHARGE OF OVERFLOWS WITHOUT CONCENTRATING FLOWS TO CAUSE EROSION OR FLOODING.
5. IRRIGATION SYSTEMS CONNECTED TO SUCH CISTERNS SHALL MEET TREATMENT AND DESIGN GUIDANCE FROM THE CITY'S APPROVED STORMWATER TECHNICAL MANUAL.

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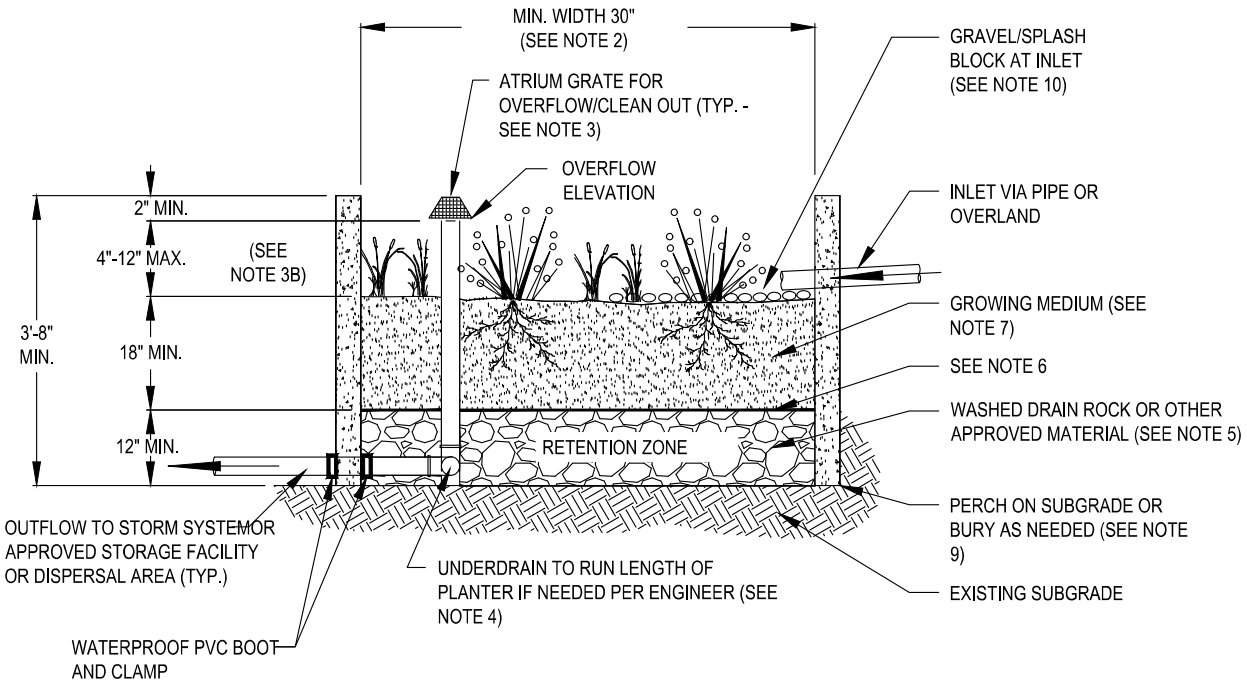
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: ROOF RAIN HARVESTING

SCALE: N.T.S.

D&S Drawing No. 455

EFFECTIVE DATE: JANUARY 2026



NOTES:

1. PROVIDE PROTECTION FROM ALL VEHICLE TRAFFIC, EQUIPMENT STAGING, AND FOOT TRAFFIC IN PROPOSED INFILTRATION AREAS PRIOR TO, DURING, AND AFTER CONSTRUCTION.

2. DIMENSIONS:
   A. WIDTH OF PLANTER: 30" MINIMUM.
   B. PONDING DEPTH (FROM TOP OF GROWING MEDIUM TO OVERFLOW ELEVATION): 12" MAXIMUM.
   C. SLOPE OF PLANTER: 0.5% OR LESS.

3. OVERFLOW:
   A. OVERFLOW REQUIRED (PIPE OR WEIR).
   B. INLET ELEVATION MUST ALLOW FOR 4" MIN. OF FREEBOARD.
   C. PROTECT PIPE FROM DEBRIS AND SEDIMENT WITH STRAINER OR GRATE.

4. PIPING: SHALL BE CAST IRON, PVC SDR 35 MINIMUM, OR PVC SCHEDULE 40. 3" PIPE REQUIRED FOR UP TO 1,500 SQ FT OF CONTRIBUTING AREA, OTHERWISE 4" MIN. PIPING MUST HAVE 1% GRADE AND FOLLOW THE UNIFORM PLUMBING CODE IF WITHIN 3' OF A STRUCTURE.

5. DRAIN ROCK:
   A. PER GRAVEL BACKFILL FOR DRYWELLS WSDOT STD SPEC 9-03.12(5)
   B. DEPTH 0"-48".
   C. DRAIN ROCK NOT REQUIRED FOR INFILTRATION PLANTERS WITHOUT UNDER DRAINS.

6. SEPARATION BETWEEN DRAIN ROCK AND GROWING MEDIUM:
   USE GRAVEL LENS (¾ - ¼ INCH WASHED, CRUSHED ROCK 2 TO 3 INCHES DEEP).

7. GROWING MEDIUM:
   BIORETENTION SOIL MIX PER MLT STD PLAN NO. 444..

8. VEGETATION:
   A. PLANT WITH ZONE 1 OR 2 HERBACEOUS, EMERGENTS, SHRUBS, AND/OR GROUND COVER. SEE APPENDIX 1 IN THE *LID TECHNICAL GUIDANCE MANUAL FOR PUGET SOUND* (2012 OR CURRENT) FOR A PLANT LIST.

   B. PLANTING SHALL CONSIST OF NATIVE SPECIES ABLE TO TOLERATE VARIABLE SOIL OISTURE CONDITIONS, PONDING WATER FLUCTUATIONS AND VARIABLE SOIL MOISTURE CONTENT.

9. PLANTER WALLS:
   MATERIAL SHALL BE STONE, BRICK, CONCRETE, WOOD, OR OTHER DURABLE (NO CHEMICALLY TREATED WOOD).

10. INSTALL WASHED PEA GRAVEL OR 1"-4" STREAMBED COBBLES PER WSDOT STANDARD SPECS 9-03.11(2) TO TRANSITION FROM INLET OR SPLASH PAD TO GROWING MEDIUM.

11. SEE LAND USE CODE FOR SETBACKS.

12. INSTALL OBSERVATION PORT, IF FLOW CONTROL (MR7) AND/OR RUNOFF TREATMENT (MR6) IS REQUIRED.

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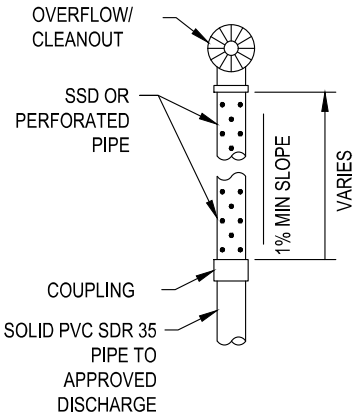
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
BIORETENTION PLANTER - INFILTRATION

SCALE: N.T.S.

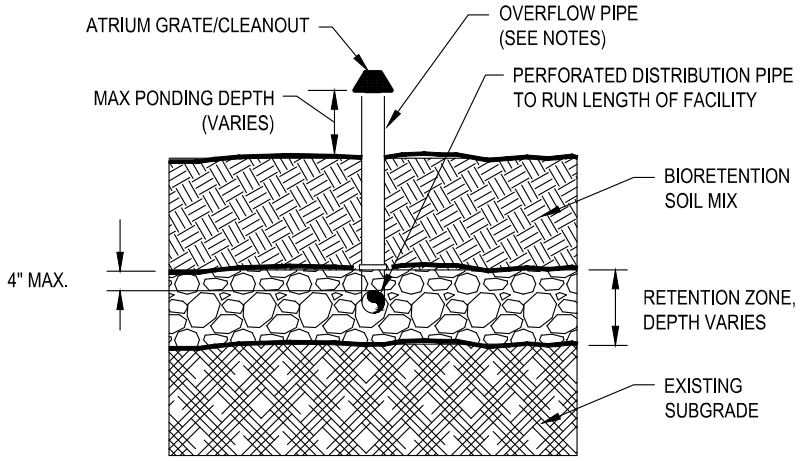
D&S Drawing No.
456

EFFECTIVE DATE:
JUNE, 2024



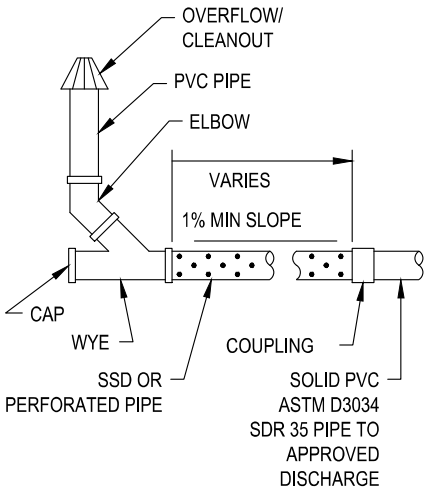
A - PLAN VIEW

PIPE W/ UNDERDRAIN
& DISCHARGE POINT



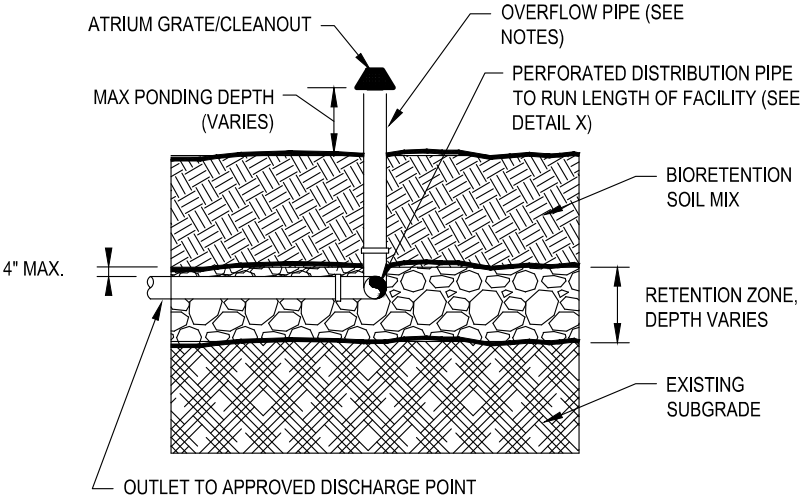
INFILTRATION

OVERFLOW DIRECTED TO DRAIN ROCK,
0.3 INCH/HR. OR GREATER
NATIVE SOIL INFILTRATION RATE.



A - CROSS SECTION VIEW

PIPE W/ UNDERDRAIN
& DISCHARGE POINT



BIORETENTION WITH UNDERDRAIN

LESS THAN 0.3 INCH/HR NATIVE SOIL
INFILTRATION RATE
OR PER ENGINEER'S DESIGN.

DETAIL NOTES:

1. PIPE OVERFLOW NOT REQUIRED IF FACILITY INFILTRATES THE 100-YEAR STORM.
2. OVERLAND OVERFLOW PATH REQUIRED - ADEQUATELY STABILIZE WITH STREAMBED COBBLE (WSDOT STANDARD SPECIFICATIONS 9-03.11(2)) AND DIRECT TO AN APPROPRIATE DOWNSTREAM DRAINAGE AREA.
3. OVERFLOW PIPE: PVC, 3" MINIMUM. USE SCHEDULE 80 FOR 3" DIAMETER PIPE, FOR ALL OTHERS USE SDR35.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

NO SCALE

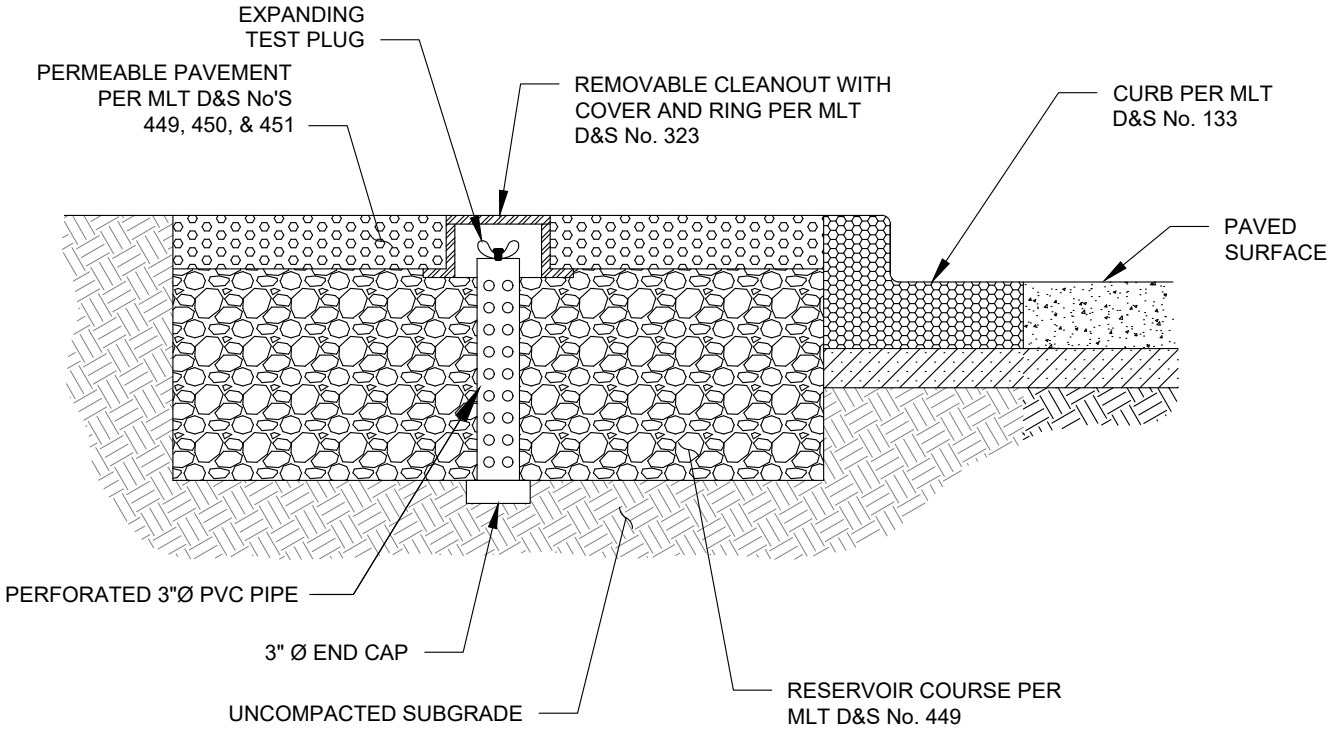
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
OVERFLOW CONFIGURATIONS FOR BIORETENTION

SCALE: N.T.S.

D&S Drawing No.
457

EFFECTIVE DATE:
JUNE, 2024



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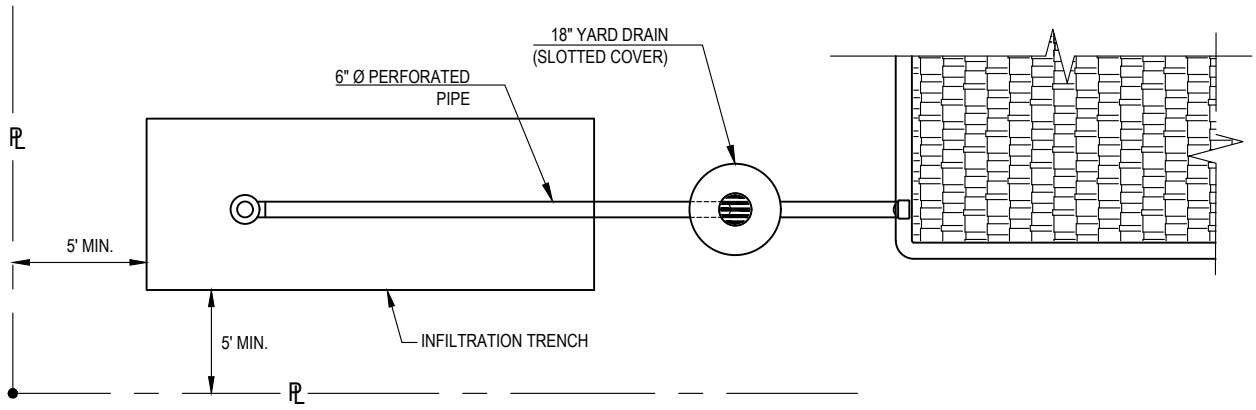
OBSERVATION PORT
FOR PERMEABLE PAVEMENT

SCALE: N.T.S.

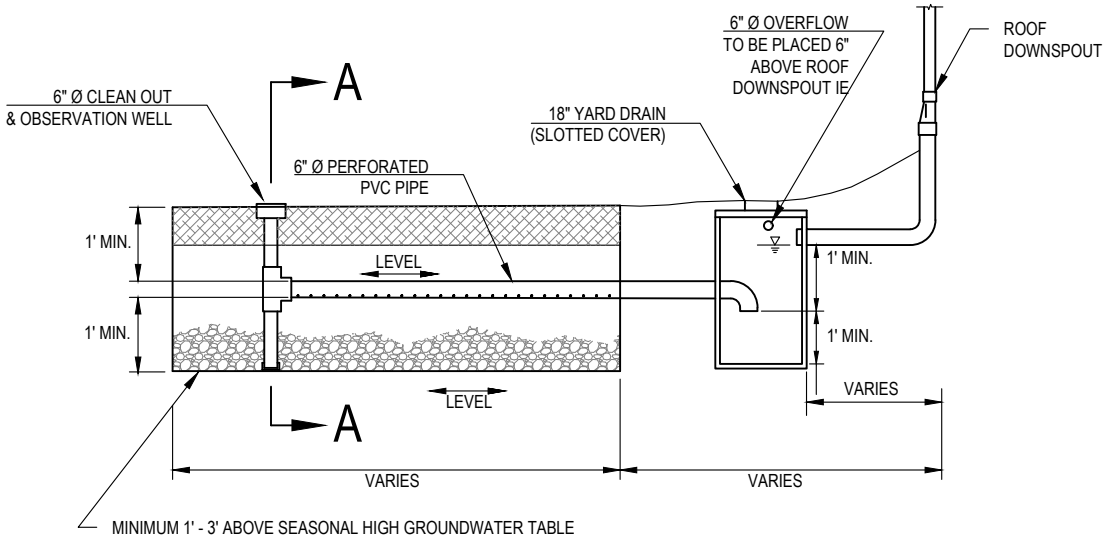
D&S Drawing No.
458

EFFECTIVE DATE:
JANUARY 2026

PLAN VIEW

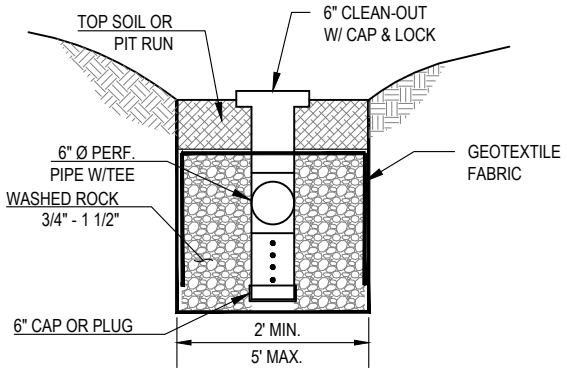


PROFILE VIEW



DETAIL NOTES:

1. MINIMUM SPACING BETWEEN TRENCH EDGES SHALL BE 4 FEET.
2. MAXIMUM TRENCH LENGTH MUST NOT EXCEED 100 FEET FROM THE INLET SUMP.
3. A MIN. 5-FT SETBACK SHALL BE MAINTAINED FROM ANY STRUCTURE, PROPERTY LINE OR NGPE.
4. A 50-FT SETBACK IS REQUIRED FROM STEEP SLOPE HAZARD AREAS OR LANDSLIDE HAZARD AREAS.
5. SHALL BE LOCATED 30-FT DOWN SLOPE FROM ANY SEPTIC TANK/DRAIN FIELD ONSITE OR ON ADJACENT PROPERTIES, AND A MINIMUM OF 100-FT UPSLOPE FROM ANY SEPTIC TANK/DRAIN FIELD ONSITE OR ON ADJACENT PROPERTIES. ALL SEPTIC TANK/DRAIN FIELD SYSTEMS SHALL BE IDENTIFIED AND SHOWN ON PLAN SET PRIOR TO INFILTRATION SYSTEM APPROVAL.
6. SHALL ONLY BE PLACED UNDER 6" THICK DRIVEWAYS AND 2' MINIMUM COVER.
7. THE INFILTRATION AREA AND A 5-FT BUFFER MUST BE FENCED PRIOR TO CONSTRUCTION AND UNTIL FINAL STABILIZATION OF THE SITE TO PREVENT SOIL COMPACTION BY CONSTRUCTION ACTIVITIES. FOR EXPOSED INFILTRATION TRENCHES, SILT FENCE SHALL BE INSTALLED AROUND THE CONSTRUCTED PERIMETER TO PREVENT SEDIMENTATION OF THE FACILITY.
8. THE DISTANCE MEASURED DOWN FROM THE BOTTOM OF THE TRENCH TO THE MAXIMUM WET SEASON WATER TABLE OR HARDPAN MUST BE AT LEAST 3 FEET.



SECTION A-A

NO SCALE

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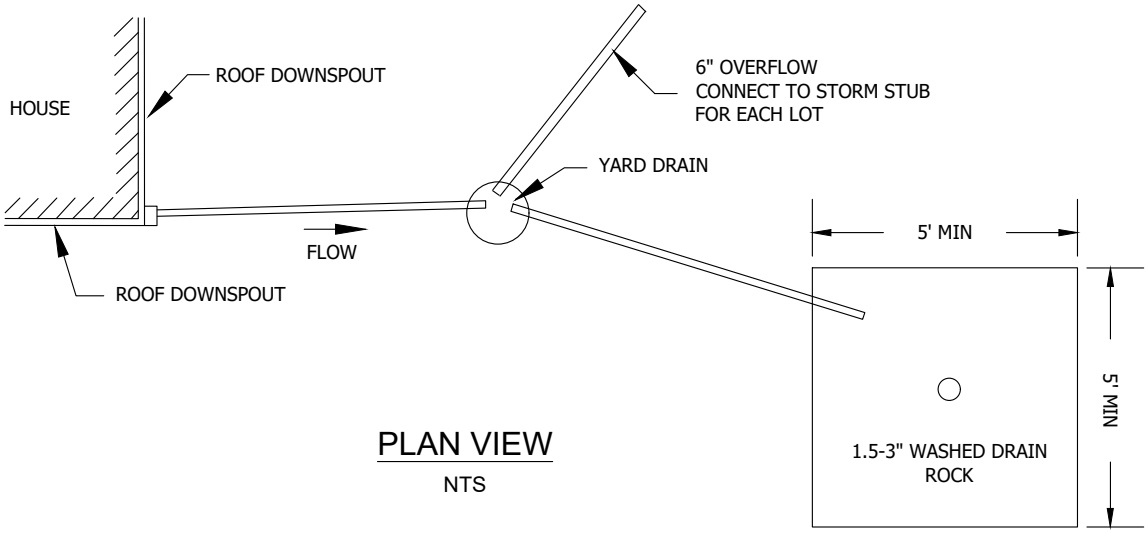
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

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SCALE: N.T.S.

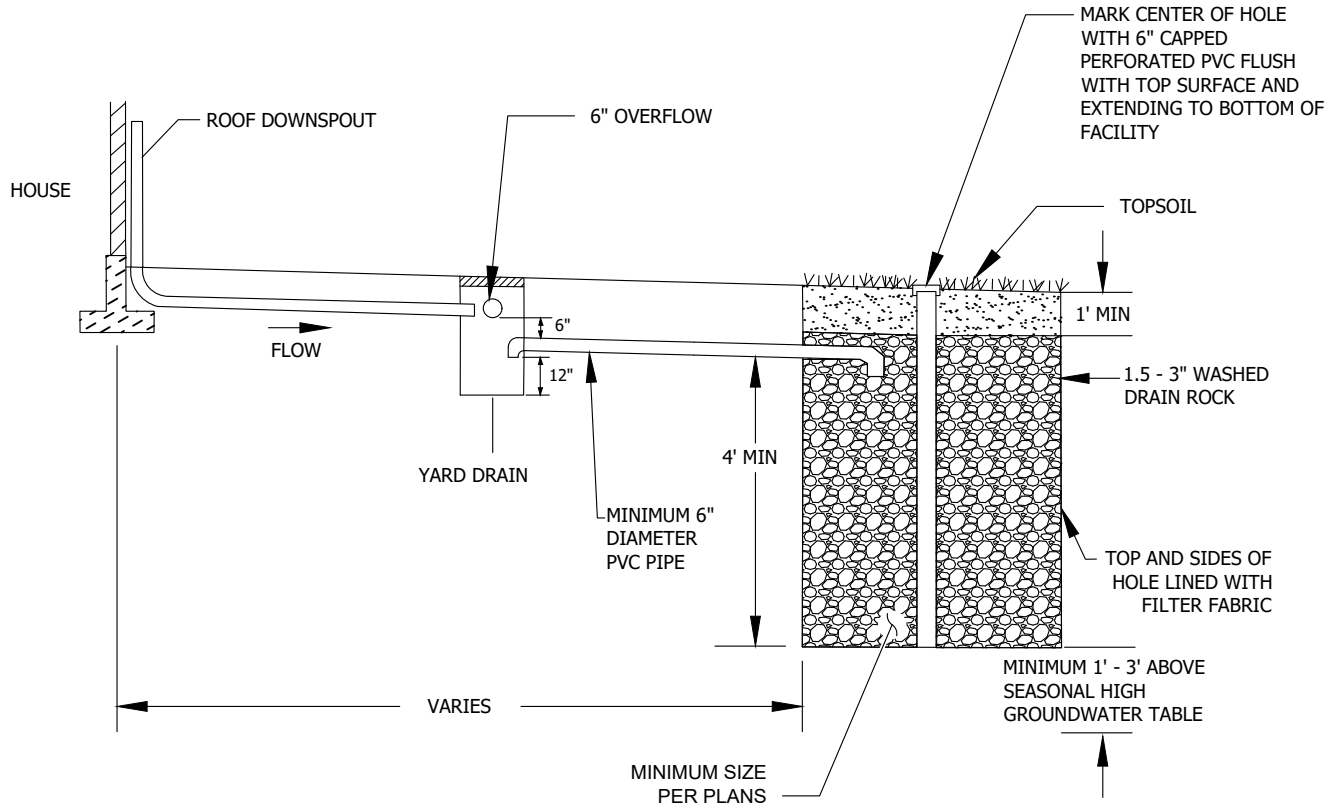
D&S Drawing No. 460

EFFECTIVE DATE: JANUARY 2026



PLAN VIEW

NTS



SECTION VIEW

NTS

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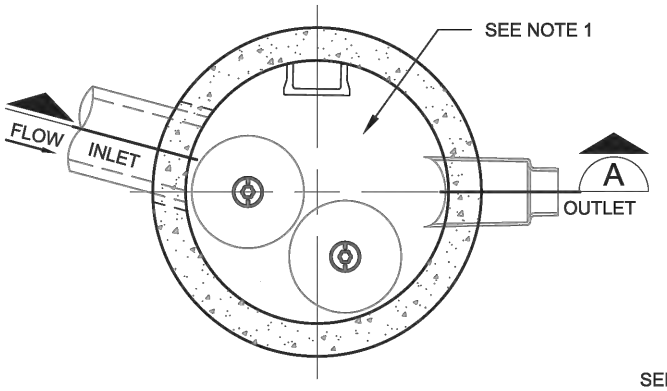
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: INFILTRATION DRYWELL

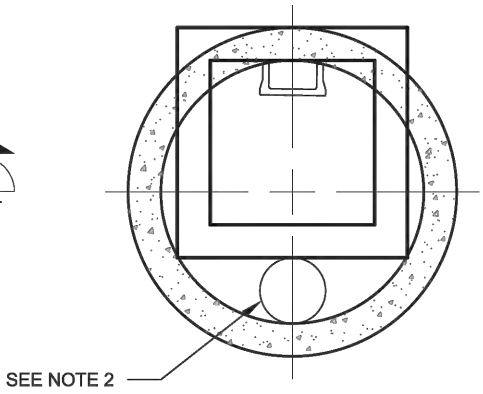
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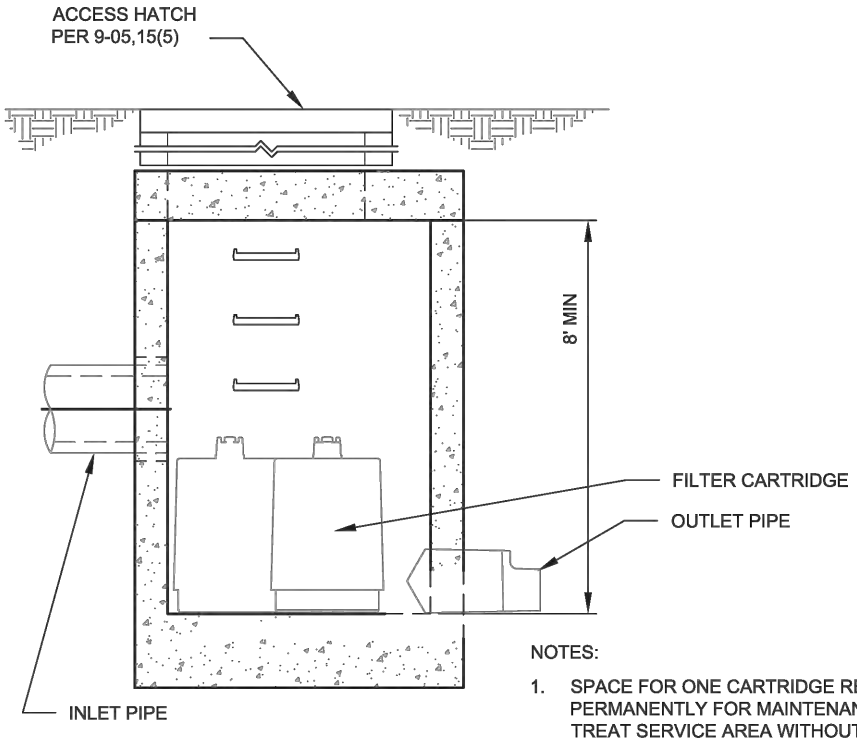
EFFECTIVE DATE: JANUARY 2026



INTERIOR PLAN
NTS



ACCESS PLAN
NTS



SECTION A
NTS

NOTES:

1. SPACE FOR ONE CARTRIDGE REMOVED AND LEFT OPEN PERMANENTLY FOR MAINTENANCE ACCESS. SYSTEM SIZED TO TREAT SERVICE AREA WITHOUT "REMOVED" CARTRIDGE.
2. 12 INCH CLEANOUT OVER OUTLET PIPE IF IT IS NOT BELOW HATCH OPENING.
3. THE 8 FOOT MINIMUM CLEARANCE CAN BE REDUCED IF ACCESS HATCHES ARE PROVIDED ABOVE ALL FILTERS.
4. SEE STORMWATER TECHNICAL NOTEBOOK 2.9.1.2 FOR GUIDANCE ON PROPRIETARY TREATMENT TECHNOLOGIES. FILTER SYSTEMS ARE NOT ALLOWED ON ALL PROJECTS.

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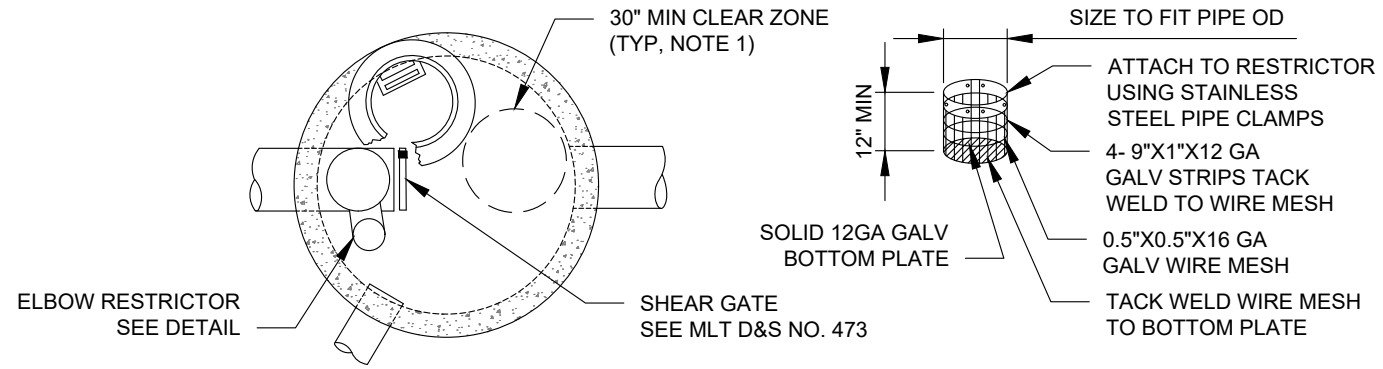
CITY OF MOUNTLAKE TERRACE
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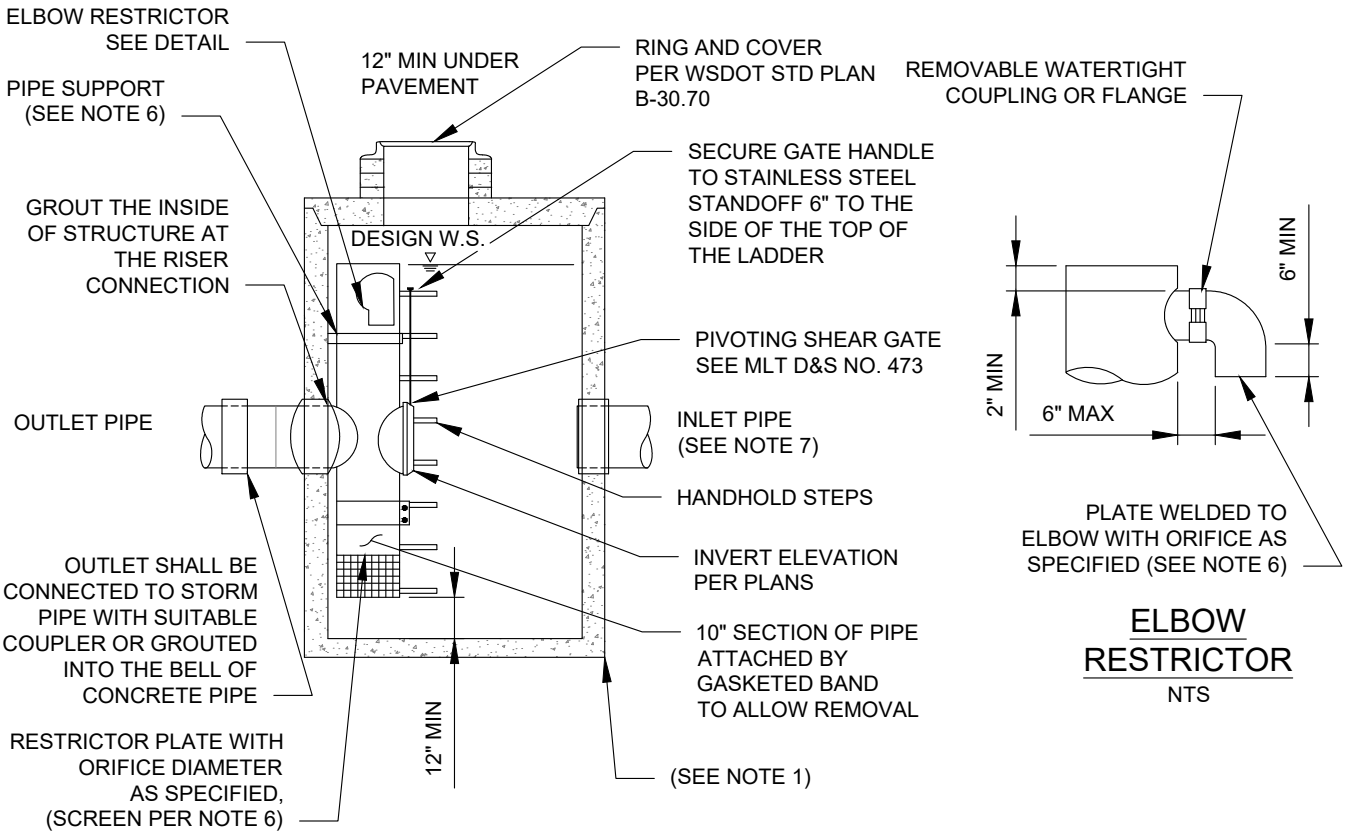
D&S DRAWING TITLE:
WATER QUALITY FILTER VAULT ACCESS

SCALE: N.T.S.

D&S Drawing No.
471

EFFECTIVE DATE:
JANUARY 2026





ELBOW RESTRICTOR

NTS

NOTES:

1. MINIMUM 54 IN DIA TYPE 2 CB. LARGER CB REQUIRED AS NEEDED TO PROVIDE MINIMUM 30 IN DIA CLEAR ZONE NEXT TO RESTRICTOR.
2. RESTRICTOR FABRICATED FROM ALUMINUM OR PVC PIPE.
3. FRAME AND LADDER OR STEPS OFFSET SO:
   - 3.1. CLEANOUT GATE IS VISIBLE FROM TOP;
   - 3.2. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
   - 3.3. FRAME IS CLEAR OF CURB.
4. PROVIDE AT LEAST TWO 3 X 0.090 IN STAINLESS STEEL SUPPORT BRACKETS ANCHORED TO CONCRETE WALL WITH 5/8 IN STAINLESS STEEL EXPANSION BOLTS OR 8 EMBEDDED SUPPORTS 2 IN INTO CB WALL. MAX 3 FT OC.
5. LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MIN CLEARANCE AS SHOWN.
6. ORIFICE SCREEN IS REQUIRED FOR ORIFICES LESS THAN 3 IN DIA. RESTRICTOR PLATE FROM 12 GAUGE ALUMINUM OR PVC PIPE.
7. PIPE PENETRATIONS SHALL BE WATER TIGHT. SAND COLLAR OR KOR-N-SEAL BOOT.
8. IF OUTLET PIPE IS GREATER THAN 12IN DIA THEN __ DIAMETER HATCH IS REQUIRED.

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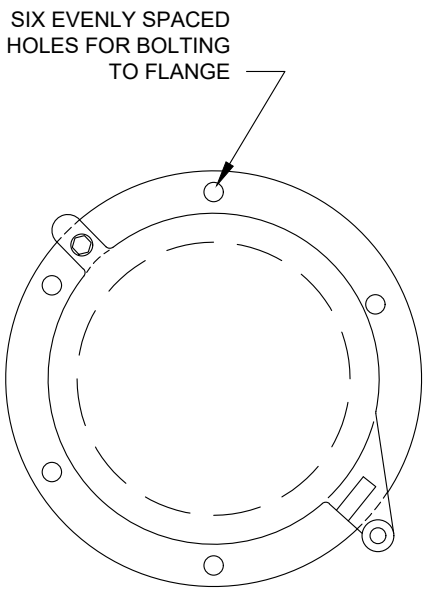
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: FLOW CONTROL STRUCTURE

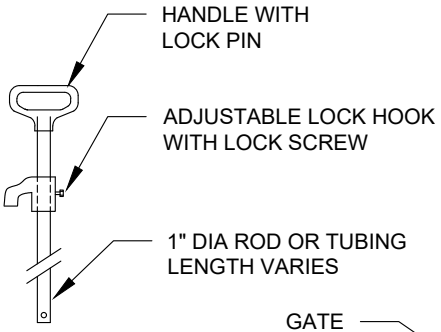
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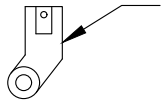
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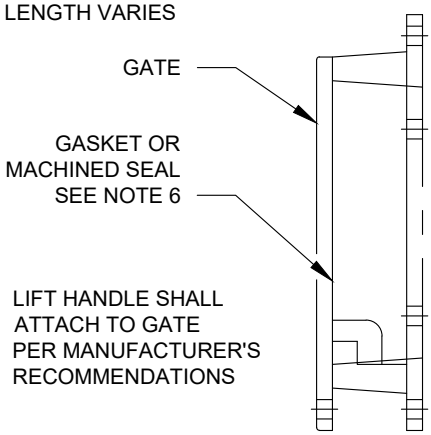
FRONT
NTS



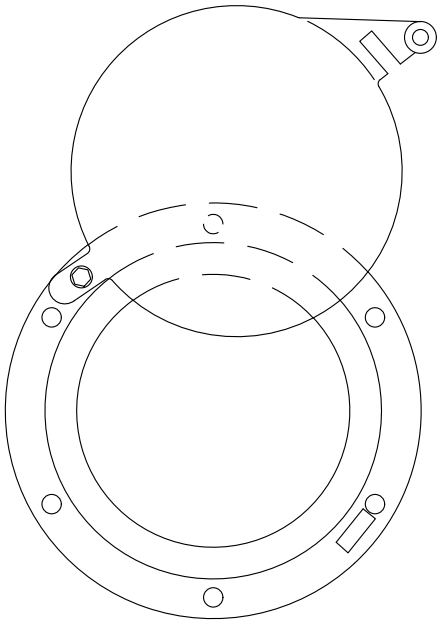
LIFT ROD
NTS



LIFT HANDLE
CONNECTOR
NTS



SIDE VIEW
NTS



MAXIMUM GATE
OPENING
NTS

DETAIL NOTES:

1. SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-ZG-32A AS REQUIRED
2. GATE SHALL BE 8 INCH DIAMETER FOR PIPE 12 INCHES OR LESS IN DIAMETER, 12 INCH DIAMETER FOR PIPES GREATER THAN 12 INCHES.
3. GATE SHALL BE JOINED TO TEE SECTION BY BOLTING THROUGH FLANGE.
4. LIFT ROD: AS SPECIFIED BY MFR. WITH HANDLE EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO STANDOFF PER MLT D&S NO. 472.
5. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
6. NEOPRENE RUBBER GASKET REQUIRED BETWEEN FRAME AND GATE OR MATING SURFACES OF FRAME AND GATE TO BE MACHINED FOR WATERTIGHT SEAL.
7. FLANGE MOUNTING BOLTS SHALL BE 3/8 INCH DIAMETER STAINLESS STEEL.
8. ALTERNATE SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE.

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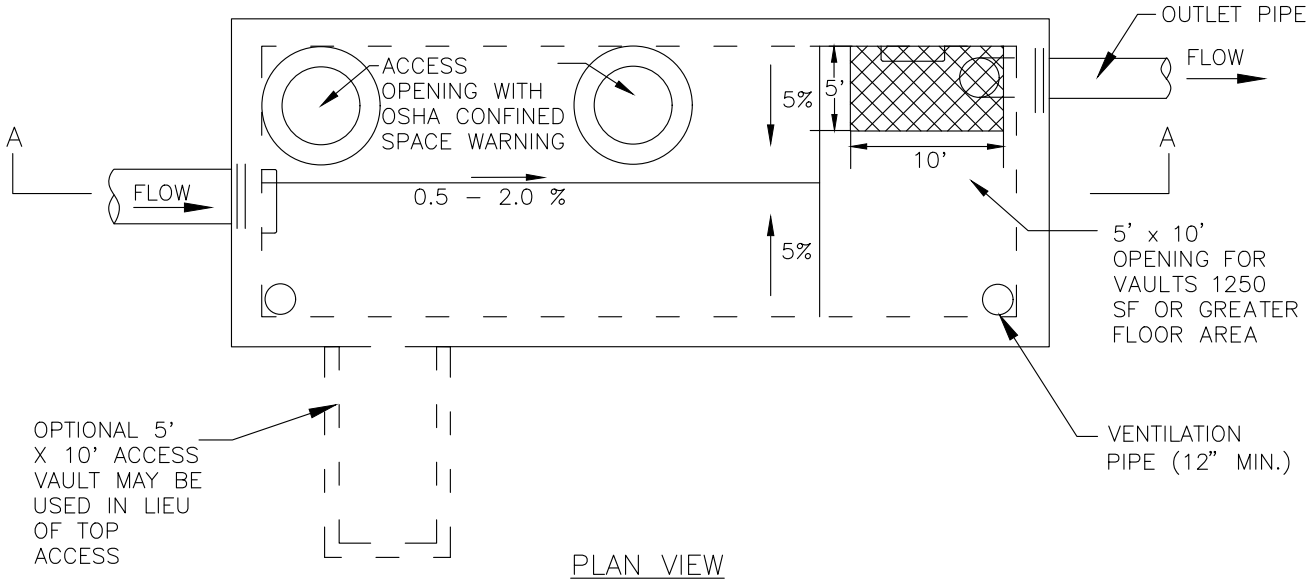
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D&S DRAWING TITLE:
STORMWATER SHEAR GATE
FOR FLOW CONTROL STRUCTURE

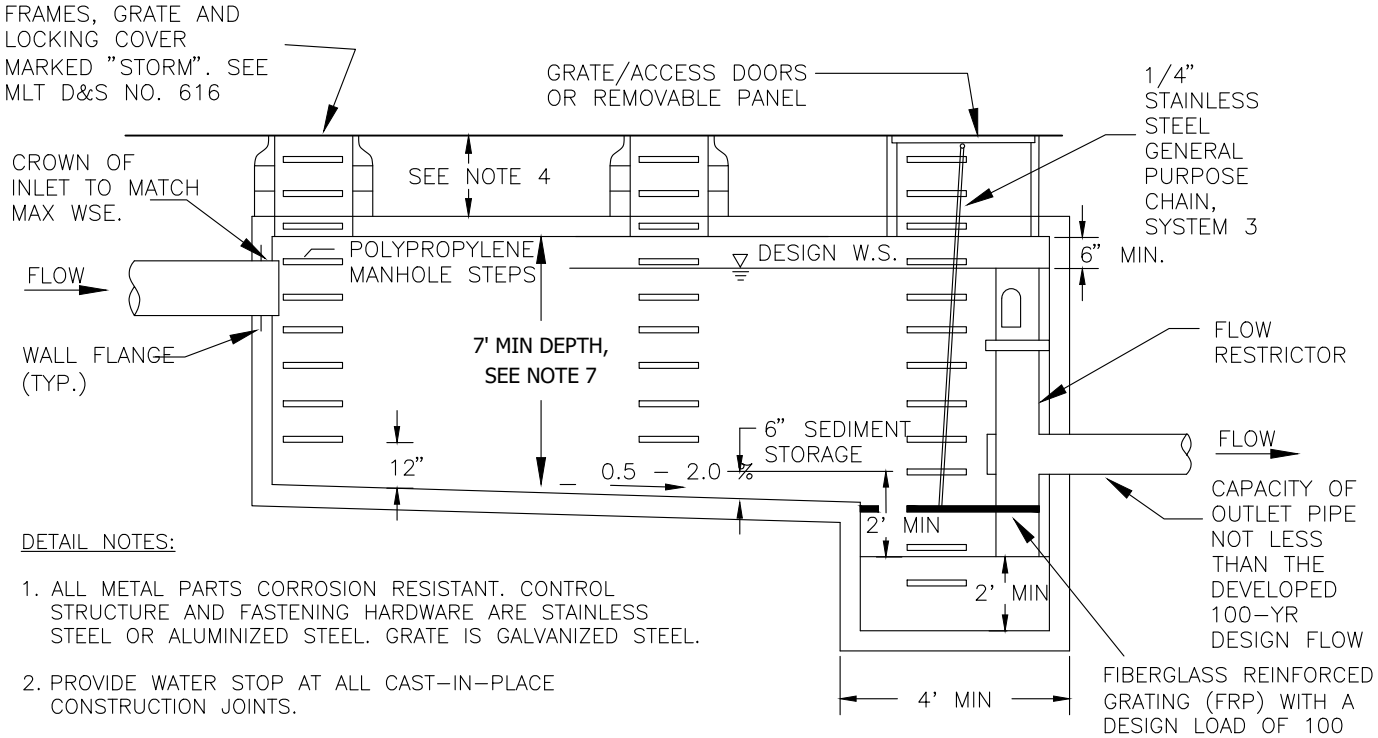
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D&S Drawing No.
473

EFFECTIVE DATE:
JANUARY 2026



PLAN VIEW



SECTION A–A

DETAIL NOTES:

1. ALL METAL PARTS CORROSION RESISTANT. CONTROL STRUCTURE AND FASTENING HARDWARE ARE STAINLESS STEEL OR ALUMINIZED STEEL. GRATE IS GALVANIZED STEEL.
2. PROVIDE WATER STOP AT ALL CAST–IN–PLACE CONSTRUCTION JOINTS.
3. PREFABRICATED VAULT SECTIONS MAY REQUIRE STRUCTURAL MODIFICATIONS TO SUPPORT 5' X 10' OPENING OVER MAIN VAULT. ALTERNATELY, ACCESS CAN BE PROVIDED VIA A SIDE VESTIBULE AS SHOWN.
4. 36" DIAMETER MANHOLE SECTION REQUIRED WHEN DISTANCE IS GREATER THAN 18".
5. ACCESS MANHOLES SHALL BE POSITIONED 50' MAX FROM ANY POINT WITHIN THE STRUCTURE.
6. PROVIDE WATER STOP AT ALL CAST–IN–PLACE CONSTRUCTION POINTS. PRECAST VAULTS SHALL HAVE APPROVED RUBBER GASKET SYSTEMS, WITH JOINTS GROUTED AFTER INSTALL.
7. DEPTH MAY BE REDUCED ON 4 LOT PLATS OR LESS.

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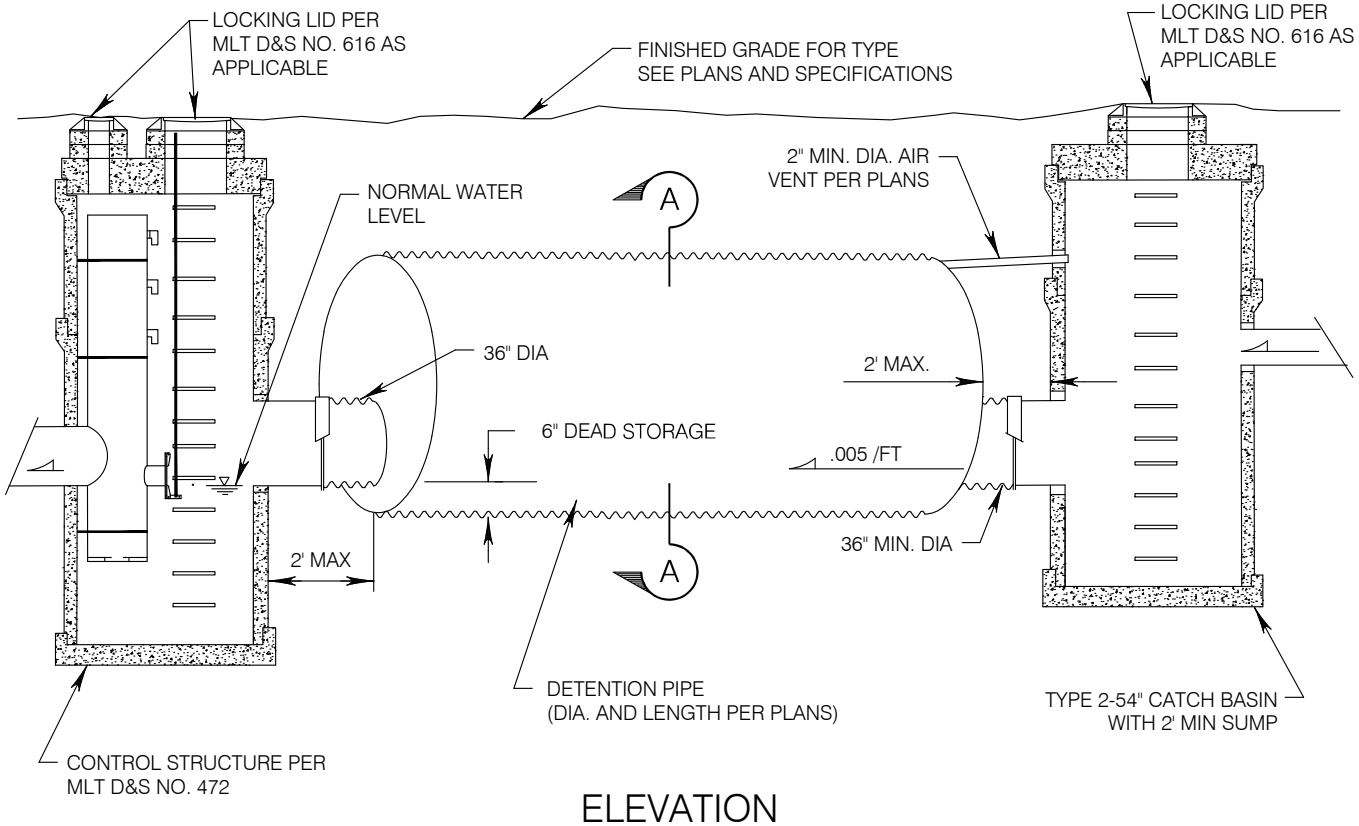
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: DETENTION VAULT

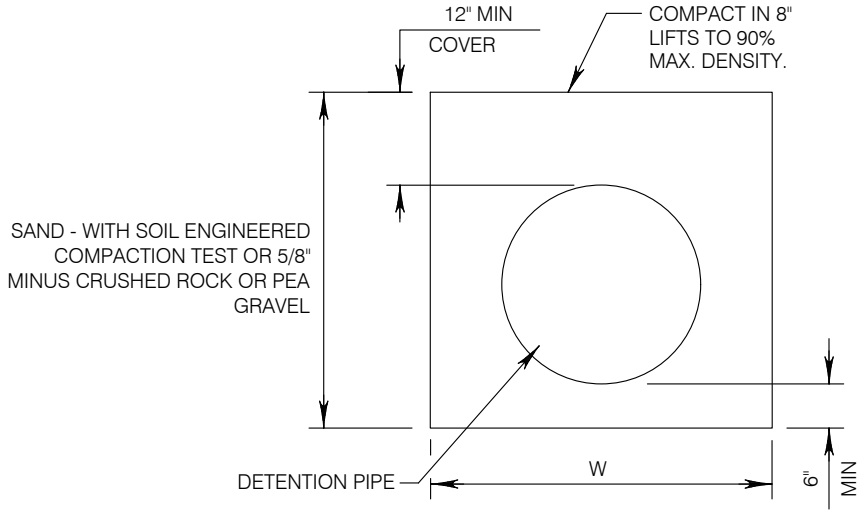
SCALE: N.T.S.

D&S Drawing No. 475

EFFECTIVE DATE: JANUARY 2026



ELEVATION



SECTION A-A

DETAIL NOTES:

1. ANNUAL INSPECTIONS AND CLEANING REQUIRED BY OWNER TO INSURE PROPER OPERATION OF DETENTION SYSTEM.

2. W = MAXIMUM WIDTH OF TRENCH FOR PIPES 15" OR LESS IN DIA. W = 40". FOR PIPES 18" OR GREATER W = 1 1/2" x I.D. + 18".

3. COMPACT IN 8" LIFTS TO 90% MAX. DENSITY.

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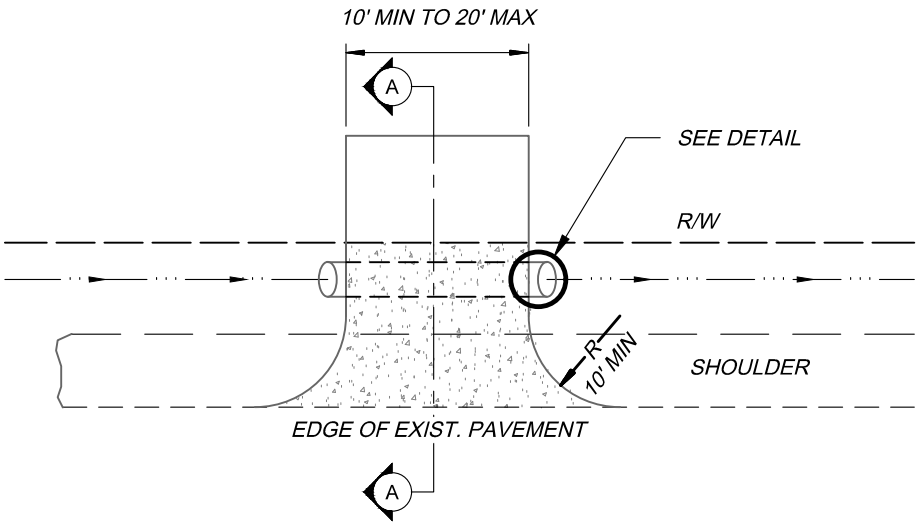
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: DETENTION PIPE

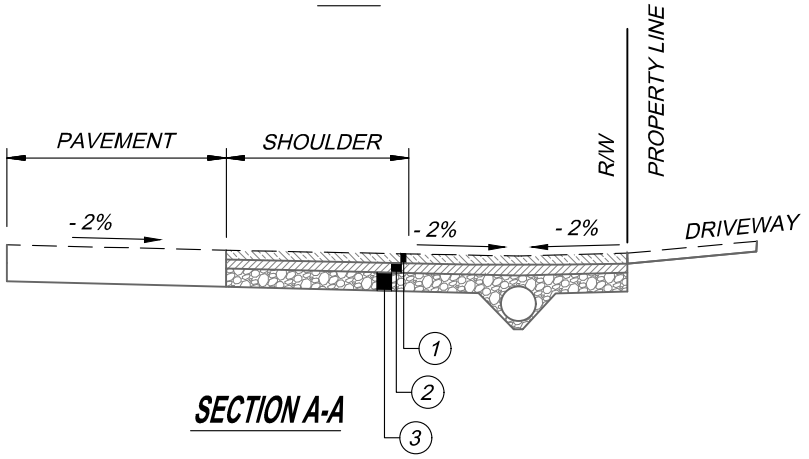
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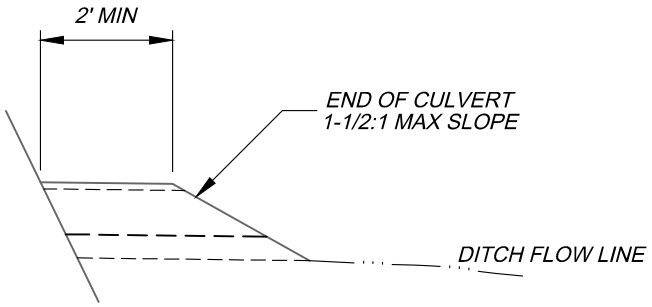
EFFECTIVE DATE: JANUARY 2026



PLAN



SECTION A-A



DETAIL

GENERAL NOTES:

1. WHERE COVER IS LESS THAN 18" CULVERT SHALL BE DI CLASS 50 OR ABOVE OR AWWA C900 PVC. FOR COVER 18" OR GREATER CULVERT SHALL BE PVC 3034..

(#) DETAIL NOTES:

1. PAVING SHALL BE ASPHALT PER APPROPRIATE ROAD SECTION, SEE D&S NO. 161.
2. 2" CSTC MIN 95% COMPACTION
3. 5/8" MINUS CRUSHED ROCK, MIN 0.1' DEPTH BELOW PIPE WITH 100% CRUSHED ROCK BACKFILL

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ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: DRIVEWAY CULVERT

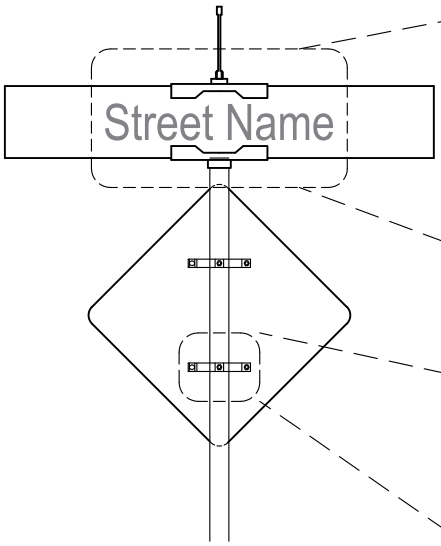
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D&S Drawing No. 477

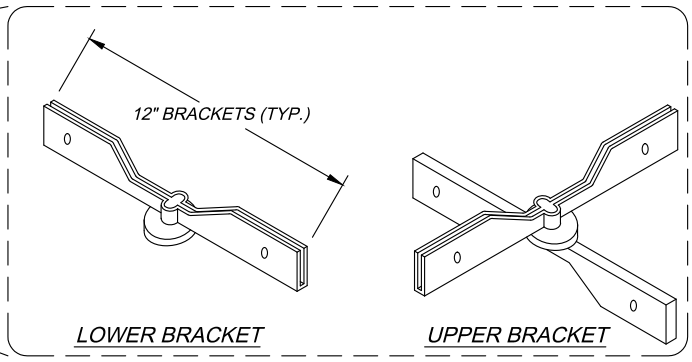
EFFECTIVE DATE: JUNE, 2024

SECTION 5

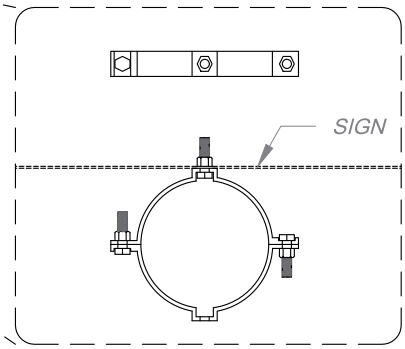
TRAFFIC CONTROL, ILLUMINATION & SIGNALS, ELECTRICAL



ROUND POST SIGN MOUNTING
NTS

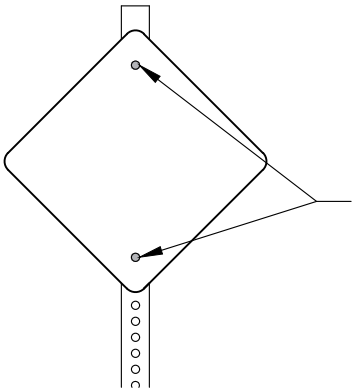


POST-TOP STREET NAME SIGN PLATES



ROUND POST SIGN PLATES

SIGN PLATE BRACKETS
NTS



SQUARE POST SIGN MOUNTING
NTS

GENERAL NOTES:

1. SEE D&S NO. 502 FOR SIGN PLACEMENT DIMENSIONS.
2. ALL SIGNS EXCEPT PARKING SIGNS SHALL BE VERTICALLY MOUNTED AT RIGHT ANGLES TO AND FACING THE DIRECTION OF TRAFFIC.
3. PARKING SIGNS SHALL BE PARALLEL TO THE DIRECTION OF TRAFFIC.
4. MAST-ARM STREET NAME SIGNS SHALL BE INSTALLED AND PLACED PER POLE SCHEDULE AND WSDOT STD. PLAN G-30.10.
5. THE SIZE OF ALL POST-MOUNTED SIGNS SHALL BE PER THE SIGN SIZE TABLES IN THE M.U.T.C.D.
6. ROUND POSTS SHALL BE 2-3/8" O.D. 16-GAUGE GALVANIZED STEEL PIPE.
7. SQUARE POSTS SHALL BE 2" SQUARE 14-GAUGE GALVANIZED STEEL TUBE WITH 7/16" KNOCKOUTS 1" O.C. ON ALL FOUR SIDES. SQUARE POST ANCHORS SHALL BE 2-1/4" SQUARE 12-GAUGE GALVANIZED STEEL TUBE. SEE MLT D&S NO. 5XX FOR MOUNTING DETAILS.
8. SIGN PLATE MATERIAL AND THICKNESS SHALL BE PER WSDOT STD. SPEC 9-28.8.

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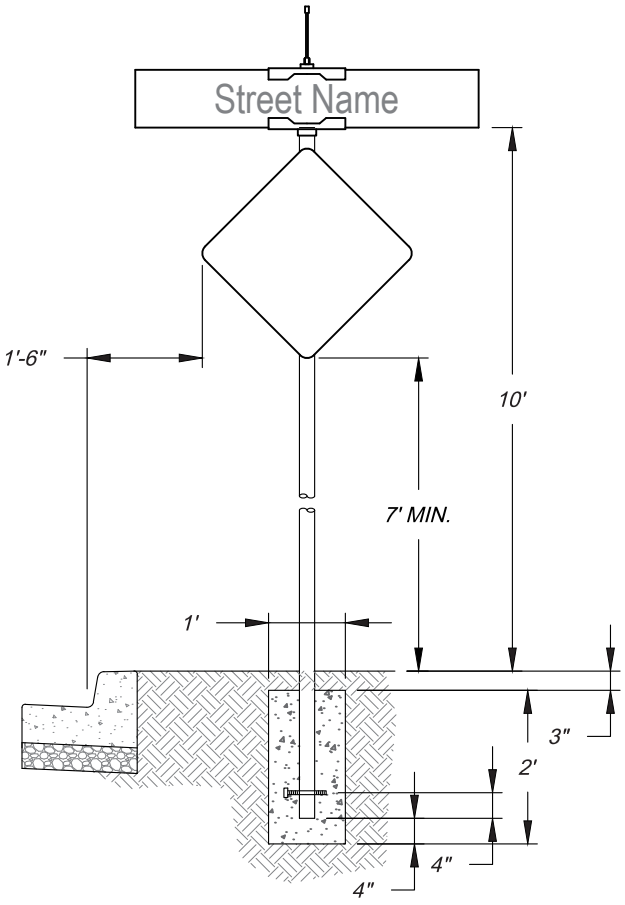
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
TRAFFIC SIGN INSTALLATION - SIGN INSTALLATION HARDWARE AND GENERAL NOTES

SCALE: N.T.S.

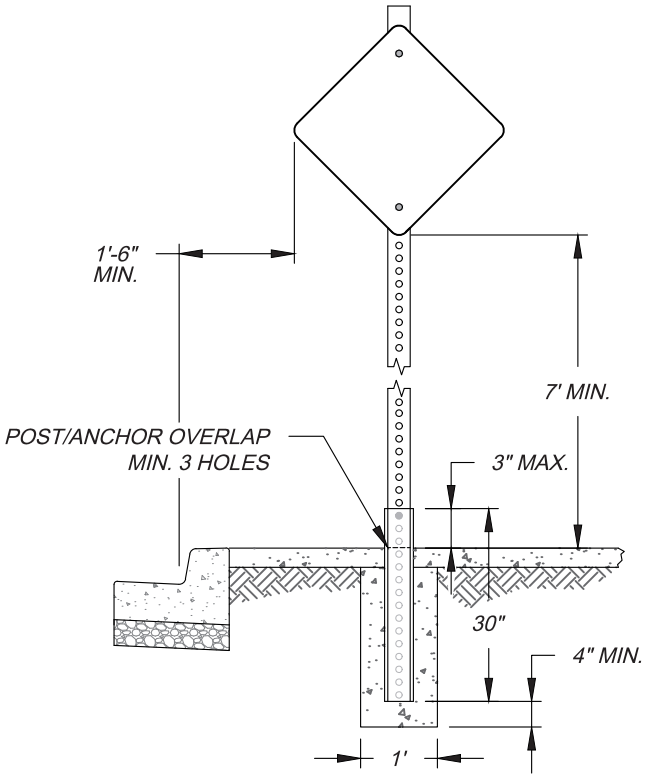
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501

EFFECTIVE DATE:
JUNE, 2024



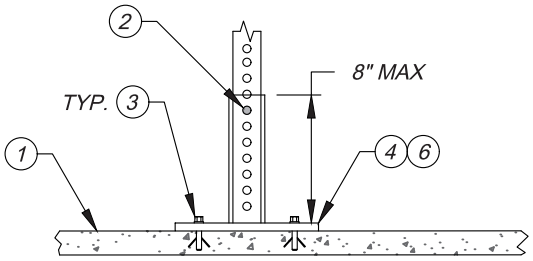
PLANTER STRIP INSTALLATION

NTS



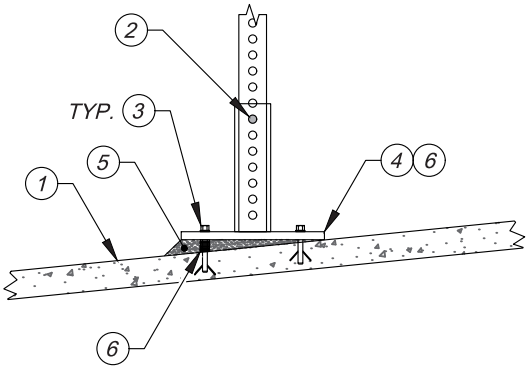
PAVED SIDEWALK INSTALLATION

NTS



SURFACE INSTALLATION

NTS



SURFACE INSTALLATION

NTS

(#) DETAIL NOTES:

1. CONCRETE WALK.
2. 3/8" GALV. ANGLE BOLT IN 2 ADJACENT HOLES.
3. 1/2" X 3" 304 OR 318 STAINLESS STEEL EXPANSION ANCHOR INSTALLED IN 3/4"Ø HOLES, ONE EACH CORNER.
4. 1/4" STEEL PLATE.
5. NON-SHRINK 6000PSI GROUT.
6. FOR UNLEVEL SURFACES ADD SUFFICIENT 1/2" STAINLESS WASHERS TO PLUMB SIGNPOST.
7. EDGE OF STEEL PLATE SHALL BE 6" FROM ALL JOINTS..

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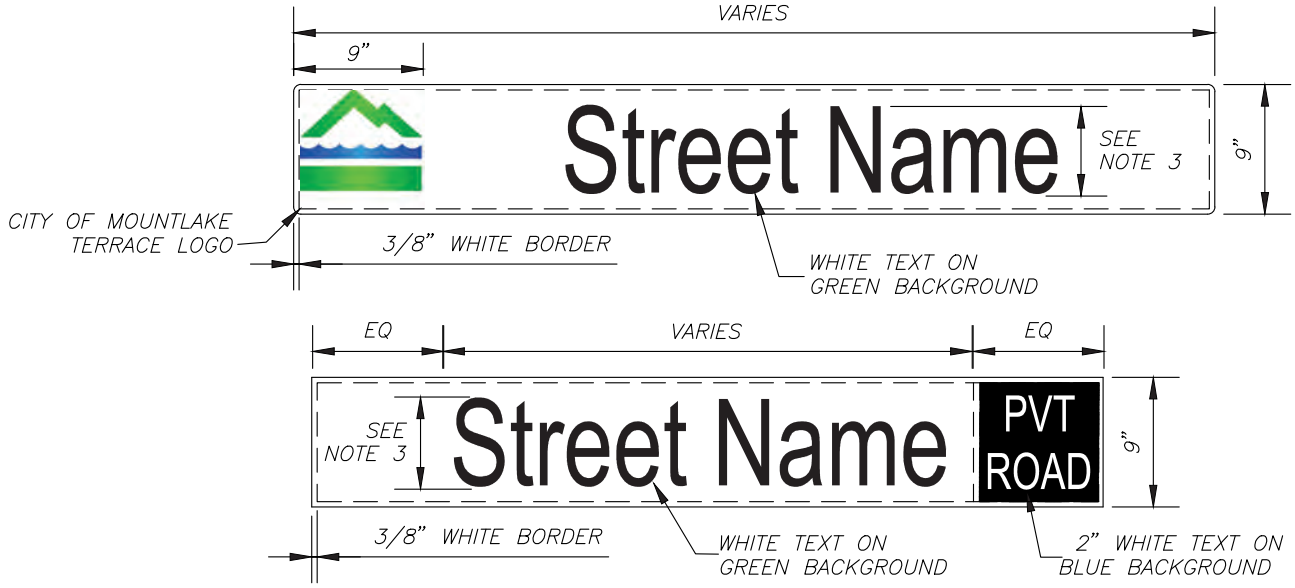
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
TRAFFIC SIGN INSTALLATION - POLE AND POLE FOUNDATION DETAILS FOR PAVED AND LANDSCAPED

SCALE: N.T.S.

D&S Drawing No.
502

EFFECTIVE DATE:
JUNE, 2024



GENERAL NOTES:

1. STREET NAME SIGNS SHALL BE EXTRUDED ALUMINUM. [VENDOR] [PART NO,] OR APPROVED EQUIVALENT.
2. STREET NAME SIGNS EXCEPT MAST-ARM SIGNS SHALL BE DOUBLE IDED.
3. STREET NAME SIGN TEXT SHALL BE HIGHWAY GOTHIC FONT, LOWER CASE WITH INITIAL UPPER CASE AND SIZED PER THE CURRENT MUTCD.
4. ALL OTHER SIGN SIZES SHALL BE APPROPRIATE PER THE ROADWAY TYPE AS INDICATED IN THE SIGN SIZE TABLES IN THE MUTCD.
5. ELECTRONIC GRAPHIC FILE FOR CITY LOGO AVAILABLE FROM THE CITY ENGINEER ON REQUEST.
6. STREET NAME TEXT SHALL BE CENTERED BETWEEN THE OUTSIDE BORDER OF THE CITY LOGO AND 3/8" IN FROM THE RIGHT EDGE OF THE SIGN.

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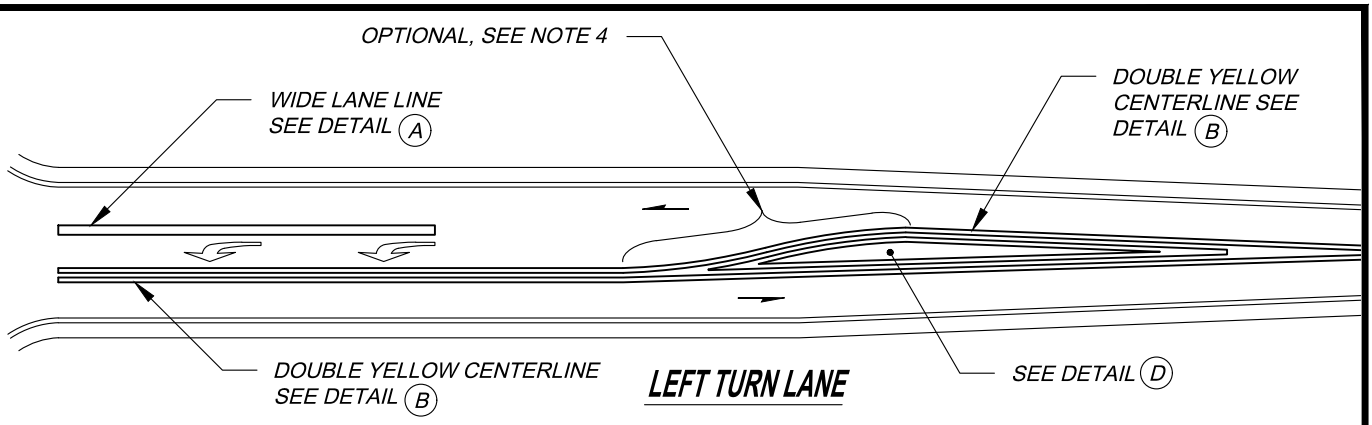
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
TRAFFIC SIGNS - GENERAL NOTES
STREET NAME & PARKING SIGNS

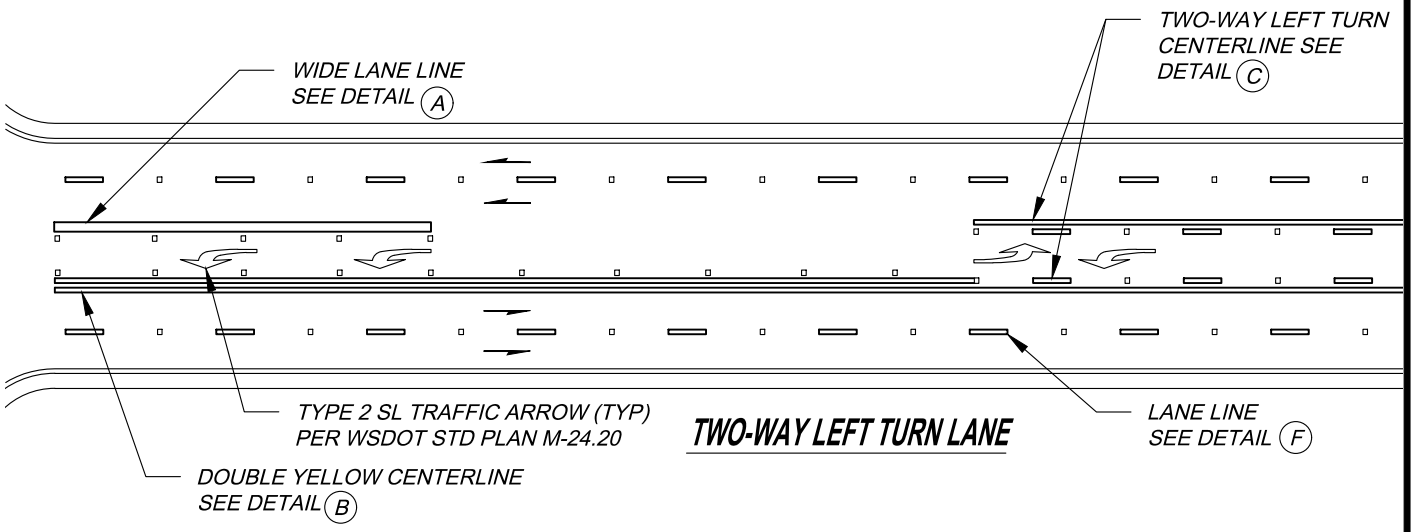
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D&S Drawing No.
504

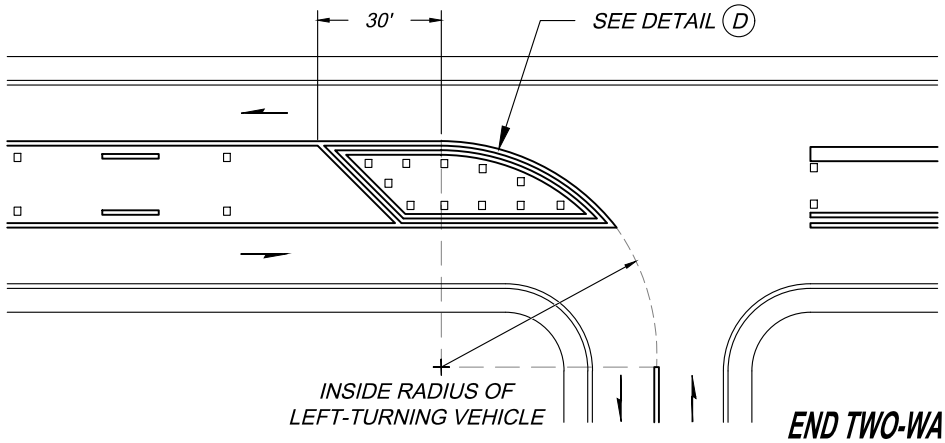
EFFECTIVE DATE:
JUNE, 2024



LEFT TURN LANE



TWO-WAY LEFT TURN LANE



END TWO-WAY LEFT TURN LANE

GENERAL NOTES:

1. SEE MLT D&S NO. 521-2 AND 521-3 FOR DETAILS (A)-(F)
2. RAISED PAVEMENT MARKERS SHALL ONLY BE INSTALLED WHEN SPECIFIED IN THE PLANS.
3. SEE WSDOT STD. PLAN M-20.30 FOR RPM DESIGNATIONS.
4. THE PORTION LABELED 'OPTIONAL' SHALL ONLY BE USED WHEN THE OPTIONAL MARKED DECELERATION TAPER IS SPECIFIED IN THE CONTRACT. SEE WSDOT STD. PLANS M-3.10 AND M-3.20.
5. ALL PAVEMENT MARKINGS SHALL BE PRE-MARKED AND THE LAYOUT APPROVED BY THE ENGINEER PRIOR TO PERMANENT INSTALLATION.

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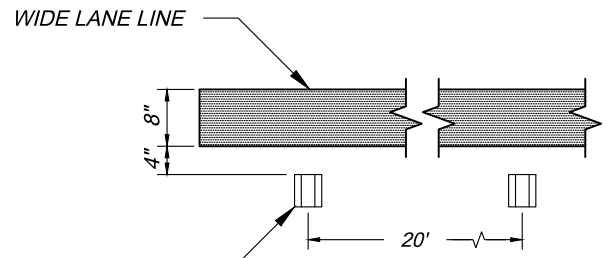
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
LONGITUDINAL MARKING SUPPLEMENT WITH RPMs - TURN LANES

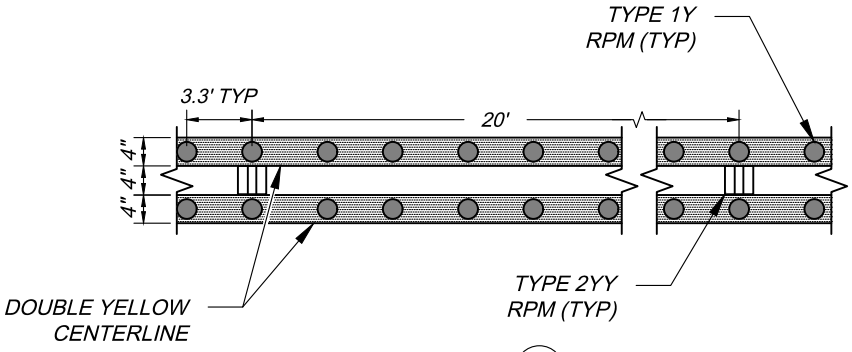
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D&S Drawing No.
521-1

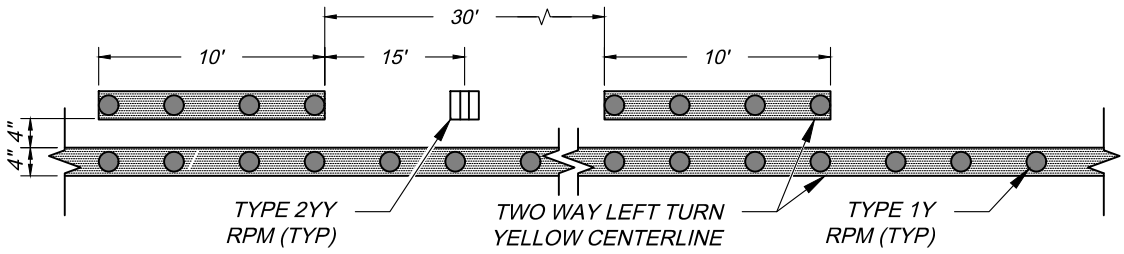
EFFECTIVE DATE:
JANUARY 2026



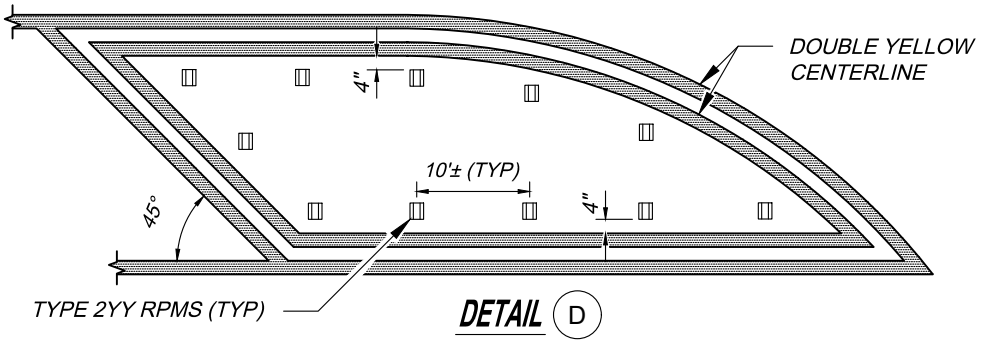
DETAIL (A)



DETAIL (B)



DETAIL (C)



DETAIL (D)

GENERAL NOTES:

1. DETAILS NOT TO SCALE
2. ALL PAVEMENT MARKINGS SHALL BE PRE-MARKED AND THE LAYOUT APPROVED BY THE ENGINEER PRIOR TO PERMANENT INSTALLATION.

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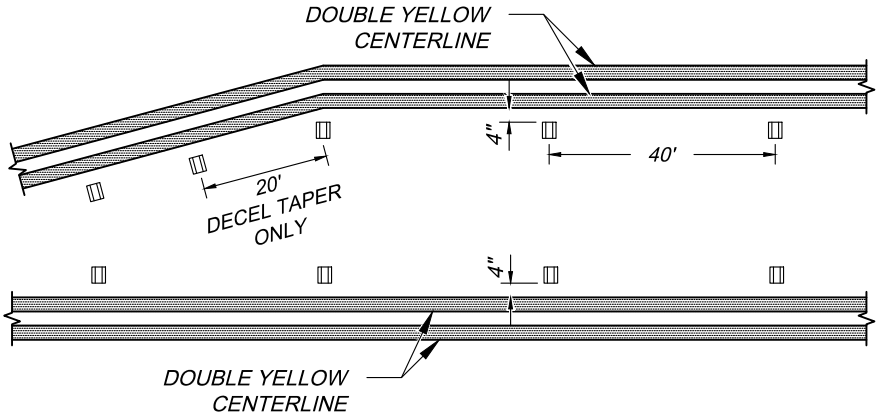
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
LONGITUDINAL MARKING SUPPLEMENT WITH RPMs - DETAILS 1

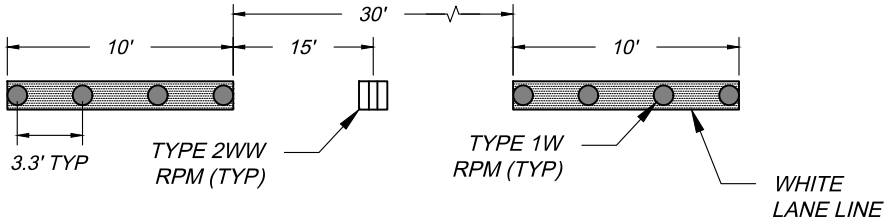
SCALE: N.T.S.

D&S Drawing No.
521-2

EFFECTIVE DATE:
JANUARY 2026



DETAIL (E)



DETAIL (F)

GENERAL NOTES:

1. DETAILS NOT TO SCALE
2. ALL PAVEMENT MARKINGS SHALL BE PRE-MARKED AND THE LAYOUT APPROVED BY THE ENGINEER PRIOR TO PERMANENT INSTALLATION.

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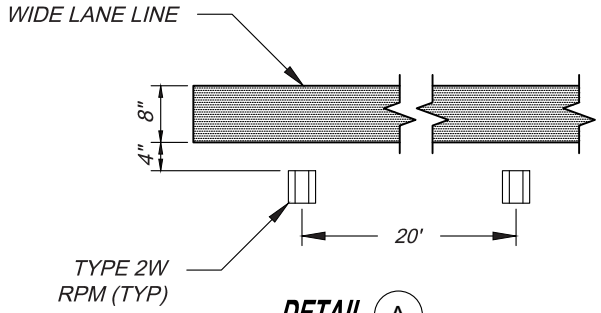
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
LONGITUDINAL MARKING SUPPLEMENT WITH RPMs - DETAILS 2

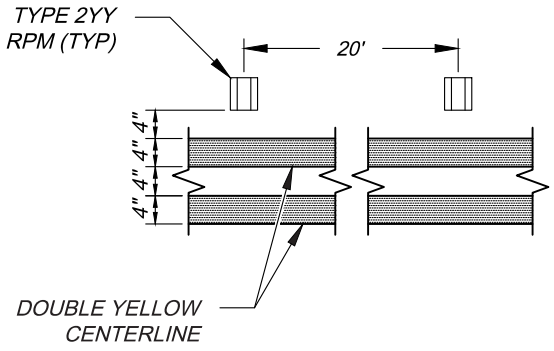
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D&S Drawing No.
521-3

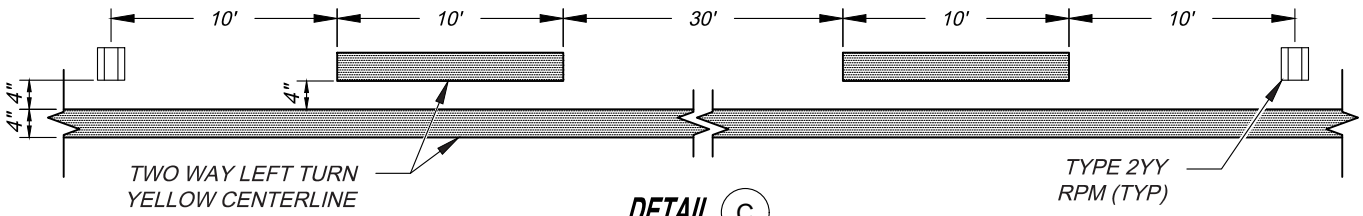
EFFECTIVE DATE:
JANUARY 2026



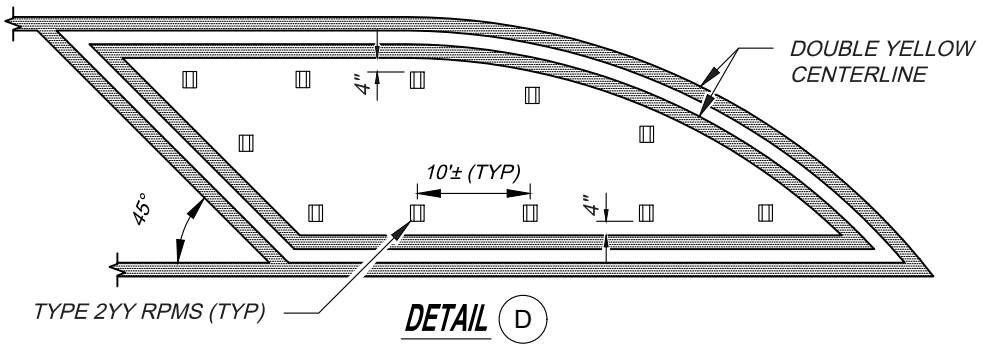
DETAIL (A)



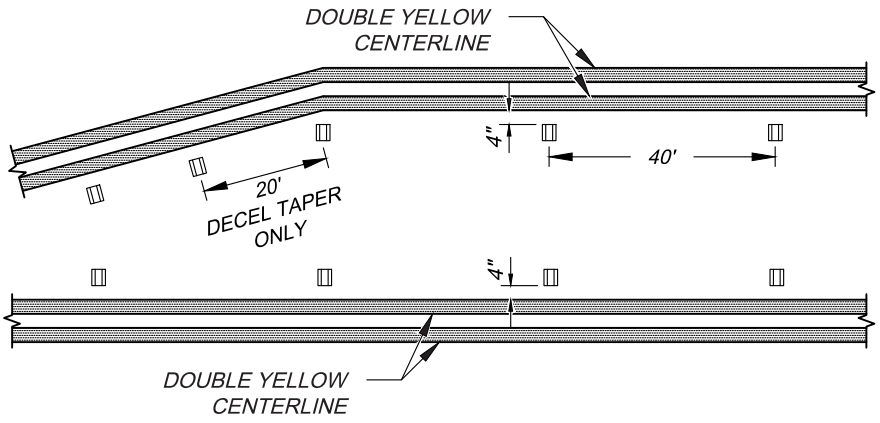
DETAIL (B)



DETAIL (C)



DETAIL (D)



DETAIL (E)

GENERAL NOTES:

1. *DETAILS NOT TO SCALE*
2. *ALL PAVEMENT MARKINGS SHALL BE PRE-MARKED AND THE LAYOUT APPROVED BY THE ENGINEER PRIOR TO PERMANENT INSTALLATION.*

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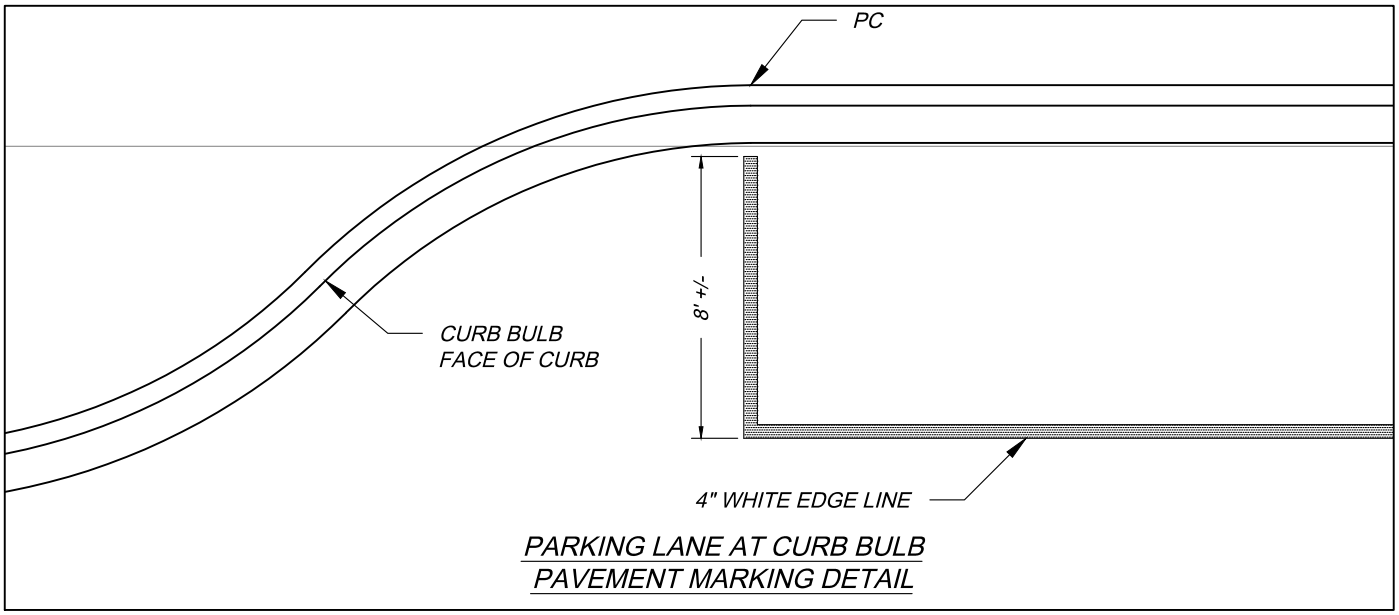
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
LONGITUDINAL MARKING SUPPLEMENT WITH RPMs - DETAILS

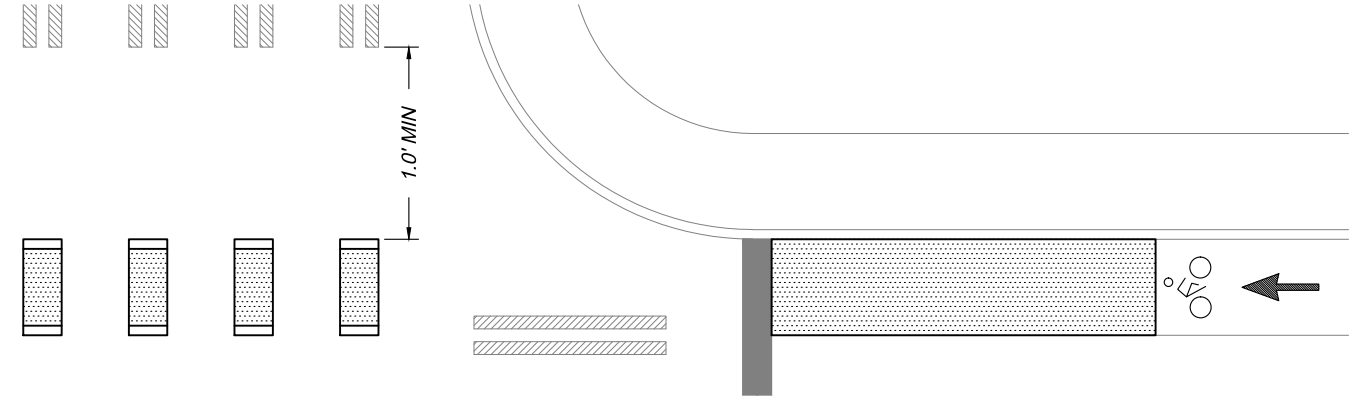
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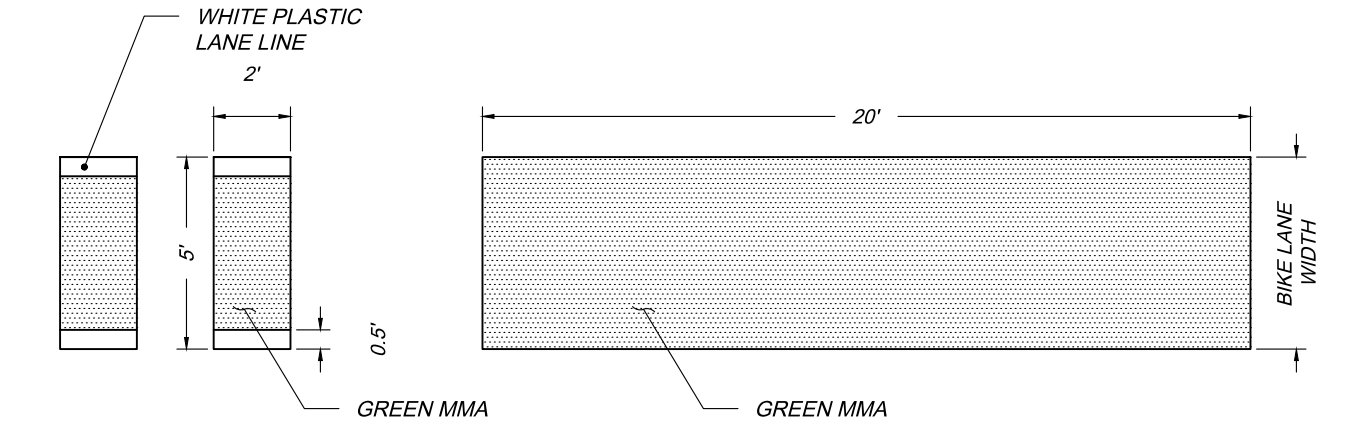
D&S Drawing No.
522

EFFECTIVE DATE:
JUNE, 2024



PARKING LANE AT CURB BULB
PAVEMENT MARKING DETAIL





CROSS BIKE PAVEMENT MARKING
DETAIL

BIKE BOX PAVEMENT MARKING
DETAIL

GENERAL NOTES:

1. DETAILS NOT TO SCALE
2. ALL PAVEMENT MARKINGS SHALL BE PRE-MARKED AND APPROVED BY THE ENGINEER PRIOR TO PERMANENT INSTALLATION.

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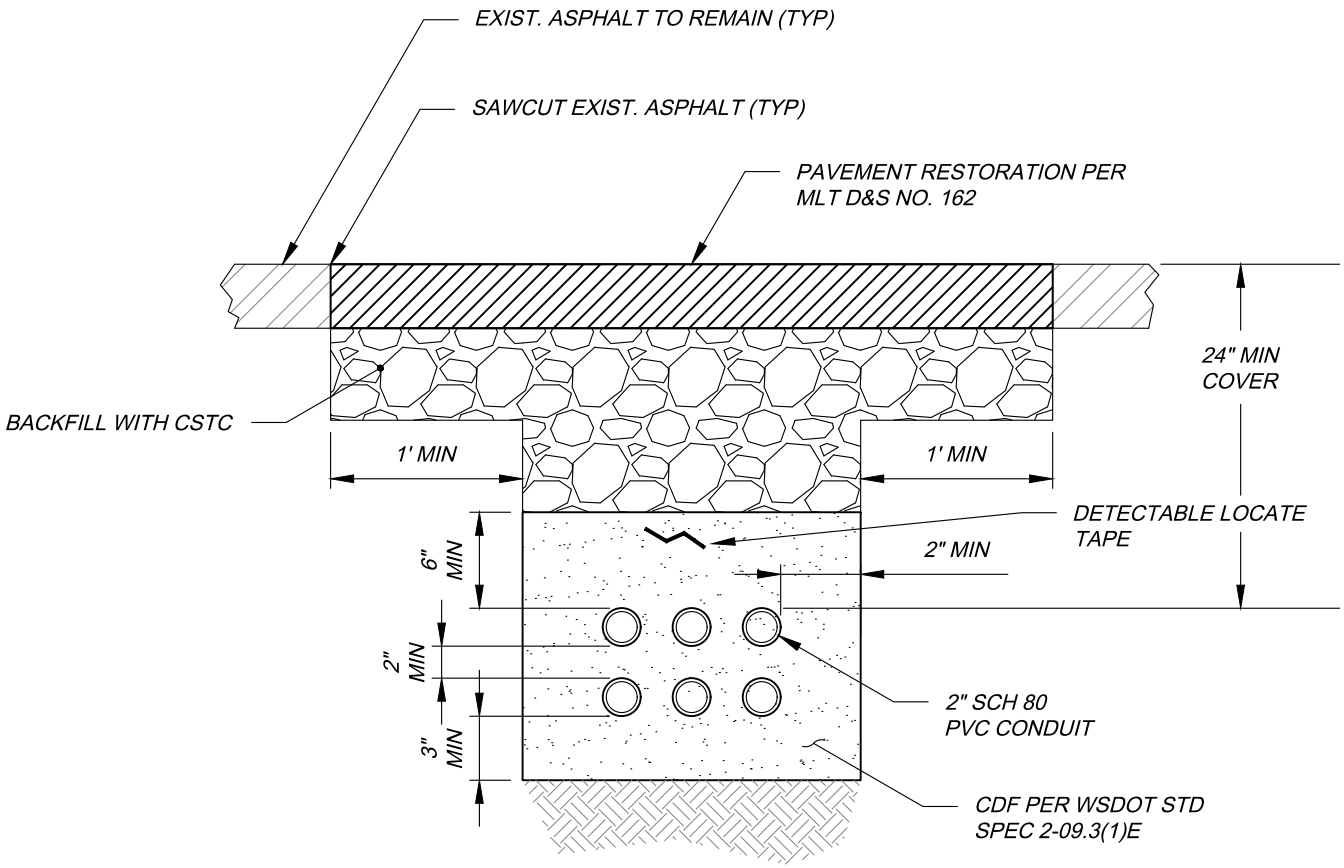
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
PARKING & EDGE LINE MARKINGS
BIKE LANE CROSSING MARKINGS

SCALE: N.T.S.

D&S Drawing No.
524

EFFECTIVE DATE:
JANUARY 2026



GENERAL NOTES:

1. INSTALL APPROVED DUCT SPACERS EVERY 5' THROUGH TRENCH.
2. ALL CONDUIT SHALL HAVE LOCATE WIRE AND PULL TAPE. PER WSDOT STD SPEC 8-20.3(5)A AND 9-29.1(10).

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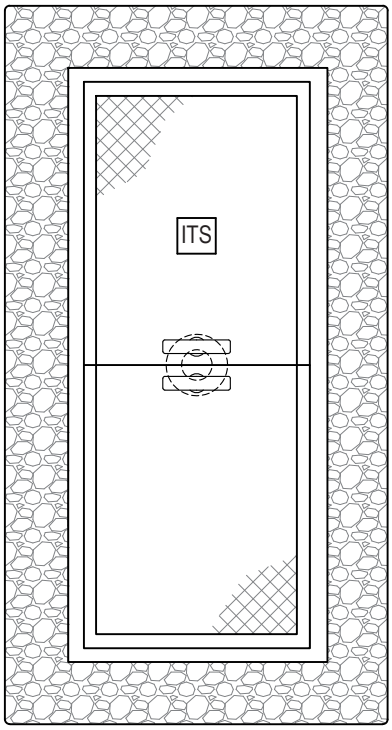
CITY OF MOUNTLAKE TERRACE
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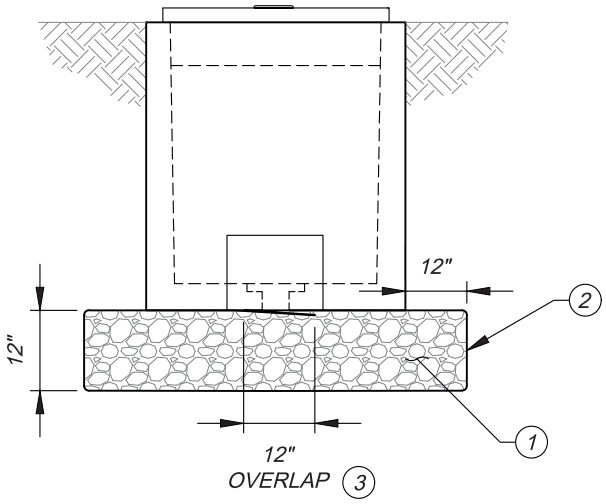
D&S DRAWING TITLE:
CONDUIT TRENCH DETAIL
STREET CROSSING

SCALE: N.T.S.

D&S Drawing No.
531

EFFECTIVE DATE:
JANUARY 2026





GENERAL NOTES:

1. *NOT ALL DETAIL SHOWN: REFER TO WSDOT STD. PLAN J-90.21 FOR SMALL CABLE VAULT.*
2. *OUTSIDE DIMENSIONS INCLUDING LID ARE APPROXIMATELY . 2'-7.5" TALL x 5'-2.5" LONG x 2'-3" WIDE.*

(#) DETAIL NOTES:

1. *GRAVEL BACKFILL FOR DRAINS PER WSDOT STD. SPEC 9-03.12(4).*
2. *GEOTEXTILE FOR UNDERGROUND DRAINAGE, MODERATE SURVIVABILITY (NON-WOVEN) PER WSDOT STD. SPEC 9-33.2(1).*
3. *OVERLAP GEOTEXTILE 12" MIN. AT SEAMS.*

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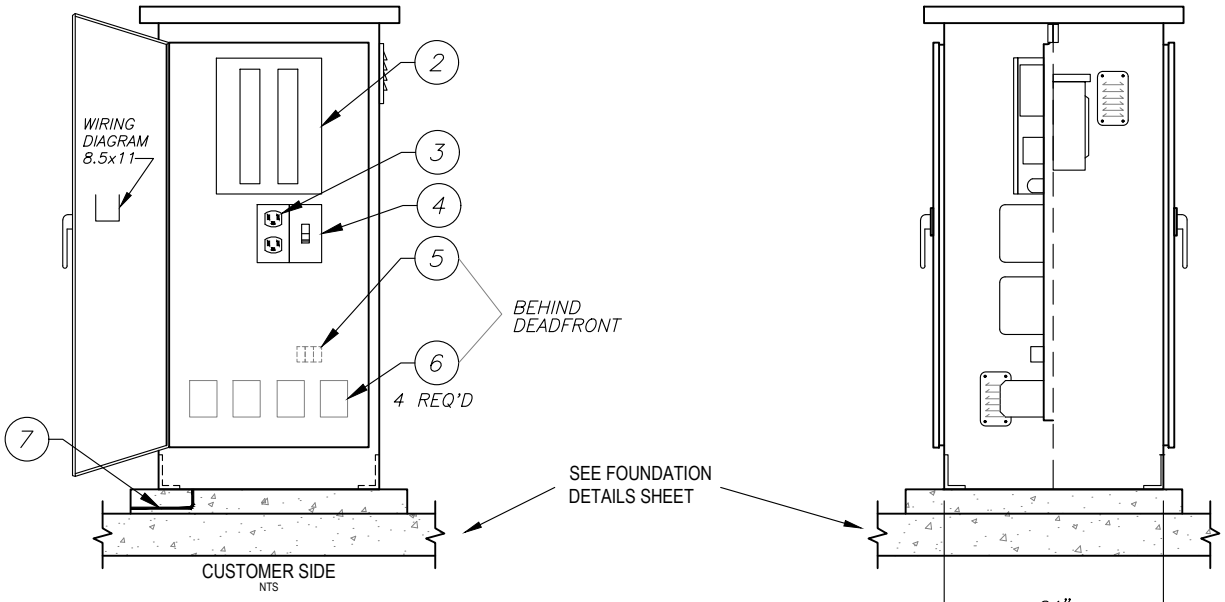
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

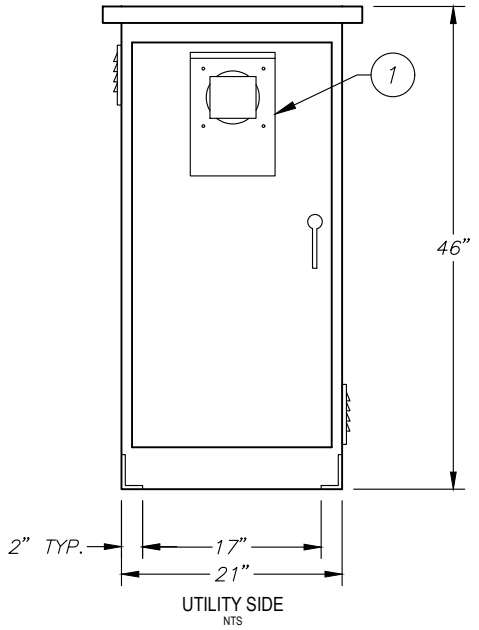
D&S DRAWING TITLE:
SMALL CABLE VAULT INSTALLATION DETAIL

SCALE: N.T.S.

D&S Drawing No.
532

EFFECTIVE DATE:
JUNE, 2024





(#) LEGEND:

1. METERBASE: 100A 4-JAW, B-LINE 114TB
2. PANELBOARD: 120/240 VAC, 125A, 1 PHASE, 3 WIRE 10K AIC
3. GFCI DUPLEX RECEPTACLE, 20A, 120 VAC
4. PHOTOCELL BYPASS SWITCH: SPDT 15A, 277 VAC
5. TERMINAL BLOCK FOR REMOTE PHOTOCELL
6. LIGHTING CONTACTOR: 60A, 2 POLE, 120 VAC COIL, 4 REQUIRED
7. DRAIN TUBE, 3/8" DIA POLYETHYLENE

GENERAL NOTES:

CABINET:

1. NEMA TYPE 3R OUTDOOR PADMOUNT W/ OPEN BOTTOM, UL LISTED PER #508A, SUITABLE FOR USE AS SERVICE ENTRANCE. MATERIAL: 1/8" AL 5052-H32 WITH 2 SCREENED AND GASKETED VENTS. INCLUDE CABINET GROUND AND NEUTRAL BOND WIRE.

DOORS:

2. HEAVY-DUTY CONCEALED LIFT-OFF HINGES, SS VAULT HANDLE LATCHES W/ ROLLER RODS, CLOSED-CELL NEOPRENE GASKET ALL AROUND.
3. BEST "CX" CONSTRUCTION CORE ON CUSTOMER SIDE, PADLOCKABLE HANDLE ON UTILITY SIDE WITH POLISHED WIRE GLASS WINDOW.

DEADFRONT:

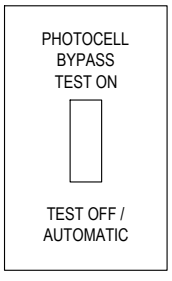
4. HINGED AND SECURED WITH QUARTER-TURN FASTENERS. ALL CIRCUITS SHALL BE LABELED WITH ENGRAVED PHENOLIC LABELS.

FINISH:

5. EXT: ASA 70 GREY POWDERCOAT W/ ANTIGRAFFITI COATING, INT: WHITE BAKED ENAMEL INCL DEADFRONT.

PHOTOCELL:

6. SUNRISE TECHNOLOGIES TRS SERIES OR APPROVED EQUAL.



TEST SWITCH LABEL

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APPROVED BY

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

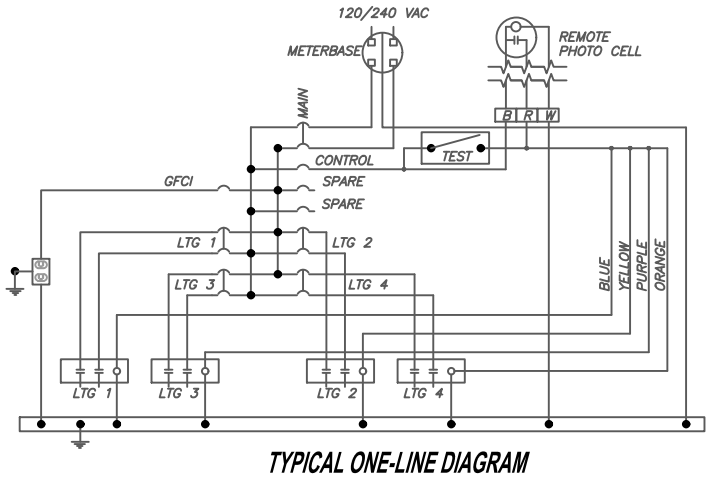
D&S DRAWING TITLE:

SERVICE CABINET
NON-TOWN CENTER

SCALE: N.T.S.

D&S Drawing No.
533-1

EFFECTIVE DATE:
JANUARY 2026



TYPICAL ONE-LINE DIAGRAM

ILLUMINATION SERVICE CABINET BREAKER SCHEDULE 120/240V					
CIRCUIT	DESCRIPTION	BREAKER RATING	CONTACTOR RATING	VOLTAGE	LOAD (KVA)
	MAIN	100 A	N.A.	240	
A	LTG 1	20 A	60	240	
B	LTG 2	20 A	60	240	
C	LTG 3	20 A	60	240	
D	LTG 4	20 A	60	240	
E	GFCI	20 A	N.A.	120	1.8
F	PHOTOCELL	15 A	N.A.	120	0.1
BUSSWORK SHALL BE RATED AT 250 AMP MINIMUM			PEAK		
			CONTINUOUS		

DESIGNER SHALL COMPLETE SCHEDULE WITH DESIGN LOADS

WIRING NOTES:

1. WIRE CONNECTIONS SHALL BE CRIMPED AND SHRINK-WRAPPED. CRIMP SPLICES SHALL BE INSTALLED WITH AN APPROVED CRIMPING TOOL FOR THE TYPE AND SIZE OF CRIMP SPLICE USED. PLIERS AND SIMILAR MULTI-PURPOSE TOOLS SHALL NOT BE USED.

2. HEAT SHRINK TUBING SHALL HAVE SEPARATE PORTS FOR EACH CONDUCTOR AND RUBBER ELECTRICAL MASTIC TAPE SHALL BE WRAPPED AROUND EACH CONDUCTOR TO ENSURE A WEATHER-PROOF SEAL. HEAT SHRINK TUBING SHALL EXTEND A MINIMUM OF ONE INCH ONTO THE ORIGINAL WIRE INSULATION OF EACH WIRE IN THE SPLICE. RIGID SPLICE ENCLOSURES SHALL BE CENTERED OVER THE CRIMPED CONNECTION.

3. ALL INTERNAL WIRE RUNS SHALL BE LABELED WITH "TO-FROM" CODED TAGS LABELED WITH THE CODE LETTERS AND/OR NUMBERS SHOWN IN THE SCHEDULE AND DETAILS USING APPROVED PVC OR POLYOLEFIN WIRE MARKING SLEEVES.

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APPROVED BY
Richard Meredith, PE, RTOE

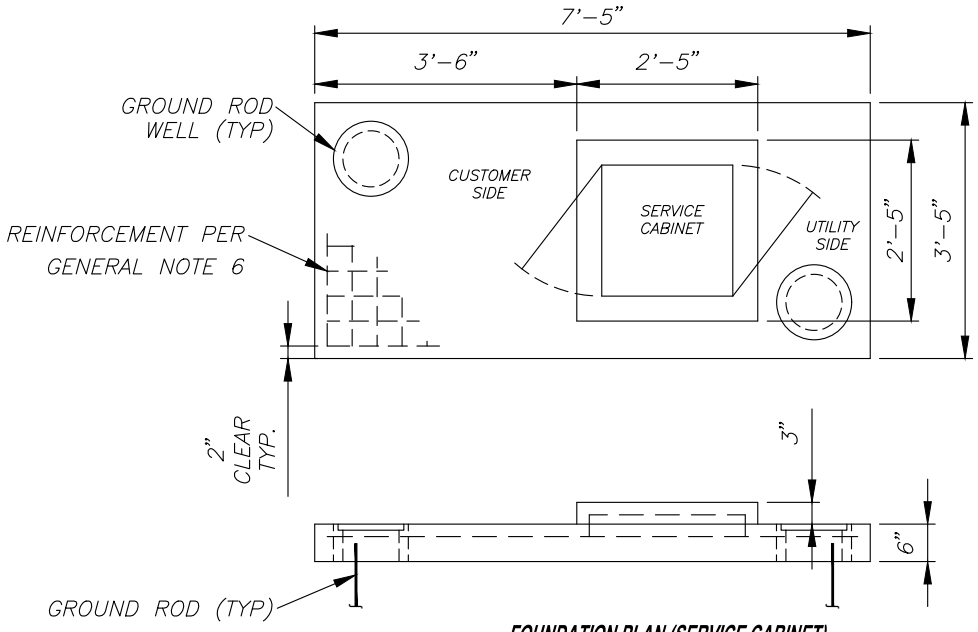
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SERVICE CABINET SCHEMATIC
NON-TOWN CENTER

SCALE: N.T.S.

D&S Drawing No.
533-2

EFFECTIVE DATE:
JANUARY 2026



FOUNDATION PLAN (SERVICE CABINET)

GENERAL NOTES:

1. CABINET SHALL BE ATTACHED USING FOUR 1/2" X 10" J-BOLTS, ALL BOLTS, WASHERS, AND NUTS SHALL BE HOT-DIP GALVANIZED. STAINLESS STEEL EPOXY ANCHORS MAY BE USED AS AN ALTERNATIVE AND SHALL BE 1/2" X 9" TYPE 304.

2. FOUNDATION REINFORCEMENT PER WSDOT STD. PLAN J-10.10. WELDED WIRE FABRIC (WWF) SHALL BE 4.0" X 4.0" AND BE PER ASTM A1064. ALTERNATELY A GRID OF #3 REBAR SPACED AT 1'-0" OC MAY BE USED. REBAR OR WELDED WIRE FABRIC SHALL BE 2" CLEAR OF ALL CONCRETE SURFACES.

3. A 1/2" SILICONE SEALANT BEAD SHALL BE APPLIED BETWEEN CABINET AND FOUNDATION. CONCRETE SHALL BE CL 3000, CHAMFER ALL CORNERS EXCEPT WHERE FOUNDATION ABUTS SIDEWALK USE FULL DEPTH JOINT FILLER.

4. TWO 6' COPPER GROUND RODS REQUIRED IN 12" DIA. CONCRETE GROUND WELL. GROUND RODS SHALL BE 6' MIN APART.

5. ALTERNATE GROUND:
   PROVIDE CONCRETE-ENCASED GROUNDING ELECTRODE SYSTEM PER NEC 250.52(3). INSTALL #3 REBAR GRID AT 1'-0" OC, 2" CLEAR OF OUTSIDE OF FOUNDATION WITH NON-INSULATED #4 AWG STRANDED COPPER GROUNDING CONDUCTOR, PROVIDE 36" MIN SLACK. WRAP CONDUCTOR WITH 2" WIDE PIPE TAPE FROM 2" ABOVE TO 2" BELOW TOP OF FOUNDATION. ROUTE CONDUCTOR TO CABINET GROUNDING STUD.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SERVICE CABINET FOUNDATION

SCALE: N.T.S.

D&S Drawing No.
534

EFFECTIVE DATE:
JANUARY 2026

GENERAL NOTES:

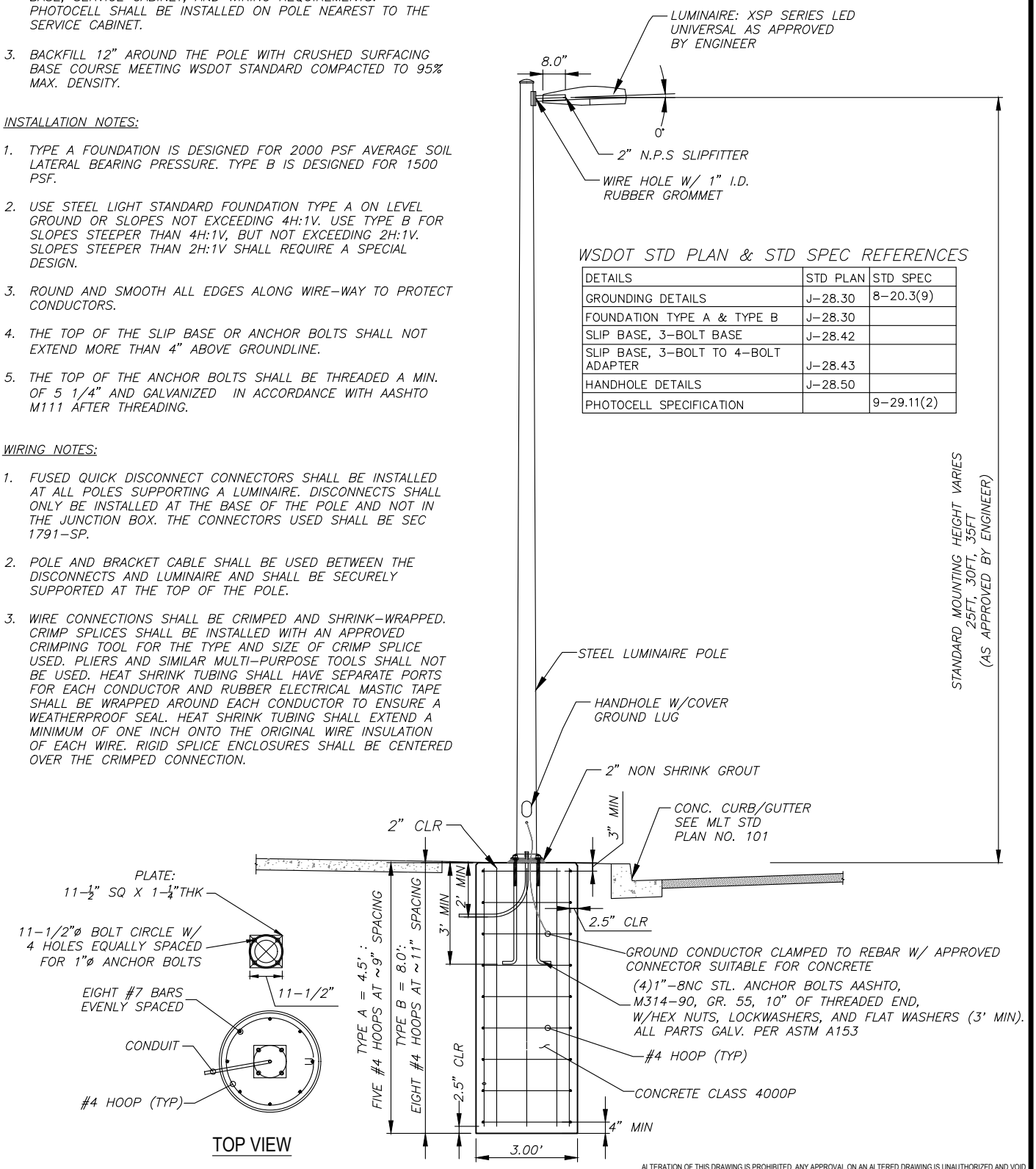
1. ALL STEEL LIGHT STANDARDS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS, WSDOT STANDARD PLANS, AND THE CONTRACT PROVISIONS.
2. ONE PHOTOCELL AND ONE BYPASS SWITCH SHALL BE INSTALLED PER LIGHTING SYSTEM. SEE WSDOT STD PLANS FOR METER BASE, SERVICE CABINET, AND WIRING REQUIREMENTS. PHOTOCELL SHALL BE INSTALLED ON POLE NEAREST TO THE SERVICE CABINET.
3. BACKFILL 12" AROUND THE POLE WITH CRUSHED SURFACING BASE COURSE MEETING WSDOT STANDARD COMPACTED TO 95% MAX. DENSITY.

INSTALLATION NOTES:

1. TYPE A FOUNDATION IS DESIGNED FOR 2000 PSF AVERAGE SOIL LATERAL BEARING PRESSURE. TYPE B IS DESIGNED FOR 1500 PSF.
2. USE STEEL LIGHT STANDARD FOUNDATION TYPE A ON LEVEL GROUND OR SLOPES NOT EXCEEDING 4H:1V. USE TYPE B FOR SLOPES STEEPER THAN 4H:1V, BUT NOT EXCEEDING 2H:1V. SLOPES STEEPER THAN 2H:1V SHALL REQUIRE A SPECIAL DESIGN.
3. ROUND AND SMOOTH ALL EDGES ALONG WIRE-WAY TO PROTECT CONDUCTORS.
4. THE TOP OF THE SLIP BASE OR ANCHOR BOLTS SHALL NOT EXTEND MORE THAN 4" ABOVE GROUNDLINE.
5. THE TOP OF THE ANCHOR BOLTS SHALL BE THREADED A MIN. OF 5 1/4" AND GALVANIZED IN ACCORDANCE WITH AASHTO M111 AFTER THREADING.

WIRING NOTES:

1. FUSED QUICK DISCONNECT CONNECTORS SHALL BE INSTALLED AT ALL POLES SUPPORTING A LUMINAIRE. DISCONNECTS SHALL ONLY BE INSTALLED AT THE BASE OF THE POLE AND NOT IN THE JUNCTION BOX. THE CONNECTORS USED SHALL BE SEC 1791-SP.
2. POLE AND BRACKET CABLE SHALL BE USED BETWEEN THE DISCONNECTS AND LUMINAIRE AND SHALL BE SECURELY SUPPORTED AT THE TOP OF THE POLE.
3. WIRE CONNECTIONS SHALL BE CRIMPED AND SHRINK-WRAPPED. CRIMP SPLICES SHALL BE INSTALLED WITH AN APPROVED CRIMPING TOOL FOR THE TYPE AND SIZE OF CRIMP SPLICE USED. PLIERS AND SIMILAR MULTI-PURPOSE TOOLS SHALL NOT BE USED. HEAT SHRINK TUBING SHALL HAVE SEPARATE PORTS FOR EACH CONDUCTOR AND RUBBER ELECTRICAL MASTIC TAPE SHALL BE WRAPPED AROUND EACH CONDUCTOR TO ENSURE A WEATHERPROOF SEAL. HEAT SHRINK TUBING SHALL EXTEND A MINIMUM OF ONE INCH ONTO THE ORIGINAL WIRE INSULATION OF EACH WIRE. RIGID SPLICE ENCLOSURES SHALL BE CENTERED OVER THE CRIMPED CONNECTION.



WSDOT STD PLAN & STD SPEC REFERENCES

DETAILS	STD PLAN	STD SPEC
GROUNDING DETAILS	J-28.30	8-20.3(9)
FOUNDATION TYPE A & TYPE B	J-28.30	
SLIP BASE, 3-BOLT BASE	J-28.42	
SLIP BASE, 3-BOLT TO 4-BOLT ADAPTER	J-28.43	
HANDHOLE DETAILS	J-28.50	
PHOTOCELL SPECIFICATION		9-29.11(2)

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STREET LIGHT STANDARD
NO MAST ARM

SCALE: N.T.S.

D&S Drawing No.
541

EFFECTIVE DATE:
JANUARY 2026

GENERAL NOTES:

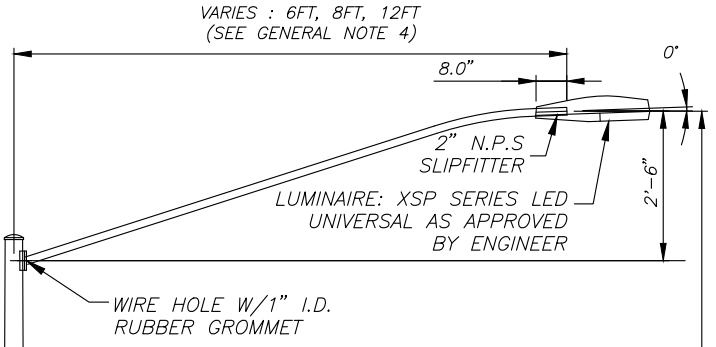
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3. BACKFILL 12" AROUND THE POLE WITH CRUSHED SURFACING BASE COURSE MEETING WSDOT STANDARD COMPACTED TO 95% MAX. DENSITY.
4. MAST ARM LENGTH DICTATED BY SITE CONDITIONS. DETERMINATION OF MAST ARM LENGTH SHALL BE CONFIRMED AND APPROVED BY THE CITY TRAFFIC ENGINEER.

INSTALLATION NOTES:

1. TYPE A FOUNDATION IS DESIGNED FOR 2000 PSF AVERAGE SOIL LATERAL BEARING PRESSURE. TYPE B IS DESIGNED FOR 1500 PSF.
2. USE STEEL LIGHT STANDARD FOUNDATION TYPE A ON LEVEL GROUND OR SLOPES NOT EXCEEDING 4H:1V. USE TYPE B FOR SLOPES STEEPER THAN 4H:1V, BUT NOT EXCEEDING 2H:1V. SLOPES STEEPER THAN 2H:1V SHALL REQUIRE A SPECIAL DESIGN.
3. ROUND AND SMOOTH ALL EDGES ALONG WIRE-WAY TO PROTECT CONDUCTORS.
4. THE TOP OF THE SLIP BASE OR ANCHOR BOLTS SHALL NOT EXTEND MORE THAN 4" ABOVE GROUNDLINE.
5. THE TOP OF THE ANCHOR BOLTS SHALL BE THREADED A MIN. OF 5 1/4" AND GALVANIZED IN ACCORDANCE WITH AASHTO M111 AFTER THREADING.

WIRING NOTES:

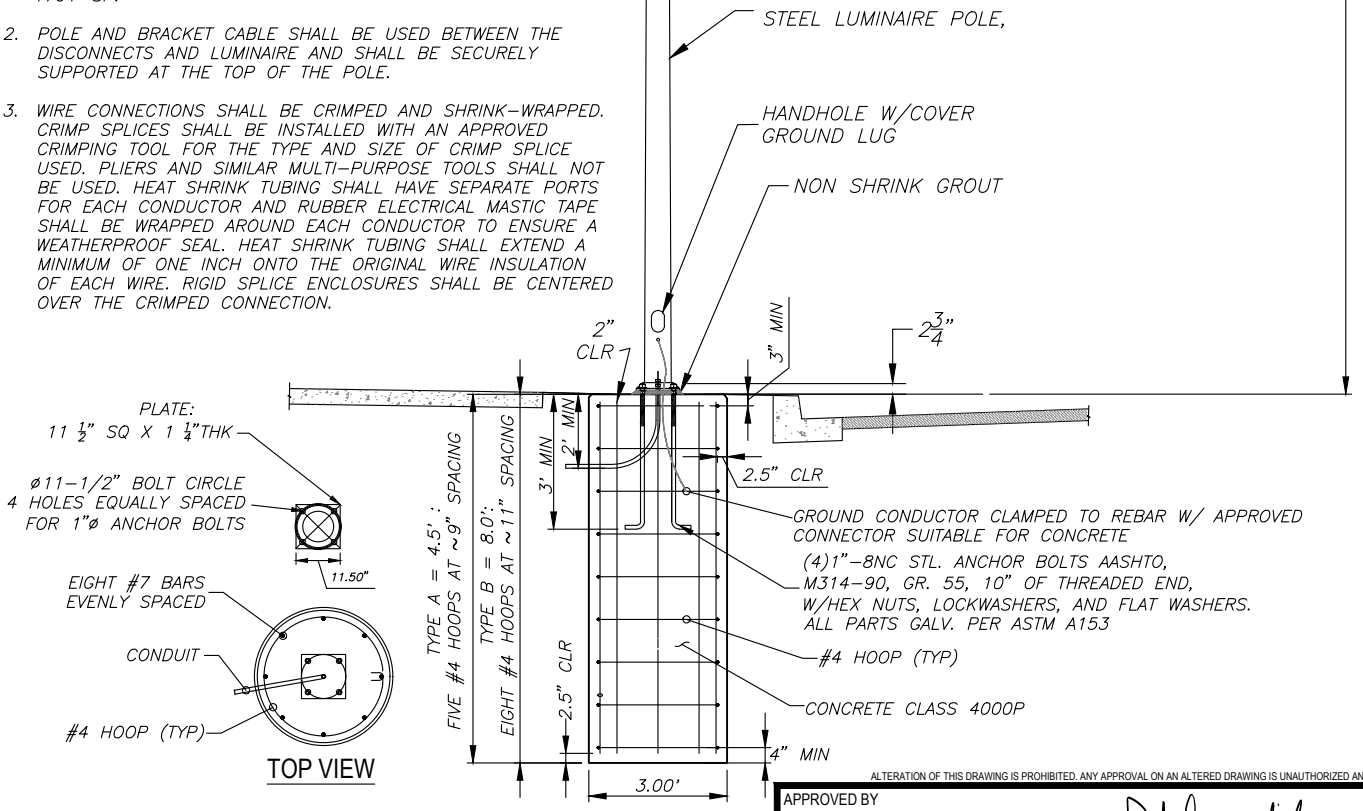
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WSDOT STD PLAN & STD SPEC REFERENCES

DETAILS	STD PLAN	STD SPEC
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SLIP BASE, 3-BOLT TO 4-BOLT ADAPTER	J-28.43	
HANDHOLE DETAILS	J-28.50	
PHOTOCELL SPECIFICATION		9-29.11(2)

STANDARD MOUNTING HEIGHTS VARIES
25FT, 30FT, 35FT
(AS APPROVED BY ENGINEER)



ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

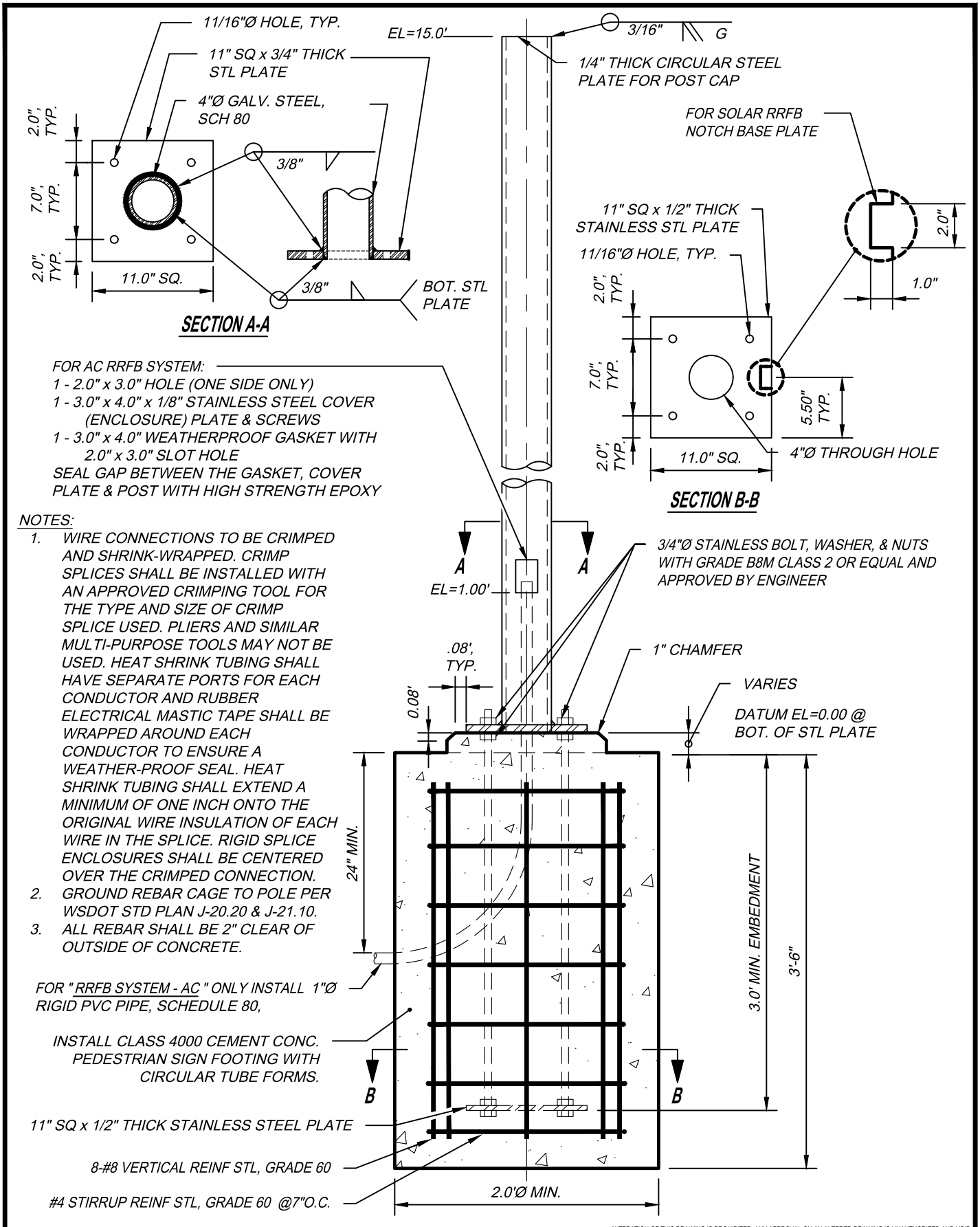
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STREET LIGHT STANDARD
WITH MAST ARM

SCALE: N.T.S.

D&S Drawing No.
542

EFFECTIVE DATE:
JANUARY 2026



ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

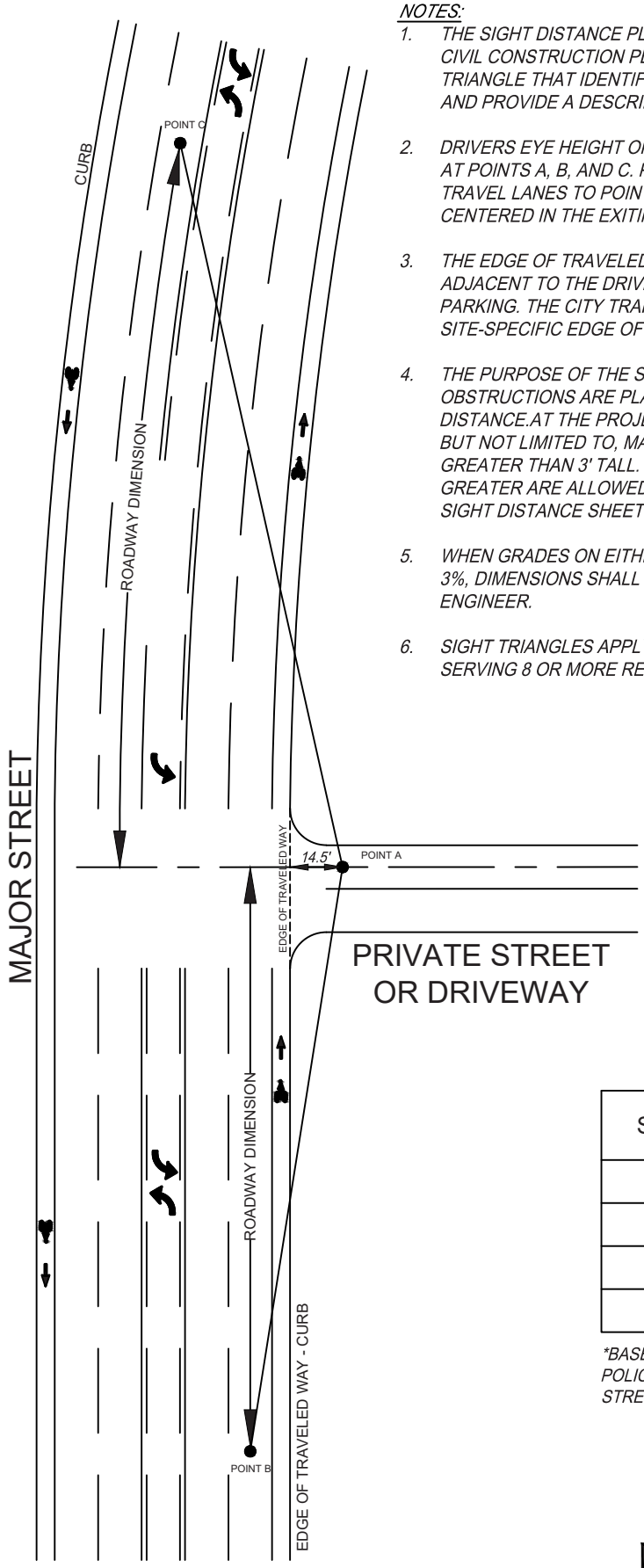
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
POST AND FOOTING DETAIL FOR RRFB, DSS, AND OTHER DEVICES

SCALE: N.T.S.

D&S Drawing No.
581

EFFECTIVE DATE:
JANUARY 2026



NOTES:

1. *THE SIGHT DISTANCE PLAN SHALL BE INCLUDED AS A SEPARATE SHEET IN THE CIVIL CONSTRUCTION PLAN SET. IT SHALL SHOW A PLAN VIEW OF THE SIGHT TRIANGLE THAT IDENTIFIES WHAT OBSTRUCTIONS LIE WITHIN THE SIGHT TRIANGLE AND PROVIDE A DESCRIPTION OF EACH OBSTRUCTION - TYPE AND DIMENSIONS.*
2. *DRIVERS EYE HEIGHT OF 3.5 FEET AND OBJECT HEIGHT OF 2.0 FEET MEASURED AT POINTS A, B, AND C. POINTS B AND C ARE CENTERED IN THE NEAREST TRAVEL LANES TO POINT A FOR EACH MAJOR STREET DIRECTION. POINT A IS CENTERED IN THE EXITING DRIVEWAY LANE*
3. *THE EDGE OF TRAVELED WAY IS THE NEAREST EDGE OF ANY TRAVEL LANE ADJACENT TO THE DRIVEWAY. TRAVEL LANE EDGES EXCLUDE ANY ON-STREET PARKING. THE CITY TRAFFIC ENGINEER SHALL FURTHER IDENTIFY OR DIRECT ANY SITE-SPECIFIC EDGE OF TRAVELED WAY.*
4. *THE PURPOSE OF THE SIGHT TRIANGLE SHEET IS TO ENSURE THAT NO OBSTRUCTIONS ARE PLACED THAT WOULD COMPROMISE THE REQUIRED SIGHT DISTANCE.AT THE PROJECT'S DRIVEWAY. EXAMPLES OF OBSTRUCTIONS INCLUDE, BUT NOT LIMITED TO, MAILBOX CLUSTERS, SERVICE CABINETS AND LANDSCAPING GREATER THAN 3' TALL. STREET TREES WITH CROWNS BEGINNING AT 6' OR GREATER ARE ALLOWED. THIS CAN BE ACCOMPLISHED WITH A NOTE ON THE SIGHT DISTANCE SHEET STATING THIS.*
5. *WHEN GRADES ON EITHER MAJOR OR MINOR STREETS ARE SLOPED MORE THAN 3%, DIMENSIONS SHALL BE MODIFIED AS DIRECTED BY THE CITY TRAFFIC ENGINEER.*
6. *SIGHT TRIANGLES APPLY TO ALL PRIVATE STREET AND DRIVEWAY LOCATIONS SERVING 8 OR MORE RESIDENCES OR NON-RESIDENTIAL LAND USES.*

SPEED LIMIT	ROADWAY DIMENSION*
35 MPH	250 Ft
30 MPH	200 Ft
25 MPH	155 Ft
20 MPH	115 Ft

**BASED ON STOPPING SIGHT DISTANCE FROM "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" (AASHTO, 2018 7TH EDITION)*

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
SIGHT TRIANGLE DIMENSIONS
(PRIVATE STREETS & DRIVEWAYS)

SCALE: N.T.S.

D&S Drawing No.
582

EFFECTIVE DATE:
JUNE, 2024

SECTION 6

GENERAL

GRADING GENERAL NOTES

1. All work and materials shall be in accordance with the "Standard Specifications for Road, Bridge, and Municipal Construction," Washington State Department of Transportation, current edition, together with the latest edition of the City of Mountlake Terrace Engineering Standards.

2. An approved copy of these plans shall be on site whenever construction is in progress.

3. The contractor shall obtain street use and any other related permits prior to any construction activity in City right-of-way.

4. Prior to any construction activity a pre-construction meeting shall be requested via the online permit center. Follow the instructions below to create your online account:

   A. Visit the Permits & Licenses website: https://www.cityofmlt.com/1993/

   B. Click on the green Permit Portal box



   This takes you to the portal account page.

   C. At the top left above the header select **Setup an Account** to create your account.

   D. Contractors: Use the link for Contractor Application in the blue pane on the left to apply for a new AEC account.



5. All locations of existing utilities shown herein have been established by field survey or obtained from available records and should therefore be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations shown, and to further discover and avoid any other utilities not shown hereon which may be affected by the implementation of this plan. The contractor shall contact the utilities underground location service (1-800-424-5555) prior to construction. The owner or his representative shall be immediately contacted if a utility conflict exists.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
GRADING GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 600-1

EFFECTIVE DATE: JANUARY 2026

GRADING GENERAL NOTES

6. The temporary erosion/sedimentation control facilities shall be constructed prior to any grading or extensive land clearing in accordance with the approved Temporary Erosion/Sedimentation Control plans. These facilities must be satisfactorily maintained until construction and landscaping is completed and the potential for on-site erosion has passed.

7. All rockeries shall conform with the City of Mountlake Terrace D&S No. 610.

8. All earthwork under paving shall be compacted to minimum 95% dry optimum density per ASTM D-1557, or latest revision, (modified Proctor).

9. Unless otherwise noted, all elevations shown in paved areas on the plans are top of paving.

10. See Temporary Erosion/Sedimentation Control General Notes for acceptable erosion control measures upon completion of grading.

11. Major exposed graded slopes shown on these plans shall be protected with plastic sheets until such time as the vegetative cover has been established sufficiently to eliminate erosion.

12. Grades shown represent the Engineer's estimate of approximate minimum earthwork, preservation of the maximum number of existing trees, and other grading/soil considerations. The contractor may alter the grades shown to better achieve these results, provided that any alteration is subject to the prior approval in writing by the engineer, owner, and the appropriate departments of the City of Mountlake Terrace.

13. The site work improvements shall be constructed according to the approved plans which are on file in the Engineering Department. Any deviation from the approved plans will require approval from the proper agency.

14. The contractor shall keep parking lots and streets clean at all times by sweeping. Washing of any streets, parking lots or driveways to remove construction related dirt is strictly forbidden and subject to fines.

15. All parking and driveway areas to have positive drainage to collection, conveyance systems or overland sheet drain areas at a minimum of one percent slope. Plan details shall not supersede this requirement.

16. Open-cut road crossings for utility trenches on existing traveled roadways shall be backfilled in accordance with City of Mountlake Terrace D&S Nos. 162, 163, and/or 164 and mechanically compacted. Cuts into the existing asphalt shall be neat line cut with saw in a continuous line. A temporary cold mix patch must be placed immediately after backfill and compaction. A permanent hot mix patch shall be placed within 30 days and shall be the thickness of the original asphalt, or three (3) inches, whichever is greater. A 2” thick ATB temporary patch may be used in lieu of a cold mix patch.

17. Extruded cement concrete curbs around asphalt edges shall be constructed in accordance with City of Mountlake Terrace Standard Plan No. 135.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
GRADING GENERAL NOTES

SCALE: N.T.S.

D&S Drawing No. 600-2

EFFECTIVE DATE: JANUARY 2026

GRADING GENERAL NOTES

18. Existing vegetation shall be retained in areas where grading is unnecessary.

19. All recommendations made by the geotechnical engineer(s) up to now, or at any time in the future, including, but not limited to recommendations for construction techniques, construction schedule, and control of storm water runoff throughout the project completion shall be followed. Whomever constructs site improvements shall retain a licensed geotechnical engineer to oversee and advise during construction and site grading to assure that all geotechnical recommendations are adhered to.

20. The Applicant is responsible for providing special inspection and compaction certification for the building pads, utility trenches, retaining walls and detention vault/tank backfill.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

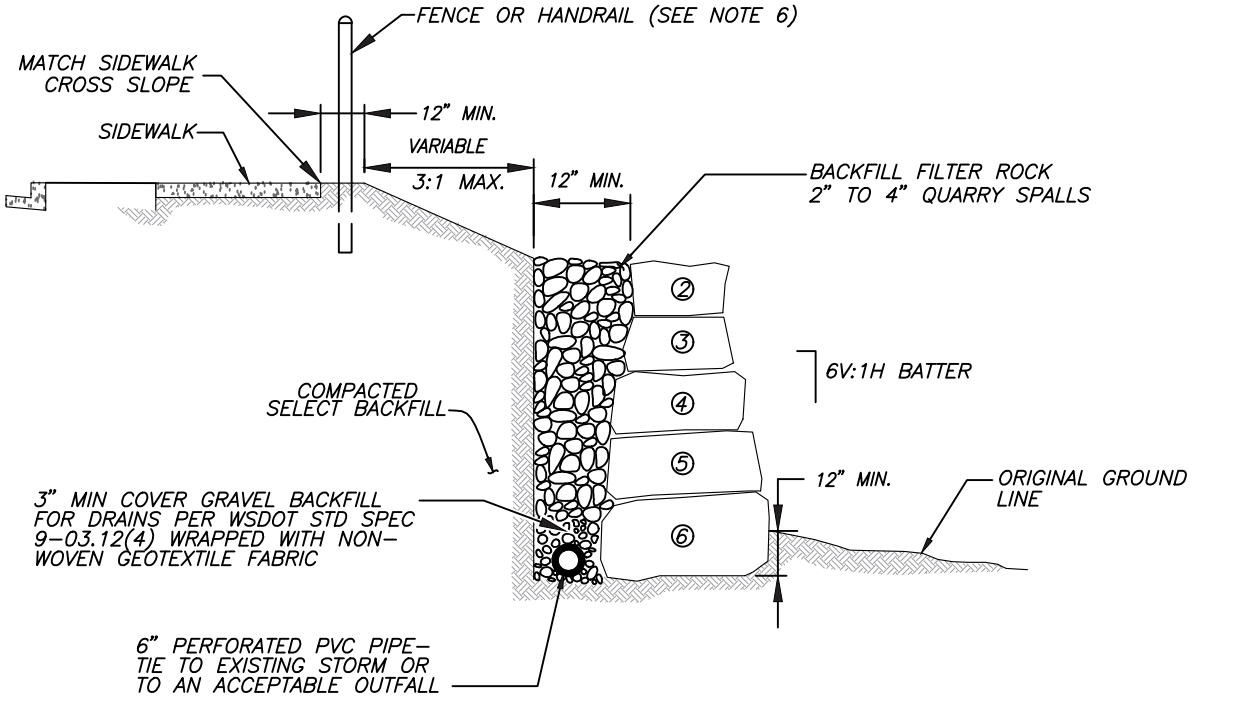
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
GRADING GENERAL NOTES

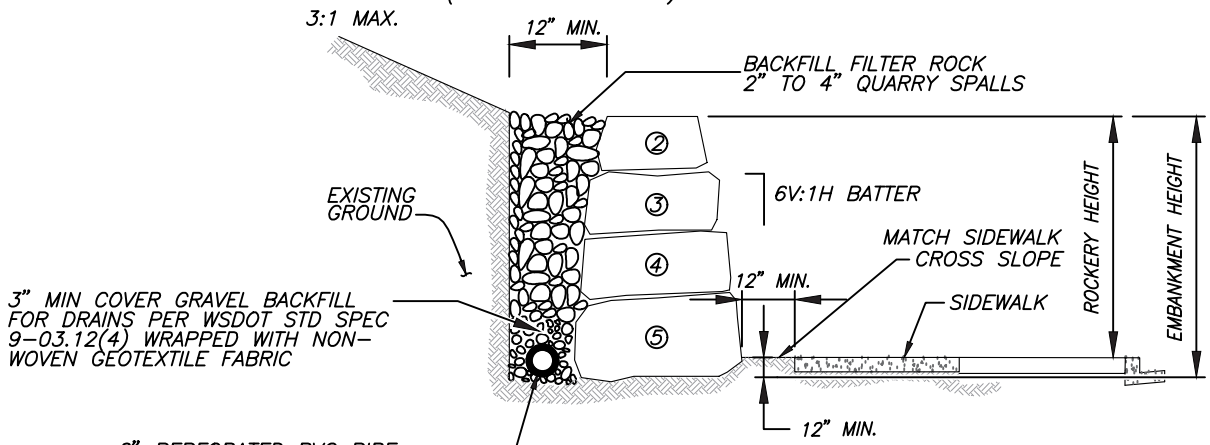
SCALE: N.T.S.

D&S Drawing No.
600-3

EFFECTIVE DATE:
JANUARY 2026



FILL ROCKERY
(SEE NOTE 5 BELOW)



CUT ROCKERY
(SEE NOTE 5 BELOW)

NOTES:

1. THE LONG DIMENSION OF THE ROCK SHALL EXTEND INTO EARTH TO PROVIDE MAXIMUM STABILITY.
2. EACH ROCK SHALL BE PLACED SO AS TO BEAR ON AT LEAST TWO ROCKS BELOW IT.
3. FIVE OR SIX MAN ROCKS SHALL BE USED AS A BASE FOR ALL ROCK FACES OVER SIX FEET IN HEIGHT.
4. PER WSDOT STD. SPEC. 9-13.7(1)
   - (2) MAN ROCK - 200 TO 700 POUNDS
   - (3) MAN ROCK - 700 TO 2000 POUNDS
   - (4) MAN ROCK - 2000 TO 4000 POUNDS
   - (5) MAN ROCK - 4000 TO 6000 POUNDS
   - (6) MAN ROCK - 6000 TO 8000 POUNDS
5. ALL FILL AND ALL CUT ROCKERIES OVER 4 FEET IN HEIGHT MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER WHOSE MAIN FIELD OF PRACTICE IS GEOTECHNICAL OR STRUCTURAL ENGINEERING. THE ENGINEER MUST CERTIFY TO THE CITY THAT THE ROCKERY WAS INSTALLED IN ACCORDANCE WITH ASSOCIATED ROCKERY CONTRACTORS (ARC) ROCKERY STANDARDS. A BUILDING PERMIT IS ALSO REQUIRED FOR ALL ROCKERIES OVER 4 FEET IN HEIGHT.
6. 4' TALL FENCE OR HANDRAIL REQUIRED WHERE ROCKERY HEIGHT EXCEEDS 30".

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

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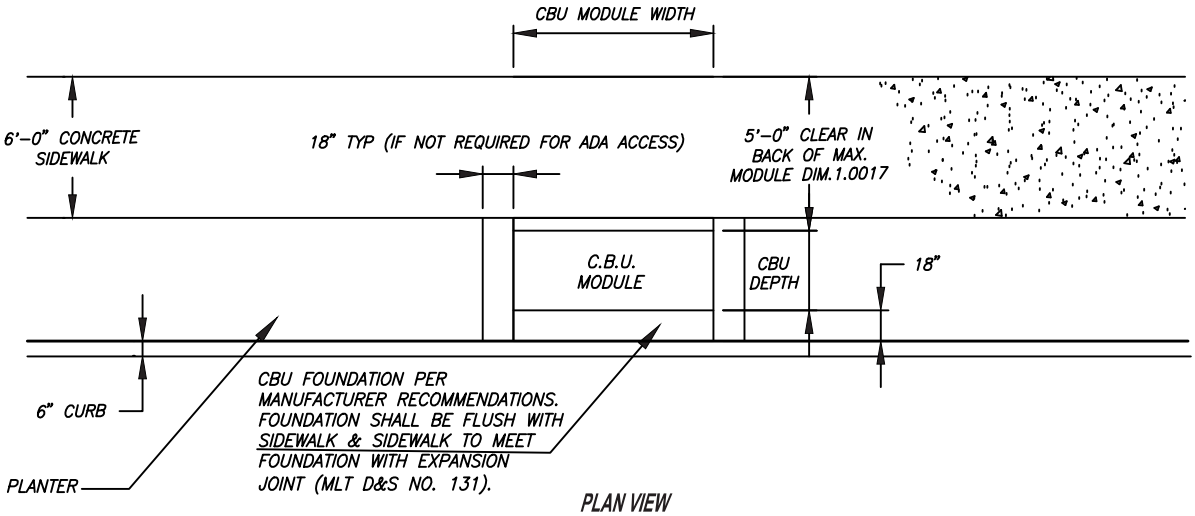
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: ROCKERY DETAIL

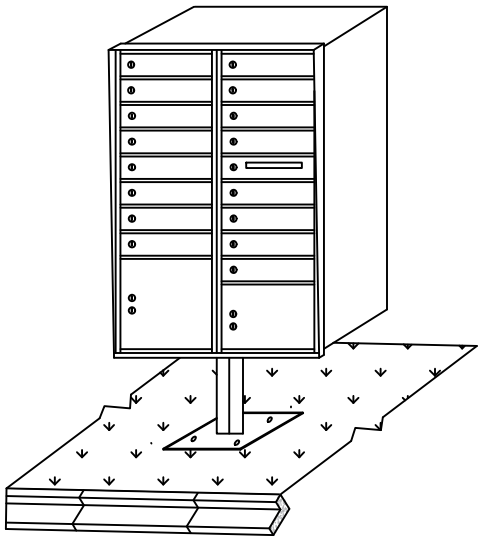
SCALE: N.T.S.

D&S Drawing No. 610

EFFECTIVE DATE: JUNE, 2024



PLAN VIEW



CLUSTER BOX UNIT

DETAIL NOTES:

1. C.B.U. NOT TO BE INSTALLED ADJACENT TO TRAVEL LANE ON ARTERIALS.
2. CONTACT POSTAL SERVICE FOR INSTALLATION INSTRUCTIONS FOR N.D.C.B.U.
3. MAILBOXES SHALL BE LOCATED OUTSIDE OF SIGHT AREA TRIANGLES (MLT D&S NO. 582).
4. MAILBOXES ARE ENCOURAGED TO BE CLOSE TO FIRE HYDRANT.
5. MAILBOXES ARE ENCOURAGED TO BE NEAR LIGHT POLE.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

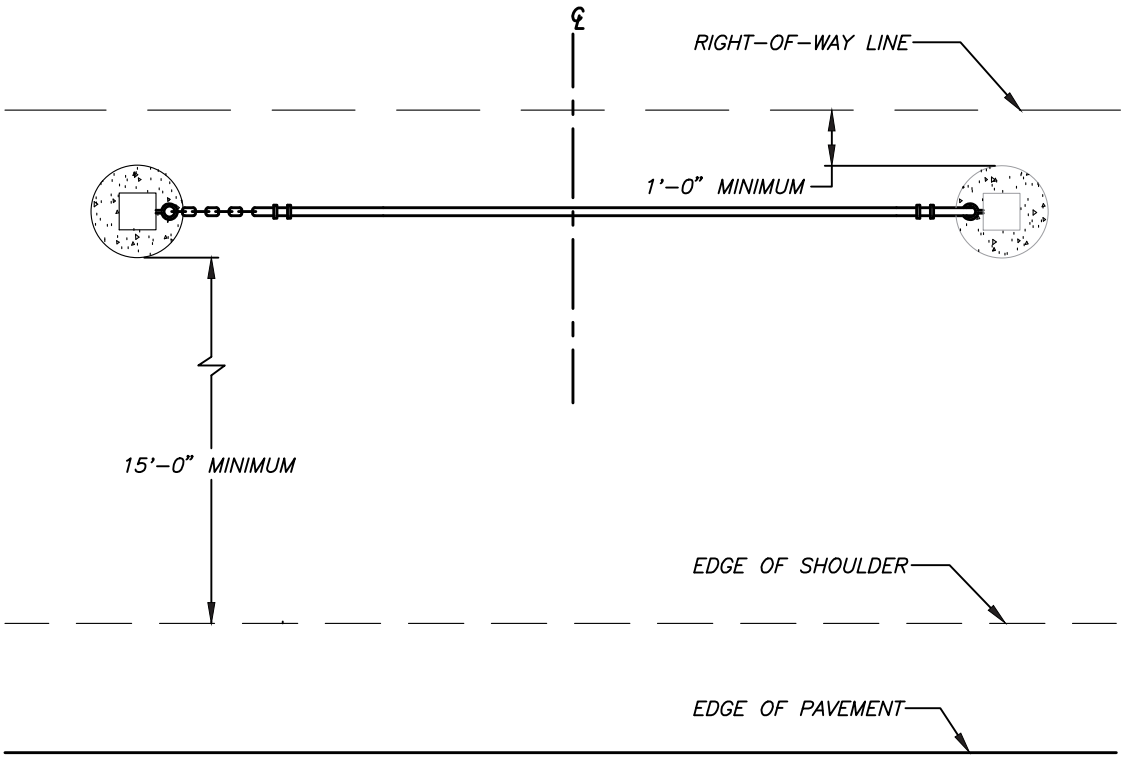
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
CBU MAILBOX STAND (RESIDENTIAL)

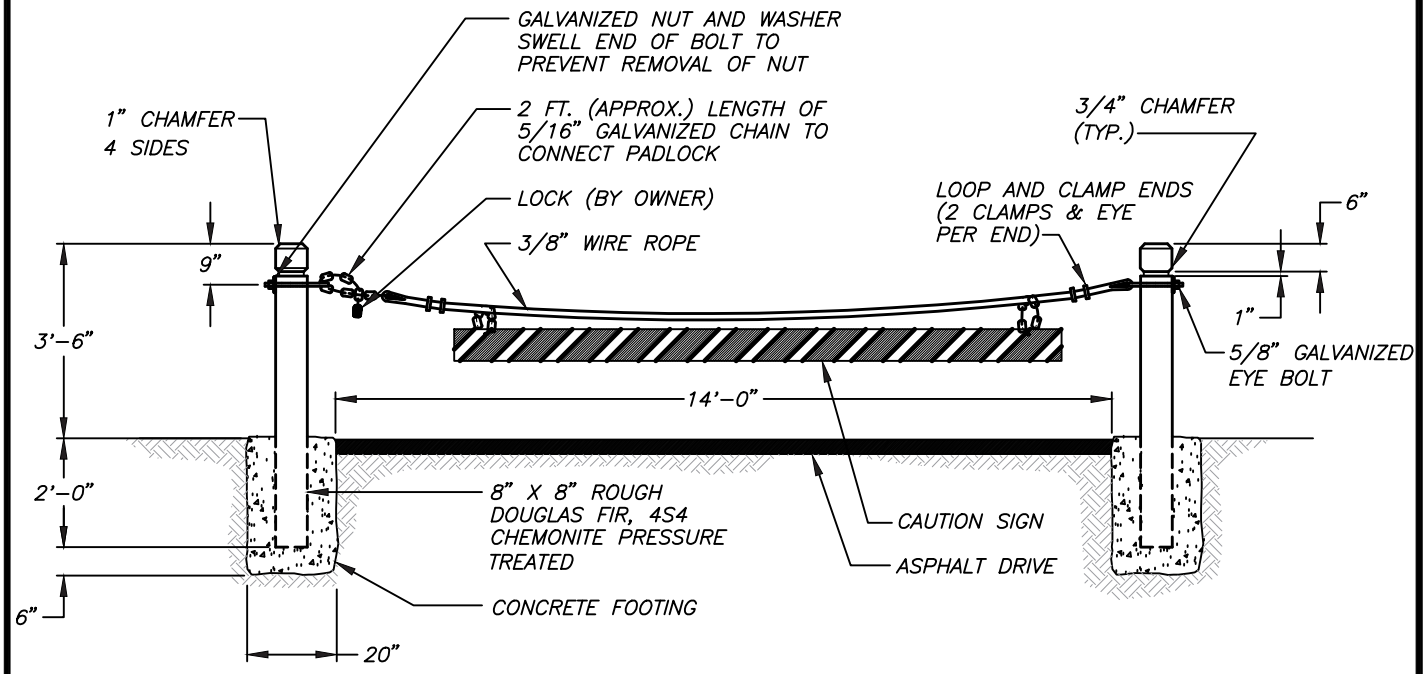
SCALE: N.T.S.

D&S Drawing No.
611

EFFECTIVE DATE:
JUNE, 2024



PLAN VIEW



ELEVATION VIEW

NOTES:

1. POSTS FOR ACCESS CONTROL GATES SHALL BE TREATED TIMBER POSTS OR GALVANIZED STEEL POSTS AS USED FOR GUARDRAIL. ONLY ONE TYPE OF POST SHALL BE USED ON ANY ONE PROJECT.
2. THE LOCK (TO BE FURNISHED BY OTHERS) WILL BE PLACED ON THE SIDE OF THE GATE WHICH WILL BE OF THE MOST CONVENIENCE TO THOSE WHO USE THE GATE.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

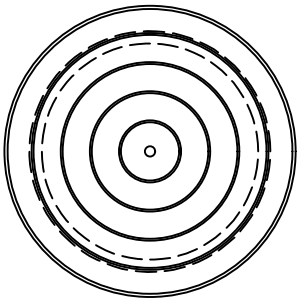
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
ACCESS CONTROL GATE

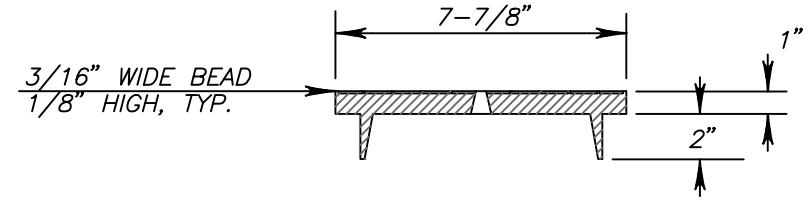
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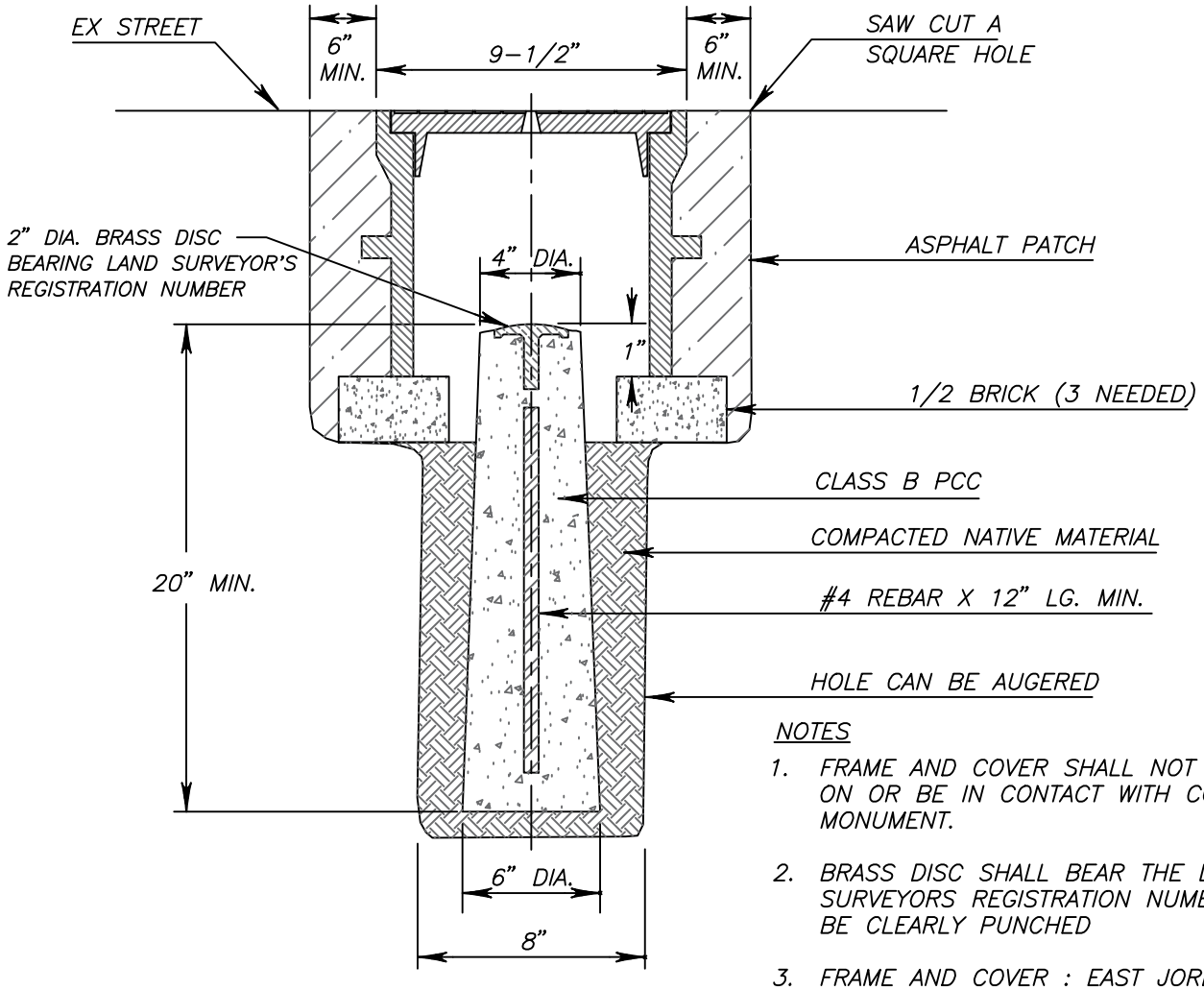
D&S Drawing No.
612

EFFECTIVE DATE:
JUNE, 2024



PLAN





NOTES

1. FRAME AND COVER SHALL NOT REST ON OR BE IN CONTACT WITH CONCRETE MONUMENT.
2. BRASS DISC SHALL BEAR THE LAND SURVEYORS REGISTRATION NUMBER AND BE CLEARLY PUNCHED
3. FRAME AND COVER : EAST JORDAN IRON WORKS #369001 W/ CONCRETE MONUMENT OR EQUAL.

ALTERATION OF THIS DRAWING IS PROHIBITED. ANY APPROVAL ON AN ALTERED DRAWING IS UNAUTHORIZED AND VOID.

APPROVED BY
Richard Meredith, PE, RTOE

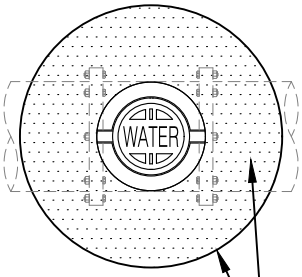
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE: SURVEY CONTROL MONUMENT

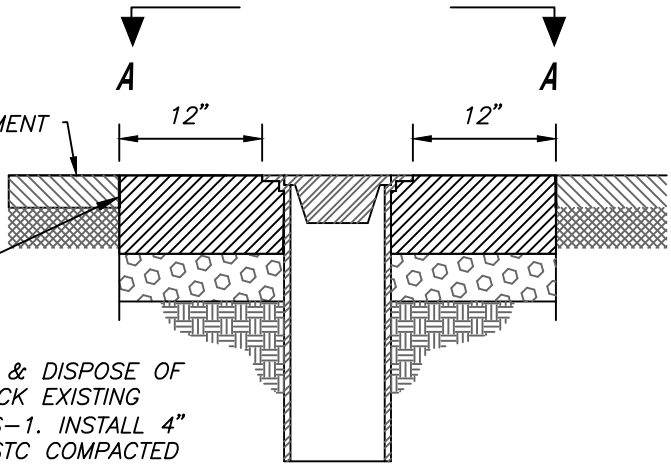
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D&S Drawing No. 613

EFFECTIVE DATE: JUNE, 2024

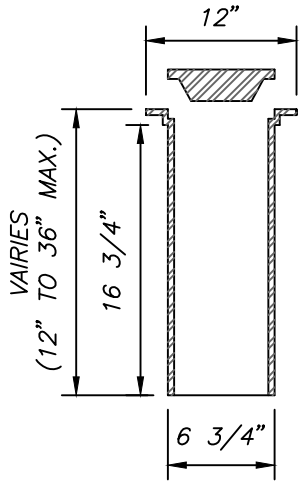


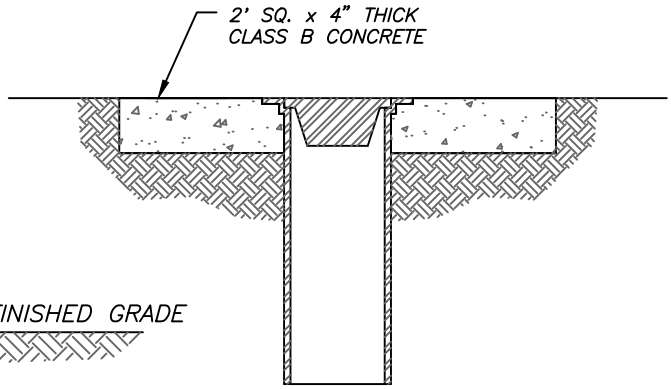
SECTION A-A



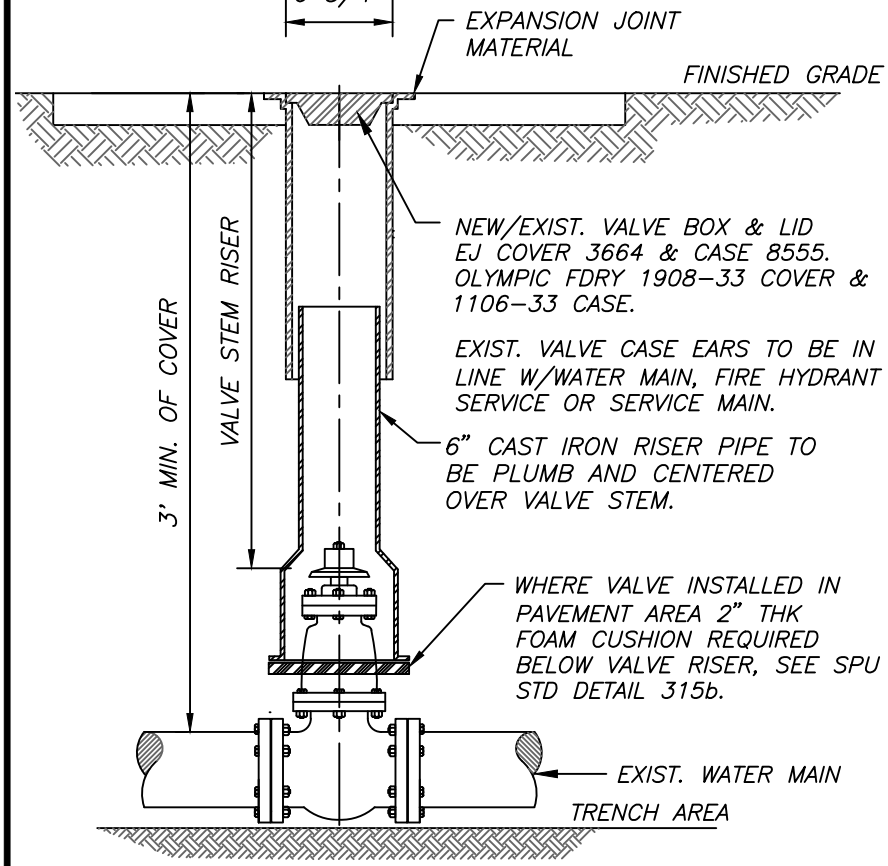
SAWCUT, REMOVE & DISPOSE OF EXISTING ACP. TACK EXISTING EDGE ACP W/CSS-1. INSTALL 4" THICKNESS OF CSTC COMPACTED TO 95% MAX. DENSITY & 6" THICKNESS HMA IN 3 LIFTS (2" PER LIFT) COMPACTED TO 92% OF MAX. DENSITY. SEAL JOINT W/AR-4000, TYP.

INSIDE PAVED ROADWAY GRADE ADJUSTMENT





OUTSIDE PAVED AREAS



DETAIL NOTES:

1. EXISTING MONUMENT CASES SHALL BE ADJUSTED PER THIS DETAIL.
2. SURVEY MONUMENT OR MONUMENT BRASS NOT SHOWN IN THIS DETAIL.
3. EXISTING SEWER CLEANOUT RIMS SHALL BE ADJUSTED PER THIS DETAIL.
4. CASTINGS SHALL NOT BE ADJUSTED TO FINISH GRADE UNTIL PAVING IS COMPLETE.

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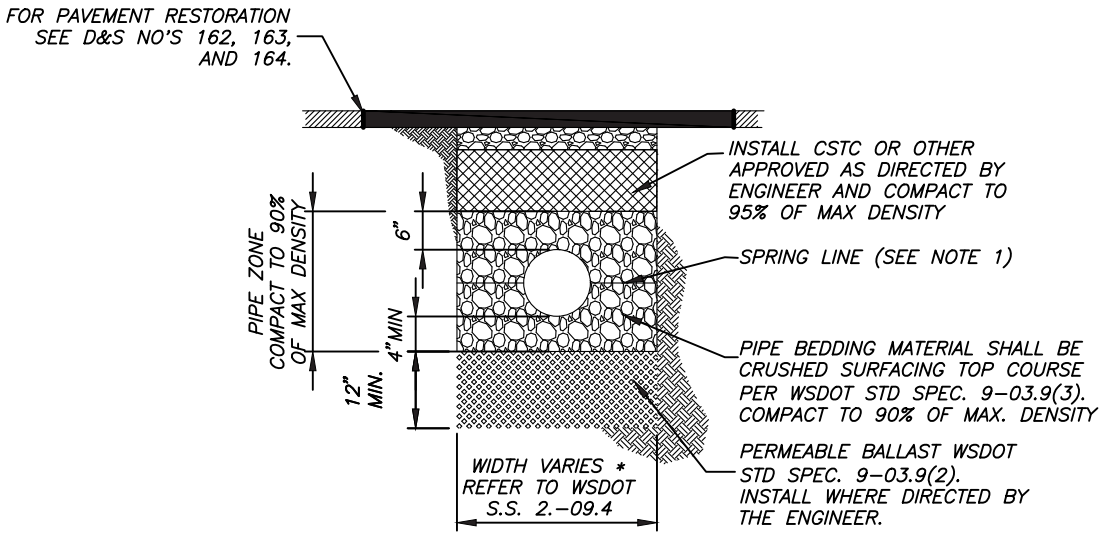
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
WATER VALVE BOX, CLEANOUT, & MONUMENT ADJUSTMENT DETAIL

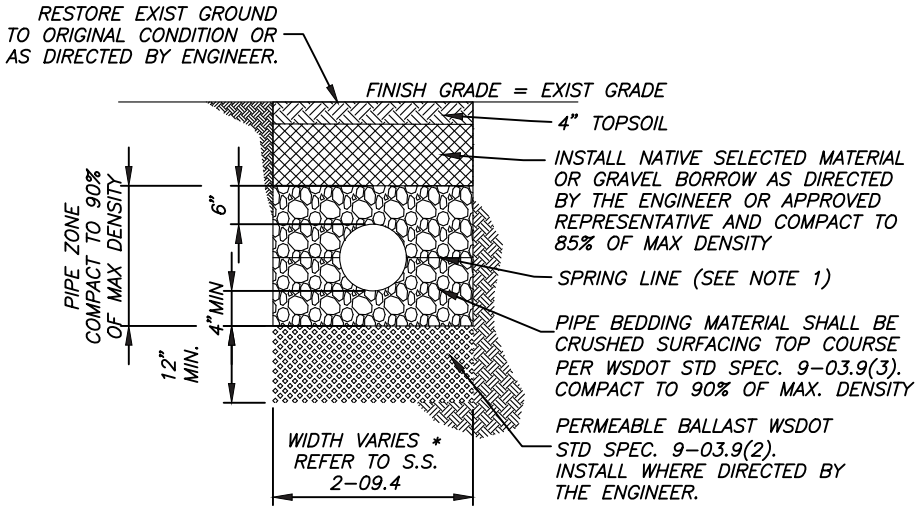
SCALE: N.T.S.

D&S Drawing No.
614

EFFECTIVE DATE:
JANUARY 2026



PAVED AREA



UNPAVED AREA

* STORM SEWER & SANITARY SEWER:
I.D. + 30" (15" ø AND UNDER)
I.D. X 1.5 + 18" (OVER 15" ø)

* WATER:
NOT TO EXCEED 30" MAX OR
O.D. X 1.5 + 18" (WHICHEVER IS GREATER)

NOTES:

1. PIPE BEDDING FOR PVC AND/OR HDPE PIPE SHALL BE AS SHOWN. BEDDING FOR DI PIPE SHALL BE UP TO SPRING LINE
2. PROVIDE UNIFORM SUPPORT UNDER BARREL.
3. HAND TAMP UNDER HAUNCHES.
4. SEE SECTION 2-09.4 WSDOT STANDARD SPECIFICATIONS FOR TRENCH WIDTH AND TRENCHING OPTIONS.
5. NATIVE MATERIAL FOR TRENCH BACKFILL SHALL BE AS SPECIFIED IN SECTION 7-08.3(3) OF THE WSDOT STANDARD SPECIFICATIONS.
6. FOR ASPHALT DRIVEWAYS:
   PAVE HMA TO MATCH EXISTING ACP (2" MIN) ON 2" THICK (MIN) OF CSTC COMPACTED TO 95% OF MAX DENSITY.
7. GRAVEL BORROW FOR TRENCH BACKFILL SHALL BE AS SPECIFIED IN SECTION 9-03.14(1) OF THE WSDOT STANDARD SPECIFICATIONS.

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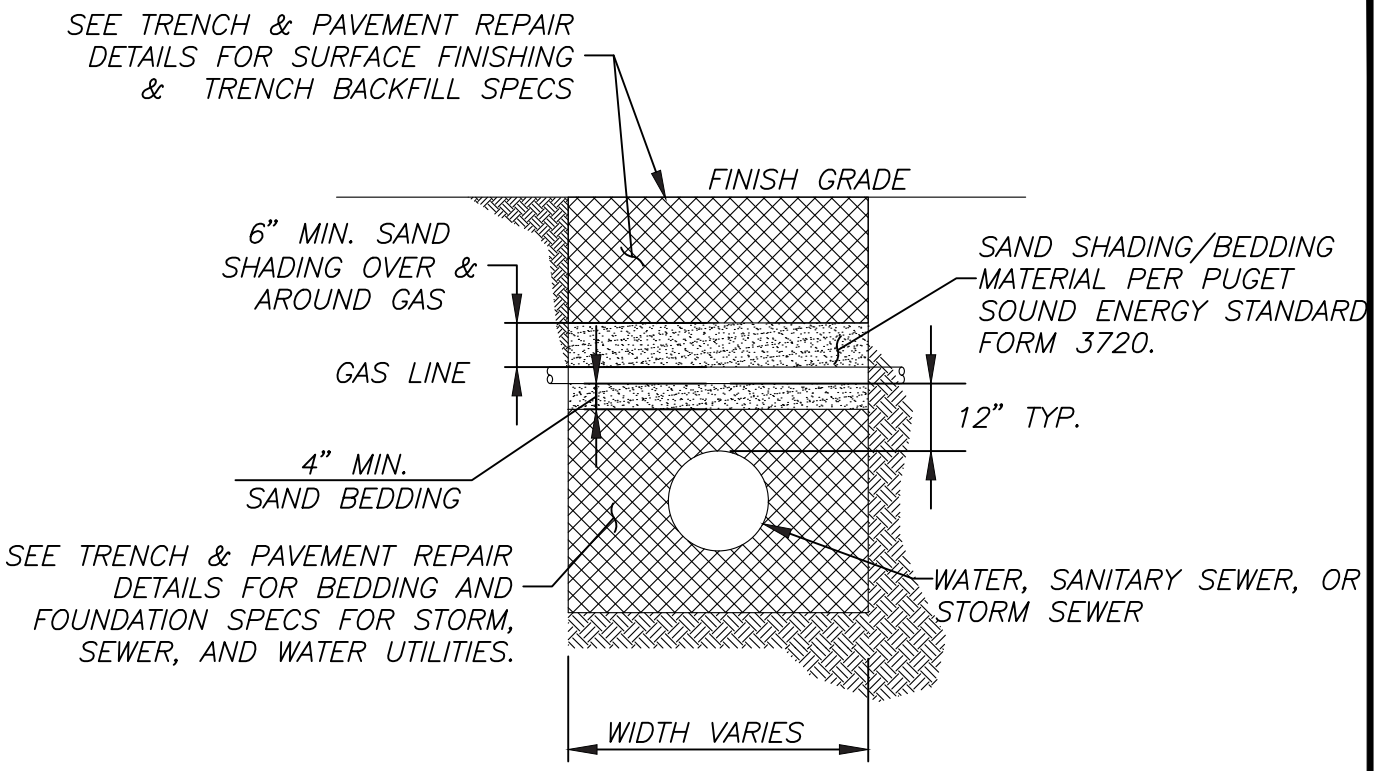
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
TYPICAL PIPE BEDDING TRENCH DETAIL

SCALE: N.T.S.

D&S Drawing No.
615

EFFECTIVE DATE:
JUNE, 2024



NOTES:

1. PIPE BEDDING FOR GAS CROSSINGS WITH SANITARY SEWER, STORM SEWER AND WATER MAINS SHALL BE AS SHOWN – 4" UNDER AND 6" OVER AND AROUND EXISTING GAS PIPE.
2. REFER TO PSE STANDARD FORM 3720, "PREVENTING DAMAGE TO NATURAL GAS PIPELINES IN CONSTRUCTION ZONES" FOR ADDITIONAL INFORMATION AS NEEDED.

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APPROVED BY
Richard Meredith, PE, RTOE

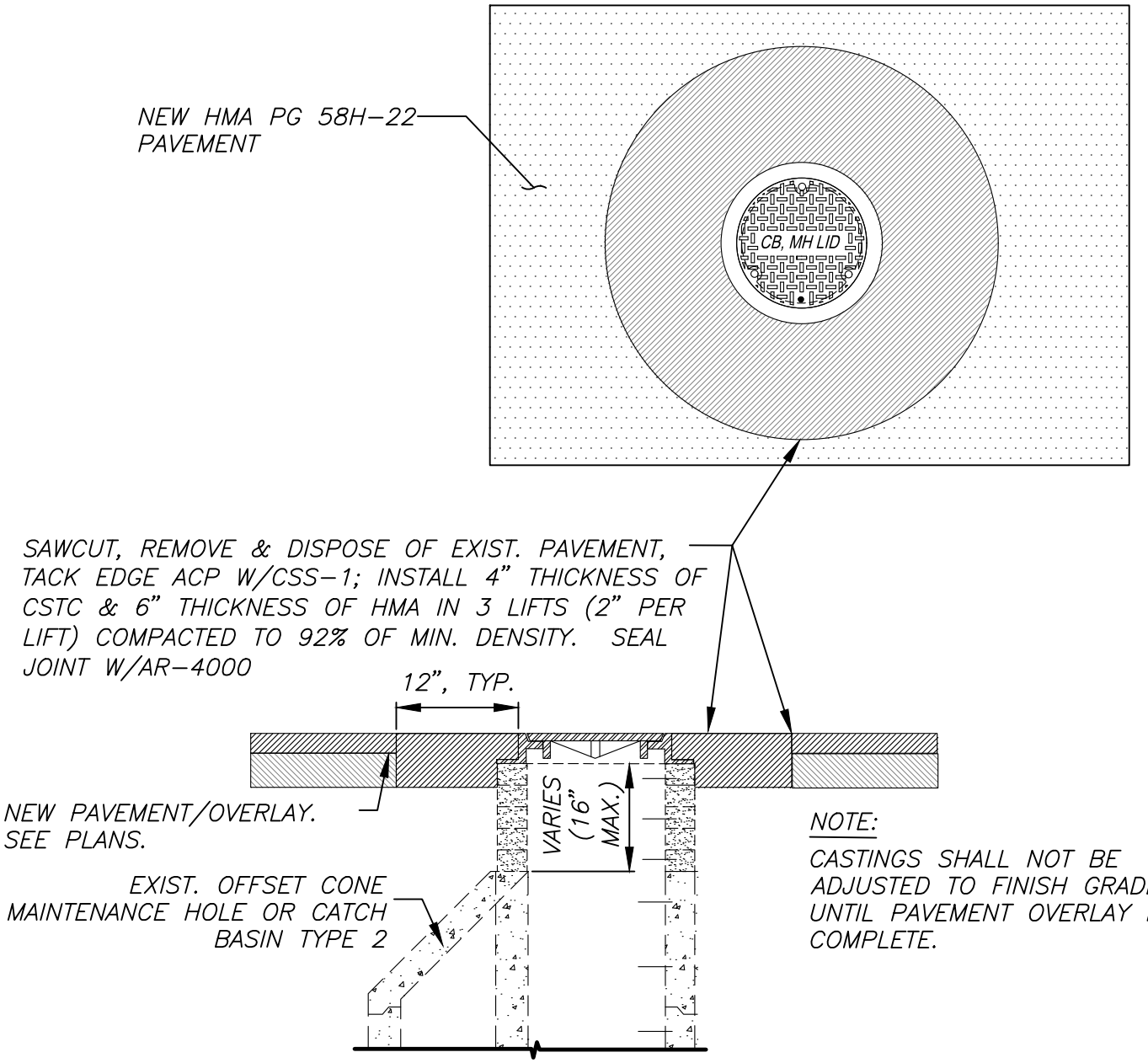
CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
GAS CROSSING IN VICINITY OF PUBLIC UTILITIES

SCALE: N.T.S.

D&S Drawing No.
617

EFFECTIVE DATE:
JUNE, 2024



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Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
MAINTENANCE HOLE AND CATCHBASIN ADJUSTMENT DETAIL FOR OVERLAY

SCALE: N.T.S.

D&S Drawing No.
618

EFFECTIVE DATE:
JANUARY 2026

APPENDIX A

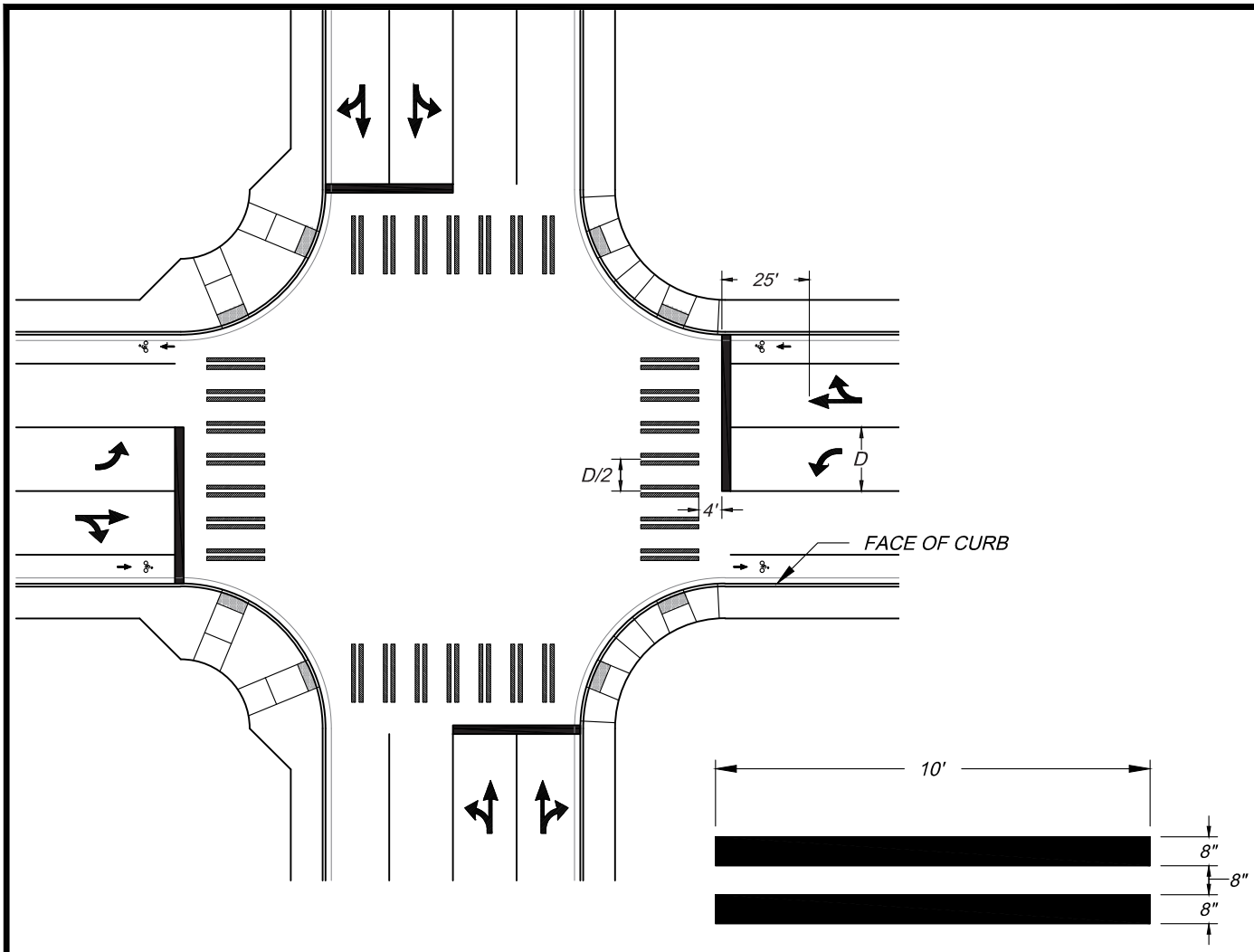
NOTATIONS AND DEFINITIONS

NOTATION AND DEFINITIONS

NOTATION	DEFINITION
AASHTO	American Association of State Highway and Transportation Officials
AC	Acres
ACP	Asphalt Concrete Pavement
ANSI	American National Standards Institute
APWA	American Public Works Association
ASTM	American Society for Testing Materials
ATB	Asphalt Treated Base
AWWA	American Water Works Association
BIGD	Below Inlet Grate Device
BSM	Bioretention Soil Mix
C&G	Curb and Gutter
CDF	Controlled Density Fill
CJ	Contraction Joint
CL	Center Line
CL3000	Class 3000
CL 52	Class 52
CONC	Concrete
CTR	Center
CSTC	Crushed Surfacing Top Course
D&S	Design and Specifications
DCVA	Double Check Valve Assembly
DI	Ductile Iron
DIM	Dimension
DIP	Ductile Iron Pipe
EJ	Expansion Joint
EL	Elevation
EX	Existing
F'c	Compressive Strength of Concrete (psi)
FL	Flange
FT	Foot or Feet
GA	Gauge
GALV.	Galvanized
HMA	Hot Mix Asphalt
ID	Inside Diameter
IE	Invert Elevation
MAX.	Maximum
MIN.	Minimum
MIP	Male Iron Pipe
MJ	Mechanical Joint
MLT	Mountlake Terrace
MON.	Survey Monument
MTMC	Mountlake Terrace Municipal Code
NO.	Number
O.C.	On Center
OD	Outside Diameter
PC	Point of Curve
PERF	Perforated
PG	Preformance Grade
PL	Property Line
PT	Point of Tangent
PVC	Polyvinyl Chloride
PSF	Pounds Per Square Foot

NOTATION AND DEFINITIONS

NOTATION	DEFINITION
R	Radius
ROW	Right-of-Way
RRFB	Rectangular Rapid Flashing Beacon
SCH	Schedule
SPEC	Specification
SS	Side Sewer
STD	Standard
SDR	Standard Dimension Ratio
SQ	Square
S.S.	Standard Specifications
TMP	Transportation Master Plan
TYP.	Typical
ULFM	Underwriters Laboratories and Factory Mutual
UPC	Uniform Plumbing Code
W.S.	Water Systems
WSDOT	Washington State Department of Transportation



GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE PRE-MARKED AND APPROVED BY THE ENGINEER PRIOR TO PERMANENT INSTALLATION.
2. CROSSWALKS SHALL ALIGN WITH CURB RAMPS.
3. INSIDE LANE OR TURN LANE STOP BAR SHALL BE PLACED PER APPROVED TURN ANALYSIS WITH DESIGN VEHICLE.
4. INSIDE TURN LANE MAY USE TWO TRAFFIC ARROWS PER WSDOT STD. PLAN M-3.10.

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Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
CROSSWALK & STOP BAR DELINEATION FOR STOP OR SIGNALIZED INTERSECTIONS

SCALE: N.T.S.

D&S Drawing No.
523

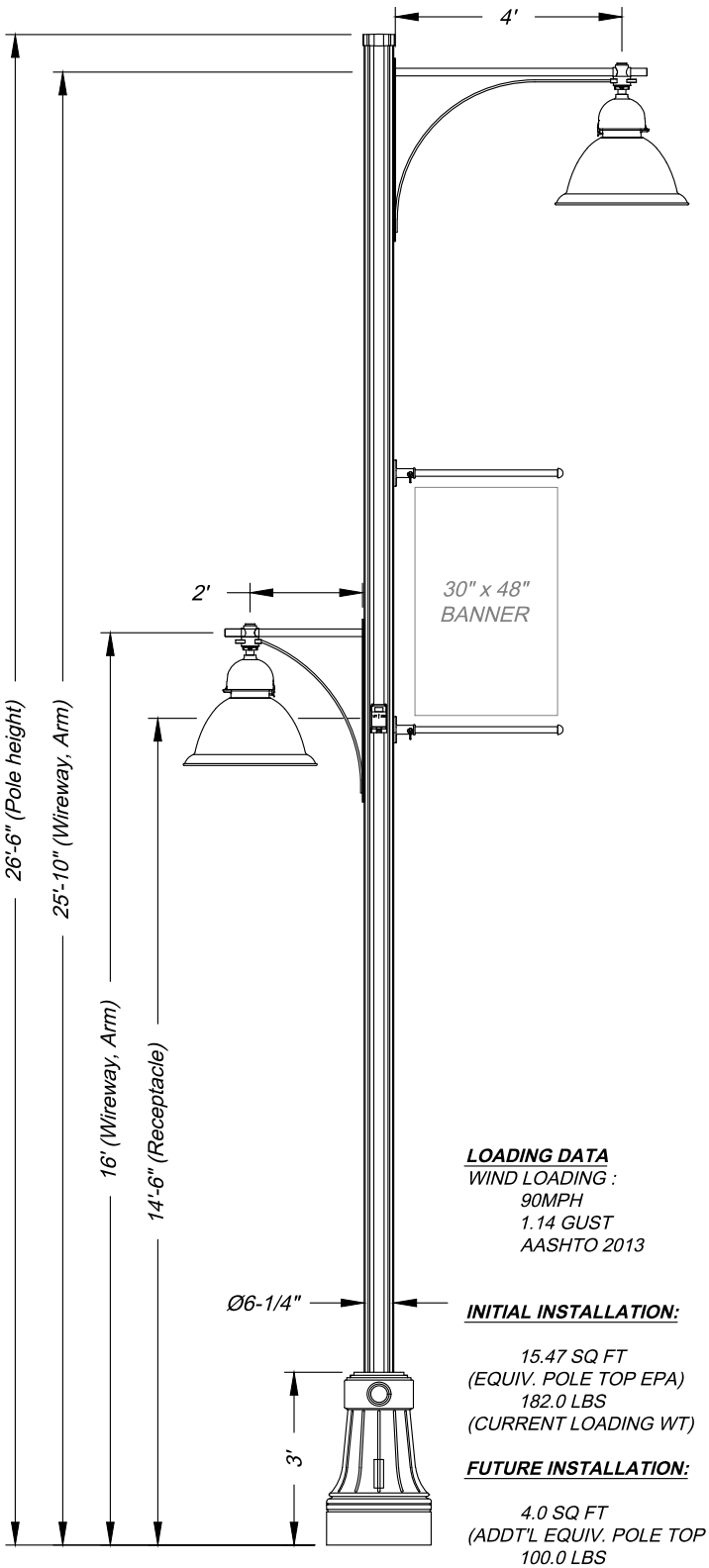
EFFECTIVE DATE:
JUNE, 2024

SiteLink Series Pole

Aluminum, SiteLink Straight ST2 Shaft
Tenon: Pole Cap, Finish: Holophane Bronze
(2)Wireway Drillings for SLAG Arms
(1)GFI Receptacle with Small, In-Use Weatherproof Cover
(2)SL 30" Banner Arms, Ø1" Pipe, Half-Sphere finial
(1)SL Clamshell Base w/Transition Collar
(2)Gasket & Grommet Kits
(1)Set 1"x36" Anchor Bolts

SL Aspen Grove Roadway Arms

(1)48" long, QSM Hub for Single Fixture, Bronze
(1)2 4" long, QSM Hub for Single Fixture, Bronze

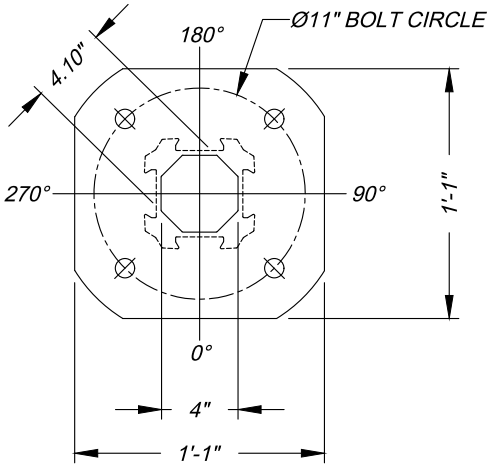


Accessory Mounting Detail

	Orientation	Height
RECEPTACLE	90°	14'-6"
UPPER ARM WIRE WAY	180°	25'-10"
LOWER ARM WIRE WAY	0°	16'-0"
UPPER BANNER ARM*	180°	--
LOWER BANNER ARM*	180°	--

* FIELD INSTALLED

Anchorage Detail



LOADING DATA
WIND LOADING :
90MPH
1.14 GUST
AASHTO 2013

INITIAL INSTALLATION:

15.47 SQ FT
(EQUIV. POLE TOP EPA)
182.0 LBS
(CURRENT LOADING WT)

FUTURE INSTALLATION:

4.0 SQ FT
(ADDT'L EQUIV. POLE TOP EPA)
100.0 LBS
(ADDT'L LOADING CAPACITY)

CUSTOMER NOTES:
1. *CUSTOMER SHALL VERIFY ACCESSORY LOCATIONS IN TABLE AND PROVIDE PRIOR TO PRODUCTION.*
2. *WINDLOADING PROVIDED BASED ON ASSEMBLY SHOWN PLUS (2)GBLF FIXTURES. BANNER WAS LOADED AT WORST CASE. ANY CHANGES TO LOADED SHALL BE VERIFIED BY HOLOPHANE ENGINEERING.*
3. ***ANCHORAGE DETAIL PROVIDED FOR VISUAL ONLY - DO NOT USE TO SET ANCHOR BOLTS.***
4. *SIGNED APPROVAL TO ACCOMPANY PO.*

Catalog #'s :
Pole: SLA 2606 ST2 BP PLN BZ KPXXXY KPXXXY RPXXXY
RFD335130
Anchor Bolts: AB-27-4
Clamshell Base: AT22CSB CA RC7.25 BZ
Banner Arms: (2)BA 30IN 1A BO ST2 HB 100P BZ
T-Collar: TCST2 BZ
Receptacle: FGIUS BZ
Gasket/Grommet Kit: (2)SLGAGMKIT
Crossarm: SLAG 48IN 1A QSM ST2 BZ
Mid-Post Crossarm: SLAG 24IN 1A QSM ST2 BZ
Upper Fixture: GBLF3 P50 40K MVOLT ASY QSM BZ AO
Lower Fixture: GBLF3 P40 40K MVOLT PTH QSM BZ AO

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CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STREET LIGHT STANDARD
TOWN CENTER COMBINATION

SCALE: N.T.S.

D&S Drawing No.
543

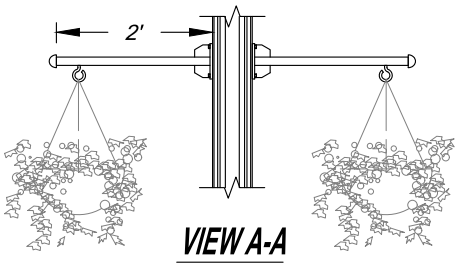
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SiteLink Series Pole

Aluminum, ST2 Shaft

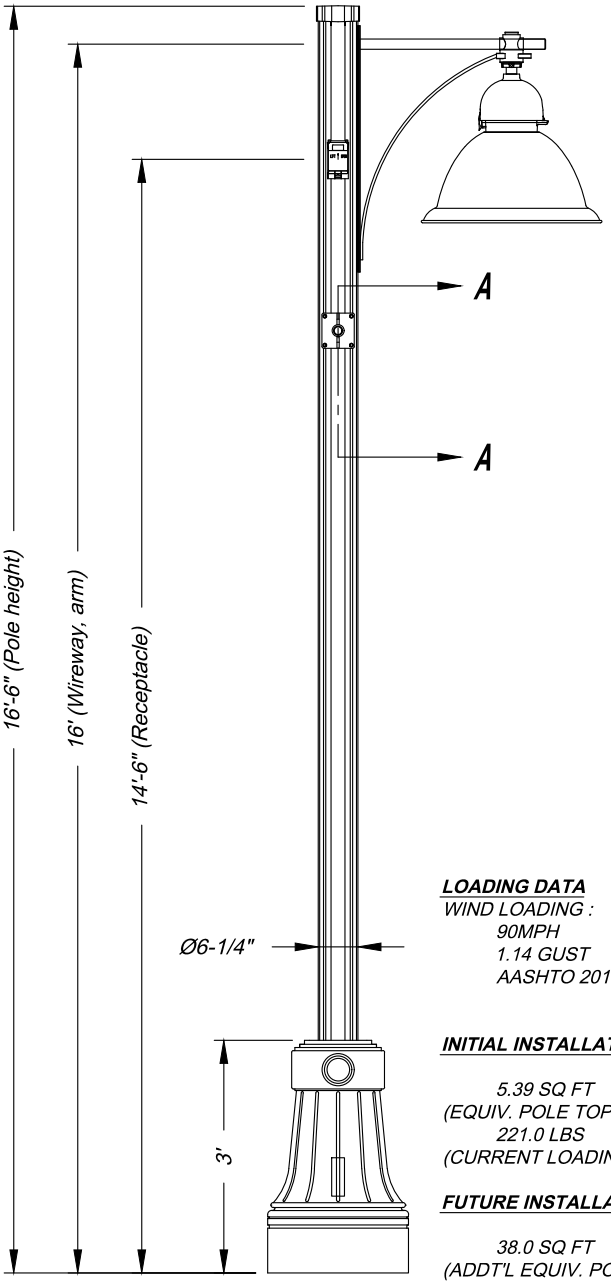
Holophane Bronze finish

*Please see sales rep for standard cut sheet.



VIEW A-A

FLOWER POTS BY OWNER

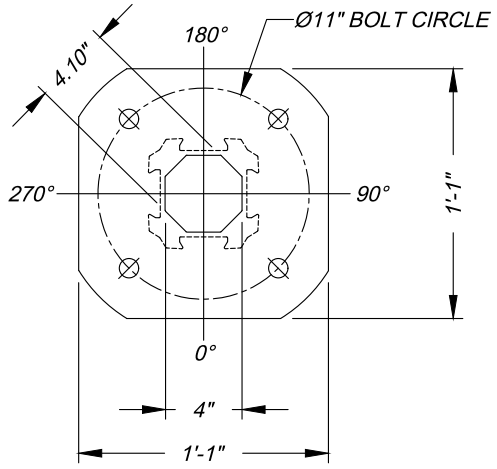


Accessory Mounting Detail

	Orientation	Height
RECEPTACLE	90°	14'-6"
ARM WIRE WAY	0°	16'-0"
BASKET ARM*	90°	12'-0"
BASKET ARM*	270°	12'-0"

* FIELD INSTALLED

Anchorage Detail



LOADING DATA
WIND LOADING :
90MPH
1.14 GUST
AASHTO 2013

INITIAL INSTALLATION:

5.39 SQ FT
(EQUIV. POLE TOP EPA)
221.0 LBS
(CURRENT LOADING WT)

FUTURE INSTALLATION:

38.0 SQ FT
(ADDT'L EQUIV. POLE TOP EPA)
950.0 LBS
(ADDT'L LOADING CAPACITY)

CUSTOMER NOTES:
1. CUSTOMER SHALL VERIFY ACCESSORY LOCATIONS IN TABLE AND PROVIDE PRIOR TO PRODUCTION.
2. WINDLOADING PROVIDED BASED ON ASSEMBLY SHOWN PLUS (2)GBLF FIXTURES. BANNER WAS LOADED AT WORST CASE. ANY CHANGES TO LOADED SHALL BE VERIFIED BY HOLOPHANE ENGINEERING.
3. **ANCHORAGE DETAIL PROVIDED FOR VISUAL ONLY - DO NOT USE TO SET ANCHOR BOLTS.**
4. SIGNED APPROVAL TO ACCOMPANY PO.

Catalog #'s :
Pole: SLA 1606 ST2 BP PLN BZ KPXXXY RPXXXY **RFD335137**
Anchor Bolts: AB-27-4
Crossarm: SLAG 24IN 1A QSM ST2 BZ
Planter Arms: (2)PBA 24IN 1A BO ST2 HB 100P BZ
T-Collar: TCST2 BZ
Clamshell Base: AT22CSB CA RC7.25 BZ
Receptacle: FGIUS BZ
Gasket/Grommet Kit: SLGAGMKIT
Fixture: GBLF3 P40 40K MVOLT PTH QSM BZ AO

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APPROVED BY
Richard Meredith, PE, RTOE

CITY OF MOUNTLAKE TERRACE
ENGINEERING SERVICES DEPARTMENT

D&S DRAWING TITLE:
STREET LIGHT STANDARD
TOWN CENTER PEDESTRIAN

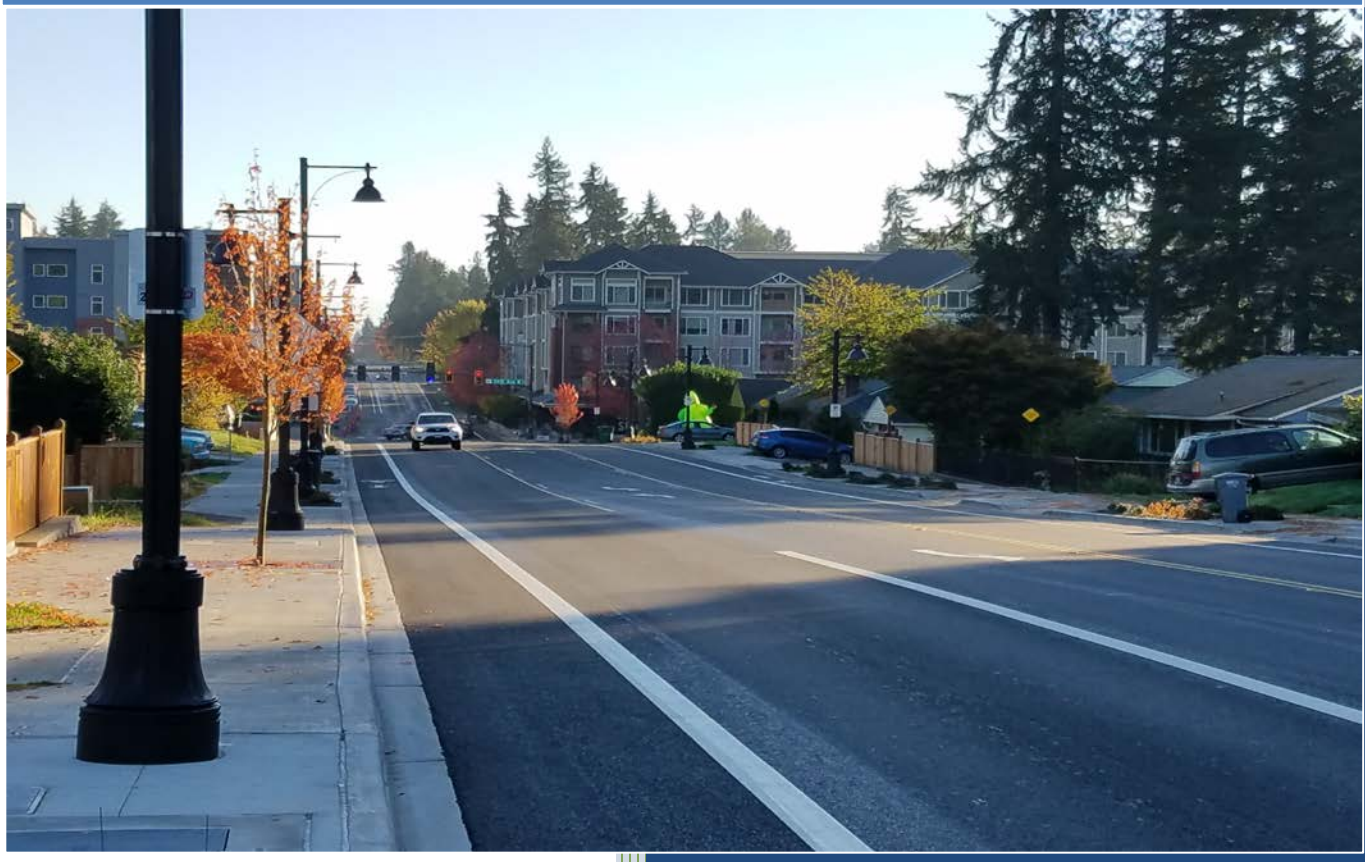
SCALE: N.T.S.

D&S Drawing No.
544

EFFECTIVE DATE:
JUNE, 2024

~~2024~~

~~ENGINEERING DEVELOPMENT MANUAL~~



~~Public Works Department~~

~~City of Mountlake Terrace~~

~~23204 58th Avenue W~~

~~Mountlake Terrace, WA 98043~~

~~2024~~

ENGINEERING DEVELOPMENT MANUAL



2026 EDM and relevant Tables,
Figures, and Appendices:
Effective ~~6/20/2024~~3/5/2026

CITY OF MOUNTLAKE TERRACE

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FOREWORD

This Engineering Development Manual (EDM) provides information to the development community to help with the processes, administration, engineering, and inspection that apply to private development within the City of Mountlake Terrace (City).

This manual has five divisions that provides standards and policies on the following topics:

Division 1: Administration

Division 2: Right-of-Way

Division 3: Stormwater

Division 4: Sanitary Sewer

Division 5: Water

Division 6: Construction and Inspection

Division 7: Permit Close-Out

The appendices contain information that supplements Divisions 1 through ~~6~~7.

DIVISION 1 – ADMINISTRATION

Chapter 1. Introduction

1.1. General Authority

MTMC 19.95.020(1.a) authorizes the preparation, administration, interpretation, and amendment of the Engineering Development Manual (EDM).

The EDM addresses permitting and engineering requirements for site and right-of-way work related to development within the City. While the EDM is geared toward the Applicant/Permittee and the Applicant/Permittee's engineer, ~~it~~the EDM is intended to provide information to a wide group of users.

The EDM sets forth minimum engineering criteria and specifications and supplements the Mountlake Terrace Municipal Code (MTMC); it does not replace or supersede the MTMC. These standards do not substitute for sound engineering design, nor are these standards intended to limit innovative design where equal performance in value, safety, and maintenance can be demonstrated.

The Director of Public Works (Director) reserves the right to substitute more stringent design standards and specifications where special conditions warrant.

The City's website provides access to the EDM, the MTMC, informational handouts, permit applications, and other guidance documents.

- City's website:
  http://www.cityofmlt.com
- Mountlake Terrace Fee Schedules:
  https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules
- Mountlake Terrace Municipal Code:
  https://www.codepublishing.com/WA/MountlakeTerrace
- Mountlake Terrace Permits and Licenses:
  https://www.cityofmlt.com/1993/Permits-Licenses
- Construction Permit Frequently Asked Questions:
  https://www.cityofmlt.com/DocumentCenter/View/21045/Construction-Permit-Frequently-Asked-Questions

1.2. Revising the EDM

The City always accepts public feedback to inform future revisions to the EDM. To share your comments, please ~~use the Online EDM Feedback Form on the City's Engineering Standards webpage:~~send email to ~~https://www.mltwa.gov/???/???.~~engineeringreports@mltwa.gov.

1.3. Contact Information

The contact information in Table 1 is provided as assistance during project planning and development and is not a comprehensive list of contacts.

Table 1. – Contact Information

Community and Economic Development Department 23204 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/169/Community-and-Economic-Development (425) 744-6207	Engineering Services 23204 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/203/Engineering-Services (425) 776-1161
South County Fire 12425 Meridian Avenue S Everett, WA 98208 https://www.southsnofire.org/home (425) 551-1264	Mountlake Terrace Police Department 23250 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/182/Police (425) 407-3999
Natural Gas Purveyor: Puget Sound Energy P.O. Box 91269 Bellevue, WA 98009-9269 https://www.pse.com/ (888) 225-5773	Solid Waste Purveyor: Waste Management NW email: pnwrsservices@wm.com https://www.wmnorthwest.com/mountlaketerrace/index.html (800) 592-9995
Electric Purveyor: Snohomish County PUD PO Box 1107 Everett, WA 98206-1107 https://www.snopud.com/ (425) 783-1000	Electrical Permits: City of Mountlake Terrace 23204 58th Avenue W Mountlake Terrace, WA 98043 https://www.cityofmlt.com/177/Building-Permits (425) 744-6207
Public Works Department 6204 215th Street SW Mountlake Terrace, WA 98043 https://www.cityofmlt.com/333/Public-Works (425) 670-8264	

Chapter 2. Permits

The information in this chapter summarizes the requirements in the MTMC. If there are any conflicts between this EDM and the MTMC, the MTMC shall prevail. Prior to beginning a residential, commercial, or industrial development, or a project requiring construction of or connection to public infrastructure within the City, the Applicant shall prepare and submit a complete permit application, plans, and specifications to the Community and Economic Development Department for review and approval. Permits are also required for the repair, alteration, or addition of connections to public utilities.

An approved permit authorizes the Applicant to proceed in accordance with the terms and conditions of the permit. If the Applicant proceeds in any manner other than as authorized, the City may require the Applicant to correct any work that is not in accordance with the permit, or may require the owner to expose any work to allow inspection. The City may cause the work to be stopped if the work, in the opinion of the City, constitutes a violation of the permit or a hazard to public safety.

2.1. Non-City Agencies

It is the Applicant's responsibility to obtain permits from non-City agencies that may involve work within the right-of-way. Permit plans shall show installation locations as approved by each utility provider.

In addition to non-City utilities, other required permits may be required such as:

A. Washington State Department of Transportation (WSDOT):
    1. Any work on WSDOT right-of-way, within WSDOT's limited access area, or that will be maintained by WSDOT.

B. Washington State Department of Fish and Wildlife (WDFW):
    1. Any work below the Ordinary High-Water Mark (OHWM) of surface waters including intermittent streams (work that uses, diverts, obstructs or changes natural flow or bed of State waters); or
    2. Any work that uses, diverts, obstructs, or changes the natural flow or bed of any of the salt or fresh waters of state requires a Hydraulic Project Approval (HPA)

permit. Download the application for an individual permit, called a Joint Aquatic Resource Permit Application (JARPA), from the WDFW website.

C. Washington State Department of Ecology (Ecology):

1. The National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSWGP) Notice of Intent (NOI) is administered by Ecology. Refer to Ecology's website for information regarding applying for an NOI: https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit.

2.2. Emergency Work

Permits shall be obtained prior to starting any work; except, where repairs or maintenance of an emergency nature are required to be made while the City is closed. In such cases, the application and permit shall be obtained within 48 hours after beginning emergency work per MTMC 19.95.070.C.4.

Chapter 3. Permit Process

This chapter describes how the Applicant and the City work together during the permit process. The Community and Economic Development Permit Services can provide process information related to a specific permit. Contact Community and Economic Development for more information.

3.1. Permit Process

Refer to Table 2, Permit Process Outline for a general outline of the application review process. The outline may be adjusted to meet particular project circumstances. Not all the steps listed below are required for all permits. A description of various elements of the permit process is included in the sections following Table 2.

Table 2. – Permit Process Outline

Activity	Responsible Party
I. Pre-Application Conference: • Schedule a pre-application conference when required (or when desired).	Applicant
II. Project Proposal: • Prepare studies and reports; • Prepare Project Plans	Applicant
III. Submit Application(s): • Only applications meeting the submittal requirements shall be processed. • Refer to the applicable permit submittal checklist for required submittal information and materials. https://www.cityofmlt.com/174/Land-Use-Permits-Approvals https://www.cityofmlt.com/535/Engineering-Construction-Permits https://www.cityofmlt.com/177/Building-Permits	Applicant
IV. Review: • Determine completeness; • Coordinate reviews (for example Fire Department, Planning, Public Works, and Building and Inspection teams); • Approve permit or send a comment letter to designated contact; • Redlined plans may accompany the comment letter.	City

	Activity	Responsible Party
V.	Revision and Re-submittal: • Revise plans per the City's comments; • Submit revised plans and provide revised supporting documents within 180 days; • Submit redlined plans that were provided by the City.	Applicant
VI.	Revision and Re-submittal Review • Coordinate plan review and verify that all comments have been satisfactorily addressed; • Approve permit or send a comment letter to designated contact; • Redlined plans may accompany the comment letter.	City
VII.	Notification: • Notify Applicant's designated contact regarding outstanding items needed for issuance; • Before the permit is issued, all requirements for issuance shall be met. These may include proof of insurance, posting of financial guarantee(s), draft covenants, easements, permits from other agencies, payment of fees, and/or dedications; • When all conditions for issuance are met, and the permit(s) is ready to issue, a representative from Community and Economic Development shall notify the designated contact person that the permit is ready. At this time, Community and Economic Development shall notify the Applicant of fees owed.	City
VIII.	Obtain Permit • Provide outstanding items; • Pay any remaining fees; • Receive the permit.	Applicant
IX.	Pre-Construction Meeting: • Schedule a pre-construction meeting; • Construction may not begin before having a pre-construction meeting.	Applicant
X.	Construction: • Complete all activities identified in the approved plans to the City's satisfaction;	Applicant

	Activity	Responsible Party
	• Notify the City Inspector assigned to the project when elements are ready for inspection.	
XI.	Inspections: • Perform all required inspections including final inspection.	City
XII.	Close-out: • Complete any remaining conditions of the permit; • Record any remaining easements or dedications; • Provide maintenance/monitoring financial guarantee, per MTMC 13.50.020 (D); • Provide as-constructed/record drawings ~~when required~~in accordance chapter 31.3; • Provide Bill of Sale for improvements transferred to City ownership.	Applicant
XIII.	Release Performance Financial Guarantee (if applicable).	City
XIV.	Cancel expired permit applications when applicable. See EDM Section 3.12, Permit Timing and Expiration.	City

3.2. Pre-application Meeting

Not all projects require a pre-application conference, but many projects benefit from this service. See MTMC 18.05.080 for projects that require a pre-application meeting. A pre-application meeting allows the potential Applicant, City representatives, and external agencies an opportunity to discuss a proposed project before a permit application is submitted. The pre-application conference provides the project proponent information regarding permits, permit processes, codes, and standards that apply to the proposed project.

The conference is scheduled at the time the Applicant submits an application for the meeting. Refer to the pre-application conference checklist available in the Permit Center or online at: https://www.cityofmlt.com/DocumentCenter/View/10037/Pre-Application-Conference-Checklist.

3.3. Permit Review

Community and Economic Development shall review permit submittals or coordinate review with other departments and/or external agencies for compliance with applicable standards following the general outline in Table 2, Permit Process Outline and after applicable fees have been paid.

3.4. Plan Approval

Plan approval or issuance does not relieve the Applicant/Permittee, the Applicant/Permittee's engineer, or the Contractor from the responsibility to ensure all facilities are safe and that calculations, plans, specifications, construction drawings and record drawings with as-constructed information are in compliance with accepted engineering practices, this EDM, and applicable federal, state, and local laws and codes. The City Engineer may require corrections, as necessary, to plans and/or specifications to meet applicable requirements.

3.5. Plan Revisions to Issued Permits

To help with plan review on issued permits only, any revisions shall be called out on the plans using "clouds" or some other indicator. The revised plan(s) shall include the revision number and date particular to that plan set.

3.6. Independent Review

Depending on the site conditions and design complexity, the City may determine that reports, such as geotechnical, stream or wetland reports, require independent (third party) review. Third party review is at the Applicant's cost and expense.

3.7. Permit Issuance

Before a permit is issued, all requirements for issuance shall be met. Requirements may include proof of liability insurance, financial guarantees, draft covenants, easements or dedications, permits from other agencies, and/or payment of any outstanding fees. When a permit is ready to be issued, a representative from Community and Economic Development shall notify the designated contact person.

3.8. Pre-construction Meeting

Many projects may require a pre-construction meeting. Depending on the project scope, more than one meeting may be required. Construction may begin only after the required pre-construction meeting(s). The Permittee is responsible for scheduling the pre-construction meeting(s) through the City's permit portal.

3.9. Permit Inspections

A. Inspections are scheduled through the City's Permit Portal. Applicant shall submit an inspection request prior to 3:00 p.m. the day prior to the requested inspection.

B. Inspections are usually performed Monday through Friday, from 8:30 a.m. to 4:00 p.m.

C. Some projects may require special inspections performed by pre-approved third parties.

D. For more information on inspections, refer to EDM Chapter ~~31~~30, Inspection.

3.10. Project Close-out

Close-out requirements are covered in EDM Division 7.

3.11. Permit Timing and Expiration

The following provides general guidelines regarding application and permit expiration. For specific information contact Community and Economic Development or refer to MTMC 13.50.020(F).

A. Issuance Notification:
   Following plan approval, a representative of Community and Economic Development notifies the contact indicated on the permit application that the permit is ready to issue and of any fees owed. Following notification, the Applicant has 180 calendar days to obtain the permit. If a permit is pending issuance for more than 180 calendar days without issuance and the Applicant has not requested an extension, the permit is null and void per MTMC 18.05.090 (E).

B. Issued Permit:
   Permits are valid for the periods specified by ordinance. If the proposed work cannot be completed within the time covered by the permit, the City may grant an extension per MTMC 18.05.090 (E). The Permittee shall submit a written extension request to

Community and Economic Development Permit Services **prior to the expiration date of the issued permit**. The City may assess additional fees for permit extension and inspection.

3.12. Appeals

In the event of a permit denial, the City shall state the reasons for the denial and measures necessary to attain permit approval. The applicant shall have the right to appeal the denial with the Hearing Examiner, in accordance with MTMC 18.05.210.

Chapter 4. Permit Submittals

Checklists with the required submittal materials are available on the City's Engineering Construction Permits website: https://www.cityofmlt.com/535/Engineering-Construction-Permits.

The checklists provide a list of the typical submittal materials. Some items are not applicable to all projects, and the City may request additional submittal materials for some projects. Contact Community and Economic Development with any questions regarding submittal materials.

4.1. Design Professionals

State law requires that certain work be performed by or under the direction of a professional licensed to practice in the State of Washington, including engineering and land surveying.

A. Activities requiring design by a licensed Professional Engineer include:
    1. Nearly all right-of-way design, except simple activities such as installation of a driveway ~~apron~~approach;
    2. Design of treatment facilities, flow control facilities (detention ponds or infiltration basins), structural source control Best Management Practices (BMPs), or drainage conveyance systems; and
    3. Construction Stormwater Pollution Prevention Plans (SWPPPs) that involve engineering calculations.

B. Activities requiring a licensed Land Surveyor include:
    1. Nearly all right-of-way work. The survey work includes setting right-of-way lines, locating conveyance systems and setting elevations, locating curbs and setting curb elevations, locating drainage improvements and recording elevations, and providing as-constructed information on record drawings;
    2. Construction of treatment facilities or flow control facilities (detention ponds or infiltration basins), structural source control BMPs, or drainage conveyance systems to set locations and elevations;
    3. Cuts on slopes steeper than 15 percent require a professional surveyor to set the slope stakes to confirm top and toe of cuts;

4. Survey marks such as property corners, right-of-way lines, subgrade elevations, and slope stakes;
5. Placement, protection, and replacement of survey monuments;
6. When no profile has been established for the streets abutting and leading to a development site, the City may require a survey of the street area by a licensed surveyor for the purpose of establishing the proposed centerline profile and the transition between the right-of-way and on-site;
7. Flood Zone Elevation Certificates require surveyed finished floor elevations to confirm that structures meet the elevations set by the City; and
8. Record drawings with as-constructed (surveyed) information shall be provided for private infrastructure that connects to the City's infrastructure, for public facilities, and for work in the right-of-way.

4.2. Plans and Specifications

Plans shall clearly indicate the location, nature, and extent of the proposed work and shall provide sufficient detail to show that all provisions of the standards and codes are met. Specifications shall accompany the plans if the plans and notes do not adequately describe the proposed work and materials.

4.3. Survey

A. Surveys shall meet the following requirements:
   1. Horizontal Datum: All survey work, including but not limited to mapping, platting, planning, design, right-of-way surveys, and construction surveys, shall be in the Washington State Plane Coordinate System, North Zone, using North American Datum (NAD), horizontal, 1983 (2011);
   2. The plans shall show the horizontal control used to establish ties to the datum, with type, size and location, date visited, and the State Plane coordinates for each monument used;
   3. Vertical Datum: All survey work, including but not limited to mapping, platting, planning, design, right-of-way surveys, and construction surveys, shall be in the 1988 North America Vertical Datum (NAVD);

4. The plans shall show the benchmarks used to establish ties to the datum, with reference number, description, location and elevation of each benchmark used, and any project site benchmarks. A map of City benchmarks is provided at the following link: https://www.cityofmlt.com/DocumentCenter/View/254/City-Benchmark-Locations; and
5. For Flood Elevation certificates, a conversion from 1988 NAVD to 1929 NAVD may be provided.

B. All real properties, including lots, right-of-way, and easements shall be located or staked on the ground, starting from a monument.

C. Legal descriptions of the horizontal and vertical locations require the location of a monument as their beginning point of reference.

D. Refer to Appendix B – Survey Criteria.

4.4. Site Assessment

Refer to Division 3 – Stormwater and the Department of Ecology's 2019 Stormwater Management Manual for Western Washington (Stormwater Manual) for site assessment requirements.

4.5. Stormwater Report

The scope of drainage review varies with the project complexity and potential surface water impacts. A drainage report may be required. Refer to Division 3 – Stormwater and Appendix C – Stormwater Report Guidelines for design and report requirements.

4.6. Geotechnical Report

A geotechnical report helps determine if the proposal for a site is appropriate. Geotechnical reports shall comply with MTMC 16.15.430 (D). In addition to geotechnical reports required for structural designs of buildings, a geotechnical report is required for:

A. Land fill or excavation over 500 cubic yards;

B. Paving projects;

C. Public utility projects;

D. Retaining walls ~~greater than four feet high~~that require a building permit;

E. Work on sites containing or adjacent to slopes that are 15 percent or steeper. Refer to MTMC Chapter 16.15 for critical area regulations; and

F. Some storm drainage design.

For site development on a site with no steep slopes, erosion hazards, or critical areas, a report previously prepared for that site may be accepted if:

A. The report is less than five (5) years old and no significant changes to the site have occurred; or

B. The geotechnical engineer/engineering geologist who signed the report provides a letter stating the report is still applicable to the site and currently proposed project.

Refer to Appendix D – Geotechnical Report Guidelines for the approved report format.

4.7. Transportation Impact Analysis

A Transportation Impact Analysis (TIA) is required for each development or redevelopment pursuant to MTMC 19.95.080. The TIA shall be consistent with the most current edition of the Trip Generation Manual, published by the Institute of Traffic Engineers (ITE).

Refer to EDM Chapter 8, Transportation Impact Analysis and Appendix E – Transportation Impact Analysis Report Guidelines for guidance.

4.8. Traffic Control Plan

Prior to beginning any activity which might affect City right-of-way, the Applicant shall provide the City, for review and approval as part of a Right-of-way Use Permit, a traffic control plan that meets the most current Manual of Uniform Traffic Control Devices (MUTCD) standards. Refer to the EDM Section 29.3 - Temporary Traffic Control and Appendix J – Traffic Control Plan Submittals.

The traffic control plan shall accurately reflect existing right-of-way conditions including accesses, channelization, sidewalks, bike/pedestrian paths, bus zones, hydrants, trees, poles, and pavement edge. The traffic control plan shall allow for continued emergency services. For

pedestrian and business disruption, the plan shall contain adequate connections and clear signage.

4.9. Covenants

The City requires a covenant to be recorded for all permanent stormwater BMPs. The covenant is a legal document that grants the City permission to access the property to inspect BMPs. The facility owner is responsible for operating and maintaining all BMPs to the standards set forth in the Stormwater Manual.

Upon verification of the constructed items and prior to final approval of the project, the Applicant shall proceed with recording the covenant with the Snohomish County Auditor's office. After recording, the Permittee shall provide the City with a copy of the recorded document prior to final acceptance.

For subdivision projects, the recorded covenant shall be stated on the face of the Final Plat.

4.10. Easements

Easements shall be provided when facilities on private property are to be used by more than one (1) lot or will benefit the public.

A. Utilities:
   Each utility (water, sewer, power, stormwater, etc.) determines the minimum width for an easement.

B. Pedestrian/Bicycle:
   For traffic safety or access to schools, playgrounds, urban trails, shopping facilities, or other community facilities, bike routes or walkways shall be a minimum of five (5) feet wide. Additional width may be required.

C. Non-motorized:
   Non-motorized easements facilitate pedestrian circulation between neighborhoods, schools, shopping centers, and other activity centers. A non-motorized easement shall be wide enough to include the trail plus at least two (2) feet on each side.

D. Roadway:

Either the street's functional classification or the streets particular design features may necessitate slope, sight distance, wall, or drainage easements beyond the right-of-way line. Such easements may be required in conjunction with dedication or acquisition of right-of-way.

4.11. Tracts

Tracts should be used for facilities used by a broader group of individuals than easements, may have some degree of access by the public, and typically require regular maintenance activities. Examples of facilities that may be located in tracts include private streets or drainage facilities serving more than one (1) lot. Tracts shall be large enough to accommodate and maintain the facilities and activities located within them.

A publicly maintained stormwater facility shall be located in the street right-of-way or in a tract dedicated to the City. At a minimum, the tract shall include the entire facility, site access area, and at least five (5) feet around the facility. In limited cases, an easement may be permitted. If an easement is permitted, dimensions shall be determined by the City.

4.12. Dewatering Plan

Dewatering is defined as the removal and appropriate discharge and release of stormwater and subsurface water. Temporary dewatering that occurs during construction shall have a Temporary Dewatering Plan reviewed and approved by the City before dewatering begins.

4.13. Financial Guarantee

The City determines the performance and maintenance financial guarantee amounts. The performance guarantee shall be submitted before permit issuance. The maintenance guarantee shall be provided before final approval.

A. Performance Guarantee:

    1. The City requires a performance guarantee to cover the construction costs of proposed right-of-way and public utility improvements pursuant to MTMC 15.35.010.

2. A performance guarantee, in the form of a surety bond, performance bond, and/or maintenance bond, may be required for proposed critical area mitigation pursuant to MTMC 16.15.340.
3. Performance financial guarantees remain in full force and effect until:
    a. The obligations secured are fully performed as determined by the City's inspection program;
    b. A guarantee for maintenance and operation of all improvements for a guarantee period have been submitted to the City; and
    c. The City has released the guarantee in writing.
4. The guarantee may be released in increments as improvements are completed and have satisfactorily met all inspection requirements of the City.
5. The guarantee estimate is submitted by the Developer and reviewed and approved by the City.

B. Maintenance Guarantee:

1. A maintenance guarantee in the amount of 20 percent of construction costs shall be required to guarantee maintenance and operation for a period of two (2) years maximum per MTMC 15.35.040.

4.14. Insurance

As a condition of the City permitting work within the public right-of-way, a Certificate of Liability Insurance shall be provided indicating that the Applicant and/or Contractor are covered by a Commercial General Liability insurance policy ~~per MTMC 16.15.340.~~.

Additionally, when the City determines that the nature of any work on public or private property is such that it may create a hazard to human life, endanger adjoining property, street, street improvement, or any other public property, the City may require the Permittee to provide a Certificate of Liability Insurance. In this case, the City shall determine the amount of insurance based on the nature of risks involved.

The minimum Commercial General Liability insurance limits are to be no less than $~~1~~2,000,000 each occurrence, $2,000,000 general aggregate and $2,000,000 products completed operation aggregate limits.

The required liability insurance shall be maintained for the duration of construction activities.

The City shall be named as an insured under the Commercial General Liability insurance policy using ISO Additional Insured-State or Political Subdivisions-Permits CG 20 12 or a substitute that provides ~~and~~an equivalent endorsement.

Chapter 5. Permit Fees

Plan review and permit fees are collected when an application is submitted. See Permit FAQs and Impact Fee Schedules. Additional fees, discussed below, are due prior to permit issuance.

5.1. Fee-in-lieu of Frontage Improvements

In the instance where streets are to be improved as a whole through a Capital Improvement Project (CIP) or local improvement district within five (5) years of permit issuance, the City Engineer may approve a contribution to be paid in lieu of the improvements. The fee shall be approved by the City Engineer and calculated based on the cost of the improvements requested for the development.

5.2. Impact Fees

The City collects impact fees for transportation and park/recreation improvement projects. Impact fees are collected at the time of building permit issuance unless a specific exemption applies. Fees are calculated based on the type of development listed in the fee schedule in effect at the time of complete application. Fee amounts are calculated by the City during permit review. See Chapter 18.30 MTMC and Permit FAQs and Impact Fee Schedules.

5.3. Capital Facilities Charge

Prior to making a water, sewer, or stormwater connection, all property owners who ~~shall~~ have a change of use of the property, connect to, or establish a new connection shall pay a capital facilities or capital improvement (buy-in) fee per Chapter 13.05 MTMC. The purpose of the charges is to recover costs already paid by present and past customers for building system capacity to serve newly connected customers and to ensure that all customers pay their share of the cost of capital improvements to provide utility services.

5.4. Revisions to Issued Permits

The cost to review revisions to an issued permit is charged at the currently adopted hourly review rates. These fees shall be paid before the permit revisions are issued.

DIVISION 2 – RIGHT-OF-WAY

Division 2 – Right-of-Way sets forth minimum engineering design criteria to support public safety and welfare within the right-of-way. Every effort has been made to ensure that these standards are in line with AASHTO, FHWA, ITE, and WSDOT standards.

The City Engineer shall have the authority to administer the provisions of these technical standards, to determine applicability, to interpret unclear provisions, to determine the level of detail and methodologies for required analysis, and to promulgate procedures and rules for unique circumstances not anticipated within the standards and procedures contained within this Engineering Development Manual (EDM).

These standards do not substitute for engineering design, nor are these standards intended to limit innovative design where equal performance in value, safety, and maintenance can be demonstrated. More stringent design standards or specifications may be required where special conditions warrant.

All facilities in the right-of-way, unless specifically excluded, shall be designed by or under the direct supervision of a Professional Engineer licensed in the State of Washington. All right-of-way drawings, designs, sections, details, standard plans, and supporting data submitted to the City for approval, unless specifically excluded, must be stamped, signed, and dated by the engineer of record.

Chapter 6. Standards

Design detail, construction workmanship, and materials shall be in accordance with these technical standards and the most current edition of the companion documents listed herein. Design and construction shall meet the applicable standards and codes, and the recommendations in specific reports, such as the geotechnical report, the traffic impact analysis, and the surface water report.

The following documents and/or regulations provide the basis for design and construction requirements for public or private development within the City:

A. City of Mountlake Terrace Comprehensive Plan
B. City of Mountlake Terrace Transportation Master Plan
C. City of Mountlake Terrace Municipal Code

6.1. Companion Documents

When standards or other design criteria are not specifically addressed in the EDM, then the most current editions of the following shall govern the design.

A. Transportation design standards:
    1. *Design Manual*, WSDOT; available online at https://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm
    2. *Standard Plans*, WSDOT; available online at https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/standard-plans
    3. *A Policy on Geometric Design of Highways and Streets*, AASHTO; available online at https://www.fhwa.dot.gov/programadmin/standards.cfm
    4. *Urban Street Geometric Design Handbook*, ITE; available online at https://www.ite.org/technical-resources/topics/geometric-design/
    5. *Guide for the Development of Bicycle Facilities*, AASHTO; available online at ~~https://store.transportation.org/item/collectiondetail/116~~AASHTO Store: Browse Transportation Publications and Online Training

6. *Public Right-of-Way Accessibility Guidelines*, United States Access Board; available online at https://www.access-board.gov/prowag/
7. *Americans with Disabilities Act (ADA) Standards for Accessible Design*; available online at https://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm
8. *Small Town and Rural Multimodal Networks Guide*, FHWA; available online at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf
9. *Urban Bikeway Design Guide*, National Association of City Transportation Officials (NACTO); available online at https://nacto.org/publication/urban-bikeway-design-guide/
10. *Urban Street Design Guide*, NACTO; available online at https://nacto.org/publication/urban-street-design-guide/

B. Surface water design standards:

1. *2019 Stormwater Management Manual for Western Washington* (Stormwater Manual), Department of Ecology, as amended in EDM Chapter 19, Stormwater Manual Additional Requirements; available online at https://www.ecy.wa.gov/programs/wq/stormwater/manual.html
2. *Highway Runoff Manual,* (HRM) M31-16.04, WSDOT; Only publicly funded linear transportation projects may use the BMPs and ~~minim~~minimum design requirements, except LID Feasibility (HRM Section 405.2 and within individual BMP design criteria in Section 5-4) available online at https://www.wsdot.wa.gov/Publications/Manuals/M31-16.htm

C. Traffic control design standards:

1. *Manual on Uniform Traffic Control Devices*, FHWA; available online at https://mutcd.fhwa.dot.gov

D. State highway guidelines:

1. *Local Agency Guidelines*, WSDOT; available online at https://www.wsdot.wa.gov/Publications/Manuals/M36-63.htm

E. Construction specifications:

1. *Standard Specifications for Road, Bridge, and Municipal Construction* M 41-10, WSDOT; WSDOT Manuals are available online at https://www.wsdot.wa.gov/Publications/Manuals

F. The following shall be applicable when pertinent, when specifically cited in these standards, or when required by state or federal funding authority:

1. *Highway Capacity Manual*, Transportation Research Board; available online at https://www.trb.org/Main/Blurbs/175169.aspx
2. *Rockery Design and Construction Guidelines,* FHWA; available online at https://www.fhwa.dot.gov/clas/pdfs/RockeryDesignandConstructionGuidelines013007.pdf
3. *National Electrical Installation Standards* (NEIS); available online at https://www.neca-neis.org/
4. American Society for Testing and Materials (ASTM); available online at https://www.astm.org/Standard/standards-and-publications.html
5. Design criteria of federal agencies including the Federal Housing Administration, Department of Housing and Urban Development, Federal Highway Administration (FHWA), and US Department of Transportation.

6.2. Deviation from Engineering Standards

A deviation from Engineering Standards is a mechanism to allow the City to grant an adjustment in the application of engineering standards where there are unique circumstances relating to the proposal. Refer to MTMC 17.10.070.

Deviations are submitted through a permit application and reviewed to determine that all requirements are met. All deviations must be approved by the City Engineer in writing prior to the start of construction.

The City Engineer may grant a deviation from the Engineering Standards only if the applicant demonstrates all of the following;

1. The granting of such deviation will not be materially detrimental to the public welfare or injurious or create adverse impacts to the property or other property(s) and improvements in the vicinity in which the subject property is located.

2. The authorization of such deviation will not adversely affect the implementation of the Comprehensive Plan adopted in accordance with State Law.

3. The deviation shall not conflict with the standards of the critical areas regulations in Chapter 16.15 MTMC.

4. Deviation from the Public Works Standards may only be granted if the proposal meets the following:

    a. Conform to the intent and purpose of the Mountlake Terrace Municipal Code;

    b. Produce a compensating or comparable result which is in the public interest; and

    c. Meets the objectives of safety, function and maintainability based upon sound engineering judgement.

5. Deviation from roadway design standards must meet the objectives for fire protection. Any deviation that does not meet the International Fire Code requires approval by the Fire Code official.

It is recommended that an Applicant discuss a potential deviation with the City Engineer prior to submitting the application.

6.3. Variances from Development Standards

A variance from Development Standards is a mechanism to allow the City to grant an adjustment in the application of development standards where there are unique circumstances relating to the proposal.

A. Refer to MTMC Chapter 17.10.070, MTMC Chapter 19.100 ~~MTMC~~, and MTMC Chapter 19.110 ~~MTMC~~ for information related to the variance process.

B. See MTMC 18.05.075 for more information related to notice requirements and hearing procedures.

Chapter 7. General Requirements

This chapter provides general requirements related to right-of-way improvements.

7.1. Americans with Disabilities Act

All designs shall meet the current ADA requirements and standards. The City standard for ADA requirements is the Public Right-of-Way Accessibility Guidelines (PROWAG) as approved by final rule in the Federal Register August 8, 2023.

When pedestrian access route features are impacted, the pedestrian access route and all affected traffic control devices shall be improved to current ADA standards. Pedestrian access route features and possible affected traffic control devices may include, but are not limited to sidewalks, driveways, pavement markings, traffic signal systems, illumination systems, communication systems, traffic signs, and enhanced traffic control devices.

In the event field conditions prohibit meeting the ADA requirements, the Applicant's/Permittee's engineer shall submit documentation for City review that the designed and constructed improvements meet ADA to the maximum extent feasible (MEF). MEF approval(s) shall be obtained prior to construction. After construction, the as-built conditions shall be surveyed by a surveyor licensed in the State of Washington. The Applicant's/Permittee's engineer shall revise the MEF documentation to reflect the as-built conditions.

7.2. Low Impact Development

Requirements for LID apply to both onsite improvements and improvements in the right-of-way. Low impact development BMPs are preferred over conventional stormwater management systems that rely on detention structures and closed conveyance systems. Use of LID BMPs may reduce or eliminate the need for conventional detention facilities but does not remove the obligation to comply with the minimum requirements of the Stormwater Manual. Refer to the Stormwater Manual as adopted and amended in Division 3 –Stormwater.

Infiltration is required to the maximum extent practicable. The approval of any infiltration project shall not constitute approval of any means by which unstable subsurface conditions may occur;

such conditions resulting from infiltration projects not constructed by the City shall remain the responsibility of the Developer.

Bioretention features installed in the right-of-way shall follow MLT Standard ~~Details~~Plans 444 - Bioretention Facility and 446 - Bioretention In-Line Curb Cut.

Proprietary emerging stormwater treatment technologies that have received Ecology General Use Level Designation may be installed in the right-of-way with approval of the City Engineer.

7.3. Maintenance

See MTMC Chapter 12.05 ~~MTMC~~ for information regarding the construction and maintenance of sidewalks.

7.4. Tree Removal/Pruning

Tree removal and pruning in the right-of-way is regulated by MTMC Chapter 16.30. All trees planned for removal from the right-of-way shall be posted with the Right-of-Way Tree Removal Notification ~~sign~~notice at least 14 days prior to removal unless part of an existing permit approved by the City.

7.5. Connectivity

In order to provide connectivity, street layouts shall continue streets in adjoining developments(s) or their anticipated locations where adjoining property is not yet developed.

A. Where existing adjoining properties have planned road and trail systems, connections shall be required.

B. Connection to existing roadway ends by new development shall be required when alignment between the roadways exist.

   1. Aesthetic and environmental character between existing and new development shall be maintained.

   2. Pedestrian facilities shall connect or have an approved transition where there is none in the existing development.

3. Traffic mitigation shall be reviewed as part of the traffic study for the new development when connecting to an existing adjacent neighborhood. Vehicle and pedestrian safety elements shall be included in the review.

C. When a connecting road serves 100 residential units or more, a secondary access point shall be required.

7.6. Underground Utilities

Refer to MTMC 15.05.330 for new service connections on private property.

Existing aboveground wiring and related equipment for electrical distribution facilities, communication facilities, and other purposes, except for wireless communication facilities, transformers, junction boxes and the like, shall be relocated underground along the property frontage including up to 50 feet beyond the property line on either side of the street frontage to connect to logical points of the existing utility system, or crossing the street within the frontage extents, when the development or redevelopment requires a subdivision, a short subdivision, a site plan, or a conditional use permit. It is recommended that applications for undergrounding permits be submitted as early as possible.

A. Undergrounding will not be required when the right-of-way frontage of the new development or redevelopment is less than 80 feet in width along the frontage containing the aboveground wiring; and:

   a. The new development or redevelopment does not require relocation of the existing aboveground wiring to accommodate the required site or street frontage improvements; or

   b. The City Engineer determines that the undergrounding of the portion of the existing aboveground wiring along the development or redevelopment's street frontage would require undergrounding portions of the existing aboveground wiring beyond the development's street frontage, unless such additional undergrounding is no more than 50 feet beyond the property line on either end of the street frontage to connect to logical points of the existing utility system;

B. Where undergrounding is not required for a new development or redevelopment under one of the exemptions listed in subsection A of this section, and street frontage improvements are required, the applicant shall provide conduit within the street frontage improvements for the future undergrounding of the aboveground wiring. The conduit shall be of sufficient size and dimension to accommodate the projected maximum line size required for all franchise utility facilities to be undergrounded;

All new utility lines, including transmission facilities, must be installed underground. Existing transmission facilities may remain above ground.

7.7. Frontage Improvements

A. Certain activities require the installation of frontage improvements. Refer to MTMC 17.03.050(A)(8~~)~~), 17.04.050.A.8, 17.05.060.A.8 and 19.95.030(D). Frontage improvements may include street improvements, as described below in 7.7 (B) as well as water line, sewer, drainage and dry utility improvements along each right-of-way boundary.

B. Standard frontage improvements consist of dedication of right-of-way, curb, gutter, sidewalk, amenity zone and landscaping, drainage improvements, and pavement overlay up to one-half (0.5) of each right-of-way abutting a property. Additional improvements may be required to ensure safe movement of traffic, pedestrians, bicycles, transit, and nonmotorized vehicles. The improvements can include transit bus shelters, bus pullouts, utilities, undergrounding, street lighting, signage, and channelization.

C. When a development proposal requires frontage improvements, existing frontage improvements shall be upgraded to current standards.

D. When frontage improvements are required, City staff shall review the required improvements for consistency with MTMC 19.95.030(E) regarding Complete Streets. The Complete Streets policy strives to provide an integrated multimodal transportation system that provides for the safe accommodation of pedestrians, bicyclists, transit users, motorists and users of all ages and abilities.

E. Acknowledging that the City is a built environment, design and installation of new or replaced frontage improvements may be adjusted during design or installation, with approval from the City Engineer, to meet the existing conditions. Approval may require a formal Deviation from Engineering Standards, as determined by the City Engineer.

F. Appendix F – Street Matrix defines street widths, curb locations, sidewalk widths and other right-of-way requirements for all streets. The Street matrix currently shows the streets in Town Center. Remaining roadways will be included with the next edition of the EDM.

G. The frontage improvements run the full length of the property line(s)/right-of-way line(s) in order to service adjacent tributary areas as may be warranted. Transitions to existing conditions occur outside the development frontage.

H. An amenity zone is required, except where an alternate street design has been approved, or where protection of critical areas requires special consideration.

I. Required frontage improvements shall be installed, inspected and approved by the City prior to final approval of the related building/site development permits and before a Certificate of Occupancy is issued or a permit receives final approval.

J. The installation of required frontage improvements shall not create flooding, ponding, or other drainage issues.

K. The design of frontage improvements shall address the access needs of the adjacent land use such as mail collections, solid waste and recycling services, and deliveries.

L. Private irrigation systems installed in the amenity zone shall be maintained by the abutting property owner and shall be connected to the water line servicing that abutting property.

7.8. Dedication of Right-of-Way

A. Dedication shall occur at the time of recording for subdivisions and binding site plans, or prior to permit issuance for construction projects.

B. The City may require right-of-way dedication to incorporate necessary transportation and frontage improvements. If they are part of a current Capital Improvement project, and/or part of an overall master transportation plan.

C. The City Engineer may grant some reduction in the minimum right-of-way requirement where it can be demonstrated that sufficient area has been provided for all frontage improvements, including utilities, within the right-of-way.

D. Dedications may be required in the following situations:

1. Accommodation of motorized, pedestrian and bicycle transportation, landscaping, utility, street lighting and traffic control devices, and buffer requirements;
2. The development project abuts an existing substandard public street and the additional right-of-way is necessary to incorporate future frontage improvements for public safety;
3. Right-of-way is needed for the extension of existing public street improvements necessary for public safety; or
4. Right-of-way is needed in order to incorporate improvements that are reasonably necessary to mitigate the direct impacts of development.

7.9. Illumination

A. SnoPUD maintains and establishes service connections for street lighting within the City. When new street lighting is required, the Applicant/Permittee works with the Public Works Department and SnoPUD regarding design and installation. The Applicant pays the costs associated with the design and installation of the light~~-~~(s). These costs may include new electrical service, underground facilities and/or a new pole(s) as required.

B. Where a half-street improvement is required in conjunction with a development, the roadway width to be used for illumination design purposes shall be the actual width of the roadway at the time of design and not half of the ultimate width. All existing luminaires shall be evaluated for upgrades to present standards.

C. Projects that underground utilities shall provide new street lighting. Projects within mixed-use or commercial zoned areas that are located along an arterial street shall provide pedestrian scale lighting.

1. Pedestrian scale luminaires shall be placed within the amenity zone at a 50-foot maximum spacing on center. Lighting calculations are not required for pedestrian scale luminaires.
2. If the 50-foot maximum spacing cannot be achieved, pedestrian lighting shall be designed to meet the following performance standards in Table 3, Pedestrian Lighting Requirements.

Table 3. – Pedestrian Lighting Requirements

Parameter	Performance Standard
Calculated "Illumination Path" Width	10'
Maintained Average Horizontal Measured at Pavement	1.0 foot-candle
Average: Minimum Uniformity Ratio	6.0: 1
Calculation Grid Size	5' on center
Applied Light Loss Factor	0.85
Color Temperature	3000K

D. All new and retrofitted lighting systems shall be Light Emitting Diode (LED).

E. All lighting shall conform to NEIS standards. Street lighting system designs shall be stamped by a Professional Engineer licensed in the State of Washington experienced with lighting design and shall include the following: luminary spacing, illumination level, uniformity ratio, line losses, power source, the electrical and physical layout, installation details, plans and specifications. All designs shall be approved by the City Engineer.

F. For City-owned illumination systems, lighting level requirements for roadways are defined in Appendix I – Street Lighting Levels Criteria. Other criteria are as follows:
    1. Intersections shall have a minimum light level equal to one and one-half (1.5) times the average light level requirement of the intersecting street with the highest classification. Intersection uniformity shall be less than or equal to the uniformity of the intersecting street with the highest classification.
    2. All marked crossings shall be illuminated with at least one (1) luminaire oriented parallel to the crossing. Average maintained light levels within pedestrian facilities shall be as shown in Table 4, Pedestrian Facility Light Levels.

Table 4. – Pedestrian Facility Light Levels

Pedestrian Facility Type	Minimum Maintained Avg. (fc)	Uniformity Ratio (Avg/Min)
Marked intersection or mid-block crossing	1.0	3:1
Unmarked crosswalk at intersection	Same as adjacent intersection	
Sidewalk adjacent to ~~residential~~commercial use	1.0	4:1
Sidewalk adjacent to ~~commercial~~residential use	0.4	4:1

G. As-constructed street lighting plans for City-owned systems shall be provided to the City. Refer to Appendix H – Record Drawing Criteria for as-built guidelines.

H. Street lighting systems shall be designed to be accessible by a wheeled vehicle weighing 30,000 lbs.

I. Contractor installed, City owned service cabinets equipped with electrical meters, ~~time clocks,~~ circuit breakers, and other required components are required on arterial installations of five (5) or more streetlights. Installations with less than 5 streetlights shall be designed as directed by the City Engineer and may still require Contractor installed, City owned service cabinets equipped with electrical meters, ~~time clocks,~~ circuit breakers, and other required components.

J. The exact location of the power source for all roadway or pedestrian lights shall be indicated together with the remaining capacity of that circuit. System continuity and extension shall be provided.

K. Street lighting may be required along private streets. Street lighting systems for private streets shall be designed and constructed on a separate power source from the public street lighting system. All streetlight maintenance, installation, and power costs for private street systems shall be paid by the property owner, homeowner, or homeowners' association.

7.10. Curbing

A. Curb and gutter shall be consistent with Standard ~~Detail~~Plan 133~~,~~ - Cement Concrete Traffic Curb and Gutter on all street classifications~~; however, 18~~. A 24-inch wide ~~gutter pan~~Curb and Gutter may be used as an option for uniformity or replacement.

B. Rolled curb is not allowed, unless it replaces or matches existing, and/or it is approved by the City Engineer.

C. Extruded curb is not allowed in public right-of-way, unless it is temporary, and/or approved by the City Engineer.

7.11. Pavement Cut Moratorium

The following applies to a utility doing work, such as system repair or expansion, within the right-of-way. This moratorium does not apply to utility service installation required for new development or redevelopment.

A. Any street that has been constructed, reconstructed, resurfaced, overlaid or paved within the past five (5) years cannot be cut for five (5) years from the date of project completion unless:

1. A Deviation from Engineering Standards is approved; or
2. It is allowed through a valid franchise agreement.
3. A grind and overlay is performed for 50 feet in either direction from the extents of the pavement cut for the entire width of the street

B. Emergency situations are exempt from the five (5) year moratorium. A right-of-way permit shall be applied for within 48 hours after beginning emergency work in the right-of-way pursuant to MTMC 19.95.070 (C)(4).

Chapter 8. Transportation Impact Analysis

A Transportation Impact Analysis (TIA) may be required to inform the City of the need for additional improvements to meet concurrency requirements pursuant to MTMC 19.95.080.

A. Pursuant to MTMC 19.95.080, a TIA is required if a development proposal would generate:
    1. ~~10~~20 or more new vehicle trips during the p.m. peak hour; or
    2. 40 or more trips during any weekday, or
    3. 50 or more trips during any weekend day, or
    4. 20 or more trips during the peak hour of the development, or
B. A Regional Transportation Analysis (RTA) is required if:
    1. A development or project would generate 100 peak hour trips or more; or
    2. The City Engineer determines the project may have significant impacts to the regional system. This may be required at the discretion of the City Traffic Engineer for projects that generate between 20 and 100 trips.
C. In addition to the general TIA criteria, an RTA shall have an expanded study area for impacted intersections and roadways and shall include a thorough assessment of impacts to safety, pedestrians, bicyclists, transit, ~~neighborhood~~local access streets, and parking.

The TIA or RTA scope is developed with the City Traffic Engineer. Please contact the City Traffic Engineer for details including background traffic growth information, trip distribution and assignment assumptions, and intersections and/or roadways required for study.

If the proposed project is changed by type or size or the TIA or RTA is older than two (2) years, updates to the TIA or RTA shall be required.

The level of detail to be included in the TIA depends on the complexity of the proposed project. See Appendix E for Transportation Impact Analysis guidelines.

Chapter 9. Street Classification

Federal and State guidelines require that streets be classified based on function. The City mainly classifies streets as arterial or non-arterial (local). Other classifications include alley and private streets. Street classifications are approved through the TMP process. The street classification map is available on the City's website: http://www.cityofmlt.com/181/Maps-Planning-and-Engineering

9.1. Arterial Streets

Arterials provide a high degree of vehicular mobility through effective street design and by limiting property access to the right-of-way. Most vehicle trips on arterials are through-traffic. Arterials are divided into three classes: Principal, Minor and Collector Arterials.

A. Principal Arterials:
    1. Principal Arterials have higher levels of local land access controls, with limited driveway access, and have regional significance as major vehicular travel routes that connect metropolitan areas.
    2. An example is 220th St SW.

B. Minor Arterials:
    1. Minor Arterials generally provide a high degree of intra-community connections and are less significant than Principal Arterials when considering regional mobility.
    2. Examples include: 44th Ave W, 56th Ave W, and 236th St SW.

C. Collector Arterials:
    1. Collector Arterials assemble traffic from the interior of an area/community and deliver it to the closest Minor or Principal Arterial. Collector Arterials provide mobility, and access to property.
    2. Examples include: 48th Ave W, 58th Ave W, and 216th St SW.

9.2. Non-Arterial Streets

Streets that are not designated as arterials are non-arterial streets, also known as Local Access streets. Refer to the City's TMP for more detail on street classifications.

9.3. Alley

The Revised Code of Washington (RCW) 46.04.020 defines an alley as a public right-of-way ~~that is~~"not designed for general travel and used primarily as a means of access to the rear of residences and business establishments ~~and is not designated for general vehicular or pedestrian travel.~~". The City does not maintain alleys.

9.4. Private Street

A private street is a privately owned and maintained street providing vehicular access within a property or properties. The City may approve a private street under certain conditions (see MTMC 19.95.030 (H)). Refer to EDM Section 12.8, Private Streets for more information.

Chapter 10. Access Management

Access management recognizes the need to balance access to private properties with the maintenance of safety, capacity and Level of Service (LOS) on the streets that provide access. Property owners abutting City right-of-way generally have a right to access, but the means of access shall be reviewed and approved by the City.

Safety and the function (both current and future) of each street are the foremost factors in determining the number, location, and design of street accesses. Roadway design elements such as auxiliary lanes, medians, channelization, and safe stopping and turning sight distances are also factors in access management, as are the elements of land development, such as internal site circulation and parking layout. Access management is implemented via the Right-of-Way Use Permit, Site Development Permit, Building Permit, and Subdivision review processes.

10.1. General

A. Authority:

1. City Rights-of-Way:
   The City Engineer approves the design, number, and location of access points to City rights-of-way. When changes in land use result in changes to the type and operation of access, the access location and design shall be reviewed with the development plans and shall be constructed or modified to meet current standards.
2. State Highways:
   Access to State highways is regulated by WSDOT pursuant to RCW Chapter 47.50 and Washington Administrative Code (WAC) Chapters 468-51 and 468-52. Two classifications of State highway exist relative to the City: *Limited Access* and *Managed Access*. Interstate 5 is the only Limited Access Highway within the City. SR 99 and SR 104 (Ballinger Way NE) are *Managed Access Highways* within or adjacent to the City. For information on access permitting through WSDOT, please visit the WSDOT Access Management website:

https://wsdot.wa.gov/engineering-standards/design-topics/right-way-access-control

3. Construction or improvement of an access, approach or driveway, or construction of any classification of street that will intersect a State highway shall be designed in accordance with this EDM and WSDOT requirements. Where applicable state or federal standards exceed the requirements of the EDM, state or federal standards shall govern.

B. Consolidation of Access:

1. In the interest of safety and efficient traffic operations, access to individual and contiguous lots should be consolidated to the extent practicable. ~~-~~Access shall be reviewed and approved to minimize conflicts between vehicles, pedestrian and bicycle traffic, and traffic entering and exiting adjacent driveways.
2. Each lot shall have access to a public right-of-way by:
    a. Direct access to a right-of-way;
    b. By a recorded easement providing shared access; or
    c. By a recorded tract providing shared access.
3. No more than one (1) access shall be provided to an individual lot, to contiguous lots under the same ownership, or to lots that are included in the same subdivision or project, unless approved by the City Engineer. Additional access may be granted to contiguous lots if the minimum spacing requirements are met or if a traffic engineering study acceptable to the City Engineer demonstrates that the additional access will not adversely affect safe operation of the street.

C. Required Access:

All new development shall be served by adequate vehicular access as follows:

1. Every lot upon which one (1) or more building(s) is proposed to be erected, or where a traffic generating use is proposed, shall establish direct access from the street right-of-way, access easement, or fire lane, as needed to provide public services such as fire protection, emergency medical service, mail delivery, or trash collection.

2. The circulation system of the proposed development shall intersect with existing and planned streets abutting the site at approved locations.
3. The circulation system within the proposed development shall provide direct connections to adjacent developments (inter-lot) where appropriate and/or required.

D. Maintenance:

Property owners are responsible for the maintenance of their driveway approaches.

E. Restriction of Turning Movements:

1. Conflict reduction measures may be required to safely manage turning traffic to and from the development site. Raised medians and driveway channelization are examples of appropriate measures to help reduce turning vehicle conflicts.
2. Traffic control devices controlling traffic from private property shall be installed and maintained by the property owner at no cost to the City.

F. Abandoned Access:

All abandoned accesses on the same frontage shall be removed within 30 days after abandonment and the curbing, sidewalk, and amenity zone, or shoulder and ditch section shall be restored to meet current standards.

G. Temporary Access:

The City Engineer may grant temporary access to accommodate phased development of a site in accordance with an approved phasing plan. Temporary access shall be removed, relocated, redesigned, or reconstructed after permanent, approved access is constructed.

Chapter 11. Access Design

All accesses shall be located, designed, and constructed to minimize traffic congestion and maximize public safety on the street system. This chapter provides location and design criteria for access at the right-of-way line, ~~access~~driveway approach in the right-of-way, and driveways internal to a property.

11.1. General

A. Access to the right-of-way shall be designed as ~~an access~~a driveway approach.

B. Design of access shall comply with required grade transitions while considering building setback, terrain, and existing and designed grades.

C. All accesses shall be located and designed to readily accommodate emergency vehicles that would ordinarily respond at the particular establishment. The International Fire Code, as adopted by MTMC 15.10.010, shall also apply to driveways designated as fire lanes and/or fire apparatus access roads.

D. All on-site traffic control devices, including signs and pavement markings, shall conform with MUTCD standards and criteria.

11.2. Access Width

The access width is measured at the right-of-way/property line. Maximum/minimum access widths ~~are provided in Table 5~~shall be designed per section 11.4. The City Engineer may approve a wider access when the traffic study or the appropriate design vehicle warrants the wider access.

~~Table 1. Access Widths~~

~~Access Types~~	~~Width (ft)~~	
	~~Min.~~	~~Max.~~
~~Single Family Residential (3 or less Dwelling Units)~~	~~10~~	~~20~~
~~Shared (4 or more Dwelling Units)~~	~~20~~	~~24~~
~~One-Way Access~~	~~10~~	~~14~~
~~Multi family~~	~~20~~	~~24~~

~~Commercial or Private Street~~	~~20~~	~~30~~

11.3. Access Clearance and Spacing

A. Minimum Offset Distance from Side Property Lines:

The edge of the driveway access shall be offset a minimum of five (5) feet from side property lines, measured at the prolongation of the driveway's intersection with the right-of-way line with the following exceptions:

1. Zero (0) feet (minimum) for cul-de-sacs, flag lots, lots with a width of 30 feet or less, shared driveways, and ~~single-family~~for attached ~~developments~~single-unit dwellings;
2. Three (3) feet (minimum) for lot widths between 30 feet and 50 feet.

B. Minimum Clearance from Intersections:

1. Local Streets:

   Driveways accessing Local Access streets shall be located at least 50 feet from the right-of-way line of the nearest street intersection, or at the minimum offset distance from the lot's side property line that is farthest from the intersection.

2. ~~Minor & Collector~~ Arterial Streets:

   ~~Driveways accessing Minor Arterial or Collector Arterial streets shall be located at least 75 feet from the right-of-way line of the nearest intersecting street, or at the minimum offset distance from the lot's side property line that is farthest from the intersection, whichever is greater.~~

~~3. Principal Arterial Streets:~~

   ~~Driveways accessing Principle~~Driveways accessing Arterial streets shall be located at least 150 feet from the right-of-way line of the nearest signalized intersection, or 100 feet from the nearest un-signalized intersection, or at the minimum offset distance from the lot's side property line that is farthest from the intersection, whichever is greater. ~~-~~Left-turn restrictions may be imposed at driveways ~~that do not meet~~for traffic flow, to improve safety, or when the foregoing criteria is not met.

C. Minimum Access Spacing:

The minimum distance between access connections for the same parcel is 50 feet from nearest point to nearest point on the same side of the street. When the subject property is bounded by neighboring properties on both sides serving only one (1) single-family residence for each driveway, a reduced spacing may be approved by the City Engineer.

D. Multiple Frontages and Corner Parcels:

1. Access for projects with multiple frontages shall be off the lower classified road ~~except in transition areas.~~. Additional access may be allowed provided spacing requirements are met.
2. Access to corner lots shall be located on the lower-classification street at the property line most distant from the right-of-way line.

11.4. ~~Access~~Driveway Approach

~~E. A paved~~The number of permitted access ~~approach shall be provided between the property line and the edge of pavement in the right-of-way. Approaches shall conform~~points to ~~Standard Details 151-154 based on site conditions.~~

~~F. The maximum change in~~ a parcel is determined by whether the access ~~approach profile grade, within the right-of-way, shall be six (6) percent within any ten (10) feet of distance on a crest vertical curve and 12 percent within any ten (10) feet of distance in a sag vertical curve.~~

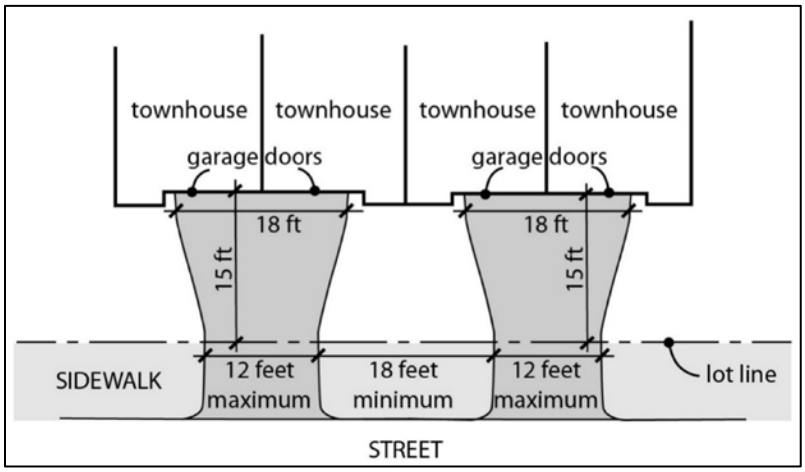
~~G. Driveways, parking, or loading areas that require backing maneuvers in a public street shall be approved only~~is for ~~single-family detached or duplex~~ residential ~~uses abutting a Local Access street.~~

~~A drainage culvert is required~~ or nonresidential use, and by the zoning in which the use is located. If a driveway approach is used for ~~an~~ more than one use, the requirements for the use with the largest access ~~approach that crosses an open ditch section. Minimum culvert internal diameter shall be 12 inches. Larger diameter culvert pipes shall be required when needed to carry anticipated design stormwater flows. Refer to EDM Chapter 23, Conveyance System for additional information regarding required culvert size and materials~~width requirement shall apply.

A. Residential Uses:

1. Number of access points.
    a. Up to two access points are allowed
    b. Access point shall be made from the lowest street classification for a parcel that is adjacent to more than one street
    c. Access spacing shall meet requirements of section 11.3
2. Driveway approach width shall not exceed a maximum width of 12 feet except:
    a. For lots on principal arterials as designated by the current City of Mountlake Terrace Roadway Classification Map, the maximum approach width is 23 feet;
    b. A greater width may be specifically permitted by the development standards in a zone;
    c. If section 11.5 requires a driveway greater than 12 feet in width, the driveway approach may be as wide as the required width of the driveway; and
    d. A driveway approach may be less than the maximum width permitted but shall be at least as wide as the minimum required width of the driveway it serves.
3. Distance between driveway approaches
    a. The minimum distance between any two approaches located on a lot is 50 feet, except as provided in section 11.4.A.3.b.
    b. For rowhouse and townhouse developments located on single or abutting lots, the minimum distance between driveway approaches is 18 feet (See Figure 1).

Figure 1. – Paired Driveways for Attached Units



B. Nonresidential uses:

1. Driveway Approach widths

a. For one-way traffic, the minimum driveway approach width is 12 feet, and the maximum width is 15 feet.

b. For two-way traffic, the minimum driveway approach width is 22 feet, and the maximum width is 25 feet, except that the maximum width may be increased to 30 feet if truck and auto access are combined.

c. For fire and police stations, the City Engineer may allow curb cuts up to, and no wider than, the minimum width necessary to provide access for official emergency vehicles that have limited maneuverability and that must rapidly respond to emergencies. Driveway approaches for fire and police stations are considered to accommodate two-way traffic.

d. If one of the following conditions applies, the City Engineer may require a curb cut of up to 30 feet in width, if it is found that a wider curb cut is necessary for safe access:

i. The abutting street has a single lane on the side that abuts the lot; or

ii. The curb lane abutting the lot is less than 11 feet wide; or

iii. The proposed development is located on an arterial with an average daily traffic volume of over 7,000 vehicles; or

2. The entrance heights to all garages accessory to nonresidential uses and the entrances to all flexible-use parking garages shall be at least 7 feet.

3. All uses in industrial zones

   a. The number and location of access points will be determined by the City Engineer.

   b. Number and size of driveway approaches will be based on the TIA, including design vehicle size, volumes, and routing

C. Driveway approaches for access easements

1. If a lot is crossed by an access easement serving other lots, the driveway approach serving the easement may be as wide as the easement roadway.

2. The driveway approach serving an access easement shall not be counted against the number or amount of driveway approaches permitted to a lot if the lot is not itself served by the easement.

11.5. Driveway

A driveway, including the landing, extends from the access point at the property line/right-of-way line onto the property.

~~A. Standard~~Driveway requirements for residential and nonresidential uses are described below. When a driveway ~~curb-cut.~~

~~Use of standard driveway curb-cuts are generally required over curb returns for all accesses. Use of curb returns require approval by the City Engineer.~~

~~Standard driveway curb cut~~ is ~~required~~used for ~~private driveways and private access drives intersecting with public streets.~~ both residential and nonresidential parking, it shall meet the standards for nonresidential uses described in section 11.5.B

A. Residential Uses:

1. Minimum Driveway width shall be as specified in Table 5

Table 5. – Residential Minimum Driveway Width

Access Types	Width (ft)

~~3. Curb Returns may be allowed when one or more of the following criteria are met:~~

~~a. Access roadway intersects at signalized or major stop-controlled intersection,~~

Required Parking Spaces	Driveway Length (ft)	Minimum Driveway Width (ft)
5 or less	Less than 100	12
5 or less	100 or more	16
6 or more	Any Length	20

2. Driveways with a turning radius of more than 35 degrees shall conform to the minimum turning path radius shown in MTMC 19.125.
3. Vehicles may not back onto a street from a parking area unless meeting 11.5.A.4:
    a. Vehicles may back onto a street from a parking area serving less than 6 parking spaces, provided that the street is not an arterial as defined in the current City of Mountlake Terrace Roadway Classification Map,
    b. Traffic volumes greater than 5,000 AADT on the access roadway, or
    ~~c. Required for fire and emergency vehicle access.~~
4. Nonconforming driveways. The number of parking spaces served by an existing driveway that does not meet the standards of this section 11.5.A shall not be increased. This prohibition may be waived by the Director of the Community and Economic Development Department after consulting with the City Engineer, based on a safety analysis.

B. Nonresidential Uses.

1. Driveway Widths
    a. The minimum width of driveways for one-way traffic shall be 12 feet and the maximum width shall be 15 feet.
    b. The minimum width of driveways for two-way traffic shall be 22 feet and the maximum width shall be 25 feet.
2. Driveways shall ~~be graded~~conform to ~~blend into possible future road sections without encroachment into graded shoulder~~ the minimum turning path radius shown in Exhibit A for 11.5.A.

3. For driveways that provide access to a solid waste management use the Director may allow both a maximum driveway width greater than the limits set in section 11.5.B.1 and appropriate turning path radii, as determined necessary for truck maneuvering.

~~B.~~C. Driveway slope for all uses. No portion of a driveway, whether located on a lot or ~~sidewalk.~~on a right-of-way, shall exceed a slope of 15 percent, except as provided in this section 11.5.C. The maximum 15 percent slope shall apply in relation to both the current grade of the right-of-way to which the driveway connects, and to the proposed finished grade of the right-of-way if it is different from the current grade. The ends of a driveway shall be adjusted to accommodate an appropriate crest and sag. The Director may permit a driveway slope of more than 15 percent if it is found that:

~~C. A shared driveway has one (1) access to the right-of-way via a shared tract or easement on private property. Shared driveways are allowed per MTMC 19.95.030 (K). Pedestrian access adjacent to a shared driveway shall be raised behind a curb.~~

~~D. Driveways shall be paved to the nearest property line of the most distant lot sharing the access or 20 feet, minimum, whichever is farther.~~

~~E. All driveways shall be 90 degrees to the street at the right-of-way access unless a Deviation from Engineering Standards is approved.~~

~~F. A landing for an access to an arterial shall not exceed a 1V:30H slope for a distance of 30 feet. For an access to a local street, the landing slope shall not exceed 1V:20H slope for a distance of 20 feet.~~

~~G. The maximum driveway profile grade is 12 percent. South County Fire may approve steeper grades for short distances. (MTMC 19.125.110)~~

~~H. The maximum change in driveway grade shall be six (6) percent within any ten (10) feet of distance on a crest and 12 percent within any ten (10) feet of distance in a sag vertical curve.~~

~~I. Grade breaks shall be constructed as smooth vertical curves.~~

~~J. Circular Driveways:~~

~~New and revisions to existing circular driveways shall meet all the following criteria:~~

~~1. Driveways shall meet applicable requirements of this Division;~~

~~2. The driveway accesses are onto a Local street. Circular driveway access shall not be permitted onto Arterial Streets;~~

~~3. Circular driveways shall be designated for one-way circulation unless otherwise approved by the City Traffic Engineer;~~

~~4. Safe stopping sight distance (SSD) is available for both driveways, as demonstrated by a sight distance analysis prepared by a Professional Engineer licensed in the State of Washington and acceptable to the City Traffic Engineer;~~

~~5. Circular driveway approaches shall be separated by a minimum of 50 feet between their closest point;~~

~~6. Driveways shall be no closer than five (5) feet to the side property line, measured from the point at which the prolongation of the driveway edge intersects the right-of-way line; and~~

~~7. Driveways shall be a minimum of 10 feet wide and not exceed 15 feet in width.~~

1. The topography or other special characteristic of the lot makes a 15 percent maximum driveway slope infeasible;
2. The additional amount of slope permitted is the least amount necessary to accommodate the conditions of the lot; and
3. The driveway is still useable as access to the lot.

D. Backing distances and moving other vehicles.

1. Adequate ingress to and egress from all parking spaces shall be provided without having to move another vehicle, except in the case of multiple spaces provided for one dwelling unit or in the case of tandem parking.
2. Adequate ingress to and egress from all parking spaces shall be provided for the expected vehicle use. Turning analysis may be required to demonstrate this access.
3. Except for lots with fewer than three parking spaces, ingress to and egress from all parking spaces shall be provided without requiring backing more than 50 feet.

11.6. Parking Lot Throat Lengths

A. Traffic channelization and signage in a parking lot shall meet MUTCD requirements.

B. The required throat length at a parking lot access to public right-of-way is determined during the permit review process and is based on ~~thea~~ TIA.

C. The throat length vehicle storage in parking lots is based on a typical vehicle spacing of 22 feet but may be increased where larger vehicles can be expected.

D. The City may adjust the on-site throat lengths for accesses with two (2) approach lanes, subject to the traffic analysis findings, roadway geometry, traffic volumes, and site layout.

E. On-site storage is measured from the right-of-way line to the first parking stall or drive aisle in a parking lot.

F. Outbound: The throat shall be of sufficient length to provide adequate storage of outbound vehicles without interference with on-site circulation. Outbound vehicle storage areas shall be provided to minimize backup and delay of vehicles within the development.

G. Inbound: The throat shall be of sufficient length to prevent vehicles from spilling onto the street system and from obstructing the adjacent street, sidewalk, or circulation within the facility.

Chapter 12. Street Design

This chapter sets the minimum standards for the geometric street design. The most current WSDOT Design Manual shall be used where additional roadway geometric design guidance is necessary.

12.1. Reconstruction

A. Reconstructed roadways shall be brought up to current standards.

B. Transitions or tapers necessary to connect with an existing roadway of a different width shall meet AASHTO and MUTCD standards.

12.2. Widths

A. Typical lane widths are defined in Table 6.

Table 6. – Typical Lane Widths

Lane Type	Width (ft)
Parking	7-8*
Bus Only	12
Vehicle Lane	10-12
Bicycle	5-6
Bicycle/Vehicle	14
Bicycle Buffer	2-3

** Additional parking width may be required to provide accessible parking.*

12.3. Vertical Alignment

A. Curve length and stopping sight distance shall be designed to ensure proper drainage, clear sight distance, and safety for vehicles and pedestrians.

B. The maximum profile grades in Table 7 may be exceeded for 300 feet or less, upon showing that no practical alternative exists. Exceptions exceeding 12 percent shall require approval by South County Fire for additional fire protection features.

C. Grade transitions shall be constructed as smooth vertical curves except, upon approval of the City Engineer, in intersections where the difference in grade is one (1) percent or less.

Table 7. – Maximum Profile Grade

Local Access	Arterial – Collector	Arterial – Minor	Arterial – Principal
14%	12%	10%	9%

12.4. Vertical Curve Criteria

A. The minimum vertical curve length for roadways is 75 feet.

B. The point of vertical curvature (PVC) shall not encroach into a cross street any further than the center of pavement of the cross street.

C. Cross Slope: The typical cross slope is two (2) percent crown to provide for adequate drainage to the pavement edge. The maximum cross slope on the tangent sections shall not exceed four (4) percent. The minimum cross slope shall be one (1) percent.

D. Stopping Sight Distance: SSD applies as shown on Table 8, Vertical Curve – Minimum Stopping Sight Distance.

E. SSD is based on an eye height of three and one-half (3.5) feet and the height of an object at one-half (0.5) foot.

F. For downgrades exceeding three (3) percent, the SSD shall be increased by the values shown in Table 8, Vertical Curve – Minimum Stopping Sight Distance.

G. The City Engineer may approve sag vertical curves on Local Access Streets with SSD less than that in Table 8 if no practical design exists and if acceptable road lighting is provided throughout the curve.

Table 8. – Vertical Curve – Minimum Stopping ~~Sight~~ Distance (ft)

Design Speed (mph)	Flat		Downgrade	
	0%	3%	6%	9%
25	165	165	175	185
30	200	210	220	230

Design Speed (mph)	Flat		Downgrade	
	0%	3%	6%	9%
35	250	265	280	305
40	325	345	365	400
45	400	425	455	505

12.5. Horizontal Curve Criteria

A. Superelevation is not required in the design of horizontal curves of Local Access Streets, but may be needed to meet terrain and right-of-way conditions.

B. Calculate superelevation according to AASHTO "Low Speed Urban Streets" design methodology.

C. See Table 9 for horizontal curve standards.

Table 9. – Horizontal Curve Design

Minimum Design Speed (mph)	20[1] Grades >10%	25[1]	30[1]	35	40
Minimum Center line Radius[2] (ft)	100	150	300	470	See note[3]
Minimum Horizontal Sight Distance (ft)	150	200	200	250	325
Minimum Reverse Curve Tangent (ft)	0	0	0	200	200
Minimum Approach Tangent at Intersections[3, 4] (ft)	50	75	100	200	300
Minimum Tangent between Curves (ft)	N/A	50	50	N/A	N/A
Minimum Run-Off Length (ft)	N/A	80	90	100	115
Superelevation	N/A	Not Required	Not Required	8% Maximum Calculate run-off lengths	
6% Superelevation Horizontal Curvature Radius (ft)	N/A	185	275	380	510
8% Superelevation, Horizontal Curvature for Radius (ft)	N/A	170	250	350	465

1 Use these criteria without superelevation.

2 Radii based on crown section with two (2) percent slope on each side of crown.

3 Where superelevation is used, calculate runoff lengths according to the WSDOT Design Manual.

4 Where a curved road approaches an intersection, these tangent sections shall be provided on the approach to the intersection to provide for adequate sight distance for traffic control devices at the intersection. The distance shall be measured from the flow line of the through street. Where superelevation is used, calculate runoff lengths according to the WSDOT Design Manual intersection. The distance shall be measured from the flow line of the through street. Where superelevation is used, calculate runoff lengths according to the WSDOT Design Manual.

12.6. Street Ends

Streets should end in a turn-around facility, such as cul-de-sac, an eyebrow, or a hammerhead.

A. A turnaround facility shall be provided at public or private street ends where the street length from the nearest intersection is more than 150 feet measured from the face of curb to end of dead-end street pavement, and shall be constructed as follows:
    1. Minimum right-of-way diameter across bulb section: 93 feet in a permanent cul-de-sac; 84 feet in a temporary cul-de-sac, with bulb area lying outside straight-street right-of-way provided as temporary easement pending forward extension of the street.
    2. Right-of-way may be reduced, if utilities and necessary drainage are accommodated on permanent easements within the development.
    3. Minimum diameter of surfacing across bulb: 80 feet of paving in curb type road.
    4. Cul-de-sac Island (Optional). If provided,
        a. Island shall have full-depth vertical curb.
        b. Minimum diameter shall be 20 feet and there shall be at least 30 feet of paved traveled way in a curb type section around the circumference.
        c. Island shall be landscaped. The adjoining property owners shall maintain the island through a maintenance agreement.
        d. Cul-de-sac island shall accommodate design fire vehicle with approval by South County Fire.
    5. Sidewalks shall be constructed on both sides of the stem and on the bulb.

B. Dead-end Local Access streets shall not be longer than 600 feet, measured from the centerline of the intersecting street to center of cul-de-sac. The maximum length may be

extended to 1,000 feet if 50 or fewer potential units are to be served and there is provision for emergency vehicle turnaround near mid-length.

C. A public pedestrian connection or an emergency vehicle access to connect a street at its terminus with other streets, parks, schools, bus stops, or other pedestrian trip generators shall be required. Off-street sidewalks shall be contained in the right-of-way or a sidewalk easement.

D. If a street temporarily terminated at a property boundary during development serves more than three (3) lots or is longer than 150 feet, a temporary bulb shall be constructed near the subdivision boundary. The paved bulb shall be 80 feet in diameter with sidewalks terminated at the point where the bulb radius begins. Removal of the temporary cul-de-sac, restoration, and extension of the sidewalk shall be the responsibility of the Applicant/Permittee who extends the road.

E. The maximum cross grade of a street at the street end shall be eight (8) percent.

F. Partial bulbs or eyebrows shall have a minimum paved radius and an island configuration. Island shall be offset two (2) feet from edge of traveled way.

G. A hammerhead may be used to fulfill the requirement to provide a turnaround facility where the street serves (or will serve) four (4) or fewer single-family residential units.

H. Pedestrian access shall be required to connect a street end to adjacent streets, parks, schools, or other pedestrian facilities. The pedestrian access shall be in right-of-way or, if approved, may be placed in a sidewalk easement.

12.7. Utility Locations

A. Utility structures shall be located in the amenity zone, at the back of sidewalk without encroaching onto private property, in the gutter line, or within the roadway as specified in Table 10, Underground Utility Locations.

B. New utility structures are not allowed in sidewalks, driveways, driveway approaches, or curb ramps.

C. Underground systems shall be located at least five (5) feet away from the road centerline and where the system will not otherwise disturb existing survey monuments.

Table 10. – Underground Utility Locations

Utility	Location from Centerline	Cover	Notes
Water Main[1]	5 to 10 feet north and east	Minimum 36-inch cover from finished grade	
Water Service	N/A	Minimum 30-inch cover from finished grade.	~~For any one connection, not extend more than 60 feet along or through the right-of-way, or the minimum width of the existing right-of-way.~~ Stub out perpendicular to water main preferred
Water Meter Box	In the right-of-way, at right-of-way line/property line in the one-foot setback between the back of sidewalk and right-of-way line. ~~-~~Not to be located within a driveway.		
Sanitary Main[1, 2]	5 feet south and west	~~Minimum~~Design for minimum 96-inch cover from finished grade, ditch bottom or natural ground. 60 in cover may be allowed due to site constraints	Stub out perpendicular to water main preferred
Force Main Side Sewer	Within 10 degrees of perpendicular-to-road centerline and extend to right-of-way line.	Minimum 36-inch cover from finished grade, ditch bottom or natural ground,	If nonmetallic, install wire or other acceptable proximity detection features; or place in a cast iron or other acceptable metal casing.
Gas Main	5 to 10 feet south and west	Minimum 24-inch cover	
Power, telephone, fiber-optic cable, cable TV	Either side	Minimum 36-inch cover	

1 Sanitary sewer and water lines shall be separated by a minimum of ten (10) feet in accordance with the most current edition of the Criteria for Sewage Work Design, Washington Department of Ecology.
2 Gravity systems, whether sanitary or stormwater, shall have precedence over other systems in planning and installation except where a non-gravity system has already been installed under previous approved permit and subject to applicable provisions of such permits or franchises.

D. Electric utilities, power, telephone, fiber-optic cable, cable TV:

1. Utility poles or other appurtenances shall be located as far from the travel lane or auxiliary lane as conditions allow. No pole or appurtenance shall be located where it poses a hazard to the general public. Utilities shall place and replace poles with primary consideration given to public safety.
2. Locations of poles shall be compatible with driveways, intersections, and other road features. A pole shall not interfere with sight distances, road signing, traffic signals, culverts, trees, etc.
3. Utility poles shall not be placed in sidewalks, curb ramps, or landing areas. Utility poles shall not impede ADA access in any way. Existing poles that are aligned with proposed sidewalk locations shall be relocated.
4. On roadways having vertical curb, poles and obstacles shall be placed clear of sidewalks.
5. On arterials and non-arterial streets, poles and obstructions shall be placed at least five (5) feet from edge of travel way.
6. Deviations from the pole and obstacle clearance criteria may be requested by utilities when there are no other viable alternatives and shall identify adequate protection for motorized and nonmotorized users.

12.8. Private Streets

Private streets shall conform with MTMC 19.95.030 (H)

A. For private streets with a dead-end, refer to EDM Section 12.6, Street Ends.

B. Pedestrian sidewalk at least four (4) feet wide shall be provided on at least one (1) side of the private street. The pedestrian sidewalk shall be separated by a curb or other acceptable physical barrier. ~~Rolled curb may be used if approved by the City Engineer.~~ Parking is not permitted in the pedestrian sidewalk area.

C. Street lighting systems for private streets shall be designed and constructed on a separate power source from the public street systems and shall be the responsibility of the property owner, homeowner, or homeowner's association.

D. Private streets shall be designed to provide adequate access for trash collection and merchandise deliveries.

E. See EDM Section 11.2, Access Width for access width requirements.

F. See EDM Section 15.1, Table 16 for vertical clearance requirements.

12.9. Woonerf

A woonerf (also known as a home zone, living street, or shared street) is a street that facilitates pedestrian, bicycle, and vehicular traffic within a shared space. Woonerfs typically lack separate pavement zones for different travel modes (i.e., walking, bicycling, and driving) and include a variety of surface treatments, bollards, street lighting, and landscaping to define a shared space.

Woonerfs can be private or public and are intended to be designed to meet the needs of the immediate community. The following standards are generalized and provide a starting point for woonerf design. Each woonerf is a unique shared space.

Woonerfs designs should achieve the following objectives:

A. Shared pedestrian, vehicular, and bicycle traffic;

B. Safe transitions for between woonerfs and standard facilities;

C. Traffic calming measures, such as sitting areas, planters, parking spaces, and bollards; and

D. ADA-compliant access.

Woonerf design requirements include the following:

A. Entrance/Exit:

   1. The international woonerf sign is required at all entrances and exits. Informational signs may be placed under the international woonerf sign.
   2. Traffic calming measures may be required at entrances and exits.

B. Designated Spaces:

1. The design shall not give the impression of a curbed roadway and elevated sidewalk.
2. To designate pedestrian-only spaces, the use of bollards, landscaping, and other protection are required.
3. Parking and/or loading spaces are acceptable. Parking spaces shall be distinguished by pavement markings, surface treatments, or other means.

C. Surface Treatments: The use of a variety of surface treatments is encouraged.

D. Other Amenities: Pedestrian-scale lighting is required consistent with EDM Section 7.9, Illumination.

E. The Applicant shall coordinate with the Fire Code official to ensure adequate access is provided for emergency services.

Chapter 13. Intersection Design

The design criteria in this chapter apply to street intersections. Intersections include driveway access as well as an approach to a street.

To the extent feasible, intersection design shall conform to the guidelines set forth in the most current versions of the WSDOT Design Manual, AASHTO Policy on Geometric Design, the ITE Urban Street Geometric Design Handbook, and the MUTCD, including alignment, sight distance, and geometric elements.

13.1. Alignment

A. The angle of an intersection of two (2) streets shall be 85 degrees to 95 degrees.

B. It desirable that entering through traffic is aligned with the exit lanes at an intersection. However, the entering and exit lanes may be offset up to six (6) feet as shown in Figure 1, Maximum Intersection Lane Alignment Offset, when the following conditions are met:

   1. Illumination is provided;
   2. The intersection is not within a horizontal curve, nor is it within a crest vertical curve; and
   3. The taper rates provided in Table 11 are used.

Figure 2. – Maximum Intersection Lane Alignment Offset

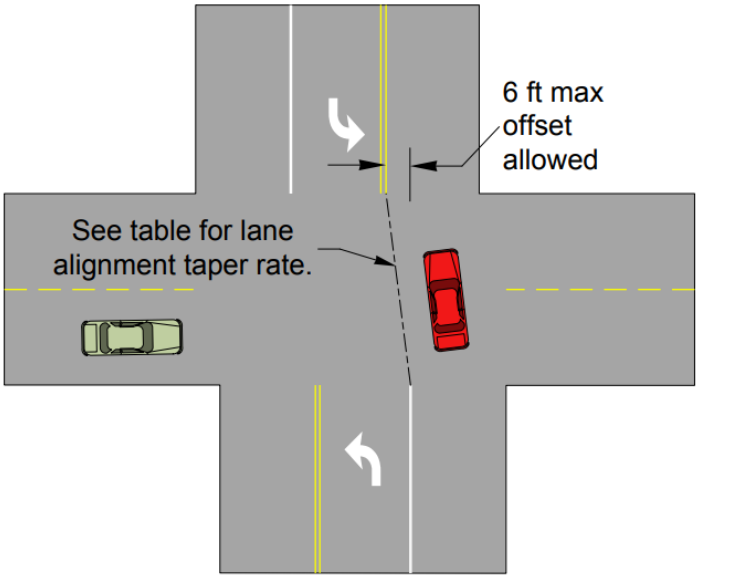


Table 11. – Intersection Alignment Taper Rates

Posted Speed Limit (mph)	Taper Rate
45	45:1
40	27:1
35	21:1
30	15:1
25	11:1

C. Dotted extension lines may be required when the travel lanes are offset.

D. Special consideration shall be made when the exit lanes have been shifted to the right to ensure vehicles can safely traverse the intersection without conflicting with on-coming traffic.

13.2. Spacing

The minimum distance between adjacent parallel private or Local Access Streets shall be 150 feet, measured from nearest curb edge to nearest curb edge. For all other intersections, the spacing shall be determined during preliminary design.

13.3. Design Vehicles

A. Where applicable, the intersection design shall accommodate the use of the roadway as a designated truck route, bus route, or school bus route.

B. The City's standard design vehicle is the AASHTO SU-30, although use of larger design vehicles may be required depending on roadway classification, transit routes, and adjacent land use.

C. All elements of the intersection shall be designed so the design vehicle will not encroach onto curbs, sidewalks, traffic control devices, medians, or the travel lanes of opposing travel flow, unless otherwise approved by the City Engineer.

13.4. Curb Radii

Curb radii design shall balance vehicle turning movements with pedestrian safety. Typically, it is appropriate to use the smallest turn radii possible that still accommodates the Design Vehicle.

A. Curb radius design shall be verified with AASHTO turning template for the design vehicle ~~or equivalent turning simulation.~~.

B. Turning simulations should demonstrate that design vehicles do not cross over centerline markings of arterial roadways when making right turns.

C. For design, round curb radii to the nearest five (5) foot increment.

D. Typical curb radii based on street classification are shown in Table 12. ~~-~~However, these values may be impacted by site conditions, including width of receiving lanes, on-street parking, and angle of intersecting roadways.

Table 12. – Typical Curb Radii Design Values

Street Classification (for highest street classification at intersection)	Radius
Arterial to Arterial	25 feet
Arterial to Local Street	20 feet
Local Street to Local Street	20 feet
Where vehicular turn is prohibited	10 feet
Radii for curb setbacks and bulb-outs	15 feet

13.5. Drainage

A. An intersection shall be laid out and graded so that stormwater drains and the intersection is safe and accessible for pedestrians and bicyclists.

B. Drainage structures shall not be placed in an ADA ramp or landing area.

C. Unless otherwise approved by the City Engineer, drainage structures shall be located outside the corner radii.

D. Drainage structures shall be placed at upstream side of curb ramps to reduce runoff or ponds in ADA ramp area.

E. ADA ramps shall slope so that drainage is toward the gutter.

F. When new curbs and gutters are installed as part of frontage improvements, drainage shall be addressed to avoid ponding upstream and flooding downstream. This typically

involves the installation of catch basins and/or inlets at the extents of the frontage improvements.

13.6. Intersection Grades

A. Intersections shall be on grades as flat as practical.

B. At an unsignalized intersection, the maximum allowable grade in the intersection is four (4) percent extending a minimum of 50 feet in each direction, measured from the outside edge of the travel lane of the intersecting street.

C. At signalized intersections, the maximum grade is two (2) percent within the intersection and extends 20 feet in each direction. Grades above four (4) percent shall be allowed only in areas with steep topography or other unusual circumstances that prevent a flatter grade.

D. On sloping approaches at an intersection, landings shall be provided with grade not to exceed one (1) foot difference in elevation for a distance of 30 feet approaching an arterial or 20 feet approaching a Local Access Street, measured from future right-of-way line (extended) of intersecting street.

E. The point of vertical curvature shall not encroach into a cross street any further than the center of pavement of the cross street.

13.7. Pedestrian Accommodations

In order to provide pedestrian safety, accommodations for pedestrians shall be designed into all intersections. Pedestrian accommodations include sidewalks, crosswalks, and pedestrian refuge islands. Pedestrian accommodations shall meet ADA guidelines.

A. Vaults, covers, castings, or drainage grates shall not be placed within the crosswalk, or within crosswalk curb ramps or landing areas.

B. Two (2) ADA compliant curb ramps with tactile warning strips shall be installed at each corner, where possible, and corresponding companion ADA compliant ramps shall adhere to RCW 35.68.075. This may require construction or retrofit of companion ramps.

C. When street paving impacts an intersection or modification to a curb ramp occurs, the curb ramps shall be retrofitted to meet the current ADA criteria. Impact to an intersection is defined as:

1. Nine (9) SF or more of disturbance to the sidewalk within the area bounded by the curb, the right-of-way or property lines, and the extensions of right-of-way/property lines (across the sidewalk); or
2. Three (3) linear feet (LF) of disturbance to the curb; or
3. Development projects requiring installation of frontage improvements; or
4. Roadway resurfacing defined as an alteration by the 2013 Department of Justice/ Department of Transportation Joint Technical Assistance on Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered though Resurfacing. This includes asphalt overlays or addition of new asphalt/concrete roadway surface.

13.8. Clear Sight Triangle

A. General:

These guidelines establish clear sight triangles around all intersections and driveways, which shall be kept clear of sight obstructions. The clear sight triangle is determined by the type of intersection control and the speed limit on the major road or street entered upon.

In cases involving grades greater than three (3) percent, number of lanes greater than two (2), skewed intersections, or for design vehicles other than passenger cars, the below sections shall be adjusted based on the sight distance procedures in the most current edition of *A Policy on Geometric Design*, AASHTO.

For sight triangle requirements as they relate to bicycle facilities, refer to the most current edition of *A Guide for the Development of Bicycle Facilities*, AASHTO.

B. Obstructions:

Unless specifically approved by the City Engineer, no structure, improvement, vegetation or other object greater than 18 inches wide between two and a half (2.5) feet and eight

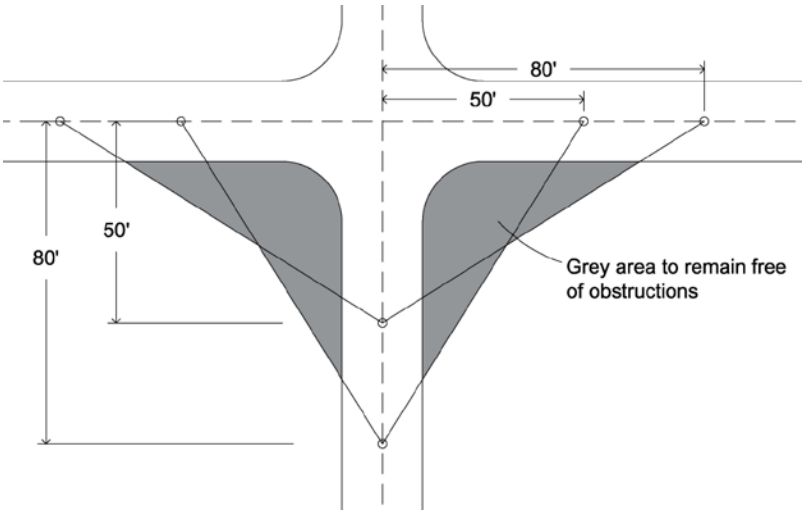
(8) feet above street grade may be within the clear sight triangle. The driver's eye height position shall be taken from a position three and a half (3.5) feet above pavement grade.

C. Clear Sight Triangle Dimensions – Intersections:

1. Uncontrolled Intersection.

   For intersections with no traffic control on any approach the clear sight triangle for vehicles shall be defined as shown in Figure 2, Sight Triangles for Uncontrolled or Yield Controlled Intersections.

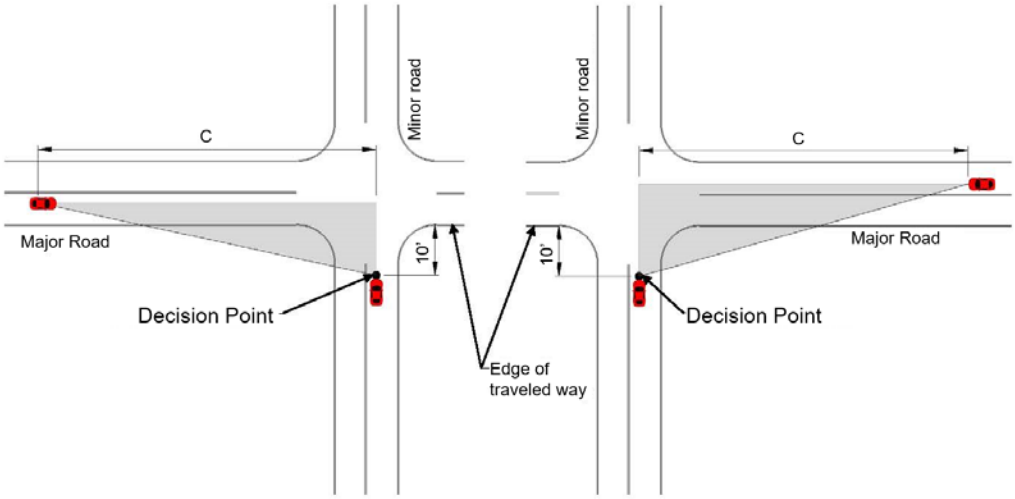
Figure 3. – Sight Triangles for Uncontrolled or Yield Controlled Intersections



2. Stop Control on Minor Street:

   For intersections with stop control on the minor street only, the clear sight triangle for vehicles shall be defined as shown in Figure 3 and Table 13. For stop controlled intersections, the decision point shall be ten (10) feet back from the edge of the traveled way. The minimum required sight distance is the SSD for the major roadway, shown in Table 13.

Figure 4. – Departure Sight Triangles for Stop Control on Minor Street



3. The traveled way is the portion of the road intended for the movement of vehicles and bicycles exclusive of shoulders, turn lanes, and on-street parking.

Table 13. – Sight Distance for Stop Control on Minor Street

Posted Speed Limit (mph) on Major Road	Recommended C (ft) *Desirable*	Required C (ft) *Minimum**
25	280	145
30	335	180
35	390	220
40	445	260

**Minimum shall only be used to evaluate existing conditions or when Desirable can not be obtained.*

4. Signalized Intersection:

   At signalized intersections, the first vehicle stopped on one approach shall be visible to the driver of the first vehicle or bicycle stopped on each of the other approaches. The first stopped vehicle on one approach shall also be able to see pedestrians within the legal crosswalk on all of the approaches. Left-turning vehicles shall have sufficient sight distance to select gaps in oncoming traffic and complete left turns. For sight lines to traffic signal displays, refer to the most

current WSDOT Design Manual. For right turn on red movements, criteria for stop control on minor streets (Figure 3 and Table 13) shall apply.

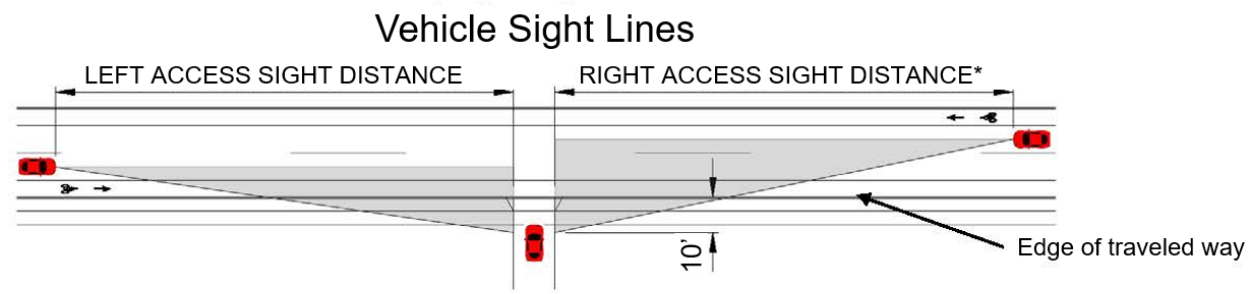
5. All-Way Stop Intersection:

   At intersections with all-way stop control, the first stopped vehicle on one approach shall be visible to the drivers of the first stopped vehicles or bicycles on each of the other approaches. The first stopped vehicle on one approach shall also be able to see pedestrians within the legal crosswalk on all of the approaches.

D. Clear Sight Triangle Dimensions – Driveways:

Driveways not controlled by traffic signals operate like intersections with stop control on the minor approach. The applicable sight distance triangles for vehicles exiting driveways from surface lots, parking structures, etc, are shown in Figure 4 and Table 14.

Figure 5. – Driveway Sight Triangles



*Right Access Sight Distance is not required if left turns into/out of the driveway are prohibited.

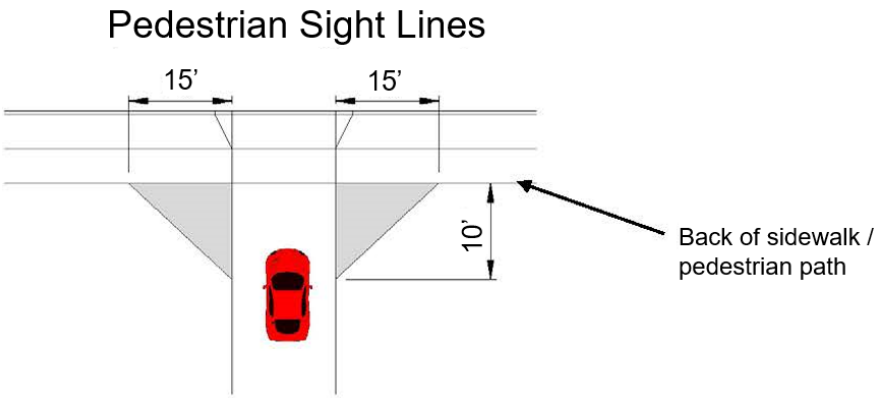


Table 14. – Clear Sight Distance for Driveways

Major Road Volume (ADT)	Major Road Speed Limit (mph)	Driveway Access Sight Distance (ft) *Desirable*	Driveway Access Sight Distance (ft) *Minimum**
<6000	25	155	155
	30	200	200
	35	250	250
>6000	25	280	155
	30	335	200
	35	390	250
	40	445	305

**Minimum shall only be used when Desirable can not be obtained.*

13.9. Pedestrian Sight Distance

A. The minimum sight distance for pedestrian safety shall be determined as follows: the driver of an existing vehicle shall be able to view a one (1) foot high object 15 feet from either edge of the exit lane at the driveway throat when the driver's eye is ten (10) feet behind the back of the pedestrian walkway as shown in Figure 4.

B. The minimum sight distance shall be maintained at all driveways, buildings, and garage entrances where structures, wing walls, etc., are located adjacent to or in close proximity to a pedestrian walkway.

Chapter 14. Pedestrian and Bicycle Facilities

14.1. General

A. Non-motorized facilities and associated amenities shall be provided when required by state or federal regulations, the municipal code, when planned in an adopted City plan, or when needed to ensure safe walking/biking conditions as mitigation through a traffic impact analysis.

B. Pedestrian and bicycle facilities may use developed or unopened right-of-way, or in some circumstances may be located across private property within an easement.

C. All facilities shall meet Americans with Disabilities (ADA) requirements and/or Forest Service Trail Accessibility Guidelines (FSTAG), as applicable.

14.2. Sidewalks

Sidewalks are required on all streets, except alleys. Sidewalk shall be required on private street and street endings, See Chapter 12 Street Design

A. All designs shall meet the current Americans with Disabilities Act (ADA) and Public Right of Way Accessibility Guidelines (PROWAG) requirements and standards. Refer to EDM Chapter 13, Intersection Design for curb ramp requirements.

B. Sidewalk design should address opportunities to maximize the retention of significant trees in the City right-of-way. Alternatives could include narrower sidewalk widths and/or moving sidewalk to front or back of tree. The City may require an arborist report to assess the health and condition of street trees.

C. Sidewalks shall be located between the property/right-of-way line and the amenity zone unless otherwise approved by the City Engineer.

D. Sidewalks abutting single-family residential uses shall be at least six (6) feet wide.

E. Sidewalks abutting uses other than single-family residential shall be at least eight (8) feet wide.

F. The required width of a sidewalk is defined for many streets in Appendix F – Street Matrix. Sidewalks may be greater than eight (8) feet when the City determines that greater widths are warranted due to expected pedestrian traffic volume.

G. Sidewalks installed immediately adjacent to curb shall have a minimum width of eight (8) feet to provide adequate space for signs, fire hydrants, utilities, tree grates, and door swing.

H. Sidewalks shall maintain their full width around obstructions that cannot be relocated.

I. When a sidewalk must transition to frontage that does not have a sidewalk, the transition shall meet ADA requirements. Unless the City requires a different transition, an asphalt transition is acceptable.

J. Parking stalls shall be designed and constructed so that no part of any parked vehicle obstructs the Pedestrian Access Route as defined by ADA or the sidewalk.

K. Sidewalks shall be constructed with concrete, unless otherwise approved by the City Engineer.

14.3. Pedestrian Paths

A. All designs shall meet the current ADA requirements and standards.

B. Paths designated for pedestrian use shall be at least six (6) feet wide and have a minimum of one (1) foot wide shoulders on each side.

C. The maximum grade shall not exceed five (5) percent. Depending on site conditions, stairs, ramps with landings, and/or switchbacks may be required.

D. Acceptable surface materials are asphalt concrete (asphalt) and Portland cement concrete (concrete).

14.4. Shared-Use Paths

A. Shared-use paths shall be designed for pedestrian and bicycle use.

B. All designs shall meet the current ADA requirements and standards.

C. Shared-use paths shall be at least ten (10) feet; an eight (8) foot minimum is allowed at pinch points. A minimum two- (2) foot graded or paved shoulder is required on either side of a shared-use path. A wider graded shoulder may be required when heavy pedestrian use is anticipated. If the shoulder is paved and adjacent to a bank slope greater than 6H:1V, a longitudinal pavement marking or surface treatment shall be used to differentiate between the path and the shoulder.

D. The maximum grade shall not exceed five (5) percent. Depending on site conditions, stairs, ramps with landings, and/or switchbacks may be required.

E. Acceptable surface materials are asphalt concrete (asphalt) and Portland cement concrete (concrete).

14.5. Bicycle Facilities

A. Bicycle facilities shall be provided in accordance with the AASHTO Guide for the Development of New Bicycle Facilities, MUTCD – Manual for Unified Traffic Control Devices, and WSDOT – Washington State Department of Transportation.

B. The direction of travel for bicycle facilities shall be in the same direction as motor vehicle traffic, unless the bicycle facilities are protected from vehicular traffic by a physical barrier.

C. Vaned grates or solid lids shall be used on all catch basins located within bicycle facilities and/or roadways.

Chapter 15. Roadside Features

15.1. Fixed Objects

A. Locate fixed objects so that vehicle and pedestrian sight distance meets the standards in EDM Chapter 13, Intersection Design.

B. Standard clearances shall be met in accordance with Table 15 and Table 16 unless approved otherwise to accommodate existing site conditions.

Table 15. – Standard Lateral Clearances (minimum)

From	To	Standard Clearance
Curb face (corner radius)	Closest part of any fixed object	3 feet
Curb face	Closest part of any fixed object	2 feet
Textured surface of wheelchair ramp	Closest part of any fixed object	1 foot
Edge of sidewalk	Stair riser	2 feet
Pole face, fire hydrant	Closest part of any fixed object (excluding traffic control signs and parking meter posts)	5 feet

Table 16. – Standard Vertical Clearances (minimum)

From	To	Standard Clearance
Roadway surfaces, including private accesses	Any horizontal projection over surface: measured from the crown of the street to the lowest portion of the structure.	22 feet
Sidewalk surfaces, including private walkways	Any horizontal projection over the surface	14 feet
Roadway surfaces	Tree limbs	14 feet
Alley surfaces	Any horizontal projection over paved surface	14 feet
Bicycle path surfaces	Any horizontal projection over surface	10 feet

C. Electrical Facilities. For projects that require installation of or adjustments to SnoPUD facilities, the Applicant/Permittee shall coordinate this activity with SnoPUD. Please visit the SnoPUD website or SnoPUD engineering for the most recent information on clearance requirements.

   SnoPUD and City staff should work closely with the Applicant/Permittee to accomplish appropriate clearances required for design, during construction, and at final build-out. Communication and resolution of required clearances are critical to final design and construction approval of the proposal.

15.2. Landscaping

The landscaping design criteria in this section are based on transportation safety requirements and on minimum requirements for plants to achieve mature growth.

For landscaping requirements on private property, contact Community and Economic Development.

Right-of-way landscaping plans shall meet the following design requirements:

A. General:
   1. Any existing right-of-way landscaping disturbed by construction activity shall be replaced or restored to the same or better condition as before construction started.
   2. All landscaping shall meet the sight distance and sight triangle requirements in EDM Chapter 13, Intersection Design.

B. Landscaping Plan:
   1. The right-of-way landscaping plan shall be drawn to an engineering scale, and shall show property lines, plant and tree locations, right-of-way infrastructure, driveways, and intersections, as well as all specifications needed to install and inspect the installation.
   2. Coordinate landscaping with transportation and utility plans. Adjust locations of trees to accommodate utilities, pedestrians, and sight distance.
   3. Preserve existing trees and landscaping where possible.

C. Plant Selection:

1. All plants shall conform to the standards as published in the most current edition of the *American Standard for Nursery Stock* manual, provided that existing healthy vegetation used to augment new plantings shall not be required to meet these standards. The *American Standard for Nursery Stock* manual is available online at: https://www.americanhort.org/nursery-standards.
2. Plant selection shall consider adaptability to climatic, geology, and topographic conditions of the site.
3. Tree and shrub canopies, upon maturity, shall not reach an above ground utility such as streetlights and power lines.

D. Soil:

1. The landscaping plan shall provide soil specifications, including soil depths. Refer to BMP T5.13 Post Construction Soil Quality and Depth (Stormwater Manual) for general soil specifications. Improvements that include biofiltration require specific specifications for the soils. Refer to Standard ~~Detail~~Plan 452~~;~~ - Soil Amendment and Depth.

E. Street Trees:

1. New trees shall be at least two-inch caliper and selected from the City-approved street tree list in Appendix G – Right-of-way Street Tree List.
2. Street trees shall be spaced a minimum of 25 feet on center.
3. The standard clearance from underground stormwater and sewer utilities often is not enough space to minimize the effects of utility maintenance and repair and ensure longevity of the tree. When right-of-way width allows, additional clearance distance shall be provided.
4. When right-of-way width is limited and the eight (8) feet clearance cannot be met, the City shall evaluate site conditions and may permit one (1) or both of the following:
    a. Tree installation less than eight (8) feet from ductile iron or Polyvinyl Chloride (PVC) pipe;

b. Tree installation less than eight (8) feet from concrete pipe that has rubber gaskets; or

c. The City may allow the separation to be reduced to three (3) feet when root barriers are installed.

5. Adjust placement to avoid conflict with driveways, utilities, and other functional needs. Trees shall be placed:

a. Centered within the amenity zone between the curb and sidewalk;

b. Outside of the sight distance triangles per EDM Sections 13.8, Clear Sight Triangle and 13.9, Pedestrian Sight Distance;

c. Eight (8) feet from underground utility lines or three (3) feet with root barriers;

d. Ten (10) feet from power poles (15 feet recommended);

e. Seven and one-half (7.5) feet from driveway edges (10 feet recommended);

f. 25 feet from streetlights or existing trees;

g. 30 feet from curb or travel lane street intersections (when no curb);

h. Ten (10) feet from roadway edge where no curb is present; and

i. 20 feet from marked or unmarked crosswalks.

15.3. Mailboxes

A. United States Postal Service (USPS) shall approve all mailbox locations.

B. Clustered mailboxes are preferred.

C. The approach to mailboxes shall be clear of obstruction.

D. Mailboxes shall not be installed adjacent to ditches unless approved by the City Engineer.

15.4. Steps and Stairways

A. Steps and stairways, and associated landings from private property shall not extend into the right-of-way.

B. The first riser shall be at least two (2) feet clear of a public walk. Steeper grades may require three feet or more clear for transitions.

C. A minimum five (5) feet by five (5) feet landing shall be provided after each 20 risers.

D. Pedestrian lighting may be required for stairways.

15.5. Railing

A. Railings on private property shall be consistent with guard requirements of the construction and building codes. Railings shall have a maximum spacing of four (4) inches for vertical elements of the railing.

B. Railings in the right-of-way shall be consistent with the most current City and WSDOT Standard Specifications.

C. Railing in the right-of-way shall be installed along a nonmotorized transportation facility when there is a loss in elevation from the facility of 30 inches or more and:

1. The vertical wall face is less than four (4) feet in horizontal distance from the facility.
2. The vertical wall face is greater than four (4) feet horizontally to the facility and the slope to the wall top is steeper than 1V:3H.
3. The slope(s) adjacent to the facility average greater than 1V:2H.

15.6. Cut-and-fill Slopes

A. Side slopes shall be 2H:1V or flatter on both fill slopes and cut slopes.

B. Steeper slopes may be approved by the City Engineer when supported by a geotechnical report and engineering recommendations.

C. Side slopes shall be stabilized by grass sod or seed, or by other approved plant or surface materials.

15.7. Guardrail

Guardrail shall be provided and installed by the Applicant/Permittee as directed by the City Engineer. For purposes of warrants, design, and location, all guardrails along public and private roadways shall conform to the criteria of the most current editions of the WSDOT Design

Manual, WSDOT Roadside design guide, and WSDOT Standard Plans and Standard Specifications.

Chapter 16. Surface Treatment

This chapter provides criteria for paving and for restoring traveled ways within the City's right-of-way.

16.1. General

A. Hard surfacing such as asphalt concrete or Portland concrete cement (PCC) is required within the right-of-way.

B. Gravel surfacing may be allowed in right-of-way that the City does not maintain, such as alleys.

C. When approved by the City, grades steeper than 15 percent shall be paved with PCC.

D. Use of permeable pavements in the right-of-way may be utilized, subject to approval of the City Engineer. Refer to EDM Section 7.2, Low Impact Development.

16.2. Asphalt Pavement Design

Minimum asphalt pavement sections are identified in ~~Standard Detail 161, Road, Driveway, and Parking Lot Typical Sections~~Table 17:

A. Arterial Streets:

1. Any pavement for arterial streets shall consider the load bearing capacity of the soils, based on actual field tests, and the traffic-carrying requirements of the roadway.
2. The analysis shall include the traffic volume and axle loading, the type and thickness of roadway materials and the recommended method of placement. Pavement sections shall not be less than those required for collector arterials.
3. Pavement design shall be prepared by a Professional Engineer licensed in the State of Washington who is proficient in pavement design. Soils tests are required to assess the California Bearing Ratio (CBR) for the subgrade.

B. Local Access Streets:

1. Local Access Streets that carry truck traffic shall use Commercial/Industrial pavement design standards.

2. Unless otherwise approved by the City, in areas of pavement restoration or adjacent to existing pavement, reconstruction shall, at a minimum, match existing roadway sections, provided it exceeds the minimum pavement section.

C. Poor Subgrade:

1. The minimum material thicknesses indicated are not acceptable if there is any evidence of instability in the subgrade. This includes, but is not limited to, free water, swamp conditions, fine-grained or organic soil, slides, or uneven settlement. If there are any of these characteristics, the soil shall be sampled and tested sufficiently to establish a pavement design that will support the proposed construction. Any deficiencies, including an R-value of less than 55 or a CBR of less than 20, shall be fully considered and compensated for in the design.

Table 17. – Pavement ~~Depth~~Thickness (minimum)

~~DEPTHS~~THICKNESS			
	HMA Class ½" PG 58H-22 (IN.)	~~HMA Class 1" PG 58H-22 (IN.)~~CSBC WSDOT Standard Spec 9-03.9(3)	~~Concrete~~Concrete CL. 4000 per WSDOT Standard Spec 6-02.3(1) (See Note 1)
Arterial (Principal/Minor)	~~4~~9	~~5~~6	9
~~Arterial (Collector)~~	~~4~~	~~4~~	~~9~~
Local Access (Public)	~~7~~6	~~0~~6	6
Transit/Truck Route	~~4~~9	~~5~~6	9
Commercial/Industrial	~~4~~9	~~5~~6	9
Private Access/Parking Lot	3	~~See NOTE 1~~4	6

~~*1. 4" of 1-1/4" MINUS Crushed Surfacing Base Course under roadways, driveways and driveway approaches, and use minimum 2" of 1-1/4" MINUS Crushed Surfacing Base Course under sidewalks and ADA curb ramps per WSDOT STANDARD SPEC 9-03.9(3)*~~

1. Concrete pavement may be used instead of HMA with approval from City Engineer.

16.3. Pavement Widening

A. Any widening of an existing roadway, either to add traveled way or paved shoulder, shall have the same surfacing material as the existing roadway.

B. When an existing shoulder is to become part of a proposed traveled way, a pavement evaluation shall be performed. ~~-~~The shoulder area shall match the existing roadway section or ~~pavement design~~the depths shown in Table 17, whichever is ~~required to determine if the shoulder is acceptable or if any improvements are necessary. Designs based on these evaluations are subject to review and approval by the City Engineer~~greater. The responsibility for any shoulder material thickness improvement shall be considered part of the requirement for roadway widening.

Chapter 17. Traffic Control Devices

All traffic control devices shall conform to the MUTCD and the standards in this EDM.

17.1. Signs

A. All signs, such as street name, parking, stop, dead end, speed limit, and nonmotorized indicators shall be approved as part of the project plan. The channelization plan showing paving markings, permanent signing, and crosswalk locations shall be prepared by a Professional Engineer licensed in the State of Washington

B. Temporary traffic control to ensure traffic safety during construction activities shall be provided by the Permittee and installed per MUTCD standards, or as directed by the City's Inspector.

17.2. Traffic Signals

The following apply to new or modified traffic signals:

A. A signal warrant study prepared by a Professional Engineer licensed in the State of Washington is required for all new traffic signal installations. The City Engineer shall review and approve the study.

B. Signal design shall meet ADA, MUTCD, and WSDOT Design Manual 13.30 requirements.

C. Emergency vehicle preemptions systems are required for all new signal installations and may be required for signal modifications.

D. Signal structures consisting of poles and mast arms shall be required for all new installations.

E. Stop bar and advanced loop detection is required for all signalized approaches. Camera detection may be installed by request subject to review and approval by the City Engineer.

F. Transit Signal Priority capability may be required at intersections which serve transit routes. Bicycle loop detection is required for all bike lane approaches to signalized intersections. If a predominant left turning movement for bicyclists is present, bicycle push buttons or channelized bike boxes may be required.

G. Traffic signal equipment, including cabinets, controllers and other components, shall be reviewed and approved by the City Traffic Engineer.

DIVISION 3 – STORMWATER

Chapter 18. Standards

18.1. Design Requirement

Division 3 – Stormwater applies to public and private development within the City.

The City has adopted the *2019 Department of Ecology Stormwater Management Manual for Western Washington* (Stormwater Manual) and, for general guidance, refers to the *2012 Low Impact Development Technical Guidance Manual for Puget Sound* (LID Manual).

Basin plans shall provide a mechanism by which the minimum requirements and BMP implementation for a project may be refined based on the analysis of a basin or watershed. Basin plans may also be used to develop control strategies to address impacts from future development and to correct specific problems whose sources are known or suspected.

Appendix 1 and Appendix 10 of the National Pollution Discharge Elimination System (NPDES) permit issued by the Department of Ecology are adopted, including the thresholds, definitions, minimum requirements and exceptions, adjustment and variance criteria that it contains.

A. For stormwater design:

   1. 2019 Stormwater Manual, Department of Ecology. The City's modifications to the Stormwater Manual are itemized in EDM Chapter 19, Stormwater Manual Additional Requirements. The Stormwater Manual is available on Ecology's website: http://www.ecy.wa.gov/programs/wq/stormwater/manual.html
   2. The 2012 LID Manual may be used for guidance on LID site design. The LID Manual is available on the Puget Sound Action Team website: https://www.psp.wa.gov/downloads/LID/20121221_LIDmanual_FINAL_secure.pdf

18.2. Adjustments and ~~Variances~~Deviations

Adjustments to the minimum requirements may be granted by the City Engineer. Applicants must provide a narrative and any necessary supporting documentation describing the desired adjustment as written findings of fact, demonstrating that the adjustment:

A. Will neither seriously nor adversely impact the water quality conditions of any affected receiving bodies of water.

B. Will not alter the drainage patterns, increase the runoff volume or peak discharge, or cause any other adverse effects in the drainage area.

C. Will not cause runoff exceeding the available capacity of the existing drainage system where such system was designed to serve the proposed development area.

D. Will not reduce the flood-carrying capacity of any watercourse.

Variances may be permitted only after a determination by the City Engineer of the validity of a variance. The City Engineer may grant a variance if such application imposes a severe and unexpected economic hardship which prohibits reasonable use of the applicant's property. To determine whether the application imposes a severe and unexpected economic hardship on the project applicant, the applicant must provide the City Engineer with a narrative and any necessary supporting documentation, including written findings of fact, for the following information:

A. The current (pre-project) use of the site; and

B. How the application of the minimum requirement(s) per MTMC 16.20.020 restricts the proposed use of the site compared to restrictions that existed prior to the adoption of the minimum requirements; and

C. The possible remaining uses of the site if the exception were not granted; and

D. The uses of the site that would have been allowed prior to the adoption of the minimum requirements; and

E. A comparison of the estimated amount and percentage of value loss as a result of the minimum requirements versus the estimated amount and percentage of value loss as a result of requirements that existed prior to adoption of the minimum requirements; and

F. Whether or not there are special physical circumstances or conditions affecting the property such that the application of the minimum requirement would deprive the applicant of all reasonable use of the site in question; and

G. Whether or not every effort to find creative ways to meet the intent of this chapter's provisions has been made; and

H. The feasibility for the owner to alter the project to apply the minimum requirements; and

I. How the exception is the least possible exception that could be granted to comply with the intent of the minimum requirements; and

J. How the exception will not increase risk to the public health and welfare, nor be injurious to other properties in the vicinity and/or downstream, or to the quality of waters of the state.

Requests for variance shall be filed in writing with the City Engineer, including the payment of any fees established by the City, and shall adequately detail the basis of granting a variance. Variances require public notice (as described in Chapter 18.05 MTMC, Article III, Permit Review Procedures) for the variance application, public notice of the City Engineer's decision on the application, and written findings of fact that document the determination by the City Engineer to grant the variance. The decision of the City Engineer concerning a request for a variance shall be made in writing.

When the City Engineer determines that the City's standards will deny all reasonable use of the property, the restriction of development may be waived only by the Hearing Examiner; provided, that the resulting development shall be subject to all of the remaining standards.

Chapter 19. Stormwater Manual Additional Requirements

This chapter lists the City's amendments to the Stormwater Manual. All requirements in the Stormwater Manual are applicable in the City, including any guidelines or requirements that Ecology recommends or encourages, unless otherwise noted herein.

Thresholds for determination of project minimum requirements will be calculated based on all development activity from the past 3 years.

Per Section I-12.15 and MTMC chapter 16.20, the City has adopted the following additional requirements:

A. Section I-3.4.2 MR2: Construction SWPPP Supplemental Guidelines:
    1. The City has developed a single-family erosion control plan sheet (Construction SWPPP) for use by single ~~family homeowners only.~~unit detached homes.
    2. The Ecology SWPPP template is required unless the city's construction inspector or stormwater program manager approves use of the single family template.
    3. Element 2 – Establish Construction Access:
        a. Street washing is not permitted, even after shoveling or sweeping.
        b. During construction, if material is repeatedly being deposited on off-site streets and current implementation of SWPPP BMPs does not fix the problem, additional strategies may be required, including:
            i. Regenerative-type vacuum sweepers and repeated or continuous sweeping.
            ii. Special site procedures and provisions (such as transferring haul-outs to trucks that travel only on paved and maintained surfaces in the site).
    4. Element 7 – Protect Drain Inlets:
        a. Adjustable frame drain inlet protectors required (the felt flaps type tend to bypass flow and clog more easily.)

b. Note on the TESC plan that the Contractor shall remove inlet protection at the end of the project without releasing captured sediment into the storm system.

5. Element 9 – Control Pollutants:
    a. All projects which have the potential to be active during the wet season must have a wet weather plan with specific BMPs listed in the SWPPP. The wet weather plan must be approved by the city before earthwork can begin.
    b. For projects at high risk of exporting sediment from the site during wet weather, water quality treatment located downstream of temporary flow control required during wet season construction (October 1-April 30), or until city construction inspector determines the site to be fully stabilized. Determination of the degree of risk associated with a project is to be assessed by city based on size of project, steep slopes, and other site attributes that increase risk of erosion. If Ecology thresholds for pH and/or turbidity on stormwater discharges for the site are exceeded more than once a year, additional flow control and/or water quality treatment/filtration are required.
6. Element 13 – Protect LID BMPs:
    a. All proposed and existing LID BMPs shall be shown on the Applicant/Permittee's erosion control plan. The erosion control plan shall detail the protection and cleaning of all LID BMPs.
7. Additional requirements for all projects:
    a. Dust is controlled and is in compliance with the Puget Sound Clean Air Agency; and
    b. Work in Critical Areas conforms to requirements of the City's Critical Areas Ordinance (CAO).

B. Section I-3.4.6 MR6: Runoff Treatment:

1. The Lake Ballinger Watershed has a Total Maximum Daily Load (TMDL) for phosphorous. Whenever MR6 applies for a site that ultimately drains to Lake Ballinger, phosphorus treatment is required.
2. If the runoff from the new impervious surfaces and converted pervious surfaces is not separated from runoff from other surfaces on the project site, the stormwater treatment facilities must be sized for the entire flow that is directed to them.

C. Section I-3.4.7 MR7: Flow Control:

1. Refer to the Stormwater Manual Vol. I: 3.4.7 for the thresholds that trigger flow control requirements. If a project exceeds **any** one of the three thresholds, the project triggers the requirement for flow control facilities.
2. Where detention facilities are incorporated into the property development in the form of ponds, lakes, or fountains, they shall be designed so as to avoid algae blooms and prevent stagnation. This shall be addressed in the permit application and may include requirements for maintenance.
3. The minimum orifice size for flow control restrictors is 0.5 inches

D. Section I-3.4.8 MR8: Wetlands Protection:

1. Many known wetlands in the City are shown online in the Property Information Interactive Map: https://cityofmlt.maps.arcgis.com/apps/webappviewer/index.html?id=2a6bc5d323a7416a9c57b7636fecabd9

E. Section I-3.4.9 MR9: Operation and Maintenance (O&M):

1. For public facilities, including public facilities built by private development:
    a. A copy of the draft O&M Manual shall be submitted with the permit submittal. The final O&M Manual shall be submitted for review and approval prior to acceptance of the completed construction project. The final approved O&M Manual shall be submitted with one (1) hard copy and one (1) electronic copy.
    b. At a minimum, the O&M Manual shall include:

i. Party/parties responsible for facility maintenance, including phone numbers and addresses;

ii. Maintenance cost distribution for shared stormwater BMPs and drainage facilities;

iii. Site map showing BMPs, critical area(s), buildings, affected lots, and dimensions;

iv. A list of BMPs and facilities installed on-site and purpose of each;

i. For each BMP or facility, the required maintenance activities and schedule meeting the minimum requirements given in the Stormwater Manual Appendix V-A;

ii. List of any proprietary components along with vendor's contact information and the vendor's maintenance schedule and costs;

iii. Inspection and maintenance schedules including recommended maintenance schedules per vendor specifications for proprietary components;

iv. Care and maintenance of any powered devices (e.g., pumps, aeration);

v. Inspection procedures and how the maintenance schedule will be modified if inspections determine the facility is not operating properly;

vi. The final O&M manual shall incorporate any comments made during the development review process and shall incorporate any field changes made to the facilities during construction.

F. Section I-3.5.3 APM2: Off-Site Analysis Report:

1. The City may require quantitative analysis and mitigation based on the results of the preliminary off-site analysis.

G. Section I-4 Underground Injection Control (UIC) Program:

1. The UIC Program applies to the entire City. All UICs shall be registered with Ecology. Refer to WAC Chapter 173-218.

H. Section I-4.17 Classification of Vadose Zone Treatment Capacity:

1. Geotechnical analysis from the project site is required to classify the vadose zone. Analysis from a nearby site is not acceptable.
2. A two-stage drywell is not acceptable for UIC pollutant loading treatment. At a minimum, pretreatment is required for all infiltration facilities, including UICs.

I. Appendix I-E Introduction to the Stormwater Control Transfer Program:

1. The City does not have a Stormwater Control Transfer Program.

J. Section V-5.4 Determining the Design Infiltration Rate of the Native Soils:

1. Grain size analysis shall not be used for UICs with low to high pollutant loading.

K. Section III-1.2 Step 4: Determine if a Phosphorus Treatment BMP is required:

1. Phosphorus treatment is required for all projects requiring MR# 6 Runoff Treatment which ultimately discharge to Lake Ballinger.

L. Section V-1.2 Setbacks, Slopes, and Embankments:

1. The City has adopted the setbacks in this section. Reductions in these setbacks may be approved if evaluated by a Professional Engineer licensed in the State of Washington with geotechnical expertise.

M. Section V-5.2 Step 8. Construct the Infiltration BMP & Conduct Performance Testing:

1. The excavation and installation of all infiltration facilities proposed for commercial, industrial, and multi-family development and in the right-of-way shall be observed by a licensed geotechnical engineer. The geotechnical engineer shall conduct an additional infiltration test in accordance with the Ecology Manual after the Contractor has excavated to the bottom of the proposed infiltration facility (prior to the installation of the infiltration facility). The geotechnical engineer shall submit an updated report that verifies that the design infiltration rate is equal to or greater than infiltration rate in the approved design. If the infiltration rate is less than the approved design, a revision to the stormwater design shall be submitted for City review and approval. Alternatively, other measures to improve the infiltration capacity may be taken.

Chapter 20. General Requirements

20.1. Licensed Professionals

A. State law requires engineering work be performed by or under the direction of a Professional Engineer licensed to practice in the State of Washington. Plans involving construction of treatment facilities or flow control facilities, structural source control BMPs or drainage conveyance systems generally involve engineering principles and should be prepared by or under the direction of a licensed engineer.

B. Construction SWPPPs that involve engineering calculations shall also be prepared by or under the direction of a Professional Engineer licensed in the State of Washington.

C. Infiltration testing shall be performed by a licensed professional. Refer to the Stormwater Manual Section V-5.4.

D. Depending on project scope and location characteristics, the City Engineer may require a licensed professional for any project. All credentials shall be current and issued by the State of Washington.

E. A State of Washington licensed civil engineer with geotechnical expertise is required for site assessment for site work within or adjacent to slopes steeper than 15 percent and higher than ten (10) feet.

F. In addition to Department of Ecology NPDES Construction General Permit requirements, the City Engineer may require a designated CESCL when disturbance is proposed on a site that contains or abuts a critical area. Refer to the Stormwater Manual Section II-3.2, BMP C160: CESCL.

G. The City may require planting plans and specifications to be prepared by a licensed Landscape Architect or a qualified professional working in the field of landscape design or horticulture.

20.2. Grading

Any grading activity, whether or not it requires a permit, shall prevent soils leaving the site or entering drainage facilities, streets and roads, water resources, or adjacent properties.

20.3. Separated Runoff

A. Project design shall keep runoff from public right-of-way separate from on-site, private stormwater runoff.

B. Stormwater controls for one (1) private property shall not be placed in public right-of-way or on other public property. The City Engineer may grant an exception if the facilities are part of a comprehensive LID approach to stormwater design for the abutting site and associated right-of-way.

20.4. Sump Pumps

Uncontaminated discharge from sump pumps may connect to the City's stormwater system when approved by a permit.

20.5. Footing Drains

For single-family residences, footing drains may connect to the downspouts on the property or at a covered catch basin or yard drain that is located no closer than five (5) feet to the foundation. Care shall be taken to ensure that slopes carry the water away from the building during high flows.

20.6. Maintenance Access

A. All stormwater facilities shall be accessible to maintenance vehicles, unless specifically waived by the City. If not located in or adjacent to an existing accessible access, an improved roadway surface shall be provided.

B. The access shall be designed to carry H20 loading. The approved surfaces include asphalt concrete, cement concrete, pervious concrete, pervious asphalt, structurally stabilized vegetated surface, or crushed surfacing.

C. A stormwater covenant shall be required for all privately constructed storm facilities for all permanent stormwater BMPs on all projects. Refer to EDM Section 4.9, Covenants.

D. All drainage easements granted to the City shall be at least 20 feet in width for operation and maintenance of open-channel or closed-system installation. Easements shall be obtained at the developer's expense. Recorded easements shall be delivered to the City

prior to acceptance of the project's construction and shall provide for the perpetual access of the City for maintenance, alteration, repair, and replacement of drainage pipes and facilities.

20.7. Watercourses

A. Streams shall be preserved in their existing channels, unless expressly authorized by Ecology and WDFW.

B. Any alteration to a stream channel, piped watercourse, or associated setbacks requires approval by Ecology and the WDFW.

C. A copy of the WDFW approval shall be submitted prior to permit issuance. Refer to MTMC 16.15 for critical area regulations.

20.8. Flood Control

Projects in the special flood hazard areas, as defined in MTMC 16.18, shall submit a development permit application.

The City shall review the application for compliance with FEMA floodplain development requirements and MTMC Chapter 16.18. Development in areas where the 100-year floodplain has been established, that are frequently flooded areas, or where the Public Works Department has determined that drainage or erosion conditions present an imminent potential of harm to the welfare and safety of the surrounding community, shall meet special drainage conditions set by the Public Works Department. Conditions may include the limitation of the volume of discharge from the developed property to be predevelopment levels, preservation of wetlands or other natural drainage features, or other controls necessary to protect against a community hazard.

Due to the detrimental effect on upstream and downstream properties, filling, grading or construction within the established floodplains shall conform with MTMC 16.18. The developer must provide information, plans and calculations to satisfy the Floodplain Administrator that development within the floodplains is not detrimental by increasing the flooding occurring upstream or downstream from the site.

20.9. Use of Storm and Surface Water Runoff

Storm and surface water runoff may be drawn in any quantity from manmade storage devices on private property which release directly into the drainage system or which are completely enclosed. No water may be drawn from the watercourses, sloughs, streams, ponds, lakes, or swamps that make up the public drainage system except under the provisions of approved state water rights permits. Storm and surface water runoff that can legally be drawn off from the project area may be used for any non-potable purposes. The distribution system employed shall be separate from the City water system.

20.10. Subdivisions

A. Construction of the lot drainage connection systems shall be feasible and allow connection to the proposed formal and short subdivision improvements or to the documented infiltration areas.

B. When a subdivision stormwater plan includes piped connections, provide a connection stub to each lot. A maximum of three (3) lots may be connected to a common private collection pipe, six (6) inches or more in diameter. For subdivisions, no more than three (3) roof drain stubs are allowed on a single roof drain collection pipe.

C. Roof and footing drain connection stubs shall be at least one (1) foot below the lowest existing elevation of the building envelope on all newly created lots, unless a different elevation is approved or required by the City.

D. Easements for the specific drainage systems shown on the site development documents shall be provided as part of the formal or short subdivision.

E. Where the stormwater plan and flow control calculations for a subdivision include assumptions about the size, location, or performance of permeable pavement, rain gardens, or bioretention facilities on individual lots, the surface water plan and site development plan shall identify the obligation of each lot. The Applicant shall record a deed restriction against each lot for the maintenance of those facilities by subsequent owners.

20.11. Phased Projects

A. For projects proposed to be built in phases, but are part of a Common Plan of Development or Sale per the Stormwater Manual, the Applicant/Permittee shall provide

plans that show the overall project as well as the project phases. The plan shall clearly delineate phase boundaries and provide estimates for construction dates for the phases.

B. Phasing of projects shall not result in a reduction of stormwater and/or erosion control requirements.

C. The Applicant/Permittee shall consider all phases when calculating thresholds for stormwater management.

20.12. Protect Vegetation Post-Construction

A. Mechanisms shall be put in place to assure long-term protection of vegetation retention areas. Mechanisms to protect conservation areas include setting aside conservation areas into separate tracts, permanent easements, homeowner covenants, maintenance agreements, and education.

B. Permanent signs shall be installed indicating that removal of trees or vegetation is prohibited within a native vegetation retention area.

C. Permanent fencing is required around the limits of any native vegetation retention area. The type, size, and location of the fencing shall be approved by City review staff and should be made of materials that blend in with the natural surroundings. For example, wood split-rail, pinned if necessary, and located in such a manner as to not impede the movement of wildlife within the vegetation retention areas.

20.13. Infiltration Facilities

Infiltration of stormwater into the ground is required to the maximum extent practicable. ~~To facilitate greater infiltration, locating platted development sites over less permeable soils (e.g., clay) is preferred to locating them over permeable soils.~~ Infiltration potential for all projects shall be reviewed according to the requirements of the Stormwater Manual. Approved infiltration projects shall have an inflow capacity sufficient to handle the design storm. Mountlake Terrace details 460 and 461 show infiltration designs that may be considered for single ~~family projects~~unit homes.

The approval of any infiltration project shall not constitute approval of any means by which unstable subsurface conditions may occur; such conditions resulting from infiltration projects not constructed by the City shall remain the responsibility of the developer.

Infiltration facilities are prohibited under the following conditions:

A. Infiltration rates lower than three-tenths (0.3) inches per hour may be allowed to meet MR5 and MR7 if the design is modeled in WWHM2012 and the geotechnical engineer has confirmed the design shall not have any adverse impacts to the subject property or adjacent properties.

B. Infiltration is not permitted within 100 feet of landslide hazard areas, per SWMMWW. Note: Other critical areas may have infiltration restrictions.

C. Infiltration is not permitted within ten (10) feet of underground storage tanks.

D. Contaminated soil or groundwater:
Infiltration has the potential to mobilize contaminants present in soil and groundwater. Unless a different setback is given in an approved cleanup plan, the following setbacks apply to areas with known soil or groundwater contamination (typically federal Superfund sites or state cleanup sites under the Model Toxics Control Act (MTCA):

    1. Areas known to have deep soil contamination:

        a. Bioretention, permeable pavement, and other infiltration facilities serving less than 5,000 SF of impervious surface are not permitted within 100 feet of an area known to have deep soil contamination.

        b. Other infiltration facilities serving 5,000 SF or more of impervious surface are not permitted within 500 feet of an area known to have deep soil contamination.

    2. Where groundwater modeling indicates infiltration will likely increase or change the direction of the migration of pollutants in the groundwater.

    3. Within ten (10) feet (horizontal) of contaminated surface soils.

20.14. Regional Facilities

Where there would be a public benefit and the project would better implement the stormwater comprehensive plan, the City may assume some responsibility for the further design,

construction, operation and maintenance of a separate regional or subregional drainage facility either on the subject property or elsewhere in the drainage basin. Refer to MTMC 16.20.120 for additional information.

Chapter 21. Construction Stormwater Pollution Prevention Plan

21.1. Stormwater Pollution Prevention Plan Requirements

Refer to the Stormwater Manual Section II-2, Construction SWPPPs.

A. All development~~, regardless of size,~~ shall comply with the conditions of MR2, even when a ~~permit~~formal SWPPP is not required.

B. The SWPPP shall include plans and a narrative.

C. The following are minimum requirements need to be shown on the SWPPP for all projects:

1. Site areas which do not need to be disturbed shall remain undisturbed (clearing limits are defined and maintained);
2. Runoff from areas not under construction does not flow over disturbed soils;
3. Temporary cover on disturbed soils that are not being worked;
4. Permanent cover installed without unnecessary delay on all areas at final grade;
5. Off-site streets are kept free of dirt and mud originating from the construction site, using sweeping, not flushing, in the streets and, if appropriate, on-site wheel wash facilities;
6. Dust is controlled and is in compliance with the Puget Sound Clean Air Agency; and
7. Work in Critical Areas conforms to requirements of the City's critical areas ordinance (CAO).
8. Plans need to show construction BMP's to be used during construction.

D. If construction is being phased, the City Engineer may require separate erosion and sediment control plans to address the specific needs for each phase of construction.

Chapter 22. Conveyance System

22.1. Open Channel Construction

Where open channel construction is used to handle drainage within the subject property, and where LID BMPs cannot otherwise be used to handle drainage, the following standards shall apply:

A. A minimum of 15 feet will be provided between any structures and the top of the bank of the defined channel.

B. In open channel work the water surface elevation will be indicated on the plan and profile drawings. The configuration of the finished grades constituting the banks of the open channel will also be shown on the drawings.

C. The proposed cross-section of the channel will be shown with stable side slopes as approved by the Department.

D. The water surface elevation of the flow for the design storm will be indicated on the cross-section.

22.2. Piped Conveyance

A. The Applicant is responsible for determining adequate pipe sizes. The City Engineer may require the Applicant to verify the adequacy of the pipe size and expand the conveyance system, such as adding pipe or catch basins. Nothing shall preclude the City from requiring the installation of a larger diameter main if the City determines a larger size is needed to serve adjacent areas or for future service.

B. Minimum pipe diameter for public facilities is twelve (12) inches.

C. For private stormwater pipe, the minimum size shall be six (6) inches. Footing and wall drains may be four (4) inches.

D. Minimum pipe slope shall be one-half (0.5) percent. Pipes larger than 12 inches in diameter may be designed for slopes lower than one-half (0.5) percent based on a minimum velocity of three (3) feet per second, if approved by the ~~Stormwater Program Manager.~~City Engineerr.

E. Catch basins shall be spaced no greater than 150 feet for grades less than one (1) percent, 200 feet for grades between one (1) percent and three (3) percent and 300 feet for grades three (3) percent and greater.

F. If two (2) feet of cover cannot be achieved, pipe material shall be ductile iron. Ductile iron pipe shall have six (6) inches minimum cover.

G. The table below shows required vertical clearances between piped stormwater conveyance and other utilities.

Table 18. – Conveyance System Vertical Clearances (minimum)

Utility	Location (Above or below Storm Pipe)	Minimum Clearance	Special Requirement
Storm	Above or below	12 inches	N/A
Electrical	Above or below	12 inches	N/A
Communications	Above or below	12 inches	N/A
Water main or gas main	Above or below	12 ~~inches~~inches[1]	N/A
Water main or gas main	Above or below	6 ~~inches~~inches[1]	Ethafoam pad
Sanitary Sewer	Below	12 ~~inches~~inches[1]	N/A
Sanitary Sewer	Above	18 ~~inches~~inches[1]	N/A
Sanitary Sewer	Above or below	6 ~~inches~~inches[1]	Pipe sleeve and Ethafoam pad
Liquid petroleum	Above or below	18 inches	N/A

1 If 12" or 18" minimum clearance cannot be met, then special requirements must be met. The 6" minimum clearance cannot be waived except by City Engineer.

22.3. Pump Systems

Pump systems may be used for on-site conveyance if a gravity system is not feasible. Pumps shall comply with the following criteria:

A. The pump system shall not be used to circumvent any code, engineering standard, or permit condition. The construction and operation of the pump system shall not violate any other City requirements.

B. Pump systems shall be owned, operated, maintained, repaired, and replaced (as needed) by property owner(s) served by such system.

C. Storm detention facilities with flow restrictors shall be installed upstream and discharge by gravity to the pump system.

D. If a flow control system is not required, the pump system shall have a storage facility (such as a pond, tank, or vault) sized to hold 25 percent of the total volume of runoff for the developed tributary drainage area for the two-(2) year storm.

E. The pump system shall have dual, alternating pumps with emergency on-site, automatic back-up power supply, and an external alarm system for the high-water level indicator and system failure.

F. Each pump shall be capable of discharging the design flow rate for the 100-year, 24-hour design storm. Pumped flows shall not exceed the allowable discharge rate.

G. A safe emergency overflow route shall be provided, if possible, and shown on the plans.

H. The pump system shall discharge to an elevation higher than the downstream design water surface elevation to prevent backwater or backflow conditions.

I. The pump operations and maintenance requirements shall be included within a covenant.

J. A note on the approved plans and in the O&M Manual shall stipulate that the private property owner(s) shall be responsible for any and all claims for injuries and damage due to the operation or failure of the pump system.

K. The pump system force main shall connect into a private catch basin and gravity flow to the public stormwater system. Direct pressure discharge to a gutter, ditch, or stream shall not be allowed.

22.4. Rockeries/Retaining Walls Crossing

Crossing of rockery/retaining wall and drain pipe should be perpendicular. Depending on conditions, the drain pipe may need a steel casing per engineer recommendation.

Rockeries and retaining walls may have foundation drains, when required by the design engineer. The foundation drain outlets shall connect to an approved outfall.

22.5. Ditch Modifications

Ditches are an integral part of the stormwater conveyance system within the right-of-way and as such, modifications shall be reviewed and approved through the permit process.

Ditches having ten (10) percent or flatter longitudinal slopes shall remain open. The City may approve enhancement when either a “natural drainage system” swale design or a “bioretention swale” design is proposed.

Chapter 23. Inspections and Testing

23.1. Request Inspection

After issuance of the initial civil site construction permit for drainage conveyance, stormwater storage, or water quality facilities, the City shall be notified at the time any construction or alteration affecting drainage on the site shall begin and shall have the right to make periodic inspections during the construction or alteration to ensure that all requirements are met. All inspections shall be charged at the current hourly rate.

No person shall cover or backfill any subsurface drainage facility without having first requested an inspection and having received written permission and approval to backfill from the City. If any person covers or backfills any drainage facility without inspection and without having obtained approval, the City shall require the person to uncover the work so that a proper inspection can be made.

Inspections after regular office hours or on weekends are at the option of the City inspector by appointment. No inspections will be performed on legal holidays.

23.2. Testing and Approval

After construction of the stormwater facilities, inspections and tests will be conducted to verify that the constructed stormwater facilities function in accordance with the approved plans, specifications, and hydraulic computations and that all erosion control measures are operating efficiently. If all inspections and tests indicate that the projects and facilities have been completed in accordance with the requirements in MTMC 16.20.190, a final approval shall be given.

If the inspection and testing reveal deficiencies, no occupancy permit for the use of the property or any structures draining to the facilities will be granted until the deficiencies are corrected. If the owner does not correct deficiencies within 30 days, the City may correct the stormwater system to perform as required by the permit. All costs for corrective measures and enforcement actions shall be borne by the property owner and must be paid in full prior to granting an occupancy permit.

DIVISION 4 – SANITARY SEWER

Chapter 24. Public Sanitary Sewer

24.1. General Requirements

A. A permit is required to connect with, construct, open, or penetrate any public sewer or to repair or perform maintenance on any private sewer main or side sewer.

B. A licensed professional civil engineer shall certify that the design and construction of the sewer collection system meets or exceeds all applicable standards approved by the City.

C. All main lines must be designed to provide for proper collection of sewers from all lands served by the development. Extensions shall be required through and to the extremes of the property for future service as determined by the City. Depths of proposed sewer shall be adequate to serve upstream development within the basin.

D. ~~Manholes~~Maintenance holes shall be placed at every angle point, street, and alley intersection, and in no case shall ~~manholes~~maintenance holes be spaced greater than 300 feet apart. A connection ~~serving more~~larger than ~~one building lot~~6" diameter shall require a ~~manhole.~~maintenance hole.

E. All public ~~manholes~~maintenance holes shall have vehicular access within ten feet of the structure unless otherwise approved by the City Engineer.

F. Widths of public sanitary easements shall be twice the nominal depth to the invert, but shall not be less than ~~10~~15 feet wide. Construction easements shall be 30 feet minimum in total width, including the permanent easement.

G. All public sanitary sewer main pipe shall have a minimum diameter of 8" or the size indicated in the City's most recently adopted Comprehensive Sewer System Plan Update, whichever is greater. All sewer laterals shall have a minimum diameter of 6" or the size of the side sewer connecting into it, whichever is greater.

H. Except for side sewers, new 8" sewer pipe and ~~manholes~~maintenance holes shall be publicly owned and maintained, with a public sewer and access easement granted to the City.

I. In general, parallel construction requires a minimum horizontal separation of ten feet between proposed sewer and water mains.

J. If a sewer main is replaced by a developer, all ~~side sewers~~sewer laterals and ~~private~~ sewer mains shall be reconnected to the new main, and the road shall be restored per City standards.

K. The terms “maintenance hole” and “manhole” shall be used interchangeably with “maintenance hole” being the preferred term

~~K.~~L. All sewer pipes shall be designed and constructed with minimum grades indicated in the Table 18: ~~Minimum~~ Pipe Slopes (minimum).

~~Minimum~~Table 19. – Pipe Slopes (minimum)

Pipe	Minimum Slope	
Inside Diameter	Percent (%)	FT/FT
8”	0.80	0.0080
12”	0.44	0.0044
15”	0.34	0.0034
16”	0.28	0.0028
18”	0.24	0.0024
21”	0.20	0.0020
24”	0.16	0.0016
27”	0.14	0.0014
30”	0.12	0.0012

Chapter 25. Connection to Public Sanitary Sewers

25.1. General Provisions

The standards below are only for gravity lines and are not intended for pressure mains. Pressure mains, if allowed by the City Engineer, shall meet ASTM specifications and/or specifications established by the City Engineer.

Private sewer easements shall be twice the depth to invert or 10 feet wide, whichever is greater.

25.2. Required Connection

Any person owning property with structures containing facilities for the disposal of sewer discharge within the city's municipal boundaries shall connect to the public sanitary sewer system, at the point designated by the City, when:

A. New construction occurs; or

B. Redevelopment of a structure occurs, and public sewer service is within a horizontal distance of 200 feet from the structure; or

C. Property containing a structure with an on-site septic system is ordered to do so by the Snohomish County Health Department, or its successor agency.

Refer to https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules for utility connection fees.

25.3. Cleanouts

A cleanout is required for the following conditions:

A. When a ~~side~~ sewer lateral in the public right-of-way or in a public easement crosses onto private property. The cleanout shall be located at the property line.

B. Whenever more than a 45-degree bend is used;

C. Immediately outside a house or structure;

D. Every 100 feet for side sewers which are in excess of 100 feet in length; or

E. At the end of a line with multiple connections.

Additional cleanouts may be required by the City. All cleanouts within paved areas shall be brought to surface. The cleanout shall have a locking metal lid.

~~25.4. Manholes~~

25.4. Maintenance Holes

A ~~manhole~~maintenance hole is required for eight (8)-inch diameter or greater connections to the public sewer.

25.5. Side Sewers Lengths

Six (6) inch side sewer shall not be more than 150 feet in length, except in such cases as may be approved in writing by the City Engineer.

Any side sewer more than 150 feet in length shall be at least eight (8) inches in diameter with ~~manholes~~maintenance holes on each end and at intervals of not more than 400 feet. Those lines shall be installed with both vertical and horizontal alignment.

25.6. Mobile Homes

Mobile homes situated on an individual single-family lot shall meet the same side sewer requirements as single-family structures.

25.7. Recreational Vehicle Sewer Disposal

Installation of a RV sewer disposal system for intermittent use requires a side sewer permit and inspection. The installation shall include a screw-on cap.

25.8. Prohibited Connections and Discharges

The following connections to the public sewer system are prohibited: gutter drains, downspouts, stormwater collection systems, cesspools, septic tank privy vaults, cisterns, footing drains or any other connection determined by the City Engineer to be principally a storm drain.

No user or domestic user shall discharge any pollutant or sewage that will interfere with or pass through the wastewater treatment facility inadequately treated. Specific prohibitions are listed in MTMC 14.10.010.

25.9. Sewer Replacement

The Developer shall provide a video inspection of a sewer main or side sewer from the proposed connection point to the next downstream ~~manhole.~~maintenance hole. If, in the opinion of the City Engineer or their designee, the integrity of the public sewer main or existing side sewer is deteriorated, structurally unsound, cracked, leaking, or shows other indications that the useful life is short, it shall be replaced at the Developer's expense prior to connection. Additionally, sewer replacement or improvements may be required downstream of a proposed development if required by the City Engineer. This requirement shall only apply to developments that require land use approval

25.10. Pretreatment for FOG

In accordance with MTMC 14.10.080, some property owners shall be required to install, at the owner's expense, oil/water, sand and grease interceptor-separators when, in the opinion of the City, they are necessary for the proper handling of liquid wastes containing FOG in excessive amounts or any flammable wastes, sand, and other harmful ingredients.

Businesses requiring pretreatment include all commercial and retail food preparation operations, self-service car washes, automobile or truck repair facilities, steam cleaning facilities, and any other businesses which release FOG, chemicals, sand, or metals. The City will determine the type of pretreatment equipment required according to the criteria in MTMC 14.10.080. Detailed plans of proposed pretreatment facilities shall be provided for review and approval before a side sewer permit will be issued.

25.11. Side Sewer Testing

After pipe inspection, pipe shall be secured with backfill prior to pressure test.

A. All tests shall be conducted in the presence of the City. The person authorized to complete the work shall be present during the inspection and testing periods.

B. Tests shall be made for minimum grade. Visual inspections shall be conducted on all alignment, grade, backfill, and other items the City deems relevant.

C. Water tests shall be completed by plugging the side sewer and filling with water to the point of overflow. The sewer shall be tested in its entirety or in sections as directed by the City. Water shall be kept in the side sewer for a minimum of 15 minutes. The system shall be water tight with no visual or measurable leakage.

D. An alternate to water testing is a standard air pressure test of 4 pounds per square inch of pressure for a 5-minute period with no measurable loss of pressure.

E. Grinder pump pressure lines shall be water tested at 80 psi for 5 minutes.

Chapter 26. Side Sewer Maintenance and Repairs

26.1. Side Sewer and Lateral Cleaning or Rodding

Maintenance of side sewers and sewer laterals to be free and clear from roots, debris, and other obstructions is the responsibility of the property owner, as described in MTMC 13.20.090. All side sewer or sewer lateral cleaning or rodding contractors shall notify the City at 425-670-8264 prior to start of work.

26.2. Repairs

A defect or break in the side sewer is the responsibility of the property owner to fix. A defect or break in the sewer lateral is the responsibility of the City to fix.

A side sewer repair permit is required for any repairs. Inspection of the repair is required prior to backfill. If the side sewer is backfilled prior to inspection, uncovering and inspection of the repair will be required.

Any repairs to a side sewer required by the City shall be made within 30 days after the date of notice to the owner. In the event of an emergency, the City may establish a shorter period of time for the repair to be made.

For repair work the contractor or owner shall provide an as-built plan showing any changes, including rerouting, cleanouts, ~~manholes~~maintenance holes, etc.

26.3. Hold Harmless and Indemnification

Where physical conditions render compliance with the provisions of these standards impracticable, the City may issue a special permit for installation of a side sewer requiring compliance with special provisions insofar as is reasonably possible. Such a permit shall be issued only upon the condition that the property owner execute and deliver to the City an instrument, in the form furnished by the City, agreeing to save harmless and indemnify the City for any damage or injury resulting from such sub-standard installation.

DIVISION 5 – WATER

Chapter 27. Public Water System

27.1. General Requirements

Where practical, water mains shall be looped to increase reliability and fire flow capacity, and to decrease head losses. Off-site extensions may be required to hydraulically loop the existing with the proposed water system.

All water mains not in the public right-of-way require a public easement with a minimum width of 10 feet.

All water mains shall have a minimum cover of 36 inches between the pipe crown and finished grade.

Pipe deflection at joints shall be no more than four degrees (14-Inch per 18 feet).

If a water main is replaced by a developer, the old water main shall be abandoned. In addition, all water services, connections, hydrants, and appurtenances shall be reconnected to the new main, and if necessary, the road shall be restored per City standards. New and existing copper water services may be joined within the right of way. Polyethylene water services shall be replaced from the main to the meter box. The diameter of a new service may be the same diameter as the service it is replacing.

27.2. Diameter

Diameters of proposed water main shall be the larger of the following:

A. Diameter proposed in the City's current Comprehensive Water System Plan, or
B. Diameter required by the City's hydraulic water system model, assuming fire flow conditions with velocities not exceeding 10 feet per second

The minimum pipe diameter required for a water main is 8 inches, except that a dead-end water main not providing supply to a hydrant may be 6 inch diameter.

27.3. Restrained Joints

All water main joints shall be restrained within fill areas.

Where slopes are twenty (20) percent or greater, all pipes shall be restrained with both joint restraints as well as anchor blocks. A pipe anchor shall be installed at every pipe bell.

Where soil bearing capacity is 2,000 pounds per square foot (psf) or less, pipe joints shall be restrained. In addition, all fittings and valves shall be double restrained with concrete thrust blocks and a bolt restraint system.

Ductile iron pipe sleeves shall be restrained with bolt restraint systems. See the details and specifications in Appendix L for specific pipe joint and bolt restraint requirements.

27.4. Valves

Maximum valve spacing shall be 350 feet, or as necessary to require isolation for repair or shut down.

Unless otherwise approved by the City Engineer, gate valves are required on all legs of tees and crosses, including tees serving a fire hydrant or flushing location.

27.5. Clearances

In general, there shall be a minimum horizontal separation of ten feet between proposed sewer and water mains. Horizontal separation between water and all other utilities shall be a minimum of five feet.

Crossings with other utilities at highly acute angles shall be avoided. The smallest angle measured between a water main and a crossing utility shall be 45 degrees. At crossings, the following is the order of preference for vertical separation:

A. Water shall be a minimum of 12 inches over any other utility.
B. Water shall cross under another utility, with a vertical separation of at least 18 inches.
C. The City may approve, on a case-by-case basis, a pipe crossing over a water main with less than 18 inches of vertical separation. In such cases, the upper utility shall be Class

52 ductile iron or C900 for 10 feet on either side of crossing. The pipes shall be centered during installation for maximum joint separation.

D. Where concrete thrust restraint is used, the minimum clearance between the back of the concrete blocking and other buried utilities or structures shall be five feet.

27.6. Fireflow and Hydrants

Final fireflow and hydrant locations shall be determined by the Fire Marshal, and IFC, as adopted and amended, per MTMC 15.10. All hydrants must connect to a water main that has a minimum diameter of 8 inches.

27.7. Connections to Existing System

Connections to the existing water system shall be made with cut-in connections unless otherwise approved. The connection time shall be approved by the City Engineer, and the connection shall be completed in such a manner as to minimize the interruption of service.

Where tap connections are allowed, the branch diameter of tapping sleeves shall be at least one pipe diameter smaller than the main being tapped.

Refer to https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules for current connection fees.

27.8. Corrosion Protection

Water main may not be installed parallel to and within 10 feet of surface light rail track or elevated light rail columns. Valves and other appurtenances shall not be placed within 10 feet of the track.

Water main crossing light rail track must cross at a perpendicular angle and must be within a casing for a minimum of ten feet on either side of the track. Cathodic protection shall be provided for both the casing and the ductile iron carrier pipe. All pipe joints and fittings shall be restrained. Ductile iron main within the casing shall be Class 56.

Any water line proposed within 25 feet of surface light rail shall include a plan for corrosion protection, which will be reviewed by the City.

27.9. Water System Facilities

Water system facilities, such as booster pump stations or pressure reducing stations, may be required by the City Engineer.

Chapter 28. Services

28.1. Water Service Requirements

All service lines shall be installed perpendicular to the water main.

All new single ~~family~~ unit dwellings and/or ~~ADU~~ADU's are required to have individual water meters, and ~~services~~service lines shall be one inch diameter minimum. If sprinklers are not required, and the Uniform Plumbing Code (UPC) indicates that plumbing fixture counts are low enough to use a 0.625 or 0.75 inch meter, the capital improvement charge shall be for a 0.625 or 0.75 inch connection.

Sizes of other domestic water meters and service lines shall be determined per the current version of the UPC and American Water Works Association, or other methods approved by the City.

For commercial and multi-family developments, fire services shall have a separate water main connection and service line.

Water meters and meter boxes installed by owners/developers shall be subject to approval by the City prior to their installation. All materials for water installation shall be in compliance with City standards.

All water installations performed by owners/developers shall be subject to appropriate plan review and permit fees, in addition to capital improvement fees and appropriate installation fees. Refer to https://www.cityofmlt.com/2023/Permit-FAQs-and-Fee-Schedules for current fees.

Mixed-use structures shall have separate water services and meters for each specific use.

Fire system connections to the City's water system shall be owned and maintained by the property owner, beginning immediately downstream of the gate valve where the system connects to the City's water main.

~~All water services from existing mains to the property line, meter or easement edge shall be made by the City, except that the owner/developer shall install water meters greater than two inches in size, together with the corresponding meter vault, and complete service lines.~~

~~All water services from new~~All water services from water mains shall be accomplished by the owner/developer at the expense of the owner/developer. Water meters, two (2) inches in size or smaller, shall be installed by the City.

All private water service easements shall be a minimum of 5 feet wide.

28.2. Backflow Prevention

Backflow prevention devices shall be installed where, in the judgment of the City Engineer or Public water system Purveyor, there would be an immediate and dangerous hazard to health should a cross-connection occur. Typical uses requiring backflow prevention assemblies include uses such as fire sprinkler systems, irrigation systems, and medical facilities. MTMC 13.45 includes more details and specific requirements.

Installation of backflow shall be inspected by the City. After installation, annual inspection and tests are required to be submitted to the City per MTMC 13.45.130.

28.3. Pressure Regulating Valves

A pressure regulating valve is required on any water service where a static pressure in excess of 80 pounds per square inch may be expected. The pressure regulating valve shall be designed and installed such that a pressure below 80 pounds per square inch is maintained at every fixture within the building or structure regardless of any variation in water flows. The cost of the pressure regulating valves and their installation shall be borne by the property owner or developer.

28.4. Irrigation

Irrigation shall be permitted with landscaping and shall meet the requirements of MTMC 19.130.120.

Irrigation for commercial, institutional, or industrial uses shall be supplied through a separate water meter and service line.

DIVISION 6 – CONSTRUCTION AND INSPECTION

Chapter 29. Construction

29.1. Standards

Construction, workmanship, and materials shall be in accordance with the approved plans, permit conditions, and the standards referenced below. Any change to these standards during construction activities in the right-of-way shall be approved by the City Engineer.

A. Latest edition of WSDOT Standard Specifications for Road, Bridge, and Municipal Construction M 41-10

B. Latest edition FHWA Manual on Uniform Traffic Control Devices (MUTCD): http://mutcd.fhwa.dot.gov/

C. WAC 468.95 for adopted revisions to MUTCD for Washington State

D. 2019 Department of Ecology Stormwater Management Manual for Western Washington

29.2. General

A. Work Hour Restrictions:

1. Noise originating from construction sites, including but not limited to sounds from construction equipment, power tools and hammering between the hours of 10:00 p.m. and 7:00 a.m. are considered public nuisance (MTMC 8.20.010).
2. Construction activities on weekends and Federal-recognized holidays are not allowed within the right of way, unless approved at least 72 hours in advance. If approved, any weekend or holiday work will only be allowed between 9 a.m. and 10 p.m.

B. Survey Monuments:

1. Anyone performing construction, maintenance, or other work in the City shall protect all survey monuments within the area of work.
2. The Permittee is responsible for all contractors working on the project. ~~-~~If it is necessary to disturb a survey monument, the Inspector shall be notified and a permit from the DNR shall be obtained before the disturbance occurs.

3. Failure to comply with RCW 58.04.015 regarding monument removal or destruction is a gross misdemeanor and is punishable by a fine and/or imprisonment, and liability for the cost of reestablishment.

C. Cleanup, incidental and collateral damage:

4. The street right-of-way, material storage sites, construction staging areas, and all other areas affected by the work shall be left neat and presentable and shall be fully restored to pre-existing or better condition.

5. The applicant is responsible for all cleanup costs. Should the City be required to step in and incur cleanup costs, those costs shall be borne by the applicant. The City may choose to deduct costs from erosion control or street invasion deposits, per MTMC 15.35.010 (B).

   Further, except as provided in RCW 19.122.030, any damage or destruction to existing public or private facilities by the applicant shall be restored at the applicant's expense. This includes restoration of all traffic devices and pavement markings. The City shall determine the extent of damage and the type of restoration required.

D. Tower Cranes:

1. The use of tower cranes requires review and approval by the City Engineer.
2. An airspace/swing agreement with the City is required for tower cranes operating over City owned property or ROW.
3. Provisions for cranes shall be determined during land use permit review, as there may be significant construction or design impacts.

29.3. Temporary Traffic Control

A. A temporary traffic control plan (TCP) for the work zone shall be submitted for review at least 10 days prior to anticipated traffic disruption. Temporary traffic control plans must be approved before beginning any work requiring disruption to traffic and pedestrians.

B. Work in arterial roadways is limited to the hours between 9:00 a.m. and 3:00 p.m. unless otherwise approved in the traffic control plan or by the City Traffic Engineer.

C. The Inspector may approve field adjustments to traffic control to meet actual conditions.

D. The traffic control plan shall be consistent with the standards defined in the MUTCD. The following basic principles and standards shall be observed by all those who perform work within a street right-of-way.

1. Work areas are safe, and congestion is minimized;
2. Motorized and non-motorized traffic is warned, controlled, and protected;
3. Emergency access is maintained; and
4. All traffic is expedited through the work zone to the extent possible.
5. Temporary pedestrian routes must be compliant with ADA.

E. The traffic control plan shall allow for continued emergency services. For business disruption, the plan shall contain adequate connections and clear signage.

F. If steel plates are approved for use, the plates shall be pinned and shimmed, and cold mix asphalt shall be added to provide suitable transition from the roadway to the top of the steel plates.

G. If the roadway conditions in the work zone include grooved pavement, abrupt lane edges, steel plates, or loose gravel, signs shall be posted stating the condition as required by RCW 47.36.200.

H. Coordination of disruptions to signal loops during construction shall occur at the project's pre-construction meeting. Temporary video detection may be required for long-term vehicle detection disruptions or lane shifts affecting detection.

29.4. Truck Traffic

A. Truck haul route plans must be approved by the City before beginning hauling activities.

B. The City's Freight Route map is located at the following link: https://www.cityofmlt.com/DocumentCenter/View/9059/TR-4-WSDOT-Freight-Route-Identification-byTonnage-Map.

C. All truck traffic within the City shall proceed only over an established freight route and shall deviate only at the intersection with the street nearest to the destination point.

29.5. Staking

A. At a minimum, items that require staking include property corners, subgrade elevations, slope (grade) stakes, right-of-way location, proposed utilities, top and toe of walls, drainage structures and other permanent structures.

B. Staking of property corners shall be maintained until final acceptance of the project.

C. All surveying and staking shall be performed by an engineering or surveying firm capable of performing such work. The Professional Engineer or Land Surveyor directing such work shall be licensed by the State of Washington.

D. A pre-construction meeting shall be held with the City prior to commencing staking. The minimum staking of streets shall be as follows:

1. Stake centerline alignment every 25 feet (50 feet in tangent sections) with cuts and/or fills to subgrade;
2. Stake top of ballast and top of crushed surfacing at centerline and edge of pavement every 25 feet;
3. Stake top back of curb at a consistent offset for vertical and horizontal alignment; and
4. Staking shall be maintained throughout construction.

29.6. Trenches

A. General:

1. When groundwater is anticipated or is encountered during trenching, a dewatering plan shall be provided for approval.

B. Temporary Trench Closure:

1. Trenches that will receive traffic or that will be left overnight before final restoration shall be covered by a temporary patch or by installation of steel plates. The temporary patch material can be hot mix or cold mix placed directly into the trench, bladed out, and compacted. The trench shall be filled flush to the surrounding surfaces to provide a smooth riding surface.

2. Use of steel plates requires approval from the Inspector. If approved, the Applicant/Contractor shall follow the EDM section titled Temporary Traffic Control.
3. If CDF is used, Steel plate(s) shall cover CDF for at least 48 hours prior to pavement placement.
4. Prior to predicted or possible snow events, all steel plates in the right of way must be removed and trenches backfilled.

29.7. Abandoned Utilities

All abandoned utilities shall be removed to the fullest extent possible. ~~-~~However, if it is not possible to remove abandoned pipe, the pipe shall be abandoned in place by filling the ends with concrete per WSDOT Standard Specification 7-08.3(4).

29.8. Sidewalks

A. Where approved, temporary sidewalks shall be at least five feet wide and comply with ADA criteria. If not connecting to an existing sidewalk, sidewalk transitions shall be constructed according to MLT standard plan 184.

B. Permanent sidewalks

1. During removal, panels should be removed to the nearest complete and competent panel.
2. Installation:
    a. See Standard ~~Detail~~Plan 131~~,~~ - Typical Sidewalk Detail;
    b. Install an 18-inch root barrier placed between trees and sidewalks/curbs/driveways;
    c. Surfacing shall be Portland cement concrete. The concrete shall be placed and finished per WSDOT Standard Specifications 8-14.3 (3);
    d. All concrete shall be free of postmarks, graffiti, footprints, and tire marks prior to acceptance;
    e. Concrete sidewalks shall be cured for at least 72 hours. During curing time, sidewalk shall be protected from pedestrian and vehicle traffic;

f. Expansion joints shall consist of 3/8 inch wide full depth pre-molded material. Expansion joints shall be placed around fire hydrants, poles, posts, and utility castings; and

g. Expansion joints in sidewalks shall be located so as to match the joints in the curb whether the sidewalk is adjacent to curb or separated by an amenity zone.

29.9. Landscaping

A. Soil:

1. All disturbed soils that do not have structures on them shall be remediated according to BMP T5.13 Post Construction Soil Quality and Depth (Stormwater Manual); except
2. Soils for improvements, such as biofiltration and raingardens, shall meet specified material and installation requirements.

B. New Street Tree Installation:

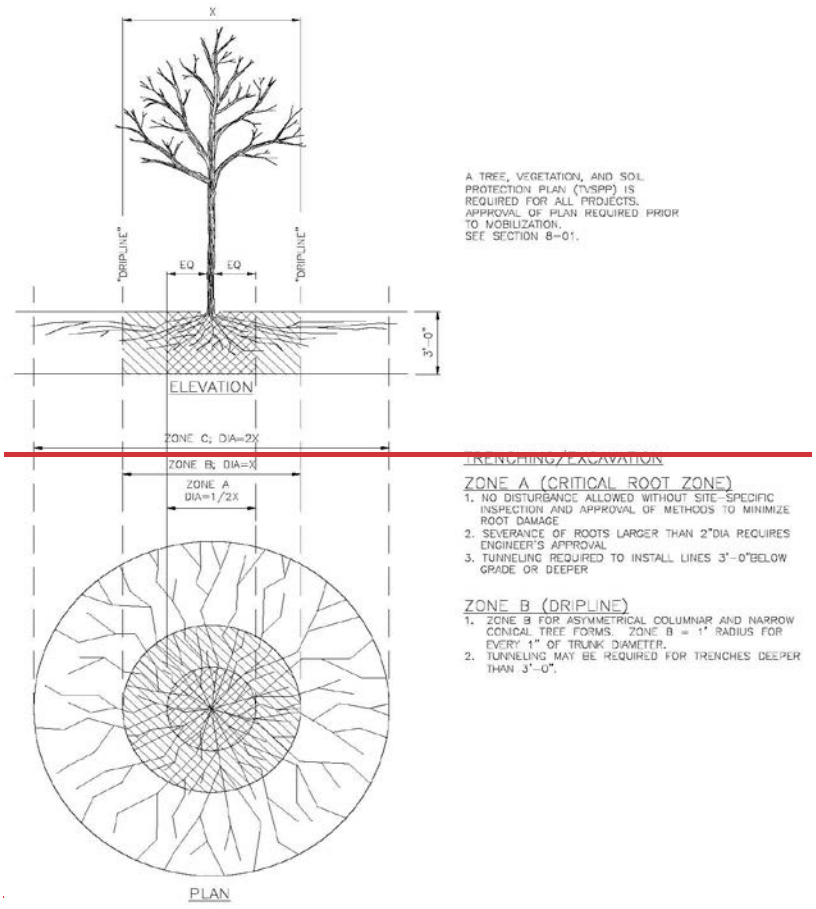
1. See MTMC 16.30;
2. Refer to Standard ~~Detail 181~~Plan 180, Street Trees.
3. Refer to EDM Section 15.2, Landscaping for street tree clearance requirements.
4. Mature tree and shrub root mats may overlap utility trenches, as long as approximately 80 percent of the root mat area is unaffected.
5. Trees shall be staked using five (5) foot staking and root barriers between the tree and the sidewalk and curb.
6. All new street trees are required to have a ten (10) foot long root barrier, centered on both sides of the tree.

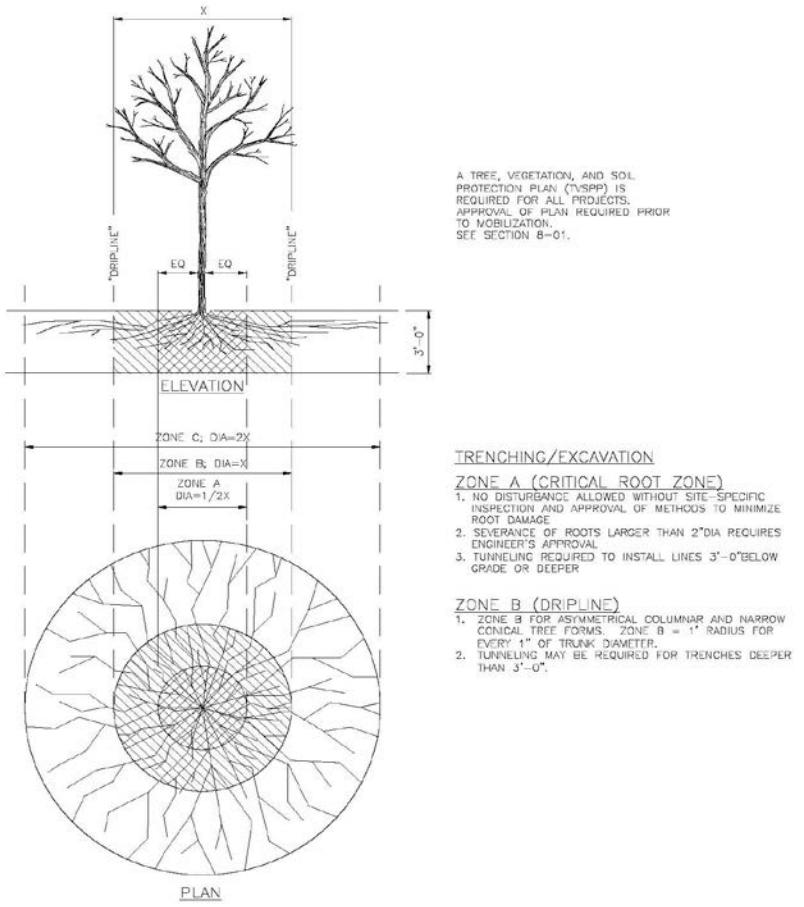
C. Existing street trees and tree root systems shall be protected during construction utilizing the following methods:

1. Reducing soil compaction during the construction phase by protecting critical tree root zones that usually extend beyond the tree's canopy or drip line.

2. Prohibiting stockpiles or disposal of excavated or construction materials in the vegetation retention areas to prevent contaminants from damaging vegetation and soils.
3. Avoiding excavation or changing the grade near trees that have been designated for protection. If the grade level around a tree is to be raised, a dry rock wall or rock well shall be constructed around the tree. The diameter of this wall or well should be at least equal to the diameter of the tree canopy plus five (5) feet.
4. Restricting trenching and excavation in critical tree root zone areas or designate use of air spade for excavation and/or root pruning. (See Figure 5, Tree Protection - Right-of-Way).
5. Preventing wounds to tree trunks and limbs during the construction phase. In the event that a tree is damaged during construction, a licensed arborist shall inspect and determine if replacement or other mitigation is needed.
6. Prepare tree conservation areas to better withstand the stresses of the construction phase by fertilizing, pruning, and mulching around them well in advance of construction activities.
7. The following guidelines are provided as acceptable measures to help protect trees from construction impacts:
    a. Place tree protection fences around each tree or group of trees to be retained. Place four (4) to six (6) foot high temporary chain link or polyethylene laminar fencing five (5) feet (if possible) outside the drip line(s) or a plywood box around the tree or group of trees. Install fence posts using pier block only. Avoid driving posts or stakes into major roots.
    b. Tree protection fences need to be clearly marked as “Tree Protection Areas” with four (4) inch or larger letters.
    c. Where there is not enough space to erect tree protection fencing, alternative methods may be approved.

Figure 6. – Tree Protection – Right-of-Way





D. Amenity zone: The final grade of soil surfaces in planting strips shall accommodate runoff from sidewalk surfaces cross-sloped to drain toward the street.

E. Tree pits shall be graded to provide a soil surface two (2) inches below the adjacent sidewalk and curb elevation and shall then be top-dressed with bark or wood chips to surrounding grade.

F. Protect Vegetation During Construction: The following steps shall be taken to protect vegetation during construction:

1. Map natural resource protection areas on all plans and delineate these areas on the site with silt, construction, or other appropriate fencing to protect soils and vegetation from construction damage.
2. Before any groundwork begins, meet and walk property with equipment operators to clarify construction boundaries and limits of disturbance.

3. Protect drainage areas during construction. ~~-~~If an area has any type of channel/drainage swale that provides a hydrologic connection to vegetation protection area(s), then the channel shall also be protected throughout the construction phase by fencing and use of erosion control measures to prevent untreated runoff from the construction site flowing into the channel.

G. City owned irrigation systems shall be protected during construction.

1. Prior to construction, the Permittee shall request a pre-construction irrigation test conducted by City staff to confirm system functionality.
2. Prior to final acceptance of right-of-away permit, the irrigation shall be tested by City staff to confirm system functionality.
3. If irrigation systems are damaged or modified, the Permittee shall restore systems to City standards. City irrigation standards will be provided upon request.

29.10. Curb, Gutter, and ~~Access~~Driveway Approach

A. Vertical curb and gutter shall be used on all street classifications. Refer to Standard ~~Detail~~Plan 133~~, -~~ Cement Concrete Traffic Curb and Gutter.

B. All curb and gutter shall be constructed with Class 3000 concrete furnished and placed in accordance with WSDOT Standard Specifications, Sections 6-02, 8-04, and 8-14. Cold weather precautions as set forth in WSDOT Standard Specifications Sections 5-05.3(14) and 6-02.3(6) shall apply.

C. Subgrade compaction for curbs, gutters, ~~access~~driveway approaches, and sidewalks shall meet a minimum 95 percent of maximum density per ASTM D1557.~~-~~ Compaction shall be tested by an independent testing laboratory.

D. Extruded curb is not allowed in the public right-of-way, unless it is temporary and/or approved by the City Engineer.

1. When used, extruded cement concrete curb shall be anchored to existing pavement by either steel tie bars or adhesive in conformance with WSDOT Standard Specification Section 8-04.

2. When used, extruded asphalt concrete curb shall be anchored by means of a tack coat of asphalt in accordance with WSDOT Standard Specification Section 8-04.
3. When used, one side of extruded curb shall be supported with material, such as asphalt, crushed surfacing, soil, etc.

E. A concrete ~~access~~driveway approach shall have a construction joint at the right-of-way line.

29.11. Pavement Restoration

A. General:

1. Anyone creating an opening in the right-of-way is responsible for permanent restoration.
2. Temporary cold mix patches shall be maintained at all times by the Permittee.
3. Pavement restoration shall be completed within 30 days unless approved by the permit or by the Inspector.

B. Cement Concrete Pavement:

1. Cement concrete roadway shall be restored to the nearest half panel.
2. Cement concrete shall be replaced or patched with concrete.
3. Any cement concrete pavement traffic lane affected by the trenching shall have all affected panels replaced.
4. Cement concrete pavement shall be connected to existing concrete pavement with dowels and epoxy and restored with mix per WSDOT Standard Specification 9-01.2(1).
5. Concrete pavement shall be restored consistent with WSDOT Standard Plan A-60.10-03.

C. Asphalt Concrete Pavement:

1. Refer to Standard ~~Details~~Plans for pavement restoration.
2. Asphalt concrete pavement removal may be by full depth saw cut or drum grinder.

3. Asphalt concrete pavement cut widths, based on the final trench width, for pavement restoration/patching shall be according to Standard ~~Details~~Plans 162, 163, ~~&~~and 164~~; however, the~~. The Inspector may extend cut limits to competent roadway pavement.
4. The Inspector shall approve the restoration limits before restoration begins.
5. Cuts in asphalt shall be wide enough to accommodate compaction equipment.
6. Cuts shall be expanded to include joints, panel edges, existing patches or cracks within four (4) feet of the opening.
7. Cuts shall be expanded to ensure that new longitudinal joints are not located in a wheel path.
8. The cut face shall be neat, straight and vertical. ~~-~~The corners shall be square.
9. When an existing asphalt paved street is to be widened, the edge of pavement shall be saw-cut to provide a clean, vertical edge for joining to the new asphalt at the time of the placement of the new asphalt.~~-~~ After placement of the new asphalt section, the joint shall be sealed.

D. Overlay:

1. A public street shall be overlaid when any one of the following conditions applies:
    a. Utility installation parallel to the pavement centerline requires half street overlay from the centerline to the curb line for the entire length of the utility installation.
    b. If the utility trenching encroaches on both sides of the centerline, a full street overlay along the entire length of the utility installation shall be required.
    c. Utility installation consisting of three or more perpendicular (transverse) trenches within 150 feet, measured along the pavement centerline, requires overlay from the curb line to the centerline for the full length of the utility installation. If a trench extends beyond the centerline, the City Engineer may require a full street overlay.
    d. Utility installed at an angle to the pavement centerline requires an overlay from the centerline to the curb line for the entire length of the utility

installation. If the utility trenching encroaches on both sides of the centerline, the City Engineer may require a full street overlay.

e. When the permit conditions require street improvements and the existing pavement has alligator cracking, the existing pavement shall be removed and paved from the centerline to the new curb line.

f. A minimum half street overlay from property line to property line is required if the project requires frontage improvements.

g. Additional pavement restoration may be required to include any pavement damaged during construction and/or to include pavement patches per the Right-of-Way Inspectors.

2. Cold-plane both ends of the overlay perpendicular to the roadway for at least 15 feet to provide a flush transition. For half-street or full-street overlays, cold-planing (grinding) of the entire paving area is required (centerline to gutter or gutter to gutter). When curb and gutter does not exist, the new overlay surface may, at the City Engineer's discretion, be tapered to meet the elevation of adjacent paved surfaces. All asphalt joints and tapered transitions shall be sealed with AR4000 or equivalent.

3. Where curb and gutter does not exist, the shoulder shall be restored with crushed rock.

E. Monitoring Wells and Potholing:

1. Decommissioned monitoring wells or resource protection wells shall be decommissioned adhering to the requirements of WAC 173-160-460. Once the well has been decommissioned, the pavement restoration shall adhere to the City's Details and Specifications.

2. Vertical potholing from vacuum excavations shall be backfilled. All subgrade shall be compacted to 95 percent maximum density as described in Section 2-03 of the latest version of the WSDOT Standard Specifications. Once backfilled, the pavement restoration shall adhere to the City's Details and Specifications.

F. Channelization:

1. All channelization and pavement markings such as raised pavement markers, paint, thermoplastics, etc., shall be pre-marked by a City-approved striping contractor, and the layout approved by the Inspector, prior to permanent installation by the Contractor. Approval may require a three-(3) working day notice for layout approval.

G. Testing:

1. Prior to placing any asphalt surface materials on the roadway, the Inspector shall review and approve density test reports, certified by a professional engineer, for the crushed surface base course and the crushed surface top course.
2. Testing shall be performed by a certified independent testing laboratory. The cost of testing is the responsibility of the franchise utility or Contractor. The testing is not intended to relieve the Contractor from any liability for the trench restoration.
3. Material testing may be required for trench backfill (native or imported), asphalt, and concrete.
4. All densities shall be determined by testing specified in WSDOT Standard Specifications.
5. Compaction of all lifts of asphalt shall be at an average of 91 percent of maximum density as determined by WSDOT Standard Specifications.
6. The compaction tests shall be performed in maximum increments of two (2) feet. The number of tests required per SF of material are defined in Table 21 or as directed by the Inspector.

Table 20. – Number of Compaction Tests

Total Amount of Material (SF)	Number of Tests
Less than 50	1
50 – 100	2
100 – 300	3
Greater than 300	3, plus 1 for every additional 200 SF

29.12. Stop Work

If a permit is issued and the City subsequently issues three (3) stop-work orders for that permit or if three (3) illicit discharges are reported due to insufficient erosion prevention and sedimentation control, the permit maybe suspended until the dry season, or, if violations occurred in the dry season, until weather conditions are favorable and effective erosion and sedimentation control is in place. The suspension shall be removed at the end of the rainy season or upon the City's determination that appropriate BMP's have been installed and are working and that the Permittee has adequate resources and abilities to manage BMPs effectively without further discharges that do not meet requirements.

Chapter 30. Inspection

The City's inspectors inspect work performed under an approved permit. ~~-~~Any inspections resulting from any cause shall be charged at the current hourly rate. No inspections will be performed on legal holidays unless previously approved.

30.1. Authority and Duties of Inspectors

A. The Inspector functions as a resource for the Permittee and Contractor. The duties of the Inspector include, but are not limited to:

1. Conducts field investigations;
2. Interprets and applies standards;
3. Monitors compliance with permit conditions;
4. Monitors utilities protection;
5. Monitors traffic control and pedestrian access;
6. Monitors excavation, shoring, backfill and restoration, and public safety;
7. Enforces the Stormwater Pollution Prevention Plan during construction;
8. Reviews material submittals;
9. Coordinates material inspections; and
10. Reviews as-constructed drawings (record drawings).

B. The Inspector shall have access, at reasonable times, for the purpose of inspecting the site and ascertaining whether provisions of the standards and specifications have been complied with.

C. The Inspector has the authority to reject defective material and suspend work that is being done improperly. ~~-~~The Inspector may advise the Permittee or Contractor of any faulty work or materials; failure of the Inspector to advise the Permittee or Contractor does not constitute acceptance or approval. ~~-~~The Inspector has the authority to require revisions to approved engineering plans when necessary due to conflicting field conditions. Any revisions required by the inspector shall be reviewed and approved by the City Engineer

D. The Inspector is not authorized to revise, alter, or relax the provisions of these standards or the MTMC.

30.2. Inspection Requirements

A. At all times during construction, the Permittee/Contractor shall have issued permits and approved plans and specifications on the job site.

B. Tree protection and erosion control measures shall be installed and inspected prior to any clearing or grading activities.

C. All construction or work for which a permit is required shall be subject to inspection by the City. The City may inspect any project at any stage of the work to determine that adequate control is being exercised.

D. It shall be the duty of the Permittee to ensure that the work remains accessible and exposed for inspection purposes. Failure to notify the City of readiness for inspection in a timely manner may result in the requirement to remove and/or replace buried or hidden elements. The City shall not be liable for the expense entailed in the removal or replacement of any material required to allow for inspection.

E. Specific inspections are determined at the pre-construction meeting. Inspection of construction in the right-of-way may include the items listed below:

1. Survey monuments;
2. Survey stakes: Construction staking prior to construction;
3. Stormwater Pollution Prevention Plan implementation, including installation and maintenance of BMPs;
4. Staging and stockpile areas;
5. Construction traffic routing, traffic control, signage and channelization;
6. Drainage facilities – materials and installation;
7. Utility installation, depth and location;
8. Utility testing and flushing per the Engineering Details and Specifications;
9. Pavement cuts;
10. Roadway centerline elevations;

11. Elevations at curb radii PVC's, Points of Vertical Intersection (PVI), and Points of Vertical Tangency (PVT);
12. Concrete forms for sidewalks, ramps, and driveways;
13. Right-of-way pavement restoration;
14. Channelization;
15. Landscaping installation and restoration, plants, root barriers, and irrigation;
16. Permanent stabilization of the site;
17. Clean-up;
18. Record drawing with as-constructed information; and
19. Inspector will provide punch list to Permittee/Contractor after receipt of draft record drawings.

DIVISION 7 – PERMIT CLOSE-OUT

Chapter 31. Overview of Close-out

After the completion of construction and passing the appropriate inspections and tests, as described in previous chapters, the close-out process may begin. Draft record drawings are required prior to requesting a construction punch list. The other requirements may be submitted earlier during the project.

31.1. Close-out

Typical close-out requirements include:

A. Final record drawings - See Appendix H for record drawing requirements

B. Completion of all construction punch list items

C. Documentation showing that all necessary testing was passed

D. Bill of sale for public improvements

E. Easements reviewed, approved, and recorded

F. Dedications reviewed, approved, and recorded

G. O&M manuals, covenants, and other paperwork deemed necessary for the project

H. Any additional conditions listed on the permit

I. Two-year maintenance bond for 20 percent of costs of public improvements

J. Payment of any remaining fees

Note that once any water system improvements are accepted by the City, they may only be operated by City personnel.

31.2. Construction Punch List

The contractor may request a punch list inspection once preliminary record drawings have been submitted to the City.

If the owner or developer has not corrected deficiencies within 30 days, the City may take the necessary corrective measures to make the system perform as required by the permit. All costs for corrective measures and enforcement actions shall be borne by the property owner and must be paid in full prior to granting an occupancy permit.

If all inspections and tests indicate that the improvements have been completed in accordance with the requirements of the permit, the EDM, and the MTMC, the punch list is considered complete.

31.3. Record Drawings

Record drawings shall be provided for private infrastructure that connects to the City's infrastructure, for public facilities, and for right-of-way work. Refer to Appendix H – Record Drawing Criteria for more information

A. Record drawings should accurately reflect revisions made during construction. The record drawings should show all newly installed, existing, and abandoned utilities encountered during construction, even if they were not shown on the approved plans.
B. As-constructed survey information provided on a record drawing shall be provided by a licensed land surveyor. Information from sources such as the Contractor's red-lined drawings, for which the surveyor is not responsible, shall be clearly noted/identified on the face of the record drawings.
C. The Permittee shall provide the City with preliminary record drawings via an electronic PDF.
D. Once the City approves the preliminary submittal, the Permittee shall provide a flattened digital PDF drawing of the approved as-builts, and AutoCAD version 2018 compatible files.
E. Permittee is responsible for all costs associated with recording documents.

APPENDIX A - ACRONYMS AND DEFINITIONS

These acronyms and definitions are for use with this EDM. Unless specifically defined below, words or phrases used in this EDM shall be interpreted to give them the meaning they have in common usage and to give this EDM its most reasonable application.

Acronyms

AASHTO: American Association of State Highway and Transportation Officials

ADA: Americans with Disabilities Act

ADT: Average Daily Traffic

APM: Additional Protective Measure

ASTM: American Society for Testing and Materials

BMP: Best Management Practice

BOD: Biochemical Oxygen Demand

CAO: Critical Areas Ordinance

CBR: California Bearing Ratio

CDF: Controlled Density Fill

CEC: Cation Exchange Capacity

CESCL: Certified Erosion and Sediment Control Lead

CFR: Code of Federal Regulations

CIP: Capital Improvement Project

CIPP: Cured in Place Pipe

CMP: Corrugated metal pipe

CPEP: Corrugated Polyethylene Pipe

CSWGP: Construction Stormwater General Permit

DNR: Department of Natural Resources

DR: Dimension Ratio

EDM: Engineering Development Manual

EWWTP: City of Edmonds Wastewater Treatment Plant

FEMA: Federal Emergency Management Agency

FHWA: Federal Highway Administration

FOG: Fat, Oil, and Grease

HDPE: High-density polyethylene

HPA: Hydraulic Project Approval

HRM: Highway Runoff Manual

HSPF: Hydrological Simulation Program-Fortran

ITE: Institute of Traffic Engineers

JARPA: Joint Aquatic Resource Permit Application

LED: Light Emitting Diode

LF: linear foot / feet

LID: Low Impact Development

LOS: Level of Service

MEF: Maximum extent feasible

mg/L: milligrams per liter

MPH: Miles per hour

MR: Minimum Requirement

MTCA: Model Toxics Control Act

MTMC: Mountlake Terrace Municipal Code

MUTCD: Manual of Uniform Traffic Control Devices

NACTO: National Association of City Transportation Officials

NAD: North American Datum, horizontal, of 1983/1991

NAVD: North America Vertical Datum

NEIS: National Electrical Installation Standards

NOAA: National Oceanic and Atmospheric Administration

NOI: Notice of Intent

NPDES: National Pollutant Discharge Elimination System

NTSP: Neighborhood Traffic Safety Projects

NTU: Nephelometric Turbidity Unit

O&M: Operation and Maintenance

O.D.: outside diameter

OHWM: Ordinary High-Water Mark

PCC: Portland concrete cement

PIT: Pilot Infiltration Test

PROWAG: Public Right-of-Way Accessibility Guidelines

PVC: Point of Vertical Curvature

PVC: Polyvinyl Chloride

PVI: Point of Vertical Intersection

PVT: Points of Vertical Tangency

RCW: Revised Code of Washington

RTA: Regional Transportation Analysis

SDR: Standard Dimension Ratio

SEPA: State Environmental Policy Act

SF: square foot / feet

SSD: Stopping Sight Distance

SWMP: Surface Water Master Plan

SWPPP: Stormwater Pollution Prevention Plan

TDA: Threshold Discharge Area

TIA: Transportation Impact Analysis

TMDL: Total Maximum Daily Load

TMP: Transportation Master Plan

UIC: Underground Injection Control

ULID: Utility Local Improvement District

UPC: Uniform Plumbing Code

USPS: United States Postal Service

WDFW: Washington State Department of Fish and Wildlife

WISHA: Washington Industrial Safety and Health Administration

WSDOT: Washington State Department of Transportation

WWHM: Western Washington Hydrology Model

Definitions

Access. The safe, adequate, and usable ingress/egress (entrance/exit) point between private property and the public street system. Usually defined at the right-of-way.

Actual elevation. The elevation in relationship to mean sea level.

Adverse effect or Adverse impact. Effect that is a direct or indirect result of a proposed action, or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. In the event that the overall effect of the proposed action is beneficial, but is also likely to cause some adverse effects, then the proposed action is considered to result in an adverse effect.

Alignment. The route of the road, defined as a series of horizontal tangents and curves.

Alley. A service roadway, not designed for general travel, providing a primary or secondary means of automobile, service vehicle, or emergency vehicle access to abutting property and not intended for primary traffic or pedestrian circulation.

Amenity zone. That area, adjacent to the curb or paved roadway and within the right-of-way, which is commonly landscaped, but may include other features for the City's benefit such as utilities, traffic signs, bioretention facilities and mailboxes.

Applicant. Any person, governmental agency, or other entity that executes the necessary forms to procure official approval of a project or a permit to carry out construction of a project.

As-built. Actual surveyed locations of constructed elements. As-constructed information is included on Record Drawings.

Auxiliary lane. The portion of the roadway adjoining the traveled way for parking, turning or other purposes supplementary to through-traffic movement.

Availability; Certificate of Sewer. A City issued document stating what types of sewer service are available to a property such as: main, stub, tee, saddle to main, what conditions shall be met before a permit will be issued in compliance with City rules and regulations, and it may also state if sewer service is not available.

Backup. A sanitary sewer overflow resulting from an obstruction in a sewer line, a failure of a pump system, or other cause.

Best Management Practices (BMPs). Schedules of activities, restrictions, maintenance procedures, and structural and/or managerial practices, that when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to Waters of the State.

Bike facilities. A general term denoting improvements and provisions to accommodate or encourage bicycling, including parking and storage facilities, and shared roadways specifically designated for bicycle use. (AASHTO)

Bike lane. A portion of a roadway which has been designated by pavement markings and, if used, signs, for the preferential or exclusive use of bicyclists. (AASHTO)

Bike path. A pathway that is exclusively used by bicyclists, where a separate, parallel path is provided for pedestrians and other wheeled users. Most pathways are shared between bicyclists and other users: see Shared-Use Path. (AASHTO)

Bike route. A roadway or bike route designated by the jurisdiction having authority, either with a unique route designation or with BIKE ROUTE signs, along which bicycle guide signs may provide directional and distance information. Signs that provide directional, distance, and destination information for cyclists do not necessarily establish a bicycle route.

Bike network. A system of bike routes designated by the jurisdiction having authority. This system may include bike lanes, bicycle routes, shared-use paths, and other identifiable bicycle facilities. (AASHTO)

Bioretention. Engineered facilities that store and treat stormwater by passing it through a specified soil profile. Refer to the Stormwater Manual Vol. V, Chapter 7 for bioretention practices and design specifications.

Bulb. Area for vehicle turnaround typically located at the end of a cul-de-sac street.

Bulb-out. (Also known as “curb bulb” or “sidewalk bulb”) means sidewalk areas extended at intersections or mid-block locations to narrow the crossing for pedestrians.

Bus and Turn (BAT) lane. Traffic lane dedicated for bus travel with a provisional use for general-purpose vehicle right turns.

Capital Facility (Improvement) Charge. A one-time charge at the time of development for new or expanded connections that recovers a proportionate share of the past and planned capital costs of the public utility system other than costs paid by grants, developer donations, or property assessments.

Chlorinated. Water that contains more than ten (10) mg/Liter chlorine.

City. The City of Mountlake Terrace.

City capital improvements. means improvements that are part of the City's capital improvements program.

City Engineer. The City Engineer or their designee.

Clear sight triangle. An area of unobstructed vision at street intersections or street and driveway intersections defined by lines of sight between points at a given distance from the intersection of street and/or driveway lines.

Clearance. The minimum distance between elements in, under and above the street right-of-way.

Clearing. Removal of vegetation from a site by physical, mechanical, chemical, or other means which exposes the earth's surface or any actions which disturb the existing ground surface. This does not mean landscape maintenance or pruning consistent with accepted horticultural practices.

Community and Economic Development Director. The Community and Economic Development Department Director or their designee.

Comprehensive Plan. The plan and amendments as described in MTMC Chapter 18.05.300.

Conveyance system. Natural and man-made drainage features that collect, contain, and convey stormwater. Natural drainage features include swales, streams, rivers, lakes, and

wetlands. Man-made features include swales, gutters, ditches, pipes, and detention/retention facilities.

Corner clearance. The distance between a driveway and the nearest intersecting street.

Cover. The depth of material lying between the top of the sewer and the finish grade immediately above it.

Critical areas. Critical areas as defined in MTMC 16.15.

Cross section. Vertical section of a roadway showing the position and number of vehicle and bike lanes, curb and gutter, amenity zones, and sidewalks, along with their cross slope or banking. Cross sections also show drainage features, pavement structure and other items outside the category of geometric design.

Cul-de-sac. The circular turnaround at the terminus of a street end.

Crosswalk. The portion of the roadway between the intersection area and a prolongation or connection of the farthest sidewalk line or in the event there are no sidewalks then between the intersection area and a line ten (10) feet there from, except as modified by a marked crosswalk. (RCW 46.04.160)

Daily Traffic – Annual Average (AADT). Daily traffic that is averaged over one (1) calendar year.

Daily Traffic – Average (ADT). The average number of vehicles passing a specified point during a 24-hour period.

Dangerous Waste. Those solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous or extremely hazardous or mixed waste, as further defined under WAC 173-303-040.

Dead End. Street End. A road or street without an exit.

Covenant. A legal document between the City and persons holding title to the property requiring the title holder to perform required maintenance and repairs on drainage facilities necessary to meet the City's specified standards within a reasonable time limit. The covenant also grants the City permission to access the property to inspect drainage features.

Design speed. A selected speed used to determine the various geometric features of the roadway.

Detention facility. A permanent facility designed to store runoff and discharge storage at controlled rates.

Development. The construction, reconstruction, conversion, structural alteration, relocation or enlargement of a structure; the division of a parcel of land into two or more parcels; any mining, excavation, landfill, or land disturbance; or use, conversion, or extension of the use of land. (MTMC 19.15.050)

Deviation from Engineering Standards. Written permission from the City to depart from the requirements of the Engineering Development Manual.

Director. The Public Works Director or their designee.

Discharge. Runoff leaving a new development or redevelopment via overland flow, built conveyance systems, or infiltration facilities. (Stormwater Manual)

Downspout. A pipe which conducts water from the roof of a structure.

Drainage. Collection, conveyance, containment, and/or discharge of surface water and stormwater runoff. (Stormwater Manual)

Drainage facility. A constructed or engineered feature that collects, conveys, stores, or treats stormwater runoff. "Drainage facility" includes, but is not limited to, a constructed or engineered stream, pipeline, channel, ditch, gutter, lake, wetland, closed depression, flow control or water quality treatment facility, erosion and sediment control facility and other structure and appurtenance that provides for drainage.

Driveway. The on-site vehicular access connecting a property to a street. Driveway is privately owned and maintained.

Driveway/Access – Approach. That portion of a driveway between the pavement edge of the intersecting roadway and the right-of-way/property line.

Driveway – Apron. See Driveway/Access – Approach.

Driveway – Shared. A jointly owned and maintained tract or easement serving two to four single-family detached units.

Dwelling, Accessory or ADU. A housing unit that is accessory to a single-~~household~~unit dwelling ~~and meets the requirements of~~. See definition(s) in MTMC ~~19.30.050 for accessory dwellings. (MTMC~~ 19.15.~~45.020).~~

Dwelling unit, Multiple-Family-household. A building designed to house two or more households living independently of each other and includes duplexes, triplexes, fourplexes, and apartment buildings. ~~(~~See definition(s) in MTMC 19.15.~~050).~~

~~**Dwelling, Single-Family.** One or more rooms designed for or occupied by one household for living or sleeping purposes and containing kitchen facilities for use solely by one household. Modular and manufactured homes, as defined by this title, are considered to be single-household dwelling units. (MTMC 19.15.050).~~**Dwelling unit, Single**. See definition(s) in MTMC 19.15.

Easement. A grant of an interest in land by the property owner for a specific use by another person or persons, entity, or for the public in general.

Emergency Generator. An alternate source of electrical power used to operate City equipment and pump stations during electrical failures.

Engineer – Geotechnical. A practicing, professional civil engineer licensed by the State of Washington, who has knowledge and practice of geotechnical engineering.

Engineer – Professional. An engineer, licensed to practice in the State of Washington as a Professional Engineer.

Engineer – Soils. Geotechnical Engineer.

Engineering Details and Specifications. means the specifications and plan details approved by the City Engineer to establish engineering requirements for work done within or for the City. (See Appendix L).

Engineering Geologist. A geologist certified by the State as experienced and knowledgeable in engineering geology.

Engineering geology. The application of geologic knowledge in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

Engineering – Geotechnical. The application of soil mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection or testing of the construction thereof.

Extension. An addition to the City's system that is constructed by an owner or developer to be conveyed to the City upon inspection and acceptance.

Eyebrow. A partial bulb located adjacent to the serving road that provides access to lots and serves as a vehicle turnaround.

Financial guarantee. A surety, bond, cash deposit, assignment of funds, or other means acceptable to the City to guarantee acceptable performance, execution, completion of the work and maintenance, in accordance with the project's approved plans and in accordance with all applicable governmental requirements. (MTMC Chapter 15.35 and 17.06.040).

Fire apparatus access road. As defined in the International Fire Code.

Fire lane. As defined in the International Fire Code.

Fixed object. An object, when struck, can result in impact forces on a vehicle's occupants that may result in injury or place the occupants in a situation that has a high likelihood of injury. Refer to WSDOT Design Manual for examples and mitigation.

Flow attenuation. Detaining or retaining runoff to reduce the peak discharge.

Frontage. Any lot line abutting street right-of-way.

Frontage improvements. Motorized and nonmotorized facilities, transit facilities, utilities, landscaping, and other such features located within the public right-of-way.

Grading. See Land Disturbing Activity.

Gravity Service. Sewer service which may be obtained between a property and the City's existing system of sewers in accordance with the City's Rules and Regulations without use of a pump.

Grease Interceptor. An appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oil, and grease (FOG) from the discharge.

Grinder Pump. The pump, wet well, alarm, panel, valve vault, and appurtenances located on private property for the purpose of grinding and transporting sewer discharge into the sanitary sewer system.

Ground disturbance. See Land Disturbing Activity.

Half-street. A street constructed utilizing at least half the regular width of the right-of-way and permitted as an interim facility pending construction of the other half.

Hard surface. An impervious surface, a permeable pavement, or a vegetated roof. (Stormwater Manual)

Illicit Connection. Any artificially constructed conveyance that is connected to the public sewer system without a permit, or that is not intended for collecting and conveying only sewer discharge. Examples of illicit connections include storm sewer connections, exterior floor drains, channels, pipelines, conduits, footing drains, downspouts, inlets, or outlets that should be connected directly to the municipal separate storm sewer system.

Illicit Discharge. Any direct or indirect discharge into the public sewer system that is not composed entirely of sewer flows, except discharges pursuant to a NPDES permit, or any discharge prohibited by the Code of Federal Regulations, such as 40 CFR 403.5 and MTMC 16.21.050, and any regulation adopted to implement those laws, all as amended from time to time.

Impervious surface. A non-vegetated surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated area which causes water to run off the surface in greater quantities or at an increased rate of flow from those present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or

storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purposes of determining whether the thresholds for application of MRs are exceeded. Open, uncovered retention/detention facilities shall be considered impervious surfaces for purposes of runoff modeling. (Stormwater Manual)

Improvements. Any improvement to public, real, or personal property, including but not limited to, installation of streets, roads, pedestrian/bike facilities, streetlights, landscape features, sewer and waterlines, bridge structures, stormwater facilities, and traffic control devices.

Industrial Waste. Any liquid, solid, or gaseous substances or combination thereof, resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including, but not limited to, development, recovery, or processing of natural resources, leachate from landfills or disposal sites, decant water, contaminated non-process water, and contaminated stormwater or ground water.

Infiltration. The downward movement of water from the surface to the subsoil. (Stormwater Manual)

Inspector. The City's Building Inspector or a designee of the Director.

Internal road. A road that is contained within the development.

Interceptor. A sewer that receives flow from other large sewers or outlets and conveys the sewer discharge to a point for treatment or disposal.

Intersection. The area from the intersection of a roadway to the radius tangent point or stop bar on each approach, whichever is greater.

Land disturbing activity. For the purposes of this Engineering Development Manual, any activity that results in movement of earth, or a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling, and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices are not considered land disturbing activity.

Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

Land Surveying. Establishment of corners, lines, boundaries, and monuments, the laying out and subdivision of land, the defining and locating of corners, lines, boundaries and monuments of land after they have been established, the survey of land areas for the purpose of determining the topography thereof, the making of topographical delineations and the preparing of maps and accurate records thereof, when the proper performance of such services requires technical knowledge and skill.

Landing. A road or driveway approach area to any public or private road or intersection.

Local Improvement District. A type of district established by ordinance pursuant to Chapter 3.110 MTMC for the purpose of assisting property owners within a defined geographical area in financing capital improvements by the levying of a special assessment.

Lift Station. A facility used to pump sewage to a higher elevation when it cannot flow by gravity through the City's sewer system. The design requirements are to be determined by the City Engineer and shall include an emergency generator and overflow storage facilities.

Loop. Road of limited length forming a loop, having no other intersecting road, and functioning mainly as direct access to abutting properties. A loop may be designated for one-way or two-way traffic.

Lot. A fractional part of legally divided lands having fixed boundaries, being of sufficient area and dimension to meet minimum zoning requirements for width and area. The term shall include tracts or parcels. (MTMC17.01.020)

Low Impact Development (LID). A stormwater management and site design strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns. The goal is to manage stormwater where it falls by reducing effective impervious surfaces and maintaining and/or re-establishing native vegetation. (MTMC17.01.020)

Low Impact Development (LID) Best Management Practices (BMPs). Distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance

hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to, bioretention/rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, minimal excavation foundations, vegetated roofs, and water re-use. (Stormwater Manual)

Low Impact Development (LID) principles. Land use management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and stormwater runoff. (Stormwater Manual)

Maintenance. Repair and maintenance includes activities conducted on currently serviceable structures, facilities, and equipment that involves no expansion or use beyond that previously existing and results in no significant adverse hydrologic impact. It includes those usual activities taken to prevent a decline, lapse, or cessation in the use of structures and systems. Those usual activities may include replacement of dysfunctional facilities, including cases where environmental permits require replacing an existing structure with a different type structure, as long as the functioning characteristics of the original structure are not changed. One example is the replacement of a collapsed, fish blocking, round culvert with a new box culvert under the same span, or width, of roadway. In regard to stormwater facilities, maintenance includes assessment to ensure ongoing proper operation, removal of built up pollutants (i.e., sediments), replacement of failed or failing treatment media, and other actions taken to correct defects as identified in the maintenance standards of Chapter 4, Volume V of the Stormwater Manual. See also Pavement Maintenance exemptions in Section 2.2, Volume I of the Stormwater Manual.

Micromobility. A range of small, lightweight vehicles operating at speeds typically below 15 miles per hour and driven by users personally.

Mobile Home. A vehicle equipped as a dwelling place. Does not include campers, vacation or travel trailers, or motor homes, etc. (MTMC 15.30.010).

Mountlake Terrace Municipal Code (MTMC). The City of Mountlake Terrace Municipal Code, as it currently exists and as amended from time to time.

Multimodal. Pertains to diverse transportation options, typically including walking, cycling, public transit, and automobile, and accounts for land use factors that affect accessibility.

Municipal Separate Stormwater System (MS4). A conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), owned or operated by the state, City, county, or special purpose district having jurisdiction over disposal of wastes, stormwater, or other wastes, or a designated and approved management agency under section 208 of the Clean Water Act that discharges to waters of the United States; designed or used for collecting or conveying stormwater; which is not a combined sewer; and which is not part of a Publicly Owned Treatment Works as defined at 40 Code of Federal Regulations (CFR) 122.2.

National Pollutant Discharge Elimination System (NPDES). The national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in the State of Washington, are administered by the Washington Department of Ecology.

Native vegetation. Vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed. (Stormwater Manual).

Nephelometric Turbidity Units (NTU). These units are a quantitative measure of water clarity based on the scattering of a standard beam of light directed into a standard sample of the water when the scattering is measured at right angle to the beam. See also the definition for “turbidity” included below.

Occupant. Any person or owner in physical possession of a structure to which sewer service is available.

Off-Street Bike Path. A bike path physically separated from motorized vehicular traffic by an amenity zone or barrier and either within the roadway right-of-way or within an independent

right-of-way. Off-street Bike Paths may be used by people bicycling, skateboarding, scootering, operating wheelchairs, or other micromobility devices.

Off-Street Parking Space. An area accessible to vehicles, exclusive of right-of-way, that is improved, maintained, and used for the purpose of parking a motor vehicle.

Operation and Maintenance (O&M) Plan. A set of instructions and schedules to keep drainage facilities working to meet the design performance criteria.

Outfall. Point source as defined by 40 CFR 122.2 at the point where a discharge leaves the MS4 and discharges to waters of the State. Outfall does not include pipes, tunnels, or other conveyances which connect segments of the same stream or other surface waters and are used to convey primarily surface waters (i.e., culverts). (Stormwater Manual)

Overflow Storage. A facility built to store sewage flow during a high flow event or failure of any part of a sewer system.

Pavement width. Paved area on shoulder-type roads or paved surface between curb, thickened edge, or gutter flow line on all other roads.

Performance guarantee. A financial guarantee in a form acceptable to the City, ensuring that all improvements, facilities, or work shall be completed in compliance with regulations, and approved plans and specifications.

Permeable pavement. Pervious concrete, porous asphalt, permeable pavers or other forms of pervious or porous paving material intended to allow passage of water through the pavement section. It often includes an aggregate base that provides structural support and acts as a stormwater reservoir.

Permittee. Any person, governmental agency, or other entity that is performing, or plans to perform, permitted work within the City.

Person. Any individual, a homeowner or a representative of any of the following: company, partnership, corporation, association, society or group and the singular term shall include the plural and reference to any gender shall mean all genders.

Plans. The plans, profiles, cross sections, elevations, details, and supplementary specifications showing the location, character, dimensions, and details of the work to be performed.

Plumbing Outlet. The part of the lowest horizontal piping of a sewer system that receives the discharge waste pipes from inside the walls of the structure and connects to the side sewer.

Pollution. Contamination or other alteration of the physical, chemical, or biological properties of waters of the state that will or is likely to create a nuisance or render waters harmful, detrimental, or injurious 1) to public health, safety, or welfare, or 2) to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or 3) to livestock, wild animals, birds, fish, or other aquatic life. Contamination includes discharge of any liquid, gas, or solid, radioactive, or other substance. Alteration includes temperature, taste, color, turbidity, or odor. (Stormwater Manual)

Pretreatment Device. Any approved device, structure, system, or method used and maintained for the purpose of bringing a waste stream within acceptable limits and standards of quality prior to its discharge to the public sewer system.

Profile. When referring to roadway design: Vertical aspect of the road, including crest and sag curves, and the straight grades connecting them. When referring to utility design: vertical alignment of the utility, including connections, crossings, and proposed cover.

Prohibited Discharge. Any liquid, solid, or material other than discharge intended from domestic plumbing fixtures, or as permitted by an Industrial Waste Discharge Permit, prohibited by the Code of Federal Regulations, such as 40 CFR 403.5, Snohomish County 7.53.070, MTMC 16.21.050 (B), and any regulation adopted to implement those laws, all as amended from time to time.

Project. Activity encompassing all phases of the work to be performed and is synonymous to the term “improvement” or “work.”

Project Manager. City staff member responsible for coordinating City review of a development project.

Project site. That portion of a property, properties, or rights-of-way subject to land disturbing activities, new hard surfaces, or replaced hard surfaces. (Stormwater Manual)

Public Sewer System. The City of Mountlake Terrace's public system providing sewer services for areas within its municipal boundaries or in other areas under contract.

Rainy Season. The period starting on October 1 of each year and ending April 30 of each following year. These dates may be adjusted by the City Engineer based on climatic conditions for a particular year.

Receiving waters. Naturally and/or reconstructed naturally occurring surface water bodies, such as creeks, streams, rivers, lakes, wetlands, estuaries, and marine waters, or groundwater, to which a municipal separate storm sewer discharges.

Record drawings. Drawings that document as-constructed conditions of a permitted development or redevelopment project.

Recreational Vehicle (RV). A vehicle which is designed and intended for shelter purposes during travel. Recreational vehicles shall include, but not necessarily be limited to, campers, motor homes, and travel trailers. (MTMC 19.15.190)

Redevelopment. For stormwater purposes: on a site that is already substantially developed (i.e., has 35 percent or more of existing impervious surface coverage), the creation or addition of impervious surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities. (Stormwater Manual)

Replaced hard surface or Replaced impervious surface. For structures, the removal and replacement of hard surfaces down to the foundation. For other hard surfaces, the removal down to bare soil or base course and replacement. (Stormwater Manual)

Revised Code of Washington (RCW). The Revised Code of Washington, as it currently exists and as amended.

Right-of-way. Property deeded or dedicated to the City or other entity for street, utility and/or drainage purposes. (MTMC 19.15.190)

Road. Interchangeable with "Street".

Runoff. Water that travels across the land surface and discharges to water bodies either directly or through a collection and conveyance system. See also "Stormwater."

Saddle. A mechanical device acceptable to the City to install a tee onto a sewer main.

Sanitary Sewage or Sanitary Sewer System. Water carrying waste discharged from sanitary facilities.

Sediment. Soils or other materials transported or deposited by the action of wind, water, ice, or gravity.

Service, Residential. Any sanitary sewerage system serving a single dwelling or multiple dwelling containing four units or less.

Service, Commercial. All sanitary sewerage systems other than residential.

Sewer Lateral. The portion of the sewer system between the city's sewer main and the property line or the edge of a perpetual easement on the property being served.

Sewer, Private. Sewer conveyance facilities which are owned, operated, maintained, and controlled by the property owner served by those facilities.

Sewer, Public. Any sanitary sewerage system, including but not limited to interceptors, mains, laterals, pump stations and force mains constructed by the City or by any person and conveyed to the City lying within the right-of-way or a perpetual easement obtained by or granted to the City.

Shared lane. A lane of a traveled way that is open to both bicycle and motor vehicle travel. (AASHTO)

Shared roadway. A roadway that is open to both bicycle and motor vehicle travel. This may be an existing roadway, a street with wide curb lanes, or a road with paved shoulders. (AASHTO)

Shared-Use Path. A path physically separated from motorized vehicular traffic by an open space or barrier and either within the roadway right-of-way or within an independent right-of-way. Shared-use paths may be used by people walking, jogging, bicycling, skateboarding, operating wheelchairs, or other micromobility devices.

Sharrow. A pavement marking symbol that indicates an appropriate bicycle positioning in a shared lane. (AASHTO)

Shoulder. The paved or unpaved portion of the roadway outside the traveled way that is available for parking or nonmotorized use.

Side Sewer, Private. A privately owned and maintained pipe system designed to convey sewer discharge to the public sewer system and includes, the pipe system up to, but not including, the tee, wye, or connection to the ~~side~~ sewer ~~stub.~~

~~**Side Sewer Stub.** The portion of the side sewer between the city's sewer main and the property line or the edge of a perpetual easement on the property being served.~~

~~**Side Sewer Tee.** The tee fitting at the point at which the side sewer stub joins the sewer main~~lateral.

Sidewalk. Any and all structures or form of improvement in the space between the paved portion and the outer edge of the public right-of-way including but not limited to the sidewalk, curb, gutter, driveway and parking strip. (MTMC 12.05.010)

Sight distance. The distance along a roadway throughout which an object of specified height is continually visible. This distance depends on the height of the driver's eye above the road surface, the height of the specified object above the road surface, and the height and lateral positions of obstructions within the driver's line of sight. (AASHTO A Policy on Geometric Design)

Sight distance – Decision. The distance needed for a driver to ascertain and safely respond to an unexpected difficult or unfamiliar situation. Regarding access location, sight distance should give familiar and unfamiliar drivers enough distance to safely turn into the desired access. (Transportation Research Board, 2003. Urban Street Geometric Design Handbook, ITE)

Sight distance – Intersection. The distance needed to safely make a right turn or a left turn from an access or to a cross street, or for a driver to safely make a left turn from a street to an access. (Urban Street Geometric Design Handbook, ITE)

Sight distance – Stopping. The distance needed for a driver to perceive and react to a discernible hazard and then brake to a stop before reaching the hazard. (Urban Street Geometric Design Handbook, ITE)

Site. Any tract, lot, or parcel of land, or combination of tracts, lots, or parcels of land which are in one ownership, or are contiguous and in diverse ownership, where development is to be performed as a part of a unit, subdivision, or project.

Site plan. The development plan for one or more lots on which is shown the existing and proposed conditions of the lot, topography, vegetation, drainage, flood plains, walkways; means of ingress and egress; circulation; utility services; structures and buildings; signs and lighting; berms, buffers, and screening devices; surrounding development; or any other information that reasonably may be required in order that an informed decision can be made by the reviewing authority.

Stabilization. The prevention of soil movement by any various vegetative and/or structural means.

Storm Drain. A public or private drain which carries storm and surface waters or drainage effluent from storm plumbing outlets and other water unpolluted by sanitary or industrial waste.

Stormwater plan. A set of drawings and documents submitted as a prerequisite to obtaining a development permit. The plan contains all of the information and specifications pertaining to stormwater management on-site and offsite.

Stormwater. See “surface water.”

Stormwater Manual. The current Department of Ecology Stormwater Management Manual for Western Washington adopted by MTMC 16.20.

Street. A public or recorded private thoroughfare providing pedestrian and vehicular access to and through neighborhoods and communities and abutting property. See also WAC 468-34-110(1) and section 1C.02(100) of the MUTCD.

Street – Arterial. Provides a high degree of vehicular mobility by limiting property access. The vehicles on arterials are predominantly for through traffic. Arterials are generally connected with interstate freeways or limited access expressways.

Street – Arterial – Minor. Provide intra-community connections and are less significant from a perspective of a regional mobility.

Street – Arterial – Principal. Provide major vehicular travel routes between cities within a metropolitan area.

Street – Collector. Connect traffic from the interior of an area/community to the closest Minor or Principal Arterials.

Street – Local. Provides local access connections to higher classification streets.

Street – Non-Arterial. Provide local access to residential areas. The City classifies local streets as Local Access Streets.

Street – Private. A privately-owned and maintained access provided for by a tract, easement or other legal means.

Structure. Anything constructed or erected on property within the City, designed, intended, or in any manner capable of being used for human occupation, recreation, employment, or other similar purposes and shall include but not be limited to trailers, mobile homes, house trailers, carports, and garages but shall not include fences and walls.

Surface water. Water originating from rainfall and other precipitation that is found on ground surfaces and in drainage facilities, creeks, rivers, streams, springs, seeps, ponds, lakes, wetlands, as well as shallow ground water. (Stormwater Manual)

Surveyor. A person licensed by the State of Washington to engage in the practice of land surveying, as defined by RCW 18.43.020.

Threshold Discharge Area (TDA). An on-site area draining to a single natural discharge location or multiple natural discharge locations that combine within one-quarter (1/4) mile downstream (as determined by the shortest flowpath.) The purpose of this definition is to clarify how the

thresholds of the Stormwater Manual are applied to project sites with multiple discharge points. (Stormwater Manual)

Traveled way. The part of the road made for vehicle travel excluding shoulders and auxiliary lanes.

Trunk. A sanitary sewer that receives flow from multiple tributary sewer line branches.

Turbidity. The visual cloudiness of the runoff especially as caused by suspended solids and settle-able solids that are being carried by the runoff.

Turbidity meter. A portable, electric, hand-held measuring device designed to give a numerical value of the turbidity (cloudiness) of a sample of water. The numerical values are expressed in units known as Nephelometric Turbidity Units (NTUs).

Utility. Private or municipal corporations owning, operating or proposing to own or operate facilities that comprise a system or systems for public service. Private utilities include gas, electric, telecommunications, or water companies that are subject to the jurisdiction of the State Utilities and Transportation Commission and that have not been classified as competitive by the commission.

Sewer Discharge. The water carried waste that is contained in and conveyed by any part of a wastewater system from residential, commercial, or industrial facilities. This term is used interchangeably with the term “sewage.”

Sewer Conveyance Facilities. Facilities such as side sewers, sewer pipes, ~~manholes~~maintenance holes, grinder pumps, and other facilities.

Sanitary Sewer Facility. Any facility for the conveyance or storage of sewage, whether part of the public sewer system or a private sewer system, which is connected to or intended to be connected to the public sewer system. Also referred to as a sewer facility.

Sewer Pretreatment. The treatment of industrial waste before discharge to the public sewer system.

Sewer Service. Providing for the conveyance of sewer from a structure into the public sewer system.

Sewer System, Public. The sewer facilities which are operated, maintained, and controlled by the City of Mountlake Terrace'. Such facilities typically include sewer mains, pump or lift stations, and side sewer stubs.

Waters of the State. Those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of the State of Washington and "waters of the state" as defined in RCW Chapter 90.48 which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington.

APPENDIX B - SURVEY CRITERIA

Survey Format and Content

The following requirements apply to surveys performed for development projects. Review of the survey shall be conducted as part of the plan review process. Survey requirements vary A survey acceptable to the City shall contain the elements listed below:

1. The surveyor's stamp, signature, contact information and the date signed (See Note 1)
2. North arrow, graphic scale, legend, and vicinity map
3. Legal Description, if needed (See Note 2)
4. NAVD 88 and NAD83/91 are required (See Note 3)
5. Monuments within the project area (See Note 4)
6. Site benchmarks (See Note 5)
7. Right-of-way with dimensions, source references, and methods used to determine (See Note 6)
8. Easements with type, dimensions, and source references (See Note 7)
9. Property lines with bearings and distances (See Note 8)
10. Buildings (See Note 9)
11. Streets and street improvements (See Note 10)
12. Utilities (See Note 11)
13. Contours (See Note 12)
14. Steep slopes (See Note 13)
15. Topography (See Note 14)
16. Significant Trees (See Note 15)
17. Water features (See Note 16)
18. Protected areas, if required, including wetland boundaries (See Note 17)
19. Setbacks (See Note 18)
20. Underground hazards (See Note 19)
21. Any monuments in the project area that may be disturbed, destroyed, or removed shall be noted on the plans as requiring replacement. An application for a permit to remove or destroy a survey monument shall be filed with the State of Washington DNR,

pursuant to RCW 58.24.040(8). Under such conditions add Note 21 to General Notes on plan (See Note 20).

See below for the notes referenced above:

Note 1. **Land Surveyor's Stamp** – Work consisting of the Practice of Land Surveying shall be done by or under the direction of a Surveyor licensed to practice in the State of Washington (RCW 18.43.010), and shall conform to all RCWs and WACs pertaining to surveying and engineering. Plans, specifications, plats and reports prepared by the Surveyor shall be signed, dated and stamped with the Surveyors' seal. (RCW 18.43.070) State of Washington law defines the "practice of land surveying" as "assuming responsible charge of the surveying of land for the establishment of corners, lines, boundaries, and monuments, the laying out and subdivision of land, the defining and locating of corners, lines, boundaries and monuments of land after they have been established, the survey of land areas for the purpose of determining the topography thereof, the making of topographical delineations and the preparing of maps and accurate records thereof, when the proper performance of such services requires technical knowledge and skill." (RCW 18.43.020(9))

Note 2. **Legal Description** – Legal Descriptions are needed for plats, short plats, easements containing City utilities, etc. Include the plat name or short plat number, block number if any, and lot number or lot letter, or the metes and bounds description of the lot.

Note 3. **Data –** The Washington State Lambert Grid Coordinate System North Zone, using the NAD83 (1991) datum as established in accordance with RCW Chapter 58.20. The unit of measurement shall be the U.S. Survey Foot. The plans shall show the horizontal control used to establish ties to the datum, with type, size, and location, date visited, and the State Plane coordinates for each monument used. Show at least two monuments on each street in the project.

Project control may be shown in the design drawings, or on its own sheet. The Vertical datum for all survey work (including but not limited to mapping, platting, planning design, right-of-way surveys, and construction surveys) shall be the North American Vertical Datum of 1988 (NAVD 1988). The plans shall show the

benchmarks used to establish ties to the datum, with reference number, description, location and elevation of each benchmark used, and any project site benchmarks. Information on horizontal and vertical control monuments can be found at https://www.cityofmlt.com/DocumentCenter/View/254/City-Benchmark-Locations or in the Washington Council of County Surveyors Data Warehouse.

Other acceptable sources for benchmarks are WSDOT, Snohomish County, and NOAA. When another benchmark is used, establish one benchmark for each datum and show on the plans. Include a local conversion factor between the two data. The benchmark used to establish the conversion factor shall be the benchmark nearest to the project site.

Note 4. **Monuments –** The plans shall show all monuments, geometry and references used to establish the right-of-way, lines referencing the right-of-way, property lines, easements and any rights in real property shown. The plans shall show bearing and distance on monument lines, or radius, delta angle, and curve length on curving monument lines, and the station at each monument. If construction baselines other than the monument line are used, show the relation of each baseline to the monument line. Survey control and boundary information may be shown on the design drawings, the vicinity map, or on its own sheet.

Note 5. **Benchmarks –** Show site benchmarks. Project site benchmarks shall be established by measurement from two local benchmarks, meeting the requirements of the Geospatial Positioning Accuracy Standards by the Federal Geographic Data Committee. Site benchmarks shall be set in a location that shall not be disturbed by the proposed construction.

Note 6. **Right-of-way –** Show the width on each side of the monument line, and the references used. If the right-of-way is of variable width, show the width at each end of the block.

Note 7. **Easements –** Show easements Native Growth Retention Areas, and critical area buffers within the project area, with type, dimensions, and source reference.

Note 8. **Property Lines –** Show bearings and distances for straight property lines, and radius, delta angle, and arc length for curves.

Note 9. Buildings – Show the location of all existing buildings, including projections, roof overhangs, and covered breezeways. Show the perpendicular distance to the property and right-of-way lines when significant to development. Show footprints of recently demolished buildings.

Note 10. Streets – Show the right-of way lines, monument lines, concrete surfaces, asphalt surfaces, gravel surfaces, channelization, centerlines, pavement edges, pavement widths, shoulders, ditch lines, curbs, sidewalks, access locations, and street names.

Show the curbs, curb cuts, wheelchair ramps, gutter and flow lines, sidewalks, landscape areas, pedestrian and bike paths.

Note 11. Utilities – Field locate and show all visible utilities, structure, and appurtenances. Show buried utilities and the source of the information used. ~~-~~Show the location, size, and description of all utilities including water, power, sewer, and stormwater systems and appurtenances. ~~-~~Show elevations at rim and inverts of ~~manholes~~maintenance holes, catch basins, and inlets.~~-~~ Locate and dimension all fire hydrants, vaults, utility poles, etc.

Note 12. Contours – Show existing and proposed contours at two (2)-foot intervals for portions of the site with slopes greater less than 40 percent, and for those areas exceeding 40 percent that will be graded. Show five (5)-foot intervals for portions of the site with slopes that exceed 40 percent but will not be disturbed.

Note 13. Steep Slopes – Identify slopes 15 percent and steeper. Show the top of slopes 40 percent or steeper.

Note 14. Topography – Show rockeries, retaining walls, fences, bridges, swales, culverts, etc. Show the location, length, and height above finished grade of all fences, rockeries, and retaining walls. Note heights at end and mid points.

Note 15. Significant Trees – Show trees that are six (6) inches or more in diameter and coniferous trees that are at least ten feet in height. Diameter is measured four (4) feet above existing grade. Label each tree with common name and diameter. Show drip lines.

Note 16. Water Features – Show lakes, rivers, streams, ditches, ponds, and other surface water features. Show the line of ordinary high water and the top of any well-defined banks. Show the 100-year floodplain, and show wetland boundaries. Show buffers as defined in MTMC 16.15.410(D).

Note 17. Environmentally Sensitive Areas – Show areas defined in the City's Critical Areas Ordinance (MTMC Chapter 16.15). If the survey shows protected areas on or adjacent to the site, contact the Community and Economic Development Department for boundary verification prior to designing the project.

Note 18. Setbacks – Show the required primary setbacks from the protected areas.

Note 19. Underground Hazards – Show areaways, tunnels, mines and other underground hazards.

Note 20. Survey Monuments – Survey Monuments shall not be removed, disturbed, covered, or destroyed before a permit is obtained from the State of Washington DNR. At least four (4) working days before a monument is removed, disturbed, covered, or destroyed, provide a copy of the DNR permit to the City representative assigned to the project.

APPENDIX C - STORMWATER REPORT GUIDELINES

Stormwater Report Guidelines

The stormwater report is a comprehensive report that documents the technical information and analysis related to the stormwater design of a project.

The standard report format below is an outline of the required documentation to be included in the stormwater report. The specific content in each section depends on the complexity of the project and site conditions.

The report shall address each section in the outline. If a section does not apply, the engineer may simply state that the section does not apply with a brief explanation. This standardized report format allows a quicker, more efficient review of the stormwater design.

General report requirements are listed below:

- The report shall be prepared, stamped, signed and dated by a Professional Engineer licensed in the State of Washington.
- All revisions shall be submitted in a complete revised report.
- The report shall be bound.
- The report shall be 8.5" x 11". Figures may be on 11" x 17" sheets.
- Each page shall be numbered.

Cover Sheet

The cover sheet has the:

- Project name and address;
- Applicant/Permittee's name, address, and telephone number;
- Engineering firm’s name, address, and contact information;
- Engineer's name and license number;
- Report date and revision dates.

Table of Contents

Show the page number for each section of the report, including appendices.

1.0 Project Overview

Introduce the formal project name, address and lot numbers.

The project overview shall provide a general description of the project, redeveloped and developed conditions of the site, site area and size of the improvements, and the pre- and post-developed stormwater runoff conditions.

The overview should summarize difficult site parameters, the natural drainage system, and drainage to and from adjacent properties, including bypass flows. Include drainage requirements and restrictions from other agencies.

Provide a table of existing and proposed land cover, including improvement areas. The table shall identify pervious land cover, impervious land cover, and pollution generating areas all noted in square footage. The values in this table shall match those identified in Section 8.0, Figure 3 of this appendix.

2.0 Minimum Requirements

Discuss minimum requirements (MRs) that apply to the project, as well as additional requirements from basin plans, critical areas, plat/short plat approvals, conditional use permits, and SEPA mitigations. Additional information regarding minimum requirements may be found in Appendix M of this EDM. Discuss any engineering deviations and any specific site conditions that affect design requirements. Discuss any assumptions used in design.

Provide the following (highlighting or otherwise denoting the flow path on each figure):

A. Flow Chart for Determining Requirements for New Development (Figure I-3.1) or the Flow Chart for Determining Requirements for Redevelopment (Figure I-3.2) from the Stormwater Manual;
B. Flow Chart for Determining LID MR5 Requirements (Figure I-3.3);
C. Runoff Treatment BMP Selection Flow Chart (Figure III-1.1) if the threshold for MR6 is triggered;
D. Flow Chart for Determining Wetland Protection Level Requirements (Figure I-3.5) if the threshold for MR8 is triggered.

3.0 Site and Basin Assessment

The site assessment provides the baseline information necessary to preserve natural resources, preserve areas most appropriate to evaporate, transpire, and infiltrate stormwater, and help to achieve the goal of maintaining or restoring predevelopment natural hydrologic conditions on the site.

Describe existing conditions including relevant hydrologic conditions. The discussion should include hydrology, topography, soils, vegetation, water features, and drainage patterns. Include site visit dates, observations, and weather.

Describe the following:

A. Topography
B. Existing ground cover, including pervious, impervious, and pollution generating areas
C. Describe the natural features of the lot (i.e., woods, pasture, and brush) and give the approximate area covered by those features
D. Offsite drainage to the property
E. Creeks, lakes, ponds, wetlands, ravines, gullies, steep slopes, springs, and other environmentally sensitive areas on or down gradient of the property
F. Drains, channels, and swales, within the project site and immediately adjacent
G. Points of exit for existing drainage from the property
H. Any known historical drainage problems such as flooding, erosion, etc.
I. Any known contaminated soils
J. Existing Structures/Improvements: List any existing buildings, driveways (dirt, gravel, etc.), sidewalks, etc. and their area size in square feet or acres
K. New structures or improvements: List new buildings and their sizes along with any size changes in existing driveways, parking areas, landscaped areas, etc.
L. Remaining Undisturbed Land: List and provide the size of the land (woods, pasture) not covered by buildings or improvements.

3.1 Off-site Analysis Report

Provide an off-site analysis performed according to the Stormwater Manual I-3.5.3 AMP2. A qualitative off-site analysis for each downstream system leaving the project site is required with initial permit submittal. The qualitative analysis shall include a site visit on a rainy day with pictures of the upstream and downstream conveyance systems within the study limits. A quantitative analysis may be required upon review.

3.2 Soils/Infiltration Rates

Discuss soils. Provide results of infiltration test(s), including observations made during the test(s). Note the date or dates of testing. Provide measured infiltration rates. Provide design infiltration rates and justification for the correction factors used. For any project proposing infiltration from pollution generating surfaces provide cation exchange capacity and organic matter content for each soil type and strata where distinct changes in soil properties occur, to a depth below the base of the BMP of at least two and one-half (2.5) times the maximum design water depth, but not less than six (6) feet.

Sites proposing the construction of one single-family home or ADU may use a licensed on-site sewage designer for preparation of the soil analysis.

Subdivision projects may need to evaluate the soils on each lot for infiltration BMP applicability.

3.3 Critical Areas and Floodplain

Discuss all critical areas and buffers within and adjacent to the site. If the project is within the 100-year floodplain, show the 100-year flood hazard area on the plans.

3.4 Assessment Summary

This section should define the study area, describe the drainage system (including conveyance), identify problems, and define mitigation. Figure 2, Site Assessment and Summary, should represent the information contained in the site assessment and summary.

Summarize evaluation of impacts to fish habitat, groundwater levels, groundwater quality, or other environmental features expected to be significantly impacted by the proposed project due to its size or proximity to such features. Describe proposed mitigation for the impacts.

Provide all assumptions used.

Identify and discuss difficult site parameters and how the plan incorporates the following criteria:

A. Conserve existing habitat and vegetation.
B. Protect areas conducive to infiltration and preserve these areas during site design and construction.
C. Limit ground disturbance areas to road, utility, building pad, landscape areas, and the minimum additional area needed to maneuver equipment. (A ten (10) foot perimeter around the building site can provide adequate workspace for most activities.)
D. Reduce impervious surfaces.
E. Place structures as close to the public access point as possible to minimize road/driveway length.
F. Limit vehicular and pedestrian infrastructure, such as roads, driveways, parking areas and sidewalks, to the minimum functional needs.
G. Utilize porous paving options wherever possible.
H. Slope paved areas to facilitate drainage to stormwater management areas.
I. Reduce building footprints whenever possible. Utilize basements or taller structures with lofts or second stories to achieve square footage goals.
J. Orient buildings on slopes with long-axis along topographic contours to reduce grading requirements.
K. Amending disturbed soils according to BMP T5.13 in the Stormwater Manual: Volume V.

4.0 CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN

An adequate construction SWPPP includes both a narrative and drawings. Describe how each of the 13 Elements in a SWPPP are being met, where and when the various BMPs should be installed, expected performance of each BMP, and actions to be taken if the performance goals are not achieved.

State the name and contact information of the SWPPP Supervisor or CESCL. (See EDM Chapter 21, Construction Stormwater Pollution Prevention Plan.)

The SWPPP should be a stand-alone document.

4.1 Rainy Season Requirements

Describe how the rainy season requirements for land disturbing work from October 1 to April 30 will be met.

5.0 PERMANENT STORMWATER CONTROL

Describe how natural drainage systems and outfalls will be preserved.

Describe design measures taken to create facilities that are aesthetically pleasing, how facilities will provide useable open space, and how the facilities will fit into the landscaping plan for the property, and how the facilities are in keeping with any approved community plan.

Describe how utilities will be installed to ensure no conflicts with proposed stormwater quantity and quality control measures.

5.1 Low Impact Development and Flow Control

Describe the flow control system, including LID techniques and BMPs, outlet works and spillways, flow path lengths, and the safety factors used.

List the method used to comply with MR5 (List Approach or the LID Performance Standard).

If flow control BMP credits are used, explain how the credits will be used and how the criteria for use of credits will be met. If the flow control system is an infiltration facility, provide the soils data, groundwater mounding analysis, or other calculations used to determine the design infiltration rate.

5.2 Water Quality

This section should list receiving waters and pollutants of concern, discuss oil control facilities, describe the selection process for treatment options, and discuss how the water quality plan meets required enhanced treatment.

5.3 Source Control

Pollution source control is the application of pollution prevention practices on a developed site to reduce contamination of stormwater runoff at its source. List the possible sources of pollution

after construction. Provide supporting information (site conditions, calculations, etc.) for the selection and sizing of pollution prevention BMPs.

5.4 Conveyance System Analysis and Design

Describe capacities, design flows, and velocities. Specify materials for the design (e.g., rock lining for channels when velocity is exceeded; high density polyethylene pipe needed for steep slope). Present analysis in a clear, concise manner that can be easily followed, checked, and verified.

6.0 SPECIAL REPORTS AND STUDIES

Cite special reports and studies used as reference when preparing the Stormwater Site Plan(s), such as the following:

- Critical areas analysis and delineation
- Geotechnical/soils
- Structural design
- Structural fill

7.0 OTHER PERMITS

Include a list of other necessary permits and approvals as required by other regulatory agencies, if those permits or approvals include conditions that affect the stormwater plan, or contain more restrictive drainage-related requirements.

8.0 FIGURES

The following figures are required. Additional figures may be provided.

Figure 1. Vicinity Map

A vicinity map should clearly locate the property and any pertinent locations near the site.

Figure 2. Site Assessment and Summary

Figure 2, Site Assessment and Summary, should represent the information contained in the site assessment and summary. Provide a map at a scale that clearly shows the contour intervals and other information. At a minimum the map shall show the following:

- Topography
- The direction of flow, for all drainage
- Boundaries of basins, sub basins, the site and the project site
- Acreage of sub basins and areas contributing runoff to the site
- Existing discharge points to and from the site
- Downstream drainage system for the distance of the downstream analysis
- Locations of existing utilities, existing improvements, and access
- Critical areas, natural streams and drainage features on and adjacent to the site
- Areas that cannot be developed due to conditions such as slopes or critical area buffers
- Areas to be preserved (infiltration, vegetation, soils).

Figure 3. Site Development

The drainage design on the construction drawings can substitute for this figure. Designate on the plans the areas of proposed pervious, impervious, and pollution generating surfaces in square footages. These areas should match the areas provided in Section 1 of the report and include any frontage improvements.

Figure 4. Planting Plan

Provide a planting plan and specifications for each vegetated stormwater facility. Refer to Appendix K - Approved Stormwater Facility Planting List.

APPENDICES

Appendix A – Infiltration Testing

Provide the results of the infiltration test(s). Include on-site observations of soils and groundwater. All test reports shall be signed and dated, with credentials and license number or

certification number for person or persons responsible for performing the testing. Include a site plan showing locations of PIT(s).

Appendix B – Geotechnical Report

Include a copy of the geotechnical report prepared for the project site.

Appendix C – Documentation

Provide the methods used for analysis, and information showing that facilities meet the performance standards. Include all supporting documentation such as assumptions, computer printouts, calculations, equations, references, storage/volume tables, duration analyses, graphs, and any other aides necessary to clearly show results used to design flow control and water quality facilities.

Appendix D – Covenants, Dedications, Easements

Include copies of legal instruments needed to guarantee construction of on-site stormwater management BMPs on individual lots, preservation of drainage systems, ongoing maintenance, and access for inspection and maintenance purposes (attach copies). The draft covenant for the stormwater maintenance shall be included in the stormwater report. This document is not required to be recorded with Snohomish County until after the final as-built inspection.

Appendix E – Property Owners' Association Articles of Incorporation

Attach a copy of the Articles of Incorporation, when applicable and if available.

APPENDIX D - GEOTECHNICAL REPORT GUIDELINES

Geotechnical Report Guidelines

The City may require a geotechnical investigation and report based on the nature of the proposal. For site development for one (1) single-family residence on a site with no steep slopes, erosion hazards, or critical areas, a report previously prepared for that site, may be accepted if:

The report is less than five (5) years old and no significant changes have occurred;

The geotechnical engineer/engineering geologist who signed the report provides a letter stating the report is still applicable to the site and currently proposed project.

The report shall be stamped, signed and dated by a Professional Engineer licensed in the State of Washington, who meets the City's criteria for geotechnical engineer. The attached report outline describes the contents for the elements in a geotechnical report; the report submitted to the City address each element in the outline.

The content under each element shall depend on the complexity of the project and site conditions. For example, a single-family residence on a glacial till site without groundwater issues warrants a short, simple report; while a high-rise structure with a deep excavation on an alluvial site warrants a longer, more detailed report. The report should state "Not applicable" for each outline element that does not apply.

The Geotechnical Engineer determines the actual scope of investigation, analysis and reporting necessary to meet the Standard of Practice with respect to the project and its geotechnical requirements.

GEOTECHNICAL ENGINEER means a practicing geotechnical/civil engineer licensed as a professional civil engineer by the State of Washington who has at least four (4) years of professional employment as a geotechnical engineer.

GEOTECHNICAL ENGINEERING means the application of soil mechanics in the investigation, evaluation, and design of civil works involving the use of earth materials and the inspection or testing of the construction thereof.

Please use double-sided printing for the report.

Number each page.

COVER SHEET

The cover sheet has the:

- Project name and address;
- Applicant/Permittee's name, address, and telephone number;
- Engineering firm’s name, address, and contact information;
- Engineer's name and license number;
- Report date and revision dates.

1.0 SUMMARY

The summary presents the major conclusions of the investigation and their bases. This section should be included in all lengthy or complex reports.

2.0 INTRODUCTION

The introduction sets the stage for the entire report and contains the following sections:

2.1 Overview

- Introduce the formal project name, address and lot numbers.
- Describe slope classification(s) according to MTMC 16.15.430 Geologic Hazard Areas.
- Describe briefly the current or previous work used to form the basis for the conclusions and recommendations contained in the report.

2.2 Background

- Describe the project’s history when relevant to the reason for the investigation.
- List other reports completed for the site or adjacent sites and note whether any environmental site assessments or other environmental work has been completed.
- Describe the scope of work, including grading, retaining walls, structures, construction materials and utilities. Include dimensions, quantities, proposed finish floor elevations, maximum depth of cut or fill, foundation and floor loads, etc.

- Describe all assumptions that were relied upon to develop the conclusions and recommendations contained in the report.

2.3 Purpose And Scope Of Services

- State succinctly the primary purpose for the geotechnical engineering services.
- Summarize the scope of geotechnical engineering services that form the basis for the conclusions and recommendations contained in the report.
- Indicate any limitations to the scope of geotechnical engineering services provided, particularly if the scope represents a departure from service typically provided on similar projects.

2.4 Investigations Summary

- Provide the dates, general nature and extent of the geotechnical investigation. This section should include data research, borings, test pits, geophysics, physical laboratory testing, chemical testing, field instrumentation or testing, etc.
- If the investigation was complex, present a complete and detailed explanation and results in the form of an appendix.

2.5 Report Overview

- Introduce and describe other sections of the report, directing the reader to critical sections, if appropriate.
- Identify and describe all attachments and appendices.

3.0 SITE CONDITIONS

Describe all site features relevant to the study and the geotechnical engineering conclusions and recommendations. Terminology should be clear and consistent through the entire Report.

3.1 Location and Surface Conditions

- Provide the cross streets, addresses and lot numbers in order to locate the site.
- Describe the site and adjoining properties, including surface elevation, topography and drainage.
- Provide current uses of the site and adjacent properties.
- Identify all current structures, subsurface utilities, wells, manmade fills and other surface features.
- Describe vegetation, topsoil, paving and other surface coverings.
- Describe any indications of historic geological processes or hazards on or near the site (e.g., slope instability, landslides, liquefaction, flooding, etc.)
- Describe any indications of surface releases or other contamination or potential contamination sources.
- Describe any planned changes to the surface conditions described above which will take place after the investigation.

3.2 Geological Setting

- Provide an overview of regional geology, local stratigraphy, groundwater occurrence, etc.

3.3 Subsurface Soil Conditions

- Describe each soil or geologic unit encountered by their classifications and group units with respect to the properties that are most relevant to the conclusions and recommendations. Give

each unit group a unique, clear, common title and consistently refer to this unit by its given title throughout the report.

- Provide important results of the laboratory physical property testing and its indications of soil behavior.
- Provide design infiltration rate per the Stormwater Manual.
- Avoid detailed descriptions of the sequence of units found in individual borings; rather, focus on variations in the units across the site, if appropriate. Refer the reader to the exploration logs for details.
- Describe any expected changes in subsurface conditions that may occur with time after the investigation.

3.4 Groundwater Conditions

- Describe the nature and occurrence of groundwater.
- Provide an opinion on likely seasonal variations in groundwater levels or flows, and the possibility for changes from those encountered at the time of exploration.
- Show groundwater levels on soil logs.

3.5 Subsurface Contamination

- Describe the nature and extent of soil and/or groundwater contamination as revealed by the explorations. Reference any applicable Environmental Assessments if performed.
- Provide important results of the analytical laboratory testing and indications about contamination distribution and concentration.
- Indicate limitations of knowledge on the nature and extent of contamination.
- Discuss possible changes that may occur in these conditions over time.

4.0 DISCUSSION AND CONCLUSIONS

The Discussion and Conclusions should set out major geotechnical issues and alternatives for the project, along with the Geotechnical Engineer's conclusions, in a succinct and clear manner. This section shall clearly describe the logic and reasoning supporting the recommended approach, or alternative approaches. Specific recommendations should be presented in the Recommendations section.

Discussions and Conclusions should:

- Build on information described in the previous sections;
- Describe project features, soils and construction materials using consistent terminology;
- Explain any apparent inconsistencies in the data or investigations;
- Describe clearly any limitations or restrictions to the conclusions and recommendations.

4.1 Slope Stability

- Summarize data and analysis used to evaluate slope stability.
- Provide an opinion regarding the risk of instability on the site or adjacent properties currently, during construction, and after the project is completed.

- Describe how design and construction recommendations will reduce or eliminate the risk of stability.
- Discuss any construction or post-construction measures necessary to verify slope stability.

4.2 Seismic Considerations

- Provide an opinion on the expected level of ground motion during a major earthquake.
- Describe any seismic risks associated with an earthquake such as liquefaction, lateral spreading, landslides, or flooding.
- Describe how design and construction recommendations will reduce or eliminate the impact of seismic risks.

4.3 Site Work

- Describe proposed site grading and earthwork and provide an opinion on the proper sequence and approach to accomplish the site work.
- Describe key issues which will impact earthwork, including short-term slope stability, on-site and import fill materials, groundwater and drainage, rainfall and moisture sensitive soils, and erosion.
- Describe how these key issues should be addressed during construction, including dewatering, temporary retaining structures and erosion control.
- Include specific recommendations for on-site erosion control based on soil erodibility and the presence of groundwater, surface water and slopes.
- Include statements regarding the importance of construction monitoring by a geotechnical engineering firm.

4.4 Retaining Structures

- Recommend appropriate temporary retaining systems.
- Recommend the most appropriate permanent retaining system or systems and describe their expected performance with respect to stability and deflection.
- Summarize the data and analysis used to evaluate permanent retaining systems.
- Clearly define all limitations on backfill materials, reinforcement, and drainage for reinforced soil slopes and reinforced soil backfill.
- Describe the limitations on such systems.
- Emphasize any aspects of site work, particularly with respect to the native soil materials, backfill and drainage, which could impact performance of the retaining structures.

- Include statements regarding the importance of construction monitoring by a geotechnical engineering firm.

4.5 Rockeries

- Emphasize that rockeries usually protect a slope face from erosion. Indicate which rockeries will protect the slope face by preventing soil erosion and sloughing.
- Include the design criteria for rockeries that serve as retaining structures. Indicate which rockeries will function as retaining structures.
- Recommend locations for rockeries such that a Contractor can reach them for maintenance and repair.
- Discuss what type of inspection and testing may be required during rock wall construction.

4.6 Foundation Support

- Summarize the data and analysis used to evaluate foundation systems.
- Provide an opinion on the most appropriate foundation system and possible alternatives, along with the expected level of performance with respect to load capacity and settlement.
- Emphasize any aspects of site work that could impact the performance of foundations.
- Include statements regarding the importance of construction monitoring by a geotechnical engineering firm.

5.0 RECOMMENDATIONS

The Recommendations should present all detailed geotechnical engineering recommendations for design and construction in a clear and logical sequence.

For each item covered in the recommendation sections, present the following:

- Specific design recommendations along with their limitations, factors of safety, minimum dimensions and effect of expected variations in actual conditions.
- Specific construction recommendations including definitions, materials, execution, monitoring testing, or other quality control measures and any other construction requirements to support the design recommendations

- Responsibility for seeing that each recommendation is met, such as owner, geotechnical engineer or other design consultant or Contractor.

5.1 Site Grading and Earthwork

All design and construction methodologies should be specific and identifiable; generalized or vague statements are NOT acceptable.

Provide specific design recommendations for:

1. Depth of stripping,
2. Soil excavation limits and slopes,
3. Depth and lateral limits of over-excavation to remove unsuitable materials,
4. Preload fills,
5. Location and thickness of particular fill material or compaction requirements,
6. Maximum temporary and permanent slopes,
7. Permanent surface and subsurface drainage systems, and
8. Permanent erosion controls.

Provide specific construction recommendations for:

1. Clearing,
2. On-site and/or import fill materials,
3. Excavation and compaction equipment,
4. Fill material moisture conditioning, placement, and compaction,
5. Proof-rolling, in-place density testing and other quality control measures,
6. Temporary seepage and drainage control measures,
7. Permanent surface of subsurface drainage system installation (as appropriate), and
8. Temporary slope protection and erosion control measures.

5.2 Temporary Shoring and Retaining Walls

Provide specific design recommendations for:

1. Active and passive earth pressures,
2. Surcharge pressures,
3. Bearing capacity,
4. Minimum or maximum dimensions and depth of penetration,
5. Lateral support,
6. Wall or backfill drainage systems, and
7. Any other appropriate structured details.

If appropriate, provide specific design recommendations for tie-back anchors including:

1. Anchor inclination,
2. No load zones,
3. Minimum anchor length,
4. Anchor bond zone,
5. Anchor adhesions, and
6. Corrosion protection.

Provide specific construction recommendations for:

1. Installation,
2. On-site and/or import backfill materials,
3. Backfill material moisture conditioning, placement, and compaction,
4. In-place density testing or other control measures, and
5. Seepage and drainage control.

If appropriate, provide construction recommendations for tie-back anchors including:

1. Anchor installation methods,
2. Anchor testing, and
3. Monitoring.

5.3 Rockeries

Rockeries shall follow the requirements shown in Mountlake Terrace Detail 610.

When a geotechnical engineer is required, they shall provide direct input to the design of the rockeries and provide construction monitoring and testing as appropriate. Specific design parameters may include: rock quality, density, frequency of testing, slopes, keyways, surcharges, drainage, rock sizes, face inclination and surface drainage.

5.4 Reinforced Soil Structures

Geogrid or geotextile fabric may be used to reinforce a fill. If reinforced slopes are used, the geotechnical engineer shall specify, at a minimum, the fill soil materials, vertical spacing of the reinforcement, the specific type of reinforcement and the distance to which it must extend into the fill, the amount of overlap at the reinforcement joints, and the construction sequence. Additional design parameters shall be required for each specific site.

5.5 Structure and Foundations

Provide seismic design recommendations for:

1. Building Code soil type and site coefficients, and
2. Any specific recommendations to reduce the risk of damage due to earthquakes.

Spread footing foundations – provide design recommendations for:

1. Bearing soils,
2. Bearing capacity,
3. Minimum footing depths and widths for both interior and exterior footings,
4. Lateral load resistance,
5. Foundation drainage systems, and
6. Frost protection.

Mat foundations – provide design recommendations for:

1. Bearing soils,
2. Bearing capacity,
3. Modulus of subgrade reaction,
4. Minimum dimensions, and

5. Lateral load resistance.

Pile foundations – provide design recommendations for:

1. Type of pile,
2. Means of support (end of friction),
3. Minimum dimensions and depths,
4. Allowable vertical and uplift capacity,
5. Allowable lateral loads and deflections, and
6. Group effects and minimum spacing.

Spread footing or mat foundations – provide construction recommendations for:

1. Foundation subgrade preparation and protection,
2. Verification of bearing capacity, and
3. Installation of foundation drainage system.

Pile foundations – provide construction recommendations for:

1. Pile driving equipment,
2. Pile installation,
3. Pile load tests or verification piles, and
4. Monitoring and testing during pile installation.

5.6 Floors

Slab-on-Grade Floors – provide design recommendations for:

1. Slab base rock thickness,
2. Capillary break,
3. Vapor barrier, and
4. Floor system drainage.

Supported Wood Floors – provide design recommendations for:

1. Vapor barrier and
2. Crawl space drainage.

Slab-On-Grade Floors – provide construction recommendations for:

1. Subgrade preparation,

2. Slab base rock placement and compaction,
3. Capillary break and vapor barrier installation, and
4. Floor drainage system installation (when appropriate).

5.7 Pavements

Provide design recommendations for:

1. Pavement design section, and
2. Pavement drainage.

Provide construction recommendations for:

1. Pavement subgrade preparation and verification, and
2. Pavement base and subbase materials, placement and compaction.

5.8 Utilities

Provide construction recommendations for:

1. Utility excavation,
2. Bedding material placement, and
3. Backfill material, placement and compaction.

5.9 Drainage

Recommend provisions for subsurface drainage at walls, floors and footings.

Evaluate permanent and temporary surface and subsurface drainage for both walls and floors if applicable. Provide approximate flow rates in gallons per minute and pipe sizes if required by design.

Provide design and recommendation for infiltration facilities, including setbacks from structures, walls, and critical areas and their buffers.

Provide all characteristics of the vadose zone layer for UICs per Table I-4.2: Vadose Zone Treatment Capacity of the Stormwater Manual.

5.10 Hazards

Present additional information if natural or man-made hazards exist on the property. The City's critical areas maps identify hazards such as wetlands, streams and flood hazards, erosion, and steep slopes. Recommendations should be general, and further studies may be required.

6.0 FIGURES AND ILLUSTRATIONS

6.1 Vicinity Map

Include a vicinity or location map that presents adequate street and/or other physical references to allow clear identification of the project's location. This map may be an individual figure or may be included on the site plan.

6.2 Site Plan

Show the project boundaries, property lines, existing features and the proposed development and structures. A north arrow and scale should be included along with all subsurface exploration locations. The accuracy of exploration locations should be indicated on the site plan or in the report.

6.3 Exploration Logs

Include logs of all explorations describing soil units encountered, soil classification, density or stiffness, moisture conditions, groundwater levels, stratigraphic sequence, common geologic unit name, and other descriptive information.

For soil logs, saturated hydraulic conductivity, hydraulic restriction layer, and monitoring wells, refer to the soils report requirements in Section III-3.2 of the Stormwater Manual.

6.4 Laboratory Test Data

If presenting of all the data in text would require more than a simple paragraph, include figures or tables of laboratory test results.

6.5 Cross Sections

Include cross sections to visually present all but the simplest subsurface conditions.

6.6 Details

Include figures, graphs and other visual aids to clearly present detailed recommendations. Provide design details (stamped by a Professional Engineer licensed in the State of Washington) on drawings such as: rockeries, reinforced earth, interceptor trenches, wall and footing drains, utility backfill, and other details used for a particular design.

7.0 PROJECT ENGINEER'S CERTIFICATION

The report shall contain a page with the project engineer's seal, signature, and date signed, with the following statement:

"I hereby state that this geotechnical report for _____ (name of project) has been prepared by me or under my supervision and meets the standard of care and expertise which is usual and customary in this community for professional engineers. I understand that the City of Mountlake Terrace does not and will not assume liability for the sufficiency, suitability, or performance of facilities prepared based on this report."

APPENDIX E - TRANSPORTATION IMPACT ANALYSIS REPORT GUIDELINES

Transportation Impact Analysis Guidelines

GENERAL REQUIREMENTS

- Provide two (2) copies, printed double-sided and one (1) electronic copy in PDF format.
- The estimate of vehicle trips shall be conducted in accordance with the most recent version of the Trip Generation Manual, published by the Institute of Transportation Engineers.
- Traffic LOS analysis shall be conducted using methodology consistent with the most recent version of the Highway Capacity Manual.
- Forecast and analysis shall include existing year, opening year, and horizon year
- The year of completion of the project's final phase shall be used as the opening year. The horizon year shall be five years after completion.
- Phased projects may have multiple horizon years.
- Shall be prepared by a Professional Engineer licensed in the State of Washington with a background in traffic analysis.

TRANSPORTATION IMPACT ANALYSIS OUTLINE

Regional/ Standard	Section	Content to include, but not limited to:
Standard	Cover Page	• Applicant/Permittee's name • Project title • Project address • Preparer's contact information, signature, and Professional Engineer stamp.

Standard	Introduction	• Complete project description
		  o Current and proposed zoning, Comprehensive Plan Designation;
		  o Proposed land use(s);
		  o Size of development such as number and type of housing units and/or gross floor area;
		  o Phasing plan for complex projects.
		• Project location and study area boundary.
		• Executive summary of findings and mitigations, if applicable.

Standard	Site Evaluation	• Roadway and turning movement traffic volumes collected within previous three years (excluding 3/2020 thru 12/2021). • Sight distance evaluation for all access points; include plan showing required sight triangles and any obstructions located within. • Access design and vehicle queueing. • Pedestrian and bicycle access from the public right-of-way and adjacent land uses to all principal entrances.
Standard	Traffic Impacts	**Existing conditions**

Regional/ Standard	Section	Content to include, but not limited to:
		• Identification and description of critical intersections and roadways; • Identification of peak usage period(s) • Identify City capital projects and planned transportation improvements located in the study area; • Identify transportation improvements in the study area planned by other private developers or by public agencies other than the City; • Identify existing roadway volumes as well as entering and exiting volumes from the site during the p.m. and peak usage period(s). Existing trips shall be measured assuming full occupancy of the existing use on site. If the site and/or existing buildings have been vacant for more than one (1) year, the trips associated with the site and/or use will not be utilized to determine net new trips resulting from the proposed development. • Existing LOS at intersections and applicable roadway segments in the study area. • Description of other travel modes and facilities serving the project location within one-quarter (0.25) mile of the project site. (If Regional analysis is required, this element may be covered in other sections.) • If applicable, a gap analysis, transportation network model analysis may be required at the discretion of the City Engineer. **Safety** • Document collisions within the study area boundary for the most recent three (3) years of collision data available. **Future conditions** • Trip generation • Background traffic growth • Forecast traffic volumes for opening and horizon years. • Pipeline project growth • Trip distribution o Determined by existing characteristics if proposal is consistent with existing land uses in the study area; o Origin/destination studies; o Trip distribution models; or o Market studies.
Regional	Pedestrian Facility Impacts	**Existing conditions** • Within one-quarter (0.25) mile of the project, specifically describe the characteristics of the pedestrian facilities on all arterial streets. For local streets, summarize pedestrian facilities. Note any important characteristics of specific local streets; • Summary of pedestrian counts at study intersections and on trails, if within the one-quarter (0.25) mile study area; • Identify key pedestrian trip generators within one-half (0.5) mile of the project. **Accessibility**

Regional/ Standard	Section	Content to include, but not limited to:
		• In accordance with 2011 PROWAG, inventory barriers to accessibility along all arterials within one-quarter (0.25) mile of the project. Barriers include but are not limited to: o Non-accessible or missing curb ramps; o Obstructions within the sidewalk or pedestrian pathway; o Vertical discontinuities; o Non-standard cross slopes and/or running slopes; o Sub-standard pedestrian pushbuttons at signalized intersections. **Safety** Within one-quarter (0.25) mile of the project: • Inventory all locations with pedestrian related collisions within the most recent five (5) years of collision data available. • Inventory all locations along arterials where there is no buffer between the pedestrian space and traffic. • For intersections greater than 250 feet from a signalized crossing or grade separated crossing, identify all legal crossings where pedestrians must cross more than one (1) lane in each direction and/or locations where the posted speed limit is greater than 25 mph. • Identify all school crossings. **Pedestrian Network Gaps** Describe all bike facilities within one-quarter (0.25) mile of the project that are identified within the Transportation Master Plan pedestrian element, and which have not yet been constructed and/or planned improvements will not be constructed by the horizon year.
Regional	Bicycle Facility Impacts	**Existing Conditions** • Describe all bicycle facilities within one-quarter (0.25) mile of the project that are present on arterials. **Safety** Within one-half (0.5) mile of the project: • Inventory all locations with bicycle related collisions within the most recent five (5) years of available collision data. • Inventory all locations along arterials where there is no buffer between the bicycle facility and traffic. • Identify any locations with significant pavement irregularities. **Bicycle Network Gaps** Describe all bike facilities within one-quarter (0.25) mile of the project that are identified within the Transportation Master Plan bicycle element and which have not yet been constructed and/or planned improvements will not be constructed by the horizon year.
Regional	Transit Impacts	**Existing Conditions**

Regional/ Standard	Section	Content to include, but not limited to:
		• Inventory all transit routes and stops within one-quarter (0.25) mile of the project. • Inventory all Park & Ride locations and usage within one-half (0.5) mile of the project. **Accessibility** • For all transit stops within one-quarter (0.25) mile of the project, identify barriers to accessibility including but not limited to: o Bus zone front door landing. o Access to and from bus shelter where applicable. **Future Conditions** Considering results of traffic modeling, report on added delay to transit routes within the study area.
Regional	Parking Impacts	**Existing Conditions** Within one-quarter (0.25) mile of the project, inventory all available on-street parking and parking restrictions. **Parking Demand** • Forecast anticipated parking demand for opening year and horizon year build out. • Compare project's proposed parking provisions with forecasted parking demand and with Mountlake Terrace's Code.
Standard	Neighborhood Impacts	**Existing Conditions** • Identify neighborhoods within one-quarter (0.25) mile of the project with active Neighborhood Traffic Safety Projects (NTSP) (To be supplied by City). • Identify which elements of the neighborhood's Traffic Action Plan have not yet been completed. • Identify neighborhood streets where project traffic is anticipated. Document speeds and traffic volumes for these streets. **Neighborhood Outreach and Action Plan** A public meeting shall be arranged for residents within one-quarter (0.25) mile of the project to explain the project, gather feedback, and develop an action plan for project impacts. An alternative outreach strategy may submitted in writing with adequate documentation for review by the City Engineer. An Action Plan shall be consistent with the City's NTSP criteria available on the Traffic Services webpage.
Standard	Conclusions	Describe project impacts and proposed plans and/or mitigations. In addition, all projects should strive to incorporate Transportation Demand Management strategies – describe how this will be achieved.

APPENDIX F – STREET MATRIX

Master Street Plan

The Master Street Plan identifies specific roadway cross sections for all Arterial Streets in the City. It is intended to guide the development of streets throughout the City. The planned cross sections for these streets establish the location of future curbs so that streets can be constructed in the proper location.

The Master Street Plan also identifies a general cross section for Local Streets, which provide for travel in each direction, on-street parking, and sidewalks on each side of the street. Due to the large number of Local Streets in the City, a determination of the appropriate cross section for a given Local Street shall be made at the time modifications to the street are funded or redevelopment occurs. Additionally, because the needs and conditions of the Local Streets vary greatly throughout the City, the design criteria may be flexible.

In accordance with the adopted policies and implementation strategies associated with the Master Street Plan, the following principles accompany its implementation:

A. Frontage improvements shall support the adjacent land uses and fit the character of the areas in which they are located. Six (6) feet is the standard sidewalk width adjacent to single-family residential land uses, and eight (8) feet is the standard sidewalk width adjacent to all land uses other than single-family residential. Increased width may be required if determined by a traffic study.

B. Where an amenity zone is not provided adjacent to edge of roadway curb, the minimum standard sidewalk width shall be eight (8) feet is the standard sidewalk width.

C. The amenity zone should be developed in a manner that is appropriate and complimentary to the adjacent land uses and use of the street. The minimum width for amenity zones is five (5) feet. Amenity zones should generally be landscaped and, where possible, utilized for stormwater management purposes. Amenity zones adjacent to roadways that do not have off-street parking shall be landscaped as much as possible. In areas where a wide pedestrian walking surface is desired, such as commercial areas, the amenity zone may be a hard surface treatment with trees in pits. Amenity zones that are adjacent to on-street parking areas should be landscaped as much as possible but may include limited hard surface areas for drivers or passengers exiting vehicles.

D. Cross sections may be adjusted based on site specific context and the City's Complete Streets policy.

Town Center Plan

Town Center frontage requirements and dimensions shall be as shown in MTMC 19.50, Town Center Zones and MTMC 19.123 Town Center Design Standards

Bus Zones within Frontage Improvements

Any frontage improvements where an existing bus zone is located shall improve the bus zone to current standards. Some variations to the plan are acceptable depending on site constraints, however a minimum requirement of a ten (10) foot by ten (10) foot landing pad shall be required for all front door access points where bus zones are located.

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Local Access Town Center Street Landscape frontage	55th Ave W	230th St SW	237th St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Minor Arterial Main Street Primary Street As designated	56th Ave W	230th St SW	237th St SW	varies		North	0.5’	10’	5’	0.5’		6’	10.5’	11’	10.5’	6’		0.5’	5’	10’	0.5’	76’	44’	Storefront corners at: - 232nd St SW – NE, NW, SW, SE - 234th St SW – NE, NW, SW, SE - 236th St SW – NE, NW, SW, SE
Local Access Town Center Street Landscape frontage	57th Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	Storefront corners at: - 232nd St SW – NE, NW
Local Access Pedestrian Core Street	57th Ave W (proposed)	232nd St SW	236th St SW	60’		North				0.5’			10.5’		10.5’			0.5’				60’	36’ or 38’	Storefront corners at: - 236th St SW – NE, NW

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Collector Arterial Town Center Street	58th Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Collector Arterial Town Center Street	58th Ave W	232nd St SW	235th St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	62’	36’	
Collector Arterial Town Center Street	58th Ave W	235th St SW	236th St SW	60’		North	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	64’	36’	Storefront corners at: - 236th St SW – NE, NW
Local Access Town Center Street	58th Ave W	236th St SW	237th St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Access Town Center Street	59th Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Access Town Center Street	60th Ave W	230th St SW	233rd Pl SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Collector Arterial Town Center Street	61st Ave W	230th St SW	232nd St SW	60’		North	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Collector Arterial Town Center Street Landscape frontage	230th St SW	55th Ave W	61st Ave W	60’ 64’	45’	East	0.5’	6’	4’	0.5’	8’	5’	11’		11’	5’	8’	0.5’	4’	6’	0.5’	70’	48’	
Access Corridor Landscape	231st St SW (proposed)	55th Ave W	56th Ave W	40’		East															40’	’		
Local Access Town Center Street Landscape	231st St SW	56th Ave W	57th Ave W	60’		East	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Access Town Center Street Landscape	231st St SW (proposed)	57th Ave W	60th Ave W	60’		East															60’			
Access Corridor Landscape	231st St SW (proposed)	60th Ave W	61st Ave W	40’		East															40’			
Local Access Town Center Street	232nd St SW	55th Ave W	61st Ave W	60’		East	0’	8.5’	5’	0.5’	0’	0’	11’	10’	11	0’	8	0.5’	5’	8.5’	0’	64’	40’	Storefront corners at: 56th Ave W – NE, NW, SW, SE 57th Ave W – NE, NW

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Local Access Town Center Street Access Corridor	233rd St SW (proposed)	55th Ave W	56th Ave W	40’		East															40’			
Pedestrian Core Street	233rd St SW (proposed)	56th Ave W	58th Ave W	60’		East															60’			
Town Center Street	234th St SW	55th Ave W	58th Ave W	60’		East	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	64’	36’	Storefront corners at: 56th Ave W – NE, NW, SW, SE
Local Access Town Center Street Access Corridor	235th St SW	55th Ave W	56th Ave W	40’		East	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	60’		
Local Access Town Center Street Storefront Frontage	235th St SW	56th Ave W	58th Ave W	60’		East	0’	8.5’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	8.5’	0’	64’	36’	

FUNCTIONAL CLASSIFICATION	STREET NAME	FROM	TO	TOTAL EXISTING RIGHT-OF-WAY	EXISTING CURB TO CURB WIDTH	CROSS SECTION DIRECTION	BEHIND SIDEWALK	SIDEWALK	AMENITY ZONE	CURB	PARKING	BIKE LANE	TRAVEL LANE	CENTER TURN LANE	TRAVEL LANE	BIKE LANE	PARKING	CURB	AMENITY ZONE	SIDEWALK	BEHIND SIDEWALK	REQUIRED RIGHT-OF-WAY	PLANNED CURB TO CURB WIDTH	NOTES
Minor Arterial Main Street Primary Street	236th St SW	55th Ave W	58th Ave W	varies		East	0’	8.5’	5’	0.5’	0’	6’	11’	11’	11’	6’	0’	0.5’	5’	8.5’	0’	73’	44’	Storefront corners at: 56th Ave W – NE, NW, SW, SE 57th Ave W – NE, NW 58th Ave W – NE, NW
Minor Arterial Main Street Primary Street	236th St SW	58th Ave W	Van Ry Blvd	66’		East	0’	8.5’	5’	0.5’	0’	6’	22’	11’	11’	6’	0’	0.5’	5’	8.5’	0’	84’	44’	
Town Center Street	237th St SW	56th Ave W	Van Ry Blvd	60’		East	0.5’	6’	5’	0.5’	7.5’		10.5’		10.5’		7.5’	0.5’	5’	6’	0.5’	60’	36’	
Local Street ~~Collector Arterial Minor Arterial Principal Arterial~~	Generic Cross Section See standard ~~detail XXX~~Plan 111			Varies	Varies		~~10~~.5’	6	5.~~5~~0’	0.5	7.5	0	~~10~~8.5	0	~~10~~8.5	0	7.5	0.5	5.~~5~~0’	6	~~10~~.5’	~~60~~56	~~34~~32	6’ sidewalk adjacent to SF residential land uses; 8’ sidewalk adjacent to all other land uses..
Collector Arterial Minor Arterial	Generic Cross Section See standard Plan 112	Varies	Varies																		64	40		
Minor Arterial	Generic Cross Section See standard Plan 114	Varies	Varies																		86	60		

APPENDIX G – RIGHT-OF-WAY STREET TREE LIST

Street Tree List last updated in 2024.

Deciduous Trees

Medium Trees

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer rubrum	October Glory or Red Sunset Maple	40	20	No	6	Red		Excellent urban tree, tolerates all soil types. Brilliant deep scarlet fall color, leaves have distinct 3-lobed shape.
Carpinus betulus ‘Fastigiata'	Pyramidal European Hornbeam	40	15	No	5	Yellow		Broadens when older with other, wider varieties available. Nice yellow fall color.
Malus tschonoskii	Crabapple	30	15	Yes	5	Y / O / Pur	White	Very pyramidal with beautiful fall color - Pink-tinged, white flowers emerge in May followed by yellow- green crabapples
Oxydendron arboreum	Sourwood	35	12	No	5	R / Pur	White	Consistent and brilliant fall color - very open form, slow growing
Rhamnus purshiana	Cascara	30	20	Yes	5	O / R / Y		Native tree - fall color depends on exposure - purplish fruit feeds many native birds
Tilia cordata	De Groot Littleleaf Linden	30	20	Yes	5	Yellow		One of the smaller stature little leaf lindens.
Ulmus parvifolia 'Emer I'	Athena Classic Elm	30	35	No	5	Y / Br		High resistance to Dutch Elm Disease. Drought resistant. Cinnamon colored exfoliating bark for seasonal interest.

Medium/Large Trees

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer freemanii	Autumn Blaze Maple	50	40	No	6	Red		Cross between red and silver maple - fast growing with good fall color.
Acer rubrum ‘Scarsen’	Scarlet Sentinal Maple	40	25	No	6	R / Pur		Leaves are darker green and larger than those of other Red Maples, and hold up well in summer heat.
Betula jacquemontii	Jacquemontii Birch	40	30	No	5	Yellow		White bark makes for good winter interest - best for aphid resistance, but does have issues with Bronze Birch Borer.
Fraxinus americana	Autumn Applause Ash	45	25	No	6	Red		Purple fall foliage with compact canopy.
Ginko bilboa	Ginko	50	30	No	8	Y / G		Veined, fan-shaped leaf; bright green in spring, yellow gold in fall. Plant only males.
Tilia cordata	Greenspire Linden	40	30	No	6	Yellow		Symmetrical, pyramidal form - sometimes has structural issues due to tight branch attachments.
Ulmus parvifolia ‘Emer II’	Allee Elm	45	35	No	5	Yellow		Exfoliating bark peels off in puzzle piece type shapes, deep green foliage turning to nice fall color - Resistant to Dutch Elm Disease.

Large Trees (not suitable as street trees without special planting specifications)

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer saccharum	Commemoration Sugar Maple	50	35	No	6	O / R		Thick leathery leaves resistant to leaf tatter, turns bright pumpkin orange with hues of red in fall. Good shade tree.
Acer saccharum	Green Mountain Sugar Maple	45	35	No	6	O / R / Y		Pleasing fall color, sensitive to drought when planted in compacted soil / constrained areas.
Acer saccharum	Bonfire Sugar Maple	50	40	No	6	O / R		Fastest growing sugar maple. Deciduous; leaves emerge burgundy in spring, quickly changing to green through summer, orange to red in fall.
Fagus sylvatica 'Asplenifolia'	Fernleaf Beech	60	50	No	6	Br / Y / C		Beautiful cut leaf, maintains low branches through development. Very pyrimidal structure with dense branching. Grows best in well drained, not-compacted soil.
Fagus sylvatica	Green Beech	50	40	No	6	Br / Y / C		Silvery-grey bark, adapts well to urbanized environment. Resistant to drought and disease once established.
Fagus sylvatica 'Rohanii'	Purple Oak Leaf Beech	50	30	No	6	Br / Y / C		Excellent larger tree for residential use. Thrives in typical moist, well drained soils. Attractive purple leaves with wavy, incised margins.
Fagus sylvatica ‘Dawyck Purple Beech'	Dawyck Purple Beech	40	12	No	6	Br / Y / C		Tall, columnar tree with purple foliage all year long. Thrives in typical moist, well drained soils. Doesn't require high maintenance after established.
Fraxinus latifolia	Oregon Ash	60	35	No	6	Yellow		Only native ash in PNW, provides food and shelter for native animals. Does best is moist/wet sites. Nice yellow fall color.
Fraxinus pennsylvanica	Patmore Ash	45	35	No	6	Yellow		Extremely hardy tree, able to adapt to most soil conditions. Flakey, silvery bark provides nice winter aesthetics. Less reliable fall color, nice yellow in good years.
Fraxinus pennsylvanica	Urbanite Ash	50	40	No	6	Yellow		Excellent urban compatible tree. Green foliage with silver undersides provides nice contrast when breezy. Tolerable of varied climatic and soil conditions.
Ginko bilboa	Ginko	50	30	No	8	Y / G		Veined, fan-shaped leaf; bright green in spring, yellow gold in fall. Plant only males
Liquidambar styraciflua	Sweetgum	60	40	No	8	Y / R / Pur		Prefers deep, moist soils but tolerant of other conditions including minor drought. Rigid bark, with yellow to red fall leaf color. Hard spiny fruit ball can be nuisance
Quercus coccinea	Scarlet Oak	60	40	No	6	Red		Best oak for fall color, bright scarlet foliage. Adapted to medium/coarse, well-drained soils and had medium drought tolerance.
Quercus garryana	Oregon Oak	50	40	No	8	Red		Native to Pacific Northwest.
Quercus robur	English Oak	60	40	No	8	R / Br		Large, sturdy tree. Acorns do not need dormant cold period to germinate, so can be invasive.
Quercus robur 'Fastigiata'	Skyrocket Oak	45	15	No	8	R / Br		Tough urban tree that works well in urban / drought conditions.
Quercus borealis	Red Oak	60	45	No	8	Red		Fast growing oak - large tree that needs space.
Zelkova serrata	Village Green	40	40	No	6	O / R / Pur		Green vase, Mussichino and Halka are improved forms.
Zelkova serrata	Greenvase	45	40	No	6	O / R / Pur		Attractive exfoliating bark provides Winter appeal. Dark green leaves turn orange-red and purple in Fall.

Small Trees

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Acer campestre	Hedge Maple	25	25	No	5	Yellow		Nice overall shape and structure, can be planted in rows to establish privacy.
Acer campestre ‘Evelyn’	Queen Elizabeth Hedge Maple	30	30	No	5	Yellow		More upright branching than the other hedge maple varieties. Also good for privacy.
Acer ginnala ‘Flame’	Flame Amur Maple	25	20	Yes	5	Red	White	Clusters of small cream colored flowers in spring - very fragrant. Nice red fall color. Informal branch structure.
Acer palmatum	Japanese Maple	20	25	Yes	5	O / R / Pur		Many varieties available - select larger varieties for street planting.
Amelanchier x grandiflora	Princess Diana Serviceberry	20	15	Yes	4	Red	White	Good for narrower planting strips.
Amelanchier x grandiflora	Autumn Brilliance Serviceberry	20	15	Yes	4	Red	White	Good for narrower planting strips - reliable bloom and fall color, showy 5-petaled flowers.
Carpinus caroliniana	American Hornbeam	25	20	Yes	5	O / R / Y		Outstanding fall color, nice small tree. Prefers very wet soil.
Carpinus japonica	Japanese Hornbeam	20	25	Yes	5	O / Y		Wide spreading, slow growing, also available in columnar varieties.
Cornus alternifolia	Pagoda Dogwood	25	25	Yes	5	R / Pur	White	Small white flowers in flat clusters - fall color is varied, prefers partial to full shade.
Cornus kousa ‘Chinensis'	Chinese / Korean Dogwood	20	20	Yes	4	R / Pur	White	Does not do well on harsh, dry sites. Large conspicuous flowers after it leafs out, more drought tolerant than flowering dogwood.
Malus ‘Golden Raindrops'	Golden Raindrops Crabapple	20	15	Yes	4	Orange	White	Disease resistant - persistent yellow fruit in fall and winter, not to be planted along street.
Parrotia persica	Persian Parrotia	30	20	No	5	O / R / Y	Red	Blooms before it leafs out, drought tolerant. Varied fall color.
Stewartia monodelpha	Orange Bark Stewartia	30	20	Yes	5	Red	White	Extraordinary cinnamon colored bark - avoid hot, dry sites. Provides all season interest due to leaf and bark coloring.
Stewartia psuedocamellia	Japanese Stewartia	25	15	Yes	5	Br / Pur	White	Patchwork bark, white flower in spring. Bronze to dark purple fall color, prefers rich, organic well drained soil.

Evergreen Trees[1]

Scientific Name	Common Name	Mature Height (ft)	Spread (ft)	Okay Under Lines?	Minimum Planting Strip Width (ft)	Fall Color*	Flower Color*	Additional Characteristics
Abies amabilis	**Grand Fir**	**50-60**	**30**	**No**	**X**			**Northwest native, needs ample space to grow. Needles dark green on top with whitish underside.**
Pseudotsuga menziesii	**Douglas Fir**	**70-100**	**30-40**	**No**	**X**			**Northwest native, moderate to fast growth, older trees may drop branches.**
Taxus baccata	**Yew**	**30**	**15**	**No**	**X**			**Dense shrub, casts deep shade. Dark green needles - Male plants only (seed is very poisonous). Tolerates sun and shade, very drought tolerant, tolerates heavy pruning.**
Thuja occidentalis	**Aborvitae**	**20-50**	**10-15**	**No**	**X**			**Often used as a visual or wind buffer, tolerates pruning and moderate drought conditions.**
Thuja plicata	**Western Red Cedar**	**60-100**	**40**	**No**	**X**			**Northwest native, fast growth, cinnamon red shredding bark, shallow root system. Hard to plant under tree.**
Tsuga heteophylla	**Western Hemlock**	**70-100**	**20-40**	**No**	**X**			**Northwest native, elegant, lacy evergreen tree. Shallow root system makes it susceptible to windthrow in wet soil w/ windy conditions.**

[1] Evergreen trees should not be planted near sidewalks, streets, driveways or buildings. Recommend to maintain at least 10' from any structure and 20' from sidewalks. Best used to provide winter wind break or deep shade. Young evergreens carry branches to the ground.

Prohibited Trees

The City prohibits certain tree species from being planted in the street right-of-way and over public utilities and recommends they not be planted on other properties. Common prohibited trees include:

- Alder
- Black Locust
- Catalpa
- Cottonwood
- Elm, Siberian
- Maple, Silver
- Maple, Bigleaf
- Pine, Black
- Pine, Austraian
- Popular, Lombardy
- Popular, Balsam
- Willows, esp. Weeping

APPENDIX H - RECORD DRAWING CRITERIA

Record Drawing Requirements (As-Builts)

A. Record drawings are required prior to request for final inspection or issuance of Certificate of Occupancy for all right-of-way construction projects and for stormwater drainage systems that connect to City infrastructure.

B. Record drawings should accurately reflect revisions made to approved plans during construction. The record drawings should locate all newly installed, existing, and abandoned utilities encountered during construction, but not shown on the approved plans.

C. Record drawings shall be stamped, signed, and dated by a Professional Engineer licensed in the State of Washington.

D. As-constructed survey information provided on a record drawing shall be provided by a licensed land surveyor. Information from sources such as the Contractor's red-lined drawings, for which the surveyor is not responsible, shall be clearly noted/identified on the face of the record drawings.

E. The Permittee shall provide the City Inspector preliminary record drawings on paper or an electronic PDF. Once the City approves the preliminary submittal, the Permittee shall provide a flattened digital 11"x17" PDF drawing of the approved as-builts.

F. Each sheet of the record drawings shall include the following statement, preferably located in the bottom right-hand corner of each sheet.

"These plans are record drawings and the information shown accurately reflects existing field conditions as of this date _____."

APPENDIX I – STREET LIGHTING LEVELS CRITERIA

Lighting Level Requirements

ROADWAY CLASSIFICATION	Area Classification[1]	Target Light Levels		Luminaire Mounting Height (ft)	Maximum Arm Length (ft)	Maximum Wattage[4]
		Minimum Maintained Average (fc)	Uniformity Ratio (Avg/Min)			
PRINCIPAL ARTERIAL	Commercial	1.6	3:1	40	12	271
	Residential	0.8	3:1	40[3]	16	271
				35[2]	12	183
MINOR ARTERIAL	Commercial	1.1	3:1	40	12	271
	Residential	0.5	4:1	35[3]	12	183
				35[2]	12	135
COLLECTOR ARTERIAL	Commercial	1.1	3:1	40	12	271
	Residential	0.6	4:1	35	12	135
LOCAL STREET	Commercial	0.8	6:1	35	12	183
	Residential	0.4	6:1	25	12	92
		Decision Point Lighting[5]		12-35	n/a	112

1. *See City Zoning Map; Industrial, Business, and Mixed Business are to be considered Commercial. All others, including Mixed Use are considered residential for the purposes of lighting standards.*
2. *Use for roadway width of 36 ft or less.*
3. *Use for roadway width over 36 ft.*
4. *Maximum wattage values are for LED fixtures only. Coordinate with the City for High Pressure Sodium and Metal Halide maximum wattage values.*
5. *Decision Point Lighting may be applied to residential local access streets with 300 ft maximum spacing between luminaires. Luminaires are placed at intersections, crossings, changes in roadway geometry, dead ends, hazards, etc.*

APPENDIX J – TRAFFIC CONTROL PLAN SUBMITTALS

Typical Elements for Traffic Control Plan Submittals

This section provides information about elements that should be included in all traffic control plans submitted for review. Incorporating these elements into the plan may reduce delay in the review process and reduce the need for possible re-submittal of the plans.

All plans shall be consistent with the MUTCD.

Basic Elements of a Traffic Control Plan

- A clear and accurate plan view representation of the streets and the intersection where the temporary traffic control plan will be implemented. Include the following:
    - Street names
    - Lane configurations
    - Existing channelization devices (include pavement markings such as crosswalks)
    - Traffic signals
- Clearly indicate the active work area and the proposed temporary channelization device set up.
- Include a legend indicating symbols used to represent various traffic control device elements.
- Clearly indicate the temporary signing to be used. Label sign by appropriate sign codes per MUTCD, and include size and color of signs. (Size and color can be referenced in the general notes shown on the plan.) Using both a sign image and sign code will help clarify the appropriate sign intended.
- Include all applicable tables, including channelizing device spacing, sign spacing, buffer data, and minimum lane closure taper length.
- Label sign spacing on plan and clearly indicate the applicable length in the table.
- Label all transition and/or taper length and clearly indicate the applicable length in table.
- Label buffer dimensions on plan and clearly indicate the applicable lengths and dimensions in table.
- Per RCW 47.36.200, include special warning signs for motorcycles (W21-1701 – “Motorcycles Use Extreme Caution”) if any of the following conditions exist at the work zone:

    - Grooved Pavement
    - Abrupt land edge
    - Steel Plates
    - Loosed material (such as gravel or dirt) on roadway

- Indicate approved work hours. Typical work hours are 9:00 a.m. to 3:00 p.m. unless otherwise approved.
- Include in general notes that a minimum of 11-foot lanes shall be maintained, unless otherwise approved.
- All cones shall be orange in color, at least 28 inches tall and have two (2) retroreflective bands.
- Where bike lanes are present, temporary traffic control addressing bike traffic is required.
- All traffic control plans shall address pedestrian access. This includes complete pedestrian detour routes, temporary ADA compliant ramps, and temporary pedestrian tunnels where applicable. In some cases, pedestrian access can be addressed by using a flagger to assist pedestrians through the work zone. This should be noted on plans.

Signalized Intersection Impacts

- Uniformed police officers are required for traffic control plans that affect the operation of the traffic signal, or countermand regulatory traffic control device
- Uniformed police officers are required for workzones at or within 100 feet of a traffic signal controlled intersection.
- The City shall be notified a minimum of three (3) business days prior to impact.

Bus Stop and Bus Route Impacts

Transit agencies, including Community Transit, Sound Transit, King County Metro, and school district shall be notified to coordinate bus zone closures and reroutes.

Minimum notification requirements are listed below:

- Three (3) business days: For work resulting in a temporary closure/relocation to a bus stop or for work within an area of a bus zone that will limit full access to the zone by coaches and

pedestrians/passengers. Relocated bus stop location shall be ADA accessible if the affected stop is designated as such.

- Five (5) business days: For work resulting in a road closure that buses operate on which will require them to be detoured.
- 15 business days: For work resulting in removing any transit facility structures (e.g., shelters, benches, information boards/kiosks and bus stop signs).

APPENDIX K – APPROVED STORMWATER FACILITY PLANTING LIST

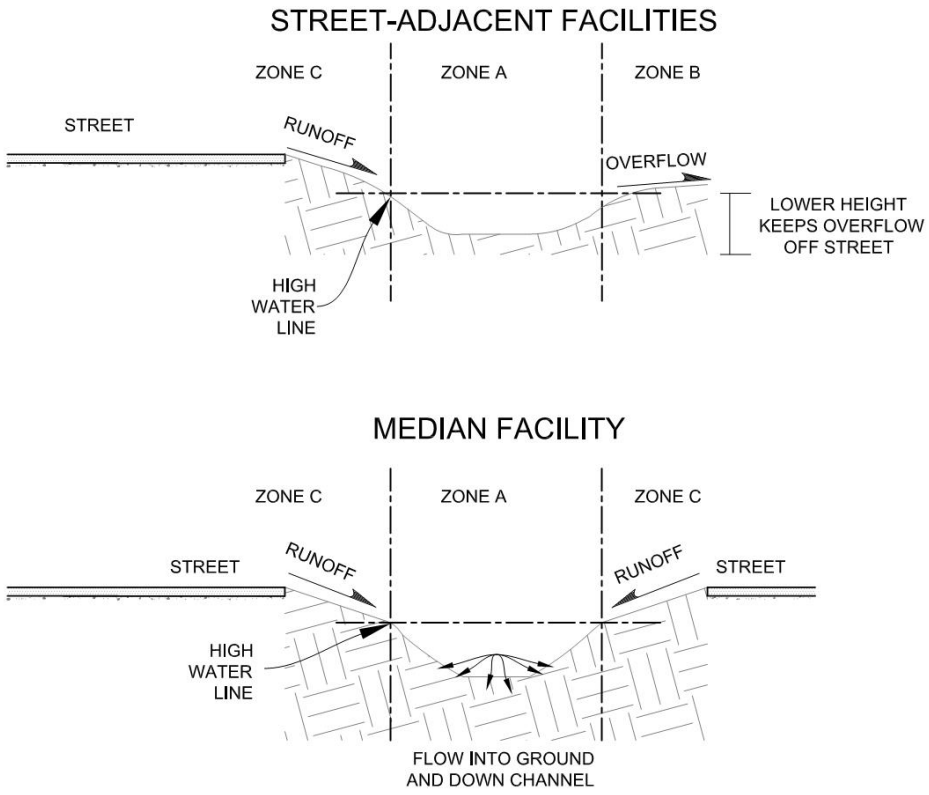
Stormwater Facility Plantings

The following tables were compiled to specify the approved plants for bioretention and rain garden facilities in the right-of-way. Height, spread, shade tolerance, time of bloom, descriptions, and special considerations for these plants can be found in the tables. Other species and cultivars may be appropriate for larger bioretention areas if approved by the City Engineer.

Stormwater facilities in the right-of-way shall only use plants from the approved plant list. Trees have been completely excluded from bioretention and rain gardens due to sight distance issues and because tree roots can push up pavement as they mature. Native species are preferred and have therefore been placed higher on the tables. Natives are labeled with an "N", and low-growing, spreading groundcover plants are labeled "G". An additional label has been included for the appropriate planting zone as referenced in Figure K1 and in Standard ~~Detail~~Plan 444~~,~~ - Bioretention Facility:

- Zone A: Area of periodic or frequent standing or flowing water. Many Zone A plants will also tolerate the seasonally dry periods of summer without extra watering and may also be applicable in Zones B or C.
- Zone B: Periodically moist or saturated during larger storms. Plants under Zone B will also be applicable in Zone C.
- Zone C: Dry soils, infrequently subject to inundation or saturation. This area should blend with the existing landscape.

Figure K1. Bioretention Planting Zones



The approved plant list is separated into four tables:

- Emergents: This table contains plants that can thrive in saturated soil.
- Herbaceous Perennials/Grasses/Ferns: This table contains any plants without woody stems that are not emergent.
- Compact shrubs: This table contains woody perennials with a maximum height below six (6) feet.
- Groundcovers: This table contains herbaceous and woody perennials with recumbent form.

Emergents

Species	Common Name	Planting Zone	Native
Acorus calamus 'Variegatus'	Sweet flag	B, C	No
Acorus gramineus 'Ogon'	Golden variegated sweet flag	A, B	No
Aquilegia formosa	Western columbine	B, C	Yes

Species	Common Name	Planting Zone	Native
Carex comans	New Zealand hair sedge	A, B, C	No
Carex oshimensis 'Evergold'	Variegated Japanese sedge	B, C	No
Carex stipata	Sawbeak sedge	A	Yes
Carex testacea	Orange New Zealand sedge	A, B, C	No
Eleocharis palustris	Creeping spike-rush	A	Yes
Juncus acuminatus	Taper-tipped rush	A	Yes
Juncus effusus 'Quartz Creek'	Common rush	A	No
Juncus ensifolius	Dagger-leaf rush	A	Yes
Lysichiton americanus	Western Skunk Cabbage	A	Yes
Petasites frigidus	Palmate Coltsfoot	A	Yes
Sidalcea hendersonii	Henderson's checker-mallow	A	Yes
Viola palustris	Marsh Violet	A	Yes

Herbaceous Perennials/Ornamentals/Ferns

Species	Common Name	Planting Zone	Native
Achillea millefolium	Western yarrow	C	Yes
Adiantum aleuticum	Western maidenhair fern	B	Yes
Anaphalis margaritacea	Pearly everlasting	C	Yes
Aster chilensis	Common California aster	B, C	Yes
Aster subspicatus	Douglas' aster	B, C	Yes
Athyrium filix-femina	Lady fern	B, C	Yes
Blechnum spicant	Deer fern	B, C	Yes
Camassia leichtlinii	Large or giant camas	B, C	Yes
Camassia quamash	Common camas	B, C	Yes
Dicentra formosa	Western or Pacific bleeding-heart	B, C	Yes
Echinacea purpurea	Purple coneflower	C	No
Echinops	Globe thistle	C	No
Erigeron speciosus	Showy fleabane	B, C	Yes
Erythranthe ssp.	Monkey-flower	A, B, C	Varies

Gaura lindheimeri	Gaura or wand flower	B, C	No
Geranium macrorrhizum	Hardy geranium, crane's bill	C	No
Geum macrophyllum	Large-leaved avens	C	Yes
Gymnocarpium disjunctim	Common Oak Fern	B, C	Yes
Hakonechloa macra	Japanese forest grass	B, C	No
Helictrotrichon sempervirens	Blue oat grass	C	No
Helleborus argutifulius	Corsican Hellebore	B, C	No
Hosta	Plantain lily	B, C	No
Hyssopus officinalis 'Rosea' or 'Nana'	Hyssop (pink or blue)	B, C	No
Iris douglasiana	Douglas Iris	A, B, C	No
Iris foetidissima	Gladwin iris; stinking iris	B, C	No
Iris tenax	Oregon or tough-leaf iris	A, B, C	Yes
Lupinus bicolor	Two-color lupine	B, C	Yes
Lupinus latifolius	Broadleaf lupine	B, C	Yes
Lupinus polyphyllus	Large-leafed lupine	C	Yes
Nepeta x faassenii	Catmint	C	No
Ophiopogon planiscapus	Black mondo grass	C	No
Pennisetum orientale	Oriental fountain grass	C	No
Penstemon cardwellii	Cardwell's penstemon, beard tongue	C	Yes
Penstemon davidsonii	Davidson's penstemon	C	Yes
Smilacina racemosa	False Solomon's seal	C	Yes
Solidago canadensis	Canadian goldenrod	C	Yes
Symphyotrichum chilense	Pacific aster	B, C	Yes
Tellima grandiflora	Fringecup	B, C	Yes
Trientalis arctica	Northern starflower	B	Yes
Heuchera	Coral bells or alumroot	B, C	Varies
Tolmiea menziesii	Youth-on-age/Piggyback plant	B	Yes
Polystichum munitum	Western sword fern	B, C	Yes

Compact Shrubs

Species	Common Name	Planting Zone	Native
Andromeda polifolia	Bog rosemary	A	Yes
Cornus sericea 'Kelseyi'	Dwarf red-twig dogwood	A, B, C	Yes
Escallonia x exoniensis 'fradesii'	Pink princess	C	No
Gaultheria shallon	Salal	B, C	Yes
Hamamelis intermedia	Diane witchhazel	B, C	No
Helichrysum italicum	Curry plant	C	No
Lavandula angustifolia	English Lavendar	C	No
Lavandula stoechas	Spanish lavendar	C	No
Ledum groenlandicum	Labrador tea	A	Yes
Lonicera pileata	Boxwood honeysuckle	B, C	No
Mahonia aquifolium 'Compacta'	Compact or dwarf tall Oregon grape	B, C	Yes
Myrica gale	Sweet gale	A, B, C	Yes
Oplopanax horridus	Devil's club	A, B	Yes
Osmanthus dalavayi	Dalavay Osmanthus	C	No
Osmanthus x burkwoodii	Devil wood	C	No
Perovskia atriplicifolia	Russian sage	C	No
Philadelphus x lemoinei	Belle Etoile' Mock-orange	B, C	No
Pinus mugo	Dwarf mugho pine	C	No
Potentilla gracilis	Graceful cinquefoil	C	No
Potentilla palustris	Marsh cinquefoil	A	Yes
Ribes sanguineum 'King Edward VII'	Red-flowering currant	B, C	Yes
Rosa pisocarpa	Clustered wild rose	A, B, C	Yes
Rubus parviflorus	Thimbleberry	B, C	Yes
Spiraea splendens	Rose meadowsweet	B, C	Yes
Symphoricarpos albus	Snowberry	B, C	Yes
Vaccinium ovatum 'Thunderbird'	Evergreen huckleberry	B, C	Yes
Viburnum opulus 'Nana'	Dwarf cranberry bush	B, C	No

Groundcovers

Species	Common Name	Planting Zone	Native
Arctostaphylos uvaursi	Kinnikinnick	B, C	Yes
Asarum caudatum	Wild ginger	B, C	Yes
Cornus canadensis	Bunch berry	B, C	Yes
Eriophyllum lanatum	Oregon Sunshine	C	Yes
Gaultheria ovatifolia	Oregon wintergreen/Western teaberry	B, C	Yes
Helianthemum nummularium	Sunrose	C	No
Kalmia microphylla ssp occidentalis	Swamp-laurel	A	Yes
Linnaea borealis	Twinflower	B	Yes
Mahonia nervosa	Cascade/Dull/Low Oregon grape	B, C	Yes
Mahonia repens	Creeping mahonia	B, C	No
Maianthemum dilatatum	False lily-of-the-valley	C	Yes
Tiarella trifoliata	Foamflower	B, C	Yes
Vancouveria hexandra	Inside-out flower or duck's foot	B, C	Yes

APPENDIX L – DETAILS AND SPECIFICATIONS

Details and Specifications

Standard ~~Detail~~Plan Number	Title	Revision / Adoption Date
111	Street Section & Frontage - Local Access	Jan, 2026~~June, 2024~~
112	Street Section & Frontage - Minor Arterial & Collector	June, 2024
114	Street Section & Frontage - Principal Arterial	June, 2024
122	Roadway Feature Clearances	June, 2024
131	Typical Sidewalk Detail	Jan, 2026~~June, 2024~~
133	Cement Concrete Traffic Curb and Gutter	~~June, 2024~~Jan, 2026
134	Cement Concrete Pedestrian Curbs and Valley Gutter	~~June, 2024~~Jan, 2026
135	Concrete Extruded Curb	June, 2024
151	Cement Concrete Driveway Entrance	~~June, 2024~~Jan, 2026
152	Cement Concrete Driveway Entrance with Planter	~~June, 2024~~Jan, 2026
153	Cement Concrete Driveway Entrance - Commercial	June, 2024
154	Cement Concrete Driveway Entrance with Planter-Commercial	June, 2024
~~163A~~162A	Pavement Restoration - Longitudinal Trenches	~~June, 2024~~Jan, 2026
162B	Pavement Restoration - Longitudinal Trenches	Jan, 2026
163A	Pavement Restoration - Arterials & Collectors: Transverse Trenches	Jan, 2026
163B	Pavement Restoration - Arterials & Collectors: Transverse Trenches	~~June, 2024~~Jan, 2026
164	Pavement Restoration - Local Streets Trench Detail	June, 2024
165	Thickened Edge Detail	June, 2024
~~180~~	~~Trash Receptacle Detail - Town Center~~	~~June, 2024~~
~~181~~	~~Bench Detail - Town Center~~	~~June, 2024~~
~~182~~180	Street Trees	~~June, 2024~~Jan, 2026

Standard ~~Detail~~Plan Number	Title	Revision / Adoption Date
~~183~~184	~~Planting Preparation Detail~~Sidewalk Transition	~~June, 2024~~Jan, 2026
200	Water General Notes	~~June, 2024~~Jan, 2026
210	Water Service Installation Notes	~~June, 2024~~Jan, 2026
211A	1"Ø Water Service Installation Details	~~June, 2024~~Jan, 2026
211B	1"Ø Water Service Installation Details	~~June, 2024~~Jan, 2026
212	1 1/2" And 2" Water Service	~~June, 2024~~Jan, 2026
213	3" And 4" Water Service	~~June, 2024~~Jan, 2026
214	1" Single Family Fire Sprinkler Service Connection Assemblies	June, 2024
215	Water Meter Manifold	~~June, 2024~~Jan, 2026
221	Detector Check, Backflow Prevention & ~~Supplemental~~ Fire Flow Detail	June, 2024
222	Double Detector Check Valve Assembly, Fire Lines (2" to 10")	June, 2024
223	Double Check Valve Assembly, Irrig or Domestic, (3/4" to 2")	June, 2024
224	Double Check Valve Assembly, for Irrig and Domestic (3" to 10")	June, 2024
225	Inside Installation (Double Check Valve ~~or Reduce Pressure Backflow Assemblies~~)	June, 2024
~~230~~	~~Water Main Installation Notes~~	~~June, 2024~~
231	Water Main Thrust Block	~~June, 2024~~Jan, 2026
232	Water Main Vertical (Anchor) Thrust Block	~~June, 2024~~Jan, 2026
233	Valve Nut Operator Extension and Valve Marker Post	June, 2024
234	Air & Vacuum Release Valve Assembly	June, 2024
235	2" Blowoff Assembly for Permanent Dead End Installations	~~June, 2024~~Jan, 2026

Standard ~~Detail~~Plan Number	Title	Revision / Adoption Date
251	Fire Hydrant Assembly	~~June, 2024~~Jan, 2026
252	Fire Hydrant Location and Guard Post	June, 2024
300	Sanitary Sewer General Notes	~~June, 2024~~Jan, 2026
~~310~~	~~Side Sewer Installation Notes~~	~~June, 2024~~
311	Side Sewer Installation, Single Family	~~June, 2024~~Jan, 2026
312	Side Sewer Installation, Multi-Family	~~June, 2024~~Jan, 2026
321	Typical Sewer Lateral Connection	~~June, 2024~~Jan, 2026
322	Sewer Lateral Connection Details (15 Ft Deep Or More)	~~June, 2024~~Jan, 2026
323	Sewer Cleanout Box Details	~~June, 2024~~Jan, 2026
324	Cleanout Detail for Residential Side Sewer Upgrade	June, 2024
331	~~Manholes~~Maintenance Holes Type III	~~June, 2024~~Jan, 2026
332	Manhole Installation and Ladder Details	~~June, 2024~~Jan, 2026
333	Vertical Connection	June, 2024
334	Drop Connections (Outside of ~~Manhole~~Maintenance Hole)	~~June, 2024~~Jan, 2026
335	Drop Connection (Inside of ~~Manhole~~Maintenance Hole)	~~June, 2024~~Jan, 2026
400	Storm Drainage General Notes	~~June, 2024~~Jan, 2026
401	Temporary Erosion/Sediment Control General Notes	~~June, 2024~~Jan, 2026
411	Storm Drain Inlet Protection, With Frame	~~June, 2024~~Jan, 2026

Standard ~~Detail~~Plan Number	Title	Revision / Adoption Date
412	Filter Fabric Fence	June, 2024
413	Temporary Tree Protection/High Visibility Fence	~~June, 2024~~Jan, 2026
414	Nets, Blankets, & Temporary Stabilization	~~June, 2024~~Jan, 2026
415	Straw Wattles	June, 2024
416	Temporary Swale	~~June, 2024~~Jan, 2026
417	Temporary Check Dam	~~June, 2024~~Jan, 2026
418	Temporary Interceptor Ditch with Rock Check Dams	June, 2024
419	Stabilized Construction Entrance	~~June, 2024~~Jan, 2026
420	Temporary Stockpile Protection	June, 2024
421	Yard Drain	Jan, 2026
441	Bioretention Check Dam	June, 2024
442	Bioretention Cleanout	June, 2024
443	Bioretention Curb Extension	June, 2024
444	Bioretention Facility with Underdrain	June, 2024
445	Bioretention Hydrant Access	June, 2024
446	Bioretention In-Line Curb Cut	June, 2024
447	Bioretention Outlet Structure	June, 2024
448	Bioretention Side Curb Cut	June, 2024
449	Permeable Pavement Section	June, 2024
450	Permeable Pavement on Slopes	~~June, 2024~~Jan, 2026
451	Pervious Sidewalk Alternate Design	June, 2024
452	Soil Amendment and Depth	June, 2024
453	Perforated Pipe Connection	~~June, 2024~~Jan, 2026
454	Reverse Slope Sidewalk	June, 2024

Standard ~~Detail~~Plan Number	Title	Revision / Adoption Date
455	Roof Rain Harvesting	~~June, 2024~~Jan, 2026
456	Bioretention Planter - Infiltration	June, 2024
457	Overflow Configurations for Biofiltration	June, 2024
458	Observation Port for Permeable Pavement	~~June, 2024~~Jan, 2026
~~459~~	~~Permeable Paver Systems~~	~~June, 2024~~
460	Infiltration Trench	~~June, 2024~~Jan, 2026
461	Infiltration Drywell	~~June, 2024~~Jan, 2026
471	Water Quality Filter Vault Access	~~June, 2024~~Jan, 2026
472	Flow Control Structure	~~June, 2024~~Jan, 2026
473	Stormwater Shear Gate for Flow Control Structure	~~June, 2024~~Jan, 2026
475	Detention Vault	~~June, 2024~~Jan, 2026
476	Detention Pipe	~~June, 2024~~Jan, 2026
477	Driveway Culvert	June, 2024
~~478~~	~~Spill Control Separator (Type 2)~~	~~June, 2024~~
501	Traffic Sign Installation - Sign Install Hardware & General Notes	June, 2024
502	Traffic Sign Installation - Pole and Foundation Details	June, 2024
504	Traffic Signs - General Notes - Street Name and Parking Signs	June, 2024
~~521~~521A	Longitudinal Marking ~~Supplement~~Details with RPM's ~~- Turn Lanes~~	~~June, 2024~~Jan, 2026
~~522~~521B	Longitudinal Marking ~~Supplement~~Details with RPM's ~~- Turn Lanes~~	~~June, 2024~~Jan, 2026
521C	Longitudinal Marking Details with RPM's	Jan, 2026
523	Crosswalk & Stop Bar Delineations	June, 2024

Standard ~~Detail~~Plan Number	Title	Revision / Adoption Date
524	Parking and Edgelines	Jan, 2026
531	Conduit Trench Detail - Street Crossing	~~June, 2024~~Jan, 2026
532	Small Cable Vault Installation Detail	June, 2024
533A	Service Cabinet	Jan, 2026
533B	Service Cabinet	Jan, 2026
534	Service Cabinet Foundation	Jan, 2026
541	Street Light Standard - No Mast Arm	~~June, 2024~~Jan, 2026
542	Street Light Standard - With Mast Arm	~~June, 2024~~Jan, 2026
543	Street Light Standard – Town Center Combination	June, 2024
544	Street Light Standard – Town Center Pedestrian	June, 2024
581	RRFB Post and Footing Detail	~~June, 2024~~Jan, 2026
582	Sight Triangle Dimensions (Private Streets and Driveways)	June, 2024
600	Grading General Notes	~~June, 2024~~Jan, 2026
610	Rockery Detail	June, 2024
611	Mailbox Stand Installation (Residential)	June, 2024
612	Access Control Gate	June, 2024
613	Survey Control Monument	June, 2024
614	Water Valve Box, Cleanout & Monument Adjustment Detail	~~June, 2024~~Jan, 2026
615	Typical Pipe Bedding and Trench Restoration Detail	June, 2024
616	Circular Frame (Ring) and Locking Cover With Pick Bar	June, 2024
617	Gas Crossing with Public Utilities	June, 2024
618	~~Manhole And~~Maintenance Hole and Catch Basin Adjustment Detail	~~June, 2024~~Jan, 2026
620	Bench Detail – Town Center	June, 2024
621	Trash Receptacle Detail - Town Center	June, 2024

APPENDIX M – STORMWATER DEVELOPMENT GUIDELINES

CITY HALL
23204 58TH AVENUE W
MOUNTLAKE TERRACE, WA 98043
425-744-6226
WWW.CITYOFMLT.COM

STORMWATER DEVELOPMENT GUIDELINES

In the City of Mountlake Terrace, low impact development (LID) best management practices (BMPs) are preferred. Conventional stormwater management systems rely on detention structures and closed conveyance systems. Low impact development (LID) refers to systems and practices that use or mimic natural processes, resulting in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat.

This guidance document is designed to help you meet state requirements and city code, protect downstream properties from flooding, and preserve clean water in local creeks, Lake Ballinger, and Lake Washington. Please determine which LID stormwater BMPs are feasible for your project, and incorporate them into your design.

A. **Review and determine which minimum stormwater requirements apply.** The minimum stormwater requirements are dependent on the amount of new or replaced impervious surface and/or land disturbance created by your project. To make this determination, use the New Development or Redevelopment requirement flow charts (whichever is more applicable to your site) at the end of this document.

B. **Prepare and submit requirements as needed.** The stage in the review process for when to submit the information on each minimum requirement is shown in *italics*.

Minimum Requirement #1 *(Required at MLT land use review)* Preparation of a Stormwater Drainage Report (aka Stormwater Site Plan.)

A. Executive summary: Please provide square footage for roofs, driveways, roads, and other hard surfaces, as well as pervious surface square footage. Include area of impervious pollution-generating surfaces (these will primarily be anywhere a car can drive outside), non-pollution-generating hard surfaces (most roofs, sidewalks), and pollution-generating pervious surfaces (lawns/landscaped areas, permeable pavement, sports fields).

B. Your permanent stormwater control plan for the site (a short narrative).

C. Calculations for any permanent stormwater facilities to demonstrate capability to store required volume (if flow control is required).

D. LID BMPs and Infiltration Testing Documentation. This is an MLT-specific form, which documents how the project meets the requirements of on-site stormwater management (Minimum Requirement #5). If a BMP from the list is determined to be infeasible, please describe the conditions on your site that meet specific infeasibility criteria from the manual, and cite the section of the manual.

E. Survey prepared by a registered land surveyor, civil engineer, or other qualified professional.

F. Soils report by a professional soil scientist certified by the Soil Science Society of America (or equivalent national program) or by other suitably trained persons working under the supervision of a professional engineer, geologist, hydrogeologist, or engineering geologist registered in the State of Washington.[1] Soils report shall identify:

   1. Underlying soils (soil surveys, soil test pits, soil borings, or soil grain analyses)[2]
   2. Results of infiltration testing with small-scale or large-scale Pilot Infiltration Test (PIT). Instructions are available in Ecology's 2019 Stormwater Manual. Grain size analysis may substitute for infiltration tests ONLY on sites with soils unconsolidated by glacial advance. Infiltration testing is not required if other infeasibility criteria, such as contaminated soils, high groundwater, or steep slopes, make infiltration BMPs infeasible. Thoroughly document which infeasibility criteria apply to your site if infiltration testing is not proposed.
   3. Results of testing for a hydraulic restriction layer (groundwater close to surface, soil with infiltration rate of less than 0.3 in/hr, bedrock, etc.)

G. Survey of existing vegetation by a qualified individual (on project site AND for off-site significant trees with driplines inside project limits).

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[1] If the project is required to meet minimum requirements 1-5 only, the soils report may be prepared by a locally licensed on-site sewage designer.

[2] If the project is required to meet minimum requirements 1-9, the soils report must also include detailed logs (depth of pit or boring, soil descriptions, depth to water if present, and presence of stratification.) Soil stratigraphy must be assessed for low and high permeability layers. Soil characterization for each soil unit must include: grain size, textural class, % clay content, % organic content, cation exchange capacity, color/mottling, and variations/nature of stratifications.

H. Preliminary development layout, considering:

1. Minimization of land disturbance and impervious areas
2. Protection of critical areas
3. Preservation of natural vegetation
4. Location of impervious areas over less permeable soil
5. Building clustering
6. Preserving natural drainage patterns

I. If site adds 5,000 sq ft of new hard surface, an off-site analysis is required. Describe potential flow impacts downstream of the project to receiving water body or 0.25 mile (whichever is less).

J. Maps prepared as part of the Stormwater Drainage Report must include:

7. Existing public and private development including utility infrastructure on or adjacent to the site (check: https://www.cityofmlt.com/181/Maps-Planning-and-Engineering.)
8. Minor and major hydrologic features (seeps, springs, closed depressions, swales, streams, wetlands, critical area buffers)
9. Flood hazard areas on or adjacent to site
10. Geologic hazard areas and associated buffers
11. Aquifer and wellhead protection areas, if present
12. Topographic information (>10% slope, 2 ft. contours); 10%-20%, (5 ft. contours, >20%, 10 ft. contours.) Elevations at 25 ft. intervals.

Minimum Requirement #2 *(Required at MLT civil plan review)* Construction Stormwater Pollution Prevention Plan (SWPPP). Prepare a SWPPP in the form of a narrative report to address all 13 elements for protection of stormwater during construction, using the Ecology CSWGP-SWPPP template. Waiver of the use of the Ecology SWPPP template for small sites with simple pollution prevention requirements (example: single-family homes) may be granted by the MLT stormwater program manager upon request.

The 13 elements which will need to be addressed are: preserve vegetation/mark clearing limits; establish construction access; control flow rates; install sediment controls; stabilize soils; protect

slopes; protect drain inlets; stabilize channels and outlets; control pollutants; control dewatering; maintain erosion control BMPs; manage the project; and protect low impact development BMPs.

Minimum Requirement #3 *(Required at MLT civil plan review)* Source Control of Pollution. Describe all known, available, and reasonable operational and structural source control best management practices (BMPs) to be used on site when the project is completed.

Minimum Requirement #4 *(Required at MLT land use review)* Preservation of Natural Drainage Systems and Outfalls. Describe how the project will maintain existing natural stormwater drainage and outfalls. If a new outfall to the stormwater system is required by the project, describe how the project will protect downstream properties from impacts as per page 115 of the 2019 Ecology Stormwater Manual.

Minimum Requirement #5 *(Required at MLT land use review)* On-site Stormwater Management. Projects may use the LID BMPs from List #1 or List #2 below for all surface types below, OR use any Flow Control BMP desired to achieve the LID Performance Standard[3] and apply BMP T5.13: Post-Construction Soil Quality and Depth. For each surface, consider the BMPs in the order listed for that type of surface. Use the first BMP that is considered feasible. No other on-site stormwater management BMP is necessary for that surface.

[3] LID Performance Standard: stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 8% of the 2-year peak flow to 50% of the 2-year peak flow.

List #1 (for projects triggering Minimum Requirements #1-#5)	List #2 (for projects triggering Minimum Requirements #1-#9)
Lawn and Landscaped Areas	
BMP T5.13: Post-Construction Soil Quality and Depth	BMP T5.13: Post-Construction Soil Quality and Depth
Roofs	
1. BMP T5.30: Full Dispersion, or BMP T5.10A: Downspout Full Infiltration	1. BMP T5.30: Full Dispersion, or BMP T5.10A: Downspout Full Infiltration
2. BMP T5.14: Rain Gardens, or BMP T7.30: Bioretention	2. BMP T7.30: Bioretention
3. BMP T5.10B: Downspout Dispersion Systems	3. BMP T5.10B: Downspout Dispersion Systems
Other Hard Surfaces	
1. BMP T5.30: Full Dispersion	1. BMP T5.30: Full Dispersion
2. BMP T5.15: Permeable Pavements, or BMP T5.14: Rain Gardens, or BMP T7.30: Bioretention	2. BMP T5.15: Permeable Pavements
3. BMP T5.12: Sheet Flow Dispersion, or BMP T5.11: Concentrated Flow Dispersion	3. BMP T7.30: Bioretention
	4. BMP T5.12: Sheet Flow Dispersion, or BMP T5.11: Concentrated Flow Dispersion
Notes for using the List Approach: 1. BMP T5.14: Rain Gardens and BMP T7.30: Bioretention used in the List Approach must be sized to have a minimum horizontal projected surface area below the overflow of at least 5% of the area it drains. 2. BMP T5.15: Permeable Pavements in the List Approach is not a requirement to pave these surfaces. Where pavement is proposed, it must be permeable to the extent feasible unless BMP T5.30: Full Dispersion is employed.	

Minimum Requirement #6 *(Required at MLT land use review)* Runoff Treatment. If your site has more than 5,000 square feet of pollution-generating hard surface, determine appropriate runoff treatment and show the location on the plans.

Minimum Requirement #7 *(Required at MLT land use review)* Flow Control. If the following conditions apply to your site, then determine flow control needs and show appropriate flow control on plans.

A. Has more than 10,000 square feet of effective impervious surface; or

B. Converts 0.75 acres or more of vegetation to lawn or landscape; or

C. Converts 2.5 acres or more of native vegetation to pasture in a threshold discharge area; or

D. Through a combination of effective hard surfaces and converted vegetation areas causes a 0.10 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area. Must be estimated using the Western Washington Hydrology

Model or other approved model and 1 hour time steps (or a 0.15 cfs increase using 15-minute time steps.)[4]

Use of tree retention/planting, permeable pavement, or other BMPs may allow developers to reduce the size and cost of required flow control facilities. Please consult the 2019 Ecology Stormwater Manual or contact Laura Reed, Stormwater Program Manager, at lreed@mltwa.gov or 425-744-6226 to discuss options.

Minimum Requirement #8 *(Required at MLT land use review)* Wetlands Protection. If your site discharges stormwater to wetlands directly or indirectly via a conveyance system, special conditions apply. Describe how these conditions will be met, using the guidance on wetlands from the 2019 Ecology Stormwater Manual.

Minimum Requirement #9 *(Required at MLT civil plan review)* Operation and Maintenance. Develop an O&M manual for all proposed stormwater facilities on your site.

Other requirements:

Right of entry authorization *(required on final plat/binding site plans)*

Specify which stormwater facilities are present on site, and include a statement that responsibility for maintenance of the stormwater facility rests with the property owners or the homeowner association. Add right of entry for city staff for the purpose of inspection, auditing, maintenance, or repair of storm drainage facilities (emergency and non-emergency.) In the event of failure to repair or maintain storm drainage facilities within a reasonable time period, include the city's right to repair or maintain storm drainage facilities at the expense of the owners or homeowner association.

Application for coverage under Ecology's Construction Stormwater General Permit Construction site operators are required to apply for and be covered by this permit if both of these conditions apply:

[4] The 0.10 cfs (1-hour time steps) or 0.15 cfs (15-minute time steps) increase should be a comparison of the post-project runoff to the existing condition runoff. For the purpose of applying this threshold, the existing condition is either the pre-project land cover, or the land cover that existed at the site as of a date when the local jurisdiction first adopted flow control requirements into code or rules.

A. Your construction project disturbs land[5] through clearing, grading, excavating, or stockpiling of fill material.

   1. Sites that disturb one acre or more.
   2. Sites that are smaller than one acre that are part of a larger common plan of development – which will ultimately disturb one acre or more and discharge stormwater to surface waters – must apply for a permit.
   3. Sites of any size discharging polluted stormwater to waters of the state.
   4. Sites of any size that can be reasonably expected to cause a violation of any water quality standard.

B. There is any possibility that during construction, stormwater could run off your site or enter a conveyance system that leads to surface waters. In almost every case it does. If the location of your site poses no possibility that rainfall or snowmelt could leave the site or enter a waterway, you do not need a permit.

MTMC 13.05.340 Stormwater capital facilities charge

Stormwater capital facilities charges shall be imposed on all new development. The equivalent residential unit (ERU) for stormwater (equal to 2,282 square feet of impervious surface in the City of Mountlake Terrace) shall be the unit for capital facilities charges. The charge for stormwater capital facilities shall be $3,003/per ERU.

A. Single-Family Residential. Each single-family residential lot will be assessed a capital facilities charge equal to $3,003 (equal to one ERU.) The charge will be due when a lot is developed or redeveloped and new water and/or new sanitary sewer service is initiated for the parcel.
B. Multifamily, Industrial and Commercial. The total stormwater capital facility charge for a parcel will equal: Total impervious surface/2,282 x $3,003. The charge will be due upon construction permit issuance for the parcel.

DEFINITIONS

[5] Count the cumulative acreage of the whole project, whether single or multi-phase. Include off-site disturbance acreage from support activities related to the construction site. This applies if your project is a portion (less than 1 acre) of a larger project planned over time.

Redevelopment: Construction activity on a site that is already substantially developed (has 35% or more existing hard surface coverage).

Hard surface: An impervious surface, a permeable pavement, or a vegetated roof.

Impervious surface: A non-vegetated surface area that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions before development. A non-vegetated surface area that prevents the entry of water into the soil. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, or other surfaces, which similarly impede the natural infiltration of stormwater.

Land disturbing activity: Any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include (but are not limited to) compaction, clearing, grading, filling, and excavation. Vegetation maintenance practices, including landscaping and gardening, are not considered land disturbing activity.

For more information, please contact:

Laura Reed
Stormwater Program Manager
City of Mountlake Terrace
Email: lreed@mltwa.gov
Phone: 425-744-6226

For more information about any of the stormwater minimum requirements or other stormwater technical requirements, please consult the city's adopted stormwater management manual, Ecology's 2019 Stormwater Management Manual for Western Washington.

Figure I-3.1: Flow Chart for Determining Requirements for New Development

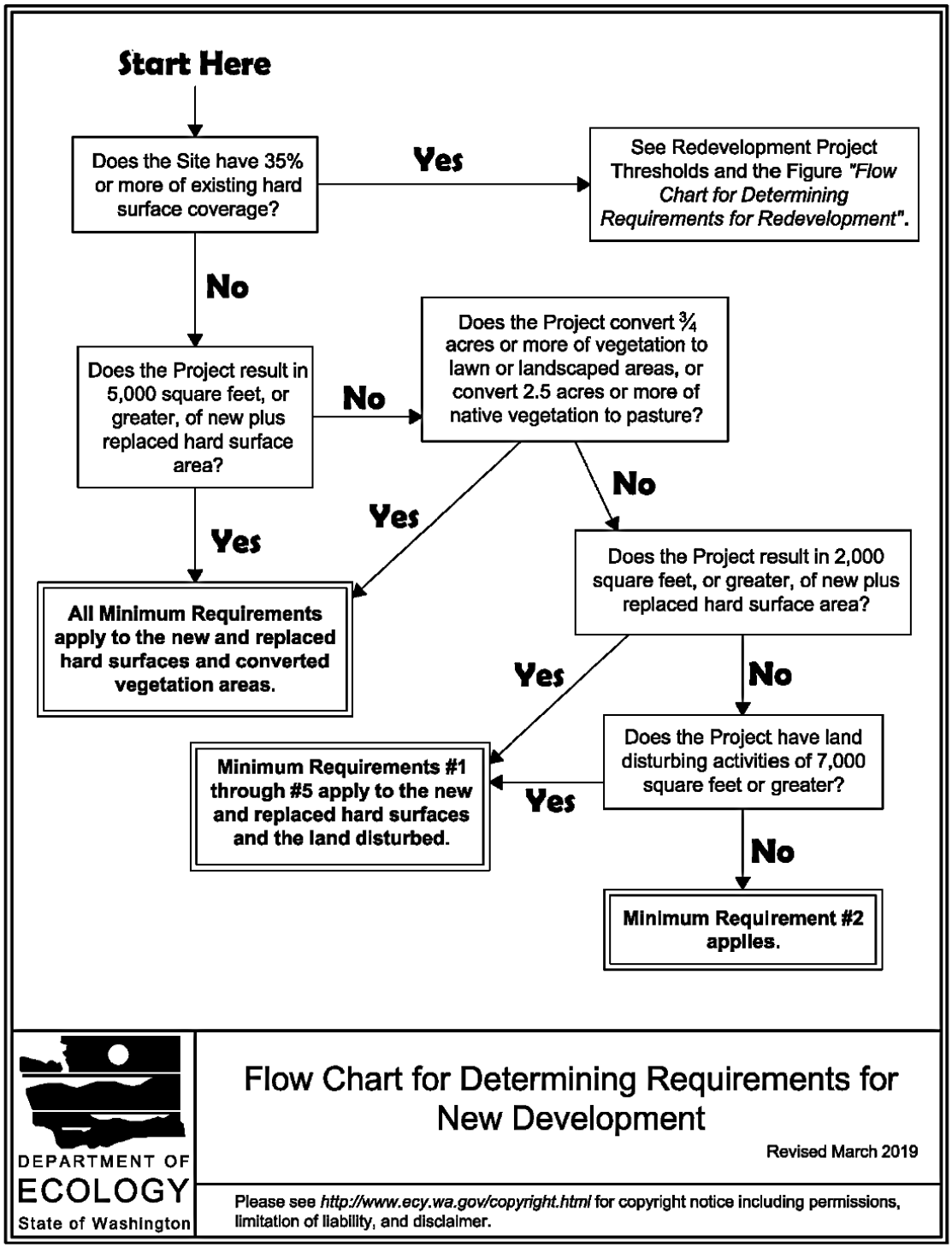
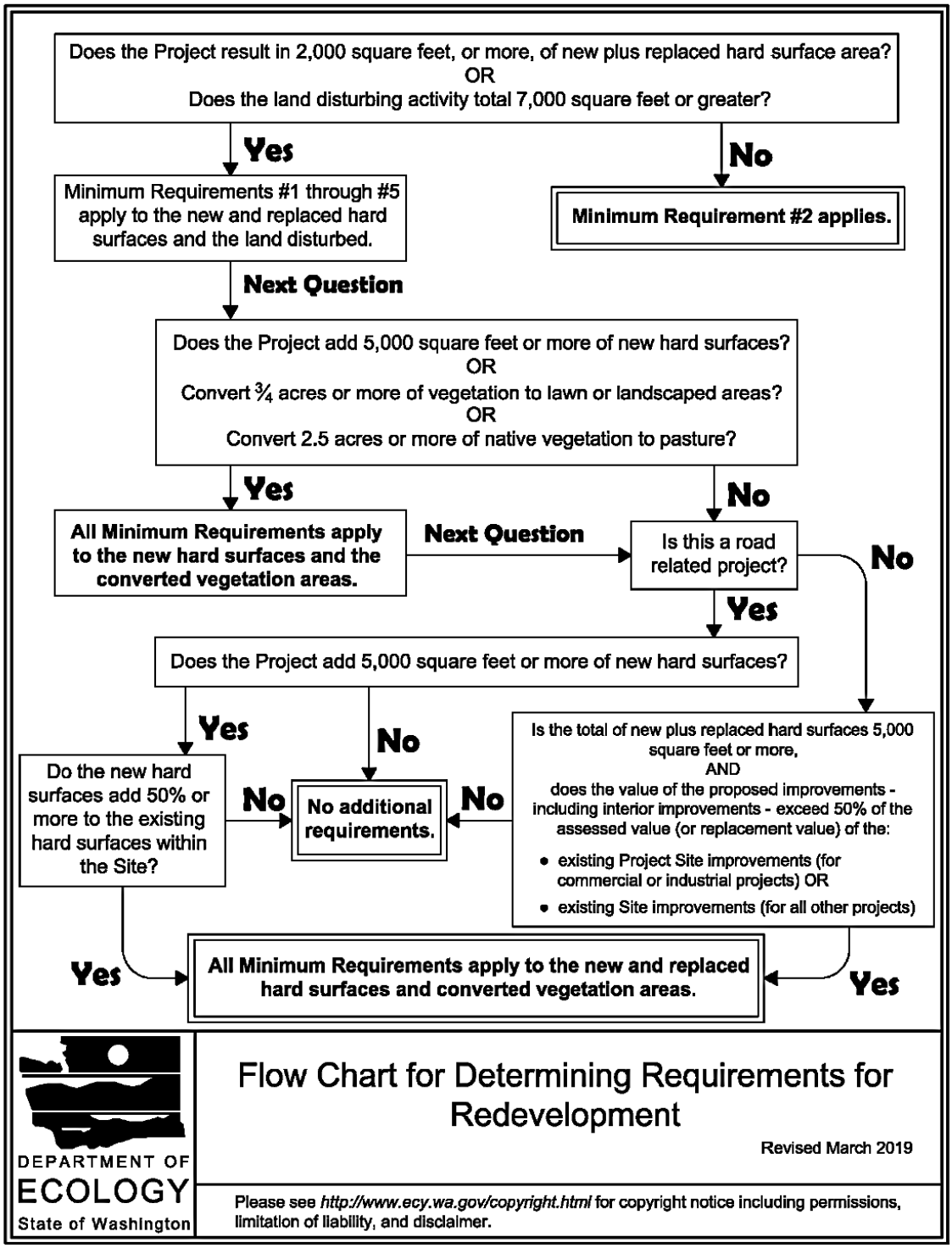


Figure I-3.2: Flow Chart for Determining Requirements for Redevelopment



2025 DRAFT PLANNING COMMISSION WORK PROGRAM
02-24-2025

Plan Amendments		Proposed By:	Description	Anticipated Start - Completion Date	Staff Lead
Priority	**2026 Plan Updates**				
High	**Water and Sewer Comprehensive Plan Updates**	Engineering	Required updates to Water and Sewer Comprehensive Plans.	Late Fall 2025-2026	Public Works
High	**Subarea Plan Updates**	PC/CED	Update two subareas of the city as determined by the Planning Commission	May 2026-December 2026	CED Director
High	**Comprehensive Plan Docketing Process**	GMA/Annual Amendments	Conduct the annual Comprehensive Plan docketing process for approval by City Council for items to be included in 2027 amendment review.	Start: Oct. 2026; Complete Dec 2026	CED Director
Priority	**2026 Code Updates**				
High	**Zoning Code/Map Amendments**	GMA/State Legislation	Preparation of Zoning Code and Zoning Map amendments to implement land use map designations contained in Vision 2044 and to address legislative rereuirements (Phase II Zoning)	Winter 2026-Summer 2026	CED Director/Mirna Ali
Med	**Short Term Rentals**	City Council	Prepare requirements for short-term rental requirements	Winter 2026-Spring 2026	Matthew Gisle
High	**Adopt Washington Code Council amendments for amendments to Chapters15.05 and 15.10**	Legislative Requirement	Amend Chapters 15.05 and 15.10 as required by changes enacted by the Washington Code Council for building and fire requirements	Spring 2026-Fall 2026	Matthew Gisle
High	**Amend Chapter 18.05-Administration and Procedures**	Legislative Requirement	Amend administrative procedures to implement SB 5290 for newly required permit review processing timelines.	Feb 2026 - Fall 2026	Sara Pizzo
Med	**Engineering Design Manual**	Engineering	Review proposed updates to the Engineering Design Manual	Winter 2026-Winter 2026	Rich Meredith
Priority	**2026 Other Projects**				
Med	**Development Review Update**	Planning Commission	Review currently development activities and projects on a 6-month basis.	Spring/Fall 2026	Staff