

# **STORM DRAINAGE NOTES**

Revised January 2022

1. Refer to the latest edition of the Stormwater Management Manual for Western Washington (SWMMWW) for development requirements.
2. All required storm water retention/detention facilities shall be constructed and operable prior to paving and building construction unless otherwise approved by the City of Lynnwood (City) Department of Public Works.
3. Connections to storm catch basins and manholes shall be sealed watertight with non-shrink grout or Kor-N-Seal® type connections.
4. All pipes within the public right-of-way shall meet current Washington State Department of Transportation (WSDOT) and American Public Works Association (APWA) Standards and Specifications and/or as approved by the Director of Public Works and shall be installed per WSDOT section 7-08.
5. Trench backfill shall meet the requirements of City Standard Plan ST-TRE-3.
6. Refer to water standard details specific to thrust restraint for any stormwater force mains.
7. Where shown on the plans or directed by the Engineer or Director of Public Works, the existing manholes, catch basins, or inlets shall be adjusted to the grade as staked. All pipe and structures shall be staked for survey line and grade prior to the start of construction. All conflicts shall be brought to the attention of the Engineer and City prior to commencing construction.
8. All stormwater catch basins with a depth over 5 feet to flow line, shall be Type 2 structures per current WSDOT/APWA standards. All Type 1 and 2 structures shall be provided with 3 locking bolts. Ladder access is required on all Type 2 structures, when 4 feet or greater in depth as measured to the inside finish floor, or as approved by the City.
9. Compaction testing for trenches shall be per Grading Standard Notes.
10. Provide a 6-inch Styrofoam block between installed stormwater pipes and all other utilities within 6 inches of the stormwater pipe.
11. All stormwater pipes shall be abandoned per WSDOT 7-08.3(4). All stormwater catch basins and manholes shall be abandoned per WSDOT 7-05.3(2).
12. Developer to provide a certified electronic video record of storm drainage construction after final cleaning; final cleaning as required Per WSDOT Specifications 7-04.3(1) and as directed by the City Public Works Inspector.
13. Drainage outlets (stub-outs) shall be provided for each individual lot, unless otherwise approved by the City. Stub-outs shall conform to the following and as directed by the City Department of Public Works:
  - a) Each outlet shall be suitably located at the lowest elevation on the lot, so as to service all

future roof downspouts and footing drains, driveways, yard drains, and any other surface or subsurface drains necessary to render the lots suitable for their intended use.

- b) Each outlet shall have free flowing, positive drainage to an approved storm water conveyance system, or an approved outfall location.
  - c) Outlets on each lot shall be located with a pressure treated two-by-four. Each marker board shall be clearly identifiable, protected and stubbed 5 feet above the finish grade.
  - d) All pipe material shall be minimum 4" in size with a smooth wall interior and conform to the approved plans and/or current WSDOT/APWA Standards and Specifications. Material shall be corrugated polyethylene or polyvinyl chloride. Corrugated metal pipe is not allowed. All substitutions are subject to approval by the Engineer and City Director of Public Works, prior to construction.
  - e) A 12-gauge tracer wire shall be installed as required by the City Public Works Inspector. Tracer tape is not an acceptable alternative to tracer wire. See detail ST-TRE-3 for wire and tape requirements.
  - f) Drainage easements are required for drainage systems designed to convey flows through individual lots. Verification and approval are required prior to construction.
  - g) The applicant/contractor is responsible for coordinating the locations of all stub-out conveyance lines with respect to the utilities (e.g., power, gas, telephone, television).
  - h) All individual stub-outs shall be privately owned and maintained by the lot homeowner.
14. For residential stormwater design details refer to the latest edition of the SWMMWW:
- a) V-3 Dispersion Best Management Practice (BMP)
  - b) V-4 Roof Downspout BMPs
  - c) V-5 Infiltration BMPs
  - d) V-6 Filtration BMPs

Acronyms and Terms	Definition
City	City of Lynnwood
SWMMWW	Stormwater Management Manual for Western Washington
WSDOT	Washington State Department of Transportation
APWA	American Public Works Association
Sub-outs	Drainage outlets
BMP	Best Management Practice

