SEC. 28, TWP. 27N., RGE. 4E., W. M.

WASHING OF STREETS, PARKING LOTS, AND DRIVEWAYS TO REMOVE CONSTRUCTION RELATED DIRT IS STRICTLY FORBIDDEN AND SUBJECT TO FINES.

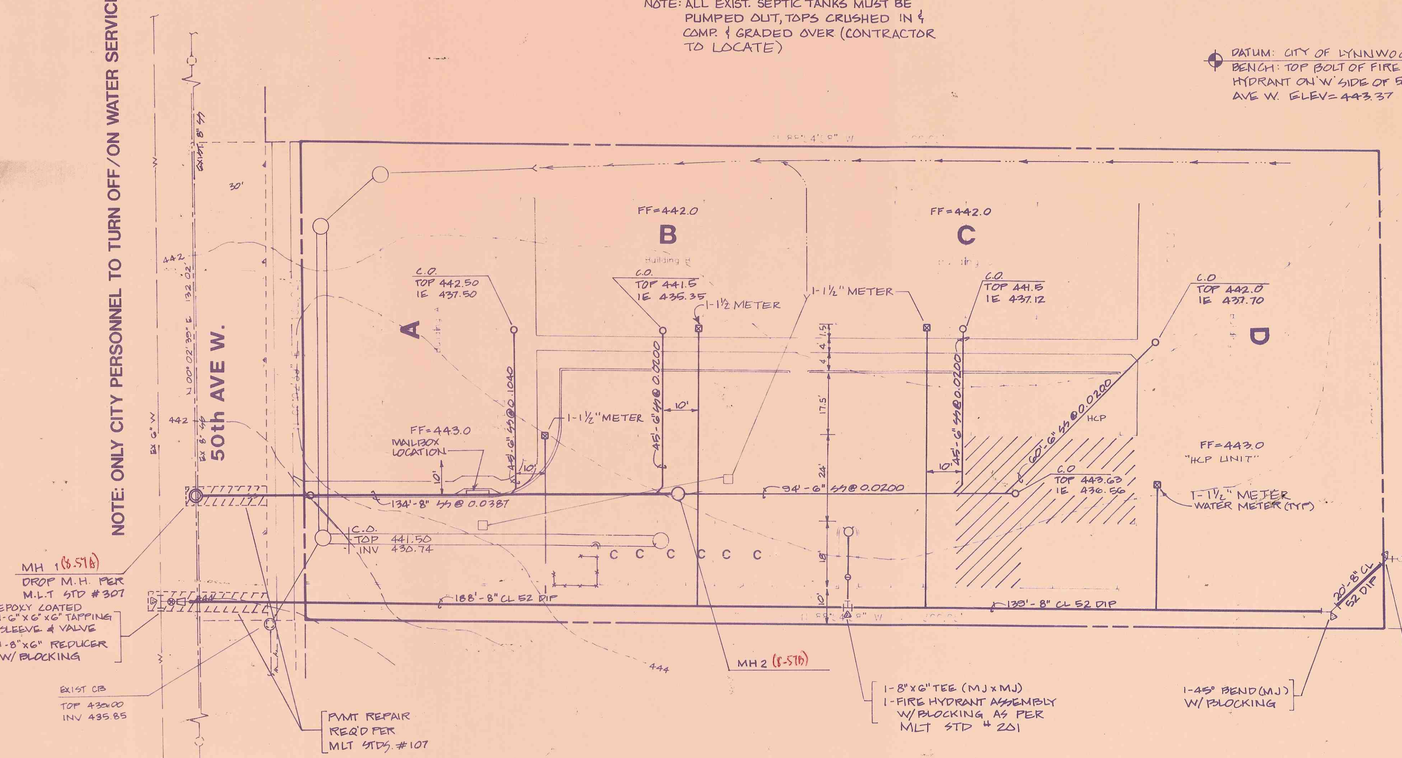
NOTE: ALL EXIST. SEPTIC TANKS MUST BE PUMPED OUT, TOPS CRUSHED IN & COMP. & GRADED OVER (CONTRACTOR TO LOCATE)

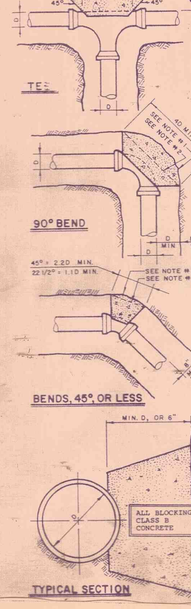
DATUM: CITY OF LYNNWOOD BENCH: TOP BOLT OF FIRE HYDRANT ON W SIDE OF 50TH AVE W. ELEV=443.37

N

SCALE: 1" = 20'

NOTE: ONLY CITY PERSONNEL TO TURN OFF/ON WATER SERVICES





BLOCKING NOTES:

1. CONCRETE POURED AGAINST FIRM EARTH OR FORMED WITH HAND TAMPED GRANULAR BACKFILL.
2. BACK OF BLOCK, IF FORMS ARE USED.

MIN. THRUST BLOCK AREA BEARING ON UNDISTURBED SOIL

PIPE SIZE	6 INCHES	8 INCHES	10 INCHES	12 INCHES
22½° BEND	5.5 SQ FT	8.0 SQ FT	12.5 SQ FT	18.0 SQ FT
45° BEND	5.5 " "	11.0 " "	17.0 " "	20.0 " "
TEE & DEAD END	4.0 " "	7.0 " "	11.0 " "	15.0 " "
90° BEND	4.0 " "	7.0 " "	11.0 " "	15.0 " "

WATER MAIN - INSTALLATION - STERILIZATION - TESTING

Pipe shall be Ductile Iron Class 52.

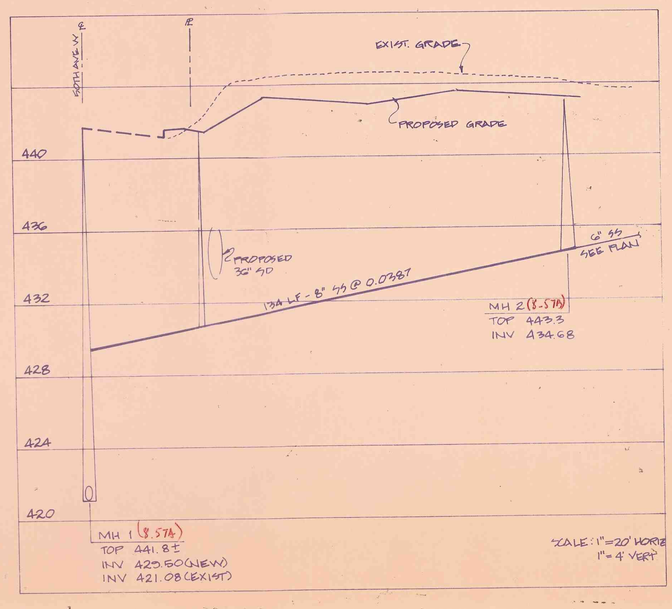
1) All water mains and appurtenances shall have a positive purity test and pressure test prior to connection to existing mains. The new pipe must be kept 18 feet or less from new valve or existing main.

2) Purity Test: To fill new line for purity and pressure testing, the fill line must have two check valves and hand operated gate valve. The line is to be filled from City water supply using pipe with check valves installed. Flush chlorinated water used for sterilizing the lines into sanitary sewer. (No on-ground or storm sewer disposal will be allowed.) The line must set 24 hours before water samples will be taken. The water purity test samples will be taken by City employees on Tuesday morning each week.

3) Testing New Water Line: All pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose, pipe, and measuring equipment necessary for performing the test shall be furnished and operated by contractor. The test for cast iron pipe will be 300 pounds, test for ductile iron pipe will be 275 pounds, each for 15 minutes with a loss of not more than 15 pounds. Chlorine must be used in testing water. The new main will be tested with all services, blow-offs, and air-release valves installed. Test will be made on all valves including fire hydrant valves.

WATER MAIN

INSTALLATION-STERILIZATION-TESTING-BLOCKING



SEWER 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 and American Public Works Association, Washington State Chapter, 1988 edition. Together with the latest edition of the City of Mountlake Terrace Engineering Standards.
2. An approved copy of these plans must 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, the City of Mountlake Terrace Engineering Department (776-1161) must be contacted for a preconstruction meeting.
5. All locations of existing utilities shown hereon 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.
6. The sanitary sewer system shall be 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.
7. 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.
8. Manholes and Lids:
   A. All manholes shall be Mountlake Terrace Standard Plan No. 305 (48" I.D.) type, with eccentric cones.
   B. Outside drop connections shall be constructed in conformance to Mountlake Terrace Standard Plan No. 307.
   C. All manholes shall have a minimum drop of 0.10 feet between inverts.
   D. All manholes not in paved areas shall have locking lids.
   E. It shall be the responsibility of the contractor to adjust all manhole tops to match final asphalt elevations and ground elevations in landscaped areas.
9. Sewer Pipe, Bedding, and Trench Compaction:
   A. All sewer pipe shall be one of the following as designated:
      1. P.V.C., conforming with A.S.T.M. D-3034, SDR 35.
      2. Ductile Iron, Class 50, conforming to A.N.W.A. C151.
      3. Pipe may be any of the above provided:
         a. Pipe joints must be of the same materials, and
         b. Where a pipe material is specifically shown on the plan, that material must be used.
      4. Minimum pipe cover at manholes shall be 8.0 feet and 5.0 feet between runs.
   B. Pipe bedding shall be A.P.W.A. Type "F" with material conforming to Section 9-10.7A (2).
   C. Trench backfill shall be compacted to minimum 92% dry optimum density per A.S.T.M. D-1557-70 (modified Proctor) prior to testing sewer lines for acceptance.
10. Side Sewer Laterals:
    A. Side sewers shall be 6" minimum diameter at 2.0% minimum slope.
    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 main connections.
    C. Buildings with greater than 10 units shall be serviced by one of the following methods:
       1. Double 6" diameter services connected to trunk by standard tees or into manholes.
       2. Single 8" diameter service with cleanout, connected to trunk into manholes only. (Alternate connection methods are depicted on plans.)
    D. All lateral connections to sewer mains shall be made with a wye or sweeping tee.
11. Construction of dewatering (groundwater) system shall be in accordance with the A.P.W.A. Standard Specifications, Section 61-3.02, 1981 edition.
12. Whenever sewers must cross under water main, the sewer shall be laid at such an elevation that the top of the sewer line is at least 36 inches below the bottom of the water main.
13. Buildings shall not be permitted within 10 feet, or carports within 5 feet, of the spring line of any sanitary sewer pipe.
14. Prior to occupancy, the developer shall grant 10' wide sanitary sewer easements to the City of Mountlake Terrace.
15. Cleanouts shall be provided at the right-of-way line for laterals entering the public right-of-way.

WATER NOTES

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2. An approved copy of these plans must 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, the City of Mountlake Terrace Engineering Department (776-1161) must be contacted for a preconstruction meeting.
5. All locations of existing utilities shown hereon 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.
6. The water main distribution system shall be 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.
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.
8. Water Main Pipe, Bedding, and Trench Compaction:
   A. All water main pipe to be cement lined, Class 52 ductile iron, conforming to A.N.S.I. specifications A-21.51 (A.W.W.A. C151-76), or latest revision. Cement mortar lining and seal coating shall conform to A.N.S.I. A-21.4-74 (A.W.W.A. C104-74), or latest revision.
   B. Pipe joints to be push-on, mechanical or flange joints.
   C. All water main pipe fittings to be cement lined, Class 250 cast iron, conforming to A.N.S.I. A-21.10 and A-021.11-77, or latest revision.
   D. All water main pipe bedding to be A.P.W.A. Class "C".
   E. All water main cement concrete thrust blocks to conform to standard details shown on the plans.
   F. All water main trench backfill shall be compacted to minimum 92% dry optimum density per A.S.T.M. D-1557-70 (modified Proctor) prior to testing water mains for acceptance.
9. All water main pipe 10" and smaller to maintain a minimum cover at 36 inches below finished grade. Where utility conflicts occur, water mains are to be lowered to clear.
10. All water mains shall be pressure tested and disinfected in accordance with the specifications of the Washington State Health Department and the City of Mountlake Terrace Standard Plan No. 208. All inspection and pressure testing shall be done in the presence of, and under the supervision of, the City Engineer and/or his representative.
11. Contractor to provide plugs and/or temporary blow-off assemblies for testing and purity acceptance prior to final tie in.
12. Fire Hydrants:
    A. All fire hydrants shall conform to the City of Mountlake Terrace Standard Plan No. 201.
    B. All fire hydrant ports shall face perpendicular to curb and toward driveway as shown on the plans.
13. Water Main Services:
    A. All water main service lines to be Type "K" copper. Service connections shall be in accordance with the City of Mountlake Terrace Standard Plan No. 202 or No. 203 (double straps and corporation stops).
    B. Meters and meter boxes to be installed by the City of Mountlake Terrace.
14. The water main to be set a minimum of 5 feet toward the roadway centerline from the curb. Buildings shall not be permitted within 10 feet, or carports within 5 feet, of the spring line of any water main where applicable, unless otherwise shown on the plans.
15. All water mains not in public right-of-way require 10 foot wide easements to the City of Mountlake Terrace.
16. All valves, existing and new, shall be operated only by the City of Mountlake Terrace. NO EXCEPTIONS!

NO.	REVISION	BY	DATE
1	PER CITY COMMENTS	JVM	5/22/89
2	REV. PER CITY COMMENTS	JVM	10/18/89
3	REV. PER CITY COMMENTS	JVM	11-29-89
4	REV. PER CITY COMMENTS	PB	12-6-89
5	REV. PER CITY COMMENTS	KMR	1-4-90
6	REV. PER CITY COMMENTS		4-5-90

RAYMOND A. MILLER — EXPIRES 9-22-89

GROUP FOUR, Inc. — 19502 56th Avenue West, Lynnwood, Washington 98036 • 206/775-4581 — SURVEYING · ENGINEERING · PLANNING · MANAGEMENT

DRAWN BY VK — CHECKED BY JVM — APPROVED BY

MOUNTLAKE MEADOWS

SANITARY SEWER & WATER PLAN

CITY OF MOUNTLAKE TERRACE — WASHINGTON

SHEET NO. 2 of 4

JOB NO. 89-2501

24 HOUR NOTICE

REQUIRED PRIOR TO NEED FOR INSPECTION. CALL 24 HOUR REQUEST LINE 775-9694

IN CONFORMANCE WITH THE CITY OF MOUNTLAKE TERRACE STANDARDS AND ORDINANCES

BY _____ DATE _____

SEWERAGE UNIT 8-5D

175-90-2

Scan Name: scans06620.pdf

Scan Date: