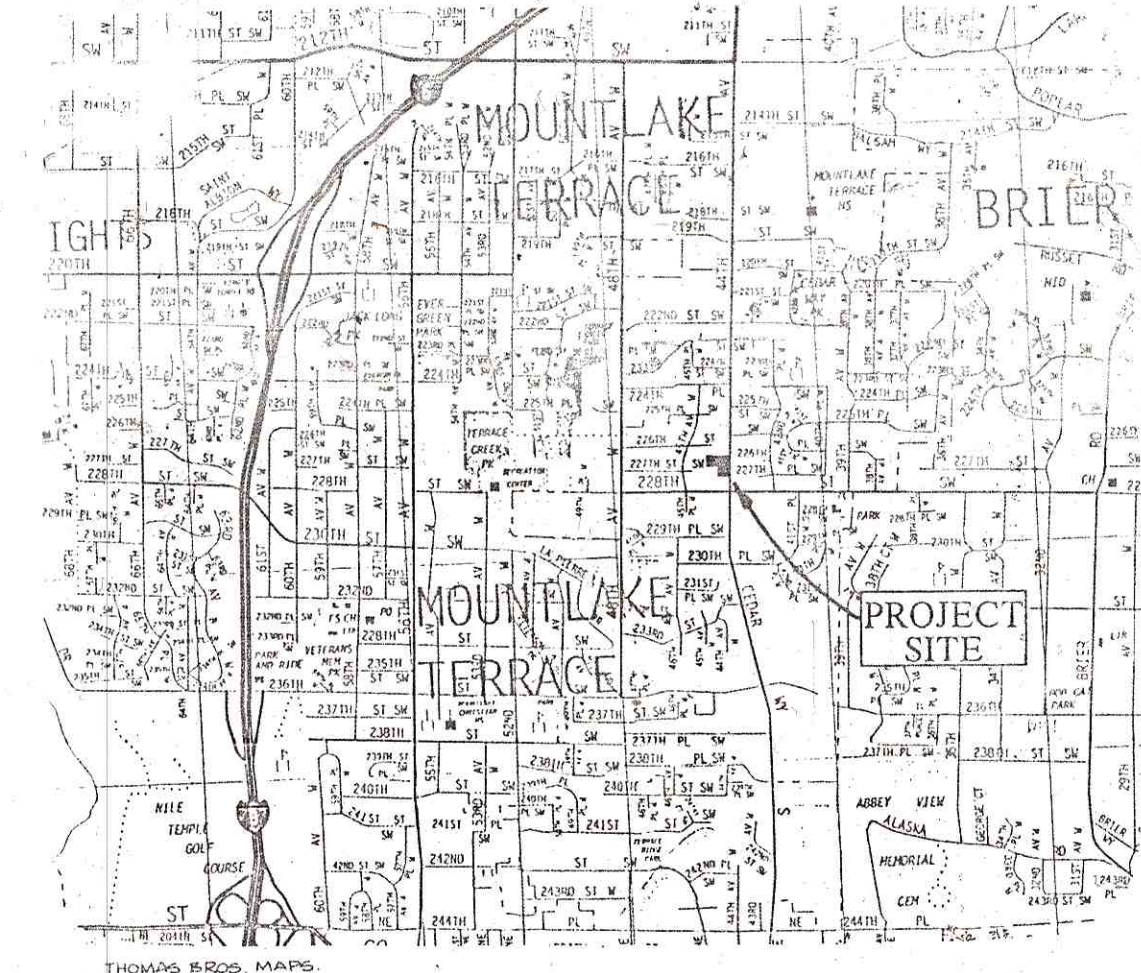


THESE DRAWINGS REFLECT
FIELD MEASUREMENTS
MADE AFTER COMPLETION
OF CONSTRUCTION
BY: *David R. Downing*
SENIOR OF RECORD - SURVEYOR
DAVID R. DOWNING
THE MOUNTAIN STATE
DATE: 2-26-99



VICINITY MAP

1" = 2400'

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 and American Public Works Association, Washington State Chapter, current edition, together with the latest edition of the City of Mountlake Terrace Engineering Standards.
- An approved copy of these plans must 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, the City of Mountlake Terrace Engineering Department (776-1161) must be contacted for a preconstruction meeting.
- 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.
- 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.
- 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, recorded on VHS video tape, and submitted to the City as a permanent record.
- Manhole and Lids:
 - All manholes shall be Mountlake Terrace Standard Plan No. 305 (typ.) type, with concrete cone.
 - Outside drop connections shall be constructed in conformance to Mountlake Terrace Standard Plan No. 308.
 - All manholes shall have a minimum drop of 0.10 feet between inverts.
 - All manholes not in paved areas shall have locking lids.
 - It shall be the responsibility of the contractor to adjust all manhole tops to match final asphalt elevations and ground elevations in landscaped areas.
- Sewer pipe, bedding, and trench compaction:
 - All sewer pipe shall be one of the following:
 - P.V.C., conforming with A.S.T.M. D-3034, SDR 35.
 - Ductile Iron, Class 50, conforming to A.W.W.A. C151.
 - Pipe may be any of the above provided:
 - Adjoining pipe lengths must be of the same materials and be provided with rubber gasket joints.
 - Where a pipe material is specifically shown on the plans, that material must be used.
 - Pipe bedding shall conform to Section 7-17.3(1)(B), Standard Specifications. Bedding material shall conform to Section 9-03.15.
 - Trench backfill shall be compacted to minimum 95% dry optimum density per A.S.T.M. D-1557-70 (modified Proctor) prior to testing sewer lines for acceptance.

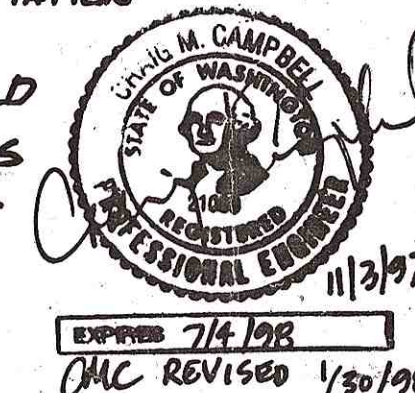
NOTE: CONTRACTOR TO MAINTAIN FLOW WITHIN EX. SEWER MAIN DURING CONSTRUCTION OF 33MH #1.

OWNER DEVELOPER

GEORTZEN HOLDINGS INC.
CONTACT: HENRY GEORTZEN
2404 116TH ST. SE
EVERETT WA 98208
(425) 337-5273

SITE ADDRESS: 22716 44TH AVE. W.

NOTE: THESE PLANS ARE
AS-BUILT AND THE INFORMATION
SHOWN ACCURATELY
REFLECTS EXISTING FIELD
CONDITIONS AS OF THIS
DATE 2-26-99



NOTE:
CONSTRUCT SADDLE MANHOLE OVER EXISTING
SANITARY SEWER MAIN. MAINTAIN EXISTING FLOW
DURING CONSTRUCTION. SEWER SYSTEM MUST BE
COMPLETELY OPERATIONAL, TESTED, AND ACCEPTED
BY CITY, PRIOR TO CUTTING INTO AND REMOVING
EXISTING MAIN INSIDE MANHOLE.

VERTICAL DATUM

N.G.V.D. 1929

CITY BENCHMARK

CITY OF MOUNTLAKE TERRACE VERTICAL CONTROL
BENCHMARK LIST, POINT NO. 44-22, PK NAIL 30'
NORTH OF DRIVEWAY 22703 44TH AVE. W.

ELEVATION = 423.45 FEET

SITE BENCHMARK

NORTH RIM SANITARY SEWER MANHOLE, APPROX.
155 FEET WEST AND 15' NORTH OF THE INTERSECTION
OF 44TH AVE. W. AND 228TH ST. S.W.

ELEVATION = 411.52 FEET

CONVERSION

SITE BENCHMARK ELEVATION = 411.52 FEET
CONVERSION TO CITY BENCHMARK WOULD BE:
(411.52 + 0.30 = 411.82 CITY DATUM)

Scan Name: scans06293.pdf

Scan Date:

WATER & SANITARY SEWER PLAN

FOR

WILLOW RUN

IN SE 1/4, SE 1/4, SECTION 28, T. 27N, R. 4E, W.M.

CITY OF MOUNTLAKE TERRACE

SNOHOMISH COUNTY, WASHINGTON

- 5) REVISED PER CITY COMMENTS
4) REVISED PER CITY COMMENTS
3) REVISED PER CITY COMMENTS
2) REVISED WATER
1) REVISED SITE PLAN PER CLIENT

2-24-98 CLD
12-11-97 CLD
7-7-97 LMS
1-24-97 LMS
5-30-96 LMS

LSA Lovell-Sauerland & Associates, Inc.
Engineers/Surveyors/Planners/Development Consultants
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

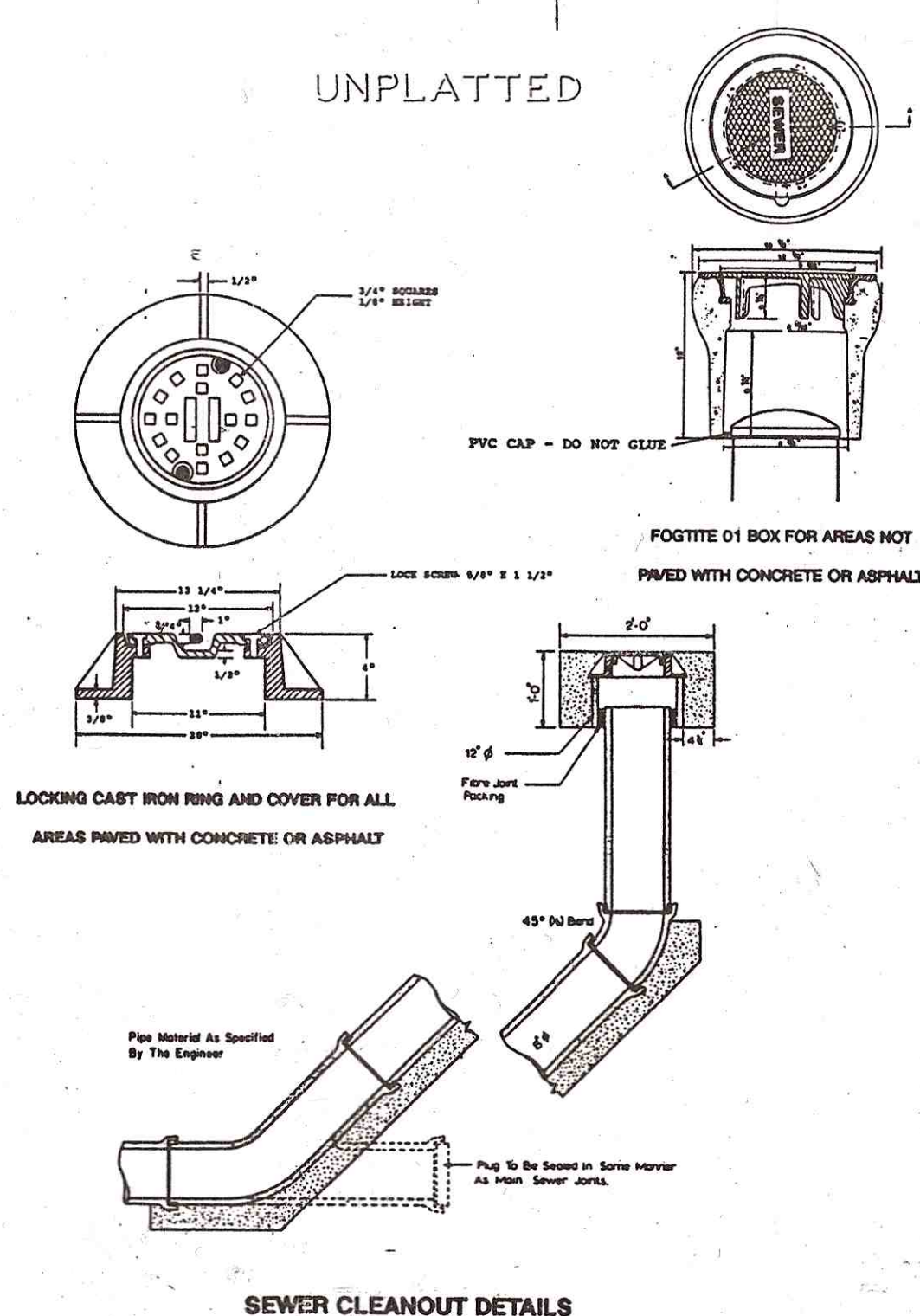
DRAWN	CHECKED	DATE	PR	SCALE	FILE NO.
LMS	CMC	4-10-96	309B	1" = 20'	96-3507

228 TH ST. SW.

2-10 E-1 SH#2 238.98-4

WATER 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 and American Public Works Association, Washington State Chapter, current edition, together with the latest edition of the City of Mountlake Terrace Engineering Standards.
- An approved copy of these plans must 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, the City of Mountlake Terrace Engineering Department (776-1161) must be contacted for a preconstruction meeting.
- 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.
- 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.
- 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.
- Water main pipe, bedding and trench compaction:
 - All water main pipe 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 C110/A21.10-82, or latest revision.
 - Pipe joints to be push-on, mechanical or flange joints.
 - All water main pipe fittings to be cement lined, Class 250 cast iron, conforming to ANSI/AWWA C110/A21.10-82, or latest revision.
 - Pipe bedding shall conform to Section 7-10.3(9)(A), and pipe bedding material shall conform to Section 9-03.15, Standard Specifications.
 - All water main cement concrete thrust blocks to conform to standard details shown on the plans.
 - All water main trench backfill shall be compacted to minimum 95% dry optimum density per A.S.T.M. D-1557-70 (modified Proctor) prior to testing water mains for acceptance.
- Maintain a minimum cover of 36" over finished grade on all water main pipe. Where utility conflicts occur, other than sanitary sewer water mains are to be lowered to clear. See "Criteria for Sewage Design," Washington State Department of Ecology for sewer conflicts.
- All water mains shall be pressure tested and disinfected in accordance with the specifications of the Washington State Health Department and City of Mountlake Terrace Standard Plan No. 209. All inspection and pressure testing shall be done in the presence of, and under the supervision of, the City Engineer and/or his representative.
- Contractor to provide plugs and/or temporary blow-off assemblies for testing and purity acceptance prior to final tie in.
- All gate valves to be resilient seated and shall be manufactured to meet or exceed the requirements of A.W.W.A. Standard C-509, or latest revision.
- Fire Hydrants:
 - All fire hydrants shall conform to the City of Mountlake Terrace Standard Plan No. 201.
 - All fire hydrant ports shall face perpendicular to curb and toward driveway as shown on the plans.
- Water Main Services:
 - All water main service lines to be type "K" copper. Service connections shall be in accordance with City of Mountlake Terrace Standard Plan No. 202 or No. 203 (double straps and corporation stops).
 - Water meters 2" and smaller to be supplied and installed by the City of Mountlake Terrace.
- The water main shall 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.
- All water mains not in public right-of-way require 10 foot wide easements to the City of Mountlake Terrace.
- All valves, existing and new, shall be operated only by the City of Mountlake Terrace. NO EXCEPTIONS!
- 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 a certified cross connection technician.
- Construction of dewatering systems shall be in accordance with Standard Specification Section 7-11.3(1).
- An as built water plan shall be submitted for all developments, short plats and subdivisions.
- All tapping sleeves shall be cast iron MJ or as designated by the City Engineer.



SEWER CLEANOUT DETAILS

NO.	TOP ± F.S.	MIN. INV. ±	TYPE	COMMENTS
1	418.17	418.17	CO	*
2	418.4 ±	418.4 ±	CO	*
3	418.0 ±	418.0 ±	CO	*

COMMENTS
* = MIN. 2% SLOPE
CO = CLEANOUT SEE DETAIL SHT. 5

SANITARY CLEANOUT SCHEDULE

SEE SHT. 1 OF 4 FOR TYPICAL SECTION A-A

MH #1 (SEE DETAIL SHT. 5)
TOP 411.09 ± FS
INV. 408.14 ± BM 8" IN N. 406.77
INV. 408.04 ± EX. 8" E: 404.85
48" TYPE I
W: 404.80

EX. 33 MH
TOP 411.52
INV. 405.13

EX. 33 MH
TOP 411.52
INV. 405.13