

PRIVATE ROAD NOTE:
WILDFLOWER LANE, WILDFLOWER COURT & SE 6TH TERRACE ARE
PRIVATE ROADS AND WILL BE CONSTRUCTED UNDER A SEPARATE PLAN SET.

SIDEWALK NOTE:
SIDEWALKS AT BUILDINGS WILL BE INSTALLED AFTER BUILDING &
DRIVEWAY CONSTRUCTION IS COMPLETE, UNLESS OTHERWISE NOTED.

MO GRS BENCHMARK:

STATION NAME - JA-90

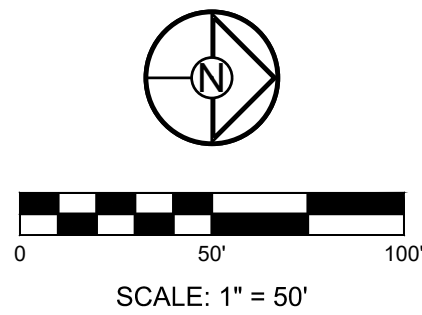
KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"
LOCATED NEAR THE INTERSECTION OF LANGSFORD ROAD AND OLD
LANGSFORD ROAD, 43 FEET SOUTHEAST OF THE CENTER OF LANGSFORD
ROAD AND 32 FEET NORTH OF THE CENTER OF OLD LANGSFORD ROAD.
N:1001052.8503, E:2845604.8272

ELEV. 997.045

PROJECT BENCHMARK:

"SQUARE" CUT IN TOP OF CONCRETE STORM MANHOLE
STORM MANHOLE IS LOCATED APPROX. 130 FEET EAST OF THE
INTERSECTION OF SE JOEL AVE & BLUE PARKWAY AND 26 FEET SOUTH
OF THE CENTERLINE OF BLUE PARKWAY.
N:996874.9690, E:2840937.1365

ELEV. 1005.719



SCHLAGEL

ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS

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Missouri State Certificate of Authority
#E2002003609-F #LAC2001005237 #LS2002008695-F

PREPARED BY:

STATE OF MISSOURI

MARK ALLEN BREUER

NUMBER RE-2005007268

08.03.2023

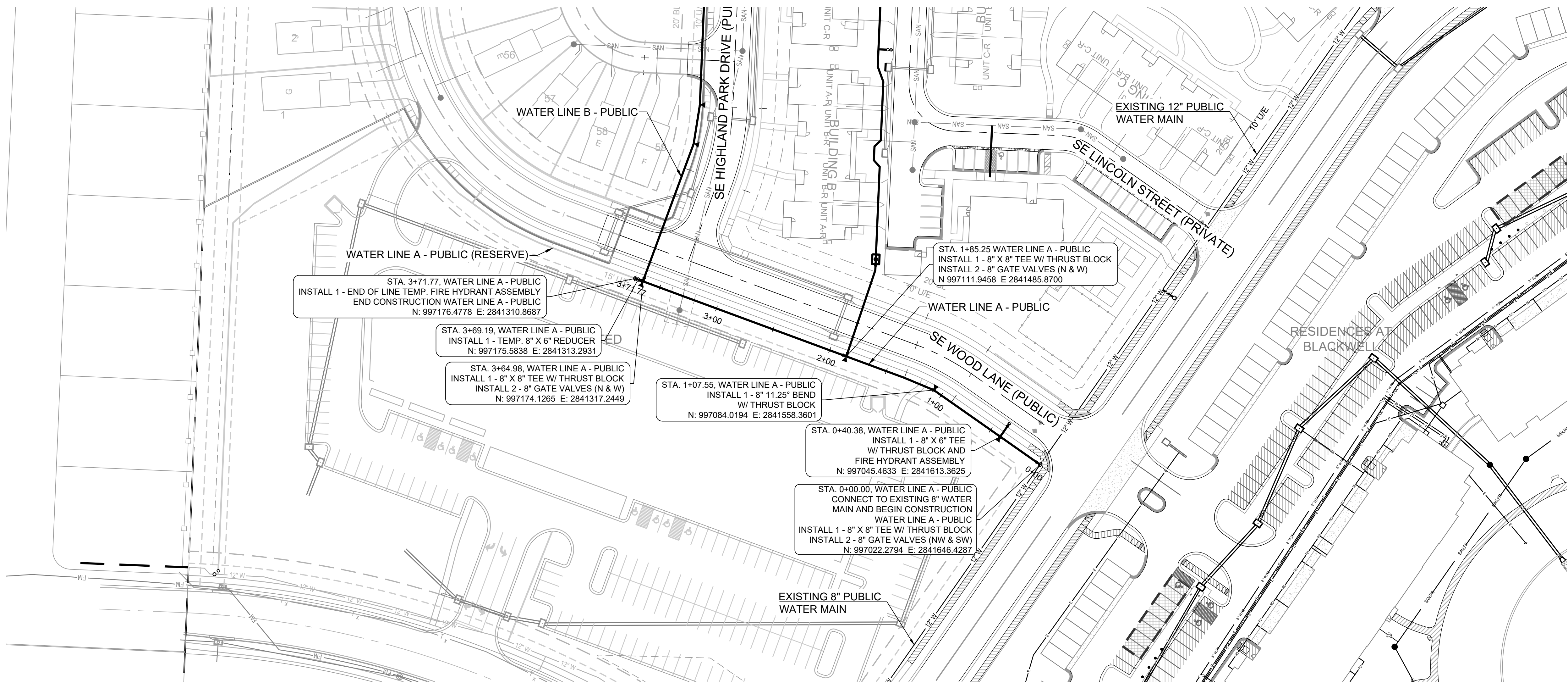
SCHLAGEL & ASSOCIATES, P.A.

REUNION AT BLACKWELL
PUBLIC WATER MAIN PLANS

HERITAGE STREET LEE'S SUMMIT, MO

REVISION DATE	DESCRIPTION
03/28/2023	REVISE PER CITY COMMENTS
06/23/2023	REVISE PER CITY COMMENTS
07/13/2023	REVISE PER CITY COMMENTS
08/03/2023	DATE PREPARED
22-597	PROJ. NUMBER

GENERAL LAYOUT



MO GRS BENCHMARK:

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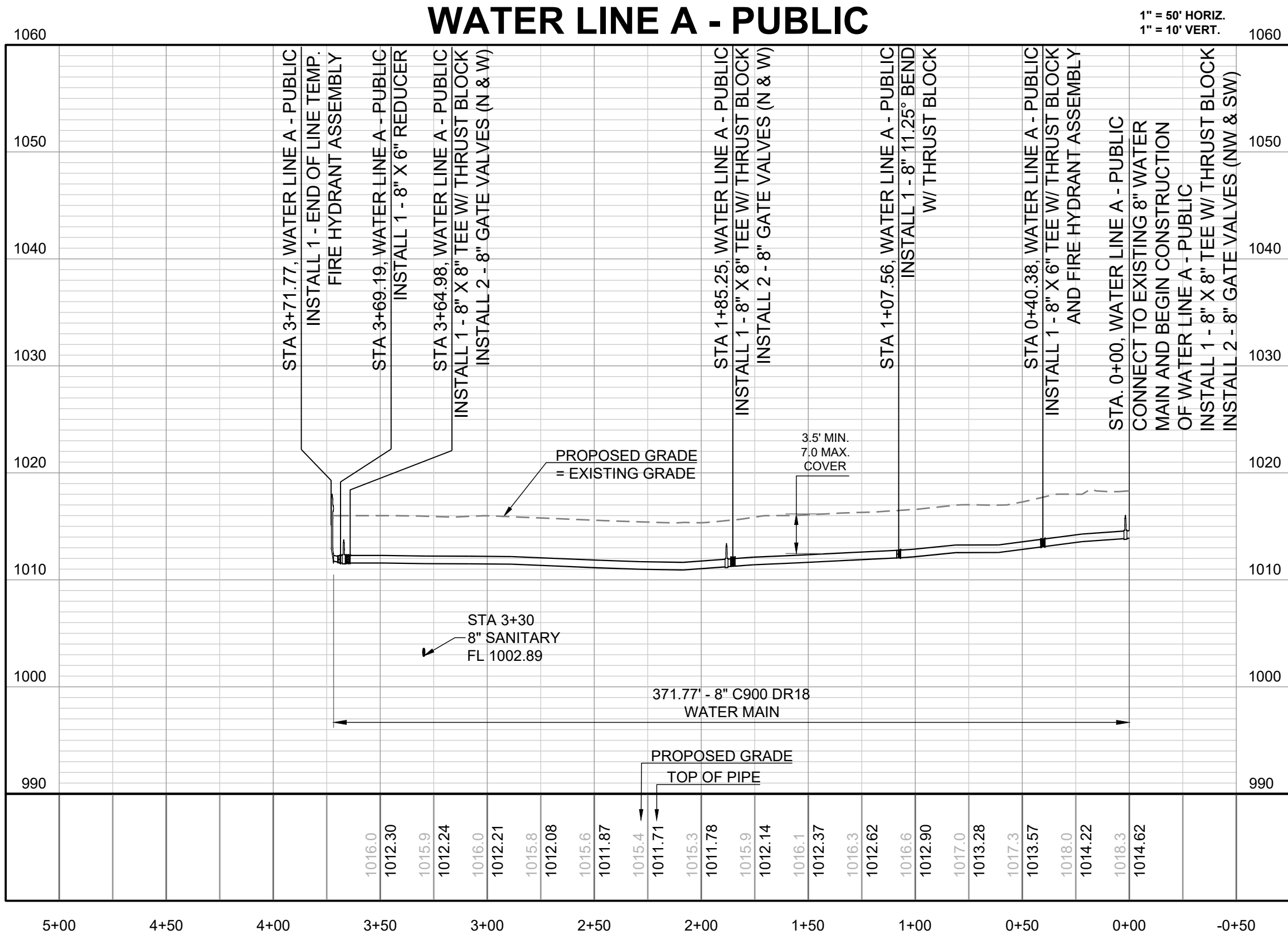
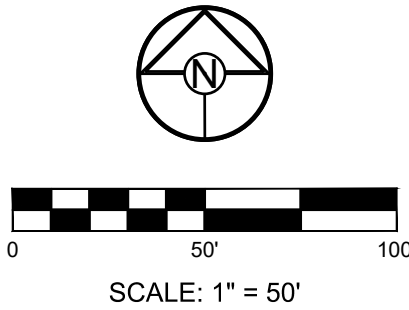
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NOTES:

- ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

REUNION AT BLACKWELL
PUBLIC WATER MAIN PLANS

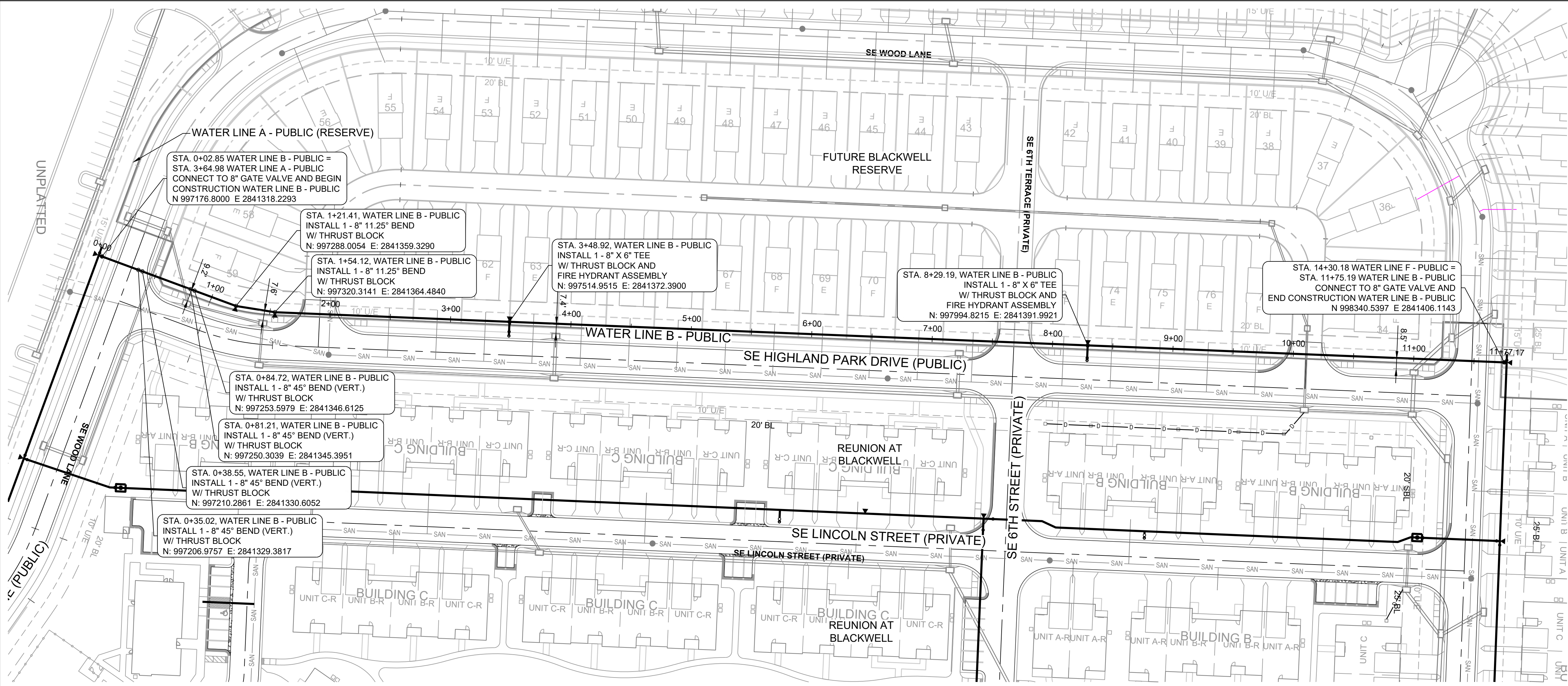
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WATER LINE A -
PUBLIC

SHEET

3



MO GRS BENCHMARK:

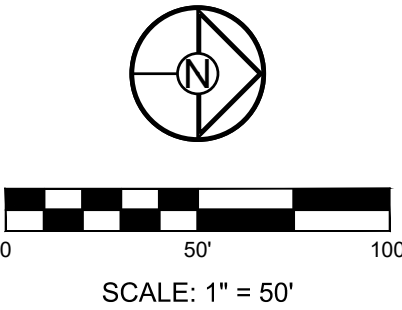
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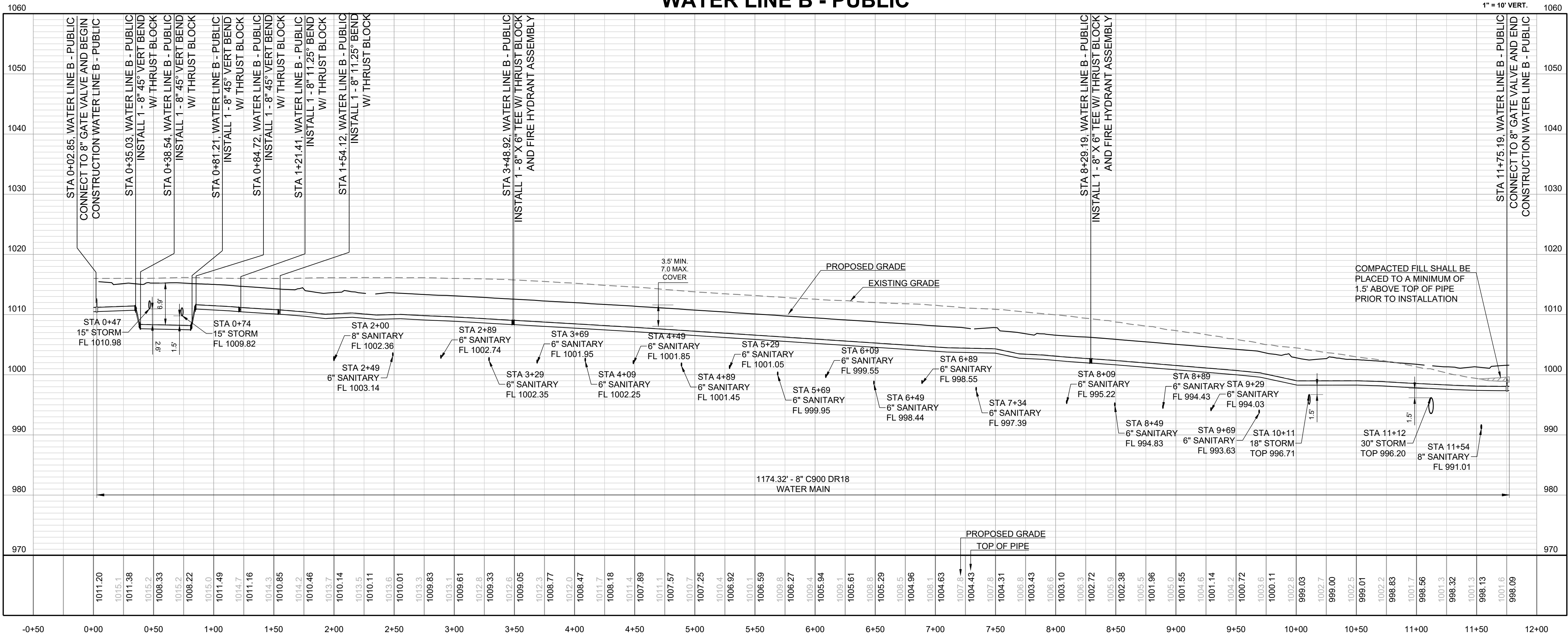
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WATER LINE B - PUBLIC



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

REUNION AT BLACKWELL
PUBLIC WATER MAIN PLANS

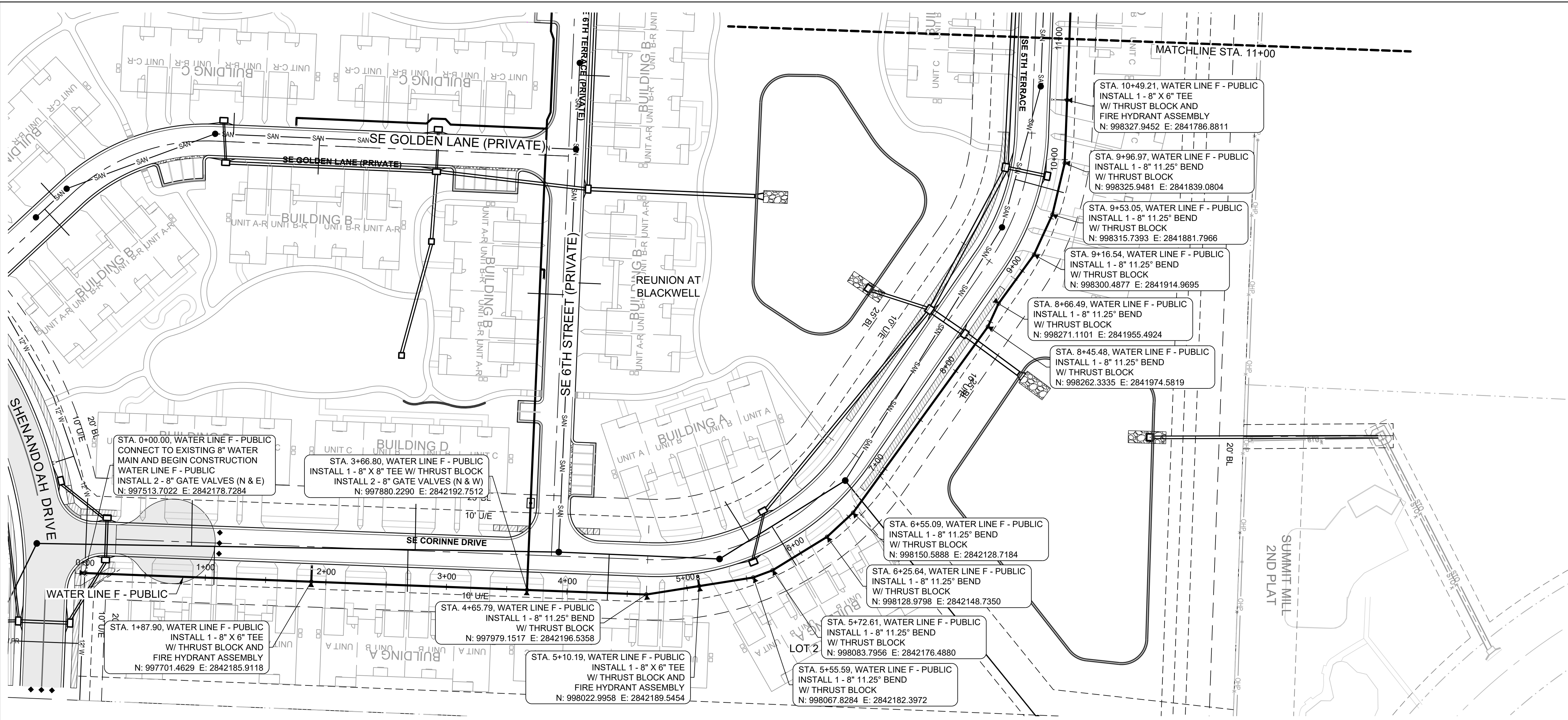
HERITAGE STREET LEE'S SUMMIT, MO

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WATER LINE B - PUBLIC

SHEET

4



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#E200203600F #LAC2001005237 #LS200208659F

PREPARED BY:

STATE OF MISSOURI

MARK ALLEN BREUER

NUMBER RE-2005007268

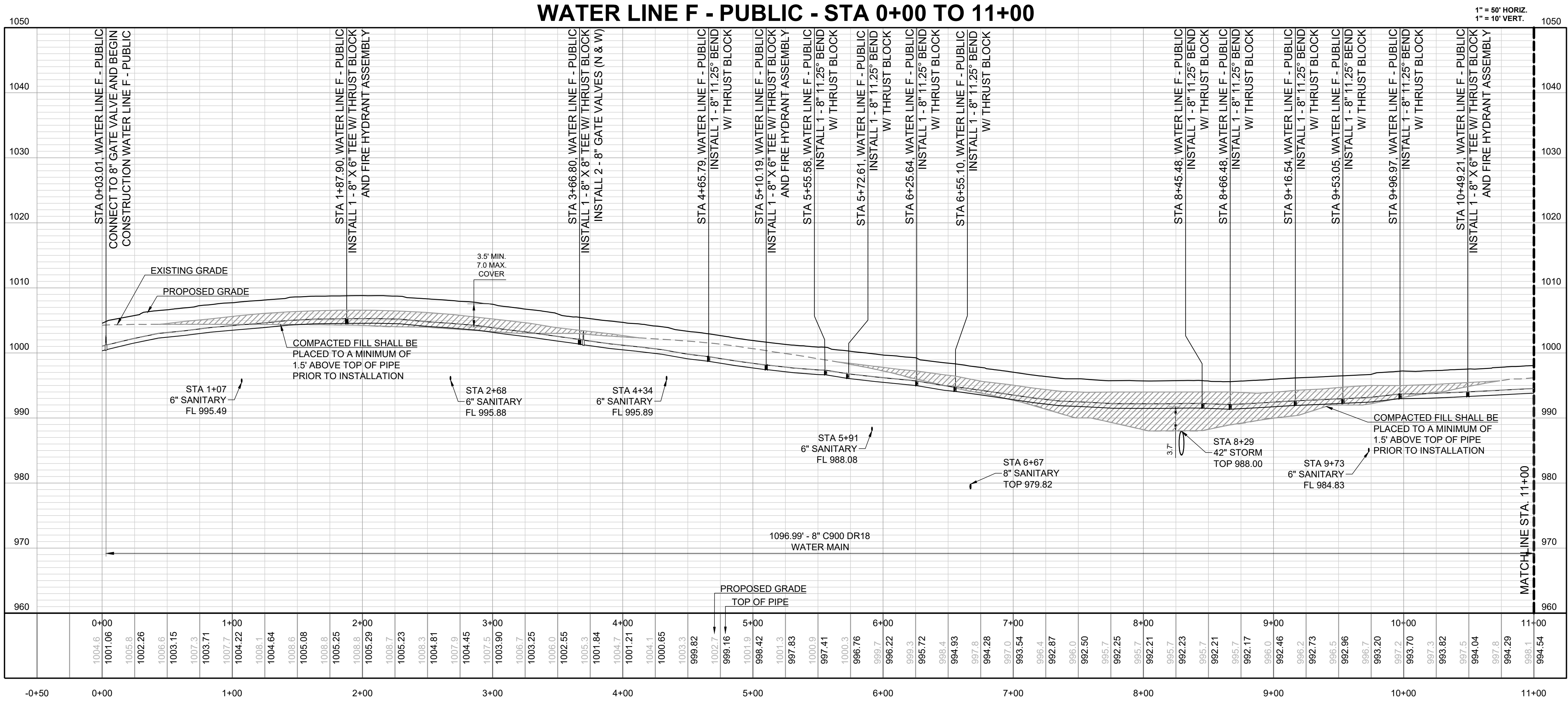
PROFESSIONAL ENGINEER

08.03.2023

SCHLAGEL & ASSOCIATES, P.A.

REUNION AT BLACKWELL
PUBLIC WATER MAIN PLANS

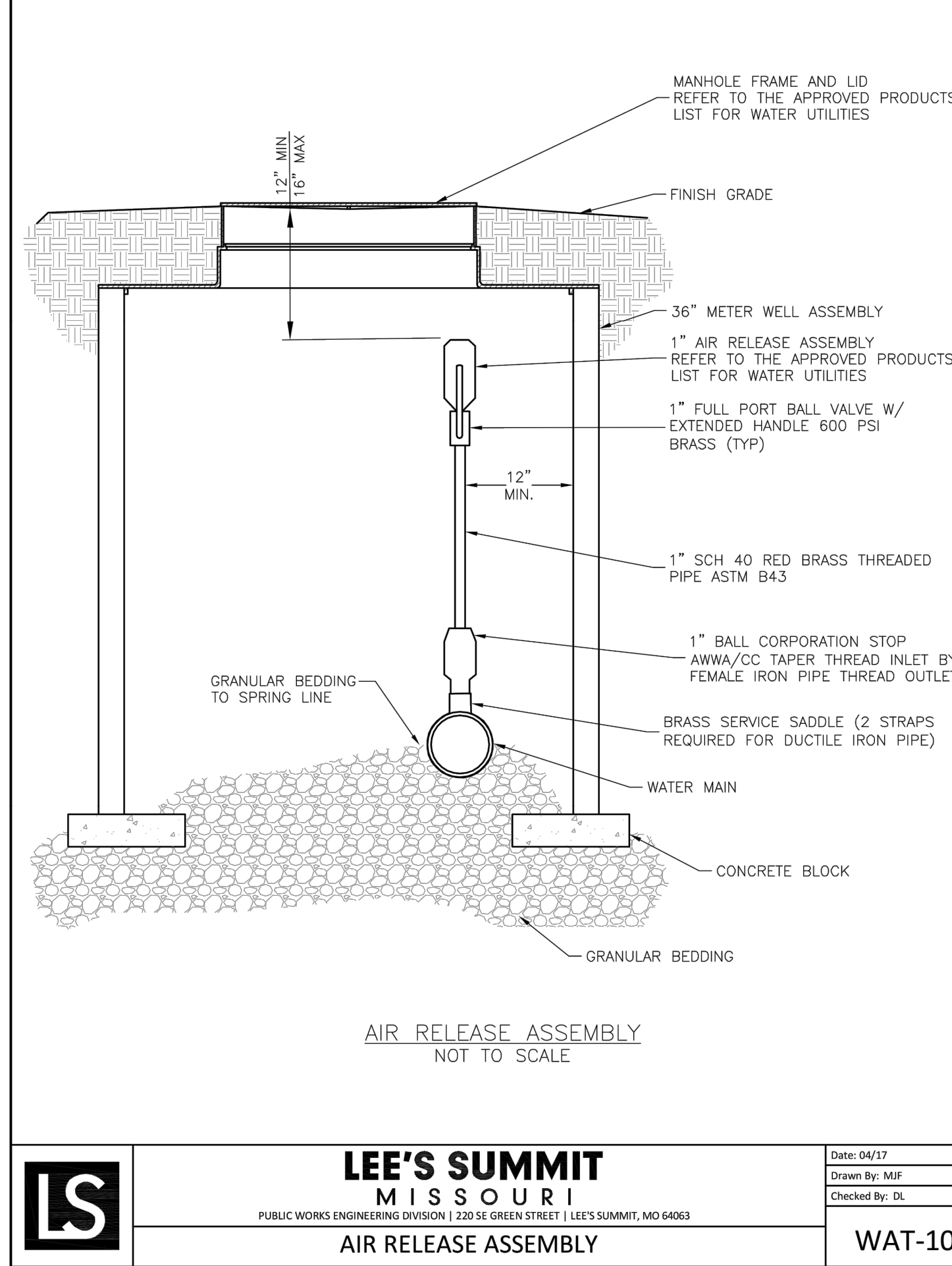
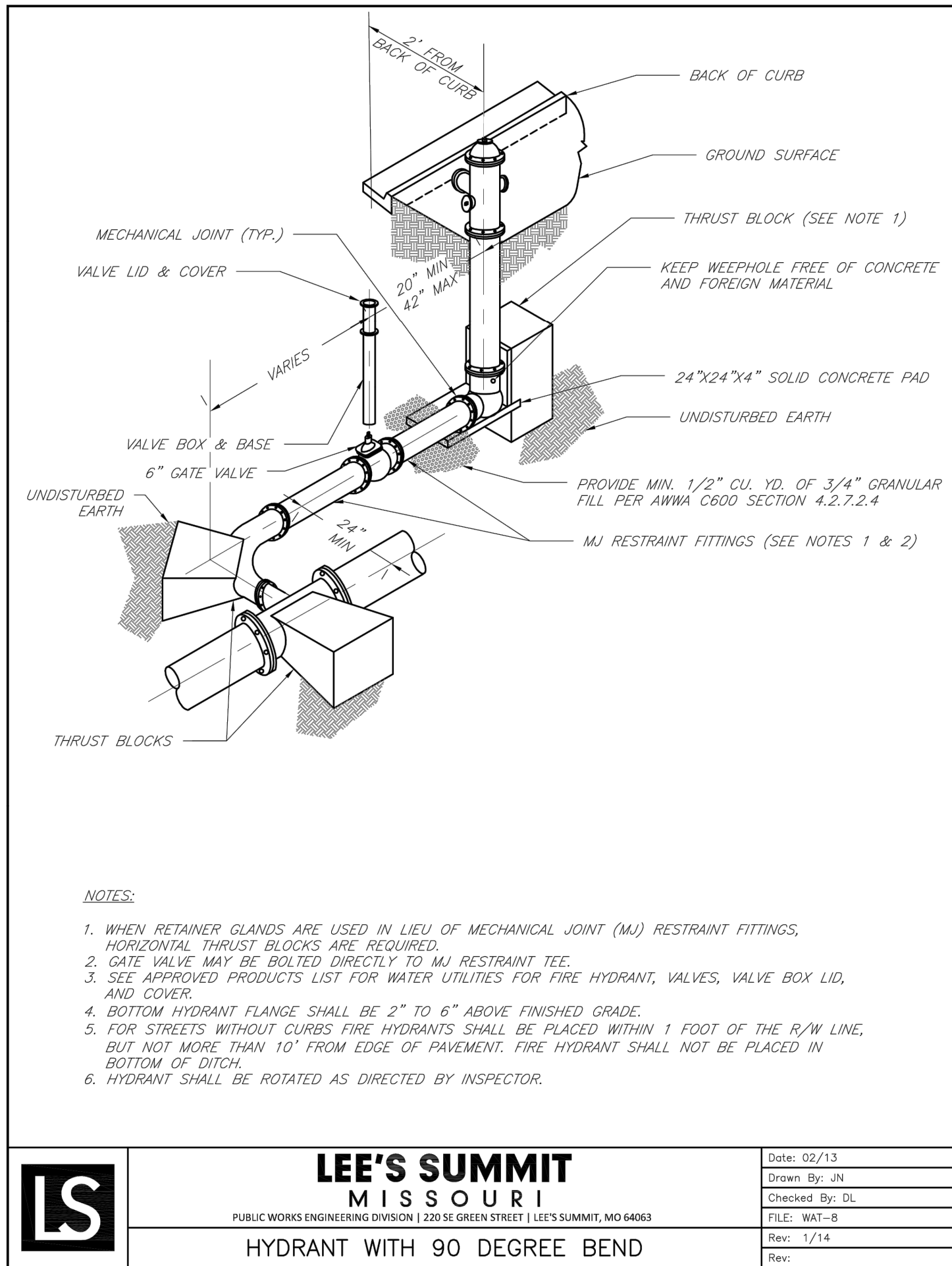
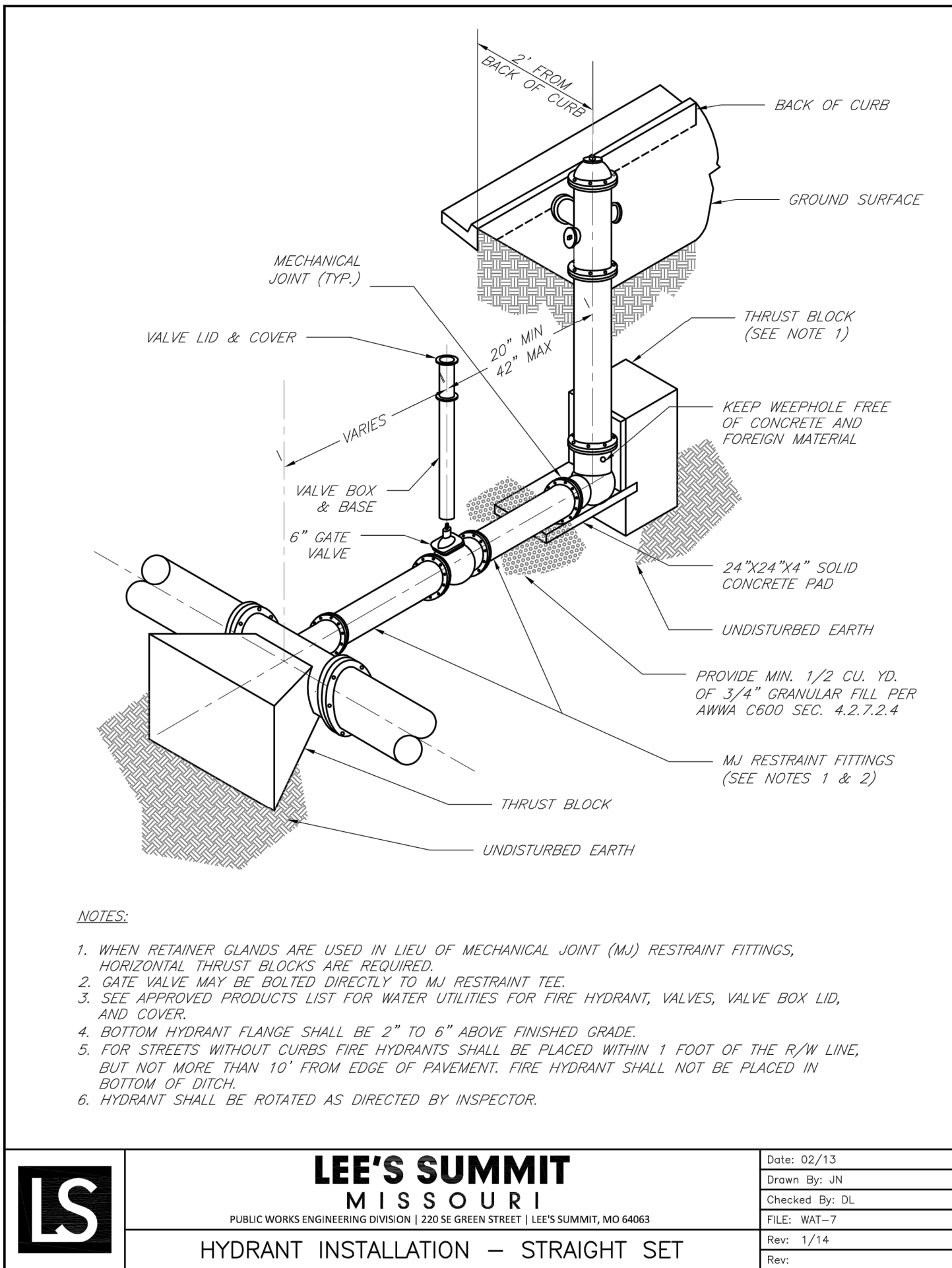
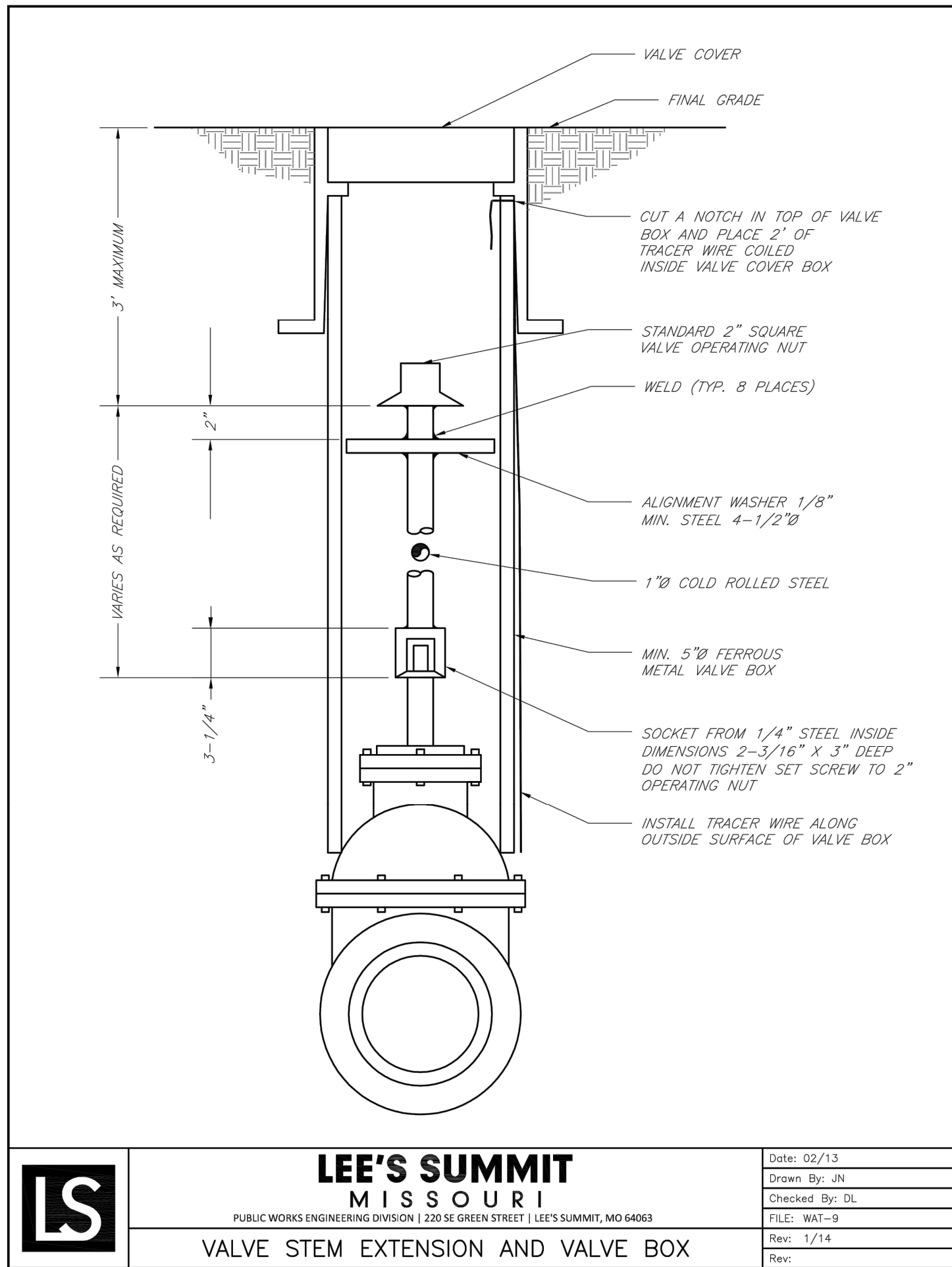
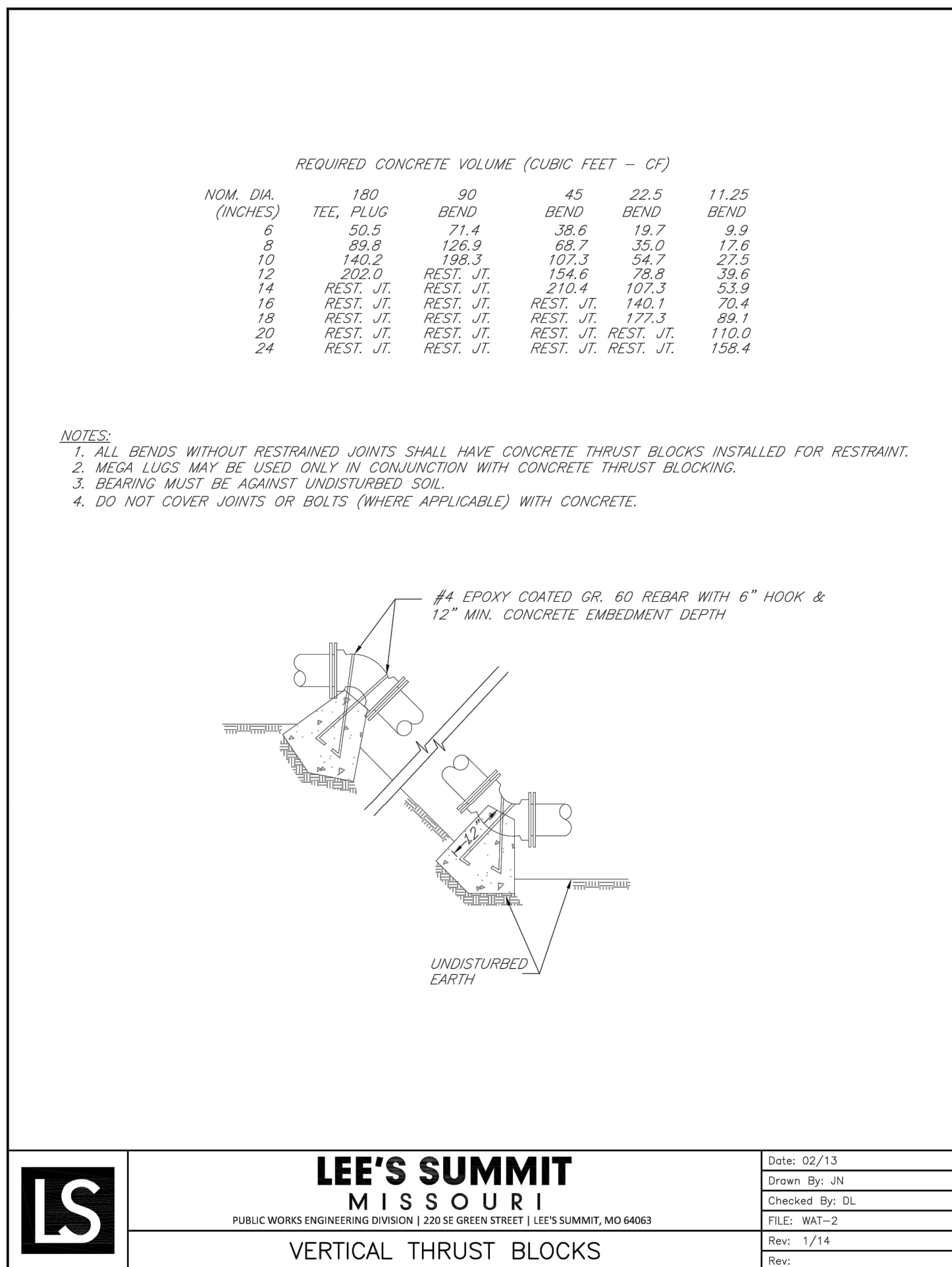
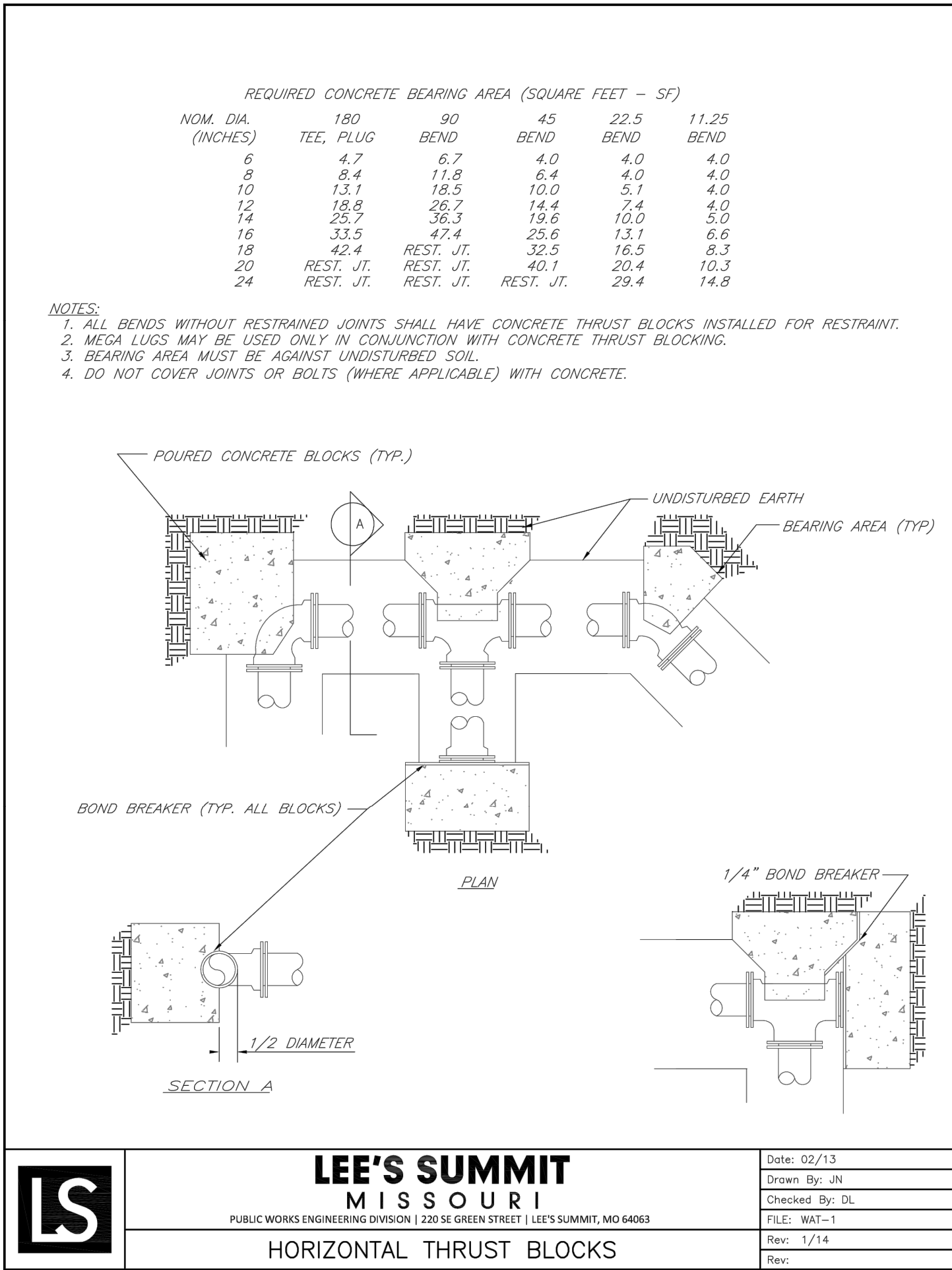
HERITAGE STREET LEE'S SUMMIT, MO



REVISION DATE	DESCRIPTION
03/26/2023	REVISE PER CITY COMMENTS
06/23/2023	REVISE PER CITY COMMENTS
07/13/2023	REVISE PER CITY COMMENTS
08/03/2023	DATE PREPARED
22-597	PROJ. NUMBER

WATER LINE F - PUBLIC (STA 0+00 TO 11+00)

SHEET5



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ENGINEERS

PLANNERS

SURVEYORS

LANDSCAPE ARCHITECTS

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PREPARED BY:

STATE OF MISSOURI

PROFESSIONAL ENGINEER

MARK ALLEN BREUER

NUMBER PE-2009007268

08.03.2023

SCHLAGEL & ASSOCIATES, P.A.

REUNION AT BLACKWELL
PUBLIC WATER MAIN PLANS

HERITAGE STREET LEE'S SUMMIT, MO

REVISION DATE	DESCRIPTION	REVISION DATE	DESCRIPTION
03/28/2023	REVISE PER CITY COMMENTS	06/23/2023	REVISE PER CITY COMMENTS
06/23/2023	REVISE PER CITY COMMENTS	07/13/2023	REVISE PER CITY COMMENTS
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DRAWN BY: JRL

CHECKED BY: MAB

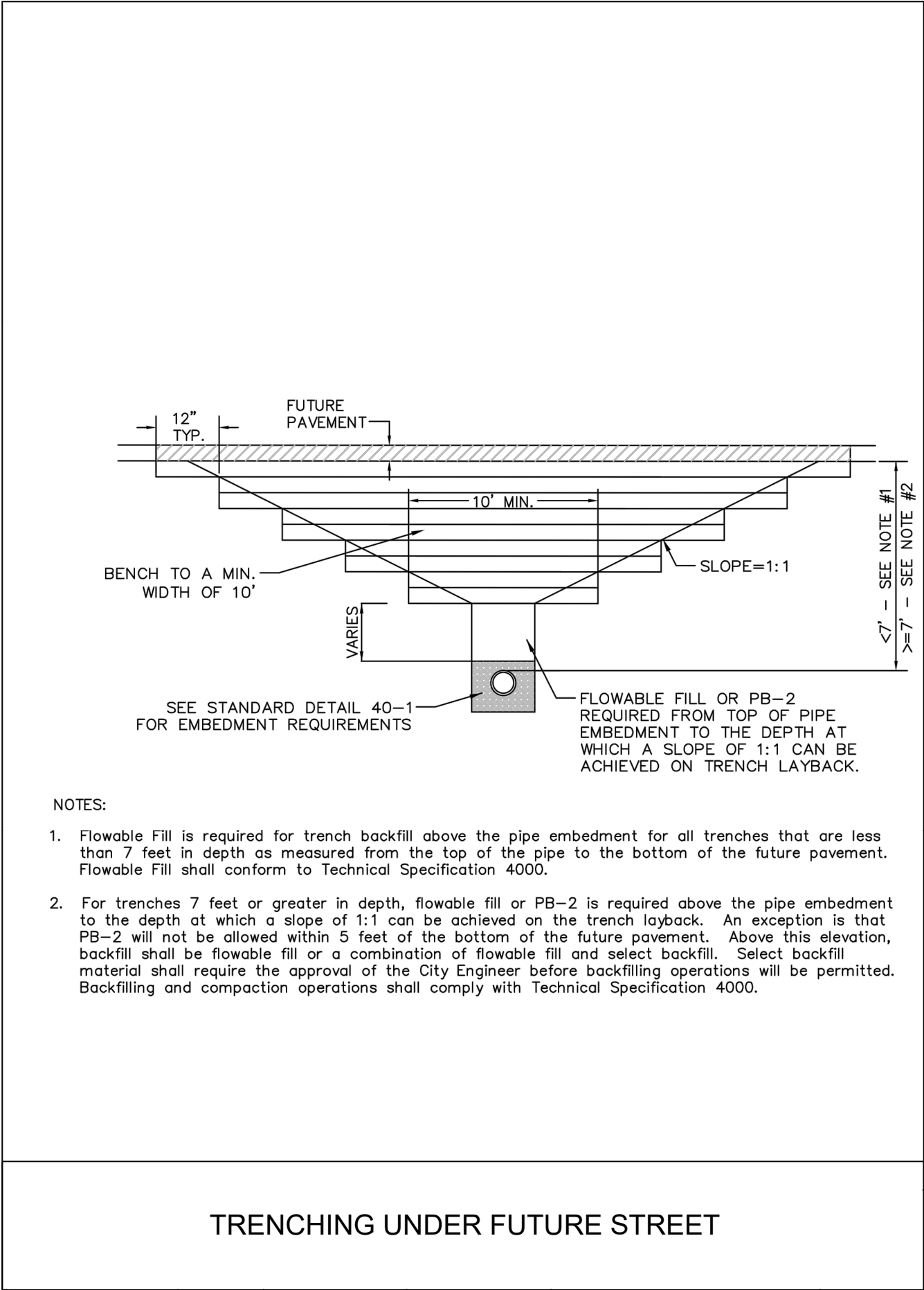
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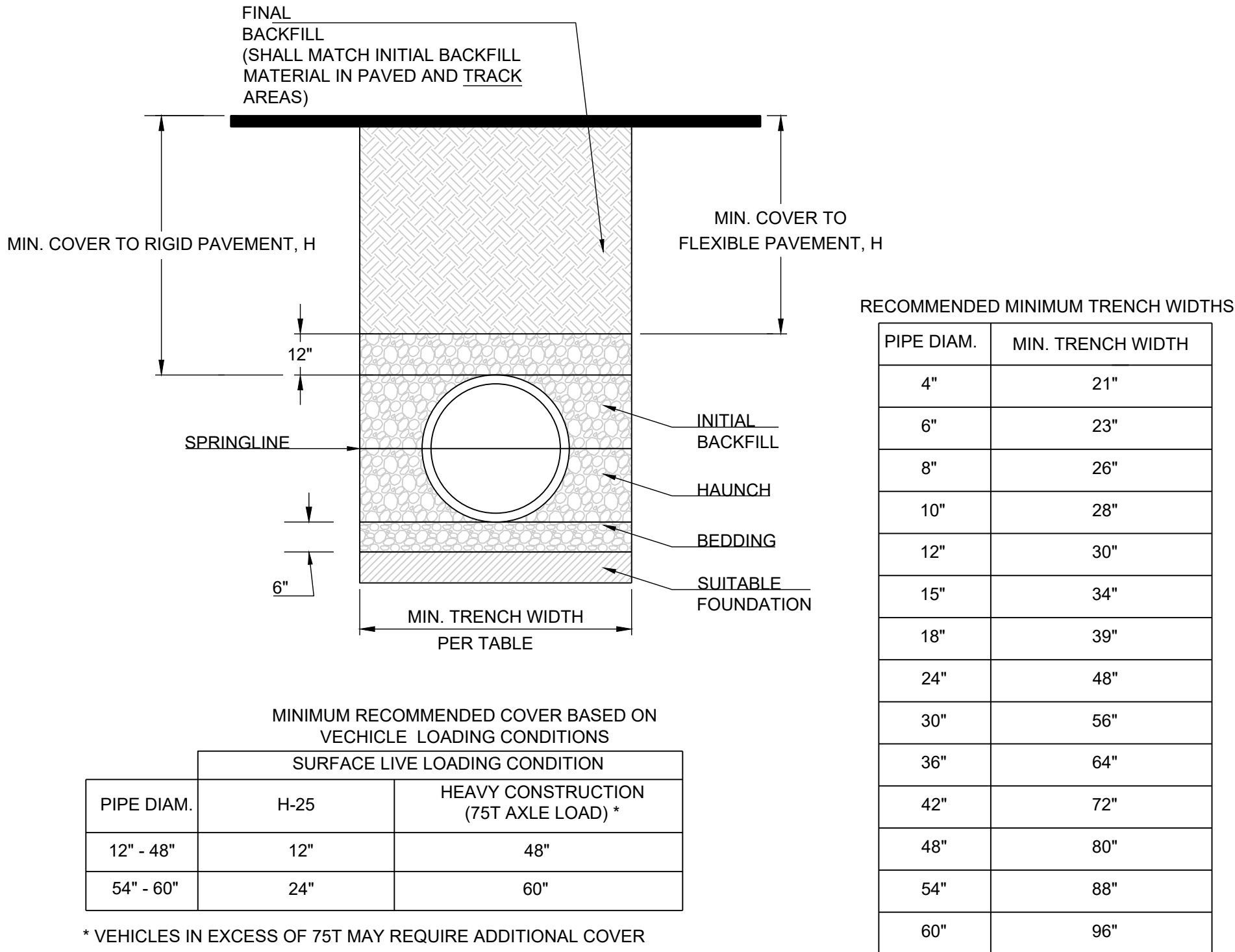
DETAILS

SHEET

7



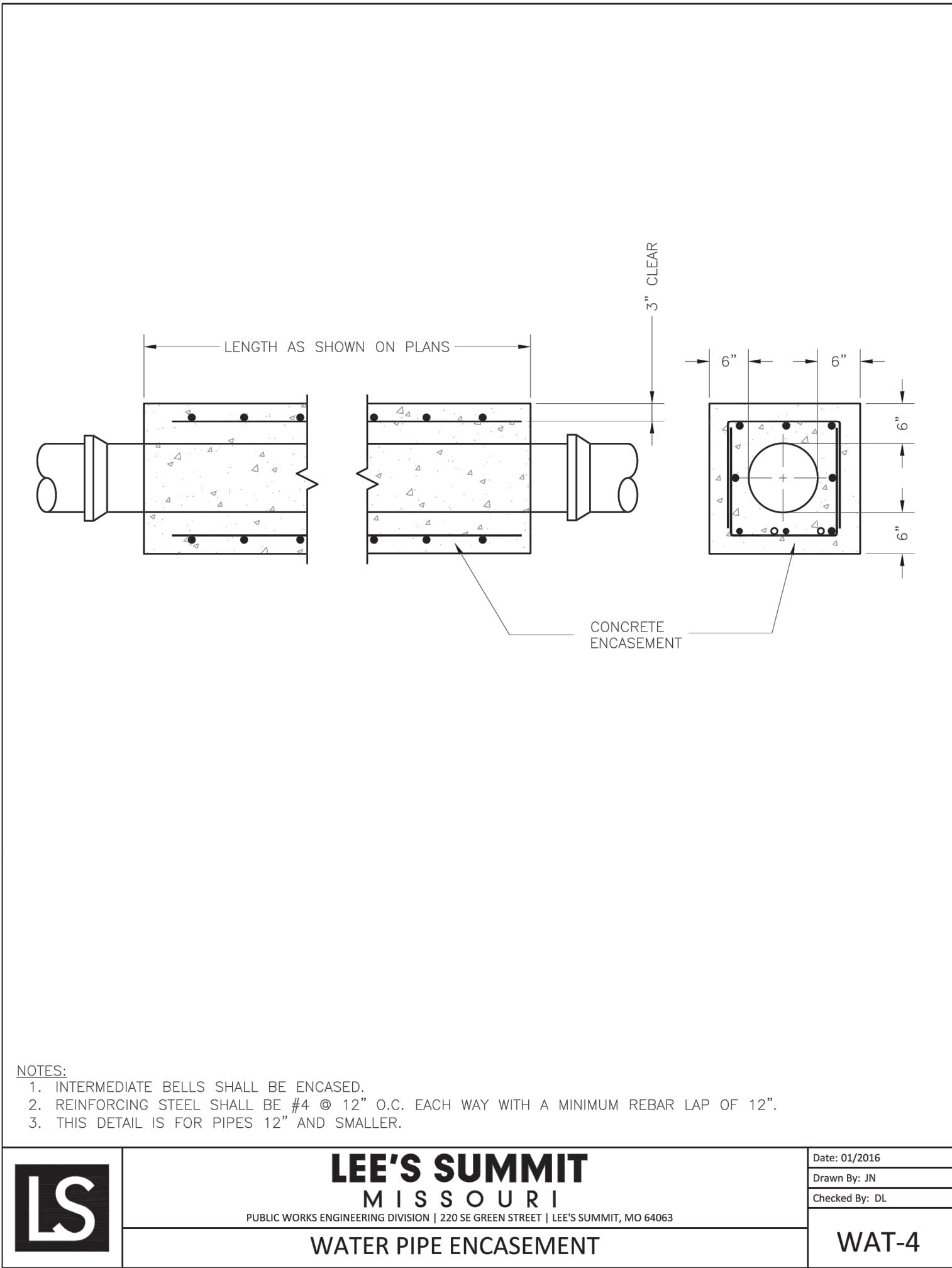
- NOTES:
- Flowable Fill is required for trench backfill above the pipe embedment for all trenches that are less than 7 feet in depth as measured from the top of the pipe to the bottom of the future pavement. Flowable Fill shall conform to Technical Specification 4000.
 - For trenches 7 feet or greater in depth, flowable fill or PB-2 is required above the pipe embedment to the depth at which a slope of 1:1 can be achieved on the trench layback. An exception is that PB-2 will not be allowed within 5 feet of the bottom of the future pavement. Above this elevation, backfill shall be flowable fill or a combination of flowable fill and select backfill. Select backfill material shall require the approval of the City Engineer before backfilling operations will be permitted. Backfilling and compaction operations shall comply with Technical Specification 4000.



PIPE DIAM.	MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS	
	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

- NOTES:
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 6" (100mm) .
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.



- NOTES:
- INTERMEDIATE BELLS SHALL BE ENCASED.
 - REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12".
 - THIS DETAIL IS FOR PIPES 12" AND SMALLER.



LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64083
WATER PIPE ENCASEMENT

Date: 01/2016
Drawn By: JN
Checked By: DL

WAT-4

PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

REUNION AT BLACKWELL
PUBLIC WATER MAIN PLANS
HERITAGE STREET LEE'S SUMMIT, MO

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DRAWN BY:	JRL
CHECKED BY:	MAB
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DETAILS

SHEET

8