

- LEGEND**
- DENOTES GRANITE BOUND TO BE SET
 - PROPOSED DRAINAGE MANHOLE
 - PROPOSED DRAIN LINE
 - PROPOSED CATCH BASIN
 - PROPOSED SEWER LINE
 - PROPOSED SEWER MANHOLE
 - PROPOSED WATER LINE
 - PROPOSED HYDRANT
 - PROPOSED WATER GATE
 - UTILITY POLE
 - EXISTING CONTOUR LINE
 - PROPOSED CONTOUR LINE
 - PROPOSED DRIVEWAY

APPROVED BY THE ASHLAND PLANNING BOARD:

DATE APPROVED: _____

DATE ENDORSED: _____

APPROVED _____ SUBJECT TO COVENANT CONDITIONS SET FORTH IN A COVENANT EXECUTED BY _____ DATED _____ AND TO BE (RECORDED) (REGISTERED) HEREWITH.

I, TOWN CLERK OF THE TOWN OF ASHLAND RECEIVED FROM THE PLANNING BOARD APPROVAL OF THIS PLAN AND NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

JOYCE E. HASTINGS P.L.S. _____ DATE _____

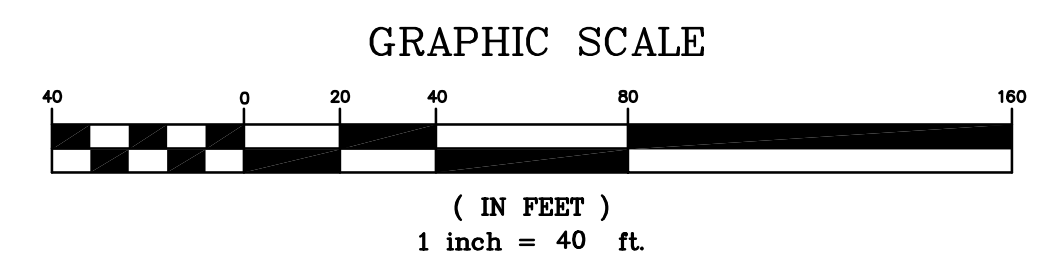
CONVENTIONAL ZONING CLASSIFICATION:

AREA: 30,000 S.F.
 FRONTAGE: 150'
 FRONT SETBACK: 40'
 SIDE SETBACK: 10'
 REAR SETBACK: 30'

DEEP OBSERVATION HOLE LOGS

DEEP HOLE - 17-1			DEEP HOLE - 17-2		
HORIZ. DEPTH	DATE: 9/27/17	ELEV.	HORIZ. DEPTH	DATE: 9/27/17	ELEV.
0	A	277.0	0	A	251.0
7"	10YR3/2		4"	10YR3/2	
26"	SAND LOAM Bw	274.8	24"	SAND LOAM Bw	249.0
36"	FINE SAND C1	274.0		FINE SAND C1	
			72"		245.0
120"		267.0			
None	NO GROUNDWATER OBSERVED		None	NO GROUNDWATER OBSERVED	
36"	SOIL MOTTLING	274.0	36"	SOIL MOTTLING	248.0

DEEP HOLE - 17-3		
HORIZ. DEPTH	DATE: 9/27/17	ELEV.
0	A	256.5
2"	10yr2/2	
42"	SAND LOAM Bw 10yr5/6	252.5
72"	SANDY LOAM "C" 2.5y6/3	250.5
None	NO GROUNDWATER OBSERVED	
54"	SOIL MOTTLING	252.0



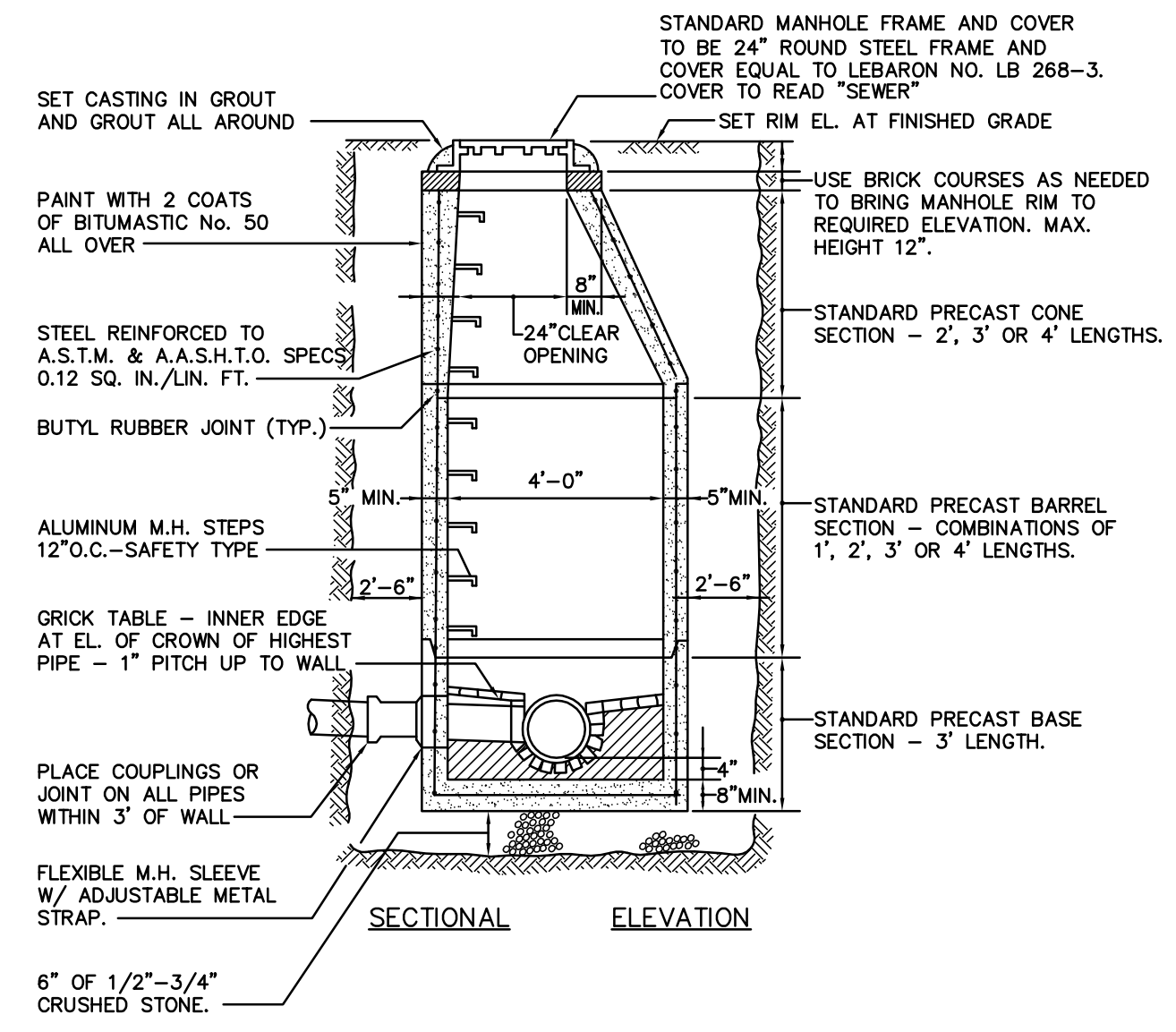
**DEFINITIVE SUBDIVISION PLAN
 BROGDEN ROAD EXTENSION
 ASHLAND, MASSACHUSETTS**

PREPARED FOR:
 A & M REALTY TRUST
 43 RIDGEWOOD STREET
 ASHLAND, MA 01721

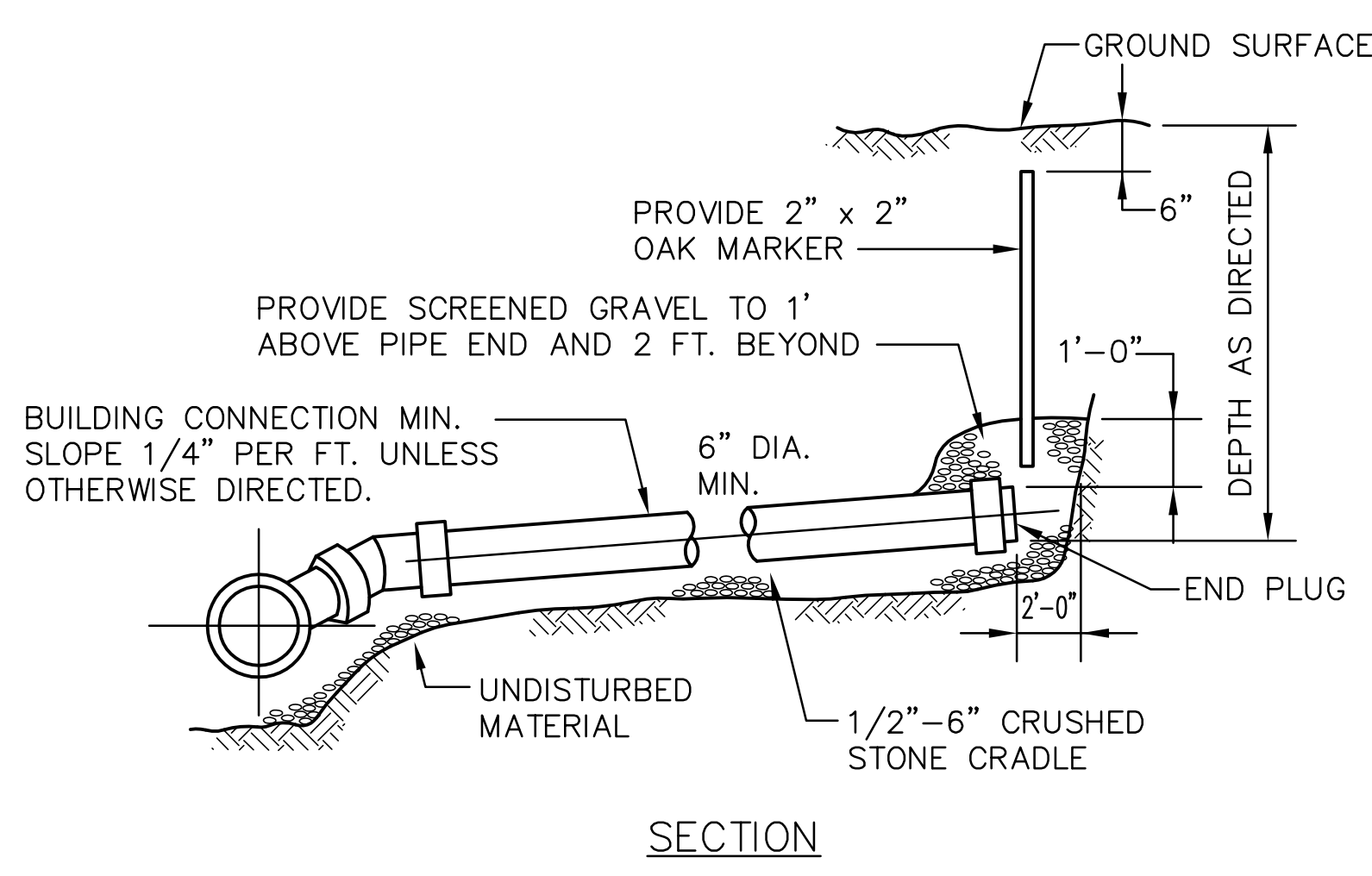
GLM Engineering Consultants, Inc.
 19 EXCHANGE STREET
 HOLLISTON, MA 01746
 P: 508-429-1100
 F: 508-429-7160
 www.GLMengineering.com

JOB No. 16130
 DATE: OCTOBER 25, 2017
 SCALE: 1"=40'
 SHEET: 5 of 9
 PLAN #: 27,167

GRADING, DRAINAGE & UTILITIES PLAN



PRECAST CONCRETE SEWER MANHOLE DETAILS
NOT TO SCALE



TYPICAL SEWER BUILDING CONNECTION
NOT TO SCALE

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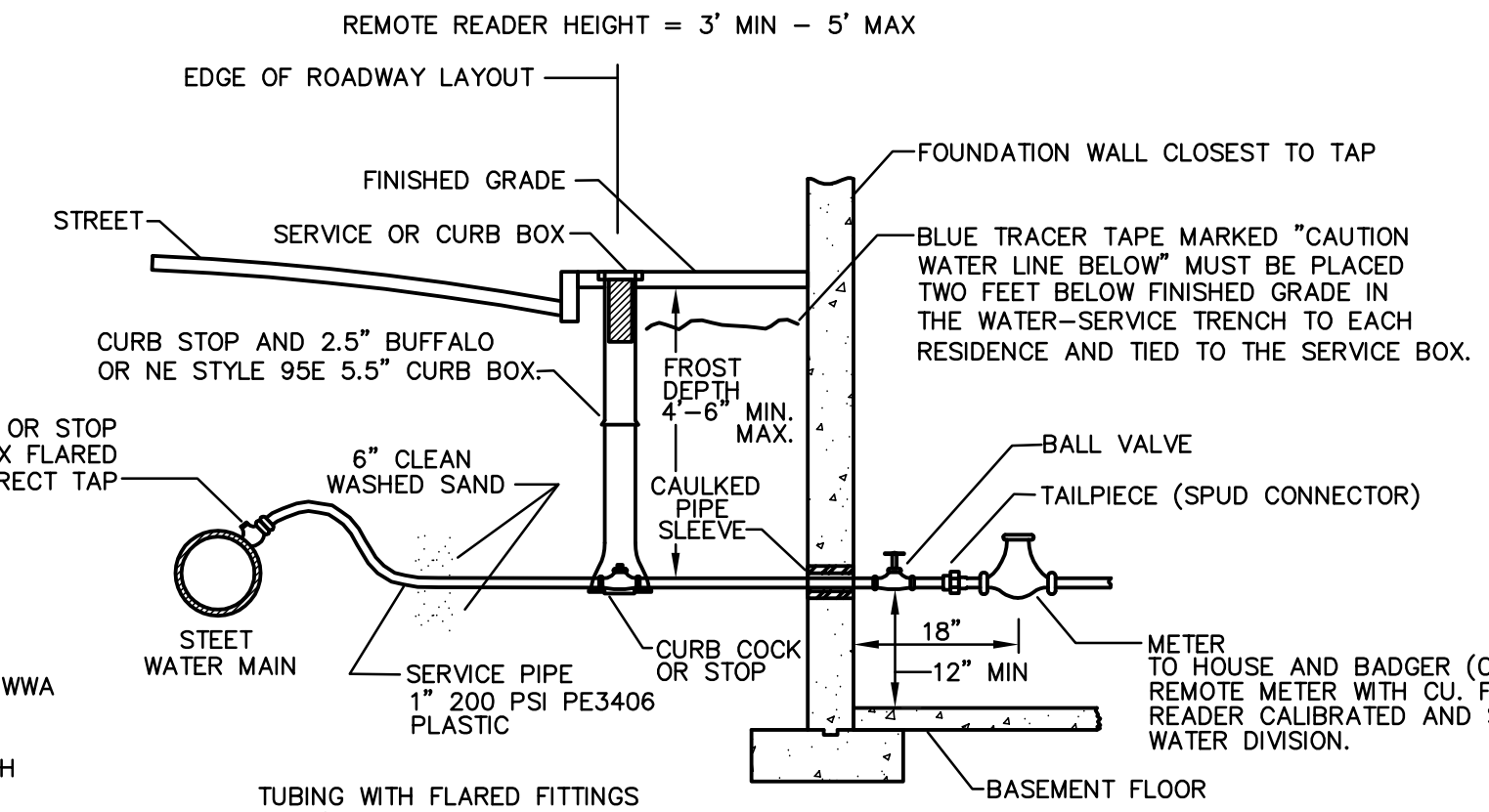
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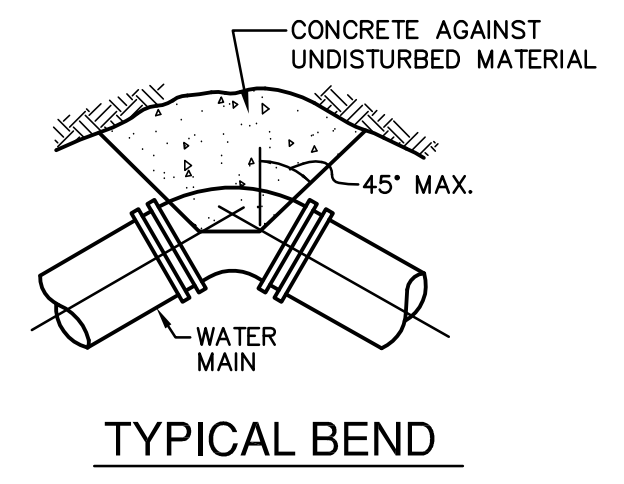
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JOYCE E. HASTINGS P.L.S. _____ DATE _____

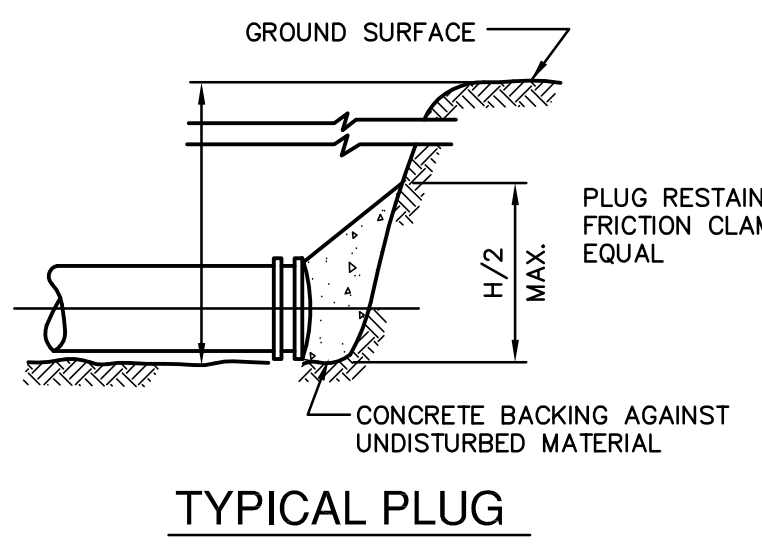
NOTE: ALL WATER SERVICES ARE TO BE SLEEVED UNDER THE ROADWAY AND ALL PAVED SURFACES.
PLASTIC 200 PSI TUBING SHALL MEET AWWA SPEC. AND BE 200 PSI (MIN.)
ANY SERVICES OVER 125 FEET IN LENGTH SHALL BE 1-1/2\"/>



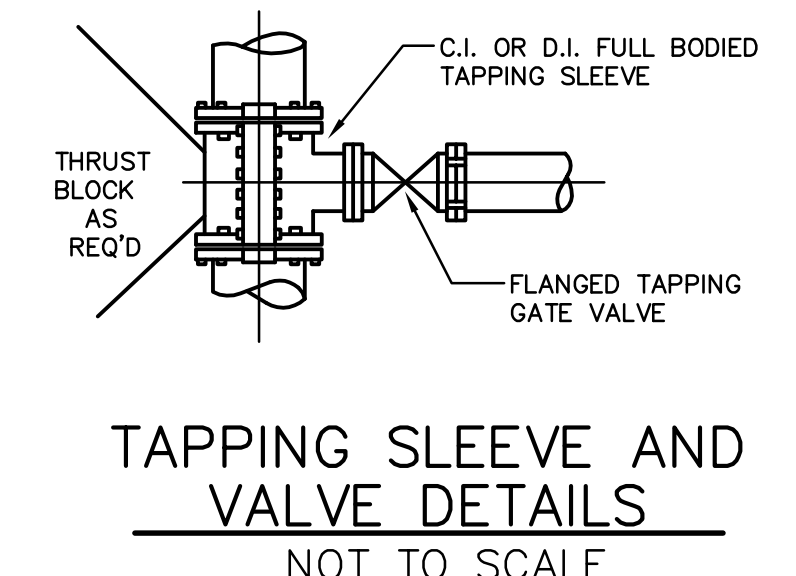
TYP. WATER SERVICE CONNECTION
NOT TO SCALE



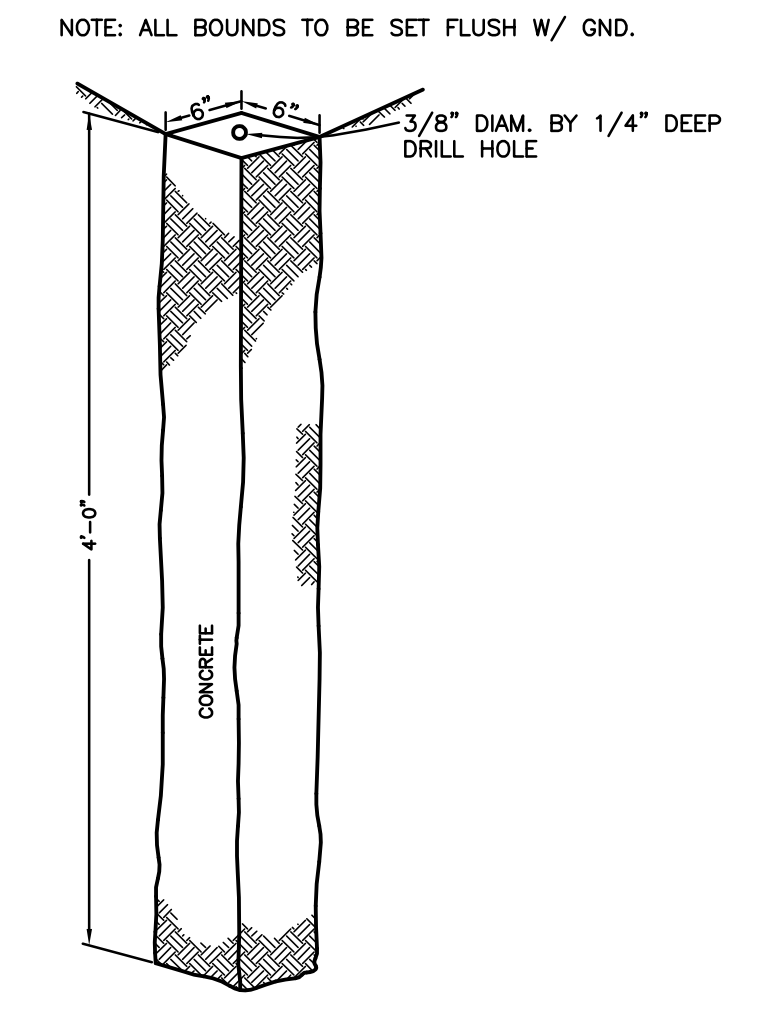
TYPICAL BEND



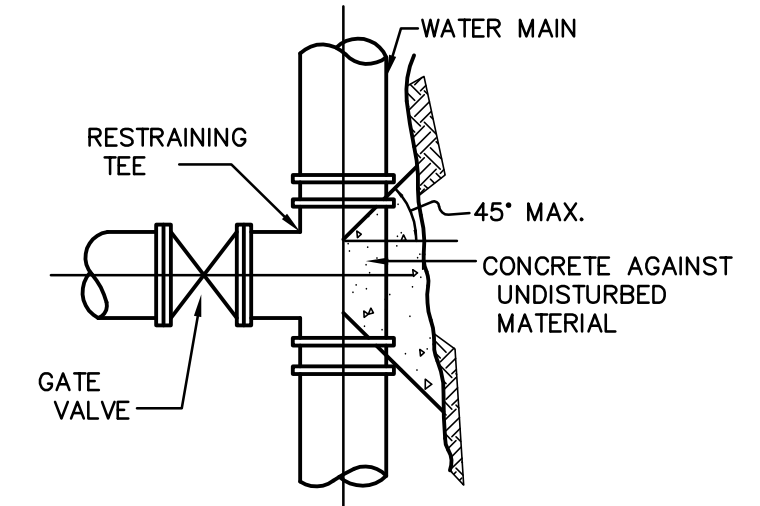
TYPICAL PLUG



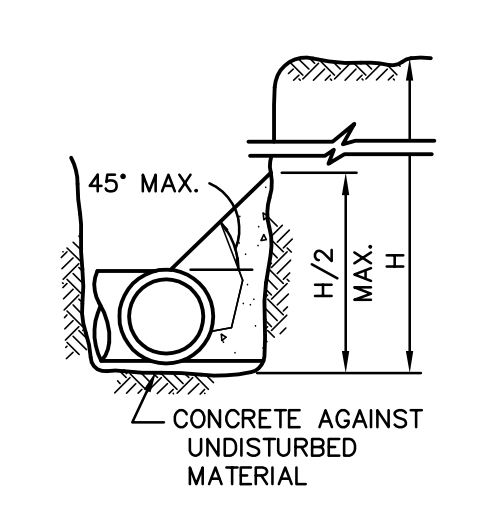
TAPPING SLEEVE AND VALVE DETAILS
NOT TO SCALE



CONCRETE BOUND DETAIL
NOT TO SCALE



TYPICAL TEE

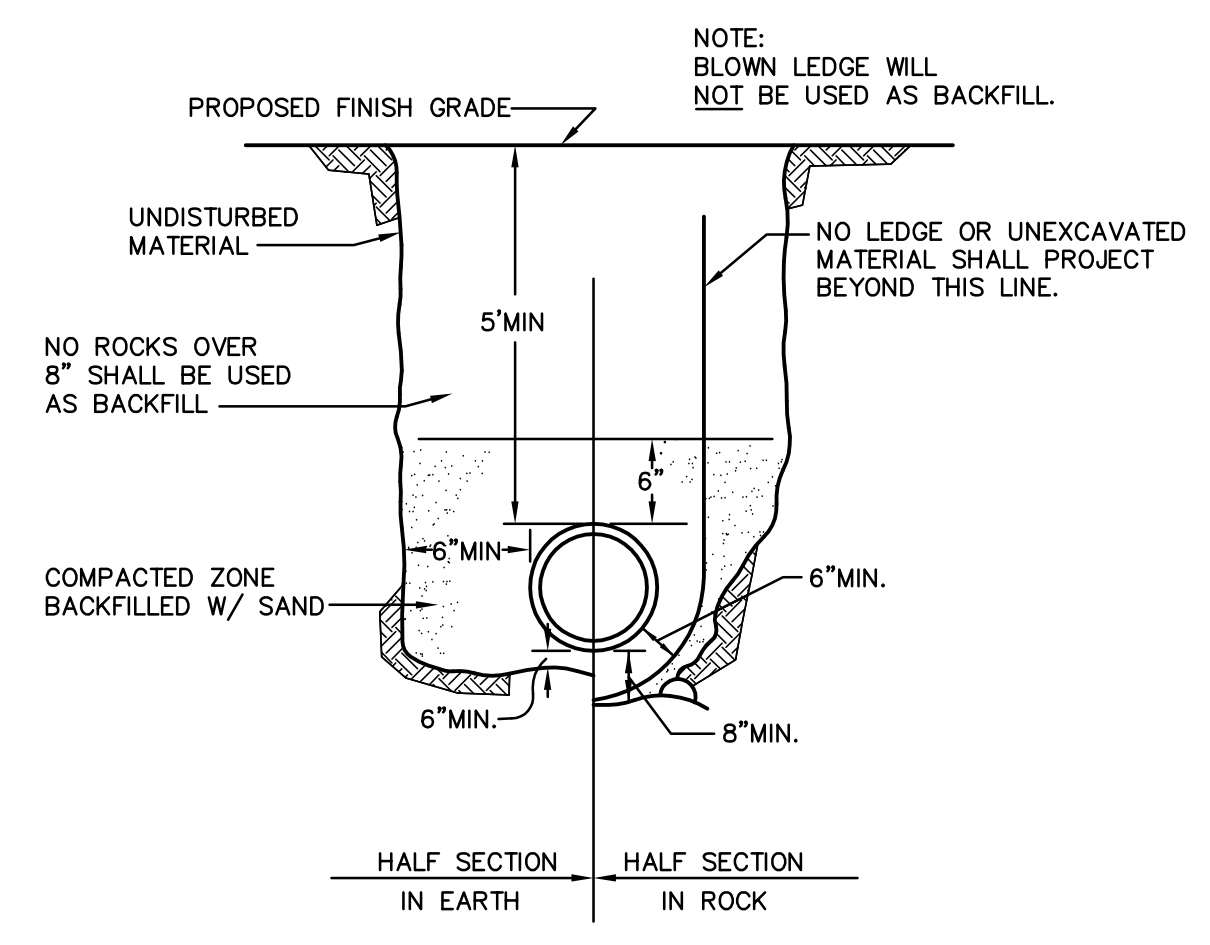


TYPICAL SECTION

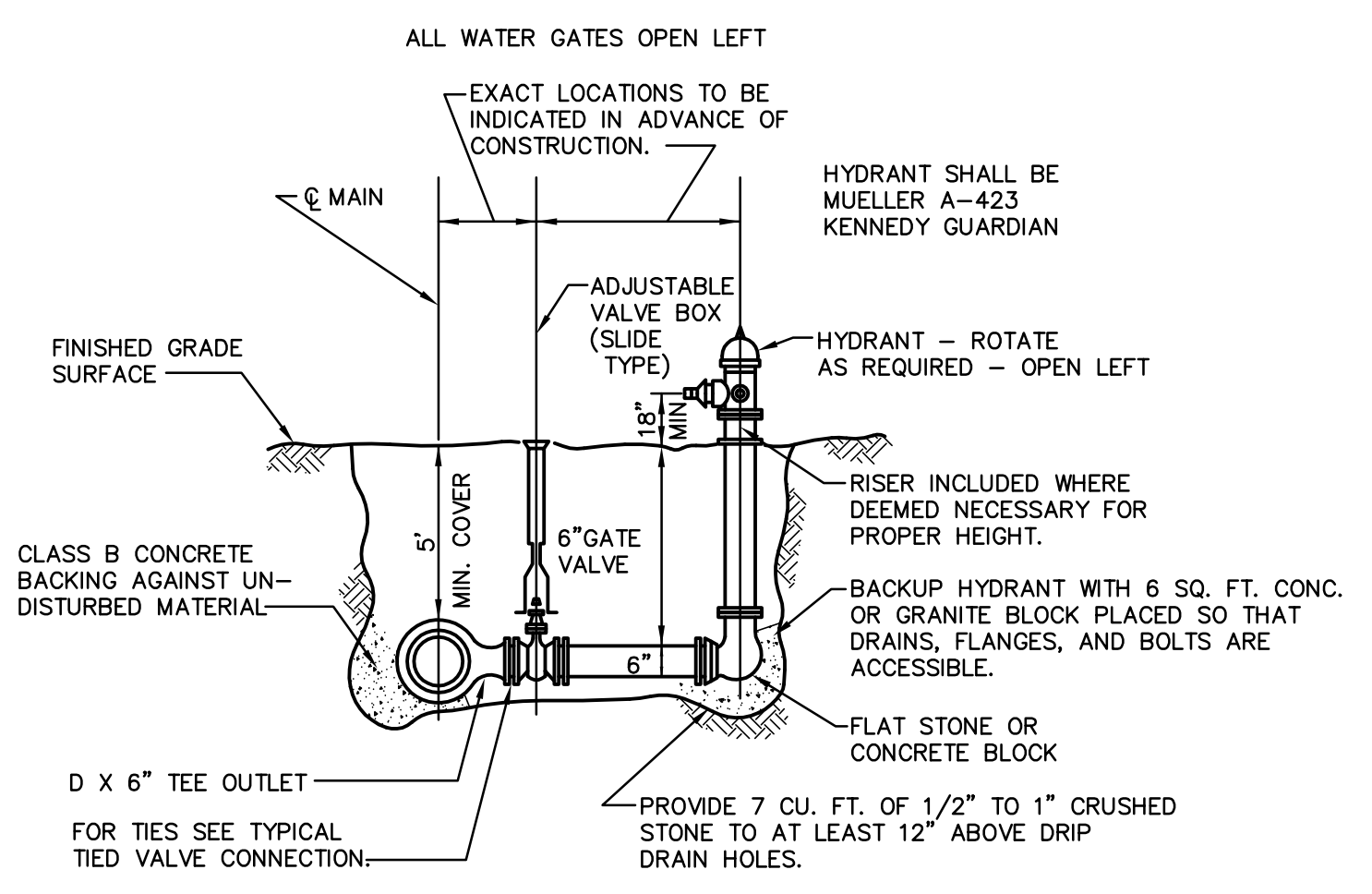
NOTE: CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

BEARING AREAS OF THRUST BLOCKS (BEARING AREA IN SQUARE FT.)				
PIPE SIZE INCHES	1/4 BEND	1/8 BEND	1/16 BEND OR LESS	PLUG TEES
6 AND 8	8	8	8	8
10 AND 12	22	13	8	16

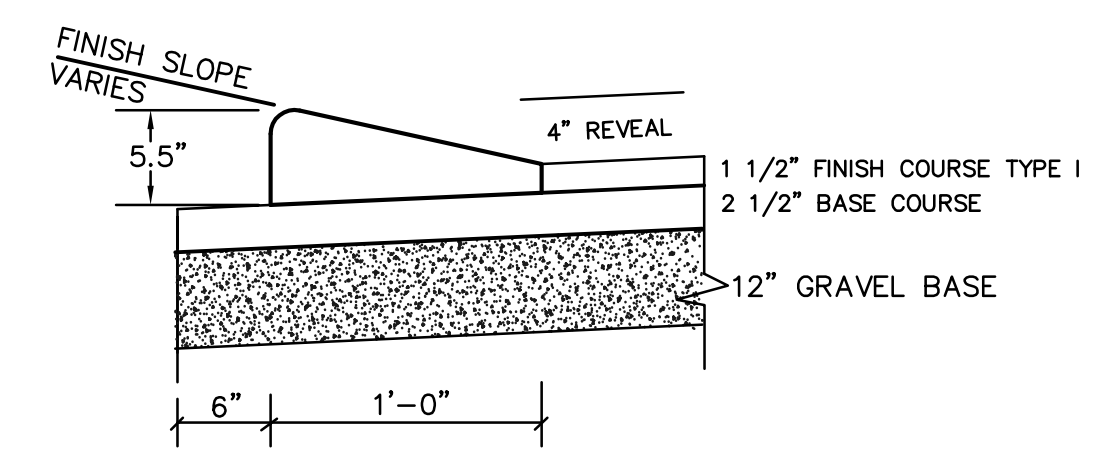
TYP. THRUST BLOCK DETAIL
NOT TO SCALE



WATER MAIN TRENCH DETAIL
NOT TO SCALE



TYP. HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



CAPE COD BERM DETAIL
NOT TO SCALE

DETAIL

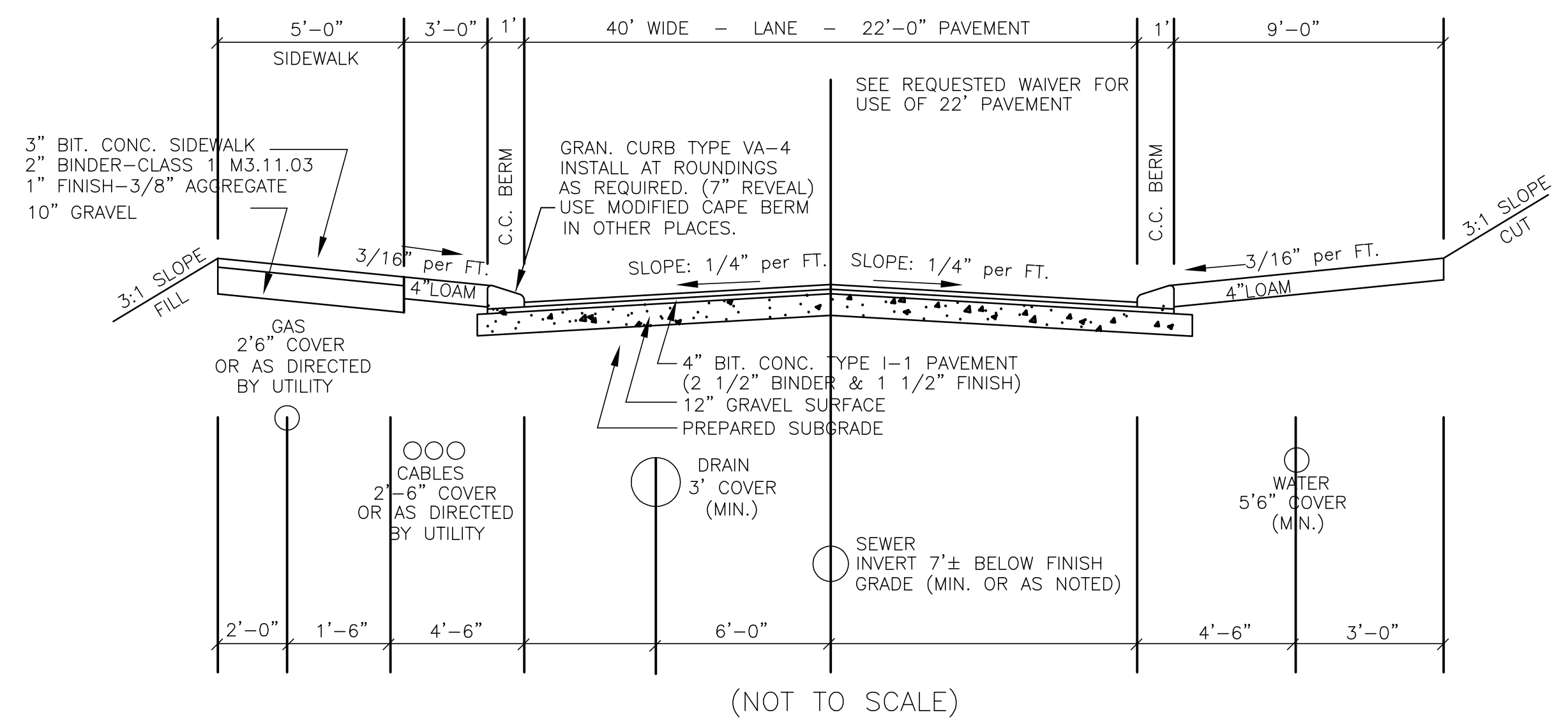
No.	DATE	REVISIONS	DESCRIPTION

**DEFINITIVE SUBDIVISION PLAN
BROGDEN ROAD EXTENSION
ASHLAND, MASSACHUSETTS**

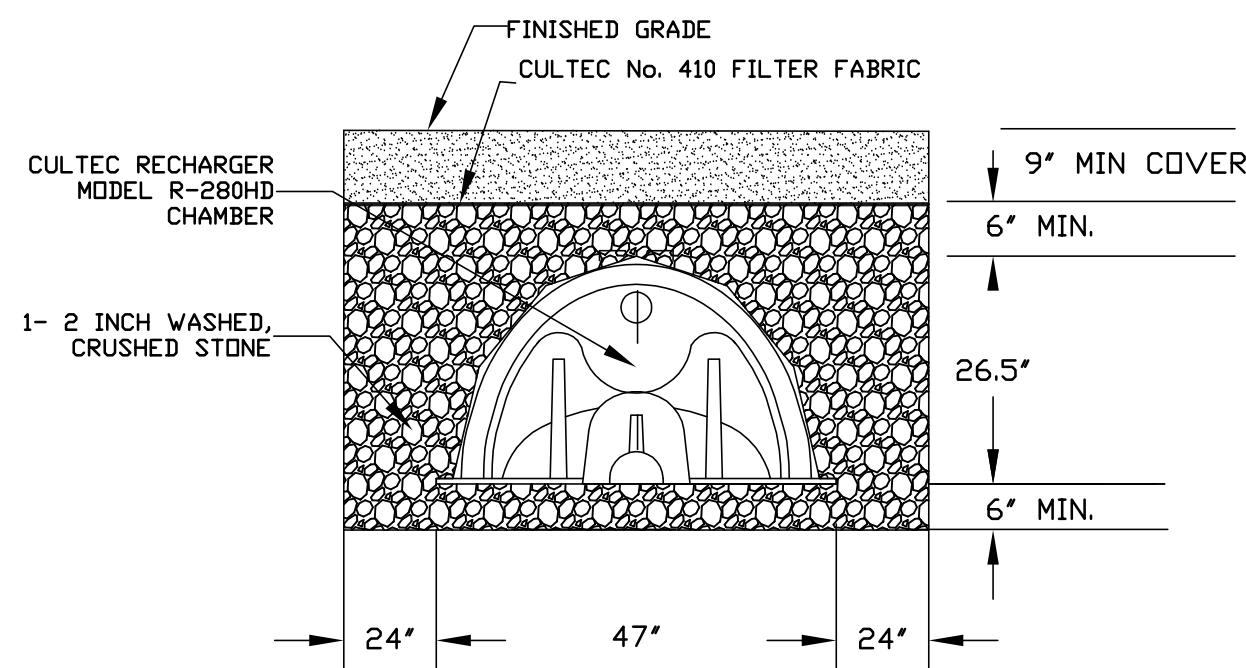
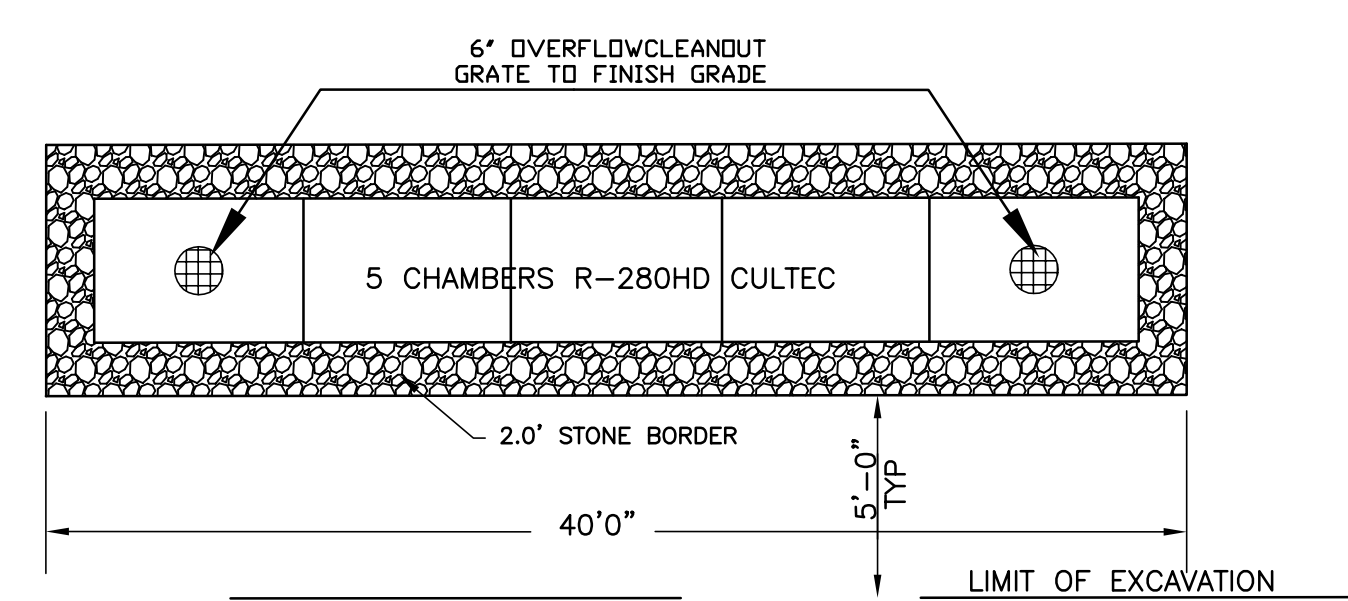
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ASHLAND, MA 01721

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JOB No. 16130
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SCALE: AS SHOWN
SHEET: 8 of 9
PLAN #: 27,167



TYPICAL RIGHT OF WAY CROSS SECTION
ASHLAND, MASS.
(NOT TO SCALE)



PROVIDE 1 ROW - 5 CHAMBERS

CULTEC DRY ROOF RUNOFF INFILTRATION DETAIL

NOT TO SCALE

SCHEDULE OF ELEVATIONS:

Desc.	Lot 1	Lot 2
Min. Cover Elev.	254.0	280.0
Top System Elev.	253.2	279.2
Bot System Elev.	250.0	276.0
G.W. Elev.	248.0	274.0

Recommended Single-Level Installation of Cultec R-280HD Unit Storm Water Management

NOTE:
LIMIT OF EXCAVATION: (To extend 5 feet beyond limits of system) ALL FILL, SUBSOIL ('A' & 'B' Horizons) AND ANY DELETERIOUS MATERIAL MUST BE REMOVED FROM THE AREA OF THE LEACHING SYSTEM AND OTHER DESIGNATED LIMITS AND BACKFILLED WITH APPROVED CLEAN BANK RUN GRAVEL GRADED SO NOT MORE THAN 45% OF THE SAMPLE IS RETAINED IN A #4 SIEVE, OF THAT PASSING, 20% OR LESS SHALL PASS A #100 SIEVE AND 5% OR LESS SHALL PASS THE #200 SIEVE. NOT MORE THAN 90% SHALL BE RETAINED ON THE #50 SIEVE. SAMPLE FOR SIEVE ANALYSIS TO BE TAKEN FROM SAMPLE IN PLACE.

GENERAL NOTES
1. ALL ROOF RUNOFF SHALL BE DIRECTED TO LEACHING SYSTEM VIA. GUTTERS, DOWNSPOUTS AND PIPING.
2. ALL CULTEC CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.

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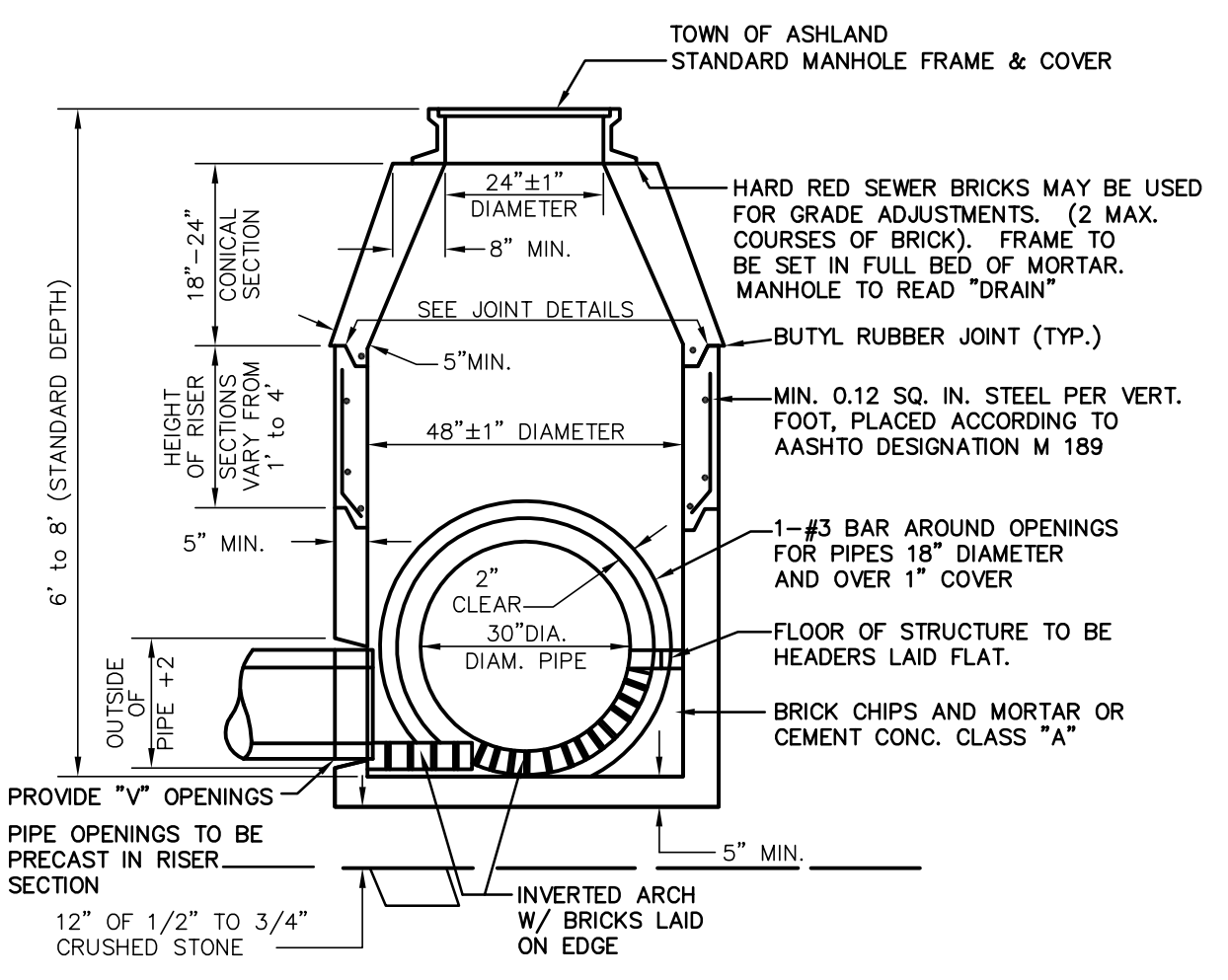
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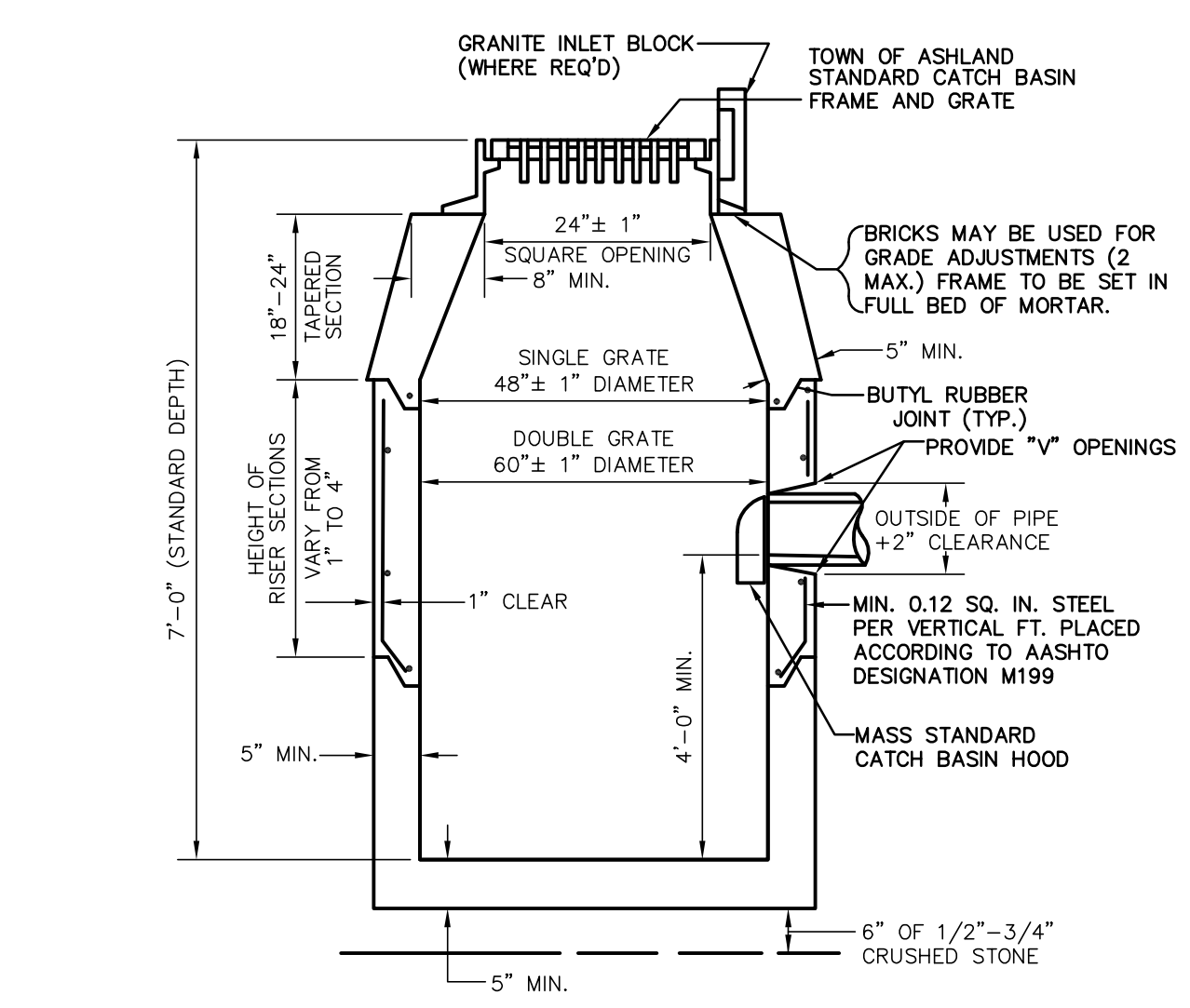
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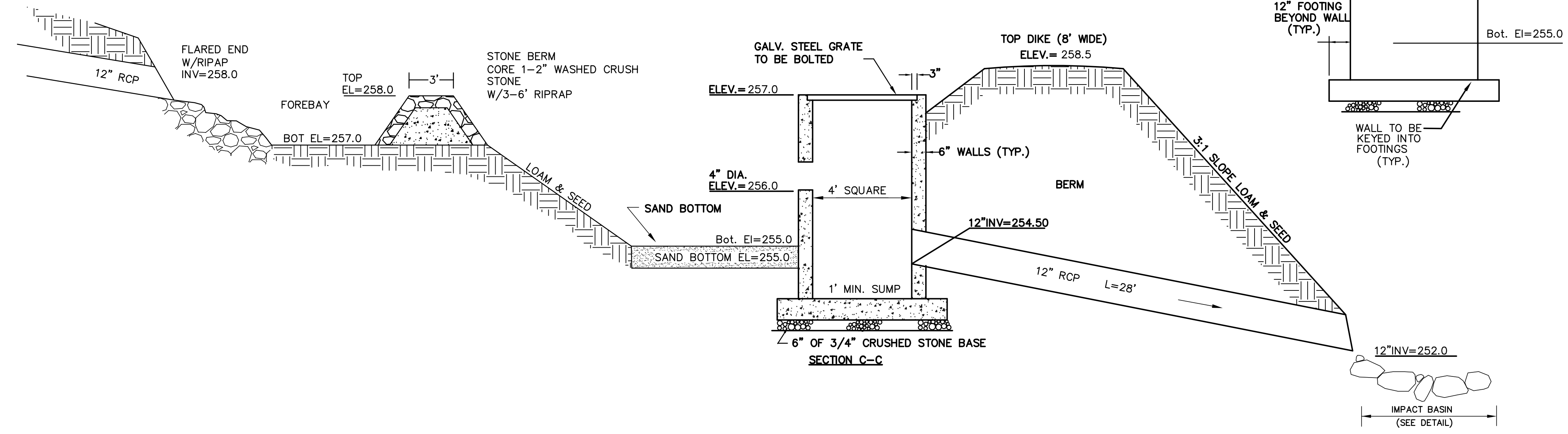
PRECAST CONCRETE MANHOLE DETAIL

NOT TO SCALE



PRECAST CONCRETE CATCH BASIN DETAIL

NOT TO SCALE



DRAINAGE BASIN & OUTLET STRUCTURE DETAIL

(PRECAST CONCRETE STRUCTURE)
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DETAIL