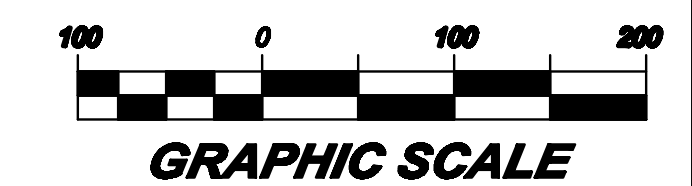


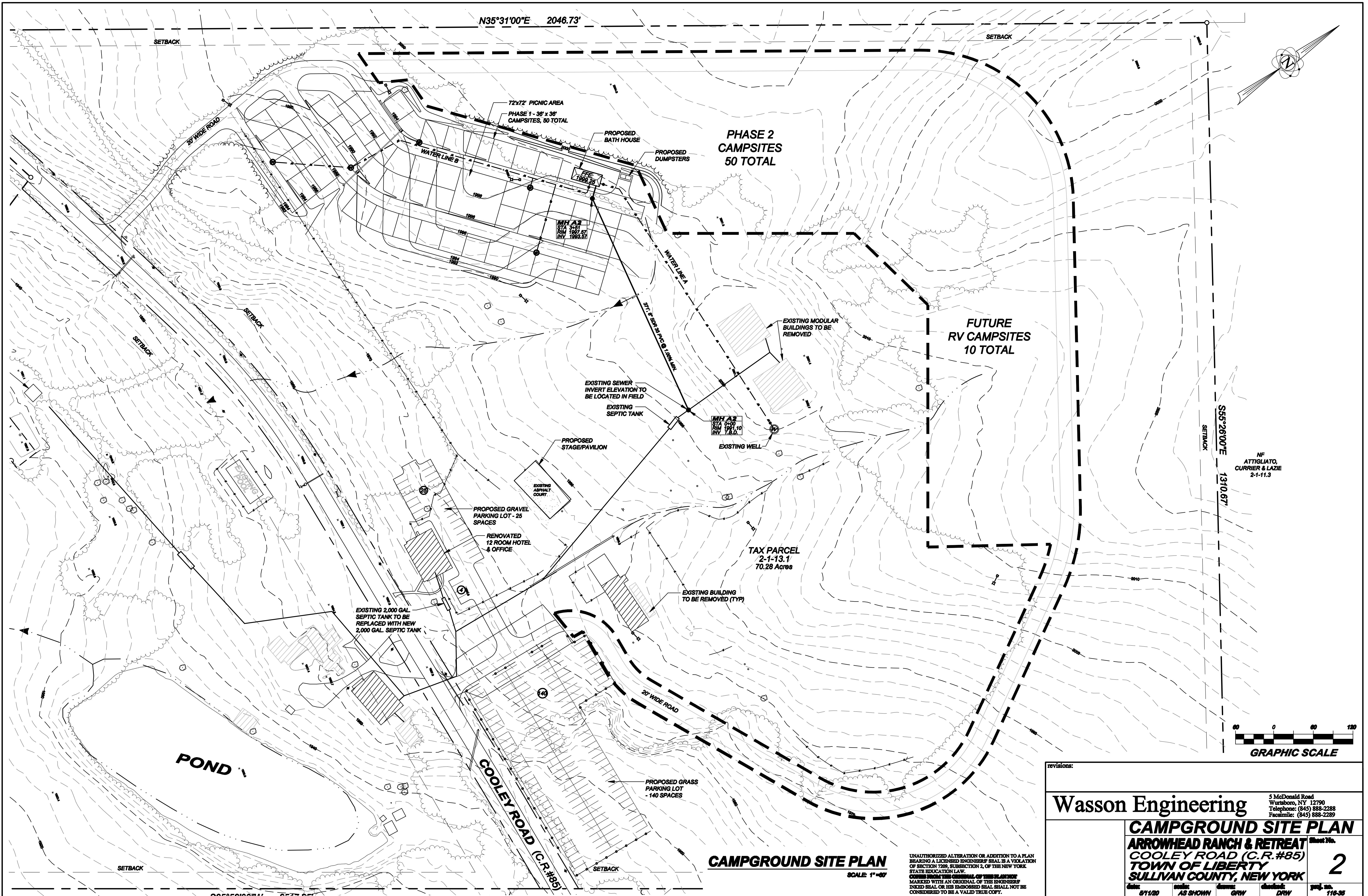
OVERALL SITE PLAN
SCALE: 1"=100'

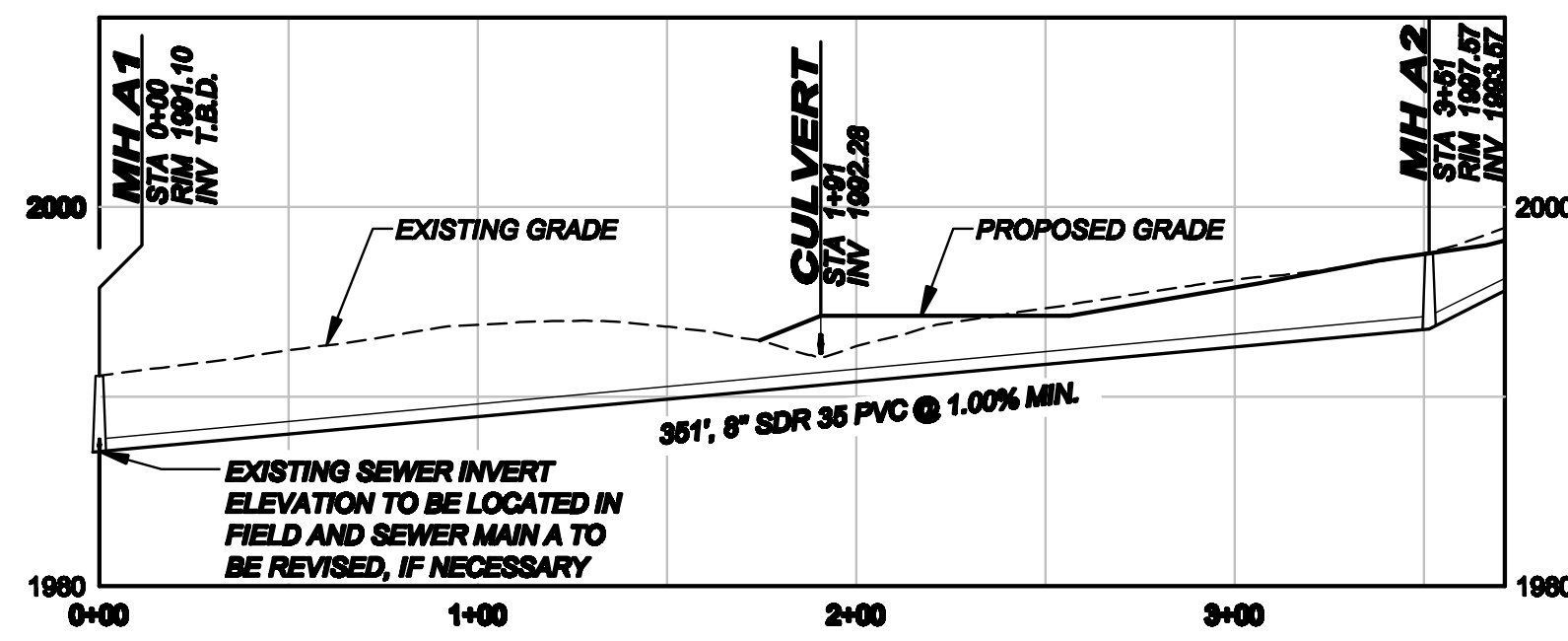


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OVERALL SITE PLAN			Sheet No.
ARROWHEAD RANCH & RETREAT			1
COOLEY ROAD (C.R.#85)			
TOWN OF LIBERTY			
SULLIVAN COUNTY, NEW YORK			
Date: 8/1/20	Scale: AS SHOWN	Drawn: GRW	Proj. No. 110-35

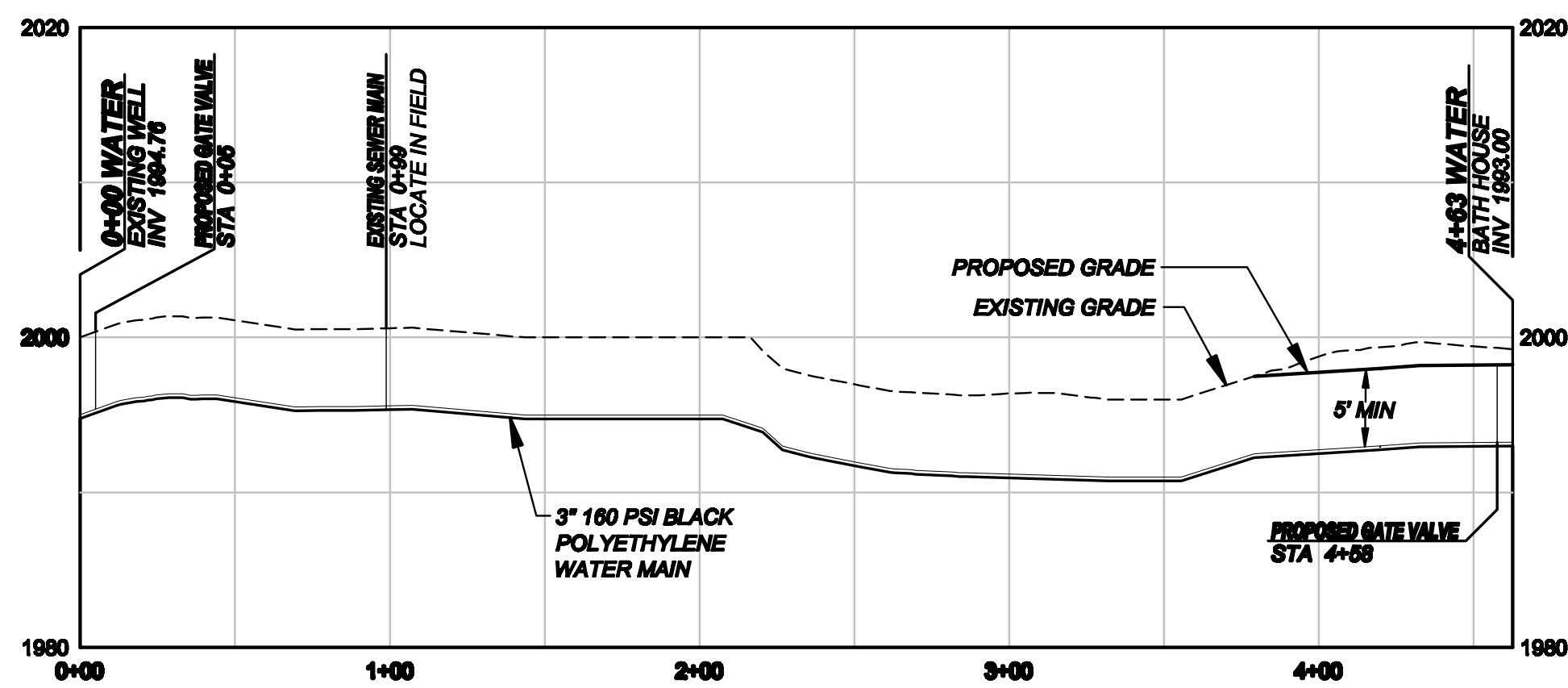
UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2, OF THE NEW YORK STATE EDUCATION LAW.
CONSULT WITH THE ORIGINAL OF THIS PLAN OR MARKED WITH AN ORIGINAL OF THE ENGINEER'S INKED SEAL OR HIS EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.





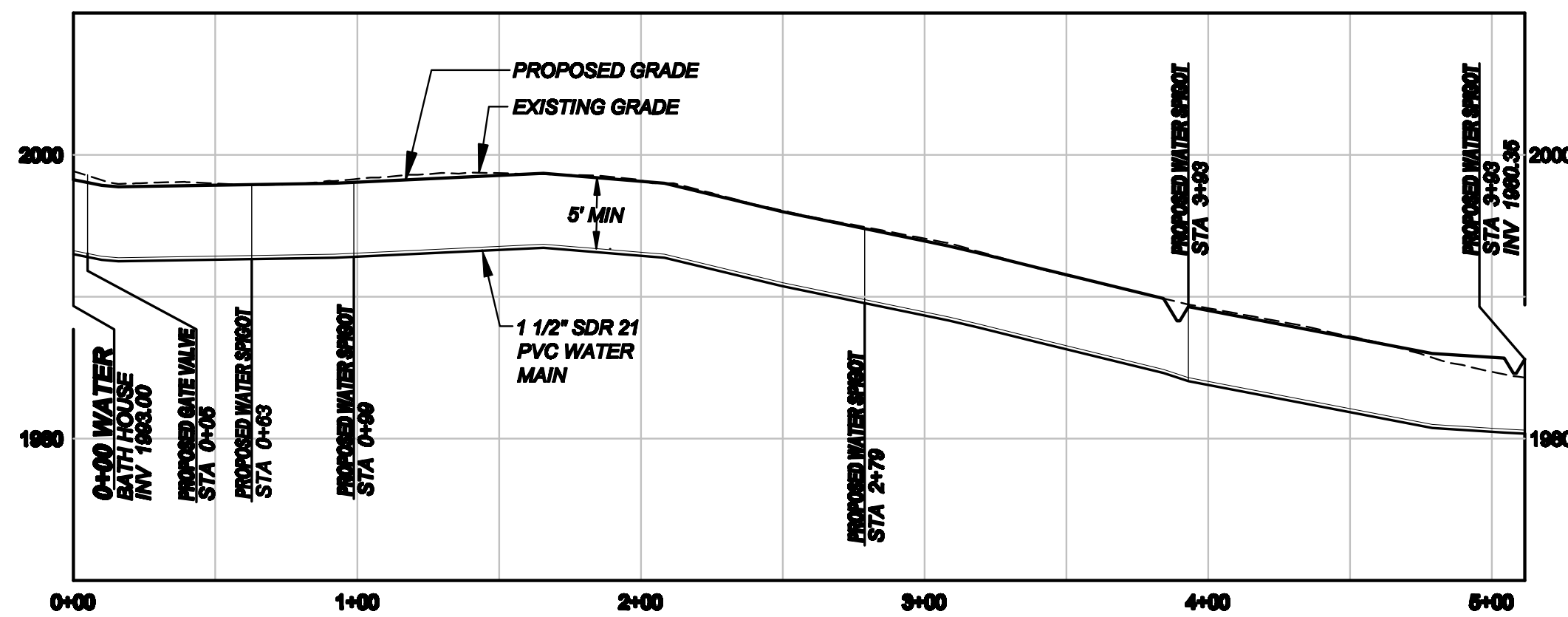
SEWER MAIN A: STA. 0+00 - 3+71

SCALE: HORIZONTAL 1"=80'
VERTICAL 1"=10'



WATER MAIN A: STA. 0+00 - 4+63

SCALE: HORIZONTAL 1"=80'
VERTICAL 1"=10'



WATER MAIN B: STA. 0+00 - 5+12

SCALE: HORIZONTAL 1"=80'
VERTICAL 1"=10'

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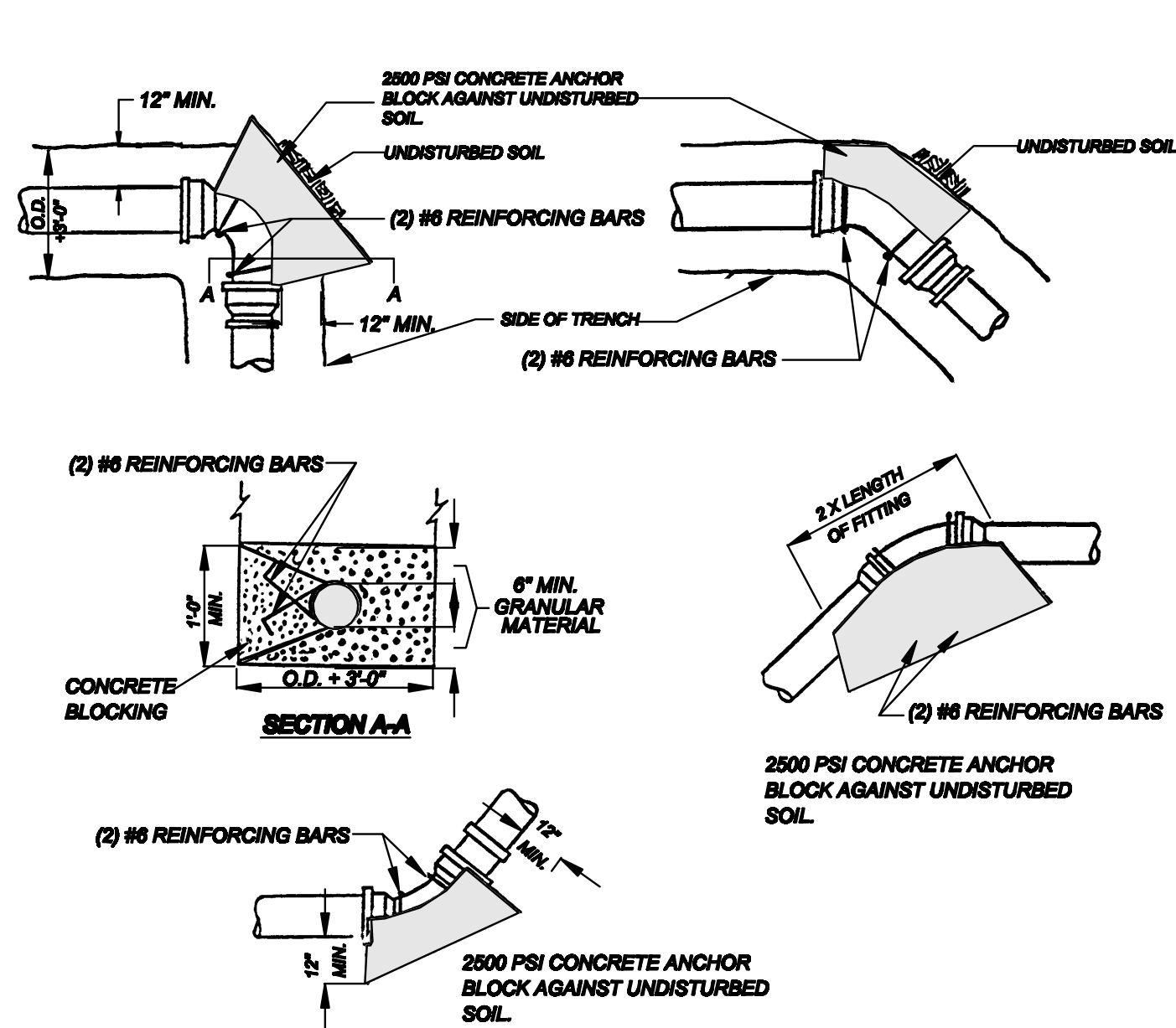
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PROFILES & CONSTRUCTION DETAILS

ARROWHEAD RANCH & RETREAT
COOLEY ROAD (C.R.#85)
TOWN OF LIBERTY
SULLIVAN COUNTY, NEW YORK

Sheet No.
3

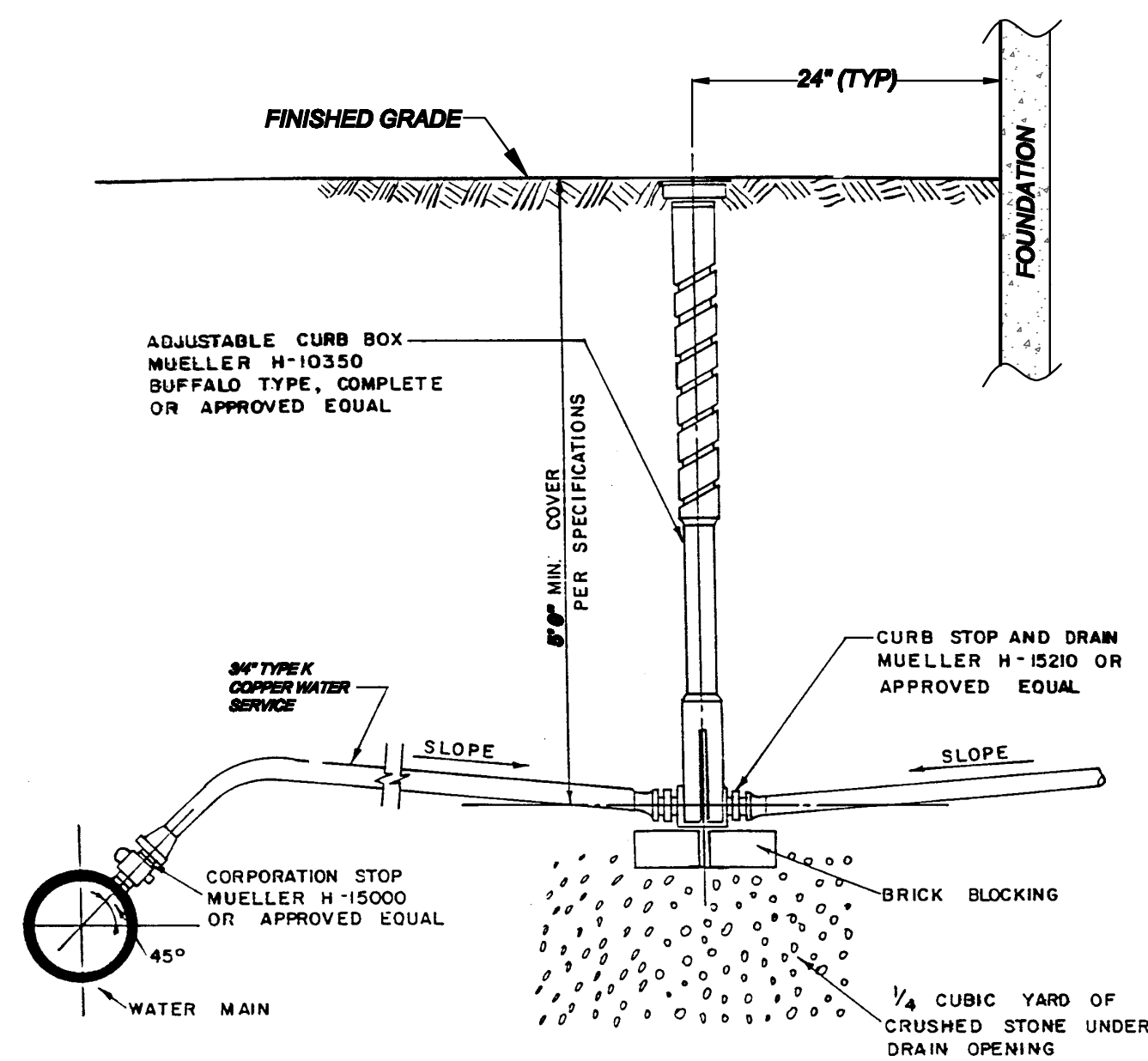
date: 8/1/20	scale: AS SHOWN	drawn: GRW	checked: DRW	proj. no: 116-36
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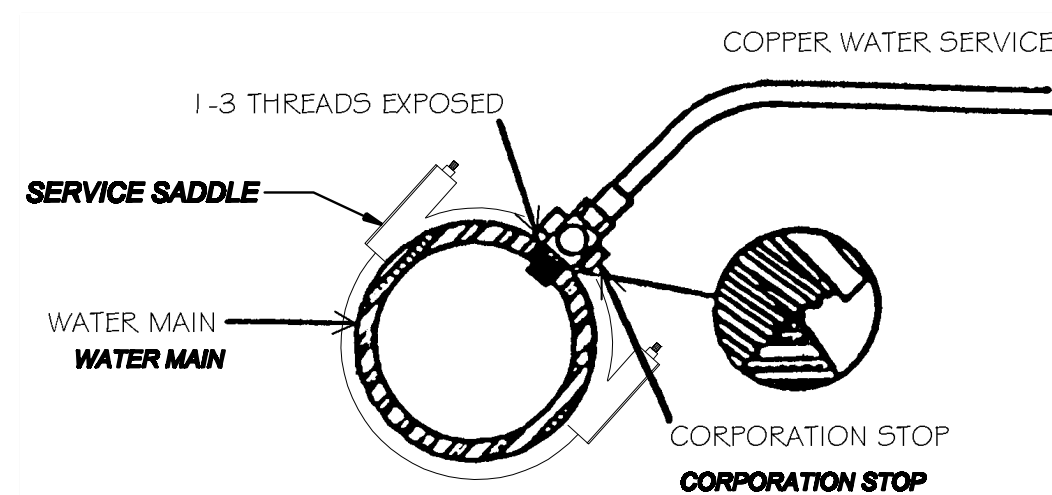
THRUST BLOCK DETAIL 1
D1

NOTE: THRUST BLOCKS MAY BE ELIMINATED ON APPROVAL BY ENGINEER AND USE OF "MEGA-LUG" RETAINING GLANDS.

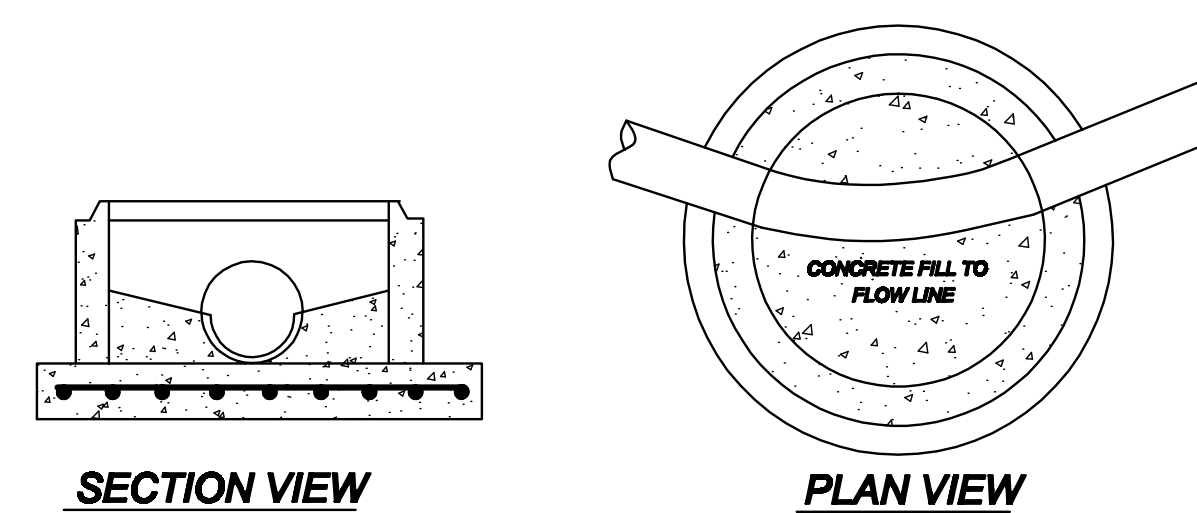
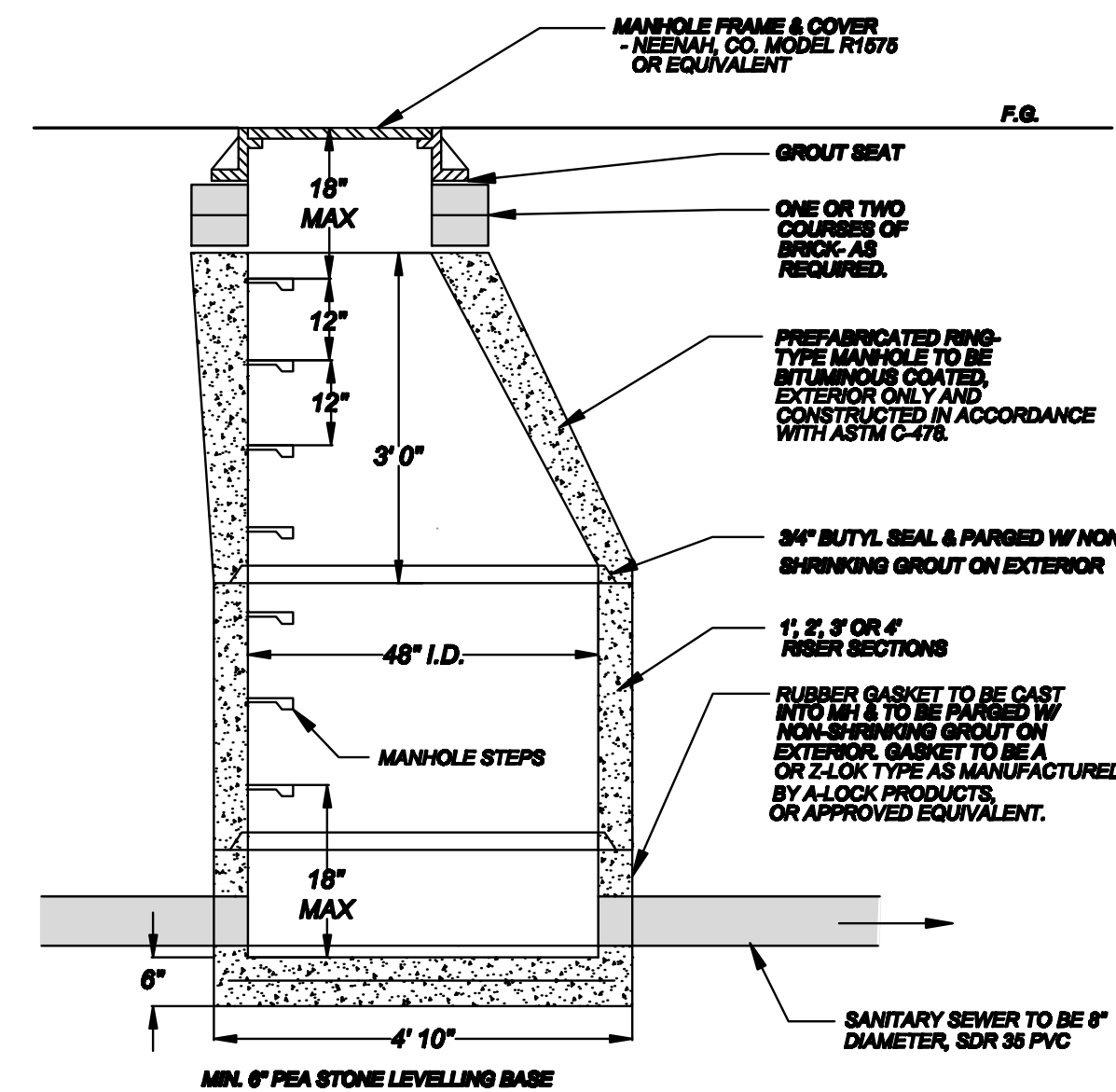
TABLE OF THRUST BLOCK BEARING AREAS SQUARE FEET					
DIAMETER (INCHES)	DEAD END	BRANCH OR TEE	90° BEND (1/4 BEND)	45° BEND (1/8 BEND)	10° BEND
4	2.0	2.0	2.0	2.0	2.0
6	3.0	3.0	4.0	2.5	2.5
8	4.0	4.0	6.0	3.5	3.0
10	6.0	6.0	8.0	5.0	3.0



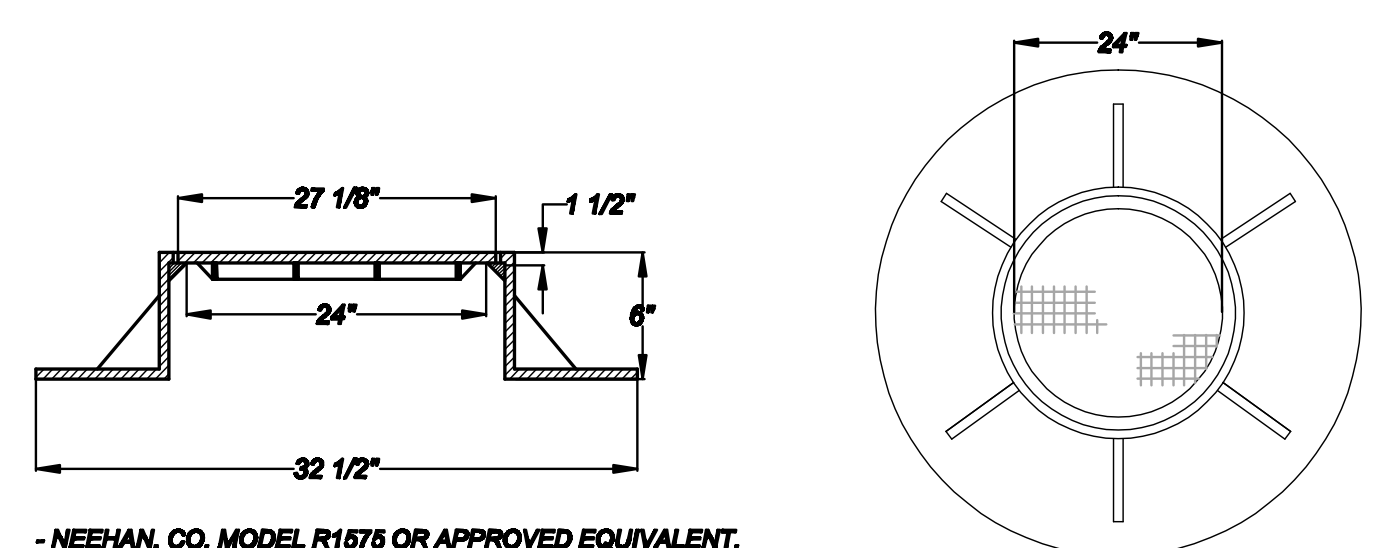
WATER SERVICE DETAIL 2
D1



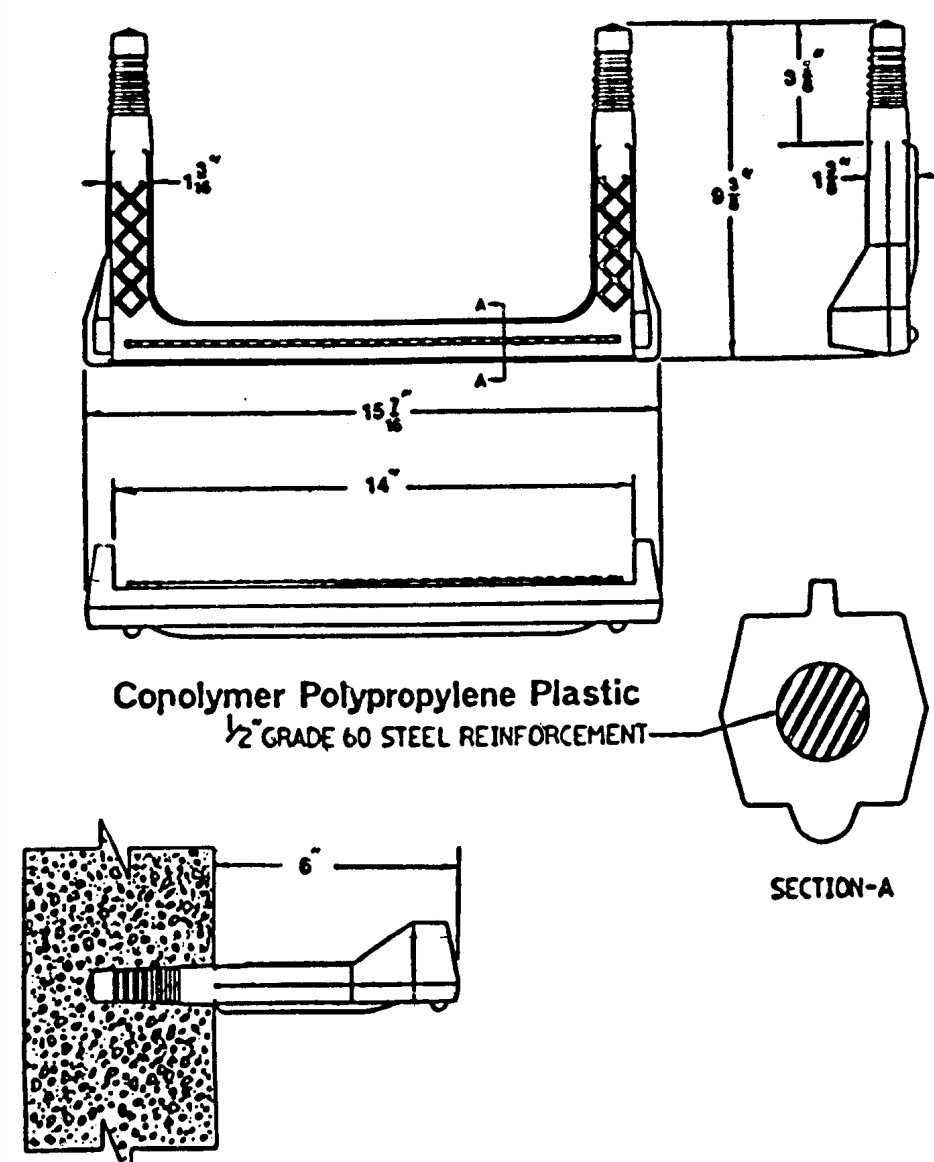
WATER MAIN TAPPING DETAIL 3
D1



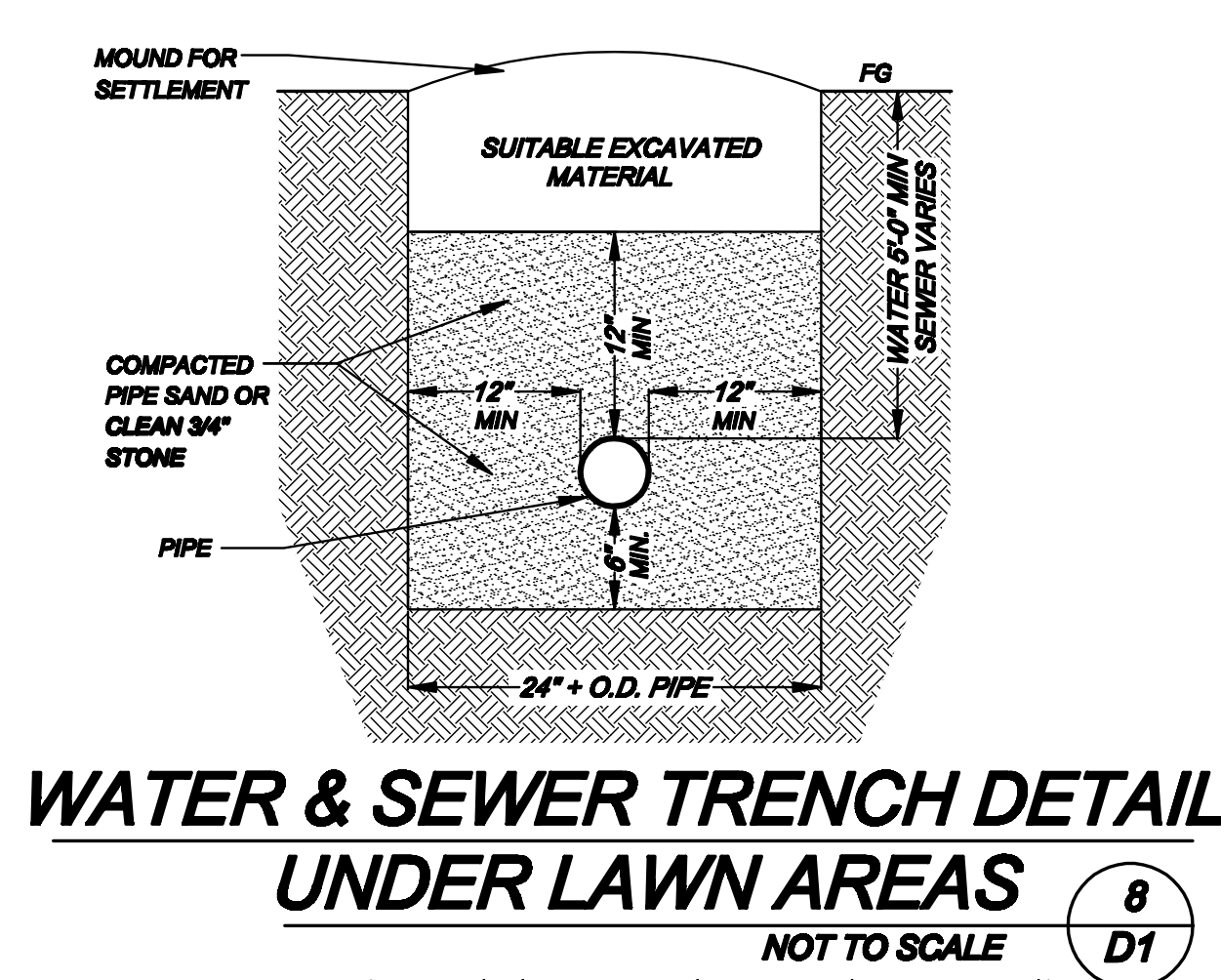
MANHOLE AND INVERT DETAILS 1
D2



MANHOLE FRAME & COVER DETAIL 2
D2

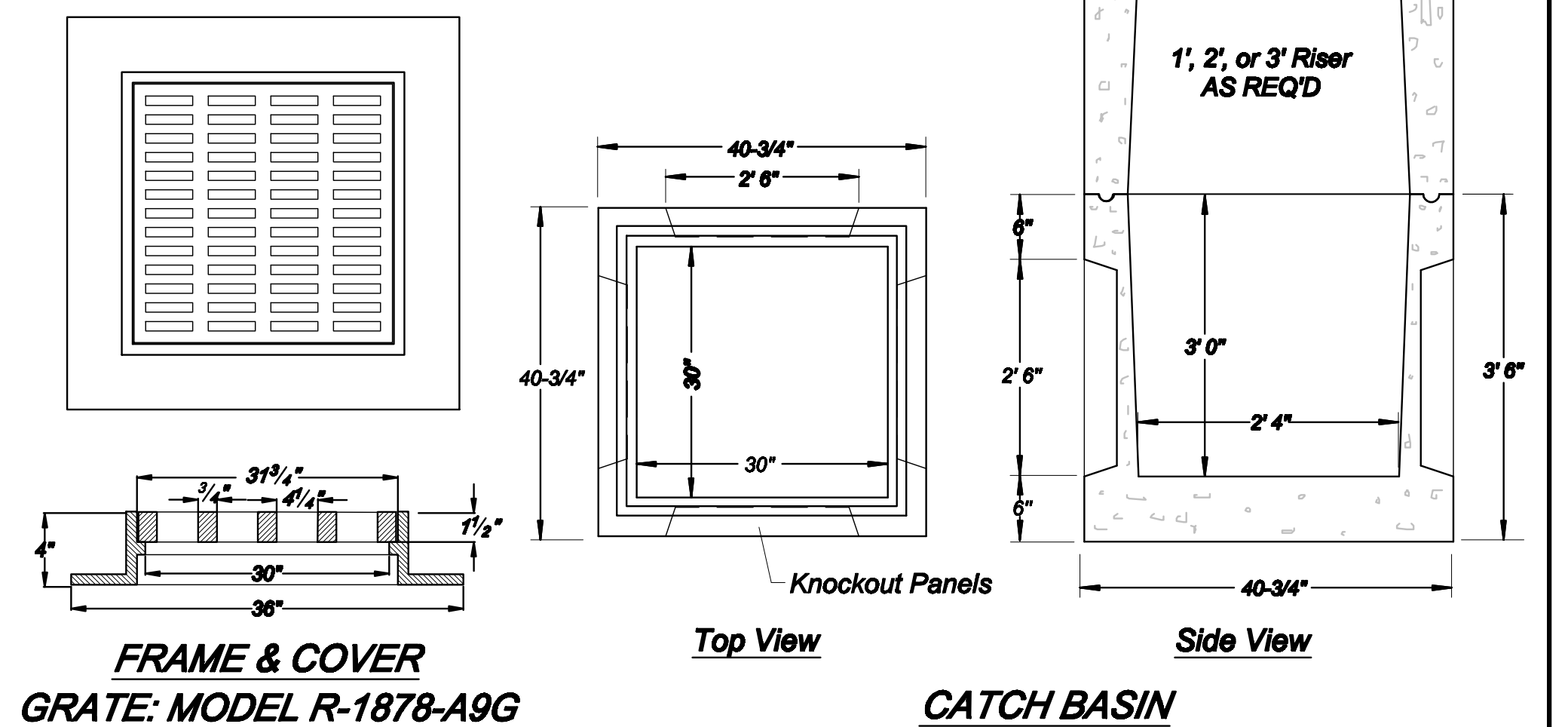


MANHOLE STEP DETAIL 3
D2



BEDDING AND BACKFILLING NOTES:

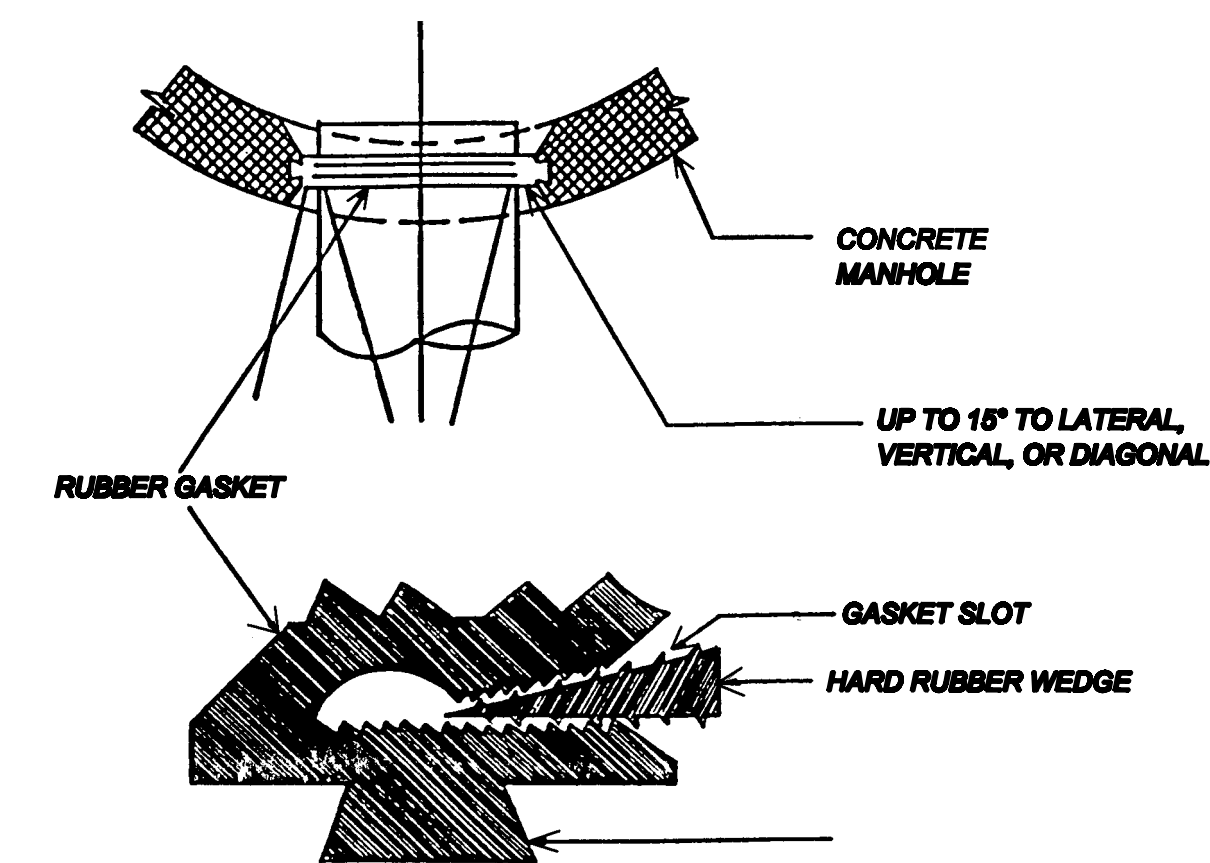
- PIPE SAND SHALL BE GRANULAR BEDDING OF WHICH 100% SHALL PASS THROUGH A 1/4" SIEVE AND NOT MORE THAN 15% SHALL PASS THROUGH A NO. 200 SIEVE COMPACTED TO 95% OF MOD. PROCTOR DENSITY.
- SUITABLE EXCAVATED MATERIAL SHALL BE FREE OF BOULDERS, LARGE STONES, ORGANIC, FROZEN OR DELETERIOUS MATERIALS.
- ALL MATERIALS MUST BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- ALL BACKFILL TO BE COMPACTED TO 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY.



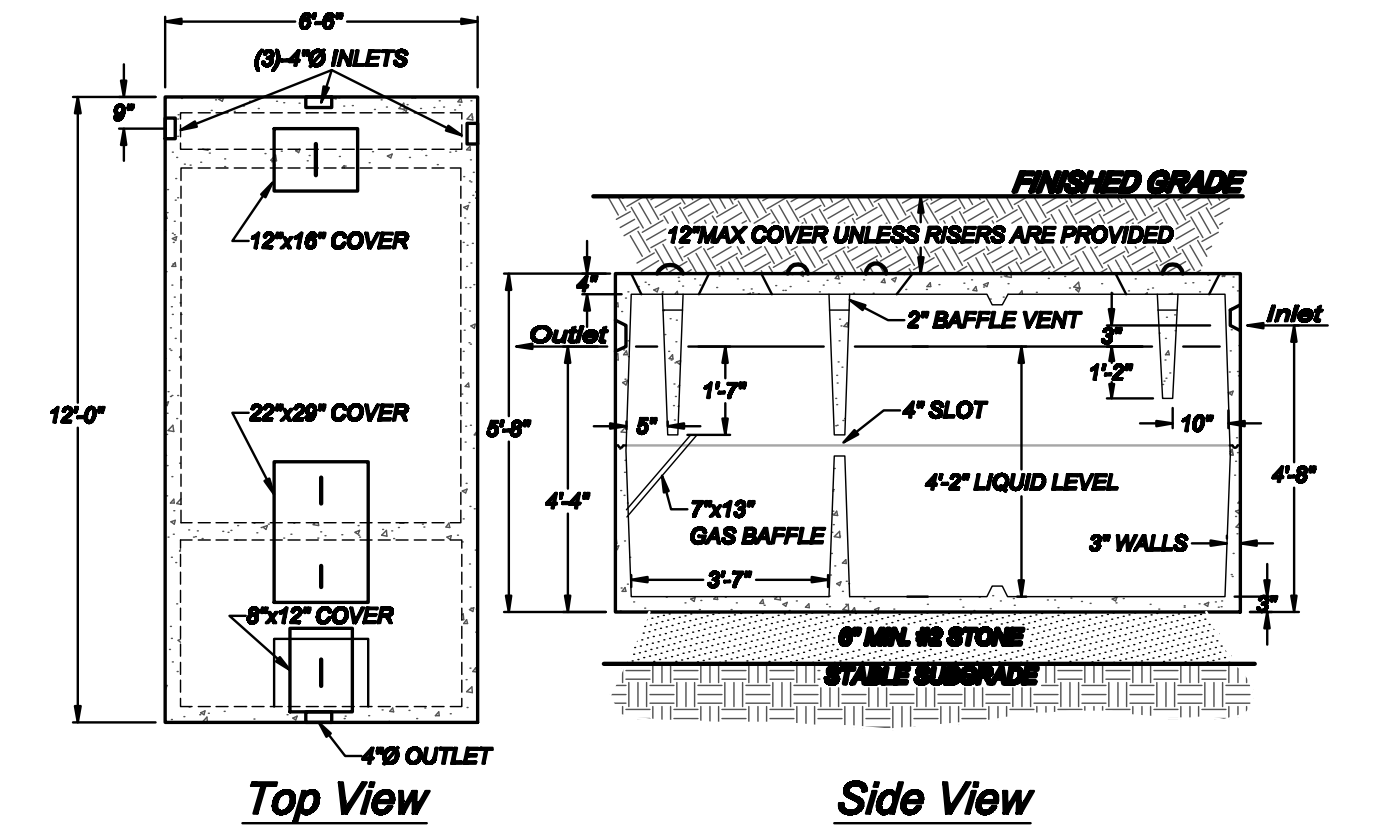
CATCH BASIN AND FRAME DETAIL - TYPE A 6
D4

- CATCH BASIN TO BE MODEL CB-30X30, AS MANUFACTURED BY WOODARD'S CONCRETE PRODUCTS, OR APPROVED EQUIVALENT.
- GRATE TO BE MODEL R-1878-A9G AS MANUFACTURED BY NEEHAN FOUNDRY CO. OR APPROVED EQUIVALENT.

- CATCH BASIN TO BE SET ON 6" MIN. LEVELLING COURSE OF CLEAN 3/4" STONE.
- LEVELLING COURSE TO BE SET ON STABLE SUBGRADE.
- ALL CATCH BASINS TO BE CAST WITH A 12" SUMP (MIN).
- 4" DRY SWALE DRAINS TO DISCHARGE INTO CATCH BASIN AT OUTLET ELEVATION.
- THIS DETAIL APPLIES TO CB A1, A2, A3, A4, A5, A6, A8, A9 AND A10 ONLY.

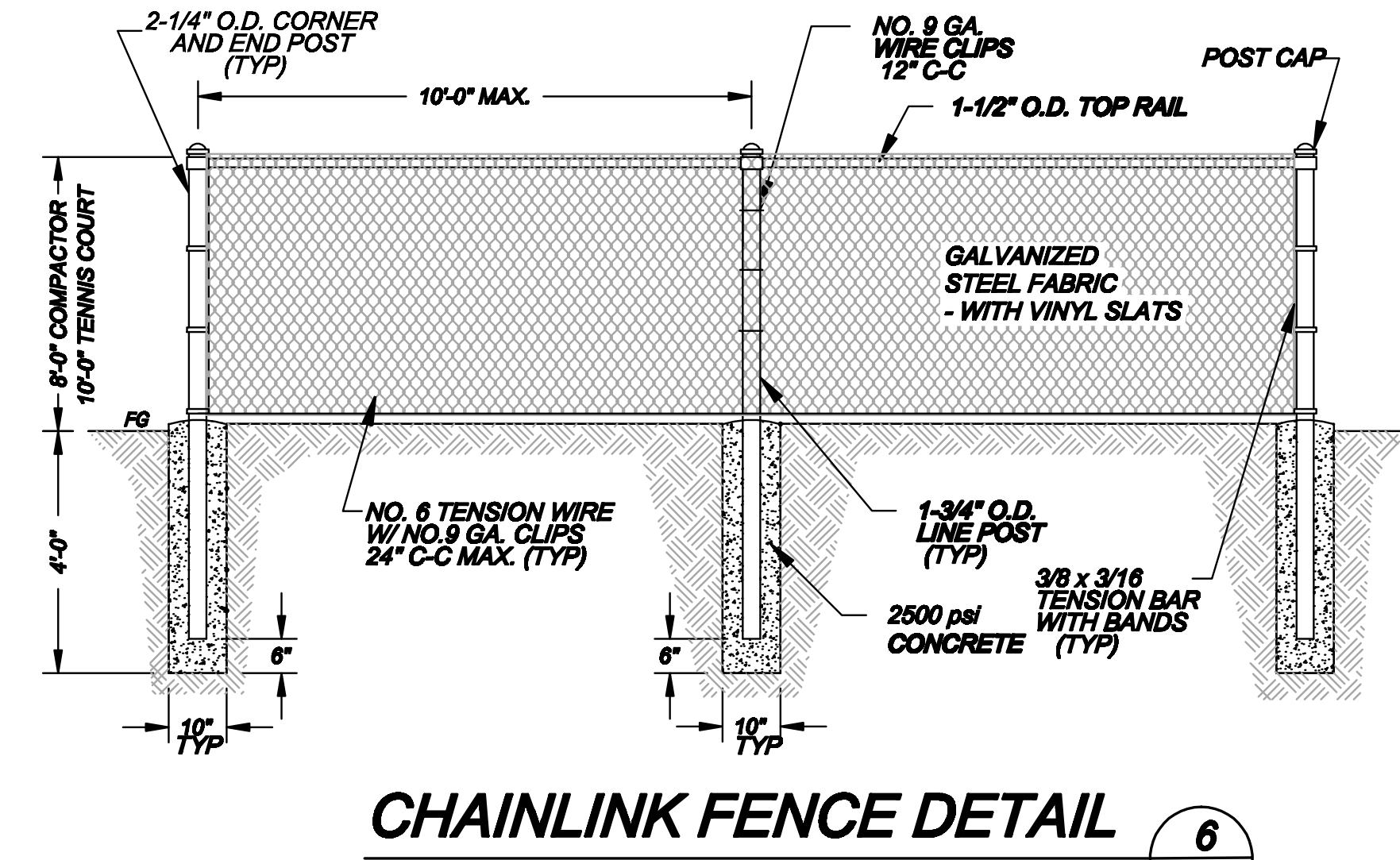


ALTERNATE MANHOLE SEAL DETAIL 5
D2



2,000 GALLON SEPTIC TANK DETAIL NOT TO SCALE

- MODEL ST-2000 AS MANUFACTURED BY WOODARD'S CONCRETE PRODUCTS, INC. OR APPROVED EQUIVALENT.
- NOTES:
- RECOMMENDED FILTER SYSTEM TO BE INSTALLED AT OUTLET OF SEPTIC TANK SHALL BE ZABEL FILTER, OR APPROVED EQUIVALENT.
 - INLET NOTE: USE A SANITARY TEE WITH PIPE EXTENSION TO MEET THE NYSDOH REQUIREMENT FOR BAFFLE 16" BELOW LIQUID LEVEL.



CHAINLINK FENCE DETAIL 6
D2

- NOTES:
- VINYL SLATS IN TENNIS COURT FENCE TO BE ON POOL SIDE ONLY.

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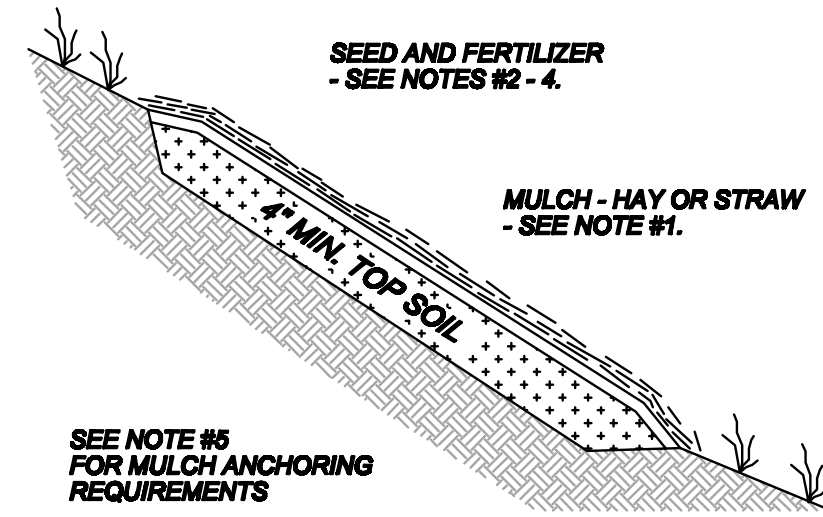
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CONSTRUCTION DETAILS
ARROWHEAD RANCH & RETREAT
COOLEY ROAD (C.R.#85)
TOWN OF LIBERTY
SULLIVAN COUNTY, NEW YORK

Sheet No. **4**

DATE: 8/1/20
DESIGNER: AS SHOWN
CHECKER: GRW
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SCALE: 1/8"=1'-0"



SEED AND MULCH DETAIL

4
D4

NOTES:

- 1) MULCH : HAY OR STRAW MAY BE UTILIZED AND SHALL BE APPLIED AT A RATE OF 2 - 3 TONS PER ACRE.
- 2) LIME SHALL BE APPLIED AT A UNIFORM RATE OF 80 LBS. PER 1,000 SQUARE FEET.
- 3) FERTILIZER SHALL BE APPLIED AT A RATE OF 25 LBS. PER 1,000 SQUARE FEET USING 10-0-10 OR EQUIVALENT.
- 4) SEED SHALL BE OF THE FOLLOWING GRASS MIXTURE AND APPLIED AT A RATE OF 8 LBS. PER 1,000 SQUARE FEET, MIXTURE AS FOLLOWS:

TYPE	PERCENT BY WEIGHT
PERENNIAL RYEGRASS	10%
REDTOP	10%
CREEPING RED FESCUE	40 - 50%
KENTUCKY BLUEGRASS	30 - 50%

- 5) MULCH ANCHORING SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING THREE (3) METHODS - FOR SLOPES 10% OR GREATER:

- a) PEG AND TWINE
- b) DEGRADABLE MULCH NETTING
- c) EMULSIFIED ASPHALT LIQUID MULCH BINDER

DETAILS OF THE SELECTED METHOD SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ITS UTILIZATION.

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Sheet No. **5**

date: 01/12/20 scale: AS SHOWN drawn: GRW checked: DRW page no. 110-35