

TOWN OF NEWPORT

PRV BUILDING UPGRADES AND

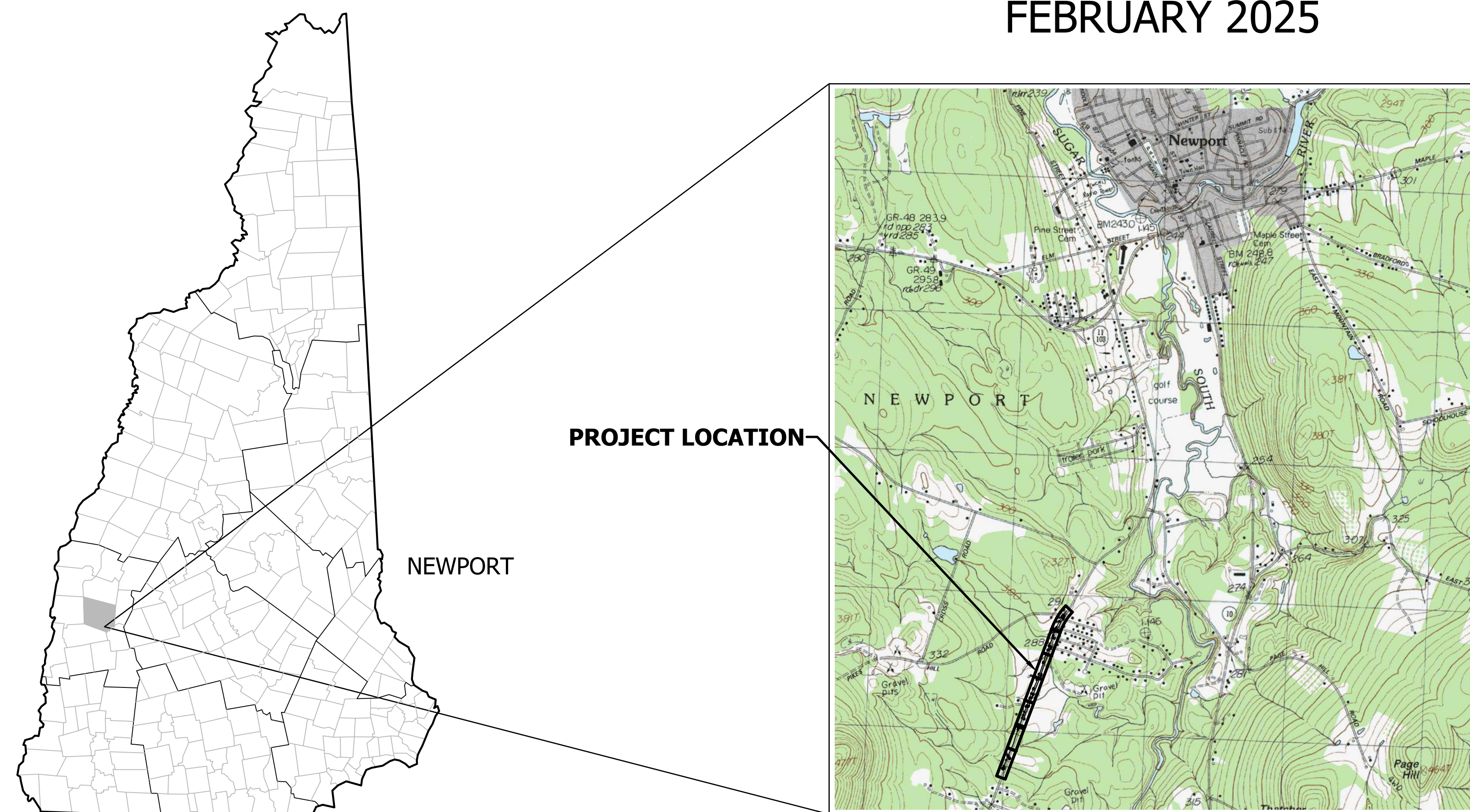
WATER MAIN IMPROVEMENTS

DWSRF# 1741010-03

NBRC# 21GNH03

UNITY ROAD, NEWPORT, NEW HAMPSHIRE

FEBRUARY 2025



LOCATION PLAN

SCALE: 1" = 2000'

OWNER:

TOWN OF NEWPORT
15 SUNAPEE STREET
NEWPORT, NH 03773
(603) 862-1877

ENGINEER/SURVEYOR:

horizons
Engineering

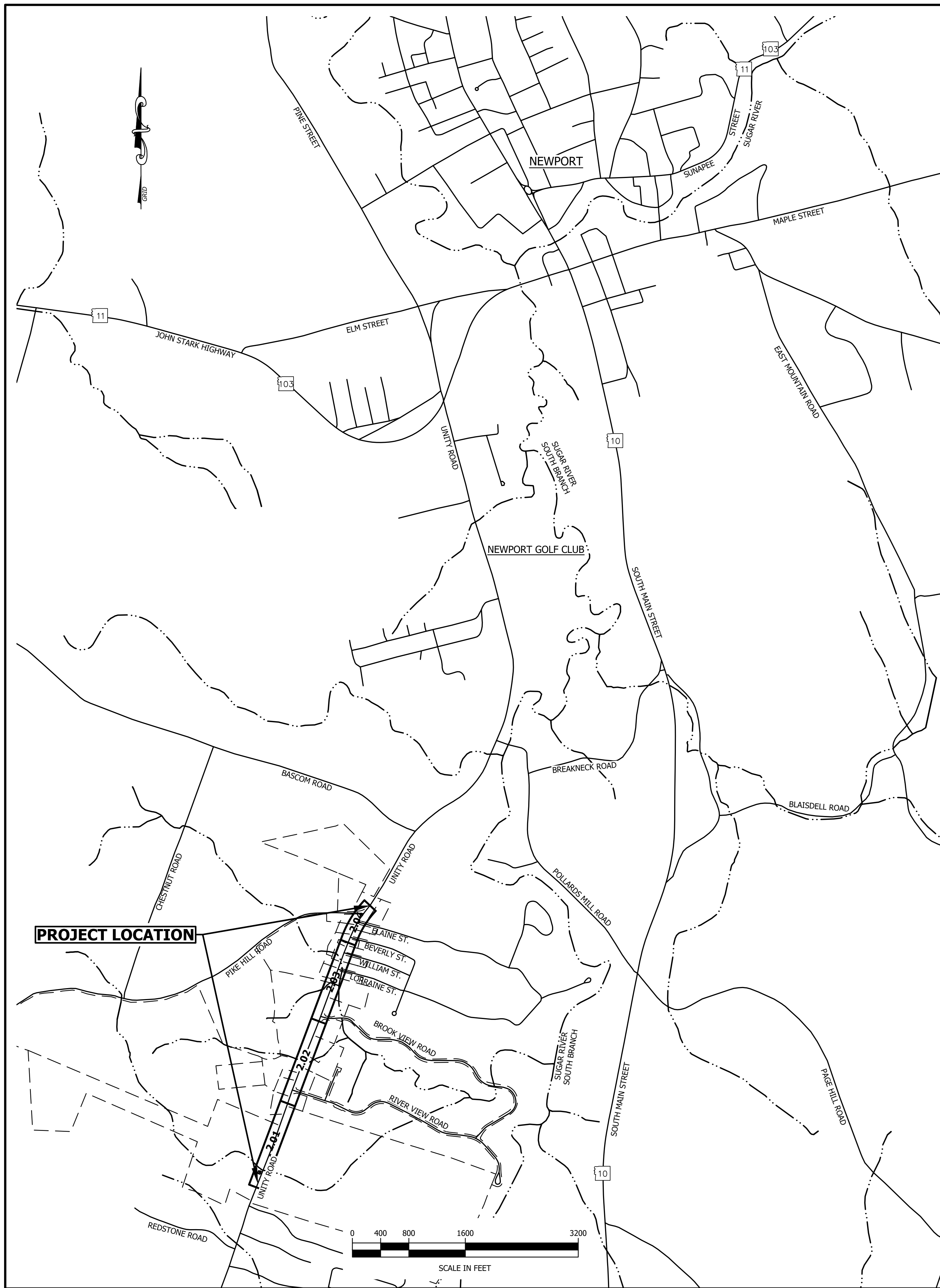
34 SCHOOL STREET
LITTLETON, NH 03561
(603) 444-4111



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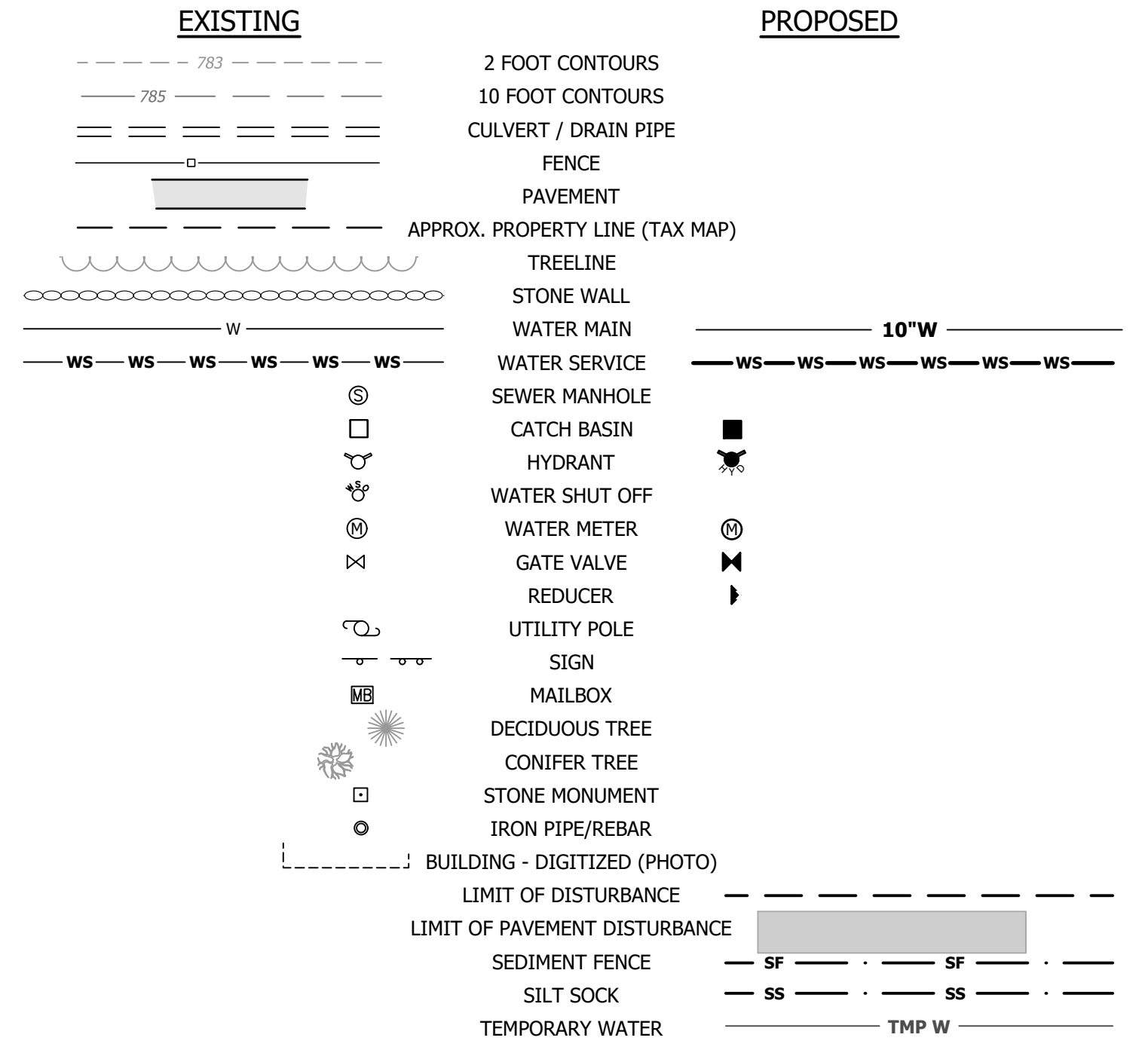
FOR CONSTRUCTION



GENERAL NOTES

- ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND "TECHNICAL SPECIFICATIONS FOR TOWN OF NEWPORT, PRV BUILDING UPGRADES AND WATER MAIN IMPROVEMENTS PROJECT DATED JANUARY 2025."
- NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
- ALL WORK SHALL BE PERFORMED WITHIN THE PROPERTY OF, AND EASEMENTS SECURED BY, THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DATA COLLECTION AND PREPARATION OF RECORD DRAWINGS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTROLLING EROSION IN ALL AREAS DISTURBED BY HIS ACTIONS. COSTS FOR REQUIRED EROSION CONTROL, REGARDLESS OF WHETHER OR NOT SUCH MEASURES ARE SHOWN ON THE ENGINEERING DRAWINGS, SHALL BE BORNE BY HIM.
- UTILITY LOCATIONS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR LOCATION AND PROTECTION OF EXISTING UTILITIES AND SHALL REPAIR ANY DAMAGE AS QUICKLY AS POSSIBLE AT HIS OWN EXPENSE. ALL UTILITIES ENCOUNTERED SHALL BE LOCATED BY DEPTH AND TIES AND SHOWN BY THE CONTRACTOR ON HIS "AS BUILT" DRAWINGS. HAND EXCAVATION SHALL BE DONE WHEREVER UNDERGROUND UTILITIES ARE SHOWN OR ANTICIPATED. THE CONTRACTOR SHALL CONTACT DIG SAFE AND THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION IN ORDER TO VERIFY EXISTING CONDITIONS AND UTILITY LOCATIONS.
- PLANIMETRIC FEATURES AND TOPOGRAPHY ARE BASED ON A FIELD SURVEY USING A LEICA TS12 ROBOTIC TOTAL STATION AND SOKKIA GRX3 AND TOPCON HIPER V DUAL FREQUENCY GPS RECEIVERS WITH RTK CAPABILITY, CONDUCTED IN JULY 2022 BY HORIZONS ENGINEERING, INC.
- THE BASIS OF BEARING SHOWN HEREON REFERENCES GRID NORTH AND IS BASED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM NAD 83 (2011). THE VERTICAL DATUM IS NAVD 88. BOTH DATUMS WERE DERIVED FROM STATIC GPS OBSERVATIONS THAT WERE CORRECTED USING THE NATIONAL GEODETIC SURVEY'S ONLINE USER POSITION SERVICE (OPUS). THE CONTOUR INTERVAL IS TWO FOOT.
- THE DESIGN INTENT REGARDING UTILITY POLES IS THAT POLES WILL NOT BE RELOCATED. HOWEVER, IF POLES ARE PROPOSED TO BE HELD OR RELOCATED, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE UTILITY FOR SUCH RELOCATIONS. FURTHER, ANY PROPOSED POLE RELOCATIONS SHALL BE APPROVED BY THE NHDOT DISTRICT 2 PRIOR TO START OF WORK AND SHALL CONFORM TO THE NHDOT UTILITY ACCOMMODATIONS MANUAL, DATED OCTOBER 2017. ALL PROPOSED POLE RELOCATIONS SHALL HAVE PROVISIONS MADE IN THE CONTRACTORS BID PRICING. UTILITY POLE RELOCATIONS/HOLDS SHALL NOT BE PAID AS A SEPARATE ITEM.
- AS BUILT DRAWINGS FOR WORK WITHIN UNITY ROAD RIGHT OF WAY SHALL BE SUBMITTED TO THE NHDOT AT THE COMPLETION OF THE WORK.
- ALL ROAD SHOULDERS SHALL BE GRADED AT A MINIMUM OF 4% AND EXISTING DRAINAGE DITCHES AND SWALES OUTSIDE OF THE SHOULDER THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO FREE FLOWING TO THE NEAREST DRAINAGE STRUCTURE.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CUTTING, HANDLING AND DISPOSAL OF ANY A/C PIPE ENCOUNTERED IN ACCORDANCE WITH NHDES ASBESTOS MANAGEMENT RULES ENV-A-1800 AND IN CONJUNCTION WITH ANY OTHER FEDERAL, STATE, OR LOCAL RULES FOR MANAGING AND CONTROLLING ASBESTOS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF PAVEMENT SURFACE DURING UNLOADING AND/OR MOVEMENTS OF EQUIPMENT WITHIN THE WORK AREA. ANY DAMAGE TO THE PAVEMENT SURFACE SHALL BE REPAIRED TO THE SATISFACTION OF AND AT NO EXPENSE TO NHDOT DISTRICT #2 OR THE DEPARTMENT OF WATER.
- PERMANENT PAVEMENT PATCHES SHALL BE COMPLETED NO LATER THAN NOVEMBER 15TH. REPAIR OF ANY SETTling OR HEAVING OF TEMPORARY OR PERMANENT PATCHES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR
- BOULDER WALLS DISTURBED DURING CONSTRUCTION SHALL BE RECONSTRUCTED IN KIND AND IN PLACE, UNLESS PREVIOUS ARRANGEMENTS ARE MADE (AND CONFIRMED IN WRITING) WITH THE LANDOWNER.
- IT IS THE INTENT OF THIS CONTRACT TO LEAVE ALL DISCONTINUED/ABANDONED WATER MAIN, VALVES, SERVICE LINES, AND APPURTENANCES IN PLACE, WITH THE EXCEPTION OF VALVE BOX AND CURB BOX TOPS AND COVERS, WHICH WILL BE REMOVED AND SALVAGED TO THE OWNER. ALL ABANDONED WATER MAINS SHALL BE CAPPED. ANY WATER MAINS, VALVES, APPURTENANCES, OR SERVICE LINES ENCOUNTERED THAT ARE IN CONFLICT WITH THE PROPOSED WORK SHALL BE REMOVED BY THE CONTRACTOR AND PROPERLY DISPOSED OF OFF-SITE.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CUTTING, HANDLING AND DISPOSAL OF ANY A/C PIPE ENCOUNTERED IN ACCORDANCE WITH NHDES ASBESTOS MANAGEMENT RULES ENV-A-1800 AND IN CONJUNCTION WITH ANY OTHER FEDERAL, STATE, OR LOCAL RULES FOR MANAGING AND CONTROLLING ASBESTOS.
- ALL DRILLING RECEIVING PITS ARE FOR ILLUSTRATION ONLY. THESE LOCATIONS MAY NEED TO BE MOVED DURING CONSTRUCTION. IN THIS CASE, THE CONTRACTOR MUST CONSULT THE ENGINEER BEFORE A NEW LOCATION IS DISTURBED. CONSIDERATIONS FOR WETLANDS LOCATION, DISTURBANCE OF EXISTING CONDITIONS, AND VEGETATION REMOVAL SHALL BE MADE.
- ANY WATER MAIN CROSSING DITCH LINES SHALL MAINTAIN A MINIMUM FIVE (5) FEET OF COVER.
- NO SHEETING SHALL BE LEFT IN PLACE WITHIN NHDOT RIGHTS-OF-WAY.
- INVASIVE PLANT SPECIES MAY BE ENCOUNTERED DURING CONSTRUCTION. IF AND AS IDENTIFIED, THE CONTRACTOR SHALL FOLLOW PROHIBITED INVASIVE PLANT SPECIES RULES: [HTTP://WWW.GENCOURT.STATE.NH.US/RULES/STATE_AGENCIES/AGR3900.HTML](http://www.gencourt.state.nh.us/rules/state_agencies/AGR3900.HTML) AND THE NHDOT'S 2018 BEST MANAGEMENT PRACTICES FOR THE CONTROL OF INVASIVE AND NOXIOUS PLANT SPECIES: [HTTPS://WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/ENVIRONMENT/UNITS/PROGRAM-MANAGEMENT/DOCUMENTS/FINAL-ENV1-MANUAL-1-INVASIVESPECIES.PDF](https://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/documents/final-env1-manual-1-invasivespecies.pdf).

LEGEND



PHASING NOTES (WATERMAIN)

- THE ENGINEERS CONSTRUCTION APPROACH IS DIRECTIONAL BORING. IT IS PLANNED TO BE UTILIZED FROM THE PRV STATION TO THE EXTENTS SHOWN NEAR PIKE HILL ROAD (SHEET C 3.7). OPEN CUT TRENCHING IS OPTIONAL BEYOND THOSE LIMITS AT THE RISK OF THE CONTRACTOR. OPEN CUT TRENCHING DIFFERING FROM THE SHOWN EXTENTS MAY BE PERFORMED AT THE RISK AND EXPENSE OF THE CONTRACTOR PROVIDED THE FOLLOWING.
- NHDOT DISTRICT 2 HAS GIVEN WRITTEN APPROVAL TO PERFORM OPEN CUTS IN THESE AREAS
 - THE CONTRACTOR HAS APPLIED AND OBTAIN THE NECESSARY PERMITS, INCLUDING BUT NOT LIMITED TO;
 - NHDES WETLANDS PERMIT
 - NHDOT TRENCH PERMIT
 - NHDES SWPPP PERMITTING
- PROJECT PHASING FOR WATER MAIN REPLACEMENT AND CONNECTIONS USING THE DIRECTIONAL BORING METHOD ARE AS FOLLOWS.
- DIRECTIONAL BORE AND INSTALL THE PROPOSED 10" HDPE WATER MAIN FROM APPROXIMATELY STATION 0+00 - 35+65.
 - INSTALL PROPOSED HYDRANTS LOCATED ON SAME SIDE (LEFT SIDE) OF UNITY ROAD AS PROPOSED WATER MAIN.
 - COMPLETE NECESSARY TESTING BEFORE WATER MAIN IS PUT INTO SERVICE.
 - INSTALL AND CONNECT ALL WATER SERVICES LOCATED ON SAME SIDE (LEFT SIDE) OF UNITY AS PROPOSED WATER MAIN.
 - INSTALL TEMPORARY WATER CONNECTIONS TO HOMES AND STREETS SHOWN ON DESIGN PLANS.
 - COMPLETE INTERCONNECTION OF PROPOSED WATER MAIN TO EXISTING WATER MAINS STARTING AT STATION 35+65.
 - ISOLATE CAPPED SECTIONS OF EXISTING WATER MAINS (6" CI, 8" CI, 10" AC) AT THE EXISTING PRV BUILDING AND ACTIVATE THE INSTALLED 10" HDPE WATER MAIN.
 - COMMENCE DIRECTIONAL BORING AND CONNECTIONS OF SERVICES AND STREET INTERCONNECTIONS.
 - COMPLETE NECESSARY TESTING BEFORE WATER MAINS ARE PUT INTO SERVICE.
 - REMOVE TEMPORARY WATER ONCE SERVICE AND STREET INTERCONNECTIONS HAVE BEEN ESTABLISHED.

PHASING NOTES (PRV BUILDING)

- THE CONSTRUCTION INTENT OF THE PROVIDED PLANS IS TO UPGRADE THE EXISTING PRV BUILDING, ESTABLISH CONNECTIONS TO THE EXISTING MAINS, AND PROVIDE FUTURE WATER MAIN CONNECTION OPPORTUNITIES.
- NHDOT DISTRICT 2 HAS GIVEN WRITTEN APPROVAL TO PERFORM OPEN CUTS WITHIN THE RIGHT OF WAY OF UNITY ROAD
 - THE CONTRACTOR HAS APPLIED AND OBTAIN THE NECESSARY PERMITS, INCLUDING BUT NOT LIMITED TO;
 - NHDOT TRENCH PERMIT
- PROJECT PHASING FOR THE PRV BUILDING UPGRADES ARE AS FOLLOWS.
- BEGIN DEMOLITION OF EXISTING PRV BUILDING FEATURES WHILE KEEPING EXISTING WATER SYSTEM IN SERVICE.
 - TURN THE ISOLATING GATE VALVES INDICATED ON THE PLANS TO THE OFF POSITION.
 - CONFIRM MECHANICAL WATER COMPONENTS WITHIN THE PRV BUILDING ARE NOT LIVE AND BEGIN REMOVAL OF OLD COMPONENTS AFTER PROVIDING NOTICE TO THE WATER DEPARTMENT.
 - EXCAVATE TO EXISTING WATER MAIN AND WALL PENETRATIONS AT PRV BUILDING.
 - DISCONNECT AND REMOVE EXISTING WATER MAIN CONNECTION TO LIMITS SHOWN.
 - CONSTRUCT AND INSTALL NEW WATER MAIN, VALVES, AND CONNECTIONS AS SHOWN.
 - INSTALL INTERIOR MECHANICAL, ELECTRICAL COMPONENTS, AND COMPLETE PRV BUILDING EXTERIOR UPGRADES.
 - CHLORINATE AND PRESSURE TEST NEW WATER MAIN CONNECTIONS AND REACTIVATE THE PRV COMPONENTS.

FOR CONSTRUCTION

DATE OF PRINT
FEBRUARY 13 2025
HORIZONS ENGINEERING



PROJECT #:	DATE:	NO.	REVISION DESCRIPTION	ENG. DWG.
21254	JAN. 2024			
MAP LOT (OR ARCHIVE)	H-5694			
SURVEYED BY:	HEI - NVJ/NWS			
ENGINEERED BY:	CLB			
DRAWN BY:	CLB			
CHECKED BY:	MLB			



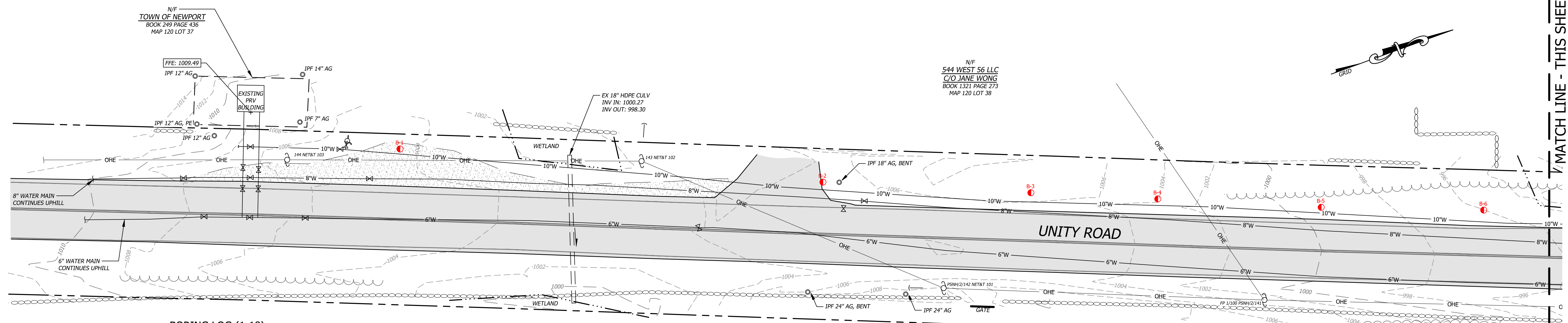
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PRV BUILDING UPGRADES AND WATER MAIN IMPROVEMENTS
UNITY ROAD, NEWPORT, NEW HAMPSHIRE

SHEET LAYOUT, GENERAL NOTES AND LEGEND

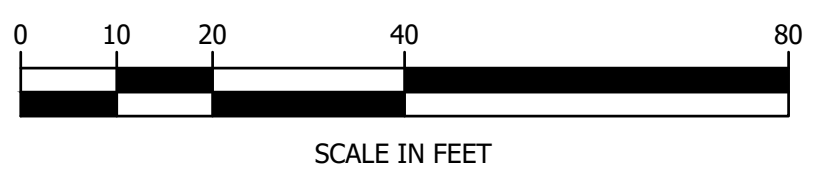
SHEET C 1.1

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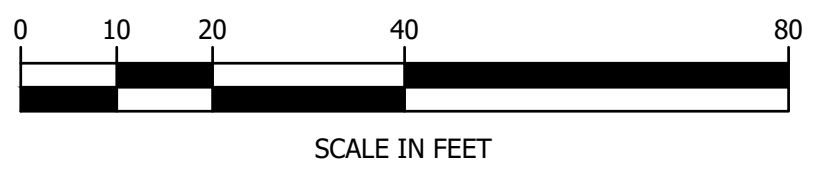
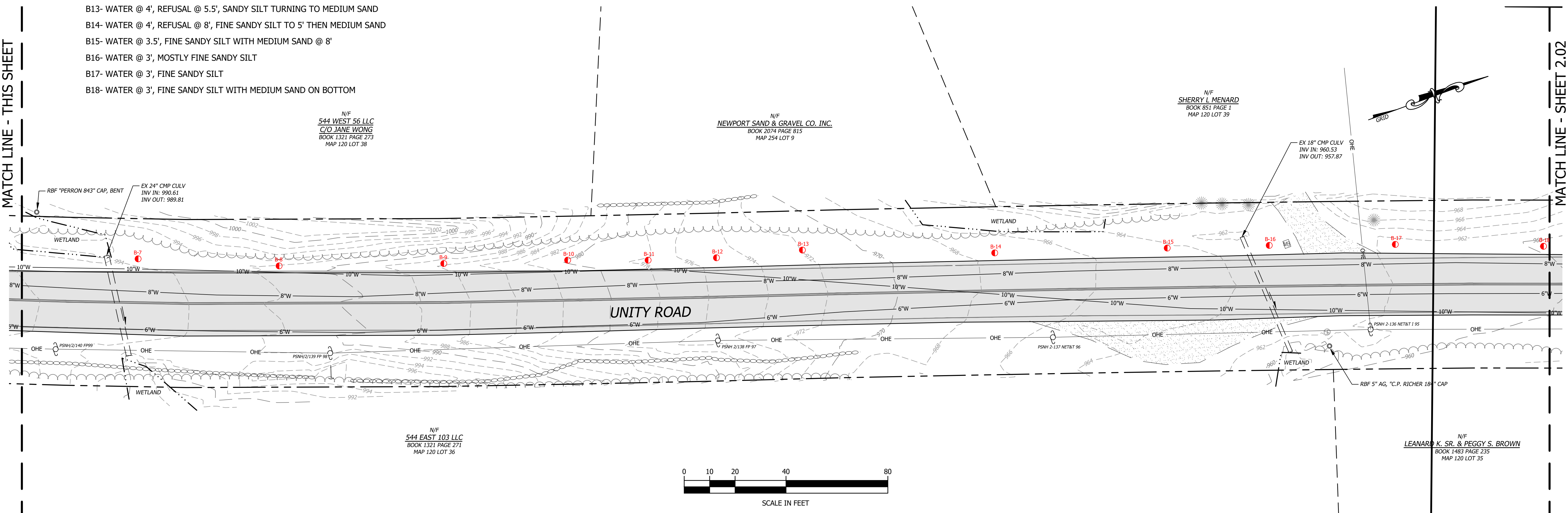
BORING LOG (1-18)

- B1- WATER @ 3', MOSTLY SANDY SILT
- B2- WATER @ 5.5', REFUSAL @ 8'
- B3- WATER @ 7.5' SANDY SILT
- B4- WATER @ 4.75' SANDY SILT
- B5- WATER @ 4.75' SANDY SILT W/MEDIUM SAND AT BOTTOM
- B6- REFUSAL @ 3' PROBABLY BOULDER
- B7- WATER @ 4', COURSER SAND WITH PEBBLES
- B8- WATER @ 4' COURSER SAND WITH PEBBLES
- B9- WATER @ 3', SANDY SILT
- B10- WATER @ 4.5', REFUSAL @ 7', SANDY SILT
- B11- WATER @ 5', REFUSAL @ 8'
- B12- WATER @ 4', SANDY SILT TURNING TO MEDIUM SAND @7.5'
- B13- WATER @ 4', REFUSAL @ 5.5', SANDY SILT TURNING TO MEDIUM SAND
- B14- WATER @ 4', REFUSAL @ 8', FINE SANDY SILT TO 5' THEN MEDIUM SAND
- B15- WATER @ 3.5', FINE SANDY SILT WITH MEDIUM SAND @ 8'
- B16- WATER @ 3', MOSTLY FINE SANDY SILT
- B17- WATER @ 3', FINE SANDY SILT
- B18- WATER @ 3', FINE SANDY SILT WITH MEDIUM SAND ON BOTTOM



MATCH LINE - THIS SHEET

MATCH LINE - SHEET 2.02



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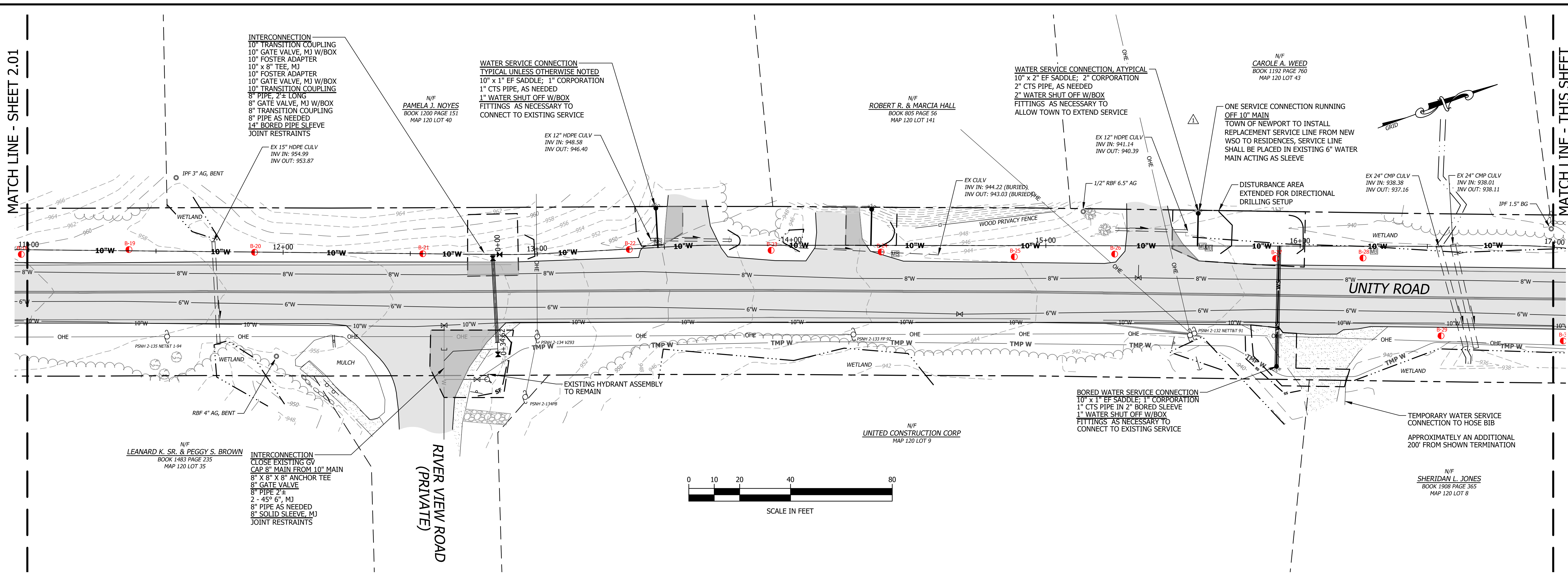
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EXISTING CONDITIONS AND WATERMAIN ALIGNMENT

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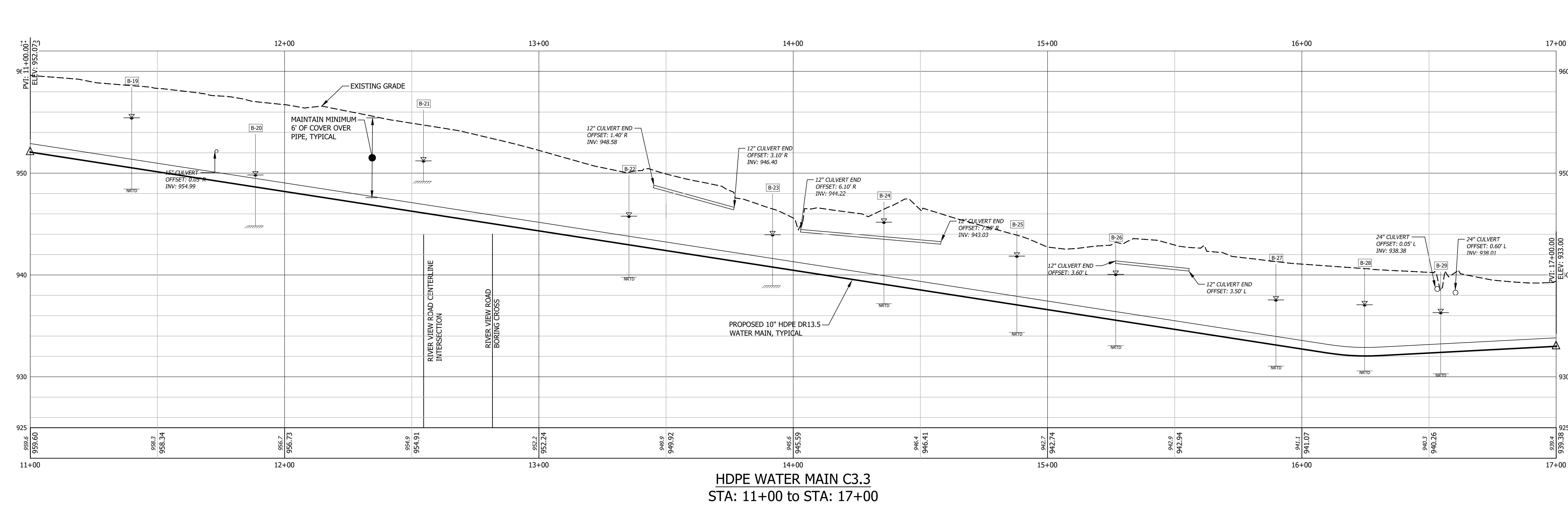


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2	02/2025	REVISIONS FOR CONSTRUCTION	CLB	CLB

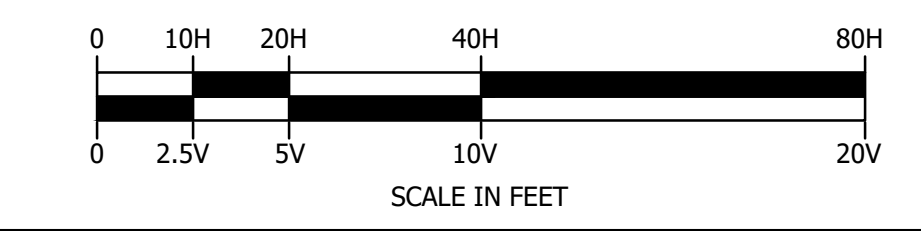
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DATE:	JAN. 2024
MAP LOT (OR ARCHIVE):	H-5694
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HDPE WATER MAIN C3.3
 STA: 11+00 to STA: 17+00



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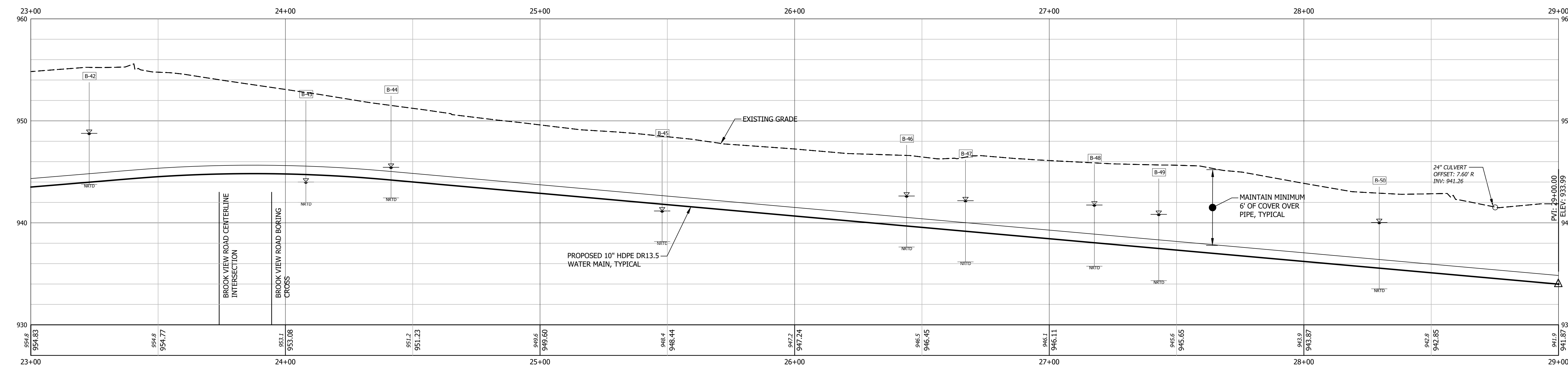
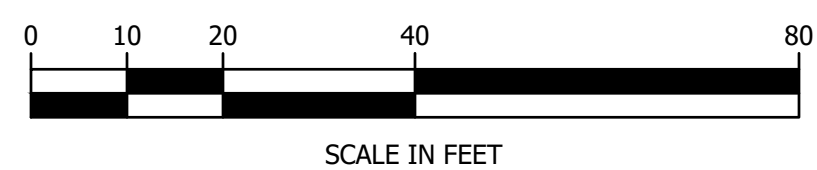
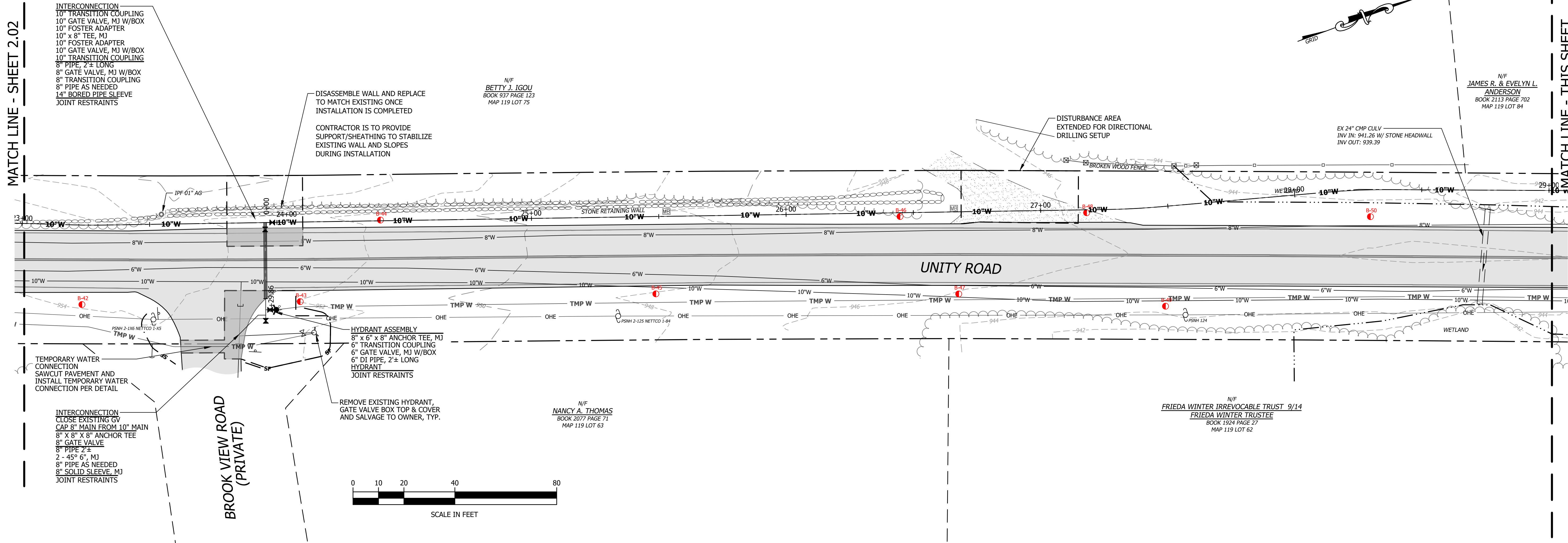
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SHEET C-3.3

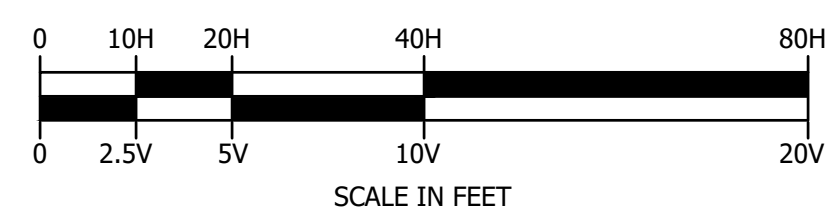
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MATCH LINE - SHEET 2.02

MATCH LINE - THIS SHEET



HDPE WATER MAIN C3.5
STA: 23+00 TO STA: 29+00



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1	JAN. 2024	PROJECT #:	21254
2		MAP LOT (OR ARCHIVE)	H-5694
3		SURVEYED BY:	HEI - NVJ/NWS
4		ENGINEERED BY:	CLB
5		DRAWN BY:	CLB
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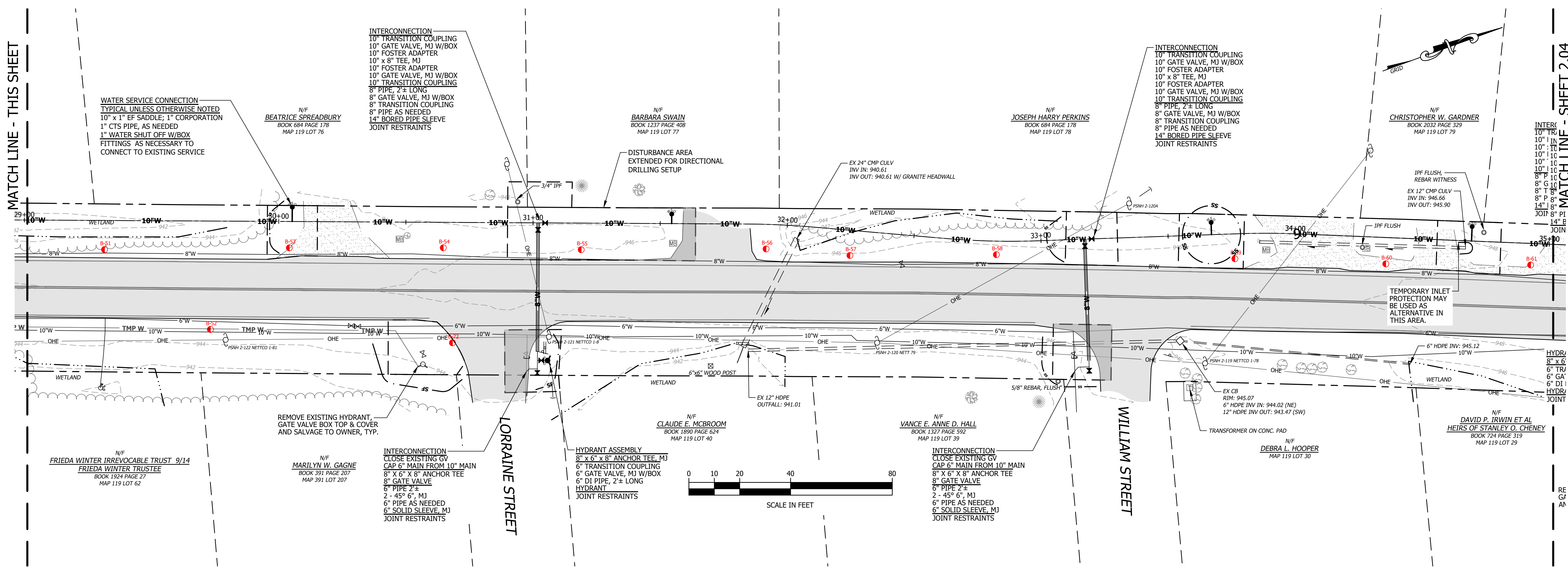
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UNITY ROAD PLAN AND PROFILE
SHEET C-3.5

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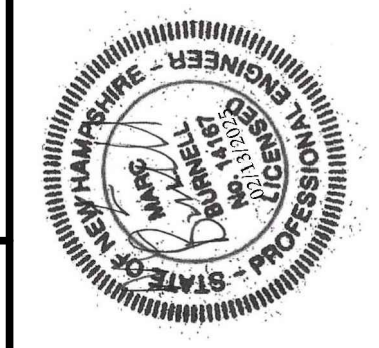
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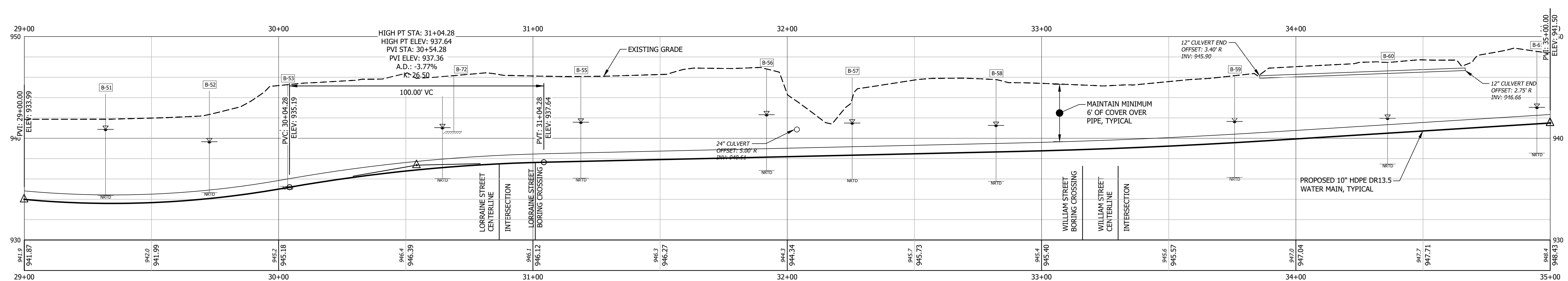


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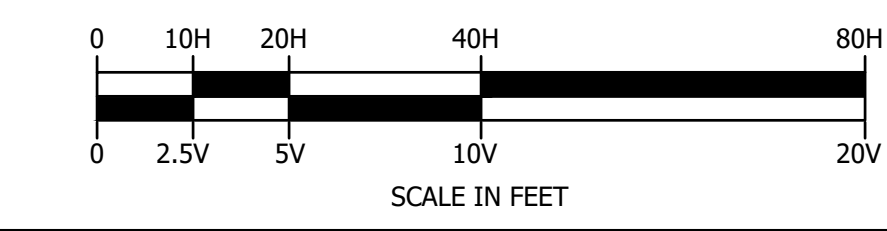
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HDPE WATER MAIN C3.6
 STA: 29+00 to STA: 35+00

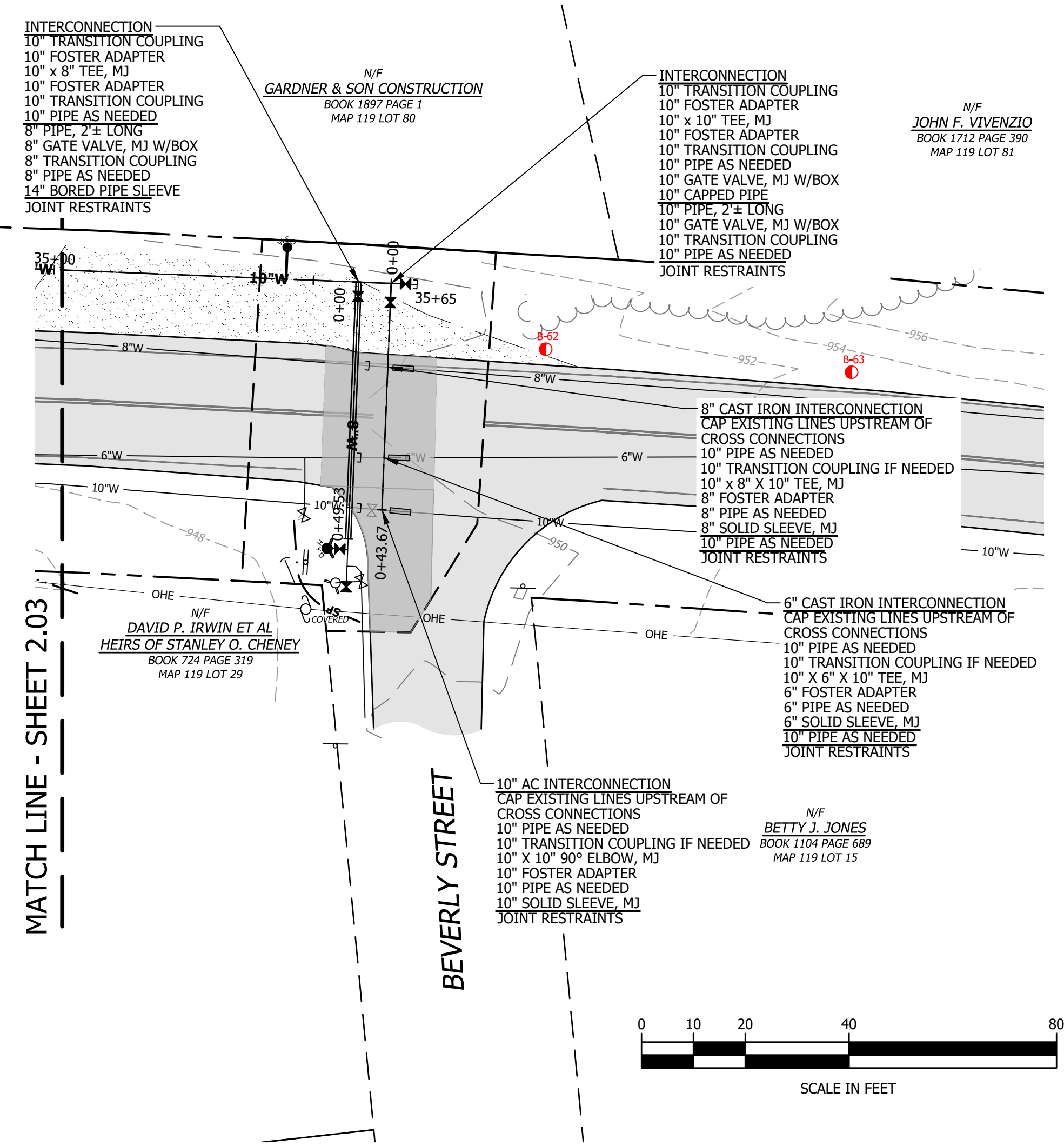


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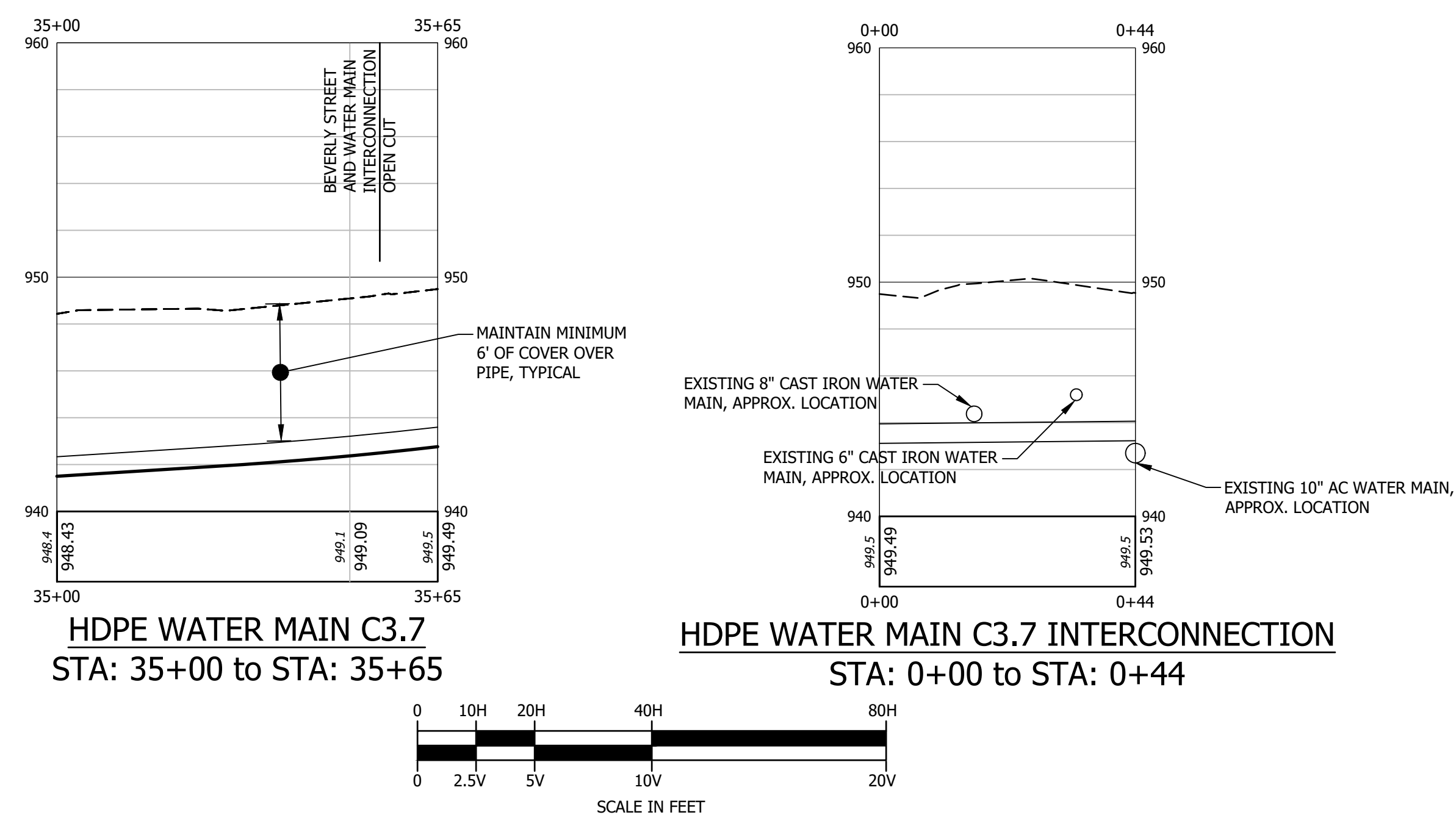
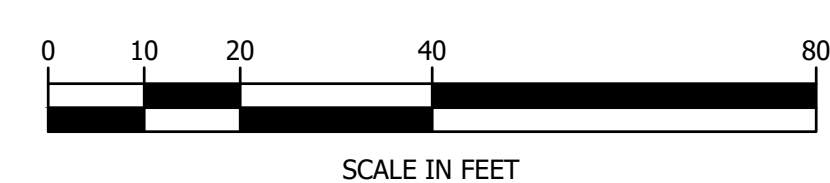
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 UNITY ROAD, NEWPORT, NEW HAMPSHIRE



CONDUIT NOTES
 THE CONTRACTOR SHALL INSTALL 2" CONDUIT WITH COMMUNICATIONS WIRE NEXT TO THE PROPOSED 10" WATER MAIN FOR THE ENTIRE LENGTH OF PIPE FROM THE PRV BUILDING TO BEVERLY STREET OR PIKE HILL ROAD IF THE ALTERNATE IS AWARDED, TYPICAL. CONTRACTOR SHALL INSTALL PULL BOXES AS NEEDED FOR THE RUN.



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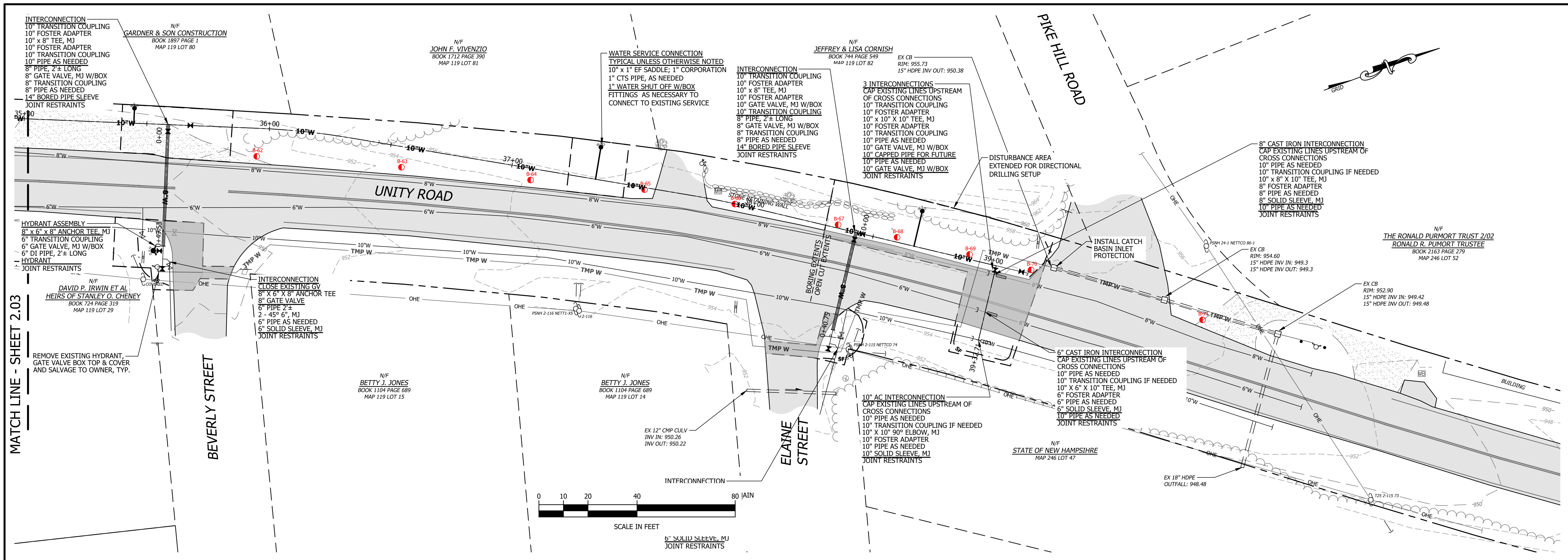
UNITY ROAD PLAN AND PROFILE

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SHEET C-3.7



MATCH LINE - SHEET 2.03

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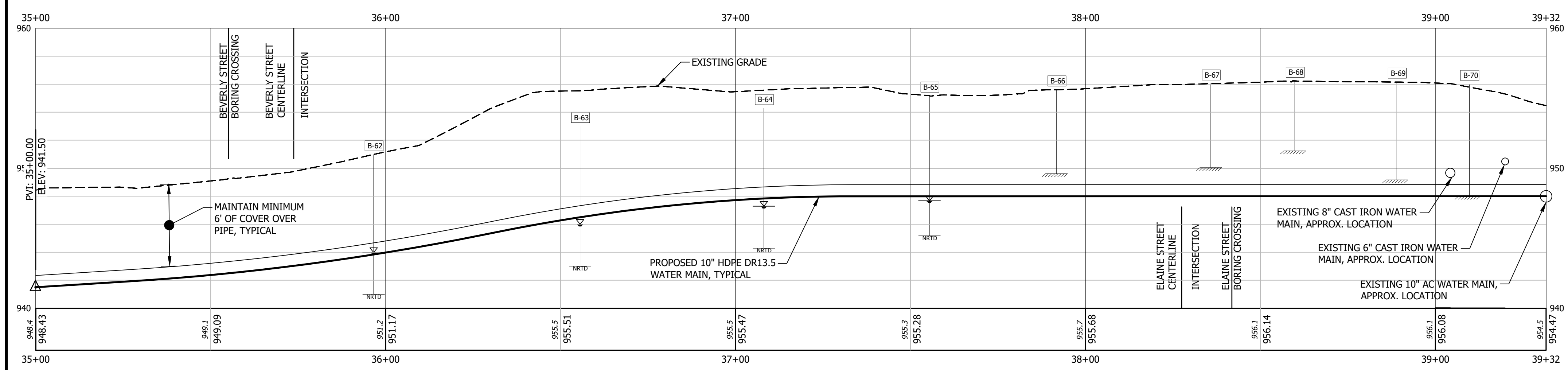
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UNITY ROAD PLAN AND PROFILE - ADD ALTERNATE 1

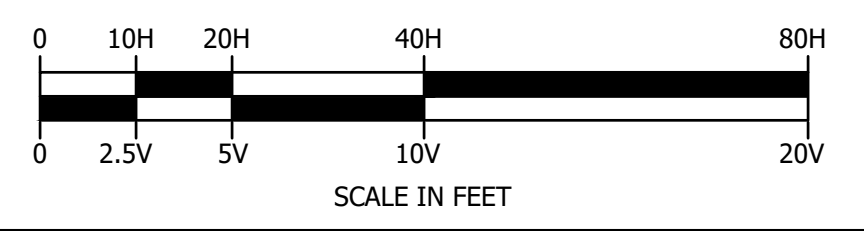
ALTERNATE BID NOTES

THIS ALTERNATE DESIGN SHEET WOULD REPLACE SHEET 3.7 IN THE BASE BID IF AWARDED. THE INTENT OF THIS ALTERNATE IS TO PROVIDE AN OPTION, IF FUNDING IS AVAILABLE, TO EXTEND THE NEW WATERMAIN CONSTRUCTION TO THE INTERSECTION OF PIKE HILL ROAD. ALTERNATE SHEETS 4.4 AND 4.5 SHOW THE CONNECTIONS TO BEVERLY ST. AND ELAINE ST. RESPECTIVELY IF THE ALTERNATE WAS AWARDED.

ITEM AA1-19 IN THE ALTERNATE BID SCHEDULE WOULD EFFECTIVELY REPLACE ITEM 1-19 IN THE BASE BID SCHEDULE IF THE ALTERNATE BID IS AWARDED.



HDPE WATER MAIN C3.8 ALT
 STA: 35+00 to STA: 39+32



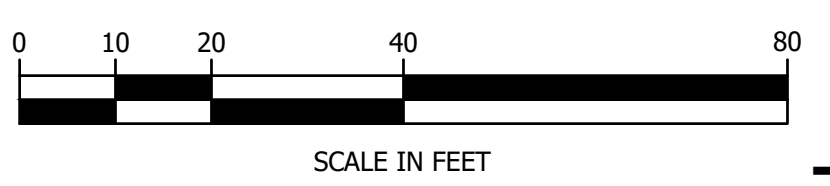
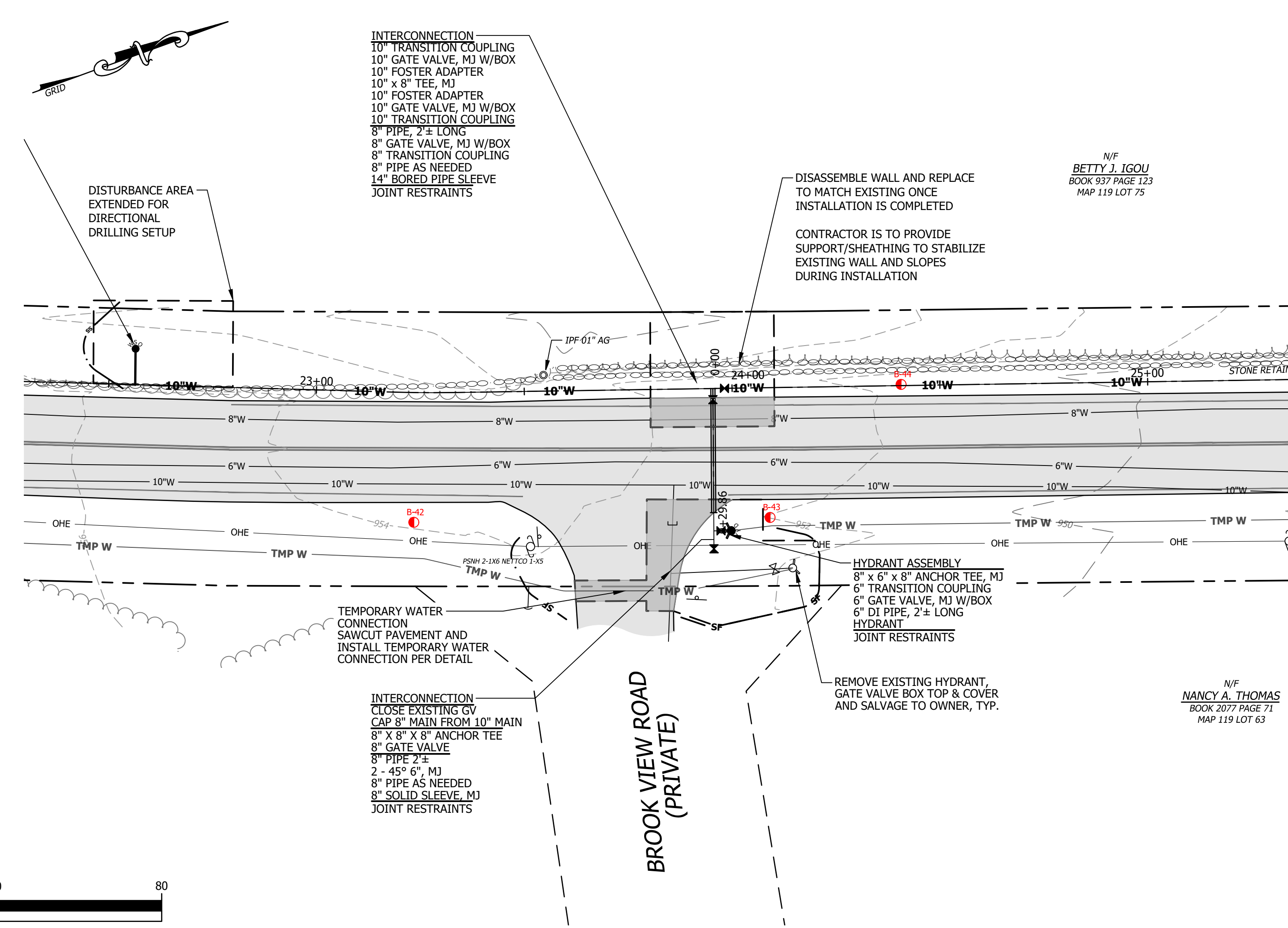
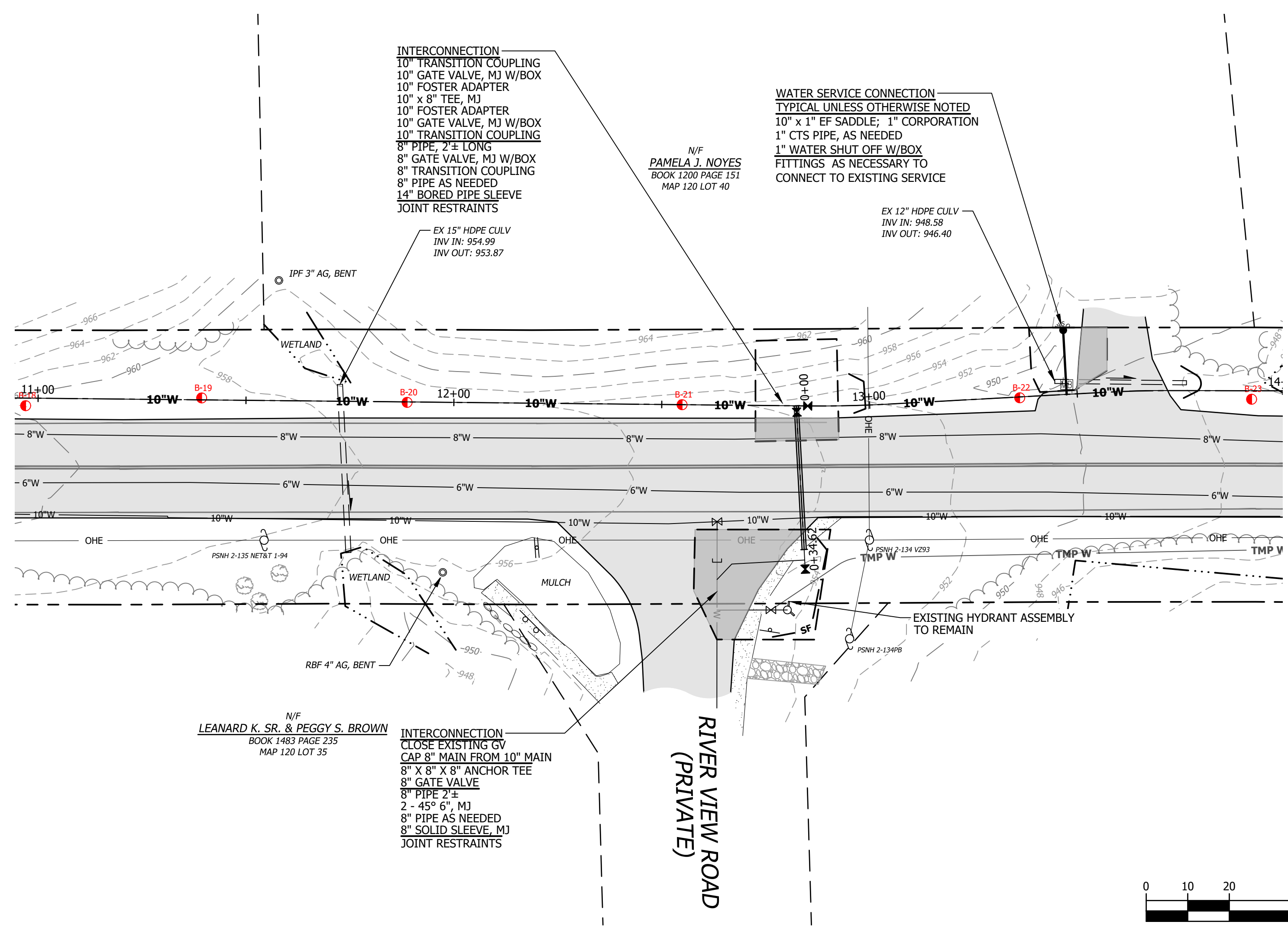
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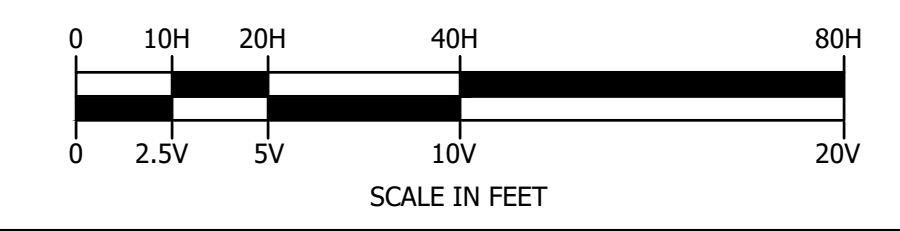
PROJECT #:	21254
DATE:	JAN. 2024
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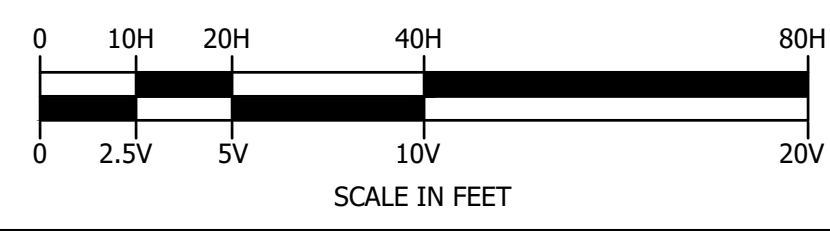
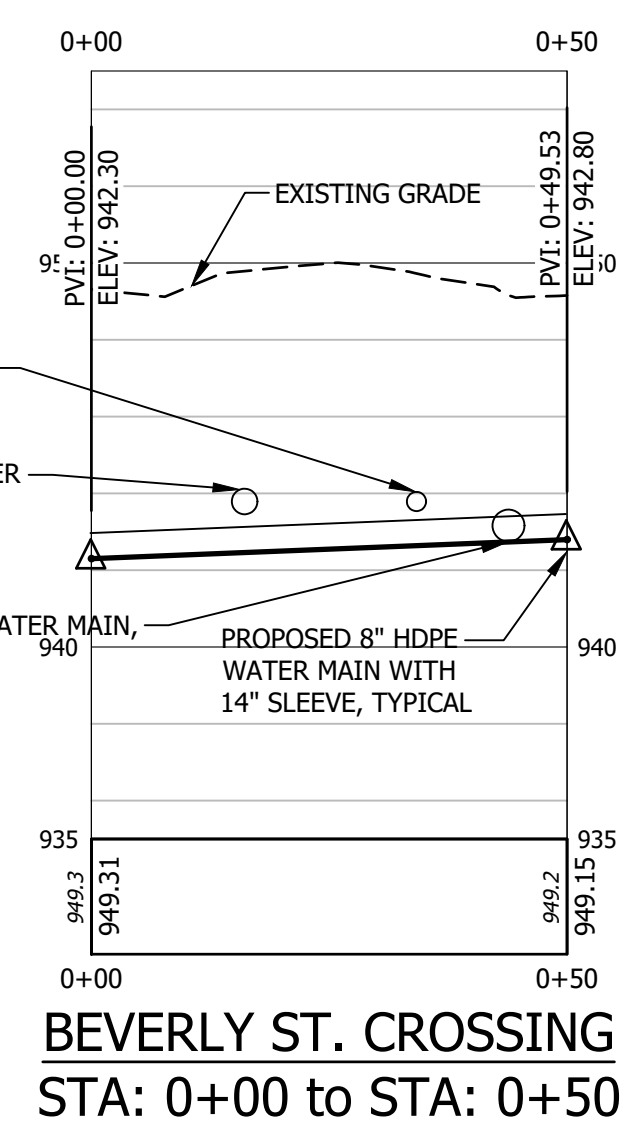
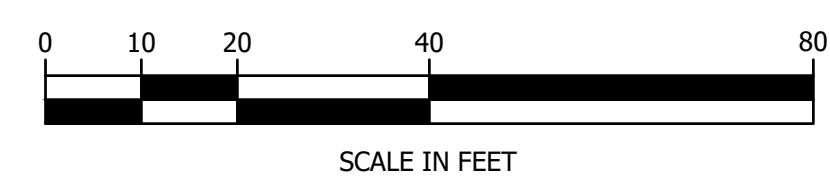
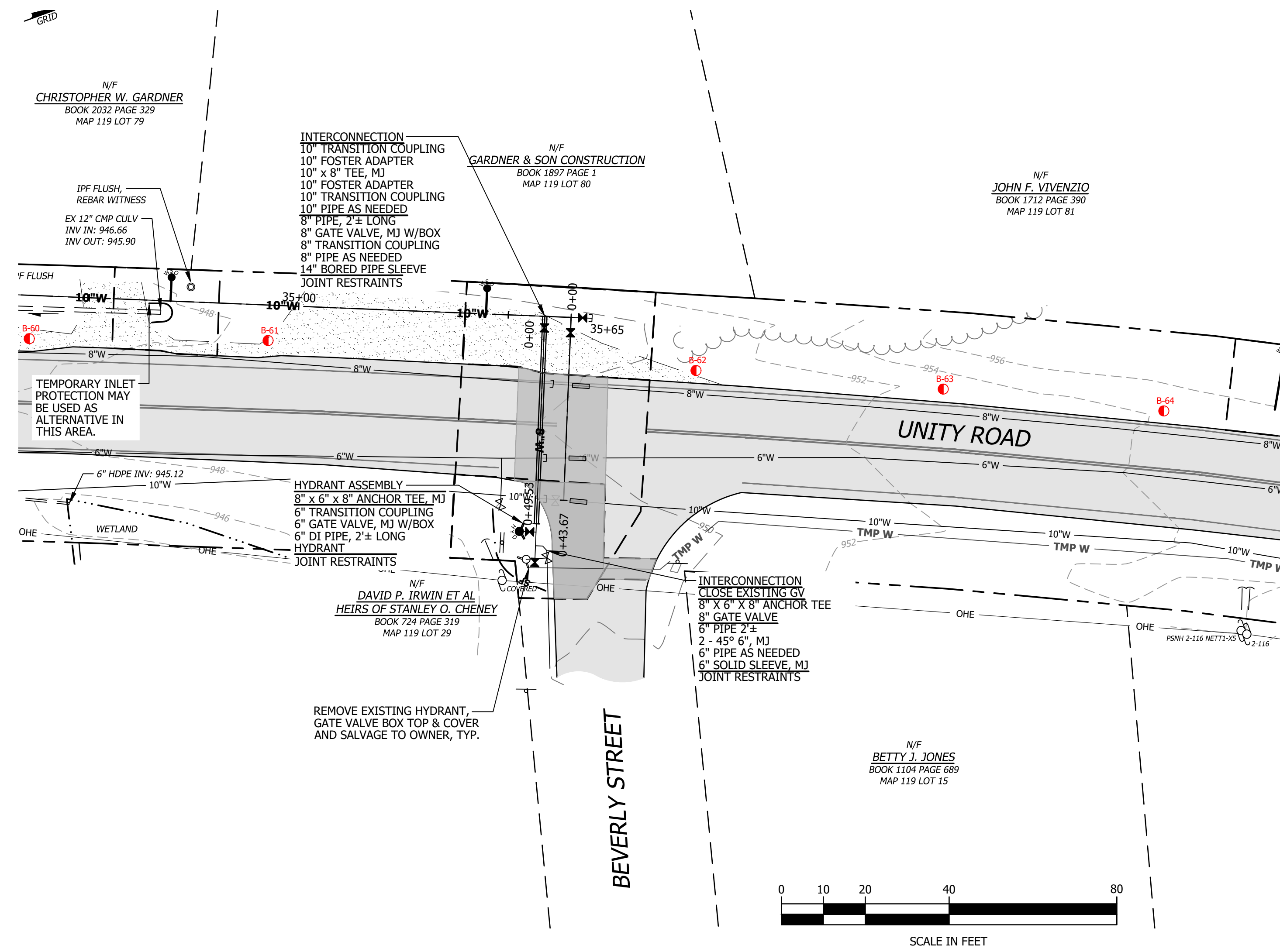
UNITY ROAD PLAN AND PROFILE



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UNITY ROAD PLAN AND PROFILE

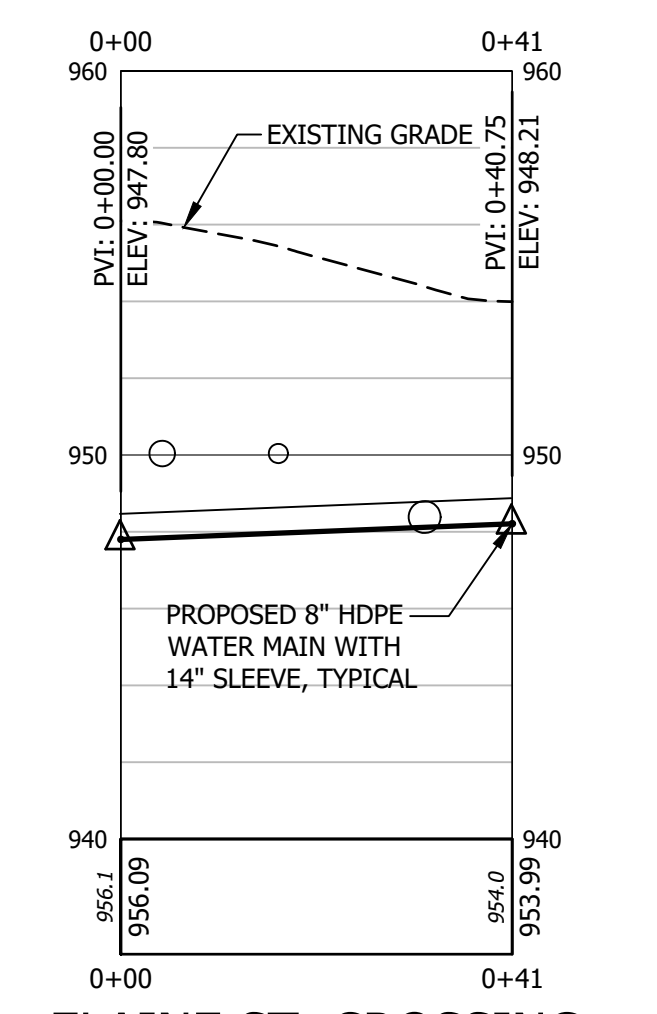
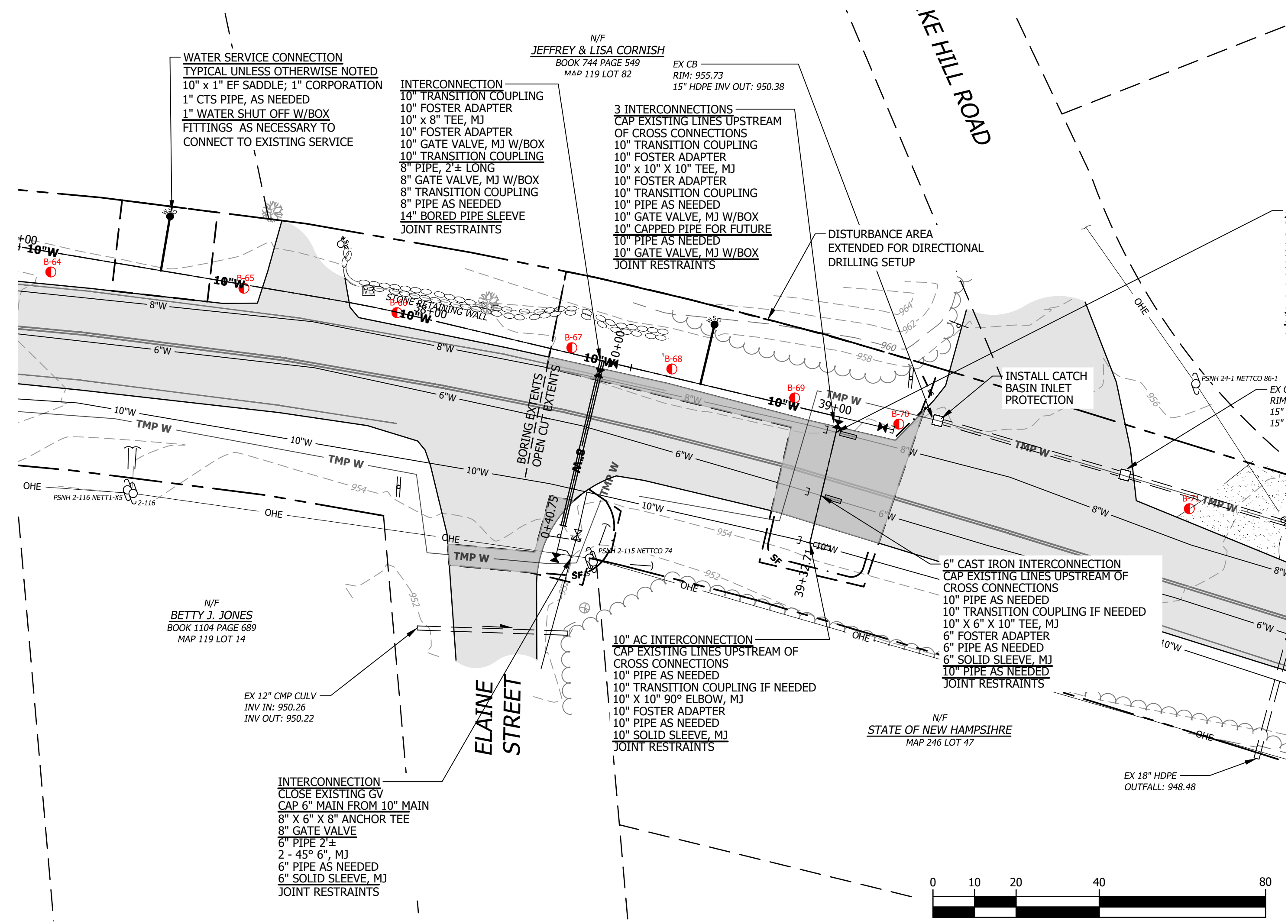
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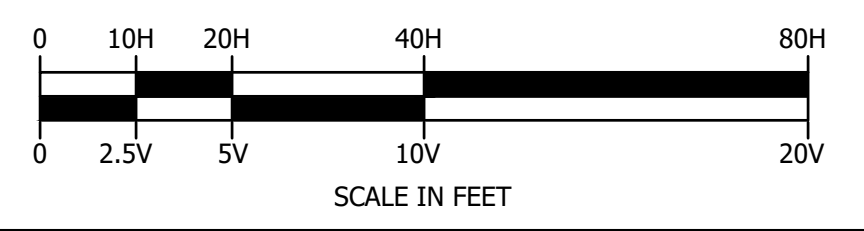


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UNITY ROAD PLAN AND PROFILE - ADD ALTERNATE 1

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DEMOLITION NOTES

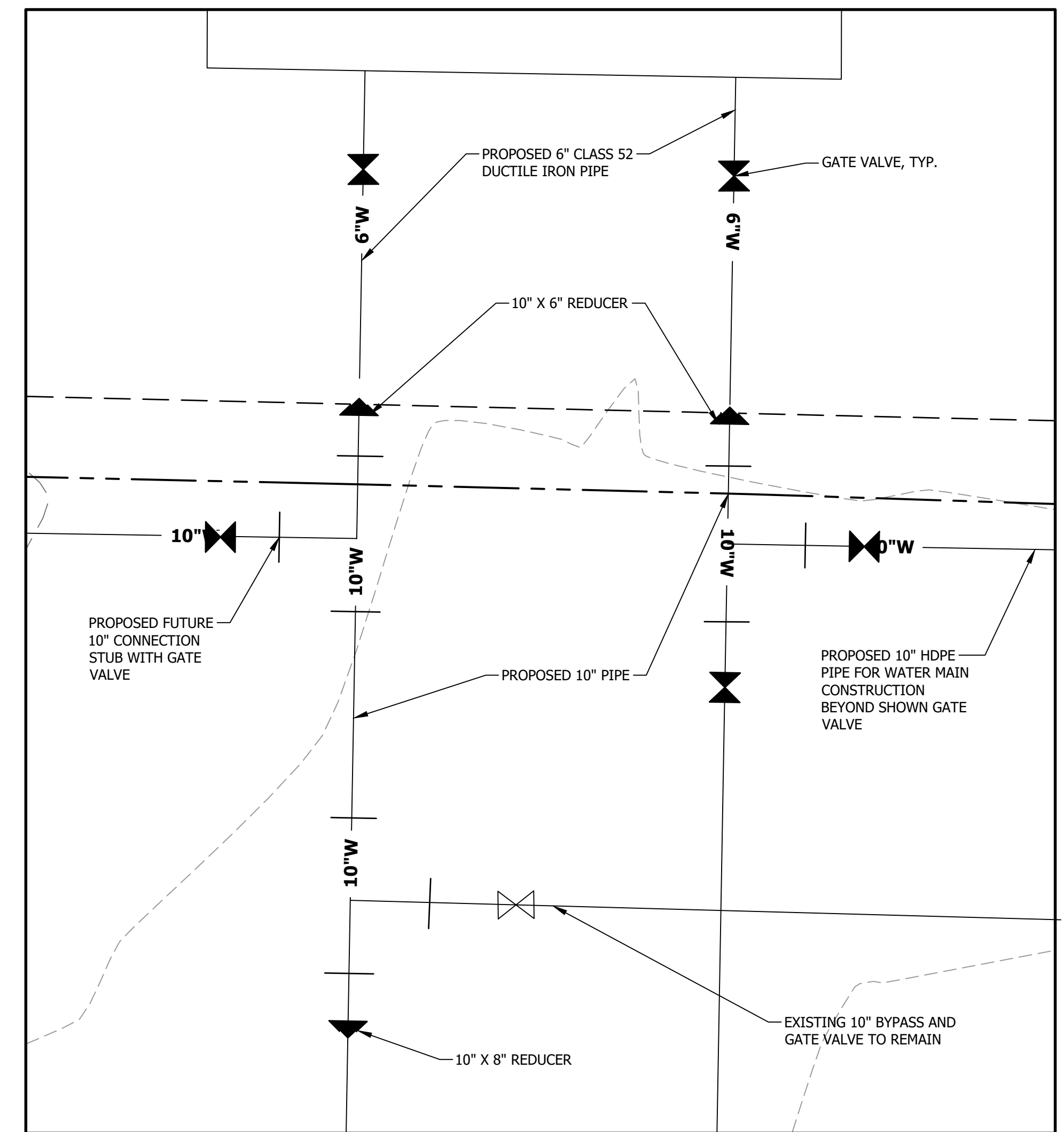
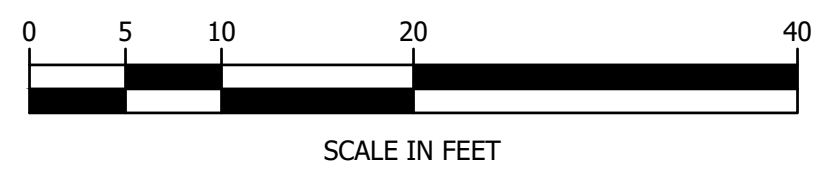
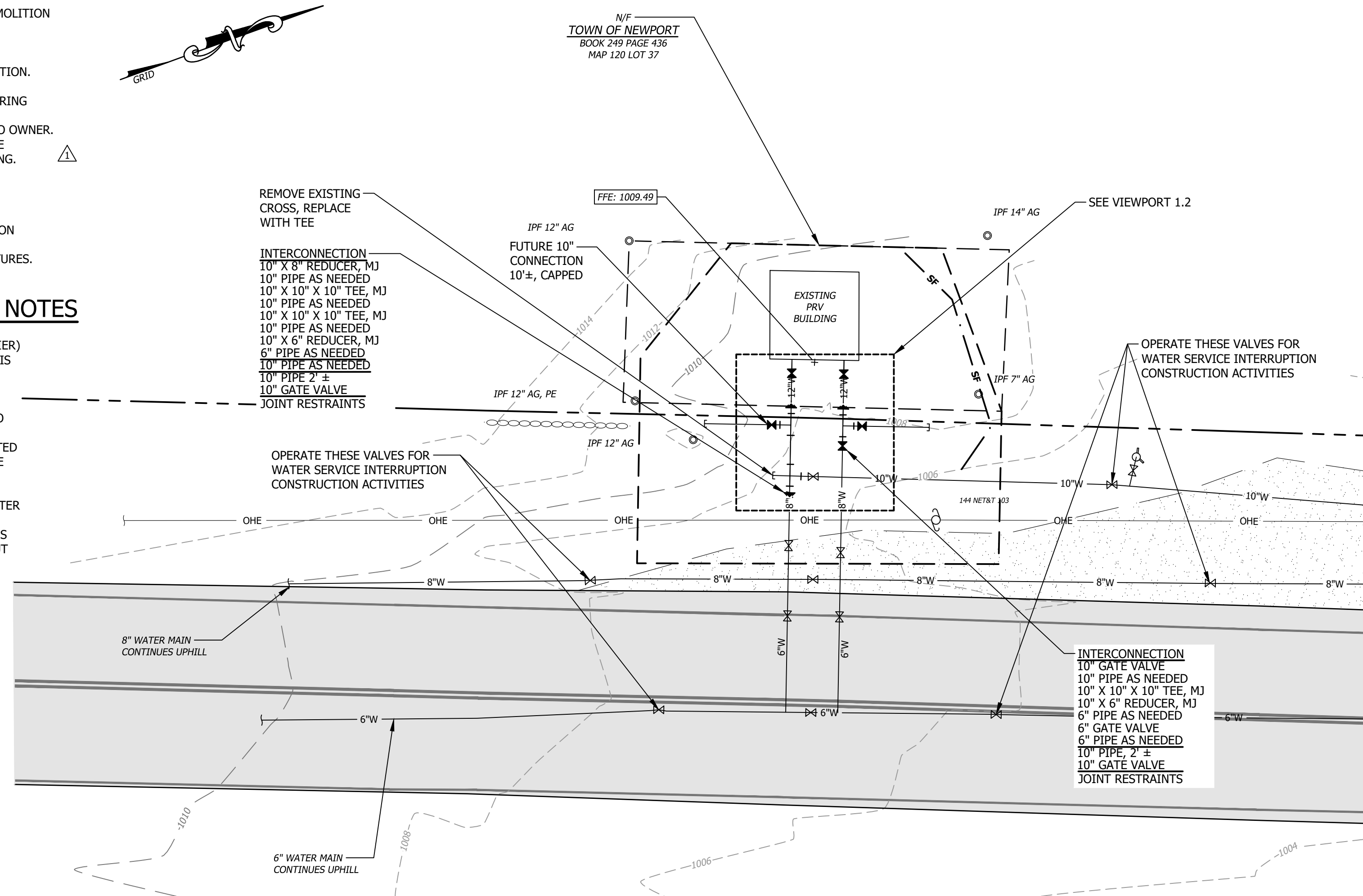
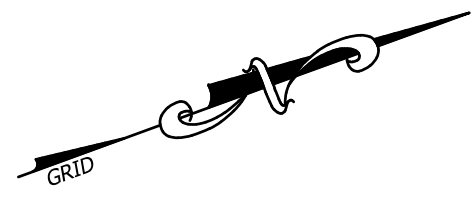
1. THE PRV BUILDING SHALL REMAIN OPERATIONAL DURING THE DEMOLITION OF INTERIOR AND EXTERIOR BUILDING COMPONENTS.
2. REMOVE AND DISPOSE OF EXISTING SHINGLE ROOF.
3. REMOVE AND DISPOSE OF FACIA AND SOFFIT.
4. REMOVE AND DISPOSE OF EXISTING INTERIOR WALLS AND INSULATION.
5. DISCONNECT ELECTRIC SERVICE.
6. INTERIOR AND EXTERIOR PIPING SHALL REMAIN OPERATIONAL DURING THIS PROCESS.
7. EXISTING PRV VAULT HATCH IS TO BE REMOVED AND SALVAGED TO OWNER.
8. INTERIOR EXISTING PIPING MAY REMAIN IN PRV VAULT AREA ONCE DISCONNECTED IF ISOLATION IS PROVIDED FROM PROPOSED PIPING.

ELECTRIC NOTES

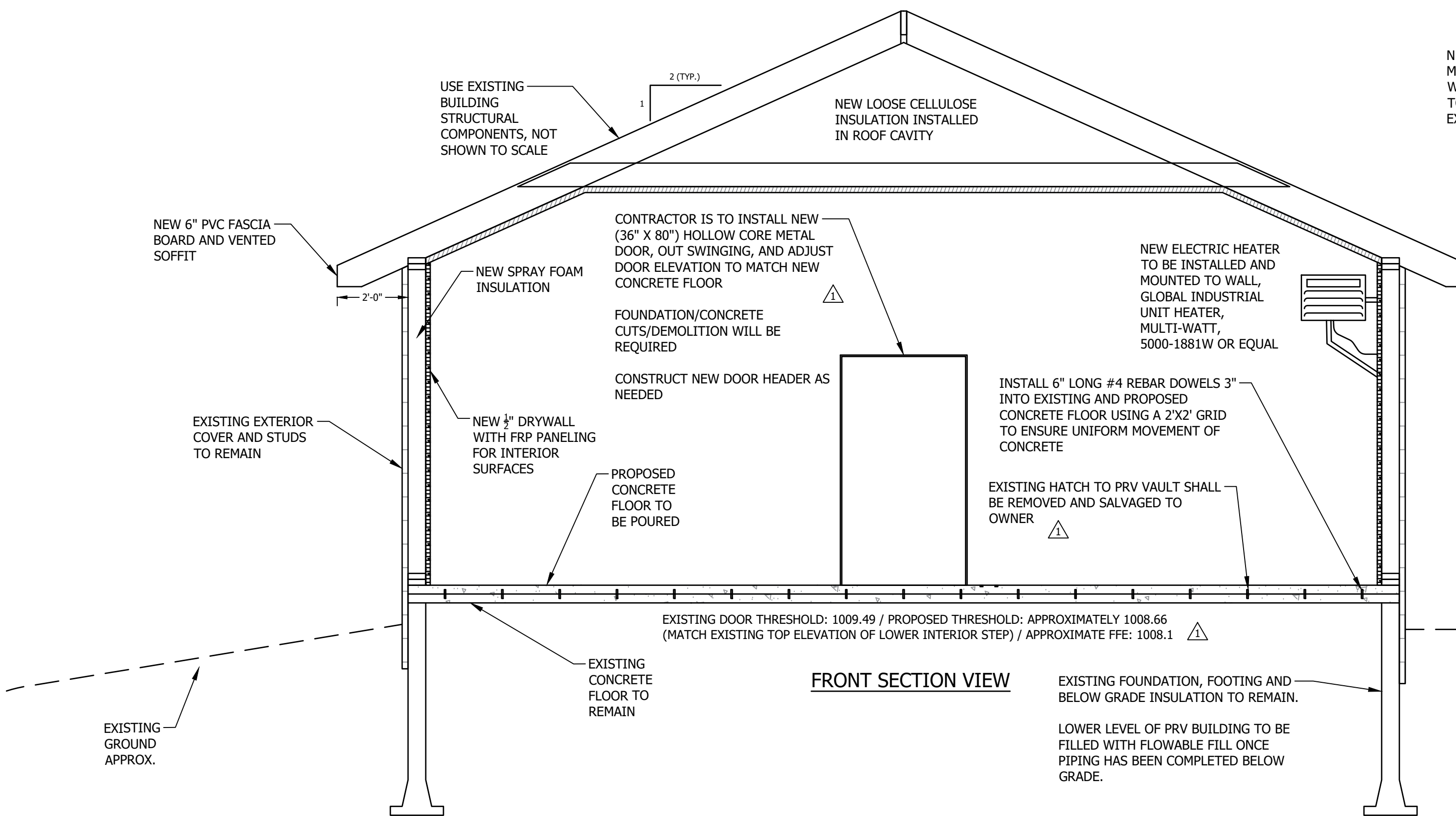
1. INSTALL NEW ELECTRIC SERVICE UNDERGROUND DROP CONNECTION FROM NEAREST UTILITY POLE.
2. REPLACE EXISTING LIGHT FIXTURES WITH ENERGY EFFICIENT FIXTURES.
3. ALL OUTLETS ARE TO BE GFI RATED.

EXTERIOR AND INTERIOR PIPING NOTES

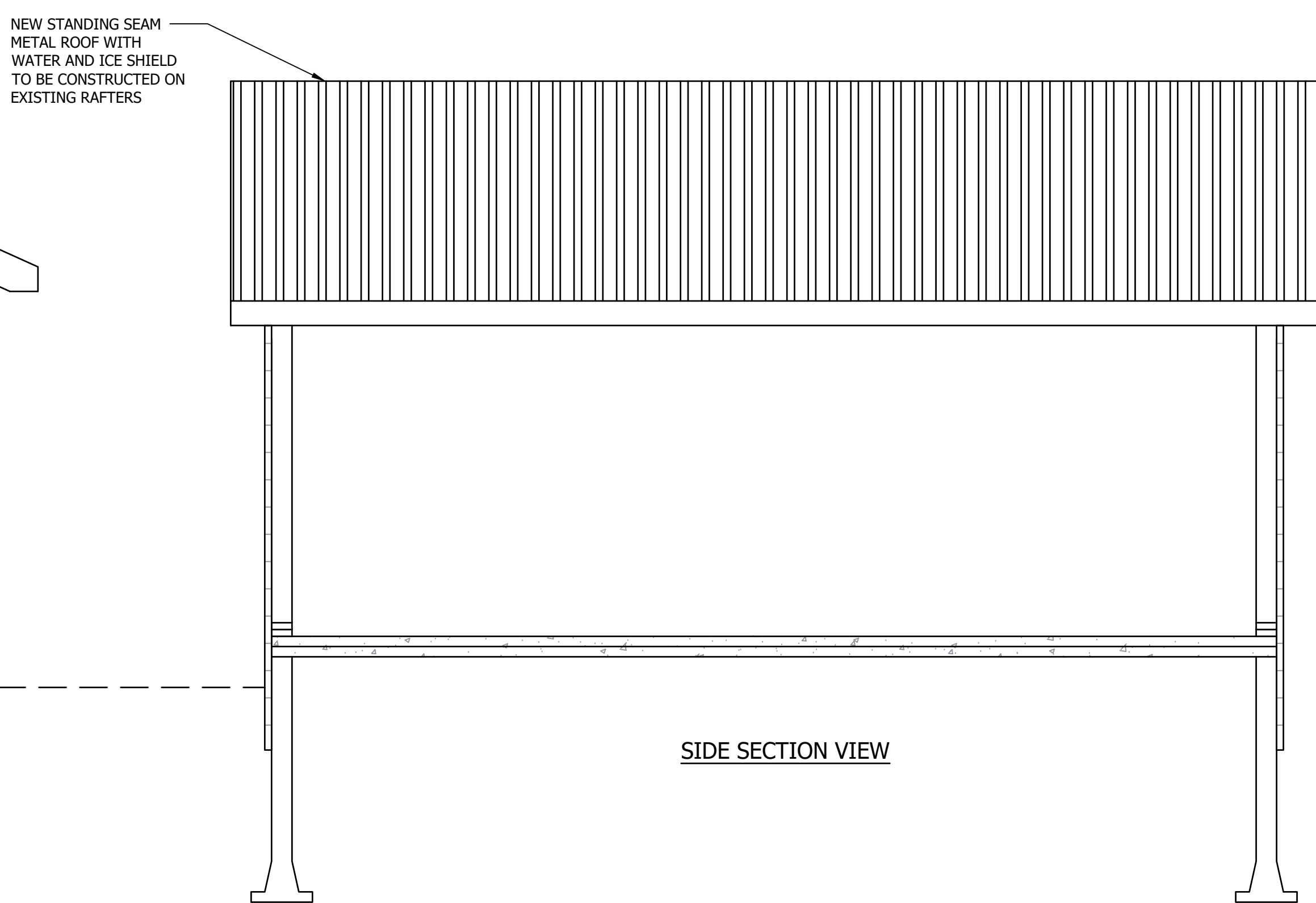
1. THE TOWN OF NEWPORT, NH WATER DEPARTMENT (CHRIS PELLETIER) SHALL BE NOTIFIED AT LEAST ONE WEEK BEFORE WATER SERVICE IS INTERRUPTED.
2. WATER SERVICE IS TO BE INTERRUPTED FOR NO MORE THAN 3 CONTINUOUS DAYS. MULTIPLE NON-CONTINUOUS 3 DAY INTERRUPTIONS ARE ALLOWED WITH ADEQUATE NOTIFICATION TO THE TOWN.
3. REFER TO THIS PLAN FOR VALVE OPERATION INSTRUCTIONS RELATED TO WATER SERVICE INTERRUPTIONS AS WELL AS CONTACTING THE TOWN BEFORE OPERATING VALVES.
4. IT IS RECOMMENDED THAT INTERIOR PIPING BE ASSEMBLED AND PARTIALLY INSTALLED ON THE NEW CONCRETE FLOOR BEFORE WATER SERVICE IS INTERRUPTED.
5. UPSTREAM WATER PRESSURE IS ROUGHLY 100PSI WHEN THE PRV IS BYPASSED. WATER SHALL NOT BYPASS THE PRV BUILDING WITHOUT WRITTEN CONSENT FROM THE TOWN OF NEWPORT OR AT THEIR REQUEST.
6. THE CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS TO REDUCE THE AMOUNT OF TIME AND FREQUENCY THAT SERVICE IS INTERRUPTED.



PROPOSED EXTERIOR PIPING
VIEWPORT 1.2 - NTS



FRONT SECTION VIEW



SIDE SECTION VIEW

PRV BUILDING UPGRADES - SECTION VIEW
NTS

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1	02/2025	ISSUE FOR PERMITTING NOTES FOR DEMOLITION AND NEW PIPING	CLB	CLB

PROJECT #:	21254	DATE:	JAN. 2024
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UNITY ROAD PRV BUILDING SITE PLAN AND UPGRADES

FOR CONSTRUCTION

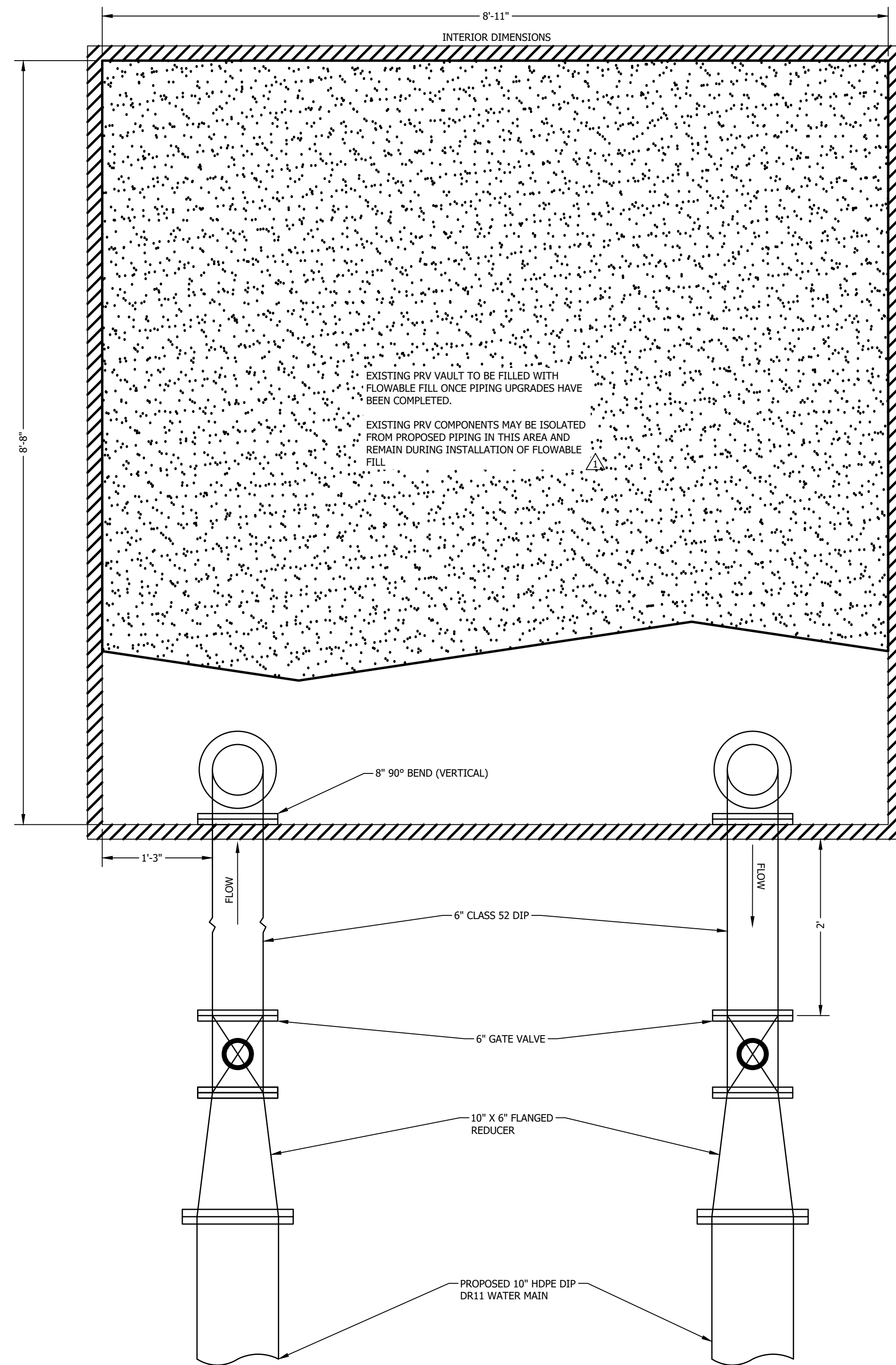
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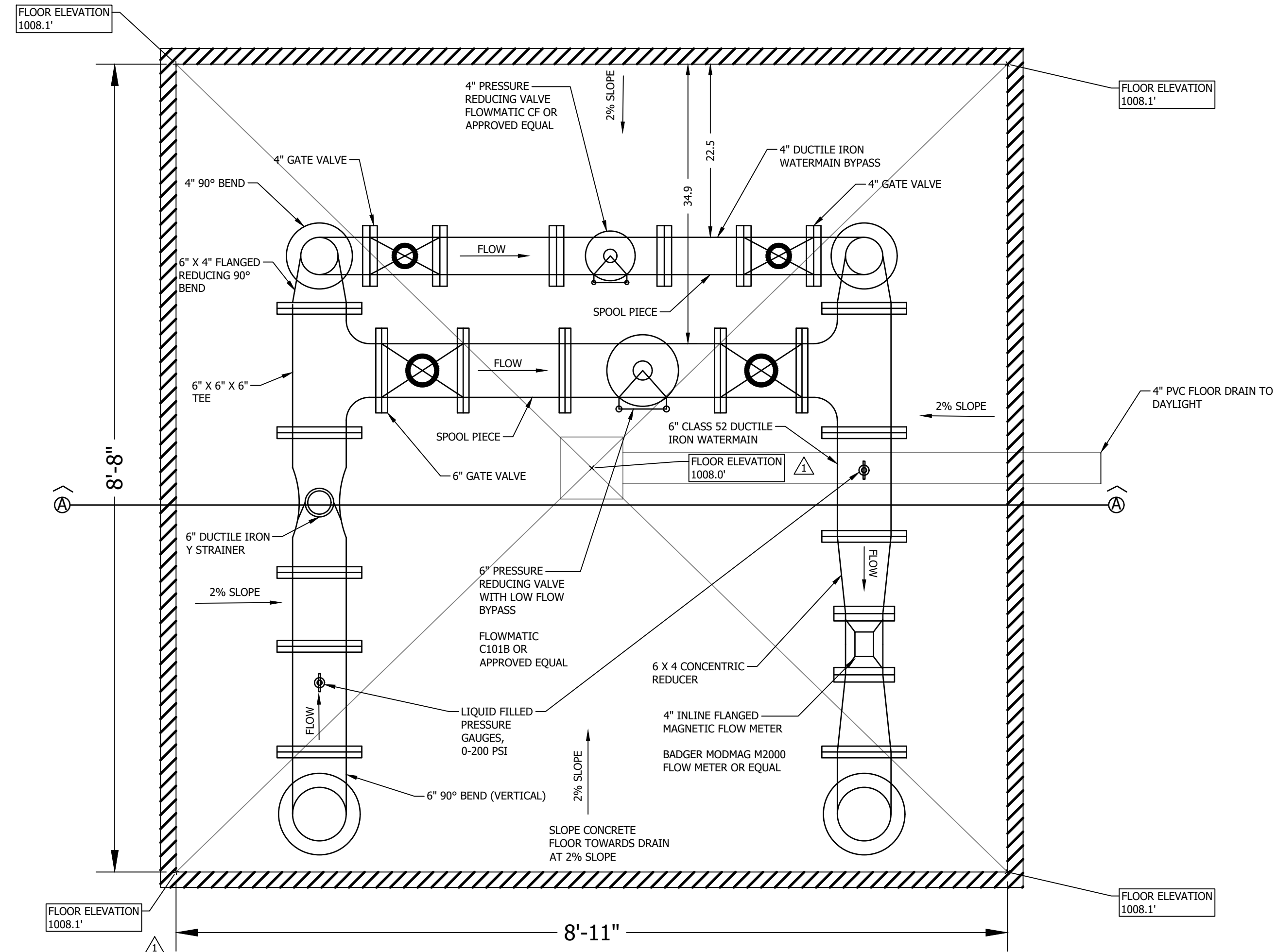
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LOWER/VAULT LEVEL
PROPOSED FLOOR PLAN
1" - 1'



UPPER LEVEL
PROPOSED FLOOR PLAN
1" - 1'



NO.	DATE	REVISION DESCRIPTION	ENG.	DWG.
1	02/2025	REVISION FOR PERMITTING NOTES FOR REVISION AND NEW FLOOR	CLB	CLB

PROJECT #:	21254
DATE:	JAN. 2024
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UNITY ROAD PRV BUILDING LAYOUT - PLAN VIEW

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SEEDING RECOMMENDATIONS

- 1. GRADING AND SHAPING**
A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
- 2. SEEDBED PREPARATION**
A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME THOROUGHLY INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

- 3. ESTABLISHING VEGETATION**
A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
-AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ. FT.
-NITROGEN (N), 50 LBS., PER ACRE OR 1.1 LBS. PER 1,000 SQ. FT.
-PHOSPHATE (P₂O₅), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.
-POTASH (K₂O), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.

(NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10).
B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.

C. SEEDING GUIDE:

USE	SEEDING MIXTURE (SEE 3D)	SOIL TYPE			
		DROUGHTY	WELL DRAINED	MOD. WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	GOOD	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR

D. SEEDING RATES:

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
A TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
REDTOP	2	0.05
TOTAL:	42	0.95
B TALL FESCUE	15	0.35
CREeping RED FESCUE	10	0.25
CROWN VETCH OR FLATPEA	15 OR 30	0.35 OR 0.75
TOTAL:	40 OR 55	0.95 OR 1.35
C TALL FESCUE	20	0.45
FLATPEA	30	0.75
TOTAL:	50	1.20

- E. WHEN SEEDING AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO SEPTEMBER 15. WHEN SEEDING AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.

F. TEMPORARY SEEDING RATES:

SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.	REMARKS
WINTER RYE	112	2.5	BEST FOR FALL SEEDING. SEED FROM AUGUST TO SEPTEMBER 5TH FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	80	2.0	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15TH FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYEGRASS	40	1.0	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. COVER SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30	0.7	GOOD COVER WHICH IS LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1ST AND JUNE 1ST AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH.

4. MULCH

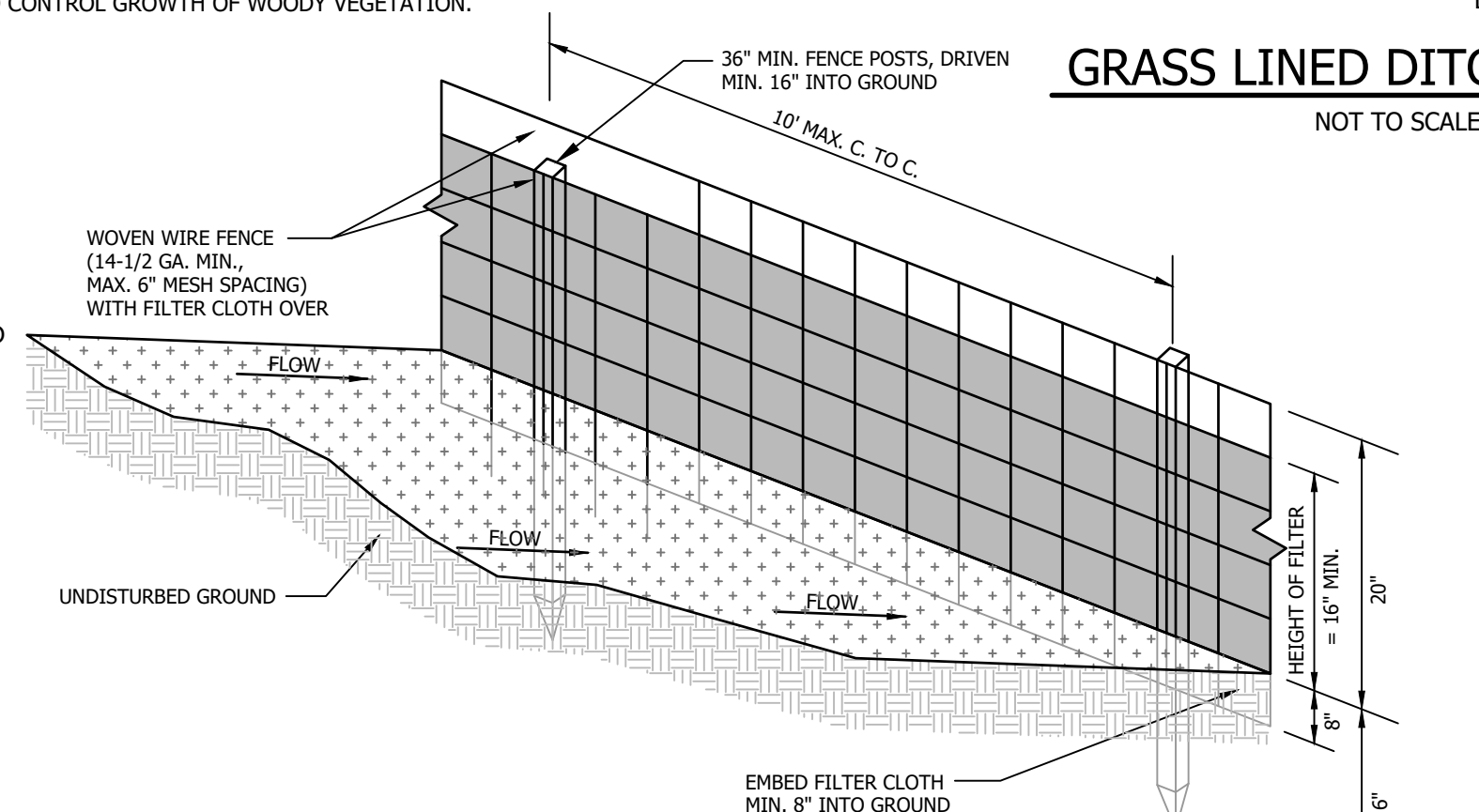
- A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING.

5. MAINTENANCE TO ESTABLISH A STAND

- A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ON SITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

CONSTRUCTION NOTES FOR SEDIMENT FENCE

- WOVEN WIRE FENCE, IF REQUIRED, TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP, MID, SECTION, AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SEDIMENT FENCE, OR 50% OF ITS STORAGE IS USED.



SEDIMENT FENCE
NO SCALE

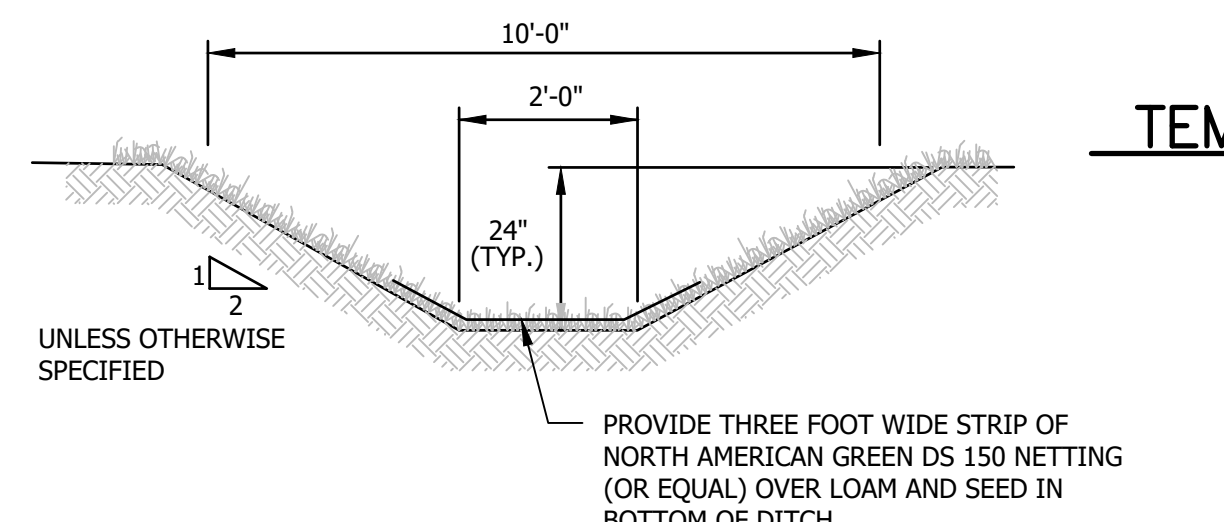
EROSION CONTROL GENERAL NOTES

- A. KEEP SITE MODIFICATION TO A MINIMUM
1. CONSIDER FITTING THE BUILDINGS AND STREETS TO THE NATURAL TOPOGRAPHY. THIS REDUCES THE NEED FOR CUTS AND FILLS. AVOID EXTENSIVE GRADING THAT WOULD ALTER DRAINAGE PATTERNS OR CREATE VERY STEEP SLOPES.
2. EXPOSE AREAS OF BARE SOIL TO EROSION ELEMENTS FOR THE SHORTEST TIME POSSIBLE.
3. SAVE AND PROTECT DESIRABLE EXISTING VEGETATION WHERE POSSIBLE. ERECT BARRIERS TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
4. LIMIT THE GRADES OF SLOPES SO VEGETATION CAN BE EASILY ESTABLISHED AND MAINTAINED.
5.0 AVOID SUBSTANTIAL INCREASE IN RUNOFF LEAVING THE SITE.
- B. MINIMIZE POLLUTION OF WATER DURING CONSTRUCTION ACTIVITIES
1. STOCKPILE TOPSOIL REMOVED FROM CONSTRUCTION AREA AND SPREAD OVER ANY DISTURBED AREAS PRIOR TO REVEGETATION. TOPSOIL STOCKPILES MUST BE PROTECTED FROM EROSION.
2. PROTECT BARE SOIL AREAS EXPOSED BY GRADING ACTIVITIES WITH TEMPORARY VEGETATION OR MULCHES.
3. USE SEDIMENT BASINS TO TRAP DEBRIS AND SEDIMENT WHICH WILL PREVENT THESE MATERIALS FROM MOVING OFF SITE.
4. USE DIVERSIONS TO DIRECT WATER AROUND THE CONSTRUCTION AREA AND AWAY FROM EROSION PRONE AREAS TO POINTS OF SAFE DISPOSAL.
5. USE TEMPORARY CULVERTS OR BRIDGES WHEN CROSSING STREAMS WITH EQUIPMENT.
6. PLACE CONSTRUCTION FACILITIES, MATERIALS, AND EQUIPMENT STORAGE AND MAINTENANCE AREAS AWAY FROM DRAINAGE WAYS.

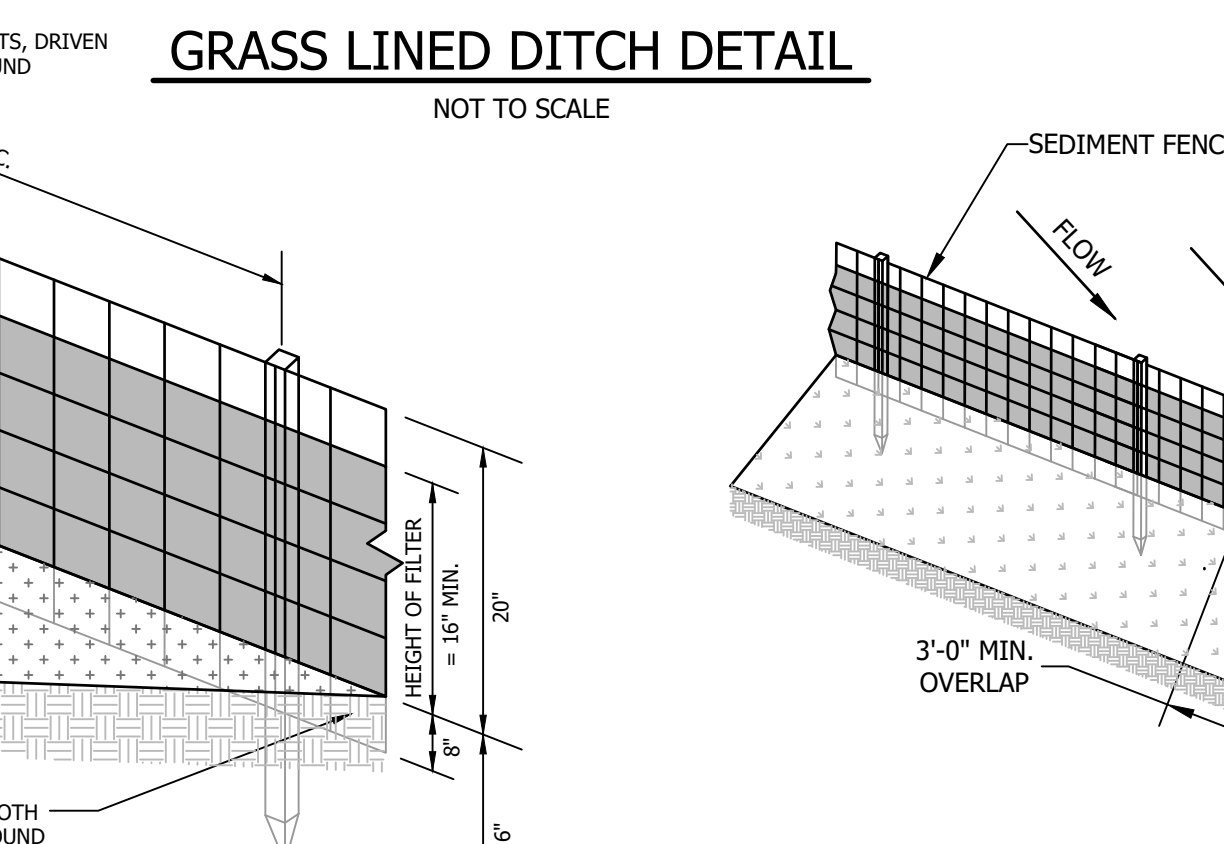
- C. PROTECT AREA AFTER CONSTRUCTION
1. ESTABLISH GRASS OR OTHER SUITABLE VEGETATION ON ALL DISTURBED AREAS. SELECT SPECIES ADAPTED TO THE SITE CONDITIONS AND THE FUTURE USE OF THE AREA. FINAL GRADES SHALL BE SEEDING WITHIN 72 HOURS. STABILIZATION SHALL BE DEFINED AS 85% VEGETATIVE COVER.
2. MAINTAIN VEGETATED AREAS USING PROPER VEGETATIVE 'BEST MANAGEMENT PRACTICES' DURING THE CONSTRUCTION PERIOD.
3. MAINTAIN NEEDED STRUCTURAL 'BEST MANAGEMENT PRACTICES' AND REMOVE SEDIMENT FROM DETENTION PONDS AND SEDIMENT BASINS AS NEEDED.
4. DETERMINE RESPONSIBILITY FOR LONG TERM MAINTENANCE OF PERMANENT 'BEST MANAGEMENT PRACTICES'.

- D. INVASIVE SPECIES MONITORING / ELIMINATION
1. PRECAUTIONS SHALL BE TAKEN TO PREVENT IMPORT OR TRANSPORT OF SOIL OR SEED STOCK CONTAINING NUISANCE OR INVASIVE SPECIES SUCH AS PURPLE LOOSESTRIFE, KNOTWEED OR PHRAGMITES. THE CONTRACTOR SHALL ADDRESS INVASIVE SPECIES IN ACCORDANCE WITH THE REPORT "NH DOT BEST MANAGEMENT PRACTICES FOR ROADSIDE INVASIVE PLANTS (2008)".
2. TO PREVENT THE INTRODUCTION OF INVASIVE PLANT SPECIES TO THE SITE, THE CONTRACTOR SHALL CLEAN ALL SOILS AND VEGETATION FROM CONSTRUCTION EQUIPMENT AND MATTING BEFORE SUCH EQUIPMENT IS MOVED TO THE SITE.
3. IF ANY INVASIVE OR NUISANCE SPECIES ARE FOUND DURING CONSTRUCTION OR DURING THE EARLY STAGES OF VEGETATIVE ESTABLISHMENT, THE CONTRACTOR WILL COORDINATE WITH NHDOT AND THE NH WETLANDS BUREAU TO DETERMINE AGREED TO CONTROL MEASURES.

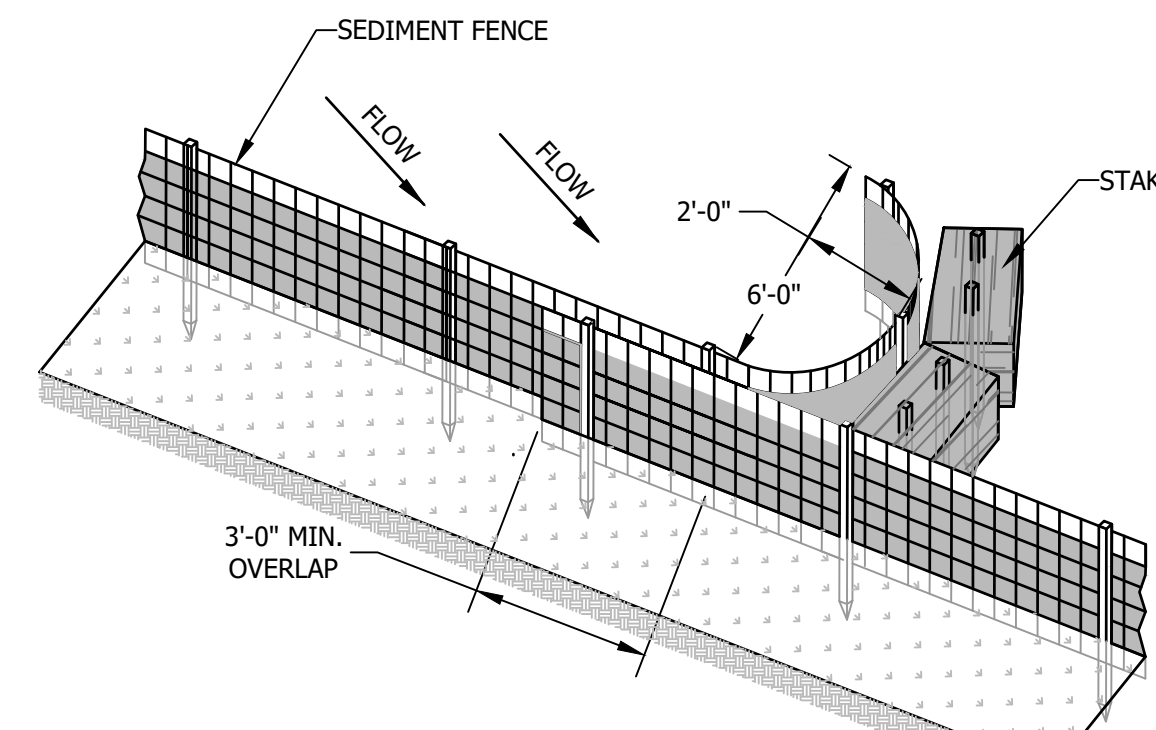
- E. POST CONSTRUCTION MONITORING
1. AFTER CONSTRUCTION IS COMPLETE THE DISTURBED AREAS WILL BE MONITORED FOR INVASIVE SPECIES DURING THE FIRST GROWING SEASON BUT BEFORE SEED SET. ANY INVASIVE SPECIES WILL BE MECHANICALLY REMOVED AND DISPOSED OF ACCORDING TO STANDARDS IN THE REPORT "NH DOT BEST MANAGEMENT PRACTICES FOR ROADSIDE INVASIVE PLANTS (2008)".
2. HORIZONS ENGINEERING, INC. WILL BE RESPONSIBLE FOR POST CONSTRUCTION MONITORING OF EROSION CONTROL, REVEGETATION, AND INVASIVE SPECIES. A MONITORING REPORT WITH PHOTOS AND RECOMMENDED REMEDIAL ACTIONS, IF ANY, WILL BE SUBMITTED TO THE NH WETLANDS BUREAU WITH COPIES SENT TO NHDOT, AND THE TOWN OF NEWPORT. THE REPORT WILL BE SUBMITTED WITH 30 DAYS OF NOTIFICATION OF PROJECT COMPLETION.



TEMPORARY INLET PROTECTION DETAIL
NOT TO SCALE



GRASS LINED DITCH DETAIL
NOT TO SCALE

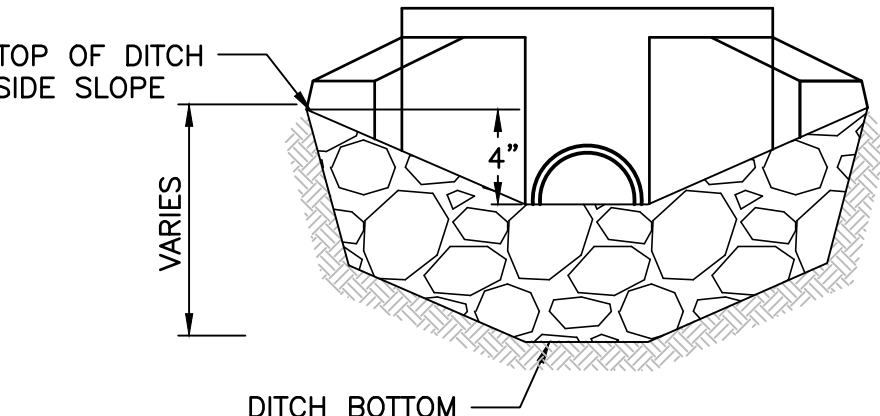


SEDIMENT FENCE POCKET
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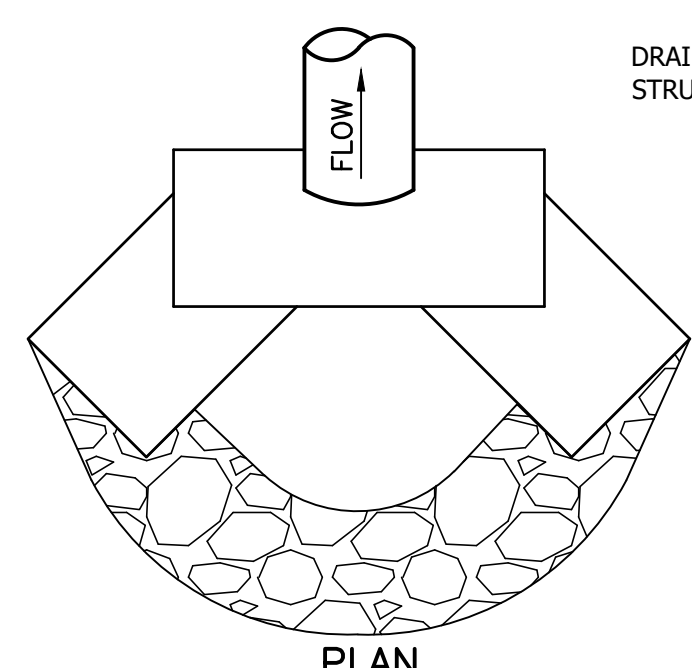
COLD WEATHER SITE STABILIZATION REQUIREMENTS

TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE FOLLOWING ADDITIONAL STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1:

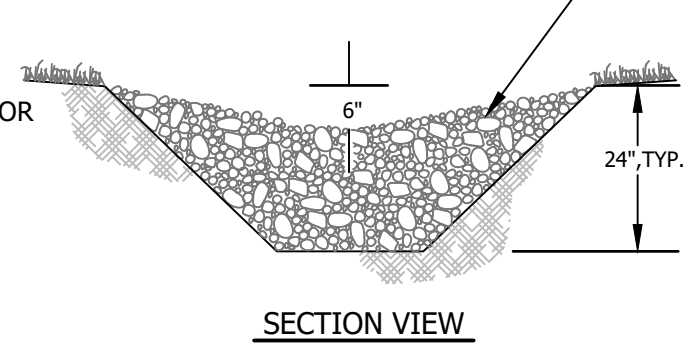
- THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1 ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY NHDES.
- ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDING AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE, SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDING AND COVERED WITH PROPERLY INSTALLED AND ANCHORED EROSION CONTROL MATTING OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX, MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H), SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
- INSTALLATION OF EROSION CONTROL MATTING SHALL NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- ALL PROPOSED STABILIZATION IN ACCORDANCE WITH NOTES 2 OR 3 ABOVE, SHALL BE COMPLETED WITHIN 1 DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM NO. 304.1 OR 304.2.



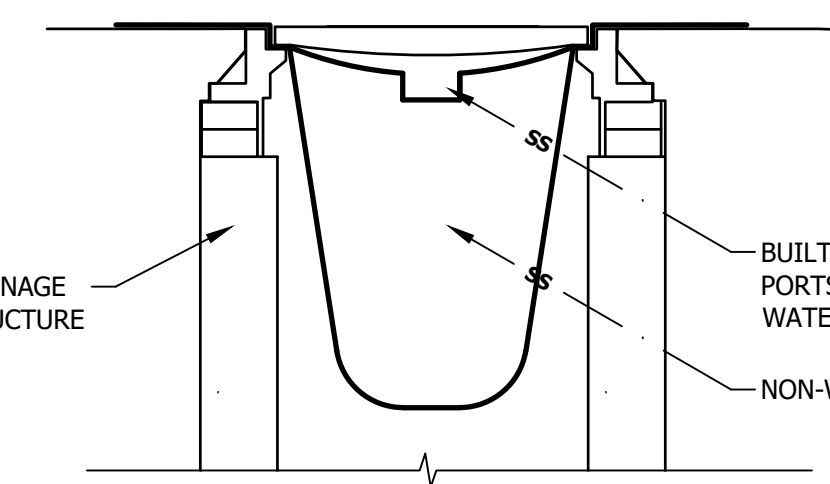
END ELEVATION



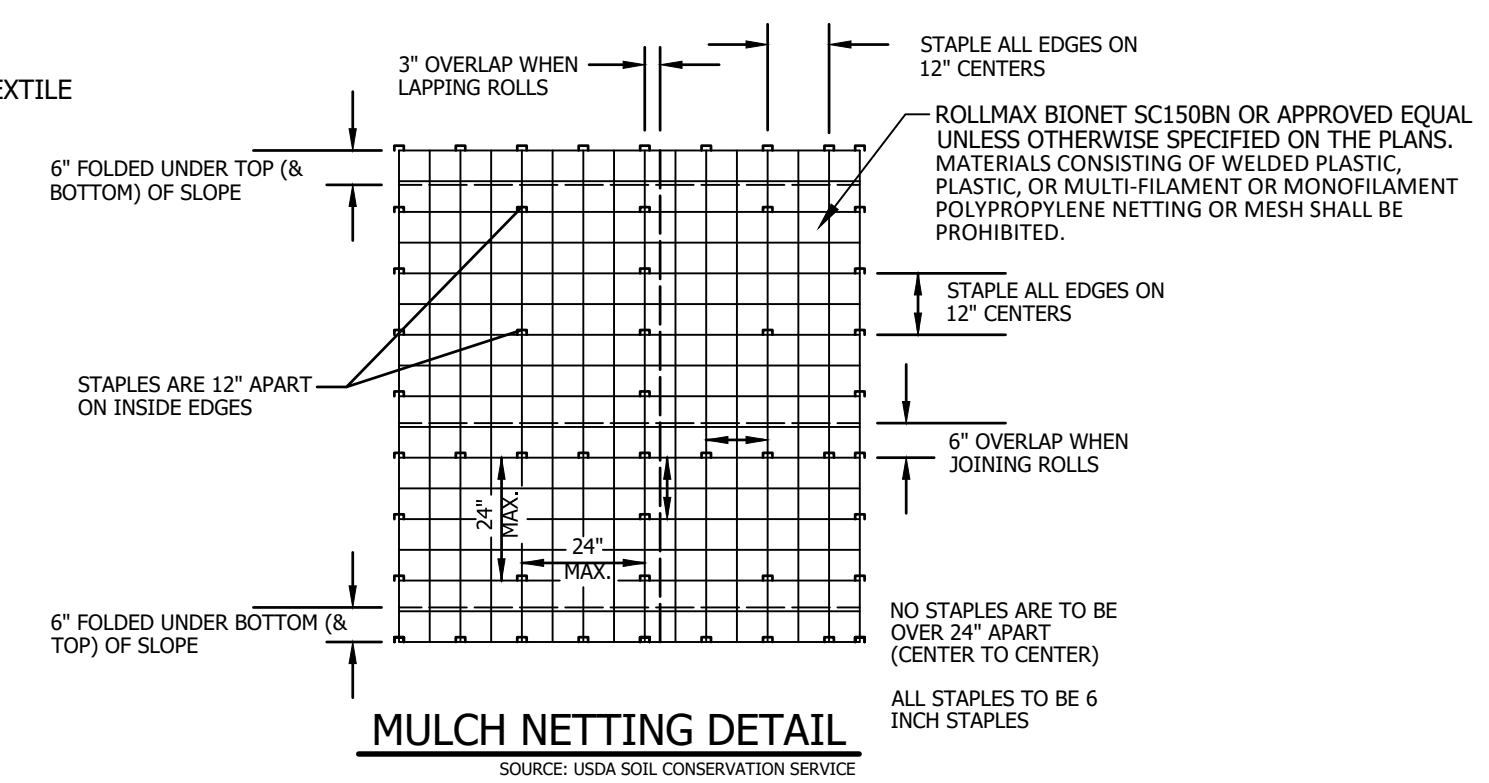
CATCH BASIN PROTECTION INSERT TYPE
NO SCALE



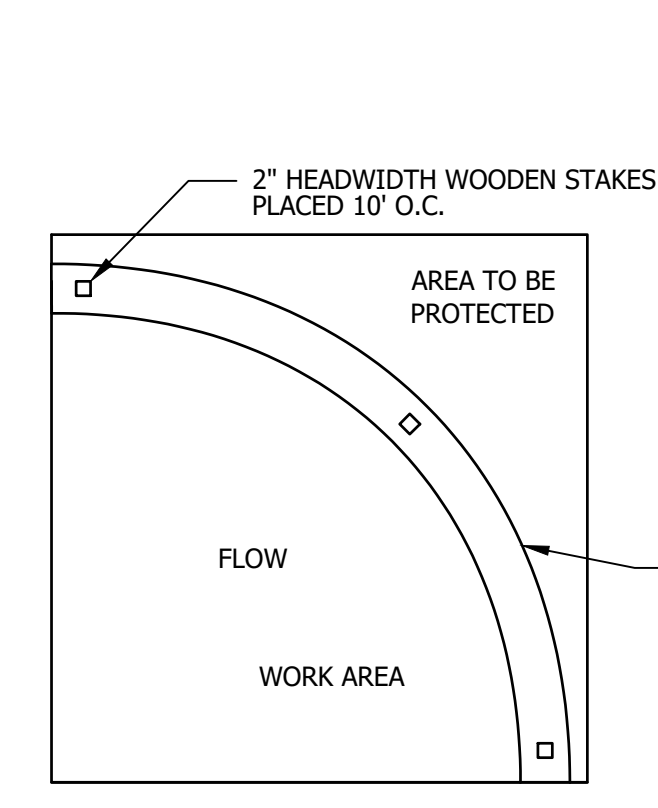
SECTION VIEW



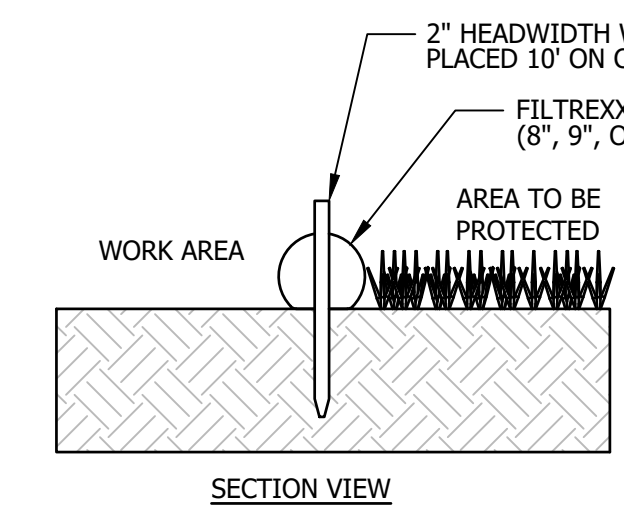
ROCK CHECK DAM DETAIL
NO SCALE



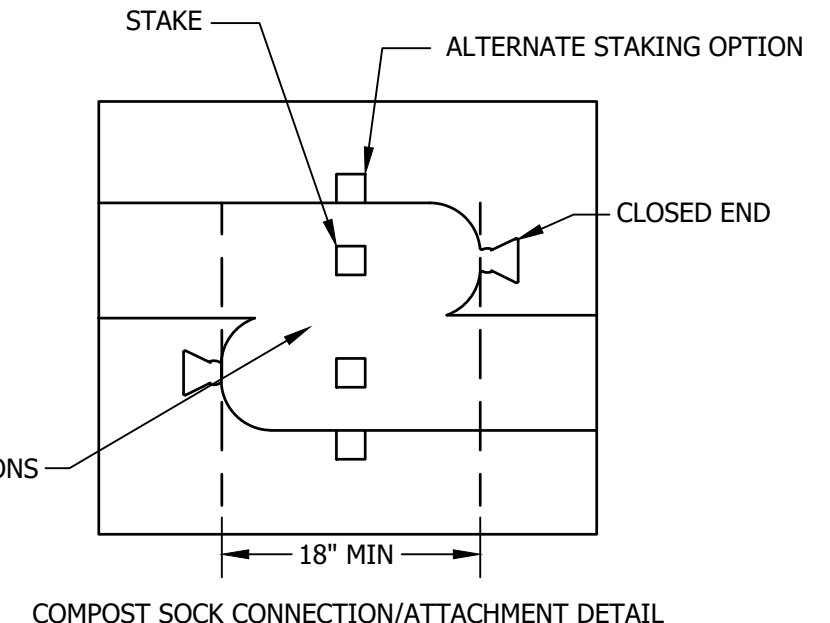
MULCH NETTING DETAIL
NO SCALE



TOP VIEW



SECTION VIEW



COMPOST SOCK CONNECTION/ATTACHMENT DETAIL

- NOTES:
1. ALL MATERIAL TO MEET FILTRIXX @ SPECIFICATIONS.
2. SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPersed ON SITE, AS DETERMINED BY ENGINEER.

FILTRIXX® SILT SOXX™ DETAILS

NOT TO SCALE
DATE OF PRINT: FEBRUARY 13 2025
SOURCE: <https://www.filtrixx.com/en/resources/design-specs-cads/filtrixx-cad-files>
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GRAFTON, OH 44044
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WWW.FILTRIXX.COM

FOR CONSTRUCTION

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CONSTRUCTION SEQUENCE

- CUT AND CLEAR TREES WITHIN THE CLEARING LIMITS.
 - PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND NOTICE OF INTENT (NOI) FOR THE PROJECT.
 - INSTALL SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSIONS CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS AND AS NEEDED.
 - PROCEED WITH WORK, LIMITING THE DURATION OF DISTURBANCE. THE MAXIMUM WORK UNIT AREA SHALL BE ONE ACRE IN SIZE. THE MAXIMUM LENGTH OF TIME THAT A WORK UNIT MAY BE LEFT UNSTABILIZED IS 30 DAYS.
 - BEGIN SEEDING AND MULCHING IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED WITH APPROVED METHODS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN SEDIMENT FENCE, SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY.
 - PLACE TOPSOIL, SEED AND MULCH.
 - COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES.
 - MONITOR THE SITE AND MAINTAIN STRUCTURES AS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.

NOTES

- CONSTRUCT ROCK CHECK DAMS WHERE INDICATED ON THE PLANS OR AS NECESSARY.
- CONSTRUCT SPILLWAY IN CENTER OF ROCK CHECK DAM 6" BELOW TOP OF CHANNEL.
- THE MAXIMUM SPACING BETWEEN THE STRUCTURES SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM STRUCTURE IS AT THE SAME ELEVATION AS THE SPILLWAY ELEVATION OF THE DOWNSTREAM STRUCTURE, THIS WILL VARY DEPENDING ON THE SLOPE OF THE CHANNEL.
- ROCK CHECK DAMS SHALL CONSIST OF A WELL GRADED MIXTURE OF 2" - 3" STONE.
- REMOVE ROCK CHECK DAMS AND ANY ACCUMULATED SILT IN CHANNEL ONCE PERMANENT CHANNEL LININGS HAVE BEEN ESTABLISHED AND STABILIZED.

NO.	DATE	REVISION DESCRIPTION
21254	JAN. 2024	

PROJECT #: 21254
DATE: JAN. 2024
MAP LOT (OR ARCHIVE): H-5694
SURVEYED BY: HET - NVJ/NWS
ENGINEERED BY: CLB
DRAWN BY: CLB
CHECKED BY: MLB

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TOWN OF NEWPORT
PRV BUILDING UPGRADES AND WATER MAIN IMPROVEMENTS
UNITY ROAD, NEWPORT, NEW HAMPSHIRE

EROSION CONTROL NOTES AND DETAILS

SHEET D-1

