

**MAINE TURNPIKE AUTHORITY**

**ADDENDUM NO. 1**

**CONTRACT**  
**2021.02**

**WATER LINE AND UTILITY**  
**VAULTS**

**MM 47.1, 47.6, AND 48.5**

**The bid opening date is changed to June 22, 2021 at 11:00 am.**

The following changes are made to the Proposal, Specifications and Plans.

**GENERAL**

Intentionally left blank.

**PROPOSAL**

Final Proposal P-sheets are updated and attached. The following Items have been revised based on the below Questions and Answers.

202.12 Remove Existing Structural Concrete; Quantity Increase

603.175 18 Inch Reinforced Concrete Pipe – Class III; Item added.

603.7424 Remove and Relay 24 inch Concrete Pipe: Item removed and made Incidental.

**SPECIFICATIONS**

- Notice To Contractor
  - Page N-1 is revised to change Bid Opening date. See Attached.
- Special Provision 107.1 Contract Time and Contract Completion Date
  - Page SP-11 is revised to change Substantial Completion Date and All Work Complete Date. See Attached.
- Special Provision 107.4.7 Limitations of Operations
  - Page SP-13 is revised to add two additional notes, l., and m., respectively. See Attached.
- Special Provision 604 Manholes, Inlet, and Catch Basins (Utility Vault Extensions)
  - Page SP-41 is revised under Section 604.03 Construction Requirements to change work and completion date. See Attached.

## **PLANS**

- Plan sheet 1 Index of Sheets revised to include additional utility vault as-built plans. See attached.
- Plan sheet 2 Estimate of Quantities and General Notes is revised. See attached.
- Plan sheets 11 and 12, Highway Plans are revised for Notes and details of construction adjacent to the waterline at station 2360+02. See attached.
- Plan sheets 14-18, Cross Sections are revised to add dimensions of existing lanes and a construction note for waterline at station 2360+02.
- Plan sheets 19, 20, 23, and 26, Structural Plans are revised to include retaining wall demolition at the Station 2340+52 Utility vault and to remove retaining wall demolition from the Station 2360+02 utility vault. See attached.
- Plan sheets 34-40, As-built Plans, are added to include existing utility vault information. See attached.

## **QUESTIONS**

**The following are questions asked at the pre-bid meeting held on June 03, 2021 or submitted to the Maine Turnpike Authority in writing. Answers to the questions are noted. Bidders shall utilize this information in preparing their bid.**

Question 1: There is a drainage manhole adjacent to the Utility Vault at station 2360+02. Does it need to be removed or can we work around it?

Answer: The existing 24" RCP and Manhole may be removed and reset to facilitate construction of vault extension. Payment shall be incidental to Utility Vault Extension. The existing 18" CMP over the waterline shall be replaced with 18" RCP if removed to facilitate construction of vault extension. Payment shall be made under Item 603.175.

Question 2: The plans show a retaining wall to be removed at one utility vault extension but not the other. Do all existing retaining walls need to be removed?

Answer: There are retaining walls at the utility vault extension, station 2340+52 northbound and southbound, that shall be removed. See attached structural plans for removal details.

**ATTACHMENTS**

- Addendum No. 1 (3 pages)
- Proposal Sheets (6 pages)
- Specifications (4 pages)
- Plans (20 pages)
- Pre-Bid Agenda (7 pages)

**Notes:** The above items shall be considered as part of the bid submittal.

The total number of pages included with this addendum is forty pages (40).

All bidders are requested to acknowledge the receipt of the Addendum No. 1 by signing below and faxing this sheet to Nathaniel Carll, Purchasing Department, Maine Turnpike Authority at 207-871-7739. Bidders are also required to acknowledge receipt of this Addendum No. 1 on Page P-8 of the bid package.

\_\_\_\_\_  
Business Name

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Very truly  
yours,

MAINE TURNPIKE AUTHORITY

\_\_\_\_\_  
Nathaniel Carll  
Purchasing Department  
Maine Turnpike  
Authority

**SCHEDULE OF BID PRICES  
CONTRACT NO. 2021.02  
WATER LINE AND UTILITY VAULTS  
MM 47.1, MM 47.6, AND MM 48.5**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
202.12	Remove Existing Structural Concrete	Cubic Yard	50				
203.20	Common Excavation	Cubic Yard	980				
203.25	Granular Borrow	Cubic Yard	280				
304.14	Aggregate Base Course - Type A	Cubic Yard	850				
403.213	Hot Mix Asphalt, 12.50 mm Nominal Maximum Size (Base and Intermediate Base Course)	Ton	80				
409.15	Bituminous Tack Coat RS1 or RS1h - Applied	Gallon	15				
419.30	Sawing Bituminous Pavement	Linear Foot	450				
501.231	Dynamic Load Test	Each	2				
501.40	Steel H-beam Piles, 53 lb/ft, delivered	Linear Foot	865				
501.401	Steel H-beam Piles, 53 lb/ft, in place	Linear Foot	865				
501.90	Pile Tips	Each	10				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
501.91	Pile Splices	Each	10				
501.92	Pile Driving Equipment Mobilization	Lump Sum	1				
511.091	Temporary Earth Support Systems	Lump Sum	1				
514.06	Curing Box for Concrete Cylinders	Each	1				
526.306	Temporary Concrete Barrier, Type I - Supplied by Authority (1,760 LF)	Lump Sum	1				
527.341	Work Zone Crash Cushions - TL-3	Unit	5				
603.175	18 inch Reinforced Concrete Pipe - Class III	Linear Foot	37				
603.195	24 inch Reinforced Concrete Pipe - Class III	Linear Foot	20				
603.28	Concrete Collar	Each	1				
603.281	Concrete Collar for Watermain	Each	1				
604.1581	Utility Vault Extension - STA 2360+02.55 NB	Lump Sum	1				
604.1582	Utility Vault Extension - STA 2340+52.81 NB	Lump Sum	1				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
604.1583	Utility Vault Extension - STA 2340+52.81 SB	Lump Sum	1				
606.366	Guardrail, Removed and Reset, Type 3c	Linear Foot	540				
610.08	Plain Riprap	Cubic Yard	11				
610.18	Stone Ditch Protection	Cubic Yard	5				
613.319	Erosion Control Blanket	Square Yard	200				
615.07	Loam	Cubic Yard	170				
618.14	Seeding Method Number 2	Unit	15				
619.1201	Mulch - Plan Quantity	Unit	15				
619.1202	Temporary Mulch	Lump Sum	1				
620.58	Erosion Control Geotextile	Square Yard	54				
627.712	White or Yellow Pavement Marking Line	Linear Foot	300				
627.73	Temporary 6 inch Pavement Marking Tape	Linear Foot	600				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
629.05	Hand Labor, Straight Time	Hour	15				
631.12	All Purpose Excavator (Including Operator)	Hour	15				
631.172	Truck-Large (Including Operator)	Hour	15				
631.22	Front End Loader (Including Operator)	Hour	15				
631.36	Foreman	Hour	15				
652.30	Flashing Arrow	Each	1				
652.312	Type III Barricades	Each	2				
652.33	Drum	Each	110				
652.35	Construction Signs	Square Foot	660				
652.361	Maintenance of Traffic Control Devices	Lump Sum	1				
652.41	Portable-Changeable Message Sign	Each	2				
652.45	Truck Mounted Attenuator	Calendar Day	15				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
656.50	Bailed Hay, In Place	Each	15				
656.632	30 Inch Temporary Silt Fence	Linear Foot	900				
659.10	Mobilization (Utility Vaults)	Lump Sum	1				
659.11	Mobilization (Waterline)	Lump Sum	1				
822.3405	8" Class 52 DI Pipe Push On Joint	Linear Foot	10				
822.3605	12" Class 52 DI Pipe Push on Joint	Linear Foot	160				
823.311	12" Gate Valve	Each	2				
823.333	1" Air Release Valve	Each	2				
825.60	12" DR 11 HDPE Pipe	Linear Foot	390				
827.303	Unsuitable Material Below Trench Grade	Cubic Yard	50				
845.211	Stone Pipe Support in Casing - NB, SB, & SB On Ramp	Lump Sum	1				
845.212	Stone Pipe Support in Casing - NB Off Ramp	Lump Sum	1				

**CARRIED FORWARD:**



Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
<b>TOTAL:</b>							

MAINE TURNPIKE AUTHORITY

NOTICE TO CONTRACTORS

Sealed Proposals will be received by the Maine Turnpike Authority for:

CONTRACT 2021.02

WATER LINE AND UTILITY VAULTS

MM 47.1, MM 47.6, AND MM 48.5

at the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, ME, until 11:00 a.m., prevailing time as determined by the Authority on June 22, 2021 at which time and place the Proposals will be publicly opened and read. Bids will be accepted from Contractors **prequalified** by the Maine Department of Transportation for Highway Construction Projects. All other bids may be rejected. This Project includes a wage determination developed by the State of Maine Department of Labor.

The work consists of constructing utility vault extensions and watermain replacement on the Maine Turnpike in the City of Portland, Maine. The work includes embankment excavation, shoulder gravels and pavement construction, utility vault extension, watermain replacement, guardrail and culvert removal and replacement, maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications.

Plans and Contract Documents may be examined by prospective Bidders weekdays between 8:00 a.m. and 4:30 p.m. at the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, Maine. **The half size Plans** and Contract Documents may be obtained from the Authority upon payment of Seventy-Five (\$75.00) Dollars for each set, which payment will not be returned. Checks shall be made payable to: Maine Turnpike Authority. The Plans and Contract Documents may also be downloaded from a link on our website at <http://www.maineturnpike.com/project-and-planning/Construction-Contracts.aspx>.

For general information regarding Bidding and Contracting procedures, contact Nate Carll, Purchasing Manager, at (207)482-8115. For information regarding Schedule of Items, plan holders list and bid results, visit our website at <http://www.maineturnpike.com/project-and-planning/Construction-Contracts.aspx>. For Project specific information, fax all questions to Nate Carll, Purchasing Manager, at (207) 871-7739 or email ncarll@maineturnpike.com. Responses will not be prepared for questions received by telephone. Bidders shall not contact any other Authority staff or Consultants for clarification of Contract provisions, and the Authority will not be responsible for any interpretations so obtained.

All work shall be governed by the Specifications entitled "State of Maine, Department of Transportation, Standard Specifications, Revision of November 2014", "Standard Details, Revision of November 2014" and "Best Management Practices for Erosion and Sediment Control", latest issue. Copies and recent updates to these publications can be downloaded at: <http://www.maine.gov/mdot/contractors/publications/>.

maintained during and following construction in accordance with MTA's Supplemental Specification Section 656.

The Project is subject to all general, special, and project-specific conditions contained in the DEP and U.S. Army Corps of Engineers Permits. Copies of the permits will be provided to the Contractor. The Contractor shall comply with the conditions outlined in the U.S. Army Corps of Engineers and DEP permits. The Contractor shall indemnify and hold harmless the Maine Turnpike Authority or its agents, representatives and employees against any and all claims, liabilities or fines arising from or based on the violation of the above noted permits.

#### 107.1 Contract Time and Contract Completion Date

This Subsection is amended by the addition of the following:

All work shall be complete on or before December 17, 2021. The construction shall be substantially complete by December 10, 2021.

##### 107.1.1 Substantial Completion

This Subsection is amended by the addition of the following:

Substantially complete shall be defined by the Authority as the following:

- All utility vault extensions complete and normal operation of the contained watermain is restored.
- All watermain casing extension and watermain replacement complete and normal operation of the watermain is restored.
- All shoulder pavement is completed.
- All temporary traffic control, including temporary concrete barrier, is removed from the Turnpike.
- All culverts and stormwater drainage systems have been restored to their pre-construction operation.
- All disturbed slopes loamed, seeded, and mulched, and temporary erosion control installed where necessary.

Supplemental Liquidated damages on a calendar day basis in accordance with Subsection 107.8 shall be assessed for each calendar day that any substantial completion is not achieved and as outlined above in this Subsection and below in Subsection 107.4.6 Prosecution of Work.

##### 107.4.6 Prosecution of Work

The following activities must be completed by or within the date(s) specified:

- a. No tree cutting shall occur between June 1 and July 31.

- they shall be removed prior to the material exiting the basin into a waterway. Removal shall be completed to the satisfaction of the Resident and payment shall be incidental to the Contract.
- i. There shall be no pile driving during non-daylight hours. Pile driving will not be allowed within 10 feet of traffic.
  - j. Lane closures, ramp closures, shoulder closures, and stoppages of all kinds are prohibited during an Interstate 295 closure for MaineDOT project WIN 21745, Interstate 295 over Veranda Street. The planned I-295 Closure, and weather alternate, is tentatively scheduled for either: the period Noon October 22, 2021 thru Noon October 25, 2021 with an alternate weather period of Noon October 29, 2021 thru Noon November 1, 2021, OR Noon April 15, 2022 thru Noon April 18, 2022, with an alternate weather period of Noon April 22, 2022 thru Noon April 25, 2022.
  - k. The Contractor shall maintain existing drainage during construction as needed for temporary use and as identified on the plans. This includes, but not limited to, making temporary pipe connections, grading temporary ditch, or bypass pumping of stormwater. Payment for temporary stormwater and ditch drainage shall be incidental to the Contract and no additional payment will be made for required labor, fittings, seals, etc. Payment for final ditch grading shall be paid for under the applicable Bid Items.
  - l. On-site work shall not start until August 10, 2021
  - m. The contractor is responsible for protecting the water lines from freezing and freezing temperatures of 32 degrees or lower.

SPECIAL PROVISION  
SECTION 604  
MANHOLES, INLETS, AND CATCH BASINS

(Utility Vault Extensions)

604.01 Description

The following sentences are added:

This work shall also include the partial demolition of the existing utility vaults and manholes and construction of the utility vault extensions as shown on the Contract Plans. This work shall also include developing and submitting for approval, a construction procedure, temporary water main support system, and temporary earth support to protect the water main, and coordination with Portland Water District as described in the Contract Plans and these Specifications. This work also includes the installation of new manholes as Manufactured by Neenah Foundry Company, Catalog Number R-6660-NH.

604.02 Materials

The following sentence is added:

Except as otherwise provided on the plans, reinforcing steel shall be epoxy coated reinforcing bars meeting the requirements of Section 503 – Reinforcing Steel. All concrete work shall be in accordance with the requirements of Section 502 – Structural Concrete.

604.03 Construction Requirements

The following sentences are added:

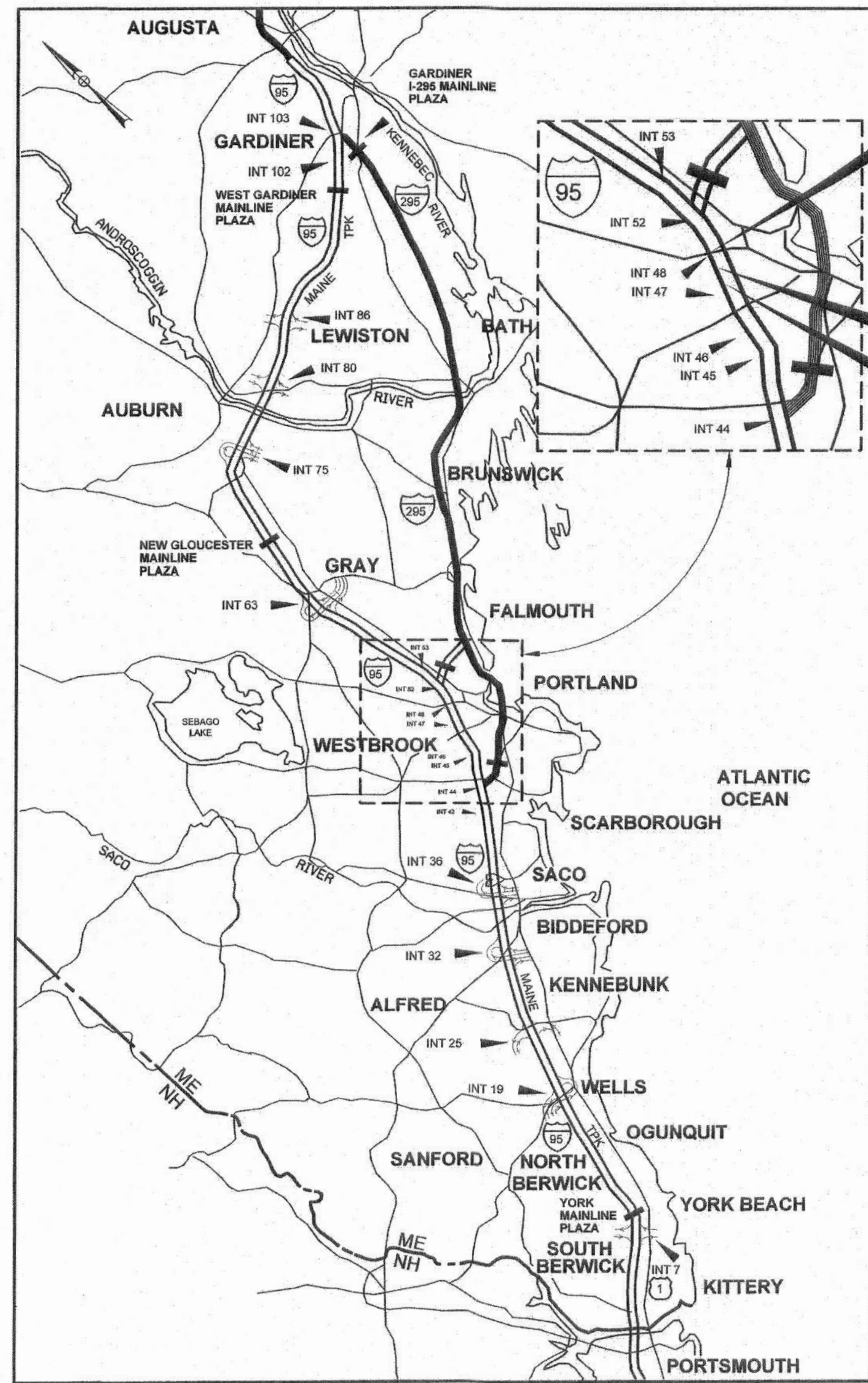
The Contractor shall develop a construction procedure, temporary water main support, and temporary support systems that will protect, at all times, the 42” Cast Iron Pipe (1912, leaded joint) – at station 2360+02.55 and the 42” Reinforced Concrete Cylinder Pipe (1931, rubber and steel joint) – at station 2340+50.81, during construction of the tunnel extensions. Each water main will be removed from service by Portland Water District (PWD) during the work by closing valves on each side of the work area.

The Contractor is required to fully complete the work on one utility vault before work can begin on the other utility vault. Water mains can be removed from service between April 15<sup>th</sup> and December 10<sup>th</sup> and all work shall be completed within those dates. Winter shut offs are not permitted.

The maximum pipe support spacing shall be 6’ along the pipeline. The temporary watermain support system and temporary earth support shall be designed by a professional engineer licensed in the State of Maine and reviewed by the Resident Engineer and PWD prior to the start of construction.



Date: 5/17/2021



LOCATION MAP



THE GOLD STAR MEMORIAL HIGHWAY

# MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR  
 ROBERT D. STONE, VICE CHAIR  
 MICHAEL J. CIANCHETTE, MEMBER  
 ANN R. ROBINSON, MEMBER  
 THOMAS J. ZUKE, MEMBER  
 JANE LINCOLN, MEMBER  
 BRUCE VAN NOTE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

## CONTRACT: 2021.02 WATER LINE AND UTILITY VAULTS MM 47.1, MM 47.6 AND MM 48.5

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATE OF QUANTITIES AND GENERAL NOTES
3	TYPICAL SECTIONS
4-10	MAINTENANCE OF TRAFFIC
11-12	HIGHWAY PLANS
13	LIMIT OF DISTURBANCE
14-18	CROSS SECTIONS
19-30	UTILITY VAULT EXTENSION STRUCTURAL PLANS
31-33	WATER MAIN REPLACEMENT - PWD
34-40	CONTRACT 2001.01 RAND ROAD RETAINING WALL ORIGINAL DESIGN PLANS

APPROVED: MAINE TURNPIKE AUTHORITY

*Peter S. Merfeld*  
 PETER S. MERFELD, P.E. - CHIEF OPERATIONS OFFICER

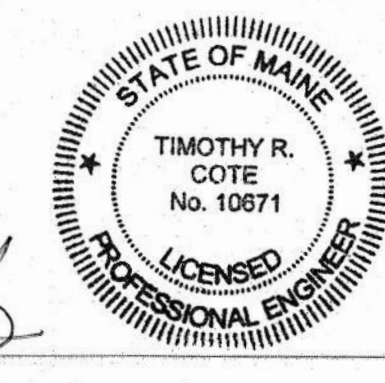
*5/18/21*  
 DATE

*Stephen R. Taithe*  
 STEPHEN R. TAITHE, P.E., - DIRECTOR OF ENGINEERING & BUILDING MAINTENANCE

*5/19/21*  
 DATE

### HNTB

*Timothy R. Cote*  
 TIMOTHY R. COTE, P.E.  
 VICE PRESIDENT



*5/24/2021*  
 DATE

CONTRACT: 2021.02

Filename: 001\_MTATitle.dgn



**GENERAL NOTES:**

- ALL DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) STANDARD DETAILS HIGHWAYS AND BRIDGES LATEST REVISION AND MAINEDOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION, UNLESS OTHERWISE INCLUDED IN THESE PLANS.
- THE CONTRACTOR SHALL SUBMIT THE PROPOSED STAGING AREA(S) AND CONTRACTOR'S FIELD TRAILER LOCATION TO THE RESIDENT FOR APPROVAL PRIOR TO STARTING WORK.
- RIGHT OF WAY AND PROPERTY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- GEOTECHNICAL INFORMATION EITHER FURNISHED OR REFERENCED IN THIS PLAN SET IS FOR THE BIDDER'S AND CONTRACTOR'S USE. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR THE INTERPRETATIONS WILL BE REPRESENTATIVE OF ACTUAL SUBSURFACE CONDITIONS AT THE TIME OF CONSTRUCTION. THE AUTHORITY SHALL NOT BE RESPONSIBLE FOR THE BIDDER'S AND CONTRACTOR'S INTERPRETATIONS OF, OR CONCLUSIONS DRAWN FROM, THE GEOTECHNICAL INFORMATION.
- THE GEOTECHNICAL DESIGN REPORT, INCLUDING TEST BORING LOGS TITLED PORTLAND AREA WIDENING & SAFETY IMPROVEMENTS, MAINE TURNPIKE, GEOTECHNICAL DESIGN REPORT MAY BE ACCESSED AT THE MAINE TURNPIKE AUTHORITY WEB ADDRESS: WWW.MAINeturnPIKE.COM/PROJECTS/CONSTRUCTION-CONTRACTS.
- TREE CLEARING IS NOT ALLOWED FROM JUNE 1 TO JULY 31.
- CONTRACTOR SHALL PROVIDE MTA WITH AS-CONSTRUCTED PLANS IN PDF AND MICROSTATION FORMATS. THE PLANS SHALL NOTE ALL CHANGES TO, BUT NOT LIMITED TO: THE WATERLINE CASING AND VAULTS

**EARTHWORK AND PAVEMENT NOTES:**

- EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P, EXCAVATIONS, OF 29 CFR PART 1926.650-652 AND APPENDICES.
- REMOVAL OF PAVEMENT FOR WATER MAIN REPLACEMENT AT EXIT 48 SHALL NOT BE ALLOWED.
- REMOVAL OF PAVEMENT FOR UTILITY VAULT EXTENSIONS AS SHOWN ON THE PLANS IS ALLOWED. EXISTING PAVEMENT THICKNESS IS ESTIMATED AT 10 INCHES.
- CLEARING LIMITS SHALL BE 10' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE RESIDENT. THE ACTUAL CLEARING LINES SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AND SHALL BE APPROVED BY THE RESIDENT PRIOR TO ANY CLEARING TAKING PLACE. CLEARING SHALL BE INCIDENTAL TO THE CONTRACT.

**UTILITY NOTES:**

- EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED. NO WORK SHALL BE STARTED UNTIL THE OWNERS OF THE VARIOUS UTILITIES ARE NOTIFIED BY THE CONTRACTOR OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR IS ALSO REQUIRED TO CALL DIG SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO THE START OF THE WORK.
- THE UTILITIES INVOLVED IN THIS CONTRACT ARE:  
  
CENTRAL MAINE POWER  
MAINE TURNPIKE AUTHORITY LIGHTING  
PORTLAND PIPELINE  
PORTLAND WATER DISTRICT
- THE CONTRACTOR SHALL NOTIFY THE RESIDENT 10 DAYS PRIOR TO CONSTRUCTION SO THE RESIDENT CAN ARRANGE FOR MAINE TURNPIKE UNDERGROUND UTILITY LOCATION. ALL EXCAVATION LOCATIONS SHALL BE MARKED AT THE NOTIFICATION TIME. EXCAVATION WILL NOT BE PERMITTED UNTIL THE AUTHORITY HAS LOCATED AND MARKED THEIR UNDERGROUND UTILITIES, OR NOTIFIED THE RESIDENT THERE ARE NO UNDERGROUND UTILITIES IN THE MARKED AREAS. THE AUTHORITY HAS PROGRAMMED TWO FIELD VISITS FOR MAINE TURNPIKE UTILITY COORDINATION ON THIS PROJECT. SHOULD THE CONTRACTOR NEED ADDITIONAL EXCAVATION LOCATIONS MARKED, OR SHOULD THE CONTRACTOR FAIL TO MAINTAIN THE AUTHORITY'S PREVIOUSLY ESTABLISHED DIG SAFE MARKS, THE AUTHORITY SHALL DEDUCT ADDED MARKING COSTS FROM THE CONTRACTOR'S PAYMENTS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE UTILITY LOCATIONS.

**LIGHTING NOTES:**

- LOCATION OF ELECTRICAL CONDUIT IS SCHEMATIC ONLY.
- EXISTING ELECTRICAL SERVICE TO RAMP LIGHTING SHALL BE MAINTAINED SUCH THAT ALL LIGHTING IS IN CONTINUOUS SERVICE.

**GUARDRAIL NOTES:**

- AT THE END OF EACH WORK DAY, THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASHWORTHY END TREATMENT ON ALL GUARDRAIL ITEMS, UNLESS NOTED OTHERWISE.
  - CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL SHALL BE INCIDENTAL TO THE PROPOSED GUARDRAIL ITEMS, UNLESS OTHERWISE NOTED.
  - ALL GUARDRAIL SHALL BE INSTALLED IN A MANNER TO AVOID DRAINAGE STRUCTURES AND ELECTRICAL CONDUITS.
  - HOLES CREATED BY GUARDRAIL REMOVAL WILL BE FILLED AND COMPACTED WITH APPROVED MATERIALS AS DIRECTED BY THE RESIDENT. PAYMENT TO BE INCIDENTAL TO THE GUARDRAIL ITEMS.
- DRAINAGE NOTES:**
- INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.
  - IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW - UNDERWATER BACKFILL.
  - ALL DITCH ELEVATIONS AND OFFSETS SHOWN ON THE CROSS SECTIONS ARE FOR THE FINISHED DITCH FLOW LINE.
  - THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE DURING CONSTRUCTION AS NEEDED FOR TEMPORARY USE, PRIOR TO PROPOSED DRAINAGE SYSTEMS BEING FUNCTIONAL AS IDENTIFIED ON PLANS.

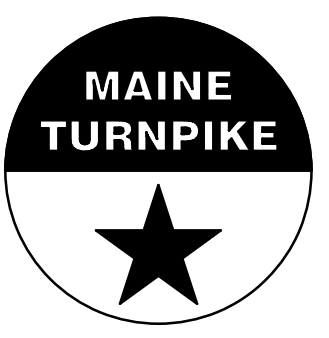
**EROSION CONTROL NOTES:**

- THE ANTICIPATED EROSION CONTROL DEVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROPOSE ACTUAL TYPE AND LOCATION OF DEVICES FOR APPROVAL BY THE RESIDENT. ADDITIONAL MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS. THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE MEASURED FOR PAYMENT UNDER THE APPROPRIATE BID ITEMS.
- EROSION CONTROL DEVICES USED AT EXIT 48 WATERLINE REPLACEMENT SHALL NOT BE MEASURED FOR PAYMENT AND SHALL BE CONSIDERED INCIDENTAL TO THE WATERLINE PAY ITEMS.
- 4" LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE AREA UNLESS OTHERWISE SPECIFIED ON THE PLANS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS DESIGNATED BY THE RESIDENT.
- ALL NON-ROCK SLOPES SHALL BE SEEDED WITH SEEDING METHOD NO. 2.
- MULCH SHALL BE APPLIED IN SEEDED AREAS, EXCEPT WHERE EROSION CONTROL BLANKET IS SPECIFIED.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES.
- TEMPORARY EROSION CONTROL BLANKET, ITEM 613.319 SHALL BE INSTALLED IN ALL DITCHES AND 2:1 SLOPES FROM TOP TO TOE OF SLOPE. LOAM AND SEED SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE EROSION CONTROL BLANKET. LIMITS OF THE EROSION CONTROL BLANKET IN DITCHES SHALL BE 6' WIDE OR AS DESIGNATED BY THE RESIDENT.
- TEMPORARY STABILIZATION WITH MULCH OR OTHER NON-ERODABLE COVER IS REQUIRED ON ALL EXPOSED SOILS THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS. AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY SHALL BE STABILIZED WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST. THE CONTRACTOR IS RESPONSIBLE FOR APPLYING TEMPORARY MULCH AS NECESSARY, IN ACCORDANCE WITH THE LATEST EDITION OF THE BMP'S, TO MINIMIZE SOIL EROSION PRIOR TO THE APPLICATION OF THE FINAL SLOPE TREATMENT.
- TEMPORARY SEED SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL NOT BE COMPLETED WITHIN 30 DAYS.
- A DOUBLE ROW OF SILT FENCE PROTECTION SHALL BE INSTALLED AT ALL STREAM LOCATIONS AND OPEN WATER WETLANDS AS SHOWN ON THE PLANS, OR AS DIRECTED BY RESIDENT. AN ADDITIONAL QUANTITY IS INCLUDED FOR LOCATIONS NOT SPECIFICALLY SHOWN.
- STABILIZED CONSTRUCTION ENTRANCES MUST BE USED AND MAINTAINED. NO TRACKING OF SOIL ON THE MAINE TURNPIKE OR LOCAL ROADS WILL BE ALLOWED.
- IF DIRECTED BY THE RESIDENT, EROSION CONTROL MIX SHALL BE USED IN PLACE OF LOAM AND SEED IN AREAS OF REGRADED TEMPORARY GRAVEL SHOULDER WIDENING. PAYMENT SHALL BE MADE PER THE CONTRACT UNIT PRICE OF THE LOAM PAY ITEM.

ESTIMATED QUANTITIES					
ITEM NO	DESCRIPTION	WATER MAIN	UTILITY VAULTS	TOTAL QUANTITY	UNIT
202.12	REMOVE EXISTING STRUCTURAL CONCRETE		50	50	CY
203.20	COMMON EXCAVATION	70	910	980	CY
203.25	GRANULAR BORROW	100	180	280	CY
304.14	AGGREGATE BASE COURSE - TYPE A	150	700	850	CY
403.213	HOT MIX ASPHALT, 1/2.50 MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE BASE COURSE)		80	80	TON
409.15	BITUMINOUS TACK COAT RSI OR RSIH - APPLIED		15	15	GAL
419.30	SAWING BITUMINOUS PAVEMENT		450	450	LF
501.231	DYNAMIC LOAD TEST		2	2	EA
501.40	STEEL H-BEAM PILES, 53 LB/FT, DELIVERED		865	865	LF
501.401	STEEL H-BEAM PILES, 53 LB/FT, IN PLACE		865	865	LF
501.90	PILE TIPS		10	10	EA
501.91	PILE SPLICES		10	10	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION		1	1	LS
511.091	TEMPORARY EARTH SUPPORT SYSTEMS		1	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS		1	1	EA
526.306	TEMPORARY CONCRETE BARRIER, TYPE I - SUPPLIED BY AUTHORITY (1,760 LF)		1	1	LS
527.341	WORK ZONE GRASS CUSHIONS - TL-3		5	5	UNIT
603.175	18 INCH REINFORCED CONCRETE PIPE - CLASS III		37	37	LF
603.195	24 INCH REINFORCED CONCRETE PIPE - CLASS III	20		20	LF
603.28	CONCRETE COLLAR		1	1	EA
603.281	CONCRETE COLLAR FOR WATERMAIN	1		1	EA
604.1581	UTILITY VAULT EXTENSION - STA 2360+02.55 NB		1	1	LS
604.1582	UTILITY VAULT EXTENSION - STA 2340+52.81 NB		1	1	LS
604.1583	UTILITY VAULT EXTENSION - STA 2340+52.81 SB		1	1	LS
606.366	GUARDRAIL, REMOVED AND RESET, TYPE 3C		540	540	LF
610.08	PLAIN RIPRAP		11	11	CY
610.18	STONE DITCH PROTECTION		5	5	CY
613.319	EROSION CONTROL BLANKET		200	200	SY
615.07	LOAM		170	170	CY
618.14	SEEDING METHOD NUMBER 2		15	15	UNIT
619.1201	MULCH - PLAN QUANTITY		15	15	UNIT
619.1202	TEMPORARY MULCH		1	1	LS
620.58	EROSION CONTROL GEOTEXTILE		54	54	SY
627.712	WHITE OR YELLOW PAVEMENT MARKING LINE		300	300	LF
627.73	TEMPORARY 6 INCH PAVEMENT MARKING TAPE		600	600	LF
629.05	HAND LABOR, STRAIGHT TIME	10	5	15	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	5	15	HR
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	10	5	15	HR
631.22	FRONT END LOADER (INCLUDING OPERATOR)	10	5	15	HR
631.36	FOREMAN	10	5	15	HR
652.30	FLASHING ARROW		1	1	EA
652.312	TYPE III BARRICADES		2	2	EA
652.33	DRUM		110	110	EA
652.35	CONSTRUCTION SIGNS		660	660	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES		1	1	LS
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN		2	2	EA
652.45	TRUCK MOUNTED ATTENUATOR		15	15	CD
656.50	BAILED HAY, IN PLACE		15	15	EA
656.632	30 INCH TEMPORARY SILT FENCE		900	900	LF
659.10	MOBILIZATION (UTILITY VAULTS)		1	1	LS
659.11	MOBILIZATION (WATERLINE)		1	1	LS
822.3405	8" CLASS 52 DI PIPE PUSH ON JOINT		10	10	LF
822.3605	12" CLASS 52 DI PIPE PUSH ON JOINT		160	160	LF
823.311	12" GATE VALVE		2	2	EA
823.333	1" AIR RELEASE VALVE		2	2	EA
825.60	12" DR II HDPE PIPE		390	390	LF
827.303	UNSUITABLE MATERIAL BELOW TRENCH GRADE		50	50	CY
845.211	STONE PIPE SUPPORT IN CASING - NB, SB, & SB ON RAMP		1	1	LS
845.212	STONE PIPE SUPPORT IN CASING - NB OFF RAMP		1	1	LS

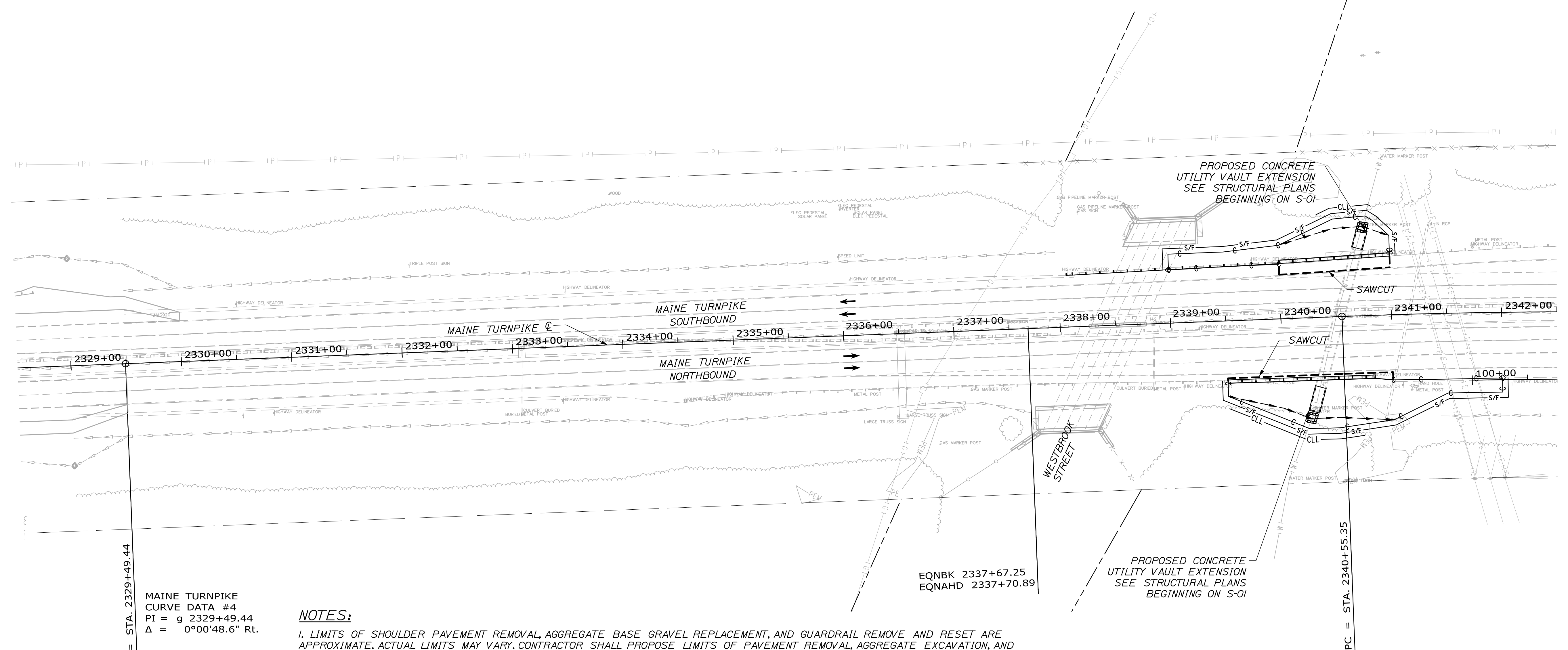
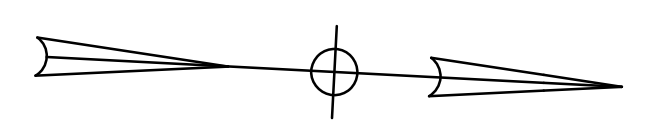
Date: 6/11/2021

Filename: PAW2 - General Notes.dgn

Scale: <b>NOT TO SCALE</b>	Designed by: <b>HNTB</b>	HNTB CORPORATION 82 Running Hill Road, Suite 201 South Portland, ME 04106 TEL (207) 774-5155 FAX (207) 228-0909		<b>THE GOLD STAR MEMORIAL HIGHWAY</b>	<b>WATER LINE AND UTILITY VAULTS</b>  ESTIMATE OF QUANTITIES AND GENERAL NOTES																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">▲</td> <td style="text-align: center;">ADDENDUM #1</td> <td style="text-align: center;">DAM</td> <td style="text-align: center;">06/21</td> </tr> </tbody> </table>	No.	Revision	By	Date	▲	ADDENDUM #1	DAM	06/21	CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>By</th> <th>Date</th> <th>Checked</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Designed</td> <td>DAM</td> <td>04/21</td> <td>Checked</td> <td>RWH</td> <td>04/21</td> </tr> <tr> <td>Drawn</td> <td>EDD</td> <td>04/21</td> <td>In Charge of</td> <td>TRC</td> <td>04/21</td> </tr> </tbody> </table>		By	Date	Checked	By	Date	Designed	DAM	04/21	Checked	RWH	04/21	Drawn	EDD	04/21	In Charge of	TRC	04/21	MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.	CONTRACT: 2021.02	SHEET NUMBER: GN-01  2 OF 40
No.	Revision	By	Date																											
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Drawn	EDD	04/21	In Charge of	TRC	04/21																									

ITEM 606.366 GUARDRAIL REMOVE AND RESET  
 STA. 2339+50.00, 53.45' RT. TO STA. 2340+83.37, 54.10' RT. (ADJUST LIMITS IN THE FIELD)  
 STA. 2338+07.80, 48.38' LT. TO STA. 2341+00.00, 53.19' LT. (ADJUST LIMITS IN THE FIELD)

LE  
 133  
 293



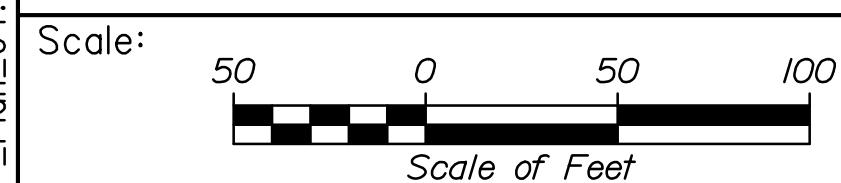
MAINE TURNPIKE  
 CURVE DATA #4  
 PI = g 2329+49.44  
 $\Delta = 0^{\circ}00'48.6''$  Rt.

**NOTES:**

1. LIMITS OF SHOULDER PAVEMENT REMOVAL, AGGREGATE BASE GRAVEL REPLACEMENT, AND GUARDRAIL REMOVE AND RESET ARE APPROXIMATE. ACTUAL LIMITS MAY VARY. CONTRACTOR SHALL PROPOSE LIMITS OF PAVEMENT REMOVAL, AGGREGATE EXCAVATION, AND GUARDRAIL REMOVAL FOR REVIEW AND APPROVAL BY RESIDENT.
2. PAYMENT FOR ALL ITEMS SHALL BE BASED ON ACTUAL WORK COMPLETED, MEASURED, AND ACCEPTED.
3. STA. 2340+00 RT. SAWCUT PARALLEL TO RAMP STRIPING, APPROX. 52' OFFSET. TEMPORARY EARTH SUPPORT MAY BE REQUIRED.
4. STA. 2340+00 LT. SAWCUT PARALLEL TO RAMP STRIPING OFFSET VARIES. TEMPORARY EARTH SUPPORT MAY BE REQUIRED.
5. REPLACE PAVEMENT WITH 4" H.M.A. REPLACE MINIMUM 8 1/2" AGGREGATE BASE COURSE - TYPE A BENEATH ALL REMOVED PAVEMENT. REPLACE ALL EXCAVATED MATERIAL WITHIN 36" OF PAVED SURFACE WITH TYPE A GRAVEL. TYPE A GRAVEL SHALL BE DAYLIGHTED.
6. THE PAVEMENT BASE DEPTHS AND CROSS SLOPES AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
7. BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT, OR AS DIRECTED BY RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.
8. ALL DISTURBED SIDESLOPE AREAS SHALL BE TREATED WITH 4" LOAM, SEED, AND MULCH.

Date: 6/11/2021

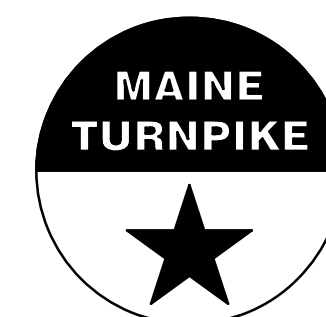
Filename: PAW2\_HP\_Plan\_04.dgn



Designed by:



HNTB CORPORATION  
 82 Running Hill Road, Suite 201  
 South Portland, ME 04106  
 TEL (207) 774-5155  
 FAX (207) 228-0909



**THE GOLD STAR  
 MEMORIAL HIGHWAY**

WATER LINE AND UTILITY VAULTS

HIGHWAY PLAN (1 OF 2)

No.	Revision	By	Date
1	ADDENDUM #1	DAM	06/21

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
Designed	DAM	04/21	Checked
Drawn	EDD	04/21	In Charge of
			TRC

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT: 2021.02

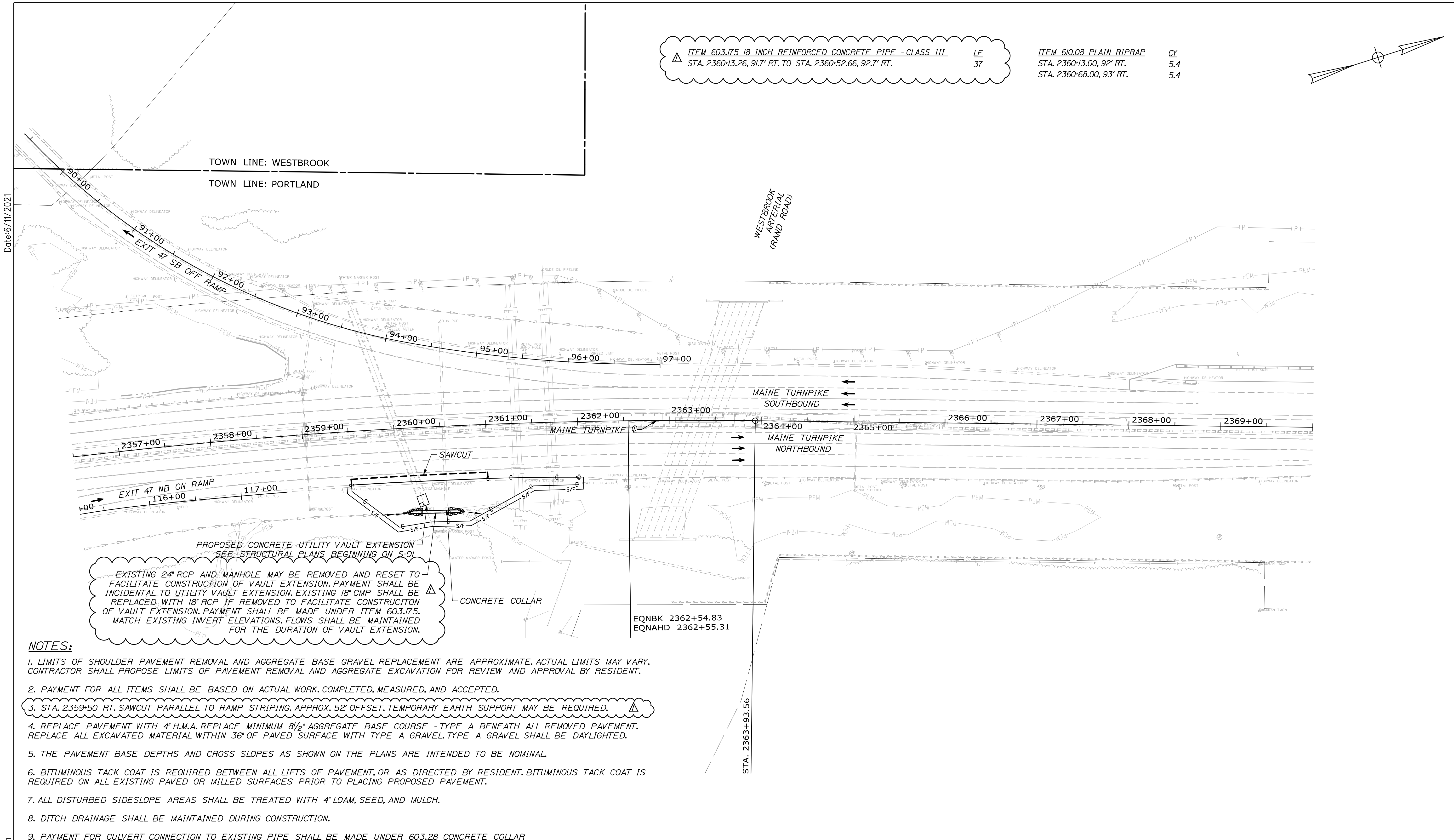
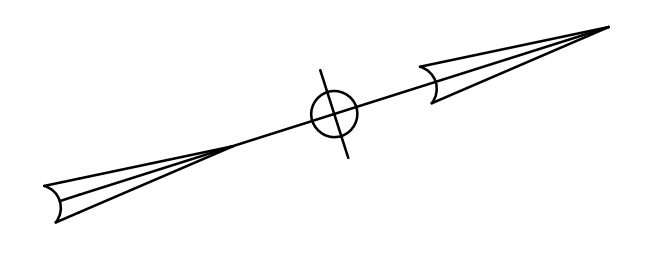
SHEET NUMBER: HP-01

11 OF 40



ITEM 603.175 18 INCH REINFORCED CONCRETE PIPE - CLASS III LF 37  
 STA. 2360+13.26, 91.7' RT. TO STA. 2360+52.66, 92.7' RT.

ITEM 610.08 PLAIN RIPRAP CY 5.4  
 STA. 2360+13.00, 92' RT.  
 STA. 2360+68.00, 93' RT.



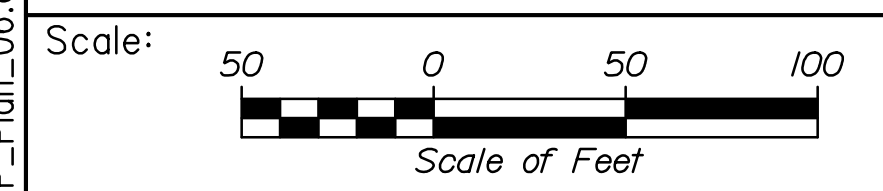
PROPOSED CONCRETE UTILITY VAULT EXTENSION  
 SEE STRUCTURAL PLANS BEGINNING ON S-01

EXISTING 24" RCP AND MANHOLE MAY BE REMOVED AND RESET TO FACILITATE CONSTRUCTION OF VAULT EXTENSION. PAYMENT SHALL BE INCIDENTAL TO UTILITY VAULT EXTENSION. EXISTING 18" CMP SHALL BE REPLACED WITH 18" RCP IF REMOVED TO FACILITATE CONSTRUCTION OF VAULT EXTENSION. PAYMENT SHALL BE MADE UNDER ITEM 603.175. MATCH EXISTING INVERT ELEVATIONS. FLOWS SHALL BE MAINTAINED FOR THE DURATION OF VAULT EXTENSION.

**NOTES:**

- LIMITS OF SHOULDER PAVEMENT REMOVAL AND AGGREGATE BASE GRAVEL REPLACEMENT ARE APPROXIMATE. ACTUAL LIMITS MAY VARY. CONTRACTOR SHALL PROPOSE LIMITS OF PAVEMENT REMOVAL AND AGGREGATE EXCAVATION FOR REVIEW AND APPROVAL BY RESIDENT.
- PAYMENT FOR ALL ITEMS SHALL BE BASED ON ACTUAL WORK COMPLETED, MEASURED, AND ACCEPTED.
- STA. 2359+50 RT. SAWCUT PARALLEL TO RAMP STRIPING, APPROX. 52' OFFSET. TEMPORARY EARTH SUPPORT MAY BE REQUIRED.
- REPLACE PAVEMENT WITH 4" H.M.A. REPLACE MINIMUM 8 1/2" AGGREGATE BASE COURSE - TYPE A BENEATH ALL REMOVED PAVEMENT. REPLACE ALL EXCAVATED MATERIAL WITHIN 36" OF PAVED SURFACE WITH TYPE A GRAVEL. TYPE A GRAVEL SHALL BE DAYLIGHTED.
- THE PAVEMENT BASE DEPTHS AND CROSS SLOPES AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
- BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT, OR AS DIRECTED BY RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.
- ALL DISTURBED SIDESLOPE AREAS SHALL BE TREATED WITH 4" LOAM, SEED, AND MULCH.
- DITCH DRAINAGE SHALL BE MAINTAINED DURING CONSTRUCTION.
- PAYMENT FOR CULVERT CONNECTION TO EXISTING PIPE SHALL BE MADE UNDER 603.28 CONCRETE COLLAR

Filename: PAW2\_HP\_Plan\_06.dgn



Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

No.	Revision	By	Date
1	ADDENDUM #1	DAM	06/21

	By	Date	By	Date	
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Drawn	EDD	04/21	In Charge of	TRC	04/21

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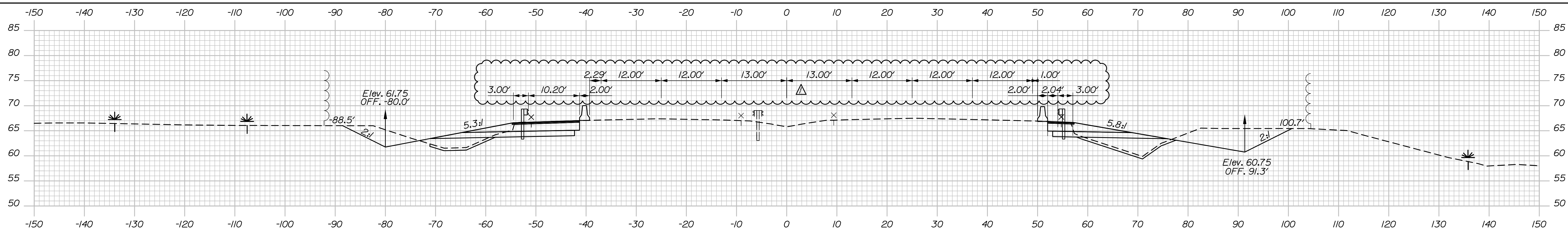
**THE GOLD STAR  
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

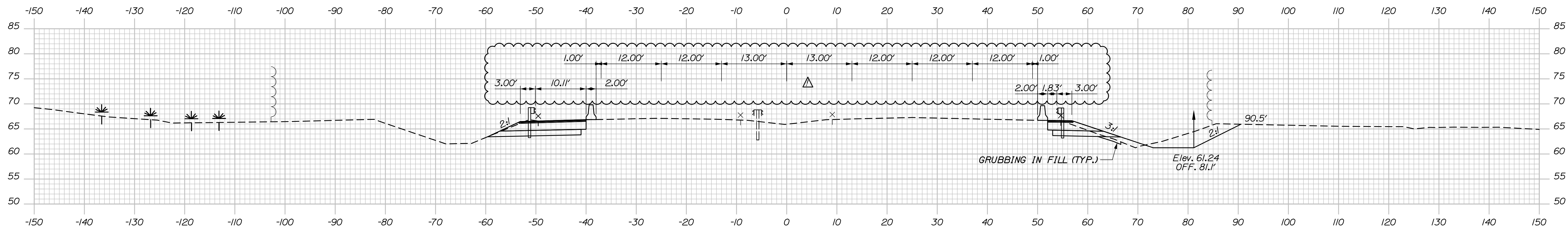
WATER LINE AND UTILITY VAULTS  
 HIGHWAY PLAN (2 OF 2)

SHEET NUMBER: HP-02  
 CONTRACT: 2021.02  
 12 OF 40

Date: 6/11/2021



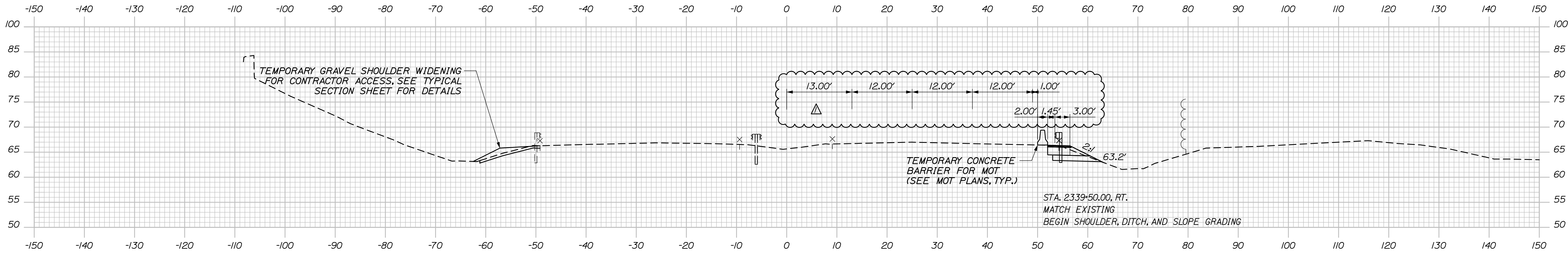
2340+50.00



2340+00.00

STATION 2340+00.00  
APPROX. ELEV. -23.0  
NR PROBE

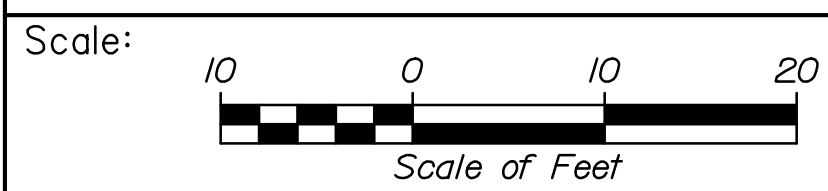
STA. 2340+00.00, LT.  
MATCH EXISTING  
BEGIN SHOULDER, DITCH, AND SLOPE GRADING



2339+50.00

STA. 2339+50.00, RT.  
MATCH EXISTING  
BEGIN SHOULDER, DITCH, AND SLOPE GRADING

NOTE:  
STATION TO STATION WORK LIMITS ARE APPROXIMATE, CONTRACTOR SHALL PROPOSE ACTUAL LIMITS FOR RESIDENT REVIEW AND APPROVAL.



Designed by:

**HNTB**

No.	Revision	By	Date
Δ	ADDENDUM #1	DAM	04/21

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	DAM	04/21	Checked	RWH	04/21
Drawn	EDD	04/21	In Charge of	TRC	04/21

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

WATER LINE AND UTILITY VAULTS

MAINE TURNPIKE CROSS SECTIONS  
STA. 2339+50 TO STA. 2340+50

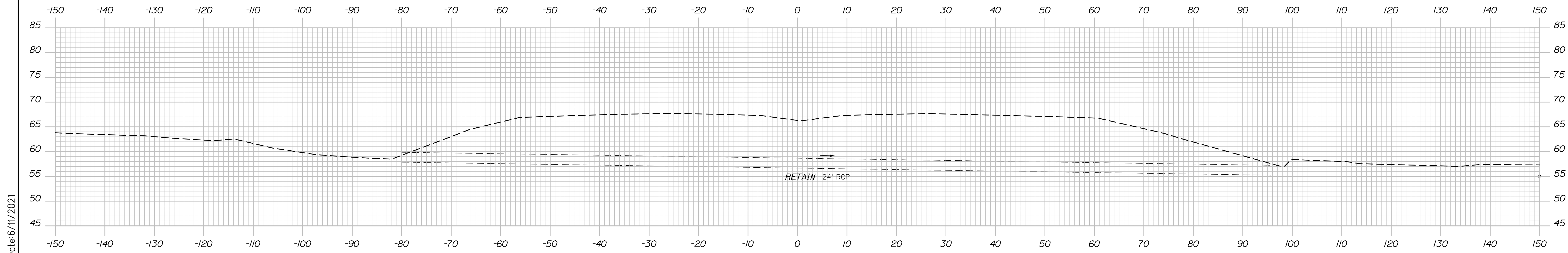
SHEET NUMBER: XS-01

CONTRACT: 2021.02

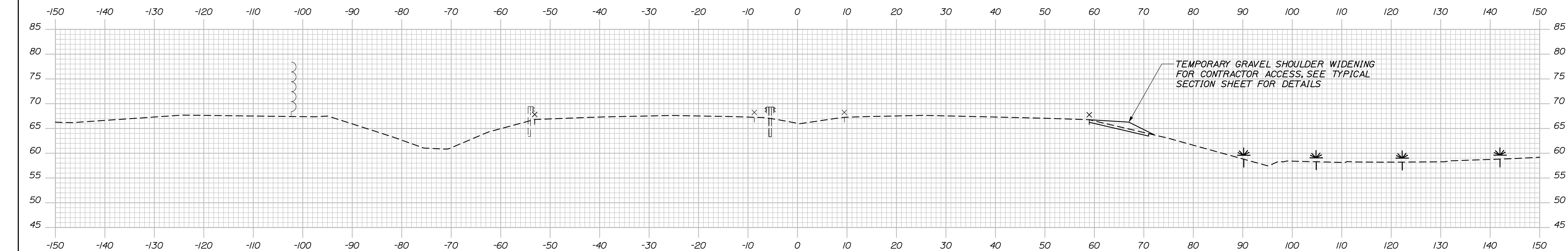
14 OF 40

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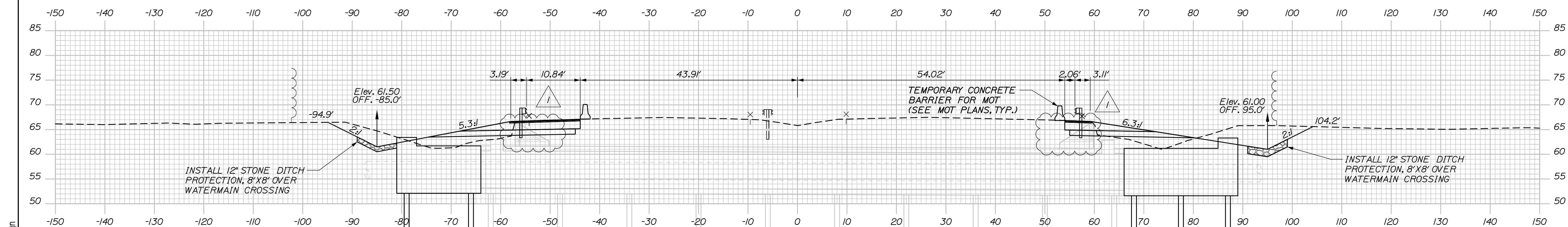
Date: 6/11/2021



2341+15.66 (SKEWED)

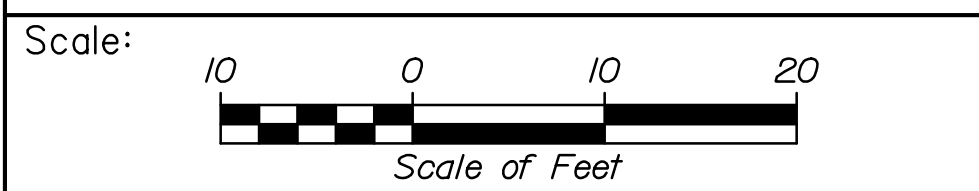


2341+00.00



2340+50.15 (SKEWED)

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Designed by:

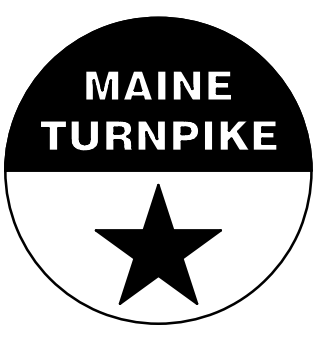
**HNTB**

No.	Revision	By	Date
1	EXISTING RETAINING WALL ADDED	BRG	06/21

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

WATER LINE AND UTILITY VAULTS

MAINE TURNPIKE CROSS SECTIONS  
STA. 2340+50.15 TO STA. 2341+15.66

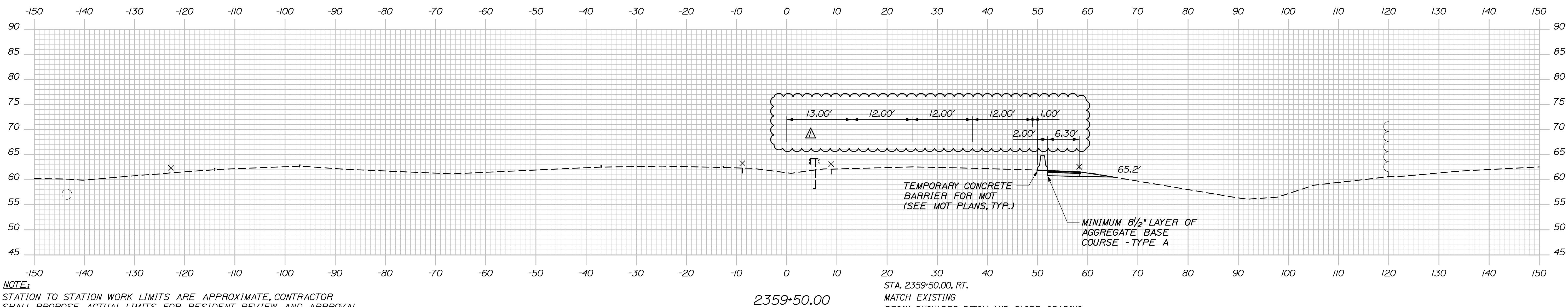
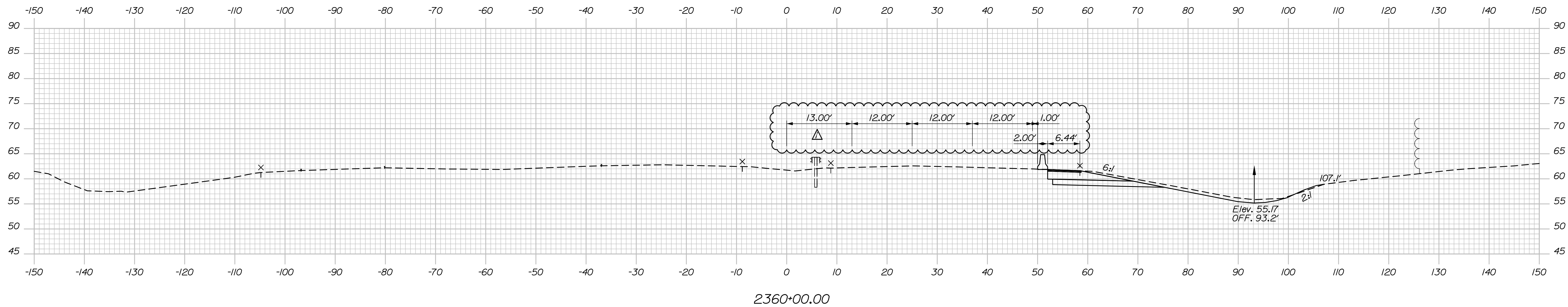
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CONTRACT: 2021.02

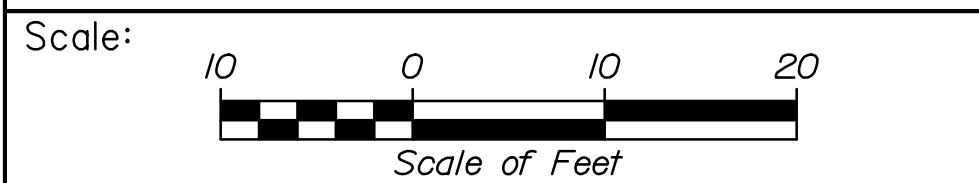
15 OF 40

Filename: PAW2\_Cross\_Section\_01.dgn

Date: 6/11/2021



**NOTE:**  
STATION TO STATION WORK LIMITS ARE APPROXIMATE, CONTRACTOR SHALL PROPOSE ACTUAL LIMITS FOR RESIDENT REVIEW AND APPROVAL.



Designed by:

**HNTB**

No.	Revision	By	Date
△	ADDENDUM #1	DAM	04/21

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

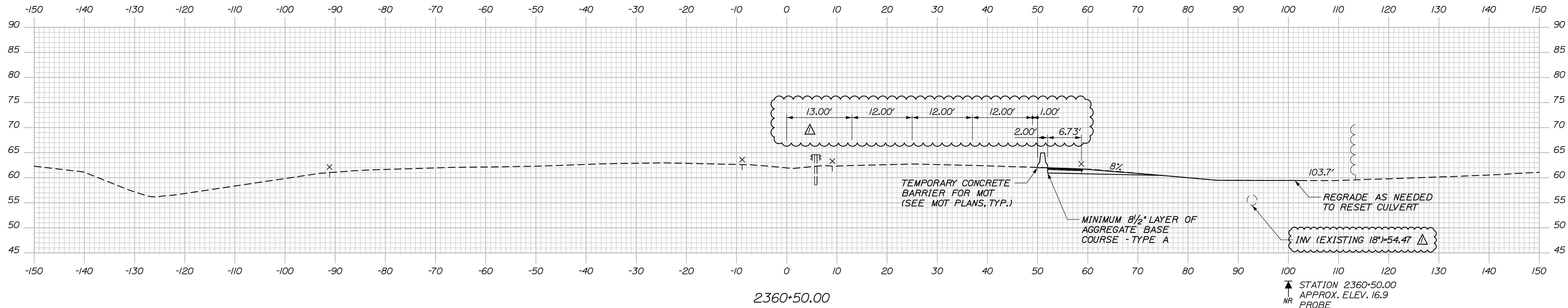
WATER LINE AND UTILITY VAULTS

MAINE TURNPIKE CROSS SECTIONS  
STA. 2359+50 TO STA. 2360+00

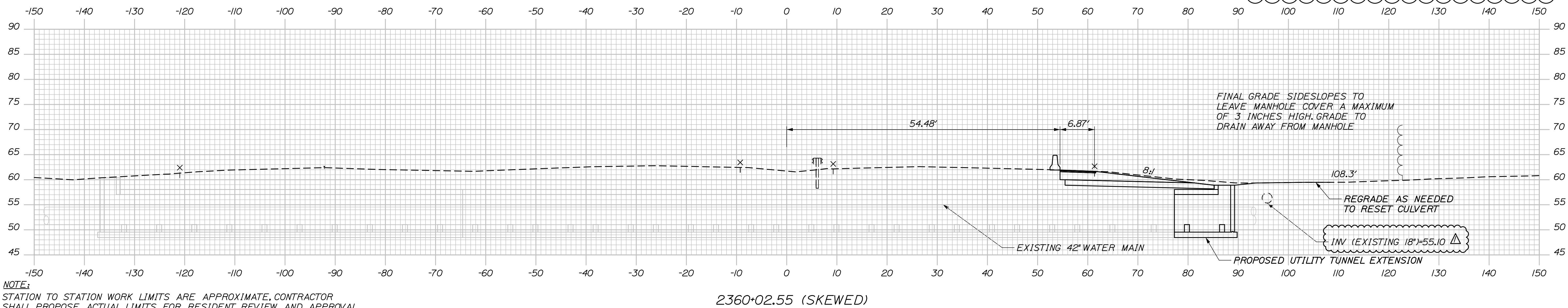
SHEET NUMBER: XS-03  
16 OF 40

CONTRACT: 2021.02

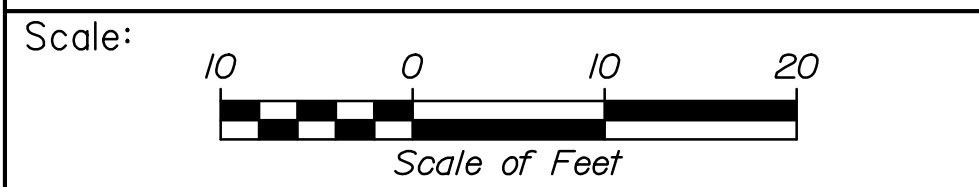
Date: 6/11/2021



△ EXISTING 24" RCP AND MANHOLE MAY BE REMOVED AND RESET TO FACILITATE CONSTRUCTION OF VAULT EXTENSION. PAYMENT SHALL BE INCIDENTAL TO UTILITY VAULT EXTENSION. EXISTING 18" CMP SHALL BE REPLACED WITH 18" RCP IF REMOVED TO FACILITATE CONSTRUCTION OF VAULT EXTENSION. PAYMENT SHALL BE MADE UNDER ITEM 603.175. MATCH EXISTING INVERT ELEVATIONS. FLOWS SHALL BE MAINTAINED FOR THE DURATION OF VAULT EXTENSION.



NOTE:  
STATION TO STATION WORK LIMITS ARE APPROXIMATE, CONTRACTOR SHALL PROPOSE ACTUAL LIMITS FOR RESIDENT REVIEW AND APPROVAL.



Designed by:

**HNTB**

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△	ADDENDUM #1	DAM	04/21

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

WATER LINE AND UTILITY VAULTS

MAINE TURNPIKE CROSS SECTIONS  
STA. 2360+02.55 TO STA. 2360+50

SHEET NUMBER: XS-04

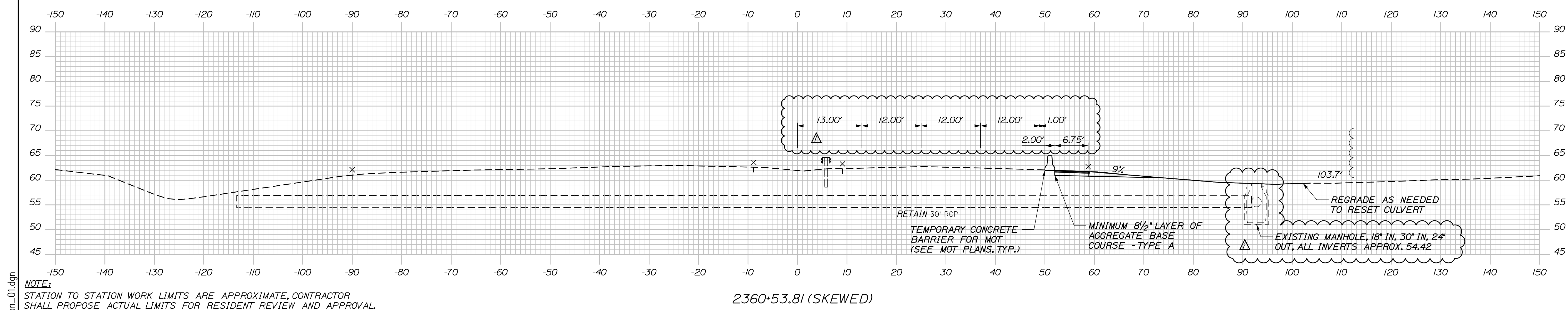
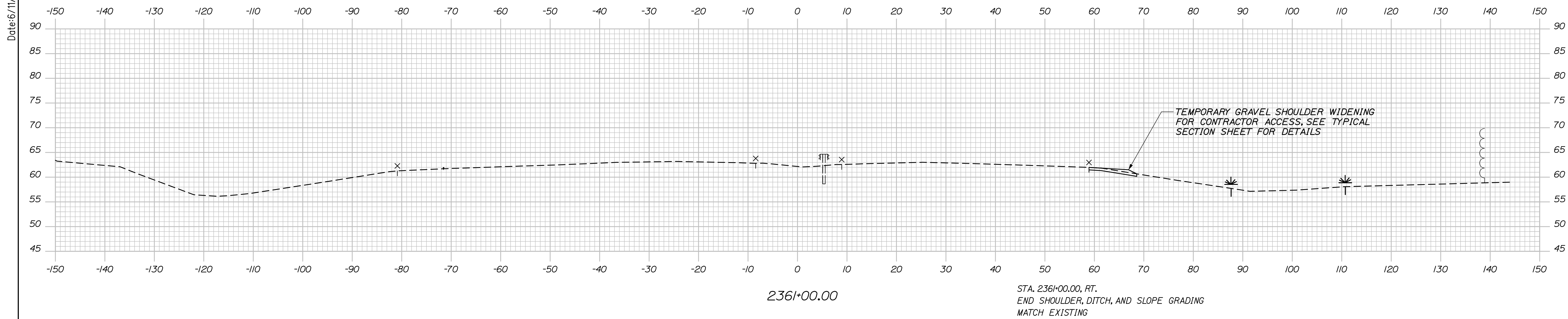
CONTRACT: 2021.02

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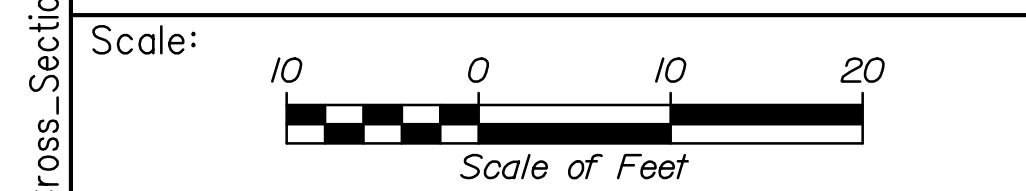
Filename: PAW2\_Cross\_Section\_01.dgn



Date: 6/11/2021



**NOTE:**  
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Designed by:

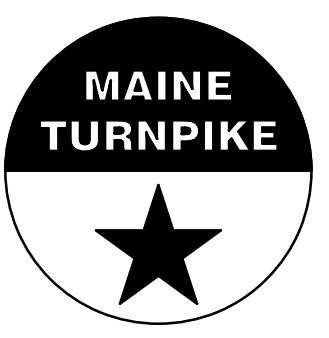
**HNTB**

No.	Revision	By	Date
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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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82 Running Hill Road, Suite 201  
South Portland, ME 04106  
TEL (207) 774-5155  
FAX (207) 228-0909



**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

WATER LINE AND UTILITY VAULTS

MAINE TURNPIKE CROSS SECTIONS  
STA. 2360+53.81 TO STA. 2361+00

SHEET NUMBER: XS-05  
18 OF 40

CONTRACT: 2021.02

Filename: PAW2\_Cross\_Section\_01.dgn

**SPECIFICATIONS**

DESIGN

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

CONSTRUCTION

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISION OF NOVEMBER 2014.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR HIGHWAYS AND BRIDGES, NOVEMBER 2014 WITH LATEST REVISIONS.

AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 4TH EDITION.

DESIGN LOADING

LIVE LOAD - HL-93

MATERIALS

CONCRETE

CLASS AAA

REINFORCING STEEL

AASHTO M31, GRADE 60 EPOXY COATED

ANCHOR BOLTS

ASTM F1554, GRADE 55

STRUCTURAL STEEL

STEEL H-PILES, ASTM A572, GRADE 50  
ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A709, GRADE 50

BASIC DESIGN STRESSES

CONCRETE - CLASS AAA -  $f'c = 4,500$  P.S.I.

REINFORCING STEEL - GRADE 60  $f_y = 60,000$  P.S.I.

STRUCTURAL STEEL - ASTM 572, GRADE 50;  $f_y = 50,000$  P.S.I.  
- ASTM 709, GRADE 50;  $f_y = 50,000$  P.S.I.

GENERAL NOTES:

1. THE PROPOSED ELEVATIONS ARE BASED ON THE NAVD 88 DATUM. SOME AS-BUILT PLANS ARE BASED ON NGVD 29 DATUM.
2. COPIES OF THE AS-BUILT PLANS ARE ON FILE AT THE MAINE TURNPIKE AUTHORITY. THE ACCURACY OF THESE PLANS IS NOT GUARANTEED.
3. REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2", UNLESS OTHERWISE NOTED.
4. CHAMFER ALL EXPOSED CONCRETE EDGES  $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
5. WHERE DRILLING AND ANCHORING OF REINFORCING STEEL IS SPECIFIED THE CONTRACTOR SHALL USE A MATERIAL LISTED ON THE MAINEDOT PREQUALIFIED LIST OF EPOXY AND RESIN BASED ADHESIVE BONDING SYSTEMS. THE DEPTH OF EMBEDMENT SHALL BE SUFFICIENT TO DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR, BUT SHALL BE NO LESS THAN THE MINIMUM DEPTH OF EMBEDMENT WHEN SPECIFIED.
6. DIMENSIONS WITH RESPECT TO EXISTING STRUCTURES ARE APPROXIMATE AND ARE PROVIDED FOR REFERENCE. IF FIELD CONDITIONS VARY BY MORE THAN 1" FROM DIMENSIONS SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED.

QUANTITY TABLE			
ITEM NO.	DESCRIPTION	UNIT	STRUCTURAL QUANTITY
202.12	REMOVE EXISTING STRUCTURAL CONCRETE	CY	50
501.231	DYNAMIC LOAD TEST	EA	2
501.40	STEEL H-BEAM PILES, 53 LB/FT, DELIVERED	LF	865
501.401	STEEL H-BEAM PILES, 53 LB/FT, IN PLACE	LF	865
501.90	PILE TIPS	EA	10
501.91	PILE SPLICES	EA	10
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	LS	1
511.091	TEMPORARY EARTH SUPPORT SYSTEMS	LS	1
514.06	CURING BOX FOR CONCRETE CYLINDERS	EA	1
604.1581	UTILITY VAULT EXTENSION - STA 2360+02.55 NB	LS	1
604.1582	UTILITY VAULT EXTENSION - STA 2340+52.81 NB	LS	1
604.1583	UTILITY VAULT EXTENSION - STA 2340+52.81 SB	LS	1

INDEX OF DRAWINGS		
PAGE NO.	TITLE	SHEET NO.
19	STRUCTURAL PLANS GENERAL NOTES	S-01
20	UTILITY VAULT DETAILS STA. 2340+52.81	S-02
21	UTILITY VAULT DETAILS STA. 2340+52.81 - DETAILS I	S-03
22	UTILITY VAULT DETAILS STA. 2340+52.81 - DETAILS II	S-04
23	UTILITY VAULT DETAILS STA. 2340+52.81 - DETAILS III	S-05
24	UTILITY VAULT DETAILS STA. 2340+52.81 - DETAILS IV	S-06
25	UTILITY VAULT DETAILS STA. 2340+52.81 - REINFORCING SCHEDULE	S-07
26	UTILITY VAULT DETAILS STA. 2360+02.55	S-08
27	UTILITY VAULT DETAILS STA. 2360+02.55 - DETAILS I	S-09
28	UTILITY VAULT DETAILS STA. 2360+02.55 - DETAILS II	S-10
29	UTILITY VAULT DETAILS STA. 2360+02.55 - DETAILS III	S-11
30	UTILITY VAULT DETAILS STA. 2360+02.55 - REINFORCING SCHEDULE	S-12

UTILITY VAULT NOTES:

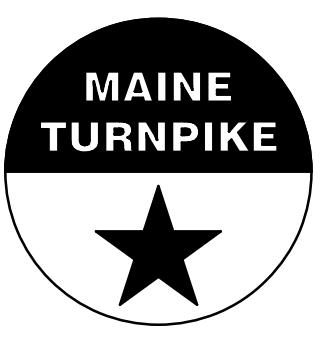
1. ALL EXISTING DIMENSIONS AND DETAILS ARE TAKEN FROM ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND EXISTING DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENT AND SURVEY.
2. PAYMENT FOR REMOVAL OF EXISTING CONCRETE AND SAW CUTTING CONCRETE IS INCIDENTAL TO THE RELATED UTILITY VAULT EXTENSION PAY ITEMS. BEFORE REMOVAL OF CONCRETE, THE DEMOLITION LIMIT SHALL BE SAW CUT TO A DEPTH OF 1" MINIMUM. CARE SHALL BE TAKEN NOT TO DAMAGE ANY REINFORCING STEEL THAT IS TO REMAIN.
3. BARS BROKEN DURING REMOVAL OF EXISTING CONCRETE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE BY DRILLING AND ANCHORING AN EQUIVALENT SIZED BAR.
4. THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION PROCEDURE, TEMPORARY WATER MAIN SUPPORT, AND TEMPORARY SUPPORT SYSTEMS THAT WILL PROTECT, AT ALL TIMES, THE 42" WATER MAINS. EACH WATER MAIN WILL BE REMOVED FROM SERVICE DURING THE WORK BY CLOSING THE VALVES ON EACH SIDE OF THE WORK AREA. SEE SPECIAL PROVISION 604 FOR ADDITIONAL INFORMATION.
5. THE UTILITY VAULTS SHALL FOLLOW THE HORIZONTAL ALIGNMENT OF THE EXISTING WATER MAIN.
6. MANHOLES SHALL BE NEENAH FOUNDRY COMPANY, R-6660-NH SERIES CATALOG NUMBER R-6660-NH, OR APPROVED EQUIVALENT. PAYMENT FOR THE MANHOLES ARE INCIDENTAL TO THE RELATED 604 UTILITY VAULT EXTENSION PAY ITEMS.
7. PREPARATION OF THE EXISTING CONCRETE SHALL PRODUCE A SOUND, CLEAN SURFACE FREE OF BOND INHIBITING MATERIALS. ANY CONCRETE AREAS FOUND TO BE UNSOUND SHALL BE RE-CHIPPED BY THE CONTRACTOR. PAYMENT SHALL BE INCIDENTAL TO THE RELATED UTILITY VAULT EXTENSION PAY ITEMS.
8. APPLY A BONDING AGENT TO THE EXISTING CONCRETE SURFACES PRIOR TO PLACING NEW CONCRETE. THE MANUFACTURER'S INSTRUCTIONS FOR THE SELECTED BONDING AGENT MUST BE FOLLOWED AND APPROVED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO THE RELATED UTILITY VAULT EXTENSION PAY ITEMS.
9. FOR MANHOLE STEP DETAILS SEE MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, PAGE 604(03). PAYMENT SHALL BE INCIDENTAL TO THE RELATED UTILITY VAULT EXTENSION PAY ITEMS.
10. FOR DETAILS OF EXISTING CONCRETE RETAINING WALL TO BE DEMOLISHED, SEE AS-BUILT PLANS FOR CONTRACT 2001.01.
11. STRUCTURAL EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH MAINEDOT STANDARD SPECIFICATION 206 AND INCIDENTAL TO RELATED 604 PAY ITEMS.

LIST OF ABBREVIATIONS

ABUT. - ABUTMENT	EXIST. - EXISTING	PROP. - PROPOSED
ADDL. - ADDITIONAL	EXP. - EXPANSION	P.S.I. - POUNDS per SQUARE INCH
ALT. - ALTERNATE	F.F. - FAR FACE	RCP - REINFORCED CONCRETE PIPE
APPROX. - APPROXIMATELY	JT. - JOINT	RDWY. - ROADWAY
BOT. - BOTTOM	LF - LINEAR FOOT	RT. - RIGHT
BRG. - BEARING	LT. - LEFT	SHLDR. - SHOULDER
CB - CATCH BASIN	MAX. - MAXIMUM	SB - SOUTHBOUND
CIP - CAST IN PLACE	MEDOT - MAINE DEPARTMENT OF TRANSPORTATION	SF - SQUARE FEET
CL - CLEAR/CLASS	MIN. - MINIMUM	SP. - SPACES
CL - CENTERLINE	MTA - MAINE TURNPIKE AUTHORITY	STA. - STATION
CONC. - CONCRETE	NB - NORTHBOUND	TEMP. - TEMPORARY
CONSTR. - CONSTRUCTION	N.F. - NEAR FACE	T.&B. - TOP & BOTTOM
CY - CUBIC YARD	N.T.S. - NOT TO SCALE	TPKE. - TURNPIKE
DEMO. - DEMOLITION	OC - ON CENTER	TYP. - TYPICAL
DIA. - DIAMETER	OHSS - OVERHEAD SIGN STRUCTURE	U.O.N. - UNLESS OTHERWISE NOTED
EA. - EACH	OPT - OPTION	VERT. - VERTICAL
EB - EASTBOUND	PED. - PEDESTAL	V.I.F. - VERIFY IN FIELD
E.F. - EACH FACE	PGL - PROFILE GRADE LINE	WB - WESTBOUND
EL - ELEVATION	PL - PLATE	W.P. - WORKING POINT
EQ. - EQUAL		WW - WINGWALL

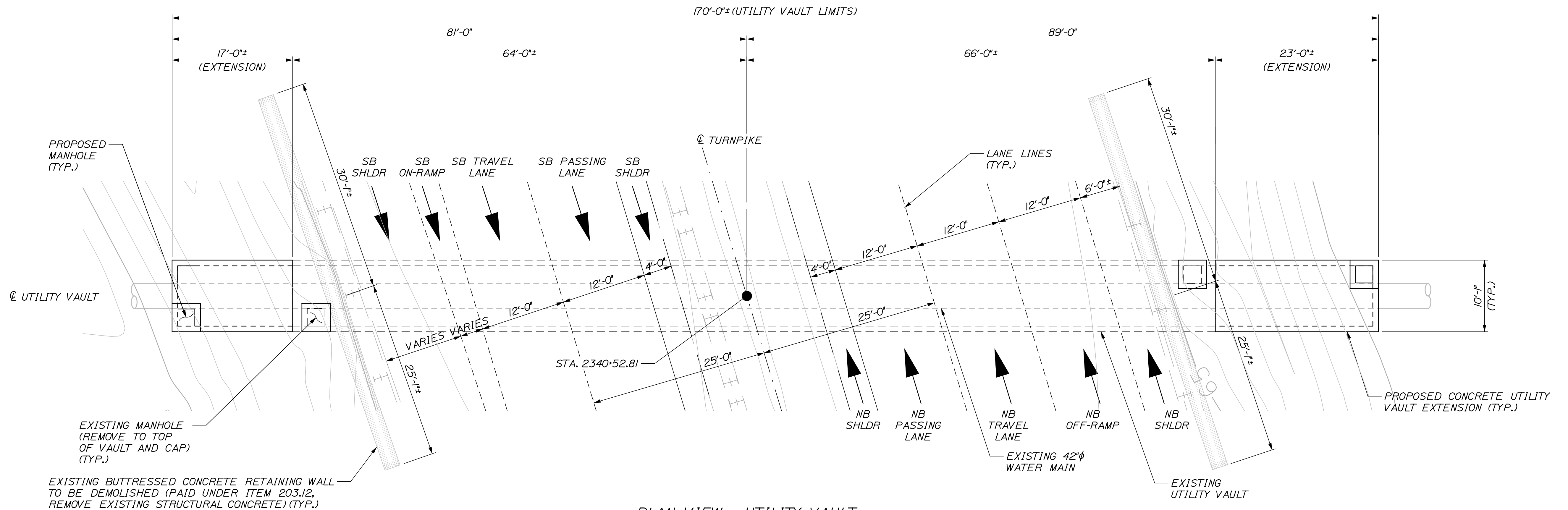
Date: 6/11/2021

Filename: 019\_General Notes Rev. 1

Scale: <b>NO SCALE</b>		Designed by: <b>HNTB</b>		HNTB CORPORATION 82 Running Hill Road, Suite 201 South Portland, ME 04106 TEL (207) 774-5155 FAX (207) 228-0909		 <b>THE GOLD STAR MEMORIAL HIGHWAY</b>		WATER LINE AND UTILITY VAULTS STRUCTURAL PLANS GENERAL NOTES	
No.	Revision	By	Date	CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.				SHEET NUMBER: S-01	
1	CONCRETE REMOVAL QUANTITY	BRG	06/21	By	Date	By	Date	CONTRACT: 2021.02	
				Designed	BRG	03/21	Checked	JDW	03/21
				Drawn	ERB	03/21	In Charge of	TRC	03/21
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.								19 OF 40	

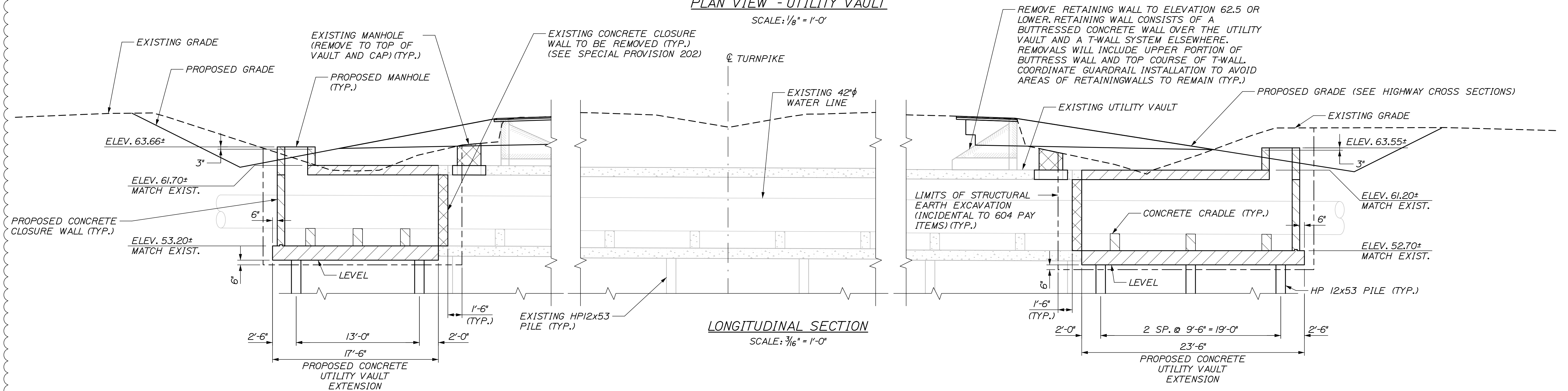
Date: 6/11/2021

Filename: 020\_Utility Vault Details - Tunnel 2\_Rev. 1



PLAN VIEW - UTILITY VAULT

SCALE: 1/8" = 1'-0"



LONGITUDINAL SECTION

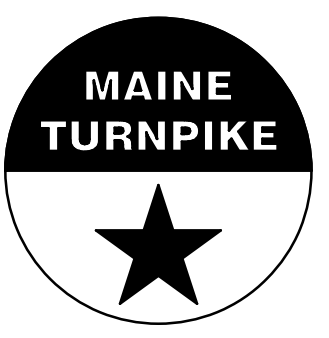
SCALE: 3/16" = 1'-0"

**NOTE:**  
FOR UTILITY VAULT NOTES SEE SHEET S-01

Scale: AS NOTED			
No.	Revision	By	Date
1	ADDED RETAINING WALL DEMOLITION	BRG	06/21

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date	By	Date	
Designed	BRG	03/21	Checked	JDW	03/21
Drawn	ERB	03/21	In Charge of	TRC	03/21

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

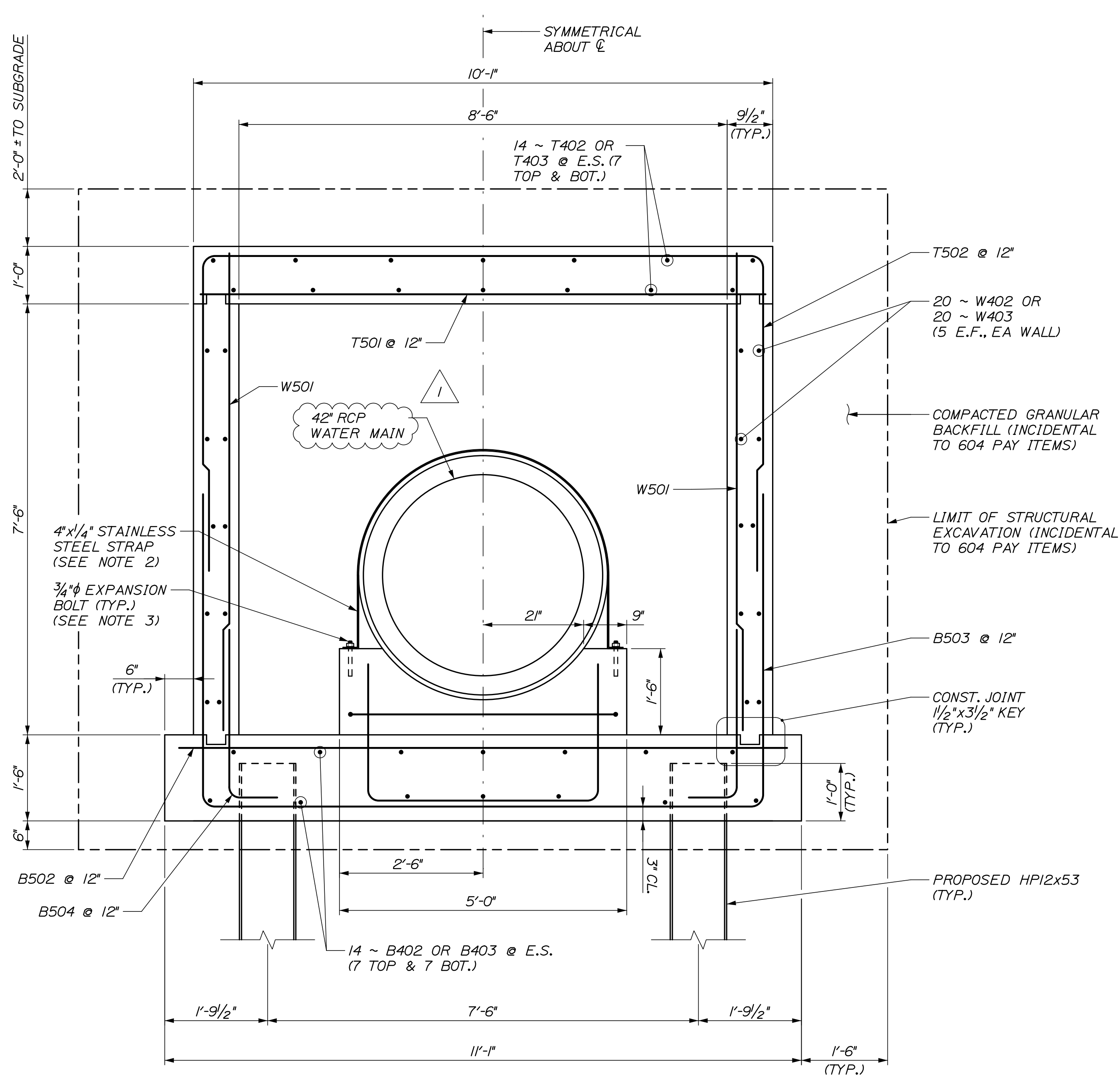
WATER LINE AND UTILITY VAULTS  
UTILITY VAULT DETAILS  
STA. 2340+52.81

SHEET NUMBER: S-02  
CONTRACT: 2021.02  
20 OF 40



Date: 6/11/2021

Filename: 023\_Utility Vault Details - Tunnel 2 - Details III Rev. 1

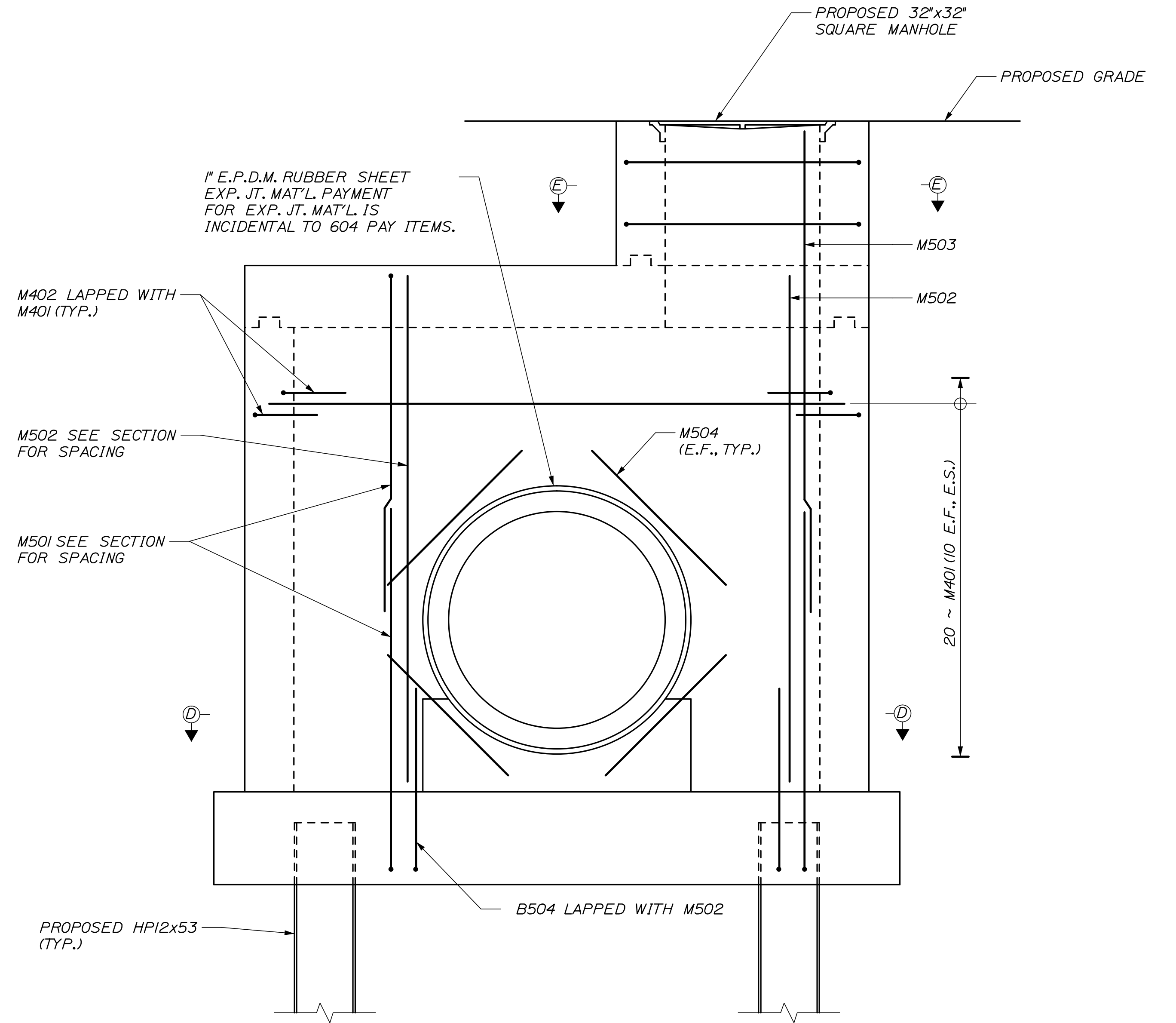


TYPICAL SECTION

3/4" = 1'-0"

NOTES:

- FOR SECTIONS D-D AND E-E, SEE SHEET S-06.
- STAINLESS STEEL STRAP SHALL BE ASTM A666, TYPE 201 AND BE INSTALLED AT 2'-0" O.C. ALONG THE WATERMAIN PIPE.
- EXPANSION BOLT SHALL BE 3/4" STAINLESS STEEL HILTI QUICK BOLT WITH 6" EMBEDMENT OR APPROVED EQUAL.



CLOSURE WALL ELEVATION

3/4" = 1'-0"

NOTE:  
FIELD CUT REINFORCEMENT AT  
42" CIP WHERE REQUIRED.

Scale:				Designed by:			
AS NOTED							
No.	Revision	By	Date				
1	CONCRETE PIPE	BRG	06/21				

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date	By	Date	
Designed	BRG	03/21	Checked	JDW	03/21
Drawn	ERB	03/21	In Charge of	TRC	03/21

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

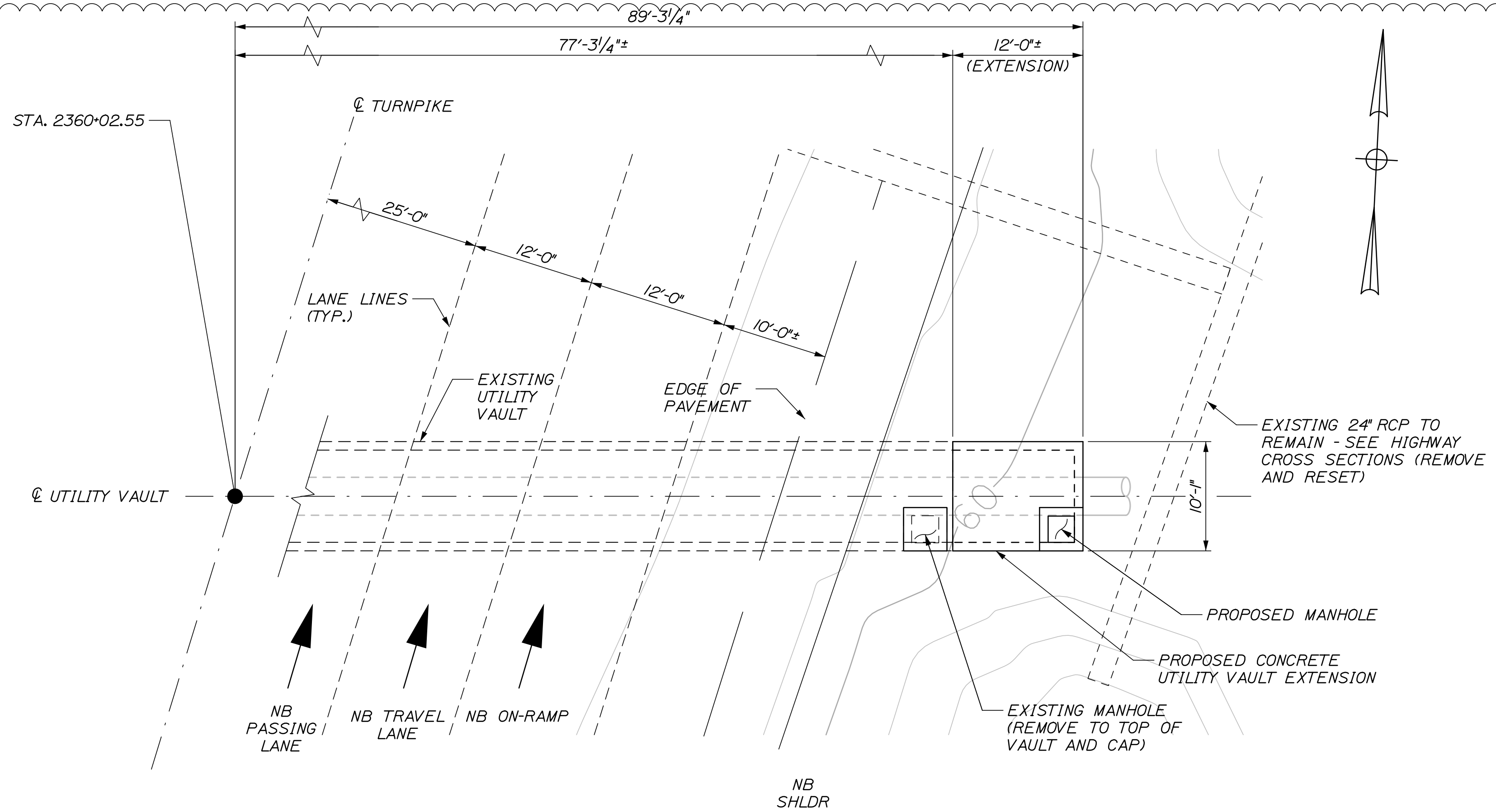
WATER LINE AND UTILITY VAULTS

UTILITY VAULT DETAILS  
STA. 2340+52.81 - DETAILS III

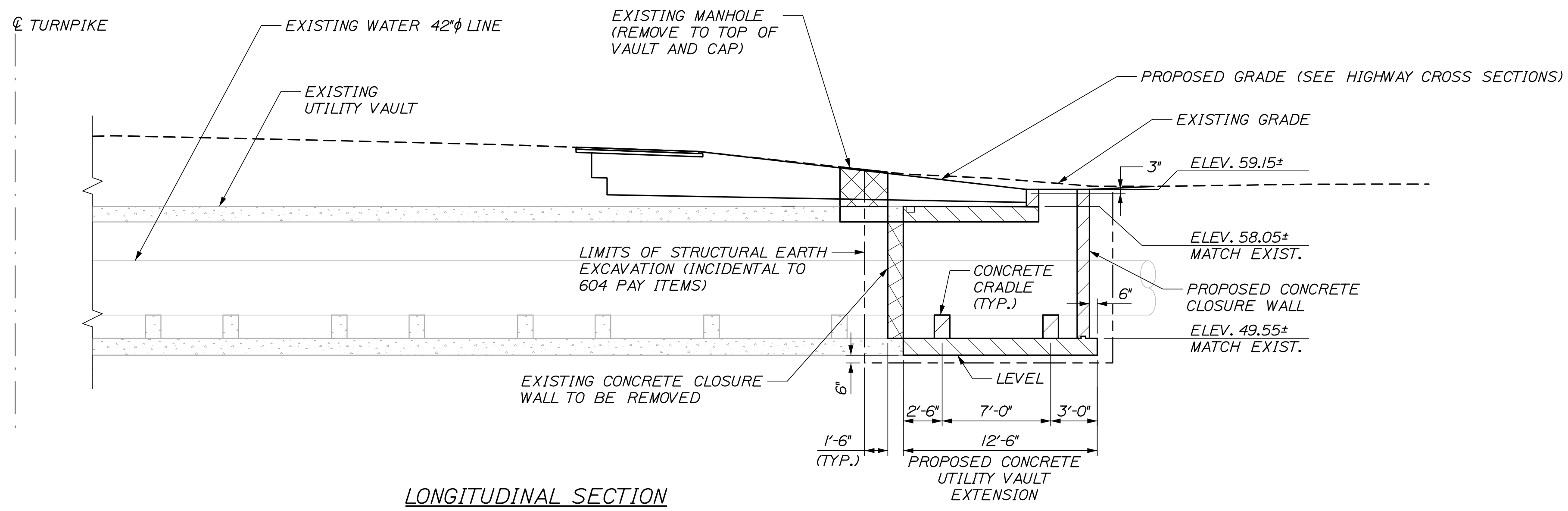
SHEET NUMBER: S-05  
CONTRACT: 2021.02  
23 OF 40

Date: 6/11/2021

Filename: 026\_UTILITY VAULT DETAILS - Tunnel 1 Rev. 1



**PLAN VIEW**  
SCALE: 1/8" = 1'-0"



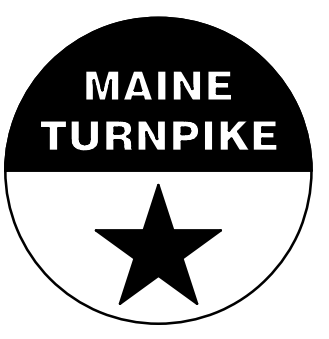
**LONGITUDINAL SECTION**  
SCALE: 3/16" = 1'-0"

**NOTE:**  
FOR UTILITY VAULT NOTES SEE SHEET S-01

Scale:			
AS NOTED			
No.	Revision	By	Date
1	UPDATED EXIST. STRUCTURE LINEWORK	BRG	06/21

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date	By	Date	
Designed	BRG	03/21	Checked	JDW	03/21
Drawn	ERB	03/21	In Charge of	TRC	03/21

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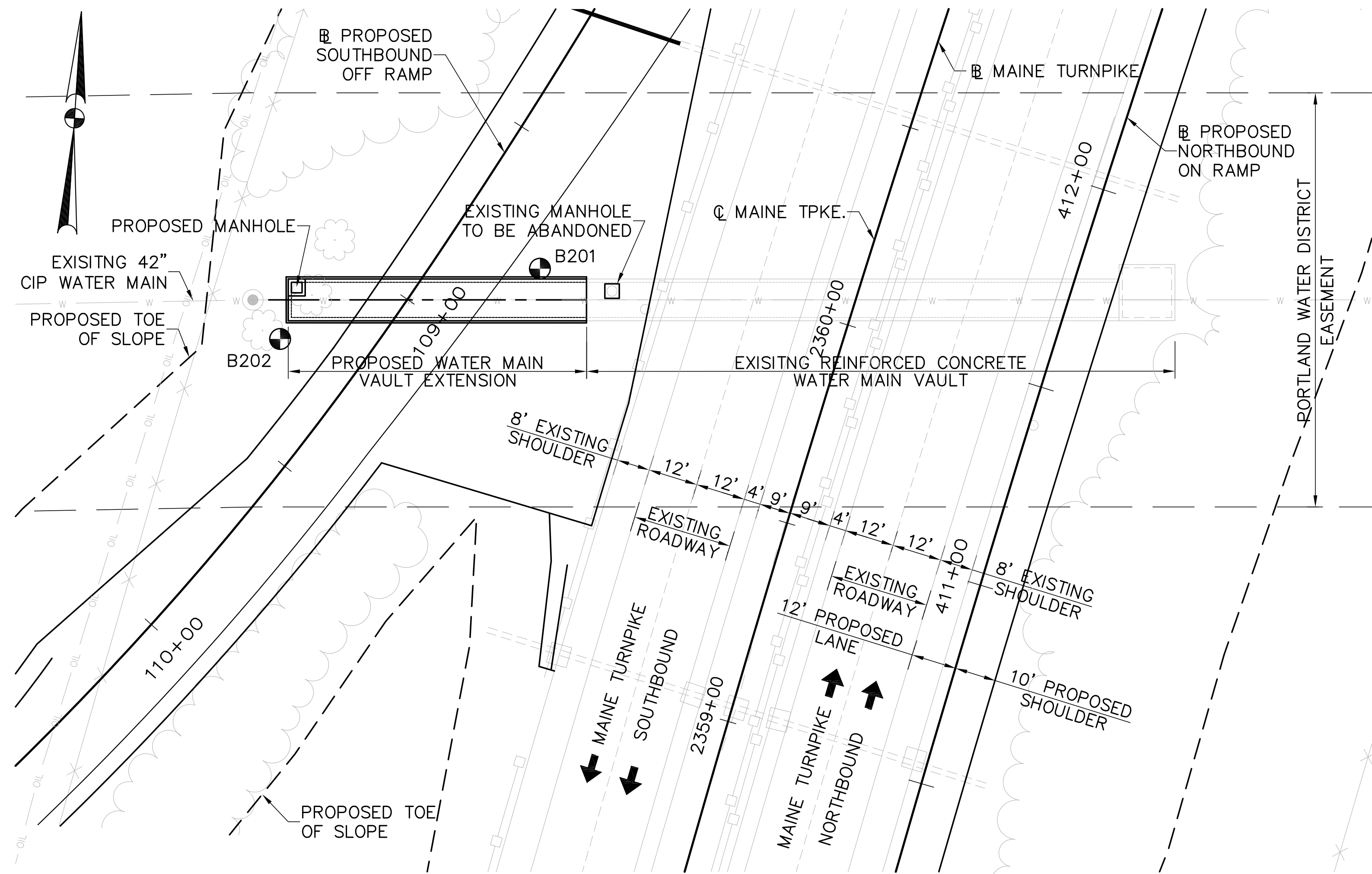
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

WATER LINE AND UTILITY VAULTS

UTILITY VAULT DETAILS  
STA. 2360+02.55

SHEET NUMBER: S-08  
CONTRACT: 2021.02  
26 OF 40



**PLAN**  
1" = 20'

INDEX OF DRAWINGS	
SHEET NO.	TITLE
PWD-S1	GENERAL PLAN
PWD-S2	PLAN & ELEVATION
PWD-S3	DETAILS
PWD-S4	REINFORCING SCHEDULE

AS-BUILT PLANS	
SHEET NO.	TITLE
N/A	PROPOSED BOX CULVERT FOR 42" C.I. WATERMAIN STA. 2360+08.

QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
206.061	STRUCTURAL EARTH EXCAVATION - DRAINAGE MINOR STRUCTURES, BELOW GRADE	390	C.Y.
304.10	AGGREGATE BASE COURSE - GRAVEL	170	C.Y.
502.30	STRUCTURAL CONCRETE BOX CULVERT (100 CY)	1	L.S.
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	9640	LBS.
503.13	REINFORCING STEEL, PLACING	9640	LBS.
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EACH

**SPECIFICATIONS**

DESIGN

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SIXTEENTH EDITION 1996 WITH LATEST INTERIM REVISIONS.

CONSTRUCTION

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISION OF APRIL 1995.

DESIGN LIVE LOAD

AASHTO HS 25-44

DESIGN METHOD

LOAD FACTOR DESIGN

MATERIALS

CONCRETE

f'c = 4,000 P.S.I. (CLASS A)

REINFORCING STEEL

AASHTO M31 GRADE 60 (UNCOATED BARS)

fy = 60,000 P.S.I.

**GENERAL NOTES**

- A COPY OF AS-BUILT PLAN IS INCLUDED IN THIS CONTRACT FOR THE CONTRACTOR'S CONVENIENCE. THE COMPLETENESS AND ACCURACY OF THIS PLAN IS NOT GUARANTEED.
- BORING LOGS ARE INCLUDED IN APPENDIX G OF THE SPECIFICATIONS.
- ALL PROPOSED ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988. THE ELEVATIONS REFERENCED ON THE AS-BUILT PLAN MAY DIFFER.
- FOR ADDITIONAL DETAILS REFERENCED OR NOT SHOWN IN THESE DRAWINGS, SEE THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, STANDARD DETAILS, HIGHWAYS AND BRIDGES, APRIL 1997.

**ABBREVIATIONS**

N.F.	NEAR FACE
F.F.	FAR FACE
E.F.	EACH FACE
E.S.	EQUALLY SPACED
CL.	CLEAR
T	TOP
B	BOTTOM
&	AND
TYP.	TYPICAL
EXIST.	EXISTING
PROP.	PROPOSED

Scale: AS NOTED

Designed by:



ARCHITECTS ENGINEERS PLANNERS

HNTB CORPORATION  
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Westbrook, ME 04092  
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FAX (207) 772-7410

MAINE TURNPIKE AUTHORITY  
MODERNIZATION AND WIDENING PROJECT



WESTBROOK INTERCHANGE  
WESTBROOK, MAINE  
42" C.I. WATER MAIN VAULT  
GENERAL PLAN

No.	Revision	By	Date

	By	Date		By	Date
Designed	CLC	7/01	Checked	CLC	7/01
Drawn	TRC	7/01	In Charge of	RAL	7/01

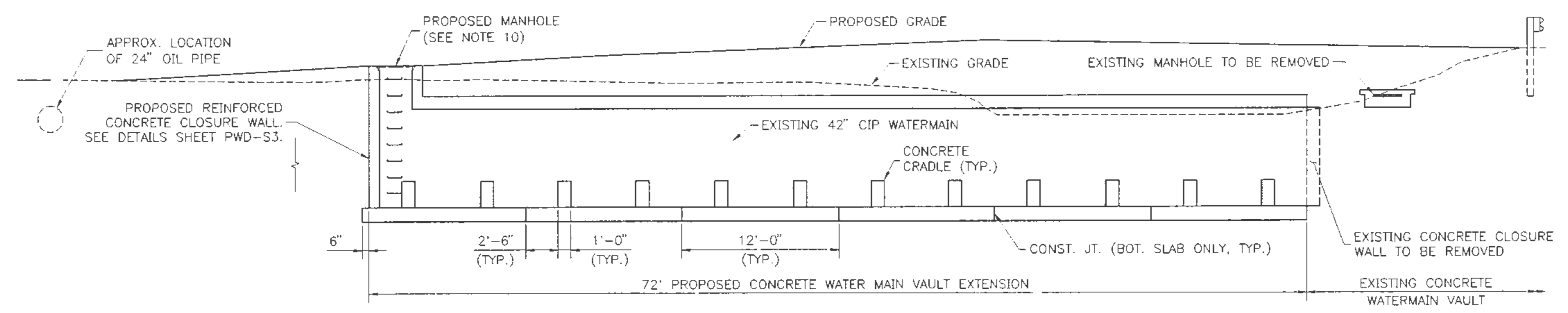
SHEET NUMBER: PWD-S1

CONTRACT: 2021.02

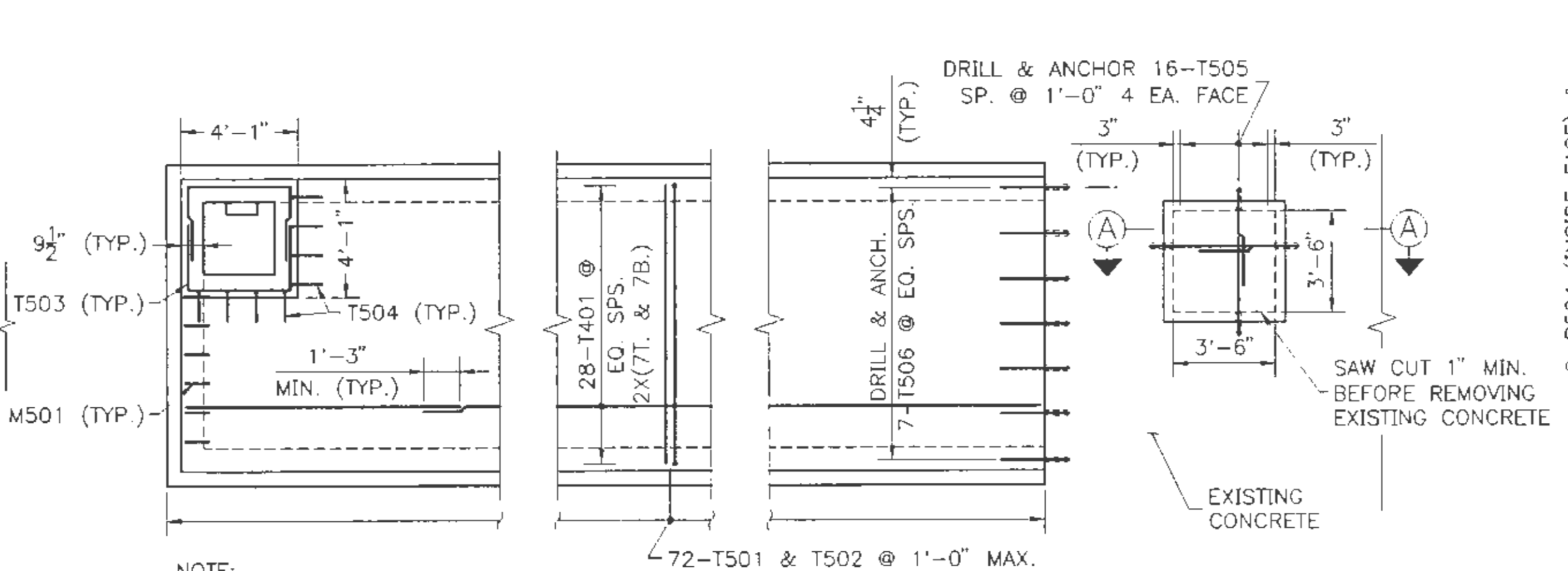
34 OF 40



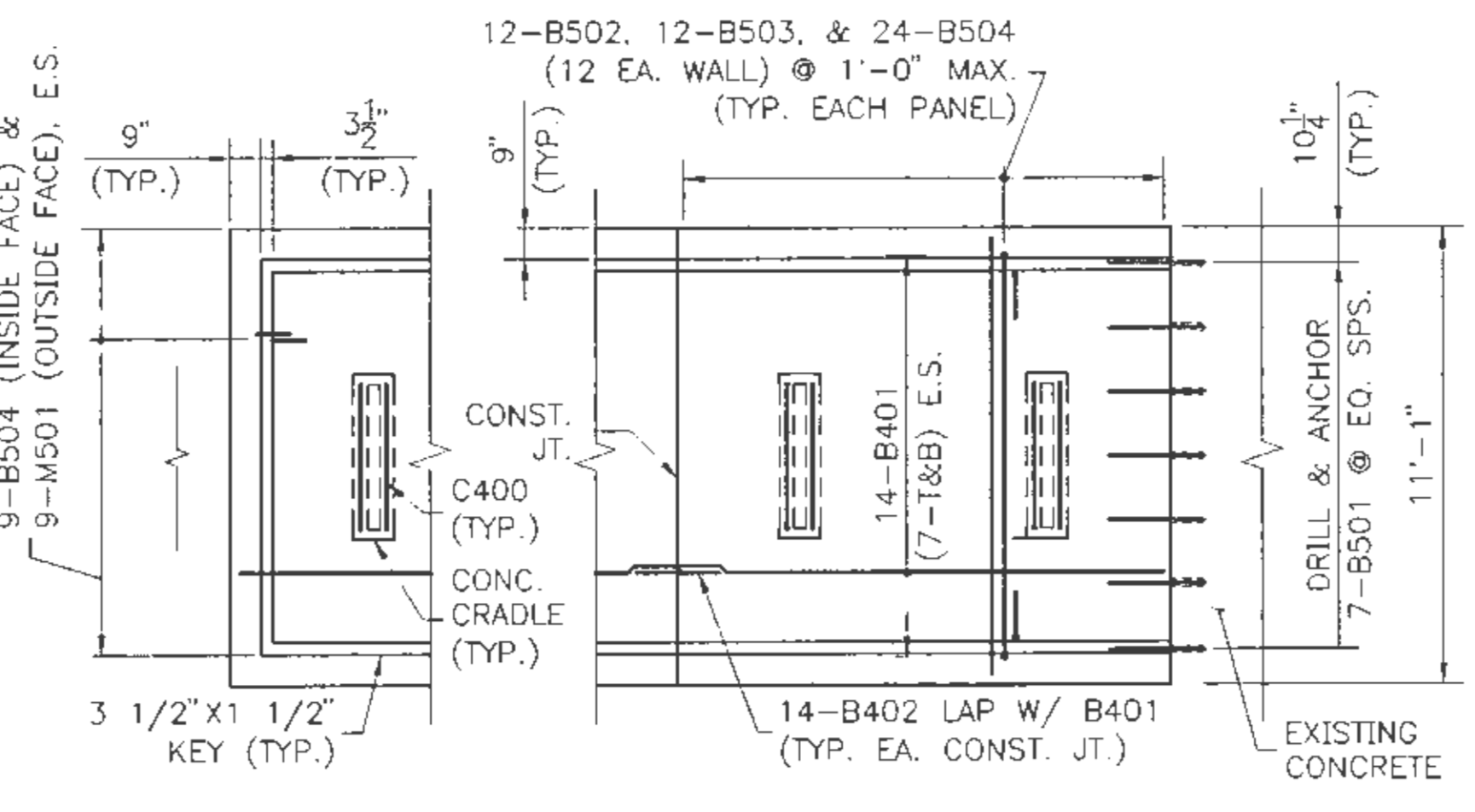
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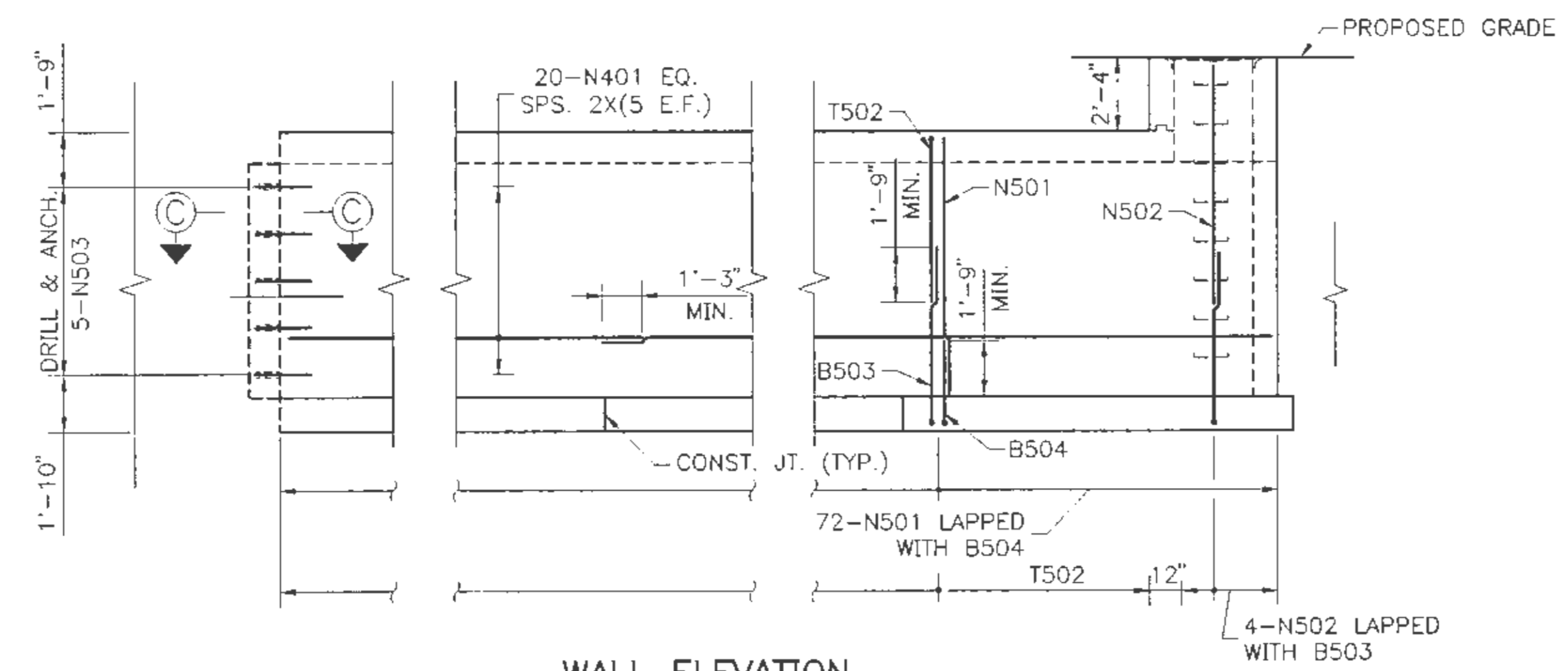
**TRANSVERSE SECTION**  
3/16" = 1'-0"



**PLAN**  
(TOP SLAB REINFORCEMENT SHOWN)  
1/4" = 1'-0"



**BOTTOM SLAB PLAN**  
1/4" = 1'-0"



**WALL ELEVATION**  
(NORTH WALL SHOWN, SOUTH WALL SIMILAR)  
1/4" = 1'-0"

**NOTES**

1. ALL EXISTING DIMENSIONS AND DETAILS ARE TAKEN FROM ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND EXISTING DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENT AND SURVEY.
2. CHAMFER ALL EXPOSED CORNERS 3/4" UNLESS OTHERWISE NOTED.
3. PAYMENT FOR REMOVAL OF EXISTING CONCRETE AND SAW CUTTING CONCRETE IS INCIDENTAL TO ITEM 502.30.
4. MATERIAL USE FOR "DRILLING AND ANCHORING" DOWELS SHALL BE ONE OF THE PRODUCTS LISTED ON THE MAINE DEPARTMENT OF TRANSPORTATION LIST OF PREQUALIFIED TYPE 3 ANCHOR MATERIALS. INSTALLATION SHALL BE IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CAPACITY OF THE ANCHORAGE SHALL BE SUFFICIENT TO DEVELOP THE FULL YIELD STRENGTH OF THE DOWEL. MINIMUM EMBEDMENT SHALL BE 6" MIN. FOR #4 DOWEL AND 9" MIN. FOR #5 DOWEL. PAYMENT FOR "DRILLING AND ANCHORING" BARS SHALL BE INCIDENTAL TO ITEM 503.13.
5. BARS BROKEN DURING REMOVAL OF EXISTING CONCRETE SHALL BE REPLACED AT THE CONTRACTORS EXPENSE BY "DRILLING AND ANCHORING".
6. REINFORCING STEEL SHALL HAVE 2" CONCRETE COVER UNLESS OTHERWISE INDICATED.
7. THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION PROCEDURE AND TEMPORARY EARTH SUPPORT SYSTEM THAT WILL PROTECT, AT ALL TIMES, THE 42" CIP WATER MAIN, THE MAINE TURNPIKE, AND THE 24 INCH OIL PIPE. THE WATER MAIN MUST REMAIN IN SERVICE AT ALL TIMES. EXCAVATION BELOW MID-DEPTH OF THE WATER MAIN AT ANY ONE LOCATION, SHALL BE LIMITED TO 12 FEET OF UNSUPPORTED LENGTH ALONG THE PIPE AT ONE TIME. AFTER EACH LENGTH OF BOTTOM SLAB IS CONSTRUCTED AND THE PIPE IS SUPPORTED BY CRADLES, EXCAVATION MAY PROCEED TO THE NEXT 12' SECTION. PAYMENT FOR TEMPORARY EARTH SUPPORT SHALL BE INCIDENTAL TO ITEM 502.30. THE CONSTRUCTION PROCEDURE AND TEMPORARY EARTH SUPPORT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE AND REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION.
8. THE VAULT STRUCTURE SHALL FOLLOW THE HORIZONTAL ALIGNMENT OF THE EXISTING WATER MAIN.
9. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET PWD-S3.
10. MANHOLE SHALL BE NEENAH FOUNDRY COMPANY, R-6660 SERIES CATALOG NUMBER R-6660-NH, OR APPROVED EQUIVALENT. PAYMENT FOR MANHOLE IS INCIDENTAL TO ITEM 502.30.
11. PREPARATION OF THE EXISTING CONCRETE SHALL PRODUCE A SOUND, CLEAN SURFACE FREE OF BOND INHIBITING MATERIALS. ANY CONCRETE AREAS FOUND TO BE UNSOUND SHALL BE RE-CHIPPED BY THE CONTRACTOR (PAYMENT IS INCIDENTAL TO ITEM NO. 502.30).
12. APPLY A BONDING AGENT TO THE EXISTING CONCRETE SURFACES PRIOR TO PLACING NEW CONCRETE. THE MANUFACTURER'S INSTRUCTIONS, FOR THE BONDING AGENT SELECTED, MUST BE FOLLOWED AND APPROVED BY THE ENGINEER (PAYMENT IS INCIDENTAL TO ITEM NO. 502.30).
13. FOR MANHOLE STEP DETAILS SEE MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS PAGE 604(3) (PAYMENT IS INCIDENTAL TO ITEM NO. 502.30).

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**  
ARCHITECTS ENGINEERS PLANNERS

	By	Date		By	Date
Designed	CLC	7/01	Checked	CLC	7/01
Drawn	TRC	7/01	In Charge of	RAL	7/01

HNTB CORPORATION  
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Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 772-7410

MAINE TURNPIKE AUTHORITY  
MODERNIZATION AND WIDENING PROJECT

WESTBROOK INTERCHANGE  
WESTBROOK, MAINE  
42" C.I. WATER MAIN VAULT  
PLAN & ELEVATION

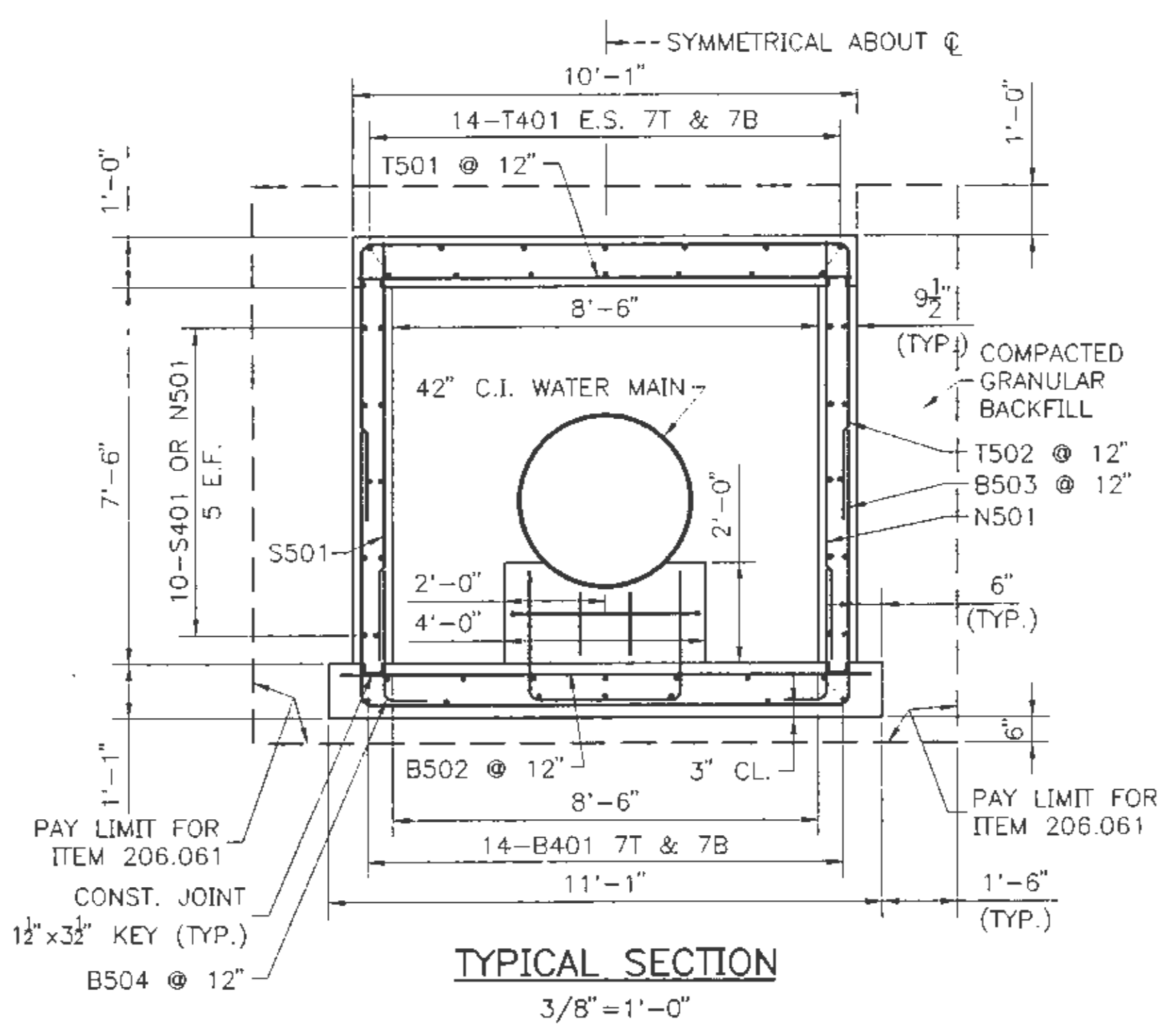
SHEET NUMBER: PWD-S2

CONTRACT: 2021.02

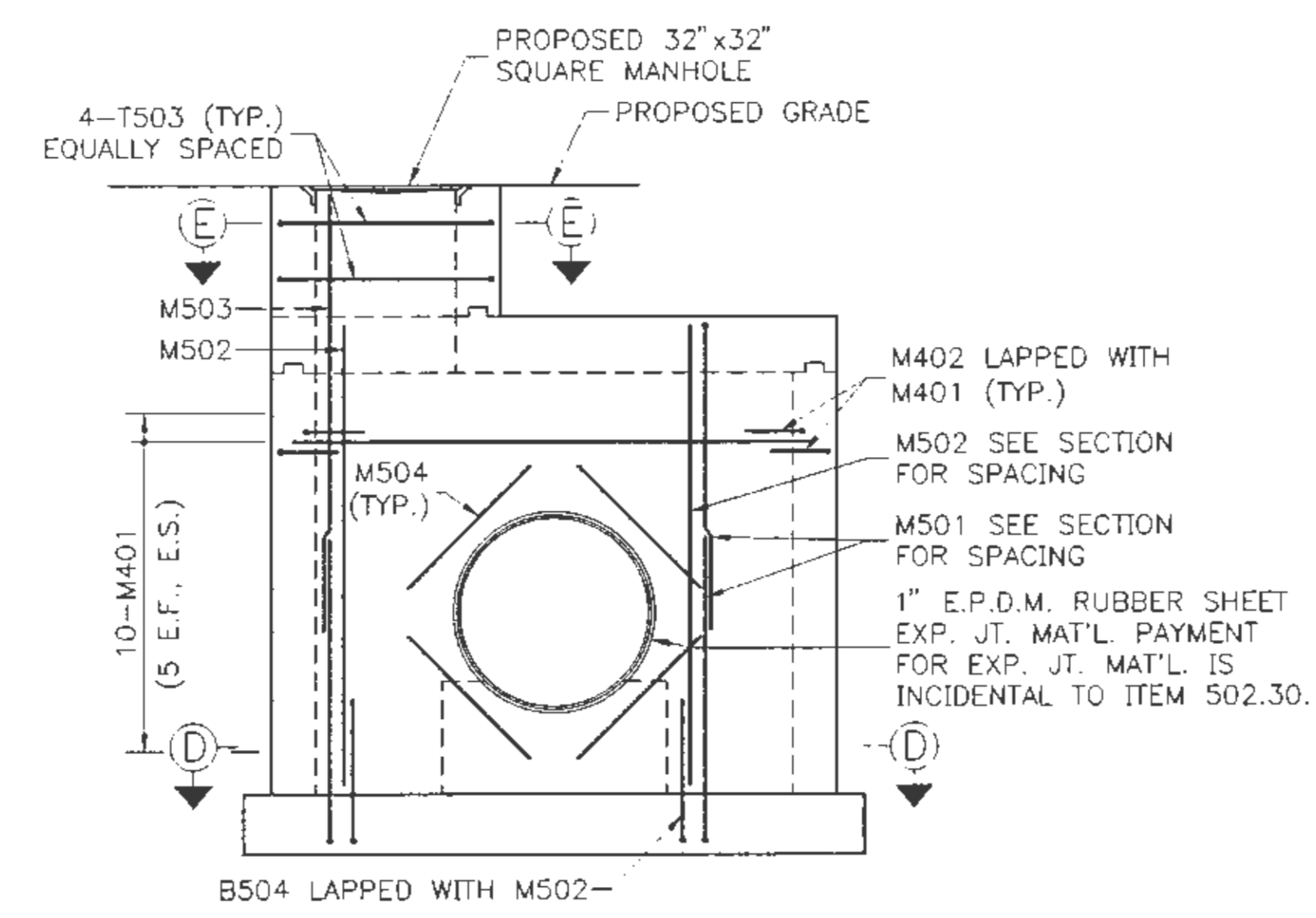
35 OF 40



1

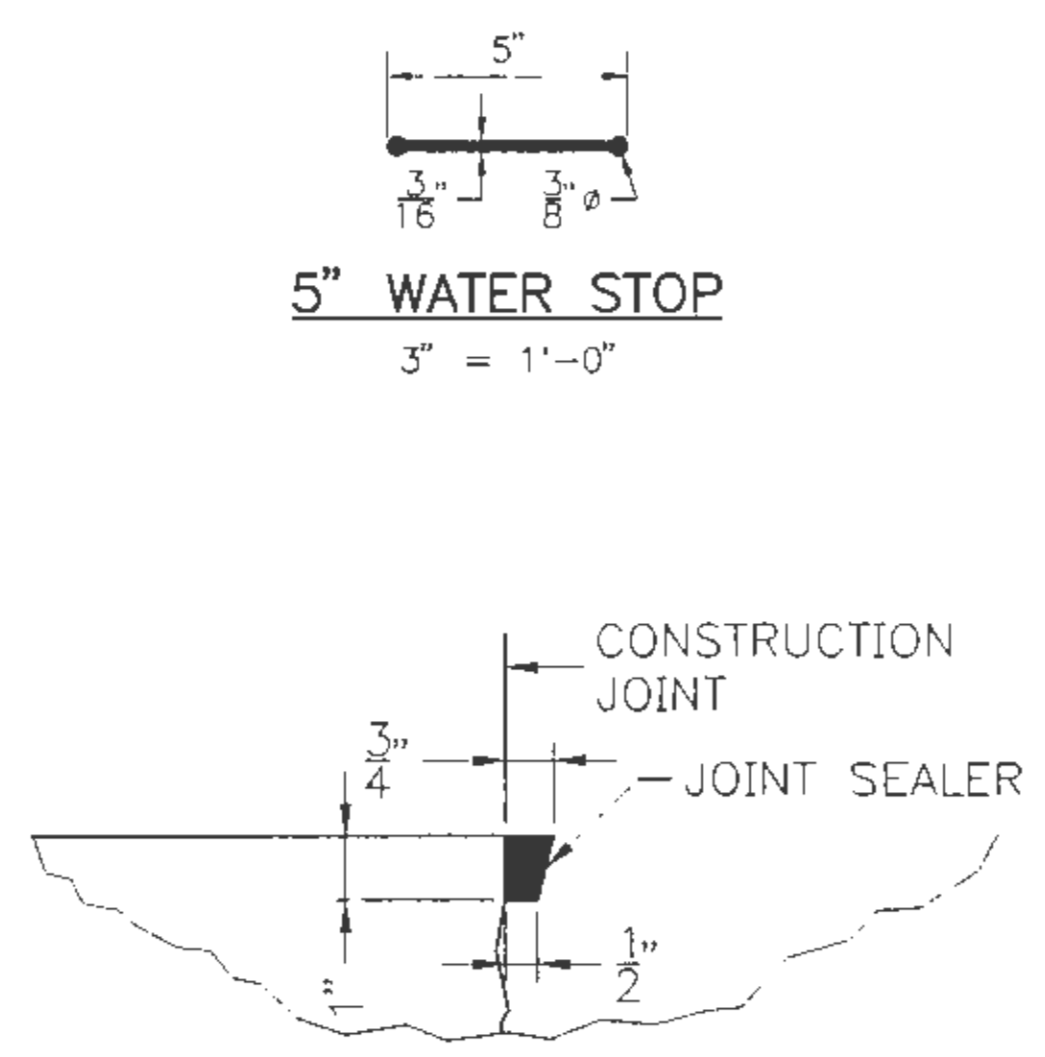


**TYPICAL SECTION**  
3/8" = 1'-0"

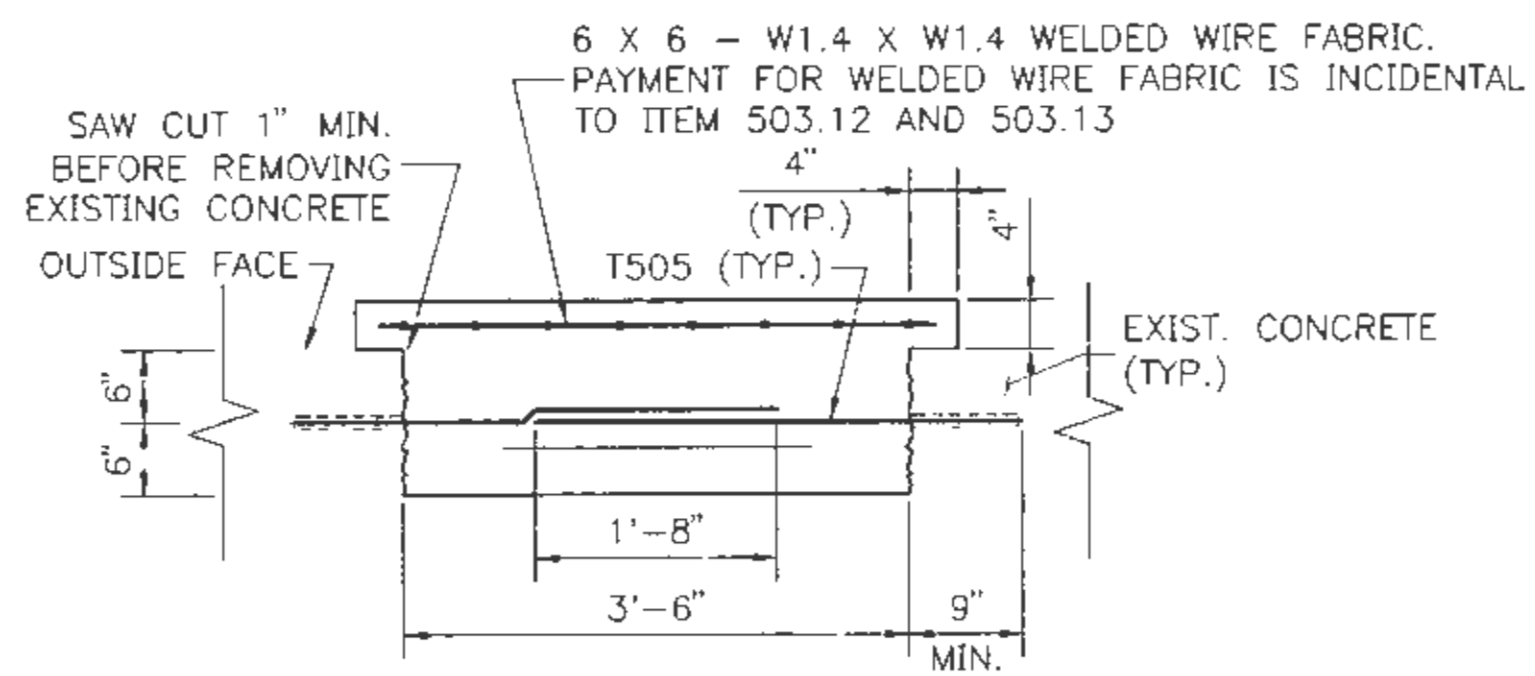


**CLOSURE WALL ELEVATION**  
3/8" = 1'-0"

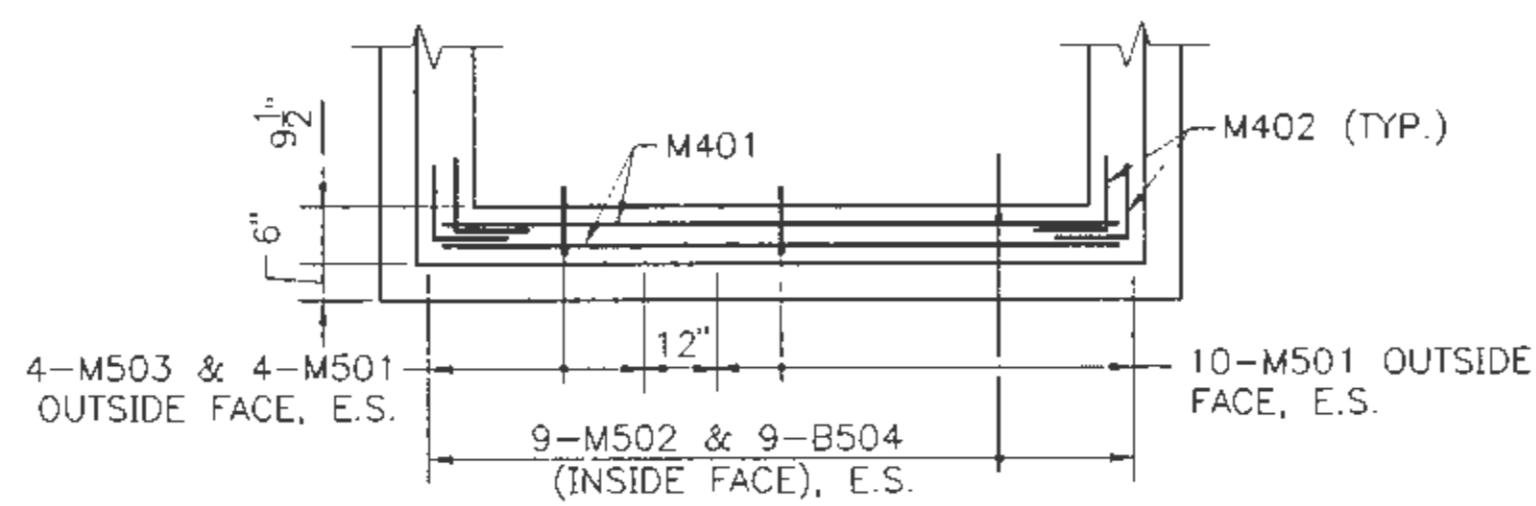
NOTE:  
FIELD CUT REINFORCEMENT AT 42" CIP WHERE REQUIRED.



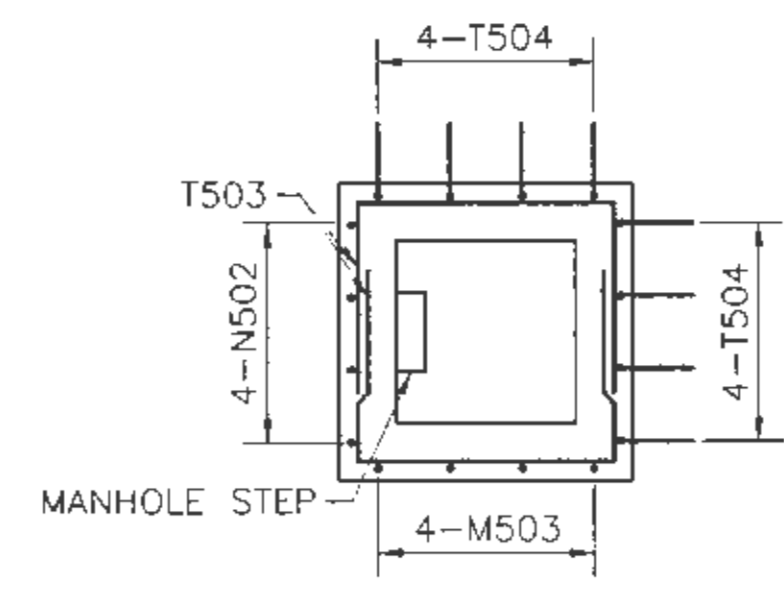
**JOINT SEAL DETAIL**  
3" = 1'-0"



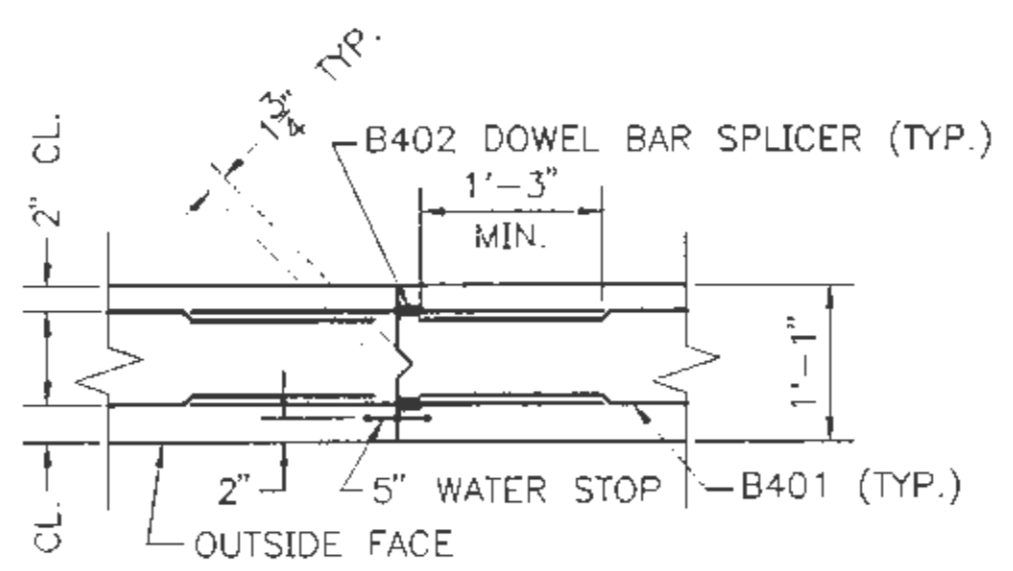
**SECTION A-A**  
3/4" = 1'-0"



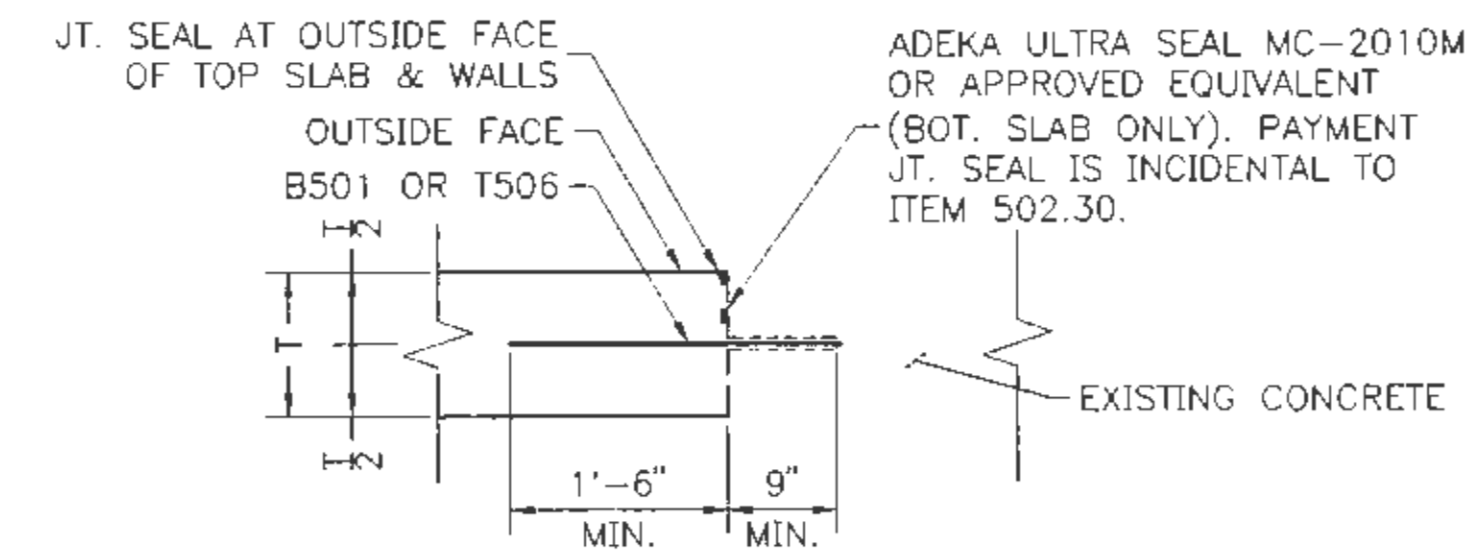
**SECTION D-D**  
3/8" = 1'-0"



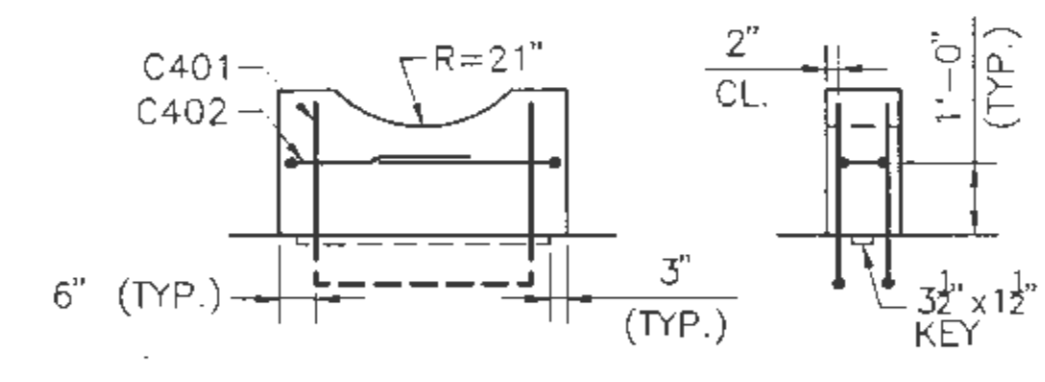
**SECTION E-E**  
3/8" = 1'-0"



**SECTION B-B**  
3/4" = 1'-0"



**SECTION C-C**  
3/4" = 1'-0"



**CRADLE REINFORCEMENT DETAIL**  
3/8" = 1'-0"

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**  
ARCHITECTS ENGINEERS PLANNERS

By	Date	By	Date
Designed CLC	7/01	Checked CLC	7/01
Drawn TRC	2/01	In Charge of RAL	7/01

HNTB CORPORATION  
 2 Thomas Drive  
 Westbrook, ME 04092  
 TEL (207) 774-5155  
 FAX (207) 772-7410

**MAINE TURNPIKE AUTHORITY  
 MODERNIZATION AND WIDENING PROJECT**



WESTBROOK INTERCHANGE  
 WESTBROOK, MAINE  
 42" C.I. WATER MAIN VAULT  
 DETAILS

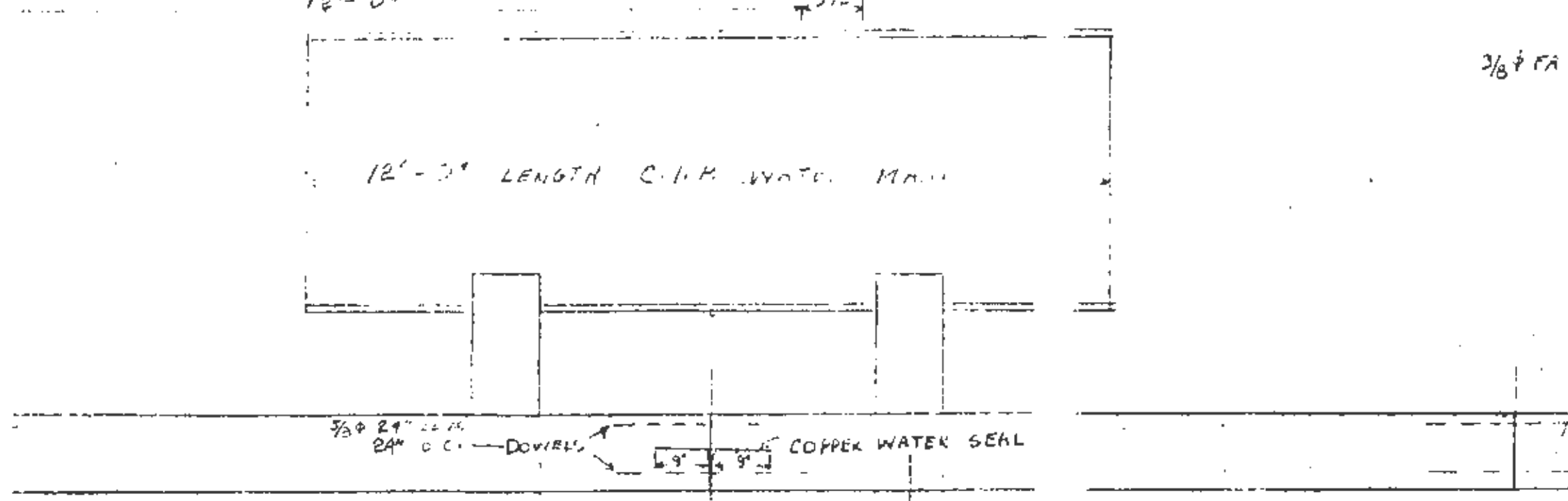
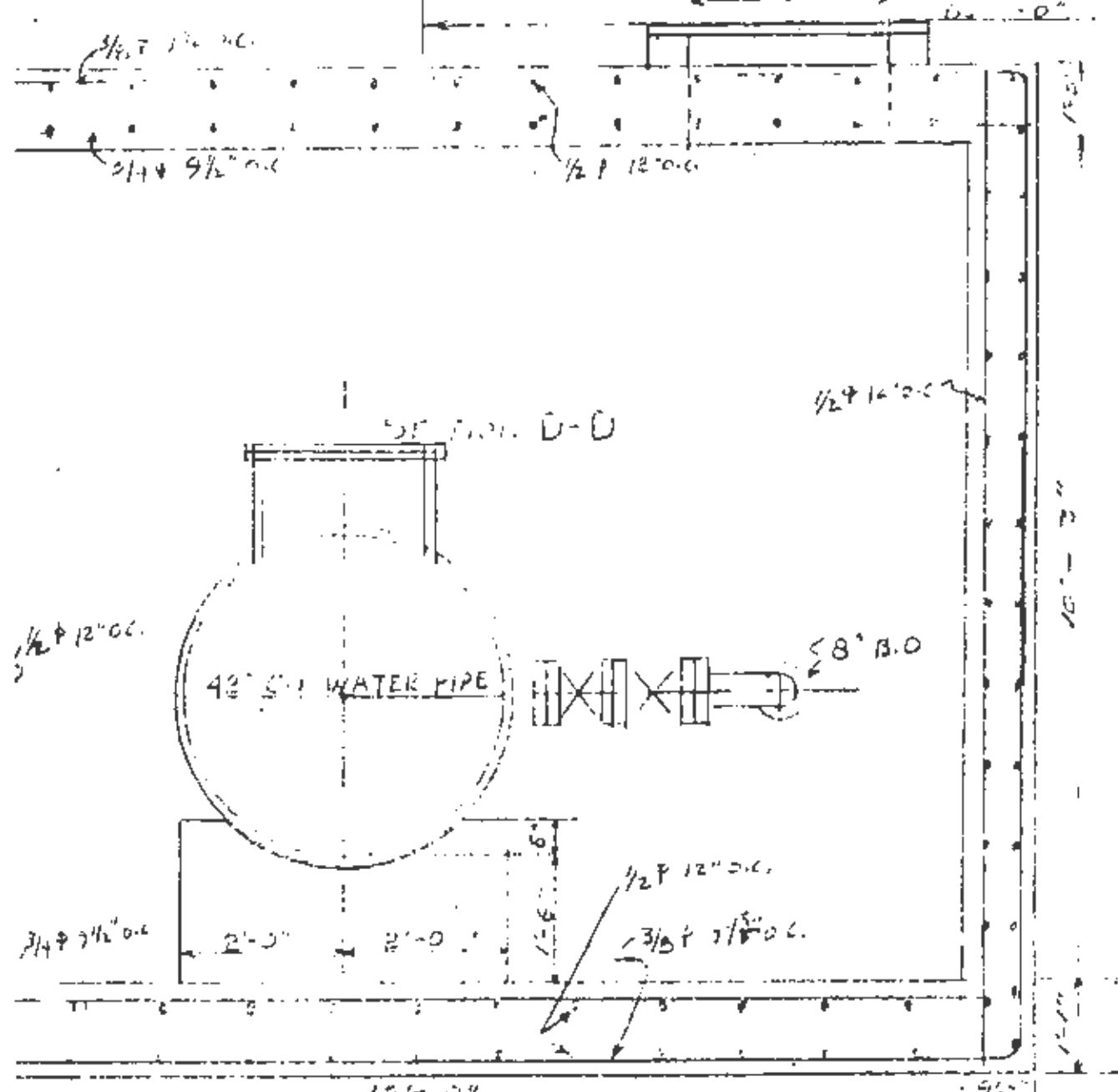
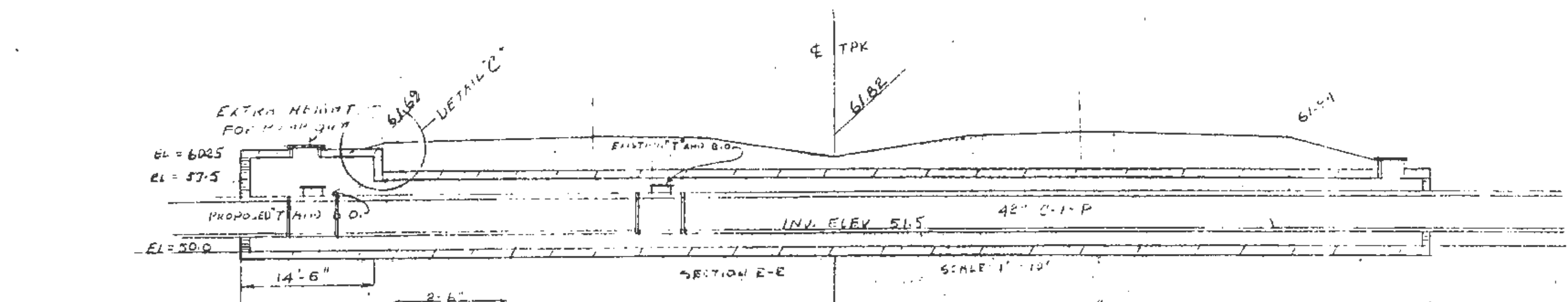
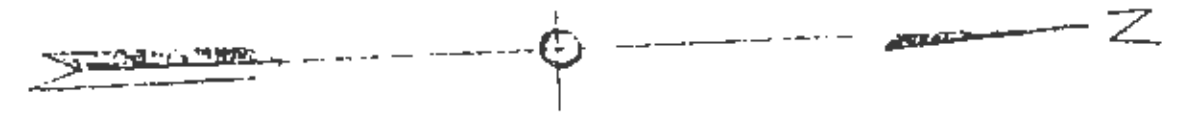
CONTRACT: 2021.02

SHEET NUMBER: PWD-S3

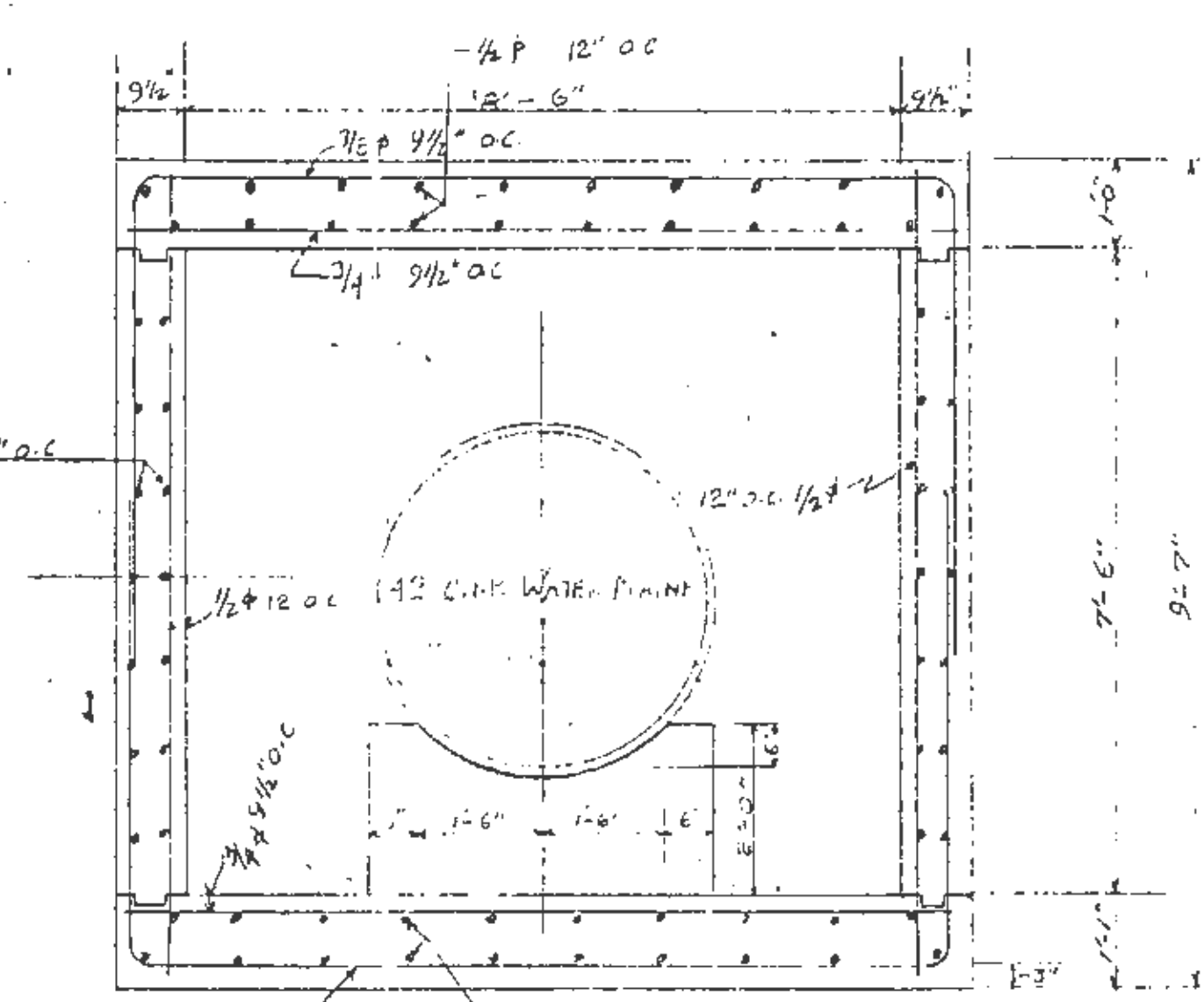
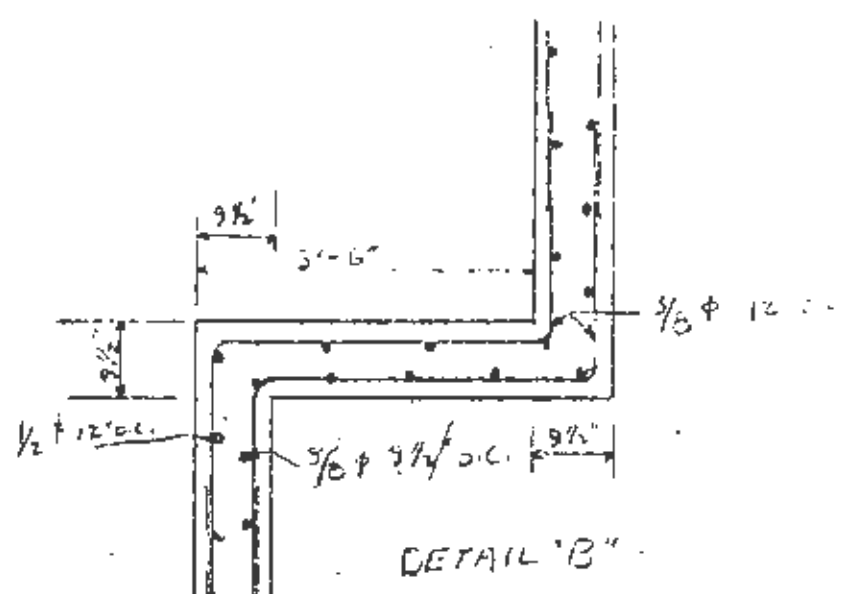
36 OF 40 B



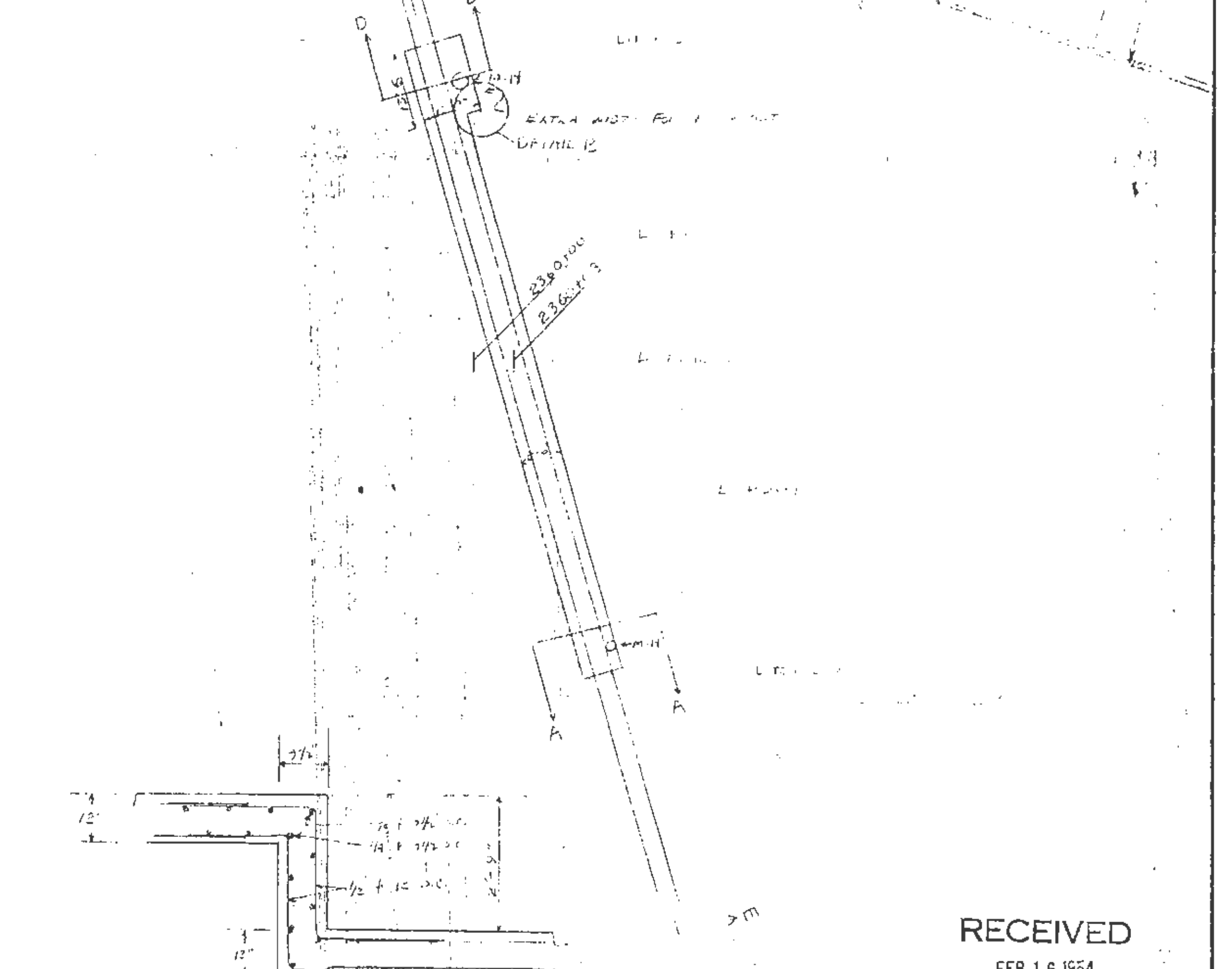
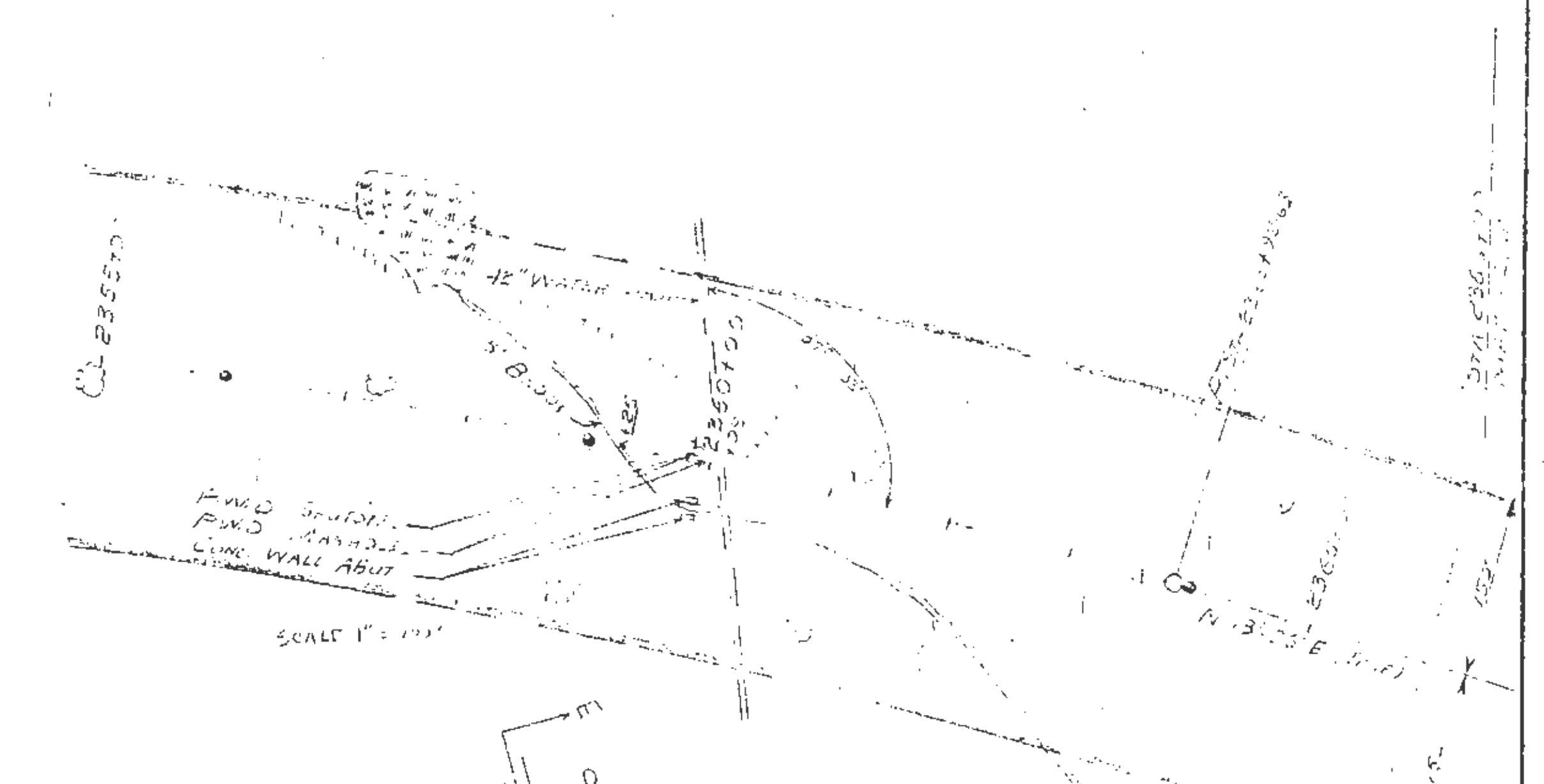
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CRADLE SUPPORTS FOR C.I. WATER MAIN  
SCALE 1" = 2"



WATER MAIN BOX CULVERT 8'-6" X 7'-6" STA 2360+05  
TRANSVERSE SECTION  
SCALE 1" = 2'



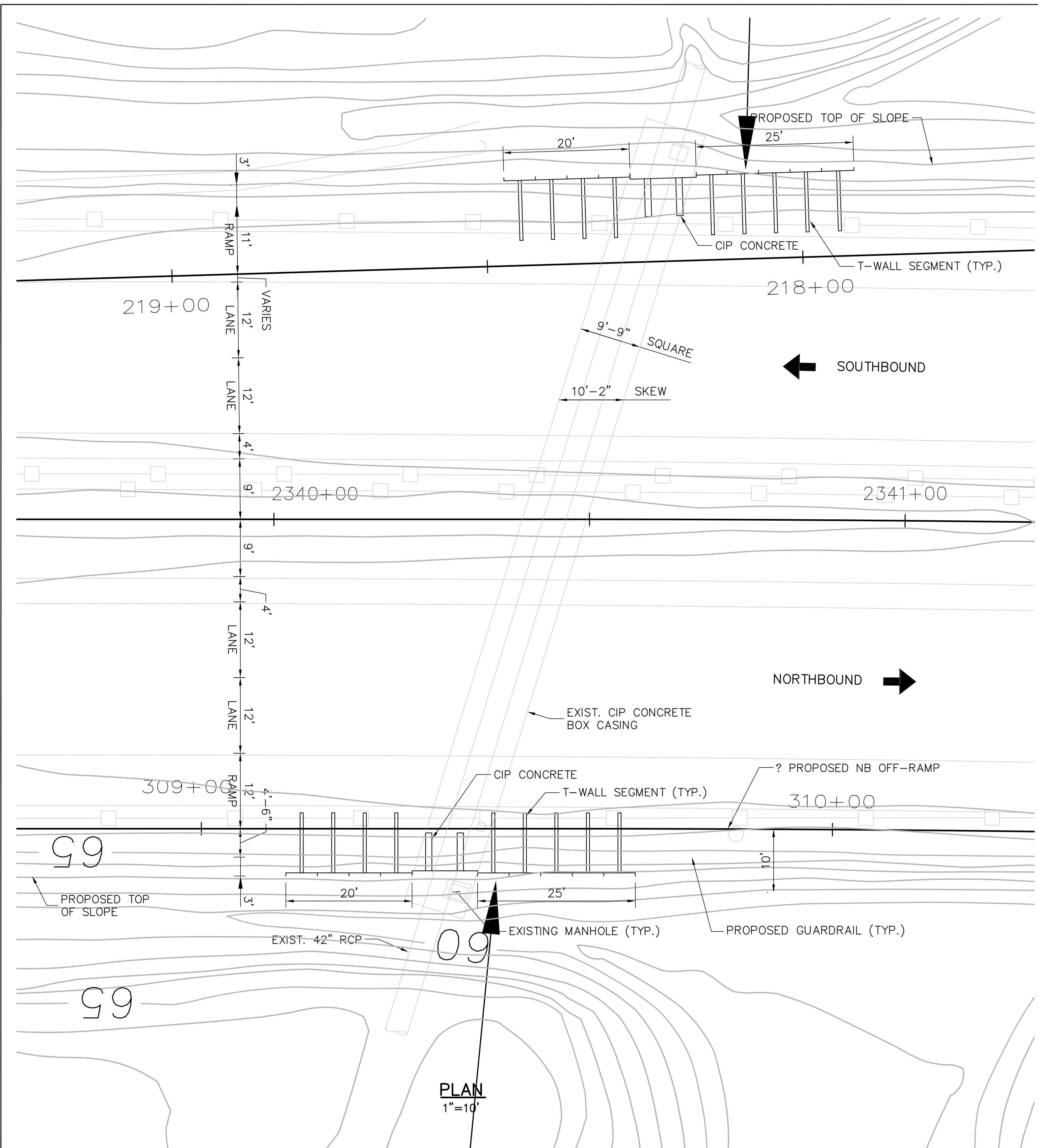
RECEIVED  
FEB 16 1954  
MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE AUTHORITY  
MAINE TURNPIKE  
SECTION 2 - PORTLAND TO AUGUSTA  
PROPOSED BOX CULVERT FOR  
42" C.I. WATER MAIN STA 2360+05

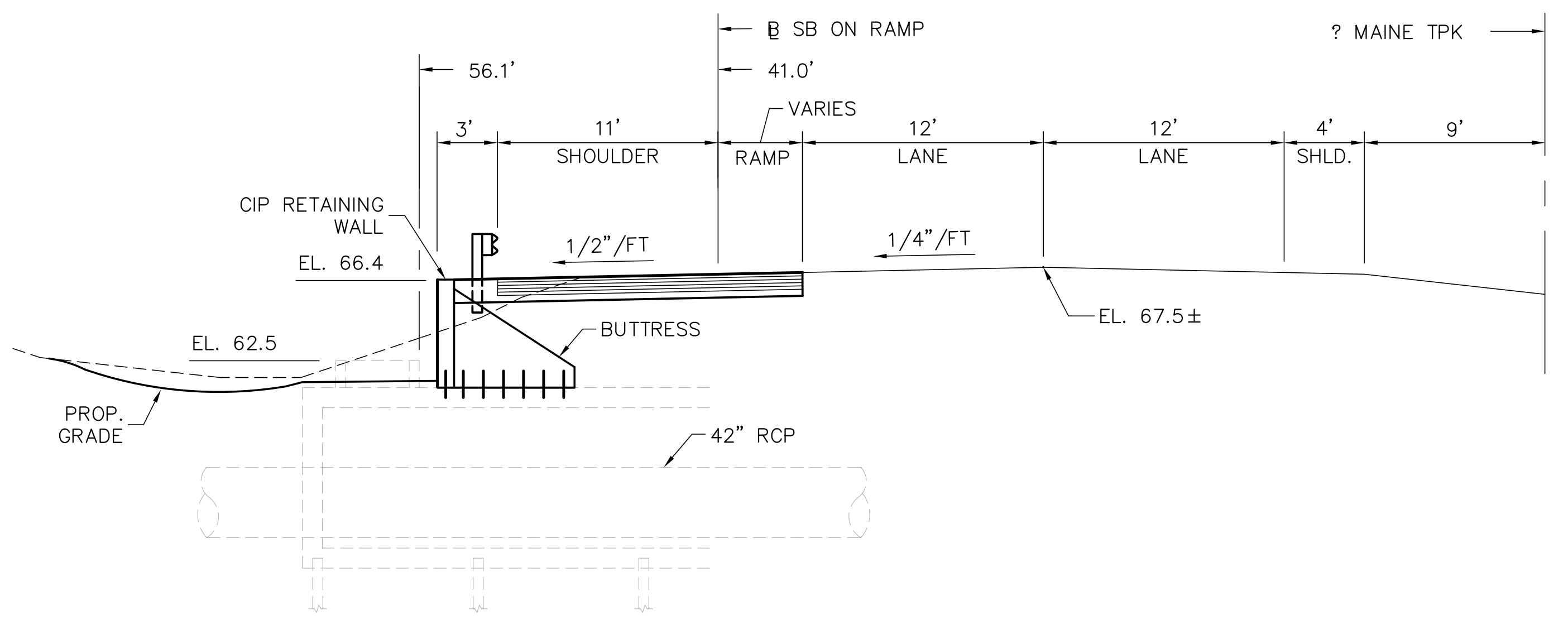
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
NEW YORK KANSAS CITY

SCALE:  
CONTRACT NO. \_\_\_\_\_  
SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_

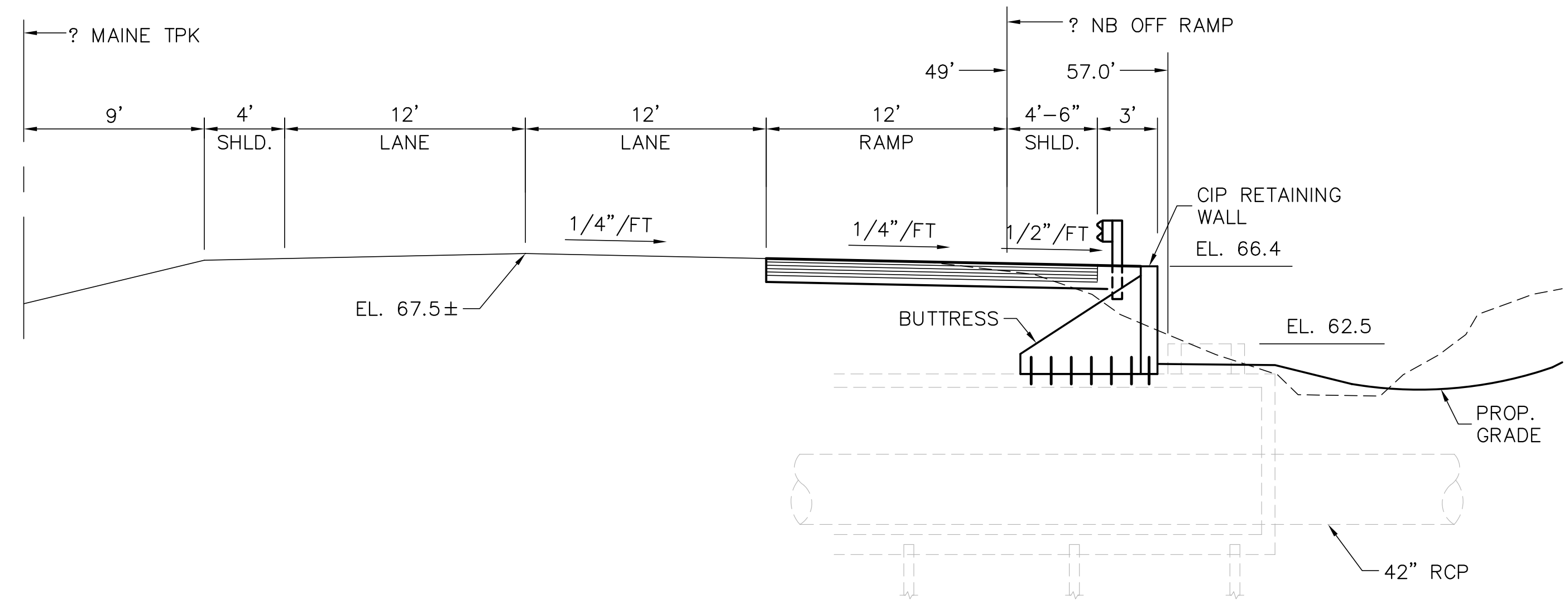
DATE	REVISION	BY	DATE
2-11-54			



PLAN  
1"=10'



CROSS SECTION @ STA. 2340+65  
3/16" = 1'-0"



CROSS SECTION @ STA. 2340+28  
3/16" = 1'-0"

I:\NH14355DS\002\WC\FINAL DESIGN\RETAINING WALL\RWALLDLS01.DWG 07/19/01 13:53

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**  
ARCHITECTS ENGINEERS PLANNERS

By	Date	Checked	By	Date
JRB	04/01			
TRC	04/01	In Charge of	RAL	

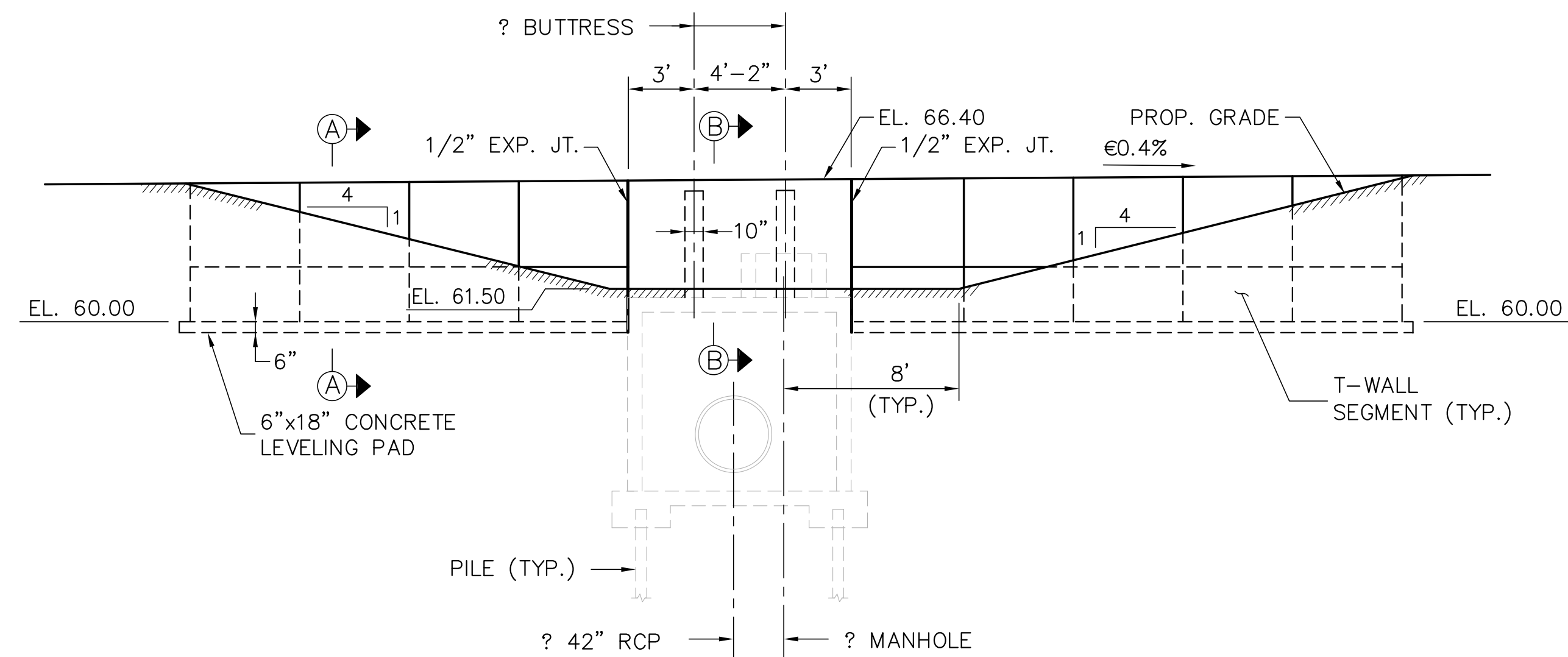
HNTB CORPORATION  
2 Thomas Drive  
Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 772-7410

MAINE TURNPIKE AUTHORITY  
MODERNIZATION AND WIDENING PROJECT

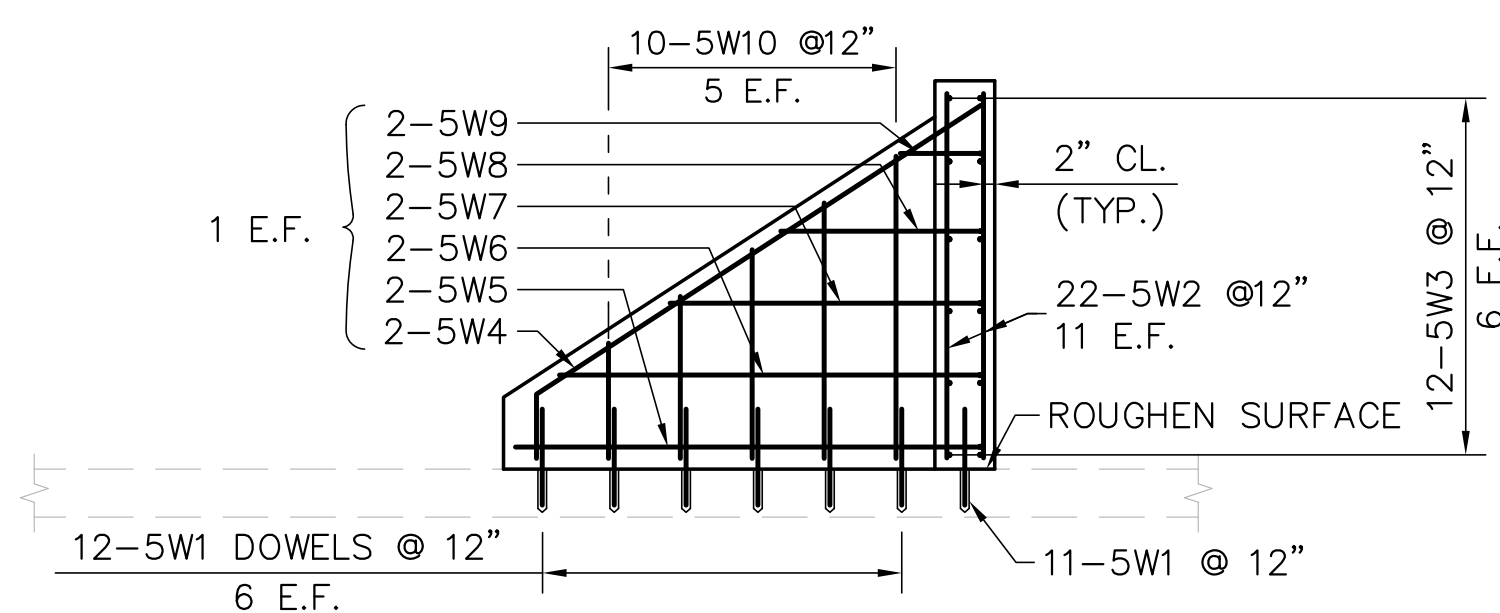
WESTBROOK INTERCHANGE  
WESTBROOK, MAINE  
42" RCP WATER MAIN  
PLAN AND CROSS SECTIONS

SHEET NUMBER: PWD-RW2  
CONTRACT: 2021.02  
38 OF 40

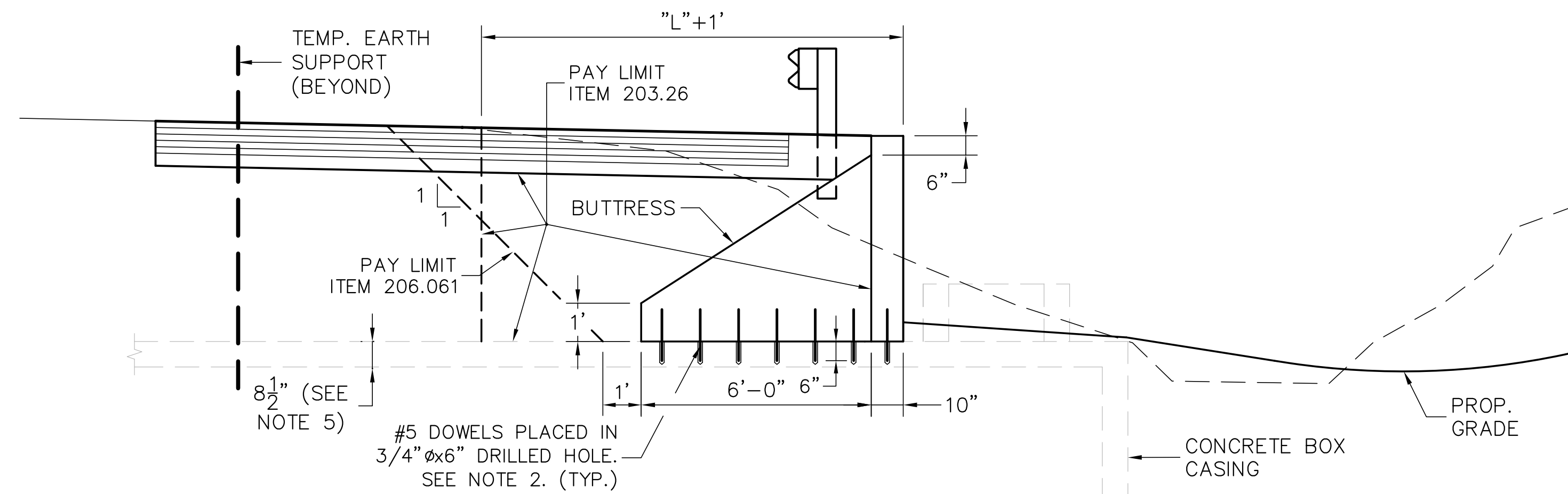




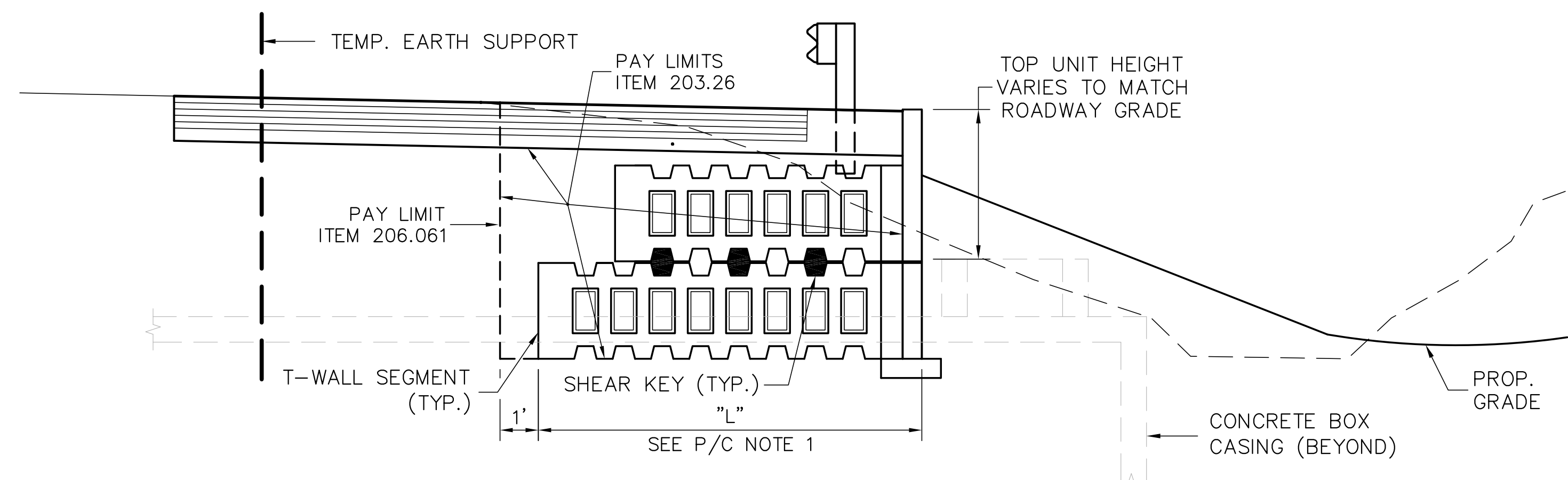
**EAST ELEVATION**  
(WEST END SIMILAR)  
3/16" = 1'-0"



**RETAINING WALL REINFORCING**  
(WEST END SHOWN, EAST END SIMILAR)  
3/8" = 1'-0"



**CROSS SECTION B-B**  
3/8" = 1'-0"



**CROSS SECTION A-A**  
3/8" = 1'-0"

**PRECAST CONCRETE**

1. PRECAST CONCRETE ELEMENTS SHALL BE DESIGNED BY THE MANUFACTURER AND BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE T-WALL RETAINING WALL SEGMENTS SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO SPECIFICATIONS FOR THE VARIOUS MINIMUM AND MAXIMUM LOAD COMBINATIONS TO PRODUCE MAXIMUM SHEARS, BENDING MOMENTS, AND BEARING PRESSURES.
2. MINIMUM REQUIREMENTS FOR PRECAST CONCRETE SHALL BE AS SPECIFIED IN ASTM C789 (AASHTO M259) & ASTM C850 (AASHTO M273).
3. THE CONTRACTOR SHALL PREPARE THE DESIGN, SHOP DETAILS, ERECTION AND ANY OTHER WORKING DRAWINGS IN ACCORDANCE WITH REQUIREMENTS OF SUBSECTION 105.02 OF THE MDOT STANDARD SPECIFICATIONS. SUBSTITUTIONS OF SECTIONS, MATERIALS, OR DETAILS DIFFERING FROM THOSE SHOWN SHALL BE MADE ONLY WHEN APPROVED BY THE ENGINEER. ALL CHANGES AND REVISIONS TO THE APPROVED WORKING DRAWINGS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
4. PRECAST CONCRETE ELEMENTS SHALL BE THOSE MANUFACTURED BY "SUPERIOR CONCRETE CO., INC." OF AUBURN, MAINE, OR EQUIVALENT.
5. ALL CONNECTION HARDWARE SHALL CONFORM TO ASTM A36. PAYMENT SHALL BE INCIDENTAL TO ITEM 502.302. ALL JOINT SEALS BETWEEN PRECAST UNITS SHALL BE INCIDENTAL TO ITEM 502.302.

**NOTES**

1. CHAMFER ALL EXPOSED CORNERS 3/4" UNLESS OTHERWISE NOTED.
2. MATERIAL USED FOR DRILLING AND ANCHORING DOWELS SHALL BE "KELIGROUT" AS MANUFACTURED BY KELKEN-GOLD, INC., OR EQUAL. INSTALLATION SHALL BE IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CAPACITY OF THE ANCHORAGE SHALL BE SUFFICIENT TO DEVELOP THE FULL YIELD STRENGTH OF THE DOWEL. EMBEDMENT SHALL BE 6" MINIMUM. PAYMENT FOR DRILLING AND ANCHORING BARS SHALL BE INCIDENTAL TO ITEM 502.21.
3. REINFORCING STEEL SHALL HAVE 2" CONCRETE COVER UNLESS OTHERWISE INDICATED.
4. GUARDRAIL SHALL BE INSTALLED SO THAT POSTS AVOID CONCRETE BUTTRESSES AND STEMS OF T-WALL.
5. THE CONTRACTOR SHALL FIELD VERIFY THE THICKNESS OF THE TOP SLAB OF THE CONCRETE BOX CASING.

Scale:

Designed by:



ARCHITECTS ENGINEERS PLANNERS

HNTB CORPORATION  
2 Thomas Drive  
Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 772-7410

MAINE TURNPIKE AUTHORITY  
MODERNIZATION AND WIDENING PROJECT



WESTBROOK INTERCHANGE  
WESTBROOK, MAINE  
42" RCP WATER MAIN  
RETAINING WALL DETAILS

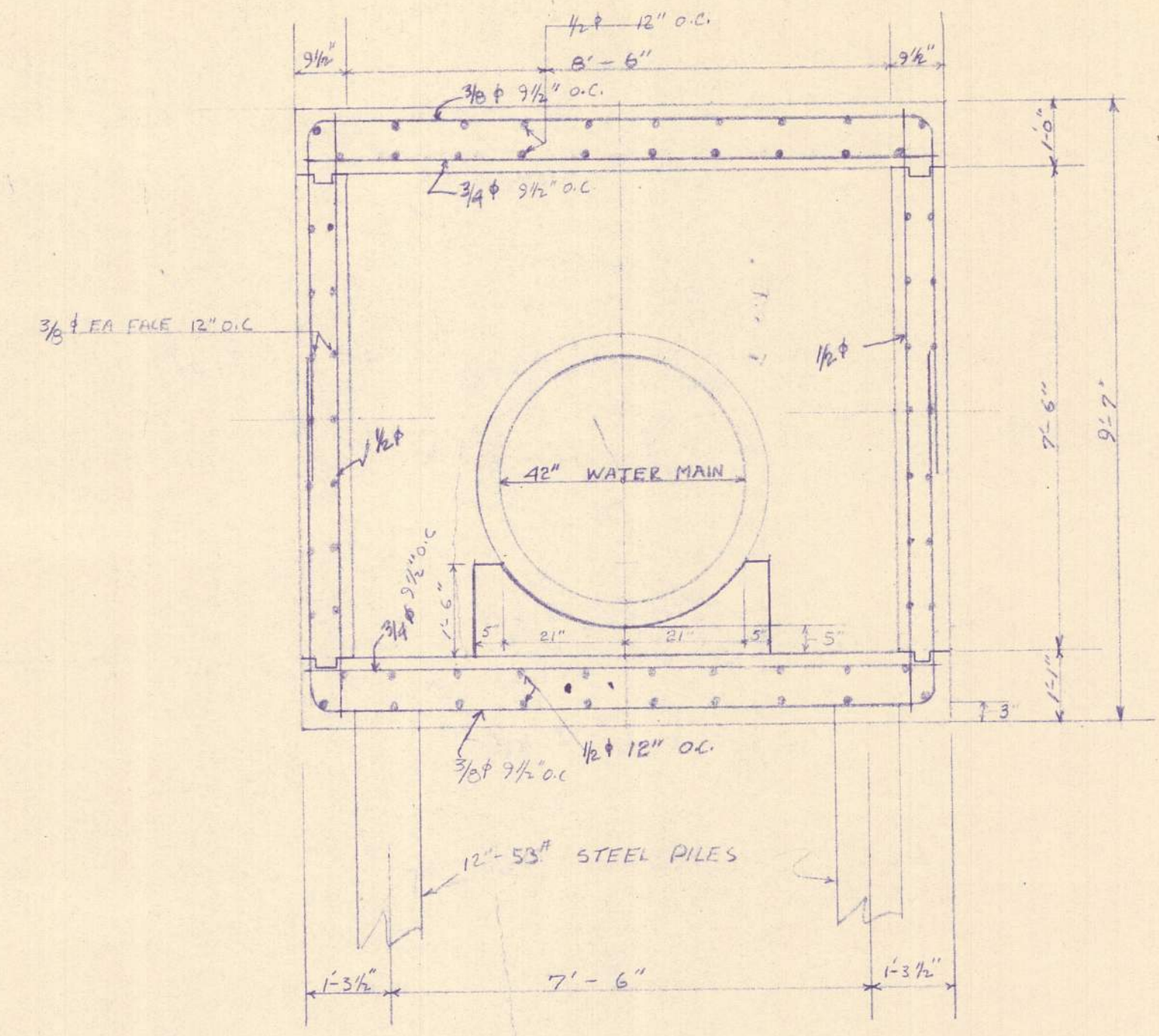
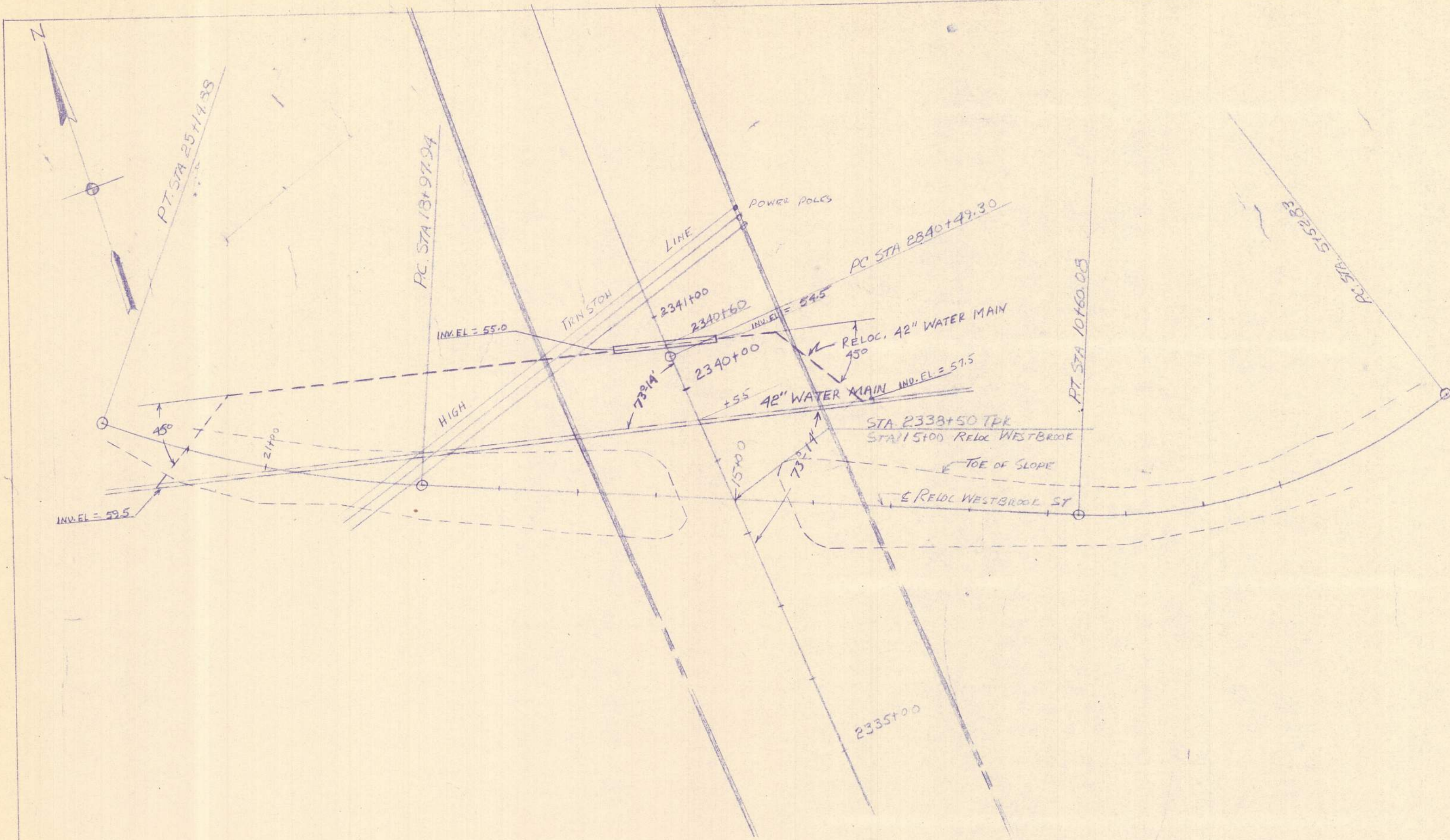
SHEET NUMBER: PWD-RW3

CONTRACT: 2021.02

39 OF 40

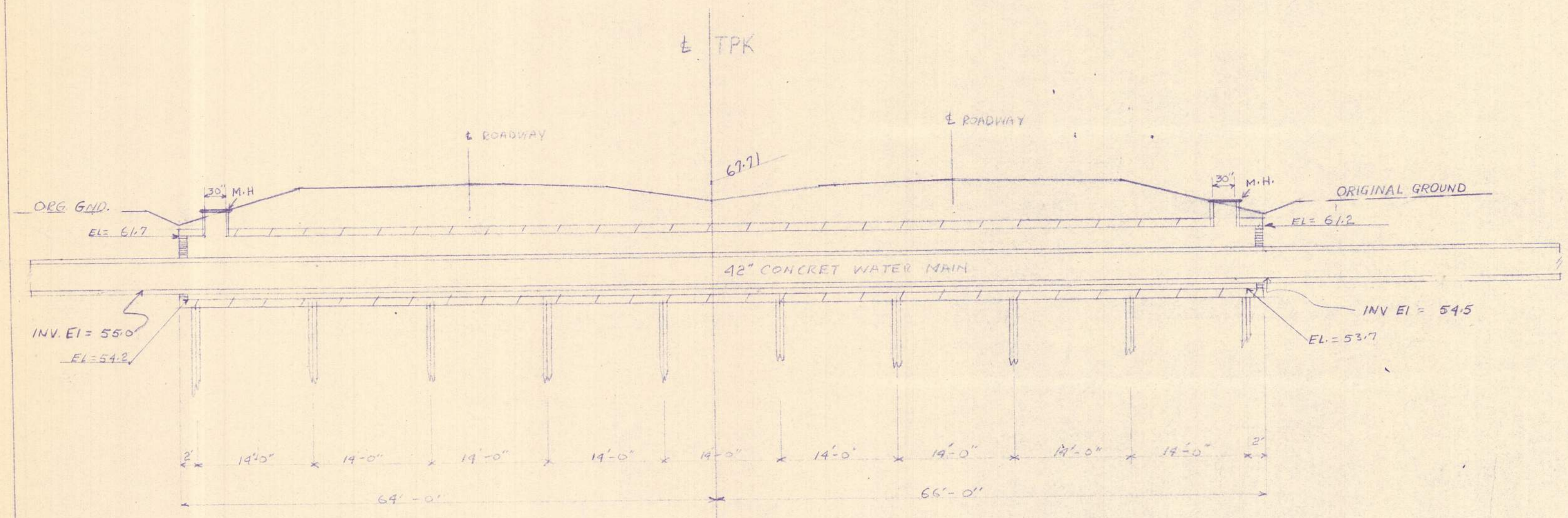
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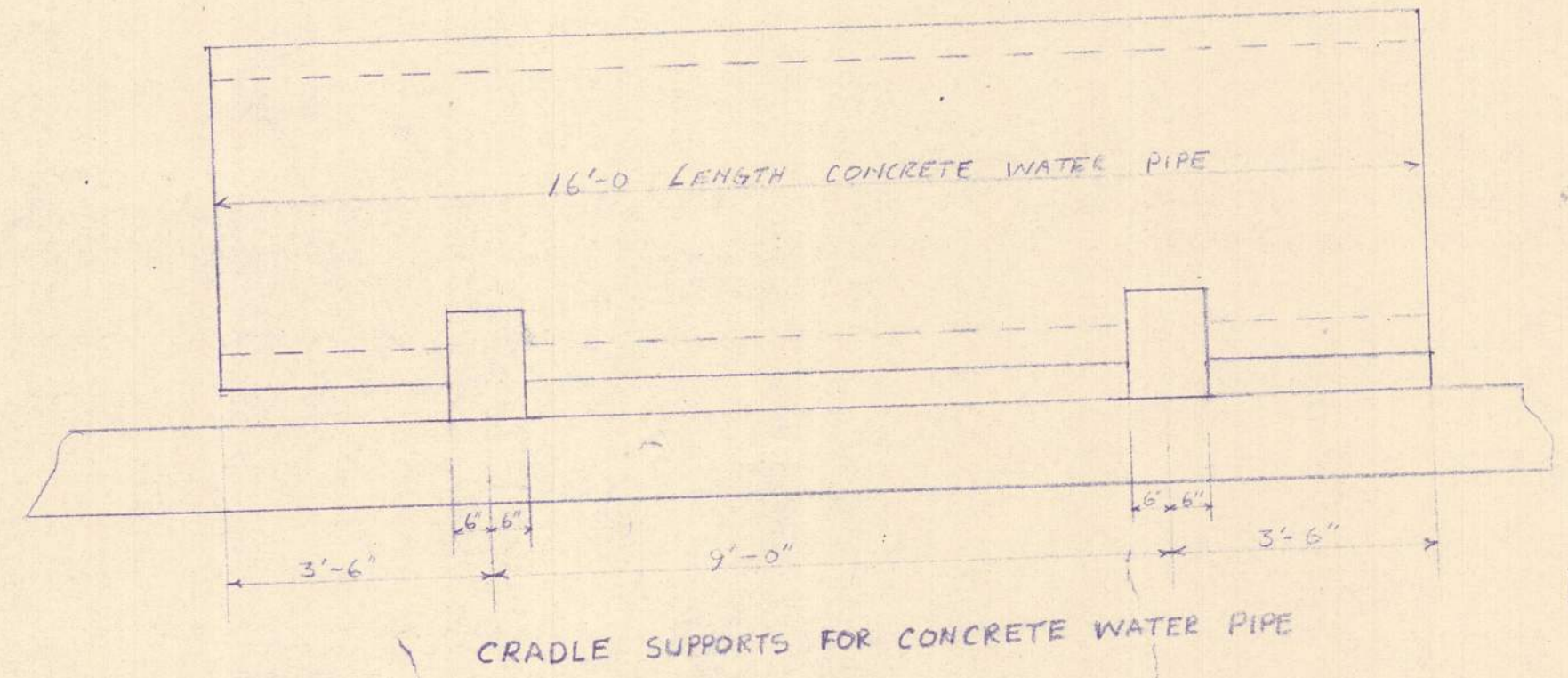


WATER MAIN BOX CULVERT 8'-6" x 7'-6" STA 2340+60  
TRANSVERSE SECTION

SCALE 1" = 2'



SCALE 1" = 100'



CRADLE SUPPORTS FOR CONCRETE WATER PIPE

RECEIVED  
FEB 16 1954  
MAINE TURNPIKE AUTHORITY

MADE	BY	DATE			
TRACED					
CHECKED					
IN CHARGE OF			NO.	REVISION	BY DATE

MAINE TURNPIKE AUTHORITY			
MAINE TURNPIKE			
SECTION 2- PORTLAND TO AUGUSTA			
PROPOSED RELOC. OF 42" CONCRETE WATER MAIN IN CONCRETE BOX CULVERT STA 2340+60			

SKETCH NO S-154

CONTRACT: 2021.02

40 OF 40



**MAINE TURNPIKE AUTHORITY**

Pre-Bid Conference

**CONTRACT 2021.02**

WATER LINE AND UTILITY VAULTS

MM 47.1, MM 47.6, AND MM 48.5

JUNE 3, 2021, 10:00 A.M.

1) Location:

The general limits of work are as shown on the Contract Plans at Miles: 47.1, 47.6, and 48.5.

2) General Description:

The work consists of constructing utility vault extensions and watermain replacement on the Maine Turnpike in the City of Portland, Maine. The work includes embankment excavation, shoulder gravels and pavement construction, utility vault extension, watermain replacement, guardrail and culvert removal and replacement, maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications.

3) Bid:

a) Opening: June 15 at 11:00 A.M. at MTA Headquarters 2360 Congress Street, Portland.

b) All bid and contractual questions shall be directed to Nate Carll. Phone No.: (207) 482-8115. E-Mail: [ncarll@maineturnpike.com](mailto:ncarll@maineturnpike.com).

c) All questions on plans and specifications shall be in writing and shall be directed to Nate Carll, Purchasing Manager, of the Maine Turnpike Authority. Fax No. (207) 871-7739. Email [ncarll@maineturnpike.com](mailto:ncarll@maineturnpike.com)

d) Bids will be accepted from Contractors **prequalified** by the Maine Department of Transportation for Highway Construction Projects. All other bids may be rejected. This Project includes a wage determination developed by the State of Maine Department of Labor.

4) Notification:

a) Contractor shall notify and obtain approval from the Authority prior to visiting the Project sites for field inspection. The contact person is Mr. Steve Tartre at [startre@maineturnpike.com](mailto:startre@maineturnpike.com)

5) Contract Specifications

a) The Specifications are divided into three parts: Part I, Supplemental Specifications, Part II, Special Provisions, and Part III, Appendices.

b) The Maine Turnpike Supplemental Specifications are additions and alterations to the 2014 Maine Department of Transportation Standard Specifications and are available on MTA's website.

- 6) Maine Department of Labor – Fair Hourly Wages (Special Provision 104.3.8) Wage rates for Highway and Earth, and Heavy and Bridge are in effect for this contract.
- 7) Utility Coordination (Special Provision 104.4.6)
  - a) Central Maine Power
    - i) CMP has aerial crossings of the Turnpike: south of and along Congress St, north of Westbrook St, south of Rand Rd/Westbrook Arterial, and north of and along Brighton Ave
    - ii) The Contractor shall prepare and submit for approval, a crane layout plan depicting the working area of all components of the crane and infrastructure being installed as well as the poles, guys, and conductors. The plan shall be submitted a minimum of 30 days prior to planned work adjacent to the conductors. Written approval must be received prior to work commencing.
    - iii) A Utility Pre-Construction meeting is required and shall be completed prior to construction
    - iv) The Contractor shall be responsible for complying with M.R.S.A. Title35-A, Chapter 7-A Sections 751 -761 Overhead High-Voltage Line Safety Act. Prior to commencing any work that may come within ten (10) feet of any aerial electrical line the Contractor shall notify the aerial utilities as per section 757 of the aforementioned act. Any work within 25 feet of CMPCo's facilities will require advance coordination with CMPCo to have a CMPCo representative on-site to provide a safety watch. The CMPCo representative may stop work within the CMPCo right-of-way if they believe the work activities are unsafe or may cause damage to CMPCo's facilities.
  - b) Federal Aviation Administration
    - i) Contractor shall review and comply with the Special Conditions contained in Aeronautical Studies: No. 2021-ANE-18-OE, No. 2021-ANE-19-OE, No. 2021-ANE-29-OE, and FAA Advisory Circular AC No. 70/7460-1 M, Obstruction Marking and Lighting. These documents are contained in the Appendix. FAA has determined equipment that is 100 feet tall or less (above ground level at the waterline crossings) may be used on this project with special marking and/or lighting; see documents noted in this paragraph. Any equipment or part of equipment that exceeds 100 feet above ground level will require an additional application process, review, and approval of the FAA before the equipment can be used.
    - ii) Contractor shall contact the FAA (Portland International Jetport), including PWM Air Traffic Control Tower at 207-552-1415, and PWM Manager at 207-756-8310, as noted in these documents, at least 3 business days prior to use of construction equipment at the three waterline crossings AND when the construction is complete.
  - c) Maine Turnpike
    - i) Maine Turnpike Authority owns highway lighting facilities within the project limits along each interchange ramp. The utility vault extensions and watermain replacement will require excavation around/near electrical conduits supplying power to the interchange lightings.
    - ii) The Contractor shall coordinate with MTA at least 10-days prior to excavation around lighting facilities. Interchange lighting must remain operational at all times.
  - d) Portland Pipe Line Corporation

- i) Portland Pipe Line Corporation (PPLC) has a 24-inch oil pipeline approximately 80 feet from the construction of a utility vault, station 2340+50 left.
  - ii) Special coordination is required for waterline replacement and grading in the Exit 48 interchange between the Turnpike mainline and the northbound off ramp. PPLC maintains pipe vents and a cathodic protection test station at this location which must be maintained. Cover requirements shall also be maintained in this area over the pipelines. The contractor shall provide a 30-day notice of construction in this area.
  - iii) PPLC requires a Pre-Construction meeting to finalize all construction details and schedule including details of heavy and vibratory equipment to be operated near and over the pipelines. In addition, the contractor must follow a set of construction guidelines, labeled Portland Pipe Line Corporation – Construction Practices for work within 1,000 feet of their facility; see Appendix.
- 8) Cooperation With Other Contractors (Special Provision 104.4.7):
- a) MTA Contract 2018.19 – Cummings Road Underpass Bridge Replacement, MM 44.6
  - b) MTA Contract 2020.02 – Exit 45 Interchange Reconstruction, MM 44.9
  - c) MTA Contract 2020.03 – Portland Area Widening & Safety Improvements, MM 43.0 to 46.4
  - d) MTA Contract 2019.10 – Warren Avenue Overpass Bridge Replacement, MM 49.0
  - e) MaineDOT WIN 21745 Interstate 295 Over Veranda Street in Portland (for purposes of traffic management during planned I-295 closures)
- 9) Permit Requirements (Special Provision 105.8.2)
- a) The Project is being constructed under multiple environmental permits, including: the Maine Department of Environmental Protection (DEP) Natural Resources Protection Act Permit and Water Quality Certification L-27726-TG-A-N; U.S. Army Corps of Engineers Individual Permit NAE-2019-00701 under Section 404 of the Clean Water Act; and Self-Verification Notice authorization NAE-2021-01318 under the U.S. Army Corps of Engineers General Permits for the State of Maine.
  - b) These permits authorize temporary or permanent construction disturbance within wetlands located within the limits of disturbance (LOD) shown on the site plans. Any alterations to the LOD proposed by the contractor requires review and approval by MTA’s Resident Engineer and environmental staff before being implemented. The permits require that no tree cutting shall occur in wetlands or uplands between June 1 and July 31. Erosion and sediment controls must be maintained during and following construction in accordance with MTA’s Supplemental Specification Section 656.
  - c) The Project is subject to all general, special, and project-specific conditions contained in the DEP and U.S. Army Corps of Engineers Permits. Copies of the permits will be provided to the Contractor. The Contractor shall comply with the conditions outlined in the U.S. Army Corps of Engineers and DEP permits. The Contractor shall indemnify and hold harmless the Maine Turnpike Authority or its agents, representatives and employees against any and all claims, liabilities or fines arising from or based on the violation of the above noted permits.
- 10) Construction Schedule/Substantial Completion:

- a) June 24, 2021 – Anticipated Contract Award Date
- b) November 15, 2021 – Substantial Completion.
- c) December 3, 2021 – Contract Completion Date.

12) Prosecution of Work (107.4.6) & Limits of Operations (Special Provision 107.4.7)

- a) No tree cutting shall occur between June 1 and July 31.
- b) The Contractor may have only one watermain shut down at a time. The work must be complete, with the watermain brought back into service, at one watermain crossing before the other watermain is shut down to begin work on the other watermain crossing. The watermain replacement at Exit 48 may be completed anytime within the contract time, including overlapping with the utility vault work.
- c) Multiple temporary ramp closures within an interchange are not allowed; only one ramp may be closed at a time.
- d) The Contractor shall be responsible for coordinating and scheduling work activities with adjacent contracts in overlapping work zones.
- e) The Contractor shall complete the work as shown on the maintenance of traffic plans and in accordance with Section 652 of the Specifications. The MOT layouts as shown in the Plans and described in the Special Provisions provide guidance for construction sequencing. All Contractor MOT layouts, including any and all changes to the Plan MOT Layouts, or changes to the Special Provisions, shall be submitted to the Resident for review and approval prior to implementation. These will be considered a Shop Drawing Review and are required to be submitted at least 20 days prior to proposed implementation.
- f) There shall be no pile driving during non-daylight hours. Pile driving will not be allowed within 10 feet of traffic.
- g) Lane closures, ramp closures, shoulder closures, and stoppages of all kinds are prohibited during an Interstate 295 closure for MaineDOT project WIN 21745, Interstate 295 over Veranda Street. The planned I-295 Closure, and weather alternate, is tentatively scheduled for either: the period Noon October 22, 2021 thru Noon October 25, 2021 with an alternate weather period of Noon October 29, 2021 thru Noon November 1, 2021, OR Noon April 15, 2022 thru Noon April 18, 2022, with an alternate weather period of Noon April 22, 2022 thru Noon April 25, 2022.
- h) The Contractor shall maintain existing drainage during construction as needed for temporary use and as identified on the plans. This includes, but not limited to, making temporary pipe connections, grading temporary ditch, or bypass pumping of stormwater. Payment for temporary stormwater and ditch drainage shall be incidental to the Contract and no additional payment will be made for required labor, fittings, seals, etc. Payment for final ditch grading shall be paid for under the applicable Bid Items.

13) Specific Contract Items

a) Section 203.20, 304.14, 403.213, 419.30, and 606.366

- i) Limits of shoulder pavement removal, aggregate base gravel replacement, and guardrail remove and rest are approximate. Contractor shall propose limits of pavement removal, aggregate excavation and guardrail removal for review and approval by Resident
- ii) Payment for all items shall be based on actual work complete, measured, and accepted.

b) Section 511 Cofferdams

- i) This work shall consist of the complete design, construction, maintenance and removal of temporary earth support systems and other related work, including dewatering and inspection, required to allow for the excavation required to construct the concrete utility vault extensions, and to protect adjacent roadways, adjacent public or private rights-of-way, embankments, or other structural units, in accordance with the Contract.
- ii) Temporary earth support structures may require pumping or dewatering to complete the Project work. The locations of temporary earth support structures may, or may not, be shown on the Plans whether required for the completion of the Contract or not. Section 502 – Asphaltic Plug Joint

c) Section 526 – Concrete Barrier

- i) Work Zones will require use of Temporary Concrete Barrier Type I – Supplied By Authority.
- ii) The contractor shall review the Plans and Specifications for anticipated use of temporary barrier and the requirements for such use.

d) Section 604 – Manholes, Inlets, and Catch Basins – Utility Vault Extensions

- i) This work shall include the partial demolition of the existing utility vaults and manholes and construction of the utility vault extensions as shown on the Contract Plans. This work shall also include developing and submitting for approval, a construction procedure, temporary water main support system, and temporary earth support to protect the water main, and coordination with Portland Water District as described in the Contract Plans and these Specifications.
- ii) The Contractor shall develop a construction procedure, temporary water main support, and temporary support systems that will protect, at all times, the 42” Cast Iron Pipe (1912, leaded joint) – at station 2360+02.55 and the 42” Reinforced Concrete Cylinder Pipe (1931, rubber and steel joint) – at station 2340+50.81, during construction of the tunnel extensions. Each water main will be removed from service by Portland Water District (PWD) during the work by closing valves on each side of the work area.
- iii) The Contractor is required to fully complete the work on one utility vault before work can begin on the other utility vault. Water mains can be removed from service between April 15th and October 15th and all work shall be completed within those dates. Winter shut offs are not permitted.
- iv) The maximum pipe support spacing shall be 6’ along the pipeline. The temporary watermain support system and temporary earth support shall be designed by a professional engineer licensed in the State of Maine and reviewed by the Resident Engineer and PWD prior to the start of construction.

- v) PWD shall receive at least 30-days advance notice of work to be performed within the PWD's easements or Rights-of-Way. No work shall be performed within the PWD pipeline easements or Rights-of-Way without prior approval of PWD and a PWD representative being on-site for inspection purposes

e) Section 652 – Maintenance of Traffic

- i) Special Provision 652 was recently updated; updates are bolded to aid in recognition.
- ii) Contractor shall submit phasing sequence layouts and work elements for each construction location, including lane and shoulder widths and sawcut locations for approval prior to construction.
- iii) Ramp closures are only allowed at the Exit 48 interchange as single night closures and intended to give the Contractor time to setup the work zones, including installing temporary traffic control signage and temporary concrete barrier.
- iv) Maintenance of traffic plans have been developed for the work on the mainline and ramps. Minimum main line width for a single travel lane shall be 14 ft and minimum ramp widths of 16 ft (12 ft lane and two 2 ft shoulders) must be maintained at all times, unless otherwise noted. Shoulder closures, lane closures, and lane shifts meeting the MUTCD guidelines, other than those shown in the plans, must be submitted for approval from the MTA prior to use in the construction operations. Requests for all closures shall be submitted to the MTA for approval before proceeding.
- v) Sawcutting and paving of mainline shoulders shall be done between 9:00 p.m. and 5:00 AM, unless otherwise shown on the Maintenance of Traffic Phasing Plans or as directed by the MTA.
- vi) Access to, and egress from, the construction area shall be with the direction of travel without crossing traffic. Construction vehicles are prohibited from merging with mainline traffic between 6:00 a.m. and 10:00 a.m. and between 3:00 p.m. and 7:00 p.m. unless approved in writing from the MTA.
- vii) Lane and Shoulder Closure tables are included in Special Provision 652.

f) Section 659 - Mobilization

- i) There are two Mobilization pay items for this contract, one for the Utility Vaults and one for the Waterline.

g) Part III – Appendix D – Portland Water District Construction Specifications for Water Main Replacement at Exit 48

- i) Contractor shall note that special provisions for the Water Main Replacement at Exit 48 are contained in Appendix D, versus the main body of special provisions.
- ii) Section 01250 Measurement and Payment
  - (1) Incidental Work is detailed in subsection 1.02. This incidental work is for the Water Main Replacement work only and NOT for the Utility Vault Extension Work.
  - (2) Pay Items are detailed in subsection 2.01.
- iii) Section 01300 – Submittals

- (1) All submittals for Water Main Replacement shall be made to the MTA Resident. Subsequent coordination with the Portland Water District will be initiated by the MTA Resident.
- iv) Maintenance of Traffic for Water Main Replacement at Exit 48 will be as detailed in the Plans and Specification or as approved by MTA Resident.

14) Questions

- a) Please submit any questions that you may have by noon on Thursday June 10, 2021