

Date:1/30/2026

Username:

Division:

Filename: 001_Title.dgn

PLAN LEGEND

Town, County, State	_____	Catch Basins	▣ Existing ▣ Proposed
Property Lines	-----	Manholes	○ Existing ● Proposed
R/W Lines-Existing	-----	Proposed Underdrain	-----
R/W Lines-Proposed	-----	Proposed Ditch	-----
Culvert-Existing	-----	Existing Ditch	-----
Culvert Proposed	-----	Utility Poles	◇ Existing ◇ Proposed
Curbing	Existing Proposed	Fire Hydrants	⊙ Existing ⊙ Proposed
Type 1	-----	Existing Water Line	-----
Type 3	-----	Existing San. Sewer	-----
Type 5	-----	Existing San. Sewer Manhole	⊙
Outline of Bodies of Water	-----	Guardrail-Existing	-----
Exposed Bedrock	-----	Guardrail-Proposed	-----
Buildings	-----	Guardrail-Cable, Other	-----
Trees	Conifer Deciduous	Centerline-Existing	-----
Tree Line	-----	Centerline-Proposed	-----
Clearing Limit Line	-----	Travelway-Existing	-----
Railroad	-----	Travelway-Proposed	-----
Boring	HB-XXX-###	Probe	P-#. #X
Pavement Core	● PC-#	#, # = Depth	
Test Pit	TP-XXX-###	X = W (Weathered Rock)	
		R (Refusal)	
		NR (No Refusal)	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



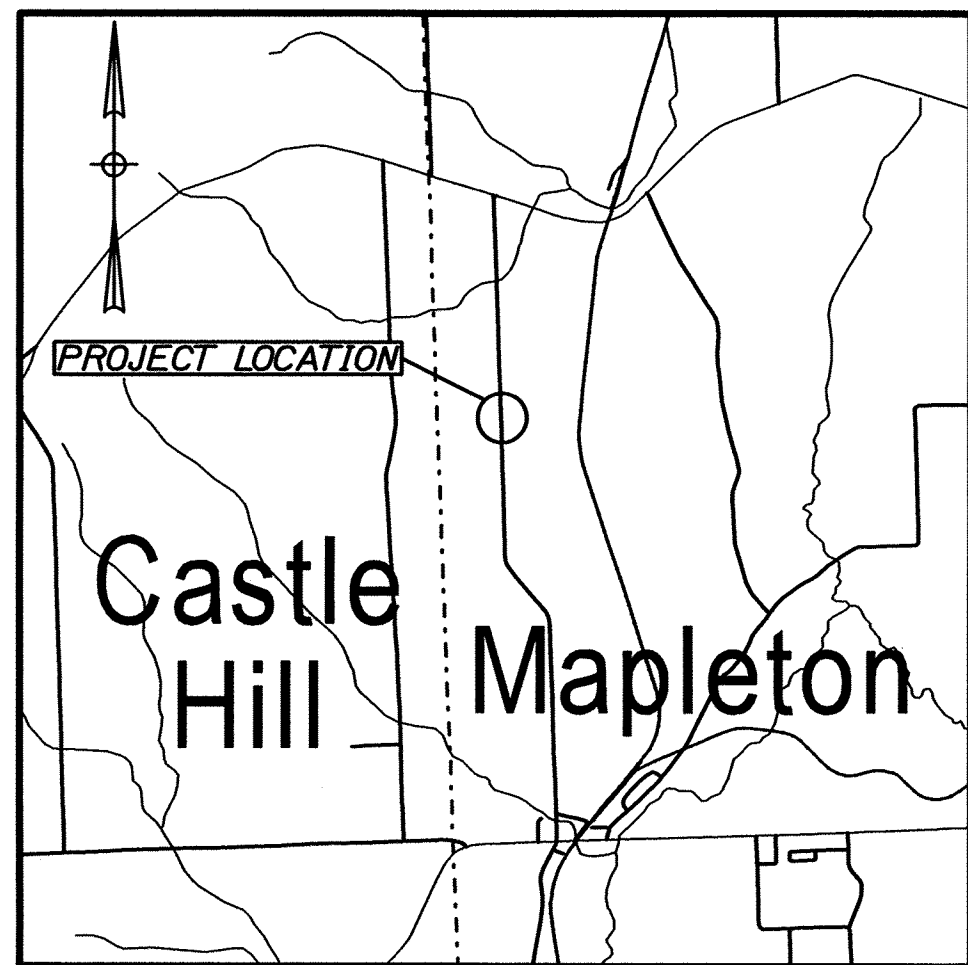
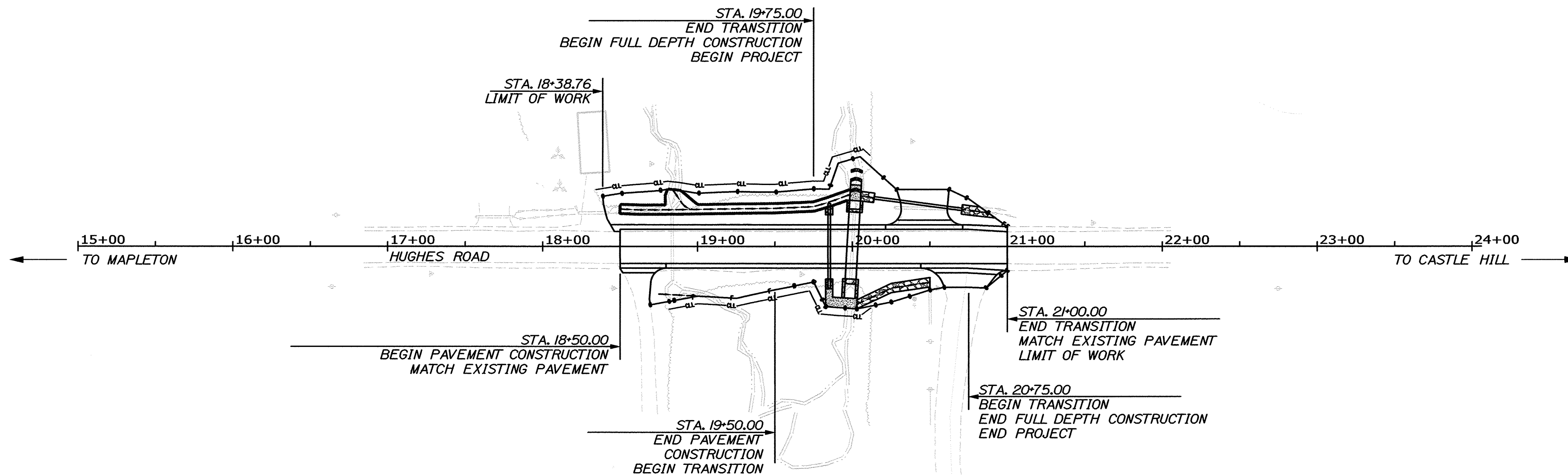
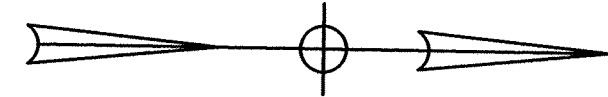
MAPLETON
AROOSTOOK COUNTY

HUGHES ROAD

STATE PROJECT NO. 25411.00
PROJECT LENGTH : 0.024 MILES

INDEX OF SHEETS

Description	Sheet No.
Title Sheet	1
Typical Sections, General Notes & Estimated Quantities	2
Special Details	3
Boring Location Plan & Interpretative Subsurface Profile	4
Boring Logs	5
Plan/Profile	6
Cross Sections	7-12
Detour Plan	13
Sign Summary	14
Right of Way Map	15

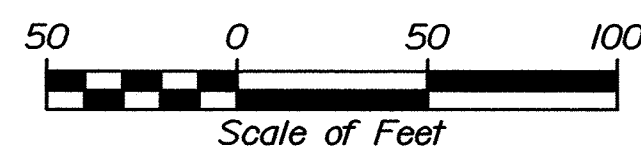


Scale in Miles
LOCATION MAP

TRAFFIC DATA*

	HUGHES RD (S/O SR 227)
Current (2024) AADT	240
Future (2044) AADT	260
DHV - % of AADT	14%
Design Hour Volume	36
Heavy Trucks (% of AADT)	12%
Heavy Trucks (% of DHV)	13%
Directional Distribution (% of DHV)	53%
18 kip Equivalent P 2.0	15
18 kip Equivalent P 2.5	14
Design Speed (mph)	45
Highway Corridor Priority	4

LAYOUT SCALE



PROJECT LOCATION:

In the town of Mapleton along Hughes Road, located 1.15 miles south of Route 227

PROGRAM AREA:

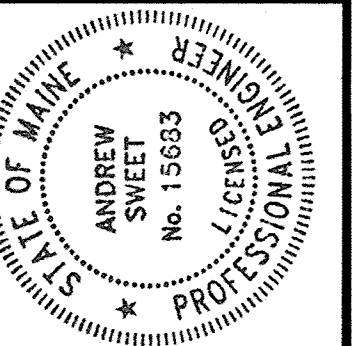
Regional Program

OUTLINE OF WORK:

Large Culvert Replacement

HNTB

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	ACTING COMMISSIONER	2-2-26
	CHIEF ENGINEER	2-2-26



Andrew Sweet	SIGNATURE	P.E. NUMBER	DATE
	15683	1/30/2026	

PROJECT INFORMATION	HIGHWAY	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
	227	ROGER SOUCY	ANDREW SWEET	HNTB			

MAPLETON
HUGHES ROAD
TITLE SHEET

SHEET NUMBER

1

OF 15

WIN 25411.00

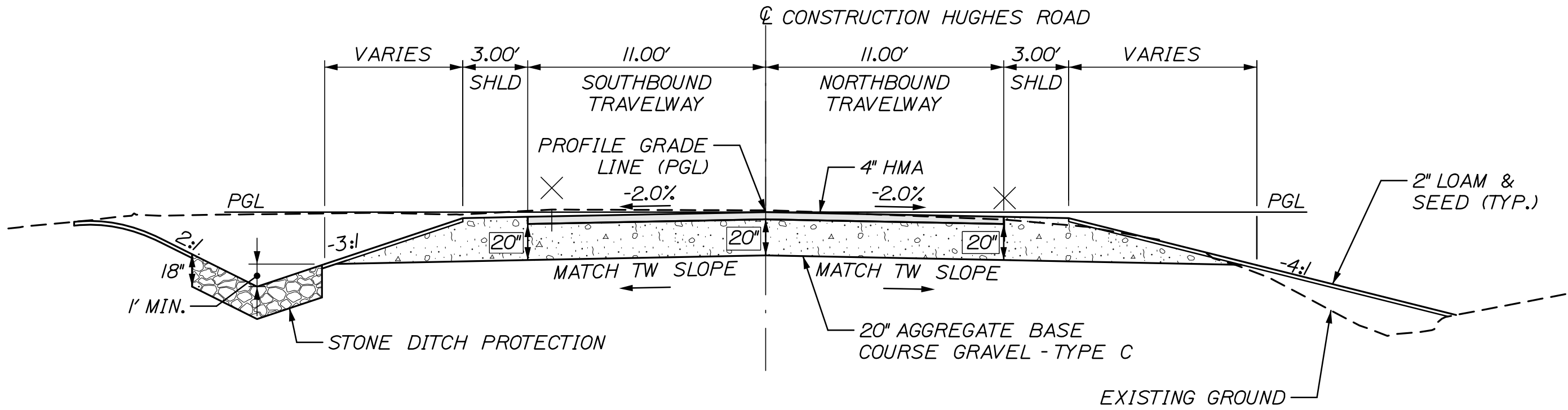
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	670	CY
203.25	GRANULAR BORROW	110	CY
206.061	STRUCTURAL EARTH EXCAVATION - DRAINAGE & MINOR STRUCTURES BELOW GRADE	20	CY
304.16	AGGREGATE BASE COURSE - TYPE C	375	CY
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE)	68	TON
403.213	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE BASE COURSE)	92	TON
409.15	BITUMINOUS TACK COAT, APPLIED	19	GAL
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
603.16	15 INCH CULVERT PIPE OPTION I	58	LF
603.179	18 INCH CULVERT PIPE OPTION III	55	LF
603.404	83" X 57" CORRUGATED STEEL PIPE ARCH - POLYMER COATED	63	LF
610.08	PLAIN RIPRAP	55	CY
610.18	STONE DITCH PROTECTION	65	CY
610.212	STREAMBED ROCK FEATURES	5	CY
613.319	EROSION CONTROL BLANKET	18	SY
615.07	LOAM	45	CY
618.14	SEEDING METHOD 2	8	UNIT
619.12	MULCH	8	UNIT
620.58	EROSION CONTROL GEOTEXTILE	390	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	750	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	10	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	10	HR
631.18	CHAIN SAW RENTAL (INCLUDING OPERATOR)	10	HR
639.19	FIELD OFFICE, TYPE B	1	EA
652.312	TYPE III BARRICADES	4	EA
652.33	DRUM	30	EA
652.34	CONE	30	EA
652.35	CONSTRUCTION SIGNS	405	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	30	CD
652.38	FLAGGERS	130	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL NOTES

1. 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.
2. ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AS INDICATED ON THE PLANS AND APPROVED BY THE RESIDENT.
3. GRUBBING IN FILL AREAS HAVE BEEN SHOWN ON THE CROSS SECTIONS AND THE QUANTITIES NOTED. THESE LIMITS ARE APPROXIMATE AND HAVE BEEN USED FOR ESTIMATING PURPOSES ONLY. ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT.
4. ALL INSLOPE AND DITCHES IN CUT AREAS SHALL BE GRADED AS SHOWN ON THE TYPICALS OR FLATTER, OR AS DIRECTED BY THE RESIDENT.
5. DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE FILL SIDE SLOPES UNLESS OTHERWISE NOTED ON THE PLANS.
6. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN ACCEPTABLE WASTE AREAS REVIEWED BY THE RESIDENT. GRADING, SEEDING AND MULCHING OF WASTE AREAS SHALL BE CONSIDERED INCIDENTAL.
7. REQUIRED DITCH PROTECTION SHOWN ON THE PLANS OR IN THE CONSTRUCTION NOTES IS FOR ESTIMATING PURPOSES ONLY. THE ACTUAL TYPE AND LOCATION OF DITCH PROTECTION MAY BE ALTERED BY THE RESIDENT.
8. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL AS SPECIFIED IN STANDARD SPECIFICATION 703.19.
9. EXISTING INSLOPES IN PROPOSED FILL AREAS SHALL BE BENCHED BY EXCAVATING STEPS OF SUFFICIENT WIDTH TO PERMIT PLACING AND COMPACTING THE FILL MATERIAL ALONG WITH THE MATERIAL REMOVED.
10. GRAVEL ENTRANCES SHALL BE CONSTRUCTED WITH 14 INCHES OF AGGREGATE SUBBASE COURSE GRAVEL OR 11 INCHES OF AGGREGATE SUBBASE COURSE GRAVEL AND 3 INCHES OF UNTREATED AGGREGATE SURFACE COURSE UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE RESIDENT.
11. A 3-FOOT PAVED LIP SHALL BE PLACED AT ALL UNPAVED ENTRANCES UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE RESIDENT.
12. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING (OR MILLING) SHALL BE INCIDENTAL TO THE RELATED PAVING (OR MILLING) ITEMS. THIS INCLUDES KILLING AND REMOVAL OF ALL VEGETATIVE MATTER.
13. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
14. INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.
15. THE CULVERT SIZES SHOWN ON THE PLANS AND CROSS SECTIONS ARE FOR SMOOTH-LINED PIPES.
16. LOAM HAS BEEN ESTIMATED FOR DISTURBED LAWN AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
17. UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL OTHER AREAS.

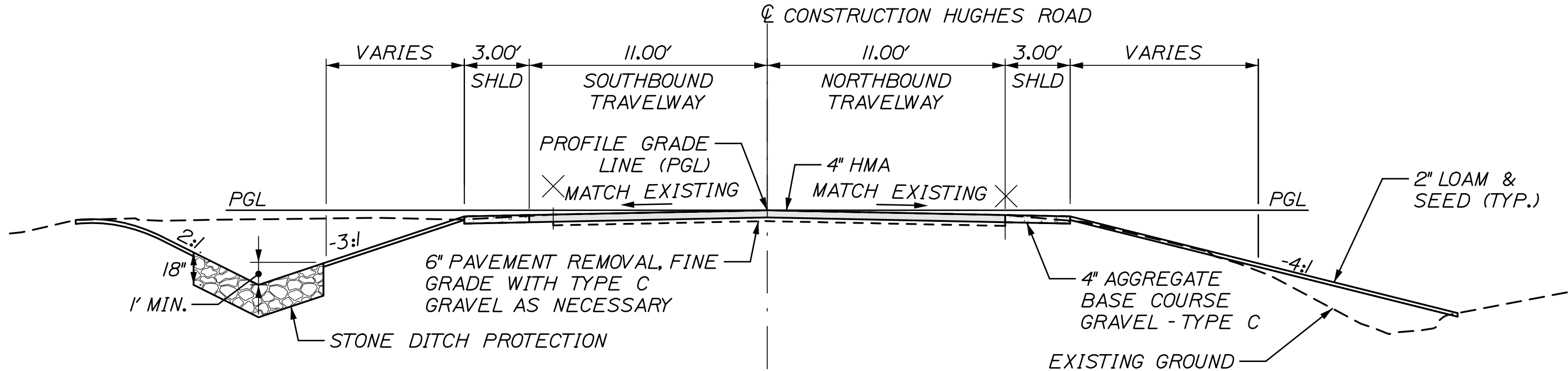
GENERAL NOTES (CONT)

18. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 4 INCHES IN LAWN AREAS AND 2 INCHES IN ALL OTHER AREAS UNLESS OTHERWISE NOTED OR DIRECTED.
19. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
20. THE PROJECT GEOTECHNICAL REPORT TITLED "GEOTECHNICAL REPORT FOR THE REPLACEMENT OF LARGE CULVERT #227865", SOILS REPORT 2026-04, JANUARY 15, 2026 CAN BE ACCESSED AT THE MAINEDOT WEBSITE [HTTP://WWW.MAINE.GOV/MOOT/CONTRACTORS/](http://www.maine.gov/moot/contractors/).
21. GEOTECHNICAL INFORMATION FURNISHED OR REFERRED TO IN THE BID DOCUMENTS IS FOR THE USE OF THE BIDDERS. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF THE ACTUAL SUBSURFACE CONDITIONS THROUGHOUT THE CONSTRUCTION SITE. MAINEDOT WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN FROM THE GEOTECHNICAL INFORMATION. THE BORING LOGS PROVIDED IN THE BID DOCUMENTS (IF ANY) PRESENT FACTUAL AND INTERPRETIVE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN BORING LOCATIONS.
22. AREAS REQUIRING FILL ON THE PROJECT WILL COME FROM SUITABLE EXCAVATION FROM EXCAVATION, DITCH AND INSLOPE OR EQUIPMENT RENTAL AREAS.
23. ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.
24. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT AND LAYOUT OF WORK BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
25. "UNDETERMINED LOCATIONS" SHALL BE DETERMINED BY THE RESIDENT.
26. FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACT DOCUMENTS OR AS PROVIDED BY THE DEPARTMENT. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.
27. WHERE DEEMED NECESSARY BY THE RESIDENT, UNSUITABLE EXCESS MATERIAL SHALL BE REMOVED FROM THE EDGES OF SHOULDERS AND PLACED IN DESIGNATED AREAS OR DISPOSED OF. PAYMENT WILL BE MADE UNDER THE APPROPRAITE CONTRACT ITEMS.
28. THE CONTRACTOR SHALL PLAN AND CONDUCT WORK SO THAT UPON COMPLETION OF THE PROJECT THERE IS NO DROP-OFF FROM THE EDGE OF THE SHOULDER PAVEMENT.



TYPICAL FULL CONSTRUCTION

AGGREGATE BASE COURSE - TYPE C		
LEFT SHOULDER VARIES CY/100 LF	11 FT. TRAVEL LANES 135.80 CY/100 LF	RIGHT SHOULDER VARIES CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
19+50.00 TO 21+00.00 LT	19+50.00 TO 21+00.00	19+50.00 TO 21+00.00 RT



TYPICAL PAVEMENT CONSTRUCTION

AGGREGATE BASE COURSE - TYPE C		
LEFT SHOULDER 3.67 CY/100 LF	11 FT. TRAVEL LANES VARIES CY/100 LF	RIGHT SHOULDER 3.67 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
18+50.00 TO 19+50.00 LT	18+50.00 TO 19+50.00	18+50.00 TO 19+50.00 RT

TYPICAL FULL CONSTRUCTION NOTES

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDERS SHALL HAVE THE SAME CROSS SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF BASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE GRAVEL QUANTITY CALCULATION IS BASED ON A 2 INCH LOAM OR DIRTY BORROW DEPTH. THE ACTUAL DEPTH MAY VARY. SEE THE GENERAL NOTES.
5. THE ALGEBRAIC DIFFERENCE BETWEEN SHOULDER AND TRAVEL LANE CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
6. THE STATIONING UNDER THE TYPICAL IS APPROXIMATE.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
25411.00
WIN
025411.00
HIGHWAY PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE
01/26
01/26

BY
T. COHEN
A. SWEET

R. SOUCY
E. RAYMOND
A. SWEET

SIGNATURE

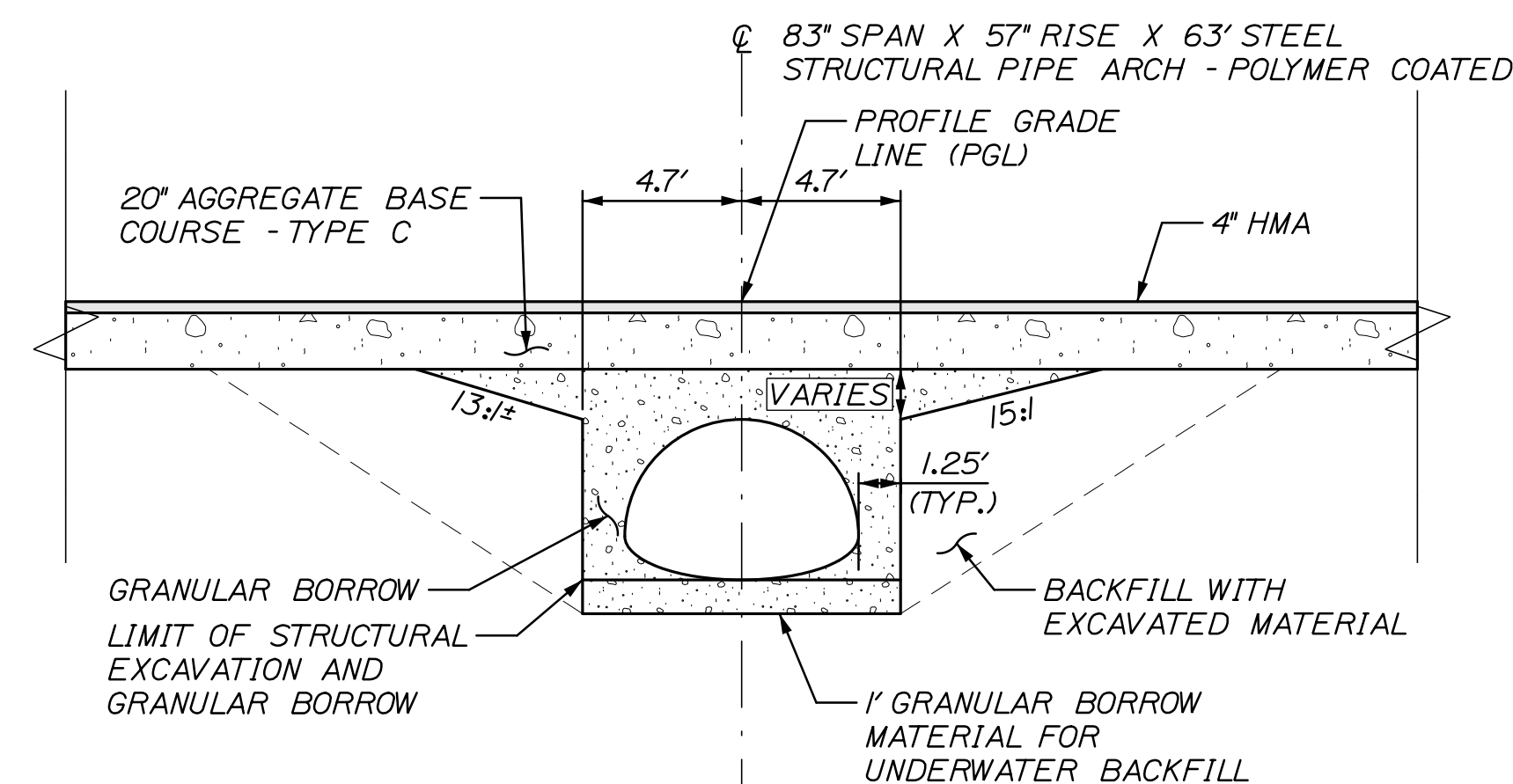
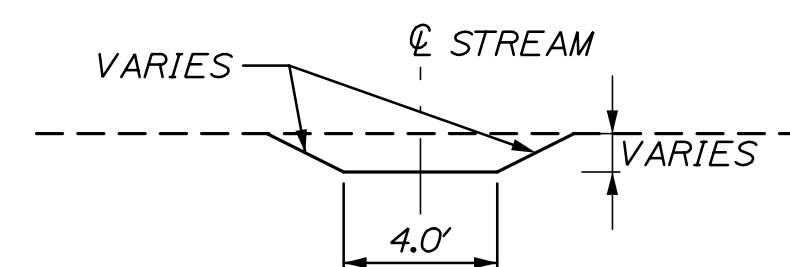
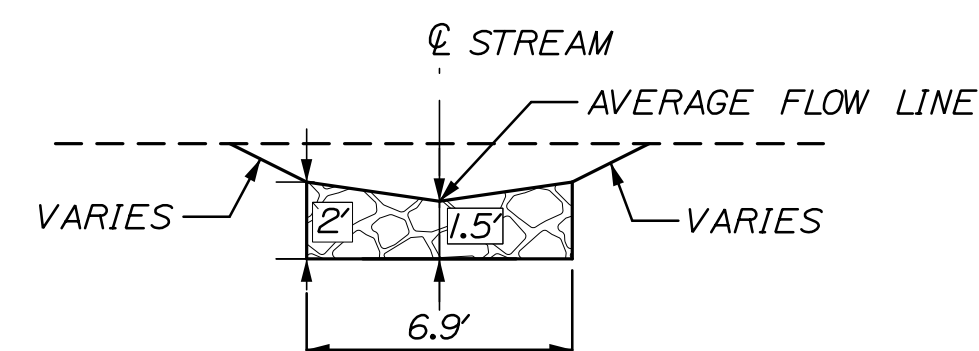
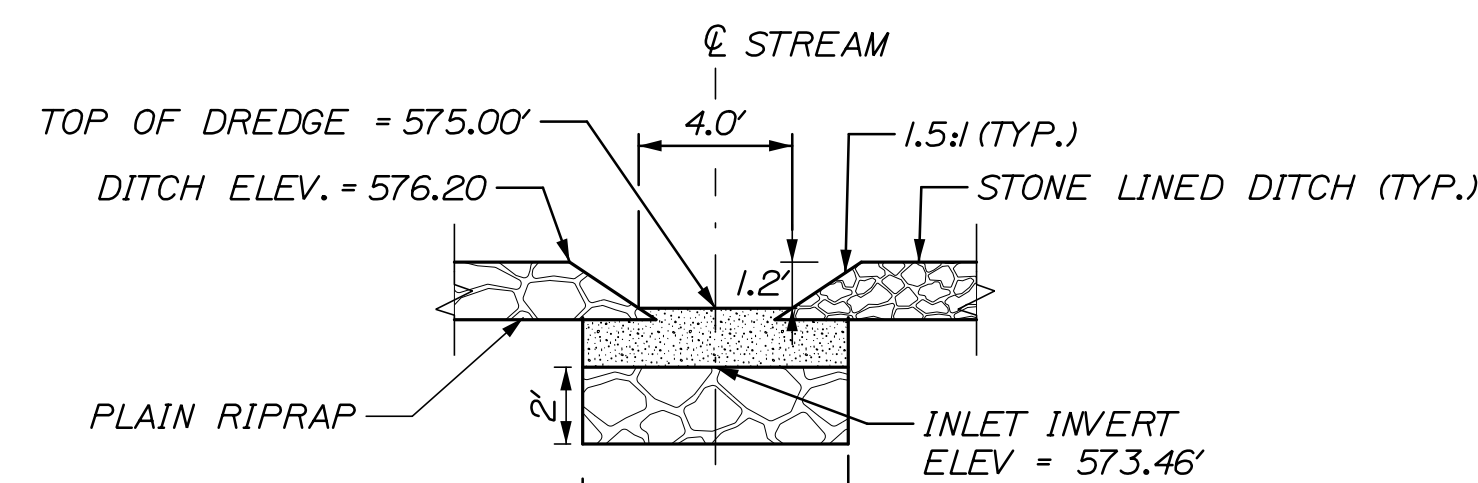
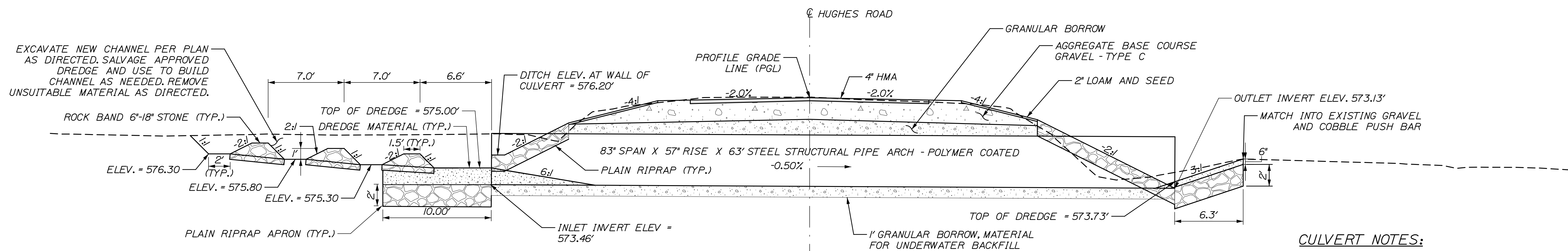
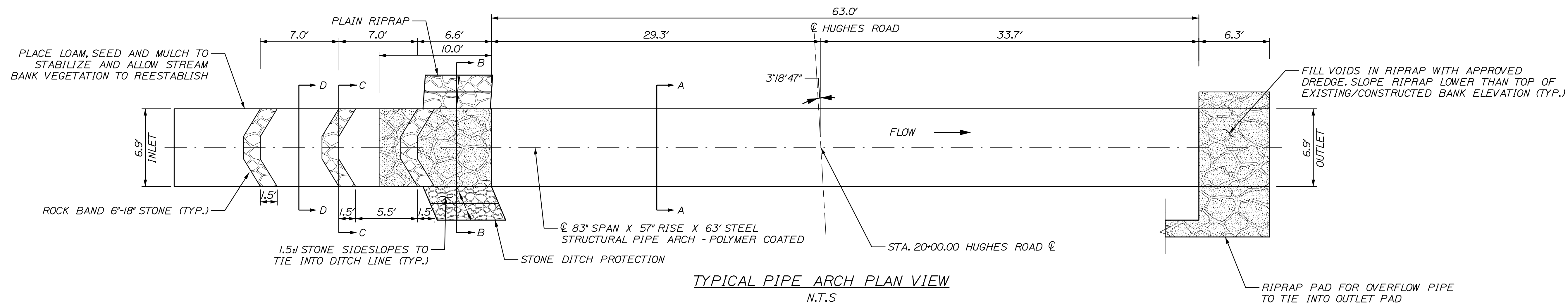
P.E. NUMBER

DATE

MAPLETON
HUGHES ROAD
TYPICAL SECTION, GENERAL
NOTES & EST. QUANTITIES

SHEET NUMBER
2
OF 15

HNTB



CULVERT NOTES:

1. CONSTRUCTION, HANDLING AND ASSEMBLY OF THE PIPE UNITS SHALL BE IN ACCORDANCE WITH MAINEDOT STANDARD SPECIFICATIONS SECTION 603 AND THE MANUFACTURER'S SPECIFICATIONS AS APPLICABLE.

2. THE POLYMER COATED CORRUGATED STEEL PIPE ARCH SHALL BE BEDDED ON A 1-FOOT LAYER OF COMPACTED GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL.

3. LAYOUT AND CONFIGURATION FOR DREDGE, ROCK BANDS AND POOLS SHALL BE APPROVED BY THE RESIDENT AND/OR MAINEDOT ENVIRONMENTAL STAFF.

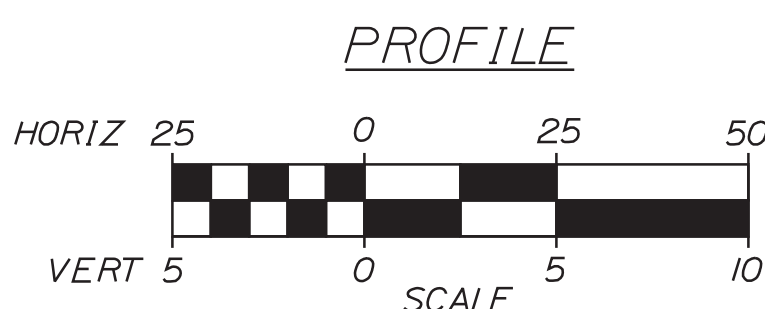
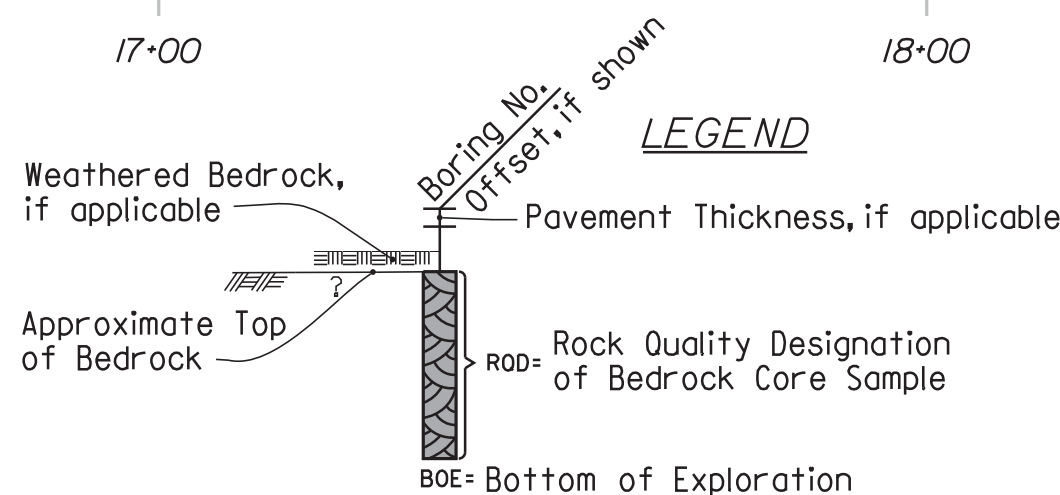
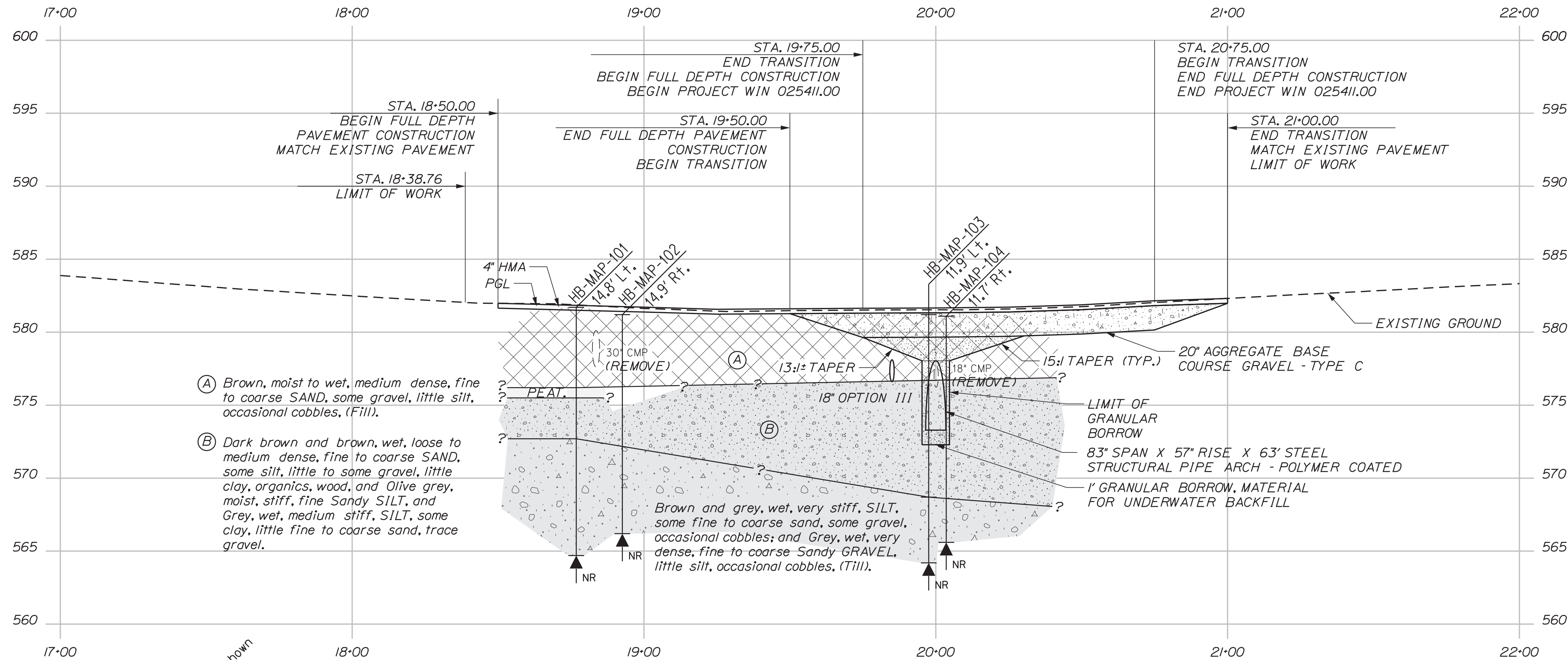
4. COFFERDAMS ARE TO BE PLACED AT BOTH THE DOWNSTREAM AND UPSTREAM ENDS OF THE POLYMER COATED CORRUGATED STEEL PIPE TO ALLOW WATER TO BE PUMPED AND REMOVED DURING CONSTRUCTION OF THE CULVERT.

5. VOIDS IN RIPRAP APRONS, ROCK BANDS, AND CHANNEL BANKS SHALL BE INFILLED WITH DREDGE, GRANULAR BORROW OR OTHER MATERIAL APPROVED BY THE RESIDENT, WATERED-IN AND TAMPED. MATERIALS FOR ROCK BANDS SHALL BE PAID FOR IN ACCORDANCE WITH SPECIAL PROVISION 610 - STREAMBED ROCK FEATURES. PAYMENT FOR DREDGE MATERIAL PLACEMENT, WATERED-IN AND TAMPED SHALL BE INCIDENTAL TO THE RESPECTIVE 610 ITEMS.

6. THE ROCK BANDS SHALL BE KEYED (6" MIN.) INTO THE UNDERLYING MATERIAL AND SHALL BE KEYED INTO THE EXISTING BANKS.

7. THE ROCK BANDS SHALL BE SLIGHTLY VEE-SHAPED IN CROSS-SECTION VIEW. THE AVERAGE FLOW LINE OF THE ROCK BANDS IS MEASURED AT THE LOW POINT.

PROJ. MANAGER	R. SOUCY	BY	DATE
DESIGN-DETAILED	E. COHEN		01/26
CHECKED-REVIEWED	A. SWEET		01/26
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
P.E. NUMBER			
DATE			
SIGNATURE			



Note: This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil and bedrock transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS				Project: Two Large Culvert Replacements on Hughes Road Location: Mapleton, Maine				Boring No.: HB-MAP-101 WIN: 25411.00			
Drillert: MainDOT		Elevation (ft.): 581.7		Auger ID/DB: 5" Solid Stem		Sampler: Standard Split Spoon					
Operator: Daggett/Jay		Datum: NAVD88		Rig Type: CME 45C		Homer Wt./Falls: 140R/30"					
Logged By: B. Wilder		Drilling Method: Cased Wash Boring		Core Barrel: N/A		Water Level: 9.0 ft bgs.					
Date Start/Finish: 8/3/2021 10:00-11:00		Boring Location: 18+76.8, 14.8 ft Lt.		Casing ID/DB: NM-3"		Homer Efficiency Factor: 0.89					
Definitions: S = Split Spoon Sample MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Thin-Walled Field Vane Undrained Shear Strength (psf) S _u = Undrained Compressive Strength (psf) LL = Liquid Limit PL = Plastic Limit PI = Plasticity Index G = Grain Size Analysis C = Consolidation Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test					
Sample Information Depth (ft.) Sample No. Pen./Rec. (in) Sample Depth (ft.) Blow C/A (in./ft.) Strength of RSD (ts) Non-Overrun Nsg Casing Elevation (ft.) Graphic Log Visual Description and Remarks Laboratory Testing Results/ASTM and Unified Class		10 24/11 0.00 - 2.00 5/8/7/7 15 22 SSA 20/A 24/14 5.00 - 7.50 3/5/5/5 10 15 11 576.2 2D (5.0-6.2 ft bgs.) PEAT. 20/A 16.2-17.0 ft bgs.) Olive grey, moist, stiff, fine Sandy SILT. 30 24/13 10.00 - 12.00 9/6/6/7 12 18 18 572.7 30 39 52 40 14.4/10 15.00 - 16.20 5/14/50/2.2" 64 95 564.2 40 95 Bottom of Exploration at 17.0 feet below ground surface. NO REFUSAL. Bottom of Exploration at 17.0 feet below ground surface. NO REFUSAL.									
Stratification lines represent approximate boundaries between soil types; transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.											
Page 1 of 1 Boring No.: HB-MAP-101											

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS				Project: Two Large Culvert Replacements on Hughes Road Location: Mapleton, Maine				Boring No.: HB-MAP-102 WIN: 25411.00			
Drillert: MainDOT		Elevation (ft.): 581.2		Auger ID/DB: 5" Dia.		Sampler: N/A					
Operator: Daggett/Jay		Datum: NAVD88		Rig Type: CME 45C		Homer Wt./Falls: N/A					
Logged By: B. Wilder		Drilling Method: Solid Stem Auger		Core Barrel: N/A		Water Level: None Observed					
Date Start/Finish: 8/3/2021-8/3/2021		Boring Location: 18+92.6, 11.9 ft Rt.		Casing ID/DB: N/A		Homer Efficiency Factor: 0.89					
Definitions: S = Split Spoon Sample MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Thin-Walled Field Vane Undrained Shear Strength (psf) S _u = Undrained Compressive Strength (psf) LL = Liquid Limit PL = Plastic Limit PI = Plasticity Index G = Grain Size Analysis C = Consolidation Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test					
Sample Information Depth (ft.) Sample No. Pen./Rec. (in) Sample Depth (ft.) Blow C/A (in./ft.) Strength of RSD (ts) Non-Overrun Nsg Casing Elevation (ft.) Graphic Log Visual Description and Remarks Laboratory Testing Results/ASTM and Unified Class		10 24/11 0.00 - 2.00 9/10/6/7 18 27 SSA 20/A 24/20 5.00 - 7.00 2/2/3/5 5 7 576.7 20/A 16.0-17.0 ft bgs.) Dark brown, wet, loose, fine to coarse SAND, some silt, little gravel, little clay, argillaceous, wood. 30 24/10 10.00 - 12.00 3/3/8/26 11 16 8 571.2 30 39 52 40 4.8/4.8 15.00 - 15.40 60/4.8" --- 564.2 40 95 Bottom of Exploration at 15.0 feet below ground surface. NO REFUSAL. Bottom of Exploration at 15.0 feet below ground surface. NO REFUSAL.									
Stratification lines represent approximate boundaries between soil types; transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.											
Page 1 of 1 Boring No.: HB-MAP-102											

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS				Project: Two Large Culvert Replacements on Hughes Road Location: Mapleton, Maine				Boring No.: HB-MAP-103 WIN: 25411.00			
Drillert: MainDOT		Elevation (ft.): 581.2		Auger ID/DB: 5" Solid Stem		Sampler: Standard Split Spoon					
Operator: Daggett/Jay		Datum: NAVD88		Rig Type: CME 45C		Homer Wt./Falls: 140R/30"					
Logged By: B. Wilder		Drilling Method: Cased Wash Boring		Core Barrel: N/A		Water Level: 9.0 ft bgs.					
Date Start/Finish: 8/3/2021 09:00-10:00		Boring Location: 19+91.6, 11.9 ft Lt.		Casing ID/DB: NM-3"		Homer Efficiency Factor: 0.89					
Definitions: S = Split Spoon Sample MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Thin-Walled Field Vane Undrained Shear Strength (psf) S _u = Undrained Compressive Strength (psf) LL = Liquid Limit PL = Plastic Limit PI = Plasticity Index G = Grain Size Analysis C = Consolidation Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test					
Sample Information Depth (ft.) Sample No. Pen./Rec. (in) Sample Depth (ft.) Blow C/A (in./ft.) Strength of RSD (ts) Non-Overrun Nsg Casing Elevation (ft.) Graphic Log Visual Description and Remarks Laboratory Testing Results/ASTM and Unified Class		10 24/11 0.00 - 2.00 9/10/6/7 18 27 SSA 20/A 24/20 5.00 - 7.00 2/2/3/5 5 7 576.7 20/A 16.0-17.0 ft bgs.) Dark brown, wet, loose, fine to coarse SAND, some silt, little gravel, little clay, argillaceous, wood. 30 24/10 10.00 - 12.00 3/3/8/26 11 16 8 571.2 30 39 52 40 4.8/4.8 15.00 - 15.40 60/4.8" --- 564.2 40 95 Bottom of Exploration at 17.0 feet below ground surface. NO REFUSAL. Bottom of Exploration at 17.0 feet below ground surface. NO REFUSAL.									
Stratification lines represent approximate boundaries between soil types; transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.											
Page 1 of 1 Boring No.: HB-MAP-103											

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS				Project: Two Large Culvert Replacements on Hughes Road Location: Mapleton, Maine				Boring No.: HB-MAP-104 WIN: 25411.00			
Drillert: MainDOT		Elevation (ft.): 581.1		Auger ID/DB: 5" Dia.		Sampler: N/A					
Operator: Daggett/Jay		Datum: NAVD88		Rig Type: CME 45C		Homer Wt./Falls: N/A					
Logged By: B. Wilder		Drilling Method: Solid Stem Auger		Core Barrel: N/A		Water Level: None Observed					
Date Start/Finish: 8/3/2021-8/3/2021		Boring Location: 20+03.6, 11.7 ft Rt.		Casing ID/DB: N/A		Homer Efficiency Factor: 0.89					
Definitions: S = Split Spoon Sample MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test		S = Thin-Walled Field Vane Undrained Shear Strength (psf) S _u = Undrained Compressive Strength (psf) LL = Liquid Limit PL = Plastic Limit PI = Plasticity Index G = Grain Size Analysis C = Consolidation Test		S = Back Core Sample SSA = Solid Stem Auger MS = Unsuccessful Split Spoon Sample Attempt U = Thin Wall Tube Sample MU = Unsuccessful Thin Wall Tube Sample Attempt Y = Field Vane Shear Test W = Unsuccessful Field Vane Shear Test					
Sample Information Depth (ft.) Sample No. Pen./Rec. (in) Sample Depth (ft.) Blow C/A (in./ft.) Strength of RSD (ts) Non-Overrun Nsg Casing Elevation (ft.) Graphic Log Visual Description and Remarks Laboratory Testing Results/ASTM and Unified Class		10 24/11 0.00 - 2.00 9/10/6/7 18 27 SSA 20/A 24/20 5.00 - 7.00 2/2/3/5 5 7 576.7 20/A 16.0-17.0 ft bgs.) Dark brown, wet, loose, fine to coarse SAND, some silt, little gravel, little clay, argillaceous, wood. 30 24/10 10.00 - 12.00 3/3/8/26 11 16 8 571.2 30 39 52 40 4.8/4.8 15.00 - 15.40 60/4.8" --- 564.2 40 95 Bottom of Exploration at 15.5 feet below ground surface. NO REFUSAL. Bottom of Exploration at 15.5 feet below ground surface. NO REFUSAL.									
Stratification lines represent approximate boundaries between soil types; transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.											
Page 1 of 1 Boring No.: HB-MAP-104											

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

25411.00

WIN

25411.00

HIGHWAY PLANS

STATE OF MAINE

Cody A. Russell

1986

PROFESSIONAL ENGINEER

PROJ. MANAGER

ROGER SOUCY

BY

DATE

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGN-DETAILED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

1/20/2026

15866

1/20/2026

15866

MAPLETON

HUGHES ROAD

BORING LOGS

SHEET NUMBER

5

OF 15

Date:1/30/2026

Username:

Division:

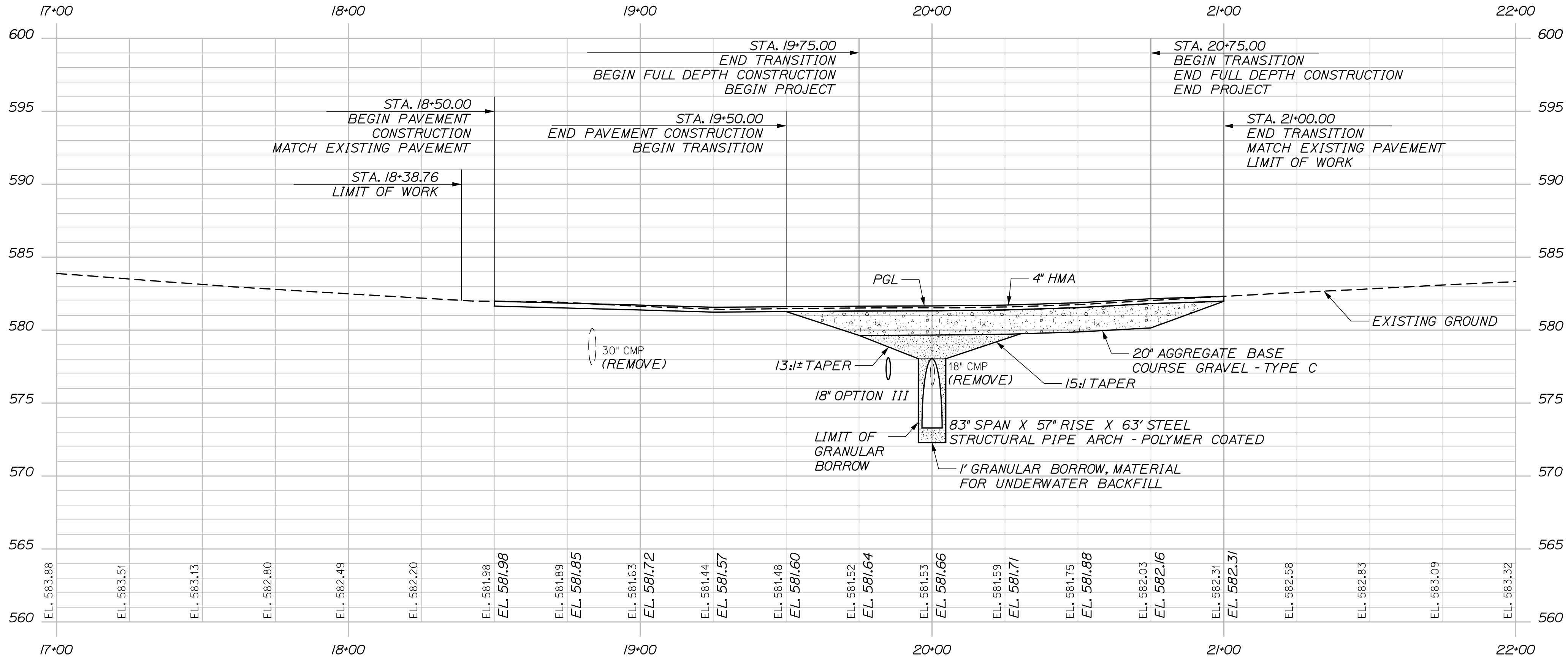
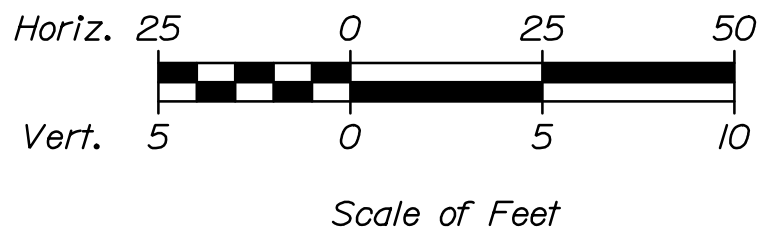
Filename: 006_HDP1an1.dgn

DRIVEWAYS AND ENTRANCES		
LOCATION	DESCRIPTION	OPENING
STA. 18+63, RT.	FIELD ENT.	30'
STA. 20+50, LT.	FIELD ENT.	50'
STA. 20+75, RT.	FIELD ENT.	56'

NOTES:
1. STONE DITCH PROTECTION FROM STA. 18+50 LT. TO STA. 19+98 LT. SHALL BE 1.5' THICK AND ALL STONES SHALL BE COVERED WITH APPROVED DREDGE MATERIAL AND WASHED IN TO FILL VOIDS. PAYMENT FOR WASHING IN DREDGE SHALL BE INCIDENTAL TO ITEM 610.18 - STONE DITCH PROTECTION.

2. BACKFILL TRENCH WITH NATIVE MATERIAL.

PROFILE



PROFILE



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

25411.00

WIN
025411.00
HIGHWAY PLANS

PROJ. MANAGER	BY	DATE	SIGNATURE
DESIGN-DETAILED	E. RAYMOND	01/26	
CHECKED-REVIEWED	T. COHEN	01/26	
DESIGN-DETAILED	A. SWEET		
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MAPLETON
HUGHES ROAD
PLAN/PROFILE

SHEET NUMBER

6

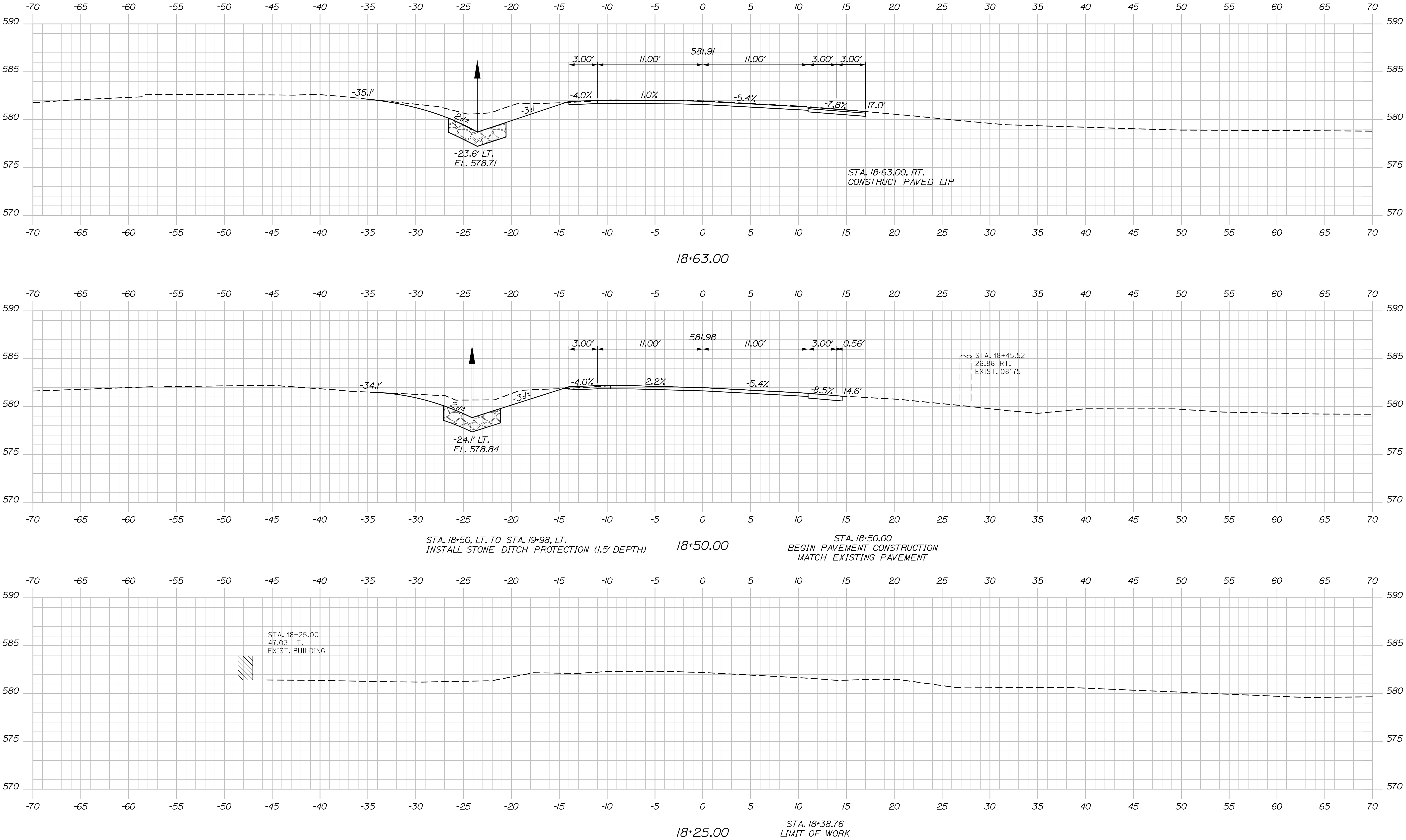
OF 15

Date:1/30/2026

Username:

Division:

Filename: XSections.dgn



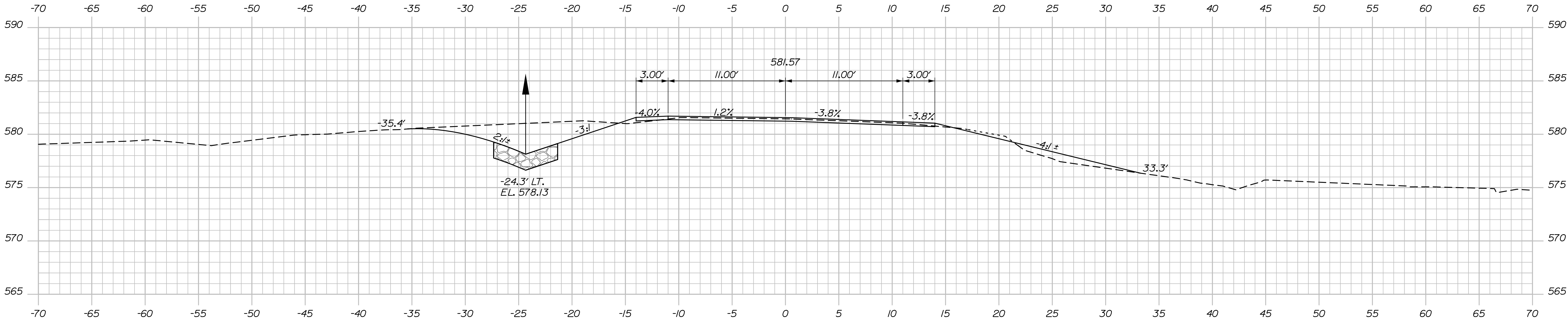
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		25411.00		WIN		025411.00		HIGHWAY PLANS	
MAPLETON		HUGHES ROAD		CROSS SECTIONS		SHEET NUMBER		2		OF 15	
PROJ. MANAGER		R. SOUCY		BY		DATE		SIGNATURE		P.E. NUMBER	
DESIGN-DETAILED		E. RAYMOND		T. COHEN		01/26		DATE		DATE	
CHECKED-REVIEWED		A. SWEET		A. SWEET		01/26		DATE		DATE	
DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED	
REVISIONS 1		REVISIONS 1		REVISIONS 1		REVISIONS 1		REVISIONS 1		REVISIONS 1	
REVISIONS 2		REVISIONS 2		REVISIONS 2		REVISIONS 2		REVISIONS 2		REVISIONS 2	
REVISIONS 3		REVISIONS 3		REVISIONS 3		REVISIONS 3		REVISIONS 3		REVISIONS 3	
REVISIONS 4		REVISIONS 4		REVISIONS 4		REVISIONS 4		REVISIONS 4		REVISIONS 4	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	

Date:1/30/2026

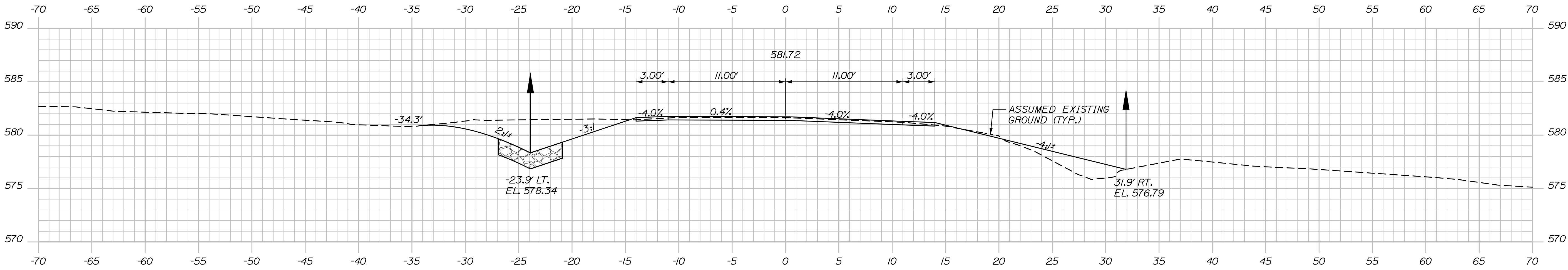
Username:

Division:

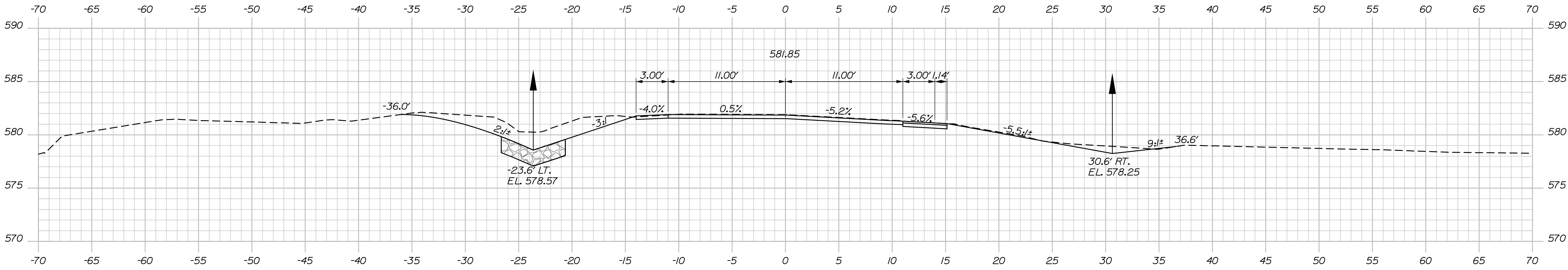
Filename: XSections.dgn



19+25.00



19+00.00



18+75.00

STA. 18+75, RT. TO STA. 19+00, RT.
INSTALL EROSION CONTROL BLANKET

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

25411.00

WIN
025411.00
HIGHWAY PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

R. SOUCY
E. RAYMOND
A. SWEET

BY
T. COHEN
A. SWEET

DATE
01/26
01/26

SIGNATURE

P.E. NUMBER

DATE

MAPLETON
HUGHES ROAD

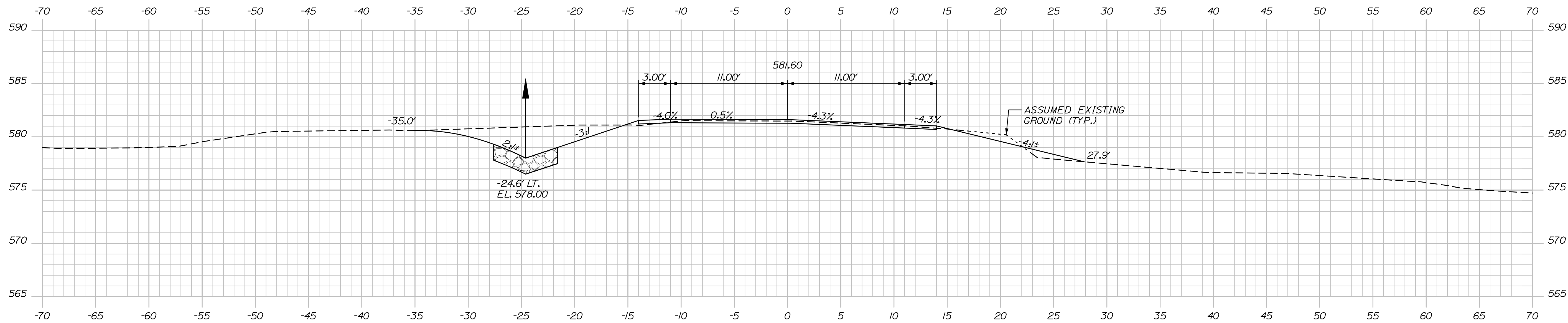
CROSS SECTIONS

SHEET NUMBER

8

OF 15

Filename: XSections.dgn



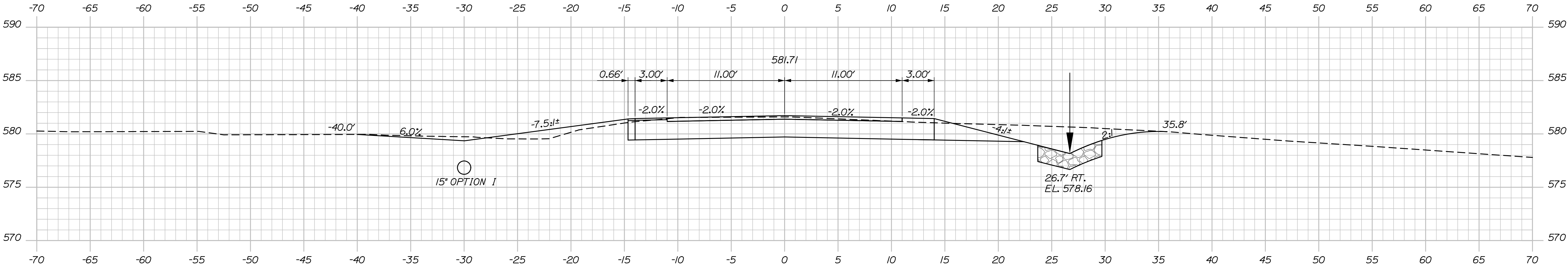
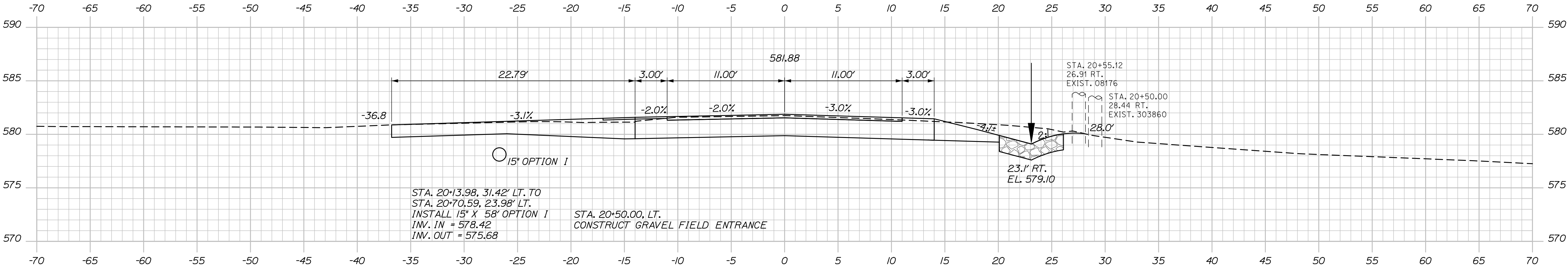
SHEET NUMBER
9
OF 15

Date:1/30/2026

Username:

Division:

Filename: XSections.dgn



STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
25411.00	
WIN	025411.00
HIGHWAY PLANS	

PROJ. MANAGER	BY	DATE
CHECKED-DETAILED	I. COHEN	01/26
DESIGNED-DETAILED	A. SWEET	01/26
DESIGNED-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

MAPLETON	
HUGHES ROAD	
CROSS SECTIONS	

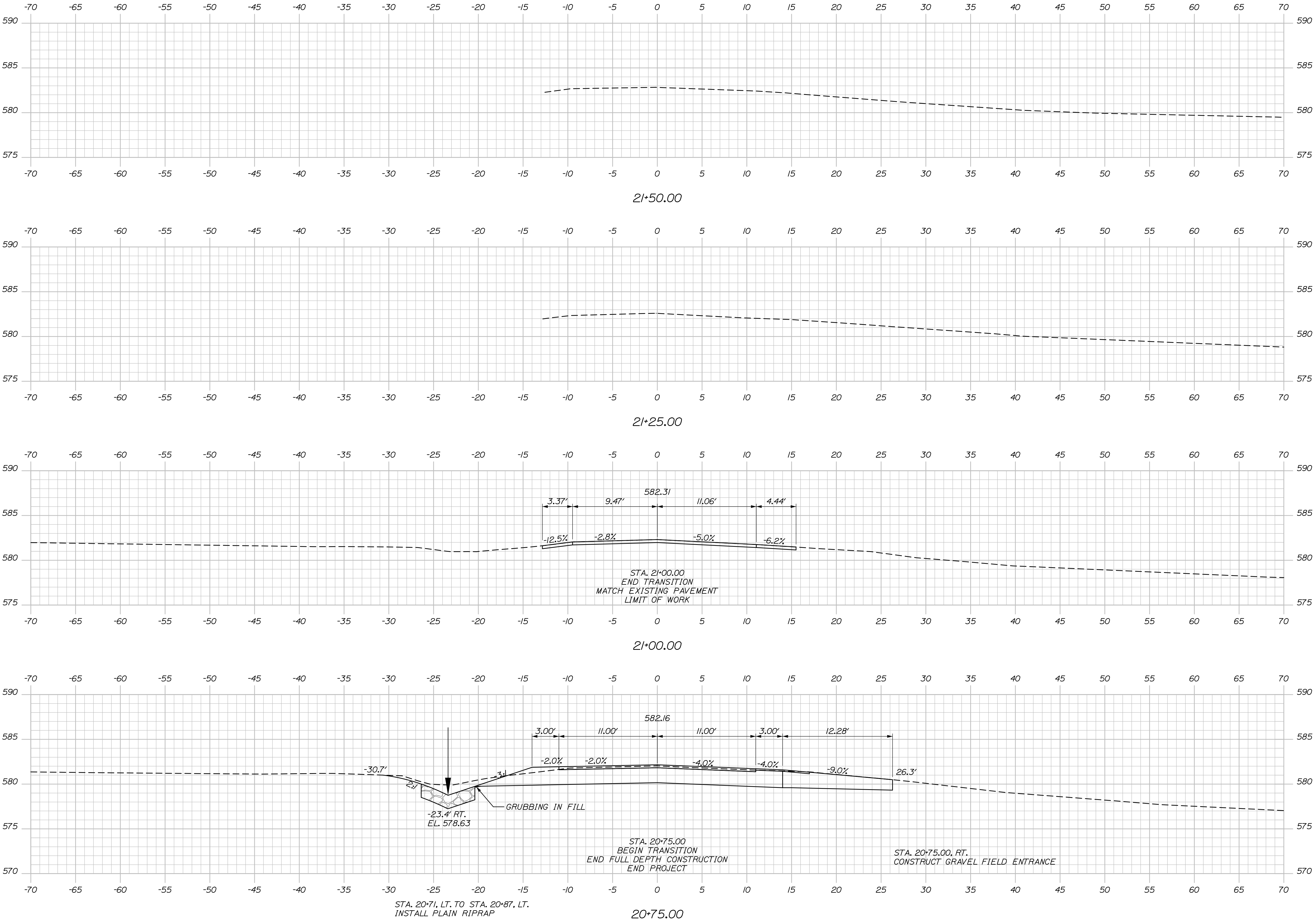
SHEET NUMBER	
11	
OF 15	

Date:1/30/2026

Username:

Division:

Filename: XSections.dgn



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		25411.00		WIN 025411.00		HIGHWAY PLANS	
MAPLETON HUGHES ROAD		CROSS SECTIONS		SHEET NUMBER 12 OF 15			
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		R. SOUCY E. RAYMOND A. SWEET		BY T. COHEN A. SWEET		DATE 01/26 01/26	
				SIGNATURE		P.E. NUMBER	
						DATE	

CONSTRUCTION SIGN SUMMARY

ITEM NUMBER	IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		AREA IN SQUARE FEET
		WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER	
652.35	CS-1	60"	30"	HUGHES ROAD CULVERT OUT USE DETOUR	4"C 4"C 4"C	3" 3"		5	ORANGE	BLACK	12.50 (62.50)
652.35	CS-2	60"	30"	CULVERT OUT 1.1 MILES AHEAD LOCAL TRAFFIC ONLY	6"C 5"C 4"C	3.4" 3.4"		1	WHITE	BLACK	12.50 (12.50)
652.35	CS-3	60"	30"	CULVERT OUT 2.2 MILES AHEAD LOCAL TRAFFIC ONLY	6"C 5"C 4"C	3.4" 3.4"		1	WHITE	BLACK	12.50 (12.50)
652.35	CS-4	24"	12"	USE DETOUR	4"D			2	ORANGE	BLACK	2.00 (4.00)
652.35	CS-5	30"	12"	HUGHES ROAD	4"D			13	ORANGE	BLACK	2.50 (32.50)
652.35	M4-8a	24"	18"	END DETOUR	TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS"			2	ORANGE	BLACK	3.00 (6.00)
652.35	M4-9	30"	24"	DETOUR ↑				2	ORANGE	BLACK	5.00 (10.00)
652.35	M4-9R	30"	24"	DETOUR →				7	ORANGE	BLACK	5.00 (35.00)
652.35	M4-9L	30"	24"	DETOUR ←				4	ORANGE	BLACK	5.00 (20.00)
652.35	R11-2	48"	30"	ROAD CLOSED				2	ORANGE	BLACK	10.00 (20.00)
652.35	W20-3 (500 ft)	48"	48"	ROAD CLOSED 500 FT				2	ORANGE	BLACK	16.00 (32.00)
652.35	W20-3 (1000 ft)	48"	48"	ROAD CLOSED 1000 FT				2	ORANGE	BLACK	16.00 (32.00)

NOTES:
1. SIGN LOCATIONS ARE APPROXIMATE AND TO BE VERIFIED IN THE FIELD.
2. INFORMATION SHOWN REFLECTS SIGNAGE FOR DETOUR PLANS ONLY.
ADDITIONAL SIGNAGE IS REQUIRED FOR HIGHWAY CONSTRUCTION WORK.



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

25411.00

WIN
025411.00
HIGHWAY PLANS

MAPLETON
HUGHES ROAD

SIGN SUMMARY

SHEET NUMBER

14

OF 15

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER

R. SOUCY

BY

DATE

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

I. COHEN

A. SWEET

01/26

01/26

[illegible]