

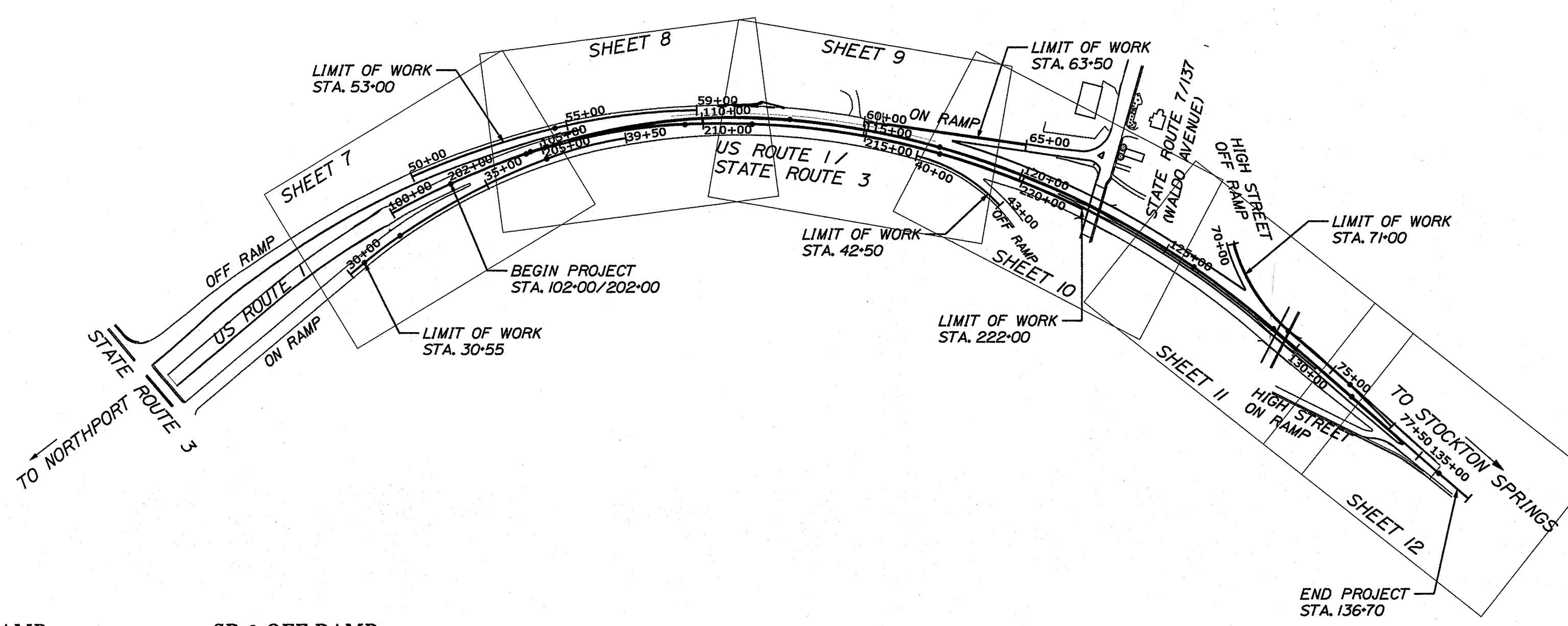
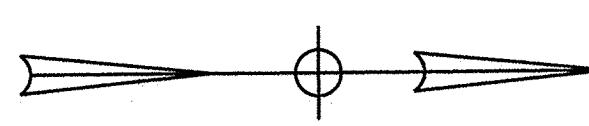
STATE OF MAINE DEPARTMENT OF TRANSPORTATION



BELFAST WALDO COUNTY US ROUTE 1, STATE ROUTE 3, & STATE ROUTE 7 / 137 FEDERAL PROJECT NO. HSIP2268(300) MAINE DOT WIN 022683.00 PROJECT LENGTH: 3850 FEET

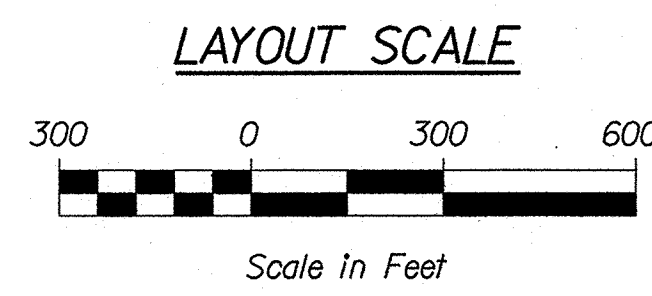
PLAN LEGEND	
Town, County, State	Centerline-Existing
Property Lines	Centerline-Proposed
R/W Lines-Existing	Travelway-Existing
R/W Lines-Proposed	Travelway-Proposed
Culvert-Existing	Catch Basins
Culvert-Proposed	Manholes
Proposed Underdrain	Existing Underdrain
Proposed Ditch	Existing Ditch
Existing Ditch	
Curbing	Utility Poles
Type 1	Fire Hydrants
Type 3	Existing Water Line
Type 5	Existing San. Sewer
Outline of Bodies of Water	Existing San. Sewer Manhole
Buildings	Proposed Electric Line
Trees	Guardrail-Existing
Tree Line	Guardrail-Proposed
Clearing Limit Line	Guardrail-Cable, Other
Cut Slope Limit Line	
Fill Slope Limit Line	
Solid Stem Auger Boring	Boring Annotation Key
Power Auger Probe	R = Refusal of augers (actual nature of refusal surface unknown)
Rod Sounding	NR = No Refusal surface encountered
Ledge Outcrop	W = Weathered Rock, top of

INDEX OF SHEETS	
Description	Sheet No.
Title Sheet	1
Typical Sections	2-4
Estimated Quantities, Construction Notes, and Earthwork Summary	5
General Notes	6
Plans	7-12
Cross Sections	13-14
Signs and Pavement Markings	15-20
Sign Summary	21
Overhead Sign Structure	22
Boring Location Plan	23



TRAFFIC DATA

	SR 7/137 ON RAMP	SR 3 OFF RAMP
Current (2016) AADT	2490	4530
Future (2036) AADT	2990	5440
DHV - % of AADT	13%	11%
Design Hour Volume	389	598
% Heavy Trucks (AADT)	8%	7%
% Heavy Trucks (DHV)	4%	7%
Directional Distribution (DHV)	100%	100%
18 kip Equivalent P 2.0	170	380
18 kip Equivalent P 2.5	162	362
Design Speed (mph)	45	45
Functional Class	URBAN PRINCIPAL ARTERIAL	URBAN PRINCIPAL ARTERIAL
Corridor Priority	1	1



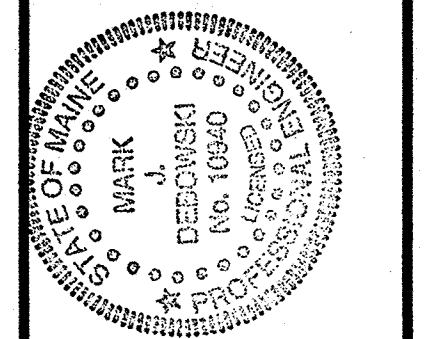
PROJECT LOCATION: US ROUTE 1 NORTH OF STATE ROUTE 3 TO PASSAGASSAWAKEAG RIVER BRIDGE

PROGRAM AREA: MULTIMODAL PROGRAM

SCOPE OF WORK: HIGHWAY RESTRIPIING WITH SAFETY IMPROVEMENTS

MAINE DOT WIN 22683.00 FEDERAL PROJECT NO. HSIP2268(300)

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	<i>[Signature]</i>	2/14/18
	COMMISSIONER	
	CHIEF ENGINEER	2-14-18



Mark DeBowski
SIGNATURE
10940
P.E. NUMBER
1/11/2018
DATE

PROJECT INFORMATION	
PROGRAM	MULTIMODAL
PROJECT MANAGER	AURELE CORNEAU II
DESIGNER	MARK DEBOWSKI
CONSULTANT	STANTEC
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

BELFAST
US RTE 1 / STATE RTE 3
TITLE SHEET

SHEET NUMBER
1
OF 23

Date: 1/11/2018

Username: sbobal

Division: HIGHWAY

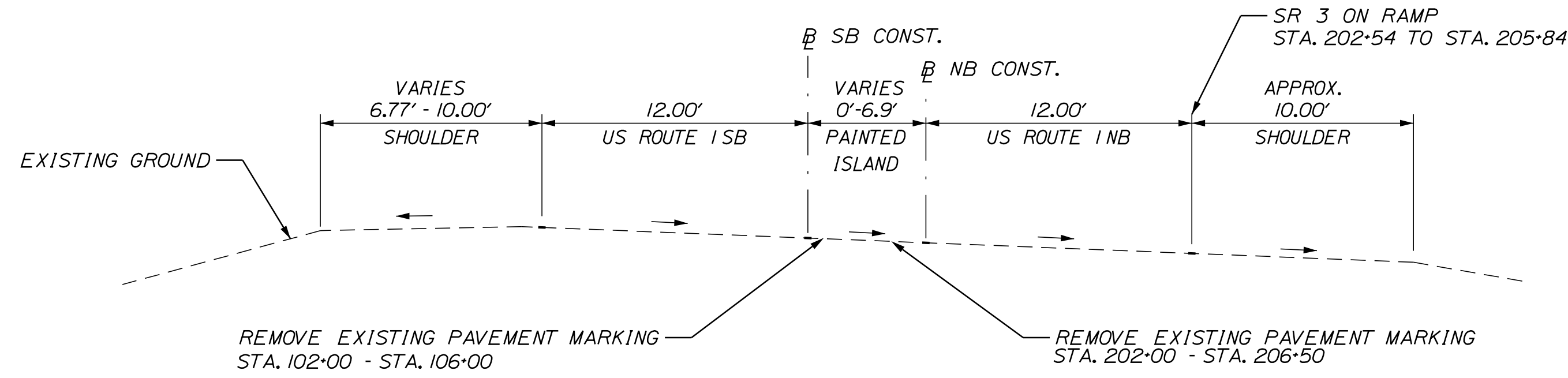
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Date: 2/7/2018

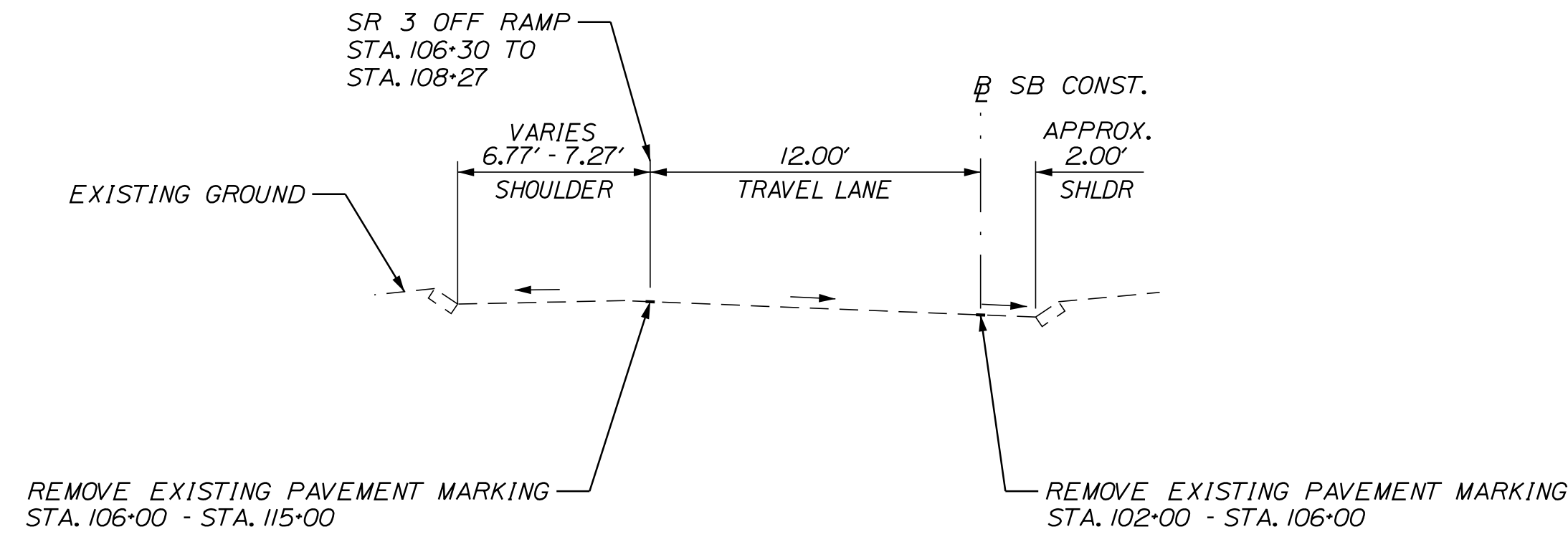
Username: sbabalis

Division: HIGHWAY

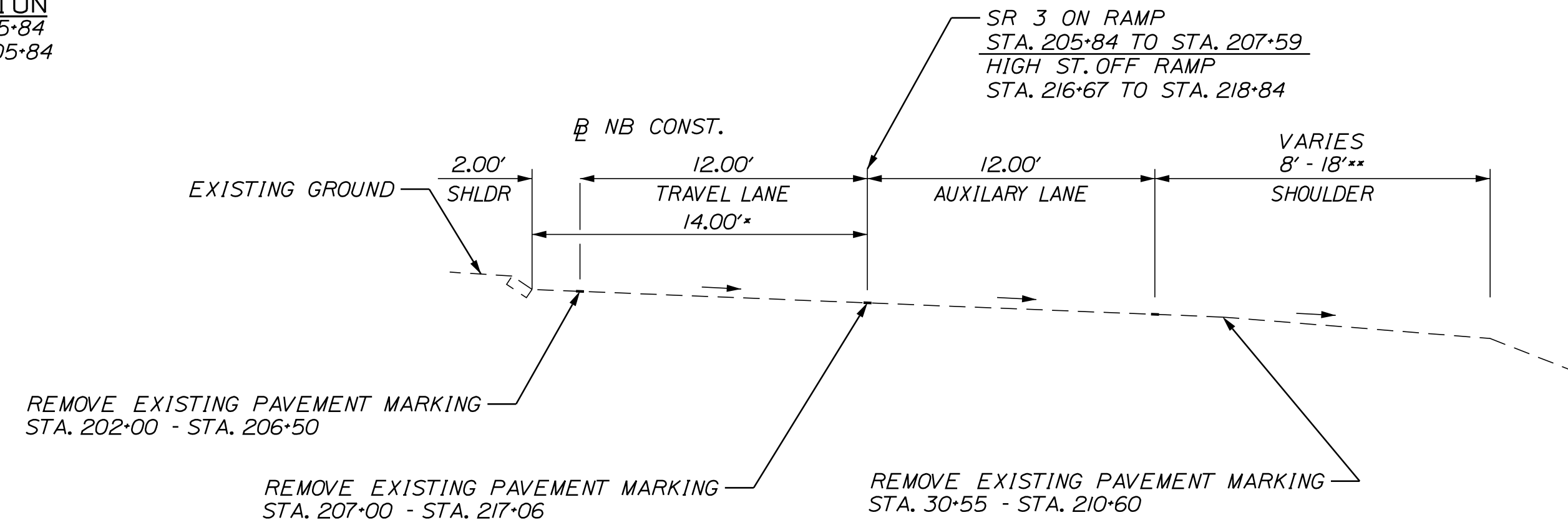
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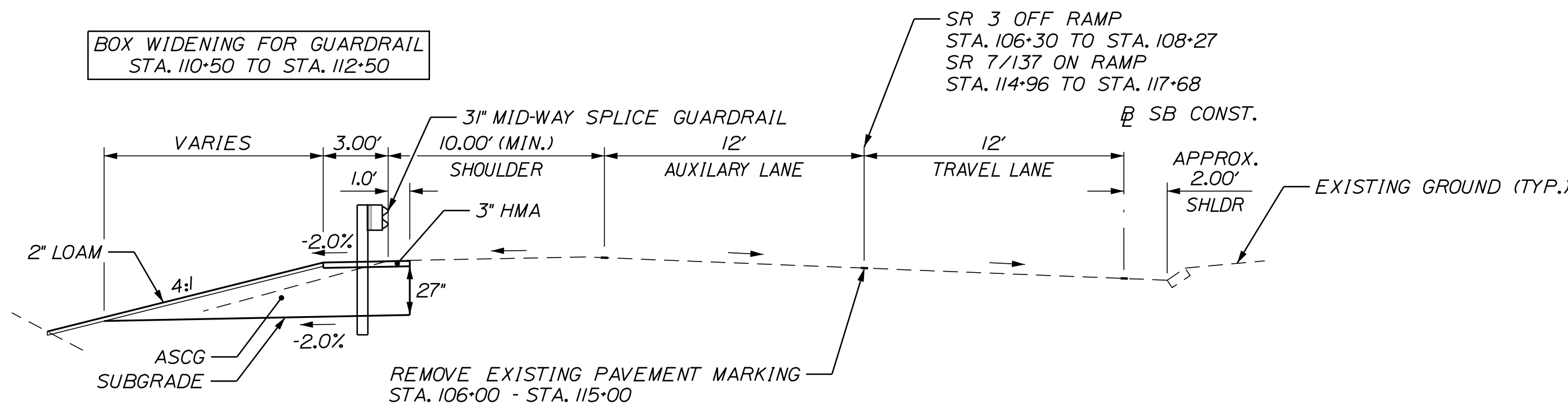
US RTE 1 UNDIVIDED
TYPICAL SECTION
STA. 102-00 - STA. 105-84
STA. 202-00 - STA. 205-84



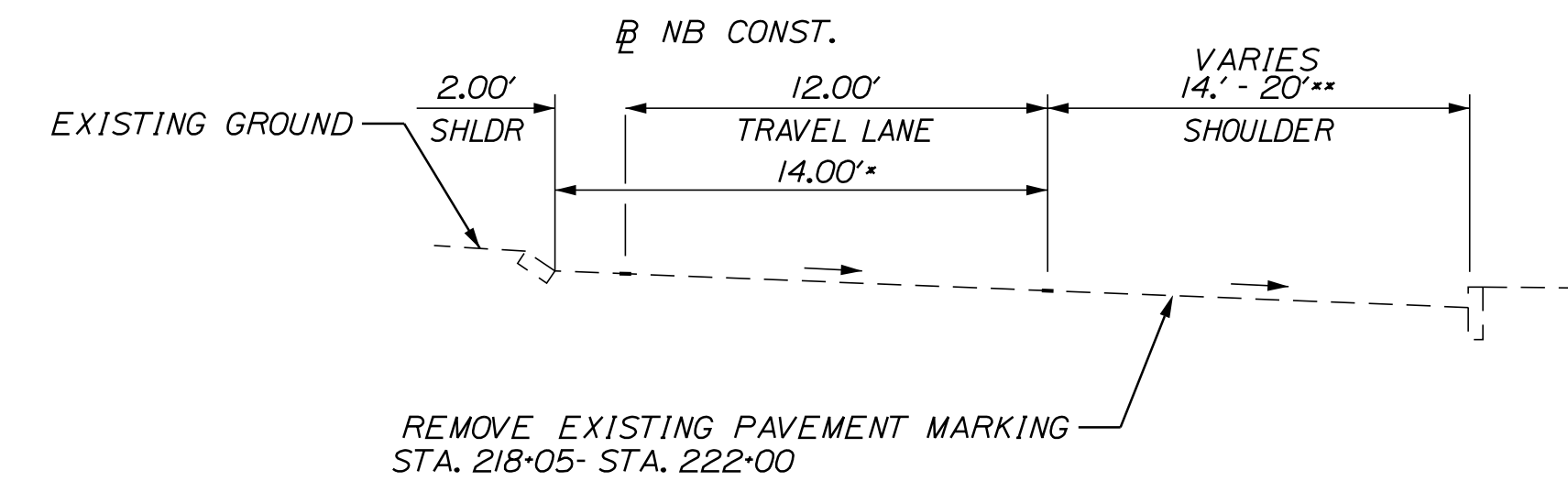
US RTE 1 SOUTHBOUND
TYPICAL SECTION
STA. 105-84 - STA. 106-30



* ROUTE 1 NB BASELINE WAS DRAFTED TO BEST FIT ORTHOIMAGRY.
PROPOSED EDGE OF TRAVELWAY TO BE 14' FROM EDGE OF CURB.
**ACTUAL SHOULDER WIDTH WILL VARY
US RTE 1 NORTHBOUND WITH AUXILIARY LANE
TYPICAL SECTION
STA. 205-84 - STA. 218-84



US RTE 1 SOUTHBOUND WITH AUXILIARY LANE
TYPICAL SECTION
STA. 106-30 TO STA. 117-68



* ROUTE 1 NB BASELINE WAS DRAFTED TO BEST FIT ORTHOIMAGRY.
PROPOSED EDGE OF TRAVELWAY TO BE 14' FROM EDGE OF CURB.
**ACTUAL SHOULDER WIDTH WILL VARY
US RTE 1/SR 3 NORTHBOUND
TYPICAL SECTION
STA. 218-84 - STA. 222-00

NOTES:

1. THE TYPICAL SECTIONS ARE INTENDED TO BE SUPPLEMENTAL TO THE SIGNS AND PAVEMENT MARKINGS PLAN.
2. HMA = HOT MIX ASPHALT
ASCG = AGGREGATE SUBBASE COURSE GRAVEL
CBL = CONSTRUCTION BASE LINE
3. THE STATIONING SHOWN UNDER EACH TYPICAL SECTION IS APPROXIMATE.
4. PROPOSED WORK ALONG NORTHBOUND BARREL OF US RTE 1/SR 3 AND ASSOCIATED RAMPS WAS DESIGNED FROM ORTHOIMAGERY. DIMENSIONS NOTED IN TYPICALS AND PLAN MAY DIFFER FROM FIELD CONDITIONS.
5. PROPOSED WORK ALONG SOUTHBOUND BARREL OF US RTE 1/SR 3 AND ASSOCIATED RAMPS ARE TO BE CONSTRUCTED FROM BASE LINE.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HSIP 2268(300)

WIN 22683.00
HIGHWAY PLANS

PROJ. MANAGER	A. GOURNEAU II	BY	DATE
CHECKED/REVIEWED	M. DEBOWSKI		
DESIGNED/DRAWN	S. BABALIS		
REVISIONS	T. WHITNEY		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BELFAST
US ROUTE 1 / STATE RTE 3

SHEET NUMBER

2

OF 23

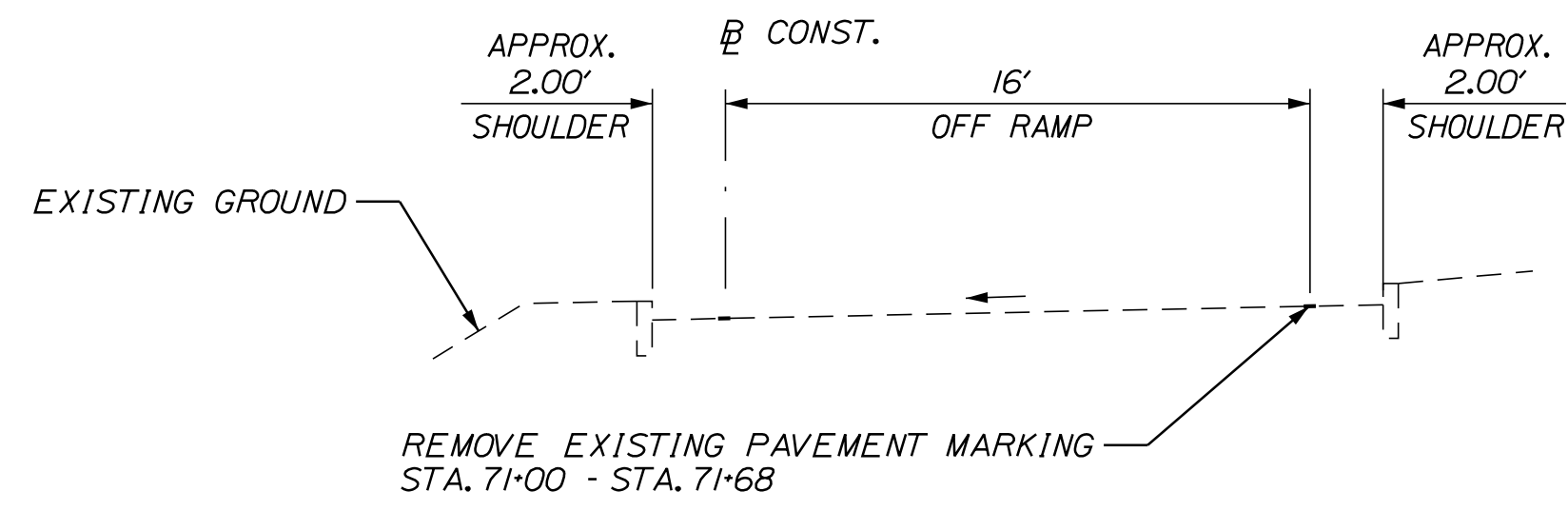
TYPICAL SECTIONS

Date: 2/7/2018

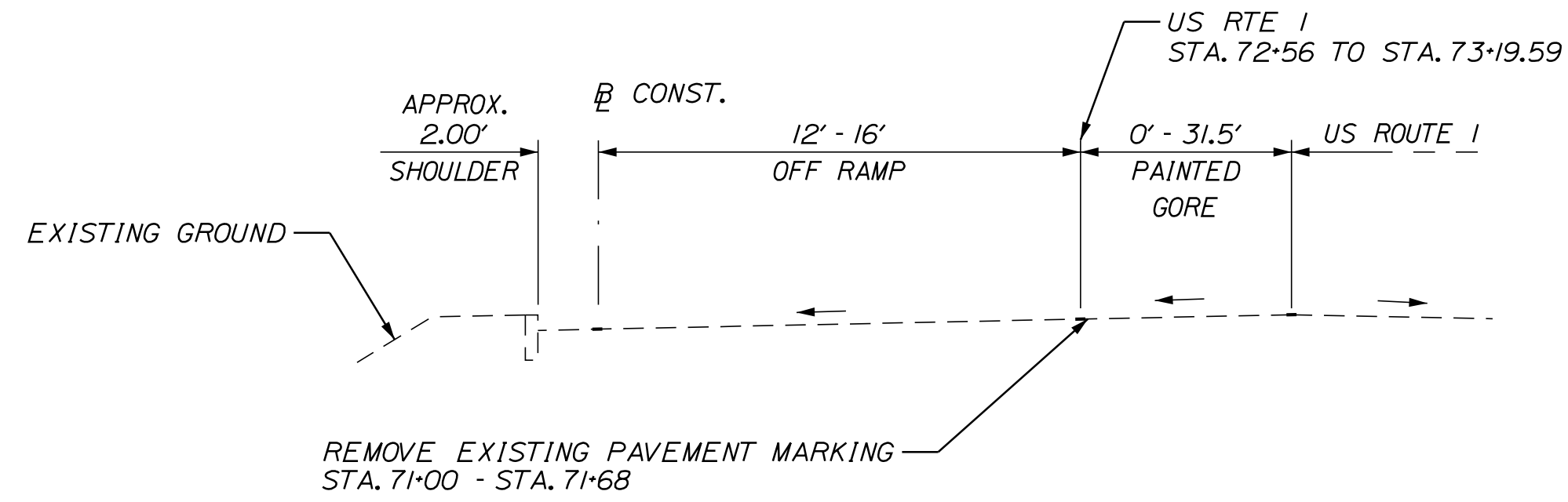
Username: sbabalis

Division: HIGHWAY

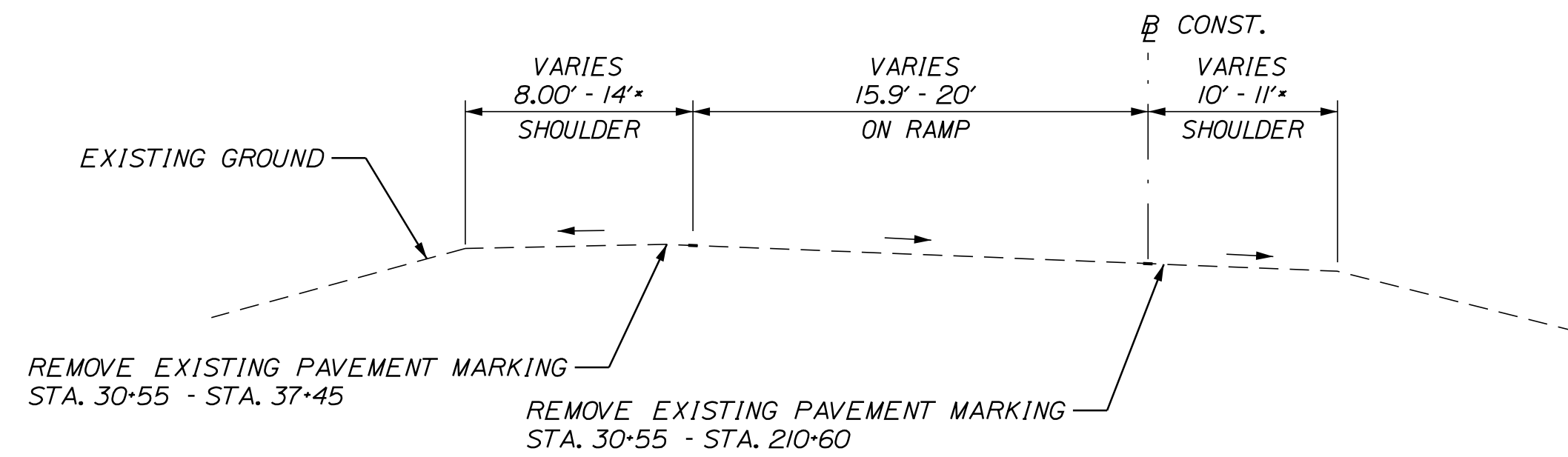
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HIGH ST OFF RAMP TYPICAL SECTION
STA. 71+00 TO STA. 71+42

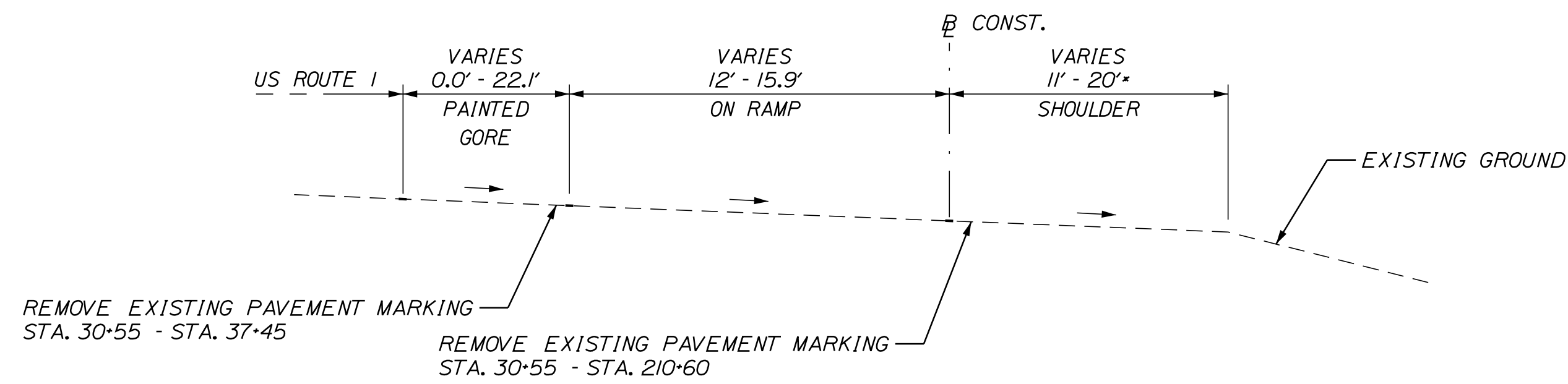


HIGH ST OFF RAMP ALONG US RTE 1 TYPICAL SECTION
STA. 71+42 TO STA. 73+19.59



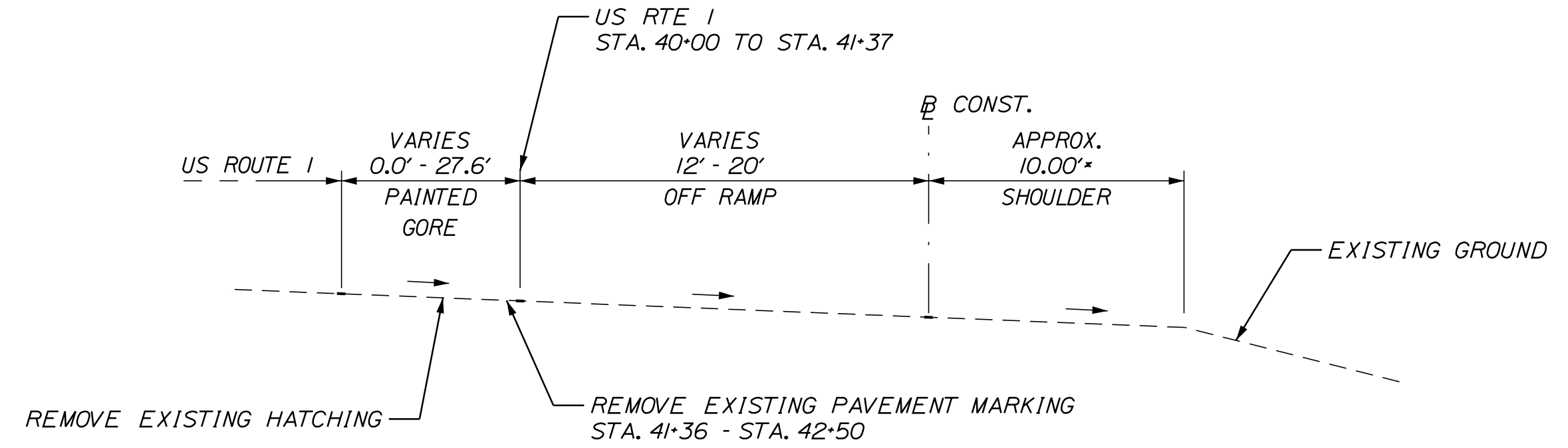
* EXISTING EDGE OF PAVEMENT WAS DRAFTED TO BEST FIT ORTHOIMAGRY. ACTUAL SHOULDER WIDTH WILL VARY.

SR 3 ON RAMP TYPICAL SECTION
STA. 30+55 - STA. 34+54



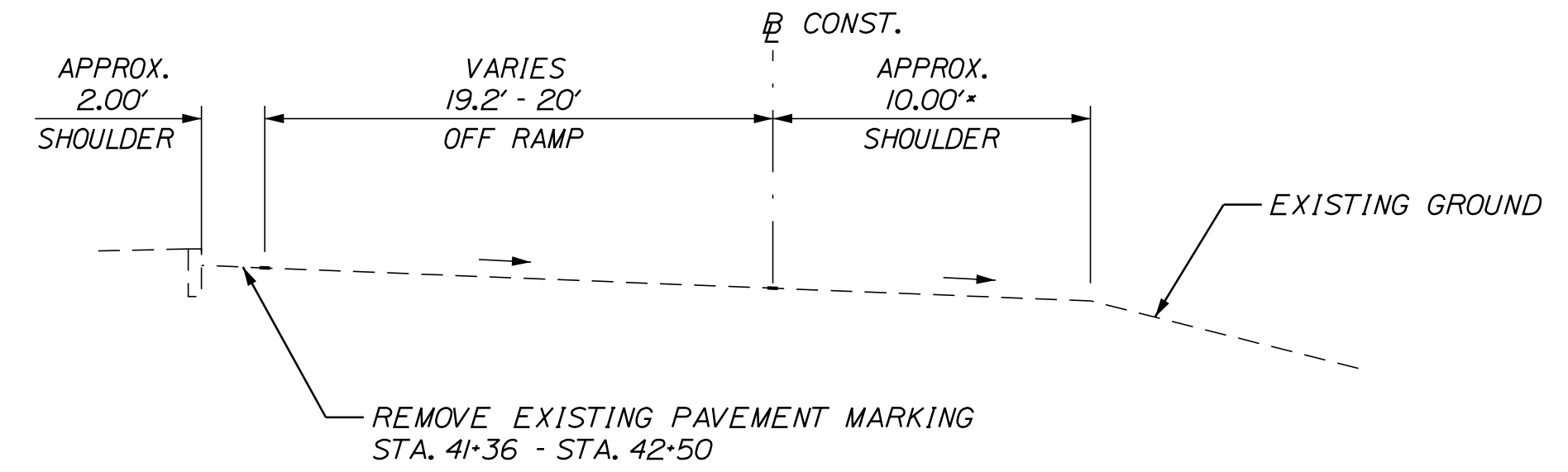
* EXISTING EDGE OF PAVEMENT WAS DRAFTED TO BEST FIT ORTHOIMAGRY. ACTUAL SHOULDER WIDTH WILL VARY.

SR 3 ON RAMP ALONG US RTE 1 TYPICAL SECTION
STA. 34+54 - STA. 39+50



* EXISTING EDGE OF PAVEMENT WAS DRAFTED TO BEST FIT ORTHOIMAGRY. ACTUAL SHOULDER WIDTH WILL VARY.

SR 7/137 OFF RAMP ALONG US RTE 1 TYPICAL SECTION
STA. 40+00 - STA. 42+10



* EXISTING EDGE OF PAVEMENT WAS DRAFTED TO BEST FIT ORTHOIMAGRY. ACTUAL SHOULDER WIDTH WILL VARY.

SR 7/137 OFF RAMP ALONG US RTE 1 TYPICAL SECTION
STA. 42+10 - STA. 42+50

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

HSIP 2268(300)

WIN 22683.00 HIGHWAY PLANS

DATE

BY

SIGNATURE

P.E. NUMBER

DATE

BY

SIGNATURE

P.E. NUMBER

DATE

BY

SIGNATURE

P.E. NUMBER

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BY

SIGNATURE

P.E. NUMBER

DATE

BY

SIGNATURE

P.E. NUMBER

SHEET NUMBER

4

OF 23

BELFAST
US ROUTE 1 \ STATE RTE 3
TYPICAL SECTIONS

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	133	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	200	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	15	TON
403.213	HOT MIX ASPHALT 12.5 MM BASE	15	TON
409.15	BITUMINOUS TACK COAT - APPLIED	5	GAL
606.1301	31" W-BEAM GUARDRAIL - MID-WAY SPLICE, SINGLE FACED	50	LF
606.1305	31" W-BEAM GUARDRAIL - MID-WAY SPLICE, FLARED TERMINAL	1	EA
606.265	TERMINAL END-SINGLE RAIL - GALVANIZED STEEL	1	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	4	EA
615.07	LOAM	14	CY
618.14	SEEDING METHOD NUMBER 2	3	UN
619.12	MULCH	3	UN
626.37	SPECIAL FOUNDATION	1	EA
627.18	12 INCH SOLID WHITE PAVEMENT MARKING LINE	3,200	LF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	16,750	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	530	SF
627.77	REMOVE EXISTING PAVEMENT MARKING	3,750	SF
639.19	FIELD OFFICE TYPE B	1	EA
645.15	CANTILEVER GUIDE SIGN: (STA 111+00)	1	LS
645.292	REGULATORY, WARNING, CONFIRMATION, AND ROUTE MARKER ASSEMBLY SIGNS TYPE II	130	SF
652.33	DRUM	100	EA
652.34	CONE	100	EA
652.35	CONSTRUCTION SIGNS	100	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	22	CD
652.38	FLAGGER	80	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	5	EA
656.75	TEMP SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBLIZATION	1	LS

CONSTRUCTION NOTES:

31" W-BEAM GUARDRAIL - MID-WAY SPLICE, SINGLE FACED - ITEM #606.1301
GR LENGTHS ARE MULTIPLES OF 12'-6" (12.5').

STATION	TO	STATION	LENGTH
110+95 LT		111+45 LT	50.0 LF

31" W-BEAM GUARDRAIL - MID-WAY SPLICE, FLARED TERMINAL - ITEM #606.1305

STATION	TO	STATION	QUANTITY
111+45 LT		111+80 LT	1 EA

TERMINAL END-SINGLE RAIL - GALVANIZED STEEL - ITEM #606.265

STATION	TO	STATION	QUANTITY
110+95 LT			1 EA

SEEDING METHOD NUMBER 2 - ITEM #618.1401

STATION	TO	STATION	QUANTITY
110+50		112+50 LT	

EARTHWORK SUMMARY			
ALL QUANTITIES ARE IN CUBIC YARDS (CY)			
COMMON EXCAVATION FOR ESTIMATE			
COMMON EXCAVATION (FROM CROSS SECTIONS)		110	
GRUBBING IN FILL		23	
TOTAL COMMON EXCAVATION (for estimate)			133
FILL FOR BORROW CALCULATIONS			
COMMON FILL (FROM CROSS SECTIONS)		39	
GRUBBING IN FILL		23	
TOTAL FILL			62
AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS			
(1) TOTAL COMMON EXCAVATION			133
DEDUCTIONS:			
GRUBBING IN CUT		30	
GRUBBING IN FILL		23	
(2) TOTAL DEDUCTIONS			53
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)			80
TOTAL AVAILABLE NON-ROCK EXCAVATION			80
COMPUTATION FOR COMMON BORROW FOR ESTIMATE			
(3) TOTAL FILL			62
TOTAL AVAIL. NON-ROCK EXCAV.	80 x 0.90 =	72	
(4) TOTAL AVAILABLE EXCAVATION			72
IF NO BORROW IS NEEDED, SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS TOTAL FILL, PLUS TOTAL WASTE MATERIAL TO BE WASTED			10
SURPLUS MATERIAL =		10 CY	

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
HSIP 2268(300)		WIN 22683.00	
HIGHWAY PLANS			
PROJ. MANAGER	A. GOURNEAU II	DATE	
CHECKED	M. DEBOWSKI	BY	
DESIGN DETAILED	S. BABALIS	SIGNATURE	
DESIGN DETAILED	T. WHITNEY	P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
BELFAST			
US ROUTE 1 \ STATE RTE 3			
ESTIMATED QUANTITIES			
SHEET NUMBER			
5			
OF 23			

Date: 2/7/2018

Username: sbabalis

Division: HIGHWAY

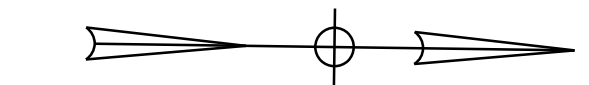
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GENERAL NOTES:

1. ALL JOINTS BETWEEN EXISTING AND PROPOSED HOT BITUMINOUS PAVEMENT SHALL BE BUTTED. PAYMENT SHALL BE MADE UNDER ITEM 202.203 PAVEMENT BUTT JOINT. (PRESERVATION ONLY)
2. GRUBBING IN FILL AREAS HAS 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.
3. PRIOR TO REMOVING ANY PAVEMENT OR PLACING ANY SHIM PAVEMENT, THE ROADWAY WILL BE INSPECTED FOR POSSIBLE SUBSURFACE BOULDERS, WHICH WILL BE REMOVED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER APPROPRIATE CONTRACT RENTAL ITEMS. BACKFILL WILL BE PLACED TO SUBGRADE WITH MATERIAL CONSISTENT WITH THE SURROUNDING MATERIAL. AGGREGATE SUBBASE COURSE GRAVEL WILL BE PLACED FROM SUBGRADE TO FINISH GRADE AND WILL BE PAID UNDER THE APPROPRIATE ITEM.
4. 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 APPROPRIATE CONTRACT ITEMS.
5. THE CONTRACTOR SHALL PLAN AND CONDUCT THEIR WORK ACCORDINGLY SO THAT UPON FINAL COMPLETION OF THE PROJECT THERE IS NO DROP-OFF FROM THE EDGE OF SHOULDER PAVEMENT.
6. THE CONTRACTOR SHALL PLACE SUITABLE EXISTING OR OTHER MATERIAL ACCEPTABLE TO THE RESIDENT ON ALL PAVEMENT EDGES TO ALLOW A DROP OFF NO GREATER THAN THE SURFACE PAVEMENT THICKNESS. THE MATERIAL SHALL BE GRADED TO MATCH EXISTING IN-SLOPE OR AS DIRECTED BY THE RESIDENT BEFORE SURFACE IS PLACED. THE CONTRACTOR WILL BE PAID UNDER APPROPRIATE EQUIPMENT RENTAL ITEMS. BORROW IS NOT AUTHORIZED UNTIL ALL ACCEPTABLE WASTE MATERIAL HAS BEEN UTILIZED. SEED AND MULCH WILL BE PAID FOR AT THE CONTRACT UNIT PRICE.
7. 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.
8. GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL.
9. TWO REFLECTORIZED FLEXIBLE G.R. MARKERS (ITEM 606.353) WILL BE INSTALLED AT EACH GUARDRAIL END.
10. SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL AREAS.
11. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES IN ALL AREAS UNLESS OTHERWISE NOTED OR DIRECTED.
12. 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.
13. PLANS OF PREVIOUSLY CONSTRUCTED PROJECTS ARE AVAILABLE ON REQUEST. THESE PROJECTS ARE:
 - PROJECT * BU-026-2(1), TOWN: BELFAST, 3.169 MI, PLAN YEAR: 1961
 - PROJECT * U-026-2(19), TOWN: BELFAST, 0.832 MI, PLAN YEAR: 1967
 - PROJECT * F-026-2(20), TOWN: BELFAST, 0.730 MI, DESCRIPTION: GRADING, BASE AND PAVEMENT, PLAN YEAR: 1973
 - PROJECT * F-026-2(30), TOWNS: BELFAST-SEARSPORT, DESCRIPTION: LIGHTING SYSTEM, PLAN YEAR: 1980
 - PROJECT * NH-7922(100), TOWN: BELFAST, DESCRIPTION: U.S. RTE 1 AND RTE 3 HIGHWAY LIGHTING, PLAN YEAR: 2004
14. A COPY OF THE GEOTECHNICAL REPORT FOR THIS PROJECT IS AVAILABLE AT [HTTP://WWW.MAINE.GOV/MDOT/CONTRACTORS/](http://www.maine.gov/mdot/contractors/). ALL COMPUTATION METHODS AND QUANTITIES USED FOR THE ENGINEER'S ESTIMATE FOR PLAN QUANTITY ITEMS ONLY ARE AVAILABLE BY CONTACTING REGION AURELE GORNEAU, II AT 207-624-3553.
15. AREAS REQUIRING FILL ON THE PROJECT WILL COME FROM SUITABLE EXCAVATION FROM EXCAVATION, DITCH AND INSLOPE OR EQUIPMENT RENTAL AREAS.
16. *UNDETERMINED LOCATIONS* SHALL BE DETERMINED BY THE RESIDENT.
17. 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.
18. THE CONTRACTOR WILL PLACE APPROPRIATELY MARKED STAKES AT THE FOLLOWING LOCATIONS ON THE PROJECT: STRIPING PATTERN CHANGES, CROSS-SLOPE CHANGES, AND EVERY 500' FOR STATIONING. THE CONTRACTOR WILL PAINT EVERY FULL STATION (100') ON THE EXISTING ROADWAY AND WILL TRANSFER THE PAINTED STATIONING THROUGH ALL INTERMEDIATE LIFTS (NOT SURFACE). APPROPRIATELY SIZED STRIPING PATTERN CHANGES WILL BE PAINTED ON SURFACE. STATIONING CONTROL MUST BE PLACED BEFORE WORK CAN COMMENCE. CROSS-SLOPE AND STRIPING CHANGE CONTROLS MUST BE PLACED BEFORE PAVING CAN COMMENCE.

BELFAST US ROUTE 1 \ STATE RTE 3 GENERAL NOTES		STATE OF MAINE DEPARTMENT OF TRANSPORTATION HSHIP2268(300) WIN 22683.00 HIGHWAY PLANS
SHEET NUMBER <div style="font-size: 2em; font-weight: bold; margin: 5px 0;">6</div> OF 23	DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE P.E. NUMBER DATE
PROJ. MANAGER A. GORNEAU II M. DEROWSKI S. BABALIS T. WHITNEY	BY DATE	

Filename: ... \HIGHWAY\MSTA007_HDPLAN01.DGN Division: HIGHWAY Username: stabbals Date: 2/7/2018



NOTE:
 EXISTING PAVEMENT MARKING LINES SHALL BE REMOVED BY MEANS AND METHODS MEETING THE REQUIREMENTS OF SECTION 627.08 OF THE STANDARD SPECIFICATIONS. THE METHOD CHOSEN MUST BE CAPABLE OF REMOVING THE EXISTING LINES OR MARKINGS WITHOUT DAMAGE TO THE PAVEMENT. SHOULD IT BE DETERMINED THAT IT WILL BE NECESSARY TO REMOVE PAVEMENT LINES AND MARKINGS BY USE OF A PAVEMENT MARKING MILLING EQUIPMENT, THE MILLING EQUIPMENT SHALL BE ADJUSTED TO REMOVE ONLY THE PAINTED LINE AND NOT THE UNDERLYING PAVEMENT SURFACE. AREAS WHERE PAVEMENT MARKING REMOVAL EFFORTS DAMAGE THE PAVEMENT SURFACE MAY REQUIRE SEALING USING APPROVED METHODS AND MATERIALS.

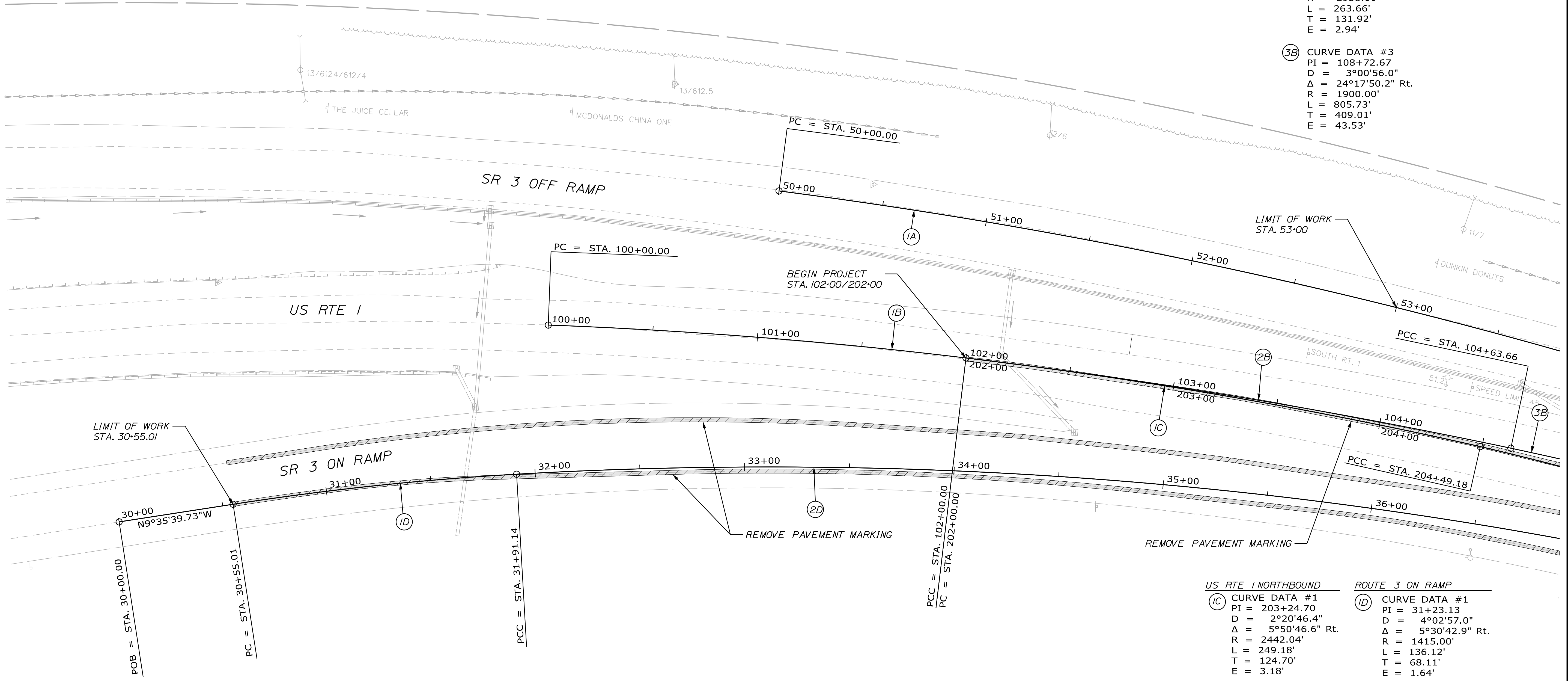
ROUTE 3 OFF RAMP **US RTE 1 SOUTHBOUND**

(1A) CURVE DATA #1
 PI = 52+31.60
 D = 2°12'13.3"
 Δ = 10°10'50.6" Rt.
 R = 2600.00'
 L = 461.99'
 T = 231.60'
 E = 10.29'

(1B) CURVE DATA #1
 PI = 101+00.06
 D = 2°20'46.4"
 Δ = 4°41'32.8" Rt.
 R = 2442.04'
 L = 200.00'
 T = 100.06'
 E = 2.05'

(2B) CURVE DATA #2
 PI = 103+31.92
 D = 1°56'13.1"
 Δ = 5°06'25.2" Rt.
 R = 2958.00'
 L = 263.66'
 T = 131.92'
 E = 2.94'

(3B) CURVE DATA #3
 PI = 108+72.67
 D = 3°00'56.0"
 Δ = 24°17'50.2" Rt.
 R = 1900.00'
 L = 805.73'
 T = 409.01'
 E = 43.53'



US RTE 1 NORTHBOUND

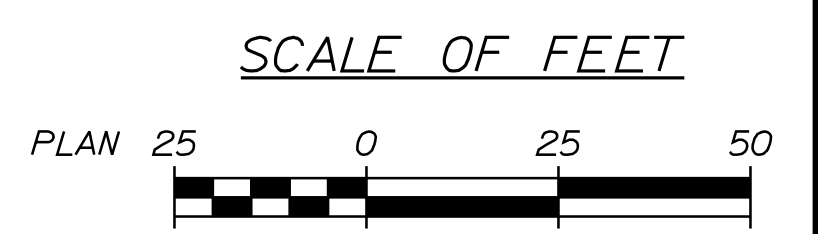
(1C) CURVE DATA #1
 PI = 203+24.70
 D = 2°20'46.4"
 Δ = 5°50'46.6" Rt.
 R = 2442.04'
 L = 249.18'
 T = 124.70'
 E = 3.18'

ROUTE 3 ON RAMP

(1D) CURVE DATA #1
 PI = 31+23.13
 D = 4°02'57.0"
 Δ = 5°30'42.9" Rt.
 R = 1415.00'
 L = 136.12'
 T = 68.11'
 E = 1.64'

(2D) CURVE DATA #2
 PI = 34+46.16
 D = 2°43'42.1"
 Δ = 13°50'53.4" Rt.
 R = 2100.00'
 L = 507.56'
 T = 255.02'
 E = 15.43'

REMOVE PAVEMENT MARKING



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
HSIP2268(300)		HIGHWAY PLANS	
WIN 22683.00		DATE	
PROJ. MANAGER	A. GOURNEAU II	BY	DATE
DESIGN/DETAILED	M. DEBOWSK	CHECKED/REVIEWED	S. BABALIS
DESIGNS/DETAILED	S. BABALIS	DESIGNS/DETAILED	T. WHITNEY
REVISIONS 1		REVISIONS 1	
REVISIONS 2		REVISIONS 2	
REVISIONS 3		REVISIONS 3	
REVISIONS 4		REVISIONS 4	
FIELD CHANGES		FIELD CHANGES	
BELFAST		US ROUTE 1 \ STATE RTE 3	
PLAN		SHEET NUMBER	
7		OF 23	

NOTE:
 EXISTING PAVEMENT MARKING LINES SHALL BE REMOVED BY MEANS AND METHODS MEETING THE REQUIREMENTS OF SECTION 627.08 OF THE STANDARD SPECIFICATIONS. THE METHOD CHOSEN MUST BE CAPABLE OF REMOVING THE EXISTING LINES OR MARKINGS WITHOUT DAMAGE TO THE PAVEMENT. SHOULD IT BE DETERMINED THAT IT WILL BE NECESSARY TO REMOVE PAVEMENT LINES AND MARKINGS BY USE OF A PAVEMENT MARKING MILLING EQUIPMENT, THE MILLING EQUIPMENT SHALL BE ADJUSTED TO REMOVE ONLY THE PAINTED LINE AND NOT THE UNDERLYING PAVEMENT SURFACE. AREAS WHERE PAVEMENT MARKING REMOVAL EFFORTS DAMAGE THE PAVEMENT SURFACE MAY REQUIRE SEALING USING APPROVED METHODS AND MATERIALS.

ROUTE 3 OFF RAMP

- (1A) CURVE DATA #1
 PI = 52+31.60
 D = 2°12'13.3"
 Δ = 10°10'50.6" Rt.
 R = 2600.00'
 L = 461.99'
 T = 231.60'
 E = 10.29'
- (2A) CURVE DATA #2
 PI = 56+81.93
 D = 2°57'39.7"
 Δ = 12°58'10.8" Rt.
 R = 1935.00'
 L = 438.01'
 T = 219.95'
 E = 12.46'

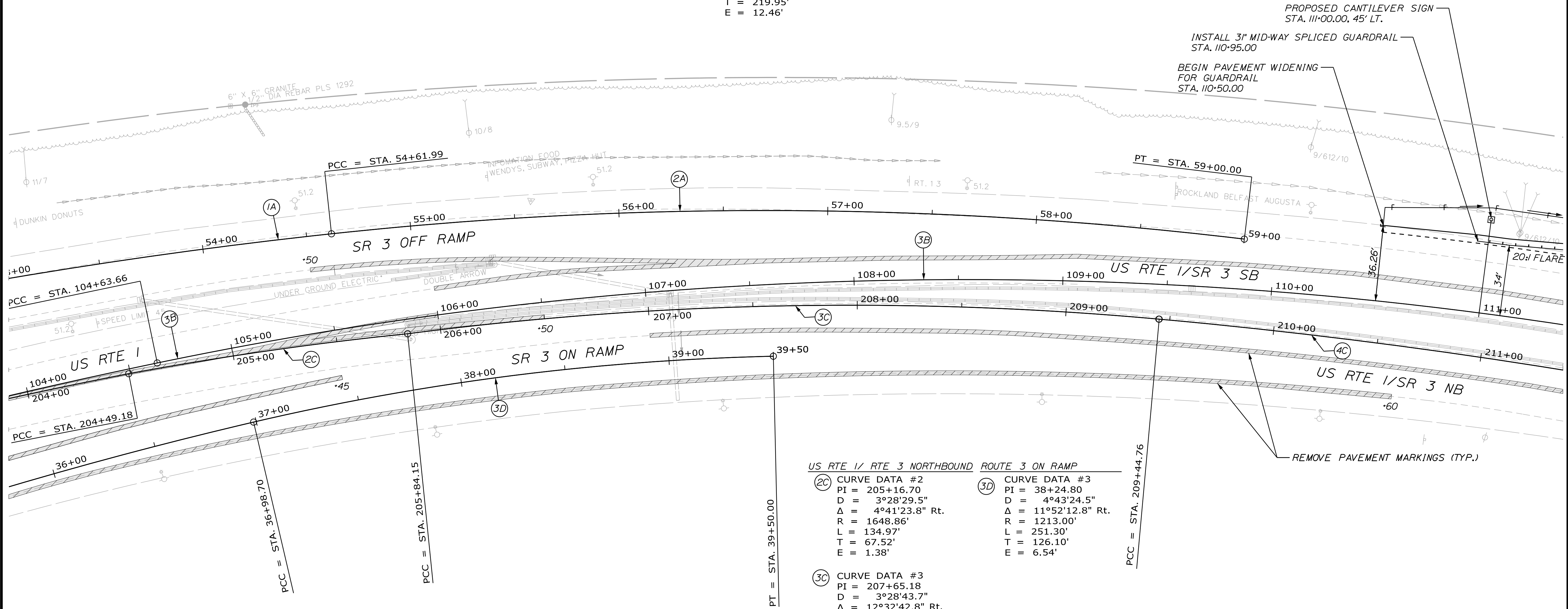
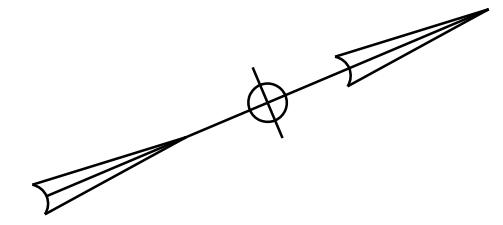
US RTE 1 SOUTHBOUND

- (3B) CURVE DATA #3
 PI = 108+72.67
 D = 3°00'56.0"
 Δ = 24°17'50.2" Rt.
 R = 1900.00'
 L = 805.73'
 T = 409.01'
 E = 43.53'

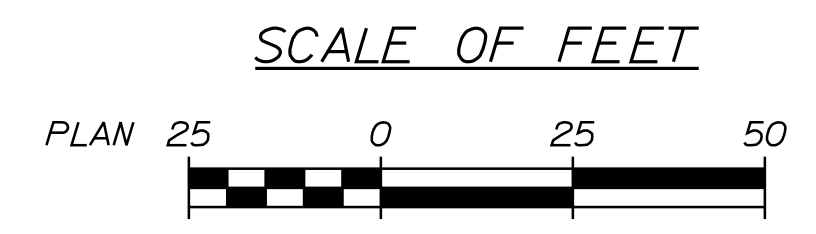
US RTE 1 / RTE 3 NORTHBOUND ROUTE 3 ON RAMP

- (2C) CURVE DATA #2
 PI = 205+16.70
 D = 3°28'29.5"
 Δ = 4°41'23.8" Rt.
 R = 1648.86'
 L = 134.97'
 T = 67.52'
 E = 1.38'
- (3C) CURVE DATA #3
 PI = 207+65.18
 D = 3°28'43.7"
 Δ = 12°32'42.8" Rt.
 R = 1647.00'
 L = 360.62'
 T = 181.03'
 E = 9.92'
- (4C) CURVE DATA #4
 PI = 210+47.35
 D = 2°04'28.0"
 Δ = 4°15'15.2" Rt.
 R = 2762.00'
 L = 205.08'

- (3D) CURVE DATA #3
 PI = 38+24.80
 D = 4°43'24.5"
 Δ = 11°52'12.8" Rt.
 R = 1213.00'
 L = 251.30'
 T = 126.10'
 E = 6.54'



REMOVE PAVEMENT MARKING



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HSIP 2268(300)
 WIN 22683.00
 HIGHWAY PLANS

DATE	BY	REVISIONS	SIGNATURE	P.E. NUMBER	DATE
	A. GOURNEAU II	1			
	M. DEROWSK	2			
	S. BABALIS	3			
	T. WHITNEY	4			
		5			
		6			
		7			
		8			
		9			
		10			

BELFAST
 US ROUTE 1 \ STATE RTE 3
 PLAN

SHEET NUMBER
 8
 OF 23

Date: 2/7/2018

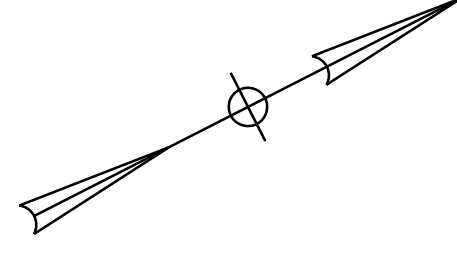
Username: sbabalis

Filename: ... \HIGHWAY\MSTA\008_HDPLAN02.DGN Division: HIGHWAY

Date: 2/7/2018

Username: sbabalis

Filename: ... \HIGHWAY\MSTA\009_HDPLAN03.DGN Division: HIGHWAY



NOTE:
 EXISTING PAVEMENT MARKING LINES SHALL BE REMOVED BY MEANS AND METHODS MEETING THE REQUIREMENTS OF SECTION 627.08 OF THE STANDARD SPECIFICATIONS. THE METHOD CHOSEN MUST BE CAPABLE OF REMOVING THE EXISTING LINES OR MARKINGS WITHOUT DAMAGE TO THE PAVEMENT. SHOULD IT BE DETERMINED THAT IT WILL BE NECESSARY TO REMOVE PAVEMENT LINES AND MARKINGS BY USE OF A PAVEMENT MARKING MILLING EQUIPMENT, THE MILLING EQUIPMENT SHALL BE ADJUSTED TO REMOVE ONLY THE PAINTED LINE AND NOT THE UNDERLYING PAVEMENT SURFACE. AREAS WHERE PAVEMENT MARKING REMOVAL EFFORTS DAMAGE THE PAVEMENT SURFACE MAY REQUIRE SEALING USING APPROVED METHODS AND MATERIALS.

US RTE 1/RTE 3 SOUTHBOUND

(3B) CURVE DATA #3
 PI = 108+72.67
 D = 3°00'56.0"
 Δ = 24°17'50.2" Rt.
 R = 1900.00'
 L = 805.73'
 T = 409.01'
 E = 43.53'

(4B) CURVE DATA #4
 PI = 115+03.80
 D = 2°18'10.4"
 Δ = 10°45'53.3" Rt.
 R = 2488.00'
 L = 467.45'
 T = 234.41'
 E = 11.02'

(5B) CURVE DATA #5
 PI = 121+72.66
 D = 2°11'33.8"
 Δ = 18°56'19.2" Rt.
 R = 2613.00'
 L = 863.71'
 T = 435.83'
 E = 36.10'

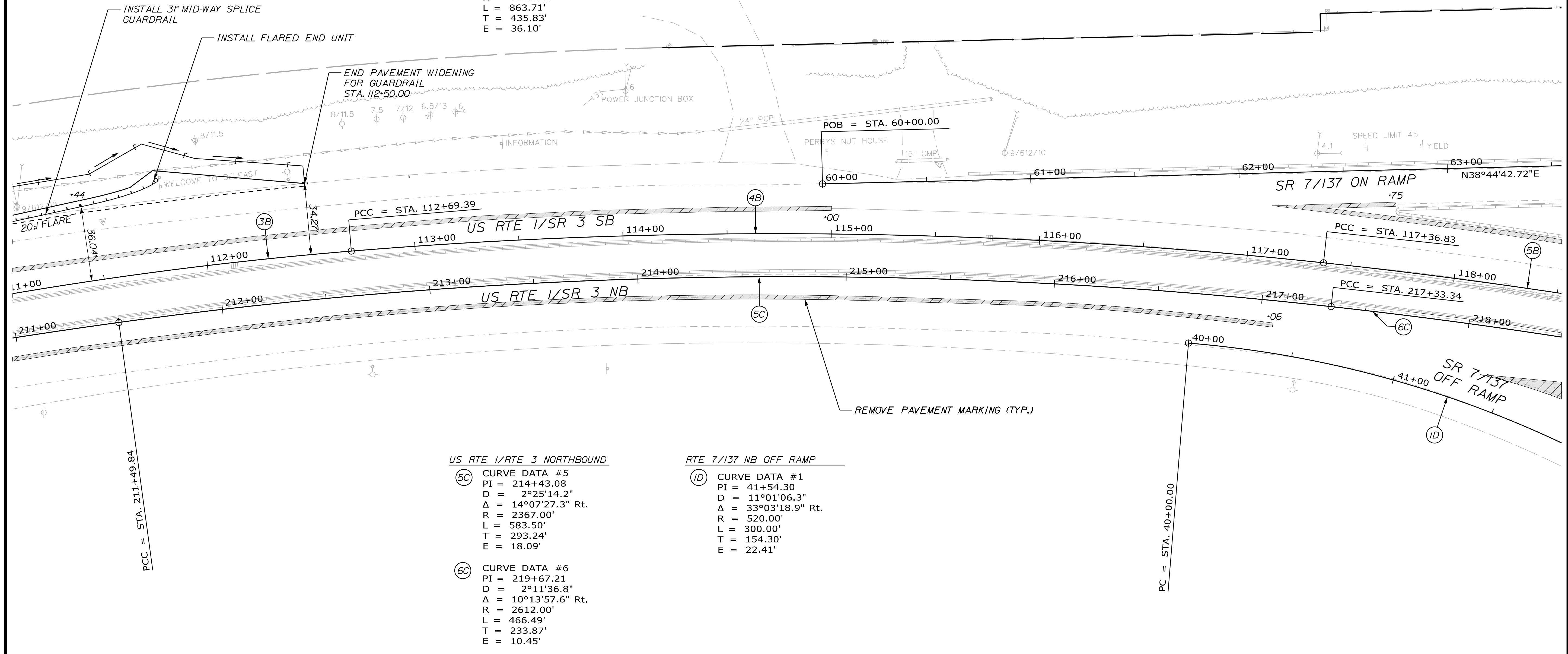
US RTE 1/RTE 3 NORTHBOUND

(5C) CURVE DATA #5
 PI = 214+43.08
 D = 2°25'14.2"
 Δ = 14°07'27.3" Rt.
 R = 2367.00'
 L = 583.50'
 T = 293.24'
 E = 18.09'

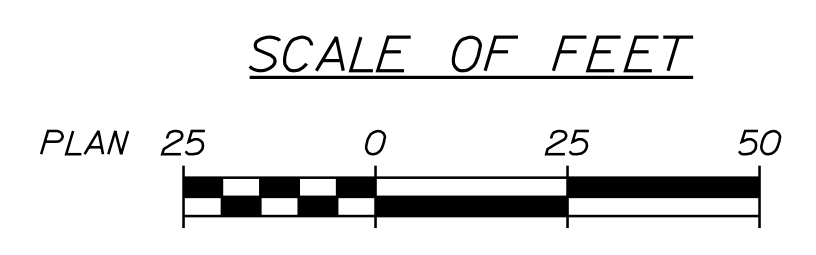
(6C) CURVE DATA #6
 PI = 219+67.21
 D = 2°11'36.8"
 Δ = 10°13'57.6" Rt.
 R = 2612.00'
 L = 466.49'
 T = 233.87'
 E = 10.45'

RTE 7/137 NB OFF RAMP

(1D) CURVE DATA #1
 PI = 41+54.30
 D = 11°01'06.3"
 Δ = 33°03'18.9" Rt.
 R = 520.00'
 L = 300.00'
 T = 154.30'
 E = 22.41'



REMOVE PAVEMENT MARKING



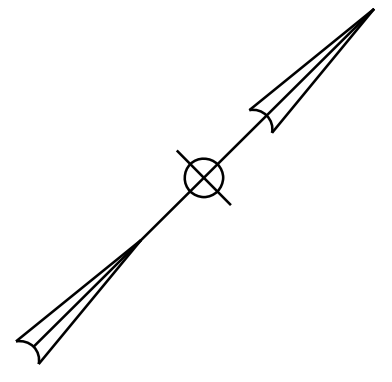
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		HSIP 2268(300)		WIN 22683.00 HIGHWAY PLANS	
BELFAST US ROUTE 1 \ STATE RTE 3		PLAN		SHEET NUMBER 9 OF 23	
PROJ. MANAGER	A. GOURNEAU II	BY		DATE	
DESIGN-DETAILED	M. DEROWSK	CHECKED-REVIEWED	S. BABALIS	SIGNATURE	
DESIGN-DETAILED	T. WHITNEY	DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		REVISIONS 1		DATE	
REVISIONS 2		REVISIONS 2			
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES		FIELD CHANGES			

Date: 2/7/2018

Username: sbabalis

Division: HIGHWAY

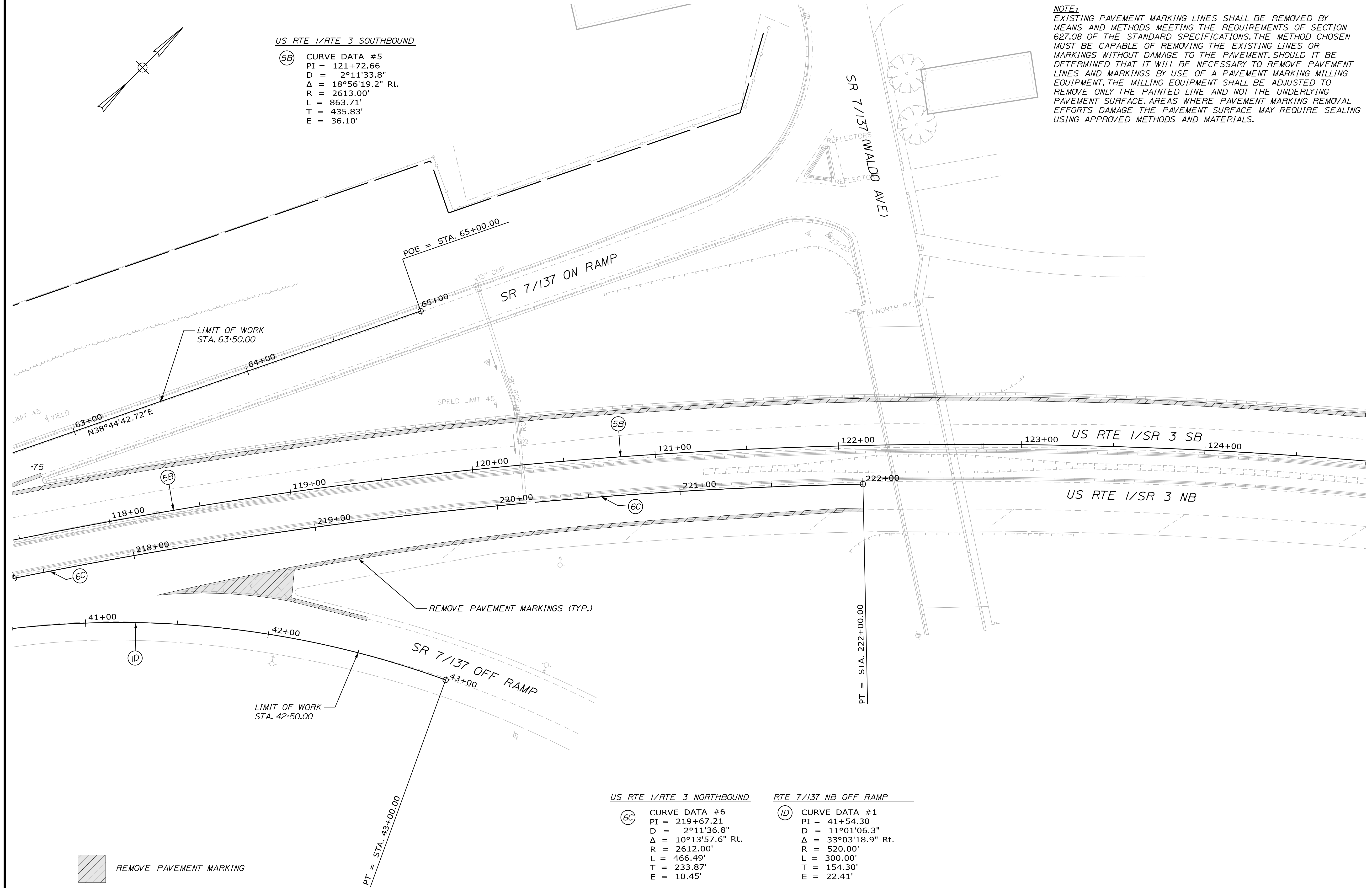
Filename: ... \HIGHWAY\MSTAN010_HDPLAN04.DGN



US RTE 1/RTE 3 SOUTHBOUND

(5B) CURVE DATA #5
 PI = 121+72.66
 D = 2°11'33.8"
 Δ = 18°56'19.2" Rt.
 R = 2613.00'
 L = 863.71'
 T = 435.83'
 E = 36.10'

NOTE:
 EXISTING PAVEMENT MARKING LINES SHALL BE REMOVED BY MEANS AND METHODS MEETING THE REQUIREMENTS OF SECTION 627.08 OF THE STANDARD SPECIFICATIONS. THE METHOD CHOSEN MUST BE CAPABLE OF REMOVING THE EXISTING LINES OR MARKINGS WITHOUT DAMAGE TO THE PAVEMENT. SHOULD IT BE DETERMINED THAT IT WILL BE NECESSARY TO REMOVE PAVEMENT LINES AND MARKINGS BY USE OF A PAVEMENT MARKING MILLING EQUIPMENT, THE MILLING EQUIPMENT SHALL BE ADJUSTED TO REMOVE ONLY THE PAINTED LINE AND NOT THE UNDERLYING PAVEMENT SURFACE. AREAS WHERE PAVEMENT MARKING REMOVAL EFFORTS DAMAGE THE PAVEMENT SURFACE MAY REQUIRE SEALING USING APPROVED METHODS AND MATERIALS.



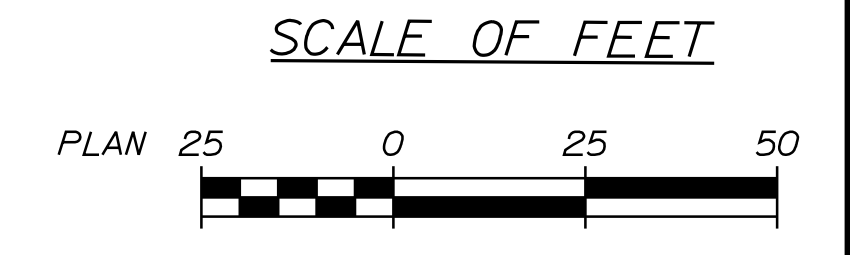
REMOVE PAVEMENT MARKING

US RTE 1/RTE 3 NORTHBOUND

(6C) CURVE DATA #6
 PI = 219+67.21
 D = 2°11'36.8"
 Δ = 10°13'57.6" Rt.
 R = 2612.00'
 L = 466.49'
 T = 233.87'
 E = 10.45'

RTE 7/137 NB OFF RAMP

(1D) CURVE DATA #1
 PI = 41+54.30
 D = 11°01'06.3"
 Δ = 33°03'18.9" Rt.
 R = 520.00'
 L = 300.00'
 T = 154.30'
 E = 22.41'



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HSIP2268(300)

SIGNATURE
 P.E. NUMBER
 DATE

DESIGN DETAILED	M. DEROWSKI
CHECKED/REVIEWED	S. BABALIS
DESIGN DETAILED	T. WHITNEY
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

BELFAST
 US ROUTE 1 \ STATE RTE 3
 PLAN

SHEET NUMBER
 10
 OF 23

HIGHWAY PLANS
 WIN 22683.00

Date: 2/7/2018

Username: sbabalis

Division: HIGHWAY

Filename: ... \HIGHWAY\MSTA\011_HDPLAN05.DGN

NOTE:
 EXISTING PAVEMENT MARKING LINES SHALL BE REMOVED BY MEANS AND METHODS MEETING THE REQUIREMENTS OF SECTION 627.08 OF THE STANDARD SPECIFICATIONS. THE METHOD CHOSEN MUST BE CAPABLE OF REMOVING THE EXISTING LINES OR MARKINGS WITHOUT DAMAGE TO THE PAVEMENT. SHOULD IT BE DETERMINED THAT IT WILL BE NECESSARY TO REMOVE PAVEMENT LINES AND MARKINGS BY USE OF A PAVEMENT MARKING MILLING EQUIPMENT, THE MILLING EQUIPMENT SHALL BE ADJUSTED TO REMOVE ONLY THE PAINTED LINE AND NOT THE UNDERLYING PAVEMENT SURFACE. AREAS WHERE PAVEMENT MARKING REMOVAL EFFORTS DAMAGE THE PAVEMENT SURFACE MAY REQUIRE SEALING USING APPROVED METHODS AND MATERIALS.

US RTE 1/RTE 3 SOUTHBOUND

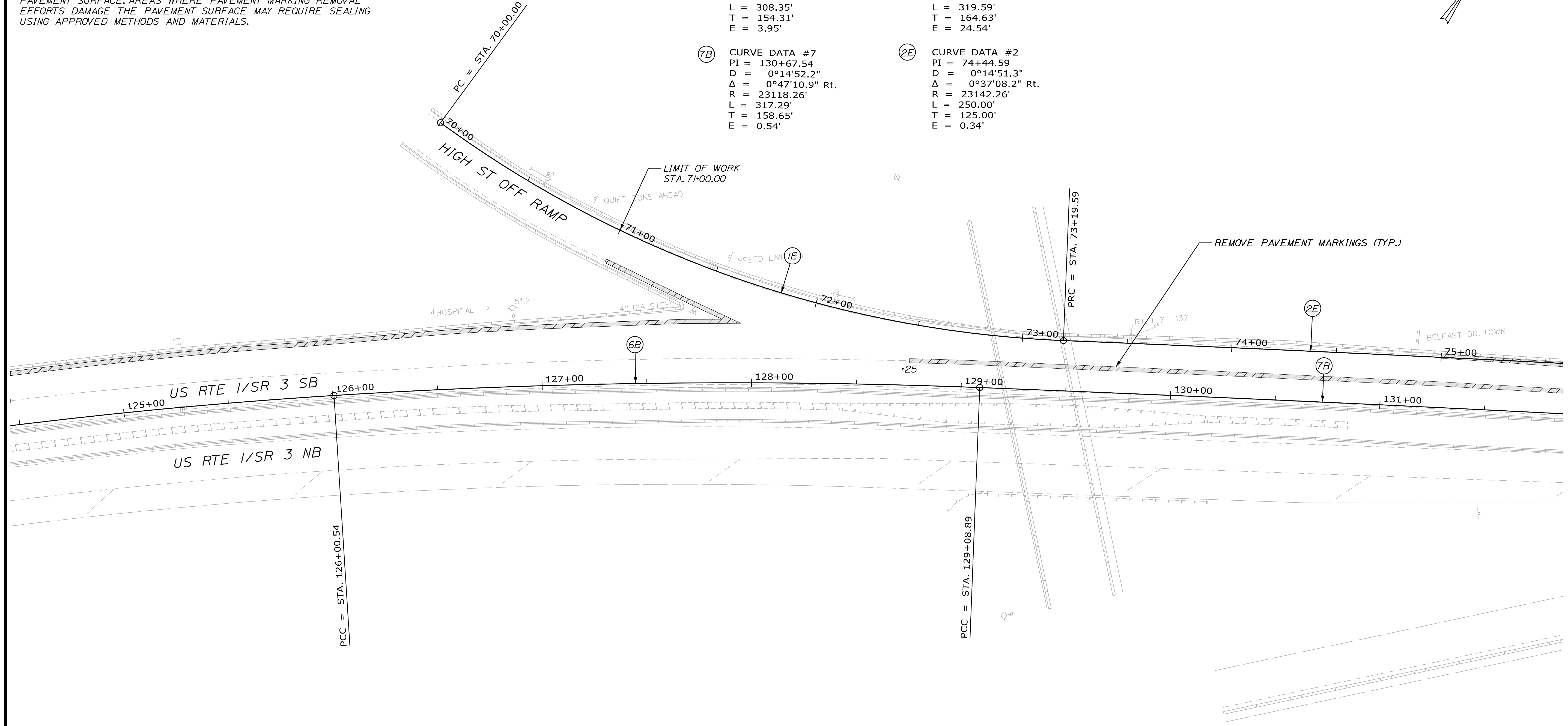
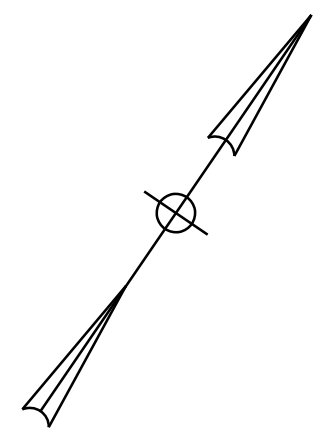
(6B) CURVE DATA #6
 PI = 127+54.85
 D = 1°54'05.8"
 Δ = 5°51'49.0" Rt.
 R = 3013.00'
 L = 308.35'
 T = 154.31'
 E = 3.95'

(7B) CURVE DATA #7
 PI = 130+67.54
 D = 0°14'52.2"
 Δ = 0°47'10.9" Rt.
 R = 23118.26'
 L = 317.29'
 T = 158.65'
 E = 0.54'

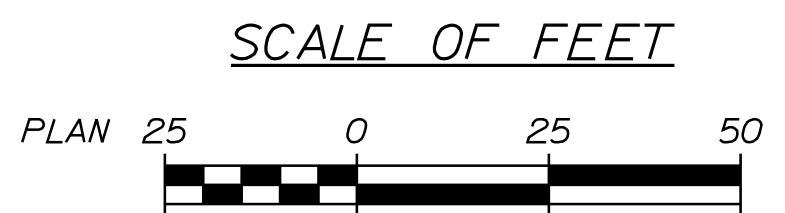
HIGH ST SB OFF RAMP

(1E) CURVE DATA #1
 PI = 71+64.63
 D = 10°36'37.2"
 Δ = 33°54'33.2" Lt.
 R = 540.00'
 L = 319.59'
 T = 164.63'
 E = 24.54'

(2E) CURVE DATA #2
 PI = 74+44.59
 D = 0°14'51.3"
 Δ = 0°37'08.2" Rt.
 R = 23142.26'
 L = 250.00'
 T = 125.00'
 E = 0.34'



REMOVE PAVEMENT MARKING



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HSIP 2268(300)
 WIN 22683.00
 HIGHWAY PLANS

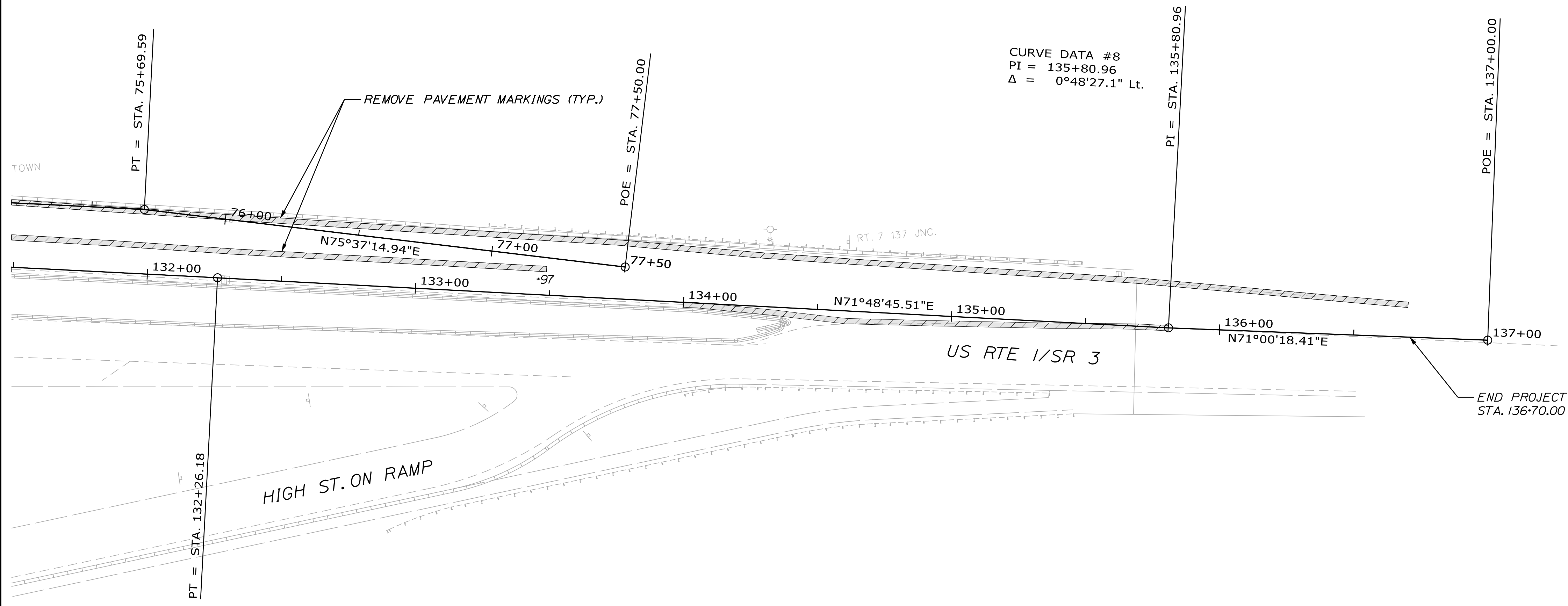
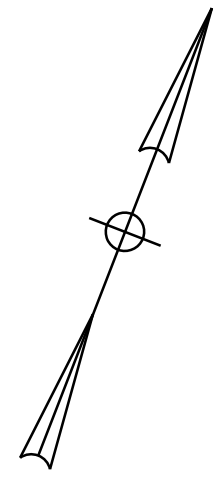
PROJ. MANAGER	A. GOURNEAU II
CHECKED	M. DEROWSKI
DESIGNED	S. BABALIS
REVISIONS 1	T. WHITNEY
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

DATE	BY
SIGNATURE	
P.E. NUMBER	
DATE	

BELFAST
 US ROUTE 1 \ STATE RTE 3
 PLAN

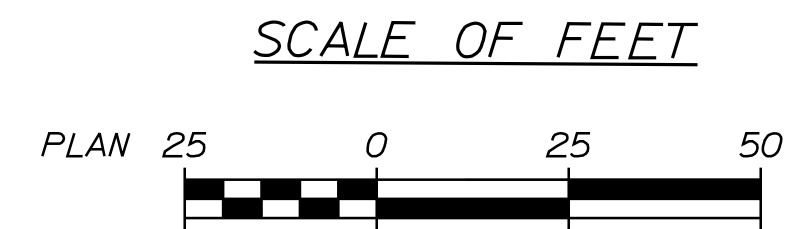
SHEET NUMBER
11
 OF 23

NOTE:
 EXISTING PAVEMENT MARKING LINES SHALL BE REMOVED BY MEANS AND METHODS MEETING THE REQUIREMENTS OF SECTION 627.08 OF THE STANDARD SPECIFICATIONS. THE METHOD CHOSEN MUST BE CAPABLE OF REMOVING THE EXISTING LINES OR MARKINGS WITHOUT DAMAGE TO THE PAVEMENT. SHOULD IT BE DETERMINED THAT IT WILL BE NECESSARY TO REMOVE PAVEMENT LINES AND MARKINGS BY USE OF A PAVEMENT MARKING MILLING EQUIPMENT, THE MILLING EQUIPMENT SHALL BE ADJUSTED TO REMOVE ONLY THE PAINTED LINE AND NOT THE UNDERLYING PAVEMENT SURFACE. AREAS WHERE PAVEMENT MARKING REMOVAL EFFORTS DAMAGE THE PAVEMENT SURFACE MAY REQUIRE SEALING USING APPROVED METHODS AND MATERIALS.



CURVE DATA #8
 PI = 135+80.96
 Δ = 0°48'27.1" Lt.

 REMOVE PAVEMENT MARKING



Date: 2/7/2018

Username: sbabalis

Division: HIGHWAY

Filename: ... \HIGHWAY\MSTA\012_HDPLAN06.DGN

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HSIP 2268(300)
 WIN 22683.00
 HIGHWAY PLANS

PROJ. MANAGER	A. GOURNEAU II	BY	DATE
CHECKED/REVIEWED	M. DEROWSKI		
DESIGN/DETAILED	S. BABALIS		
DESIGN/DETAILED	T. WHITNEY		
REVISIONS	1		
REVISIONS	2		
REVISIONS	3		
REVISIONS	4		
FIELD CHANGES			

BELFAST
 US ROUTE 1 \ STATE RTE 3
 PLAN

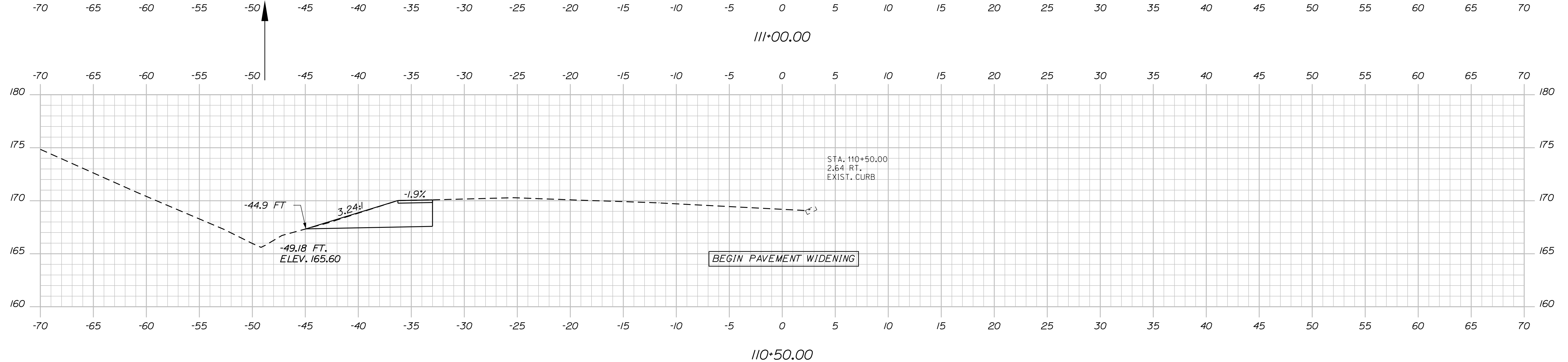
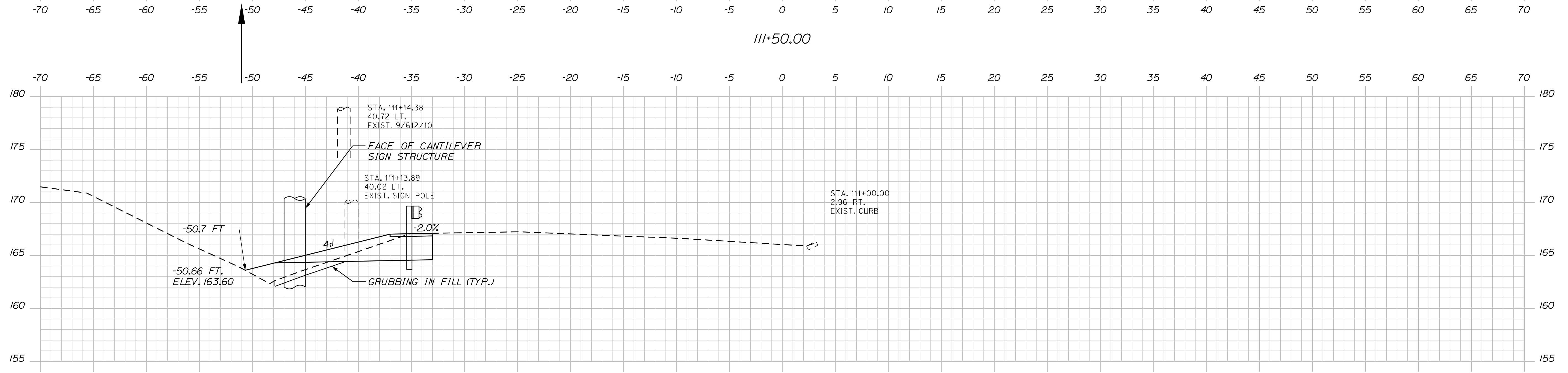
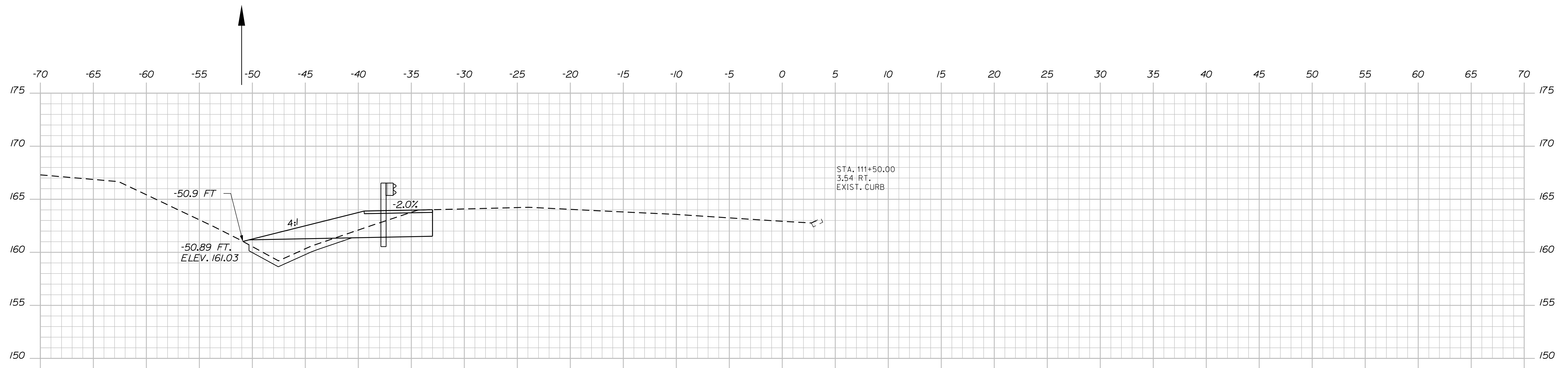
SHEET NUMBER
 12
 OF 23

Date: 2/7/2018

Username: stabbals

Division: HIGHWAY

Filename: ... \MSTAD013_XSECT_110+50_001.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP2268(300)
WIN
22683.00
HIGHWAY PLANS

DESIGNED	CHECKED	DATE
BY	DATE	
SIGNATURE	P.E. NUMBER	DATE

PROJ. MANAGER	DESIGN DETAILED	CHECKED/REVIEWED	DESIGN DETAILED	DESIGN DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
A. GOURNEAU II	M. DEROWSKI	S. BABALS	T. WHITNEY						

BELFAST
US ROUTE 1 \ STATE RTE 3
CROSS SECTIONS

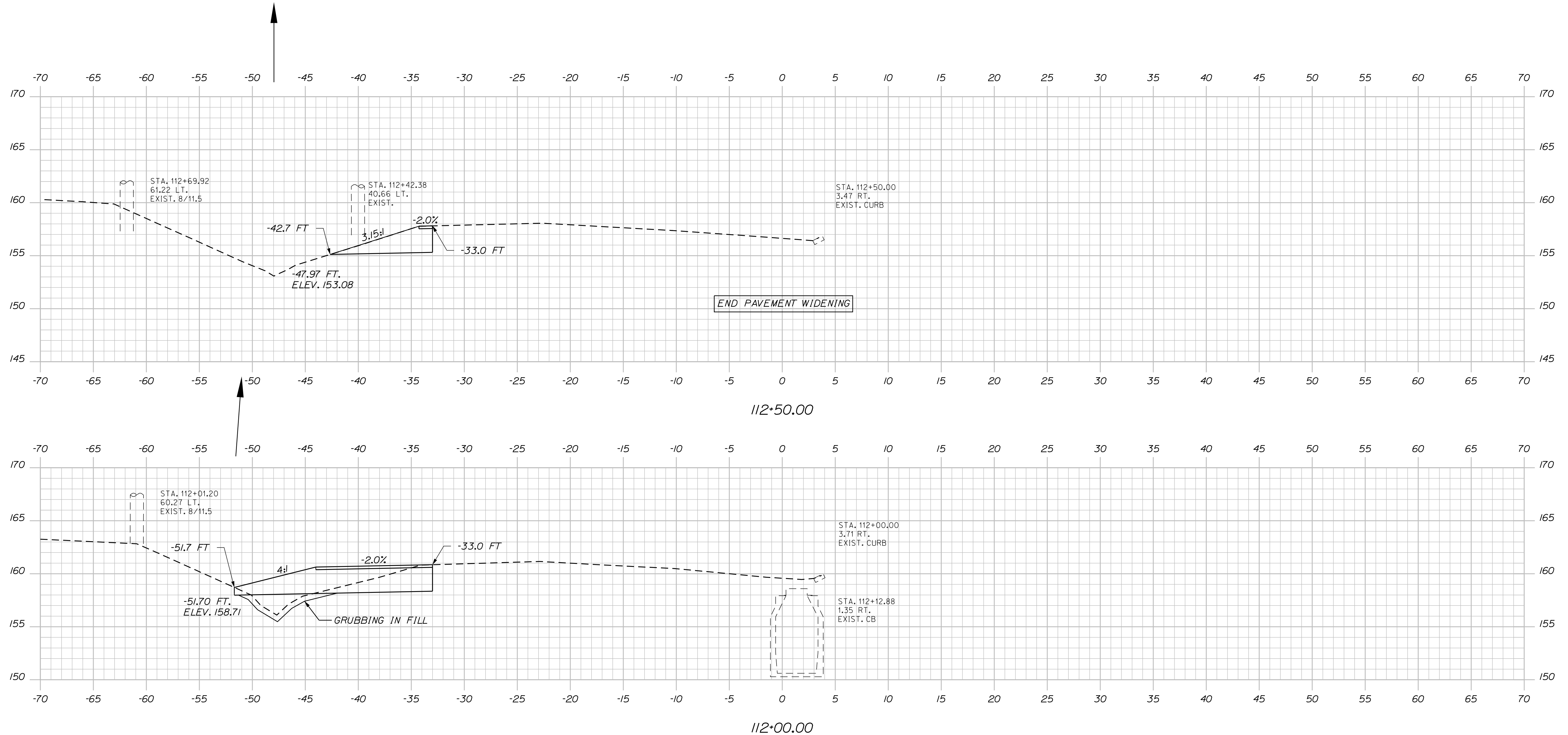
SHEET NUMBER
13
OF 23

Date: 2/7/2018

Username: sbabalis

Division: HIGHWAY

Filename: ... \MSTAD014_XSECT_112+00_002.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP2268(300)
WIN
22683.00
HIGHWAY PLANS

PROJ. MANAGER: A. GOURNEAU II
BY: M. DEROWSKI
CHECKED/REVIEWED: S. BABALIS
DESIGNED/DETAILED: T. WHITNEY
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE
SIGNATURE
P.E. NUMBER
DATE

BELFAST
US ROUTE 1 \ STATE RTE 3
CROSS SECTIONS

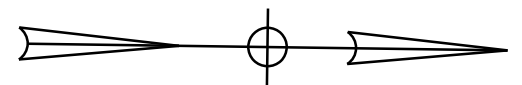
SHEET NUMBER
14
OF 23

Date: 2/7/2018

Username: stabbals

Division: HIGHWAY

Filename: ... \MSTAD015_SPM_HDPLAN01.DGN



ROUTE 3 OFF RAMP

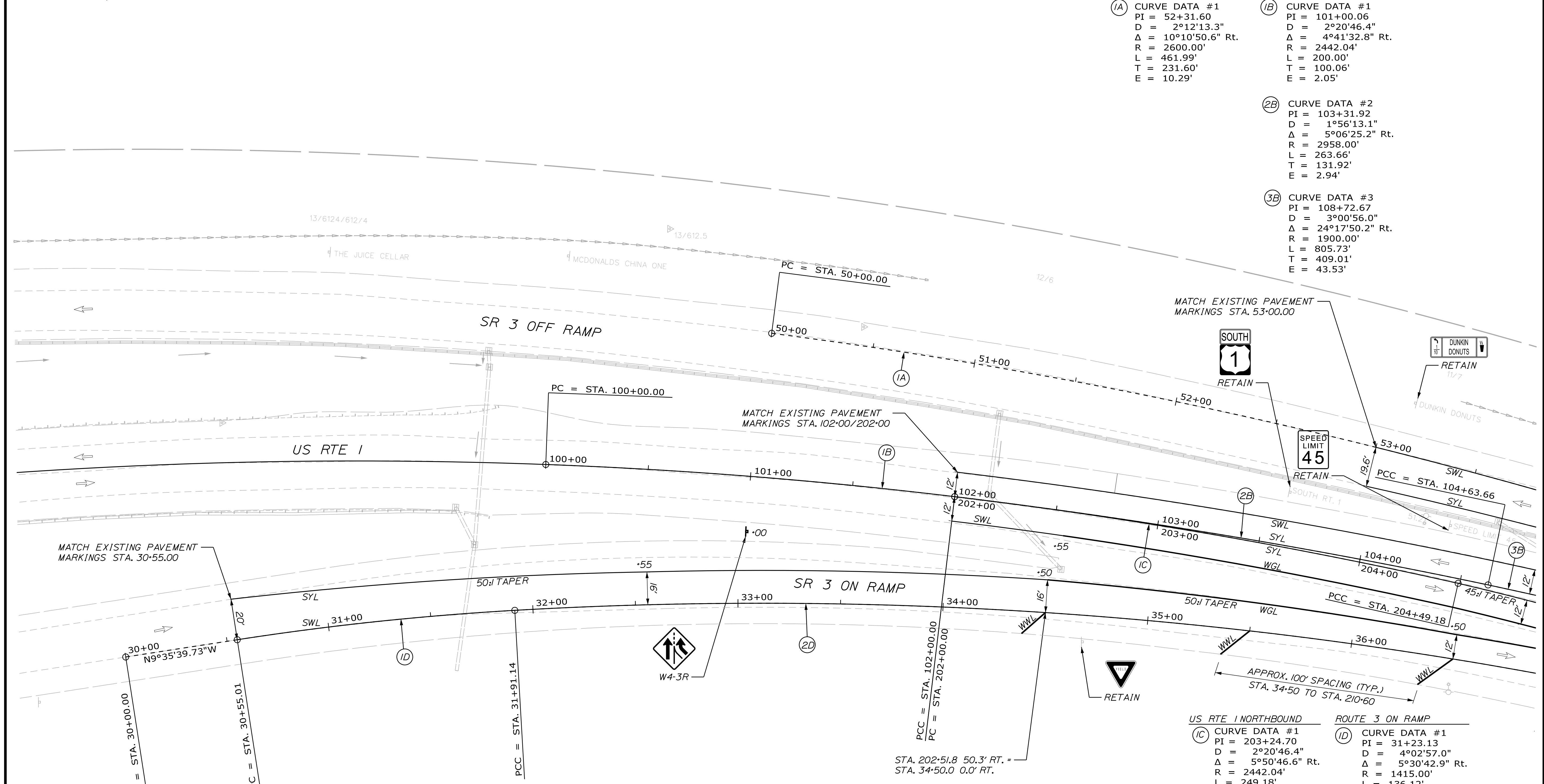
(1A) CURVE DATA #1
 PI = 52+31.60
 D = 2°12'13.3"
 Δ = 10°10'50.6" Rt.
 R = 2600.00'
 L = 461.99'
 T = 231.60'
 E = 10.29'

US RTE 1 SOUTHBOUND

(1B) CURVE DATA #1
 PI = 101+00.06
 D = 2°20'46.4"
 Δ = 4°41'32.8" Rt.
 R = 2442.04'
 L = 200.00'
 T = 100.06'
 E = 2.05'

(2B) CURVE DATA #2
 PI = 103+31.92
 D = 1°56'13.1"
 Δ = 5°06'25.2" Rt.
 R = 2958.00'
 L = 263.66'
 T = 131.92'
 E = 2.94'

(3B) CURVE DATA #3
 PI = 108+72.67
 D = 3°00'56.0"
 Δ = 24°17'50.2" Rt.
 R = 1900.00'
 L = 805.73'
 T = 409.01'
 E = 43.53'



LEGEND

SWL	SOLID WHITE 4" LINE	—	CENTERLINE
SYL	SOLID YELLOW 4" LINE	←	DIRECTIONAL ARROW PAVEMENT MARKING
DYL	DOUBLE YELLOW 4" LINE	3	ROUTE NUMBER PAVEMENT MARKING
DL	DOTTED WHITE 4" LINE (3' LINE & 9' GAP)	RT	ROUTE PAVEMENT MARKING
WDL	WIDE DOTTED WHITE 8" LINE (3' LINE & 9' GAP)	ONLY	"ONLY" PAVEMENT MARKING
WGL	WIDE WHITE GORE LINE (8")	←	DIRECTIONAL FLOW ARROW
WWL	WIDE WHITE LINE (12")		
—	EXISTING SINGLE SIGN POST		
—	EXISTING DOUBLE SIGN POST		
—	PROPOSED SINGLE SIGN POST		

NOTES:

1. ALL WORK TO CONFORM TO MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND STANDARD DETAILS
2. ALL PROPOSED WORK SHALL BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND "STANDARD HIGHWAY SIGNS", U.S.D.O.T., F.H.W.A. LATEST EDITION.
3. PAYMENT FOR REMOVAL OF EXISTING SIGNS SHALL BE INCIDENTAL TO OTHER SIGNING ITEMS.
4. THE CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED MARKINGS. PAYMENT WILL BE UNDER ITEM 627.77 REMOVE EXISTING PAVEMENT MARKINGS.
5. STRIPING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY. THE ACTUAL STRIPING SHALL BE DETERMINED IN THE FIELD, AS DIRECTED BY THE RESIDENT TRAFFIC ENGINEER.

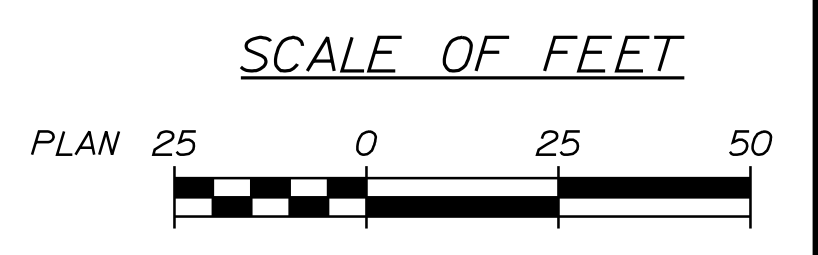
US RTE 1 NORTHBOUND

(1C) CURVE DATA #1
 PI = 203+24.70
 D = 2°20'46.4"
 Δ = 5°50'46.6" Rt.
 R = 2442.04'
 L = 249.18'
 T = 124.70'
 E = 3.18'

ROUTE 3 ON RAMP

(1D) CURVE DATA #1
 PI = 31+23.13
 D = 4°02'57.0"
 Δ = 5°30'42.9" Rt.
 R = 1415.00'
 L = 136.12'
 T = 68.11'
 E = 1.64'

(2D) CURVE DATA #2
 PI = 34+46.16
 D = 2°43'42.1"
 Δ = 13°50'53.4" Rt.
 R = 2100.00'
 L = 507.56'
 T = 255.02'
 E = 15.43'



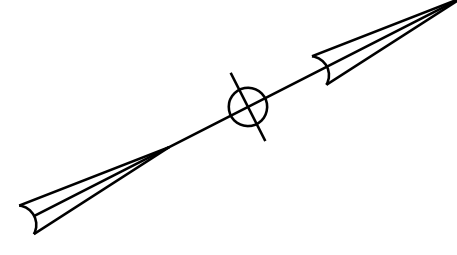
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		HSIP 2268(300)		WIN 22683.00	HIGHWAY PLANS
BELFAST US ROUTE 1 / STATE RTE 3		SIGNS & PVMT. MARKINGS		SHEET NUMBER 15 OF 23	
PROJ. MANAGER	A. GOURNEAU II	BY		DATE	
DESIGN-DETAILED	M. DEBOWSK	CHECKED-REVIEWED	S. BABALIS	SIGNATURE	
DESIGN-DETAILED	T. WHITNEY	DESIGN-DETAILED	T. WHITNEY	P.E. NUMBER	
REVISIONS 1		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 4			
FIELD CHANGES					

Date: 2/7/2018

Username: sbabalis

Division: HIGHWAY

Filename: ... \MSTA\017_SPM_HDPLAN\03.DGN



US RTE 1/RTE 3 SOUTHBOUND

(3B) CURVE DATA #3
 PI = 108+72.67
 D = 3°00'56.0"
 Δ = 24°17'50.2" Rt.
 R = 1900.00'
 L = 805.73'
 T = 409.01'
 E = 43.53'

(4B) CURVE DATA #4
 PI = 115+03.80
 D = 2°18'10.4"
 Δ = 10°45'53.3" Rt.
 R = 2488.00'
 L = 467.45'
 T = 234.41'
 E = 11.02'

(5B) CURVE DATA #5
 PI = 121+72.66
 D = 2°11'33.8"
 Δ = 18°56'19.2" Rt.
 R = 2613.00'
 L = 863.71'
 T = 435.83'
 E = 36.10'

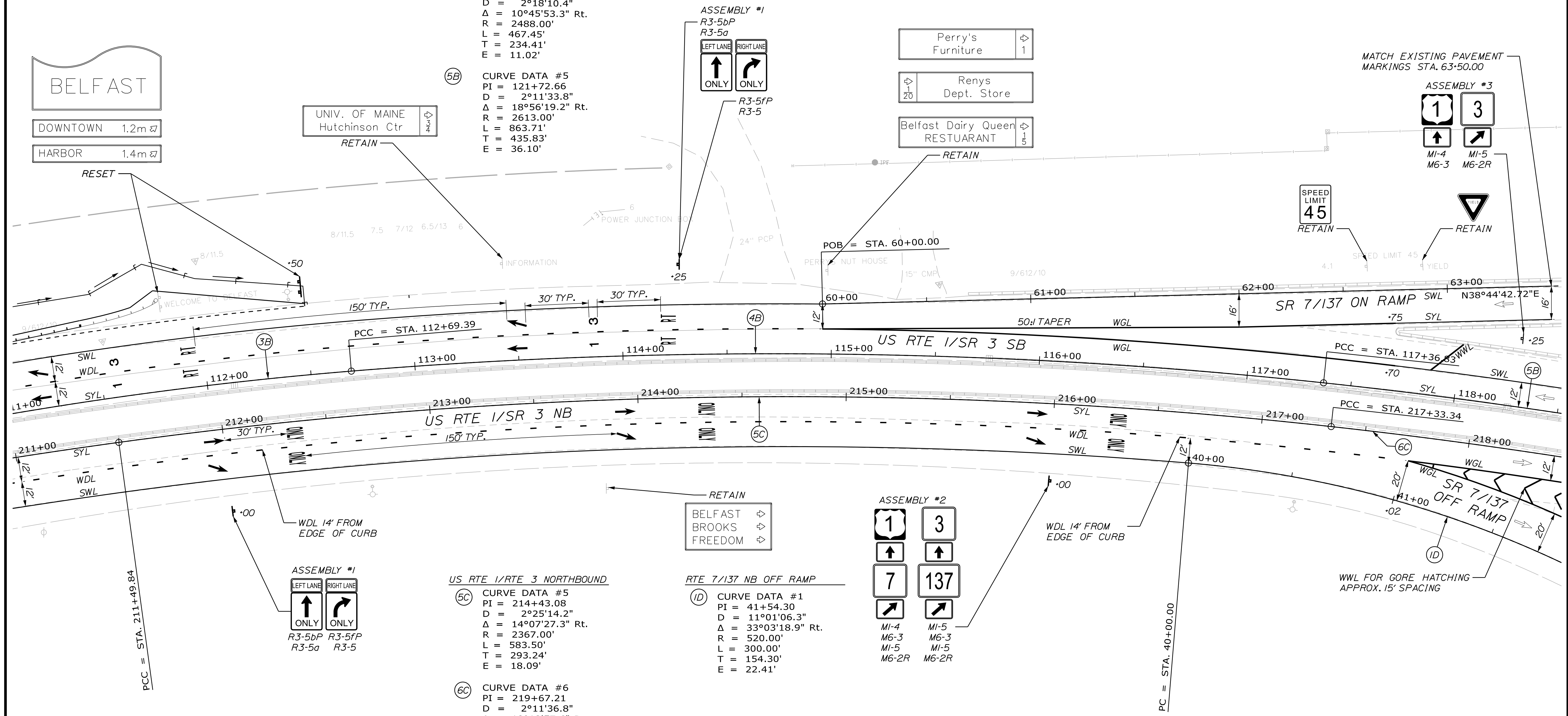
US RTE 1/RTE 3 NORTHBOUND

(5C) CURVE DATA #5
 PI = 214+43.08
 D = 2°25'14.2"
 Δ = 14°07'27.3" Rt.
 R = 2367.00'
 L = 583.50'
 T = 293.24'
 E = 18.09'

(6C) CURVE DATA #6
 PI = 219+67.21
 D = 2°11'36.8"
 Δ = 10°13'57.6" Rt.
 R = 2612.00'
 L = 466.49'
 T = 233.87'
 E = 10.45'

RTE 7/137 NB OFF RAMP

(1D) CURVE DATA #1
 PI = 41+54.30
 D = 11°01'06.3"
 Δ = 33°03'18.9" Rt.
 R = 520.00'
 L = 300.00'
 T = 154.30'
 E = 22.41'



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HSIP 2268(300)

WIN 22683.00
 HIGHWAY PLANS

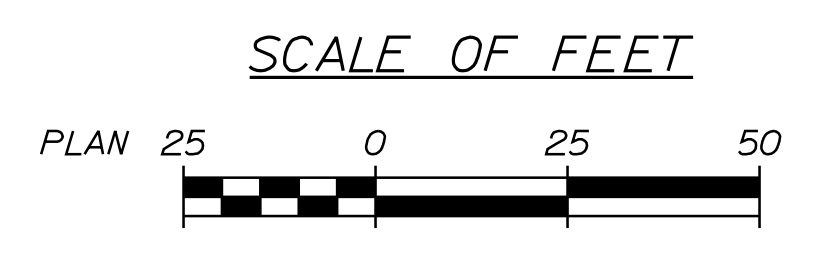
PROJ. MANAGER	A. GOURNEAU II	DATE
DESIGN DETAILED	M. DEBOWSKI	
CHECKED/REVIEWED	S. BABALIS	
DESIGN DETAILED	T. WHITNEY	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BELFAST
 US ROUTE 1 \ STATE RTE 3
 SIGNS & PVMT. MARKINGS

SHEET NUMBER

17

OF 23

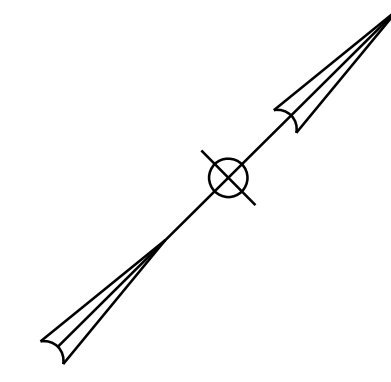


Date: 2/7/2018

Username: sbabalis

Division: HIGHWAY

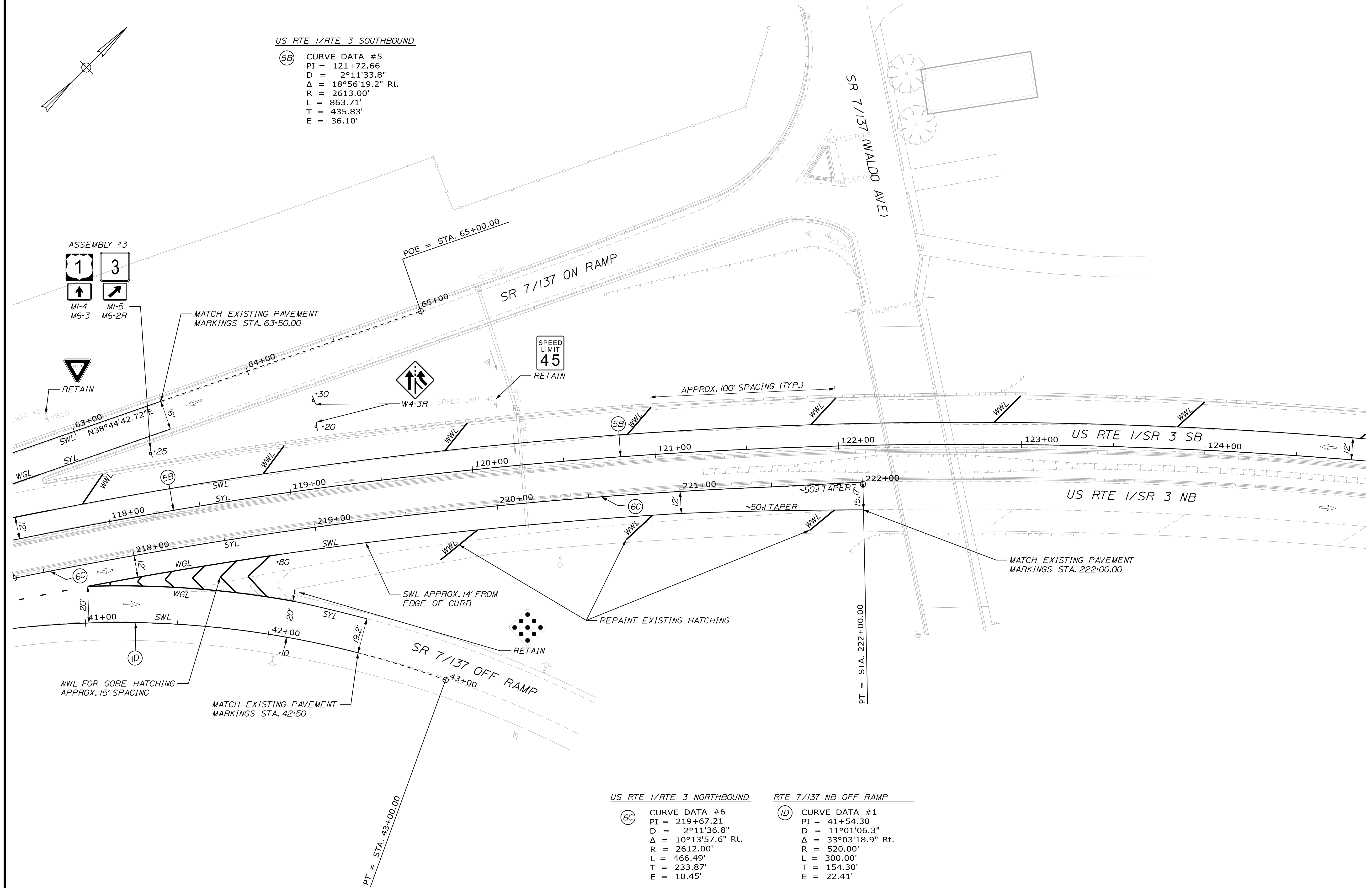
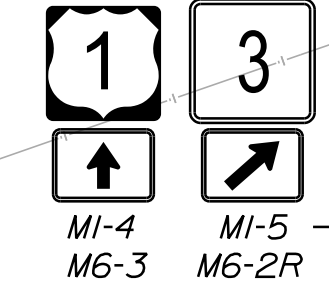
Filename: ... \MSTAD018_SPM_HDPLAN04.DGN



US RTE 1/RTE 3 SOUTHBOUND

(5B) CURVE DATA #5
 PI = 121+72.66
 D = 2°11'33.8"
 Δ = 18°56'19.2" Rt.
 R = 2613.00'
 L = 863.71'
 T = 435.83'
 E = 36.10'

ASSEMBLY #3



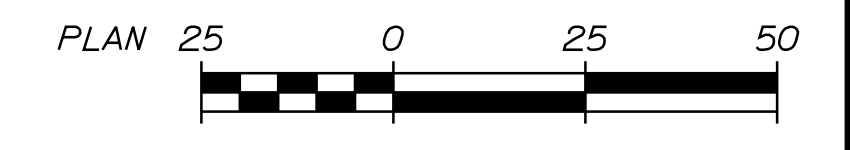
US RTE 1/RTE 3 NORTHBOUND

(6C) CURVE DATA #6
 PI = 219+67.21
 D = 2°11'36.8"
 Δ = 10°13'57.6" Rt.
 R = 2612.00'
 L = 466.49'
 T = 233.87'
 E = 10.45'

RTE 7/137 NB OFF RAMP

(1D) CURVE DATA #1
 PI = 41+54.30
 D = 11°01'06.3"
 Δ = 33°03'18.9" Rt.
 R = 520.00'
 L = 300.00'
 T = 154.30'
 E = 22.41'

SCALE OF FEET



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HSIP2268(300)
 WIN 22683.00
 HIGHWAY PLANS

SIGNATURE	P.E. NUMBER	DATE

DESIGN DETAILED	CHECKED/REVIEWED	DESIGNED/DETAILED	DESIGNED/DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
M. DEROWSKI	S. BABALIS	S. BABALIS	T. WHITNEY					

BELFAST
 US ROUTE 1 \ STATE RTE 3
 SIGNS & PVMT. MARKINGS

SHEET NUMBER

18

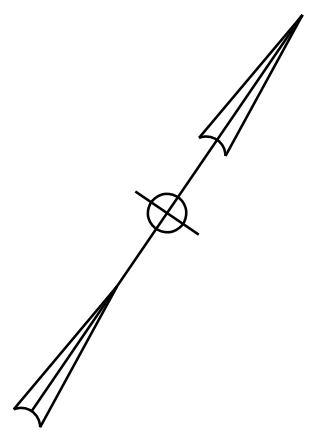
OF 23

Date: 2/7/2018

Username: stabbals

Division: HIGHWAY

Filename: ... \MSTA\019_SPM_HDPLAN05.DGN



US RTE 1/RTE 3 SOUTHBOUND

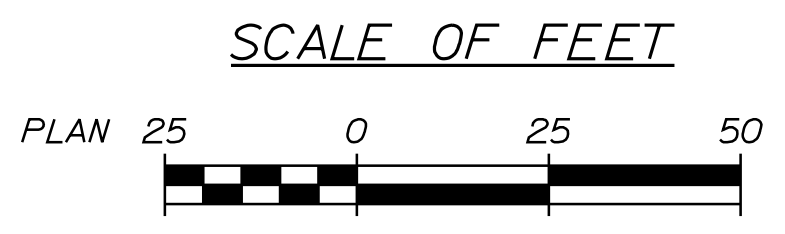
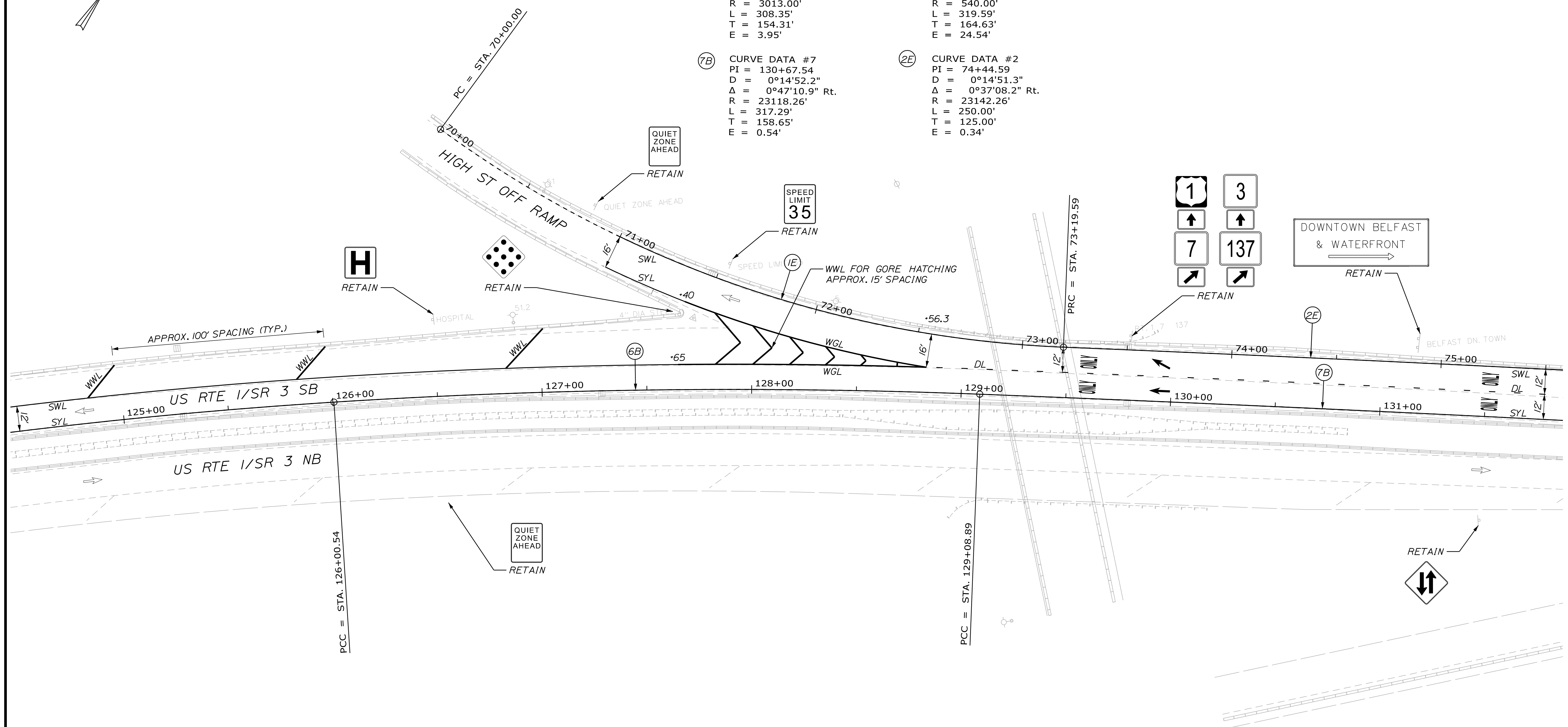
(6B) CURVE DATA #6
 PI = 127+54.85
 D = 1°54'05.8"
 Δ = 5°51'49.0" Rt.
 R = 3013.00'
 L = 308.35'
 T = 154.31'
 E = 3.95'

(7B) CURVE DATA #7
 PI = 130+67.54
 D = 0°14'52.2"
 Δ = 0°47'10.9" Rt.
 R = 23118.26'
 L = 317.29'
 T = 158.65'
 E = 0.54'

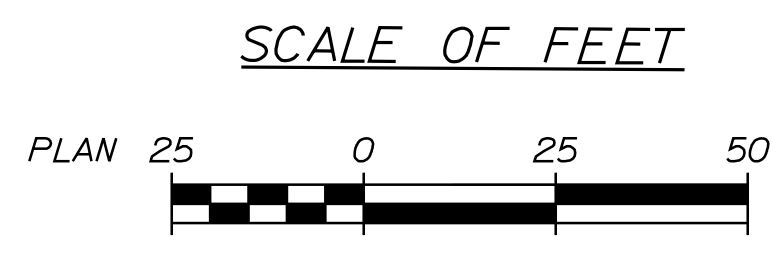
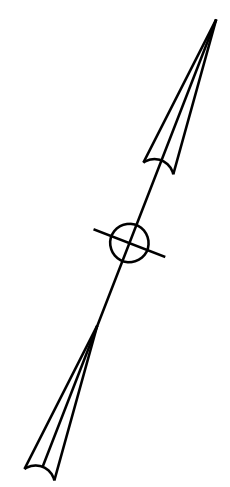
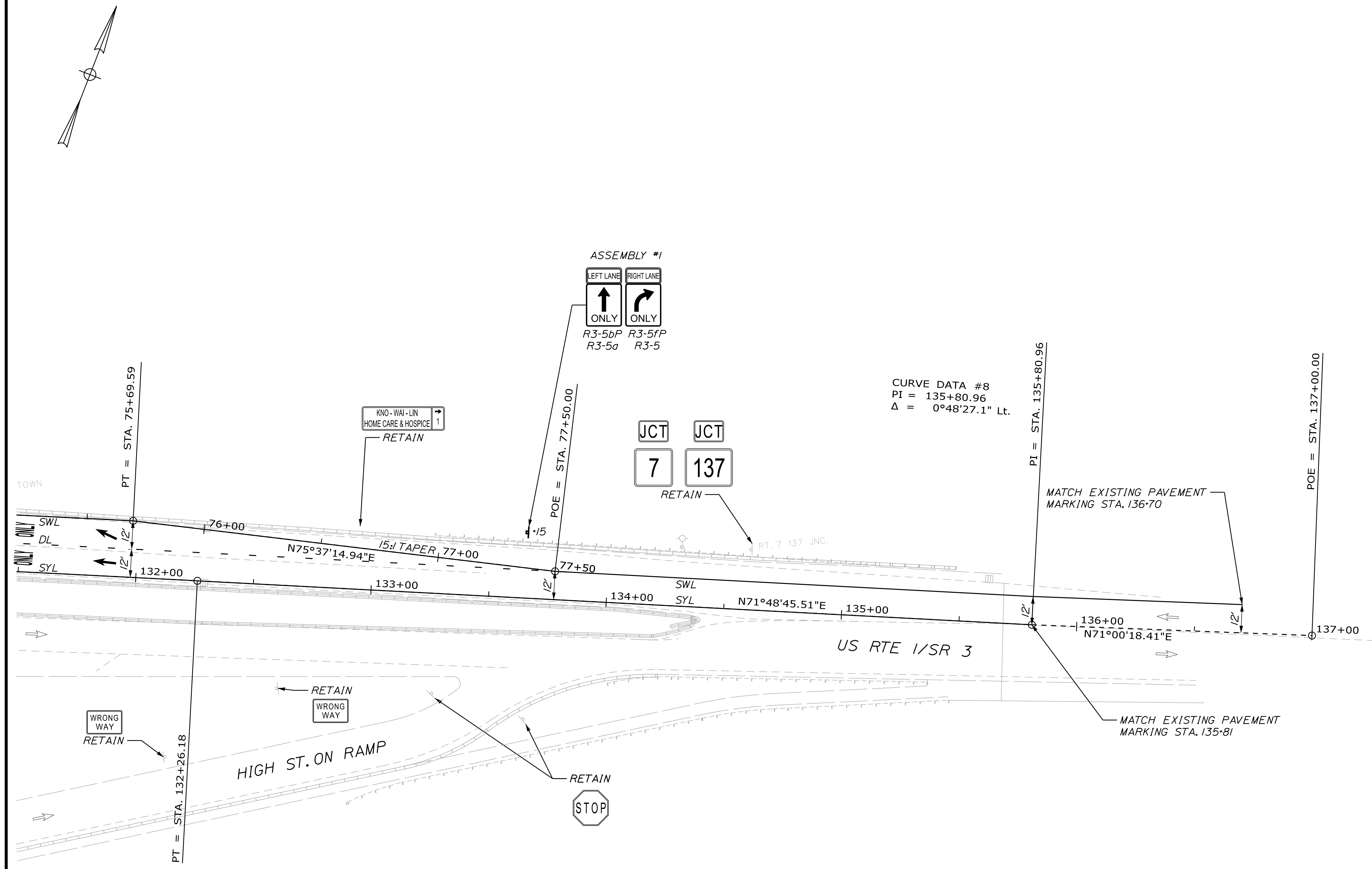
HIGH ST SB OFF RAMP

(1E) CURVE DATA #1
 PI = 71+64.63
 D = 10°36'37.2"
 Δ = 33°54'33.2" Lt.
 R = 540.00'
 L = 319.59'
 T = 164.63'
 E = 24.54'

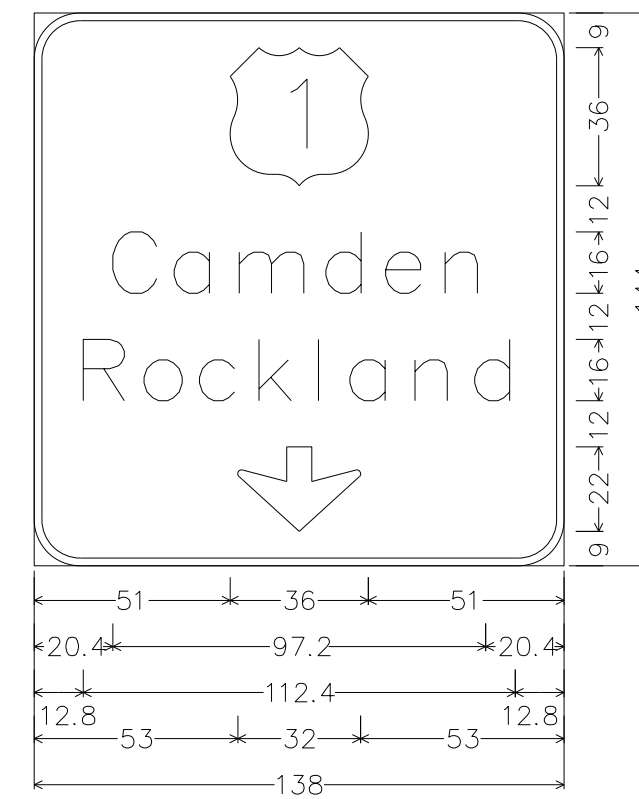
(2E) CURVE DATA #2
 PI = 74+44.59
 D = 0°14'51.3"
 Δ = 0°37'08.2" Rt.
 R = 23142.26'
 L = 250.00'
 T = 125.00'
 E = 0.34'



STATE OF MAINE																												
DEPARTMENT OF TRANSPORTATION																												
HSIP 2268(300)																												
WIN 22683.00 HIGHWAY PLANS																												
BELFAST US ROUTE 1 \ STATE RTE 3 SIGNS & PVMT. MARKINGS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PROJ. MANAGER</th> <th>A. GOURNEAU II</th> <th>DATE</th> </tr> <tr> <td>DESIGN/REVIEWED</td> <td>M. DEROWSKI</td> <td></td> </tr> <tr> <td>CHECKED/REVIEWED</td> <td>S. BABALUS</td> <td></td> </tr> <tr> <td>DESIGN/DET. TAILED</td> <td>T. WHITNEY</td> <td></td> </tr> <tr> <td>REVISIONS 1</td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 2</td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 3</td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 4</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">FIELD CHANGES</td> </tr> </table>	PROJ. MANAGER	A. GOURNEAU II	DATE	DESIGN/REVIEWED	M. DEROWSKI		CHECKED/REVIEWED	S. BABALUS		DESIGN/DET. TAILED	T. WHITNEY		REVISIONS 1			REVISIONS 2			REVISIONS 3			REVISIONS 4			FIELD CHANGES		
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19																												
OF 23																												



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		HSIP 2268(300)		WIN 22683.00		HIGHWAY PLANS	
BELFAST US ROUTE 1 \ STATE RTE 3		SIGNS & PVMT. MARKINGS		SHEET NUMBER		20	
OF 23		DATE		SIGNATURE		P.E. NUMBER	
PROJ. MANAGER		BY		DATE		DATE	
DESIGN DETAILED		M. DEROWSKI					
CHECKED/REVIEWED		S. BABALIS					
DESIGN DETAILED		T. WHITNEY					
REVISIONS 1							
REVISIONS 2							
REVISIONS 3							
REVISIONS 4							
FIELD CHANGES							



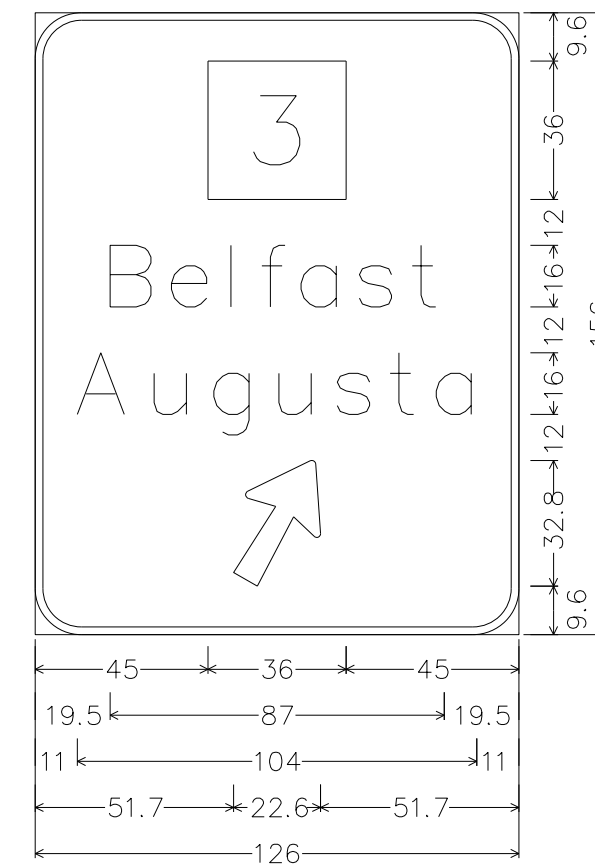
GUIDE SIGN 1 (GS-1)

US ROUTE 1
STA. 111+00.00 LT

TYPE 1

BORDER
R=12"
TH=2.0"

ARROW
L=22"
ANGLE=270°



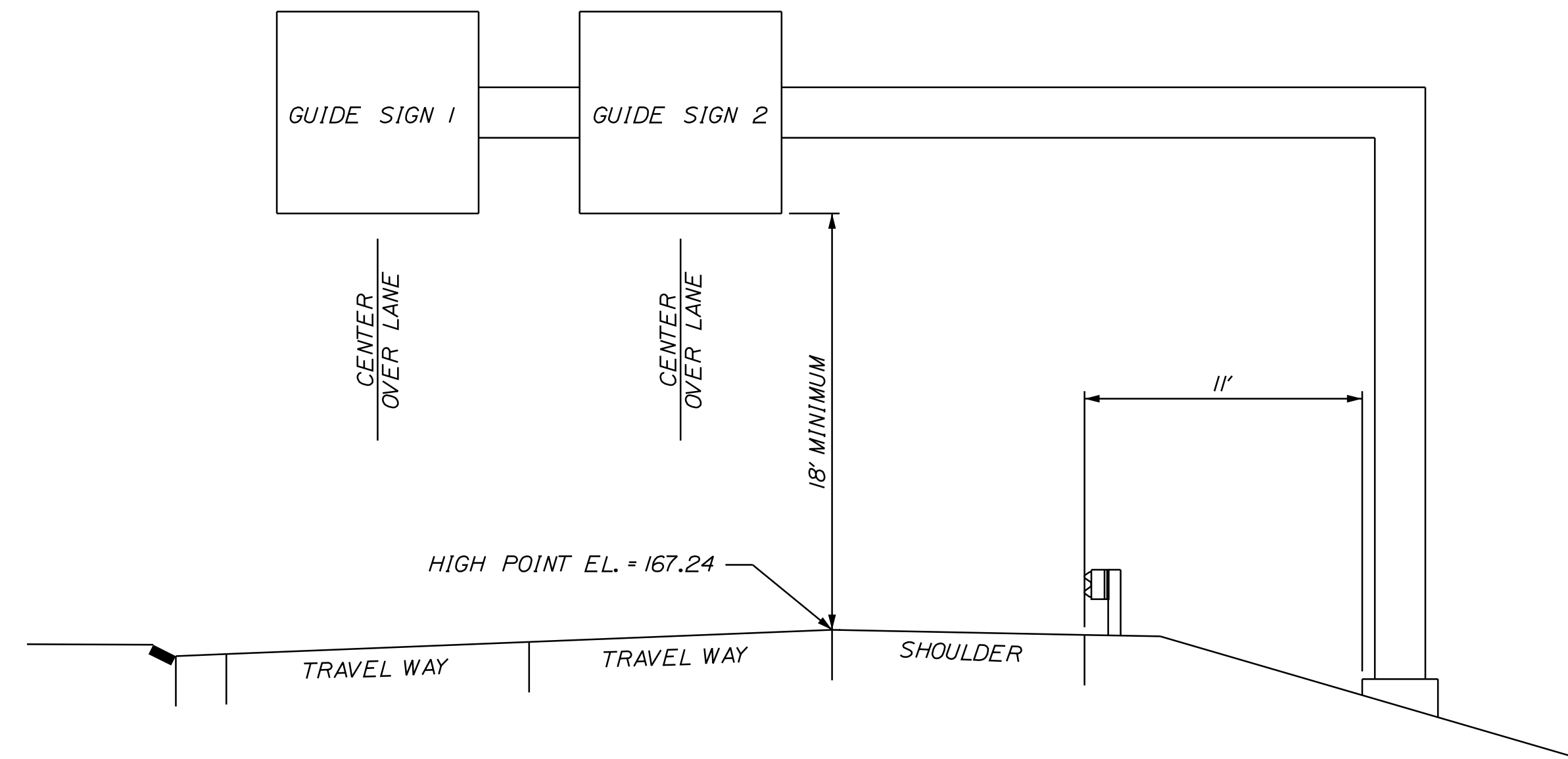
GUIDE SIGN 2 (GS-2)

STATE ROUTE 3
STA. 111+00.00 LT

TYPE 1

BORDER
R=12"
TH=2.0"

ARROW
L=35.6"
ANGLE=60°



CANTILEVER SIGN STRUCTURE DETAIL

CANTILEVER STRUCTURE NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL DESIGN OF THE SIGN SUPPORT STRUCTURES AND FOUNDATIONS, ATTACHMENT OF SIGNS TO THE MONOTUBE OR TRUSS ARMS, AND CONNECTION OF STRUCTURES TO FOUNDATIONS FOR OVERHEAD SIGNING. ALL DESIGNS SHALL BE PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE. DESIGN COMPUTATIONS, INCLUDING DESIGN LOADS (OVERTURNING MOMENT, TORSION, SHEAR AND AXIAL) AT THE TOP OF THE FOUNDATIONS, AND SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL BY THE DEPARTMENT. NO MATERIALS SHALL BE ORDERED OR FABRICATED UNTIL THE DESIGN HAS BEEN APPROVED.

2. THE LOCATIONS OF THE PROPOSED OVERHEAD SIGNAGE ALONG THE ROADWAY WILL BE AS SHOWN ON THE PLANS.

3. A TEST BORING WAS DRILLED BY MAINE DOT IN THE GENERAL VICINITY OF THE CANTILEVER SIGN STRUCTURE. BORING LOG IS SHOWN ON THE BORING LOCATION PLAN. DESIGN LOADS AT THE TOP OF THE FOUNDATION THAT ARE PROVIDED BY THE CONTRACTOR AS PART OF THEIR SUBMITTAL WILL BE USED BY THE DEPARTMENT TO CHECK THE FOUNDATION DESIGN. THE MAINE DOT WILL BE PROVIDED A SCHEDULE OF STEEL REINFORCING WHEN THE CONTRACTOR'S SUBMITTAL IS RECEIVED. DRILLED SHAFTS SHALL NOT BE PERMANENTLY CASED, EXCEPT FOR THE TOP 3 FEET. CONCRETE SHALL BE CAST DIRECTLY AGAINST THE SURROUNDING SOIL. IF SOIL CONDITIONS DIFFER MATERIALLY FROM THOSE DESCRIBED ON THE BORING LOGS THE CONTRACTOR SHALL STOP WORK ON THAT FOUNDATION AND CONTACT THE RESIDENT ENGINEER.

4. ALL DESIGN, MATERIALS AND FABRICATION OF SIGNS, SIGN SUPPORTS STRUCTURES AND FOUNDATIONS SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE "AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", THE "STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS, REVISION OF NOVEMBER 2014" AND SUPPLEMENTAL SPECIFICATIONS THERETO, AND THE "STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, REVISION OF NOVEMBER 2014" AND LATEST REVISIONS.

5. BASIC WIND SPEED FOR CALCULATION OF WIND LOADS SHALL USE THE 50-YEAR MEAN RECURRENCE INTERVAL 3-SECOND GUST SPEED ISOTACH MAP OF THE AASHTO SPECIFICATIONS.

6. MINIMUM FATIGUE DESIGN DEFAULT VALUES FOR CANTILEVERED SIGN SUPPORT STRUCTURES SHALL BE CLASSIFIED AS FATIGUED CATEGORY I WITH FATIGUE IMPORTANCE FACTORS (IF) OF 1.0 FOR GALLOPING, 1.0 FOR NATURAL WIND GUSTS AND 1.0 FOR TRUCK-INDUCED GUSTS.

7. ADDITIONAL THEORETICAL SIGN LOAD SHALL BE COMPUTED BY INCREASING THE SIGN WIDTHS OF THE MULTIPLE SIGN INSTALLATION BY 25% TOWARD THE OUTSIDE SIGN EDGES. THE HEIGHT FOR PURPOSES OF LOAD CALCULATIONS SHALL BE INCREASED BY 25% WITHOUT CHANGING THE BOTTOM EDGE ELEVATION OF THE SIGNS.

8. THE SPECIFIED MINIMUM VERTICAL CLEARANCE OF SIGNS AND SUPPORT STRUCTURES APPLIES TO THE MAXIMUM DEFLECTED POSITION OVER THE ROADWAY.

9. CONCRETE FOR THE OVERHEAD SIGN STRUCTURE FOUNDATIONS SHALL BE CLASS LP.

10. ANY DAMAGE TO SLOPES OR PAVEMENT RESULTING FROM THE INSTALLATION OF OVERHEAD SIGNS STRUCTURE AND FOUNDATIONS SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED BY THE RESIDENT. COSTS OF REPAIRS SHALL BE INCIDENTAL TO PAYMENT UNDER SECTION 645.

11. PAYMENT FOR OVERHEAD SIGNING WILL BE MADE UNDER PAY ITEM 645.15, CANTILEVER GUIDE SIGN AND PAY ITEM 626.37 SPECIAL FOUNDATION, AND WILL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS FOR THE ACCEPTED COMPLETE SIGN INSTALLATIONS INCLUDING, BUT NOT LIMITED TO, OVERHEAD SIGNS, SIGN SUPPORT STRUCTURE AND FOUNDATIONS, EXCAVATION, EXCAVATION STABILIZATION, BACKFILL, SLOPE REGRADEING, AND PLACEMENT OF LOAM, SEED AND MULCH ON DISTURBED SLOPES. PAYMENT FOR CONSTRUCTION TRAFFIC CONTROL WILL BE MADE UNDER APPLICABLE PAY ITEMS OF SECTION 652.

OVERHEAD SIGN SUMMARY NOTES

1. SIGN TEXT SHALL CONFORM TO MUTCD.

2. SIGN TYPE SHALL MEET THE REQUIREMENTS FOR TYPE 1 SIGNS.

3. REFLECTIVE SHEETING FOR OVERHEAD SIGNS SHALL BE HIGH INTENSITY PRISMATIC GRADE.

4. DIMENSIONS ARE IN INCHES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP2268(300)
WIN
22683.00
HIGHWAY PLANS

PROJ. MANAGER	A. GOURNEAU II	DATE
CHECKED-REVIEWED	M. DEBOWSKI	
DESIGN-DETAILED	S. BABALIS	
DESIGN-DETAILED	T. WHITNEY	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BELFAST
US ROUTE 1 \ STATE RTE 3
SIGN STRUCTURE DETAIL

SHEET NUMBER

22

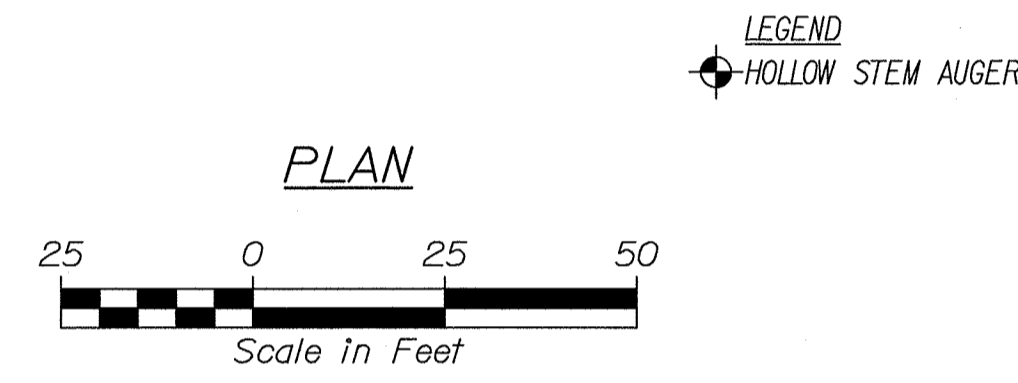
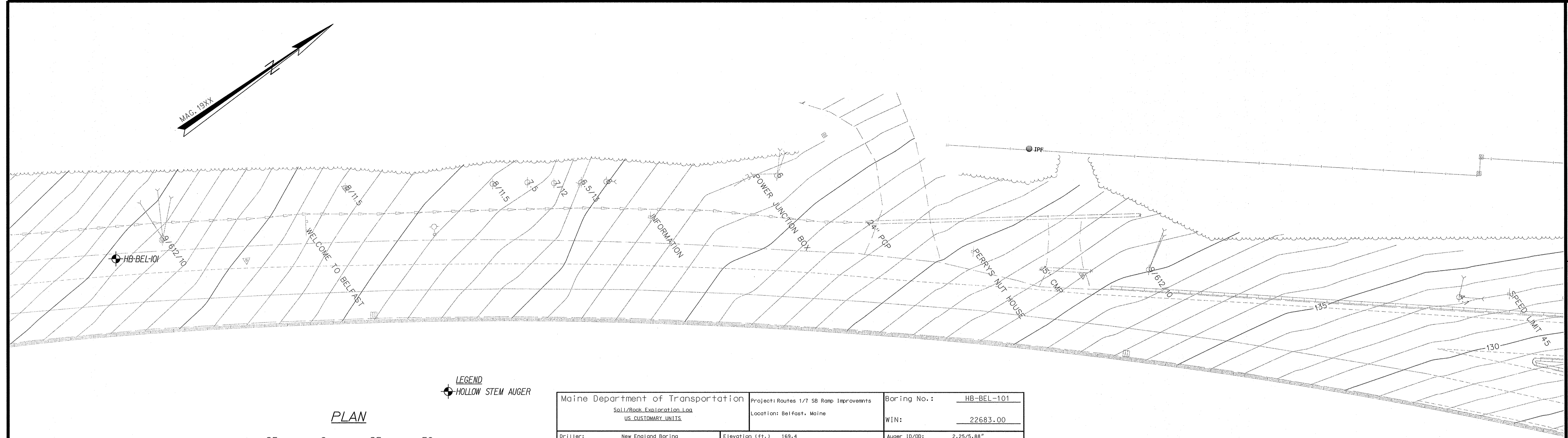
OF 23

Date: 1/12/2018

Username: Kate Maguire

Division: GEOTECH

Filename: ... \MSTA\001\BLPWBL&FDR.dgn



Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS		Project: Routes 1/7 SB Ramp Improvements Location: Belfast, Maine		Boring No.: HB-BEL-101 WIN: 22683.00							
Driller: New England Boring	Elevation (ft.): 169.4	Auger ID/OD: 2.25/5.88"									
Operator: Schoefer/Royal	Datum: NAVD88	Sampler: Standard Split Spoon									
Logged By: Be Schonewald	Rig Type: Mobile B-51	Hammer Wt./Fall: 140#/30"									
Date Start/Finish: 12/21/2017: 08:55-12:00	Drilling Method: Hollow Stem Auger	Core Barrel: N/A									
Boring Location:	Casing ID/OD: N/A	Water Level: covered at 15'-0" bgs.									
Hammer Efficiency Factor: 0.6	Hammer Type: Automatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input checked="" type="checkbox"/>										
<small> Definitions: B = Rock Core Sample S_u = Peak/Retained Field Vane Undrained Shear Strength (psf) T_v = Pocket Torvane Shear Strength (psf) D = Split Spoon Sample S_{u(L)} = Lab Vane Undrained Shear Strength (psf) W = Water Content, percent MD = Unsuccessful Split Spoon Sample Attempt HSA = Hollow Stem Auger q_u = Unconfined Compressive Strength (ksf) LL = Liquid Limit U = Thin Wall Tube Sample RC = Roller Cone N_{uncorrected} = Raw Field SPT N-value PL = Plastic Limit MU = Unsuccessful Thin Wall Tube Sample Attempt W = Weight of 140lb. Hammer N_{corrected} = Raw Field SPT N-value V = Field Vane Shear Test. PP = Pocket Penetrometer/DVC = Weight of Rods or Casing Hammer Efficiency Factor = Rig Specific Annual Calibration Value = Plasticity Index NW = Unsuccessful Field Vane Shear Test Attempt MIP = Weight of One Person N₆₀ = SPT N-uncorrected Corrected for Hammer Efficiency G = Grain Size Analysis C = Consolidation Test </small>											
Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blow Count (1/2 in. Stroke) (pcf/100) (2)	N-uncorrected	N ₆₀	Casing Bore	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/AASHTO Unified Class
0								169.2		3" HMA.	
10	24/14	2.00 - 4.00	7/10/13/29	23	23					Brown, dry to damp, fine to coarse SANDY GRAVEL, little silt, (Road Gravels). 10 (3.0-4.0 ft bgs) Brown, moist, Silty fine to coarse SAND, some gravel, appears disturbed, (FILL).	
5	20	14.4/ 14.4	5.00 - 6.20	14/23/50(2.4")						Brown, gray and rust, moist, Silty fine to coarse SAND, little to some gravel, appears disturbed, (FILL). 8.0-10.0 ft bgs, Auger cuttings appear to be decomposed Phyllite, easily penetrated with augers.	
10	30	3.6/3.6	10.00 - 10.30	50(3.6")				159.4		Dark grey, wet, Gravelly SILT, some fine to coarse sand; fragments appear to be decomposed Phyllite. Easily penetrated by augers from 10.0-13.0 ft bgs.	
15										A moderate effort required to penetrate from 13.0-18.2 ft bgs.	
20								151.2		Grab sample of auger cuttings: Dark grey, moist to wet, fine to coarse SANDY SILT, some fine gravel.	
25										Bottom of Exploration at 18.20 feet below ground surface. Becomes very hard; practicable Auger REFUSAL at 18.2 ft bgs.	
30											
<small> 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. </small>											

Design of the foundation for the sign mast arm shall be based on Standard Details 626(03) and 626(04) using Charts P30-1, P30-2, and P30-3 (Soils with Phi = 30 degrees).

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP 2268(300)
WIN 22683.00
HIGHWAY PLANS

STATE OF MAINE
Kathleen Maguire
7120
LICENSED PROFESSIONAL ENGINEER

SIGNATURE: [Signature]
DATE: 1/12/18
P.E. NUMBER: 7120

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN-DETAILED	K. MAGUIRE	JAN 2018
DESIGN-DETAILED	T. WHITE	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BELFAST
ROUTE 1/7 NB/SB RAMP
BORING LOCATION PLAN
WITH BORING LOG &
FOUNDATION DESIGN RECOMMENDATIONS

SHEET NUMBER
23
OF 23