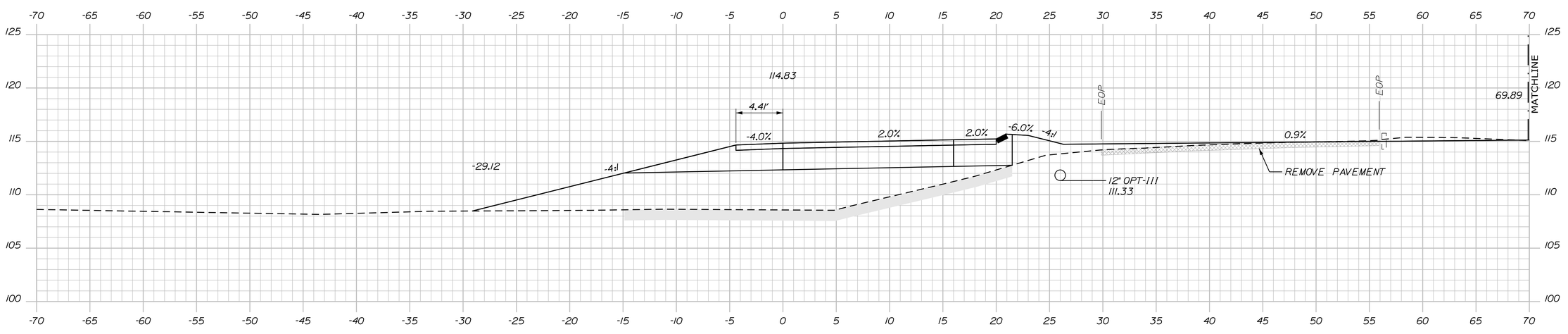
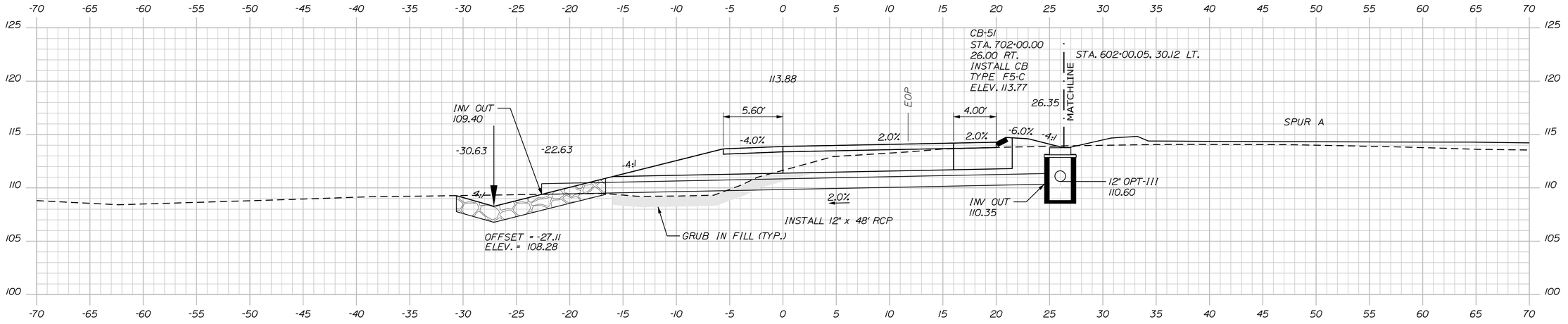
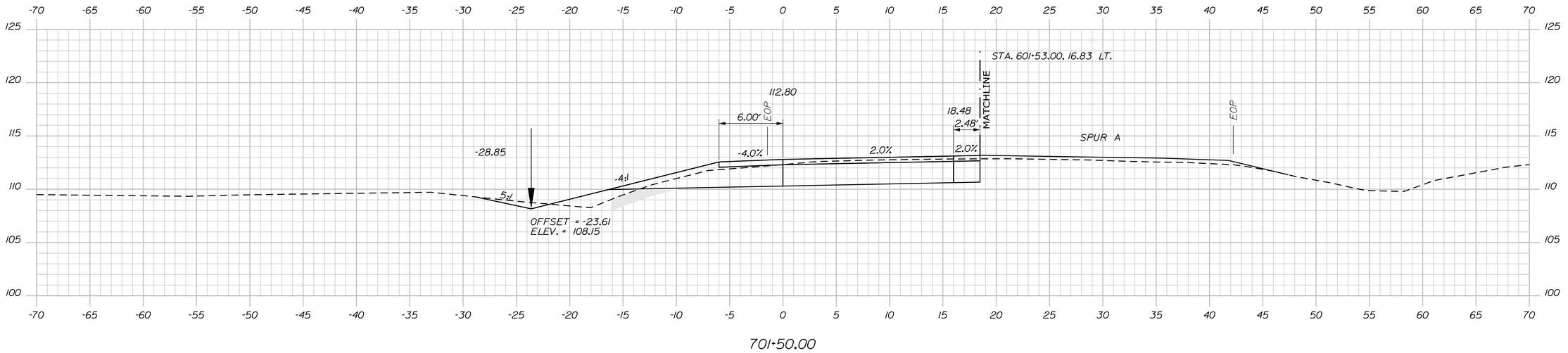


702+50.00



702+00.00



701+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		DATE
PROJ. MANAGER	L. ROWE	
DESIGN-DETAILED	ECF	11/25/2025
CHECKED-REVIEWED	ECF	11/25/2025
DESIGN2-DETAILED2	ECF	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BY: JBD, AG

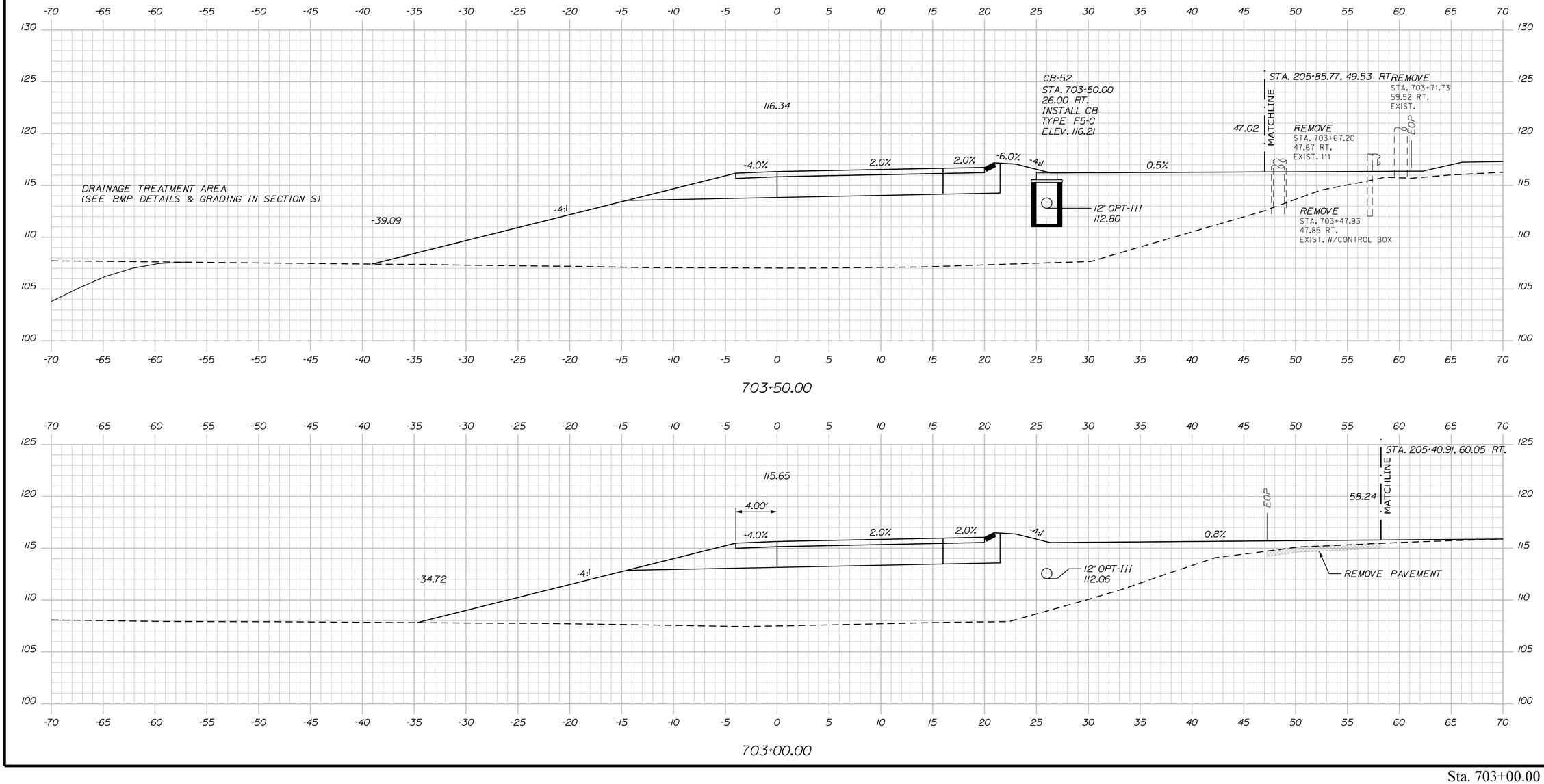
BANGOR
RAMP A

CROSS SECTIONS

SHEET NUMBER
H-106
252
OF 485

Sta. 701+50.00 to Sta. 702+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP A

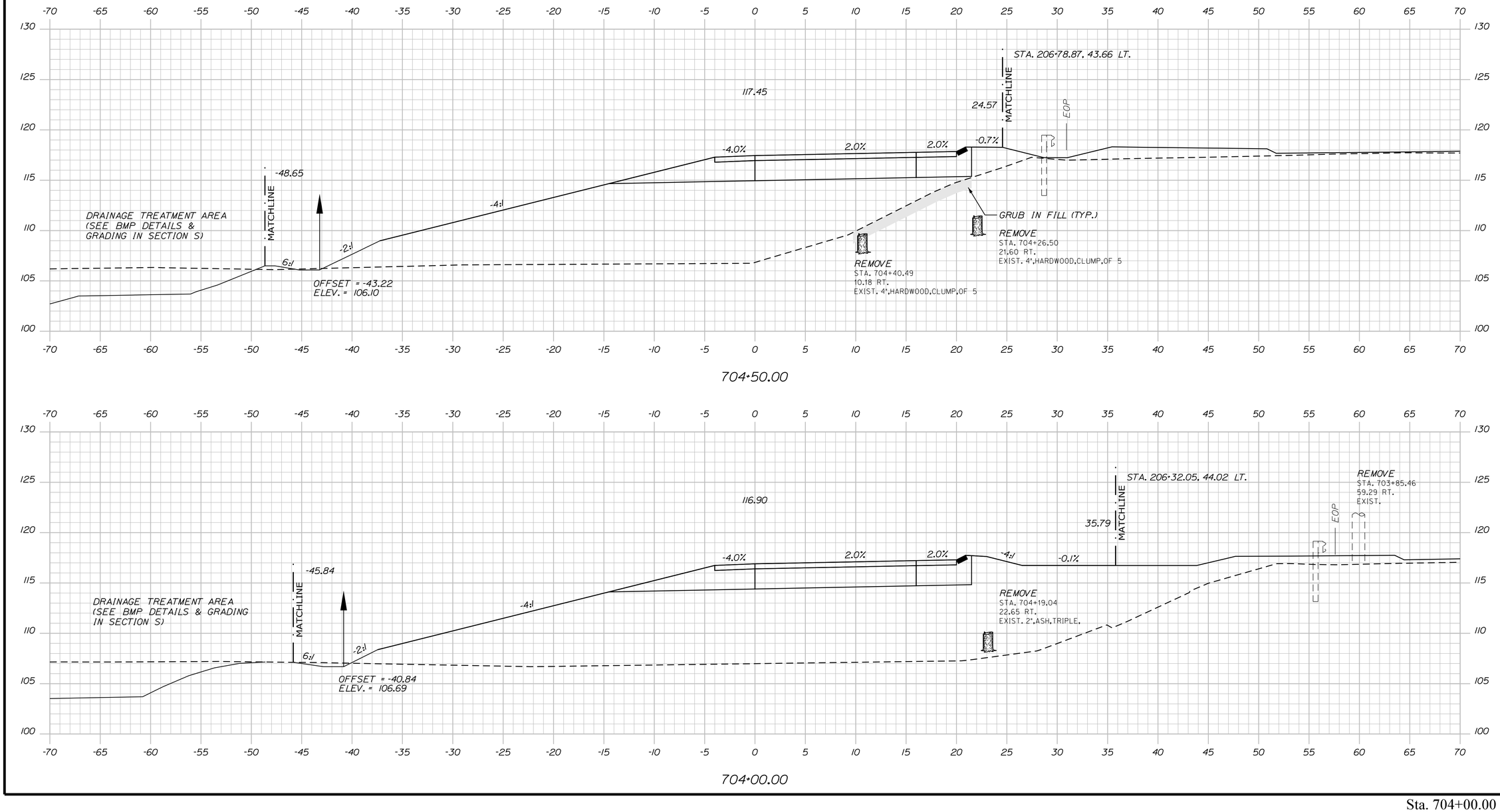
CROSS SECTIONS

SHEET NUMBER
H-107
253
OF 485

Sta. 703+00.00 to Sta. 703+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

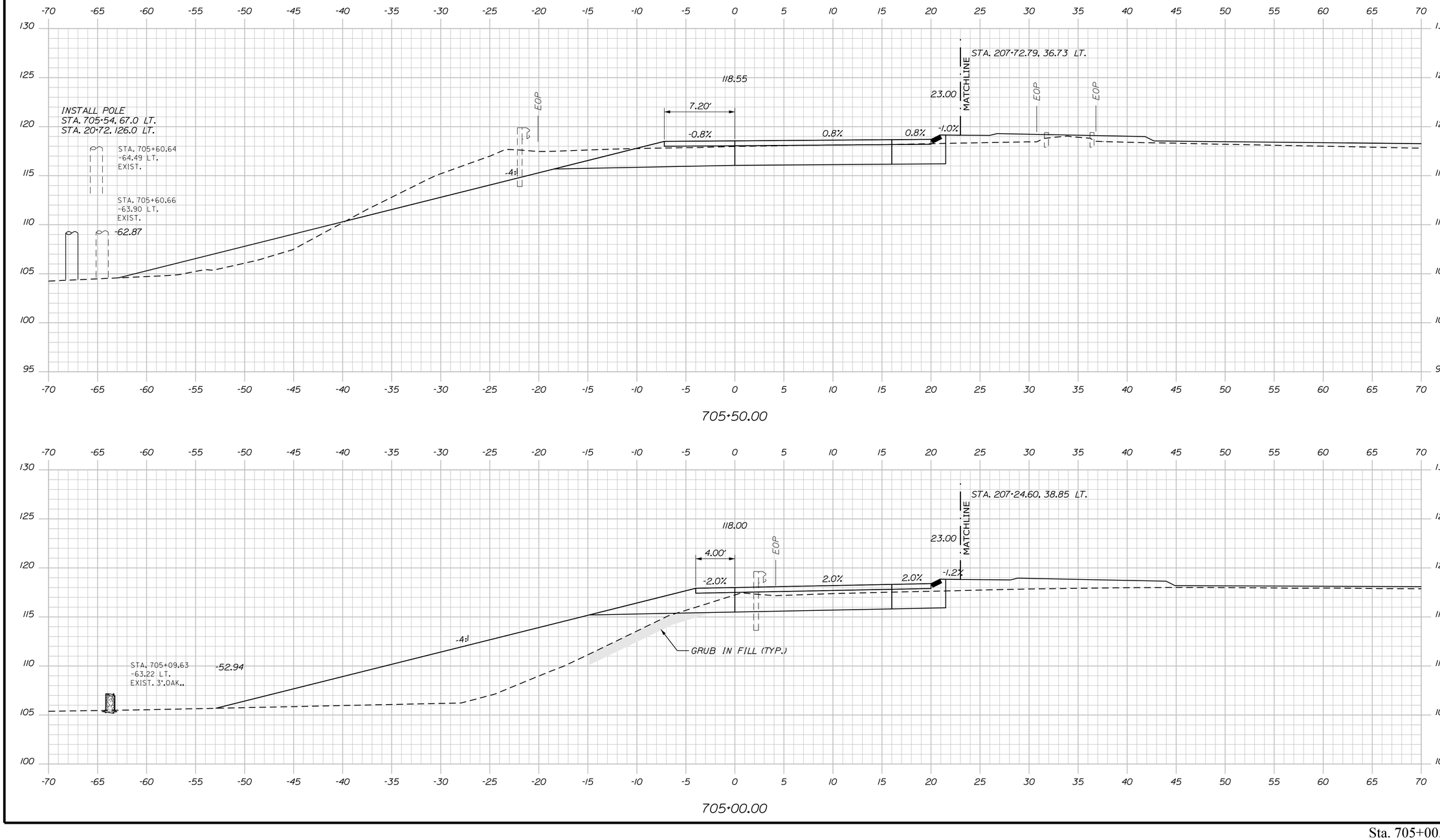
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP A

CROSS SECTIONS

SHEET NUMBER
H-108
254
OF 485

Sta. 704+00.00 to Sta. 704+50.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

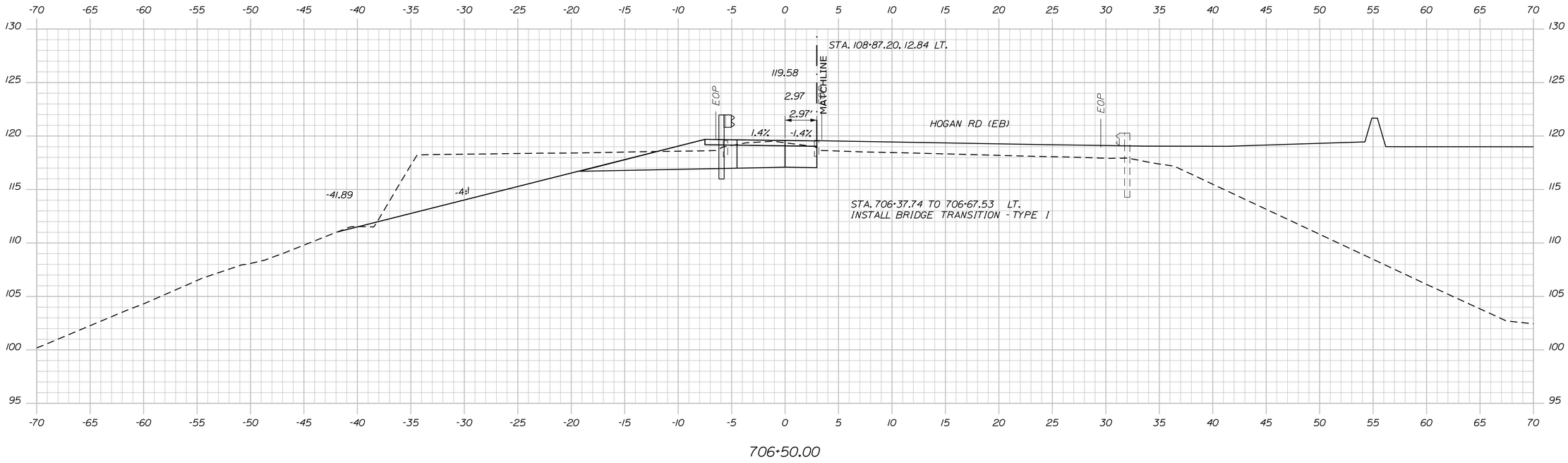
BANGOR
RAMP A

CROSS SECTIONS

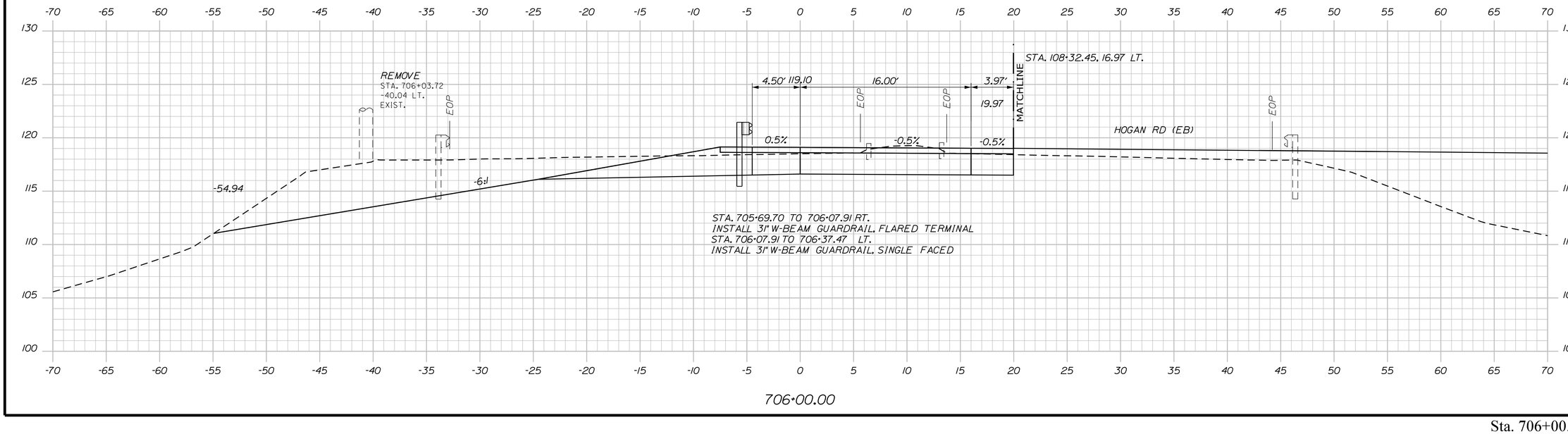
SHEET NUMBER
H-109
255
OF 485

Sta. 705+00.00 to Sta. 705+50.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



706+50.00



706+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

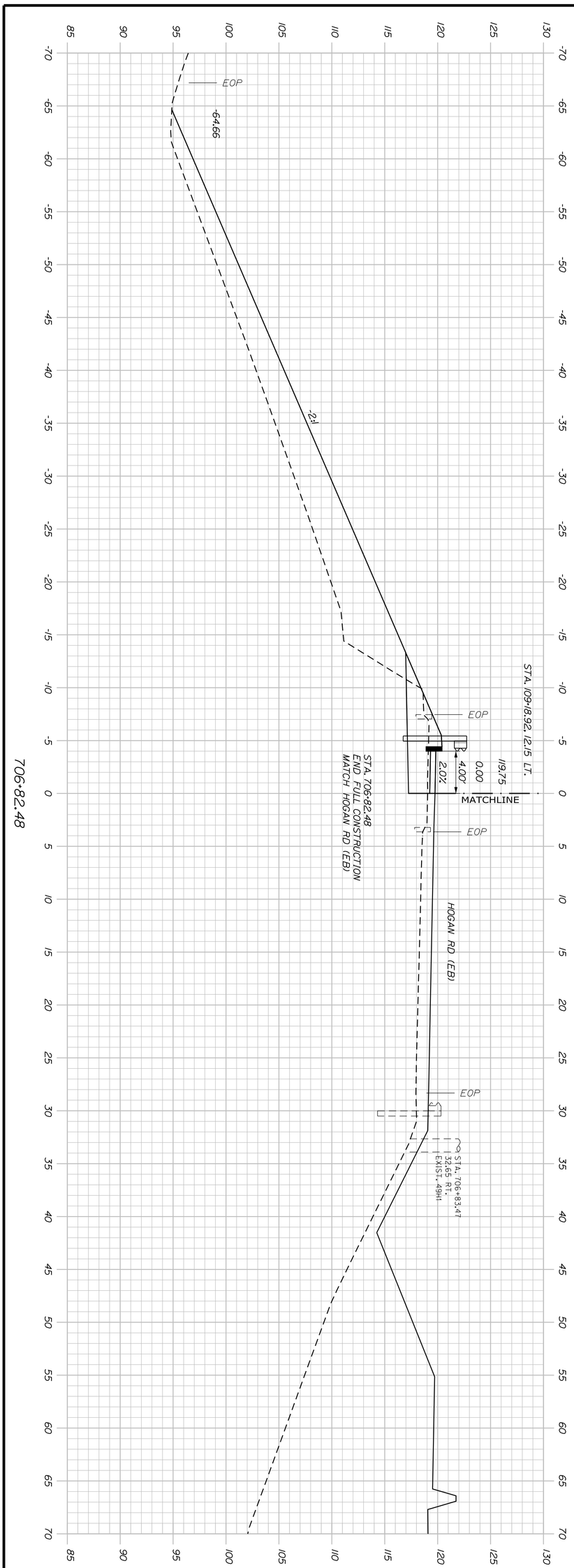
BANGOR
RAMP A

CROSS SECTIONS

SHEET NUMBER
H-110
256
OF 485

Sta. 706+00.00 to Sta. 706+50.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 706+82.48 to Sta. 706+82.48

BANGOR
RAMP A

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

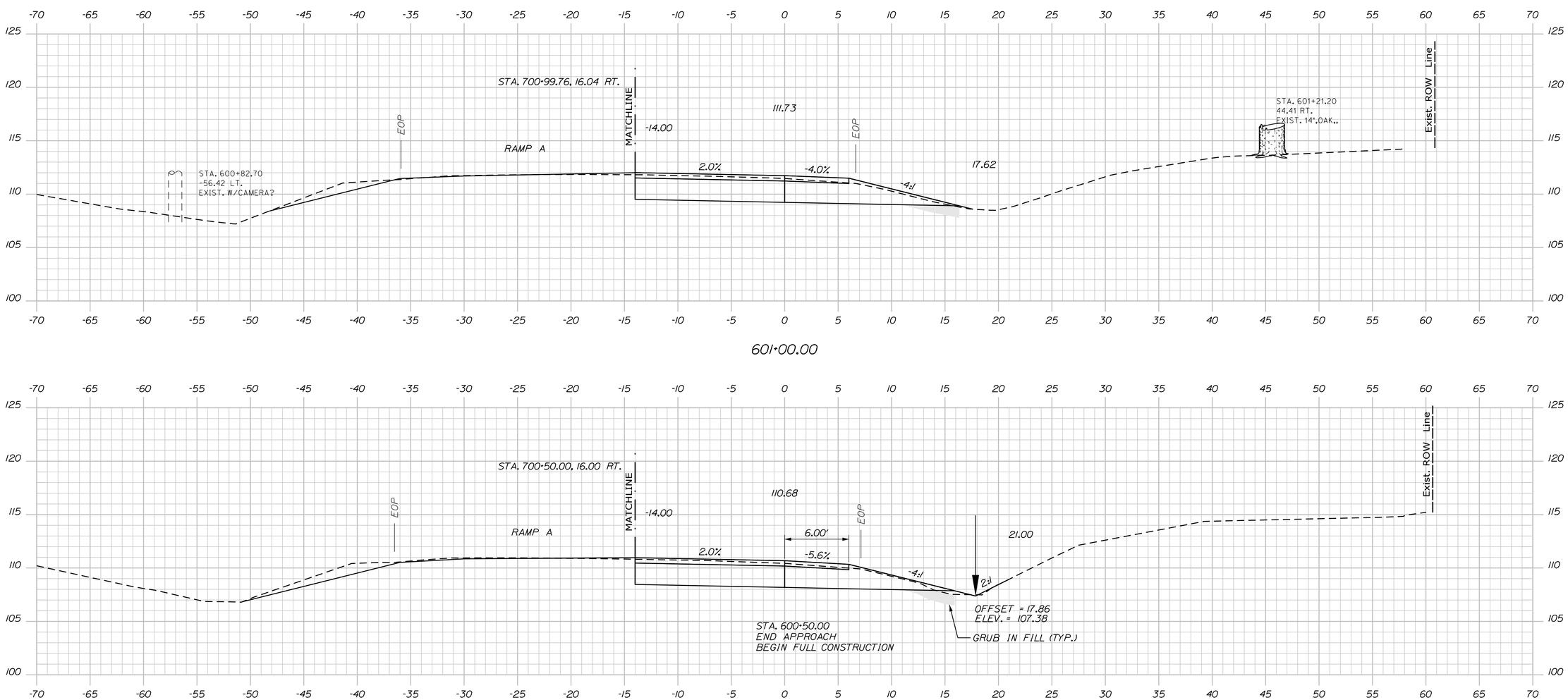
SHEET NUMBER
H-111
257
OF 485

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		DATE
PROJ. MANAGER	L. ROWE	
DESIGN-DETAILED	ECF	11/25/2025
CHECKED-REVIEWED	ECF	11/25/2025
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BY: JBD, AG

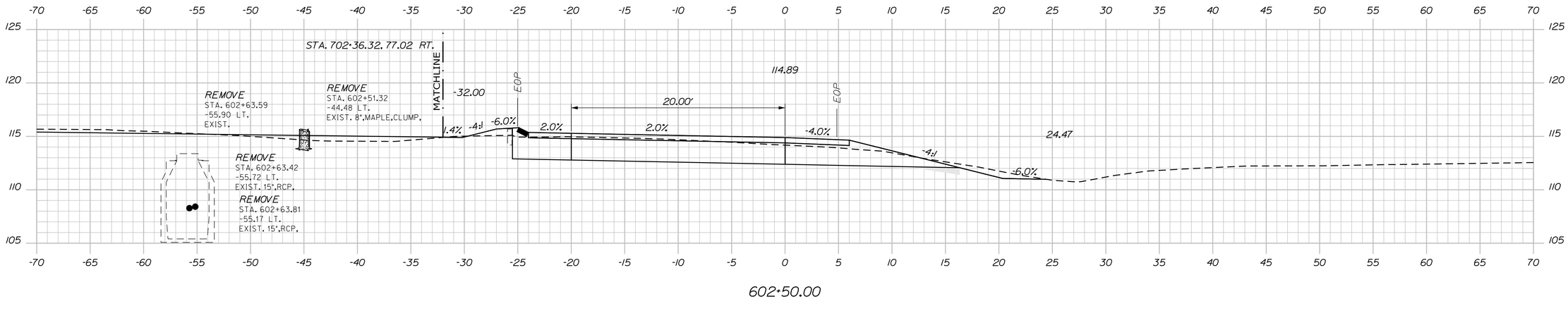
BANGOR
SPUR A

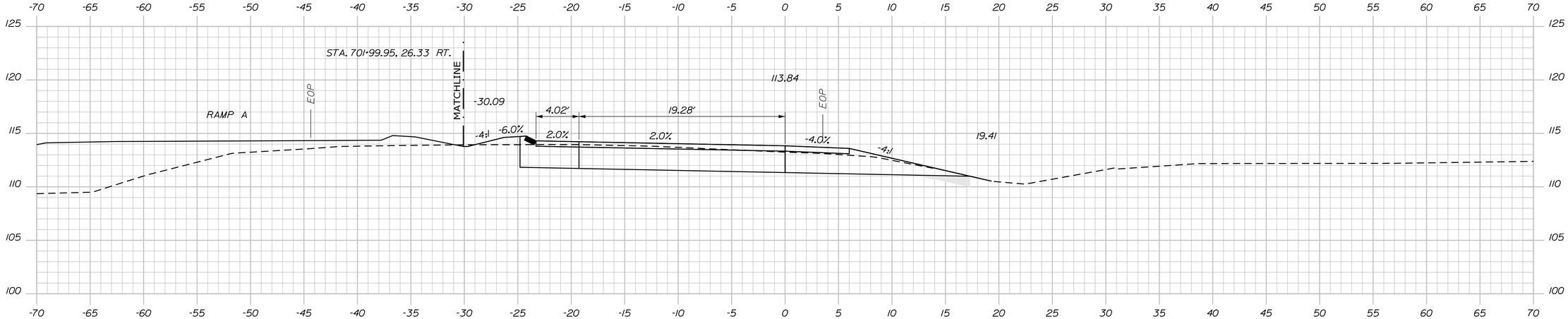
CROSS SECTIONS

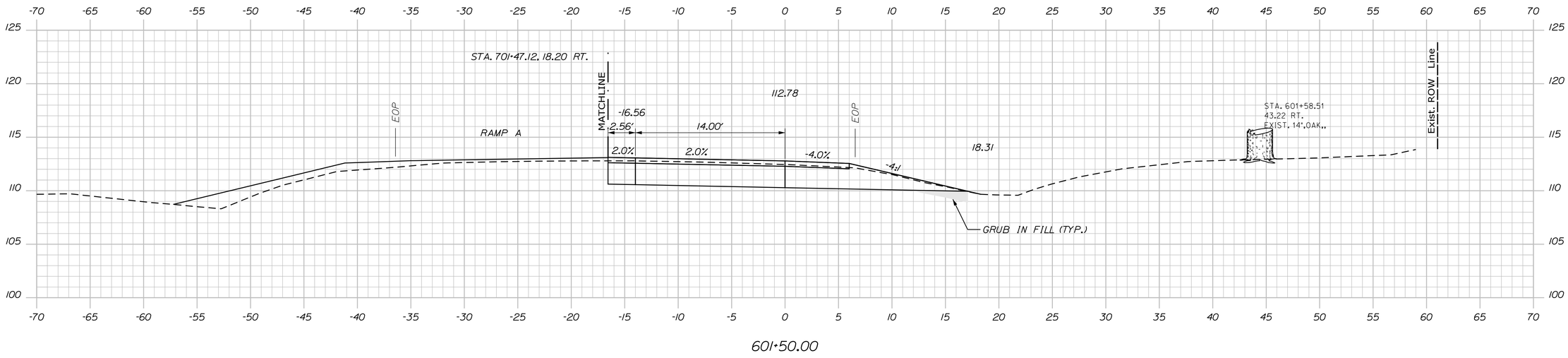
SHEET NUMBER
H-112
258
OF 485

Sta. 600+00.00 to Sta. 601+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

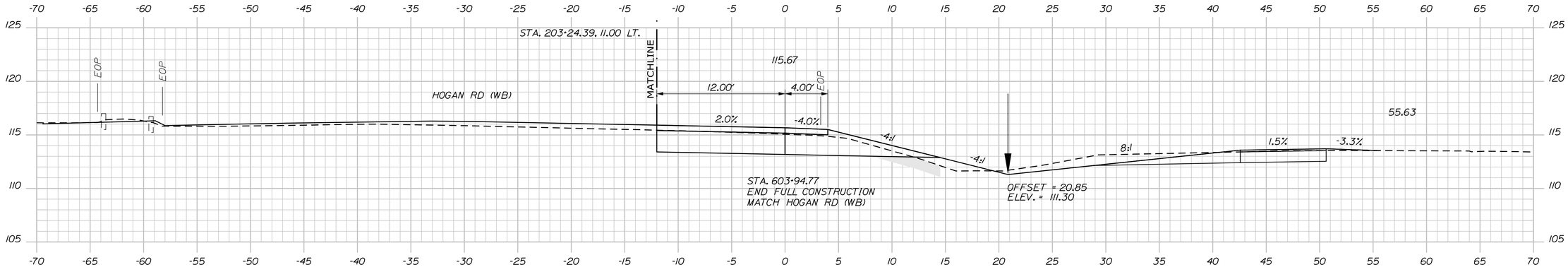
BANGOR
SPUR A

CROSS SECTIONS

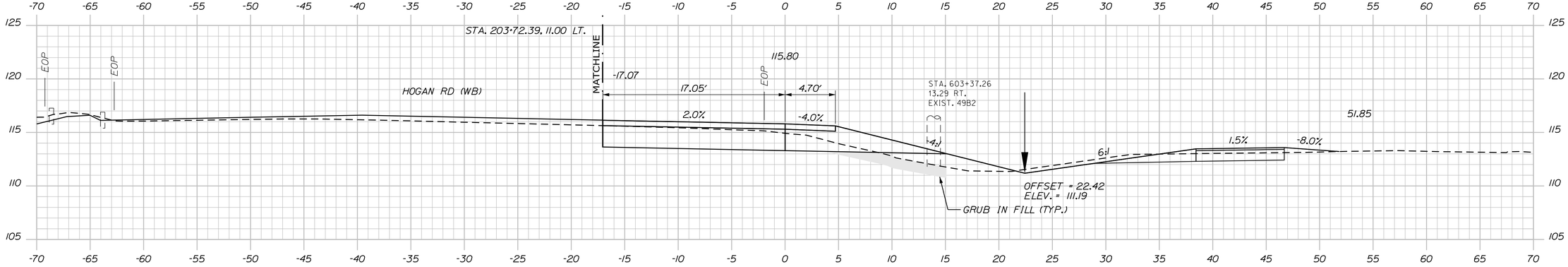
SHEET NUMBER
H-113
259
OF 485

Sta. 601+50.00 to Sta. 602+50.00

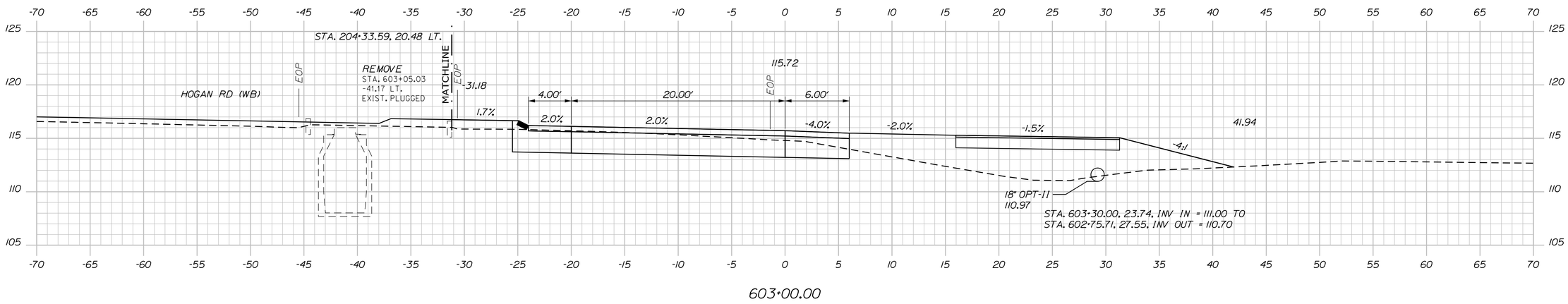
Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



603+94.77



603+50.00



603+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

HIGHWAY PLANS

vhb

	BY	DATE
L. ROWE		
PROJ. MANAGER	JBD	11/25/2025
DESIGN-DETAILED	AG	11/25/2025
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

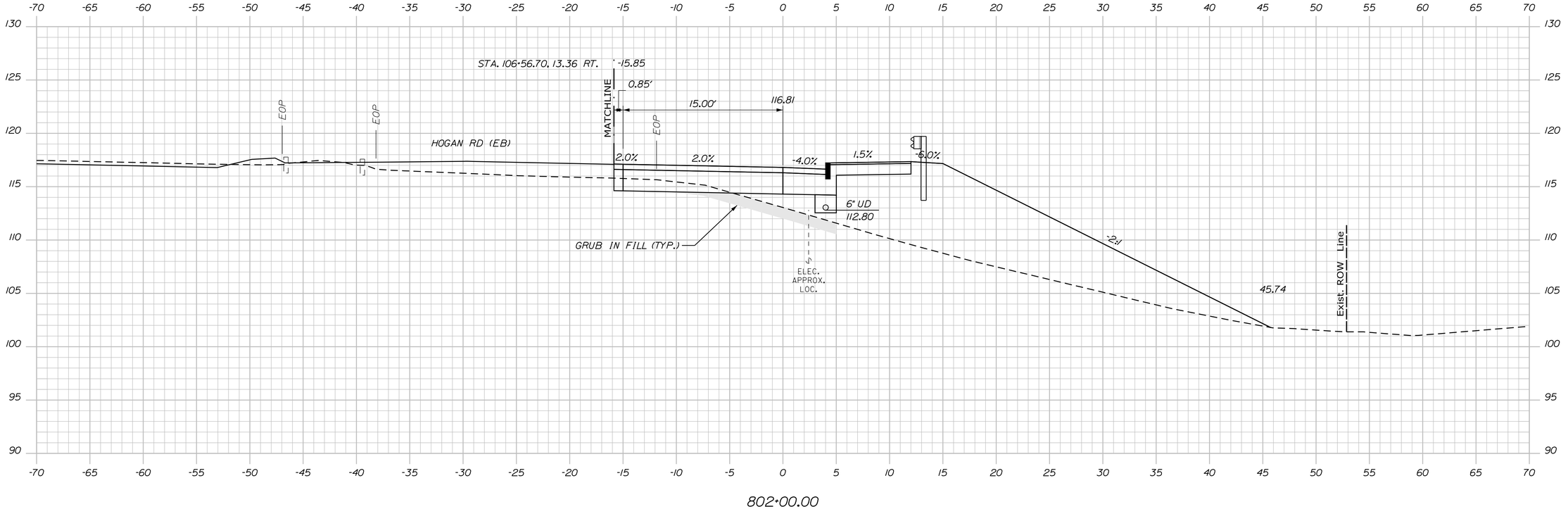
BANGOR
SPUR A

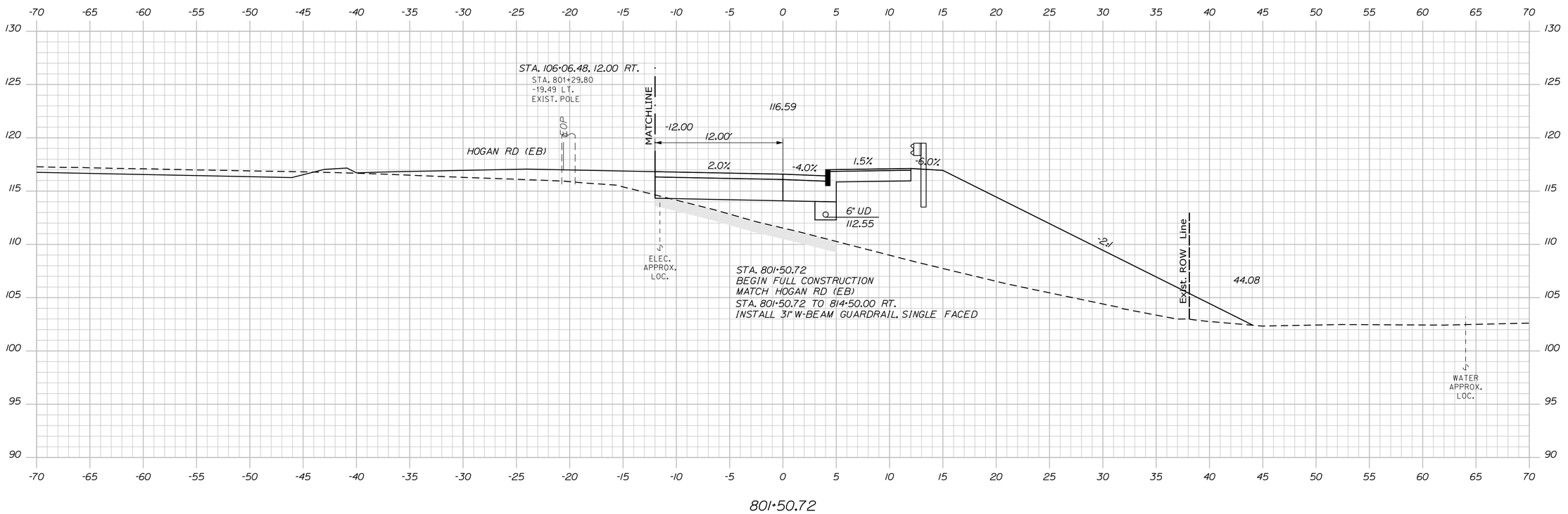
CROSS SECTIONS

SHEET NUMBER
H-114
260
OF 485

Sta. 603+00.00 to Sta. 603+94.77

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP B

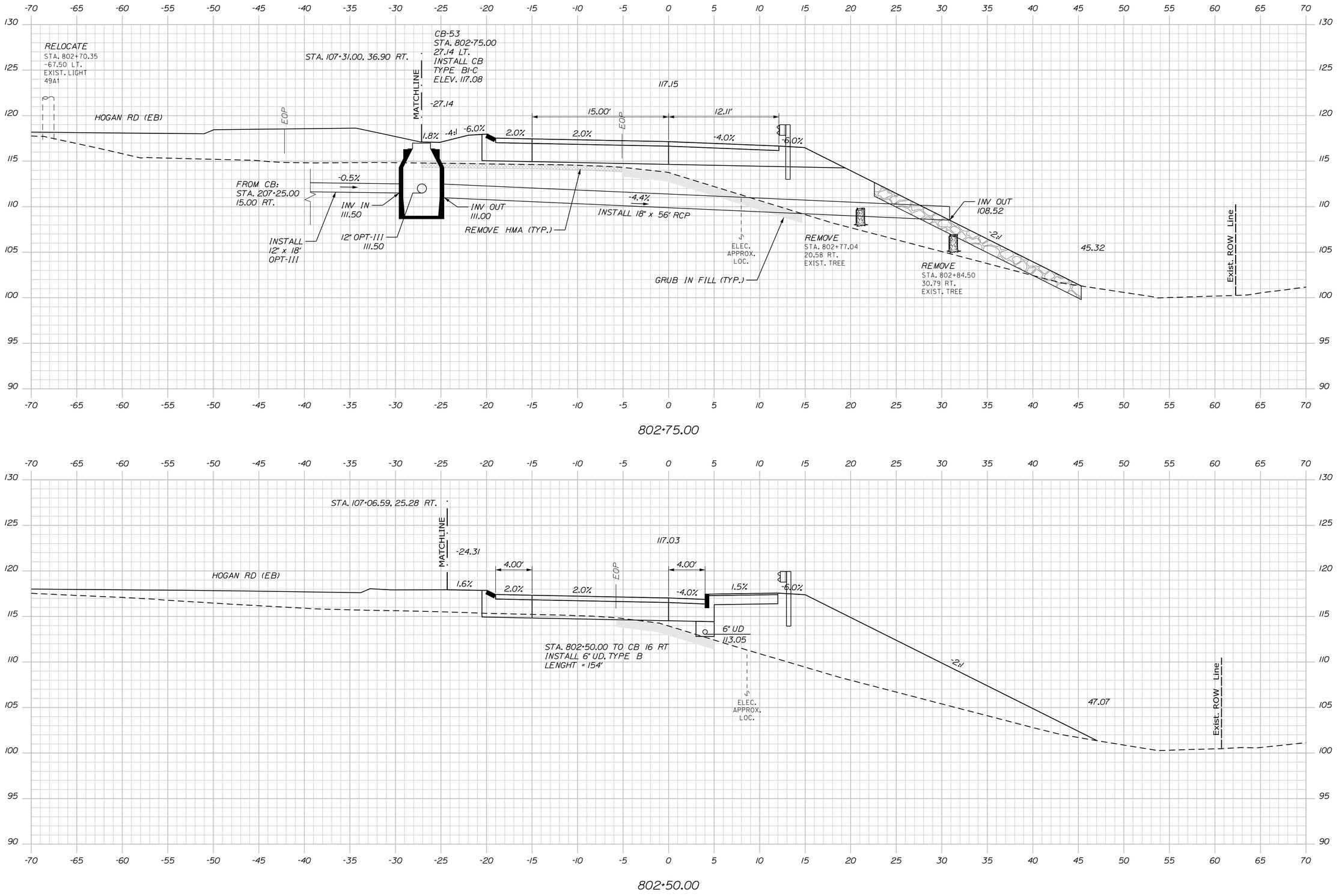
CROSS SECTIONS

SHEET NUMBER
H-115
261
OF 485

Sta. 801+50.72 to Sta. 802+00.00

Username: jamesdavis
Date:11/25/2025
Division: HIGHWAY
Filename: ...\H_004_CrossSections.dgn

Usernname: jamesdavis
Date:11/25/2025
Division: HIGHWAY
Filename: ...\H_004_CrossSections.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

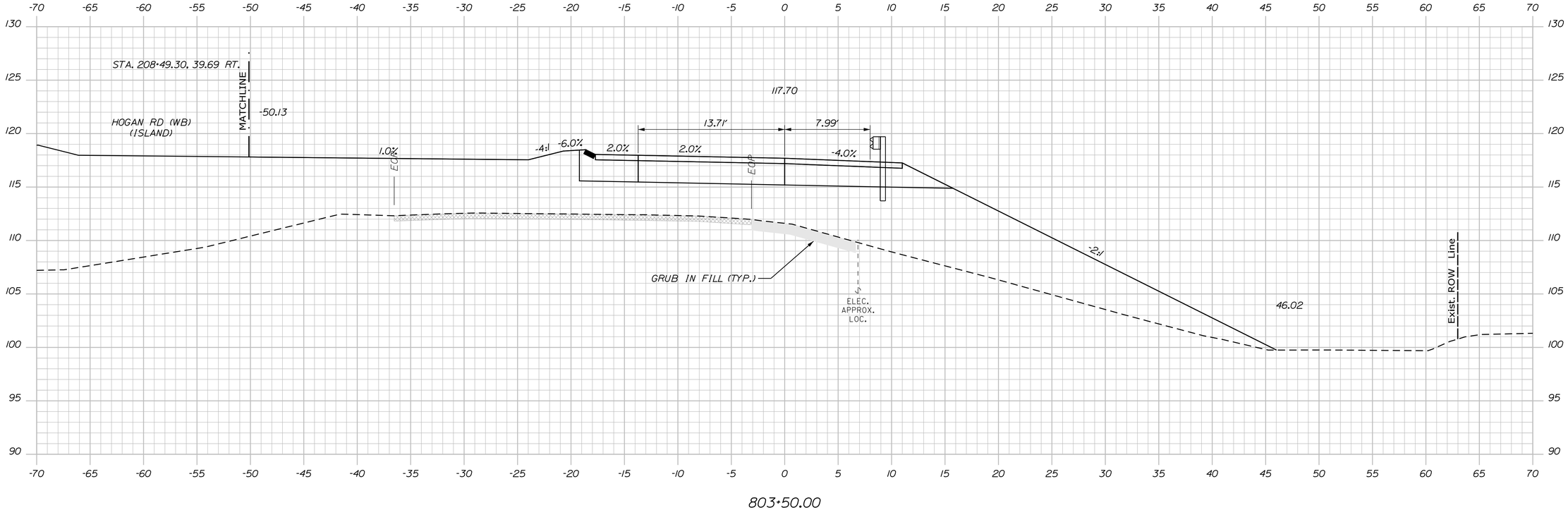
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

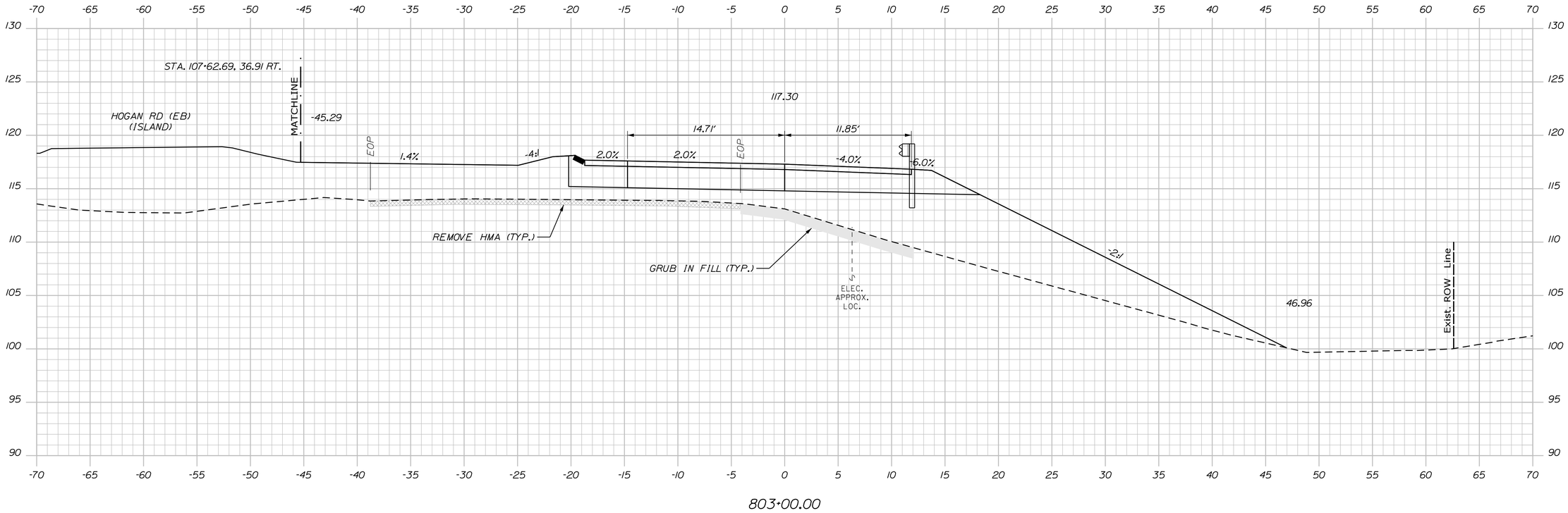
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-116
262
OF 485

Sta. 802+50.00 to Sta. 802+75.00





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

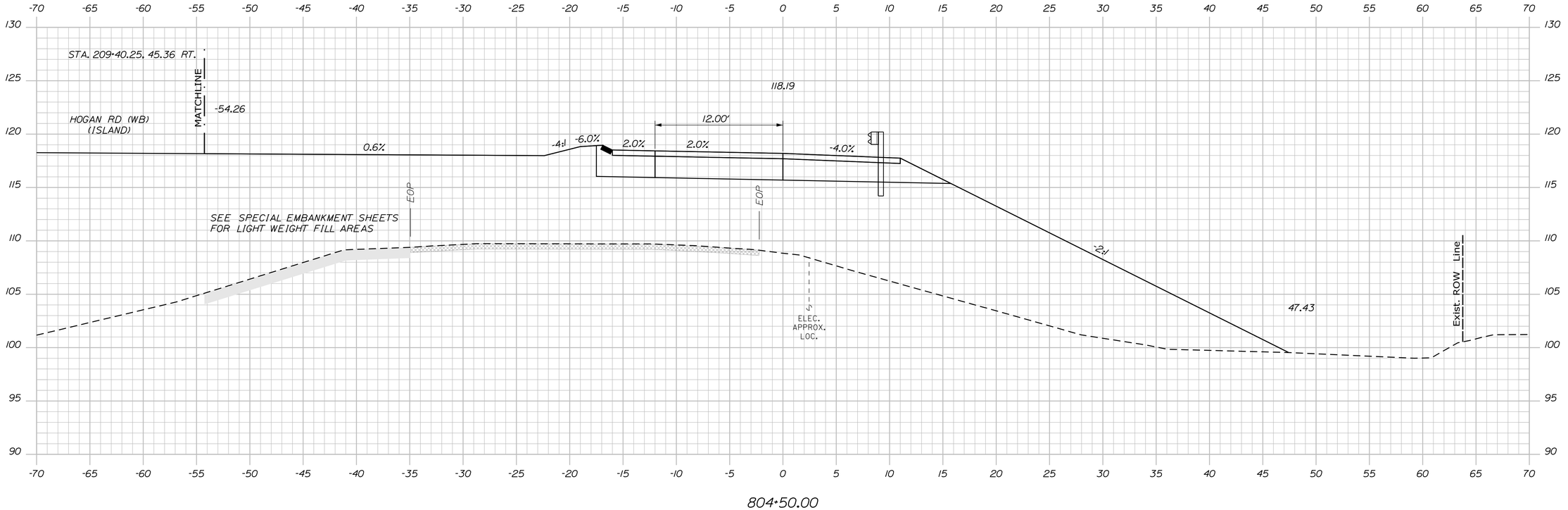
BANGOR
RAMP B

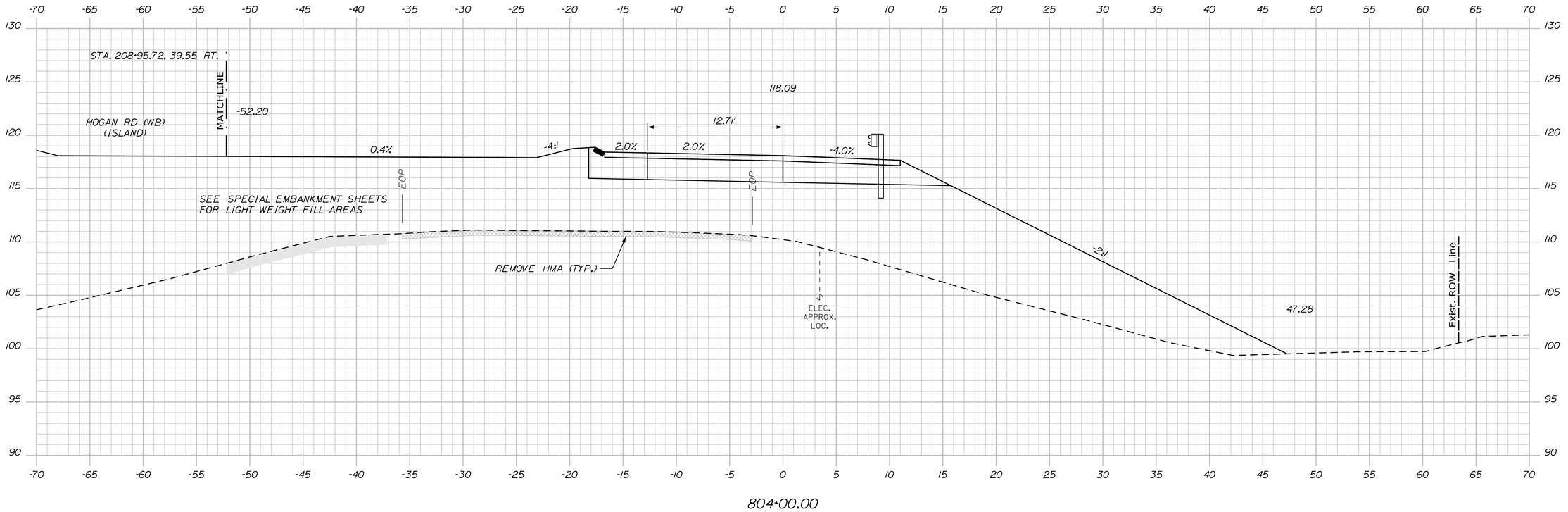
CROSS SECTIONS

SHEET NUMBER
H-117
263
OF 485

Sta. 803+00.00 to Sta. 803+50.00

Username: jamesdavis
Date:11/25/2025
Division: HIGHWAY
Filename: ...\H_004_CrossSections.dgn





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP B

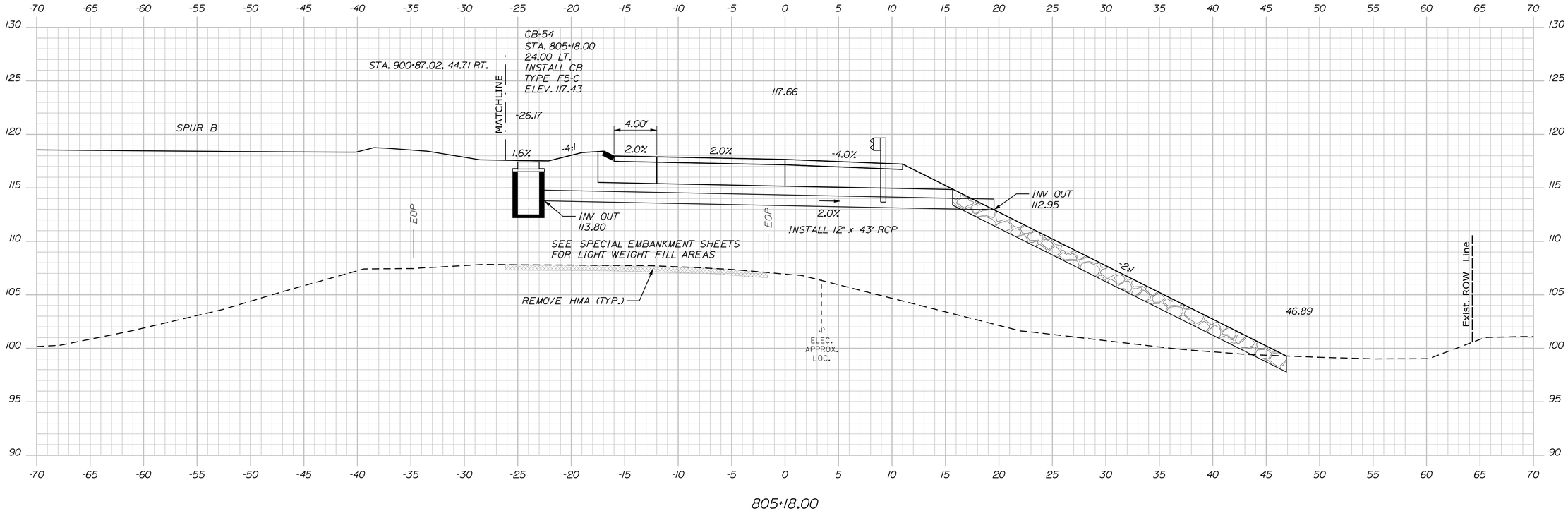
CROSS SECTIONS

SHEET NUMBER
H-118
264
OF 485

Sta. 804+00.00 to Sta. 804+50.00

Username: jamesdavis Date:11/25/2025
Division: HIGHWAY
Filename: ...\H_004_CrossSections.dgn

Username: jamesdavis Date:11/25/2025
Division: HIGHWAY
Filename: ...\H_004_CrossSections.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

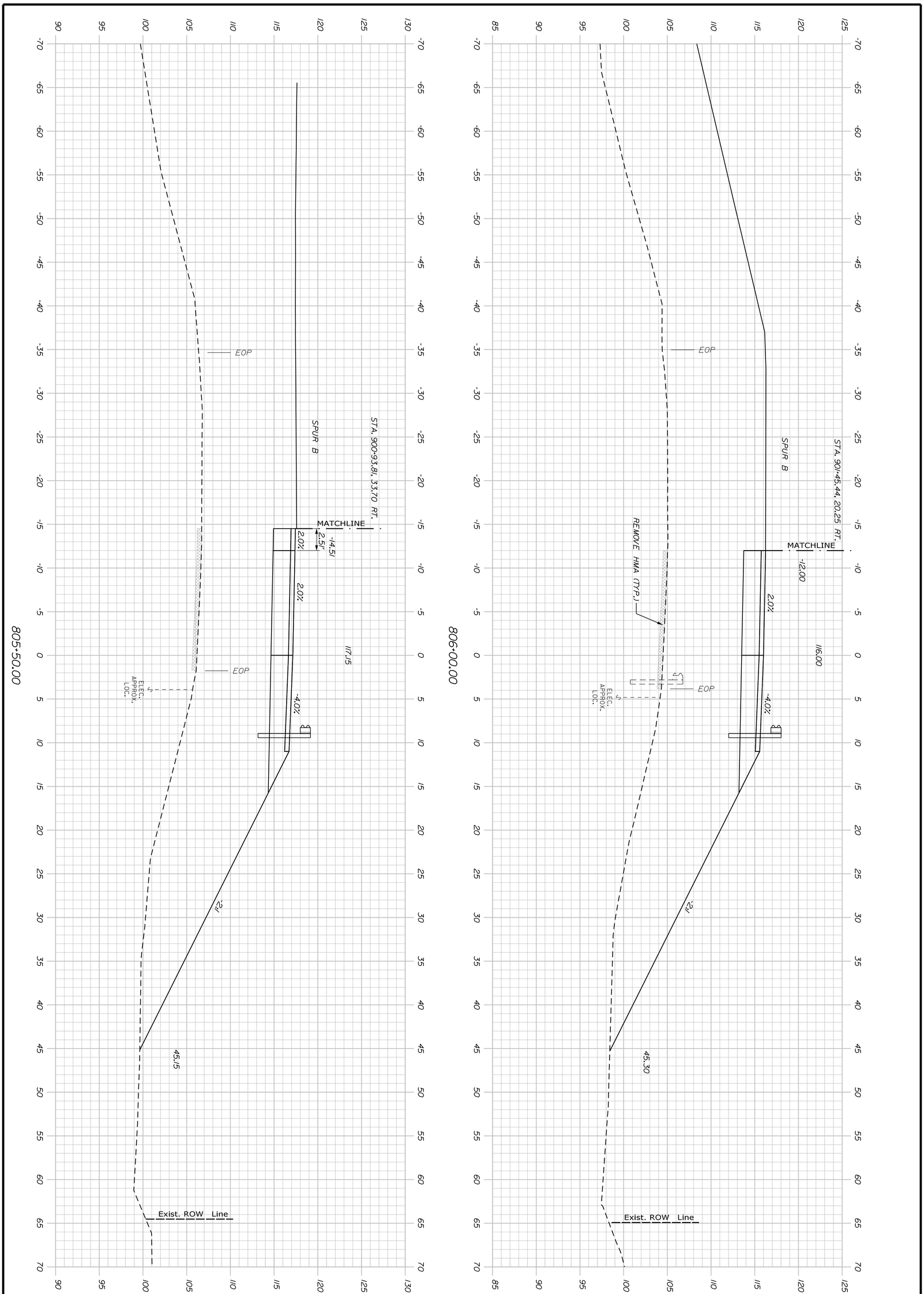
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-119
265
OF 485

Sta. 805+00.00 to Sta. 805+18.00



Sta. 805+50.00 to Sta. 806+00.00

SHEET NUMBER H-120
266 OF 485

BANGOR
RAMP B

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

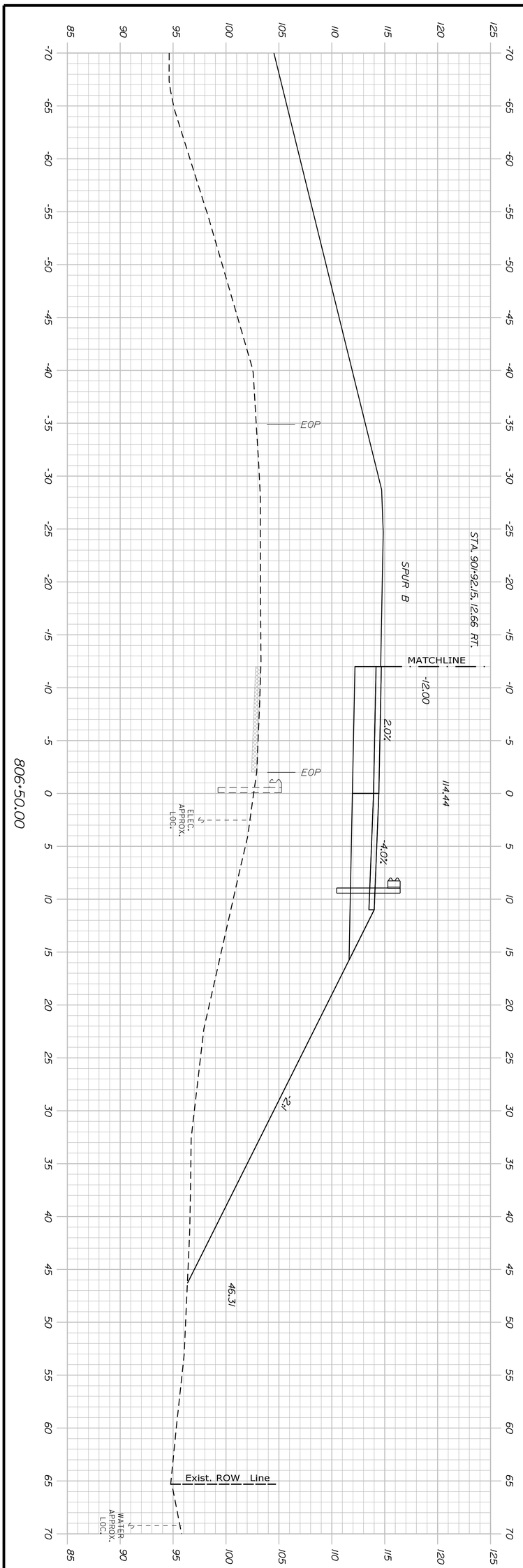
vhb

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN
18595.11

HIGHWAY PLANS



Sta. 806+50.00 to Sta. 807+00.00

SHEET NUMBER H-121 267 OF 485

BANGOR
RAMP B

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

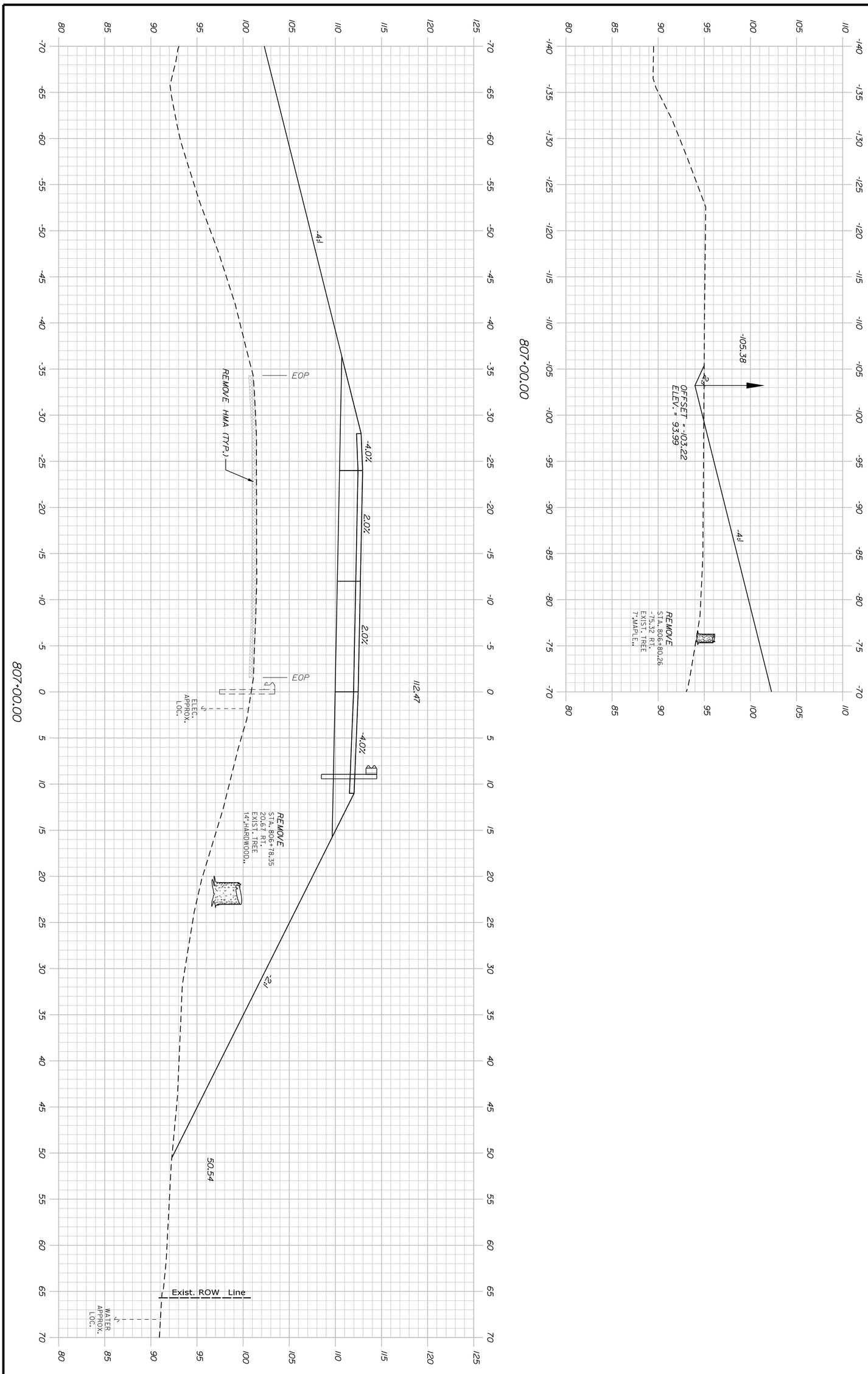
vhb

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

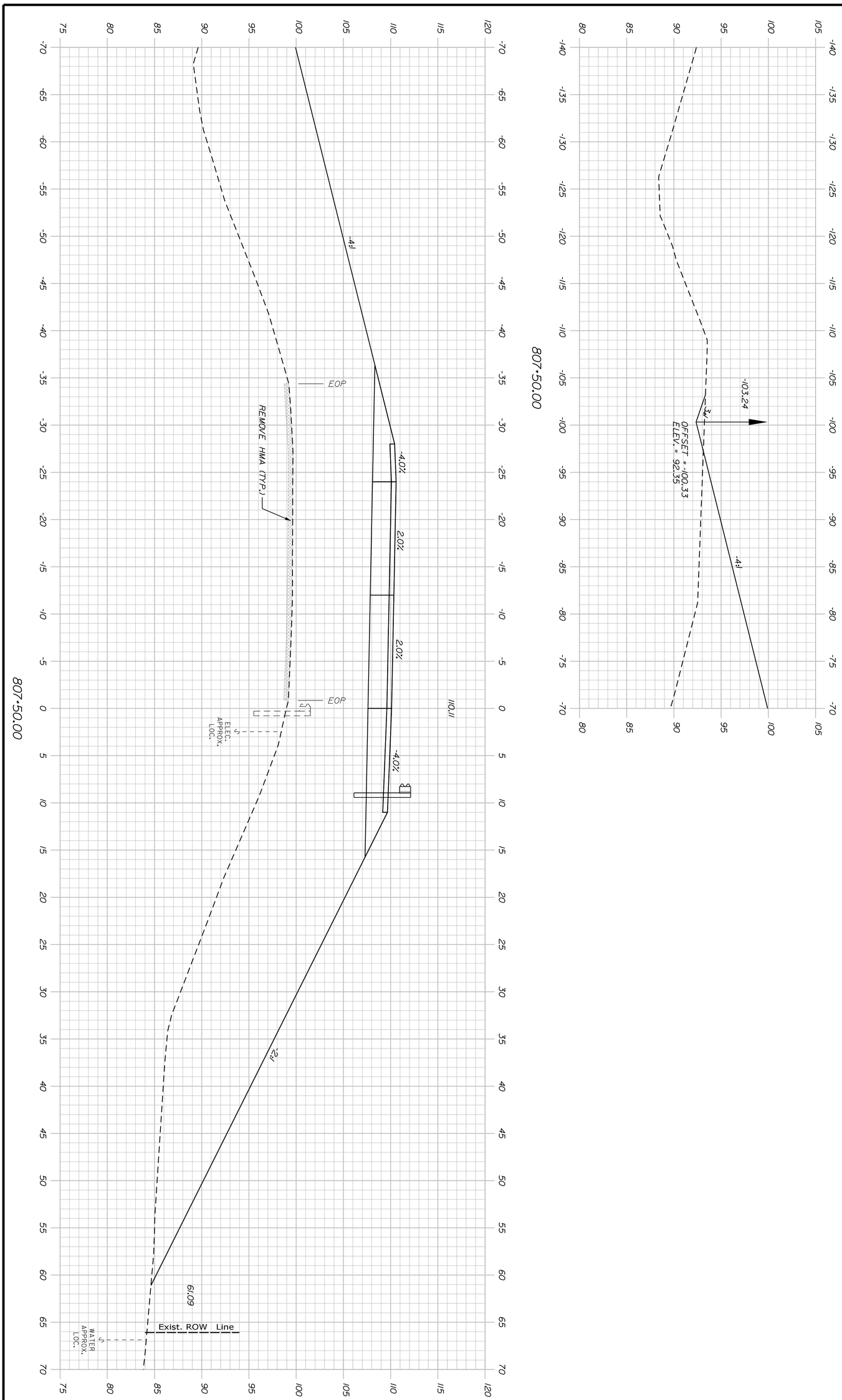
18595.11

WIN
18595.11

HIGHWAY PLANS



SHEET NUMBER H-122 268 OF 485	BANGOR RAMP B CROSS SECTIONS	PROJ. MANAGER L. ROWE / BY / DATE DESIGN-DETAILED ECF / JBD / 11/25/2025 CHECKED-REVIEWED ECF / AG / 11/25/2025 DESIGN2-DETAILED2 DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	STATE OF MAINE DEPARTMENT OF TRANSPORTATION 18595.11 WIN 18595.11 HIGHWAY PLANS



Sta. 807+50.00 to Sta. 807+50.00

BANGOR
RAMP B

CROSS SECTIONS

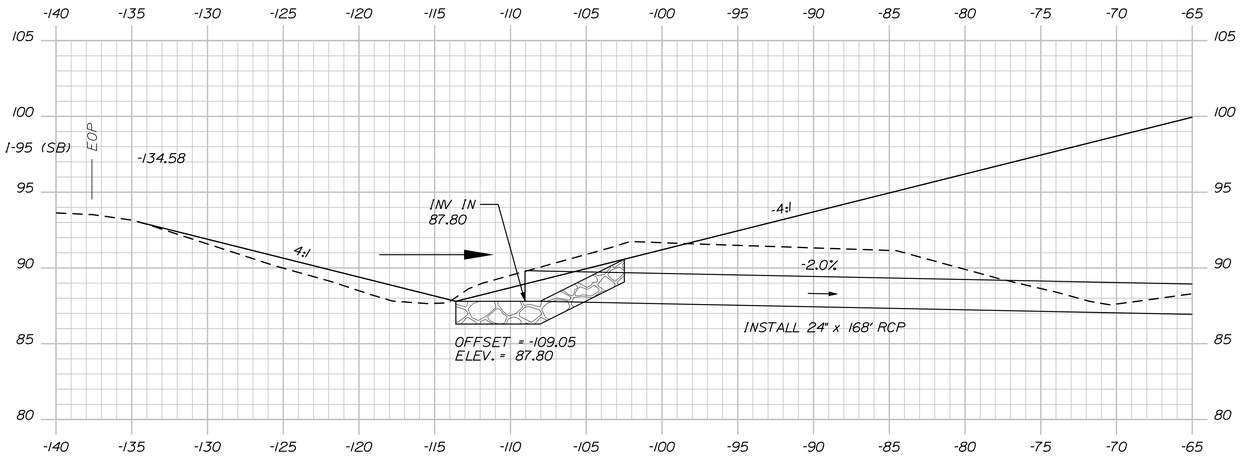
PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SHEET NUMBER H-123
269 OF 485

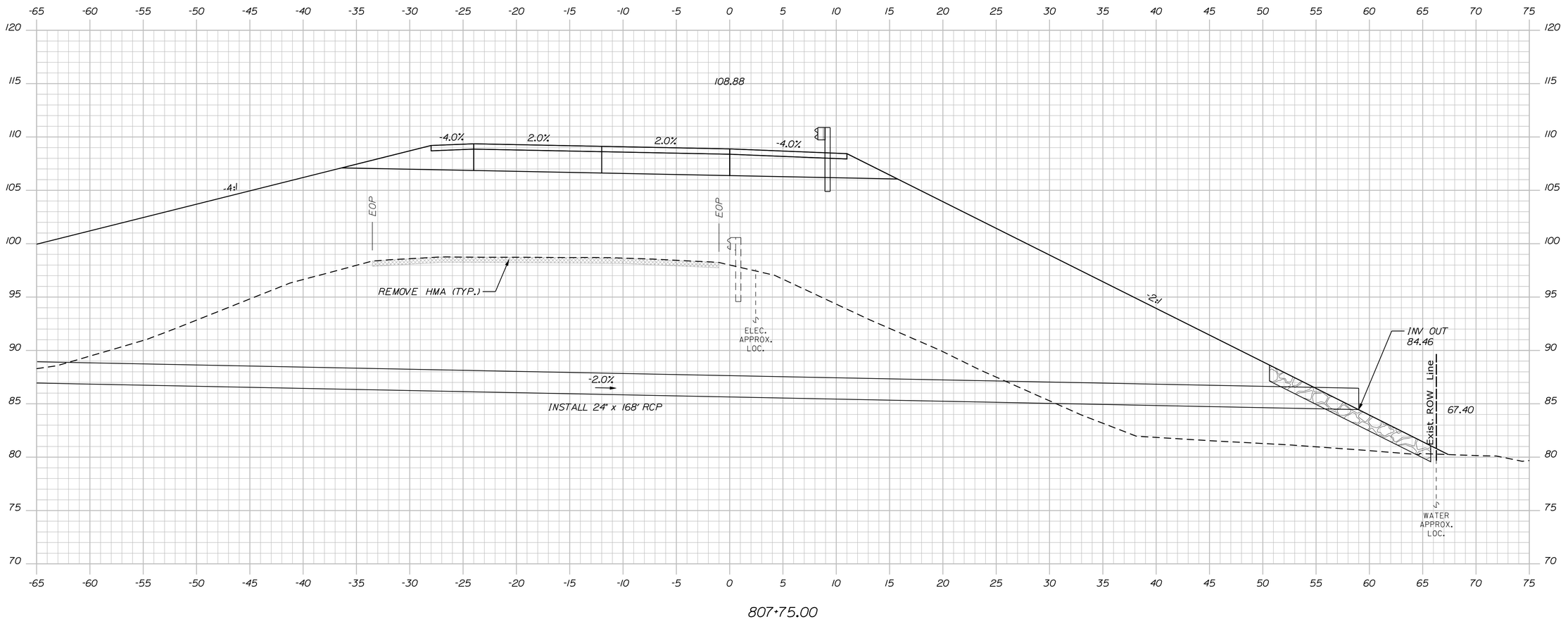
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11 HIGHWAY PLANS



807+75.00



807+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

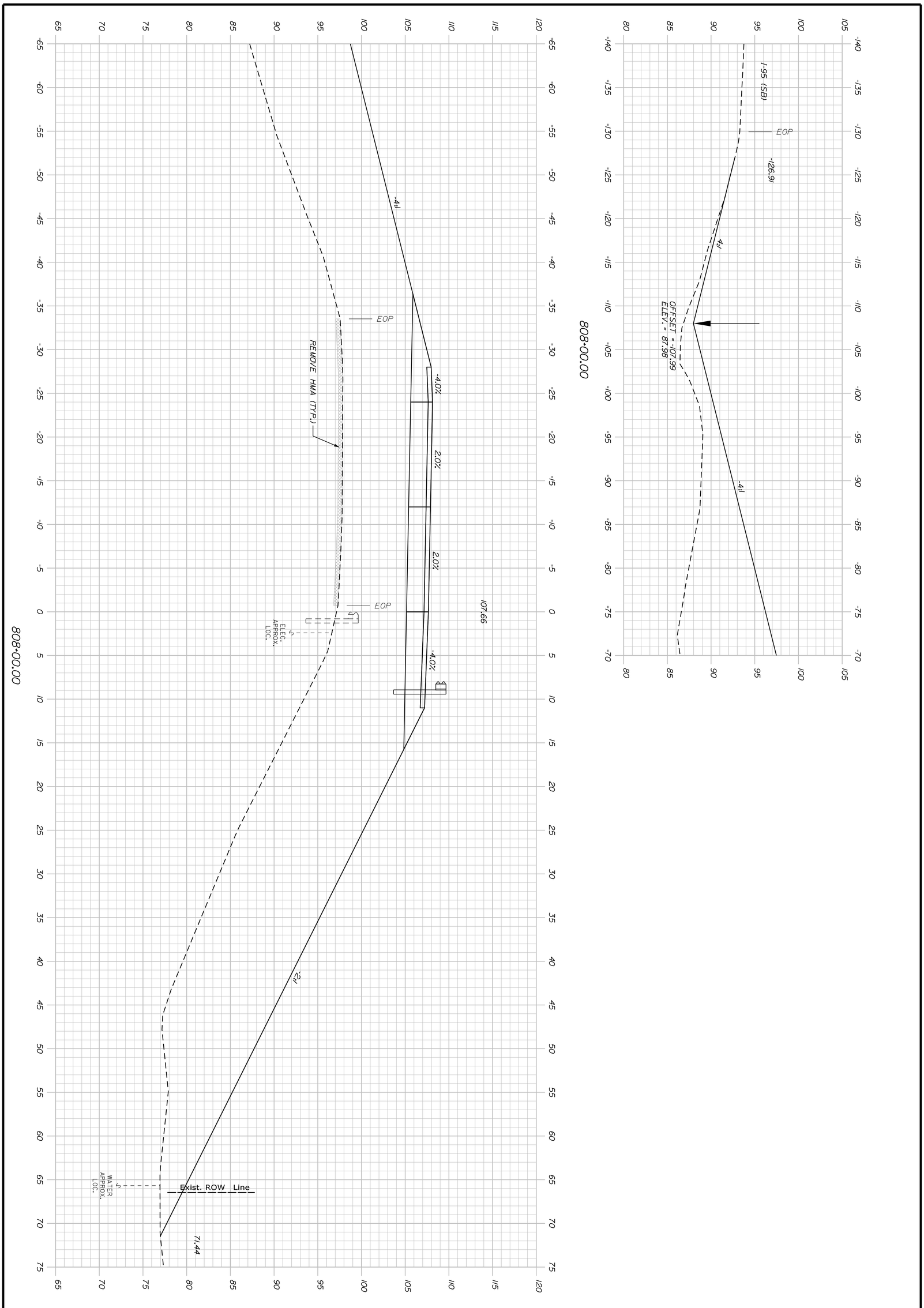
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-124
270
OF 485

Sta. 807+75.00 to Sta. 807+75.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 808+00.00 to Sta. 808+00.00

SHEET NUMBER H-125 271 OF 485

BANGOR
RAMP B

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

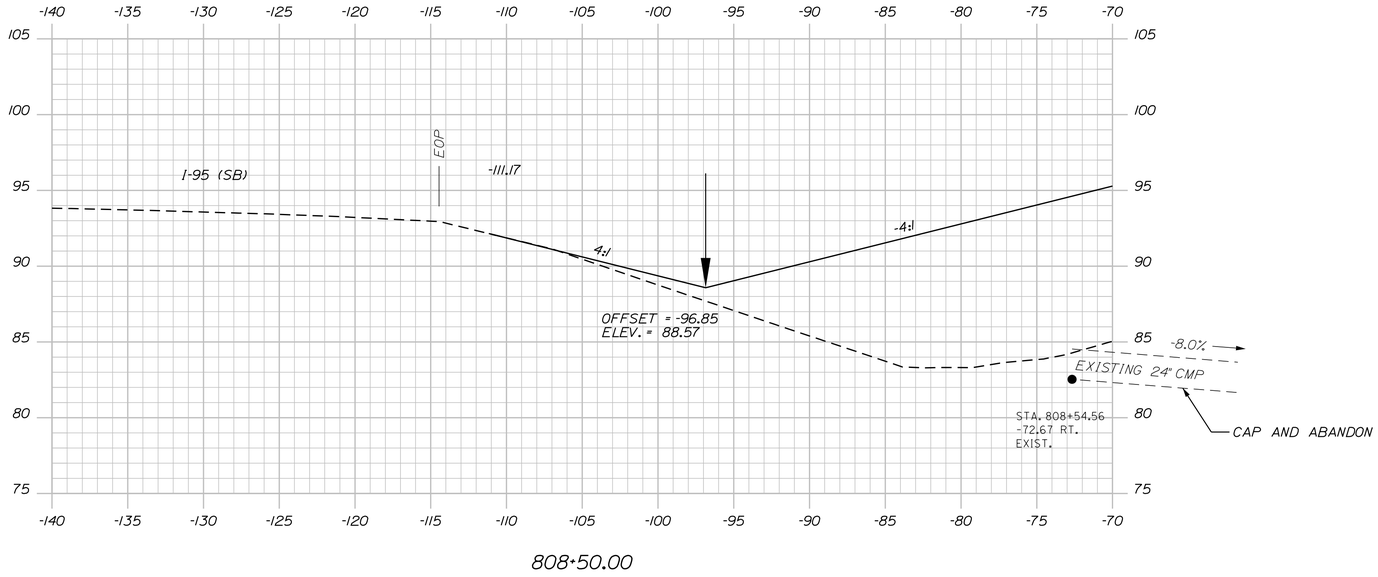
vhb

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

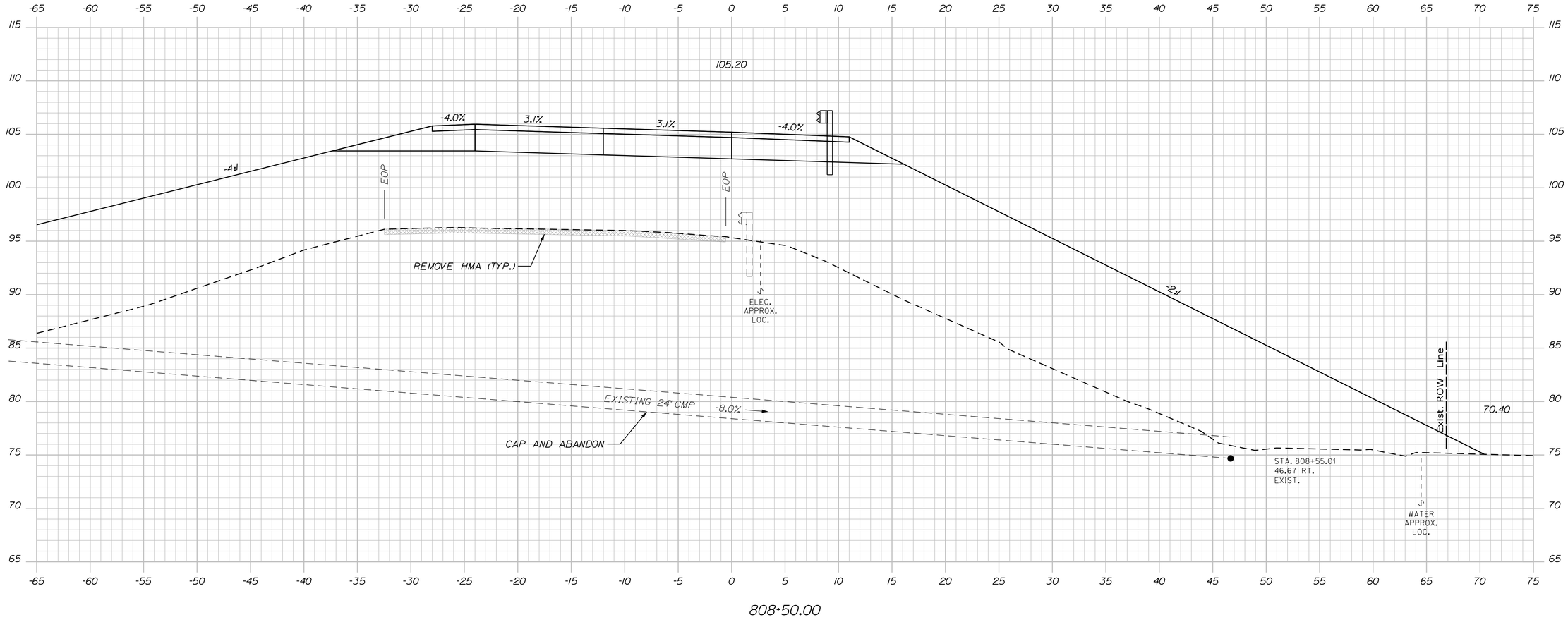
18595.11

WIN
18595.11

HIGHWAY PLANS



808+50.00



808+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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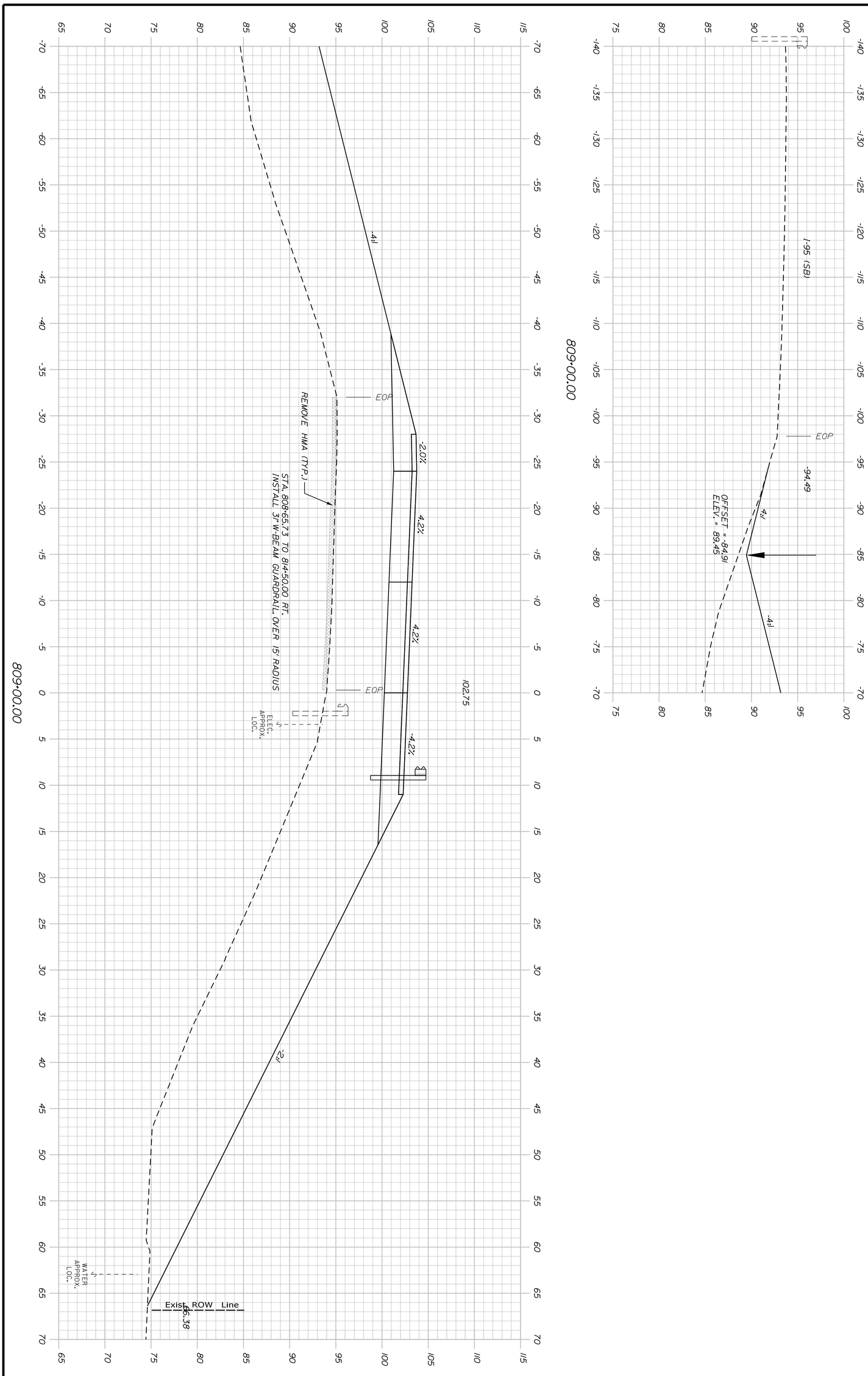
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-126
272
OF 485

Sta. 808+50.00 to Sta. 808+50.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 809+00.00 to Sta. 809+00.00

SHEET NUMBER H-127 273 OF 485

BANGOR
RAMP B

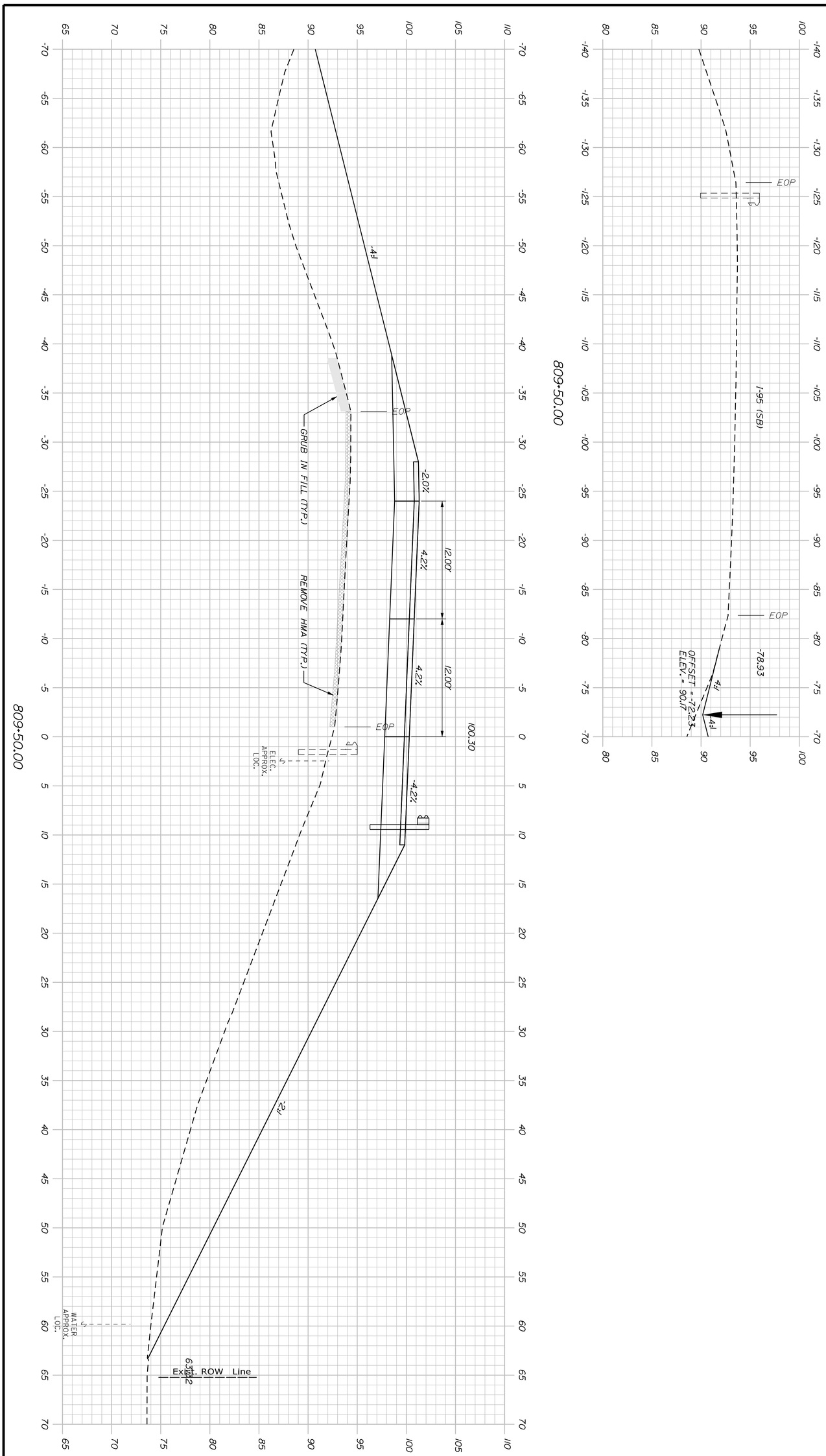
CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
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DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
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18595.11

WIN 18595.11 HIGHWAY PLANS



Sta. 809+50.00 to Sta. 809+50.00

SHEET NUMBER H-128 274 OF 485

BANGOR RAMP B

CROSS SECTIONS

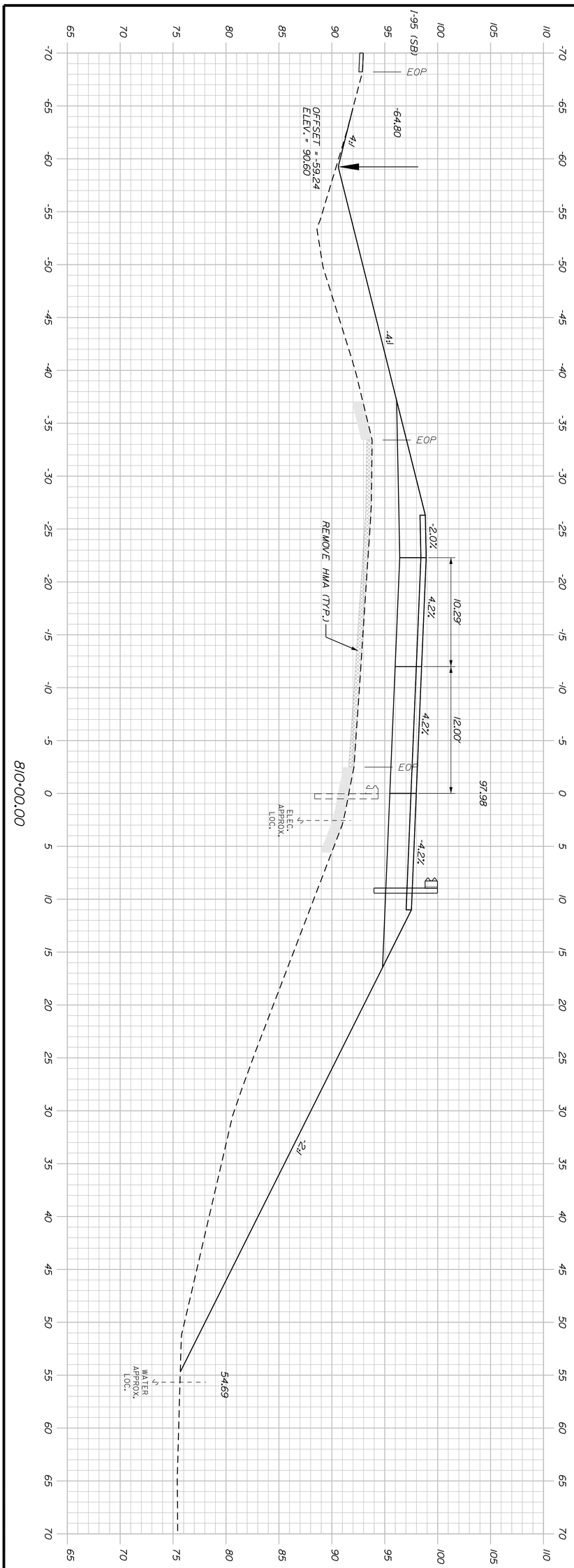
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

vhb

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11 HIGHWAY PLANS



Sta. 810+00.00 to Sta. 810+00.00

SHEET NUMBER H-129 275 OF 485

BANGOR
RAMP B

CROSS SECTIONS

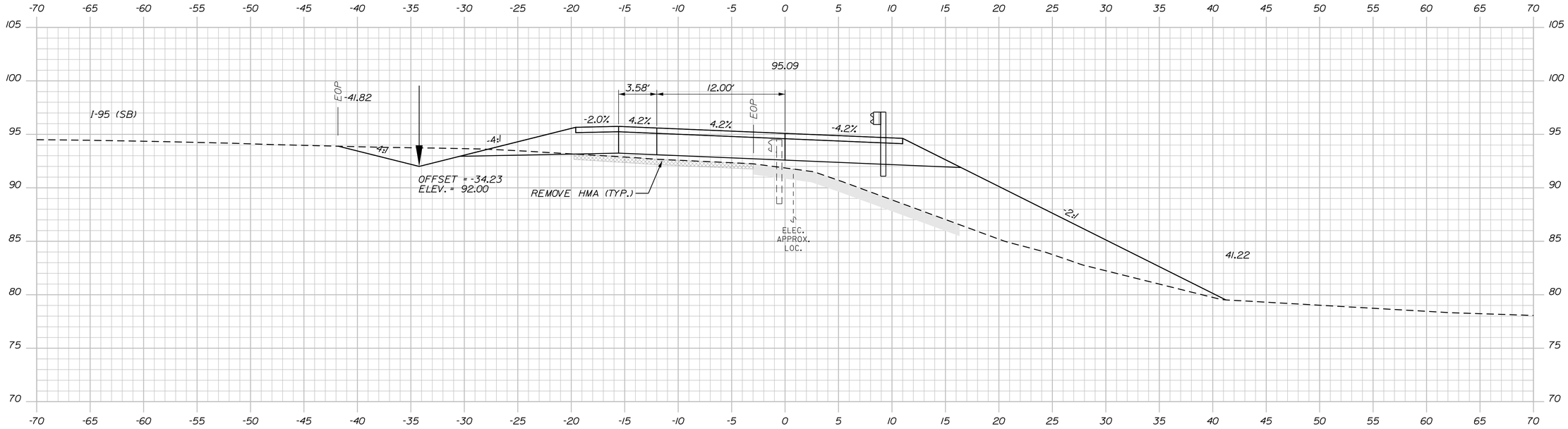
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

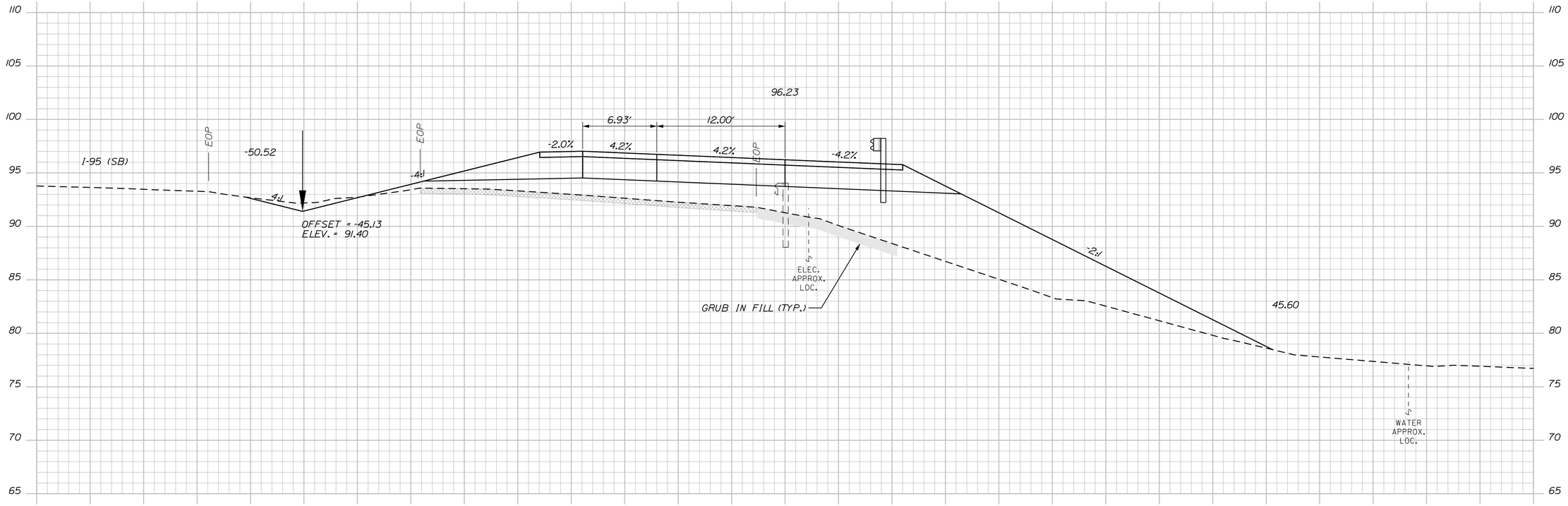
18595.11

WIN
18595.11

HIGHWAY PLANS



811+00.00



810+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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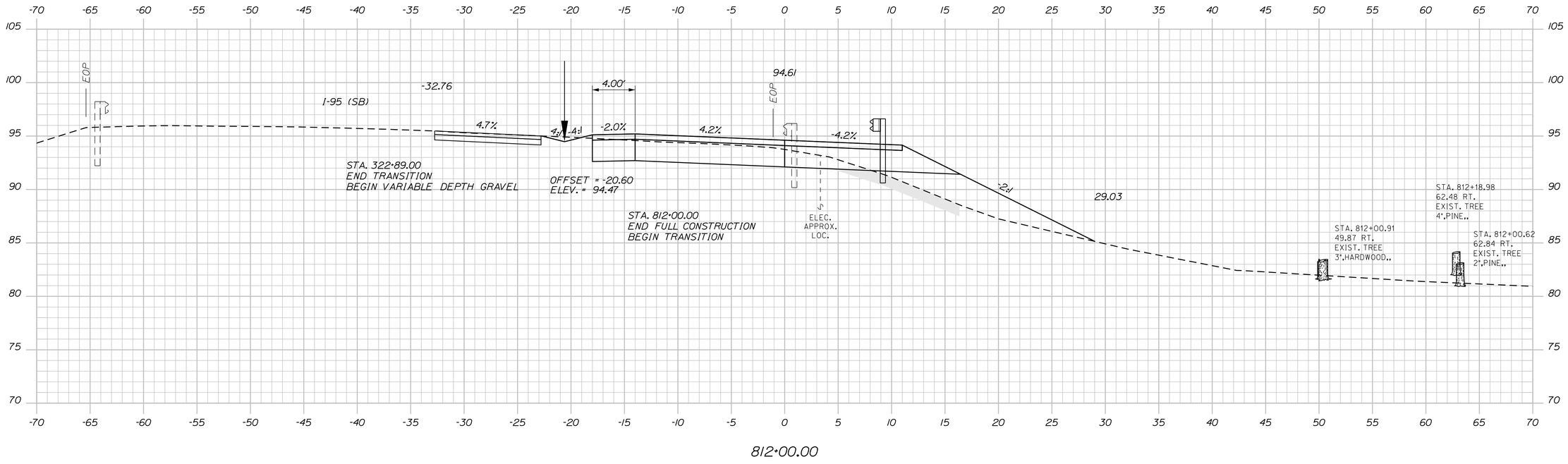
BANGOR
RAMP B

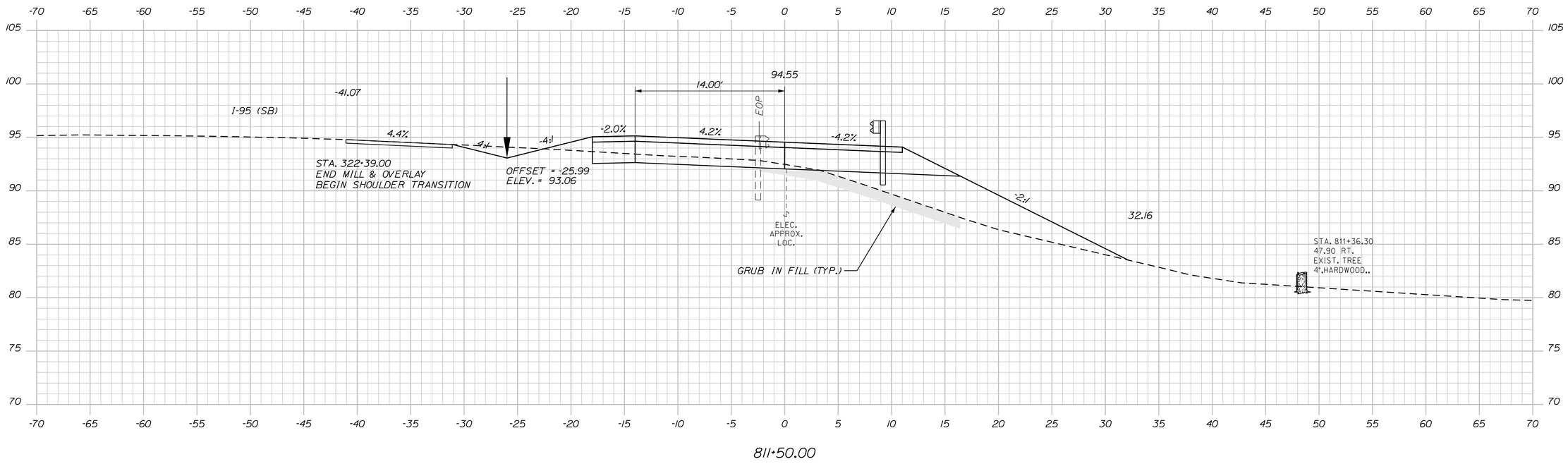
CROSS SECTIONS

SHEET NUMBER
H-130
276
OF 485

Sta. 810+50.00 to Sta. 811+00.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		DATE
PROJ. MANAGER	L. ROWE	
DESIGN-DETAILED	ECF	JBD 11/25/2025
CHECKED-REVIEWED	ECF	AG 11/25/2025
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

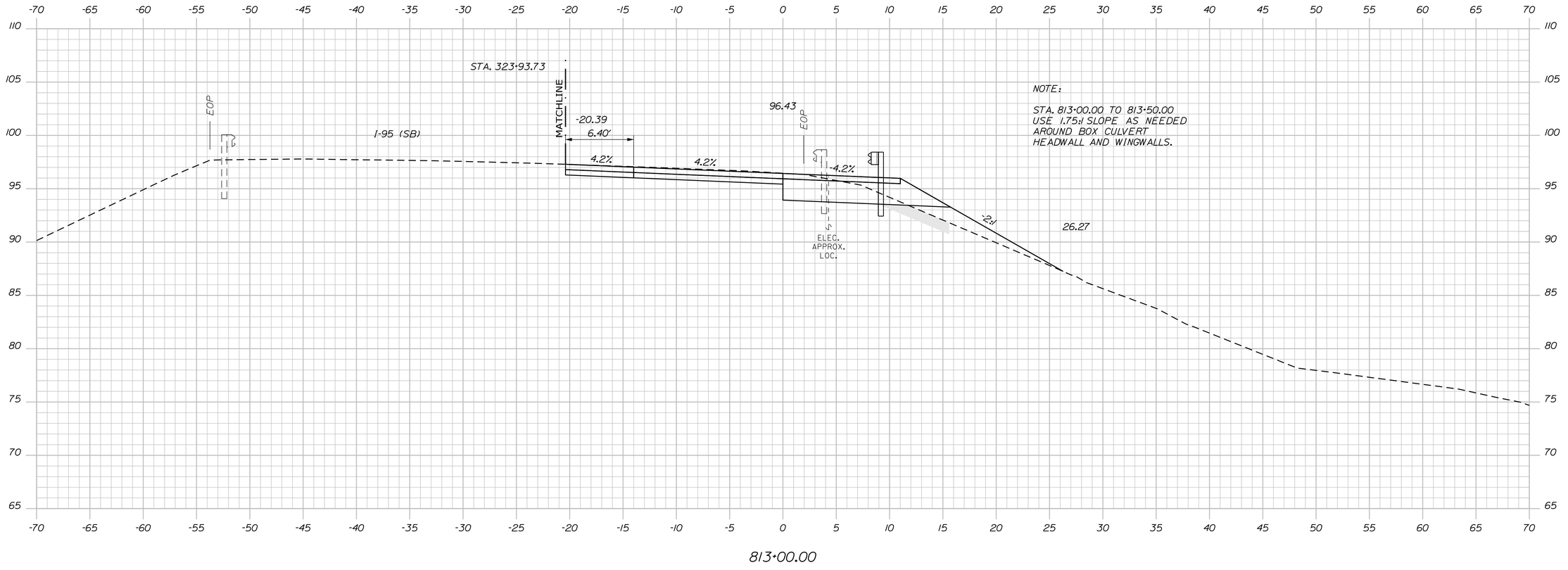
BANGOR
RAMP B

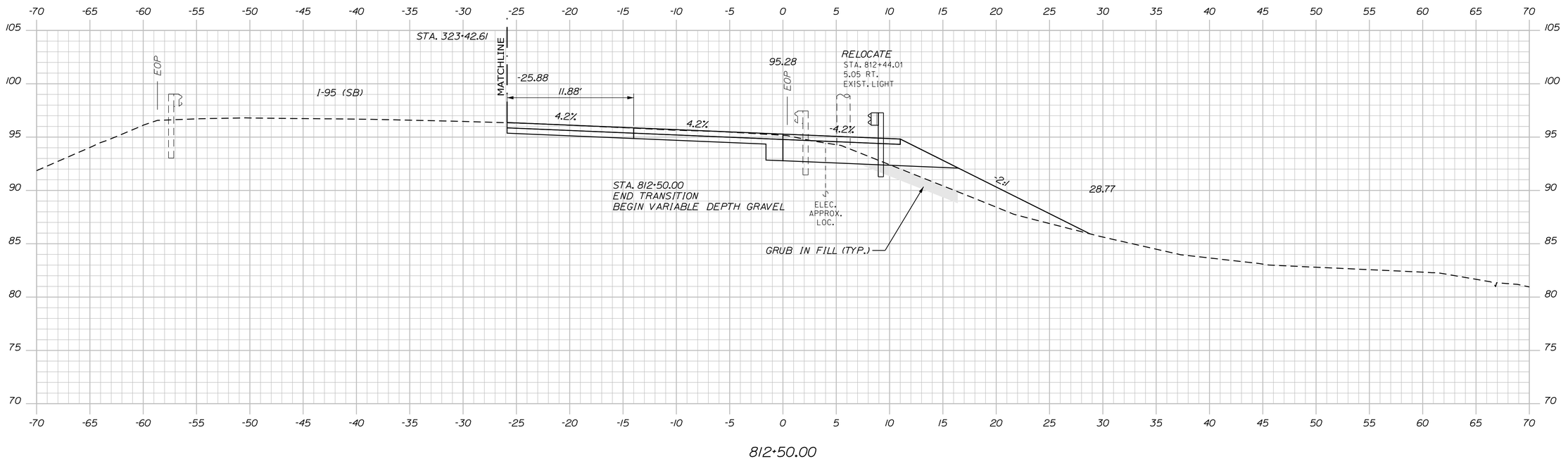
CROSS SECTIONS

SHEET NUMBER
H-131
277
OF 485

Sta. 811+50.00 to Sta. 812+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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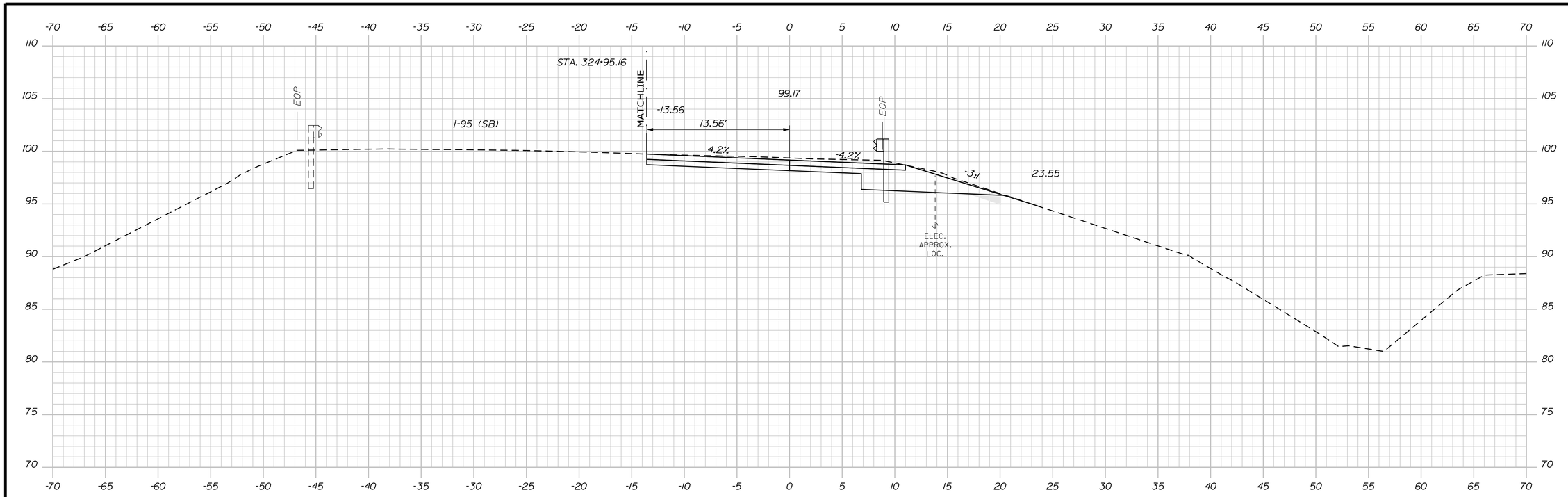
BANGOR
RAMP B

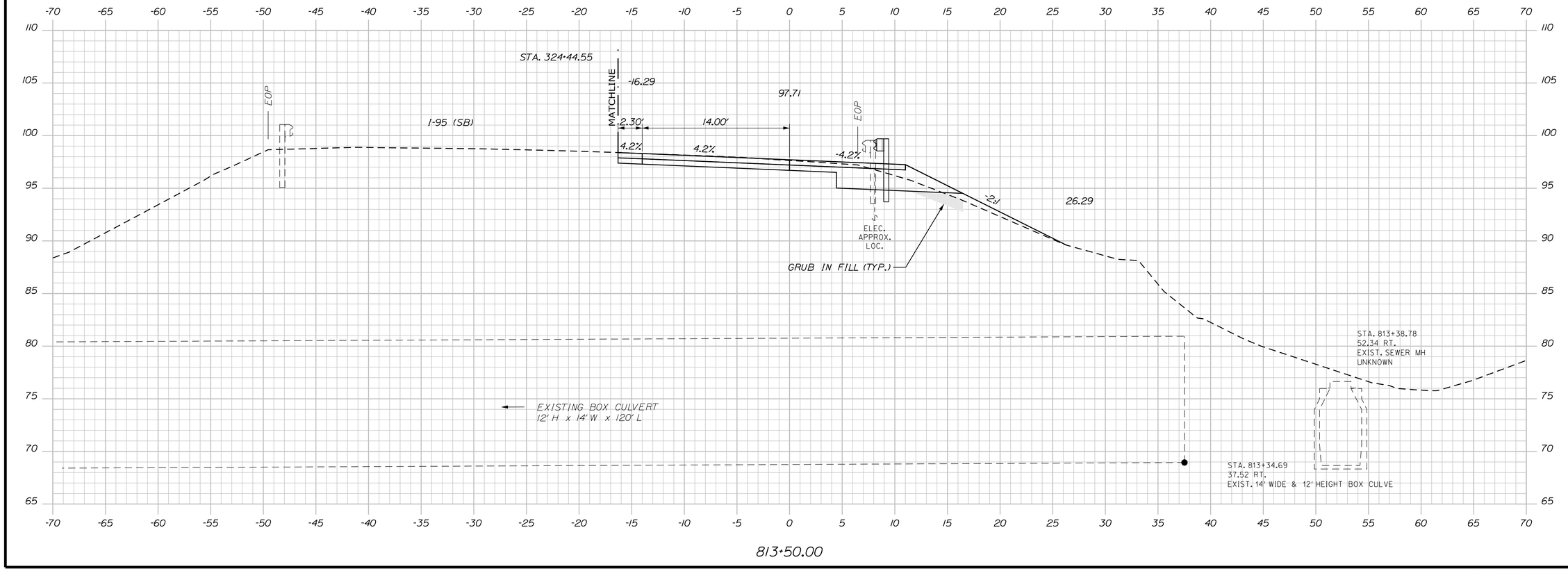
CROSS SECTIONS

SHEET NUMBER
H-132
278
OF 485

Sta. 812+50.00 to Sta. 813+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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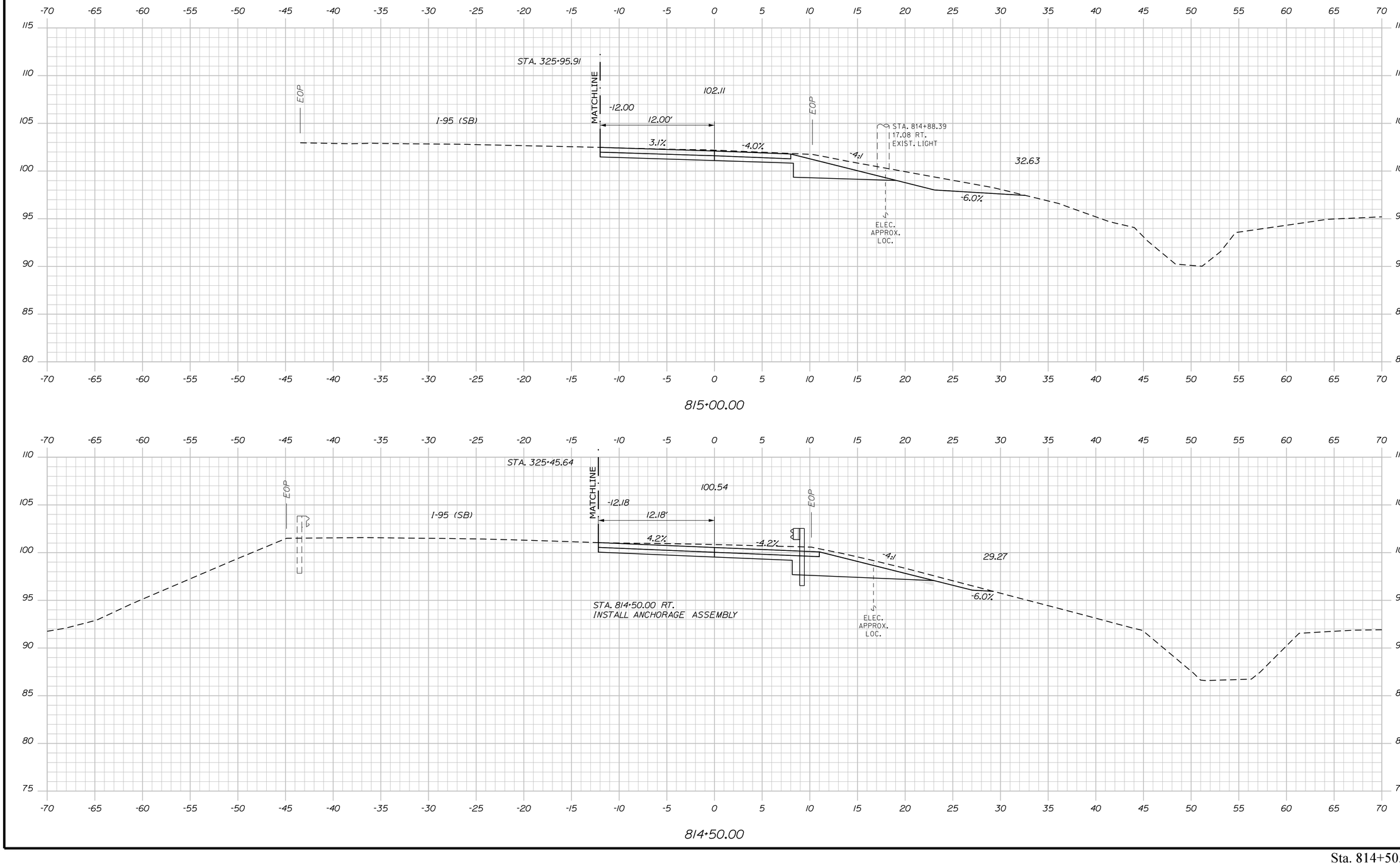
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-133
279
OF 485

Sta. 813+50.00 to Sta. 814+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

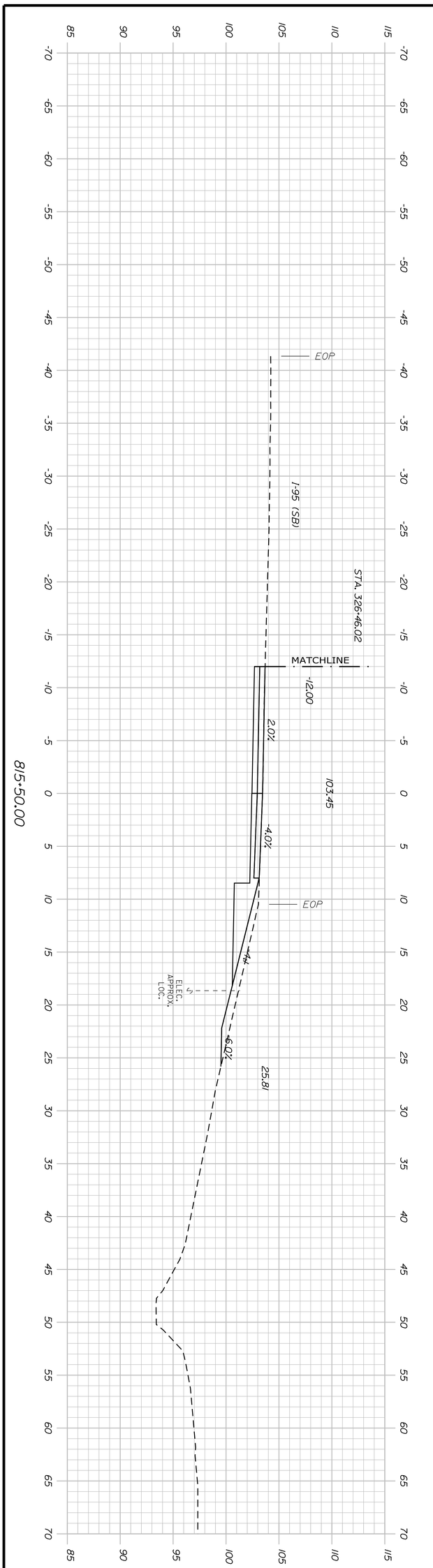
		BY	DATE
PROJ. MANAGER	L. ROWE		
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CHECKED-REVIEWED	ECF	AG	11/25/2025
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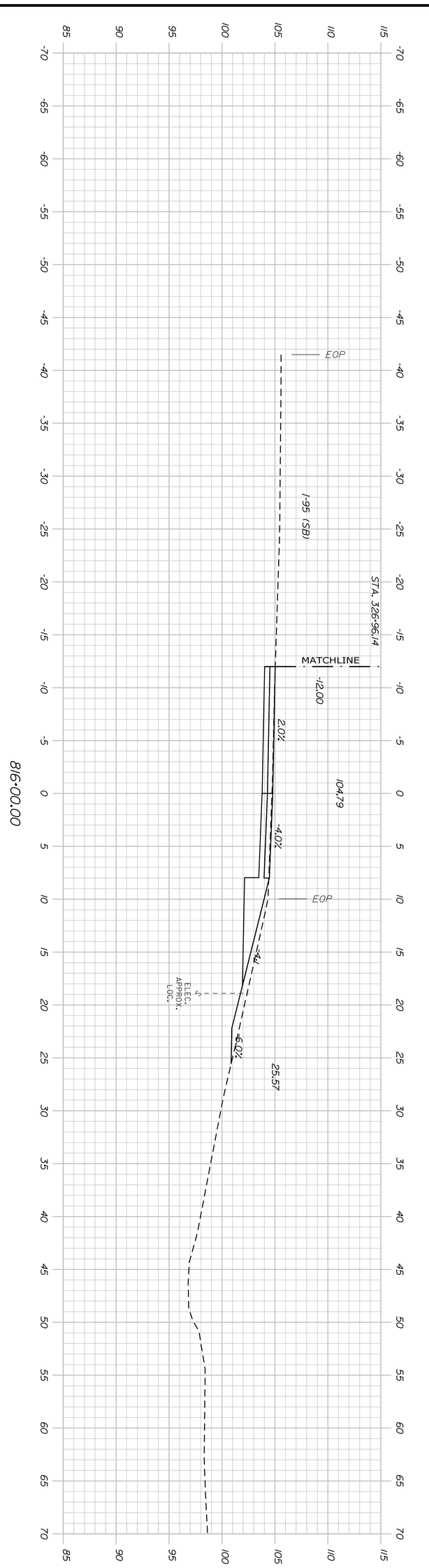
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-134
280
OF 485

Sta. 814+50.00 to Sta. 815+00.00





Sta. 815+50.00 to Sta. 816+00.00

SHEET NUMBER H-135 281 OF 485

BANGOR RAMP B

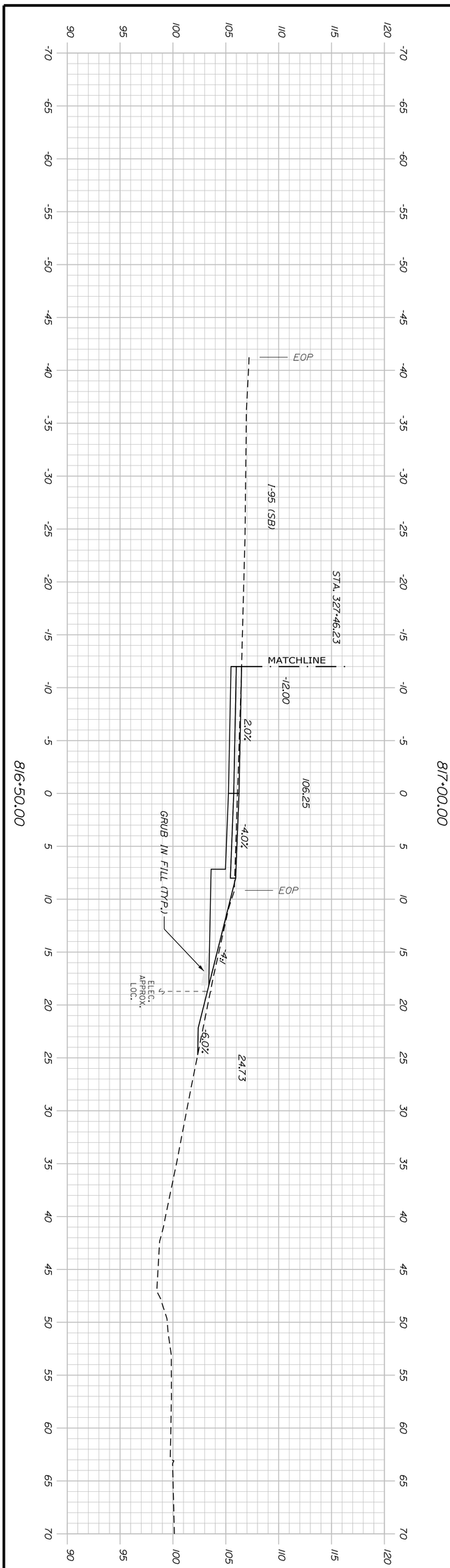
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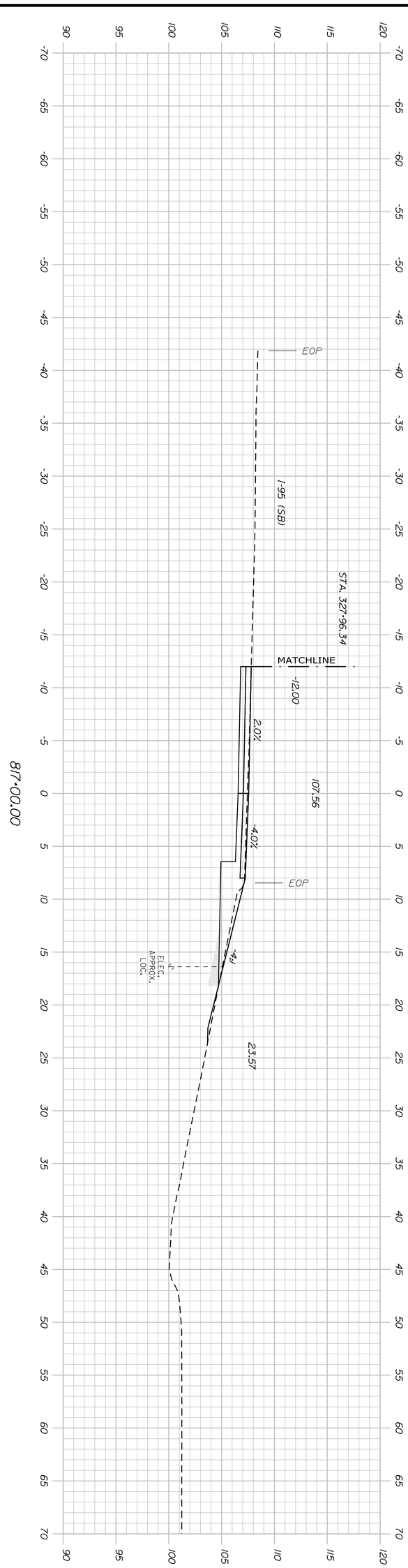
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11 HIGHWAY PLANS





Sta. 816+50.00 to Sta. 817+00.00

SHEET NUMBER H-136
282 OF 485

BANGOR RAMP B

CROSS SECTIONS

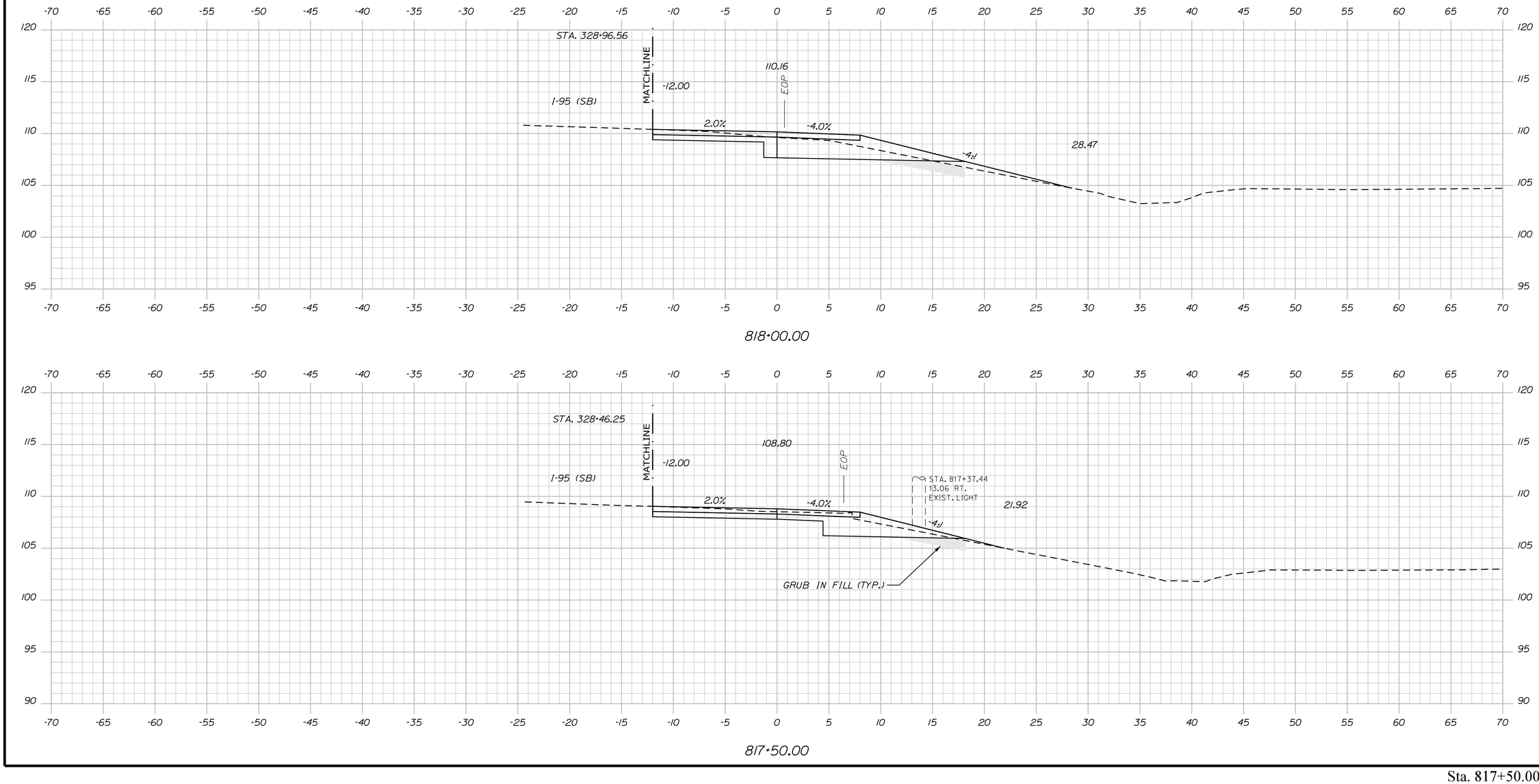
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

vhb

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN 18595.11 HIGHWAY PLANS



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

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18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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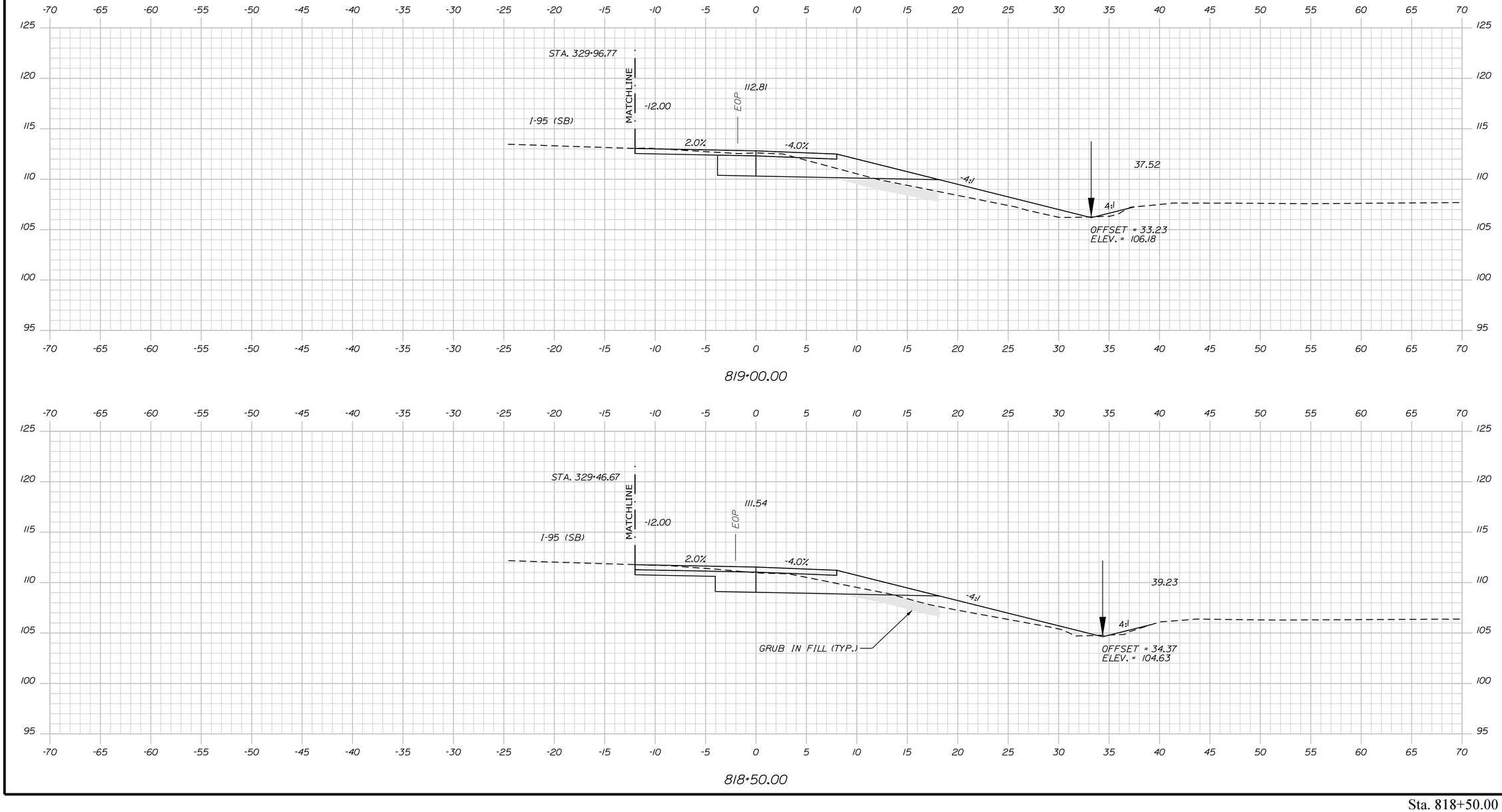
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-137
283
OF 485

Sta. 817+50.00 to Sta. 818+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 818+50.00 to Sta. 819+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

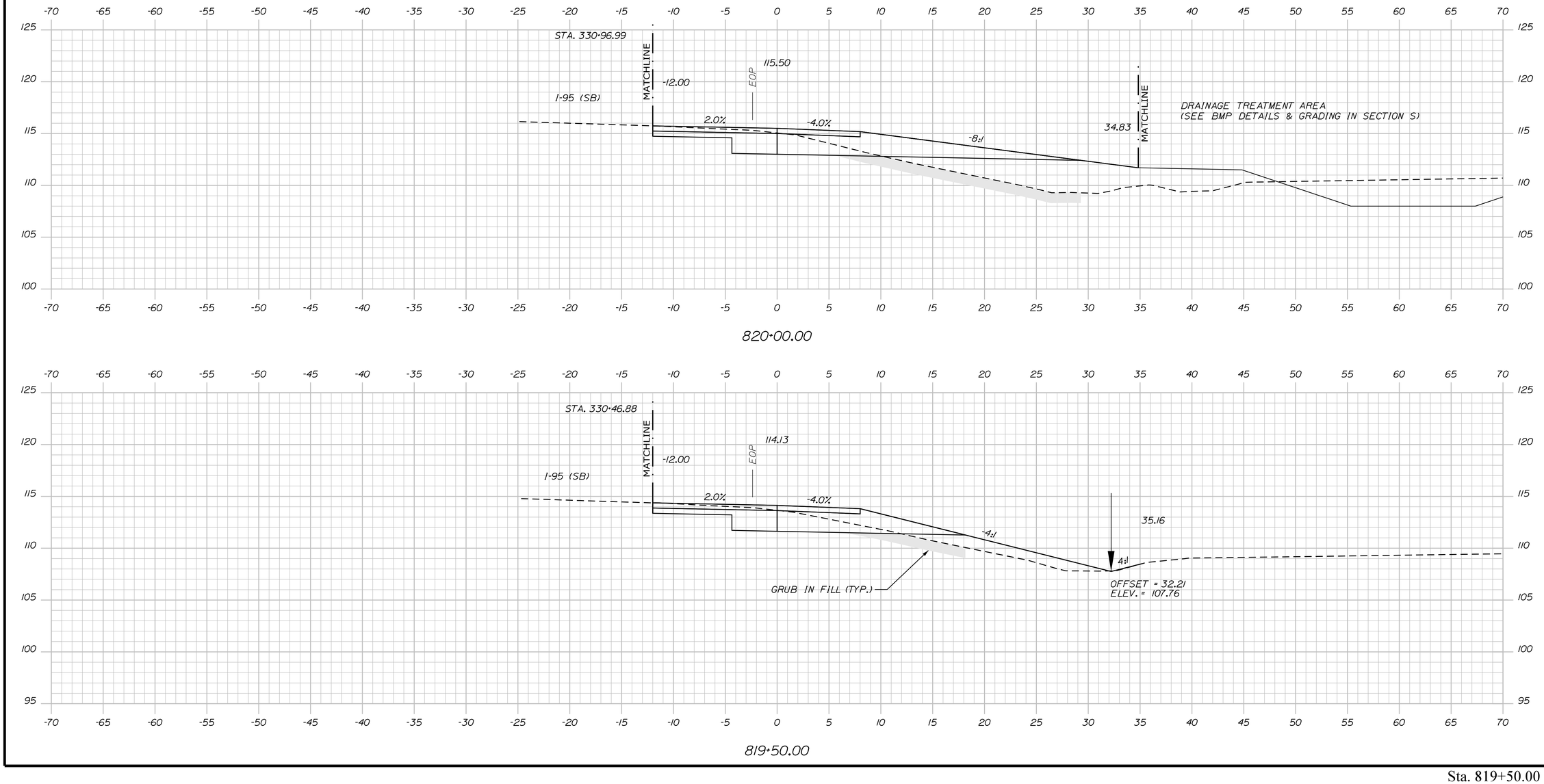
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REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-138
284
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 819+50.00 to Sta. 820+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

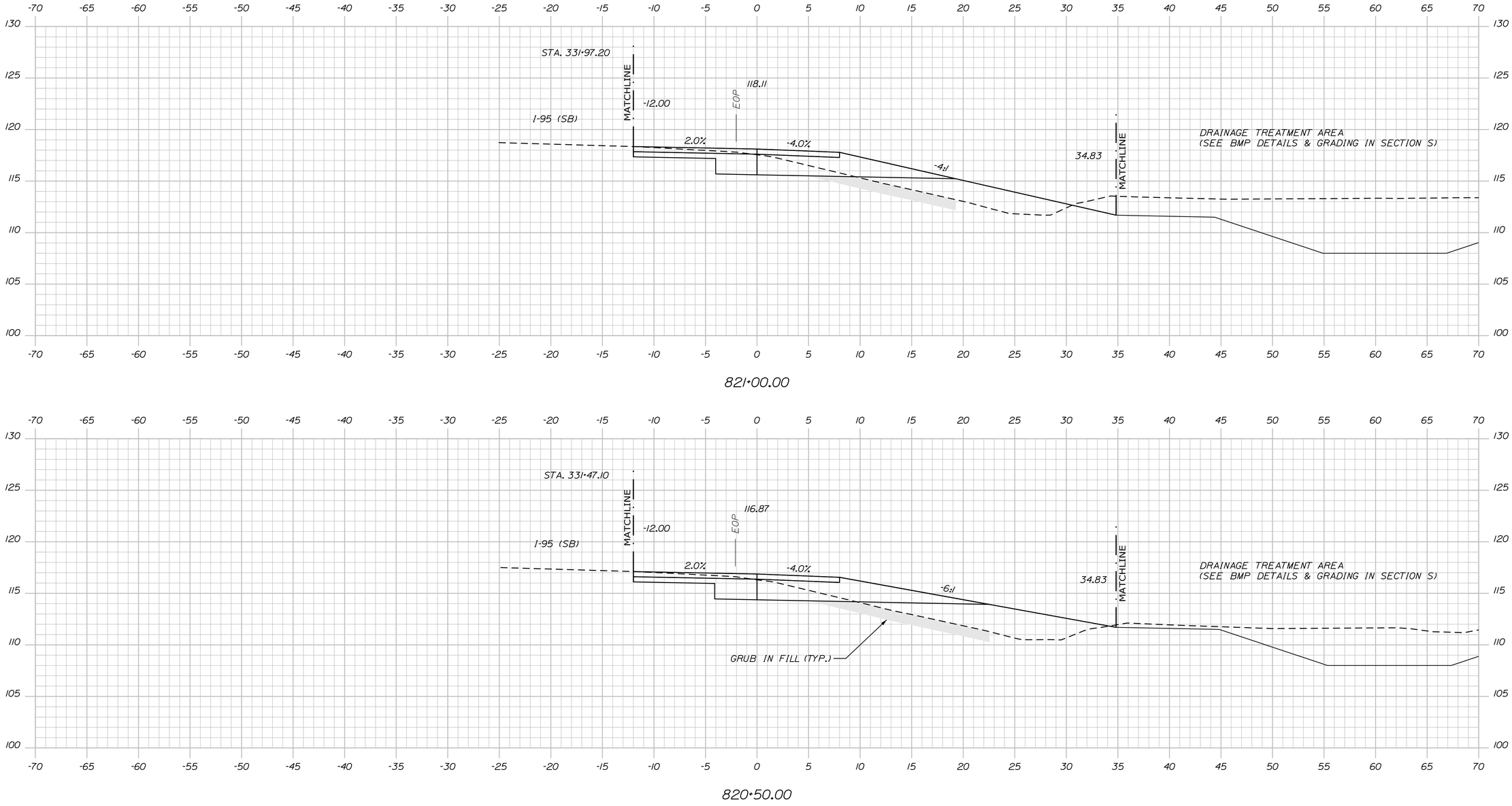
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FIELD CHANGES			

BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-139
285
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-140
286
OF 485

Sta. 820+50.00 to Sta. 821+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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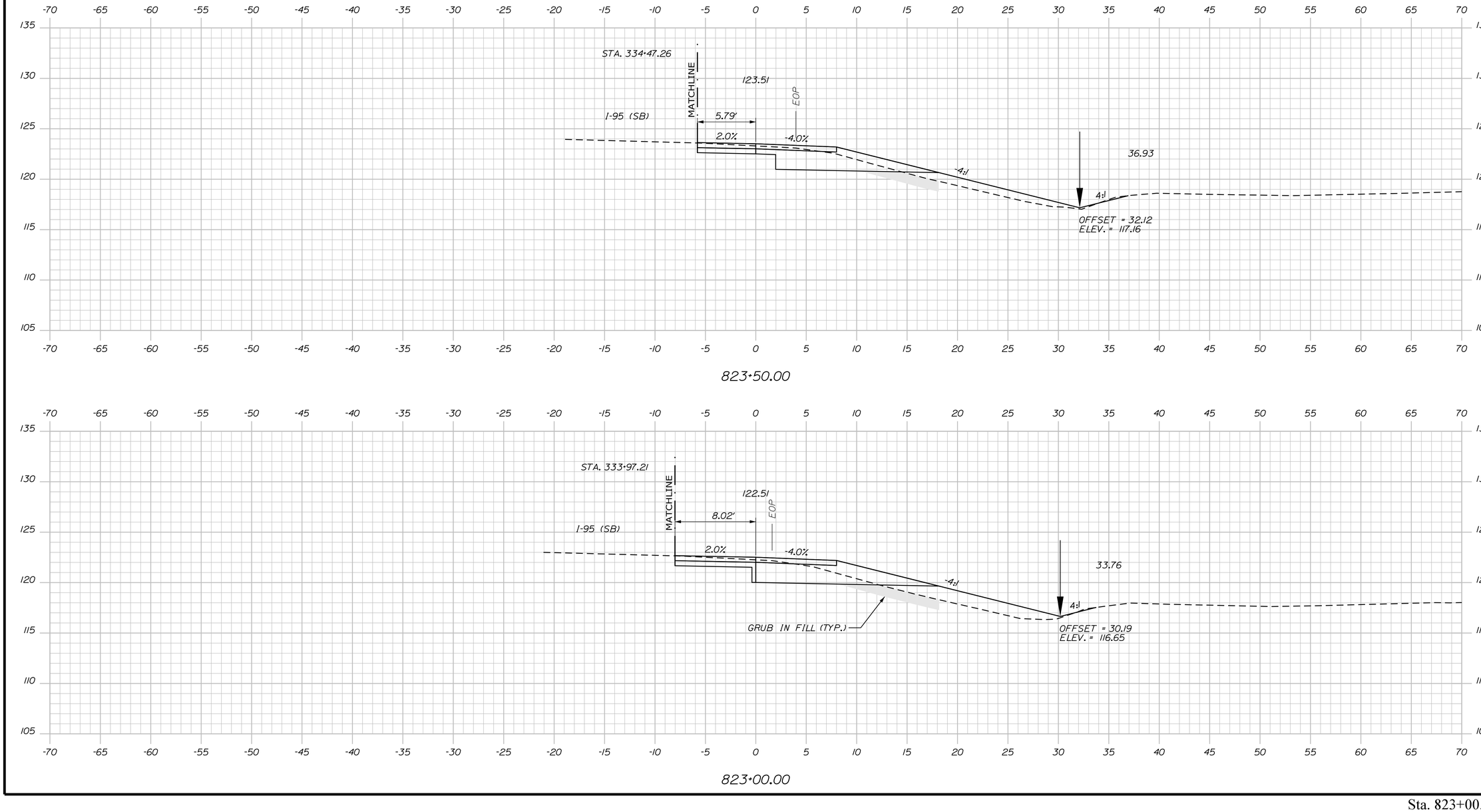
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-141
287
OF 485

Sta. 821+50.00 to Sta. 822+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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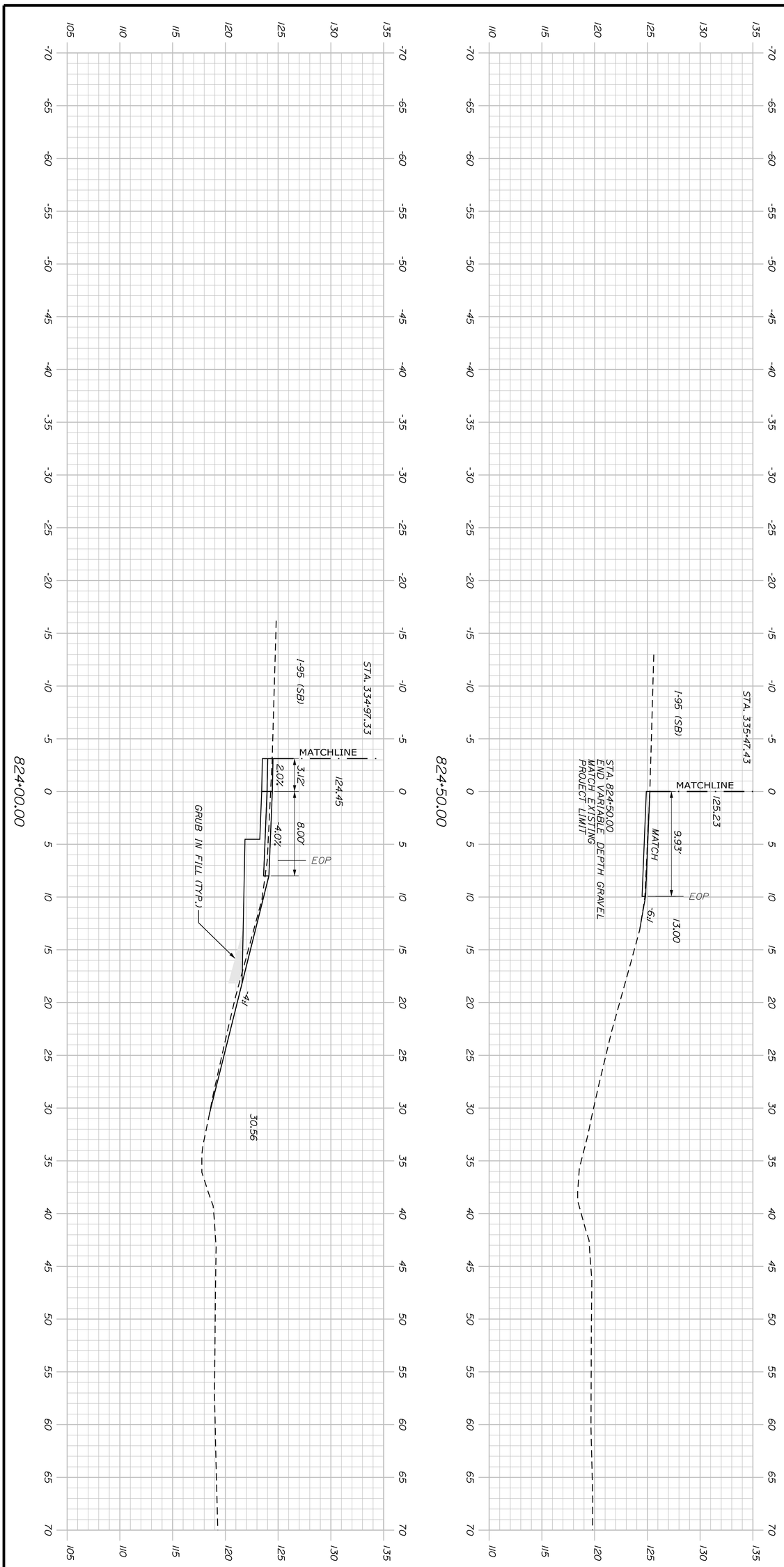
BANGOR
RAMP B

CROSS SECTIONS

SHEET NUMBER
H-142
288
OF 485

Sta. 823+00.00 to Sta. 823+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 824+00.00 to Sta. 824+50.00

BANGOR
RAMP B

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

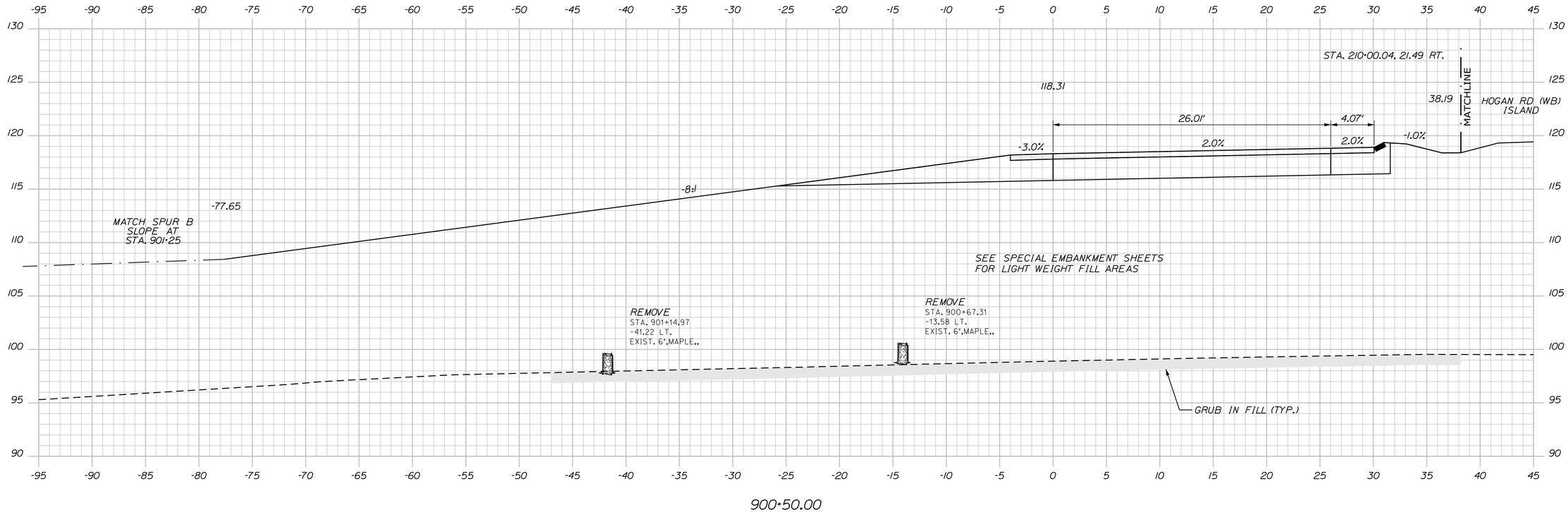
SHEET NUMBER H-143
289 OF 485

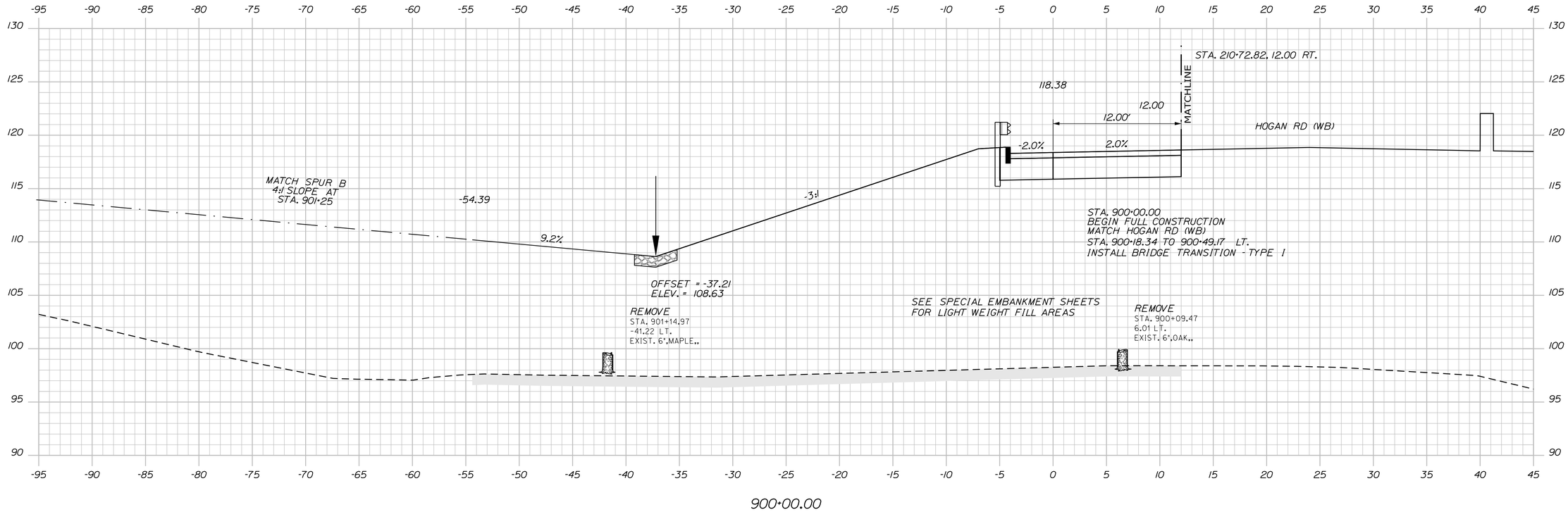
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11 HIGHWAY PLANS

Username: jamesdavis Date:11/25/2025
Division: HIGHWAY
Filename: ...\H_004_CrossSections.dgn





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
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HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
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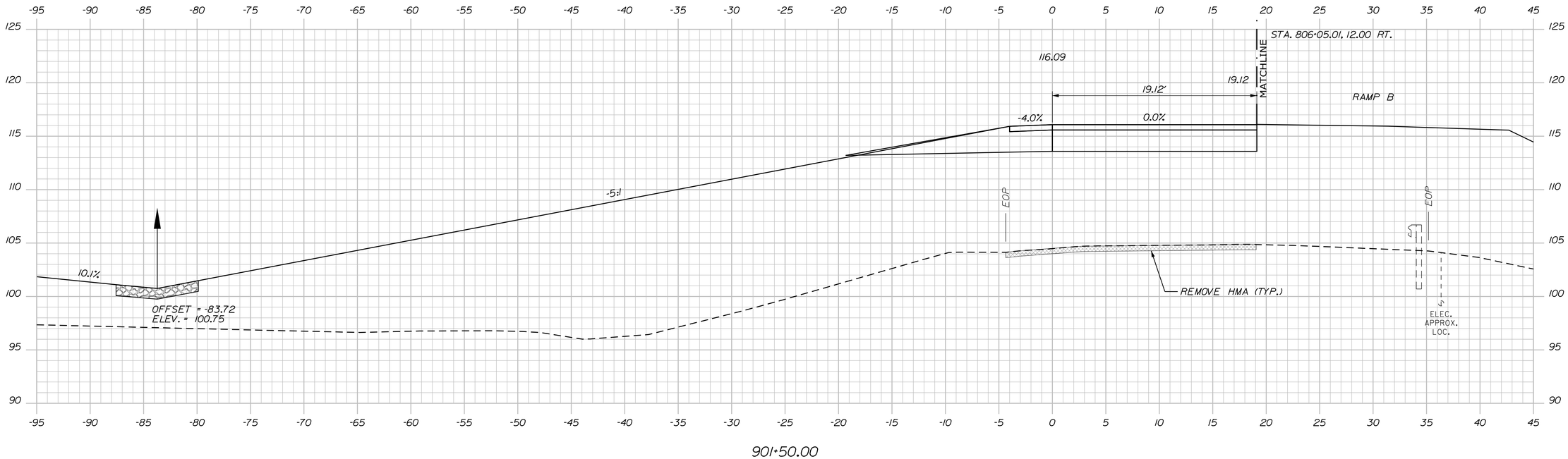
BANGOR
SPUR B

CROSS SECTIONS

SHEET NUMBER
H-144
290
OF 485

Sta. 900+00.00 to Sta. 900+50.00

Username: jamesdavis
Date:11/25/2025
Division: HIGHWAY
Filename: ...\H_004_CrossSections.dgn



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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

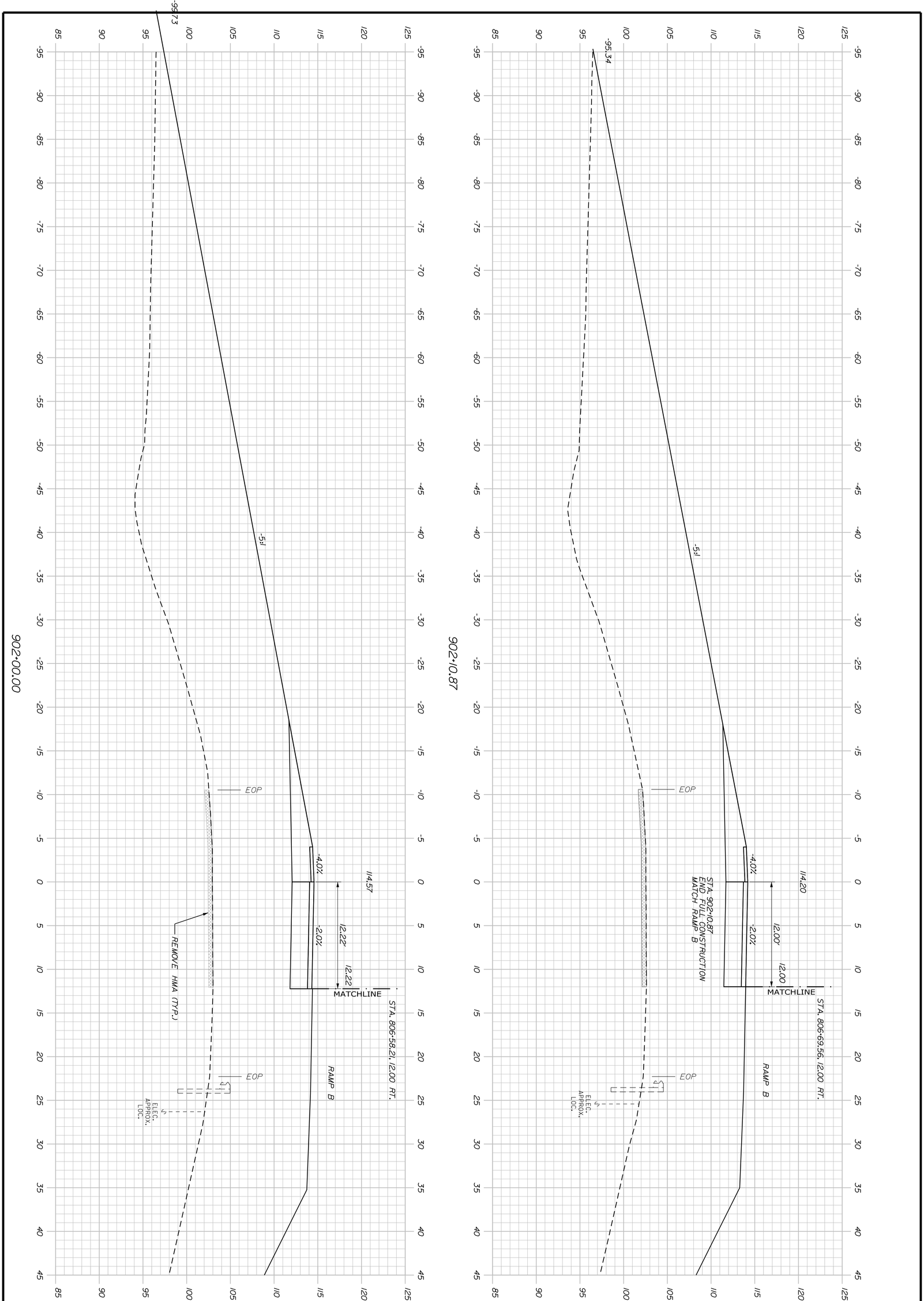
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CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
SPUR B

CROSS SECTIONS

SHEET NUMBER
H-145
291
OF 485

Sta. 901+00.00 to Sta. 901+50.00



Sta. 902+00.00 to Sta. 902+10.87

BANGOR
SPUR B

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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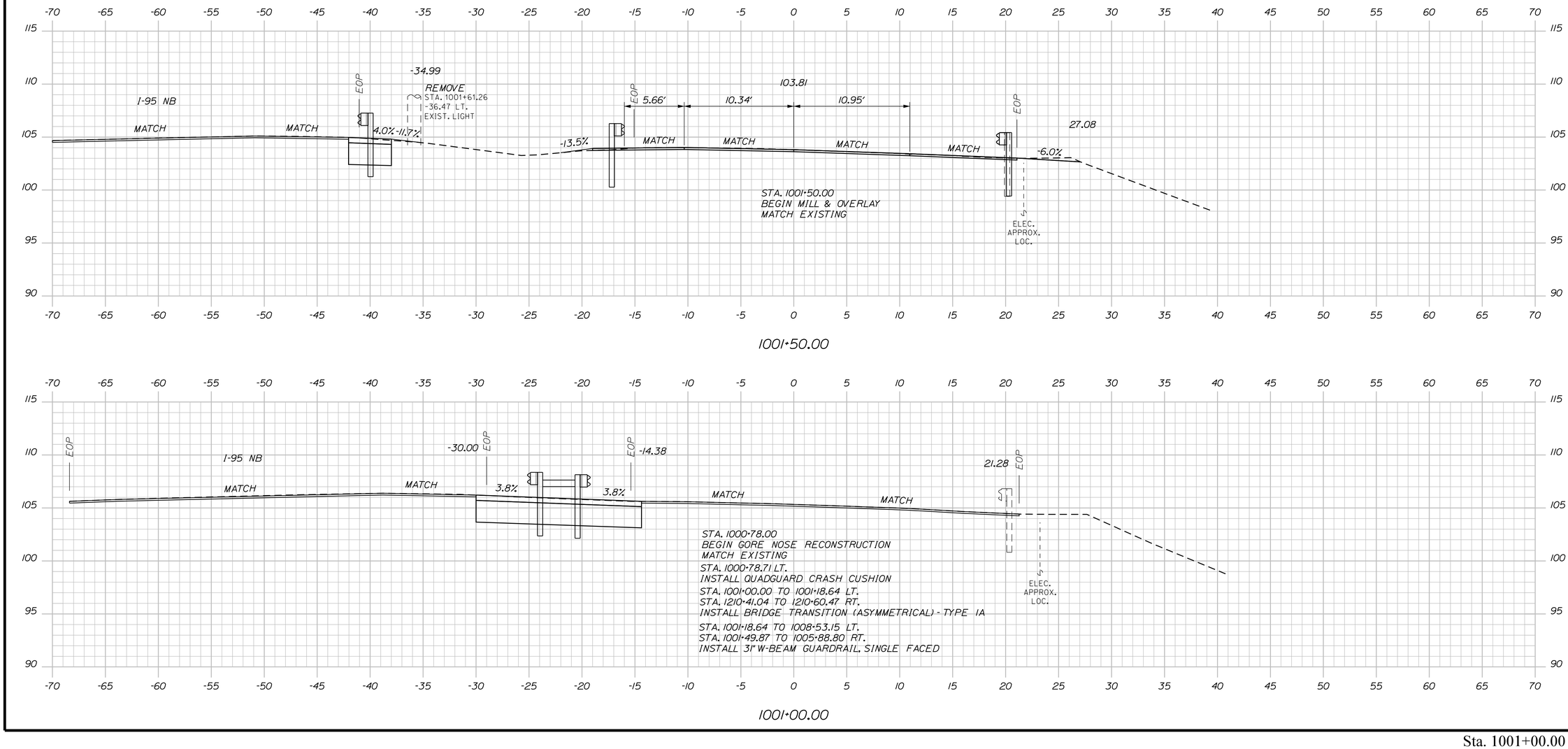
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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18595.11

HIGHWAY PLANS

SHEET NUMBER
H-146
292
OF 485



Sta. 1001+00.00 to Sta. 1001+50.00

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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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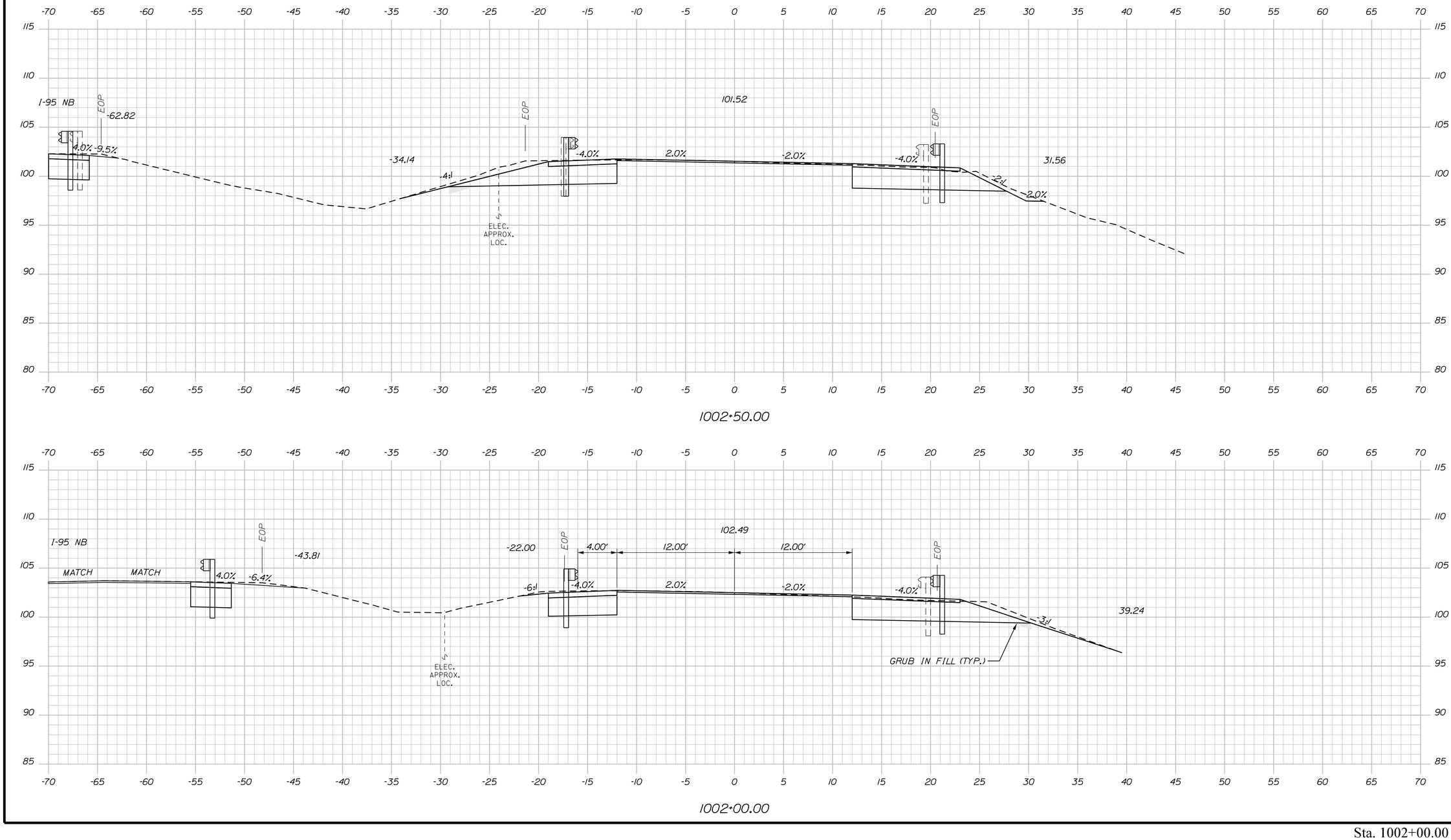
BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-147
293
OF 485

Division: HIGHWAY
Username: jamesdavis
Date:11/25/2025
Filename: ...\H_004_CrossSections.dgn

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

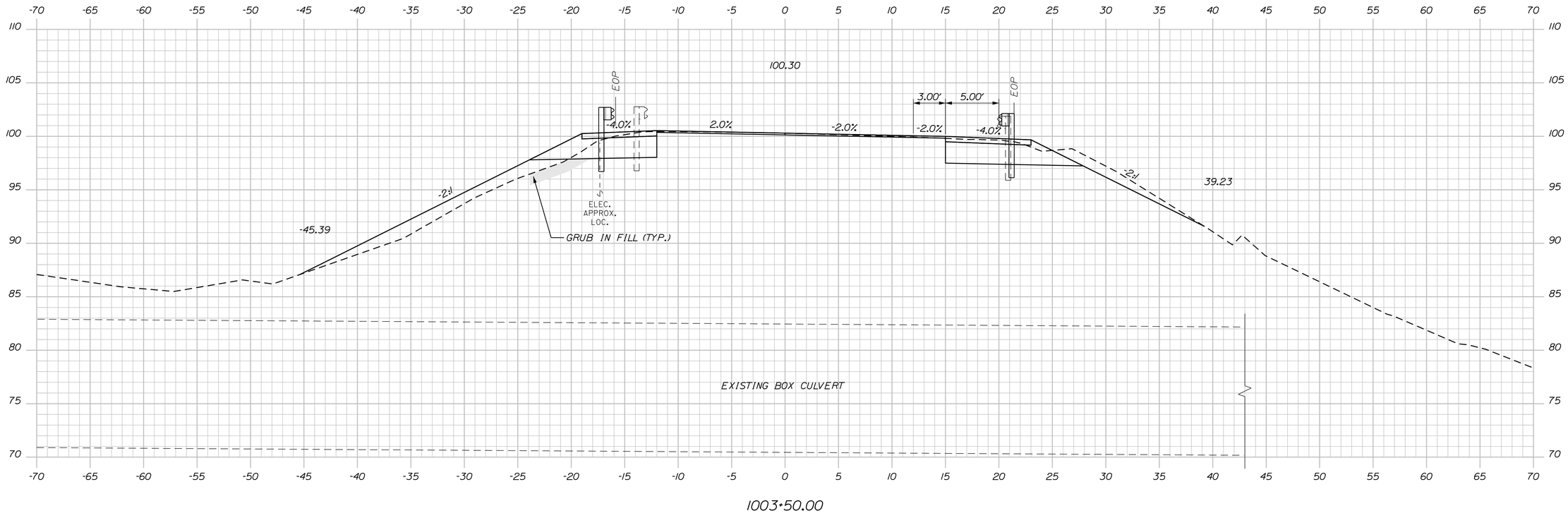
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CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
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FIELD CHANGES			

BANGOR
RAMP C

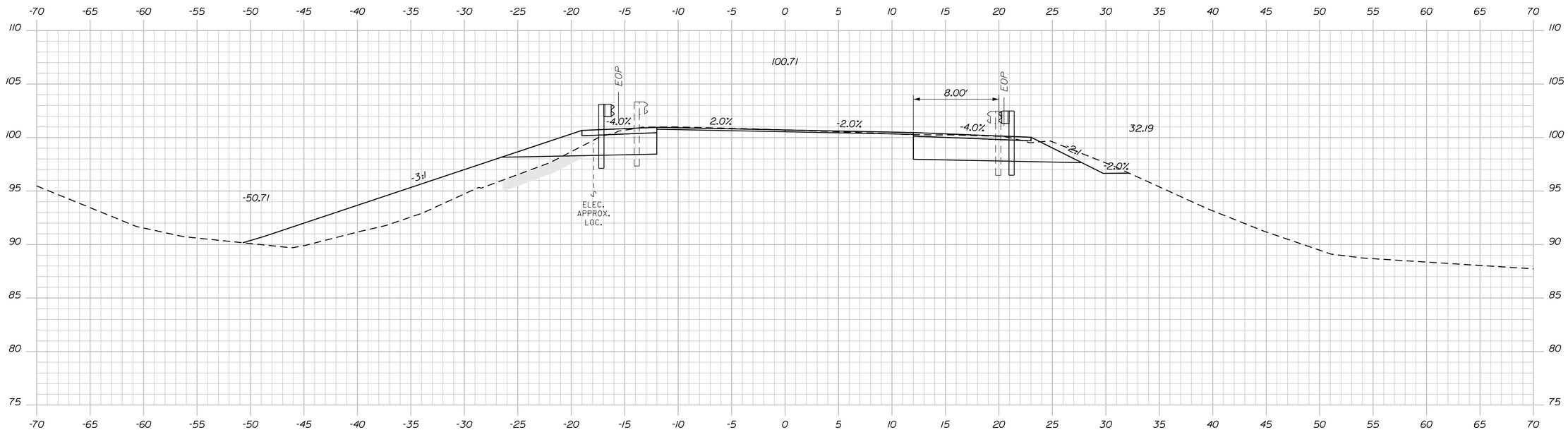
CROSS SECTIONS

SHEET NUMBER
H-148
294
OF 485

Sta. 1002+00.00 to Sta. 1002+50.00



1003+50.00



1003+00.00

STATE OF MAINE
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HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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FIELD CHANGES			

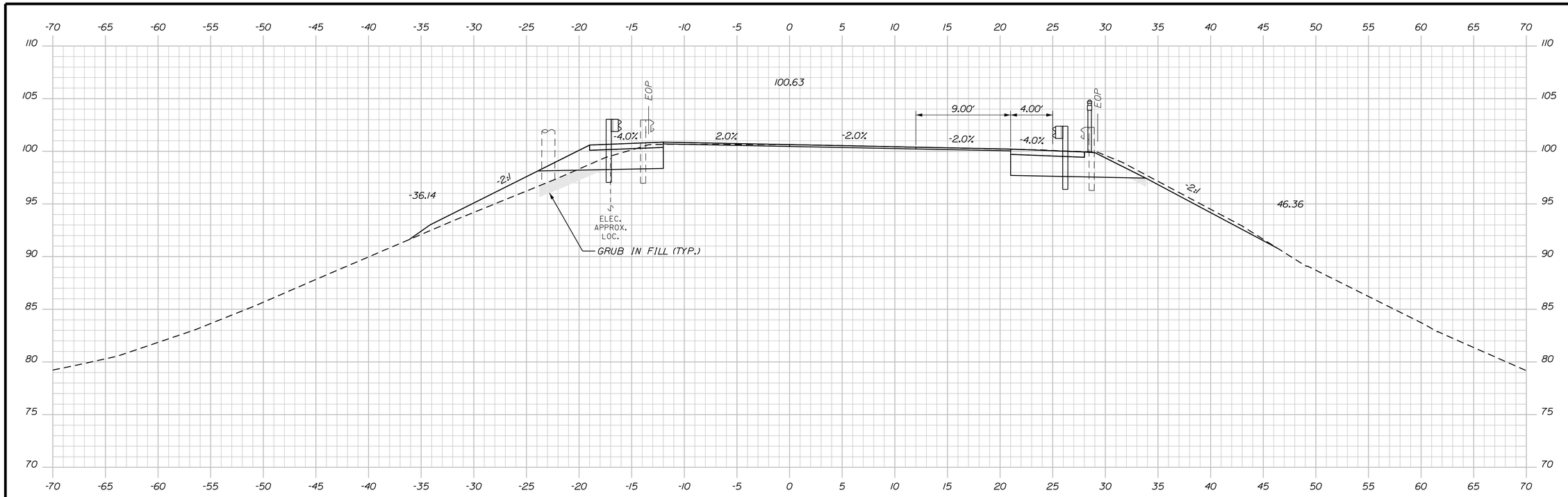
BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
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295
OF 485

Sta. 1003+00.00 to Sta. 1003+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

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		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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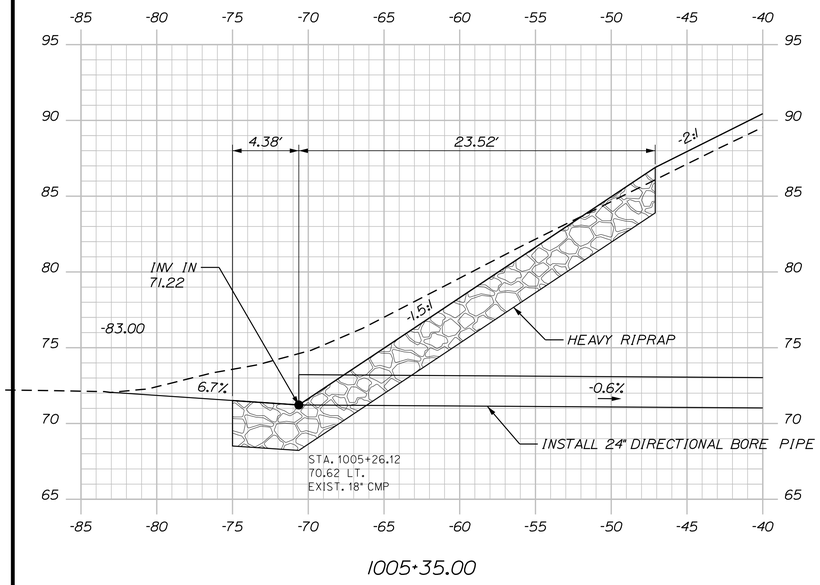
BANGOR
RAMP C

CROSS SECTIONS

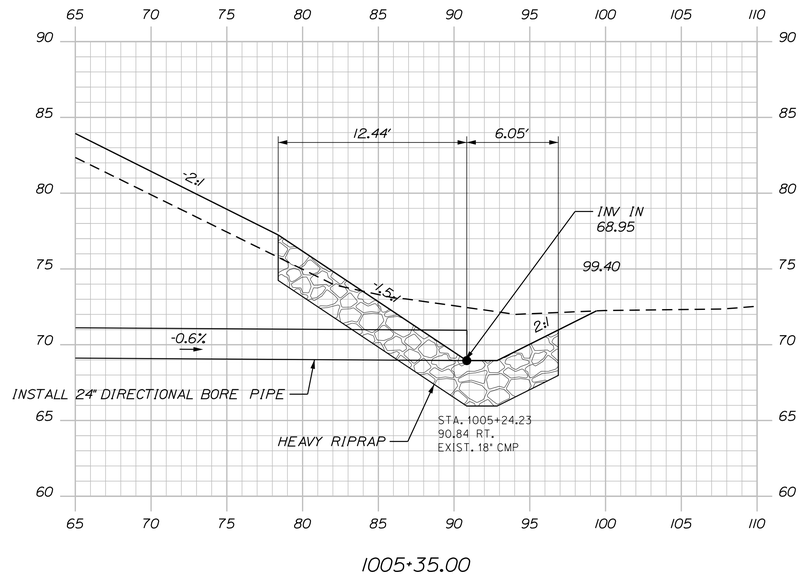
SHEET NUMBER
H-150
296
OF 485

Sta. 1004+00.00 to Sta. 1004+50.00

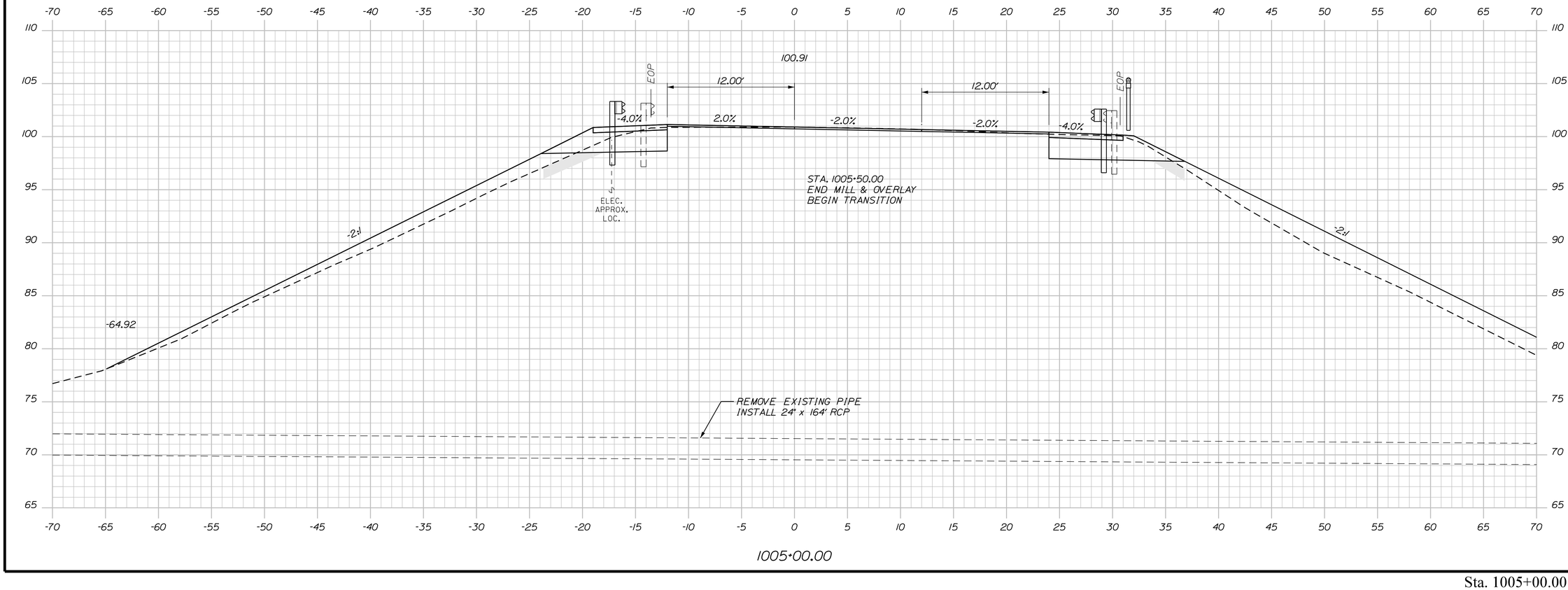
Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



1005+35.00



1005+35.00



1005+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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vhb

			DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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REVISIONS 2			
REVISIONS 3			
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FIELD CHANGES			

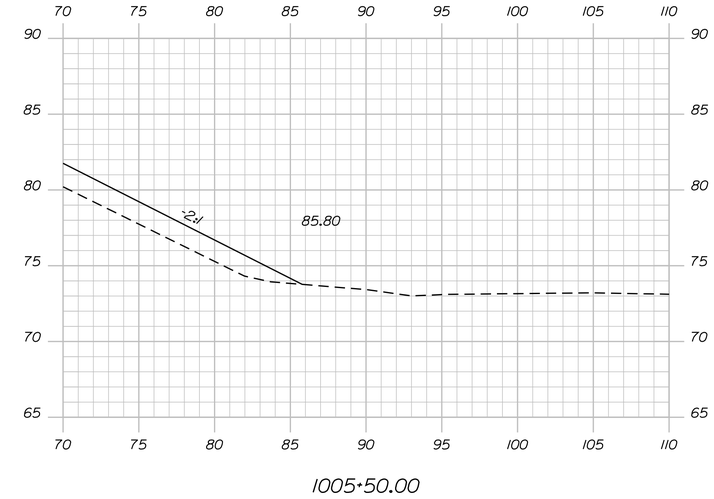
BANGOR
RAMP C

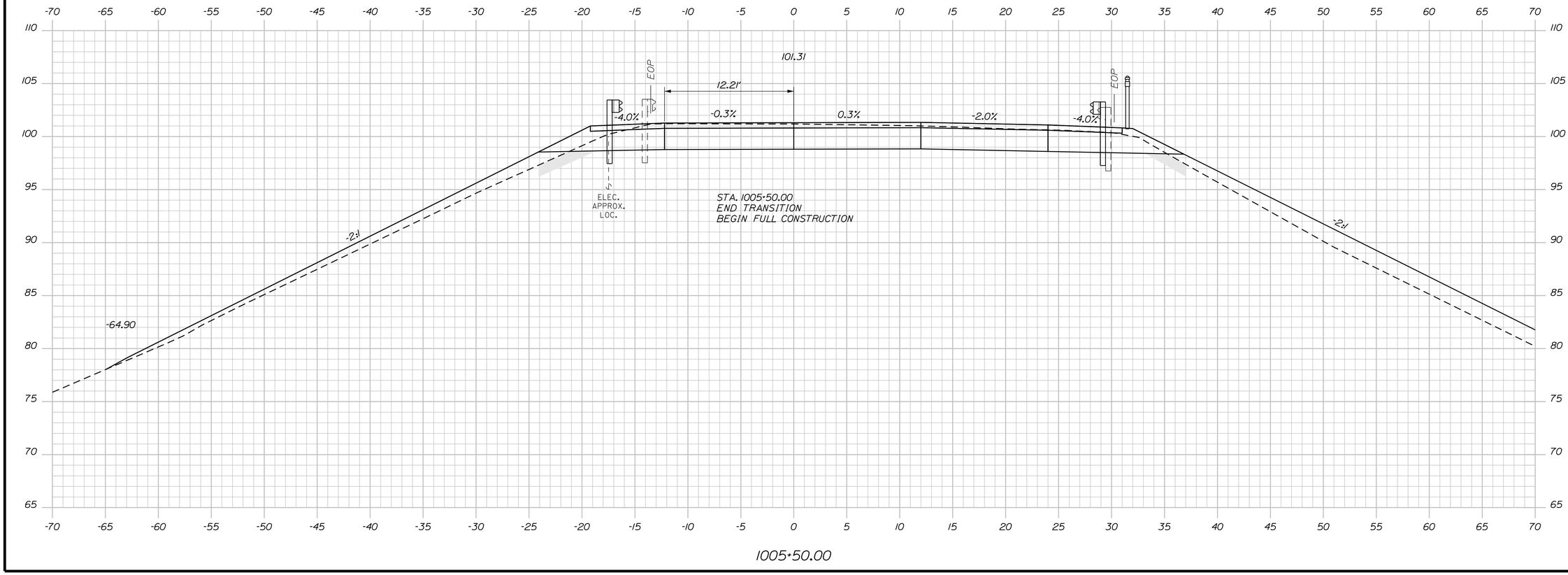
CROSS SECTIONS

SHEET NUMBER
H-151
297
OF 485

Sta. 1005+00.00 to Sta. 1005+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
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FIELD CHANGES			

BANGOR
RAMP C

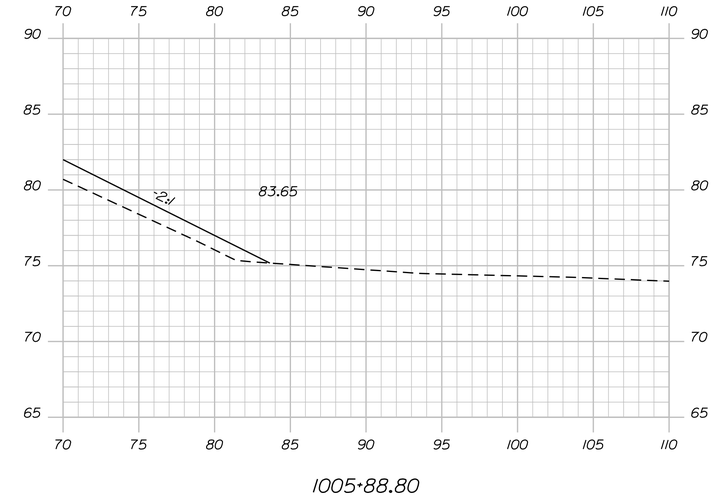
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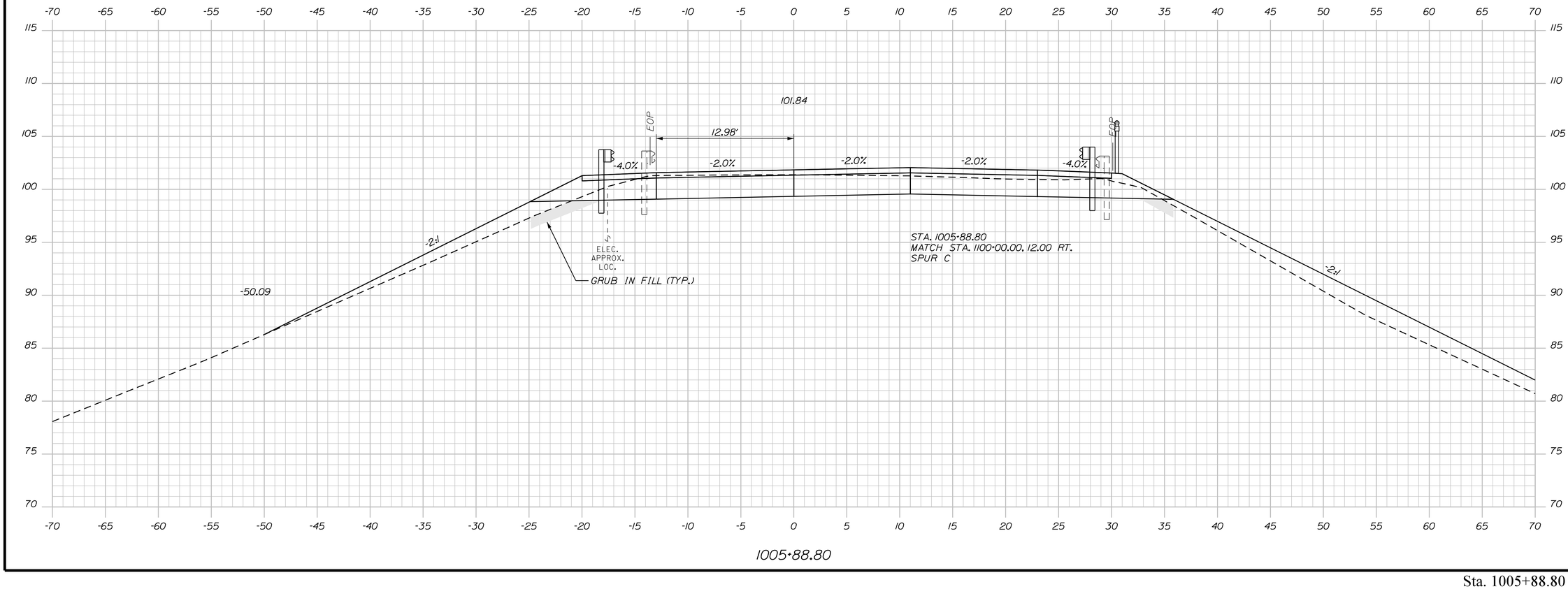
SHEET NUMBER
H-152
298
OF 485

Sta. 1005+50.00 to Sta. 1005+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





Sta. 1005+88.80 to Sta. 1005+88.80

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

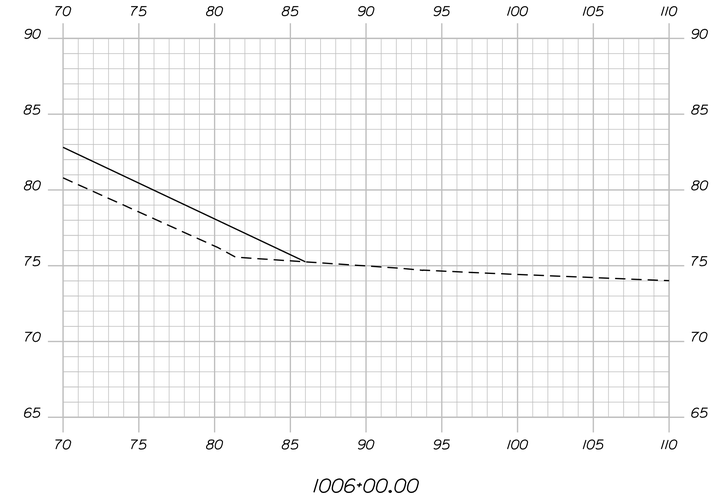
vhb

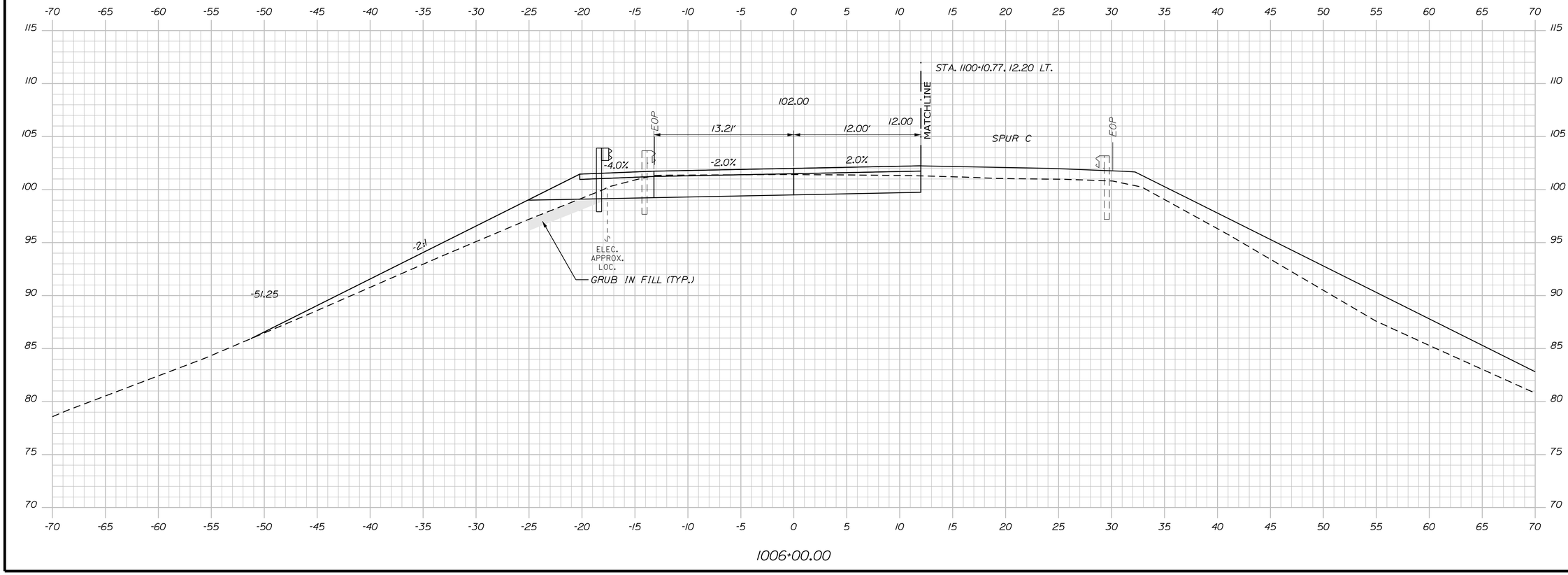
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CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-153
299
OF 485





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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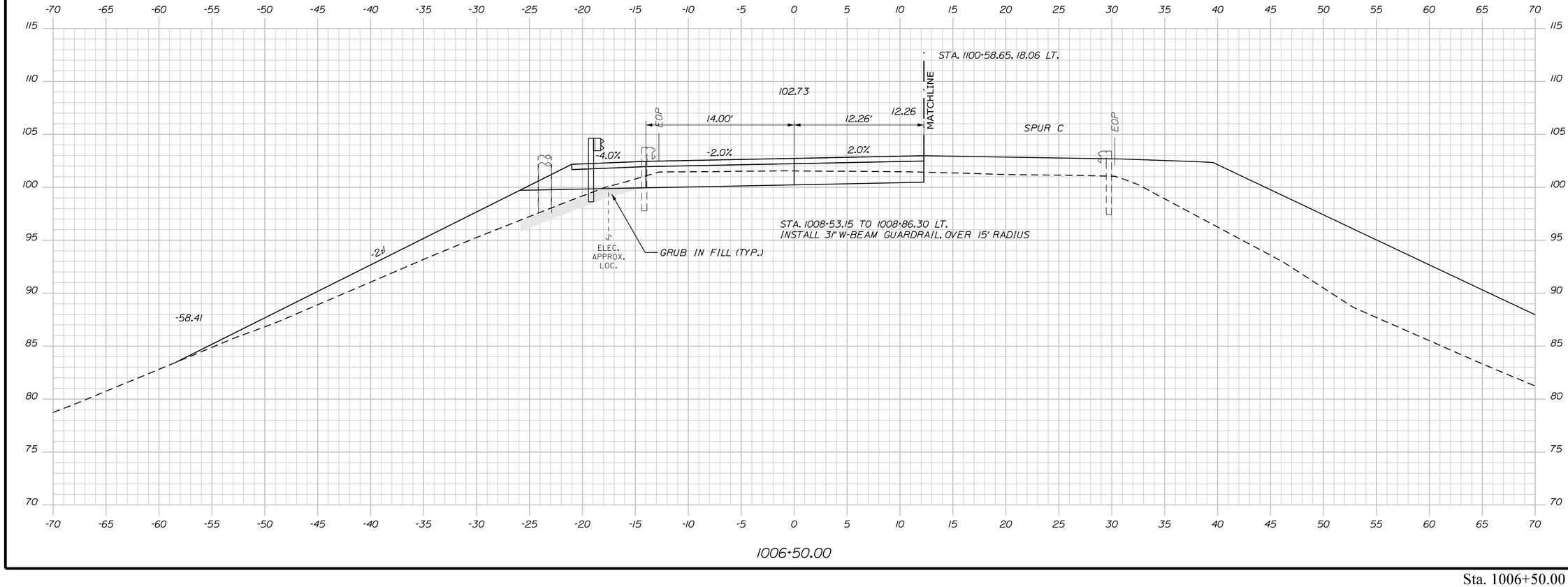
BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-154
300
OF 485

Sta. 1006+00.00 to Sta. 1006+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

	L. ROWE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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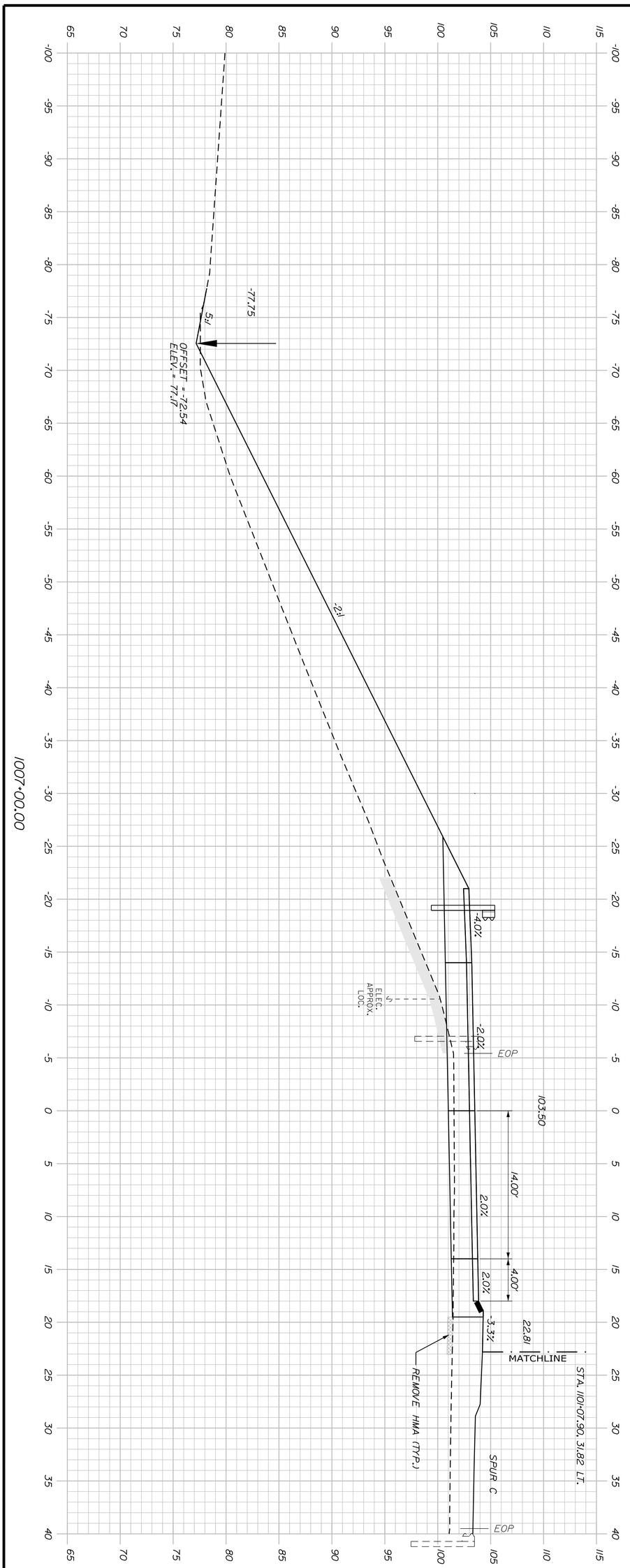
BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-155
301
OF 485

Sta. 1006+50.00 to Sta. 1006+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 1007+00.00 to Sta. 1007+00.00

BANGOR
RAMP C

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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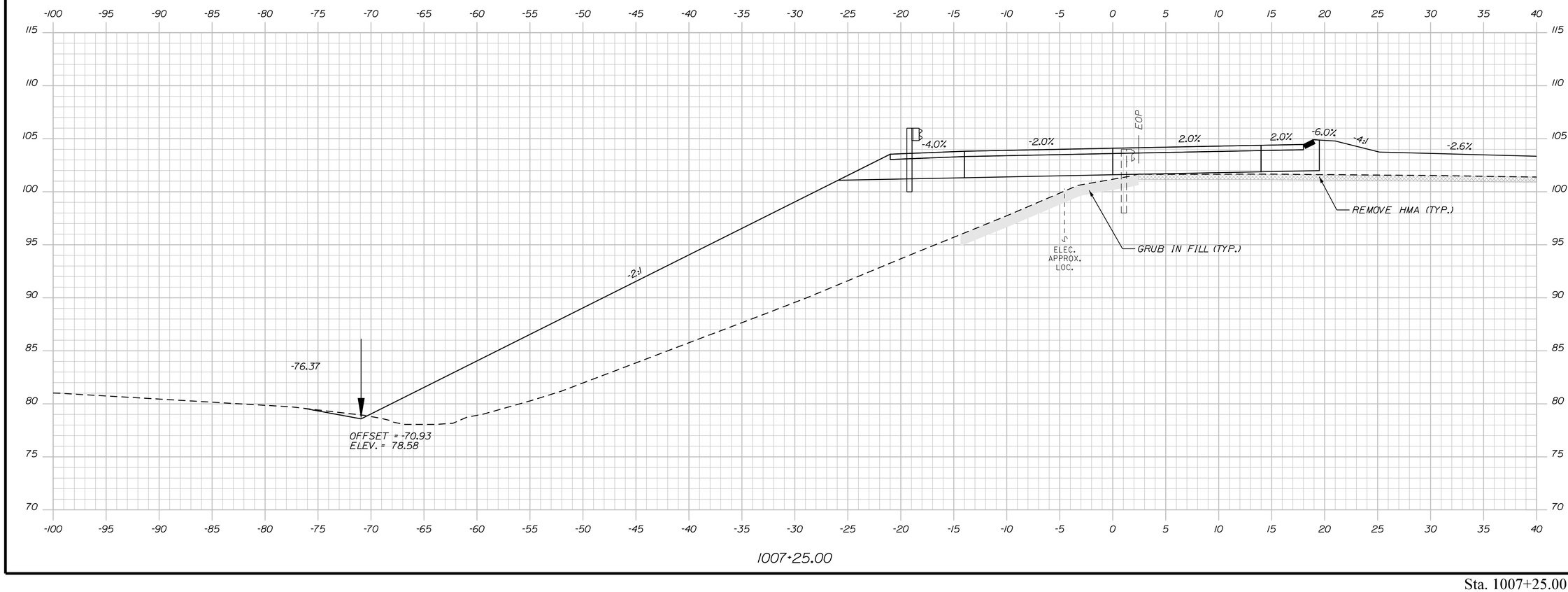
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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18595.11

HIGHWAY PLANS

SHEET NUMBER
H-156
302
OF 485



Sta. 1007+25.00 to Sta. 1007+25.00

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

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18595.11

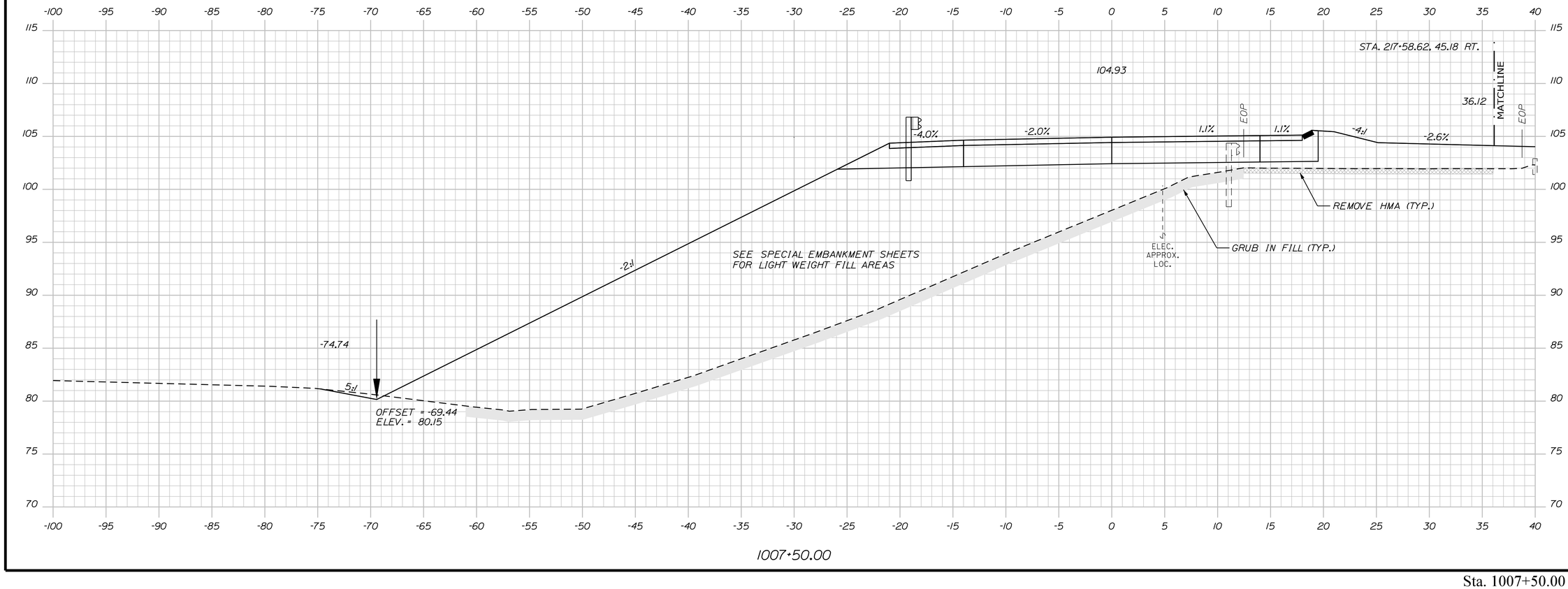
HIGHWAY PLANS

BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-157
303
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
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REVISIONS 4			
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BANGOR
RAMP C

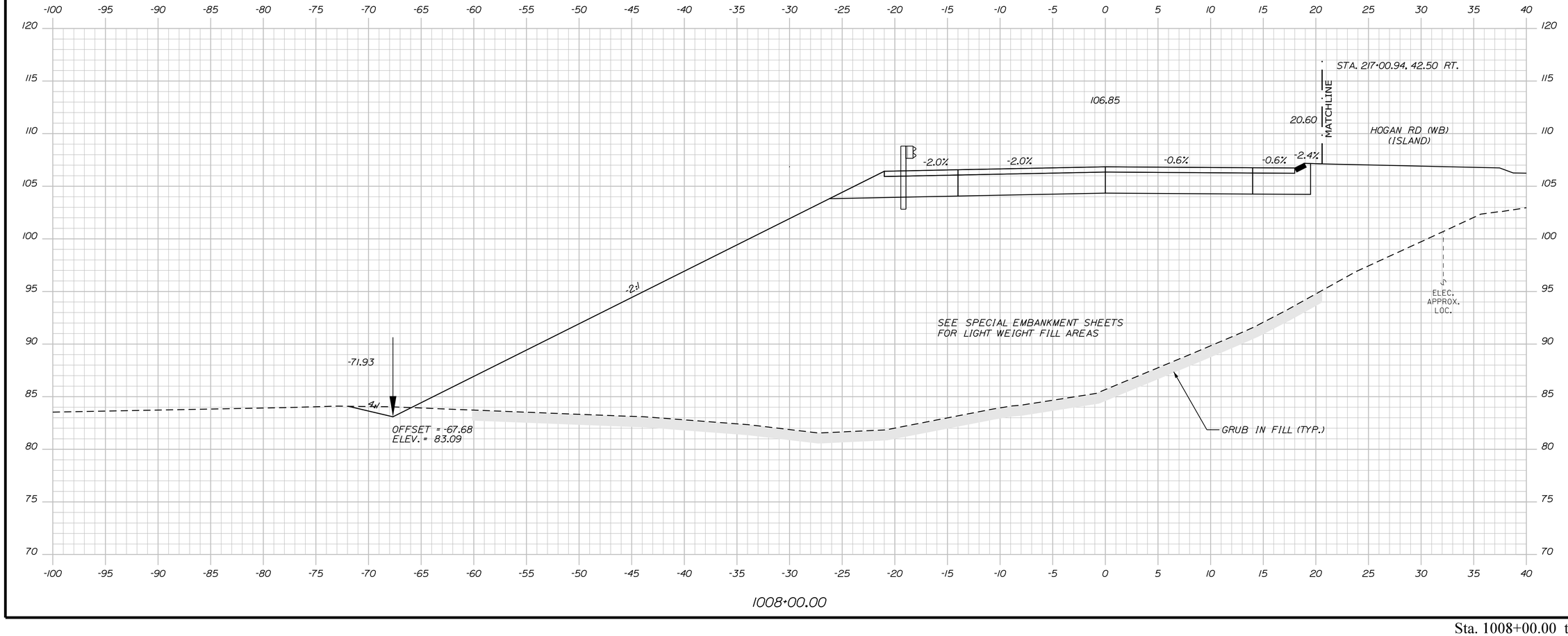
CROSS SECTIONS

SHEET NUMBER
H-158
304
OF 485

Sta. 1007+50.00 to Sta. 1007+50.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

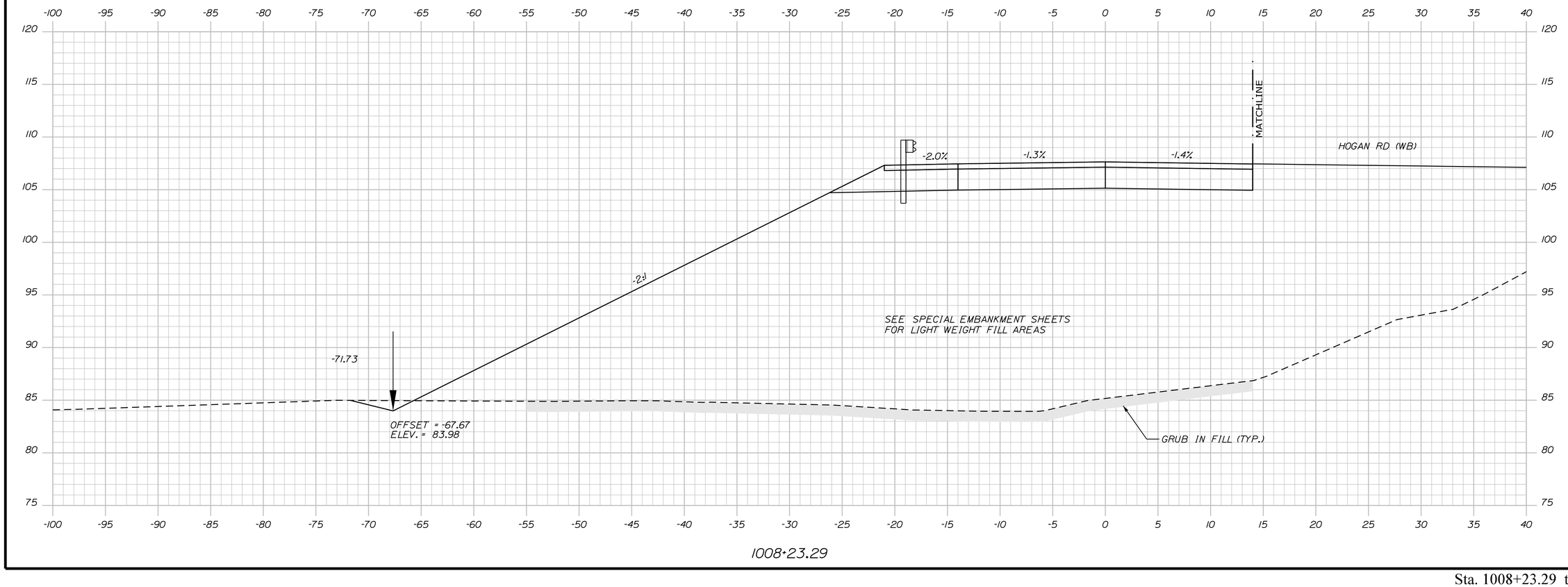
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DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-159
305
OF 485

Sta. 1008+00.00 to Sta. 1008+00.00



Sta. 1008+23.29 to Sta. 1008+23.29

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
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FIELD CHANGES			

vhb

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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

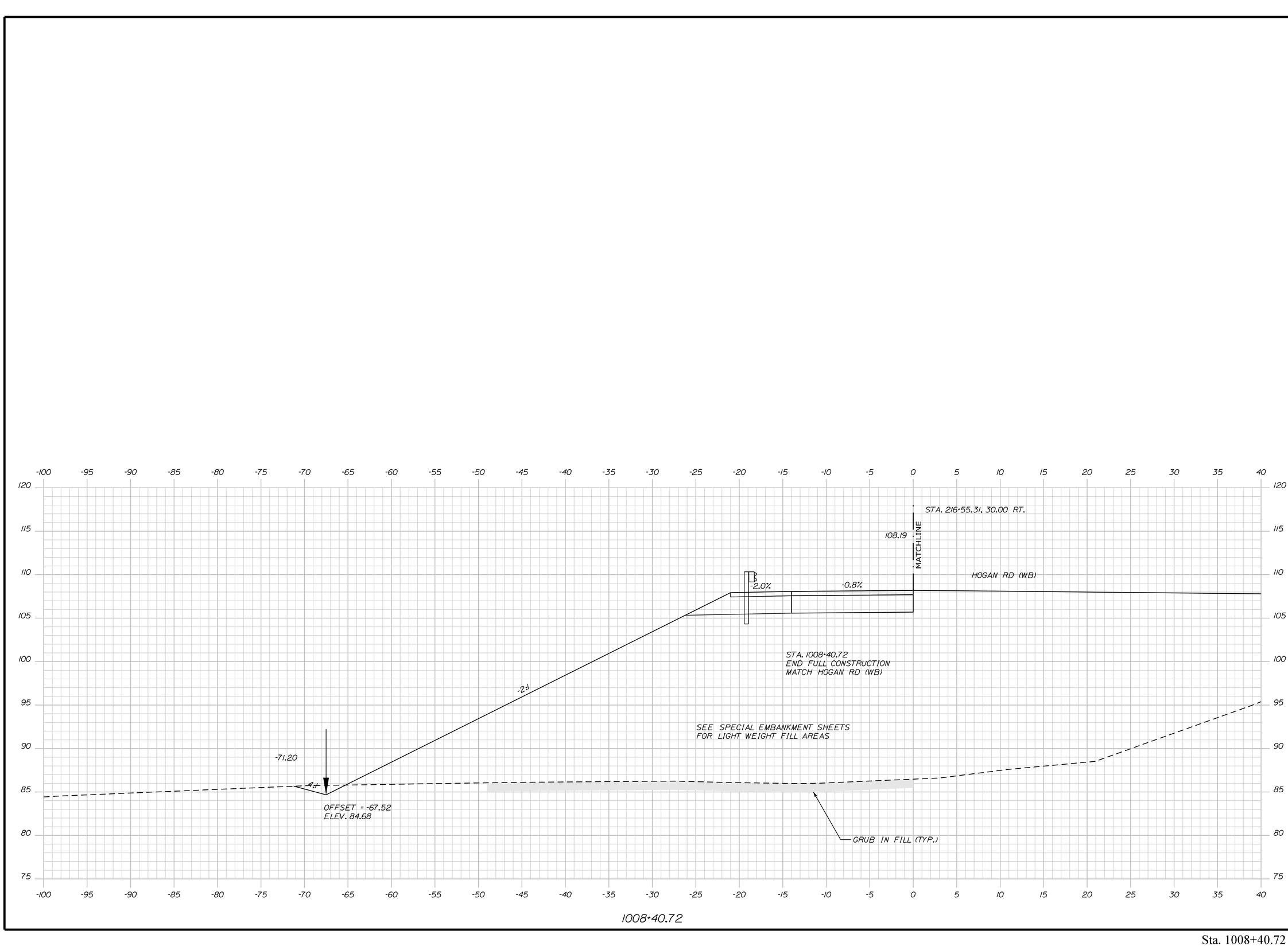
BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-160
306
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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DEPARTMENT OF TRANSPORTATION

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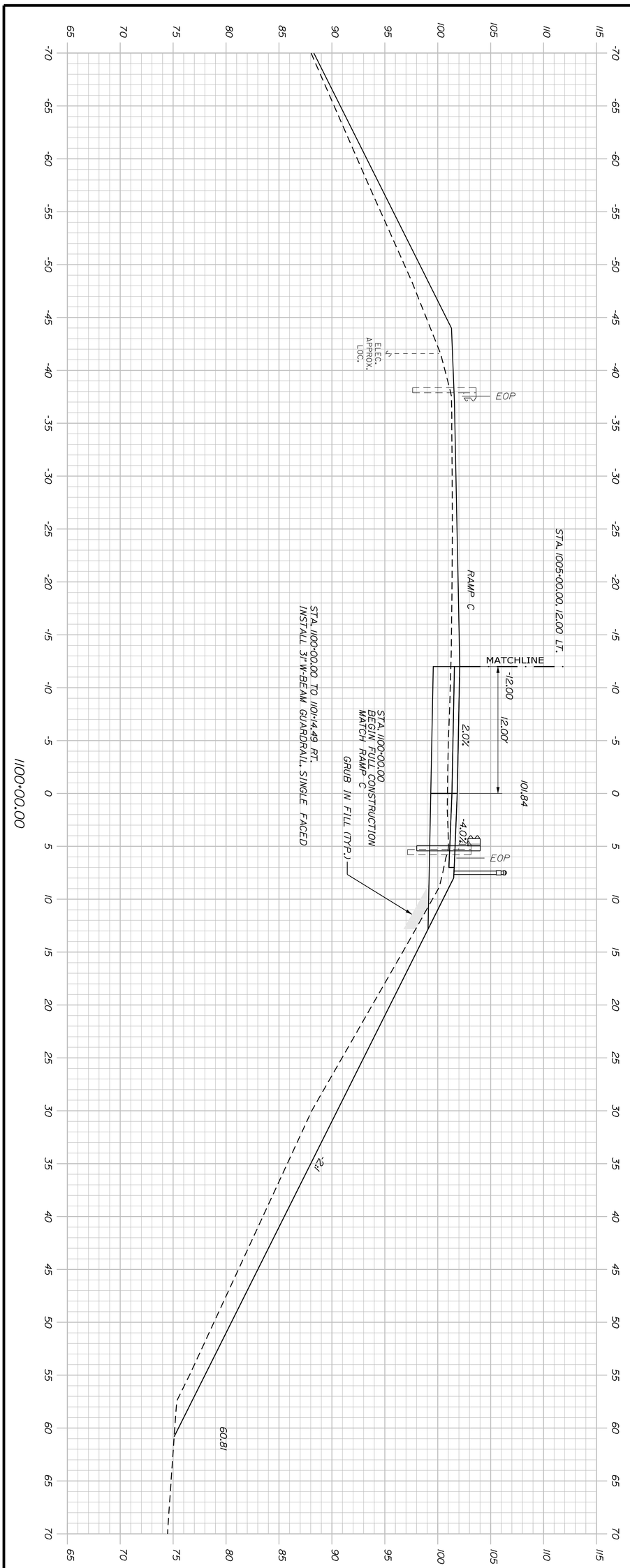
WIN
18595.11
HIGHWAY PLANS

BANGOR
RAMP C

CROSS SECTIONS

SHEET NUMBER
H-161
307
OF 485

Sta. 1008+40.72 to Sta. 1008+40.72



Sta. 1100+00.00 to Sta. 1100+00.00

SHEET NUMBER H-162
308 OF 485

BANGOR
SPUR C

CROSS SECTIONS

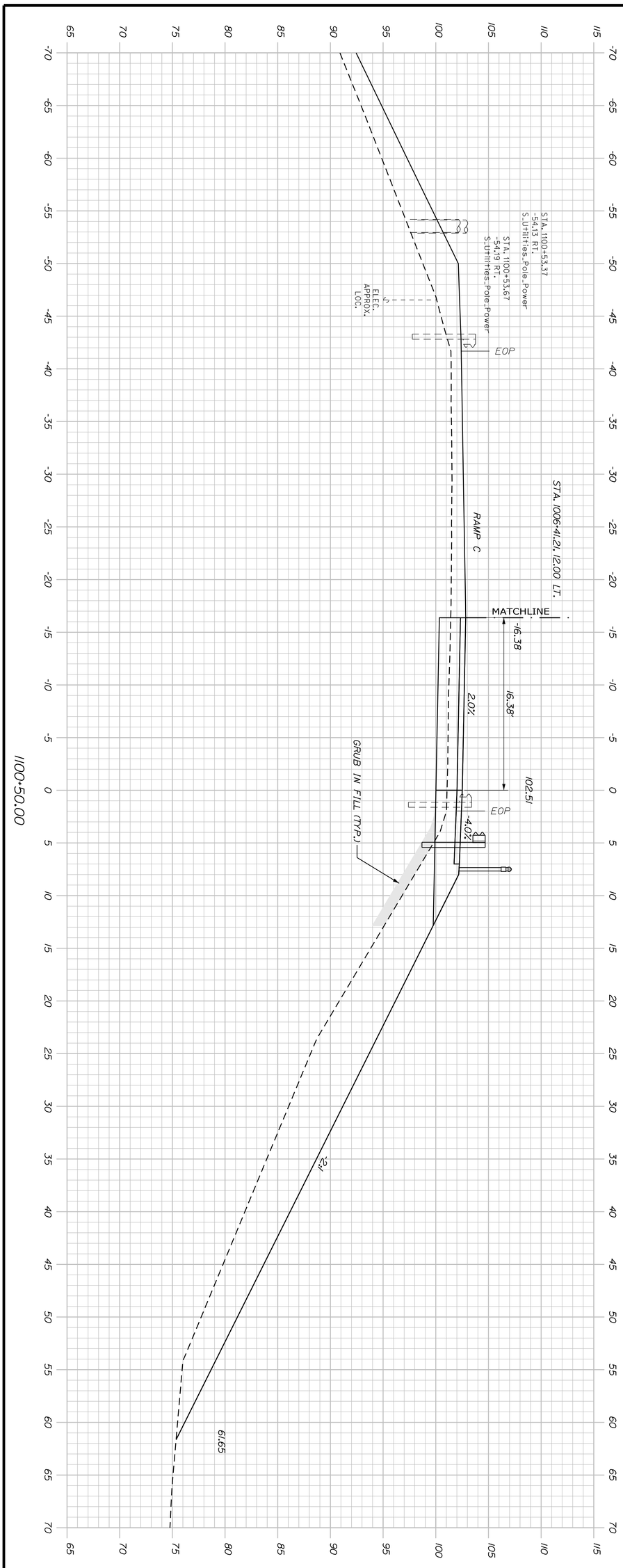
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DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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18595.11

HIGHWAY PLANS



Sta. 1100+50.00 to Sta. 1100+50.00

SHEET NUMBER H-163
309 OF 485

BANGOR
SPUR C

CROSS SECTIONS

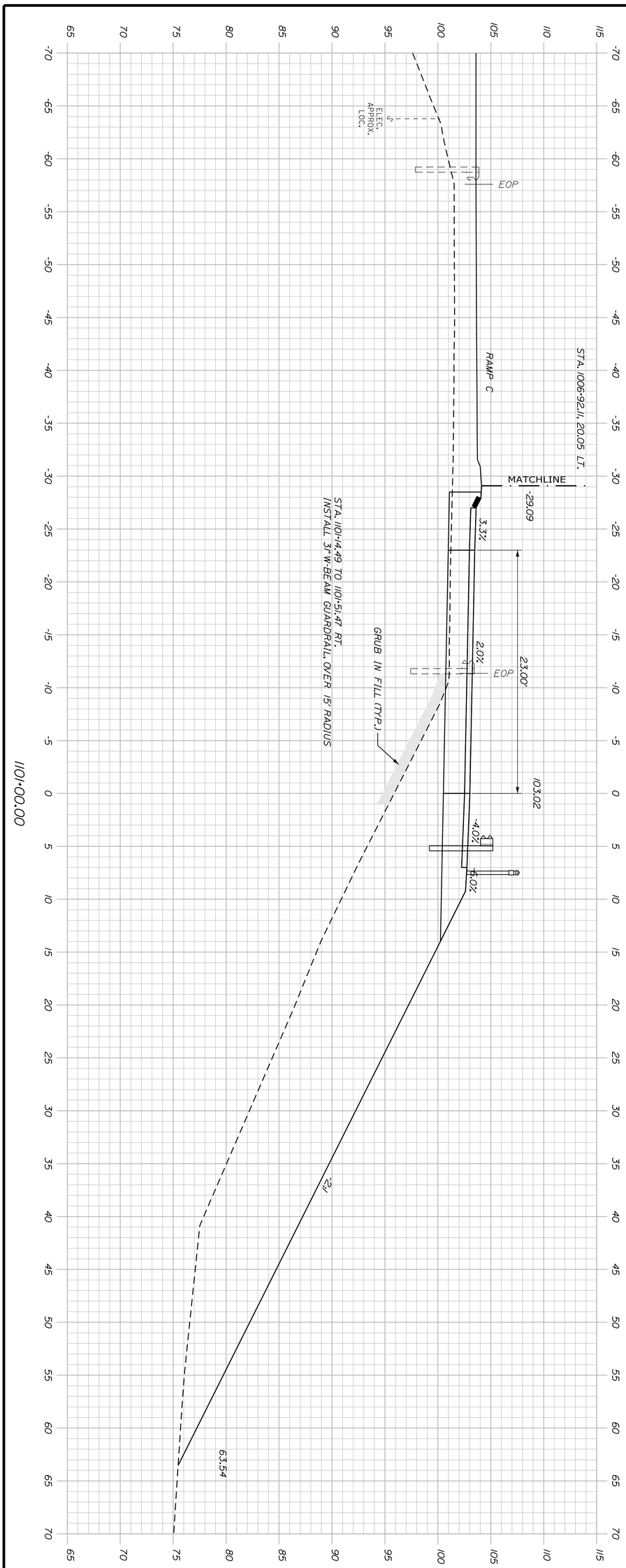
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DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN
18595.11

HIGHWAY PLANS



Sta. 1101+00.00 to Sta. 1101+00.00

SHEET NUMBER H-164 310 OF 485

BANGOR
SPUR C

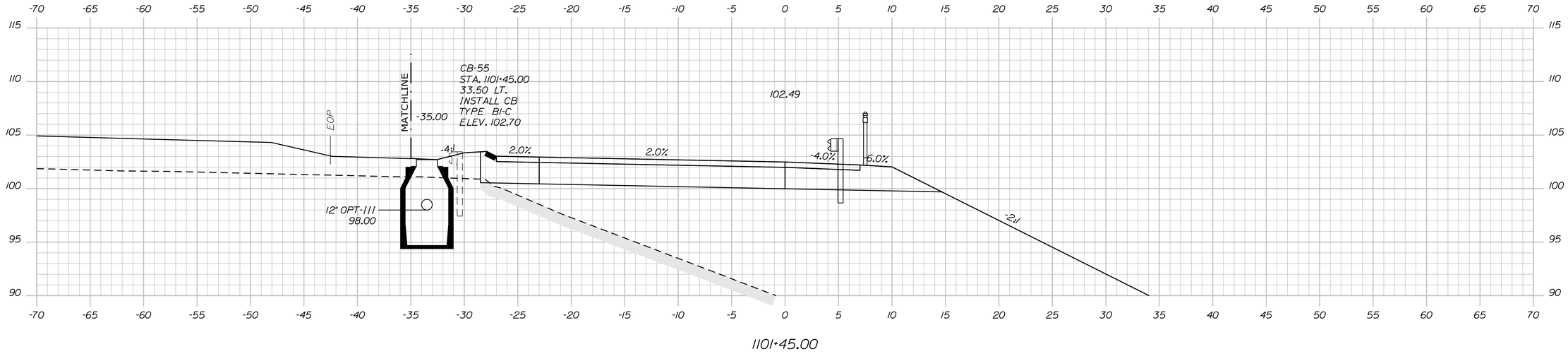
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DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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REVISIONS 2			
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FIELD CHANGES			

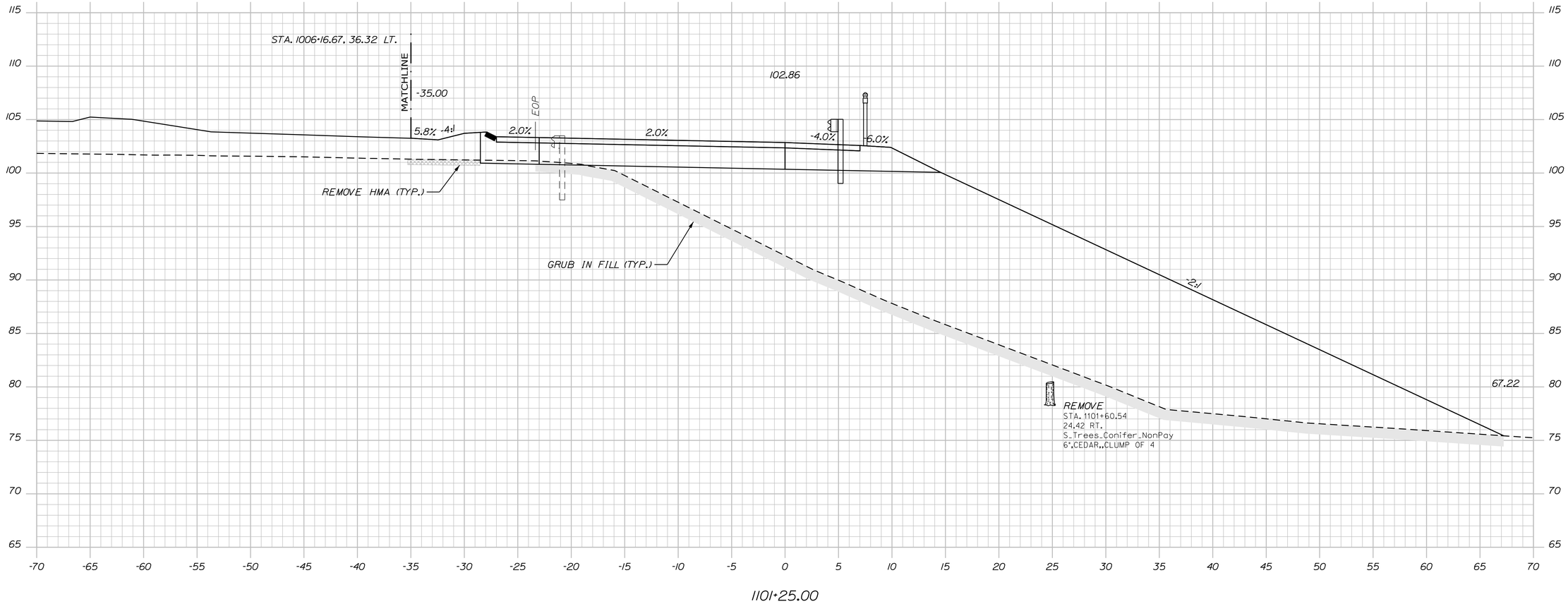
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11 HIGHWAY PLANS



1101+45.00



1101+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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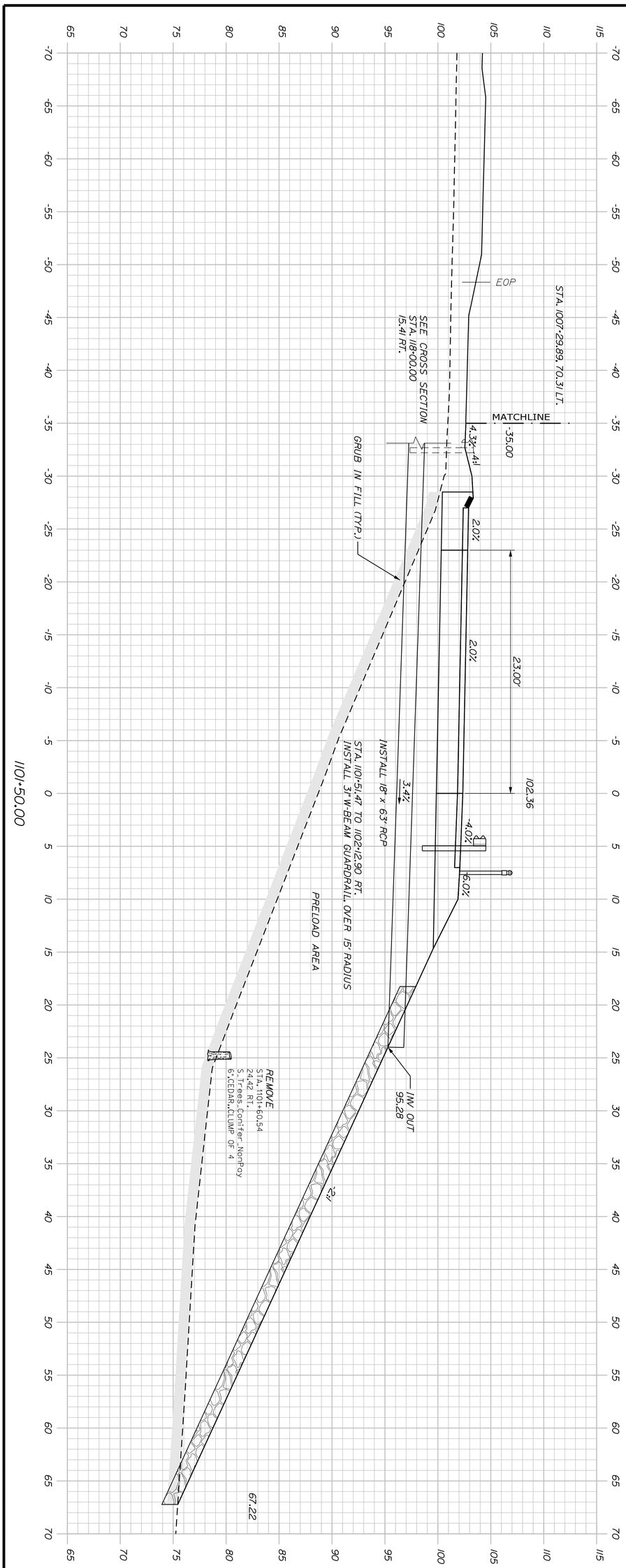
BANGOR
SPUR C

CROSS SECTIONS

SHEET NUMBER
H-165
311
OF 485

Sta. 1101+25.00 to Sta. 1101+25.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 1101+50.00 to Sta. 1101+50.00

SHEET NUMBER H-166
312 OF 485

BANGOR
SPUR C

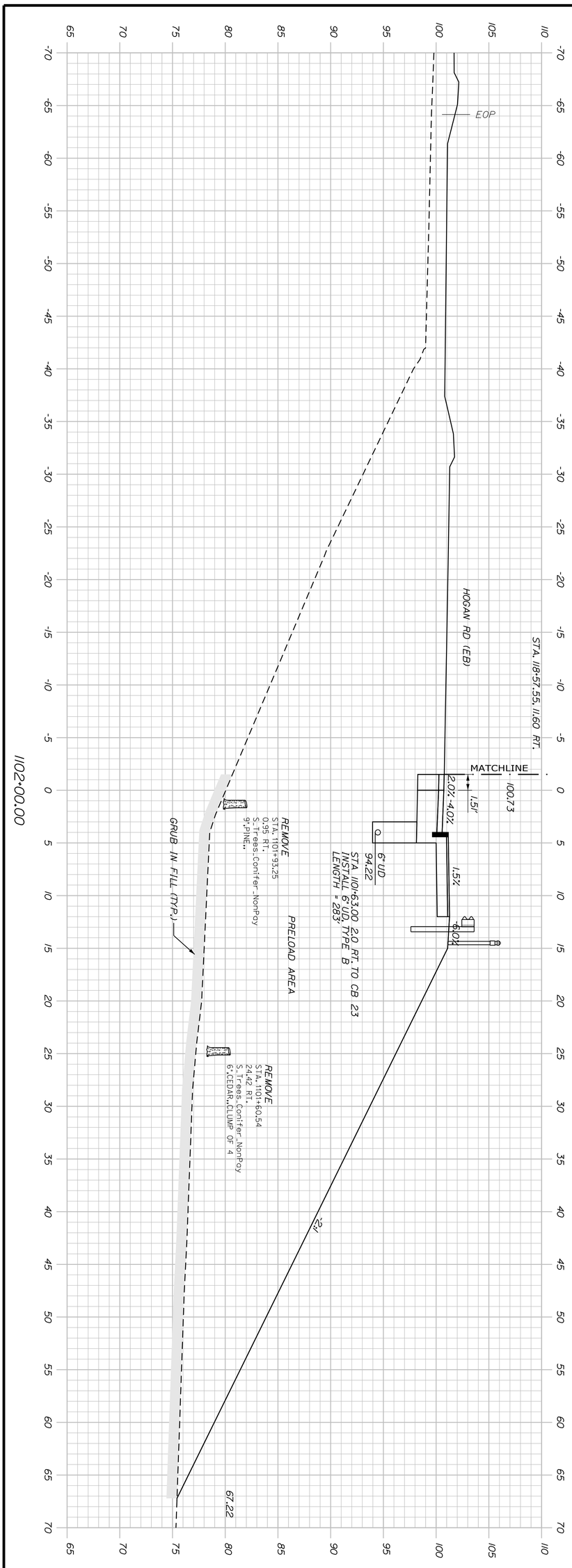
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
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WIN 18595.11 HIGHWAY PLANS



Sta. 1102+00.00 to Sta. 1102+00.00

SHEET NUMBER H-167
313 OF 485

BANGOR
SPUR C

CROSS SECTIONS

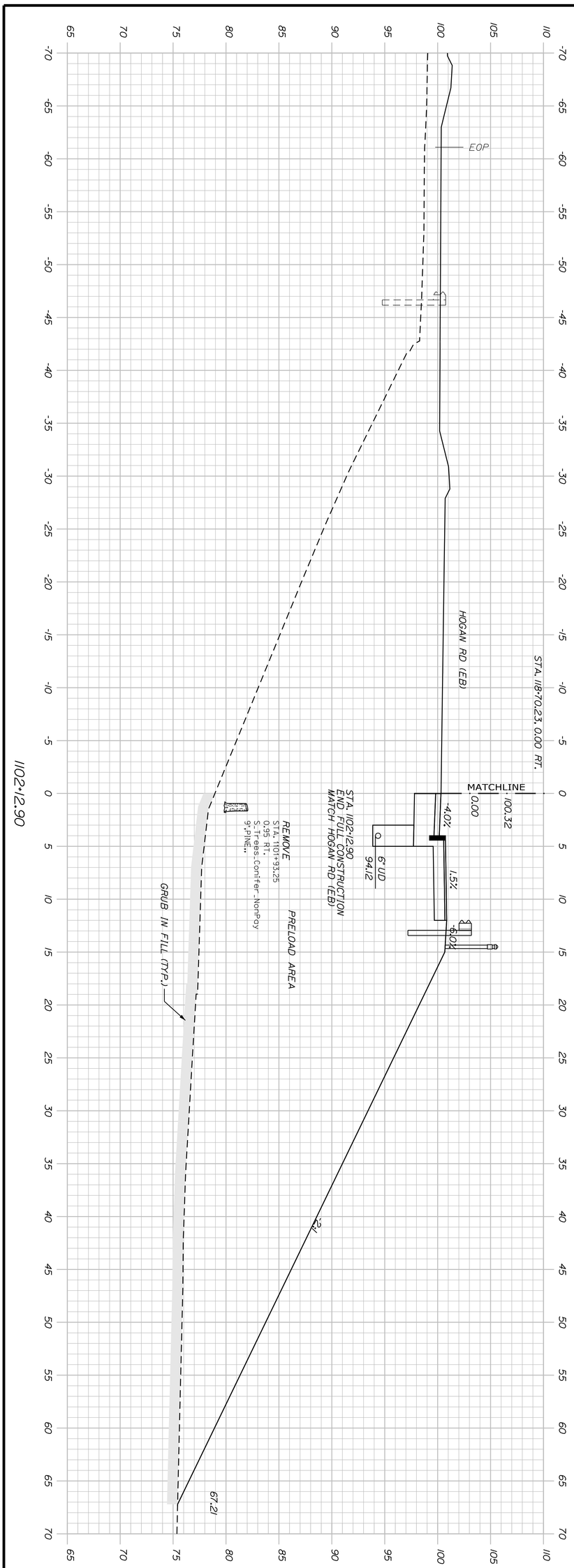
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CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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18595.11

HIGHWAY PLANS



Sta. 1102+12.90 to Sta. 1102+12.90

SHEET NUMBER H-168 314 OF 485

BANGOR
SPUR C

CROSS SECTIONS

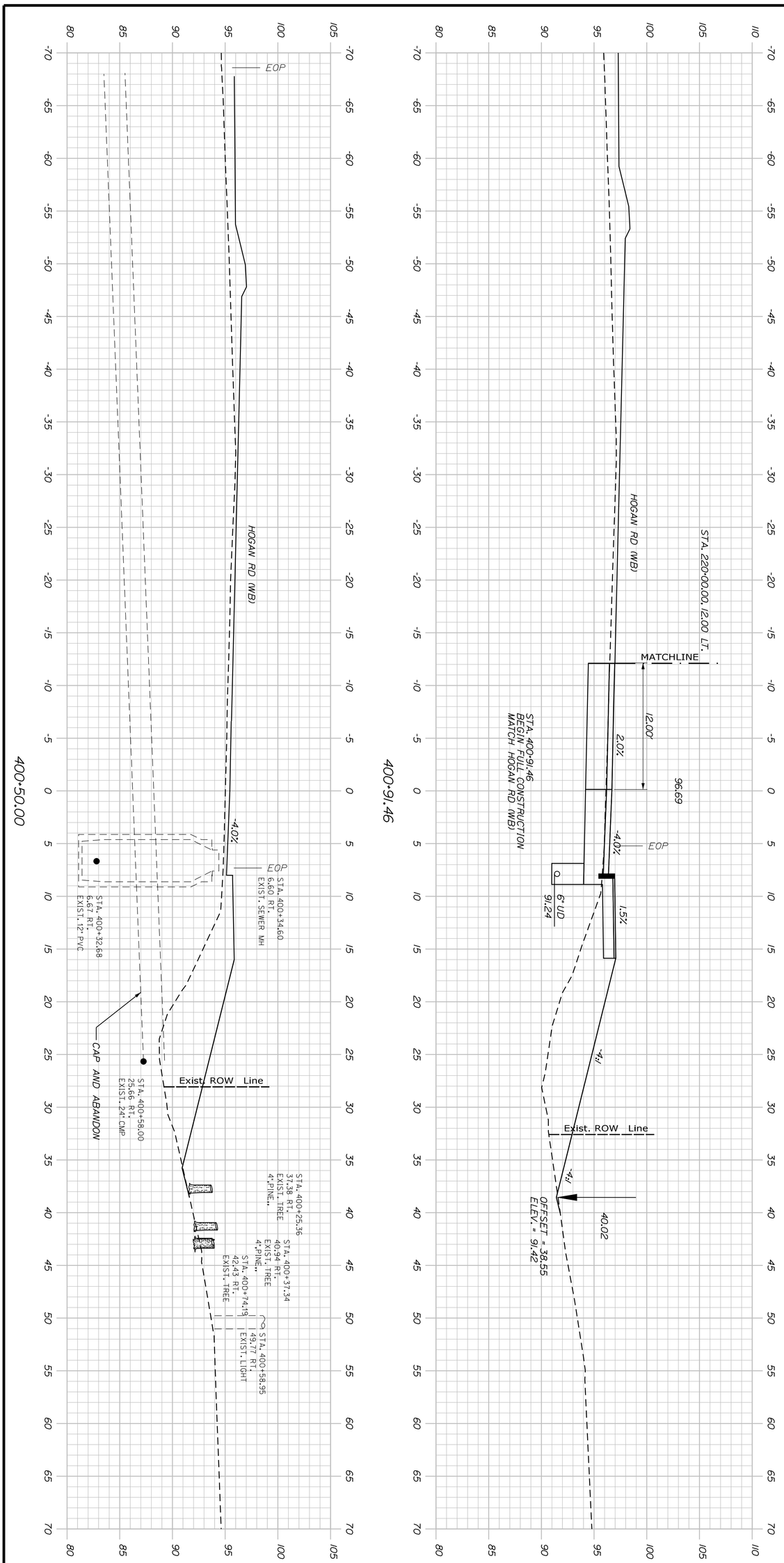
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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18595.11

HIGHWAY PLANS



Sta. 400+00.00 to Sta. 400+50.00

SHEET NUMBER H-169 315 OF 485

BANGOR RAMP D

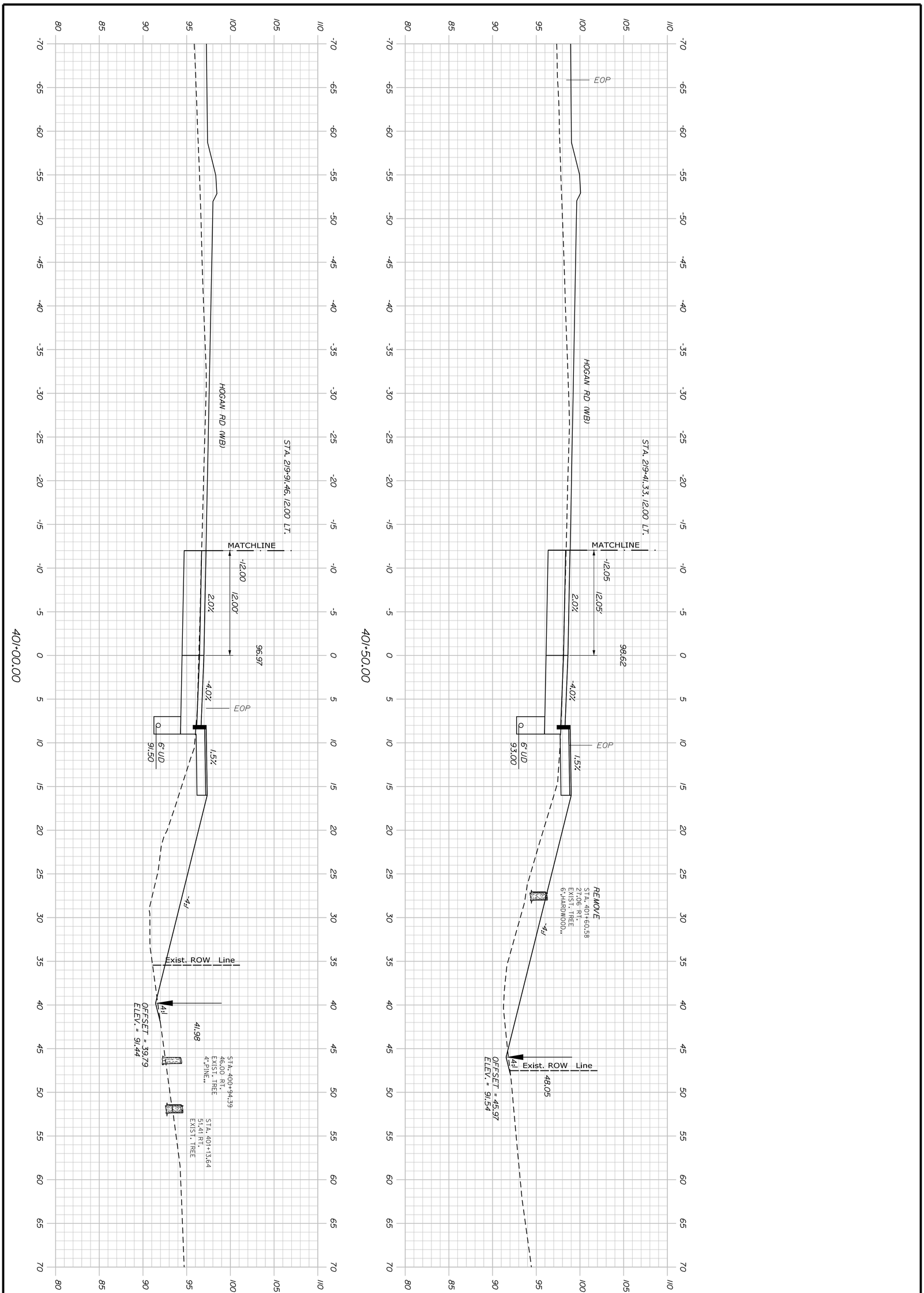
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PROJ. MANAGER	L. ROWE	BY	DATE
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CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN 18595.11 HIGHWAY PLANS



Sta. 401+00.00 to Sta. 401+50.00

SHEET NUMBER H-170 316 OF 485

BANGOR
RAMP D

CROSS SECTIONS

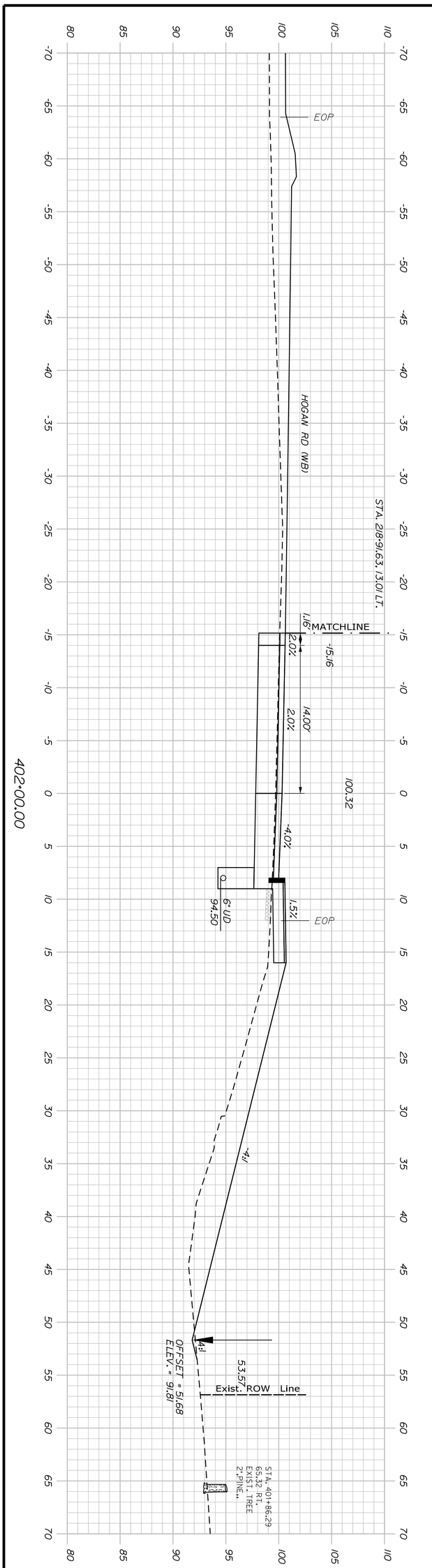
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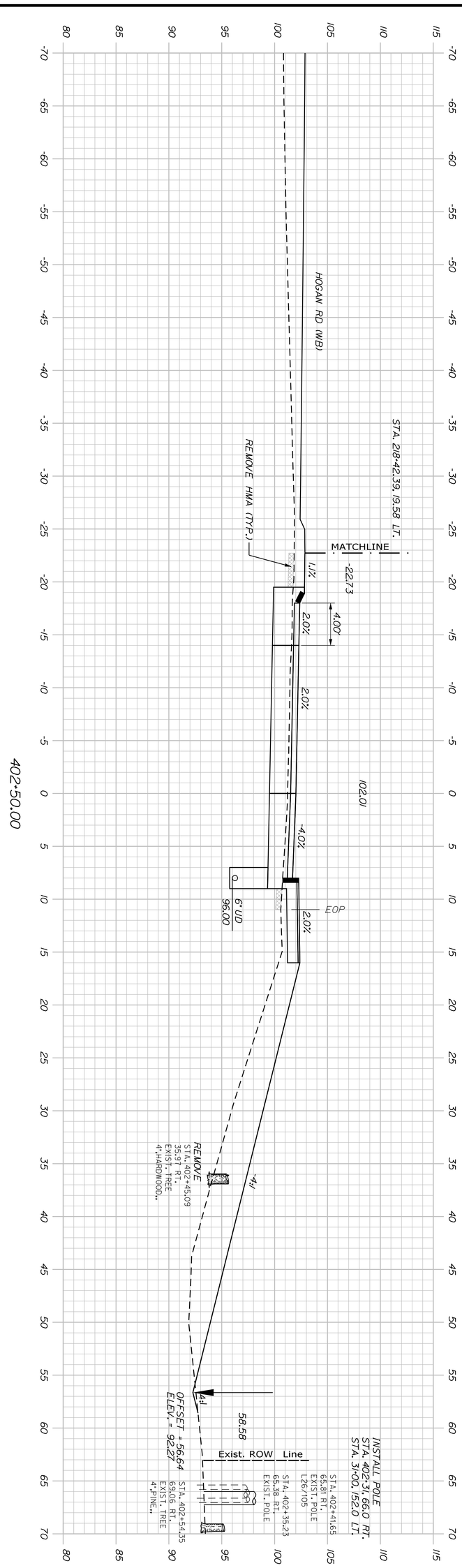
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS





Sta. 402+00.00 to Sta. 402+50.00

SHEET NUMBER H-171
317
OF 485

BANGOR
RAMP D

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

vhb

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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

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18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
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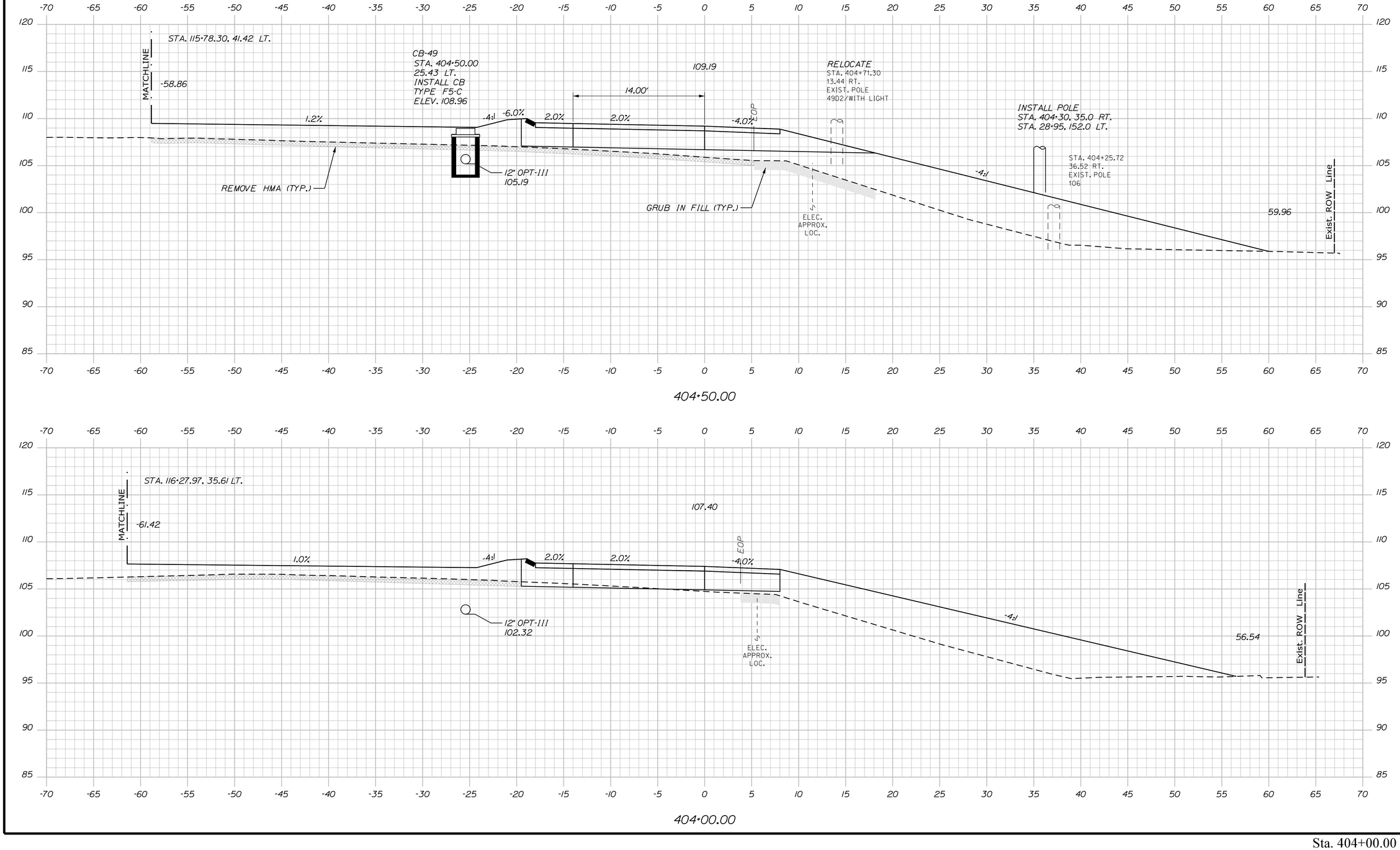
BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-172
318
OF 485

Sta. 403+00.00 to Sta. 403+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jomesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		DATE
PROJ. MANAGER	L. ROWE	
DESIGN-DETAILED	ECF	JBD 11/25/2025
CHECKED-REVIEWED	ECF	AG 11/25/2025
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REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

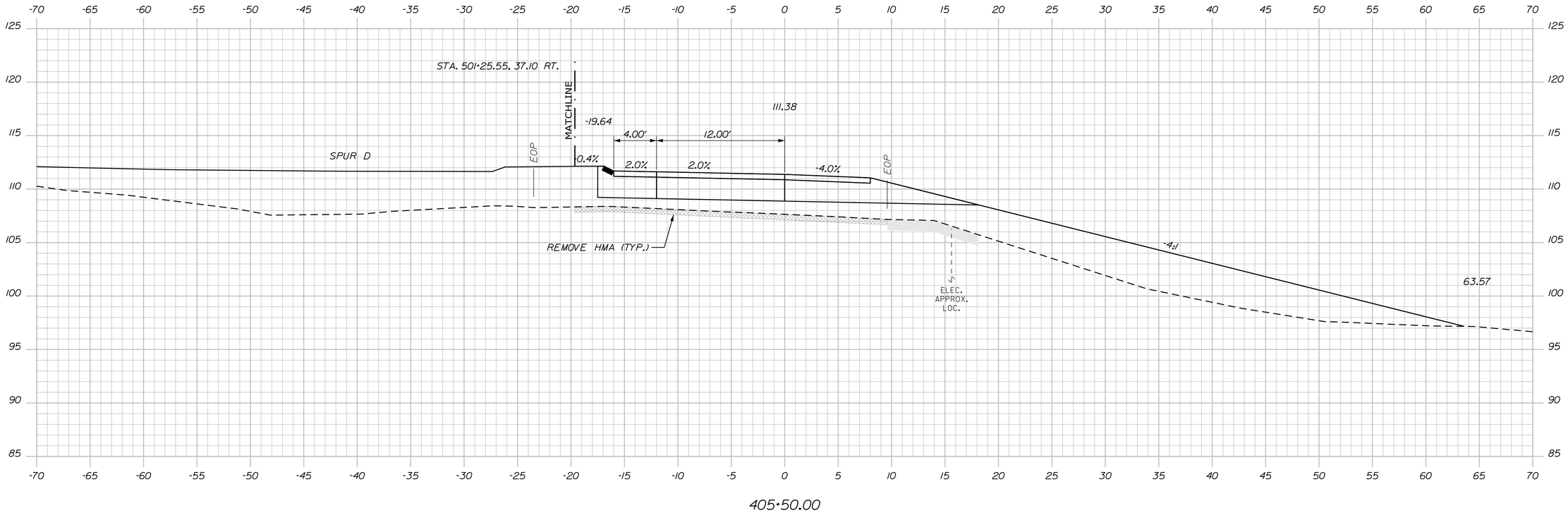
BANGOR
RAMP D

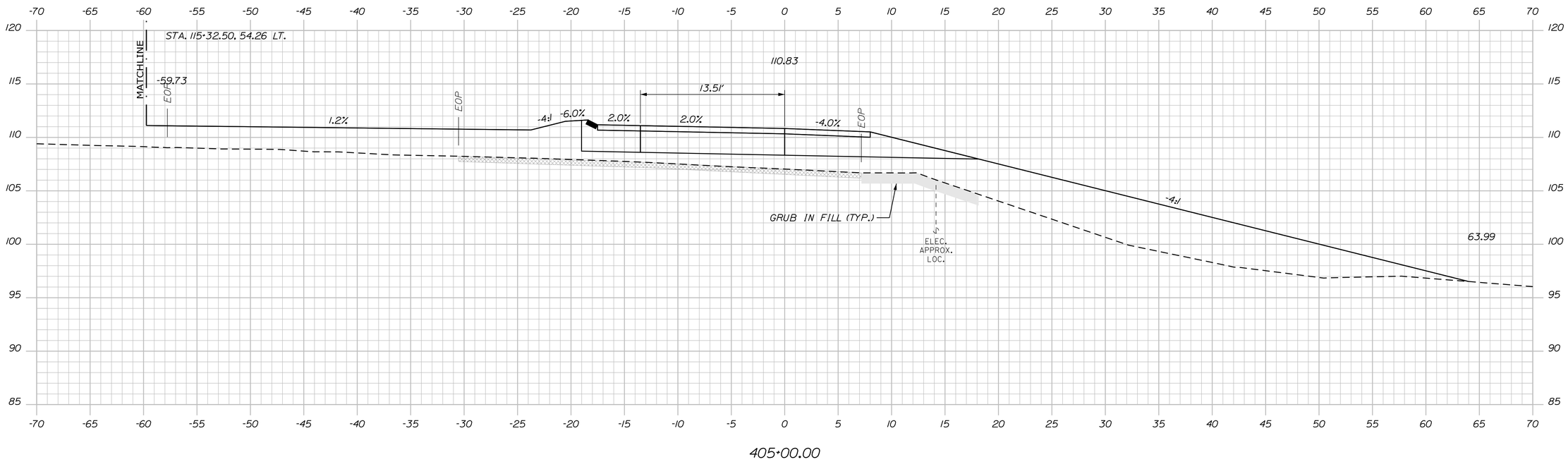
CROSS SECTIONS

SHEET NUMBER
H-173
319
OF 485

Sta. 404+00.00 to Sta. 404+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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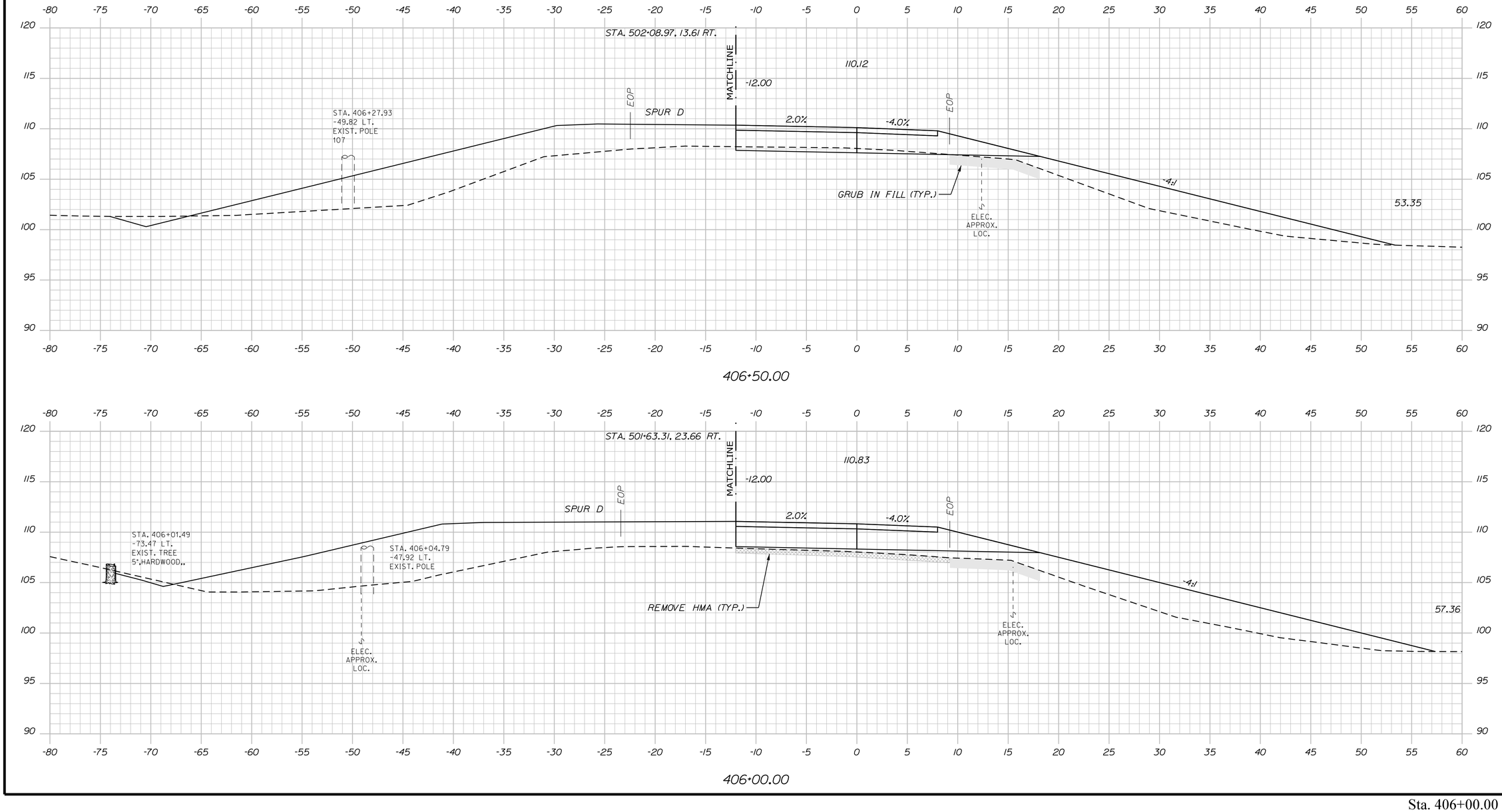
BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-174
320
OF 485

Sta. 405+00.00 to Sta. 405+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 406+00.00 to Sta. 406+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

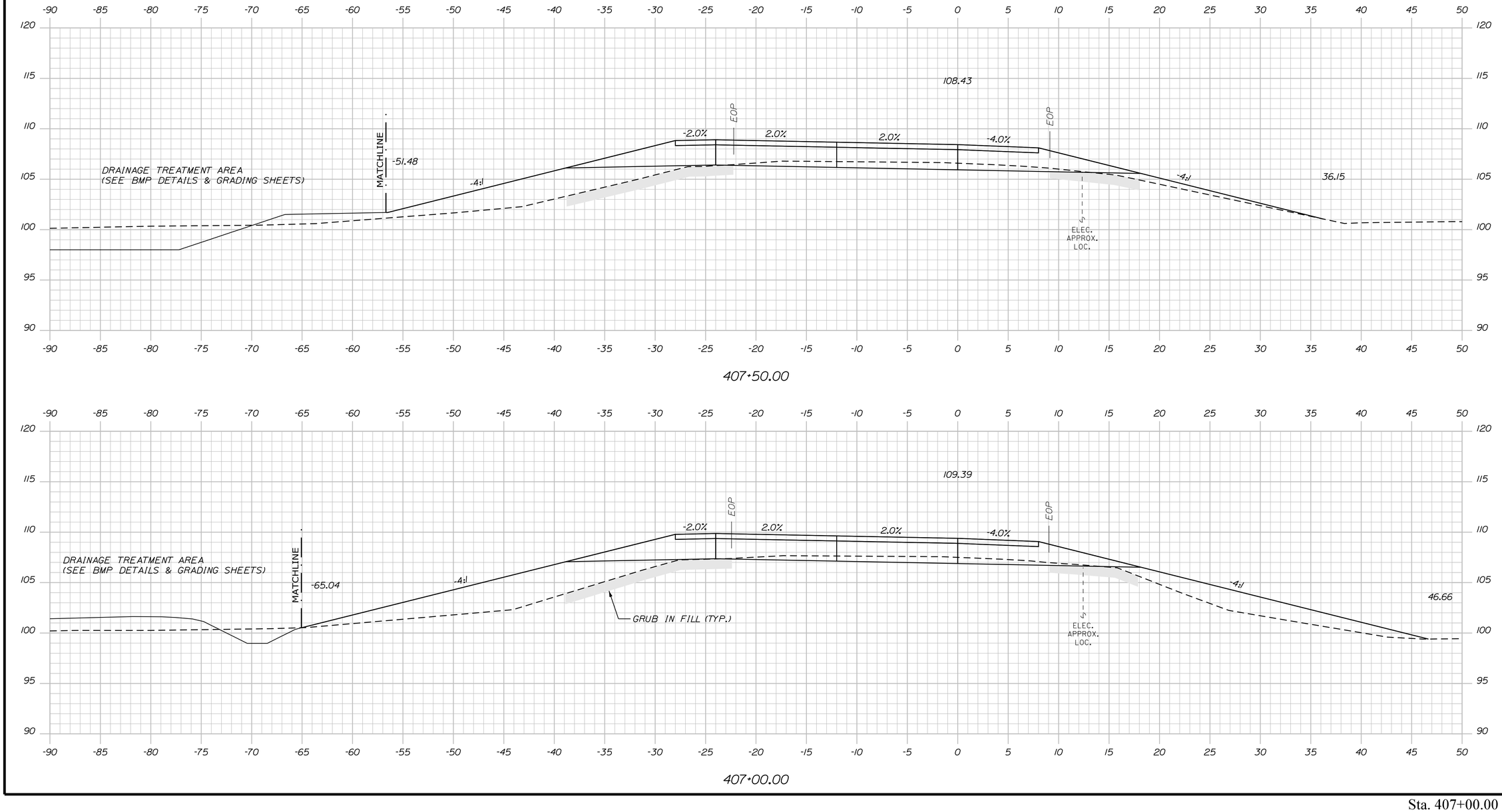
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
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FIELD CHANGES			

BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-175
321
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 407+00.00 to Sta. 407+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

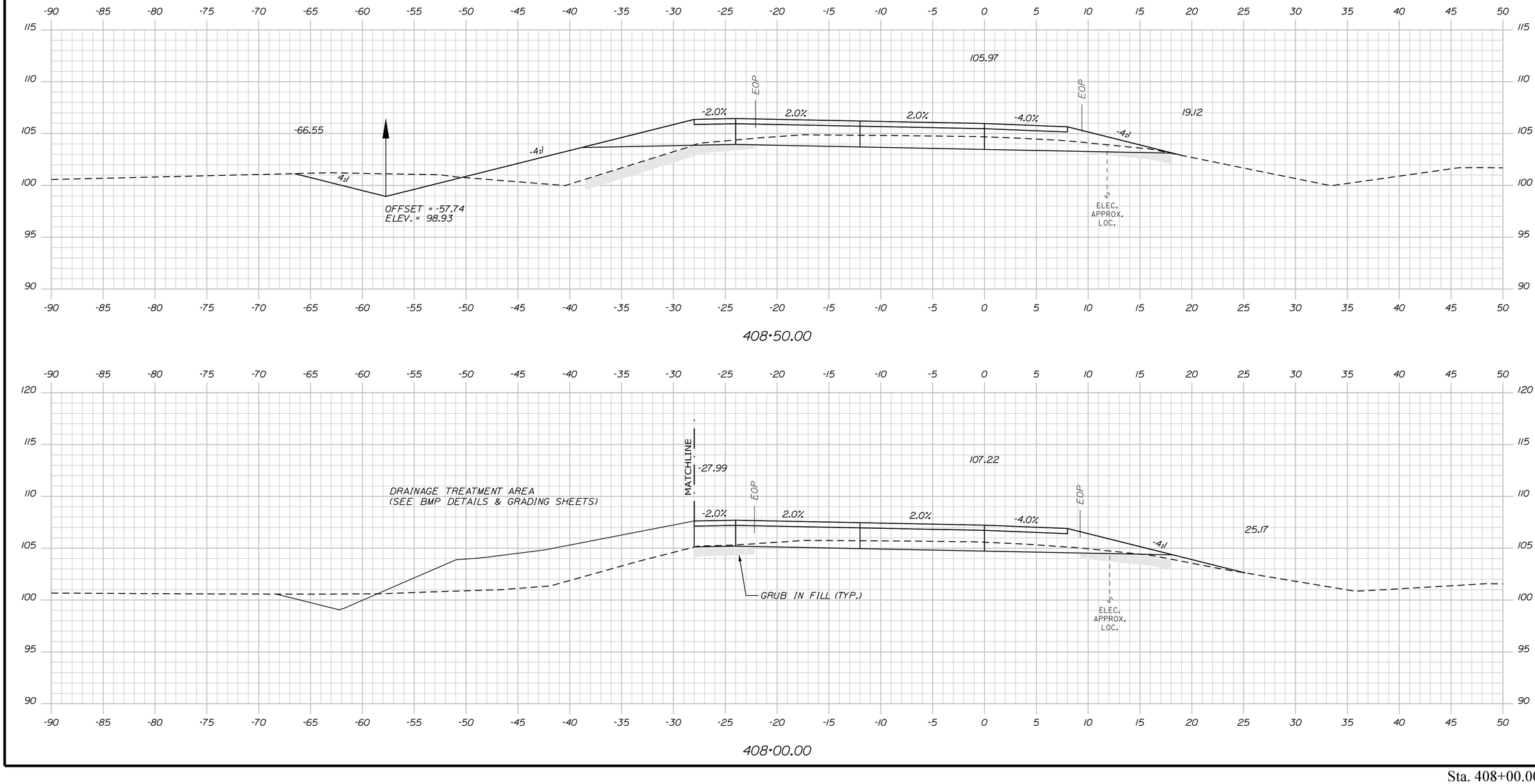
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REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-176
322
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN
18595.11

HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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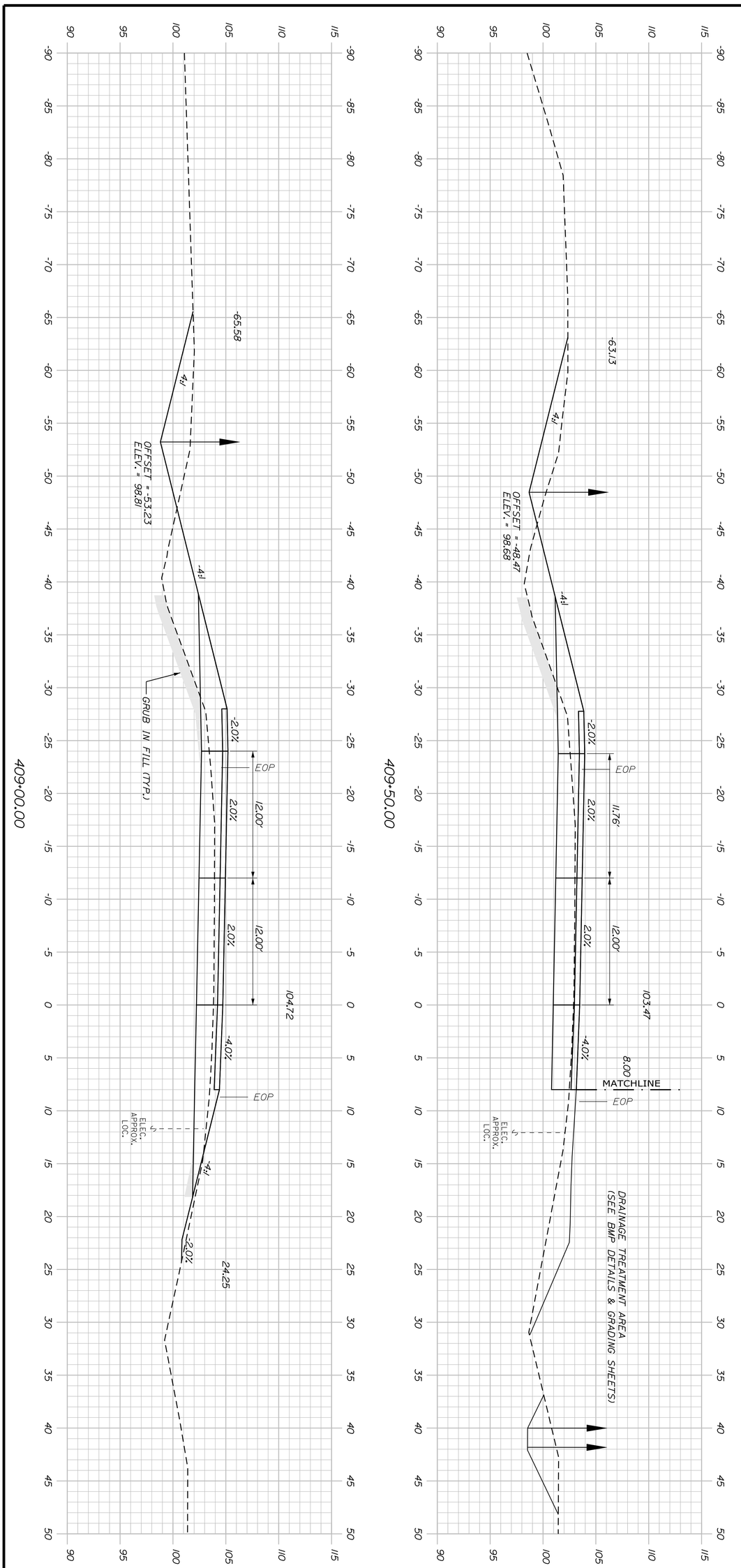
BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-177
323
OF 485

Sta. 408+00.00 to Sta. 408+50.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jomesdavis Date:11/25/2025



Sta. 409+00.00 to Sta. 409+50.00

BANGOR
RAMP D

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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FIELD CHANGES			

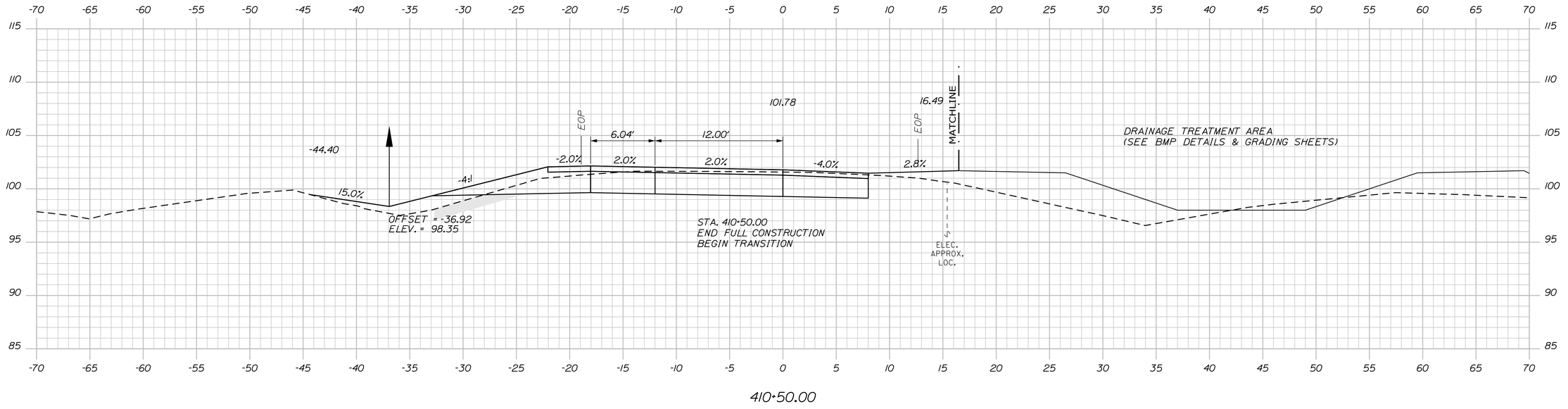
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324
OF 485

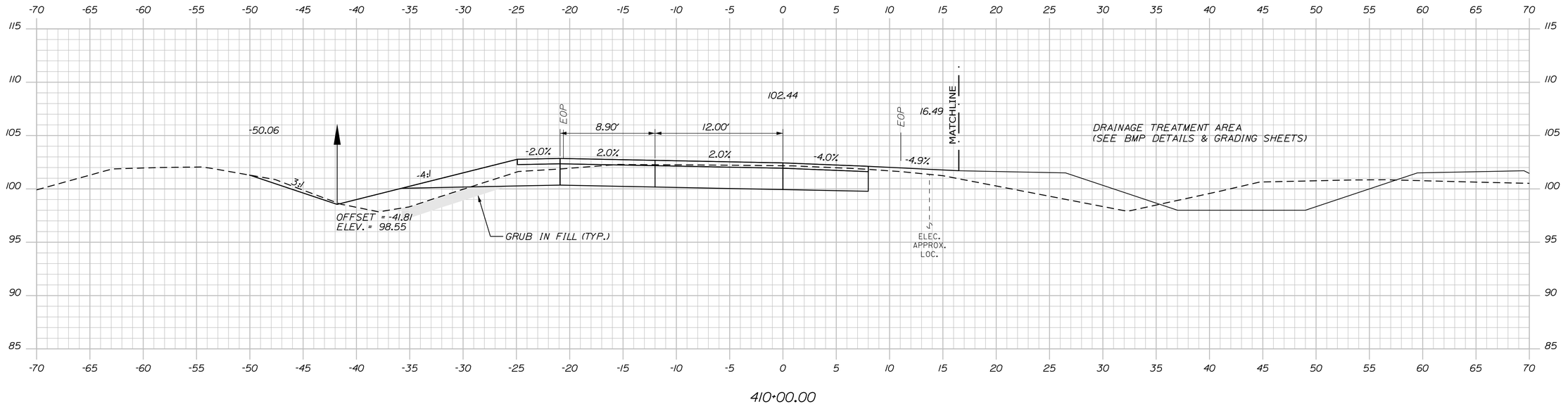
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

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18595.11

HIGHWAY PLANS





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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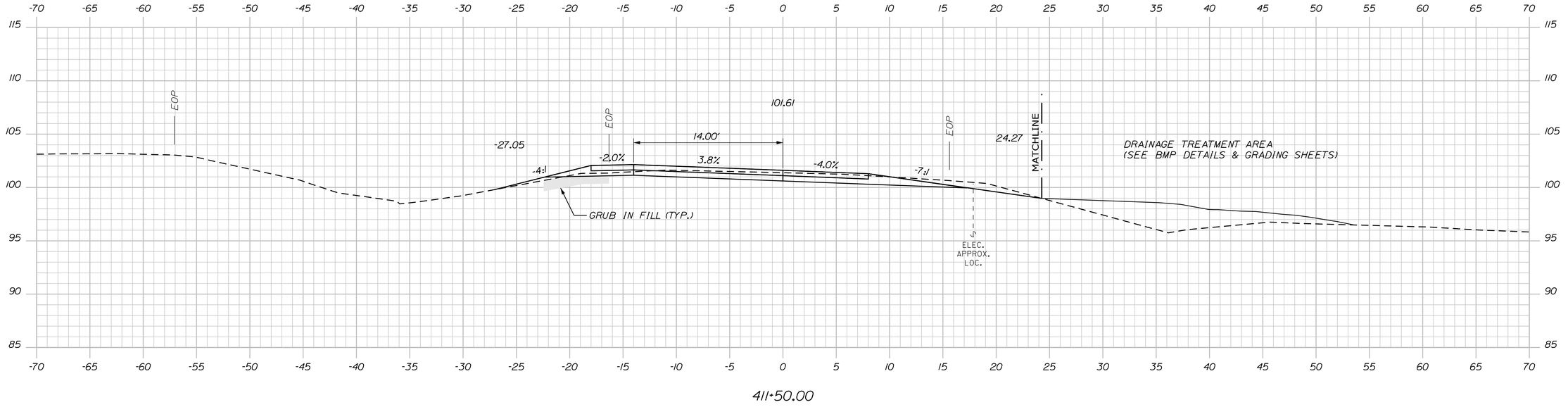
BANGOR
RAMP D

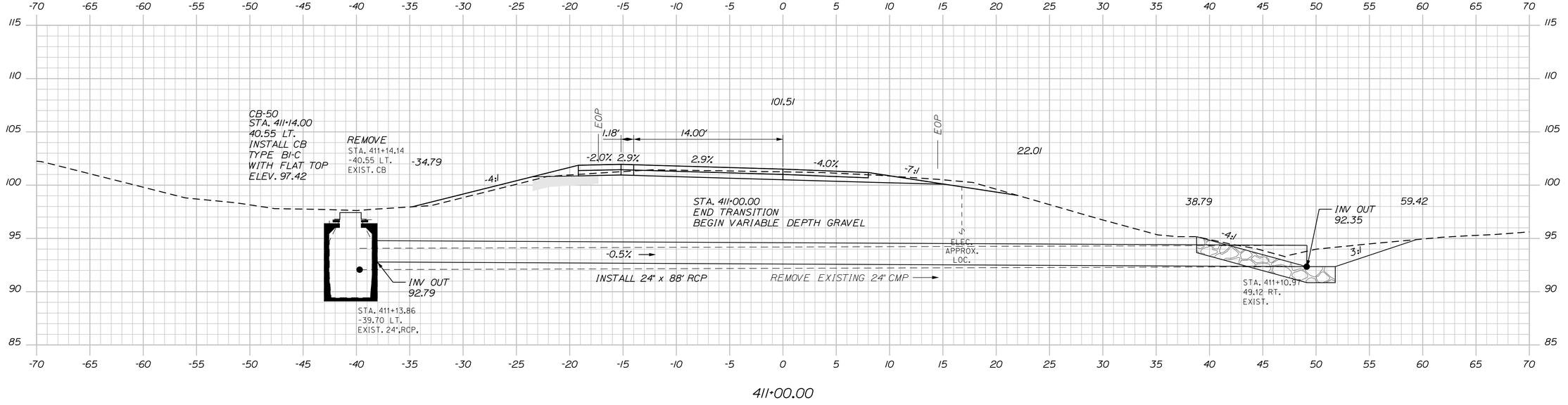
CROSS SECTIONS

SHEET NUMBER
H-179
325
OF 485

Sta. 410+00.00 to Sta. 410+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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REVISIONS 4			
FIELD CHANGES			

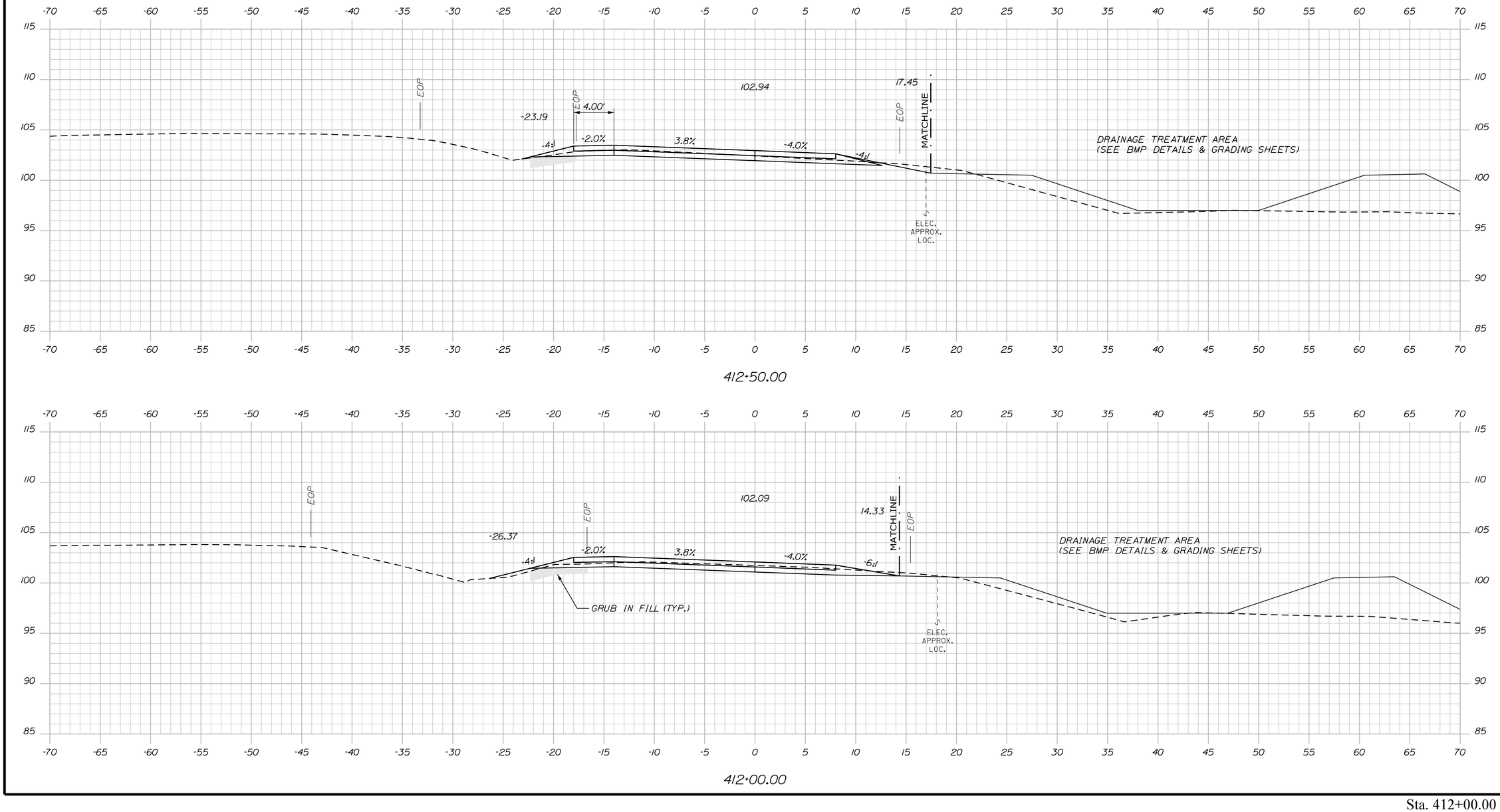
BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-180
326
OF 485

Sta. 411+00.00 to Sta. 411+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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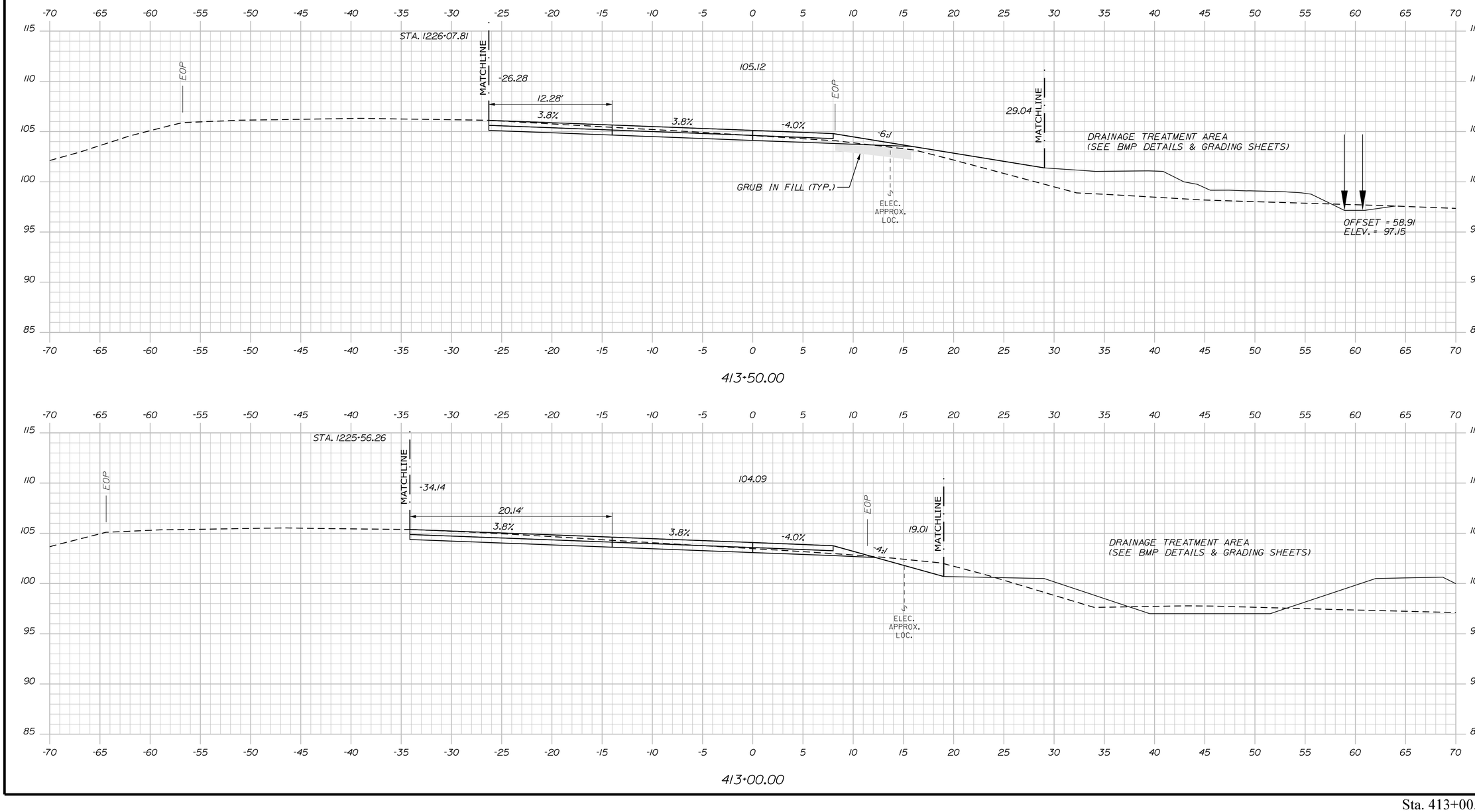
BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-181
327
OF 485

Sta. 412+00.00 to Sta. 412+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-182
328
OF 485

Sta. 413+00.00 to Sta. 413+50.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

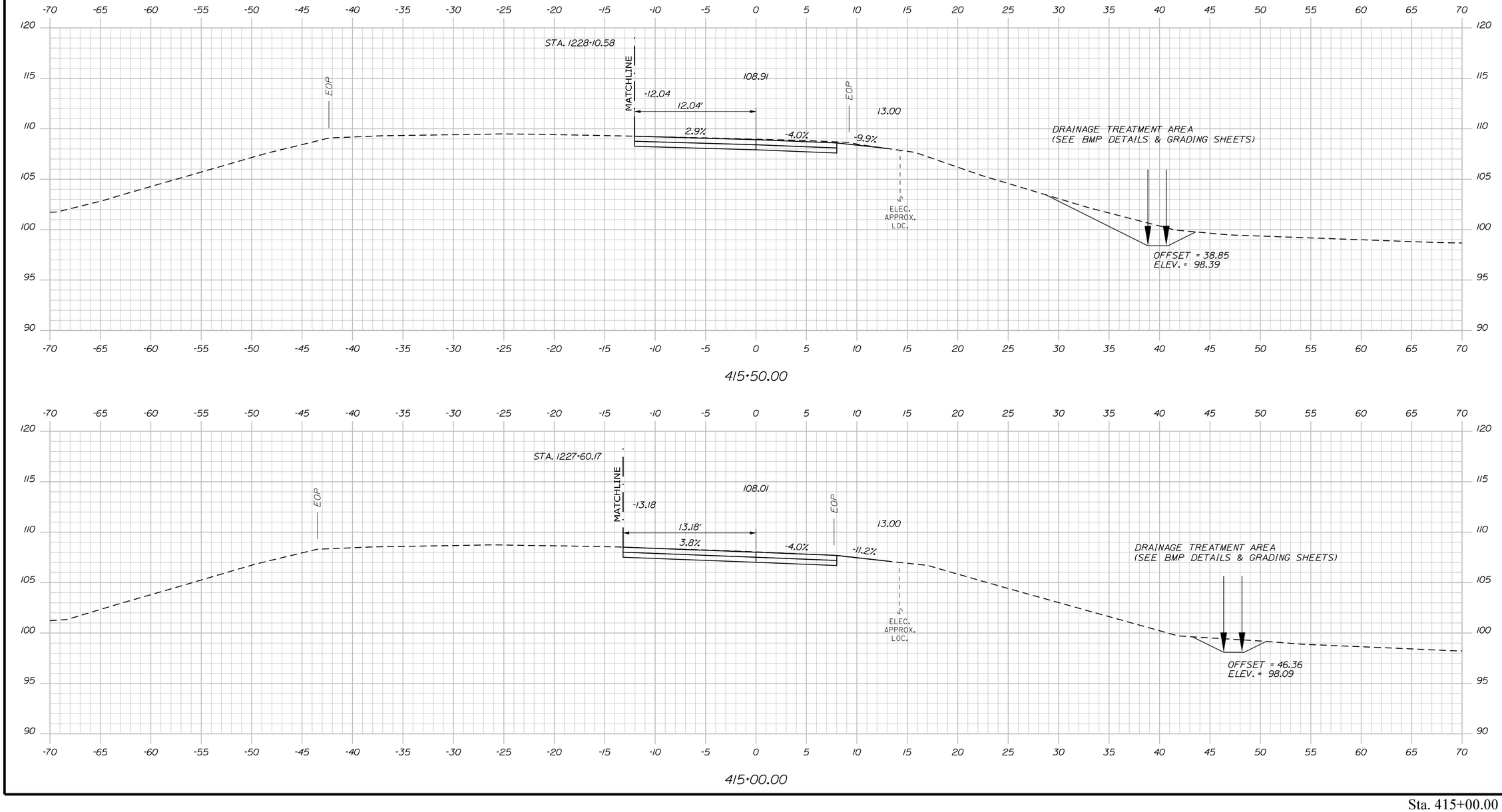
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-183
329
OF 485

Sta. 414+00.00 to Sta. 414+50.00



Sta. 415+00.00 to Sta. 415+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

HIGHWAY PLANS

vhb

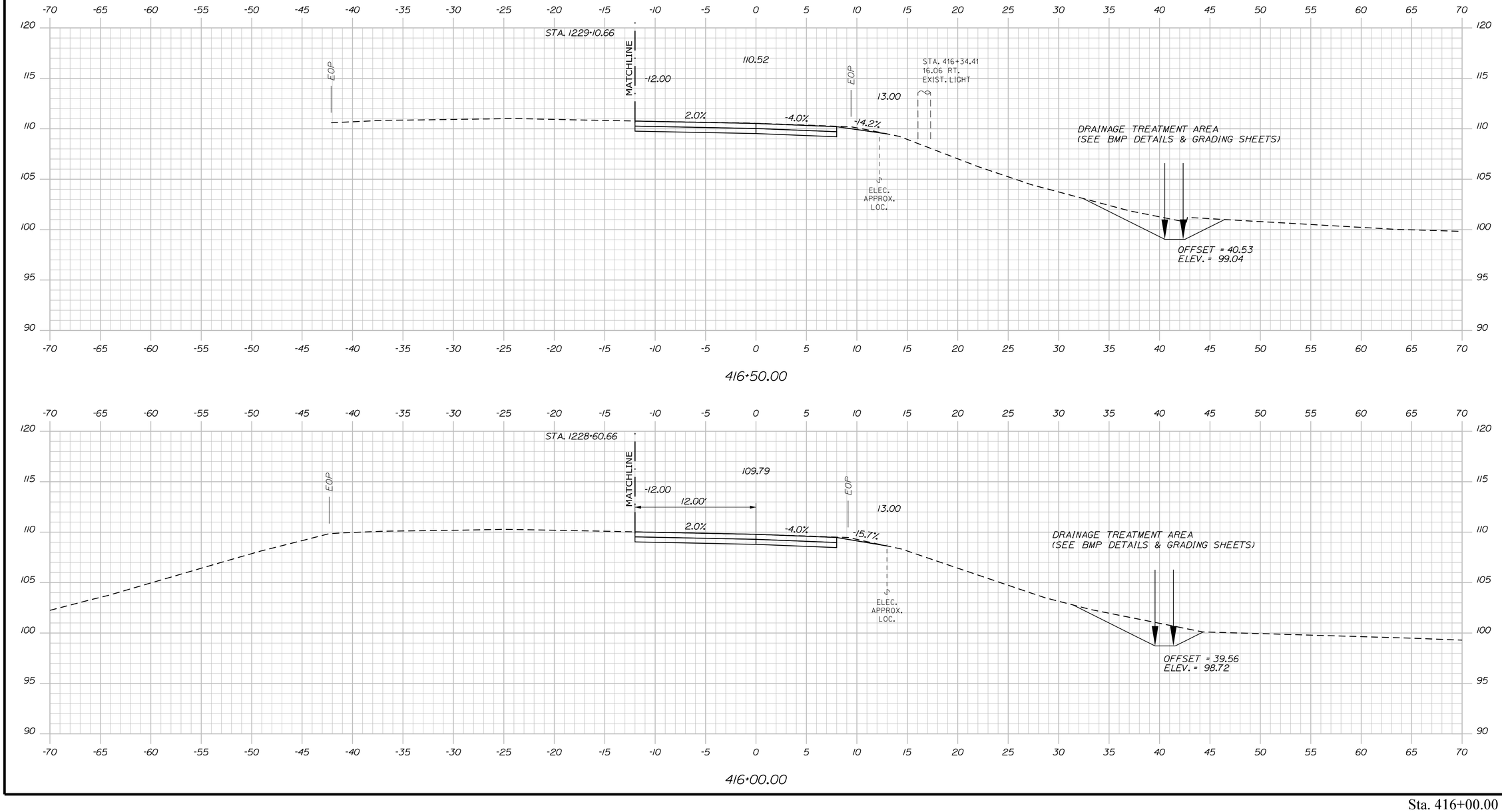
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DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-184
330
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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REVISIONS 3			
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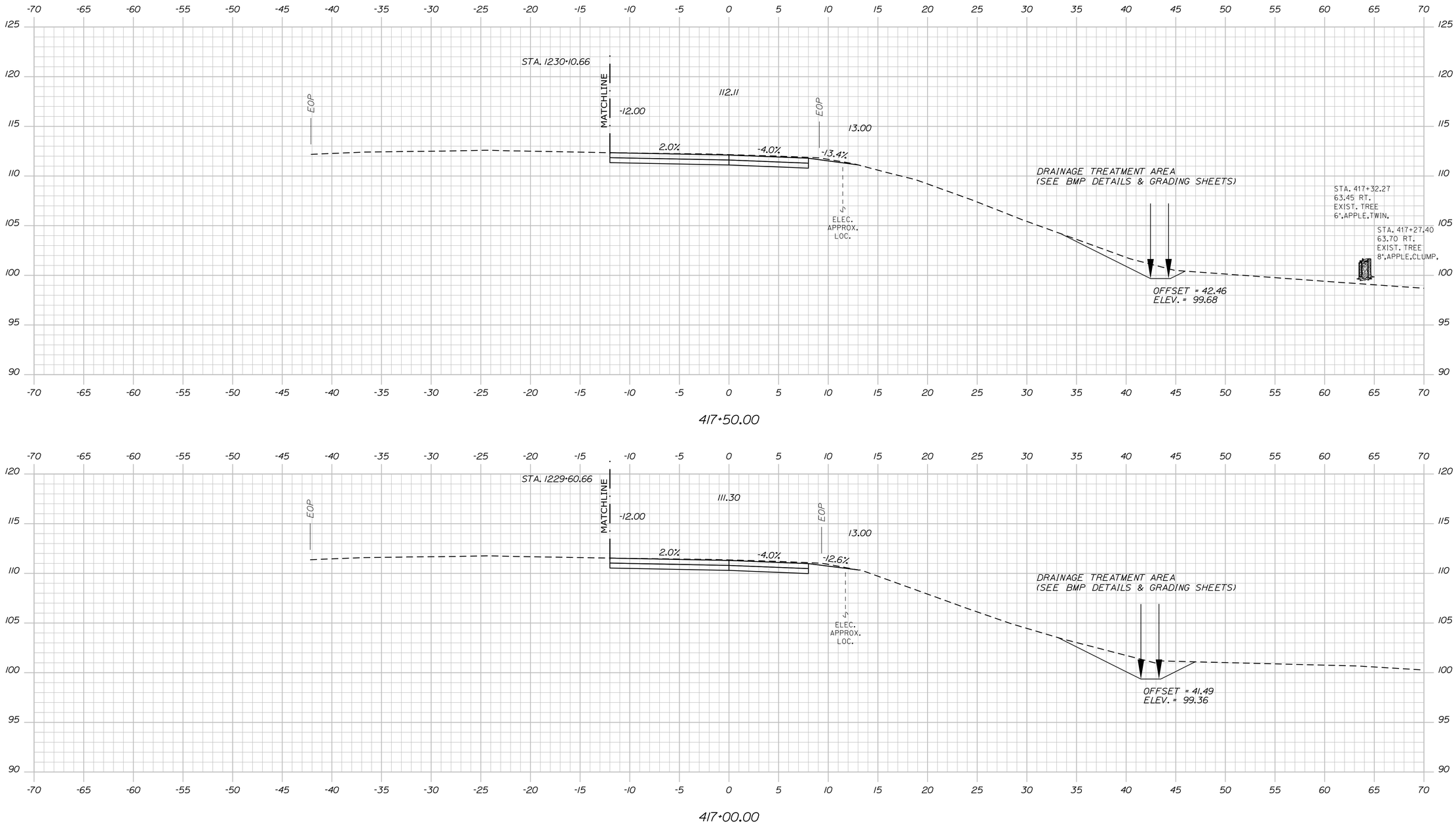
BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-185
331
OF 485

Sta. 416+00.00 to Sta. 416+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jomesdavis Date:11/25/2025



Sta. 417+00.00 to Sta. 417+50.00

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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

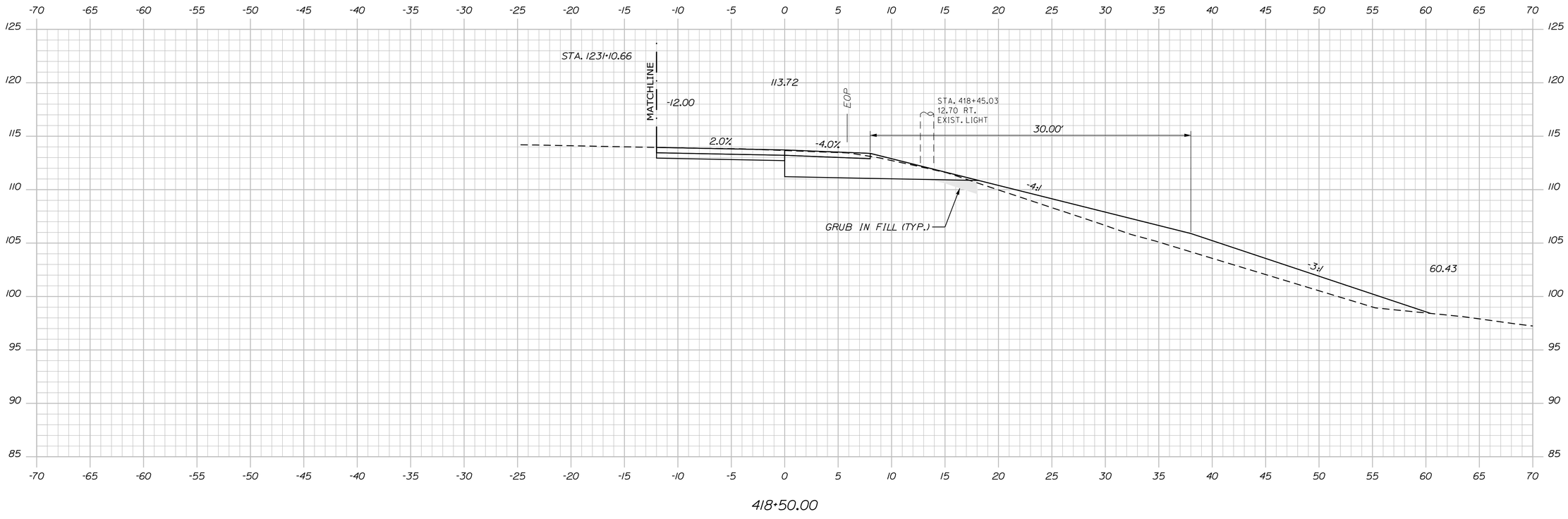
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CHECKED-REVIEWED	ECF	AG	11/25/2025
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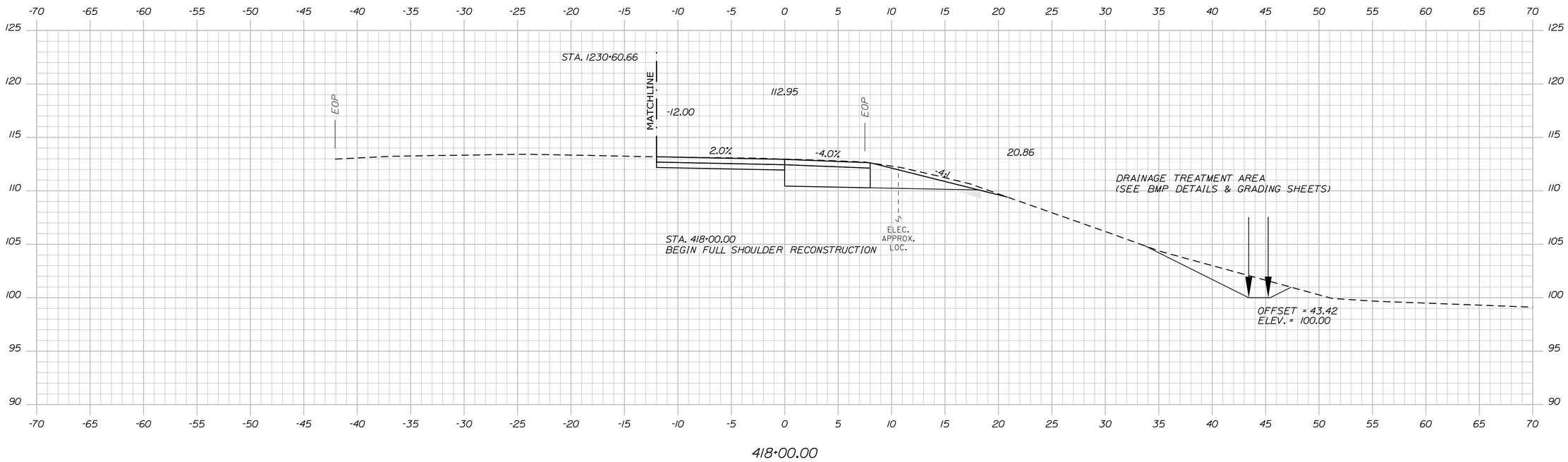
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RAMP D

CROSS SECTIONS

SHEET NUMBER
H-186
332
OF 485

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

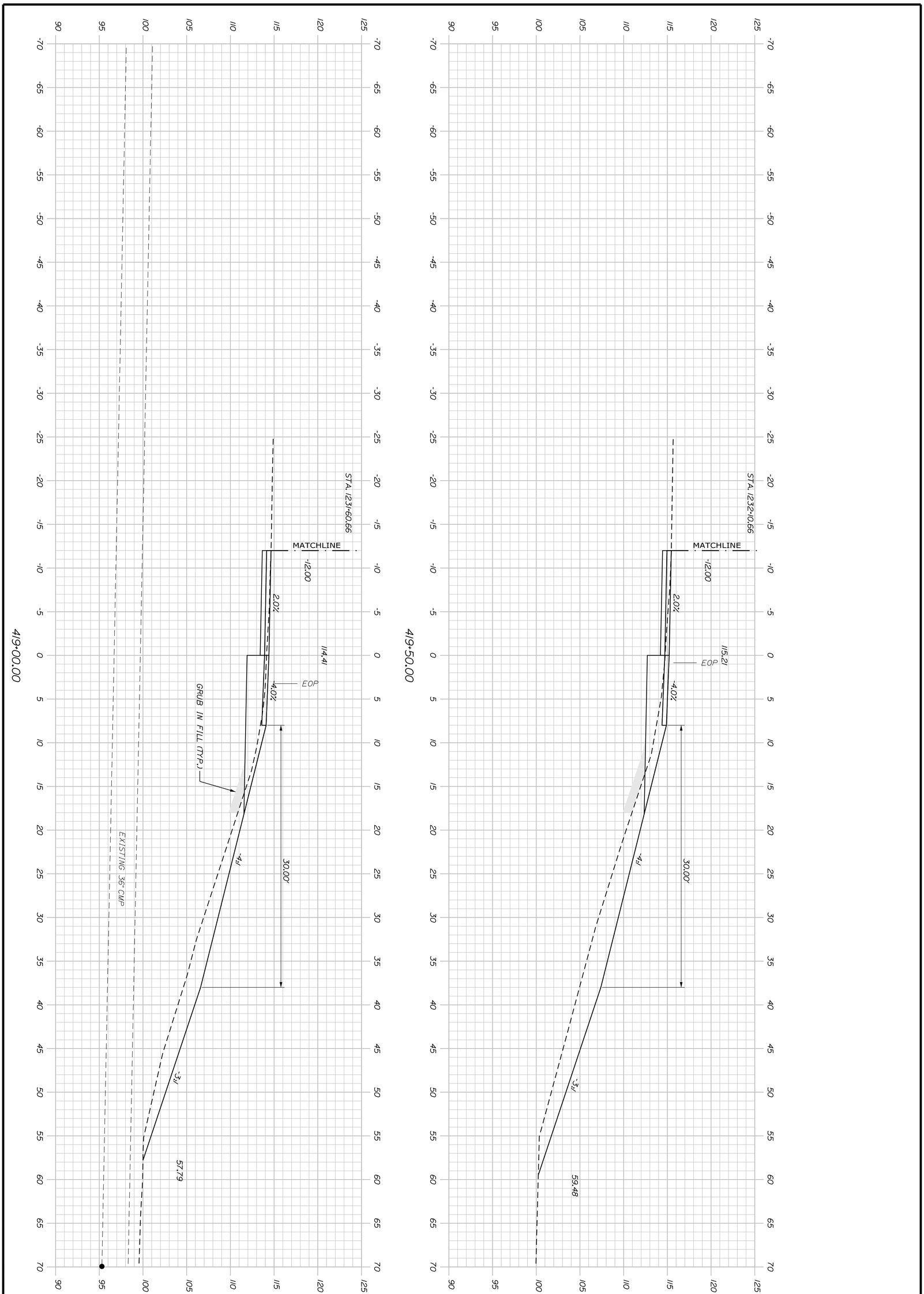
BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-187
333
OF 485

Sta. 418+00.00 to Sta. 418+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 419+00.00 to Sta. 419+50.00

STA. 419+13.14
69.44 RT
EXIT 1

SHEET NUMBER
H-188
334
OF 485

BANGOR
RAMP D

CROSS SECTIONS

PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
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REVISIONS 4			
FIELD CHANGES			

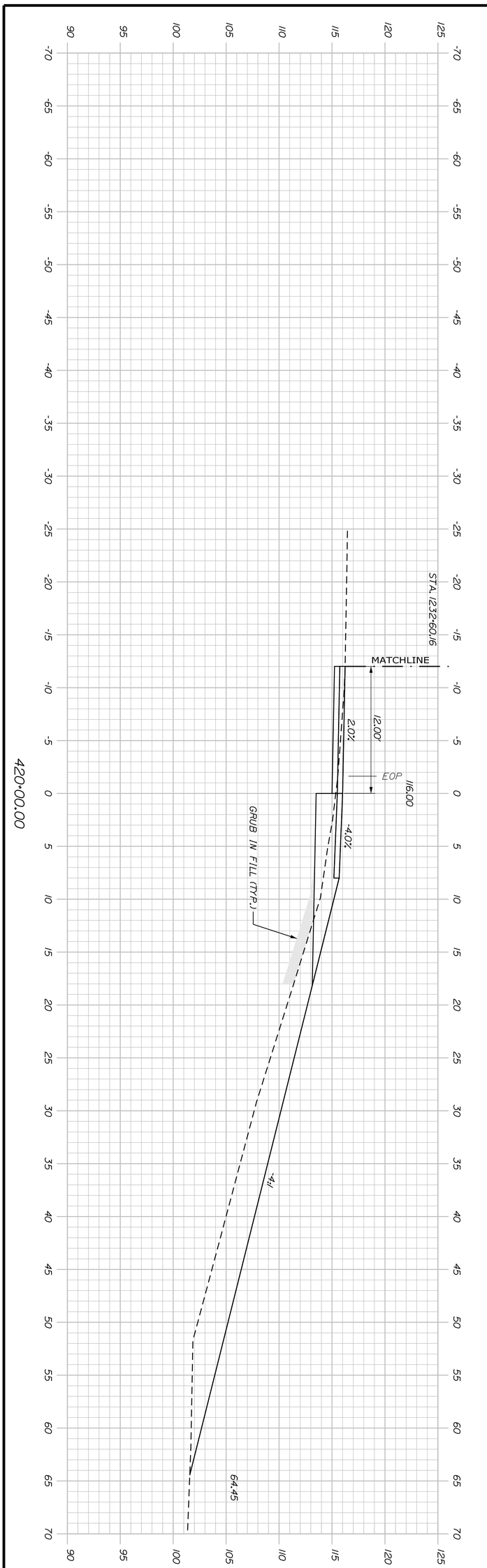
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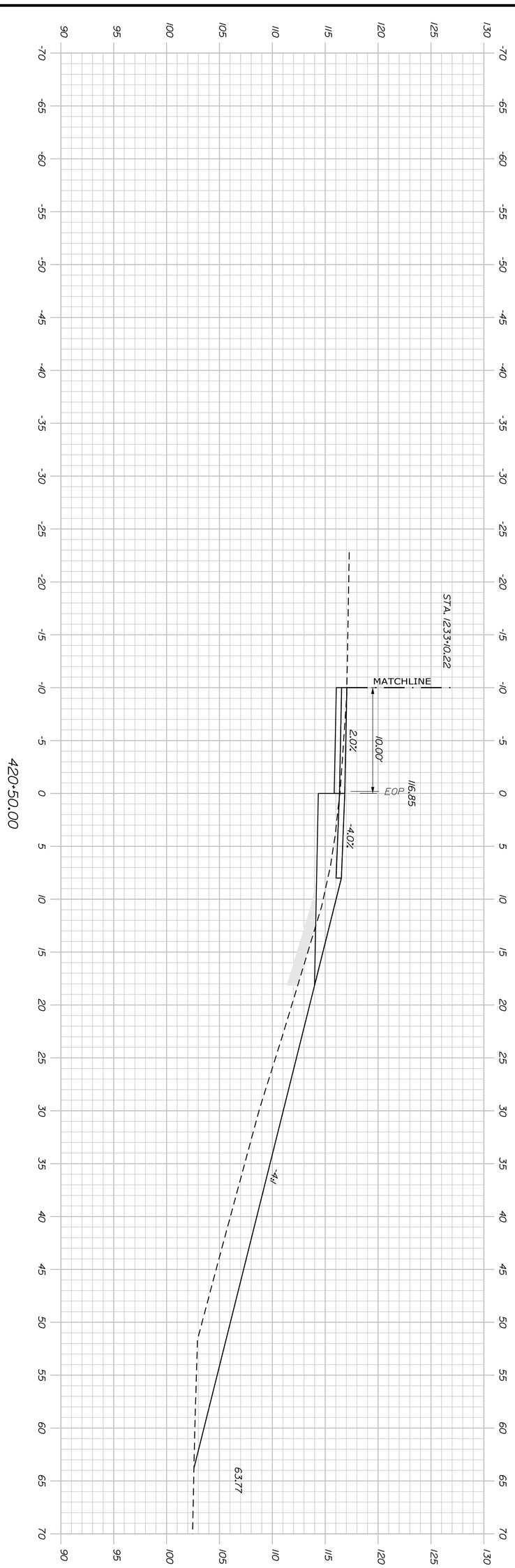
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS





Sta. 420+00.00 to Sta. 420+50.00

SHEET NUMBER H-189 335 OF 485

BANGOR
RAMP D

CROSS SECTIONS

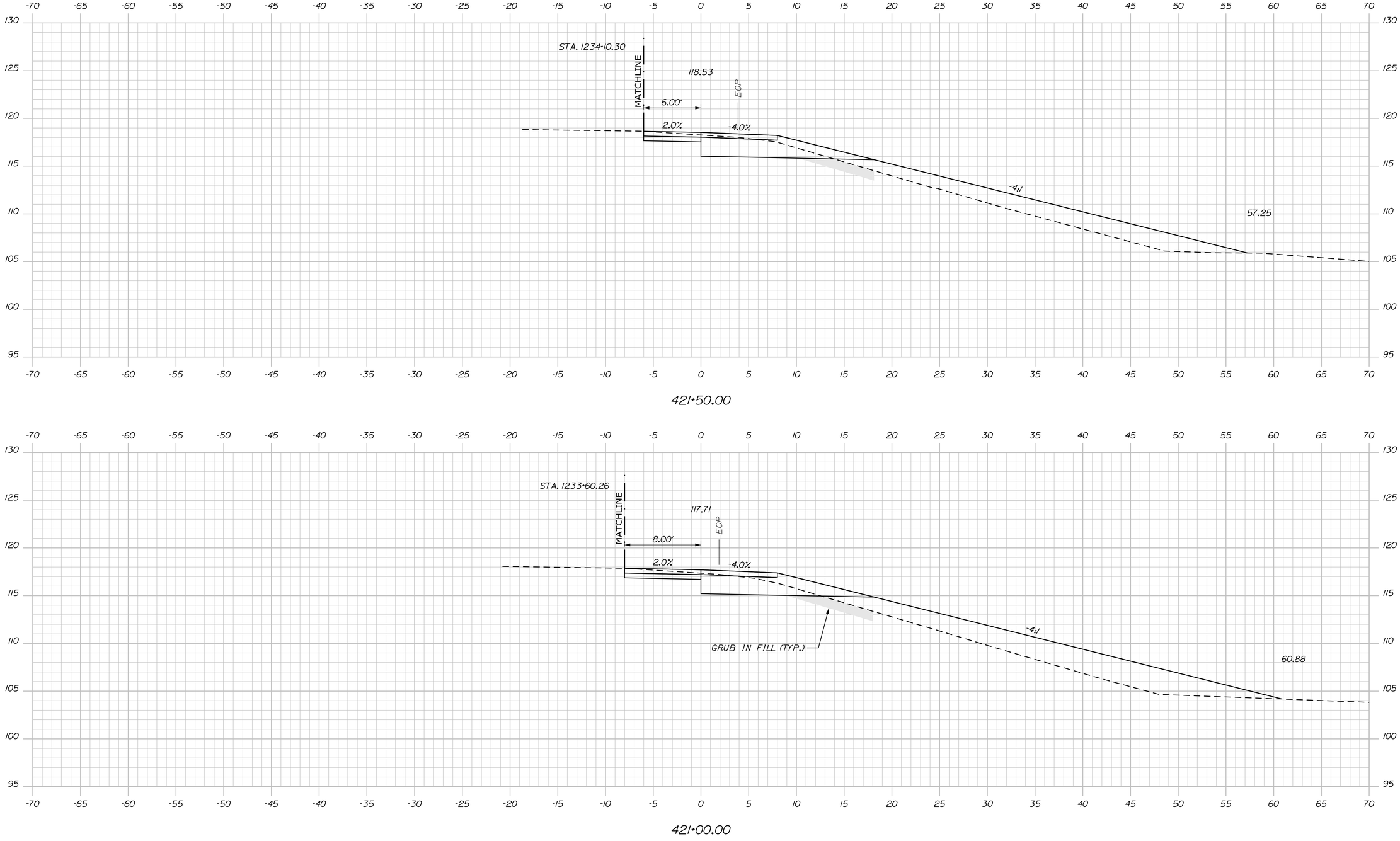
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CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11 HIGHWAY PLANS

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

HIGHWAY PLANS

vhb

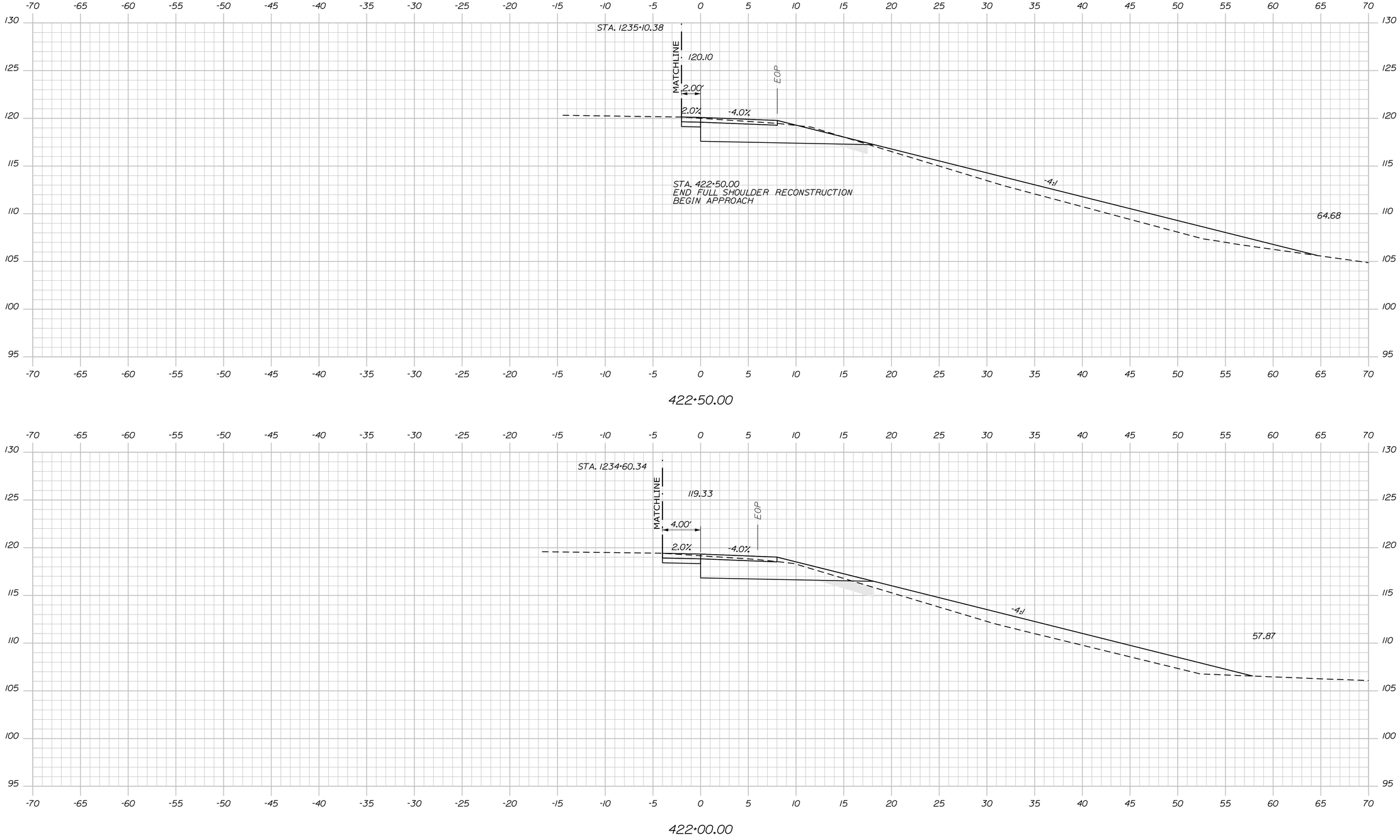
		BY	DATE
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DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2	ECF		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
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336
OF 485

Sta. 421+00.00 to Sta. 421+50.00



Sta. 422+00.00 to Sta. 422+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

HIGHWAY PLANS

vhb

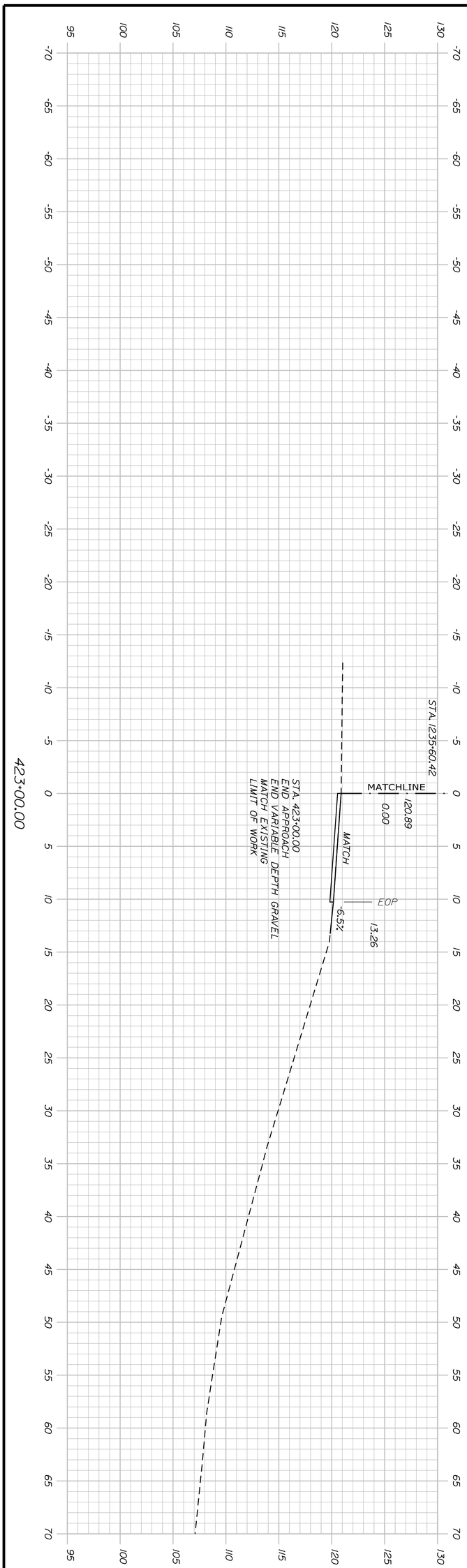
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
RAMP D

CROSS SECTIONS

SHEET NUMBER
H-191
337
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 423+00.00 to Sta. 423+00.00

SHEET NUMBER H-192 338 OF 485

BANGOR
RAMP D

CROSS SECTIONS

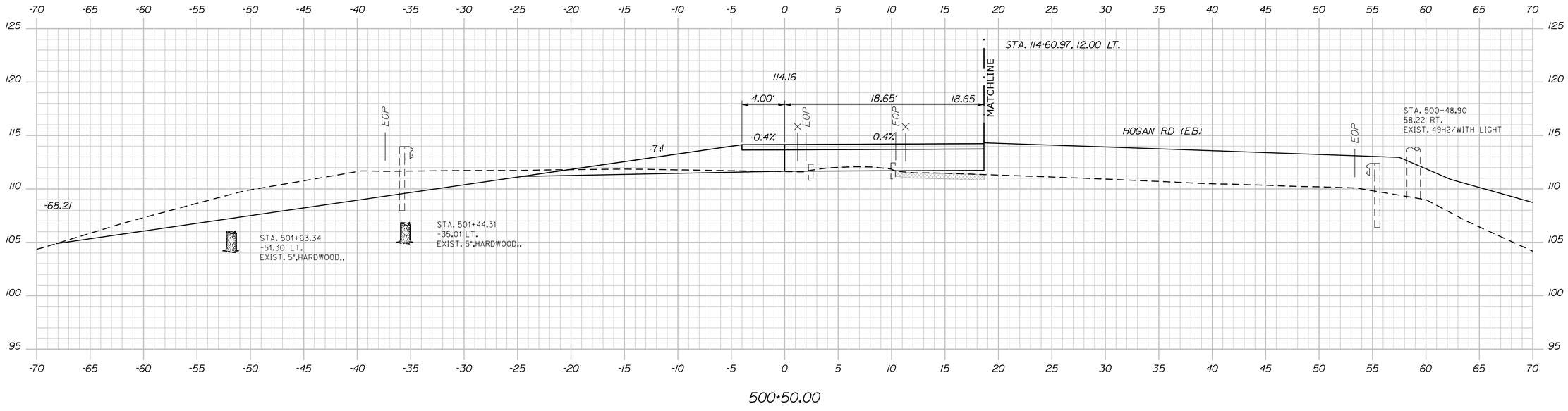
PROJ. MANAGER	L. ROWE	BY	DATE
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

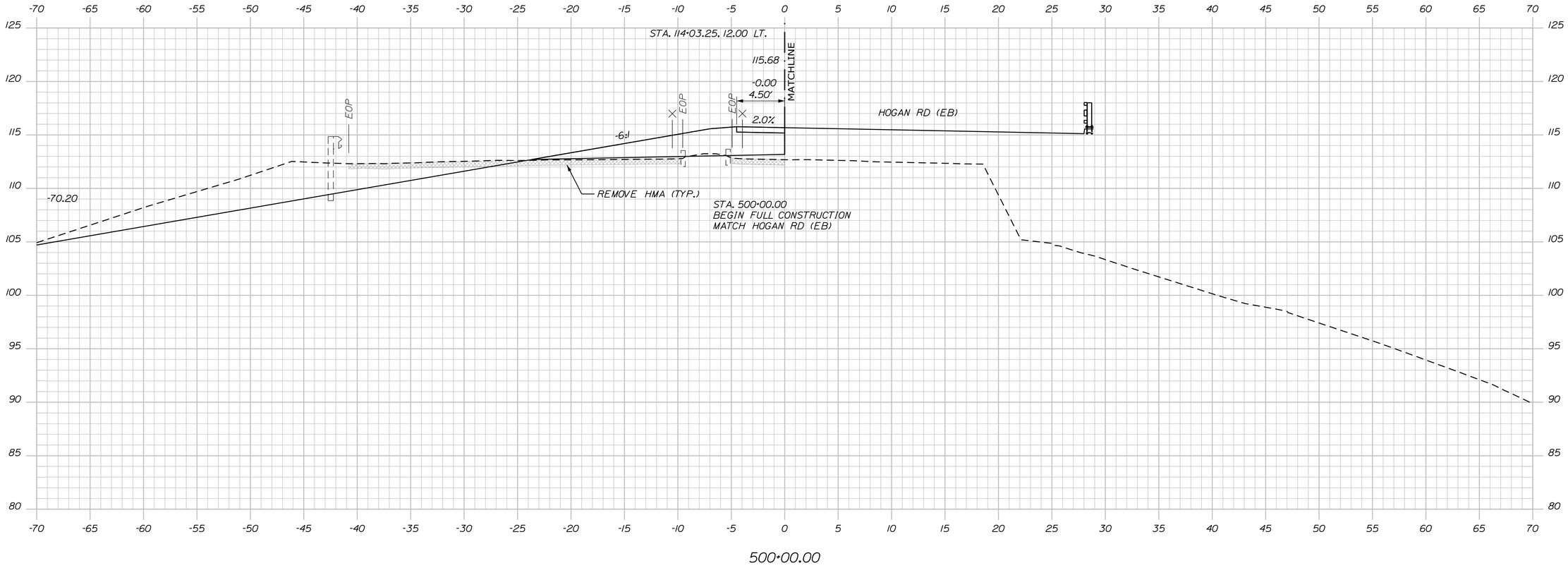
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

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HIGHWAY PLANS





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

HIGHWAY PLANS

vhb

	L. ROWE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

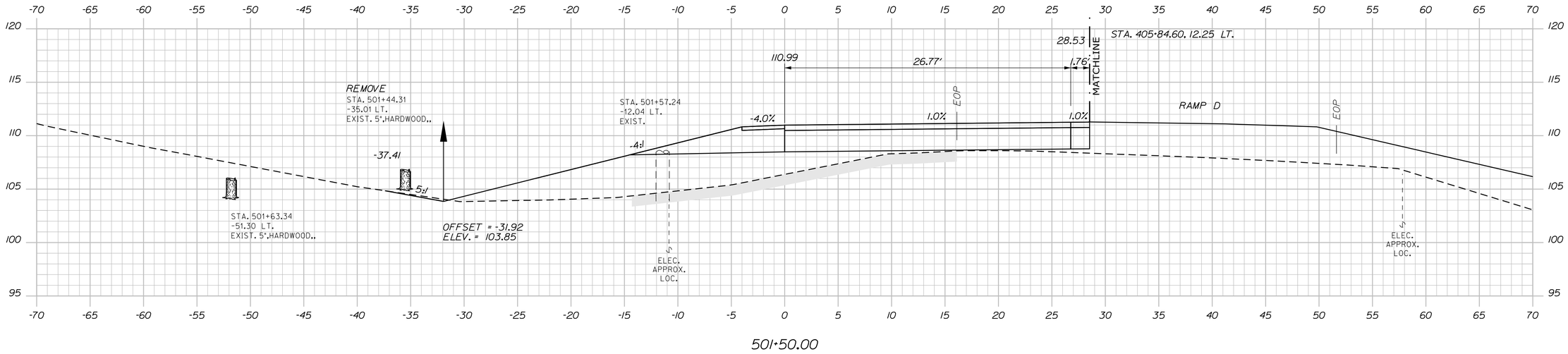
BANGOR
SPUR D

CROSS SECTIONS

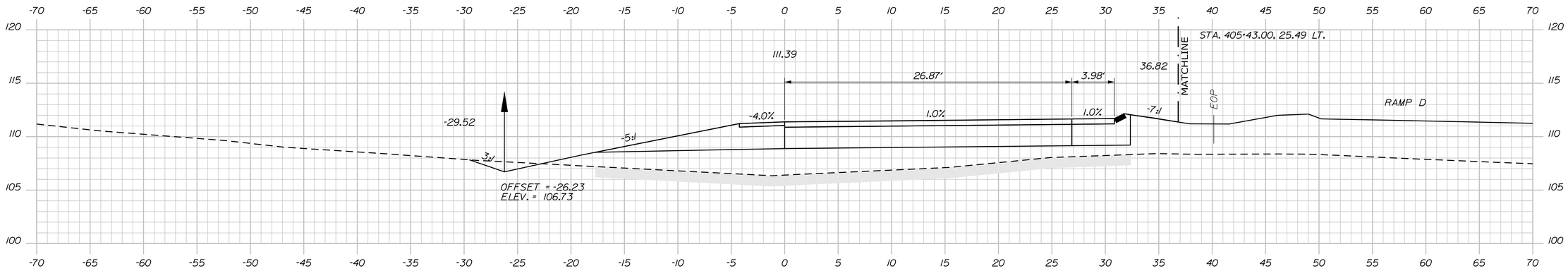
SHEET NUMBER
H-193
339
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

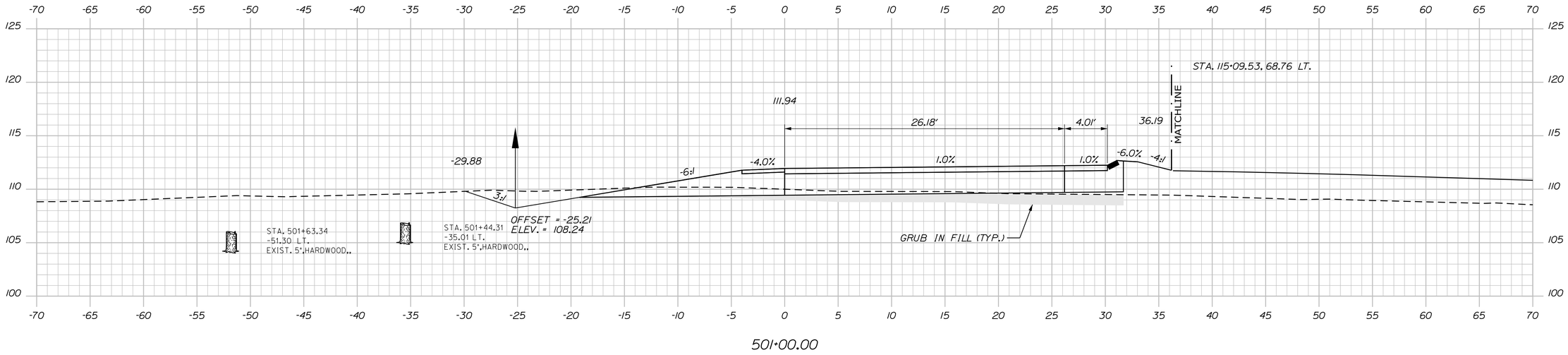
Sta. 500+00.00 to Sta. 500+50.00



501+50.00



501+20.22



501+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

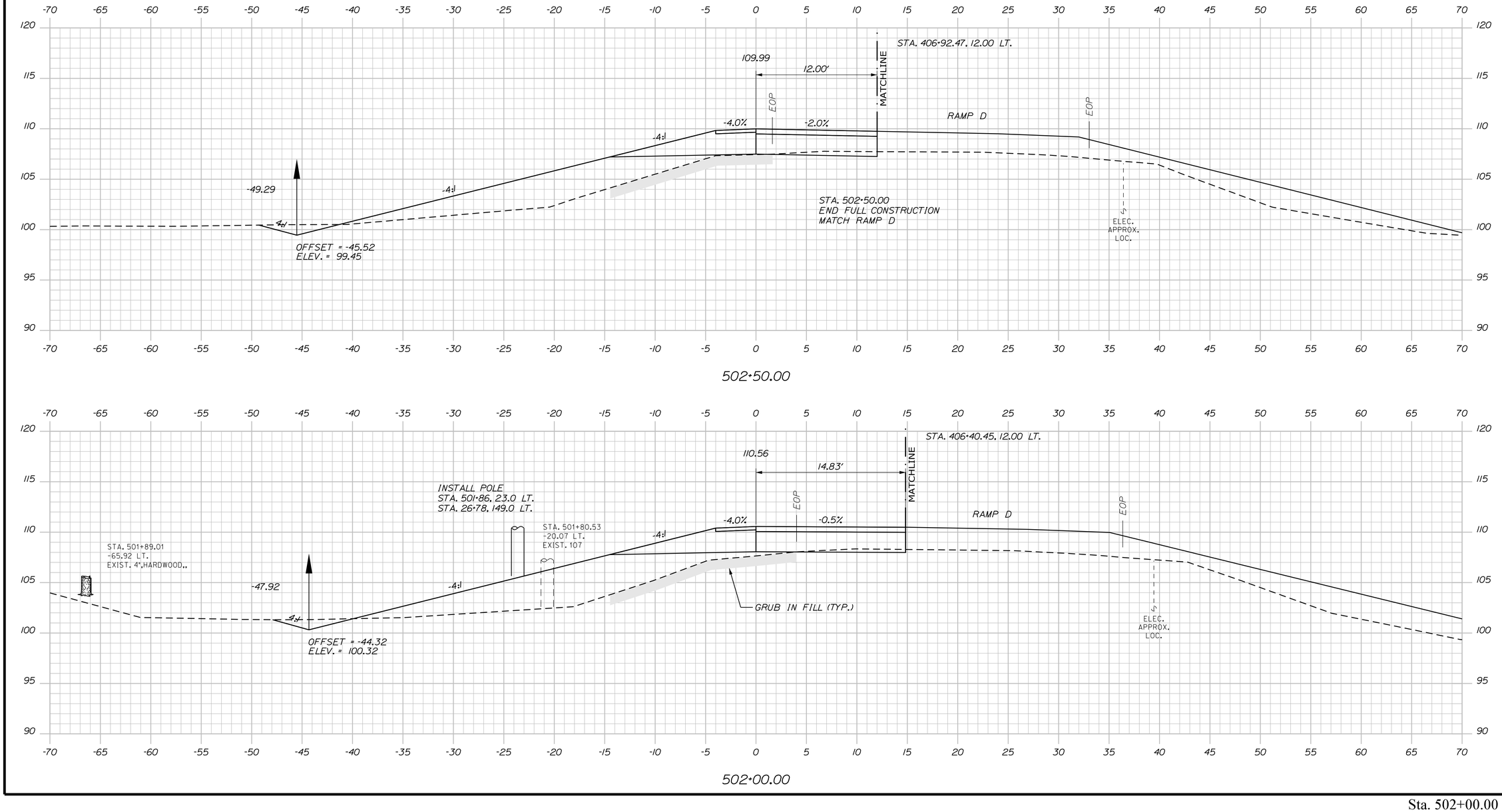
BANGOR
SPUR D

CROSS SECTIONS

SHEET NUMBER
H-194
340
OF 485

Sta. 501+00.00 to Sta. 501+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



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DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

		BY	DATE
PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
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FIELD CHANGES			

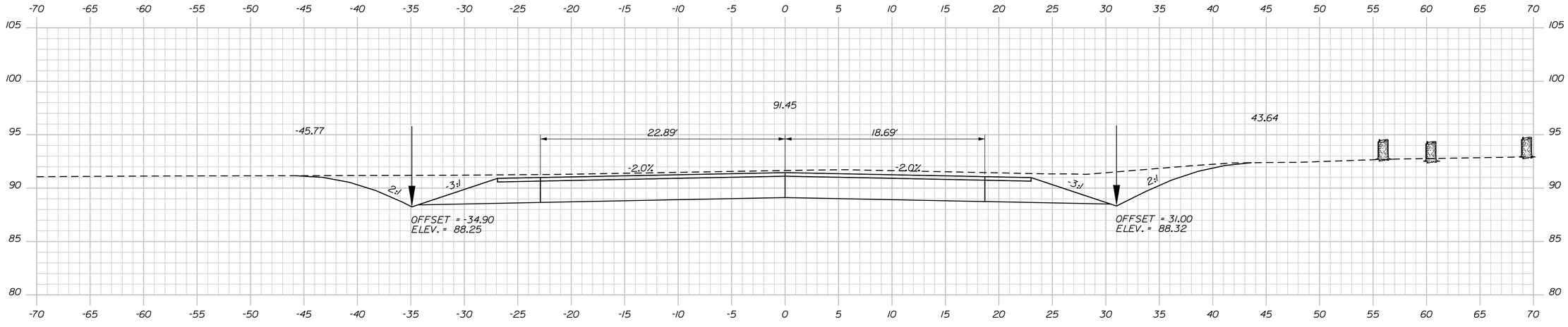
BANGOR
SPUR D

CROSS SECTIONS

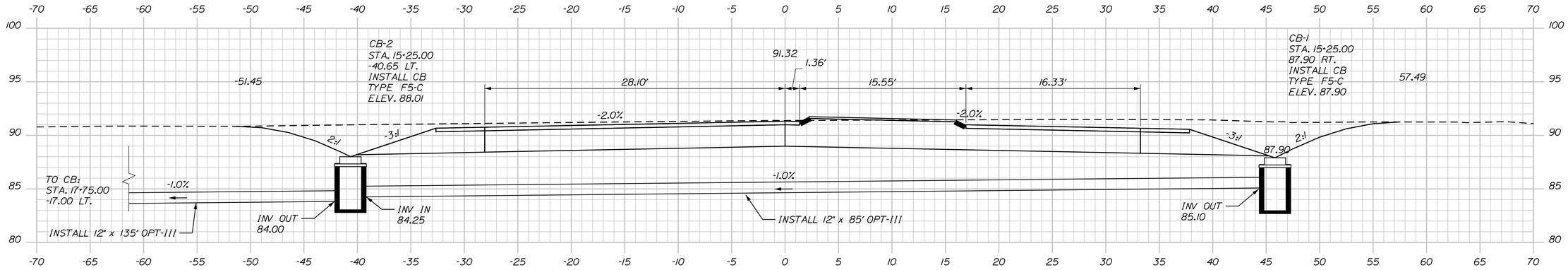
SHEET NUMBER
H-195
341
OF 485

Sta. 502+00.00 to Sta. 502+50.00

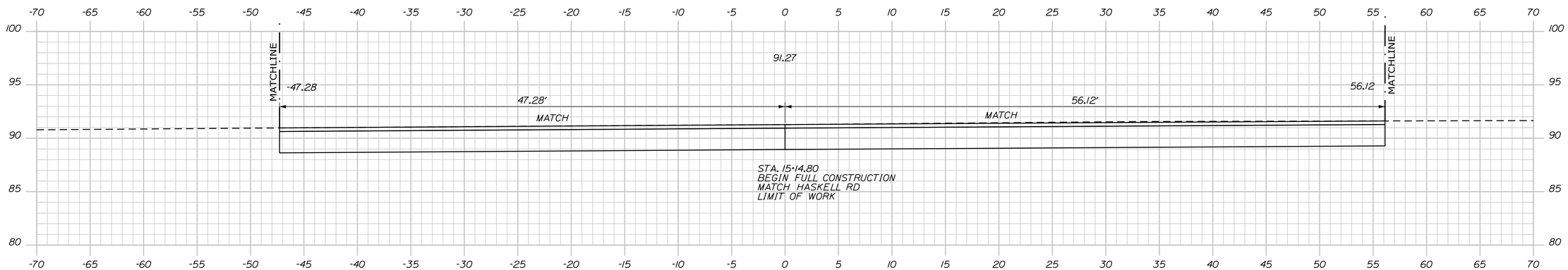
Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jomesdavis Date:11/25/2025



15+50.00



15+25.00



15+14.80

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

	BY	DATE
L. ROWE	JBD	11/25/2025
	AG	11/25/2025
PROJ. MANAGER		
DESIGN-DETAILED	ECF	
CHECKED-REVIEWED	ECF	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BANGOR
REVERSE LOOP DIRECTION

CROSS SECTIONS

SHEET NUMBER
H-196
342
OF 485

Sta. 15+00.00 to Sta. 15+50.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

16+25.00

16+00.00

15+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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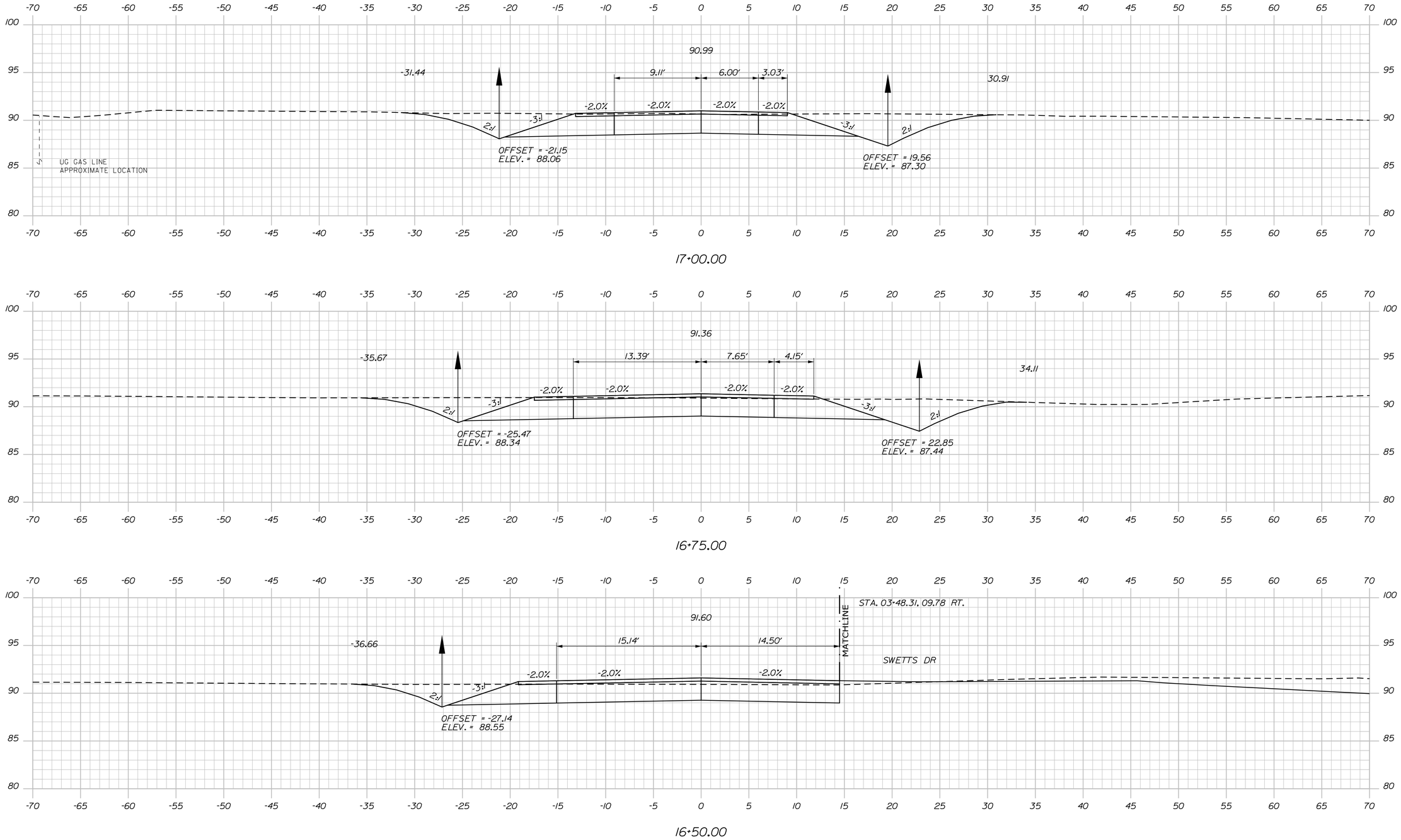
BANGOR
REVERSE LOOP DIRECTION

CROSS SECTIONS

SHEET NUMBER
H-197
343
OF 485

Sta. 15+75.00 to Sta. 16+25.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 16+50.00 to Sta. 17+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

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HIGHWAY PLANS

vhb

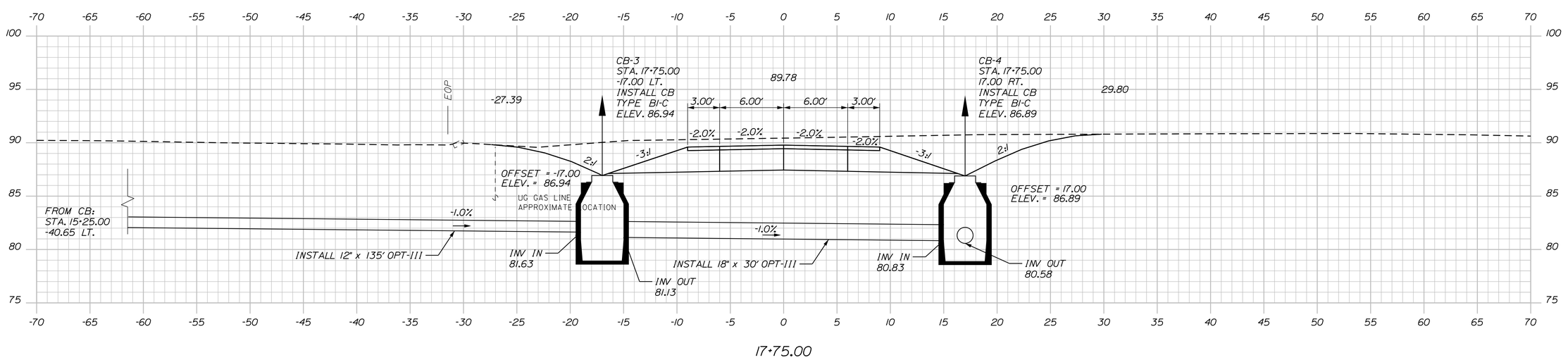
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DESIGN3-DETAILED3			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

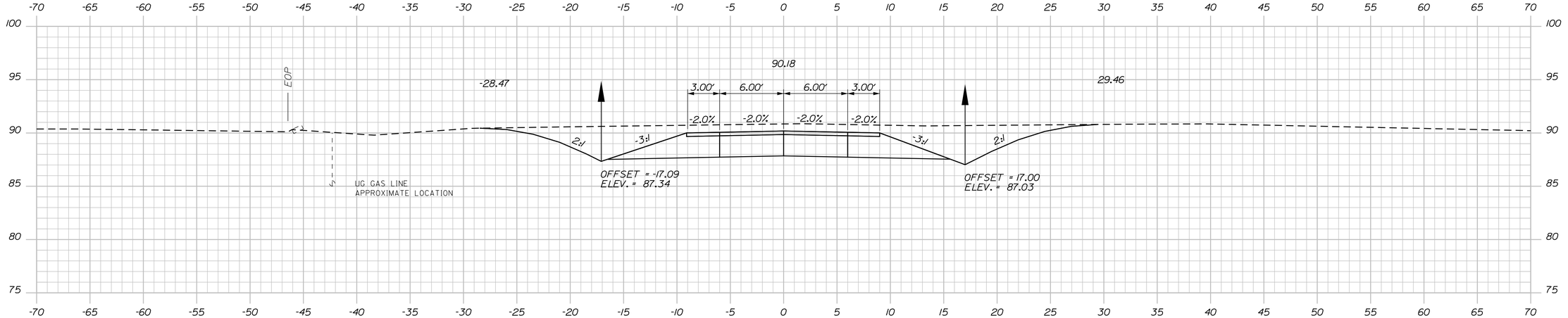
BANGOR
REVERSE LOOP DIRECTION

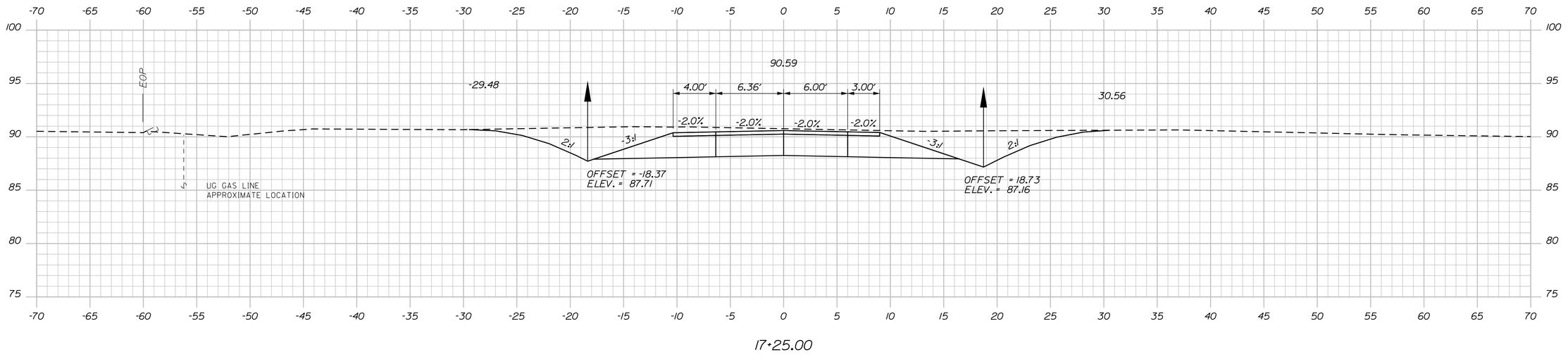
CROSS SECTIONS

SHEET NUMBER
H-198
344
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
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FIELD CHANGES			

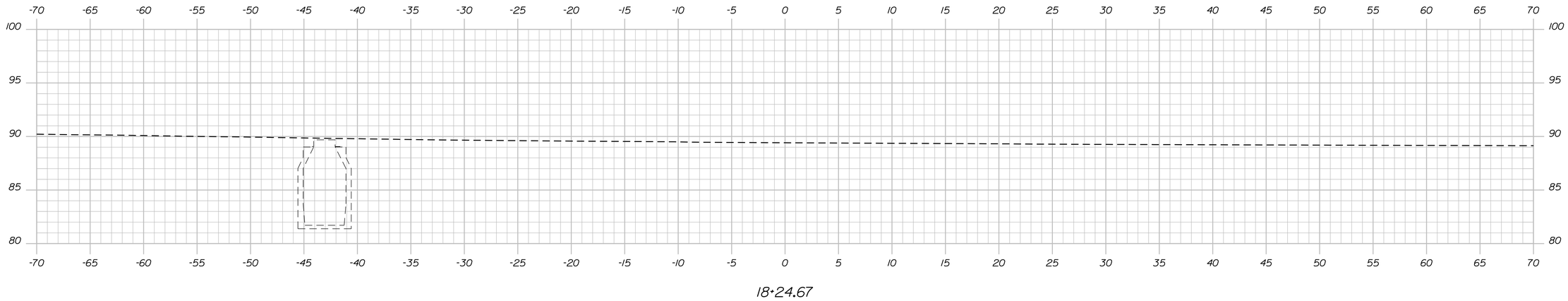
BANGOR
REVERSE LOOP DIRECTION

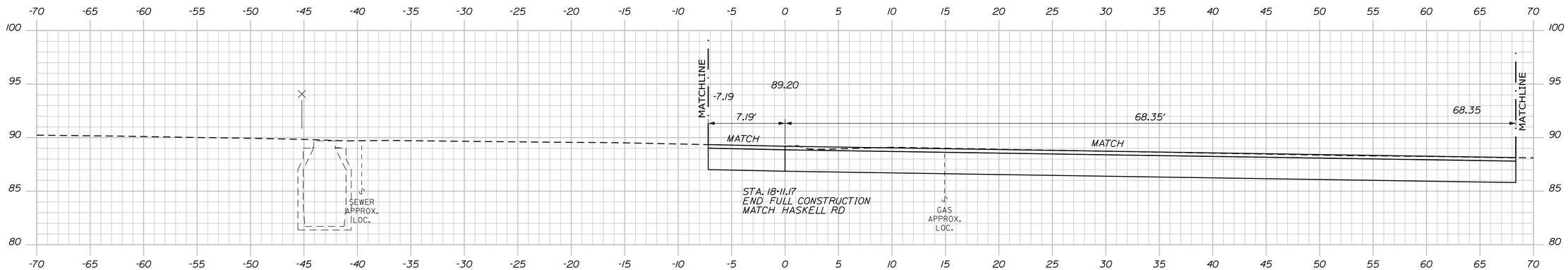
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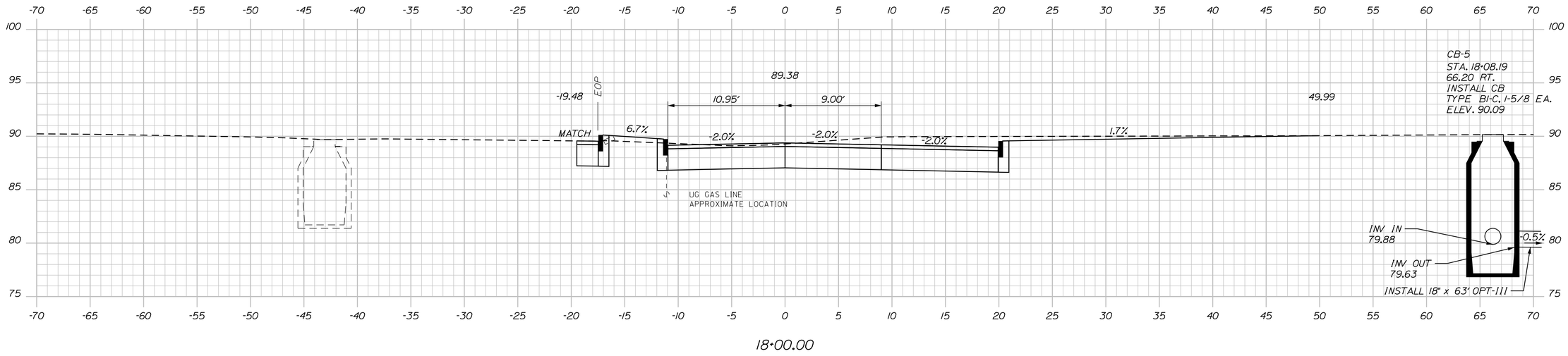
SHEET NUMBER
H-199
345
OF 485

Sta. 17+25.00 to Sta. 17+75.00

Filename: ...\VH_004_CrossSections.dgn Division: HIGHWAY Username: jomesdavis Date:11/25/2025







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DEPARTMENT OF TRANSPORTATION

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18595.11

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vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2	ECF		
DESIGN3-DETAILED3	ECF		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

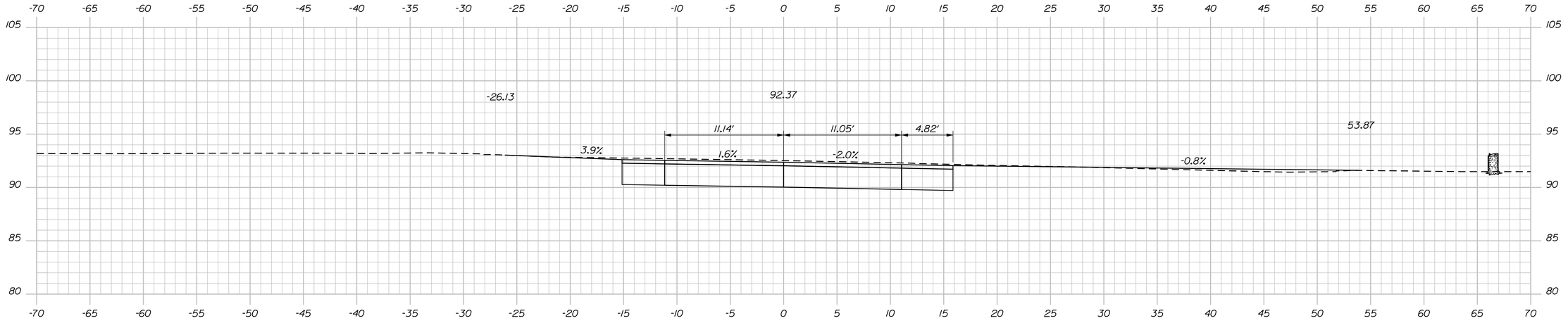
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REVERSE LOOP DIRECTION

CROSS SECTIONS

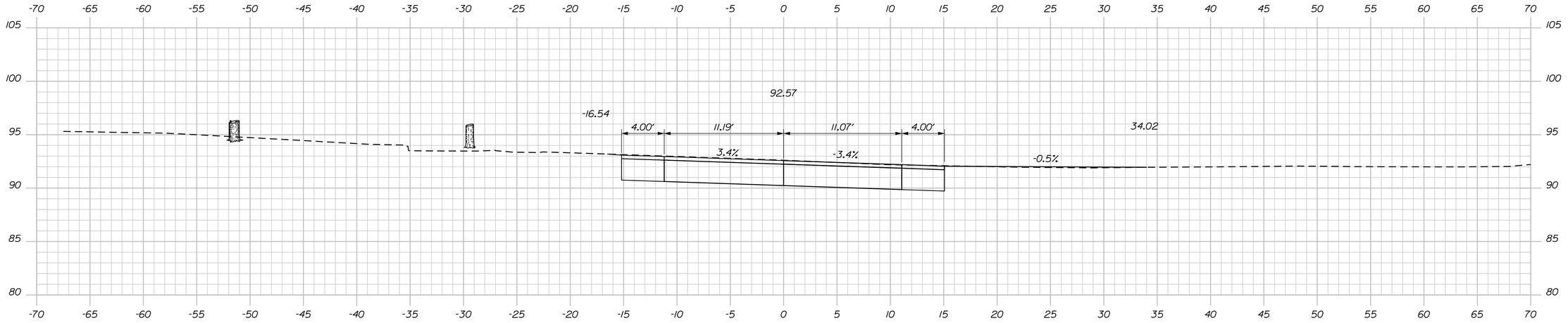
SHEET NUMBER
H-200
346
OF 485

Sta. 18+00.00 to Sta. 18+24.67

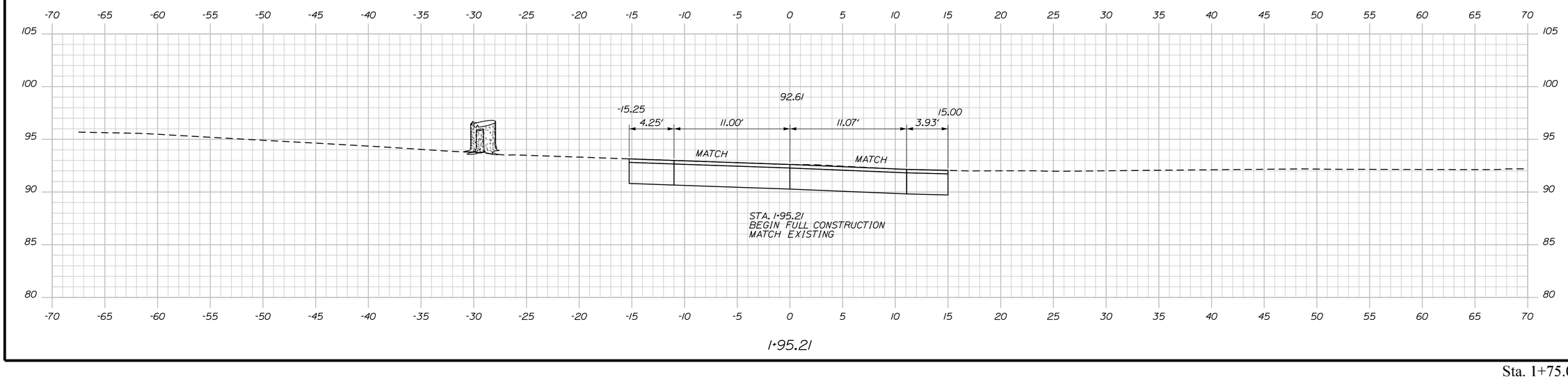
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2+25.00



2+00.00



1+95.21

Sta. 1+75.00 to Sta. 2+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

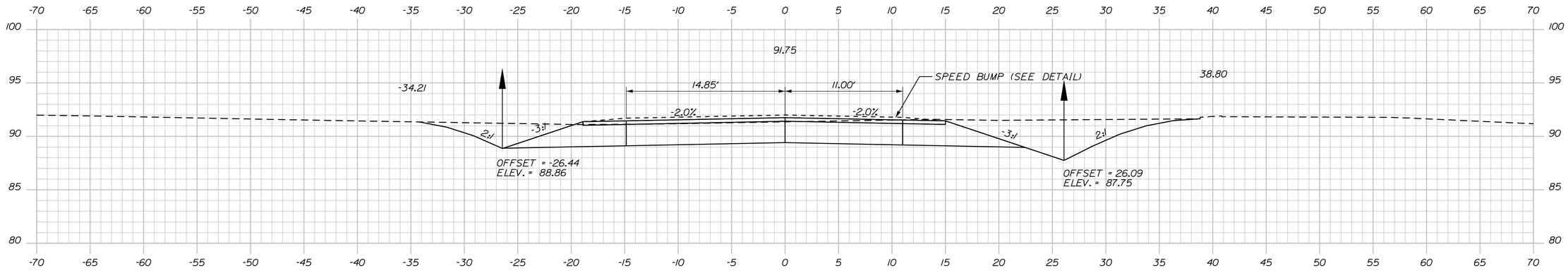
PROJ. MANAGER	L. ROWE		
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CHECKED-REVIEWED	ECF	AG	11/25/2025
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
SWETTS DRIVE

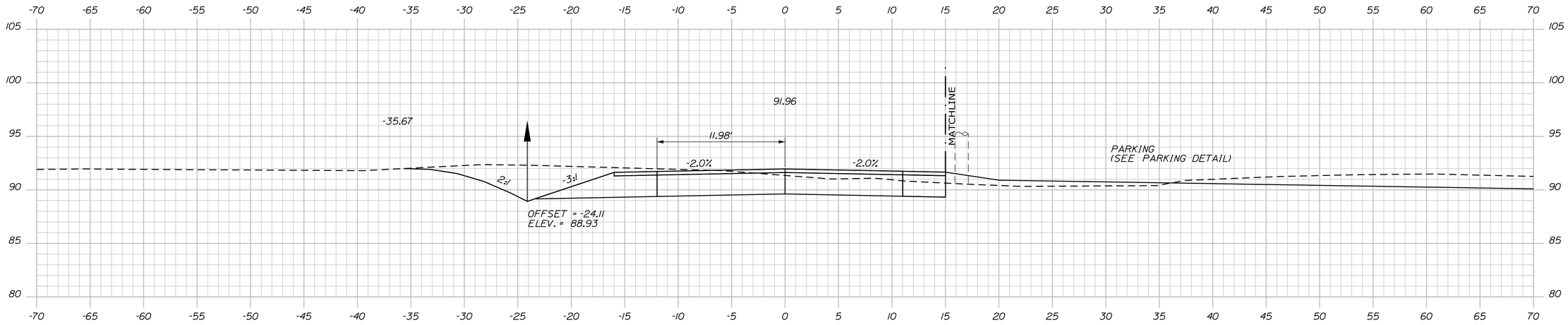
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SHEET NUMBER
H-201
347
OF 485

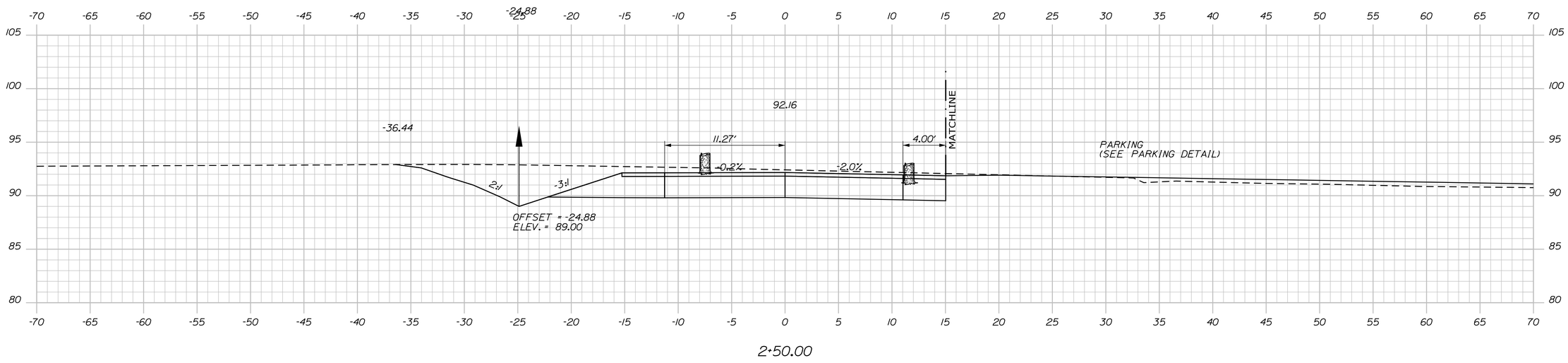
Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



3+00.00



2+75.00



2+50.00

Sta. 2+50.00 to Sta. 3+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
SWETTS DRIVE

CROSS SECTIONS

SHEET NUMBER
H-202
348
OF 485

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025

Sta. 3+25.00 to Sta. 3+61.61

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

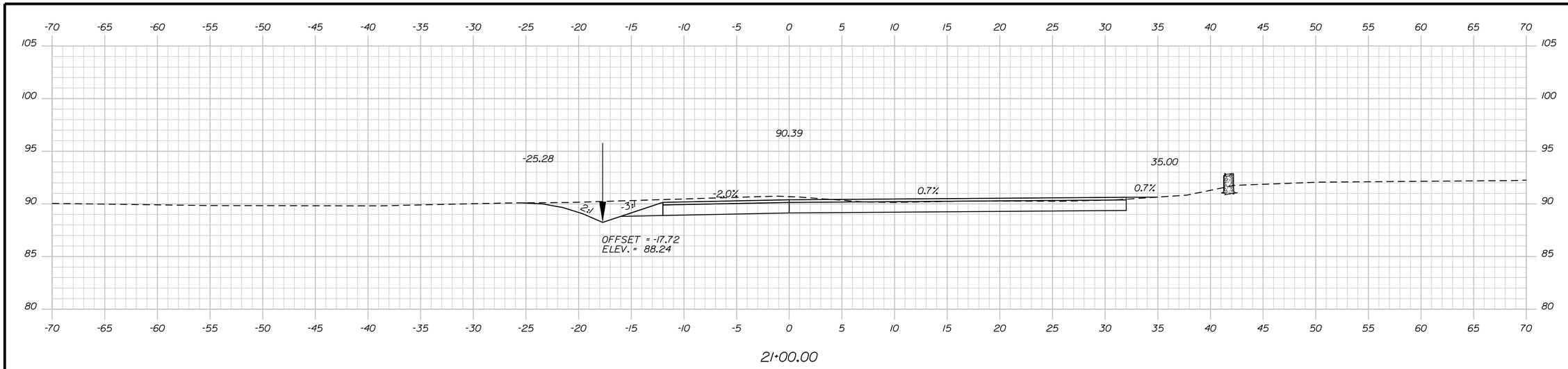
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CHECKED-REVIEWED	ECF	AG	11/25/2025
DESIGN2-DETAILED2			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
SWETTS DRIVE

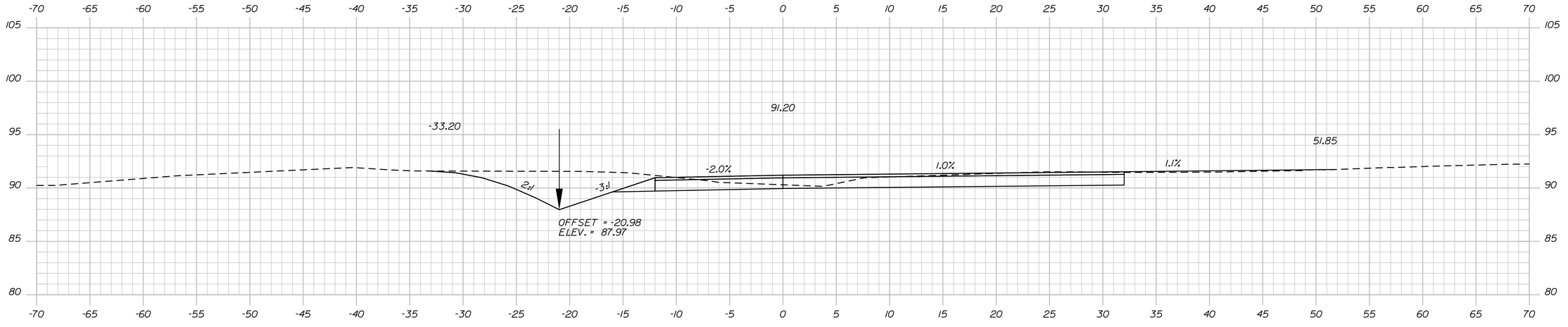
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SHEET NUMBER
H-203
349
OF 485

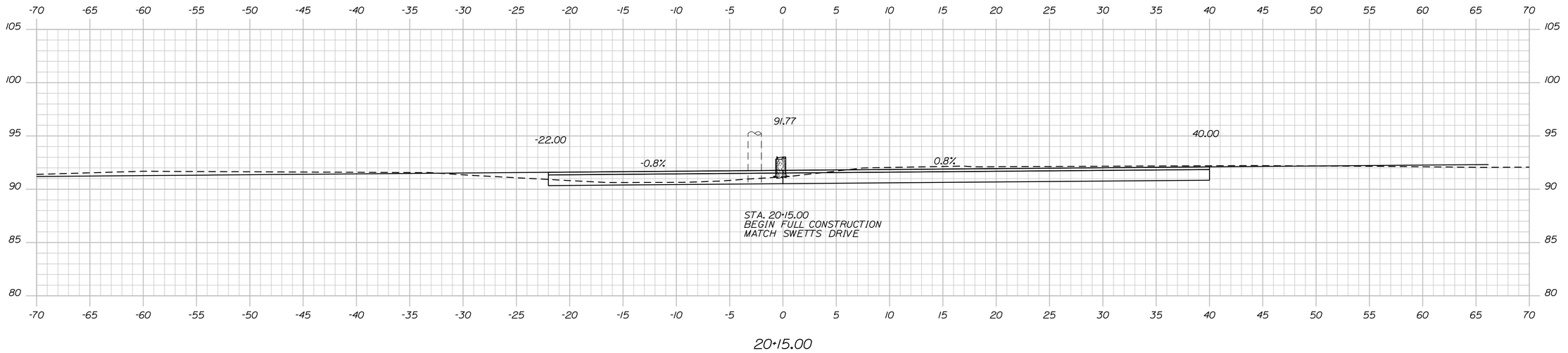
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21+00.00



20+50.00



20+15.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE		
DESIGN-DETAILED	ECF	JBD	11/25/2025
CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

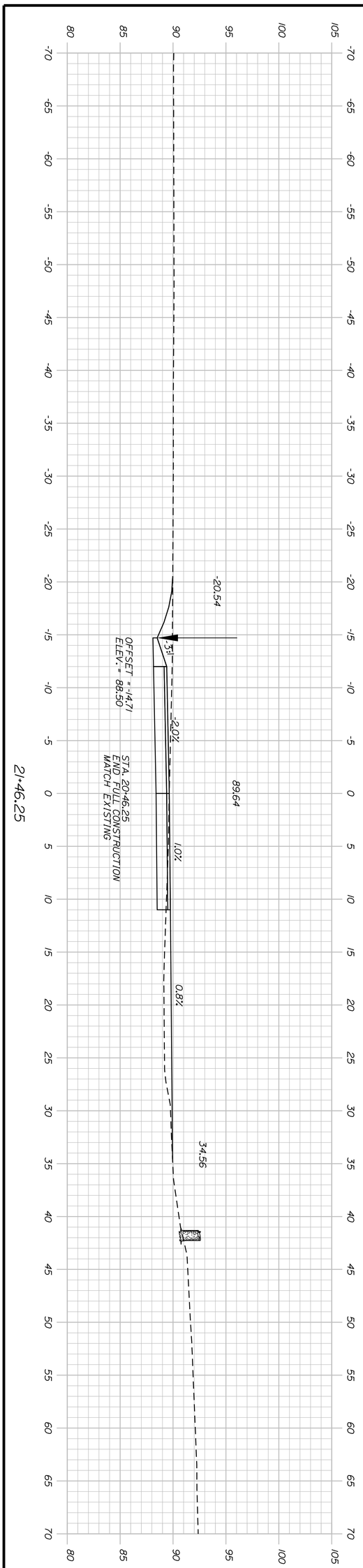
BANGOR
SWETTS PARKING

CROSS SECTIONS

SHEET NUMBER
H-204
350
OF 485

Sta. 20+15.00 to Sta. 21+00.00

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



Sta. 21+46.25 to Sta. 21+46.25

SHEET NUMBER H-205
351
OF 485

BANGOR
SWETTS PARKING

CROSS SECTIONS

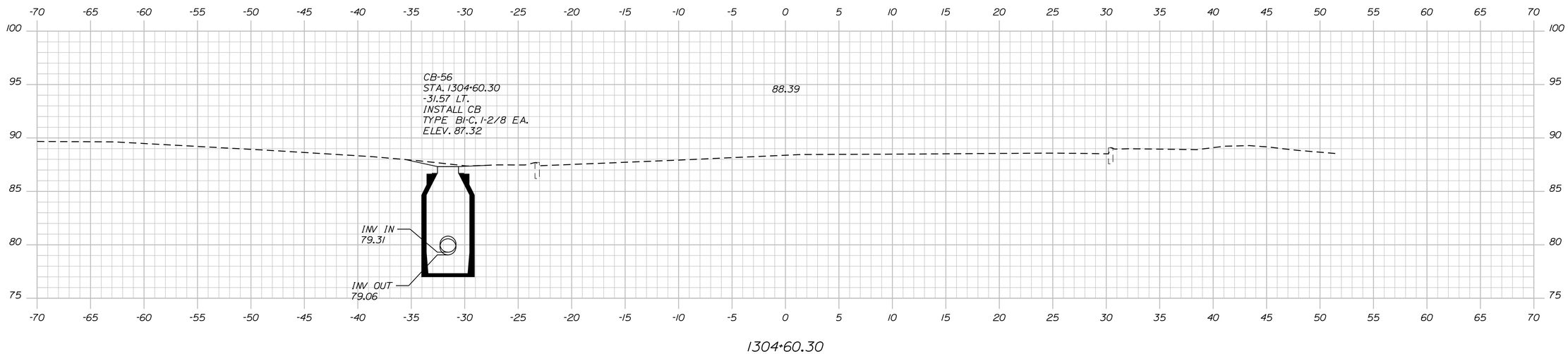
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CHECKED-REVIEWED	ECF	AG	11/25/2025
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

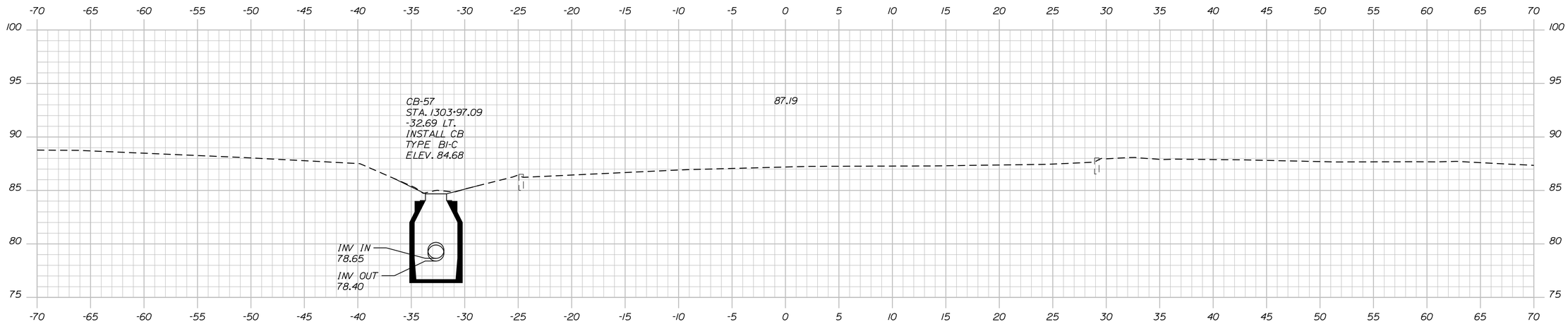
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

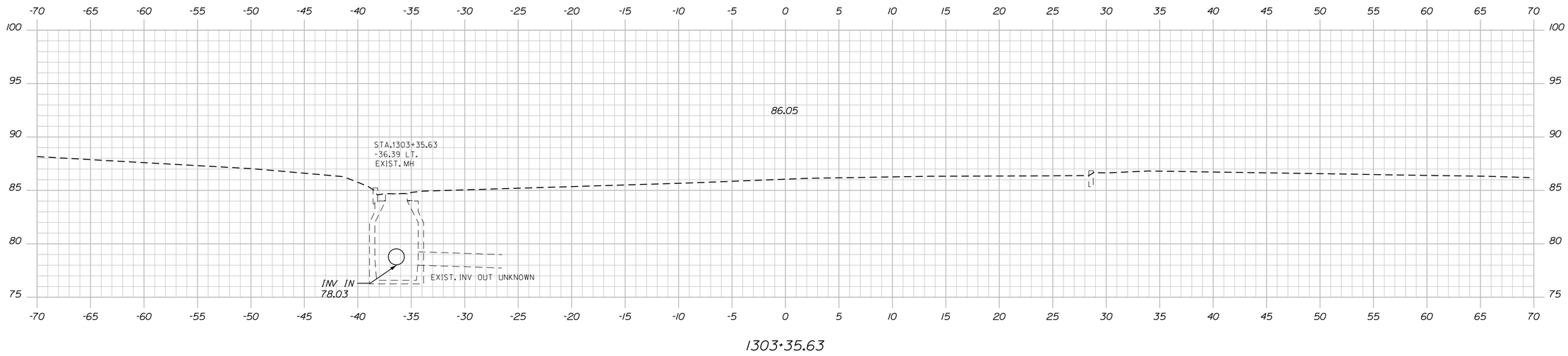
18595.11

WIN
18595.11

HIGHWAY PLANS







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN
18595.11

HIGHWAY PLANS

vhb

PROJ. MANAGER	L. ROWE	
DESIGN-DETAILED	ECF	
CHECKED-REVIEWED	ECF	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

	BY	DATE
	JBD	11/25/2025
	AG	11/25/2025

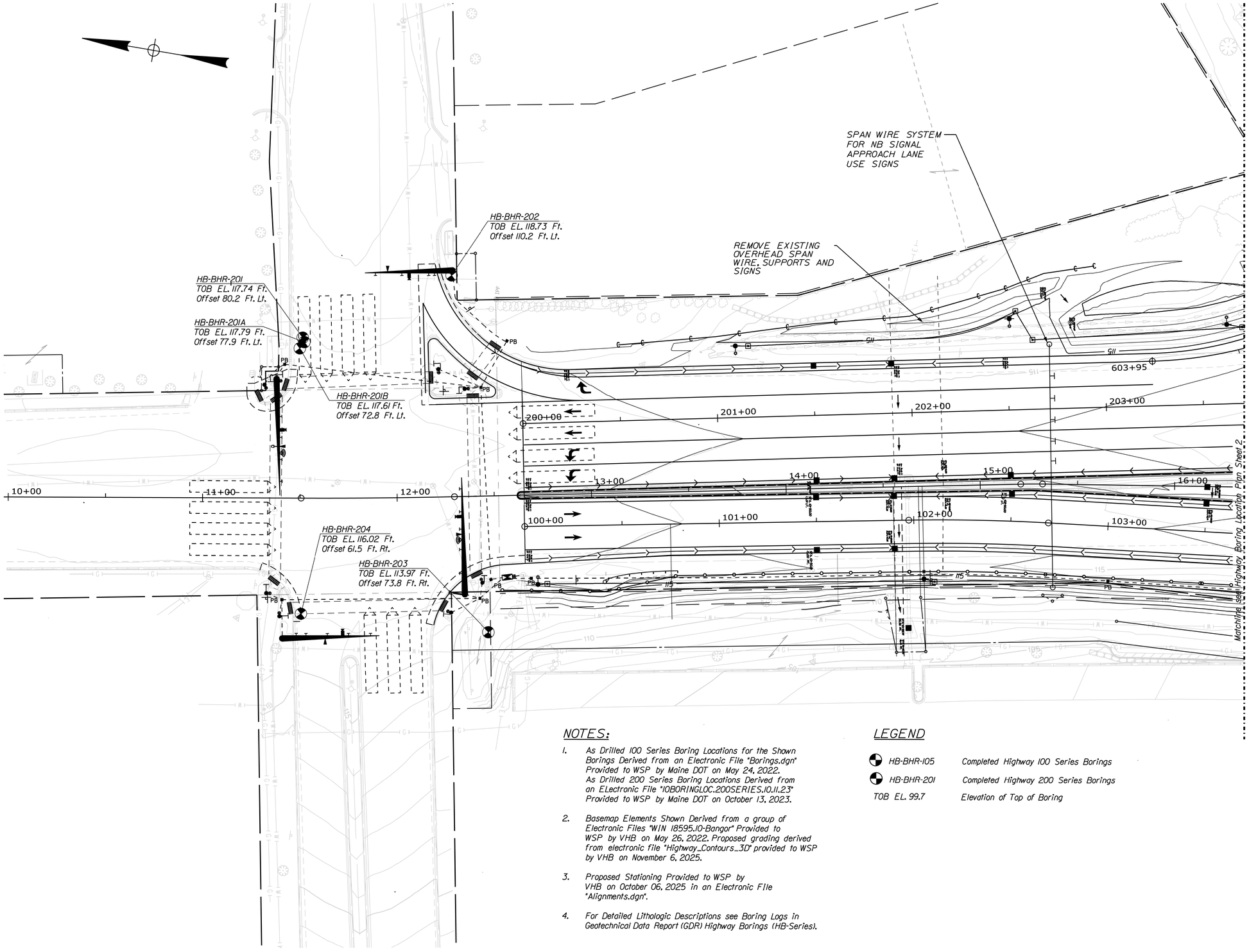
BANGOR
HAKSELL ROAD

CROSS SECTIONS

SHEET NUMBER
H-206
352
OF 485

Sta. 1303+35.63 to Sta. 1304+60.30

Filename: ...\H_004_CrossSections.dgn Division: HIGHWAY Username: jamesdavis Date:11/25/2025



NOTES:

1. As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022. As Drilled 200 Series Boring Locations Derived from an ELectronic File "10BORINGLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT on October 13, 2023.
2. Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed grading derived from electronic file "Highway_Contours_3D" provided to WSP by VHB on November 6, 2025.
3. Proposed Stationing Provided to WSP by VHB on October 06, 2025 in an Electronic File "Alignments.dgn".
4. For Detailed Lithologic Descriptions see Boring Logs in Geotechnical Data Report (GDR) Highway Borings (HB-Series).

LEGEND

HB-BHR-105	Completed Highway 100 Series Borings
HB-BHR-201	Completed Highway 200 Series Borings
TOB EL. 99.7	Elevation of Top of Boring

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE NO. 5823

BRIDGE PLANS

STATE OF MAINE — CHRISTOPHER E. HOWES No. 15164 — PROFESSIONAL ENGINEER

	SIGNATURE	15164
	P.E. NUMBER	11/07/2025
	DATE	

PROJ. MANAGER	M. LANDON		
DESIGN-DETAILED	MEL	WEG	10/2023
CHECKED-REVIEWED	DEB	COB	10/2025
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

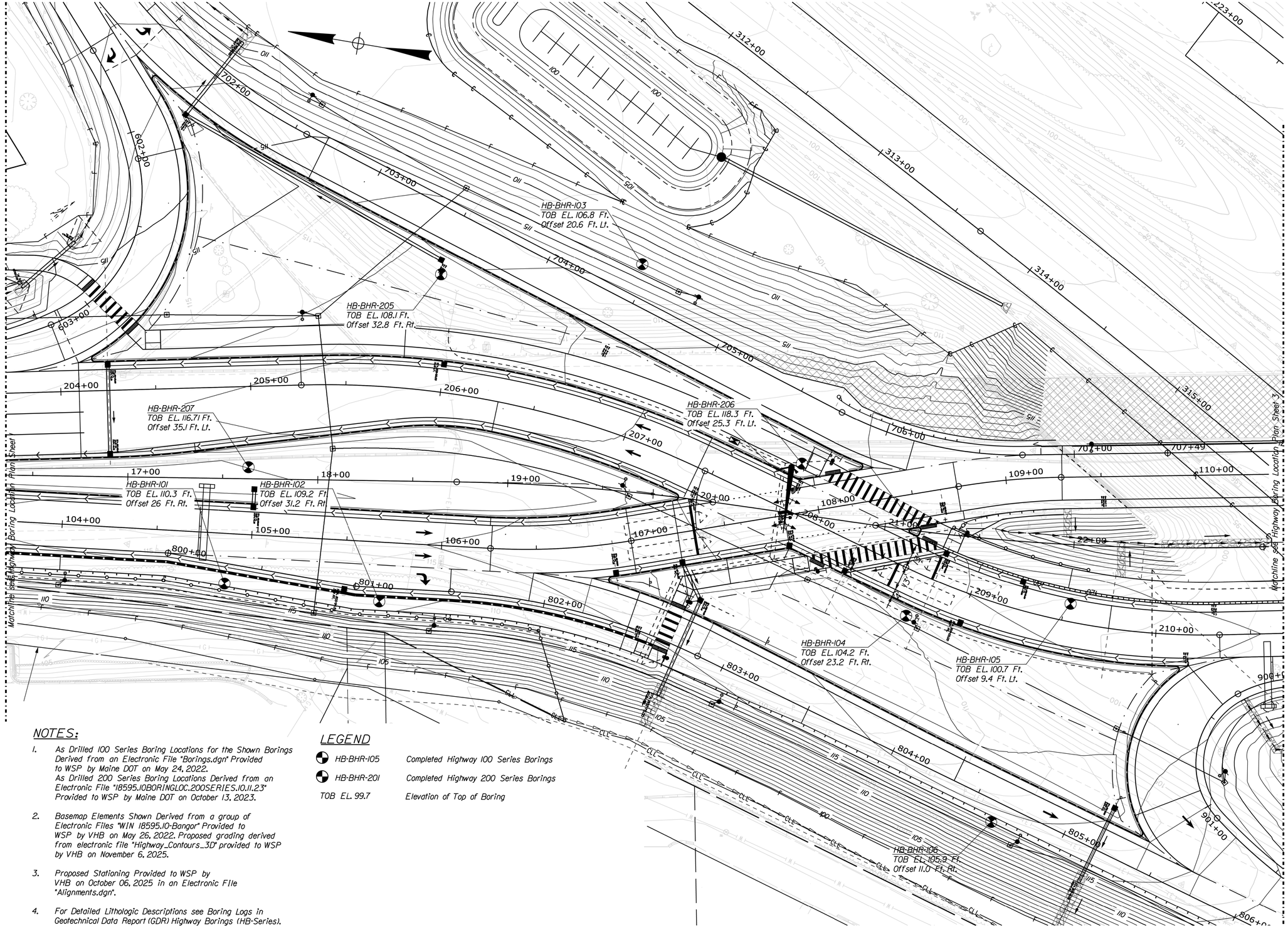
I-95 HOGAN ROAD BRIDGE
REPLACEMENT *5823 (EXIT 187)
BANGOR MAINE

HIGHWAY BORING LOCATION PLAN SHEET 1

SHEET NUMBER
H-207
353
OF 485

Filename: ...\BRIDGE\MSTA\hw_borplan_01.dgn Division: BRIDGE Username: Date:11/7/2025

Filename: ...\BRIDGE\MSTA\hw_borplan_02.dgn Division: BRIDGE Username: Date:11/7/2025



NOTES:

1. As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022.
   As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORINGLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT on October 13, 2023.
2. Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed grading derived from electronic file "Highway_Contours_3D" provided to WSP by VHB on November 6, 2025.
3. Proposed Stationing Provided to WSP by VHB on October 06, 2025 in an Electronic File "Alignments.dgn".
4. For Detailed Lithologic Descriptions see Boring Logs in Geotechnical Data Report (GDR) Highway Borings (HB-Series).

LEGEND

HB-BHR-105	Completed Highway 100 Series Borings
HB-BHR-201	Completed Highway 200 Series Borings
TOB EL. 99.7	Elevation of Top of Boring

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE NO. 5823

BRIDGE PLANS

STATE OF MAINE · CHRISTOPHER E. MACEK · No. 15164 · REGISTERED PROFESSIONAL ENGINEER

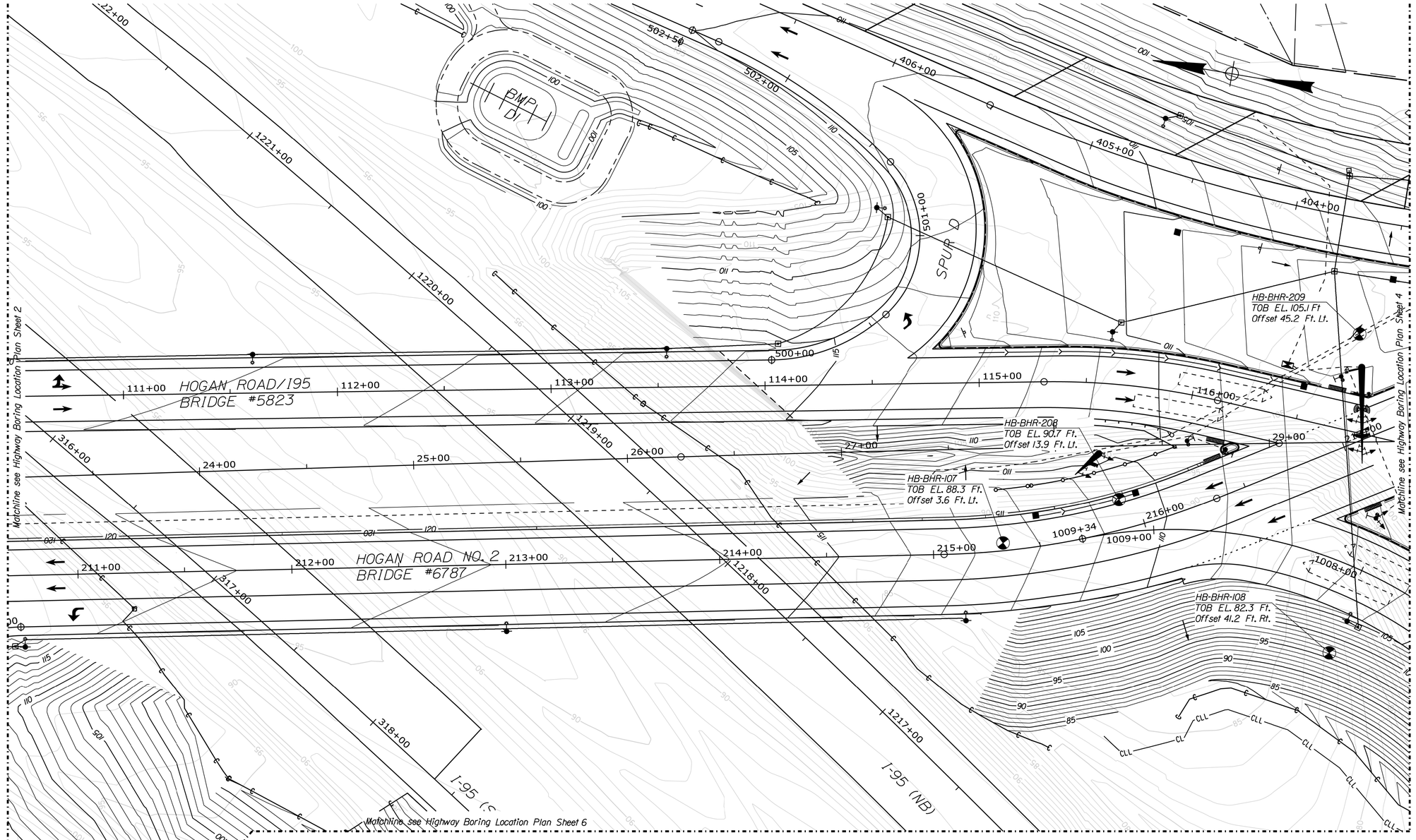
SIGNATURE		15164	
P.E. NUMBER			
DATE	11/07/2025		

			BY	DATE
PROJ. MANAGER	M. LANDON			
DESIGN-DETAILED	MEL		WEG	10/2023
CHECKED-REVIEWED	DEB		COB	10/2025
DESIGN2-DETAILED2	-		-	-
DESIGN3-DETAILED3	-		-	-
REVISIONS 1	-		-	-
REVISIONS 2	-		-	-
REVISIONS 3	-		-	-
REVISIONS 4	-		-	-
FIELD CHANGES	-		-	-

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HIGHWAY BORING LOCATION PLAN SHEET 2

SHEET NUMBER
H-208
354
OF 485



NOTES:

1. *As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022. As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORINGLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT on October 13, 2023.*
2. *Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed grading derived from electronic file "Highway_Contours_3D" provided to WSP by VHB on November 6, 2025.*
3. *Proposed Stationing Provided to WSP by VHB on October 06, 2025 in an Electronic File "Alignments.dgn".*
4. *For Detailed Lithologic Descriptions see Boring Logs in Geotechnical Data Report (GDR) Highway Borings (HB-Series).*

LEGEND

HB-BHR-105	Completed Highway 100 Series Borings
HB-BHR-201	Completed Highway 200 Series Borings
TOB EL. 99.7	Elevation of Top of Boring

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE NO. 5823

BRIDGE PLANS

STATE OF MAINE — CHRISTOPHER E. LANDON No. 15164 — REGISTERED PROFESSIONAL ENGINEER

PROJ. MANAGER	M. LANDON	BY	DATE
DESIGN-DETAILED	MEL	MEG	10/2023
CHECKED-REVIEWED	DEB	DEB	10/2025
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE 15164

P.E. NUMBER 11/07/2025

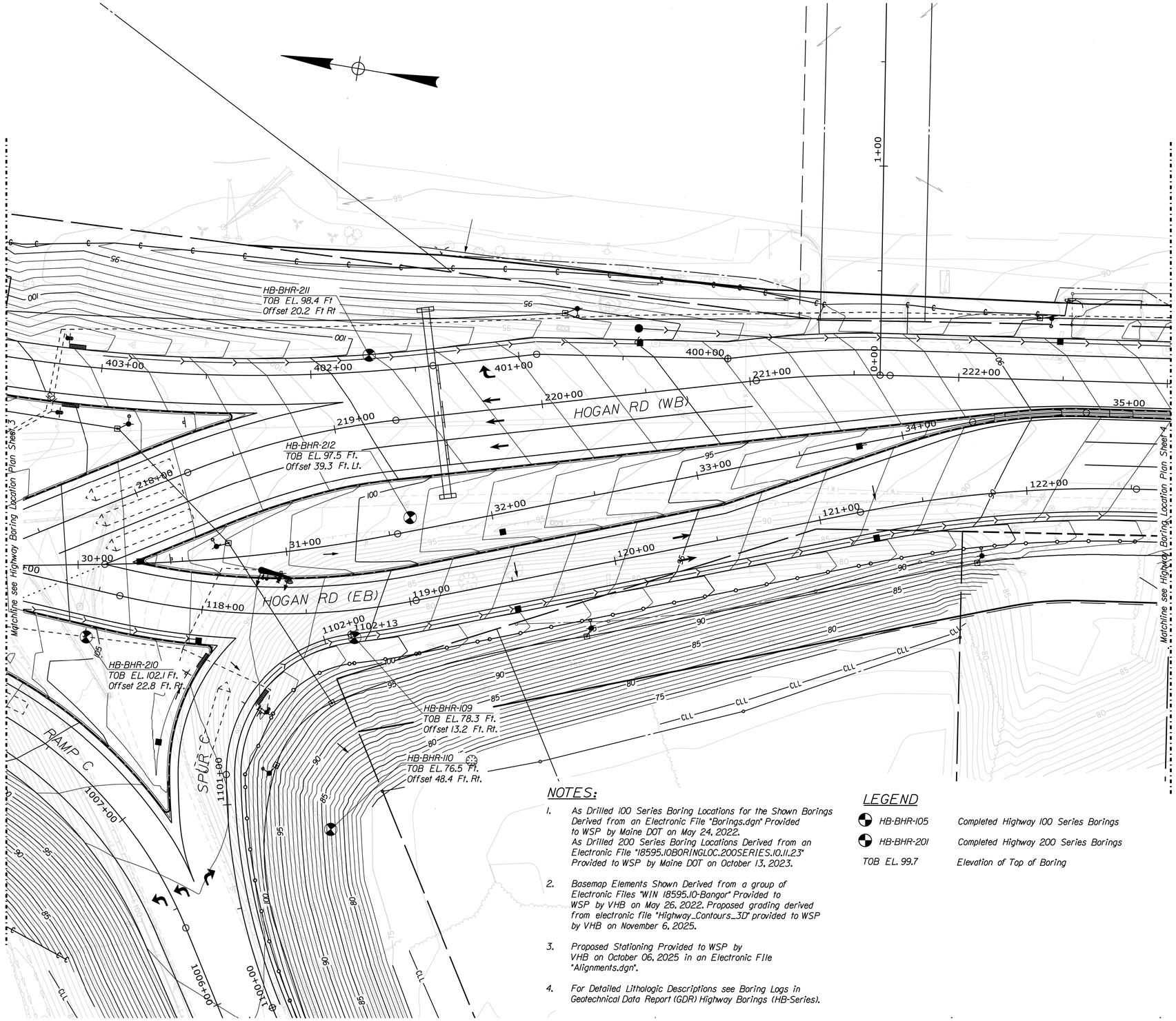
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I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HIGHWAY BORING LOCATION PLAN SHEET 3

SHEET NUMBER
H-209
355
OF 485

Filename: ...\BRIDGE\MSTA\hw_borplan_03.dgn Division: BRIDGE Username: Date:11/7/2025



NOTES:

1. As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022.
   As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORINGLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT on October 13, 2023.
2. Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed grading derived from electronic file "Highway_Contours_3D" provided to WSP by VHB on November 6, 2025.
3. Proposed Stationing Provided to WSP by VHB on October 06, 2025 in an Electronic File "Alignments.dgn".
4. For Detailed Lithologic Descriptions see Boring Logs in Geotechnical Data Report (GDR) Highway Borings (HB-Series).

LEGEND

HB-BHR-105	Completed Highway 100 Series Borings
HB-BHR-201	Completed Highway 200 Series Borings
TOB EL. 99.7	Elevation of Top of Boring

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN
018595.11

BRIDGE NO. 5823

BRIDGE PLANS

STATE OF MAINE
CHRISTOPHER M. HUNTER
No. 15164
PROFESSIONAL ENGINEER

	SIGNATURE	15164
	P.E. NUMBER	
	DATE	11/07/2025

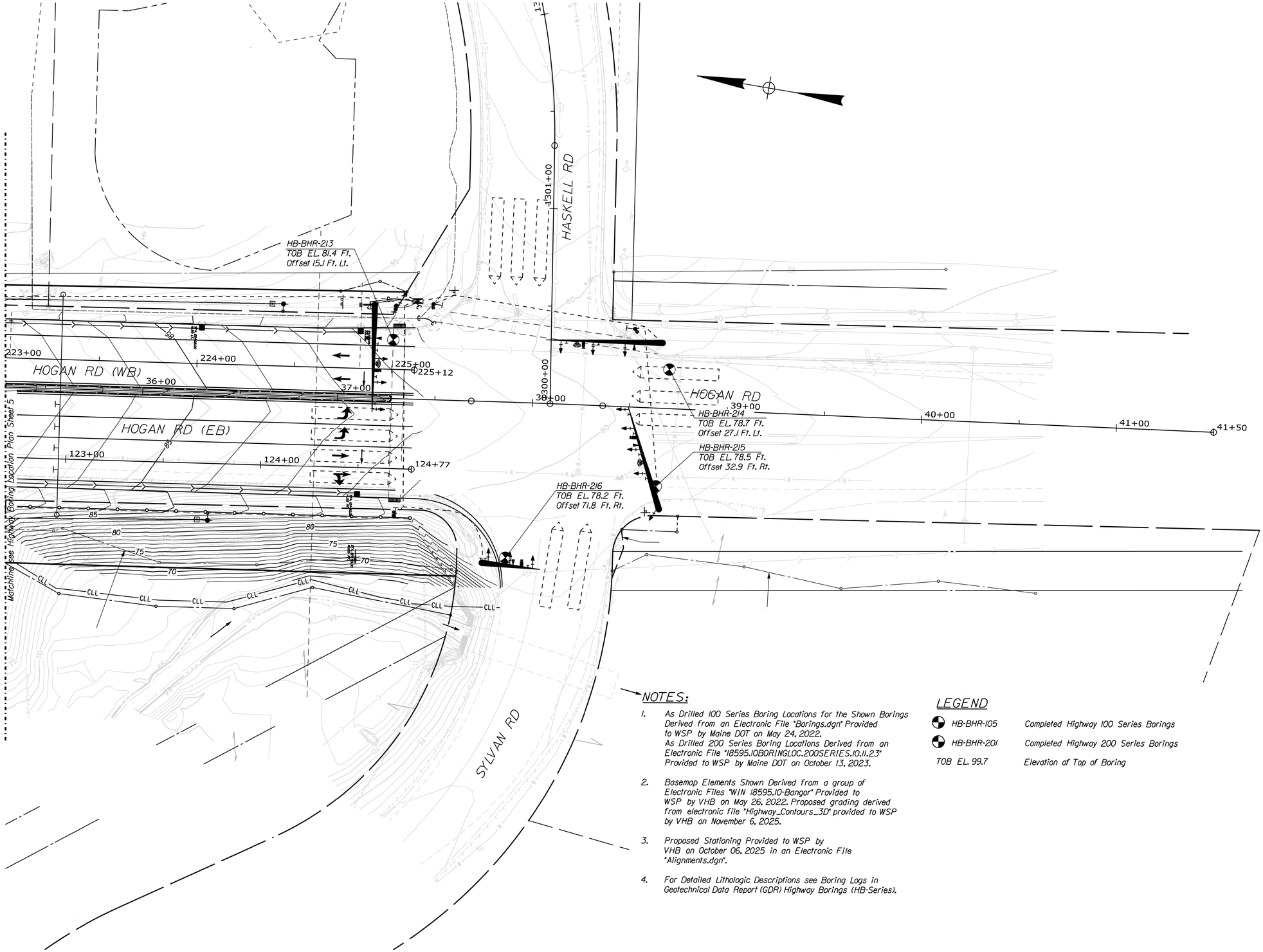
	BY	DATE
PROJ. MANAGER	M. LANDON	
DESIGN-DETAILED	MEL	10/2023
CHECKED-REVIEWED	DEB	10/2025
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HIGHWAY BORING LOCATION PLAN SHEET 4

SHEET NUMBER
H-210
356
OF 485

Filename: ...\BRIDGE\MSTA\hw_borplan_04.dgn Division: BRIDGE Username: Date:11/7/2025



NOTES:

1. As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022.
   As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORINGLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT on October 13, 2023.
2. Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed grading derived from electronic file "Highway_Contours_3D" provided to WSP by VHB on November 6, 2025.
3. Proposed Stationing Provided to WSP by VHB on October 06, 2025 in an Electronic File "Alignments.dgn".
4. For Detailed Lithologic Descriptions see Boring Logs in Geotechnical Data Report (GDR) Highway Borings (HB-Series).

LEGEND

HB-BHR-105	Completed Highway 100 Series Borings
HB-BHR-201	Completed Highway 200 Series Borings
TOB EL. 99.7	Elevation of Top of Boring

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN
018595.11

BRIDGE NO. 5823

BRIDGE PLANS

STATE OF MAINE · CHRISTOPHER E. GORDON No. 15164 · PROFESSIONAL ENGINEER

SIGNATURE 15164 P.E. NUMBER

11/07/2025 DATE

PROJ. MANAGER	M. LANDON	BY	DATE
DESIGN-DETAILED	MEL	MEG	10/2023
CHECKED-REVIEWED	DEB	COB	10/2025
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

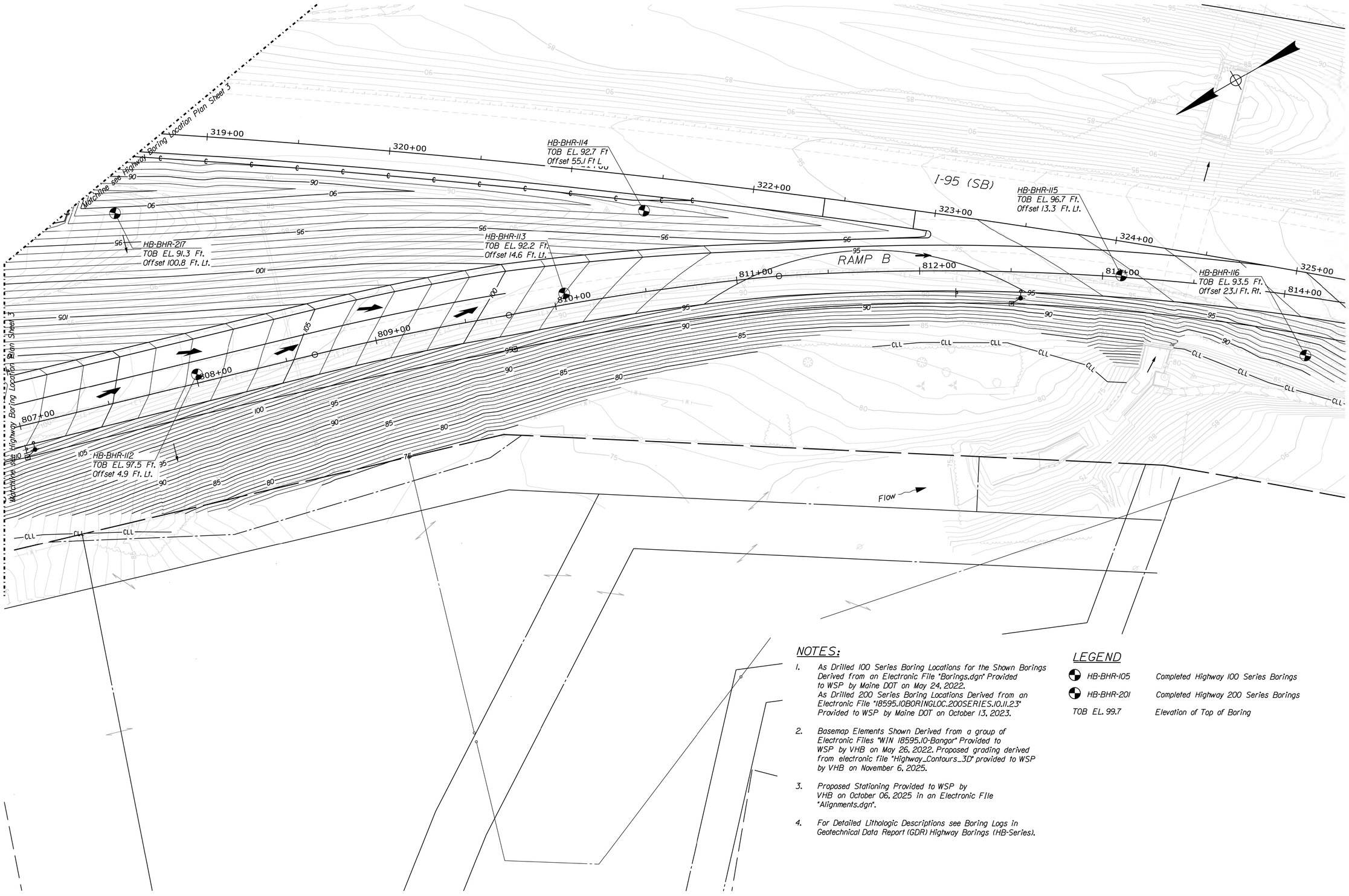
I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HIGHWAY BORING LOCATION PLAN SHEET 5

SHEET NUMBER
H-211
357
OF 485

Filename: ...\BRIDGE\MSTA\hw_borplan_05.dgn Division: BRIDGE Username: Date:11/7/2025

Filename: ...\BRIDGE\MSTA\hw_borplan_06.dgn Username: Division: BRIDGE Date:11/7/2025



NOTES:

1. *As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022.*
   As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORINGLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT on October 13, 2023.
2. *Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed grading derived from electronic file "Highway_Contours_3D" provided to WSP by VHB on November 6, 2025.*
3. *Proposed Stationing Provided to WSP by VHB on October 06, 2025 in an Electronic File "Alignments.dgn".*
4. *For Detailed Lithologic Descriptions see Boring Logs in Geotechnical Data Report (GDR) Highway Borings (HB-Series).*

LEGEND

HB-BHR-105	Completed Highway 100 Series Borings
HB-BHR-201	Completed Highway 200 Series Borings
TOB EL. 99.7	Elevation of Top of Boring

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE NO. 5823

STATE OF MAINE — CHRISTOPHER E. LANDON No. 15164 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 15164

P.E. NUMBER 11/07/2025

DATE

PROJ. MANAGER	M. LANDON			
DESIGN-DETAILED	MEL	10/2023	-	-
CHECKED-REVIEWED	DEB	10/2025	-	-
DESIGN2-DETAILED2	-	-	-	-
DESIGN3-DETAILED3	-	-	-	-
REVISIONS 1	-	-	-	-
REVISIONS 2	-	-	-	-
REVISIONS 3	-	-	-	-
REVISIONS 4	-	-	-	-
FIELD CHANGES	-	-	-	-

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HIGHWAY BORING LOCATION PLAN SHEET 6

SHEET NUMBER
H-212

Filename: ...\Highway_Boring_Log_Plan_01.dgn Division: BRIDGE Username: Date:11/7/2025

Maine Department of Transportation — Boring No.: HB-BHR-101

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) — Location: Bangor, Maine — WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	110.3	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/6/22 (08:55) to 5/6/22	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 486576.621, E: 1739700.751	Casing ID/OD:	4.0/4.5 in	Water Level*:	4.0 ft on 5/6/22 at 10:35
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Catheod ☐		

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; q_u = Unconfined Compressive Strength (ksf); N_{60} = SPT Hammer Efficiency Factor/60%Hammer Efficiency; N_{60} = SPT Unconfined Corrected for Hammer Efficiency; MC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (ST)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										(TOPSOIL)	
	10	24/10.8	0.00 – 2.00	1-2-2-3	4	6	OPEN	109.9		Brown, moist, medium stiff, Sandy SILT, some gravel-, trace grass roots in top 0.4 ft (FILL). Advanced with solid stem augers from 0 ft to 5 ft bgs.	0.4
5											
	20	21/12	5.00 – 6.75	1-1-2-5	3	5	26			Grey, moist, soft, Sandy SILT, some gravel (FILL).	
							34				
							40	102.3			8.0
10							59			Grey-brown, silt and clay present in wash water starting at 8 feet bgs.	
							78				
	1U	24/24	10.00 – 12.00	Piston sampler			28			Olive, moist, CLAY, moderately plastic (CLAY).	WC = 28% LL = 36 PL = 21 PI = 15 LI = 0.5 CL
							37				
	30	24/24	12.00 – 14.00	2-2-2-4	4	6	49			Brown, wet, medium stiff, CLAY (CLAY). q_p = 1 ksf (Pocket Penetrometer). T_v = 716 psf	WC = 27.9% Fines = 99.2% A-4 (0)
							71				
15							93	95.8			14.5
	40	24/14.4	15.00 – 17.00	21-20-22-17	42	64	OPEN			Grey-brown, wet, hard, Sandy SILT, little gravel (GLACIAL TILL).	
20	50	24/7.2	20.00 – 22.00	22-19-12-13	31	47				Grey-brown, wet, hard, Sandy SILT, little gravel (GLACIAL TILL).	
25	60	24/9.6	25.00 – 27.00	11-13-13-15	26	39				Grey-brown, wet, hard, Sandy SILT, little gravel, non-plastic (GLACIAL TILL).	WC = 9.0%
30	70	3.6/3.6	30.00 – 30.30	100/4"	R			80.0		Grey-brown, wet, very dense, GRAVEL, some fine to coarse sand, trace silt (GLACIAL TILL).	30.3
								77.3		Top of Probable Bedrock Elev. 80.0 ft Advanced with roller bit through probable bedrock from 30.3 to 33 ft bgs.	
35										Bottom of Exploration at 33.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	33.0
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 15 ft bgs

Stratification lines represent approximate boundaries between soil typest 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-BHR-101

Maine Department of Transportation — Boring No.: HB-BHR-102

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) — Location: Bangor, Maine — WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	109.2	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/8/22 (11:10) to 5/9/22 (08:35)	Drilling Methods:	Cased Wash	Core Barrel:	1.98 in I.D. – NQ2
Boring Location:	N: 486494.684, E: 1739703.212	Casing ID/OD:	4.0/4.5 in	Water Level*:	3.7 ft on 5/9/22 at 14:20
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Catheod ☐		

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; q_u = Unconfined Compressive Strength (ksf); N_{60} = SPT Hammer Efficiency Factor/60%Hammer Efficiency; N_{60} = SPT Unconfined Corrected for Hammer Efficiency; MC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (ST)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										NO RECOVERY	
	10	24/0	0.00 – 2.00	3-2-3-3	5	8	OPEN	108.2		Advanced with solid stem augers from 0 ft to 5 ft bgs.	1.0
5											
	20	24/6	5.00 – 7.00	2-10-13-3	13	20	15			Grey, wet, medium dense, fine to coarse Gravelly SAND, some silt (FILL).	
							19				
							31	101.2			8.0
10							53			Silt and clay present in wash water starting at 8 feet bgs.	
							72				
	1U	24/24	10.50 – 12.50	Would Not Push			WH			Olive, moist, CLAY, moderately plastic (CLAY).	WC = 26% LL = 39 PL = 17 LI = 0.2 CL
				Piston Sampler			OPEN				
	30	24/24	12.50 – 14.50	4-4-7-7	11	17				Grey-brown, wet, very stiff, CLAY, moderately plastic (CLAY). q_p = 4.1 tsf (pocket penetrometer). T_v = 716 psf	WC = 27.6% Fines = 99.4% LL = 39 PL = 22 PI = 17 LI = 0.3 A-6 (18), CL
15											
	40	24/24	15.00 – 17.00	2-5-29-25	34	51	32	93.2		40A. Top 12 inj Grey-brown, wet, hard, CLAY (CLAY). q_p = 3.6 tsf. T_v = 633 psf	16.0
							34			40B. Bottom 12 inj Brown, wet, hard, Sandy SILT, little gravel (GLACIAL TILL) Advanced with roller bit ahead of casing from 15 ft to 20 ft bgs.	
20							40				
							49				
	50	24/15.6	20.00 – 22.00	8-9-22-16	31	47	34			Grey-brown, wet, hard, fine to coarse Silty SAND, little gravel (GLACIAL TILL). Advanced with roller bit ahead of casing from 20 ft to 25 ft bgs.	WC = 12.7% Fines = 63.2% A-4 (0)
							41				
							52	86.2			23.0
25							66	85.2		Drilled past cobbles from 23 ft to 24 ft bgs.	24.0
							74				
	60	24/1.2	25.00 – 27.00	9-8-8-8	16	24	19			Grey, wet, medium dense, GRAVEL, some fine to coarse sand, little silt (GLACIAL TILL).	
							27			Advanced with roller bit ahead of casing from 25 ft to 30 ft bgs.	
30							27				
							30				
	70	24/1.2	30.00 – 32.00	4-6-7-15	13	20	26			Grey, wet, medium dense, fine to coarse SAND, some silt, little fine to coarse gravel (GLACIAL TILL). Advanced with roller bit ahead of casing from 30 ft to 35 ft bgs.	
							28				
35							31				
							32				
							36				
	80	24/12	35.00 – 37.00	9-14-9-13	23	35	OPEN			Grey, wet, dense, fine to coarse Silty- Clayey SAND, little gravel (GLACIAL TILL).	WC = 9.4% Fines = 47.2% LL = 18 PL = 13 PI = 5 LI = -0.7 A-4 (0), SM-SC
										Advanced with roller bit ahead of casing from 35 ft to 40 ft bgs.	
40							NQ2				
								69.2		Cored through boulder from 40 ft to 43 ft bgs.	40.0
								66.2		Grey sand & gravel present in drill cuttings from 43 to 45.5 ft bgs.	43.0
45								63.7		Top of Bedrock Elev. 63.7 ft. Advanced with roller bit through bedrock from 45.5 to 46.8 ft bgs. Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities horizontal to steeply dipping, very closely to moderately spaced, open, milky quartz and calcite vein (0.1 in thick) present at 48.6 ft bgs. average 2.2 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION].	45.5
	R1	60/49.2	46.80 – 51.80	RQD = 40%							
50								57.4		Rock Mass Quality = Poor 82% Recovery Rock Core Rate (min:sec) 46.8-47.8 ft (2:58) 47.8-48.8 ft (2:54) 48.8-49.8 ft (2:41) 49.8-50.8 ft (2:12) 50.8-51.8 ft (2:21)	
55										Bottom of Exploration at 51.8 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	51.8

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 15 ft bgs

Stratification lines represent approximate boundaries between soil typest 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.

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Maine Department of Transportation — Boring No.: HB-BHR-103

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) — Location: Bangor, Maine — WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	106.8	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	4/27/22 (14:35) to 4/27/22 (15:25)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 486383.449, E: 1739898.782	Casing ID/OD:	4.0/4.5 in	Water Level*:	3.2 ft on 4/27/22 at 15:30
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Catheod ☐		

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; q_u = Unconfined Compressive Strength (ksf); N_{60} = SPT Hammer Efficiency Factor/60%Hammer Efficiency; N_{60} = SPT Unconfined Corrected for Hammer Efficiency; MC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (ST)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										Grey-brown, moist, medium stiff, SILT, some fine to coarse sand, trace gravel, trace grass roots (TOPSOIL). Advanced with solid stem augers from 0 ft to 5 ft bgs.	
	10	24/20.4	0.00 – 2.00	WOH/6"-1-3-3	4	6	OPEN	104.8			2.0
5											
	20	24/24	5.00 – 7.00	3-5-6-8	11	17	27			Grey-brown, wet, very stiff, CLAY (CLAY).	WC = 25.4% Fines = 99.4% A-4 (0)
							28				
							30				
10							52				
							85				
	30	24/24	10.00 – 12.00	1-4-17-16	21	32	OPEN			30A. Top 16.8 inj Grey-brown, wet, hard, CLAY, slightly plastic (CLAY). q_p = 1.6 ksf (Pocket Penetrometer. T_v = 531 psf	WC = 24.0% Fines = 97.0% LL = 28 PL = 17 PI = 11 LI = 0.6 A-6 (9), CL
										30B. Bottom 7.2 inj Grey-brown, wet, hard, CLAY (CLAY).	
15								91.8			15.0
	40	24/24	15.00 – 17.00	13-18-27-15	45	68				Grey-brown, wet, hard, SILT, some fine to medium sand, trace gravel (GLACIAL TILL).	
20	50	24/24	20.00 – 22.00	6-7-7-8	14	21				Grey, wet, very stiff, sandy SILT, trace gravel (GLACIAL TILL).	
25	60	22.8/16.8	25.00 – 26.90	9-9-58-100/5"	67	101		79.3			27.5
								78.8		Top of Probable Bedrock Elev. 79.3 ft. Casing refusal at 27.5 feet bgs rock chips present in drill cuttings from 27.5 to 28 feet bgs.	28.0
30										Bottom of Exploration at 28.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
35											
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 10 ft bgs.

Stratification lines represent approximate boundaries between soil typest 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-BHR-103

Maine Department of Transportation — Boring No.: HB-BHR-104

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) — Location: Bangor, Maine — WIN: 018595.10

Driller:	S. W. Cole	Elevation (ft.):	104.2	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/2/22 (07:45) to 5/2/22 (09:05)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 486219.248, E: 1739736.001	Casing ID/OD:	4.0/4.5 in	Water Level*:	8.8 ft on 5/2/22 at 09:10
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Catheod ☐		

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; q_u = Unconfined Compressive Strength (ksf); N_{60} = SPT Hammer Efficiency Factor/60%Hammer Efficiency; N_{60} = SPT Unconfined Corrected for Hammer Efficiency; MC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (ST)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										Brown, moist, medium stiff, Sandy SILT, trace gravel, trace grass roots (TOPSOIL). Advanced with solid stem augers from 0 ft to 5 ft bgs.	
	10	24/7.2	0.00 – 2.00	1-2-3-4	5	8	OPEN	103.6			0.6
5										Sand, silt, and gravel mixture in drill cuttings from 0.6 to 4.0 ft bgs (FILL).	4.0
	20	24/14.4	5.00 – 7.00	5-6-10-10	16	24	20	100.2			
							25			Grey-brown, wet, very stiff, CLAY, moderately plastic (CLAY).	WC = 25.5% LL = 45 PL = 23 PI = 22 LI = 0.1 CL
							54				
10							61			Switched to cased wash drilling at 7 ft bgs.	
							64			Water level taken after installing casing to 10 ft bgs and before drilling with water was started.	
	30	24/24	10.00 – 12.00	3-3-4-4	7	11	72			Grey-brown, wet, stiff, CLAY (CLAY). q_p = 2.4 ksf (Pocket Penetrometer). T_v = 716 psf	
							78				
							104				
15							51	89.2			15.0
	40	24/24	15.00 – 17.00	2-1-1-2	2	3	34			40A. Top 22.8 inj Grey, wet, soft, CLAY (CLAY). q_p = 0.4 ksf (Pocket Penetrometer). T_v = 315 psf	WC = 31.6% Fines = 99.7% A-4 (0)
							38				
							51	85.1		40B. Bottom 1.2 inj Grey-brown, wet, soft, Clayey SILT (CLAY).	18.5
20							54				
	50	24/8.4	20.00 – 22.00	15-18-31-36	49	74	OPEN			50A. Top 3.6 inj Brown, wet, hard, SILT, little fine sand, trace gravel (GLACIAL TILL).	
							62			50B. Bottom 8.8 inj Grey-brown, wet, very dense, fine to coarse Gravelly SAND, some silt (GLACIAL TILL).	
25								79.7			24.5
								79.2		Top of Probable Bedrock at Elev. 79.7 ft. Advanced with roller bit through probable bedrock from 24.5 to 25 ft bgs.	
										Bottom of Exploration at 25.0 feet below ground surface.	25.0
30										Bottom of Exploration at 25.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
35											
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading taken on 5/2/22 at 09:10 was made 5 minutes after completion of drilling with bottom of casing at 20 ft bgs

Stratification lines represent approximate boundaries between soil typest 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-BHR-104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE NO. 5823

STATE OF MAINE — CHRISTOPHER M. LANDON — No. 15164 — REGISTERED PROFESSIONAL ENGINEER

PROJ. MANAGER	M. LANDON	BY	DATE
DESIGN-DETAILED	DEB	DJH	8/2025
CHECKED-REVIEWED	DEB	CCB	10/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE 15164

P.E. NUMBER

11/07/2025

DATE

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 1 OF 9

SHEET NUMBER
H-213
359
OF 485

Filename: ...\Highway_Boring_Log_Plan_02.dgn Division: BRIDGE
Username: Date:11/7/2025

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Locations Bangor, Maine
Boring No.: HB-BHR-105
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	100.7	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	4/25/22 (1T1)0011 4/29/22 (12150)	Drilling Methods:	Cased Wash	Core Barrel:	1.98 in I.D. - NQ2
Boring Location:	N: 486134.486, E: 1739754.808	Casing ID/OD:	4.0/4.5 in	Water Level*:	3.8 ft on 4/29/22 at 12155
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: S = Split Spoon Sample; WD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; WU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Encountered Corrected for Hammer Efficiency; N_{60} = (Hammer Efficiency Factor/60%)•Encountered; T_v = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) (SPT) (ksf)	Unconfined	%N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										(TOPSOIL)	
	10	24/19.2	0.00 – 2.00	1-1-3-6	4	6	OPEN	100.3		Grey-brown, moist, medium stiff, SILT, some fine to medium sand, trace grass roots in top 0.4 ft (FILL). Advanced with solid stem augers from 0 ft to 5 ft bgs.	
								99.8			
								97.2			
5	20	24/24	5.00 – 7.00	4-5-6-8	11	17	34			Grey-brown, moist, very stiff, CLAY, trace fine sand, moderately plastic (CLAY) q_p = 8.2 ksf (pocket penetrometer). T_v = 921 psf	WC = 25.2% LL = 38 PL = 22 PI = 16 LI = 0.2 CL
							35				
							38				
							40				
							45				
10	30	24/24	10.00 – 12.00	1-2-3-3	5	8	40	90.7		Grey-brown, wet, medium stiff, CLAY (CLAY). q_p = 2.5 ksf (Pocket Penetrometer). T_v = 716 psf	
							45				
							49				
							55				
							51				
15	40	24/24	15.00 – 17.00	WOH/12"-1-1	--		OPEN			Grey, wet, stiff, CLAY, moderately plastic (CLAY).	WC = 29.8% Fines = 99.6% LL = 32 PL = 19 PI = 13 LI = 0.8 A-6 (13), CL
	V1			S_u=1161/357 psf						55x100 mm vane raw torque readings: V1: 26/8 ft-lbs V2: 25/5 ft-lbs	
	V2			S_u=1116/223 psf				82.2			
								82.2		Grey, wet, very dense, fine to coarse GRAVEL, some fine to coarse sand, some silt (GLACIAL TILL).	WC = 9.3% Fines = 30.6% A-2-4 (0)
20	50	24/10.8	20.00 – 22.00	10-18-19-14	37	56	52				
							54				
							55				
							57				
	R1	36/26.4	24.00 – 27.00	RQD = 52%			58 NQ2				
								76.7		Top of Bedrock at Elev. 76.7 ft.	
	R2	24/24	27.00 – 29.00	RQD = 20%						Rt1 Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresht discontinuities moderately to steeply dipping, very closely to moderately spaced, open, milky quartz and calcite veins (0.1 in to 1.0 in thick) present from 24.0 ft to 25.6 ft bgs average 1.1 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Fair 73% Recovery Rock Core Rate (minsec) 24-25 ft (1:32) 25-26 ft (1:41) 26-27 ft (1:28) Rz1 Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresht discontinuities moderately to steeply dipping, very closely to moderately spaced, open, milky quartz and calcite veins (0.2 in to 0.5 in thick) present from 28.0 ft to 29.0 ft bgs average 3.5 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minsec) 27-28 ft (2:51) 28-29 ft (2:48)	
25								71.7			
										Bottom of Exploration at 29.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
30											
35											
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. "-" Sample interval disturbed by vane shear test before sampling; blow counts not representative of undisturbed material. 4. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 24 ft bgs.

Stratification lines represent approximate boundaries between soil typesr 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-BHR-105

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Locations Bangor, Maine
Boring No.: HB-BHR-106
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	105.9	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	4/26/22 (1T2)0011 4/26/22 (1410)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485563.443, E: 1739838.257	Casing ID/OD:	4.0/4.5 in	Water Level*:	2.6 ft on 5/6/22 at 8:30
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: S = Split Spoon Sample; WD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; WU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Encountered Corrected for Hammer Efficiency; N_{60} = (Hammer Efficiency Factor/60%)•Encountered; T_v = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) (SPT) (ksf)	Unconfined	%N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0											
	10	24/16.8	0.00 – 2.00	1-1-1-2	2	3	OPEN	105.2		Brown, moist, soft, Sandy SILT, trace gravel, trace grass roots in top 0.7 ft (TOPSOIL). Advanced with solid stem augers from 0 ft to 5 ft bgs.	
								105.0			
								105.0			
5	20	24/16.8	5.00 – 7.00	7-3-4-3	7	11	21			Grey, moist, loose, Sandy SILT, trace gravel (FILL).	
							33				
							48				
							72				
							87				
10	30	24/24	10.00 – 12.00	4-7-10-10	17	26	81			Grey-brown, wet, very stiff, CLAY, trace sand, moderately plastic (CLAY). q_p = 5.1 tsf (Pocket Penetrometer). T_v = 858 psf	WC = 25.6% LL = 35 PL = 21 PI = 14 LI = 0.3 CL
							101				
							125				
							166				
15							OPEN	98.9			
								91.4		Top of Probable Bedrock Elev. 91.4 ft. Refusal at 14.5 feet bgs. Advanced with roller bit through probable bedrock from 14.5 to 18.5 feet bgs.	
								87.4			
20										Bottom of Exploration at 18.5 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
25											
30											
35											
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level was taken during drilling with bottom of casing at 15 ft bgs.

Stratification lines represent approximate boundaries between soil typesr 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-BHR-107

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Locations Bangor, Maine
Boring No.: HB-BHR-107
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	88.3	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	4/27/22 (1T1)0011 4/27/22 (1010)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485405.013, E: 1739809.715	Casing ID/OD:	4.0/4.5 in	Water Level*:	5.4 ft on 4/28/22 at 08:35
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: S = Split Spoon Sample; WD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; WU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Encountered Corrected for Hammer Efficiency; N_{60} = (Hammer Efficiency Factor/60%)•Encountered; T_v = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) (SPT) (ksf)	Unconfined	%N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										(TOPSOIL)	
	10	24/14.4	0.00 – 2.00	1-2-2-4	4	6	OPEN	87.8		Grey-brown, moist, medium stiff, SILT, little fine to medium sand, little gravel, trace grass roots in top 0.5 ft (SILT). Advanced with solid stem augers from 0 ft to 5 ft bgs.	
								87.3			
								84.8			
5	20	24/24	5.00 – 7.00	4-5-6-7	13	20	34			Grey-brown, moist, very stiff, CLAY, trace fine to medium sand, trace gravel (CLAY).	
							33				
							54				
							51				
							56				
10	30	24/24	10.00 – 12.00	2-2-3-4	5	8	29	78.3		Grey-brown, wet, medium stiff, CLAY, moderately plastic (CLAY). q_p = 3 ksf (Pocket Penetrometer). T_v = 737 psf	WC = 30.0% LL = 42 PL = 23 PI = 19 LI = 0.4 CL
							41				
							49				
							58				
							66				
15	40	24/24	15.00 – 17.00	WOR/24"	--		48			40A. Top 20.4 ini Grey, wet, medium stiff, CLAY (CLAY). 55x100 mm vane raw torque readings V1: 20/4.5 ft-lbs V1 Failed vane, would not push to 17 ft bgs.	WC = 29.1% Fines = 99.7% A-4 (0)
	V1			S_u=893/201 psf				71.6			
								71.6		40B. Bottom 3.6 ini Brown, wet, Sandy SILT (GLACIAL TILL).	
20	50	24/20.4	20.00 – 22.00	10-7-9-44	16	24	OPEN			Grey, wet, medium dense, fine to coarse Gravelly SAND, little silt (apparent fractured rock in tip of spoon) (GLACIAL TILL).	
								64.8		NO RECOVERY. Split spoon bounced for 50 blows and no penetration at 23.5 ft bgs. Top of Probable Bedrock at Elev. 64.8 ft.	
25	60	0/0	23.50 – 23.50	50/0"	R					Bottom of Exploration at 23.5 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
30											
35											
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. "-" Sample interval disturbed by vane shear test before sampling; blow counts not representative of undisturbed material. 4. Water level reading was made during drilling with bottom of casing at 15 ft bgs.

Stratification lines represent approximate boundaries between soil typesr 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-BHR-107

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Locations Bangor, Maine
Boring No.: HB-BHR-108
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	82.3	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	4/27/22 (1T1)0011 4/27/22 (1010)	Drilling Methods:	Cased Wash	Core Barrel:	1.98 in I.D. - NQ2
Boring Location:	N: 485405.013, E: 1739809.715	Casing ID/OD:	4.0/4.5 in	Water Level*:	2.6 ft on 4/27/22 at 08:35
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: S = Split Spoon Sample; WD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; WU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Encountered Corrected for Hammer Efficiency; N_{60} = (Hammer Efficiency Factor/60%)•Encountered; T_v = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) (SPT) (ksf)	Unconfined	%N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0											
	10	24/7.2	0.00 – 2.00	2-2-3-3	5	8	OPEN	81.7		Brown, wet, loose, Silty fine SAND, trace roots (FILL). Advanced with solid stem augers from 0 ft to 5 ft bgs.	
								81.2			
								78.8			
5	20	24/24	5.00 – 7.00	4-5-6-8	13	20	23			Grey-brown, moist, very stiff, CLAY, trace fine sand, moderately plastic (CLAY). q_p = 7.2 ksf (pocket penetrometer). T_v = 1022 psf	WC = 25.5% LL = 37 PL = 22 PI = 15 LI = 0.2 CL
							24				
							26				
	1U	24/18	8.00 – 10.00	Piston Sampler			OPEN			Olive, moist, CLAY, moderately plastic (CLAY).	WC = 28% LL = 35 PL = 20 PI = 15 LI = 0.6 CL
10	30	24/24	10.00 – 12.00	2-1-8-24	9	14	49				
							54	70.7		30A. Top 19.2 ini Grey-brown, wet, stiff, CLAY, moderately plastic (CLAY). q_p = 5.1 ksf (pocket penetrometer). T_v = 716 psf	WC = 26.5% LL = 32 PL = 21 PI = 11 LI = 0.5 CL
							65	69.6		30B. Bottom 4.8 ini Grey, wet, medium dense, Sandy GRAVEL, some silt (SAND and GRAVEL).	
							112				
15	40	24/15.6	15.00 – 17.00	13-23-15-9	38	58	OPEN			Grey, wet, very dense, fine GRAVEL, some sand, little silt (SAND and GRAVEL).	WC = 6.0% Fines = 12.6% A-1-a (0)
							116				
								63.8			
								63.8		Grey, wet, dense, fine to coarse SAND, some silt, some gravel, little clay (GLACIAL TILL).	
20	50	24/8.4	20.00 – 22.00	4-4-18-8	22	33	50				
							53				
							140				
							149				
							150				
25	60	24/12	25.00 – 27.00	9-9-6-6	15	23	38			Grey, wet, medium dense, fine to coarse SAND, some silt, some gravel, little clay (GLACIAL TILL).	WC = 11.6% Fines = 39.9% A-4 (0)
							54				
							73				
							103	53.1			
	R1	27.6/25.2	29.00 – 31.30	RQD = 26%			NQ2			Casing refusal encountered at 28.6 feet bgs.	
								53.7		Top of Bedrock Elev. at 53.7 ft.	
	R2	32.4/32.4	31.30 – 34.00	RQD = 48%						Rt1 Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresht discontinuities moderately to steeply dipping, very closely to moderately spaced, open, milky quartz and calcite veins (0.1 in to 0.2 in thick) from 29 ft to 30.5 ft bgs average 2.6 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 91% Recovery Rock Core Rate (minsec) 29-30 ft (2:24) 30-31 ft (2:36) 31-31.3 ft (2:16) Rz1 Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresht discontinuities low angle to steeply dipping, very closely to closely spaced, open, milky quartz and calcite veins 10.1 in thick present from 32 ft to 32.5 ft bgs and 33.3 ft bgs : average 2.2 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 100% Recovery Rock Core Rate (minsec) 31-32 ft (2:38) 32-33 ft (2:31) 33-34 ft (2:24)	
35								48.3			
										Bottom of Exploration at 34.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level was taken during drilling with casing at 15 ft bgs. prior to obtaing sample 4D. with a stabilization time of 20 minutes.

Stratification lines represent approximate boundaries between soil typesr 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-BHR-108

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11
WIN 018595.11
BRIDGE No. 5823
BRIDGE PLANS

STATE OF MAINE — CHRISTOPHER M. BLEIKIS No. 15164 — REGISTERED PROFESSIONAL ENGINEER

	BY	DATE
PROJ. MANAGER	M. LANDON	
DESIGN-DETAILED	DEB	8/2025
CHECKED-REVIEWED	DEB	10/2025
DESIGN2-DETAILED2	DEB	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER 15164
DATE 11/07/2025

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 2 OF 9

SHEET NUMBER
H-214
360
OF 485

Filename: ...\Highway_Boring_Log_Plan_03.dgn Division: BRIDGE Username: Date:11/7/2025

Maine Department of Transportation — Boring No.: HB-BHR-109

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187)
Locations Bangor, Maine
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	78.3	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/9/22 (1h15o1i 5/9/22 (11t20)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485212.362, E: 1739903.181	Casing ID/OD:	4.0/4.5 in	Water Level*:	9.3 ft on 5/9/22 at 11:25
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
q_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
$q_{u(qp)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (tsf)
Wunconfined = Raw Field SPT Envelope
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT Wunconfined Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%Wunconfined
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										(TOPSOIL)	
	10	24/9.6	0.00 – 2.00	1-1-2-4	3	5	OPEN	77.5		Brown, moist, soft, SILT, some fine to medium sand, trace grass roots (FILL). Advanced with solid stem augers from 0 ft to 5 ft bgs.	
								74.8			
5	20	24/24	5.00 – 7.00	5-6-6-9	12	18	24			Grey-brown, moist, very stiff, CLAY, moderately plastic (CLAY). q_p = 7.7 tsf. T_v = 409 psf	WC = 27.5% Fines = 88.3% LL = 37 PL = 18 PI = 19 LI = 0.5 A-6 (16), CL
							30				
							42	70.8		Drilled past cobbles from 7.5 to 9.5 feet bgs.	
							56	68.8		Advanced with a roller bit past a boulder from 9.5 ft to 10.2 ft bgs.	
10	30	24/10.8	10.20 – 12.20	5-5-5-7	10	15	109 OPEN	68.1		Grey, wet, medium dense, fine GRAVEL, some fine to coarse sand, little silt, little clay (GLACIAL TILL).	
15	40	24/6	15.00 – 17.00	4-7-7-11	14	21				Grey, wet, medium dense, fine GRAVEL, some fine to coarse sand, little silt, little clay (GLACIAL TILL).	WC = 11.9% Fines = 44.8% A-4 (0)
20	50	24/7.2	20.00 – 22.00	10-9-21-20	30	45				Grey, wet, dense, fine GRAVEL, some fine to coarse sand, little silt, little clay (GLACIAL TILL).	
25	60	24/19.2	27.00 – 29.00	35-43-51-68	94	142		53.3		Advanced with a roller bit past a boulder from 25 ft to 27 ft bgs.	
								51.3		Grey-brown, wet, very dense, fine to coarse SAND, some silt, little fine gravel, trace clay (GLACIAL TILL).	WC = 9.1% Fines = 25.5% A-2-4 (0)
30											
								44.3		Advanced with a roller bit past cobbles from 34 ft to 37 ft bgs. NO RECOVERY. Split spoon bounced on cobbles.	
35	70	2.4/0	35.00 – 35.20	100/2"	R			41.3		Top of Probable Bedrock Elev. 41.3 ft. Advanced with roller bit through probable bedrock from 37 ft to 40 ft bgs.	
								38.3		Bottom of Exploration at 40.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc.. dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 9.5 ft bgs.

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-BHR-109

Maine Department of Transportation — Boring No.: HB-BHR-110

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187)
Locations Bangor, Maine
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	76.5	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/9/22 (11t15o3i 5/9/22 (12t14)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485210.377, E: 1739810.637	Casing ID/OD:	4.0/4.5 in	Water Level*:	5.7 ft on 5/9/22 at 12:50
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
q_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
$q_{u(qp)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (tsf)
Wunconfined = Raw Field SPT Envelope
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT Wunconfined Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%Wunconfined
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										(TOPSOIL)	
	10	24/16.8	0.00 – 2.00	1-1-3-4	4	6	OPEN	76.1		Grey-brown, moist, medium stiff, SILT, some fine to medium sand, little gravel, trace grass roots in top 0.4 ft (FILL).	
								73.0			
5	20	24/24	5.00 – 7.00	1-2-6-7	8	12	22			20A. Top 22.8 in) Grey, moist, stiff, CLAY, trace fine to medium sand, trace gravel, highly plastic (CLAY). q_p = 4.5 ksf. T_v = 511 psf	WC = 44.6% LL = 69 PL = 28 PI = 41 LI = 0.4 CH
							26				
							44	69.4		20B. bottom 1.2 in) Grey, moist, medium stiff, Gravelly SILT, little fine to medium sand (GLACIAL TILL).	
							50				
10	30	24/13.2	10.00 – 12.00	11-16-28-21	44	67	OPEN			Grey, wet, very dense, GRAVEL, some fine to coarse sand, trace silt (GLACIAL TILL).	
							65				
15								64.5		Top of Bedrock Elev. 64.5 ft. Advanced with roller bit through bedrock from 12 ft bgs to 22 ft bgs.	
20											
								54.5		Bottom of Exploration at 22.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
25											
30											
35											
40											
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc.. dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 10 ft bgs.

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-BHR-110

Maine Department of Transportation — Boring No.: HB-BHR-111

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187)
Locations Bangor, Maine
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	97.8	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/5/22 (10t25i1i 5/5/22 (15t40)	Drilling Methods:	Cased Wash	Core Barrel:	1.98 in I.D. - NQ2
Boring Location:	N: 485973.041, E: 1739565.218	Casing ID/OD:	4.0/4.5 in	Water Level*:	9.7 ft on 5/6/22 at 7:00
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
q_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
$q_{u(qp)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (tsf)
Wunconfined = Raw Field SPT Envelope
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT Wunconfined Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%Wunconfined
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										(TOPSOIL)	
	10	24/16.8	0.00 – 2.00	1-1-2-2	3	5	OPEN	97.0		Brown, moist, soft, SILT, some fine to medium sand, trace gravel, trace grass roots in top 0.8 ft (FILL).	
								94.3			
5	20	24/22.8	5.00 – 7.00	4-5-8-10	13	20	41			Grey-brown, moist, very stiff, CLAY, trace gravel, trace fine to coarse sand, moderately plastic (CLAY). q_p = 5.6 ksf. T_v = 1063 psf	WC = 25.0% LL = 39 PL = 18 PI = 21 LI = 0.3 CL
							54				
							79				
							88				
10	30	24/24	10.00 – 12.00	3-5-5-7	10	15	94			Grey-brown, wet, stiff, CLAY, trace fine to medium sand (CLAY). Failed 55 x 110 mm vane, would not push to 11 ft bgs.	
	WV			Would Not Push			64				
							84				
							99				
15							119				
	40	24/18	15.00 – 17.00	20-23-27-26	50	76	131	82.8		Brown, wet, hard, Sandy CLAY, trace gravel (GLACIAL TILL). Advanced with roller bit ahead of casing from 15 to 20 ft bgs.	WC = 12.5% Fines = 54.2% A-4 (0)
							71				
							94				
							104				
							141				
20							150				
	50	24/16.8	20.00 – 22.00	5-11-13-10	24	36	68			Grey, wet, medium dense, fine to coarse Clayey SAND, little gravel (GLACIAL TILL). Advanced with roller bit ahead of casing from 20 to 25 ft bgs.	WC = 9.9% Fines = 46.4% A-4 (0)
							89				
							105				
							118				
25							120				
	60	24/13.2	25.00 – 27.00	7-9-13-20	22	33	62			Grey, wet, dense, fine to coarse Clayey SAND, little gravel (GLACIAL TILL). Advanced with roller bit ahead of casing from 25 to 30 ft bgs.	
							83				
							88				
							91				
30							131				
	70			11-42-39-89	81	123	133			Grey, wet, very dense, fine to coarse Clayey SAND, little gravel (GLACIAL TILL). Advanced with roller bit ahead of casing from 30 to 33 ft bgs.	
							148				
							162				
							OPEN			Casing crimped at 33 ft bgs preventing further advancement of the boring. Boring offset 3 feet to the south and blind drilled to 33 ft bgs.	
35								63.3		Top of Bedrock Elev. 63.3 ft.	
		2.4/0	36.00 – 36.20	100/2"	R					Fracture or soft zone of bedrock from 35.5 to 36.2 ft bgs. NO RECOVERY. Split spoon bouncing on rock	
	R1	60/57.6	36.20 – 41.20	RQD = 55%			NQ2			R1: Grey, fine grained to very fine grained, METAMACKE (metasandstone), strong, fresh discontinuities low angle to moderately dipping, very closely to moderately spaced, open, milky quartz and calcite veins (0.1 in thick) present at 36.5 ft and 39.8 ft bgs; average 1.2 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Fair 96% Recovery Rock Core Rate (min/sec) 36.2 – 37.2 ft (2:11) 37.2 – 38.2 ft (2:24) 38.2 – 39.2 ft (2:39) 39.2 – 40.2 ft (3:16) 40.2 – 41.2 ft (3:08)	
40								56.6			
45											
50											

Bottom of Exploration at 41.2 feet below ground surface. Boring backfilled with bentonite chips to ground surface.

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc.. dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 15.5 hours after completion of drilling with bottom of casing at 34.5 ft bgs.

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-BHR-111

Maine Department of Transportation — Boring No.: HB-BHR-112

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187)
Locations Bangor, Maine
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	97.5	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	4/28/22 (7t45i1i 4/28/22 (10t00)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485832.419, E: 1739547.816	Casing ID/OD:	4.0/4.5 in	Water Level*:	5.0 ft on 4/28/22 at 10:05
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
q_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
$q_{u(qp)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (tsf)
Wunconfined = Raw Field SPT Envelope
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT Wunconfined Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%Wunconfined
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) (SPT-N60) (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										ASPHALT	
	10	24/15.6	0.70 – 2.70	8-10-15-11	25	38	OPEN	96.8		Grey-brown, moist, dense, fine to coarse SAND, some silt, little gravel (FILL).	
5	20	24/22.8	5.00 – 7.00	12-10-14-12	24	36	28			Grey-brown, moist, very hard, CLAY, some fine to coarse sand, little gravel, slightly plastic (FILL).	WC = 15.9% LL = 21 PL = 12 PI = 9 LI = 0.4 CL
							42				
							48			Drilled past cobbles from 8.5 ft to 9.5 ft bgs.	
							98				
10							134				
	30	24/2.4	10.00 – 12.00	10-6-3-6	9	14	25			Brown, wet, loose, GRAVEL, some fine to coarse sand, trace silt (FILL). Gravel lodged in tip of split spoon. Advanced with roller bit ahead of casing from 10 to 15 ft bgs.	
							31				
							34				
							41				
15							45				
	40	24/12	15.00 – 17.00	3-5-4-3	9	14	30	82.5		Brown, wet, stiff, CLAY, some fine to coarse sand, some gravel (CLAY).	WC = 16.5% Fines = 52.2% A-4 (0)
							44				
							56				
							55				
20							62				
	50	24/24	20.00 – 22.00	2-4-5-7	9	14	OPEN			Grey, wet, stiff, CLAY, trace fine sand (CLAY). q_p = 4.6 ksf. T_v = 409 psf	WC = 21.9% Fines = 97.3% A-4 (0)
								74.5		Advanced past cobbles from 23 ft to 24 ft bgs.	
								73.5			
25	60	24/16.8	25.00 – 27.00	16-12-6-9	18	27				Grey-brown, wet, very stiff, Sandy SILT, little gravel (GLACIAL TILL).	
30											
	70	24/14.4	30.00 – 32.00	4-5-30-18	35	53				Grey, wet, hard, Sandy SILT, little gravel (GLACIAL TILL).	
35											
	80	4.8/4.8	35.00 – 35.40	100/5"	R			62.1		Top of Probable Bedrock Elev. 62.1 ft. Advanced with roller bit through probable bedrock from 35.4 ft to 36 ft bgs.	
40								61.5		Bottom of Exploration at 36.0 feet below ground surface. Boring backfilled with bentonite chips to 1.7 ft bgs. clean gravel from 1.7 ft to 0.7 ft bgs. and cold patch from 0.7 ft bgs to ground surface.	
45											
50											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc.. dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 20 ft bgs.

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-BHR-112

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11
WIN 018595.11
BRIDGE No. 5823
BRIDGE PLANS

STATE OF MAINE — CHRISTOPHER D. RUSSELL — No. 15164 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE 15164
P.E. NUMBER
DATE 11/07/2025

PROJ. MANAGER	BY	DATE
M. LANDON		
DESIGN-DETAILED	DJH	8/2025
CHECKED-REVIEWED	DEB	10/2025
DESIGN2-DETAILED2	DEB	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 3 OF 9

SHEET NUMBER
H-215
361
OF 485

Filename: ...\Highway_Boring_Log_Plan_04.dgn Division: BRIDGE Username: Date:11/7/2025

Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Locations Bangor, Maine
Boring No.: HB-BHR-113
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	92.2	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	4/28/22 (10:30)11/ 4/28/22 (13:15)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485638.994, E: 1739481.375	Casing ID/OD:	4.0/4.5 in	Water Level*:	3.5 ft on 4/28/22 at 13:15
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
q_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(pp)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N=uncorrected, N60=Field SPT Energy Corrected
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N=uncorrected Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N=uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Sheer Strength (psf) $S_{u(pp)}$ (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/9.6	0.50 – 2.50	5-7-7-6	14	21	OPEN	91.7		ASPHALT 0.5	
										Brown, moist, medium dense, Silty fine to coarse SAND, little gravel (FILL).	
5	20	24/21.6	5.00 – 7.00	2-2-5-5	7	11				Grey-brown, moist, stiff, CLAY, little fine to coarse sand, trace gravel, moderately plastic (FILL).	WC = 15.6% Fines = 80.1% LL = 33 PL = 17 PI = 16 LI = -0.1 A-6 (11), CL
10	30	24/7.2	10.00 – 12.00	4-3-2-2	5	8				Brown, wet, loose, Clayey-Silty SAND, some gravel (FILL).	WC = 12.6% Fines = 43.7% A-4 (0)
15	40	24/1.2	15.00 – 17.00	2-3-5-7	8	12				Grey-brown, wet, medium dense, Clayey-Silty SAND (FILL).	
	50	24/8.4	17.00 – 19.00	4-5-4-4	9	14				Grey-brown, wet, medium dense, fine to coarse Clayey-Silty SAND, little gravel (FILL). 19.5	WC = 17.8% Fines = 36.5% A-4 (0)
20	60	24/14.4	20.00 – 22.00	3-3-3-5	6	9		72.7		Grey, wet, stiff, CLAY, little gravel, trace sand, slightly plastic (CLAY). q_p = 1.6 ksf, T_v = 817 psf	WC = 18.1% Fines = 77.7% LL = 22 PL = 14 PI = 8 LI = 0.5 A-4 (3), CL
	MV			Would Not Push						Failed 55 x 110 mm vane, would not push to 23 ft bgs.	
25	70	24/0	25.00 – 27.00	4-3-6-5	9	14				NO RECOVERY	
	80	24/9.6	27.00 – 29.00	2-2-3-4	5	8		65.2		Grey, wet, medium stiff, SILT, some gravel, trace sand, non-plastic (GLACIAL TILL). 27.0 q_p = 4.9 ksf, T_v = 531 psf	WC = 14.1%
30	90	24/7.2	30.00 – 32.00	9-10-10-11	20	30				Grey, wet, medium dense, fine to coarse SAND, some gravel, some silty clay (GLACIAL TILL).	WC = 8.9% Fines = 32.1% A-2-4 (0)
35	100	24/16.8	35.00 – 37.00	14-13-15-17	28	42	30			Grey, wet, dense, Silty-Clayey SAND, little gravel (GLACIAL TILL).	
40	110	24/12	40.00 – 42.00	40-11-13-28	24	36	OPEN			Grey, wet, dense, Silty-Clayey SAND, some gravel (GLACIAL TILL).	WC = 11.3% Fines = 49.8% A-4 (0)
45										Drilled through boulder from 45 ft to 46.6 ft bgs.	
	120	9.6/9.6	47.00 – 47.80	20-100/4"	R			44.4		Grey, wet, dense, Silty-Clayey SAND, little gravel (GLACIAL TILL). 47.8	
50								43.7		Top of Probable Bedrock at Elev. 44.4 ft. Advanced with a roller bit through probable bedrock from 47.8 ft to 48.5 ft bgs. 48.5	
										Bottom of Exploration at 48.5 feet below ground surface. Boring backfilled with bentonite chips to 1.5 ft bgs. clean gravel from 1.5 ft to 0.5 ft bgs. and cold patch from 0.5ft gs to ground surface.	
55											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made at the completion of drilling with bottom of casing at 40 ft bgs.

Stratification lines represent approximate boundaries between soil typesst 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-BHR-113

Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Locations Bangor, Maine
Boring No.: HB-BHR-114
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	92.7	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/4/22 (12:20)11 5/5/22 (9:00)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485577.276, E: 1739497.406	Casing ID/OD:	4.0/4.5 in	Water Level*:	9.5 ft on 5/5/22 at 9:05
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions/Abbreviations: same as HB-BHR-113

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Sheer Strength (psf) $S_{u(pp)}$ (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/14.4	0.00 – 2.00	4-9-15-12	24	36	OPEN	92.1		Brown, moist, medium dense, fine to coarse SAND, some silt, some gravel (TOPSOIL). 0.6	
5	20	24/12	5.00 – 7.00	1-2-2-3	4	6	21			Grey, wet, medium stiff, Clayey SILT, some fine to coarse sand, trace gravel (FILL). q_p = 2.9 ksf Torvane not completed due to amount of gravel in the sample. Failed 55 x 110 mm vane, would not push to 8 ft bgs.	WC = 16.5% Fines = 67.1% A-4 (0)
	MV			Would Not Push			36				
10	30	24/7.2	10.00 – 12.00	4-8-11-8	19	29	21			Grey-brown, wet, very stiff, Clayey SILT, some fine to coarse sand, little gravel (FILL). q_p = 7.8 ksf, T_v = 368 psf	
15	40	24/2.4	15.00 – 17.00	5-6-7-8	13	20	28			Grey, wet, very stiff, SILT, little gravel, little fine to coarse sand (FILL). Advanced with roller bit ahead of casing from 15 ft to 20 ft bgs. Significant water loss occurred while drilling from 15 ft to 20 ft bgs. 18.0	
20	50	24/8.4	20.00 – 22.00	7-2-2-2	9	14	OPEN	74.7		Grey, wet, medium stiff, Clayey SILT, little fine to coarse sand, trace fine gravel, trace wood (0.5-inch diameter root) (SILT). q_p = 2.6 ksf Torvane not completed due to amount of gravel in the sample.	WC = 28.3% Fines = 71.8% A-4 (0)
25	60	24/24	25.00 – 27.00	4-4-4-5	8	12				Grey-brown, wet, stiff, Clayey SILT, some fine to coarse sand, trace gravel (SILT). q_p = 6.5 ksf, T_v = 429 psf	
30	70	24/6	30.00 – 32.00	6-10-9-10	19	29		62.7		Grey, wet, medium dense, Clayey-Silty SAND, little gravel, slightly plastic (SAND and GRAVEL). 30.0 q_p = 8.0 ksf, T_v = 593 psf	WC = 9.2% Fines = 35.1% LL = 18 PL = 12 PI = 6 LI = -0.5 A-4 (0), SC-SM
35	80	10.8/7.2	35.00 – 35.90	12-100/5"	R			59.2		Grey, wet, hard, SILT, some fine to coarse sand, little gravel (GLACIAL TILL). 33.5 Advanced with roller bit through a boulder from 35.9 ft to 38.2 ft bgs.	
40	90	24/19.2	40.00 – 42.00	22-18-17-20	35	53				Grey, wet, hard, SILT, some fine to coarse sand, little gravel (GLACIAL TILL).	
45	100	24/19.2	45.00 – 47.00	5-6-14-13	20	30				Grey, wet, very stiff, Clayey SILT, some gravel, some fine to coarse sand (GLACIAL TILL).	WC = 10.3% Fines = 51.1% A-4 (0)
50	110	24/21.6	50.00 – 52.00	20-22-45-52	67	101				Grey-brown, wet, hard, Gravelly-Clayey SILT, some fine to coarse sand (GLACIAL TILL). 55.0	
55	120	24/20.4	55.00 – 57.00	63-62-74-82	141	213		37.7		Brown, wet, very dense, fine to coarse SAND, some clayey silt, little gravel (GLACIOFLUVIAL).	WC = 12.2% Fines = 31.4% A-2-4 (0)
60	130	3.6/3.6	60.00 – 60.30	100/4"	R					Grey, wet, very dense, Silty GRAVEL, some fine to coarse sand (GLACIOFLUVIAL).	
65								28.2		Top of Probable Bedrock at Elev. 28.2 ft. Advanced with a roller bit through probable bedrock from 64.5 ft to 67.5 ft bgs. 64.5	
70										Bottom of Exploration at 67.5 feet below ground surface. Boring backfilled with bentonite chips to ground surface.	
75											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 20 ft bgs.

Stratification lines represent approximate boundaries between soil typesst 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-BHR-114

Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Locations Bangor, Maine
Boring No.: HB-BHR-115
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.):	96.7	Auger ID/OD:	4.25 in
Operator:	Kevin Hanscom	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	Andrew Martin	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs/30 in
Date Start/Finish:	5/2/22 (9:37)11 5/2/22 (13:37)	Drilling Methods:	Cased Wash	Core Barrel:	N/A
Boring Location:	N: 485372.826, E: 1739331.654	Casing ID/OD:	4.0/4.5 in	Water Level*:	3.8 ft on 5/2/22 at 13:42
Hammer Efficiency Factor: 0.908		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions/Abbreviations: same as HB-BHR-113

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Sheer Strength (psf) $S_{u(pp)}$ (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/13.2	0.70 – 2.70	6-9-8-9	17	26	OPEN	96.0		ASPHALT 0.7	
										Brown, moist, medium dense, fine to coarse SAND, some fine gravel, little silt (FILL).	WC = 5.2% Fines = 12.9% A-1-b (0)
										Drilled past cobbles from 3.5 ft to 4.0 ft bgs.	
5	20	24/21.6	5.00 – 7.00	4-3-4-5	7	11	21			Brown, moist, stiff, CLAY, some fine to medium sand, trace gravel, slightly plastic (FILL).	WC = 12.6% Fines = 61.0% LL = 21 PL = 12 PI = 9 LI = 0.1 A-4 (2), CL
	30	24/8.4	10.00 – 12.00	3-2-2-3	4	6	24				
10							33			Grey, wet, medium stiff, Gravelly CLAY, some fine to medium sand (FILL). 12.5	
							33	84.2			
15	40	24/24	15.00 – 17.00	4-5-8-9	13	20	43			Grey-brown, wet, very stiff, CLAY, slightly plastic (CLAY). q_p = 5.9 ksf, T_v = 491 psf	WC = 25.8% Fines = 98.4% LL = 36 PL = 21 PI = 15 LI = 0.3 A-6 (16), CL
							44				
							95				
20	50	24/24	20.00 – 22.00	4-4-5-6	9	14	64			Grey-brown, wet, stiff, CLAY (CLAY). q_p = 3.9 ksf, T_v = 838 psf	
							101				
							114				
							347	73.7			
25							184			23.0	
	60	24/12	25.00 – 27.00	9-13-17-16	30	45	69			Grey, wet, hard, SILT, some gravel, little fine to coarse sand (GLACIAL TILL).	
							82				
							90				
30							96				
							114				
	70	24/15.6	30.00 – 32.00	7-10-13-13	23	35	38			Grey, wet, hard, SILT, some fine to coarse sand, little gravel (GLACIAL TILL). Advanced with roller bit ahead of casing from 30ft to 35 ft bgs.	WC = 12.3% Fines = 58.9% A-4 (0)
							41				
							56				
35							81				
							103				
	80	24/8.4	35.00 – 37.00	26-19-27-20	46	70	46			Grey, wet, hard, SILT, some fine to coarse sand, some gravel (GLACIAL TILL). Advanced with a roller bit ahead of casing from 35 ft to 40 ft bgs.	
							58				
40							83				
							109				
	90	24/21.6	40.00 – 42.00	12-20-25-18	45	68	124			Grey, wet, hard, SILT, some fine to coarse sand, trace gravel (GLACIAL TILL). Advanced with a roller bit ahead of casing from 40 ft to 45 ft bgs.	WC = 12.6% Fines = 68.7% A-4 (0)
							58				
							102				
45							123				
							138				
	100	24/20.4	45.00 – 47.00	5-6-9-10	15	23	141			Grey, wet, very stiff, SILT, little gravel, little fine to coarse sand (GLACIAL TILL). Advanced with a roller bit ahead of casing from 45 ft to 50 ft bgs.	
							81				
							102				
50							118				
							127				
							181				
	110	24/19.2	50.00 – 52.00	33-34-36-36	70	106	OPEN			Grey, wet, hard, SILT, some fine to coarse sand, little fine gravel (GLACIAL TILL).	WC = 13.7% Fines = 65.1% A-4 (0)
								43.2		Top of Probable Bedrock Elev. 43.7 ft. Advanced with a roller bit through probable bedrock from 53 ft to 53.5 ft bgs. 53.5	
55										Bottom of Exploration at 53.5 feet below ground surface. Boring backfilled with bentonite chips to 1.7 ft bgs. clean gravel from 1.7 ft to 0.7 ft bgs. and cold patch from 0.7 ft bgs to ground surface.	
60											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 50 ft bgs.

Stratification lines represent approximate boundaries between soil typesst 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-BHR-115

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11
BRIDGE No. 5823

BRIDGE PLANS

STATE OF MAINE — CHRISTOPHER M. LANDON — No. 15164 — REGISTERED PROFESSIONAL ENGINEER

PROJ. MANAGER	M. LANDON	BY	DATE
DESIGN-DETAILED	DEB	DJH	8/2025
CHECKED-REVIEWED	DEB	CCB	10/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE 15164
P.E. NUMBER
11/07/2025
DATE

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 4 OF 9

SHEET NUMBER
H-216
362
OF 485

Filename: ...\Highway_Boring_Log_Plan_05.dgn Division: BRIDGE Username: Date:11/7/2025

Maine Department of Transportation — BHR-116

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine

Boring No.: HB-BHR-116
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.): 93.5	Auger ID/OD: 4.25 in
Operator:	Kevin Hanscom	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	Andrew Martin	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140 lbs/30 in
Date Start/Finish:	5/2/22 (15:00:11 5/4/22 (10:00)	Drilling Methods: Cased Wash	Core Barrel: 1.98 in I.D. - NQ2
Boring Location:	N: 485309.571, E: 1739242.201	Casing ID/OD: 4.0/4.5 in and 3.0/3.5 in	Water Level*: 72.7 FT on 5/4/22 @ 10:35

Hammer Efficiency Factor: 0.908 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
ST = Shelby Tube Sample; SSA = Solid Stem Auger; $S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent
WO = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; q_u = Unconfined Compressive Strength (tsf); LL = Liquid Limit
U = Thin Wall Tube Sample; RC = Roller Cone; Unconfined = Raw Field SPT Envelope; PL = Plastic Limit
WO = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of 140lb. Hammer; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; PI = Plasticity Index
V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR/C = Weight of Rods or Casing; N_{60} = SPT Unconfirmed Corrected for Hammer Efficiency; G = Grain Size Analysis
WH = Unsuccessful Field Vane Shear Test Attempt; WOP = Weight of One Person; N_{60} = Hammer Efficiency Factor/60%=Unconfirmed; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u(lab) (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/10.8	0.00 – 2.00	1-4-5-3	9	14	OPEN	92.8		Brown, moist, stiff, SILT, some fine to coarse sand, little gravel, trace grass roots in top 0.7 ft (TOPSOIL).	
5	20	24/19.2	5.00 – 7.00	5-6-7-7	13	20	56			Grey-brown, moist, very stiff, Silty CLAY, trace fine to coarse sand, trace fine gravel (FILL).	WC = 21.9% Fines = 99.4% A-4 (0)
							84				
							118				
							113	85.0			
10	30	24/24	10.00 – 12.00	4-4-6-7	10	15	48			Grey-brown, wet, stiff, Silty CLAY (CLAY). q_p = 4.6 ksf, T_v = 511 psf	
							68				
							102	81.0			
							121				
15	40	24/9.6	15.00 – 17.00	16-15-16-12	31	47	56			Grey-brown, wet, dense, fine to coarse SAND, some silt, little fine gravel (SAND and GRAVEL).	WC = 10.3% Fines = 33.1% A-2-4 (0)
							68				
							89				
							102	75.0			
20	50	24/13.2	20.00 – 22.00	6-6-12-11	18	27	OPEN			Grey, wet, very stiff, Clayey SILT, some fine to coarse sand, little gravel (GLACIAL TILL). Advanced with a roller bit ahead of casing from 20 ft to 25 ft bgs.	
							108				
							118				
							124				
25	60	24/16.8	25.00 – 27.00	15-11-15-17	26	39	65			Grey, wet, hard, Clayey SILT, some fine to coarse sand, little gravel (GLACIAL TILL). Advanced with a roller bit ahead of casing from 25 ft to 30 ft bgs.	
							71				
							79				
							88				
30	70	24/14.4	30.00 – 32.00	7-12-17-14	29	44	54			Grey, wet, hard, Clayey SILT, some fine to medium sand, trace fine gravel (GLACIAL TILL). Advanced with a roller bit ahead of casing from 30 ft to 35 ft bgs.	WC = 12.2% Fines = 68.0% A-4 (0)
							69				
							84				
							96				
35	80	24/19.2	35.00 – 37.00	14-15-17-28	32	48				Grey, wet, hard, Clayey SILT, little gravel, little fine to coarse sand (GLACIAL TILL). Advanced with a roller bit ahead of casing from 35 ft to 40 ft bgs.	
40	90	4.8/4.8	40.00 – 40.40	100/5"	R		77			Grey, wet, hard, Clayey SILT, some gravel, little fine to coarse sand (GLACIAL TILL). Advanced with a roller bit ahead of casing from 40 ft to 45 ft bgs. Drilled past cobbles from 40.4 to 41 ft bgs.	
							92				
							85				
							89	50.0			
45	100	24/21.6	45.00 – 47.00	17-19-22-22	41	62	110			Brown, wet, very dense, fine to medium SAND, little silt, silt lens from 46.4 ft to 46.5 ft bgs (GLACIOFLUVIAL).	
							106				
							113				
							114				
50							121				

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 35 minutes after completion of drilling with bottom of casing at 70 ft bgs.

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 2

Boring No.: HB-BHR-116

Maine Department of Transportation — BHR-116

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine

Boring No.: HB-BHR-116
WIN: 018595.10

Driller:	S.W. Cole	Elevation (ft.): 93.5	Auger ID/OD: 4.25 in
Operator:	Kevin Hanscom	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	Andrew Martin	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140 lbs/30 in
Date Start/Finish:	5/2/22 (15:00:11 5/4/22 (10:00)	Drilling Methods: Cased Wash	Core Barrel: 1.98 in I.D. - NQ2
Boring Location:	N: 485309.571, E: 1739242.201	Casing ID/OD: 4.0/4.5 in and 3.0/3.5 in	Water Level*: 72.7 FT on 5/4/22 @ 10:35

Hammer Efficiency Factor: 0.908 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
ST = Shelby Tube Sample; SSA = Solid Stem Auger; $S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent
WO = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; q_u = Unconfined Compressive Strength (tsf); LL = Liquid Limit
U = Thin Wall Tube Sample; RC = Roller Cone; Unconfined = Raw Field SPT Envelope; PL = Plastic Limit
WO = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of 140lb. Hammer; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; PI = Plasticity Index
V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR/C = Weight of Rods or Casing; N_{60} = SPT Unconfirmed Corrected for Hammer Efficiency; G = Grain Size Analysis
WH = Unsuccessful Field Vane Shear Test Attempt; WOP = Weight of One Person; N_{60} = Hammer Efficiency Factor/60%=Unconfirmed; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u(lab) (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
50	110	24/19.2	50.00 – 52.00	17-39-55-79	94	142	101			Brown, wet, very dense, fine to medium SAND, some silt and clay, some fine gravel (GLACIOFLUVIAL).	WC = 9.4% Fines = 33.6% A-2-4 (0)
							150				
55							121				
							127				
	120	14.4/ 14.4	55.00 – 56.20	37-71-100/2"	R		137			Brown, wet, very dense, fine to medium SAND, some fine gravel, little silt and clay (GLACIOFLUVIAL).	
							151				
60							NQ2	37.0		Advanced with a roller bit through a boulder from 56.2 ft to 56.5 ft bgs.	
										56.5	
							OPEN	34.9		Used NQ2 barrel to core through a boulder from 56.5 ft to 58.6 ft bgs.	
65										58.6	
										Core barrel advanced to 61 ft bgs after breaking through boulder. Telescoped 3 inch diameter casing through the boulder to 61 ft bgs.	
	130	9.6/9.6	65.00 – 65.80	55-100/4"	R					Brown, wet, very dense, Gravelly fine to coarse SAND, little silt (GLACIOFLUVIAL).	
70											
							NQ2	24.0		Advanced with a roller bit past a boulder from 69.5 ft to 71.5 ft bgs.	
							OPEN	22.0			
75										Brown, wet, very dense, Gravelly fine to coarse SAND, little silt (GLACIOFLUVIAL).	WC = 9.0% Fines = 15.4% A+1-b (0)
	140	24/13.2	72.00 – 74.00	23-46-57-81	103	156					
80							NQ2	15.5		Advanced with a roller bit past cobbles from 78 ft to 79 ft bgs.	
								14.5			
								13.5		Used NQ2 core barrel to core through a boulder from 80 ft to 82.6 ft bgs.	
85											
								10.5		Bottom of Exploration at 83.0 feet below ground surface. Bottom of casing crimped at 83 ft bgs preventing further advancement of the boring. Boring backfilled with bentonite chips to ground surface.	
90											
95											
100											

Remarks:
1. Hammer Efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N13671)" by Geoscience Testing and Research Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. Water level reading was made 35 minutes after completion of drilling with bottom of casing at 70 ft bgs.

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 2 of 2

Boring No.: HB-BHR-116

Maine Department of Transportation — BHR-201

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine

Boring No.: HB-BHR-201
WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.): 117.7	Auger ID/OD: N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum: NAVD 88	Sampler: Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140 lbs / 30 in
Date Start/Finish:	9127 PM 9/27/23 - 10147 PM 9/ 21/23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel: 1.98 in I.D. - NQ2
Boring Location:	N: 487189.137, E: 1739746.201	Casing ID/OD: 4.0/4.5 in	Water Level*: -

Hammer Efficiency Factor: 0.918 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
ST = Shelby Tube Sample; SSA = Solid Stem Auger; $S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent
WO = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; q_u = Unconfined Compressive Strength (tsf); LL = Liquid Limit
U = Thin Wall Tube Sample; RC = Roller Cone; Unconfined = Raw Field SPT Envelope; PL = Plastic Limit
WO = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of 140lb. Hammer; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; PI = Plasticity Index
V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR/C = Weight of Rods or Casing; N_{60} = SPT Unconfirmed Corrected for Hammer Efficiency; G = Grain Size Analysis
WH = Unsuccessful Field Vane Shear Test Attempt; WOP = Weight of One Person; N_{60} = Hammer Efficiency Factor/60%=Unconfirmed; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u(lab) (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	117.7		ASPHALT 0.5	
	10	24/12	1.00 – 3.00	13-16-17-50/4"	33	50				Brown, dry, very dense, fine to coarse Gravelly SAND, trace to little silt, well-graded (FILL).	
								113.1		4.0	
5							NQ2	112.3		(WEATHERED BEDROCK) 5.4	
	R1	12/3.6	5.40 – 6.40	ROD = 0%						Auger refusal. Top of Bedrock at Elev. 112.3 feet. R1: Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresh to slightly weathered discontinuities low to high to steep angle dipping, wide spacing, open, extremely fractured [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 33% Recovery Rock Core Rate (minsec) 0.0-5.4 ft (1:42) R2: Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresh discontinuities low angle to vertical dipping, close spacing, tight [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 96% Recovery Rock Core Rate (minsec) 5.4-10.4 ft (2:11) 10.4-11.4 ft (2:56) 11.4-12.4 ft (1:53) 12.4-12.8 ft (1:22) R4: Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresh discontinuities low to steep angle dipping, close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Fair 100% Recovery Rock Core Rate (minsec) 12.8-13.4 ft (1:49) 13.4-14.4 ft (2:29) 14.4-15.4 ft (3:06)	
10	R2	32.4/ 31.2	6.40 – 9.10	ROD = 12%							
	R3	44.4/ 44.4	9.10 – 12.80	ROD = 54%							
15	R4	31.2/ 31.2	12.80 – 15.40	ROD = 46%							
								102.3		15.4	
20										Bottom of Exploration at 15.4 feet below ground surface. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement.	
25											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibrations Track Rig-Diedrich D-50 with automatic Hammer (S/N – 3671)" by Geoscience Testing and Research Inc., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 10+23.3, Offset 80.3 feet L.

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-BHR-201

Maine Department of Transportation — BHR-201A

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine

Boring No.: HB-BHR-201A
WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.): 117.8	Auger ID/OD: N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum: NAVD 88	Sampler: Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140 lbs / 30 in
Date Start/Finish:	8126 PM 9/27/23 - 9127 PM 9/21/ 23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel: NX/NQ
Boring Location:	N: 487188.016, E: 1739744.060	Casing ID/OD: 4.0/4.5 in	Water Level*: -

Hammer Efficiency Factor: 0.918 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
ST = Shelby Tube Sample; SSA = Solid Stem Auger; $S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent
WO = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; q_u = Unconfined Compressive Strength (tsf); LL = Liquid Limit
U = Thin Wall Tube Sample; RC = Roller Cone; Unconfined = Raw Field SPT Envelope; PL = Plastic Limit
WO = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of 140lb. Hammer; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; PI = Plasticity Index
V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR/C = Weight of Rods or Casing; N_{60} = SPT Unconfirmed Corrected for Hammer Efficiency; G = Grain Size Analysis
WH = Unsuccessful Field Vane Shear Test Attempt; WOP = Weight of One Person; N_{60} = Hammer Efficiency Factor/60%=Unconfirmed; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u(lab) (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	117.3		ASPHALT 0.5	
										Brown, dry, very dense, fine to coarse Gravelly SAND, trace to little silt, well-graded (FILL).	
5	R1	16.8/ 16.5	5.10 – 6.50	ROD = 48%			NQ2	112.7		5.1 Top of Bedrock at Elev. 112.7 feet. Auger refusal. R1: Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresh discontinuities steep angle dipping, close, tight [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Poor 98% recovery Rock Core Rate (minsec) 5.1-6.1 ft (1:12) 6.1-6.4 ft (21:18)	
								111.3		6.5 Bottom of Exploration at 6.5 feet below ground surface. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement.	
10											
15											
20											
25											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibrations Track Rig-Diedrich D-50 with automatic Hammer (S/N – 3671)" by Geoscience Testing and Research Inc., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 10+24.65, Offset 77.9 feet L.

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-BHR-201A

Maine Department of Transportation — BHR-201B

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine

Boring No.: HB-BHR-201B
WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.): 117.6	Auger ID/OD: N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum: NAVD 88	Sampler: Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140 lbs / 30 in
Date Start/Finish:	8108 PM 9/27/23 - 8126 PM 9/27/ 23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel: NX/NQ
Boring Location:	N: 487189.874, E: 1739740.560	Casing ID/OD: 4.0/4.5 in	Water Level*: -

Hammer Efficiency Factor: 0.918 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
ST = Shelby Tube Sample; SSA = Solid Stem Auger; $S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent
WO = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; q_u = Unconfined Compressive Strength (tsf); LL = Liquid Limit
U = Thin Wall Tube Sample; RC = Roller Cone; Unconfined = Raw Field SPT Envelope; PL = Plastic Limit
WO = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of 140lb. Hammer; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; PI = Plasticity Index
V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR/C = Weight of Rods or Casing; N_{60} = SPT Unconfirmed Corrected for Hammer Efficiency; G = Grain Size Analysis
WH = Unsuccessful Field Vane Shear Test Attempt; WOP = Weight of One Person; N_{60} = Hammer Efficiency Factor/60%=Unconfirmed; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u(lab) (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	117.1		ASPHALT 0.5	
										Brown, dry, very dense, fine to coarse Gravelly SAND, trace to little silt, well-graded (FILL).	
5								113.4		4.0 Bottom of Exploration at 4.0 feet below ground surface. Top of Bedrock at Elev. 113.6 feet. Auger refusal. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement.	
10											
15											
20											
25											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibrations Track Rig-Diedrich D-50 with automatic Hammer (S/N – 3671)" by Geoscience Testing and Research Inc., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 11+22.26, Offset 72.8 feet L.

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-BHR-201B

Maine Department of Transportation — BHR-202

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine

Boring No.: HB-BHR-202
WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.): 118.7	Auger ID/OD: N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum: NAVD 88	Sampler: Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140 lbs / 30 in
Date Start/Finish:	2150 AM 9/22/23 - 3135 AM 9/22/ 23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel: NQ/NX
Boring Location:	N: 487118.074, E: 1739789.126	Casing ID/OD: 4.0/4.5 in	Water Level*: -

Hammer Efficiency Factor: 0.918 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample; R = Rock Core Sample; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf)
ST = Shelby Tube Sample; SSA = Solid Stem Auger; $S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent
WO = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; q_u = Unconfined Compressive Strength (tsf); LL = Liquid Limit
U = Thin Wall Tube Sample; RC = Roller Cone; Unconfined = Raw Field SPT Envelope; PL = Plastic Limit
WO = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of 140lb. Hammer; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; PI = Plasticity Index
V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR/C = Weight of Rods or Casing; N_{60} = SPT Unconfirmed Corrected for Hammer Efficiency; G = Grain Size Analysis
WH = Unsuccessful Field Vane Shear Test Attempt; WOP = Weight of One Person; N_{60} = Hammer Efficiency Factor/60%=Unconfirmed; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u(lab) (tsf)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								118.2		(TOPSOIL) 0.5	
	10	24/12	0.00 – 2.00	1-7-10-9	17	26	SSA			Brown, dry, medium dense- fine to medium SAND, some silt, little fine gravel (FILL).	
5	R1	28.8/ 28.8	4.30 – 6.70	ROD = 28%			NQ2	114.4		4.3 Auger refusal. Top of Bedrock at Elev. 114.7 feet. R1:Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresh discontinuities steep dipping, very close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Fair 91% Recovery Rock Core Rate (minsec) 4.3-5.3 ft (2:31) 5.3-6.3 ft (2:00) 6.3-6.7 ft (1:02) R2: Grey, fine grained to very fine grained, METAWACKE (metasandstone), strong, fresh discontinuities steep dipping, very close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Fair 91% Recovery Rock Core Rate (minsec) 6.7-7.3 ft (2:45) 7.3-8.3 ft (11:26) 8.3-9.3 ft (11:37)	
10	R2	31.2/ 28.8	6.70 – 9.30	ROD = 64%							
								109.4		9.3 Bottom of Exploration at 9.3 feet below ground surface. Boring backfilled with bentonite chips to match existing surface.	
15											
20											
25											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibrations Track Rig-Diedrich D-50 with automatic Hammer (S/N – 3671)" by Geoscience Testing and Research Inc., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 11+01.4, Offset 110.2 feet L.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

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Page 1 of 1

Boring No.: HB-BHR-202

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11
WIN 018595.11
BRIDGE No. 5823
BRIDGE PLANS

STATE OF MAINE — CHRISTOPHER J. MILLER — No. 15164 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE		15164	
P.E. NUMBER		11/07/2025	
DATE			

PROJ. MANAGER	M. LANDON		
DESIGN-DETAILED	DEB	8/2025	DJH
CHECKED-REVIEWED	DEB	10/2025	CCB
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 5 OF 9

SHEET NUMBER
H-217
363
OF 485

Filename: ...\Highway_Boring_Log_Plan_06.dgn Division: BRIDGE Username:

Date:11/7/2025

Maine Department of Transportation — Boring No.: HB-BHR-203

Soil/Rock Exploration Log (US CUSTOMARY UNITS) | Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) | Location: Bangor, Maine | WIN: 18595.10

Driller: S.W. Cole Explorations LLC	Elevation (ft.): 114	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator: Kevin Hanscom	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish: 11:40 AM 9/22/23 - 2:39 AM 9/27/23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel:	NQ/HX
Boring Location: N: 487072.610, E: 1739610.188	Casing ID/OD: 4.0/4.5 in and 3.0/3.5 in	Water Level*:	-
Hammer Efficiency Factor: 0.918	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; MV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Corrected for Hammer Efficiency; N_{60} = Hammer Efficiency Factor/60%Hammer-Uncorrected; S_r = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. or Shear Strength (psf) or RQD (%)	Uncorrected N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0									(TOPSOIL)	
	10	24/8	0.00 - 2.00	1-1-2-2	3	5	SSA		Brown, moist, loose, Silty fine to medium SAND (FILL).	
							113.8			0.3
5										
	20	24/24	5.00 - 7.00	5-8-10-10	18	28			Olive, moist, very stiff, CLAY, moderately plastic (CLAY).	5.0
							109.0		q_p = 6.0 ksf (pocket penetrometer)	WC = 23.8% Fines = 99.0% LL = 31 PL = 19 PI = 12 LI = 0.4 A-6 (12). CL
						NQ2	106.2		Auger refusal. (WEATHERED BEDROCK)	7.8
	R1	48/46.8	8.50 - 12.50	RQD = 11%			105.5		Top of Bedrock at Elev. 105.5 feet.	8.5
10									R1: Grey, fine grained to very grained, METAMACKE [metasandstone], strong, freshi discontinuities steep angle dipping, very close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 98% Recovery Rock Core Rate (minisec) 8.5-9.5 ft (3:16) 9.5-10.5 ft (2:50) 10.5-11.5 ft (2:46) 11.5-12.5 ft (3:07) R2: Grey, fine grained to very grained, METAMACKE [metasandstone], strong, freshi discontinuities horizontal to low angle dipping, close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Fair 100% Recovery Rock Core Rate (minisec) 8.5-9.5 ft (3:21)	
15										
	R2	12/12	12.50 - 13.50	RQD = 70%			100.5			
20										
25									Bottom of Exploration at 13.5 feet below ground surface. Boring backfilled with bentonite chips to match existing surface.	13.5

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc. , dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
3. Station 10+19.3, Offset 73.8 feet R.

Stratification lines represent approximate boundaries between soil typesl transitions may be gradual. Page 1 of 1

* 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. Boring No.: HB-BHR-203

Maine Department of Transportation — Boring No.: HB-BHR-204

Soil/Rock Exploration Log (US CUSTOMARY UNITS) | Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) | Location: Bangor, Maine | WIN: 18595.10

Driller: S.W. Cole Explorations LLC	Elevation (ft.): 116	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator: Kevin Hanscom	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish: 10:56 PM 9/21/23 - 11:33 AM 9/22/23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel:	1.98 in I.D. - NQ2
Boring Location: N: 487169.516, E: 1739605.640	Casing ID/OD: 4.0/4.5 in and 3.0/3.5 in	Water Level*:	-
Hammer Efficiency Factor: 0.918	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; MV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Corrected for Hammer Efficiency; N_{60} = Hammer Efficiency Factor/60%Hammer-Uncorrected; S_r = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. or Shear Strength (psf) or RQD (%)	Uncorrected N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0									ASPHALT	0.6
	10	24/8	1.00 - 3.00	11-11-7-5	18	28			Brown, dry, medium dense, fine to coarse SAND, little silt, little fine gravel (FILL).	
							115.4			
5										
	20	24/23	5.00 - 7.00	4-6-7-7	13	20			Olive with brown mottled, moist, very stiff, CLAY, moderately plastic (CLAY).	5.0
									q_p = 7.0 to 4.5 ksf (pocket penetrometer)	WC = 24.0% LL = 37 PL = 23 PI = 14 LI = 0.1 A-6 (15). CL
							111.0			
10										
	30	14.4/6	10.00 - 11.20	20-41-50/2"	R				Brown, wet, hard, Sandy CLAY, little fine gravel, rock fragments in the tip of spoon (GLACIAL TILL).	WC = 12.4% Fines = 52.4% A-4 (0)
	R1	60/22.8	11.20 - 16.20				11.2		Roller cone refusal. R1: 3-foot boulder	2
										53
							104.8			28/3"
15										OPEN
	40	14/6	16.20 - 17.37	18-19-50/2"	R				Brown, wet, very dense, fine to coarse SAND, some silt, some fine gravel, strong perpalumerlike odor, weathered rock fragments in tip of spoon (GLACIAL TILL).	16.2
							99.4			17.4
						NQ2	98.6		Auger refusal. Top of Bedrock at Elev. 98.6 feet. (WEATHERED BEDROCK)	
20										19.5
	R2	32.4/ 31.2	19.50 - 22.20	RQD = 25%			96.5		R2: Grey, fine grained to very fine grained, METAMACKE [metasandstone], strong, freshi discontinuities steep to vertical dipping, close spacing, tight to open, extremely fractured, calcite intrusions, extremely fractured 20.5-22.2 ft bgs [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 96% Recovery Rock Core Rate (minisec) 19.5-20.5 ft (2:19) 20.5-21.5 ft (2:51) 21.5-22.2 ft (3:14) R3: Grey, fine grained to very fine grained, METAMACKE [metasandstone], strong, freshi discontinuities low to steep angle dipping, very close to close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minisec) 22.2-22.5 ft (1:12) 22.5-23.5 ft (2:24) 23.5-24.5 ft (3:08)	
	R3	27.6/ 27.6	22.20 - 24.50	RQD = 17%			91.5			
25										
30										
35										
40										
45										
50									Bottom of Exploration at 24.5 feet below ground surface. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement.	24.5

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc. , dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
3. Station 10+19.0, Offset 61.6 feet R.

Stratification lines represent approximate boundaries between soil typesl transitions may be gradual. Page 1 of 1

* 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. Boring No.: HB-BHR-204

Maine Department of Transportation — Boring No.: HB-BHR-205

Soil/Rock Exploration Log (US CUSTOMARY UNITS) | Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) | Location: Bangor, Maine | WIN: 18595.10

Driller: S.W. Cole Explorations LLC	Elevation (ft.): 108.1	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator: Kevin Hanscom	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish: 8:43 AM 9/25/23 - 10:46 AM 9/25/23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel:	1.98 in I.D. - NQ2
Boring Location: N: 486487.458, E: 1739878.180	Casing ID/OD: 4.0/4.5 in	Water Level*:	9.4' ft on 9/25/23 at 10:45
Hammer Efficiency Factor: 0.918	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; MV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Corrected for Hammer Efficiency; N_{60} = Hammer Efficiency Factor/60%Hammer-Uncorrected; S_r = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. or Shear Strength (psf) or RQD (%)	Uncorrected N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0									(TOPSOIL)	
	10	24/11	0.00 - 2.00	1-1-4-2	5	8	SSA		Olive, moist, medium stiff, Silt, trace fine sand, trace fine gravel, slightly plastic (FILL).	0.5
							107.6			
5										
	20	24/23	5.00 - 7.00	4-6-7-8	13	20			Olive with grey mottled, moist, very stiff, CLAY (CLAY).	5.0
									q_p = 5.0 ksf to 7.0 ksf (pocket penetrometer).	WC = 27.7% Fines = 99.5% A-4 (0)
							103.1			
10										
	30	24/24	10.00 - 12.00	2-3-3-3	6	9			Olive, moist to wet, stiff, CLAY, moderately plastic (CLAY).	WC = 24.8% LL = 30 PL = 18 PI = 12 LI = 0.6 CL
									q_p = 2.5 ksf (pocket penetrometer).	
										13
										50
										112
15										56
	40	24/12	15.00 - 17.00	15-19-17-21	36	55	24		Brown, wet, very dense, fine to coarse SAND, some silt, little fine gravel (SAND with GRAVEL).	15.0
							93.1			
										50
										60
20										60
										43
	50	24/12	20.00 - 22.00	13-13-12-14	25	38	32		Olive to Brown, wet, hard, SILT, some fine to medium sand, some fine to coarse gravel, slightly plastic (GLACIAL TILL).	20.0
							88.1			
										32
25										51
										55
	60	24/13	25.00 - 27.00	7-10-6-10	16	24	41		Grey, wet, very stiff, SILT, some fine to medium SAND, some fine to coarse gravel, slighty plastic (GLACIAL TILL).	40
										38
	R1	45.6/36	27.80 - 31.60	RQD = 16%			50/1" NQ2			
30							80.4		Top of Bedrock at Elev. 80.31 feet.	27.8
									Roller cone refusal encountered at 27.8 feet bgs. R1: Grey, fine grained to very fine grained, METAMACKE [metasandstone], strong, freshi discontinuities moderate to steep dipping, close spacing, tight, frequent calcite intrusions, chemical weathering in bottom foot of the run [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 79% Recovery Rock Core Rate (minisec) 27.8-28.8 ft (2:05) 28.8-29.8 ft (3:33) 29.8-30.8 ft (2:53) 30.8-31.6 ft (2:28) R2: Grey, fine grained to very fine grained, METAMACKE [metasandstone], strong, freshi discontinuities low angle to steep dipping, close spacing, open to tight [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 92% Recovery Rock Core Rate (minisec) 31.6-31.8 ft (0:25) 31.8-32.8 ft (3:25)	
	R2	14.4/ 13.2	31.60 - 32.80	RQD = 0%			75.3			
35										
40										
45										
50									Bottom of Exploration at 32.8 feet below ground surface. Boring backfilled with bentonite chips to match existing surface.	32.8

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc. , dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
3. Station 10+03+51.4, Offset 32.8 feet R.

Stratification lines represent approximate boundaries between soil typesl transitions may be gradual. Page 1 of 1

* 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. Boring No.: HB-BHR-205

Maine Department of Transportation — Boring No.: HB-BHR-206

Soil/Rock Exploration Log (US CUSTOMARY UNITS) | Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) | Location: Bangor, Maine | WIN: 18595.10

Driller: S.W. Cole Explorations LLC	Elevation (ft.): 118.4	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator: Kevin Hanscom	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: Daniel Burgess	Rig Type: Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish: 10:48 PM 9/20/23 - 11:47 PM 9/20/23	Drilling Methods: Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location: N: 486285.194, E: 1739807.189	Casing ID/OD: 4.0/4.5 in	Water Level*:	2.8 ft on 9/20/23 at 23:45
Hammer Efficiency Factor: 0.918	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; MV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Rods or Casing; WOP = Weight of One Person; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Corrected for Hammer Efficiency; N_{60} = Hammer Efficiency Factor/60%Hammer-Uncorrected; S_r = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. or Shear Strength (psf) or RQD (%)	Uncorrected N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0									ASPHALT	0.5
	10	24/15	1.00 - 3.00	19-20-20-17	40	61	SSA		Brown, dry, very dense, fine to coarse Gravelly SAND, little silt (FILL).	
							117.9			
5										
	20	24/12	5.00 - 7.00	3-3-7-4	10	15			Olive, moist, stiff, SILT, little fine gravel (FILL).	
10										
	30	24/14	10.00 - 12.00	3-3-4-4	7	11				
										11
							107.4		Grey, moist to wet, stiff, CLAY, moderately plastic (CLAY).	11.0 WC = 22.7% LL = 35 PL = 23 PI = 12 LI = 0 CL
15										16
	40	24/18	15.00 - 17.00	5-6-12-15	18	28				20
										27
									Olive to grey mottled, wet, very stiff, CLAY (CLAY). q_p @ 10 ksf (pocket penetrometer).	21
20										37
										63
										81
										88
	50	24/10	20.00 - 22.00	15-36-16-21	52	80	OPEN		Olive to grey, wet, hard, CLAY, some fine to coarse sand, some fine to coarse gravel, fractured rock at 20.5 feet bgs (CLAY).	45 WC = 14.6% Fines = 35.7% A-4 (0)
							92.1			
25										
	60	16/8	25.00 - 26.33	23-23-52/4"	R				Olive, wet, hard, CLAY, fractured rock in the tip of spoon (CLAY).	
									Bottom of Exploration at 26.3 feet below ground surface. Possible weathered bedrock. Boring backfilled with bentonite chips, and cold patch to top of pavement.	26.3
30										
35										
40										
45										
50										

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc. , dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
3. Station 207+89, Offset 25.3 feet L.

Stratification lines represent approximate boundaries between soil typesl transitions may be gradual. Page 1 of 1

* 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. Boring No.: HB-BHR-206

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 5823

STATE OF MAINE — CHRISTOPHER R. BERUBE No. 15164 — REGISTERED PROFESSIONAL ENGINEER

PROJ. MANAGER	M. LANDON	BY
DESIGN-DETAILED	DEB	DJH
CHECKED-REVIEWED	DEB	CCB
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DATE: 8/2025 / 10/2025

SIGNATURE

P.E. NUMBER 15164

DATE 11/07/2025

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 6 OF 9

SHEET NUMBER
H-218
364
OF 485

Filename: ...\Highway_Boring_Log_Plan_07.dgn Division: BRIDGE Username: Date:11/7/2025

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — Boring No.: HB-BHR-207 — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	116.7	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	9:06 PM 9/20/23 - 10:36 PM 9/20/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 486572.986, E: 1739763.072	Casing ID/OD:	4.0/4.5 in	Water Level*:	5.5 ft on 9/20/23 at 22:18
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; R = Rock Core Sample; q_u = Unconfined Compressive Strength (ksf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%-Hammer Efficiency; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#) on Sheet Strength (psf) or RQD (%)	Uncorrected N	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	116.0		ASPHALT 0.7	
	10	24/14	1.00 - 3.00	21-25-70-46	95	145				Brown, dry, very dense, fine to coarse SAND, some fine to coarse gravel, little silt, asphalt fragments (FILL).	
5											
	20	24/19	5.00 - 7.00	41-23-15-11	38	58				Olive, dry, hard, SILT, some fine to coarse sand, trace fine gravel, non-plastic (FILL).	Fines = 70.8% A-4 (0)
10								106.7		10.0	
	30	24/22	10.00 - 12.00	3-4-5-6	9	14	11			Olive to grey, moist, stiff, CLAY, trace organics (roots) (CLAY).	
							23				
							53				
15							54				
							36				
	40	24/22	15.00 - 17.00	3-5-5-7	10	15	32			Olive, wet, stiff, CLAY, moderately plastic (CLAY). q_p = 6.0 ksf to 6.5 ksf (pocket penetrometer)	WC = 27.8% LL = 44 PL = 21 PI = 23 LI = 0.3 CL
							39				
							52				
							68				
20							42				
	50	24/24	20.00 - 22.00	2-2-3-6	5	8	66	96.7		Olive, wet, medium stiff, Silty CLAY (CLAY). q_p = 2.5 ksf to 3.5 ksf (pocket penetrometer) 20.0	
							55				
							100/9				
							OPEN	93.0		23.75 feet bgs possible weathered rock. 23.8	
25								91.7		Bottom of Exploration at 25.0 feet below ground surface. Boring backfilled with bentonite chips, and cold patch to top of pavement. 25.0	
30											
35											
40											
45											
50											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc. . dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 1064+96, Offset 35.1 feet L.

Stratification lines represent approximate boundaries between soil typest 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-BHR-207

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — Boring No.: HB-BHR-208 — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	90.8	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	8:13 AM 10/02/23 - 9:14 AM 10/02/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 485512.735, E: 1739866.267	Casing ID/OD:	4.0/4.5 in	Water Level*:	-
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; R = Rock Core Sample; q_u = Unconfined Compressive Strength (ksf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%-Hammer Efficiency; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#) on Sheet Strength (psf) or RQD (%)	Uncorrected N	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								90.6		(TOPSOIL) 0.1	
	10	24/5	0.00 - 2.00	1-3-4-6	7	11	SSA			Olive, dry, stiff, SILT, little fine to medium sand, trace fine gravel, trace organics (roots), non-plastic (FILL).	
5											
	20	24/24	5.00 - 7.00	5-7-7-7	14	21				Olive with brown, moist, very stiff, CLAY, moderately plastic (CLAY). 5.0 q_p = 5.0 ksf to 5.5 ksf (pocket penetrometer)	WC = 24.5% LL = 37 PL = 20 PI = 17 LI = 0.3 CL
10								85.8			
	30	24/24	10.00 - 12.00	2-2-3-4	5	8	9			Olive, wet, medium stiff, Silty CLAY, moderately plastic (CLAY). 10.0 q_p = 2.5 to 3.5 ksf (pocket penetrometer)	
							14				
							22				
15							24				
							24				
	40	24/24	15.00 - 17.00	1-2-1-3	3	5	17			Grey, wet, soft, Silty CLAY, slightly plastic (CLAY). q_p = 2.0 ksf (pocket penetrometer)	WC = 28.2% LL = 23 PL = 16 PI = 7 LI = 1.7 CL-ML
							16				
							35				
20							50				
							28				
	50	24/12	20.00 - 22.00	6-5-7-8	12	18	30	70.8		Grey, wet, medium dense, fine to medium SAND, some silt, some fine gravel (GLACIAL TILL). 20.0	
							49				
							51				
							71				
							35				
	60		25.00 - 27.00	11-14-11-22	25	38	OPEN	63.8		Grey, wet, dense, fine to medium SAND, some silt, some fine gravel (GLACIAL TILL). 27.0	
25										Bottom of Exploration at 27.0 feet below ground surface. Not refusal encounter. Boring backfilled with bentonite chips to match existing surface.	
30											
35											
40											
45											
50											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc.. dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 215+93, Offset 13.9 feet L.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.

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Page 1 of 1 — Boring No.: HB-BHR-208

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — Boring No.: HB-BHR-209 — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	105.1	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	12:11AM 9/27/23 - 11:35AM 9/27/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 485412.629, E: 1739959.139	Casing ID/OD:	4.0/4.5 in	Water Level*:	10.8 ft on 9/12/23 at 01:23
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; R = Rock Core Sample; q_u = Unconfined Compressive Strength (ksf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%-Hammer Efficiency; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#) on Sheet Strength (psf) or RQD (%)	Uncorrected N	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	104.1		CONCRETE 1.0	
	10	24/15	1.00 - 3.00	17-14-14-15	28	43				Brown, dry, dense, fine to coarse SAND, some fine to coarse gravel, little silt (FILL).	
5											
	20	24/20	5.00 - 7.00	15-15-14-17	29	44				Olive, dry, hard, SILT, some fine to coarse sand, trace fine gravel (FILL).	WC = 10.1% Fines = 68.0% A-4 (0)
10											
	30	24/13	10.00 - 12.00	9-11-11-14	22	34	22			Olive with grey, dry, hard, SILT, little fine gravel (FILL).	
							42				
							98				
15							106				
							42				
	40	24/14	15.00 - 17.00	3-7-30-57	37	57	25			Grey, wet, very dense, fine to coarse SAND, some silt, some fine to coarse gravel (FILL).	WC = 32.0% Fines = 10.2% A-2-4 (0)
							62				
							92				
20							44				
							34				
	50	24/22	20.00 - 22.00	6-8-11-11	19	29	12	85.1		Olive to grey mottled, wet, very stiff, Clayey SILT (SILT). 20.0 q_p = 7.0 to 8.0 ksf (pocket penetrometer)	
							40				
							57				
							70				
							67				
	60	24/17	25.00 - 27.00	10-22-25-22	47	72	OPEN	80.1		Brown, wet, very dense, silty fine to medium SAND, little fine gravel (SAND with GRAVEL). 25.0	
25								78.1		Bottom of Exploration at 27.0 feet below ground surface. Not refusal encounter. Boring backfilled with bentonite chips up to bottom of concrete, and cold patch to top of pavement. 27.0	
30											
35											
40											
45											
50											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc.. dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 116+70, Offset 45.2 feet L.

Stratification lines represent approximate boundaries between soil typest 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-BHR-209

Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — Boring No.: HB-BHR-210 — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	102.1	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	9:00 PM 9/17/23 - 8:40 AM 9/18/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	1.98 in I.D. - N02
Boring Location:	N: 485339.432, E: 1739884.834	Casing ID/OD:	4.0/4.5 in	Water Level*:	3.6 ft on 9/18/23 at 03:45
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR/C = Weight of Rods or Casing; WOP = Weight of One Person; R = Rock Core Sample; q_u = Unconfined Compressive Strength (ksf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%-Hammer Efficiency; S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#) on Sheet Strength (psf) or RQD (%)	Uncorrected N	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								101.9		ASPHALT 0.2	
	10	24/16	0.20 - 2.20	12-10-10-12	20	31	SSA			Brown, dry, dense, fine to medium SAND, some fine to coarse gravel, little silt (FILL).	
5											
	20	24/15	5.00 - 7.00	10-11-17-17	28	43				Brown to grey, moist, dense, fine to medium SAND, some silt, trace fine gravel (FILL).	WC = 10.5%
10								92.1		10.0	
	30	24/20	10.00 - 12.00	8-9-15-16	24	37				Olive to brown with orange, dry to moist, hard, Clayey SILT, trace fine sand, trace fine gravel (SILT).	
15											
	40	24/17	15.00 - 17.00	15-13-9-11	22	34	69			Olive to brown, dry to moist, hard, Clayey SILT, trace fine sand, trace fine gravel (SILT).	WC = 12.0%
							75				
							78				
20							96				
							99				
	50	24/22	20.00 - 22.00	7-8-10-12	18	28	97	82.1		Olive, dry to moist, very stiff, CLAY, trace fine sand (CLAY). 20.0	
							135				
							147				
							153				
							75				
25										Olive to grey, wet, very stiff, CLAY, moderately plastic (CLAY). q_p = 8.0 ksf, 8.0 ksf, and 8.5 ksf (pocket penetrometer)	WC = 23.6% LL = 36 PL = 20 PI = 16 LI = 0.2 CL
	60	24/13	25.00 - 27.00	16-35-36-35	71	109	152				
							137				
							131				
30							118				
							85	72.1		Grey, wet, very dense, fine to coarse Gravelly SAND, little silt, trace clay (GLACIAL TILL). 30.0	
35	80	24/16	35.00 - 37.00	4-5-4-6	9	14	125			Grey, wet, medium dense, fine to medium SAND, trace silt (GLACIAL TILL).	
							116				
							99				
							101				
40							90				
	90		40.00 - 42.00	6-11-12-35	23	35	140			Grey, wet, dense, fine to coarse GRAVEL, some fine to coarse sand, some silt (GLACIAL TILL).	WC = 6.8% Fines = 23.4% A-1-b (0)
							129				
							125				
							132				
45							141				
	100	24/16	45.00 - 47.00	18-16-16-16	32	49	133			Grey, wet, dense, fine to coarse SAND, little silt (GLACIAL TILL).	
							137				
							145				
							149				
50							163				
	110	24/22	50.00 - 52.00	10-22-23-37	45	69	171			Grey, moist to wet, hard, SILT, trace fine gravel (GLACIAL TILL).	
							173				
							188				
							182				
55							143				
	120	24/13	55.00 - 57.00	42-63-50/2"	R		275			Grey to brown, wet, very dense, fine to coarse Gravelly SAND, little silt (GLACIAL TILL).	
							100/1	45.1		57.0	
	R1	15.6/8.4	57.00 - 58.30	RQD = 0%			N02			Top of Bedrock at Elev. 45.1 feet. Roller cone refusal at 57 feet bgs. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh to slightly weathered discontinuities low angle to steep dipping, wide spacing, open, extremely fractured [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 54% Recovery Rock Core Rate (minsec) 57-58 ft (3:23) 58-58.3 ft (1:28) R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to steep dipping, wide spacing, open, extremely fractured [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 36% Recovery Rock Core Rate (minsec) 58.3-59 ft (2:28) 59-59.8 ft (3:54) R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to steep dipping, wide spacing, open, extremely fractured [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 42% Recovery Rock Core Rate (minsec) 59.8-60 ft (0:24) 60-61 ft (3:15) 61-62 ft (3:20) 62-63 ft (2:57) 63-64 ft (3:13) 64-65 ft (2:42)
	R2	18/6	58.30 - 59.80	RQD = 0%							
	R3	62.4/ 26.4	59.80 - 65.00	RQD = 0%							
60											
65								37.1			
70											
75										65.0 Bottom of Exploration at 65.0 feet below ground surface. Backfilled with bentonite chips to match existing ground surface.	

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc. . dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 117+48.5, Offset 22.8 feet R.

Stratification lines represent approximate boundaries between soil typest 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-BHR-210

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 5823

STATE OF MAINE — CHRISTOPHER D. BISHOP No. 15164 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE		15164
P.E. NUMBER		11/07/2025
DATE		

PROJ. MANAGER	M. LANDON	
DESIGN-DETAILED	DEB	8/2025
CHECKED-REVIEWED	DJH	10/2025
DESIGN2-DETAILED2	DEB	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 7 OF 9

SHEET NUMBER
H-219
365
OF 485

Filename: ...\Highway_Boring_Log_Plan_08.dgn Division: BRIDGE Username: Date:11/7/2025

Maine Department of Transportation — Boring No.: HB-BHR-211

Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	98.5	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	2:34 AM 9/20/23 - 3:15S AM 9/20/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 485225.093, E: 1740031.784	Casing ID/OD:	4.0/4.5 in	Water Level*:	12.3 ft on 9/20/23 at 03:48
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (tsf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected Corrected for Hammer Efficiency
T_v = Pocket Torvane Shear Strength (tsf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u (psf) $S_{u(LAB)}$ (psf) q_p (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	97.8		ASPHALT 0.7	
	10	24/14	1.00 - 3.00	10-14-10-10	24	37				Brown, dry, dense, fine to coarse Gravelly SAND., little silt (FILL).	
5								93.5		5.0	
	20	24/12	5.00 - 7.00	9-7-6-7	13	20				Olive, moist, very stiff, SILT, little fine to coarse sand, trace fine gravel, metal fragment at 6.5 feet bgs (SILT). q_p = 8.0 ksf to 9.0 ksf (pocket penetrometer)	WC = 22.1% Fines = 81.0% A-4 (0)
10											
	30	24/22	10.00 - 12.00	2-3-7-7	10	15	4			Grey to olive mottled, wet, stiff, SILT (SILT).	
							17				
							28				
							39				
15							26				
	40	24/24	15.00 - 17.00	2-3-3-4	6	9	15	83.5		15.0 Olive with grey, wet, stiff, CLAY, moderately plastic (CLAY). q_p = 3.0 ksf (pocket penetrometer)	WC = 30.1% LL = 34 PL = 21 PI = 13 LI = 0.7 CL
							29				
							40				
							42				
20							63				
	50	24/12	20.00 - 22.00	15-13-11-20	24	37	12				
							49				
							66				
							98				
							77				
25	60	24/16	25.00 - 27.00	14-14-15-15	29	44	OPEN	71.5		20.0 Olive, to brown, wet, dense, fine to medium Silty SAND., little fine to coarse gravel (SAND with GRAVEL).	WC = 11.8% Fines = 38.1% A-4 (0)
										Brown to olive, wet, dense, Silty SAND, little fine gravel (SAND with GRAVEL).	
30											
35											
40											
45											
50										27.0 Bottom of Exploration at 27.0 feet below ground surface. No refusal encounter. Boring backfilled with bentonite chips, and cold patch to top of pavement.	

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc., , dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 401+70, Offset 20.2 feet R.

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-BHR-211

Maine Department of Transportation — Boring No.: HB-BHR-212

Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	97.5	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	11:48 AM 9/21/23 - 3:12O AM 9/22/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 485194.455, E: 1739963.729	Casing ID/OD:	4.0/4.5 in	Water Level*:	11.6 ft on 9/21/23 at 02:59
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (tsf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected Corrected for Hammer Efficiency
T_v = Pocket Torvane Shear Strength (tsf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u (psf) $S_{u(LAB)}$ (psf) q_p (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0										(TOPSOIL) 0.2	
	10	24/15	0.00 - 2.00	4-9-8-8	17	26	SSA	97.3		Brown, dry, medium dense, fine to coarse Gravelly SAND., some silt (FILL).	
5											
	20	24/12	5.00 - 7.00	6-12-9-8	21	32				Brown, moist to wet, dense, fine to coarse SAND., some fine to coarse gravel, little silt (FILL).	Fines = 17.7% A-1-b (0)
10								87.5		10.0	
	30	24/14	10.00 - 12.00	1-1-4-8	5	8	5			Grey, wet, medium stiff, CLAY, slightly plastic (CLAY).	WC = 21.4% LL = 27 PL = 18 PI = 9 LI = 0.4 CL
							14				
							40				
							47				
15							46				
	40	24/16	15.00 - 17.00	9-8-11-14	19	29	48	82.5		15.0 Olive and grey mottled, wet, very stiff, CLAY, trace sand, moderately plastic (CLAY). q_p = 5.5 ksf (pocket penetrometer)	WC = 24.7% Fines = 97.1% LL = 38 PL = 20 PI = 18 LI = 0.3 A-6 (19). CL
							46				
							61				
20							75				
	50	24/16	20.00 - 22.00	6-18-25-21	43	66	71				
							99				
							127				
							143				
25	60	24/14	25.00 - 27.00	20-21-15-12	36	55	88	70.5		20.0 Brown, wet, very dense, fine to medium Silty SAND. some fine to coarse gravel (SAND with GRAVEL).	WC = 11.5% Fines = 42.4% A-4 (0)
							OPEN			Brown, wet, very dense, fine to coarse Silty SAND. some fine to coarse gravel (SAND with GRAVEL).	
30											
35											
40											
45											
50										27.0 Bottom of Exploration at 27.0 feet below ground surface. Boring backfilled with bentonite chips to match existing surface.	

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc.., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 113+06, Offset 39.3 feet L.

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-BHR-212

Maine Department of Transportation — Boring No.: HB-BHR-213

Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	81.5	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	10:00PM 9/19/23 - 11:25AM 9/19/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 484647.909, E: 1740117.969	Casing ID/OD:	4.0/4.5 in	Water Level*:	7.6 ft on 9/19/23 at 22:21
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (tsf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected Corrected for Hammer Efficiency
T_v = Pocket Torvane Shear Strength (tsf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u (psf) $S_{u(LAB)}$ (psf) q_p (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	81.0		ASPHALT 0.5	
	10	24/14	1.00 - 3.00	15-14-21-19	35	54				Brown, dry, very dense, fine to coarse Gravelly SAND., little silt (FILL).	
5											
	20	24/8	5.00 - 7.00	9-9-6-5	15	23				Brown, dry, medium dense, fine to coarse Gravelly SAND., little silt (FILL).	Fines = 16.4% A-1-b (0)
10								71.5		10.0	
	30	24/14	10.00 - 12.00	9-13-17-21	30	46	29			Olive, wet, hard, Clayey SILT, trace fine sand, trace fine gravel (SILT).	
							35				
							70				
							74				
15							49				
	40	24/9	15.00 - 17.00	11-6-5-6	11	17	15			Grey, wet, very stiff, Clayey SILT, trace fine to coarse sand, trace fine gravel, slightly plastic (SILT). q_p = 7.0 ksf (pocket penetrometer)	WC = 13.9% LL = 18 PL = 13 PI = 5 LI = 0.2 CL-ML
							41				
							28				
20							37				
	50	24/6	20.00 - 22.00	8-6-6-7	12	18	26				
							30				
							51				
							89				
25	60		25.00 - 27.00	9-16-30-31	46	70	42/8"	54.5		Grey, wet, hard, Clayey SILT, trace fine to coarse sand, trace fine gravel, slightly plastic (SILT).	
							OPEN			27.0 Bottom of Exploration at 27.0 feet below ground surface. No refusal encountered. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement.	
30											
35											
40											
45											
50											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc.., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 223+00.3, Offset 15.1 feet L.

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-BHR-213

Maine Department of Transportation — Boring No.: HB-BHR-214

Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187) Location: Bangor, Maine — WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	78.8	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	8:40PM 9/19/23 - 9:52PM 9/19/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 484505.412, E: 1740123.448	Casing ID/OD:	4.0/4.5 in	Water Level*:	8.2 ft on 9/19/23 at 21:39
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); q_p = Unconfined Compressive Strength (tsf); Hammer Efficiency Factor = Rig Specific Annual Calibration Value; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected; N_{60} = SPT Hammer Efficiency Factor-60%Hm-uncorrected Corrected for Hammer Efficiency
T_v = Pocket Torvane Shear Strength (tsf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) S_u (psf) $S_{u(LAB)}$ (psf) q_p (tsf)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	78.4		ASPHALT 0.4	
	10	24/10	1.00 - 3.00	6-12-8-8	20	31				Brown, dry, dense, fine to medium SAND., little silt, fine gravel (FILL).	
5											
	20	24/22	5.00 - 7.00	8-6-9-13	15	23				Olive, moist, very stiff, SILT (FILL).	
10								68.4		10.0	
	30	24/20	10.00 - 12.00	9-11-11-13	22	34	24			Brown, wet, dense, fine to medium Silty SAND., trace gravel (SAND with GRAVEL).	Fines = 43.0% A-4 (0)
							30				
							56				
15							60				
	40	24/14	15.00 - 17.00	5-12-11-10	23	35	20	63.4		15.0 Olive to grey, wet, hard, Clayey SILT (GLACIAL TILL).	
							28				
							45				
20							101				
	50	24/7	20.00 - 22.00	10-13-14-26	27	41	OPEN			Grey, wet, hard, Clayey SILT, fine to medium sand, fine gravel (GLACIAL TILL).	
25	60			17-21-38-60	59	90		51.8		Grey, wet, hard, Clayey SILT, some fine to medium sand, little fine gravel, rock fragments at bottom of sample (GLACIAL TILL).	WC = 12.8% Fines = 58.7% A-4 (0)
										27.0 Bottom of Exploration at 27.0 feet below ground surface. No refusal encountered. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement.	
30											
35											
40											
45											
50											

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc.., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13, 2023.
4. Station 384+37.9, Offset 27.1 feet L.

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-BHR-214

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 5823

STATE OF MAINE — CHRISTOPHER M. BURGESS No. 15164 — REGISTERED PROFESSIONAL ENGINEER

	SIGNATURE	15164
	P.E. NUMBER	
	DATE	11/07/2025

PROJ. MANAGER	M. LANDON	
DESIGN-DETAILED	DEB	DJH 8/2025
CHECKED-REVIEWED	DEB	CCB 10/2025
DESIGN2-DETAILED2	DEB	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 8 OF 9

SHEET NUMBER
H-220
366
OF 485

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187)
Location: Bangor, Maine

Boring No.: HB-BHR-215
WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	78.6	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	11:05AM 9/20/23 - 2:20AM 9/20/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	N/A
Boring Location:	N: 484553.667, E: 1740063.128	Casing ID/OD:	4.0/4.5 in	Water Level*:	10.6 ft on 9/20/23 at 02:04
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of Dre Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
Uncorrected = Raw Field SPT Envalue
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT Envalue Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60%)*Uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#) in Sheer Strength (psf) or q_p (tsf)	Uncorrected N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	78.0		ASPHALT 0.6	
	10	24/8	1.00 - 3.00	19-15-14-10	29	44			Brown, dry, dense, fine to coarse SAND, little silt, rounded to sub angular gravel (FILL).	
5	20	24/14	5.00 - 7.00	6-6-6-7	12	18	73.6		Olive with grey, dry, very stiff, SILT, trace sand, trace fine gravel, slightly plastic (SILT). 5.0 q_p = 7.0 to 8.0 ksf (pocket penetrometer)	WC = 17.9% Fines = 91.8% A-4 (0)
10	30	24/18	10.00 - 12.00	19-15-18-13	33	50			Olive with grey and orange, moist, hard, SILT, little fine to medium sand, little fine to coarse gravel (SILT).	
15	40	24/15	15.00 - 17.00	12-10-11-12	21	32			Olive and grey, wet, hard, SILT, little fine rounded gravel (SILT). q_p = 7.0 to 8.0 ksf (pocket penetrometer)	
20	50		20.00 - 22.00	7-7-7-8	14	21	58.6		Grey, wet, very stiff, clayey SILT, little fine to coarse rounded gravel, slightly plastic (GLACIAL TILL). 20.0	WC = 9.9% LL = 17 PL = 12 PI = 5 LI = -0.4 CL-ML
25	60	24/10	25.00 - 27.00	25-24-30-32	54	83			Brown with grey, wet, very dense, fine to coarse SAND, some fine to coarse gravel, little silt (GLACIAL TILL).	
30							51.6		Bottom of Exploration at 27.0 feet below ground surface. No refusal encountered. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement. 27.0	
35										
40										
45										
50										

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13. 2023.
4. Station 31+33.7, Offset 30.9 feet R.

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-BHR-215

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187)
Location: Bangor, Maine

Boring No.: HB-BHR-216
WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	78.2	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	11:33PM 9/19/23 - 12:52AM 9/20/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	1.98 in I.D. - NQ2
Boring Location:	N: 484574.735, E: 1740015.232	Casing ID/OD:	4.0/4.5 in	Water Level*:	10.4 ft on 9/20/23 at 00:39
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of Dre Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
Uncorrected = Raw Field SPT Envalue
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT Envalue Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60%)*Uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#) in Sheer Strength (psf) or q_p (tsf)	Uncorrected N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	77.7		ASPHALT 0.5	
	10	24/12	1.00 - 3.00	10-10-7-6	17	26			Brown, dry, medium dense, fine to coarse SAND, little fine to coarse gravel, little silt (FILL).	
5	20		5.00 - 7.00	4-6-10-8	16	24			Olive, moist, very stiff, SILT, little fine gravel, non-plastic (FILL).	
10	30	24/12	10.00 - 12.00	3-3-3-6	6	9	68.2		Grey, moist, stiff, CLAY, trace fine gravel, non-plastic, wood fragments at 11 ft bgs (CLAY). 10.0	WC = 15.6% LL = 25 PL = 17 PI = 8 LI = -0.2 CL
15	40	24/8	15.00 - 17.00	6-29-25-9	54	83	63.2		Grey, wet, very dense, fine to coarse Gravelly SAND, trace silt (SAND with GRAVEL). 15.0	
20	50	24/4	20.00 - 22.00	53-19-10-9	29	44			Grey, wet, dense, fine to coarse Gravelly SAND, trace silt (poor recovery: same as above) (SAND with GRAVEL).	
25	60		25.00 - 27.00	10-12-10-10	22	34	51.2		Brown, wet, dense, fine to medium SAND, some fine gravel, some silt (SAND with GRAVEL). 27.0	WC = 9.7% Fines = 30.1% A-2-4 (0)
30									Bottom of Exploration at 27.0 feet below ground surface. No refusal encountered. Boring backfilled with bentonite chips to bottom of pavement then cold patch to top of pavement.	
35										
40										
45										
50										

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc., dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13. 2023.
4. Station 36+51.6, Offset 78.2 feet R.

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-BHR-216

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: I-95 Hogan Road Diverging Diamond Interchange (Exit 187)
Location: Bangor, Maine

Boring No.: HB-BHR-217
WIN: 18595.10

Driller:	S.W. Cole Explorations LLC	Elevation (ft.):	91.4	Auger ID/OD:	N/A (ID) 4.5-in (OD)
Operator:	Kevin Hanscom	Datum:	NAVD 88	Sampler:	Standard Split Spoon
Logged By:	Daniel Burgess	Rig Type:	Diedrich D-50	Hammer Wt./Fall:	140 lbs / 30 in
Date Start/Finish:	7:15AM 9/26/23 - 10:17 AM 9/26/23	Drilling Methods:	Solid Stem Auger / Drive and Wash	Core Barrel:	1.98 in I.D. - NQ2
Boring Location:	N: 485824.994, E: 1739646.308	Casing ID/OD:	4.0/4.5 in	Water Level*:	7.6 ft on 9/26/23 at 8:05
Hammer Efficiency Factor: 0.918		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
WD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of Dre Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
Uncorrected = Raw Field SPT Envalue
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT Envalue Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60%)*Uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#) in Sheer Strength (psf) or q_p (tsf)	Uncorrected N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/8	0.00 - 2.00	3-3-3-5	6	9	90.7		(TOPSOIL) 0.7	
						SSA			Brown, dry, stiff, SILT, some fine to medium sand, trace organics (roots) (SILT).	
5	20	24/24	5.00 - 7.00	4-5-6-6	11	17			Olive, moist, very stiff, Clayey SILT, slightly plastic (SILT). q_p = 4.0 ksf to 6.0 ksf (pocket penetrometer)	
10	30	24/2	10.00 - 12.00	16-28-28-17	56	86	81.4		Brown, wet, very dense, fine to coarse SAND, little silt, trace fine gravel, poorly graded (SAND with GRAVEL). 10.0	
15	40	24/15	15.00 - 17.00	35-23-11-20	34	52	(51) OPEN		Brown, wet, hard, fine to coarse SAND, little silt, weathered rock fragments (SAND with GRAVEL).	
	R1	33.6/ 28.8	17.90 - 20.70	ROD = 50%		N02	73.5		17.9	
20	R2	26.4/ 25.2	20.70 - 22.90	ROD = 55%			68.5		Roller cone refusal. Top of Bedrock at Elev. 73.5 feet. R1 Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi discontinuities low angle to steep dipping, very close to close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER BANGOR FORMATION] Rock Mass Quality = Poor 86% Recovery Rock Core Rate (minisec) 17.9-18.9 ft (2151) 18.9-19.9 ft (2156) 19.9-20.7 ft (2132) R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi discontinuities low angle to steep dipping, wide spacing, open, extremely fractured frequent calcite veins [MEDIUM BEDDED FACIES, PENOBSCOT RIVER] Mass Quality = Fair 95% Recovery Rock Core Rate (minisec) 20.7-20.9 ft (0124) 20.9-21.9 ft (2145) 20.9-21.9 ft (2145) 21.9-22.9 ft (2218)	
25									22.9 Bottom of Exploration at 22.9 feet below ground surface. Boring backfilled with bentonite chips to match existing surface.	
30										
35										
40										
45										
50										

Remarks:
1. Hammer efficiency factor provided by S.W. Cole and taken from "Standard Penetration Test Measurement Calibration: Track Rig-Diedrich D-50 with automatic Hammer (S/N - 367)" by Geoscience Testing and Research Inc. , dated 11/04/2022.
2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.2csv" received by WSP on October 13. 2023.
4. Station 80+47.6, Offset 100.8 feet L.

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-BHR-217

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE No. 5823

BRIDGE PLANS

STATE OF MAINE
CHRISTOPHER D. BLISS
No. 15164
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE	15164	
P.E. NUMBER		
DATE	11/07/2025	

PROJ. MANAGER	M. LANDON	
DESIGN-DETAILED	DEB	DJH 8/2025
CHECKED-REVIEWED	DEB	CCB 10/2025
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

I-95 HOGAN ROAD BRIDGE
REPLACEMENT #5823 (EXIT 187)
BANGOR MAINE

HWY BORING LOGS 9 OF 9

SHEET NUMBER
H-221
367
OF 485

Filename: ...\Highway_Boring_Log_Plan_09.dgn Division: BRIDGE Username: Date:11/7/2025

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design (New Abutments): Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

DESIGN LOADING

Live Load	HL-93 Modified for Strength I
Live Load (existing piers and superstructure)	HS-25 (1977 AASHTO Standard Specifications w/ interims through 1979)

MATERIALS

Concrete:	
Abutments, Wingwalls, and Pier Caps	Class "A"
Other	Class "A1"
Reinforcing:	
Plain Steel	ASTM A 615/ A 615M, Grade 60
Structural Steel:	
All Material (except as noted)	ASTM A709, Grade 50 (Painted)
Steel H-Piles	ASTM A572, Grade 50
High Strength Bolts	ASTM F3125, Grade A325, Type 1

BASIC DESIGN STRESSES

Concrete:	
Class "A"	f 'c = 4,000 psi
Class "A1"	f 'c = 4,000 psi
Reinforcing:	
Plain Steel	f y = 60,000 psi
Structural Steel:	
ASTM A709, Grade 50	F y = 50,000 psi
ASTM A572, Grade 50	F y = 50,000 psi
ASTM F3125, Grade A325	F μ = 120,000 psi

BANGOR
PENOBSCOT COUNTY
HOGAN ROAD / I95 BRIDGE
OVER
I-95
HOGAN ROAD
FEDERAL AID PROJECT NO. 1859511
BRIDGE NO. 5823

LIST OF DRAWINGS

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Reinforcing Schedule	B38-B39

UTILITIES

Refer to Highway Plans

MAINTENANCE OF TRAFFIC

Refer to Highway Plans

PROJECT LOCATION	Diverging diamond interchange on Hogan Road/ Interstate 95 Exit 187 and Hogan Road/ I-95 Bridge (#5823) over Interstate 95. Located 0.26 of a mile north of Haskell Road. Lat./Long. 44°49'56.1" N 68°44'30.2" W
PROGRAM AREA	Highway
OUTLINE OF WORK	Bridge Rehabilitation in conjunction with interchange rebuild.

WIN 18595.11

01859511

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
APPROVED	
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · LICENSED PROFESSIONAL ENGINEER · Steven M. Hodgdon 11206

SIGNATURE
11206
P.E. NUMBER
11/7/2025
DATE

PROJECT INFORMATION

PROGRAM	Highway
PROJECT MANAGER	Laurie Rowe
DESIGNER	VHB
CONSULTANT	VHB
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

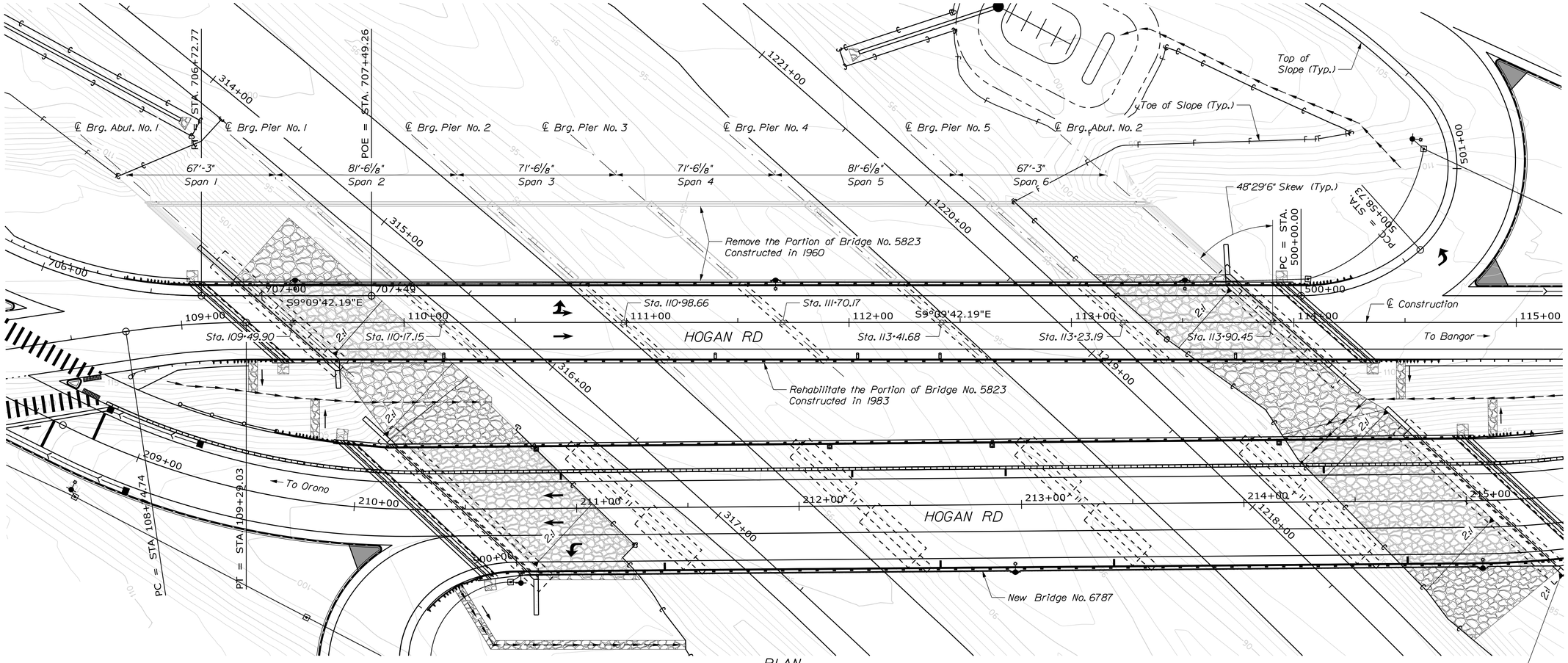
BANGOR
HOGAN ROAD/I95 BRIDGE

TITLE SHEET

SHEET NUMBER
B-1
368
OF 485

Filename:\Eastbound Bridge\XXX_Title.dgn Division: HIGHWAY Username: jomesdavis Date:08/29/2025

Filename: ...\XXX_Gen_Plan.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



PLAN

25 0 25 50
Scale of Feet

BRIDGE CONSTRUCTION NOTES

1. Hogan Road 195 Bridge in the proposed work has stationing that is reversed from the 1983 as-built plans, where existing Pier 1 is Pier 5 and existing Girder 1 is Girder 6.

2. For General Notes, refer to the Highway Plans.

3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

4. Place a 24 inch wide strip of Erosion Control Blanket on the sideslopes along the bridge and approach rail berm and behind the wingwalls.

5. Protective Coating for Concrete Surfaces shall be applied to the following areas:

   All exposed surfaces of concrete curbs.
   Fascias down to the drip notch.
   Top of abutment wingwalls, bridge seats, pier cap surfaces, and
   To one foot below the ground on vertical walls and pier stems against earth.

6. The work for this bridge includes jacking and shoring the superstructure to a higher and variable elevation to achieve the desired profile of Hogan Road and minimum vertical clearance to I-95. The superstructure shall be jacked and shored prior to any removal. The removing of the deck concrete along the fascia between the deck end removal limits shall ensure partial deck removal areas are not overstressed during construction.

7. The removal of Bridge No. 5823 consists of the portion constructed in 1960, including the superstructure and the supporting substructures to a minimum of two feet below finish grade. All aluminum bridge rail, rail posts, and associated hardware which are to be removed shall be carefully salvaged by the Contractor and will remain the property of the Department. The removal of the existing bituminous bridge pavement from the 1960 bridge is included under the appropriate 202 item.

8. The existing bridge shall be removed by and become the property of the Contractor as noted. The steel portions of the existing bridge may be coated with a lead-based paint system. The Contractor is responsible for the containment, proper management, and disposal of all lead-contaminated hazardous waste generated by the process of demolishing the bridge. The Contractor is responsible for implement appropriate OSHA mandated personal protection standards related to this process. Once the existing bridge is removed, The Contractor is solely responsible for the care, custody, and control of the components of the existing bridge and any hazardous waste generated as a result of the storage, recycling, or disposal of the bridge components, including lead-coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment, and other costs required to remove and dispose of the existing bridge will be considered incidental to the bridge removal pay item.

9. Construct 6 foot by 6 foot Plain Riprap splash pad (2 foot thick) under all bridge drain downspouts not otherwise protected by riprap. Choke all splash pad zones with 2-inch Crushed Stone (Section 703.3) (Incidental to Plain Riprap).

SHEET NOTES

1. See Highway Plans for approach work and I-95 treatment.

2. See Hogan Road No. 2 Bridge Plans for other bridge work included in the Project and construction phasing.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

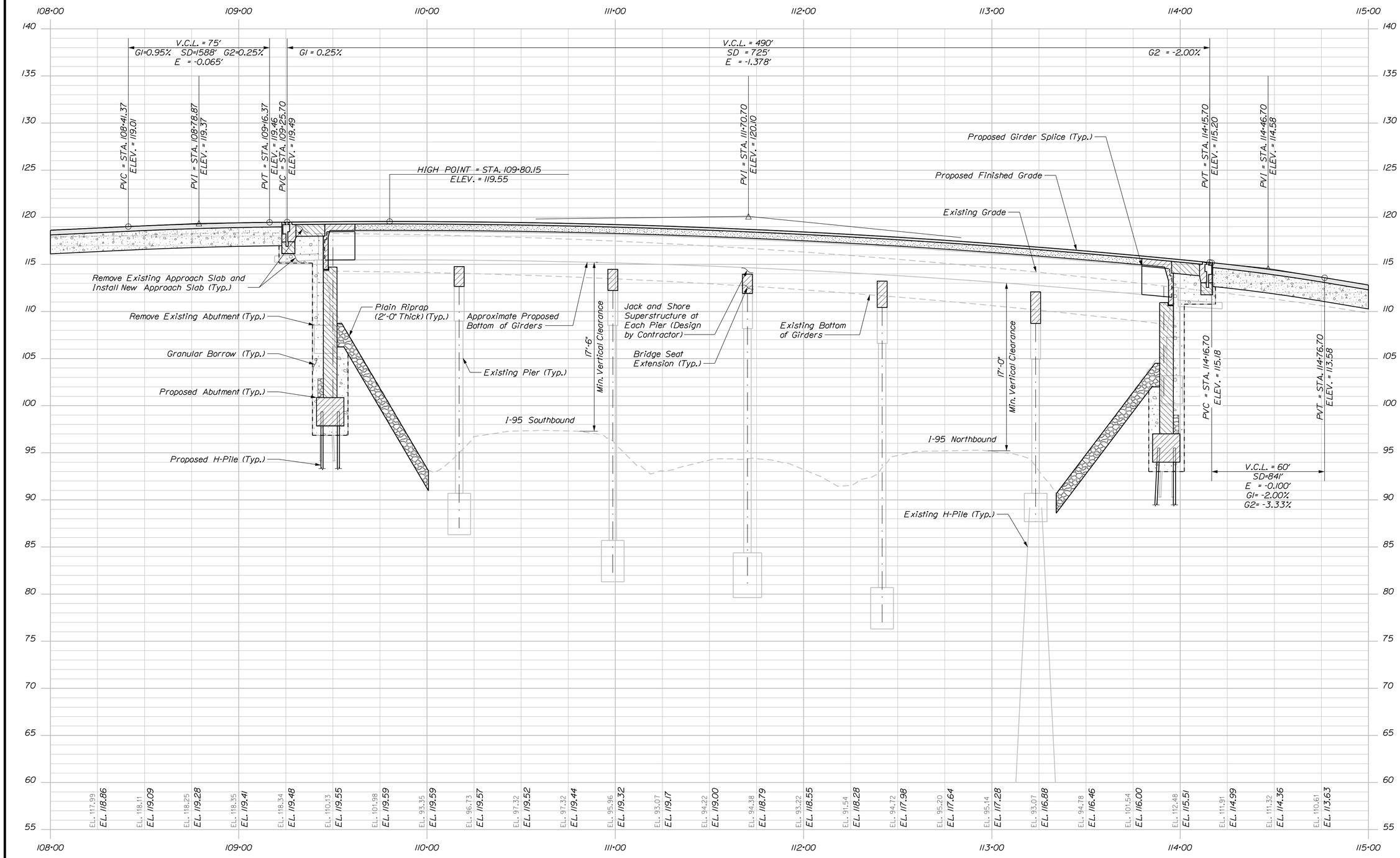
PROJ. MANAGER	L. ROWE		
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CHECKED-REVIEWED	YP	SMH	11/25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

HOGAN ROAD/195 BRIDGE
I-95
BANGOR PENOBSCOT

BRIDGE PLAN & CONSTRUCTION NOTES

SHEET NUMBER
B-2
369
OF 485

Filename: ...\XXX_Profile_ExistingBridge.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



PROFILE

(I-95 Roadside Barriers Not Shown)

NOTES:

1. Existing substructures shown in approximate location for reference only. Refer to record drawings.

2. Alignment and Profile stationing shown on Existing Plans run in the opposite direction, as a result the substructures are numbered in the opposite direction on the Existing Plans.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

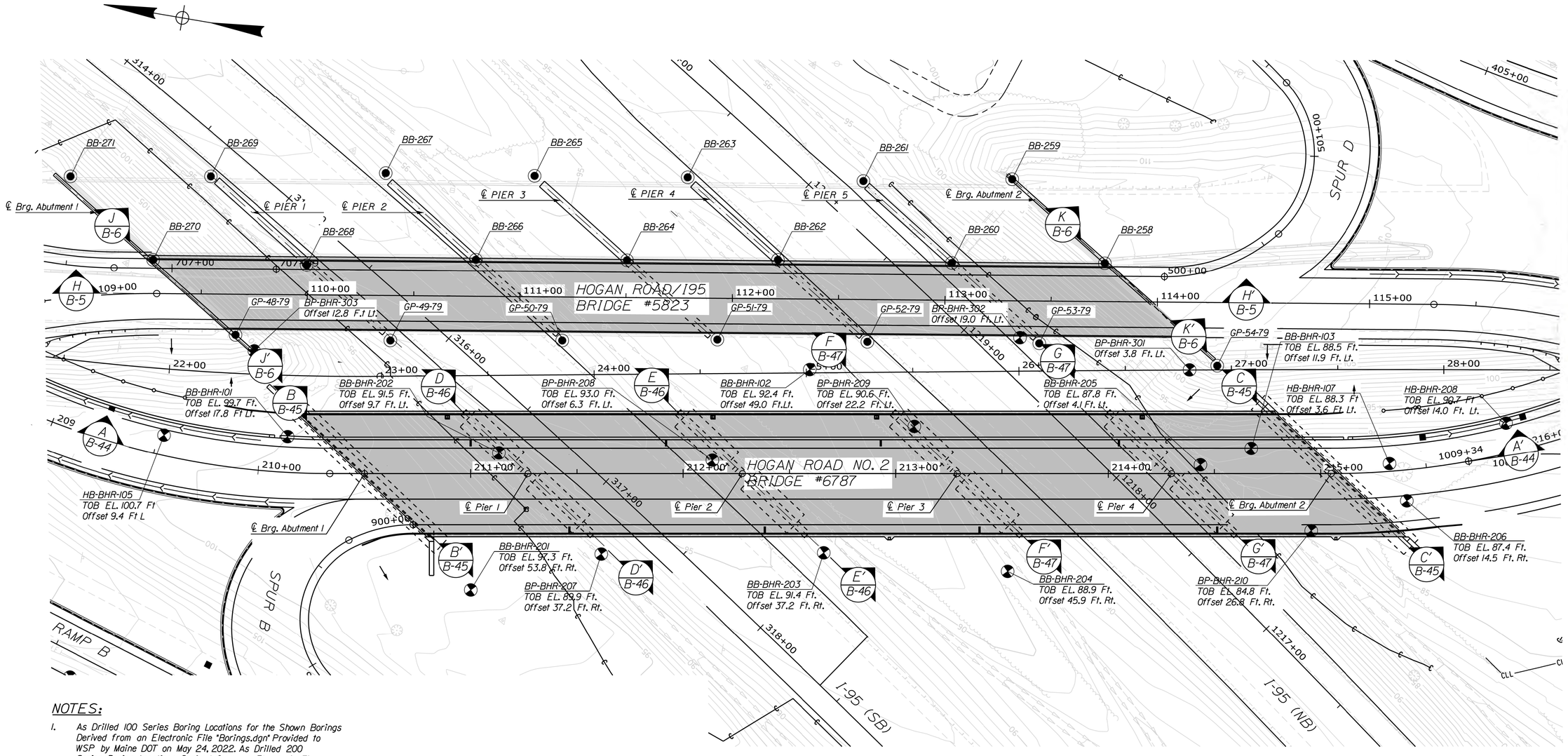
vhb

	L. ROWE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	JAH	JAH	11/25
CHECKED-REVIEWED	YP	SMH	11/25
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

PROFILE

SHEET NUMBER
B-3
370
OF 485



NOTES:

1. As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022. As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT October 13, 2023.
2. Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed elements shown derived from Electronic file "Bridge-Proposed.dgn" Provided by VHB on August 27, 2025.
3. Proposed Stationing Provided to WSP by VHB on August 27, 2022 in an Electronic File "Alignments.dgn".
4. Approximate Historic Boring Locations or the Shown Borings Derived from Historic Plan Set "Department of Transportation Bureau of Highways, Bangor Penobscot County, Maine Federal an Urban Project No. IR-95-8(129) 175 Hogan Road/ I-95 Marked, As-Built 1983".
5. For Detailed Lithologic Descriptions see Boring Logs included in the Geotechnical Design Report (GDR).

BORING LOCATION PLAN

25 0 25 50
Scale of Feet

LEGEND

BB-BHR-101	Completed Bridge Series Borings
BP-BHR-207	Completed Bridge Series Rock Probe
HB-BHR-105	Completed Highway Series Borings
B-268, GP-48-79	Historic Borings
TOB EL. 99.7	Elevation of Top of Boring
X / X-XX	Interpretive Subsurface Section

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE NO. 5823

BRIDGE PLANS

STATE OF MAINE · CHRISTOPHER M. LANDON · No. 15164 · PROFESSIONAL ENGINEER

SIGNATURE 15164 P.E. NUMBER

11/07/2025 DATE

PROJ. MANAGER	M. LANDON	BY	DATE
DESIGN-DETAILED	MEL	MEG	9/2022
CHECKED-REVIEWED	DEB	COB	10/2025
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

HOGAN ROAD/I95 BRIDGE
195
PENOBSCOT
BANGOR

BORING LOCATION PLAN

SHEET NUMBER
B-4
371
OF 485

Filename: ...\MSTA\BorLocPlan_5Span_eb.dgn Division: BRIDGE Username: Date:11/7/2025

D NORTH

D' SOUTH

108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00

℄ Brg. Abutment 1 Sta. 109+43.83

℄ PIER 1 Sta. 110+16.90

℄ PIER 2 Sta. 110+99.00

℄ PIER 3 Sta. 111+70.00

℄ PIER 4 Sta. 112+41.20

℄ PIER 5 Sta. 113+22.90

℄ Brg. Abutment 2 Sta. 113+91.73

BB-270 El 104.2 Ft. Offset 16.0 Ft. Lt.

GP 48-79 El. 102.6 Ft. Offset 19.1 Ft. Rt.

BB-268 El. 103.6 Ft. Offset 14.0 Ft. Lt.

GP 49-79 El 94.4 Ft. Offset 21.1 Ft. Rt.

BB-266 El. 102.4 Ft. Offset 17.4 Ft. Lt.

GP 50-79 El. 96.76 Ft. Offset 20.4 Ft. Rt.

BB-264 El. 100.9 Ft. Offset 17.5 Ft. Lt.

GP 51-79 El. 95.5Ft. Offset 19.4 Ft. Rt.

BB-262 El. 98.8 Ft. Offset 18.5 Ft. Lt.

GP 52-79 El. 94.8 Ft. Offset 19.8 Ft. Rt.

BB-260 El. 97.5Ft. Offset 18.5 Ft. Lt.

GP 53-79 El. 93.7 Ft. Offset 19.8 Ft. Rt.

BB-258 El. 95.8 Ft. Offset 18.5 Ft. Lt.

GP 54-79 El 91.9 Ft. Offset 30.0 Ft. Rt.

I-95 S

I-95 NB

I-95 Southbound

I-95 Northbound

Fill

Stiff to Very Stiff Clay

Glacial Till

Metawacke

Weathered Rock

Topsoil

Asphalt

Grey, Medium Dense, Gravelly Fine to Coarse Sand, some Silt (Fill)

Medimum to Stiff, Gray to Brown Mottled and Weathered Silty Clay with Sandy Silt Lines and Lenses (Clay)

Loose to Dense, Grey to Brown, Silty Fine Sand, Angular Rocks and Gravel (Glacial Till)

Fractured Rock, Weathered Rock

Grey, Fine Grained to very Fine Grained Metawacke

Proposed Bridge Substructure and Superstructure

Existing Ground Surface

Boring Location I.D.
Elevation
Offset (Ft.) From Section Line
Top of Boring Probe
—?— Strata Interface
R End of Boring

GENERAL NOTES:

1. As-drilled boring locations for the shown borings derived from electronic file "Hogan Road borings.dgn" provided to WSP by MaineDOT on October 13, 2023.
2. For detailed lithologic decriptions see Boring Logs included in the Geotechnical Desiogn Report (DGR).
3. Groundwater surface is interpreted from localized surface water levels and measurements taken during the subsurface exploration programs.
4. This generalized subsurface section is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed based on interpretations of widely spaced explorations actual soil and rock transitions may vary amd are probably more erratic.
5. Proposed abutment geometry interpreted from electronic file "xsect_bridge_abutments_piers.dgn" provided to WSP by VHB on August 22, 2025.

SECTION H-H'

HORIZ 25 0 25 50

VERT 5 0 5 10

SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 5823

STATE OF MAINE CHRISTOPHER C. BENDA No. 15164 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 15164 P.E. NUMBER

DATE 11/07/2025

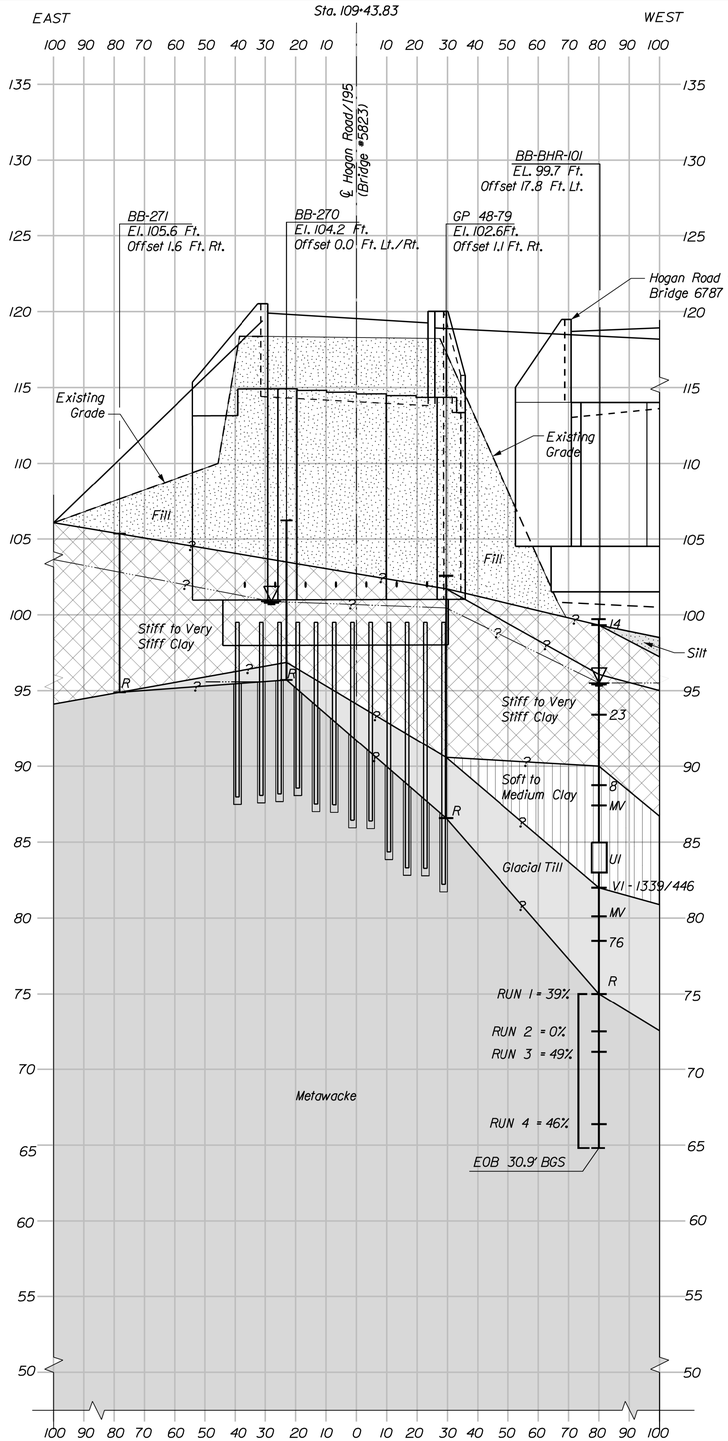
		BY	DATE
PROJ. MANAGER	M. LANDON		
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CHECKED-REVIEWED	DEB	DCB	10/2025
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1	XXX	XXX	
REVISIONS 2	XXX	XXX	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

HOGAN ROAD/I95 BRIDGE
I95 PENOBSCOT
BANGOR

INTERPRETIVE SUBSURFACE SECTIONS (SHEET 1 OF 2)

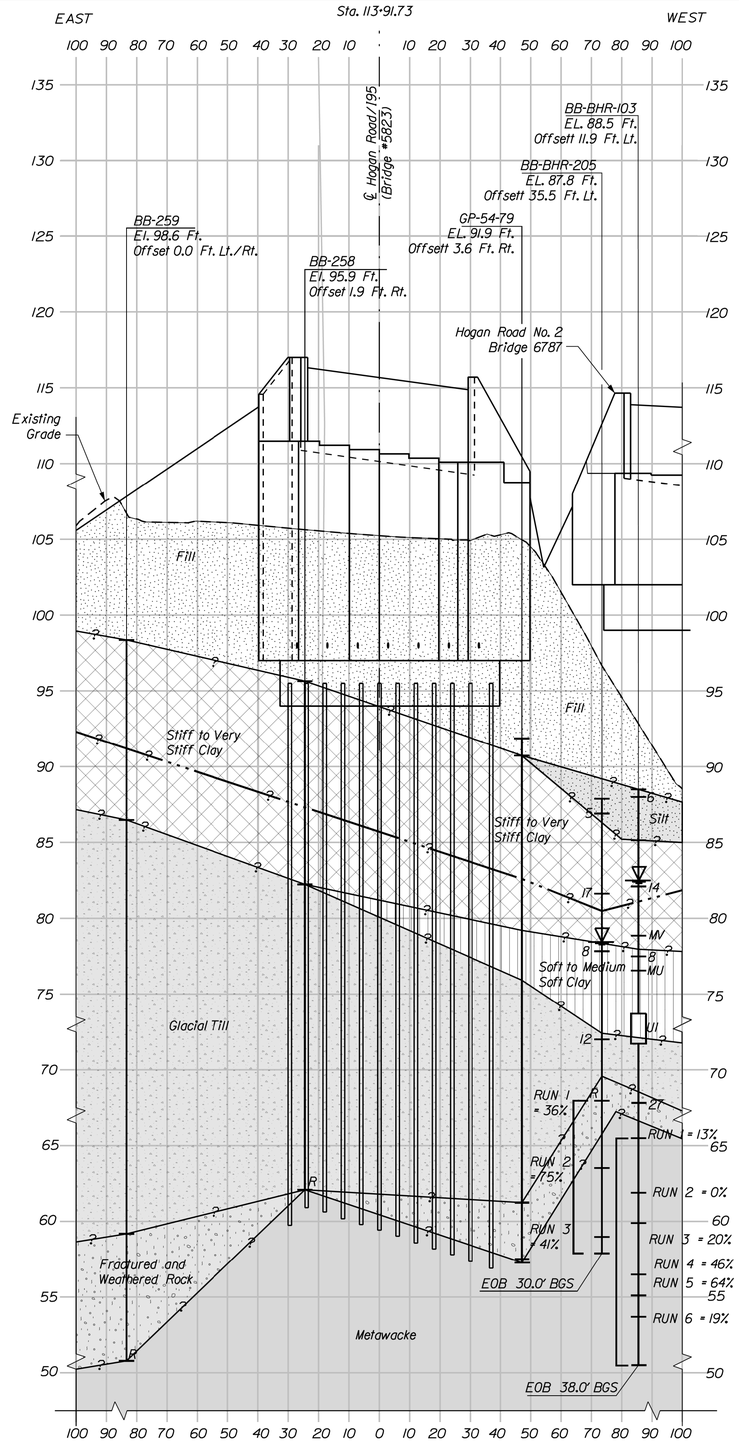
SHEET NUMBER
B-5
372
OF 485

Filename: ...\MSTA\GeoProfile_5Span_eb.dgn Division: BRIDGE Username: Date:11/7/2025



SECTION J-J'

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE



SECTION K-K'

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

- Grey, Medium Dense, Gravelly Fine to Coarse Sand, some Silt (Fill)
- Olive-Brown, Medimum Stiff to Very Stiff Silt, Trace Fine Sand and Gravel, Slightly Plastic (Silt)
- Medimum to Soft, Grey to Brown Mottled and Weathered Silty Clay with Sandy Silt Lines and Lenses (Clay)
- Stiff, Grey to Brown Mottled and Weathered Silty Clay with Sandy Silt Lines and Lenses (Clay)
- Fractured and Weathered Rock
- Loose to Dense, Grey to Brown Silty Fine Sand, Angular Rocks and Gravel (Glacial Till)
- Grey, Fine Grained to Very Fine Grained Metawacke
- Proposed Bridge Substructure and Superstructure
- Existing Ground Surface
- Interpreted Ground Water Surface
- Boring Location I.D.
- Elevation
- Offset (Ft.) From Section Line
- Top of Boring Probe
- —?— Strata Interface
- 30 — SPT: N60 - Value (Corrected for Hammer Efficiency)
- VI — Field Vane Shear Test Location and Undrained Shear Strength (PSF) (Peak/Remolded)
- UI Thin Wall Tube Sample
- MV — Missed Vane
- R — End of Boring Depth Below Ground Surface (BGS)

NOTE:

1. See Sheets B-4 and B-5 for General Notes.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 5823

STATE OF MAINE — CHRISTOPHER J. ROBIN — No. 15164 — PROFESSIONAL ENGINEER

SIGNATURE	15164
	P.E. NUMBER
DATE	11/07/2025

		BY	DATE
PROJ. MANAGER	M. LANDON		
DESIGN-DETAILED	WEG	NVW	5/2024
CHECKED-REVIEWED	DEB	DCB	10/2025
DESIGN2-DETAILED2			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

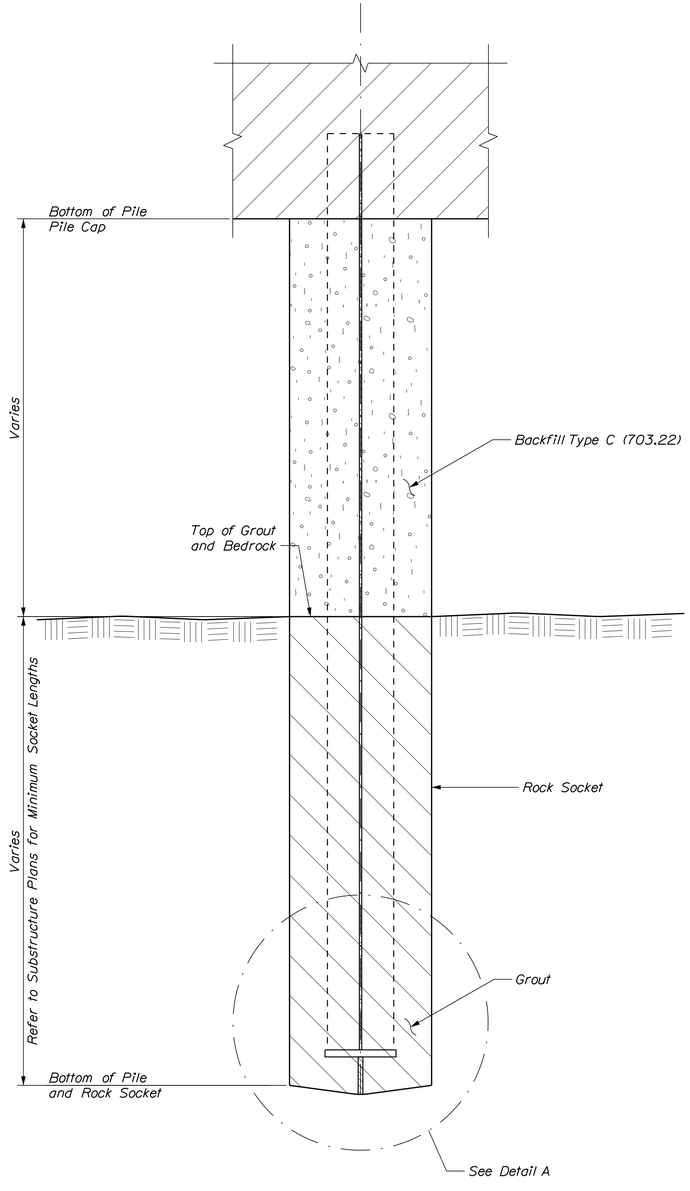
HOGAN ROAD/195 BRIDGE
195 PENOBSCOT
BANGOR

INTERPRETIVE SUBSURFACE SECTIONS
(SHEET 2 OF 2)

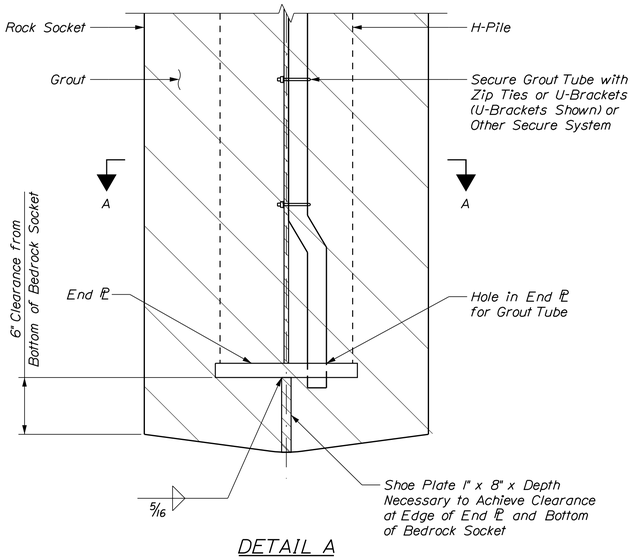
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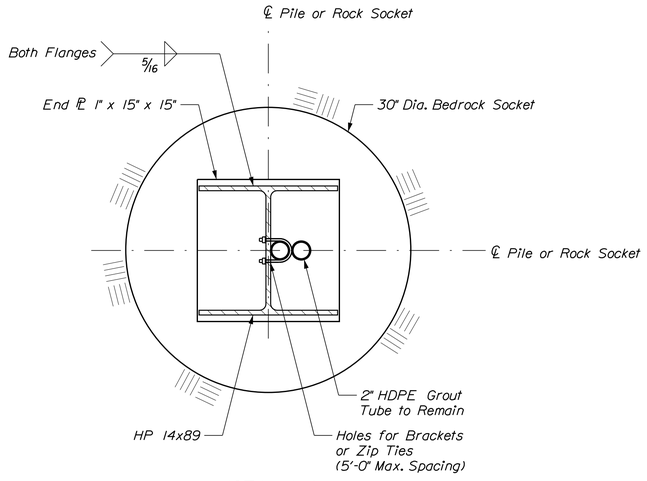
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Division: HIGHWAY
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ROCK SOCKETED H-PILE DETAIL



DETAIL A



VIEW A-A

PILE NOTES

1. The maximum factored pile load is 230 kips at the Strength Limit State.

2. Unless socketed, piles shall be driven to the required resistance on or within bedrock in accordance with Standard Specification Section 501.

3. Estimate of piles (HP 14x89) required are as shown on substructure plans. The order lengths of the piles shall include an additional 5 feet of length for each test pile to accommodate dynamic pile testing equipment.

4. H-pile material shall be ASTM A572, Grade 50.

5. H-pile splices shall be in accordance with Standard Detail 501(03).

6. All driven piles (not otherwise socketed in bedrock) shall be equipped with a pile tip in accordance with Standard Specifications Subsection 501.048, Prefabricated Pile Tips, and 711.10 H-Beam Piles, Splices and Tips.

7. Piles shall not be out of position shown by more than 2 inches in any direction.

8. Piles marked with an arrow shall be battered 3 inches per foot in the direction of the arrow.

9. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system.

10. The Contractor shall perform four (4) dynamic load tests at Abutment 2, two (2) tests on battered piles, and two (2) tests on plumb piles, with 24-hour (minimum) restrike tests to confirm the nominal resistance of the piles. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. Initial dynamic tests shall be performed on the first production battered and plumb piles driven at Abutment 2, and the second set of tests shall be performed on battered and plumb piles selected by the Resident and Engineer of Record from the opposite end of the foundation.

ROCK SOCKET NOTES:

1. Rock socket H-Piles require excavation and installation in accordance with Special Provision 501 - Rock Socketed H-Pile Foundations.

2. Piles shall not be out of position shown by more than 2 inches in any direction.

3. Adjust the bottom of pile elevation and length of pile to maintain minimum rock socket length for each individual pile.

4. All rock sockets shall be grouted from the bottom of the socket to the top of the bedrock surface.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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BRIDGE NO. 5823 | WIN 18595.11 | BRIDGE PLANS

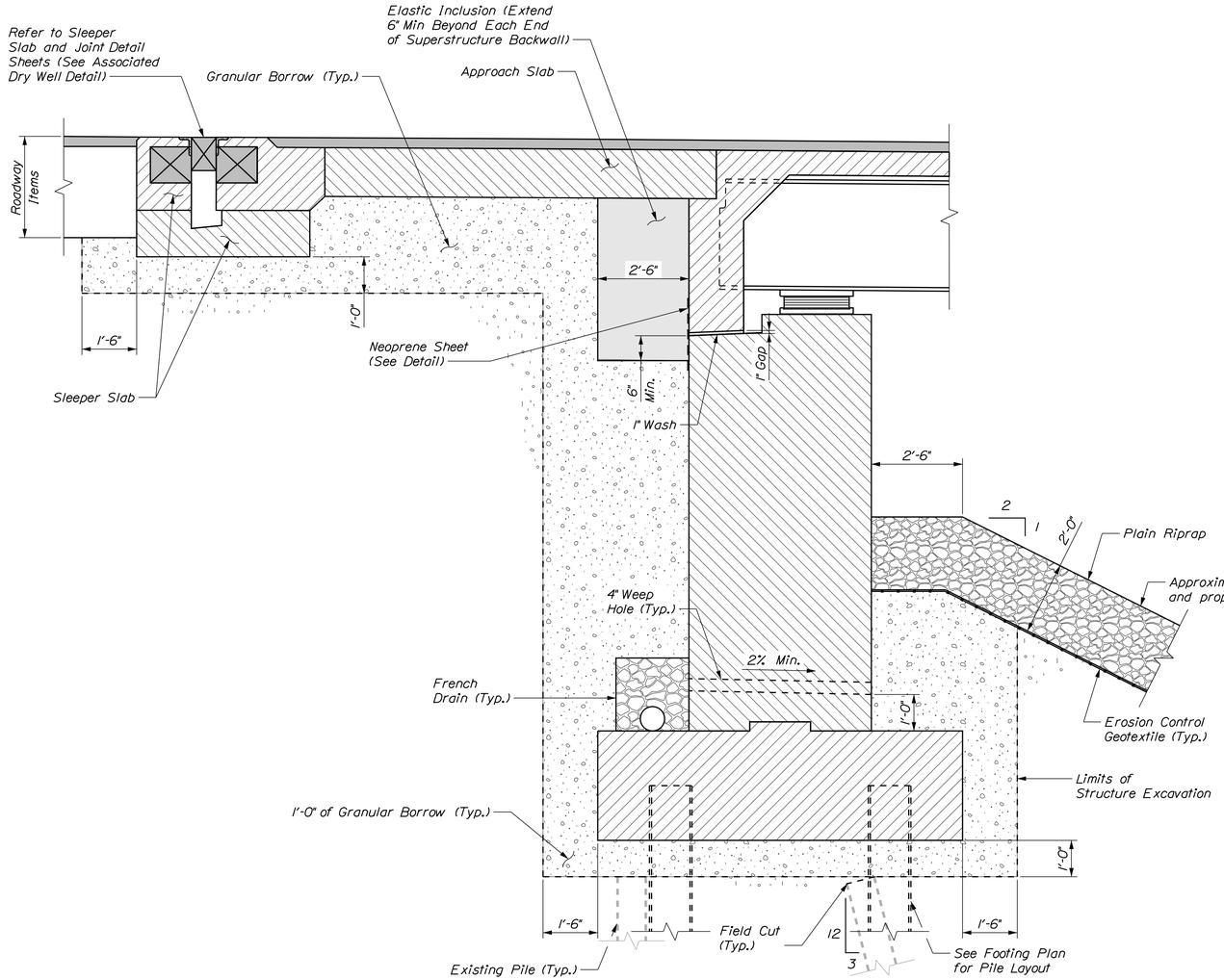
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CHECKED-REVIEWED	SMH	KDW	11/25
DESIGN2-DETAILED2		SMH	11/25
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

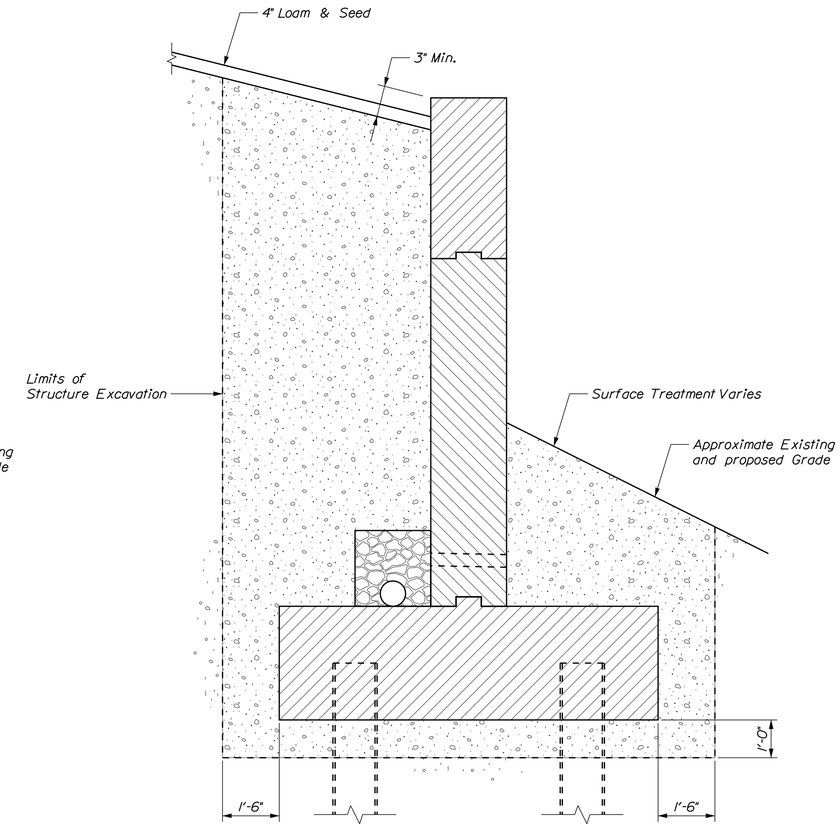
PILE DETAILS

SHEET NUMBER
B-7
374
OF 485



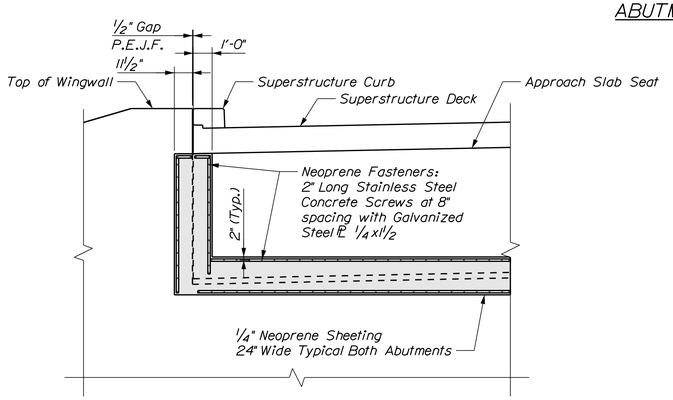
ABUTMENT EARTHWORK DETAIL

Abutment No. 1 Shown



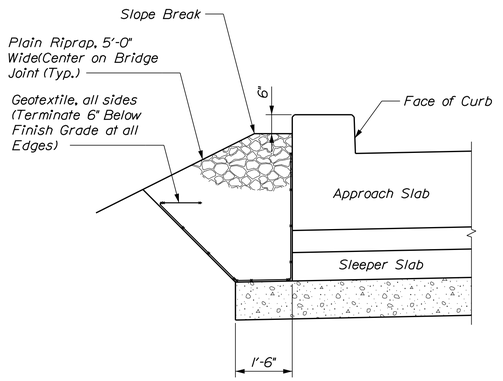
WINGWALL EARTHWORK DETAIL

Wingwall No. 1 Shown



SCHEMATIC NEOPRENE ATTACHMENT DETAIL

Typical on backsides of abutments where the end of Superstructure is flush with the Abutment.



DRY WELL DETAIL

(Both Ends of Bridge Joints at Each Sleeper Slab)
(Expansion Joint Not Shown)

ABUTMENT NOTES

1. Structural Earth Excavation required more than 12 inches below the bottom of the structure will be paid for in accordance with Standard Specifications Section 206, Structural Excavation.

2. Abutments, wingwalls, and their footings shall be backfilled with Grannular Borrow. Pay limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.

3. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches in the footings unless otherwise noted.

4. Daylight French Drains along back face of abutments and wingwalls on each side of the bridge as approved by the Resident.

5. Cover joints where waterstops are not required in accordance with Standard Details Section 502.

6. Place drains with a 4-inch diameter in the breastwall and wingwalls at 10 feet maximum spacing. The exact location will be determined by the Resident.

7. Existing piles are shown for information only. Contractor shall verify existing pile locations for removal.

8. Elastic inclusion material and installation shall be in accordance with Special Provision 203 - Elastic Inclusion.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 5823

WIN 18595.11

BRIDGE PLANS

vhb

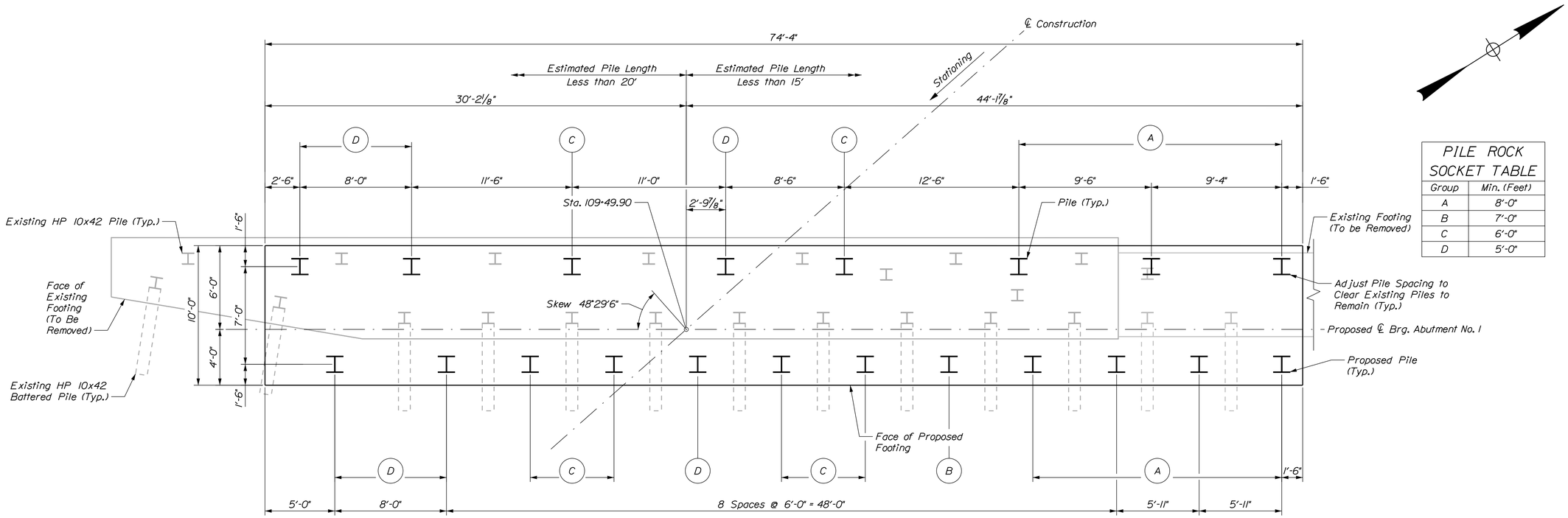
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CHECKED-REVIEWED	YP	
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DESIGN3-DETAILED3		
REVISIONS 1	BY	DATE
REVISIONS 2	JAH	11/25
REVISIONS 3	SMH	11/25
REVISIONS 4		
FIELD CHANGES		

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NOTES & DETAILS

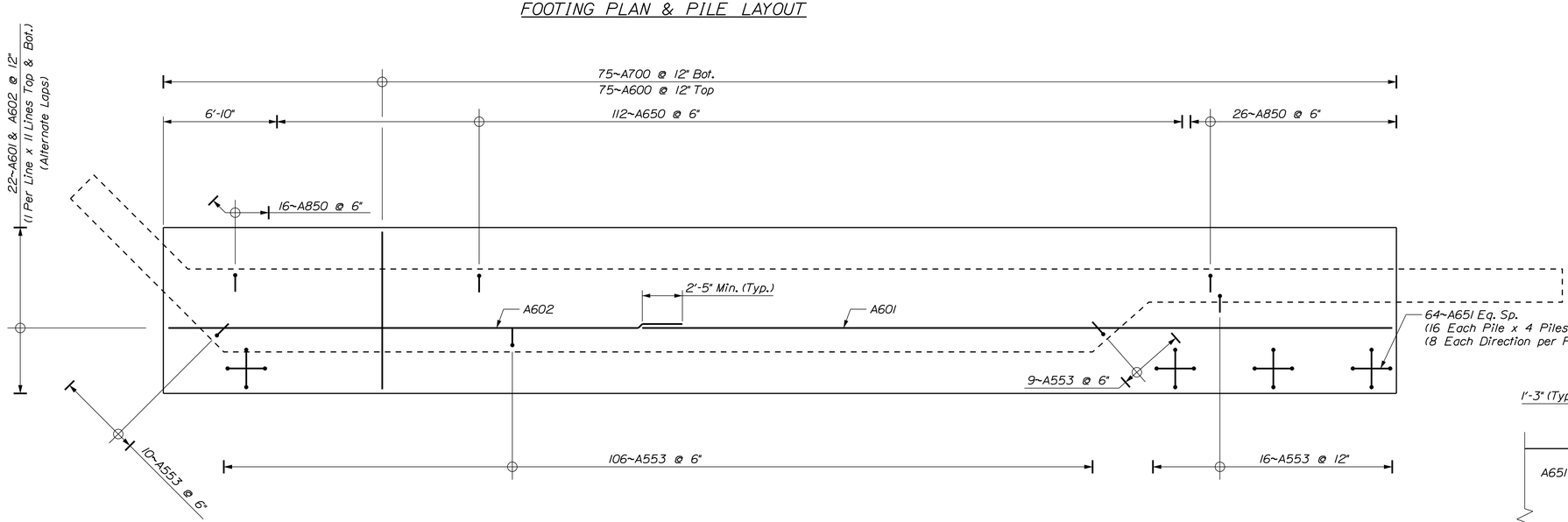
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375
OF 485

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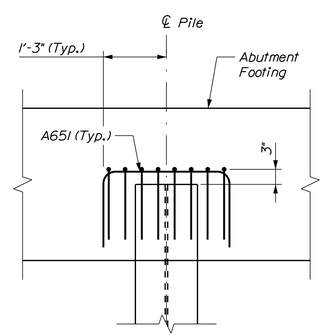


PILE ROCK SOCKET TABLE	
Group	Min. (Feet)
A	8'-0"
B	7'-0"
C	6'-0"
D	5'-0"

FOOTING PLAN & PILE LAYOUT



REINFORCING PLAN



DETAIL A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 5823

vhb

	L. ROWE
PROJ. MANAGER	APS
DESIGN-DETAILED	YP
CHECKED-REVIEWED	D2
DESIGN2-DETAILED2	D3
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	JAH	11/25
REVISIONS 2	SWH	11/25
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NO. 1
FOOTING PLAN

SHEET NUMBER
B-9
376
OF 485

Filename: ...\XXX_Abut_1_01.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025