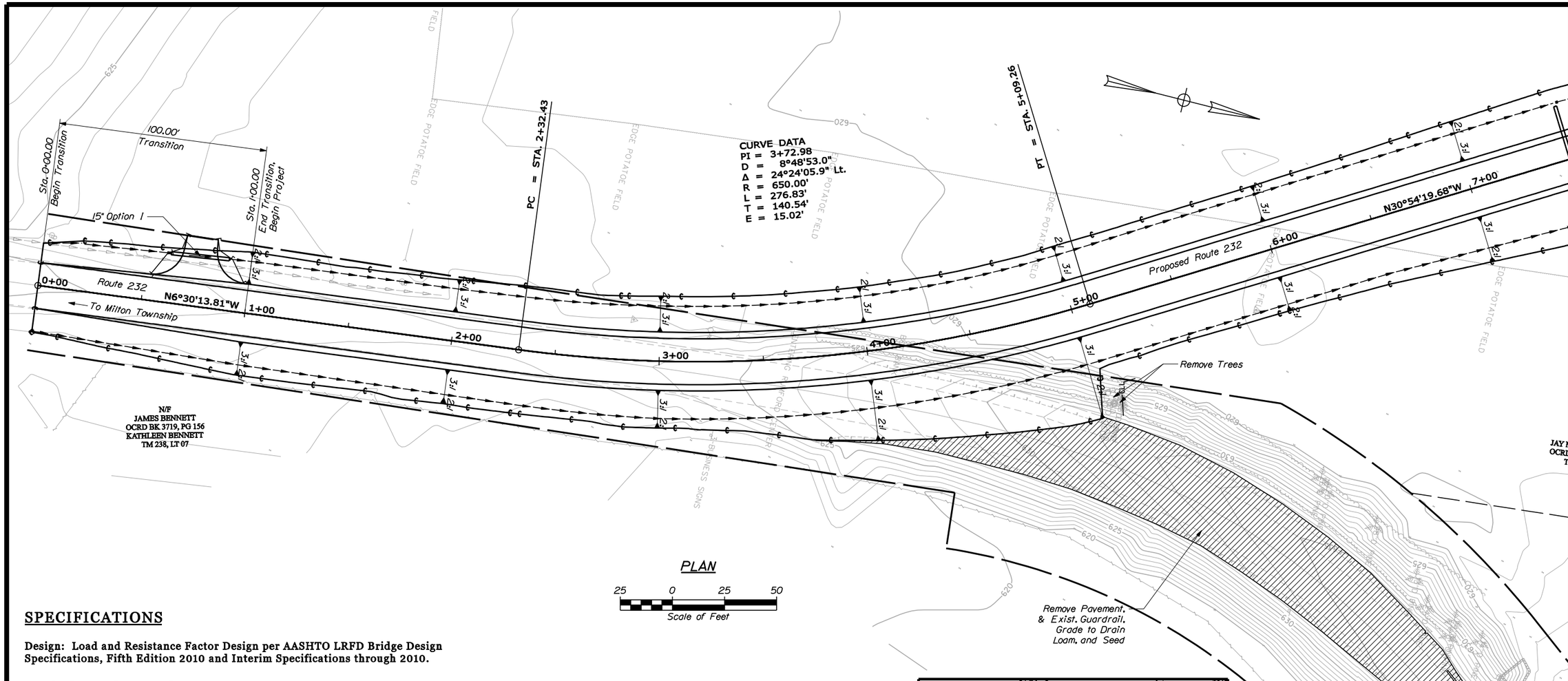


PLAN

25 0 25 50

Scale of Feet

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Fifth Edition 2010 and Interim Specifications through 2010.

DESIGN LOADING

Live Load	**HL - 93 Modified for Strength I**

HYDROLOGIC DATA

Drainage Area	**1999 sq mi**
Design Discharge (Q50)	**53,340 cfs**
Check Discharge (Q100)	**58,250 cfs**
Record Flood Discharge (1936)	**74,000 cfs**
Headwater Elevation (Q50)	**623.9 ft**
Headwater Elevation (Q100)	**625.7 ft**
Headwater Elevation (1936)	**630.7 ft**
Discharge Velocity (Q50)	**4.9 fps**
Discharge Velocity (Q100)	**4.6 fps**
Discharge Velocity (1936)	**4.2 fps**
Headwater Elevation (Q1.1)	**613.1 ft**
Discharge Velocity (Q1.1)	**4.5 fps**
Headwater Elevation (Q25)	**622.8 ft**

UTILITIES

Central Maine Power Company

Oxford West Telephone Company
Rumford Mexico Sewerage District

MAINTENANCE OF TRAFFIC

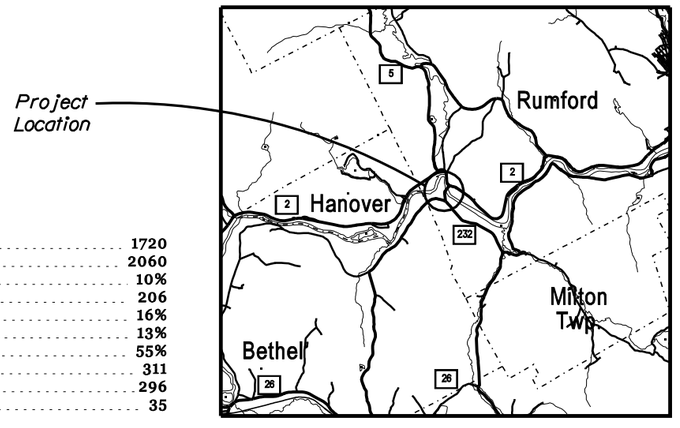
Maintain two - way traffic on existing bridge.

TRAFFIC DATA

Current (2008) AADT	**1720**
Future (2028) AADT	**2060**
DHV - % of AADT	**10%**
Design Hour Volume	**206**
Heavy Trucks (% of AADT)	**16%**
Heavy Trucks (% of DHV)	**13%**
Directional Distribution (% of DHV)	**55%**
18 kip Equivalent P 2.0	**311**
18 kip Equivalent P 2.5	**296**
Design Speed (mph)	**35**

APPROXIMATE COST

Including Engineering - $9,300,000



LOCATION MAP

2 0 2 4

Scale of Miles

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1510(500)X

PIN 15105.00

BRIDGE NO. 3248

BRIDGE PLANS

PROJ. MANAGER	B. CONDON	BY	DATE
DESIGN-DETAILED	K. WOOD	K.WOOD	1\10\12
CHECKED-REVIEWED	K. WOOD	P. HETHERLY	1\10\12
DESIGN2-DETAILED2	R. S. BLUNT		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MARTIN MEMORIAL BRIDGE
ANDROSCOGGIN RIVER
RUMFORD OXFORD COUNTY

PRELIMINARY PLANS

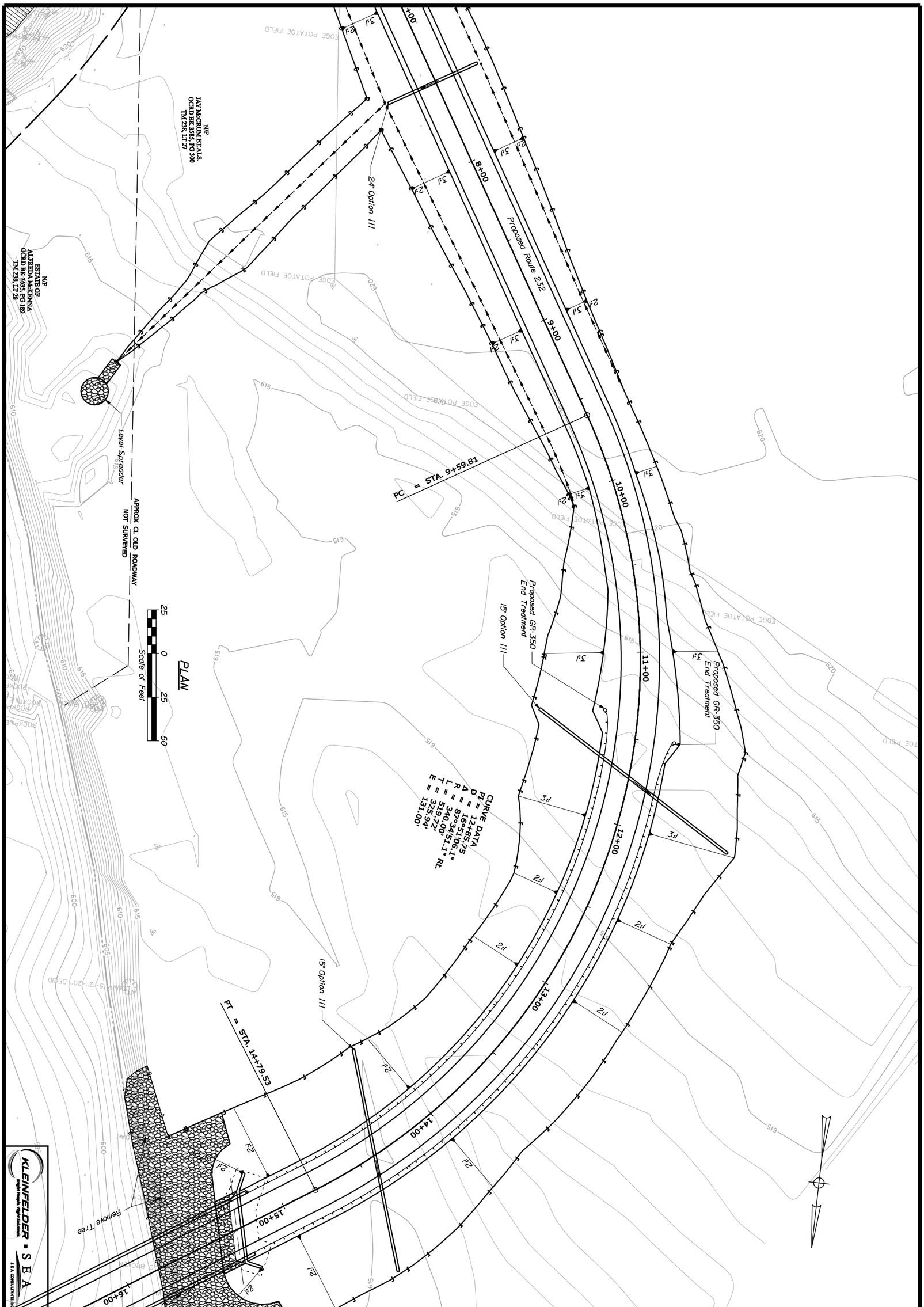
SHEET NUMBER

1

OF 8

KLEINFELDER ▪ S E A
Bright People. Right Solutions.
S E A CONSULTANTS INC.

Filename: ...\00\BRIDGE\MSTA\001_PLAN.dgn Division: BRIDGE Username: keith.wood Date:1/10/2012



KLEINFELDER ▪ SEA
ENGINEERING, ARCHITECTURE, SURVEYING
A DIVISION OF KLEINFELDER, INC.

PROJ. MANAGER	B. CONDON	BY	DATE
DESIGN-DETAILED	K. WOOD	K.WOOD	
CHECKED-REVIEWED	R. S. BLUNT	P. HETHERLY	1\10\12
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MARTIN MEMORIAL BRIDGE
ANDROSCOGGIN RIVER
RUMFORD OXFORD COUNTY

PRELIMINARY PLANS

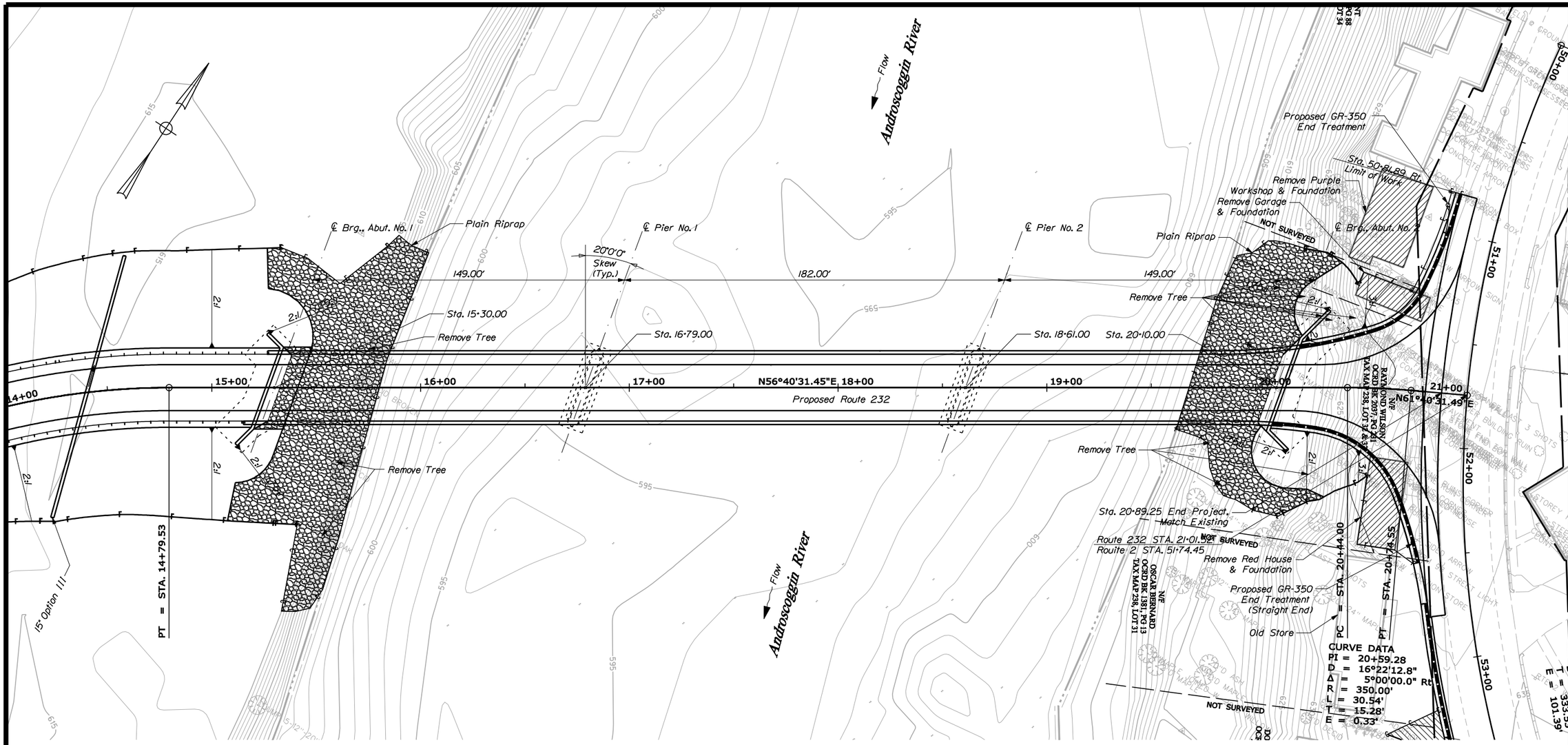
SHEET NUMBER 2 OF 8

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1510(500)X

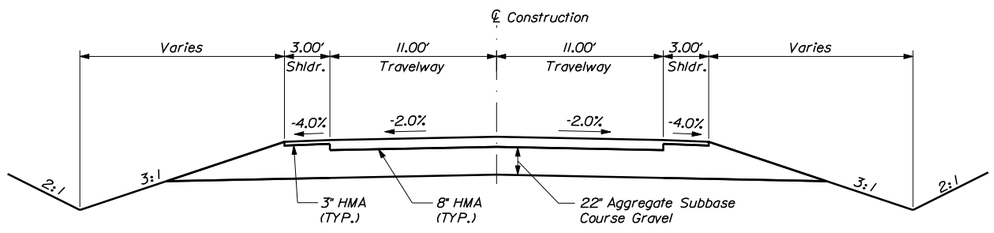
BRIDGE NO. 3248 PIN 15105.00 BRIDGE PLANS

Filename: ...\00\BRIDGE\MSTA\003_PLAN.dgn Division: BRIDGE Username: keith.wood Date:1/10/2012

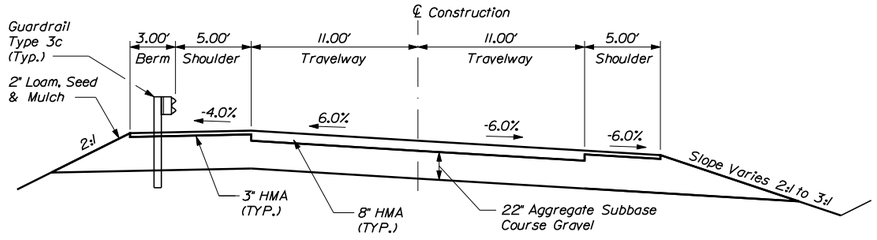


PLAN

25 0 25 50
Scale of Feet



FARM APPROACH TYPICAL SECTION
Sta. 0+00 to 10+00



Guardrail Section Non Guardrail Section

FARM APPROACH TYPICAL SECTION
Sta. 10+50 to Bridge

KLEINFELDER ▪ SEA
Bright People. Right Solutions.
SEA CONSULTANTS INC.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1510(500)X

PIN 15105.00
BRIDGE NO. 3248
BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	B. CONDON	
DESIGN-DETAILED	K. WOOD	
CHECKED-REVIEWED	R. S. BLUNT	P. HETHERLY 11/01/12
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

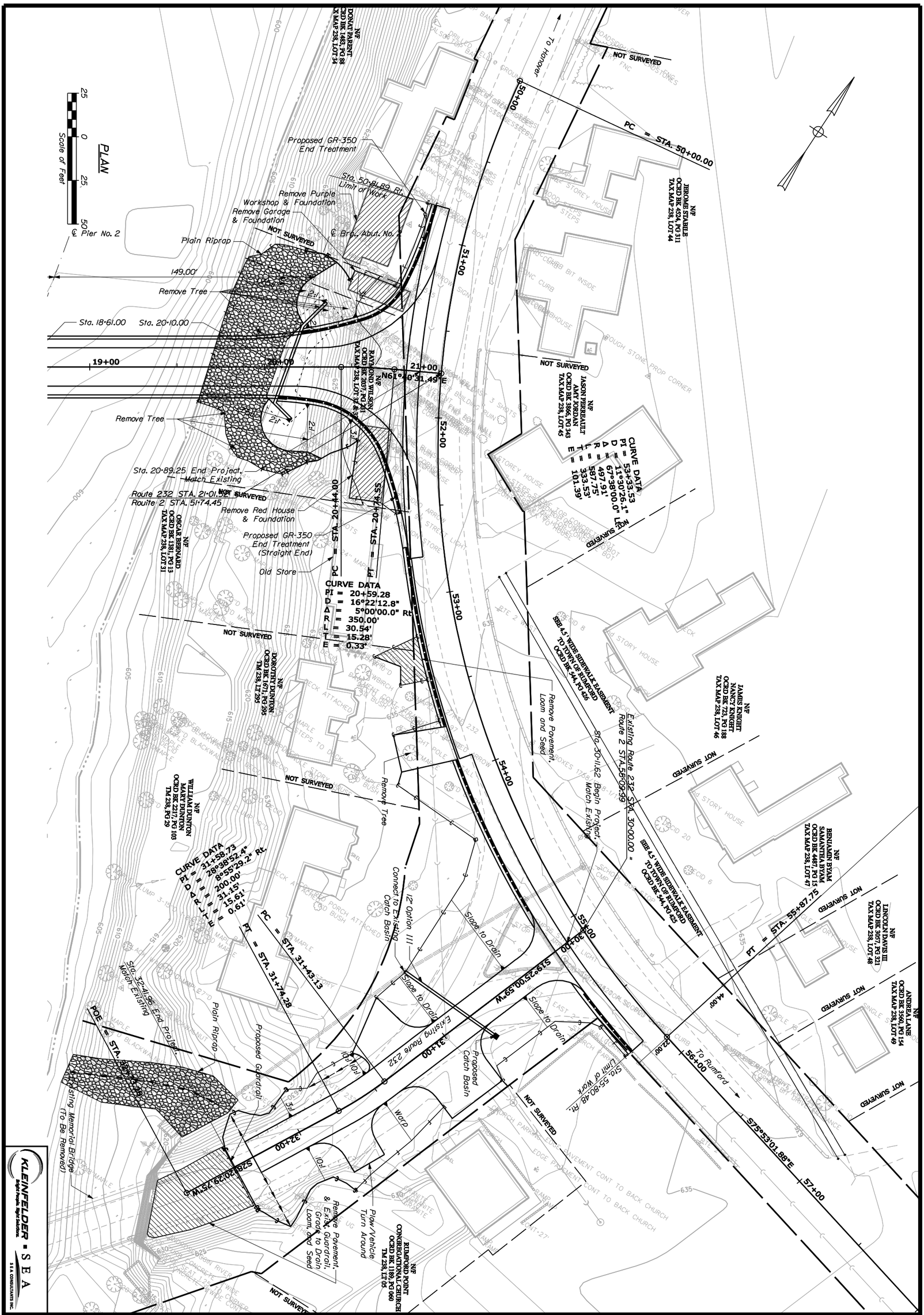
P.E. NUMBER

DATE

MARTIN MEMORIAL BRIDGE
ANDROSCOGGIN RIVER
RUMFORD OXFORD COUNTY

PRELIMINARY PLANS

SHEET NUMBER
3
OF 8



KLEINFELDER • SEA
Right People. Right Solutions.
SEA CONSULTANTS INC.

SHEET NUMBER 4 OF 8

MARTIN MEMORIAL BRIDGE
ANDROSCOGGIN RIVER
RUMFORD OXFORD COUNTY

PRELIMINARY PLANS

PROJ. MANAGER	B. CONDON	BY	DATE
DESIGN-DETAILED	K. WOOD	K.WOOD	
CHECKED-REVIEWED	R. S. BLUNT	P. HETHERLY	1\10\12
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

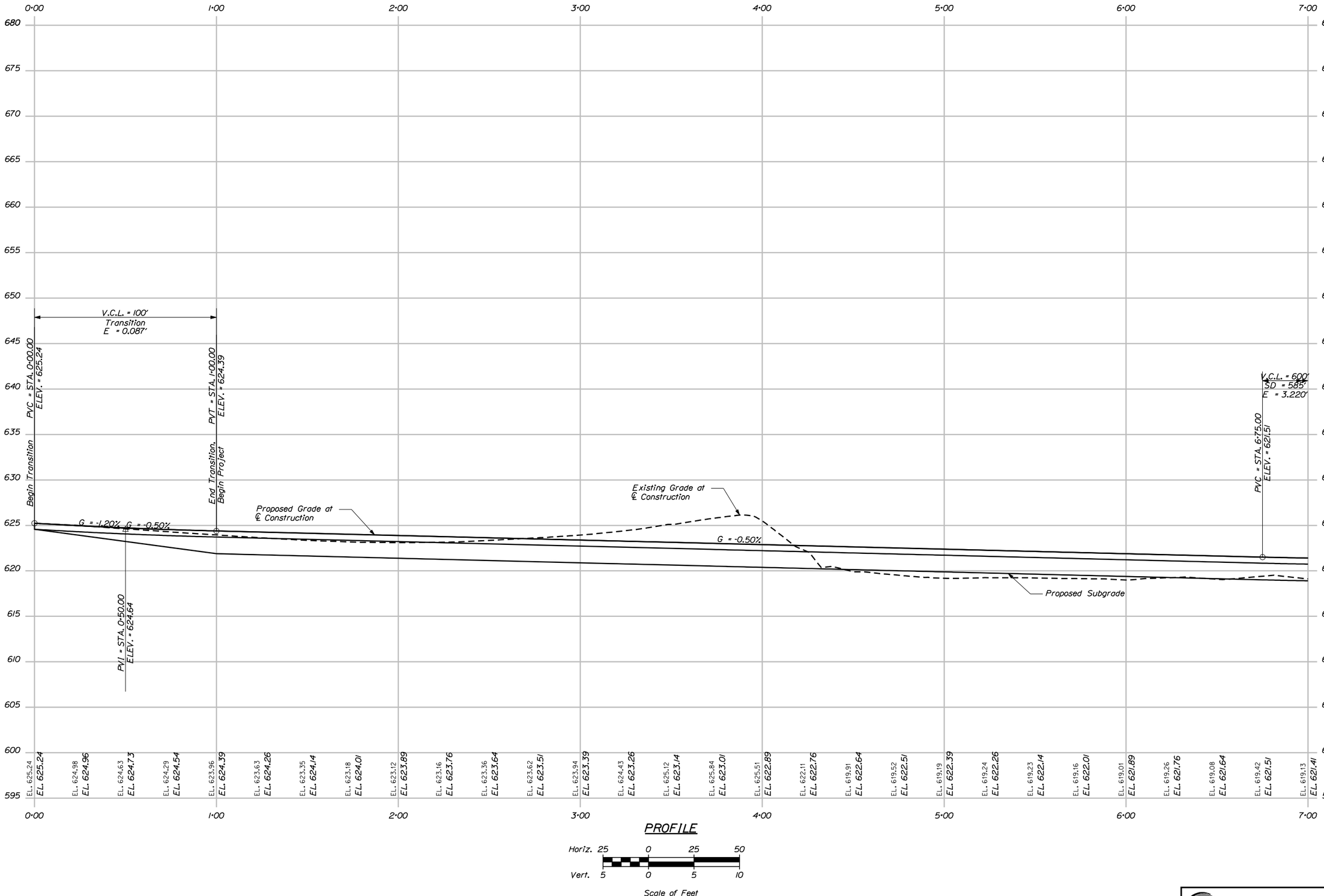
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1510(500)X

PIN 15105.00

BRIDGE NO. 3248 BRIDGE PLANS

Filename: ...\00\BRIDGE\MSTA\005_PROFILE.dgn Division: BRIDGE Username: keith.wood Date:1/10/2012



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1510(500)X

PIN 15105.00

BRIDGE NO. 3248 BRIDGE PLANS

PROJ. MANAGER	B. CONDON	BY	DATE
DESIGN-DETAILED	K. WOOD	K.WOOD	1\10\12
CHECKED-REVIEWED	R. S. BLUNT	P. HETHERLY	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MARTIN MEMORIAL BRIDGE
ANDROSCOGGIN RIVER
RUMFORD OXFORD COUNTY

PRELIMINARY PROFILES

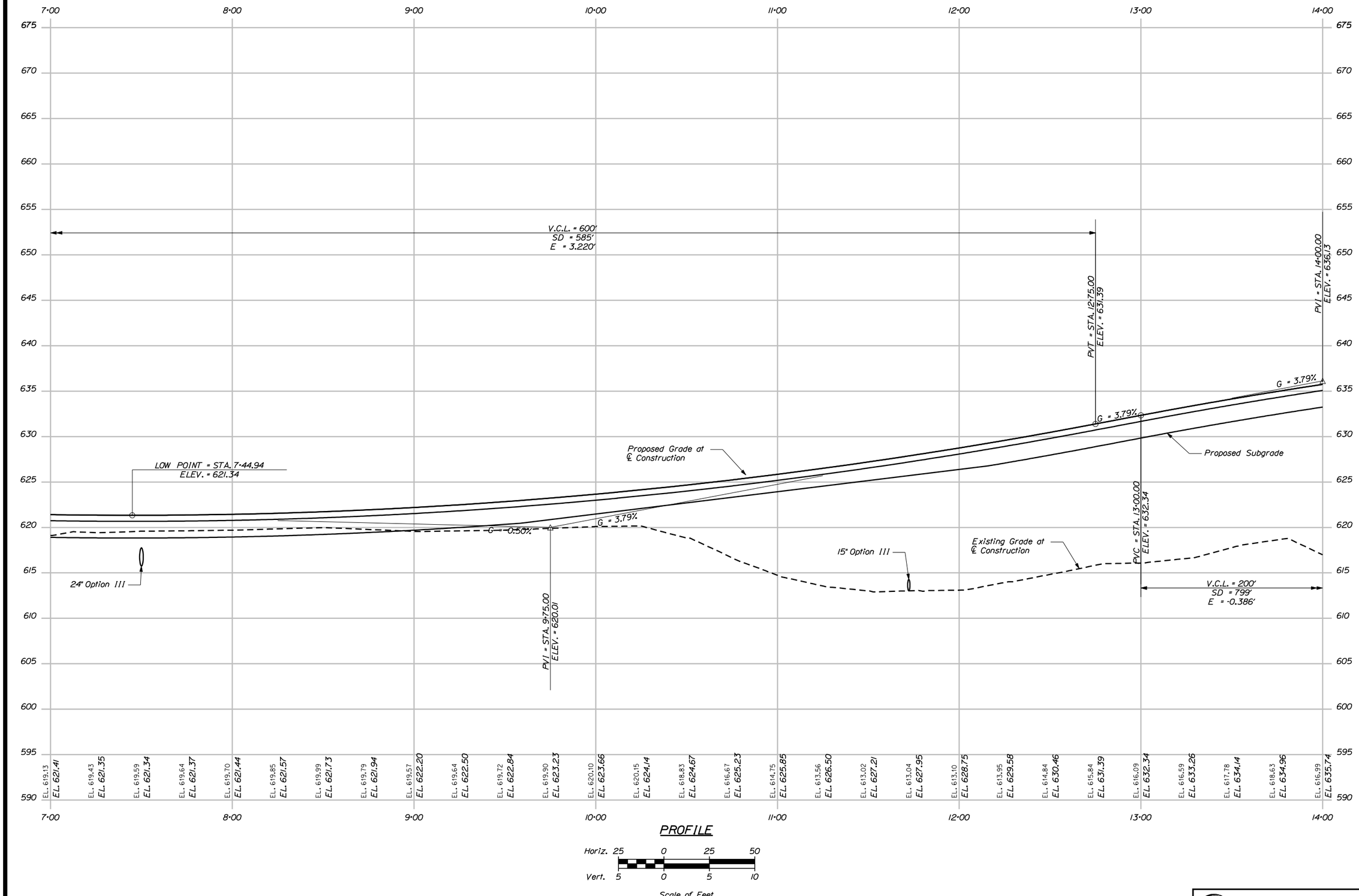
SHEET NUMBER

5

OF 8

KLEINFELDER ▪ S E A
Bright People. Right Solutions.
S E A CONSULTANTS INC.

Filename: ...\00\BRIDGE\MSTA\006_PROFILE.dgn Division: BRIDGE Username: keith.wood Date:1/10/2012



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

KLEINFELDER ▪ S E A
Bright People. Right Solutions.
S E A CONSULTANTS INC.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1510(500)X

PIN 15105.00

BRIDGE NO. 3248 BRIDGE PLANS

PROJ. MANAGER	B. CONDON	BY	DATE
DESIGN-DETAILED	K. WOOD	K.WOOD	1\10\12
CHECKED-REVIEWED	R. S. BLUNT	P. HETHERLY	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MARTIN MEMORIAL BRIDGE
ANDROSCOGGIN RIVER
RUMFORD OXFORD COUNTY

PRELIMINARY PROFILES

SHEET NUMBER

6

OF 8

Filename: ...\00\BRIDGE\MSTA\007_PROFILE.dgn Division: BRIDGE Username: keith.wood Date:1/10/2012

14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

℄ Brg., Abut. No. 1 Sta. 15+30.00
℄ Pier No. 1 Sta. 16+79.00
℄ Pier No. 2 Sta. 18+61.00
℄ Brg., Abut. No. 2 Sta. 20+10.00

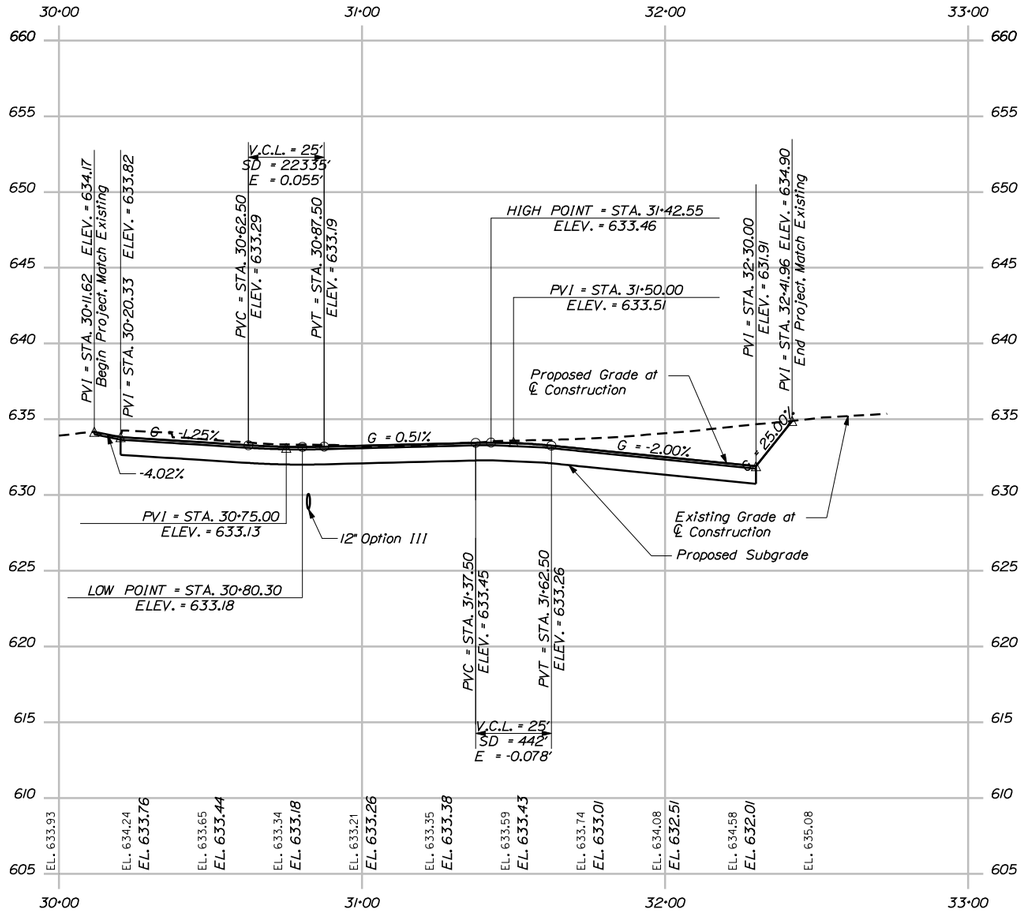
480'-0"
149'-0" 182'-0" 149'-0"

PVI = STA. 14+00.00 ELEV. = 636.13
PVT = STA. 15+00.00 ELEV. = 638.38
HIGH POINT = STA. 17+71.43 ELEV. = 642.56
PVI = STA. 18+00.00 ELEV. = 645.13
PVT = STA. 20+00.00 ELEV. = 639.13
PVC = STA. 20+25.00 ELEV. = 638.38
V.C.L. = 50' E = 0.063'
PVT = STA. 20+75.00 ELEV. = 637.13
PVI = STA. 20+81.65 ELEV. = 637.00
PVI = STA. 20+89.25 ELEV. = 637.23
End Project, Match Existing

G = 2.25%
G = 2.25%
G = -3.00%
G = -3.00%
G = 1.99%
G = 3.03%

Proposed Grade at ℄ Construction
Approach Slab (Typ.)
Proposed Subgrade
Backfill/Structural Earth Limits
Plain Riprap 2:1 Slope
Plain Riprap 1.75:1 Slope
Existing Grade at ℄ Construction
15" Option III
V.C.L. = 200' SD = 799' E = -0.386'
PVC = STA. 16+00.00 ELEV. = 640.63
Proposed Steel Superstructure
Proposed Pier Substructure (Typ.)
Flood of Record EL. 630.7
Q50 EL. 623.9
Q1.1 EL. 613.1
V.C.L. = 400' SD = 406' E = -2.625'
PVI = STA. 20+50.00 ELEV. = 637.63
Backfill/Structural Earth Limits
Plain Riprap 1.75:1 Slope
Proposed Piles (Typ.)
Approximate Riverbed
Piles (Typ.)

| | | |

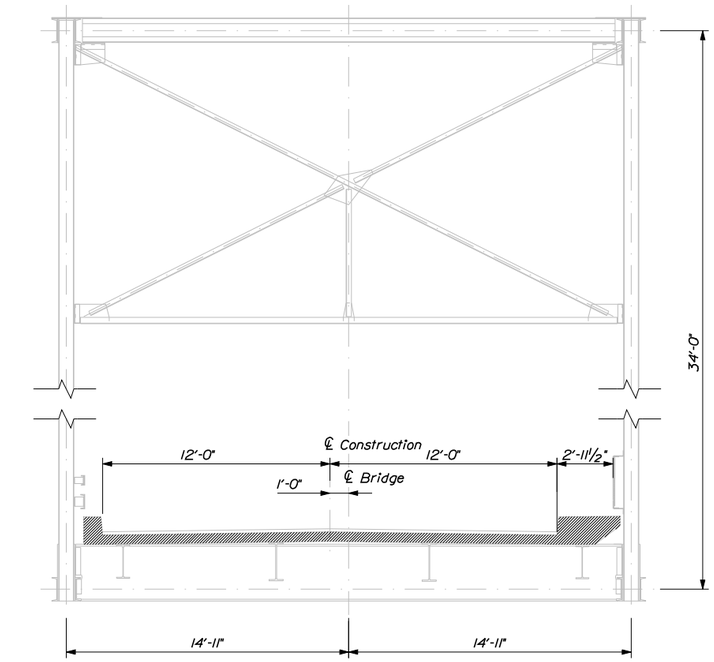


PROFILE

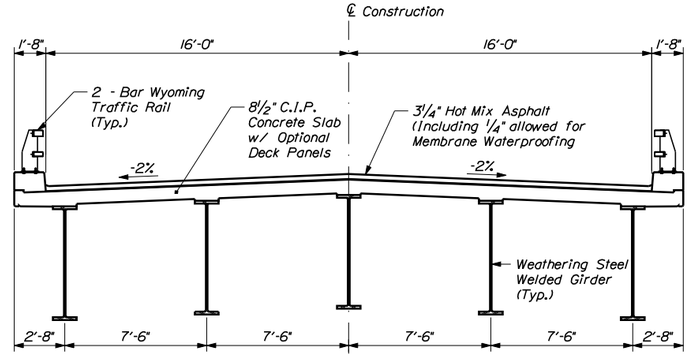
Horiz. 25 0 25 50

Vert. 5 0 5 10

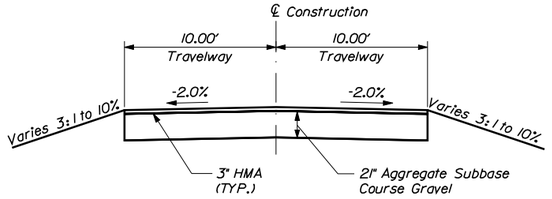
Scale of Feet



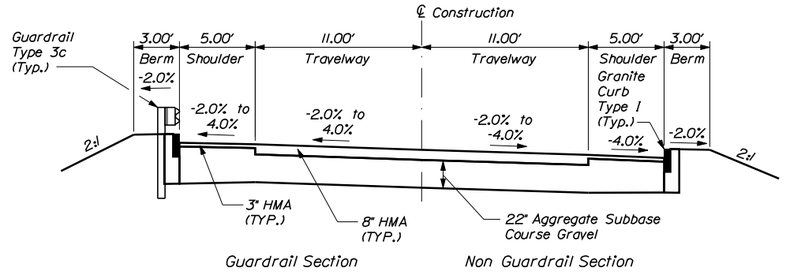
EXISTING BRIDGE SECTION



PROPOSED STRUCTURE



EXISTING ROUTE 232 TYPICAL SECTION



VILLAGE APPROACH TYPICAL SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1510(500)X

PIN 15105.00

BRIDGE NO. 3248

BRIDGE PLANS

PROJ. MANAGER	B. CONDON	BY	DATE
DESIGN-DETAILED	K. WOOD	K.WOOD	
CHECKED-REVIEWED	R. S. BLUNT	P. HETHERLY	11\10\12
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MARTIN MEMORIAL BRIDGE
ANDROSCOGGIN RIVER
RUMFORD OXFORD COUNTY

PRELIMINARY PROFILES

SHEET NUMBER

8

OF 8

KLEINFELDER ▪ SEA
Bright People. Right Solutions.
SEA CONSULTANTS INC.

Filename: ...\00\BRIDGE\MSTA\008_PROFILE.dgn Division: BRIDGE Username: keith.wood Date:1/10/2012