STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

May 18, 2010
Subject: **Pownal**
State Project No: 016741.00
Amendment No. 1

Dear Sir/Ms:

Make the following change to the Bid Document:

In the Plans, **REMOVE** Sheet Number 2 of 17 **thru** Sheet Number 17 of 17 and **REPLACE** with the attached new Plan Sheets (16 pages total). Plan sheets will be FedExed/mailed to those who purchased plans in the size and quantity purchased.

NOTE: In the "Geotechnical Report", accessible through our web site, Sheet Number 2 of 3 (page 10 of the report) titled "BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE" has been replaced with an updated sheet.

Consider this change and information prior to submitting your bid on May 26, 2010.

Sincerely,

FOR

Scott Bickford
Contracts & Specifications Engineer

PRINTED ON RECYCLED PAPER

THE MAINE DEPARTMENT OF TRANSPORTATION IS AN AFFIRMATIVE ACTION - EQUAL OPPORTUNITY EMPLOYER

Filename: ...\00\ROW\MSTA\017_RWPLAN1.dgn Username: mark.parlin Date:5/14/2010 Division: BRIDGE

CONTROL INFORMATION

HORIZONTAL CONTROL - US STATE PLANE NAD83(1996)
ZONE - MAINE 2000 WEST ZONE
VERTICAL DATUM - NAVD 88
COMBINED SCALE FACTOR - 0.9999774

GRID
MAINE 2000 WEST ZONE

KARMEN K. BLACKSTONE
ALBERT H. BLACKSTONE, JR.
PARCEL NO. (1)
CONST. & MAINT. EASE. = 1,347± S.F. (1)
DRAINAGE EASE. = (1)
SLOPE EASE. = 422± S.F. (1)
TOTAL AREA = 48.5± AC. (PER TAX MAP)

EXISTING RIGHT OF WAY REFERENCE

A) MAINE STATE HIGHWAY COMMISSION (S.H.C.) - RIGHT OF WAY MAP
STATE AID HIGHWAY NO. 3
POWNAL CENTER BRIDGE OVER EAST BRANCH ROYAL RIVER
POWNAL, CUMBERLAND COUNTY
PLAN DATE - APRIL 1955
S.H.C. FILE NO. 3-101
CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.)
PLAN BOOK 49 PAGE 26
RECORDING DATE - APRIL 2, 1958
B) MAINE STATE HIGHWAY COMMISSION (S.H.C.) - RIGHT OF WAY MAP
STATE AID HIGHWAY NO. 3
POWNAL, CUMBERLAND COUNTY
PLAN DATE - MARCH 1950
S.H.C. FILE NO. S-3-124
CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.)
PLAN BOOK 35 PAGE 56
RECORDING DATE - MAY 11, 1950
C) CUMBERLAND COUNTY COMMISSIONERS RECORDS (C.C.C.R.)
VOLUME 3 PAGE 224
1803 4 RODS WIDE (66')
D) CUMBERLAND COUNTY COMMISSIONERS RECORDS (C.C.C.R.)
VOLUME 13 PAGE 151
1873 4 RODS WIDE (66')
E) CUMBERLAND COUNTY COMMISSIONERS RECORDS (C.C.C.R.)
VOLUME 13 PAGE 475
DISCONTINUANCE OF VOLUME 13 PAGE 151

BRIDGE PLAN

A) STATE HIGHWAY COMMISSION - BRIDGE DIVISION
POWNAL CENTER BRIDGE OVER EAST BRANCH ROYAL RIVER
IN THE TOWN OF POWNAL, CUMBERLAND COUNTY
BRIDGE NO. 5646
PLAN DATE JANUARY 1955
BRIDGE FILE NO. - REEL 23, 61:68-91

EASEMENT
TO THE POWNAL CENTER WATER ASSOCIATION
FOR INSTALLING, MAINTAINING, REPAIRING AND
REPLACING WATER PIPES
SEE CUMBERLAND COUNTY REGISTRY OF DEEDS
BOOK 10715, PAGE 10
DOCUMENT DATE - MAY 18, 1993
RECORDING DATE - MAY 25, 1993

CURVE DATA #3
PI = 19+06.51
D = 7°59'36.6"
Δ = 23°58'49.8" Lt.
R = 716.78'
L = 300.00'
T = 152.23'
E = 15.99'

PC = STA. 17+54.28

DRAINAGE OUTLET
STA. 14+97± LT.

EXISTING CONST. LIMIT LINE (SEE R/W REFERENCE A)

20'0"0" ℄ Struc. Plate Pipe

℄ Struc. Plate Pipe Sta. 14+93.00

℄ Struc. Plate Pipe Sta. 15+13.00

EAST BRANCH ROYAL RIVER

CONST. & MAINT. EASE. 1,347± S.F.

LIMITS

EXISTING CONST. LIMIT LINE (SEE R/W REFERENCE A)

SLOPE EASE. 422± S.F.

LIMITS

EXISTING RIGHT OF WAY LINE AS SHOWN ON REFERENCE A. ANGLE POINTS DO NOT CONFORM WITH COUNTY LAYOUT IN REFERENCE B.

HALLOWELL ROAD

285.17' ROUTE 9

N 51°-37'-59.3" E 278.46'

Route 9

STATE AID HIGHWAY NO. 3

12+00 13+00 14+00 15+00 16+00 17+00 18+00

END B.L. STA. 18+50.00

95.72'

TO DURHAM

TO North YARMOUTH

BEGIN B.L.

465'±

209'±

208'±

CURVE DATA #1
PI = 10+95.44
D = 3°33'58.2"
Δ = 6°47'55.8" Rt.
R = 1606.65'
L = 190.65'
T = 95.44'
E = 2.83'

PCC = STA. 11+90.65

CURVE DATA #2
PI = 13+36.57
D = 10°30'12.6"
Δ = 29°57'10.9" Rt.
R = 545.49'
L = 285.17'
T = 145.92'
E = 19.18'

CONST. 278± S.F.

Flow

P.L (SEE R/W REFERENCE A)

& MAINT. 1,067± S.F. EASE.

77'

LIMITS

PT = STA. 14+75.82

EXISTING CONST. LIMIT LINE (SEE R/W REFERENCE A)

PROPERTY LINE AS SHOWN ON SURVEY PLAN FOR BRUNSWICK COAL & LUMBER CO.

RODERICK D. PERVIER
LOIS S. PERVIER
PARCEL NO. (2)
LAND TAKEN = 1,441± S.F.
CONST. & MAINT EASE. = 278± S.F. (1)
TOTAL AREA = 3.1± AC (PER TOWN)
REM. AREA = 3.06± AC.

JOANNE K. WHEELER
F/K/A JOANNE K. DROST
PARCEL NO. (3)
CONST. & MAINT. EASE. = 1,067± S.F. (1)
TOTAL AREA = 2.91± AC. (PER SUBDIVISION PLAN)

HANLEY & YOST INVESTMENTS, INC.

SURVEY OF LAND
FOR BRUNSWICK COAL & LUMBER CO. &
PLAN OF LOTS
FOR ROBERT CURRY & ROBERT MORRELL
BY HOWARD F. BABBIDGE
DATE - JULY 21, 1975
C.C.R.D. PLAN BOOK 109 PAGE 30

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at ____h____m____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

To the best of my knowledge and belief the Highway Right of Way lines depicted hereon are based upon a survey conforming to the Standards of Practice promulgated by the Maine Board of Licensure for Professional Land Surveyors 02-360 CMR, Chapter 90; Exceptions: (1) No separate survey report, (2) Monumentation only as shown on plan. See sheet X of this plan set for coordinates. (3) Other boundary lines, including lines between abutters are approximate and for general reference purposes only.

PIN 16741.00

SYMBOLS
- ● I.P. or ■ P/P. (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- ⌀BM (TRAVERSE POINT)
- (WELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE
- LIMITS OF RIGHT-OF-WAY (C.O.W.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	G.L.L.	C.W.K.
PROP. LINES	G.L.L.	
AREAS	G.L.L.	N.B.D.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
POWNAL
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK		PAGE	COUNTY RECORD			
NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	
		COND.	4/26/10	27727	150	

DAVID A. COLE
COMMISSIONER
KENNETH L. SWEENEY
ACTING CHIEF ENGINEER
DATE

STATE OF MAINE
CHRISTOPHER W. KNIGHT 2257
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY "3"
ROUTE 9\HALLOWELL ROAD
POWNAL CUMBERLAND COUNTY
FEDERAL AID PROJECT NO. BH-1674(100)X

FEBRUARY 2010	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 3-562
SCALE 1" = 25'	SHEET 1 OF 1	

SHEET NUMBER
17
OF 17

(1) DETOUR AHEAD

(2) ROAD CLOSED AHEAD

(3) ROAD CLOSED 500 FT.

(4) ROAD CLOSED 1000 FT.

(5) DETOUR WEST 9

(6) DETOUR WEST 9

(7) DETOUR WEST 9

(8) DETOUR WEST 9

(9) DETOUR EAST 9

(10) DETOUR EAST 9

(11) DETOUR EAST 9

(12) DETOUR WEST 9

(13) DETOUR WEST 9

(14) ROAD CLOSED 6 MILES AHEAD 9

(15) ROAD CLOSED 3 MILES AHEAD 9

(16) ROAD CLOSED 5.5 MILES AHEAD 9

(17) ROAD CLOSED 6.5 MILES AHEAD 9

(18) DETOUR EAST 9

(19) DETOUR EAST 9

(20) DETOUR WEST 9

(21) DETOUR WEST 9

(22) ROAD CLOSED

(23) ROAD CLOSED TO THRU TRAFFIC DETOUR

NOT TO SCALE

PROJ. MANAGER _____		BY	DATE
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	_____	_____
DESIGN2-DETAILED2	_____	_____	_____
DESIGN3-DETAILED3	_____	_____	_____
REVISIONS 1	_____		_____
REVISIONS 2	_____		_____
REVISIONS 3	_____		_____
REVISIONS 4	_____		_____
FIELD CHANGES	_____		_____

SIGNATURE

P.E. NUMBER

DATE

SHEET NUMBER 16 OF 17

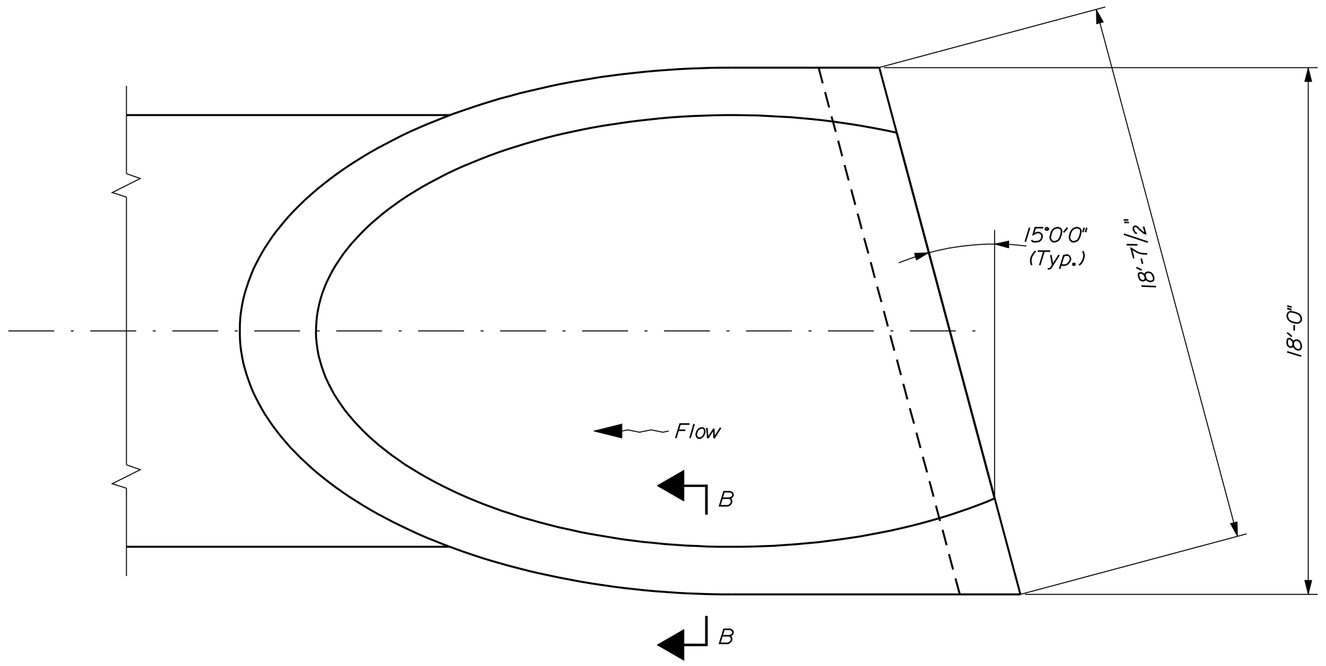
POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

DETOUR PLAN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

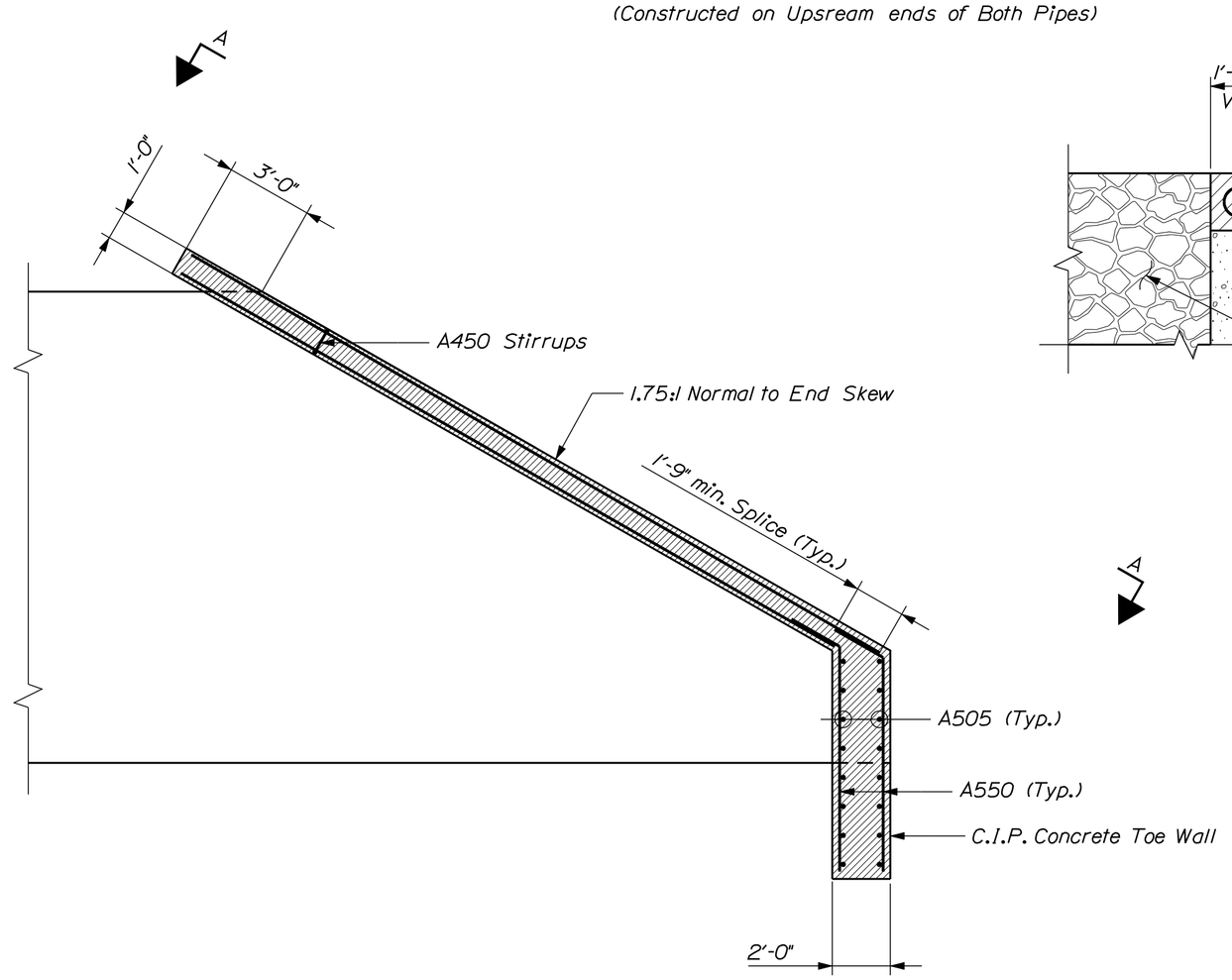
AC-BH-1674(100)X

BRIDGE NO. 5646 **PIN 16741.00** BRIDGE PLANS

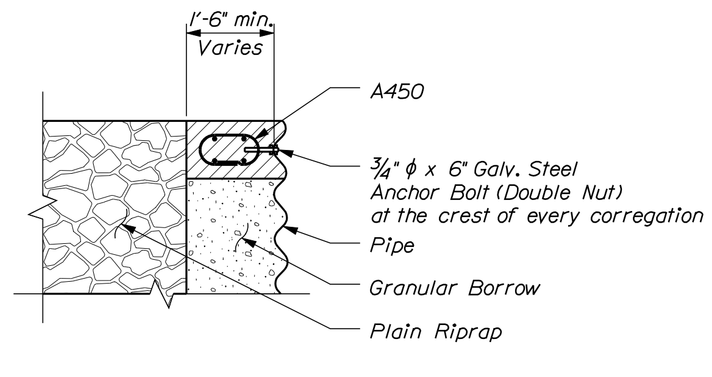


COLLAR PLAN VIEW

(Constructed on Upsream ends of Both Pipes)



LONGITUDINAL COLLAR SECTION

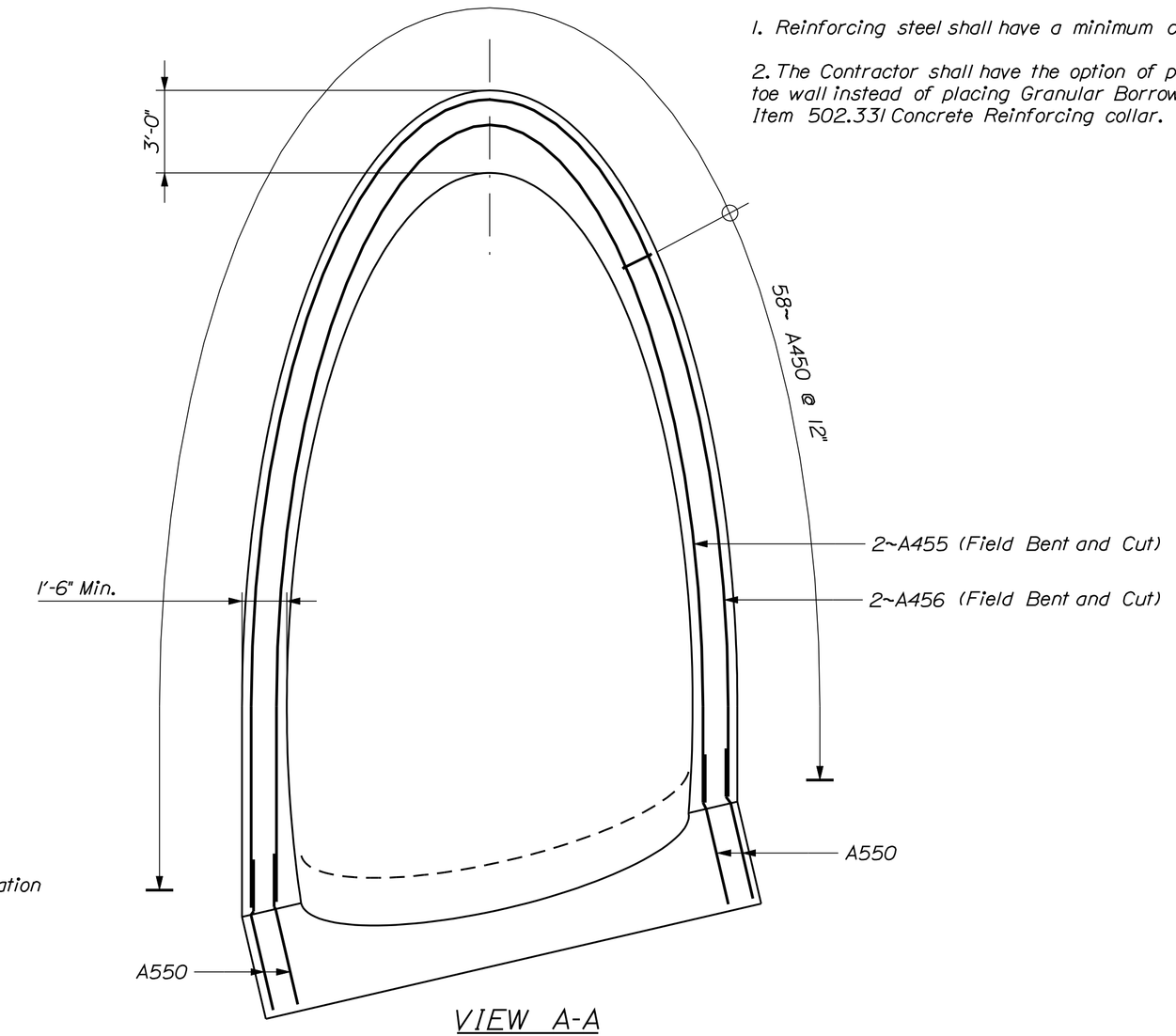


SECTION B-B

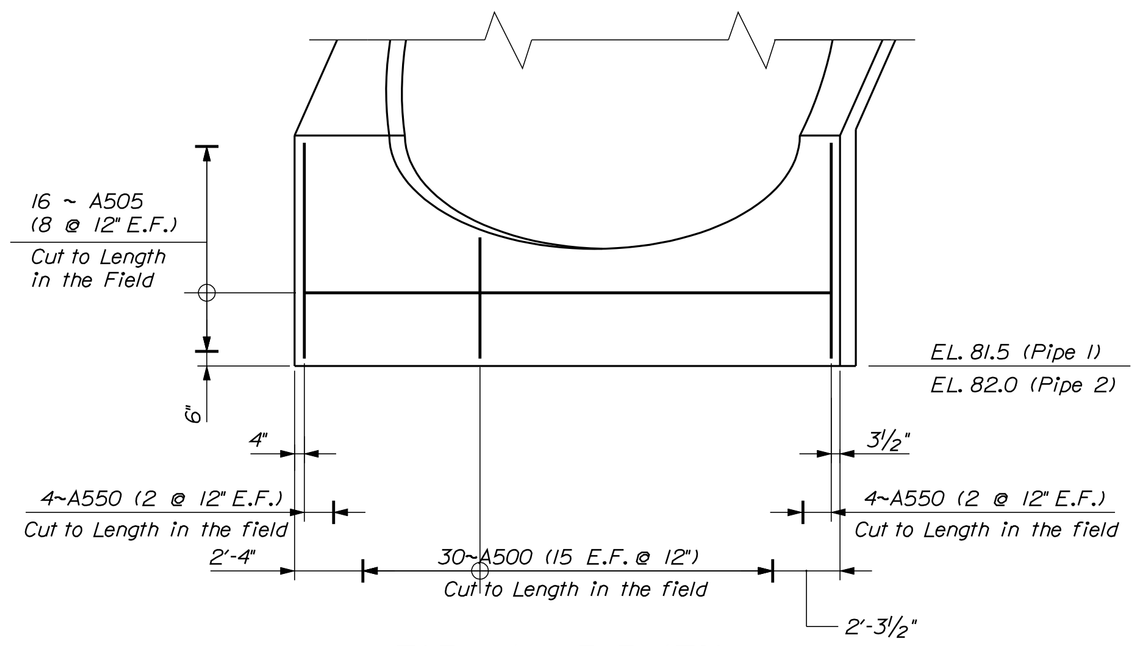
COLLAR NOTES

1. Reinforcing steel shall have a minimum concrete cover of 3 inches.

2. The Contractor shall have the option of pumping concrete behind the toe wall instead of placing Granular Borrow. Payment shall be incidental to Item 502.331 Concrete Reinforcing collar.



VIEW A-A

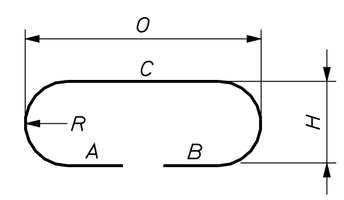


TOE WALL ELEVATION

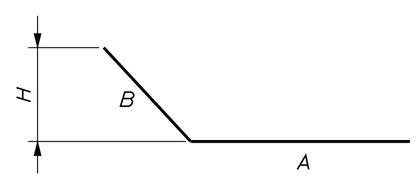
(Constructed on Upsream ends of Both Pipes)

STRAIGHT BARS			
MARK	QTY.	LENGTH	LOCATION
A500	30	7'-4"	Collar Toe Wall Vertical
A505	16	18'-0"	Collar Toe Wall Horizontal

BENT BARS														
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
A450	58	39'-0"	Z	0'-6"	0'-6"	0'-6"					0'-6"	1'-0"	0'-2 1/2"	Stirrups
A455	2	58'-3"	Curved											Loop Around Pipe Face (inside)
A456	2	65'-2"	Curved											Loop Around Pipe Face (Outside)
A550	8	9'-9"	V	7'-9"	2'-0"						1'-8"			Toe Wall Vertical



Type Z



Type V

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

PIN 16741.00

BRIDGE NO. 5646

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	----------	----------
DESIGN-DETAILED	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	------
DESIGN2-DETAILED2	----------	----------
DESIGN3-DETAILED3	----------	----------
REVISIONS 1	----------	----------
REVISIONS 2	----------	----------
REVISIONS 3	----------	----------
REVISIONS 4	----------	----------
FIELD CHANGES	----------	----------

SIGNATURE

P.E. NUMBER

DATE

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

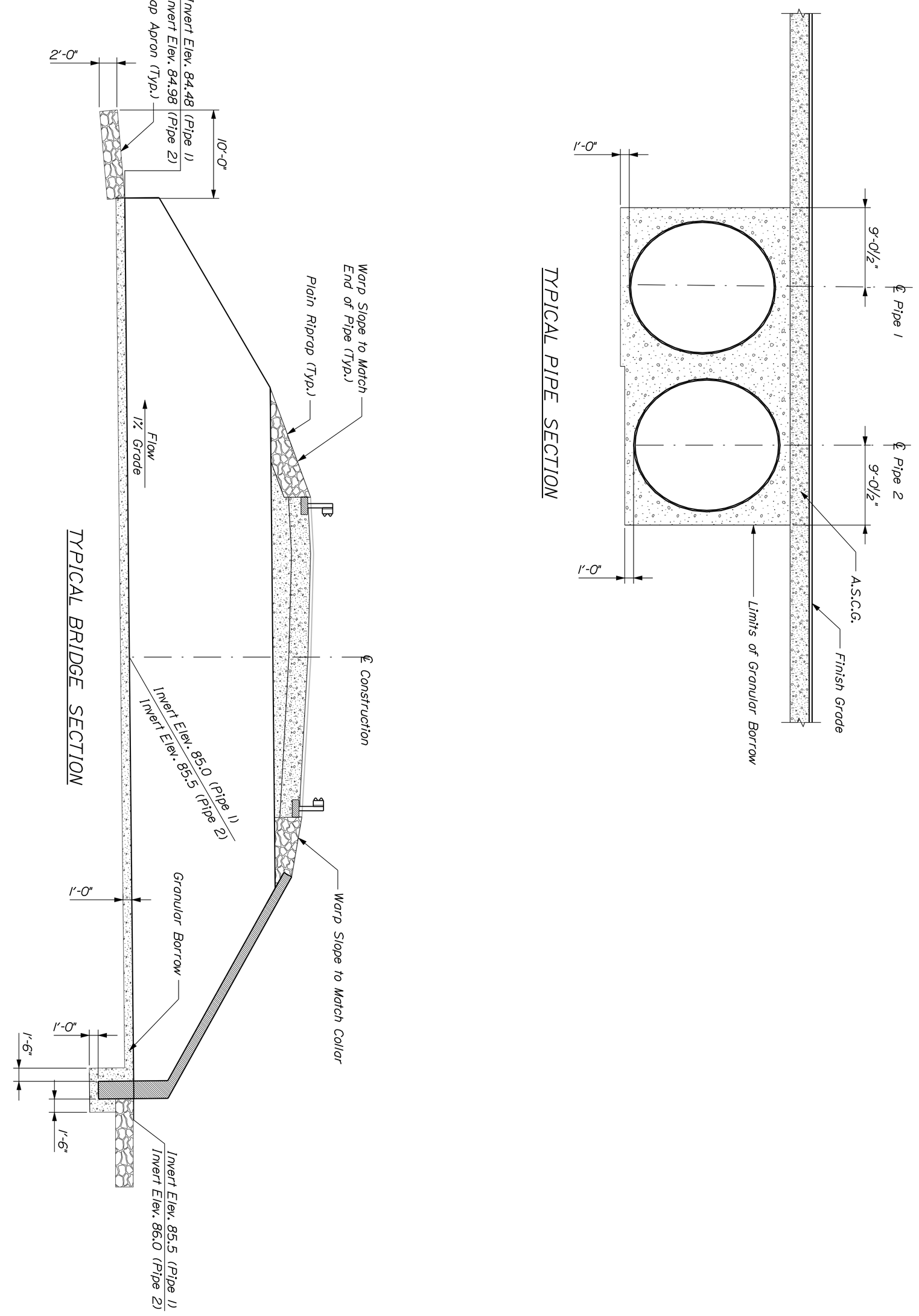
COLLAR DETAILS

SHEET NUMBER

15

OF 17

Filename: ...\MSTA\015_Pipe_CollarDtls.dgn Division: BRIDGE Username: mark.parlin Date:5/14/2010



SHEET NUMBER 14 OF 17

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

PIPE DETAILS

PROJ. MANAGER _____		BY	DATE
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	_____	_____
DESIGN2-DETAILED2	_____	_____	_____
DESIGN3-DETAILED3	_____	_____	_____
REVISIONS 1	_____		_____
REVISIONS 2	_____		_____
REVISIONS 3	_____		_____
REVISIONS 4	_____		_____
FIELD CHANGES	_____		_____

SIGNATURE

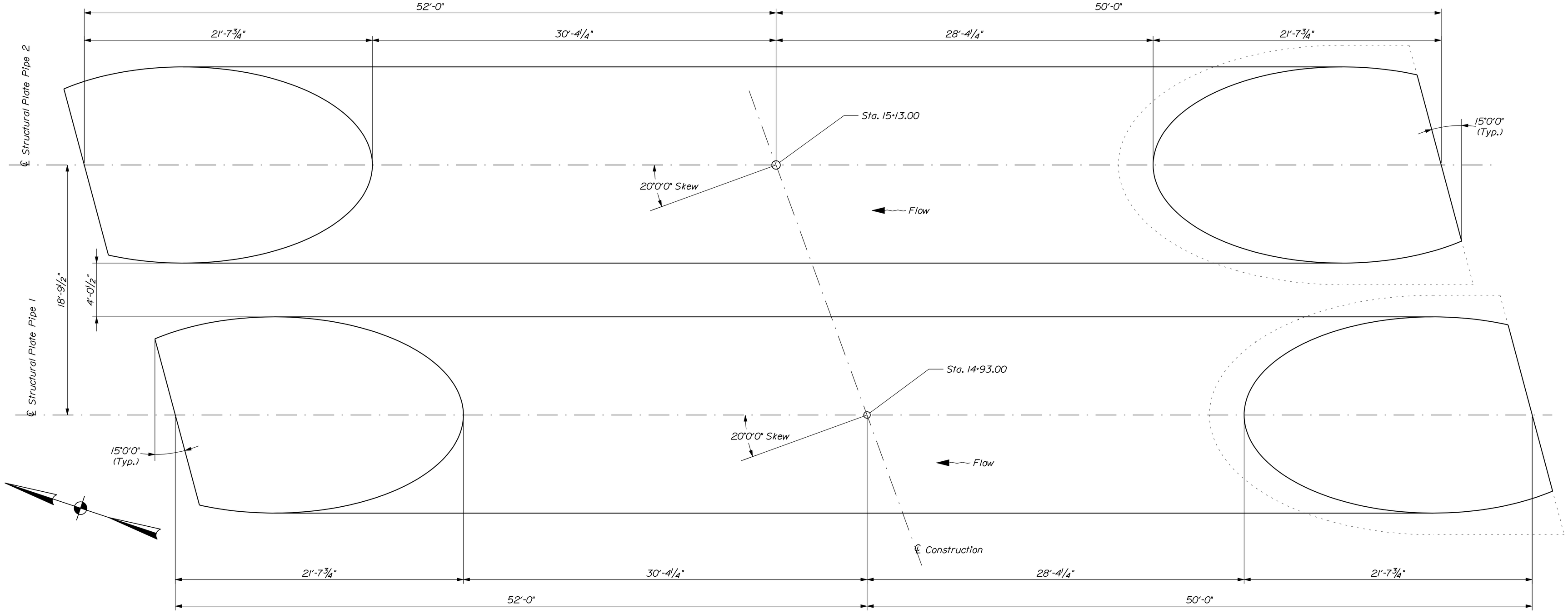
P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

BRIDGE NO. 5646 PIN 16741.00 BRIDGE PLANS



PIPE PLAN

STRUCTURAL PLATE PIPE NOTES

1. Two 14'-9" span by 16'-3" rise Steel Vertical Ellipse Structural Plate Pipes required. Plate thicknesses shall be as specified in the Special Provisions.
2. Ends shall be cut on a 1:1.75 bevel normal to the 15 degree end skew shown on the details.
3. Granular Borrow shall meet the requirements of Subsection 703.19, Material for Underwater Backfill.
4. Riprap adjacent to the pipe shall be carefully placed so as not to damage the pipe and so that the finished slope will match the ends of the pipe. Any extra labor, material or equipment used will be considered incidental to related pay items. Any damage done to the Structure during construction shall be repaired or replaced as determined by the Resident at the Contractor's expense.
5. Two Steel Plate Pipes shall be constructed in the dry. The approx. weight of EACH Steel Plate Pipe is 48,115 lbs.
6. See MaineDOT Standard Details Section 606 "Guardrail Treatment over Buried Structures" where overburden is insufficient to drive guardrail posts without damage to the pipe.
7. Field drilled holes and any place where the galvanized coating on the pipe has been damaged shall be touched up in the field with a Zinc Chromate "Free" Primer prior to the installation of the concrete collar. Method of application and thickness of applied coats shall be in accordance with the manufacture's recommendations and subject to the approval of the Resident. Payment shall be incidental to pay item 502.331 Concrete Reinforcing Collar.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

PIN 16741.00

BRIDGE NO. 5646 — BRIDGE PLANS

PROJ. MANAGER	----------	------
DESIGN-DETAILED	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	------
DESIGN2-DETAILED2	----------	------
DESIGN3-DETAILED3	----------	------
REVISIONS 1	------	------
REVISIONS 2	------	------
REVISIONS 3	------	------
REVISIONS 4	------	------
FIELD CHANGES	------	------

BY — DATE

SIGNATURE

P.E. NUMBER

DATE

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL — CUMBERLAND COUNTY

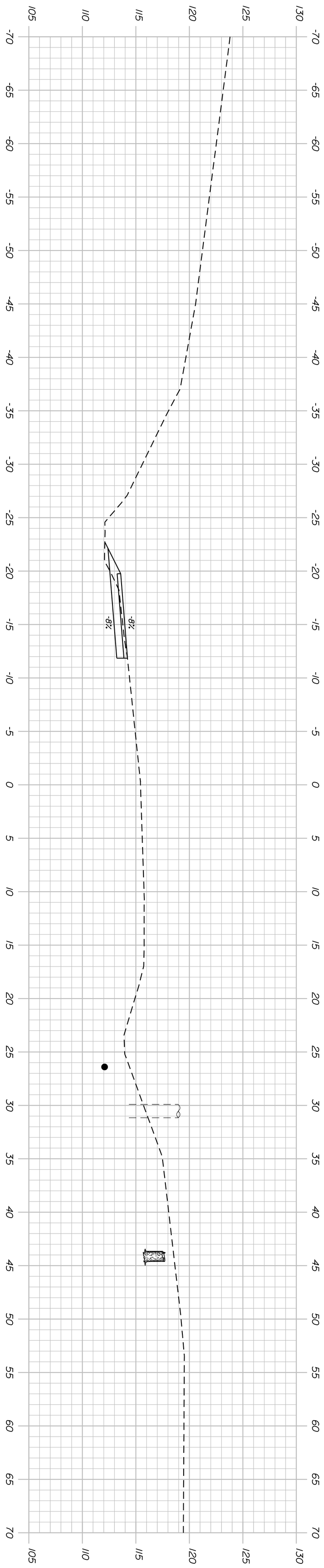
PIPE PLAN

SHEET NUMBER

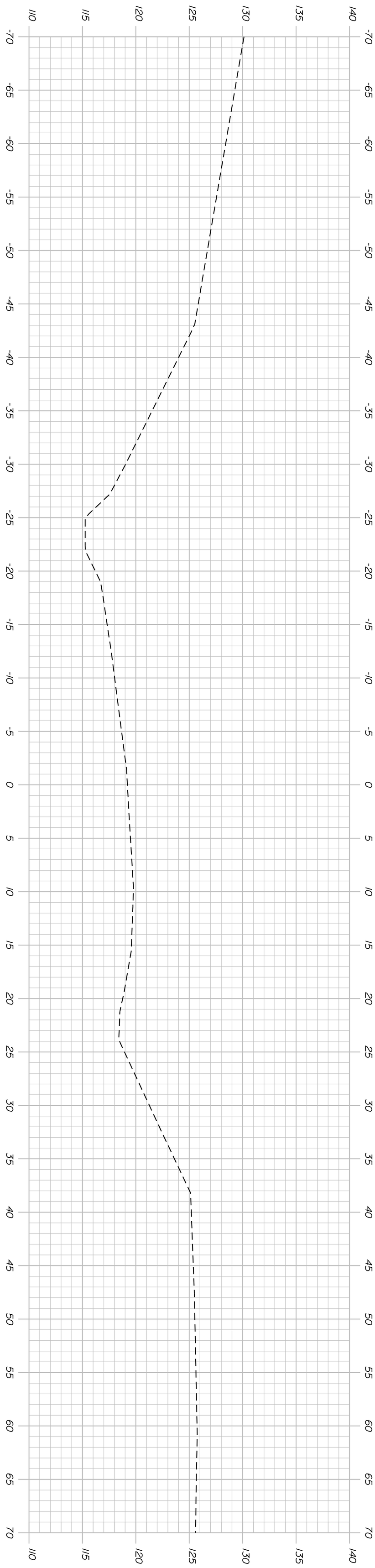
13

OF 17

Username: mark.parlin Date:5/14/2010
Division: BRIDGE
Filename: ...\MSTA\013_Bridge_PipePlan.dgn



17+50.00



18+00.00

Sta. 17+50.00 to Sta. 18+00.00

SHEET NUMBER 12 OF 17

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

CROSS SECTIONS

		BY	DATE
PROJ. MANAGER _____			
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	-----	-----
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

AC-BH-1674(100)X

PIN 16741.00

BRIDGE NO. 5646 BRIDGE PLANS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

PIN 16741.00

BRIDGE NO. 5646

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	----------	
DESIGN-DETAILED	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	------
DESIGN2-DETAILED2	----------	----------
DESIGN3-DETAILED3	----------	----------
REVISIONS 1	------	------
REVISIONS 2	------	------
REVISIONS 3	------	------
REVISIONS 4	------	------
FIELD CHANGES	------	------

SIGNATURE

P.E. NUMBER

DATE

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

CROSS SECTIONS

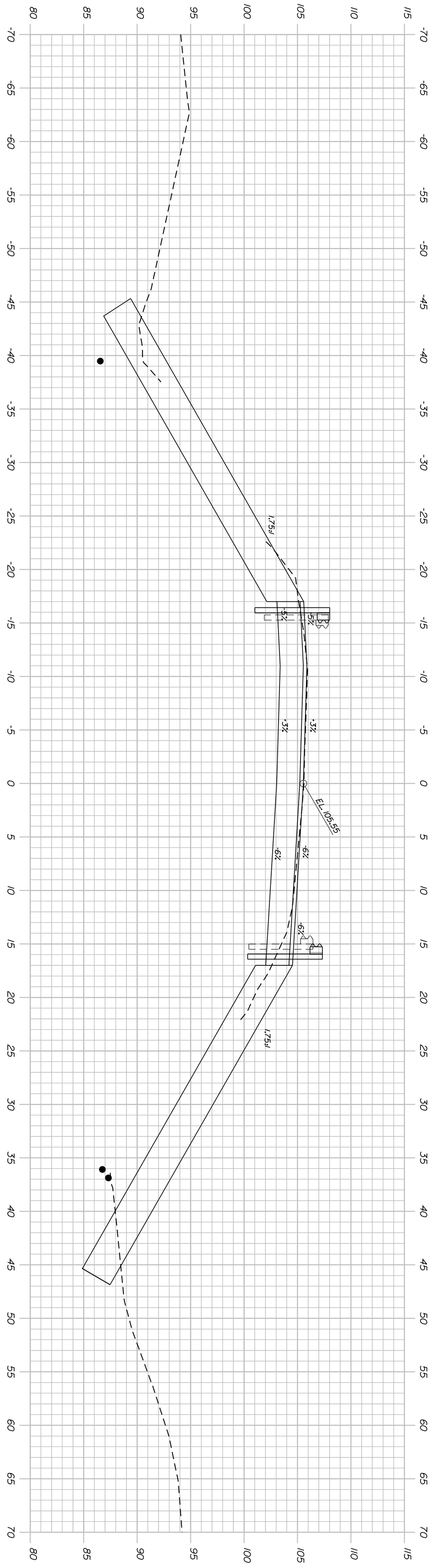
SHEET NUMBER

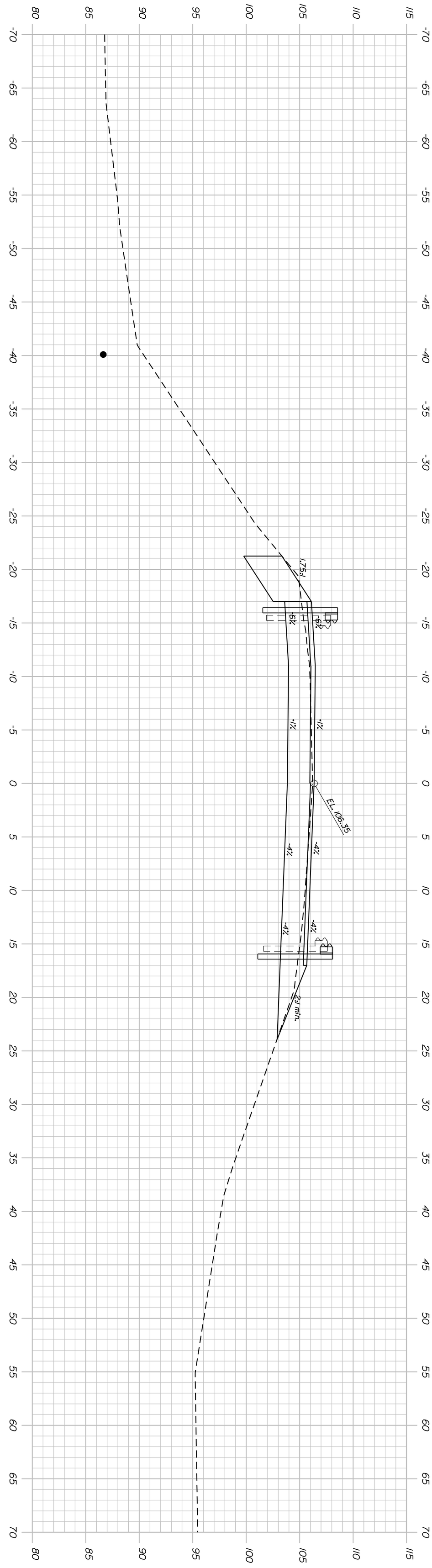
11

OF 17

Sta. 16+00.00 to Sta. 17+00.00

Filename: ...\MSTA\011_XSECT_16+00_005.dgn Division: BRIDGE Username: mark.parlin Date:5/14/2010





Sta. 15+00.00 to Sta. 15+50.00

SHEET NUMBER 10 OF 17

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

CROSS SECTIONS

PROJ. MANAGER _____		BY	DATE
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	_____	_____
DESIGN2-DETAILED2	_____	_____	_____
DESIGN3-DETAILED3	_____	_____	_____
REVISIONS 1	_____		_____
REVISIONS 2	_____		_____
REVISIONS 3	_____		_____
REVISIONS 4	_____		_____
FIELD CHANGES	_____		_____

SIGNATURE

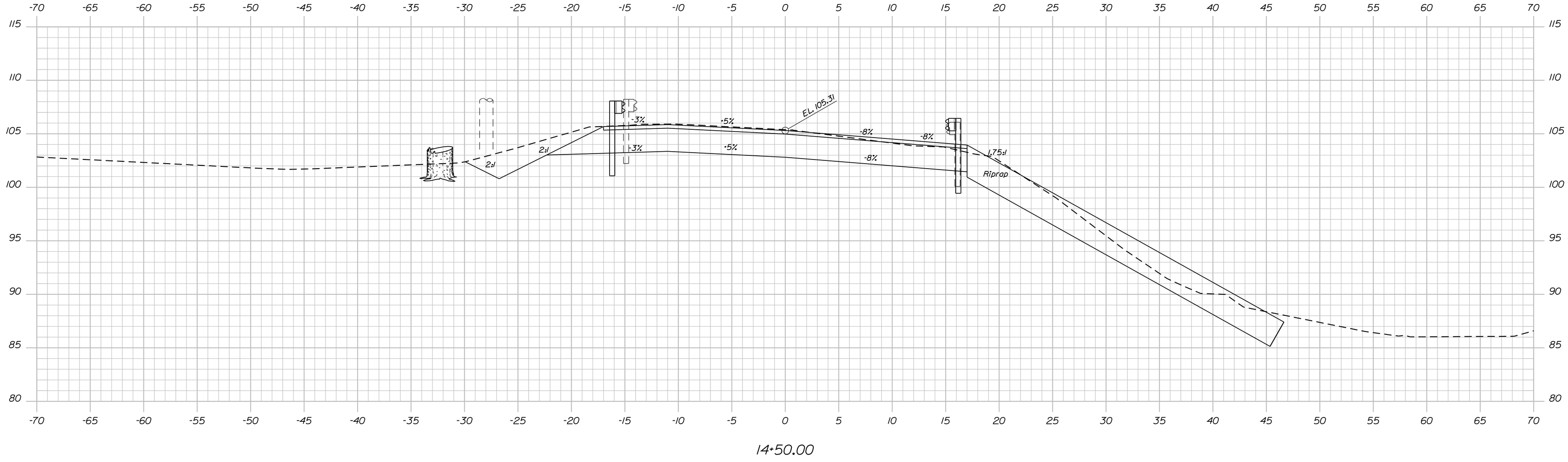
P.E. NUMBER

DATE

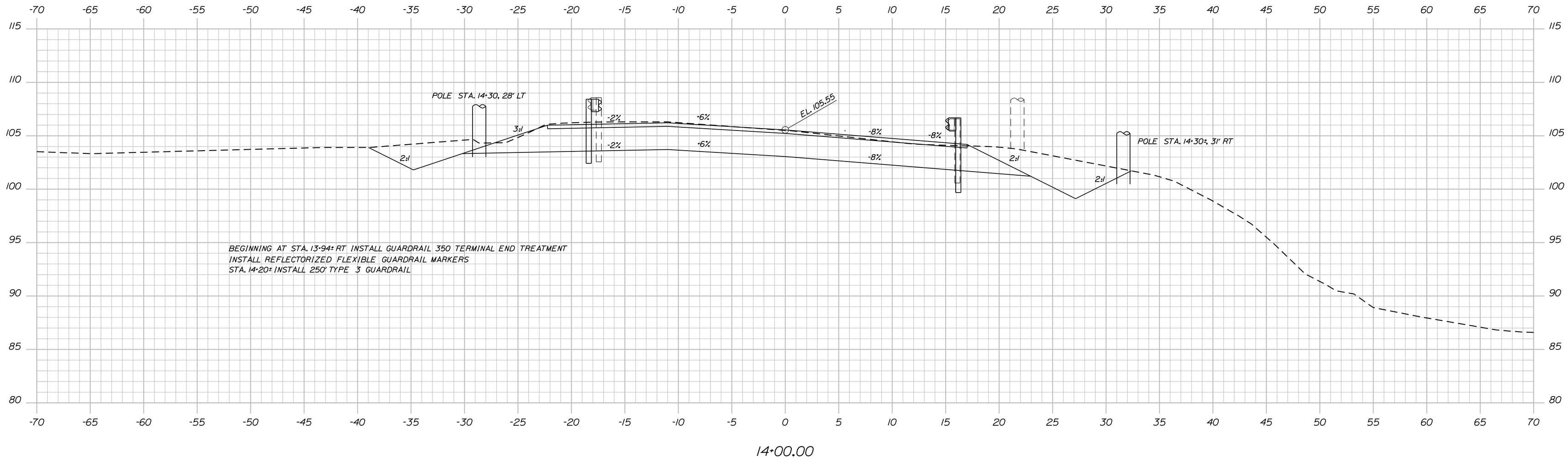
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

BRIDGE NO. 5646 PIN 16741.00 BRIDGE PLANS



14+50.00



14+00.00

Sta. 14+00.00 to Sta. 14+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

PIN 16741.00

BRIDGE NO. 5646

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	M. PARLIN	DEC. 2009	
CHECKED-REVIEWED	A. NADEAU		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BY | DATE | SIGNATURE

P.E. NUMBER

DATE

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

CROSS SECTIONS

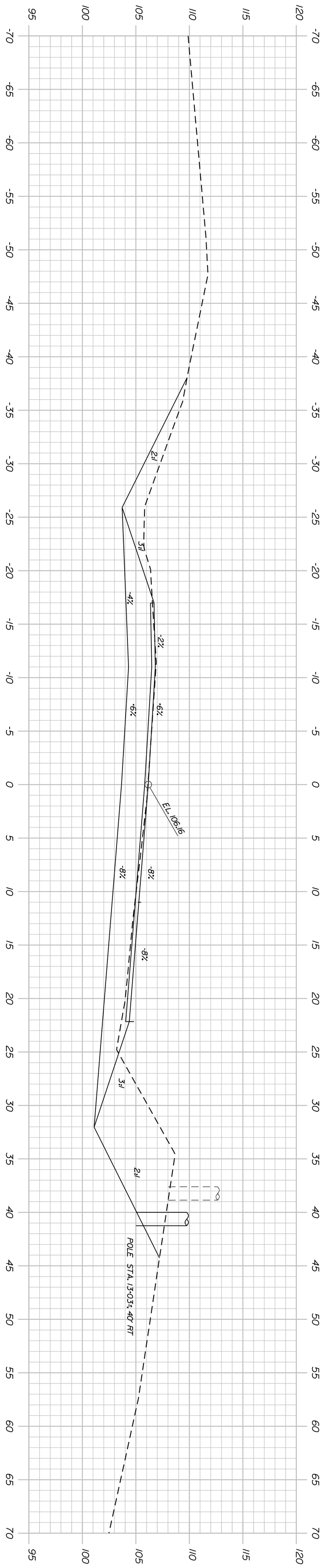
SHEET NUMBER

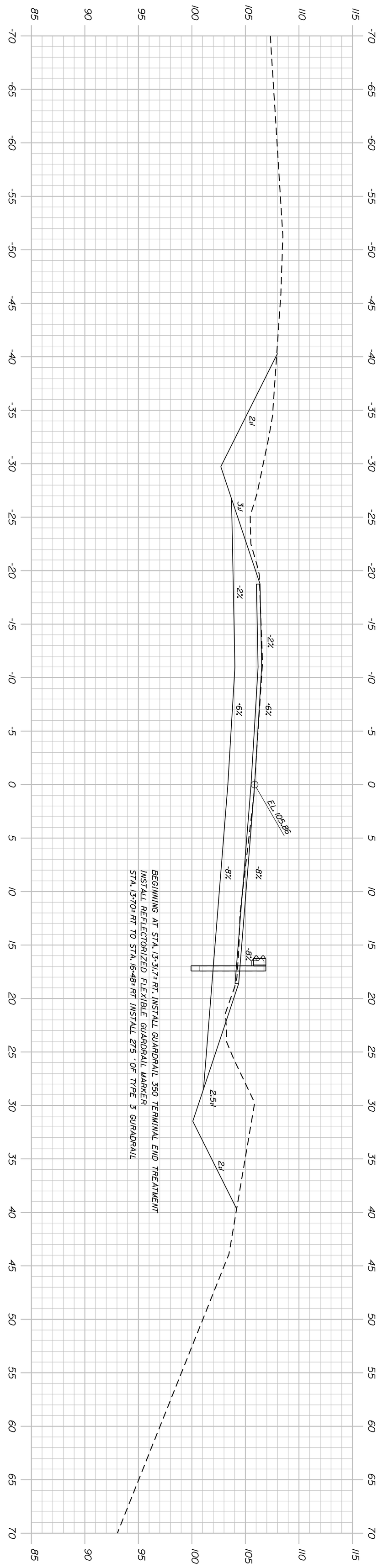
9

OF 17

Filename: ...\MSTA\009_XSECT_14+00_003.dgn Division: BRIDGE Username: mark.parlin Date:5/14/2010

Filename: ...\MSTA\008_XSECT_13+00_002.dgn Division: BRIDGE Username: mark.parlin Date:5/14/2010





Sta. 13+00.00 to Sta. 13+50.00

OF 17

8

SHEET NUMBER

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

CROSS SECTIONS

PROJ. MANAGER _____		BY	DATE
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	_____	_____
DESIGN2-DETAILED2	_____	_____	_____
DESIGN3-DETAILED3	_____	_____	_____
REVISIONS 1	_____		_____
REVISIONS 2	_____		_____
REVISIONS 3	_____		_____
REVISIONS 4	_____		_____
FIELD CHANGES	_____		_____

SIGNATURE

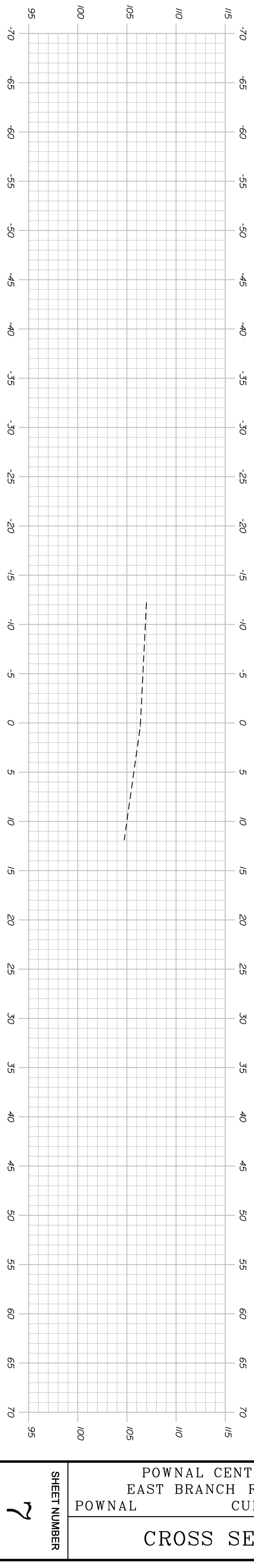
P.E. NUMBER

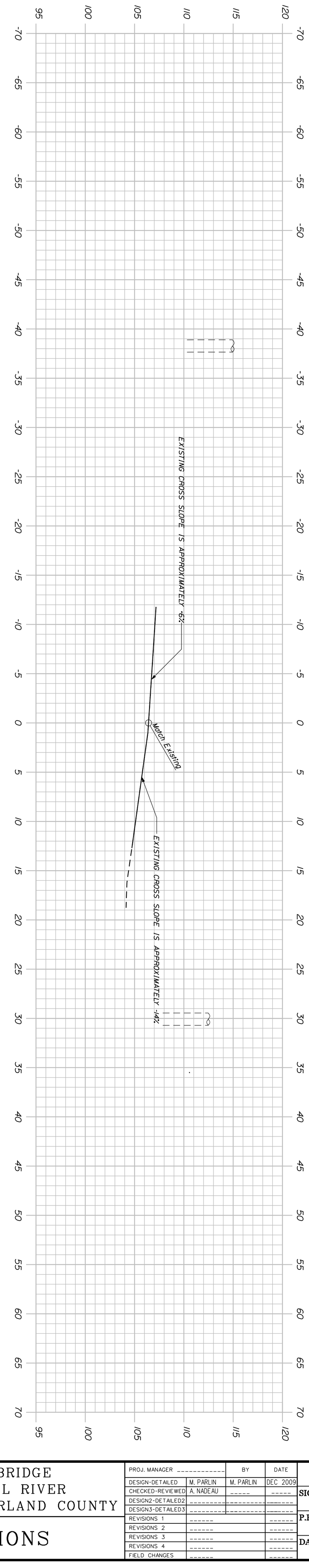
DATE

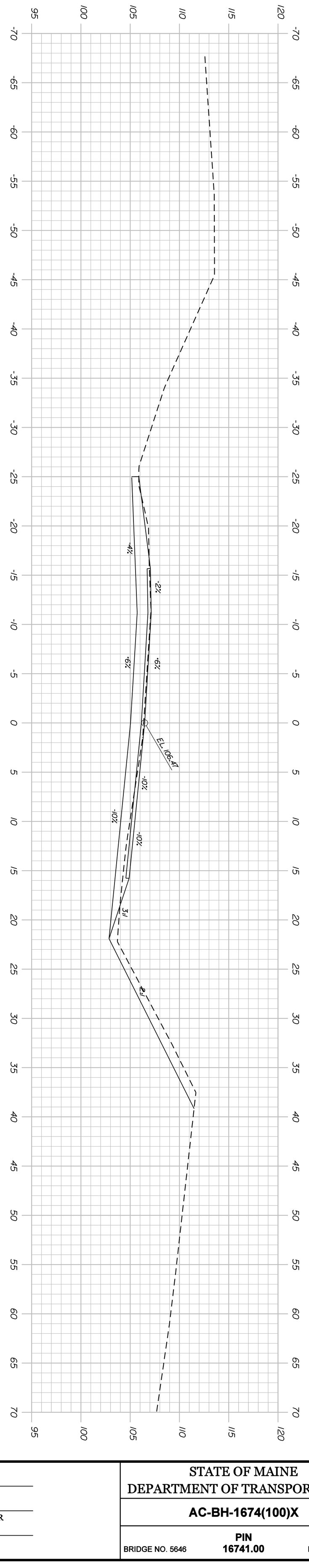
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

BRIDGE NO. 5646 PIN 16741.00 BRIDGE PLANS







Sta. 11+50.00 to Sta. 12+50.00

SHEET NUMBER 7 OF 17

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

CROSS SECTIONS

PROJ. MANAGER _____		BY	DATE
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	_____	_____
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

AC-BH-1674(100)X

BRIDGE NO. 5646 PIN 16741.00 BRIDGE PLANS

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pownal Center Bridge #5646 carrying Route 9 over East Branch
Location: Pownal, Maine

Boring No.: BB-PEBR-101
PIN: 16741.00

Driller: MaineDOT | Elevation (ft.) 105.5
Operator: Wilder/Giguere/Giles | Datum: NAVD88
Logged By: K. Maguire | Rig Type: CME 45C
Date Start/Finish: 12/8/09 1: 08:30-11:00 | Drilling Method: Cased Wash Boring
Boring Location: 14+79.7, 7.7 Lt. | Casing ID/OD: NW
Hammer Efficiency Factor: 0.84 | Hammer Type: Automatic ☒

Sample Information

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in. Shear Strength (psf) or ROD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	105.10		Pavement	
										0.40	
10	24/16	5.00 - 7.00		9/11/8/7	19	27				Brown, damp, very stiff, SILT, some sand, little clay, trace gravel, (fill).	GM241470 A-4, SC-SM WC=11.8%
20	24/20	10.00 - 12.00		2/2/1/1	3	4	7			Brown, damp, very loose, fine Silty SAND, trace clay, (fill).	GM241471 A-4, SC-SM WC=27.7%
30	24/16	15.00 - 17.00		1/2/3/4	5	7	10	90.50		Brown, wet, loose, Silty fine SAND, little clay.	GM241472 A-4, SC-SM WC=21.4%
										15.00	
40	24/6	20.00 - 22.00		21/28/35/18	64	90	48			Brown, wet, very dense, fine to coarse SAND some gravel, little silt.	GM241473 A-1-b, SM WC=10.7%
R1	60/60	23.20 - 28.20		ROD = 86%				82.30		Top of Bedrock at Elev. 82.3'. Ricore Boring: Light grey and black, pegmatite GRANITE with mica and garnets, some iron staining. Rock Mass Quality: Good Ricore Times (min/sec) 23.2-24.2' (1:24) 24.2-25.2' (1:31) 25.2-26.2' (1:59) 26.2-27.2' (1:35) 27.2-28.2 (2:25) 100% Recovery	
								77.30		Bottom of Exploration at 28.20 feet below ground surface.	

Remarks:

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.: BB-PEBR-101

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pownal Center Bridge #5646 carrying Route 9 over East Branch
Location: Pownal, Maine

Boring No.: BB-PEBR-101A
PIN: 16741.00

Driller: MaineDOT | Elevation (ft.) 105.5
Operator: Wilder/Giguere/Giles | Datum: NAVD88
Logged By: K. Maguire | Rig Type: CME 45C
Date Start/Finish: 12/8/09 1: 08:20-08:30 | Drilling Method: Solid Stem Auger
Boring Location: 14+81.9, 8.2 Lt. | Casing ID/OD: N/A
Hammer Efficiency Factor: 0.84 | Hammer Type: Automatic ☒

Sample Information

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in. Shear Strength (psf) or ROD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0								105.10		Pavement	
	1D	10.8/6	1.00 - 1.90	19/50/4.8")	---			104.00		Augered into obstruction at 0.6' bgs. Brown, damp, medium dense, fine to coarse SAND, some silt with broken rock. (fill).	
										1.50	
										Bottom of Exploration at 1.50 feet below ground surface. AUGER REFUSAL	

Remarks:

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.: BB-PEBR-101A

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pownal Center Bridge #5646 carrying Route 9 over East Branch
Location: Pownal, Maine

Boring No.: BB-PEBR-102
PIN: 16741.00

Driller: MaineDOT | Elevation (ft.) 105.2
Operator: Wilder/Giguere/Giles | Datum: NAVD88
Logged By: K. Maguire | Rig Type: CME 45C
Date Start/Finish: 12/8/09 11:00-14:00 | Drilling Method: Cased Wash Boring
Boring Location: 15+23, 6.0 Rt. | Casing ID/OD: NW
Hammer Efficiency Factor: 0.84 | Hammer Type: Automatic ☒

Sample Information

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in. Shear Strength (psf) or ROD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	104.60		Pavement	
	1D	24/12	1.00 - 3.00	11/18/9/12	27	38				Brown, damp, dense, fine to coarse SAND, trace silt with broken rock. (fill).	
								0.60			
10	2D	24/14	10.00 - 12.00	4/6/6/6	12	17	10	94.20		Brown, damp, medium dense, fine to coarse SAND, some gravel, trace silt.	GM241475 A-1-b, SM-SW WC=5.1%
								11.00		Similar to above to 11.0' bgs.	
20	3D	24/15	20.00 - 22.00	7/18/18/17	36	50	43			Olive brown, moist, medium stiff, Silty CLAY, trace sand, trace gravel, (fill).	GM241474 A-7-6, CL WC=34.6% LL=41 PL=24 PI=17
30	4D	24/24	30.00 - 32.00	8/12/15/18	27	38		101.20			
								4.00		Broken granite rock fragments.	
40	5D	24/1	40.00 - 41.00	50/100						Grey, wet, dense, fine to coarse SAND, little gravel, little silt.	GM236826 A-1-b, SM WC=11.3%
50	6D	24/24	50.00 - 52.00	19/8/5/10	13	18	20			Brown, wet, very dense, fine to coarse SAND, little gravel, broken rock in nose of spoon.	GM236827 A-2-4, SM WC=9.5%
60	7D	24/12	60.00 - 61.00	8/22/30/28	52	73	57				
R1	60/53		61.80 - 66.80	ROD = 18%			0168	77.40		Top of Bedrock at Elev. 77.4'. Ricore Boring: Light grey and black, pegmatite GRANITE with mica and garnets, iron staining at fractures. Rock Mass Quality: Very Poor Ricore Times (min/sec) 27.8-28.8' (1:47) 28.8-29.8' (1:36) 29.8-30.8' (2:04) 30.8-31.8' (3:10) 88% Recovery	
								72.40		Bottom of Exploration at 32.80 feet below ground surface.	

Remarks:

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.: BB-PEBR-102

SHEET NUMBER 6 OF 17	POWNAL CENTER BRIDGE EAST BRANCH ROYAL RIVER POWNAL CUMBERLAND COUNTY BORING LOGS	PROJ. MANAGER _____	BY / DATE
		DESIGN-DETAILED	K.MAGUIRE / T.WHITE / MAR 2010
		CHECKED-REVIEWED	_____ / _____ / _____
		DESIGN2-DETAILED2	_____ / _____ / _____
		DESIGN3-DETAILED3	_____ / _____ / _____
		REVISIONS 1	_____ / _____
		REVISIONS 2	_____ / _____
		REVISIONS 3	_____ / _____
		REVISIONS 4	_____ / _____
		FIELD CHANGES	_____ / _____

SIGNATURE

P.E. NUMBER

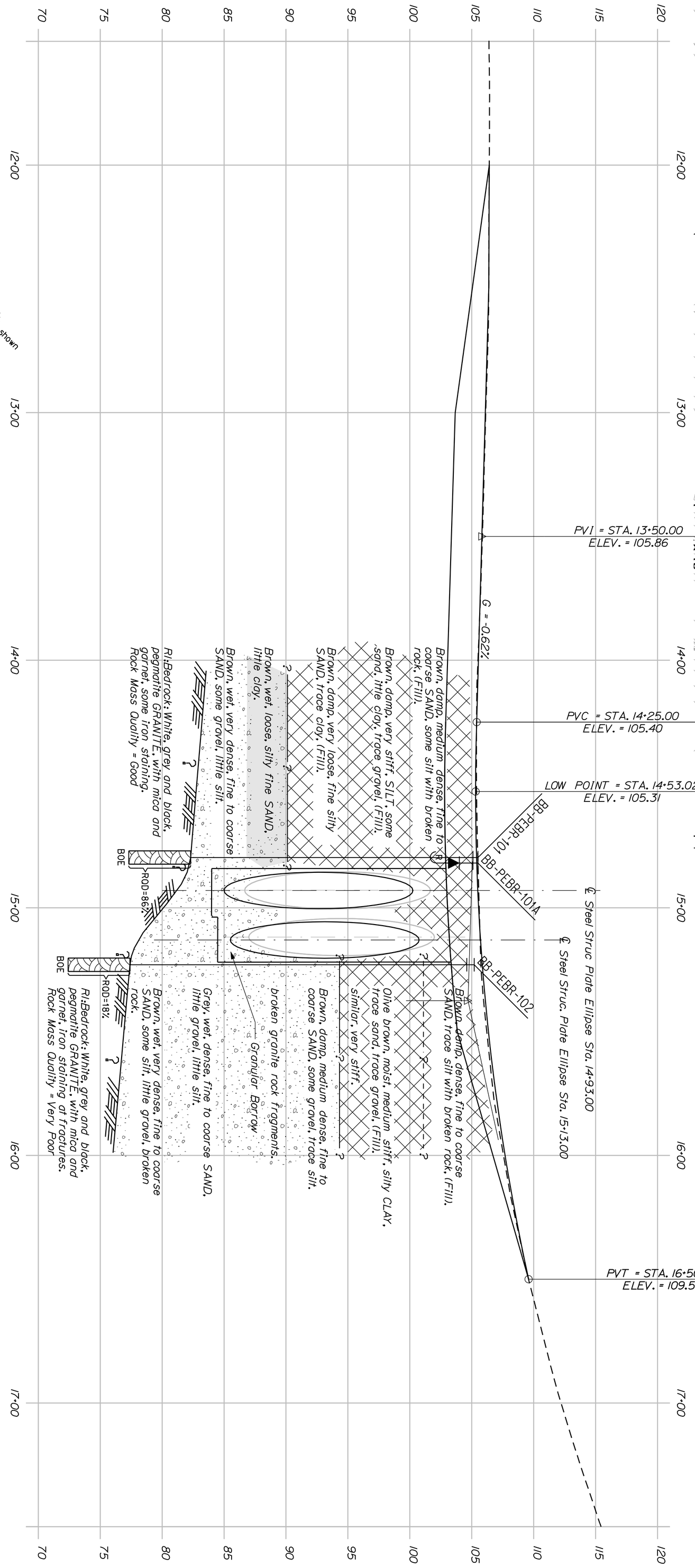
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

BRIDGE NO. 5646 | PIN 16741.00 | BRIDGE PLANS

Filename: ...\GEOTECH\MSTA\005_BLP&ISP1.dgn Division: BRIDGE Username: mark.parlin Date:5/14/2010



SHEET NUMBER 5 OF 17

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE

PROJ. MANAGER		BY	DATE
DESIGN-DETAILED	K.MAGUIRE	T.WHITE	DEC 2009
CHECKED-REVIEWED	_____	_____	_____
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

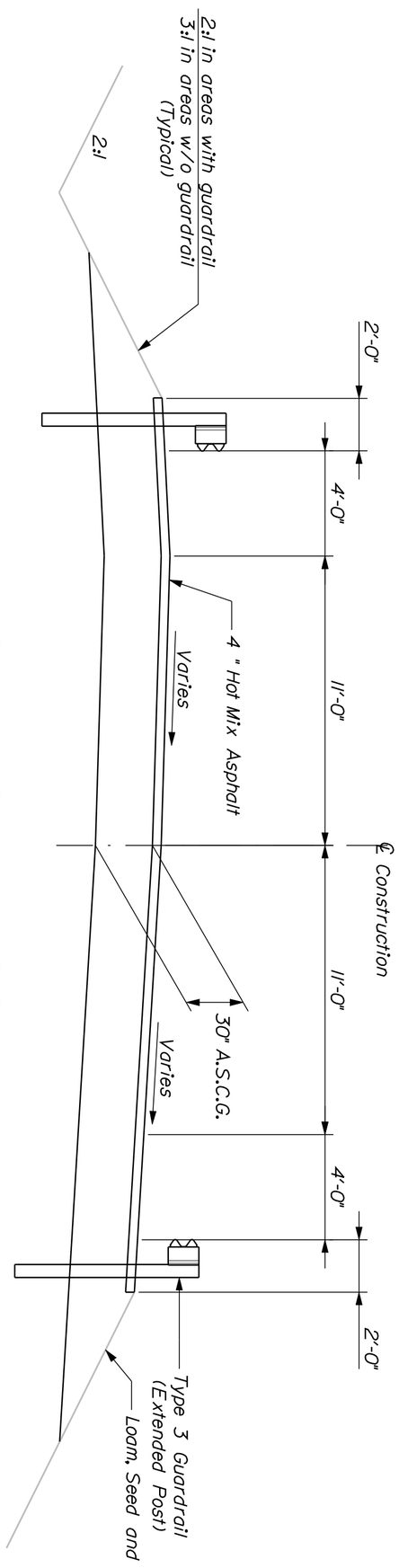
AC-BH-1674(100)X

PIN 16741.00

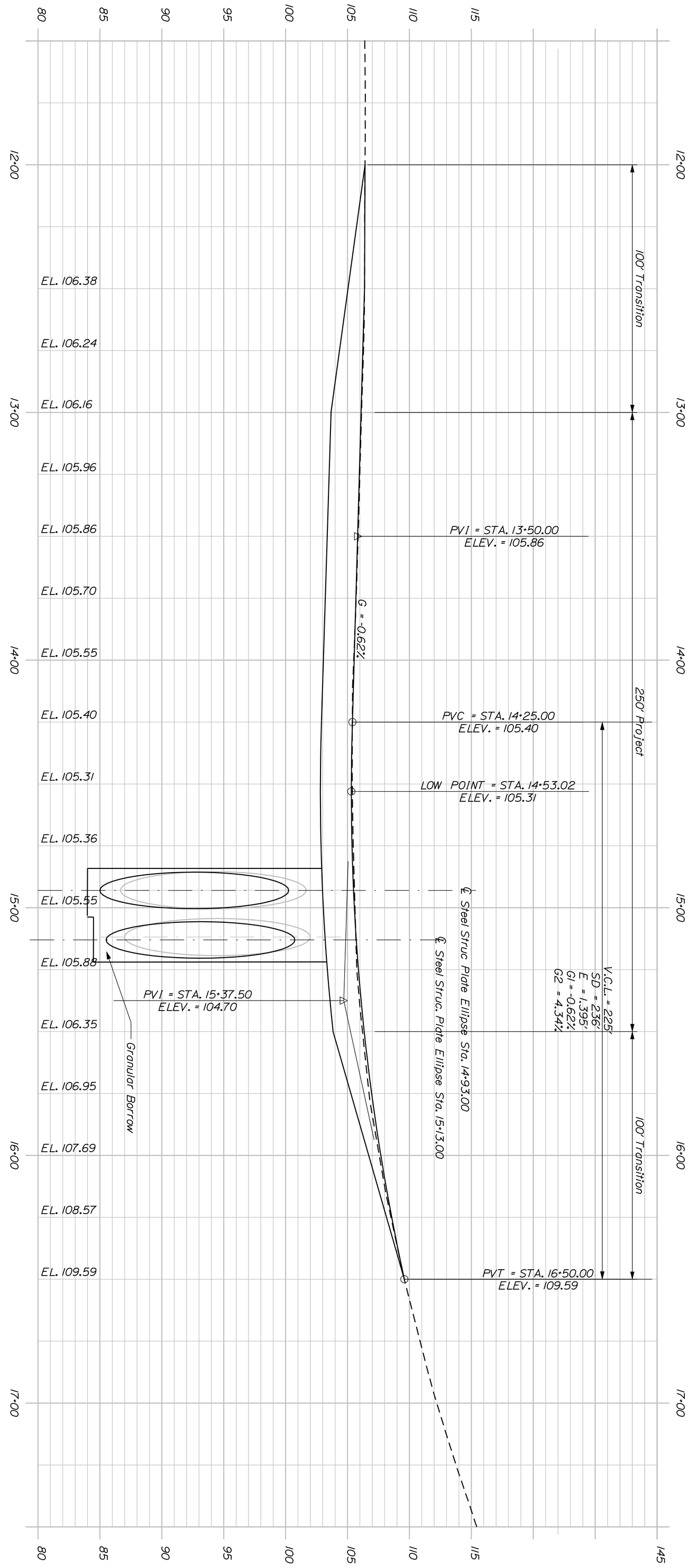
BRIDGE NO. 5646

BRIDGE PLANS

TYPICAL APPROACH SECTION



PROFILE



SHEET NUMBER 4 OF 17

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

PROFILE

		BY	DATE
PROJ. MANAGER _____			
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	_____	_____
DESIGN2-DETAILED2	_____	_____	_____
DESIGN3-DETAILED3	_____	_____	_____
REVISIONS 1	_____		_____
REVISIONS 2	_____		_____
REVISIONS 3	_____		_____
REVISIONS 4	_____		_____
FIELD CHANGES	_____		_____

SIGNATURE

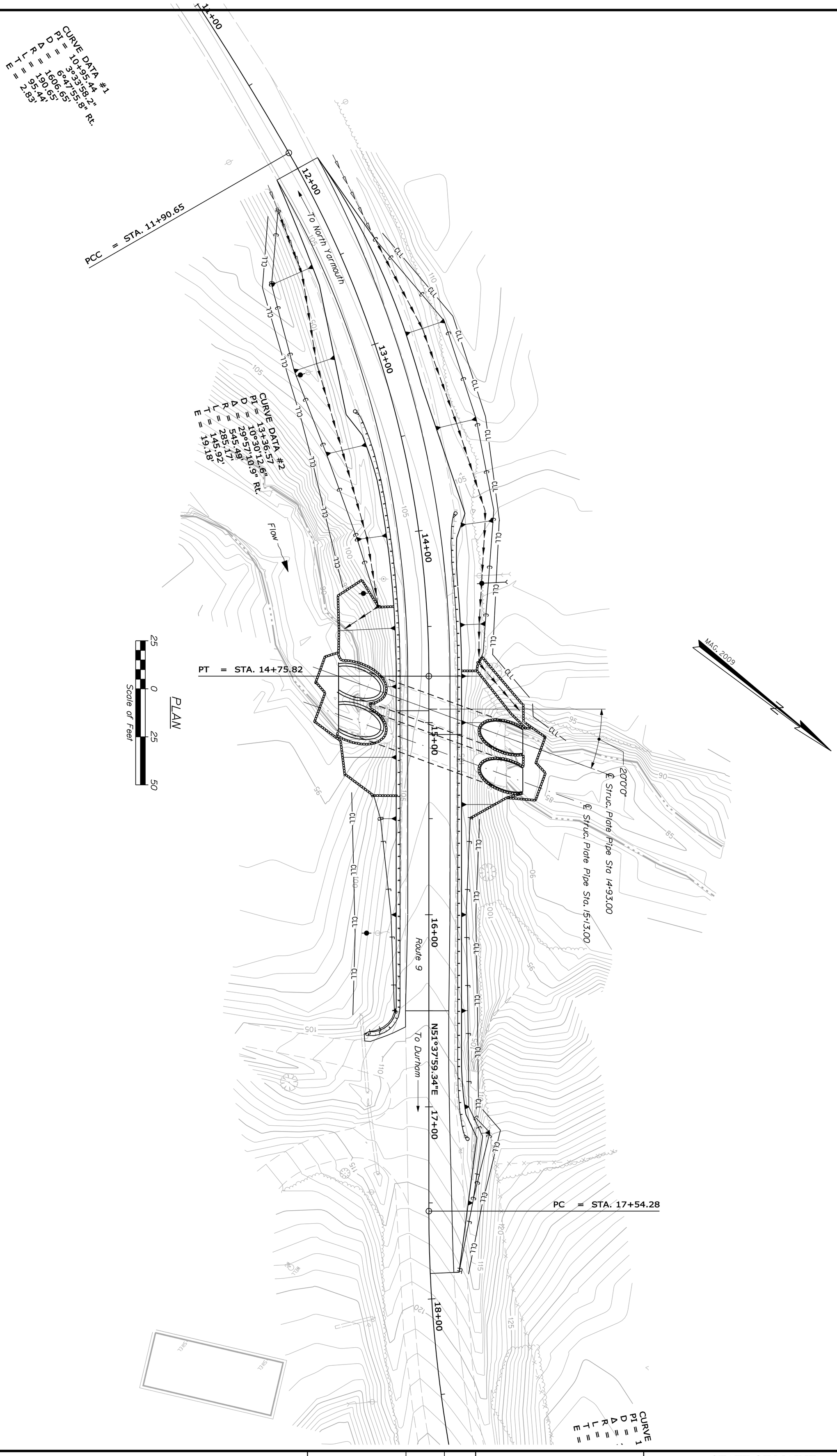
P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

BRIDGE NO. 5646 PIN 16741.00 BRIDGE PLANS



SHEET NUMBER 3 OF 17

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

GENERAL PLAN

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	-----	-----
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

AC-BH-1674(100)X

BRIDGE NO. 5646 PIN 16741.00 BRIDGE PLANS

Filename: ...\BRIDGE\MSTA\002_Estimate.dgn Division: BRIDGE Username: mark.parlin Date:5/14/2010

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	1725	CY
203.25	GRANULAR BORROW	1250	CY
206.061	STR EARTH BELOW GRADE STR	25	CY
304.10	AGGR SUBB COURSE - GRAVEL	1400	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	207	T
403.213	HOT MIX ASPHALT 12.5 MM HMA BASE	207	T
409.15	BITUMINOUS TACK COAT APPLIED	50	G
502.331	CONCRETE REINFORCING COLLAR (24 CY)	1	LS
509.12	STEEL STR PL PIPE ARCH:	1	LS
511.07	COFFERDAM: (UPSTREAM)	1	LS
511.07	COFFERDAM: (DOWNSTREAM)	1	LS
606.23	GR TY 3C - SINGLE RAIL	525	LF
606.231	GR TY 3C - 15 FOOT RADIUS AND LESS	25	LF
606.265	TERM END- SGL RAIL- GALV STEEL	1	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	1	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	3	EA
610.08	PLAIN RIPRAP	750	CY
613.319	EROSION CONTROL BLANKET	10	SY
615.07	LOAM	92	CY
618.1401	SEEDING METHOD NUMBER 2 - PLAN QUANTITY	15	UN
619.1201	MULCH - PLAN QUANTITY	15	UN
620.58	NON WOVEN GEOTEXTILE	565	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	1350	LF
627.76	TEMPORARY PVMT. MARK LINE, W OR YELLOW	1	LS
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL-PURPOSE EXC (INC OPERATOR)	10	HR
631.172	TRUCK-LARGE (INC OPERATOR)	20	HR
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	30	EA
652.34	CONE	30	EA
652.35	CONSTRUCTION SIGNS	452	SF
652.36	MAINT OF TRAFFIC CONTR DEVICES	70	CD
652.38	FLAGGER	250	HR
656.75	TEMP. SOIL EROS. AND WATER POLL. CONTROL	1	LS
659.10	MOBILIZATION	1	LS
834.322	DRY HYDRANT INSTALL ONLY	1	LS

GENERAL CONSTRUCTION NOTES

1. During construction, the road will be closed to traffic for a time period specified in the Special Provisions.

2. For easements, construction limits and right of way lines, refer to Right of Way Map.

3. The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.

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

5. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.

6. In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.

7. All embankment material, except as otherwise shown, placed below EL. 103.0 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.

8. Place riprap on sideslopes up to the berm as shown on the plans.

9. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

10. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specifications Section 619, Mulch. Payment will be made under the Loam and Seeding Method Number 2 pay items.

11. Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap where it does not come up to the pavement.

12. Guardrail posts as shown in the Standard Details shall be modified from the indicated length of 6 feet to a length of 7 feet with an embedment of 4.5 feet. Payment will be considered incidental to the guardrail pay items.

13. An NCHRP350 compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.

14. Extended-use Erosion Control Blanket, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion. Payment will be made under the appropriate Contract items.

15. Bidders and Contractors may obtain a copy of the existing bridge plans by faxing a Request for Information to the Bid Contact Person. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

16. Bidders and Contractors may obtain a copy of the hydrologic report of the bridge site by faxing a Request for Information to the Bid Contact Person. The hydrologic report is based on MaineDOT's interpretation of the information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

17. Bidders and Contractors may obtain a copy of the project geotechnical report(s): Name of Report(s), MaineDOT Soils Report Number(s), date(s), by faxing a Request for Information to the Bid Contact Person.

18. Geotechnical information furnished or referred to in this plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the construction site. MaineDOT will not be responsible for the Bidders' or Contractor's interpretations of, or conclusions drawn from, the geotechnical information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between the boring locations.

19. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:

a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.

b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BH-1674(100)X

PIN 16741.00

BRIDGE NO. 5646

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	----------	----------	----------
DESIGN-DETAILED	M. PARLIN	M. PARLIN	DEC 2009
CHECKED-REVIEWED	A. NADEAU	----------	----------
DESIGN2-DETAILED2	----------	----------	----------
DESIGN3-DETAILED3	----------	----------	----------
REVISIONS 1	----------	----------	----------
REVISIONS 2	----------	----------	----------
REVISIONS 3	----------	----------	----------
REVISIONS 4	----------	----------	----------
FIELD CHANGES	----------	----------	----------

SIGNATURE

P.E. NUMBER

DATE

POWNAL CENTER BRIDGE
EAST BRANCH ROYAL RIVER
POWNAL CUMBERLAND COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 17