

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



LIST OF DRAWINGS

Title Sheet	1
Estimated & General Notes	2
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Profile	4
Pier Details	5
Detour Plan	6

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Seventh Edition 2014 with 2015 Interim Revisions.

DESIGN LOADING

Live Load HL - 93 Modified

TRAFFIC DATA

Current (2015) AADT	420
Future (2035) AADT	500
DHV - % of AADT	13%
Design Hour Volume	65
Heavy Trucks (% of AADT)	8%
Heavy Trucks (% of DHV)	8%
Directional Distribution (% of DHV)	60%
18 kip Equivalent P 2.0	26
18 kip Equivalent P 2.5	24

MATERIALS

Concrete:
 Pile Jackets Class "A"
 Reinforcing Steel ASTM A 615/A 615M, Grade 60
 Structural Steel:
 All Material (except as noted) ASTM A 709, Grade 36
 High Strength Bolts ASTM A 325, Type 1

BASIC DESIGN STRESSES

Concrete $f'c = 4,000$ psi
 Reinforcing Steel $f_y = 60,000$ psi
 Structural Steel:
 ASTM A 709, Grade 36 $F_y = 36,000$ psi
 ASTM A 325 $F_u = 120,000$ psi

UTILITIES

Central Maine Power Company Time Warner Cable
 Fairpoint Communications Cobbossee Communications

MAINTENANCE OF TRAFFIC

The bridge will be closed to traffic during construction.

LITCHFIELD / WEST GARDINER KENNEBEC COUNTY WHARFF BRIDGE OVER COBBOSSEE STREAM DENNIS HILL ROAD & BOG HILL ROAD PROJECT. NO. STP-2047(900) BRIDGE NO. 3329

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED: <i>[Signature]</i>
DATE: 4/7/15
COMMISSIONER: <i>[Signature]</i>
CHIEF ENGINEER: <i>[Signature]</i>
DATE: 4-7-15

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PROFESSIONAL ENGINEER
DEVAN EATON
13725
3/26/2015
DATE

PROJECT INFORMATION
PROGRAM: BRIDGE PROGRAM
PROJECT MANAGER: JOEL KITREDE
DESIGNER: DEVAN EATON
CONSULTANT:
PROJECT RESIDENT:
CONTRACTOR:
PROJECT COMPLETION DATE:

WIN 20479.00
STP-2047(900)
LITCHFIELD/WEST GARDINER
WHARFF BRIDGE
TITLE SHEET

PROJECT LOCATION:	On the Litchfield / West Gardiner town line carrying Dennis Hill Road and Bog Hill Road over Cobbossee Stream. Lat. 44° 11' 35.3", Long. 69° 53' 44.2"
PROGRAM AREA:	Highway Bridges - Traditional
OUTLINE OF WORK:	Bridge Substructure Rehabilitation

SHEET NUMBER
1
OF 6

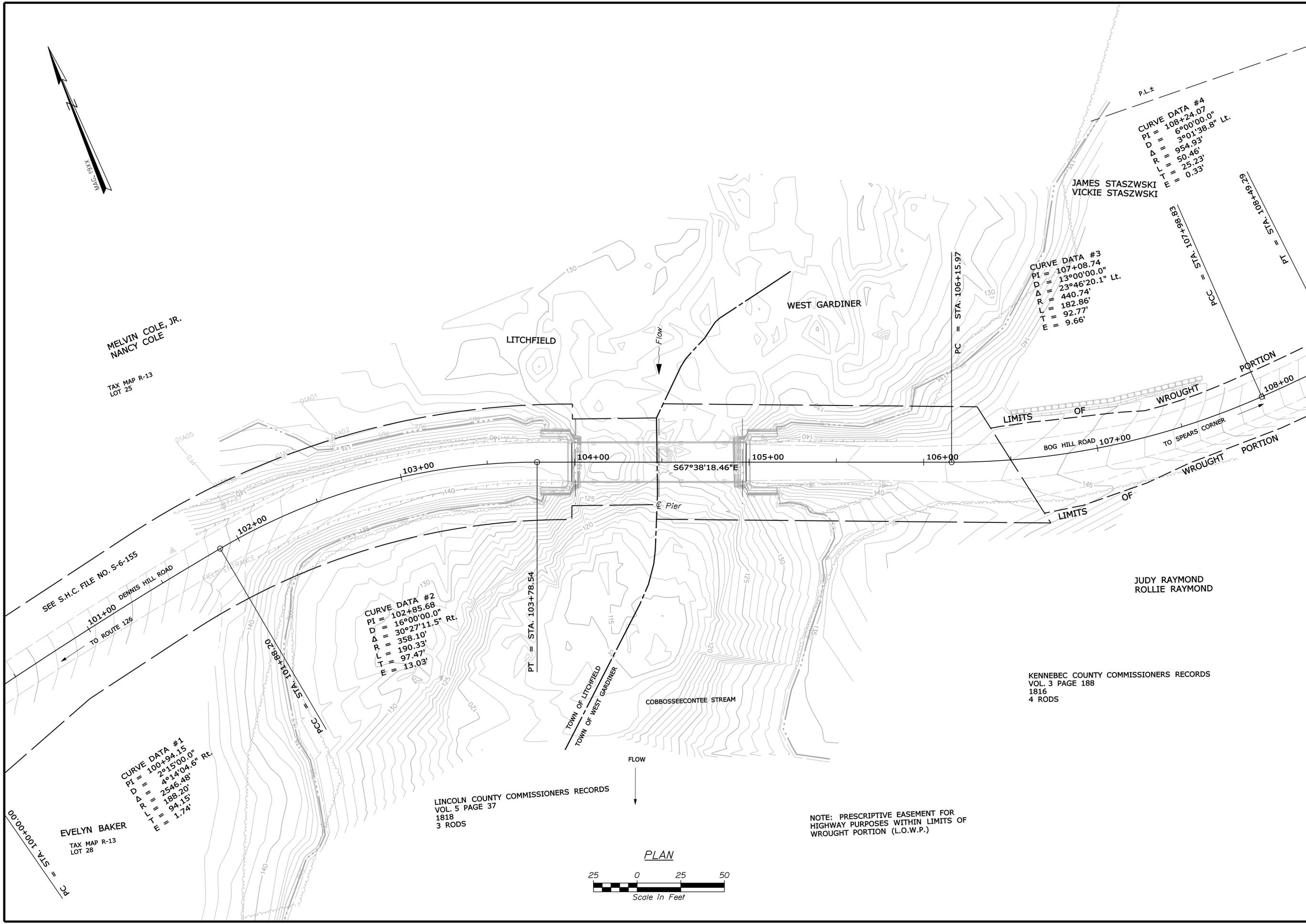
Date: 3/20/2015
 Username: devan.eaton
 Division: BRIDGE
 Filename: \\00\BRIDGE\MSTA\001_Title.dgn

Date: 3/23/2015

Username: damc.damren

Division: BRIDGE

Filename: ... \msta\003_GeneralPlan.dgn



MELVIN COLE, JR.
NANCY COLE
TAX MAP R-13
LOT 25

CURVE DATA #1
PI = 100+94.15
Δ = 4°15'00.0"
R = 2586.48'
L = 188.20'
T = 94.15'
E = 1.74'

CURVE DATA #2
PI = 102+85.68
Δ = 30°27'11.5"
R = 358.10'
L = 190.33'
T = 97.47'
E = 13.03'

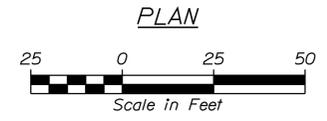
CURVE DATA #3
PI = 107+08.74
Δ = 23°46'20.1"
R = 440.74'
L = 182.86'
T = 92.77'
E = 9.66'

CURVE DATA #4
PI = 108+24.07
Δ = 6°01'38.8"
R = 954.93'
L = 50.46'
T = 25.23'
E = 0.33'

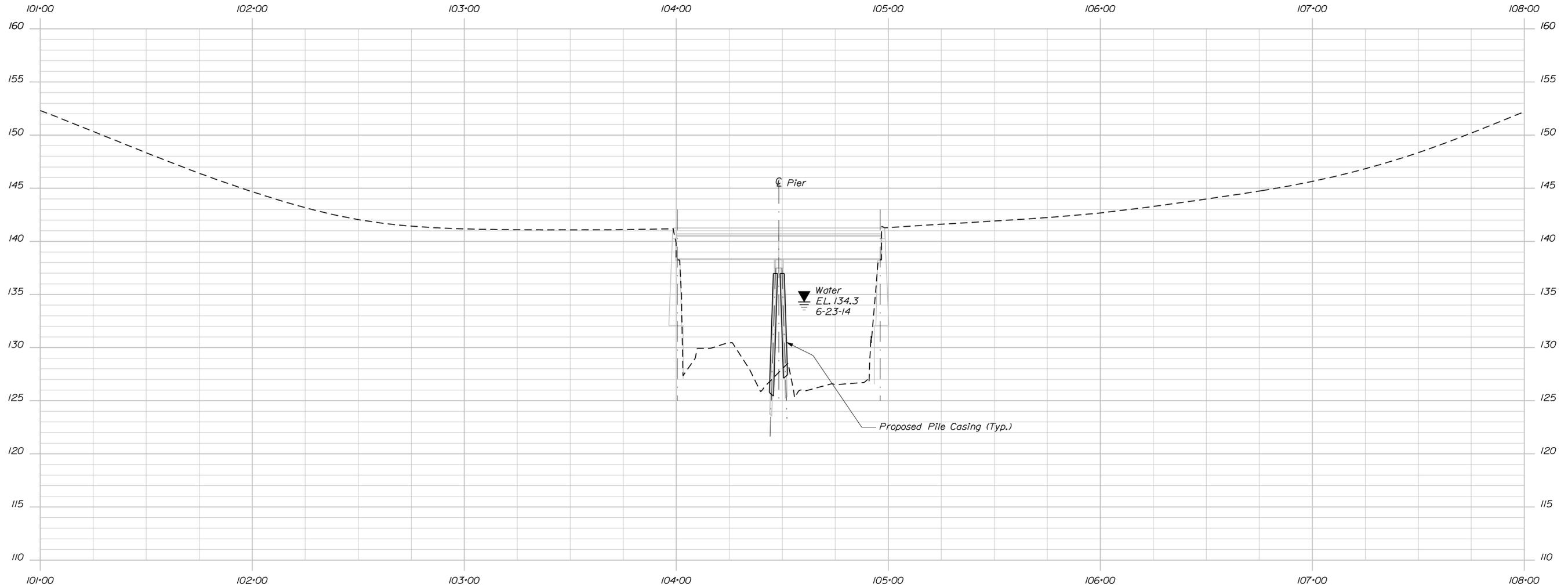
LINCOLN COUNTY COMMISSIONERS RECORDS
VOL. 5 PAGE 37
1818
3 RODS

KENNEBEC COUNTY COMMISSIONERS RECORDS
VOL. 3 PAGE 188
1816
4 RODS

NOTE: PRESCRIPTIVE EASEMENT FOR
HIGHWAY PURPOSES WITHIN LIMITS OF
WROUGHT PORTION (L.O.W.P.)



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
STP-2047(900)		WIN 20479.00	
BRIDGE NO. 3329		BRIDGE PLANS	
PROJ. MANAGER	J. Kittredge	BY	D. Damren
DESIGN-DETAILED	D. Eaton	DATE	Mar 2015
CHECKED-REVIEWED	R. Myers		Mar 2015
DESIGNS DET AILED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
WHARFF BRIDGE		LITCHFIELD\WEST GARDIN KENNEBEC COUNTY	
COBBOSEE STREAM		GENERAL PLAN	
SHEET NUMBER		3	
OF		1	



PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2047(900)

BRIDGE NO. 3329
WIN
20475.00
BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	J. Kittridge	BY	DATE
DESIGN DETAILED	D. Eaton	D. Damren	Mar 2015
CHECKED/REVIEWED	R. Myers	D. Eaton	
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WHARFF BRIDGE

COBOSSEE STREAM

LITCHFIELD\WEST GARRENEBEC COUNTY

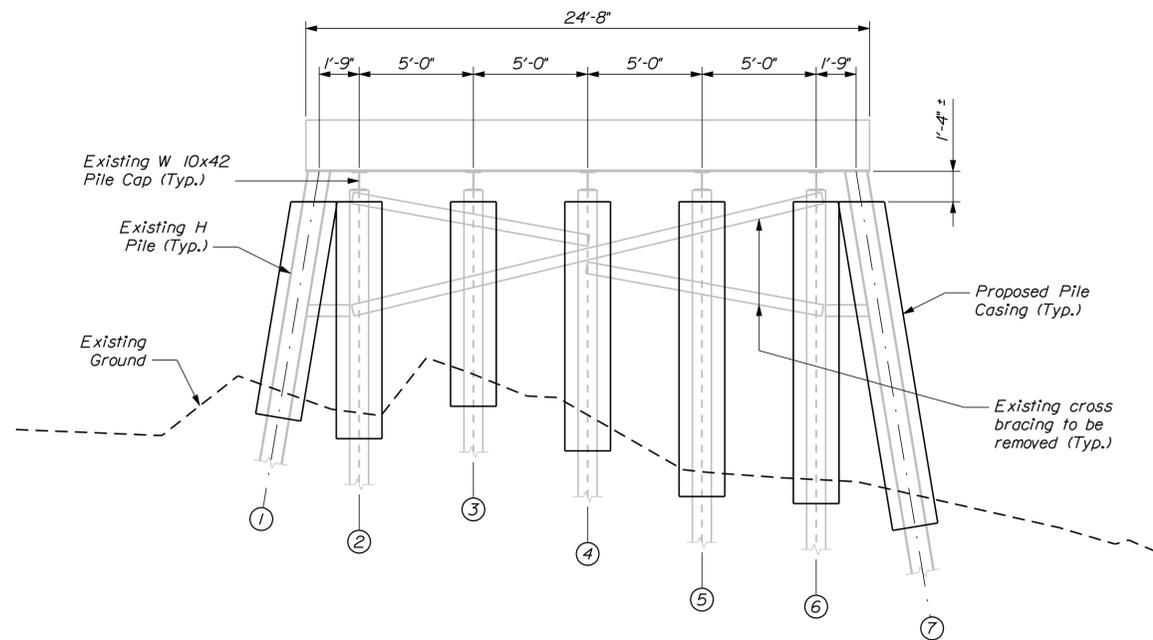
SHEET NUMBER

4

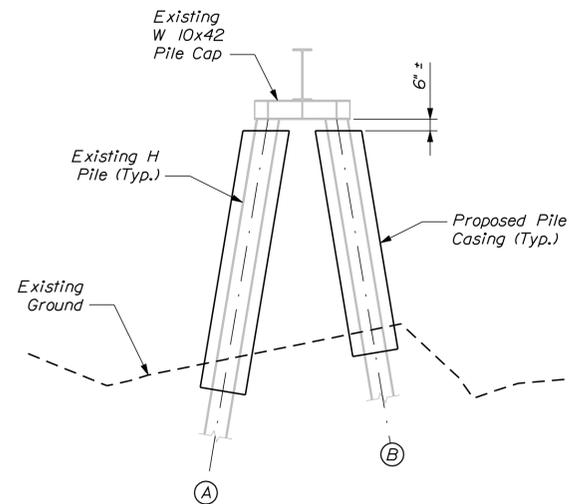
OF

1

PROFILE



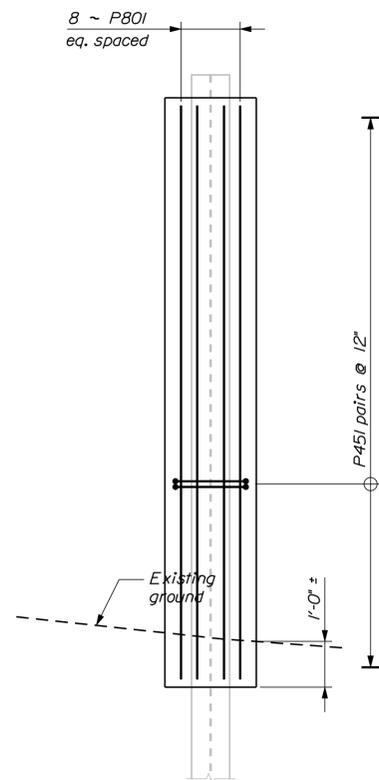
PIER ELEVATION
View looking East (upstation)



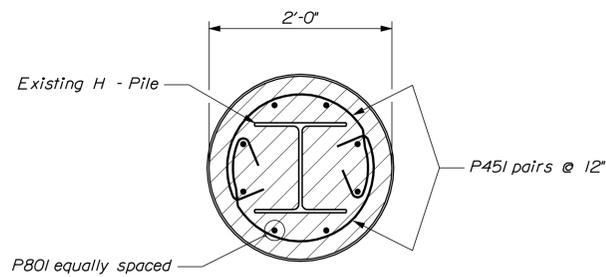
PIER SECTION
View looking North (upstream)

PILE CASING NOTES

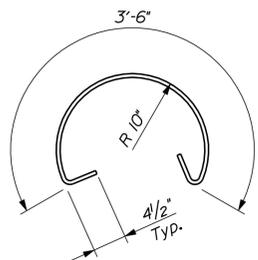
1. Pile Casings shall be two - piece round Column Forms with a 2 - ft. inside diameter and must be fiberglass, galvanized steel or plastic stay - in - place forms in accordance with Special Provision 501.251, Pile Casings and as approved by the Resident.
2. Class "A" Concrete shall be used to fill the annular space between the existing pile and the pile casing.
3. Clean existing piles using a machine wire brush or similar tool in regions where concrete will be placed as directed by the Resident. The piles are 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 cleaning the existing piles.
4. Remove material and place concrete to a minimum elevation as shown on the plans.
5. Minimum clear cover to rebar shall be 2 inches unless indicated otherwise on the plans. The Contractor shall maintain formwork within 1/2 inch of final location. Horizontal bar splices shall be rotated around the H - pile.
6. Casing lengths, P80I rebar lengths and P45I rebar quantities are given for estimating purposes only. Actual lengths and quantities shall be determined in the field by the Contractor.



PILE CASING ELEVATION



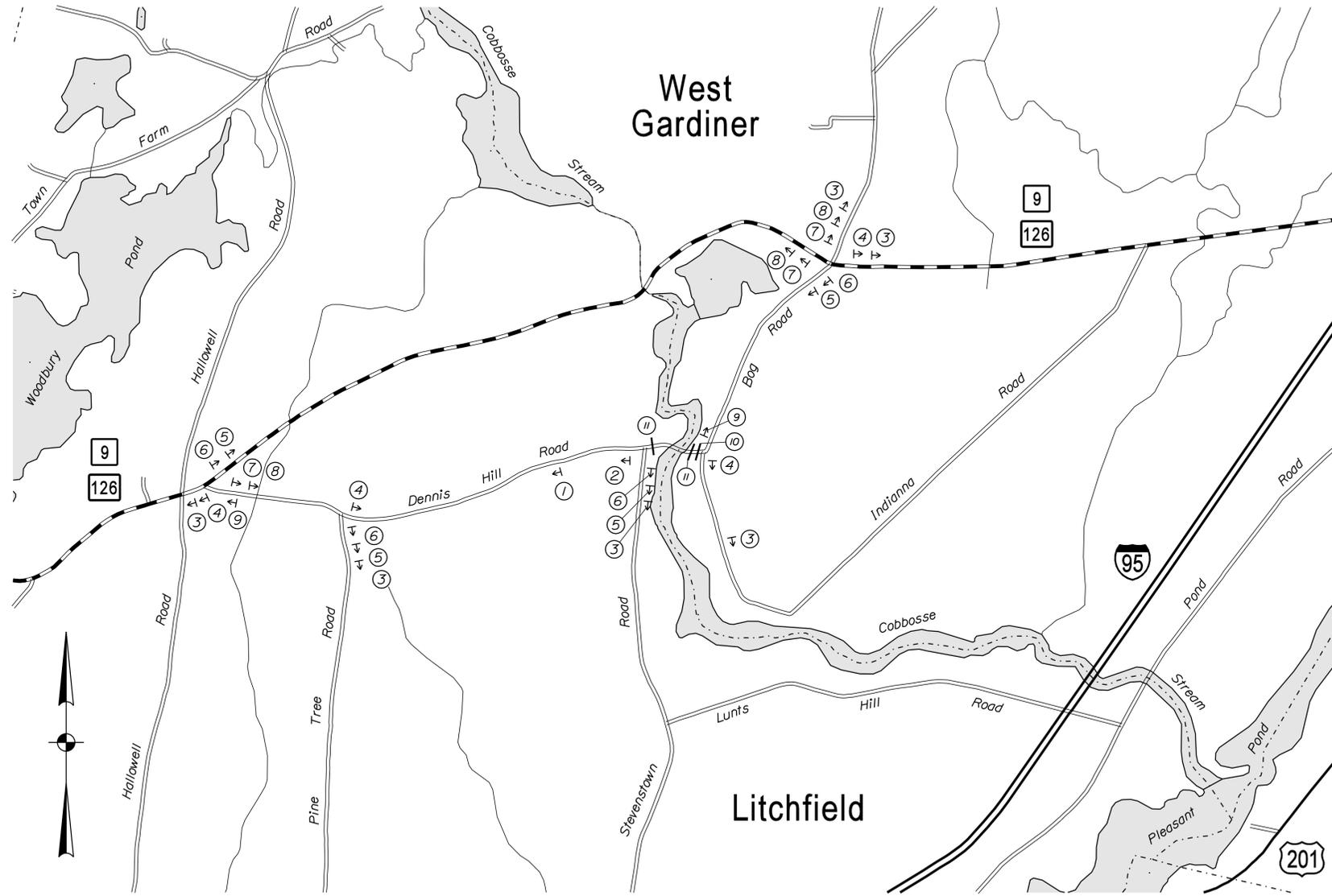
TYPICAL PILE CASING SECTION



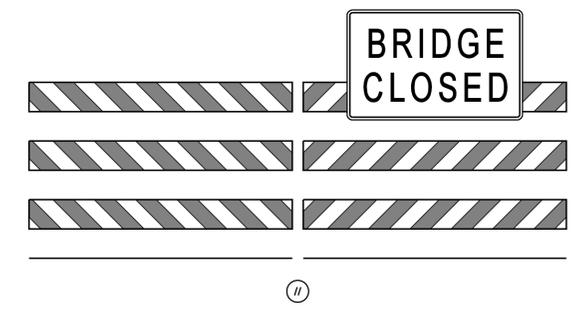
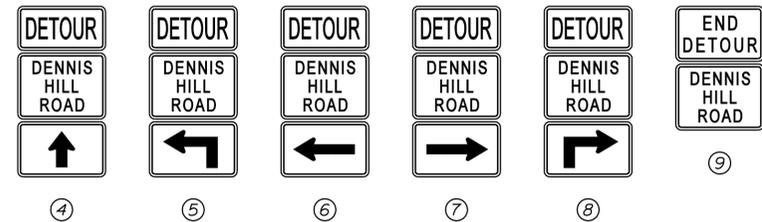
P45I REBAR DETAIL
Standard 90° and 135° stirrup hooks

PILE CASING & REBAR DIMENSIONS					
Pile No.	Casing Length	P80I (#8 Bar)		P45I (#4 Bar)	
		Qty.	Length	Qty.	Length
1	9'-5"	8	8'-9"	18	4'-3"
2A	10'-6"	8	9'-10"	20	4'-3"
2B	10'-4"	8	9'-8"	20	4'-3"
3A	10'-4"	8	9'-8"	20	4'-3"
3B	8'-0"	8	7'-4"	16	4'-3"
4A	11'-7"	8	10'-11"	22	4'-3"
4B	10'-0"	8	9'-4"	20	4'-3"
5A	13'-0"	8	12'-4"	26	4'-3"
5B	12'-9"	8	12'-1"	24	4'-3"
6A	13'-4"	8	12'-8"	26	4'-3"
6B	13'-9"	8	13'-1"	26	4'-3"
7	14'-3"	8	13'-7"	28	4'-3"

STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2047(900)	BRIDGE NO. 3329 WIN 20479.00 BRIDGE PLANS
WHARFF BRIDGE COBOSSEE STREAM LITCHFIELD\WEST GARDINNEBEC COUNTY PIER DETAILS	SHEET NUMBER 5 OF 1
PROJ. MANAGER: J. Kittridge DESIGN-DETAILED: D. Eaton CHECKED-REVIEWED: R. Myers DESIGN-DETAILED: _____ REVISIONS 1: _____ REVISIONS 2: _____ REVISIONS 3: _____ REVISIONS 4: _____ FIELD CHANGES: _____	DATE: Mar. 2015 BY: D. Damren SIGNATURE: _____ P.E. NUMBER: _____ DATE: _____



DETOUR PLAN



DETOUR NOTES

1. Sign locations shown are schematic in nature and are not intended to indicate exact positioning. Signs shall be placed in accordance with the Specifications and the Contractor's Traffic Control Plan, with final locations approved by the Resident.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
STP-2047(900)		BRIDGE NO. 3329	
WIN		20475.00	
BRIDGE PLANS		DATE	
PROJ. MANAGER	J. Kittridge	BY	D. Damren
DESIGN-DETAILED	D. Eaton	CHECKED-REVIEWED	D. Hopkins
DESIGN-DETAILED	D. Hopkins	DESIGN-DETAILED	D. Hopkins
REVISIONS 1		REVISIONS 1	
REVISIONS 2		REVISIONS 2	
REVISIONS 3		REVISIONS 3	
REVISIONS 4		REVISIONS 4	
FIELD CHANGES		FIELD CHANGES	
WHARFF BRIDGE		LITCHFIELD\WEST GARDINNEBEC COUNTY	
COBOSSEE STREAM		DETOUR PLAN	
SHEET NUMBER		6	
OF		1	

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



LIST OF DRAWINGS

Title Sheet	1
Estimate & General Notes	2
General Plan	3
Profile	4
Pier Details	5

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Seventh Edition 2014 with 2015 Interim Revisions.

DESIGN LOADING

Live Load HL - 93 Modified

TRAFFIC DATA

Current (2015) AADT	17020
Future (2035) AADT	20420
DHV - % of AADT	10%
Design Hour Volume	2042
Heavy Trucks (% of AADT)	7%
Heavy Trucks (% of DHV)	5%
Directional Distribution (% of DHV)	58%
18 kip Equivalent P 2.0	661
18 kip Equivalent P 2.5	630

MATERIALS

Concrete:	
Pile Jackets	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Structural Steel:	
All Material (except as noted)	ASTM A 709, Grade 36
High Strength Bolts	ASTM A 325, Type 1

BASIC DESIGN STRESSES

Concrete	$f'c = 4,000$ psi
Reinforcing Steel	$f_y = 60,000$ psi
Structural Steel:	
ASTM A 709, Grade 36	$F_y = 36,000$ psi
ASTM A 325	$F_u = 120,000$ psi

MAINTENANCE OF TRAFFIC

Two - way traffic will be maintained during construction.

WOOLWICH SAGADAHOC COUNTY NEQUASSET BRIDGE OVER NEQUASSET LAKE OUTLET US ROUTE 1 PROJECT NO. NHP-2048(400) BRIDGE NO. 5695

PROJECT LOCATION:	On US Route 1, Nequasset Bridge (#5695) over Nequasset Lake Outlet Lat. 43° 56' 07.8", Long. 69° 46' 34.5"
PROGRAM AREA:	Highway Bridges - Traditional
OUTLINE OF WORK:	Bridge Substructure Rehabilitation

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	COMMISSIONER: <i>[Signature]</i>	4/7/15
CHIEF ENGINEER: <i>[Signature]</i>		3-7-15

Devon Eaton
 SIGNATURE
 13725
 P.E. NUMBER
 3/26/2015
 DATE

PROJECT INFORMATION	
PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	JOEL WITREDE
DESIGNER	DEVAN EATON
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 20484.00
 NHP-2048(400)
 WOOLWICH
 NEQUASSET BRIDGE
 TITLE SHEET

SHEET NUMBER
1
 OF 5

Date: 3/25/2015

Username: devan.eaton

Division: BRIDGE

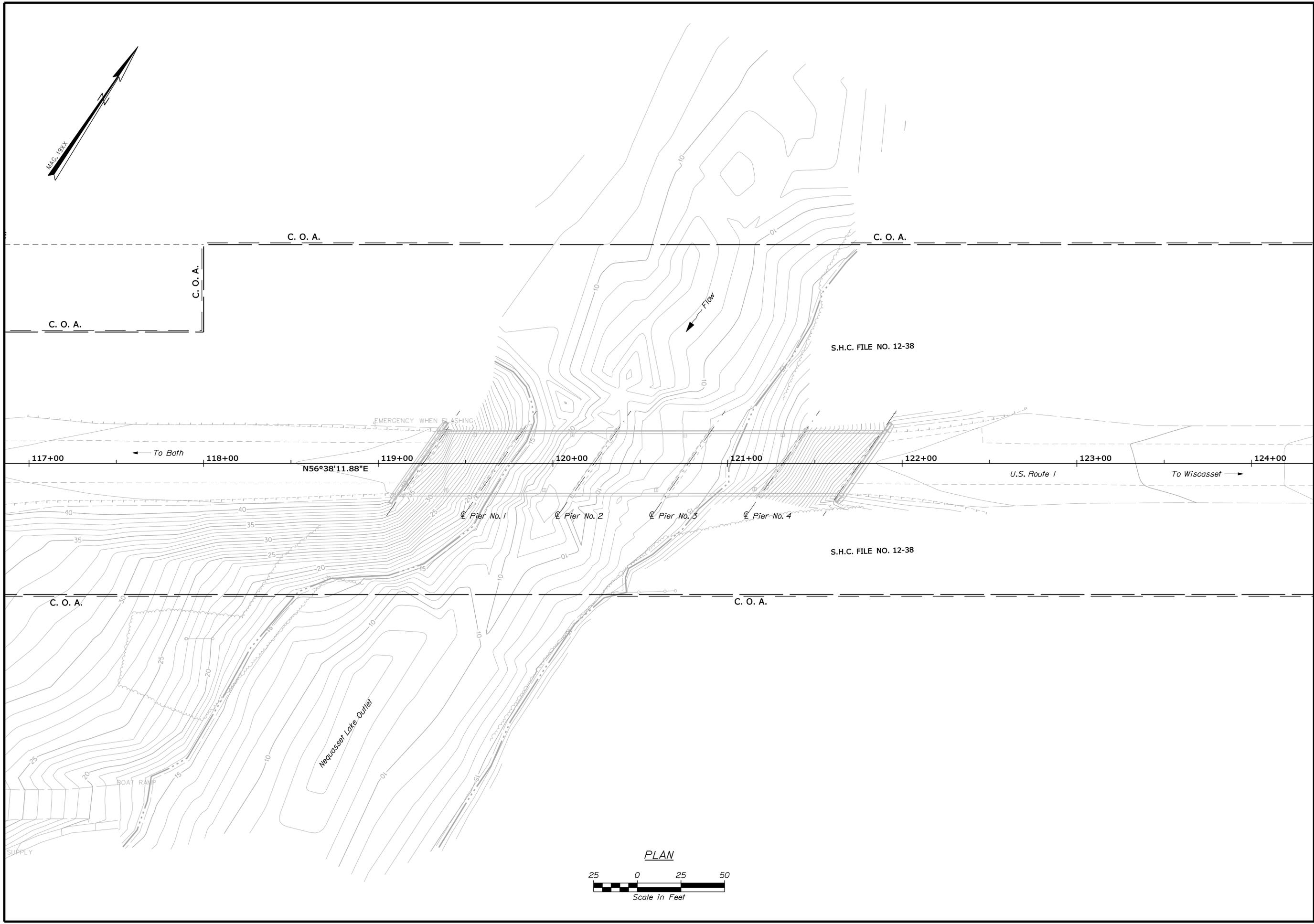
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Date: 3/25/2015

Username: dnm.damren

Division: BRIDGE

Filename: ... \msta\003_GeneralPlan.dgn



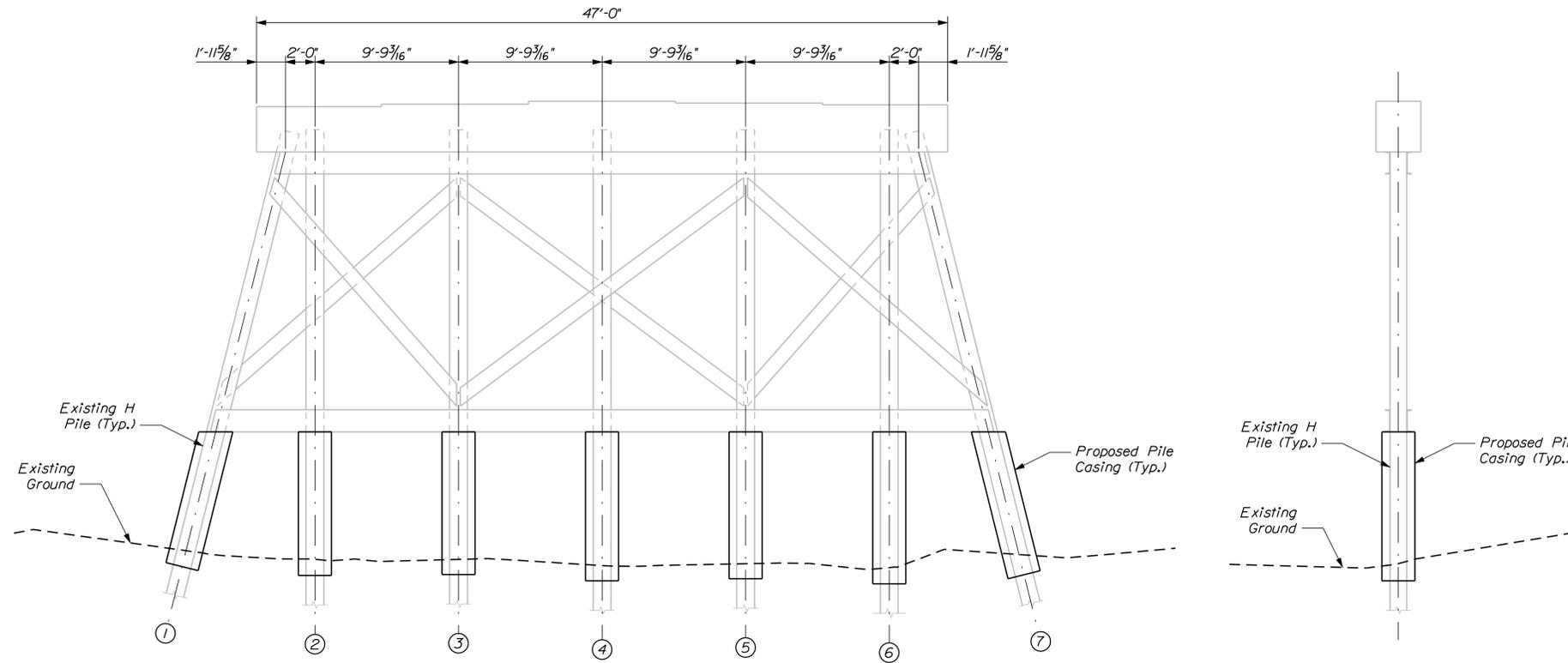
STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 NHP-2048(400)

BRIDGE NO. 6695
 WIN
 20484.00
 BRIDGE PLANS

PROJ. MANAGER	J. MITTREDGE	BY	DATE
DESIGN DETAILED	D. Eaton	D. Damren	Mar 2015
CHECKED/REVIEWED	R. Myers	D. Eaton	Mar 2015
DESIGNS DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

NEQUASSET BRIDGE
 NEQUASSET LAKE OUTLET
 WOOLWICH
 SAGADAHOE COUNTY
 GENERAL PLAN

SHEET NUMBER
 3
 OF 5

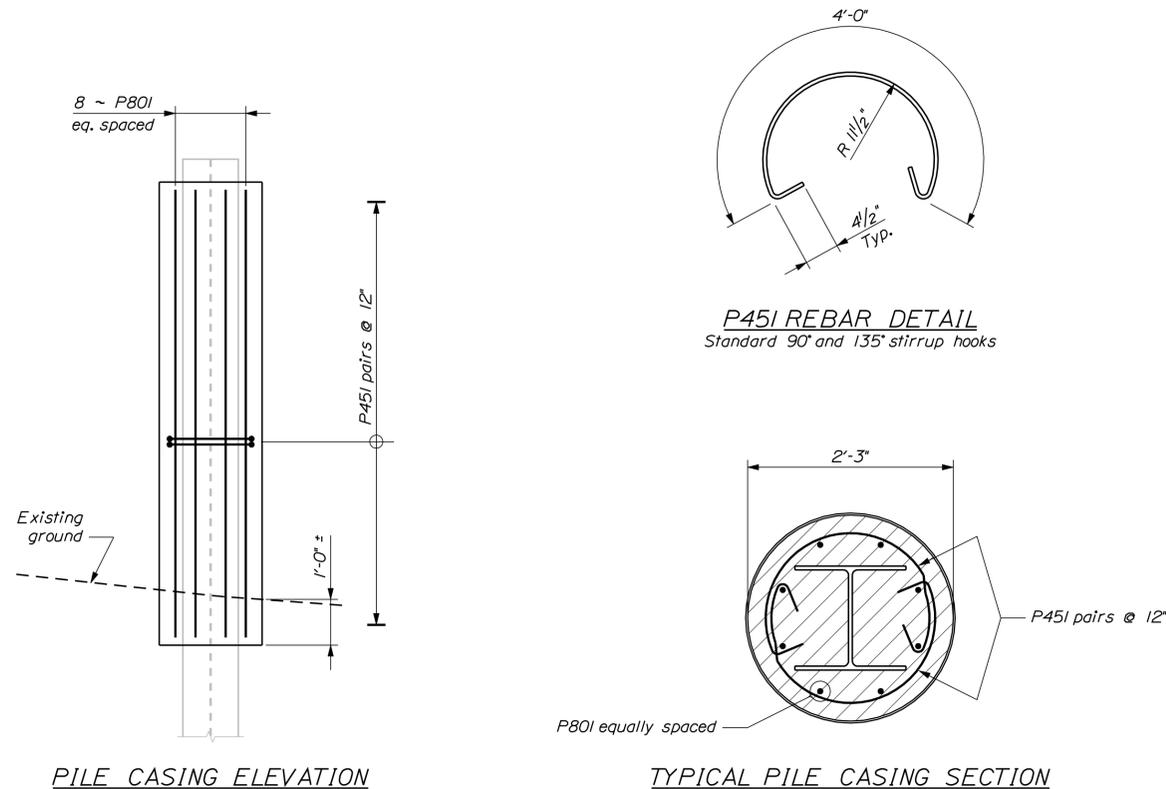


PIER ELEVATION
View looking East (upstation)
Pier No. 2 shown; other piers are similar

PIER SECTION
View looking North (upstream)

PILE CASING NOTES

1. Pile Casings shall be two - piece round Column Forms with a 2.25 - ft. inside diameter and must be fiberglass, galvanized steel or plastic stay - in - place forms in accordance with Special Provision 501.251, Pile Casings and as approved by the Resident.
2. Class "A" Concrete shall be used to fill the annular space between the existing pile and the pile casing.
3. Clean existing piles using a machine wire brush or similar tool in regions where concrete will be placed as directed by the Resident. The piles are 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 cleaning the existing piles.
4. Remove material and place concrete to a minimum elevation as shown on the plans.
5. Minimum clear cover to rebar shall be 2 inches unless indicated otherwise on the plans. The Contractor shall maintain formwork within 1/2 inch of final location. Horizontal bar splices shall be rotated around the H - pile.
6. Casing lengths, P80I rebar lengths and P45I rebar quantities are given for estimating purposes only. Actual lengths and quantities shall be determined in the field by the Contractor.
7. Pile casings shall extend a minimum of 3'-0" from the lower strut at all pier locations. Additional excavation will likely be required to install the casings at Piers No. 1 & 4. Payment for additional excavation will be considered incidental to Item No. 502.251, Pile Casing.



**PIER NO. 1
PILE CASING & REBAR DIMENSIONS**

Pile No.	Casing Length	P80I (#8 Bar)		P45I (#4 Bar)	
		Qty.	Length	Qty.	Length
1	4'-0"	8	3'-8"	8	4'-9"
2	3'-0"	8	2'-8"	6	4'-9"
3	3'-0"	8	2'-8"	6	4'-9"
4	3'-0"	8	2'-8"	6	4'-9"
5	3'-0"	8	2'-8"	6	4'-9"
6	3'-0"	8	2'-8"	6	4'-9"
7	3'-0"	8	2'-8"	6	4'-9"

**PIER NO. 3
PILE CASING & REBAR DIMENSIONS**

Pile No.	Casing Length	P80I (#8 Bar)		P45I (#4 Bar)	
		Qty.	Length	Qty.	Length
1	3'-10"	8	3'-2"	6	4'-9"
2	3'-6"	8	3'-2"	6	4'-9"
3	3'-10"	8	3'-6"	8	4'-9"
4	4'-1"	8	3'-9"	8	4'-9"
5	4'-0"	8	3'-8"	8	4'-9"
6	3'-10"	8	3'-6"	8	4'-9"
7	4'-3"	8	3'-7"	8	4'-9"

**PIER NO. 2
PILE CASING & REBAR DIMENSIONS**

Pile No.	Casing Length	P80I (#8 Bar)		P45I (#4 Bar)	
		Qty.	Length	Qty.	Length
1	9'-9"	8	9'-1"	20	4'-9"
2	9'-9"	8	9'-5"	20	4'-9"
3	9'-8"	8	9'-4"	20	4'-9"
4	10'-2"	8	9'-10"	20	4'-9"
5	10'-0"	8	9'-8"	20	4'-9"
6	10'-4"	8	10'-0"	22	4'-9"
7	10'-3"	8	9'-7"	22	4'-9"

**PIER NO. 4
PILE CASING & REBAR DIMENSIONS**

Pile No.	Casing Length	P80I (#8 Bar)		P45I (#4 Bar)	
		Qty.	Length	Qty.	Length
1	3'-0"	8	2'-8"	6	4'-9"
2	3'-0"	8	2'-8"	6	4'-9"
3	3'-0"	8	2'-8"	6	4'-9"
4	3'-0"	8	2'-8"	6	4'-9"
5	3'-0"	8	2'-8"	6	4'-9"
6	3'-0"	8	2'-8"	6	4'-9"
7	3'-0"	8	2'-8"	6	4'-9"

PROJ. MANAGER	J. MITTREDGE	BY	DATE
DESIGN DETAILED	D. Eaton	D. Damren	Mar 2015
CHECKED/REVIEWED	R. Myers	D. Eaton	Mar 2015
DESIGNS DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



LIST OF DRAWINGS

Title Sheet	1
Estimate & General Notes	2
General Plan	3
Profile	4
Pier Details	5

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Seventh Edition 2014 with 2015 Interim Revisions.

DESIGN LOADING

Live Load HL - 93 Modified

TRAFFIC DATA

Current (2014) AADT	2140
Future (2034) AADT	2570
DHV - % of AADT	14%
Design Hour Volume	360
Heavy Trucks (% of AADT)	8%
Heavy Trucks (% of DHV)	5%
Directional Distribution (% of DHV)	57%
18 kip Equivalent P 2.0	89
18 kip Equivalent P 2.5	85

MATERIALS

Concrete:
 Pile Jackets Class "A"
 Reinforcing Steel ASTM A 615/A 615M, Grade 60
 Structural Steel:
 All Material (except as noted) ASTM A 709, Grade 36
 High Strength Bolts ASTM A 325, Type 1

BASIC DESIGN STRESSES

Concrete $f'c = 4,000$ psi
 Reinforcing Steel $f_y = 60,000$ psi
 Structural Steel:
 ASTM A 709, Grade 36 $F_y = 36,000$ psi
 ASTM A 325 $F_u = 120,000$ psi

UTILITIES

Central Maine Power Company Time Warner Cable
 OTT Communications TDS of Maine

MAINTENANCE OF TRAFFIC

Daily lane closures maintaining one 12'-0" wide lane of alternating two - way traffic controlled by flaggers. Two - way traffic will be maintained overnight.

MANCHESTER KENNEBEC COUNTY OUTLET BRIDGE OVER COBBOSSEE STREAM POND ROAD PROJECT NO. STP-2048(600) BRIDGE NO. 5708

WIN 20486.00

STP-2048(600)

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>	4/7/15	4-7-15
CHIEF ENGINEER: <i>[Signature]</i>		

STATE OF MAINE Professional Engineer 13725 1975
SIGNATURE: <i>[Signature]</i>
P.E. NUMBER: 13725
DATE: 3/46/2015

PROJECT INFORMATION
PROGRAM: BRIDGE PROGRAM
PROJECT MANAGER: JOEL KITTRIDGE
DESIGNER: DEVAN EATON
CONSULTANT:
PROJECT RESIDENT:
CONTRACTOR:
PROJECT COMPLETION DATE:

MANCHESTER OUTLET BRIDGE
TITLE SHEET

SHEET NUMBER 1
OF 5

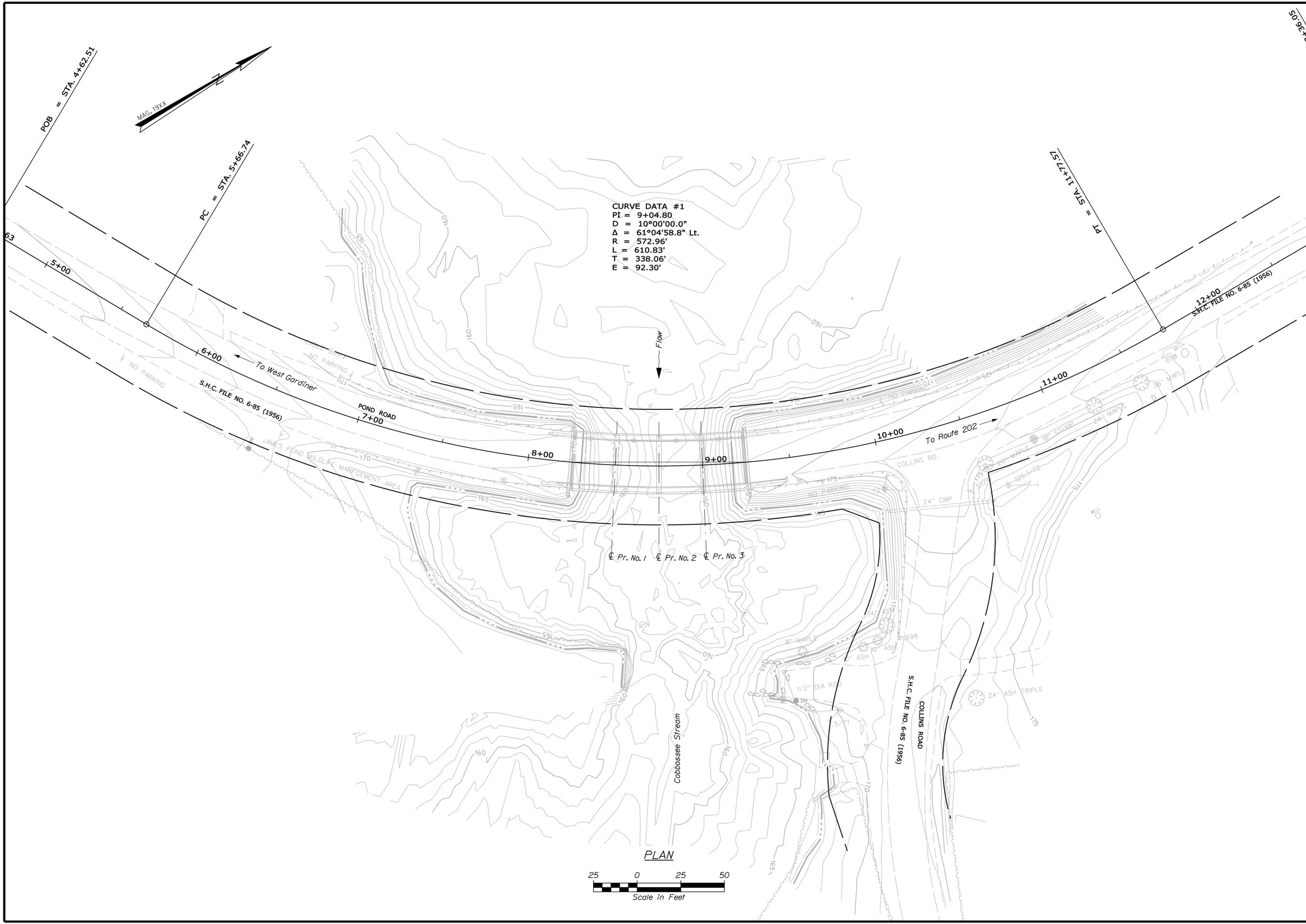
PROJECT LOCATION:	Outlet Bridge #5708 in Manchester carrying Pond Road over Cobbossee Stream. Lat. 44° 16' 48.1", Long. 69° 53' 23.21"
PROGRAM AREA:	Highway Bridges - Traditional
OUTLINE OF WORK:	Bridge Substructure Rehabilitation

Date: 3/20/2015

Username: devon.c.ecton

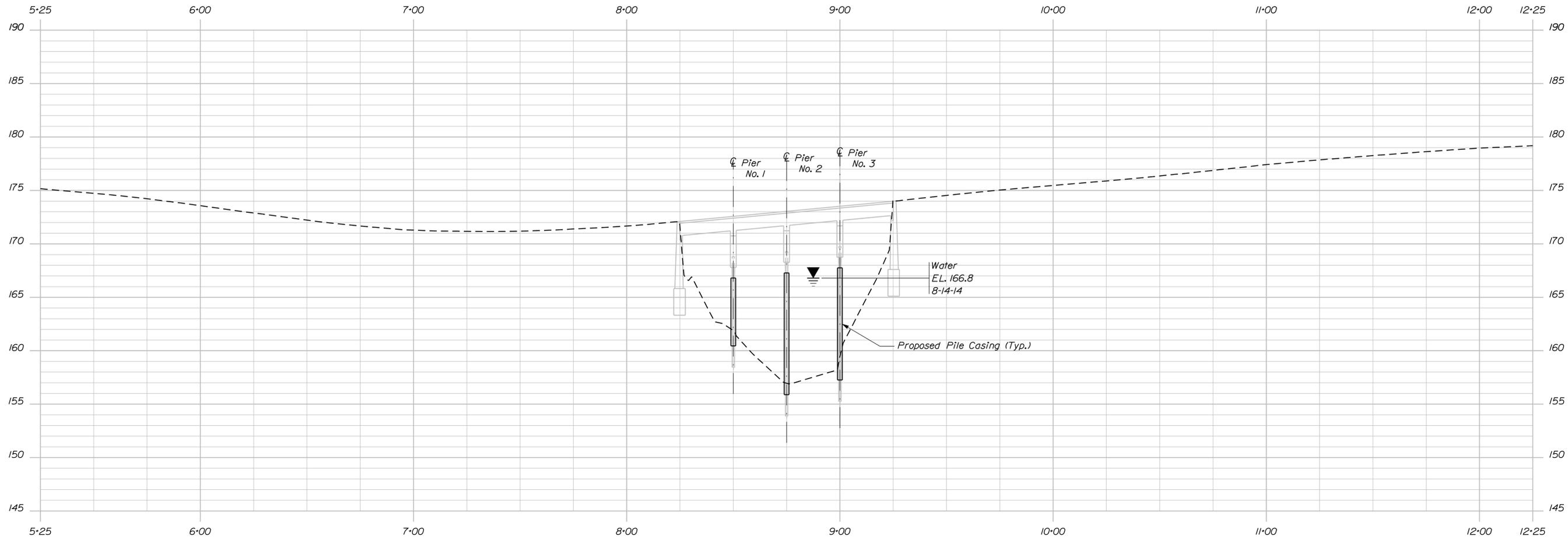
Division: BRIDGE

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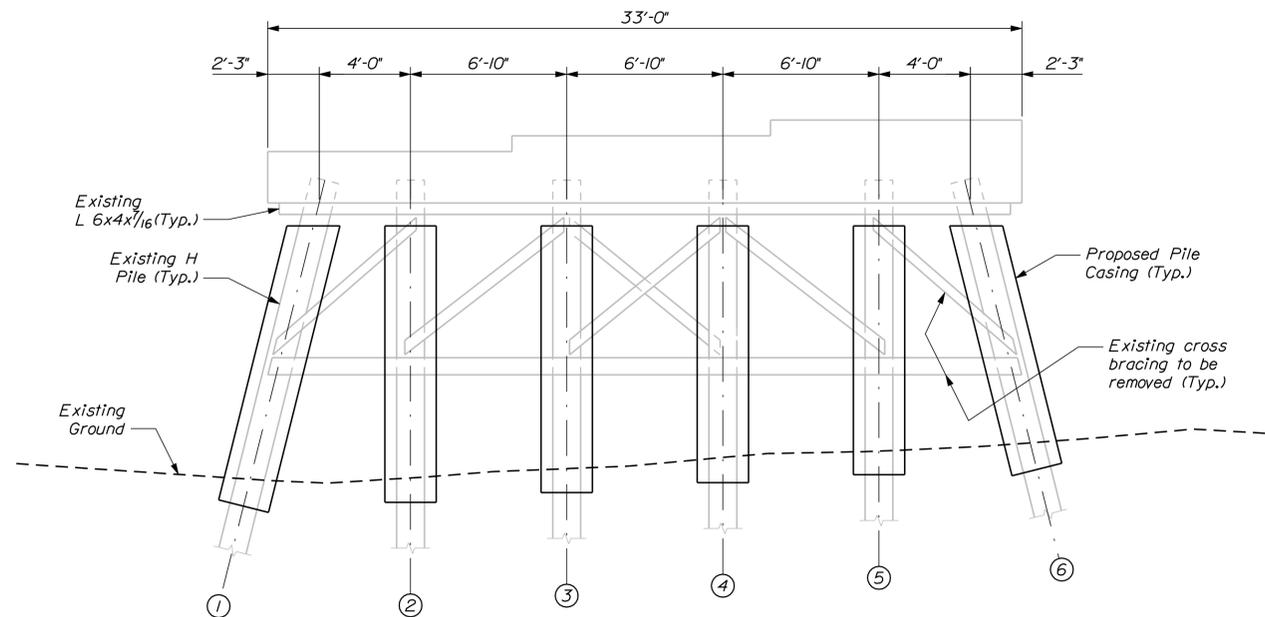
STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2048(600)		BRIDGE NO. 5709 WIN 20486.00		BRIDGE PLANS	
OUTLET BRIDGE COBBOSSÉE STREAM MANCHESTER KENNEBEC COUNTY		GENERAL PLAN		SHEET NUMBER 3 OF 1	
PROJ. MANAGER	J. MITTREDGE	BY	D. Damren	DATE	Mar 2015
DESIGN/DETAILED	D. Eaton	CHECKED/REVIEWED	R. Myers	DATE	Mar 2015
DESIGNS/DETAILED		DESIGNS/DETAILED			
REVISIONS	1				
REVISIONS	2				
REVISIONS	3				
REVISIONS	4				
FIELD CHANGES		SIGNATURE		P.E. NUMBER	
FIELD CHANGES		DATE		DATE	

50'-36'-31"

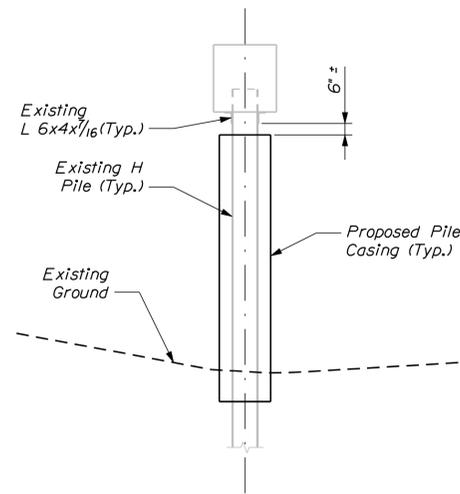


PROFILE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		STP-2048(600)	
OUTLET BRIDGE COBBOSEE STREAM MANCHESTER KENNEBEC COUNTY		PROFILE	
SHEET NUMBER		BRIDGE NO. 5709 WIN 20486.00 BRIDGE PLANS	
4		OF _	
PROJ. MANAGER	J. MITREDD	BY	D. DAMREN
DESIGN-DETAILED	D. EATON	DATE	MAR 2015
CHECKED-REVIEWED	R. MYERS		
DESIGNS-DETAILED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



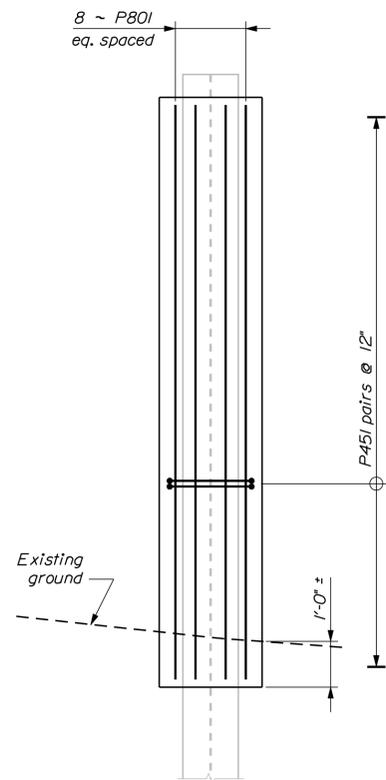
PIER ELEVATION
View looking North (upstation)
Pier No. 2 shown; other piers are similar



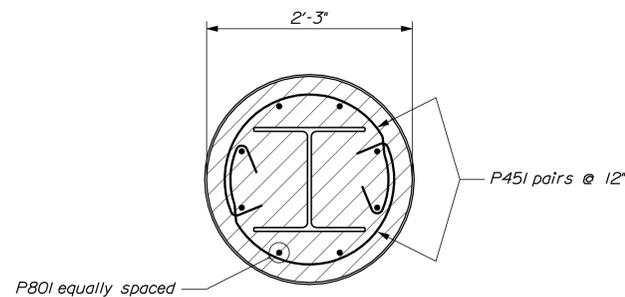
PIER SECTION
View looking West (upstream)

PILE CASING NOTES

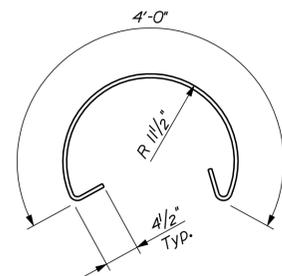
1. Pile Casings shall be two - piece round Column Forms with a 2.25 - ft. inside diameter and must be fiberglass, galvanized steel or plastic stay - in - place forms in accordance with Special Provision 501.251, Pile Casings and as approved by the Resident.
2. Class "A" Concrete shall be used to fill the annular space between the existing pile and the pile casing.
3. Clean existing piles using a machine wire brush or similar tool in regions where concrete will be placed as directed by the Resident. The piles are 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 cleaning the existing piles.
4. Remove material and place concrete to a minimum elevation as shown on the plans.
5. Minimum clear cover to rebar shall be 2 inches unless indicated otherwise on the plans. The Contractor shall maintain formwork within 1/2 inch of final location. Horizontal bar splices shall be rotated around the H - pile.
6. Casing lengths, P801 rebar lengths and P451 rebar quantities are given for estimating purposes only. Actual lengths and quantities shall be determined in the field by the Contractor.



PILE CASING ELEVATION



TYPICAL PILE CASING SECTION



P451 REBAR DETAIL
Standard 90° and 135° stirrup hooks

**PIER NO. 1
PILE CASING & REBAR DIMENSIONS**

Pile No.	Casing Length	P801 (#8 Bar)		P451 (#4 Bar)	
		Qty.	Length	Qty.	Length
1	8'-0"	8	7'-4"	16	4'-9"
2	6'-2"	8	5'-10"	12	4'-9"
3	5'-9"	8	5'-5"	12	4'-9"
4	6'-2"	8	5'-10"	12	4'-9"
5	6'-2"	8	5'-10"	12	4'-9"
6	7'-10"	8	7'-2"	16	4'-9"

**PIER NO. 2
PILE CASING & REBAR DIMENSIONS**

Pile No.	Casing Length	P801 (#8 Bar)		P451 (#4 Bar)	
		Qty.	Length	Qty.	Length
1	12'-11"	8	12'-3"	26	4'-9"
2	12'-1"	8	11'-9"	24	4'-9"
3	11'-8"	8	11'-4"	24	4'-9"
4	11'-3"	8	10'-11"	22	4'-9"
5	10'-11"	8	10'-7"	22	4'-9"
6	11'-3"	8	10'-7"	22	4'-9"

**PIER NO. 3
PILE CASING & REBAR DIMENSIONS**

Pile No.	Casing Length	P801 (#8 Bar)		P451 (#4 Bar)	
		Qty.	Length	Qty.	Length
1	9'-6"	8	8'-10"	18	4'-9"
2	9'-10"	8	9'-6"	20	4'-9"
3	9'-7"	8	9'-3"	20	4'-9"
4	9'-6"	8	9'-2"	20	4'-9"
5	9'-5"	8	9'-1"	18	4'-9"
6	9'-8"	8	9'-0"	18	4'-9"

STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2048(600)	BRIDGE NO. 5709 WIN 20486.00 BRIDGE PLANS
MANCHESTER KENNEBEC COUNTY	OUTLET BRIDGE COBBOSEE STREAM PIER DETAILS
SHEET NUMBER 5 OF 1	DATE Mar 2015 SIGNATURE P.E. NUMBER DATE