STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Seventh Edition 2014 and Interim Specifications through 2016.

MATERIALS

Concrete:
Pier Caps ..... Class "A"
Reinforcing Steel:
All ..... ASTM A615 Grade 60

BASIC DESIGN STRESSES

Concrete, Class A ..... f 'c = 4,000 psi
Reinforcing Steel ..... f y = 60,000 psi

SOUTH BERWICK
YORK COUNTY
VARNEY'S BRIDGE
OVER
GREAT WORKS RIVER
VINE STREET
PROJECT NO. STP-1874(700)
PROJECT LENGTH 0.047 mi.
BRIDGE NO. 3312

LIST OF DRAWINGS

Title Sheet 1
Estimated Quantities & General Notes 2
General Plan & Profile 3
Bridge Typical 4
KEI Structural Plans 5-6
Bridge Demolition Plan 7
Bridge Pier Demolition Plans 8-9
Bridge Pier Typicals 10-11
Bridge Pier No. 2 Repairs 12
Fence Details 13
Reinforcing Steel Schedule 14
Right-of-Way-Map 15

UTILITIES

Central Maine Power Company
KEI (USA) Power Management Inc.

MAINTENANCE OF TRAFFIC

Bridge is currently closed and will be closed to traffic during construction.

PROJECT LOCATION:	Vine Sreet in South Berwick, located 0.29 of a mile north of Vaughans Lane. Latitude 43°-13'-7" N Longitude 70°-48'-39" W
PROGRAM AREA:	Bridge Program
OUTLINE OF WORK:	Remove existing superstructure spans 3 through 9. Remove Piers 3 through 8 to 12" above the footing/dam spillway and cap the remaining portion of the piers. Rehabilitate Pier 2 on control house interface. Reinforce dam with rock anchors per the dam owner's design.

STP-1874(700) WIN 018747.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
APPROVED	
COMMISSIONER:	11/6/18
CHIEF ENGINEER:	11-10-18

STATE OF MAINE * JAMES D. WENTWORTH * 9538 * LICENSED PROFESSIONAL ENGINEER

James D Wentworth
SIGNATURE
9538
P.E. NUMBER
12-11-2017
DATE

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	MARK PARLIN
DESIGNER	E. WALTON
CONSULTANT	KLEINFELDER
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

SOUTH BERWICK
VARNEY'S BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 15

Filename:\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE Username: EWalton Date:11/7/2017

Filename: ...\BRIDGE\MSTA\002_Estimate.dgn Division: BRIDGE Username: EWalton Date:11/29/2017

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	REMOVING EXISTING BRIDGE (375 CY)	1	LS
203.61	CONSTRUCT TEMPORARY ACCESS ROAD	1	LS
203.62	REMOVAL OF TEMPORARY ACCESS ROAD	1	LS
502.23	STRUCTURAL CONCRETE PIERS	22	CY
503.12	REINFORCING STEEL, FABRICATED/DELIVERED	3000	LB
503.13	REINFORCING STEEL, PLACING	3000	LB
504.905	ROCK ANCHORS - 1.75 IN DIAMETER	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.20	PROTECTIVE COATING FOR CONCRETE SURFACES	13	SY
526.40	RESET TEMPORARY CONCRETE BARRIER TYPE 1	40	LF
606.17	GUARDRAIL TYPE 3B - SINGLE RAIL	38	LF
606.366	GUARDRAIL, REMOVED AND RESET, TYPE 3C	39	LF
607.17	CHAIN LINK FENCE - 6 FOOT	100	LF
607.25	REMOVE AND RESET CHAIN LINK FENCE	52	LF
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	40	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	40	HR
639.19	FIELD OFFICE, TYPE B	1	EA
652.33	DRUM	10	EA
652.34	CONE	10	EA
652.35	CONSTRUCTION SIGNS	200	SF
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. Protective Coating for Concrete Surfaces shall be applied to the new concrete added as part of the Pier No. 2 repair down to the drip notch.

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

3. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/comprehensive-list-projects/contractors/.

4. The existing bridge plans may be accessed at the MaineDOT web address. 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.

5. 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.

6. The existing bridge shall be removed by and become the property of the Contractor. The steel portions of the existing bridge 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 demolishing the bridge. The Contractor is responsible for implementing 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 online at MaineDEP's website (www.maine.gov/dep/index.html). 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.

7. Any clearing will be as directed by the Resident. Payment for clearing will be considered incidental to related Contract items.

8. Place proposed guardrail at MaineDOT Standard Details required height.

9. Care shall be taken to protect the existing dam spillway and dam control house. Any damage to the existing dam spillway or dam control house shall be repaired at the Contractor's expense and to the satisfaction of the Resident and dam owner.

10. Payment for removing and resetting temporary concrete barrier shall be made under Item No. 526.40 Reset Temporary Concrete Barrier Type 1.

11. Guardrail, removed and reset, shall match the existing guardrail at the bridge. Payment shall be made under Item No. 606.366 Guardrail, Removed and Reset, Type 3c.

12. Removing and resetting chain link fence and gates at both ends of the bridge shall be paid for under Item No. 607.25 Remove and Reset Chain Link Fence.

13. The Contractor shall submit a Bridge Demolition Plan to the Resident at least 10 business days prior to the start of demolition work. A pre-existing condition survey shall be part of the contractor's demolition plan. This survey shall include a meeting and walk through of the project with the Resident and a dam owner representative. The pre-existing conditions of the dam shall be photographed, verbally documented, and sent to the Resident and dam owner prior to demolition work being performed. The plan shall also outline the methods and equipment to be used to remove and dispose of all materials included in the existing bridge. No work related to the removal of the bridge shall be undertaken by the Contractor until MaineDOT has reviewed the Bridge Demolition Plan for appropriateness and completeness. This plan shall also include the means and methods the contractor shall use to protect the existing dam spillway and control house from damage during demolition and construction activities. Payment for all work necessary for developing, submitting, and finalizing the Demolition Plan will be considered incidental to Item No. 202.19 Removing Existing Bridge.

14. All work shall be done in accordance with the Maine Department of Transportation's Best Management Practices for Erosion Control & Sediment Control, February 2008.

15. Install and proof rock anchors prior to bridge demolition.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1874(700)

WIN 018747.00

BRIDGE NO. 3312 BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	MARK PARLIN		
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

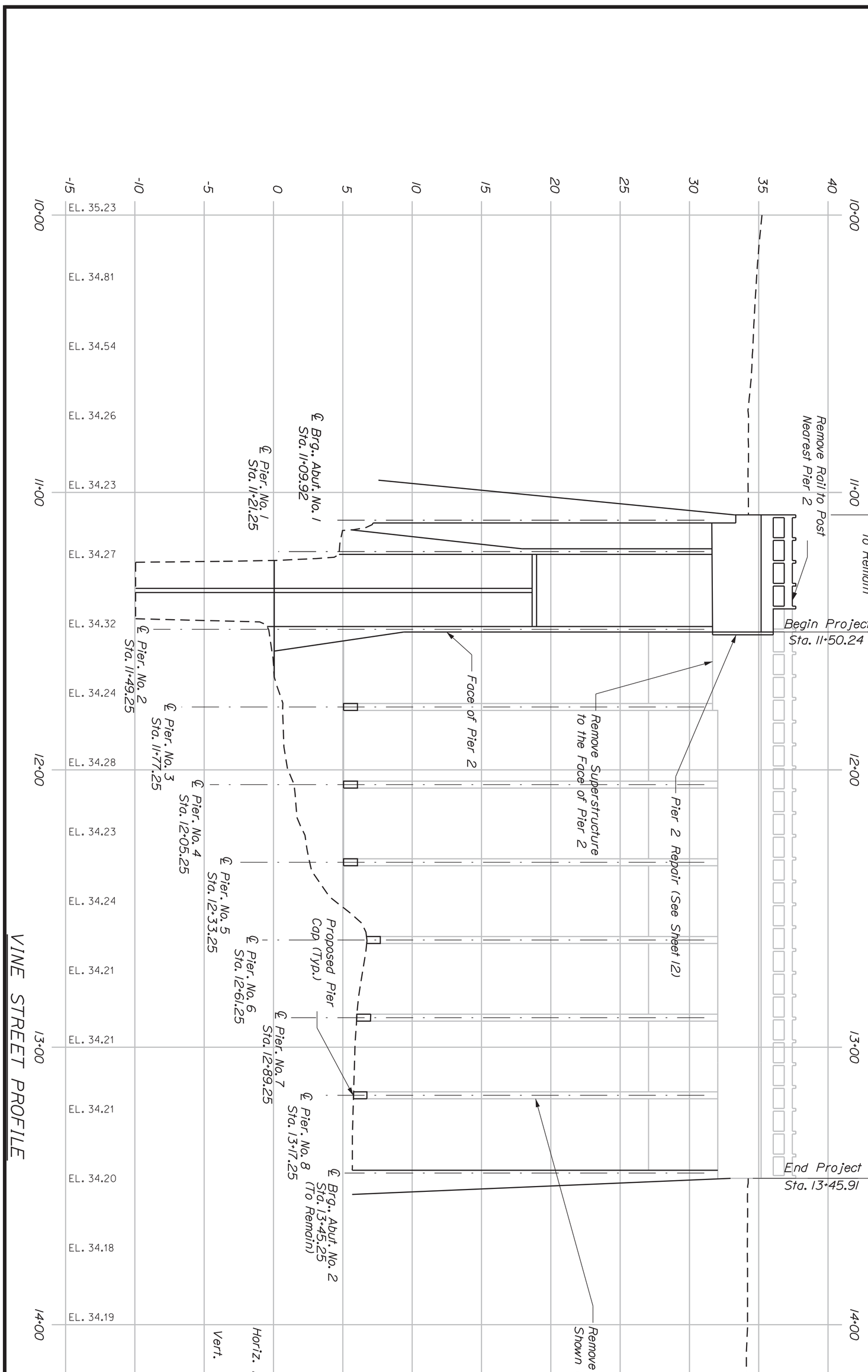
VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

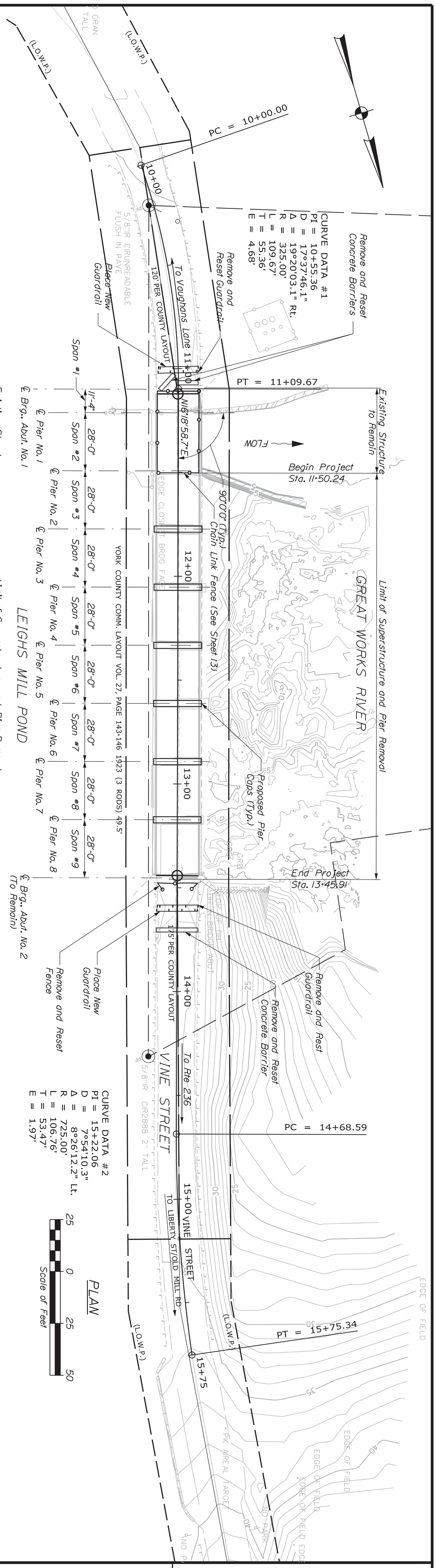
ESTIMATED QUANTITIES & GENERAL NOTES

SHEET NUMBER

2

OF 15





SHEET NUMBER 3 OF 15

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

GENERAL PLAN & PROFILE

PROJ. MANAGER	MARK PARLIN	BY	DATE
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

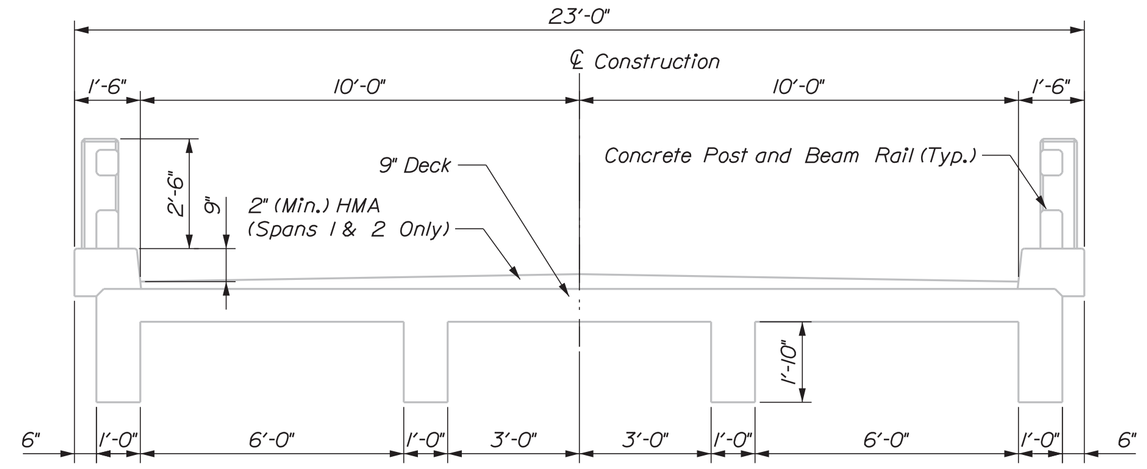
P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

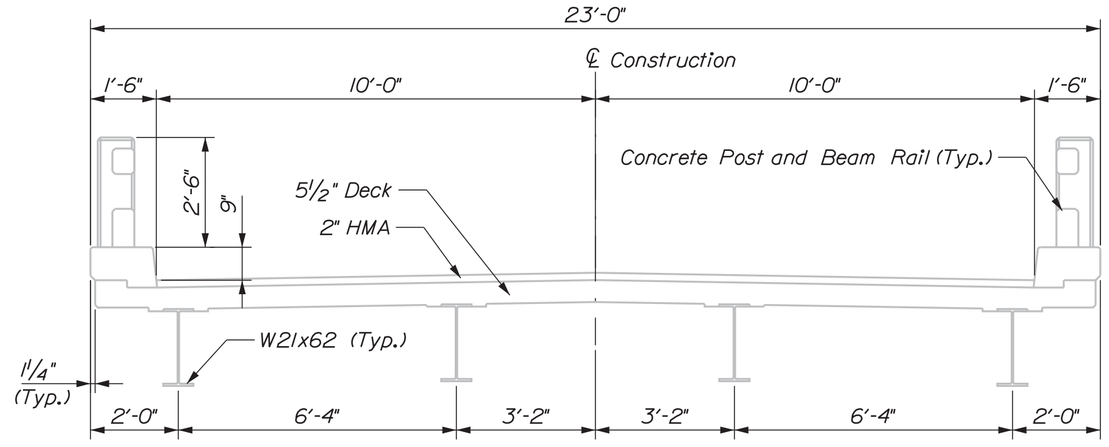
STP-1874(700)

BRIDGE NO. 3312 | WIN 018747.00 | BRIDGE PLANS



EXISTING CONCRETE GIRDER BRIDGE SECTION

SPANS 1-3



EXISTING STEEL GIRDER BRIDGE SECTION

SPANS 4-9

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1874(700)

WIN 018747.00

BRIDGE NO. 3312

BRIDGE PLANS

PROJ. MANAGER	MARK P-ARLIN		
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

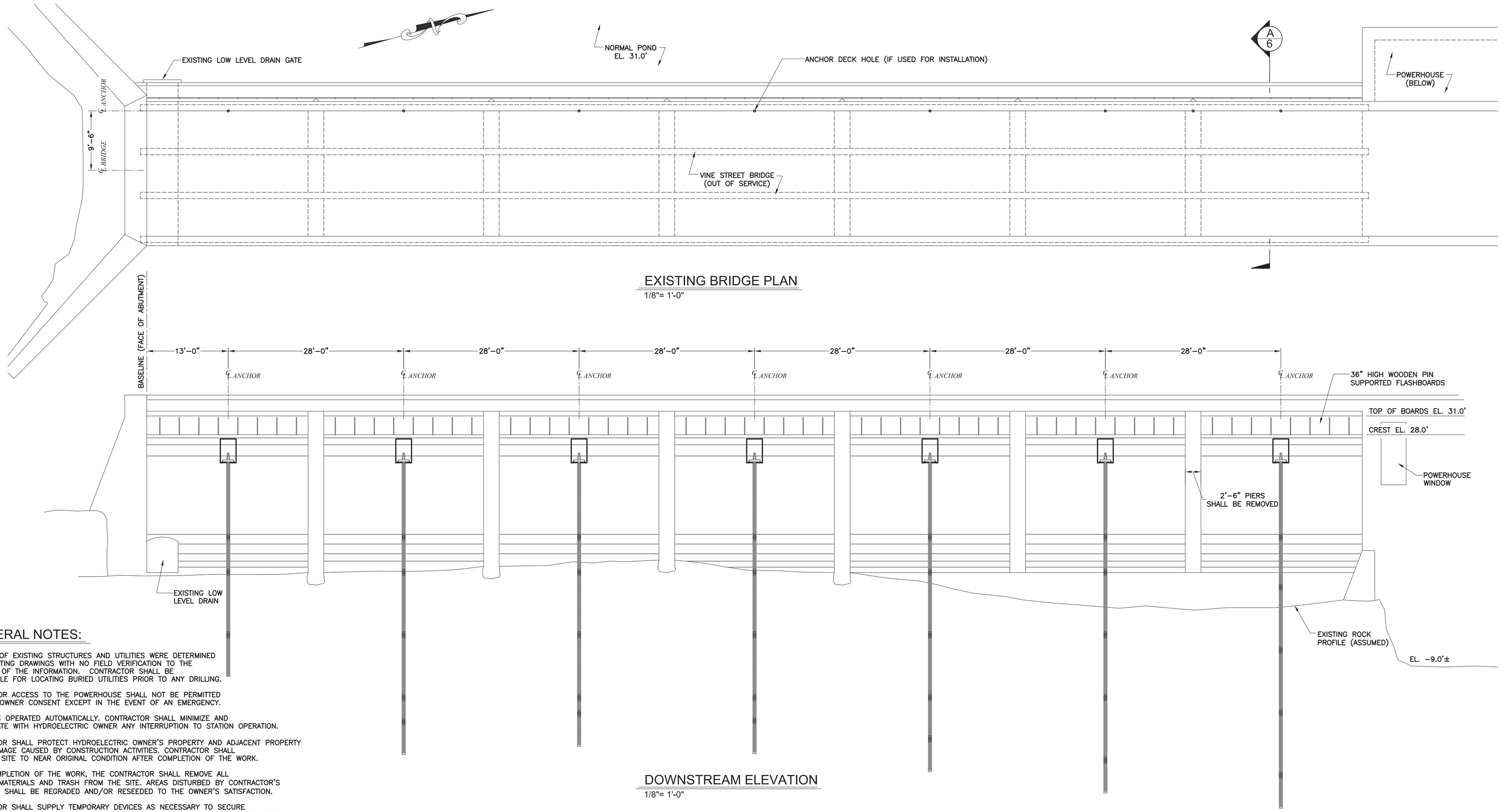
BRIDGE TYPICAL

SHEET NUMBER

4

OF 15

Filename: ...\MSTA\004_Bridge Sections.dgn Division: BRIDGE Username: EWalton Date:11/7/2017



EXISTING BRIDGE PLAN

1/8"= 1'-0"

DOWNSTREAM ELEVATION

1/8"= 1'-0"

GENERAL NOTES:

1. LOCATION OF EXISTING STRUCTURES AND UTILITIES WERE DETERMINED FROM EXISTING DRAWINGS WITH NO FIELD VERIFICATION TO THE ACCURACY OF THE INFORMATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING BURIED UTILITIES PRIOR TO ANY DRILLING.

2. CONTRACTOR ACCESS TO THE POWERHOUSE SHALL NOT BE PERMITTED WITHOUT OWNER CONSENT EXCEPT IN THE EVENT OF AN EMERGENCY.

3. STATION IS OPERATED AUTOMATICALLY. CONTRACTOR SHALL MINIMIZE AND COORDINATE WITH HYDROELECTRIC OWNER ANY INTERRUPTION TO STATION OPERATION.

4. CONTRACTOR SHALL PROTECT HYDROELECTRIC OWNER'S PROPERTY AND ADJACENT PROPERTY FROM DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL RESTORE SITE TO NEAR ORIGINAL CONDITION AFTER COMPLETION OF THE WORK.

5. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS AND TRASH FROM THE SITE. AREAS DISTURBED BY CONTRACTOR'S ACTIVITIES SHALL BE REGRADED AND/OR RESEEDED TO THE OWNER'S SATISFACTION.

6. CONTRACTOR SHALL SUPPLY TEMPORARY DEVICES AS NECESSARY TO SECURE THE SITE DURING CONSTRUCTION FROM VANDALISM AND PUBLIC ACCESS. CONTRACTOR SHALL PROVIDE HYDROELECTRIC OWNER WITH KEY AND/OR COMBINATION FOR ALL LOCKS FOR HIS ACCESS.

7. ELECTRIC, PHONE AND SANITARY SERVICES ARE NOT AVAILABLE AT THE SITE.

8. REMOVAL OF EXISTING BRIDGE AND PIERS SHALL BE ACCORDING TO DRAWINGS AND SPECIFICATIONS PREPARED BY KLEINFELDER

9. ROCK ANCHOR SHALL BE PROCURED, INSTALLED AND TESTED IN ACCORDANCE WITH THE SPECIFICATIONS PROVIDED BY THE HYDROELECTRIC OWNER. INSTALLATION AND TESTING CONTRACTOR SHALL SUPPLY DOCUMENTATION OF ALL TESTING AND FIELD CONDITION ENCOUNTERED. PARTICULAR ATTENTION AND DOCUMENTATION SHALL BE MADE FOR THE DEPTH OF EACH ANCHOR AND TEST RESULTS.

10. ALL ANCHOR TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE HYDROELECTRIC OWNER.

11. ALL WORK ASSOCIATED WITH THE CONSTRUCTION OF ANCHOR HEAD POCKETS, INCLUDING CONCRETE REMOVAL, NEW CONCRETE MATERIAL AND PLACEMENT, ALL ASSOCIATED REINFORCING STEEL MATERIAL AND PLACEMENT, AND ANY OTHER INCIDENTALS NECESSARY TO PERFORM THE WORK SHALL BE INCIDENTAL TO RELATED CONTRACT ITEMS.

12. ANCHOR DESIGN CRITERIA:
    100-YEAR FLOOD LEVEL = EL. 33.1'
    ICE LOAD = 5,000 LBS/LINEAL FOOT WITH POND AT EL. 28
    SILT LEVEL ASSUMED AT EL. 23.0'
    ANCHOR ROD MATERIAL = ASTM A772 (150 ksi)
    ANCHOR DESIGN LOAD = 220 KIPS

RPC HYDROPOWER CONSULTING
P.O. Box 195
Palmyra, ME 04965
(207) 992-3926
www.renewablepowerconsulting.com

STATE OF MAINE · ALFRED NASH · 7696 · LICENSED PROFESSIONAL ENGINEER

No.	Revision	Date
E	REMOVED ALTERNATE ANCHOR	11/0617
D	REV PER MDOT COMMENTS	10/23/17
C	REV PER KLEINFELDER COM	08/30/17
B	REV PER KLEINFELDER COM	03/20/17

Project No: 109-009
Filename: SB ROCK ANCHOR
Design By: AJN
Drawn By: AJN
Date Revised: 11-06-17

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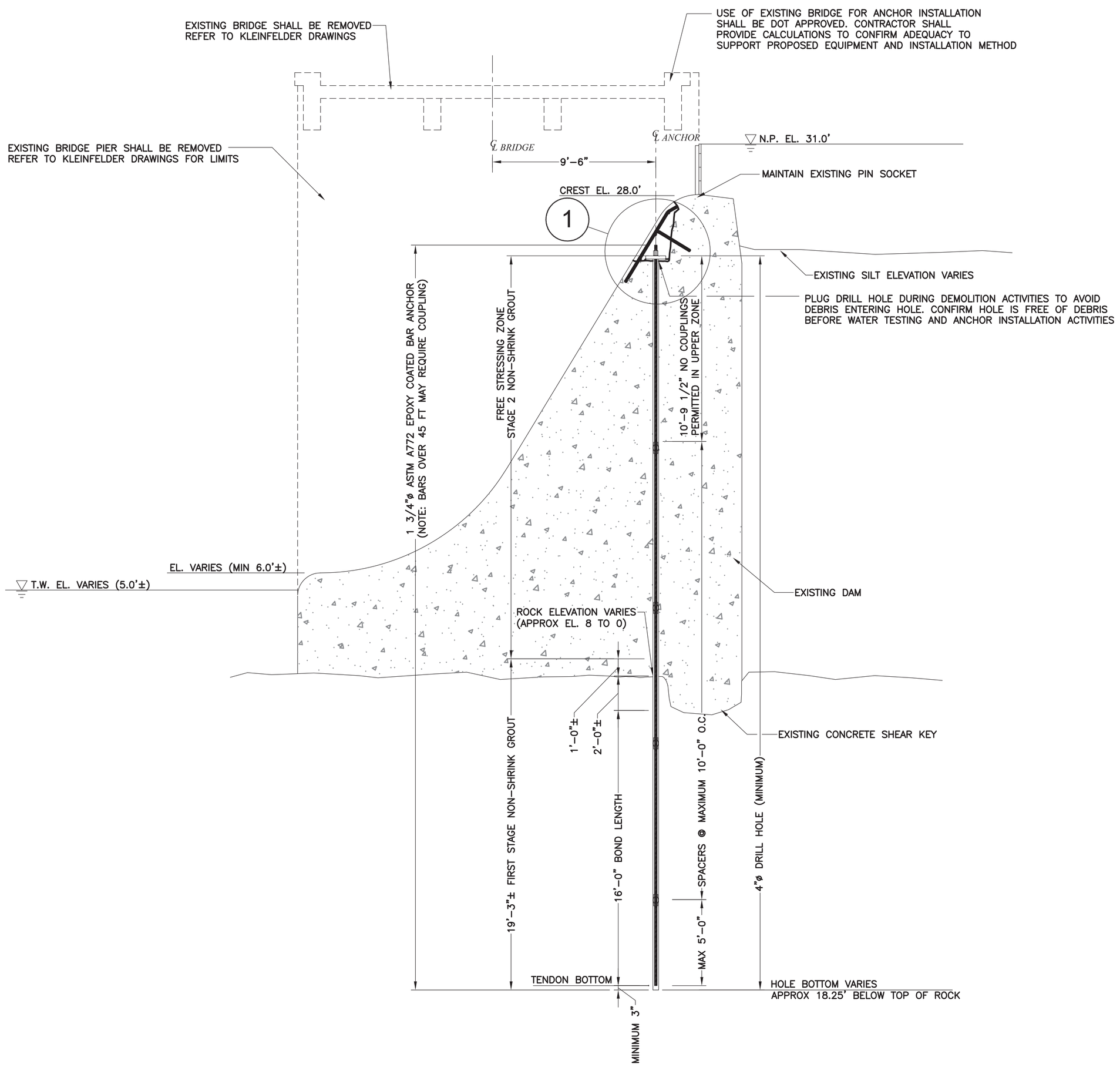
KEI (USA) POWER MANAGEMENT INC
GARDINER, ME

SOUTH BERWICK PROJECT
NATDAM ME00062

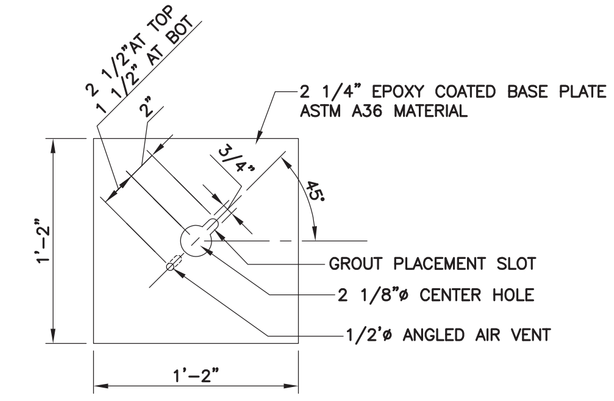
DAM STABILIZATION PROJECT
ANCHOR LOCATION PLAN AND NOTES

DRAWING NO. 5

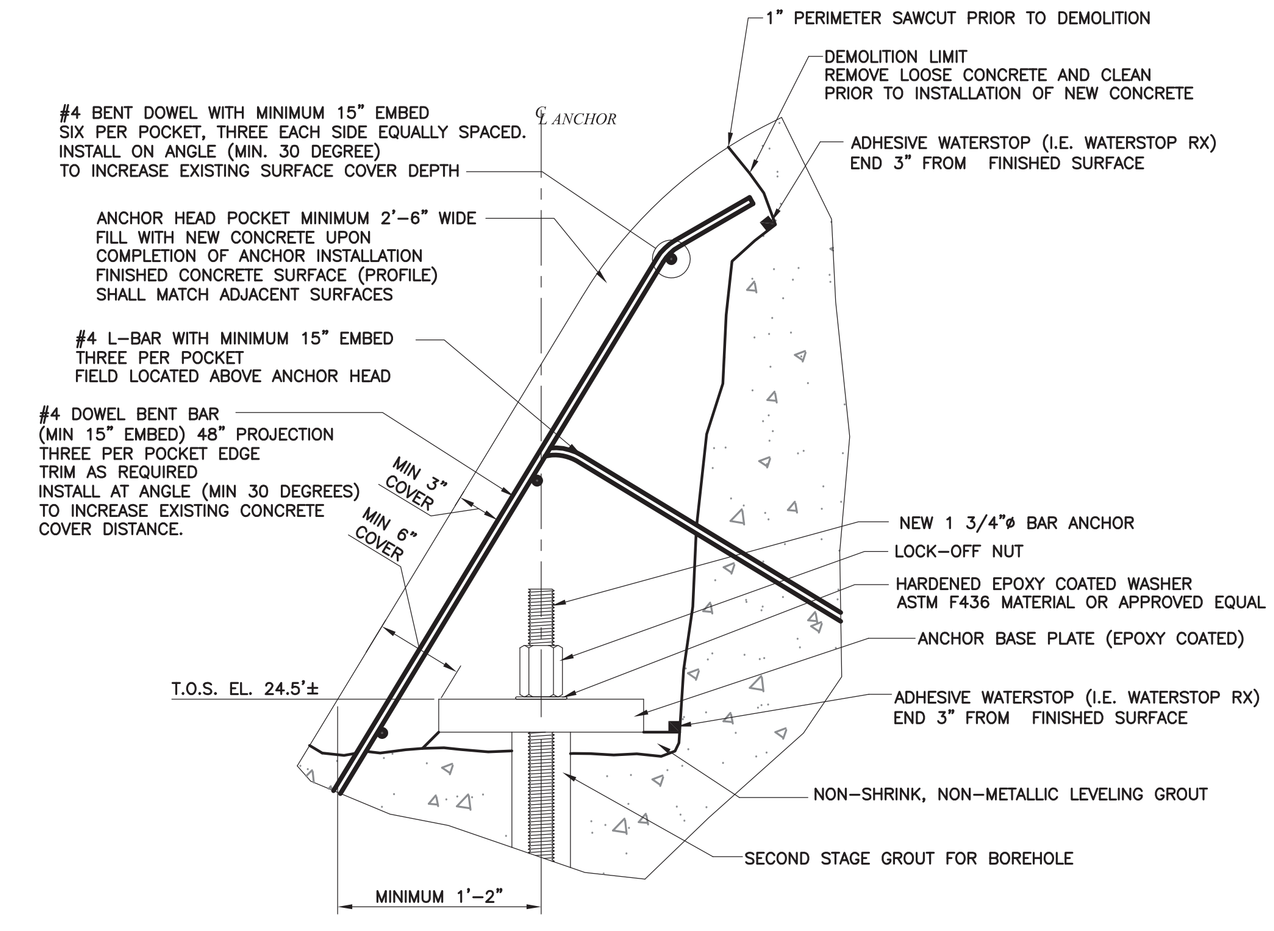
REVISION E



SECTION A/5
1/4"= 1'-0"



ANCHOR BASE PLATE DETAIL
1 1/2"= 1'-0" 7 REQUIRED



DETAIL 1
1 1/2"= 1'-0"

CONCRETE NOTES

1.) EXCEPT AS NOTED:

CONCRETE:	4000 PSI @ 28 DAYS, AIR ENTRAINED 5% TO 7%, WC=0.42
REINFORCEMENT:	60,000 PSI, ASTM A615
REBAR COVER:	3" UNLESS NOTED OTHERWISE
DOWEL ANCHOR:	EPOXY ADHESIVE, HILTI HY–150 OR APPROVED EQUAL. INSTALL IN MANUFACTURER'S RECOMMENDED HOLE SIZE.

RENEWABLE POWER CONSULTING
P.O. Box 195
Palmyra, ME 04965
(207) 992–3926
www.renewablepowerconsulting.com

STATE OF MAINE ALFRED NASH 7866 LICENSED PROFESSIONAL ENGINEER

No.	Revision	Date
D	REV PER MDOT COMMENTS	10/23/17
C	REV PER KLEINFELDER COM	08/30/17
B	REV PER KLEINFELDER COM	03/20/17
A	ISSUED FOR REVIEW	02/15/17

Project No: 109-009
Filename: SB ROCK ANCHOR
Design By: AJN
Drawn By: AJN
Date Revised: 10-23-17

KEI (USA) POWER MANAGEMENT INC
GARDINER, ME

SOUTH BERWICK PROJECT
NATDAM ME00062

DAM STABILIZATION PROJECT
1 3/4"Ø ANCHOR SECTION AND DETAILS

DRAWING NO. 6

REVISION D

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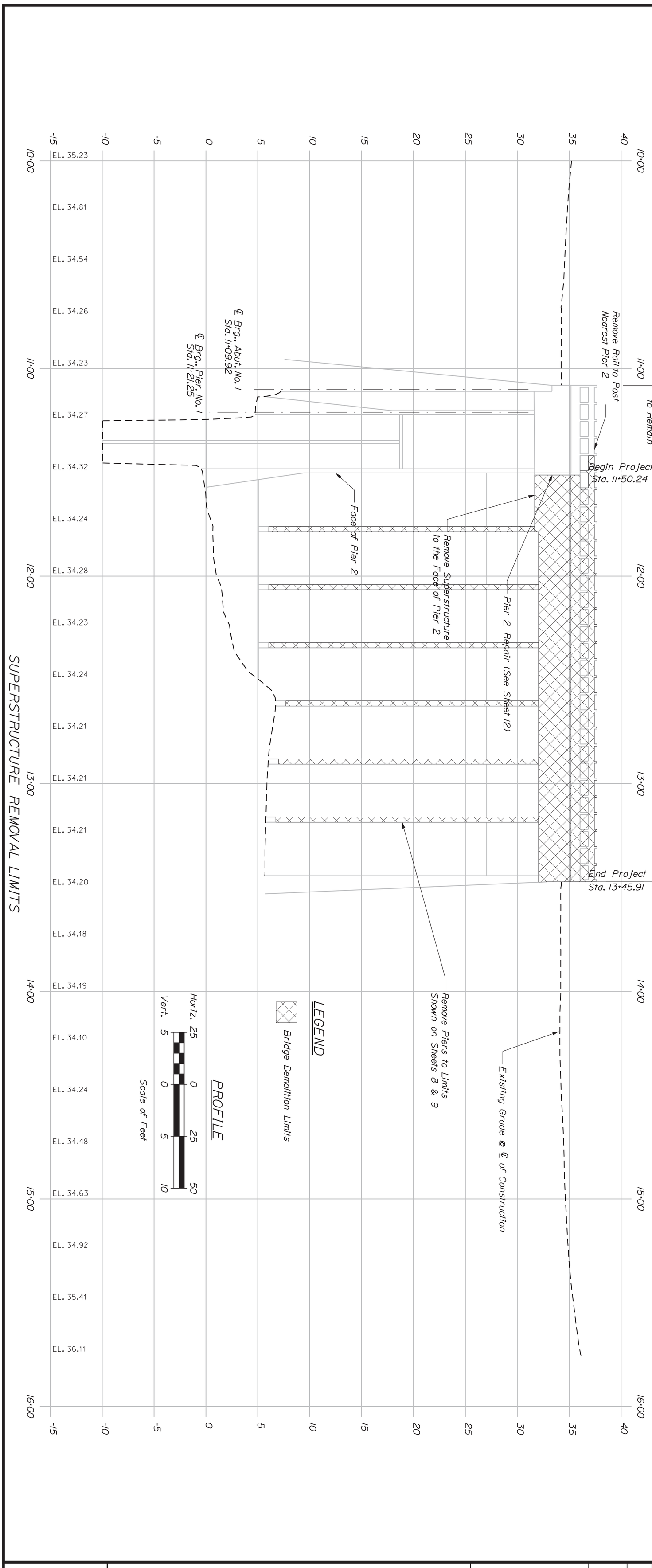
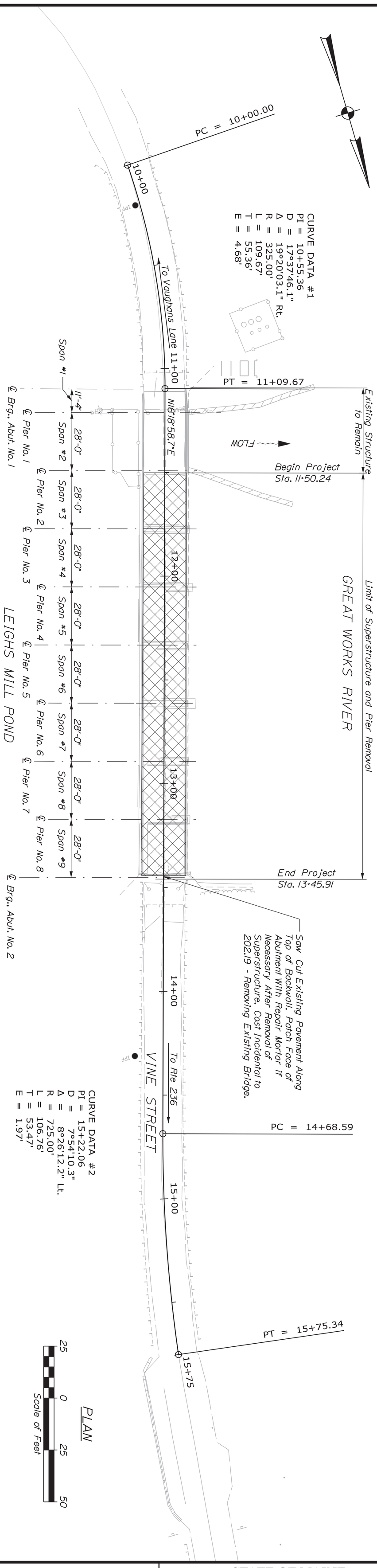
Filename: ...\007_Superstructure Demo.dgn Division: BRIDGE Username: EWalton Date:11/7/2017





SHEET NUMBER 7 OF 15

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

BRIDGE DEMOLITION PLAN

PROJ. MANAGER	MARK PARLIN	BY	DATE
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
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

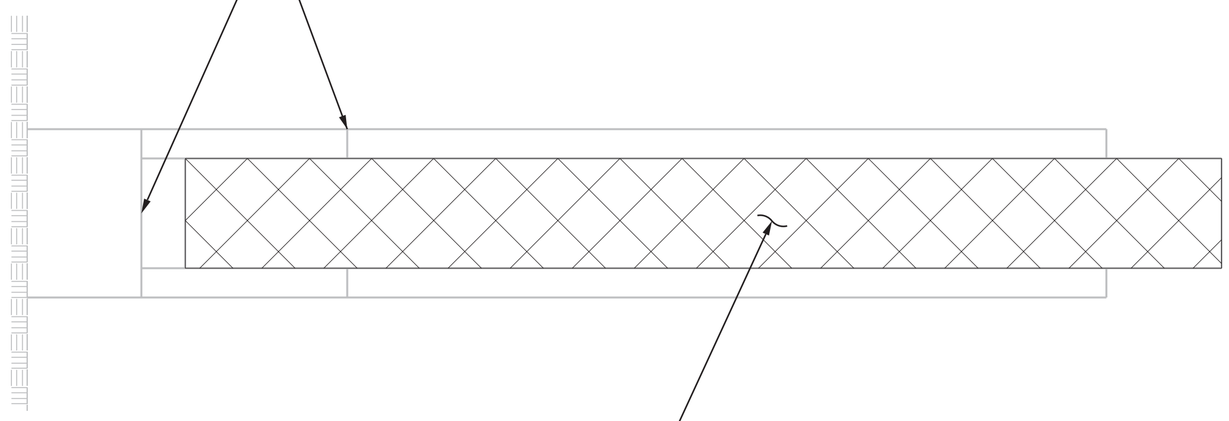
STP-1874(700)

BRIDGE NO. 3312 **WIN 018747.00** BRIDGE PLANS

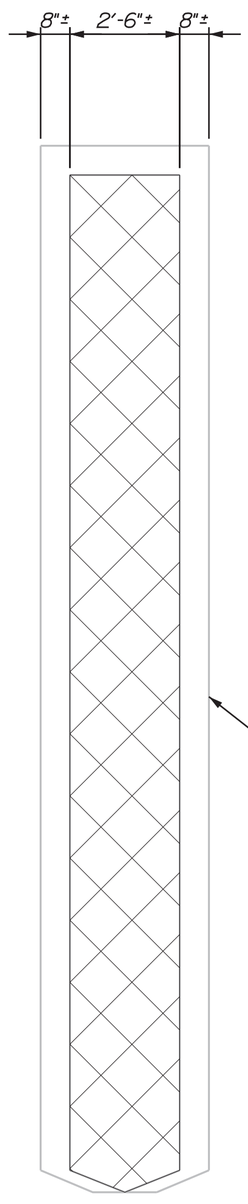
PIER REMOVAL NOTES

1. Care shall be taken as not to damage existing dam spillway. Any damage to the dam shall be repaired at the contractor's expense.

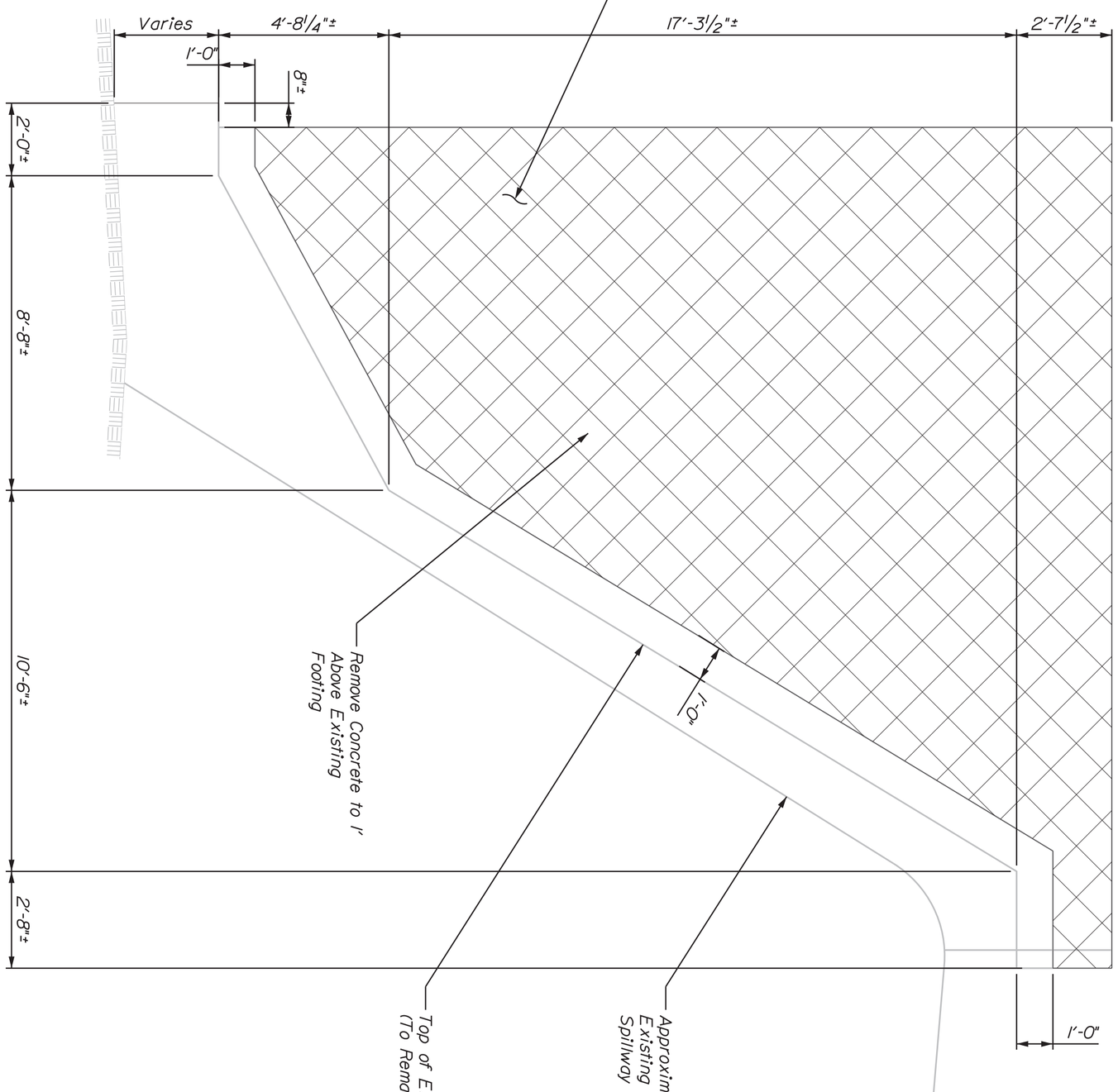
2. Pier demolition limits are approximate. Final limits shall be determined by the Resident.



END VIEW PIER NO. 3-5 & NO. 7-8



PLAN PIER NO. 3-5 & NO. 7-8



ELEVATION OF PIER NO. 3-5 & NO. 7-8

PROJ. MANAGER	MARK PARLIN	BY	DATE
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SHEET NUMBER 8 OF 15

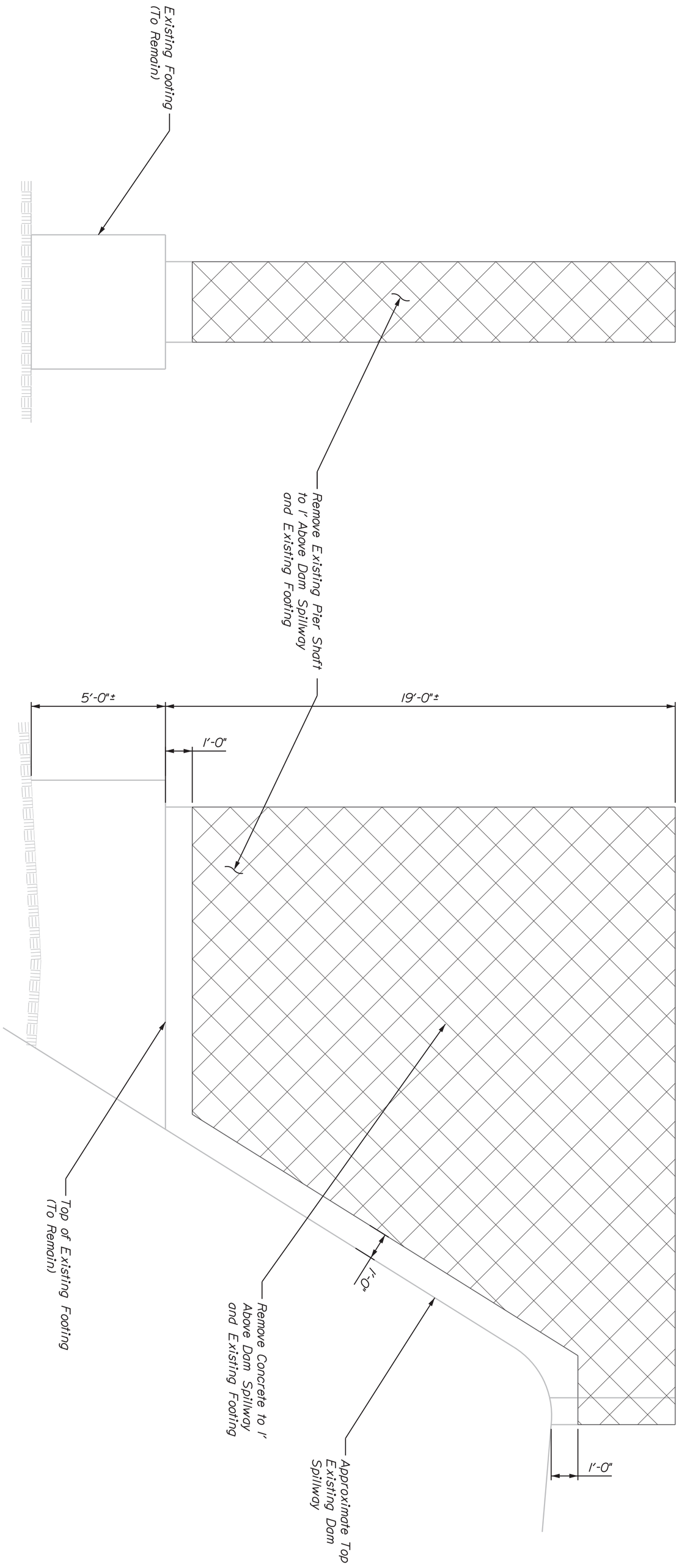
VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

BRIDGE PIER NO. 3-5 & NO. 7-8 DEMOLITION PLAN

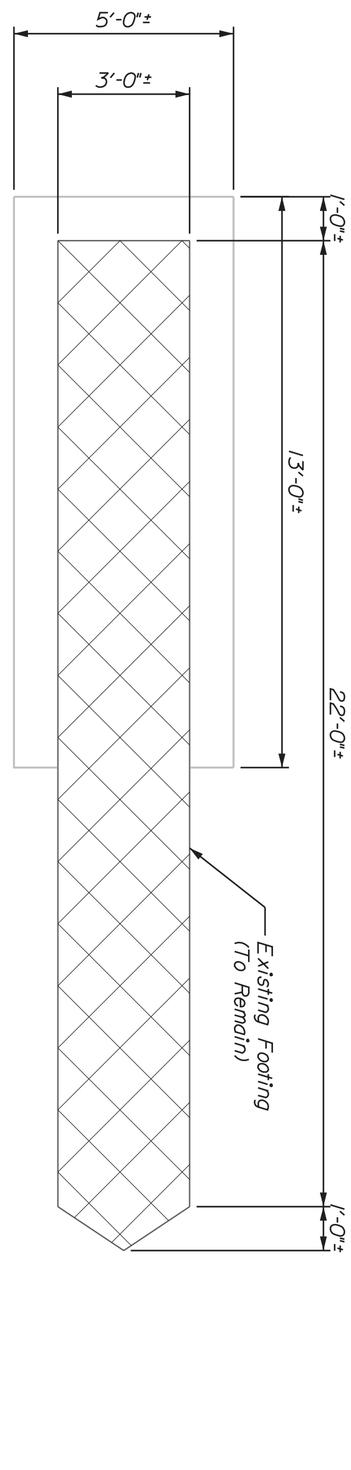
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1874(700)

BRIDGE NO. 3312 **WIN 018747.00** BRIDGE PLANS



END VIEW PIER NO. 6



PLAN PIER NO. 6

ELEVATION OF PIER NO. 6

SHEET NUMBER 9 OF 15

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

BRIDGE PIER NO. 6 DEMOLITION PLAN

PROJ. MANAGER	MARK PARLIN	BY	DATE
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
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

STP-1874(700)

BRIDGE NO. 3312 **WIN 018747.00** BRIDGE PLANS

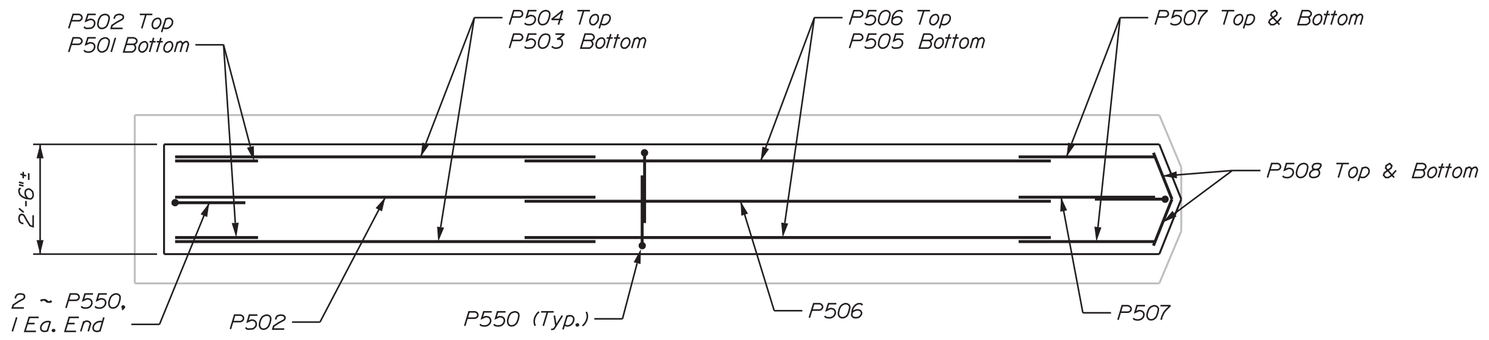
PIER REPAIR NOTES

1. Dimensions shown are approximate. Final dimensions shall be determined by the Resident.

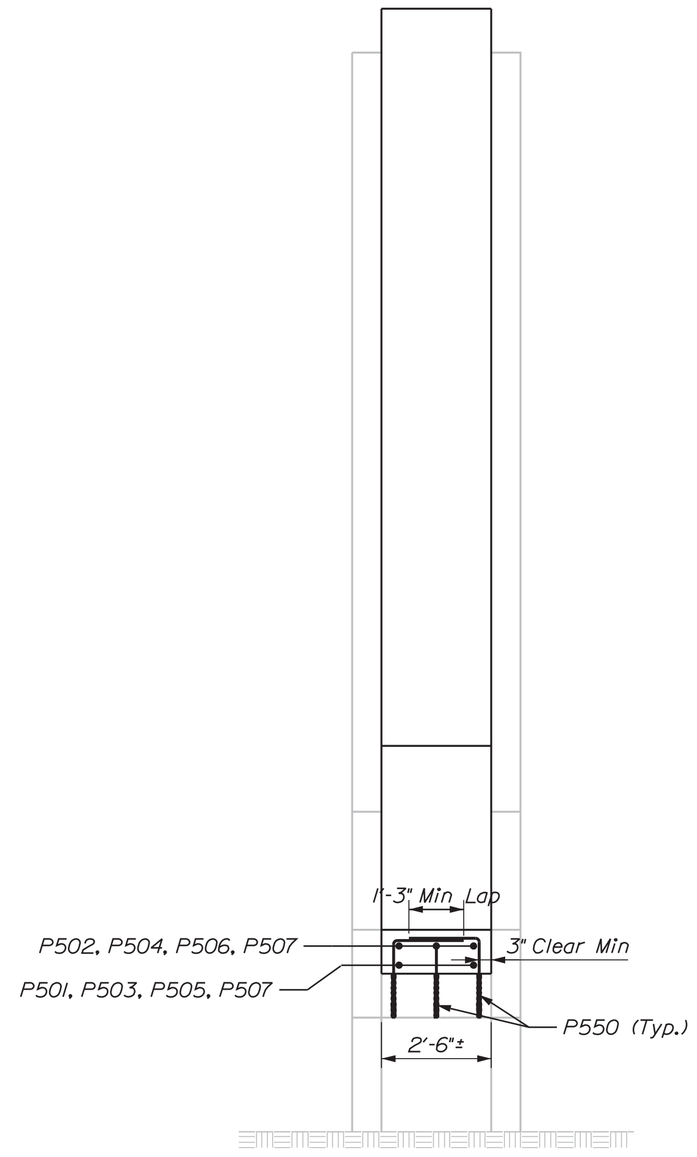
2. Reinforcing steel shall have 2 inches minimum of cover unless otherwise noted.

3. Adjust reinforcing steel to fit as needed in a manner approved by the Resident. Any cutting and adjustment of reinforcing steel shall be incidental to Item No. 503.13 Reinforcing Steel, Placing.

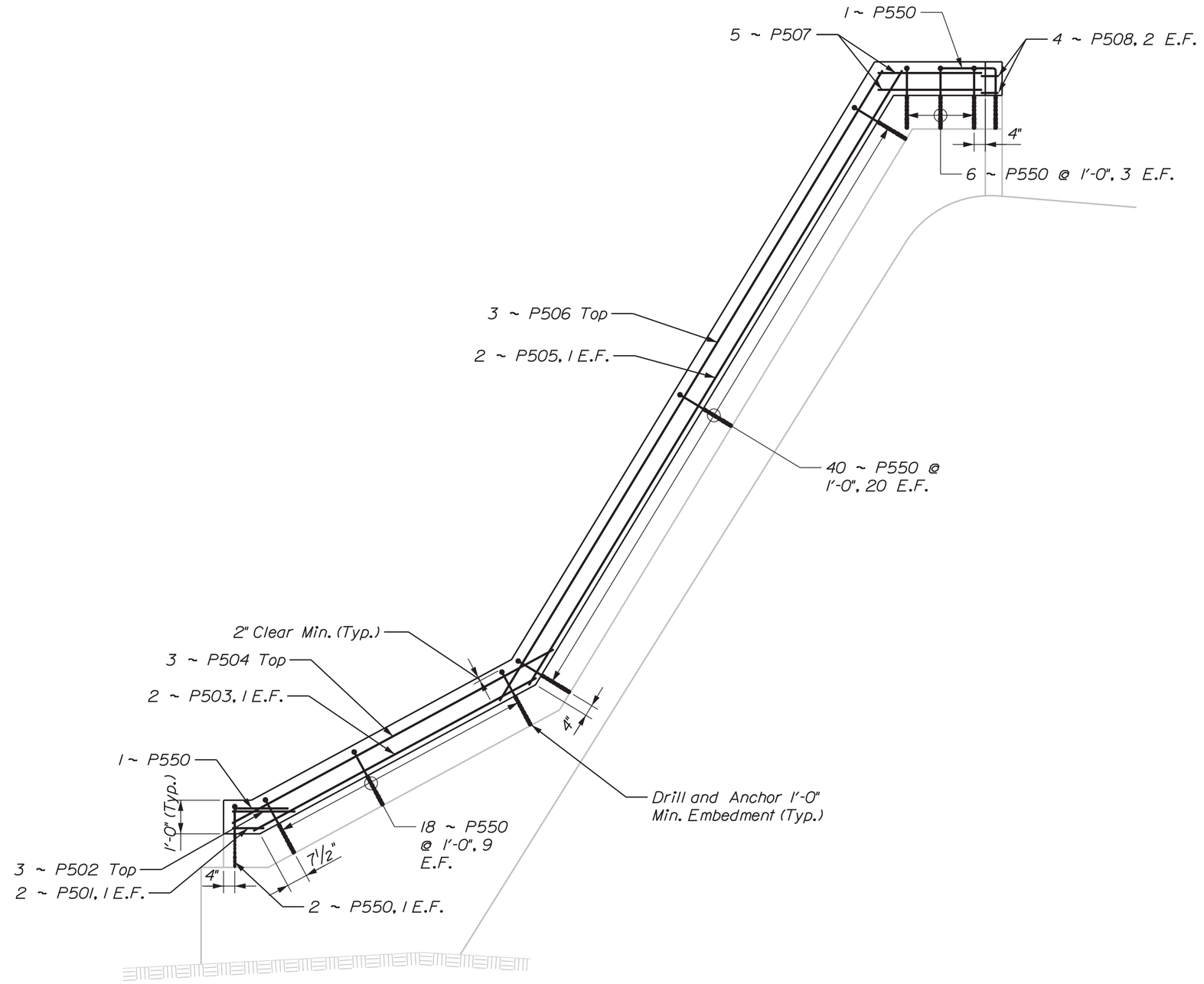
4. Drilling and anchoring reinforcing bars into existing concrete is incidental to Item No. 503.13 Reinforcing Steel, Placing.



PLAN PIER NO. 3-5 & NO. 7-8



END VIEW PIER NO. 3-5 & NO. 7-8



ELEVATION OF PIER NO. 3-5 & NO. 7-8

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1874(700)

WIN 018747.00

BRIDGE NO. 3312

BRIDGE PLANS

PROJ. MANAGER	MARK PARLIN		
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

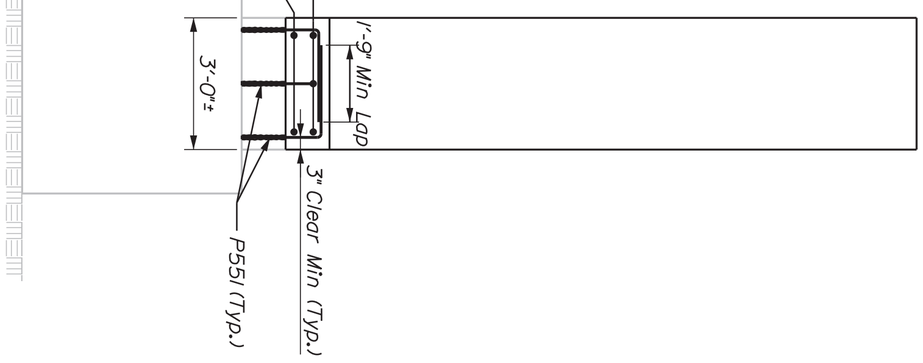
BRIDGE PIER NO. 3-5 & NO. 7-8 TYPICALS

SHEET NUMBER

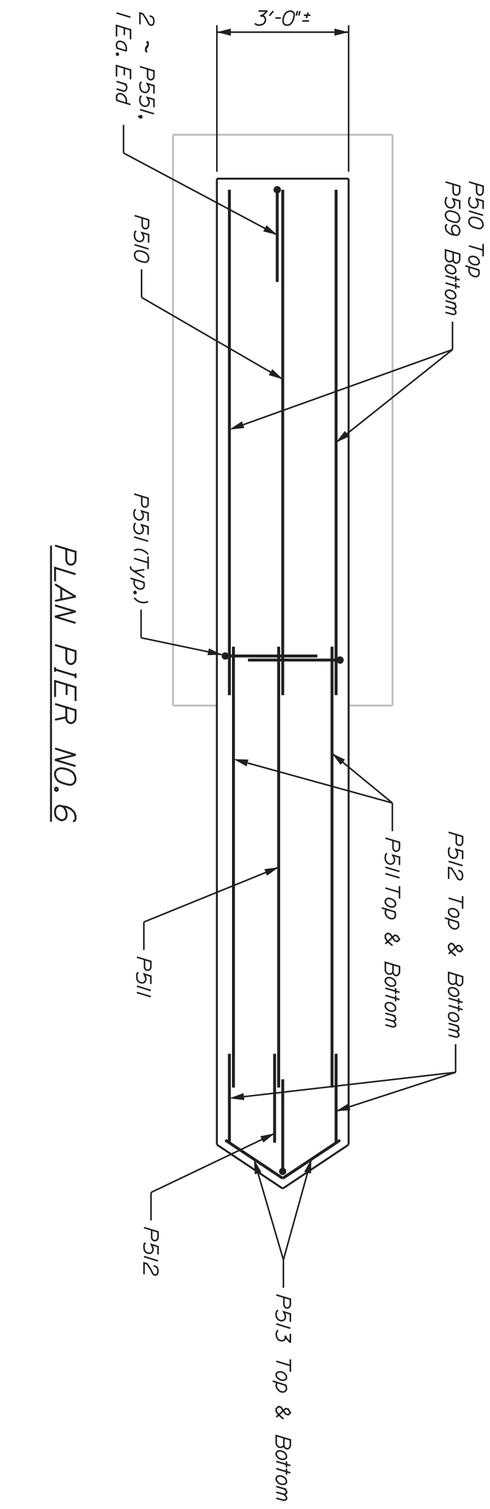
10

OF 15

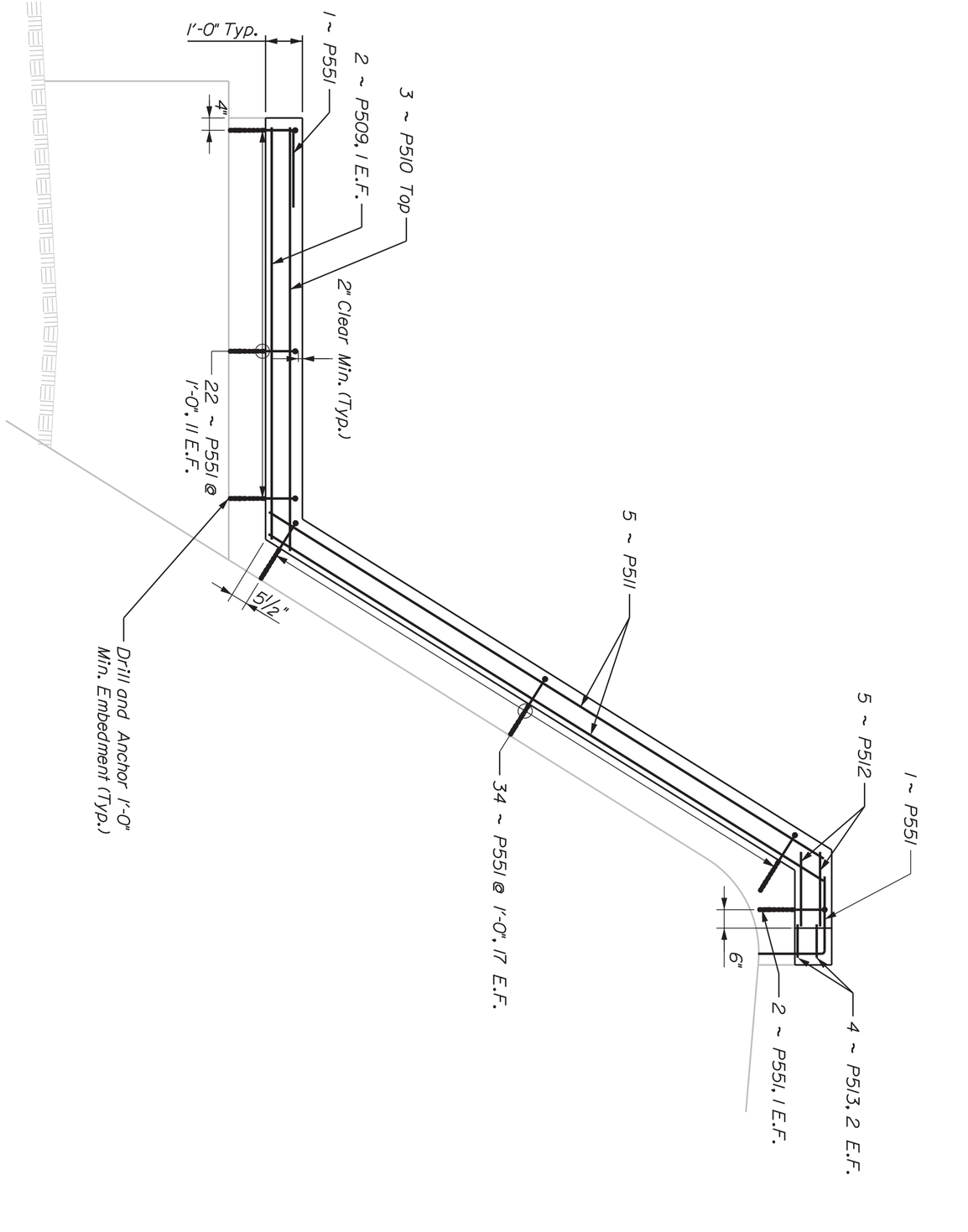
Filename: ...\MSTA\010_Bridge Pier.dgn Division: BRIDGE Username: EWalton Date:11/7/2017



END VIEW PIER NO. 6



PLAN PIER NO. 6



ELEVATION OF PIER NO. 6

PROJ. MANAGER	MARK PARLIN	BY	DATE
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SHEET NUMBER 11 OF 15

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

BRIDGE PIER NO. 6 TYPICALS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1874(700)

BRIDGE NO. 3312 **WIN 018747.00** BRIDGE PLANS

NOTES

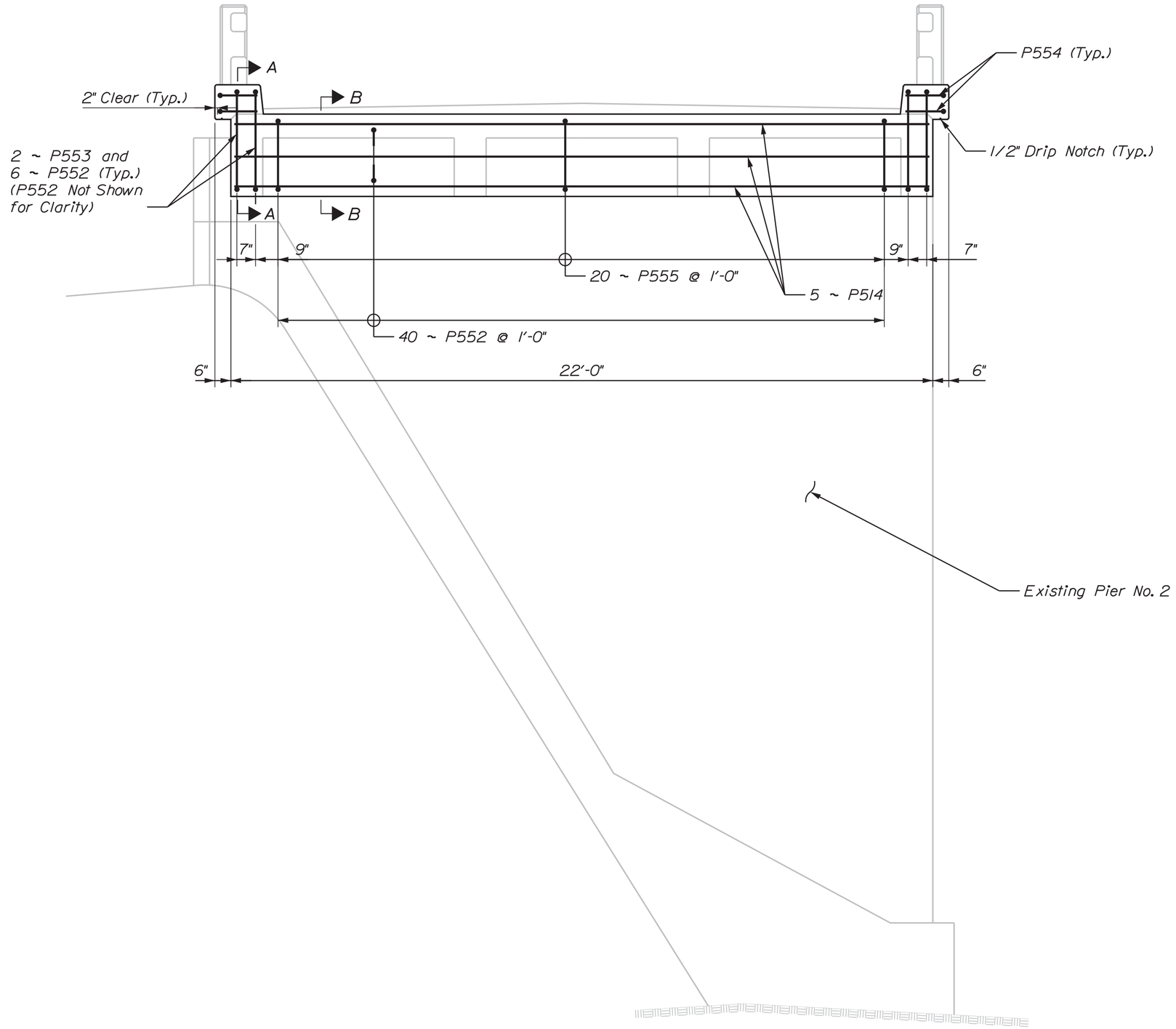
1. Dimensions shown are approximate. Final dimensions shall be determined by the Resident.

2. Match new concrete into existing curb and superstructure.

3. Concrete used for the Pier No. 2 repair shall be paid for under Item No. 502.23 Structural Concrete Piers.

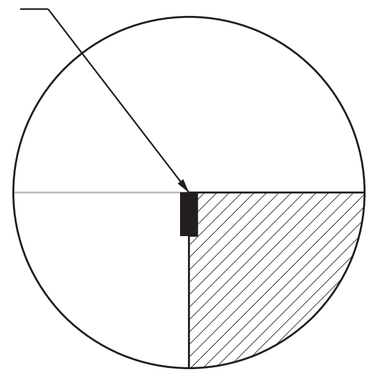
4. Sawcutting and flexible epoxy joint sealer shall be considered incidental to Item No. 502.23 Structural Concrete Piers.

5. Drilling and anchoring reinforcing bars into existing concrete shall be considered incidental to Item No. 503.13 Reinforcing Steel, Placing.



ELEVATION PIER NO. 2 REPAIR

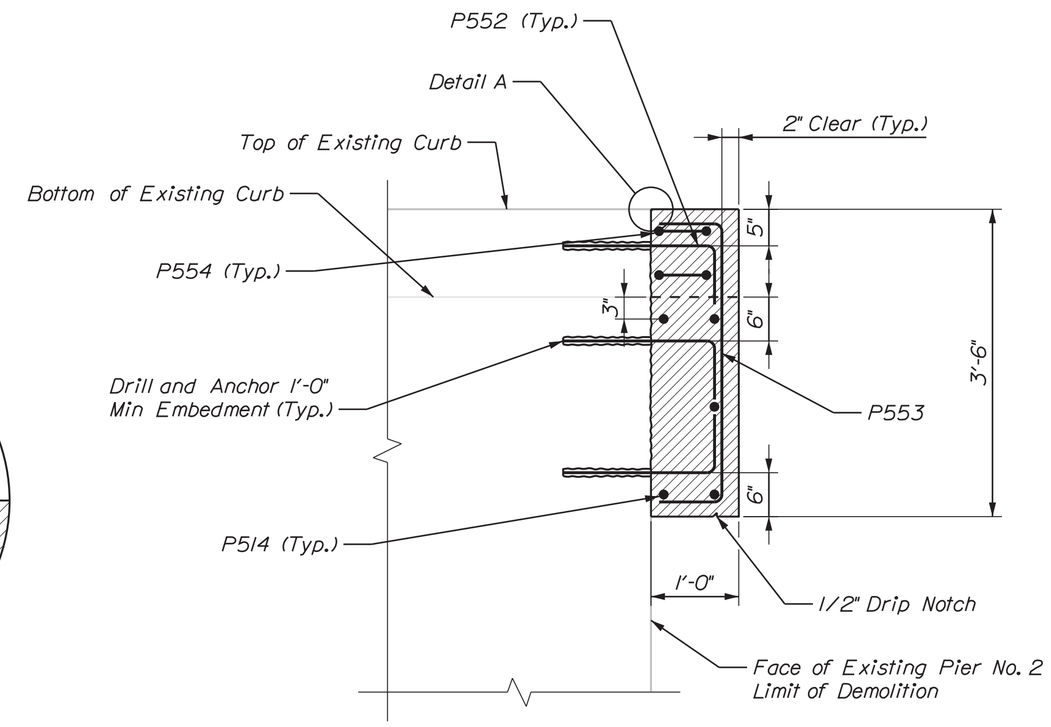
*P552 Not Shown for Clarity



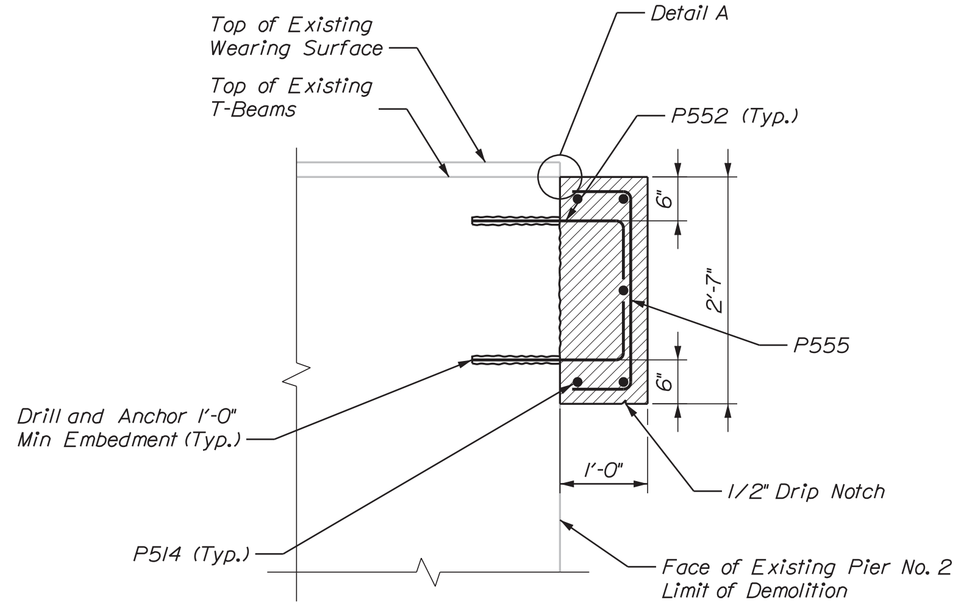
DETAIL A

N.T.S.

NOTE: Joint at curb shown. Joint between curbs is similar.



SECTION A-A



SECTION B-B

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1874(700)

WIN 018747.00

BRIDGE NO. 3312

BRIDGE PLANS

PROJ. MANAGER	MARK P-ARLIN		
DESIGN-DETAILED	E. WALTON	T. WOLFEL	10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD	10/2017
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

BRIDGE PIER No. 2
REPAIRS

SHEET NUMBER

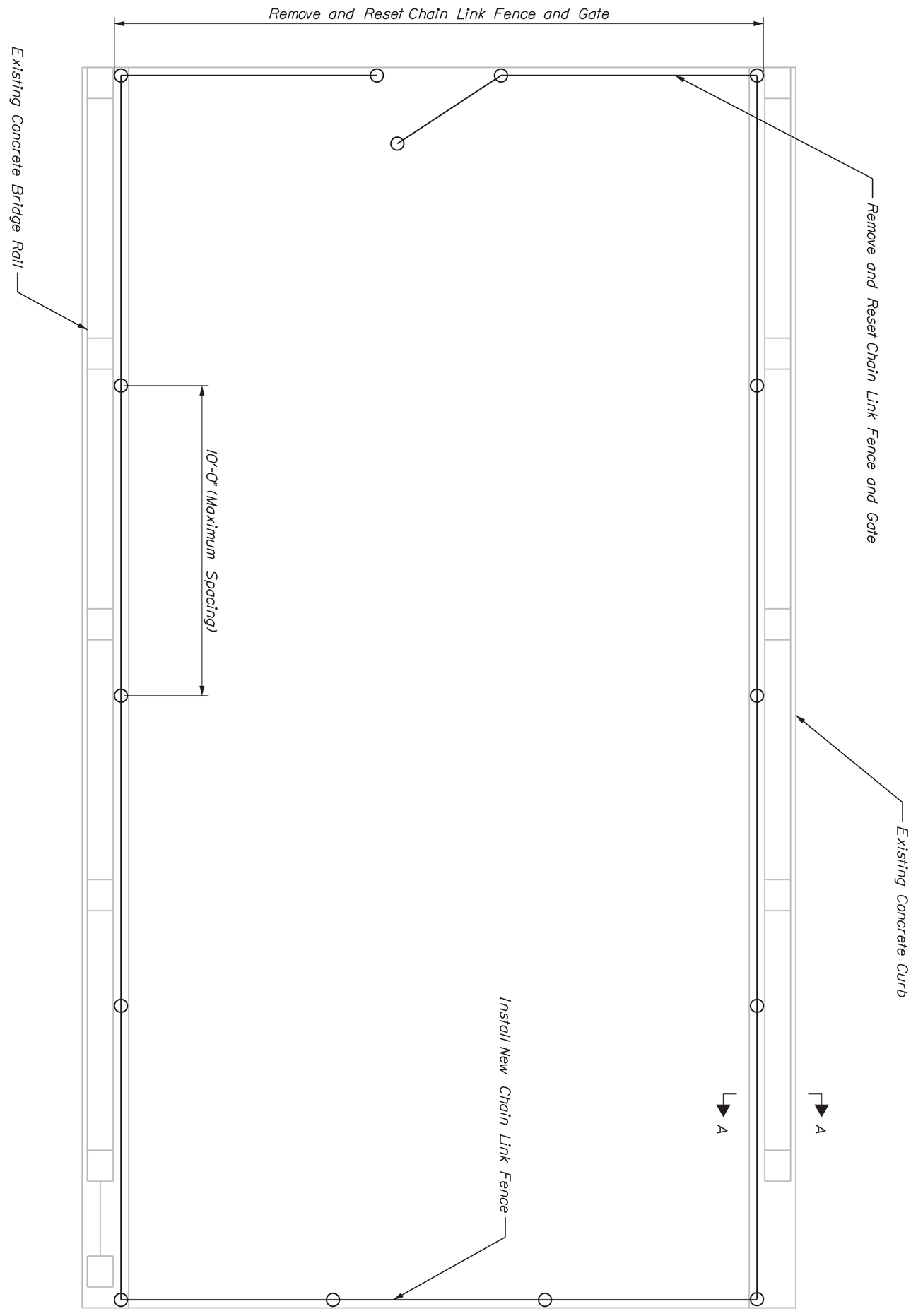
12

OF 15

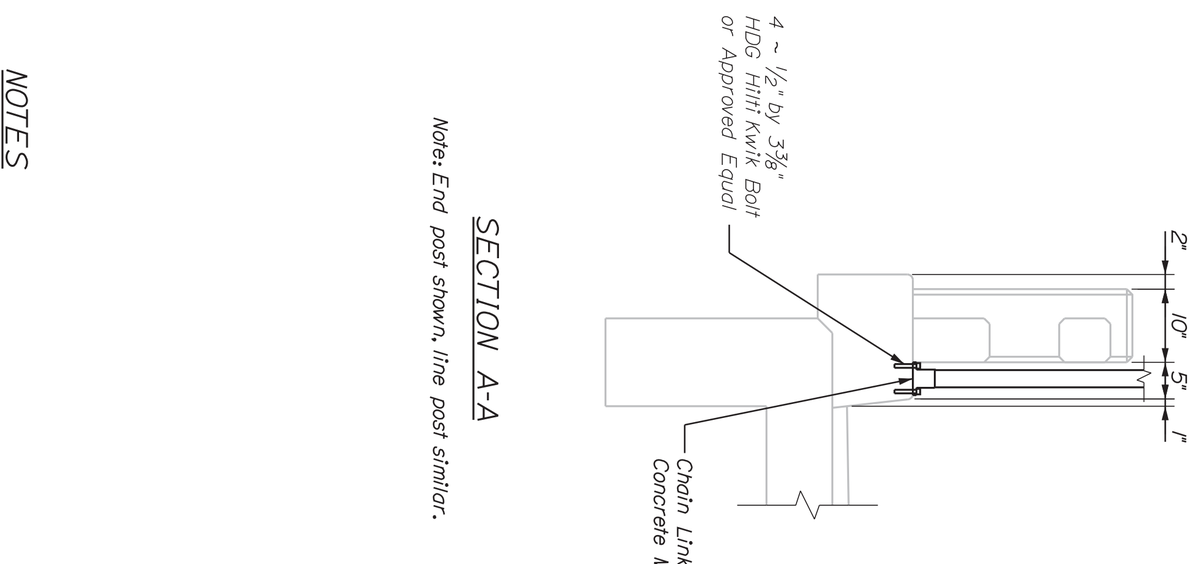
Username: EWalton Date:11/7/2017

Division: BRIDGE

Filename: ...\BRIDGE\MSTA\012_End Cap.dgn



CHAIN LINK FENCE PLAN SPANS NO. 1 & NO. 2



SECTION A-A

Note: End post shown, line post similar.

NOTES

1. Fence post concrete mount, anchor bolts, and installation shall be considered incidental to Item No. 607.17 Chain Link Fence - 6'.

SHEET NUMBER 13 OF 15	VARNEY'S BRIDGE GREAT WORKS RIVER SOUTH BERWICK YORK COUNTY FENCE DETAILS	PROJ. MANAGER MARK PARLIN / BY / DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION
		DESIGN-DETAILED E. WALTON T. WOLFEL 10/2017 CHECKED-REVIEWED J. WENTWORTH K. WOOD 10/2017 DESIGN2-DETAILED2 DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE P.E. NUMBER DATE	STP-1874(700) WIN 018747.00 BRIDGE NO. 3312 BRIDGE PLANS

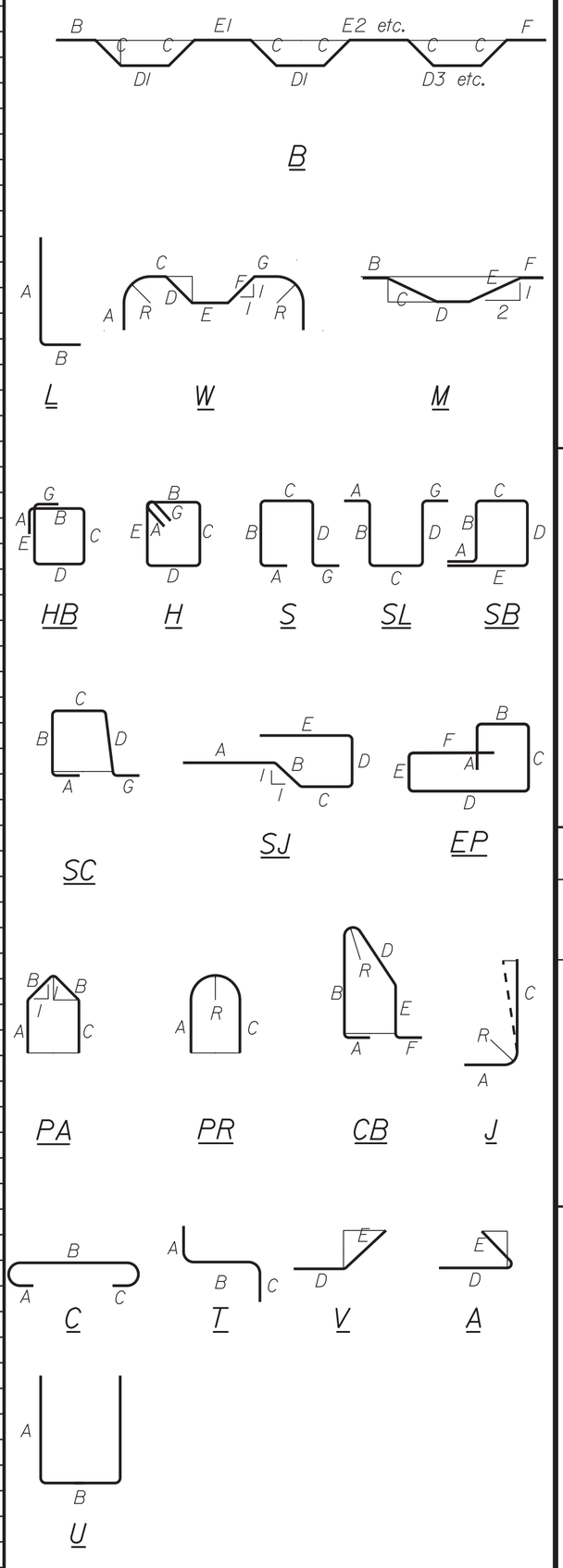
STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION
P501	10	0'-11"	PIERS NO. 3-5 & NO. 7-8				
P502	15	1'-10"	PIERS NO. 3-5 & NO. 7-8				
P503	10	9'-6"	PIERS NO. 3-5 & NO. 7-8				
P504	15	10'-10"	PIERS NO. 3-5 & NO. 7-8				
P505	10	21'-5"	PIERS NO. 3-5 & NO. 7-8				
P506	15	21'-11"	PIERS NO. 3-5 & NO. 7-8				
P507	25	3'-1"	PIERS NO. 3-5 & NO. 7-8				
P508	20	1'-1"	PIERS NO. 3-5 & NO. 7-8				
P509	2	11'-2"	PIER NO. 6				
P510	3	11'-6"	PIER NO. 6				
P511	5	17'-9"	PIER NO. 6				
P512	5	2'-0"	PIER NO. 6				
P513	4	1'-6"	PIER NO. 6				
P514	5	21'-9"	PIER NO. 2 REPAIR				

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
P550	340	3'-5"	L	1'-10"	1'-7"									PIERS NO. 3-5 & NO. 7-8
P551	60	3'-11"	L	1'-10"	2'-1"									PIER NO. 6
P552	52	2'-6"	L	1'-10"	0'-8"									PIER NO. 2 REPAIR
P553	4	4'-6"	U	0'-8"	3'-2"									PIER NO. 2 REPAIR
P554	4	3'-2"	U	1'-3"	0'-8"									PIER NO. 2 REPAIR
P555	20	3'-7"	U	0'-8"	2'-3"									PIER NO. 2 REPAIR

TYPE - BENDING DIAGRAMS



All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A615/A615M, Grade 60

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size ofthe bar:

   Mark "A502" = bar size #5
   Mark "P805" = bar size #8
   Mark "S650" = bar size #6

2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1874(700)

WIN 018747.00

BRIDGE NO. 3312

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	MARK P-ARLIN	
DESIGN-DETAILED	E. WALTON	T. WOLFEL 10/2017
CHECKED-REVIEWED	J. WENTWORTH	K. WOOD 10/2017
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

VARNEY'S BRIDGE
GREAT WORKS RIVER
SOUTH BERWICK YORK COUNTY

REINFORCING STEEL SCHEDULE

SHEET NUMBER

14

OF 15

Filename: ...\BRIDGE\MSTA\014_Rebar.dgn Division: BRIDGE Username: EWalton Date:11/7/2017

PLAN LEGEND

Town, County, State	Approx. Property Lines P.L.	Existing Right of Way	Limits of Wrought Portion L.O.W.P.	Control Of Access C.O.A.	New Right of Way	New Easement	New Temporary Rights	New R/W Within Existing R/W
New R/W Along Existing R/W	Building	Clearing Limit Line CLL	Trees Conifer Deciduous	Tree Line	Bush Line	Water Edge	Ledge	Rock/Boulder	Flag Pole	Fence CHAIN LINK BARB WIRE STOCKADE	Sign	Well WELL	Mailbox

	Existing	Proposed
Sanitary Sewer		
Telephone Line	T	T
Electric Line	E	E
Water Line	W	W
Underdrain Line		
Gas Line	G	G
Guardrail		
Culvert		

	Existing	Proposed
Traveled Way		
Ditch		
Catch Basin		
Manhole		
Sewer Manhole		
Utility Pole		
Fire Hydrant		
Curbing		

Cut Line C C C — Fill Line F F F
Stonewall — Retaining Wall
Baseline 10+00 11+00 12+00
Monument — Traverse Point
Iron Rod Found ● IRF — Pipe Found ● IPF
Replacement Pin Set ⊙

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

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

25 0 25 50 75 100
Scale of Feet

CURVE DATA		
CURVE #1	CURVE #2	CURVE #3
PI = 1+50.64	PI = 1+99.88	PI = 5+11.99
D =114°35'29.6"	D =114°35'29.6"	D = 38°11'49.9"
Δ = 50°44'43.4" Lt.	Δ = 59°39'54.2" Rt.	Δ = 19°30'16.5" Lt.
R = 50.00'	R = 50.00'	R = 150.00'
L = 44.28'	L = 52.07'	L = 51.06'
T = 23.71'	T = 28.67'	T = 25.78'
E = 5.34'	E = 7.64'	E = 2.20'

GRID
MAINE 2000 WEST ZONE

CONTROL INFORMATION
HORIZONTAL DATUM - US STATE PLANE NAD83 (2011)
ZONE - MAINE 2000 WEST ZONE
VERTICAL DATUM - NAVD 88
COMBINED SCALE FACTOR - 0.9999805

WATER LINE AS SHOWN IS BASED ON A SKETCH OF AERIAL PHOTO AND IS APPROXIMATE ONLY

GREAT WORKS RIVER

FLOW

CIR EASTERLY UPT

RICHARD P. TIEDEMANN
JOHN F. TIEDEMANN

KEI (MAINE) POWER MANAGEMENT (IV), LLC
ITEM NO. (1)
TEMP. ACCESS ROAD RIGHTS = 0.23 ± AC. (1)
TOTAL AREA = 1.6 AC.± (CALC)

GREAT WORKS REGIONAL LAND TRUST
ITEM NO. (2)
TEMP. ACCESS ROAD RIGHTS = 0.25 ± AC. (1)
TOTAL AREA = 22 AC.± (PER TOWN)

POB = STA. 0+00.00
PRC = STA. 1+71.21
PC = STA. 1+26.93
PT = STA. 2+23.28
PC = STA. 4+86.21
PT = STA. 5+37.27

TEMPORARY ACCESS ROAD LIMITS

0+00 N 16°18'58.7" E 136.93' 1+00
CURVE #1 44.28'
CURVE #2 52.07'
2+00
3+00 262.93' N 25°14'09.6" E 4+00
CURVE #3 N 5°43'53.1" E 51.06' 5+00

31.5'±
1.91'±
+70±
35'±
+16±
25'
0.23±AC
0.25±AC

BEGIN B.L. AT STA 0-10.00
END B.L.

(L.O.W.P.)
P.L.
CLL
EDGE OF FIELD
NO PARKING
TO LIBERTY STREET
TO BRATTLE STREET
VINE STREET
TOP OF DH
DH IN BRIDGE ABUT
EDGE CLOSEST BRDG FACE
5/8"IR CIRUNREADABLE FLUSH IN PAVE
5/8"IR CIR2888 2" TALL
YORK COUNTY COMM. LAYOUT VOL. 27, PAGE 143-146 1923 (3 RODS) 49.5'
WATER LINE AS SHOWN IS BASED ON A SKETCH OF AERIAL PHOTO AND IS APPROXIMATE ONLY
GREAT WORKS REGIONAL LAND TRUST
LEIGHS MILL POND

WATER LINE AS SHOWN IS BASED ON A SKETCH OF AERIAL PHOTO AND IS APPROXIMATE ONLY

EATON, HART, HALLIDAY & HAWTHRONE

GENERAL NOTE:

THE DAM OWNED BY KEI (MAINE) POWER MANAGEMENT (IV) LLC, LOCATED UNDER THE BRIDGE, TO REMAIN ONCE THE BRIDGE HAS BEEN REMOVED.

EXISTING RIGHT OF WAY INFORMATION

1) VINE STREET: (IN VICINITY OF VARNEY'S BRIDGE)
YORK COUNTY COMMISSIONERS RECORDS, VOL 27, PAGE 143, 1922, 3-RODS (49.5')

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

PLAN REFERENCES:

1) GENERAL SURVEY, HYDRO-ELECTRIC DEVELOPMENT "LEES MILLS" GREAT WORKS, MAINE BERWICK & SALMON FALLS ELEC. CO. BOSTON MASS. PREPARED BY I. W. JONES & CO., ENGINEERS, DATED JULY 20, 1922 (TEDOCS NO. 1613677)

2) ALTA/ACSM LAND TITLE SURVEY FOR RIDGEWOOD MAINE HYDRO PARTNERS, L. P. PREPARED BY EASTERLY SURVEYING, INC., DATED JANUARY 8, 2009.

3) STATE HIGHWAY COMMISSION, BRIDGE DIVISION VARNEY BRIDGE OVER GREAT WORKS RIVER IN THE TOWN OF SOUTH BERWICK SHEET 1 OF 5 DATED OCTOBER 1953, BRIDGE NO. 3312

VARNEY'S BRIDGE
OVER
GREAT WORKS RIVER

BRIDGE NO. 3312 WIN 018747.00

ITEM	CHECKED
EXISTING CONDITION PLAN	CWK
FINAL RIGHT OF WAY	CWK
AREAS	JH\NTA
	RMC
	RMC
	RMC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
SOUTH BERWICK
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD					
NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

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.

VARNEY'S BRIDGE
VINE STREET
SOUTH BERWICK YORK COUNTY
STATE PROJECT NO. 18747.00 (Bridge Removal)

AUGUST 2017	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 16-523
SCALE 1" = 25'	SHEET 1 OF 1	

SHEET NUMBER
15
OF 15

Filename: ...\00\ROW\MSTA\015_RWPLAN1.dgn Division: ROW Username: Ronold.M.Corpentier Date:9/6/2017