

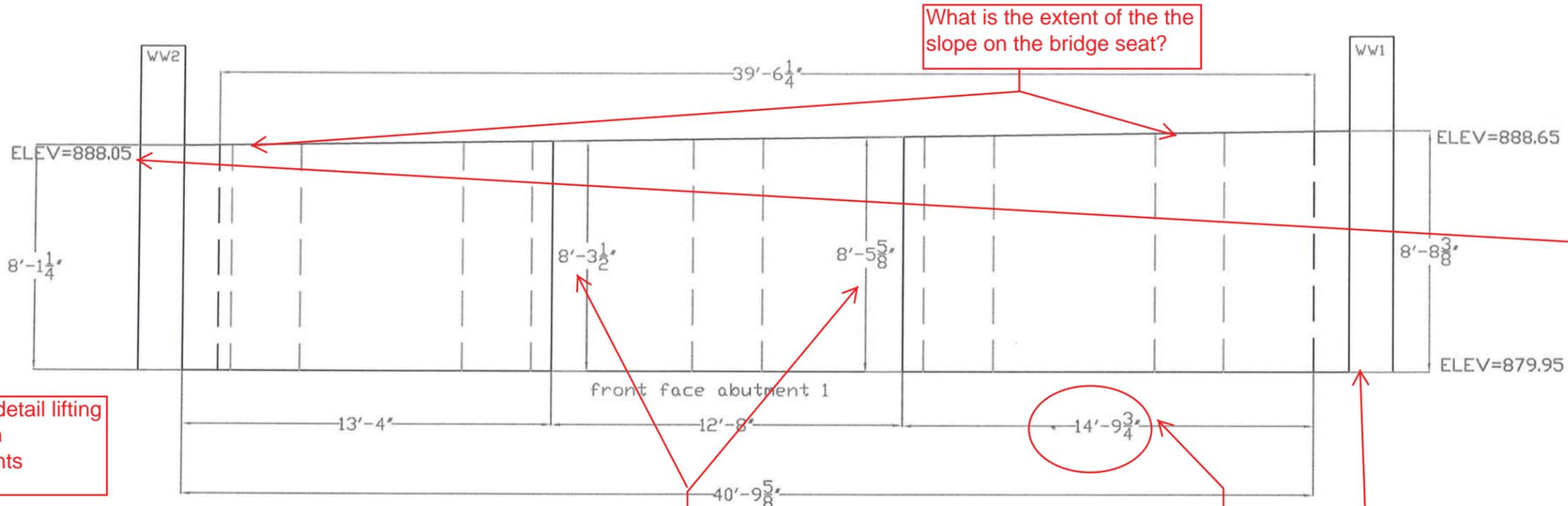
PITTSFIELD ER BRF 022-1(23)
CONTRACTOR FABRICATED PRE-CAST

- SHEET1: ABUTMENT #1 PLAN
- SHEET2: ABUTMENT #2 PLAN
- SHEET3: WING WALL PLAN
- SHEET4: ABUTMENT CASTING PLAN
- SHEET5: GENERAL NOTES
- SHEET6: QC PROCEDURES/PLAN
- SHEET7: POST TENSIONING DETAILS
- SHEET8: POST TENSIONING DETAILS
- SHEET9: CONCRETE MIX DESIGN

Pittsfield ER BRF 022-1(23)

Vermont Agency of Transportation
RECEIVED
CK'D BY JG OK'D BY WL
March 17, 2014
RESUBMIT YES Rejected
BY KH DATE 4-1-2014

COLD RIVER BRIDGES, LLC 10 LANBRO LANE WALPOLE, NH TEL 603-756-9300 FAX 603-756-9303	
CAVENDISH ER BRF 0146(13)	
COVER SHEET/INDEX	SHEET NUMBER COVER
DATE: 10-31-13	scale:



What is the extent of the the slope on the bridge seat?

Please show WW1 and WW 2 Height and Elevations

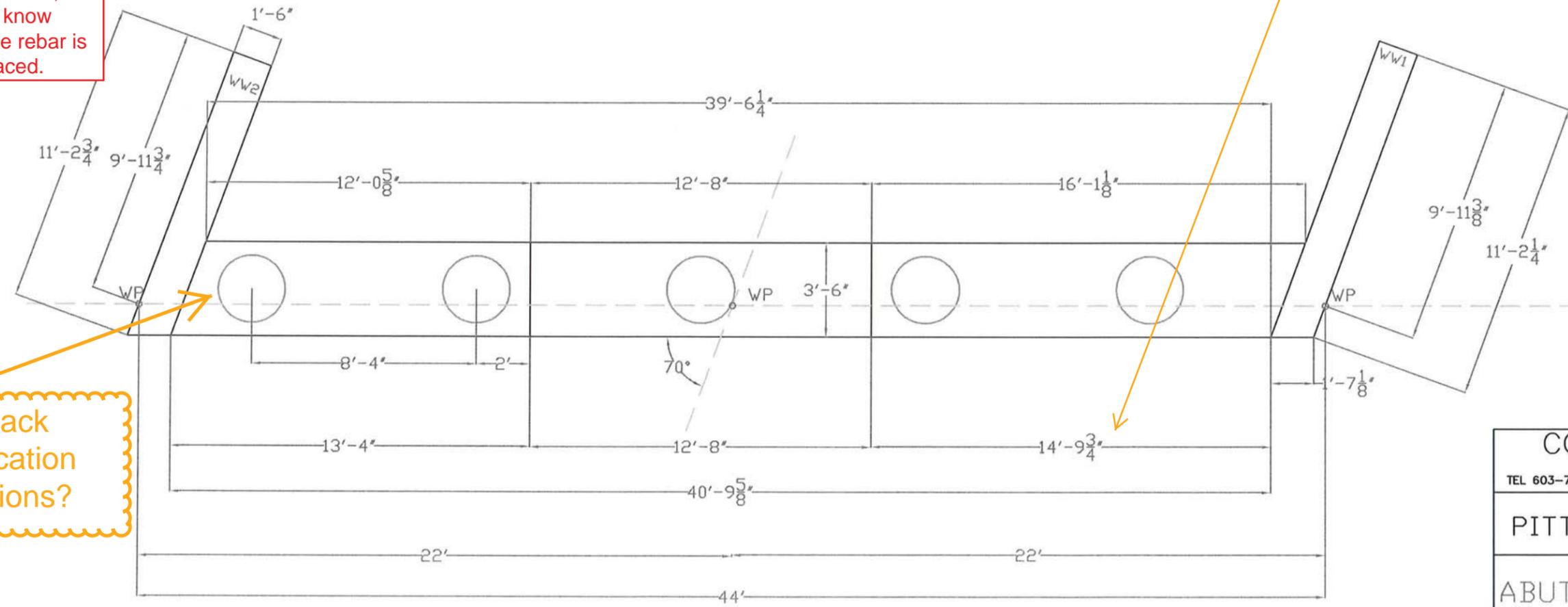
Are these elevations carried out to the edge of the wing walls or to the edge of the original "cheekwall"? As that would differ from the elevations given in contract plans

Please detail lifting points in abutments

Please detail rebar in a side elevation view. No cover is mentioned in the steel schedule, so we don't know where the rebar is being placed.

Note: due to skew, the abutment height is different on both front and rear faces of construction joint.

Please verify location of wing wall. It does not appear to match the plan view drawing



Front/Back Pipe location dimensions?

Vermont Agency of Transportation
RECEIVED
 CK'D BY JG OK'D BY WL
 March 17, 2014
 RESUBMIT YES Rejected
 BY KH DATE 4-1-2014

COLD RIVER BRIDGES, LLC 10 LANBRO LANE WALPOLE, NH TEL 603-756-9300 FAX 603-756-9303	
PITTSFIELD ER BRF 022-1(23)	
ABUT 1 PLAN/ELEV	SHEET NUMBER 1
DATE: 1-17-14	scale: 1/4"=1'

Please show all elevations and heights at construction joints (TYP)

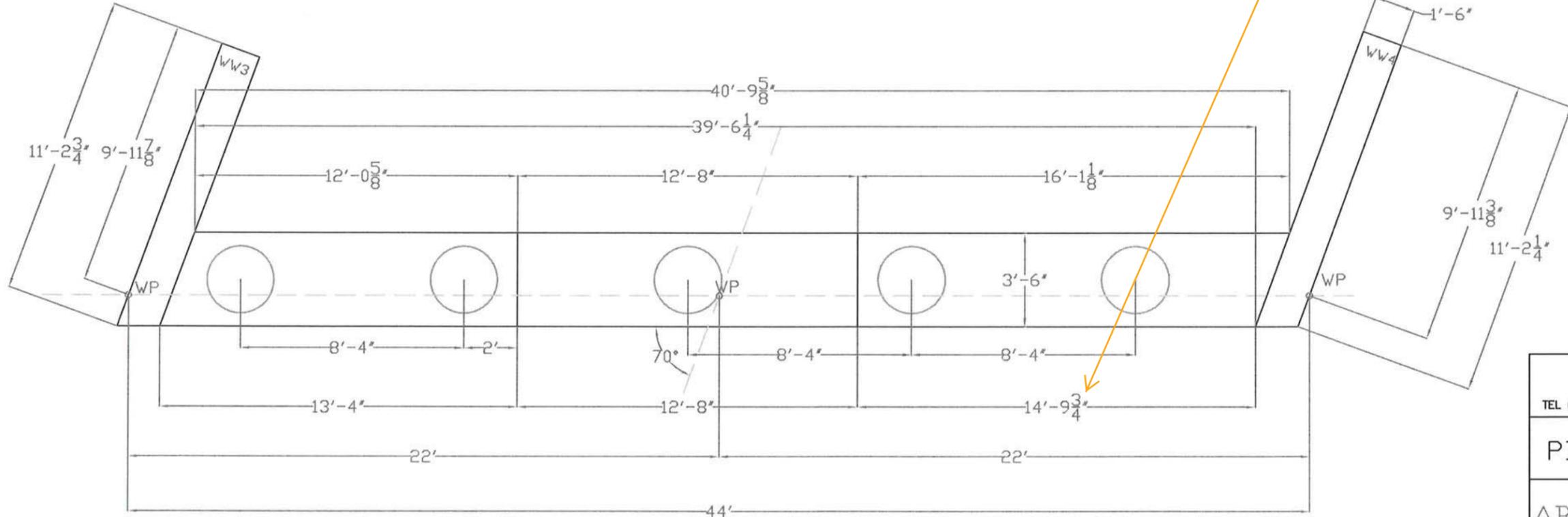
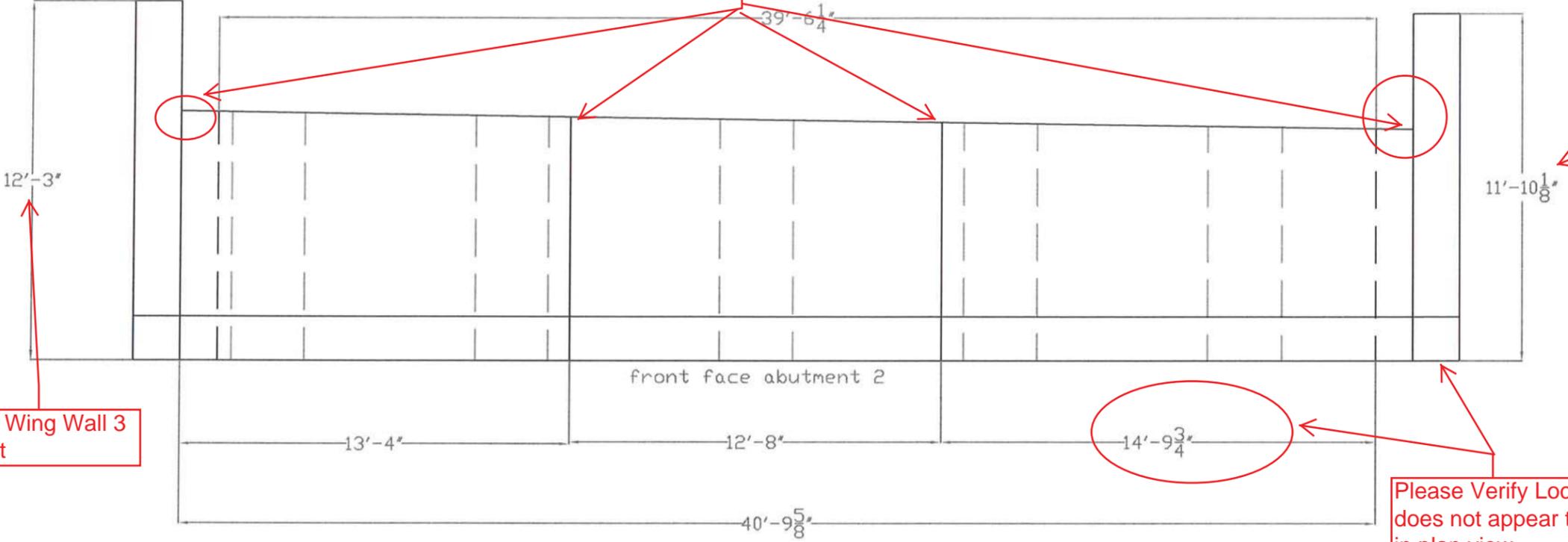
Verify Wing Wall 4 Height

Please show all Abutment 2 Heights and Elevations

Verify Wing Wall 3 Height

Please Verify Location of Wing Wall. It does not appear to match what is shown in plan view.

why not label each view?



Vermont Agency of Transportation

RECEIVED

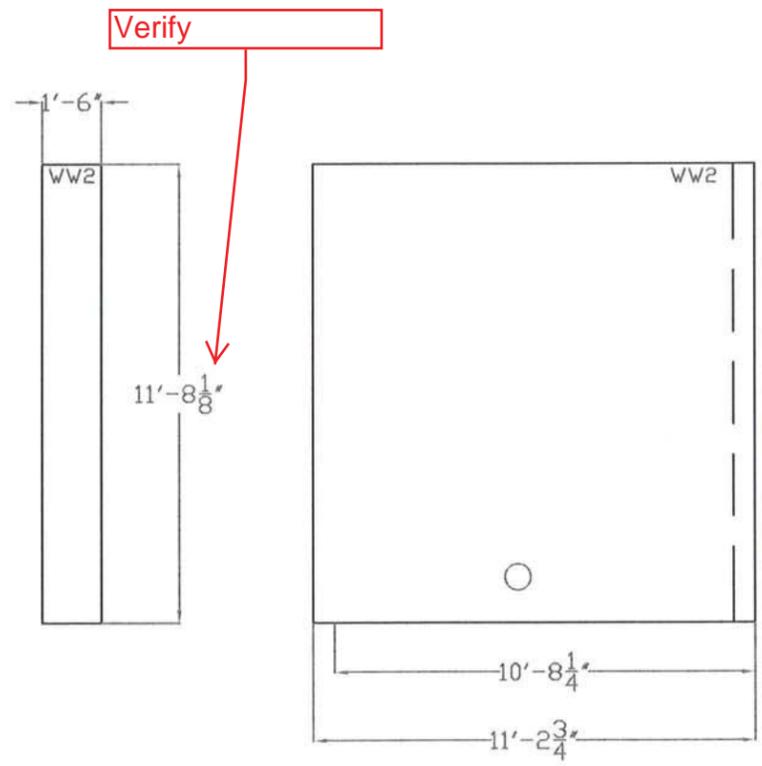
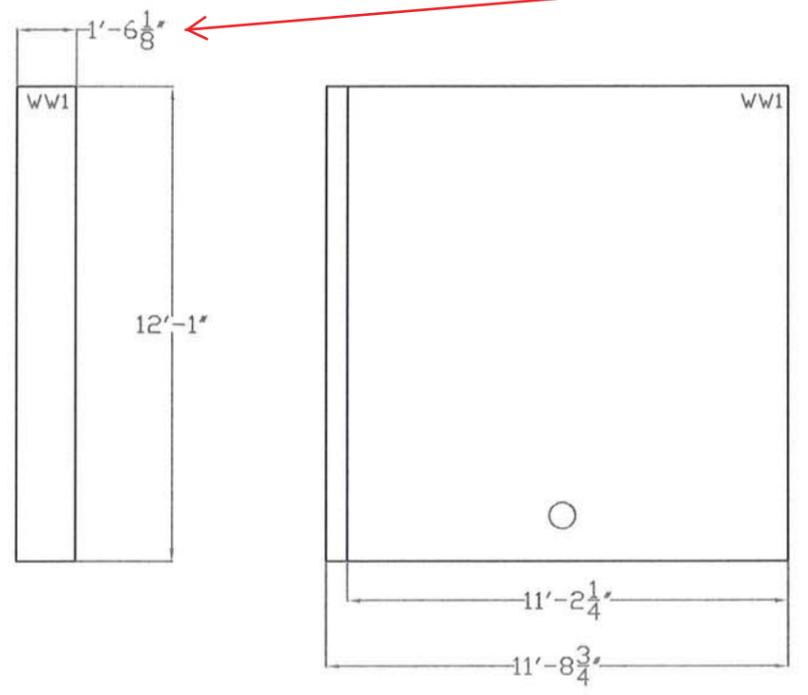
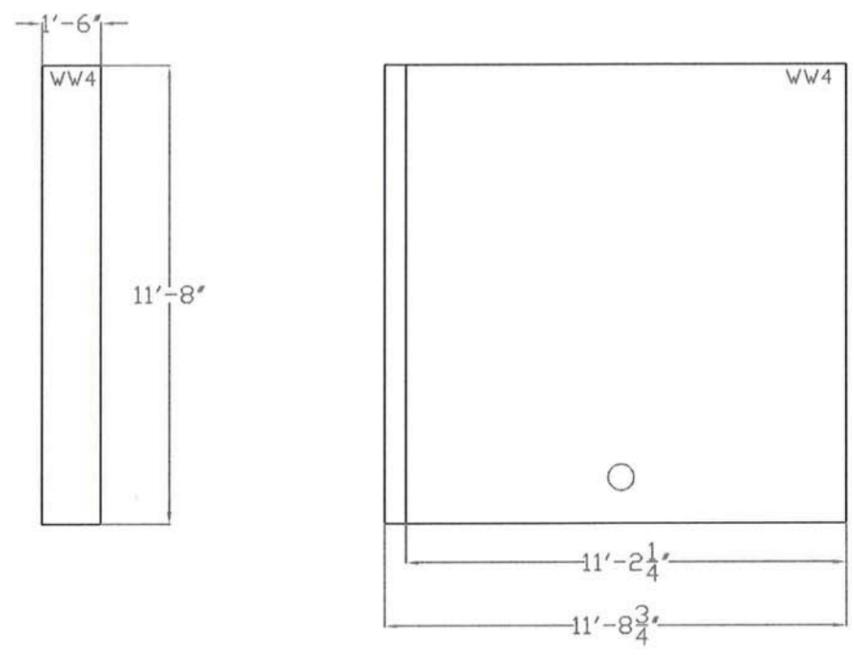
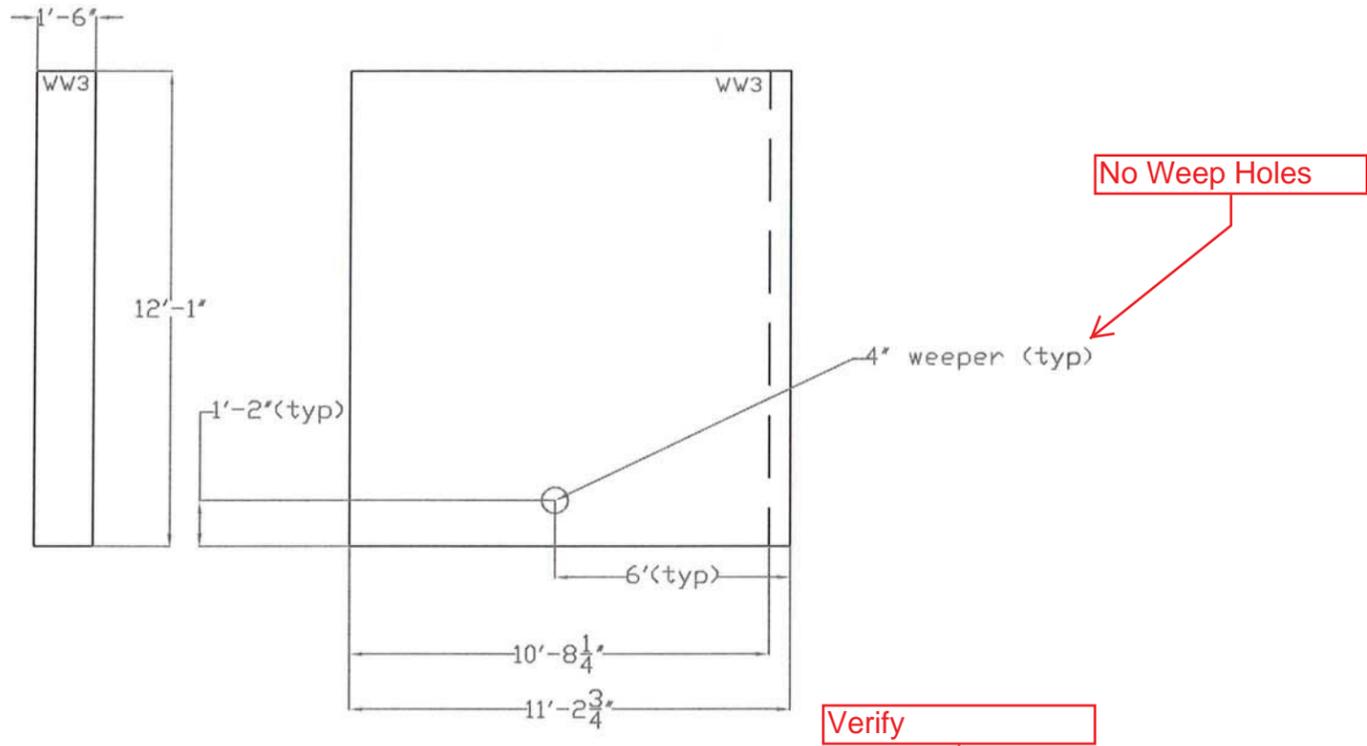
CK'D BY JG OK'D BY WL

March 17, 2014

RESUBMIT YES Rejected
BY KH DATE 4-1-2014

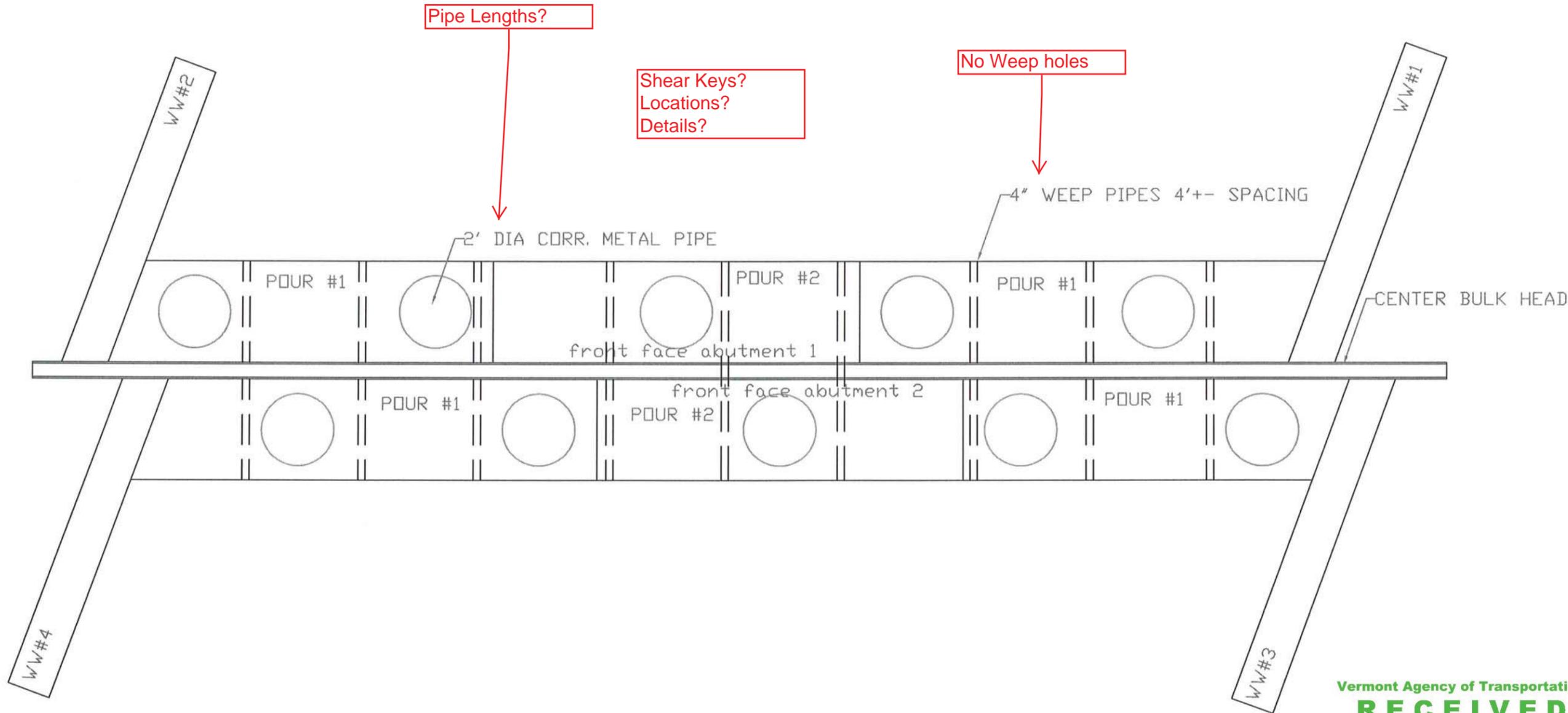
COLD RIVER BRIDGES, LLC 10 LANBRO LANE WALPOLE, NH TEL 603-756-9300 FAX 603-756-9303	
PITTSFIELD ER BRF 022-1(23)	
ABUT 2 PLAN/ELEV	SHEET NUMBER 2
DATE: 1-17-14	scale: 1/4"=1'

Please detail lifting points in wing walls



Vermont Agency of Transportation
RECEIVED
CK'D BY JG OK'D BY WL
March 17, 2014
RESUBMIT YES Rejected
BY KH DATE 4-1-2014

COLD RIVER BRIDGES, LLC 10 LANBRO LANE WALPOLE, NH TEL 603-756-9300 FAX 603-756-9303	
PITTSFIELD ER BRF 022-1(23)	
WW PLAN	SHEET NUMBER 3
DATE: 1-17-14	scale: 1/4"=1'



Pipe Lengths?

Shear Keys?
Locations?
Details?

No Weep holes

4" WEEP PIPES 4'+- SPACING

2' DIA CORR. METAL PIPE

CENTER BULK HEAD

ABUTMENT CASTING PLAN

Vermont Agency of Transportation
RECEIVED

CK'D BY JG OK'D BY WL

March 17, 2014

RESUBMIT YES Rejected
BY KH DATE 4-1-2014

COLD RIVER BRIDGES, LLC
10 LANBRO LANE
TEL 603-756-9300 WALPOLE, NH FAX 603-756-9303

PITTSFIELD ER BRF 022-1(23)

CASTING PLAN	SHEET NUMBER
DATE: 2-19-14	4

scale: 1/4"=1'

CONCRETE NOTES:

1.CAST IN PLACE APPROACH SLABS- CONCRETE CLASS HPC A FC'=4000 PSI

since cast in place, is this really needed here?

2.WINGWALL CONCRETE=5000 PSI

3.ABUTMENT CONCRETE 5000PSI

4?

Abutment tops should receive a roughened finish with a smooth finish at bearing pad locations, but Wing Wall tops to receive a smooth float finish

5.ALL CONCRETE FOR PRE-CAST OPERATION SHALL BE SUPPLIED BY CARROLL CONCRETE INC.

6.ALL PRE-CAST CONCRETE MIX DESIGNS HAVE OR WILL BE SUBMITTED BY CARROLL CONCRETE INC.

7. CAST IN PLACE APPROACH SLABS WILL HAVE A VIBRATORY SCREED FINISH..

would we prefer a textured broom finish, in lieu of a screed finish?

How do you intend to maintain the cure on a vertical face with the forms removed?

Concrete Strength at time of form removal?

8. WINGWALLS AND ABUTMENT TOPS WILL HAVE A HAND FLOATED FINISHED PRODUCED BY THE USE OF A MAGNESIUM FLO

8. ABUTMENT BULKHEAD FORMS CAN BE REMOVED AFTER 48 HOURS CURE SHALL

CONTINUE BASED ON TABLE 501.17A "CURING CONCRETE COMPONENTS" 7 DAYS OF CURING.

9.CAST IN PLACE APPROACH SLAB FORMS CAN BE REMOVED AFTER 48 HOURS CURE SHALL CONTINUE

BASED ON TABLE 501.17a "CURING CONCRETE COMPONENTS" 7 DAYS OF CUREING.

9. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 3./4"

Silane Application? Please see general notes #8 on Contract Plans

CONSTRUCTION SEQUENCE:

1.CAST WINGWALLS 1,2,3,4 (CAST FLAT, FINISH FACE DOWN)

2.MATCH CAST ABUTMENT SECTIONS AS SHOWN IN CASTING SEQUENCE(POUR #1)

3.MATCH CAST REMAINING ABUTMENT SECTIONS (POUR #2)

4.SET ABUTMENT 1 SECTIONS, SET WINGWALLS 1 AND 2 , POST TENTION

5. SET ABUTMENT 2 SECTIONS, SET WINGWALLS 3 AND 4 POST TENTION

Pile Cavities shall be filled prior to fully stressing the tendons. Tendons may be jacked to 3 kips each prior to filling pile cavities.

LIFTING,HANDLING

1.LIFTING DESIGN AND HANDLING STRESSES ARE PART OF ATTACHED CALCULATION PACKAGE.

Vermont Agency of Transportation

RECEIVED

CK'D BY JG OK'D BY WL

March 17, 2014

RESUBMIT YES Rejected

BY KH DATE 4-1-2014

COLD RIVER BRIDGES, LLC
10 LANBRO LANE
TEL 603-756-9300 WALPOLE, NH FAX 603-756-9303

PITTSFIELD ER BRF 022-1(23)

GENERAL NOTES

SHEET NUMBER

5

DATE: 2-19-14 Scale:

QUALITY CONTROL PROCEDURES.

1. CARROLL CONCRETE WILL BE RESPONSIBLE FOR THE CONTRACTOR./SUPPLIER QC TESTING DURING CONCRETE POURS.
2. A PRE-PRODUCTION MEETING SHALL BE HELD BETWEEN THE CONTRACTOR AND RESIDENT ENGINEER BEFORE CONCRETE PLACEMENT.
3. VTRANS WILL RETAIN THEIR RESPONSIBILITIES FOR QUALITY ACCEPTANCE TESTING.
4. FOUR EXTRA CYLINDER SETS PER CONCRETE PLACEMENT SHALL BE TAKEN FOR EARLY STRENGTH BREAKS.
5. ALL INSIDE FORM DIMENSION AND R-BAR SPACING AND CLEARANCES SHALL BE REVIEWED AND DOCUMENTED ON THE PRE-POUR INSPECTION SHEET BY THE CONTRACTOR AND THE RESIDENT ENGINEER BEFORE CASTING IS COMMENCED.
6. BEFORE FORMS ARE ERECTED THE CONTRACTOR WILL INSPECT ALL FORM-WORK FOR DAMAGE OR RESIDUAL CONCRETE. ANY DEFICIENCY IN THE FORM WORK SHALL BE CORRECTED BEFORE FORM WORK CONTINUES.
7. FORMS SHALL HAVE A GENEROUS COATING OF FORM OIL APPLIED. CAUTION WILL BE TAKEN NOT TO HAVE PONDING OF FORM OIL IN THE BASE OF THE FORM OR ON ANY R-BAR.
8. ALL PRE-CAST WILL BE INSPECTED BY BOTH THE CONTRACTOR AND THE RESIDENT ENGINEER AND DOCUMENTED ON THE POST POUR INSPECTION SHEET. ANY MINOR REPAIRS AND HONEY COMBING OR RUBBING NECESSARY WILL BE COMPLETED USING A SAND AND PORTLAND SLURRY FROM THE SAME SOURCE AS THE CONCRETE. ANY MAJOR REPAIRS WILL BE REPAIRED WITH A VERTICAL "OVERHEAD PATCH FROM THE APPROVED PRODUCTS LIST.
10. CONCRETE TOLERANCES +- 1/4"-REINFORCING PLACEMENT +-1/4" COVER AND CLEARANCE 1" BAR SPACING .
11. EACH PIECE OF PRE-CAST SHALL BE MARKED WITH ITS UNIT NUMBER AND DATE OF CASTING
12. CURE METHODS WILL MEET THE REQUIRMENTS OF SECTION 501.17A(5). IF THE CONCRETE TEMPERATURE DROPS BELOW 50 DEGREE OR A WET CONDITION IS NOT MAINTAINED THE CURE WILL BE EXTENDED PER SECTION 501.17 (a)
13. MATCH CAST SURFACES WILL BE COATED WITH DAYTON SUPERIOR J9A WHITE WAX CURE AT A MIN. RATE OF 200 SF PER GALLON. THIS COATING WILL ACT AS A BOND BREAKER DURING MATCH CASTING.
14. PRE-CAST KEYWAYS WILL BE SANDBLASTED TO REMOVE ANY RESIDULE BOND BREAKER.
15. KEYWAYS SHALL BE AIR BLASTED BEFORE ERECTION TO PREP SURFACE FOR THE APPLICATION OF THE EPOXY BONDING COMPOUND.
16. EPOXY BONDING COMPOUND SHALL BE SIKADUR HI-MOD 32 OR = FROM THE VTRANS APPROVED PRODUCTS LIST.

Need more info on this.

What is Carroll's QC Testing procedure?

Will the Precast Units be stored at Cavendish or Pittsfield? Transportation, handling, and storage details needed.

Dimensional Tolerances?

what is your definition of major repair?

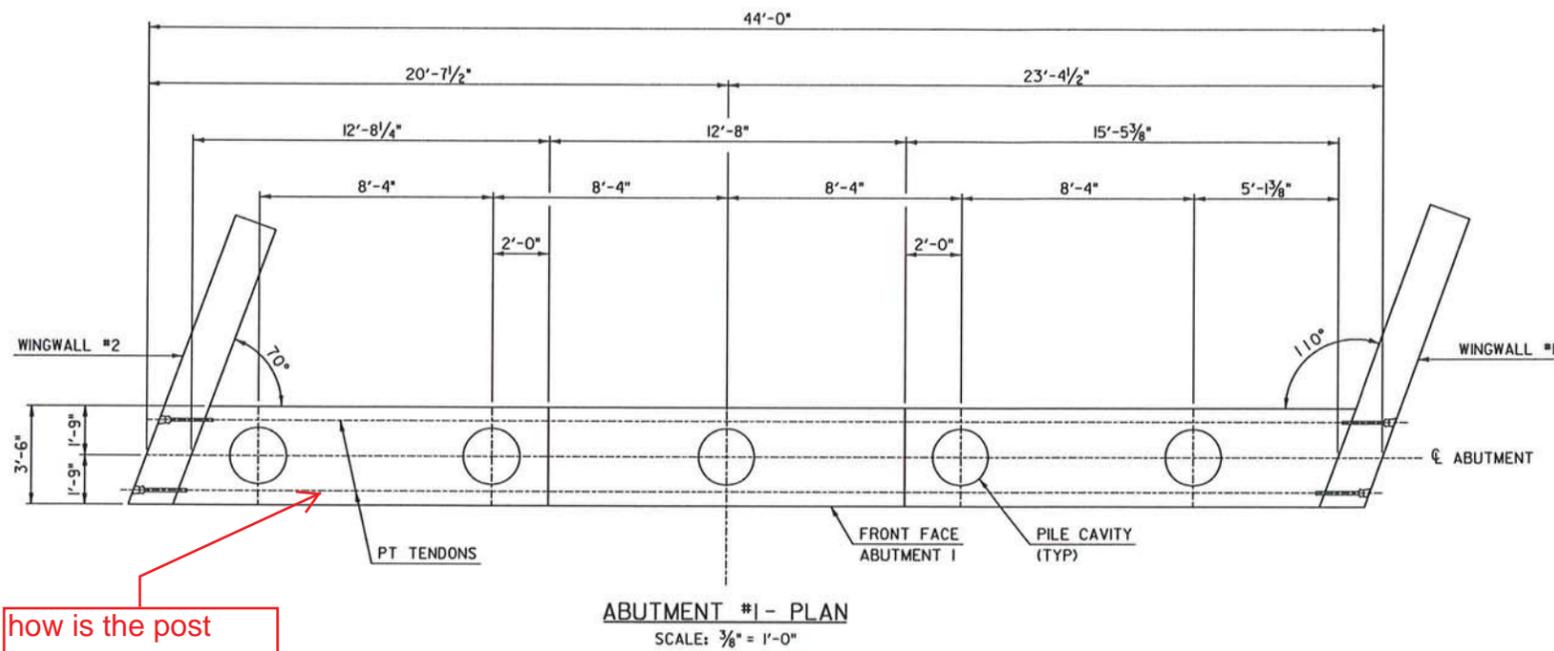
aren't these kind of the same?

WINTER WORK PROVISIONS:

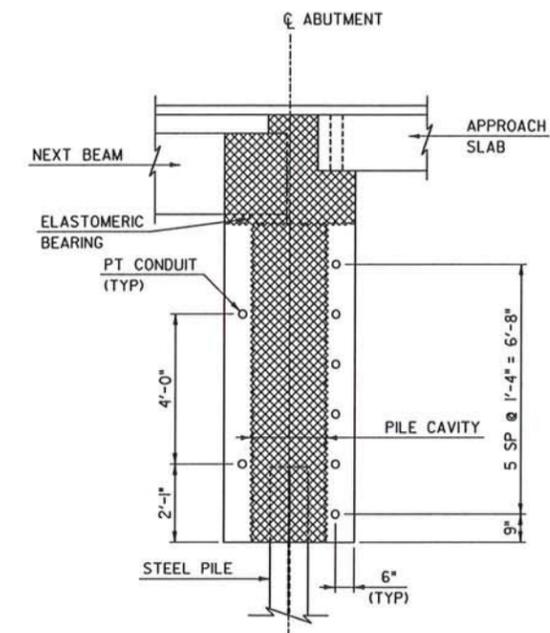
1. Cold River Bridges will be constructing the abutments and wingwalls slabs inside of a heated enclosure constructed and used to complete the pre-casting on the Cavendish ER BRF 0146 (13) project.
2. Concrete will meet the temperature requirements of section 501.07.
3. Form work and r-bar will be pre-heated inside of the casting enclosure to 50 degrees with the use of radiant heat and supplemental "salamander heaters". This will produce a redundant source of heat.
4. After the placement of concrete a combination of radiant heat and salamanders will be used for the full length of the cure. Maintaining cast concrete temperatures above 50 degrees for cure period.
5. Digital temperature data loggers will be used to monitor cure. 1 data logger will be supplied per unit.
6. Cure water shall be heated to 50 degrees by the use of radiant, propane or electric heat source before the water is applied to the concrete.

Vermont
RECEIVED
 CK'D physical location WL
 March 17, 2014
 RESUBMIT YES Rejected
 BY KH DATE 4-1-2014

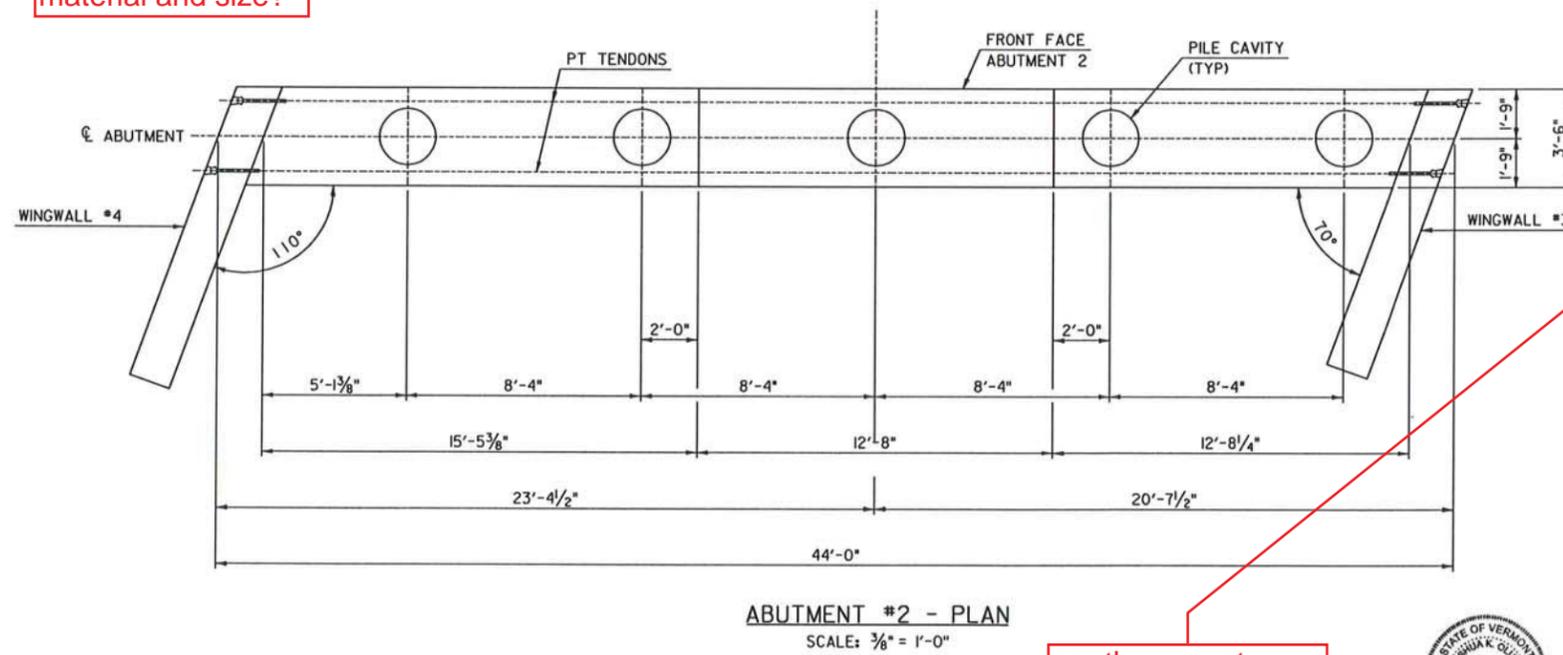
COLD RIVER BRIDGES, LLC 10 LANBRO LANE WALPOLE, NH TEL 603-756-9300 FAX 603-756-9303	
PITTSFIELD ER BRF 022-1(23)	
QC PROCEDURES/PLAN	SHEET NUMBER
DATE: 10-30-13	Scale: 6



how is the post tension space being made? what material and size?



ABUTMENT TYPICAL
SCALE: 1/2" = 1'-0"



are these post tensioning ducts grouted after? if so is it stated somewhere or just understood to be?

is there a minimum strength needed for the concrete filling the pile cavities prior to final post tensioning?

NOTES:

1. GEOMETRY SHOWN HEREIN IS AN UNDERSTANDING OF THE CONTRACTOR'S INTENDED PRECAST ABUTMENT CONSTRUCTION AND IS PROVIDED TO QUALIFY THE POST-TENSIONING DESIGN. DETAILS SHOWN HEREIN ARE INTENDED TO CONVEY TRANSVERSE POST-TENSIONING DESIGN ONLY. ALL GEOMETRY, MILD STEEL REINFORCEMENT, PROJECT NOTES, AND DETAILS NOT SHOWN HEREIN SHALL BE IN ACCORDANCE WITH THE ORIGINAL BRIDGE REPLACEMENT PLAN SET PREPARED BY VTRANS.
2. THERE SHALL BE A SINGLE POST-TENSIONING TENDON PER DUCT. POST-TENSIONING DESIGN VALUES ARE AS FOLLOWS:
 -TENDONS SHALL BE 0.6 INCH DIAMETER, AASHTO M 203 LOW RELAXATION 7-WIRE STRANDS.
 -JACKING FORCE PER TENDON = 42 KIPS.
 -ANCHOR SET SHALL BE 1/4 INCH OR LESS.
 -APPARENT MODULUS OF ELASTICITY (TENDONS) = 28,500 KSI.
3. TENDON STRESSING SEQUENCE SHALL BEGIN NEAR THE CENTER OF THE ABUTMENT AND PROGRESS OUTWARD.
4. PILE CAVITIES SHALL BE FILLED PRIOR TO FULLY STRESSING THE TENDONS. TENDONS MAY BE JACKED TO 3 KIPS EACH PRIOR TO FILLING PILE CAVITIES.

Yes, but TYLin redesigned the post-tensioning.

This does not match the criteria stated in Note 19.



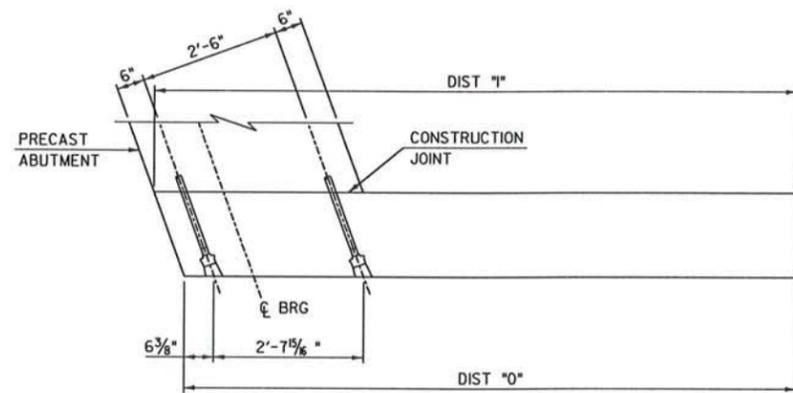
PROJECT NAME: PITTSFIELD		PLOT DATE: 3/3/2014	
PROJECT NUMBER: ER BRF 022-I(23)		DRAWN BY: S. MORGAN	
FILE NAME: z86e060bdrabu1.dgn	DESIGNED BY: J. OLUND	CHECKED BY: D. MYERS	SHEET 1 OF 2
ABUTMENT 1 & 2 PLAN & SECTION		Vermont Agency of Transportation	

RECEIVED

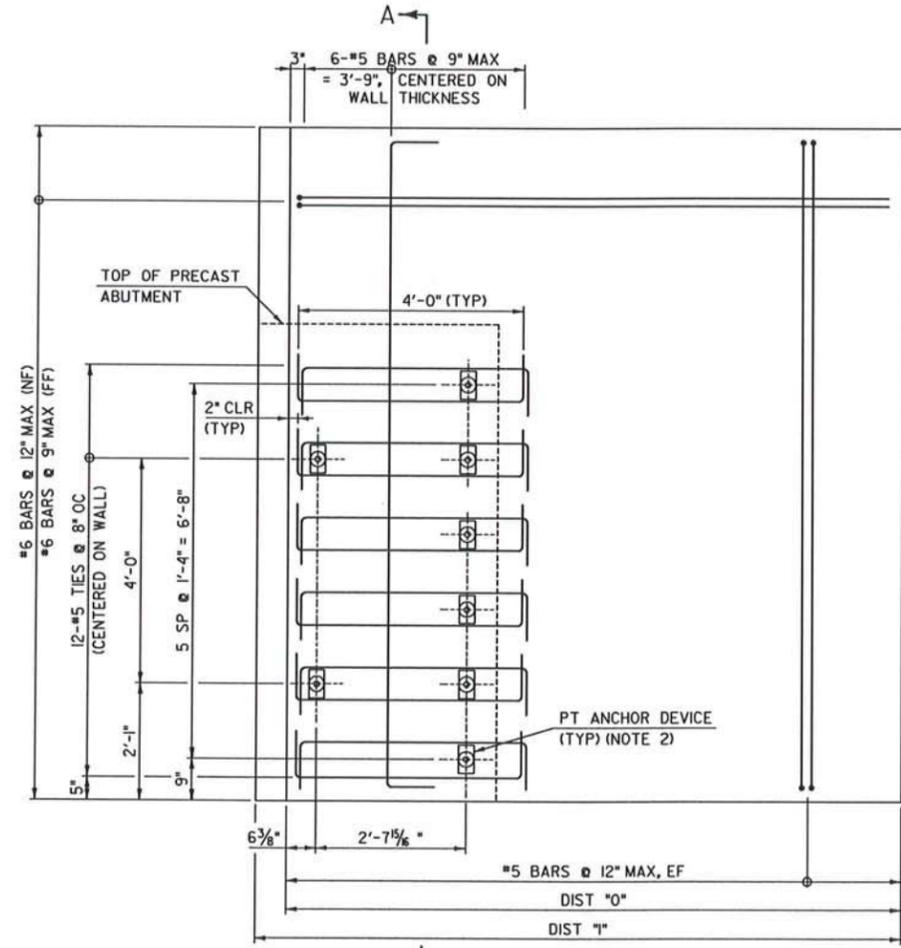
CK'D BY JG OK'D BY WL

March 17, 2014

RESUBMIT YES Rejected
BY KH DATE 4-1-2014



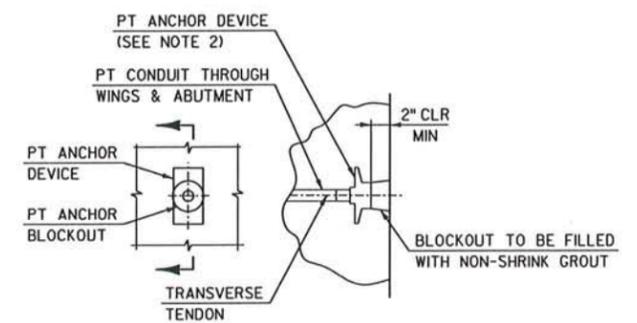
WWI PLAN
SCALE: 3/4" = 1'-0"
(REINFORCING STEEL NOT SHOWN FOR CLARITY)



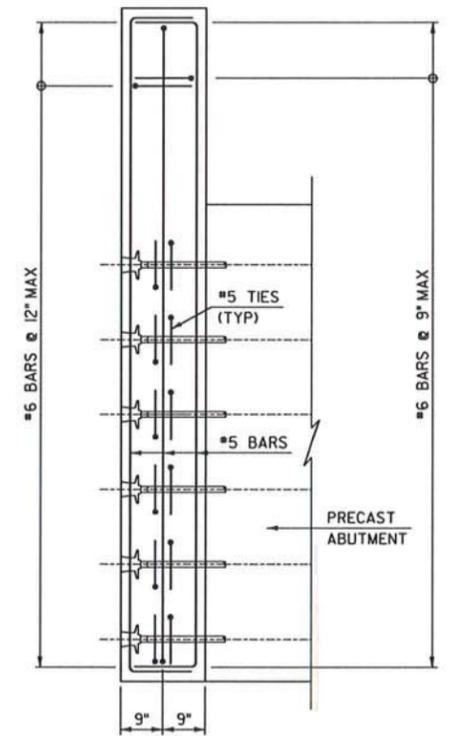
WWI ELEVATION
SCALE: 3/4" = 1'-0"

WINGWALL DIMENSIONS				
	WINGWALL 1	WINGWALL 2	WINGWALL 3	WINGWALL 4
DIST '1'	11'-8 3/4"	10'-8 1/4"	10'-8 1/4"	11'-8 3/4"
DIST '0'	11'-2 1/4"	11'-2 3/4"	11'-2 3/4"	11'-2 1/4"

Please detail post tensioning sleeves and blockouts. TY Lin Plans do not show full dimensions, sleeve size, or materials



TRANSVERSE TENDON ANCHORAGE DETAIL
NOT TO SCALE



SECTION A-A WWI TYPICAL
SCALE: 3/4" = 1'-0"

- NOTES:**
1. WWI SHOWN, OTHERS SHALL BE SIMILAR.
 2. POST-TENSIONING ANCHOR DEVICE SHALL BE DYWIDAG ANCHOR CASTING GT1S1-06 OR SIMILAR.
 3. PRECAST WINGWALL MILD STEEL REINFORCEMENT SHOWN SHALL BE USED IN PLACE OF REINFORCEMENT DETAILED IN THE ORIGINAL PLAN SET.
 4. DIMENSIONS AND ELEVATIONS NOT SHOWN SHALL BE CONSISTENT WITH THE ORIGINAL PLAN SET.

Galvanized per note 18.



SHEET 80F9

TYLIN INTERNATIONAL	PROJECT NAME: PITTSFIELD	PLOT DATE: 3/3/2014
	PROJECT NUMBER: ER BRF 022-1(23)	DRAWN BY: S. MORGAN
	FILE NAME: z86e060bdrabutdet.dgn	CHECKED BY: J. OLUND
	PROJECT LEADER: J. OLUND	
	DESIGNED BY: T. POULIN	
	WINGWALL DETAILS	

Vermont Agency of Transportation
RECEIVED

CK'D BY JG OK'D BY WL

March 17, 2014

RESUBMIT YES Rejected
BY KH DATE 4-1-2014

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIAL AND RESEARCH SECTION - STRUCTURAL CONCRETE UNIT

STRUCTURAL CONCRETE MIX DESIGN SUBMISSION

Concrete class: Precast Prestressed
Additional Description: _____
Ready Mix Supplier: CARROLL CONCRETE - CHARLESTOWN, NH
Designed By: Scott Jordan
Design strength: 5000 PSI
Design by dry weight or saturated surface dry: SSD

Agency Use Only	
Mix ID	PP00-0
Mix Design #	
Approved by	
Approved Date	
Spec Book Year	2013

Mix designs are valid for a 12 month period from date of approval or unless there is a change in material, material property or design parameter.

Cement:					
701.02	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
	Brand Name: _____				
Cement Type III:					
701.04	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
	Brand Name: _____				
Blended Cement:					
701.06	Source: <u>LAFARGE - TERCEM - MONTREAL, EAST PLANT</u>	Specific Gravity	<u>3.020</u>	<u>705</u> lb/cy	<u>3.74</u> cf
	Brand Name: _____				
Cement with Slag:					
701.07	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
	Brand Name: _____				
Pozzolan:					
725.03(a)	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
	Brand Name: _____				
Fly Ash:					
725.03(a)	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
	Brand Name: _____				
Silica Fume:					
725.03(b)	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
	Brand Name: _____				
Slag:					
725.03(c)	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
	Brand Name: _____				
Water					
Air Content Target			<u>32</u> gals	<u>267</u> lb/cy	<u>4.28</u> cf
Coarse Aggregate 3/8"		Absorption	<u>7.0</u> %		<u>1.89</u> cf
704.02A	Source: _____	Specific Gravity	_____	lb/cy	0.00 cf
Coarse Aggregate 3/4"					
704.02B	Source: <u>COLD RIVER MATERIALS PIT - N WALPOLE, NH</u>	Absorption	<u>0.80</u>	Specific Gravity	<u>2.880</u>
				<u>1688</u> lb/cy	<u>9.39</u> cf
Coarse Aggregate 1 1/2"					
704.02C	Source: _____	Absorption	_____	Specific Gravity	_____
				lb/cy	0.00 cf
Fine Aggregate:					
704.01	Source: <u>NEWPORT SAND & GRAVEL - NEWPORT, NH</u>	Absorption	<u>0.90</u>	Specific Gravity	<u>2.670</u>
		Fineness Modulus	<u>2.83</u>		<u>1283</u> lb/cy
					<u>7.70</u> cf
Air Entrainment Admixture					
725.02(b)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u>	Specific Gravity	_____		<u>1.5</u> oz/cy
	Brand Name: <u>MasterAir AE 200 / Micro Air</u>				
Retarder Admixture:					
725.02(c)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u>	Specific Gravity	_____		<u>1</u> oz/cwt
	Brand Name: <u>MasterSet R100 / Pozzolith 100XR</u>				
High Range Water Reducer Admixture:					
725.02(h)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u>	Specific Gravity	_____		<u>3</u> oz/cwt
	Brand Name: <u>MasterGlenium 7500</u>				
Other Admixtures:					
Source: _____		Specific Gravity	_____	<u>2</u> oz/cwt	<u>0.00</u> cf
Brand Name: <u>BASF, MasterSure Z60</u>		Specific Gravity	_____		<u>0.00</u> cf
Source: _____		Specific Gravity	_____		<u>0.00</u> cf
Brand Name: _____		Specific Gravity	_____		<u>0.00</u> cf
Source: _____		Specific Gravity	_____		<u>0.00</u> cf
Brand Name: _____					
		TOTAL	<u>47.570</u>	<u>3943</u> lb	<u>27.00</u> cf

Maximum Water/Cementitious Ratio 0.44
Maximum Water (gal/cy) 37.2
Slump Min/Max (inch) 4.0 min 7.0 max
Air Content Min/Max (%) 5.0 min 9.0 max
Design Unit WL (lb/cf) 146.04

Notes:

2014 Construction season 2011 specification 5000-psi precast 2-10-14

Mix design for Approach Slabs?

with proposed mix design in plans, approval of plans does not approve the mix design.

Vermont Agency of Transportation

RECEIVED

CK'D BY JG OK'D BY WL

March 17, 2014

RESUBMIT YES Rejected

BY KH DATE 4-1-2014

COLD RIVER BRIDGES, LLC
10 LANBRO LANE
WALPOLE, NH
TEL 603-756-9300 FAX 603-756-9303

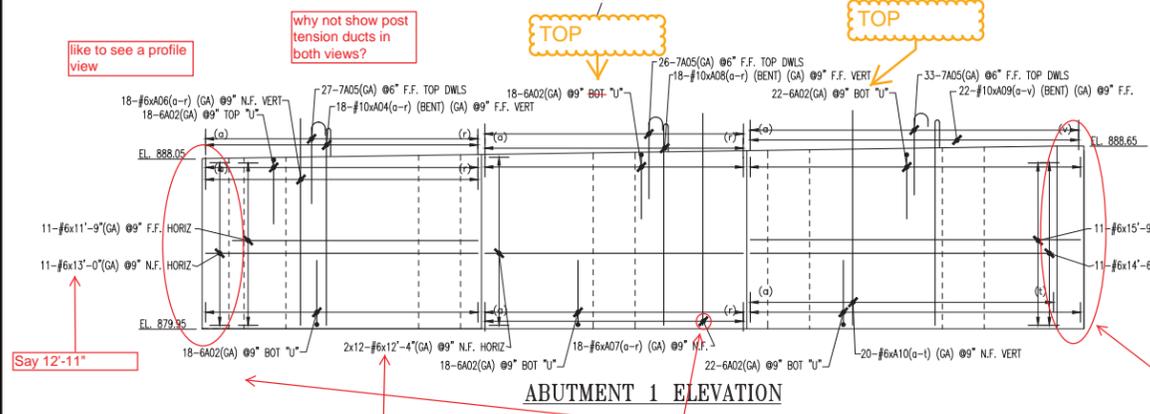
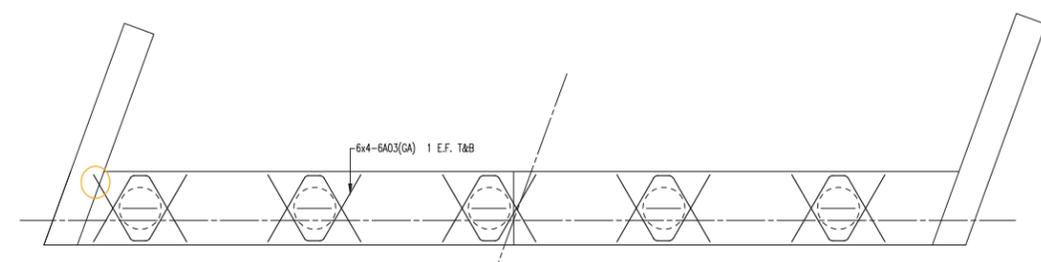
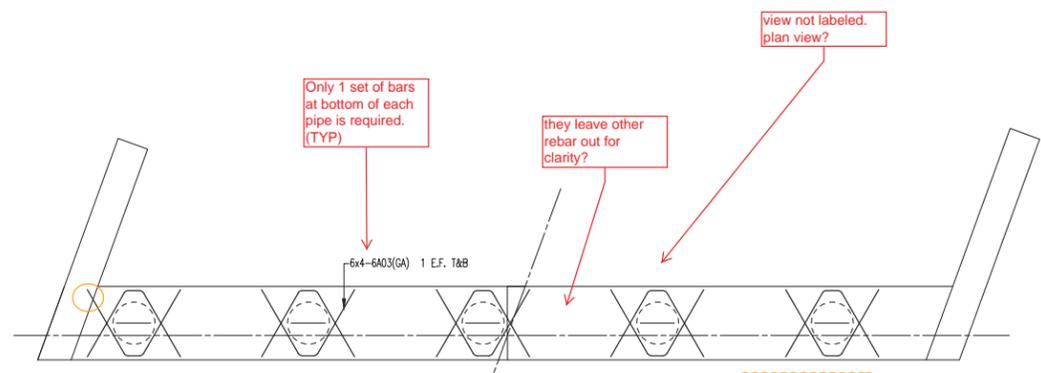
PITTSFIELD ER BRF 022-1(23)

CONCRETE MIX DESIGN

DATE: 1-17-14 scale: 1/4"=1'

SHEET NUMBER

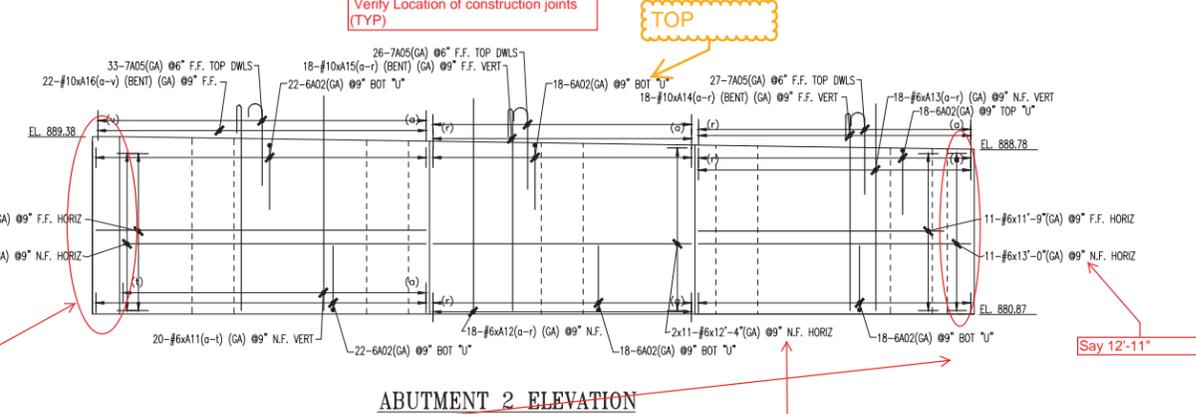
9



How is the reinforcing being placed on the skew between the last Pile Cavity and the edge of the stem?

How does the contractor plan on placing the reinforcing around the NEXT Beam Steams?

Bridge Seat Elevations are flat where the original cheek walls are



What about F.F.?

not familiar with that symbol

12 bars

15'-8"

F.F bars?

Bars where the cheekwalls from the original plans were will need to be extended to the top of the cheekwall.

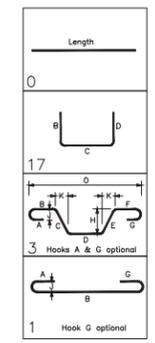
(GA) IS FOR DUAL COATED REINF

Grade and ASTM spec?

Bar Mark	Qty	Size	Total Length	Type	X	Y	Z	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A
A06a	1	#6	9'-9"																											
A06b	1	#6	10'-0"																											
A07a	1	#6	10'-2"																											
A07b	1	#6	10'-2"																											
A08a	1	#6	9'-9"																											
A08b	1	#6	10'-0"																											
A09a	1	#6	9'-9"																											
A09b	1	#6	10'-0"																											
A10a	1	#6	9'-9"																											
A10b	1	#6	10'-0"																											
A11a	1	#6	9'-9"																											
A11b	1	#6	10'-0"																											
A12a	1	#6	9'-9"																											
A12b	1	#6	10'-0"																											
A13a	1	#6	9'-9"																											
A13b	1	#6	10'-0"																											
A14a	1	#10	10'-10 1/2"																											
A14b	1	#10	11'-4"																											
A15a	1	#10	10'-8"																											
A15b	1	#10	10'-8"																											
A16a	1	#10	10'-11 1/2"																											
A16b	1	#10	10'-11 1/2"																											

Verify Dimension "C" of 6A02

Verify Dimensions "A" and "J" of 7A05



Vermont Agency of Transportation
RECEIVED
 CK'D BY JG OK'D BY WL
 March 17, 2014
 RESUBMIT YES Rejected
 BY KH DATE 4-1-2014

LAP CHART-U.N.O.

#11	
#10	
#9	
#8	
#7	
#6	
#5	
#4	
#3	

SIZE: TOP BARS * OTHER BARS
 * -Top bars are horiz. bars with more than 12" of concrete cast below the bars.

0	APPROVAL	3-14-14	TRH
Revisions and Issue Record			
The full intent and purpose of this drawing is the placing of reinforcing steel bars ONLY. It is NOT to be used as a means of communication between the Architect, Engineer, Contractor or any other Sub-trades.			
THIS DRAWING IS NOT TO BE SCALED.			
		DETAILED AT: CANAAN NEW HAMPSHIRE 	
Project: PITTSFIELD ER BR F 022 PITTSFIELD, VT			
Drawing: ABUTMENT REINF			
Customer: COLD RIVER BRIDGES			
Engineer:			
Refer to Release:			
Date	Drawn	Chkd.	JOB No.
3-7-14	TRH		33505152
Dwg. No.		R01	

