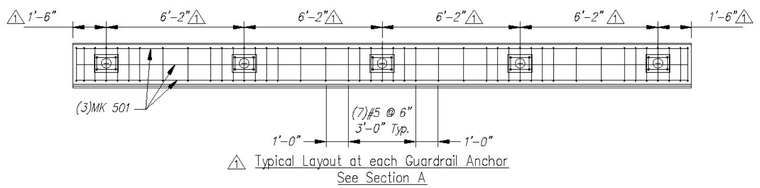
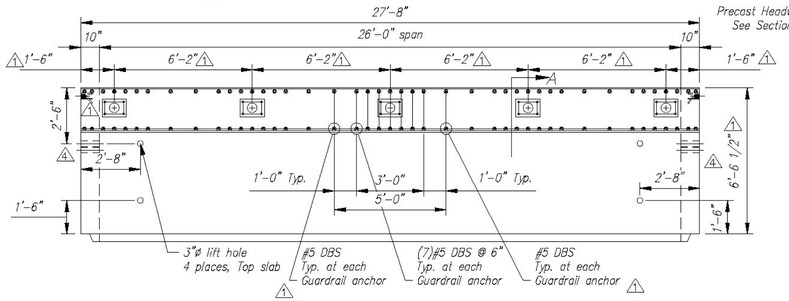
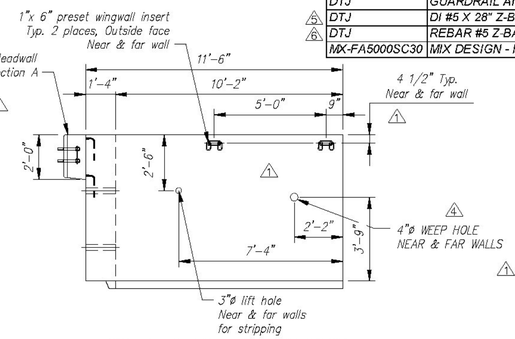


⚠1 Typical Layout at each Guardrail Anchor
See Section A

PLAN VIEW
HEADWALL REINFORCING DETAIL
Scale: 1/4" = 1'-0"



PLAN VIEW
Scale: 1/4" = 1'-0"



R. SIDE ELEVATION
Scale: 1/4" = 1'-0"

QUANTITY = 1
WEIGHT = 31.19 TONS

	C1 - BILL OF MATERIALS / EMBEDS				
	CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
⚠4	DTJ	CERTI-VEX PENSEAL 244-40%	1.30	GA	
	EM-0005A	1" X 6 " PRESET WING INSERTS	4	EA	
	EM-00033	3" FOAM CORE PVC	7	FT	
⚠5	DTJ	DBSAE #5 Z-BAR GR 60 VTAOT LEVEL II	86	EA	DOWEL BAR SPLICER
	DTJ	REBAR #4 Z-BAR GR 60 VTAOT LEVEL II	696	LB	
	DTJ	REBAR #5 Z-BAR GR 60 VTAOT LEVEL II	57	LB	
	DTJ	REBAR #7 Z-BAR GR 60 VTAOT LEVEL II	2281	LB	
	MX-FA5000SC30	MIX DESIGN - FLY ASH 5000 SELF CONSOLIDATING	13.62	CY	
	C1 HEADWALL - BILL OF MATERIALS / EMBEDS				
	DTJ	GUARDRAIL ANCHOR	5	EA	SUPPLIED BY OTHERS
⚠5	DTJ	DI #5 X 28" Z-BAR GR 60 VTAOT LEVEL II	86	EA	DOWEL IN
⚠6	DTJ	REBAR #5 Z-BAR GR 60 VTAOT LEVEL II	228	LB	
	MX-FA5000SC30	MIX DESIGN - FLY ASH 5000 SELF CONSOLIDATING	1.78	CY	

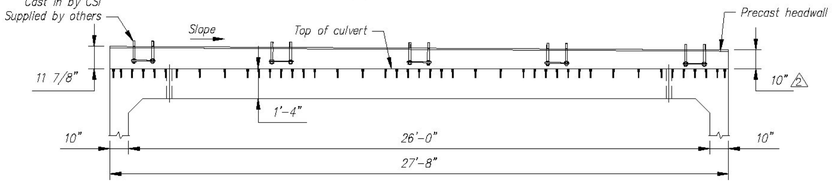
C1 Culvert Rebar Schedule			
MK		QTY	LENGTH
401	#4	16	10 '- 6 "
402	#4	8	27 '- 0 "
403	#4	104	6 '- 4 "
501	#5	2	27 '- 4 "
701	#7	32	18 '- 0 "
702	#7	20	27 '- 0 "

C1 HW Rebar Schedule			
MK		QTY	LENGTH
501	#5	3	27 '- 4 "
⚠6 502	#5	43	3 '- 2 "

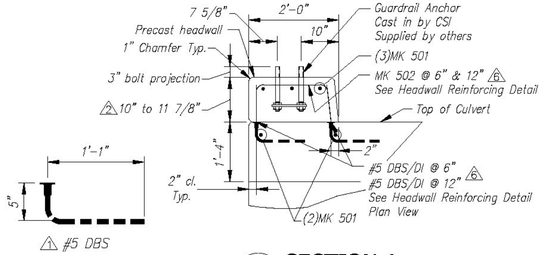
⚠1 Culvert piece length is ½" shorter on shop drawing than on layout drawing. Layout dimension includes joint gap.

ALL REINFORCING TO BE Z-BAR
GR 60(VTAOT LEVEL 2)

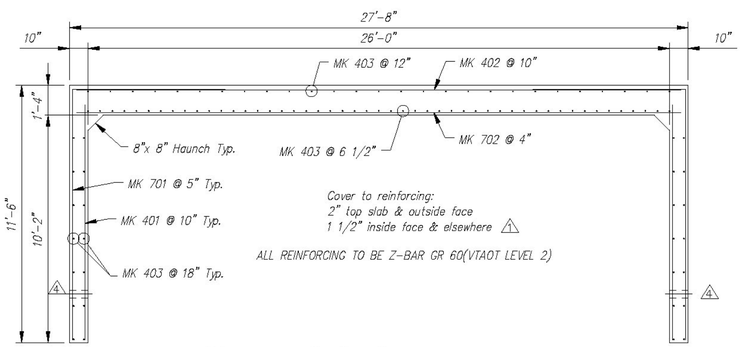
ALL DOWEL BAR SPLICER & DOWEL-IN
TO BE EPOXY COATED ⚠5
(VTAOT LEVEL 1)



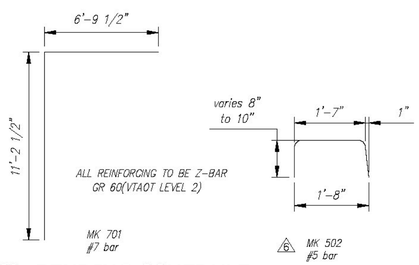
PARTIAL ELEVATION
Scale: 1/4" = 1'-0"



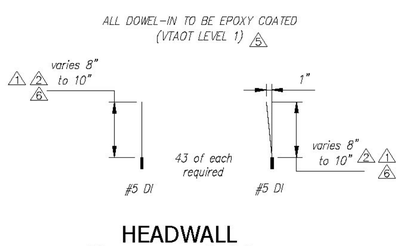
SECTION A
Scale: N.T.S.



REINFORCING DETAIL
Scale: N.T.S.



BENDING SCHEDULE
Scale: N.T.S.



HEADWALL BENDING SCHEDULE
Scale: N.T.S.

Rev.	Date	By
10		
9		
8		
7		
6	21JUL2015	RY
5	08JUL2015	RY
4	17JUN2015	BSS
3	10JUN2015	RY
2	28MAY2015	RY
1	14MAY2015	RY

REVISIONS
DESCRIPTION

1 SHORTENED DI & ADDED REBAR TO HW TO EASE MFG
2 ALL DBS/DI WERE Z-BAR, NOW EPOXY COATED
3 REVISED PER CUSTOMER REVIEW
4 ADJUSTED WATER REPELLENT
5 10" WAS 9 1/2", HDWALL BEND SCHED – 8" WAS 7 1/2"
6 REVISED PER CUSTOMER REVIEW, REVISED GUARDRAIL ANCHOR SPACING, MOVED WINGWALL ANCHOR, ADDED NOTE

Contractor is to verify that all information shown on drawings has been transcribed correctly from contract documents and is adequate to meet the field conditions. Some dimensions and details may differ slightly from contract drawings to accommodate the manufacturing or design process. Approval of this drawing indicates that any deviation from the contract documents has been reviewed and found to be acceptable. Production will not commence until receipt of signed, approved shop drawings.

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Vermont Agency of Transportation
RECEIVED
Richford Precast Frame Complete Updated Submittal_Approved 7.23.15.pdf
CK'D BY CLB OK'D BY HIS
July 22, 2015
RESUBMIT NO Approved
BY C. CARLSON DATE 07/23/15

llowing documents and/or sources:

GE PROJECT, TOWN OF RICHFORD

ATED 2011

Concrete Systems Inc.
9 Commercial St., Hudson, NH,03051
Phone 603-889-4163
Fax 603-889-2417

STATE AGENCY
VTrans

Drawn By R. YEAGER	Date 16APR2015	
Reviewed By	Date	
Approved By C. VICK	Date 7/21/15	

G.W. TATRO CONSTRUCTION, INC.
VT/AOT BRIDGE REPLACEMENT– ROAD IMPROVEMENT
RICHFORD, VT.

C | SHOP DRAWING C1 | REV 6
Drawing No. C22312-C1
Quantity: 1 | Project No: BRF030229 | SHEET 1 OF 14