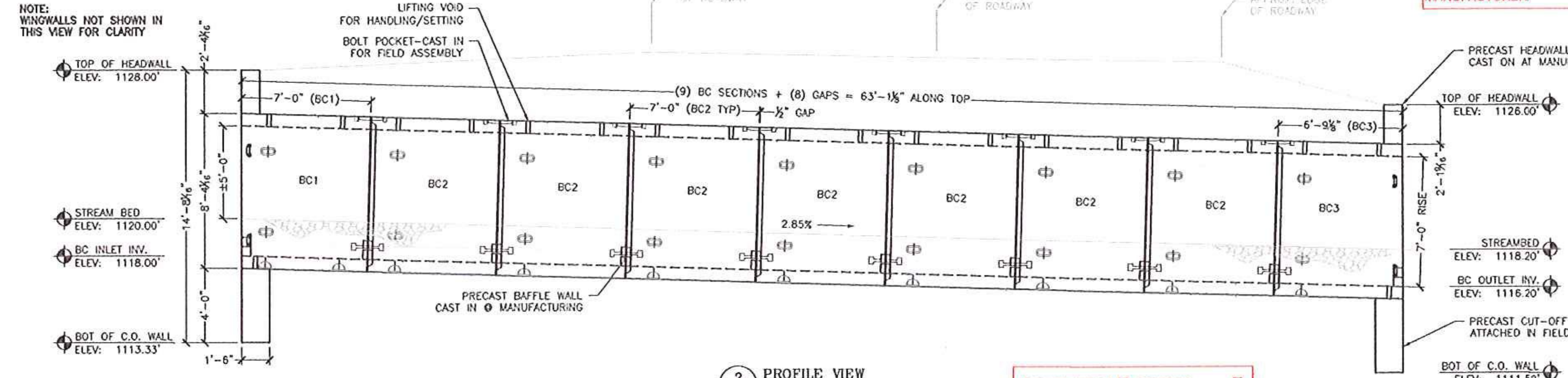


1 LAYOUT PLAN VIEW
1/4" = 1'-0"



2 PROFILE VIEW
1/4" = 1'-0"

SUBGRADE SHALL CONFORM TO CONTRACT DRAWINGS UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER

- GENERAL NOTES:**
- THE PLANS ARE INTENDED TO BE DRAWN TO SCALE. HOWEVER, IF A CRITICAL DIMENSION IS NOT PROVIDED, MCHC CORPORATION SHOULD BE CONTACTED FOR VERIFICATION.
 - IF ANY OF THE WORK TO BE DONE AS SHOWN ON THE DRAWINGS DOES NOT CORRESPOND WITH THE EXISTING FIELD CONDITIONS, CONTACT THE OWNERS REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
 - FIELD-VERIFY ALL ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. IF THERE ARE ANY DISCREPANCIES, CONSULT THE OWNERS REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
 - MAINTAIN MINIMUM 60 DEGREE SLING ANGLE WHEN HANDLING PRECAST COMPONENTS.
 - PRECAST COMPONENTS SHALL REACH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI PRIOR TO STRIPPING, AND THE MAXIMUM DESIGN COMPRESSIVE STRENGTH PRIOR TO SHIPPING, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - ALL JOINTS AND VOIDS SHALL BE FILLED WITH NON-SHRINK GROUT. VERTICAL SURFACE VOIDS MAY BE FILLED WITH FOAM SEALANT.
 - SHOP DRAWINGS WERE DEVELOPED USING THE FOLLOWING RESOURCES FOR THE CONTRACT:
 - PROPOSED IMPROVEMENTS, TOWN OF JAMAICA, VT ROUTE 100 (BRIDGE 82), PAGES 1-48 OF 48. PREPARED BY THE VAOT, DATED 3/9/2015.
 - GEOTECHNICAL REPORT, PREPARED BY THE VAOT, DATED 12/6/2013.
 - IF THERE IS ADDITIONAL INFORMATION PERTINENT TO THE FABRICATION AND INSTALLATION OF THESE UNITS THAT IS NOT CONTAINED WITHIN THE RESOURCES LISTED ABOVE IT SHALL BE BROUGHT TO THE ATTENTION OF MCHC CORPORATION. FAILURE TO MAKE SUCH ADDITIONAL INFORMATION AVAILABLE SHALL RELIEVE MCHC CORPORATION OF ALL LIABILITIES ARISING FROM ERRORS OR OMISSIONS RELATED TO THE OMITTED INFORMATION.
- BOX CULVERT NOTES:**
- BOX CULVERT SECTIONS ARE DESIGNED IN ACCORDANCE WITH:
 - AASHTO "LRFD BRIDGE DESIGN SPECIFICATIONS", 6TH EDITION.
 - VIRANS 2011 "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
 - THE FOLLOWING CRITERIA WAS USED FOR DESIGN:
 - LIVE LOAD: HL-93
 - EARTH COVER: 3-5 FEET
 - BACKFILL SOIL UNIT WEIGHT: 140 PCF
 - MIN LATERAL EARTH PRESSURE: 35 PSF
 - MAX LATERAL EARTH PRESSURE: 70 PSF
 - CONCRETE STRENGTH: 5,000 PSI
 - STEEL YIELD STRENGTH: 60,000 PSI
 - BOX CULVERT CONCRETE SHALL BE SELF-CONSOLIDATING CONFORMING TO ASTM C260 WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. CUTOFF WALL CONCRETE TO BE 4,000 PSI. AGGREGATE SHALL CONFORM TO ASTM C-33 WITH A MAXIMUM DIAMETER OF 3/4". CEMENT SHALL CONFORM TO ASTM C150.
 - REINFORCING SHALL BE GRADE 60 EPOXY COATED CONFORMING TO ASTM A-775 (ASHTO M284). ALL BARS SHALL BE BENT COLD.
 - ALL EXPOSED EDGES EXCEPT WHERE NOTED SHALL BE CHAMFERED 1".
 - N/A
 - BACKFILL MATERIAL SHALL CONFORM TO VIRANS SECTION 704.08 GRANULAR BACKFILL FOR STRUCTURES. BACKFILL SHALL EXTEND FOR A MINIMUM DISTANCE OF 5'-0" BEYOND THE HORIZONTAL LIMITS OF THE STRUCTURE. PLACEMENT SHALL CONFORM TO VIRANS SECTION 204.08.
 - EXPOSED SURFACES SHALL BE COATED WITH PENSEAL VEXCON 244 WATER REPELLENT (SHOP APPLIED).
 - EACH SECTION SHALL BE PROVIDED WITH BOLT POCKETS FOR ATTACHMENT TO ADJACENT SECTIONS. 7/8" DIA GALV. THREADED ROD, WASHERS AND NUTS SHALL BE PROVIDED FOR ASSEMBLY IN THE FIELD. CLOSED-CELL NEOPRENE JOINT SEALANT SHALL BE USED IN ALL JOINTS UNLESS NOTED OTHERWISE.
 - 2FT WIDE ROYSTON JOINT WRAP WITH ADHESIVE PROVIDED BY MCHC CORP, INSTALLED BY OTHERS, CENTER ON JOINT AFTER GROUTING. JOINT WRAP, BARRIER MEMBRANE, AND PROTECTION BOARD RECOMMENDED FOR INSTALLATIONS WITH LESS THAN 5FT OF COVER. INSTALL PER VIRANS SPECIFICATIONS.
- WING WALL NOTES:**
- SECTIONS ARE DESIGNED IN ACCORDANCE WITH:
 - AASHTO "LRFD BRIDGE DESIGN SPECIFICATIONS", 6TH EDITION.
 - VIRANS 2011 "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
 - THE FOLLOWING SOIL PROPERTIES WERE USED IN THE DESIGN:

RETAINED SOIL	SOIL WEIGHT [PCF]	FRICTION ANGLE [DEG]
FOUNDATION SOIL	140	34
LIVE LOAD SURCHARGE	N/A	35
 - BACKSLOPE ANGLE: 2:1 (FOR DESIGN, WW4)
 - FACTORED BEARING RESISTANCE = VARIES (SEE WW DESIGN)
 - CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT THE FOUNDATION MATERIAL ACHIEVES THE DESIGN FACTORED BEARING RESISTANCE.
 - WINGWALL CONCRETE SHALL BE SELF-CONSOLIDATING CONFORMING TO ASTM C260 WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. WINGWALL FOOTING CONCRETE SHALL BE 4,000 PSI. AGGREGATE SHALL CONFORM TO ASTM C-33 WITH A MAXIMUM DIAMETER OF 3/4". CEMENT SHALL CONFORM TO ASTM C150.
 - REINFORCING SHALL BE GRADE 60 EPOXY COATED CONFORMING TO ASTM A-775 (ASHTO M284). ALL BARS SHALL BE BENT COLD.
 - ALL EXPOSED EDGES EXCEPT WHERE NOTED SHALL BE CHAMFERED 1".
 - BACKFILL MATERIAL SHALL CONFORM TO VIRANS SECTION 704.08 GRANULAR BACKFILL FOR STRUCTURES. PLACEMENT SHALL CONFORM TO VIRANS SECTION 204.08.
 - ALL EXPOSED EDGES OF CONCRETE SHALL BE COATED WITH PENSEAL VEXCON 244 WATER REPELLENT (SHOP APPLIED).
 - N/A

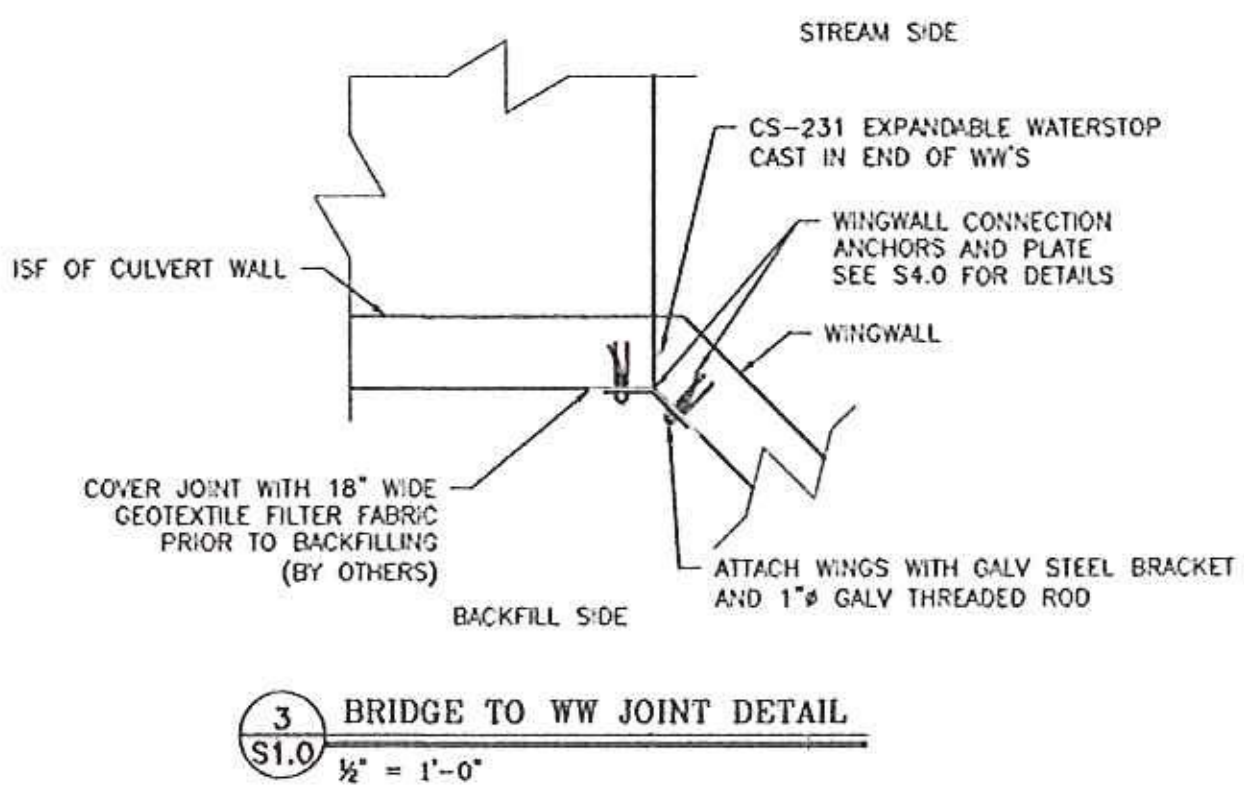
Rev	By	Date	Description
1	PTL	8/26/15	Initial
2	PTL	8/26/15	Revised per PDR comments



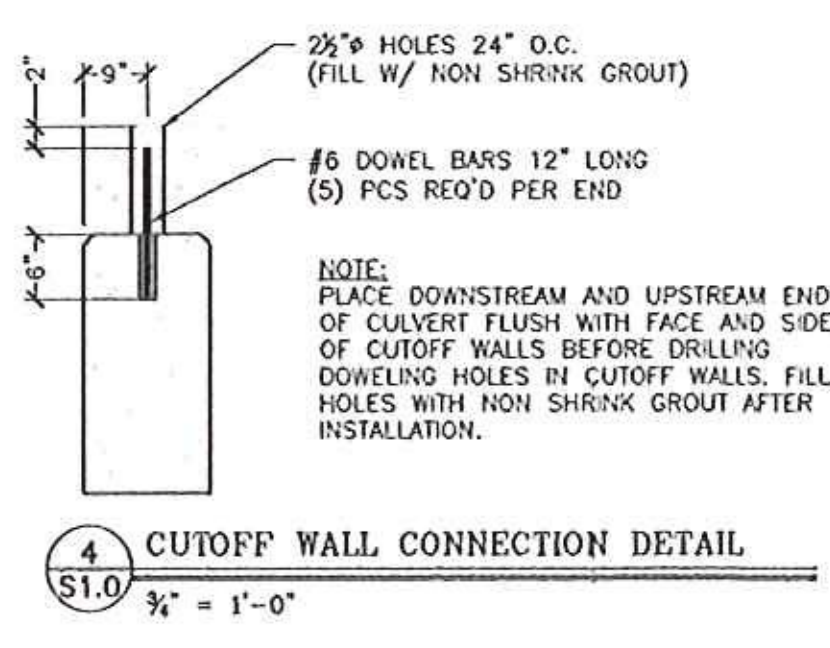
MCHC
173 BUXTON INDUSTRIAL BOULEVARD, PO BOX 870
JAMAICA, VT 05464
PHONE: (802) 252-3218
FAX: (802) 252-3228
WWW.MCHCCORP.COM

VAOT #ER STP 013-2(12) - VT Route 100 Bridge #82
Jamaica, VT
10'x7' Box Culvert - Layout and Profile Views
Project No. 6200
Date: 7/2/2015
Checked By: PTL
Drawn by: CFP

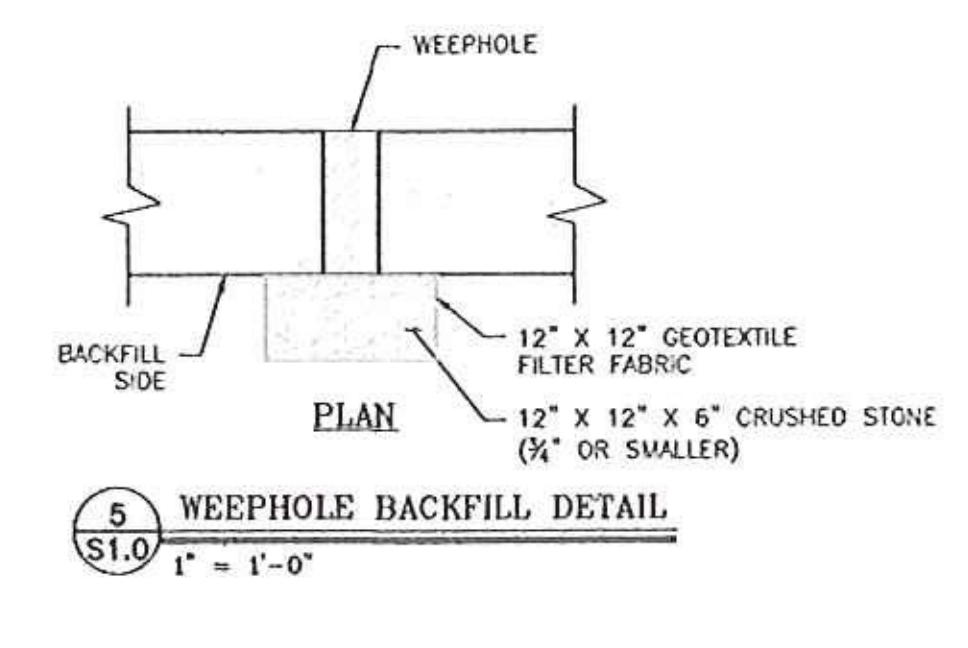
Prepared for:
Casella Construction
8 US4 East
Mendon VT 05701
DWG NO.
S1.0



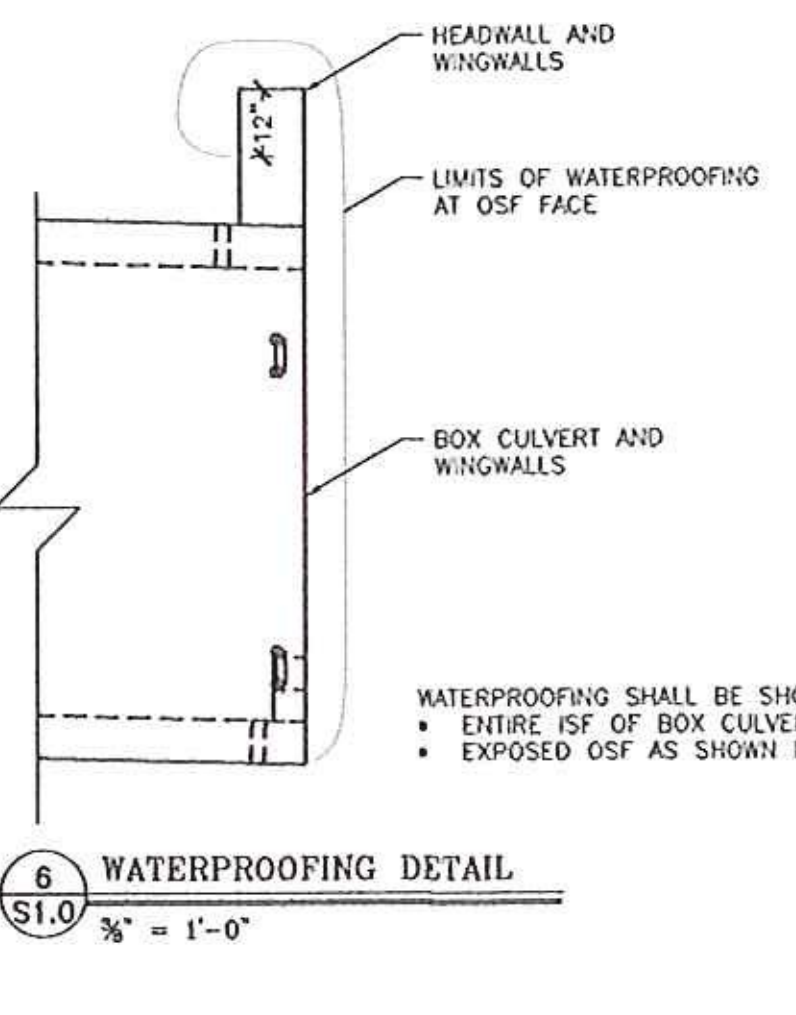
3 BRIDGE TO WW JOINT DETAIL
1/2" = 1'-0"



4 CUTOFF WALL CONNECTION DETAIL
3/4" = 1'-0"



5 WEEPHOLE BACKFILL DETAIL
1" = 1'-0"



6 WATERPROOFING DETAIL
3/8" = 1'-0"

NO EXCEPTIONS TAKEN DISAPPROVED
Reviewed/Revised: Approved/Noted
DESIGN IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND TECHNICAL INFORMATION PRIOR TO THE START OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND TECHNICAL INFORMATION PRIOR TO THE START OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND TECHNICAL INFORMATION PRIOR TO THE START OF WORK.
GREEN INTERNATIONAL AFFILIATES, INC.
CHECKED BY: YW DATE: 8/31/15
SIGNED BY: BK DATE: 8/31/15

BILL OF MATERIALS

QTY	DESCRIPTION	IN STOCK	ORDERED FROM	DATE ORDERED	DATE DELIVERED
ITEMS CAST IN					
32LF	2" DIA PVC PIPE (25' PCS)				
72	8" TOY UTILITY ANCHORS				
42LF	CONCRETE CS-231 EXPANDABLE WATERSTOP				
11	1" PVC 8" DIA				
ITEMS FOR PRESHPHIPS PREP.					
20LF	1" CLOSED CELL NEOPRENE				
4 GAL	RED ADHESIVE				
600SF	PENSEAL VEXCON 244				
ITEMS TO SHIP TO THE JOB					
200LF	24" ROYSTON JOINT WRAP				
4 GAL	ROYSTON JOINT ADHESIVE				
33	1/3" X 1/8" GALV. THREADED ROD W/ NUTS AND WASHERS				
13	#3 X 12" DOG EARS				
8	1/2" X 1/4" GALV. STEEL W/ W/ PLATE (135 DEG)				
32	1" DIA X 5' LGC THREAD ROD W/ NUT				
22	4" X 4" X 1/4" PLATE WASHER				

- SHEET LIST**
- S1.0 LAYOUT AND PROFILE VIEWS
 - S2.0 ELEVATION AND FOOTING DETAILS
 - S3.0 BOX CULVERT SECTION DETAILS
 - S4.0 WINGWALL DETAILS
 - S5.0 ANCHOR DETAILS

SPECIALTY ENGINEERING SERVICES PROVIDED BY:
CONCRETE ENGINEERING SOLUTIONS LLC
1000 W. 10TH AVENUE
DENVER, CO 80202
TEL: (303) 733-1111
WWW.CONCRETEENGINEERING.COM