



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

July 2, 2018
Subject: Large Culvert Replacement
State WIN: 023513.00
Location: **Athens**
Amendment No. 1

Dear Sir/Ms.:

On page 9, Notice to Contractors, in the paragraph that starts "Plans, specifications and bid forms...", **CHANGE** "Presque Isle" to read, "**Dixfield**". Make this change in pen and ink.

REMOVE page 36, SPECIAL PROVISION – SECTION 107 – PROSECUTION AND PROGRESS – (Contract Time), 1 page, dated April 2, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 107 – PROSECUTION AND PROGRESS – (Contract Time), 1 page, dated June 25, 2018.

ADD the attached, Shop Drawings and Hardware Details, 21 pages.

The following questions have been received:

Question: Could the Department provide shop drawings for the precast units being provided for this project? Weights, dimensions, and quantities of each unit and the hardware provided/required for assembly and lifting should be part of drawings.

Response: Please see attached shop drawings and hardware details.

Question: Special Provision 107, page 36 needs to be revised to reflect this project.

Response: See above changes to SPECIAL PROVISION – SECTION 107 – PROSECUTION AND PROGRESS – (Contract Time).

Consider these changes and information prior to submitting your bid on **July 11, 2018**.

Sincerely,

George M. A. Macdougall P.E.
Contracts & Specifications Engineer



PRINTED ON RECYCLED PAPER

**SPECIAL PROVISION
SECTION 107
PROSECUTION AND PROGRESS
(Contract Time)**

This Contract shall be completed within **28** continuous calendar days. The Contractor may begin work **anytime** in accordance with Standard Specification 104.4.2 and upon approval of all required submittals. The Contract Completion Date will be no later than **October 6, 2018**.

At least 21 calendar days prior to the desired Begin Construction Date, the Contractor shall submit an **electronic copy of their signed request to begin work and the Begin Construction Date**. This signed request shall be sent read receipt through **email** with their **Schedule of Work**, in accordance with Standard Specification 107.4.2, to Shawn.Smith@Maine.gov, Emory.Lovely@Maine.gov, Mark.Shibles@Maine.gov and Scott.Bickford@Maine.gov. The Contractor shall notify all utility contacts listed in the 104 Special Provision and provide the utility contacts the submitted schedule of work within 2 calendar days of the schedule of work submittal. Upon receipt of the schedule of work, a pre-construction meeting will be scheduled. A Contract Modification will be executed to document the new Contract Completion Date based upon the Begin Construction Date. The modified Contract Completion Date shall not exceed the Contract Completion Date specified in this special provision.

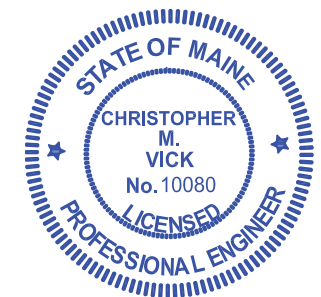
The Contractor may request to adjust the submitted schedule of work and Begin Construction Date once after the initial submittal. The Department will allow adjustments in the Begin Construction Date of up to seven calendar days if the request is made at least 21 calendar days prior to the updated Begin Construction Date. This signed request shall be sent read receipt through **email** with their **Schedule of Work**, in accordance with Standard Specification 107.4.2, to Shawn.Smith@Maine.gov, Emory.Lovely@Maine.gov, Mark.Shibles@Maine.gov and Scott.Bickford@Maine.gov. The Contractor shall notify all utility contacts listed in the 104 Special Provision and provide the utility contacts the updated schedule of work within 2 calendar days of the request to adjust the Begin Construction Date.

Once operations commence, for every weekday not worked the Contractor will be charged supplemental liquidated damages per Section 107.7.2 of the Standard Specifications; excluding days lost to inclement weather, holidays, and approved absences.

Absences must be requested at least 72 hours in advance and are subject to Department approval based on existing roadway condition, paving deadlines, adherence to schedule, traffic restrictions, detours, etc. The Contractor must assure that the roadway surface and signage are maintained for safe passage of the traveling public during any approved absences. The Contract Completion Date will not be modified due to approved absences.

PROJECT NAME: BRIGHTON ROAD – ROUTE 151
 –
PROJECT LOCATION: ATHENS, ME
AGENCY/MUNICIPALITY: MEDOT
PROJECT JOB NO: 023513.00
PREPARED FOR: STATE OF MAINE
ENGINEER: MEDOT
ENGINEER PROJ. NO: STATE PROJ. NO.: 023513.00
JOB SPECIFICATIONS: SPECIAL PROVISION SECTION 534
 –
DRAWINGS: PROJECT PLANS (2 SHEETS DATED 4/26/18)
 –
OTHER INFORMATION: –
PREPARED BY: CONCRETE SYSTEMS INC.
CSI JOB NO: C23548

<i>DRAWING INDEX</i>			
<i>SHEET NO:</i>	<i>DESCRIPTION</i>	<i>REVISION NO.</i>	<i>REV. DATE</i>
1	TITLE PAGE/INDEX		
2	GENERAL NOTES AND DESIGN PARAMETERS		
3	PLAN AND ELEVATION		
4	TYPICAL DETAILS – 1		
5	TYPICAL DETAILS – 2		
6 – 11	FABRICATION DRAWINGS		



Stamp for structural design of precast only



CONCRETE SYSTEMS, INC.

9 Commercial Street, Hudson, New Hampshire 03051
 (800) 342-3374 (603) 889-4163
 FAX (603) 889-0039 www.csigroup.com

CULVERT GENERAL NOTES:

1. REFERENCE STANDARDS:

AASHTO "LRFD BRIDGE DESIGN SPECIFICATIONS"
ASTM C1577

2. DESIGN PARAMETERS:

LIVE LOAD: HL-93 (MODIFIED PER SP SECTION 534)

EARTH COVER: 2.5'

CONSTRUCTION LOAD EARTH COVER: 1.5'

CONCRETE: DESIGN STRENGTH $F'C = 5000$ PSI (CLASS "P":
INCLUDES 3 GAL/CY CORROSION INHIBITOR)
STRIPPING STRENGTH $F'C = 2500$ PSI
UNIT WEIGHT = 150 PCF

REINFORCING: ASTM A615 (REBAR) GR 60, BLACK
ASTM A1064 (WWF - PLAIN) FY = 65 KSI

SOIL UNIT WEIGHT = 140 PCF
MINIMUM LATERAL PRESSURE COEFFICIENT .25
MAXIMUM LATERAL PRESSURE COEFFICIENT .50

COVER TO REINFORCING:

TOP SLAB: 2" TOP FACE, 2.5" BOT. FACE

CULVERT: 2" OUTSIDE FACES, 1.5" INSIDE FACES

3. DIMENSIONS INCLUDE A JOINT CREEP. OVERALL CULVERT LENGTH
WILL VARY SLIGHTLY DEPENDING ON INSTALLATION.

4. NO DAMPPROOFING OR WATERPROOFING SUPPLIED BY CSI.

CURING PROCEDURE:

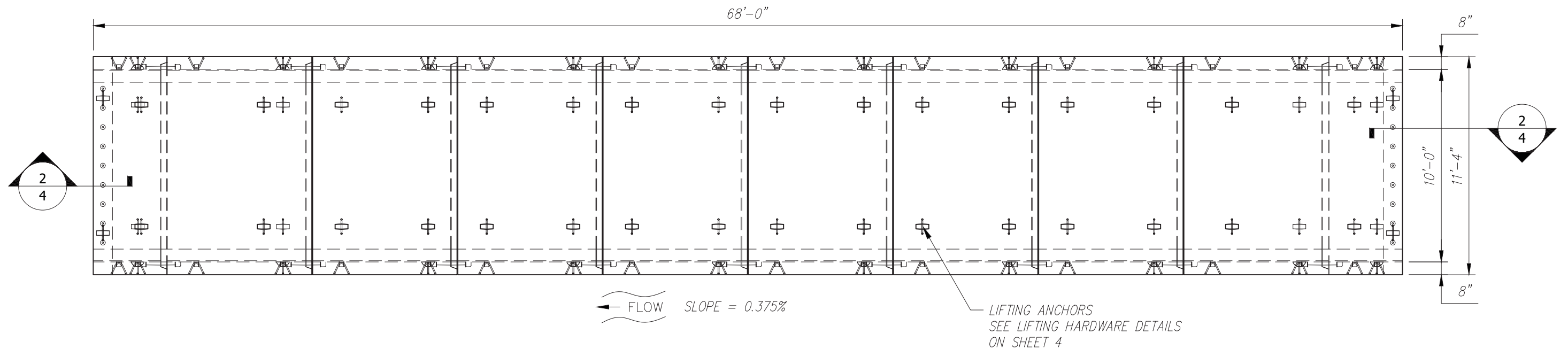
1. COVER UNIT IN MOLD AFTER FINISHING FOR 16 HOURS. CURE
CYLINDERS WITH PIECE.

2. ONCE CYLINDER BREAK INDICATES STRENGTH IS 2500 PSI OR
GREATER, REMOVE PIECE FROM MOLD.

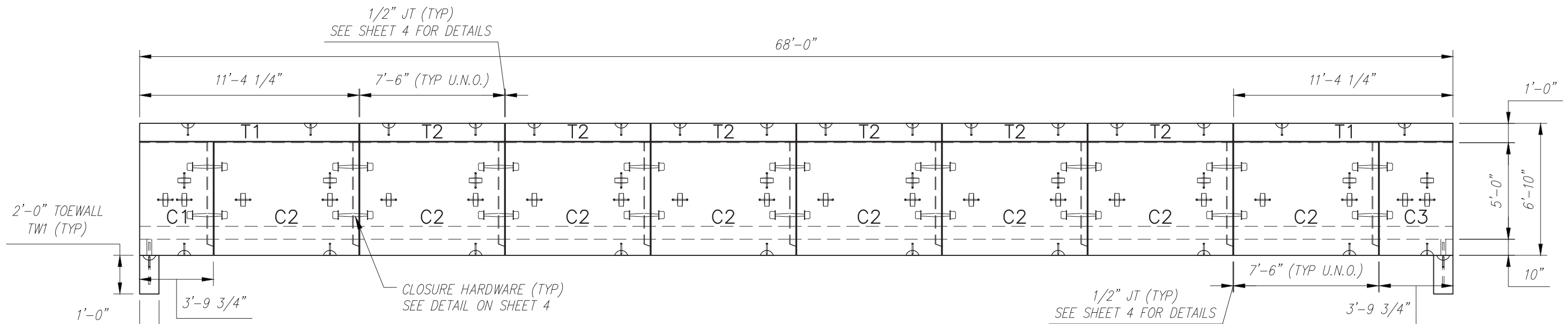
3. STORE INDOORS (OR OUTDOORS IF TEMPERATURE IS ABOVE 50°F)
UNTIL DESIGN STRENGTH IS MET.

STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME

		CONCRETE SYSTEMS INC. 9 Commercial Street Hudson, New Hampshire 03051 (800) 342-3374 (603) 889-4163 FAX (603) 889-0039 www.csigroup.com		Drawn By	A KOSTENKO	Date	06/14/2018	B	GENERAL NOTES AND PIECE SCHEDULE		REV 0
				Reviewed By		Date			Drawing No.	C23548-GN	
				Approved By		Date		Proj. No:		SHEET 2	
3											
2											
1											
Rev.	Date	Description		By							



PLAN VIEW
SCALE: 3/16" = 1'-0"



ELEVATION
SCALE: 3/16" = 1'-0"

PIECE SCHEDULE (MX-FA5000SCC13)					
MARK	QTY	LENGTH	YDS	WEIGHT	
C1	1	3.81'	2.26	4.57	TONS
C2	8	7.50'	4.61	9.34	TONS
C3	1	3.81'	2.43	4.92	TONS
T1	2	11.35'	4.73	9.58	TONS
T2	6	7.50'	3.13	6.33	TONS
TW1	2	11.33'	0.84	1.70	TONS
TOTAL	20				

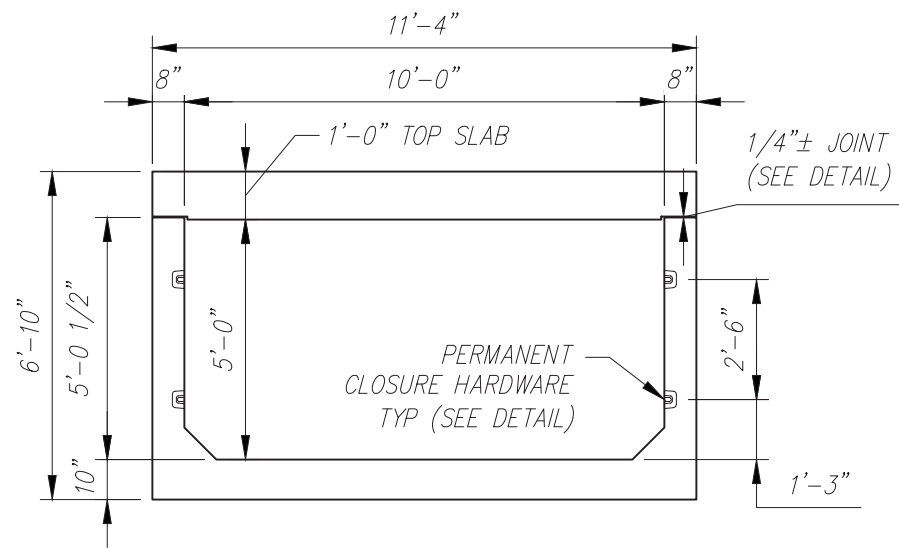
STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME

Rev.	Date	Description	By
3			
2			
1			

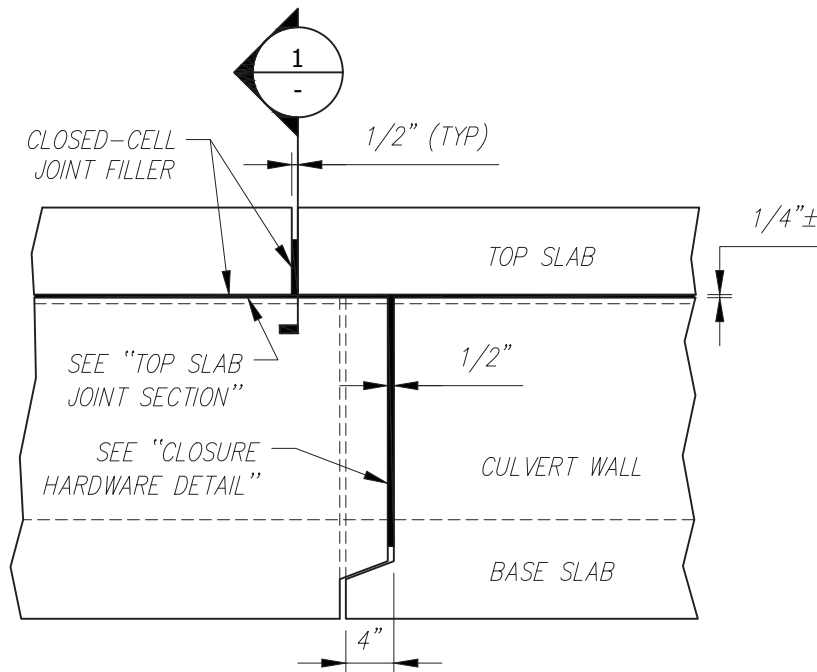
CONCRETE SYSTEMS INC.
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Drawn By
A KOSTENKO
Date
06/14/2018
Reviewed By
Date
Approved By
Date

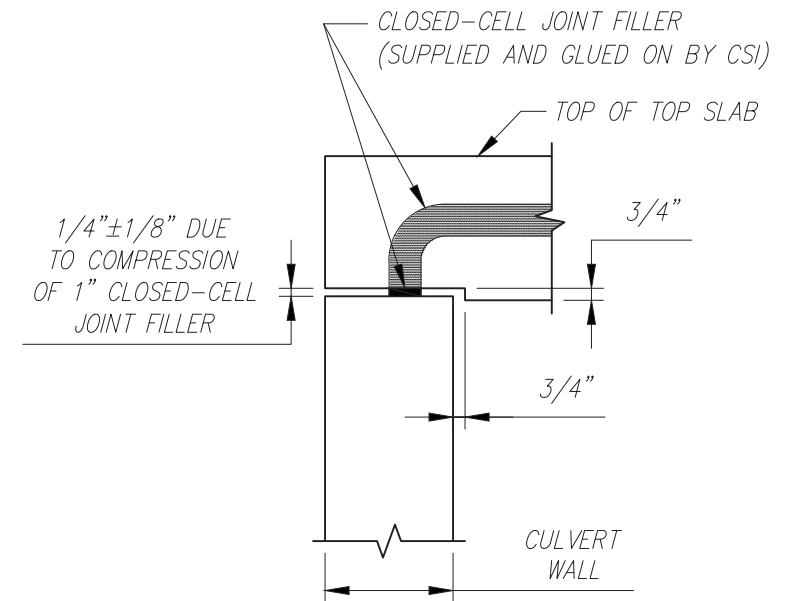
B CULVERT PLAN AND ELEVATION
Drawing No. C23548-LO1
Proj. No:
SHEET 3
REV 0



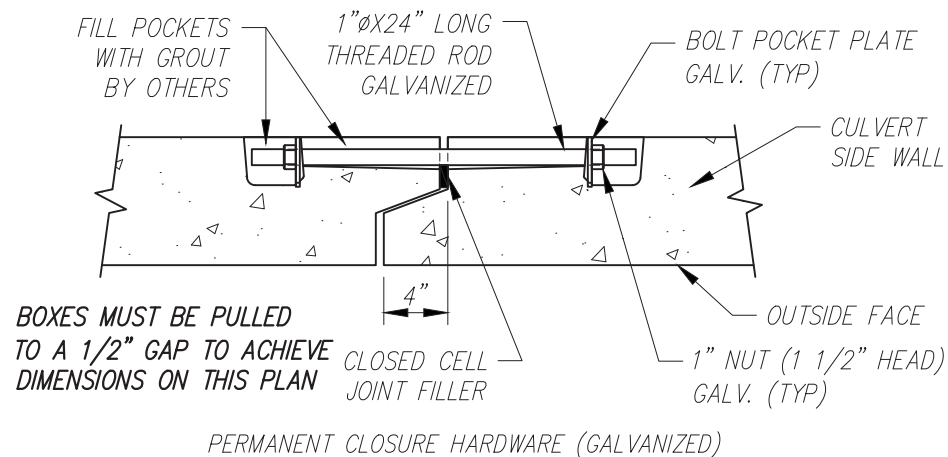
TYPICAL SECTION
SCALE: 1/4" = 1'-0"



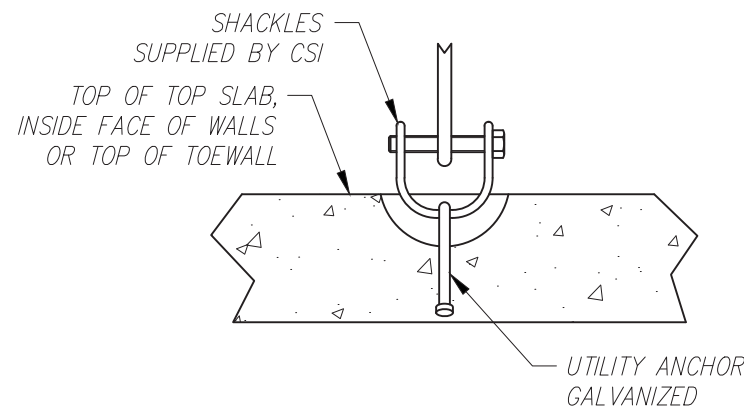
CULVERT JOINT DETAIL
SCALE: N.T.S.



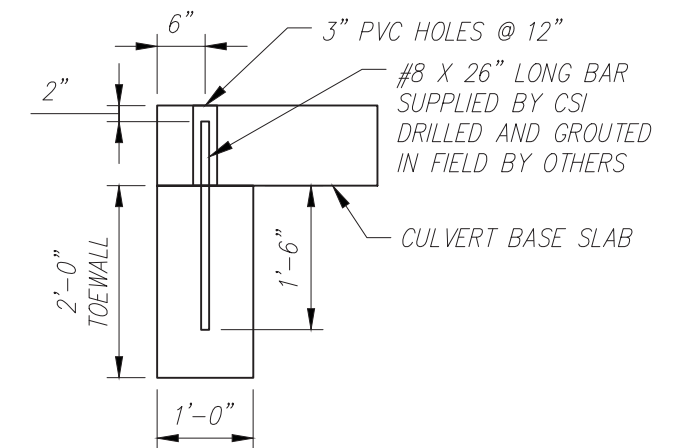
TOP SLAB JOINT SECTION
SCALE: N.T.S.



CLOSURE HARDWARE DETAIL
SCALE: N.T.S.



LIFTING HARDWARE DETAILS
SCALE: N.T.S.



TOEWALL SECTION
SCALE: 1/2" = 1'-0"

STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME

Rev.	Date	Description	By
3			
2			
1			

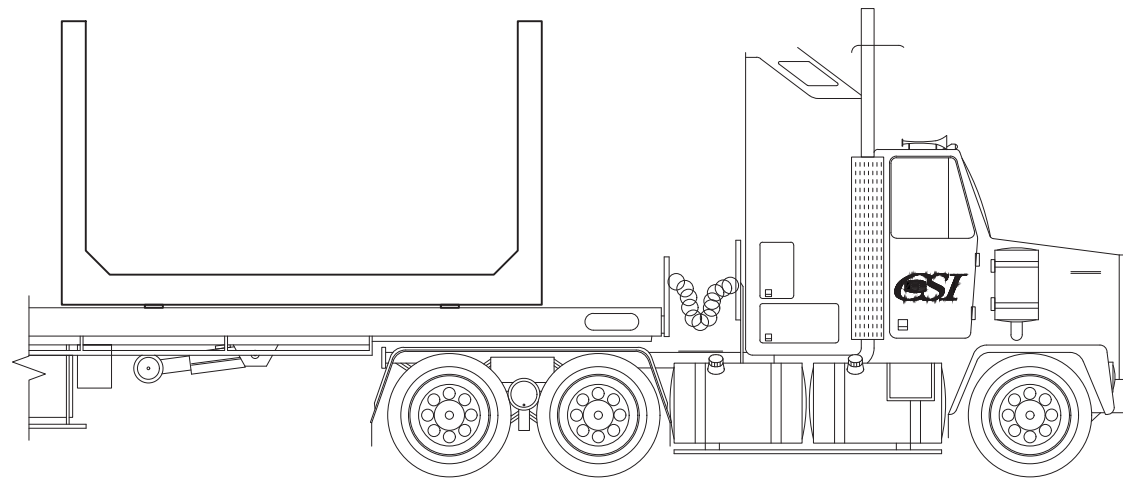
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Drawn By A KOSTENKO	Date 06/14/2018
Reviewed By	Date
Approved By	Date

B	TYPICAL DETAILS	REV 0
	Drawing No. C23548-DET1	
Proj. No:	SHEET 4	

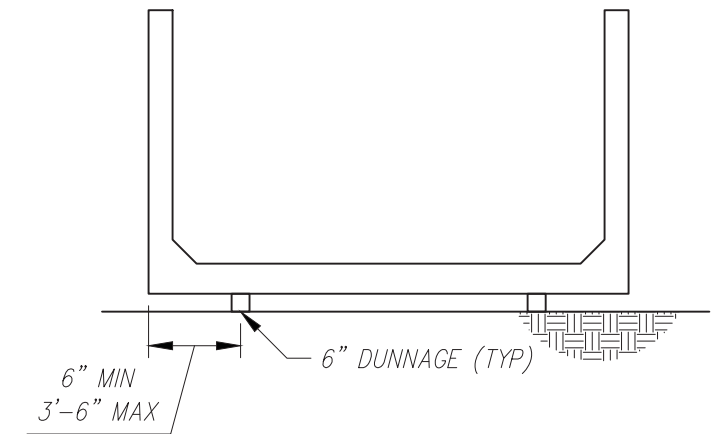
NOTE: TRANSIT DETAILS MAY CHANGE AT CSI'S DISCRETION.

OFFLOADING BY OTHERS



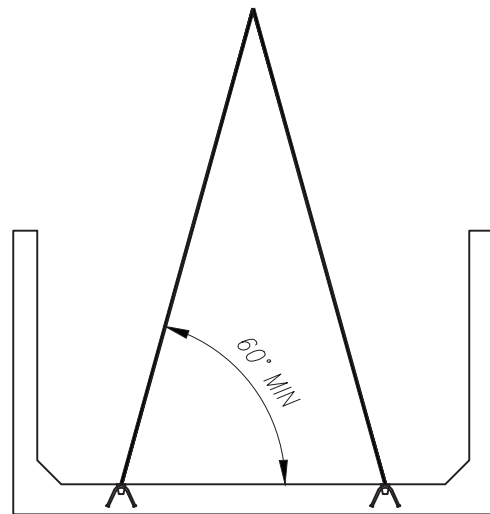
TRANSIT DETAILS
SCALE: N.T.S.

NOTE: CULVERT SHOWN, TOP SLAB AND WINGWALLS SIMILAR.
STORAGE DETAILS MAY CHANGE AT CSI'S DISCRETION.

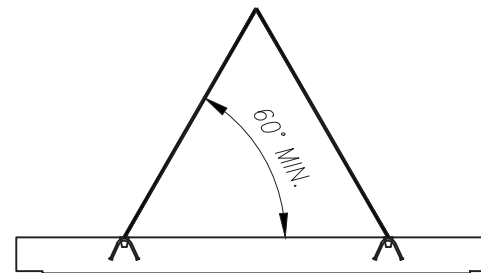


STORAGE DETAILS
SCALE: N.T.S.

NOTE: TOP SLAB SHOWN, FOOTINGS SIMILAR.



CULVERT LIFTING DETAIL*
(*SEE SHEET 4 FOR LIFTING HARDWARE) SCALE: N.T.S.



TOP SLAB OR CUTOFF WALL LIFTING DETAIL*
(*SEE SHEET 4 FOR LIFTING HARDWARE) SCALE: N.T.S.

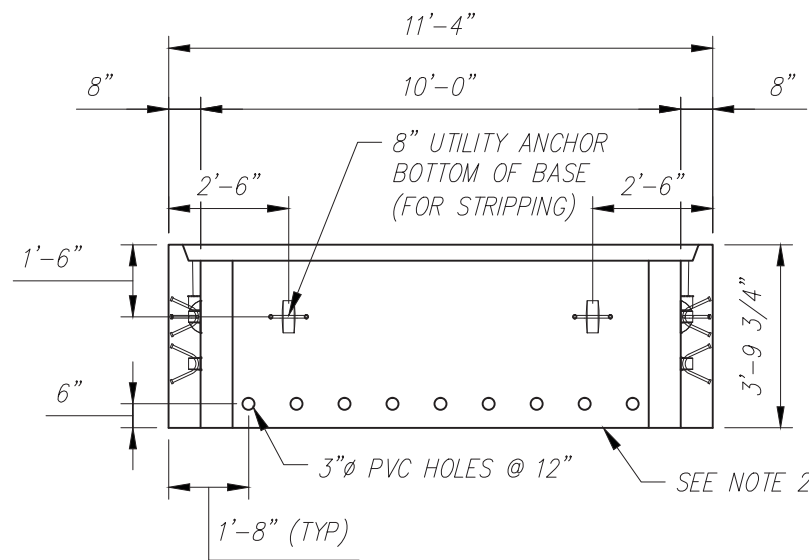
STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME

Rev.	Date	Description	By
3			
2			
1			

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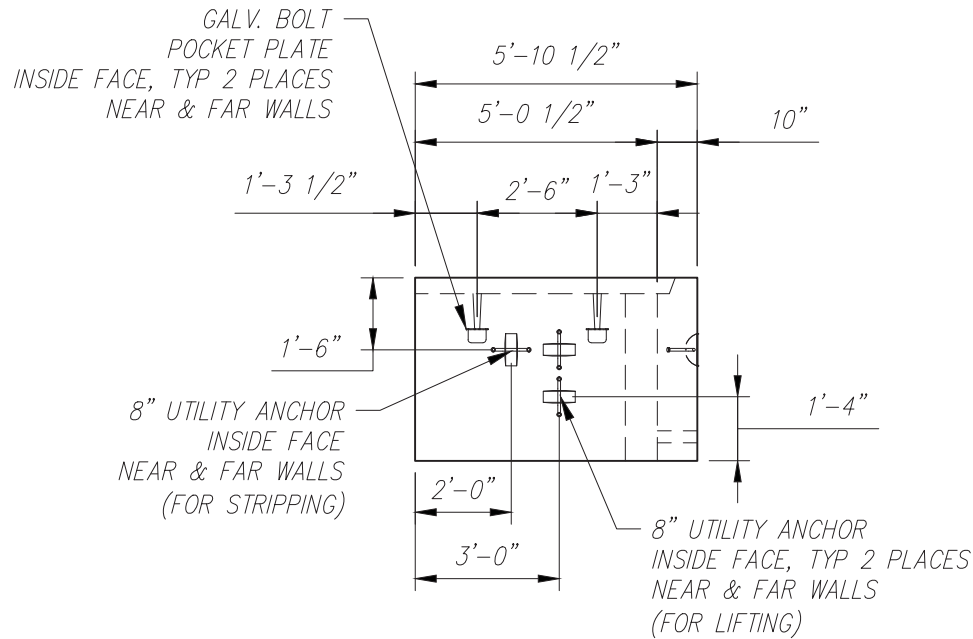
Drawn By
A KOSTENKO
Reviewed By
Date
06/14/2018
Date
Approved By
Date

B	TRANSIT/STORAGE/LIFTING DETAILS		REV 0
	Drawing No.	C23548-DET2	
Proj. No:			SHEET 5



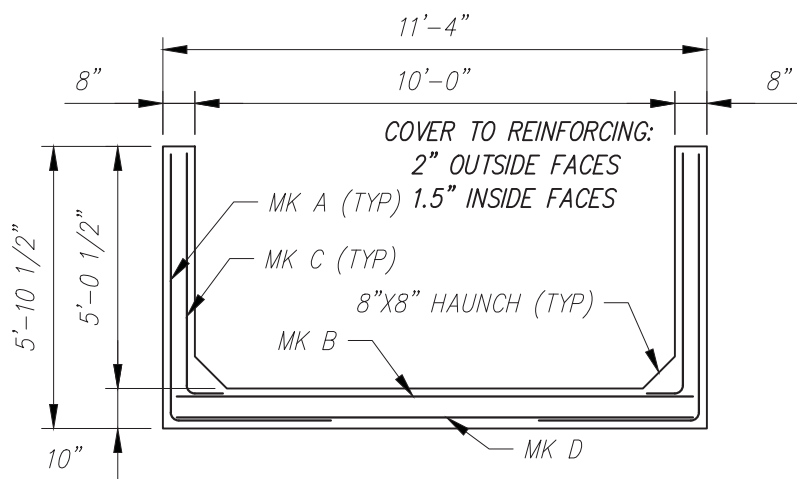
(CASTING POSITION)
FRONT ELEVATION

SCALE: 1/4" = 1'-0"



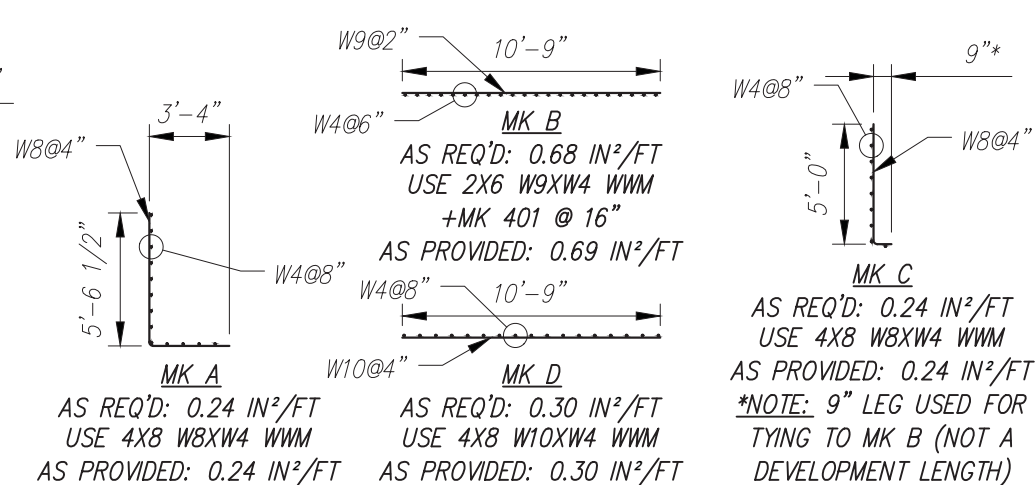
(CASTING POSITION)
RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



REINFORCING SECTION

SCALE: 1/4" = 1'-0"



BENDING SCHEDULE

SCALE: N.T.S.

NOTES:

- COVER TO REINFORCING: 2" OUTSIDE FACES, 1.5" INSIDE FACES
- ALL EDGES OF EXTERIOR END OF CULVERT TO BE CHAMFERED 3/4".

C1 - BILL OF MATERIALS / EMBEDS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
EM-00033	3" FOAM CORE PVC	8	FT	
EM-00115	UTILITY ANCHOR 8" - GALVANIZED	8	EA	
EM-00125	BOLT POCKET PLATES (GALVANIZED)	4	EA	
JS-00002	1"X1"CLOSED NEOP GASKET	32	FT	BELL & TOP OF WALLS
RM-00013	REBAR #4 BLACK- GR 60	29	LB	
RM-00098	WIRE MESH ALL SIZES	484	LB	TOTAL WEIGHT
MX-FA5000SCCI3	MIX DESIGN - FLY ASH 5000 SELF-COMP 3 GAL CNI	2.26	CY	

C1 SHIP LOOSE BILL OF MATERIALS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
RM-00104	9 EACH: REBAR #8 X 26" LONG BLACK-GR 60	52	LB	

Rebar Schedule		
MK	QTY	LENGTH
401 #4	4	10' - 9"

QUANTITY: 1
WEIGHT: 4.57 TONS

STATE OF MAINE - BRIGHTON ROAD - ROUTE 151 - ATHENS, ME

Rev.	Date	Description	By
3			
2			
1			

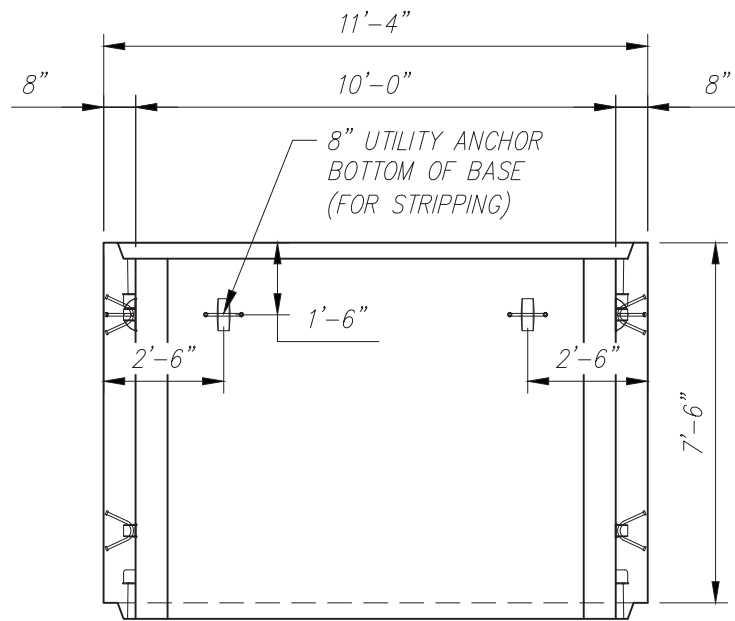
CONCRETE SYSTEMS INC.
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FAX (603) 889-0039 www.csigroup.com

Drawn By
A KOSTENKO
Reviewed By
Date
06/14/2018
Date
Approved By
Date

B	FABRICATION DRAWING - C1	REV 0
	Drawing No. C23548-C1	
Proj. No:	SHEET 6	

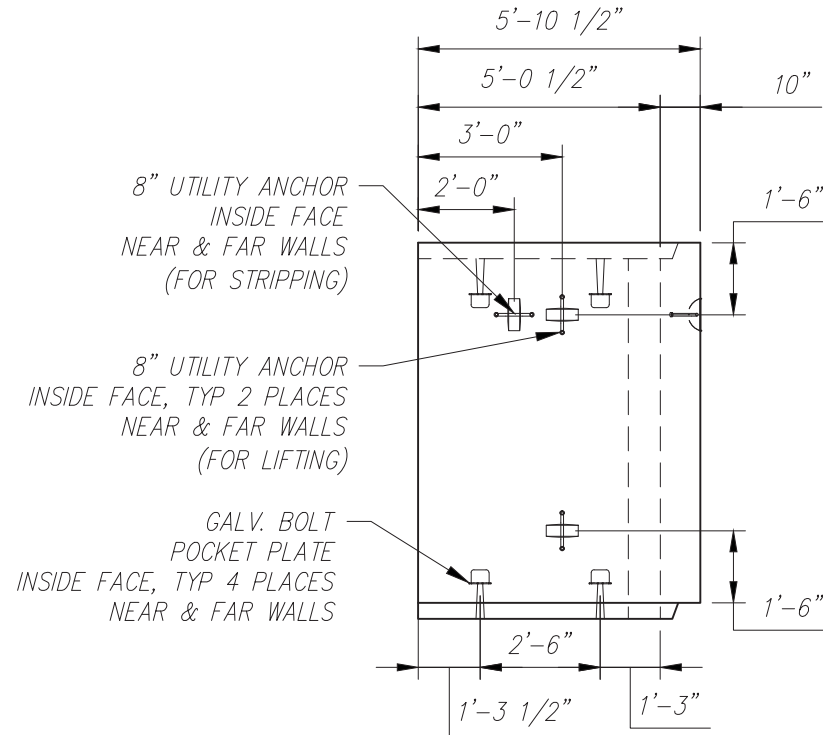
NOTES:

1. COVER TO REINFORCING: 2" OUTSIDE FACES, 1.5" INSIDE FACES



(CASTING POSITION)
FRONT ELEVATION

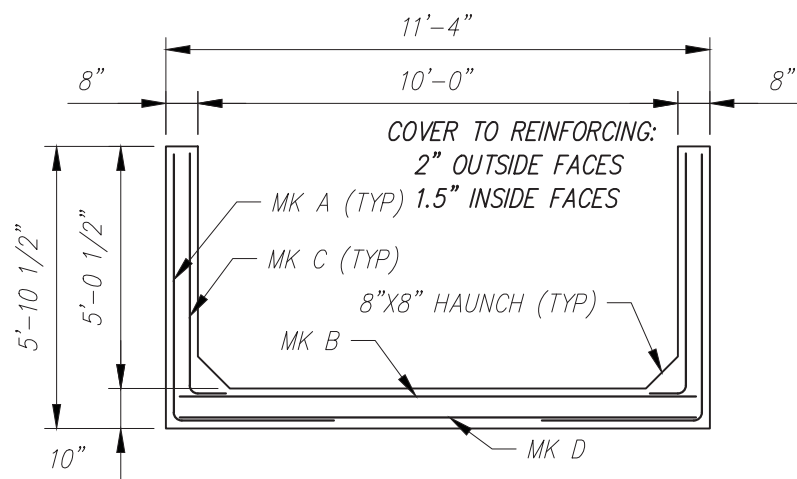
SCALE: 1/4" = 1'-0"



(CASTING POSITION)
RIGHT SIDE ELEVATION

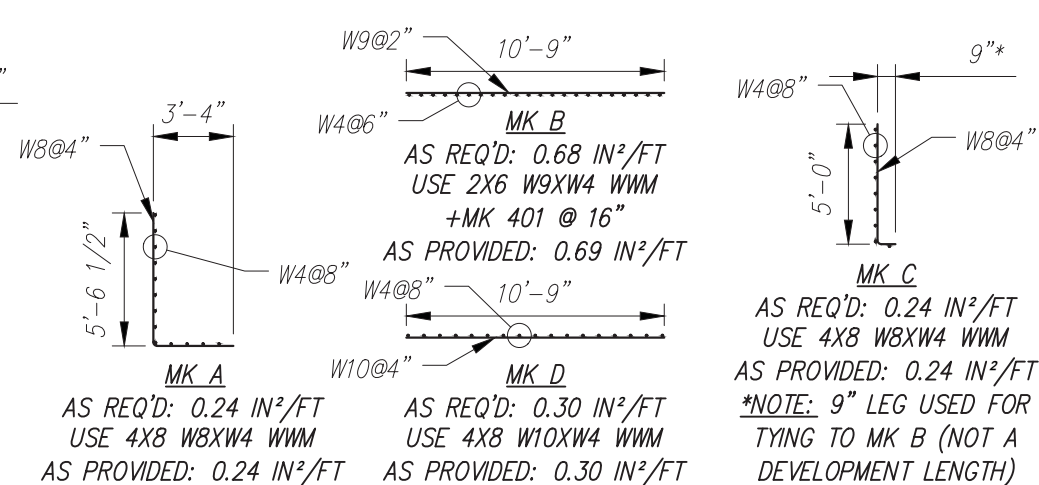
SCALE: 1/4" = 1'-0"

C2 - BILL OF MATERIALS / EMBEDS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
EM-00115	UTILITY ANCHOR 8" - GALVANIZED	8	EA	
EM-00125	BOLT POCKET PLATES (GALVANIZED)	8	EA	
JS-00002	1"X1"CLOSED NEOP GASKET	40	FT	BELL & TOP OF WALLS
RM-00013	REBAR #4 BLACK- GR 60	50	LB	
RM-00098	WIRE MESH ALL SIZES	484	LB	TOTAL WEIGHT
MX-FA5000SCCI3	MIX DESIGN - FLY ASH 5000 SELF-COMP 3 GAL CNI	4.61	CY	



REINFORCING SECTION

SCALE: 1/4" = 1'-0"



BENDING SCHEDULE

SCALE: N.T.S.

Culvert Rebar Schedule		
MK	QTY	LENGTH
401 #4	7	10' - 9"

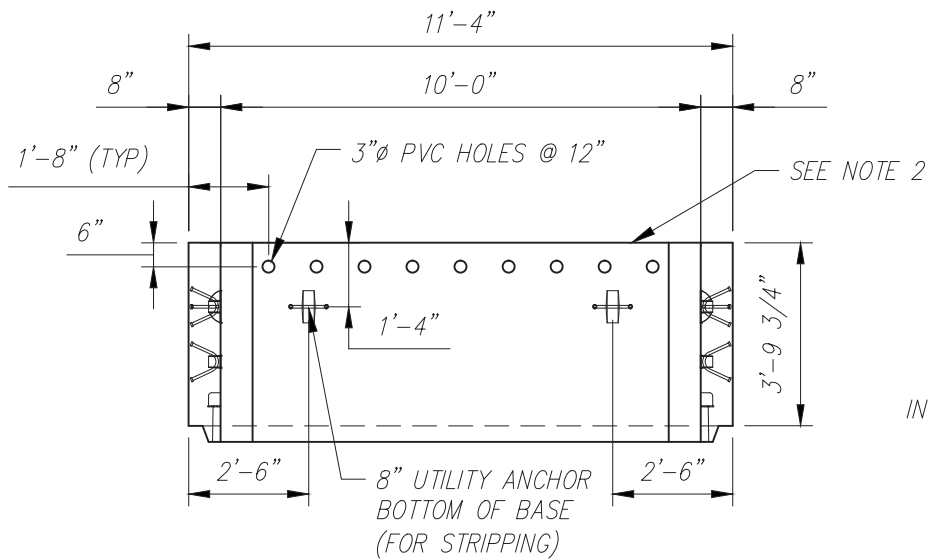
QUANTITY: 8
WEIGHT: 9.34 TONS

Rev.	Date	Description	By
3			
2			
1			

STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME				
CONCRETE SYSTEMS INC. 9 Commercial Street Hudson, New Hampshire 03051 (800) 342-3374 (603) 889-4163 FAX (603) 889-0039 www.csigroup.com	Drawn By A KOSTENKO	Date 06/14/2018	B FABRICATION DRAWING – C2 Drawing No. C23548-C2	REV 0
	Reviewed By	Date		
		Proj. No:	SHEET 7	

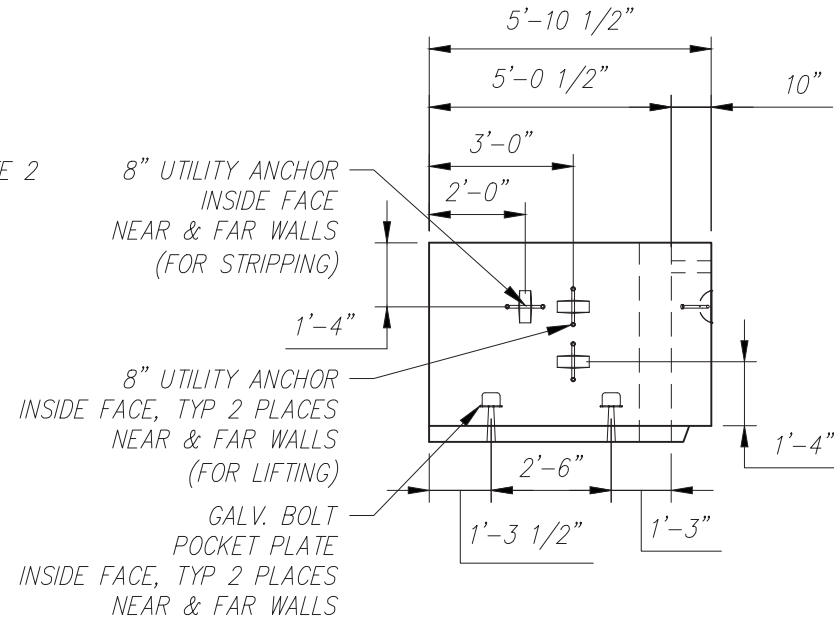
NOTES:

- COVER TO REINFORCING: 2" OUTSIDE FACES, 1.5" INSIDE FACES
- ALL EDGES OF EXTERIOR END OF CULVERT TO BE CHAMFERED 3/4".



(CASTING POSITION)
FRONT ELEVATION

SCALE: 1/4" = 1'-0"

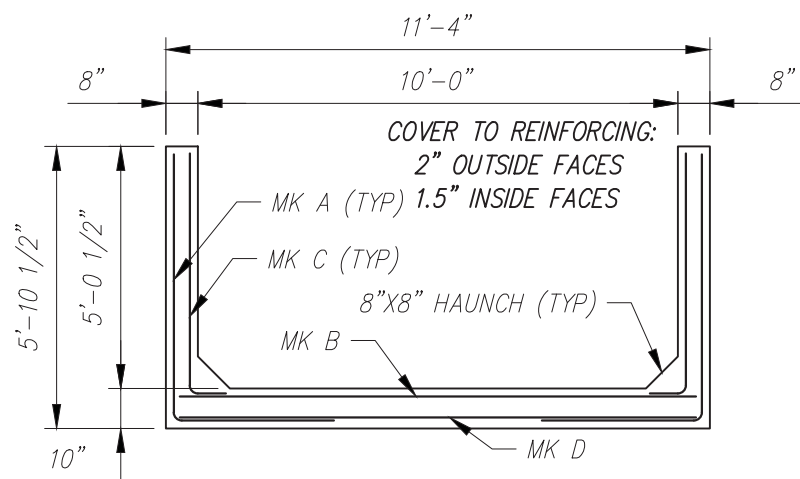


(CASTING POSITION)
RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

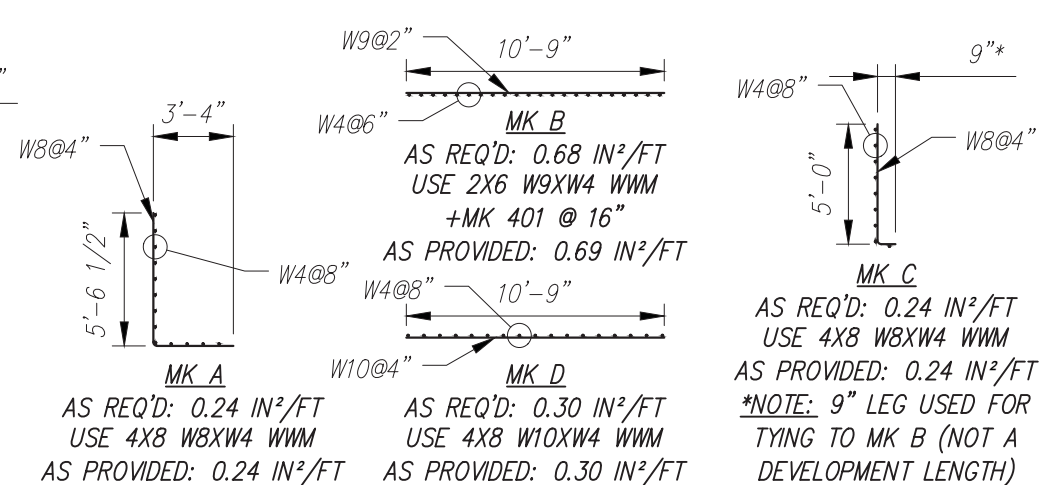
C3 - BILL OF MATERIALS / EMBEDS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
EM-00033	3" FOAM CORE PVC	8	FT	
EM-00115	UTILITY ANCHOR 8" - GALVANIZED	8	EA	
EM-00125	BOLT POCKET PLATES (GALVANIZED)	4	EA	
JS-00002	1"X1" CLOSED NEOP GASKET	8	FT	TOP OF WALLS
RM-00013	REBAR #4 BLACK- GR 60	29	LB	
RM-00098	WIRE MESH ALL SIZES	484	LB	TOTAL WEIGHT
MX-FA5000SCCI3	MIX DESIGN - FLY ASH 5000 SELF-COMP 3 GAL CNI	2.43	CY	

C3 SHIP LOOSE BILL OF MATERIALS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
RM-00104	9 EACH: REBAR #8 X 26" LONG BLACK-GR 60	52	LB	



REINFORCING SECTION

SCALE: 1/4" = 1'-0"



BENDING SCHEDULE

SCALE: N.T.S.

Rebar Schedule		
MK	QTY	LENGTH
401 #4	4	10' - 9"

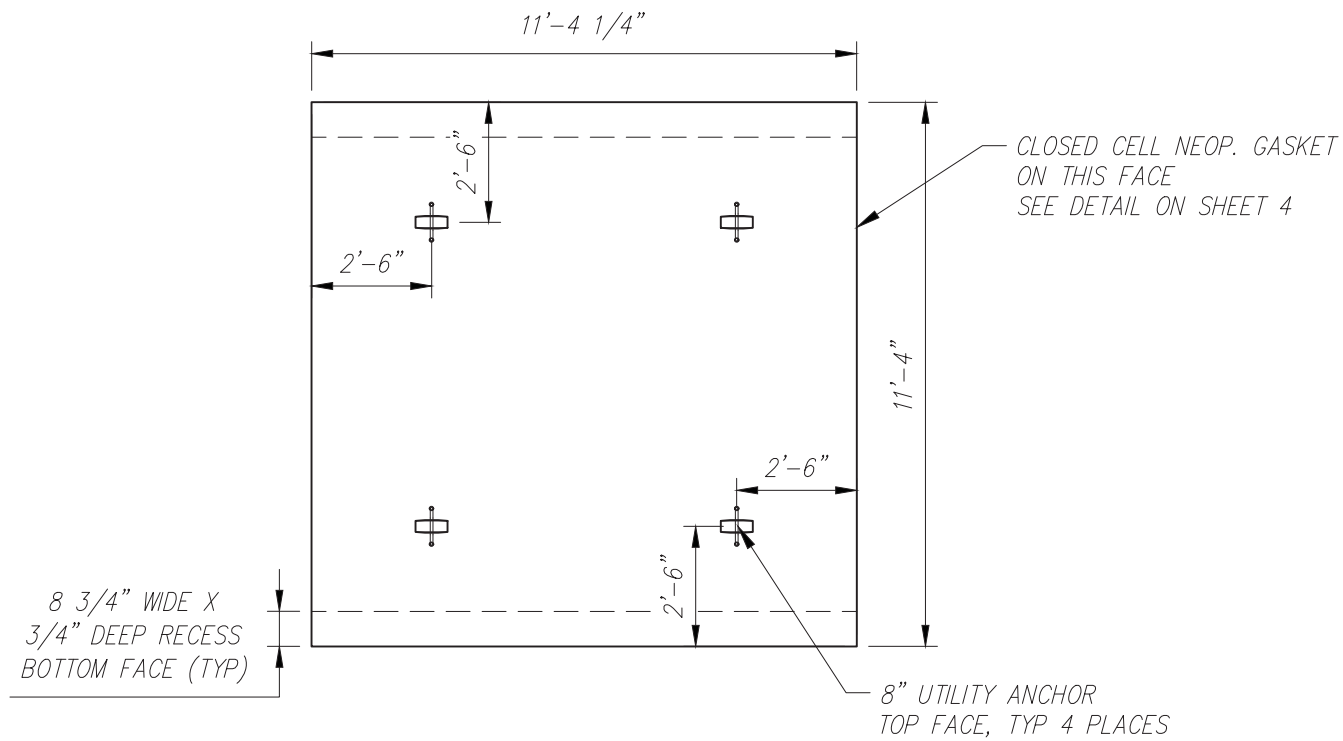
QUANTITY: 1
WEIGHT: 4.92 TONS

Rev.	Date	Description	By
3			
2			
1			

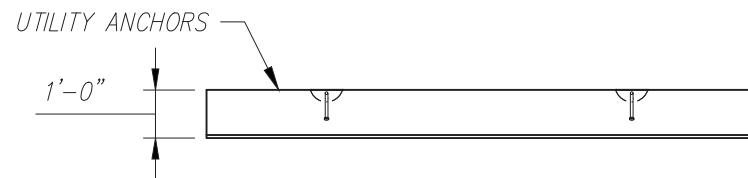
STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME			
CONCRETE SYSTEMS INC. 9 Commercial Street Hudson, New Hampshire 03051 (800) 342-3374 (603) 889-4163 FAX (603) 889-0039 www.csigroup.com	Drawn By A KOSTENKO	Date 06/14/2018	B
	Reviewed By	Date	
Approved By	Date	Proj. No:	Drawing No. C23548-C3
			REV 0
			SHEET 8

NOTES:

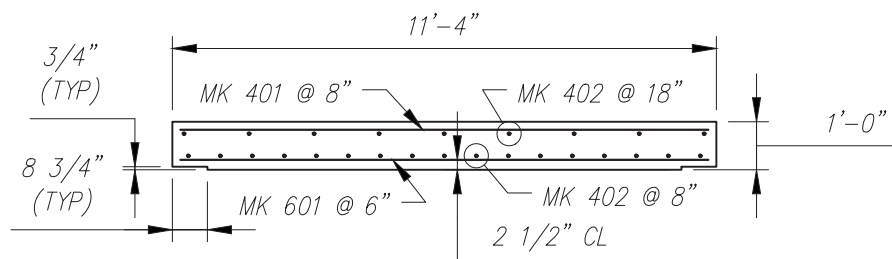
- COVER TO REINFORCING: 2" U.N.O.
- ALL TOP EDGES TO BE CHAMFERED 3/4".



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



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



REINFORCING SECTION
SCALE: 1/4" = 1'-0"

T1 - BILL OF MATERIALS / EMBEDS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
EM-00115	UTILITY ANCHOR 8" - GALVANIZED	4	EA	
JS-00002	1"X1"CLOSED NEOP GASKET	12	FT	
RM-00013	REBAR #4 BLACK- GR 60	316	LB	
RM-00017	REBAR #6 BLACK-GR 60 40'	380	LB	
MX-FA5000SCCI3	MIX DESIGN - FLY ASH 5000 SELF-COMP 3 GAL CNI	4.73	CY	

Rebar Schedule			
MK	#	QTY	LENGTH
401	#4	17	11' - 0"
402	#4	26	11' - 0"
601	#6	23	11' - 0"

QUANTITY: 2
WEIGHT: 9.58 TONS

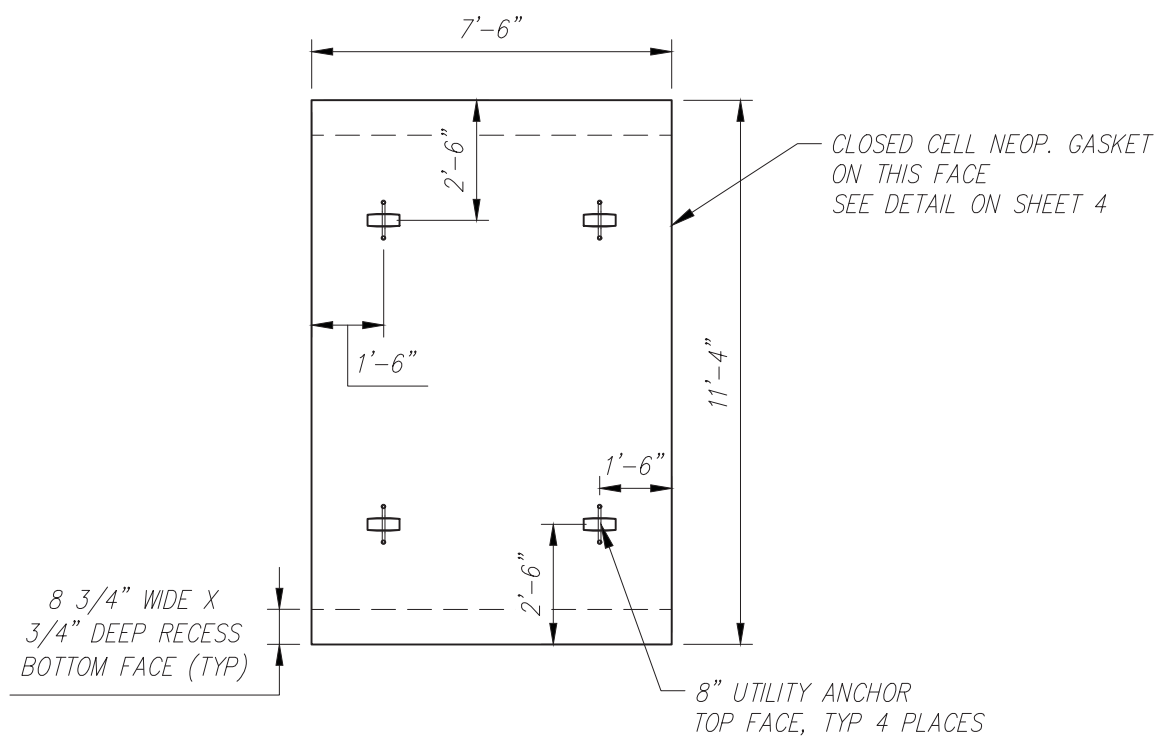
STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME

Rev.	Date	Description	By
3			
2			
1			

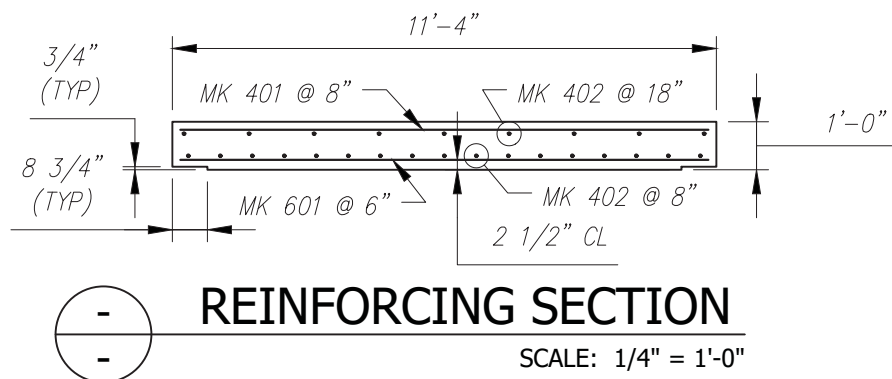
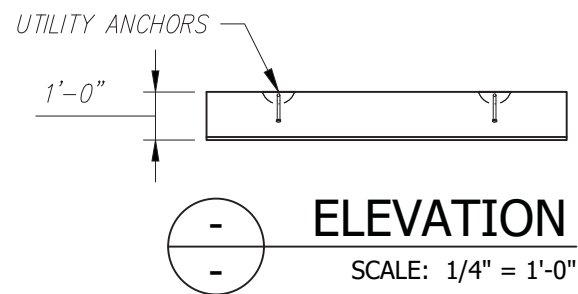
CONCRETE SYSTEMS INC. 9 Commercial Street Hudson, New Hampshire 03051 (800) 342-3374 (603) 889-4163 FAX (603) 889-0039 www.csigroup.com	Drawn By A KOSTENKO	Date 06/14/2018	B	FABRICATION DRAWING – T1	REV 0
	Reviewed By	Date		Drawing No. C23548-T1	
Approved By	Date	Proj. No:	SHEET 9		

NOTES:

- COVER TO REINFORCING: 2" U.N.O.
- ALL TOP EDGES TO BE CHAMFERED 3/4".



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



T2 - BILL OF MATERIALS / EMBEDS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
EM-00115	UTILITY ANCHOR 8" - GALVANIZED	4	EA	
JS-00002	1"X1"CLOSED NEOP GASKET	12	FT	
RM-00013	REBAR #4 BLACK- GR 60	213	LB	
RM-00017	REBAR #6 BLACK-GR 60 40'	248	LB	
MX-FA5000SCC13	MIX DESIGN - FLY ASH 5000 SELF-COMP 3 GAL CNI	3.13	CY	

Rebar Schedule			
MK	#	QTY	LENGTH
401	#4	12	11' - 0"
402	#4	26	7' - 2"
601	#6	15	11' - 0"

QUANTITY: 6
WEIGHT: 6.33 TONS

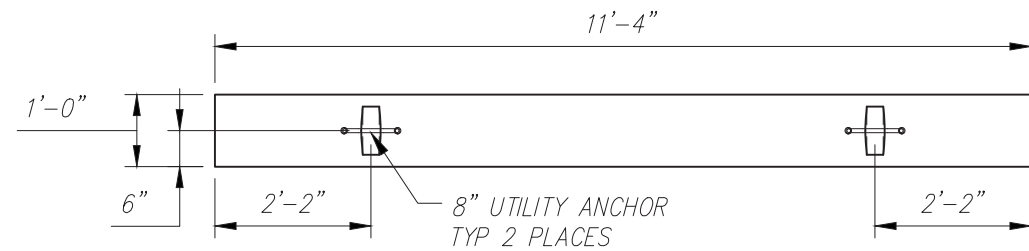
STATE OF MAINE - BRIGHTON ROAD - ROUTE 151 - ATHENS, ME

Rev.	Date	Description	By
3			
2			
1			

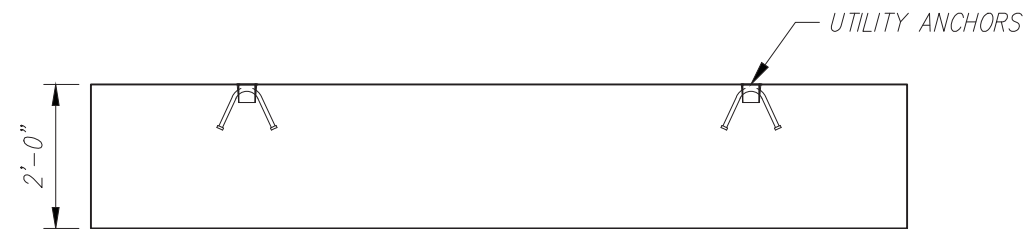
CONCRETE SYSTEMS INC. 9 Commercial Street Hudson, New Hampshire 03051 (800) 342-3374 (603) 889-4163 FAX (603) 889-0039 www.csigroup.com	Drawn By A KOSTENKO	Date 06/14/2018	B	FABRICATION DRAWING - T2	REV 0
	Reviewed By	Date		Drawing No. C23548-T2	
Approved By	Date	Proj. No:	SHEET 10		

NOTES:

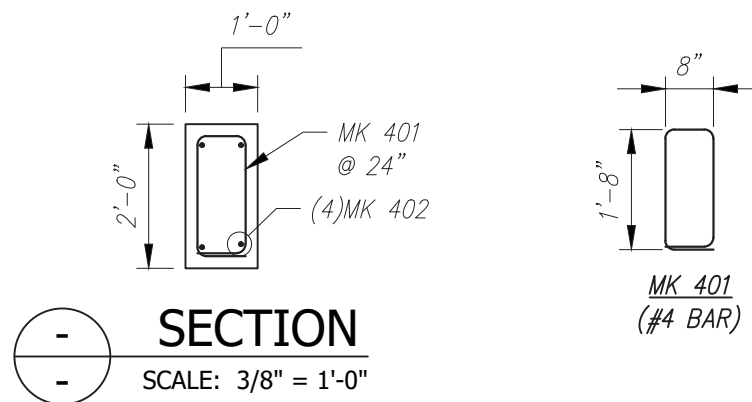
1. COVER TO REINFORCING: 2" U.N.O.
2. ALL TOP AND SIDE EDGES TO BE CHAMFERED 3/4".



PLAN
SCALE: 3/8" = 1'-0"



ELEVATION
SCALE: 3/8" = 1'-0"



SECTION
SCALE: 3/8" = 1'-0"

TW1 - BILL OF MATERIALS / EMBEDS				
CSI ID#	DESCRIPTION	QTY	UM	COMMENTS
EM-00115	UTILITY ANCHOR 8" - GALVANIZED	2	EA	
RM-00013	REBAR #4 BLACK- GR 60	51	LB	
MX-FA5000SCC13	MIX DESIGN - FLY ASH 5000 SELF-COMP 3 GAL CNI	0.84	CY	

Rebar Schedule			
MK	QTY	LENGTH	
401 #4	6	5'	4"
402 #4	4	11'	0"

QUANTITY: 2
WEIGHT: 1.70 TONS

STATE OF MAINE – BRIGHTON ROAD – ROUTE 151 – ATHENS, ME

Rev.	Date	Description	By
3			
2			
1			

CONCRETE SYSTEMS INC.
9 Commercial Street
Hudson, New Hampshire 03051
(800) 342-3374 (603) 889-4163
FAX (603) 889-0039 www.csigroup.com

Drawn By A KOSTENKO	Date 06/14/2018
Reviewed By	Date
Approved By	Date

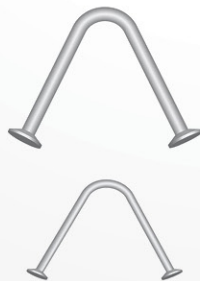
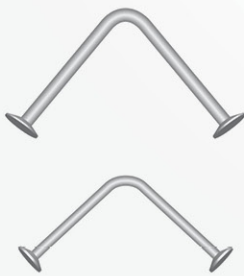
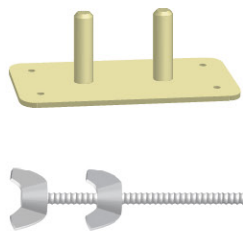
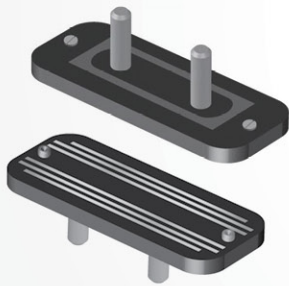
B	FABRICATION DRAWING – TW1	0
	Drawing No. C23548-TW1	
Proj. No:	SHEET 11	

ALP™ UTILITY LIFT LIFTING SYSTEM

UTILITY LIFT ANCHORS RECESS MEMBERS MOUNTING HARDWARE

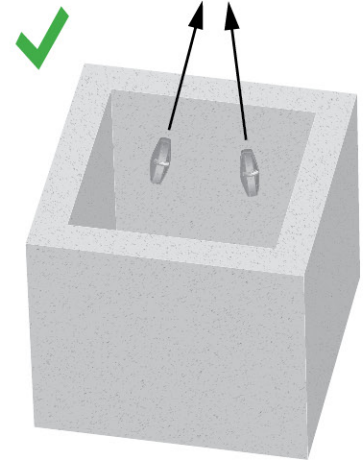
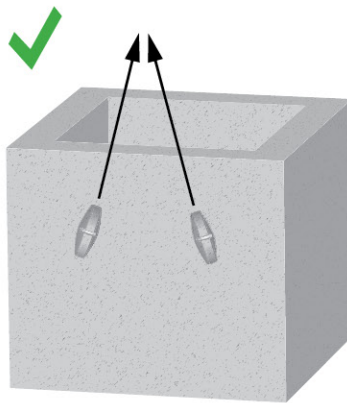
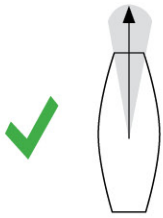
- No Additional Lifting Device Needed
- Capacities from 3,200 lbs to 20,000 lbs
- Economical and Versatile System

**.444", .671", 14MM & 18MM
DIAMETERS**

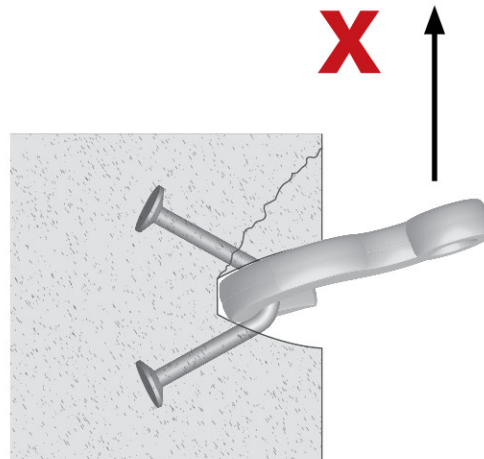
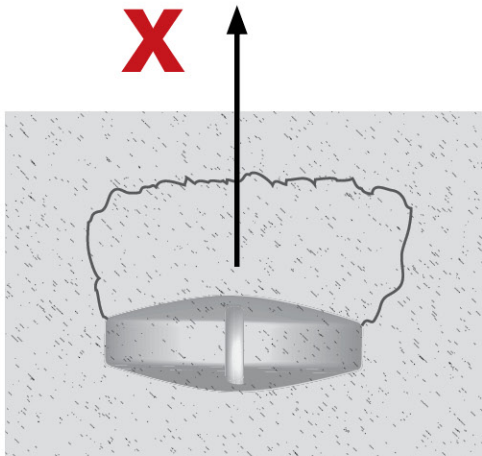
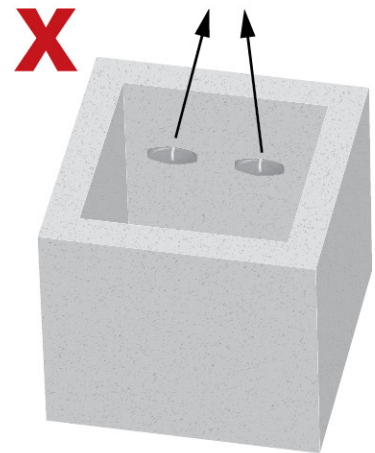
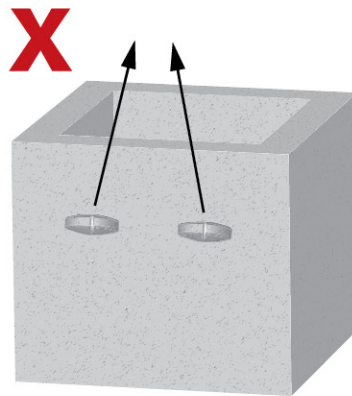
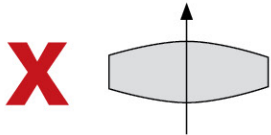


PROPER LIFTING WITH UTILITY LIFT ANCHORS

The orientation and direction of the rigging must be in alignment with the centerline of the Utility Anchor (+/- 10°). This will allow the hook to engage properly and prevent contact with the side edges of the recessed area, which can cause spalling and prying of the Utility Anchor.

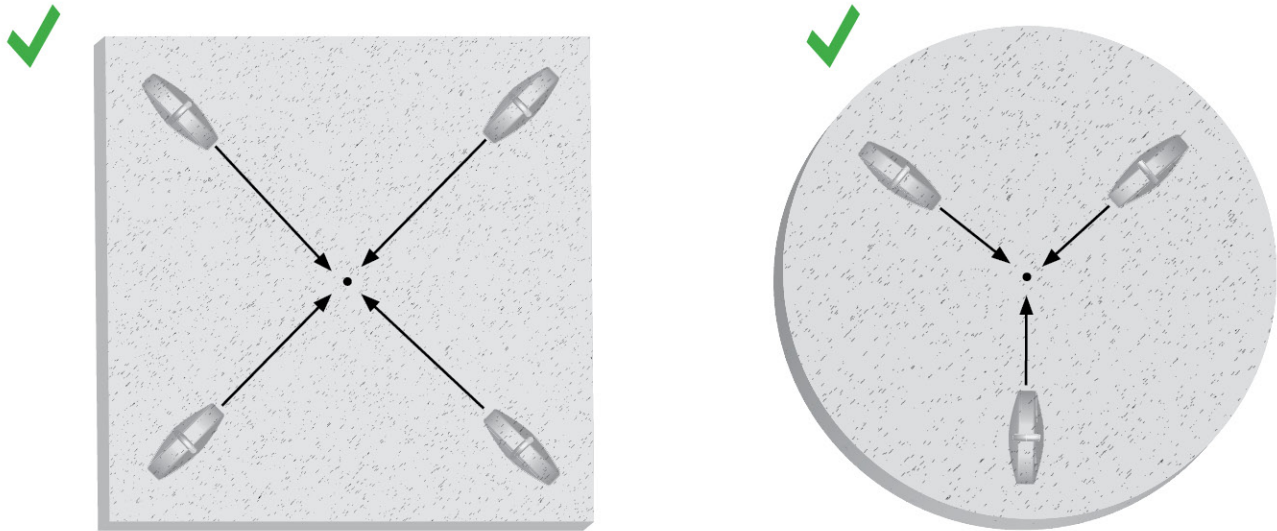


Never orientate the recess perpendicular to the direction of the rigging, as this will cause excessive loading, spalling, bending and possible failure of the hook and/or Utility Anchor.

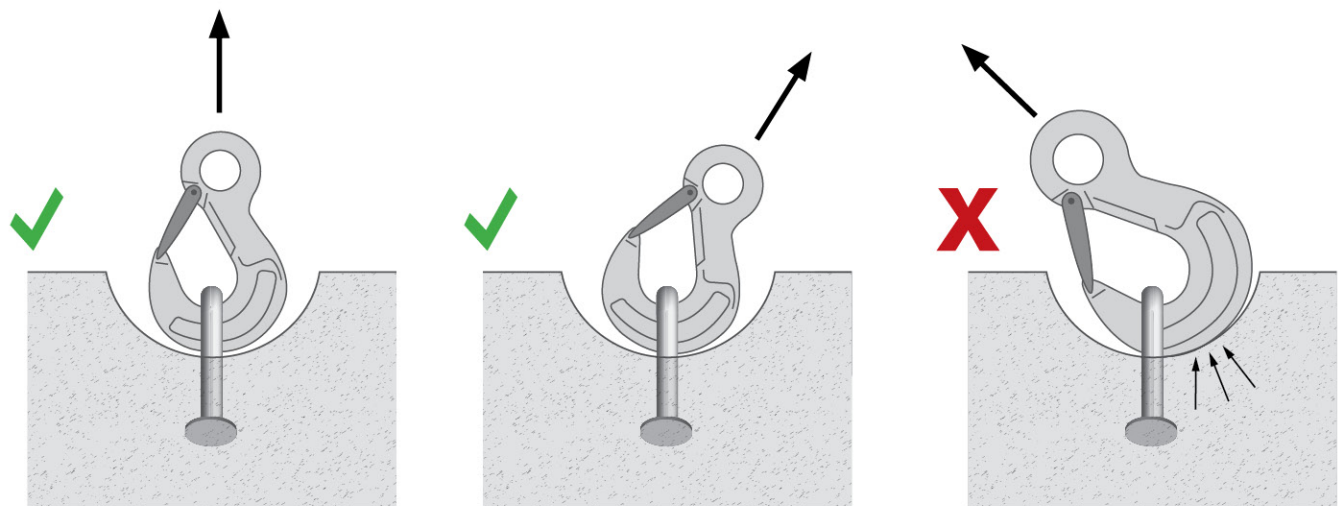


PROPER LIFTING WITH UTILITY LIFT ANCHORS

Correct alignment of anchors:



The end of the recess should be oriented in the direction of load.

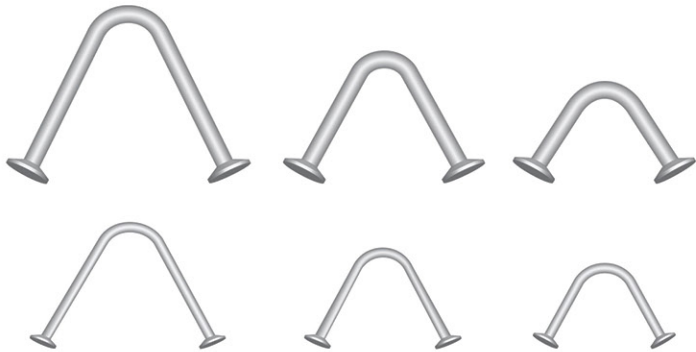


Hook does not contact the concrete.

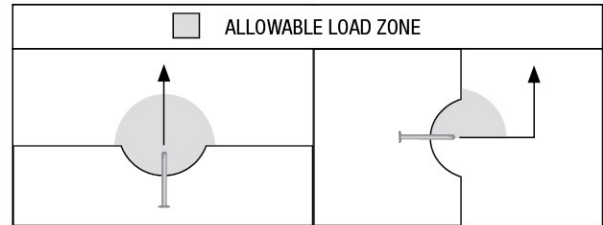
Hook latch should be oriented opposite of the direction of load.

If hook contacts concrete below anchor it will pry it. This can cause bending or breaking of the anchor.

ALP UTILITY LIFT ANCHORS - .444"/.671" DIAMETERS



Anchors available in two wire diameters: .444" and .671"
Standard Finish is Hot-Dipped Galvanized



UTILITY LIFT ANCHOR LOAD CHART

Part Number	Slab Min. Thickness	Edge Distance	4:1 SWL at 90° Tension (lbs)	4:1 SWL at 90° Shear (lbs)
LUA44G	4"	9"	3,200	5,800
LUA54G	5"	10"	3,860	7,710
LUA64G	5-5/8"	12"	4,460	9,460
LUA56G	5"	10"	4,560	8,430
LUA66G	5-5/8"	12"	7,320	15,780
LUA86G	7-5/8"	16"	10,830	18,850

- Safe Working Load provides a factor of safety of approximately 4:1.
- Table is based on a minimum concrete compressive strength of 4,000 psi.
- Above capacities are based upon mechanical testing and available industry data.

FOOT MARKINGS



Anchor Identification

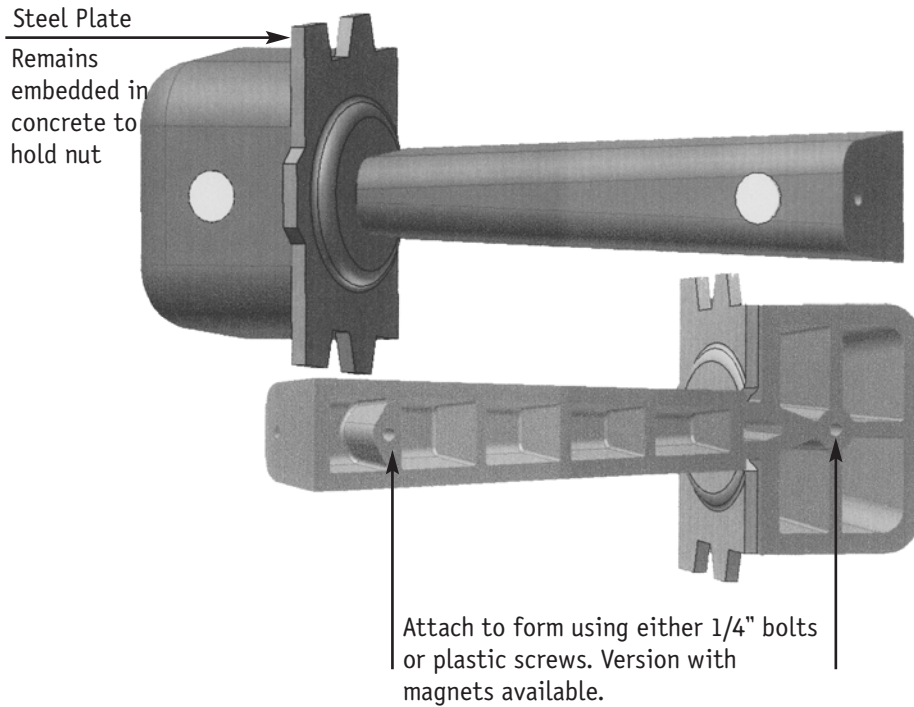


Lot Number

UTILITY LIFT ANCHOR DIMENSIONS

Utility-Lift Anchor	Part Number	WD - Wire Diameter	Anchor Identification	Typical Slab Thickness	W- Width	H - Height	FD - Foot Diameter	Weight Per Piece (lbs)
	LUA44G	.444	4/4	4"	5-1/4"	3-1/8"	15/16"	0.40
	LUA54G	.444	5/4	5"	6"	3-3/4"	15/16"	0.50
	LUA64G	.444	6/4	6"	7-1/4"	4-3/4"	15/16"	0.55
	LUA56G	.671	5/6	5"	6-1/4"	3-3/4"	1-5/8"	1.05
	LUA66G	.671	6/6	6"	7-1/2"	4-3/4"	1-5/8"	1.30
	LUA86G	.671	8/6	8"	9-3/4"	6-3/4"	1-5/8"	1.75

> BOLT POCKET FORMER



Introducing our Bolt Pocket Former - the ideal solution for tying together sections of box culvert or precast walls. This dual purpose forming device creates both a groove through the joint and a pocket for the bolt. The steel plate that remains embedded in the concrete accepts up to 1" rod. Molded out of a specially formulated urethane, our bolt pocket former will last for at least 50 pours when properly maintained. Call for more details and pricing information.

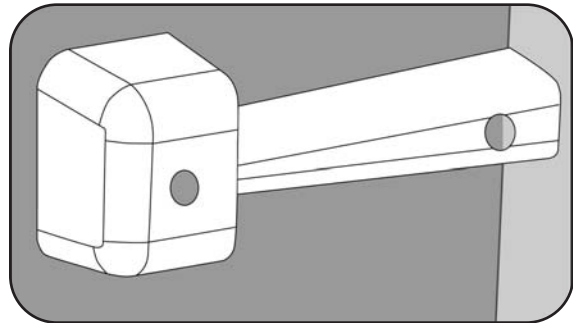
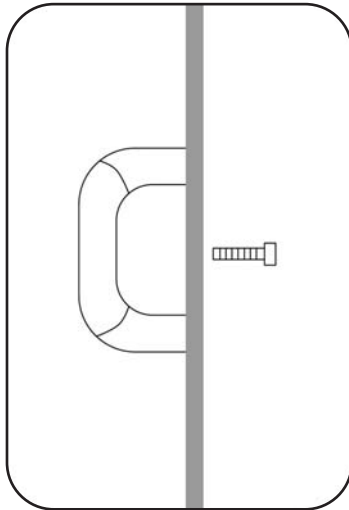
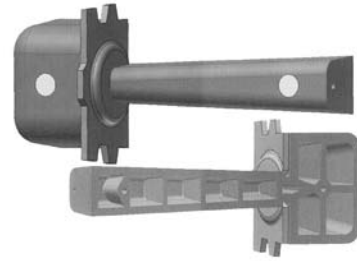


phone: 800.220.4857 sales@pennsylvaniainsert.com fax: 610.948.9750

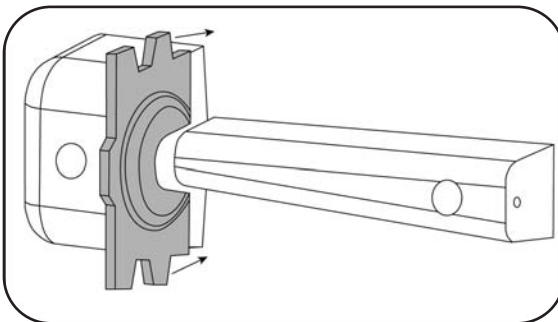
> serving concrete producers for over 30 years

BOLT POCKET FORMER

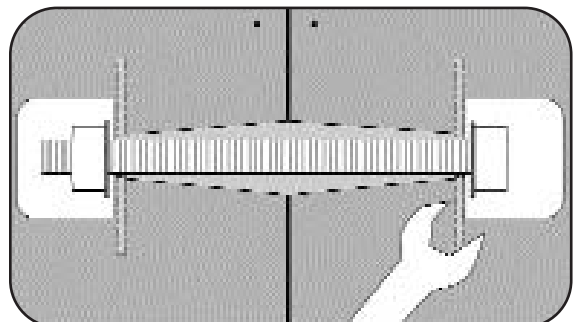
The simple forming solution for tying together sections of box culvert or precast walls.



- 1.** Attach Bolt Pocket Former to form using either 1/4" bolts or plastic screws for non collapsing forms. The inserts are replaceable should the threads show signs of wear after numerous uses.



- 2.** Slide steel plate onto Bolt Pocket Former. Pour.



- 3.** After stripping form, slide Bolt Pocket Former out using pliers. Steel plate remains embedded in concrete. A groove through the joint and bolt pocket are formed. For field installation*, the steel plate accepts up to 1" rod.
*We provide a field installation kit consisting of rod, 2 nuts, and 2 washers for an additional charge.



FOR INFO. CALL 1-800-220-4857
or sales@pennsylvaniainsert.com

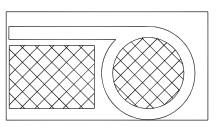
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Fax#	Project	Job#	Ship Date
From	Job#	PA Insert Quote/Order#	Ship Date
Date	Job#	PA Insert Quote/Order#	Ship Date

Approved/Notes

PA Insert Corp

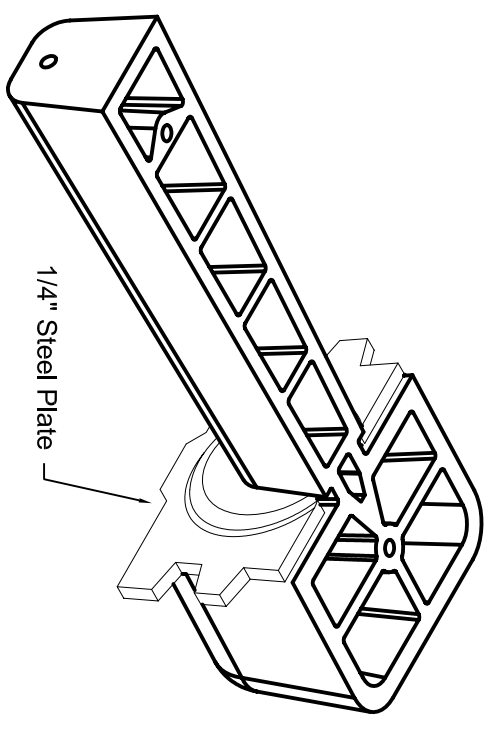
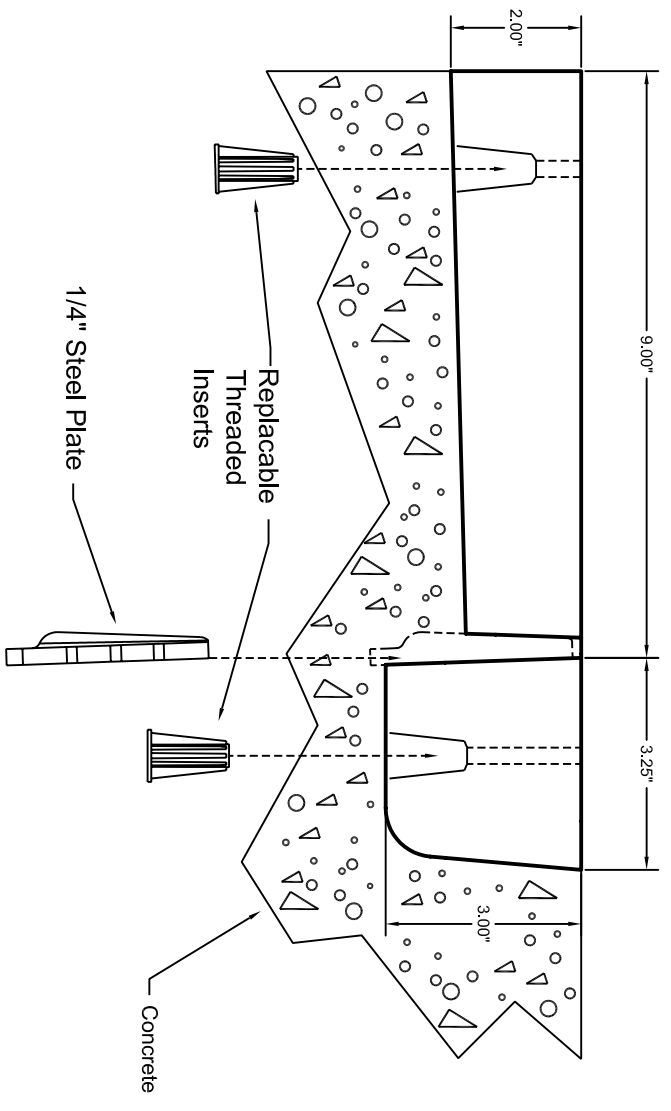
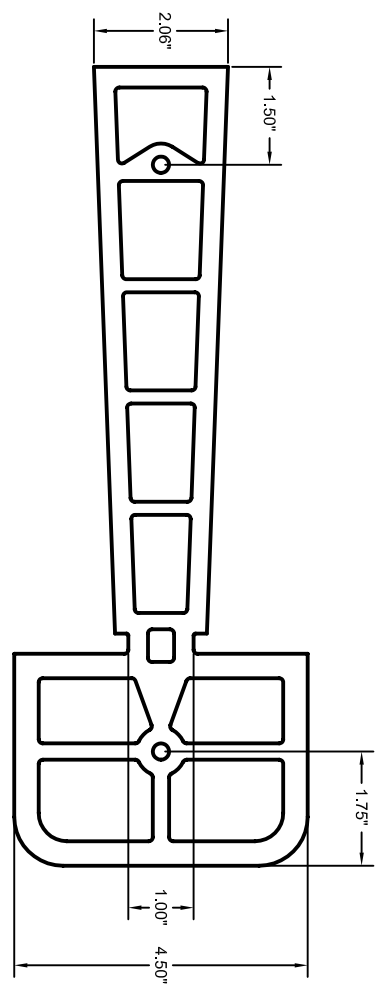
PO Box 199
Spring City PA 19475
tel: 610-948-9688
fax: 610-948-9750

email: sales@pennsylvaniainsert.com
web: www.pennsylvaniainsert.com



BOLT POCKET FORMER (for up to 1" bolt)

- Made from durable Urethane for reusability
- Ribbed construction increases strength
- *Replacable 1/4" Threaded Inserts
- **1/4" Galvanized Steel Plate Standard
- Available with magnets to attach to form

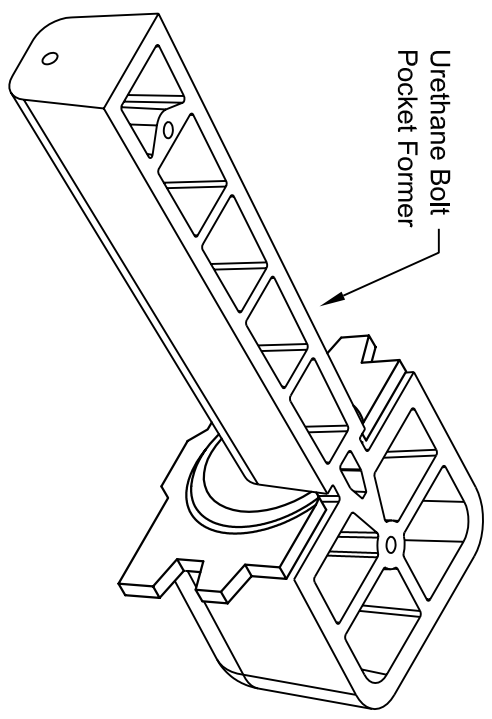
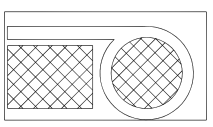


*Threaded Inserts sold separately (Part Number 1200)
**Steel Plate stays in concrete, sold separately (Part Number 4024)

Fax to:	Customer	Approved/Notes
Fax#	Project	
From	Job#	Ship Date
Date	PA Insert Quote/Order#	Page ____ of ____

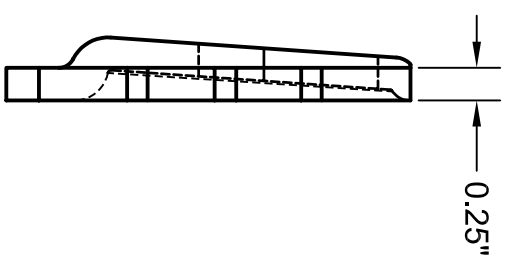
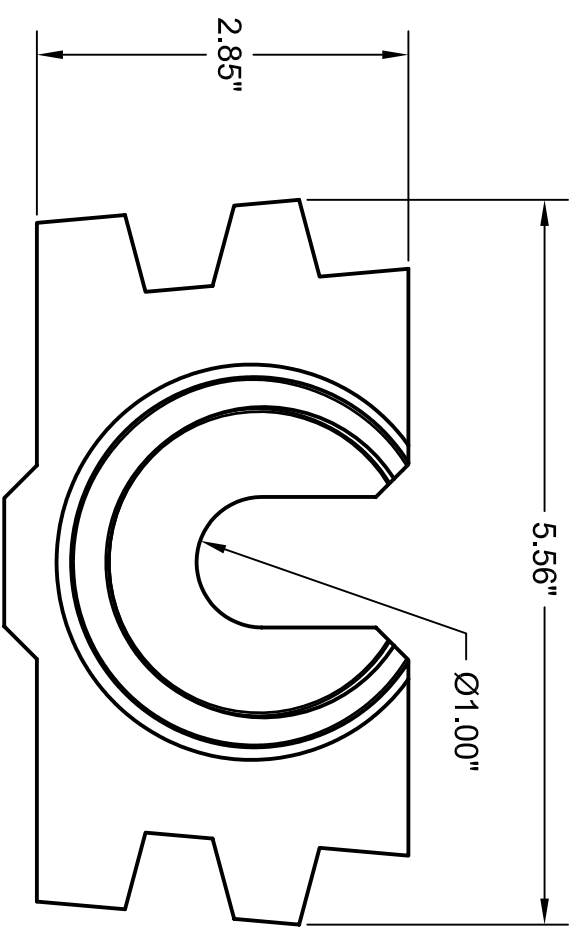
PA Insert Corp
 PO Box 199
 Spring City PA 19475
 tel: 610-948-9688
 fax: 610-948-9750

email: sales@pennsylvaniainsert.com
 web: www.pennsylvaniainsert.com



BOLT POCKET PLATE (use with bolt pocket former)

- *1/4" Galvanized Steel Plate Standard, distributes bolt load
- Teeth anchor plate securely in concrete
- Pressed center keeps bolt in position
- **Fits securely into reusable bolt pocket former



*Plain Steel or Stainless Steel Optional
 **Urethane Bolt Pocket Former sold separately (part number 4023)

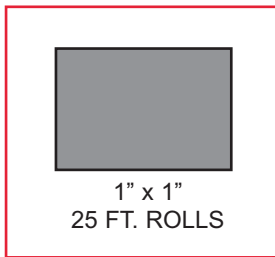


CELLULAR JOINT FILLER

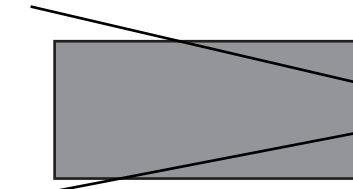
CLOSED-CELL GASKET MATERIAL

What It Is

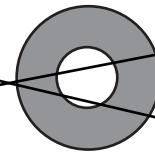
CLOSED CELL JOINT FILLER is a flexible, compressible material that easily fills difficult joints in concrete pipes and structures. Whether glued onto the joint or placed between the structures, it quickly conforms to the joint profile. Closed Cell Joint Filler can be supplied as cut and spliced gaskets, or as bulk material for field fabrication of gaskets. It has excellent compressibility and is resistant to weather, ozone, acids, and alkalis.



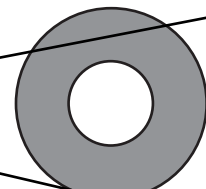
1" x 1"
25 FT. ROLLS



1" x 2"
25 FT. ROLLS



ROUND 3/8" WALL
250 FT. ROLLS



ROUND 1/2" WALL
250 FT. ROLLS

Why It's Better

- Works with Round, Elliptical & Arch Pipe
- Works with Box Culverts and Manholes
- Available in 25' or 250' rolls, or by the foot
- Also available as cut and spliced gaskets
- Manufactured of high-quality synthetic rubber
- Easily compresses to fill irregular joints
- Clean and easy to use.
- May be used in place of trowelable sealants
- Easily cut and spliced in the field or in your yard
- May be glued directly to the joint

How It Performs

CLOSED CELL JOINT FILLER MATERIAL meets or exceeds all requirements of:

ASTM D-1056 - Flexible Cellular Materials - Sponge or Expanded Rubber

Virginia and New York DOT approved.
Complies with NYDOT Std. 706.17

RECTANGULAR CROSS-SECTIONS are made from a Neoprene/EPDM Blend.

CIRCULAR TUBING CROSS-SECTIONS are made from a Nitrile/PVC blend.

Typical Physical Properties

Color	Black	Water Absorption by Weight (Max.).....	10%
Compression Deflection (psi)	5 - 9	Temperature Range (F)	
Tensile Strength (psi Min.)	30	Low (Flex without cracking)	-70
Elongation (%Min.)	125	High (Continuous)	150
Resilience - Bashore (% rebound Average)		High (Intermittent)	200
(1/2" thickness @ 72°F)	25 - 40	Heat Aging (7 days @ 158°F)	
Shore 00 Durometer	45 - 60	Lineal Shrinkage (Max.)	10%
Density (pcf) average	5.5 - 7.5		

Press-Seal believes all information is accurate as of its publication date. Information, specifications, and prices are all subject to change without notice. Press-Seal is not responsible for any inadvertent errors. Copyright 2011.



Crosby® Alloy Screw Pin Shackles

Load Rated®

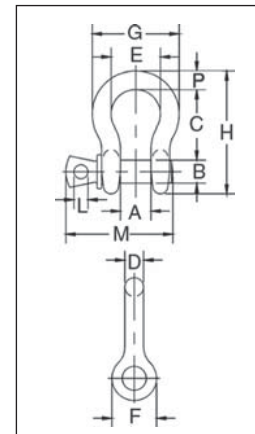


G-209A



G-209A Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade B, Class 2, except for those provisions required of the contractor. For additional information, see page 426.

- Capacities 2 thru 21 metric tons. Meets performance requirements of Grade 8 shackles.
- Forged Alloy Steel – Quenched and Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Hot Dip Galvanized.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



G-209A Crosby® Alloy Screw Pin Shackles

Nominal Size (in.)	Working Load Limit (t)*	G-209A Stock No.	Weight Each (lbs.)	Dimensions (in.)												Tolerance +/-	
				A	B	C	D	E	F	G	H	L	M	P	C	A	
3/8	2	1017450	.31	.66	.44	1.44	.38	1.03	.91	1.78	2.49	.25	2.03	.38	.13	.06	
7/16	2-2/3	1017472	.38	.75	.50	1.69	.44	1.16	1.06	2.03	2.91	.31	2.38	.44	.13	.06	
1/2	3-1/3	1017494	.63	.81	.63	1.88	.50	1.31	1.19	2.31	3.28	.38	2.69	.50	.13	.06	
5/8	5	1017516	1.38	1.06	.75	2.38	.63	1.69	1.50	2.94	4.19	.44	3.34	.69	.13	.06	
3/4	7	1017538	2.35	1.25	.88	2.81	.75	2.00	1.81	3.50	4.97	.50	3.97	.81	.25	.06	
7/8	9-1/2	1017560	3.61	1.44	1.00	3.31	.88	2.28	2.09	4.03	5.83	.50	4.50	.97	.25	.06	
1	12-1/2	1017582	5.32	1.69	1.13	3.75	1.00	2.69	2.38	4.69	6.56	.56	5.07	1.06	.25	.06	
1-1/8	15	1017604	7.25	1.81	1.25	4.25	1.16	2.91	2.69	5.16	7.47	.63	5.59	1.25	.25	.06	
1-1/4	18	1017626	9.88	2.03	1.38	4.69	1.29	3.25	3.00	5.75	8.25	.69	6.16	1.38	.25	.06	
1-3/8	21	1017648	13.25	2.25	1.50	5.25	1.42	3.63	3.31	6.38	9.16	.75	6.84	1.50	.25	.13	

* Maximum Proof Load is 2 times the Working Load Limit (metric tons) and 2.2 times the Working Load Limit (short tons). Minimum Ultimate Strength is 4.5 times the Working Load Limit for metric tonnes, and 5 times the Working Load Limit for short tons. For Working Load Limit reduction due to side loading applications, see page 80.

Load Rated®



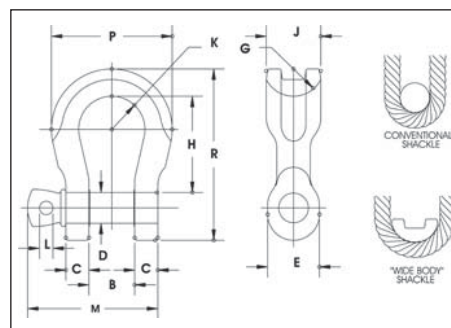
G-2169



S-2169



- Capacities of 7, 12.5 and 18 metric tons.
- Quenched and Tempered for maximum strength.
- Forged Alloy Steel.
- Available in galvanized and self colored finished.
- Individually proof tested and magnetic particle inspected. Crosby certification available at time of order.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



G-2169 / S-2169 Screw Pin "Wide Body" Shackles

Working Load Limit (t)*	G-2169 Stock No.	S-2169 Stock No.	Weight Each (lbs.)	Dimensions (in.)											
				B +/- .25	C	D +/- .02	E	G	H	J	K	L	M	P	R
7	1021655	1021664	3.5	1.25	.69	.88	1.82	1.25	3.56	1.60	1.25	.50	3.97	4.10	5.87
12.5	1021673	1021682	8.8	1.69	.92	1.13	2.38	1.37	4.63	2.13	1.63	.56	5.13	5.51	7.63
18	1021691	1021699	13	2.03	1.16	1.38	2.69	1.50	5.81	2.50	2.00	.69	6.25	6.76	9.38

* Ultimate Load is 5 times the Working Load Limit. Forged Alloy Steel. Proof Load is 2 times the Working Load Limit.