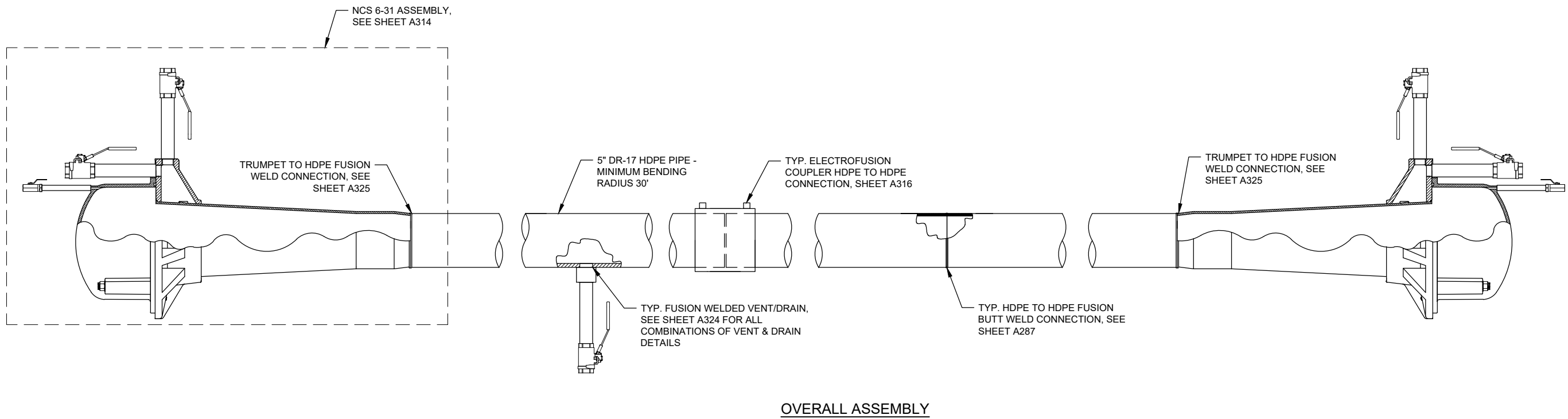


ELECTRONIC FILE LOCATION: I:\VSL System Drawings\Work in Progress Drawings\Florida DOT Test 2017\NCS 6-31 Flexible Filler Submittal

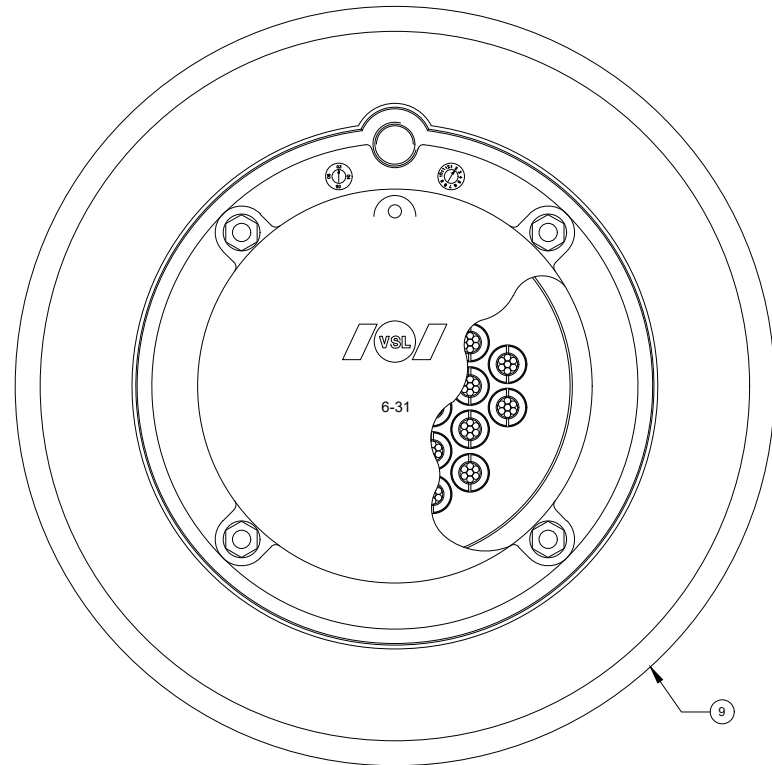


OVERALL ASSEMBLY

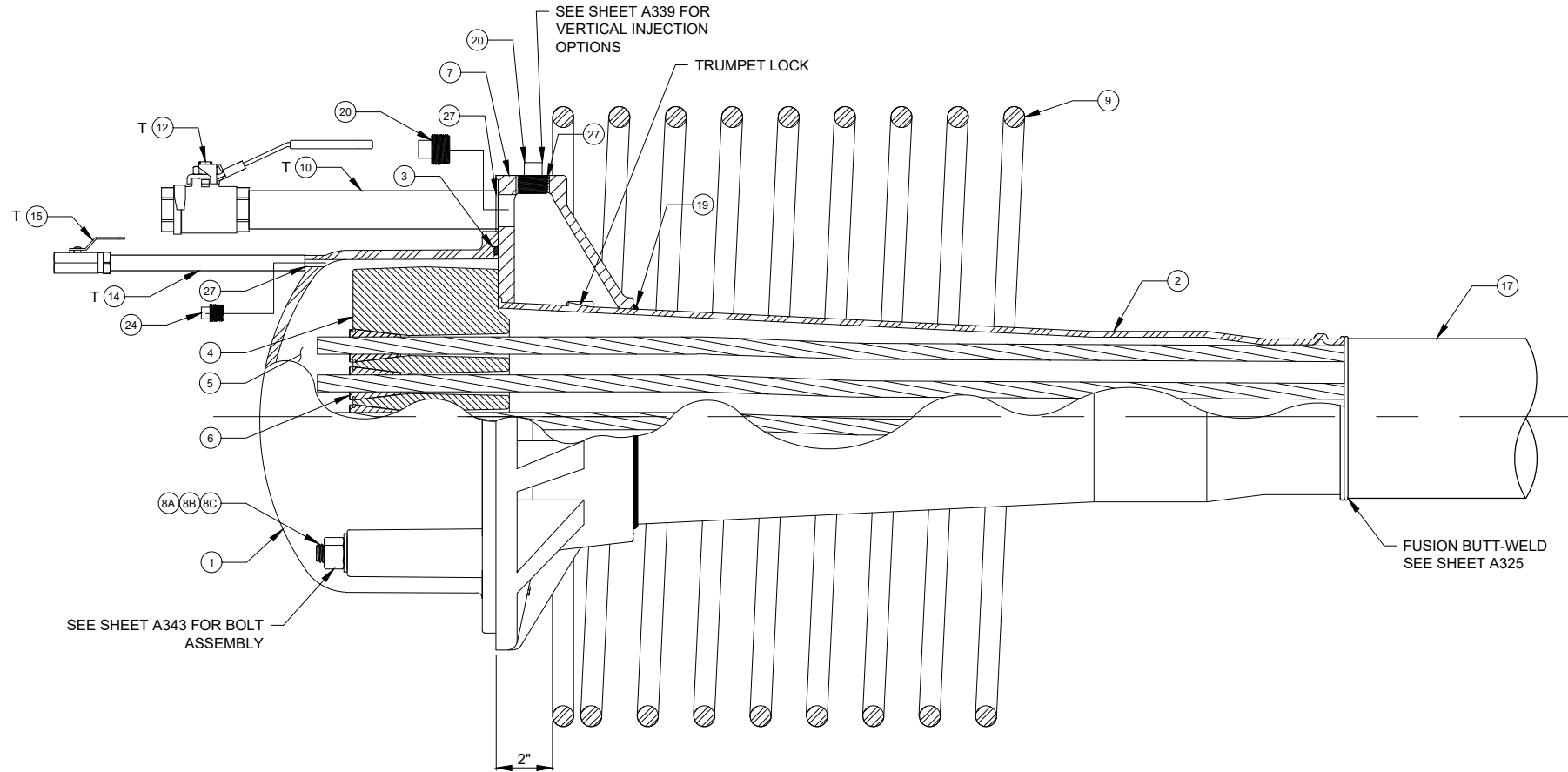
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PROJECT INFORMATION:		CDL		ZK		26FEB2018	
SYSTEM DRAWING		BY		CHK		DATE	
TITLE: NCS 6-31 OVERALL ASSEMBLY WITH FLEXIBLE FILLER		DESCRIPTION		FIRST ISSUE		NO	
PROJECT NO: -		SCALE: NTS		NO		NO	
SHEET NO: A315							
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<p>structural TECHNOLOGIES A Structural Group Company</p> <p>Dallas, TX / Washington, DC / Denver, CO / Pompano Beach, FL</p> <p>STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15000 TRINITY BLVD, SUITE 118 FORT WORTH, TX 76155</p> <p>PHONE: (817) 545-4877 FAX: (817) 545-4827 WWW.VSL.NET</p>							

ELECTRONIC FILE LOCATION: I:\VSL System Drawings\Work In Progress Drawings\Florida DOT Test 2017\NCS 6-31 Flexible Filler Submittal



END VIEW



ELEVATION VIEW

NOTE: ITEMS MARKED WITH A "T" ARE TEMPORARY AND ARE NOT A PERMANENT PART OF THE SYSTEM.

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY #
1	1	6-31 ANCHORAGE CAP W/ 1/4" FRONT PORT	ABS	02GC63102
2	1	NCS 6-31 TRUMPET	POLYETHYLENE	02BP4436
3	1	6-31 ANCHORAGE CAP O-RING	HNBR	02WX5044
4	1	NCS 6-31 ANCHOR HEAD CAST	A536 GR80-55-06	02AH6031
5	-	FLEXIBLE FILLER	FDOT APL	-
6	31	1.6G WEDGE .6 1.77 W/GROOVE	AISI 11-L-17/12-L-14	02WG0008
7	1	NCS 6-31 BEARING PLATE W/ 1" NPT PORT (GALVANIZED)	A536 GR80-55-06	02BP6031V
8A	1 SET	5/8"-11 THREADED ROD X 7"	(316L) STAINLESS	02WX6023D
8B	1 SET	5/8"-11 NUT	(316L) STAINLESS	02WX6023D
8C	1 SET	5/8" WASHER	(316L) STAINLESS	02WX6023D
9	1	SPIRAL NCS 6-31 (#6, DIA. 22", 2" PITCH, 9 TURNS)	A615, GR 60	02BP0098
10	1	1" NPT STEEL NIPPLE	SCH 40 STEEL	-
12	1	1" NPT STEEL 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01926
14	1	1/4" NPT STEEL NIPPLE	SCH 40 STEEL	-
15	1	1/4" NPT STEEL 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01924
17	-	5" DR-17 PIPE	HDPE	-
19	-	BONDUIIT - SEAL AID 1/4" ALL AROUND	-	-
20	1	1" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01958
24	1	1/4" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01956
27	-	SILICONE GREASE	-	-

INSTALLATION PROCEDURES (INSTALLATION PROCEDURE IS GENERIC. FOLLOW THE PROJECT SPECIFIC REQUIREMENTS AND THE FDOT SPECIFICATIONS)

- ASSEMBLE TRUMPET INTO THE BEARING PLATE. APPLY 1/4" BONDUIIT ALL AROUND LIP OF BEARING PLATE PRIOR TO INSTALLING TRUMPET. USE SLOT TO ALIGN PLATE AND TRUMPET. INSERT TRUMPET UNTIL LOCKING TABS ENGAGE.
- LIGHTLY GREASE ANCHORAGE CAP BOLTS. USE MOUNTING HOLES IN BEARING PLATE TO MOUNT BEARING PLATE ASSEMBLY TO FORM. SECURE BEARING PLATE ASSEMBLY WITH ANCHORAGE CAP BOLTS. USE CARE NOT TO DAMAGE THREADS.
- INSTALL AND SECURE SPIRAL.
- INSTALL FILLER PORT CONNECTIONS. SEAL ALL TEMPORARY CONNECTIONS WITH PIPE DOPE/SILICONE GREASE (BY OTHERS), AND SEAL ALL PERMANENT CONNECTIONS WITH BONDUIIT OR SIMILAR (BY OTHERS).
- SECURE DUCT SUPPORTS @ 2' MAX. INSERT MANDRELS INTO TRUMPETS.
- PER FDOT SPECIFICATION SECTION 462-8.2.1.2, A VACUUM TEST IS REQUIRED PRIOR TO CONCRETE PLACEMENT.
- CONCRETE PLACEMENT OCCURS BY OTHERS.
- INSTALL STRAND. LEAVE SUFFICIENT STRAND FOR STRESSING EQUIPMENT.
- INSTALL ANCHOR HEADS. MAKE SURE WEDGE CAVITIES ARE CLEAN AND RUST FREE. USE WIRE BRUSH TO CLEAN IF NECESSARY.
- ONLY STRESS STRANDS IF CONCRETE HAS REACHED REQUIRED STRENGTH SPECIFIED ON DRAWINGS.
- ELONGATION SHOULD BE WITHIN ±7%.
- AFTER ENGINEERS APPROVAL, STRAND TAILS MAY BE CUT.
- AFTER FORM WORK IS REMOVED, USE MOUNTING BOLTS TO INSTALL ANCHORAGE CAP. REINSTALL O-RING INTO ANCHORAGE CAP.
- SYSTEM IS NOW READY TO AIR TEST.
- PER THE FDOT SPECIFICATION SECTION 462-8.2.2, A SECOND AIR PRESSURE TEST IS REQUIRED AFTER STRAND STRESSING AND PRIOR TO WAX INJECTION.
- WAX TENDON PER WAX SPEC.

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FORT WORTH, TX 76156

PROJECT INFORMATION:

SYSTEM DRAWING

PROJECT NO: ---

SHEET NO: ---

TITLE:
NCS 6-31 ASSEMBLY WITH FLEXIBLE FILLER

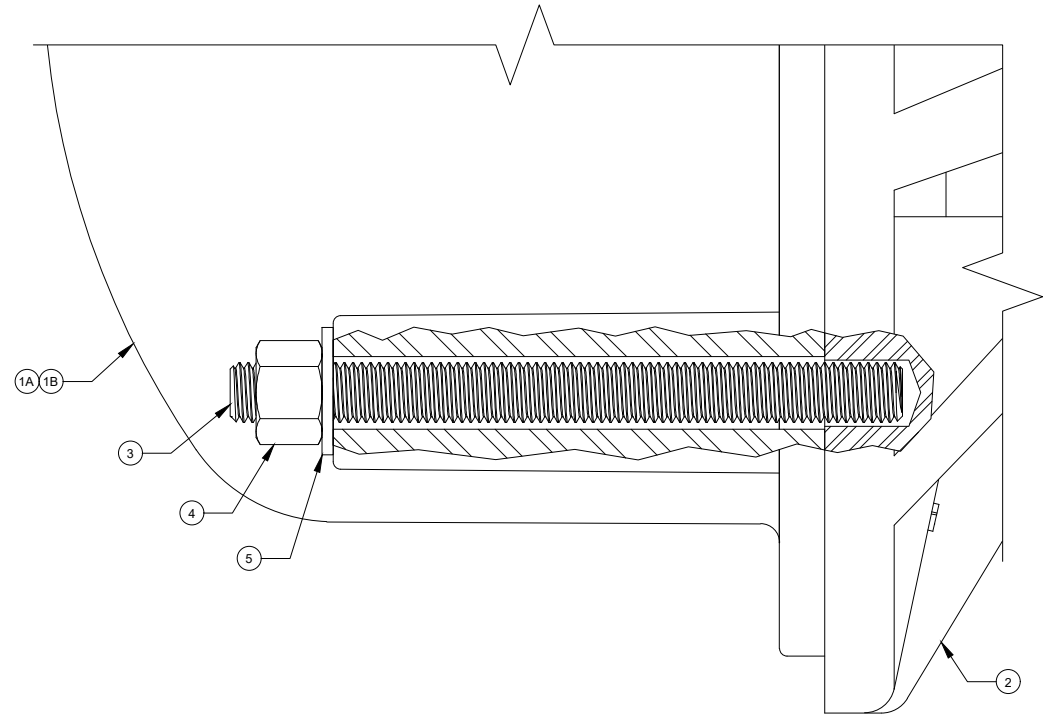
SCALE:
NTS

REVISIONS:

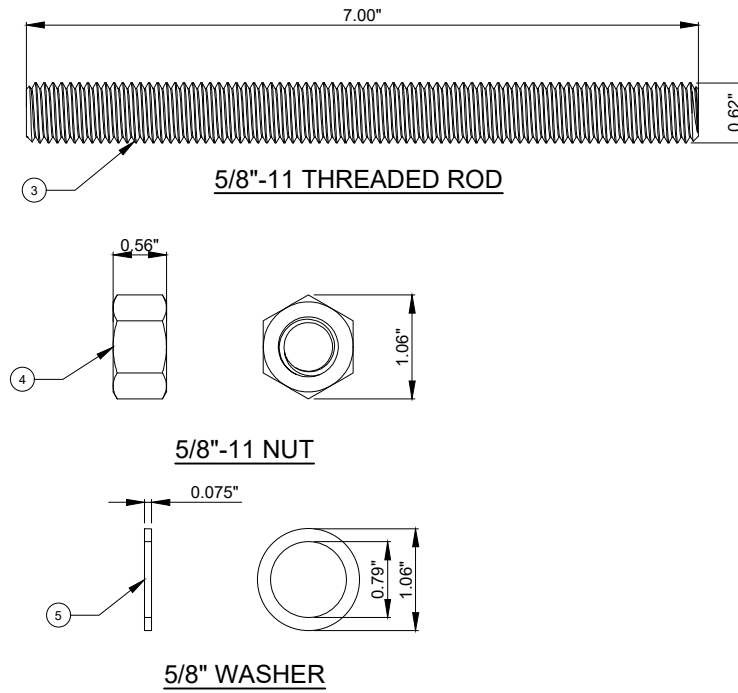
NO	DESCRIPTION	BY	CHK	DATE
1	REVISED INSTALLATION PROCEDURE	CDL	ZX	12MAR2018
0	FIRST ISSUE	CDL	ZX	26FEB2018

DATE: 12MAR2018

DATE: 26FEB2018



CAP TO BEARING PLATE BOLTED ASSEMBLY



ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY #
1A	1	6-31 ANCHORAGE CAP W/ 1/4" FRONT PORT	ABS	02GC63102
1B	1	6-31 ANCHORAGE CAP W/ 1/4" TOP PORT	ABS	02GC63103
2	1	NCS 6-31 BEARING PLATE W/ 1" NPT PORT (GALVANIZED)	A536 GR80-55-06	02BP6031V
3	1 SET	5/8"-11 THREADED ROD X 7"	(316L) STAINLESS	02WX6023D
4	1 SET	5/8"-11 NUT	(316L) STAINLESS	02WX6023D
5	1 SET	5/8" WASHER	(316L) STAINLESS	02WX6023D

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PROJECT INFORMATION:

SYSTEM DRAWING

NCS 6-31 BOLT ASSEMBLY

TITLE: NCS 6-31 BOLT ASSEMBLY

PROJECT NO: ---

SCALE: NTS

SHEET NO: A343

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NO

FIRST ISSUE

DESCRIPTION

BY

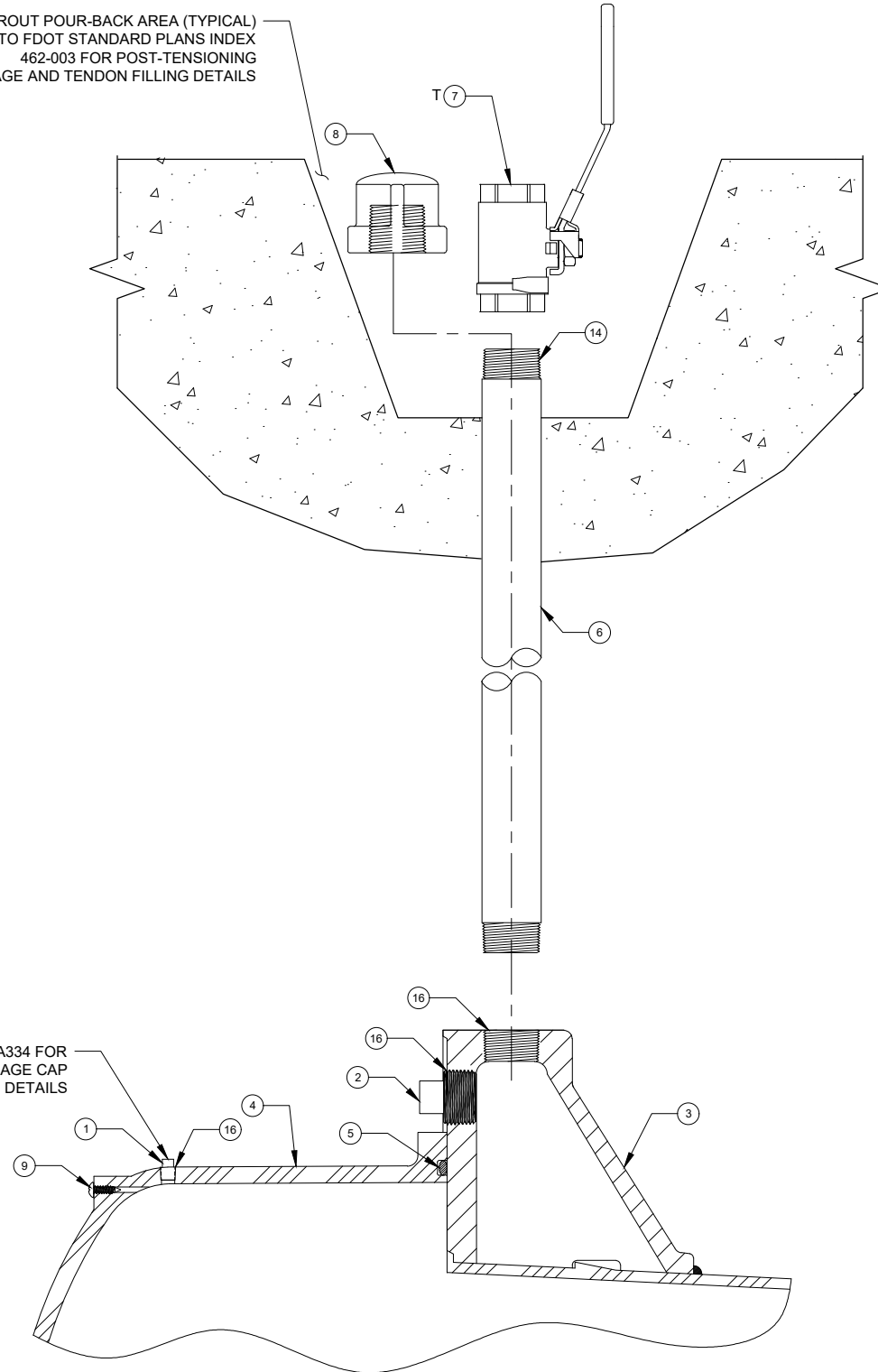
CHK

DATE

CDL ZX

26FEB2018


EPOXY GROUT POUR-BACK AREA (TYPICAL)
- REFER TO FDOT STANDARD PLANS INDEX
462-003 FOR POST-TENSIONING
ANCHORAGE AND TENDON FILLING DETAILS



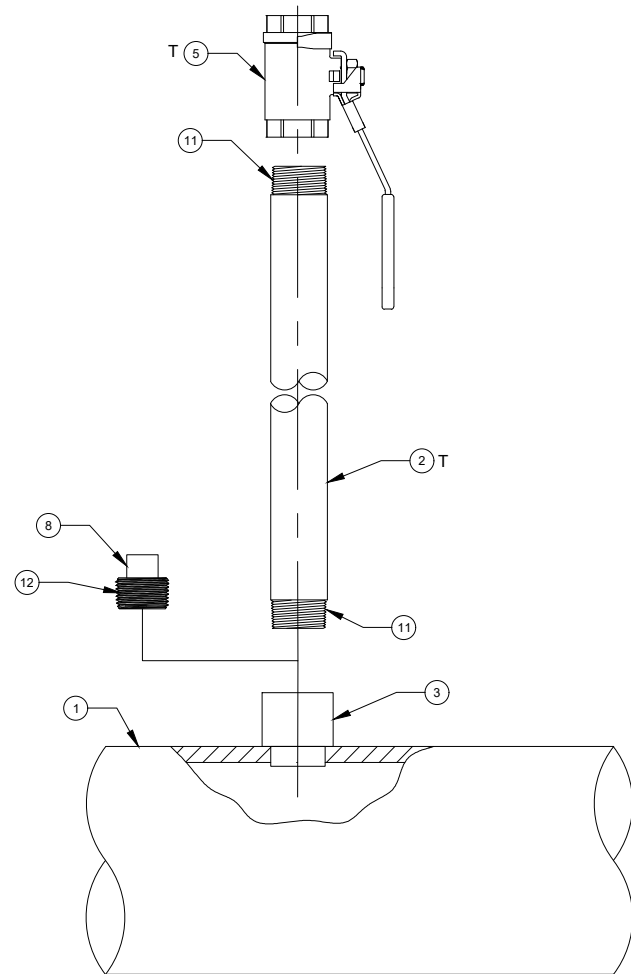
- NOTES:
1. ITEMS MARKED WITH A "T" ARE TEMPORARY AND ARE NOT A PERMANENT PART OF THE SYSTEM.
 2. ALL COMPONENTS MUST BE PRESSURE RATED FOR 150 PSI
 3. CONCRETE COVER MUST MEET FDOT STRUCTURES DESIGN GUIDELINES SECTION 1.4.2

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY #
1	1	1/4" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01956
2	1	1" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01958
3	1	NCS 6-31 BEARING PLATE W/ 1" NPT PORT (GALVANIZED)	A536 GR80-55-06	02BP6031V
4	1	6-31 ANCHORAGE CAP W/ 1/4" TOP PORT	ABS	02GC63103
5	1	6-31 ANCHORAGE CAP O-RING	HNBR	02WX5044
6	1	1" NPT NIPPLE	SCH 40 STEEL	-
7	1	1" NPT STEEL 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01926
8	1	1" NPT STEEL CAP	SCH 40 STEEL	02DT01951
9	1	3/16" PAN HEAD SCREW	316 STAINLESS STEEL	02WX1070
14	-	SILICONE GREASE	-	-
16	-	BONDUIT	-	-

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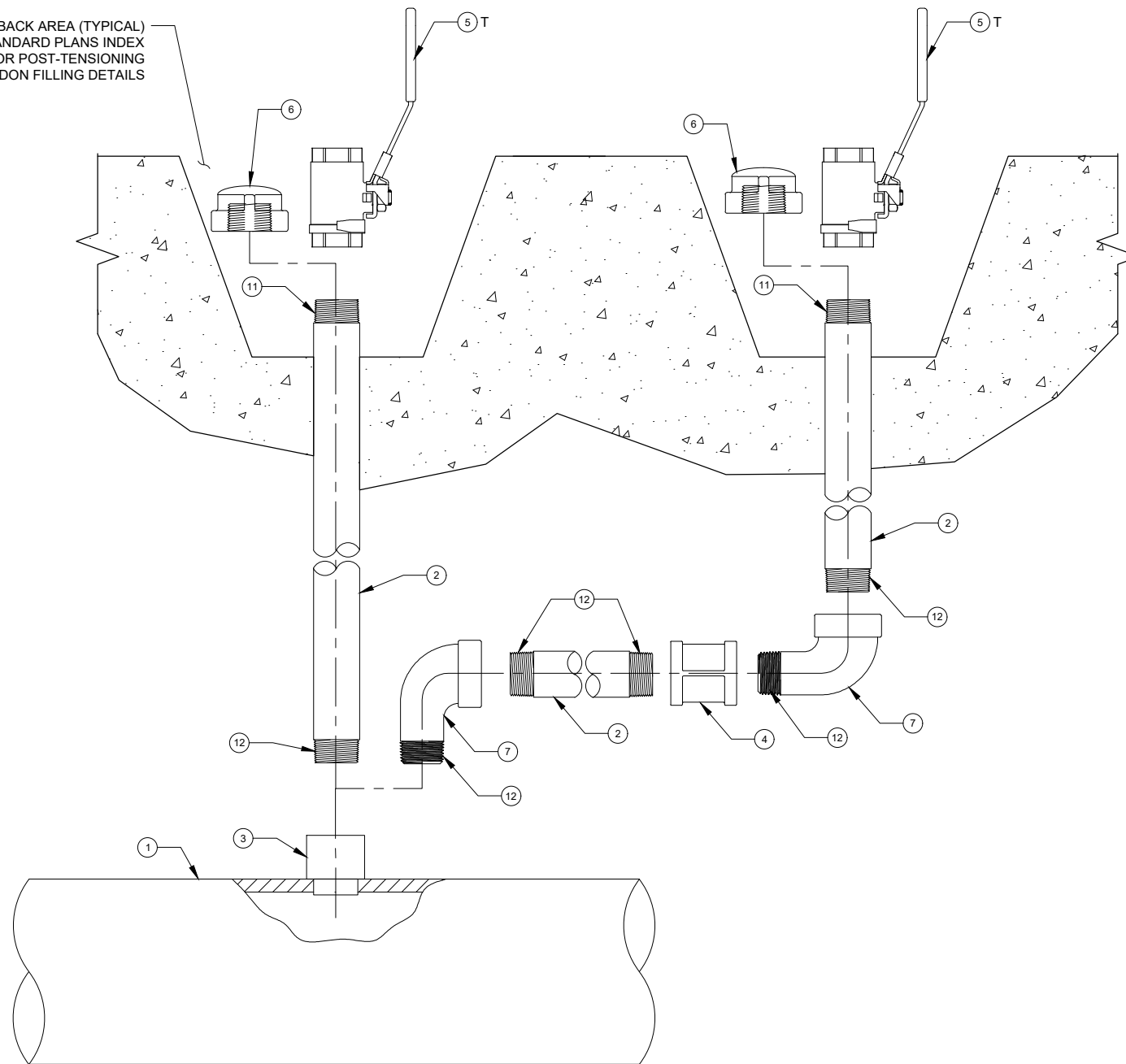
PROJECT INFORMATION:		SYSTEM DRAWING	
PROJECT NO:	---	SCALE:	NTS
SHEET NO:	A339	TITLE:	NCS 6-31 VERTICAL INJECTION OPTIONS
 <p>structural TECHNOLOGIES A Structural Group Company Dallas, TX / Washington, DC / Denver, CO / Pompano Beach, FL</p>		<p>STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15600 TRINITY BLVD, SUITE 118 FORT WORTH, TX 76156</p> <p>PHONE: (817) 545-4877 FAX: (817) 545-4827 WWW.VSL.NET</p>	
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DESCRIPTION	BY	CHK	DATE
UPDATED PART NUMBER	CDL	ZX	26FEB2018
FIRST ISSUE	CDL	ZX	26FEB2018

ELECTRONIC FILE LOCATION: \\VSL_System_Drawings\Work in Progress Drawings\Florida DOT Test 2017\NCS 631 Flexible Filler Submittal



EXTERNAL OPTION

EPOXY GROUT POUR-BACK AREA (TYPICAL)
- REFER TO FDOT STANDARD PLANS INDEX
462-003 FOR POST-TENSIONING
ANCHORAGE AND TENDON FILLING DETAILS



INTERNAL OPTION

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY #
1	-	5" DR-17 PIPE	HDPE	-
2	1	3/4" NPT STEEL NIPPLE	SCH 40 STEEL	-
3	1	3/4" FNPT SMOOTH GROUT PORT	POLYETHYLENE	02DT0253
4	1	3/4" NPT F/F COUPLER	SCH 40 STEEL	02DT01952
5	1	3/4" NPT STEEL 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01925
6	1	3/4" NPT STEEL CAP	SCH 40 STEEL	02DT01950
7	2	3/4" FNPT X MNPT STEEL ELBOW	SCH 40 STEEL	02DT01954
8	1	3/4" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01957
11	-	SILICONE GREASE	-	-
12	-	BONDUIT	-	-

3/4" FNPT SMOOTH GROUT PORT INSTALLATION

- CLEAN PIPE PRIOR TO GROUT PORT INSTALLATION.
- DRILL Ø7/8" HOLE INTO PIPE.
- CONNECT THE SOCKET WELDING DEVICE TO THE POWER SOURCE.
- ALLOW THE SOCKET WELDING DEVICE TO REACH ITS WORKING TEMPERATURE.
- SIMULTANEOUSLY, INSERT MALE ADAPTER OF SOCKET WELDING DEVICE FROM DRILLED HOLE AND GROUT PORT FROM FEMALE ADAPTER.
- APPLY LIGHT PRESSURE FOR 20-25 SECONDS BY PUSHING THE GROUT PORT WITH THE PALM OF HAND.
- SIMULTANEOUSLY, REMOVE SOCKET WELDING DEVICE FROM DRILLED HOLE AND GROUT PORT FROM FEMALE ADAPTER.
- INSERT GROUT PORT INTO HOLE UNTIL THE SHOULDER IS REACHED.
- THIS OPERATION SHOULD BE CARRIED OUT AS QUICKLY AND CAREFULLY AS POSSIBLE, WITHIN 5 SECONDS. FIRMLY HOLD THE PIECES TOGETHER FOR A MINIMUM OF 10 SECONDS.

NOTES

- ITEMS MARKED WITH A "T" ARE TEMPORARY AND ARE NOT A PERMANENT PART OF THE SYSTEM.
- THIS ASSEMBLY CAN BE APPLIED IN ANY REQUIRED ORIENTATION TO CREATE EITHER A VENT OR A DRAIN.
- ALL COMPONENTS MUST BE PRESSURE RATED FOR 150 PSI.
- CONCRETE COVER MUST MEET FDOT STRUCTURES DESIGN GUIDELINES SECTION 1.4.2

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FAX: (817) 545-4827
WWW.VSL.NET

PROJECT INFORMATION:

SYSTEM DRAWING

5" HDPE PIPE VENT ASSEMBLY

PROJECT NO: --
SHEET NO: --

SCALE: NTS

A324

NO

FIRST ISSUE

DESCRIPTION

CDL

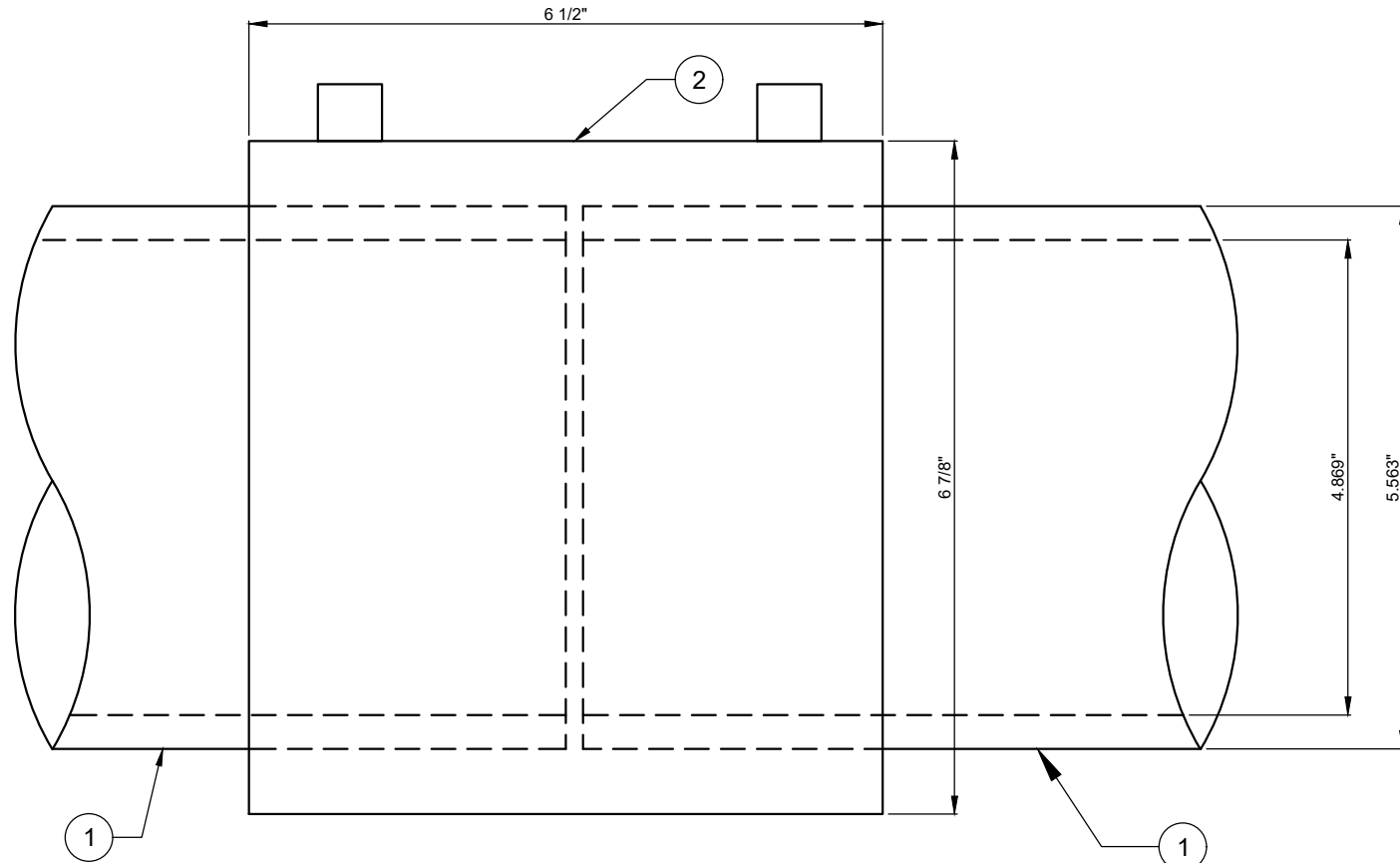
BY

ZX

CHK

26FEB2018

DATE



ELEVATION VIEW

ITEM	QTY	DESCRIPTION	MATERIAL
1	-	5" HDPE PIPE DR-17	ASTM D3035
2	1	5" ELECTROFUSION COUPLER	COMPOSITE

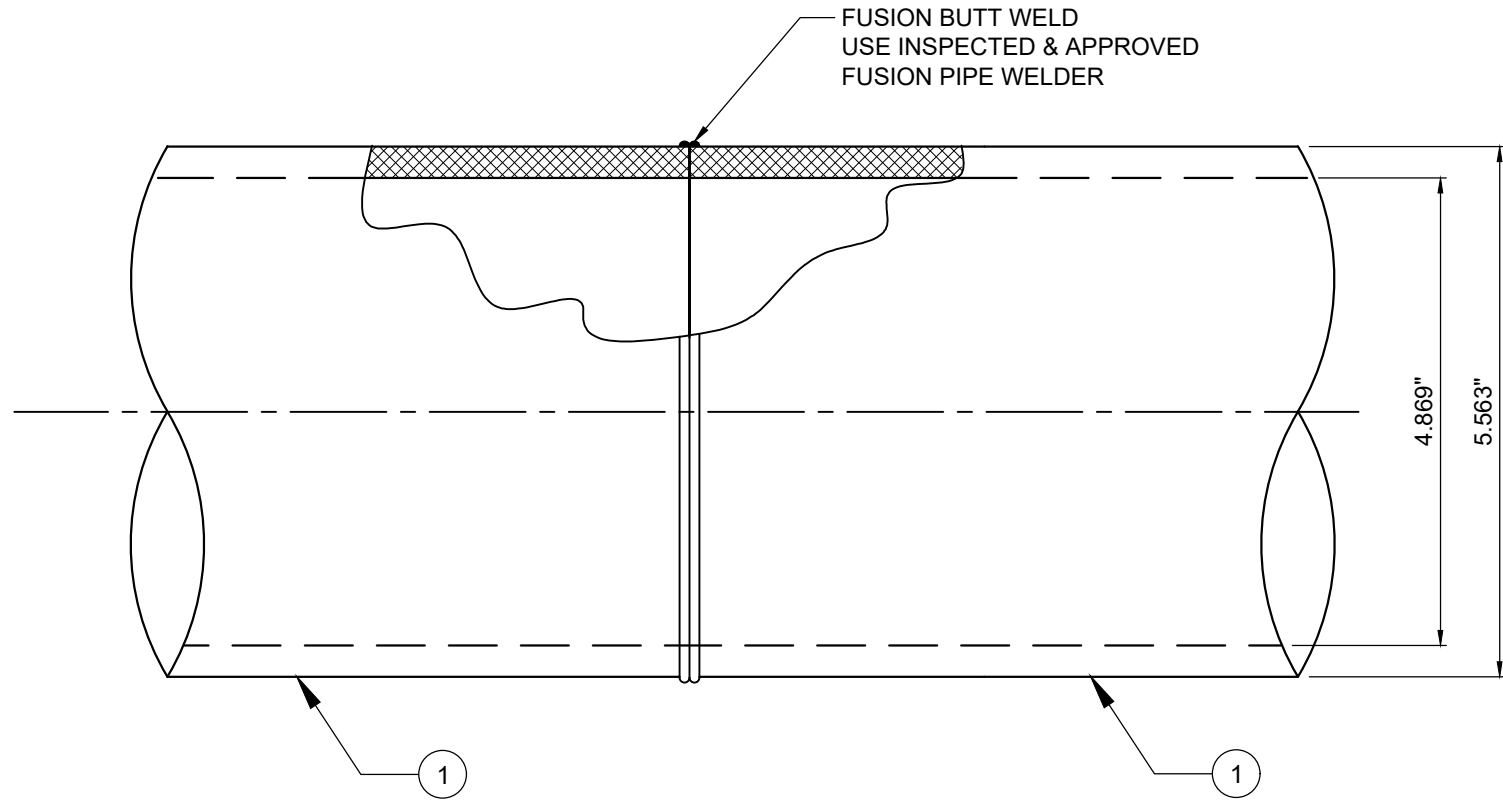
NOTE:
FOLLOW COUPLER MANUFACTURER'S
INSTALLATION INSTRUCTIONS

INSTALLATION PROCEDURE (SEE MANUFACTURER INSTRUCTION MANUAL FOR DETAILED
INSTALLATION INSTRUCTIONS):

- CUT SQUARE ENDS ON PIPE TO BE FUSED
- CLEAN BOTH PIPE ENDS
- SCRAPE BOTH PIPES MINIMUM 0.07" WITH PROVIDED SCRAPING TOOL
- CLEAN BOTH PIPE ENDS USING 90% OR GREATER ISOPROPYL ALCOHOL
- USE REROUNDING TOOLS PROVIDED TO CORRECT OVAL PIPE IF NECESSARY
- USE ALIGNMENT CLAMPS PROVIDED TO ENSURE PIPE IS ALIGNED WITH COUPLER
- SUPPORT PIPE AND COUPLER AND RESTRAIN PIPE TO PREVENT MOVEMENT
- CHECK FOR GAPS AND ELIMINATE AS NECESSARY
- ATTACH LEADS OF THE PROVIDED FUSION PROCESSOR TO THE COUPLER
- SCAN THE BARCODE ON THE COUPLER
- START FUSION PROCESS
- WHEN FUSION PROCESS IS COMPLETE, UNPLUG THE LEADS
- DO NOT MOVE OR PRESSURIZE THE JOINT COMPONENTS BEFORE COOLING TIME HAS COMPLETED

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PROJECT INFORMATION:		CDL ZX		26FEB2018	
SYSTEM DRAWING		BY		CHK	
5" HDPE PIPE TO 5" HDPE PIPE ELECTROFUSION COUPLER CONNECTION		NO		FIRST ISSUE	
SCALE: NTS		DESCRIPTION		DATE	
PROJECT NO: SYSTEM		NO		BY	
SHEET NO: A316		NO		CHK	
TITLE: 5" HDPE PIPE TO 5" HDPE PIPE ELECTROFUSION COUPLER CONNECTION		NO		DATE	
STRUCTURAL TECHNOLOGIES A Technical Group Company Dallas, TX / Washington, DC / Denver, CO / Pompano Beach, FL		PHONE: (817) 545-4877 FAX: (817) 545-4827 WWW.VSL.NET		CDL ZX	
STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15000 TRINITY BLVD, SUITE 118 FORT WORTH, TX 76156		NO		BY	
PROJECT INFORMATION:		NO		DATE	
SYSTEM DRAWING		NO		CHK	
5" HDPE PIPE TO 5" HDPE PIPE ELECTROFUSION COUPLER CONNECTION		NO		DATE	
SCALE: NTS		NO		BY	
PROJECT NO: SYSTEM		NO		CHK	
SHEET NO: A316		NO		DATE	
TITLE: 5" HDPE PIPE TO 5" HDPE PIPE ELECTROFUSION COUPLER CONNECTION		NO		BY	
STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15000 TRINITY BLVD, SUITE 118 FORT WORTH, TX 76156		NO		CHK	
PHONE: (817) 545-4877 FAX: (817) 545-4827 WWW.VSL.NET		NO		DATE	
STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15000 TRINITY BLVD, SUITE 118 FORT WORTH, TX 76156		NO		BY	
PROJECT INFORMATION:		NO		DATE	
SYSTEM DRAWING		NO		CHK	
5" HDPE PIPE TO 5" HDPE PIPE ELECTROFUSION COUPLER CONNECTION		NO		DATE	
SCALE: NTS		NO		BY	
PROJECT NO: SYSTEM		NO		CHK	
SHEET NO: A316		NO		DATE	
TITLE: 5" HDPE PIPE TO 5" HDPE PIPE ELECTROFUSION COUPLER CONNECTION		NO		BY	
STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15000 TRINITY BLVD, SUITE 118 FORT WORTH, TX 76156		NO		CHK	
PHONE: (817) 545-4877 FAX: (817) 545-4827 WWW.VSL.NET		NO		DATE	
STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15000 TRINITY BLVD, SUITE 118 FORT WORTH, TX 76156		NO		BY	



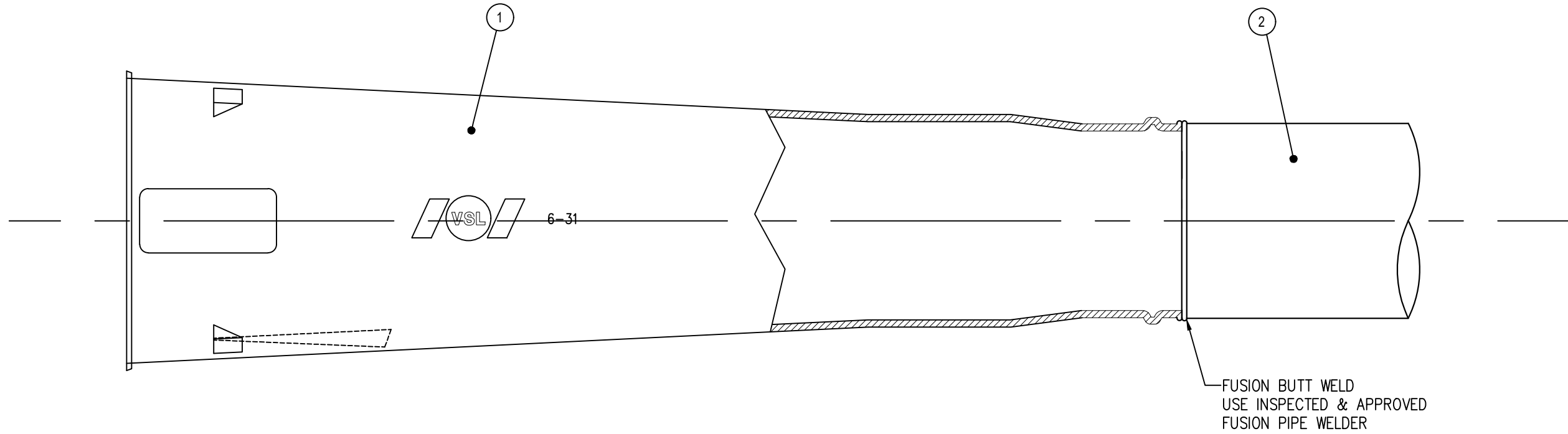
ELEVATION VIEW

ITEM	QTY	DESCRIPTION	MATERIAL
1	2	5" HDPE PIPE DR-17	ASTM D3035

- NOTES:
 1. HDPE 5" IPS/DR-17 MEETS FDOT 960 SPEC.
 2. SEE VSL BUTT-WELDING PROCEDURE IN APPENDIX

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<p>PROJECT INFORMATION:</p> <p>SYSTEM DRAWING</p> <p>PROJECT NO: SYSTEM</p> <p>SHEET NO: A287</p>		<p>STRUCTURAL TECHNOLOGIES A Structural Group Company</p> <p>Dallas, TX / Washington, DC / Denver, CO / Pompano Beach, FL</p> <p>STRUCTURAL TECHNOLOGIES, LLC DALLAS OFFICE 15600 TRINITY BLVD., SUITE 118 FORT WORTH, TX 76156</p> <p>PHONE: (817) 545-4807 FAX: (817) 545-4827 WWW.VSL.NET</p>	
<p>TITLE: TYPICAL 5" HDPE PIPE TO 5" HDPE PIPE FUSION WELDED CONNECTION</p> <p>SCALE: NTS</p>		<p>THIS DOCUMENT, INCLUDING ANY DRAWINGS, SPECIFICATIONS, AND CALCULATIONS HEREIN, IS THE PROPERTY OF STRUCTURAL TECHNOLOGIES / VSL. THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND MAY NOT BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE PRIOR WRITTEN CONSENT OF STRUCTURAL TECHNOLOGIES / VSL. FURTHER, THE USE OF THIS DOCUMENT OR ANY INFORMATION HEREIN FOR ANY PROJECT AND PURPOSE FOR WHICH IT WAS PREPARED, ANY OTHER USE IS STRICTLY PROHIBITED. STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. UNAUTHORIZED UNINTENDED OR OTHER IMPERMISSIBLE USE OF THIS DOCUMENT OR ANY INFORMATION IT CONTAINS.</p>	
<p>NO</p>		<p>NO</p>	
<p>APPROVED FOR CONSTRUCTION</p>		<p>DESCRIPTION</p>	
<p>BY: GB</p>		<p>CHK: MM</p>	
<p>DATE: 04APR2011</p>		<p>DATE: 26FEB2018</p>	




TRUMPET TO HDPE PIPE ASSEMBLY

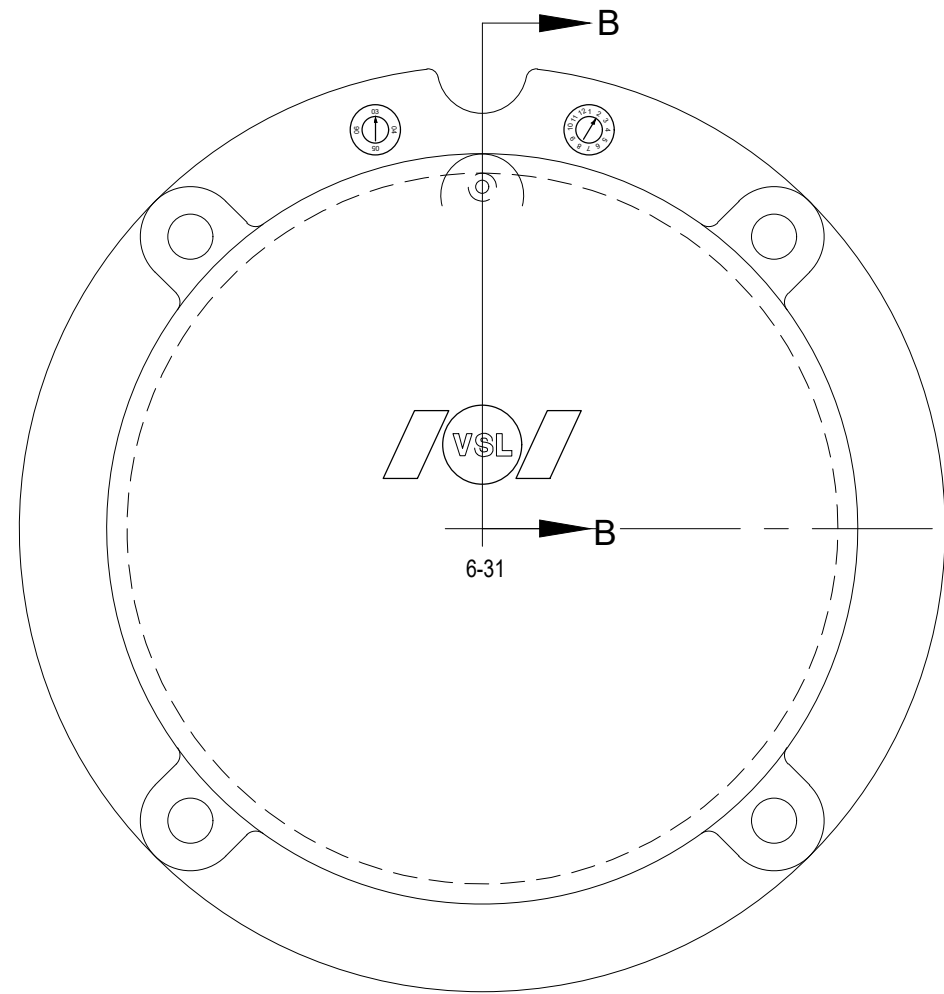
ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
2	-	5" HDPE PIPE	HDPE	-
1	1	NCS 6-31 TRUMPET	HDPE	02BP4436

- NOTES:
 1. HDPE 5" IPS/DR-17 MEETS FDOT 960 SPEC.
 2. SEE VSL BUTT-WELDING PROCEDURE IN APPENDIX

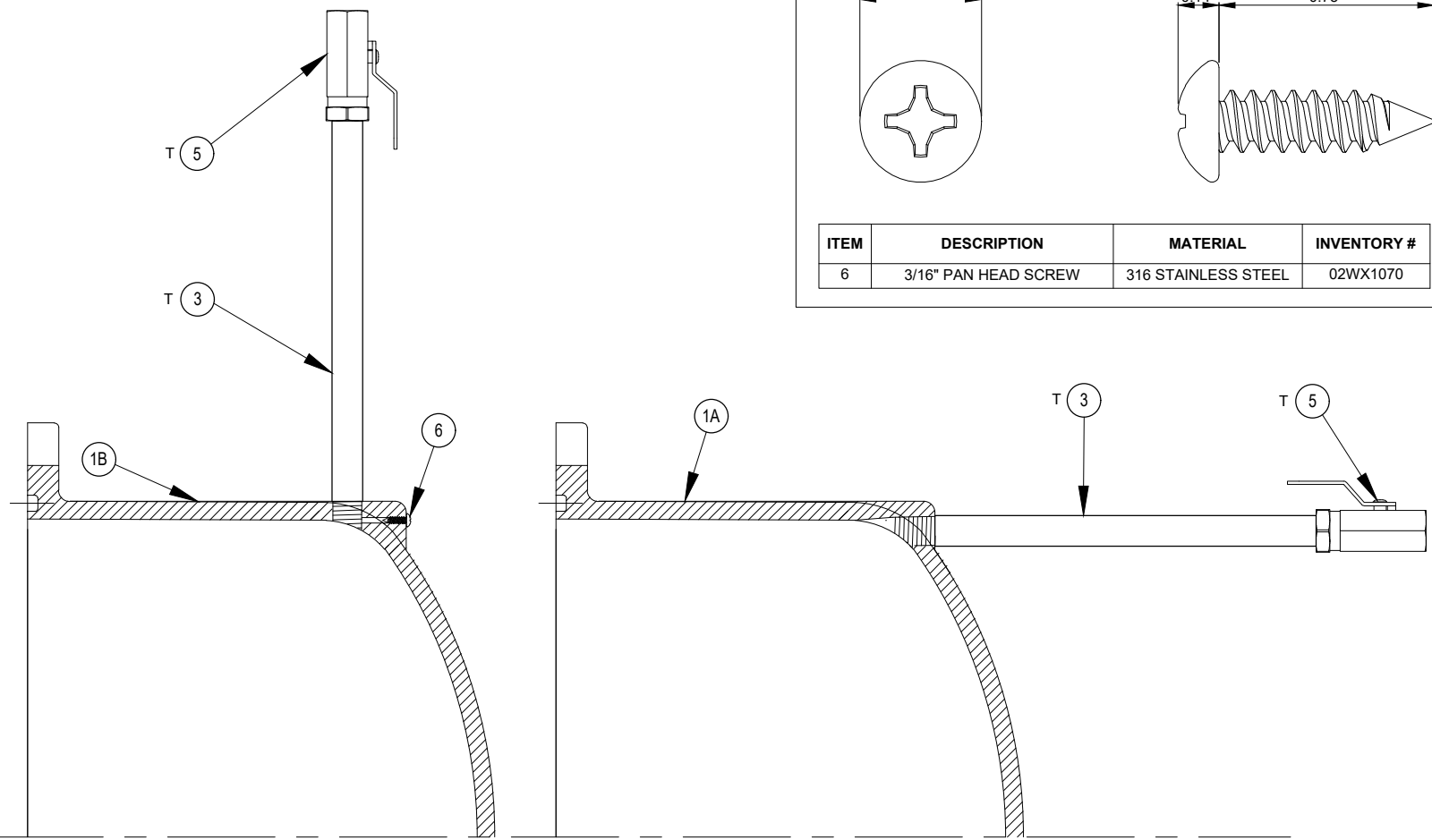
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PROJECT INFORMATION: SYSTEM DRAWING		TITLE: TYPICAL NCS 6-31 TRUMPET TO HDPE PIPE BUTT FUSION CONNECTION	
PROJECT NO: SYSTEM	SCALE: NTS	NO	DESCRIPTION FIRST ISSUE
SHEET NO: A325	CDL ZK	BY CHK	DATE 26FEB2018
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ELECTRONIC FILE LOCATION: I:\VSL System Drawings\Work in Progress Drawings\Florida DOT Test 2017\NCS 6-31 Flexible Filler Submittal



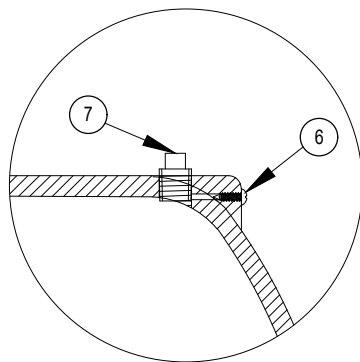
6-31 ANCHORAGE CAP



SECTION B-B

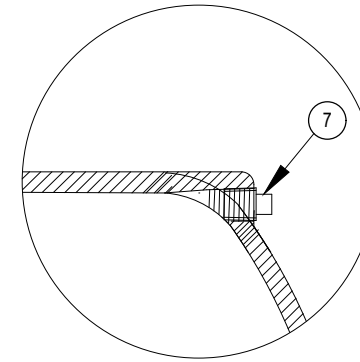
NOTE: ITEMS MARKED WITH A "T" ARE TEMPORARY AND ARE NOT A PERMANENT PART OF THE SYSTEM.

TOP PORT



AFTER WAX

FRONT PORT



AFTER WAX

ITEM	DESCRIPTION	MATERIAL	INVENTORY #
6	3/16" PAN HEAD SCREW	316 STAINLESS STEEL	02WX1070

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY No.
7	1	1/4"Ø NPT STEEL PLUG	316 STAINLESS STEEL	02DT01956
6	1	3/16" PAN HEAD SCREW	316 STAINLESS STEEL	02WX1070
5	1	1/4" NPT STEEL 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01924
3	1	1/4" NPT STEEL NIPPLE	SCH 40 STEEL	-
1B	1	6-31 ANCHORAGE CAP W/ 1/4" TOP PORT	ABS	02GC63103
1A	1	6-31 ANCHORAGE CAP W/ 1/4" FRONT PORT	ABS	02GC63102

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15600 TRINITY BLVD, SUITE 118
FORT WORTH, TX 76156

SYSTEM DRAWING

NCS 6-31 ANCHORAGE CAP VENT DETAIL

PROJECT INFORMATION:

PROJECT NO:	SYSTEM	SCALE:	NTS
SHEET NO:			A334

TITLE BLOCK UPDATED: 26FEB2018
VENT DETAILS: 03JUL2012
3/4" GROUT PORTS: 18MAY2012

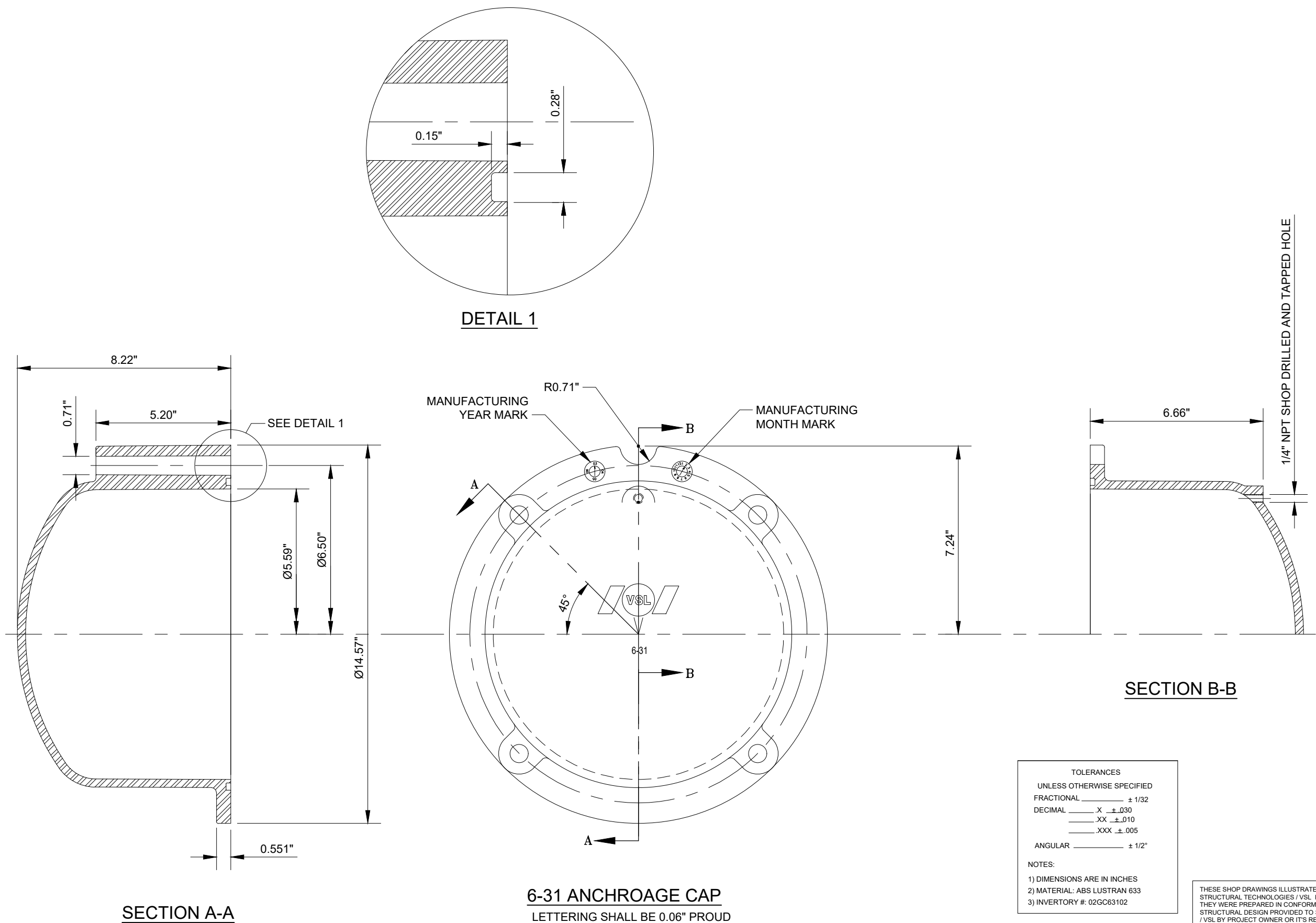
CDL ZCX
DTS DD
DTS DD

BY: CHK
DATE:

DESCRIPTION: NO

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ELECTRONIC FILE LOCATION: I:\VSL System Drawings\Work in Progress Drawings\Florida DOT Test 2017\NCS 631 Flexible Filler Submittal



SECTION A-A

DETAIL 1

SECTION B-B

6-31 ANCHROAGE CAP
LETTERING SHALL BE 0.06" PROUD

TOLERANCES
UNLESS OTHERWISE SPECIFIED
FRACTIONAL _____ ± 1/32
DECIMAL _____X ± .030
 _____.XX ± .010
 _____.XXX ± .005
ANGULAR _____ ± 1/2°

NOTES:
1) DIMENSIONS ARE IN INCHES
2) MATERIAL: ABS LUSTRAN 633
3) INVENTORY #: 02GC63102

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PROJECT INFORMATION:		SYSTEM DRAWINGS		
PROJECT NO:	SCALE:	TITLE:		
SHEET NO:	NTS	6-31 ANCHORAGE CAP W/ 1/4" NPT FRONT PORT		
NO		C551		
3	REVISD TITLE BLOCK	CDL	ZX	26FEB2018
2	REVISD PORT HOLES	CDL	ZX	01MAR2017
1	ADD MANUFACTURING DATE MARKS	LS	BY	19JAN2004
	DESCRIPTION		CHK	DATE

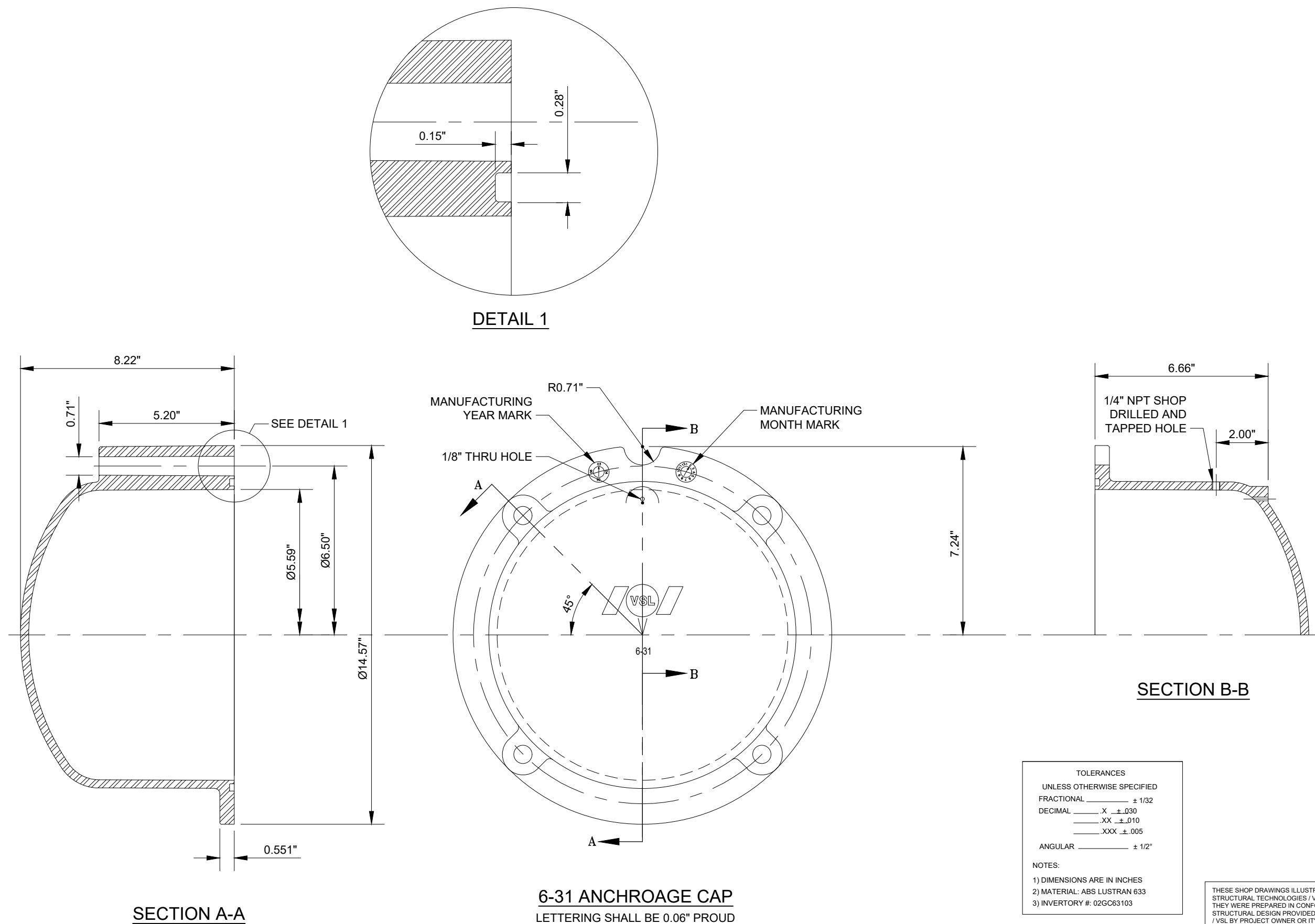
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FORT WORTH, TX 76155

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SECTION A-A

6-31 ANCHORAGE CAP
LETTERING SHALL BE 0.06" PROUD

SECTION B-B

TOLERANCES
UNLESS OTHERWISE SPECIFIED
FRACTIONAL _____ ± 1/32
DECIMAL _____X ± .030
 _____.XX ± .010
 _____.XXX ± .005
ANGULAR _____ ± 1/2°

NOTES:
1) DIMENSIONS ARE IN INCHES
2) MATERIAL: ABS LUSTRAN 633
3) INVENTORY #: 02GC63103

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PROJECT INFORMATION:		SYSTEM DRAWINGS	
PROJECT NO:	SCALE:	TITLE:	
SHEET NO:	NTS	6-31 ANCHORAGE CAP W/ 1/4" NPT TOP PORT	
NO		DESCRIPTION	
FIRST ISSUE		CDL	ZX
NO		BY	CHK
NO		DATE	26FEB2018

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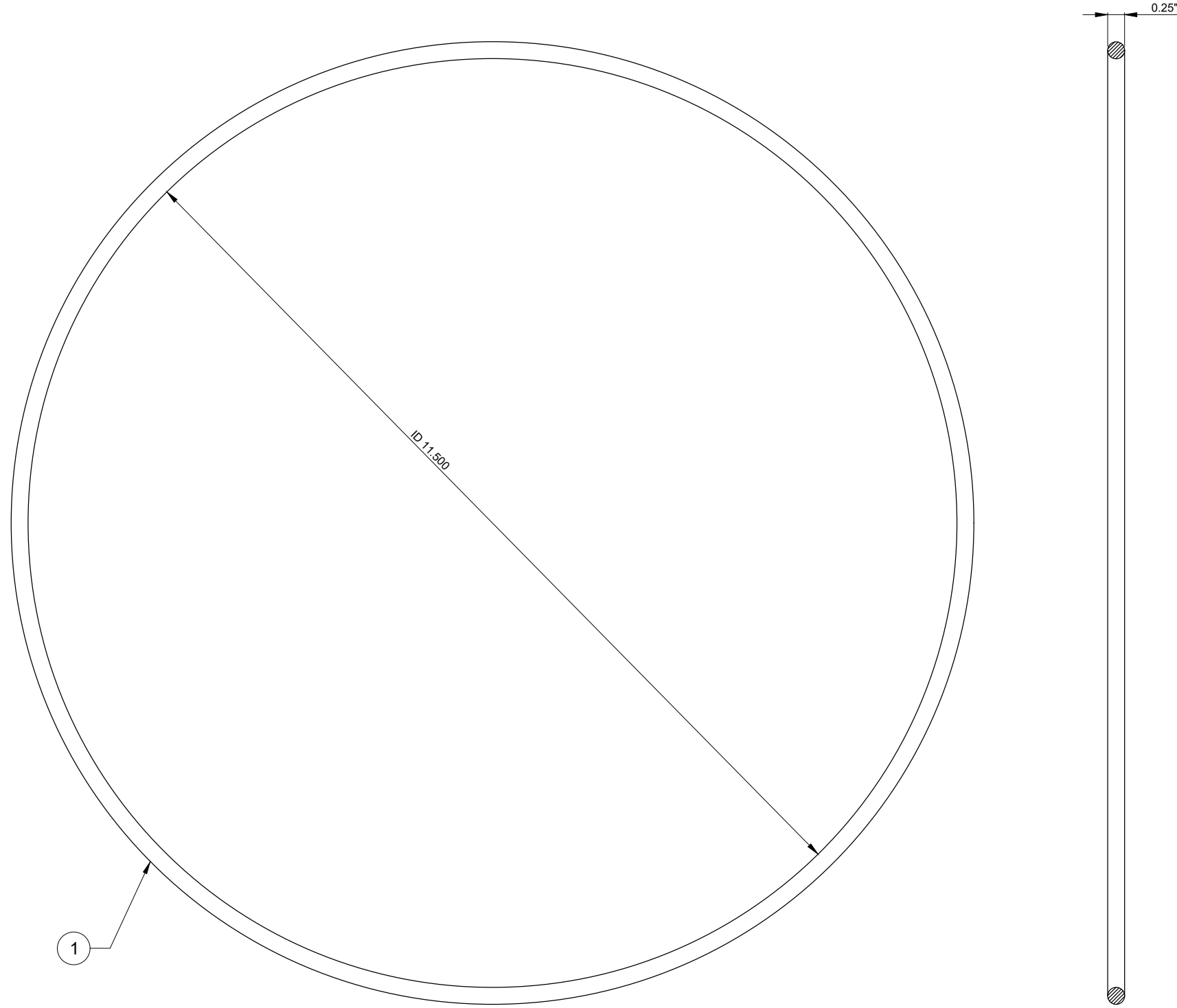
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FORT WORTH, TX 76155

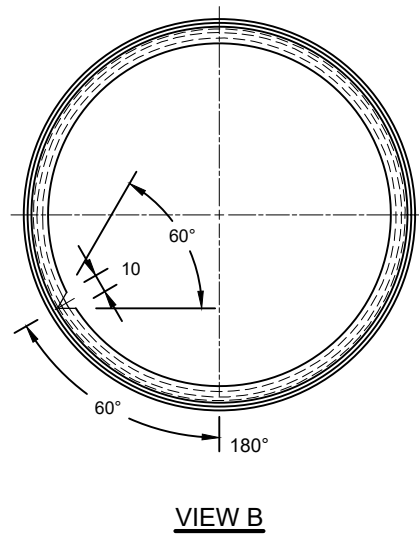
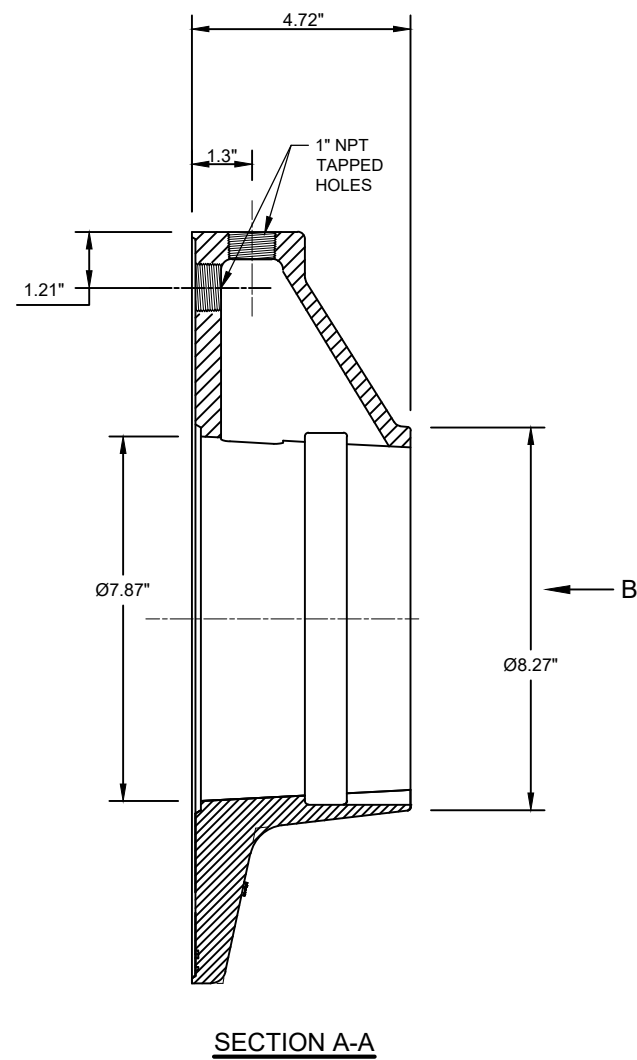
ITEM	QTY	DESCRIPTION	MATERIAL	SIZE	INVENTORY#
1	-	6-31 ANCHORAGE CAP O-RING	HNBR	11.5"x12"x0.25"	02WX5044



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<p>PROJECT INFORMATION:</p> <p>PROJECT NO: SYSTEM</p> <p>SHEET NO:</p>		<p>SYSTEM DRAWING</p> <p>6-31 ANCHORAGE CAP O-RING</p> <p>TITLE: 6-31 ANCHORAGE CAP O-RING</p> <p>SCALE: NTS</p>	
<p>NO</p>		<p>DESCRIPTION</p>	
<p>△ 1</p>		<p>△ 0</p>	
<p>PART NUMBER UPDATED</p>		<p>FIRST ISSUE</p>	
<p>CDL ZX</p>		<p>CDL ZX</p>	
<p>BY</p>		<p>CHK</p>	
<p>NO</p>		<p>DATE</p>	
<p>26FEB2018</p>		<p>26FEB2018</p>	

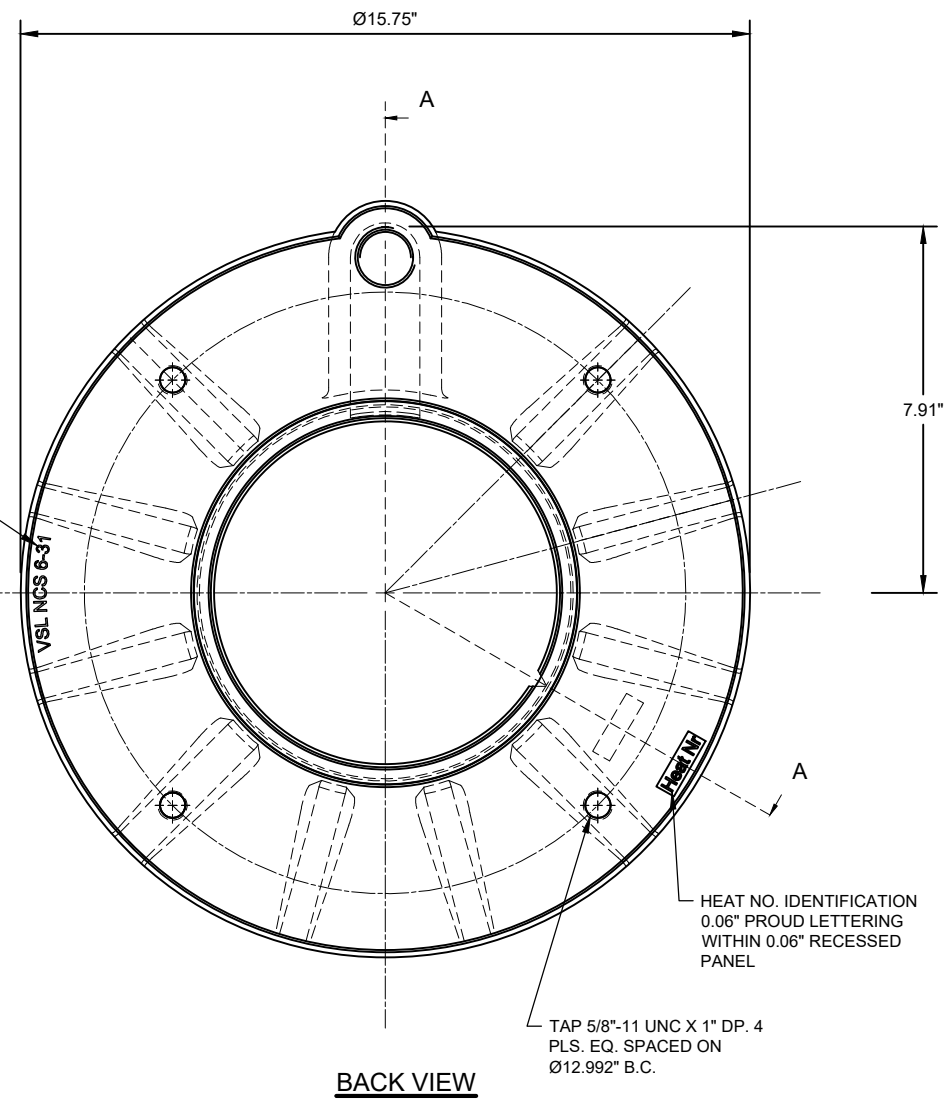
ELECTRONIC FILE LOCATION: I:\VSL System Drawings\Work In Progress Drawings\Florida DOT Test 2017\NCS 6-31 Flexible Filler Submittal



GENERAL NOTES

1. ALL HOLES TO BE FREE FROM BURRS
2. MATERIAL: A536 GR80-55-06 GALVANIZED
3. INVENTORY# 02BP6031V

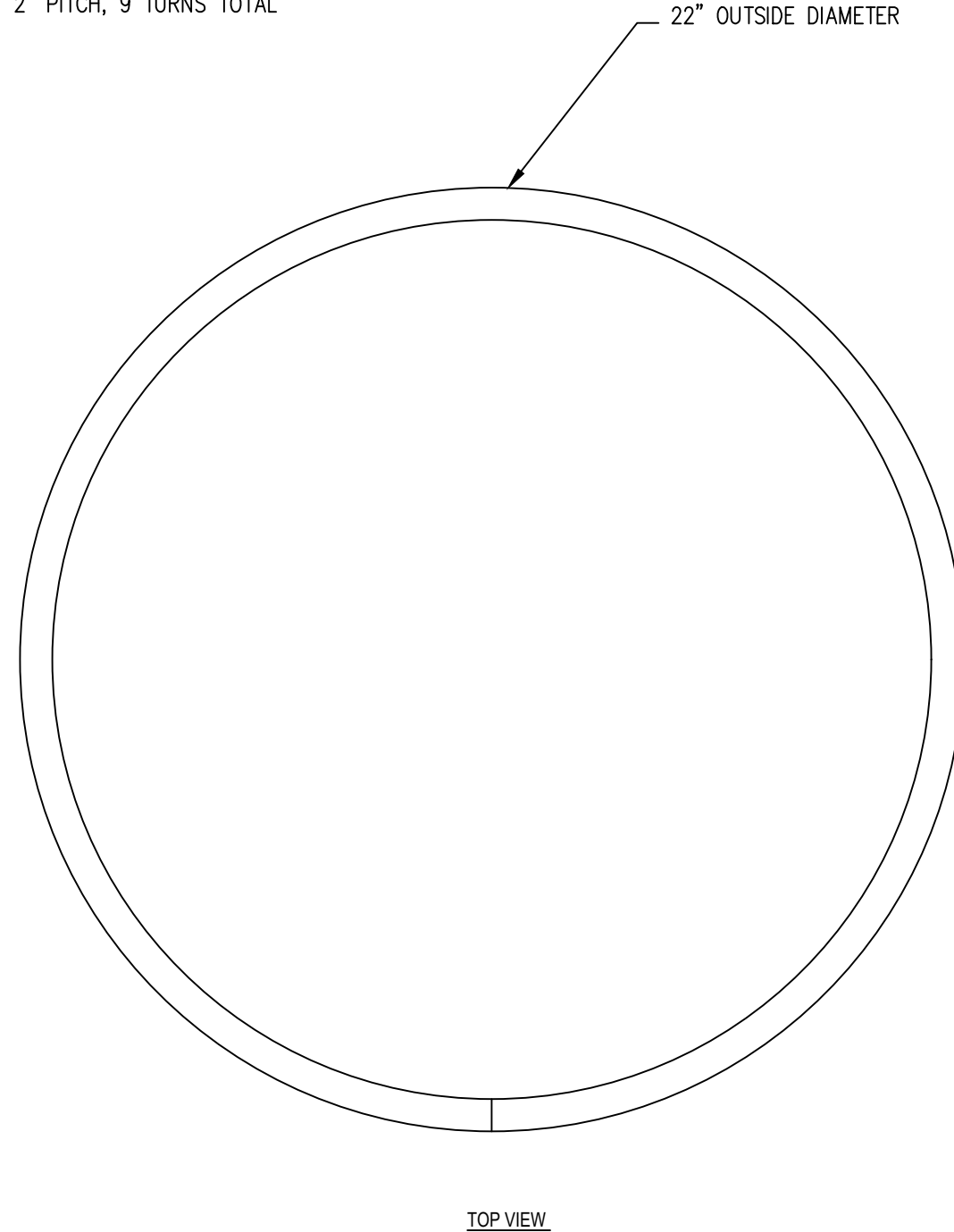
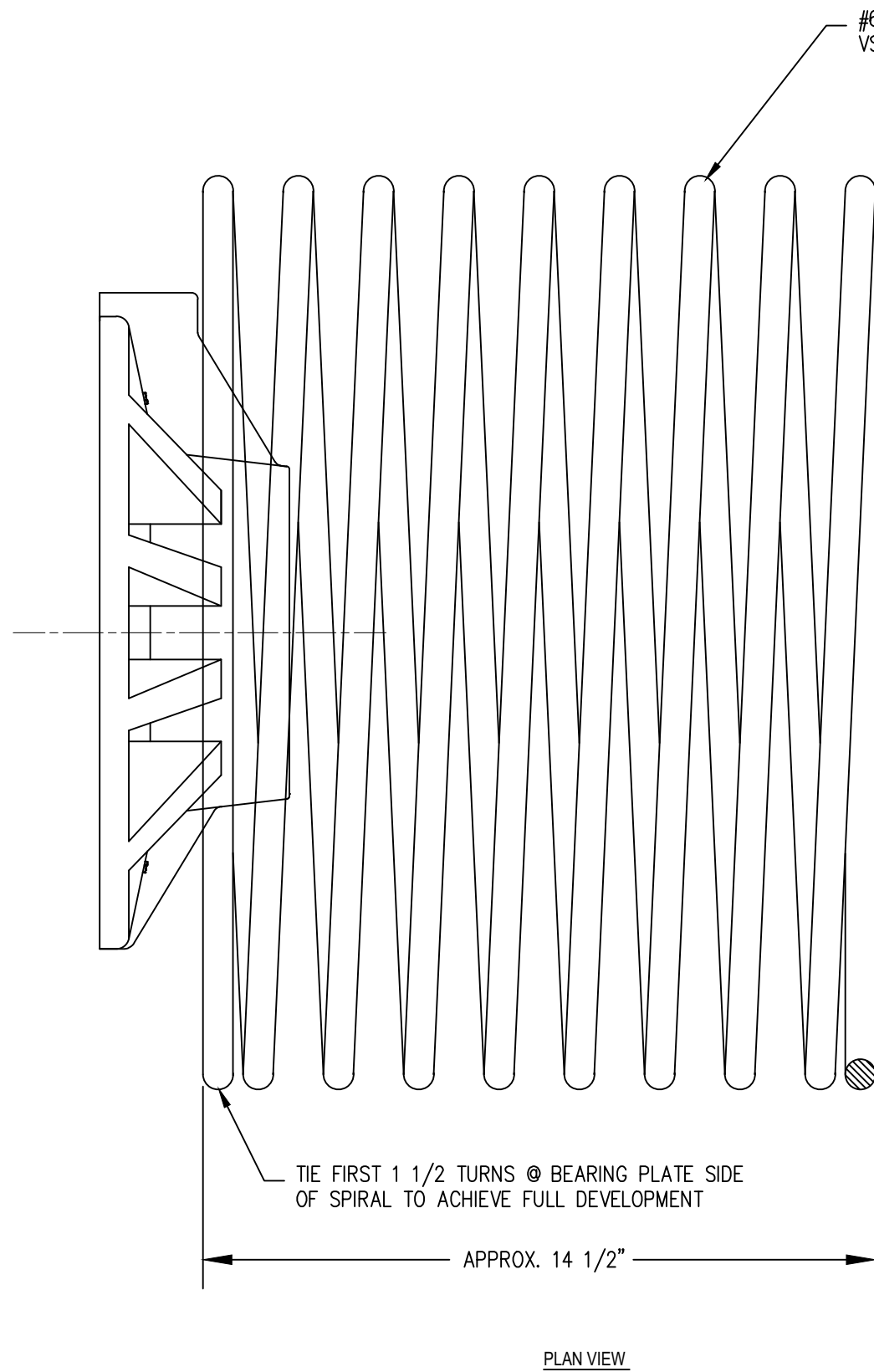
TYPE IDENTIFICATION
LETTERING 0.06"
RECESSED



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SYSTEM DRAWING		PRELIMINARY NOT FOR PRODUCTION	
PROJECT NO: SYSTEM		CDL	ZX
SHEET NO:		BY	CHK
TITLE: NCS 6-31 BEARING PLATE W/ 1" NPT PORT		DATE: 26FEB2018	
SCALE: NTS		DESCRIPTION	
C735			

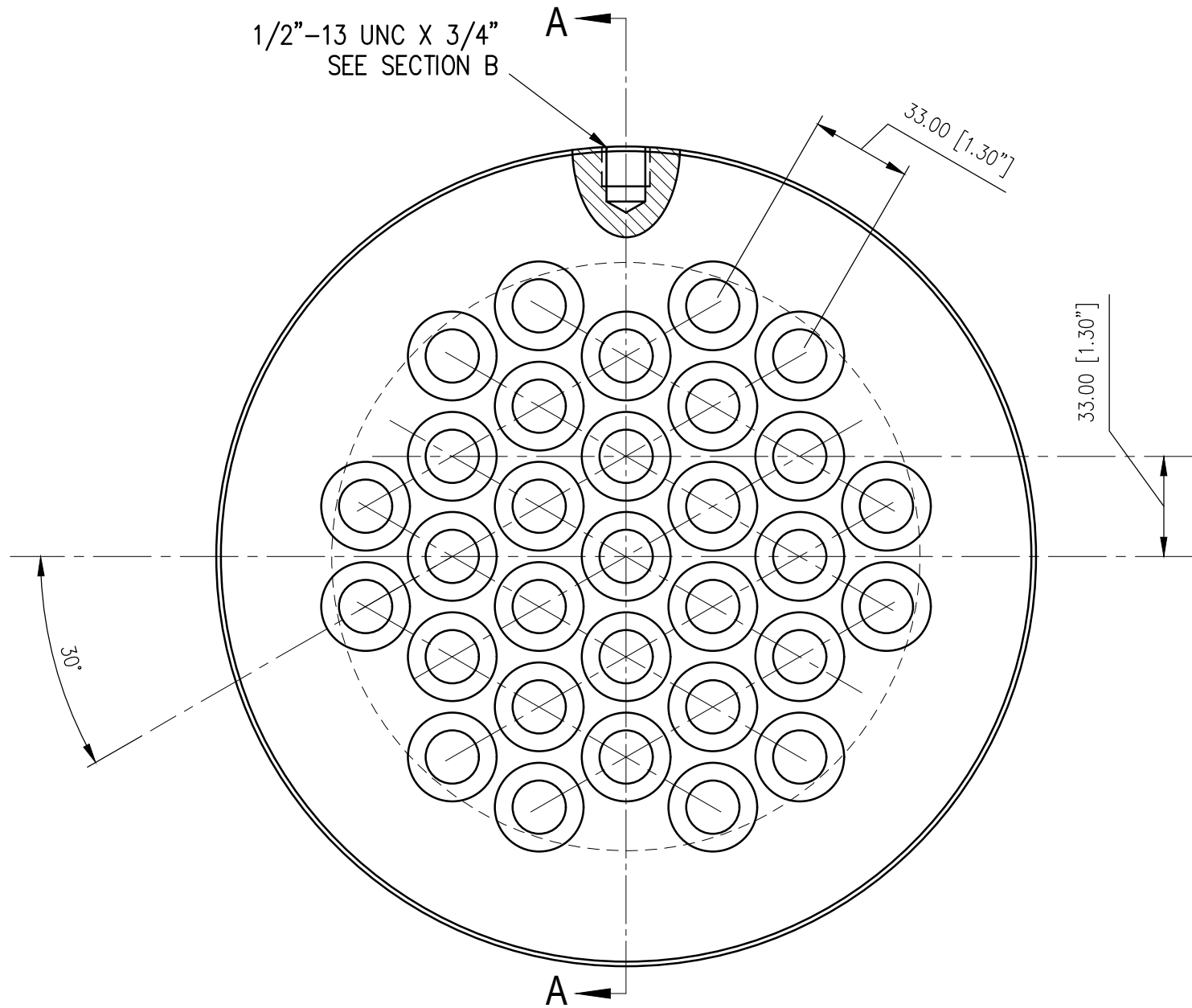
ELECTRONIC FILE LOCATION: I:\VSL System Drawings\Work In Progress Drawings\Florida DOT Test 2017\NCS 6-31 Flexible Filler Submittal



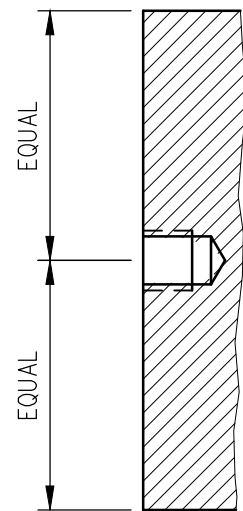
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PROJECT INFORMATION:		TITLE BLOCK UPDATED		CDL	ZX	26FEB2018
SYSTEM DRAWING		REVISED AS NOTED FOR CONSTRUCTION		TB	MM	06JUL2011
NCS 6-31 SPIRAL		RELEASED FOR CONSTRUCTION		GDH	GY	24SEP2009
PROJECT NO: SYSTEM		DESCRIPTION		BY	CHK	DATE
SHEET NO: C644		NO				
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1/2"-13 UNC X 3/4"
SEE SECTION B



PLAN VIEW



SECTION B

ANCHORHEAD NCS 6-31

GENERAL CASTING NOTES

- 1) ALL HOLES TO BE FREE FROM BURRS
- 2) ALL RADII 1mm UNO
- 3) MATERIAL: ASTM A536 GR 80-55-06
VSL Q.A. DOC MS 1.1.005
- 4) MANUFACTURERS IDENTIFICATION AND BATCH No.
MUST BE CLEARLY VISIBLE ON CASTING
- 5) SCALE: DRAWING NOT TO SCALE
- 6) WEIGHT: 106 LBS. est.

INVENTORY No. 02AH6031

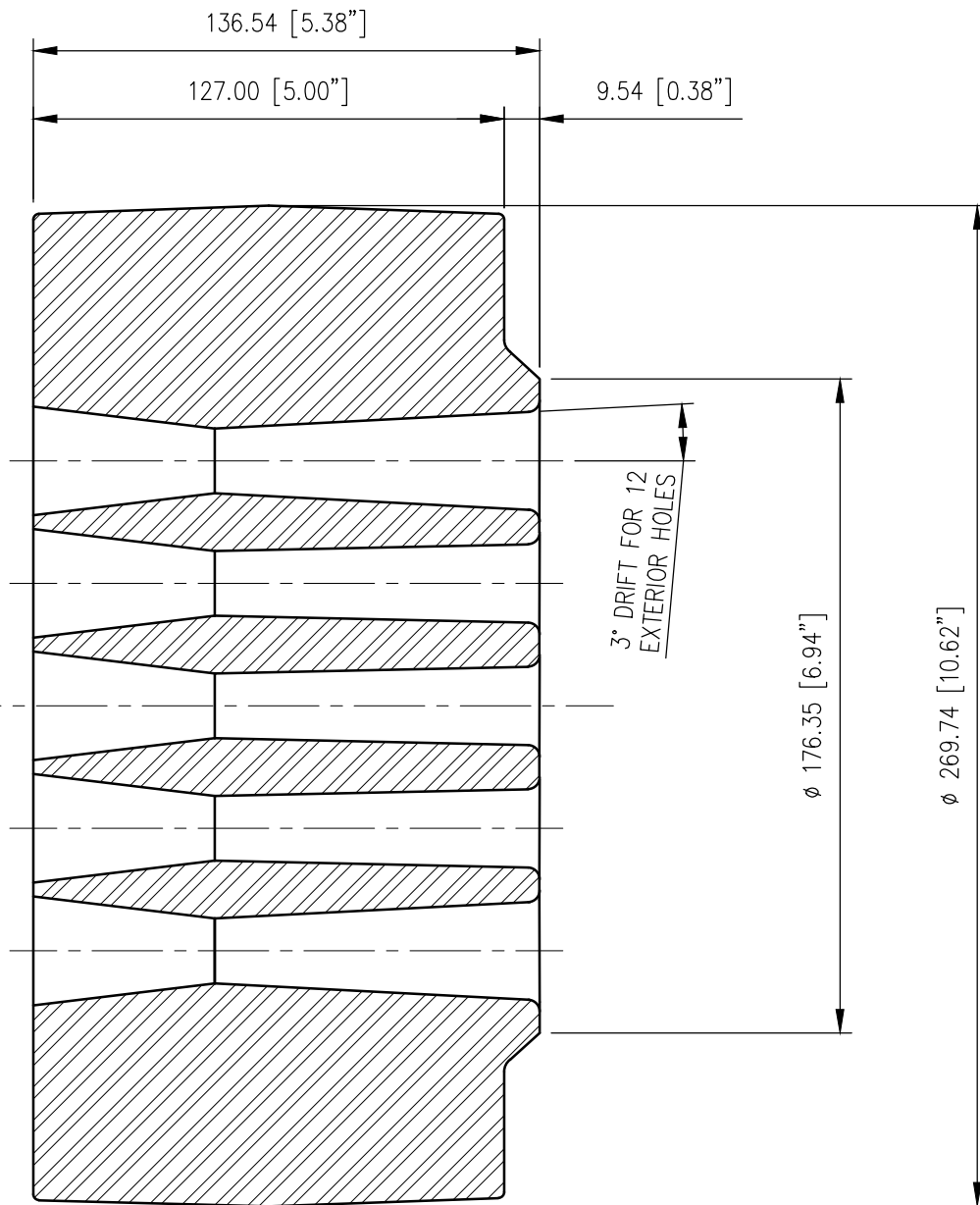
TOLERANCES

UNLESS OTHERWISE SPECIFIED
DIMENSIONS IN MILLIMETERS.

- | | |
|--------------------|-------|
| 0 THROUGH 50mm | ±0.5 |
| 51mm THROUGH 100mm | ±1.0 |
| MORE THAN 100mm | ±1.5 |
| ANGULAR | ±1/2° |
| SURFACE QUALITY | ✓ |

- NOTES:
- 1) BREAK SHARP EDGES
 - 2) REMOVE ALL BURRS.
 - 3) DO NOT SCALE DRAWING.
 - 4) ALL DRAFT ANGLES 2° UNO

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SECTION A-A

PROJECT INFORMATION:		TITLE BLOCK UPDATED		CDL	26FEB2018
SYSTEM DRAWING		ADDED 1/2-13 LIFTING EYE THREAD		ZX	ZX
NCS 6-31 ANCHOR HEAD		(UPDATED MATERIAL INFO.) FOR PRODUCTION		GDH	09JAN2018
TITLE: NTS		(UPDATED MATERIAL INFO.) FOR PRODUCTION		JOB	GAH
SCALE: NTS		DESCRIPTION		BY	GAH
SHEET NO: C614				CHK	DATE
				GAH	04APR2011

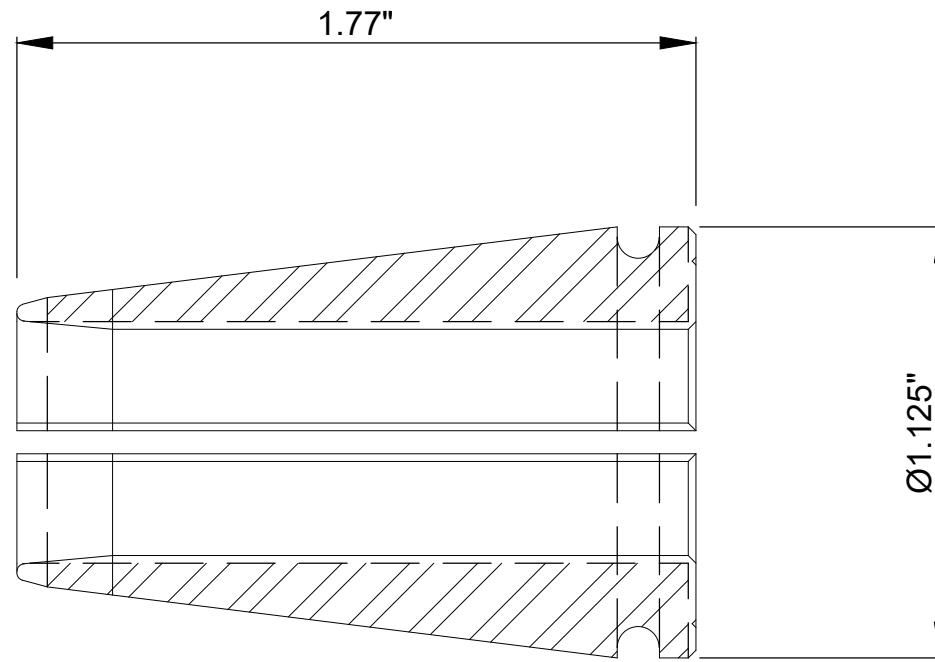
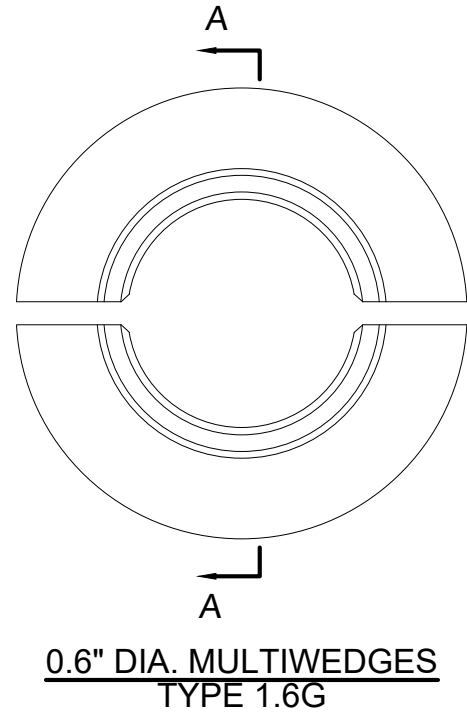
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A Structural Group Company

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STRUCTURAL TECHNOLOGIES, LLC
DALLAS OFFICE
15600 TRINITY BLVD, SUITE 118
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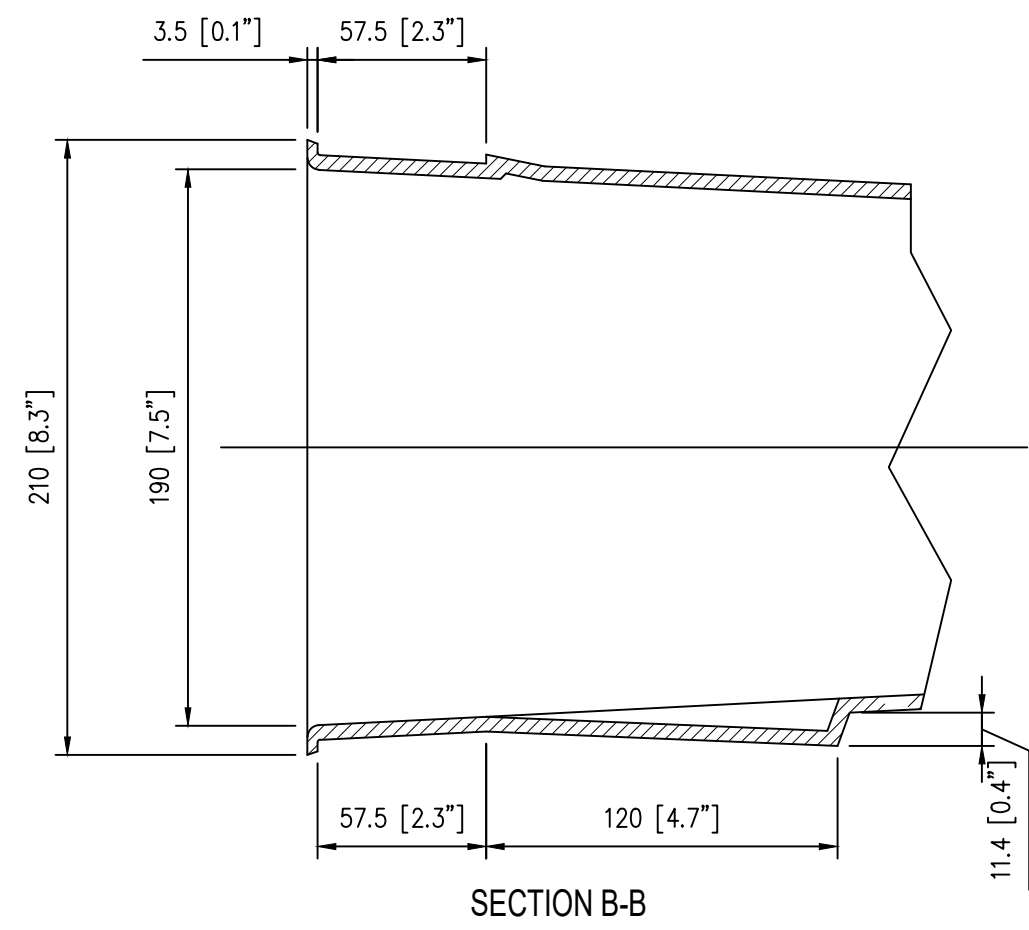
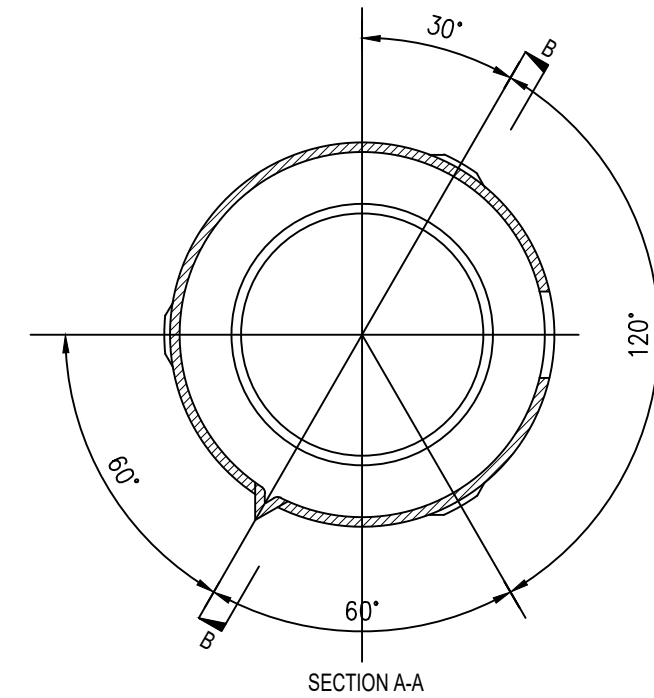
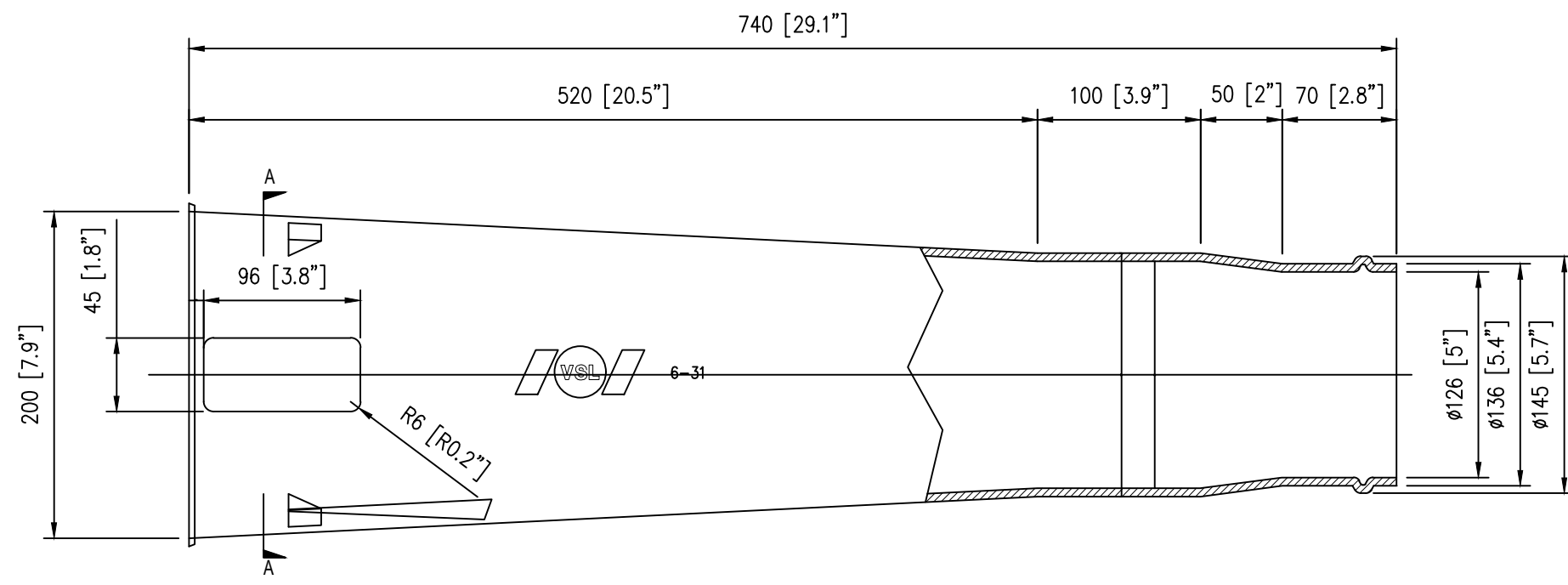
- NOTES:**
1. MATERIAL: AISI 11L17/12L14, PRODUCED IN STRICT ACCORDANCE WITH VSL MS 3.1.006
 2. WEIGHT: 0.197 LBS. (APPROX.)
 3. HEAT TREATMENT: CASEHARDENED
 4. INVENTORY NO. 02WG0008

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	4	UPDATED TITLE BLOCK	SK	ZX	09JAN2015
	3	UPDATED BORDER	GDH		29APR2004
	2	ADDED INVENTORY NUMBER	TKW		01JAN1989
	NO	DESCRIPTION	BY	CHK	DATE

PROJECT INFORMATION:	PROJECT NO: SYSTEM	SCALE: NTS
TITLE: SYSTEM DRAWING	SHEET NO: C218	
TITLE: 0.6" MULTIWEDGE TYPE 1.6G		

ELECTRONIC FILE LOCATION: I:\VSL\System Drawings\Work In Progress Drawings\Florida DOT Test 2017\NCS 6-31 Flexible Filler Submittal



TOLERANCES
UNLESS OTHERWISE SPECIFIED
DIMENSIONS IN MILLIMETERS.

0 THROUGH 50mm
51mm THROUGH 100mm ±0.5
MORE THAN 100mm ±1.0
ANGULAR ±1.0
SURFACE QUALITY ±1.5
NOTES: ±1/2'

1) BREAK SHARP EDGES
2) REMOVE ALL BURRS. ✓
3) DO NOT SCALE DRAWING.
4) ALL RADII 1mm UNO
5) MATERIAL: HDPE

INVENTORY No. 02BP4436

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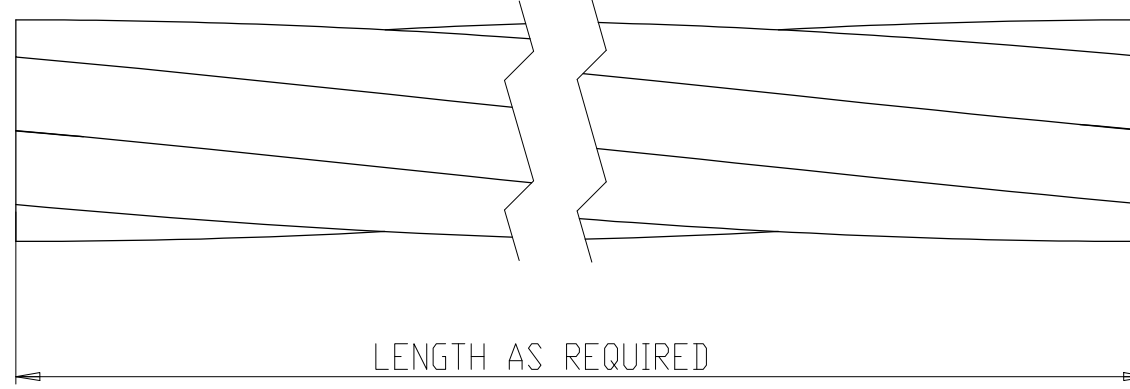
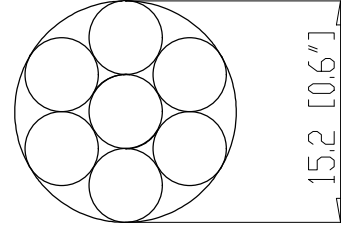
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STRUCTURAL TECHNOLOGIES, LLC
DALLAS OFFICE
15600 TRINITY BLVD., SUITE 118
FORT WORTH, TX 76156

PROJECT INFORMATION:	SYSTEM DRAWING	TITLE:	NCS 6-31 TRUMPET
PROJECT NO:	SYSTEM	SCALE:	NTS
SHEET NO:			C645
NO	DESCRIPTION	BY	DATE
2	TITLE BLOCK UPDATED	CDL ZX	26FEB2018
1	ISSUED FOR CONSTRUCTION	JE	27OCT2009



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PROJECT INFORMATION:

SYSTEM DRAWING

VSL POST TENSIONING 0.6" BARE STRAND
ASTM A416, 270KSI

PROJECT NO:
SYSTEM

SCALE:
NTS

SHEET NO:
C674



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NO

FOR FDOT

TITLE BLOCK UPDATED

DESCRIPTION

CDL ZX

MM

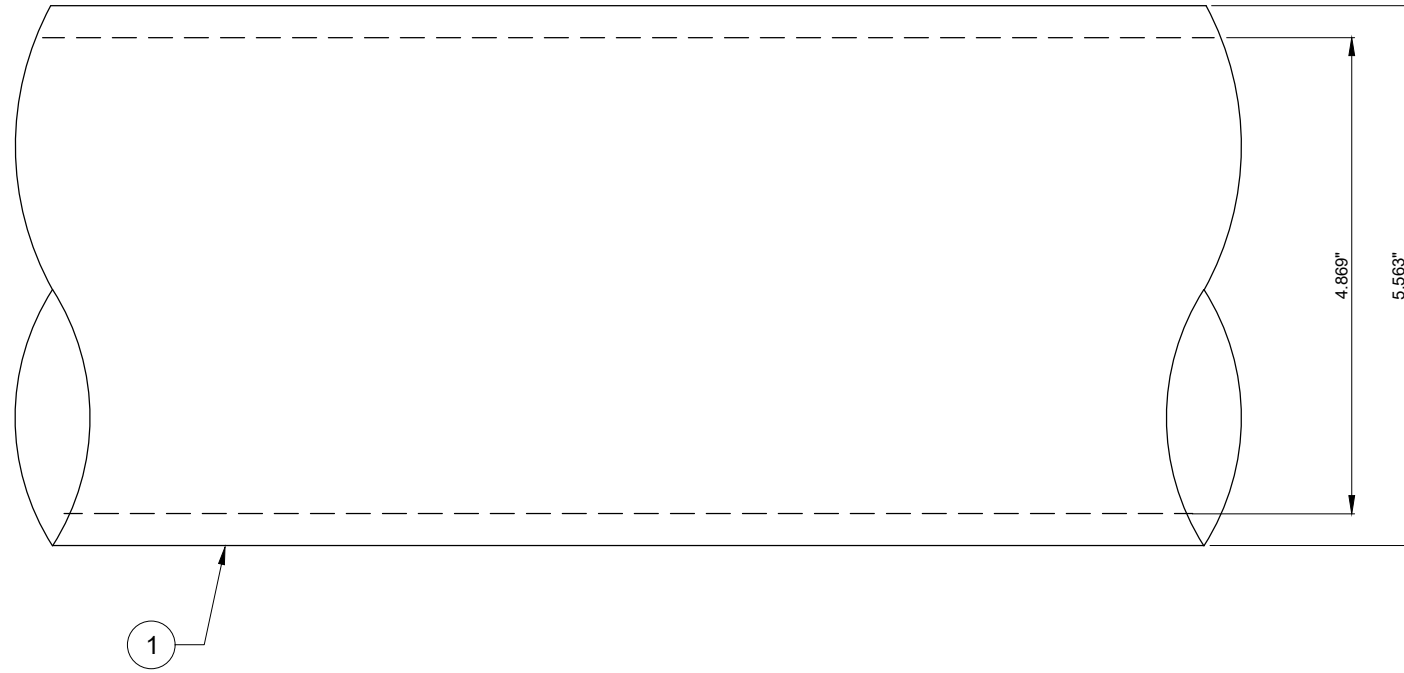
BY

CHK

26FEB2018

04FEB2010

DATE



ITEM	QTY	DESCRIPTION	MATERIAL
1	-	5" HDPE PIPE DR-17	ASTM D3035

NOTE: MINIMUM BEND RADIUS = 30'-0"

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PROJECT INFORMATION:

SYSTEM DRAWING

PROJECT NO:
SYSTEM

SCALE:
NTS

SHEET NO:
C718

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FIRST ISSUE

DESCRIPTION

BY

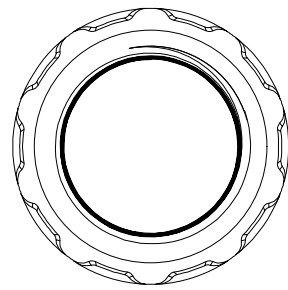
CDL ZX

26FEB2018

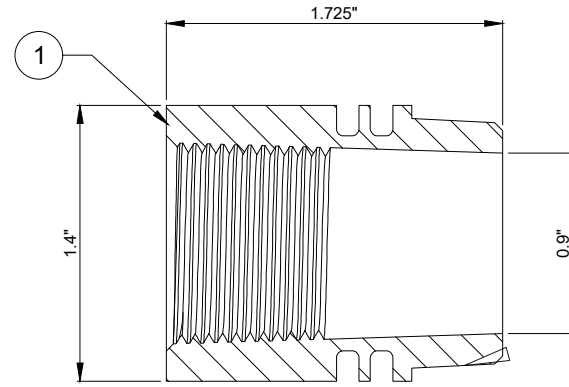
DATE

CHK

DATE



END VIEW



SIDE VIEW

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	3/4" FNPT SMOOTH GROUT PORT	POLYETHYLENE	02DT0253

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PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:
3/4" FNPT SMOOTH GROUT PORT

PROJECT NO:

SCALE:
NTS

SHEET NO:

C743

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NO

FIRST ISSUE

DESCRIPTION

CDL

BY

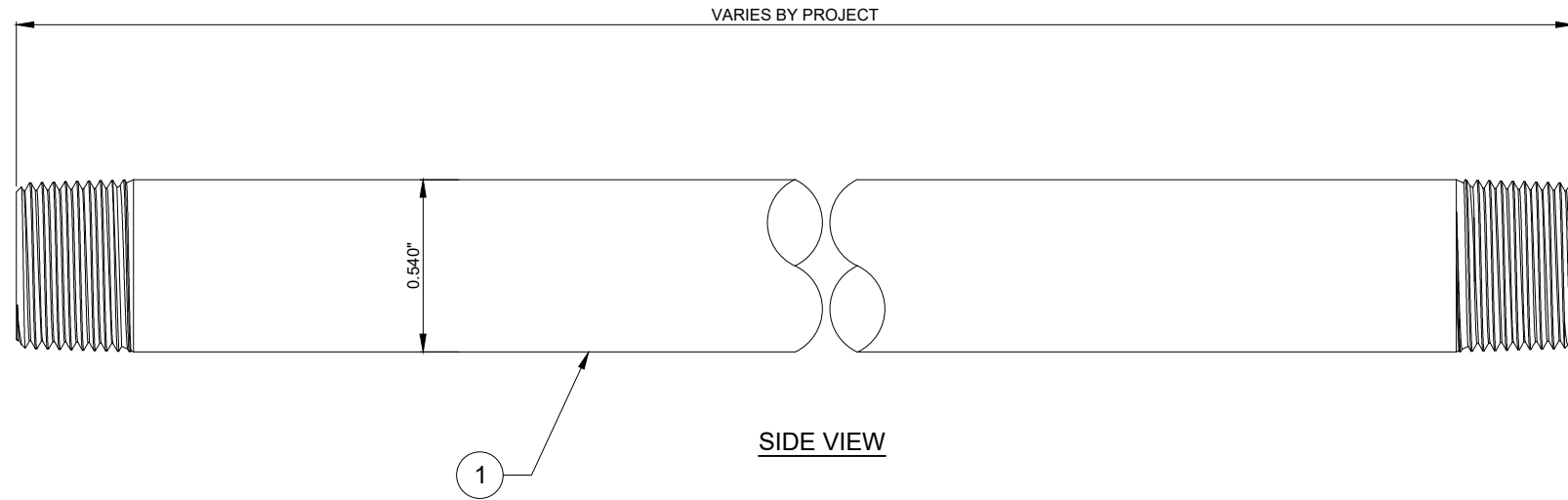
ZX

CHK

26FEB2018

DATE

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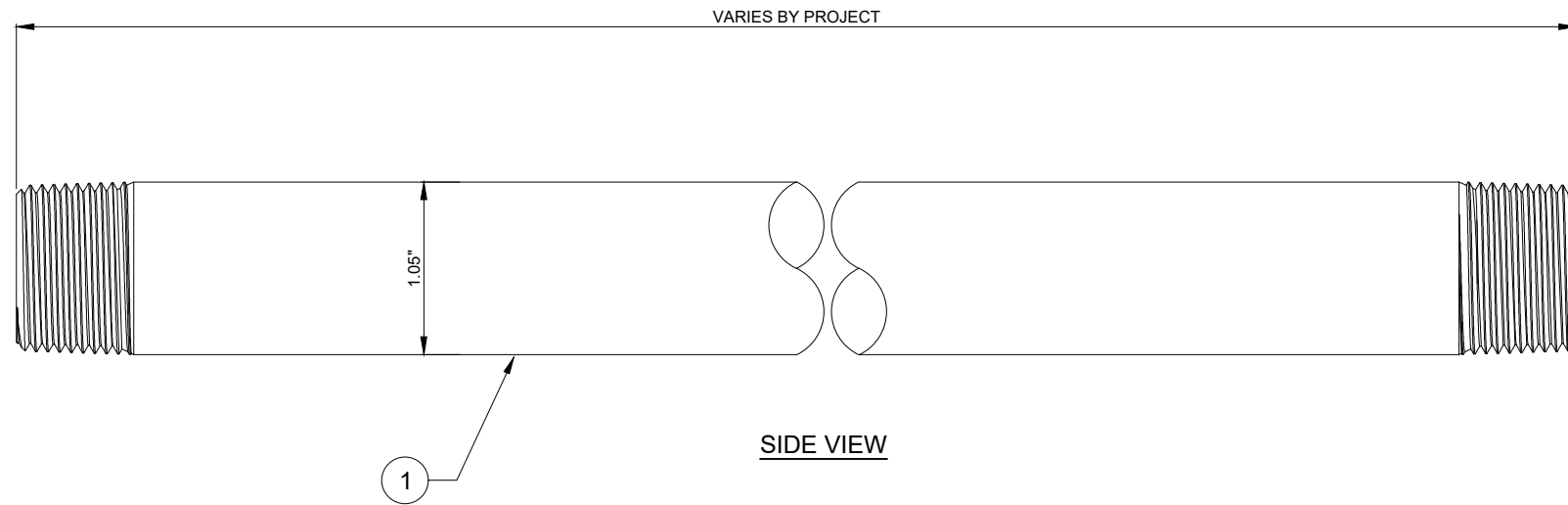


ITEM	QTY	DESCRIPTION	MATERIAL
1	-	1/4" NPT STEEL NIPPLE	SCH 40 STEEL

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PROJECT INFORMATION:		STRUCTURAL TECHNOLOGIES, LLC CLAIMS A STRICT PROPRIETARY RIGHT IN ALL DRAWINGS, SPECIFICATIONS AND CALCULATIONS ("INFORMATION") SET FORTH ON THIS SHEET. THE USE OF SUCH INFORMATION IN WHOLE OR IN PART, OR ANY REPRODUCTION THEREOF, IS STRICTLY PROHIBITED, AND TO THE MATERIAL AND/OR SERVICE PROVIDED BY STRUCTURAL TECHNOLOGIES / VSL. ANY OTHER USE IS STRICTLY PROHIBITED, AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY THEREFORE.	
PROJECT NO:	1	CDL	ZX
SHEET NO:		BY	CHK
TITLE:		DESCRIPTION	
SYSTEM DRAWING		FIRST ISSUE	
1/4" NPT STEEL NIPPLE		NO	
SCALE:		DATE	
NTS		26FEB2018	
C749			

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ITEM	QTY	DESCRIPTION	MATERIAL
1	-	3/4" NPT NIPPLE	SCH 40 STEEL

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PROJECT NO:	1	CDL	ZX
SHEET NO:		BY	CHK
TITLE:		FIRST ISSUE	
SCALE:		NO	
DESCRIPTION:		NO	
DATE:		26FEB2018	

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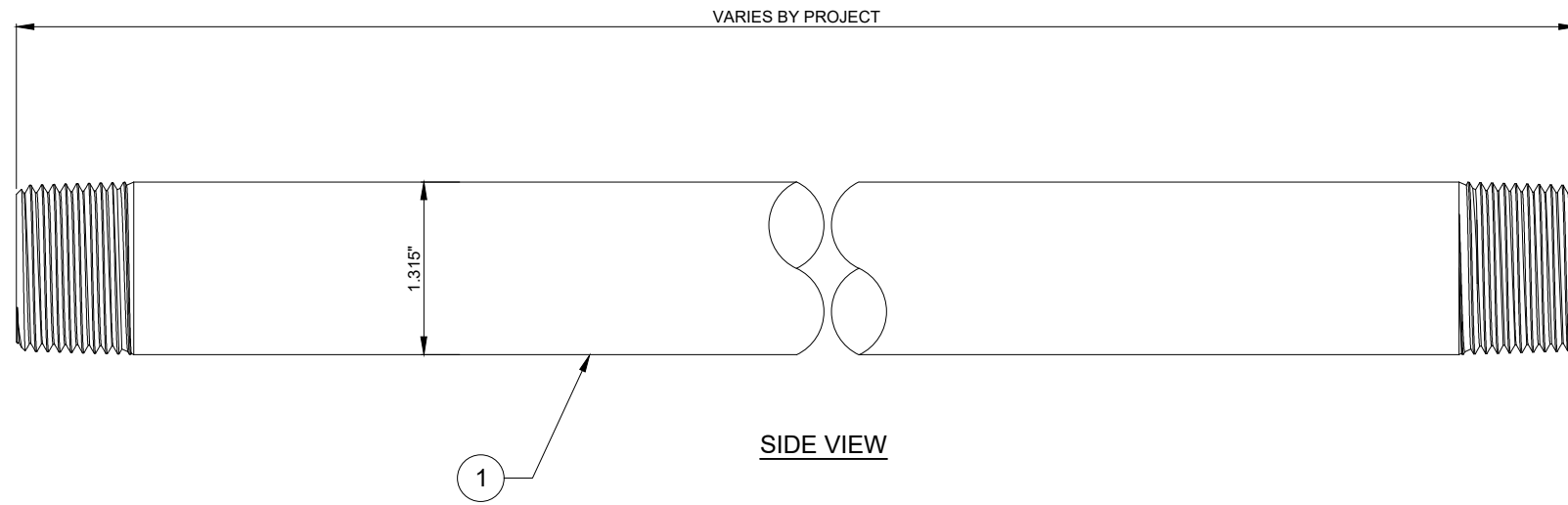
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DALLAS OFFICE
15600 TRINITY BLVD, SUITE 118
FORT WORTH, TX 76156

SYSTEM DRAWING

3/4" NPT STEEL NIPPLE

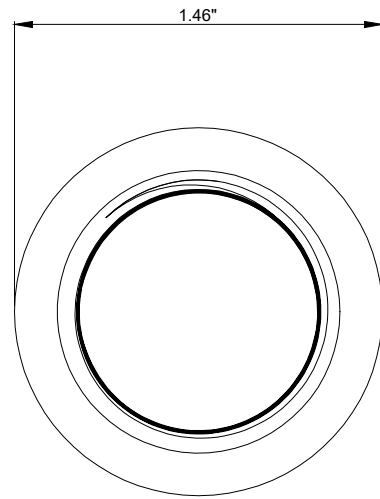
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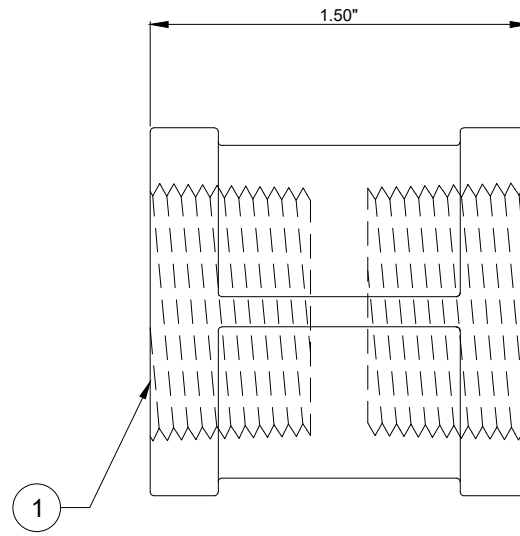
ITEM	QTY	DESCRIPTION	MATERIAL
1	-	1" NPT STEEL NIPPLE	SCH 40 STEEL

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PROJECT NO:	1	CDL	ZX
SHEET NO:		BY	CHK
TITLE:		DESCRIPTION	
1" NPT STEEL NIPPLE		FIRST ISSUE	
SCALE:		NO	
NTS		NO	
DATE:		26FEB2018	
C725		DATE	



END VIEW



SIDE VIEW

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	3/4" NPT F/F COUPLER	SCH 40 STEEL	02DT01952

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PROJECT INFORMATION:

SYSTEM DRAWING

3/4" NPT F/F COUPLER

PROJECT NO:

SCALE: NTS

SHEET NO:

C728

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NO

FIRST ISSUE

DESCRIPTION

CDL

BY

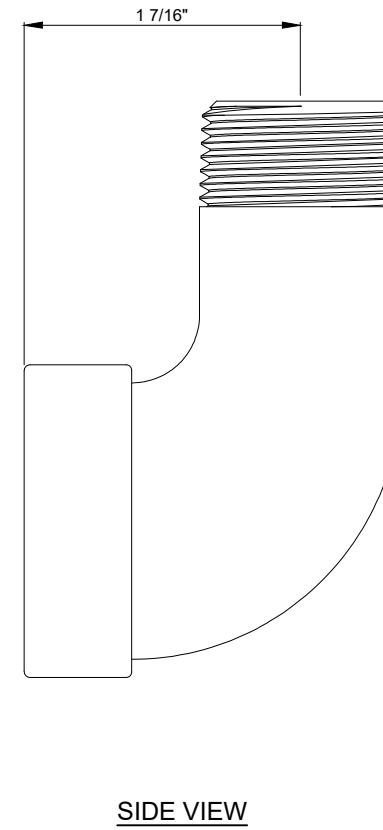
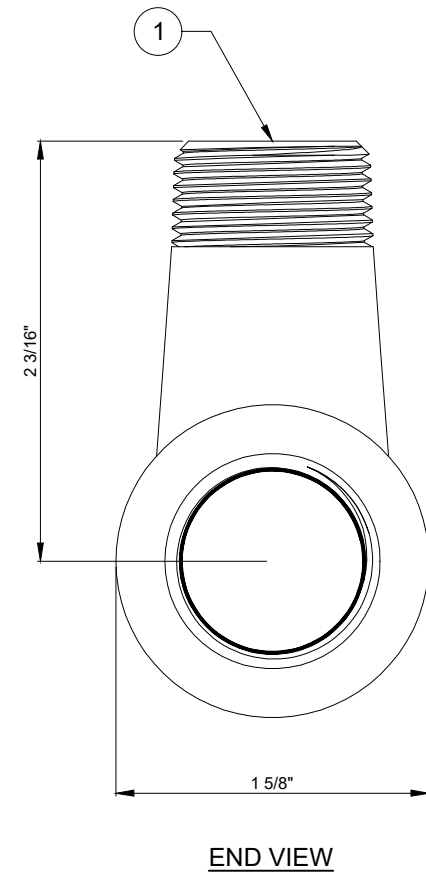
ZX

CHK

26FEB2018

DATE

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	3/4" FNPT X MNPT STEEL ELBOW	SCH 40 STEEL	02DT01954



THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:

SYSTEM DRAWING

PROJECT NO: -
SHEET NO:

TITLE:
3/4" FNPT X MNPT STEEL ELBOW

SCALE:
NTS

C750

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NO

FIRST ISSUE

DESCRIPTION

CDL

BY

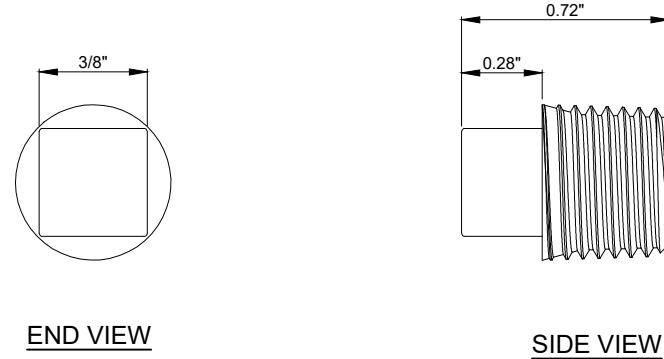
ZX

CHK

DATE

26FEB2018

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ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	1/4" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01956

THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:		STRUCTURAL TECHNOLOGIES, LLC CLAIMS A STRICT PROPRIETARY RIGHT IN ALL DRAWINGS, SPECIFICATIONS AND CALCULATIONS ("INFORMATION") SET FORTH ON THIS SHEET. THE USE OF SUCH INFORMATION IN WHOLE OR IN PART, OR ANY REPRODUCTION THEREOF, IS STRICTLY PROHIBITED, AND TO THE MATERIAL AND/OR SERVICE PROVIDED BY STRUCTURAL TECHNOLOGIES / VSL. ANY OTHER USE IS STRICTLY PROHIBITED, AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY THEREFORE.	
PROJECT NO:	1	CDL	ZX
SHEET NO:		BY	CHK
TITLE:		FIRST ISSUE	
SCALE:		NO	
DESCRIPTION:		NO	
DATE:		26FEB2018	

structural TECHNOLOGIES
A Structural Group Company

Dallas, TX / Washington, DC / Denver, CO / Pompano Beach, FL

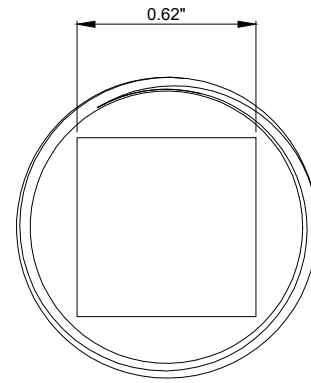
PHONE: (817) 545-4807
FAX: (817) 545-4827
WWW.VSL.NET

STRUCTURAL TECHNOLOGIES, LLC
DALLAS OFFICE
15600 TRINITY BLVD, SUITE 118
FORT WORTH, TX 76156

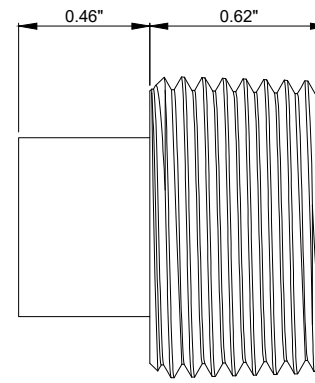
SYSTEM DRAWING

1/4" NPT STEEL PLUG

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	3/4" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01957



END VIEW



SIDE VIEW

THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:

SYSTEM DRAWING

PROJECT NO: -

SHEET NO: C748

TITLE:
3/4" NPT STEEL PLUG

SCALE:
NTS

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NO

FIRST ISSUE

DESCRIPTION

BY

CDL ZX

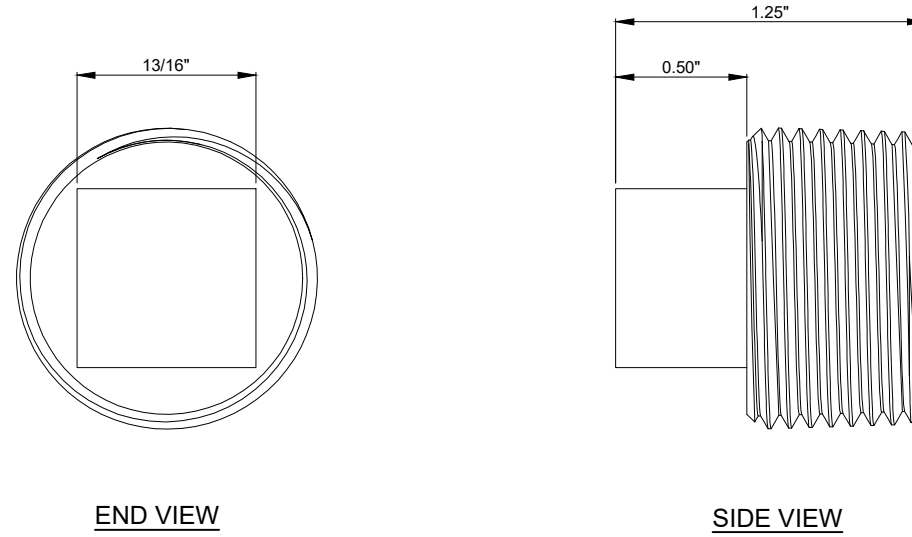
26FEB2018

DATE

CHK

DATE

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	1" NPT STEEL PLUG	316 STAINLESS STEEL	02DT01958



THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:		STRUCTURAL TECHNOLOGIES, LLC CLAIMS A STRICT PROPRIETARY RIGHT IN ALL DRAWINGS, SPECIFICATIONS AND CALCULATIONS ("INFORMATION") SET FORTH ON THIS SHEET. THE USE OF SUCH INFORMATION IN WHOLE OR IN PART, OR ANY REPRODUCTION THEREOF, IS STRICTLY PROHIBITED. THE MATERIAL WAS PREPARED AND TO THE MATERIAL AND/OR SERVICE PROVIDED BY STRUCTURAL TECHNOLOGIES / VSL. ANY OTHER USE IS STRICTLY PROHIBITED, AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY THEREFORE.	
PROJECT NO:	1	CDL	ZX
SHEET NO:	C754	BY	CHK
TITLE:		FIRST ISSUE	
SCALE:		NO	
DESCRIPTION:		NO	
DATE:		26FEB2018	

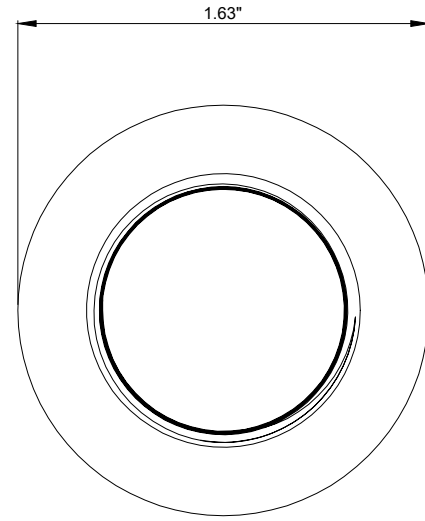
structural TECHNOLOGIES
A Structural Group Company

Dallas, TX / Washington, DC / Denver, CO / Pompano Beach, FL

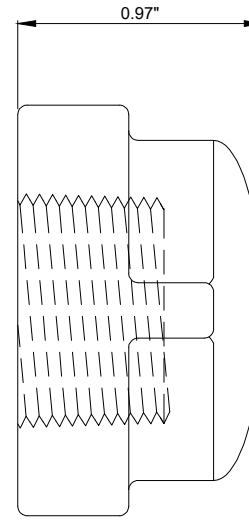
PHONE: (817) 545-4877
FAX: (817) 545-4827
WWW.VSL.NET

STRUCTURAL TECHNOLOGIES, LLC
DALLAS OFFICE
15600 TRINITY BLVD, SUITE 118
FORT WORTH, TX 76156

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	3/4" NPT STEEL CAP	SCH 40 STEEL	02DT01950



END VIEW

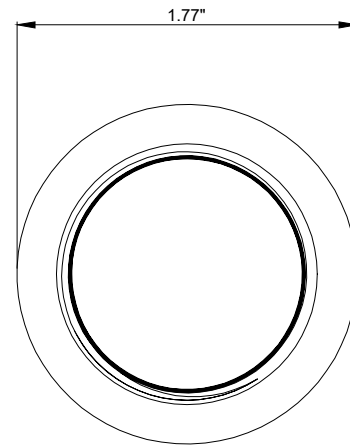


SIDE VIEW

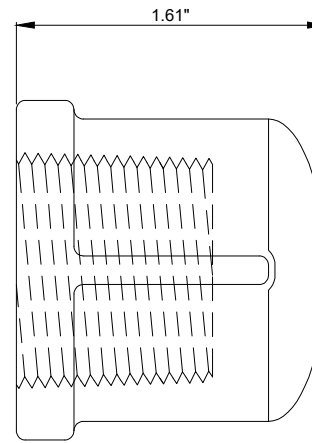
THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:		STRUCTURAL TECHNOLOGIES, LLC CLAIMS A STRICT PROPRIETARY RIGHT IN ALL DRAWINGS, SPECIFICATIONS AND CALCULATIONS ("INFORMATION") SET FORTH ON THIS SHEET. THE USE OF SUCH INFORMATION IN WHOLE OR IN PART, OR ANY REPRODUCTION THEREOF, IS STRICTLY PROHIBITED. THE MATERIAL WAS PREPARED AND TO THE MATERIAL AND/OR SERVICE PROVIDED BY STRUCTURAL TECHNOLOGIES / VSL. ANY OTHER USE IS STRICTLY PROHIBITED, AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY THEREFORE.	
PROJECT NO:	1	CDL	ZX
SHEET NO:	C724	BY	CHK
TITLE:	3/4" NPT STEEL CAP	NO	DATE
SCALE:	NTS	DESCRIPTION	26FEB2018
SYSTEM DRAWING		FIRST ISSUE	

THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.



END VIEW



SIDE VIEW

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	1" NPT STEEL CAP	SCH 40 STEEL	02DT01951

THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:

SYSTEM DRAWING

1" NPT STEEL CAP

PROJECT NO: -
SHEET NO:

SCALE: NTS

C727

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NO

FIRST ISSUE

DESCRIPTION

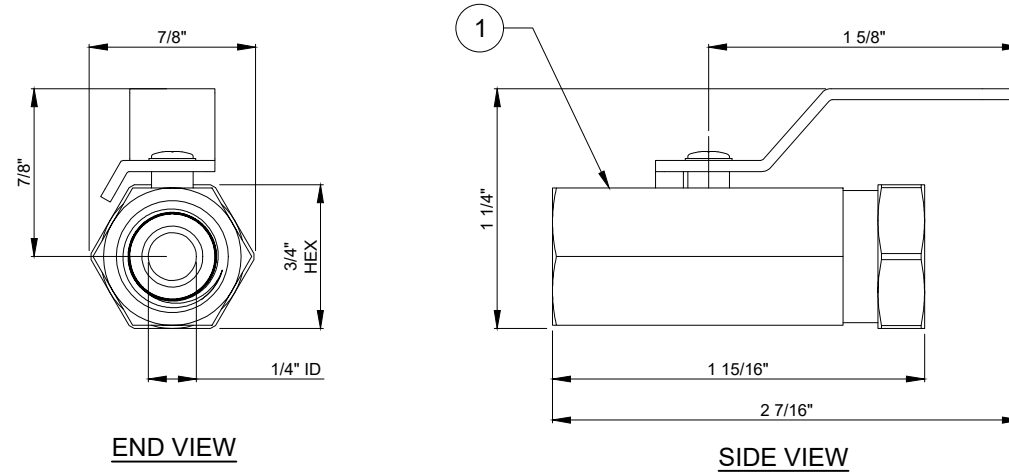
BY

CHK

DATE

26FEB2018

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	1/4" F/F NPT 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01924



THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:

SYSTEM DRAWING

TITLE:
1/4" F/F NPT 1/4 TURN BALL VALVE

PROJECT NO:

SCALE:
NTS

SHEET NO:

C744

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NO

FIRST ISSUE

DESCRIPTION

CDL

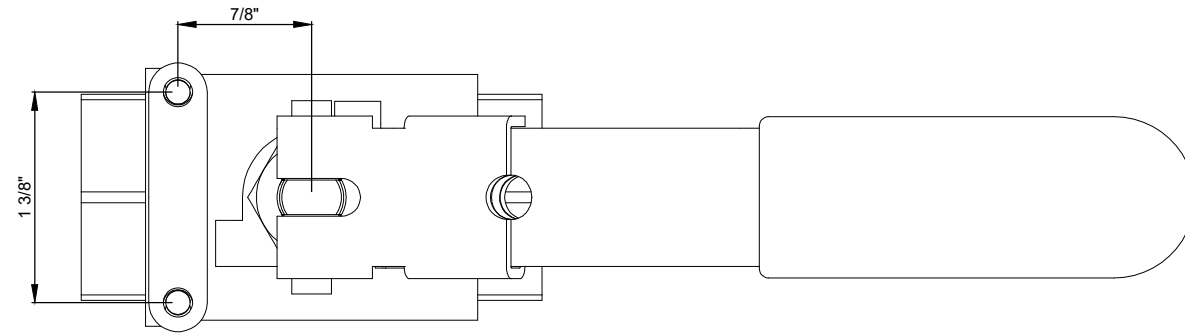
BY

ZX

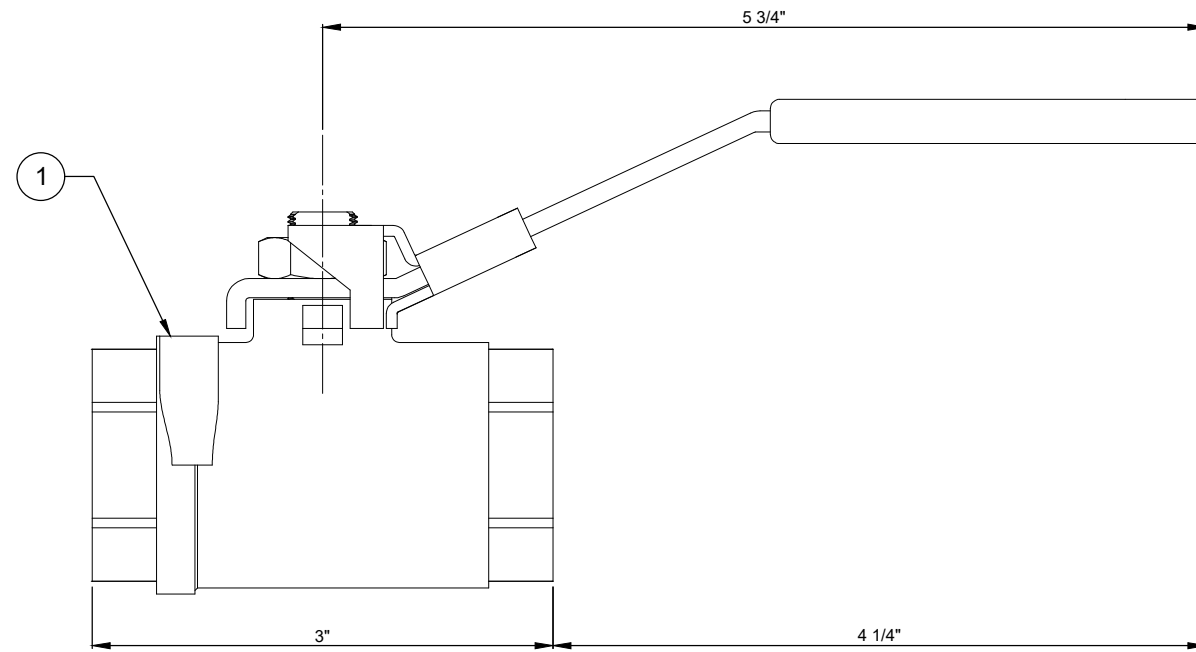
CHK

26FEB2018

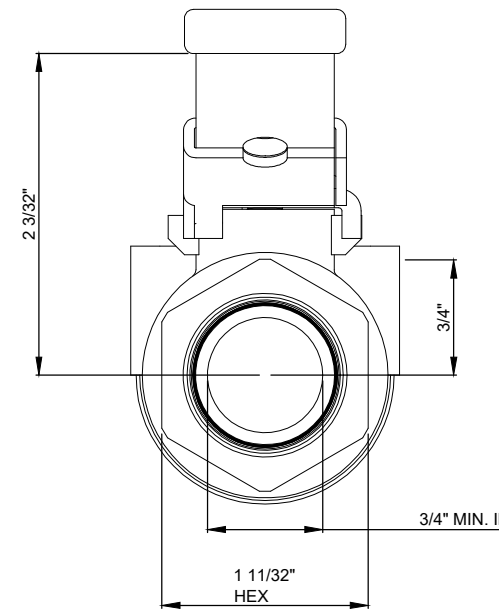
DATE



TOP VIEW



SIDE VIEW



END VIEW

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	3/4" NPT STEEL 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01925

THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

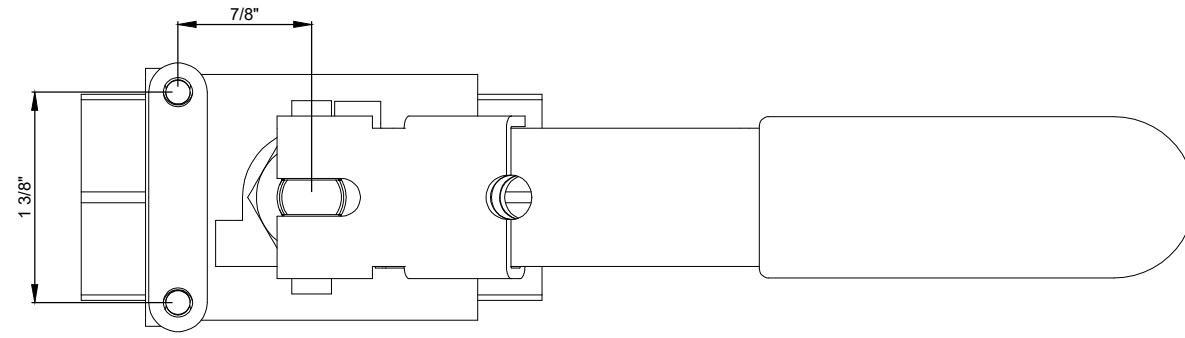
PROJECT INFORMATION:		STRUCTURAL TECHNOLOGIES, LLC CLAIMS A STRICT PROPRIETARY RIGHT IN ALL DRAWINGS, SPECIFICATIONS AND CALCULATIONS ("INFORMATION") SET FORTH ON THIS SHEET. THE USE OF SUCH INFORMATION IN WHOLE OR IN PART, OR ANY REPRODUCTION THEREOF, IS STRICTLY PROHIBITED. THIS DRAWING WAS PREPARED AND TO THE MATERIAL AND/OR SERVICE PROVIDED BY STRUCTURAL TECHNOLOGIES / VSL. ANY OTHER USE IS STRICTLY PROHIBITED, AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY THEREFORE.	
PROJECT NO:	1	NO	NO
SHEET NO:	C745	CDL	ZX
TITLE:	3/4" NPT STEEL 1/4 TURN BALL VALVE	BY	CHK
SCALE:	NTS	DESCRIPTION	DATE
		FIRST ISSUE	26FEB2018

structural TECHNOLOGIES
A Structural Group Company

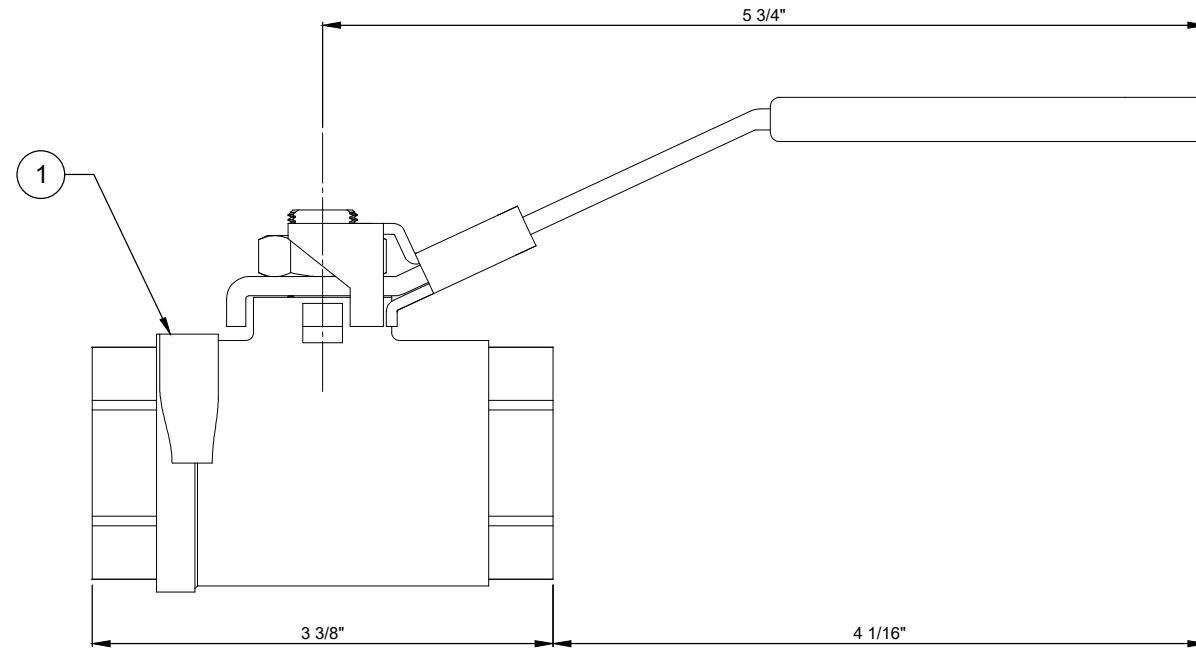
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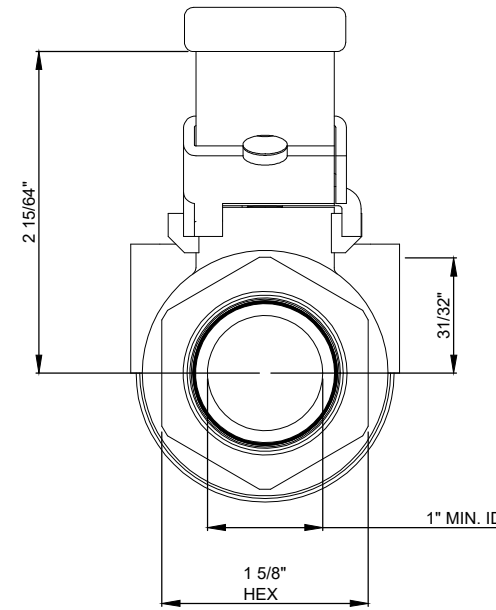
STRUCTURAL TECHNOLOGIES, LLC
DALLAS OFFICE
15600 TRINITY BLVD, SUITE 118
FORT WORTH, TX 76155



TOP VIEW



SIDE VIEW



END VIEW

ITEM	QTY	DESCRIPTION	MATERIAL	INVENTORY#
1	-	1" NPT STEEL 1/4 TURN BALL VALVE	SCH 40 STEEL	02DT01926

THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE STRUCTURAL TECHNOLOGIES / VSL POST-TENSIONING SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO STRUCTURAL TECHNOLOGIES / VSL BY PROJECT OWNER OR ITS REPRESENTATIVE. STRUCTURAL TECHNOLOGIES / VSL TOOK NO PART IN THE PREPARATION OR REVIEW OF SAID STRUCTURAL DESIGN AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY FOR IT. THE STAMP OR SEAL OF A STRUCTURAL TECHNOLOGIES / VSL EMPLOYEE ON THESE SHOP DRAWINGS PERTAINS ONLY TO THE TRANSFER OF THE FORCES REQUIRED BY THE ENGINEER OF RECORD ON THE STRUCTURAL DRAWINGS, AND NOT TO THE ADEQUACY OF THE STRUCTURAL DESIGN. NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY VIRTUE OF ANY SUCH STAMP OR SEAL.

PROJECT INFORMATION:		STRUCTURAL TECHNOLOGIES, LLC CLAIMS A STRICT PROPRIETARY RIGHT IN ALL DRAWINGS, SPECIFICATIONS AND CALCULATIONS ("INFORMATION") SET FORTH ON THIS SHEET. THE USE OF SUCH INFORMATION IN WHOLE OR IN PART, OR ANY REPRODUCTION THEREOF, IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF STRUCTURAL TECHNOLOGIES / VSL. THIS DRAWING WAS PREPARED AND TO THE MATERIAL AND/OR SERVICE PROVIDED BY STRUCTURAL TECHNOLOGIES / VSL. ANY OTHER USE IS STRICTLY PROHIBITED, AND STRUCTURAL TECHNOLOGIES / VSL DISCLAIMS ANY LIABILITY THEREFORE.	
PROJECT NO:	1	DATE:	26FEB2018
SHEET NO:	C746	BY:	CDL
TITLE:	1" NPT STEEL 1/4 TURN BALL VALVE	CHK:	ZX
SCALE:	NTS	DESCRIPTION:	FIRST ISSUE
			NO

structural TECHNOLOGIES
A Structural Group Company

Dallas, TX / Washington, DC / Denver, CO / Pompano Beach, FL

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STRUCTURAL TECHNOLOGIES, LLC
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15600 TRINITY BLVD, SUITE 118
FORT WORTH, TX 76156