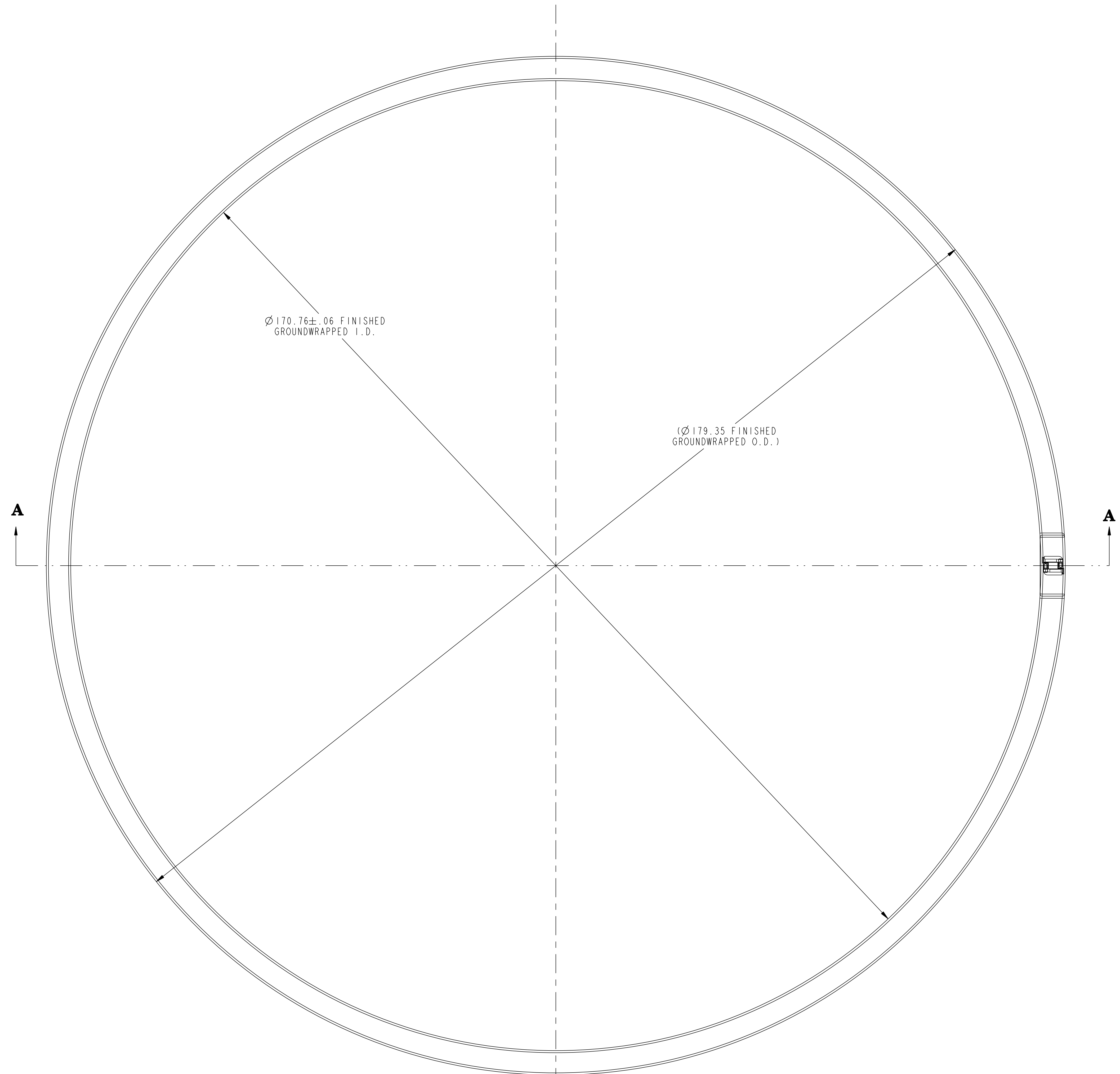
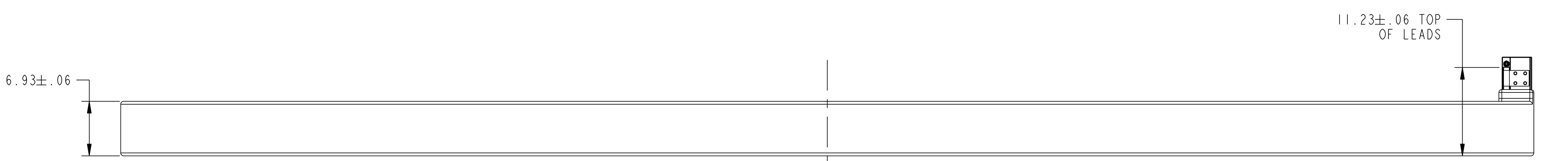


NO.	REVISION	BY	CH	SUP	APPROVED	DATE



GENERAL NOTES:

- TURN INSULATION (APPROX .049") THICK
 1 (1/2 LAPPED) LAYER KAPTON/ADHESIVE TAPE
 2 (1/2 LAPPED) LAYERS GLASS TAPE
 SPEC. NO. NCSX-CSPEC-132-02 FOR TURN TO TURN DETAILS
- LONGITUDINAL SPLICING OF CONDUCTOR TO BE PREFORMED PER SPECIFICATION NO. NCSX-CSPEC-132-02 AND DRAWING SC132-039.
- VOIDS IN COIL AREAS BETWEEN CONDUCTORS GREATER THAN 1/8" TH'K ARE TO BE FILLED WITH G-11CR SPACE FILLERS PART NO. 11, ALL OTHER AREAS LESS THAN 1/8" TO BE FILLED WITH GLASS OR GLASS EPOXY.
- ONE LAYER OF GLASS TAPE TO BE APPLIED BETWEEN MATING G-11CR PARTS / SURFACES.
- DIAGNOSTIC-LOOP-WIRE PART NO. 12 TO BE INSTALLED PER SECTION A-A SHOWN ON SHEET 2 & ENGINEERING INSTRUCTION PRIOR TO LAST LAYER OF GROUND WRAP.
- FOR GROUND WRAP INSULATION AND VACUUM IMPREGNATION OF COIL SEE SPECIFICATION NO. NCSX-CSPEC-132-02



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14	COMM	EPOXY	SEE NOTE 7	AR
13	COMM	GROUND WRAP S2 GLASS .015" TH'K X 2" WIDE (3/8" TOTAL THICKNESS)	SEE NOTE 7	AR
12	DIANOSTIC-LOOP-WIRE	ARI INDUSTRIES #32-IN-C	316SS SHEATH/COND	AR
11	THIS DWG	SPACE FILLERS SIZED BY VENDOR SEE NOTE 2	G-11 CR	AR
10	THIS DWG	FLAG LEAD INSULATION BLOCK (SEE DETAIL)	G-11 CR	1
9	THIS DWG	1/8" TH'K X 1-1/2" WD X LG TO SUIT BEND TO CONFORM TO 6 OR 7	G-11 CR	1
8	THIS DWG	Ø .50 NOM PIN LG TO SUIT	G-11 CR	4
7	THIS DWG	OUTER LEAD LOCK BLOCK (SEE DETAIL)	G-11 CR	1
6	THIS DWG	INNER LEAD LOCK BLOCK (SEE DETAIL)	G-11 CR	1
5	THIS DWG	2" X 2" X 1/2" NUT PLATE (SEE DETAIL)	316SS	2
4	THIS DWG	LEAD FLAG (SEE DETAIL)	ETP110	2
3	SE131-013	COOLANT FITTING SEE DRAWING FOR DETAILS	SEE DWG	2
2	THIS DWG	.049 TURN TO TURN INSUL. SEE NOTE 1	SEE NOTE 1	AR
1	SE132-010	PF-5 CONDUCTOR APPROX. LENGTH = 1101 FT.	SEE DWG	AR
PART NO.	DRAWING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY REQ'D

**PF-5 COIL ASSEMBLY
NO REQUIRED = 2**

**RELEASE LEVEL: Fabrication
DWG VERSION NO: 2**

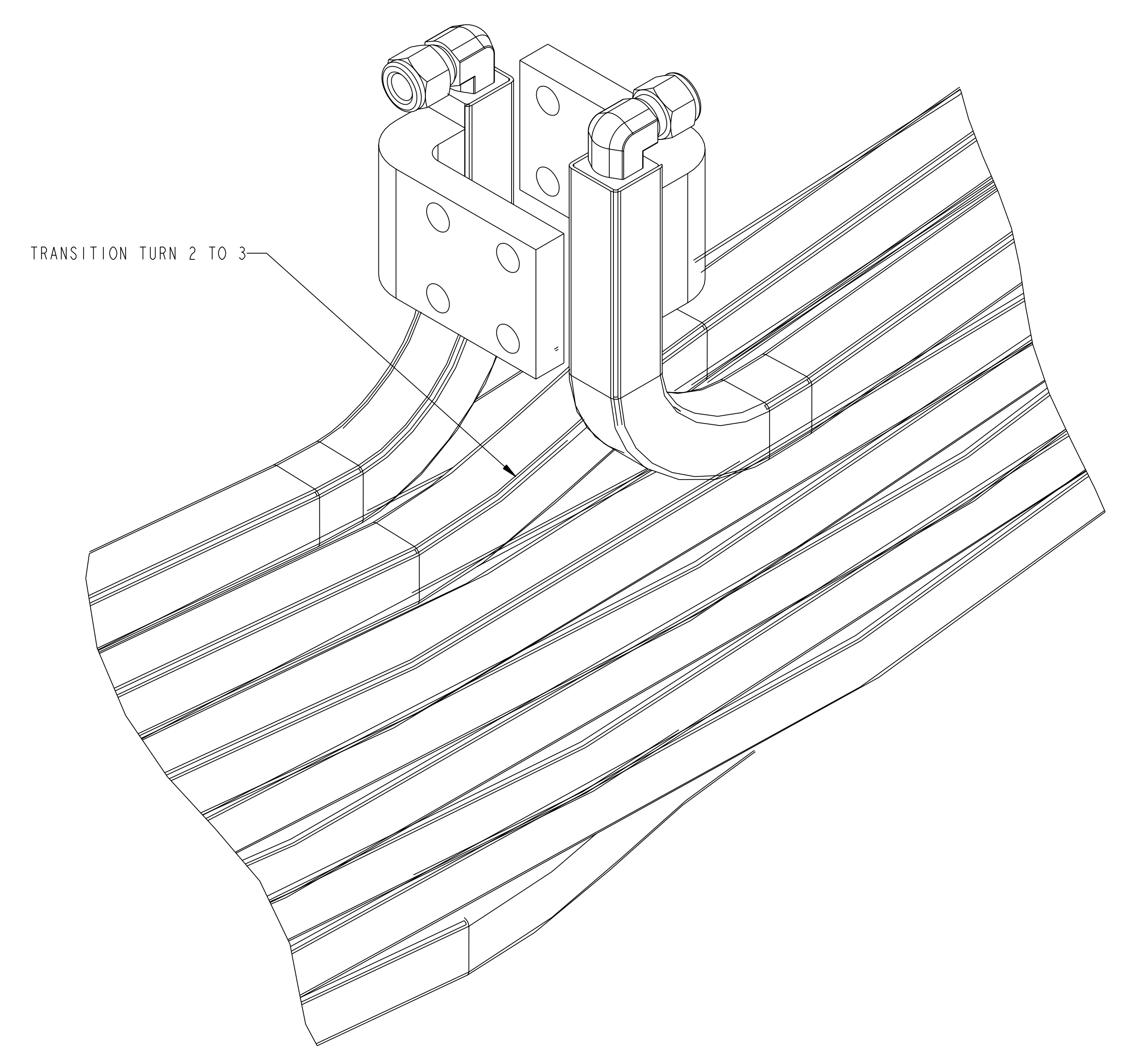
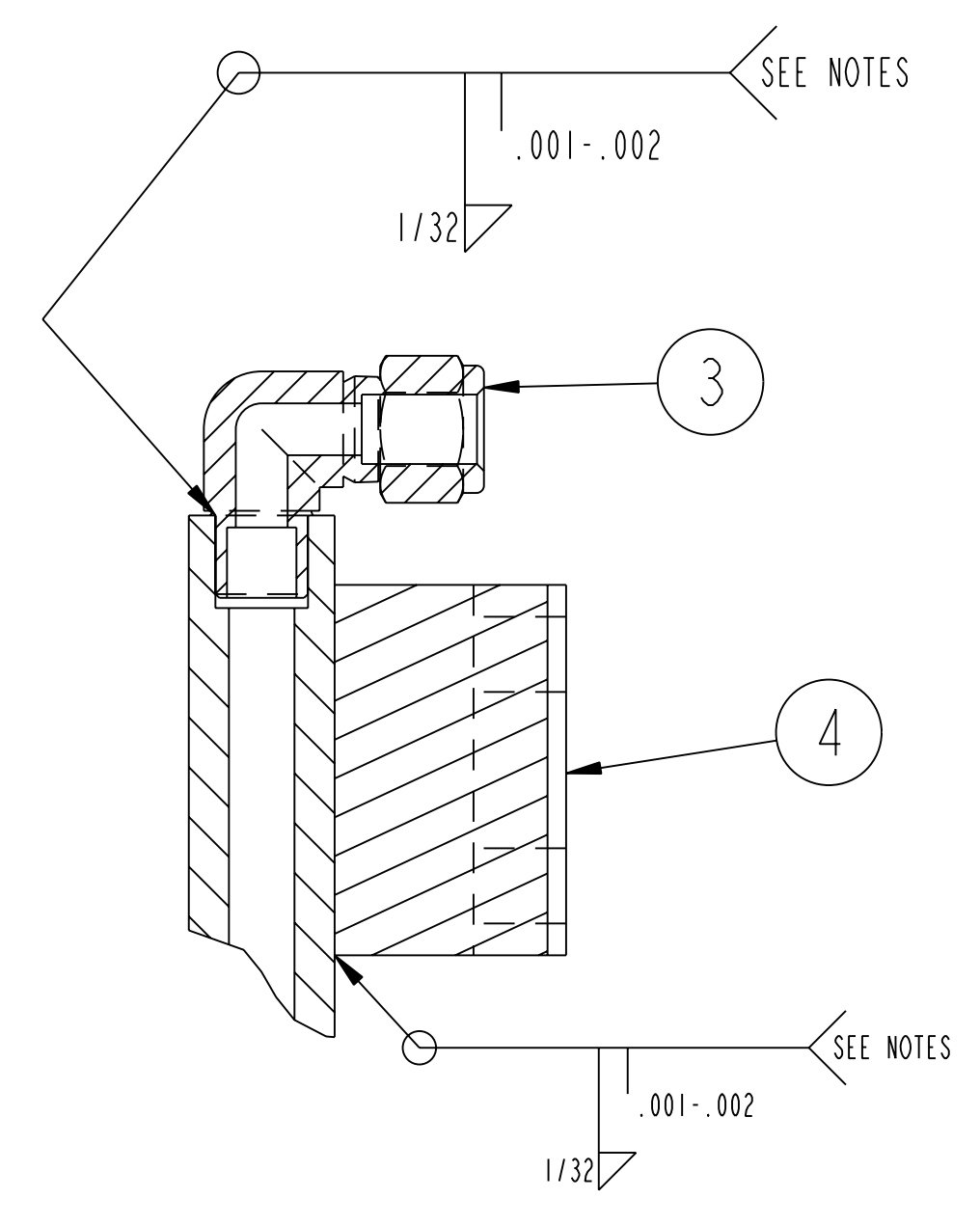
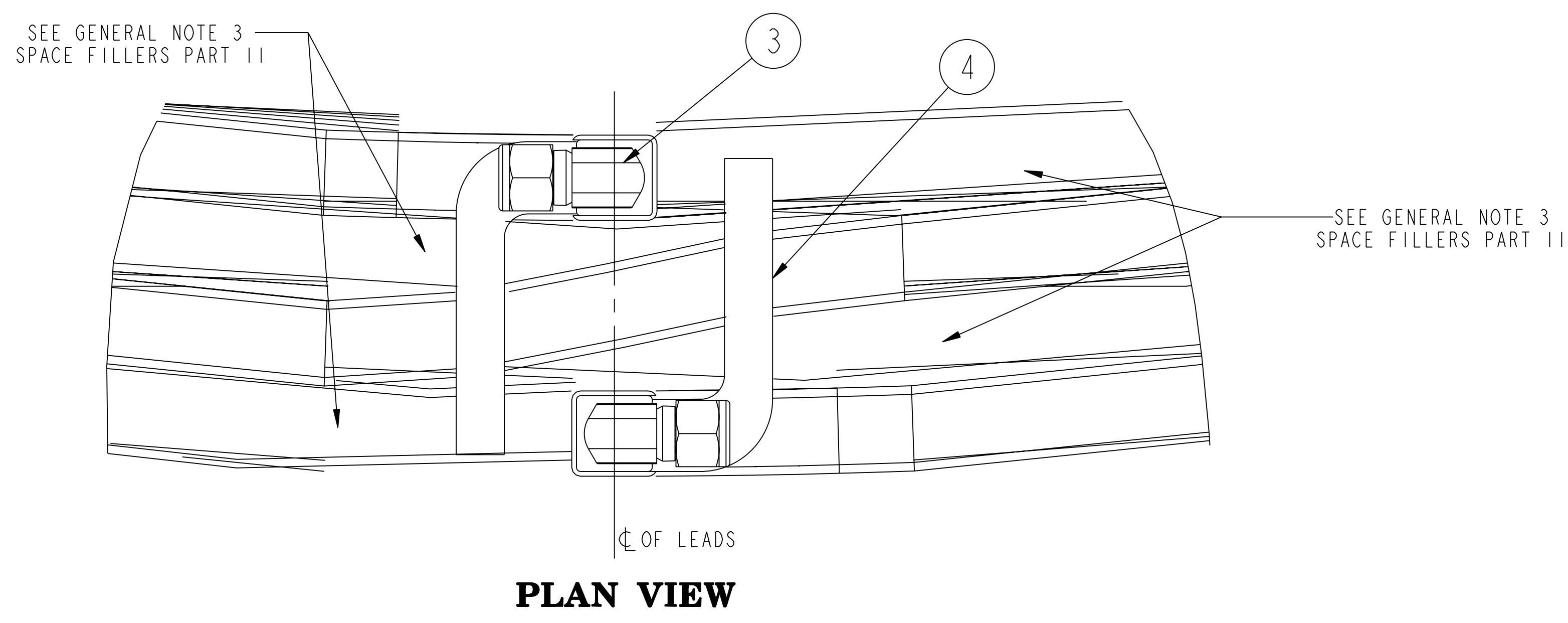
WEIGHT
3.1 lbs

MODEL NAME
SE132-039

WELDING ENGINEER: L. DUDEK 2/12/08

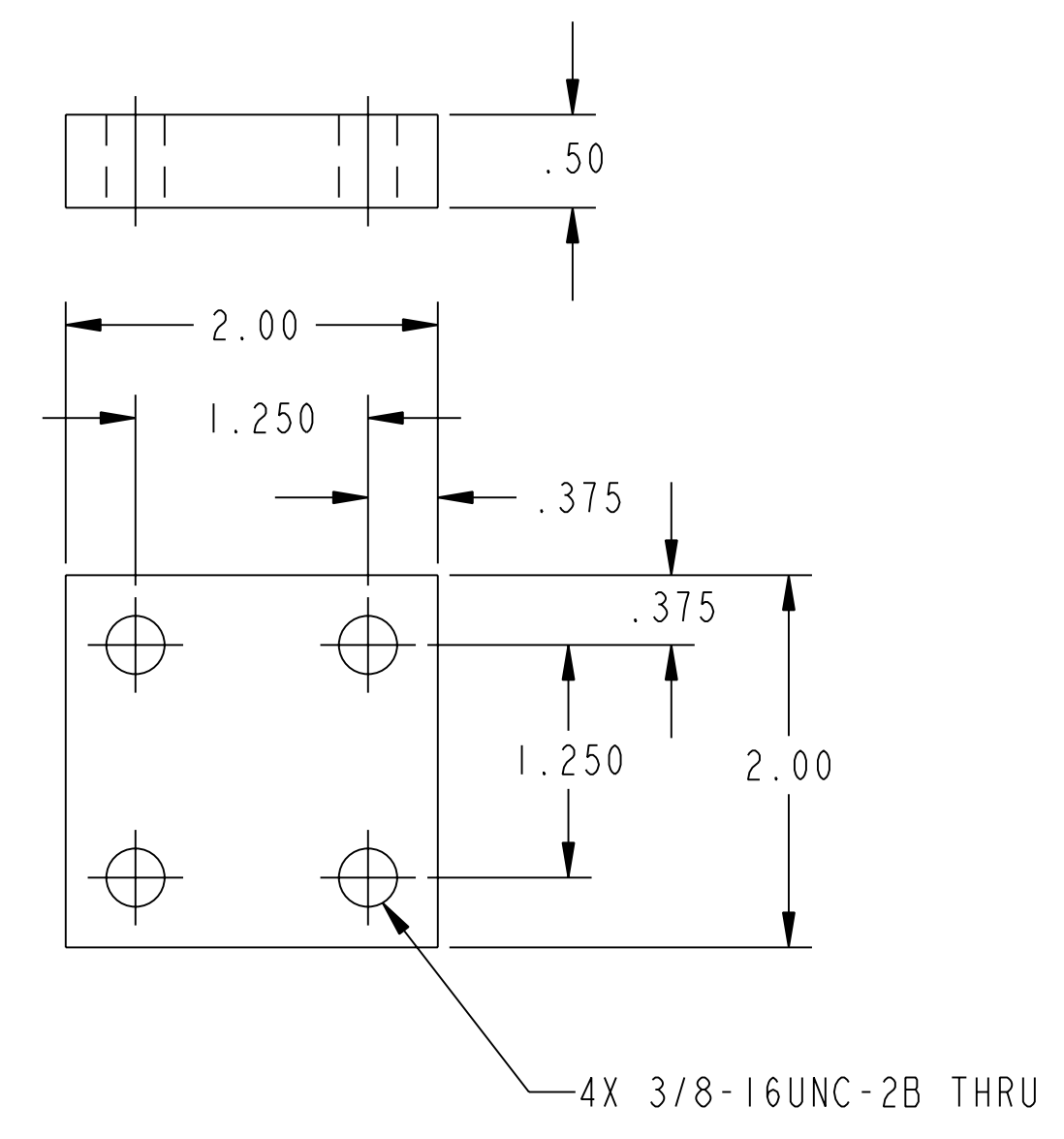
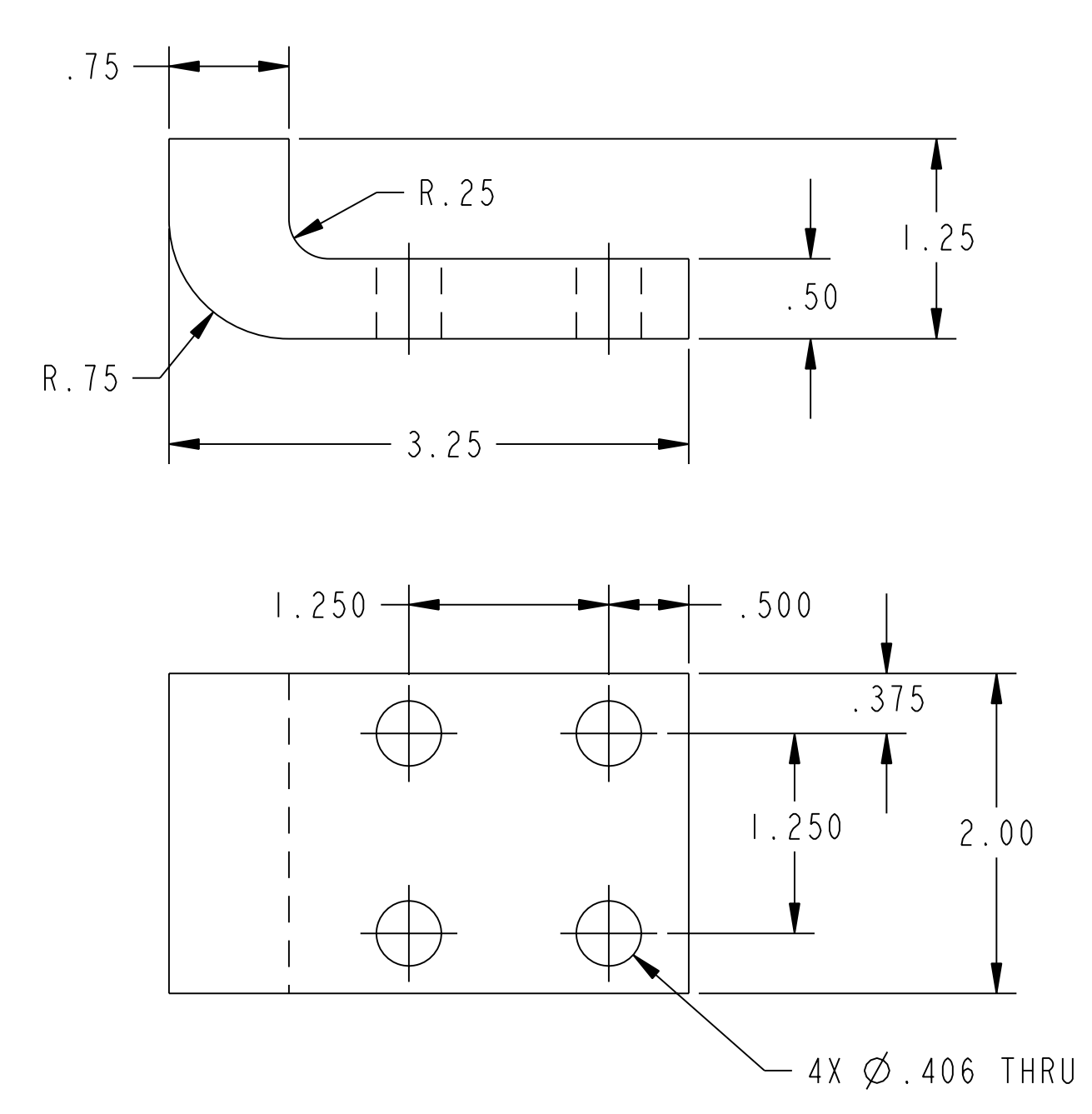
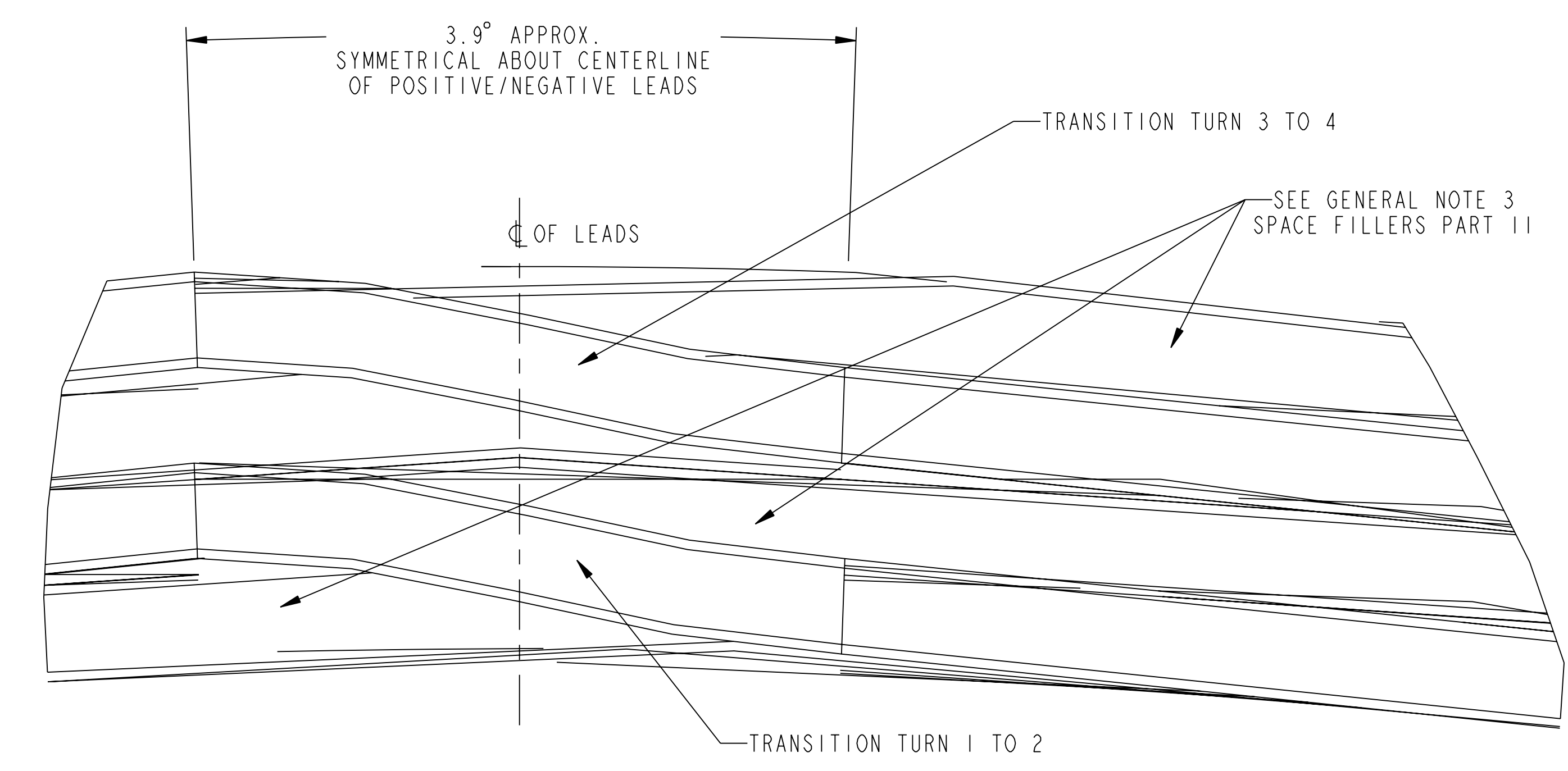
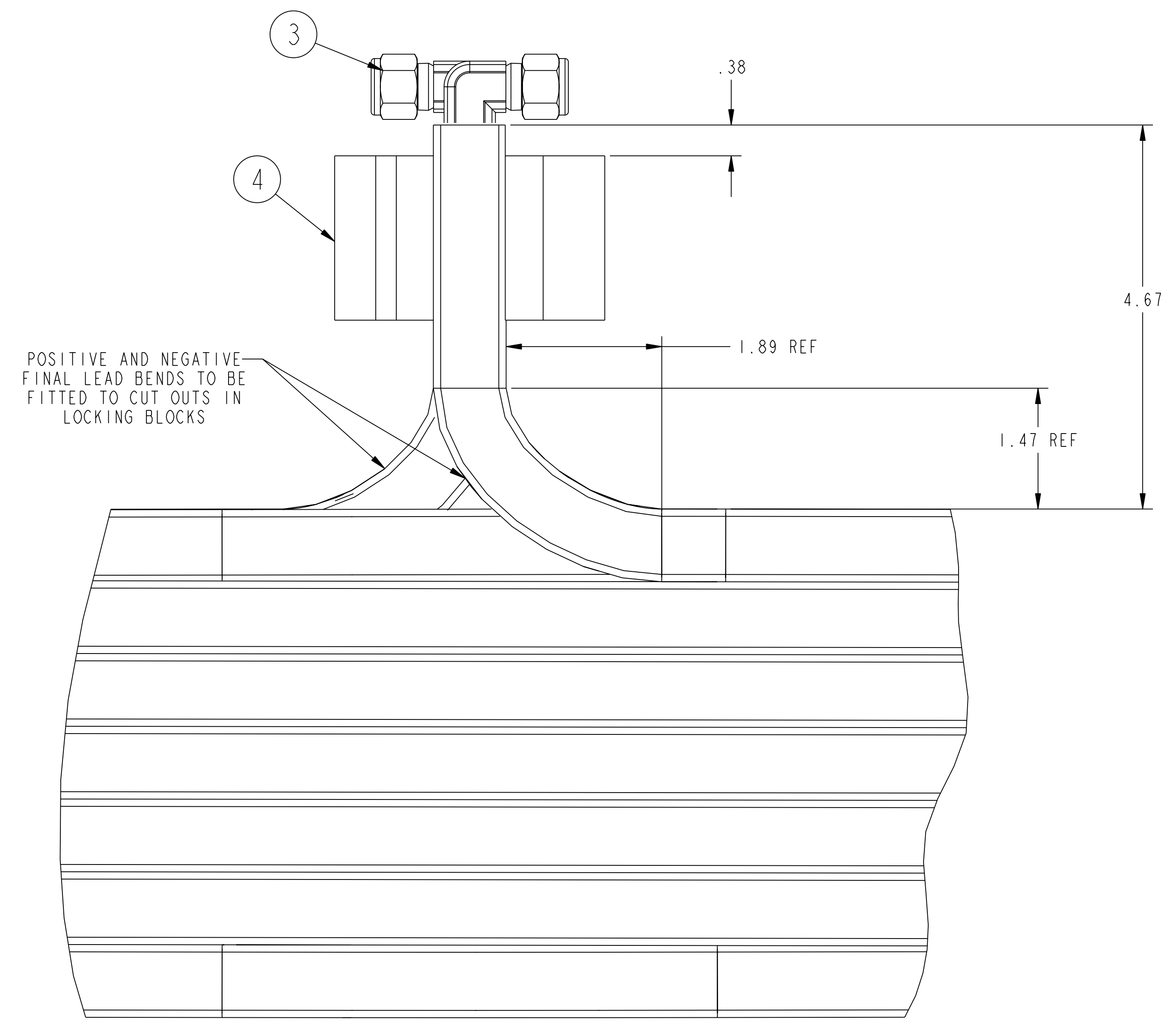
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Pro E	DIMENSIONS ARE IN INCHES MACHINE SURFACES	NATIONAL COMPACT STELLARATOR EXPERIMENT			
DO NOT VERIFY INFORMATION BY SCALING DRAWING	BREAK SHARP EDGES .005/.020	STELLARATOR CORE CONVENTIONAL COILS PF-5 COIL WINDING ASSEMBLY / DETAILS			
NEXT ASSEMBLY	TOLERANCES NON-CUMULATIVE	DSN: B. PAUL	2/12/08	DRAWING NO:	
	DECIMAL-INCH FRACTIONS	CHK: M. KALISH	2/12/08	SE132-050	
	.XX ±.000 0"-12" ±.010 .XXX ±.005 12"-120" ±.010 ANGULAR ±.0°-15' OVER 120° ±.1°	ENGR: J. CHRZANOWSKI	2/12/08		
		SUPV: J. SEIGEL	2/12/08	SHEET 1 OF 4 REV 0	

NCSX-SE132-050



LEAD FLAG AND FITTING BRAZE NOTES

1. CLEAN THE JOINT AREAS (LEADS) WITH SCOTCH-BRITE, THEN WASH WITH ACETONE PRIOR TO INSTALLATION OF FITTINGS.
2. ASSEMBLE WITH CLEANED FITTINGS AND SIL-FOS WAFERS. SEE SPECIFICATION FOR TYPE OF SIL-FOS.
3. HEAT ASSEMBLED JOINT AREA WITH TORCH. CONTINUE TO HEAT THE AREA UNTIL THE SIL-FOS STARTS TO MELT, THEN ADD ADDITIONAL SIL-FOS AS NEEDED, AND DO NOT MOVE THE FITTING DURING BRAZING & COOLING.
4. FILE OR GRIND OFF EXCESS SIL-FOS FROM JOINT AREA. VISUAL INSPECTION OF BRAZE JOINT SHALL BE MADE TO INSURE THE COMPLETE FLOW OF SIL-FOS BRAZE MATERIAL INTO THE JOINTED AREA. JOINTS MUST BE FREE FROM CRACKS AND EXCESSIVE POROSITY.
5. PROTECT TURN AND GROUNDWRAP INSULATION FROM DAMAGE DURING ALL TORCH BRAZING OPERATIONS
6. FITTING (PART #3) TO BE BRAZED TO LEAD PRIOR TO GROUNDWRAP AND VPI.
7. SEE SPEC NO. NCSX-CSPEC-132-02 FOR QUALIFICATION AND TESTING REQUIREMENTS OF ALL BRAZE JOINTS.



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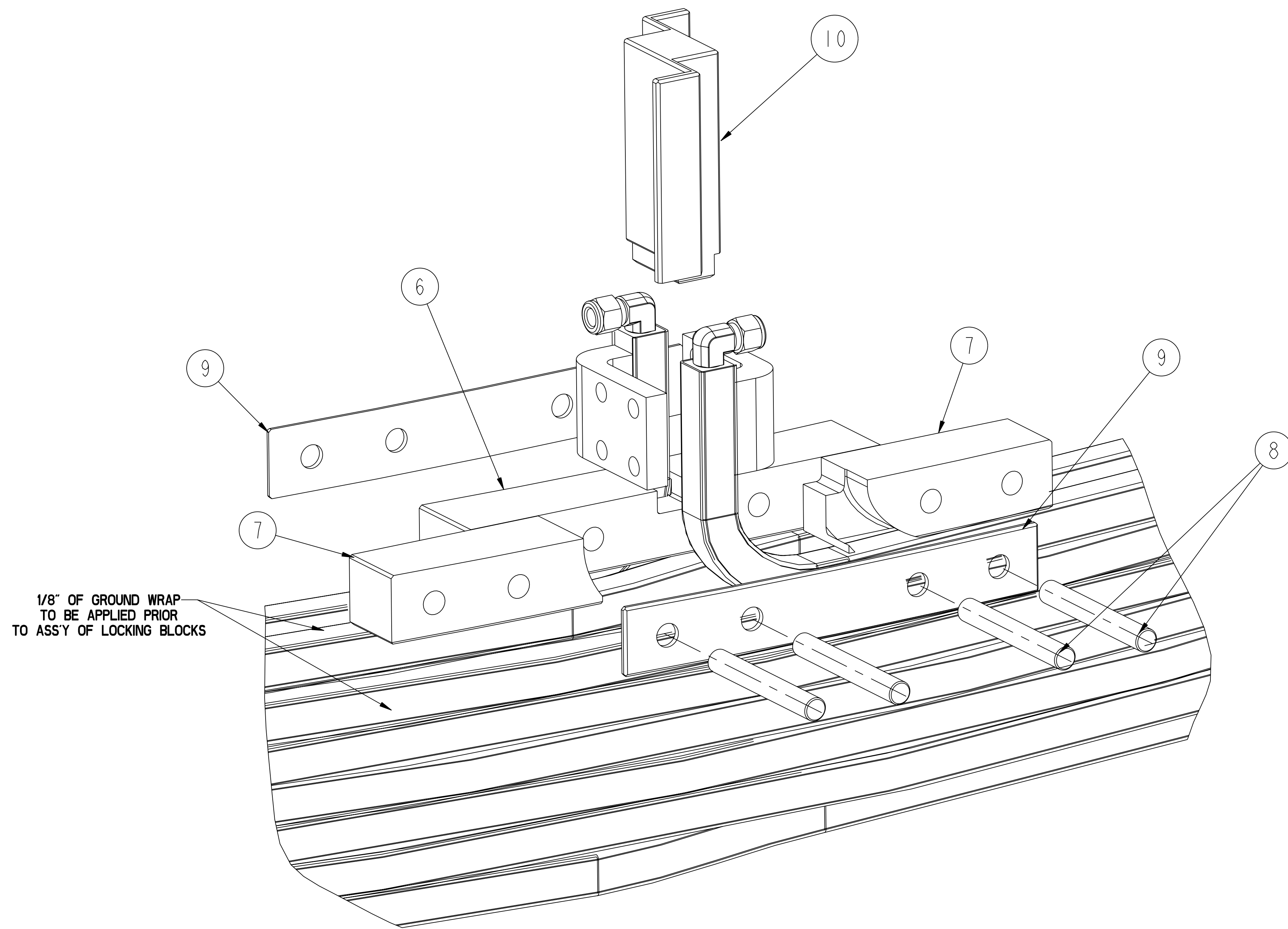
RELEASE LEVEL: Fabrication
DWG VERSION NO: 2

WEIGHT	3.1 lbs
MODEL NAME	SE132-039
WELDING ENGINEER	L. DUDEK 2/12/08

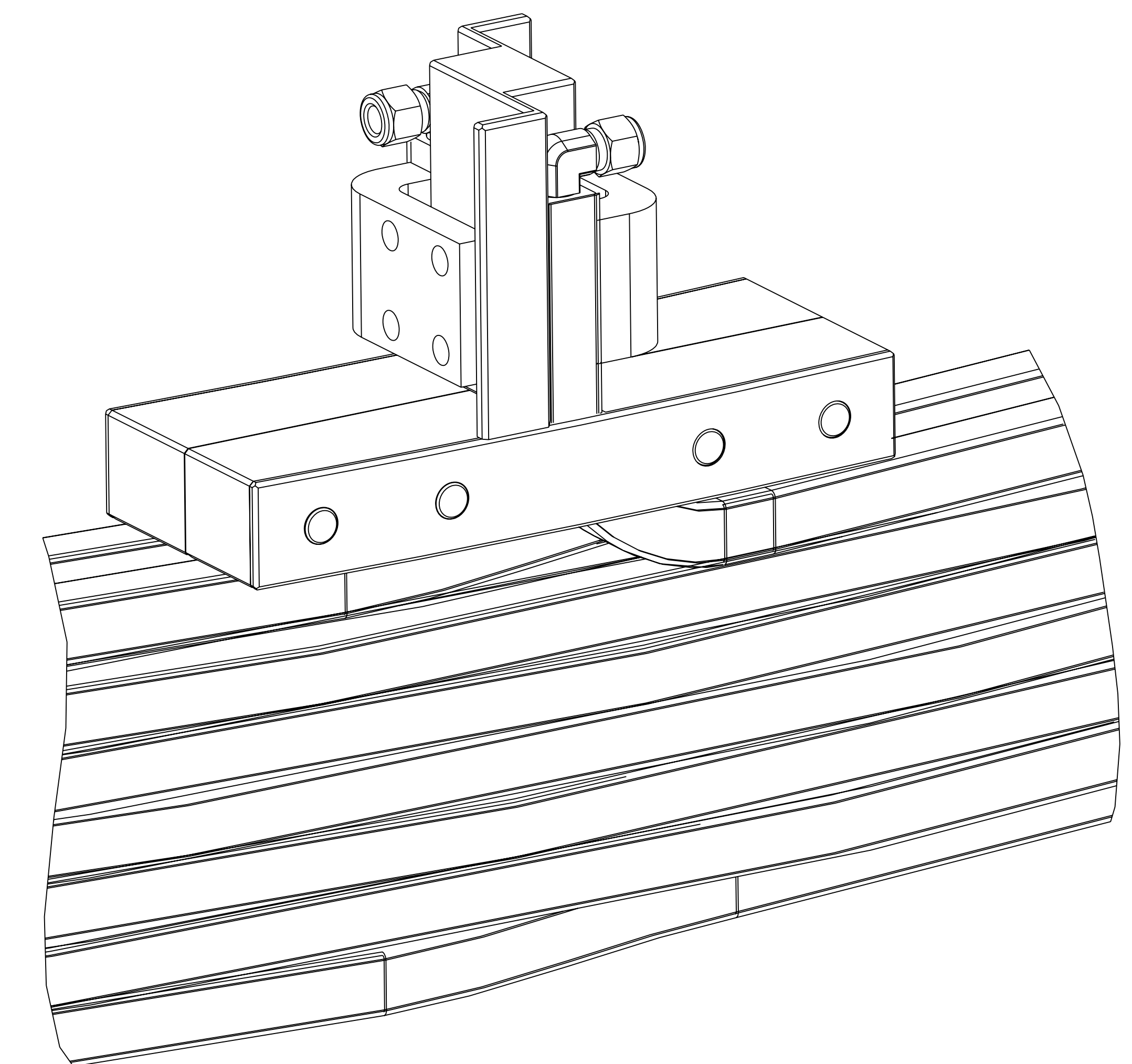
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DO NOT VERIFY INFORMATION BY SCALING DRAWING	BREAK SHARP EDGES .005/.020	STELLARATOR CORE CONVENTIONAL COILS PF-5 COIL WINDING ASSEMBLY / DETAILS	
NEXT ASSEMBLY	TOLERANCES NON-CUMULATIVE	DSN: B. PAUL 2/12/08	DRAWING NO:
	DECIMAL-INCH FRACTIONS	CHK: M. KALISH 2/12/08	SE132-050
	.XX +/- .000 0°-120° +/- 15.0	ENGR: J. CHRZANOWSKI 2/12/08	SHEET 3 OF 4
	.XXX +/- .005 72°-120° +/- 15.0	SUPV: J. SEIGEL 2/12/08	REV 0
	ANGULAR +/- 0°-15° OVER 120° +/- 15.0		

NCSX-SE132-050

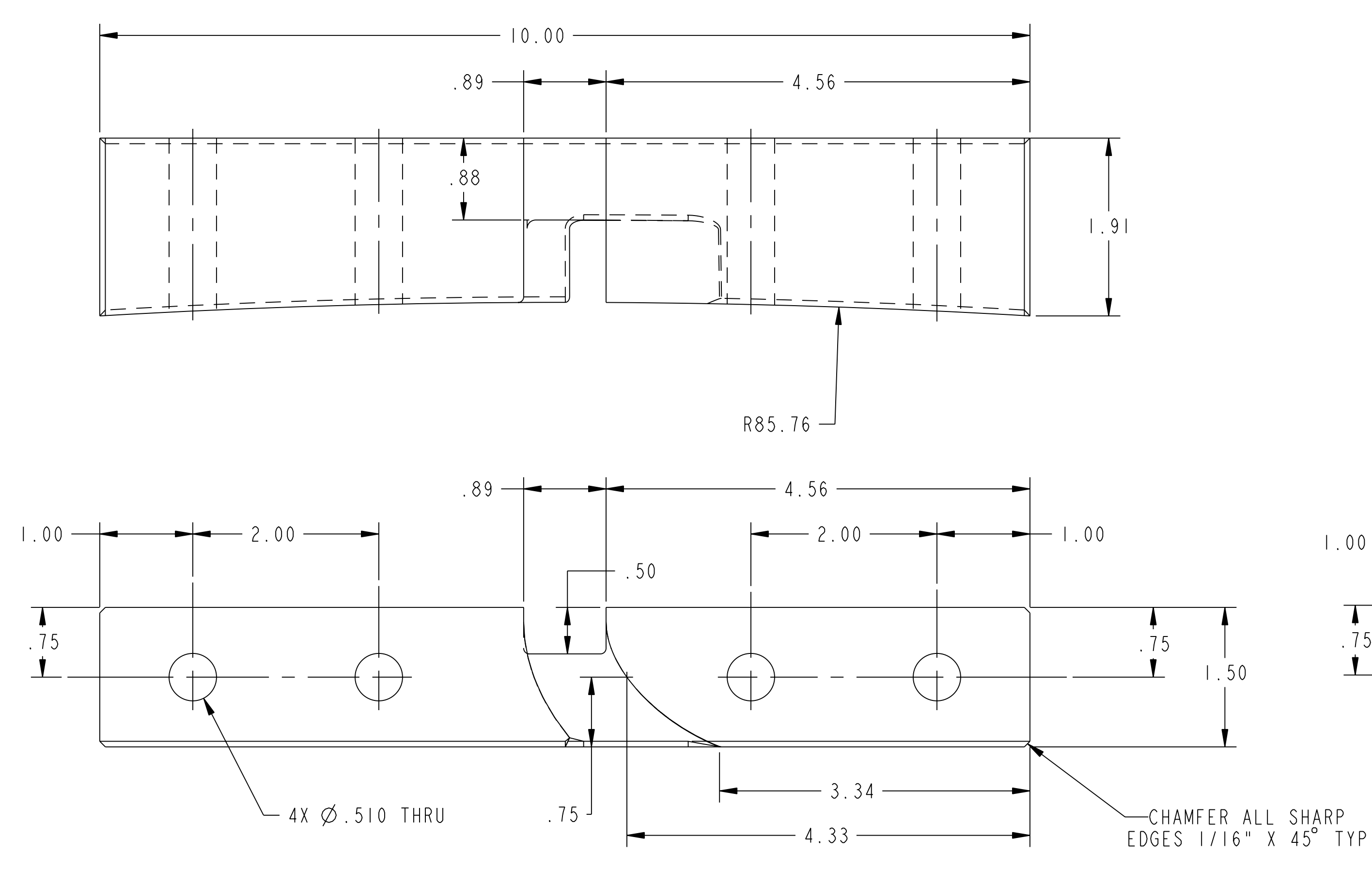
NO.	REVISION	BY	CH	SUP	APPROVED	DATE



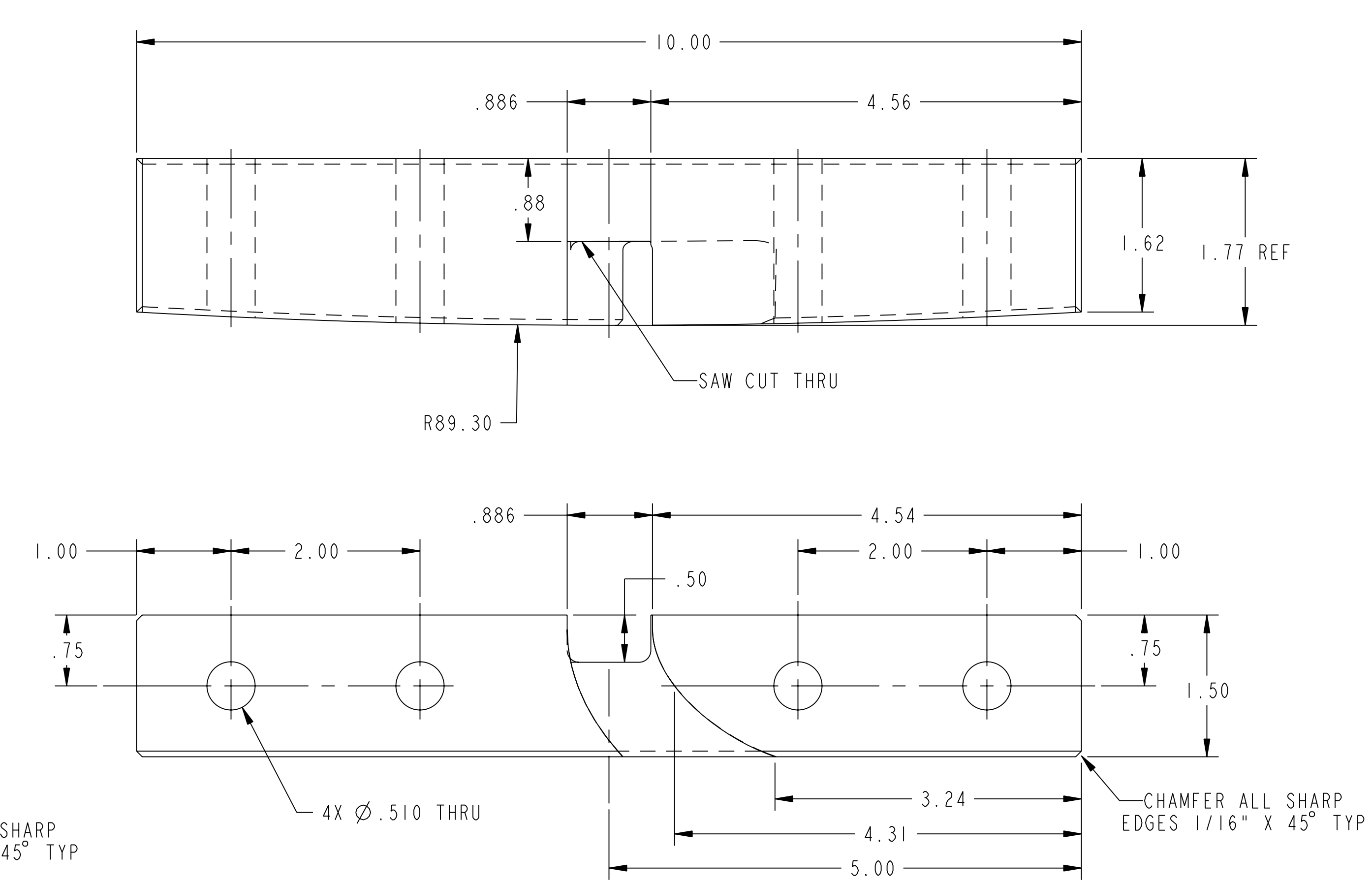
**EXPLODED VIEW OF LEAD LOCKING BLOCK ASSEMBLY
NO GROUND WRAP SHOWN**



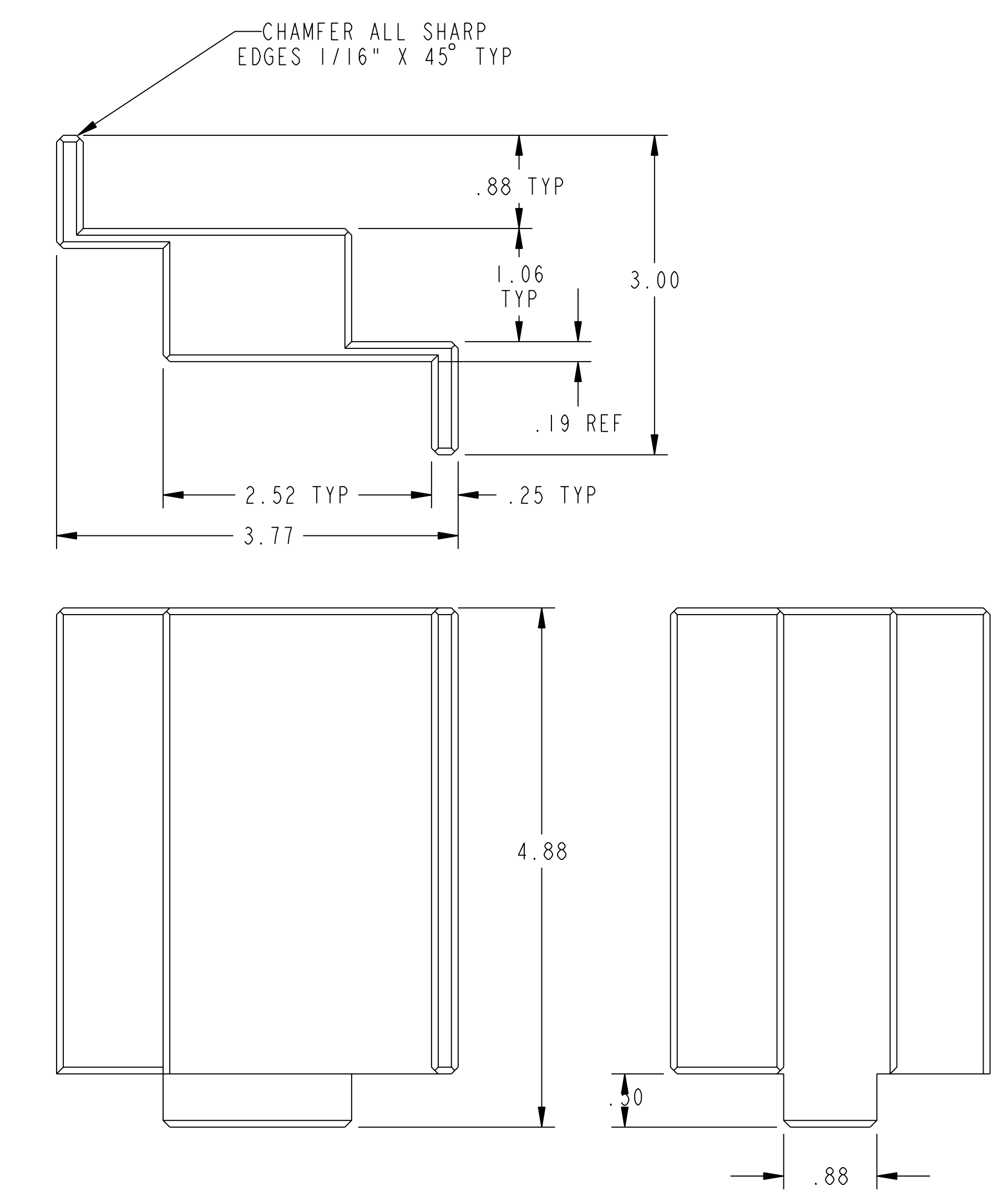
**VIEW OF LEAD LOCKING BLOCK ASSEMBLY
NO GROUND WRAP SHOWN**



PART 6



PART 7



PART 10

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**RELEASE LEVEL: Fabrication
DWG VERSION NO: 0**

WEIGHT	2.9 lbs
MODEL NAME	SEI32-FITTING-4-5-6
WELDING ENGINEER	L.DUDEK 2/12/08

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED Pro E	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES MACHINE SURFACES BREAK SHARP EDGES .005/.020	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY NATIONAL COMPACT STELLARATOR EXPERIMENT STELLARATOR CORE CONVENTIONAL COILS PF-5 LEAD LOCKING ASSEMBLY / DETAILS	
DO NOT VERIFY INFORMATION BY SCALING DRAWING	TOLERANCES NON-CUMULATIVE DECIMAL-INCH FRACTIONS .XX ±.000 0°-120° ±.125 .XXX ±.005 120°-120° ±.125 ANGULAR ±.0°-15° OVER 120° ±.125	DSN: B. PAUL 2/12/08 CHK: M. KALISH 2/12/08 ENGR: J. CHRZANOWSKI 2/12/08 SUPV: J. SEIGEL 2/12/08	DRAWING NO: SEI32-050 SHEET 4 OF 4 REV 0

NCSX-SEI32-050