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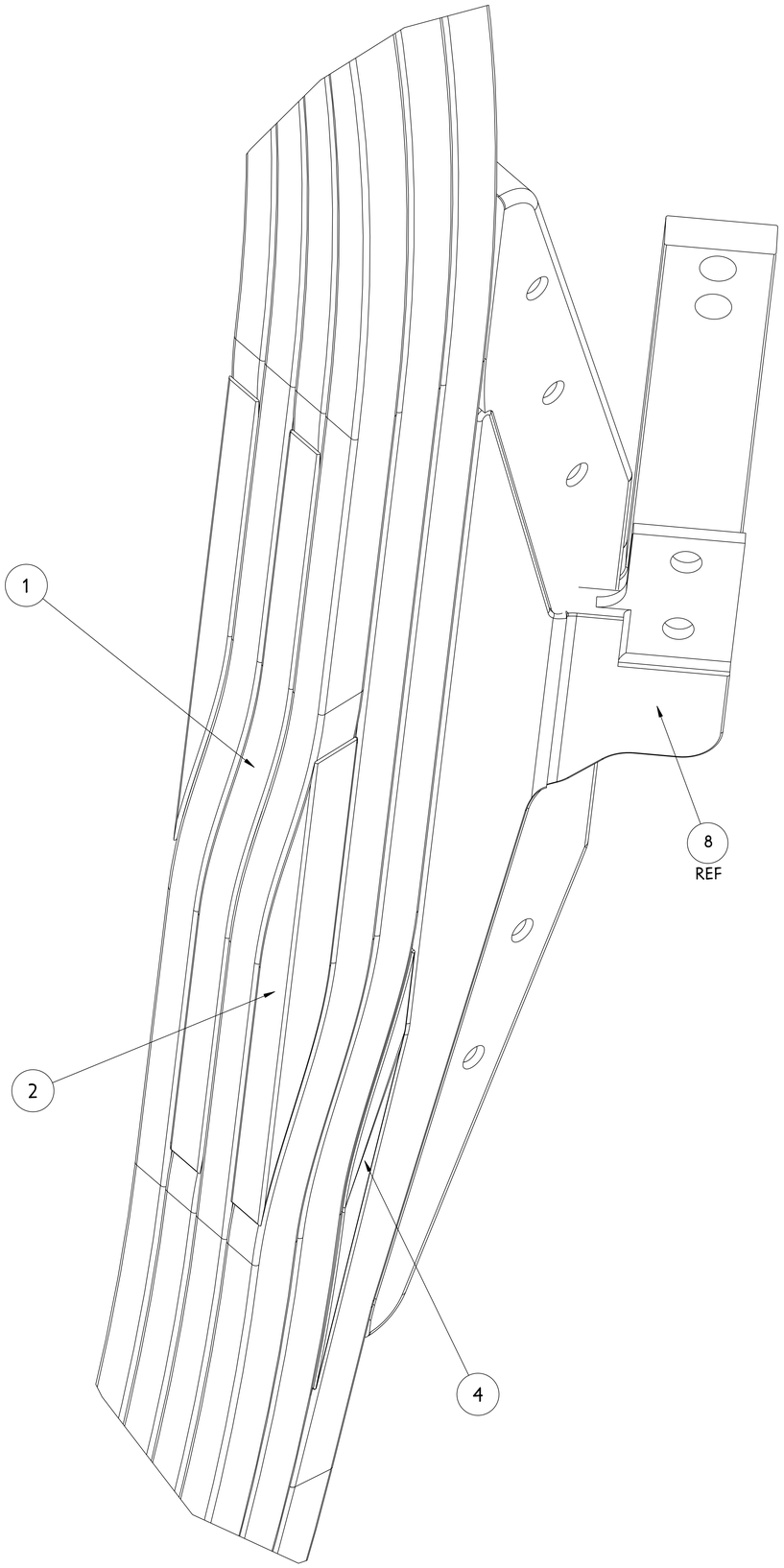
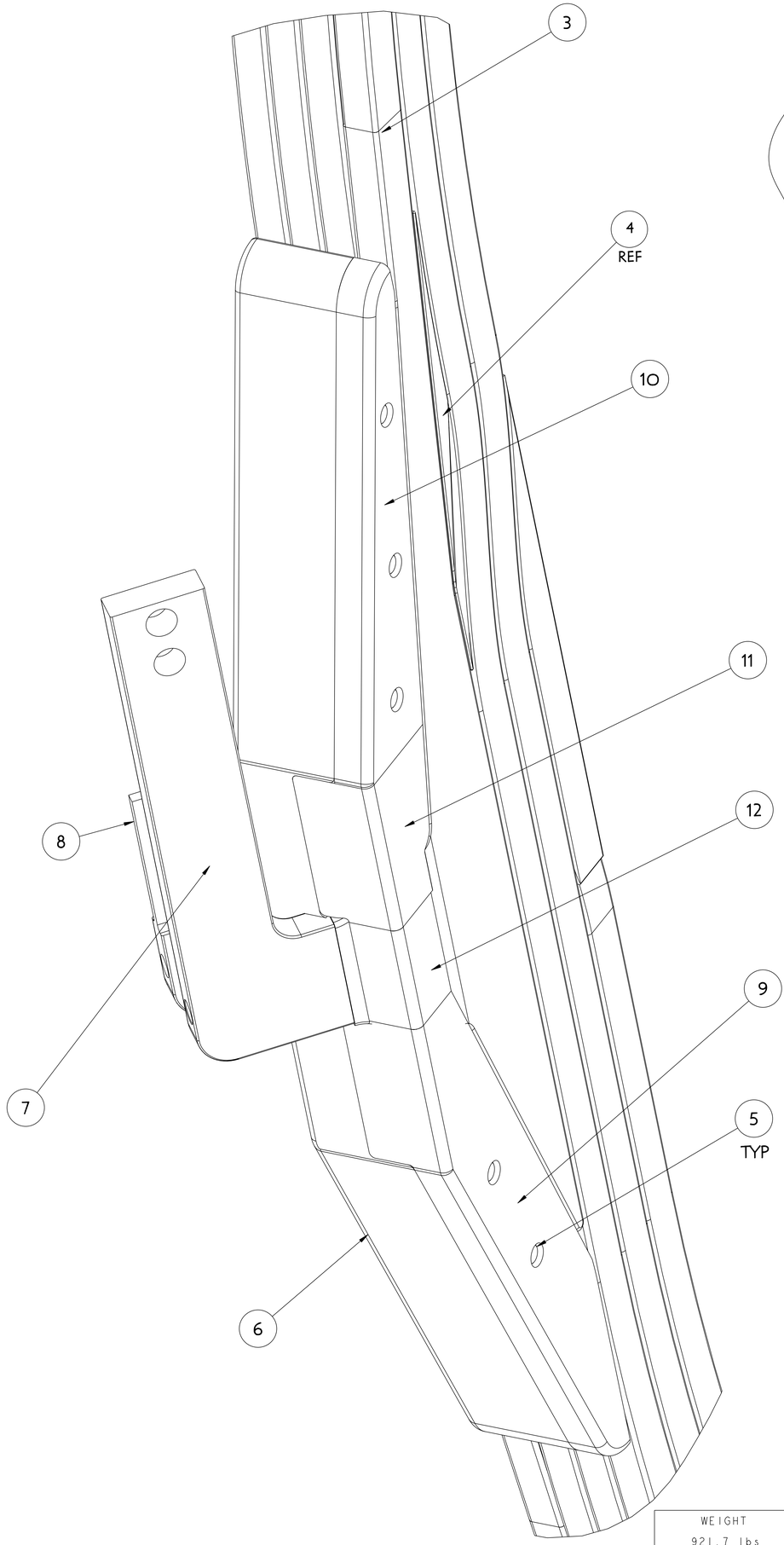
1	REVISED PER ECN # 5103	JDR	MK	JS	M. KALISH	04/07/06





NOTE

1. DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2000.
2. INTERPRET DIMENSIONS & TOLERANCES PER ASME Y14.5M-1994
3. ALL DIMENSIONS SHOWN IN INCHES.

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18 TF COIL ASSEMBLIES REQUIRED

PART NO.	DRAWING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY REQD
14	SC131-014	TF COIL CONDUCTOR DETAIL	SEE SPEC	A/R
13	SE131-091	TF COIL FRONT TRANSITION FILLER DETAIL	G-11 CR	1
12	SE131-087	SPACER FILLER BLOCK	G-11 CR	1
11	SE131-084	LEAD LOCKING BLOCK SMALL	G-11 CR	1
10	SE131-079	LEAD SUPPORT BLOCK LOCKING	G-11 CR	1
9	SE131-078	LEAD SUPPORT LOCKING BLOCK TYPE"A"	G-11 CR	1
8	SE131-054	TF COIL LEAD SHORT BENT RIGHT	COPPER C107	1
7	SE131-053	TF COIL LEAD LONG BENT RIGHT	COPPER C107	1
6	SE131-047-R2	TF COIL LEAD LOCKING BLOCK CENTRAL	G-11 CR	1
5	SE131-042	DOWEL PIN 1/2 DIA. X 3" LONG	G-11	5
4	SE131-041	LEAD FILLER	G-11 CR	2
3	SE131-033	FERRULE 7/16 OD X 5/16 ID X 1 1/2 LG	OFHC COPPER	5
2	SE131-032	TF COIL TRANSITION FILLER LEFT/RIGHT	G-11 CR	2
1	SE131-031	TF COIL TRANSITION FILLER CENTER	G-11 CR	1

PARTS LIST

NCSX-SE131-035

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY NATIONAL COMPACT STELLARATOR EXPERIMENT
Pro E	DIMENSIONS ARE IN INCHES MACHINE SURFACES 125	STELLARATOR CORE CONVENTIONAL COILS TF COIL WINDING ASSEMBLY/DETAILS
DO NOT VERIFY INFORMATION BY SCALING DRAWING	BREAK SHARP EDGES .005/.020	
	TOLERANCES NON-CUMULATIVE	DSN: J. RUSHINSKI 8/12/05 DRAWING NO:
NEXT ASSEMBLY SCALE 1.000	DECIMAL-INCH: .X +/-.100, .XX +/-.030, .XXX +/-.005, ANGULAR +/-0°-15' / FRACTIONS: 0°-12° +/-1/16, 12°-72° +/-1/8, 72°-120° +/-1/4, OVER 120° +/-1/2	CHK: M. KALISH/B. PAUL 8/12/05 SE131-035
		ENGR: M. KALISH 8/12/05
		SUPV: J. SIEGEL 8/12/05 SHEET 1 OF 5 REV 1

WEIGHT	RELEASE LEVEL: Fabrication
921.7 lbs	DWG VERSION NO:
MODEL NAME SE131-035	
WELDING ENGINEER	

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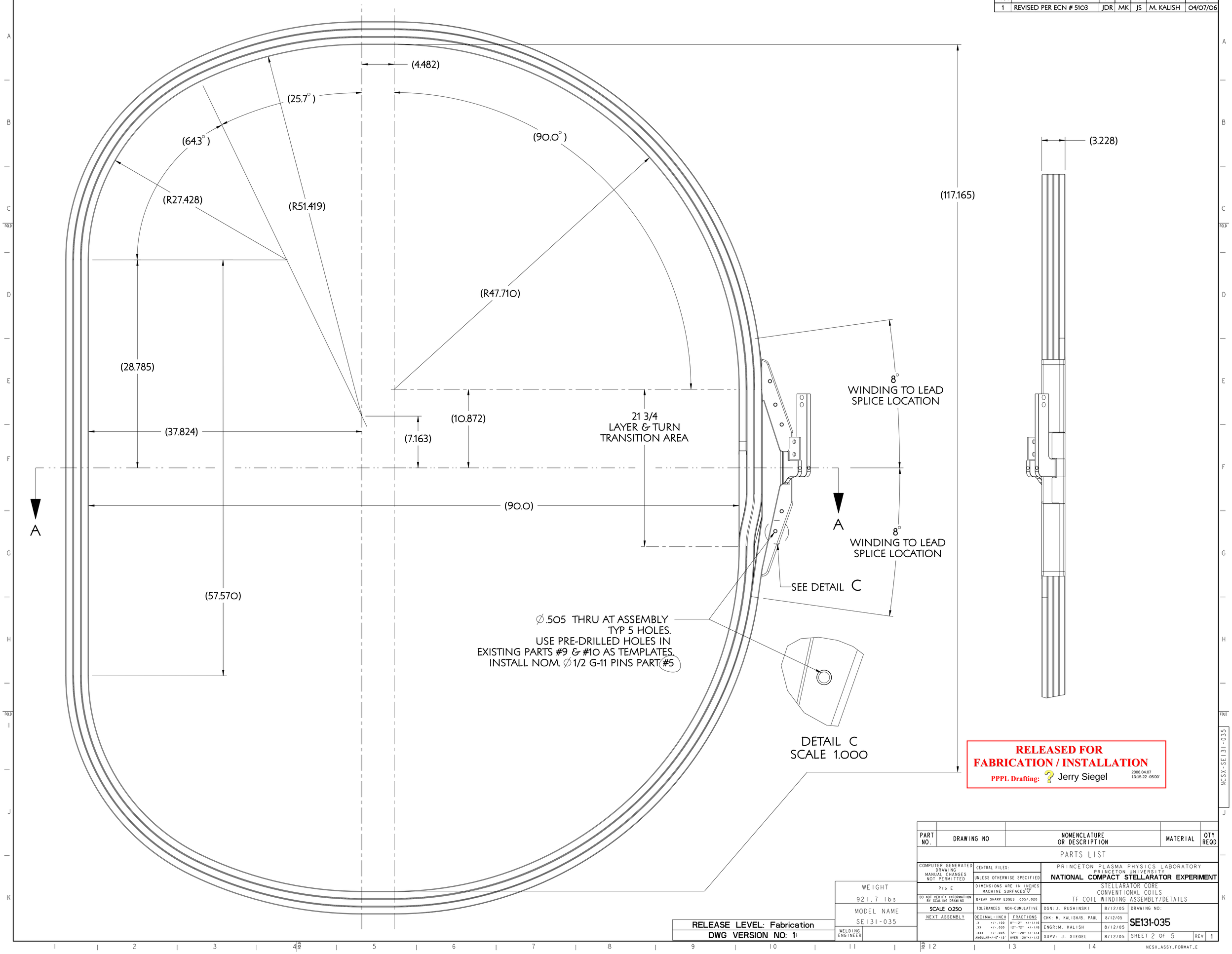
NO.	REVISION	BY	CH	SUP	APPROVED	DATE
1	REVISED PER ECN # 5103	JDR	MK	JS	M. KALISH	04/07/06



DETAIL C
SCALE 1.000

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PART NO.	DRAWING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY REQD

PARTS LIST

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY NATIONAL COMPACT STELLARATOR EXPERIMENT		
Pro E	DIMENSIONS ARE IN INCHES MACHINE SURFACES 63	STELLARATOR CORE CONVENTIONAL COILS TF COIL WINDING ASSEMBLY/DETAILS		
DO NOT VERIFY INFORMATION BY SCALING DRAWING	BREAK SHARP EDGES .005/.020			
SCALE 0.250	TOLERANCES NON-CUMULATIVE	DSN: J. RUSHINSKI	8/12/05	DRAWING NO:
NEXT ASSEMBLY	DECIMAL-INCH: .X +/-.100, .XX +/-.030, .XXX +/-.005, ANGULAR +/-0°-15'; FRACTIONS: 0"-12" +/-1/16, 12"-72" +/-1/8, 72"-120" +/-1/4, OVER 120" +/-1/2	CHK: M. KALISH/B. PAUL	8/12/05	SE131-035
		ENGR: M. KALISH	8/12/05	
		SUPV: J. SIEGEL	8/12/05	SHEET 2 OF 5 REV 1

WEIGHT	RELEASE LEVEL: Fabrication
921.7 lbs	DWG VERSION NO: 1
MODEL NAME SE131-035	
WELDING ENGINEER	

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NCSX-SE131-035

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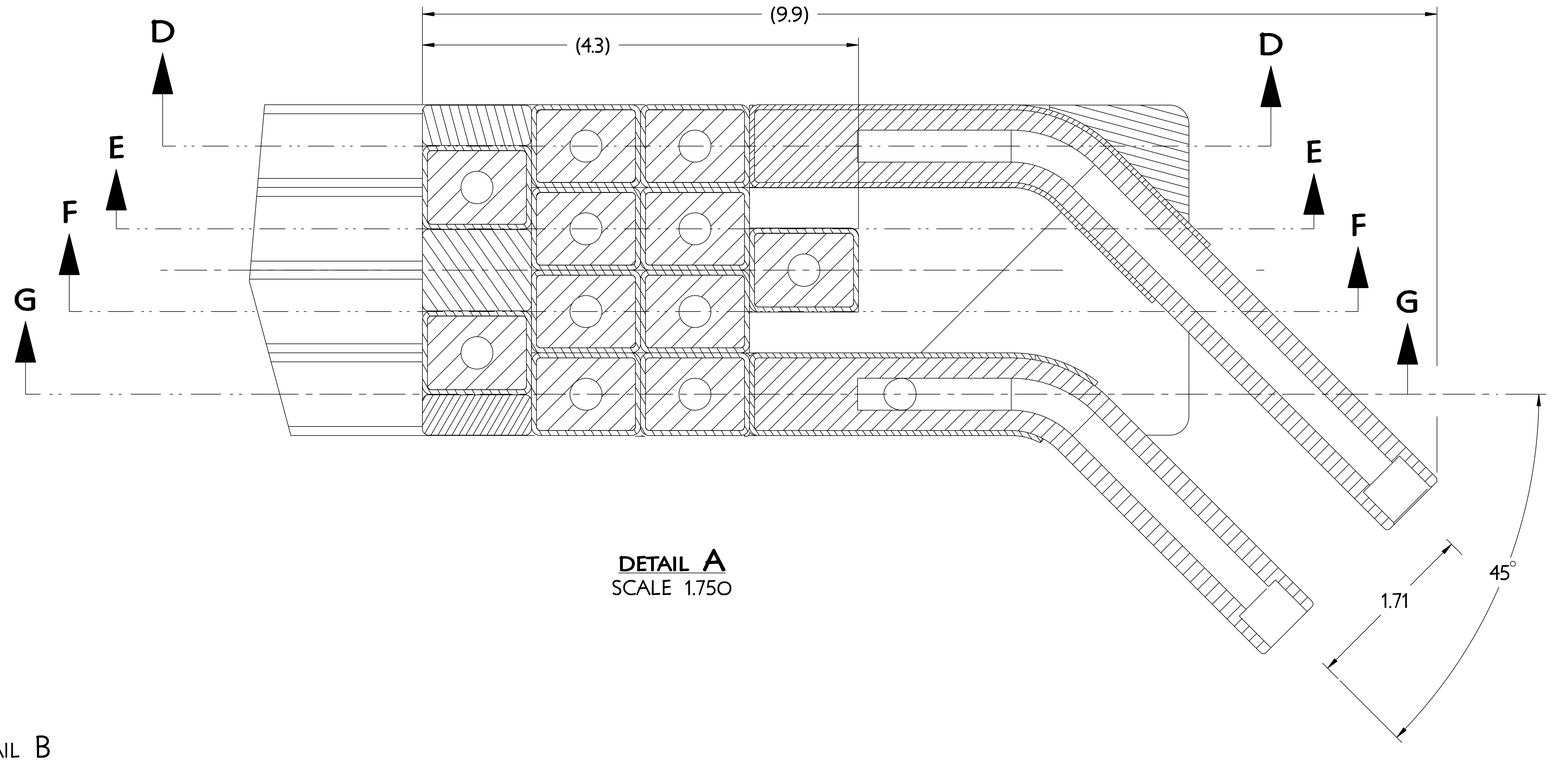
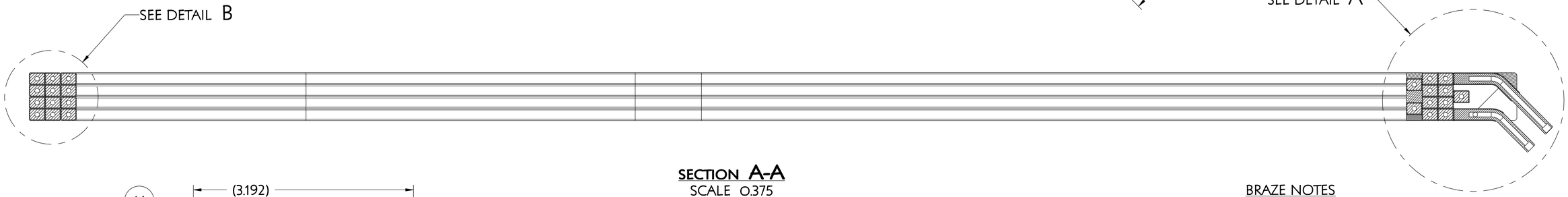
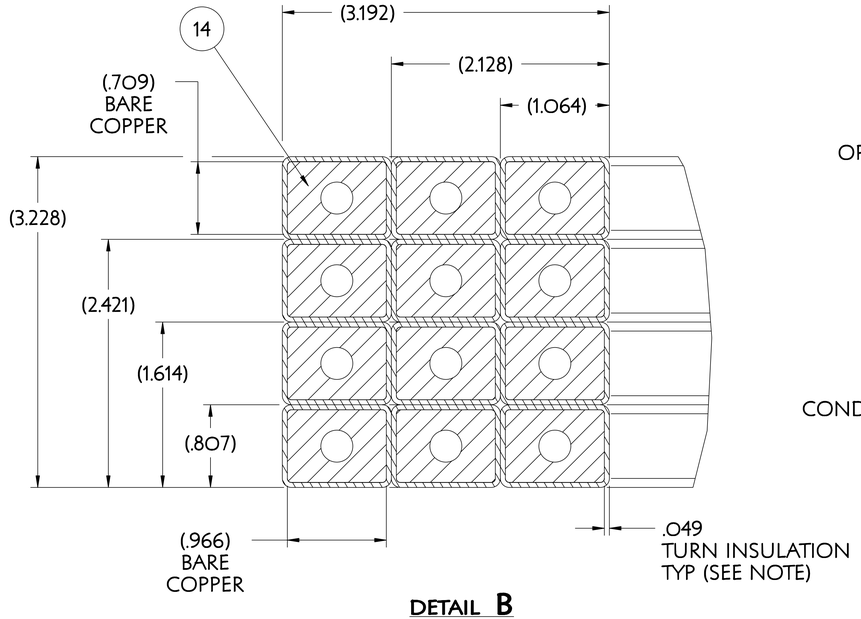


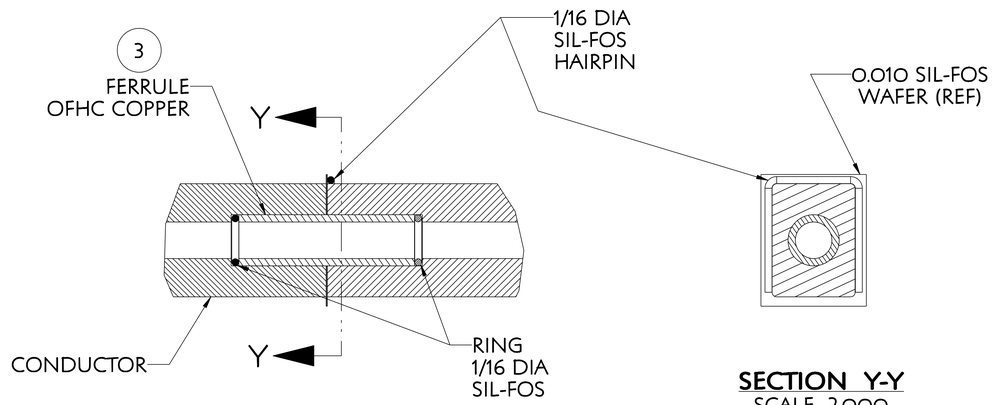
DETAIL A
SCALE 1.750



SECTION A-A
SCALE 0.375



DETAIL B
SCALE 1.750



SECTION Z-Z
SCALE 2.000

SECTION Y-Y
SCALE 2.000

NOTE

TURN INSULATION (APPROX .049" THICK)
1 (1/2 LAPPED) LAYER KAPTON/ADHESIVE TAPE
3 (1/2 LAPPED) LAYERS GLASS TAPE

SEE SPECIFICATION NCSX-131-01-00 FOR TURN TO TURN INSULATION DETAILS.

BRAZE NOTES

THE BRAZE JOINT SHALL CONSIST OF A OXYGEN FREE (OFHC) COPPER FERRULE (2) SIL-FOS RINGS AT THE END OF THE FERRULE, A SIL-FOS WAFER AND A SIL-FOS HAIRPIN TO SUPPLY ADDITIONAL BRAZE MATERIAL DURING THE PROCESS. THE HAIRPIN MAY BE REPLACED WITH HAND FED SIL-FOS MATERIAL.

THE COPPER FERRULE SHALL MAINTAIN THE ID OF THE COOLANT PATH IN THE CONDUCTOR. THE CLEARANCE HOLE IN THE CONDUCTOR END SHALL BE DRILLED TO ALLOW A 0.003" TO 0.005" INCH CLEARANCE BETWEEN THE FERRULE OUTER DIAMETER AND THE COUNTERBORED CONDUCTOR INNER DIAMETER.

SEE SPECIFICATION NCSX-CSPEC-131-01-000 FOR FURTHER BRAZE DETAILS AND REQUIRED QUALIFICATIONS.

BRAZE JOINTS SHALL BE VISUALLY EXAMINED FOR COMPLETE FILLING OF THE JOINT AND FREEDOM FROM CRACKS

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PART NO.	DRAWING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY REQD

PARTS LIST

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY NATIONAL COMPACT STELLARATOR EXPERIMENT		
Pro E	DIMENSIONS ARE IN INCHES MACHINE SURFACES 125	STELLARATOR CORE CONVENTIONAL COILS TF COIL WINDING ASSEMBLY/DETAILS		
DO NOT VERIFY INFORMATION BY SCALING DRAWING	BREAK SHARP EDGES .005/.020			
	TOLERANCES NON-CUMULATIVE	DSN: J. RUSHINSKI	8/12/05	DRAWING NO:
NEXT ASSEMBLY	DECIMAL-INCH: .X +/-.100, .XX +/-.030, .XXX +/-.005, ANGULAR +/-0°-15'; FRACTIONS: 0°-12° +/-1/16, 12°-72° +/-1/8, 72°-120° +/-1/4, OVER 120° +/-1/2	CHK: M. KALISH/B. PAUL	8/12/05	SE131-035
		ENG: M. KALISH	8/12/05	
		SUPV: J. SIEGEL	8/12/05	SHEET 3 OF 5 REV 1

WEIGHT	RELEASE LEVEL: Fabrication
921.7 lbs	DWG VERSION NO: 1
MODEL NAME SE131-035	
WELDING ENGINEER	

NCSX-SE131-035

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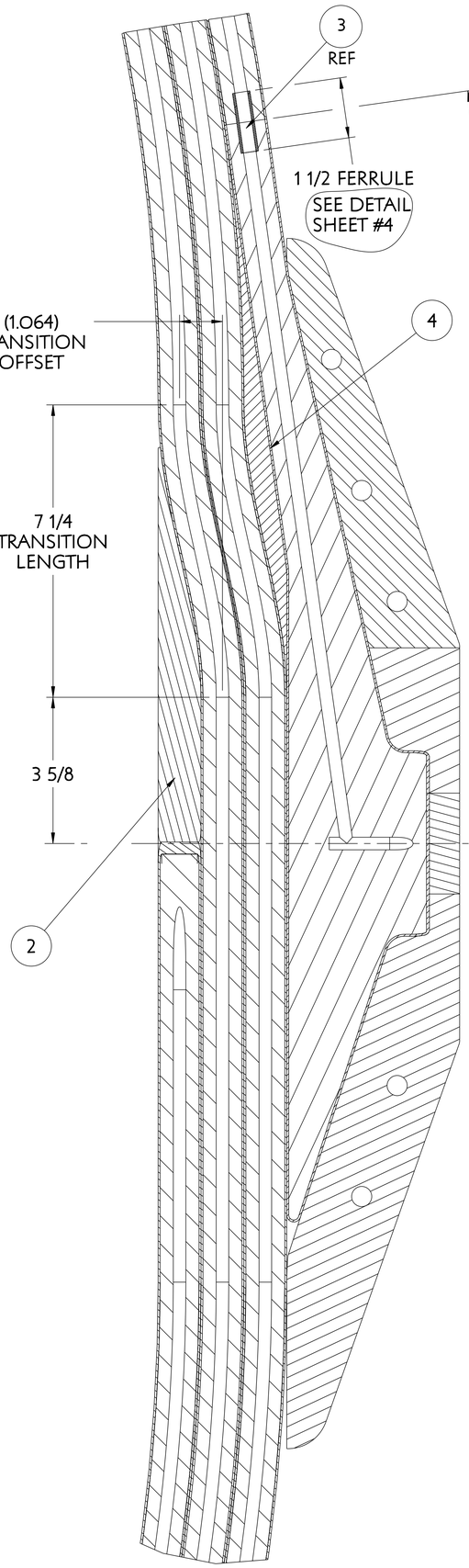
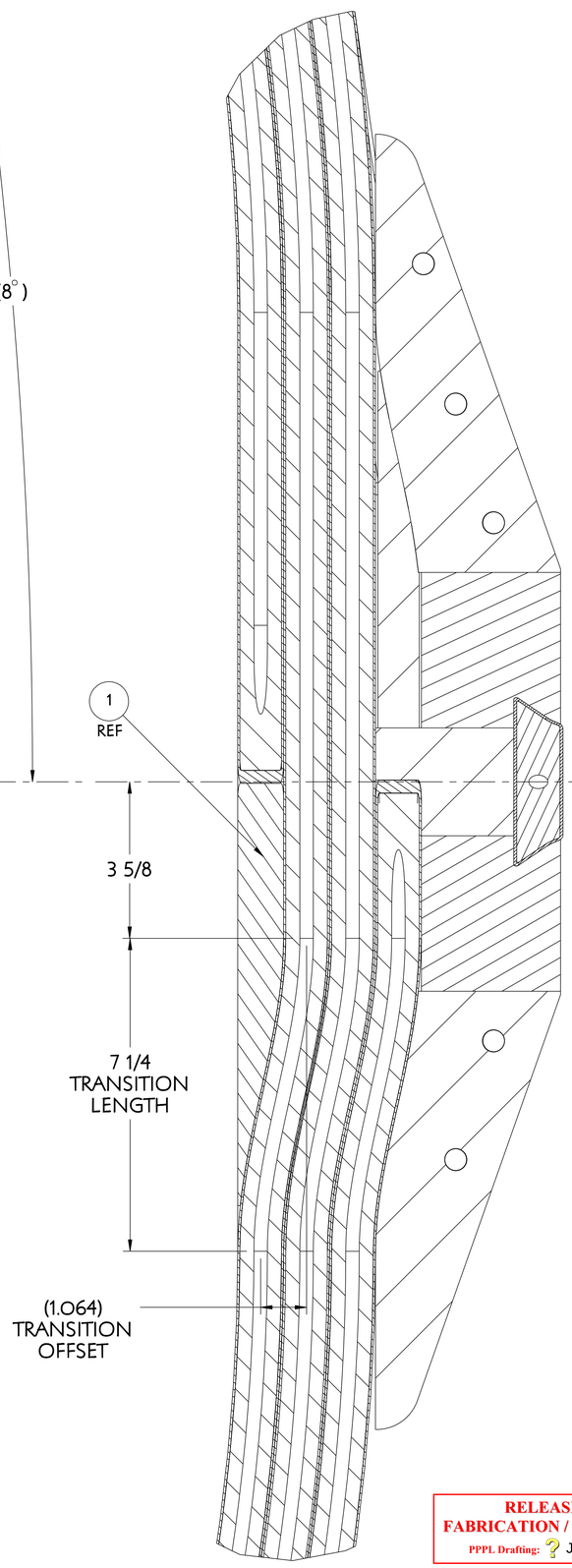
1	REVISED PER ECN # 5103	JDR	MK	JS	M. KALISH	04/07/06



SECTION D-D
LAYER #1 TURN TRANSISTIONS
SCALE 0.750



SECTION E-E
LAYER #2 TURN TRANSITIONS
SCALE 0.750

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2006.04.07
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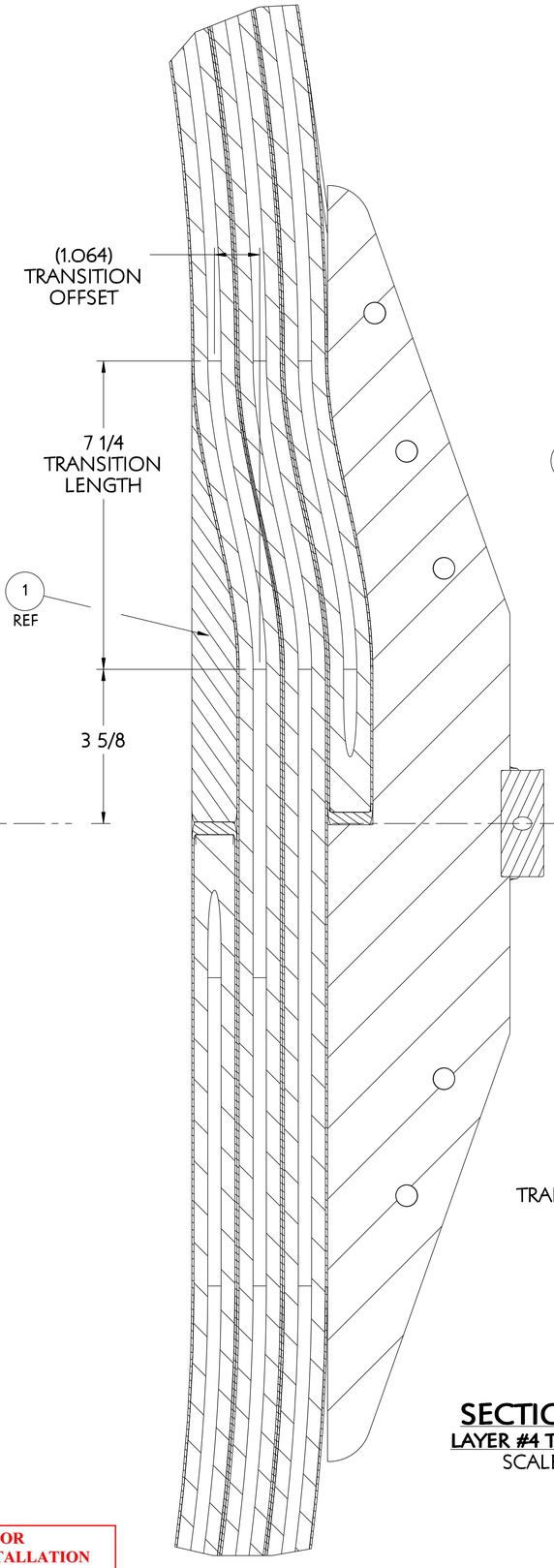
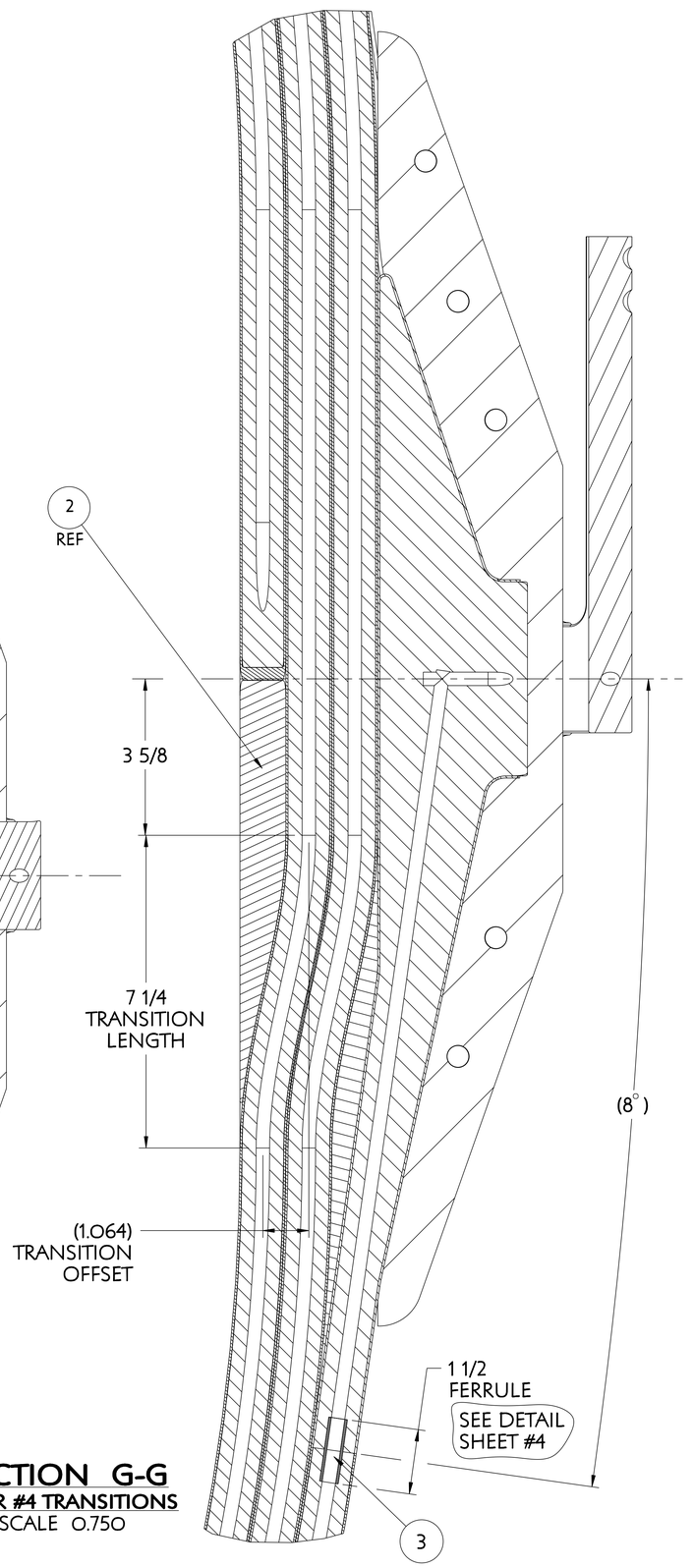


SECTION F-F
LAYER #3 TRANSITIONS
SCALE 0.750



SECTION G-G
LAYER #4 TRANSITIONS
SCALE 0.750

PART NO.	DRAWING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY REQD

PARTS LIST

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY NATIONAL COMPACT STELLARATOR EXPERIMENT		
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DO NOT VERIFY INFORMATION BY SCALING DRAWING	BREAK SHARP EDGES .005/.020			
	TOLERANCES NON-CUMULATIVE	DSN: J. RUSHINSKI	8/12/05	DRAWING NO:
NEXT ASSEMBLY	DECIMAL-INCH / FRACTIONS .X +/-.100 / 0°-12° +/-1/16 .XX +/-.030 / 12°-72° +/-1/8 .XXX +/-.005 / 72°-120° +/-1/4 ANGULAR +/-0°-15' / OVER 120° +/-1/2	CHK: M. KALISH/B. PAUL	8/12/05	SE131-035
		ENGR: M. KALISH	8/12/05	
		SUPV: J. SIEGEL	8/12/05	SHEET 4 OF 5 REV 1

WEIGHT	MODEL NAME	WELDING ENGINEER
921.7 lbs	SE131-035	

RELEASE LEVEL: Fabrication
DWG VERSION NO: 1

NCSX-SE131-035

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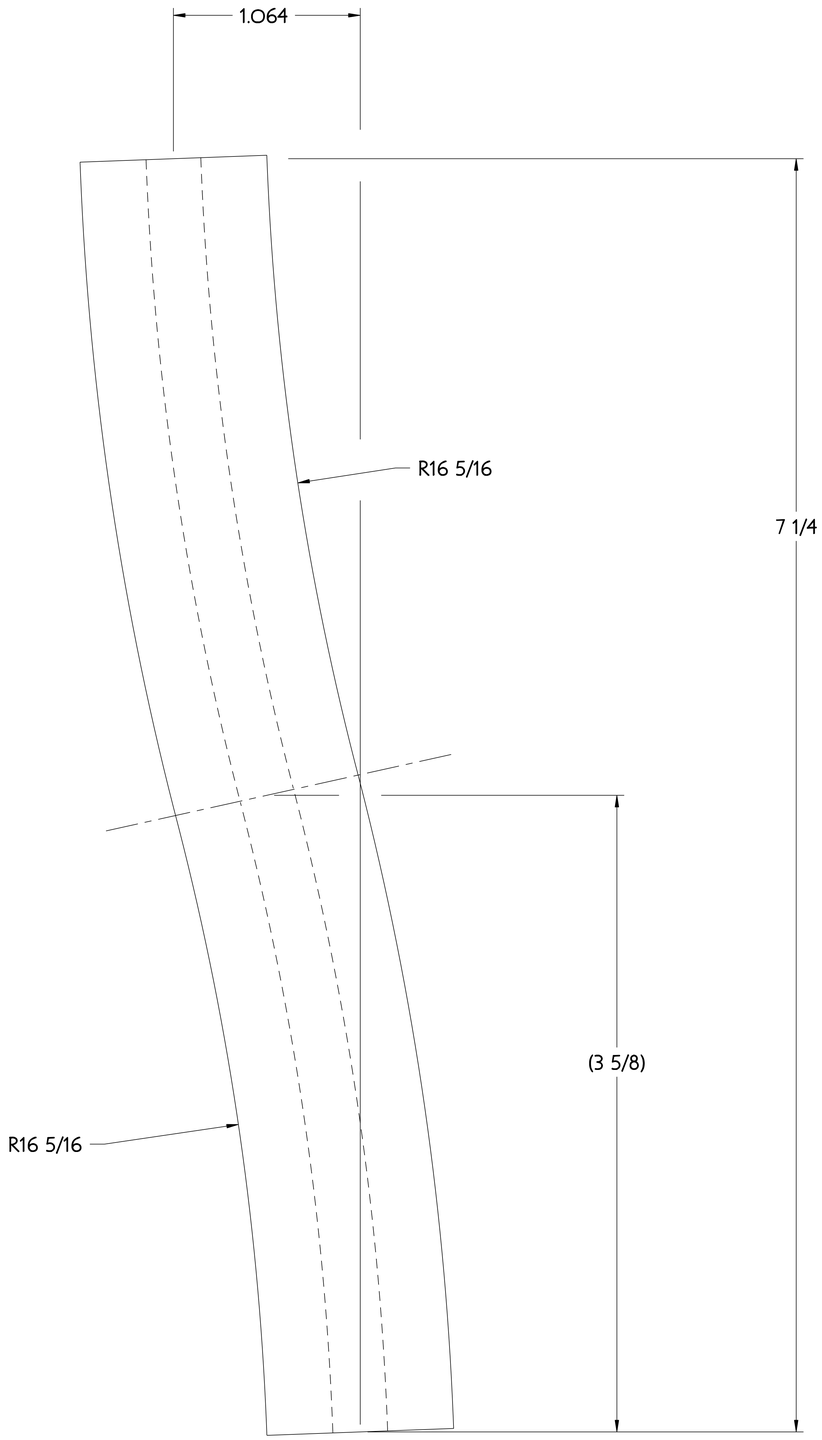
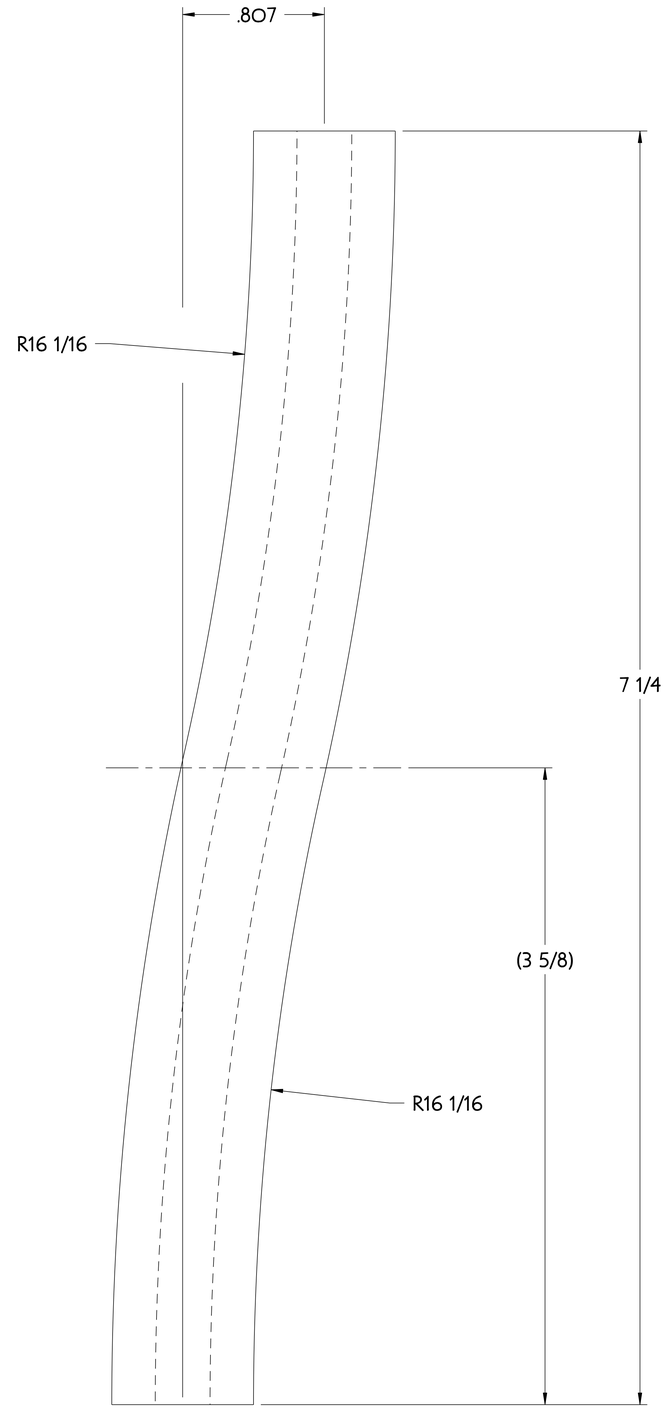


TYP TURN TO TURN TRANSITION

SCALE 3.000



TYP LAYER TO LAYER TRANSITION

SCALE 3.000

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RELEASE LEVEL: Fabrication
DWG VERSION NO: 1

PART NO.	DRAWING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	QTY REQD

PARTS LIST

COMPUTER GENERATED DRAWING MANUAL CHANGES NOT PERMITTED	CENTRAL FILES: UNLESS OTHERWISE SPECIFIED	PRINCETON PLASMA PHYSICS LABORATORY PRINCETON UNIVERSITY	
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 TF COIL WINDING ASSEMBLY/DETAILS	
	TOLERANCES NON-CUMULATIVE	DSN: J. RUSHINSKI	8/12/05
NEXT ASSEMBLY	DECIMAL-INCH: .X +/-.100, .XX +/-.030, .XXX +/-.005, ANGULAR +/-0°-15' / FRACTIONS: 0°-12' +/-1/16, 12°-72' +/-1/8, 72°-120' +/-1/4, OVER 120° +/-1/2	CHK: M. KALISH/B. PAUL	8/12/05
		ENGR: M. KALISH	8/12/05
		SUPV: J. SIEGEL	8/12/05

DRAWING NO: SE131-035

SHEET 5 OF 5 REV. 1

WEIGHT	MODEL NAME	WELDING ENGINEER
	SE131-035	

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