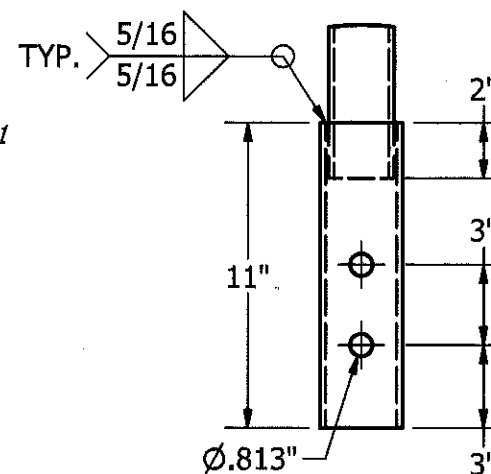


LEAD SECTIONS - PARTS LIST

PART NUMBER	DIM 'A'	DIM 'B'	DIM 'C'
E23760810L	60"	8"	10"
E237601012L	60"	10"	12"
E23784810L	84"	8"	10"
E237841012L	84"	10"	12"
E23736E	36"		
E23760E	60"		
E23784E	84"		
E237120E	120"		

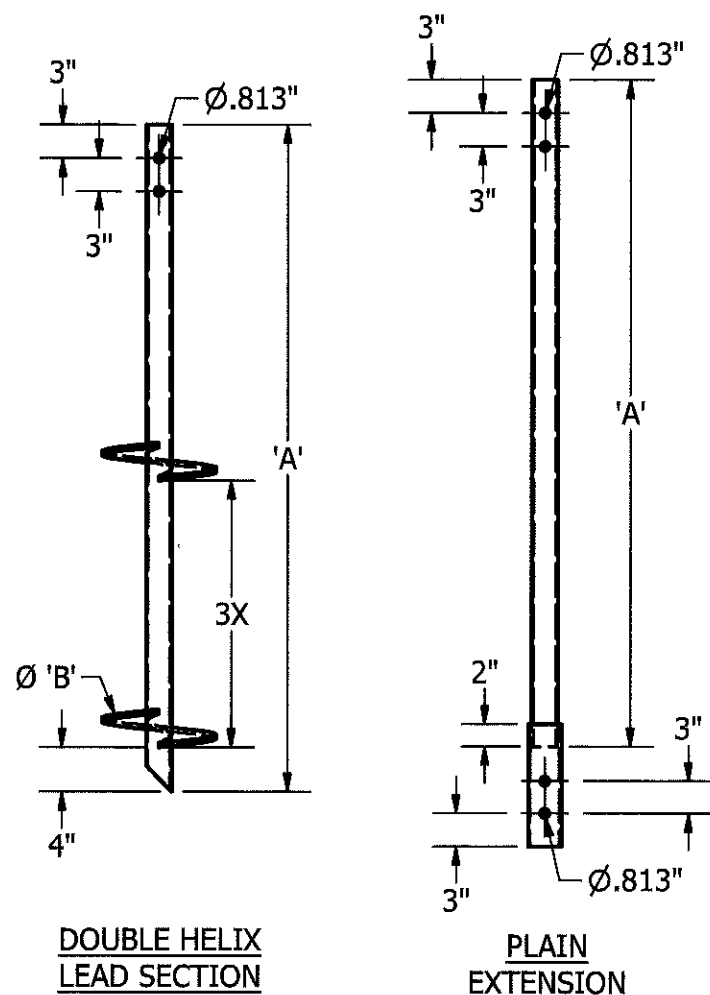
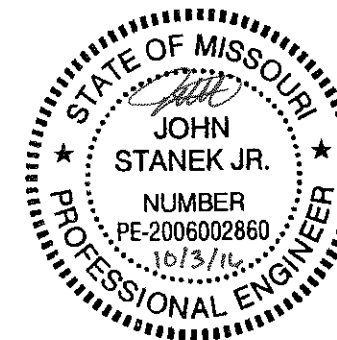
GENERAL NOTES

1. SHAFT MATERIAL -  $\phi 2 \frac{3}{8}$ " OD x 0.190" WALL  
J-55 API 5CT CERTIFIED PIPE.  $F_y = 55$  KSI,  $F_t = 75$  KSI.
2. FINISH HOT DIPPED GALV. PER ASTM A 123/153.
3. ALL WELDING TO BE PERFORM BY QUALIFIED WELDER TO AWS D1.1
4. TORQUE STRENGTH RATING OF 4,500 FT-LBS
5. ULTIMATE CAPACITY OF UNIT IS 45 KIPS
6. HELIX SPACING SHALL BE 3 X THE DIAMETER FROM THE LOWEST HELIX IN ACCORDANCE WITH ICC-ES AC358.
7. STEEL HELIX MATERIAL TO CONFORM TO ASTM A572, 50 KSI. HELIX GEOMETRY IN ACCORDANCE WITH ICC-ES AC358.
8. COUPLING BOLTS:  $3 \frac{1}{2}$ " x  $\frac{3}{4}$ " A5E J429 GRADE 5  
BOLT SHEAR = 85 KSI, YIELD STRENGTH = 92 KSI,  
TENSILE STRENGTH = 120 KSI
9. ALL MATERIAL IS MANUFACTURED IN U.S.



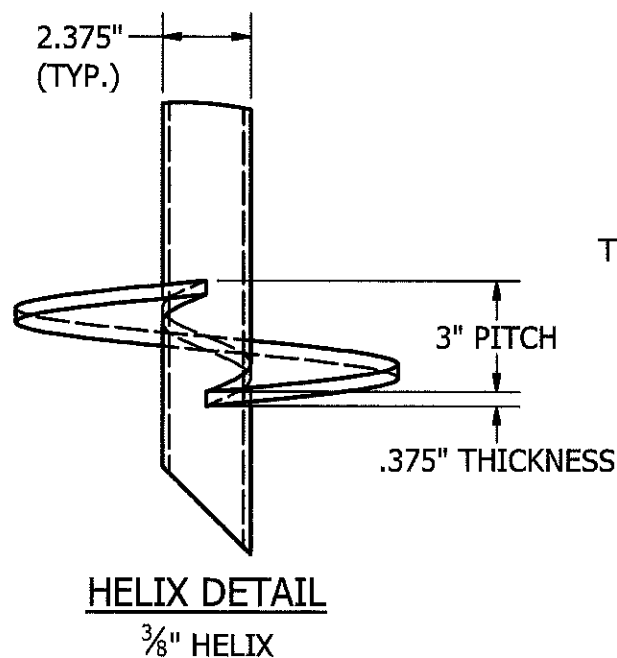
STANDARD  
COUPLER DETAIL  
 $\phi 2 \frac{7}{8}$ " x 0.203" WALL

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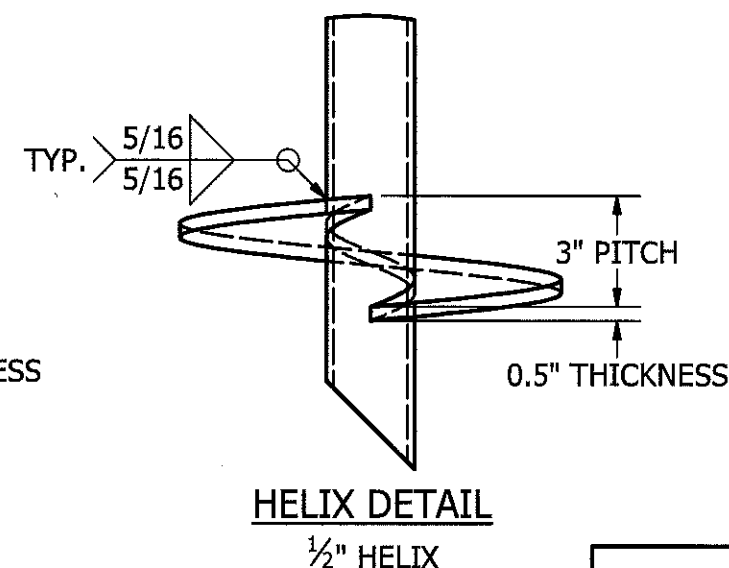


DOUBLE HELIX  
LEAD SECTION


PLAIN  
EXTENSION



HELIX DETAIL  
 $\frac{3}{8}$ " HELIX



HELIX DETAIL  
 $\frac{1}{2}$ " HELIX

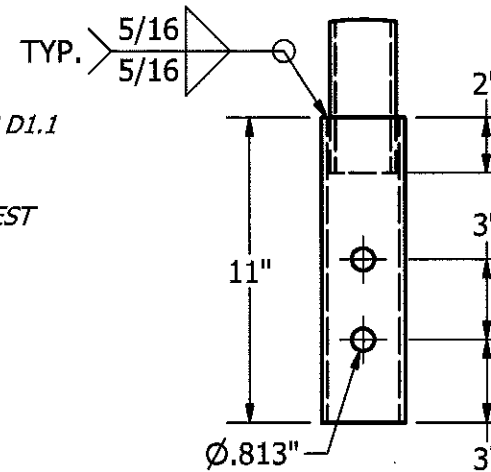
DRAWN John Stanek	10/3/2016	 EMPIRE PIERS 2656 EAST HIGHWAY 47 WINFIELD, MO 63389 (636) 668-8066	
CHECKED Luke Brown	10/3/2016		
APPROVED Greg Pyle	10/3/2016		
MFG Empire Piers	10/3/2016		
SCALE NTS	DWG SIZE B	REV	TITLE 2 3/8" OD x 0.190" WALL LEADS & EXTENSIONS
	DWG NO E2375X02	SHEET 1 of 1	

LEAD SECTIONS - PARTS LIST

PART NUMBER	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
E2378481012L	84"	8"	10"	12"
E23784101214L	84"	10"	12"	14"
E23712081012L	120"	8"	10"	12"
E237120101214L	120"	10"	12"	14"
E23736E	36"			
E23760E	60"			
E23784E	84"			
E237120E	120"			

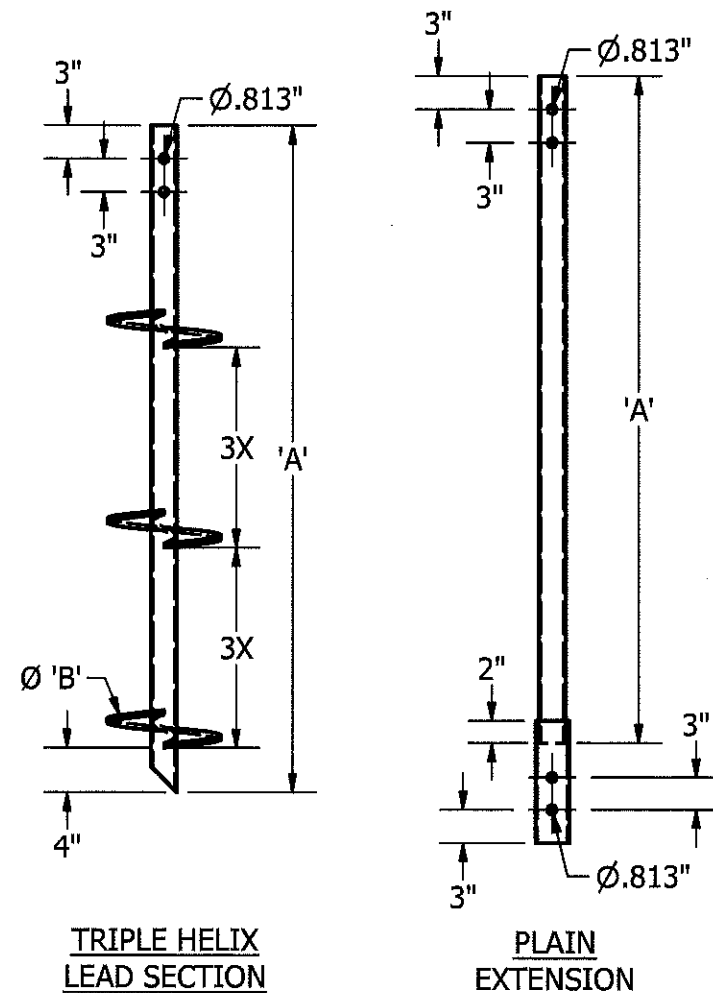
GENERAL NOTES

1. SHAFT MATERIAL -  $\phi 2 \frac{3}{8}$ " OD x 0.190" WALL  
J-55 API 5CT CERTIFIED PIPE.  $F_y = 55$  KSI,  $F_t = 75$  KSI.
2. FINISH HOT DIPPED GALV. PER ASTM A 123/153.
3. ALL WELDING TO BE PERFORM BY QUALIFIED WELDER TO AWS D1.1
4. TORQUE STRENGTH RATING OF 4,500 FT-LBS
5. ULTIMATE CAPACITY OF UNIT IS 45 KIPS
6. HELIX SPACING SHALL BE 3 X THE DIAMETER FROM THE LOWEST HELIX IN ACCORDANCE WITH ICC-ES AC358.
7. STEEL HELIX MATERIAL TO CONFORM TO ASTM A572, 50 KSI. HELIX GEOMETRY IN ACCORDANCE WITH ICC-ES AC358.
8. COUPLING BOLTS:  $3 \frac{1}{2}$ " x  $\frac{3}{4}$ " A5E J429 GRADE 5  
BOLT SHEAR = 85 KSI, YEILD STRENGTH = 92 KSI,  
TENSILE STRENGTH = 120 KSI
9. ALL MATERIAL IS MANUFACTURED IN U.S.



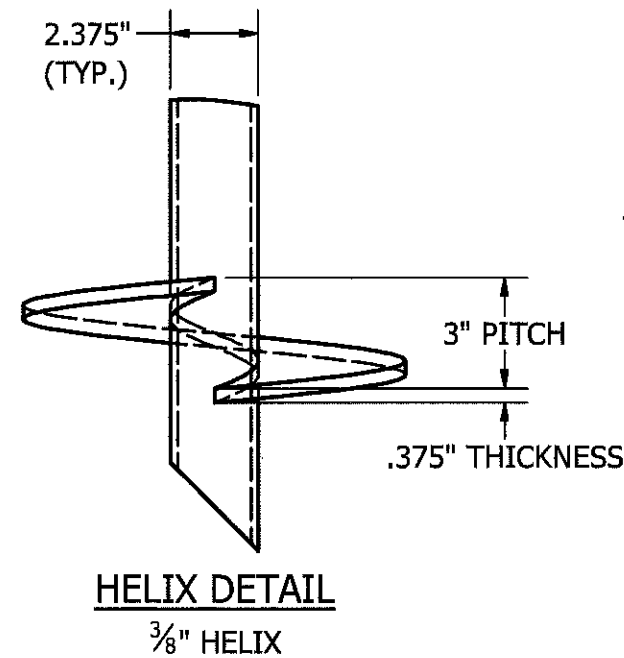
STANDARD  
COUPLER DETAIL  
 $\phi 2 \frac{7}{8}$ " x 0.203" WALL

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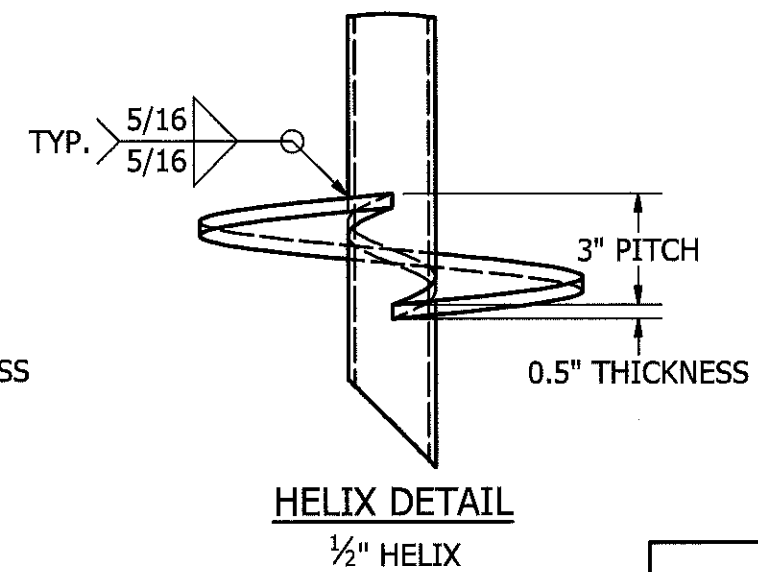


TRIPLE HELIX  
LEAD SECTION

PLAIN  
EXTENSION



HELIX DETAIL  
 $\frac{3}{8}$ " HELIX



HELIX DETAIL  
 $\frac{1}{2}$ " HELIX

DRAWN	John Stanek	10/3/2016
CHECKED	Luke Brown	10/3/2016
APPROVED	Greg Pyle	10/3/2016
MFG	Empire Piers	10/3/2016
SCALE	NTS	DWG SIZE B

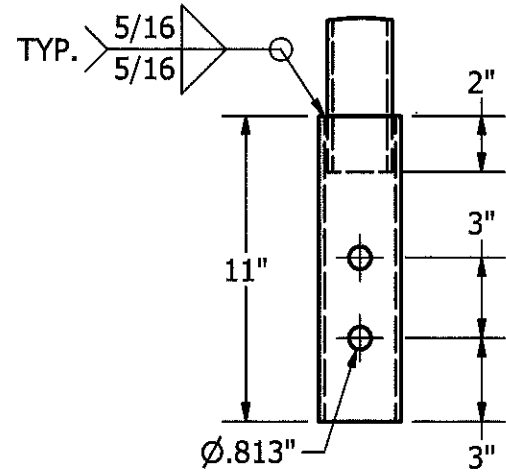


EMPIRE PIERS 2656 EAST HIGHWAY 47 WINFIELD, MO 63389 (636) 668-8066	
TITLE 2 3/8" OD x 0.190" WALL LEADS & EXTENSIONS	
DWG NO E2375X03	SHEET 1 of 1

LEAD SECTIONS - PARTS LIST		
PART NUMBER	DIM 'A'	DIM 'B'
E237608L	60"	8"
E2376010L	60"	10"
E2376012L	60"	12"
E237848L	84"	8"
E2378410L	84"	10"
E2378412L	84"	12"
E2378414L	84"	14"
E23712012L	120"	12"
E23736E	36"	
E23760E	60"	
E23784E	84"	
E237120E	120"	

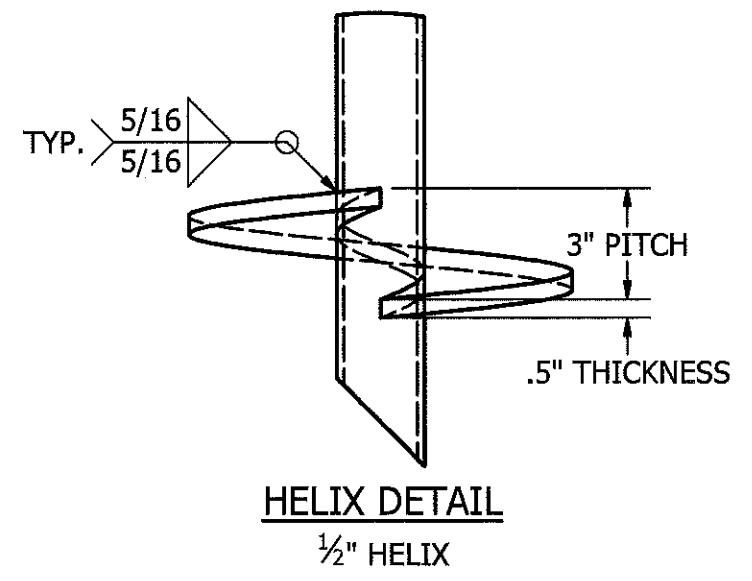
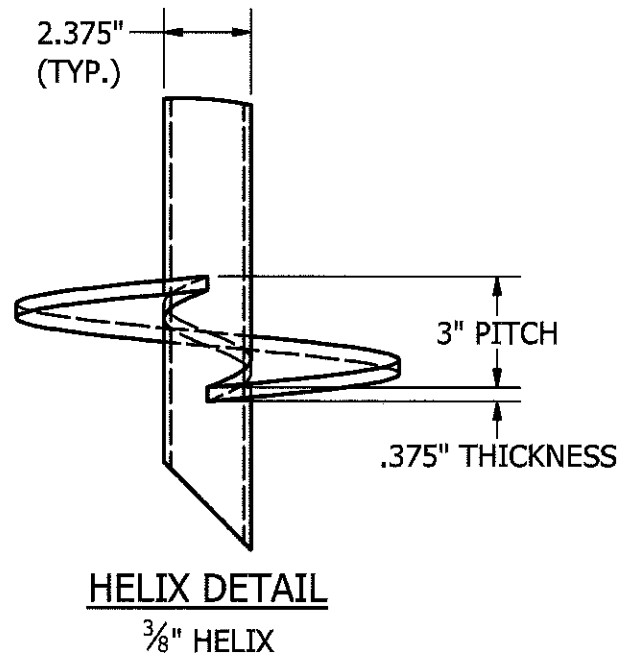
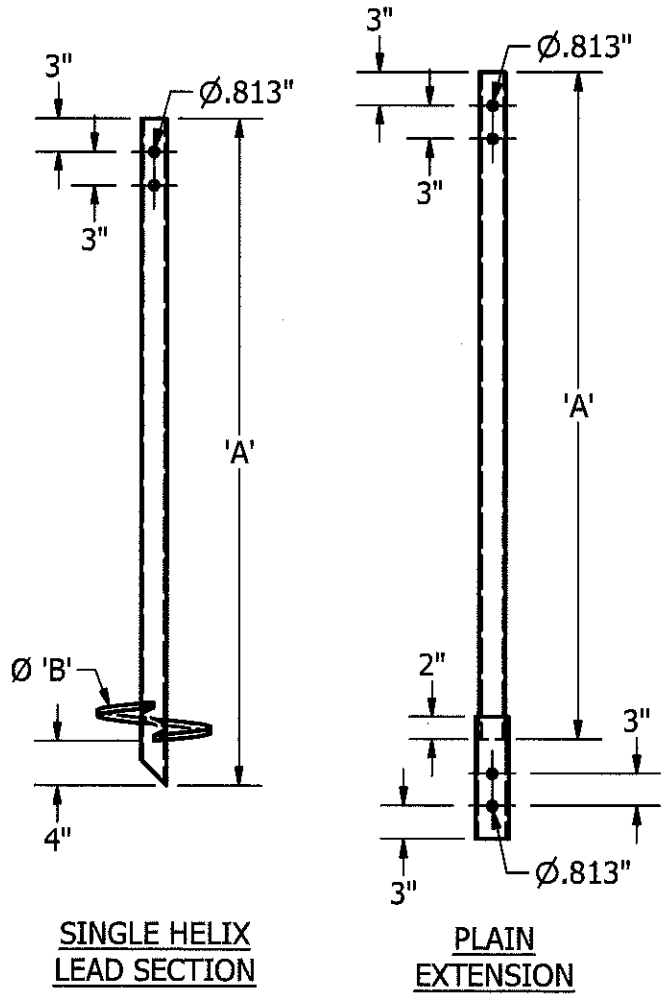
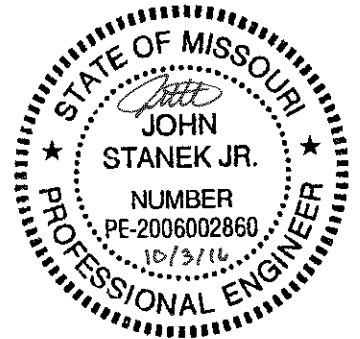
**GENERAL NOTES**

1. SHAFT MATERIAL -  $\phi 2\frac{3}{8}$ " OD x 0.190" WALL  
J-55 API 5CT CERTIFIED PIPE.  $F_y = 55$  KSI,  $F_t = 75$  KSI.
2. FINISH HOT DIPPED GALV. PER ASTM A 123/153.
3. ALL WELDING TO BE PERFORM BY QUALIFIED WELDER TO AWS D1.1
4. TORQUE STRENGTH RATING OF 4,500 FT-LBS
5. ULTIMATE CAPACITY OF UNIT IS 45 KIPS
6. HELIX SPACING SHALL BE 3 X THE DIAMETER FROM THE LOWEST HELIX IN ACCORDANCE WITH ICC-ES AC358.
7. STEEL HELIX MATERIAL TO CONFORM TO ASTM A572, 50 KSI. HELIX GEOMETRY IN ACCORDANCE WITH ICC-ES AC358.
8. COUPLING BOLTS:  $3\frac{1}{2}$ " x  $\frac{3}{4}$ " A579 GRADE 5  
BOLT SHEAR = 85 KSI, YIELD STRENGTH = 92 KSI,  
TENSILE STRENGTH = 120 KSI
9. ALL MATERIAL IS MANUFACTURED IN U.S.



**STANDARD  
COUPLER DETAIL**  
 $\phi 2\frac{3}{8}$ " x 0.203" WALL

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DRAWN	John Stanek	10/3/2016
CHECKED	Luke Brown	10/3/2016
APPROVED	Greg Pyle	10/3/2016
MFG	Empire Piers	10/3/2016
SCALE	NTS	DWG SIZE B



EMPIRE PIERS 2656 EAST HIGHWAY 47 WINFIELD, MO 63389 (636) 668-8066	
TITLE 2 3/8" OD x 0.190" WALL LEADS & EXTENSIONS	
DWG NO E2375X01	SHEET 1 of 1