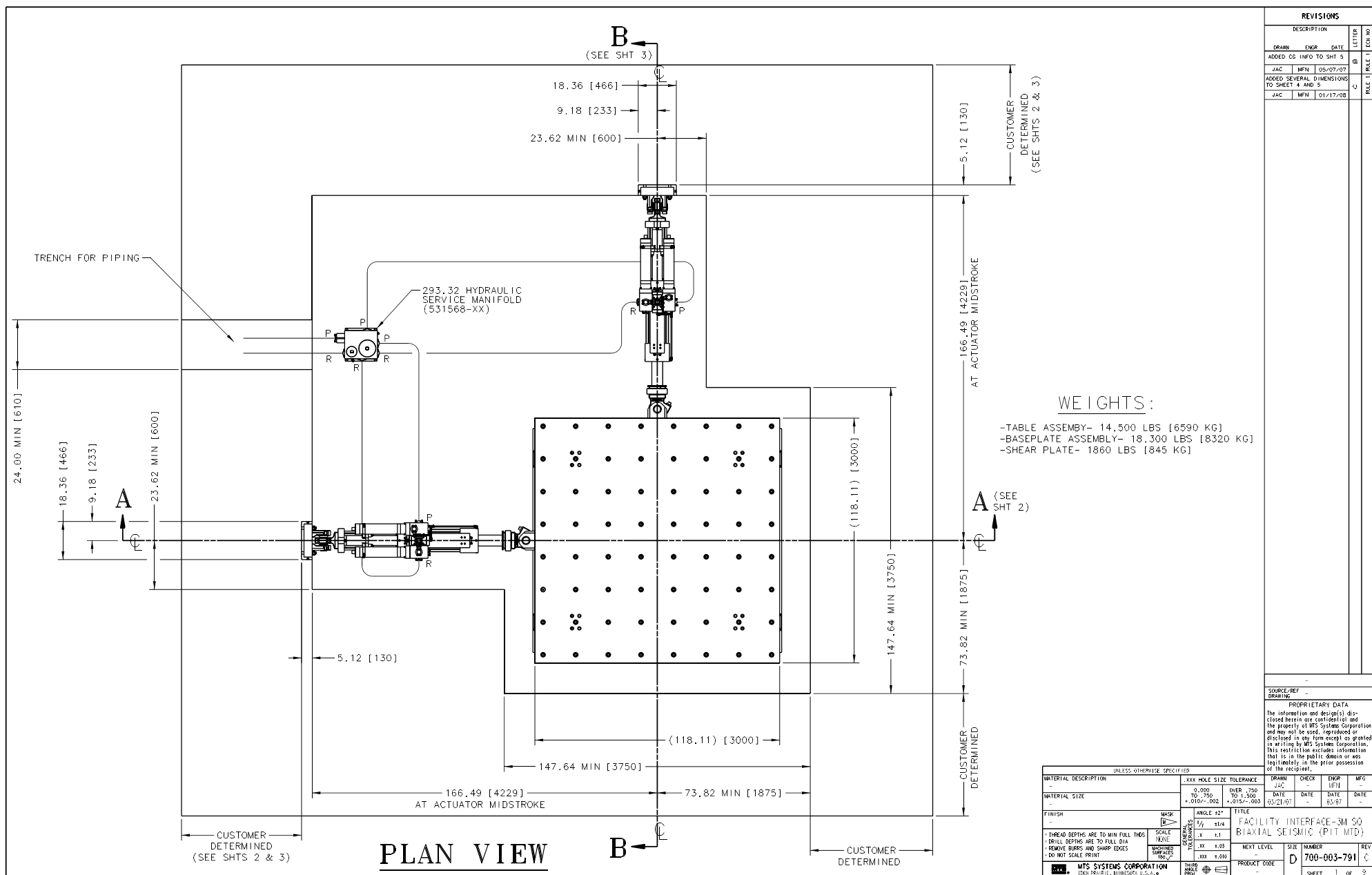
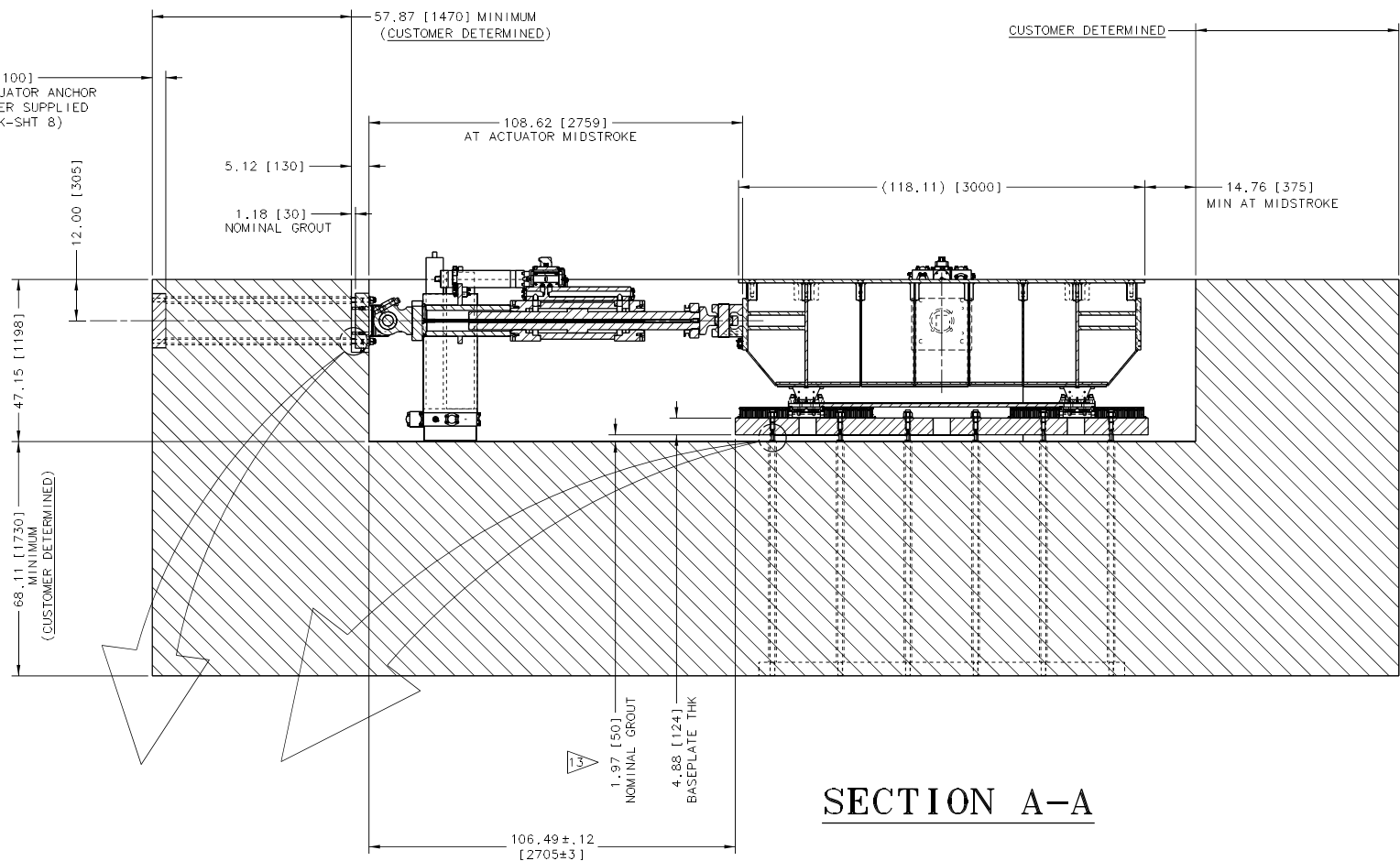
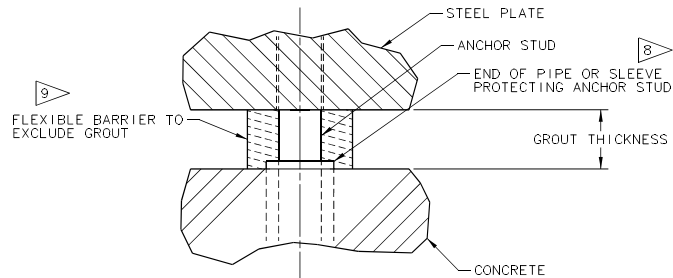






SECTION A-A



REVISIONS

DESCRIPTION	LETTER	DATE	ENGR	DRAWN
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SEE SHEET 1

700-003-791

2 OF 2

MTS SYSTEMS CORPORATION

TECH PRINT FILE: BIMM00001 1.0.0.0

THIRD ANGLE

SCALE

1/2" = 1'-0"

1/4" = 1'-0"

1/8" = 1'-0"

1/16" = 1'-0"

1/32" = 1'-0"

1/64" = 1'-0"

1/128" = 1'-0"

1/256" = 1'-0"

1/512" = 1'-0"

1/1024" = 1'-0"

1/2048" = 1'-0"

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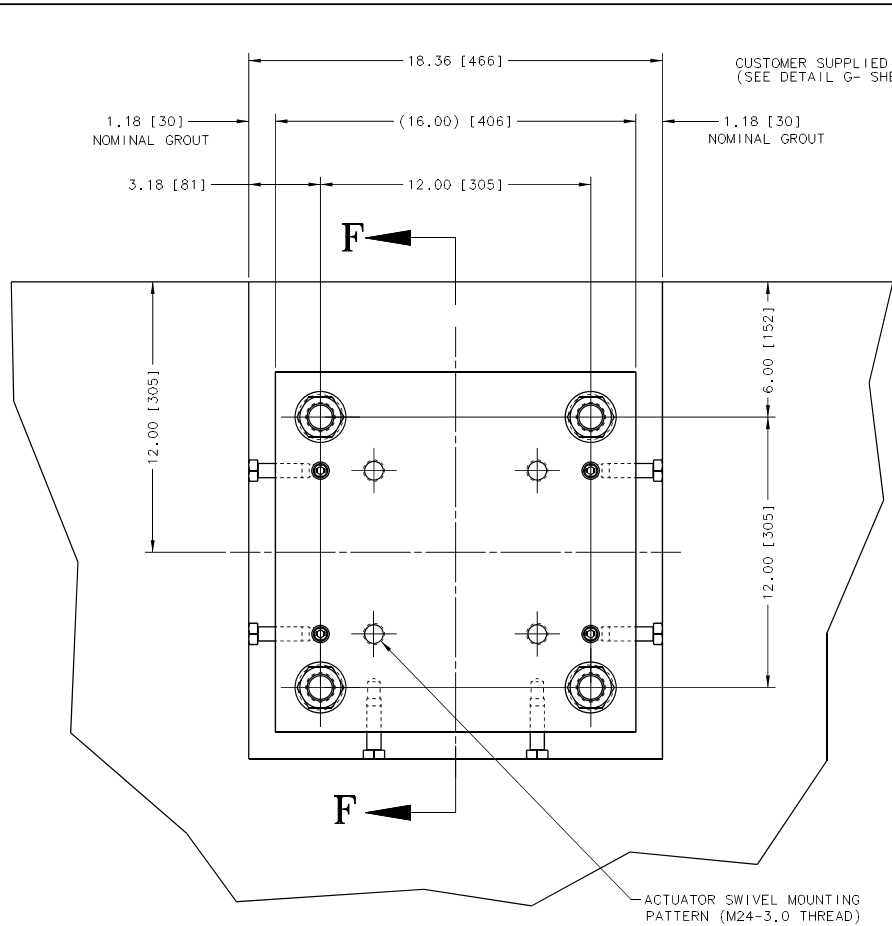
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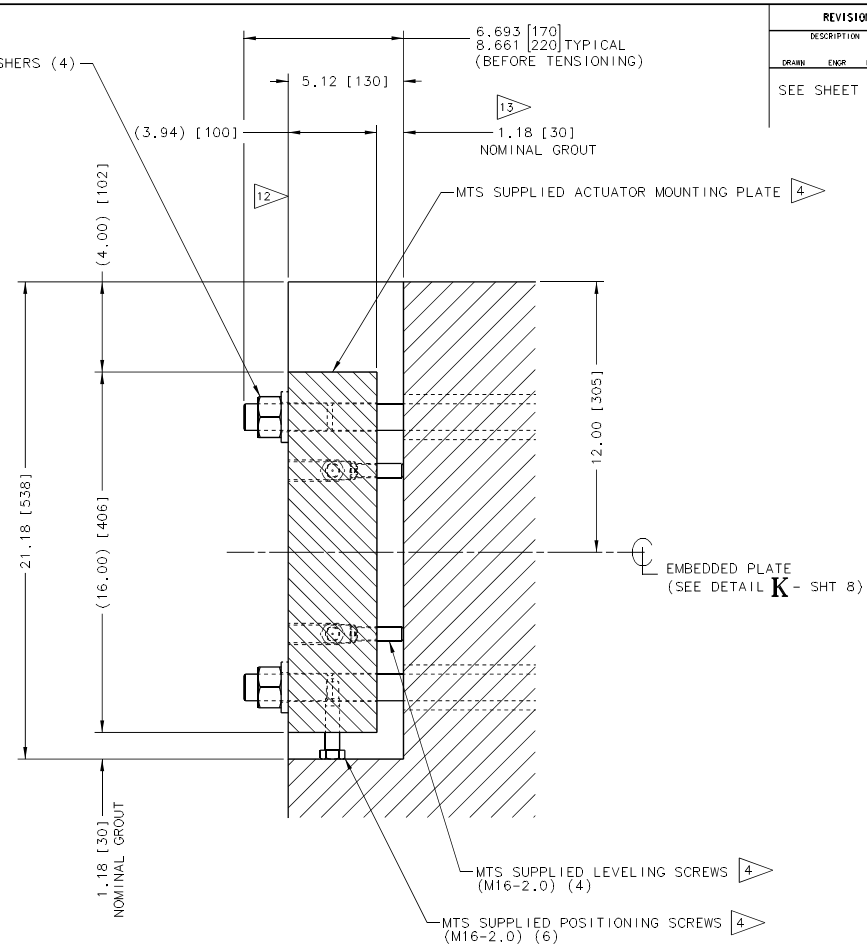
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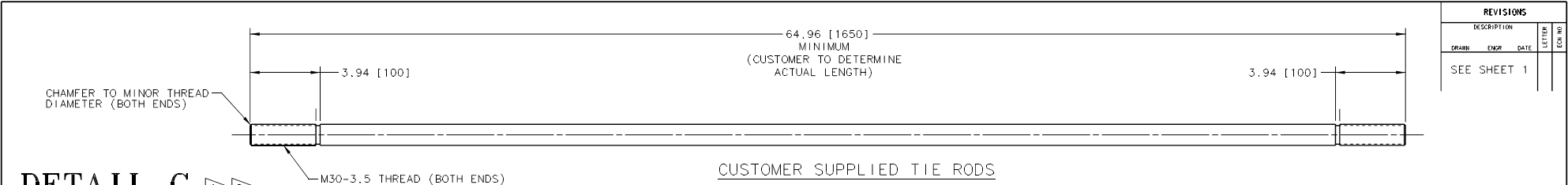
DETAIL E
TYPICAL (2) PLACES



SECTION F-F
TYPICAL (2) PLACES

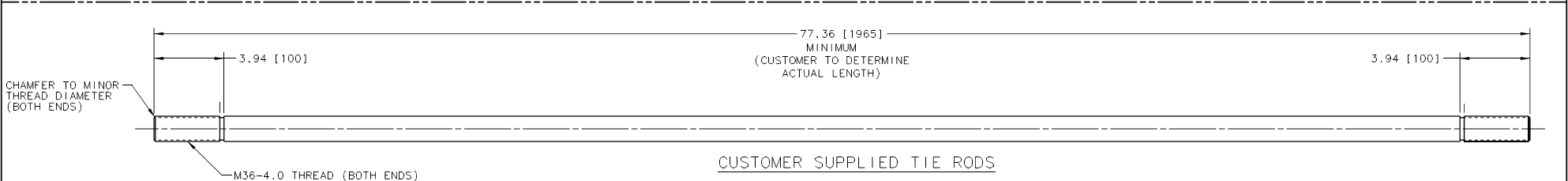
REVISIONS				
DESCRIPTION	LETTER	CON. NO.	DATE	ENGR.
SEE SHEET 1				

SOURCE/REF DRAWING	PROPRIETARY DATA			
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DRAWN	CHECK	ENGR	MFG	
DATE	DATE	DATE	DATE	
05/21/07		03/07	-	
LITY INTERFACE-3M SO L SEISMIC (PIT MTD)				
DEL	SIZE	NUMBER	REV	
CODE	D	700-003-791	C	
SHEET		7	OF 9	



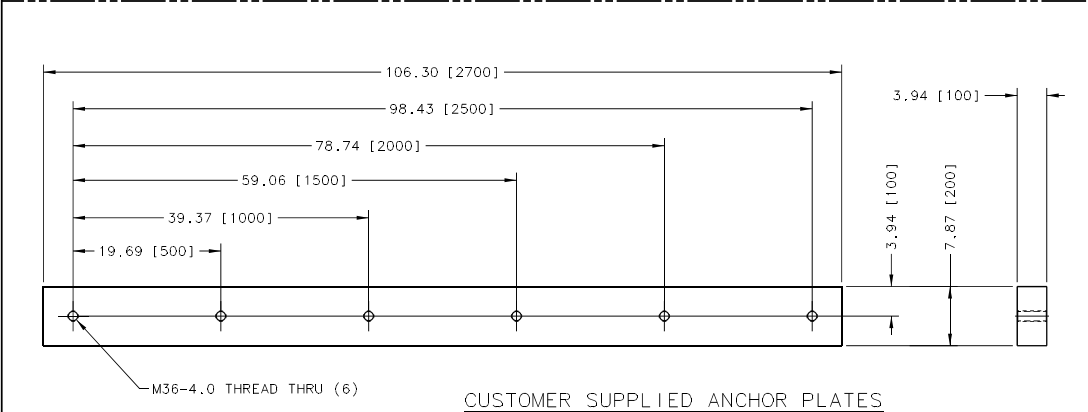
DETAIL G

QUANTITY (8) REQUIRED
MATERIAL: HIGH STRENGTH STEEL PER ASTM A193 GRADE B7 OR EQUIVALENT
(MATING NUTS TO BE OF EQUAL STRENGTH)



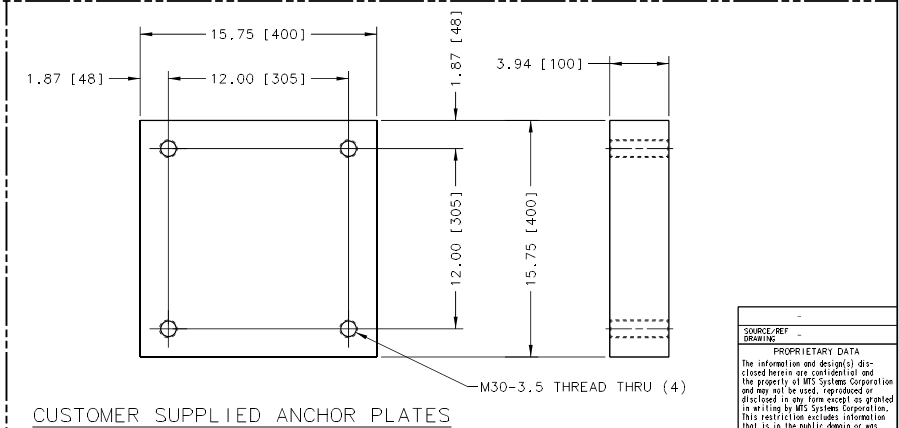
DETAIL H

QUANTITY (24) REQUIRED
MATERIAL: HIGH STRENGTH STEEL PER ASTM A193 GRADE B7 OR EQUIVALENT



DETAIL J

QUANTITY (4) REQUIRED
MATERIAL: HOT ROLLED STEEL PER ASTM A36 OR EQUIVALENT



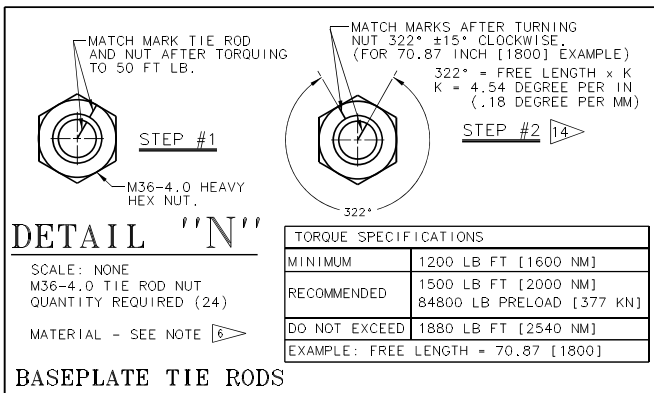
DETAIL K

QUANTITY (2) REQUIRED
MATERIAL: HOT ROLLED STEEL PER
ASTM A36 OR EQUIVALENT

REVISIONS				
DESCRIPTION	LETTER	DATE	ENGR	DRAWN
SEE SHEET 1				

UNLESS OTHERWISE SPECIFIED				
MATERIAL DESCRIPTION	.XXX HOLE SIZE TOLERANCE	DRAWN	CHECK	ENGR
MATERIAL SIZE	0.000 OVER .750 TO .750 +.010/- .002	DATE	DATE	DATE
FINISH	SCALE	DATE	DATE	DATE
THREAD DEPTHS ARE TO MIN FULL THD	ANGLE 42°	DATE	DATE	DATE
DRILL DEPTHS ARE TO FULL DIA	1/2 1/4	DATE	DATE	DATE
REMOVE BURRS AND SHARP EDGES	1.1 1.1	DATE	DATE	DATE
DO NOT SCALE PRINT	XXX ±.05	DATE	DATE	DATE
MTS SYSTEMS CORPORATION	XXX ±.000	DATE	DATE	DATE
TECH PRINTED - BIRMINGHAM, U.S.A.	DATE	DATE	DATE	DATE

1. ALL DIMENSIONS ARE IN INCHES WITH MILLIMETERS ENCLOSED IN BRACKETS [].
2. TOLERANCES:
 - GENERAL CONCRETE CONSTRUCTION TO BE $\pm .50$ INCH [12.7MM] EXCEPT AS NOTED.
 - LOCATION OF ACTUATOR MOUNTING PLATES TO BE $\pm .06$ INCH [1.5MM]
 - MATCHED PART SIZE TO BE $\pm .03$ INCH [.75MM] (UNLESS OTHERWISE SPECIFIED)
3. MTS SYSTEMS CORPORATION RECOMMENDS PAINTING ALL EXPOSED CONCRETE SURFACES WITH EPOXY PAINT OR CONCRETE SEALER TO SEAL IN CONCRETE DUST AND MINIMIZE THE AMOUNT OF ABRASIVE AIRBORNE PARTICLES THAT CAUSE WEAR ON LINEAR BEARING AND ACTUATOR SEALS.
4. DETAILS SUCH AS EMBEDDED ANCHOR PLATES, TIE RODS AND NUTS (SEE SHEET 8) ARE THE RESPONSIBILITY OF FOUNDATION VENDOR. MTS WILL SUPPLY LINEAR BEARING PLATE, ACTUATOR MOUNTING PLATES AND LEVELING/POSITIONING SCREWS.
5. MATERIAL TO BE STRUCTURAL STEEL, ASTM-A36 OR EQUIVALENT.
 - MINIMUM YIELD STRENGTH: 36 kpsi [250 MPa]
 - MINIMUM TENSILE STRENGTH: 58 kpsi [400 MPa]
 - MINIMUM ELONGATION: 23% IN 2 INCHES [50MM]
6. TIE ROD MATERIAL TO BE HIGH STRENGTH STEEL, ASTM A-193 GRADE B-7 OR EQUIVALENT.
 - MINIMUM YIELD STRENGTH: 105 kpsi [720 MPa]
 - MINIMUM TENSILE STRENGTH: 125 kpsi [860 MPa]
 - MINIMUM ELONGATION: 16% IN 2 INCHES [50MM]
 - HARDNESS: BRINELL 269/321 OR ROCKWELL RC 27/34NUTS TO BE OF EQUAL STRENGTH.
7. INSTALL TIE RODS WITH THREADED END BOTTOMED OUT INTO EMBEDDED PLATES.
8. TIE RODS MUST BE FREE TO STRETCH DURING POST TENSIONING, AND UPPER ENDS MUST BE ABLE TO MOVE Laterally TO ADJUST FOR CONSTRUCTION TOLERANCES. ALL TIE RODS TO BE COVERED WITH STEEL,PVC, OR FOAM SLEEVES PRIOR TO POURING CONCRETE TO PREVENT ADHESION TO THE TIE RODS. MINIMUM SLEEVE I.D. FOR M30 AND M36 TIE RODS: 2.40 INCH [60MM] I.D. SLEEVE POSITION TOLERANCE $\pm 1/8$ INCH [3MM] FROM NOMINAL POSITION. SLEEVES MUST NOT BE FILLED WITH CONCRETE. STEEL SLEEVES CAN BE WELDED EMBEDDED PLATES (DETAILS J & K) FOR ALIGNMENT.
9. A FLEXIBLE BARRIER (FOAM OR EQUIVALENT) SHOULD BE PLACED AROUND THE TIE RODS (ABOVE THE CONCRETE) TO ALLOW BASEPLATE OR ACTUATOR MOUNTING PLATES TO MOVE DURING LEVELING YET PREVENT GROUT FROM FLOWING AROUND TIE RODS. BARRIER MATERIAL IS TO BE SUPPLIED BY CUSTOMER.
10. TAPE GROUT SIDE OF TAPPED HOLES IN MOUNTING PLATES TO KEEP GROUT OFF THREADS.
11. BASEPLATE LEVEL TOLERANCE:
 - WITH THE BASEPLATE 1.97 [50] ABOVE THE CONCRETE, REMOVE THE BELLOWES FROM THE LINEAR BEARING RAILS. USE A LASER MEASUREMENT SYSTEM TO ASSURE THAT ALL BEARING RAILS ARE PARALLEL IN THE VERTICAL DIRECTION. PLACE THE LASER TARGET AT THREE LOCATIONS ON THE TOPS OF EACH BEARING RAIL. ADJUST THE LEVELING SCREWS TO GET THE BEARING RAILS LEVEL WITH RESPECT TO GRAVITY WITHIN .2MM PER METER. ADJUST THE LEVELING SCREWS SO THAT ALL BEARING RAILS ARE PARALLEL IN THE VERTICAL DIRECTION WITHIN ± 0.05 MM
12. ACTUATOR MOUNTING PLATE MUST BE LEVEL WITH RESPECT TO GRAVITY $\pm .03$ INCH [.75MM], AND LOCATED $\pm .06$ INCH [1.5MM] FROM TRUE POSITION.
13. FOLLOW GROUT MANUFACTURER'S INSTRUCTIONS. FILL GROUT SPACES COMPLETELY, AVOIDING ANY AIR POCKETS OR VOIDS UNDER/BEHIND MOUNTING PLATES. RECOMMENDED GROUT IS EMBECO 885 OR EQUIVALENT NON-SHRINK CEMENT BASED GROUT.
14. AFTER GROUT HAS CURED, POST TENSION TIE RODS AS FOLLOWS:
 - A. LUBRICATE TIE ROD THREADS AND BOTTOM OF NUT WITH MOLYBDENUM DISULFIDE GREASE PRIOR TO ASSEMBLING NUTS.
 - B. TORQUE ALL M30-3.5 AND M36-4.0 NUTS TO 50 FT LB.
 - C. MATCH MARK NUTS AND TIE RODS SO NUT ROTATION CAN BE MONITORED. (SEE DETAILS *M* AND *N*)
 - D. SEE DETAILS *M* AND *N*. TIGHTEN EACH NUT ADDITIONAL DEGREES PER STEP #2. MONITOR AND RECORD PEAK TORQUE REACHED.
 - E. IF THE PEAK TORQUE IS LESS THAN NOTED IN THE APPROPRIATE TABLE. LOOSEN THAT NUT AND REPEAT STEPS B THRU E. DO NOT EXCEED NOTED TORQUE.

[illegible][illegible]