

DATE	NO.	REVISION	ZONE	BY	CKD.

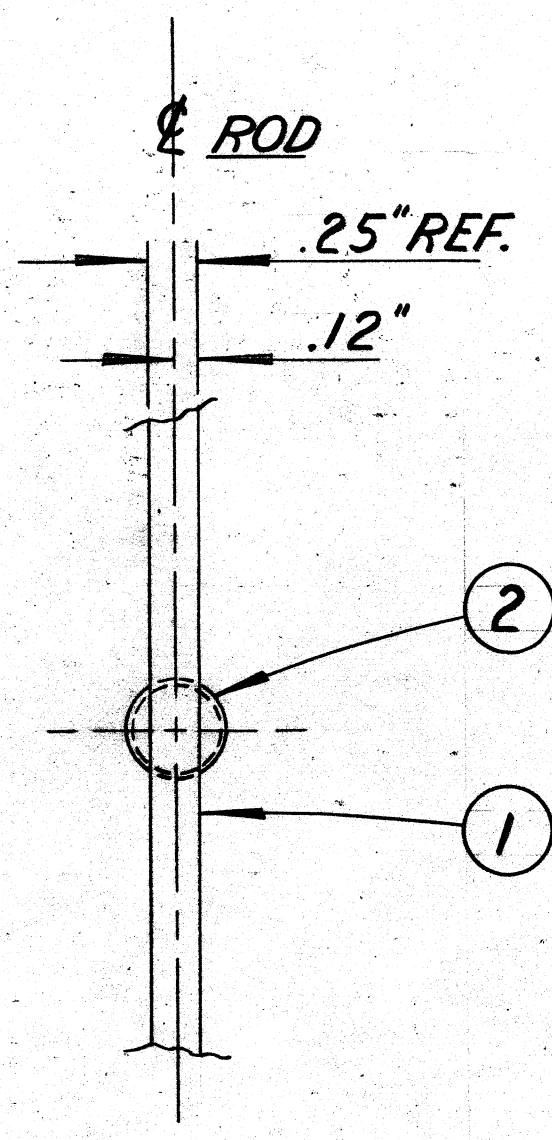
C-189648

DIV.	DATE
B.C.I.	
B.C.K.	
C.F.F.	
I.H.I.	4-24-85
TAMP.	

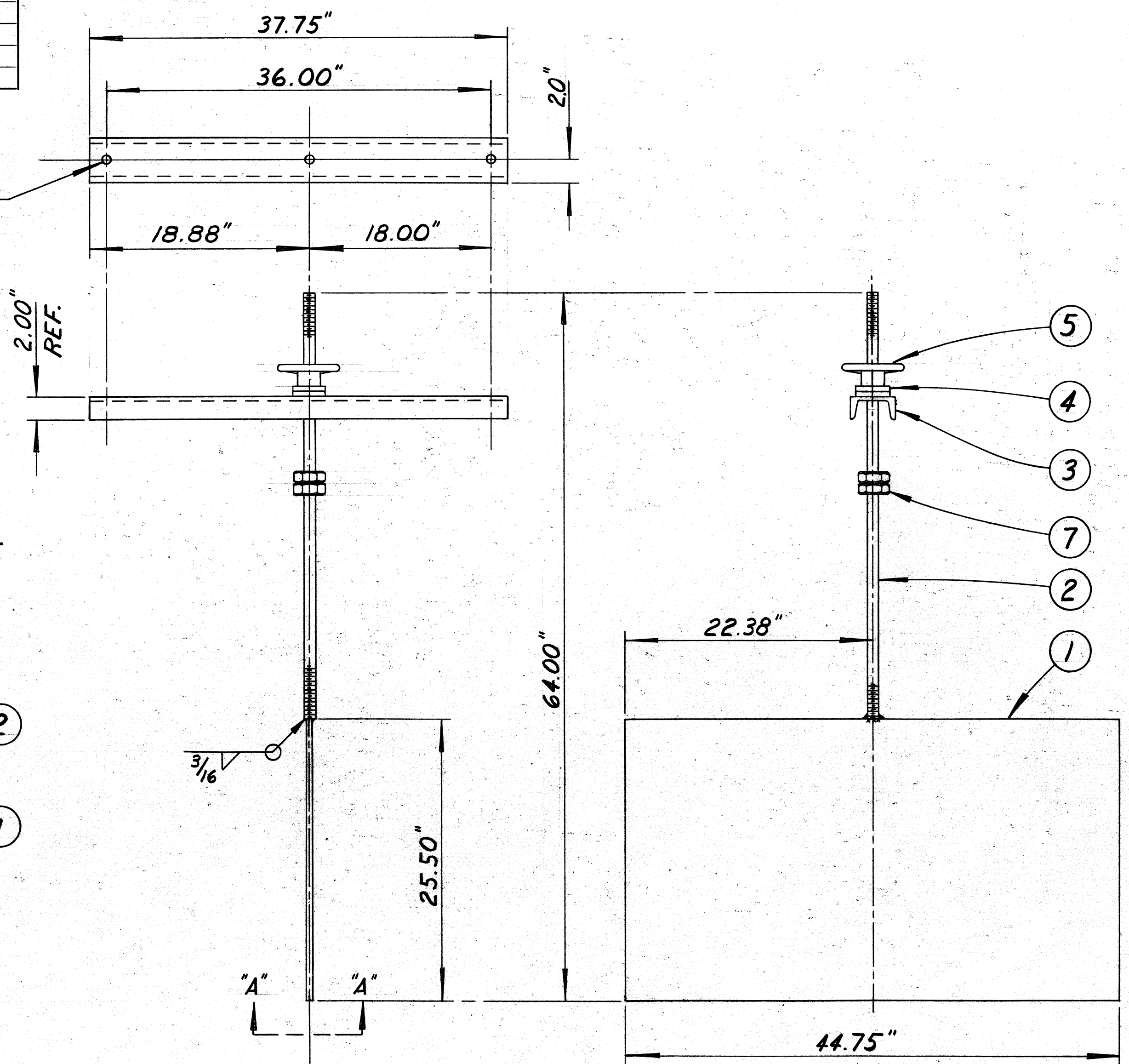
D-189647

9/16" DRILL THRU
(3) HOLES

6 7



VIEW A-A
FULL SCALE



EP-1754-55
1757-58
INDEX # 10-1-13
10-3-13
SEE A1719 & A1720 & 5174
#1 - #2 THICKNESS
M-1301

REF. DRG. NO C-188131

TOTAL QUANTITY	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
4					7	NUT, HEX - 1/2" - 13NC
2					6	SCR. HEX HD. CAP. 1/2" - 13NC x 3" LG.
1			A-188132		5	HANDWHEEL 5"
2					4	PLAIN WASHER 1/2"
1					3	C - 4" x 7.25" x 37 3/4" LG.
1					2	ROD, THD. 1/2" - 13NC x 38 1/2" LG.
1					1	R - 1/4" x 25 1/2" x 44 3/4" LG.

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	
FINISHED DIMENSIONS	
ONE (1) DECIMAL DIMENSION	± .050"
TWO (2) DECIMAL DIMENSION	± .010"
THREE (3) DECIMAL DIMENSION	± .003"
ANGLES	± 1/2°
UNFINISHED SURFACES	± .125"

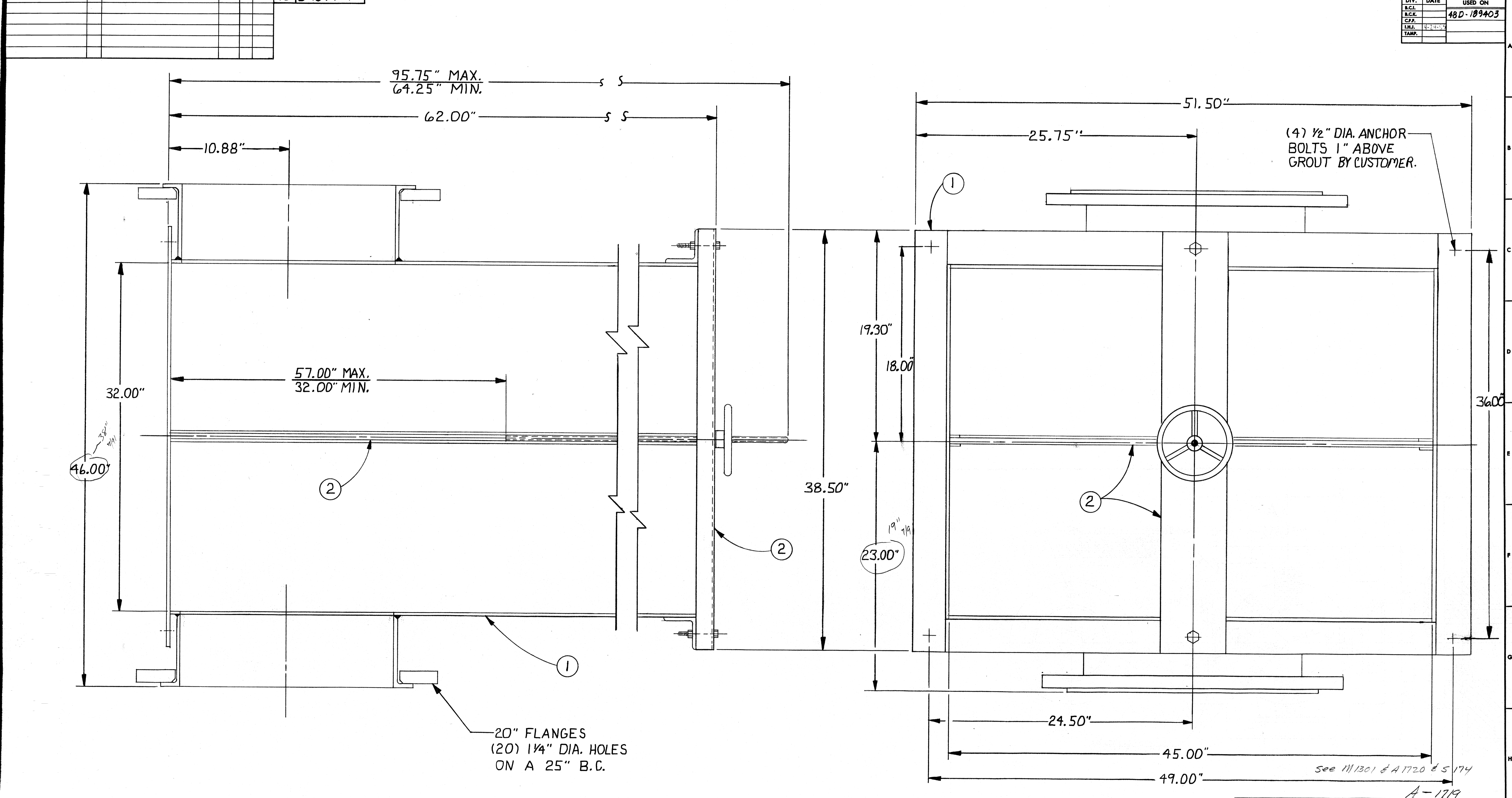
NO FINISH NORMALLY REQUIRED. CLEAN UP ONLY TO MAINTAIN DIMENSIONAL STABILITY OR TO REMOVE UNUSUAL SURFACE IRREGULARITIES.

PATT. NO.	
CONFIDENTIAL	
This document, including all information contained thereon, is the exclusive and confidential property of The Black-Clawson Company of Middletown, Ohio, and the document and information are not to be copied, reproduced or delivered to others in whole or in part, except with express written permission; and the document is to be returned promptly after having served the purpose for which delivered.	
SUPERSEDED BY	DATE
SUPERSEDES	DATE

CUSTOMER	
SER. NO.	SHOP ORDER
THE BLACK CLAWSON COMPANY MIDDLETOWN, OHIO	
Shurtle Division / Stock Preparation Systems Pandia Division / Pulp Mill Systems	
DATE 3-15-85	SUBJECT GATE AND SUPPORT FOR LEVEL CONTROL BOX
SCALE 1/8" = 1"	
DRAWN BY STEPHENS	
CHECKED EVE	
APPROVED	
	C-189648

M-1301

DIV.	DATE	USED ON
B.C.I.		48 D-189403
C.F.F.		
E.M.J.		
TAMP.		



QTY	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
1		316L S.S.	C-189648		2	GATE AND SUPPORT
1		316L S.S.	D-189641		1	LEVEL CONTROL BOX

20" FLANGES
(20) 1/4" DIA. HOLES
ON A 25" B.C.

10-1-13 E.P. 1754
10-3-13 1755
1757
1758

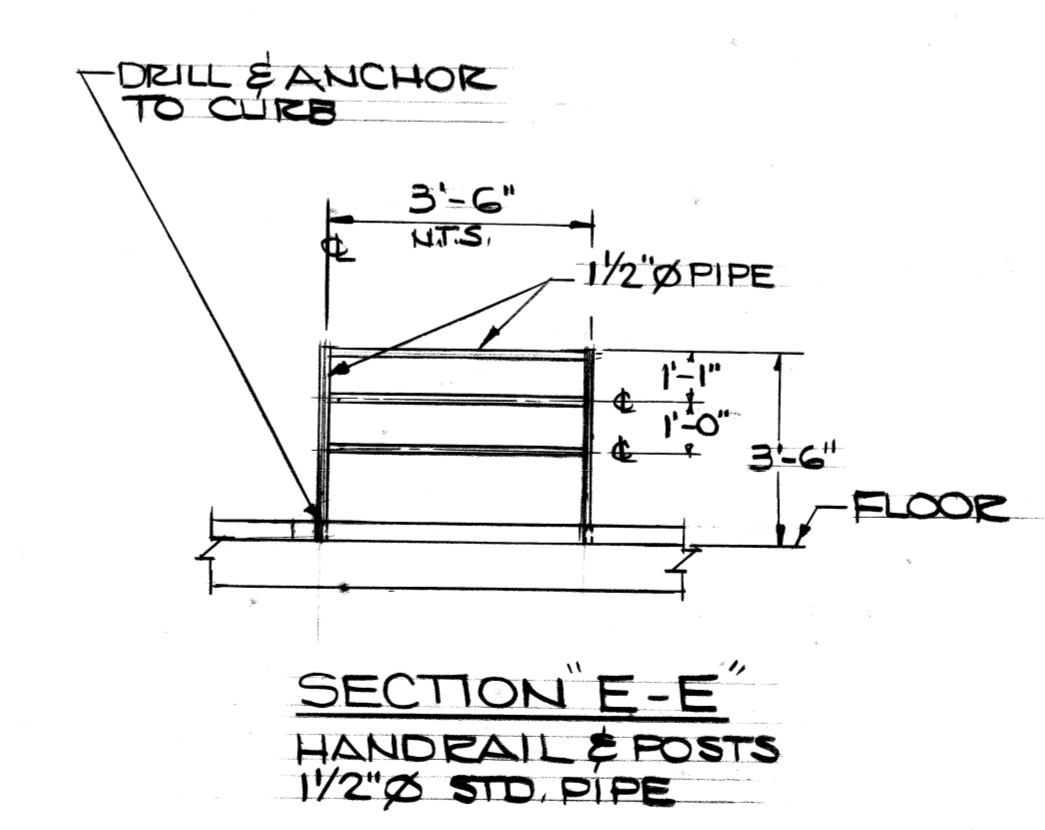
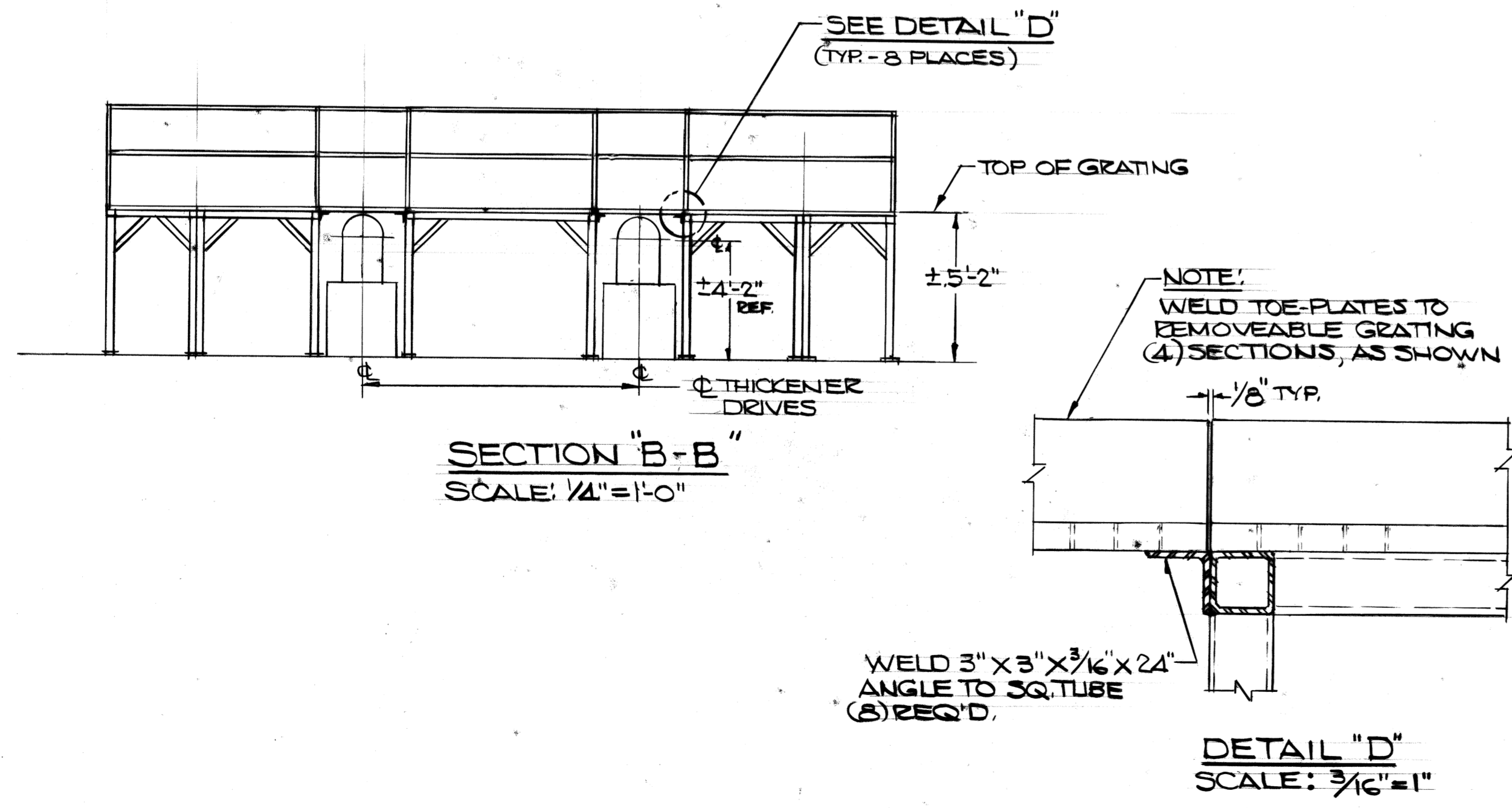
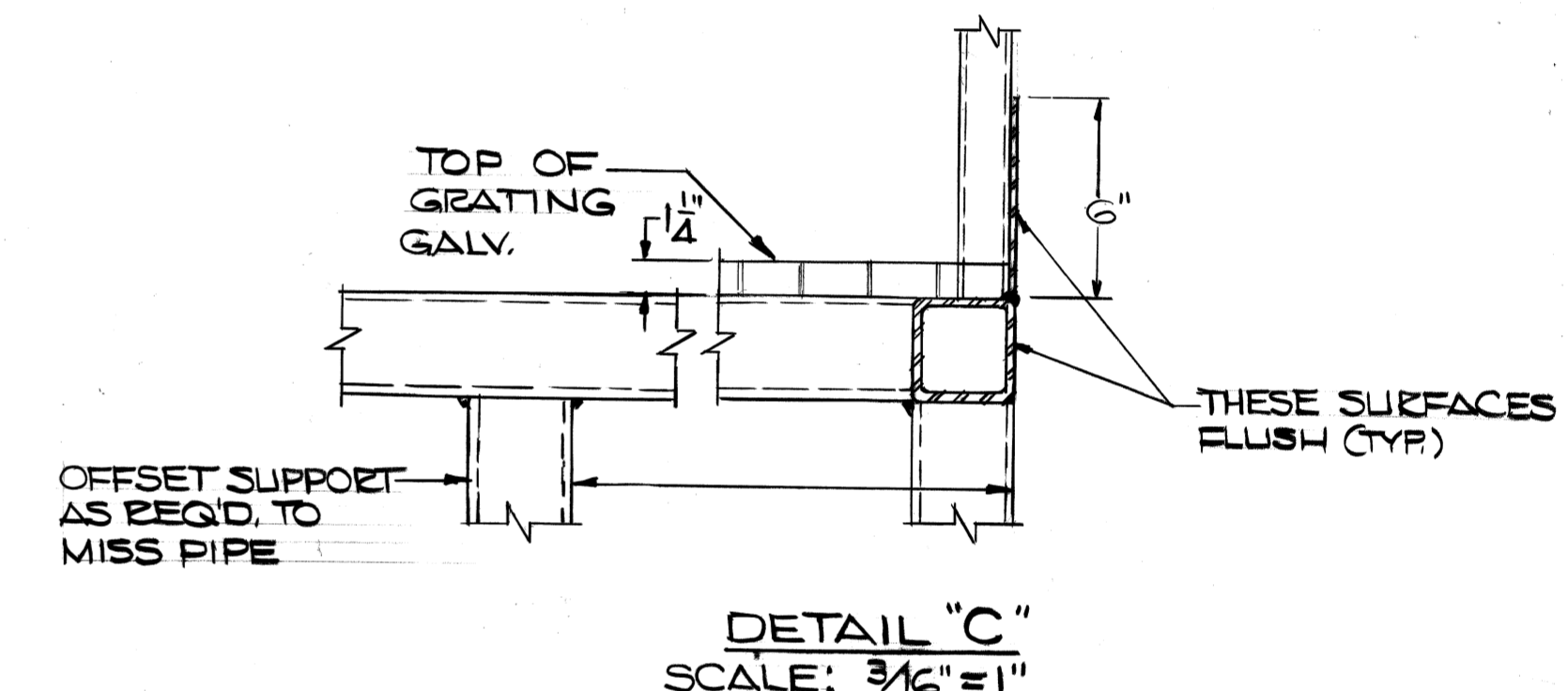
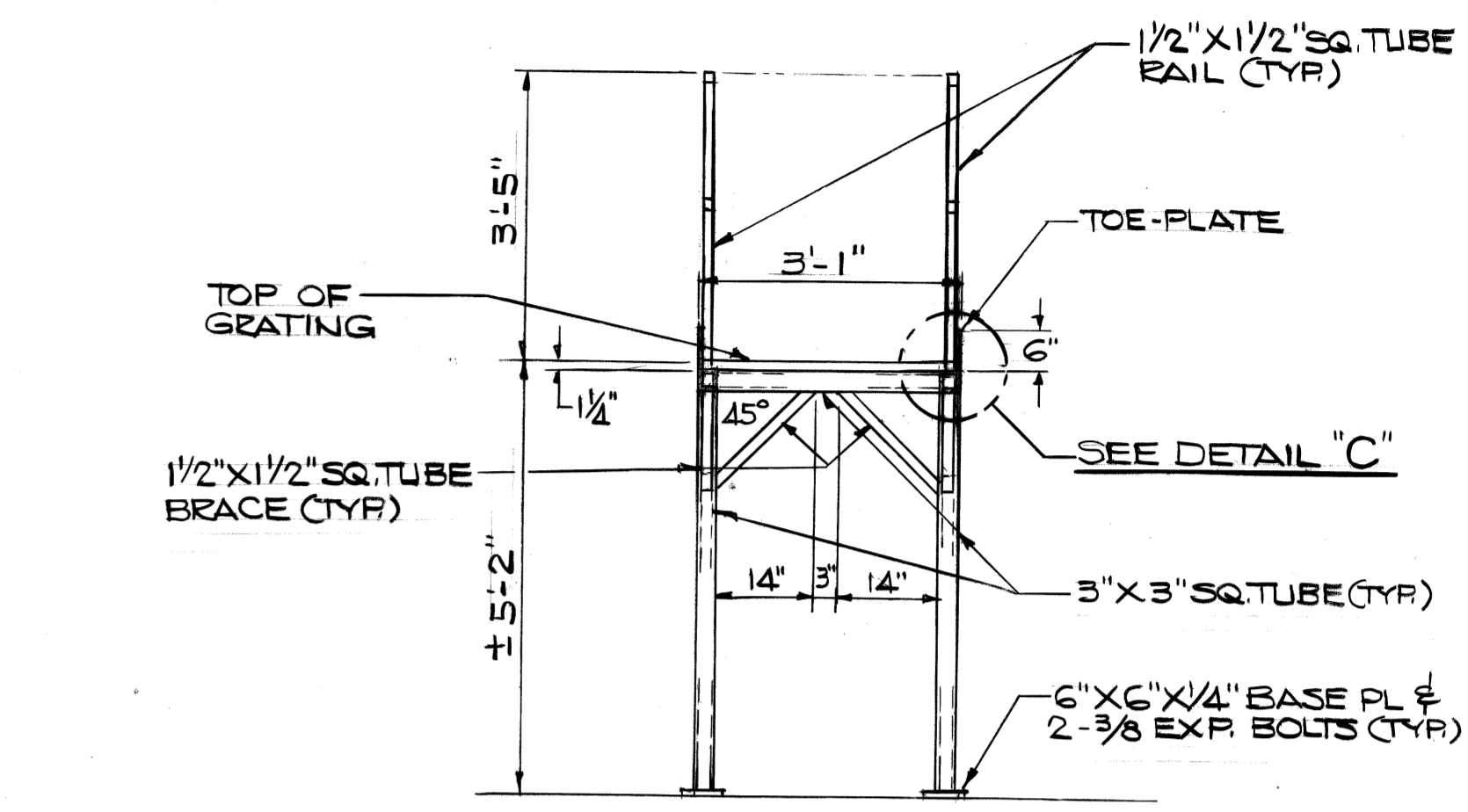
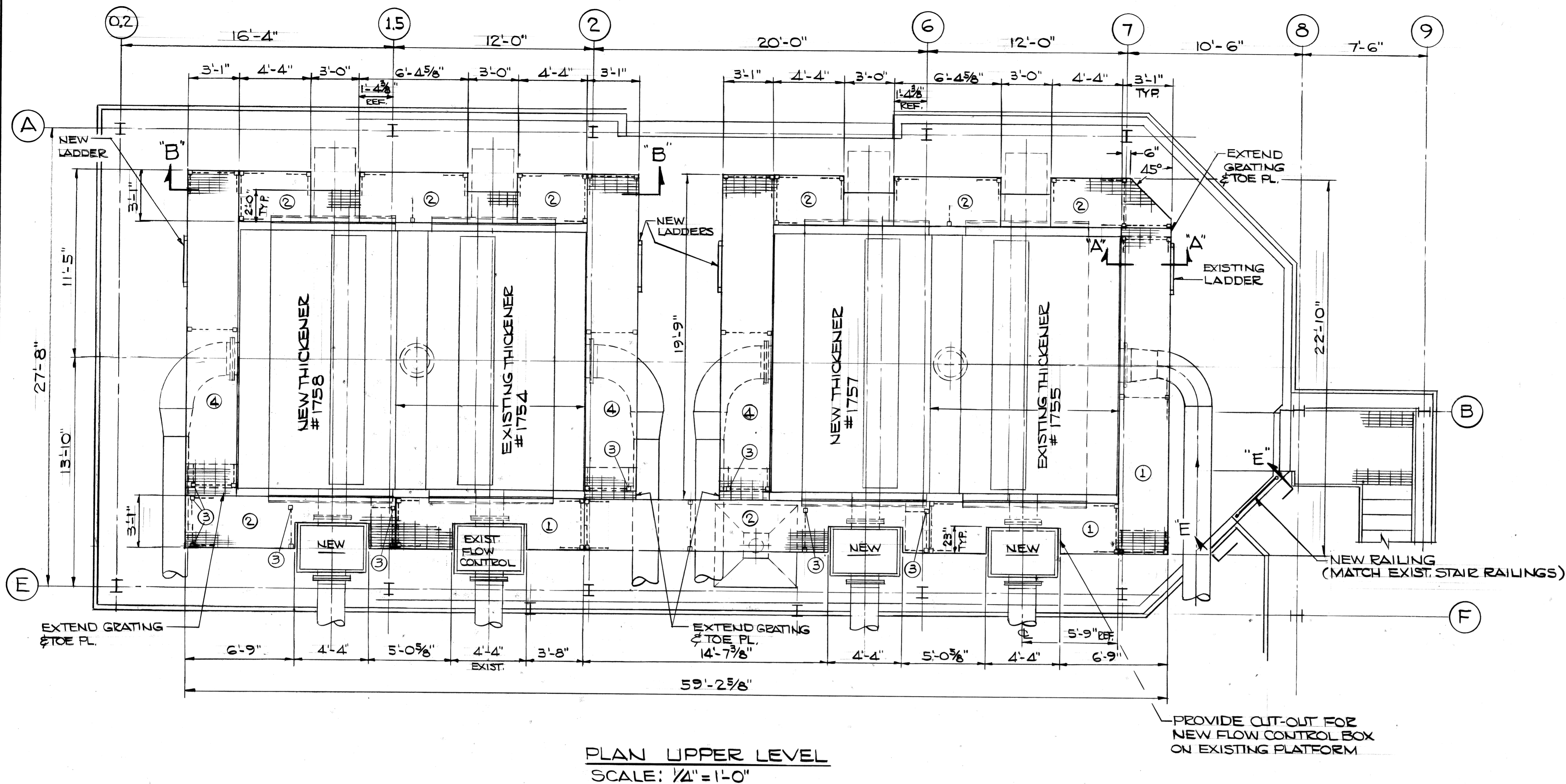
REF. DWG. 48-D-188130

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	
FINISHED DIMENSIONS	
ONE (1) DECIMAL DIMENSION	± .050"
TWO (2) DECIMAL DIMENSION	± .010"
THREE (3) DECIMAL DIMENSION	± .003"
ANGLES	± 1/2°
UNFINISHED SURFACES	± .125"
NO FINISH NORMALLY REQUIRED. CLEAN UP ONLY TO MAINTAIN DIMENSIONAL STABILITY OR TO REMOVE UNUSUAL SURFACE IRREGULARITIES.	

PATT. NO.	
CONFIDENTIAL	
This document, including all information contained thereon, is the exclusive and confidential property of The Black Clawson Company of Middletown, Ohio, and the document and information are not to be copied, reproduced or delivered to others in whole or in part, except with express written permission; and the document is to be returned promptly after having served the purpose for which delivered.	
SUPERSEDED BY	DATE
SUPERSEDES	DATE

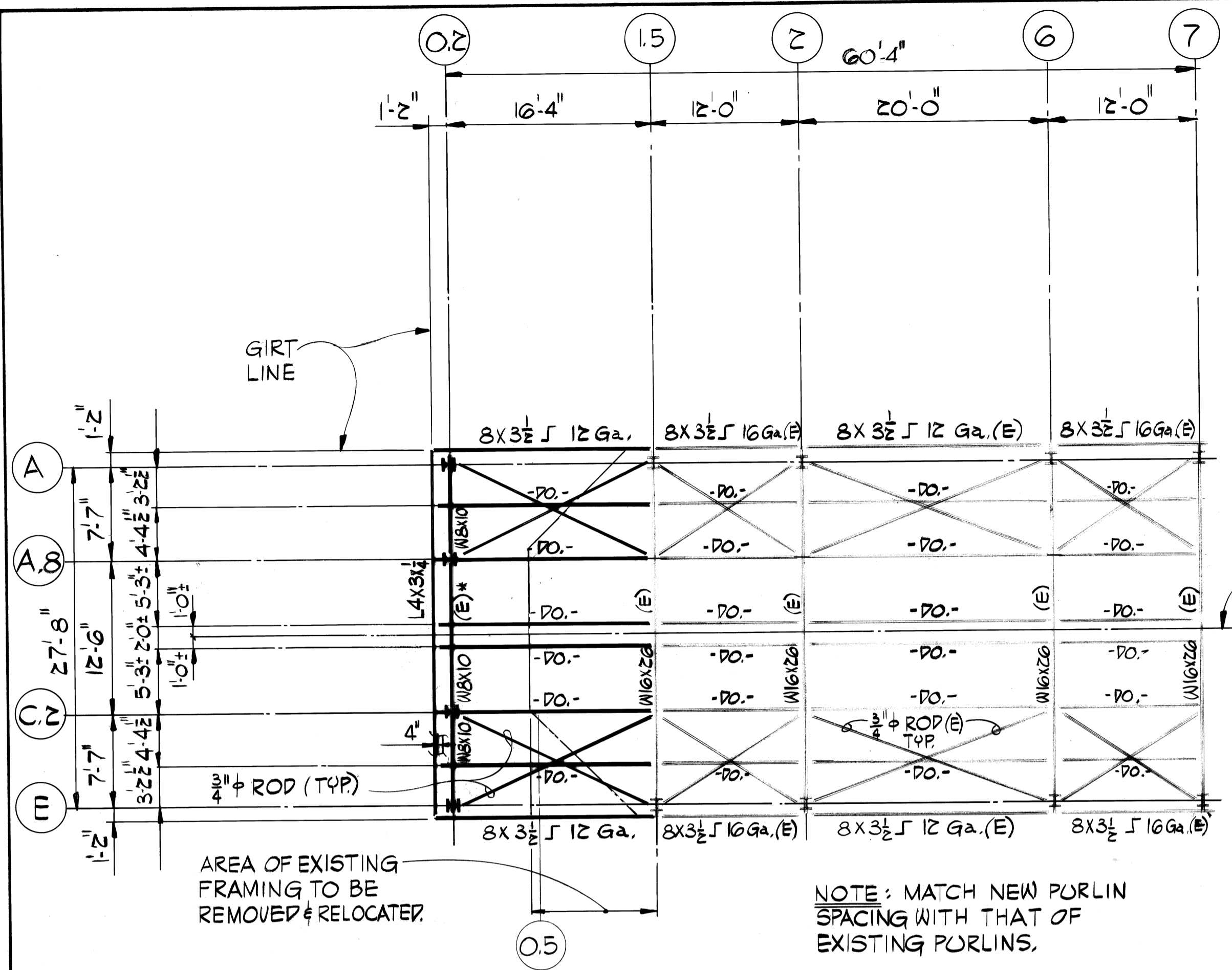
CUSTOMER		SHOP ORDER	
SER. NO.		THE BLACK CLAWSON COMPANY MIDDLETOWN, OHIO	
Shartle Division / Stock Preparation Systems		Pandia Division / Pulp Mill Systems	
DATE 10-9-84	SUBJECT ASSEMBLY LEVEL CONTROL		
SCALE 1/4" = 1"	BOX FOR 60 DIA. X 144 THICKNER		
DRAWN BY C.E.F.	REV.		
CHECKED EYE	48	D-189407	
APPROVED			

A-1719

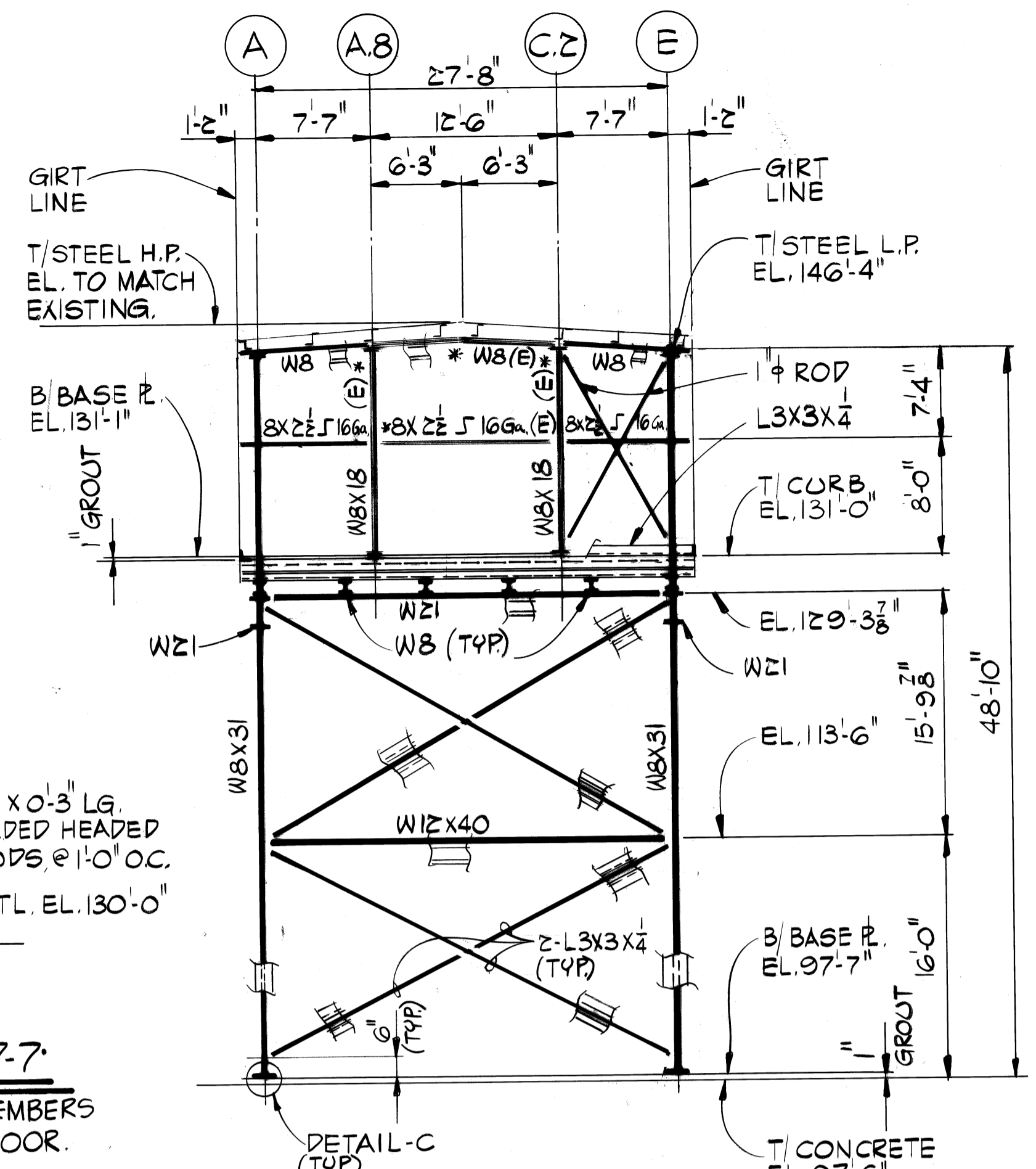


- GENERAL NOTES:**
- REMOVE (2) EXISTING STAIRS, REPAIR HANDRAIL AS REQ'D.
 - PROVIDE (3) NEW VERTICAL LADDERS, AS SHOWN, PER OSHA STANDARDS.
 - NEW CATWALK TO MATCH EXISTING - APPROX. 62" FROM FLOOR - PRIME ONLY, FINISH PAINT BY MPC.
 - CONTRACTOR SHALL VERIFY ALL MEASUREMENTS IN FIELD.
 - Ⓛ INDICATES "EXISTING" PLATFORM. MODIFY AS REQUIRED.
 - Ⓜ INDICATES "NEW" PLATFORM TO BE FABRICATED.
 - Ⓢ RELOCATE EXISTING LEGS AND BRACING, TO CLEAR EXISTING PIPING AND OBSTRUCTIONS.
 - TWO RAILS REQUIRED ON OUTER HANDRAILS, ONE "TOP RAIL" REQUIRED ON INNER HANDRAILS.
 - Ⓜ INDICATES "EXISTING" RELOCATED PLATFORM. MODIFY AS REQ'D.

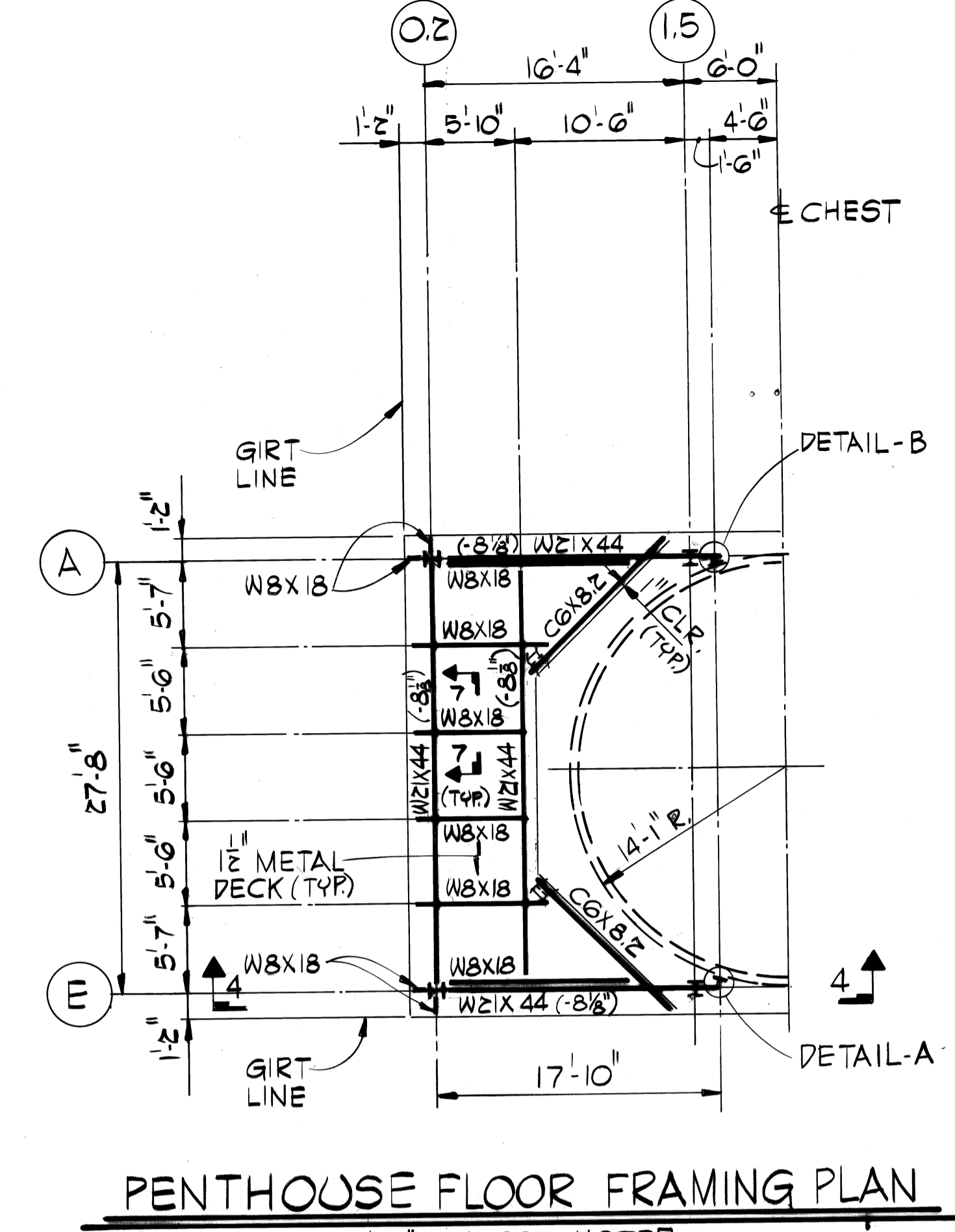
1754
1755
E.P. 1757
1758
10-1-13
10-3-13
10-0-10



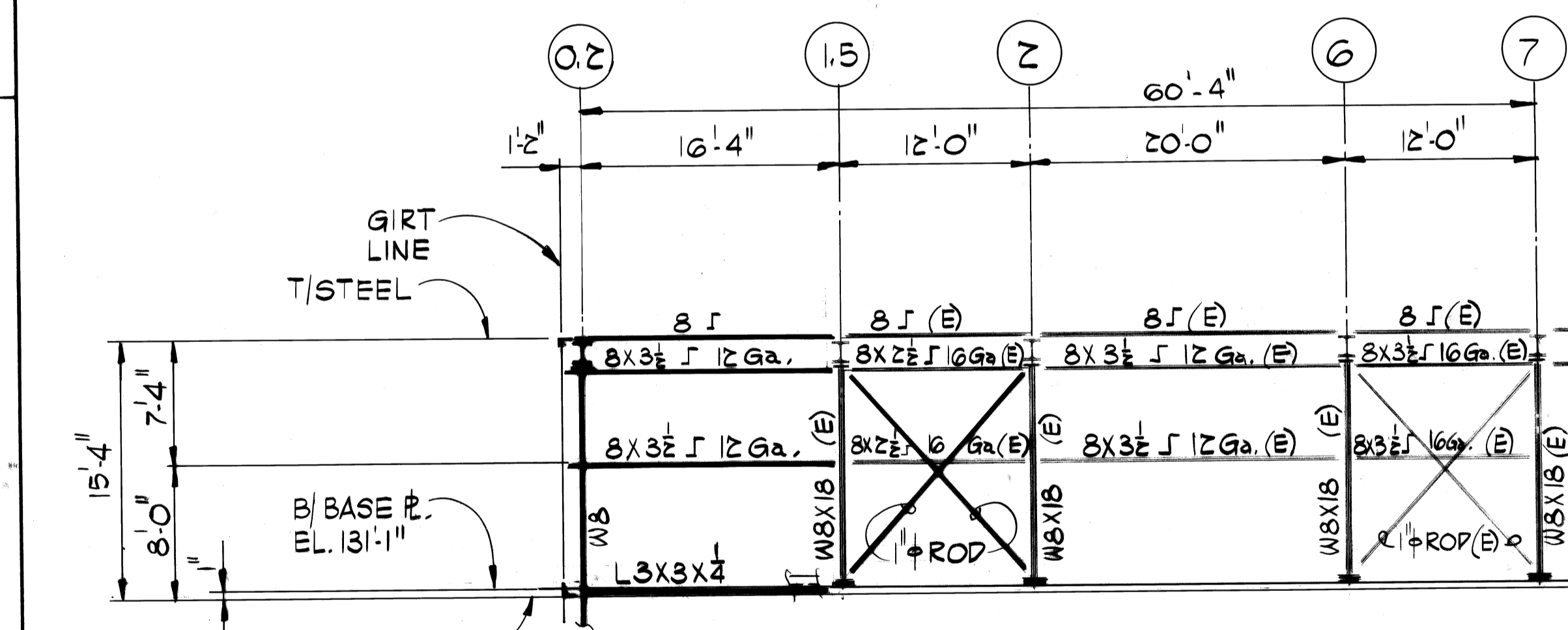
PENTHOUSE ROOF FRAMING PLAN



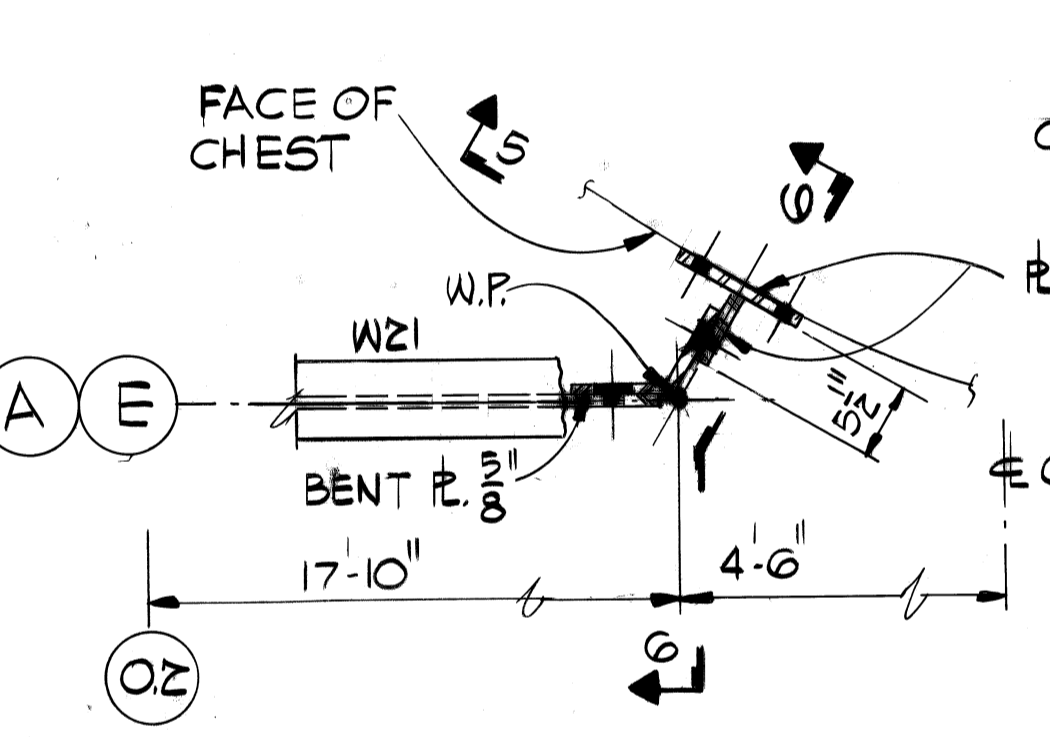
SECTION 7-7
TYP. FOR ALL W8 MEMBERS
@ PENTHOUSE FLOOR.



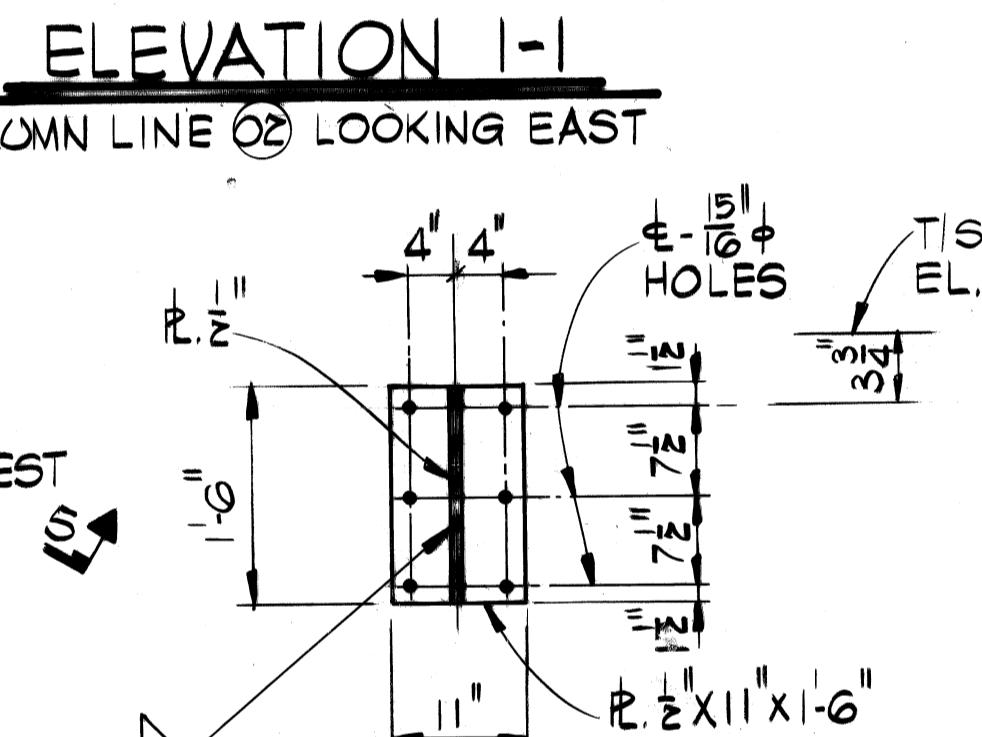
PENTHOUSE FLOOR FRAMING PLAN
T/STEEL EL. 130'-0" UNLESS NOTED.



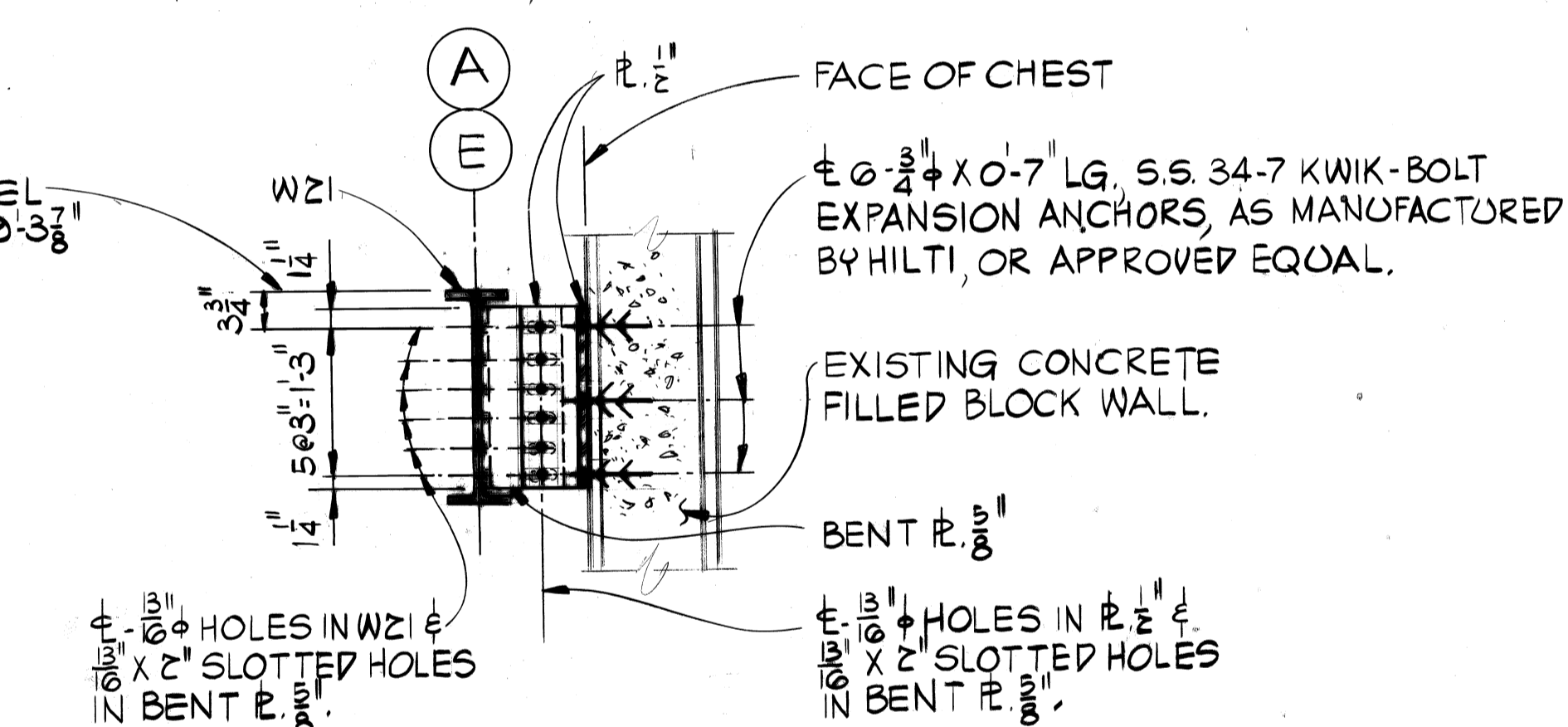
ELEVATION 2-2



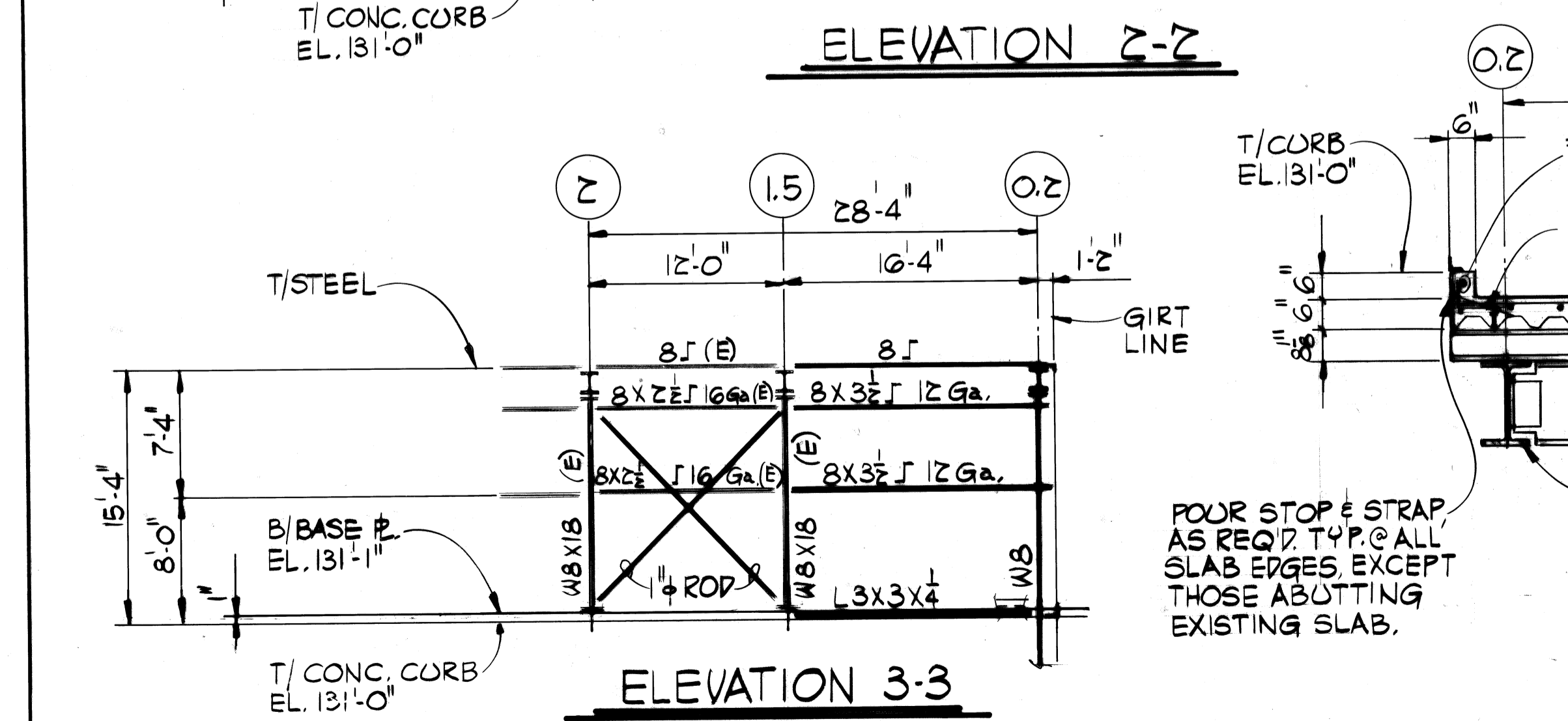
DETAIL - A AS SHOWN
DETAIL - B OPP. HAND



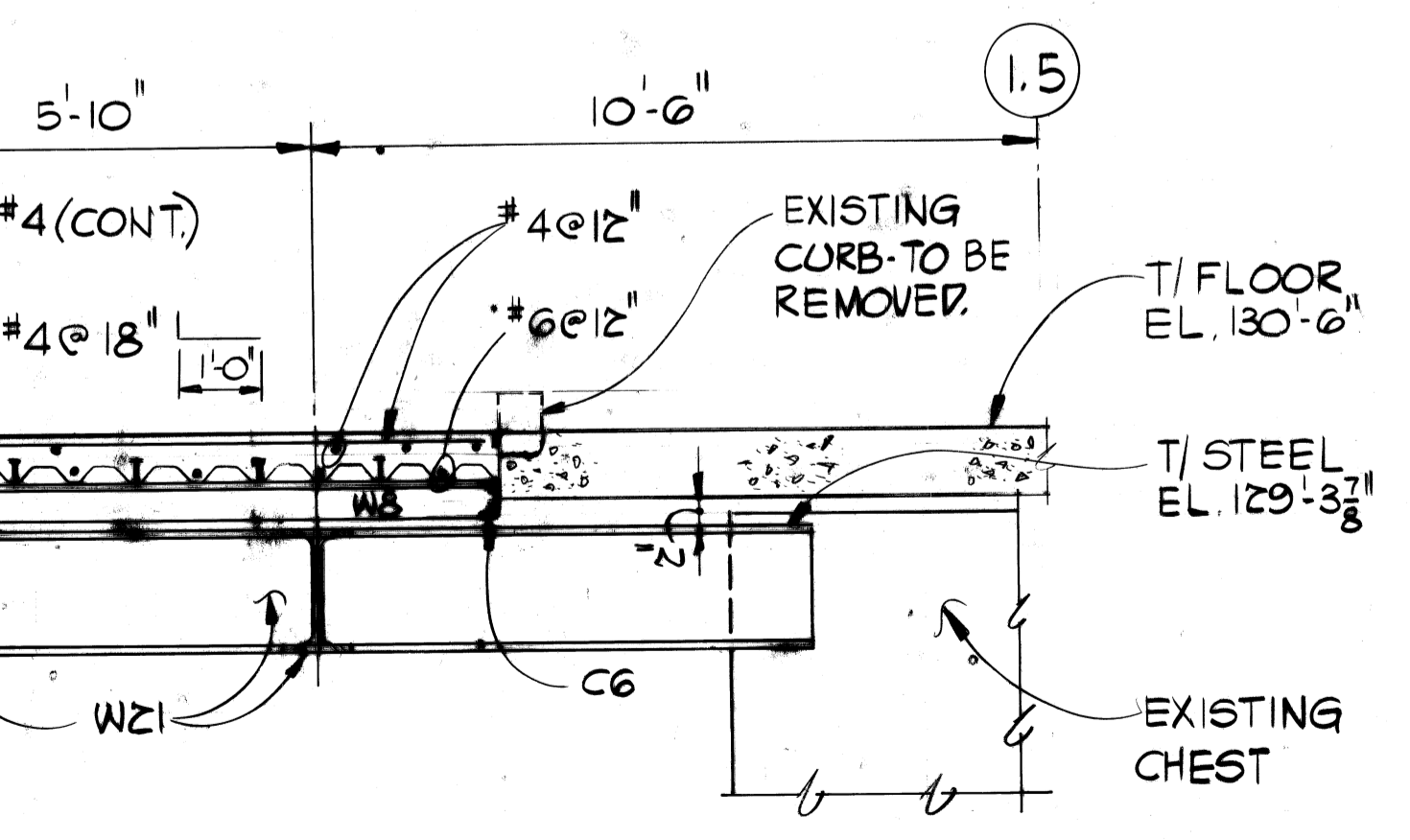
SECTION 5-5



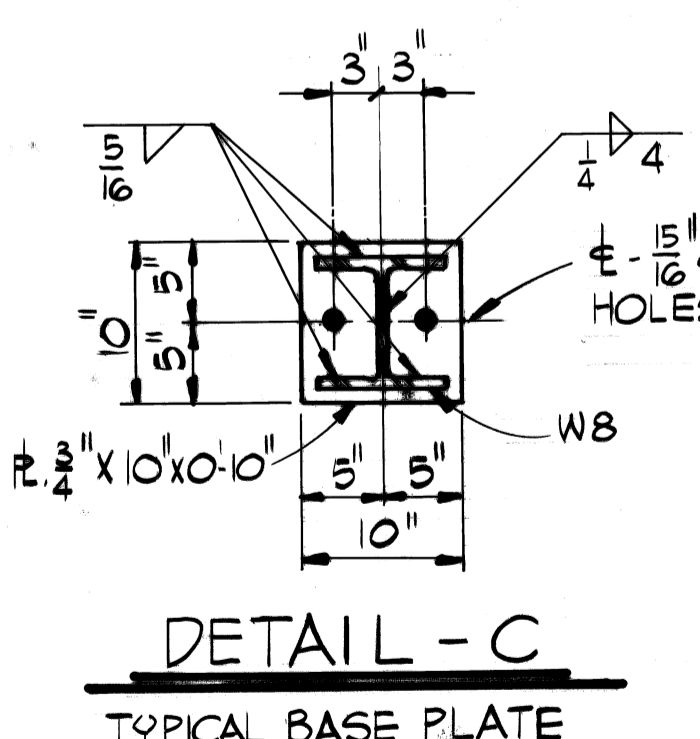
SECTION 6-6



ELEVATION 3-3



SECTION 4-4



DETAIL - C
TYPICAL BASE PLATE

NOTE: * INDICATES EXISTING STEEL TO BE RELOCATED.

- STEEL**
- DESIGN BASED ON AISC MANUAL, LATEST EDITION.
 - STRUCTURAL STEEL - ASTM A58.
 - WELDS - E70XX ELECTRODES.
 - HIGH STRENGTH BOLTS - ASTM A325-F.
- DESIGN LOADS:**
- | | | |
|-----------|----------------------------|---------|
| ROOF | D.L. | 10 PSF |
| | L.L. | 30 PSF |
| | MECH. | 10 PSF |
| | (EXCLUDES EQUIPMENT LOADS) | |
| FLOOR | L.L. | 150 PSF |
| WIND LOAD | | 20 PSF |
- METAL DECK**
- FLOOR: METAL DECK SUPPORTING THE CONCRETE FLOOR SHALL BE "1-1/2" Y-GIRTS", 20 GA., AS MANUFACTURED BY BOWMAN METAL DECK DIVISION, OR APPROVED EQUAL.
- ROOF: METAL DECK FOR THE PENTHOUSE ENCLOSURE SHALL CONFORM TO THE MATERIAL REQUIREMENTS OF THE EXISTING ROOF DECK.
- PENTHOUSE FRAMING PURLINS AND GIRTS SHALL BE COLD-FORMED MEMBERS MEETING THE REQUIREMENTS OF THE EXISTING STRUCTURE, AND THE SPECIFICATIONS.
- FABRICATION, LOCATION AND SPACING OF NEW PENTHOUSE STEEL SHALL MATCH THAT OF EXISTING PENTHOUSE.
- NEW ROOF BRACING FOR PENTHOUSE ENCLOSURE SHALL BE FABRICATED AND CONNECTED TO FRAMING IN A SIMILAR MANNER TO EXISTING ROOF BRACING.

70-10-0
10-0-10

A-1674

ALL DRAWINGS, SPECIFICATIONS, COPIES THEREOF AND THE INFORMATION CONTAINED THEREIN ARE THE SOLE PROPERTY OF MAE AND MAY NOT BE USED EXCEPT WITH THE CONSENT OF MID-AMERICA ENGINEERS, INC. CONFIDENTIAL DOCUMENTS. DO NOT COPY OR REPRODUCE WITHOUT PERMISSION OF MID-AMERICA ENGINEERS, INC. ALL RIGHTS TO DESIGN AND INVENTION ARE RESERVED. RETURN ALL DOCUMENTS ON REQUEST.

NO.	DATE	REVISION

SCALE 1/8" = 1'-0"
DRAWN: T.R. BROWN
CHECKED: RAH
APPROVED: [Signature]
DATE: 12-8-91

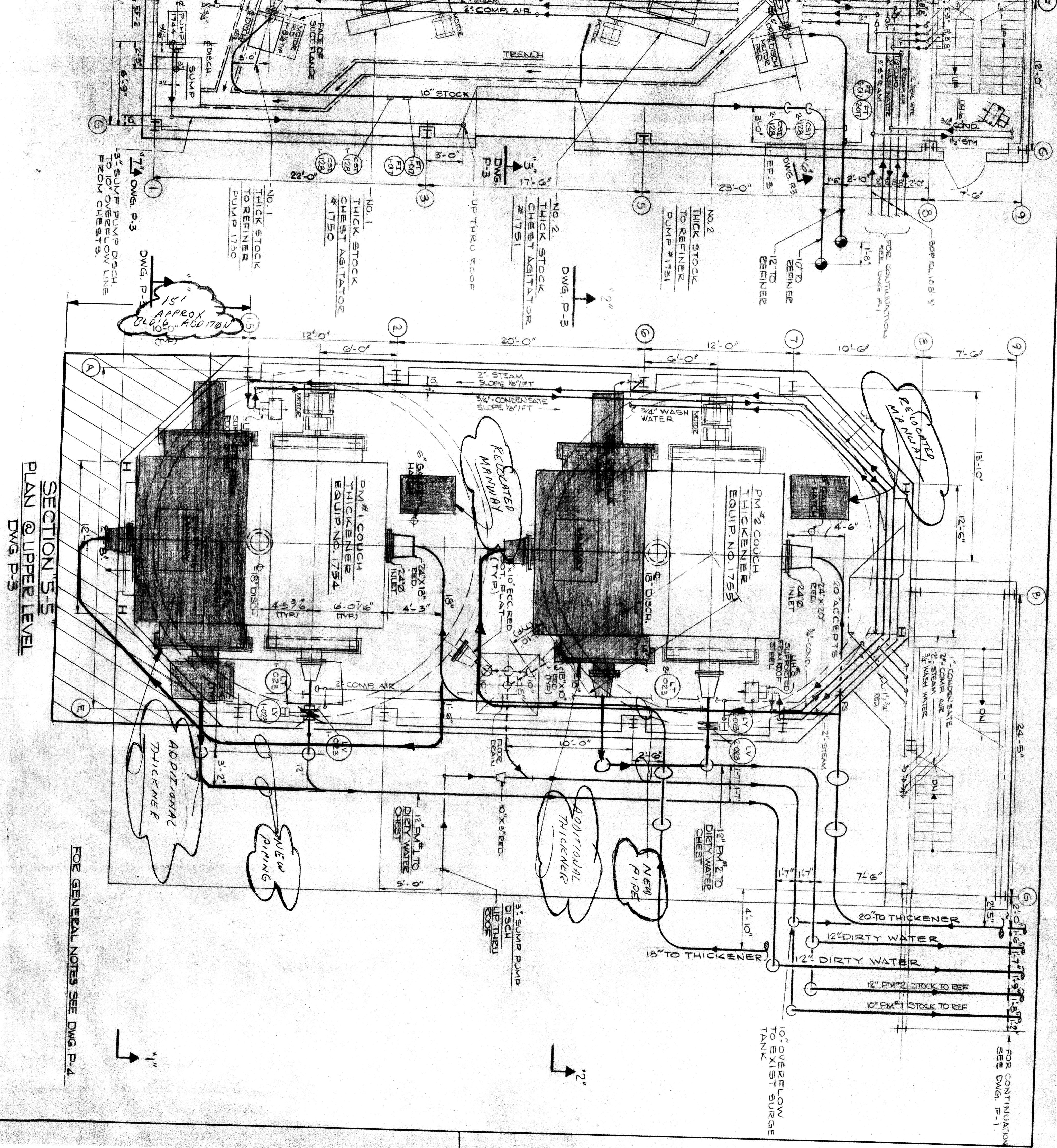
MAE MID-AMERICA ENGINEERS, INC.
CONSULTANTS ENGINEERS ARCHITECTS CHICAGO, ILLINOIS

MPC MICHIGAN PAPERBOARD COMPANY
79 East Fountain Street
Battle Creek, Michigan

INSTALLATION OF 2 NEW THICKENERS PLAN, SECTIONS & DETAILS STOCK CHEST PENTHOUSE MODIFICATION

DRAWING NUMBER **S-16**
CONTRACT NUMBER **91048-01A**

A-1674



SECTION "S-S"
PLAN @ UPPER LEVEL
DWG. P-3

FOR GENERAL NOTES SEE DWG. P-4.

10-1-13 EP 1757
10-3-13 1758

NOTE: STOCK DISCHARGE CHUTE
COMMON TO BOTH THICKENERS

REF: DWG A-1614

MICHIGAN PAPERBOARD
SKETCH SHOWING DOUBLE
THICKENERS

BY G. McMILLAN	DATE 8-6-91	No. A-1726
-------------------	----------------	---------------

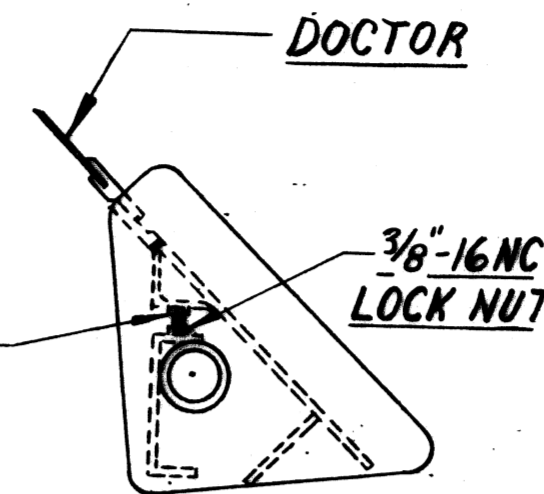
DATE	NO.	REVISION	ZONE	BY	CHK.

3011795

REV.	DATE	USED ON

SHUT DOWN INSTRUCTIONS

1. RAISE COUCH ROLL OFF CYLINDER MOLD BY TIGHTENING TOP NUT ON SPRING RODS
2. INSERT BLOCKS UNDER COUCH ROLL PIVOT ARMS
3. RELEASE PRESSURE ON SPRINGS
4. ROTATE DOCTOR UNTIL IT TOUCHES DOCTOR SHELF. LOOSEN AND ROTATE WEIGHT LEVER ARM AS REQUIRED TO MAINTAIN THIS POSITION.

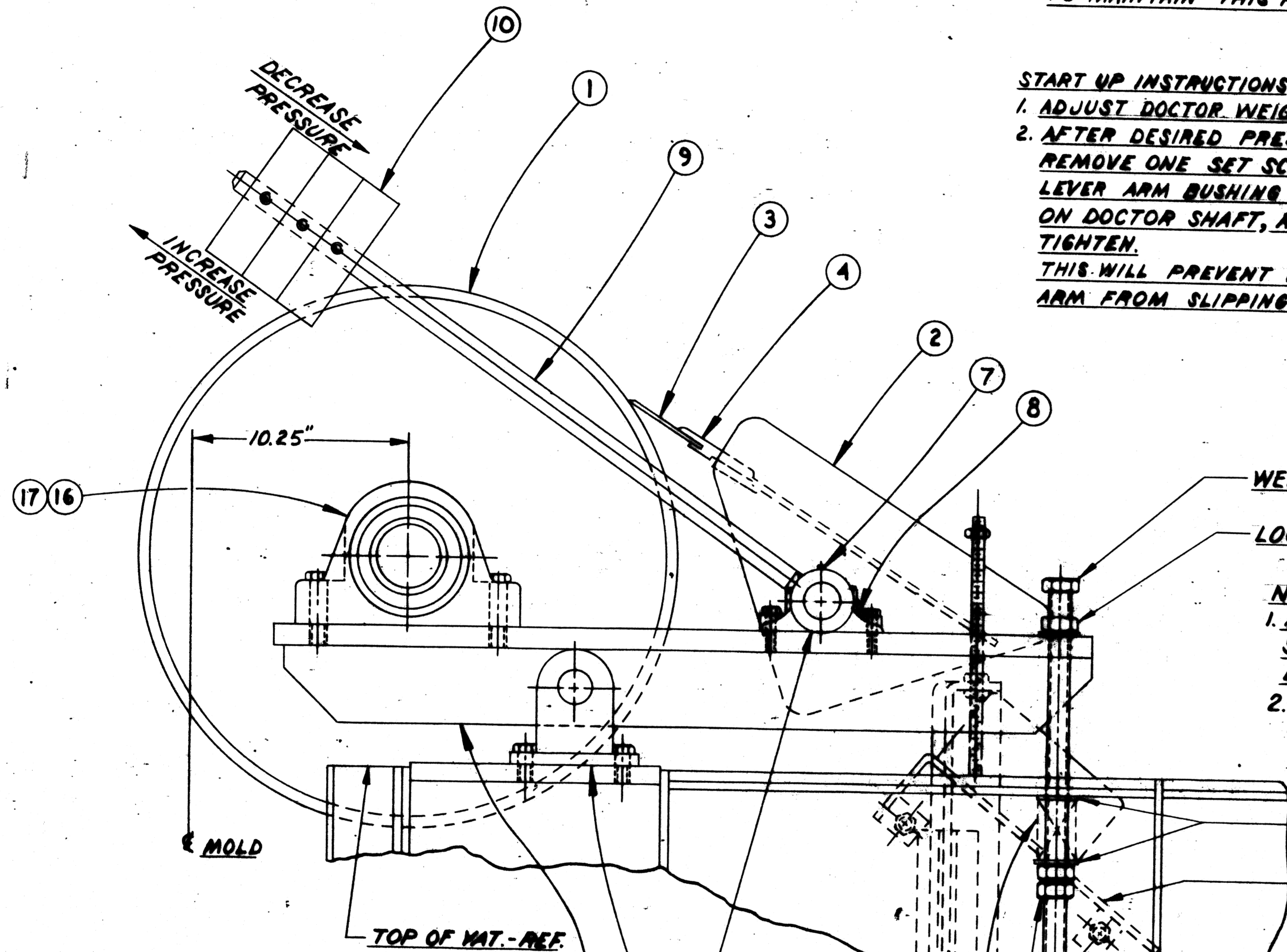


NOTE:
ADJUST(S) 3/8" BOLTS UNDER DOCTOR TO ELIMINATE ANY SAG ON UPPER SURFACE. CAUTION, ADJUST BOLTS EVENLY. DO NOT OVERTIGHTEN. AFTER ADJUSTMENT USE HEX NUT TO LOCK BOLT - SEE VIEW "B"

START UP INSTRUCTIONS

1. ADJUST DOCTOR WEIGHTS OR ARMS
2. AFTER DESIRED PRESSURE IS ESTABLISHED, REMOVE ONE SET SCREW FROM WEIGHT LEVER ARM BUSHING AND DRILL A SPOT ON DOCTOR SHAFT, REPLACE SCREW AND TIGHTEN. THIS WILL PREVENT WEIGHT LEVER ARM FROM SLIPPING

HORIZONTAL
VIEW "B"
ORIENTATION FOR LEVELING



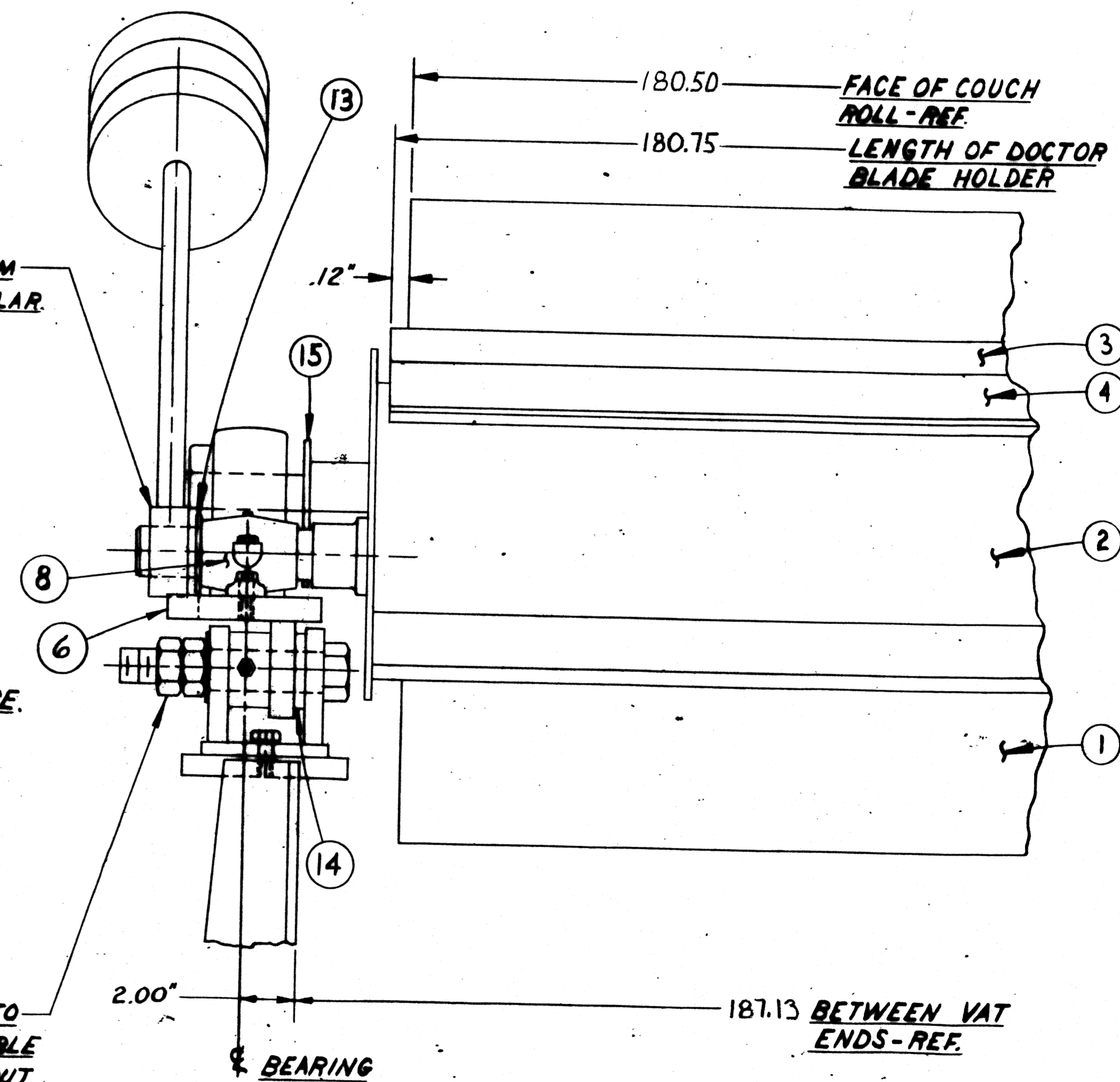
NOTE: WEIGHT LEVER ARM TO BE USED AS SET COLLAR. SLIDE AGAINST WASHER

WELDED NUT
LOCK NUT

NOTES:
1. ADJUST JAM NUTS TO SET SPRING TENSION TO COUNTER BALANCE COUCH ROLL
2. ADJUST WELDED NUT SO THAT COUCH ROLL HAS 1/32" CLEARANCE. LOCK WITH LOCK NUT.

FLAT WASHER
DOCTOR SHELF-REF.

NOTE: TIGHTEN BOLT TO INSURE MINIMUM WOBBLE OF COUCH ROLL ARM, BUT ARM IS STILL FREE TO ROTATE EASILY. LOCK WITH JAM NUT.



QTY	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
1	102.0 HR	D-189643 1/2	18		COUCH ROLL PIVOT ARM DRIVE SIDE	
1		1500779	17		2% BROWNING SPB000E	
1		1500778	16		2% BROWNING SPB000E	
2	NEOPRENE	9B C-177840 1/2	15		FLINGER RING	
REF.			14		BUNT. SLV. BUSH. "X" 2428-24 "R GREASE GN.	
4	STEEL	106012.0	13		2" FLAT WASHER	
2	DANLY *9-32H-11	X29250B9016	12		SPRING 3/4" FREE LG. 2" O.D.	
2	316 STN. STL.	A-189646	11		COUCH ADJUSTMENT BOLT	
6	CARBON STL.	2006820	10		WEIGHT FOR DOCTOR	
2	CARBON STL.	2006819	9		LEVER ARM	
2		X11450BP002	8		DODGE SPT. BRZ. BUSH. JRN. BRG. 1/4" SHFT. *005070	
2		150122.9	7		ALEMITE GREASE FITTING	
1	102.0 HR	D-189643 1/2	6		COUCH ROLL PIVOT ARM (T.S.)	
2	STEEL	C-189642	5		COUCH ROLL PIVOT	
1	TN. STL.	1503793	4		LOADING ACCUMATE BLADE HOLDER	
1	POLY FLEX	1503792	3		LOADING "KF" DOCTOR BLADE	
1	316L STN. STL.	3011793	2		DOCTOR	
1	316L STN. STL.	C-189430 1/2	1		25 x 180.5" FACE COUCH ROLL	

THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON

CUSTOMER: Michigan Paper Corp
MILL: Black Clawson
CUSTOMER ORDER: 26-74
SHARPLE ORDER: 150671
THE BLACK CLAWSON CO.
SHARPLE DIV.
MIDDLETOWN, OHIO
DATE OF CERTIFICATION: 11/25/91

REF. DWG. NO. 480-189406

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	
FINISHED DIMENSIONS	
ONE (1) DECIMAL DIMENSION	± .030"
TWO (2) DECIMAL DIMENSION	± .010"
THREE (3) DECIMAL DIMENSION	± .005"
ANGLES	± 1/2°
UNFINISHED SURFACES	± .125"

FATT. NO.

CONFIDENTIAL
This document, including all information contained therein, is the exclusive and confidential property of The Black Clawson Company of Middletown, Ohio, and the document and information are not to be copied, reproduced or delivered to others in whole or in part, except with express written permission, and the document is to be returned promptly after having served the purpose for which delivered.

NO FINISH NORMALLY REQUIRED. CLEAN UP ONLY TO MAINTAIN DIMENSIONAL STABILITY OR TO REMOVE UNUSUAL SURFACE IRREGULARITIES.

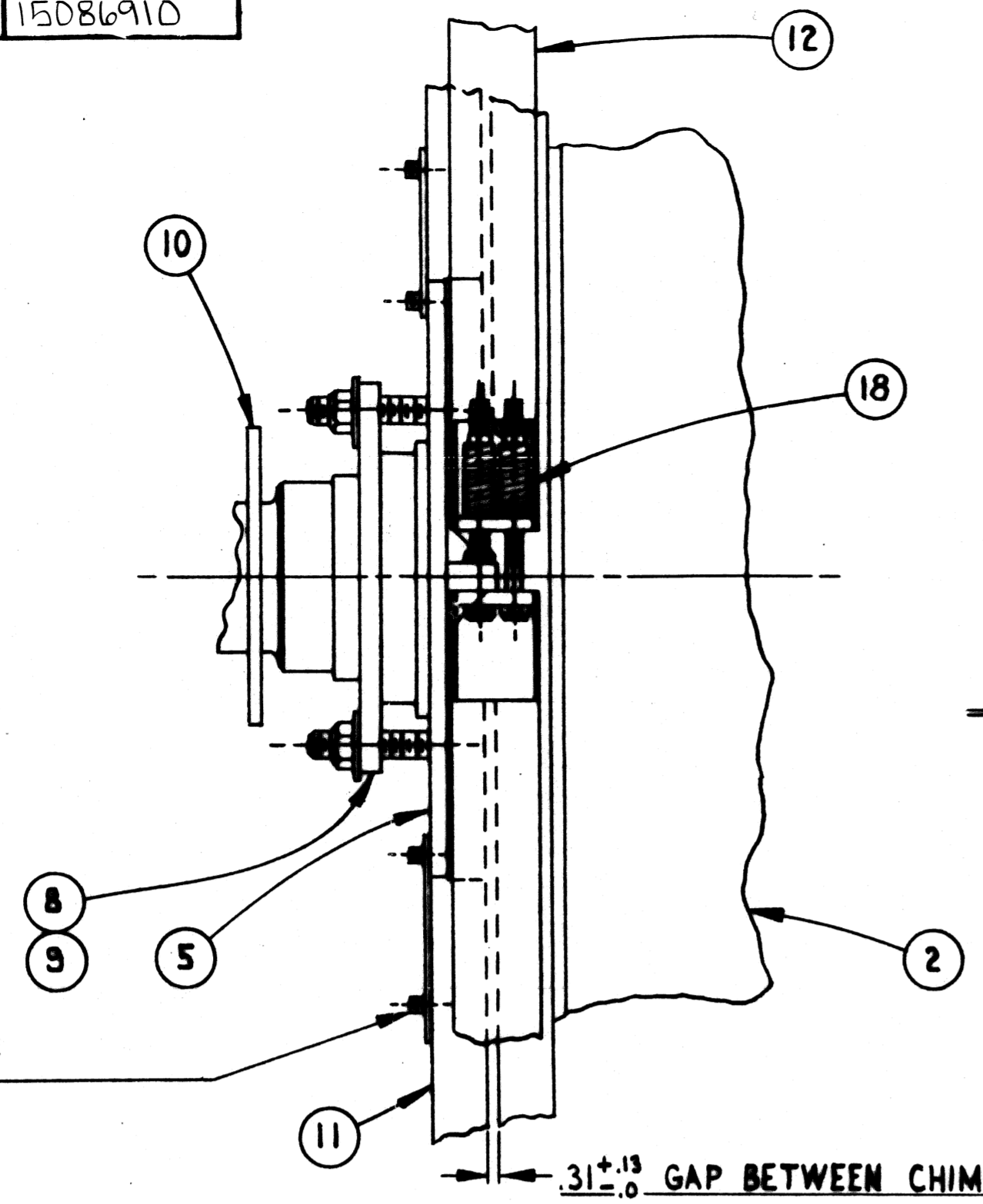
CUSTOMER: MICHIGAN PAPER CORP	
SER. NO. 91-21-0271	SHOP ORDER 150671
THE BLACK CLAWSON COMPANY MIDDLETOWN, OHIO	
Sharple Division / Stock Preparation Systems Pulp Division / Pulp Mill Systems	
DATE 10-27-90	SUBJECT ASSEMBLY- COUCH ROLL AND DOCTOR FOR 60" x 180" THICKENER
SCALE 1/2" = 1"	
DRAWN BY: JSH	714 3011795
CHECKED BY: [Signature]	
APPROVED BY: [Signature]	

E.P. 1754
1755
10-1-13 1757
10-3-13 1758

DATE	NO.	REVISION	ZONE	BY	CHKD.

15086910

DIV.	DATE	USED ON



VIEW "A-A"
SCALE: 1/4"=1'

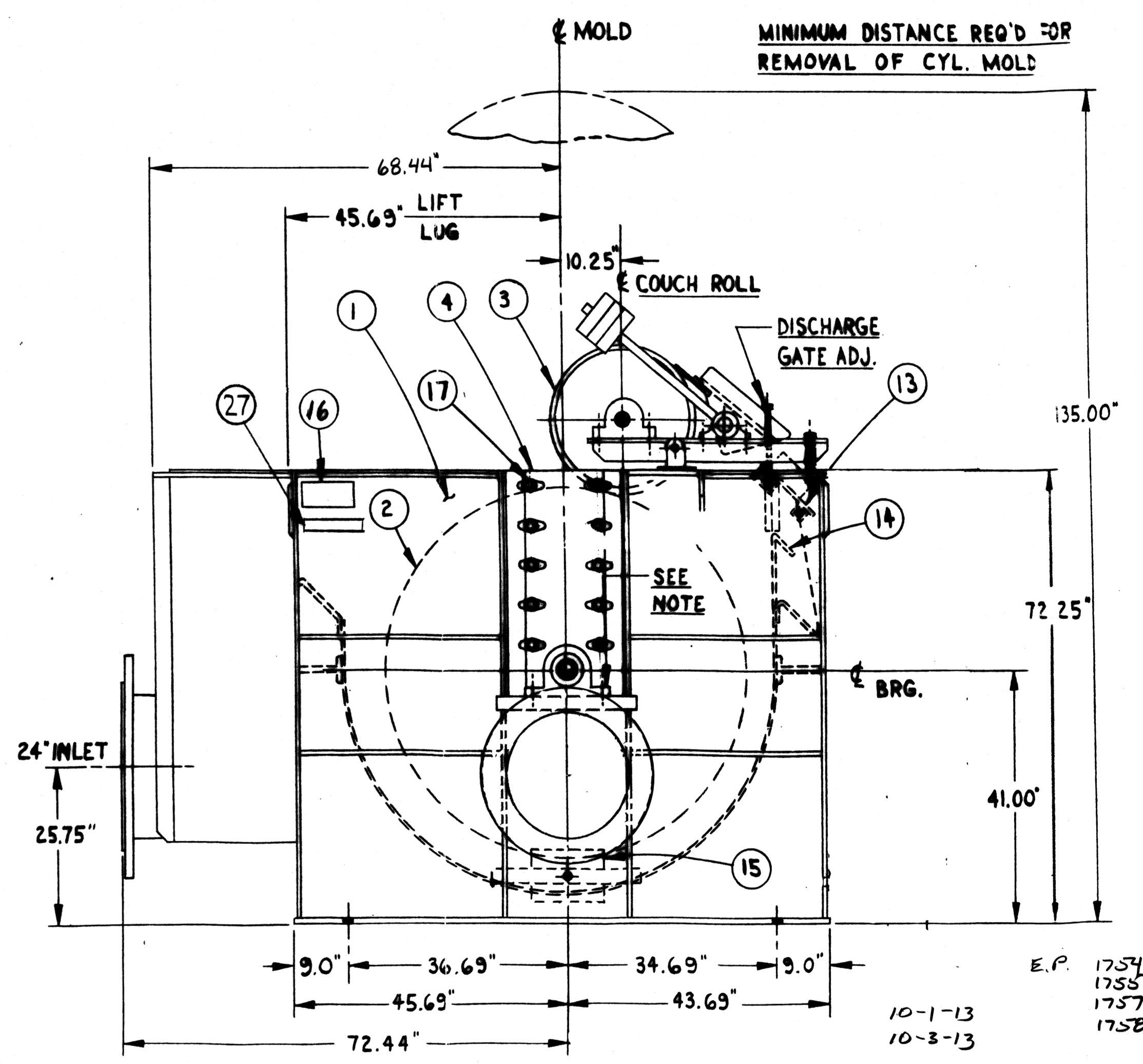
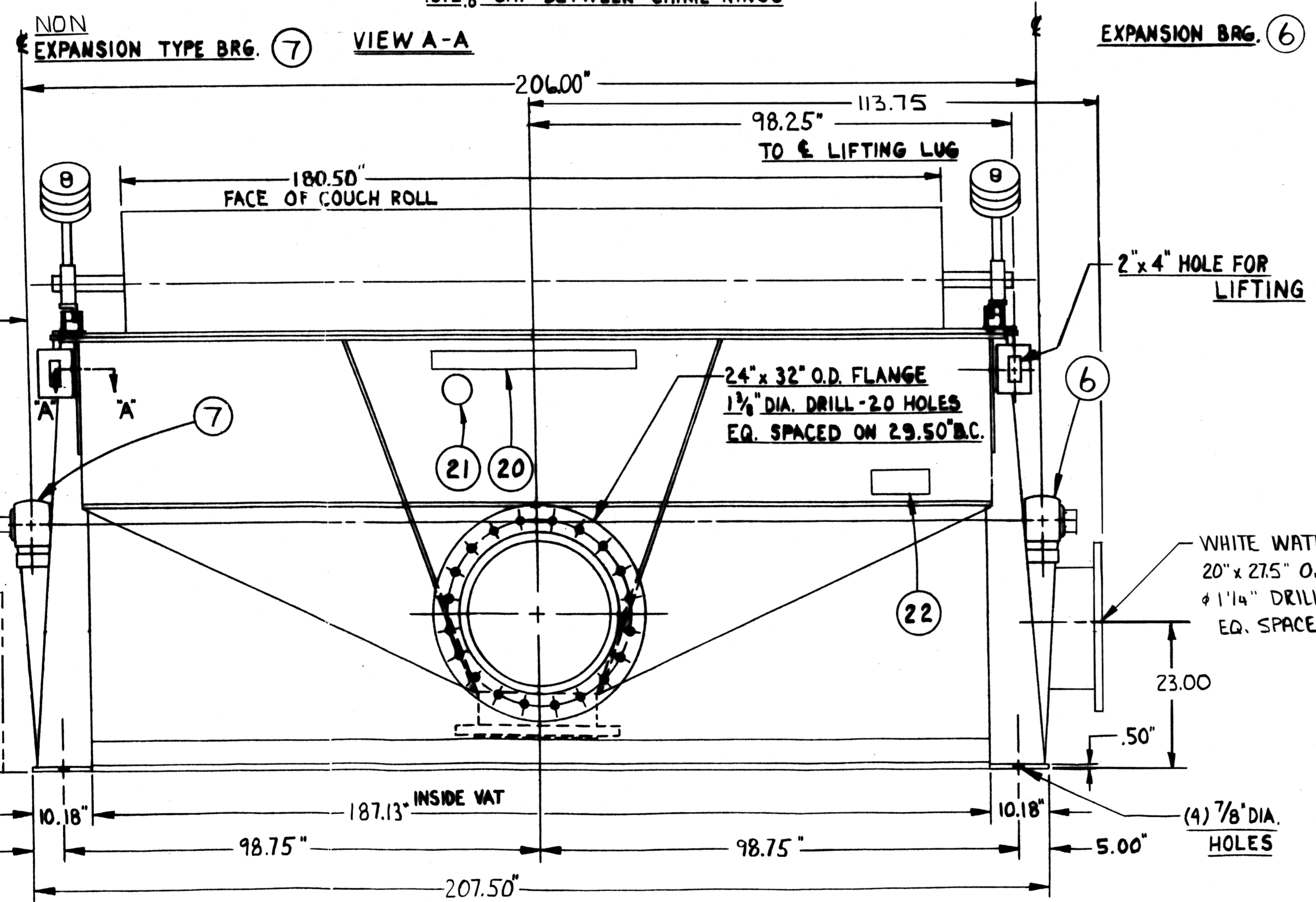
SEAL VAT CHIME RING BOLTS WITH PERMATEX *2 AT ASS'Y

31⁺¹³/_{-2.0} GAP BETWEEN CHIME RINGS

NOTE: PIN PILLOW BLOCK BRG'S TO VAT, AFTER CYL. MOLD & COUCH ROLL ARE ALIGNED

THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON COMPANY

CUSTOMER: Michigan Paperboard
 CUSTOMER ORDER: 15086910
 SHARPLE ORDER: 15086910
 THE BLACK CLAWSON CO.
 SHARPLE DIV.
 MIDDLETOWN, OHIO
 DATE OF CERTIFICATION: 1/15/91



QTY.	MATERIAL	DWG. NO.	ITEM	DESCRIPTION	QTY.	MATERIAL	DWG. NO.	ITEM	DESCRIPTION
1	316L STN.STL.	C-189412	12	GARTER STRAP	1	POLYESTER	3011825	24	ASS'Y DRIVE
1	316L STN.STL.	C-189411	11	CHIME RING FOR VAT	1	POLYESTER	1500142	23	DANGER PLACARD
2	NEOPRENE	98 C-177840	10	FLINGER RING	1	POLYESTER	1500147	22	CAUTION PLACARD
REF. BY CUST.			9	PACKING 3/8" SQ. x 77" LG.	2	ZINC	1500017	21	CORP EMBLEM
1		R-189410	8	PACKING GLAND	2	ZINC	1500014	20	CORP. NAME PLATE
1		1500775	7	BRG. 4 1/16" DRIVE END SAF 22526CA	1	PLASTIC	1503293	19	IMPORTANT SAFETY INSTRUCTION
1		1500773	6	BRG. 4 1/16" FREE END SAF 22526CA	REF.	316L STN.STL.	A-189649	18	GARTER STRAP CLIP
1	316L STN.STL.	C-189409	5	PACKING BOX END COVER	24	ASTM A48 CL25	D-34246-B	17	CLAMP
1	316L STN.STL.	C-189408	4	PACKING BOX END COVER	1	ZINC	1500486	16	MULTI-PURPOSE NAMEPLATE
1		3011795	3	25" COUCH ROLL & DOCTOR ASSY	2	STEEL	B-189415	15	CLEAN OUT DOOR KIT
1	316L STN.STL.	3011806	2	60" DIA. CLY. MOLD x 180" LG.	1	316L STN STL	3011796	14	DISCHARGE GATE
1	316L STN.STL.	3011788	1	VAT ASS'Y	1	316L STN.STL.	2006821	13	DOCTOR SHELF

SHIPPING WT. 23500 #
 - NOM. OPER. WT. 32500 #
 MAX. OPER. WT. 50000 #

CONFIDENTIAL
 This document, including all information contained therein, is the exclusive and confidential property of The Black Clawson Company of Middletown, Ohio, and the document and information are not to be copied, reproduced or delivered to others in whole or in part, except with express written permission and the document is to be returned promptly after having served the purpose for which delivered.

CUSTOMER MICHIGAN PAPERBOARD	
SER. NO. 91-CT-0279	SHOP ORDER 15086910
THE BLACK CLAWSON COMPANY MIDDLETOWN, OHIO	
Shurtle Division / Stock Preparation Systems Pandia Division / Pulp M. Systems	
DATE 11/21/91	SUBJECT ASS'Y 60" DIA. x 180" FREE-FLO
SCALE NONE	THICKENER WITH 25" DIA COUCH ROLL
DRAWN BY SM	REV.
CHECKED	714 15086910
APPROVED	

A-1737

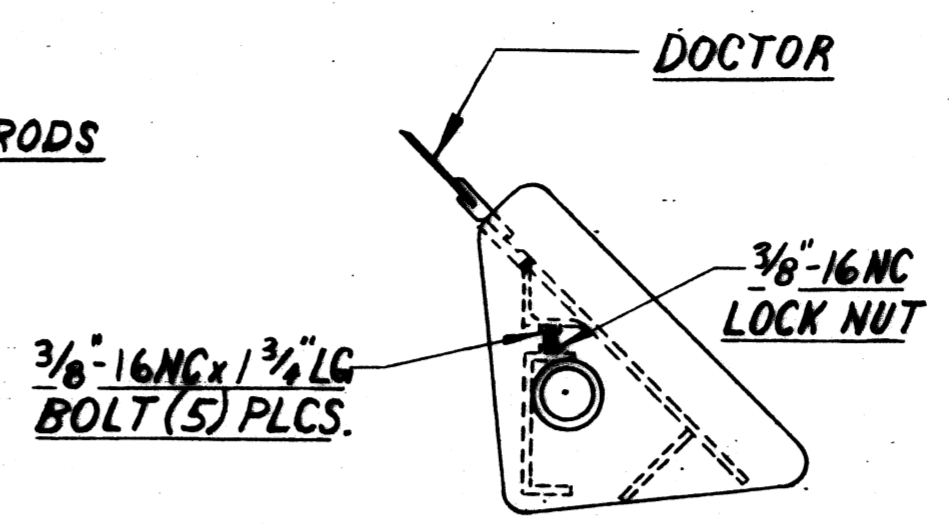
A-1737

DATE	NO.	REVISION	ZONE	BY	CHKD.
					3011795

DIV.	DATE	USED ON
BCL		
CCP		
LAL		
TAMP		

SHUT DOWN INSTRUCTIONS

1. RAISE COUCH ROLL OFF CYLINDER MOLD BY TIGHTENING TOP NUT ON SPRING RODS
2. INSERT BLOCKS UNDER COUCH ROLL PIVOT ARMS
3. RELEASE PRESSURE ON SPRINGS
4. ROTATE DOCTOR UNTIL IT TOUCHES DOCTOR SHELF. LOOSEN AND ROTATE WEIGHT LEVER ARM AS REQUIRED TO MAINTAIN THIS POSITION.



NOTE:
ADJUST(S) 3/8" BOLTS UNDER DOCTOR TO ELIMINATE ANY SAG ON UPPER SURFACE. CAUTION, ADJUST BOLTS EVENLY. DO NOT OVERTIGHTEN. AFTER ADJUSTMENT USE HEX NUT TO LOCK BOLT - SEE VIEW "B"

HORIZONTAL
VIEW "B"
ORIENTATION FOR LEVELING

START UP INSTRUCTIONS

1. ADJUST DOCTOR WEIGHTS OR ARMS
2. AFTER DESIRED PRESSURE IS ESTABLISHED, REMOVE ONE SET SCREW FROM WEIGHT LEVER ARM BUSHING AND DRILL A SPOT ON DOCTOR SHAFT, REPLACE SCREW AND TIGHTEN. THIS WILL PREVENT WEIGHT LEVER ARM FROM SLIPPING.

NOTE: WEIGHT LEVER ARM TO BE USED AS SET COLLAR. SLIDE AGAINST WASHER

WELDED NUT

LOCK NUT

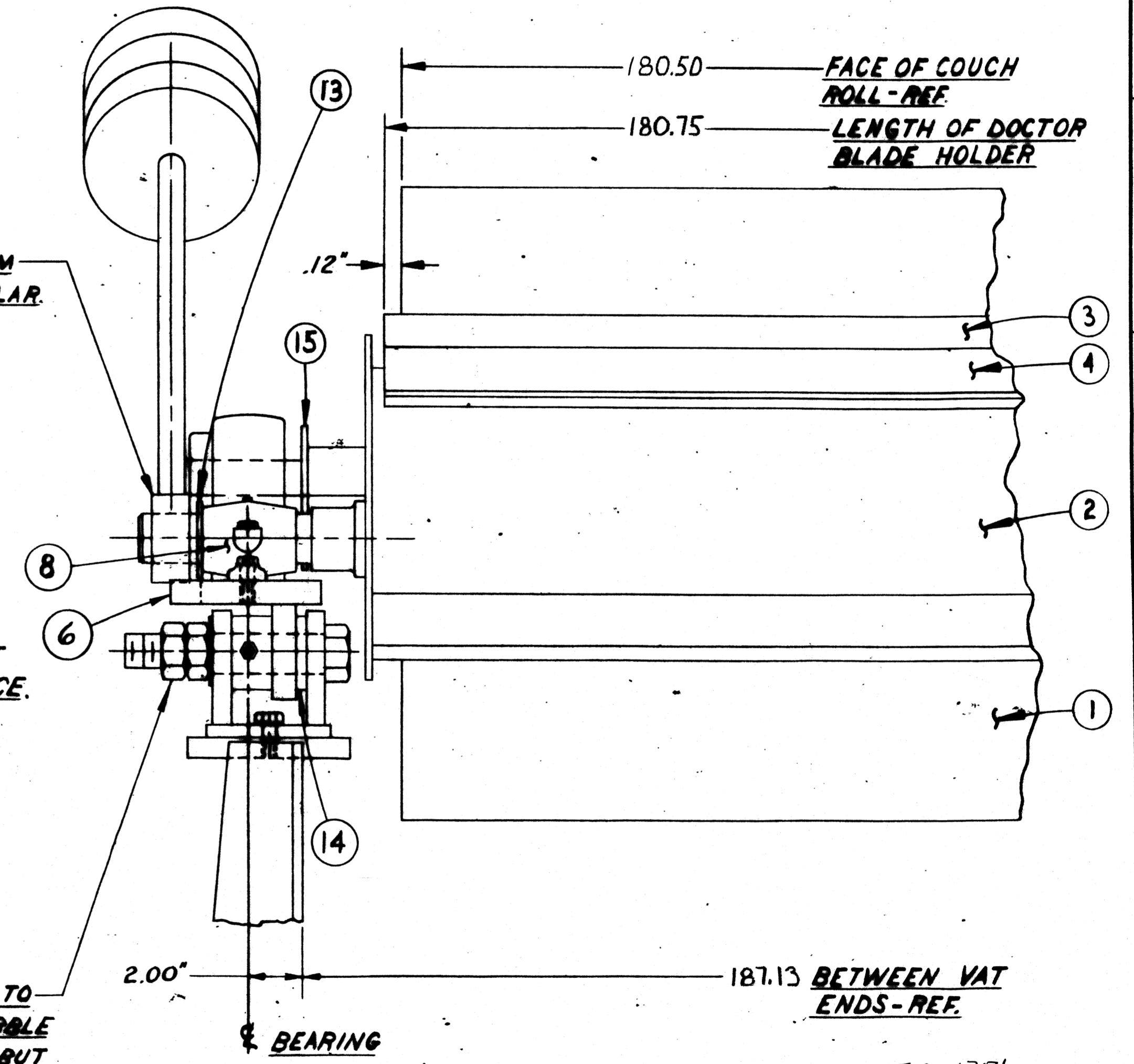
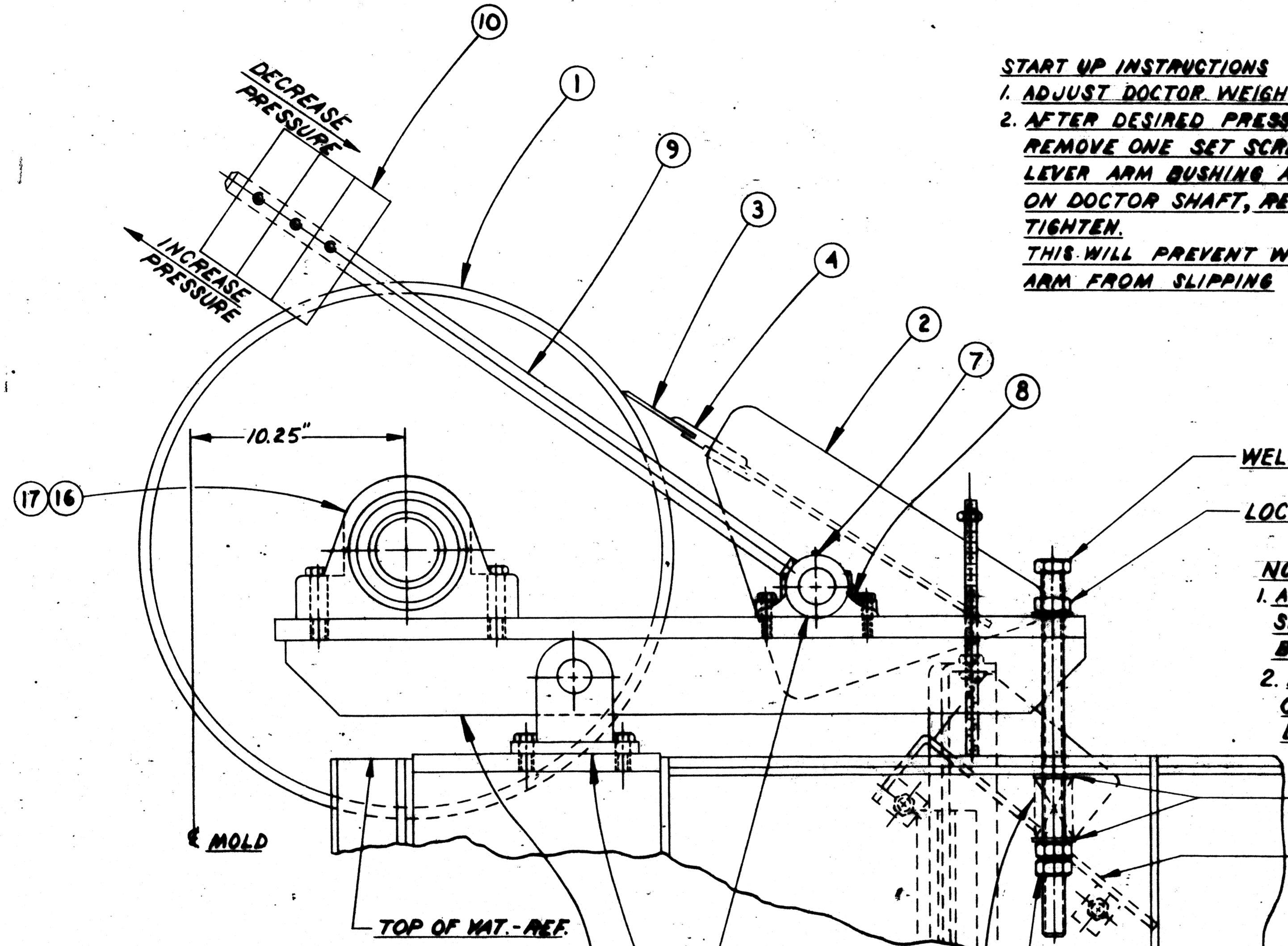
NOTES:

1. ADJUST JAM NUTS TO SET SPRING TENSION TO COUNTER BALANCE COUCH ROLL
2. ADJUST WELDED NUT SO THAT COUCH ROLL HAS 1/32" CLEARANCE. LOCK WITH LOCK NUT.

FLAT WASHER

DOCTOR SHELF-REF.

NOTE: TIGHTEN BOLT TO INSURE MINIMUM WOBBLE OF COUCH ROLL ARM, BUT ARM IS STILL FREE TO ROTATE EASILY. LOCK WITH JAM NUT.



QTY	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
1	1020 HR	D-189643 1/2	78		COUCH ROLL PIVOT ARM DRIVE SIDE	
1		1500779	17		2 1/2" BROWNING SPBIDOOE	
1		1500778	16		2 1/2" BROWNING SPBIDOOE	
2	NEOPRENE	98 C-117840 1/2	15		FLINGER RING	
REF.			14		BWNT. 3/16" DIA. "XL 2520-24" 2" GREASE GN	
4	STEEL	106012.0	13		2" FLAT WASHER	
2	DANLY 9-32N-11	X2925089016	12		SPRING 3/16" FREE LG. 2" O.D.	
2	316 STN. STL.	A-189646	11		COUCH ADJUSTMENT BOLT	
6	CARBON STL.	Z-006820	10		WEIGHT FOR DOCTOR	
2	CARBON STL.	Z-006819	9		LEVER ARM	
2		X11450BP002	8		DODGE SPT. BRZ. BUSH. JRNL. BRG. 1 1/2" SHFT.	*005070
2		15012.29	7		ALEMITE GREASE FITTING	
1	1020 HR	D-189643 1/4	6		COUCH ROLL PIVOT ARM(T.S.)	
2	STEEL	C-189642	5		COUCH ROLL PIVOT	
1	T.M. STL.	1503793	4		LOADING ACCUMATE BLADE HOLDER	
1	POLYFLEX	1503792	3		LOADING "MF" DOCTOR BLADE	
1	316L STN. STL.	3011793	2		DOCTOR	
1	316L STN. STL.	C-189430 1/2	1		25 x 180.5" FACE COUCH ROLL	
TOTAL	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
QUANTITY						

THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON

CUSTOMER: *Michigan Paper Corp.*
MILL: *Black Clawson*
CUSTOMER ORDER: *2079*
SHARTLE ORDER: *13071*
THE BLACK CLAWSON CO.
SHARTLE DIV.
MIDDLETOWN, OHIO
DATE OF CERTIFICATION: *11/25/81*

REF. DWG. NO. 480-189406

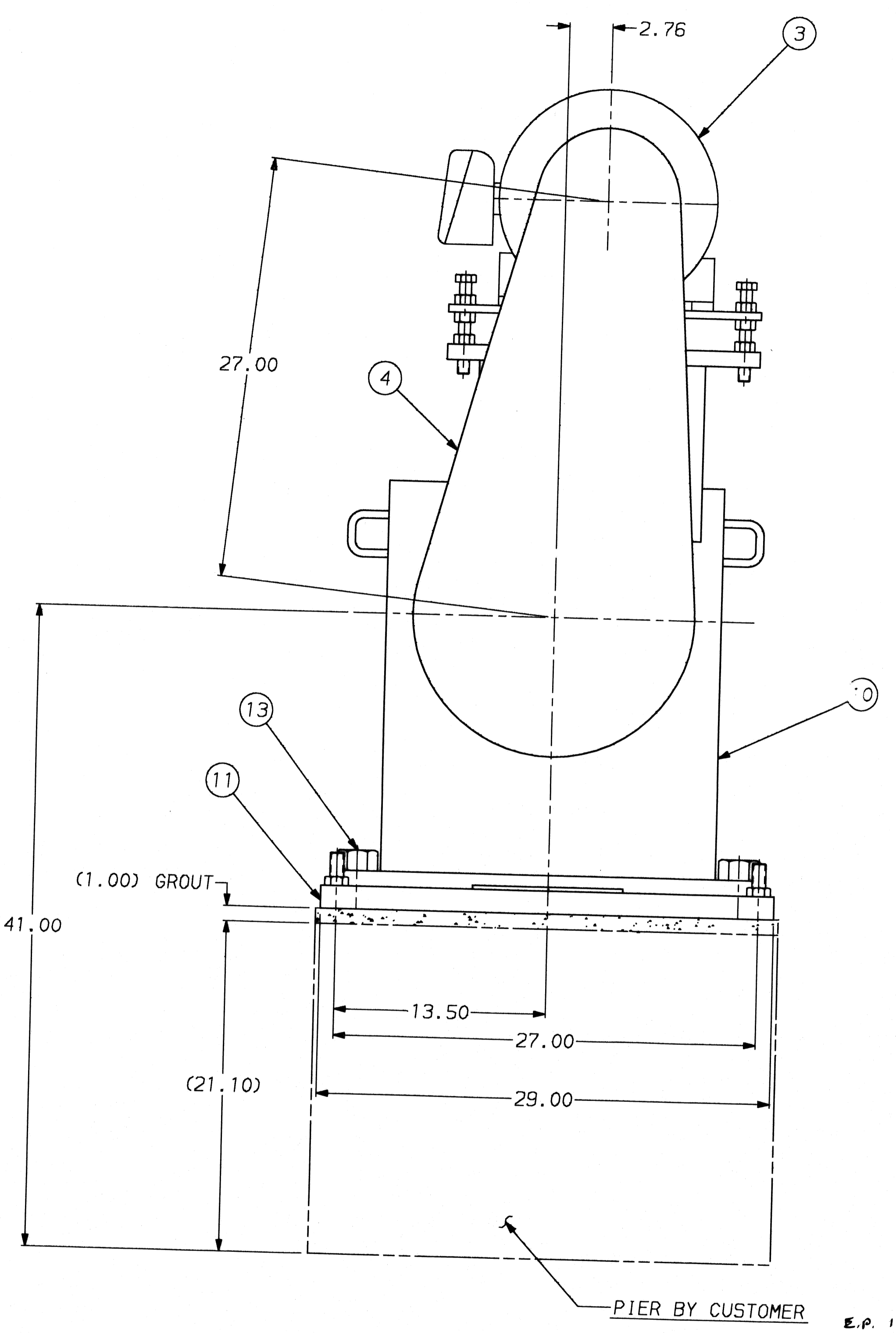
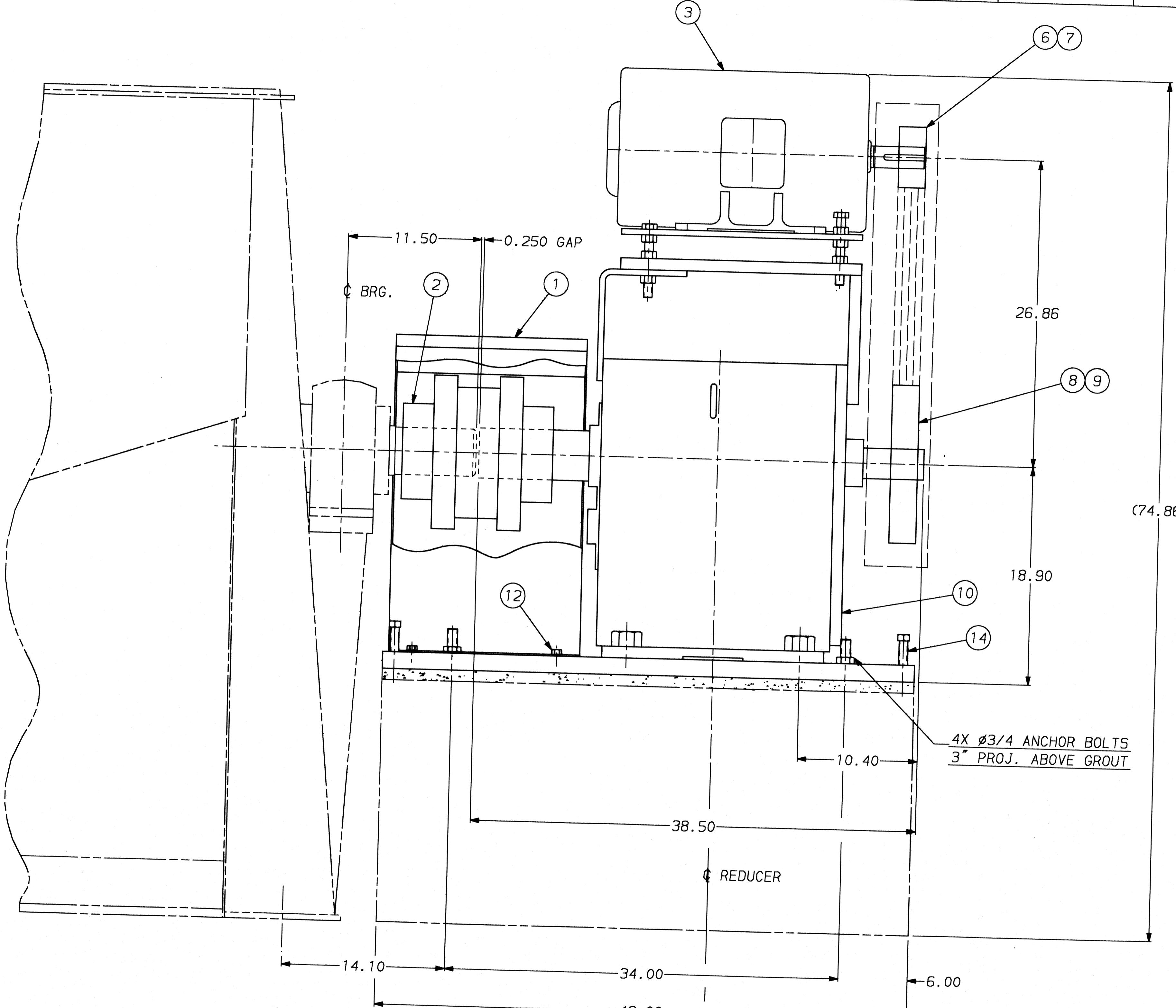
STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	FATT. NO.
FINISHED DIMENSIONS	
ONE (1) DECIMAL DIMENSION	±.030"
TWO (2) DECIMAL DIMENSION	±.010"
THREE (3) DECIMAL DIMENSION	±.005"
ANGLES	±1/2°
UNFINISHED SURFACES	±.125"

NO FINISH NORMALLY REQUIRED. CLEAN UP ONLY TO MAINTAIN DIMENSIONAL STABILITY OR TO REMOVE UNUSUAL SURFACE IRREGULARITIES.

SUPERSEDED BY: _____ DATE: _____ BY: _____
SUPERSEDES: _____ DATE: _____ BY: _____

CUSTOMER	DATE	SUBJECT
MCKHIGAN PREPARED	10-27-90	ASSEMBLY- COUCH ROLL AND DOCTOR FOR 60" x 180" THICKENER
SER. NO. 71-CT-0280	10-1-13	
SHOP ORDER 1508791	10-3-13	
THE BLACK CLAWSON COMPANY MIDDLETOWN, OHIO		
Shartle Division / Stock Preparation Systems Pandia Division / Pulp Mill Systems		
DRAWN BY: <i>SSB</i>	DATE: _____	BY: _____
CHECKED: <i>SSB</i>	DATE: _____	BY: _____
APPROVED: <i>SSB</i>	DATE: _____	BY: _____
714	3011795	

301 1825
USED ON



PART NO.	DESCRIPTION	QTY	ITEM	MATERIAL
1006406	SQUARE HEAD SET SCREW CUP POINT - 3/4"-10NC-3A X 4 LG	4	14	S.A.E. GR. 2
1001113	HEX HEAD CAP SCREW - 1 1/2"-6NC-2A X 2 1/2 LG	4	13	S.A.E. GR. 2
1000402	HEX HEAD CAP SCREW - 1/2"-13NC-2A X 1 LG	4	12	S.A.E. GR. 2
2006859	PLATE, SOLE	1	11	CARBON STEEL
1503796	REDUCER, FALK 1100 TYPE FC2	1	10	*
1015737	BUSHING, 5F TYPE QD - 2 3/4 BORE WITH 5/8 X 1/16 KEYWAY	1	9	CARBON STEEL
1016910	SHEAVE, 3V SECTION 5 GROOVE TYPE QD - 14.0 DIA.	1	8	STEEL
1015523	BUSHING, 5K TYPE QD - 1 7/8 BORE WITH 1/2 X 1/4 KEYWAY	1	7	CARBON STEEL
1016903	SHEAVE, 3V SECTION 5 GROOVE TYPE QD - 5.3 DIA.	1	6	STEEL
1018922	V-BELT, MATCHED SET OF 5 - 3VX-850	1	5	RUBBER
1503807	GUARD, FALK TYPE S63	1	4	CARBON STEEL
1050960	MOTOR - 20 HP, 1200 RPM, FRAME SIZE 286T, TEFC	1	3	*
1503805	COUPLING, FALK 1130T10	1	2	*
3010350	GUARD, COUPLING	1	1	CARBON STEEL

← 135.37 TO ϕ MACH. →

THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON

CUSTOMER: Michigan Paperboard Corp.
MILL: Battle Creek, MI
CUSTOMER ORDER: 28172
SHARPLE ORDER: 1504771
THE BLACK CLAWSON CO.
SHARPLE DIV.
MIDDLETOWN, OHIO
DATE OF CERTIFICATION: 11/25/91

TOLERANCES UNLESS OTHERWISE SPECIFIED

METRIC	INCH
FULL NO. ± 1.0	1 PLC. DEC. ± 0.04
1 PLC. DEC. ± 0.25	2 PLC. DEC. ± 0.01
2 PLC. DEC. ± 0.12	3 PLC. DEC. ± 0.005
ANGULAR ± 0.5°	ANGULAR ± 0.5°

THIRD ANGLE PROJECTION

WEIGHT - * Lbs.

DATE	NO.	REVISION	ZONE	BY	CKD.	MA

CUSTOMER: MICHIGAN PAPERBOARD
SER. NO. 91-CT-0200
SHOP ORDER 150871

THE BLACK CLAWSON COMPANY
MIDDLETOWN, OHIO

SHARPLE DIVISION / STOCK PREPARATION SYSTEMS / PULP MILL PRODUCTS

DATE: 09 NOV 1990 SUBJECT: ASSEMBLY, DRIVE
SCALE: 3/16 = 1 - FOR 60" X 180" FREE-FLO THICKENER

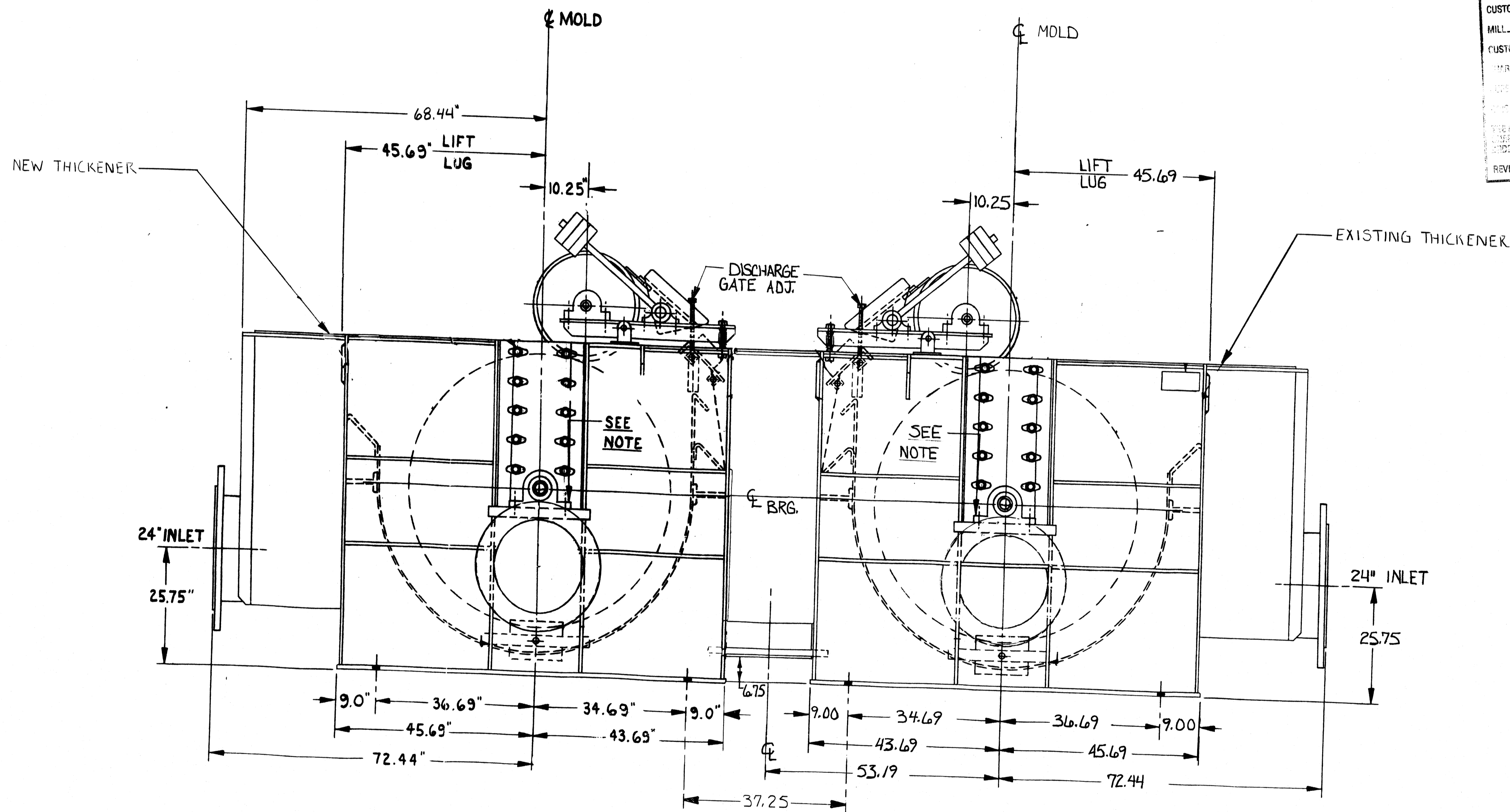
DRAWN BY: J. HOEVENAAR
CHECKED: [Signature]
APPROVED: [Signature]
PATT. NO.: *
REF. DWG.: C189653
SHEET: 1 OF 1

714 3011825

DATE	NO.	REVISION	ZONE	BY	CKD.	MA
		SEE SHEET NUMBER 1.				

SED ON

- NOTES:**
- 1) REMOVE GUSSET BARS FROM EXISTING THICKENER DISCHARGE TROUGH.
 - 2) CUT OUTER DISCHARGE WALL 2.5" FROM TOP OF EXISTING THICKENER



THIS REVISED ISSUE IS CERTIFIED FOR USE IN INSTALLATION OF EQUIPMENT

CUSTOMER: Michigan Paperboard Corp
 MILL: Battle Creek MI
 CUSTOMER ORDER: 20818
 PART NUMBER: 1508691
 ORDER DATE: 15086912 Rev 0
 DATE OF ISSUE: 11/26/91
 THE BLACK CLAWSON CO.
 MIDDLETOWN, OHIO
 REVISED CERTIFICATION DATE: 12/11/91

E.P. 1754
 1755
 1757
 10-1-13
 10-3-13
 1758

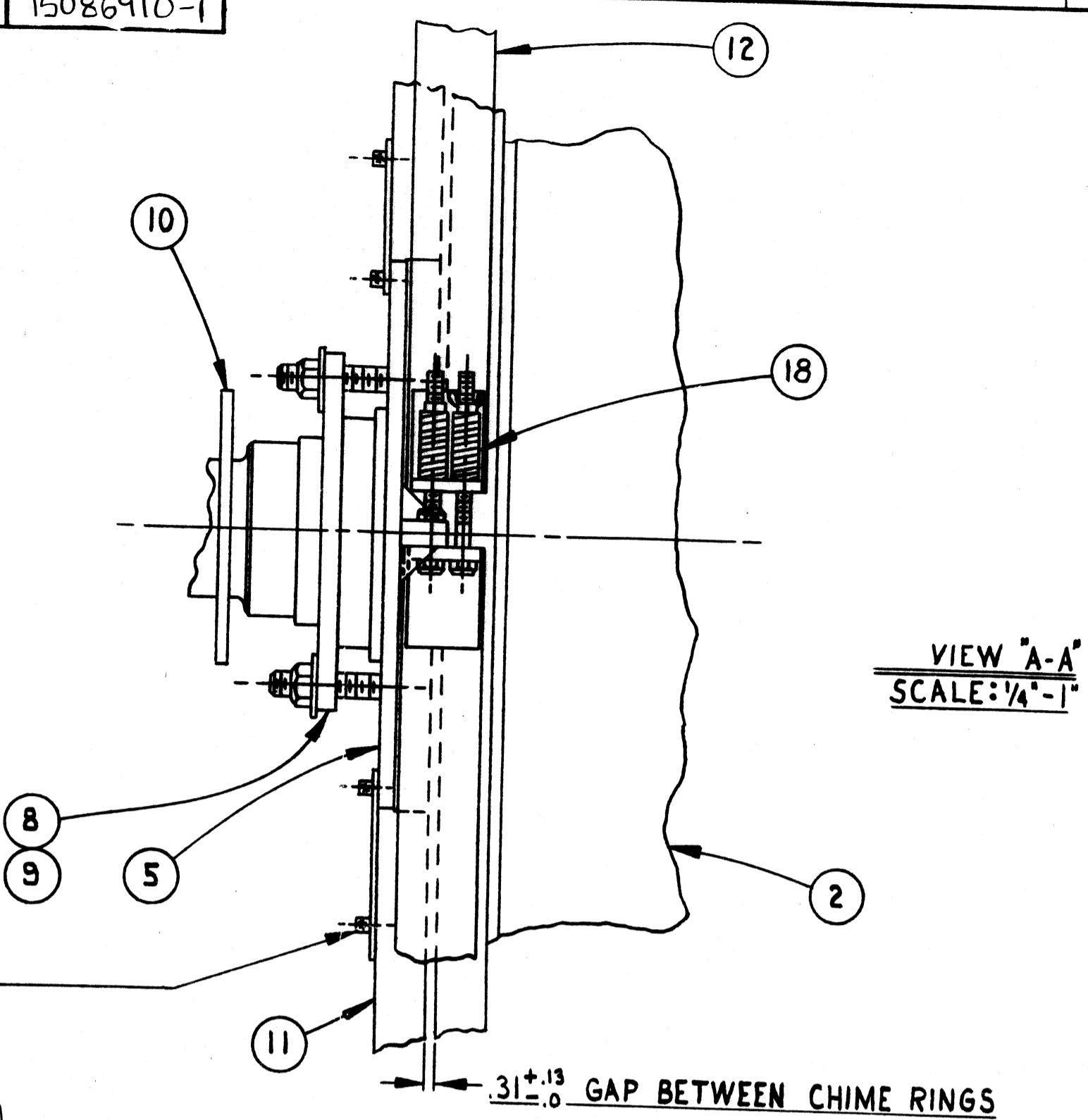
U/M	QTY	MATERIAL	CODE	PART NO	ITEM	DESCRIPTION
						SEE SHEET NUMBER 1

U/M	QTY	MATERIAL	CODE	PART NO	ITEM	DESCRIPTION

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	CUSTOMER MICHIGAN PAPERBOARD		
ANGLES ± 0° 30'	SER. NO. 91-CT-0279 SHOP ORDER 1508691		
DIMENSIONS ± 1/8"			
CONFIDENTIAL	THE BLACK CLAWSON COMPANY MIDDLETOWN, OHIO		
<small>This document, including all information contained thereon, is the exclusive and confidential property of The Black Clawson Company of Middletown, Ohio, and the document and information are not to be copied, reproduced or delivered to others, in whole or in part, except with express written permission, and the document is to be returned promptly after having served the purpose for which delivered.</small>			
Shartle Division / Stock Preparation Systems Pandia Division / Pulp Mill Systems			
DATE 5 DEC 91	SUBJECT ASSY 60" DIA. X 180 FREE-FLOW THICKENER WITH 25" COUCH ROLL.		
SCALE NONE			
DRAWN BY S. SMITH			
CHECKED			
APPROVED			
SUPERSEDED BY	DATE	BY	REV
SUPERSEDES	DATE	BY	REV
	714	15086910-2	1

A-1743

DATE	NO.	REVISION	ZONE	BY	CKD.
12/2/91	1	Add Page 2		SS	OG



VIEW A-A
SCALE: 1/4"=1"

SEAL VAT CHIME RING BOLTS WITH PERMATEX #2 AT ASSY

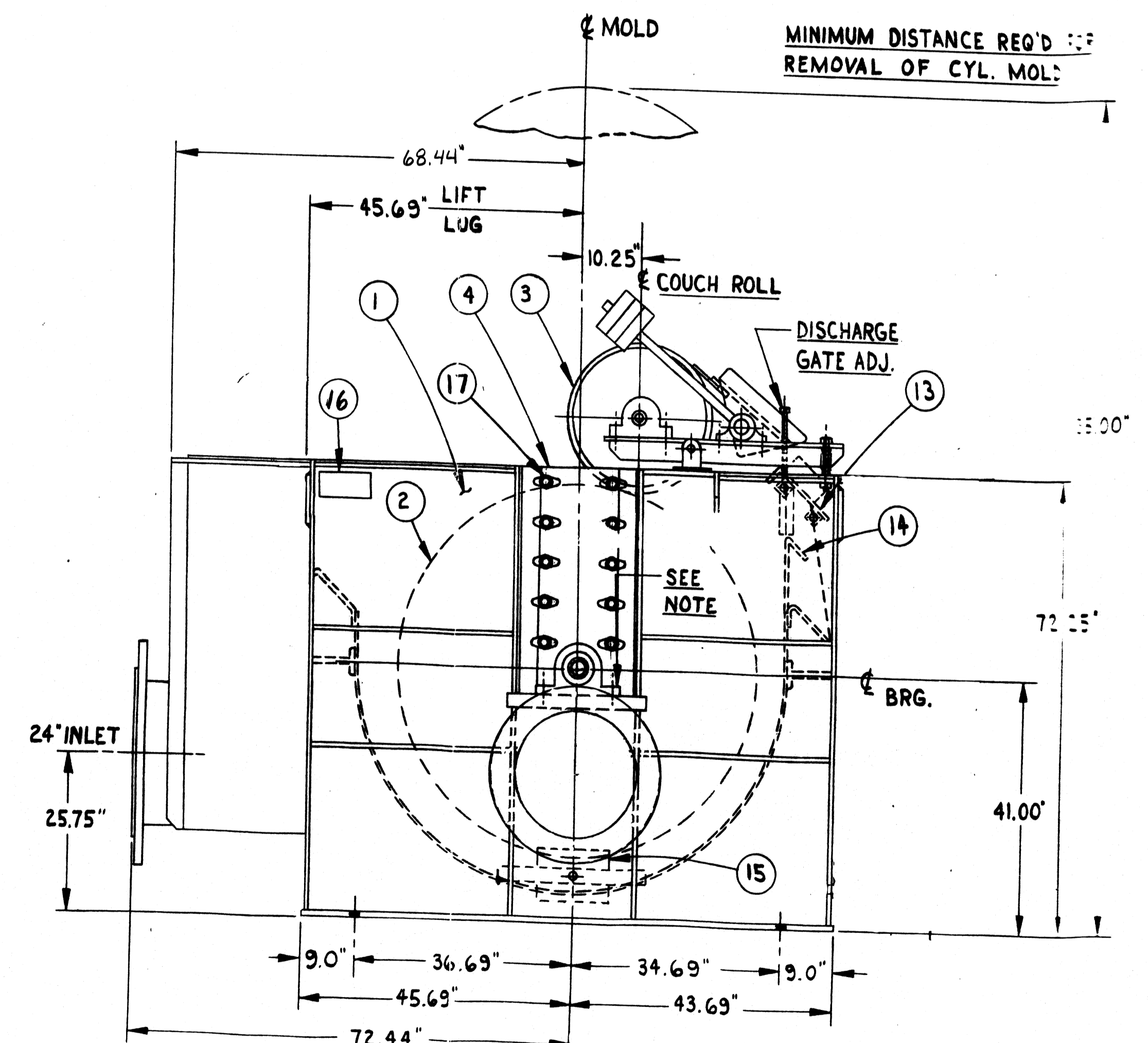
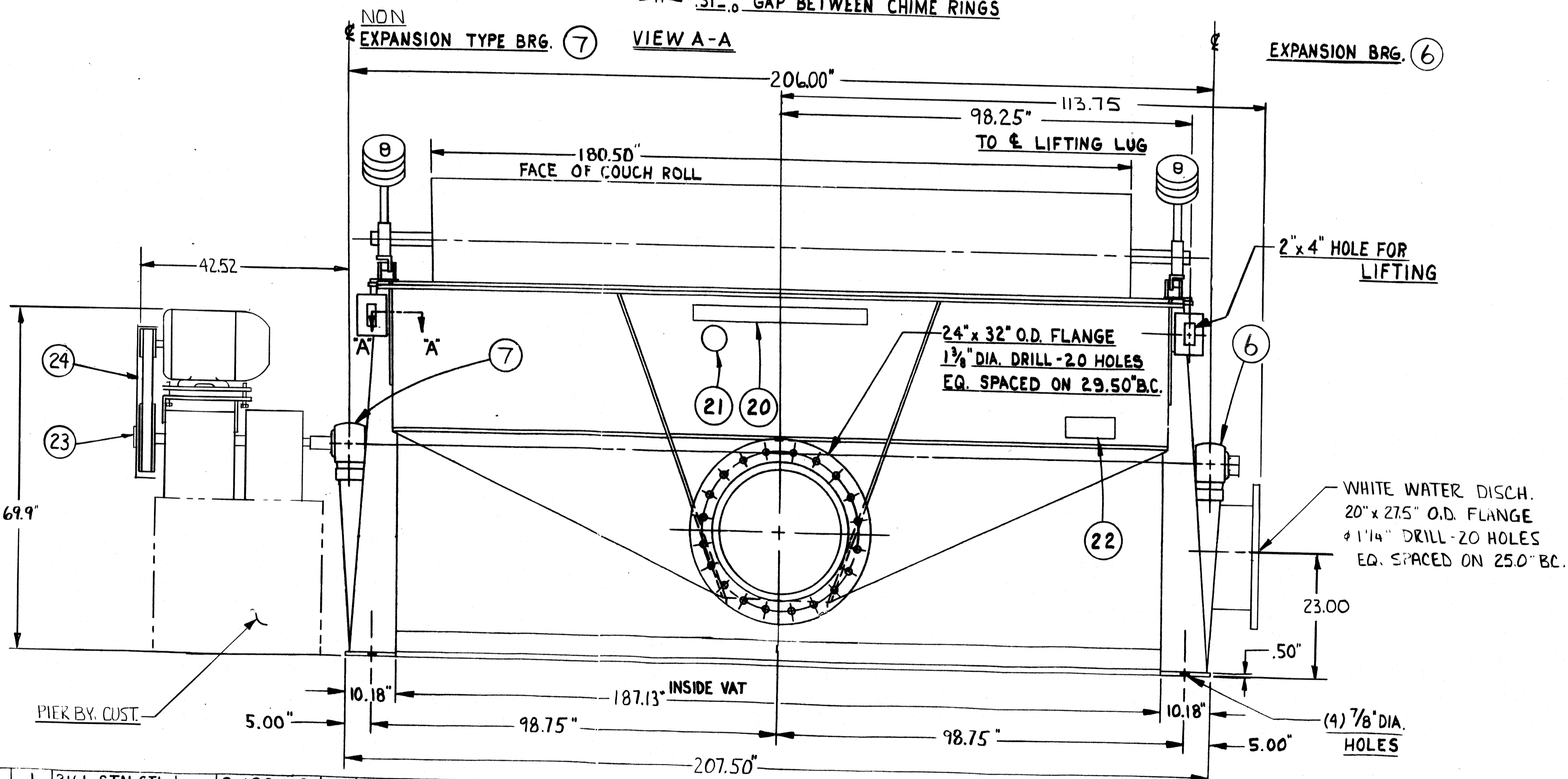
NOTE: PIN PILLOW BLOCK BRG'S TO VAT, AFTER CYL. MOLD & COUCH ROLL ARE ALIGNED

THIS REVISED ISSUE IS CERTIFIED FOR USE IN INSTALLATION OF EQUIPMENT

CUSTOMER: Michigan Paperboard Corp.
 MILL: Battle Creek MI
 BUS. ORDER NO.: 28978
 CHARLIE CODE: 1508691
 SUPERSEDES: 15086910-Rev 0
 ORIGINALLY DESIGNED ON: 11/26/91

THE BLACK CLAWSON CO.
 CHARLIE DIV.
 MIDDLETOWN, OHIO

REVISED CERTIFICATION DATE: 12/11/91



QTY.	MATERIAL	DWG. NO.	ITEM	DESCRIPTION	QTY.	MATERIAL	DWG. NO.	ITEM	DESCRIPTION
1	316L STN.STL.	C-189412	12	GARTER STRAP	1	POLYESTER	3011825	24	ASSY DRIVE
1	316L STN.STL.	C-189411	11	CHIME RING FOR VAT	1	POLYESTER	1500142	23	DANGER PLACARD
2	NEOPRENE	98 C-177840	10	FLINGER RING	1	POLYESTER	1500147	22	CAUTION PLACARD
REF. BY CUST.			9	PACKING 3/8" SQ. x 77" LG.	2	ZINC	1500017	21	CORP EMBLEM
2		R-189410	8	PACKING GLAND	2	ZINC	1500014	20	CORP. NAME PLATE
1		1500775	7	BRG. 47/16" DRIVE END SAF22526CA	1	PLASTIC	1503293	19	IMPORTANT SAFETY INSTRUCTION
1		1500773	6	BRG. 47/16" FREE END SAF22526CA	REF.	316L STN.STL.	A-189649	18	GARTER STRAP CLIP
1	316L STN.STL.	C-189409	5	PACKING BOX END COVER	24	ASTM A48 CL 25	D-34246-B	17	CLAMP
1	316L STN.STL.	C-189408	4	PACKING BOX END COVER	1	ZINC	1500486	16	MULTI-PURPOSE NAMEPLATE
1		3011795	3	25" COUCH ROLL & DOCTOR ASSY	2	STEEL	B-189415	15	CLEAN OUT DOOR KIT
1	316L STN.STL.	3011806	2	60" DIA. CLY. MOLD x 180" LG. TYPE	1	316L STN.STL.	3011796	14	DISCHARGE GATE
1	316L STN.STL.	3011788	1	VAT ASSY	1	316L STN.STL.	2006821	13	DOCTOR SHEET

SHIPPING WT 23500 #
 NOM OPER WT 32500 #
 MAX DPEK WT 35000 #

CUSTOMER MICHIGAN PAPERBOARD
 SER. NO. 91-CT-0279 SHOP ORDER 150869

THE BLACK CLAWSON COMPANY
 MIDDLETOWN, OHIO

Shurtle Division / Stock Preparation Systems / Pandia Division / Pulp - 314-91

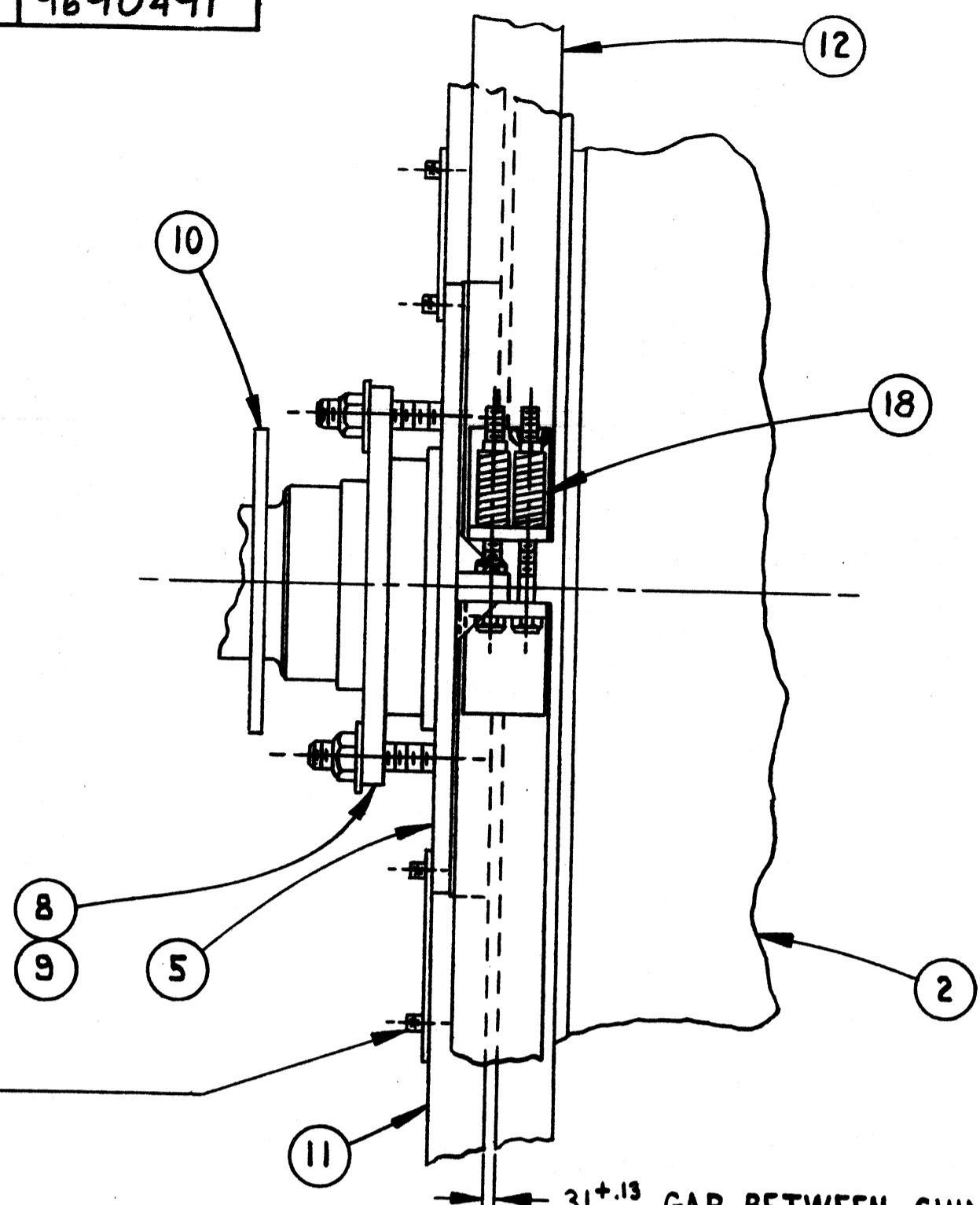
DATE: 11/11/91 SUBJECT: ASSY 60" DIA. XIRC FREE-FLO
 SCALE: NONE THICKENER WITH 25" DIA. COUCH ROLL

DRAWN BY: SM
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]

714 15086910-1
 A-1742

DATE	NO.	REVISION	ZONE	BY	CKD.
					9690491

DIV.	DATE	USED ON
E.C.L.		
C.C.K.		
C.F.R.		
D.L.L.		
TAMP.		



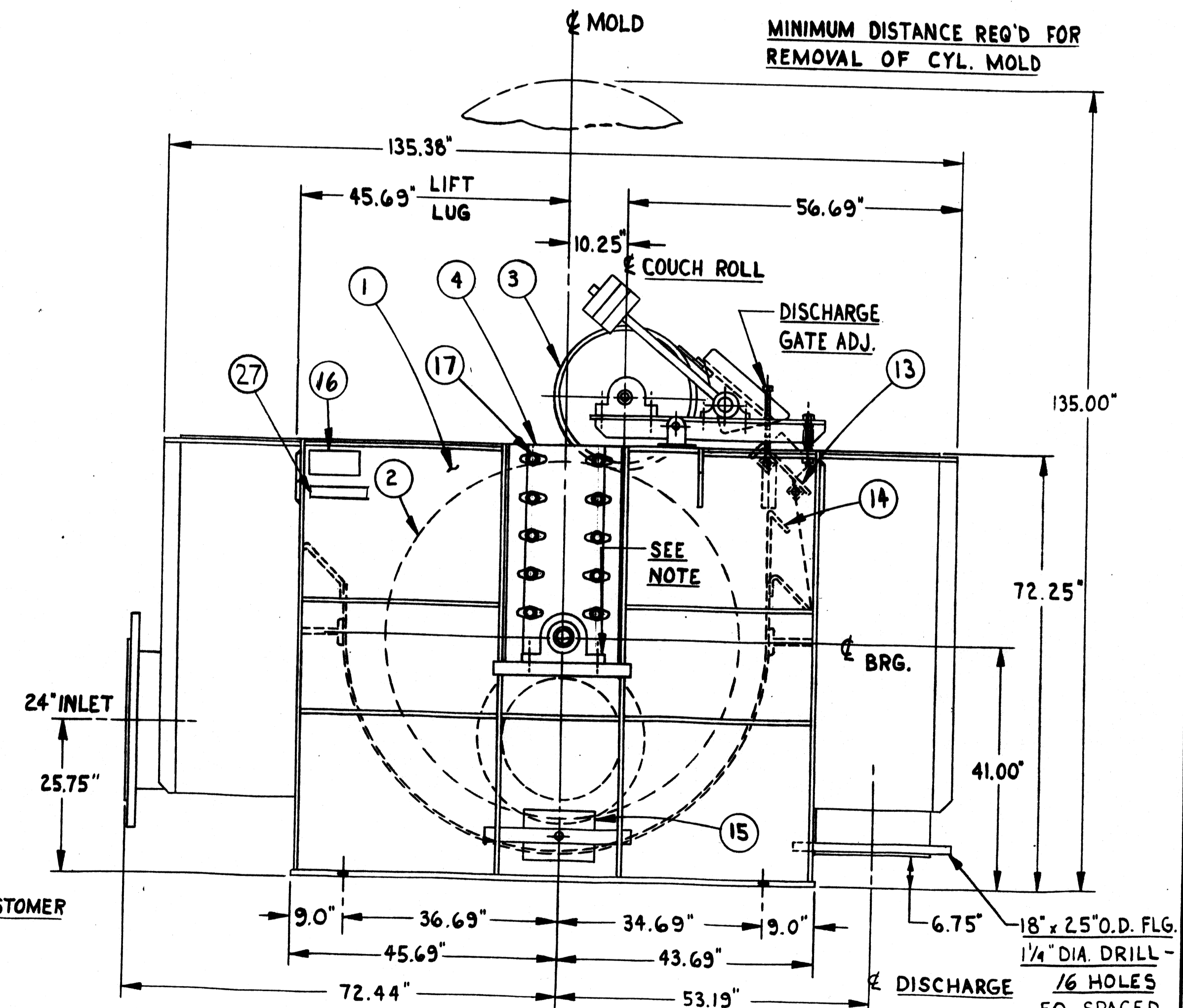
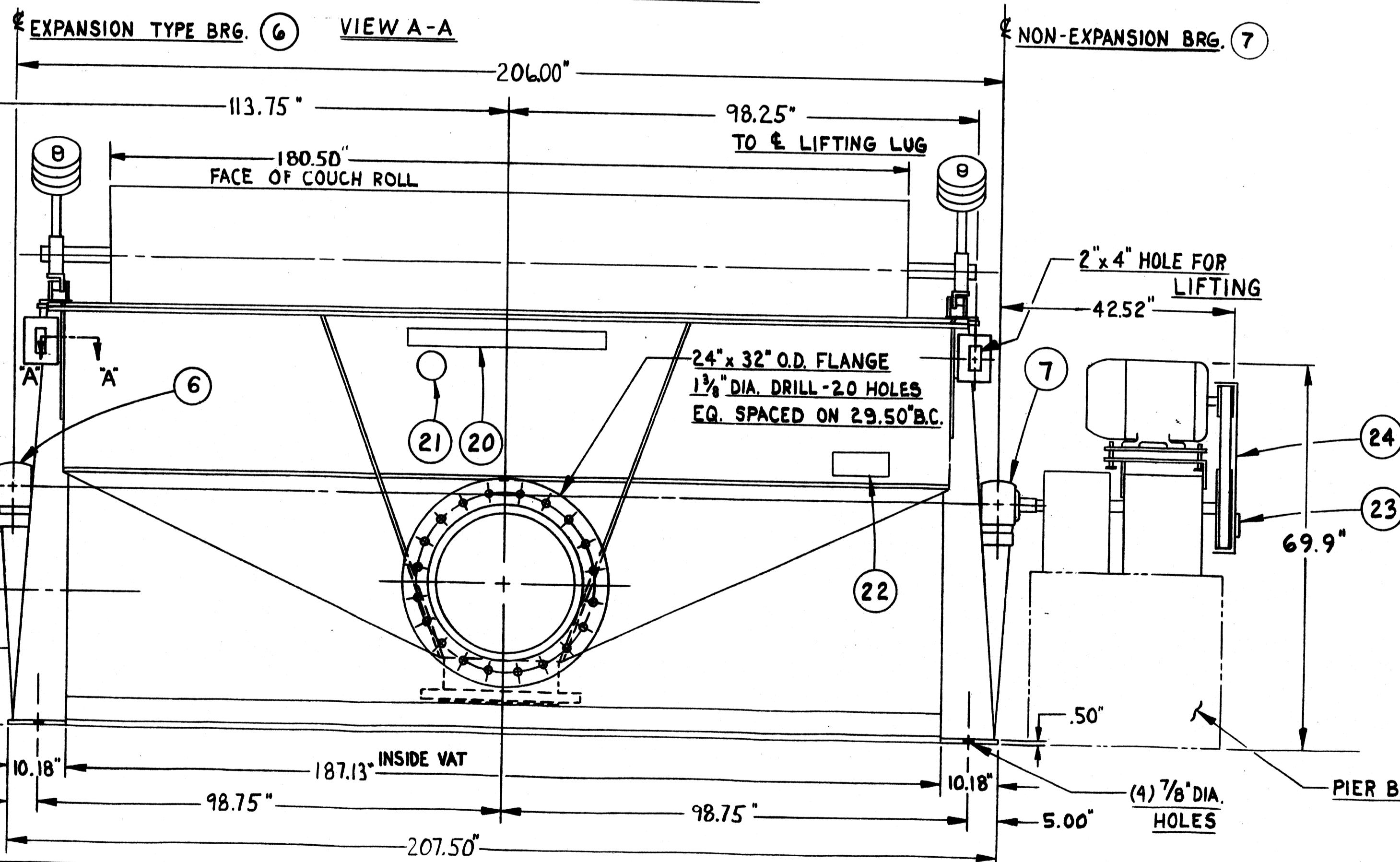
VIEW A-A
SCALE: 1/4"=1"

NOTE: PIN PILLOW BLOCK BRG'S TO VAT, AFTER CYL. MOLD & COUCH ROLL ARE ALIGNED

THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON
 CUSTOMER Michigan Paperboard Corp.
 MILL Burt's Creek
 CUSTOMER ORDER 28978
 SHARTLE ORDER 9690491
 THE BLACK CLAWSON CO.
 SHARTLE DIV.
 MIDDLETOWN, OHIO
 DATE OF CERTIFICATION 11/28/90

SEAL VAT CHIME RING BOLTS WITH PERMATEX #2 AT ASS'Y

WHITE WATER DISCHARGE
 20" x 27.5" O.D. FLANGE
 1/4" DIA. DRILL - 20 HOLES
 EQ. SPACED ON 25.0" B.C.



LEVEL CONTROL BOX (OPTIONAL)

TOTAL QUANTITY	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
1		316L STN.STL.	C-189412		12	GARTER STRAP	1		POLYESTER	3011825		24	ASS'Y DRIVE
1		316L STN.STL.	C-189411		11	CHIME RING FOR VAT	1		POLYESTER	1500142		23	DANGER PLACARD
2		NEOPRENE	98 C-177840		10	FLINGER RING	1		POLYESTER	1500147		22	CAUTION PLACARD
REF. BY CUST.					9	PACKING 3/8" SQ. x 77" LG.	2		ZINC	1500017		21	CORP EMBLEM
1			B-189410		8	PACKING GLAND	2		ZINC	1500014		20	CORP. NAME PLATE
1			1500775		7	BRG. 4 7/16" DRIVE END SAF22526CA	1		PLASTIC	1503293		19	IMPORTANT SAFETY INSTRUCTION
1			1500773		6	BRG. 4 7/16" FREE END SAF22526CA	REF		316L STN.STL.	A-189649		18	GARTER STRAP CLIP
1		316L STN.STL.	C-189409		5	PACKING BOX END COVER	24		ASTM A48 CL25	D-34246-B		17	CLAMP
1		316L STN.STL.	C-189408		4	PACKING BOX END COVER	1		ZINC	1500486		16	MULTI-PURPOSE NAMEPLATE
1			3011795		3	25" COUCH ROLL & DOCTOR ASSY	2		STEEL	B-189415		15	CLEAN OUT DOOR KIT
1		316L STN.STL.	3011806		2	60" DIA. CLY. MOLD x 180" LG. TYPE	1		316L STN.STL.	3011796		14	DISCHARGE GATE
1		316L STN.STL.	3011788		1	VAT ASS'Y	1		316L STN.STL.	2006821		13	DOCTOR SHELF

Cylinder Mold wt. 5,500 LBS
 SHIPPING WEIGHT - 23500 LBS.
 NORMAL OPERATING WEIGHT - 32500 LBS.
 MAX OPERATING WEIGHT - 50000 LBS.

10-1-13
 10-3-13

NO FINISH NORMALLY REQUIRED. CLEAN UP ONLY TO MAINTAIN DIMENSIONAL STABILITY OR TO REMOVE UNUSUAL SURFACE IRREGULARITIES.

MICRO-FILMED

Equipment No-1755 & 1754 A-1590

CUSTOMER MICHIGAN PAPERBOARD
 SER. NO. 90-CT-277 SHOP ORDER 9690491

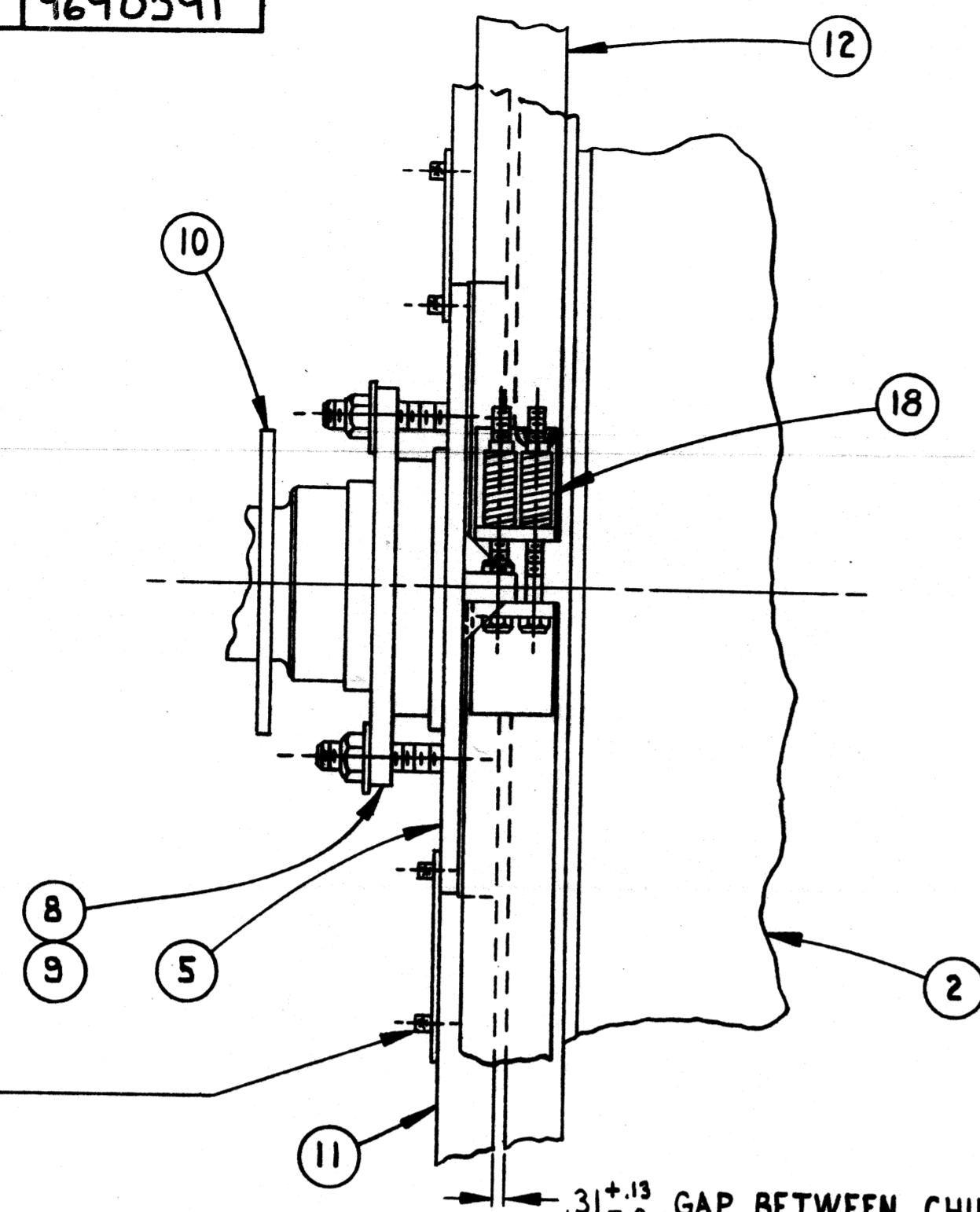
THE BLACK CLAWSON COMPANY
 MIDDLETOWN, OHIO

Shartle Division / Stock Preparation Systems Pandia Division / Pulp Mill Systems
 DATE 11-1-90 SUBJECT ASSY 60" DIA. x 180" FREE-FLO
 SCALE NONE THICKENER WITH 25" DIA. COUCH ROLL

DRAWN BY JSH
 CHECKED BY JSH
 APPROVED BY DR

714 9690491 A-1590

DIV.	DATE	USED ON
B.C.L.		
R.C.K.		
C.P.F.		
L.M.J.		
T.A.M.P.		



VIEW A-A
SCALE: 1/4"=1"

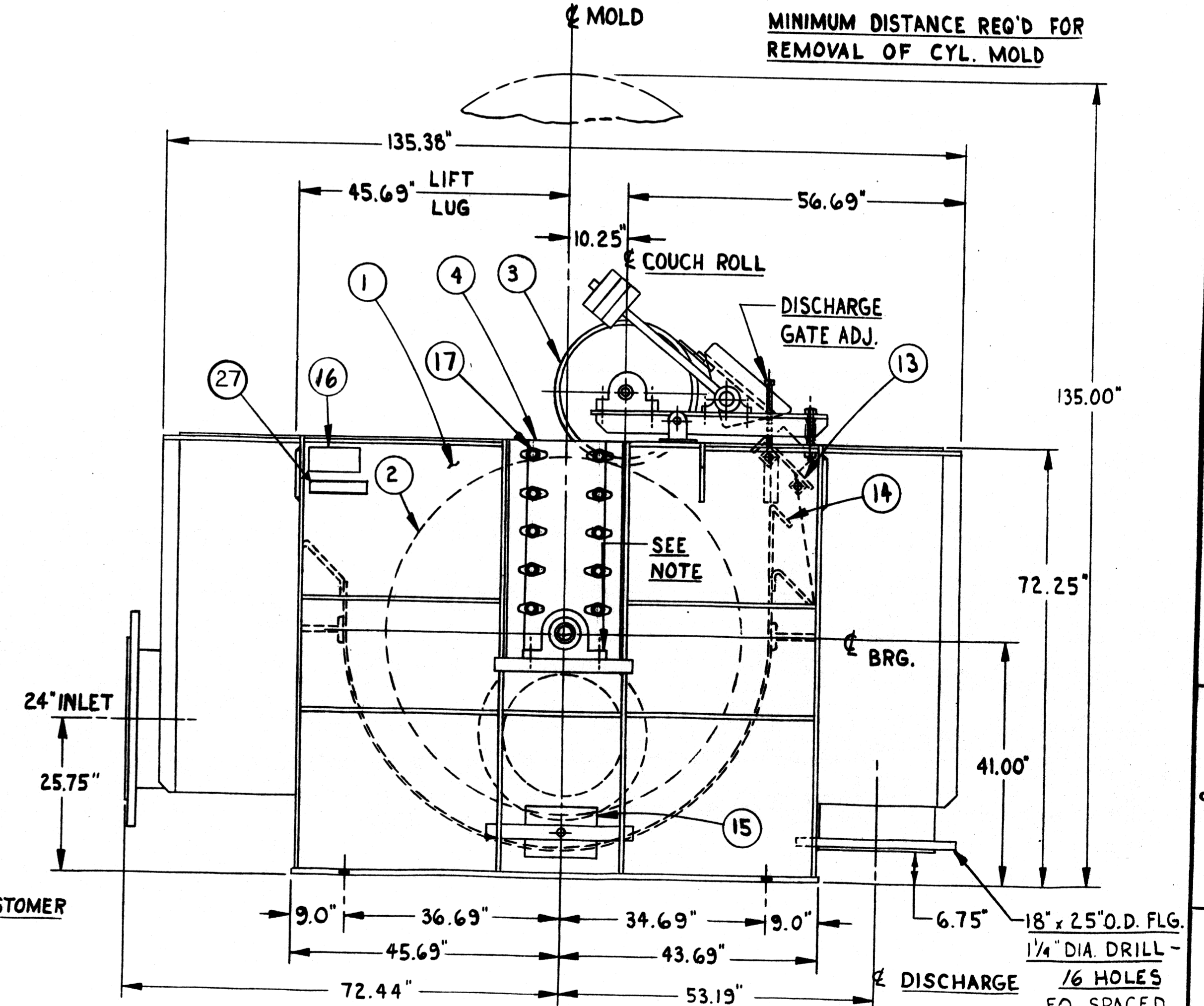
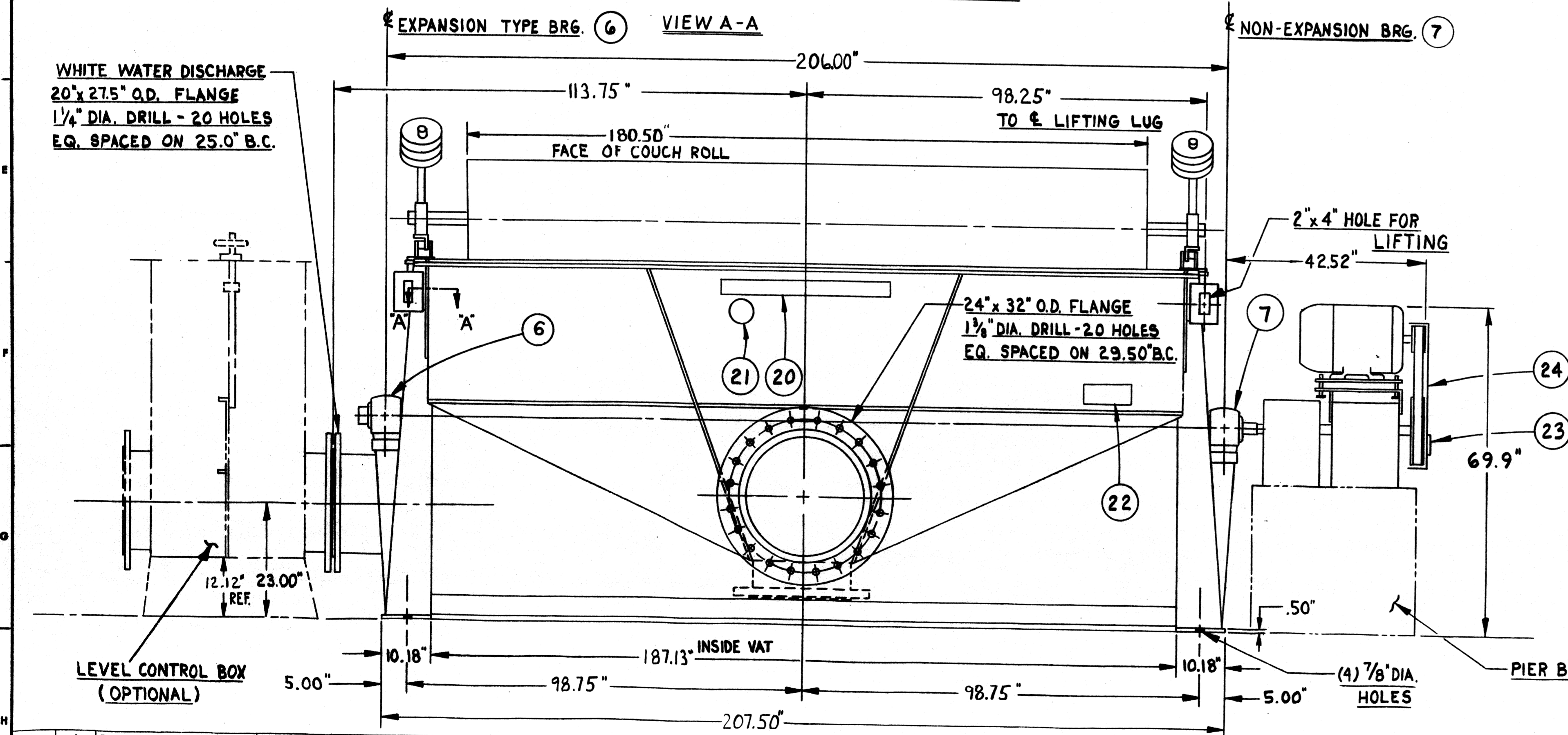
NOTE: PIN PILLOW BLOCK BRG'S TO VAT, AFTER CYL. MOLD & COUCH ROLL ARE ALIGNED

THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON

CUSTOMER *Michigan Paperboard Corp*
MILL *At the Company*
CUSTOMER ORDER *12572*
SHARTLE ORDER *9690391*
THE BLACK CLAWSON CO.
SHARTLE DIV.
MIDDLETOWN, OHIO
DATE OF CERTIFICATION *11/28/90*

SEAL VAT CHIME RING BOLTS WITH PERMATEX #2 AT ASSY

WHITE WATER DISCHARGE
20" x 27.5" O.D. FLANGE
1/4" DIA. DRILL - 20 HOLES
EQ. SPACED ON 25.0" B.C.



QTY.	MATERIAL	DWG. NO.	ITEM	DESCRIPTION	TOTAL UNIT QUANTITY	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
1	316L STN.STL.	C-189412	12	GARTER STRAP	1	POLYESTER	3011825	24	ASSY DRIVE	
1	316L STN.STL.	C-189411	11	CHIME RING FOR VAT	1	POLYESTER	1500142	23	DANGER PLACARD	
2	NEOPRENE	98 C-177840	10	FLINGER RING	1	POLYESTER	1500147	22	CAUTION PLACARD	
REF. BY CUST.			9	PACKING 3/8" SQ. x 77" LG.	2	ZINC	1500007	21	CORP. EMBLEM	
		B-189410	8	PACKING GLAND	2	ZINC	1500001	20	CORP. NAME PLATE	
		1500775	7	BRG. 4 7/16" DRIVE END SAF22526CA	1	PLASTIC	1503293	19	IMPORTANT SAFETY INSTRUCTION	
		1500773	6	BRG. 4 7/16" FREE END SAF22526CA	REF.	316L STN.STL.	A-189649	18	GARTER STRAP CLIP	
1	316L STN.STL.	C-189409	5	PACKING BOX END COVER	24	ASTM A48 CL 25	D-34246-B	17	CLAMP	
1	316L STN.STL.	C-189408	4	PACKING BOX END COVER	1	ZINC	1500486	16	MULTI-PURPOSE NAMEPLATE	
1	316L STN.STL.	3011795	3	25" COUCH ROLL & DOCTOR ASSY	2	STEEL	B-189415	15	CLEAN OUT DOOR KIT	
1	316L STN.STL.	3011806	2	60" DIA. CLY. MOLD x 180" LG. TYPE	1	316L STN.STL.	3011796	14	DISCHARGE GATE	
1	316L STN.STL.	3011788	1	VAT ASSY	1	316L STN.STL.	2006821	13	DOCTOR SHELF	

10-1-13
10-3-13

Equip. No. - 1754 & 1755 A-1584

CUSTOMER MICHIGAN PAPERBOARD
SER. NO. 90-CT-276 SHOP ORDER 9690391
90-CT-277

THE BLACK CLAWSON COMPANY
MIDDLETOWN, OHIO

Shartle Division / Stock Preparation Systems Pandia Division / Pulp Mill Systems

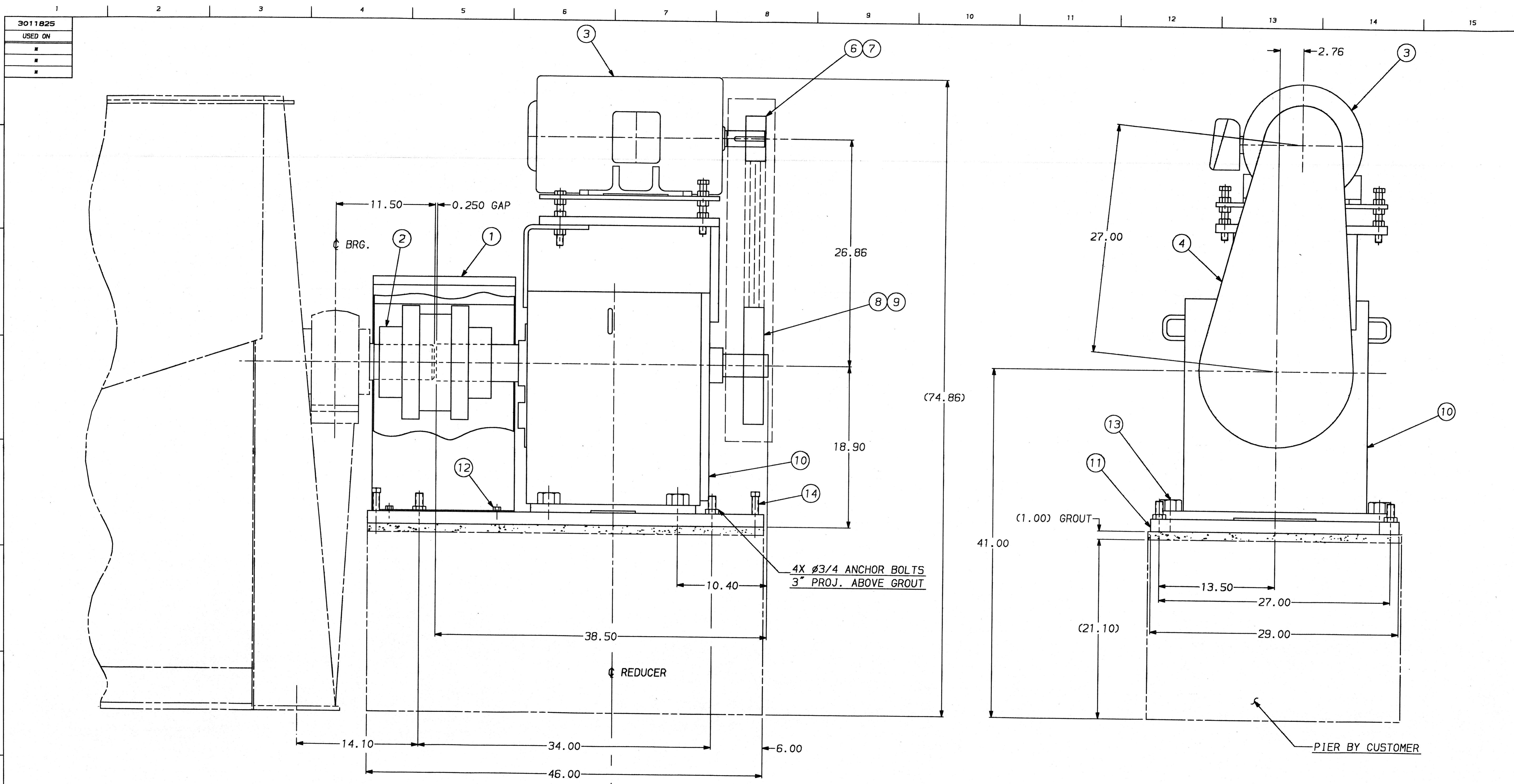
DATE 11-1-90 SUBJECT ASSY 60" DIA. x 180" FREE-FLO
SCALE NONE THICKENER WITH 25" DIA. COUCH ROLL

DRAWN BY JSH
CHECKED BZ
APPROVED BZ

714 9690391

NO FINISH NORMALLY REQUIRED. CLEAN UP ONLY TO MAINTAIN DIMENSIONAL STABILITY OR TO REMOVE UNUSUAL SURFACE IRREGULARITIES.

SUPERSEDED BY DATE BY
SUPERSEDES DATE BY



PART NO.	DESCRIPTION	QTY	ITEM	MATERIAL
1006406	SQUARE HEAD SET SCREW CUP POINT - 3/4"-10NC-3A X 4 LG	4	14	S.A.E. GR. 2
1001113	HEX HEAD CAP SCREW - 1 1/2"-6NC-2A X 2 1/2 LG	4	13	S.A.E. GR. 2
1000402	HEX HEAD CAP SCREW - 1/2"-13NC-2A X 1 LG	4	12	S.A.E. GR. 2
2006859	PLATE, SOLE	1	11	CARBON STEEL
1503796	REDUCER, FALK 1100 TYPE FC2	1	10	*
1015737	BUSHING, SF TYPE QD - 2 3/4 BORE WITH 5/8 X 1/16 KEYWAY	1	9	CARBON STEEL
1016910	SHEAVE, 3V SECTION 5 GROOVE TYPE QD - 14.0 DIA.	1	8	STEEL
1015523	BUSHING, SK TYPE QD - 1 7/8 BORE WITH 1/2 X 1/4 KEYWAY	1	7	CARBON STEEL
1016903	SHEAVE, 3V SECTION 5 GROOVE TYPE QD - 5.3 DIA.	1	6	STEEL
1018922	V-BELT, MATCHED SET OF 5 - 3VX-850	1	5	RUBBER
1503807	GUARD, FALK TYPE S03	1	4	CARBON STEEL
1050960	MOTOR - 20 HP, 1200 RPM, FRAME SIZE 286T, TEFC	1	3	*
1503805	COUPLING, FALK 1130T10	1	2	*
3010350	GUARD, COUPLING	1	1	CARBON STEEL

← 135.37 TO Ø MACH. →

THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON

CUSTOMER: Michigan Paper Corp.
MILL: The Green River
CUSTOMER ORDER: 28375
SHARPLE ORDER: 96941
THE BLACK CLAWSON CO.
SHARPLE DIV.
MIDDLETOWN, OHIO
DATE OF CERTIFICATION: 11/28/90

TOLERANCES UNLESS OTHERWISE SPECIFIED	
METRIC	INCH
FULL NO. ± 1.0	1 PLC. DEC. ± 0.04
1 PLC. DEC. ± 0.25	2 PLC. DEC. ± 0.01
2 PLC. DEC. ± 0.12	3 PLC. DEC. ± 0.005
ANGULAR ± 0.5°	ANGULAR ± 0.5°

THIRD ANGLE PROJECTION

WEIGHT - * Lbs.

DATE: 09 NOV 1990 SUBJECT: ASSEMBLY, DRIVE

SCALE: 3/16 = 1 - FOR 60" X 180" FREE-FLO THICKENER

DRAWN BY: J. HOEVENAAR

CHECKED BY: [Signature]

APPROVED BY: [Signature]

PATT. NO.: *

REF. DWG.: C189653

SHEET: 1 OF 1

CUSTOMER: MICHIGAN PAPERBOARD CORP.

SER. NO. 96-CT-277 SHOP ORDER 9690491

THE BLACK CLAWSON COMPANY

MIDDLETOWN, OHIO

SHARPLE DIVISION / STOCK PREPARATION SYSTEMS / PULP MILL PRODUCTS

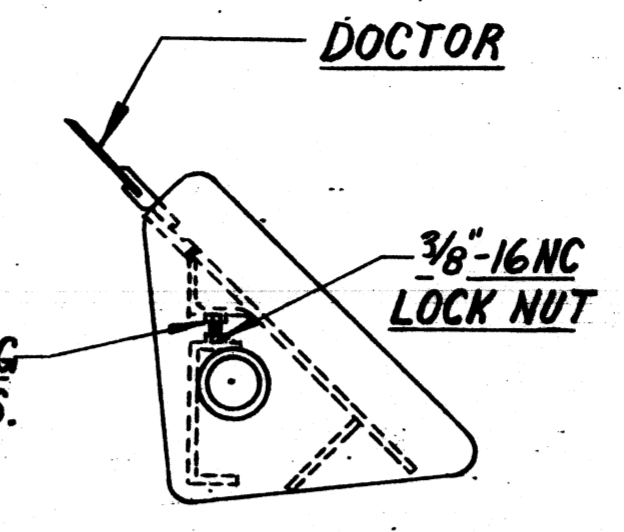
714 3011825

DATE	NO.	REVISION	ZONE	BY	CHKD.
					3011795

DRY.	DATE	USED ON

SHUT DOWN INSTRUCTIONS

1. RAISE COUCH ROLL OFF CYLINDER MOLD BY TIGHTENING TOP NUT ON SPRING RODS
2. INSERT BLOCKS UNDER COUCH ROLL PIVOT ARMS
3. RELEASE PRESSURE ON SPRINGS
4. ROTATE DOCTOR UNTIL IT TOUCHES DOCTOR SHELF. LOOSEN AND ROTATE WEIGHT LEVER ARM AS REQUIRED TO MAINTAIN THIS POSITION.



NOTE:
ADJUST(S) 3/8" BOLTS UNDER DOCTOR TO ELIMINATE ANY SAG ON UPPER SURFACE. CAUTION, ADJUST BOLTS EVENLY. DO NOT OVERTIGHTEN. AFTER ADJUSTMENT USE HEX NUT TO LOCK BOLT - SEE VIEW B"

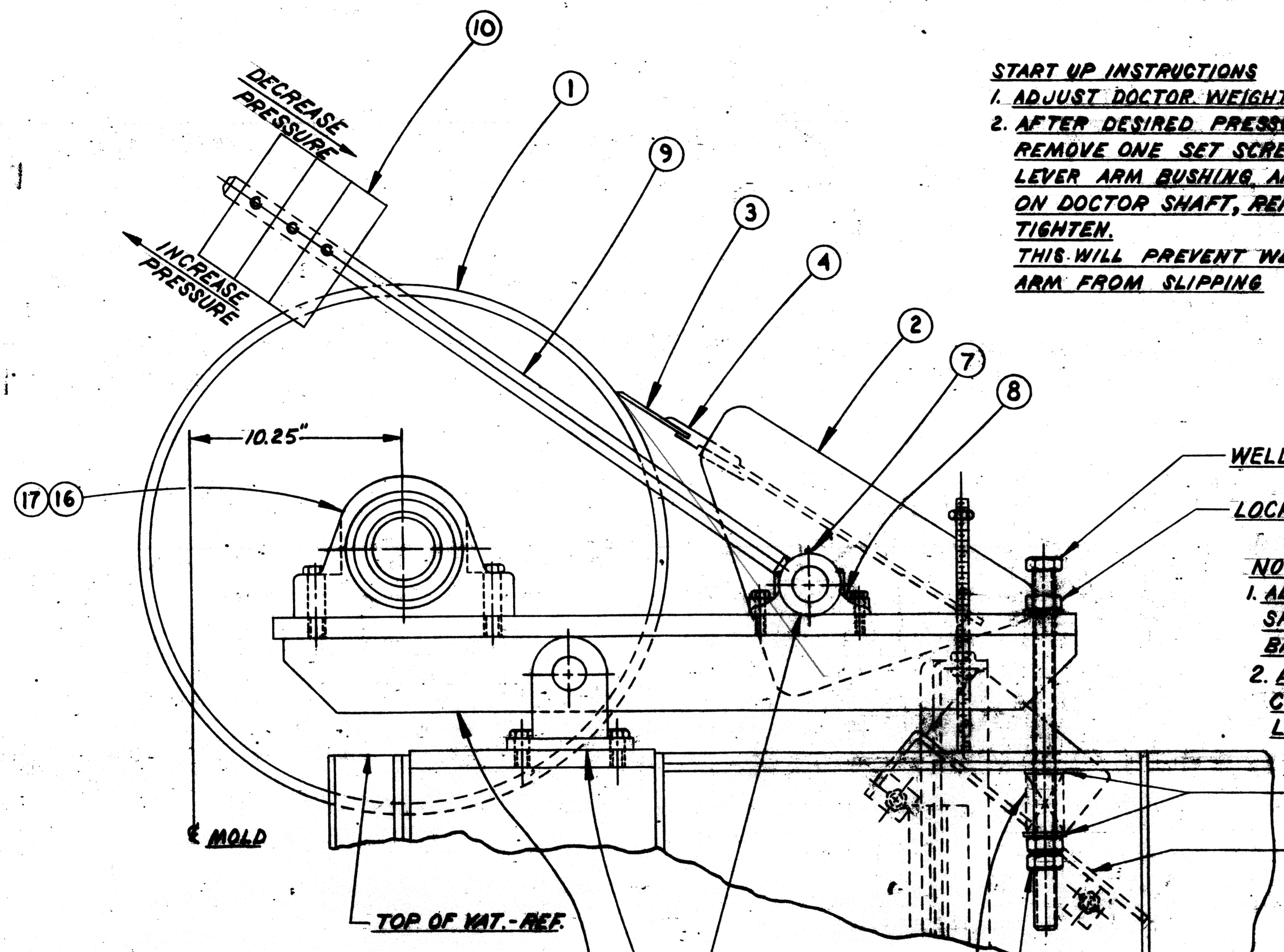
THIS DRAWING IS ISSUED TO CERTIFY THE DIMENSIONS OF EQUIPMENT SUPPLIED BY BLACK CLAWSON

CUSTOMER: Michigan Paperboard Corp
MILL: The Creek Mill
CUSTOMER ORDER: 78978
SHARTLE ORDER: 961639
THE BLACK CLAWSON CO.
SHARTLE DIV.
MIDDLETOWN, OHIO
DATE OF CERTIFICATION: 11/26/90

START UP INSTRUCTIONS

1. ADJUST DOCTOR WEIGHTS OR ARMS
2. AFTER DESIRED PRESSURE IS ESTABLISHED, REMOVE ONE SET SCREW FROM WEIGHT LEVER ARM BUSHING, AND DRILL A SPOT ON DOCTOR SHAFT, REPLACE SCREW AND TIGHTEN. THIS WILL PREVENT WEIGHT LEVER ARM FROM SLIPPING

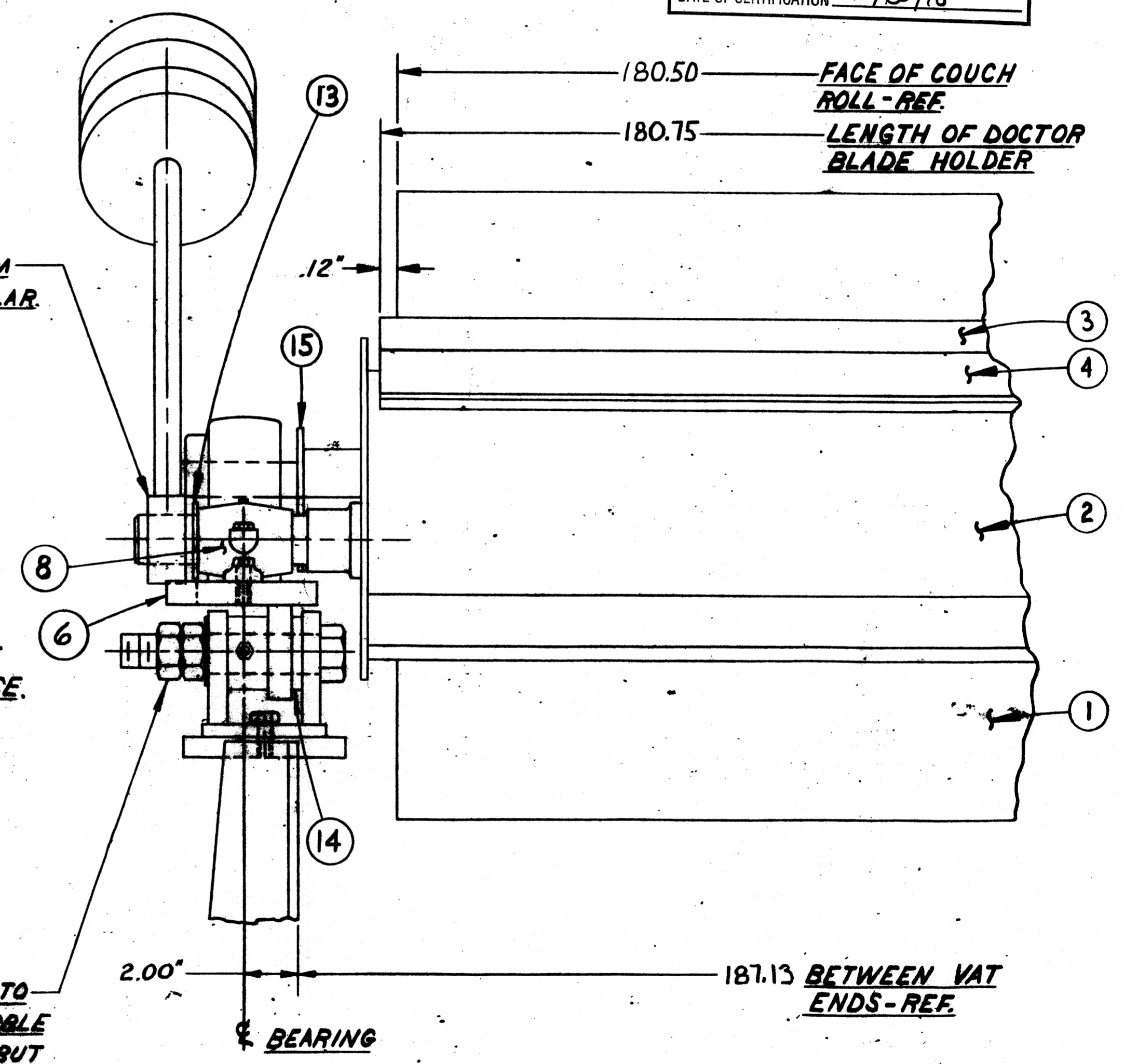
HORIZONTAL
VIEW "B"
ORIENTATION FOR LEVELING



NOTE: WEIGHT LEVER ARM TO BE USED AS SET COLLAR. SLIDE AGAINST WASHER

NOTES:

1. ADJUST JAM NUTS TO SET SPRING TENSION TO COUNTER BALANCE COUCH ROLL
2. ADJUST WELDED NUT SO THAT COUCH ROLL HAS 1/32" CLEARANCE. LOCK WITH LOCK NUT.



NOTE: TIGHTEN BOLT TO INSURE MINIMUM WOBBLE OF COUCH ROLL ARM, BUT ARM IS STILL FREE TO ROTATE EASILY. LOCK WITH JAM NUT.

QTY	UNIT	MATERIAL	CODE	DWG. NO.	ITEM	DESCRIPTION
1	1020 HR	D-189643 1/2	78		COUCH ROLL PIVOT ARM DRIVE SIDE	
1		1500779	17		2% BROWNING SPB1000E	
1		1500778	16		2% BROWNING SPB1000E	
2	NEOPRENE	9B C-177840 1/2	15		FLINGER RING	
REF.			14		BUNT. SLV. BUSH. 7/16" X 28-24" 2 GREASE GRV.	
4	STEEL	1060120	13		2" FLAT WASHER	
2	DANLY #9-32M-11	X2975089016	12		SPRING 3/4" FREE LG. 2" O.D.	
2	316 STN. STL.	A-189646	11		COUCH ADJUSTMENT BOLT	
2	CARBON STL.	2.006820	10		WEIGHT FOR DOCTOR	
2	CARBON STL.	2.006819	9		LEVER ARM	
2		X11450BP002	8		DODGE SPT. BRZ. BUSH. JRNL. BRG. 1 1/2" SHFT. #005070	
2		1501229	7		ALEMITE GREASE FITTING	
1	1020 HR	D-189643 1/2	6		COUCH ROLL PIVOT ARM(T.S.)	
2	STEEL	C-189642	5		COUCH ROLL PIVOT	
1	STN. STL.	1503793	4		LOADING ACCUMATE BLADE HOLDER	
1	POLY FLEX	1503792	3		LOADING "KF" DOCTOR BLADE	
1	316L STN. STL.	3011793	2		DOCTOR	
1	316L STN. STL.	C-189430 1/2	1		25 x 180.5" FACE COUCH ROLL	
TOTAL	QUANTITY					

REF. DWG. NO. 480-189406

STANDARD TOL.	REVISE SPECIFIED	PATT. NO.
FURNISHED DIM.	± .000"	
COPE (1) SH.	± .010"	
TWO (2) SH.	± .005"	
THREE (3) SH.	± .003"	
UNFINISHED	± .002"	

NO FINISH NORMALLY REQUIRED. CLEAN UP ONLY TO MAINTAIN DIMENSIONAL STABILITY OR TO REMOVE UNUSUAL SURFACE IRREGULARITIES.

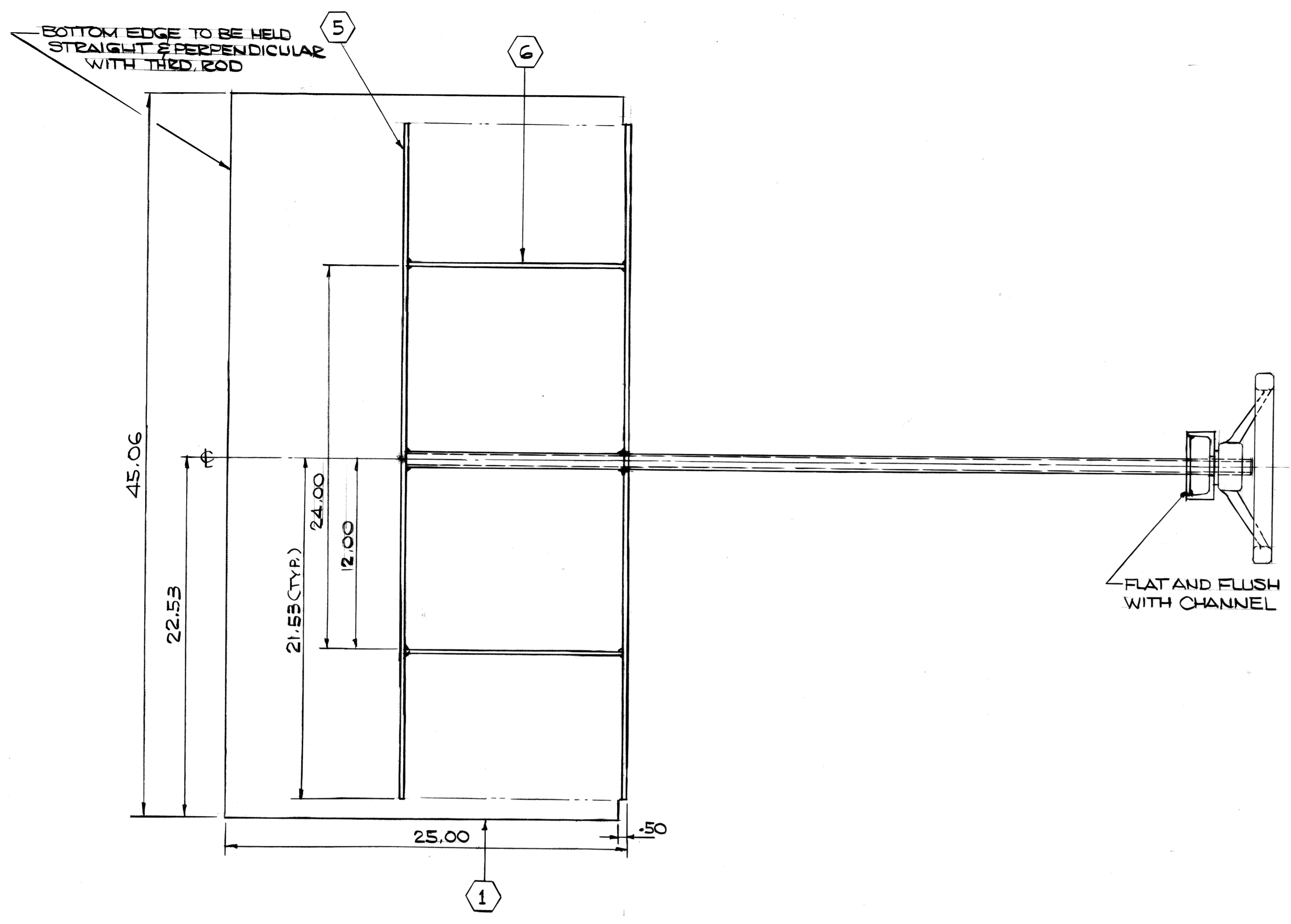
CUSTOMER	SER. NO.	SHOP ORDER
MICHIGAN PAPERBOARD CORP.	90-CT-276	9690391
THE BLACK CLAWSON COMPANY MIDDLETOWN, OHIO		
Shartle Division / Stock Preparation Systems / Pulp Mill Systems		
DATE: 10-27-90	SUBJECT: ASSEMBLY - COUCH ROLL AND DOCTOR FOR 60" x 180" THICKENER	
SCALE: 1/4" = 1"	DRAWN BY: JSH	CHECKED: [Signature]
APPROVED: [Signature]	714	3011795

10-1-13
10-3-13

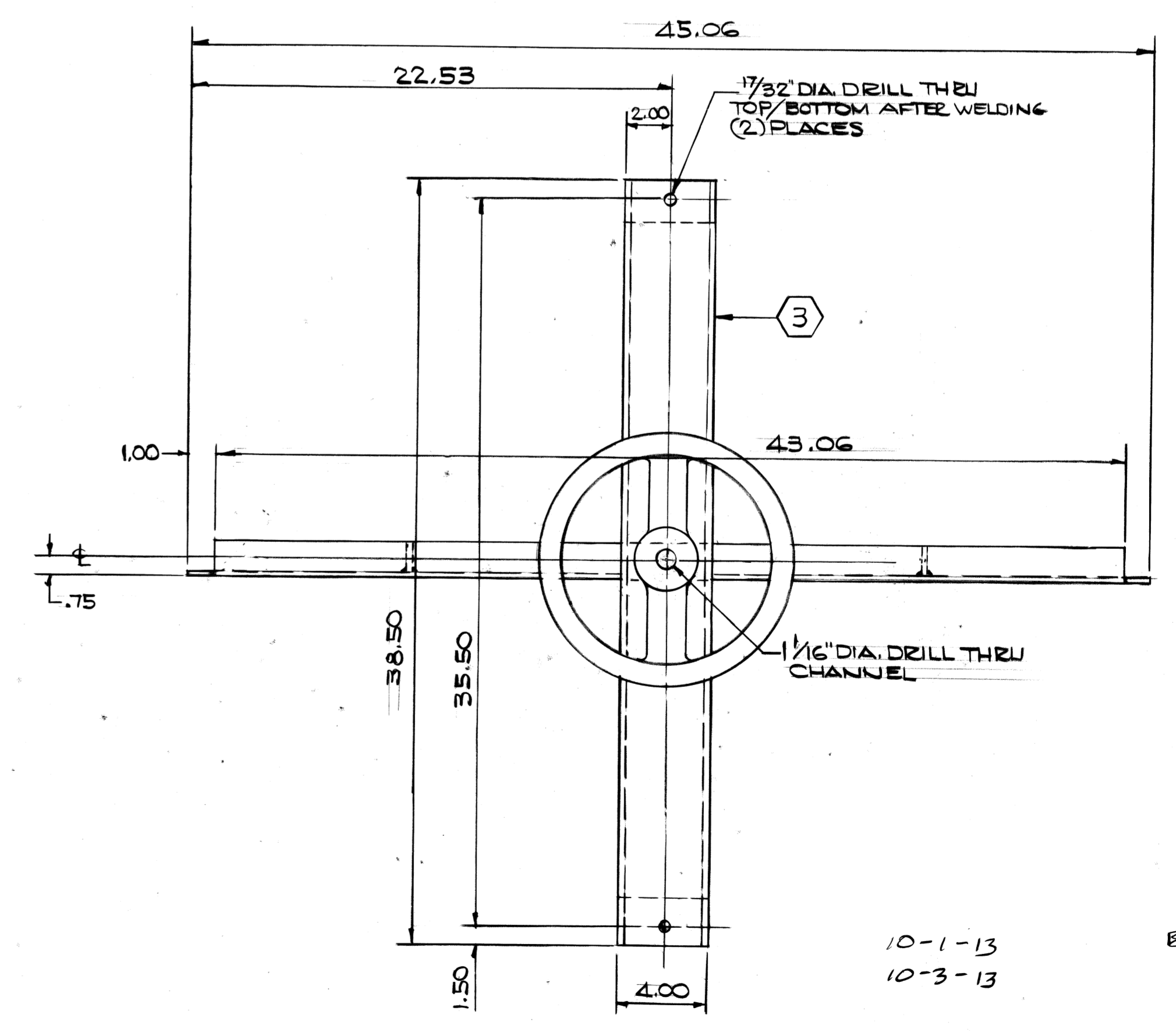
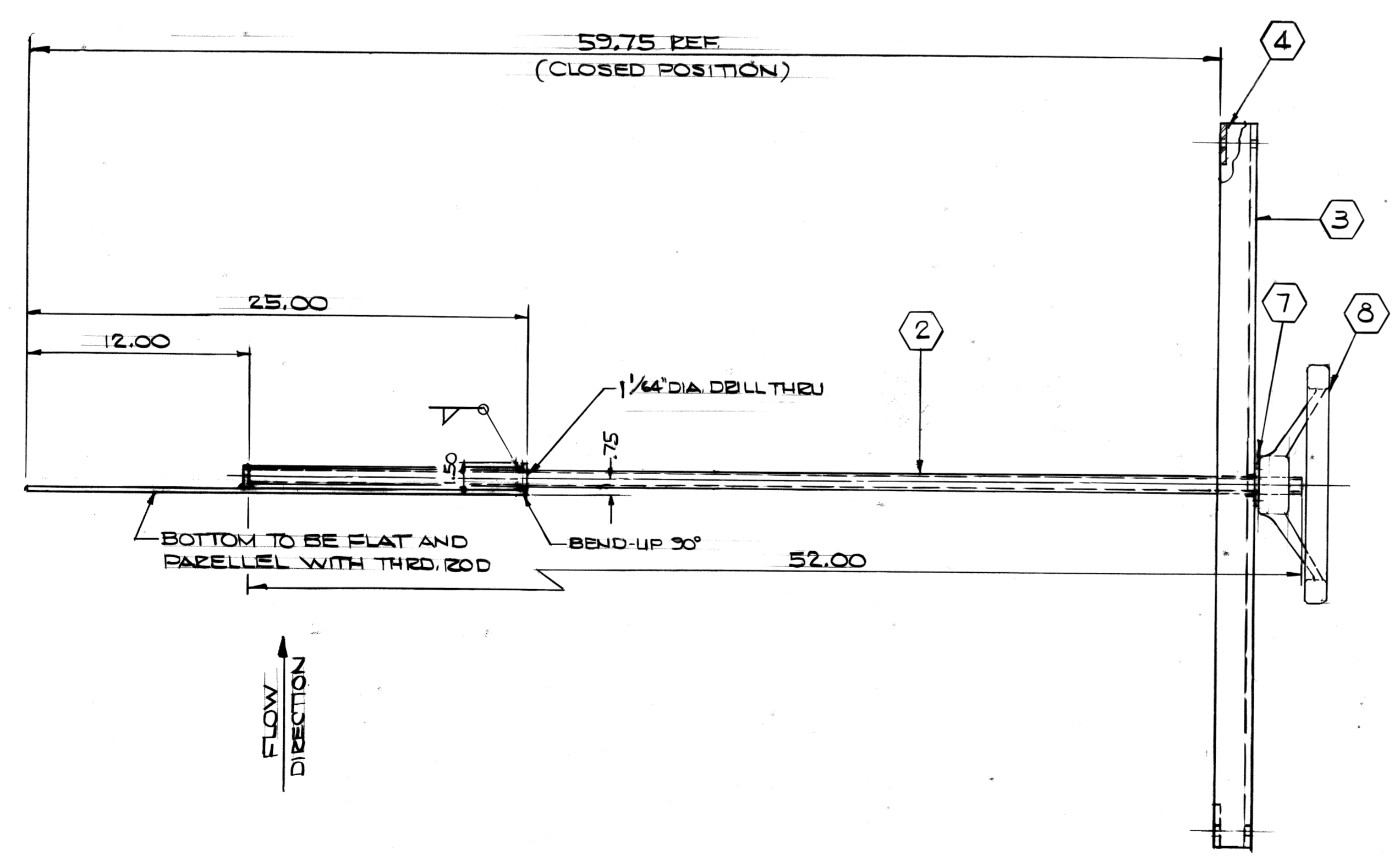
Eq. No. -1754 & 1755
A-1587

A-1587

QUANTITY	MATERIAL	ITEM	DESCRIPTION
1	304 STN. STL.	1	7GA (1874) X 26 1/2" X 45 1/4" LG.
1	" " "	2	1" - 8 UNC THRD ROD X 52" LG.
1	" " "	3	4" X 1 1/4" X 1/4" X 33 1/2" LG. CHANNEL
2	" " "	4	1/4" X 3" X 4" LG. PLATE
1	" " "	5	1/4" X 1" X 43 1/4" LG.
2	" " "	6	1/2" X 1" X 12 1/8" LG.
1	SEE NOTE 3	7	THRUST WASHER
1	SEE NOTE 2	8	HAND WHEEL 12" DIA.



- GENERAL NOTES:**
- REMOVE ALL FLASHING AND SHARP EDGES.
 - HAND WHEEL TO BE ALUM. HAND WHEEL, WITHOUT HANDLE (REID TOOL SUPPLY CO.) CAT. NO. AW-1022 (OR EQUIV.) W/ 1" - 8 UNC THREADED BORE.
 - HEAVY DUTY FLAT WASHER (REID TOOL SUPPLY CO.) CAT. NO. FW-8 (OR EQUIV.)
 - GATE TO BE FLAT & PERPENDICULAR WITH THREADED ROD TO WITH .005 T.I.R.



10-1-13
10-3-13
E.P. 1284
1755
1757
1758

A-1672

ALL DRAWINGS, SPECIFICATIONS, COPIES THEREOF AND THE INFORMATION CONTAINED THEREIN ARE THE SOLE PROPERTY OF AND MAY NOT BE USED EXCEPT WITH THE CONSENT OF MID-AMERICA ENGINEERS, INC. CONFIDENTIAL DOCUMENTS. DO NOT COPY OR REPRODUCE WITHOUT PERMISSION OF MID-AMERICA ENGINEERS, INC. ALL RIGHTS TO DESIGN AND INVENTION ARE RESERVED. RETURN ALL DOCUMENTS ON REQUEST.

NO.	DATE	REVISION
1	12-11-91	ISSUED FOR FABRICATION

SCALE 5/16" = 1"
 DRAWN W.J.C.
 CHECKED RMP
 APPROVED [Signature]
 DATE 2/4/91

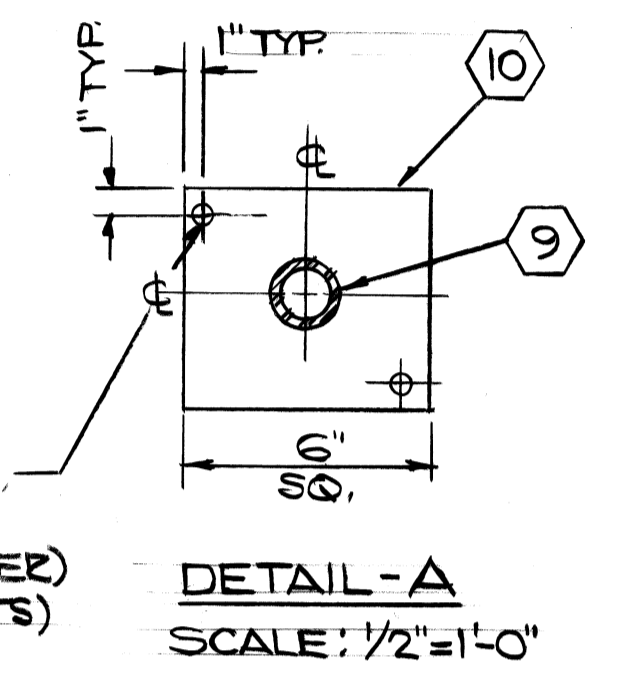
MAE MID-AMERICA ENGINEERS, INC.
 CONSULTANTS ENGINEERS ARCHITECTS CHICAGO, ILLINOIS

MICHIGAN PAPERBOARD COMPANY
 THICKENER SYSTEM EXPANSION FILLER CLEANER SYSTEM
 79 EAST FOUNTAIN STREET BATTLE CREEK, MICHIGAN
 LEVEL CONTROL BOX GATE AND SUPPORT ASSEMBLY
 DRAWING NUMBER M-8
 CONTRACT NUMBER 91048-01

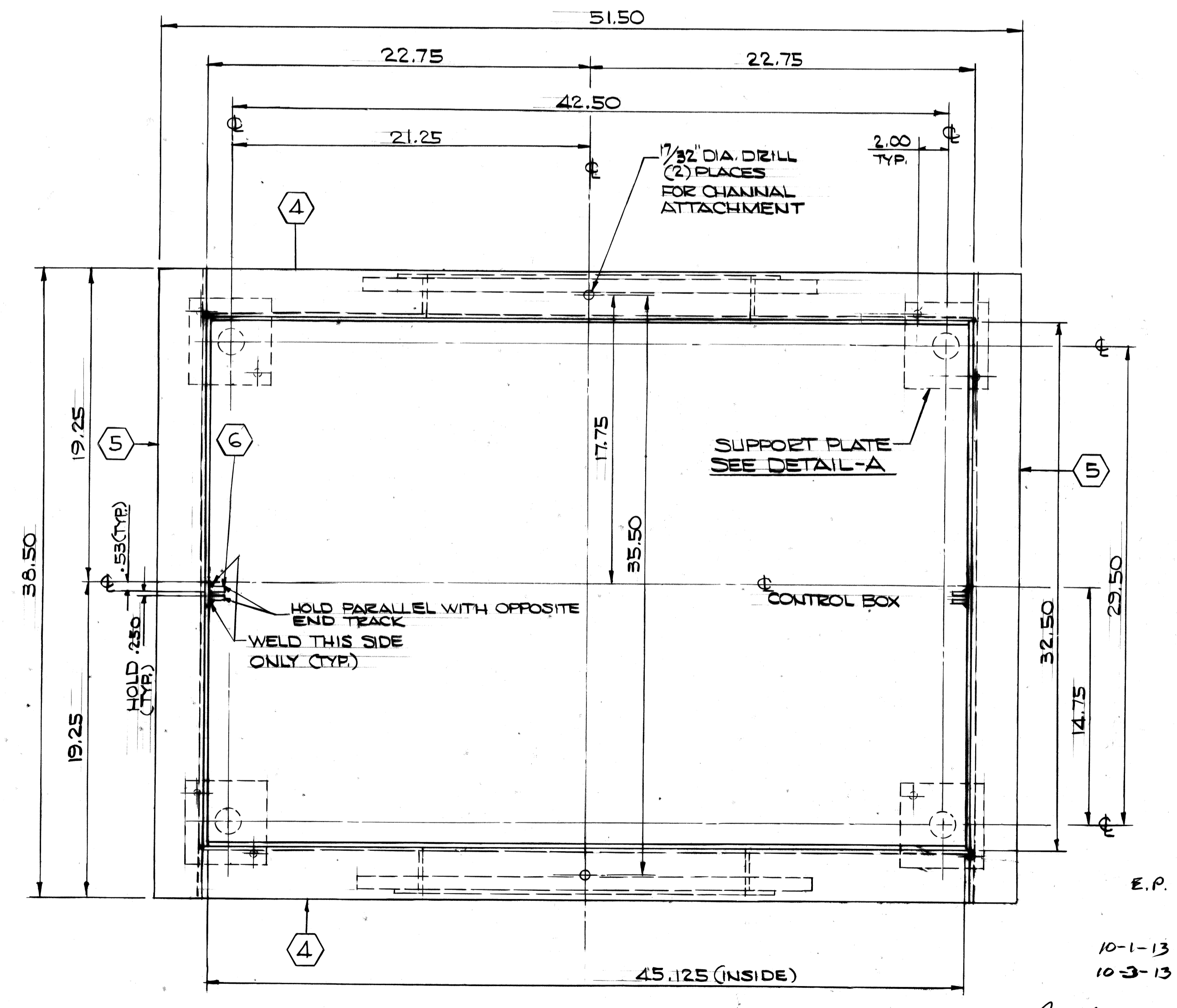
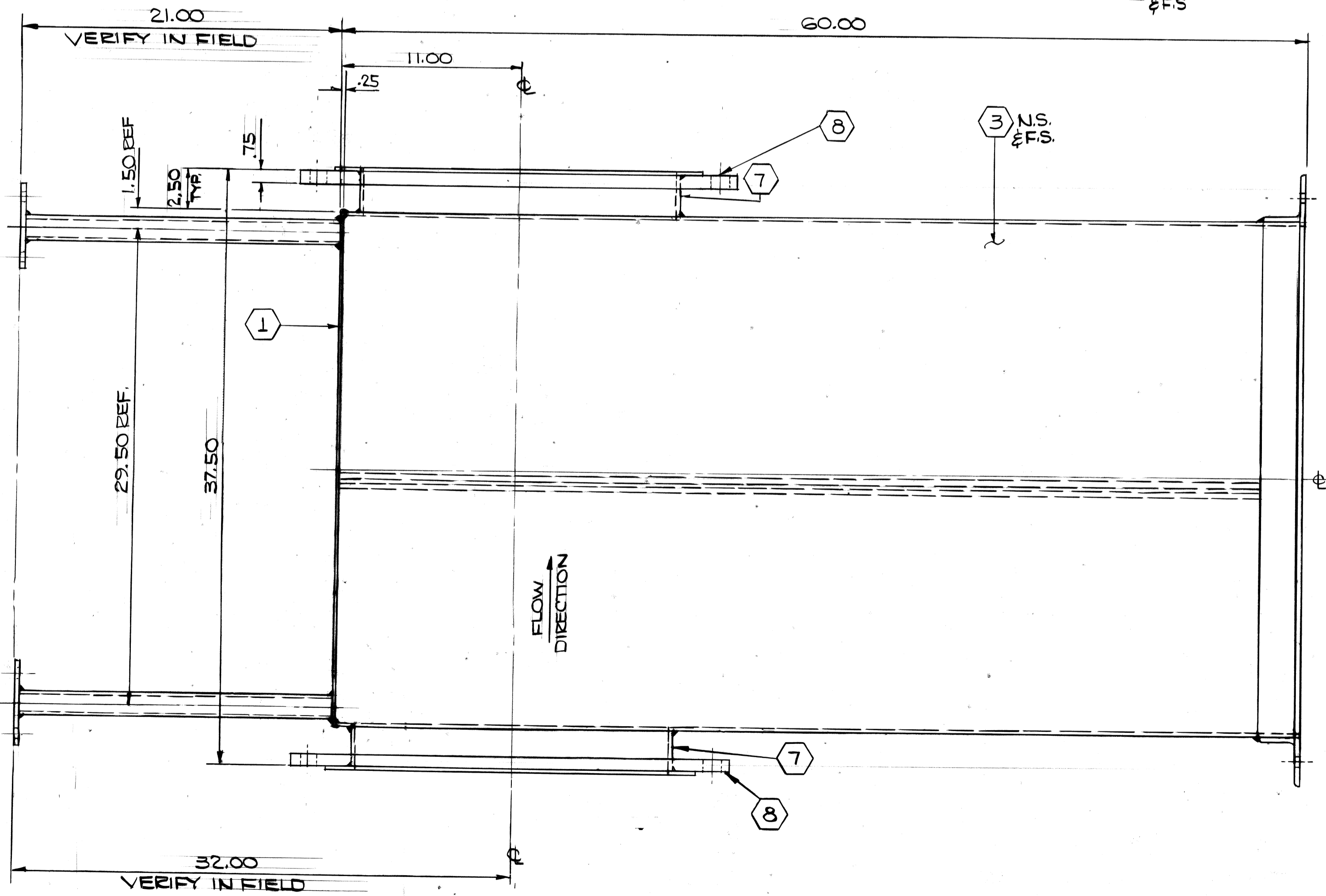
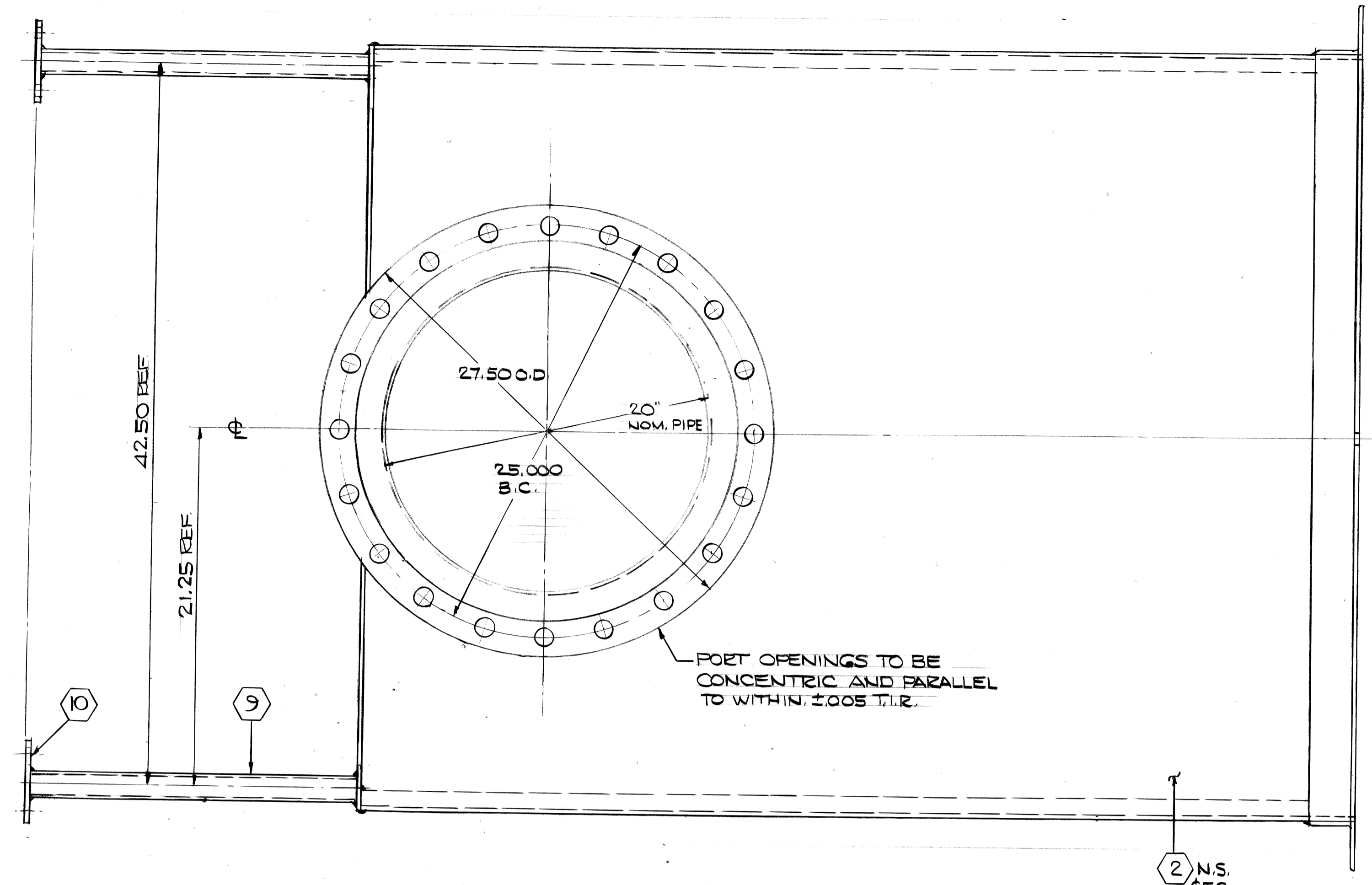
A-1672

QUANTITY	MATERIAL	ITEM	DESCRIPTION
1	304 STN. STL.	1	1/4" X 3 1/2" X 4 1/2" LG. PL.
2	" " "	2	1/4" (250) X 45" X 60" LG.
2	" " "	3	1/4" (250) X 32 1/2" X 60" LG.
2	" " "	4	3" X 3" X 1/4" X 45 1/2" LG. ANGLE
2	" " "	5	3" X 3" X 1/4" X 38 1/2" LG. ANGLE
4	" " "	6	1/4" X 1" X 57" LG.
2	" " "	7	20" STUB END, STD, -12 GA.
2	CARBON STEEL	8	20" FFE. STL. BACK-LIP FLANGE
4	304 STN. STL.	9	1 1/2" OD, 3/16" X 20 3/4" LG.
4	" " "	10	1/4" X 6" SQ. PLATE

- GENERAL NOTES:**
1. REMOVE ALL FLASHING AND SHARP EDGES.
 2. ALL WELDS TO BE CONTINUOUS.
 3. FOR MAIN ASSEMBLY SEE DWG. M-5.
 4. * FELKER BROS. CORP. OR EQUIV.
 5. MATERIAL LIST SHOWN IS FOR ONE LEVEL CONTROL BOX ONLY.
 6. ** CUT TO SUIT IN FIELD.



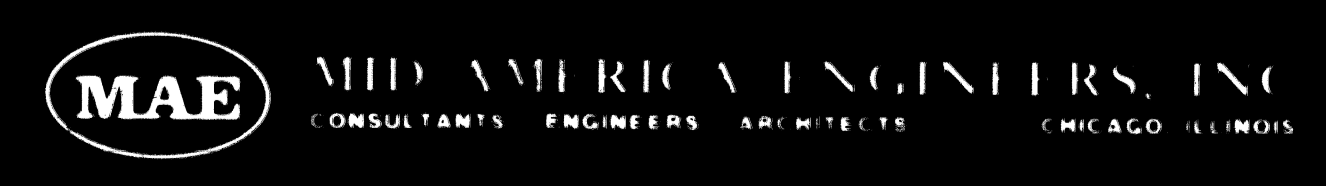
5/8" DIA. HOLES (2) REQ'D FOR 1/2" ANCHOR BOLTS (4) PLACES (BY CUSTOMER) (TOTAL 8 ANCHOR BOLTS)



ALL DRAWINGS, SPECIFICATIONS, COPIES THEREOF AND THE INFORMATION CONTAINED THEREIN ARE THE SOLE PROPERTY OF MAE AND MAY NOT BE USED EXCEPT WITH THE CONSENT OF MID-AMERICA ENGINEERS, INC. CONFIDENTIAL DOCUMENTS. DO NOT COPY OR REPRODUCE WITHOUT PERMISSION OF MID-AMERICA ENGINEERS, INC.

NO.	DATE	REVISION
1	12-11-91	ISSUED FOR FABRICATION

SCALE: 3/16" = 1"
DRAWN: W.J.C.
CHECKED: R.M.P.
APPROVED: [Signature]
DATE: 12/4/91



MICHIGAN PAPERBOARD COMPANY
79 EAST FOUNTAIN STREET
BATTLE CREEK, MICHIGAN

THICKENER SYSTEM EXPANSION FILLER CLEANER SYSTEM
LEVEL CONTROL BOX WELDMENT

E.P. 1757
175B
10-1-13
10-3-13
A-1671
DRAWING NUMBER: M-7
CONTRACT NUMBER: 71048-01