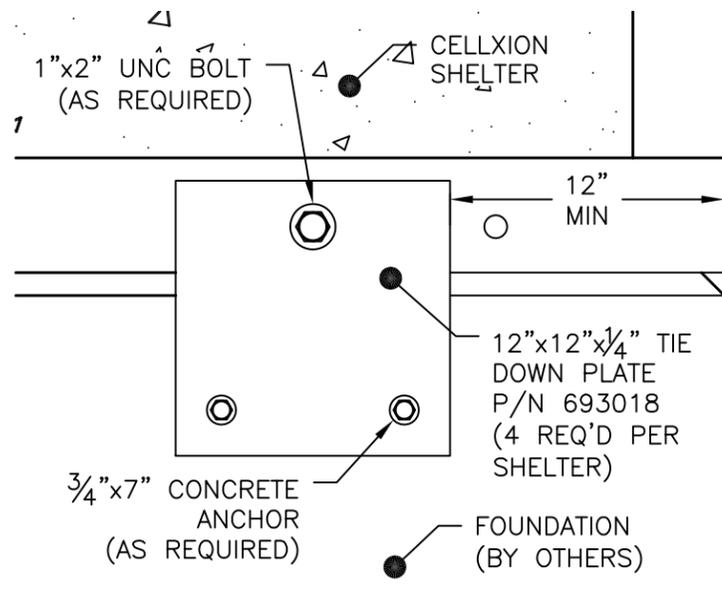


NO STIRRUP OPTION  
SCALE: N.T.S.

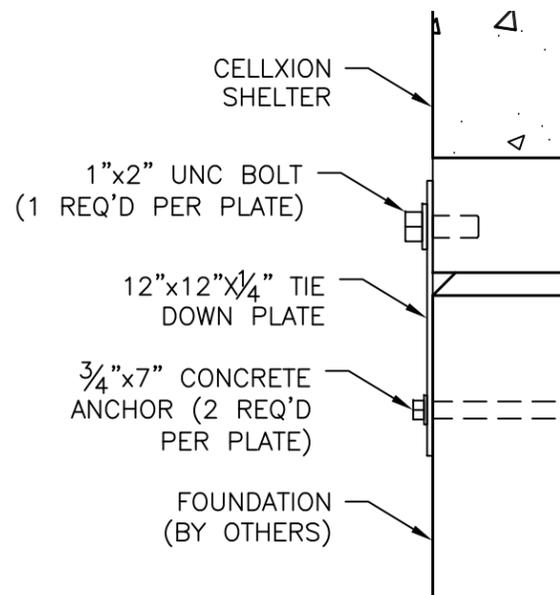
- NOTES:**
1. WELDED WIRE FABRIC OR OPTIONAL REINFORCING BAR MAY BE USED AS AVAILABLE. SEE CHART FOR SIZE, GRADE, AND SPACING OF REBAR.
  2. BOTTOM OF FOOTING TO BE 24" MIN OR 6" BELOW LOCAL FROST LINE, OR TO 2000 PSF SOIL BEARING CAPACITY, WHICHEVER IS GREATER.
  3. USE OF THIS DESIGN REQUIRES VERIFICATION OF SOIL BEARING CAPACITY.
  4. SLAB TOLERANCE IS  $\pm 1/4"$ .
  5. SLOPE GRADE AWAY FROM FOUNDATION
  6. W6.5 AS SPECIFIED FOR THE WWF HAS A  $\phi 0.288"$
  7. WWF IS 60 KSI MINIMUM.
  8. OVERLAP SPLICES ARE ALLOWED FOR REINFORCING BAR, USE 18" MINIMUM LAP.
  9. ALL REQUIRED TIE DOWN PLATES, SHIMS, BOLTS AND ANCHORS SHALL BE PLACED INSIDE SHELTER PRIOR TO SHIPMENT FROM MANUFACTURER.
  10. CONCRETE STRENGTH:  $F_c' = 3000$  PSI @ 28 DAYS.
  11. USE SHIMS AS REQUIRED TO ASSURE SHELTER IS BEARING AT PERIMETER. SEAL PERIMETER W/CAULK OR GROUT AS DESIRED.
  12. REBAR TO BE GROUNDED W/SOLID COPPER WIRE, #4 MIN. ONE LOCATION MIN, DEFAULT TO BE AT ELECTRICAL SERVICE ENTRY LOCATION. QTY, SIZE & LOCATION(S) MAY VARY AS SPECIFIED BY CUSTOMER. PIGTAIL(S) TO BE MADE ACCESSIBLE FOR BONDING TO SERVICE GROUND.
  13. SLAB INSULATION ONLY TO BE INSTALLED BY SITE CONTRACTOR AS REQUIRED, EXTENDING FROM TOP OF SLAB TO BOTTOM OF FOOTING. INSULATING VALUE, ATTACHMENT METHOD, AND COVERING OBTAINED FROM LOCALITY'S ENERGY CODE.

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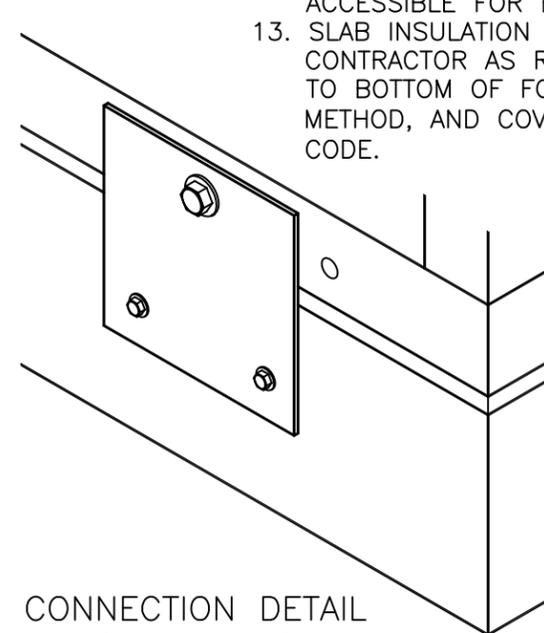
**Sabre Industries**  
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CONNECTION DETAIL - FRONT



CONNECTION DETAIL - SIDE



OPTIONAL REINFORCING BAR		
SIZE	GRADE	LAT/LONG SPACING
#3	40	9" C/C
#4	40	16" C/C
#5	40	18" C/C
#3	60	10" C/C
#4	60	18" C/C
#5	60	18" C/C

CUSTOMER:

PROJECT:  
6" SLAB FOUNDATION PLAN (FLAT TIE-DOWN)

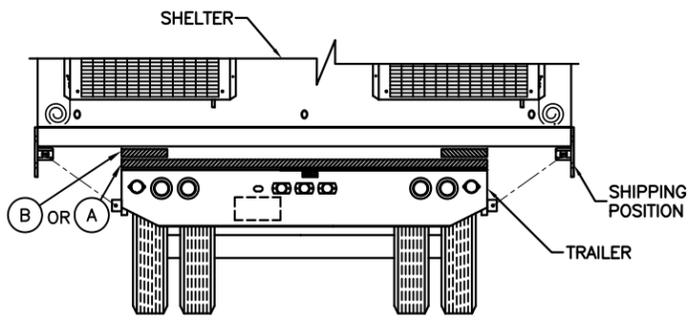
FILENAME:  
108-001-01.DWG

SCALE: N.T.S.	TOLERANCE:
DRWN. BY: C. CASINGER	DATE: 9/26/03
CHK. BY: V. HASSELL	DATE: 9/26/03
ENG. BY: K. BARNETT	DATE: 9/26/03
APP. BY: J. HOOD	DATE: 9/26/03

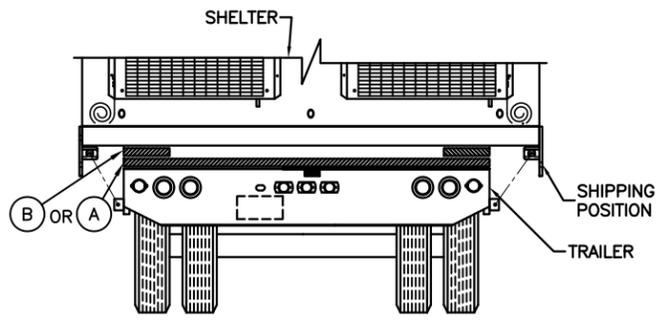
SHEET NO.  
1 OF 1

DRAWING NO.: 108-001-01	REV.: M
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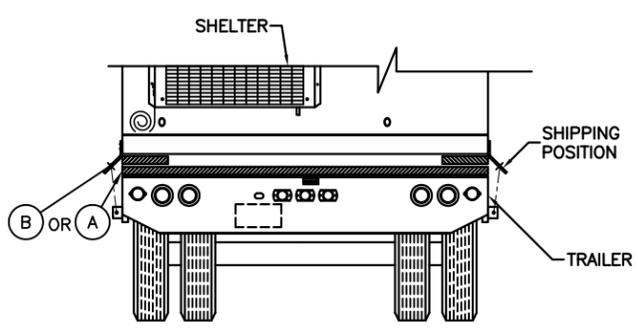
M	LJL	6/3/13	UPDATED ANCHOR NOTES	J.I.	6/3/13
REV	BY	DATE	DESCRIPTION	APP. BY	DATE



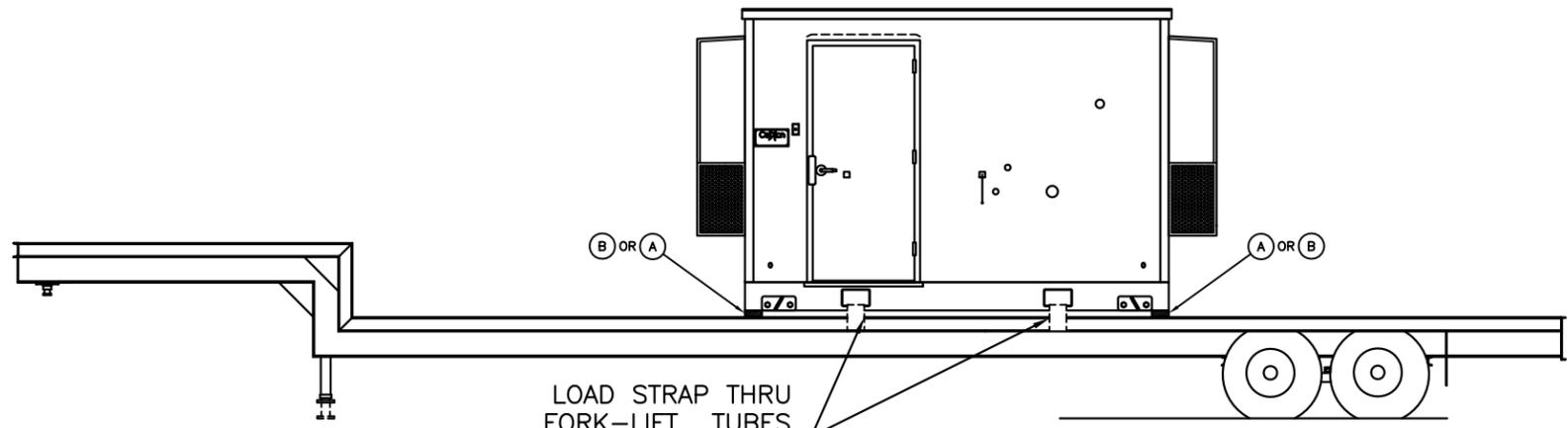
REAR VIEW OF TRAILER  
SEE NOTE 5



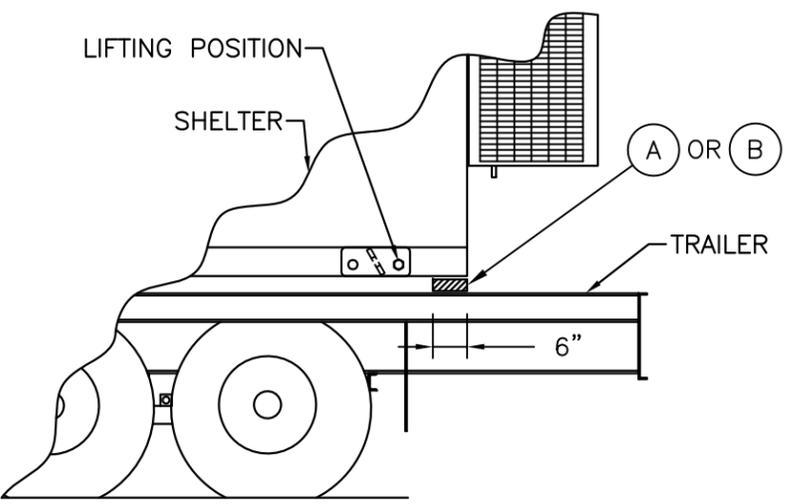
REAR VIEW OF TRAILER



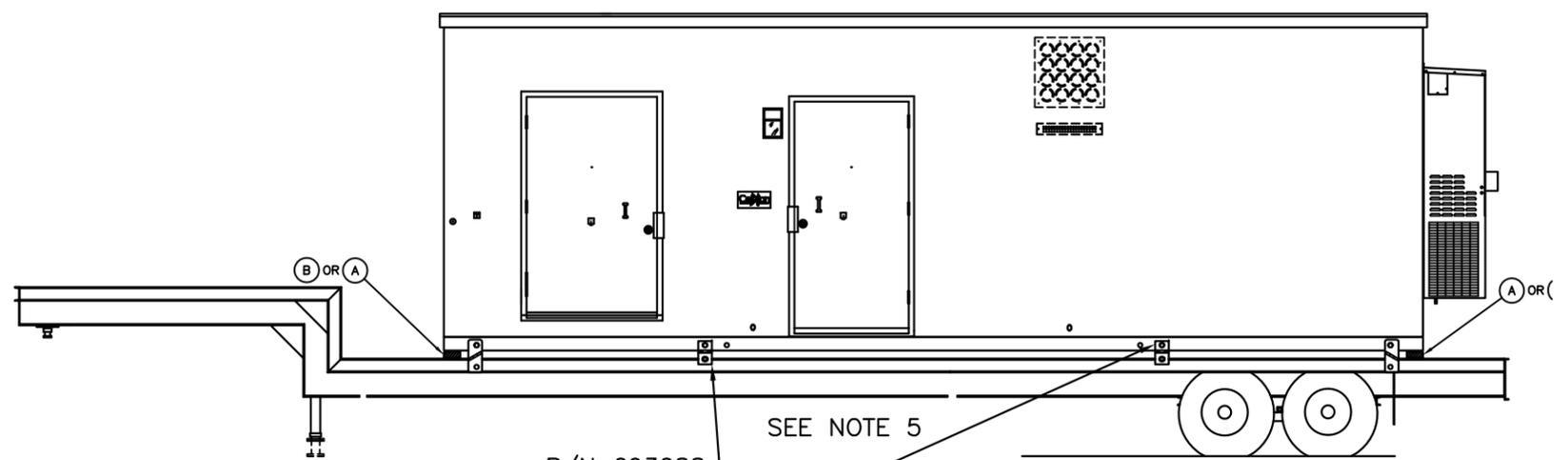
REAR VIEW OF TRAILER



LOAD STRAP THRU  
FORK-LIFT TUBES  
FOR TIE-DOWN TO TRAILER  
PROTECT CORNERS



SIDE VIEW OF TRAILER



P/N 693088  
(4) SHIPPING BRACKETS  
PLACED APPROX. 8'-0"  
FROM EACH END OF  
SHELTER FOR 24'-0"  
OR GREATER LENGTHS.

REV	BY	DATE	DESCRIPTION	APP. BY	DATE
B	GAB	11/05/14	ADDED NOTE 5 AND REFERENCES	AED	11/05/14
A	JFA	6/4/08	ADDED TRAILER LOADING DETAIL	VGH	6/4/08

ITEM/CUT LIST

ITEM LETTER	P/N	MATERIAL
A		INSUAL. RMAX, OR BEAD BOARD, 1 1/2" MIN. THICKNESS
B		RUBBER PAD, 60 DUR. 3/4" MIN THICKNESS

NOTES:

- DO NOT PLACE RUBBER PADS UNDER DOORWAYS.
- RUBBER PAD TO BE 6" X 12" MIN.
- INSULATION TO BE 6" WIDE, LENGTH AS REQ'D.
- LOCATION OF RUBBER PAD SHOULD BE AT OUTERMOST POINTS ON TRAILER WHICH CAN PROVIDE ADEQUATE SUPPORT.
- FOR LARGE BUILDINGS THAT ARE HEAVILY LOADED ABOUT THE PERIPHERY ON THE INSIDE, SEE SPECIAL LOADING INSTRUCTIONS.

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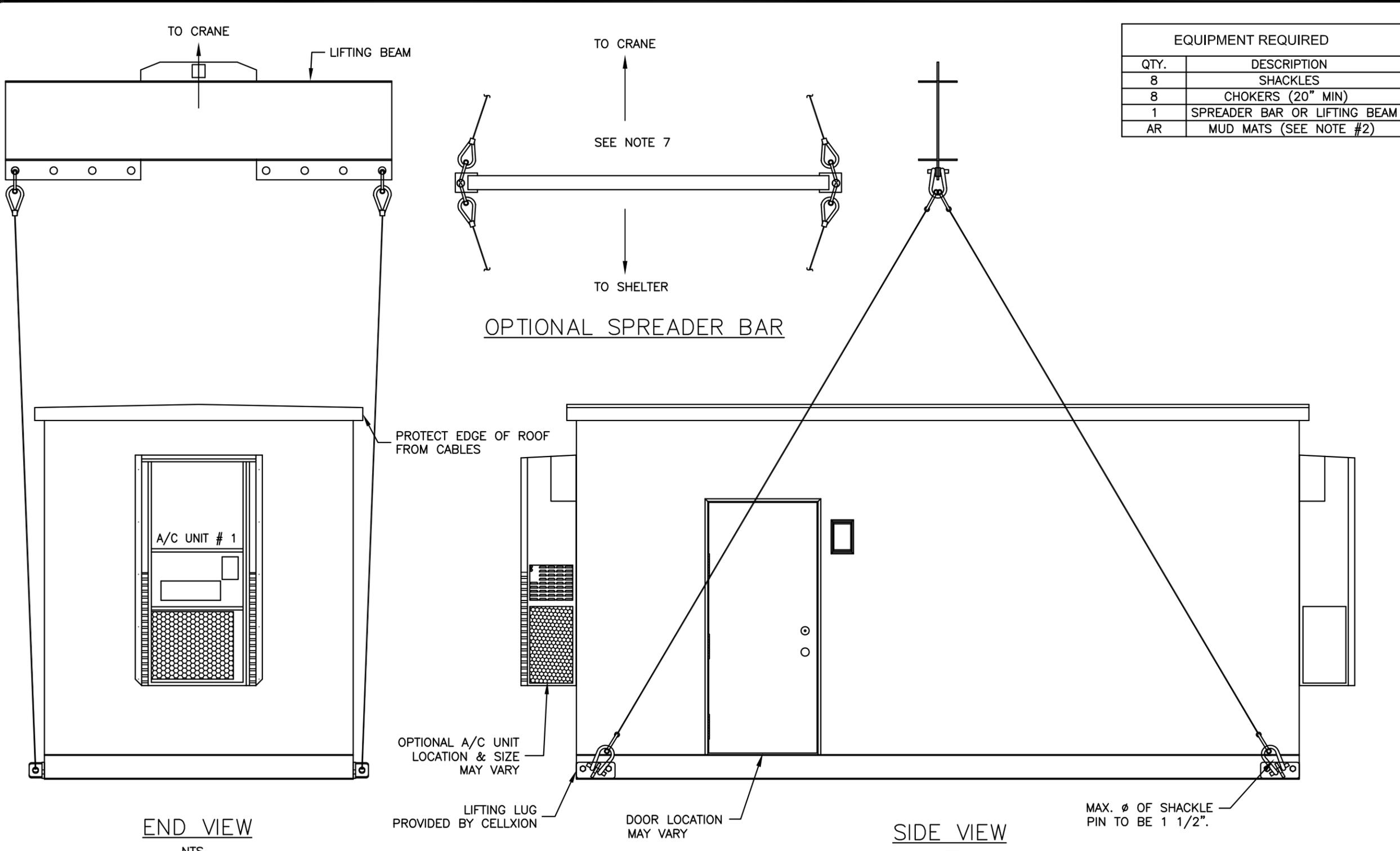
**Sabre Industries**  
Building Systems by CellXion  
5031 Hazel Jones Road  
Bossier City, LA 71111  
Voice: (318) 213-2900  
Fax: (318) 213-2919  
www.sabreindustries.com

CUSTOMER:  
**PREP TO MOVE STANDARD**

PROJECT:  
**SHELTER LOADING DETAILS**

FILENAME: 108-089	
SCALE: N.T.S.	TOLERANCE:
DRWN. BY: J. ASHLEY	DATE: 5/13/08
CHK. BY: V. HASSELL	DATE: 5/13/08
APP. BY: A.E. DUMAS	DATE: 11/05/14
SHEET NO. 1 OF 1	

DRAWING NO.:	REV.:
108-089	B



EQUIPMENT REQUIRED	
QTY.	DESCRIPTION
8	SHACKLES
8	CHOKERS (20" MIN)
1	SPREADER BAR OR LIFTING BEAM
AR	MUD MATS (SEE NOTE #2)

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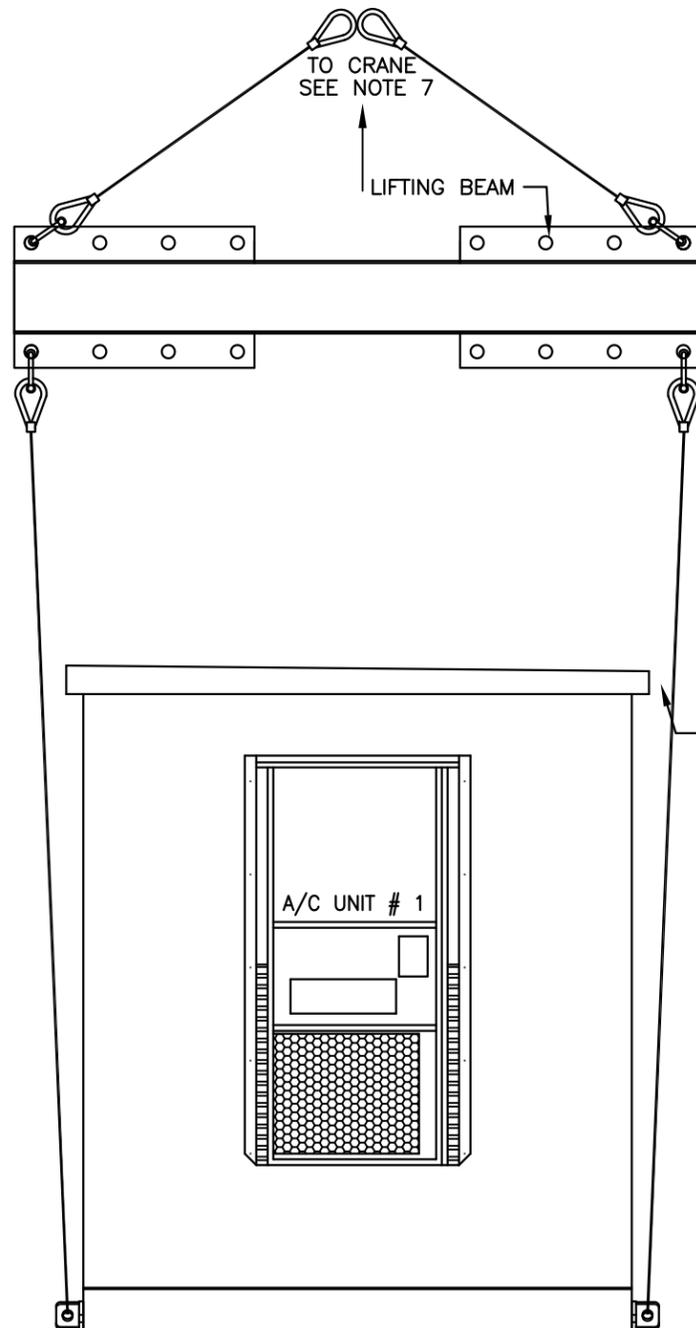
CUSTOMER:  
 PREP TO MOVE STANDARD

PROJECT:  
 SHELTER LIFTING DETAILS  
 4 LIFTING POINTS

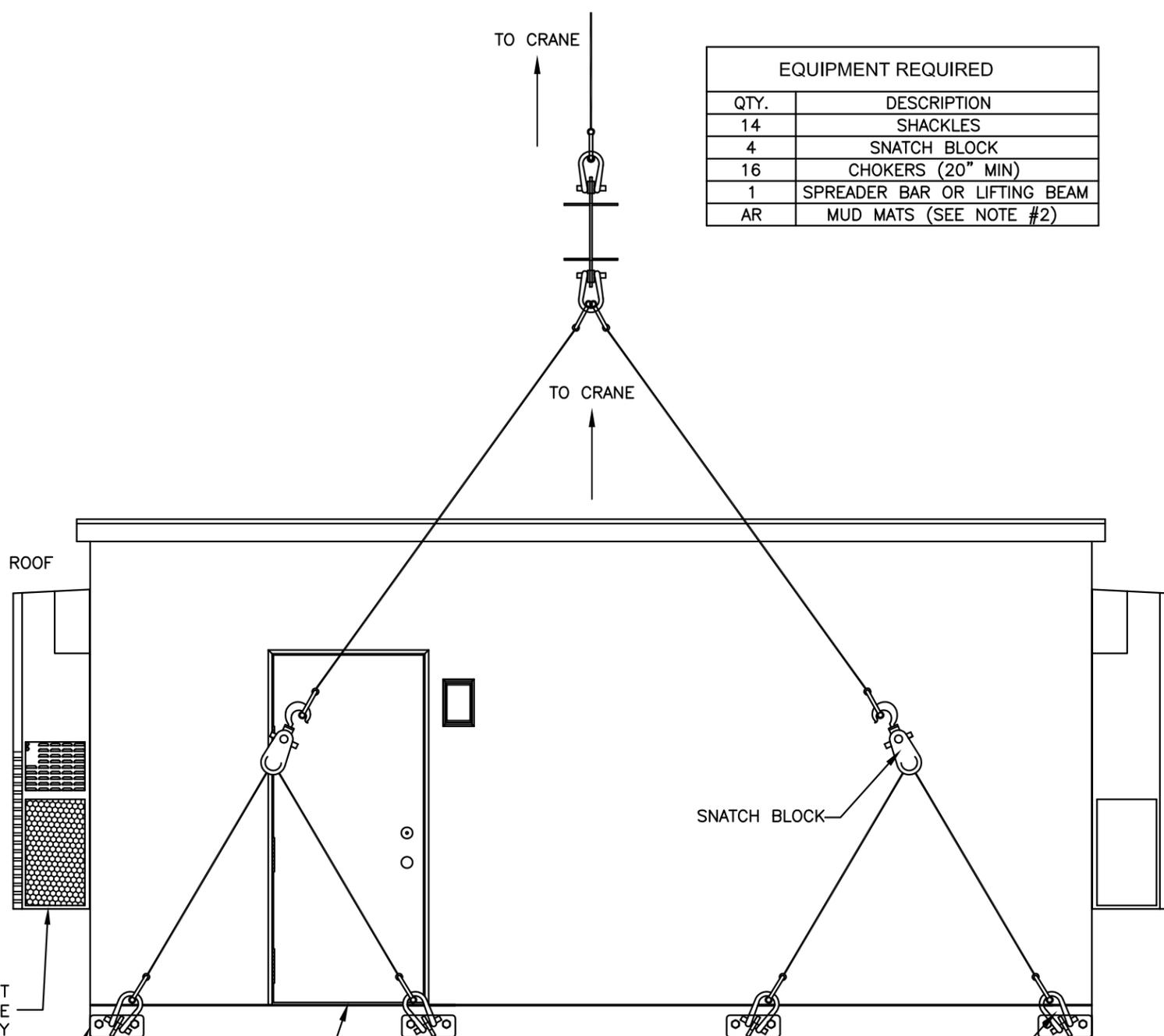
FILENAME: 108-088	
SCALE: N.T.S.	TOLERANCE:
DRWN. BY: J. ASHLEY	DATE: 5/13/08
CHK. BY: G. BRINKMAN	DATE: 5/13/08
ENG. BY:	DATE:
APP. BY: A.E. DUMAS	DATE: 11/04/14
SHEET NO. 1 OF 3	
DRAWING NO.:	REV.:
108-088	C

- NOTES:
- FOUR (4) LIFTING POINTS REQUIRED ONLY FOR SHELTER LESS THAN 24' LONG.
  - SHELTER SIZE & CONFIG. MAY VARY.
  - COMPENSATE WEIGHT DIFFERENCE WITH ADDITIONAL SHACKLES IF REQ'D.
  - MUD MATS ARE TO BE USED IF SITE CONDITIONS WARRANT.
  - REVIEW WEIGHT TICKETS AND SITE CONDITIONS TO DETERMINE PROPER SIZING OF EQUIPMENT AND RIGGING.
  - SPREADER LENGTH TO BE WIDER THAN SHELTER TO KEEP CABLES FROM RUBBING AT ROOF.
  - TERMINATE AT HOOK ABOVE OR NEARLY ABOVE CG OF SHELTER LOADED FOR LIFT.

REV	BY	DATE	DESCRIPTION	APP. BY	DATE
C	GAB	11/04/14	ADDED NOTE 7 & CLARIFIED NTS	AED	11/04/14
B	GAB	01/19/11	ADDED THE WORD OPTIONAL TO THE A/C	GAB	01/19/11
A	AMM	9/15/09	ADDED 8 LIFTING POINTS OPTION	LD	9/15/09



END VIEW  
NTS



SIDE VIEW  
NTS

EQUIPMENT REQUIRED	
QTY.	DESCRIPTION
14	SHACKLES
4	SNATCH BLOCK
16	CHOKERS (20" MIN)
1	SPREADER BAR OR LIFTING BEAM
AR	MUD MATS (SEE NOTE #2)

- NOTES:
- EIGHT (8) LIFTING POINTS REQUIRED ONLY FOR SHELTER 24' AND LONGER.
  - SHELTER SIZE & CONFIG. MAY VARY.
  - COMPENSATE WEIGHT DIFFERENCE WITH ADDITIONAL SHACKLES IF REQ'D.
  - MUD MATS ARE TO BE USED IF SITE CONDITIONS WARRANT.
  - REVIEW WEIGHT TICKETS AND SITE CONDITIONS TO DETERMINE PROPER SIZING OF EQUIPMENT AND RIGGING.
  - SPREADER LENGTH TO BE WIDER THAN SHELTER TO KEEP CABLES FROM RUBBING AT ROOF.
  - LOCATE TERMINATION AT CRANE HOOK OR NEARLY ABOVE CG OF SHELTER OF SHELTER LOADED FOR LIFT

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CUSTOMER:  
 PREP TO MOVE  
 STANDARD

PROJECT:  
 SHELTER LIFTING  
 DETAILS  
 8 LIFTING POINTS  
 OPTION-1

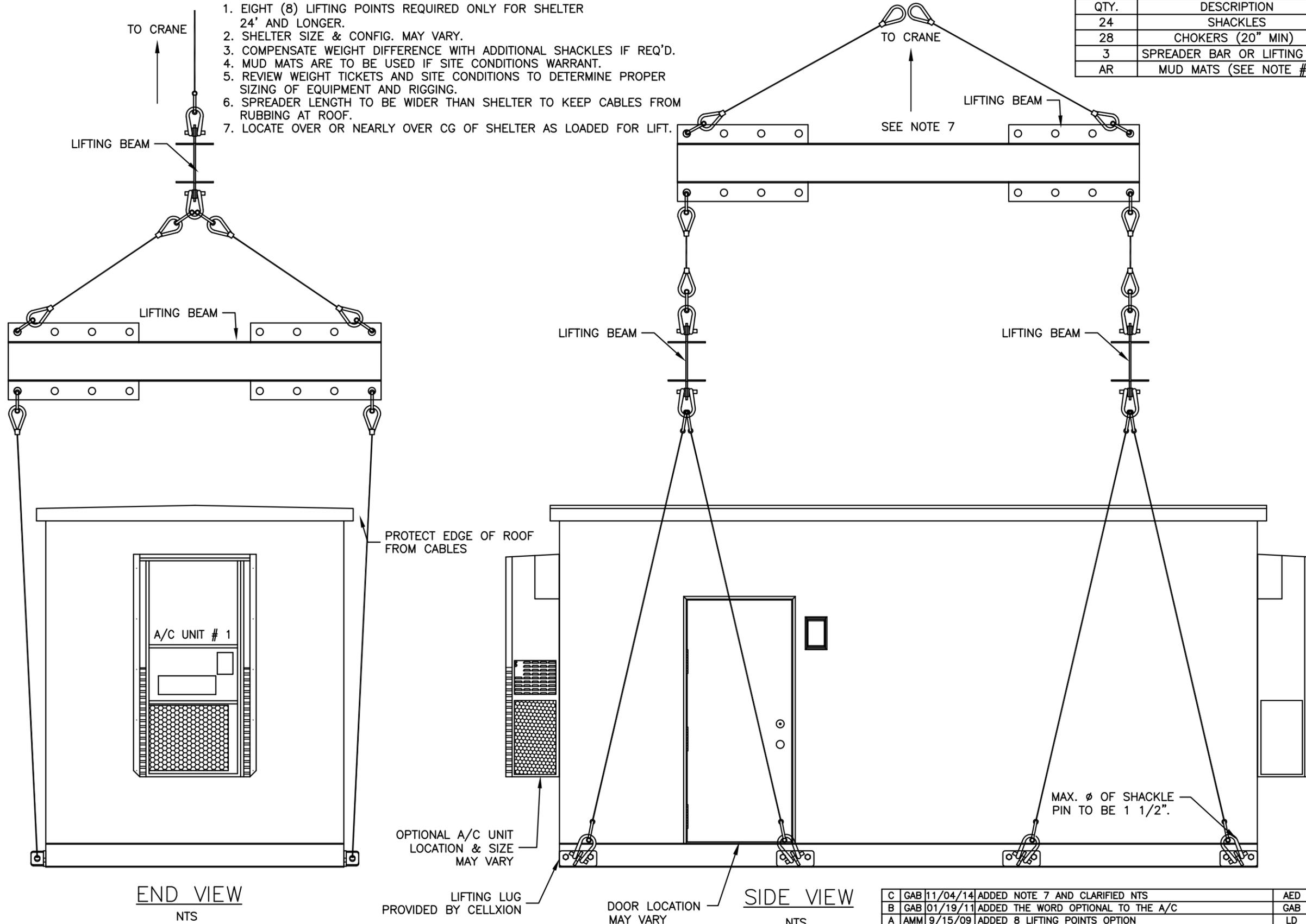
FILENAME: 108-088	
SCALE: N.T.S.	TOLERANCE:
DRWN. BY: J. ASHLEY	DATE: 5/13/08
CHK. BY: G. BRINKMAN	DATE: 5/13/08
ENG. BY:	DATE:
APP. BY: AE DUMAS	DATE: 11/04/14
SHEET NO. 2 OF 3	
DRAWING NO.:	REV.:
108-088	C

REV	BY	DATE	DESCRIPTION	APP. BY	DATE
C	GAB	11/04/14	ADDED NOTE 7 AND CLARIFIED NTS	GAB	01/19/11
B	GAB	01/19/11	ADDED THE WORD OPTIONAL TO THE A/C	GAB	01/19/11
A	AMM	9/15/09	ADDED 8 LIFTING POINTS OPTION	LD	9/15/09

NOTES:

1. EIGHT (8) LIFTING POINTS REQUIRED ONLY FOR SHELTER 24' AND LONGER.
2. SHELTER SIZE & CONFIG. MAY VARY.
3. COMPENSATE WEIGHT DIFFERENCE WITH ADDITIONAL SHACKLES IF REQ'D.
4. MUD MATS ARE TO BE USED IF SITE CONDITIONS WARRANT.
5. REVIEW WEIGHT TICKETS AND SITE CONDITIONS TO DETERMINE PROPER SIZING OF EQUIPMENT AND RIGGING.
6. SPREADER LENGTH TO BE WIDER THAN SHELTER TO KEEP CABLES FROM RUBBING AT ROOF.
7. LOCATE OVER OR NEARLY OVER CG OF SHELTER AS LOADED FOR LIFT.

EQUIPMENT REQUIRED	
QTY.	DESCRIPTION
24	SHACKLES
28	CHOKERS (20" MIN)
3	SPREADER BAR OR LIFTING BEAM
AR	MUD MATS (SEE NOTE #2)



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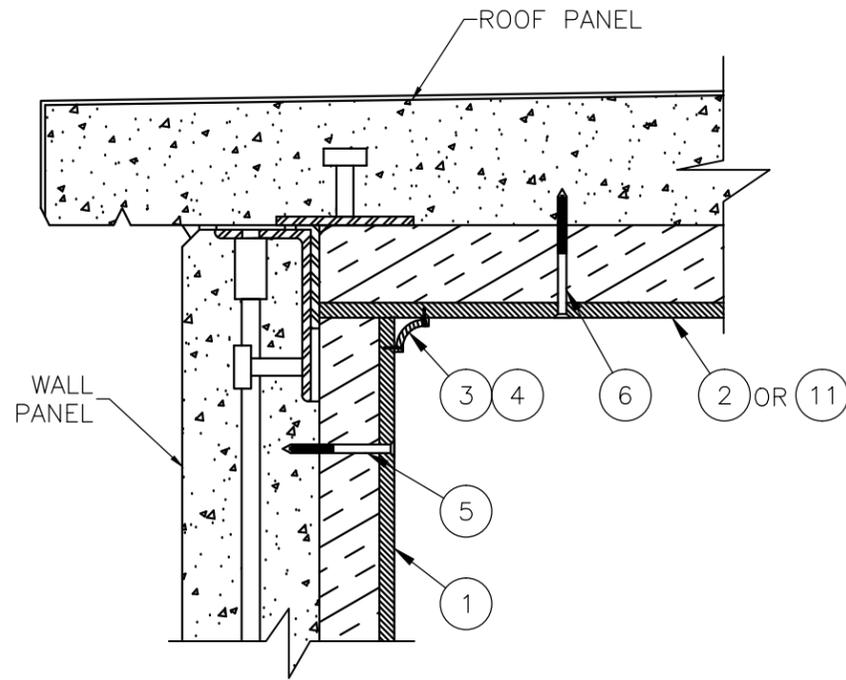
CUSTOMER:  
 PREP TO MOVE STANDARD

PROJECT:  
 SHELTER LIFTING DETAILS  
 8 LIFTING POINTS OPTION-2

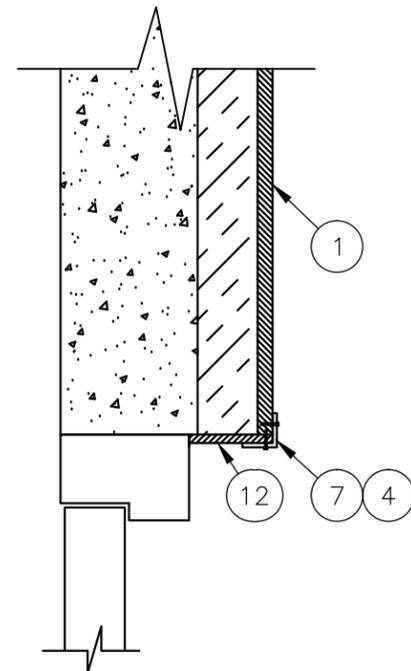
FILENAME: 108-088	
SCALE: N.T.S.	TOLERANCE:
DRWN. BY: J. ASHLEY	DATE: 5/13/08
CHK. BY: G. BRINKMAN	DATE: 11/04/14
ENG. BY:	DATE:
APP. BY: AE DUMAS	DATE: 11/04/14

SHEET NO.  
 3 OF 3  
 DRAWING NO.:  
 108-088  
 REV.:  
 C

REV	BY	DATE	DESCRIPTION	APP. BY	DATE
C	GAB	11/04/14	ADDED NOTE 7 AND CLARIFIED NTS	AED	11/04/14
B	GAB	01/19/11	ADDED THE WORD OPTIONAL TO THE A/C	GAB	01/19/11
A	AMM	9/15/09	ADDED 8 LIFTING POINTS OPTION	LD	9/15/09



WALL/ROOF SECTION

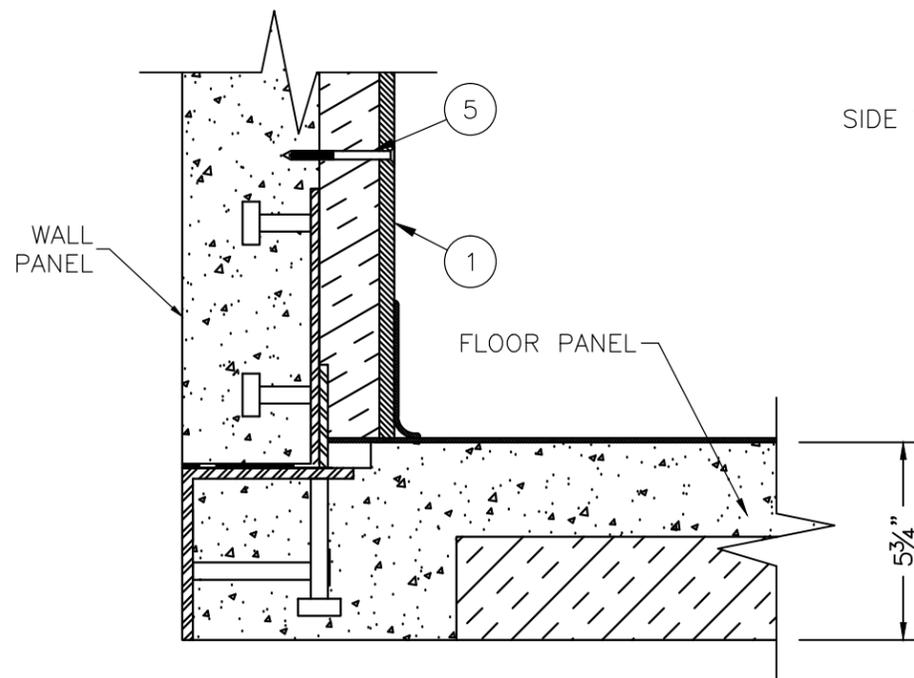


TYP DOOR SECTION TRIM DETAIL

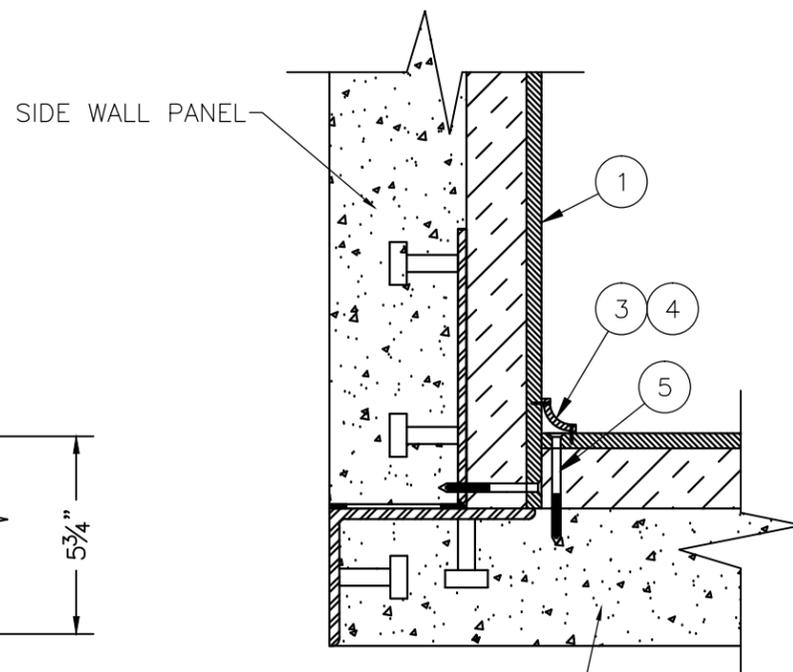
PARTS LIST			
ITEM	U/M	P/N	DESCRIPTION
1	EA.	300058	INSULATION,1.75",3/4"OSB,.030 NRP
2	EA.	300059	INSULATION,2.25,3/4"OSB,.030 NRP
3	EA.	320002	TRIM,COVE,VINYL,10'0",WHITE 1 3/4"
4	EA.	168009	BRAD,WHITE 3/4",44241
5	EA.	168293	SCREW,CONCRETE,3/16"X3 1/4",PH,GREE
6	EA.	168294	SCREW,CONCRETE,3/16"X3 3/4",PH,BLUE
7	EA.	320020	TRIM,CORNER,WOOD,1-3/8"X1-3/8"OUTSI
9	EA.	320035	TRIM,FRP,VINYL,9'0",WHITE 2" FACE 5
10	EA.	320036	TRIM,FRP,VINYL,11'0",WHITE 2" FACE
11	EA.	300036	INSULATION,2.25"RMAX,POLY,48"X113"
12	EA.	300037	PANELING,1/4" LAUAN 4'X8'

NOTES:

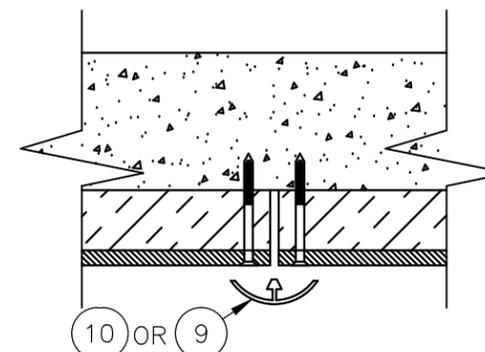
1. INSTALL INTERIOR PANELS W/ CONCRETE SCREWS (LENGTH MAY VARY) 24" O.C. MAX ALONG LENGTH OF PANELS. (NO FASTENERS REQUIRED ALONG SHORT SIDE OF PANELS IF PANEL EDGE IS AT A CORNER)
2. MAX GAP BETWEEN PANELS TO BE 1/4".
3. USE COVE TRIM IN ALL CORNERS AND AROUND TOP PERIMETER. INSTALL USING 3/4" BRAD NAILS.
4. TRIM ALL EXPOSED OPENINGS W/ OUTSIDE CORNER TRIM.
5. USE 10 FT TRIM, P/N 320035 FOR JOINT LENGTHS 10FT AND UNDER, USE P/N 320036 FOR JOINT LENGTHS OVER 10FT.



WALL/FLOOR SECTION



WALL/WALL SECTION



JOINT DETAIL PLAN VIEW SECTION

REV	BY	DATE	DESCRIPTION	APP. BY	DATE
H	CNM	11/14/13	UPDATED DOOR U-FACTOR	CNM	11/14/13
G	CNM	10/17/13	UPDATED INSULATION PART NUMBERS	CNM	10/17/13
F	LJL	5/23/12	UPDATED TRIM PART NUMBERS	LJL	5/23/12
E	RRG	9/22/11	UPDATED BUBBLE CALL-OUTS	LJL	9/22/11
D	PMD	8/18/11	UPDATED PARTS LIST	LJL	8/19/11
C	DJC	08/21/09	REVISED NOTES	VGH	08/21/09

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CUSTOMER:  
**ENGINEERING STANDARD**

PROJECT:  
**CONCRETE SHELTER INT. PANELING INSTALL (1) LAYER WALLS <= 9'-6"**

FILENAME: 108-035	
SCALE: 3/16"=1"	TOLERANCE:
DRWN. BY: C. CASINGER	DATE: 10/6/05
CHK. BY: V. HASSELL	DATE: 10/6/05
ENG. BY: K. BARNETT	DATE: 10/6/05
APP. BY:	DATE:

SHEET NO.  
**1 OF 2**

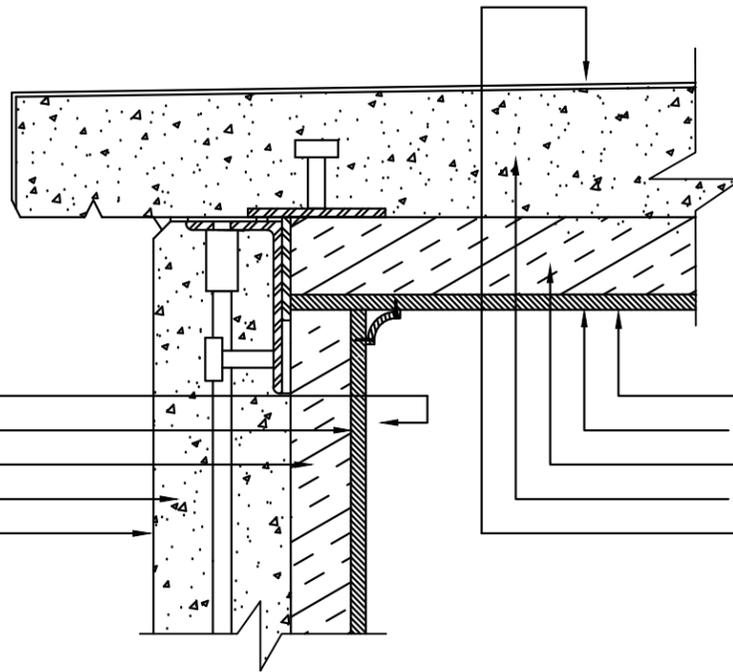
DRAWING NO.:  
**108-035**

REV.:  
**1**

### WALL

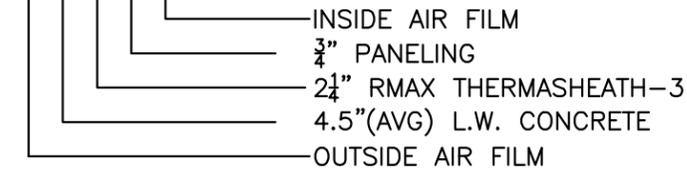
(HEAT CAPACITY = 8 BTU/°F)

0.68	INSIDE AIR FILM
0.994	¾" PANELING
11.20	1½" RMAX THERMASHEATH-3
0.64	4" L.W. CONCRETE
0.25	OUTSIDE AIR FILM
<hr/>	
13.764	OVERALL R-VALUE
0.073	OVERALL U-FACTOR



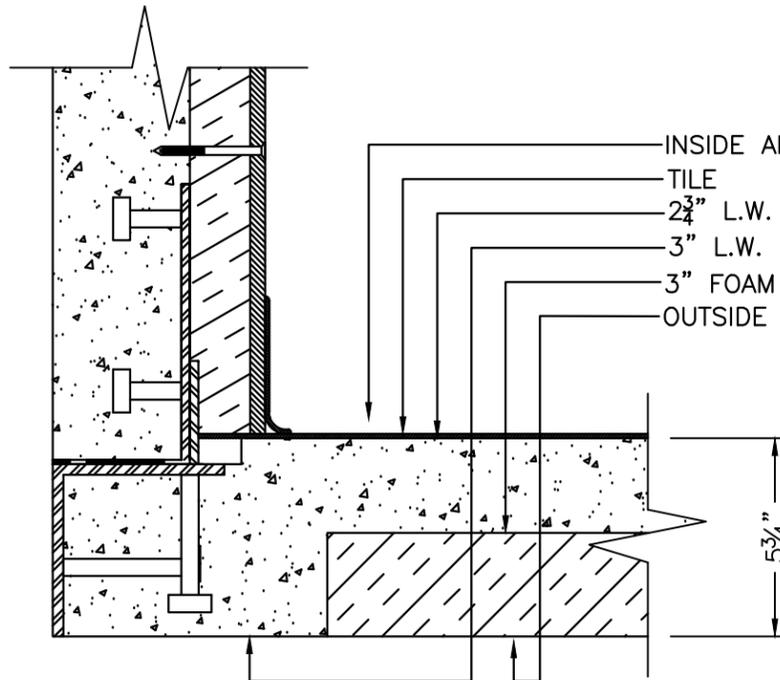
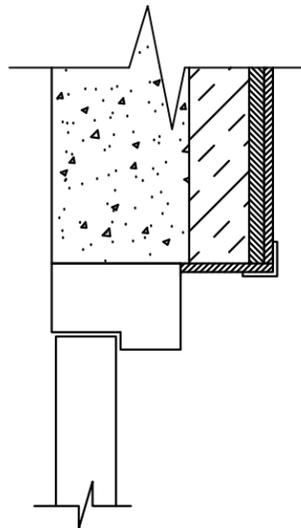
### CEILING

0.61	INSIDE AIR FILM
0.994	¾" PANELING
14.70	2¼" RMAX THERMASHEATH-3
0.72	4.5"(AVG) L.W. CONCRETE
0.25	OUTSIDE AIR FILM
<hr/>	
17.274	OVERALL R-VALUE
0.058	OVERALL U-FACTOR



### METAL DOOR

6.250	OVERALL R-VALUE
0.160	OVERALL U-FACTOR



RIB	DECK	
0.920	0.920	
0.05	0.05	
0.94	0.94	
1.02	--	
--	10.800	
0.25	0.25	
<hr/>		
2.140	12.460	TOTAL 'R'
0.467	0.080	TOTAL 'U'
0.286	0.714	SURFACE AREA RATIO
0.960	12.380	R-FACTOR PER SURFACE AREA
<hr/>		
0.191	OVERALL U-FACTOR	
5.237	OVERALL R-VALUE	

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CUSTOMER:  
**ENGINEERING STANDARD**

PROJECT:  
**CONCRETE SHELTER  
 INT. PANELING INSTALL  
 (1) LAYER  
 R/U CALCULATIONS**

FILENAME: 108-035	
SCALE:	TOLERANCE:
DRWN. BY: C. CASINGER	DATE: 10/6/05
CHK. BY: V. HASSELL	DATE: 10/6/05
ENG. BY: K. BARNETT	DATE: 10/6/05
APP. BY:	DATE:

SHEET NO. 2 OF 2	
DRAWING NO.: 108-035	REV.: 1

## GENERAL NOTES

1. ALL STEEL FABRICATION AND INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL AISC 341-05 PARTS I AND II, 360-05 AND AWS D1.1-04 SPECIFICATIONS.
2. ALL WELDING SHALL BE MIG TYPE WITH THE FOLLOWING OPERATING SETTINGS:
 

WIRE SIZE -----	0.35
WIRE FEED SPEED (in/min) -----	5
VOLTAGE, DC (+) -----	18.5
AMPERAGE, DC -----	140
TRAVEL SPEED (in/min) -----	10-12
SHIELDING GAS -----	75/25
3. STRUCTURAL STEEL SPECIFICATIONS:
  - STRUCTURAL SHAPES ASTM A36/A 36M-04a
  - HIGH STRENGTH BOLTS, ASTM A 307-03
  - OTHER BOLTS, SAE J429 GRADE 5
4. ALL CONCRETE WORK SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE A.C.I. 318-05 CH. 21 BUILDING CODES 311 & 211, AND ASTM STANDARDS C-172-04, C-31/C31M98, AND PROVISIONS OF C-94/C94M-04.
5. ALL PRECAST STRUCTURAL SAND-LIGHTWEIGHT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
6. ALL REINFORCING STEEL BARS SHALL BE DOMESTIC, NEW BILLET STEEL CONFORMING TO ASTM A 615M-04a SPECIFICATIONS.
7. CONCRETE COVERAGE OVER ALL REINFORCING STEEL SHALL BE A MINIMUM OF 3/4".
8. ALL REBAR SHALL BE TIED 100% AT THE PERIMETER, AND 50% ELSEWHERE.
9. ALL REBAR WIRE TIES TO BE 16 GAUGE.
10. LIGHTWEIGHT CONCRETE MAY BE USED IN THE ROOF AND FLOOR AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
11. MAXIMUM JOINT SPACE BETWEEN PANELS SHALL BE 3/8" MEASURED BY REFUSAL OF ABILITY TO PASS A 3/8" ROD ALL THE WAY THROUGH THE JOINT AT ANY POINT ALONG THE JOINT.
12. WELD PLATE CONNECTIONS SHALL BE SPACED AT 4'-8" MAXIMUM ON THE FLOOR AND ROOF PANELS. THIS DIMENSION SHALL BE MAINTAINED EXCEPT IN CASES WHERE OPENINGS PROHIBIT.
13. TOLERANCES SHALL BE AS FOLLOWS:
  - PANEL THICKNESS:  $\pm 1/8$ "
  - PANEL SIZE:  $\pm 1/16$ "
  - PANEL SQUARENESS:  $\pm 1/8$ " AGREEMENT ON DIAGONALS
  - LOCATION OF BLOCKOUTS & PVC'S:  $\pm 1/4$ "
  - BLOCKOUT DIMENSIONS: +1/4", -0"
  - PVC SIZE: USE TRADE SIZE AS LISTED ON PROJECT DRAWINGS
14. REBAR SPLICING IS ALLOWED WHERE SPACE PERMITS. MINIMUM LAP IS 18" FOR #4 REBAR AND 30" FOR #6 REBAR.
15. CONCRETE SHALL HAVE AIR ENTRAINMENT OF 6%, MODERATE EXPOSURE AND A MAXIMUM AGGREGATE SIZE OF 3/8 INCH.
16. CONCRETE SHALL HAVE A WATER-CEMENTITIOUS MATERIAL RATIO OF 0.50.

- GENERAL: THESE REBAR SIZES AND SPACING REPRESENT THE MINIMUM AMOUNT FOR ALL CASTING PLANS. PROJECT DRAWINGS MAY REQUIRE REINFORCEMENT IN ADDITION TO CELLXION STANDARDS.
- ROOF PANEL: #4 (SHORT AXIS) 12" O.C. ON SHELTER WIDTH OF 11'-6" AND LESS, 10" O.C. ON SHELTER WIDTH GREATER THAN 11'-6" TO 12', AND #4 (LONG AXIS) AT 18" O.C.
- WALL PANEL: #4 AT PERIMETER AND 4 X 4 X W4 X W4 MESH THROUGHOUT.
- FLOOR: (2)-#6 (SHORT AXIS) EACH RIB, #6 (LONG AXIS) EACH INTERIOR RIB. DECK: 4 X 4 X W4 X W4 MESH.

## SEALANT APPLICATION

- STEP 1. AT MATING SURFACES BETWEEN PANELS, APPLY URETHANE SEALANT ( $\frac{1}{2}$ " BEAD) DURING ASSEMBLY.
- STEP 2. URETHANE SEALANT REQUIRED ON ALL JOINTS. APPLY TO EXTERIOR AFTER PANEL ASSEMBLY.
- STEP 3. ROOF COATING:  
APPLY SHELTER ROOF COATING PER MANUFACTURER INSTRUCTION. ROOF COATING TO CONFORM TO, ASTM D6083-97A, OBC 1507.15.2 & 2006 IBC 1507.15.2.
- STEP 4. APPLY AGGREGATE SEALER TO EXTERIOR WALLS. USE 1 GALLON PER 200 SQ. FEET.
- STEP 5. USE TEXTURED SEALER ON ALL SMOOTH EXPOSED SURFACES. USE CEMENTITIOUS GRAY PAINT.

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 www.sabreindustries.com

CUSTOMER:

ENGINEERING STANDARD

PROJECT:

GENERAL CASTING  
 SPECIFICATIONS  
 2006 IBC

FILENAME:

108-016

SCALE:

1"=1"

TOLERANCE:

DRWN. BY:

L. DROZDZ

DATE:

10/1/07

CHK. BY:

DATE:

ENG. BY:

DATE:

APP. BY:

DATE:

SHEET NO.

1 OF 3

DRAWING NO.:

108-016

REV.:

P

## GENERAL NOTES

1. ALL STEEL FABRICATION AND INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL AISC 341-05 PARTS I AND II, 360-05 AND AWS D1.1-04 SPECIFICATIONS.
2. ALL WELDING SHALL BE MIG TYPE WITH THE FOLLOWING OPERATING SETTINGS:
 

WIRE SIZE -----	0.35
WIRE FEED SPEED (in/min) -----	5
VOLTAGE, DC (+) -----	18.5
AMPERAGE, DC -----	140
TRAVEL SPEED (in/min) -----	10-12
SHIELDING GAS -----	75/25
3. STRUCTURAL STEEL SPECIFICATIONS:
  - STRUCTURAL SHAPES ASTM A36/A 36M-05
  - HIGH STRENGTH BOLTS, ASTM A 307-03
  - OTHER BOLTS, SAE J429 GRADE 5
4. ALL CONCRETE WORK SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE A.C.I. 318-08 CH. 21 BUILDING CODES 311 & 211, AND ASTM STANDARDS C-172-04, C-31/C31-06, AND PROVISIONS OF C-94/C94M-07.
5. ALL PRECAST STRUCTURAL SAND-LIGHTWEIGHT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
6. ALL REINFORCING STEEL BARS SHALL BE DOMESTIC, NEW BILLET STEEL CONFORMING TO ASTM A 615M-04a SPECIFICATIONS.
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  - LOCATION OF BLOCKOUTS & PVC'S:  $\pm 1/4$ "
  - BLOCKOUT DIMENSIONS:  $+1/4$ ",  $-0$ "
  - PVC SIZE: USE TRADE SIZE AS LISTED ON PROJECT DRAWINGS
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GENERAL: THESE REBAR SIZES AND SPACING REPRESENT THE MINIMUM AMOUNT FOR ALL CASTING PLANS. PROJECT DRAWINGS MAY REQUIRE REINFORCEMENT IN ADDITION TO CELLXION STANDARDS.

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FLOOR: (2)-#6 (SHORT AXIS) EACH RIB, #6 (LONG AXIS) EACH INTERIOR RIB. DECK: 4 X 4 X W4 X W4 MESH.

## SEALANT APPLICATION

STEP 1. AT MATING SURFACES BETWEEN PANELS, APPLY URETHANE SEALANT ( $\frac{1}{2}$ " BEAD) DURING ASSEMBLY.

STEP 2. URETHANE SEALANT REQUIRED ON ALL JOINTS. APPLY TO EXTERIOR AFTER PANEL ASSEMBLY.

STEP 3. ROOF COATING:  
APPLY SHELTER ROOF COATING PER MANUFACTURER INSTRUCTION. ROOF COATING TO CONFORM TO, ASTM D6083-05e01, OBC 1507.15.2 & 2009 IBC 1507.15.2.

STEP 4. APPLY AGGREGATE SEALER TO EXTERIOR WALLS. USE 1 GALLON PER 200 SQ. FEET.

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CUSTOMER:

ENGINEERING STANDARD

PROJECT:  
GENERAL CASTING  
SPECIFICATIONS  
2009 IBC

FILENAME:

108-016

SCALE:

1"=1"

TOLERANCE:

DRWN. BY:

L. DROZDZ

DATE:

7/21/10

CHK. BY:

DATE:

ENG. BY:

DATE:

APP. BY:

DATE:

SHEET NO.

2 OF 3

DRAWING NO.:

108-016

REV.:

P

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  - HIGH STRENGTH BOLTS, ASTM A 307-07b
  - OTHER BOLTS, SAE J429 GRADE 5
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5. ALL PRECAST STRUCTURAL SAND-LIGHTWEIGHT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
6. ALL REINFORCING STEEL BARS SHALL BE DOMESTIC, NEW BILLET STEEL CONFORMING TO ASTM A 615/A615M-09 SPECIFICATIONS.
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9. ALL REBAR WIRE TIES TO BE 16 GAUGE.
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## SEALANT APPLICATION

STEP 1. AT MATING SURFACES BETWEEN PANELS, APPLY URETHANE SEALANT (1/2" BEAD) DURING ASSEMBLY.

STEP 2. URETHANE SEALANT REQUIRED ON ALL JOINTS. APPLY TO EXTERIOR AFTER PANEL ASSEMBLY.

STEP 3. ROOF COATING:  
APPLY SHELTER ROOF COATING PER MANUFACTURER INSTRUCTION. ROOF COATING TO CONFORM TO, ASTM D6083-05e01, OBC 1507.15.2 & 2012 IBC 1507.15.2.

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Fax: (318) 213-2919  
www.sabreindustries.com

CUSTOMER:

ENGINEERING STANDARD

PROJECT:

GENERAL CASTING  
SPECIFICATIONS  
2012 IBC

FILENAME:

108-016

SCALE:

1"=1"

TOLERANCE:

DRWN. BY:

L. DROZDZ

DATE:

7/21/10

CHK. BY:

DATE:

ENG. BY:

DATE:

APP. BY:

DATE:

SHEET NO.

3 OF 3

DRAWING NO.:

108-016

REV.:

P

NOTES:

1. CONDUCTOR COLORS ARE AS FOLLOWING:

120/240 SINGLE PHASE

PHASE "A" = BLACK

PHASE "B" = RED

NEUTRAL = WHITE

120/208 THREE PHASE

PHASE "A" = BLACK

PHASE "B" = RED

PHASE "C" = BLUE

NEUTRAL = WHITE

277/480 THREE PHASE

PHASE "A" = BROWN

PHASE "B" = ORANGE

PHASE "C" = YELLOW

NEUTRAL = GRAY

ALL ELECTRICAL GROUND = GREEN

ALL ISOLATED GROUND = GREEN/YELLOW STRIPE

ALL SWITCHED = PURPLE

2. ALL CONDUCTORS (UNLESS OTHERWISE NOTED) TO BE STRANDED THHN OR THWN COPPER WIRE.
3. ALL CONDUIT TO BE 1/2" EMT UNLESS OTHERWISE NOTED.
4. ALL LOW VOLTAGE CONDUIT TO BE 1/2" EMT UNLESS NOTED.
5. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 310.15(B)(16) NATIONAL ELECTRICAL CODE.
6. CONDUIT FILL BASED ON CHAPTER 9 - NATIONAL ELECTRICAL CODE.
7. PLACEMENT OF ELECTRICAL AND CONDUIT COMPONENTS OR BOXES MAY VARY TO ALIGN WITH COMPONENTS MANUFACTURE'S PRE-MADE BOX KNOCKOUTS. THIS MAY INCLUDE ALIGNMENT WITH SHELTER PENETRATIONS AND/OR INTERFERENCE WITH OTHER COMPONENTS.
8. CONDUIT, ELECTRICAL AND MECHANICAL DIMENSION TOLERANCE SHALL BE ±1/4".
9. DASHED LINES (-----) DENOTE FIELD WORK.
10. ALL CIRCUITS ON 25 AMP THROUGH 60 AMP BREAKER MUST USE #10 GROUND CONDUCTOR.
11. CONDUCTORS SMALLER THAN 4 AWG MUST HAVE CORRECT COLOR INSULATION. CONDUCTORS 4 AWG AND LARGER MAY BE RE-IDENTIFIED BY COLORED TAPE. BLACK INSULATED CONDUCTOR SHALL BE THE ONLY COLOR TO BE RE-IDENTIFIED. IF CONDUCTORS ARE RE-IDENTIFIED, IDENTIFICATION MUST BE APPLIED IN THREE INCH (3") WRAPS, MINIMUM EVERY THREE FEET (3'-0"). RE-IDENTIFICATION SHALL BE VISIBLE BY OPENING ANY ENCLOSURE. WHITE, GRAY AND GREEN CONDUCTORS SHALL NOT BE RE-IDENTIFIED.
12. ALL METALLIC ELECTRICAL BOXES (SWITCH BOXES, DUPLEX BOXES, LIGHTS, JUNCTION BOXES, ETC) SHALL BE CONNECTED TO THE PROTECTED GROUND OF THE ACG DISTRIBUTION PANEL WITH A #12 GREEN INSULATED STRANDED CONDUCTOR WHICH SHALL BE RUN INTERNAL TO THE CONDUIT.
13. THE AVAILABLE FAULT CURRENT CALCULATIONS AND MARKING IS THE RESPONSIBILITY OF THE SITE CONTRACTOR. MARKING SHOULD BE OF SUCH: MAXIMUM AVAILABLE FAULT CURRENT \_\_\_\_\_ amperes, DATE \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_.
14. NO SHARED NEUTRALS BETWEEN CIRCUITS UNLESS OTHERWISE SPECIFIED. IF A NEUTRAL IS SHARED THE CIRCUITS MUST BE ON A SHARED DOUBLE POLE BREAKER.

LEGEND

 = CONDUIT (THICKNESS VARIES WITH SIZE OF CONDUIT)

 = GROUND WIRE

 = 4 X 4 BOX WITH QUAD RECEPTACLE

 = 4 X 4 BOX WITH DUPLEX RECEPTACLE

 = 4 X 4 BOX WITH PENETRATION

 = 4 X 4 BOX BLANK

 = 4 X 4 BOX WITH 2 SWITCHES

 = 4 X 4 BOX WITH SINGLE SWITCH

 = 4" OCTAGON BOX WITH SMOKE DETECTOR

 = 4" OCTAGON BOX WITH HEAT DETECTOR

 = 4 X 4 BOX WITH TWIST-LOCK RECEPTACLE

 = 4 X 4 BOX WITH TIMER SWITCH

 = 4 X 4 BOX WITH HYDROGEN DETECTOR

 = PHOTOCELL SWITCH

 = SYSTEM GROUND FOR AC CIRCUITS

 = ISOLATED GROUND FOR AC CIRCUITS

 = VENT FAN

 = MOTORIZED DAMPER

 = MOTION DETECTOR

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CUSTOMER:

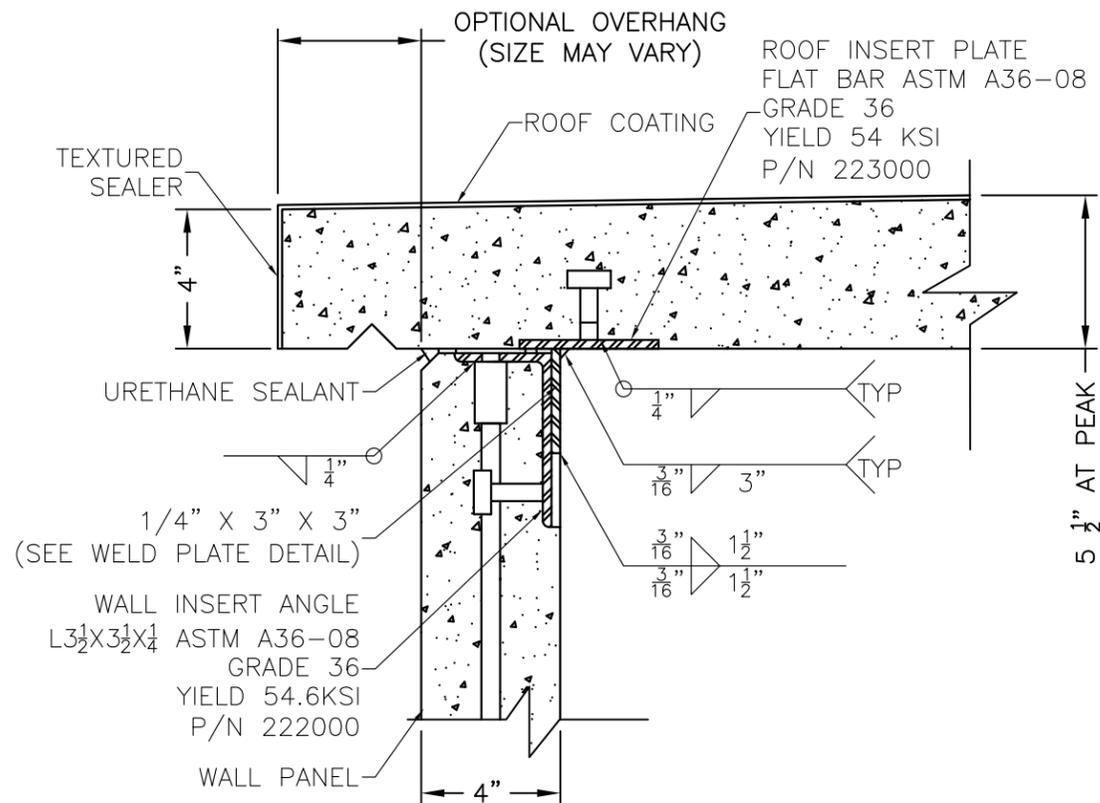
ENGINEERING STANDARD

PROJECT:

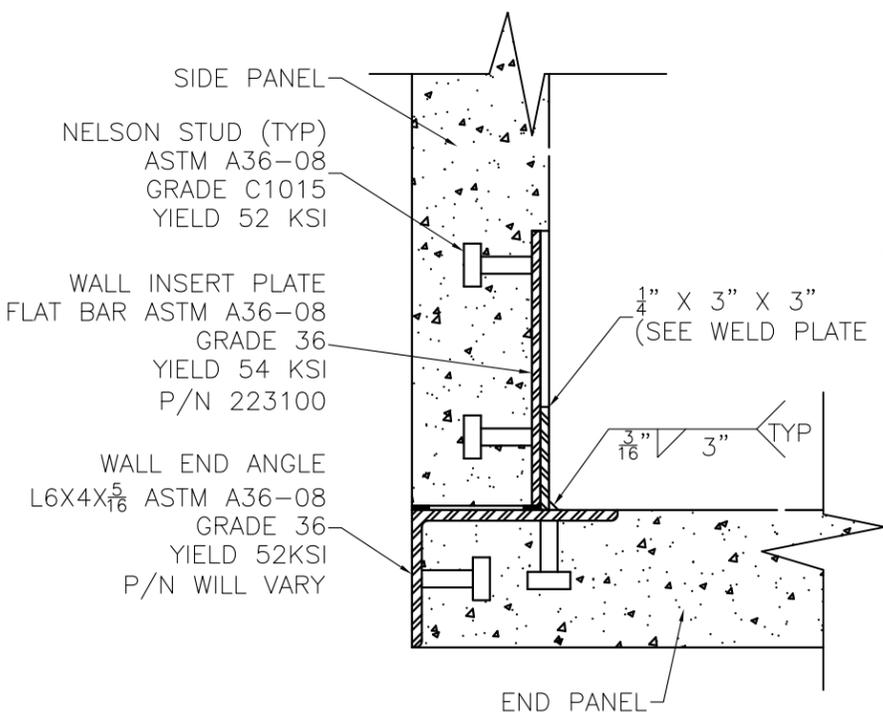
GENERAL ELECTRICAL NOTES AND LEGEND

FILENAME: 108-015	
SCALE: 1"=1"	TOLERANCE:
DRWN. BY: C.CASINGER	DATE: 7/28/04
CHK. BY:	DATE:
ENG. BY: K. BARNETT	DATE: 7/28/04
APP. BY:	DATE:
SHEET NO. 1 OF 1	
DRAWING NO.: 108-015	REV.: K

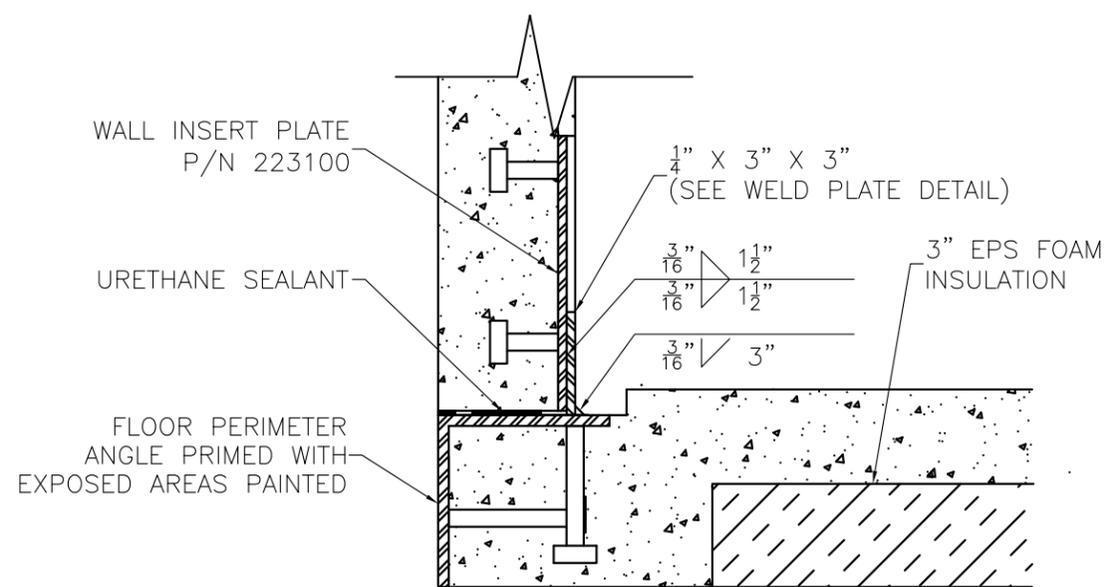
REV	BY	DATE	DESCRIPTION	APP. BY	DATE
K	CNM	3/5/14	UPDATED NEC TABLE REFERENCE	MT	3/5/14
J	BDB	12/16/11	CHG'D WIRE COLOR ORDER, 277/480;	MT	12/16/11
H	GAB	01/27/11	ADDED NOTES 13 & 14	MT	01/27/11
G	PN	07/16/09	REVISED NOTE 7 & 10	LD	07/16/09
F	VGH	07/18/07	REVISED NOTE 7 & 8	VGH	07/18/07



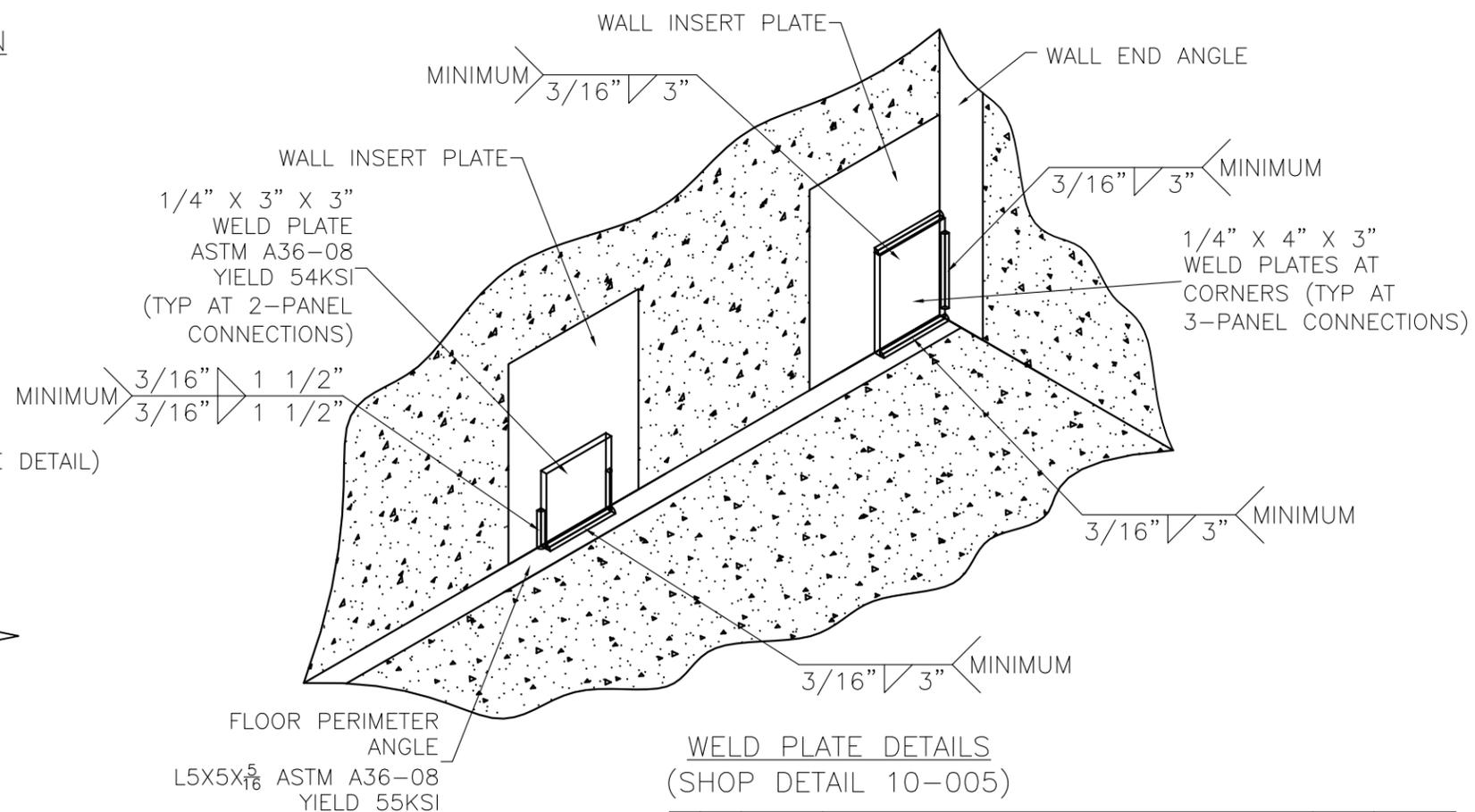
WALL/ROOF CONNECTION  
(SHOP DETAIL 10-002)



WALL/WALL CONNECTION  
(SHOP DETAIL 10-003)



WALL/FLOOR CONNECTION  
(SHOP DETAIL 10-004)



WELD PLATE DETAILS  
(SHOP DETAIL 10-005)

REV	BY	DATE	DESCRIPTION	APP. BY	DATE
D	CM	5/16/13	CHANGED STEEL FLOOR BACK TO CONCRETE	MT	5/16/13
C	CM	9/4/12	ADDED STEEL PROPERTIES FOR VARIOUS COMPONENTS	RC	9/4/12
B	CC	8/5/05	CHG WELD PLATE DETAIL AT 3-PANEL CONNECTIONS	KB	8/5/05

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CUSTOMER:  
ENGINEERING STANDARD

PROJECT:  
CONCRETE SHELTER  
PANEL CONNECTION  
DETAILS

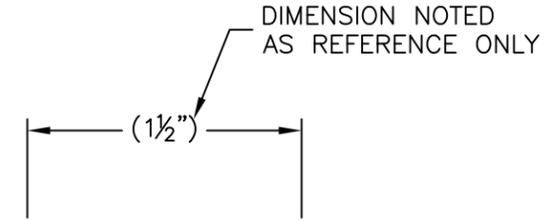
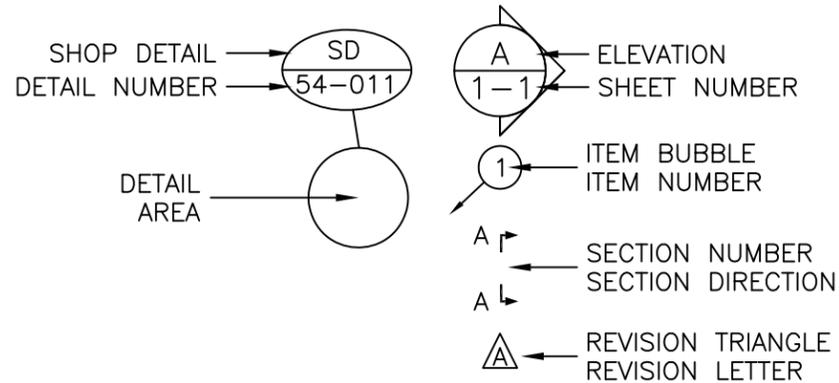
FILENAME: 108-008	
SCALE: 3/16"=1"	TOLERANCE:
DRWN. BY: C. CASINGER	DATE: 4/5/04
CHK. BY: V. HASSELL	DATE: 4/5/04
ENG. BY: K. BARNETT	DATE: 4/5/04
APP. BY: J. HOOD	DATE: 4/5/04

SHEET NO.  
1 OF 1  
DRAWING NO.:  
108-008  
REV.:  
D

**ABBREVIATIONS**

@	AT	MFG	MANUFACTURER
A	AMPS	MISC	MISCELLANEOUS
AFF	ABOVE FINISH FLOOR	NEC	NATIONAL ELECTRIC CODE
BCW	BARE COPPER WIRE	NEG	NEGATIVE
BLK	BLACK	NEMA	NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION
BLU	BLUE	NOM	NOMINAL
BRN	BROWN	NO	NORMALLY OPEN
BLDG	BUILDING	NC	NORMALLY CLOSED
BOCA	BUILDING OFFICIALS CODE ADMINISTRATION	NTS	NOT TO SCALE
C	CENTERLINE	OR	ORANGE
C/C	CENTER TO CENTER	OD	OUTSIDE DIAMETER/OUTSIDE DIMENSION
CKT	CIRCUIT	OSB	ORIENTED STRAND BOARD
CONC	CONCRETE	P	POLE
CU YD	CUBIC YARD	PDC	POWER DISTRIBUTION CABINET
DIA/∅	DIAMETER	POS	POSITIVE
DIM	DIMENSION	LB	POUND (S)
DP	DOUBLE POLE	PSF	POUNDS PER SQUARE FOOT
DPDT	DOUBLE POLE DOUBLE THROW	PSI	POUNDS PER SQUARE INCH
DPST	DOUBLE POLE SINGLE THROW	QTY	QUANTITY
DT	DOUBLE THROW	RECT	RECTIFIER
DWG	DRAWING	REBAR	REINFORCING STEEL BAR
EA	EACH	REQ'D.	REQUIRED
EGR	EQUIPMENT GROUND RING	REV	REVISION
ELEC	ELECTRIC/ELECTRICAL	R	RIGHT
EMT	ELECTRICAL METALLIC TUBING	RH	RIGHT HAND
ENT	ELECTRICAL NONMETALLIC TUBING	SHT	SHEET
ELEV	ELEVATION	1∅	SINGLE PHASE
EQUIP	EQUIPMENT	S/G	SERVICE GROUND
EXT	EXTERIOR	S/N	SERVICE NEUTRAL
FMLC	FLEXIBLE METALLIC LIQUID TIGHT CONDUIT	SPDT	SINGLE POLE DOUBLE THROW
FNLC	FLEXIBLE NONMETALLIC LIQUID TIGHT CONDUIT	SPST	SINGLE POLE SINGLE THROW
FND	FOUNDATION	SW	SINGLE POLE SWITCH
FRP	FIBERGLASS REINFORCED POLYESTER	SQ FT	SQUARE FEET
FS	FIRE SUPPRESSION	SQ IN	SQUARE INCH
GALV	GALVANIZED	STD	STANDARD
GEN	GENERATOR	SBC	STANDARD BUILDING CODE
GRN	GREEN	SW	SWITCH
GND	GROUND	TEMP	TEMPERATURE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TSTAT	THERMOSTAT
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	3∅	THREE PHASE
HOR	HORIZONTAL	3P	THREE POLE
IAW	IN ACCORDANCE WITH	3W	THREE WIRE
IN	INCH	TYP	TYPICAL
ID	INSIDE DIAMETER/INSIDE DIMENSION	UL	UNDERWRITERS LABORATORIES INC.
INSUL	INSULATION	UBC	UNIFORM BUILDING CODE
INT	INTERIOR	UMC	UNIFORM MECHANICAL CODE
IMC	INTERNATIONAL MECHANICAL CODE	VENT	VENTILATION
IPC	INTERNATIONAL PLUMBING CODE	V	VOLT
IG	ISOLATED GROUND	W	WATTS
JB	JUNCTION BOX	WP	WEATHER PROOF
KW	KILOWATT	WLD	WELDED
KO	KNOCKOUT	WWF	WELDED WIRE FABRIC
L	LEFT	WHT	WHITE
L/N	LOAD NEUTRAL	W/	WITH
LH	LEFT HAND	W/O	WITHOUT
LTG	LIGHT/LIGHTNING	YEL	YELLOW
LL	LIVE LOAD		
LV	LOW VOLTAGE		

**SYMBOLS**



REV	BY	DATE	DESCRIPTION	APP. BY	DATE
D	LJL	6/1/09	ADDED ABBREVIATION: AFF	LJL	6/1/09
C	ACM	8/15/08	ADDED ABBREVIATIONS: S/N, S/G, & L/N	VGH	8/15/08
B	VGH	06/02/08	ADDED REFERENCE DIMENSION	VGH	06/02/08
A	CC	7/27/04	REVISED DETAIL SYMBOL	VGH	7/27/04

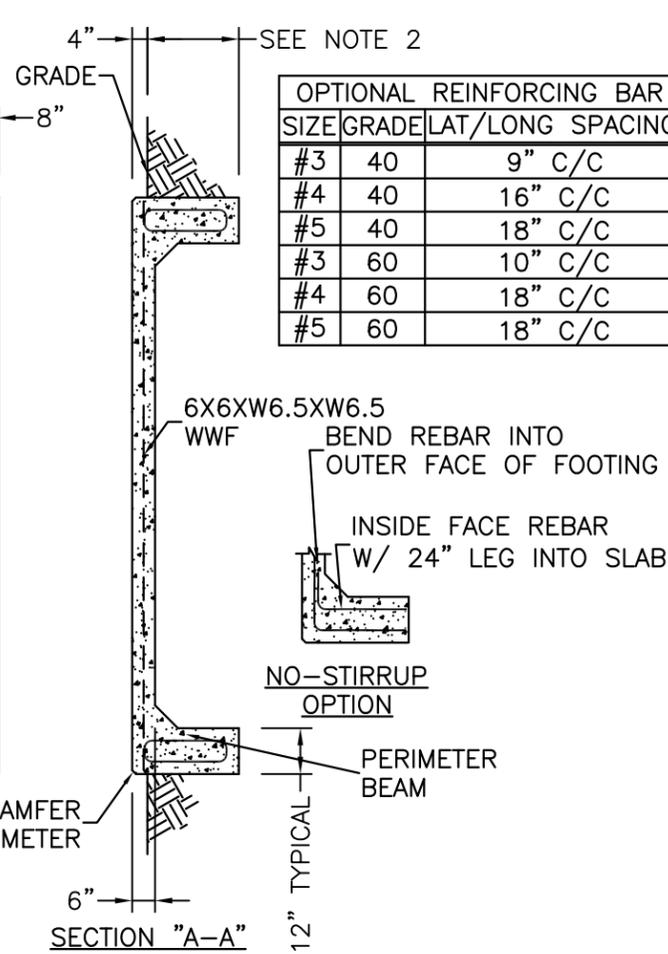
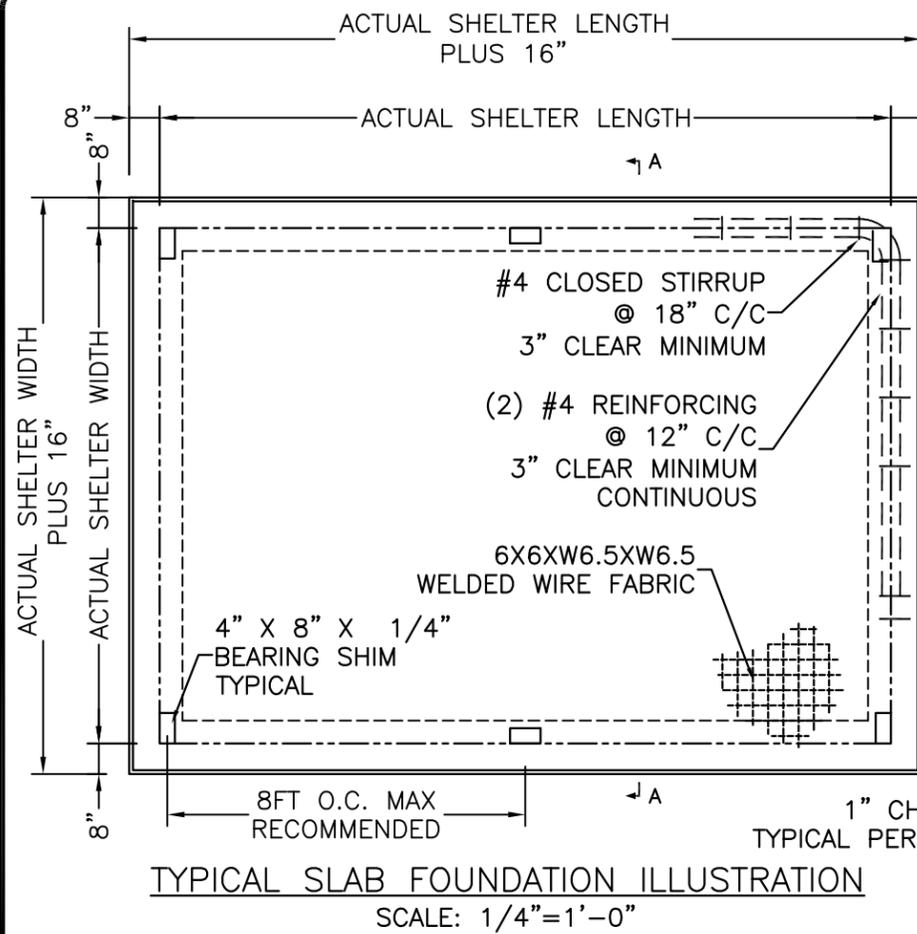
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CUSTOMER:  
 ENGINEERING STANDARD

PROJECT:  
 ABBREVIATIONS AND SYMBOLS

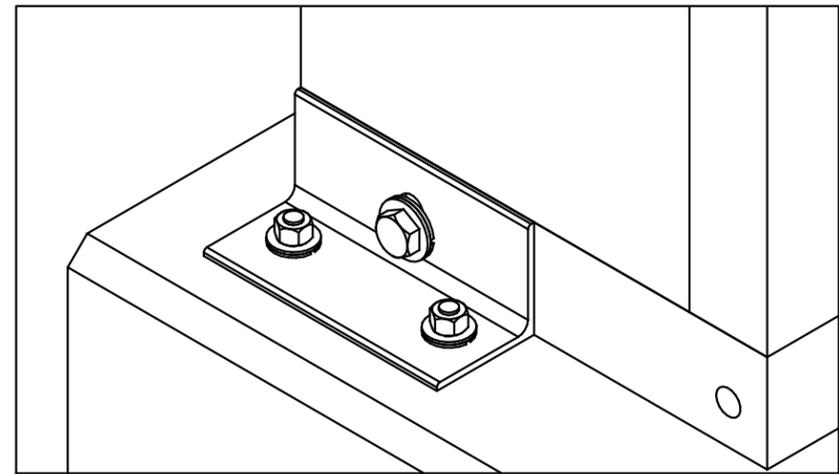
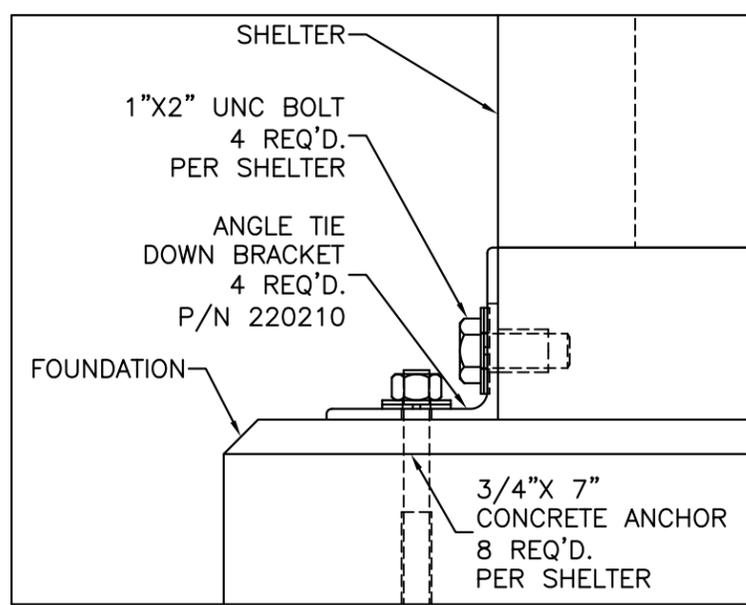
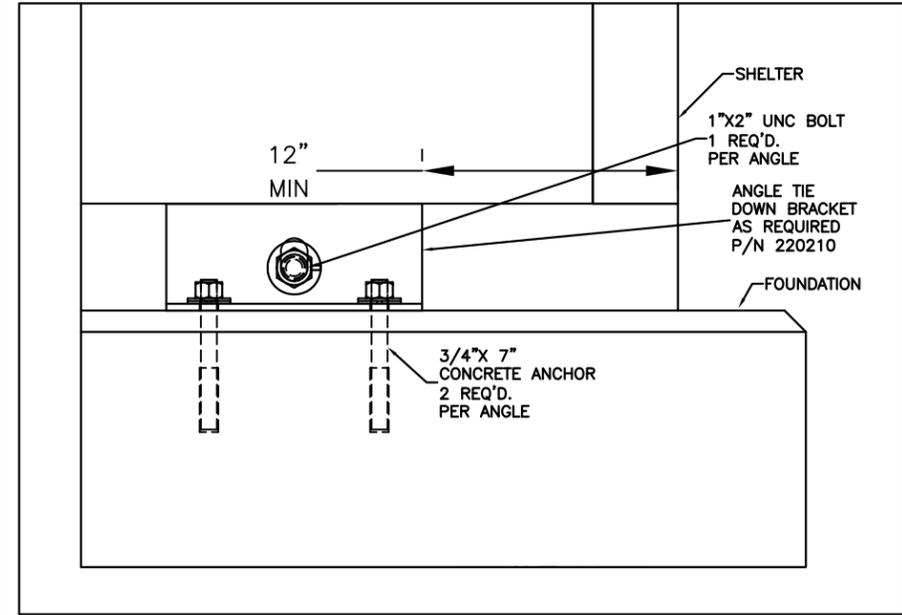
FILENAME: 108-007	
SCALE: 1"=1"	TOLERANCE: NA
DRWN. BY: C.CASINGER	DATE: 12/4/03
CHK. BY: K.BARNETT	DATE: 12/4/03
ENG. BY: K.BARNETT	DATE: 12/4/03
APP. BY:	DATE:
SHEET NO. 1 OF 1	
DRAWING NO.: 108-007	REV.: D



SIZE	GRADE	LAT/LONG SPACING
#3	40	9" C/C
#4	40	16" C/C
#5	40	18" C/C
#3	60	10" C/C
#4	60	18" C/C
#5	60	18" C/C

**NOTES:**

1. SLAB FOUNDATION AND ASSOCIATED SECTIONAL VIEWS, TABLE, AND FOLLOWING NOTES ARE FOR ILLUSTRATION OF A TYPICAL SLAB ONLY. THEY ARE NOT DESIGNED BY A PE, AND THE PE STAMP ON THIS DRAWING DOES NOT APPLY TO THESE VIEWS. COMPETENT AND PROPERLY LICENSED CIVIL, GEOTECHNICAL AND/OR STRUCTURAL ENGINEERING PROFESSIONALS SHOULD BE ENGAGED FOR SPECIFIC SITE DESIGN OF ANY FOUNDATION.
2. WELDED WIRE FABRIC OR OPTIONAL REINFORCING BAR MAY BE USED AS DIRECTED BY SITE ENGINEER. SEE CHART FOR AN IDEA OF TYPICAL SIZE, GRADE AND SPACING OF REBAR.
3. TYPICALLY THE BOTTOM OF THE FOOTING IS 24" MINIMUM, OR 6" BELOW LOCAL FROST LINE, OR TO 2000 PSF SOIL BEARING CAPACITY. (USE OF THIS APPROACH TYPICALLY REQUIRES PROFESSIONAL VERIFICATION OF SOIL BEARING CAPACITY.)
4. SLAB TOLERANCE IS TYPICALLY +/- 1/4"
5. GRADE IS TYPICALLY SLOPED AWAY FROM FOUNDATION.
6. NOTE THAT WHEN W6.5 IS SPECIFIED, THE WWF HAS 0.288" DIAMETER WIRE.
7. WWF IS TYPICALLY 60 KSI MINIMUM.
8. WHEN OVERLAP SPLICES ARE ALLOWED FOR REINFORCING BAR, THE OVERLAP IS TYPICALLY 18" MINIMUM.
9. ALL REQUIRED TIE DOWN PLATES, SHIMS, BOLTS AND ANCHORS ARE PLACED INSIDE SHELTER PRIOR TO SHIPMENT BY MANUFACTURER
10. CONCRETE STRENGTH,  $F_c' = 3000$  PSI @ 28 DAYS.
11. TYPICALLY SHIMS ARE USED AS REQUIRED TO INSURE THAT THE SHELTER IS BEARING AT THE PERIMETER. IT MAY BE SEALED WITH CAULK OR GROUT AS SPECIFIED
12. THE REBAR IS USUALLY GROUNDED W/ SOLID COPPER WIRE, #4 MIN. AT A MINIMUM OF ONE LOCATION. THE DEFAULT LOCATION IS TYPICALLY AT THE ELECTRICAL SERVICE ENTRY. THE QTY, SIZE, & LOCATION(S) MAY VARY HOWEVER AS SPECIFIED BY CUSTOMER OR CUSTOMERS ENGINEER. PIGTAIL(S) ARE USUALLY MADE ACCESSIBLE FOR BONDING TO SERVICE GROUND.



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CUSTOMER:  
**ENGINEERING STANDARD**

PROJECT:  
**6" SLAB FOUNDATION PLAN (ANGLE TIE DOWN)**

FILENAME: 108-002-F	
SCALE: NOTED	TOLERANCE: ±1/4"
DRWN. BY: C. CASINGER	DATE: 9/26/03
CHK. BY: AE DUMAS	DATE: 11/04/14
ENG. BY: AE DUMAS	DATE: 11/04/14
APP. BY: AE DUMAS	DATE: 11/04/14
SHEET NO. 1 OF 1	
DRAWING NO.: 108-002	REV.: F

REV	BY	DATE	DESCRIPTION	APP. BY	DATE
F	GAB	11/04/14	MODIFIED NOTES AND LABELS	AED	11/04/14
E	DJC	08/17/09	ADDED LOCKWASHER TO CONNECTION DETAILS	GAB	08/17/09
D	CC	8/24/05	ADDED NOTE #12	KB	8/24/05
C	CC	1/18/05	CHG ANGLE TIE DOWN AND ANCHORS	KB	1/18/05