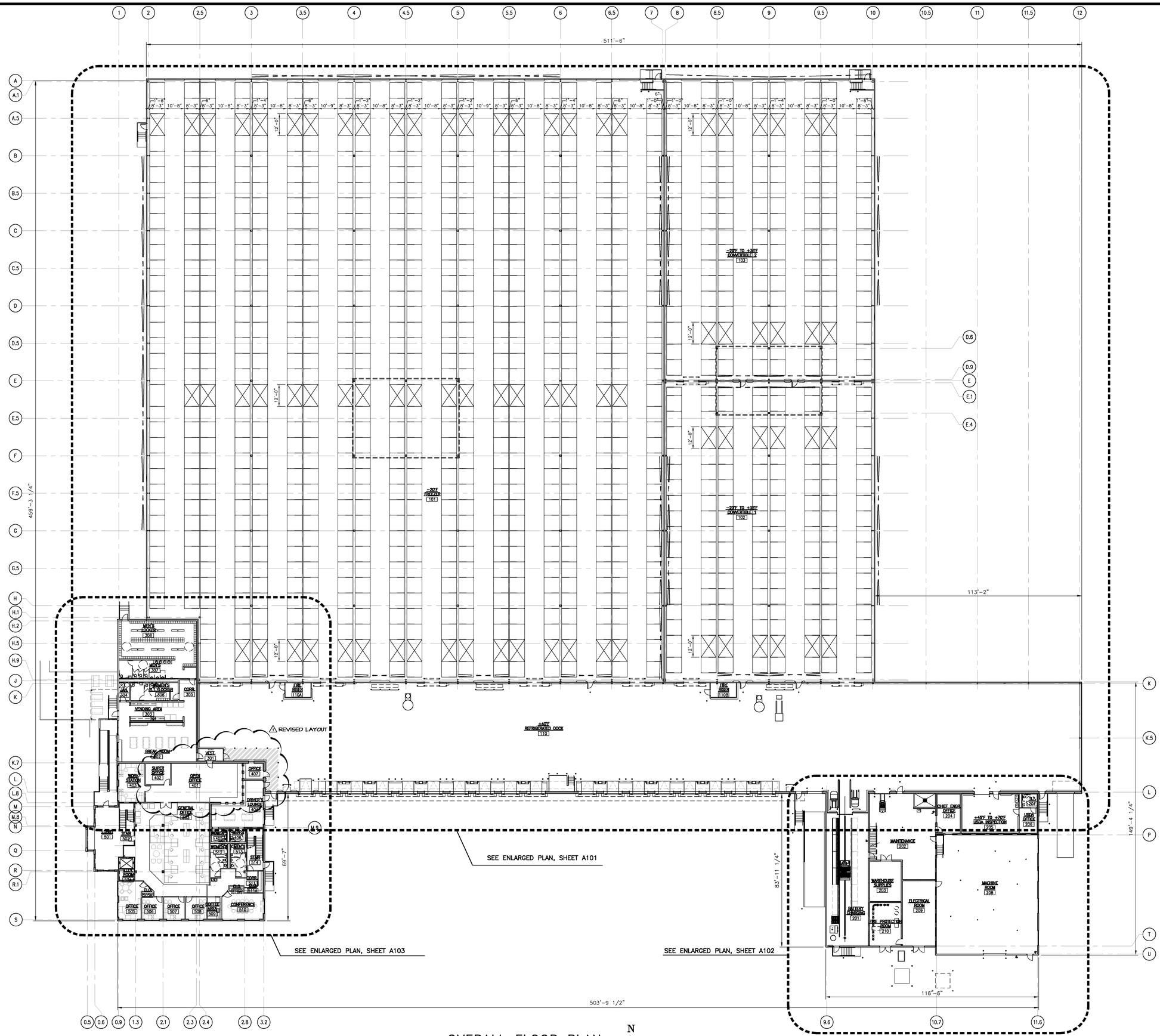
AREA SUMMARY:

WAREHOUSE TOTAL	**162,859 SF**
−20°F FREEZER W/ PENT.	95,000 SF
(2) CONVERTIBLE W/ PENT.	39,188 SF
+40°F REFRIG. DOCK	28,671 SF
MAINTENANCE TOTAL	**6,066 SF**
BATTERY CHARGING	1,709 SF
MAINTENANCE	1,497 SF
FIRE PROTECTION	465 SF
WAREHOUSE SUPPLIES/ MAINT. MEZZANINE	423 SF
CHIEF ENGINEER	321 SF
ELECTRICAL ROOM	689 SF
USDA OFFICE & RESTROOM	239 SF
USDA INSPECTION	723 SF
MACHINE ROOM	**3,750 SF**
MACHINE ROOM	3,750 SF
WELFARE	**3,232 SF**
LUNCH ROOM	1,460 SF
MEN'S LOCKER	989 SF
MEN'S TOILET	454 SF
WOMEN'S LOCKER TOILET	329 SF
ADMINISTRATION TOTAL	**15,219 SF**
WORKSTATION	380 SF
SUPERVISOR OFFICE	197 SF
DRIVER'S LOUNGE	512 SF
MEN'S TOILET	173 SF
WOMEN'S TOILET	173 SF
COFFEE AREA	89 SF
CONFERENCE	398 SF
CORR. 305	118 SF
CORR. 511	222 SF
JANITOR CLOSET	72 SF
GENERAL OFFICE	2143 SF
(4) PRIVATE OFFICES	777 SF
TOILET (MENS)	82 SF
TOILET (WOMENS)	82 SF
2ND FL. ELECTRICAL ROOM	110 SF
TELE. ROOM	97 SF
ELEVATOR ROOM	61 SF
FUTURE SECOND LEVEL	6,884 SF
STAIR 502	221 SF
STAIR 514	228 SF
2ND FL. STAIR 502	221 SF
2ND FL. STAIR 514	228 SF
VESTIBULE	77 SF
OPEN OFFICE	1,054 SF
LOBBY	564 SF
ELEVATOR	56 SF
TOTAL	**191,126 SF**



OVERALL FLOOR PLAN
1" = 20'-0"

FLORIDA ENGINEERING LICENSE No. 9430
FLORIDA ARCHITECTURAL LICENSE No. AR 0016175
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

OVERALL FLOOR PLAN

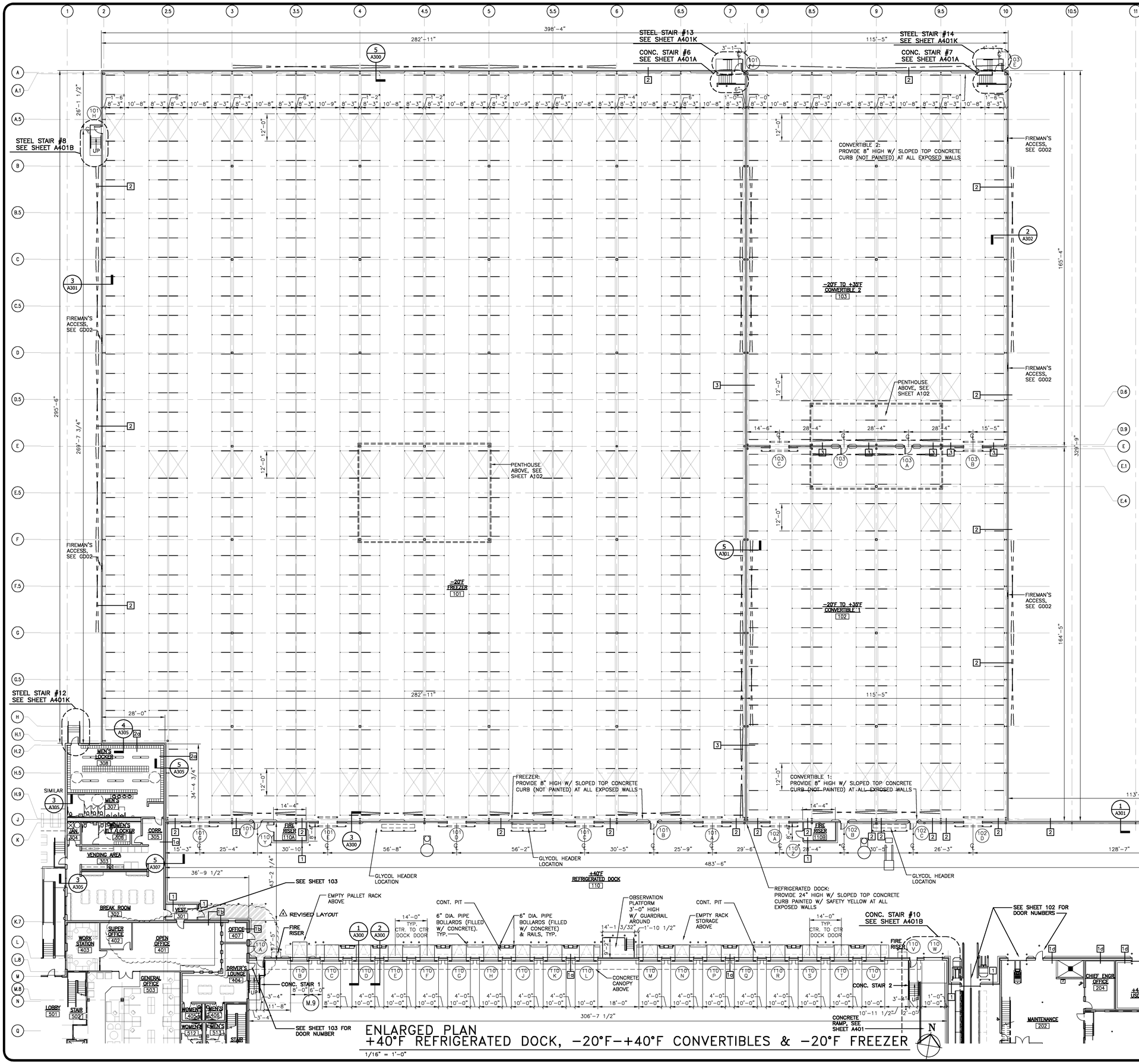
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REV.	DATE	BY	DESCRIPTION
1	10/19/07	LBM	REVISED AS NOTED
0	09/28/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-03019
DRAWN: PFF
CHECKED:
SCALE: AS SHOWN

A100
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ENLARGED PLAN
+40°F REFRIGERATED DOCK, -20°F-+40°F CONVERTIBLES & -20°F FREEZER

1/16" = 1'-0"

WALL TYPES

1	4" INSULATED METAL PANEL
1a	4" INSULATED METAL PANEL ON 9 1/4" CONCRETE TILT-UP PANEL
1b	4" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT-UP PANEL & 3-5/8", 25 GA. METAL STUDS @ 16" O.C. & 5/8" GYPSUM WALL BOARD. METAL STUDS & GYPSUM WALL BOARD WILL STOP 6" ABOVE THE CEILING GRID.
1c	4" INSULATED METAL PANEL ON 8" CONCRETE MASONRY UNIT
1d	4" INSULATED METAL PANEL ON BOTH SIDES OF 9 1/4" CONCRETE TILT-UP PANEL.
1e	4" INSULATED METAL PANEL AND 3 5/8" STUDS W/ 5/8" GYPSUM WALL BOARD.
2	5" INSULATED METAL PANEL
2a	5" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT-UP PANEL
3	6" INSULATED METAL PANEL
4	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL
4a	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL w/ 4" INSULATED METAL PANEL
4b	7 1/4" CONCRETE TILT-UP PANEL
4c	7 1/4" CONCRETE TILT-UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ BATT INSULATION EXTEND UP TO THE UNDERSIDE OF METAL DECK.
4d	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8" METAL STUDS.
5	8" CONCRETE MASONRY UNITS
5a	8" CONCRETE MASONRY UNITS – 6'-0" HIGH A.F.F.
5b	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING
5c	**(2) HOUR RATED WALL (UL DESIGN NO. 905):** 8" CMU WALL
5d	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK))
5e	TOILET ROOM SIDE: 8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENTUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK). OTHER ROOM SIDE: PROVIDE 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
5f	**(1) HOUR RATED WALL:** 8" CONCRETE MASONRY UNITS EXTEND UP TO THE UNDERSIDE OF FLOOR DECK W/ 5/8" GYPSUM WALL BOARD "TYPE X" ON 7/8" METAL FURRING. AT SECOND FLOOR: SEE WALL TYPE 7
5g	8" CONCRETE MASONRY UNITS STOPS ABOVE CEILING W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION EXTEND TO UNDERSIDEOF DECK.
5h	8" CMU – STOP 4'-8" A.F.F.
6	**PIPE CHASE:** 1'-0" CLEAR BETWEEN 4" CONCRETE MASONRY UNITS. CMU WALLS TO STOP ABOVE CEILING & THE OTHER CMU WALL WILL CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK. **(1) HOUR RATED WALL (UL DESIGN NO. 419):**
7	5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
7a	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7b	5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7c	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. –STOP 6" ABOVE CEILING GRID.
7e	**PIPE CHASE:** 1'-0" CLEAR BETWEEN (2) 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ 5/8" GYPSUM WALL BOARD ON EACH FINISH SIDE. PROVIDE ONE SIDE OF WALL W/ INSULATION (SOUND ATTENUATION) & EXTEND INSULATION & WALL UP TO THE UNDERSIDE OF METAL DECK.
8	**(1) HOUR RATED SHAFT WALL (UL DESIGN NO. 415):** NOMINAL 1" THICK GYPSUM LINER PANELS INSERTED IN 2 1/2", "H" PORTION OR "C-H" STUDS @ 24" O.C. & 5/8" GYPSUM WALL BOARD TYPE "X" ON OTHER SIDE
9	9 1/4" CONCRETE TILT-UP PANEL.
10	10 1/2" THERMOMASS PANEL

FLORIDA ENGINEERING LICENSE 9630
FLORIDA ARCHITECTURAL LICENSE AA 26001171
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED REF. DOCK, FREEZER, & CONVERTIBLE 1 & 2 PLAN

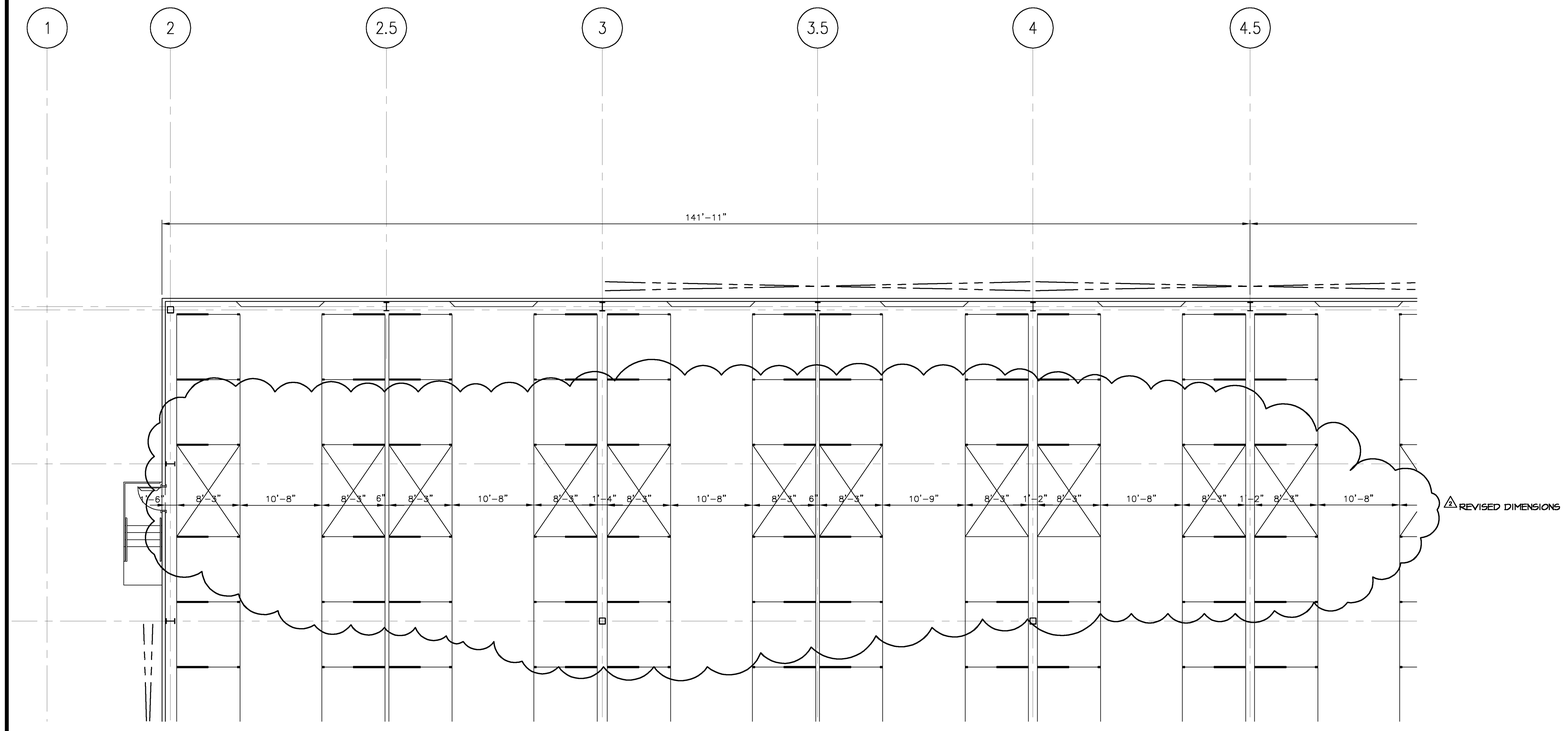
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REV.	DATE	BY	DESCRIPTION
4	07/10/07	LBM	REVISED AS NOTED
3	06/15/07	LBM	REVISED AS NOTED
2	04/27/07	DRM	REVISED AS NOTED
1	04/13/07	JVG	CONSTRUCTION ISSUE
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JOB NO. 710-03019
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SCALE: AS SHOWN

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ENLARGED RACK LAYOUT
AT CONVERTIBLE 1 & 2

1/8" = 1'-0"

N JOB NORTH

ENLARGED RACK LAYOUT
AT FREEZER

1/8" = 1'-0"

N JOB NORTH

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FLORIDA ARCHITECTURAL LICENSE No. AR0015175

FLORIDA ENGINEERING LICENSE No. 9430

THE STELLAR GROUP

DESIGN • CONSTRUCTION • REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ENLARGED OVERALL RACK LAYOUT

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REV.	DATE	BY	DESCRIPTION
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1	8/08/07	LBM	REVISED AS NOTED
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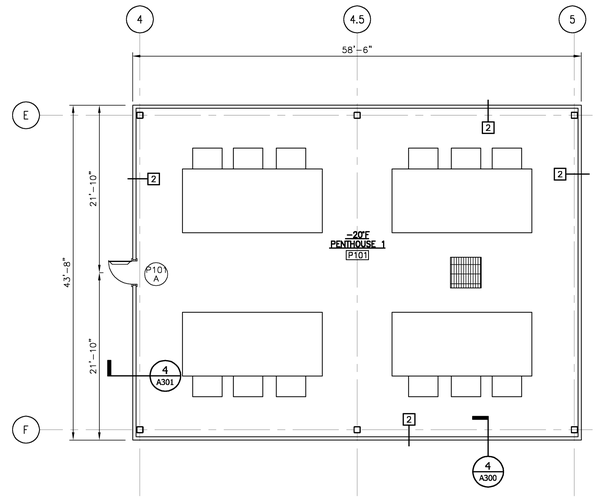
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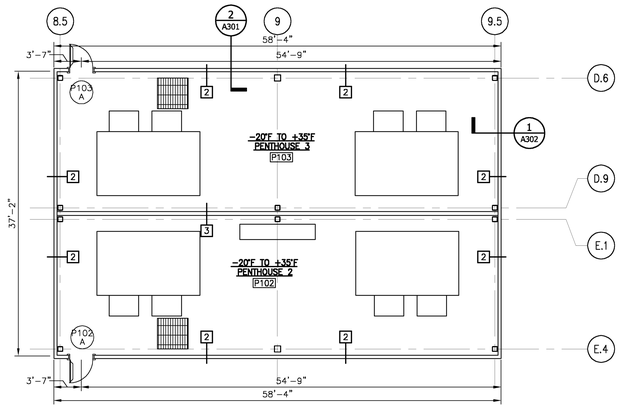
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A101A

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ENLARGED PLAN PENTHOUSE #1

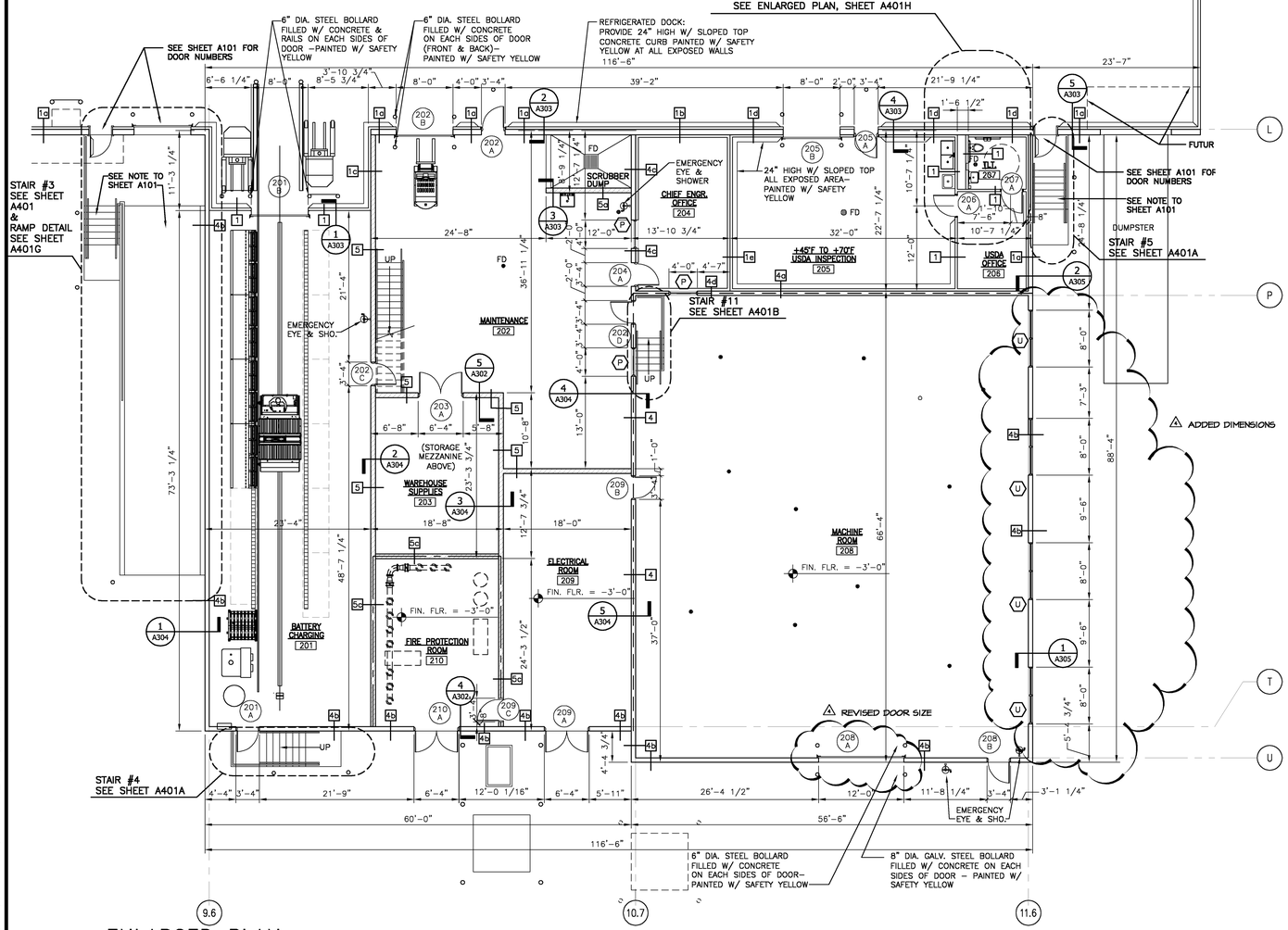
1/8" = 1'-0"

N JOB NORTH

ENLARGED PLAN PENTHOUSE #2

1/8" = 1'-0"

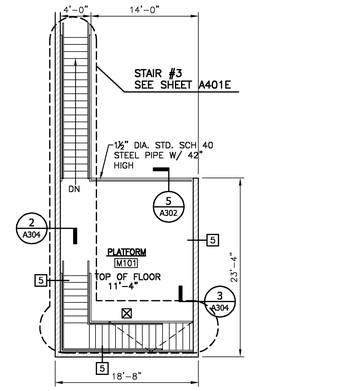
N JOB NORTH



ENLARGED PLAN MACHINE ROOM & MAINTENANCE

1/8" = 1'-0"

N JOB NORTH



MEZZANINE PLAN

1/8" = 1'-0"

N JOB NORTH

WALL TYPES

1	4" INSULATED METAL PANEL
1a	4" INSULATED METAL PANEL ON 9 1/4" CONCRETE TILT–UP PANEL
1b	4" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT–UP PANEL & 3–5/8", 25 GA. METAL STUDS @ 16" O.C. & 5/8" GYPSUM WALL BOARD. METAL STUDS & GYPSUM WALL BOARD WILL STOP 6" ABOVE THE CEILING GRID.
1c	4" INSULATED METAL PANEL ON 8" CONCRETE MASONRY UNIT
1d	4" INSULATED METAL PANEL ON BOTH SIDES OF 9 1/4" CONCRETE TILT–UP PANEL.
1e	4" INSULATED METAL PANEL AND 3 5/8" STUDS W/ 5/8" GYPSUM WALL BOARD.
2	5" INSULATED METAL PANEL
2a	5" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT–UP PANEL
3	6" INSULATED METAL PANEL
4	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT–UP PANEL
4a	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT–UP PANEL w/ 4" INSULATED METAL PANEL
4b	7 1/4" CONCRETE TILT–UP PANEL
4c	7 1/4" CONCRETE TILT–UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ BATT INSULATION EXTEND UP TO THE UNDERSIDE OF METAL DECK.
4d	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT–UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8" METAL STUDS.
5	8" CONCRETE MASONRY UNITS
5a	8" CONCRETE MASONRY UNITS – 6'–0" HIGH A.F.F.
5b	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING
5c	**(2) HOUR RATED WALL (UL DESIGN NO. 905):** 8" CMU WALL
5d	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK))
5e	TOILET ROOM SIDE: 8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENTUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK). OTHER ROOM SIDE: PROVIDE 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
5f	**(1) HOUR RATED WALL:** 8" CONCRETE MASONRY UNITS EXTEND UP TO THE UNDERSIDE OF FLOOR DECK W/ 5/8" GYPSUM WALL BOARD "TYPE X" ON 7/8" METAL FURRING. AT SECOND FLOOR, SEE WALL TYPE 7
5g	8" CONCRETE MASONRY UNITS STOPS ABOVE CEILING W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION, EXTEND TO UNDERSIDEOF DECK.
5h	8" CMU – STOP 4'–8" A.F.F.
6	**PIPE CHASE:** 1'–0" CLEAR BETWEEN 4" CONCRETE MASONRY UNITS. CMU WALLS TO STOP ABOVE CEILING & THE OTHER CMU WALL WILL CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7	**(1) HOUR RATED WALL (UL DESIGN NO. 419):** 5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
7a	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7b	5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7c	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. –STOP 6" ABOVE CEILING GRID.
7e	**PIPE CHASE:** 1'–0" CLEAR BETWEEN (2) 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ 5/8" GYPSUM WALL BOARD ON EACH FINISH SIDE. PROVIDE ONE SIDE OF WALL W/ INSULATION (SOUND ATTENUATION) & EXTEND INSULATION & WALL UP TO THE UNDERSIDE OF METAL DECK.
8	**(1) HOUR RATED SHAFT WALL (UL DESIGN NO. 415):** NOMINAL 1" THICK GYPSUM LINER PANELS INSERTED IN 2 1/2", "H" PORTION OR "C–H" STUDS @ 24" O.C. & 5/8" GYPSUM WALL BOARD TYPE "X" ON OTHER SIDE
9	9 1/4" CONCRETE TILT–UP PANEL.
10	10 1/2" THERMOMASS PANEL

⚠ REVISED WALL TYPE TEXT

⚠ REVISED WALL TYPE TEXT

⚠ REVISED WALL TYPE TEXT

FLORIDA DESIGNERS LICENSE # 9630
FLORIDA ARCHITECTURAL LICENSE # 26756
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DESIGN • CONSTRUCTION • REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED FLOOR PLAN

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REV.	DATE	BY	DESCRIPTION
4	07/11/07	LBM	REVISED AS NOTED
3	06/27/07	LBM	REVISED AS NOTED
2	06/08/07	LBM	REVISED AS NOTED
1	04/04/07	LBM	REVISED AS NOTED
0	02/26/07	JVG	CONSTRUCTION ISSUE

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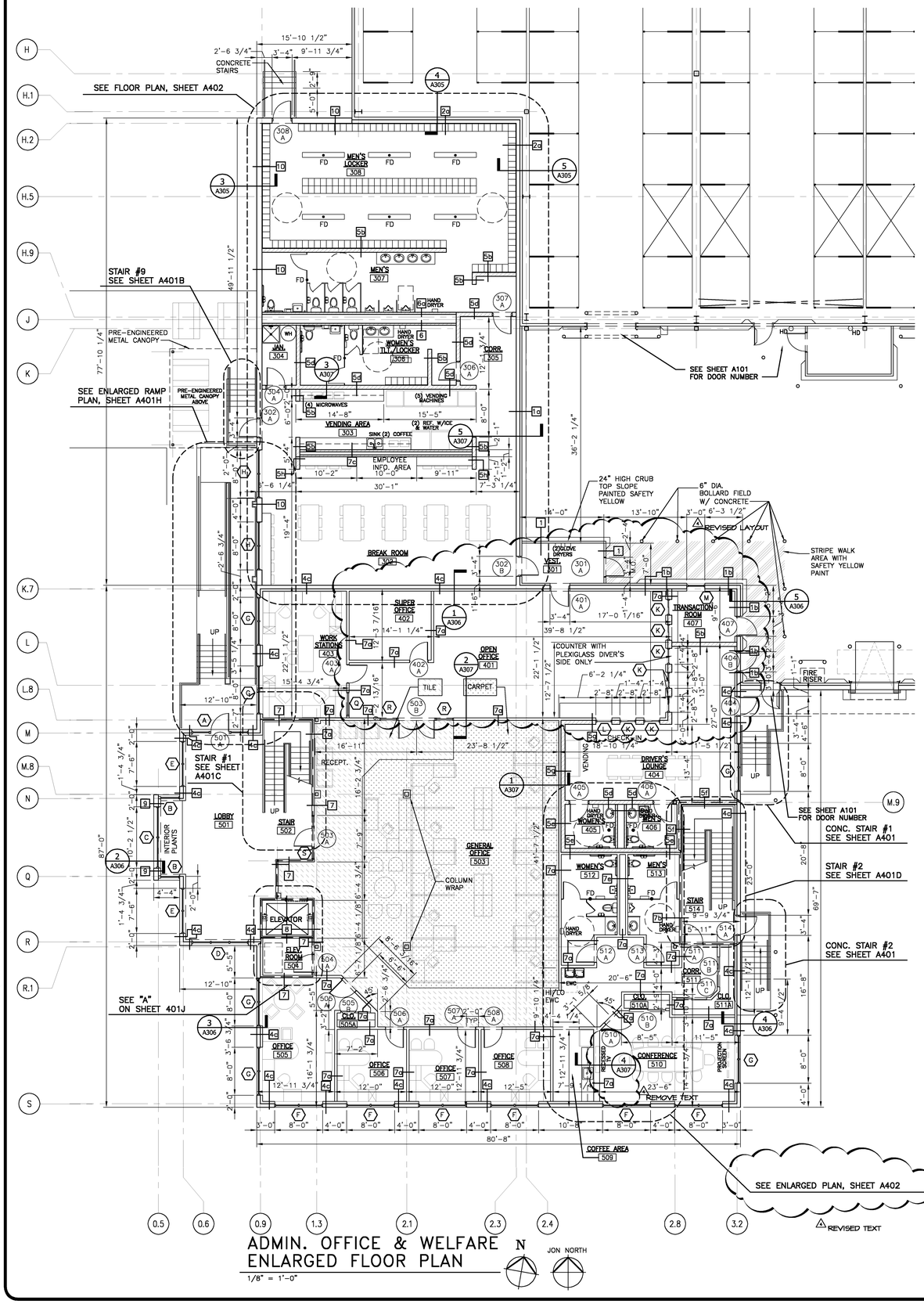
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WALL TYPES

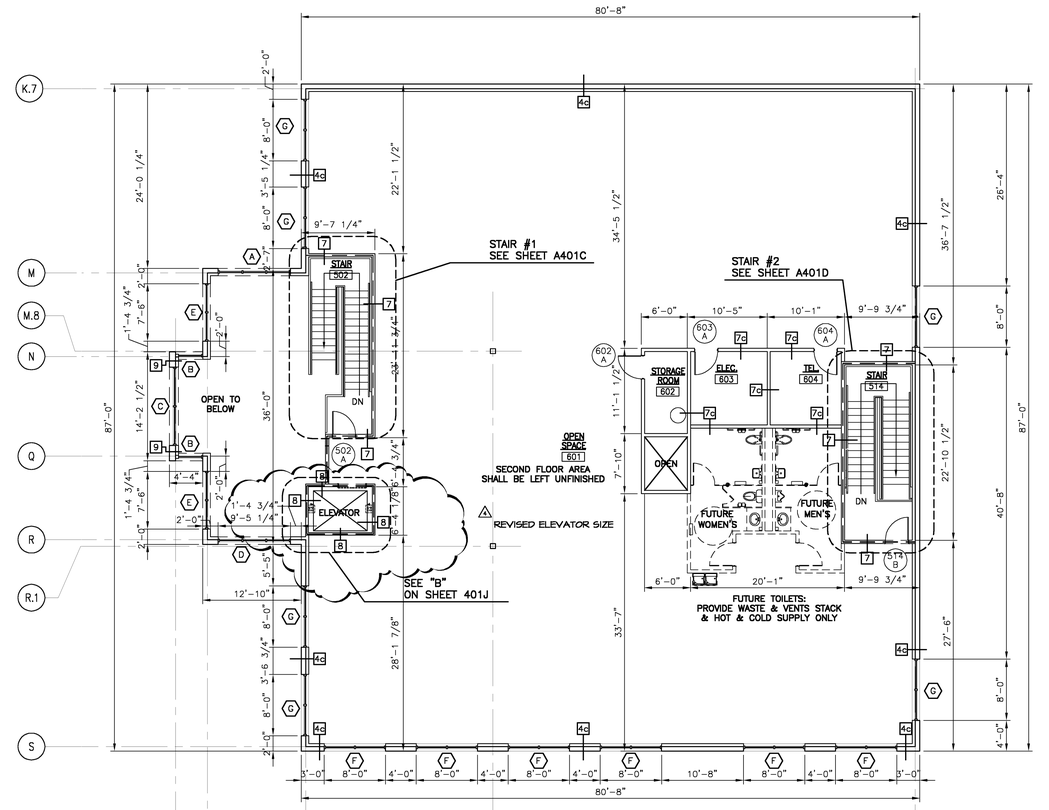
1	4" INSULATED METAL PANEL
1a	4" INSULATED METAL PANEL ON 9 1/4" CONCRETE TILT-UP PANEL
1b	4" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT-UP PANEL & 3-5/8", 25 GA. METAL STUDS @ 16" O.C. & 5/8" GYPSUM WALL BOARD. METAL STUDS & GYPSUM WALL BOARD WILL STOP 6" ABOVE THE CEILING GRID.
1c	4" INSULATED METAL PANEL ON 8" CONCRETE MASONRY UNIT
1d	4" INSULATED METAL PANEL ON BOTH SIDES OF 9 1/4" CONCRETE TILT-UP PANEL.
1e	4" INSULATED METAL PANEL AND 3 5/8" STUDS W/ 5/8" GYPSUM WALL BOARD.
2	5" INSULATED METAL PANEL
2a	5" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT-UP PANEL
3	6" INSULATED METAL PANEL
4	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL
4a	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL w/ 4" INSULATED METAL PANEL
4b	7 1/4" CONCRETE TILT-UP PANEL
4c	7 1/4" CONCRETE TILT-UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ BATT INSULATION EXTEND UP TO THE UNDERSIDE OF METAL DECK.
4d	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8" METAL STUDS.
5	8" CONCRETE MASONRY UNITS
5a	8" CONCRETE MASONRY UNITS – 6'-0" HIGH A.F.F.
5b	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING
5c	**(2) HOUR RATED WALL (UL DESIGN NO. 905):** 8" CMU WALL
5d	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK))
5e	TOILET ROOM SIDE: 8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENTUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK). OTHER ROOM SIDE: PROVIDE 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
5f	**(1) HOUR RATED WALL:** 8" CONCRETE MASONRY UNITS EXTEND UP TO THE UNDERSIDE OF FLOOR DECK W/ 5/8" GYPSUM WALL BOARD "TYPE X" ON 7/8" METAL FURRING. AT SECOND FLOOR: SEE WALL TYPE 5d
5g	8" CONCRETE MASONRY UNITS STOPS ABOVE CEILING W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION EXTEND TO UNDERSIDEOF DECK.
5h	8" CMU – STOP 4'-8" A.F.F.
6	**PIPE CHASE:** 1'-0" CLEAR BETWEEN 4" CONCRETE MASONRY UNITS, CMU WALLS TO STOP ABOVE CEILING & THE OTHER CMU WALL WILL CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7	**(1) HOUR RATED WALL (UL DESIGN NO. 419):** 5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
7a	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7b	5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7c	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. –STOP 6" ABOVE CEILING GRID.
7e	**PIPE CHASE:** 1'-0" CLEAR BETWEEN (2) 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ 5/8" GYPSUM WALL BOARD ON EACH FINISH SIDE. PROVIDE ONE SIDE OF WALL W/ INSULATION (SOUND ATTENUATION) & EXTEND INSULATION & WALL UP TO THE UNDERSIDE OF METAL DECK.
8	**(1) HOUR RATED SHAFT WALL (UL DESIGN NO. 415):** NOMINAL 1" THICK GYPSUM LINER PANELS INSERTED IN 2 1/2", "H" PORTION OR "C–H" STUDS @ 24" O.C. & 5/8" GYPSUM WALL BOARD TYPE "X" ON OTHER SIDE
9	9 1/4" CONCRETE TILT–UP PANEL.
10	10 1/2" THERMOMASS PANEL

REIVISED WALL TYPE TEXT



ADMIN. OFFICE & WELFARE ENLARGED FLOOR PLAN

1/8" = 1'-0"



SECOND FLOOR ENLARGED FLOOR PLAN

1/8" = 1'-0"

FLORIDA ENGINEERING LICENSE #45351

FLORIDA ARCHITECTURAL LICENSE #AR95176

THE STELLAR GROUP

DESIGN • CONSTRUCTION • REFURBISHMENT

2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ENLARGED FLOOR PLAN

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REV.	DATE	BY	DESCRIPTION
4	07/11/07	LBM	REVISED AS NOTED
3	07/10/07	DMN	REVISED AS NOTED
2	06/29/07	JVG	REVISED AS NOTED
1	06/22/07	JVG	CONSTRUCTION ISSUE
0	05/25/07	EY	

JOB NO. 710-3019

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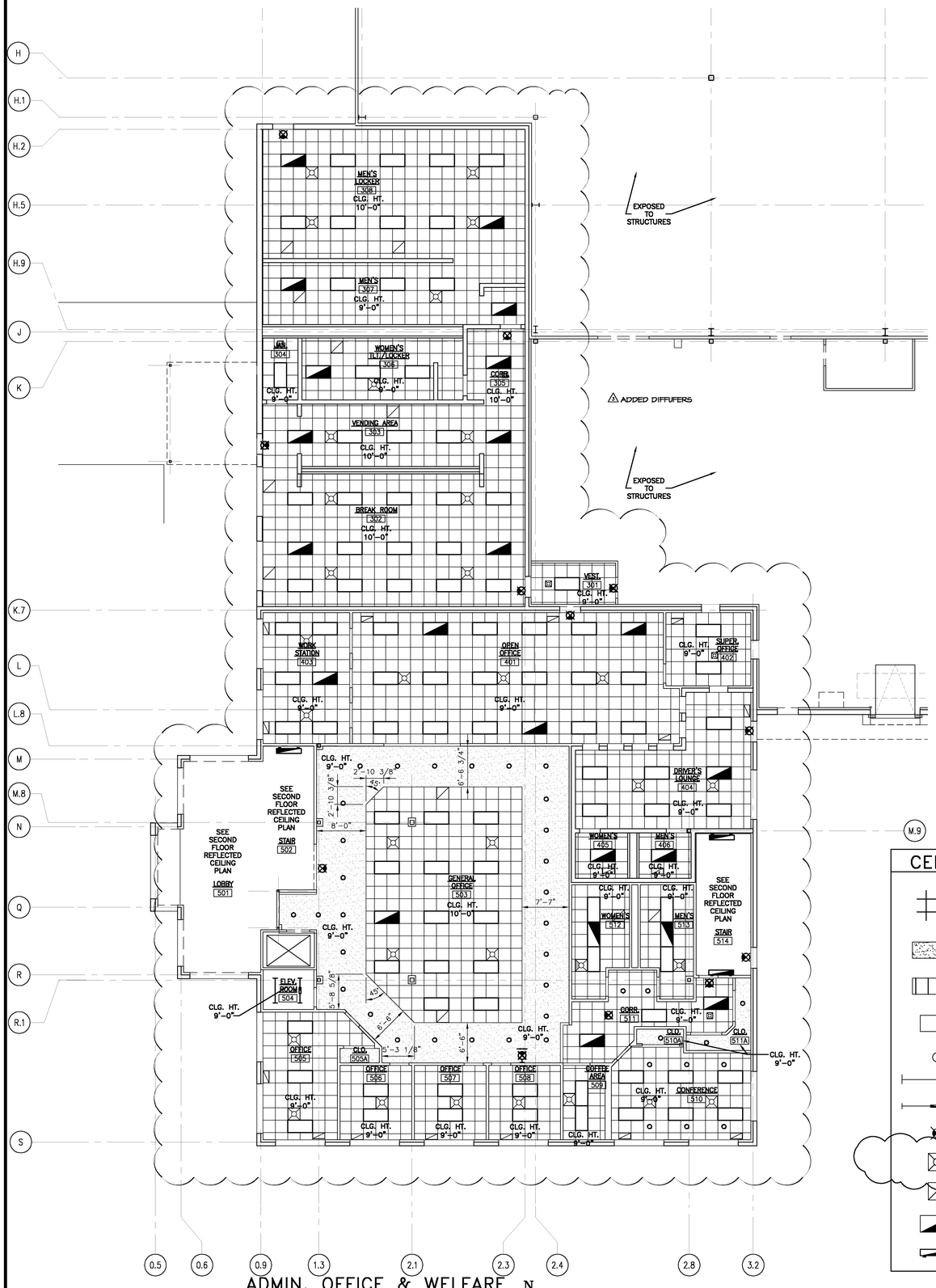
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A103

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ADMIN. OFFICE & WELFARE REFLECTED CEILING PLAN

1/8" = 1'-0"

N JON NORTH

CEILING LEGEND:

- 2x2 SUSPENDED ACOUSTICAL TILE
- GYPSUM BOARD CEILING
- INSULATED METAL CEILING
- 2x4 LUMINAIRE
- INCANDESCENT LUMINAIRE
- FLUORESCENT LUMINAIRE
- DENOTES FLUORESCENT LIGHTING – LIGHT COVE
- EXIT LIGHT/SIGN
- ⚠ REVISED DIFFUSERS 2x2 DIFFUSER
- RETURN AIR
- EMERGENCY 2 x 4 FLUORESCENT LUMINAIRE
- EMERGENCY WALL MOUNTED FLUORESCENT LUMINAIRE

SUSPENDED CEILING NOTES

1. SUSPENSION

   A) VERTICAL HANGER WIRES SHALL BE #12 GA. WIRE AT 4'-0" O.C. ALONG EACH MAIN RUNNER. HANGER WIRES SHALL NOT HANG MORE THAN 1 IN 6 OUT-OF-PLUMB UNLESS COUNTER SLOPING WIRES ARE PROVIDED. WIRES SHALL NOT ATTACH TO, BEND AROUND OR REST AGAINST DUCTS, PIPES AND ETC.. EACH HANGER WIRE SHALL BE ATTACHED TO CEILING SUSPENSION MEMBER AND TO SUPPORT ABOVE WITH A MINIMUM OF THREE (3) TIGHT TURNS. ANY CONNECTION DEVICE AT THE SUPPORTING CONSTRUCTION SHALL BE CAPABLE OF SUPPORTING NOT LESS THAN ONE HUNDRED (100) POUNDS. VERTICAL WIRES TO START AT A MAXIMUM OF 8" OFF FACE OF WALLS FOR CROSS AND MAIN RUNNERS.

   B) PERIMETER HANGERS, TERMINAL ENDS OF EACH CROSS RUNNER AND MAIN RUNNER SHALL BE SUPPORTED INDEPENDENTLY A MAXIMUM OF EIGHT (8) INCHES FROM EACH FACE OF WALL OR CEILING DISCONTINUITY WITH A #12 GA. WIRE.

   C) LATERAL FORCE BRACING: PROVIDE FOUR (4) #12 GA WIRES SECURED TO MAIN RUNNER WITHIN TWO (2) INCHES OF THE CROSS RUNNER INTERSECTION AND SPLAYED NINETY (90) DEGREES FROM EACH OTHER AND AT AN ANGLE NOT EXCEEDING FORTY-FIVE (45) DEGREES FROM THE PLANE OF THE CEILING. A STRUT FASTENED TO THE MAIN RUNNER SHALL BE EXTENDED AND FASTENED TO THE STRUCTURAL MEMBERS SUPPORTING THE ROOF OR FLOOR ABOVE. THE STRUT SHALL BE ADEQUATE TO THE VERTICAL COMPONENT INDUCED BY THE BRACING WIRES. THESE HORIZONTAL RESTRAINT POINTS SHALL BE PLACED TWELVE (12) FEET O.C. IN BOTH DIRECTIONS WITH THE FIRST POINT WITHIN SIX (6) FEET FROM EACH WALL. LATERAL FORCE BRACING MEMBERS SHALL HAVE A MINIMUM OF SIX (6) INCHES FROM ALL HORIZONTAL PIPNG OR DUCTWORK THAT IS NOT PROVIDED WITH BRACING RESTRAINTS FOR HORIZONTAL FORCES.

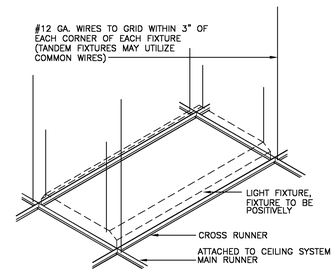
   D) ENDS OF MAIN RUNNERS AND CROSS RUNNERS SHALL BE TIED TOGETHER TO PREVENT THEIR SPREADING.

2. LIGHTING FIXTURES

   A) ATTACH #12 GA. HANGER WIRE TO THE GRID MEMBERS WITHIN THREE (3) INCHES OF EACH CORNER OF EACH FIXTURE. TANDEM FIXTURES MAY UTILIZE COMMON WIRES. ALL RECESSED OR DROP-IN LIGHT FIXTURES SHALL BE POSITIVELY ATTACHED TO THE SUSPENDED CEILING SYSTEM. THE ATTACHMENT DEVICE SHALL HAVE A CAPACITY OF ONE HUNDRED (100) PERCENT OF THE FIXTURE WEIGHT ACTING IN ANY DIRECTION. IN ADDITION, THE THE FIXTURE SHALL SUPPORTED DIRECTLY FROM FIXTURE HOUSING TO THE STRUCTURE ABOVE WITH A MINIMUM OF FOUR (4) #12 GA. WIRES, ONE LOCATED AT EACH CORNER. (SEE DETAIL)

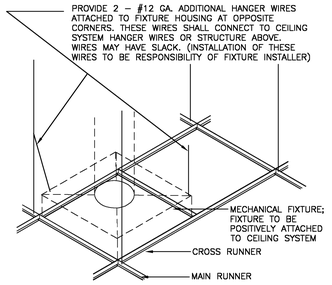
3. MECHANICAL FIXTURES

   A) CEILING MOUNTED MECHANICAL GRILLES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION MAIN RUNNERS OR TO CROSS RUNNERS. IN ADDITION, THE FIXTURE SHALL HAVE TWO (2) #12 GA. HANGER WIRES CONNECTED FROM THE FIXTURE HOUSING TO THE CEILING SYSTEM HANGERS OR TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK. (SEE DETAIL)



1 LIGHT FIXTURE SUPPORT

N.T.S.



2 MECHANICAL FIXTURE SUPPORT

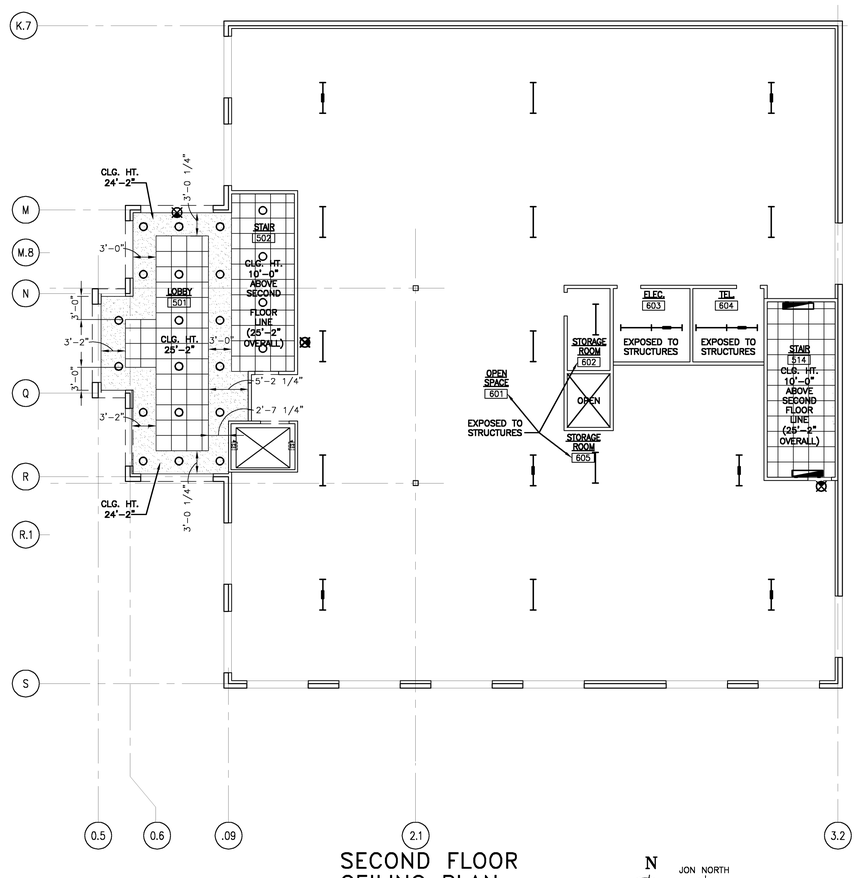
N.T.S.

SUSPENDED CEILING & SUSPENSION DETAILS

SPLICES & INTERSECTIONS OF RUNNERS SHALL BE ATTACHED WITH MECHANICAL INTERLOCKING CONNECTORS SUCH AS POP RIVETS, SCREWS, PINS, PLATES, WITH BENT TABS, OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS FOR 2 X DESIGN LOAD OR ULTIMATE AXIAL TENSION OR COMPRESSION (MIN. 60#)

3 SPLICE DETAIL

N.T.S.



SECOND FLOOR CEILING PLAN

1/8" = 1'-0"

N JON NORTH

FLORIDA ENGINEERING LICENSE 9535
FLORIDA ARCHITECTURAL LICENSE AR 15764
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ADMIN. OFFICE & WELFARE REFLECTED CEILING PLAN

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REV.	DATE	BY	DESCRIPTION
3	3/1/2007	KBH	REVISED AS NOTED
2	2/1/2007	NBH	REVISED AS NOTED
1	1/1/2007	JVG	CONSTRUCTION ISSUE
0	12/1/2006	JVG	

JOB NO. 710-03019

DRAWN: JVG

CHECKED: PFF

SCALE: AS SHOWN

A104

DRAWING NO.

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SUSPENDED CEILING NOTES

1. SUSPENSION

   A) VERTICAL HANGER WIRES SHALL BE #12 GA. WIRE AT 4'-0" O.C. ALONG EACH MAIN RUNNER. HANGER WIRES SHALL NOT HANG MORE THAN 1 IN 6 OUT-OF-PLUMB UNLESS COUNTER SLOPING WIRES ARE PROVIDED. WIRES SHALL NOT ATTACH TO, BEND AROUND OR REST AGAINST DUCTS, PIPES AND ETC,. EACH HANGER WIRE SHALL BE ATTACHED TO CEILING SUSPENSION MEMBER AND TO SUPPORT ABOVE WITH A MINIMUM OF THREE (3) TIGHT TURNS. ANY CONNECTION DEVICE AT THE SUPPORTING CONSTRUCTION SHALL BE CAPABLE OF SUPPORTING NOT LESS THAN ONE HUNDRED (100) POUNDS. VERTICAL WIRES TO START AT A MAXIMUM OF 8" OFF FACE OF WALLS FOR CROSS AND MAIN RUNNERS.

   B) PERIMETER HANGERS, TERMINAL ENDS OF EACH CROSS RUNNER AND MAIN RUNNER SHALL BE SUPPORTED INDEPENDENTLY A MAXIMUM OF EIGHT (8) INCHES FROM EACH FACE OF WALL OR CEILING DISCONTINUITY WITH A #12 GA. WIRE.

   C) LATERAL FORCE BRACING: PROVIDE FOUR (4) #12 GA WIRES SECURED TO MAIN RUNNER WITHIN TWO (2) INCHES OF THE CROSS RUNNER INTERSECTION AND SPLAYED NINETY (90) DEGREES FROM EACH OTHER AND AT AN ANGLE NOT EXCEEDING FORTY-FIVE (45) DEGREES FROM THE PLANE OF THE CEILING. A STRUT FASTENED TO THE MAIN RUNNER SHALL BE EXTENDED AND FASTENED TO THE STRUCTURAL MEMBERS SUPPORTING THE ROOF OR FLOOR ABOVE. THE STRUT SHALL BE ADEQUATE TO THE VERTICAL COMPONENT INDUCED BY THE BRACING WIRES. THESE HORIZONTAL RESTRAINT POINTS SHALL BE PLACED TWELVE (12) FEET O.C. IN BOTH DIRECTIONS WITH THE FIRST POINT WITHIN SIX (6) FEET FROM EACH WALL. LATERAL FORCE BRACING MEMBERS SHALL HAVE A MINIMUM OF SIX (6) INCHES FROM ALL HORIZONTAL PIPNG OR DUCTWORK THAT IS NOT PROVIDED WITH BRACING RESTRAINTS FOR HORIZONTAL FORCES.

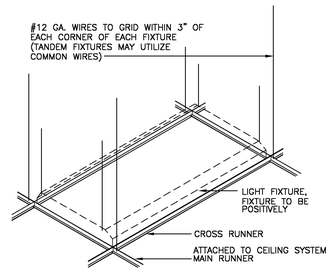
   D) ENDS OF MAIN RUNNERS AND CROSS RUNNERS SHALL BE TIED TOGETHER TO PREVENT THEIR SPREADING.

2. LIGHTING FIXTURES

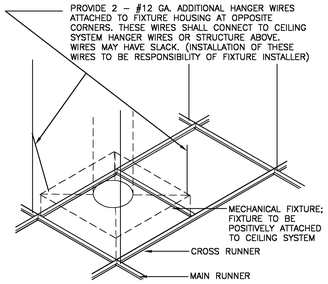
   A) ATTACH #12 GA. HANGER WIRE TO THE GRID MEMBERS WITHIN THREE (3) INCHES OF EACH CORNER OF EACH FIXTURE. TANDEM FIXTURES MAY UTILIZE COMMON WIRES. ALL RECESSED OR DROP-IN LIGHT FIXTURES SHALL BE POSITIVELY ATTACHED TO THE SUSPENDED CEILING SYSTEM. THE ATTACHMENT DEVICE SHALL HAVE A CAPACITY OF ONE HUNDRED (100) PERCENT OF THE FIXTURE WEIGHT ACTING IN ANY DIRECTION. IN ADDITION, THE THE FIXTURE SHALL SUPPORTED DIRECTLY FROM FIXTURE HOUSING TO THE STRUCTURE ABOVE WITH A MINIMUM OF FOUR (4) #12 GA. WIRES, ONE LOCATED AT EACH CORNER. (SEE DETAIL)

3. MECHANICAL FIXTURES

   A) CEILING MOUNTED MECHANICAL GRILLES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION MAIN RUNNERS OR TO CROSS RUNNERS. IN ADDITION, THE FIXTURE SHALL HAVE TWO (2) #12 GA. HANGER WIRES CONNECTED FROM THE FIXTURE HOUSING TO THE CEILING SYSTEM HANGERS OR TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK. (SEE DETAIL)



1 LIGHT FIXTURE SUPPORT
N.T.S.

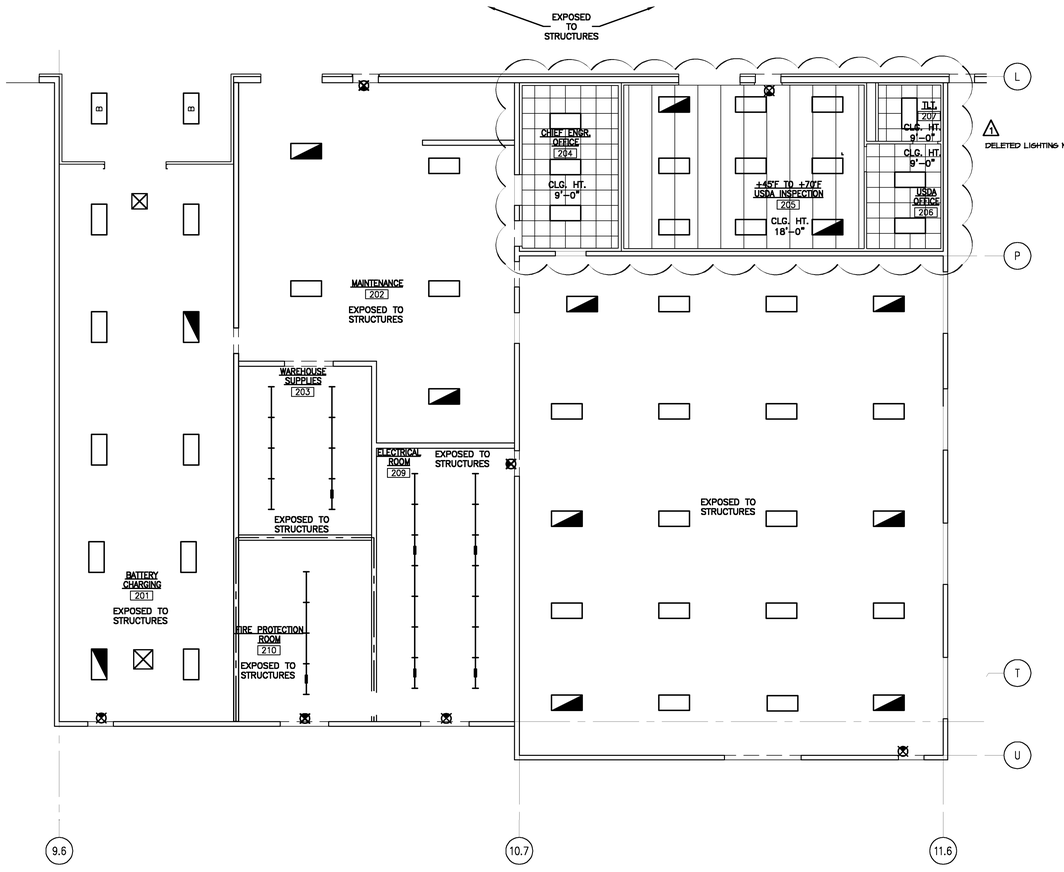


2 MECHANICAL FIXTURE SUPPORT
N.T.S.

SUSPENDED CEILING & SUSPENSION DETAILS

SPLICES & INTERSECTIONS OF RUNNERS SHALL BE ATTACHED WITH MECHANICAL INTERLOCKING CONNECTORS SUCH AS POP RIVETS, SCREWS, PINS, PLATES, WITH BENT TABS, OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS FOR 2 X DESIGN LOAD OR ULTIMATE AXIAL TENSION OR COMPRESSION (MIN. 60#)

3 SPLICE DETAIL
N.T.S.



CEILING LEGEND:

- 2x2 SUSPENDED ACOUSTICAL TILE
- GYPSUM BOARD CEILING
- INSULATED METAL CEILING
- 2x4 LUMINAIRE
- INCANDESCENT LUMINAIRE
- FLUORESCENT LUMINAIRE
- DENOTES FLUORESCENT LIGHTING - LIGHT COVE
- EXIT LIGHT/SIGN
- 2x2 DIFFUSER
- RETURN AIR
- EMERGENCY 2 x 4 FLUORESCENT LUMINAIRE
- EMERGENCY WALL MOUNTED FLUORESCENT LUMINAIRE

REFLECTED CEILING PLAN

1/8" = 1'-0"

N

JON NORTH

FLORIDA ENGINEERING LICENSE # 9430
FLORIDA ARCHITECTURAL LICENSE # AR 0015175
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

REFLECTED CEILING PLAN

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REV.	DATE	BY	DESCRIPTION
1	7/3/07	KBG	REVISED AS NOTED
0	6/29/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-03019
DRAWN: JVG
CHECKED: PFF
SCALE: AS SHOWN

A105
DRAWING NO.

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OVERALL ROOF PLAN

1" = 20'-0"

N

SINGLE-PLY MECHANICALLY ATTACHED 60 mil THK., WHITE TPO MEMBRANE OVER 2 LAYERS OF 4" THICK (TOTAL 8", R=50) POLYISOCYANURATE INSULATION OVER 1 1/2" METAL DECK

SINGLE-PLY MECHANICALLY ATTACHED 60 mil THK., WHITE TPO MEMBRANE OVER 4" THICK (R=25) POLYISOCYANURATE INSULATION OVER 1 1/2" METAL DECK

SINGLE-PLY MECHANICALLY ATTACHED 60 mil THK., WHITE TPO MEMBRANE OVER 3.3" THICK (R=20) POLYISOCYANURATE INSULATION OVER 1 1/2" METAL DECK

T/ROOF (LOW PT.) EL = 43'-11 1/2"

T/ROOF (RIDGE) EL = 45'-8"

RIDGE LINE

T/ROOF (HIGH PT.) EL = 16'-8 5/16"

T/ROOF (LOW PT.) EL = 15'-9 3/4"

T/ROOF (HIGH PT.) EL = 26'-11 7/8"

T/ROOF (LOW PT.) EL = 26'-1"

T/ROOF (LOW PT.) EL = 25'-9"

T/ROOF (HIGH PT.) EL = 31'-3 1/4"

T/ROOF (LOW PT.) EL = 29'-5 13/16"

T/ROOF (LOW PT.) EL = 24'-0"

T/ROOF (LOW PT.) EL = 23'-10 7/8"

PARAPET WALL: BOTTOM OF P.T. WD. BLOCKING EL = 19'-10 1/2"

PARAPET WALL: BOTTOM OF P.T. WD. BLOCKING EL = 32'-4 5/8"

PARAPET WALL: BOTTOM OF P.T. WD. BLOCKING EL = 35'-0 5/8"

PARAPET WALL: BOTTOM OF P.T. WD. BLOCKING EL = 37'-9 5/8"

PARAPET WALL: BOTTOM OF P.T. WD. BLOCKING EL = 35'-9 5/8"

PARAPET WALL: BOTTOM OF P.T. WD. BLOCKING EL = 32'-4 5/8"

PARAPET WALL: BOTTOM OF P.T. WD. BLOCKING EL = 32'-4 5/16"

1/8"/FT. SLOPE

1/4"/FT. SLOPE

SEE DETAIL 7/A501

SIM.

8"Wx 7"H GALV. METAL GUTTER- PAINTED

6" x 6" GALV. METAL DOWNSPOUT- PAINTED AT (18) LOCATIONS

4" x 4" PRE-FINISHED ALUMINUM DOWNSPOUT AT (3) LOCATIONS

4" x 4" PRE-FINISHED ALUMINUM DOWNSPOUT AT (2) LOCATIONS

6" x 8" PRE-FINISHED ALUMINUM GUTTER

PIPE BRIDGE CORRDINATE WITH REFRIGERATION

PIPING

WALK PAD

STEEL CAGED LADDER #2 SEE SHEET A401E

STEEL LADDER #1 SEE SHEET A401E

STEEL LADDER #3 SEE SHEET A401E

STEEL STAIR #15 SEE SHEET A401F

ADD SECTION MARKS

ADD SECTION

ADD WALKPADS & STAIR NOTES

ADD WALKPADS

CRICKET, TYP.

FUTURE MECHANICAL EQUIPMENT

W/ OUT OPENINGS

PROVIDE TAPPERED INSULATION FOR POSITIVE DRAINAGE, TYP.

12"WX6"H EMERGENCY OVERFLOW (8) LOCATIONS

6"X12" ALUMINUM SCUPPER W/ COLLECTOR HEAD & 5"x5" ALUMINUM DOWNSPOUT AT (5 TOTAL) LOCATIONS W/ EMERGENCY OVERFLOW FRONT & SIDES OF COLLECTOR HEAD

6"X12" ALUMINUM SCUPPER W/ COLLECTOR HEAD & 5"x5" ALUMINUM DOWNSPOUT AT (4 TOTAL) LOCATIONS W/ EMERGENCY OVERFLOW FRONT & SIDES OF COLLECTOR HEAD

8"Wx 7"H GALV. METAL GUTTER- PAINTED

6" x 6" GALV. METAL DOWNSPOUT- PAINTED AT (17) LOCATIONS

8" x 8" GALV. METAL DOWNSPOUT- PAINTED AT (11) LOCATIONS

10"Wx 9"H GALV. METAL GUTTER- PAINTED

8" x 8" GALV. METAL DOWNSPOUT- PAINTED AT (1) LOCATION

10"Wx 9"H GALV. METAL GUTTER- PAINTED

ROOF HATCH

10"Wx 10"H GALV. METAL GUTTER- PAINTED

8" x 8" GALV. METAL DOWNSPOUT- PAINTED AT (3) LOCATIONS

10"Wx 10"H GALV. METAL GUTTER- PAINTED

8" x 8" GALV. METAL DOWNSPOUT- PAINTED AT (3) LOCATIONS

FLORIDA ENGINEERING LICENSE NO. 9430

FLORIDA ARCHITECTURAL LICENSE NO. AR95619

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ROOF PLAN

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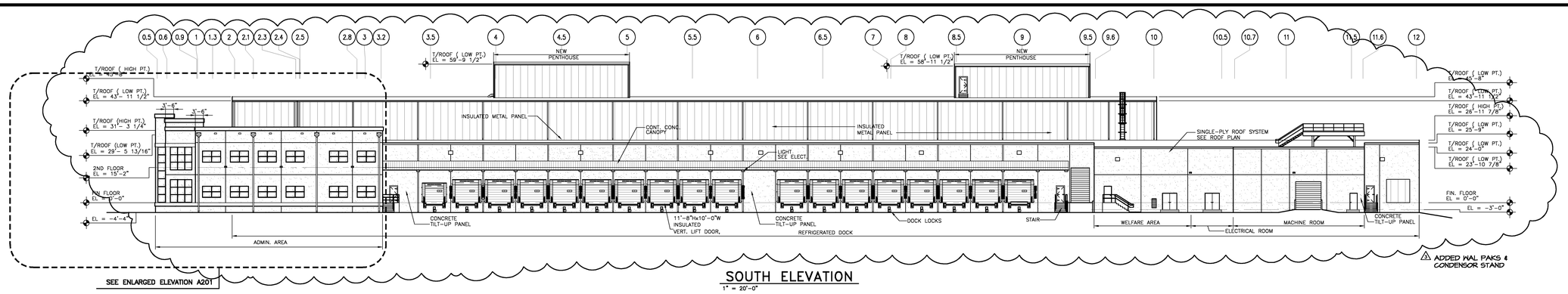
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2	8/24/07	REVISED AS NOTED
1	7/30/07	CONSTRUCTION ISSUE
0	6/22/07	

JOB NO.	710-03019
DRAWN:	PFF
CHECKED:	
SCALE:	AS SHOWN

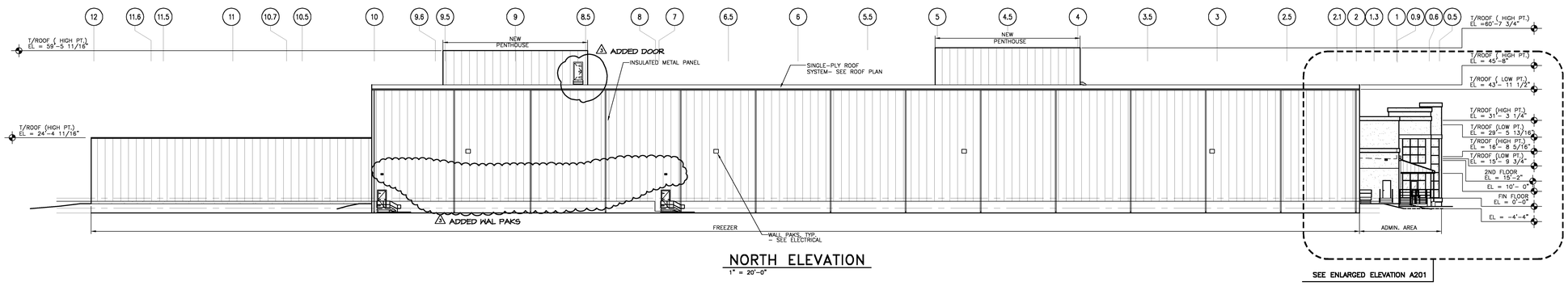
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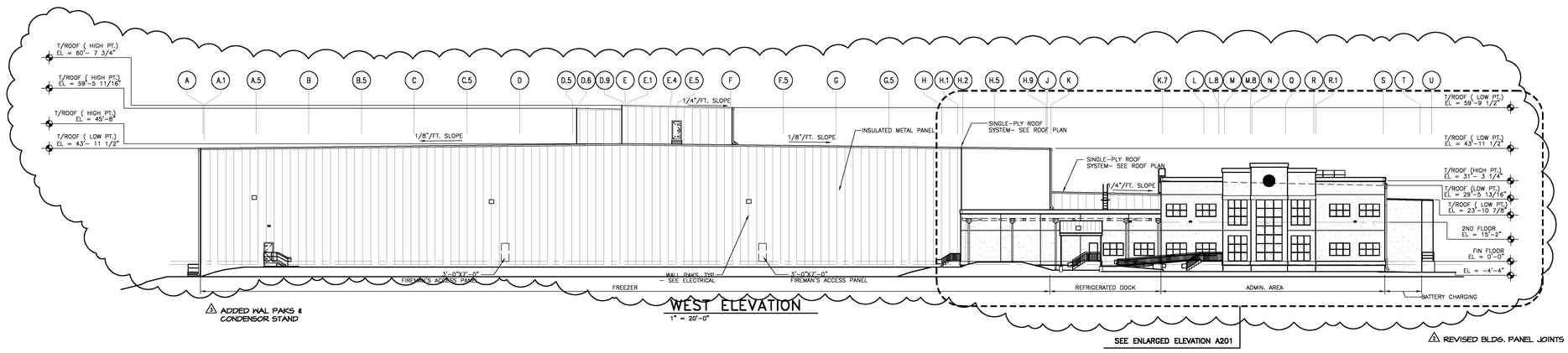
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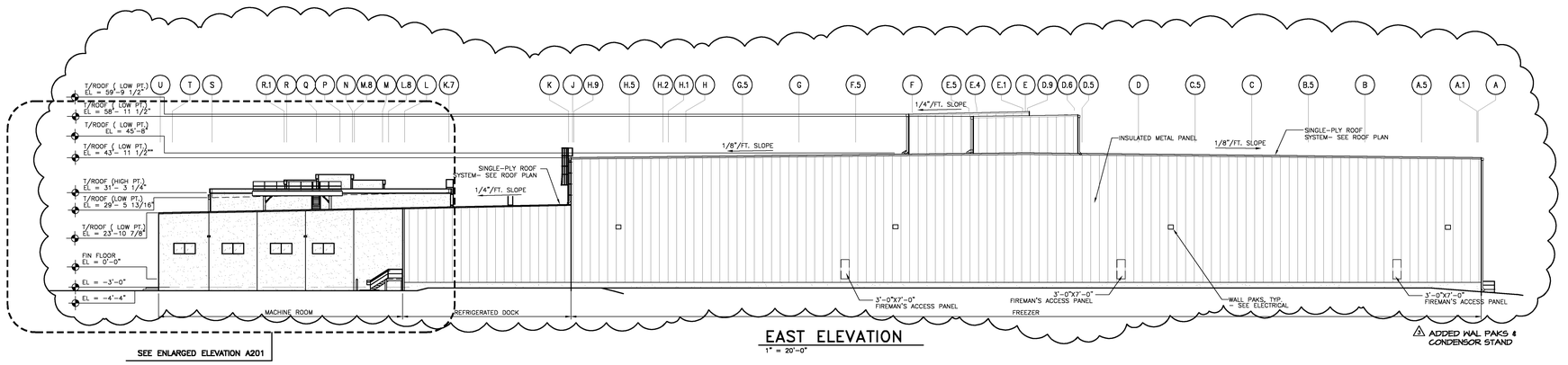
SOUTH ELEVATION
1" = 20'-0"



NORTH ELEVATION
1" = 20'-0"



WEST ELEVATION
1" = 20'-0"



EAST ELEVATION
1" = 20'-0"

FLORIDA ENGINEERING LICENSE 9430
FLORIDA ARCHITECTURAL LICENSE AR 0016176
THE STELLAR GROUP
DESIGN ▪ CONSTRUCTION ▪ REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 292-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

EXTERIOR ELEVATIONS

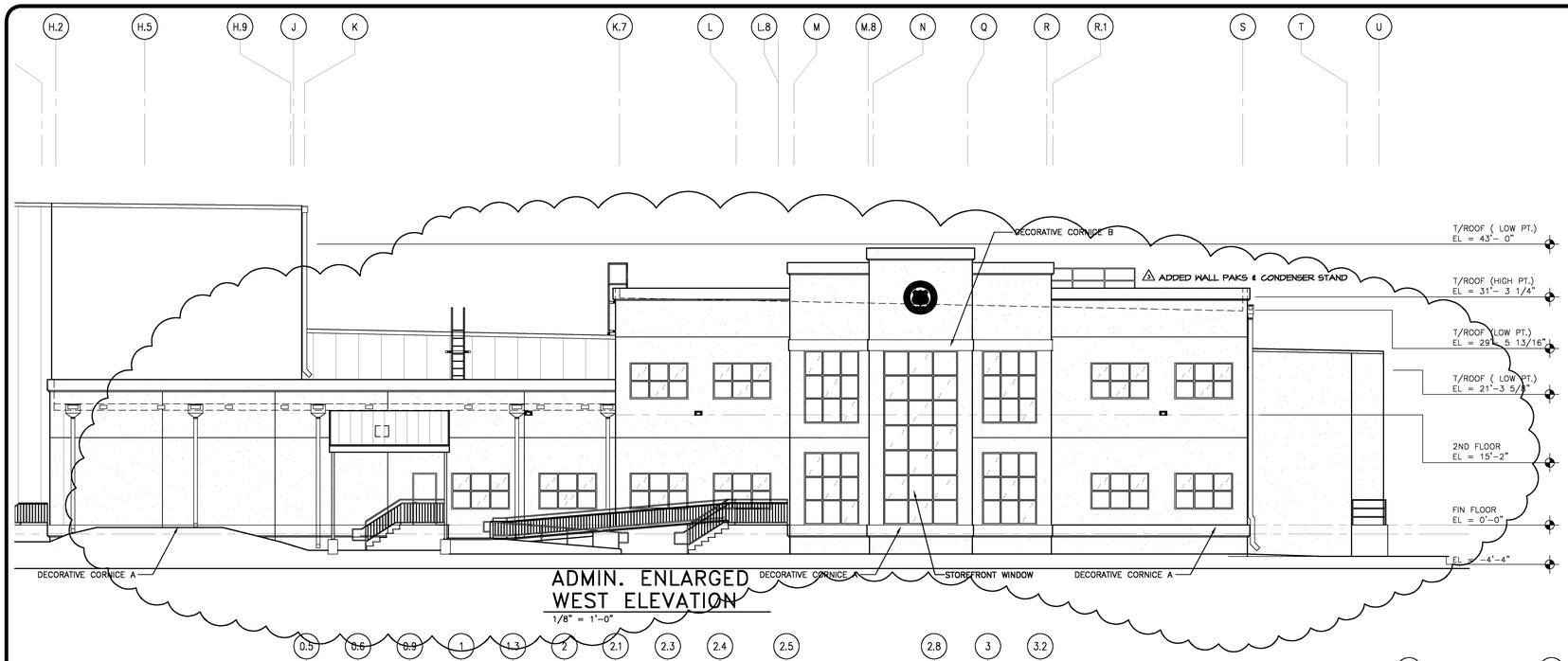
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REV.	DATE	BY	DESCRIPTION
3	9/24/07	LBM	REVISED AS NOTED
2	8/20/07	LBM	REVISED AS NOTED
1	8/08/07	LBM	REVISED AS NOTED
0	7/11/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-03019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

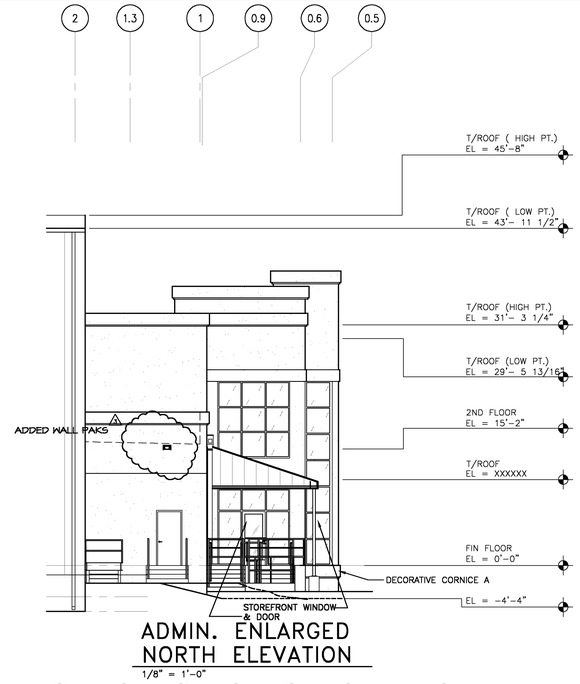
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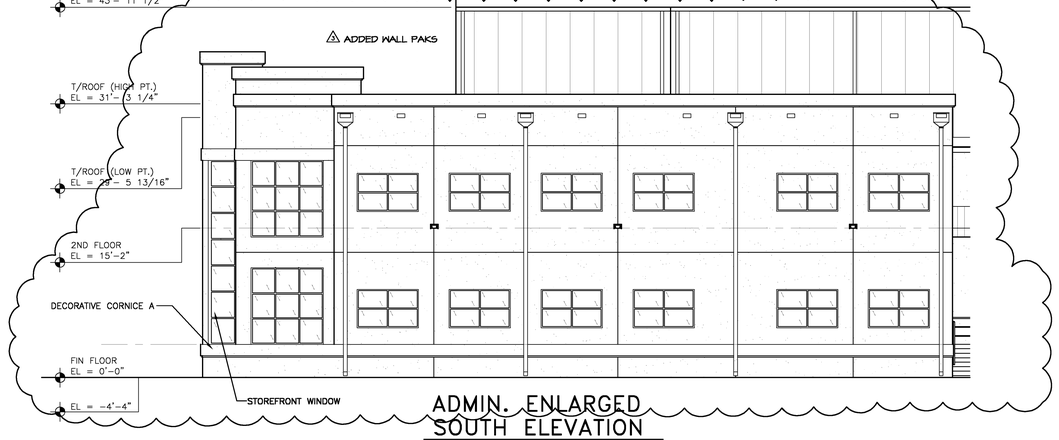
ADMIN. ENLARGED WEST ELEVATION

1/8" = 1'-0"



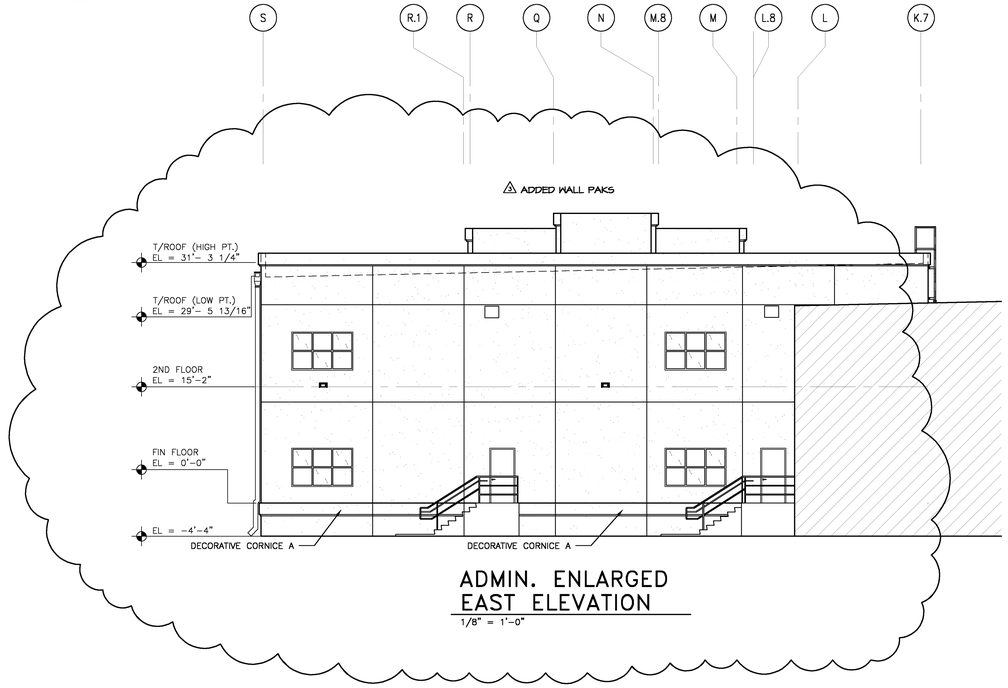
ADMIN. ENLARGED NORTH ELEVATION

1/8" = 1'-0"



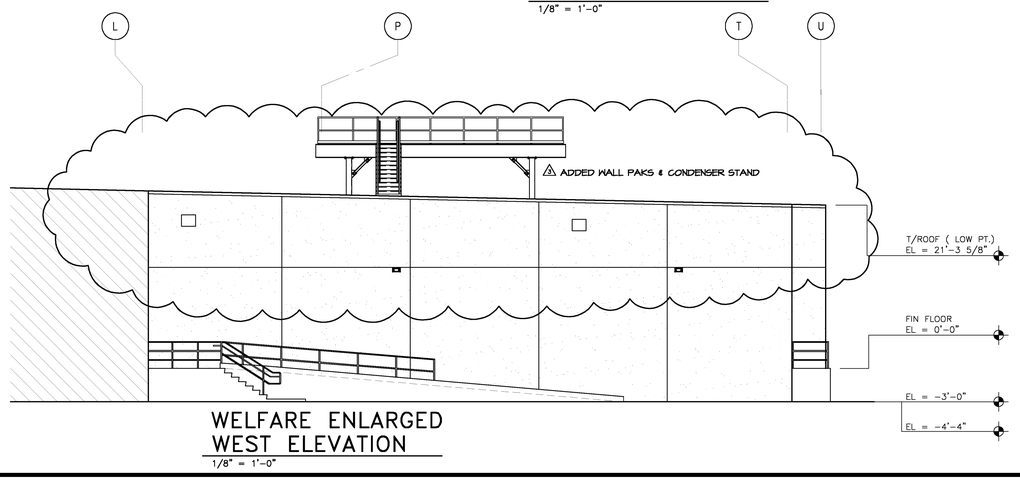
ADMIN. ENLARGED SOUTH ELEVATION

1/8" = 1'-0"



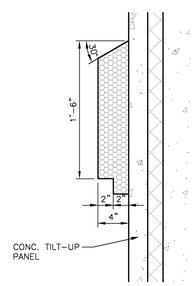
ADMIN. ENLARGED EAST ELEVATION

1/8" = 1'-0"



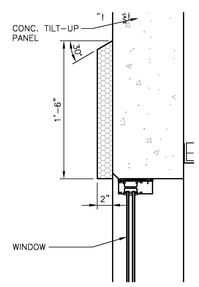
WELFARE ENLARGED WEST ELEVATION

1/8" = 1'-0"



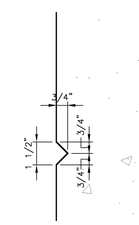
1 DECORATIVE CORNICE DETAIL A

1 1/2" = 1'-0"



2 DECORATIVE CORNICE DETAIL B

1 1/2" = 1'-0"



3 REVEAL DETAIL

3" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE AR 0015671

FLORIDA ENGINEERING LICENSE NO. 9430

THE STELLAR GROUP

DESIGN • CONSTRUCTION • REFRIGERATION

2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ENLARGED EXTERIOR ELEVATIONS

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REV.	DATE	BY	DESCRIPTION
3	7/10/2007	LBM	REVISED AS NOTED
2	6/29/2007	LBM	REVISED AS NOTED
1	6/15/2007	JVG	REVISED AS NOTED
0	5/25/2007	JVG	CONSTRUCTION ISSUE

JOB NO. 710-3019

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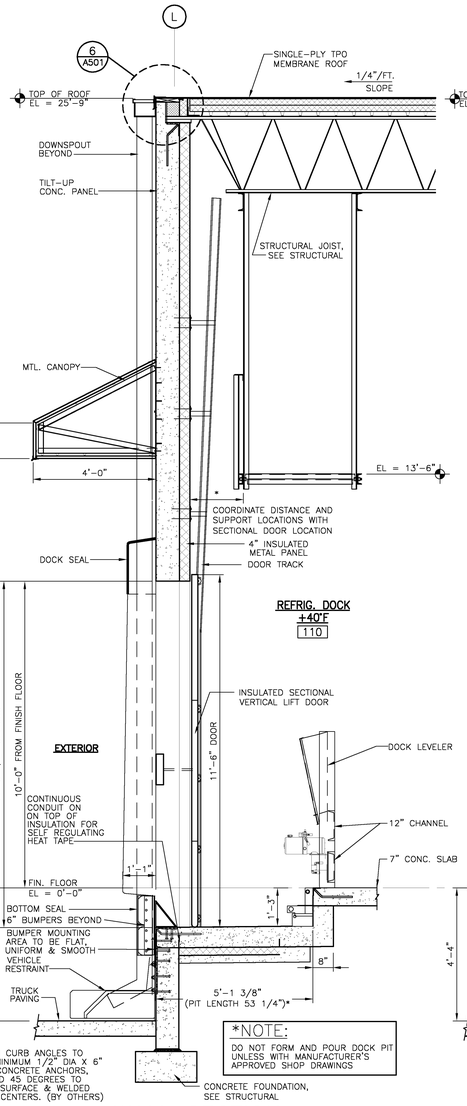
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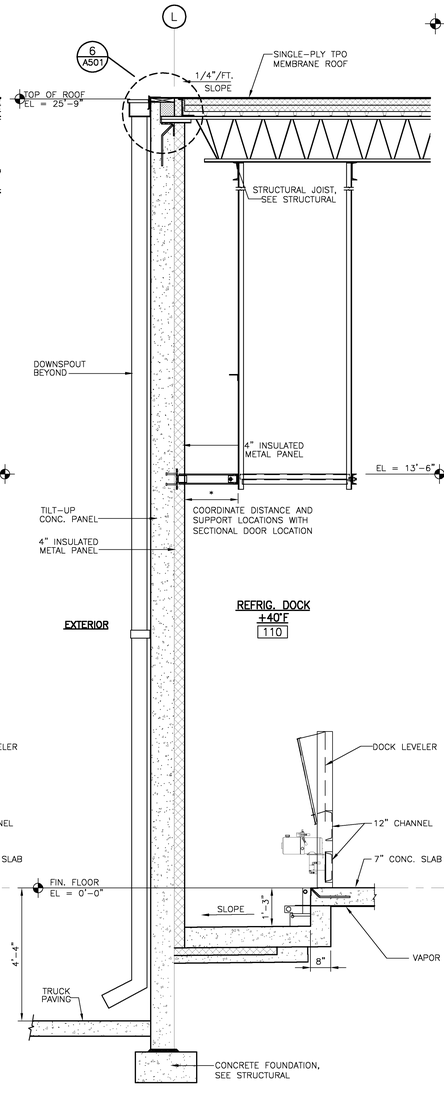
A201

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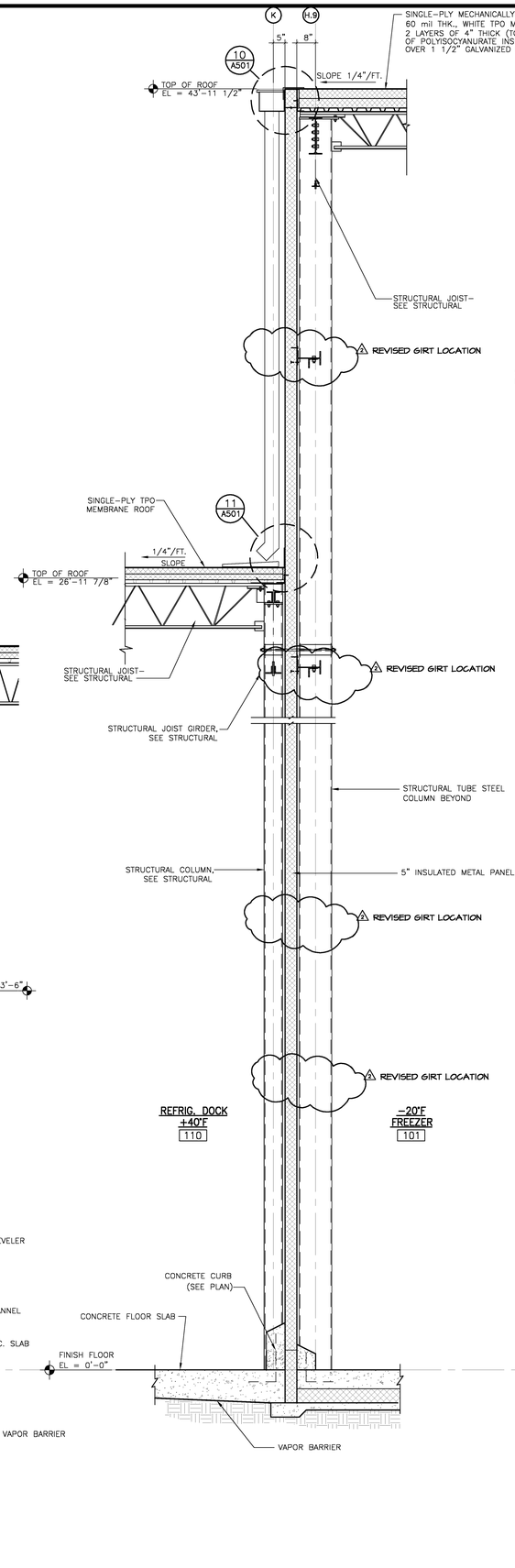
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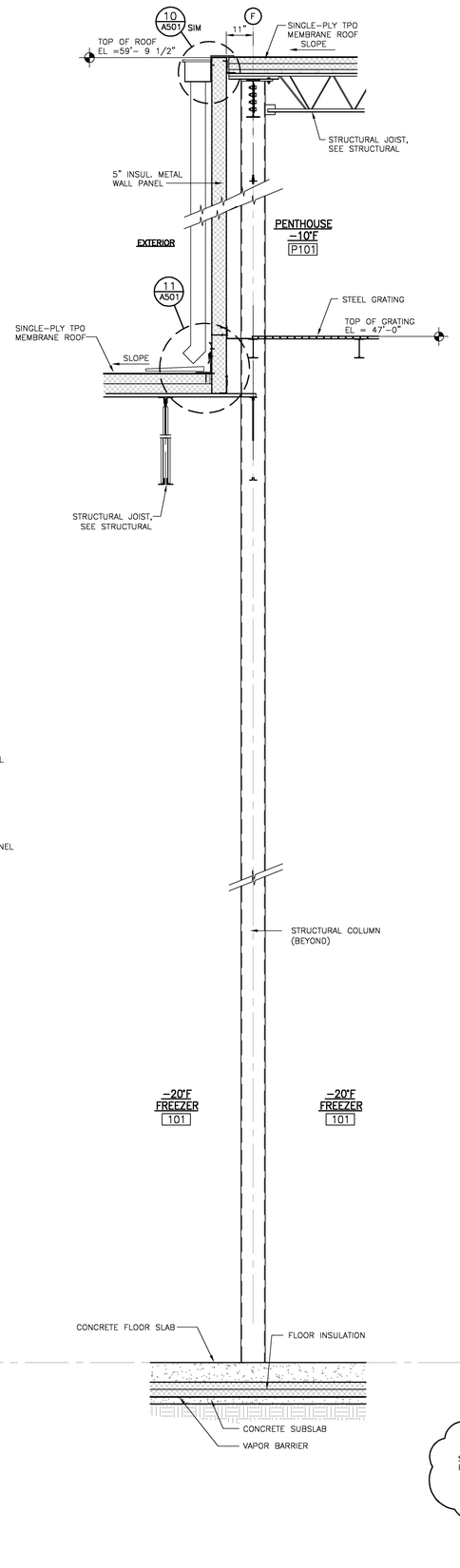
1 WALL SECTION
3/8" = 1'-0"



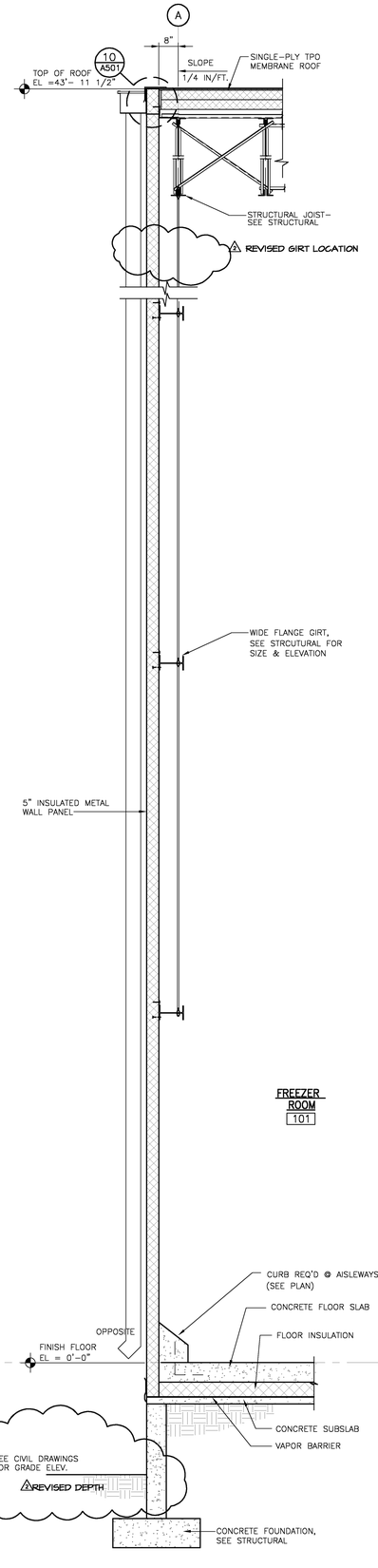
2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"



5 WALL SECTION
1/2" = 1'-0"

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FLORIDA ENGINEERING LICENSE 36520
FLORIDA ARCHITECTURAL LICENSE AR 15561

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WALL SECTIONS

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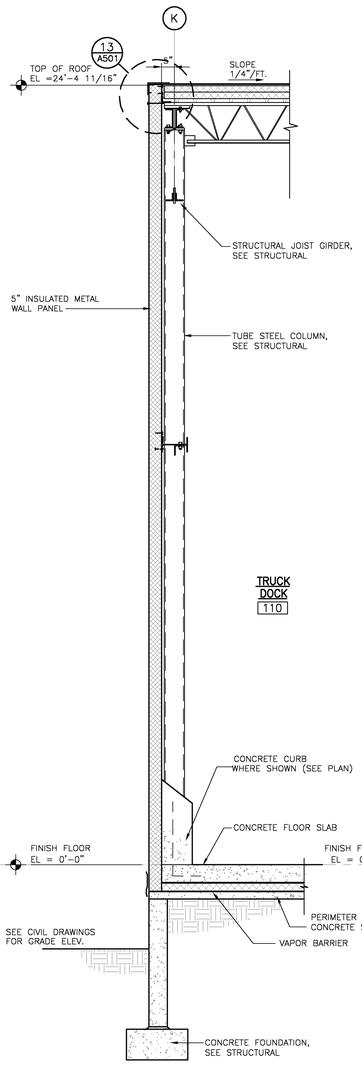
REV.	DATE	DESCRIPTION
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1	6/22/07	REVISED AS NOTED
0	6/22/07	CONSTRUCTION ISSUE
A	6/22/07	OWNER REVIEW

DRAWN:	LBM
CHECKED:	
SCALE:	AS SHOWN

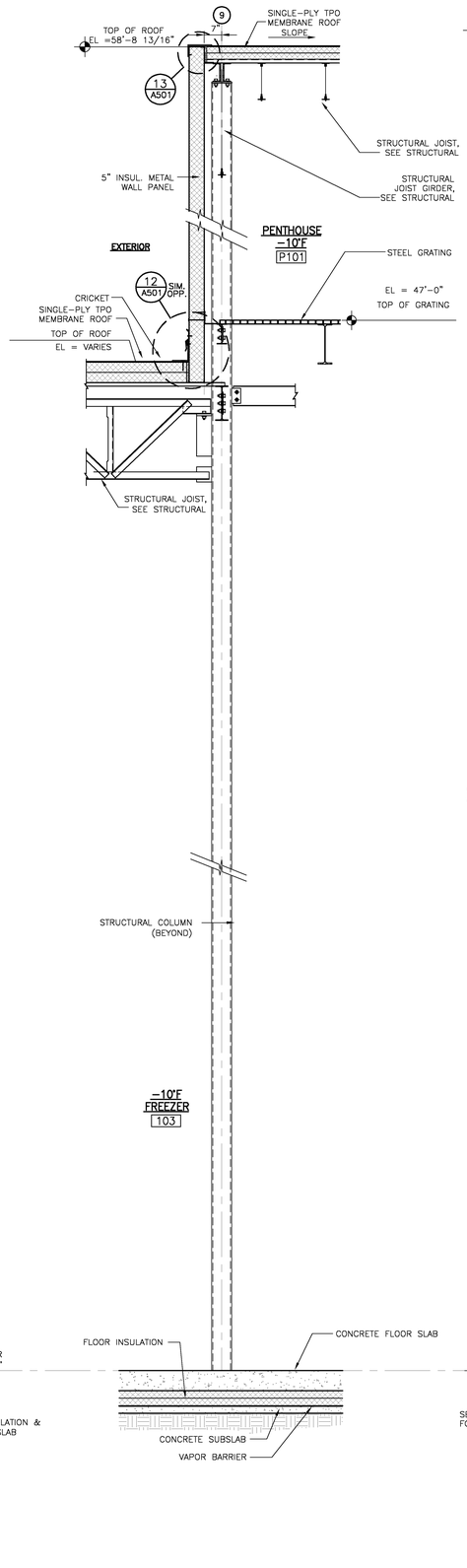
A300
DRAWING NO.

JOB NO. 710-03019

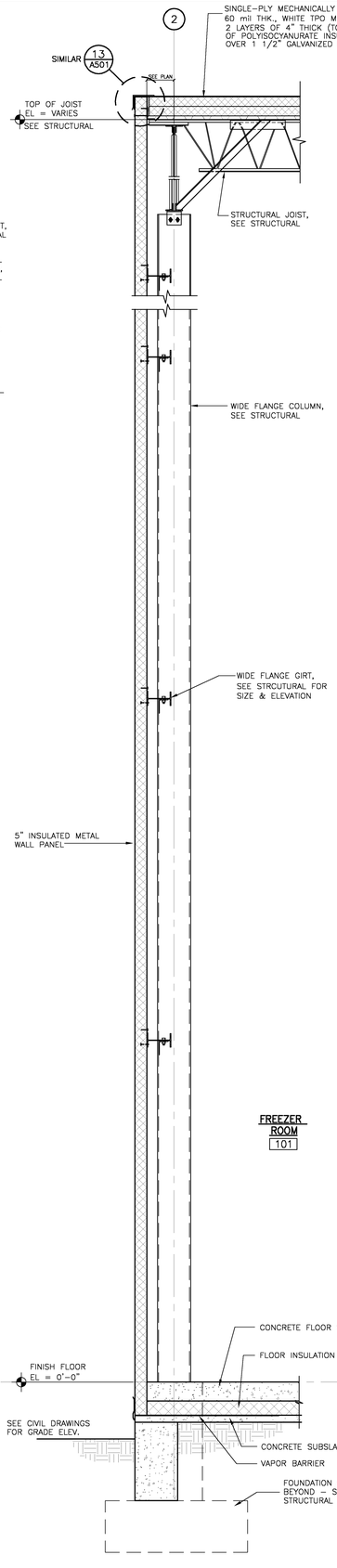
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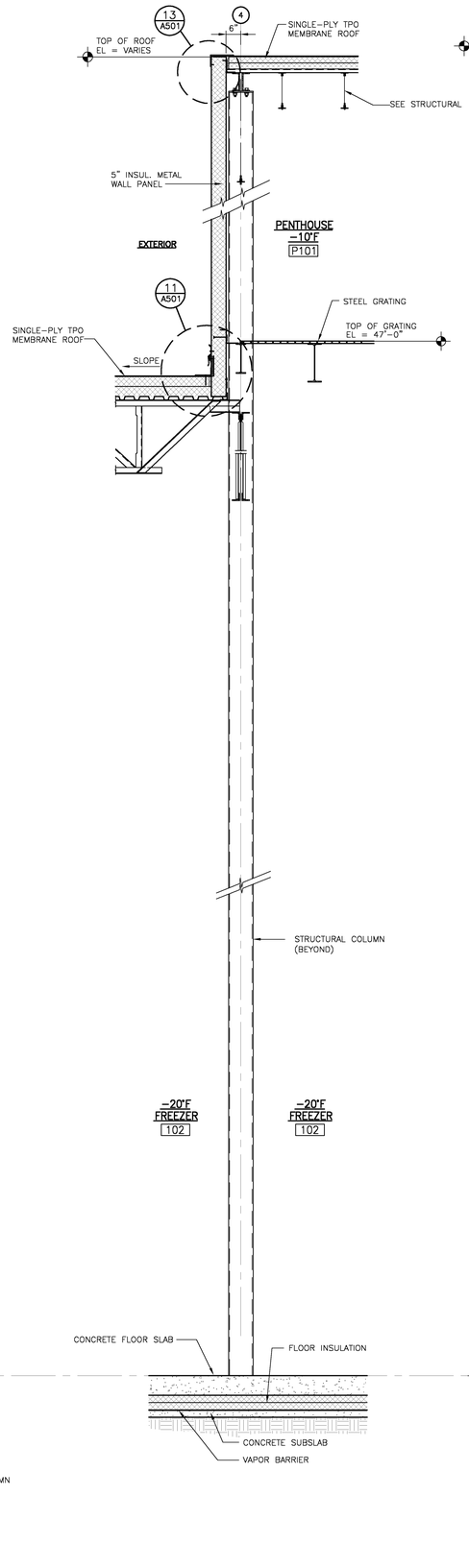
1 WALL SECTION
1/2" = 1'-0"



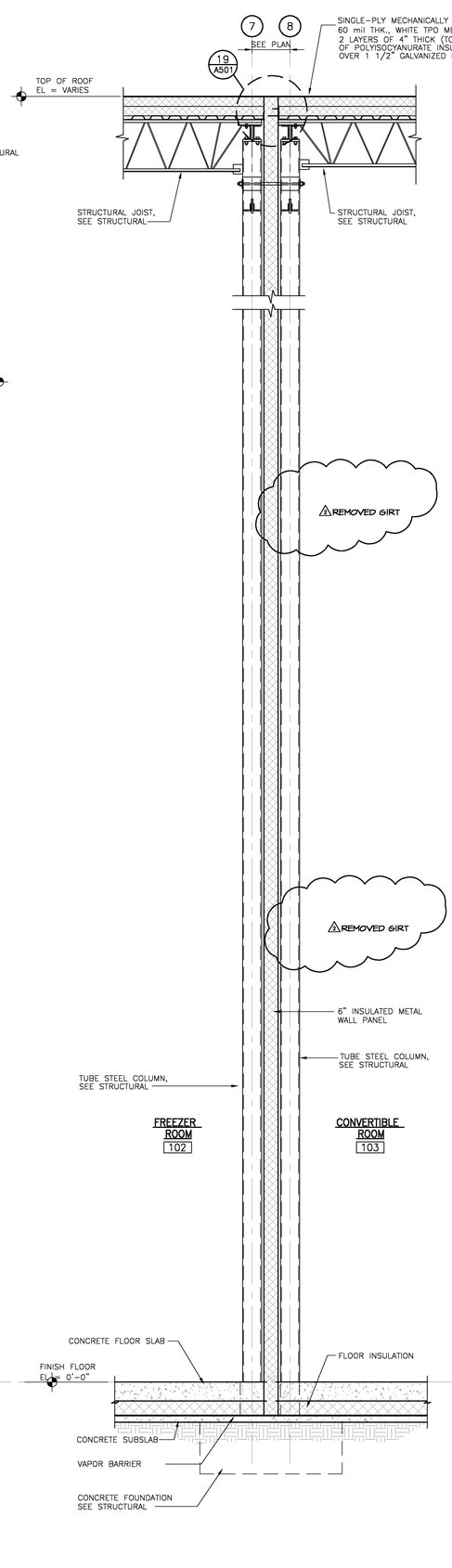
2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"



5 WALL SECTION
1/2" = 1'-0"

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FLORIDA ENGINEERING LICENSE NO. 36520
FLORIDA ARCHITECTURAL LICENSE NO. AR0015175

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WALL SECTIONS

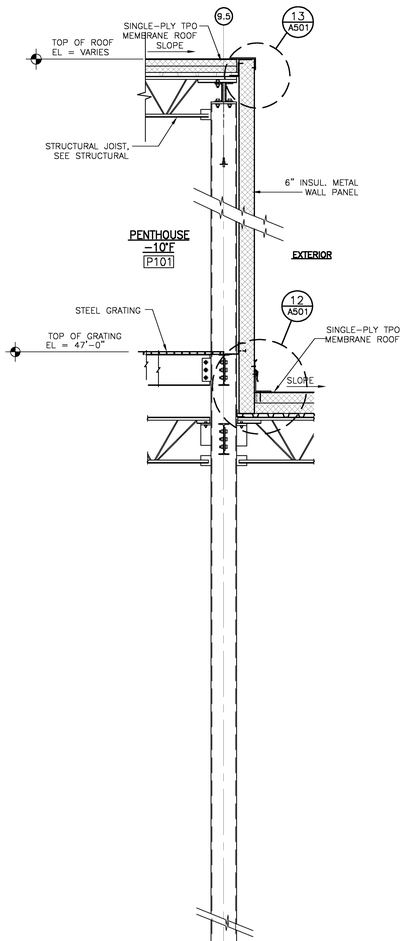
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REV.	DATE	BY	DESCRIPTION
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1	06/21/07	JVG	REVISED AS NOTED
0	06/06/07	JVG	CONSTRUCTION ISSUE

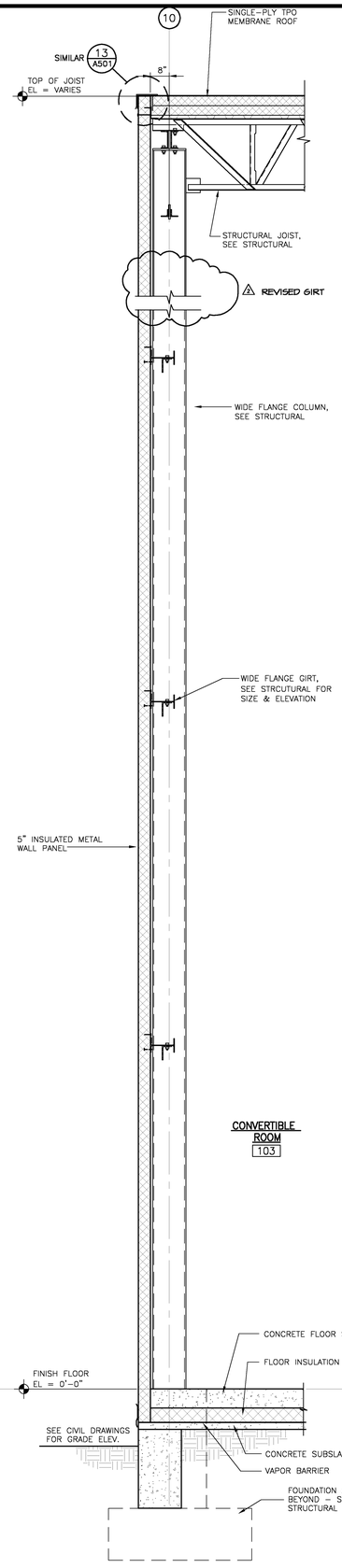
JOB NO. 710-03019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

A301
DRAWING NO.

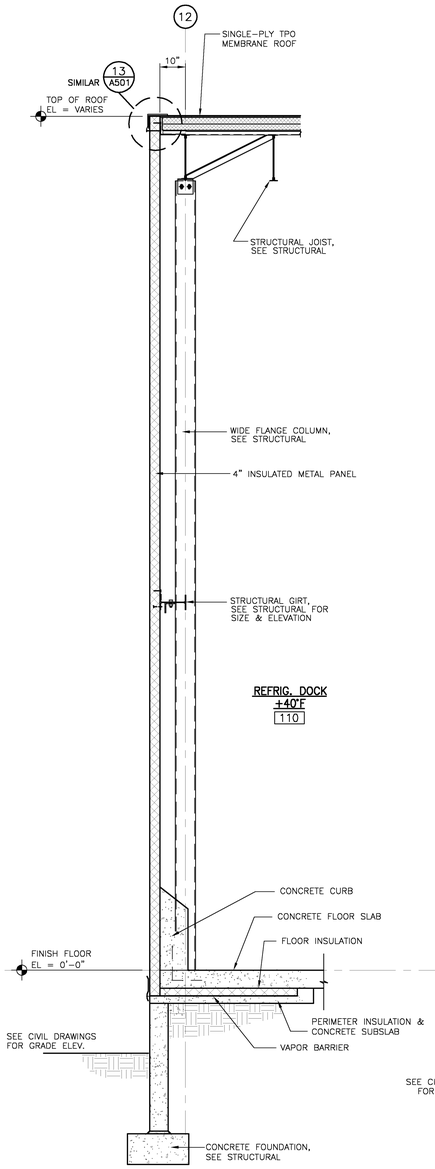
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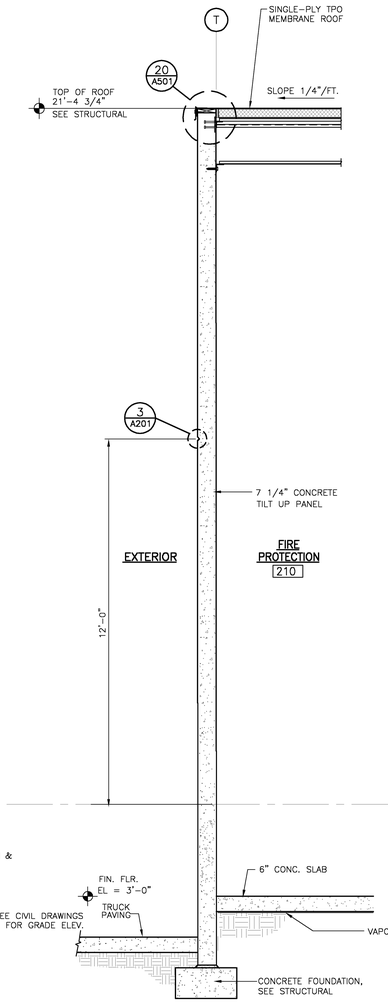
1 WALL SECTION
1/2" = 1'-0"



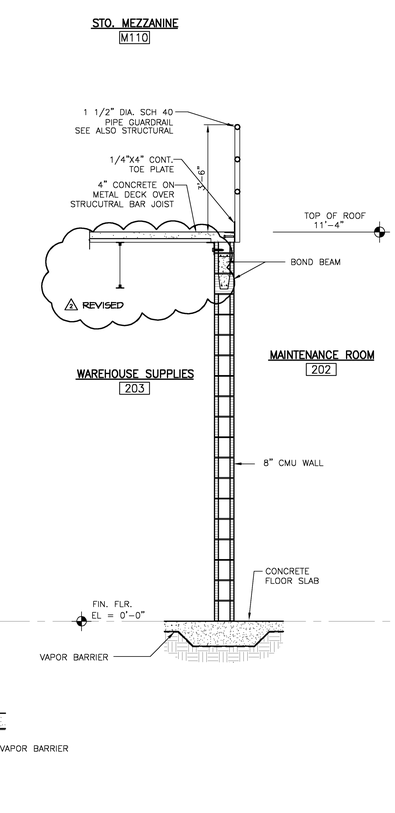
2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"



5 WALL SECTION
1/2" = 1'-0"

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FLORIDA ARCHITECTURAL LICENSE #AR 95576
FLORIDA ENGINEERING LICENSE #38530

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WALL SECTIONS

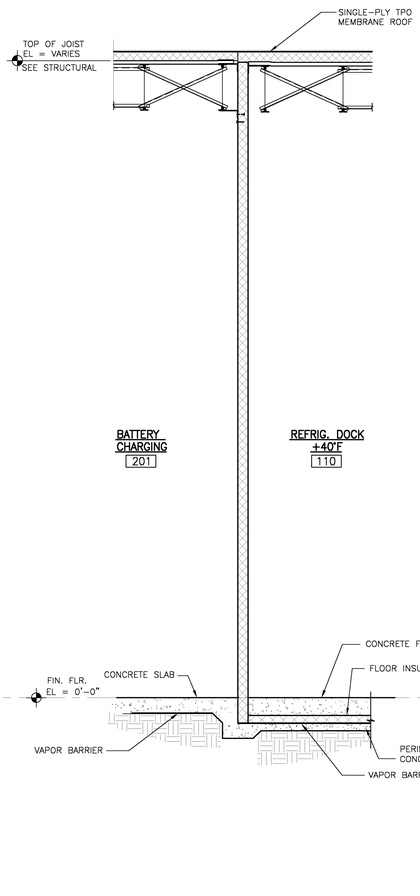
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REV.	DATE	BY	DESCRIPTION
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1	6/22/07	JVG	REVISED AS NOTED
0	6/22/07	JVG	CONSTRUCTION ISSUE

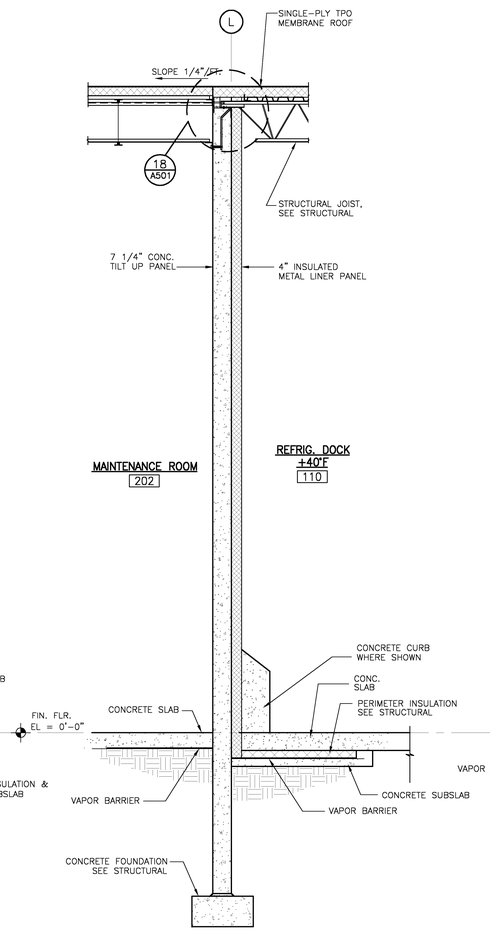
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DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

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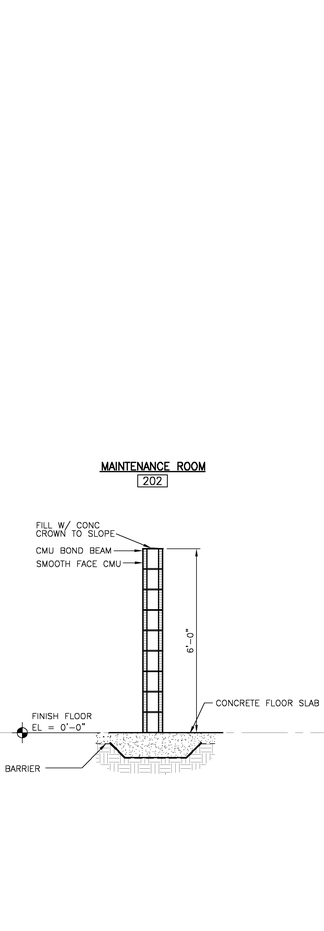
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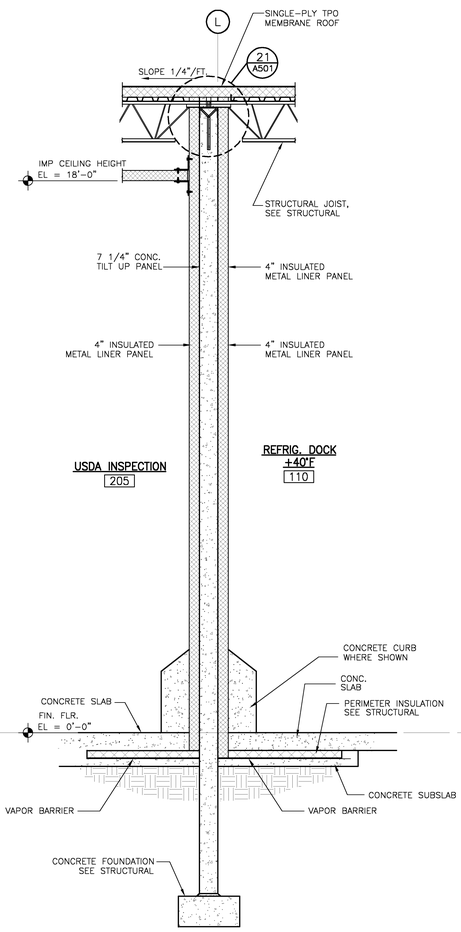
1 WALL SECTION
1/2" = 1'-0"



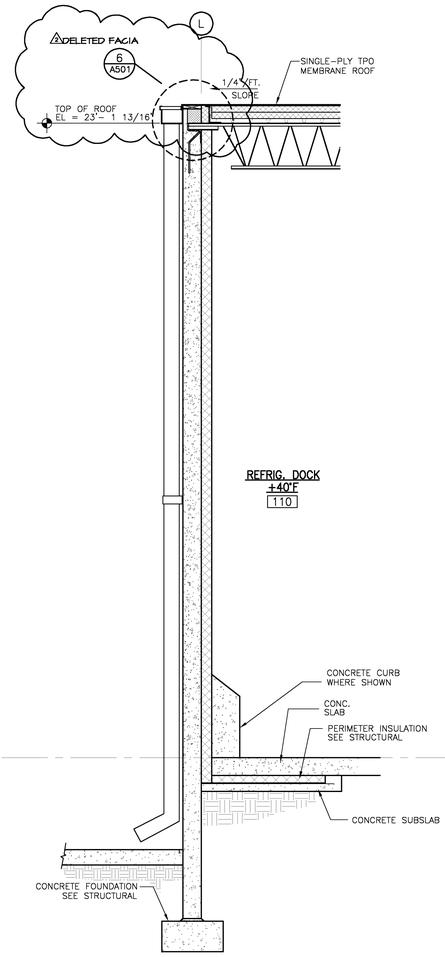
2 WALL SECTION
1/2" = 1'-0"



3 KNEE WALL
1/2"=1'-0"



4 WALL SECTION
1/2" = 1'-0"



5 WALL SECTION
1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE #AR 0017656
FLORIDA ENGINEERING LICENSE # 9430
THE STELLAR GROUP
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WALL SECTIONS

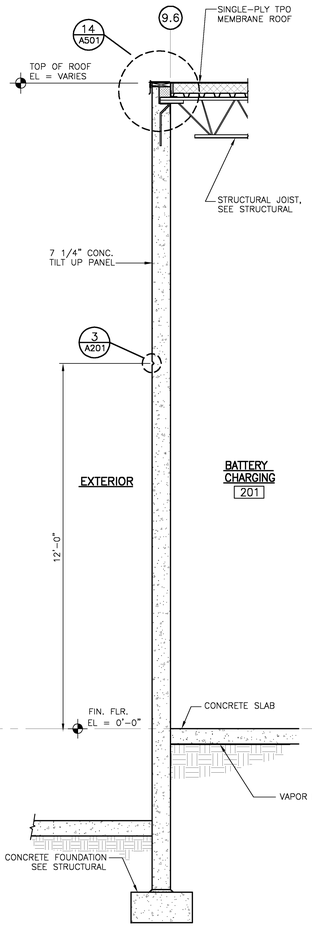
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REV.	DATE	DESCRIPTION
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1	6/22/07	JVG	REVISED REVISION
0	6/22/07	JVG	CONSTRUCTION ISSUE

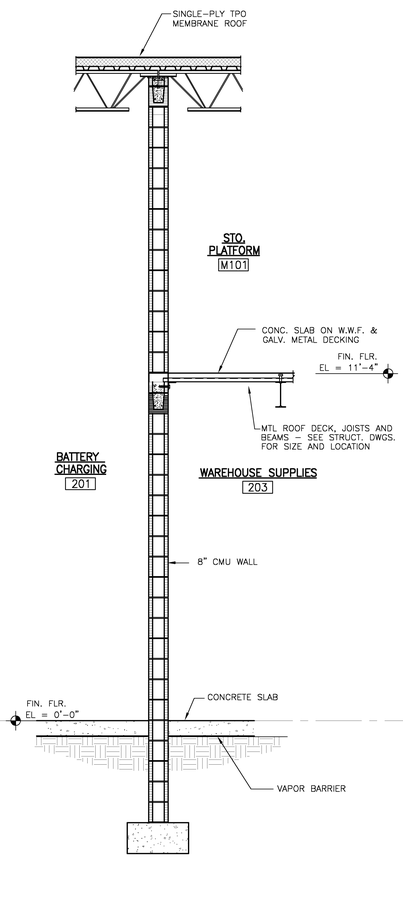
JOB NO. 710-03019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

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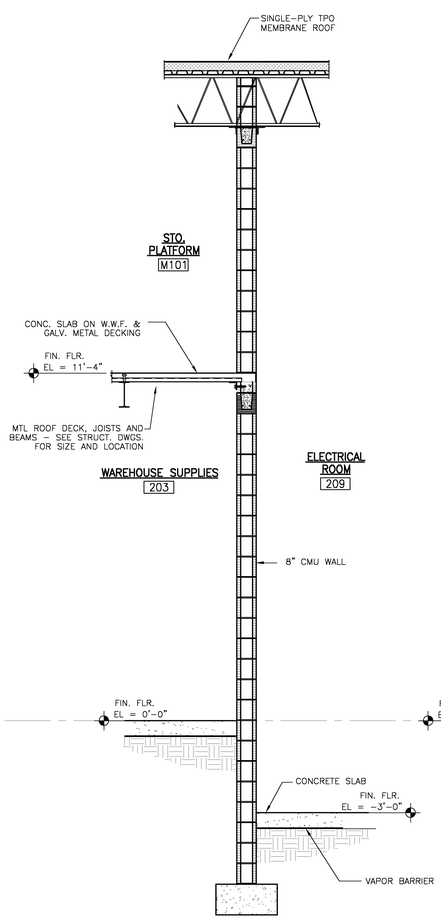
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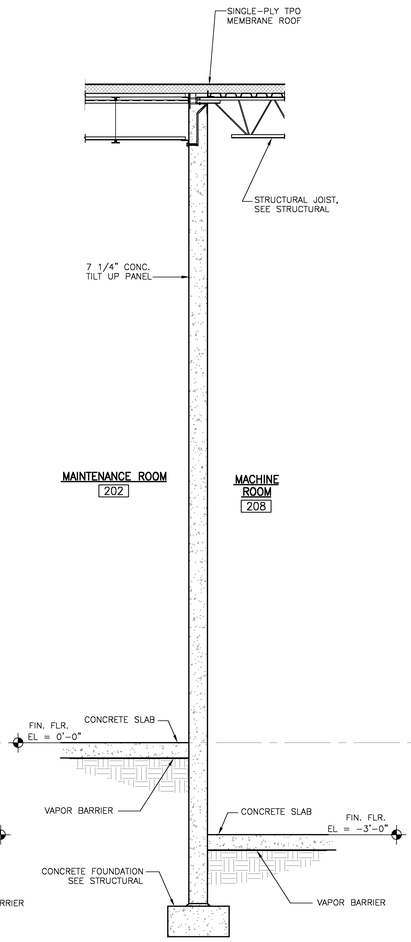
1 WALL SECTION
1/2" = 1'-0"



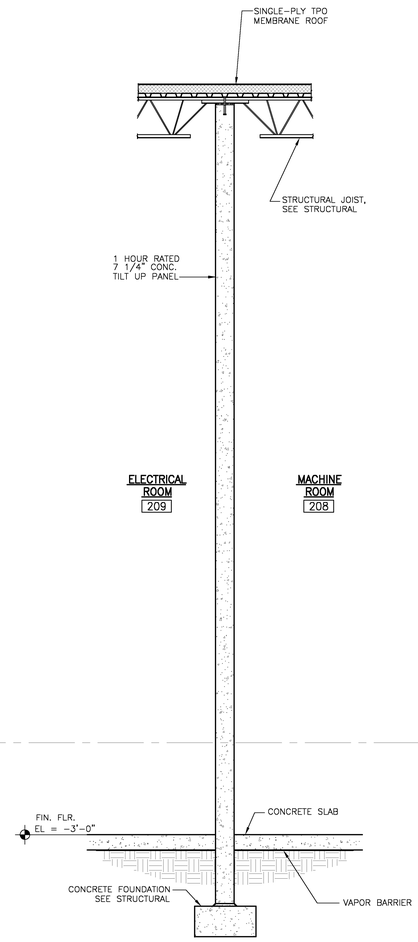
2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"



5 WALL SECTION
1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE No. AR 0016176
FLORIDA ENGINEERING LICENSE No. 9430
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WALL SECTIONS

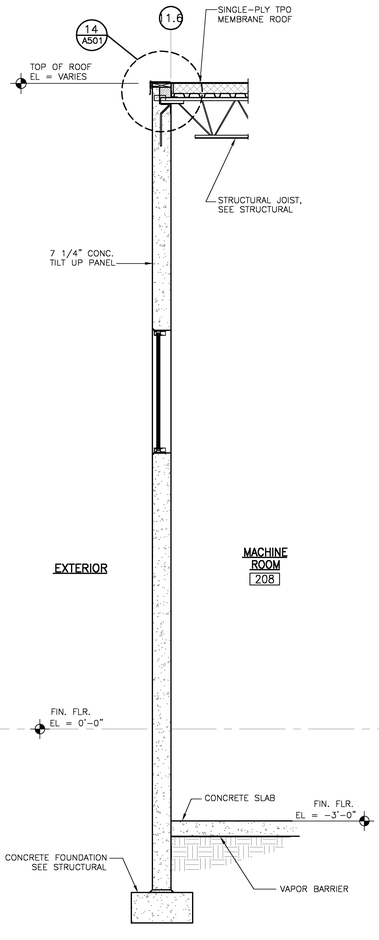
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REV	DATE	BY	DESCRIPTION
2	6/22/07	DRM	REVISED AS NOTED
1	6/22/07	JVG	REVISED AS NOTED
0	6/22/07	JVG	CONSTRUCTION ISSUE

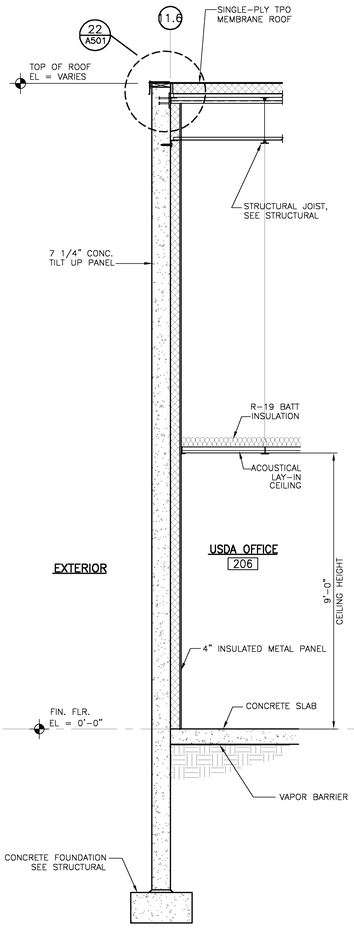
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DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

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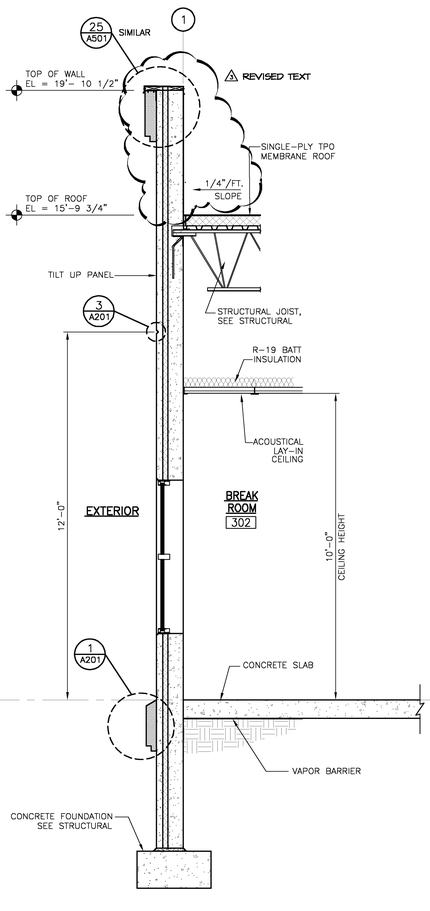
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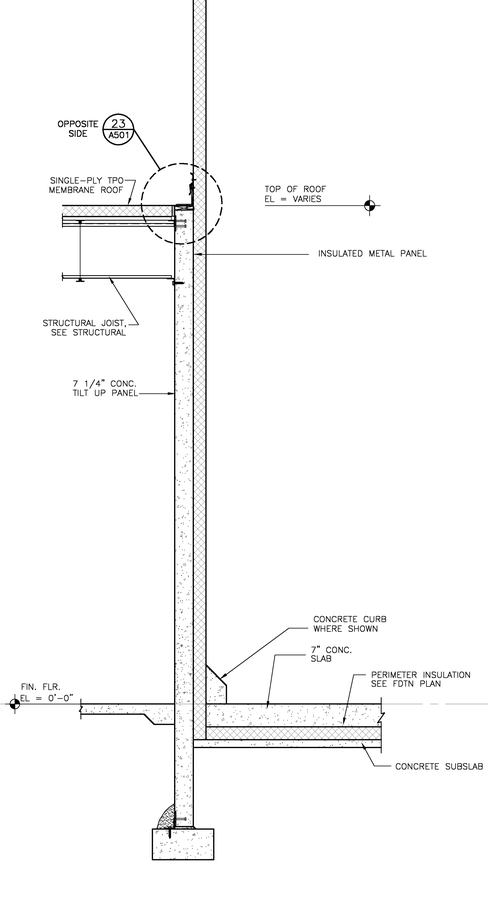
1 WALL SECTION
1/2" = 1'-0"



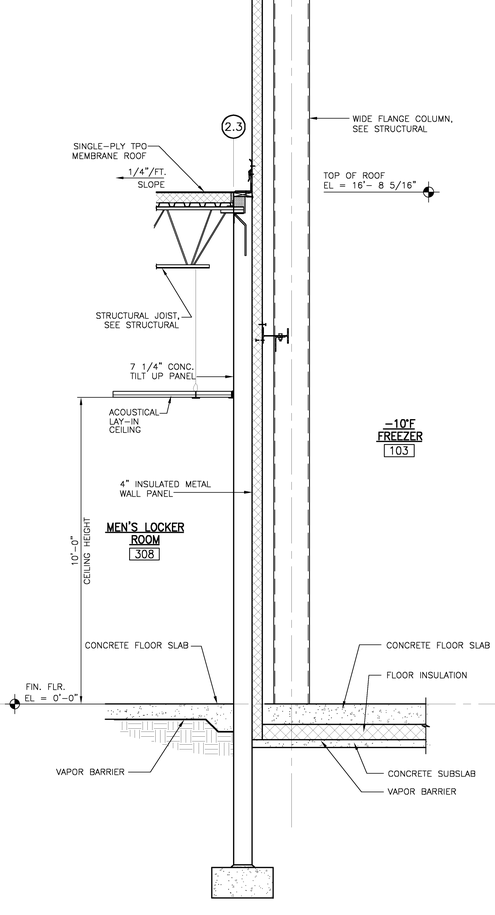
2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"



5 WALL SECTION
1/2" = 1'-0"

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FLORIDA ENGINEERING LICENSE NO. 9430
FLORIDA ARCHITECTURAL LICENSE NO. AR 0015171
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WALL SECTIONS

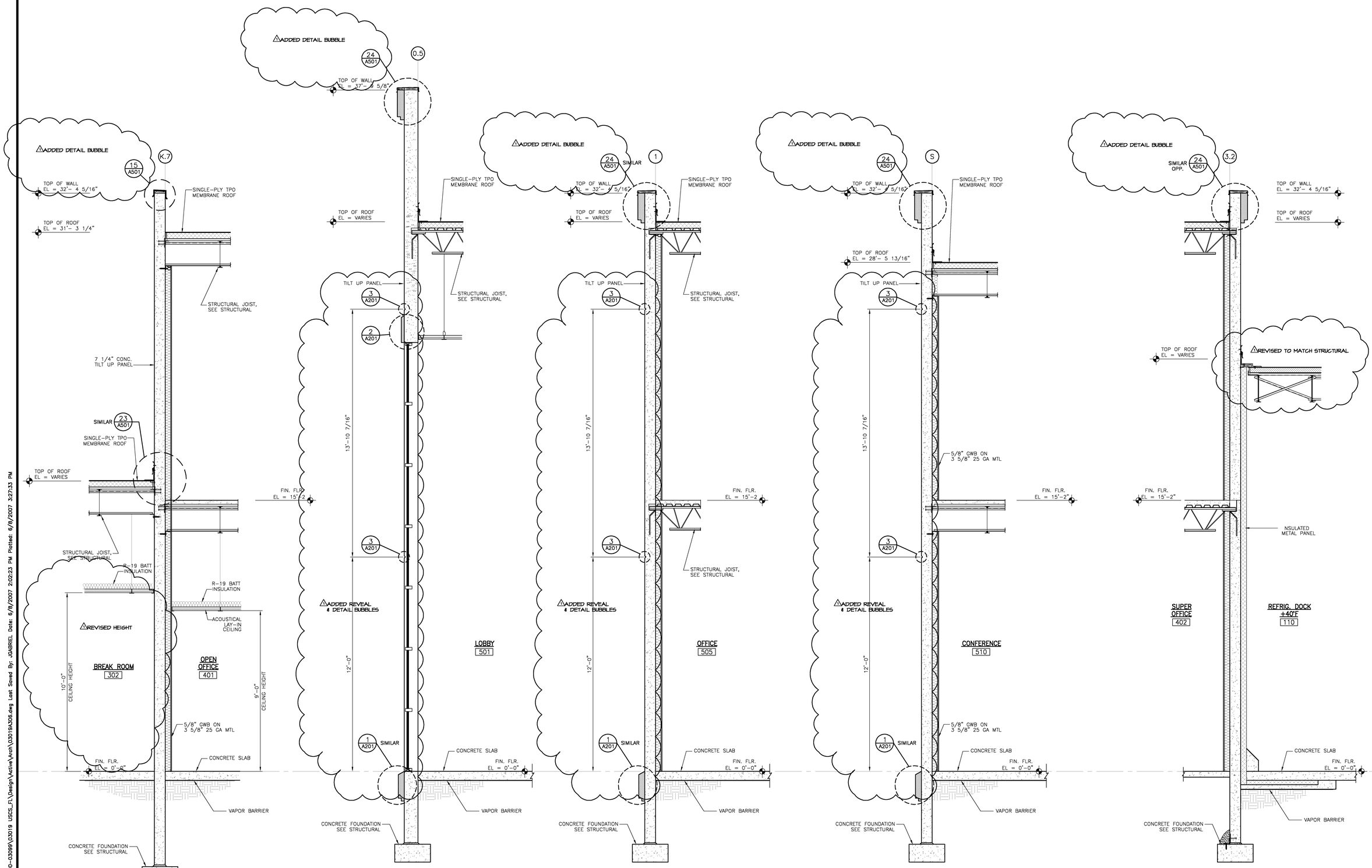
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REV.	DATE	DESCRIPTION
3	7/11/2007	REVISED AS NOTED
2	7/10/2007	REVISED AS NOTED
1	6/29/2007	CONSTRUCTION ISSUE
0	6/15/2007	

LBM	
DRM	
JVG	
JVG	
BY	

JOB NO. 710-03019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

A305
DRAWING NO.



1 WALL SECTION
1/2" = 1'-0"

2 WALL SECTION
1/2" = 1'-0"

3 WALL SECTION
1/2" = 1'-0"

4 WALL SECTION
1/2" = 1'-0"

5 WALL SECTION
1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE AR 0015615

FLORIDA ENGINEERING LICENSE 9430

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

WALL SECTIONS

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REV.	DATE	BY	DESCRIPTION
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0	6/8/2007	JVG	CONSTRUCTION ISSUE

JOB NO. 710-03019

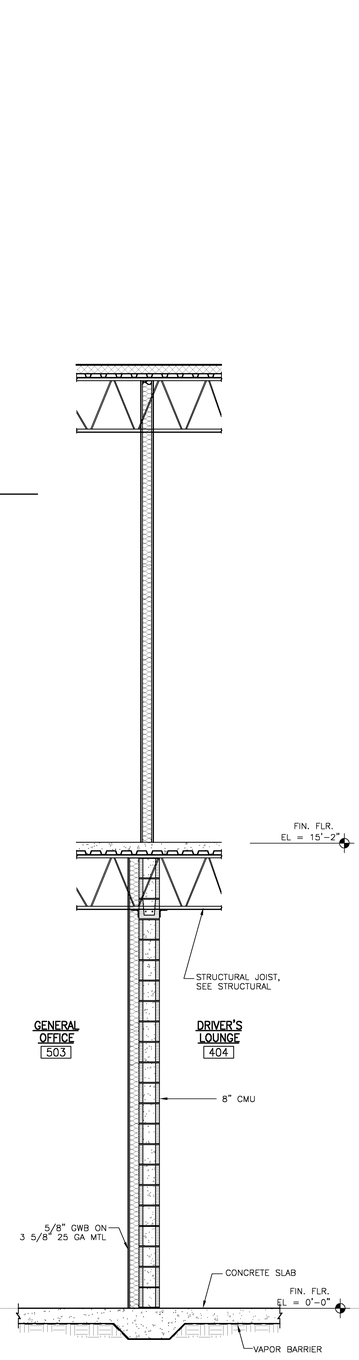
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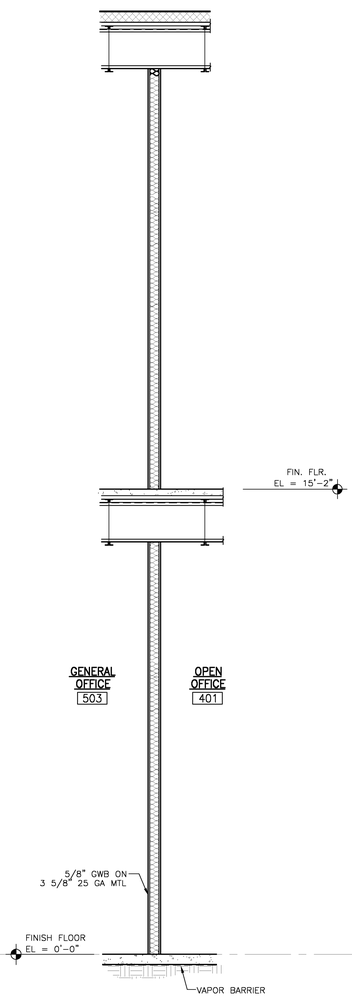
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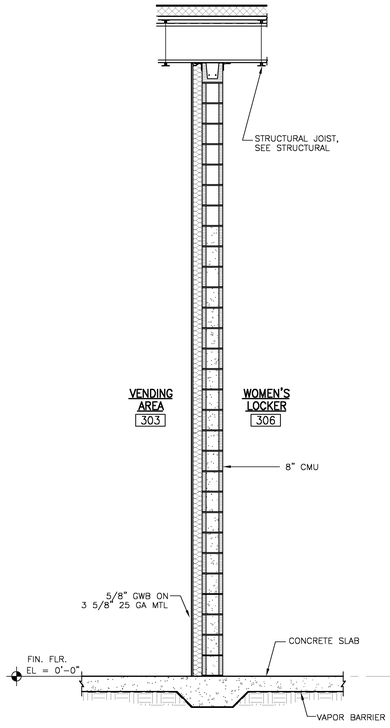
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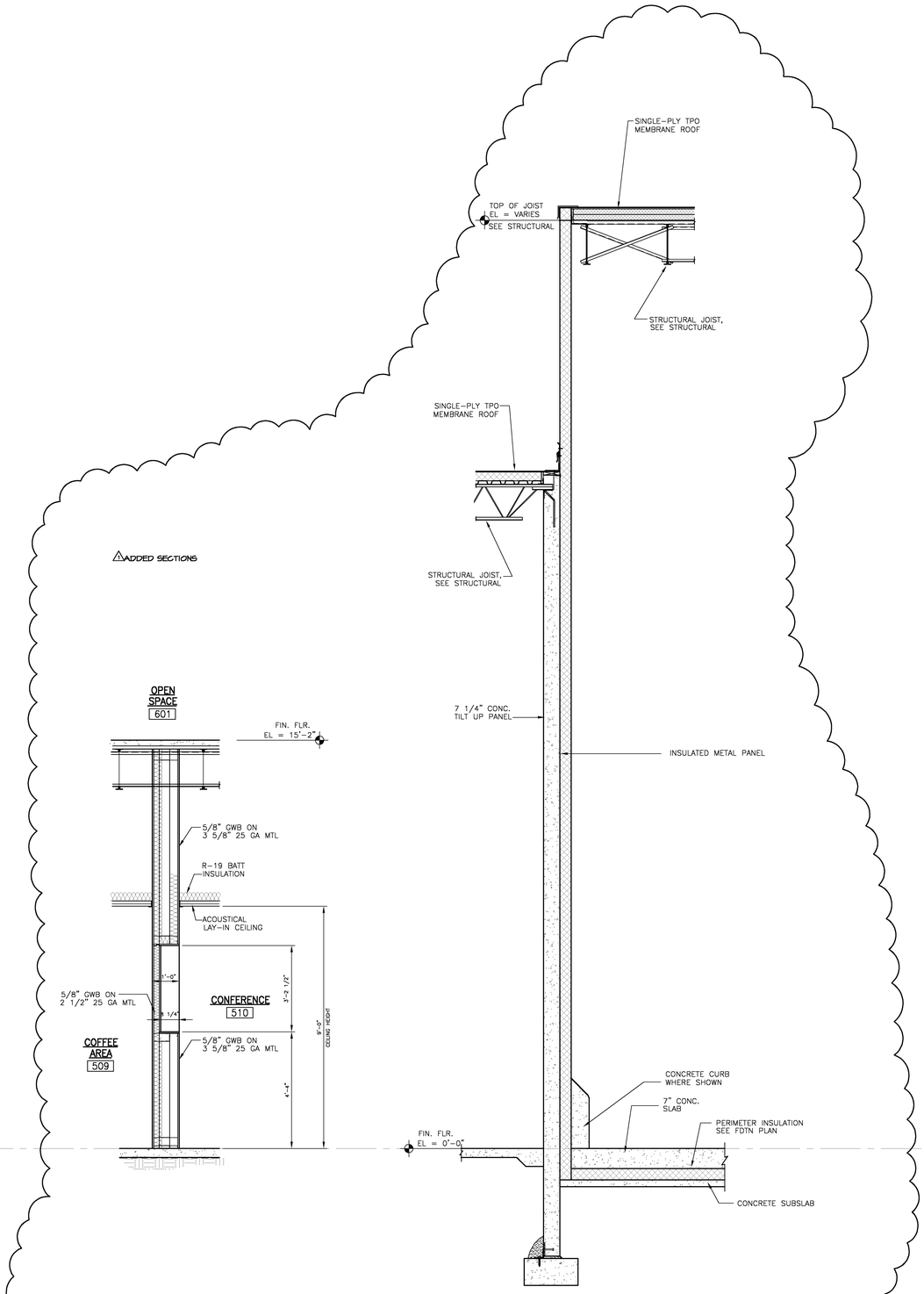
1 WALL SECTION
1/2" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"

5 WALL SECTION
1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE No. AR 0006179
FLORIDA ENGINEERING LICENSE No. 9430
THE STELLAR GROUP
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WALL SECTIONS

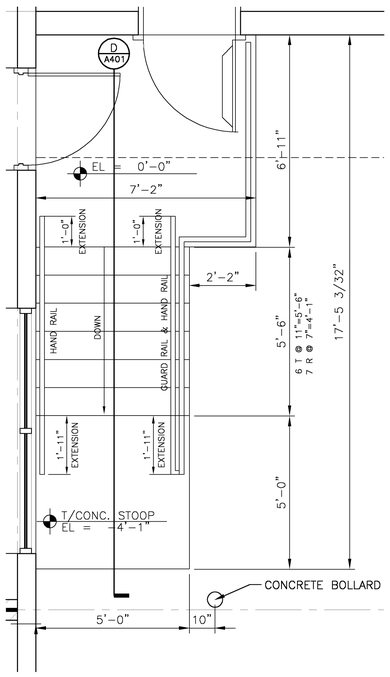
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REV.	DATE	BY	DESCRIPTION
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0	JVG	JVG	CONSTRUCTION ISSUE

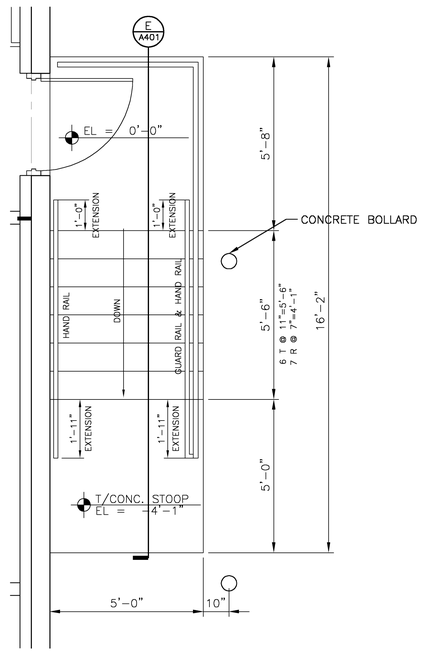
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DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

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DRAWING NO.

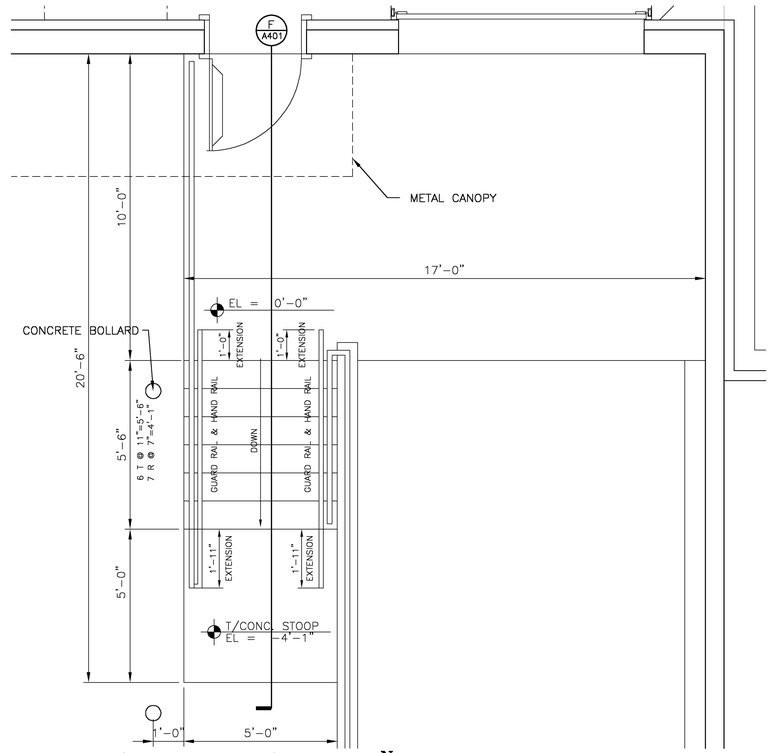
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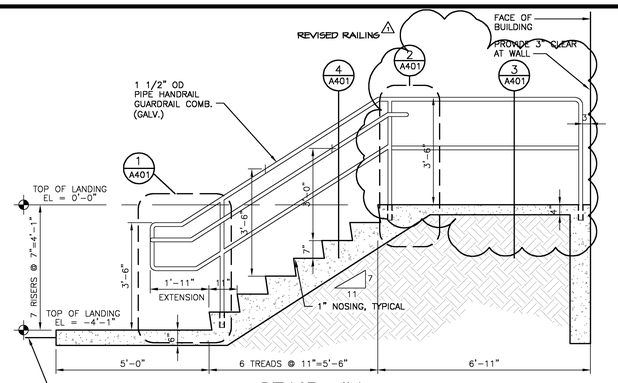
(CONCRETE STAIR)
ENLARGED STAIR #1
A 1/2" = 1'-0"



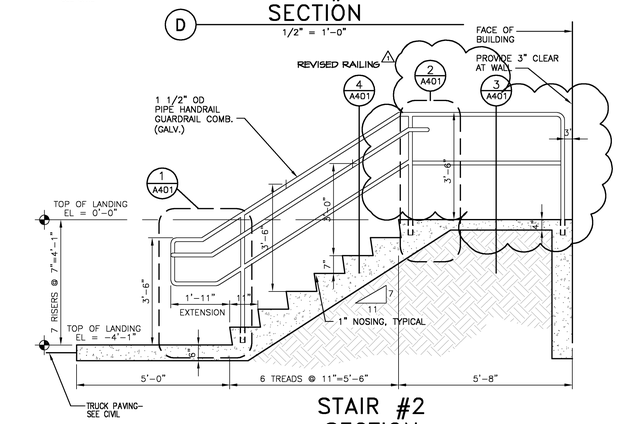
(CONCRETE STAIR)
ENLARGED STAIR #2
B 1/2" = 1'-0"



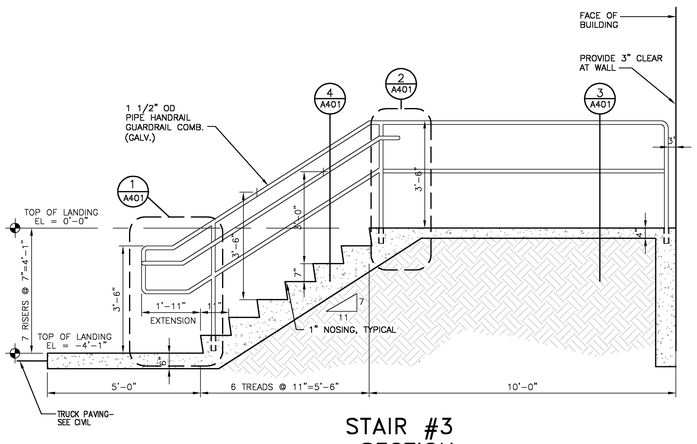
(CONCRETE STAIR)
ENLARGED STAIR #3
C 1/2" = 1'-0"



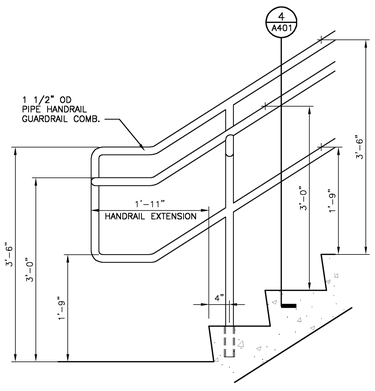
STAIR #1 SECTION
D 1/2" = 1'-0"



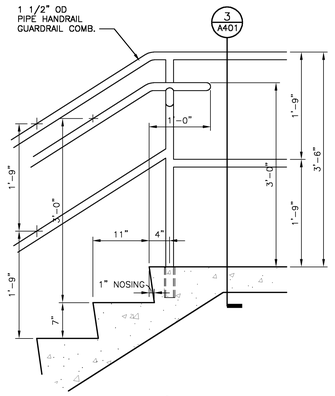
STAIR #2 SECTION
E 1/2" = 1'-0"



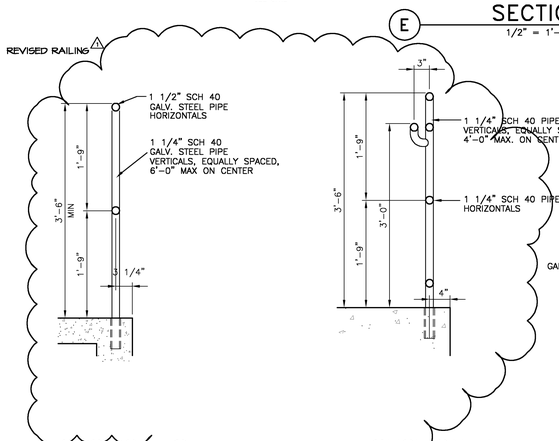
STAIR #3 SECTION
F 1/2" = 1'-0"



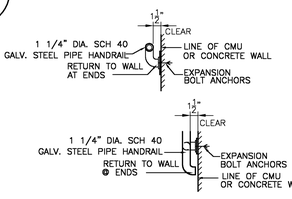
HANDRAIL/GUARDRAIL @ STAIR BASE
1 1" = 1'-0"



HANDRAIL/GUARDRAIL TOP LANDING
2 1" = 1'-0"

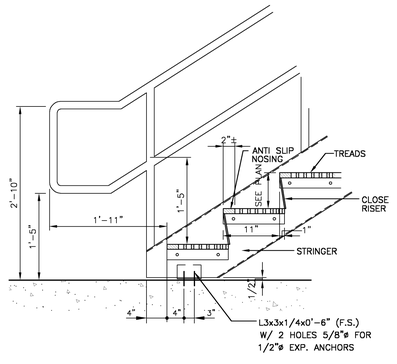


SECTION @ GUARDRAIL
3 1" = 1'-0"

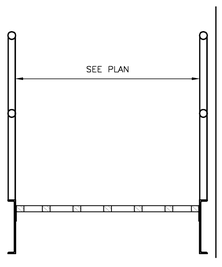


SECTION AT GUARD/HANDRAIL
4 1" = 1'-0"

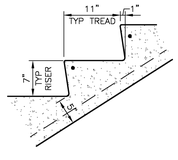
PIPE HANDRAIL @ WALL
5 1" = 1'-0"



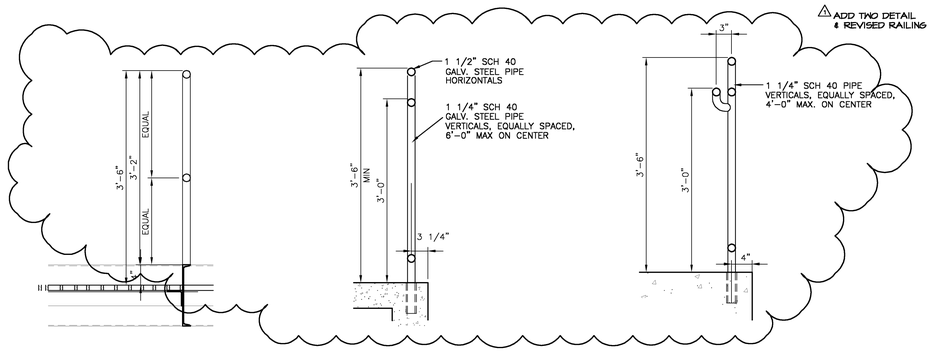
STEEL STAIR @ BASE
6 1" = 1'-0"



STEEL STAIR @ HANDRAIL
7 1" = 1'-0"



TYP STEP DETAIL
8 1" = 1'-0"



STEEL STAIR AT LANDING
9 1" = 1'-0"

SECTION @ GUARDRAIL
10 1" = 1'-0"

SECTION AT GUARD/HANDRAIL
11 1" = 1'-0"

FLORIDA DISABLED ACCESS LICENSE #630
FLORIDA ARCHITECTURAL LICENSE #AR 0015175
THE STELLAR GROUP
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED STAIR PLANS, SECTIONS & DETAILS

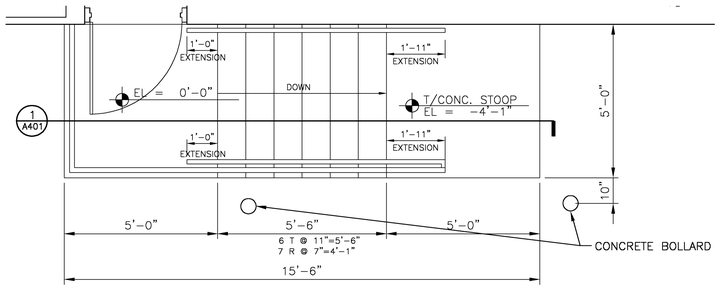
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REV.	DATE	BY	DESCRIPTION
1	06/22/2007	DRM	REVISED AS NOTED
0	04/20/2007	JVG	CONSTRUCTION ISSUE

JOB NO. 710-3019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

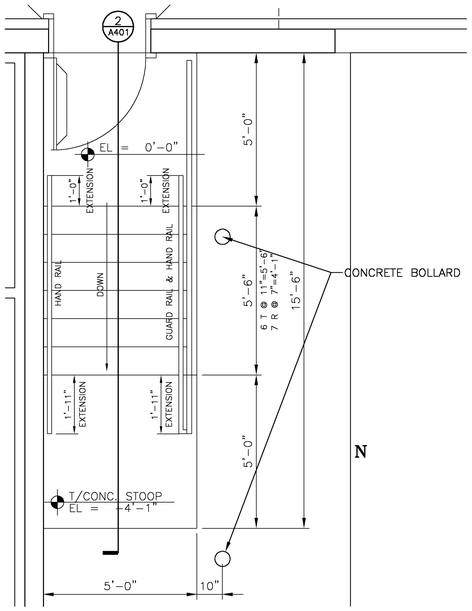
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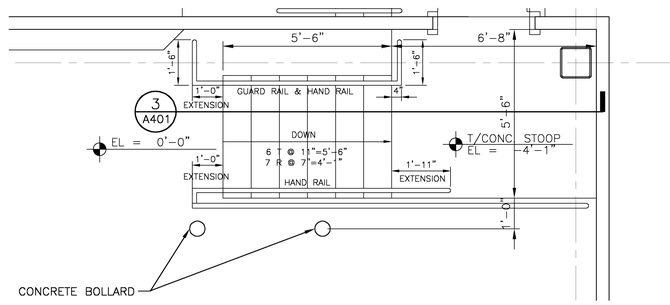
(CONCRETE STAIR)
A ENLARGED STAIR #4
1/2" = 1'-0"

N



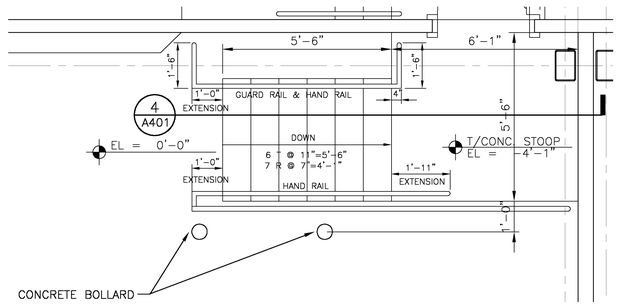
(STEEL STAIR)
B ENLARGED STAIR #5
1/2" = 1'-0"

N



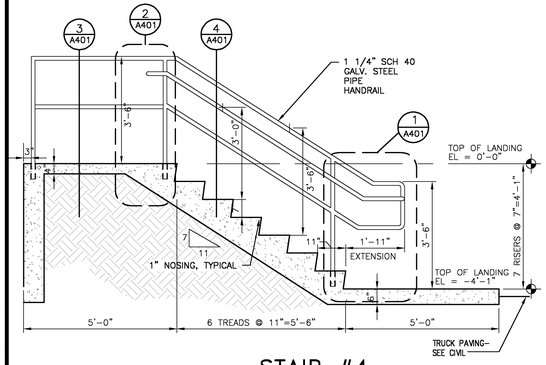
(CONCRETE STAIR)
C ENLARGED STAIR #6
1/2" = 1'-0"

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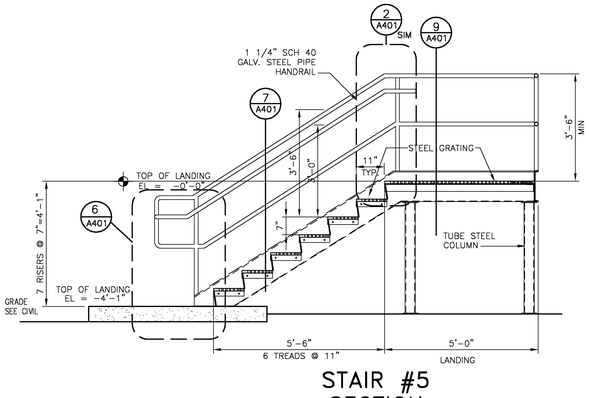


(CONCRETE STAIR)
D ENLARGED STAIR #7
1/2" = 1'-0"

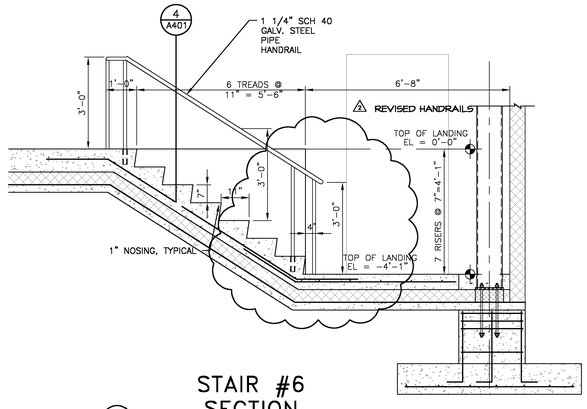
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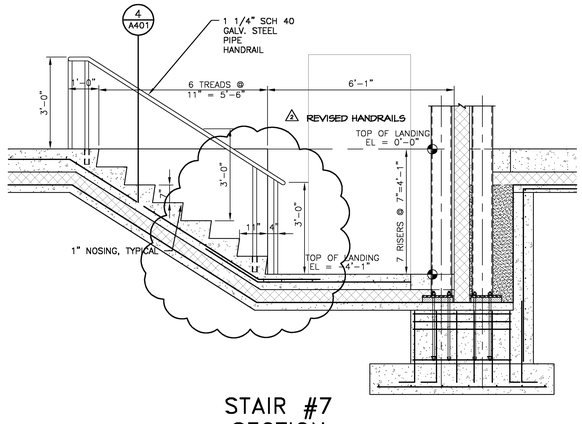
STAIR #4 SECTION
1 1/2" = 1'-0"



STAIR #5 SECTION
2 1/2" = 1'-0"



STAIR #6 SECTION
3 1/2" = 1'-0"



STAIR #7 SECTION
4 1/2" = 1'-0"

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

THE STELLAR GROUP
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FLORIDA ENGINEERING LICENSE #52 #630
FLORIDA ARCHITECTURAL LICENSE #AR 0016176

ENLARGED STAIR PLANS, SECTIONS & DETAILS

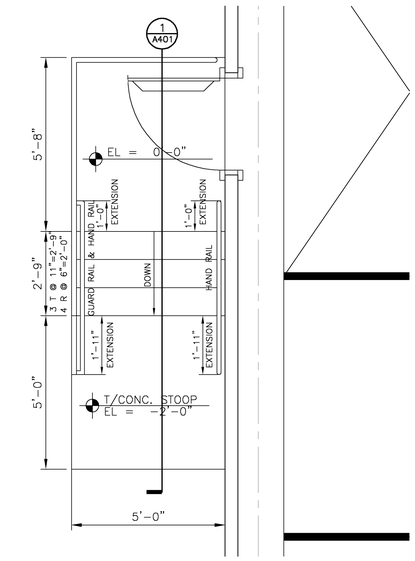
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REV.	DATE	DESCRIPTION
2	6/22/2007	REVISED AS NOTED
1	5/25/2007	REVISED AS NOTED
0	3/19/2007	CONSTRUCTION ISSUE
	JVG	
	BY	

JOB NO. 710-3019
DRAWN: LBM
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SCALE: AS SHOWN

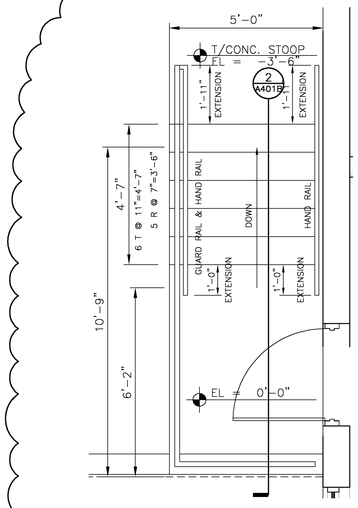
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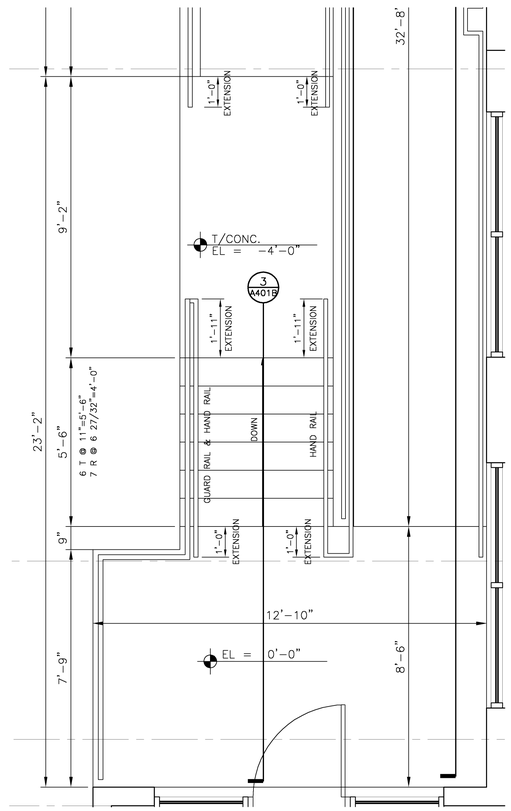
(STEEL STAIR)
A ENLARGED STAIR #8
1/2" = 1'-0"

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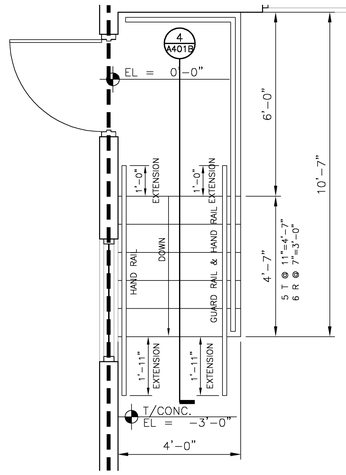
(CONCRETE STAIR)
B ENLARGED STAIR #9
1/2" = 1'-0"

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(CONCRETE STAIR)
C ENLARGED STAIR #10
1/2" = 1'-0"

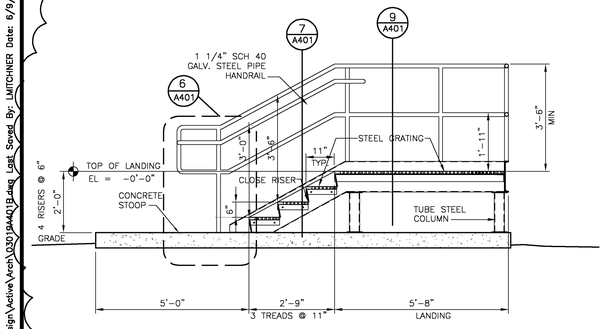
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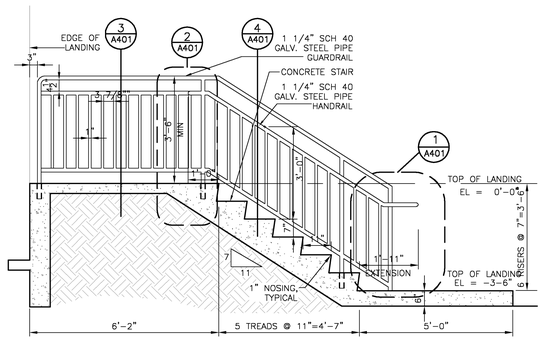
(STEEL STAIR)
D ENLARGED STAIR #11
1/2" = 1'-0"

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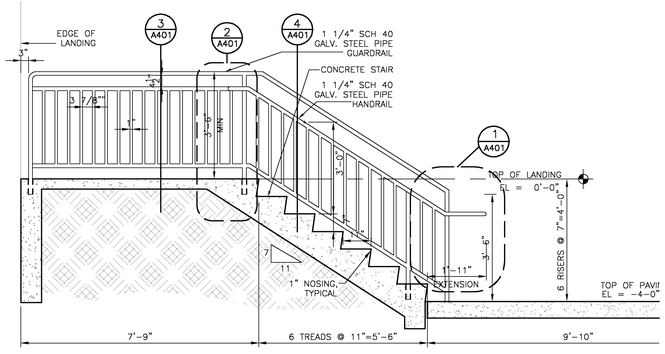
△REVISED STAIR PLAN & SECTIONS



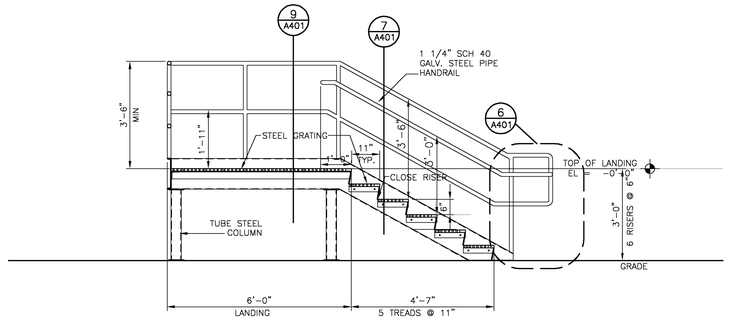
STAIR #8 SECTION
1 1/2" = 1'-0"



STAIR #9 SECTION
2 1/2" = 1'-0"



STAIR #10 SECTION
3 1/2" = 1'-0"



STAIR #11 SECTION
4 1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE No. AR 0016175

FLORIDA ENGINEERING LICENSE No. 9430

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ENLARGED STAIR PLANS, SECTIONS & DETAILS

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REV.	DATE	BY	DESCRIPTION
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0	5/18/2007	JVG	CONSTRUCTION ISSUE

JOB NO. 710-3019

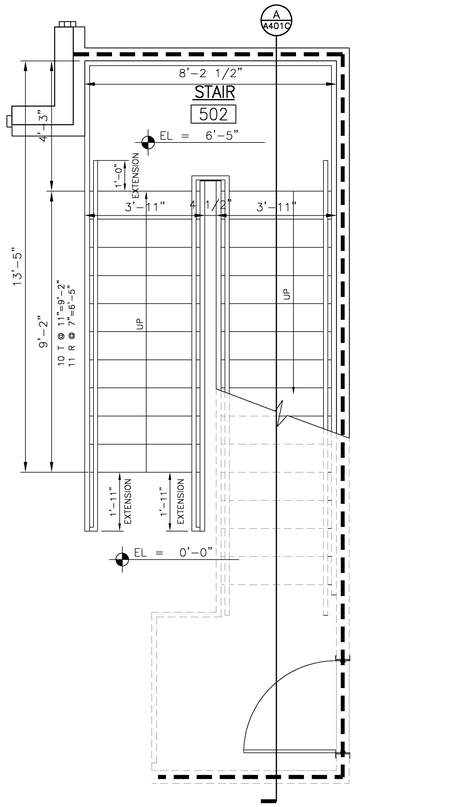
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SCALE: AS SHOWN

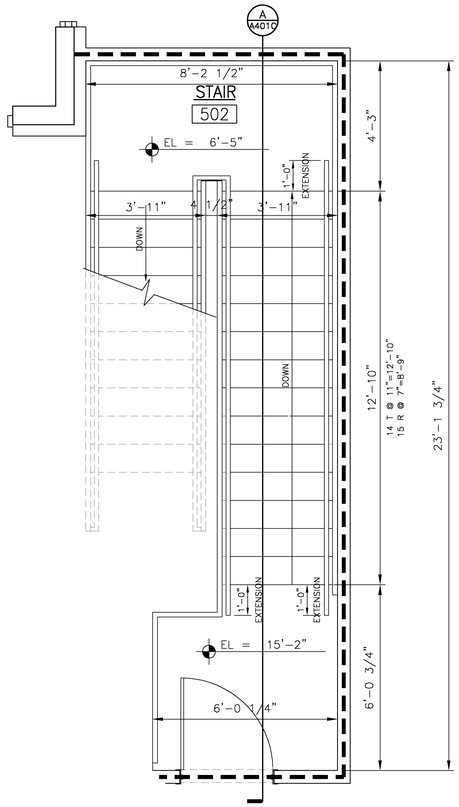
A401B
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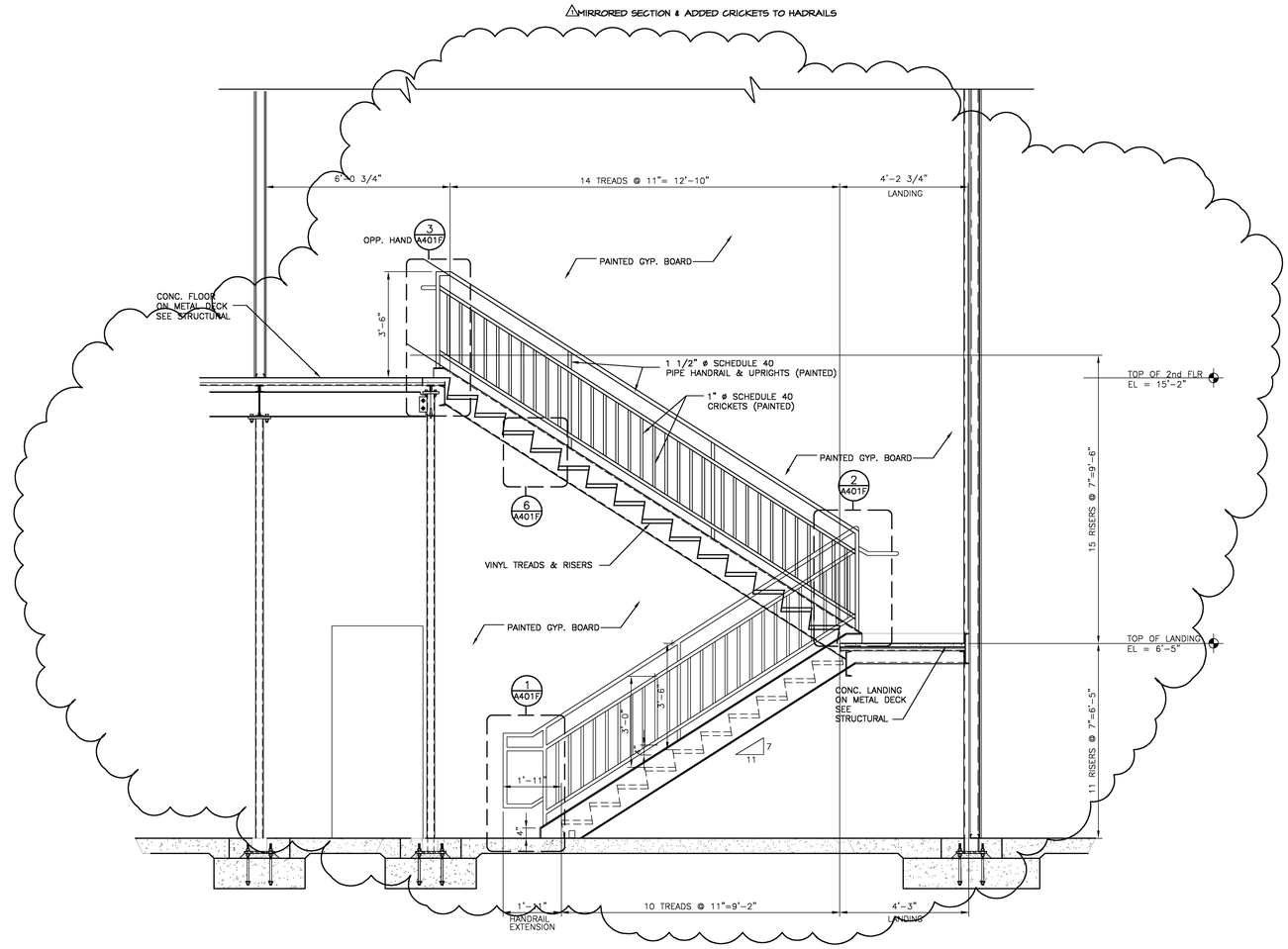
STAIR #1 PLAN @ 1ST FLOOR

1/2" = 1'-0"



STAIR #1 PLAN @ 2ND FLOOR

1/2" = 1'-0"



A STAIR SECTION

1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE No. AR 0015176

FLORIDA ENGINEERING LICENSE No. 9430

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION

2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ENLARGED STAIR PLANS, SECTIONS & DETAILS

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REV.	DATE	BY	DESCRIPTION
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0	06/06/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-3019

DRAWN: LBM

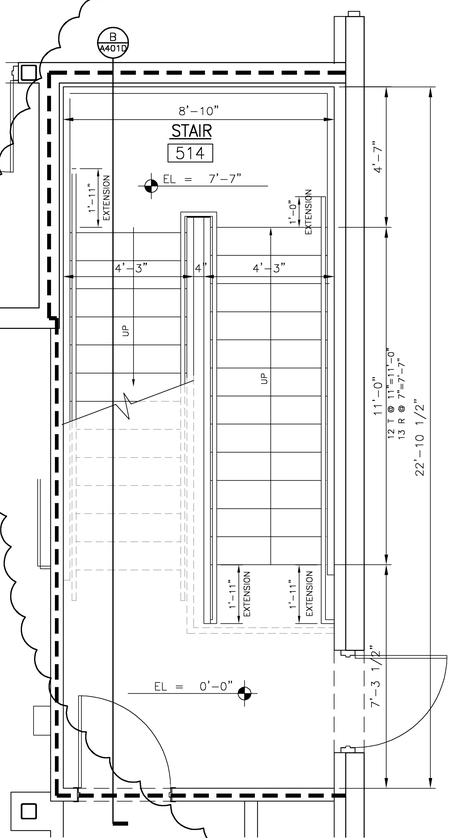
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SCALE: AS SHOWN

A401C

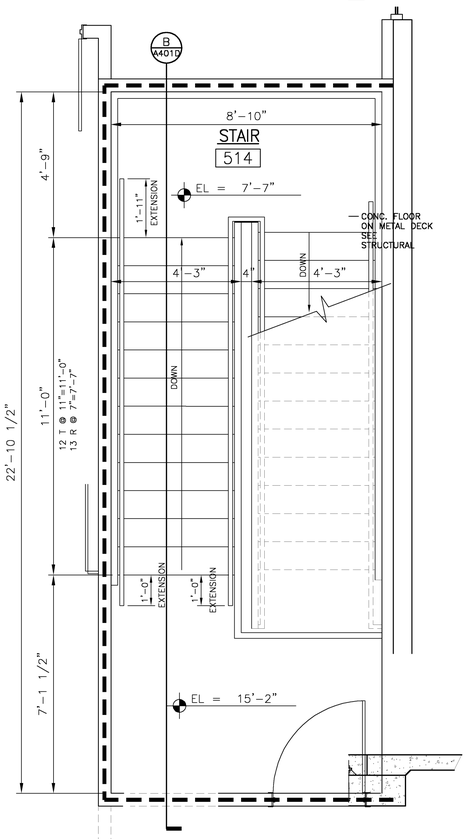
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STAIR #2 PLAN @ 1ST FLOOR

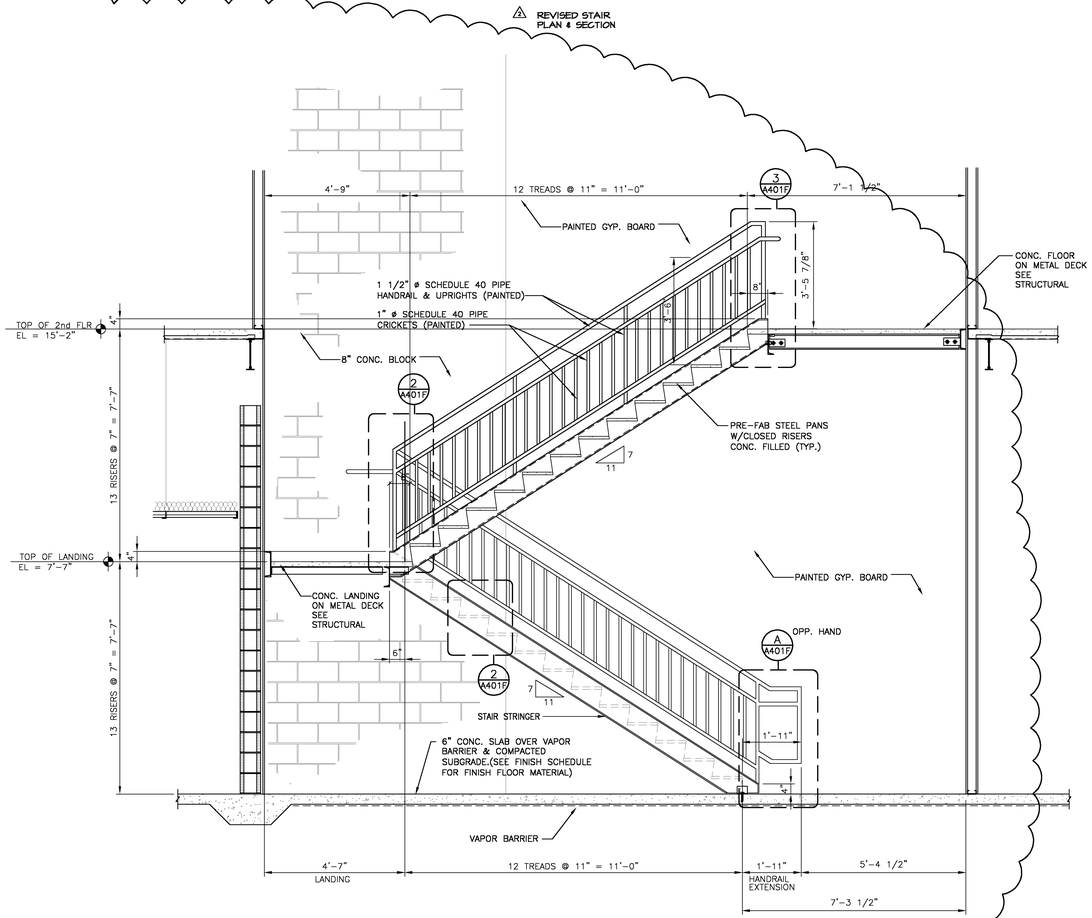
1/2" = 1'-0"



STAIR #2 PLAN @ 2ND FLOOR

1/2" = 1'-0"

2 REVISED STAIR PLAN & SECTION



B STAIR SECTION

1/2" = 1'-0"

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FLORIDA ENGINEERING LICENSE No. 9430
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ENLARGED STAIR PLANS, SECTIONS & DETAILS

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REV.	DATE	BY	DESCRIPTION
2	06/29/07	LBM	REVISED AS NOTED
1	06/26/07	JVG	REVISED AS NOTED
0	06/22/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-3019

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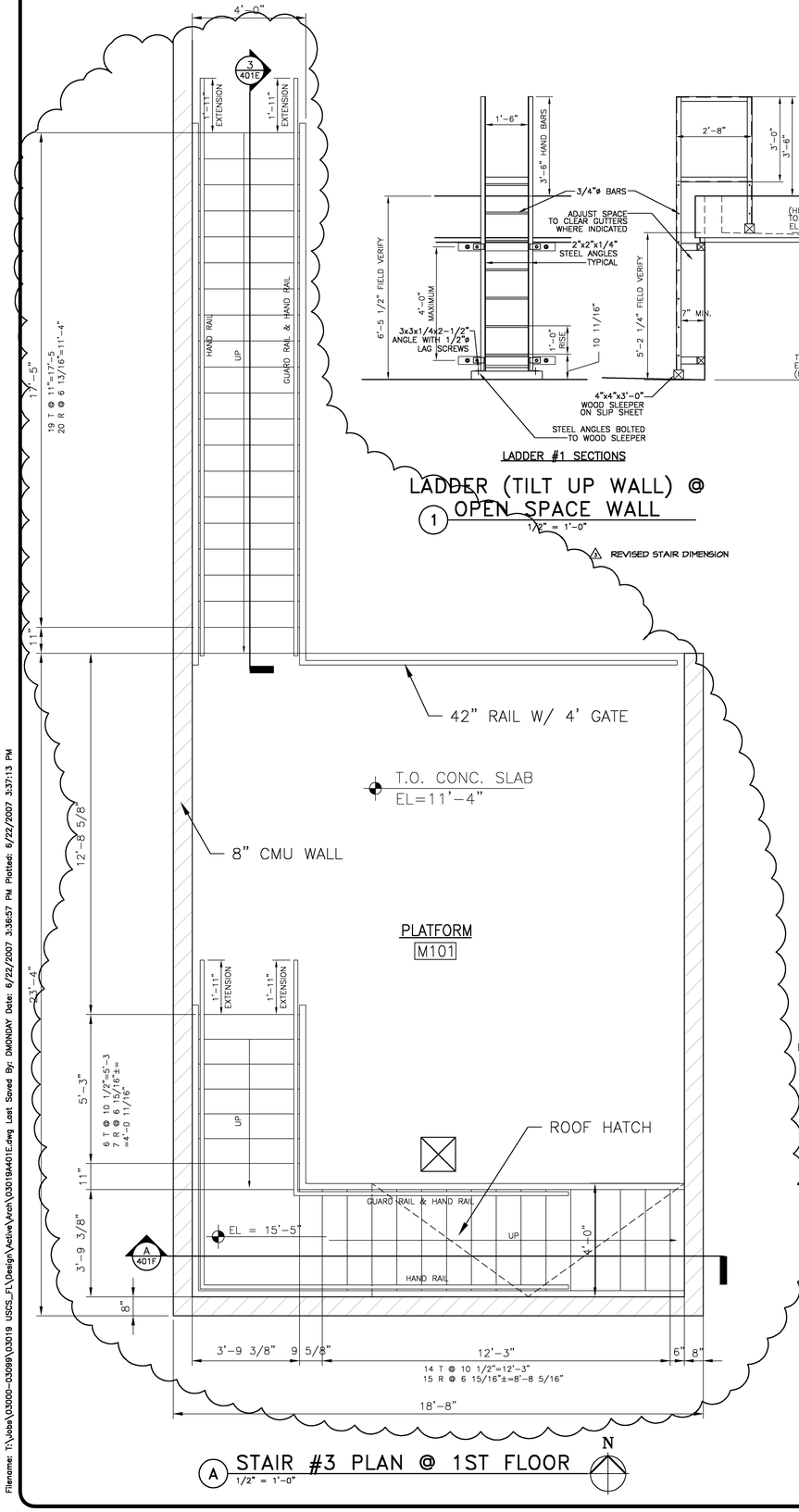
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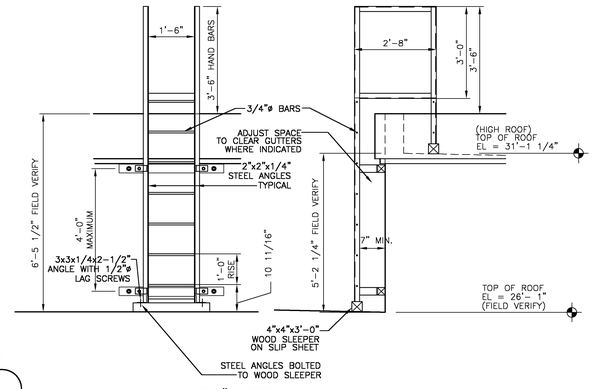
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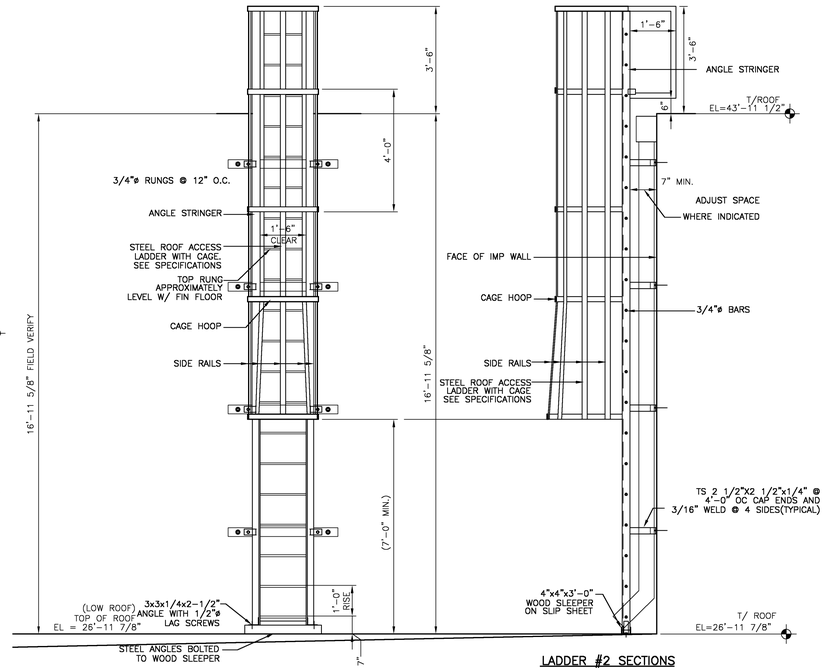


A STAIR #3 PLAN @ 1ST FLOOR
1/2" = 1'-0"



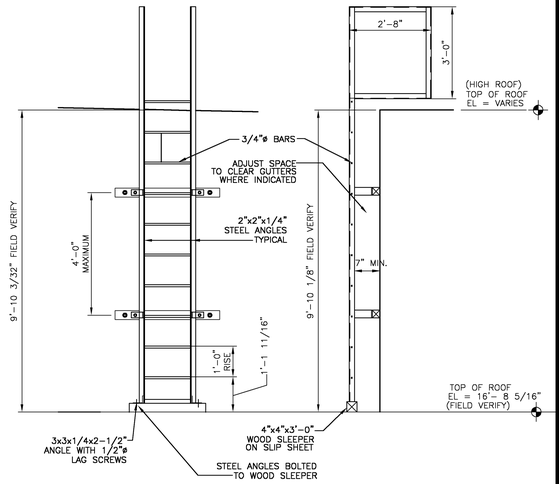
LADDER #1 SECTIONS

LADDER (TILT UP WALL) @ OPEN SPACE WALL
1 1/2" = 1'-0"



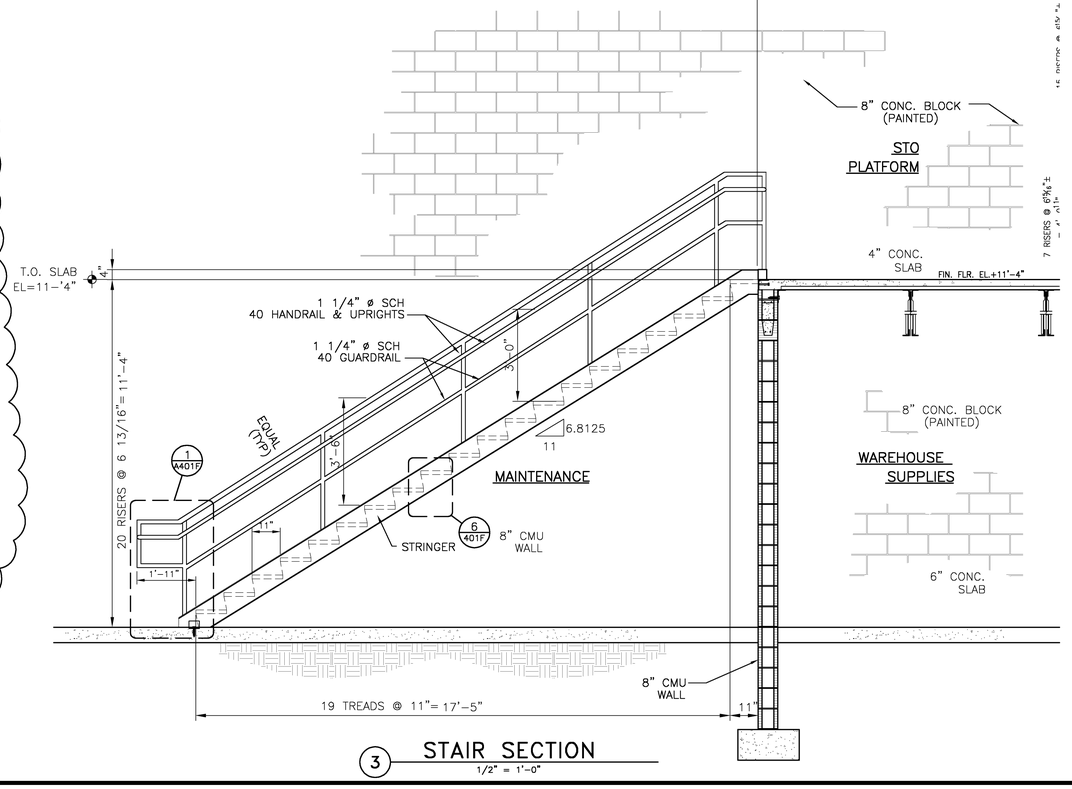
LADDER #2 SECTIONS

LADDER (IMP WALL) @-20F TO + 35 F
2 1/2" = 1'-0"

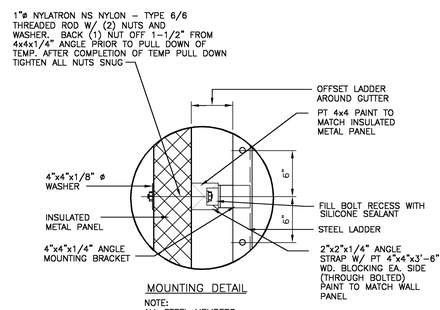


LADDER #3 SECTIONS

LADDER (TILT UP WALL) @ OPEN SPACE WALL
3 1/2" = 1'-0"



STAIR SECTION
3 1/2" = 1'-0"



MOUNTING DETAIL

NOTE:
ALL STEEL MEMBERS TO BE GALVANIZED

TYPICAL DETAIL FOR FREEZER WALL

REVISED STAIR DIMENSION

FLORIDA ENGINEERING LICENSE 9430
FLORIDA ARCHITECTURAL LICENSE AR 15766
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED STAIR PLANS, SECTIONS & DETAILS

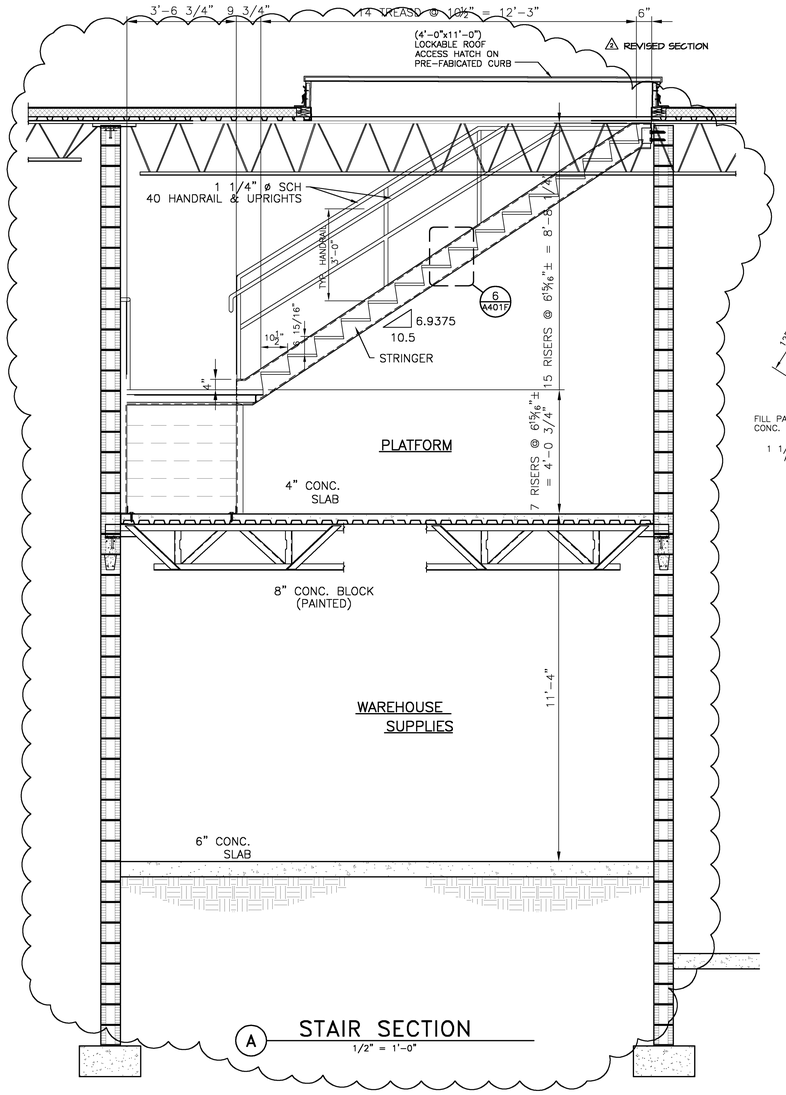
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REV.	DATE	BY	DESCRIPTION
3	10/22/07	LBM	REVISED AS NOTED
2	10/19/07	LBM	REVISED AS NOTED
1	10/08/07	LBM	CONSTRUCTION ISSUE
0	10/05/07	LBM	

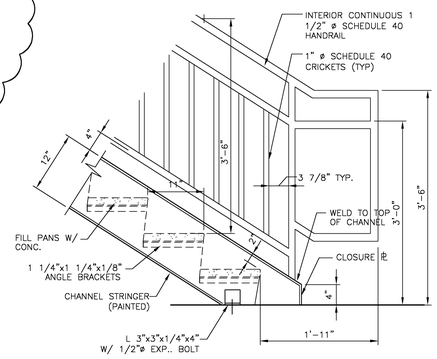
JOB NO. 710-3019
DRAWN: LBM
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SCALE: AS SHOWN

A401E
DRAWING NO.

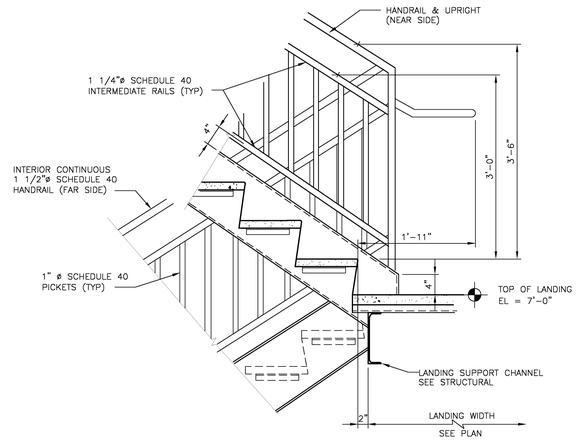
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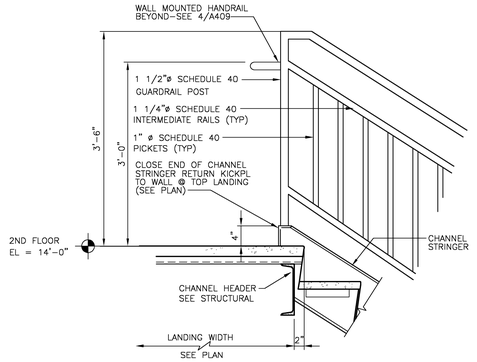
A STAIR SECTION
1/2" = 1'-0"



1 TYP. STAIR DETAIL @ BASE
1" = 1'-0"



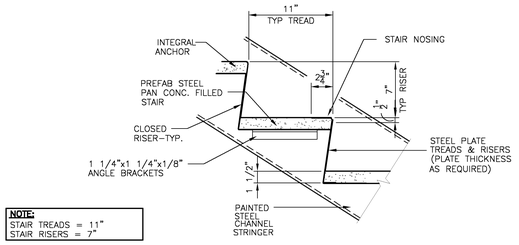
2 TYP. DETAIL @ INTERMEDIATE LANDING
1" = 1'-0"



3 TYP. STAIR DETAIL @ TOP LANDING
1" = 1'-0"

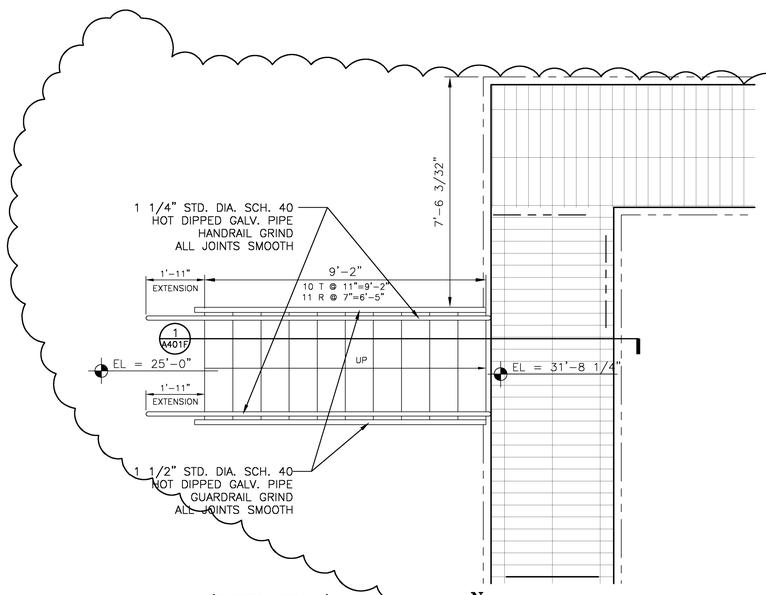
HANDRAIL/ELEVATION @ WALL
4 1" = 1'-0"

PIPE HANDRAIL @ WALL
5 1" = 1'-0"



NOTE:
STAIR TREADS = 11"
STAIR RISERS = 7"

6 TYP STEP DETAIL
1 1/2" = 1'-0"



(STEEL STAIR)
A ENLARGED STAIR #15
1/2" = 1'-0"

STAIR #15 SECTION
1 1/2" = 1'-0"

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FLORIDA ENGINEERING LICENSE No. 56535
FLORIDA ARCHITECTURAL LICENSE No. AR95176
THE STELLAR GROUP
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ENLARGED STAIR PLANS, SECTIONS & DETAILS

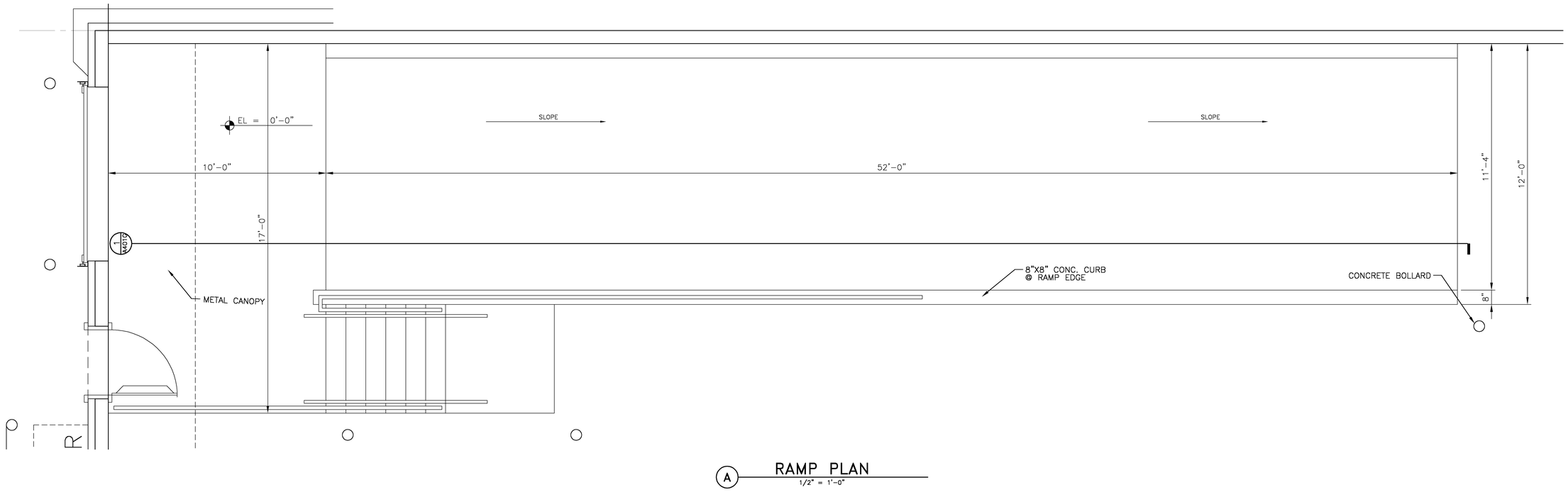
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REV.	DATE	BY	DESCRIPTION
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1	8/30/07	JVG	REVISED AS NOTED
0	6/29/07	JVG	CONSTRUCTION ISSUE

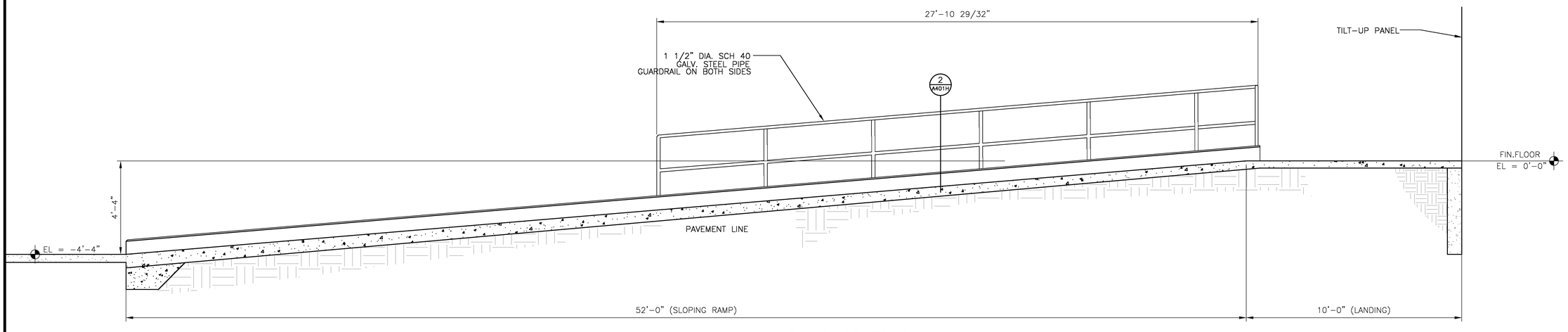
JOB NO. 710-3019
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A RAMP PLAN
1/2" = 1'-0"



1 RAMP SECTION
1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE No. AR 0016176
FLORIDA ENGINEERING LICENSE No. 34520
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED RAMP PLANS, SECTIONS & DETAILS

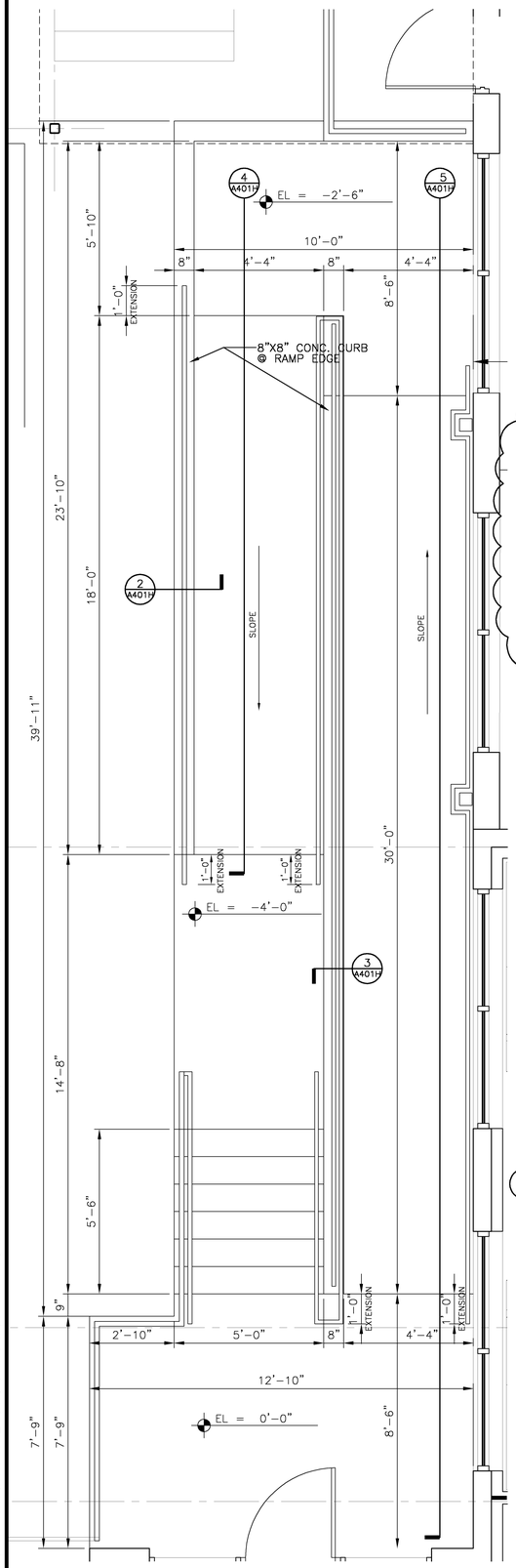
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REV.	DATE	BY	DESCRIPTION
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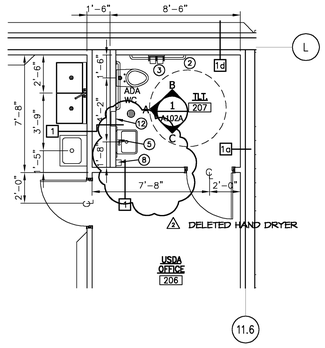
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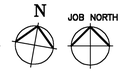
RAMP PLAN

X — 1/2" = 1'−0"

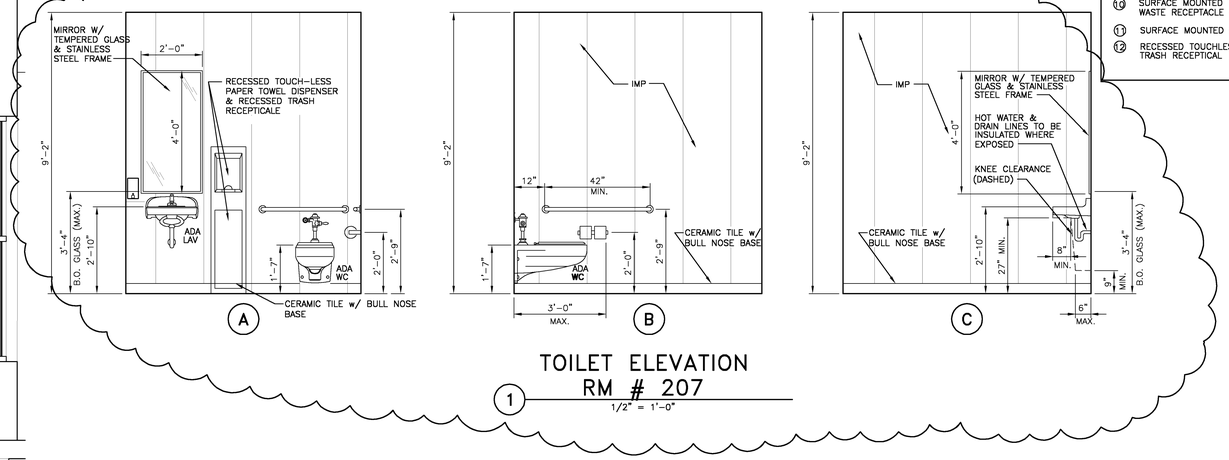


ENLARGED TOILET PLAN

1/4" = 1'−0"

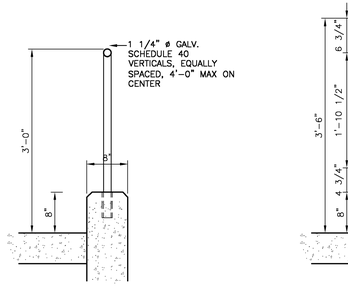


DELETED TILE HATCH & REVISED WC GRAPHICS



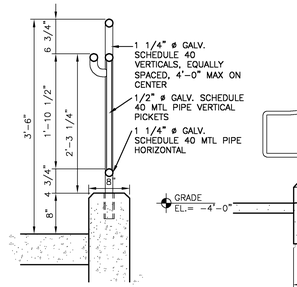
TOILET ELEVATION RM # 207

1 — 1/2" = 1'−0"



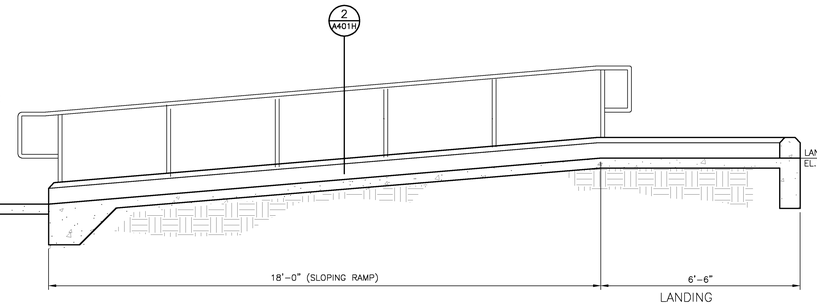
SECTION @ HANDRAIL

2 — 1" = 1'−0"



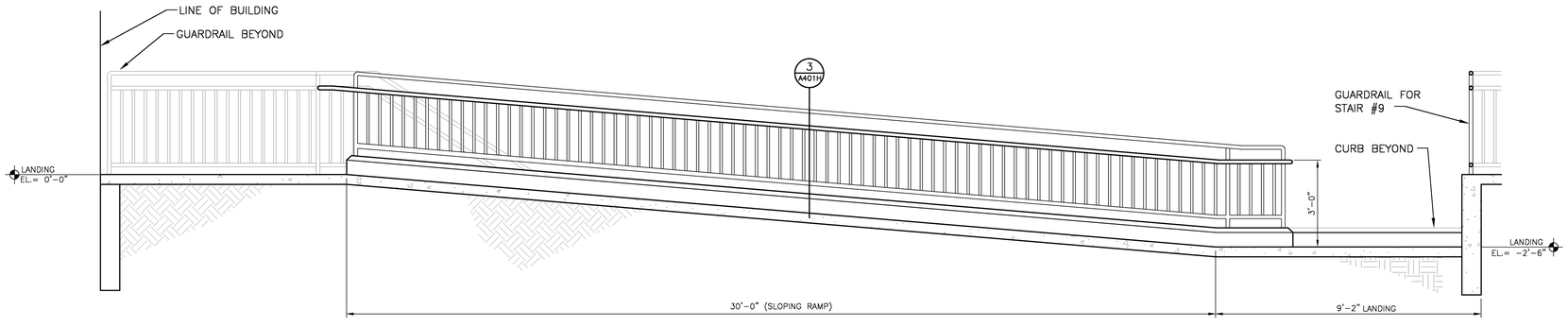
SECTION @ GUARDRAIL

3 — 1" = 1'−0"



RAMP SECTION

4 — 1/2" = 1'−0"



RAMP SECTION

5 — 1/2" = 1'−0"

ABBREVIATION	DESCRIPTION
ADA LAV	ADA ACCESSIBLE LAVATORY
ADA UR	ADA ACCESSIBLE URINAL
ADA WC	ADA ACCESSIBLE WATER CLOSET
FD	FLOOR DRAIN
LAV	LAVATORY
UR	URINAL
US	URINAL SCREEN
WC	WATER CLOSET

NOTES:

A. FIELD VERIFICATION OF DIMENSIONS ARE REQUIRED BEFORE FABRICATION OF TOILET PARTITIONS.
B. BOBRICK ACCESSORIES LISTED OR APPROVED EQUIVALENT.
C. SEE PLUMBING DOCUMENTS FOR FIXTURES.
D. OTHER TOILET ACCESSORIES TO BE PROVIDED BY THE OWNER.

TOILET ACCESSORIES LEGEND

1. 36" LONG GRAB BAR HORIZONTAL, 1 1/2" DIA.
2. 42" LONG GRAB BAR HORIZONTAL, 1 1/2" DIA.
3. SURFACE MOUNTED TOILET TISSUE DISPENSER −(B−2740)
4. 18"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
5. 24"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
6. 56"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
7. 106"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
8. SURFACE MOUNTED SOAP DISPENSER − (B−2111)
9. SURFACE MOUNTED PAPER TOWEL DISPENSER & WASTE RECEPTACLE − (B−3949)
10. SURFACE MOUNTED PAPER TOWEL DISPENSER & WASTE RECEPTACLE − (B−4369)
11. SURFACE MOUNTED ELECTRIC HAND DRYER − ( )
12. RECESSED TOUCHLESS PAPER TOWEL DISPENSER AND RECESSED TRASH RECEPTICAL

WALL TYPES

1	4" INSULATED METAL PANEL
1a	4" INSULATED METAL PANEL ON 9 1/4" CONCRETE TILT−UP PANEL
1b	4" INSULATED METAL PANEL ON 9 1/4" CONCRETE TILT−UP PANEL & 3−5/8", 25 GA. METAL STUDS @ 16" O.C. & 5/8" GYPSUM WALL BOARD. METAL STUDS & GYPSUM WALL BOARD WILL STOP 6" ABOVE THE CEILING GRID
1c	4" INSULATED METAL PANEL ON 8" CONCRETE MASONRY UNIT
1d	4" INSULATED METAL PANEL ON BOTH SIDES OF 7 1/4" CONCRETE TILT−UP PANEL.
1e	4" INSULATED METAL PANEL AND 3 5/8" STUDS W/ 5/8" GYPSUM WALL BOARD.
2	5" INSULATED METAL PANEL
2a	5" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT−UP PANEL
3	6" INSULATED METAL PANEL
4	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT−UP PANEL
4a	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT−UP PANEL w/ 4" INSULATED METAL PANEL
4b	7 1/4" CONCRETE TILT−UP PANEL
4c	7 1/4" CONCRETE TILT−UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ BATT INSULATION EXTEND UP TO THE UNDERSIDE OF METAL DECK.
4d	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT−UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8" METAL STUDS.
5	8" CONCRETE MASONRY UNITS
5a	8" CONCRETE MASONRY UNITS − 6'−0" HIGH A.F.F.
5b	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING
5c	**(2) HOUR RATED WALL (UL DESIGN NO. 905):** 8" CMU WALL
5d	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK))
5e	TOILET ROOM SIDE: 8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK). OTHER ROOM SIDE: PROVIDE 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
5f	**(1) HOUR RATED WALL:** 8" CONCRETE MASONRY UNITS EXTEND UP TO THE UNDERSIDE OF FLOOR DECK W/ 5/8" GYPSUM WALL BOARD "TYPE X" ON 7/8" METAL FURRING. AT SECOND FLOOR: SEE WALL TYPE 7
5g	8" CONCRETE MASONRY UNITS STOPS ABOVE CEILING W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. EXTEND TO UNDERSIDEOF DECK W/ INSULATION.
5h	8" CMU − STOP 4'−8" A.F.F.
	PIPE CHASE:
6	1'−0" CLEAR BETWEEN 4" CONCRETE MASONRY UNITS. CMU WALLS TO STOP ABOVE CEILING & THE OTHER CMU WALL WILL CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
	(1) HOUR RATED WALL (UL DESIGN NO. 419):
7	5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
7a	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7b	5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7c	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. −STOP 6" ABOVE CEILING GRID.
	PIPE CHASE:
7e	1'−0" CLEAR BETWEEN (2) 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ 5/8" GYPSUM WALL BOARD ON EACH FINISH SIDE. PROVIDE ONE SIDE OF WALL W/ INSULATION (SOUND ATTENUATION) & EXTEND INSULATION & WALL UP TO THE UNDERSIDE OF METAL DECK.
	(1) HOUR RATED SHAFT WALL (UL DESIGN NO. 415):
8	NOMINAL 1" THICK GYPSUM LINER PANELS INSERTED IN 2 1/2", "H" PORTION OR "C−H" STUDS @ 24" O.C. & 5/8" GYPSUM WALL BOARD TYPE "X" ON OTHER SIDE
9	9 1/4" CONCRETE TILT−UP PANEL.
10	10 1/2" THERMOMASS PANEL

FLORIDA ENGINEERING LICENSE NO. 36520
FLORIDA ARCHITECTURAL LICENSE NO. AR95676
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ENLARGED RAMP PLANS, SECTIONS, DETAILS, FLOOR PLANS & ELEVATIONS

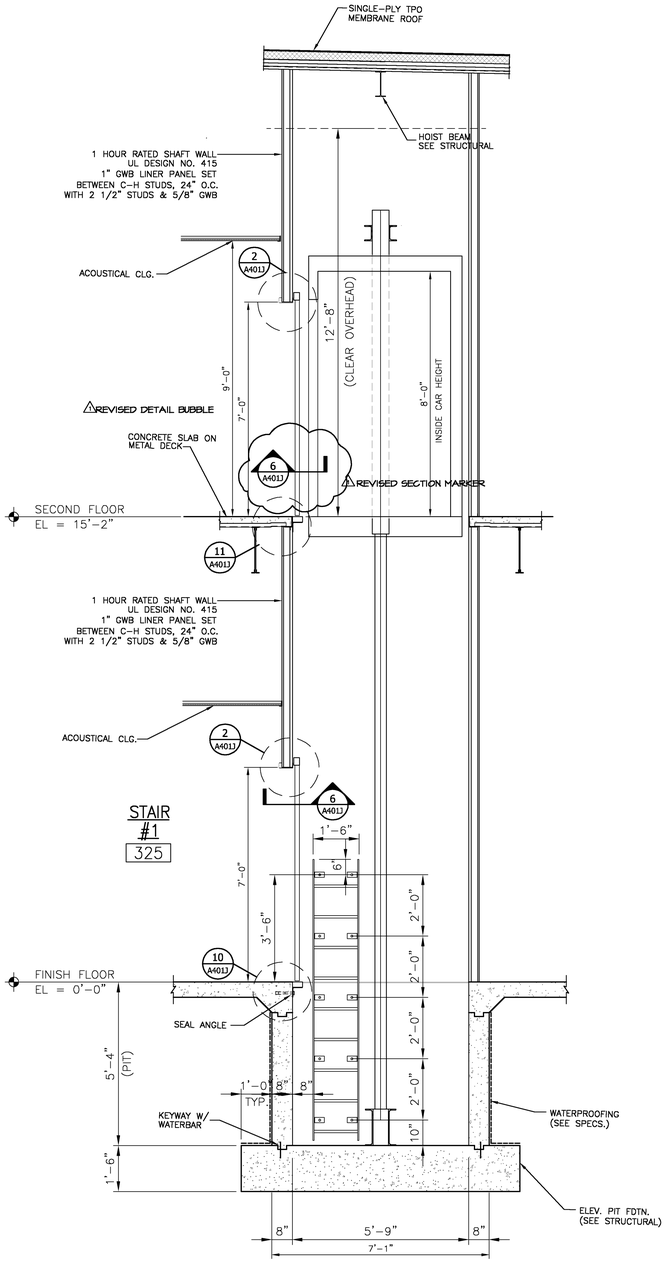
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REV.	DATE	BY	DESCRIPTION
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1	6/29/2007	JVG	REVISED AS NOTED
0	6/15/2007	JVG	CONSTRUCTION ISSUE

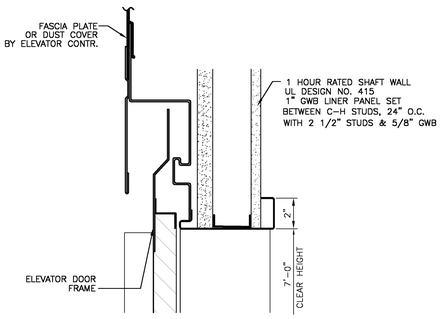
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CHECKED:
SCALE: AS SHOWN

A401H
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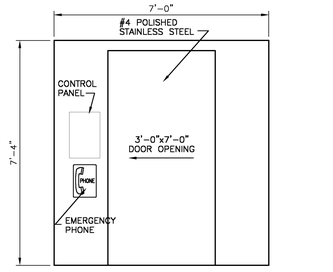
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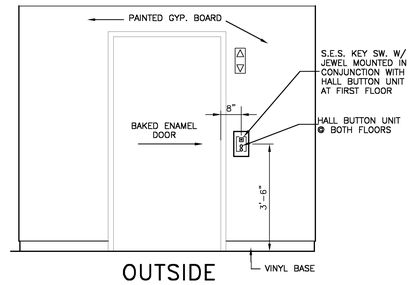
ELEVATOR SECTION
1/2"=1'-0"



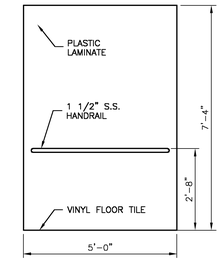
2 HEAD @ ELEVATOR DOOR
3"=1'-0"



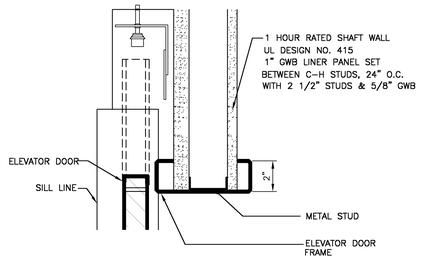
3 INTERIOR ELEVATION ELEVATOR CAB
1/2" = 1'-0"



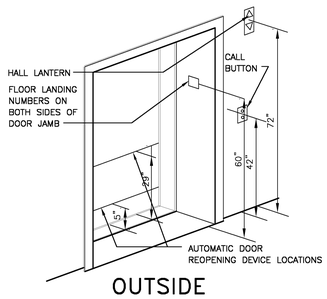
4 OUTSIDE ELEVATION
1/2" = 1'-0"



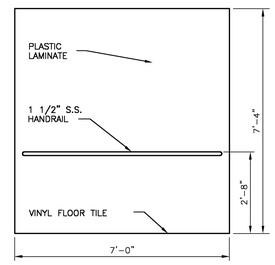
5 INTERIOR ELEVATION @ ELEVATOR CAB
1/2" = 1'-0"



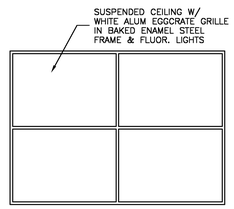
6 JAMB @ ELEVATOR DOOR
3"=1'-0"



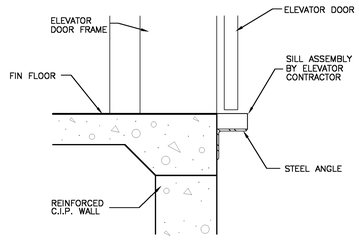
7 OUTSIDE ELEVATION
1/2" = 1'-0"



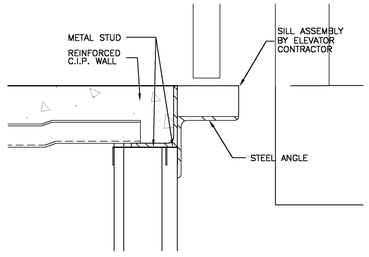
8 INTERIOR ELEVATION @ ELEVATOR CAB
1/2" = 1'-0"



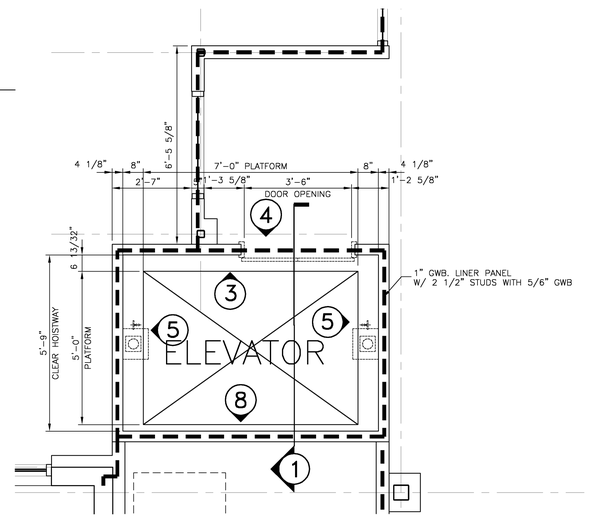
9 REFLECTED CEILING PLAN @ ELEVATOR
1/2" = 1'-0"



10 SILL @ ELEVATOR DOOR
3"=1'-0"



11 SILL @ ELEVATOR DOOR 2ND FLOOR
3/8" = 1'-0"



A SECTION @ ELEVATOR
3/8" = 1'-0"

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

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FLORIDA ENGINEERING LICENSE #29530
FLORIDA ARCHITECTURAL LICENSE #AR0015175

ELAVATOR PLAN & MISC DETAILS

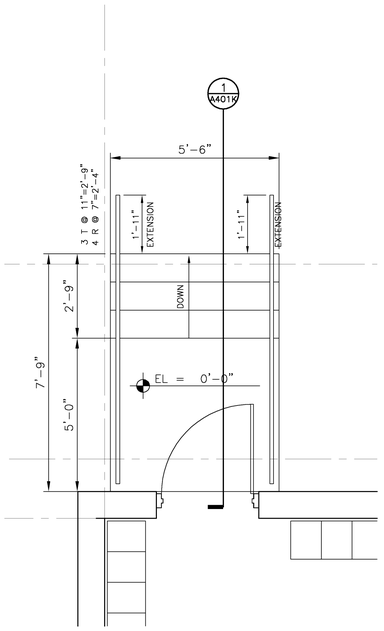
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REV.	DATE	BY	DESCRIPTION
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SCALE: AS SHOWN

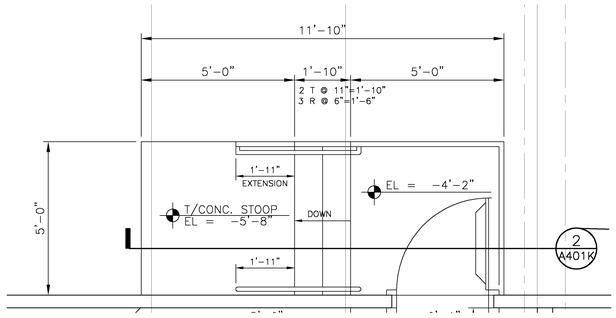
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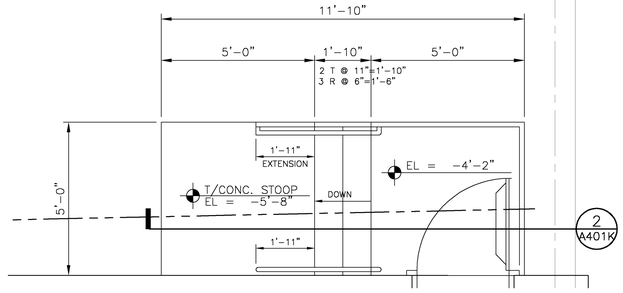
(CONCRETE STAIR)
ENLARGED STAIR #11
A 1/2" = 1'-0"

N

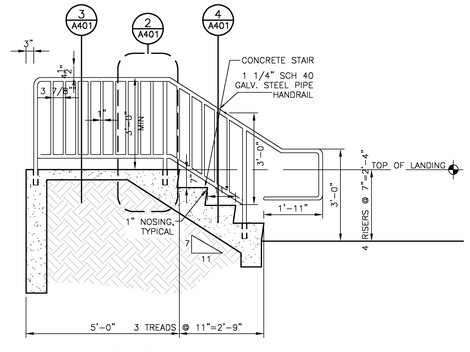


(STEEL STAIR)
ENLARGED STAIR #12
B 1/2" = 1'-0"

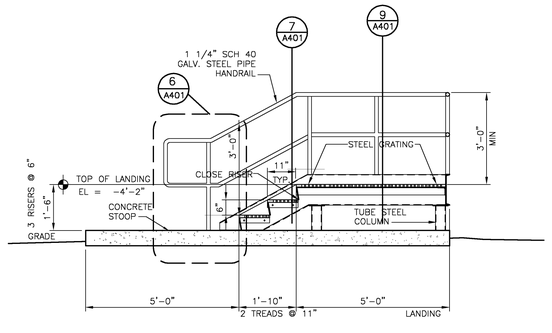
N



(STEEL STAIR)
ENLARGED STAIR #13
C 1/2" = 1'-0"



STAIR #12 SECTION
1 1/2" = 1'-0"



STAIR #13 & 14 SECTION
2 1/2" = 1'-0"

FLORIDA ARCHITECTURAL LICENSE AR 0015615

FLORIDA ENGINEERING LICENSE 26535

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED STAIR PLANS, SECTIONS & DETAILS

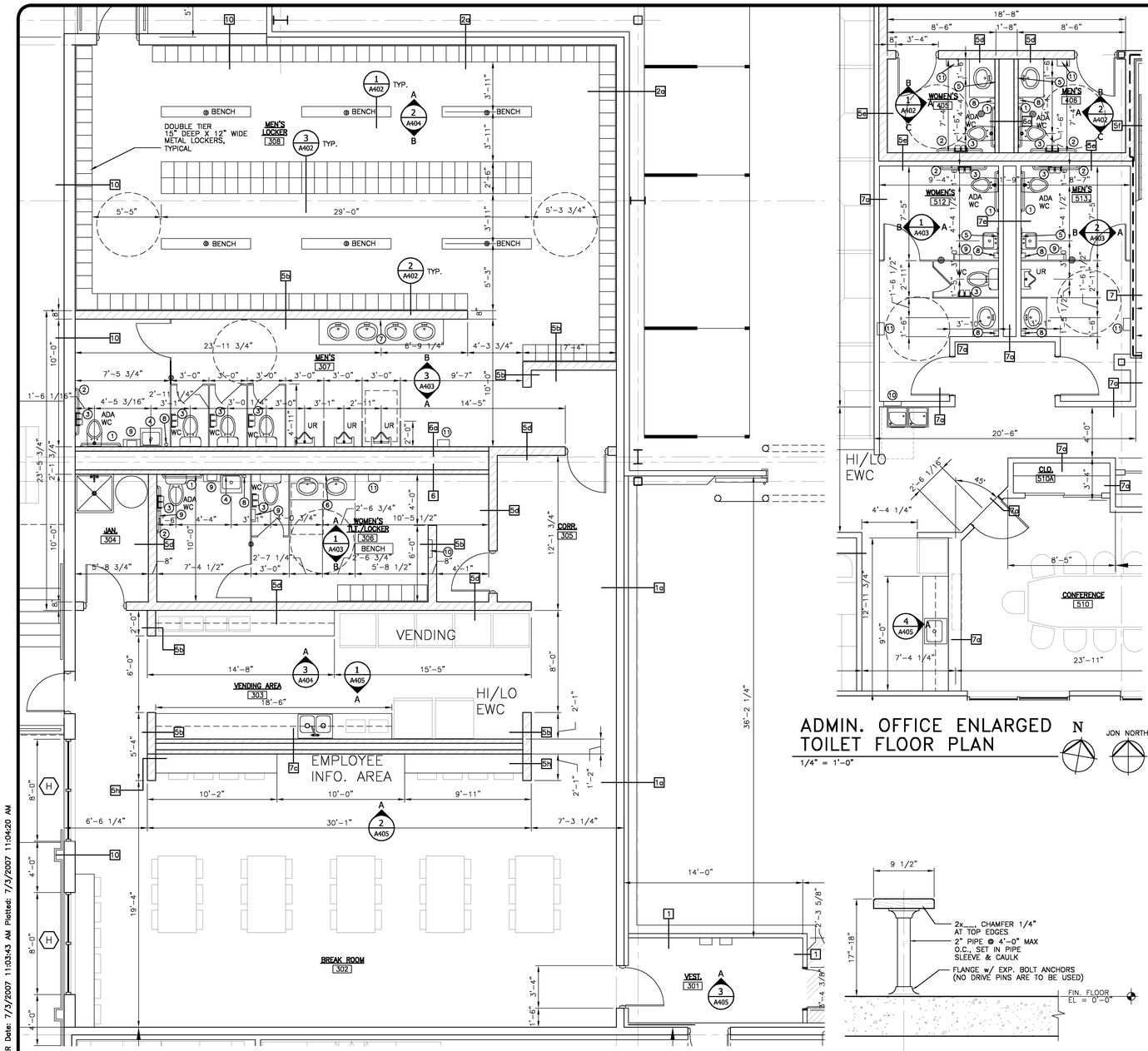
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REV.	DATE	BY	DESCRIPTION
0	6/11/07	LBM	CONSTRUCTION ISSUE

JOB NO. 710-3019
DRAWN: LBM
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SCALE: AS SHOWN

A401K
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ADMIN. OFFICE & WELFARE ENLARGED TOILET & LOCKER FLOOR PLAN

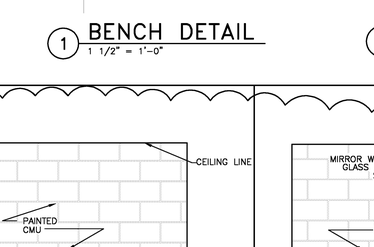
1/4" = 1'-0"

ADMIN. OFFICE ENLARGED TOILET FLOOR PLAN

1/4" = 1'-0"

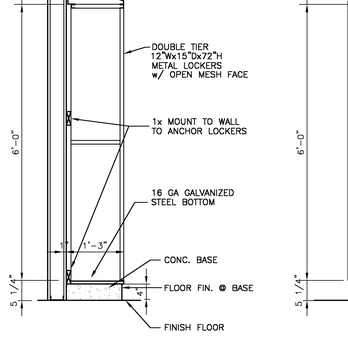
N

JON NORTH



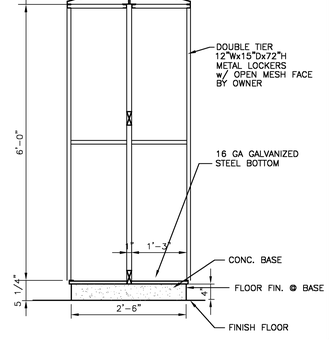
1 BENCH DETAIL

1 1/2" = 1'-0"



2 DOUBLE TIER LOCKER DETAIL

3/4" = 1'-0" (BY OWNER)



3 BACK TO BACK LOCKER DETAIL

3/4" = 1'-0" (BY OWNER)

WALL TYPES

1	4" INSULATED METAL PANEL
1a	4" INSULATED METAL PANEL ON 9 1/4" CONCRETE TILT-UP PANEL
1b	4" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT-UP PANEL & 3-5/8", 25 GA. METAL STUDS @ 16" O.C. & 5/8" GYPSUM WALL BOARD. METAL STUDS & GYPSUM WALL BOARD WILL STOP 6" ABOVE THE CEILING GRID.
1c	4" INSULATED METAL PANEL ON 8" CONCRETE MASONRY UNIT
1d	4" INSULATED METAL PANEL ON BOTH SIDES OF 9 1/4" CONCRETE TILT-UP PANEL.
1e	4" INSULATED METAL PANEL AND 3 5/8" STUDS W/ 5/8" GYPSUM WALL BOARD.
2	5" INSULATED METAL PANEL
2a	5" INSULATED METAL PANEL ON 7 1/4" CONCRETE TILT-UP PANEL
3	6" INSULATED METAL PANEL
4	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL
4a	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL w/ 4" INSULATED METAL PANEL
4b	7 1/4" CONCRETE TILT-UP PANEL
4c	7 1/4" CONCRETE TILT-UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ BATT INSULATION EXTEND UP TO THE UNDERSIDE OF METAL DECK.
4d	**(1) HOUR RATED WALL:** 7 1/4" CONCRETE TILT-UP PANEL W/ 5/8" GYPSUM WALL BOARD ON 3 5/8" METAL STUDS.
5	8" CONCRETE MASONRY UNITS
5a	8" CONCRETE MASONRY UNITS – 6'-0" HIGH A.F.F.
5b	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING
5c	**(2) HOUR RATED WALL (UL DESIGN NO. 905):** 8" CMU WALL
5d	8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK))
5e	TOILET ROOM SIDE: 8" CONCRETE MASONRY UNITS STOP ABOVE CEILING & CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENTUATION EXTEND UP TO THE UNDERSIDE OF METAL DECK). OTHER ROOM SIDE: PROVIDE 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
5f	**(1) HOUR RATED WALL:** 8" CONCRETE MASONRY UNITS EXTEND UP TO THE UNDERSIDE OF FLOOR DECK W/ 5/8" GYPSUM WALL BOARD "TYPE X" ON 7/8" METAL FURRING. AT SECOND FLOOR: SEE WALL TYPE 7
5g	8" CONCRETE MASONRY UNITS STOPS ABOVE CEILING W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION EXTEND TO UNDERSIDEOF DECK.
5h	8" CMU – STOP 4'-8" A.F.F.
6	**PIPE CHASE:** 1'-0" CLEAR BETWEEN 4" CONCRETE MASONRY UNITS. CMU WALLS TO STOP ABOVE CEILING & THE OTHER CMU WALL WILL CONTINUE W/ 5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7	**(1) HOUR RATED WALL (UL DESIGN NO. 419):** 5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C.
7a	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7b	5/8" GYPSUM WALL BOARD TYPE "X" ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ INSULATION (SOUND ATTENUATION) EXTEND UP TO THE UNDERSIDE OF METAL DECK.
7c	5/8" GYPSUM WALL BOARD ON 3 5/8", 25 GA. METAL STUDS @ 16" O.C. –STOP 6" ABOVE CEILING GRID.
7e	**PIPE CHASE:** 1'-0" CLEAR BETWEEN (2) 3 5/8", 25 GA. METAL STUDS @ 16" O.C. W/ 5/8" GYPSUM WALL BOARD ON EACH FINISH SIDE. PROVIDE ONE SIDE OF WALL W/ INSULATION (SOUND ATTENUATION) & EXTEND INSULATION & WALL UP TO THE UNDERSIDE OF METAL DECK.
8	**(1) HOUR RATED SHAFT WALL (UL DESIGN NO. 415):** NOMINAL 1" THICK GYPSUM LINER PANELS INSERTED IN 2 1/2", "H" PORTION OR "C–H" STUDS @ 24" O.C. & 5/8" GYPSUM WALL BOARD TYPE "X" ON OTHER SIDE
9	9 1/4" CONCRETE TILT-UP PANEL.
10	10 1/2" THERMOMASS PANEL

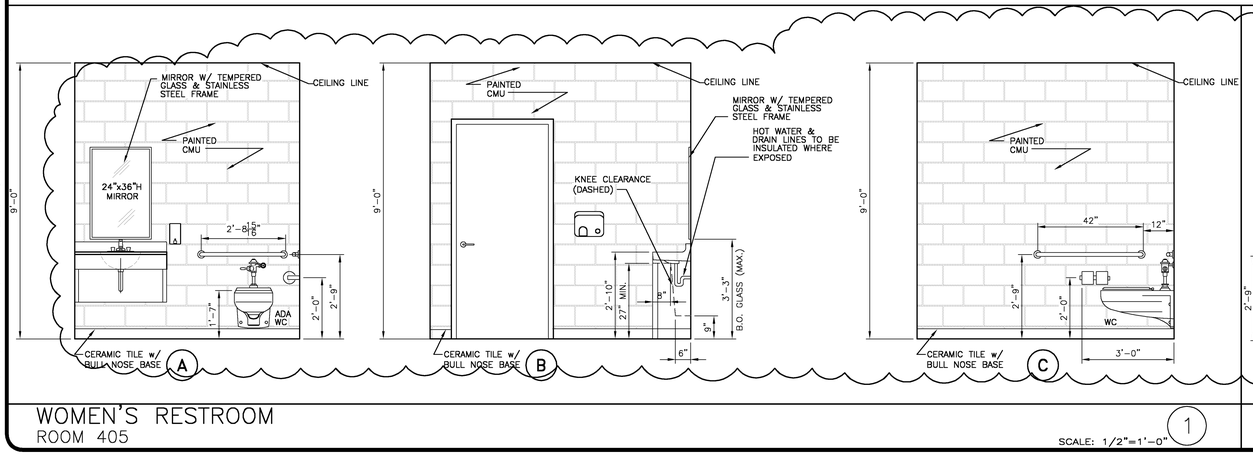
ABBREVIATION	DESCRIPTION
ADA LAV	ADA ACCESSIBLE LAVATORY
ADA UR	ADA ACCESSIBLE URINAL
ADA WC	ADA ACCESSIBLE WATER CLOSET
FD	FLOOR DRAIN
LAV	LAVATORY
UR	URINAL
US	URINAL SCREEN
WC	WATER CLOSET

NOTES:

A. FIELD VERIFICATION OF DIMENSIONS ARE REQUIRED BEFORE FABRICATION OF TOILET PARTITIONS.
B. BOBRICK ACCESSORIES LISTED OR APPROVED EQUIVALENT.
C. SEE PLUMBING DOCUMENTS FOR FIXTURES.
D. OTHER TOILET ACCESSORIES TO BE PROVIDED BY THE OWNER.

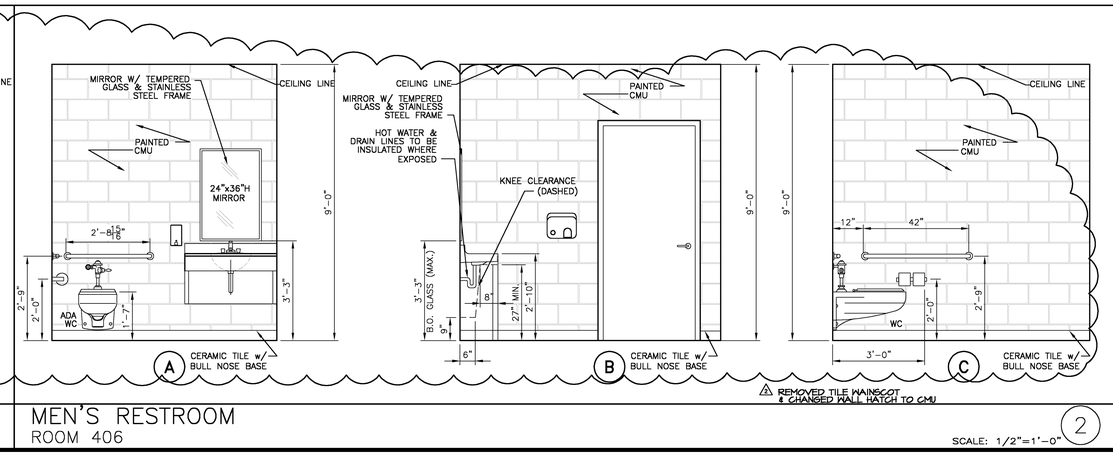
TOILET ACCESSORIES LEGEND

①	36" LONG GRAB BAR HORIZONTAL, 1 1/2" DIA.
②	42" LONG GRAB BAR HORIZONTAL, 1 1/2" DIA.
③	SURFACE MOUNTED TOILET TISSUE DISPENSER –(B–2740)
④	18"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
⑤	24"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
⑥	56"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
⑦	106"x36" TEMPERED GLASS, STAINLESS STEEL FRAME
⑧	SURFACE MOUNTED SOAP DISPENSER – (B–2111)
⑨	SURFACE MOUNTED PAPER TOWEL DISPENSER & WASTE RECEPTACLE – (B–3949)
⑩	RECESSED COIN OPERATED NAPKIN DISPENSER
⑪	SURFACE MOUNTED ELECTRIC HAND DRYER – ( )



WOMEN'S RESTROOM
ROOM 405

SCALE: 1/2"=1'-0" (1)



MEN'S RESTROOM
ROOM 406

SCALE: 1/2"=1'-0" (2)

⚠ REMOVED TILE WAINSCOT & CHANGED WALL HATCH TO CMU

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED TOILET PLAN & INTERIOR ELEVATIONS

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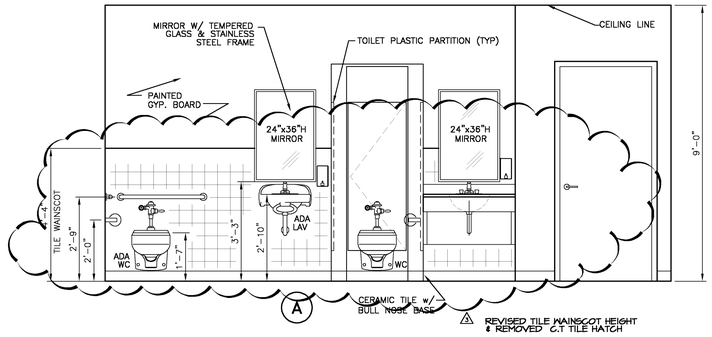
REV.	DATE	BY	DESCRIPTION
2	7/3/2007	LBM	REVISED AS NOTED
1	6/29/2007	JVG	REVISED AS NOTED
0	6/15/2007	JVG	CONSTRUCTION ISSUE

JOB NO. 710–3019
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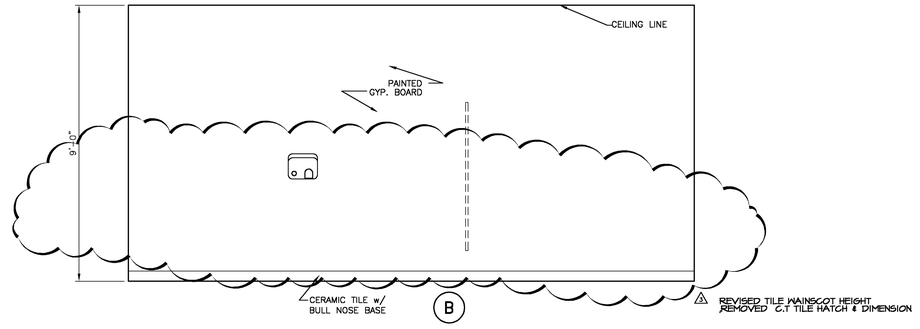
A402
DRAWING NO.

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FLORIDA ENGINEERING LICENSE NO. 36520
FLORIDA ARCHITECTURAL LICENSE NO. AR0016175

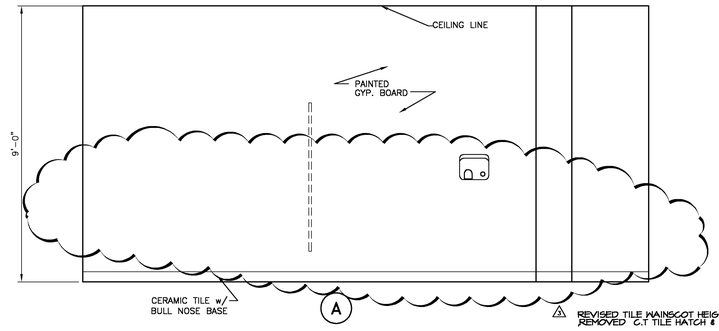
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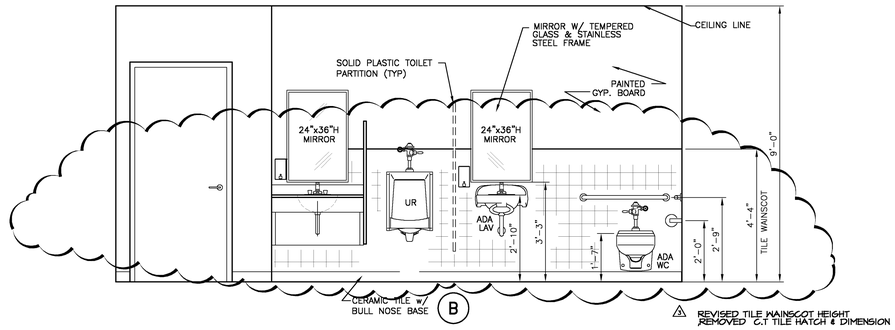
WOMEN'S RESTROOM
ROOM 512



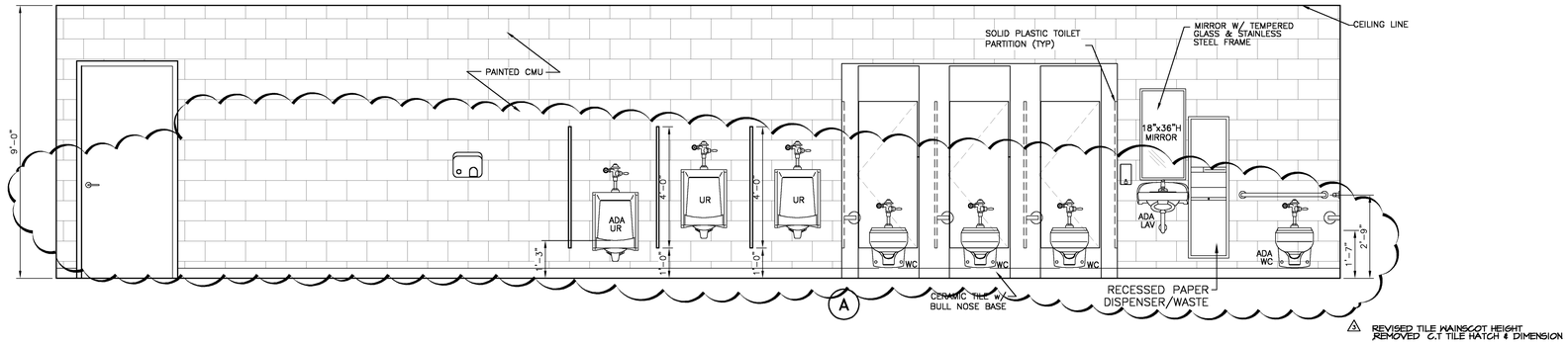
SCALE: 1/2"=1'-0" (1)

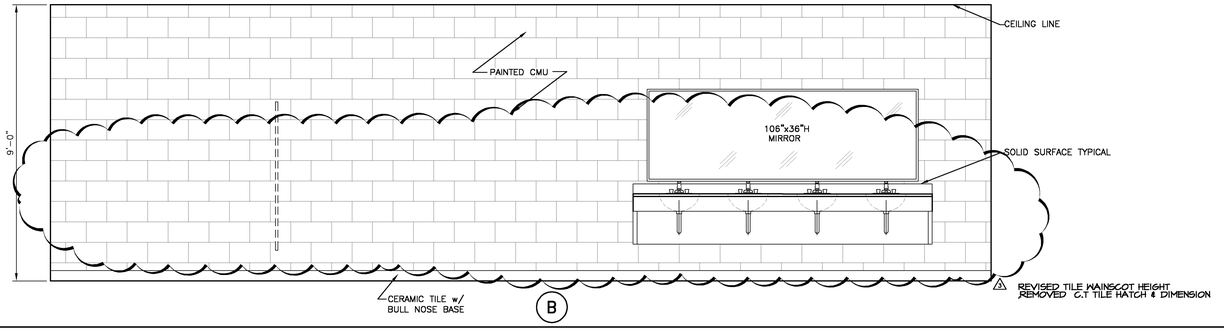


MEN'S RESTROOM
ROOM 513



SCALE: 1/2"=1'-0" (2)





MEN'S RESTROOM
ROOM 307

SCALE: 1/2"=1'-0" (3)

FLORIDA ENGINEERING LICENSE NO. 9430
FLORIDA ARCHITECTURAL LICENSE NO. AR 15864
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED TOILET INTERIOR ELEVATIONS

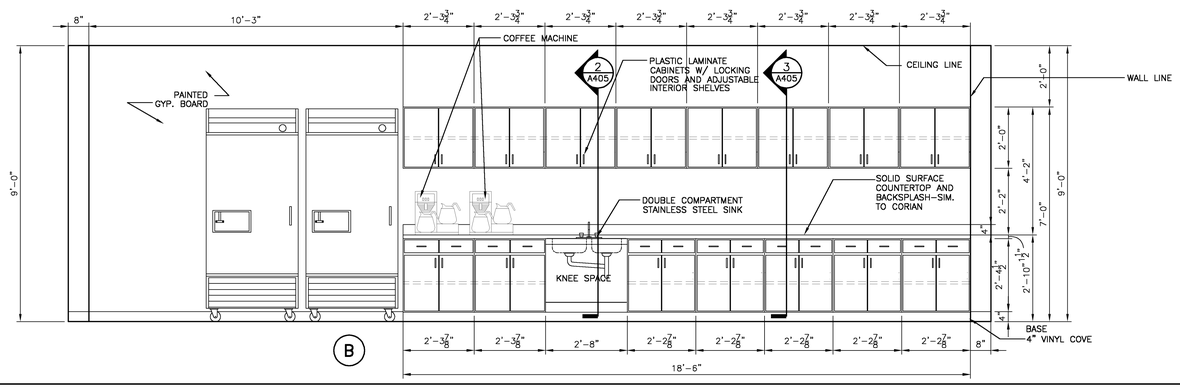
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REV.	DATE	BY	DESCRIPTION
3	7/3/07	LBM	REVISED AS NOTED
2	6/29/07	LBM	REVISED AS NOTED
1	6/28/07	JVG	REVISED AS NOTED
0	5/25/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-3019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

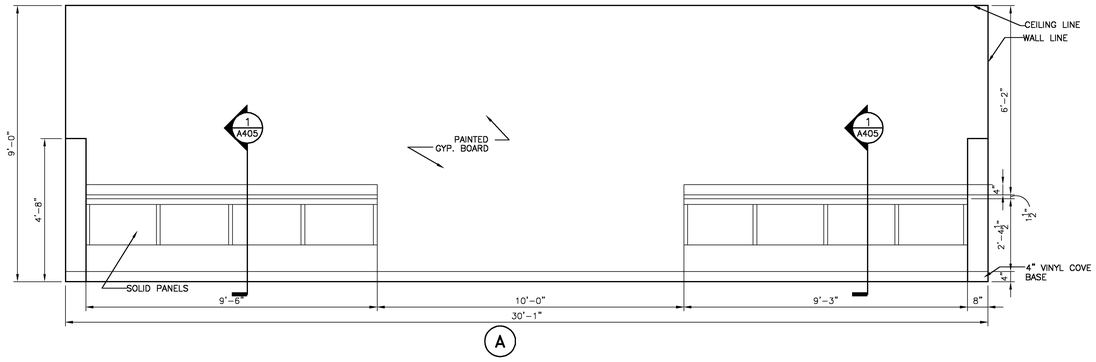
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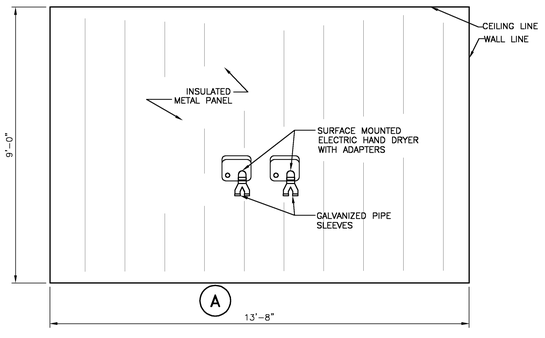
VENDING AREA
ROOM 303

SCALE: 1/2"=1'-0" (1)



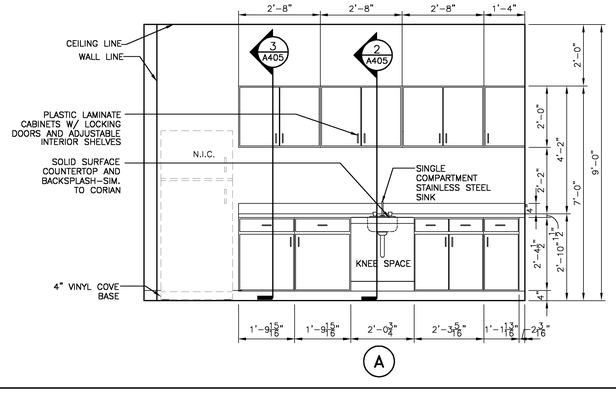
BREAKROOM
ROOM 302

SCALE: 1/2"=1'-0" (2)



VESTIBULE
ROOM 301

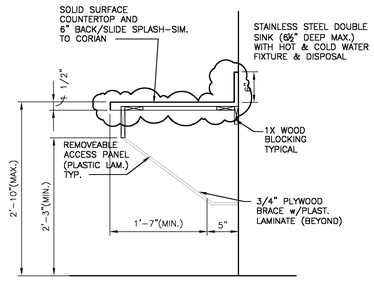
SCALE: 1/2"=1'-0" (3)



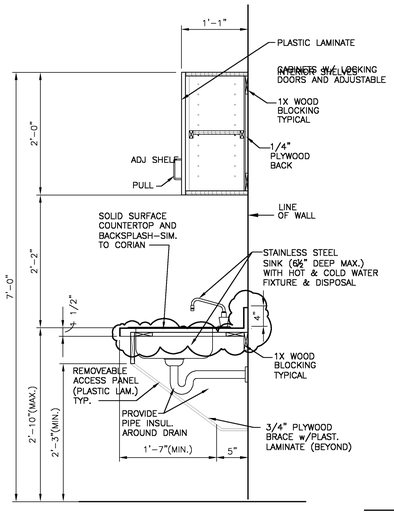
COFFEE AREA
ROOM 509

SCALE: 1/2"=1'-0" (4)

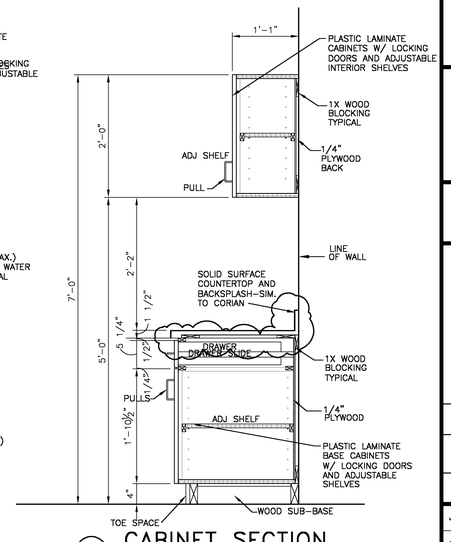
⚠ REVISED SECTIONS



1 CABINET SECTION
SCALE: 1"=1'-0"



2 CABINET SECTION
SCALE: 1"=1'-0"



3 CABINET SECTION
SCALE: 1"=1'-0"

FLORIDA DESIGNERS LICENSE # 9430
FLORIDA ARCHITECTURAL LICENSE # AA26001975
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED INTERIOR ELEVATIONS

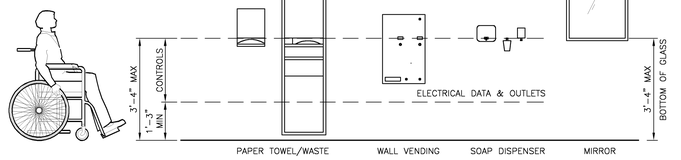
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REV.	DATE	DESCRIPTION
2	7/3/2007	REVISED AS NOTED
1	6/29/2007	REVISED AS NOTED
0	5/25/2007	CONSTRUCTION ISSUE
		BY
		LBM
		JVG
		JVG

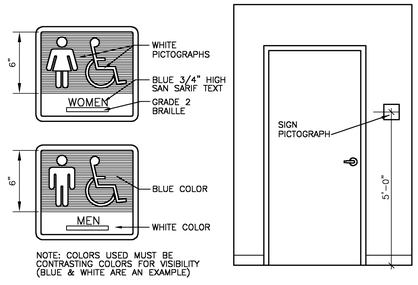
JOB NO. 710-3019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

A405
DRAWING NO.

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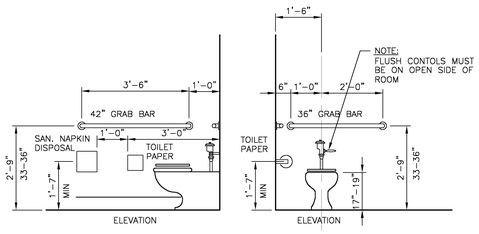


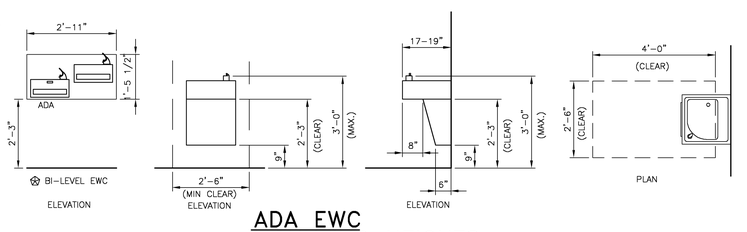
1 ADA FORWARD REACH MOUNTING HEIGHT
1/2" = 1'-0"



2 SIGN DETAILS
NOT TO SCALE

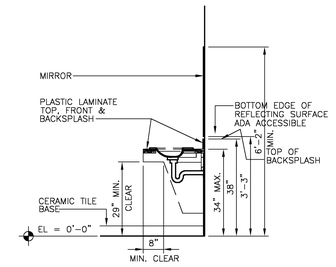
TYPICAL PICTOGRAPHS





3 GRAB BAR LAYOUT
1/2" = 1'-0"

4 ADA EWC MOUNTING HEIGHTS
1/2" = 1'-0"



5 ADA VANITY MOUNTING HEIGHTS
1/2" = 1'-0"

6 ADA URINAL
1/2" = 1'-0"

ADA WALL-MOUNTED SINK MOUNTING HTS
7
1/2" = 1'-0"

8 GRAB BAR LAYOUT
1/2" = 1'-0"

Filename: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Arch\03019A406.dwg Last Saved By: JGABRIEL Date: 5/29/2007 5:54:25 PM Plotted: 5/29/2007 5:54:29 PM

FLORIDA ARCHITECTURAL LICENSE AA 26001975

FLORIDA ENGINEERING LICENSE 9630

THE STELLAR GROUP

DESIGN • CONSTRUCTION • REFRIGERATION

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ADA STANDARD DETAILS

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REV.	DATE	BY	CONSTRUCTION ISSUE DESCRIPTION
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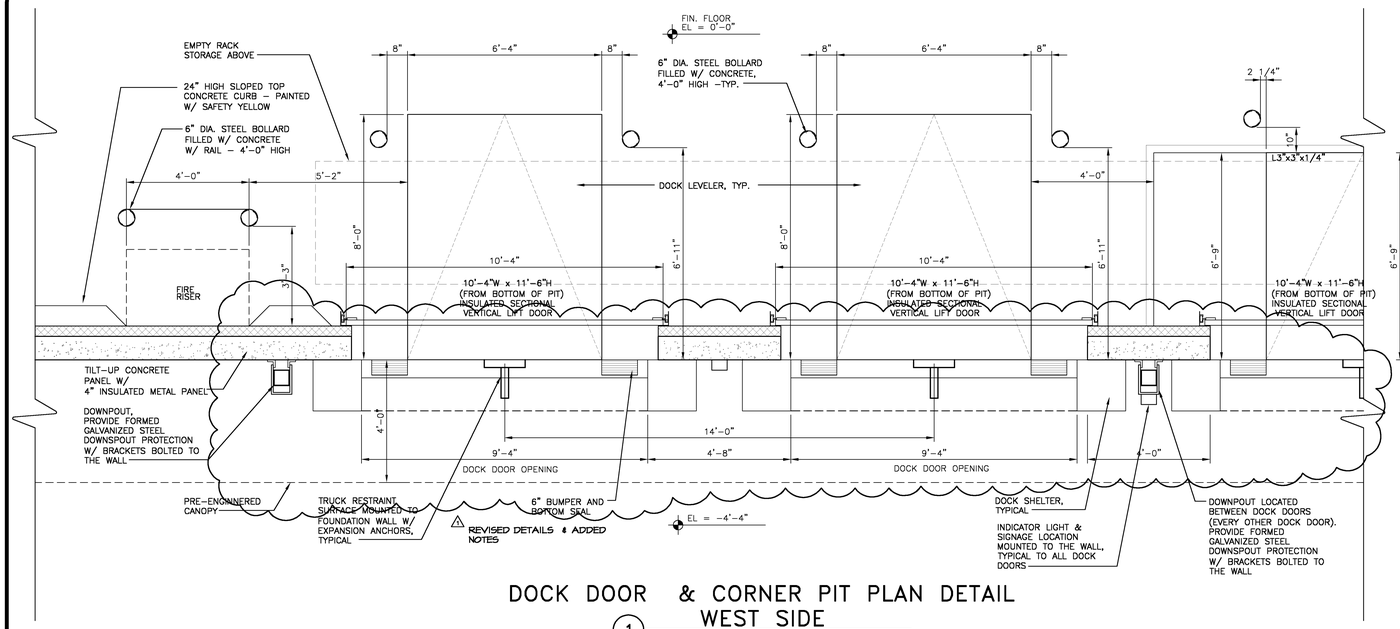
JOB NO. 710-3019

DRAWN: LBM

CHECKED:

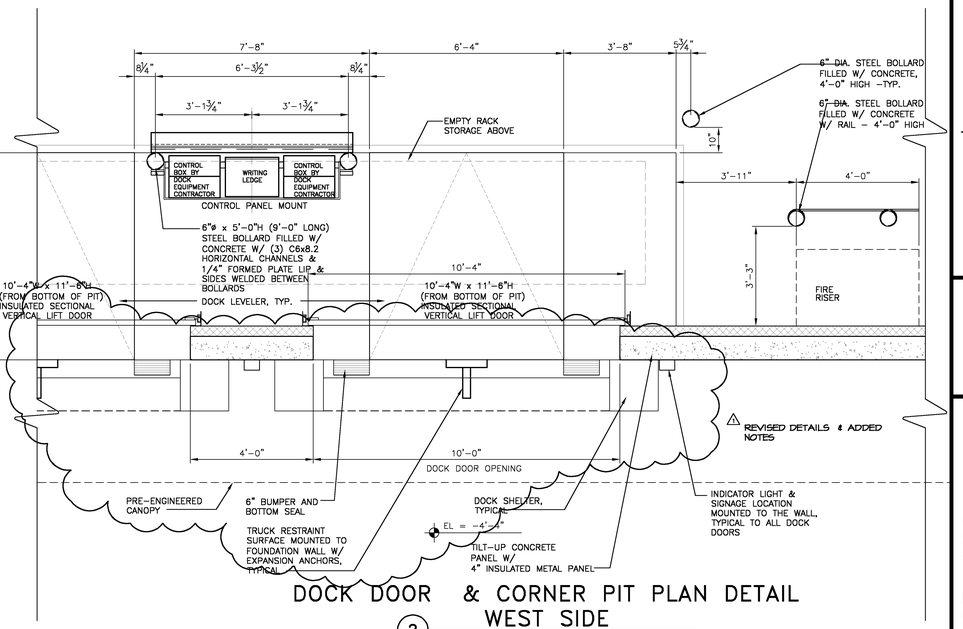
SCALE: AS SHOWN

A406
DRAWING NO.



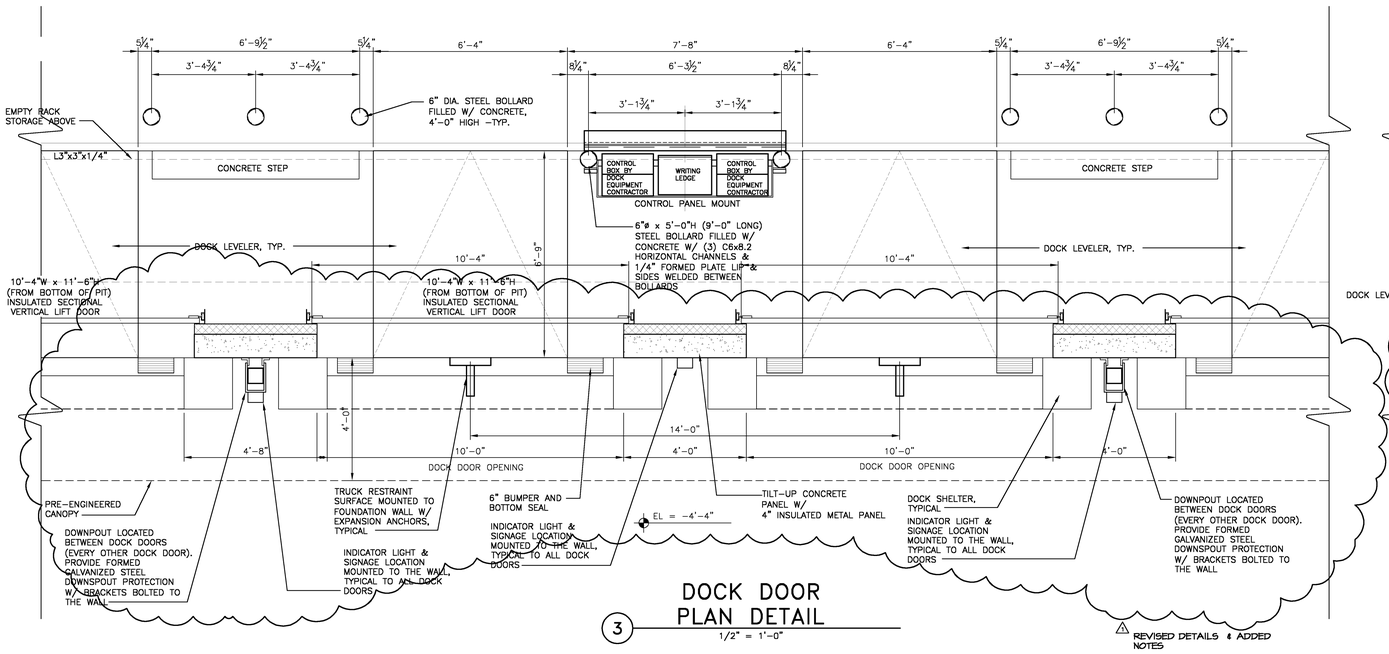
DOCK DOOR & CORNER PIT PLAN DETAIL WEST SIDE

1 — 1/2" = 1'-0"



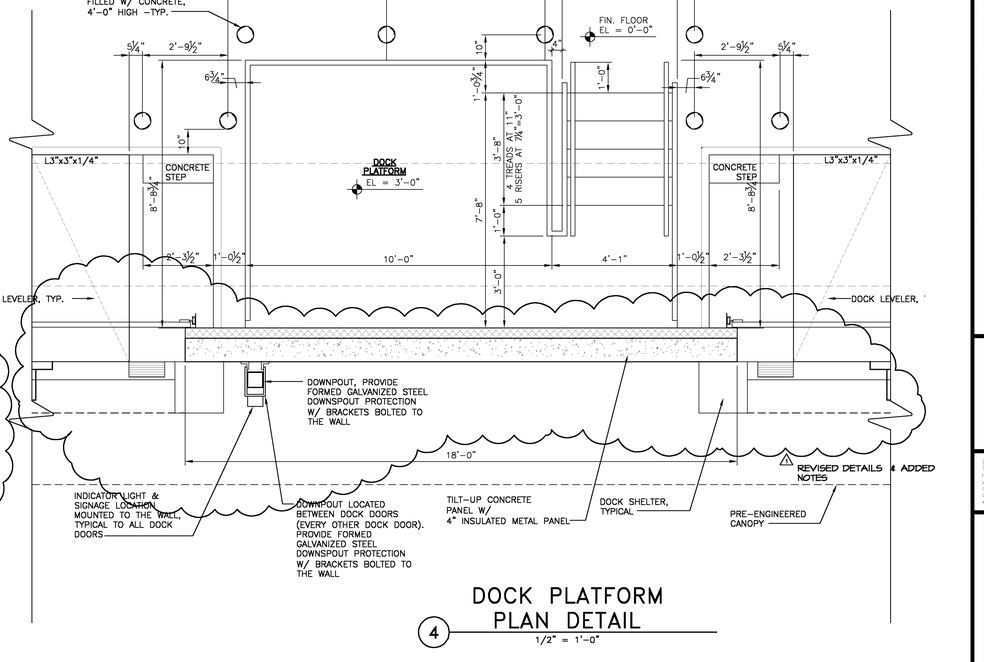
DOCK DOOR & CORNER PIT PLAN DETAIL WEST SIDE

2 — 1/2" = 1'-0"



DOCK DOOR PLAN DETAIL

3 — 1/2" = 1'-0"



DOCK PLATFORM PLAN DETAIL

4 — 1/2" = 1'-0"

FLORIDA ENGINEERING LICENSE NO. 9630
FLORIDA ARCHITECTURAL LICENSE NO. AA26001976
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

DOCK ENLARGED PLANS

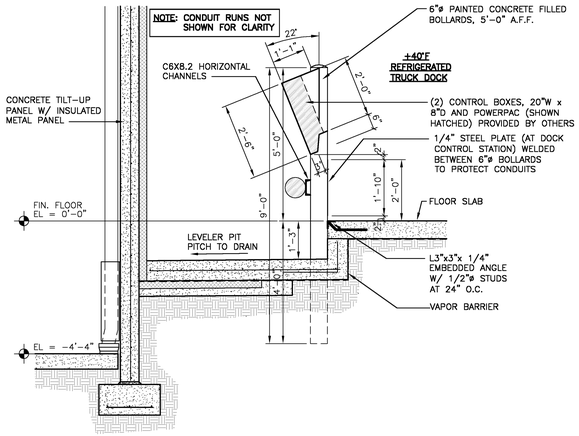
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REV.	DATE	BY	DESCRIPTION
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0	05/25/07	JVG	CONSTRUCTION ISSUE

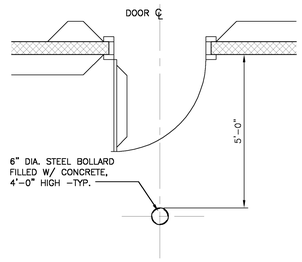
JOB NO. 710-03019
DRAWN: PFF
CHECKED:
SCALE: AS SHOWN

A407
DRAWING NO.

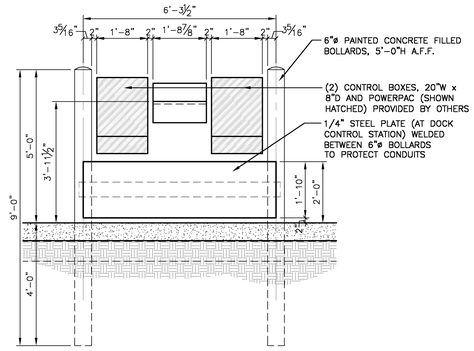
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CONTROL PANEL SECTION
1 — 1/2" = 1'-0"



TYPICAL BOLLARD LOCATION AT THE DOOR
2 — 1/2" = 1'-0"



CONTROL PANEL ELEVATION
A — 1/2" = 1'-0"

FLORIDA ENGINEERING LICENSE NO. 9430
FLORIDA ARCHITECTURAL LICENSE NO. AR 0016171
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ENLARGED PLANS, SECTIONS & ELEVATIONS

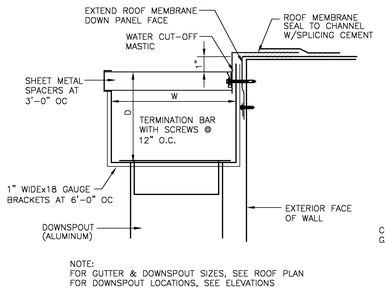
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REV.	DATE	BY	DESCRIPTION
0	5/29/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-03019
DRAWN: PFF
CHECKED:
SCALE: AS SHOWN

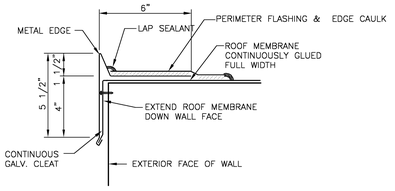
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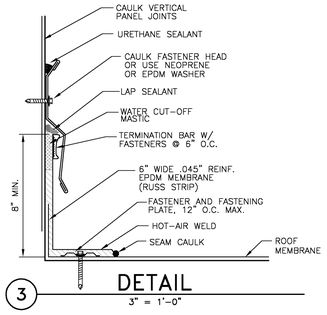


NOTE:
FOR GUTTER & DOWNSPOUT SIZES, SEE ROOF PLAN
FOR DOWNSPOUT LOCATIONS, SEE ELEVATIONS

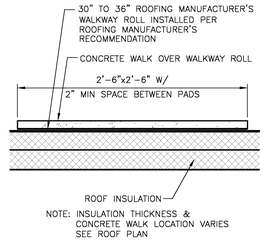
1 GUTTER DETAIL
3" = 1'-0"



2 METAL EDGE
3" = 1'-0"

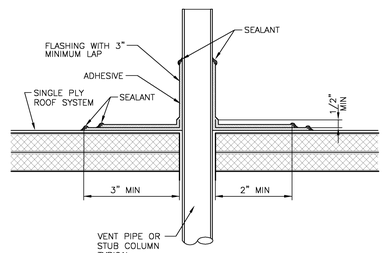


3 DETAIL
3" = 1'-0"

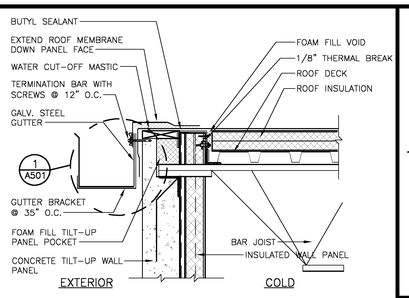


NOTE: INSULATION THICKNESS & CONCRETE WALK LOCATION VARIES SEE ROOF PLAN

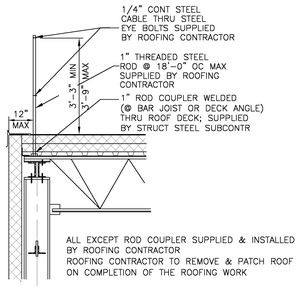
4 CONCRETE WALK DETAIL
1 1/2"=1'-0"



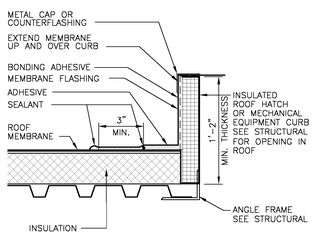
5 PIPE PENETRATION
1 1/2" = 1'-0"



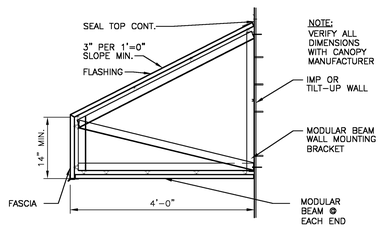
6 ROOF & GUTTER
1"=1'-0"



7 TEMPORARY GUARDRAIL DETAIL @ ROOF EDGE
NTS

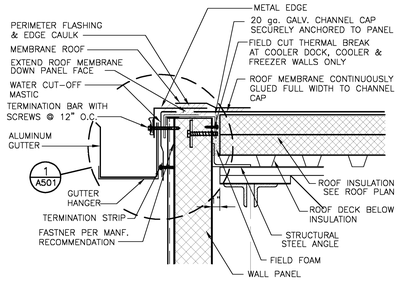


8 TYPICAL ROOF CURB
1 1/2"=1'-0"

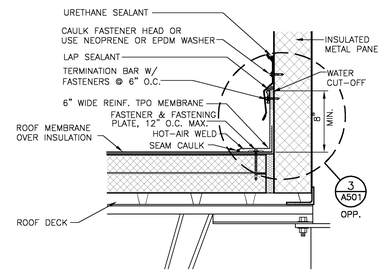


NOTE:
PRE-FINISHED METAL CANOPY - STRUCTURAL DESIGN BY CANOPY SUPPLIER. DESIGN TO RESIST 110 MPH WIND LOAD AND 90 #/FT. SNOW LOAD. PROVIDE SHOP DRAWINGS SIGNED & SEALED BY ENGINEER REGISTERED IN THE STATE OF FLORIDA INCLUDING DETAILS FOR CONNECTIONS. PROVIDE ALL NECCESSARY ACCESSORIES: BRACKETS, HANGERS, FLASHING, BOLTS AND FASTENERS, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION.

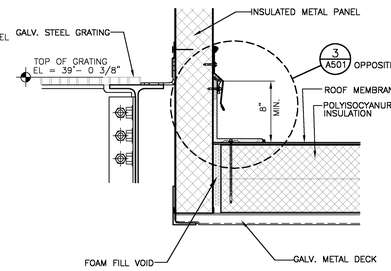
9 CANOPY DETAIL
3/4" = 1'-0"



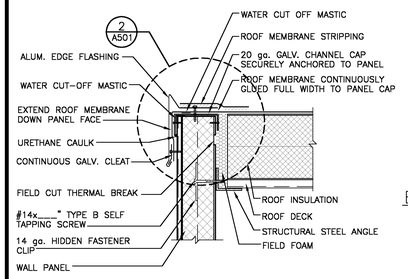
10 ROOF @ GUTTER
1 1/2"=1'-0"



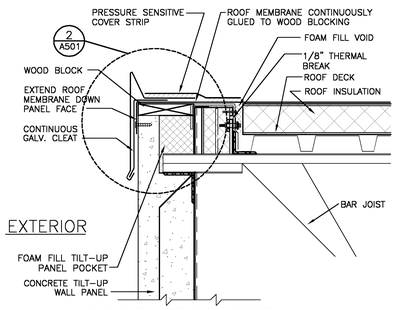
11 LOW ROOF
1 1/2"=1'-0"



12 DETAIL
1 1/2"=1'-0"

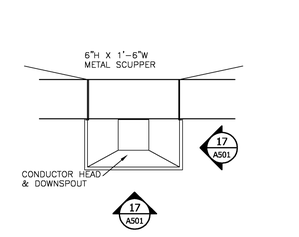


13 ROOF EDGE DETAIL
1 1/2"=1'-0"

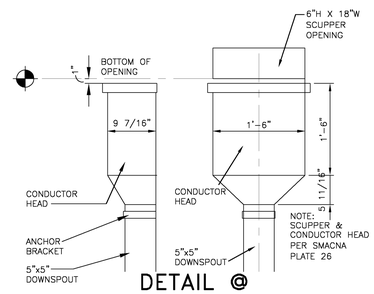


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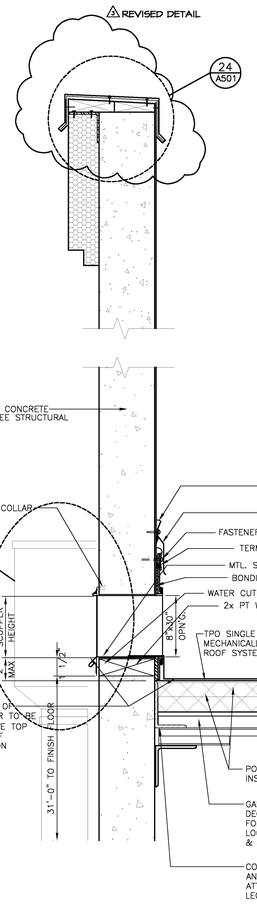
15 NOT USED
1 1/2" = 1'-0"



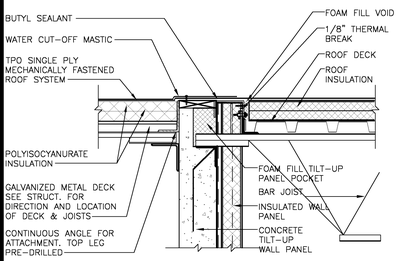
16 PLAN @ CONDUCTOR HEAD
1"=1'-0"



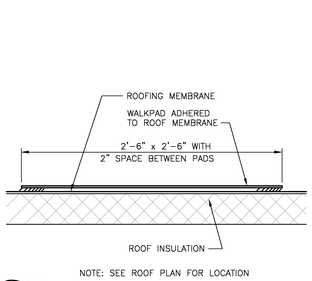
17 DETAIL @ CONDUCTOR HEAD
1"=1'-0"



28 EMERGENCY OVERFLOW SCUPPER DETAIL
1 1/2"=1'-0"



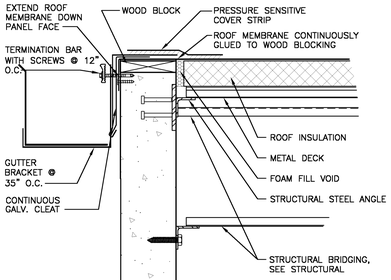
18 ROOF JOINT DETAIL
1"=1'-0"



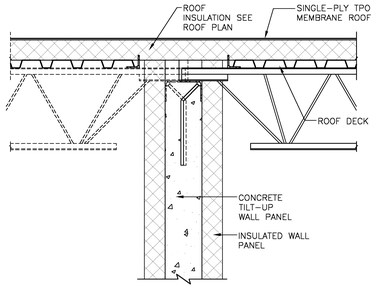
NOTE: SEE ROOF PLAN FOR LOCATION

REVISED DETAIL TAG

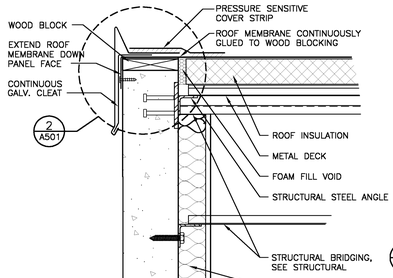
19 WALKPAD DETAIL
NOT TO SCALE



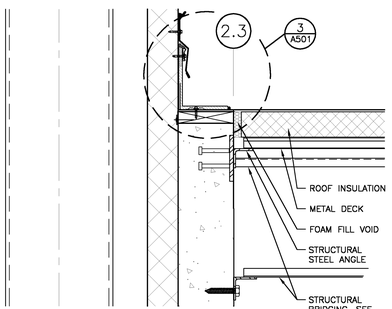
20 ROOF EDGE DETAIL
1 1/2"=1'-0"



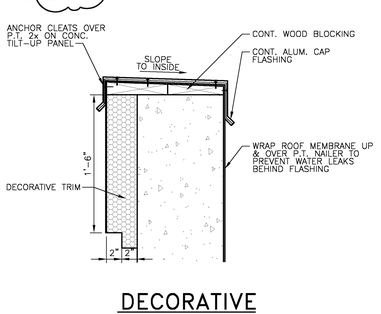
21 DETAIL
1"=1'-0"



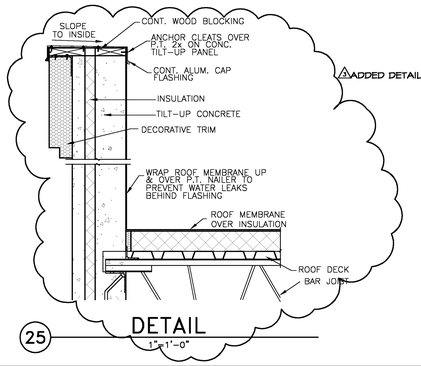
22 ROOF EDGE DETAIL
1 1/2"=1'-0"



23 LOW ROOF
1 1/2"=1'-0"



DECORATIVE CORNICE DETAIL
1 1/2" = 1'-0"



ADDED DETAIL

25 DETAIL
1"=1'-0"

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DESIGN x CONSTRUCTION x REFRIGERATION
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FLORIDA ENGINEERING LICENSE #25320
FLORIDA ARCHITECTURAL LICENSE #AR0015175

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ROOF DETAIL

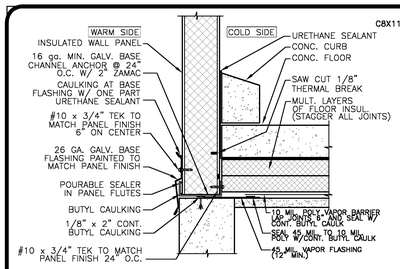
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REV.	DATE	BY	DESCRIPTION
3	7/11/2007	LBM	REVISED AS NOTED
2	6/29/2007	LBM	REVISED AS NOTED
1	6/15/2007	JVG	REVISED AS NOTED
0	3/9/2007	JVG	CONSTRUCTION ISSUE

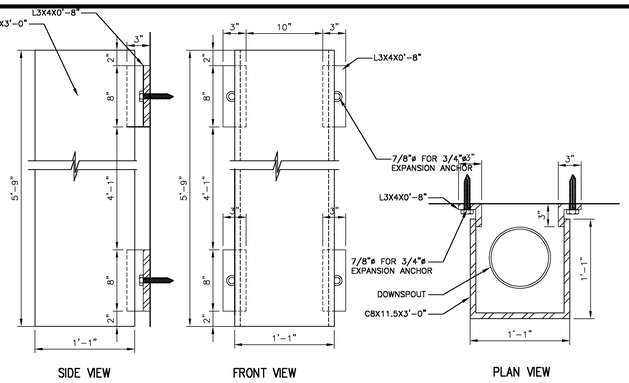
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DRAWN: JVG
CHECKED: PFF
SCALE: AS SHOWN

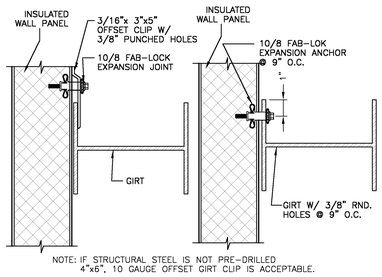
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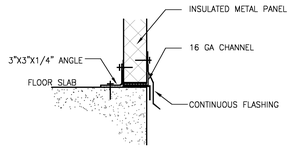
1 CORNER DETAIL
1 1/2" = 1'-0"



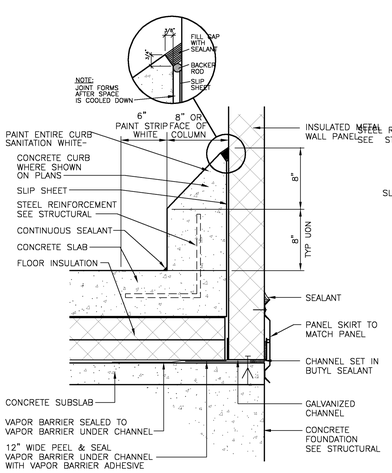


2 GIRT ATTACHMENT
1 1/2" = 1'-0"

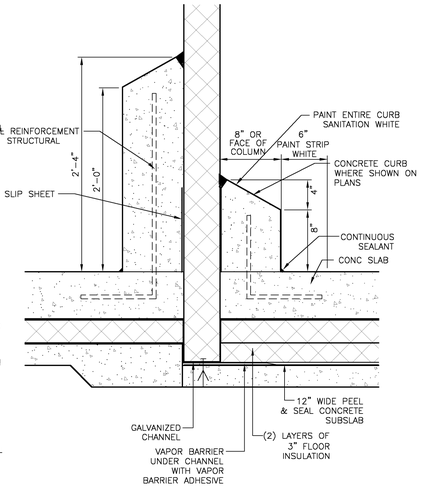
5 DOWNSPOUT PROTECTION BRACKET
1 1/2"=1'-0"



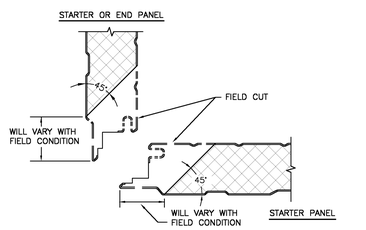
6 DETAIL
1 1/2" = 1'-0"

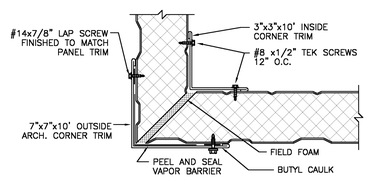


3 CONC. CURB DETAIL
1 1/2" = 1'-0"



7 CONC. CURB DETAIL
1 1/2" = 1'-0"





4 CORNER DETAIL
1 1/2" = 1'-0"

⚠ ADD SHEET TO SET

FLORIDA ENGINEERING LICENSE #26535
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

MISC. DETAIL

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REV.	DATE	BY	DESCRIPTION
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CHECKED: PFF
SCALE: AS SHOWN

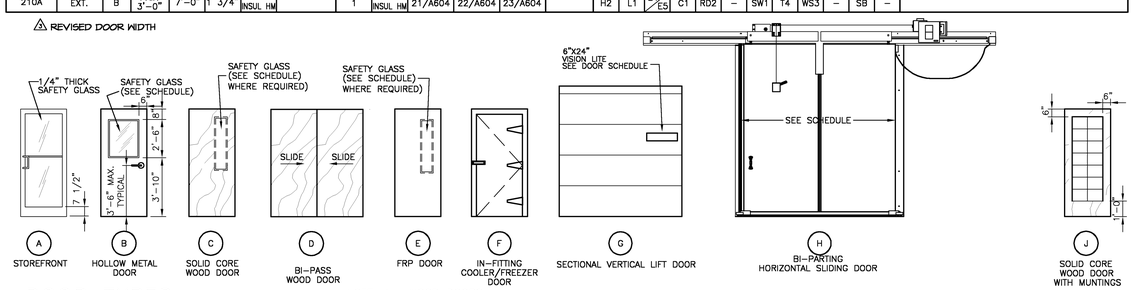
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DOOR SCHEDULE

DOOR DR. No.	ROOM NO.	TYPE	SIZE WIDTH	SIZE HEIGHT	SIZE THICK	DOOR MAT'L.	DOOR GLASS	FRAME TYPE	FRAME MAT'L.	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS SILL	LABEL	HARDWARE HINGE	LOCKSET	EXIT	CLOSER	RAIN DRIP	STOP	BOTTOM SEAL	THRESHOLD	WTHRSTRP	SILENCERS	MISC.	MISC.	REMARKS
101A	101	H	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
101B	101	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
101C	101	H	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
101D	101	H	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
101E	101	H	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
101F	101	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
101G	101	H	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
101H	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	18/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR NO EXTERIOR HARDWARE
101J	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	8/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR NO EXTERIOR HARDWARE
102A	102	H	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
102B	102	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
102C	102	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
102D	102	H	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
103A	103	H	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
103B	103	F	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
103C	103	F	8'–0"	15'–0"	4"	INSUL. MTL	–	–	METAL CLAD	17/A604	18/A604	19/A604					ALL	HARDWARE BY DOOR SUPPLIER								HORIZ. BI–PARTING DOORS (ELEC. OPERATED)
103D	103	H	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
103E	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR NO EXTERIOR HARDWARE
110A	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	16/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
110B	EXT.	G	8'–0"	8'–6"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110C	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110D	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110E	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110F	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110G	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110H	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110J	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110K	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110L	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110M	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110N	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110P	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110Q	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110R	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110S	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110T	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110U	EXT.	G	10'–0"	11'–31/2"	2"	INSUL. MTL	6"x24" VISION LITE	–	STEEL	13/A604	14/A604	15/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110V	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	8/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
110W	EXT.	G	8'–0"	15'–0"	2"	INSUL. MTL	–	–	STEEL	1/A604	2/A604	27/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
110X	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	8/A604					ALL	HARDWARE BY DOOR SUPPLIER								IN–FIT FREEZER DOOR
110Y	110A	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	20/A604	20/A604	5/A605	60 MIN.	H2	L2	–	C1	–	S1	–	–	–	SL	–	–	RATED DOOR
110Z	110B	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	20/A604	20/A604	5/A605	60 MIN.	H2	L2	–	C1	–	S1	–	–	–	SL	–	–	RATED DOOR
201A	EXT.	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	21/A604	22/A604	23/A604		H1	L1	E3	C1	RD	S1	SW1	T3	WS2	–	–	–	
201B	201	G	8'–0"	15'–0"	2"	INSUL. MTL	–	–	STEEL	1/A604 SIMILAR	2/A604 SIMILAR	3/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL HIGH LIFT – ELECTRIC
202A	202	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	4/A604	5/A604	5/A605	60 MIN.	H2	L2	–	C1	–	SW2	–	WS2	–	–	–		
202B	301	G	8'–0"	15'–0"	2"	INSUL MTL	–	–	STEEL	1/A604 SIMILAR	2/A604 SIMILAR	3/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL HIGH LIFT (ELEC. OPERATED)
202C	202	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	2	HM	11/A605	12/A605	5/A605		H2	L2	–	C1	–	–	–	–	SL	–	–		
202D	202	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	21/A604	22/A604	5/A605	60 MIN.	H2	L1	E2	C1	–	–	–	–	SL	–	–		
203A	203	B	PAIR 3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	2	HM	11/A605	12/A605	5/A605		H2	L4	–	C1	–	–	–	–	SL	FB2	–		
204A	204	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	28/A605	29/A605	8/A605		H2	L2	–	–	–	S2	–	–	SL	–	–		
205A	205	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	4/A604	5/A604	5/A605		H2	L2	–	C1	–	S1	SW1	–	WS2	–	–	–	
205B	205	G	8'–0"	10'–0"	2"	INSUL MTL	–	–	STEEL	1/A604 SIMILAR	2/A604 SIMILAR	3/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
206A	206	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	20/A604	20/A604	9/A604		H1	L2	–	–	–	S1	SW2	–	WS2	–	–	–	
207A	207	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	20/A604	20/A604	13/A605		H2	L5	–	–	–	S2	–	–	–	SL	–	–	UNDERCUT DOOR 1"
208A	EXT.	⚠	12'–0"	12'–0"	1 3/4"	INSUL MTL	–	–	GALV. STEEL	1/A605	2/A605	23/A604					ALL	HARDWARE BY DOOR SUPPLIER								INSULATED SECTIONAL VERTICAL LIFT – MANUAL
208B	EXT.	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	21/A604	22/A604	23/A604		H1	L1	E3	C1	RD			T3	WS2				
209A	EXT.	B	PAIR 3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	21/A604	22/A604	23/A604		H2	L6	E4 / E5	C1	RD2	–	SW1	T4	WS3	–	SB	–	
209B	209	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	21/A604	22/A604	5/A605	60 MIN.	H2	L1	E2	C1	–	–	–	–	SL	–	–		
209C	209	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	11/A605	12/A605	5/A605	60 MIN.	H2	L1	E2	C1	–	–	–	–	SL	–	–		
210A	EXT.	B	PAIR 3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	21/A604	22/A604	23/A604		H2	L1	E4 / E5	C1	RD2	–	SW1	T4	WS3	–	SB	–	

⚠ REVISED DOOR WIDTH



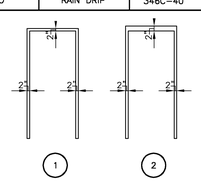
DOOR TYPES:

1/4"=1'–0"

NOTE: ALL WOOD DOORS ARE TO BE STAINED

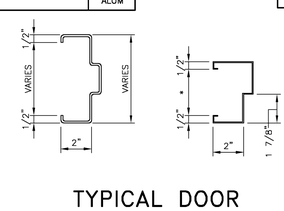


K



HM FRAME TYPE

1/4"=1'–0"



TYPICAL DOOR FRAME PROFILE

3" = 1'–0"

DOOR SCHEDULE

DOOR DR. No.	ROOM NO.	TYPE	SIZE WIDTH	SIZE HEIGHT	SIZE THICK	DOOR MAT'L.	DOOR GLASS	FRAME TYPE	FRAME MAT'L.	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS SILL	LABEL	HARDWARE HINGE	LOCKSET	EXIT	CLOSER	RAIN DRIP	STOP	BOTTOM SEAL	THRESHOLD	WTHRSTRP	SILENCERS	MISC.	MISC.	REMARKS
301A	301	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	20/A604	20/A604	8/A605		H2	–	–	C1	–	S1	–	T3	WS2	–	PP	–	
302A	EXT	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	21/A604 SIMILIAR	22/A604 SIMILIAR	23/A604		H1	L1	E3	C1	RD	S1	SW1	T3	WS1	–	–	–	
302B	302	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	HALF LITE	1	INSUL. HM	4/A604	5/A604	5/A605		H2	–	–	C1	–	–	SW2	–	WS2	SL	PP	–	UNDERCUT DOOR 1"
304A	304	C	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	11/A605	12/A605	5/A605		H2	L4	–	–	–	S2	–	–	–	SL	–	–	UNDERCUT DOOR 1"
306A	306	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	11/A605	12/A605	13/A605		H2	–	–	C1	–	S2	–	–	–	SL	PP	K1	UNDERCUT DOOR 1"
307A	307	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	11/A605	12/A605	13/A605		H2	–	–	C1	–	S2	–	–	–	SL	PP	K1	UNDERCUT DOOR 1"
308A	EXT.	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	21/A604 SIMILIAR	22/A604 SIMILIAR	23/A604		H1	L1	E3	C1	RD	S1	SW1	T3	WS2	–	–	–	
401A	401	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	11/A604	12/A604	5/A605		H2	L2	–	C1	–	–	–	–	–	SL	–	–	
402A	402	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	6/A605	7/A605	5/A605		H2	L2	–	–	–	S2	–	–	–	SL	–	–	
403A	403	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	HM	6/A605	7/A605	5/A605		H2	L2	–	–	–	–	–	–	–	SL	–	–	
⚠ 404A	EXT.	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	1	GALV. INSUL HM	28/A605	29/A605	23/A604		H1	L1	E3	C1	RD	S1	SW1	T3	WS1	–	–	–	
404B	404	B	3'–0"	7'–0"	1 3/4"	INSUL. HM	INSUL. HALF LITE	1	GALV. INSUL HM	28/A605	29/A605	23/A604		H1	L2	–	C1	–	–	SW2	T1	WS2	–	–	K1	
405A	405	B	3'–0"	7'–0"	1 3/4"	INSUL. HM	–	1	HM	11/A605	12/A605	13/A605		H2	L5	–	C1	–	S2	–	–	–	SL	–	–	UNDERCUT DOOR 1"
⚠ 406A	406	B	3'–0"	7'–0"	1 3/4"	INSUL. HM	–	1	HM	11/A605	12/A605	13/A605		H2	L5	–	C1	–	S2	–	–	–	SL	–	–	UNDERCUT DOOR 1"
407A	407	B	3'–0"	7'–0"	1 3/4"	INSUL. HM	INSUL. HALF LITE	1	GALV. INSUL HM	28/A605	29/A605	23/A604		H1	L2	–	C1	–	–	SW2	T1	WS2	–	–	K1	
501A	EXT.	A	3'–0"	7'–0"	1 3/4"	GLASS/ ALUM.	SAFETY	–	ALUM.	9/A605	9/A605	10/A605		H1	L1	E2	C1	–	–	–	–	–	SL	–	–	STOREFRONT – USCS EMBLEM ETCHED IN GLASS
502A	502	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	–	HM	6/A605	7/A605	8/A605	60 MIN.	H2 / H3	L1	E6	C1	–	–	–	–	–	SL	–	–	ELECTRIFIED CARD READER KEY ACTIVATED
503A	503	A	3'–0"	7'–0"	1 3/4"	GLASS/ STEEL	RATED	–	STEEL	20/A605	14/A605	15/A605 SIMILIAR	60 MIN.	H2 / H3	L1	E6	C1	–	–	–	–	–	SL	–	–	STEEL STOREFRONT – RATED BARIER SYSTEM ELECTRIFIED/CARD READER/PUSH BUTTON KEY ACT.
503B	503	J	PAIR 3'–0"	7'–0"	1 3/4"	SC WOOD	FULL LITE	1	HM	6/A605	7/A605	16/A605		H2	–	–	C1	–	–	–	–	–	SL	FB1	PP / K1	SOLID CORE WOOD DOOR W/ MUNTINGS
504A	504	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	15/A605	60 MIN.	H2	L4	–	C1	–	–	SW2	T1	–	SL	–	–	
505A	505	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	16/A605		H2	L2	–	–	–	S2	–	–	–	SL	–	–	
505B	505A	D	PAIR 2'–6"	7'–0"	1 3/4"	SC WOOD	–	–	WOOD	17/605	18/605	19/605		–	–	–	–	–	–	–	–	–	–	BP1	–	SOLID CORE B–PASS WOOD DOOR
506A	506	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	16/A605		H2	L2	–	–	–	S2	–	–	–	SL	–	–	
507A	507	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	16/A605		H2	L2	–	–	–	S2	–	–	–	SL	–	–	
508A	508	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	16/A605		H2	L2	–	–	–	S2	–	–	–	SL	–	–	
510A	510	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	16/A605		H2	L2	–	–	–	S2	–	–	–	SL	–	–	
510B	510A	D	PAIR 3'–0"	7'–0"	1 3/4"	SC WOOD	–	–	WOOD	17/605	18/605	19/605		–	–	–	–	–	–	–	–	–	–	BP1	–	SOLID CORE B–PASS WOOD DOOR
511A	511	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	8/A604	60 MIN.	H2	L1	E2	C1	–	S2	–	T1	–	SL	–	–	RATED DOOR
511B	511	D	PAIR 2'–6"	7'–0"	1 3/8"	SC WOOD	–	–	WOOD	17/605	18/605	19/605		–	–	–	–	–	–	–	–	–	–	BP1	–	B–PASS DOOR
511C	511	D	PAIR 2'–6"	7'–0"	1 3/8"	SC WOOD	–	–	WOOD	17/605	18/605	19/605		–	–	–	–	–	–	–	–	–	–	BP1	–	B–PASS DOOR
512A	512	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	16/A605		H2	–	–	C1	–	S2	–	–	–	SL	PP	K1	UNDERCUT DOOR 1"
513A	513	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	16/A605		H2	–	–	C1	–	S2	–	–	–	SL	PP	K1	UNDERCUT DOOR 1"
514A	EXT.	B	3'–0"	7'–0"	1 3/4"	GALV. INSUL HM	–	2	GALV. INSUL HM	28/A605	29/A605	23/A604		H1	L1	E3	C1	RD	S1	SW1	T3	WS1	–	–	–	
514B	514	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	5/A605	60 MIN.	H2	–	E2	C1	–	S2	–	–	–	SL	–	–	
602A	602	C	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	5/A605		H2	L4	–	C1	–	–	–	–	–	SL	–	–	
603A	603	K	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	5/A605		H2	L4	–	C1	–	S2	–	–	–	SL	–	–	24" X 12" LOUVER
604A	604	K	3'–0"	7'–0"	1 3/4"	SC WOOD	–	1	HM	6/A605	7/A605	5/A605		H2	L4	–	C1	–	S2	–	–	–	SL	–	–	24" X 12" LOUVER
PENTHOUSE																										
P101A	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	24/A604		H1	L2	–	C1	RD	–	–	T3	WS2	–	–	–	IN–FITTING FREEZER DOOR
P102A	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	24/A604		H1	L2	–	C1	RD	–	–	T3	WS2	–	–	–	IN–FITTING FREEZER DOOR
P103A	EXT.	F	3'–0"	7'–0"	4"	METAL CLAD	–	–	METAL CLAD	6/A604	7/A604	24/A604		H1	L2	–	C1	RD	–	–	T3	WS2	–	–	–	IN–FITTING FREEZER DOOR

⚠ ADDED TWO DOORS TO SCHEDULE

NOTE: ONE MASTER KEY TO ALL LOCKS IN THE BUILDING.

DOOR HARDWARE SCHEDULE

ITEM	MANUFACTURER	DESCRIPTION	SIZE, FUNCTION, ETC.	FINISH
H1	HAGER	HINGE	BB191 4 1/2x4 1/2xNRP	US32D
H2	HAGER	HINGE	BB179 4 1/2x4 1/2	US26D
H3	HAGER	ELECTRIFIED HINGE	BB 191 4 1/2x4 1/2 ETW4	US32D
L1	SARGENT	CYLINDER	CYLINDER AS REQUIRED	US26D
L2	SARGENT	ENTRY/OFFICE	10G05 LL	US26D
L3	NOT USED	–	–	–
L4	SARGENT	STORAGE	10G04 LL	US26D
L5	SARGENT	PRIVACY	10G65 LL	US26D
E1	SARGENT	EXIT DEVICE	8910	US32D
E2	SARGENT	EXIT DEVICE	12–8800 ETL	US32D
E3	SARGENT	EXIT DEVICE	HC–8913 ETL	US32D
E4	SARGENT	EXIT DEVICE	MD 8713 ETL	US32D
E5	SARGENT	EXIT DEVICE	MD 8710 ETL	US32D
E6	SARGENT	ELECTRIFIED	12–8876 ETL	US32D
PP	HAGER	PUSH–PULL	305 4X16/33E 4X16	US32D
RD	PEMKO	RAIN DRIP	346C–40"	ALUM

NOTE: ONE MASTER KEY TO ALL LOCKS IN THE BUILDING.

DOOR HARDWARE SCHEDULE

RD2	PEMKO	RAIN DRIP	346C–76"	ALUM
S1	HAGER	FLOOR STOP	267F	US26D
S2	HAGER	WALL STOP	236W	US26D
SW1	PEMKO	SWEEP	770 SAV LENGTH AS REQUIRED	US26D
SW2	PEMKO	SWEEP	756 SAV LENGTH AS REQUIRED	US26D
SL	HAGER	SILENCER	307D	GREY
T1	PEMKO	THRESHOLD	171A–36"	ALUM
T2	PEMKO	THRESHOLD	171A–72"	ALUM
T3	PEMKO	THRESHOLD	2005AV 36"	ALUM
T4	PEMKO	THRESHOLD	2005AV 72"	ALUM
WS1	PEMKO	WEATHERSTRIP	303AV 36XB4	ALUM
WS2	PEMKO	WEATHERSTRIP	S 88 D 17'	D
WS3	PEMKO	WEATHERSTRIP	S 88 D 21'	D
FB1	HAGER	FLUSH BOLTS	282 D 12"	4326D
K1	HAGER	KICKPLATE	19DS 8"X2" LESS DOOR WIDTH	US32D
C1	SARGENT	CLOSER	1431 UO	EN
C2	SARGENT	CLOSER	351 UO	EN

FLORIDA DISCIPLINE LICENSED 9620
FLORIDA ARCHITECTURAL LICENSE AR 0015176
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 BARTLEY ROAD, JACKSONVILLE, FL 32207 (904) 280–2900

ROOM FINISH SCHEDULE

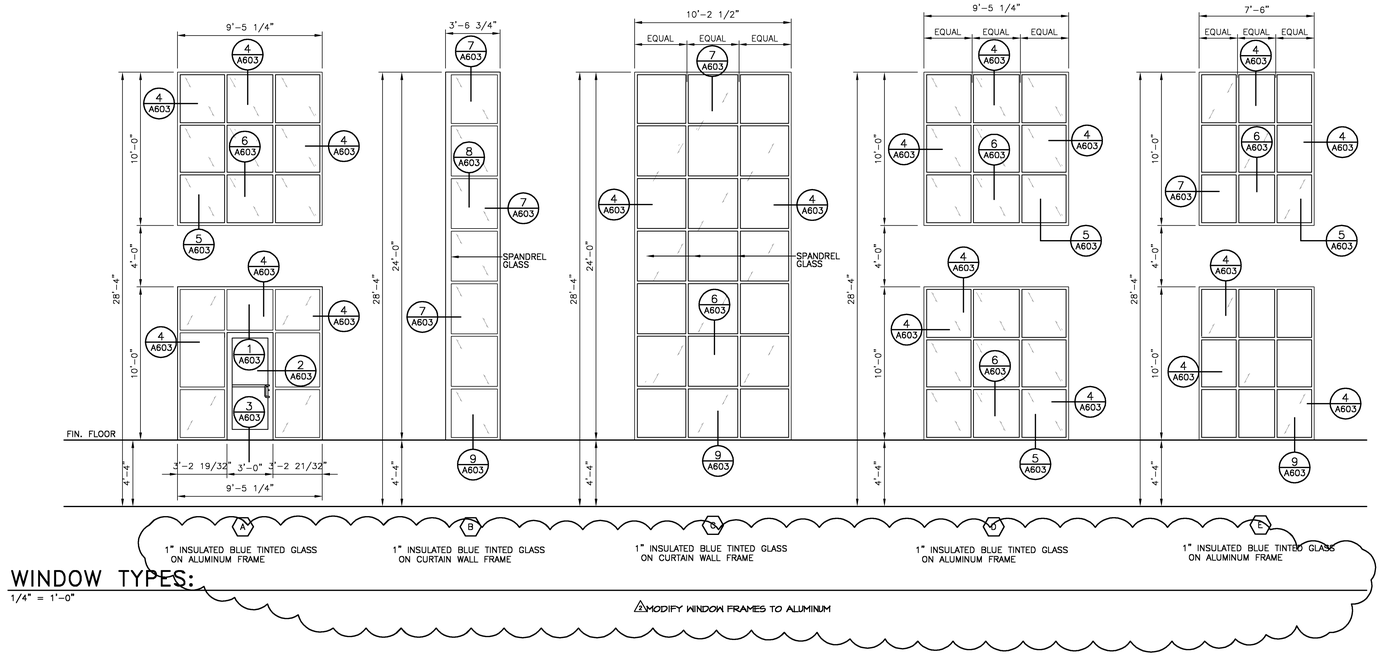
KEY: MATL (CMU) M | FINISH (PAINT) 1 | COLOR (PAINT) P-3

MATERIALS
A VINYL COMP. TILE (VCT)
B BRICK
C CARPET
D CONCRETE
E CERAMIC TILE
F VINYL FABRIC
G GYP WALLBOARD
H AC CLG T (ACT)
I INSUL MET PNL(IMP)
J GLASS
K METAL DECKING
L LINEAR METAL PANELS
M CONC. MAS. UNIT (CMU)
N MARBLE TILE
O NONE
P PORCELAIN TILE
Q QUARRY TILE
R RUBBER
S STEEL
T TERRAZZO
U
V VINYL
W WOOD
X EXP CONST
Y
Z

FINISH
1 PAINT
2 PRE-FINISHED
3 UNFINISHED
4 2'X2' GRID/MINERAL FIBER
5 2'X2' GRID/GLASS FIBER
6 W/ HARDENER
7 GALVANIZED
8 2'X4' VINYL FACED CEILING TILES
9 W/ SEALER

COLOR
P1 = WHITE

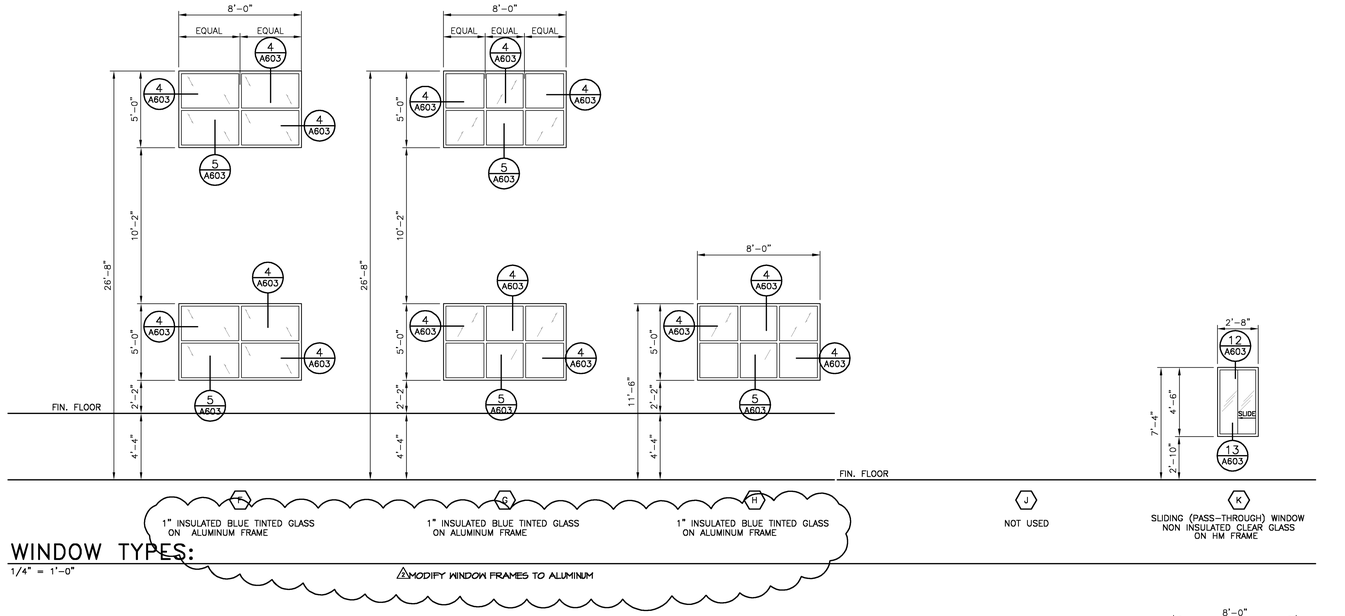
ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALL N	WALL E	WALL S	WALL W	CEILING	CEILING HEIGHT	REMARKS
REFRIG. DOCK/FREEZER/CONVERTIBLES										
101	–20°F FREEZER	D 9 –	D – –	I 2 –	I 2 –	I 2 –	I 2 –	X – –	VARIES	40'–6" MIN. CLEAR HEIGHT. 8" HIGH W/ SLOPED TOP CONC. CURB–NOT PAINTED TO ALL EXPOSED WALLS.
102	–20°F TO +35°F CONVERTIBLE 1	D 9 –	D – –	I 2 –	I 2 –	I 2 –	I 2 –	X – –	VARIES	40'–6" MIN. CLEAR HEIGHT. 8" HIGH W/ SLOPED TOP CONC. CURB–NOT PAINTED TO ALL EXPOSED WALLS.
103	–20°F TO +35°F CONVERTIBLE 2	D 9 –	D – –	I 2 –	I 2 –	I 2 –	I 2 –	X – –	VARIES	40'–6" MIN. CLEAR HEIGHT. 8" HIGH W/ SLOPED TOP CONC. CURB–NOT PAINTED TO ALL EXPOSED WALLS.
105	FIRE RISER ROOM	D 9 –	– – –	I 2 –	I 2 –	I 2 –	X 2 –	I – –	VARIES	12'–0" MIN. CEILING SLOPE PANEL UP AT 45° TOWARDS FREEZER
106	FIRE RISER ROOM	D 9 –	– – –	I 2 –	I 2 –	I 2 –	X 2 –	I – –	VARIES	12'–0" MIN. CEILING SLOPE PANEL UP AT 45° TOWARDS FREEZER
110	+40°F REFRIGERATED DOCK	D 9 –	D 7 –	I 2 –	I 2 –	I 2 –	I 2 –	X – –	VARIES	18'–0" MIN. CLEAR HEIGHT. 24" HIGH W/ SLOPED TOP CONC. CURB PAINTED SAFETY YELLOW.
P101	PENTHOUSE 1	S 2 –	– – –	I 2 –	I 2 –	I 2 –	I 2 –	X – –	VARIES	
P102A	PENTHOUSE 2	S 2 –	– – –	I 2 –	I 2 –	I 2 –	I 2 –	X – –	VARIES	
P102B	PENTHOUSE 2	S 2 –	– – –	I 2 –	I 2 –	I 2 –	I 2 –	X – –	VARIES	
MAINTENANCE/ELECTRICAL/FIRE PROTECTION/MACHINE ROOM										
201	BATTERY CHARGING	D 9 –	– – –	I 2 –	M 1 –	D 1 –	D 1 –	X – –	VARIES	–
202	MAINTENANCE SHOP	D 9 –	– – –	D 1 –	M 1 –	M 1 –	M 1 –	X – –	VARIES	–
203	WAREHOUSE SUPPLIES	D 9 –	– – –	M 1 –	M 1 –	M 1 –	M 1 –	X – –	VARIES	–
204	CHIEF ENGINEER	A 2 –	V 2 –	D 1 –	I 1 –	D 1 –	D 1 –	H 4 –	9'–0"	–
205	+45°F TO +70°F USDA INSPECTION	D 9 –	D 1 –	I 2 –	I 2 –	I 2 –	I 2 –	I 2 –	18'–0"	24" HIGH SLOPED TOP CONC. CURB–PAINTED W/ SAFETY YELLOW
206	USDA OFFICE	A 2 –	V 2 –	I 2 –	I 2 –	I 2 –	I 2 –	H 2 –	9'–0"	–
207	USDA TOILET	E 2 –	E 2 –	I 2 –	I 2 –	I 2 –	I 2 –	H 5 –	9'–0"	
208	MACHINE ROOM	D 9 –	– – –	D 1 –	D 1 –	D 1 –	D 1 –	X – –	VARIES	–
209	ELECTRICAL	D 9 –	– – –	M 1 –	D 1 –	D 1 –	M 1 –	X – –	VARIES	–
210	FIRE PROTECTION ROOM	D 9 –	– – –	M 1 –	M 1 –	D 1 –	M 1 –	X – –	VARIES	–
M101	STORAGE MEZZANINE	D 9 –	V 2 –	M 1 –	M 1 –	M 1 –	M 1 –	X – –	VARIES	–
WELFARE/ADMISTRATIVE OFFICES										
301	VESTIBULE	A 2 –	V 2 –	M 1 –	M 1 –	D 1 –	D 1 –	H 4 –	9'–0"	12'–0" MIN. CEILING SLOPE PANEL UP AT 45° TOWARDS FREEZER
302	BREAK ROOM	A 2 –	V 2 –	G 1 –	D 1 –	D 1 –	G 1 –	H 4 –	10'–0"	–
303	VENDING AREA	A 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	10'–0"	–
304	JANITOR	A 2 –	V 2 –	M 1 –	M 1 –	M 1 –	G 1 –	H 4 –	9'–0"	–
305	CORRIDOR	A 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	10'–0"	–
306	WOMEN'S REST. & LOCKER	E 2 –	E 2 –	G/E 1/2	M 1 –	M 1 –	M 1 –	H 5 –	9'–0"	4'–0" HIGH WAINSCOT TILES ON WET WALL ONLY
307	MEN'S	E 2 –	E 2 –	M 1 –	M 1 –	G/E 1/2	M 1 –	H 5 –	9'–0"	4'–0" HIGH WAINSCOT TILES ON WET WALL ONLY
308	MEN'S LOCKER	E 2 –	E 2 –	G 1 –	M 1 –	M 1 –	G 1 –	H 5 –	10'–0"	–
401	OPEN OFFICE	A 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
402	SUPERVISOR OFFICE	A 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
403	WORKSTATION	A 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
404	DRIVER'S LOUNGE	A 2 –	V 2 –	M 1 –	G 1 –	M 1 –	M 1 –	H 4 –	9'–0"	–
405	WOMEN'S	E 2 –	E 2 –	G 1 –	G/E 1/2	G 1 –	G 1 –	H 5 –	9'–0"	4'–0" HIGH WAINSCOT TILES ON WET WALL ONLY
406	MEN'S	E 2 –	E 2 –	G 1 –	G 1 –	G 1 –	G/E 1/2	H 5 –	9'–0"	4'–0" HIGH WAINSCOT TILES ON WET WALL ONLY
501	LOBBY	E 2 –	E 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
502	STAIR	E 2 –	E 2 –	G 1 –	– – –	– – –	G 1 –	H 4 –	9'–0" ABOVE 2ND FLOOR LINE	–
503	GENERAL OFFICE	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
504	ELEVATOR ROOM	D – –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	X – –	–	–
505	OFFICE	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
505A	CLOSET	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	C 1 –	9'–0"	–
506	OFFICE	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
507	OFFICE	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
508	OFFICE	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
509	COFFEE AREA	A 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
510	CONFERENCE	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
510A	CLOSET	C 2 –	V 2	G 1 –	G 1 –	G 1 –	G 1 –	C 1 –	9'–0"	–
511	CORRIDOR	C 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0"	–
511A	CLOSET	C 2 –	V 2	G 1 –	G 1 –	G 1 –	G 1 –	C 1 –	9'–0"	–
512	WOMEN'S	E 2 –	E 2 –	G 1 –	G/E 1/2	G 1 –	G 1 –	H 5 –	9'–0"	4'–0" HIGH WAINSCOT TILES ON WET WALL ONLY
513	MEN'S	E 2 –	E 2 –	G 1 –	G 1 –	G 1 –	G/E 1/2	H 5 –	9'–0"	4'–0" HIGH WAINSCOT TILES ON WET WALL ONLY
514	STAIR	A 2 –	V 2 –	G 1 –	G 1 –	G 1 –	G 1 –	H 4 –	9'–0" ABOVE 2ND FLOOR LINE	–
601	OFFICE SPACE	D – –								UNFINISH
602	OPEN SPACE	D – –								UNFINISH
603	ELEC. ROOM	D – –	V 2 –	G – –	G – –	G 1 –	G – –	X – –	–	UNPAINTED WALLS
604	TELE. ROOM	D – –	V 2 –	G – –	G – –	G 1 –	G – –	X – –	–	UNPAINTED WALLS



WINDOW TYPES:

1/4" = 1'–0"

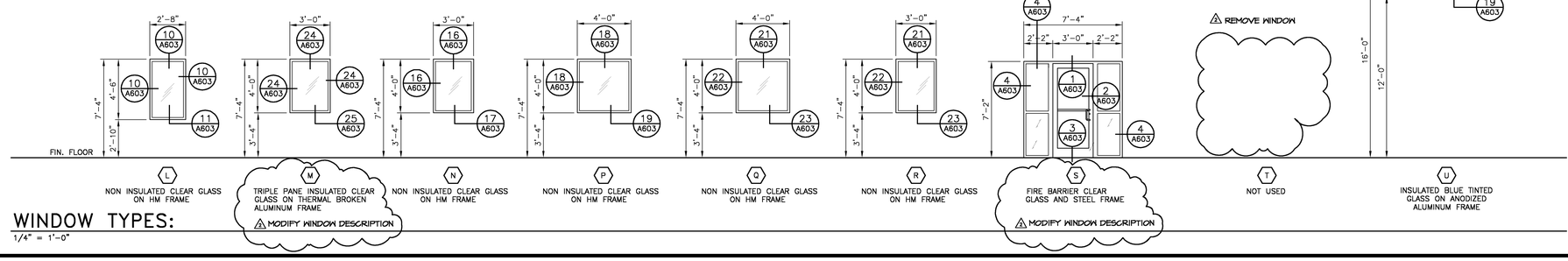
△MODIFY WINDOW FRAMES TO ALUMINUM



WINDOW TYPES:

1/4" = 1'–0"

△MODIFY WINDOW FRAMES TO ALUMINUM



WINDOW TYPES:

1/4" = 1'–0"

FLORIDA DESIGNER LICENSE NO. 9630
FLORIDA ARCHITECTURAL LICENSE NO. AA26001976
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

ROOM FINISH SCHEDULE & WINDOW TYPES

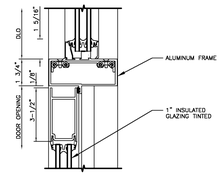
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REV.	DATE	BY	DESCRIPTION
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1	6/29/07	JVG	REVISED AS NOTED
0	6/29/07	JVG	CONSTRUCTION ISSUE

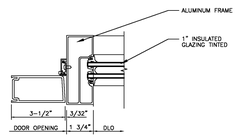
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DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

A602
DRAWING NO.

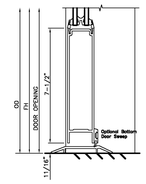
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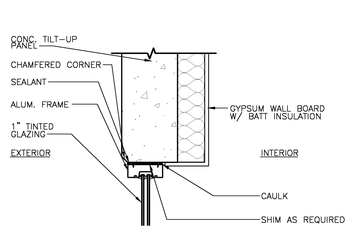
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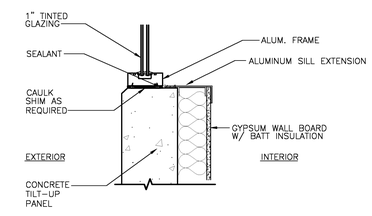
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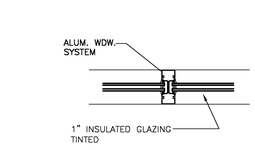
3 SILL
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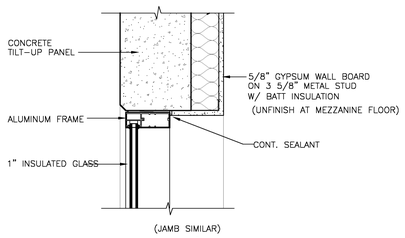
4 HEAD/JAMB
1 1/2"=1'-0"



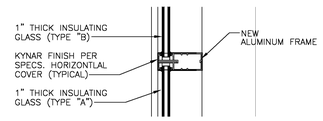
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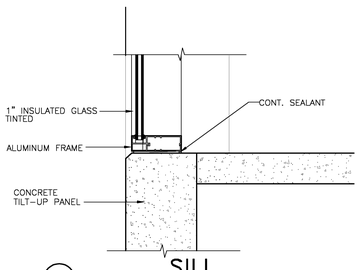
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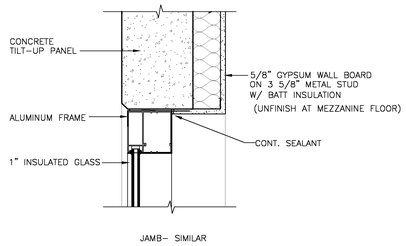
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8 MULLION
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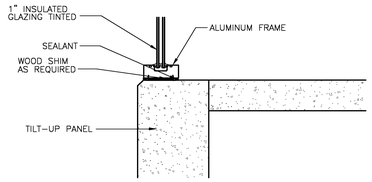


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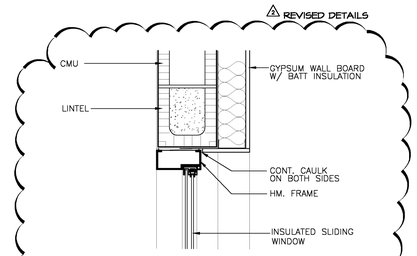


JAMB- SIMILAR

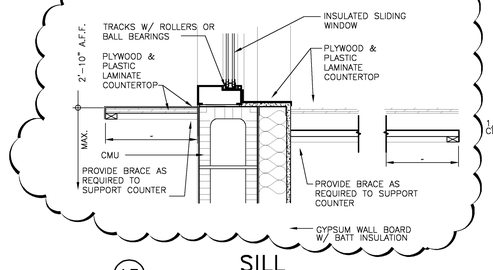
10 HEAD
1 1/2" = 1'-0"



11 SILL
1 1/2" = 1'-0"



12 HEAD
1 1/2" = 1'-0"

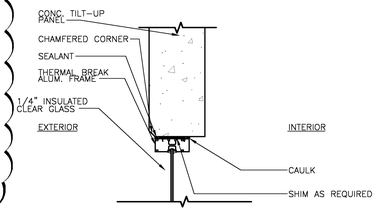


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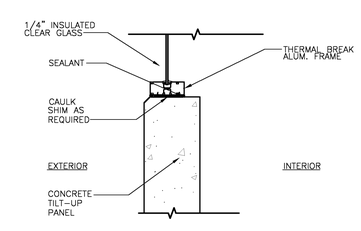
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1 1/2"=1'-0"

15 NOT USED
1 1/2"=1'-0"

16 NOT USED
1 1/2" = 1'-0"



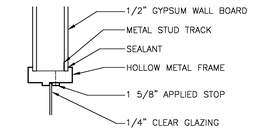
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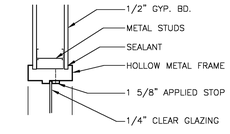
19 SILL
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17 NOT USED
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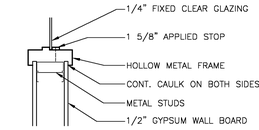
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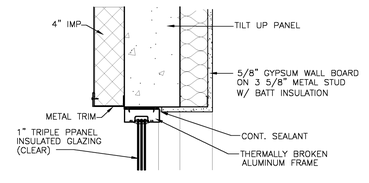
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22 JAMB
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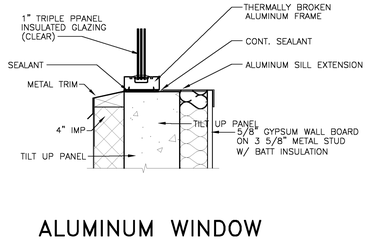


23 SILL
1 1/2" = 1'-0"



ALUMINUM WINDOW HEAD DETAIL
1 1/2"=1'-0"

24



ALUMINUM WINDOW SILL
1 1/2"=1'-0"

25

FLORIDA DESIGNING ENGINEER LICENSE NO. 9520
FLORIDA ARCHITECTURAL LICENSE NO. AR 0015175
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WINDOW DETAILS

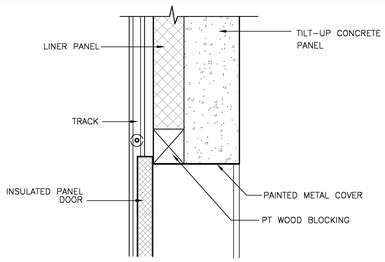
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REV.	DATE	DESCRIPTION
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1	6/15/07	REVISED AS NOTED
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	LBM	EBY

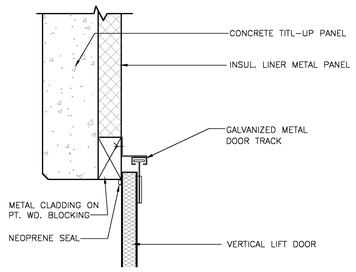
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DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

A603
DRAWING NO.

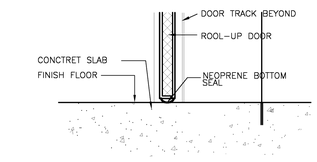
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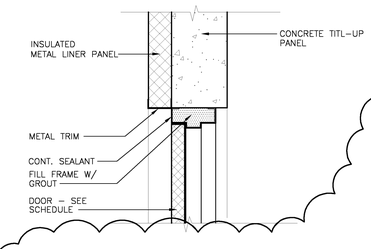
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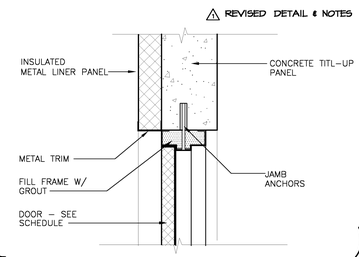
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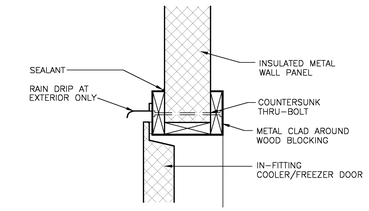
3 SILL
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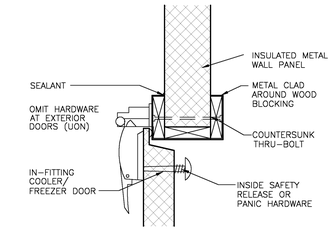
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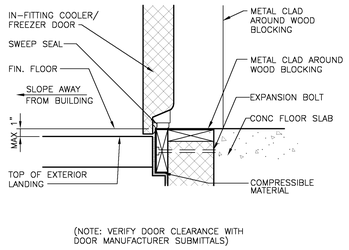
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6 HEAD
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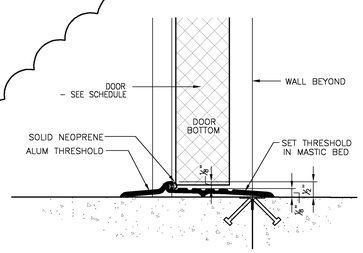


7 JAMB
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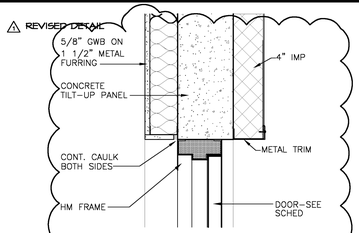
(NOTE: VERIFY DOOR CLEARANCE WITH DOOR MANUFACTURER SUBMITTALS)

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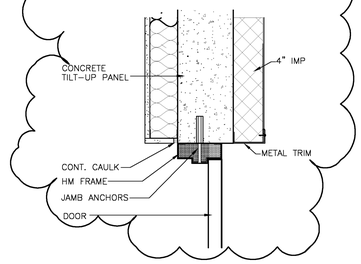


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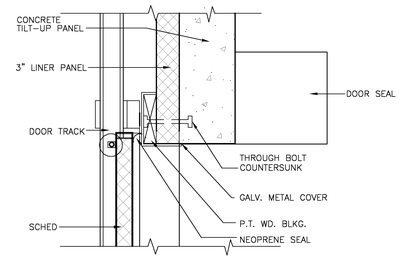
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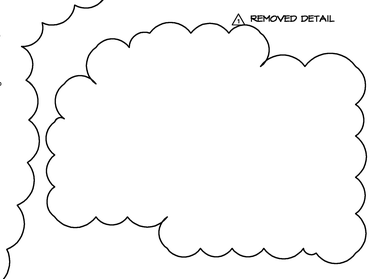
11 HEAD
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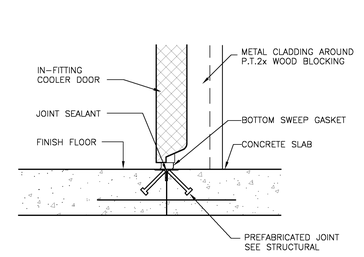
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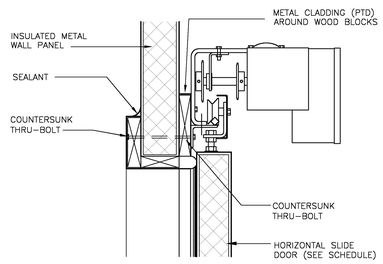
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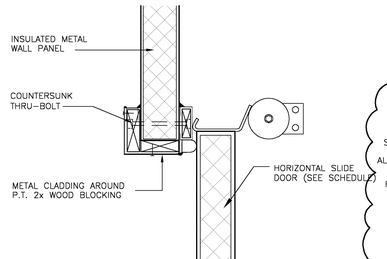
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16 SILL
1 1/2" = 1'-0"

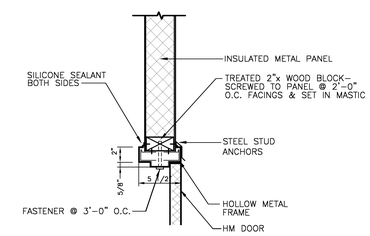


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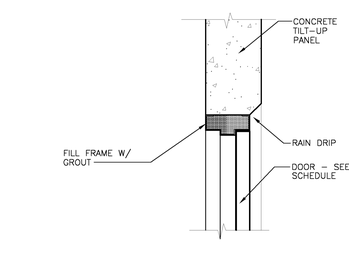


18 JAMB
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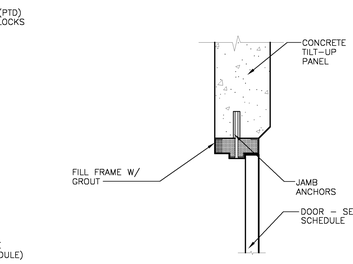
19 SILL
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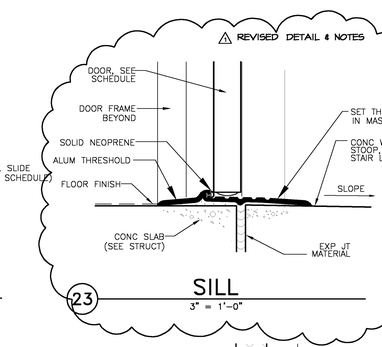
20 HEAD/JAMB
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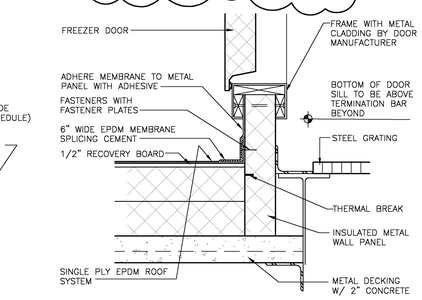
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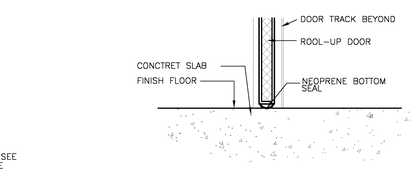
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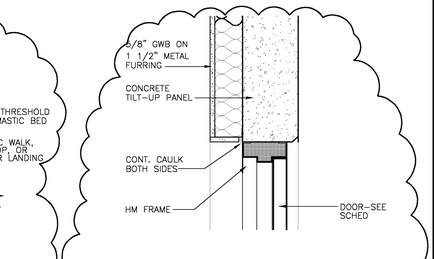
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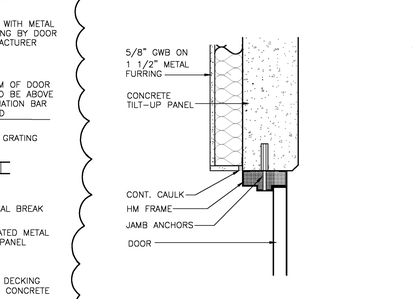
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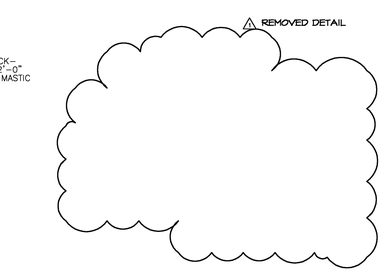
27 SILL
1 1/2" = 1'-0"



28 HEAD
1 1/2"=1'-0"



29 JAMB
1 1/2"=1'-0"
ADDED DETAILS



25 NOT USED
1 1/2" = 1'-0"

THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900
FLORIDA ENGINEERING LICENSE NO. 9535
FLORIDA ARCHITECTURAL LICENSE NO. AA26001175

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

DOOR DETAILS

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REV.	DATE	BY	DESCRIPTION
1	10/24/07	LBM	REVISED AS NOTED
0	10/24/07	JVG	CONSTRUCTION ISSUE

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CHECKED:
SCALE: AS SHOWN

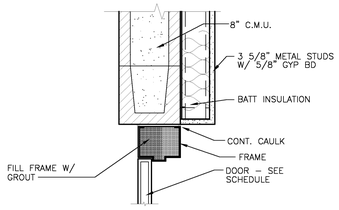
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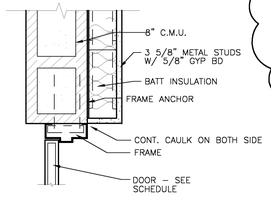
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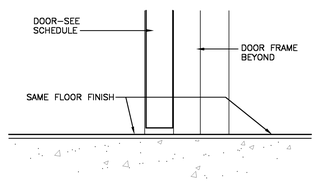
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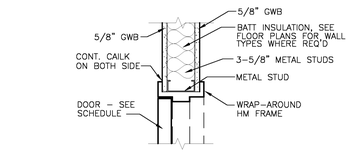
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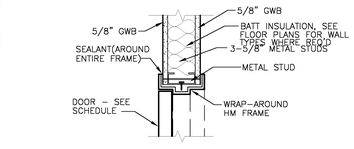
4 JAMB
1 1/2"=1'-0"



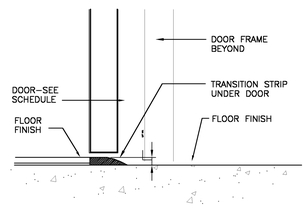
5 SILL
3" = 1'-0"



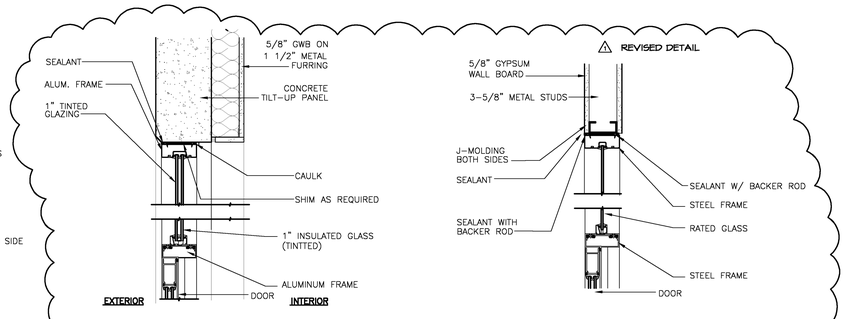
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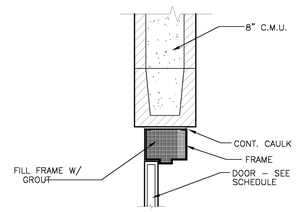
7 JAMB
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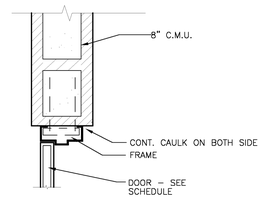
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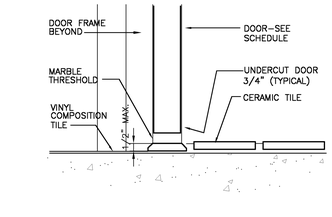
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1 1/2" = 1'-0"



11 HEAD
1 1/2"=1'-0"



12 JAMB
1 1/2"=1'-0"



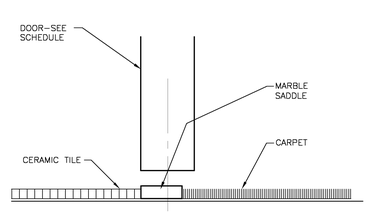
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3" = 1'-0"

14 JAMB
1 1/2" = 1'-0"

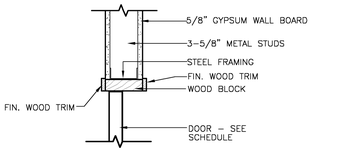


10 SILL
3" = 1'-0"

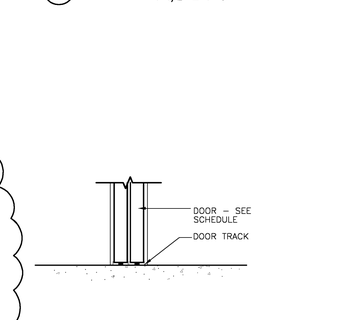
15 SILL
3" = 1'-0"



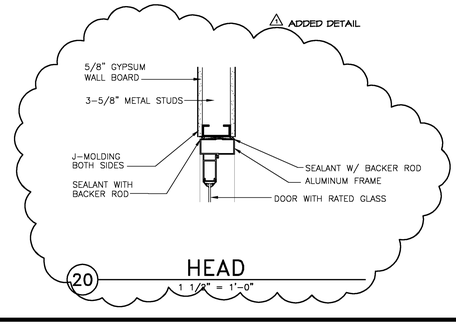
17 HEAD
1 1/2" = 1'-0"



18 JAMB
1 1/2" = 1'-0"



19 SILL
1 1/2" = 1'-0"



20 HEAD
1 1/2" = 1'-0"

THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2900
FLORIDA ARCHITECTURAL LICENSE No. AR0016175
FLORIDA ENGINEERING LICENSE No. 9430

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

DOOR DETAILS

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REV.	DATE	BY	DESCRIPTION
1	6/28/07	LBM	REVISED AS NOTED
0	6/26/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710–03019
DRAWN: LBM
CHECKED:
SCALE: AS SHOWN

A605
DRAWING NO.

Filename: T:\Jobs\03000–03099\03019 USCS_FL\Design\Active\Arch\03019A605.dwg Last Saved By: LMITCHNER Date: 6/28/2007 10:43:13 AM Plotted: 6/28/2007 10:43:28 AM

UNITED STATES COLD STORAGE

NEW FACILITY

LAKE CITY, FLORIDA

CIVIL ENGINEERING LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		RIGHT-OF-WAY LINE
		CENTERLINE
		SECTION,TOWNSHIP,RANGE LINE
		FENCE
		RETAINING WALL
		BUILDING
		PAVEMENT LINE/SIDEWALK LINE
		CURB, CURB AND GUTTER
25.50	25.50	SPOT ELEVATIONS
25	25	CONTOURS
6"SA	6"SA	SANITARY SEWER/CLEANOUT
6"PW	6"PW	PROCESS WASTE
RD	RD	ROOF DRAIN
ST	ST	STORM SEWER
6"W	6"W	DOMESTIC WATER
6"F	6"F	FIRE MAIN
6"G	6"G	GAS MAIN
6"FM	6"FM	FORCE MAIN
UE	UE	UNDERGROUND ELECTRIC
OHE	OHE	OVERHEAD ELECTRIC
UT	UT	UNDERGROUND TELEPHONE
OT	OT	OVERHEAD TELEPHONE
UD	UD	UNDERDRAIN
		FIRE HYDRANT
		DOUBLE CHECK VALVE ASSEMBLY
R.P.	R.P.	RED. PRESSURE BACKFLOW PREVENTER
F	F	POST INDICATOR VALVE
		VALVE
		VALVE & BOX
		MANHOLE
		SPRINKLER RISER
WM	WM	WATER METER
		CATCH BASIN
		CURB INLET
		FLARED END
		MITERED END
		CONCRETE FLUME
		ENDWALLS
		CONTROL STRUCTURE
PP	PP	CONCRETE POWER POLE
PP	PP	WOOD POWER POLE
LP	LP	LIGHT POLE
		TRANSFORMER
		VAULTS
		DRAINAGE STRUCTURE
		SANITARY SEWER STRUCTURE
		SECTION CUT
		DETAIL REFERENCE
		CURVE NUMBER
		SILT FENCE
		HAYBALE BARRIER
1	1	SOIL BORING LOCATION/NUMBER



VICINITY MAP

1" = 400'

ALTA/ASCM BOUNDARY & TOPOGRAPHIC SURVEY

IN

THE NW 1/4 AND THE NW 1/4 OF THE NE 1/4 AND
THE W 1/2 OF THE SW 1/4 OF THE NE 1/4
SECTION 36, TOWNSHIP 3 SOUTH, RANGE 17 EAST
COLUMBIA COUNTY, FLORIDA

DESCRIPTION: (OFFICIAL RECORDS BOOK 879, PAGE 71)

THAT PART OF THE NW 1/4, AND THE NW 1/4 OF NE 1/4, AND A PORTION OF THE W 1/2 OF SW 1/4 OF NE 1/4 OF SECTION 36, TOWNSHIP 3 SOUTH, RANGE 17 EAST, LYING SOUTH OF THE SEABOARD COASTLINE RAILROAD RIGHT-OF-WAY, NORTH OF THE NORTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 90, AND EAST OF THE EAST RIGHT-OF-WAY LINE OF FOREST SERVICE ROAD #236, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 36, AND THENCE RUN S 6°05'51" W ALONG THE WEST BOUNDARY OF SAID SECTION 36, A DISTANCE OF 980.90 FEET TO THE SOUTHERLY RIGHT-OF-WAY OF SEABOARD COASTLINE RAILROAD; THENCE RUN N 82°58'21" E ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 1843.94 FEET TO THE EASTERLY RIGHT-OF-WAY OF FOREST SERVICE ROAD #236 AND THE POINT OF BEGINNING; THENCE CONTINUE N 82°58'21" E STILL ALONG SAID RAILROAD RIGHT-OF-WAY, A DISTANCE OF 1220.74 FEET TO THE EAST LINE OF THE W 1/2 OF THE NW 1/4 OF THE NE 1/4; THENCE RUN S 1°56'33" W ALONG THE EAST LINE OF THE W 1/2 OF NW 1/4 OF NE 1/4, A DISTANCE OF 766.03 FEET; THENCE RUN N 88°37'49" W, A DISTANCE OF 35.98 FEET; THENCE S 1°55'29" W, A DISTANCE OF 411.30 FEET TO THE NORTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 90; THENCE RUN S 89°17'21" W, ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 341.45 FEET; THENCE S 0°38'26" E, STILL ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 10.00 FEET; THENCE RUN S 89°21'39" W, STILL ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 600.17 FEET; THENCE N 0°38'26" W, STILL ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 10.00 FEET; THENCE RUN S 89°21'39" W, STILL ALONG SAID RIGHT OF WAY, A DISTANCE OF 125.52 FEET TO THE EAST RIGHT-OF-WAY OF FOREST SERVICE ROAD #236; THENCE RUN N 3°48'36" W, ALONG SAID EAST RIGHT-OF-WAY, A DISTANCE OF 1041.57 FEET TO THE POINT OF BEGINNING.

THE CONTRACTOR MUST CONTACT SUNSHINE STATE ONE CALL OF FLORIDA
CALL 1-800-432-4770 TWO FULL BUSINESS DAYS BEFORE DIGGING.
CALL 48 DAYS BEFORE DIGGING WHEN DIGGING UNDER WATER.

SITE ANALYSIS

PARCEL IDENTIFICATION NUMBER..... 36-3S-17-07463-004

THE SITE IS LOCATED COMPLETELY WITHIN COLUMBIA COUNTY

ZONING..... INDUSTRIAL

REQUIRED SETBACKS.....BUILDING: FRONT 20' SIDE 15' REAR 15'

PARCEL AREA..... 29.21 AC
FUNCTIONAL DESCRIPTION..... COLD STORAGE WAREHOUSE

PROPOSED BUILDING AREA..... 190,200 S.F. (PHASE 1)
363,000 S.F. (BUILD OUT)

PROPOSED BUILDING COVERAGE..... 14.95% (PHASE 1)
28.52% (BUILD OUT)

PAVED AREA..... 150,000 S.F. (PHASE I)
362,473 S.F. (BUILD OUT)

WET POND AREA..... 4.37 AC (PHASE 1)
7.50 AC (BUILD OUT)

TOTAL IMPERVIOUS LOT COVERAGE..... 41.70% (PHASE 1 INCLUDING POND)
82.69% (BUILD OUT INCLUDING POND)

PROPOSED DISTURBED AREA..... 25.05 AC

PARKING REQUIRED..... 1 SPACE PER 1,500 S.F. OF BUILDING AREA
PARKING PROVIDED..... 102 AUTO PARKING (PHASE 1)
192 AUTO PARKING (BUILD OUT)

MAXIMUM BUILDING HEIGHT..... 62'

WATER..... CITY OF LAKE CITY
SEWER..... CITY OF LAKE CITY

-HANDICAPPED ACCESSIBILITY SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.)

NAME OF OWNER:	UNITED STATES COLD STORAGE 100 DOBBS LANE SUITE #102 CHERRY HILL, NJ 08034
NAME OF APPLICANT:	UNITED STATES COLD STORAGE 100 DOBBS LANE SUITE #102 CHERRY HILL, NJ 08034
NAME OF ENGINEER:	THE STELLAR GROUP 2900 HARTLEY ROAD JACKSONVILLE, FL 32257 904-260-2900
NAME OF AGENT:	THE STELLAR GROUP 2900 HARTLEY ROAD JACKSONVILLE, FL 32257 904-260-2900
NAME OF SURVEYOR:	BAILEY BISHOP & LANE, INC. P.O. BOX 3717 LAKE CITY, FL 32056 386-752-5640
NAME OF GEOTECHNICAL ENGINEER:	UNIVERSAL ENGINEERING SEVICES 5561 FLORIDA MINING BLVD. SOUTH JACKSONVILLE, FL 32257 904-296-0757

INDEX

C100	COVER SHEET
C101	SITE GEOMETRY PLAN
C102	SITE UTILITIES PLAN
C103	GRADING AND DRAINAGE PLAN
C104	EROSION AND SEDIMENT CONTROL PLAN
C107	LANDSCAPING PLAN
C501	SITE DETAILS
C502	SITE DETAILS

THE STELLAR ARCHITECTURAL AND ENGINEERING GROUP, INC.
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

COVER SHEET

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REV.	DATE	BY	DESCRIPTION
0	4/18/07	MHM	CONSTRUCTION ISSUE

JOB NO. 710 03019
DRAWN:
CHECKED: MHM
SCALE: NTS

C100
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Civil\03019C100.dwg DATE: 04/18/07 TIME: 11:25 am BY: MICHAEL MENDOZA

℄ CSX TRANSPORTATION RAILROAD
(FORMERLY SEABOARD COASTLINE RAILROAD)

SOUTHERLY R/W OF CSX TRANSPORTATION RAILROAD
(FORMERLY SEABOARD COASTLINE RAILROAD)

FENCE CORNER
0.6'S & 0.3'E
OF IRON PIPE

RAILROAD CROSSING GUARD

RAILROAD CROSSING GUARD

40'

100.0'

P.O.B.

N 82°57'52" E 1848.83' (M)
N 82°58'21" E 1843.94' (D)

BENCHMARK #1
RAILROAD SPIKE & WASHER
ELEVATION = 201.32'

N 82°57'52" E 1217.37' (M)
N 82°58'21" E 1220.74' (D)

380.2'

PROPOSED 6'
CHAINLINK
FENCE

50.00'
(C)

6'

15' REAR SETBACK

29.21 AC. ±

174'

35'

399'

PROPOSED 18"
RODENT STRIP
AROUND UNPAVED
BUILDING PERIMETER

16
C501

PROPOSED
BUILDING
180,628 S.F.
F.F. = 204.33
SUBGRADE = 202.91

391'

EAST R/W

5
C501

PROPOSED 5' SIDEWALK
1:16 SLOPE TO WEST

48'

R35

2
C501

(64) 9' X 18' PHASE I ASPHALT
AUTO PARKING

STILL ROAD

N 03°35'26" W 1041.72' (M)
N 03°48'36" W 1041.57' (D)

15' SIDE SETBACK

R50'

16'

32'

LOCKER
ROOMS
F.F. = 204.33

112'

TRUCK DOCK
F.F. = 204.33
SUBGRADE = 203.75

14
C501

9'

(5) 13' X 20' A.D.A.
PARKING SPACES

OFFICE
F.F. = 204.33

RAMP

MACH./ELEC.
ROOM
F.F. = 201.33

DUMPSTER

24'

82'

4
C501

CONCRETE
PAVEMENT

1
C501

160'

140'

3
C502

(32) PHASE I 12' x 50'
TRUCK STAGING

(6) 9' X 18'
AUTO PARKING

R50'

20'

MAIN ENTRANCE
WITH SWING GATES

84'

20'

58'

R20'

197'

R20'

384'

30'

PROPOSED WET
STORMWATER
TREATMENT/
DETENTION POND

FUTURE GUARD
SHACK LOCATION

GRAVEL DRIVE

179'

8'

15'

18'

PUMP
HOUSE

△ MOVED PUMP HOUSE, ADDED PUMP HOUSE GRAVEL ACCESS,
REMOVED PUMP HOUSE SIDEWALK

EAST LINE OF W 1/2
OF NW 1/4 OF NE 1/4

336.1'

N 01°55'50" W 766.76' (M)
N 01°56'33" W 766.83' (D)

FENCE CORNER
0.5'N & 0.2'E OF CM

S 01°55'50" W 245.79'
S 01°56'33" W

15' SIDE SETBACK

FENCE CORNER
0.1'S OF CM

179.86'

FENCE CORNER
0.1'N & 0.1'E OF CM

S 89°05'28" W 36.19' (M)
N 88°37'49" W 35.98' (D)

PART OF NW 1/4

N 03°35'26" W 999.77'

BENCHMARK #2
RAILROAD SPIKE
ELEVATION = 201.63'

PROPOSED FLAG POLES
AND SIGNAGE

PROPOSED WET STORMWATER
TREATMENT/ DETENTION POND

N 00°39'35" W 10.00' (M)
N 00°38'26" W 10.00' (D)

S 89°20'25" W 125.75' (M)
S 89°21'39" W 125.52' (D)

341.7'

20' FRONT SETBACK

S 00°39'35" E 10.00' (M)
S 00°38'26" E 10.00' (D)

33.7'

S 89°20'25" W 600.53' (M)
S 89°21'39" W 600.17' (D)

U.S. HIGHWAY NO. 90

GRASS MEDIAN

SRD

CONCRETE
SIGNAL POLE

SRD

NORTH R/W

S 89°16'37" W 341.23' (M)
S 89°17'21" W 341.45' (D)

S 01°55'08" W 410.04' (M)
S 01°55'29" W 411.30' (D)

N

0 25 50 100
SCALE 1" = 50'

THE STELLAR ARCHITECTURAL AND ENGINEERING GROUP, INC.
2300 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SITE
GEOMETRY
PLAN

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REV.	DATE	BY	DESCRIPTION
2	2/20/07	MHM	REVISED AS NOTED
1	1/30/07	MHM	REVISED AS NOTED
0	6/29/07	MHM	CONSTRUCTION ISSUE

JOB NO. 710 03019
DRAWN:
CHECKED: MHM
SCALE: 1"=50'

C101
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Civil\03019C101.dwg DATE: 06/29/07 TIME: 10:05 am BY: MICHAEL MENDOZA

℄ CSX TRANSPORTATION RAILROAD
(FORMERLY SEABOARD COASTLINE RAILROAD)

P.O.B.

15' REAR SETBACK

29.21 AC. ±

FUTURE RAILROAD TRACK CENTERLINE ELEV. = 200.00

178 AUTO PARKING SPACES AT FINAL BUILD-OUT

FUTURE AUTO ENTRANCE

PROPOSED BUILDING
182,000 S.F.
F.F. = 204.33
SUBGRADE = 202.91

FUTURE BUILDING

LOCKER ROOMS
F.F. = 204.33

TRUCK DOCK
F.F. = 204.33
SUBGRADE = 203.75

OFFICE
F.F. = 204.33

(89) 9' X 18' PHASE I ASPHALT AUTO PARKING

(5) 12' X 20' ADA PARKING SPACES

164'

15' SIDE SETBACK

RAMP

MACH/ELEC. ROOM
F.F. = 200.00

FUTURE TRUCK DOCK

CONCRETE PAVEMENT

MAIN ENTRANCE WITH SWING GATE & GUARD SHACK

(14) 9' X 18' USDA/AUTO PARKING

251'

15' SIDE SETBACK

(34) PHASE I TRUCK STAGING

(33) ADDITIONAL BUILD-OUT TRAILER STAGING

PROPOSED WET STORMWATER TREATMENT/ DETENTION POND

134'

(28) ADDITIONAL BUILD-OUT TRAILER STAGING

FUTURE TRUCK ENTRANCE

STILL ROAD

150'

FUTUTRE EXPANSION:
PROPOSED WET STORMWATER TREATMENT/ DETENTION POND

PROPOSED WET STORMWATER TREATMENT/ DETENTION POND

20' FRONT SETBACK

U.S. HIGHWAY NO. 90

N

0 25 50 100

SCALE 1" = 50'

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Civ\03019C101A.dwg DATE: 03/06/07 TIME: 2:09 pm BY: MICHAEL MENDOZA

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SITE MASTER PLAN

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REV.	DATE	BY	DESCRIPTION
A	3/6/07	MHM	PERMITTING ISSUE

JOB NO. 710 03019
DRAWN:
CHECKED: MHM
SCALE: 1"=50'

C101A
DRAWING NO.

℄ CSX TRANSPORTATION RAILROAD
(FORMERLY SEABOARD COASTLINE RAILROAD)

RAILROAD CONTROL CABINET

METER POLE

P.O.B.
PROPOSED FIRE HYDRANT

PROPOSED FIRE HYDRANT (6 / C501)

29.21 AC. ±

OVERHEAD POWER LINE TO BE REMOVED (BY OTHERS)

STILL ROAD

PROPOSED SPRIKLER RISER (9 / C501)

PROPOSED TRANSFORMER PAD (SEE ELECTRICAL)

PROPOSED BOLLARD PROTECTED PIV (10 / C501)

RAMP

DUMPSTER

PROPOSED 6" METER AND BACKFLOW PREVENTOR ASSEMBLY (11 / C501) (12 / C501)

PROPOSED WATER SERVICE CONNECTION (9 / C503) (7 / C501)

PLUG AND VALVE FOR FUTURE CONNECTION (12 / C501)

BLOW-OFF VALVE (6 / C503)

PROPOSED CLEANOUT INV. = 194.79

INV.=195.00

INV.=195.00

WIRE LOCATOR FOR ALL PVC LINES (3 / C503)

EXISTING 12" WATER MAIN

PROPOSED INVERT ELEV. = 195.00

SANITARY MANHOLE #3
RIM ELEV. = 199.20
INV. (N) = 194.76 (8")
INV. (W) = 194.17 (8")
INV. (E) = 194.27 (8")

5" STORTZ FIRE DEPARTMENT CONNECTION WITH PROTECTIVE BOLLARDS

LOW PRESSURE FIRE HYDRANT WITH PROTECTIVE BOLLARDS

SANITARY MANHOLE #1
RIM ELEV. = 199.20
INV. (N) = 194.43 (6")
INV. (W) = 192.20 (8")
INV. (E) = 192.30 (8")
(17 / C501) (2 / C503)

SANITARY MANHOLE #2
RIM ELEV. = 199.20
INV. (N) = 194.43 (6")
INV. (W) = 193.70 (8")
INV. (E) = 193.80 (8")

PROPOSED SANITARY LIFT STATION (5 / C502)
RIM ELEV. = 199.10
INV. (E) = 191.20 (8")
INV. (W) = 195.27 (4"FM)

PROPOSED WET STORMWATER TREATMENT/ DETENTION POND

FIRE PROTECTION POND AREA
50-YR DROUGHT ELEV. = 190.08
SUCTION PIPE INV. = 185.00
BOTTOM OF POND = 184.00
VOLUME = 80,000 C.F.

HYDRANT TESTED BY CITY
STA. = 60 PSI
RES. = 28 PSI AT 914 GPM

BORE AND JACK UNDER US-90 (4 / C503)

PROPOSED WET STORMWATER TREATMENT/ DETENTION POND

U.S. HIGHWAY NO. 90

EXISTING SANITARY MANHOLE
TOP = 200.76
INV. (W)=195.39
INV. (E)=195.47

CONNECT TO EXISTING (7 / C503)
INV. = 196.50 (4"FM)

4"FM

5 REVISED FORCEMAIN TIE IN LOCATION

0 25 50 100
SCALE 1" = 50'

UTILITY NOTES:

1. MAINTAIN MINIMUM 42" COVER ON ALL WATER MAINS UNLESS OTHERWISE NOTED.
2. THE UTILITIES SUBCONTRACTOR SHALL INDICATE THE LOCATION OF THE TERMINATION OF EACH WATER SERVICE WITH STAKES OR MARKERS.
3. ALL LINED FITTINGS SHALL BE TESTED FOR DEFECTS, PRIOR TO INSTALLATION.
4. A PRE-CONSTRUCTION CONFERENCE IS REQUIRED.
5. THE WATER MAIN SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE SPECIFICATIONS.
6. SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MATERIALS TO BE USED FOR CONSTRUCTION TO THE ENGINEER.
7. WATER LINES ARE DESIGNED TO FINISHED GRADE ELEVATIONS, AND SHALL BE PROTECTED FROM DAMAGE UNTIL ALL SITEWORK HAS BEEN COMPLETED.
8. ALL UNDERGROUND VALVES SHALL BE INSTALLED WITH AN ADJUSTABLE CAST IRON VALVE BOX, WITH TOP SET TO FINAL GRADE.
9. WATER MAINS SHALL BE CONSTRUCTED TO PROVIDE HORIZONTAL AND VERTICAL SEPERATION FROM SANITARY SEWERS, FORCE MAINS, STORM SEWERS, AND RECLAIMED WATER MAINS WATER MAINS ARE TO BE SEPARATED 10 FEET HORIZONTALLY AND 1.5 FEET VERTICALY, AT ALL CROSSINGS. WHERE PARALLEL SEPARATION OF 10 FEET IS NOT POSSIBLE, PROVIDE 5 FEET HORIZONTAL AND 1.5 FEET VERTICAL SEPARATION WITH THE WATER MAIN PLACED ON AN UNDISTURBED SHELF. THE VERTICAL SEPARATION MAY BE REDUCED TO 0.5 FT., IF BOTH CROSSING PIPES ARE WATER MAIN EQUIVALENT AND A 10 FEET JOINT SEPARATION IS PROVIDED , AND IF APPROVED BY HRS AND THE ENGINEER.
10. IF GASOLINE FUMES OR OTHER CONTAMINATION IS ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR, SHALL IDENTIFY THE CONTAMINATION AND DOCUMENT SUCH TO THE ENGINEER IN WRITING. SPECIAL PIPE AND JOINT GASKETS MAY BE REQUIRED IN THIS INSTANCE. IF CONTAMINATION IS ENCOUNTERED, CONSTRUCTION SHALL STOP, UNTIL THE SUBCONTRACTOR RECEIVES FURTHER DIRECTION THE ENGINEER.
11. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Civ\03019C102.dwg DATE: 07/11/07 TIME: 4:46 pm BY: CAD OPERATOR

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NEW FACILITY
LAKE CITY, FLORIDA

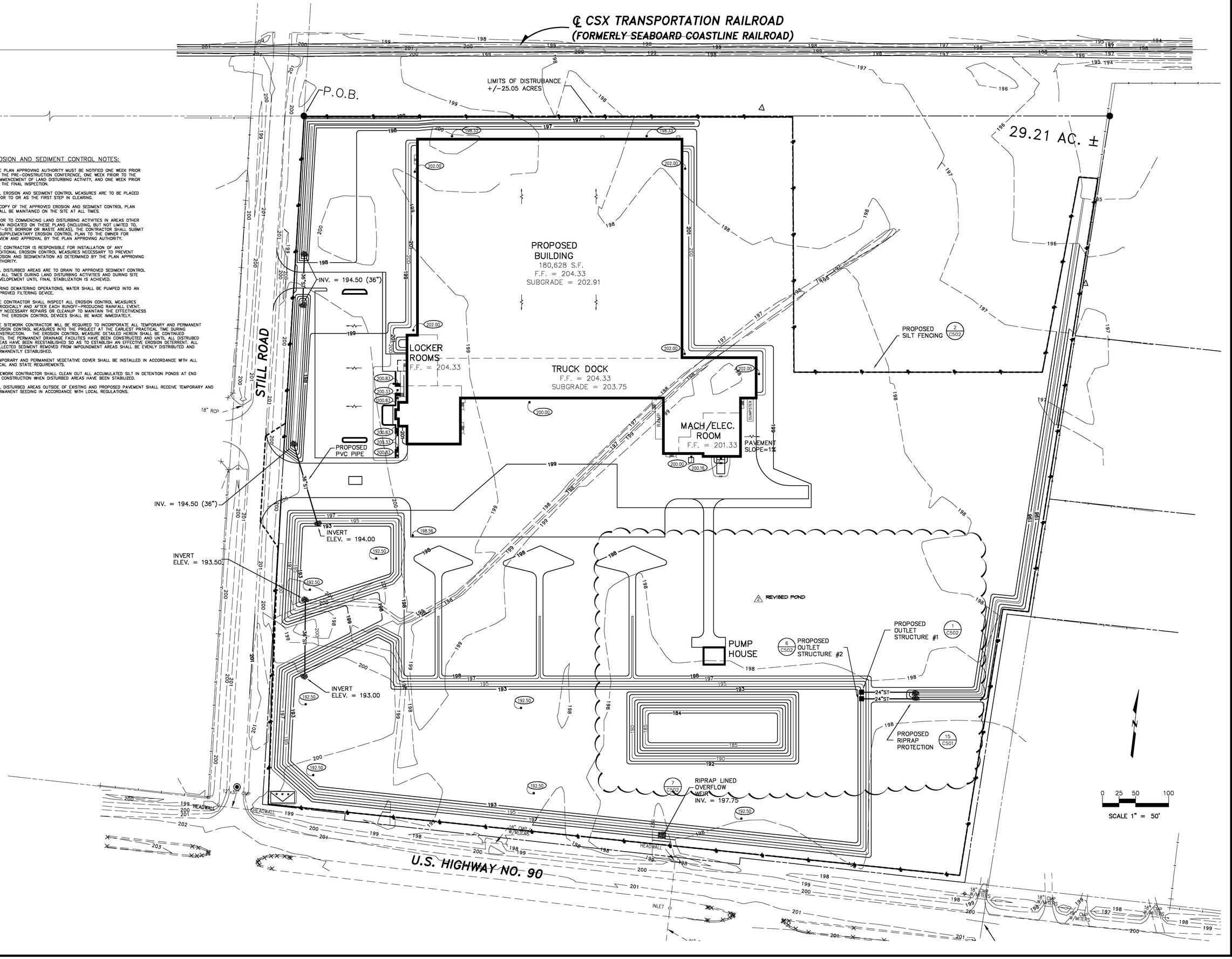
SITE UTILITIES PLAN

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REV.	DATE	BY	DESCRIPTION
5	7/11/07	SMS	REVISED AS NOTED
4	6/26/07	MHM	REVISED AS NOTED
3	6/20/07	MHM	REVISED AS NOTED
2	6/13/07	MHM	REVISED AS NOTED
1	6/25/07	MHM	REVISED UTILITY PERMIT ISSUE
0	1/8/07	MHM	CONSTRUCTION ISSUE

JOB NO. 710 03019
DRAWN:
CHECKED: MHM
SCALE: 1"=50'

C102
DRAWING NO.



EROSION AND SEDIMENT CONTROL NOTES:

1. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
4. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
6. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPEMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
7. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
8. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
9. THE SITEWORK CONTRACTOR WILL BE REQUIRED TO INCORPORATE ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES INTO THE PROJECT AT THE EARLIEST PRACTICAL TIME DURING CONSTRUCTION. THE EROSION CONTROL MEASURE DETAILED HEREIN SHALL BE CONTINUED UNTIL THE PERMANENT DRAINAGE FACILITIES HAVE BEEN CONSTRUCTED AND UNTIL ALL DISTRUBED AREAS HAVE BEEN REESTABLISHED SO AS TO ESTABLISH AN EFFECTIVE EROSION DETERRENT. ALL COLLECTED SEDIMENT REMOVED FROM IMPOUNDMENT AREAS SHALL BE EVENLY DISTRIBUTED AND PERMANENTLY ESTABLISHED.
10. TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS.
11. SITEWORK CONTRACTOR SHALL CLEAN OUT ALL ACCUMULATED SILT IN DETENTION PONDS AT END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.
12. ALL DISTURBED AREAS OUTSIDE OF EXISTING AND PROPOSED PAVEMENT SHALL RECEIVE TEMPORARY AND PERMANENT SEEDING IN ACCORDANCE WITH LOCAL REGULATIONS.

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

GRADING AND DRAINAGE PLAN

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REV.	DATE	BY	DESCRIPTION
2	8/29/07	MHM	REVISED AS NOTED
1	8/29/07	MHM	REVISED AS NOTED
0	6/29/07	MHM	CONSTRUCTION ISSUE

JOB NO. 710 03019

DRAWN:

CHECKED: MHM

SCALE: 1"=50'

C103
DRAWING NO.

FILE: T:\Jobs\03000-03999\03019 USCS_FL\Design\Active\Civ\03019C103.dwg DATE: 06/29/07 TIME: 10:05 am BY: MICHAEL MENDOZA

℄ CSX TRANSPORTATION RAILROAD
(FORMERLY SEABOARD COASTLINE RAILROAD)

P.O.B.

LIMITS OF DISTRUBANCE
+/-25.05 ACRES

29.21 AC. ±

STILL ROAD

PROPOSED
BUILDING
180,628 S.F.
F.F. = 204.33
SUBGRADE = 202.91

LOCKER
ROOMS
F.F. = 204.33

TRUCK DOCK
F.F. = 204.33
SUBGRADE = 203.75

MACH/ELEC.
ROOM
F.F. = 201.33

RAMP

DUMPSTER

PROPOSED
SILT FENCING
2
C502

PROPOSED SEEDING
AREA (TYP.)

PROPOSED WET
STORMWATER
TREATMENT/
DETENTION POND

PROPOSED WET STORMWATER
TREATMENT/ DETENTION POND

PROPOSED
RIPRAP
PROTECTION

U.S. HIGHWAY NO. 90

N

0 25 50 100
SCALE 1" = 50'

EROSION AND SEDIMENT CONTROL NOTES:

1. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
4. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
6. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPEMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
7. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
8. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
9. THE SITEWORK CONTRACTOR WILL BE REQUIRED TO INCORPORATE ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES INTO THE PROJECT AT THE EARLIEST PRACTICAL TIME DURING CONSTRUCTION. THE EROSION CONTROL MEASURE DETAILED HEREIN SHALL BE CONTINUED UNTIL THE PERMANENT DRAINAGE FACILITIES HAVE BEEN CONSTRUCTED AND UNTIL ALL DISTRUBED AREAS HAVE BEEN REESTABLISHED SO AS TO ESTABLISH AN EFFECTIVE EROSION DETERRENT. ALL COLLECTED SEDIMENT REMOVED FROM IMPOUNDMENT AREAS SHALL BE EVENLY DISTRIBUTED AND PERMANENTLY ESTABLISHED.
10. TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS.
11. SITEWORK CONTRACTOR SHALL CLEAN OUT ALL ACCUMULATED SILT IN DETENTION PONDS AT END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.
12. ALL DISTURBED AREAS OUTSIDE OF EXISTING AND PROPOSED PAVEMENT SHALL RECEIVE TEMPORARY AND PERMANENT SEEDING IN ACCORDANCE WITH LOCAL REGULATIONS.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Civ\03019C104.dwg DATE: 04/18/07 TIME: 1:42 pm BY: MICHAEL MENDOZA

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

EROSION AND SEDIMENT CONTROL PLAN

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REV.	DATE	BY	DESCRIPTION
0	04/18/07	MHM	CONSTRUCTION ISSUE

JOB NO. 710 03019
DRAWN:
CHECKED: MHM
SCALE: 1"=50'

C104
DRAWING NO.

LEGEND:

PROPOSED TREE

PROPOSED SHRUBS

PROPOSED SEEDING AREA

LANDSCAPING ANALYSIS

AUTO & TRUCK PARKING AREA = 50,500 S.F.

REQUIRED LANDSCAPED AREA = 50,500 X 10% = 5,050 S.F.

LANDSCAPED AREA PROVIDED (SHRUBS) = 5,096 S.F.

REQUIRED TREE COUNT = 5,050 S.F. / 200 = 26

NUMBER OF TREES PROVIDED = 26

NOTES:

TRESS SHALL BE A MINIMUM OF FOUR (4) FEET OVERALL HEIGHT IMMEDIATELY AFTER PLANTING. TREES SHALL NOT BE PLANTED CLOSER THAN SIX (6) FEET TO ANY PUBLIC STREET OR PUBLIC WORKS, UNLESS THE TREE ROOT SYSTEM IS COMPLETY CONTAINED WITHIN A BARRIER FOR WHICH THE MINIMUM INTERIOR DIMENSIONS SHALL BE FIVE (5) FEET SQUARE AND FIVE (5) FEET DEEP, AND FOR WHICH THE CONSTRUCTION REQUIREMENTS SHALL BE FOUR (4) INCH THICK CONCRETE REINFORCED WITH #6 ROAD MESH (6 x 6 x 6) OR EQUIVALENT.

P.O.B.

29.21 AC. ±

STILL ROAD

PROPOSED BUILDING
180,628 S.F.
F.F. = 204.33
SUBGRADE = 202.91

LOCKER ROOMS
F.F. = 204.33

TRUCK DOCK
F.F. = 204.33
SUBGRADE = 203.75

RAMP

DUMPSTER

MACH./ELEC. ROOM
F.F. = 201.33

⚠ REARRANGED SHRUB LOCATIONS

PROPOSED SEEDING AREA (TYP.)

PUMP HOUSE

PROPOSED WET STORMWATER TREATMENT/ DETENTION POND

PROPOSED WET STORMWATER TREATMENT/ DETENTION POND

U.S. HIGHWAY NO. 90

SE CORNER OF NW 1/4 OF SW 1/4 OF NE 1/4

N

0 25 50 100

SCALE 1" = 50'

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Civ\03019C107.dwg DATE: 06/11/07 TIME: 2:43 pm BY: MICHAEL MENDOZA

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

LANDSCAPING PLAN

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REV.	DATE	BY	DESCRIPTION
1	6/11/07	MHM	REVISED AS NOTED
0	5/15/07	MHM	CONSTRUCTION ISSUE

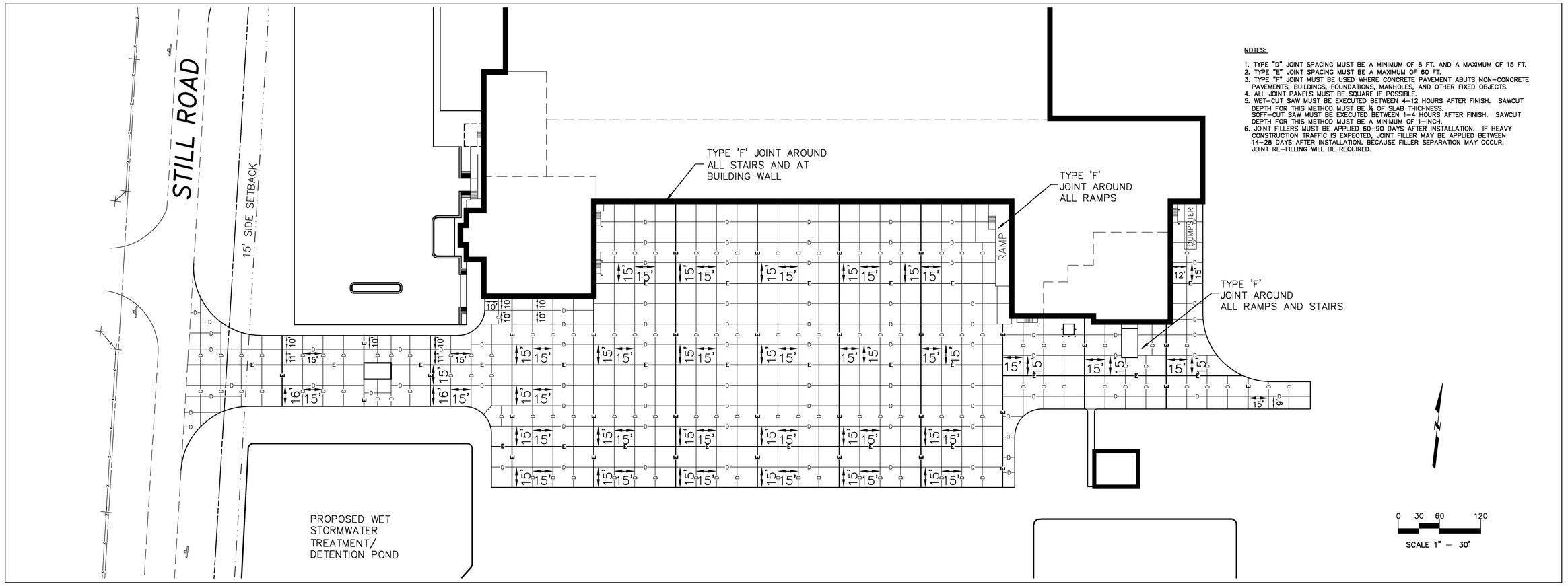
JOB NO. 710 03019

DRAWN:

CHECKED: MHM

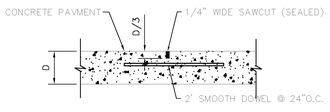
SCALE: 1"=50'

C107
DRAWING NO.

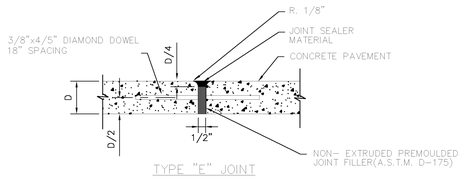


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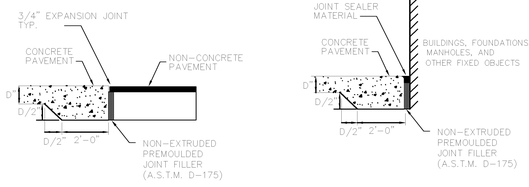
1. TYPE "D" JOINT SPACING MUST BE A MINIMUM OF 8 FT. AND A MAXIMUM OF 15 FT.
2. TYPE "E" JOINT SPACING MUST BE A MAXIMUM OF 60 FT.
3. TYPE "F" JOINT MUST BE USED WHERE CONCRETE PAVEMENT ABUTS NON-CONCRETE PAVEMENTS, BUILDINGS, FOUNDATIONS, MANHOLES, AND OTHER FIXED OBJECTS.
4. ALL JOINT PANELS MUST BE SQUARE IF POSSIBLE.
5. WET-CUT SAW MUST BE EXECUTED BETWEEN 4-12 HOURS AFTER FINISH. SAWCUT DEPTH FOR THIS METHOD MUST BE ¼ OF SLAB THICHNESS. SOFF-CUT SAW MUST BE EXECUTED BETWEEN 1-4 HOURS AFTER FINISH. SAWCUT DEPTH FOR THIS METHOD MUST BE A MINIMUM OF 1-INCH.
6. JOINT FILLERS MUST BE APPLIED 60-90 DAYS AFTER INSTALLATION. IF HEAVY CONSTRUCTION TRAFFIC IS EXPECTED, JOINT FILLER MAY BE APPLIED BETWEEN 14-28 DAYS AFTER INSTALLATION. BECAUSE FILLER SEPARATION MAY OCCUR, JOINT RE-FILLING WILL BE REQUIRED.



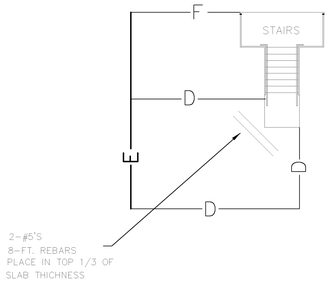
TYPE "D" JOINT



TYPE "E" JOINT



TYPE "F" JOINT



THE STELLAR ARCHITECTURAL AND ENGINEERING GROUP, INC.
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

JOINT SPACING PLAN

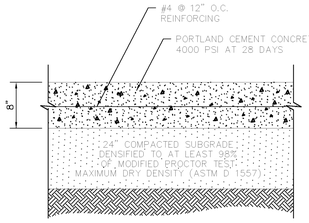
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REV.	DATE	BY	DESCRIPTION
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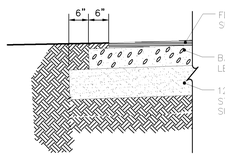
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CHECKED: MHM
SCALE: 1"=30'

C108
DRAWING NO.

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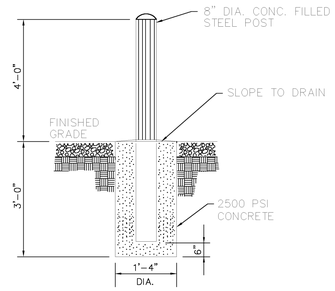


CONCRETE TRUCK PAVEMENT SECTION (1)

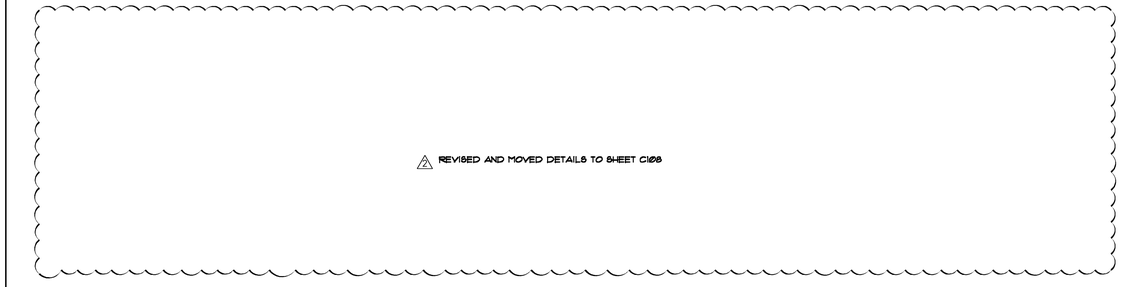


PAVEMENT STRUCTURE THICKNESS TABLE			
TYPE	SURFACE COURSE	BASE COURSE	STABILIZED SUBGRADE
AUTO PAVEMENT	1.5"	6.0"	12.0"

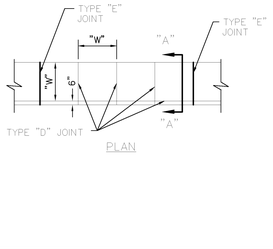
ASPHALT PAVEMENT SECTION (2)

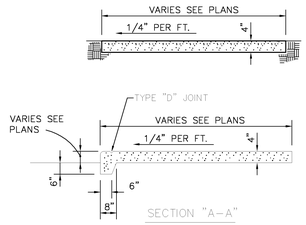


GUARD POST (3)



CONCRETE CONSTRUCTION JOINTS (4)





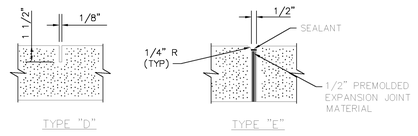
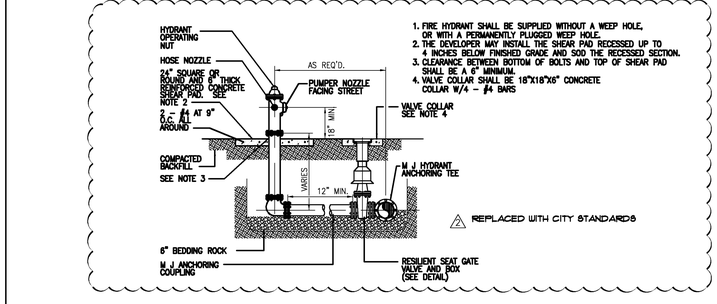


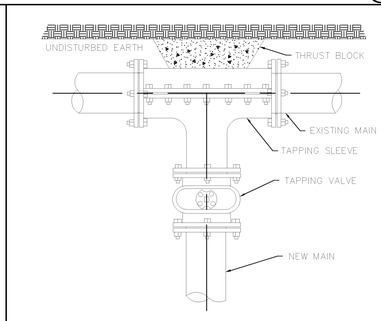
TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
"D"	TRANSVERSE JOINT AT INTERVALS EQUAL TO THE SIDEWALK WIDTH EXCEPT EVERY FOURTH JOINT WHICH IS A TYPE "E" JOINT.
"E"	EVERY FOURTH TRANSVERSE JOINT, P.C AND P.T. OF CURVES, ABRUPT CHANGES IN DIRECTION, AND WHERE NEW SIDEWALK ABUTS EXISTING SIDEWALK OR OTHER EXIST. CONCRETE SURFACE STRUCTURES.

NOTE: TYPE "D" JOINT MAY BE EITHER TOOLED IN WET CONCRETE OR SAWCUT WITHIN 18 HOURS OF PLACEMENT OF CONCRETE.

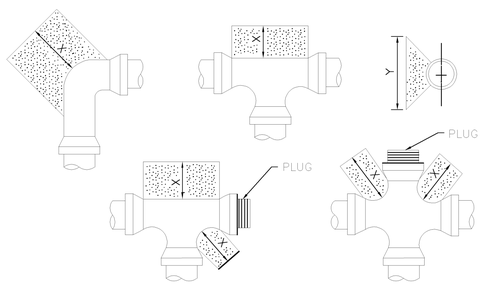
SIDEWALK CONSTRUCTION (5)



FIRE HYDRANT (6)



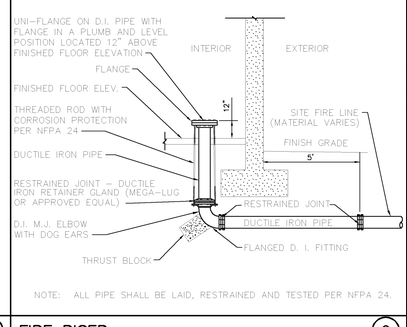
TAPPING SLEEVE AND VALVE (7)



THRUST BLOCKS (8)

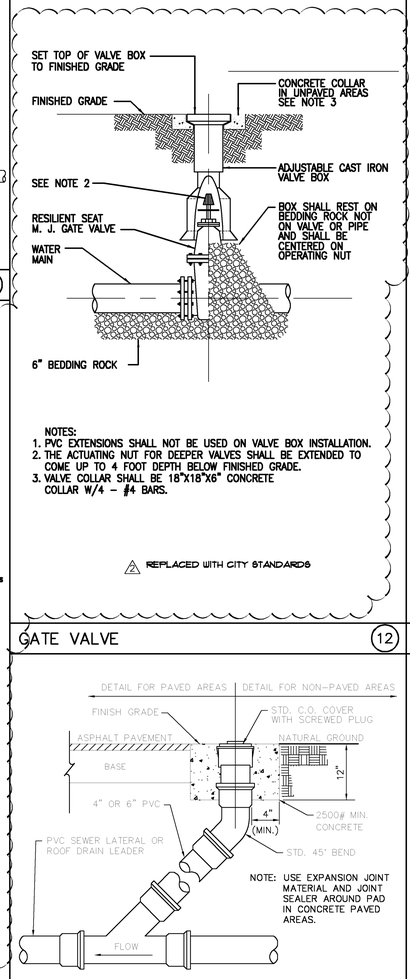
SIZE OF PIPE, IN.	6	8	10	12	14
CONC. REQ'D., CU.FT.	4.5	8	12	24	32
DIMENSION "X", IN.	18	18	18	24	24
DIMENSION "Y", IN.	24	30	42	48	54

NOTE: CONCRETE THRUST BLOCK SHALL BEAR AGAINST UNDISTURBED EARTH.



NOTE: ALL PIPE SHALL BE LAID, RESTRAINED AND TESTED PER NFPA 24.

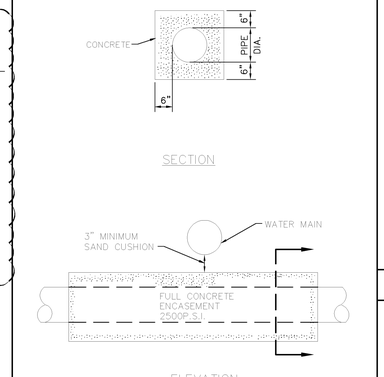
FIRE RISER (9)



NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.
3. VALVE COLLAR SHALL BE 18"X18"X6" CONCRETE COLLAR W/4 - #4 BARS.

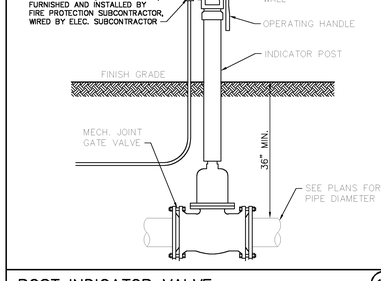
⚠2 REPLACED WITH CITY STANDARDS

GATE VALVE (12)

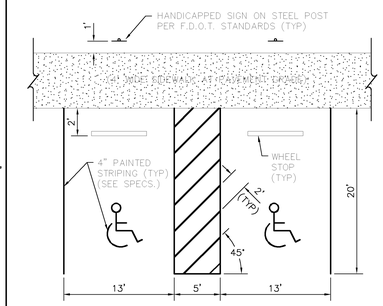


NOTES:
1. WATER LINES MUST NOT LIE WITHIN TEN FEET HORIZONTALLY OF ANY SANITARY SEWER LINES.
2. IF THE VERTICAL DISTANCE BETWEEN WATER AND SANITARY SEWER LINES AT A CROSSING IS LESS THAN 18" AT THE POINT OF CROSSING, OR THE WATER LINE PASSES UNDER THE SEWER LINE, COMPLETELY ENCASE THE SEWER LINE IN CONCRETE FOR A MINIMUM DISTANCE OF 10' ON EACH SIDE OF THE POINT OF CROSSING.
3. CAST IRON OR DUCTILE IRON PIPE OR THE USE OF PRESSURE PIPE WITH RUBBER GASKETED JOINTS FOR THE SANITARY LINE PRECLUDES THE NEED FOR ENCASEMENT PROVIDED THE CROSSING POINT IS CENTERED BETWEEN TWO JOINTS IN THE WATER LINE.

WATER/SEWER SEPERATION (13)

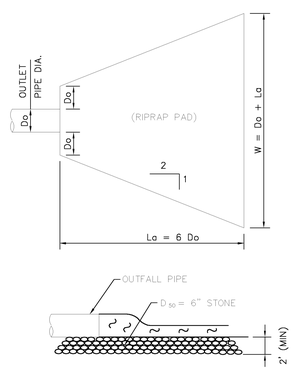


POST INDICATOR VALVE (10)

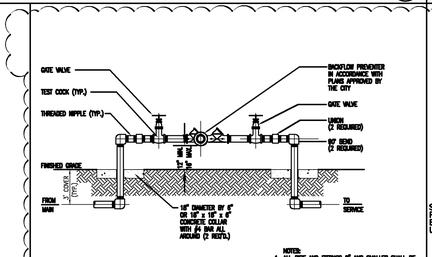


HANDICAP PARKING WITH SIGN (14)

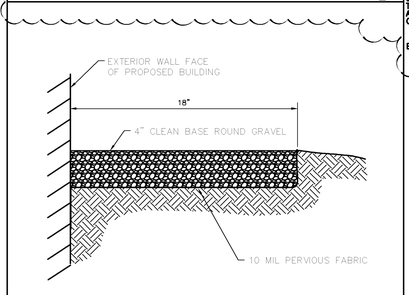
RIPRAP PAD		
Do	La	W
2.0'	12.0'	14.0'
3.0'	18.0'	21.0'



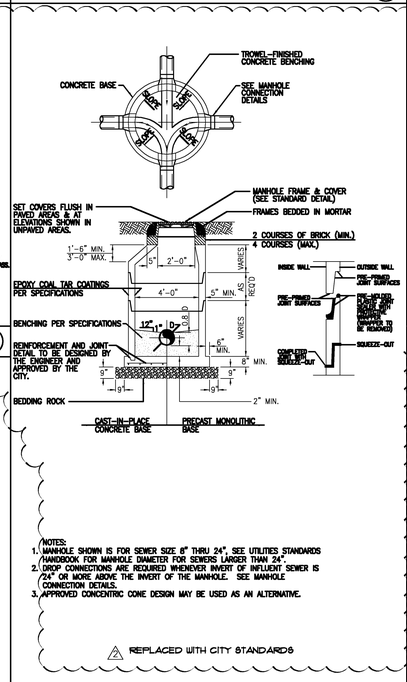
RIPRAP PROTECTION (15)



BACKFLOW PREVENTOR (11)



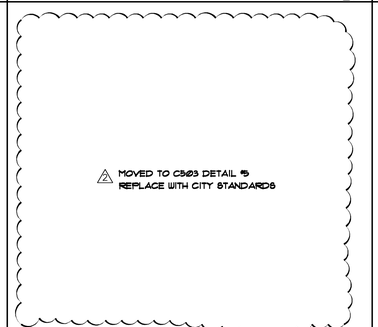
RODENT STRIP (16)



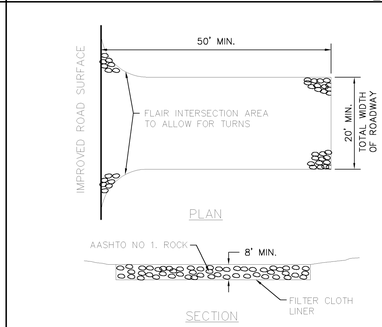
SEWER MANHOLE (17)

NOTE: USE EXPANSION JOINT MATERIAL AND JOINT SEALER AROUND PAD IN CONCRETE PAVED AREAS.

CLEANOUT (18)



PIPE BEDDING (19)



CONSTRUCTION ENTRANCE (20)

FLORIDA ENGINEERING LICENSED 36535
FLORIDA ARCHITECTURAL LICENSED AR 15564
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SITE DETAILS

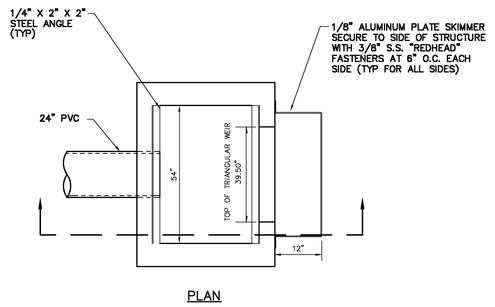
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REV.	DATE	BY	DESCRIPTION
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1	7/27/07	MHM	REVISED UTILITY PERMIT ISSUE
0	7/11/07	MHM	CONSTRUCTION ISSUE

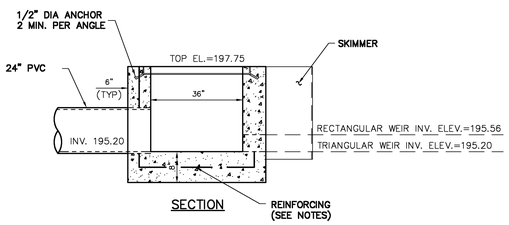
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C501
DRAWING NO.

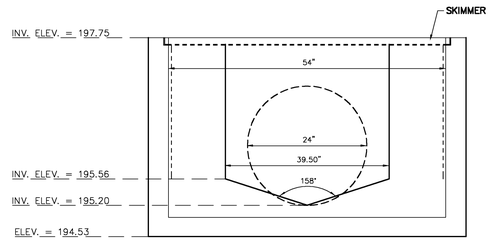
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PLAN



SECTION

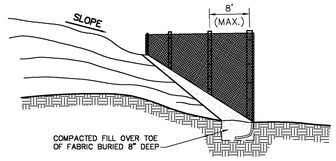


FRONT ELEVATION

NOTES:

1. INLET SHALL COMPLY WITH THE LATEST VERSIONS OF ASTM C 913-79, PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES, AND ASTM C 890-913, MINIMUM DESIGN LOADING FOR MONOLITHIC OR SECTIONAL PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES.
2. CONCRETE SHALL BE 4000 PSI AT 28 DAYS, TYPE II CEMENT.
3. REINFORCEMENT FOR WALLS AND BASE SLAB SHALL BE #4 BARS AT 12" EACH WAY FOR STRUCTURES UP TO 9' DEEP. INCREASE STEEL TO #4 BARS AT 9" EACH WAY FOR DEPTHS TO 24'.
4. USE NO LARGER PIPE THAN 24" RCP OR 30" CMP TO ENTER THE 3'-0" SIDES OF THE STRUCTURE. USE NO LARGER THAN 36" RCP OR 42" CMP TO ENTER THE 4'-0" SIDES OF THE STRUCTURE.
5. GRATE FOR NON-TRAFFIC AREAS IS TO BE A US FOUNDRY NO. 6300, OR APPROVED EQUAL.

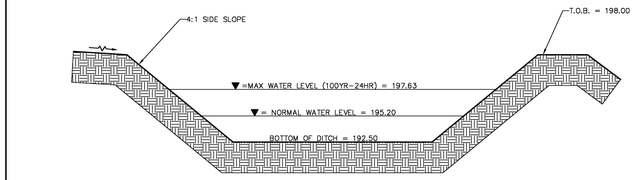
STORMWATER CONTROL STRUCTURE # 1 (MODIFIED TYPE 'E' INLET) (1)



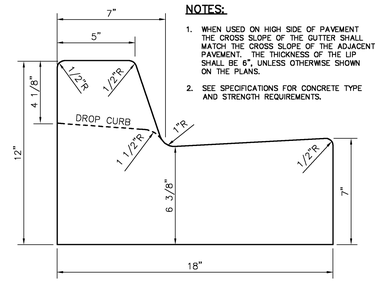
NOTES:

1. POSTS TO BE 1"x 2" PINE WITH A MINIMUM LENGTH OF 4 FEET; LOCATE POSTS ON DOWNSLOPE SIDE OF FILTER FABRIC.
2. BURY TOE OF FENCE APPROXIMATELY 8" DEEP TO PREVENT UNDERCUTTING.
3. WHEN JOINTS ARE NECESSARY, SECURLY FASTEN THE FABRIC AT A SUPPORT POST WITH OVERLAP TO THE NEXT POST.
4. FILTER FABRIC TO BE NYLON, POLYESTER, PROPYLENE OR ETHYLENE YARN WITH EXTRA STRENGTH - 50LB/LIN. IN. (MINIMUM) - AND WITH A FLOW RATE OF AT LEAST 0.3 GAL./SQ. FT./MINUTE. FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS.

SILT FENCE (2)



POND SECTION (4)

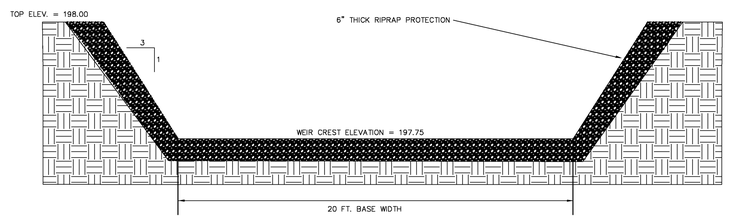


SECTION

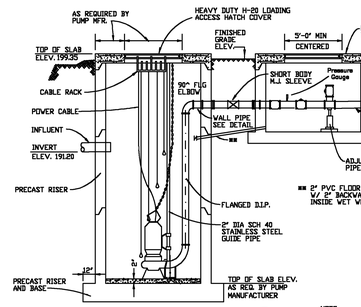
NOTES:

1. WHEN USED ON HIGH SIDE OF PAVEMENT THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON THE PLANS.
2. SEE SPECIFICATIONS FOR CONCRETE TYPE AND STRENGTH REQUIREMENTS.

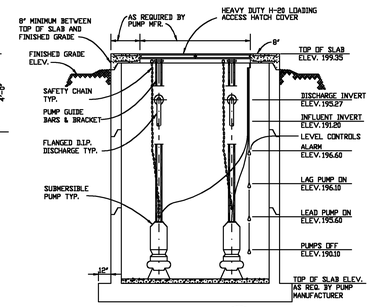
CURB AND GUTTER (3)



OVERFLOW WEIR SECTION (7)



SECTION (A)



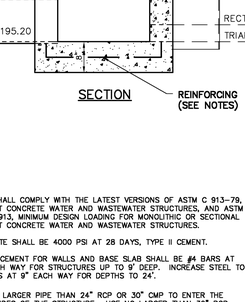
SECTION (B)

NOTE:
LIFT STATION PUMP ASSEMBLY SHALL INCLUDE ALL ELECTRICAL CONTROLS, ALARMS AND TELEMETRY CONTROLS AS REQUIRED BY THE CITY OF LAKE CITY.

PUMP SPECIFICATIONS	
PUMPS REQUIRED	2
MANUFACTURER	HYDROMATIC
MODEL	S3HRC/S3HVX
TYPE	VORTEX 3
IMPELLER DIA. (IN.)	3.5
DISCHARGE DIA. (IN.)	4.0
MOTOR RPM	3450
MINIMUM HORSEPOWER	1.50
Hz	60
VOLTAGE/PHASE	460/3
DESIGN POINT (GPM)	72
DESIGN POINT TDH (FT)	19
RUNOUT POINT (GPM)	90
RUNOUT POINT TDH (FT)	23.50
A (FT)	196.60
B (FT)	196.10
C (FT)	195.60
D (FT)	190.10
E (IN)	4
F (IN)	4
G (IN)	4
H (FT)	191.20

TANK	
DIAMETER (FT)	HEIGHT (FT)
6	9.50

PLAN



RESTRAINING WALL PIPE

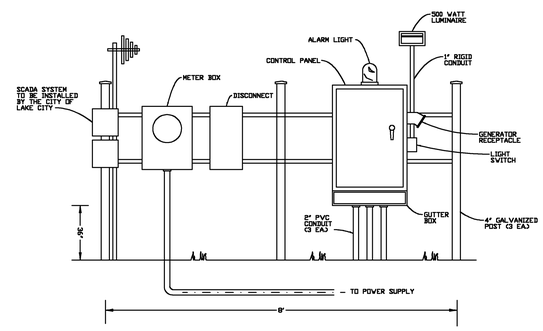
■ VARIES-CONTRACTOR TO ORDER WALL PIPE WITH DIMENSIONS NECESSARY TO CENTER COLLAR IN WALL & PLACE FLANGE AT DESIRED LOCATION.

■■ BREAK OUT EXIST. CONC. WALL, REMOVING MIN. NECESSARY REINF. STEEL TO INSTALL PIPE, APPLY APPROVED WATER-PROOF BONDING AGENT TO EXIST. CONC. SURFACE BEFORE PLACING NON-SHRINK GROUT. DRY PACK FROM EARTH SIDE.

CONTROL PANEL NOTES:

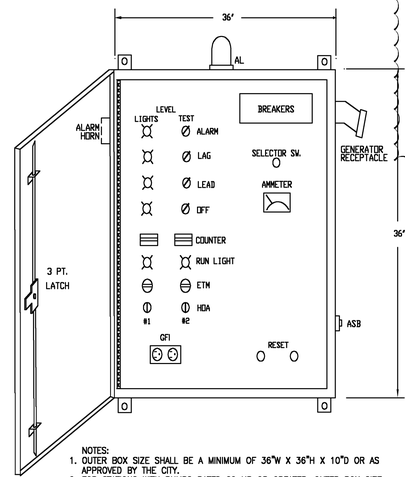
1. CONTROL PANEL ASSEMBLY SHALL BE LOCATED AT PUMP STATION SITE.
2. PUMP CONTROL PANEL SHALL BE SUPPLIED BY PUMP MANUFACTURER AND GENERALLY CONSIST OF A 30"x36"H NEMA TYPE 4X ENCLOSURE CONSTRUCTED OF 304 STAINLESS STEEL AND UL LISTED.
3. A 12"x 12"x 30" 304 STAINLESS STEEL GUTTER BOX SHALL BE ATTACHED TO THE CONTROL PANEL BY COMPRESSION CORD CONNECTORS ONLY (SIZED FOR THE PUMP, SEAL, AND CONTROL LEADS). NO SEAL OFF FITTINGS SHALL BE INSTALLED IN THE CONDUITS. AN EFFECTIVE SEAL SHALL BE MADE BETWEEN THE CONTROL PANEL AND THE GUTTER BOX, BY THE CORD CONNECTOR GROMETS.
4. CONTRACTOR SHALL INSTALL ALL MOUNTING COMPONENTS (GALVANIZED POSTS, UNISTRUTS, ETC.), CONTROL PANEL, GUTTER BOX, PVC CONDUITS TO WET WELL, POLE LIGHT AND SWITCH, METER BOX AND DISCONNECT, AND POWER CONNECT TO NEAREST POWER SUPPLY.
5. SCADA SYSTEM SHALL BE INSTALLED BY THE CITY OF LAKE CITY UTILITIES DEPARTMENT.

⚠ REVISED PER CITY STANDARDS



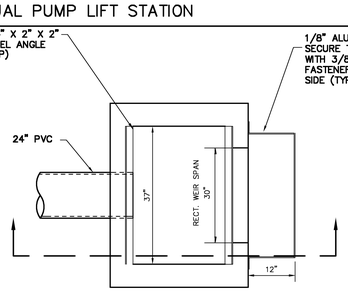
LIFT STATION NOTES:

1. WET WELL AND VALVE VAULT SHALL BE COATED WITH "FARBERTITE" OR COAL TAR EQUIVALENT INSIDE AND OUT (TWO COATS, 9 MILS EACH).
2. WET WELL BASE AND FIRST RISER SHALL BE PRECAST AS A CONTIGUOUS UNIT.
3. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE "BOOT" OR FILLED WITH NON-SHRINK GROUT.
4. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN THE WET WELL.
5. WET WELL AND VALVE VAULT COVERS SHALL BE 5'X4' "HEAVY DUTY" ALUMINUM WITH 316 S.S. HARDWARE AND LOCK BRACKET.
6. ALL PIPE FITTINGS INSIDE OF THE WET-WELL AND VALVE BOX SHALL BE FLANGE x FLANGE. ALL MJ PIPE FITTINGS OUTSIDE OF THE WETWELL & AND VALVE BOX SHALL BE RESTRAINED WITH MEGA-A-LUG COLLARS

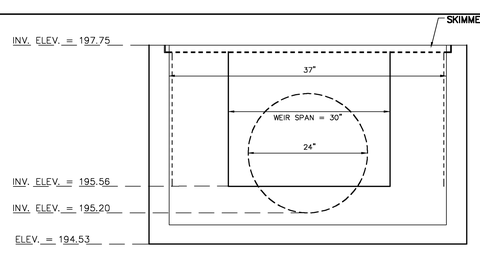


NOTES:
1. OUTER BOX SIZE SHALL BE A MINIMUM OF 36"W X 36"H X 10"D OR AS APPROVED BY THE CITY.
2. FOR STATIONS WITH PUMPS RATED 20 HP OR GREATER, OUTER BOX SIZE SHALL BE 36"W X 42"H X 10"D AND SHALL HAVE 2 LATCHES ON THE DEAD FRONT.
3. DRAWINGS SHALL BE REVISED FOR STATIONS WITH PUMPS RATED GREATER THAN 50 HP AND SUBMITTED TO THE CITY FOR APPROVAL.

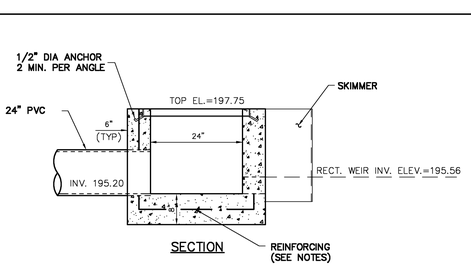
DUAL PUMP LIFT STATION (5)



PLAN



FRONT ELEVATION

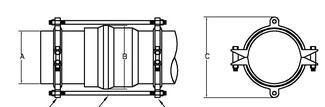


SECTION

NOTES:

1. INLET SHALL COMPLY WITH THE LATEST VERSIONS OF ASTM C 913-79, PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES, AND ASTM C 890-913, MINIMUM DESIGN LOADING FOR MONOLITHIC OR SECTIONAL PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES.
2. CONCRETE SHALL BE 4000 PSI AT 28 DAYS, TYPE II CEMENT.
3. REINFORCEMENT FOR WALLS AND BASE SLAB SHALL BE #4 BARS AT 12" EACH WAY, FOR STRUCTURES UP TO 24' DEEP.
4. USE NO LARGER PIPE THAN 18" RCP OR 21" CMP TO ENTER THE 2'-0" SIDES OF THE STRUCTURE. USE NO LARGER THAN 24" RCP OR 30" CMP TO ENTER THE 3'-1" SIDES OF THE STRUCTURE.
5. GRATE FOR NON-TRAFFIC AREAS IS TO BE A US FOUNDRY NO. 6210, OR APPROVED EQUAL.

STORMWATER CONTROL STRUCTURE # 2 (MODIFIED TYPE 'C' INLET) (6)



SERIES NO.	A PIPE O.D.	B MAXIMUM BELL O.D. CLEARED	C MAX. RESTRAINT O.D. (CASING CLEARANCE)	D OVERALL LENGTH	THRUST BOLT (NUMBER-SIZE)
504	4.80	6.75	9.25	13	2-J x 13
506	6.90	8.75	11.25	18	2-J x 18
508	9.05	12.25	14.75	18	2-J x 18
510	11.10	14.30	16.85	22	2-J x 22
512	13.20	16.90	19.45	22	2-J x 22

NOTE: MEGA-LUG RESTRAINTS MUST BE USED TO SECURE ALL WATER LINES AND FIRE HYDRANTS.

MEGA-LUG RESTRAINT (8)

FLORIDA ENGINEERING LICENSE NO. 9520
FLORIDA ARCHITECTURAL LICENSE NO. AA26001976
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SITE DETAILS

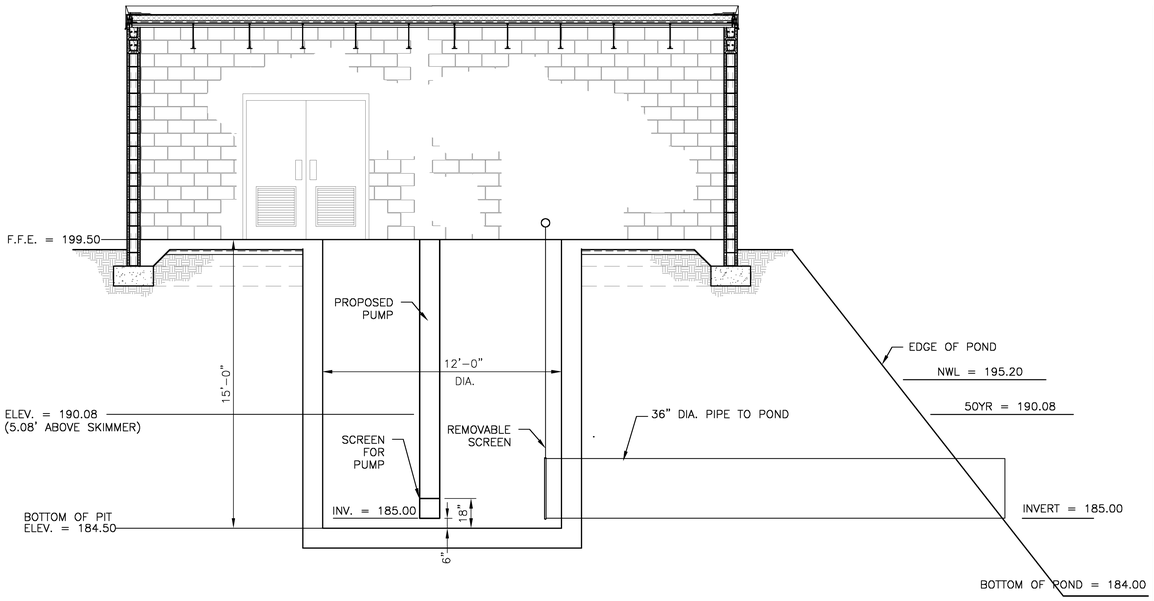
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REV.	DATE	BY	DESCRIPTION
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1	7/20/07	MHM	REVISED UTILITY PERMIT ISSUE
0	6/11/07	MHM	CONSTRUCTION ISSUE

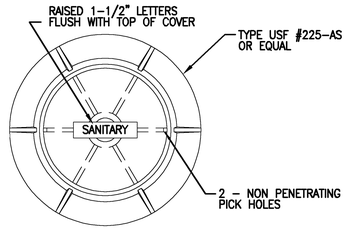
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C502
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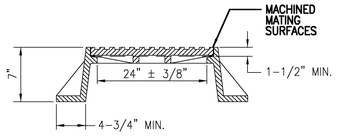
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PUMP HOUSE DETAIL (1)

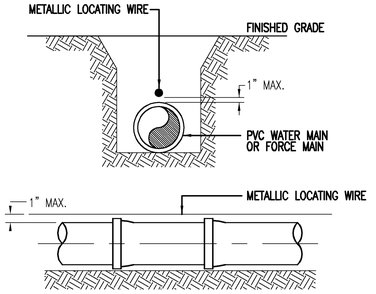


PLAN



ELEVATION

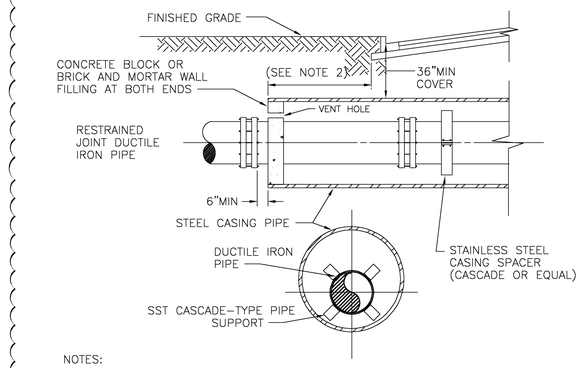
SANITARY MANHOLE COVER (2)



NOTES:
PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION. USE DUCT TAPE AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.

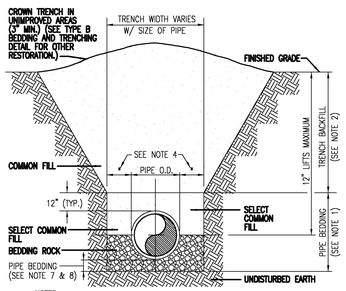
PVC PIPE LOCATING WIRE (3)

⚠ ADDED CITY STANDARD DETAILS



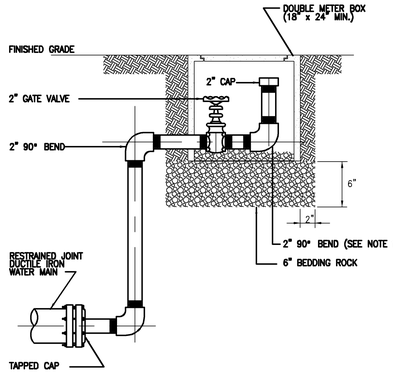
NOTES:
1. WHEN CONSTRUCTION IS WITHIN FDOT JURISDICTION, ADDITIONAL REQUIREMENTS OF THE UTILITY ACCOMODATION MANUAL SHALL BE MET.
2. CASING SHALL BE OF SUFFICIENT LENGTH TO EXTEND UNDER ALL PAVEMENTS AND IN NO CASE SHALL THE END OF THE CASING BE CLOSER THAN EIGHT (8) FEET FROM THE PAVEMENT EDGE INCLUDING PAVED SHOULDERS PLUS ADDITIONAL LENGTH AS NECESSARY TO EXTEND TO THE EXCAVATED SLOPES OF THE JACKING AND RECEIVING PITS.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF A 2:1 SLOPE (ANY STEEPER AND PIT MUST BE SHEETED AND SHORED) BEGINNING EIGHT (8) FEET FROM EDGE OF PAVEMENT.
4. THE CONTRACTOR SHALL PROVIDE A 4-INCH DIP CASING VENT AS SHOWN ON THE DRAWINGS FOR RAILWAY CROSSINGS, IN LIEU OF VENT HOLE AS SHOWN ABOVE.

BORING AND JACKING (4)



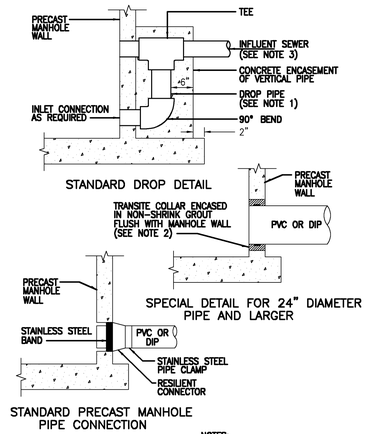
NOTES:
1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY OF LAKE CITY.
4. (*)- 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. REFER TO SECTION 32.5 OF THE MANUAL FOR SHEETING AND BRACING IN EXCAVATIONS.
7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING, IF REQUIRED BY THE COUNTY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15", AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. APPLICABLE GOVERNING AGENCY SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.

TYPE A BEDDING AND TRENCHING (5)



NOTES:
1. ALL 2" PIPE AND FITTINGS SHALL BE SCHEDULE 40 GALVANIZED STEEL OR BRASS WITH THREADED (NPT) JOINTS.
2. BEND SHALL BE ROTATED APPROXIMATELY 20° FROM VERTICAL.

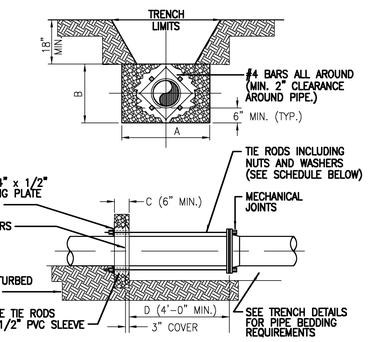
BLOW OFF VALVE (6)



STANDARD PRECAST MANHOLE PIPE CONNECTION

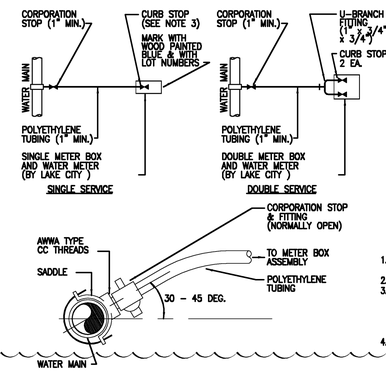
NOTES:
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATER TIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN OUTSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 2' OR MORE ABOVE THE MANHOLE INVERT.

MANHOLE CONNECTION (7)



NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 2500 PSI.
3. BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE:_____ P.S.I.*

WATER MAIN THRUST COLLAR (8)



NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" X 2" X 18" STAKE WITH THE TOP PAINTED BLUE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. INDENT CURB WITH "W" AT EACH WATER SERVICE LOCATION

WATER SERVICE CONNECTION (9)

FLORIDA ENGINEERING LICENSE NO. 9430
FLORIDA ARCHITECTURAL LICENSE NO. AA26001975
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SITE DETAILS

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REV.	DATE	BY	DESCRIPTION
1	07/11/07	MHM	REVISED AS NOTED
0	06/11/07	MHM	CONSTRUCTION ISSUE

JOB NO. 710 03019
DRAWN:
CHECKED: MHM
SCALE: NTS

C503
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Civ\D3019C503.dwg DATE: 06/11/07 TIME: 2:43 pm BY: MICHAEL MENDOZA

LUMINAIRE SCHEDULE

TYPE	LUMINAIRE DESCRIPTION	MANUFACTURER AND CATALOG NO. (OR APPROVED EQUAL)		INPUT DATA VOLTS	INPUT DATA WATTS	LAMP INFORMATION QTY.	LAMP INFORMATION DESCRIPTION	REFERENCE NOTES
A	COMPACT FLUORESCENT DIMMABLE DOWNLIGHTING	GOTHAM	LGFV 42TRT 10 T73 277 ADEZ	277	48	1	42W TRT VERTICAL BASE-UP	12
B	2x4 LENSED FLUORESCENT	ORION	ENFBPIDSPL-42064-PS113	277	258	8	32W T8 GE, 5000K LAMP	–
B1	2x4 ENCLOSED FLUORESCENT	LITHONIA	2SSH 6 32 FW A12125V MVOLT GEB10IS	277	205	6	32W T8	–
B1E	2x4 ENCLOSED EMERGENCY FLUORESCENT	LITHONIA	2SSH 6 32 FW A12125V MVOLT GEB10IS ES	277	205	6	32W T8	–
C	CONTOUR CANOPY LIGHT-MH SURFACE MTD (TOP)	LITHONIA #	KACM 150M DPA 277	277	180	1	12500 INITIAL LUMENS	7
CW	ENLOSED FLUORESCENT COLD WEATHER DOWN LIGHT	LITHONIA	DM 2 96T8 120 CW20	120	160	2	59W T8HO	–
D		LITHONIA	LFB 2/32TRT FB01AZ 277 ADEZ	277	69	2	32 WATT, TRIPLE TUBE 3500K	12
DL	DOCK LIGHT HALOGEN	DL MANUF.	VERSA LIGHT 420	120	117	1	117 HALOGEN INCLUDED	9
EC	EMER. BATTERY W/HEADS	GUTH	GIS 3-63/TCH/GISN/PLC	277	50	2	8W HALOGEN INCLUDED	2
ECE	EMER. BATTERY W/HEADS	GUTH	G12IS-14-63/G12ISN/PLC	277	50	2	8W HALOGEN INCLUDED	2
EF	EMER. BATTERY W/HEADS WITH HEATER	HIGHLITES	12ISN-14-63-PL-TCH277	277	16	2	8W LAMPS INCLUDED	2
EF1	EMER. BATTERY W/HEADS WITH HEATER	GUTH	GIS 3-63/TCH/GISN/PLC	120	16	2	8W LAMPS INCLUDED	2
EF2	EMER. BATTERY W/HEADS WITH HEATER	HIGHLITES	12ISN-12-63-PL-TCH277	277	16	2	8W LAMPS INCLUDED	2
EFR	REMOTE HEADS	HIGHLITES	901-52-G	277	16	2	8W LAMPS INCLUDED	2
EM	EMERGENCY LIGHTING UNIT	LITHONIA	ELM SD	277	1.5	2	LAMPS INCLUDED	
F2	2x4 LAY-IN FLUORESCENT PARABOLIC	LITHONIA	2PM2-G-B-3-32-18-LD-277-GEB10IS	277	96	3	32 WATT, T8 3500K	5
F2E	2x4 LAY-IN FLUORESCENT PARABOLIC	LITHONIA	2PM2-G-B-3-32-18-LD-277-GEB10IS-EL	277	96	3	32 WATT, T8 3500K	5
F3	2x4 LAY-IN FLUORESCENT TROFFER	LITHONIA	2GT8-3-32-A12125-277-GEB10IS	277	96	3	3500K	5
F3E	2x4 LAY-IN FLUORESCENT TROFFER	LITHONIA	2GT8-3-32-A12125-277-GEB10IS EL	277	96	3	32 WATT, T8 3500K	5
G	PORCELAIN SOCKET	LEVITON	29816-C	277	60	1	60 WATT, A19	
Q	CEILING FAN	MARLEY	48203-12001N	120	86	–		
SL	STRIP LIGHT	LITHONIA	C 2 32 GEB10IS WGCUN HC36	277	64	2	32 WATT, T8 3500K	–
SLE	STRIP LIGHT WITH BATTERY	LITHONIA	C 2 32 GEB10IS WGCUN HC36 EL	277	64	2	32 WATT, T8 3500K	–
WA	WALLPACK	LITHONIA	TWP-150S-120-SF-DWH	120	175	1	150 WATT HPS	10
WLE	WALL BRACKET	LITHONIA	WC 2 32 MVOLT GEB10IS ES	277	64	2	32 WATT, T8	1
WP	WALLPACK	LITHONIA	TWP-150S-480-DF-DWH	480	175	1	150 WATT HPS	10
W4	OUTDOOR WALLPACK	LITHONIA	TWH-400S-480-PE-DWH	480	450	1	400 WATT HPS	11
X	EXIT LIGHT	LITHONIA	LQM S R 120/277 EL N	120	10	1	LED INCLUDED	2
XC	EXIT LIGHT	LITHONIA	LV S R 120/277 UM ELN	277	10	1	LED INCLUDED	2
XF	EXIT LIGHT	LITHONIA	LV S R 120/277 UM ELN CW	277	10	1	LED INCLUDED	2
Y	CONDENSING TOWER LIGHT	RIG A LITE	SAF-15-S-12-R5G-S1	120	165	1	150W HPS	8
P1	POLE LIGHT	LITHONIA	KVF 400M ASYFL EHS DWH	480	462	1	400W MH	13
P2	POLE LIGHT	LITHONIA	KVF 400M SYMFL EHS DWH	480	924	2	400W MH	13
R	FLAG POLE LIGHT	HYDREL	4709 PJ387M TB SP CLC SMSA SF LPI BZ	480	88	1	70W MH	

LUMINAIRE SCHEDULE NOTES:

1. ALL EMERGENCY EGRESS LUMINAIRES REQUIRE AN UNSWITCHED CONNECTION. WHERE EMERGENCY EGRESS DEVICES ARE CONTAINED WITHIN NORMAL USE LUMINAIRES, PROVIDE LOCAL SWITCHING AS INDICATED ON DRAWINGS.
2. EXIT LIGHTING:
   ALL EXIT SIGNS SHALL BE MOUNTED 7'-6" A.F.F. (UON)
   ALL EGRESS LIGHTING SHALL BE MOUNTED 10'-0" A.F.F. (UON)
3. FOR MOUNTING HEIGHTS AND DETAILS NOT LISTED ON SCHEDULE, REFER TO LIGHTING DRAWINGS.
4. PROVIDE LOW TEMP OPTION IN FREEZERS.
   –
5. PROVIDE FIXTURE WITH 2 BALLASTS FOR INBOARD OUTBOARD SWITCHING.
6. SURFACE HOOK/PENDANT MOUNT.
7. SEE MOUNTING DETAIL ON SHEET E101
8. SEE DETAIL ON SHEET E502.
9. MOUNT ON SIDE OF DOK COMMANDER.
10. EXTERIOR WALL MOUNT 15'-0" AFG.
11. WALL MOUNT 30'-0" AFG.
12. PROVIDE ELECTRONIC DIMMING BALLAST.
13. POLE SHALL BE TAPERED ALUMINUM, WHITE IN COLOR. SEE DETAIL 6 ON SHEET E503. POLE SHALL COMPLY WITH STATE OF FLORIDA WIND LOAD REQUIREMENTS.

GENERAL NOTES

1. COORDINATE FINAL LOCATIONS OF ALL MECHANICAL AND REFRIGERATION EQUIPMENT WITH THE APPROPRIATE TRADES.
2. ALL FLEXIBLE CONDUIT SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS AND SEALS.
3. CONDUIT SHALL PASS THROUGH WALLS ONLY AT 90 DEGREES AND TO BE RUN PARALLEL OR PERPENDICULAR TO BUILDING COLUMN LINES.
4. BRANCH CIRCUIT HOMERUNS SHALL BE MINIMUM #12 WIRE AND 3/4" CONDUIT. EVERY CONDUIT SHALL HAVE A GROUND WIRE (#12 MINIMUM). CONTROL WIRING SHALL USE #14 SIGNAL AND GROUND (MINIMUM).
5. ALL UNDERGROUND CONDUIT RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE AND GASES.
6. ALL LIGHTING FIXTURES SHALL BE PROVIDED WITH ALL THE APPROPRIATE MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.
7. PROVIDE PLASTIC ENGRAVED NAMEPLATES ON ALL PANELBOARDS (INCLUDING NAMEPLATES FOR CIRCUITS IN I-LINE PANELBOARDS), SWITCHGEAR, MOTOR CONTROL CENTERS AND TRANSFORMERS. USE THE NAMES PER THE PANEL SCHEDULES. COORDINATE IN FIELD FOR NAMEPLATES OF EQUIPMENT NOT SHOWN ON PANEL SCHEDULES. PROVIDE NAMEPLATE INFORMATION AS INDICATED IN FIELD ON AS BUILT DRAWINGS.
8. IN NO INSTANCE SHALL LIGHT FIXTURES BE LOCATED DIRECTLY OVER PIPING OR DUCTWORK. IF PIPING IS RUN DIRECTLY UNDER A SET LIGHT FIXTURE, THE LIGHT FIXTURE SHALL BE RELOCATED AT NO ADDITIONAL COST. COORDINATE WITH MECHANICAL TRADES FOR LOCATION OF MAJOR PIPE RUNS AND DUCTWORK. IN AREAS WITH HEAVY PIPE AND DUCT WORK, IT IS PERMISSABLE TO MOUNT LIGHT FIXTURES UNDERNEATH PIPING OR DUCTWORK, PROVIDED AMPLE HEAD ROOM IS AVAILABLE.
9. SEE M&M DRAWINGS FOR REFRIGERATION CONTROL. DIV. 16 CONTRACTOR SHALL INSTALL AND CONNECT ALL REMOTE CONTROL DEVICES AND PROVIDE ALL CONTROL WIRING. ALL WIRING SHALL BE IN CONDUIT.
10. ROOMS CONTAINING AMMONIA WILL NOT BE CLASSIFIED PER NEC 500-5(A) FPN NO. 4 AND ASHRAE 15. ALL ROOMS CONTAINING AMMONIA ARE EQUIPPED WITH CONTINOUS VENTILATION AND DETECTION MEANS THAT AUTOMATICALLY START PURGE FANS.
11. ALL ATTACHMENTS TO IMP WALLS SHALL USE "FAB LOCK" SCREWS.
12. EXPOSED CONDUIT BELOW 10' SHALL BE RIGID GALVANIZED, ABOVE 10' SHALL BE EMT. CONCEALED CONDUIT SHALL BE EMT OR MC CABLE (MC CABLE IN OFFICE AREAS ONLY).
13. ALL WIRING DEVICES IN INDUSTRIAL AREAS SHALL BE MOUNTED AT 42" AFF U.O.N.
14. ALL CONDUIT PENETRATIONS THROUGH WALLS OR ROOFS WITH A 10 DEGREE TEMP. DIFFERENCE SHALL BE SEALED AND INSULATED ON THE WARM SIDE.
15. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE REFRIGERATION CONTROLS SYSTEM. IN GENERAL, THE REFRIGERATION CONTRACTOR WILL PROVIDE SENSORS, CONTROL PANELS, LIQUID LEVEL CONTROLLERS AND SOLENOID VALVE OPERATORS. THE ELECTRICAL CONTRACTOR WILL INSTALL THE DEVICES AND WIRE THEM.
16. ALL UNDERGROUND CONDUIT SHALL BE OVERSIZED BY 1 TRADE SIZE.

ELECTRICAL LEGEND

- 2 x 4 FLUORESCENT LUMINAIRE
- EMERGENCY 2 x 4 FLUORESCENT LUMINAIRE
- FLUORESCENT STRIP LUMINAIRE
- EMERGENCY FLUORESCENT STRIP LUMINAIRE
- ENCLOSED FLUORESCENT LUMINAIRE
- EMERGENCY ENCLOSED FLUORESCENT LUMINAIRE
- WALL MOUNTED FLUORESCENT LUMINAIRE
- EMERGENCY WALL MOUNTED FLUORESCENT LUMINAIRE
- RECESSED OR PENDANT MOUNTED LUMINAIRE
- EMERGENCY RECESSED OR PENDANT MOUNTED LUMINAIRE
- WALL MOUNTED LUMINAIRE
- WALL MOUNTED LUMINAIRE WITH ADJUSTABLE ARM
- SURFACE MOUNTED ADJUSTABLE LUMINAIRE
- TRACK MOUNTED LUMINAIRES (4 SHOWN)
- POLE MOUNTED AREA LIGHT (ONE LUMINAIRE SHOWN)
- FLOOD LIGHT MOUNTING AS NOTED
- BUILDING MOUNTED WALL PACK
- EMERGENCY BATTERY PACK WITH TWO INTEGRAL LIGHTS
- EMERGENCY REMOTE SINGLE LIGHT HEAD
- EMERGENCY REMOTE DOUBLE LIGHT HEAD
- EXIT LIGHT (SINGLE, DOUBLE, WALL MOUNTED)
- S — SINGLE POLE SINGLE THROW SWITCH (SPST)
- S^2 — DOUBLE POLE SINGLE THROW SWITCH (DPST)
- S^3 — THREE WAY SPST SWITCH
- S^M — MOTOR RATED SWITCH (SPST UNLESS NOTED OTHERWISE)
- S^D — SLIDE TYPE DIMMER SWITCH (1000W CAPACITY) LUTRON #DV-1000-WH
- WALL MOUNTED INFRARED OCCUPANCY DETECTOR (800W @120V – 1200W @277V) LITHONIA LIRW OR EQUAL
- WALL MOUNTED INFRARED OCCUPANCY DETECTOR BI LEVEL (800W @120V – 1200W @277V) LITHONIA LIRW-DS OR EQUAL
- CEILING MOUNTED OCCUPANCY DETECTOR LITHONIA LMTO H OR EQUAL
- DUPLEX RECEPTACLE WALL MOUNTED
- QUADRAPLEX RECEPTACLE WALL MOUNTED
- DUPLEX ISOLATED GROUND RECEPTACLE WALL MOUNTED
- DUPLEX RECEPTACLE WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER
- EQUIPMENT MOUNTED DUPLEX RECEPTACLE WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER AND WEATHERPROOF COVER
- FLUSH MOUNTED MULTI USE FLOOR OUTLET WITH COVER POWER, TELEPHONE AND DATA – AS SPECIFIED
- FLUSH MOUNTED FLOOR RECEPTACLE WITH COVER
- AC — DUPLEX RECEPTACLE ABOVE COUNTER
- PROVISIONS FOR TELEP/DATA WALL OUTLET 4" SQUARE BOX WITH 3/4" CONDUIT STUB UP
- AF — INFRARED CONTROLLED FLUSH VALVE SENSORS LV FOR LAVATORIES, URINALS AND TOILETS
- T — CEILING MOUNTED TRANSFORMER FOR ELECTRONIC VALVE

ADDED DEVICE

- F.A.P. — FIRE ALARM PANEL
- P — FIRE ALARM PULL STATION
- H — FIRE ALARM HORN
- AV — FIRE ALARM AUDIO/VISUAL DEVICE
- V — FIRE ALARM STROBE DEVICE
- SD — SMOKE DETECTOR
- DSD — DUCT SMOKE DETECTOR
- HD — HEAT DETECTOR
- TS — TAMPER SWITCH – ELECTRICALLY SUPERVISED
- FS — FLOW SWITCH – ELECTRICALLY SUPERVISED
- LS — LIMIT SWITCH
- SS — SELECTOR SWITCH
- HOA — HAND/OFF/AUTO SELECTOR SWITCH
- OA — OFF/AUTO SELECTOR SWITCH
- HA — HAND/AUTO SELECTOR SWITCH
- CCTV — CLOSED CIRCUIT TELEVISON CAMERA
- CR — ELECTRONIC CARD READER
- DL — MAGNETIC DOOR LOCK
- DS — ELECTRONIC DOOR SENSOR
- WS — ELECTRONIC WINDOW SENSOR
- MS — ELECTRONIC MOTION SENSOR
- J — JUNCTION BOX (SIZE PER N.E.C.)
- H — JUNCTION BOX FOR DOOR JAMB OR CONDENSATE HEAT (SIZE PER N.E.C.)
- NON-FUSED DISCONNECT SWITCH (FRAME SIZE/# POLES/ENCLOSURE)
- F — FUSED DISCONNECT SWITCH (FRAME SIZE/# POLES/FUSE SIZE/ENCLOSURE)
- COMBINATION STARTER (STARTER SIZE/# POLES/ENCLOSURE)
- MSP — MOTOR STARTER PROTECTOR (GROUP MOTOR STARTING) (STARTER SIZE/# POLES/ENCLOSURE) SEIMENS PRODUCT #3ML + SIZE (OR APPROVED EQUAL)
- PANELBOARD (SEE SCHEDULE FOR CONFIGURATION)
- 25 — MOTOR – NUMBER DENOTES HORSEPOWER
- PP — POWER POLE WITH 2 SECTIONS
- CONDUIT
- UNDERFLOOR/UNDERGROUND CONDUIT
- EMERGENCY OR LOW VOLTAGE CONDUIT
- BRANCH CIRCUIT HOMERUN: SEE PANELBOARD CIRCUIT FOR NUMBER OF CONDUCTORS REQUIRED

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	DISC	DISCONNECT	MSB	MAIN SWITCHBOARD
AFG	ABOVE FINISHED GRADE	EF	EXHAUST FAN	N/C	NORMALLY CLOSED
AL	ALUMINUM	EWC	ELECTRIC WATER COOLER	N/O	NORMALLY OPEN
BATT	BATTERY	FVNR	FULL VOLTAGE NON REVERSING	PNL	PANEL
CONC	CONCRETE	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	RCP	REFRIGERATION CONTROL PANEL
CONTR	CONTRACTOR	HOA	HAND OFF AUTO	T/M	THERMAL MAGNETIC
CT	CURRENT TRANSFORMER	INST	INSTANTANEOUS	TRANSF	TRANSFORMER
CPT	CONTROL POWER TRANSFORMER	MCC	MOTOR CONTROL CENTER	TYP	TYPICAL
CU	COPPER	MDP	MAIN DISTRIBUTION PANEL	UON	UNLESS OTHERWISE NOTED
				WP	WEATHERPROOF

ELECTRICAL

E001	LEGEND NOTES AND FIXTURE SCHEDULE
E002	ELECTRICAL SITE PLAN
E101	LIGHTING PLAN WAREHOUSE AND DOCK
E102	LIGHTING PLANS, OFFICE AND 2nd. FLOOR – SOUTH
E103	LIGHTING PLANS MACHINE, MAINTENANCE PENTHOUSES AND MEZZANINE – NORTH
E201	POWER PLAN WAREHOUSE AND DOCK
E202	POWER PLANS, OFFICE AND 2nd. FLOOR – SOUTH
E203	POWER PLANS MACHINE, MAINTENANCE AND MEZZANINE – NORTH
E204	ROOF PLANS OFFICE, MACHINE AND MAINTENANCE
E205	ELECTRICAL GROUNDING PLAN
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL DETAILS
E601	ELECTRICAL SINGLE LINE DIAGRAM
E602	REFRIGERATION MCP DIAGRAM
E603	PANEL SCHEDULES
E604	PANEL SCHEDULES

2 DELETED LIGHTNING PROTECTION FROM TITLE

ELECTRICAL CONTRACTOR SHALL PROVIDE COMPLETE CODE MINIMUM FIRE ALARM SYSTEM (INCLUDING SPRINKLER FLOW AND TAMPER SWITCH AND POST INDICATOR VALVE MONITORING) FOR THE BUILDING AND SITE. DEVICES INDICATED ON PLANS ARE LOCATION SUGGESTIONS ONLY FOR SOME DEVICES.

FLORIDA DESIGNERS LICENSED #630
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
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FLORIDA ARCHITECTURAL LICENSE #AR 15175

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

LEGEND NOTES & FIXTURE SCHEDULE

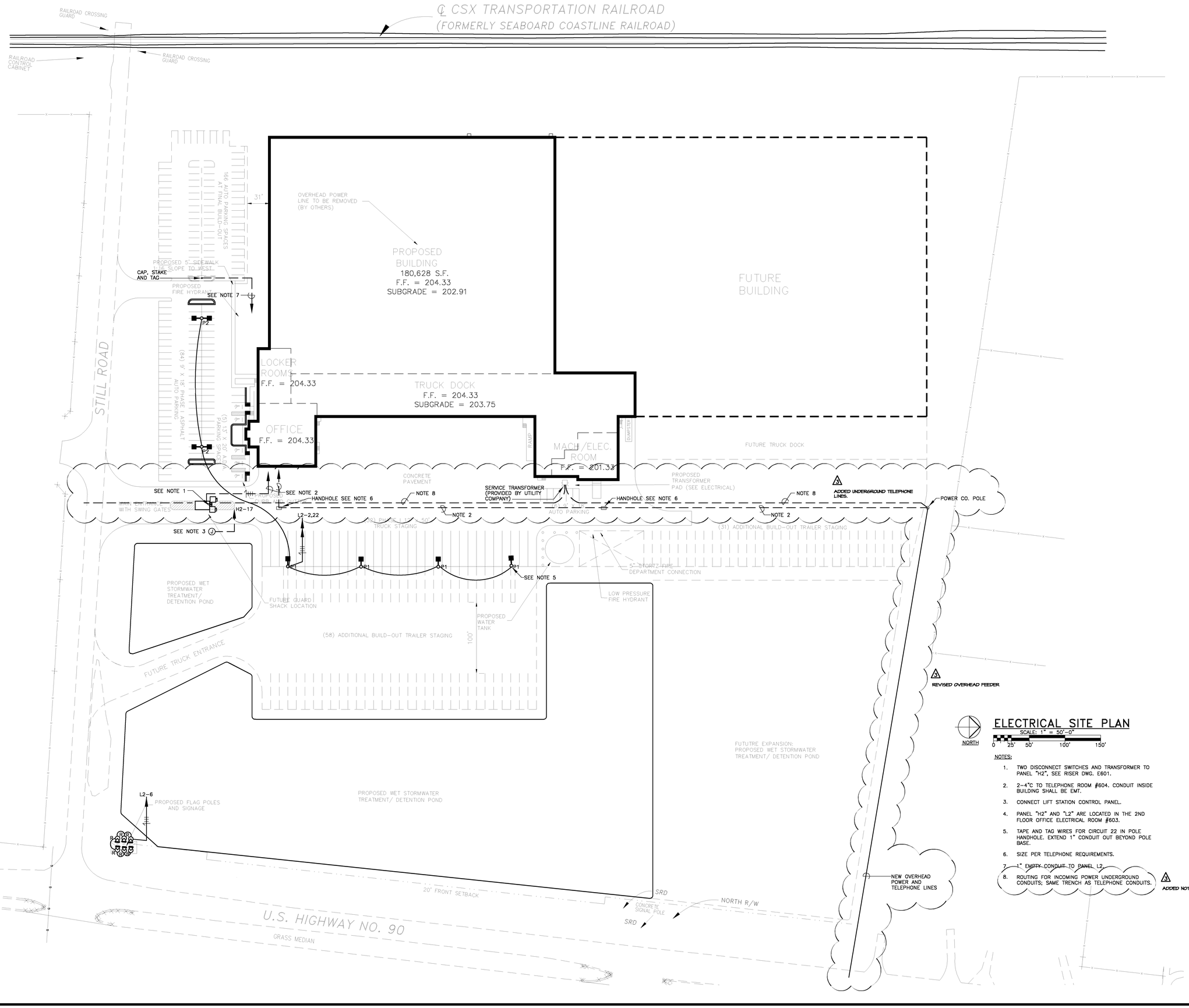
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REV.	DATE	BY	DESCRIPTION
2	6/21/07	KBG	REVISED AS NOTED
1	6/21/07	KBG	REVISED AS NOTED
0	6/21/07	KBG	CONSTRUCTION ISSUE

JOB NO. 03019
DRAWN: KBG
CHECKED: MTV
SCALE: NO SCALE

E001
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E001.dwg DATE: 06/21/07 TIME: 1:01 pm BY: KIMBERLY GARST



ELECTRICAL SITE PLAN

SCALE: 1" = 50'-0"

NORTH

0 25' 50' 100' 150'

NOTES:

1. TWO DISCONNECT SWITCHES AND TRANSFORMER TO PANEL "H2", SEE RISER DWG. E601.
2. 2-4"C TO TELEPHONE ROOM #604. CONDUIT INSIDE BUILDING SHALL BE EMT.
3. CONNECT LIFT STATION CONTROL PANEL.
4. PANEL "H2" AND "L2" ARE LOCATED IN THE 2ND FLOOR OFFICE ELECTRICAL ROOM #603.
5. TAPE AND TAG WIRES FOR CIRCUIT 22 IN POLE HANDHOLE. EXTEND 1" CONDUIT OUT BEYOND POLE BASE.
6. SIZE PER TELEPHONE REQUIREMENTS.
7. 1" EMPTY CONDUIT TO PANEL L2.
8. ROUTING FOR INCOMING POWER UNDERGROUND CONDUITS; SAME TRENCH AS TELEPHONE CONDUITS.

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3	7/13/07	KBG	REVISED AS NOTED
2	6/15/07	KBG	REVISED AS NOTED
1	6/13/07	KBG	CONSTRUCTION ISSUE
0	3/30/07	KBG	

JOB NO. 03019

DRAWN: KBG

CHECKED: MTV

SCALE: 1"=50'-0"

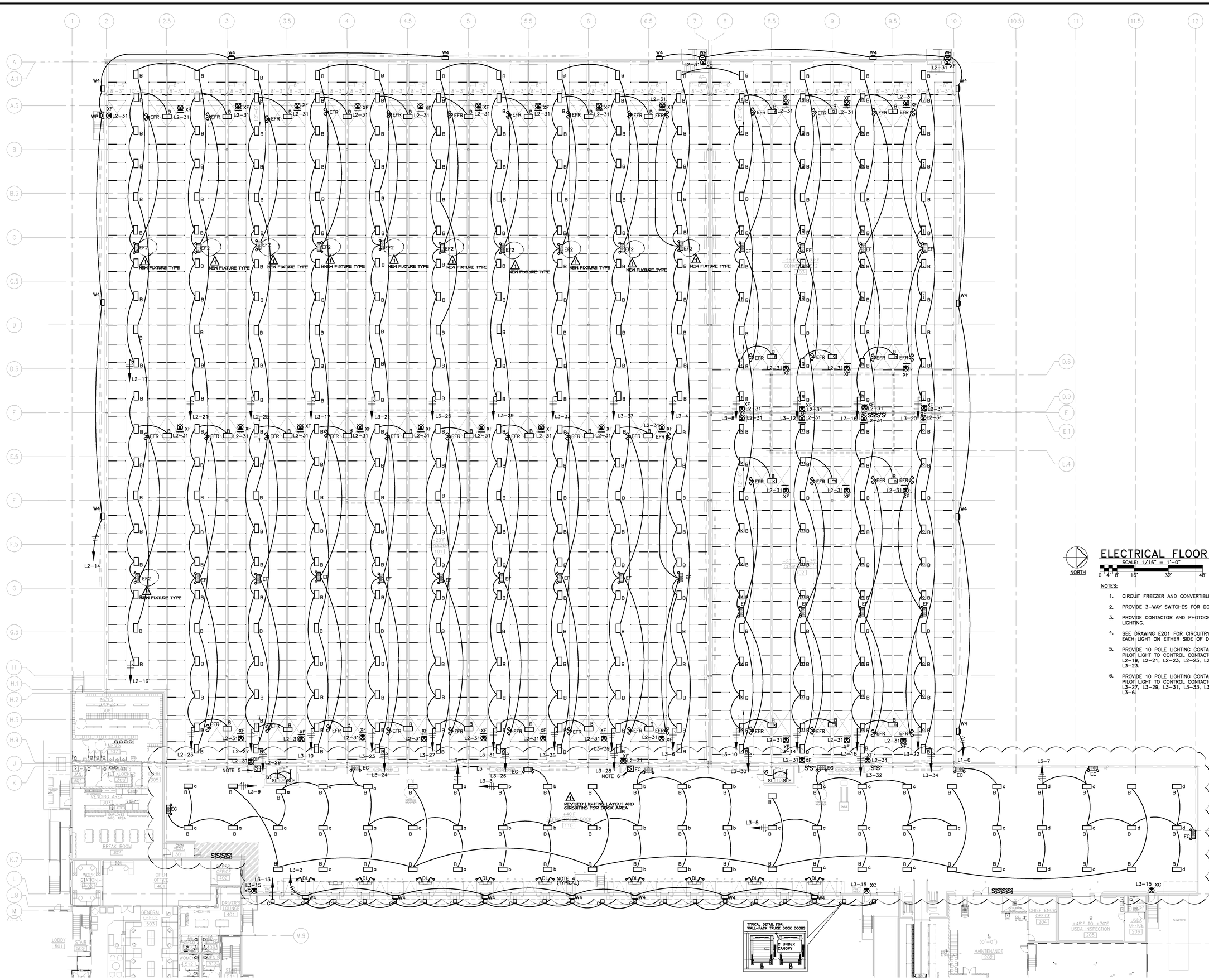
E002
DRAWING NO.

FLORIDA ENGINEERING LICENSE # 9430
FLORIDA ARCHITECTURAL LICENSE # AA26001175
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NEW FACILITY
LAKE CITY, FLORIDA

ELECTRICAL SITE PLAN

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E002.dwg DATE: 07/13/07 TIME: 10:34 am BY: KIMBERLY GARST



ELECTRICAL FLOOR PLAN

SCALE: 1/16" = 1'-0"

NOTES:

1. CIRCUIT FREEZER AND CONVERTIBLE LIGHTS TO PANEL L1 & L3.
2. PROVIDE 3-WAY SWITCHES FOR DOCK LIGHTING CONTROL.
3. PROVIDE CONTACTOR AND PHOTOCELL FOR ALL EXTERIOR LIGHTING.
4. SEE DRAWING E201 FOR CIRCUITRY TO DOCK LIGHTS, MOUNT EACH LIGHT ON EITHER SIDE OF DOK-COMMANDER.
5. PROVIDE 10 POLE LIGHTING CONTACTOR AND SWITCH WITH PILOT LIGHT TO CONTROL CONTACTORS, CIRCUITS: L2-17, L2-19, L2-21, L2-23, L2-25, L2-27, L3-17, L3-19, L3-21, L3-23.
6. PROVIDE 10 POLE LIGHTING CONTACTOR AND SWITCH WITH PILOT LIGHT TO CONTROL CONTACTORS, CIRCUITS: L3-25, L3-27, L3-29, L3-31, L3-33, L3-35, L3-37, L3-39, L3-41, L3-6.

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

LIGHTING PLAN WAREHOUSE AND DOCK

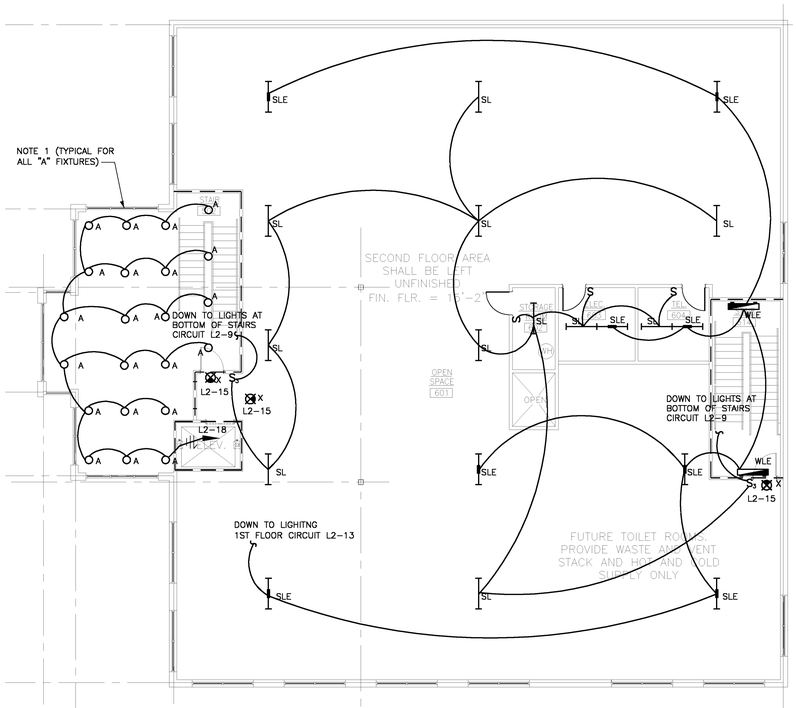
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1	5/15/07	KBG	REVISED AS NOTED
0	4/13/07	KBG	CONSTRUCTION ISSUE

JOB NO.	03019
DRAWN:	KBG
CHECKED:	MTV
SCALE:	1/16"=1'-0"

E101
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E101.dwg DATE: 06/15/07 TIME: 10:41 am BY: KIMBERLY GARST



SECOND FLOOR LIGHTING PLAN SOUTH

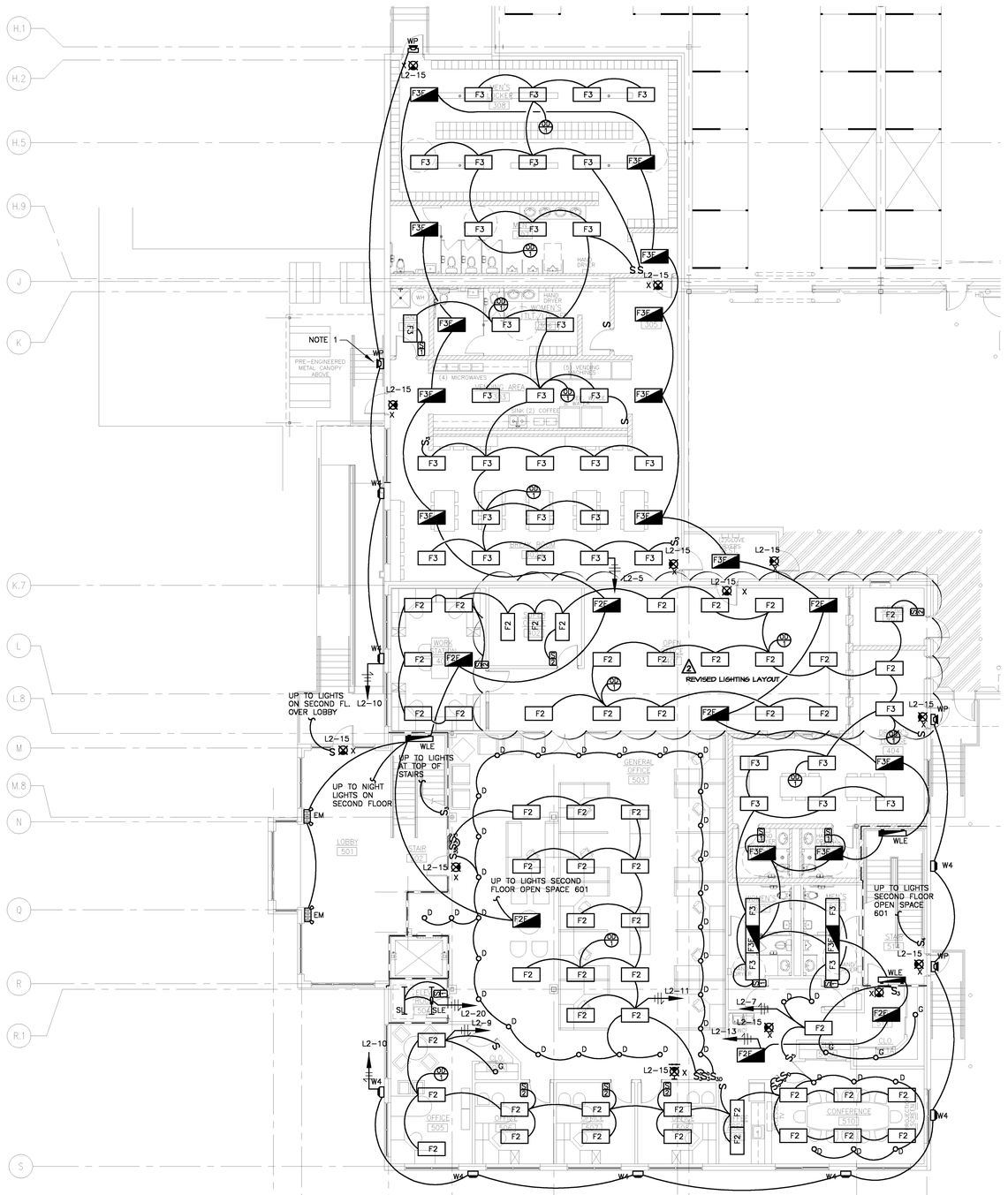
SCALE: 1/8" = 1'-0"

NORTH

0 2' 4' 8' 16' 24'

NOTES:

1. PROVIDE DAYLIGHT SENSORS AND CONTROL WIRING TO MAINTAIN 25FC IN THE SPACE.
2. –
   –
3. –
   –



LIGHTING PLAN SOUTH

SCALE: 1/8" = 1'-0"

NORTH

0 2' 4' 8' 16' 24'

NOTES:

1. MOUNT BELOW CANOPY.
   –
2. –
   –
3. –
   –

FILE: T:\jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E102.dwg DATE: 07/11/07 TIME: 4:11 pm BY: KIMBERLY GARST

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FLORIDA ENGINEERING LICENSE No. 9430

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NEW FACILITY

LAKE CITY, FLORIDA

LIGHTING PLANS OFFICE AND 2nd. FLOOR SOUTH

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2	7/11/07	KBG	REVISED AS NOTED
1	6/29/07	KBG	REVISED AS NOTED
0	6/29/07	KBG	CONSTRUCTION ISSUE

JOB NO. 03019

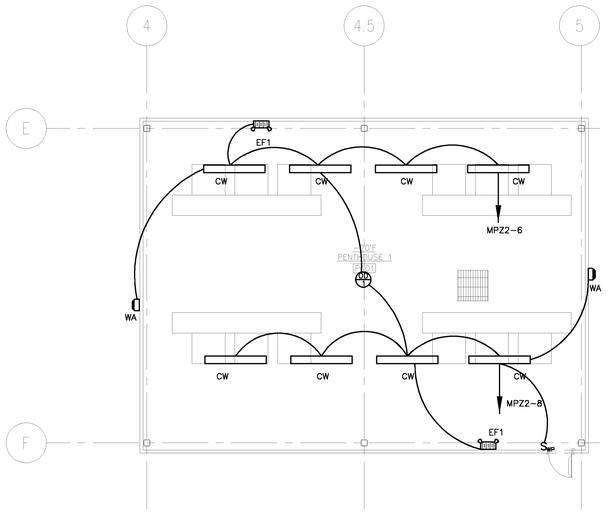
DRAWN: KBG

CHECKED: MTV

SCALE: 1/8"= 1'-0"

E102

DRAWING NO.



PENTHOUSE ELECTRICAL PLAN SOUTH

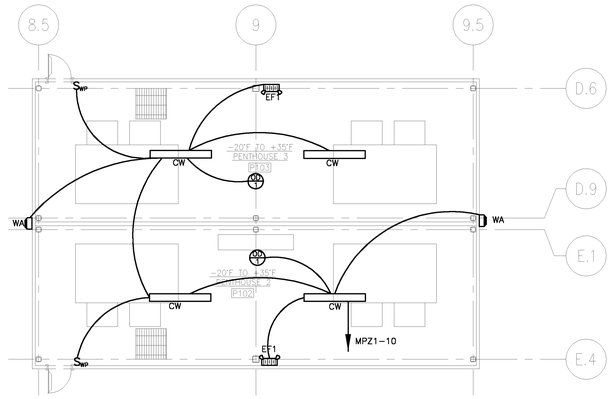
NORTH

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 24'

NOTES:

1. –
2. –
3. –



PENTHOUSE ELECTRICAL PLAN NORTH

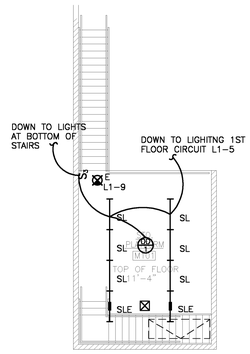
NORTH

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 24'

NOTES:

1. –
2. –
3. –



PARTS MEZZANINE LIGHTING

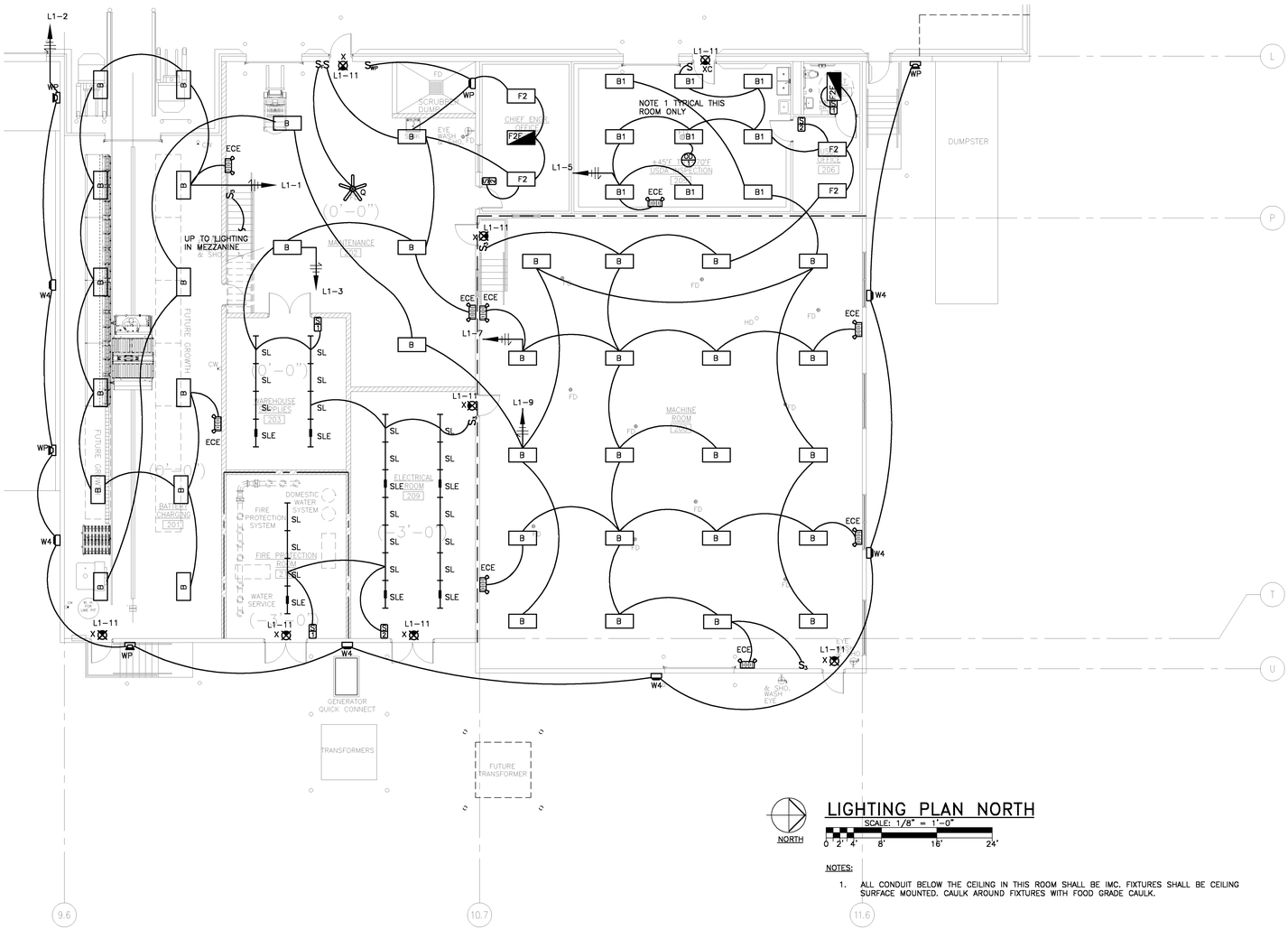
NORTH

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 24'

NOTES:

1. –
2. –
3. –



LIGHTING PLAN NORTH

NORTH

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 24'

NOTES:

1. ALL CONDUIT BELOW THE CEILING IN THIS ROOM SHALL BE IMC. FIXTURES SHALL BE CEILING SURFACE MOUNTED. CAULK AROUND FIXTURES WITH FOOD GRADE CAULK.

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NEW FACILITY

LAKE CITY, FLORIDA

LIGHTING PLAN MACHINE, MAINTENANCE PENTHOUSES & MEZZANINE NORTH

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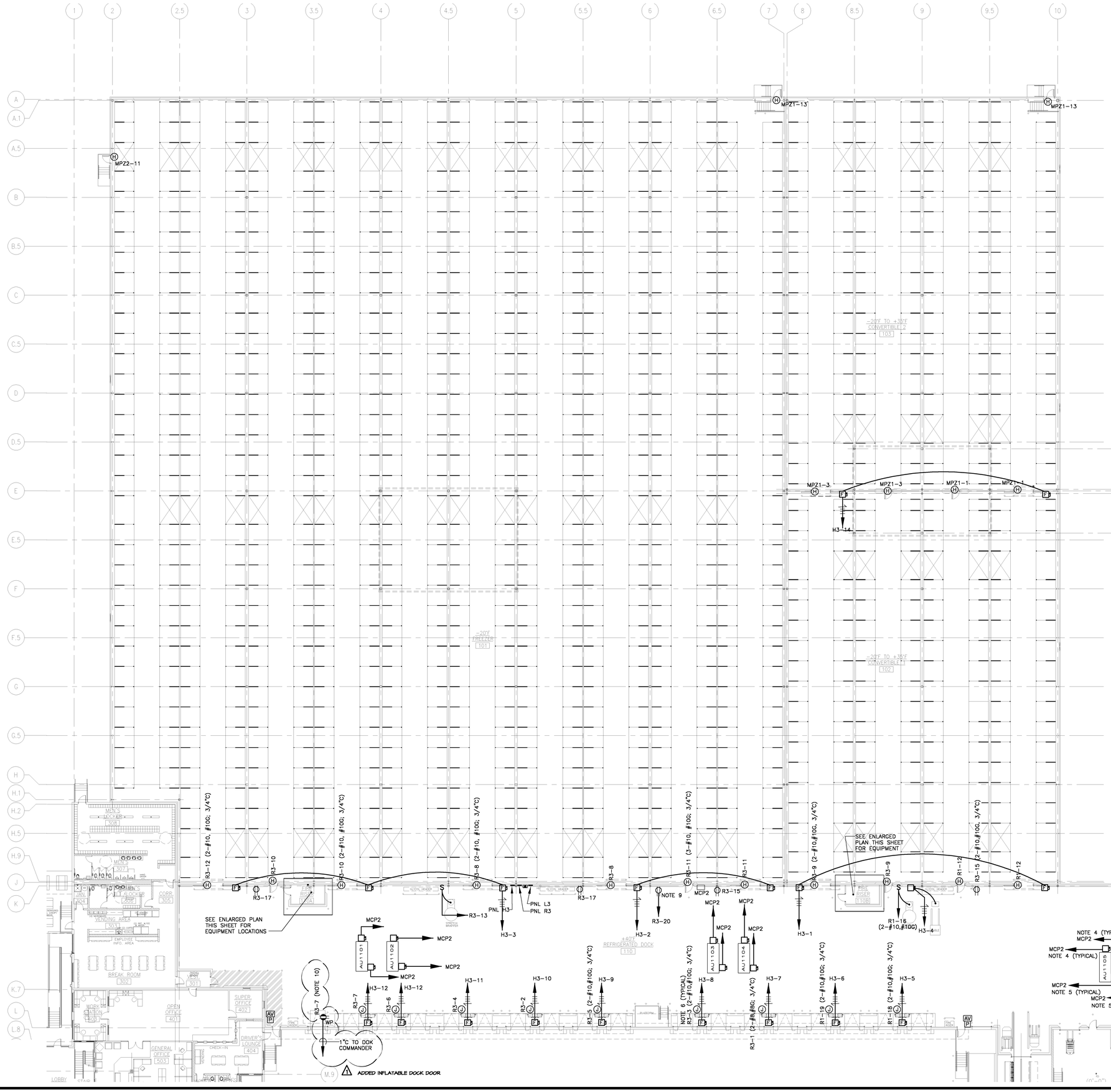
NO.	DESCRIPTION	DATE	BY
0	CONSTRUCTION ISSUE	08/01/07	KBG

JOB NO.	03019
DRAWN:	KBG
CHECKED:	MTV
SCALE:	1/8"= 1'-0"

E103

DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E103.dwg DATE: 08/01/07 TIME: 2:56 pm BY: KIMBERLY GARST



NOTES:

1. ALL DISCONNECTS SHOWN ARE NEMA 1 30A UON.
2. HOMERUN CIRCUITS TO SOURCE PER SHEET E602 & E603.
3. CONNECT 1 CONDENSATE DRAIN CONNECTION TO 1 120V CIRCUIT.
4. CONNECT FANS.
5. CONNECT DEFROST HEAT.
6. CONNECT RECEPTACLES AT DOK COMMANDERS AND ABOVE DOCK DOOR.
7. CONNECT PRE-ACTION ALARM PANEL.
8. RUN 3/4" CONDUIT FROM EACH PRE-ACTION ALARM PANEL TO RCP.
9. UP 18" AFF FOR MDF CABINET.
10. MOUNT 10" FROM DOCK EDGE AND 14" BELOW DOCK HEIGHT. COORDINATE WITH LEVELER SUPPLIER.

1 ADDED NOTE

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FLORIDA ENGINEERING LICENSE 9630
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

POWER PLAN WAREHOUSE AND DOCK

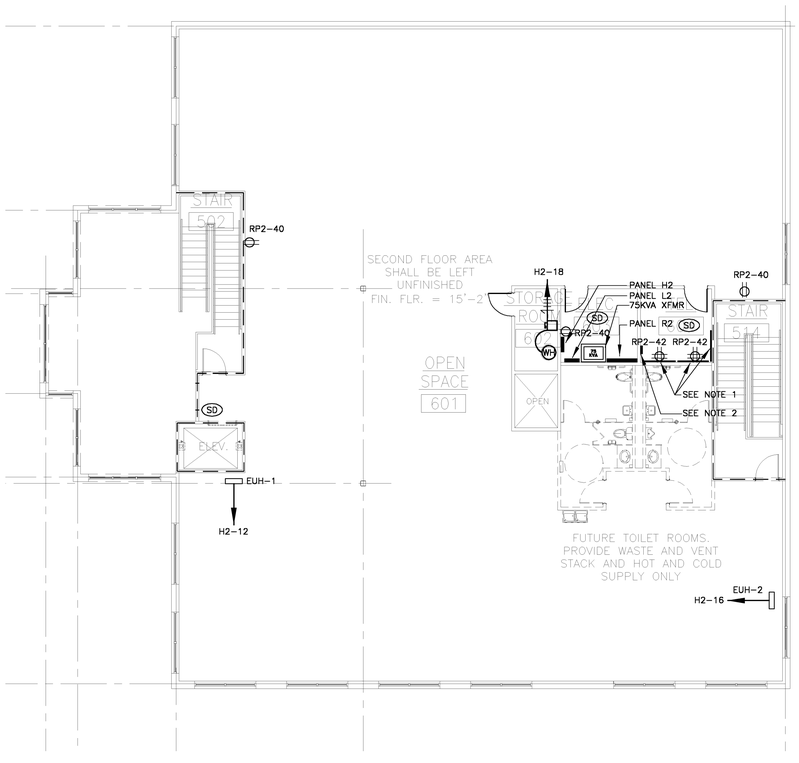
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0	6/15/07	KBG	CONSTRUCTION ISSUE

JOB NO.	03019
DRAWN:	KBG
CHECKED:	MTV
SCALE:	AS NOTED

E201
DRAWING NO.

FILE: T:\jobs\03000-03099\03019 USCS_F\Design\Active\Elec\03019E201.dwg DATE: 06/15/07 TIME: 10:42 am BY: KIMBERLY CARST



NORTH

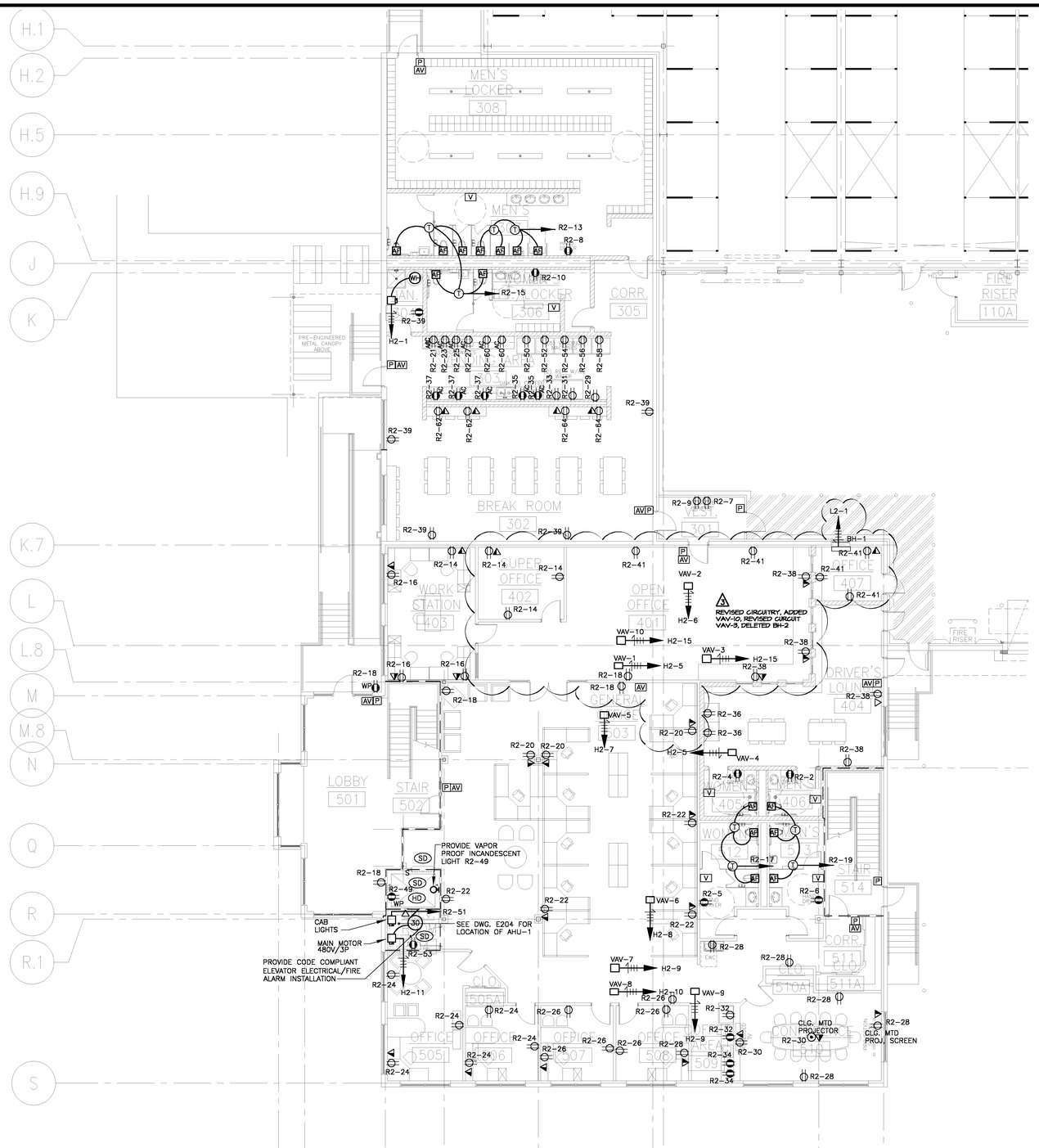
SECOND FLOOR ELECTRICAL PLAN SOUTH

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 24'

NOTES:

1. 4'x8' FIRE RETARDANT 3/4" PLYWOOD.
2. 1/4"x6"x12" COPPER BUS BAR. #6 GROUND WIRE TO GROUND RING; SEE SHEET E205.
3. –
   –



NORTH

ELECTRICAL PLAN SOUTH

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 24'

NOTES:

1. PROVIDE SEPERATE NEUTRAL FOR ALL CIRCUITS FEEDING COMPUTER RECEPTCALES.
2. –
3. –
   –

0.5 0.6 0.9 1.3 2.1 2.3 2.4 2.8 3.2

FLORIDA ARCHITECTURAL LICENSE #AR 0015175
FLORIDA ENGINEERING LICENSE #30
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

POWER PLANS OFFICE AND 2nd. FLOOR NORTH

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2	04/20/07	KBG	REVISED AS NOTED
1	03/30/07	KBG	CONSTRUCTION ISSUE
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JOB NO. 03019

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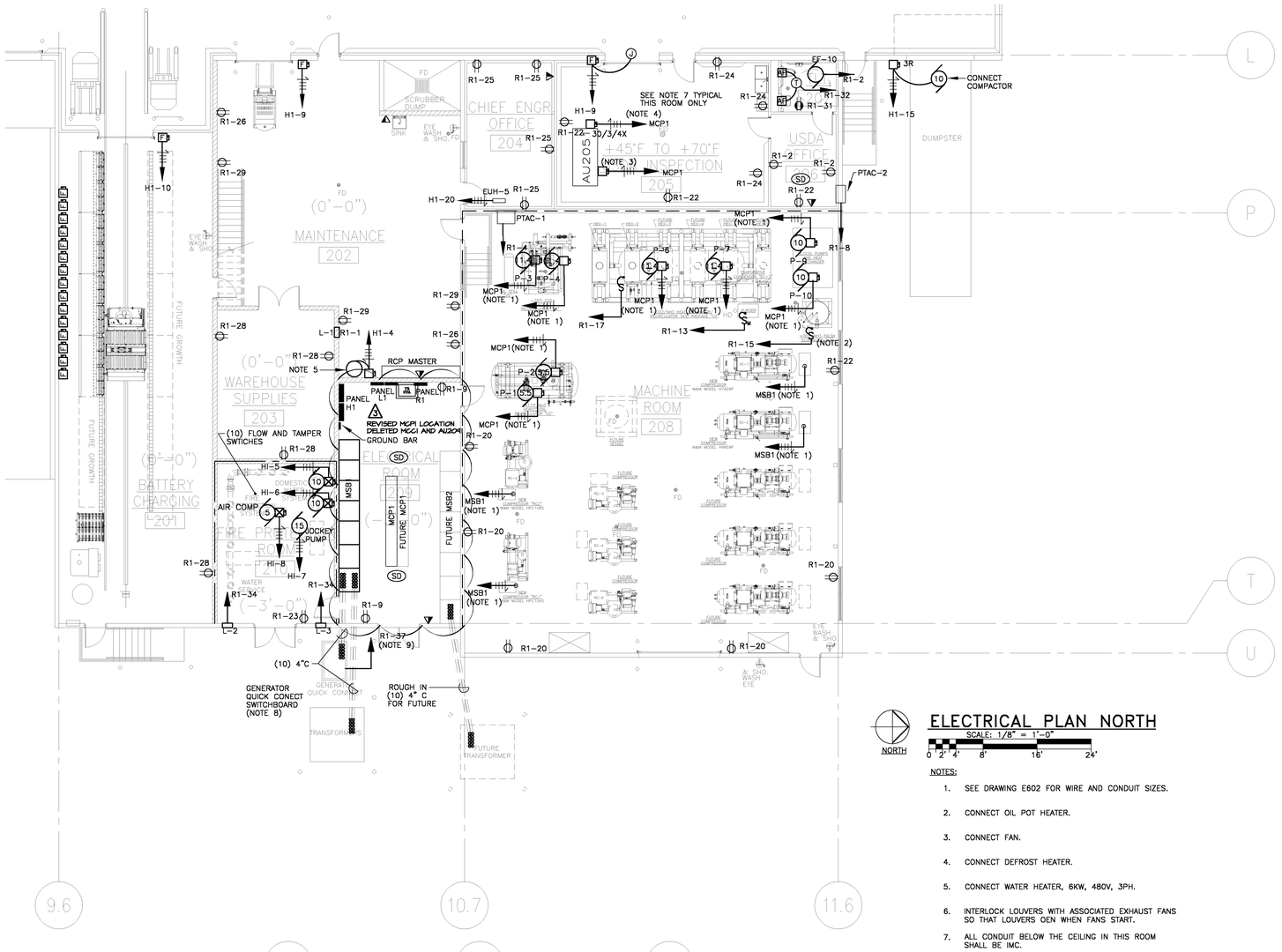
CHECKED: MTV

SCALE: 1/8"=1'-0"

E202

DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E202.dwg DATE: 07/11/07 TIME: 4:24 pm BY: KIMBERLY GARST

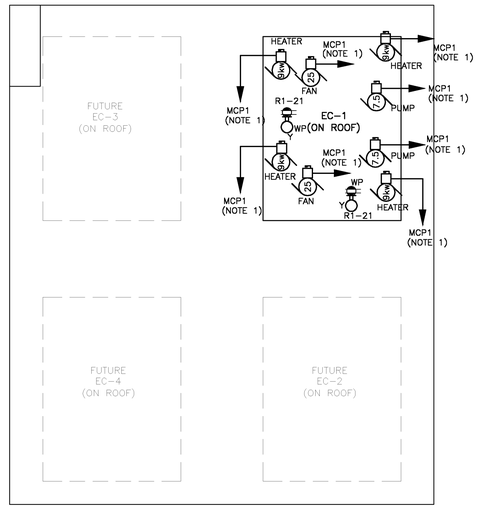


ELECTRICAL PLAN NORTH

SCALE: 1/8" = 1'-0"

NOTES:

1. SEE DRAWING E602 FOR WIRE AND CONDUIT SIZES.
2. CONNECT OIL POT HEATER.
3. CONNECT FAN.
4. CONNECT DEFROST HEATER.
5. CONNECT WATER HEATER, 6KW, 480V, 3PH.
6. INTERLOCK LOUVERS WITH ASSOCIATED EXHAUST FANS SO THAT LOUVERS OEN WHEN FANS START.
7. ALL CONDUIT BELOW THE CEILING IN THIS ROOM SHALL BE IMC.
8. PROVIDE HOUSEKEEPING PAD.
9. CONNECT SPACE HEATER IN ENCLOSURE

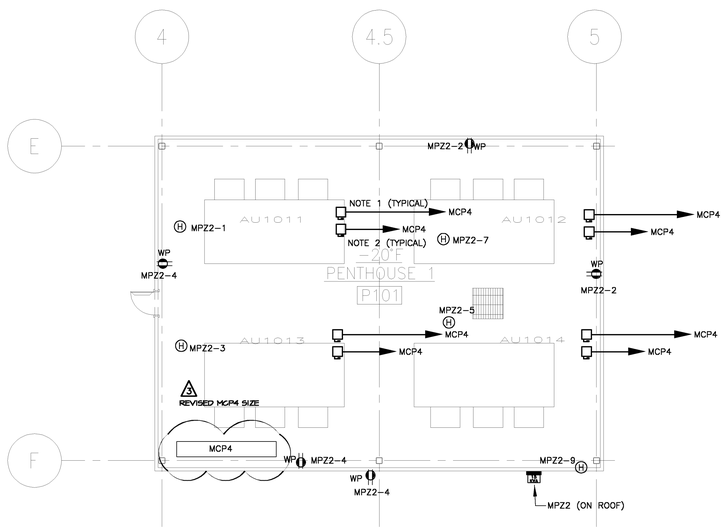


ELECTRICAL ROOF PLAN NORTH

SCALE: 1/8" = 1'-0"

NOTES:

1. SEE DRAWING E602 FOR CONDUIT AND WIRE SIZES.
2. –
3. –

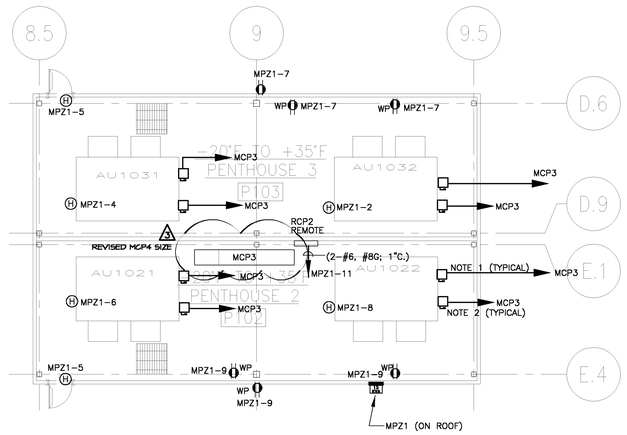


PENTHOUSE POWER PLAN

SCALE: 1/8" = 1'-0"

NOTES:

1. CONNECT FANS.
2. CONNECT DEFROST HEATER.
3. SEE SHEET E602 FOR CONDUIT AND WIRE SIZE.

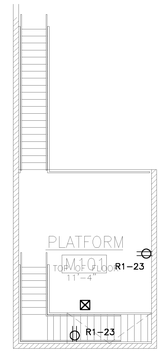


PENTHOUSE POWER PLAN

SCALE: 1/8" = 1'-0"

NOTES:

1. CONNECT FANS.
2. CONNECT DEFROST HEATER.
3. SEE SHEET E602 FOR CONDUIT AND WIRE SIZE.



MEZZANINE STORAGE PLAN

SCALE: 1/8" = 1'-0"

NOTES:

1. –
2. –
3. –

THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
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FLORIDA ENGINEERING LICENSE # 26430
FLORIDA ARCHITECTURAL LICENSE # AR 0015175

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

POWER PLAN MACHINE, ROOF MAINTENANCE PENTHOUSES & MEZZANINE NORTH

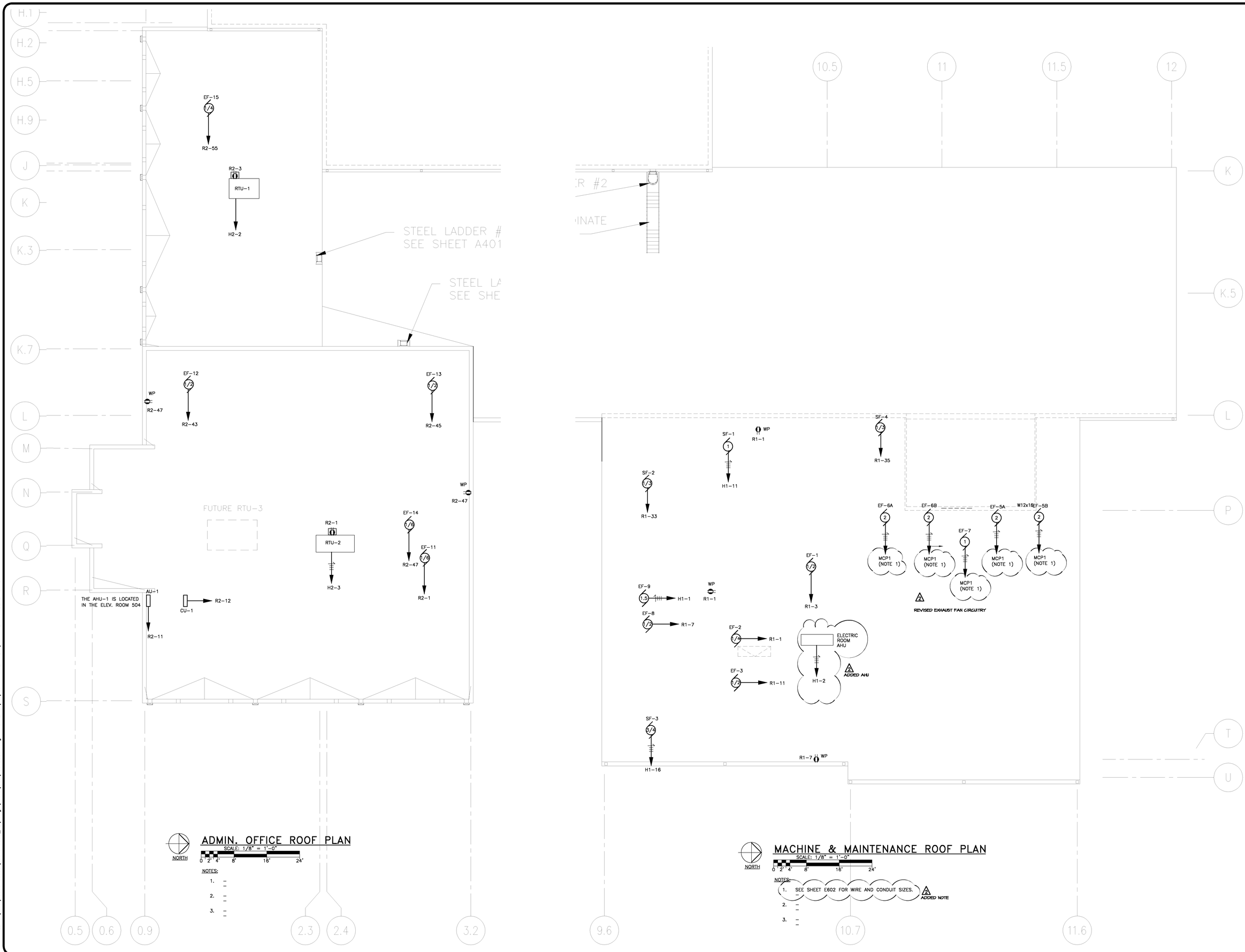
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REV.	DATE	BY	DESCRIPTION
3	12/21/07	KBG	REVISED AS NOTED
2	12/14/07	KBG	REVISED AS NOTED
1	12/13/07	KBG	CONSTRUCTION ISSUE
0	9/20/07	KBG	

JOB NO. 03019
DRAWN: KBG
CHECKED: MTV
SCALE: 1/8"=1'-0"

E203
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E203.dwg DATE: 07/11/07 TIME: 4:24 pm BY: KIMBERLY GARST



ADMIN. OFFICE ROOF PLAN

SCALE: 1/8" = 1'-0"

NORTH

0 2' 4' 8' 16' 24'

NOTES:

1. –
2. –
3. –

MACHINE & MAINTENANCE ROOF PLAN

SCALE: 1/8" = 1'-0"

NORTH

0 2' 4' 8' 16' 24'

NOTES:

1. SEE SHEET E602 FOR WIRE AND CONDUIT SIZES.
2. –
3. –

2 ADDED NOTE

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E204.dwg DATE: 07/11/07 TIME: 4:24 pm BY: KIMBERLY GARST

FLORIDA ENGINEERING LICENSE # 9430
FLORIDA ARCHITECTURAL LICENSE # AR 0015171
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ROOF PLANS OFFICE , MACH. & MAINTENANCE

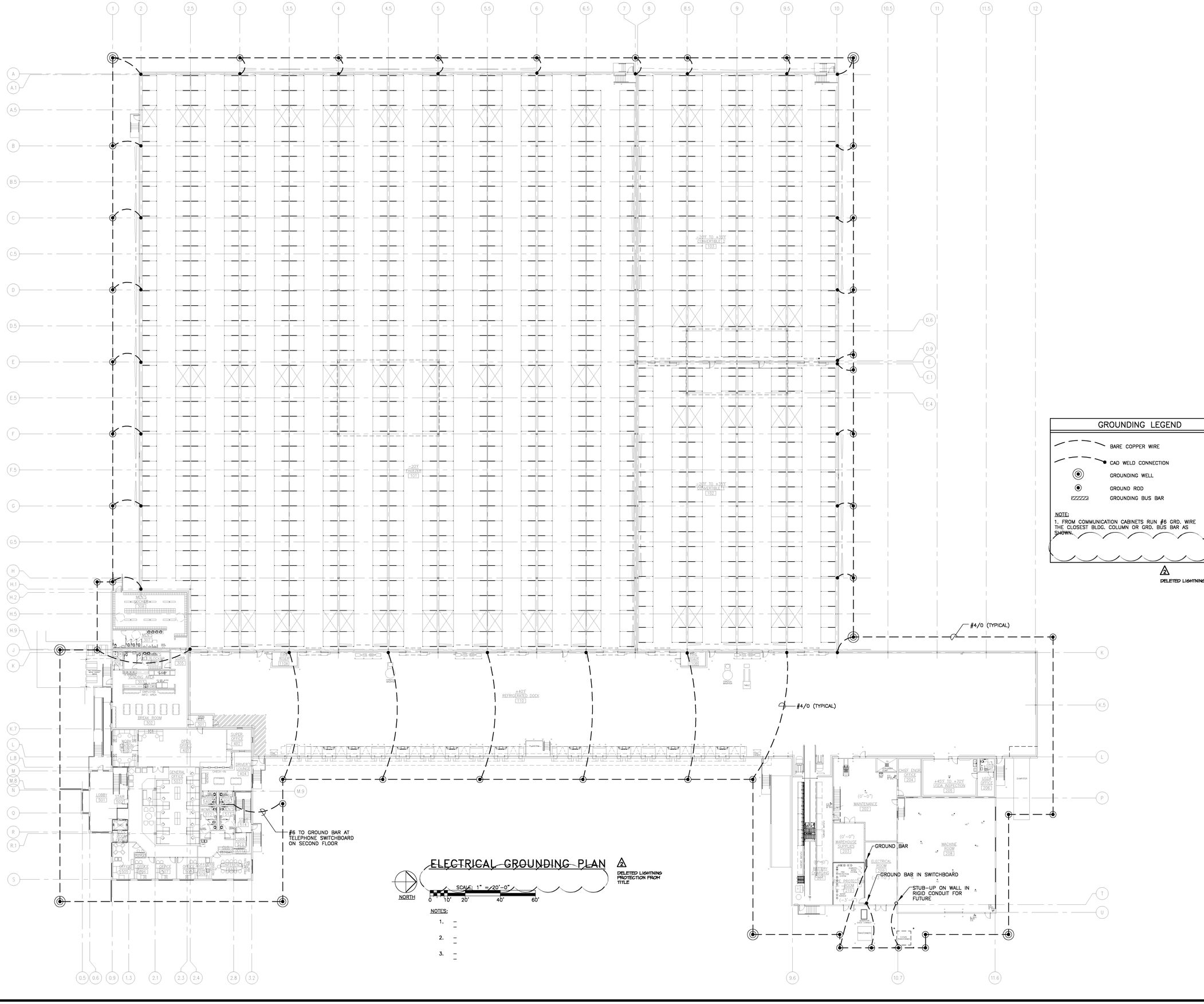
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REV.	DATE	BY	DESCRIPTION
2	07/11/07	KBG	REVISED AS NOTED
1	04/27/07	KBG	REVISED AS NOTED
0	03/30/07	KBG	CONSTRUCTION ISSUE

JOB NO.	03019
DRAWN:	KBG
CHECKED:	MTV
SCALE:	1/8"=1'-0"

E204

DRAWING NO.



FLORIDA ARCHITECTURAL LICENSE No. AR 0015175
FLORIDA ENGINEERING LICENSE No. 9430
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DESIGN • CONSTRUCTION • REFRIGERATION
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ELECTRICAL GROUNDING PLAN

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REV.	DATE	BY	DESCRIPTION
2	07/21/07	KBG	REVISED AS NOTED
1	07/13/07	KBG	REVISED AS NOTED
0	07/06/07	KBG	CONSTRUCTION ISSUE

JOB NO.	03019
DRAWN:	KBG
CHECKED:	MTV
SCALE:	1"=20'-0"

E205

DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E205.dwg DATE: 08/21/07 TIME: 1:02 pm BY: KIMBERLY GARST

NOTES:

1. ELECTRICIAN IS RESPONSIBLE FOR MEETING ALL LOCAL, STATE, AND NATIONAL CODE REQUIREMENTS.

2. ALL AC WIRE SIZES SHOWN ARE BASED ON WIRE RUN LENGTHS LESS THAN 100'. MINIMUM RECOMMENDED AC WIRE SIZE IS #14 AWG.

3. ALL ANALOG SENSOR WIRES SHOWN ARE BASED ON WIRE RUNS LESS THAN 1500'.

ABBREVIATION SCHEDULE

UTFS – UNDER FLOOR TEMP SENSOR
LP – LEVEL PROBE
HLS – HIGH LEVEL SHUTDOWN
LLCO – LOW LEVEL CUTOUT
TS – TEMPERATURE SENSOR
PT – PRESSURE TRANSDUCER
NH3D – AMMONIA DETECTOR
CO2D – CO2 DETECTOR
HM – HUMIDITY SENSOR
GLY – GLYCOL
MV – MOTORIZED VALVE

CONTROLS LEGEND

XXXX / XXXX / XXXX — COMPONENT TYPE / COMPONENT ID / COMPONENT LOCATION
CG / XXX — CONTROL VALVE STATION / COMPONENT LOCATION
J — JUNCTION BOX
E-STOP
EF — EXHAUST FAN SWITCH

BELDEN CABLE SPECS

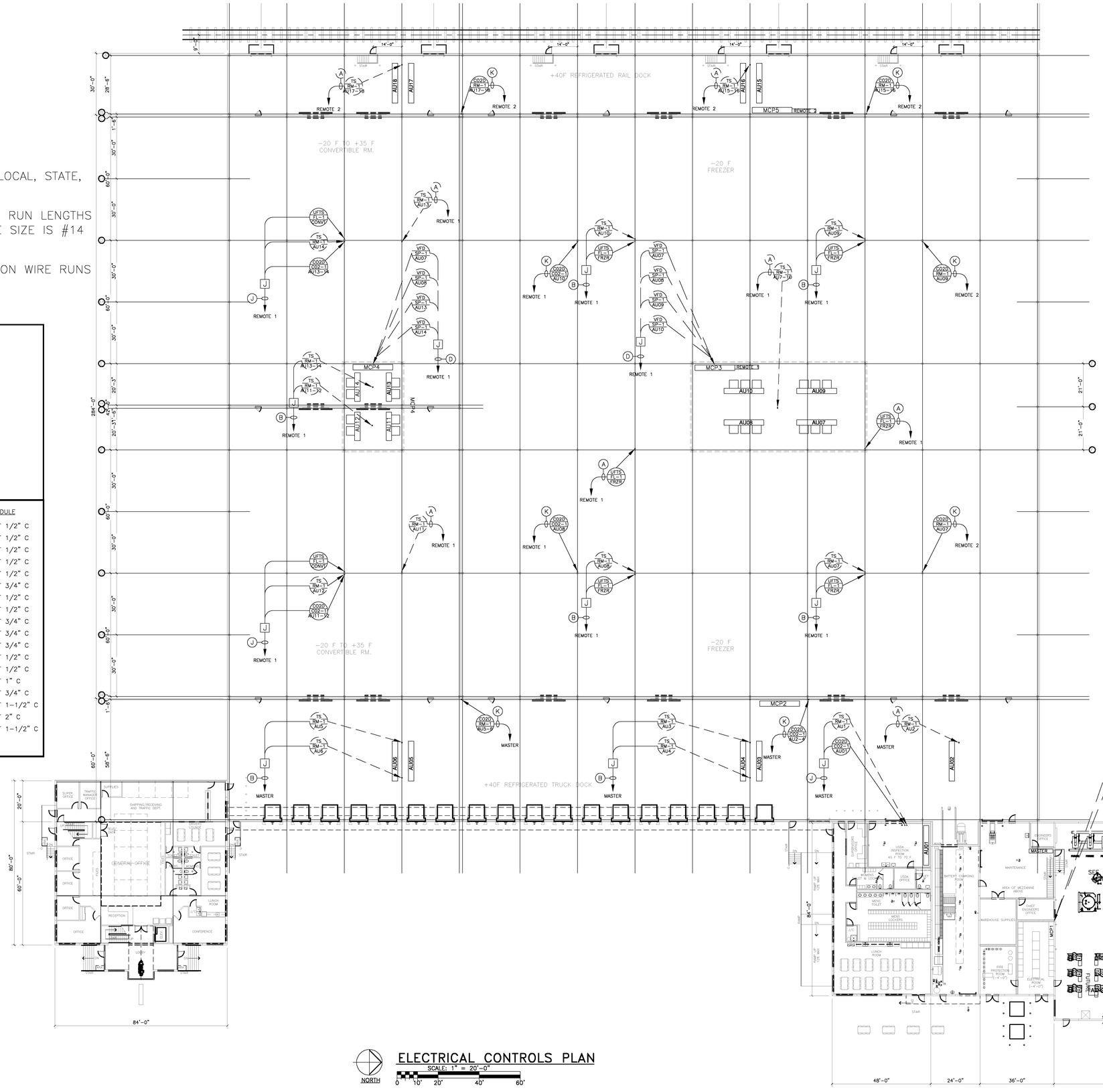
BELDEN 9533	:	3C, #24 AWG, SHIELDED
BELDEN 9503	:	6C,TP, #24 AWG, SHIELDED
BELDEN 8770	:	3C, #18 AWG, SHIELDED

SIGNAL WIRE W/CONDUIT SCHEDULE

(A) 1 BELDEN 9533	:	1 SET 1/2" C
(B) 2 BELDEN 9533	:	1 SET 1/2" C
(C) 3 BELDEN 9533	:	1 SET 3/4" C
(D) 4 BELDEN 9533	:	1 SET 3/4" C
(E) 5 BELDEN 9533	:	1 SET 1" C
(F) 1 BELDEN 8770	:	1 SET 1/2" C
(G) 1 BELDEN 9503	:	1 SET 1/2" C
(H) 2 BELDEN 9533 1 BELDEN 8770	:	1 SET 3/4" C
(I) 8 BELDEN 9533	:	1 SET 1-1/4" C
(J) 2 BELDEN 9533 1 BELDEN 8618	:	1 SET 3/4" C
(K) 1 BELDEN 8618	:	1 SET 1/2" C
(L) 6 BELDEN 9533	:	1 SET 1" C

CONTROL WIRE W/CONDUIT SCHEDULE

(1) 1#14, 1#14N, 1#14G	:	1 SET 1/2" C
(2) 2#14, 2#14N, 1#14G	:	1 SET 1/2" C
(3) 4#14, 4#14N, 1#14G	:	1 SET 1/2" C
(4) 4#14, 0#14N, 1#14G	:	1 SET 1/2" C
(5) 5#14, 2#14N, 1#14G	:	1 SET 1/2" C
(6) 6#14, 3#14N, 1#14G	:	1 SET 3/4" C
(7) 7#14, 1#14N, 1#14G	:	1 SET 1/2" C
(8) 8#14, 4#14N, 1#14G	:	1 SET 1/2" C
(9) 8#14, 0#14N, 1#14G	:	1 SET 3/4" C
(10) 10#14, 4#14N, 1#14G	:	1 SET 3/4" C
(11) 11#14, 1#14N, 1#14G	:	1 SET 3/4" C
(12) 2#14, 0#14N, 1#14G	:	1 SET 1/2" C
(13) 4#14, 0#14N, 1#14G	:	1 SET 1/2" C
(14) 13#14, 9#14N, 1#14G	:	1 SET 1" C
(15) 14#14, 4#14N, 1#14G	:	1 SET 3/4" C
(16) 30#14, 10#14N, 1#14G	:	1 SET 1-1/2" C
(17) 59#14, 13#14N, 1#14G	:	1 SET 2" C
(18) 51#14, 21#14N, 1#14G	:	1 SET 1-1/2" C



ELECTRICAL CONTROLS PLAN

NORTH

SCALE: 1" = 20'-0"
0 10' 20' 40' 60'

NOTES:

1. –
2. –
3. –

FLORIDA ENGINEERING LICENSE NO. 9930
FLORIDA ARCHITECTURAL LICENSE NO. AA 0026179
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LAKE CITY, FLORIDA

REFRIG CONTROLS PLAN WAREHOUSE AND DOCKS

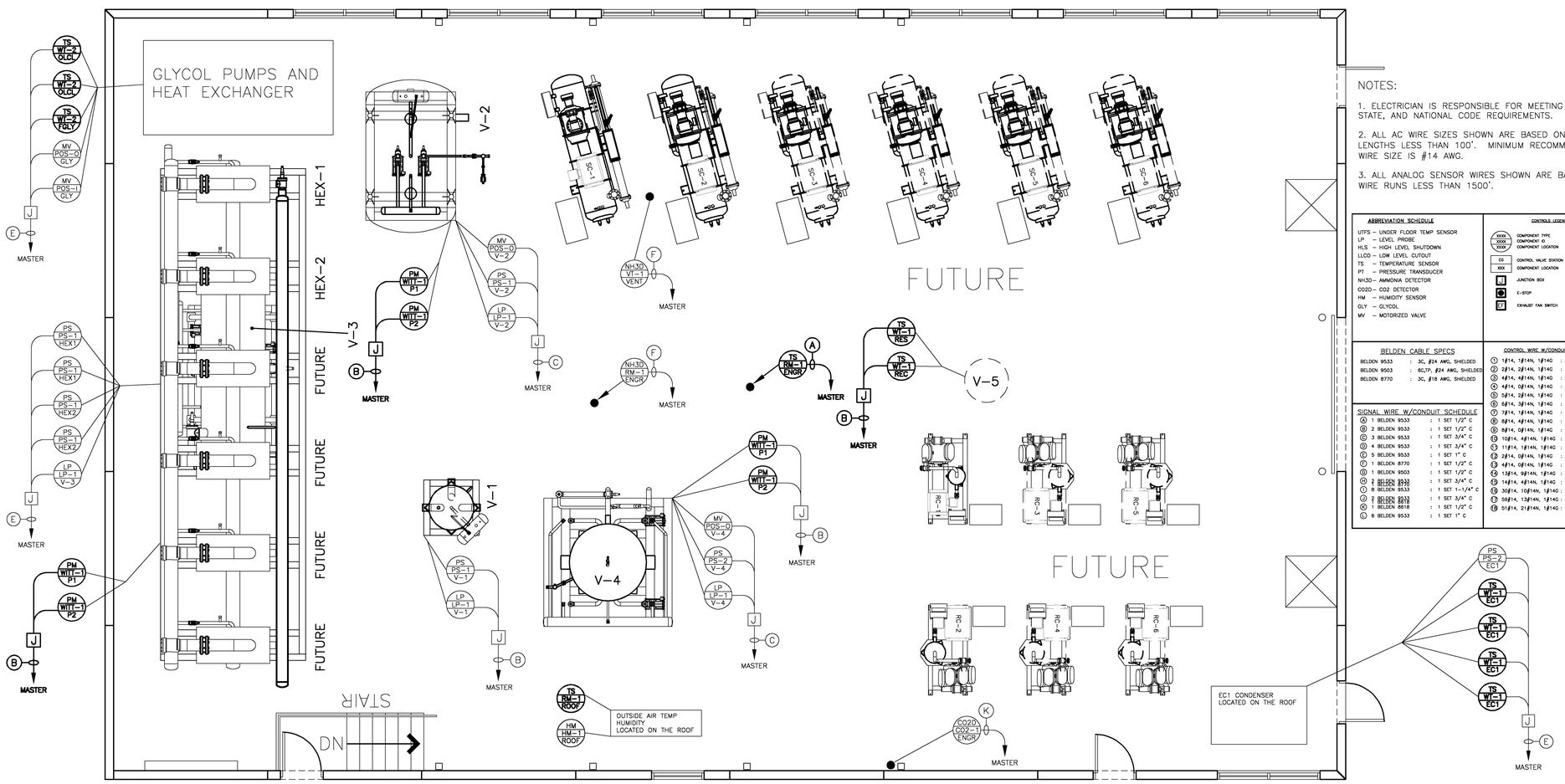
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REV.	DATE	BY	DESCRIPTION
A	10.20.06	JAW	REVISED PRICING DOCUMENTS
B	10.30.06	JAW	PRICING DOCUMENTS

JOB NO. 03019
DRAWN: JAW
CHECKED: JAW
SCALE: AS NOTED

E301
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019e3011C.dwg DATE: 10/30/06 TIME: 8:26 am BY: JUDD WALKER



NOTES:

1. ELECTRICIAN IS RESPONSIBLE FOR MEETING ALL LOCAL, STATE, AND NATIONAL CODE REQUIREMENTS.

2. ALL AC WIRE SIZES SHOWN ARE BASED ON WIRE RUN LENGTHS LESS THAN 100'. MINIMUM RECOMMENDED AC WIRE SIZE IS #14 AWG.

3. ALL ANALOG SENSOR WIRES SHOWN ARE BASED ON WIRE RUNS LESS THAN 1500'.

ABBREVIATION SCHEDULE

UTFS – UNDER FLOOR TEMP SENSOR
LP – LEVEL PROBE
HLS – HIGH LEVEL SHUTDOWN
LLCO – LOW LEVEL CUTOUT
TS – TEMPERATURE SENSOR
PT – PRESSURE TRANSDUCER
NH3D – AMMONIA DETECTOR
CO2D – CO2 DETECTOR
HM – HUMIDITY SENSOR
GLY – GLYCOL
MV – MOTORIZED VALVE

CONTROLS LEGEND

XXXX / XXXX / XXXX – COMPONENT TYPE / COMPONENT ID / COMPONENT LOCATION
CO / XXX – CONTROL VALVE STATION / COMPONENT LOCATION
J – JUNCTION BOX
E – E-STOP
EF – EXHAUST FAN SWITCH

BELDEN CABLE SPECS

BELDEN 9533 : 3C, #24 AWG, SHIELDED
BELDEN 9503 : 6C,1P, #24 AWG, SHIELDED
BELDEN 8770 : 3C, #18 AWG, SHIELDED

SIGNAL WIRE W/CONDUIT SCHEDULE

(A) 1 BELDEN 9533 : 1 SET 1/2" C
(B) 2 BELDEN 9533 : 1 SET 1/2" C
(C) 3 BELDEN 9533 : 1 SET 3/4" C
(D) 4 BELDEN 9533 : 1 SET 3/4" C
(E) 5 BELDEN 9533 : 1 SET 1" C
(F) 1 BELDEN 8770 : 1 SET 1/2" C
(G) 1 BELDEN 9503 : 1 SET 1/2" C
(H) 2 BELDEN 9533 : 1 SET 3/4" C
(J) 8 BELDEN 9533 : 1 SET 1-1/4" C
(K) 2 BELDEN 9533 : 1 SET 3/4" C
(L) 1 BELDEN 8618 : 1 SET 1/2" C
(M) 6 BELDEN 9533 : 1 SET 1" C

CONTROL WIRE W/CONDUIT SCHEDULE

① 1#14, 1#14N, 1#14G : 1 SET 1/2" C
② 2#14, 2#14N, 1#14G : 1 SET 1/2" C
③ 4#14, 4#14N, 1#14G : 1 SET 1/2" C
④ 4#14, 0#14N, 1#14G : 1 SET 1/2" C
⑤ 8#14, 2#14N, 1#14G : 1 SET 3/4" C
⑥ 8#14, 3#14N, 1#14G : 1 SET 3/4" C
⑦ 7#14, 1#14N, 1#14G : 1 SET 1/2" C
⑧ 8#14, 4#14N, 1#14G : 1 SET 1/2" C
⑨ 8#14, 0#14N, 1#14G : 1 SET 3/4" C
⑩ 10#14, 4#14N, 1#14G : 1 SET 3/4" C
⑪ 11#14, 1#14N, 1#14G : 1 SET 3/4" C
⑫ 2#14, 0#14N, 1#14G : 1 SET 1/2" C
⑬ 4#14, 0#14N, 1#14G : 1 SET 1/2" C
⑭ 13#14, 9#14N, 1#14G : 1 SET 1" C
⑮ 14#14, 4#14N, 1#14G : 1 SET 3/4" C
⑯ 30#14, 10#14N, 1#14G : 1 SET 1-1/2" C
⑰ 59#14, 13#14N, 1#14G : 1 SET 2" C
⑱ 51#14, 21#14N, 1#14G : 1 SET 1-1/2" C

NORTH

ELECTRICAL FLOOR PLAN

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8' 12'

NOTES:

1. –
2. –
3. –

FLORIDA ARCHITECTURAL LICENSE AA 26001975
FLORIDA ENGINEERING LICENSE NO. 9930
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REFRIG CONTROLS PLAN MACHINE ROOM

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REV.	DATE	BY	DESCRIPTION
B	10/30/06	JAW	REVISED PRICING DOCUMENTS
A	10/25/06	JAW	PRICING DOCUMENTS

JOB NO. 03019
DRAWN: JAW
CHECKED: JAW
SCALE: AS NOTED

E302
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019e302LC.dwg DATE: 10/30/06 TIME: 8:26 am BY: JUDD WALKER

NOTES:

1. ELECTRICIAN IS RESPONSIBLE FOR MEETING ALL LOCAL, STATE, AND NATIONAL CODE REQUIREMENTS.

2. ALL AC WIRE SIZES SHOWN ARE BASED ON WIRE RUN LENGTHS LESS THAN 100'. MINIMUM RECOMMENDED AC WIRE SIZE IS #14 AWG.

3. ALL ANALOG SENSOR WIRES SHOWN ARE BASED ON WIRE RUNS LESS THAN 1500'.

ABBREVIATION SCHEDULE

ULTS – UNDER FLOOR TEMP SENSOR
LP – LEVEL PROBE
HLS – HIGH LEVEL SHUTDOWN
LLCO – LOW LEVEL CUTOUT
TS – TEMPERATURE SENSOR
PT – PRESSURE TRANSDUCER
NH3D – AMMONIA DETECTOR
CO2D – CO2 DETECTOR
HW – HUMIDITY SENSOR
GLY – GLYCOL
MV – MOTORIZED VALVE

CONTROLS LEGEND

XXXX COMPONENT TYPE
XXXX COMPONENT ID
XXXX COMPONENT LOCATION
CC CONTROL VALVE STATION
XXX COMPONENT LOCATION
J JUNCTION BOX
E E-STOP
EF EXHAUST FAN SWITCH

BELDEN CABLE SPECS

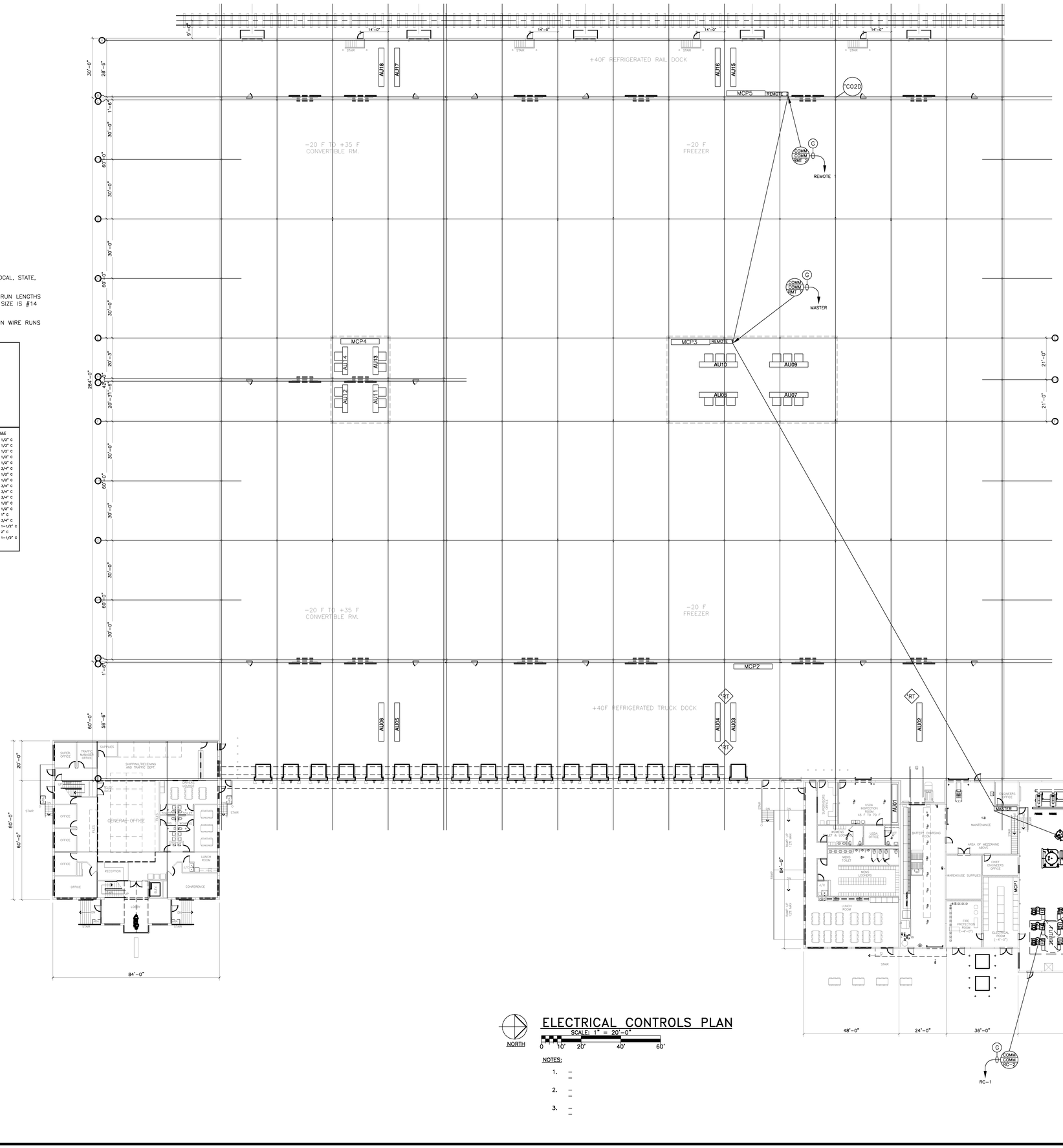
BELDEN 9533 : 3C, #24 AWG, SHIELDED
BELDEN 9503 : 6CTP, #24 AWG, SHIELDED
BELDEN 8770 : 3C, #18 AWG, SHIELDED

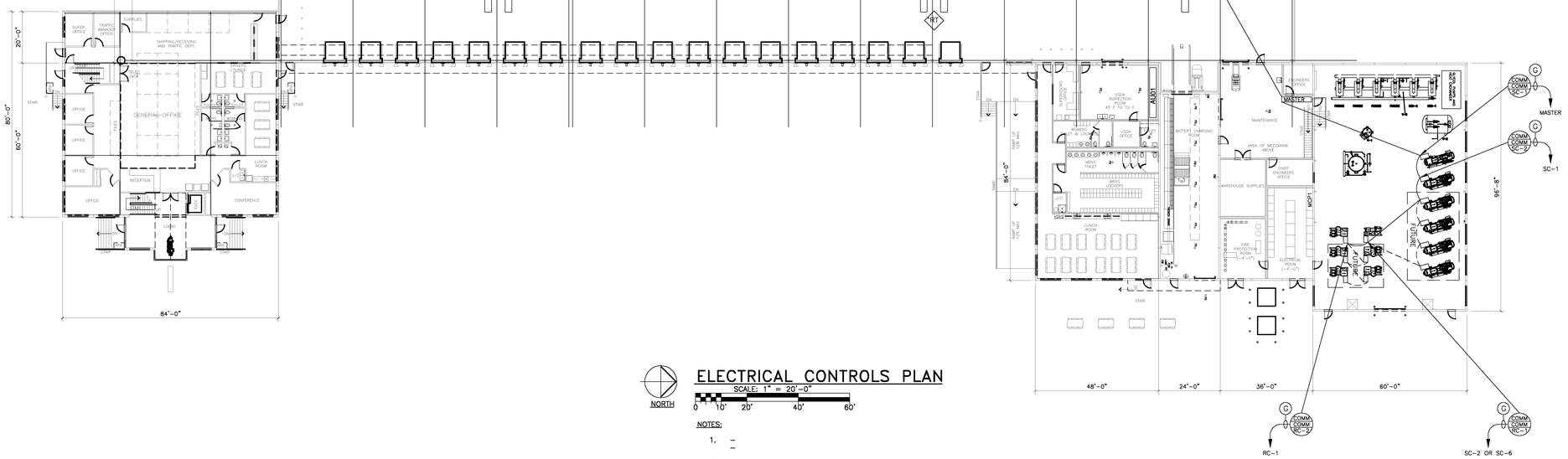
SIGNAL WIRE W/CONDUIT SCHEDULE

A	1 BELDEN 9533	1 SET 1/2" C
B	2 BELDEN 9533	1 SET 1/2" C
C	3 BELDEN 9533	1 SET 3/4" C
D	4 BELDEN 9533	1 SET 3/4" C
E	5 BELDEN 9533	1 SET 1" C
F	1 BELDEN 8770	1 SET 1/2" C
G	1 BELDEN 9503	1 SET 1/2" C
H	2 BELDEN 9503	1 SET 3/4" C
I	3 BELDEN 9503	1 SET 1-1/4" C
J	4 BELDEN 9503	1 SET 3/4" C
K	1 BELDEN 8618	1 SET 1/2" C
L	6 BELDEN 9533	1 SET 1" C

CONTROL WIRE W/CONDUIT SCHEDULE

1	1#14, 1#14AL, 1#14G	1 SET 1/2" C
2	2#14, 2#14AL, 1#14G	1 SET 1/2" C
3	4#14, 4#14AL, 1#14G	1 SET 1/2" C
4	4#14, 0#14AL, 1#14G	1 SET 1/2" C
5	5#14, 2#14AL, 1#14G	1 SET 1/2" C
6	6#14, 3#14AL, 1#14G	1 SET 3/4" C
7	7#14, 1#14AL, 1#14G	1 SET 1/2" C
8	8#14, 4#14AL, 1#14G	1 SET 1/2" C
9	8#14, 0#14AL, 1#14G	1 SET 3/4" C
10	10#14, 4#14AL, 1#14G	1 SET 3/4" C
11	11#14, 1#14AL, 1#14G	1 SET 3/4" C
12	2#14, 0#14AL, 1#14G	1 SET 1/2" C
13	4#14, 0#14AL, 1#14G	1 SET 1/2" C
14	13#14, 1#14AL, 1#14G	1 SET 1" C
15	14#14, 4#14AL, 1#14G	1 SET 3/4" C
16	30#14, 12#14AL, 1#14G	1 SET 1-1/2" C
17	39#14, 13#14AL, 1#14G	1 SET 2" C
18	51#14, 21#14AL, 1#14G	1 SET 1-1/2" C





NORTH

ELECTRICAL CONTROLS PLAN

SCALE: 1" = 20'-0"

0 10' 20' 40' 60'

NOTES:

1. –
2. –
3. –

FILE: T:\jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019e303LC.dwg DATE: 10/30/06 TIME: 8:39 am BY: JUDD WALKER

FLORIDA ARCHITECTURAL LICENSE AR 17556, 17572

FLORIDA ENGINEERING LICENSE NO. 9930

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UNITED STATES COLD STORAGE
NEW COLD STORAGE AND DISTRIBUTION CENTER
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REFRIG CONTROLS PLAN WAREHOUSE AND DOCKS

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REV.	DATE	BY	DESCRIPTION
A	10/30/06	JAW	REVISED PRICING DOCUMENTS

JOB NO. 03019
DRAWN: JAW
CHECKED: JAW
SCALE: AS NOTED

E303
DRAWING NO.

NOTES:

1. ELECTRICIAN IS RESPONSIBLE FOR MEETING ALL LOCAL, STATE, AND NATIONAL CODE REQUIREMENTS.

2. ALL AC WIRE SIZES SHOWN ARE BASED ON WIRE RUN LENGTHS LESS THAN 100'. MINIMUM RECOMMENDED AC WIRE SIZE IS #14 AWG.

3. ALL ANALOG SENSOR WIRES SHOWN ARE BASED ON WIRE RUNS LESS THAN 1500'.

ABBREVIATION SCHEDULE

UTFS – UNDER FLOOR TEMP SENSOR
LP – LEVEL PROBE
HLS – HIGH LEVEL SHUTDOWN
LLCO – LOW LEVEL CUTOUT
TS – TEMPERATURE SENSOR
PT – PRESSURE TRANSDUCER
NH3D – AMMONIA DETECTOR
CO2D – CO2 DETECTOR
HM – HUMIDITY SENSOR
GLY – GLYCOL
MV – MOTORIZED VALVE

CONTROLS LEGEND

XXXX / XXXX / XXXX – COMPONENT TYPE / COMPONENT ID / COMPONENT LOCATION
CG – CONTROL VALVE STATION
XXX – COMPONENT LOCATION
JB – JUNCTION BOX
E-STOP
EF – EXHAUST FAN SWITCH

BELDEN CABLE SPECS

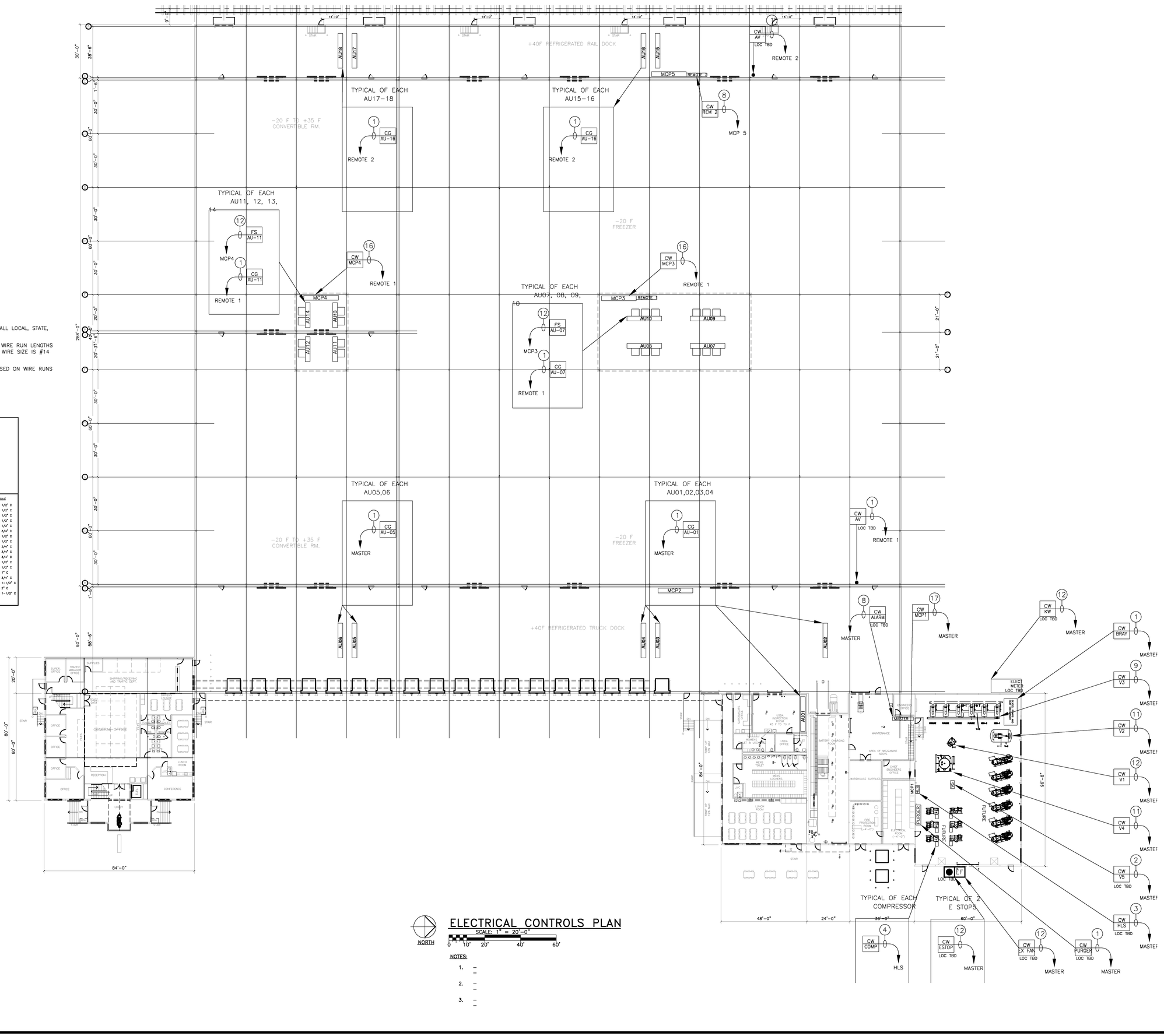
BELDEN 9533 : 3C, #24 AWG, SHIELDED
BELDEN 9503 : 6C/P, #24 AWG, SHIELDED
BELDEN 8770 : 3C, #18 AWG, SHIELDED

SIGNAL WIRE W/CONDUIT SCHEDULE

① 1 BELDEN 9533 : 1 SET 1/2" C
② 2 BELDEN 9533 : 1 SET 1/2" C
③ 3 BELDEN 9533 : 1 SET 3/4" C
④ 4 BELDEN 9533 : 1 SET 3/4" C
⑤ 5 BELDEN 9533 : 1 SET 1" C
⑥ 1 BELDEN 8770 : 1 SET 1/2" C
⑦ 1 BELDEN 9503 : 1 SET 1/2" C
⑧ 2 BELDEN 9533 : 1 SET 3/4" C
⑨ 3 BELDEN 9533 : 1 SET 1-1/4" C
⑩ 4 BELDEN 9533 : 1 SET 3/4" C
⑪ 1 BELDEN 8818 : 1 SET 1/2" C
⑫ 6 BELDEN 9533 : 1 SET 1" C

CONTROL WIRE W/CONDUIT SCHEDULE

① 1#14, 1#14HL, 1#14G : 1 SET 1/2" C
② 2#14, 2#14HL, 1#14G : 1 SET 1/2" C
③ 4#14, 4#14HL, 1#14G : 1 SET 1/2" C
④ 4#14, 0#14HL, 1#14G : 1 SET 1/2" C
⑤ 5#14, 2#14HL, 1#14G : 1 SET 3/4" C
⑥ 6#14, 3#14HL, 1#14G : 1 SET 3/4" C
⑦ 7#14, 1#14HL, 1#14G : 1 SET 1/2" C
⑧ 8#14, 4#14HL, 1#14G : 1 SET 1/2" C
⑨ 8#14, 0#14HL, 1#14G : 1 SET 3/4" C
⑩ 10#14, 4#14HL, 1#14G : 1 SET 3/4" C
⑪ 11#14, 1#14HL, 1#14G : 1 SET 3/4" C
⑫ 2#14, 0#14HL, 1#14G : 1 SET 1/2" C
⑬ 4#14, 0#14HL, 1#14G : 1 SET 1/2" C
⑭ 13#14, 1#14HL, 1#14G : 1 SET 1" C
⑮ 14#14, 4#14HL, 1#14G : 1 SET 3/4" C
⑯ 30#14, 10#14HL, 1#14G : 1 SET 1-1/2" C
⑰ 39#14, 13#14HL, 1#14G : 1 SET 2" C
⑱ 51#14, 21#14HL, 1#14G : 1 SET 1-1/2" C



NORTH

ELECTRICAL CONTROLS PLAN

SCALE: 1" = 20'-0"
0 10' 20' 40' 60'

NOTES:

1. –
2. –
3. –

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019e304C.dwg DATE: 10/30/06 TIME: 8:26 am BY: JUDD WALKER

FLORIDA ENGINEERING LICENSE NO. 9930
FLORIDA ARCHITECTURAL LICENSE NO. AA1700179
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE
NEW COLD STORAGE AND DISTRIBUTION CENTER
LAKE CITY, FLORIDA

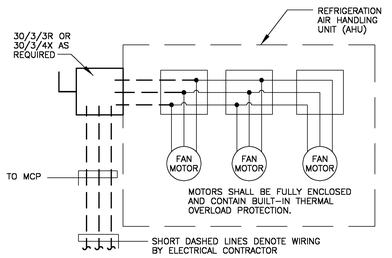
REFRIG CONTROLS PLAN WAREHOUSE AND DOCKS

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REV.	DATE	BY	DESCRIPTION
A	XX/XX/XX	JAW	REVISED PRICING DOCUMENTS

JOB NO. 03019
DRAWN: JAW
CHECKED: JAW
SCALE: AS NOTED

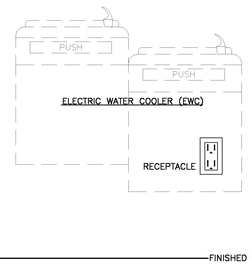
E304
DRAWING NO.



NOTES:

1. QUANTITY OF MOTORS SHOWN IN AIR UNIT ARE FOR EXAMPLE ONLY. SEE REFRIGERATION DRAWINGS FOR ACTUAL QUANTITY OF MOTORS IN EACH AIR UNIT.
2. DISCONNECT NOT REQUIRED FOR SINGLE MOTOR UNITS; SUPPLIED WITH UNIT.

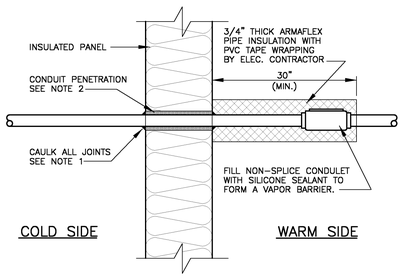
AHU WIRING DIAGRAM (1)



NOTE:

1. ELECTRICAL SUB-CONTRACTOR SHALL OBTAIN THE SHOP DRAWINGS AND LOCATE THE RECEPTACLE CONCEALED BEHIND THE WATER COOLER.

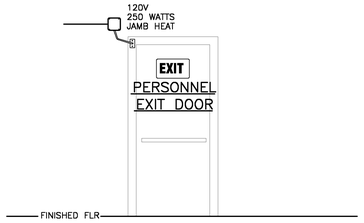
EWC RECEPTACLE MOUNTING (2)



NOTES:

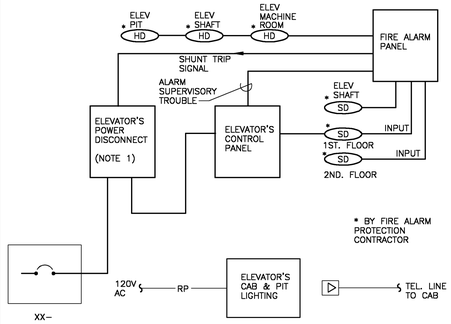
1. CAULKING & SEALING SHALL MAINTAIN VAPOR BARRIER CONTINUITY OF INSULATED PANEL.
2. PENETRATION SHALL BE DRILLED. AFTER CONDUIT IS INSTALLED AND PROPERLY SUPPORTED ON EACH SIDE OF WALL, REMAINING VOIDS SHALL BE FILLED COMPLETELY WITH APPROVED SEALANT.

CONDUIT PENETRATION DETAIL (3)



FREEZER/ COOLER EXIT TO OUTSIDE

HEAT-TRACE FREEZER/ COOLER DOOR (4)



NOTE:

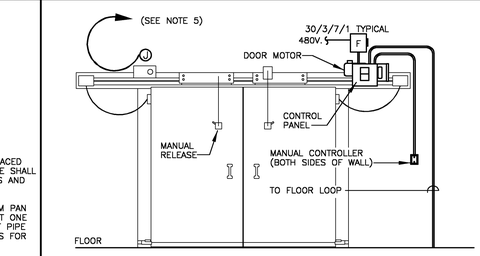
1. BUSSMANN POWER MODULE SWITCH – 50 AMP FUSE, 480 VAC 3 PHASE. CATALOG #PS6-T4B-R1-A

ELEVATOR RISER DIAGRAM (5)

CONDENSATE DRAIN HEAT TRACING SYSTEM

1. DRAIN LINES OF ALL AIR UNITS IN AREAS OF LESS THAN 35° F. DESIGN, SHALL BE TRACED WITH 120 VOLT, SELF-REGULATING TYPE HEAT CABLE RATED AT 6 WATTS/FOOT. CABLE SHALL HAVE AN OVERALL METAL BRAID AND PVC JACKET. CABLES AND ALL TERMINATION KITS AND END SEALS ARE FURNISHED BY REFRIGERATION CONTRACTOR.
2. THE REFRIGERATION CONTRACTOR SHALL INSTALL HEAT CABLE INSIDE DRAIN LINES FROM PAN TO DISCHARGE END OF PIPE. WHERE DRAIN LINES ARE TIED TOGETHER, RUN AT LEAST ONE HEAT CABLE TO DISCHARGE END OF PIPE. REMAINING CABLES MAY BE TERMINATED AT PIPE INTERSECTIONS. REFRIGERATION CONTRACTOR SHALL LEAVE SLACK AT ENDS OF CABLES FOR TERMINATION BY ELECTRICAL.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE A NEMA 3R J-BOX AND CIRCUIT WIRING TO EACH AHU. ELCTRICAL CONTRACTOR SHALL MAKE ALL TERMINATIONS AND INSTALL END SEALS. ALL HEAT TRACE FEEDER BREAKERS SHALL BE 30 MA G.F.C.I.
4. SEE REFRIGERATION DRAWINGS FOR LOCATION AND LENGTH OF DRAIN LINES.

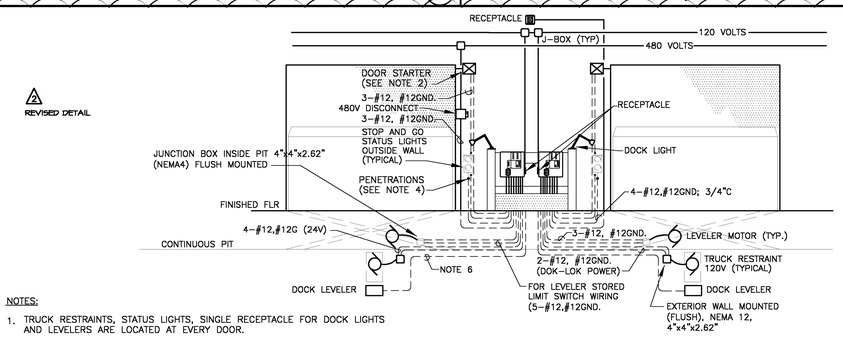
CONDENSATE HEAT TRACE INSTALLATION (6)



NOTES:

1. CONTRACTOR SHALL COORDINATE TYPE OF DOOR OPERATOR; MOTION SENSOR, WITH OWNER PRIOR TO INSTALLATION.
2. WIRING BETWEEN DISCONNECT SWITCH AND CONTROL PANEL BY ELECTRICAL CONTRACTOR.
3. VERIFY ALL ELECTRICAL REQUIREMENTS WITH MANUFACTURER'S SHOP DRAWINGS PRIOR TO INSTALLATION.
4. POWER DISCONNECT SWITCH SHALL BE MOUNTED ON WARM SIDE OF DOOR. SEE CONDUIT PENETRATION DETAIL.
5. ALL FREEZER DOORS MUST HAVE SEPERATE 120VAC SUPPLY FOR HEATER CABLES.

FREEZER DOOR DETAIL (7)

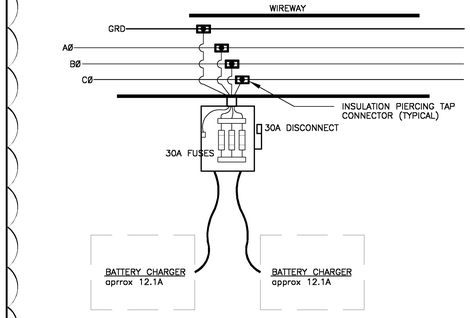


2 REVISED DETAIL

NOTES:

1. TRUCK RESTRAINTS, STATUS LIGHTS, SINGLE RECEPTACLE FOR DOCK LIGHTS AND LEVELERS ARE LOCATED AT EVERY DOOR.
2. PROVIDE AND INSTALL A DOOR STARTER TO INTERLOCK THE DOCK DOOR LEVELER AND DOCK DOOR SO THAT THE LEVELER CANNOT ENGAGE UNLESS THE DOOR IS IN THE FULL UP POSITION.
3. TRUCK RESTRAINT/STATUS LIGHTS AND LEVELERS PROVIDED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR. RECEPTACLE FOR TRUCK LOADING LIGHTS PROVIDED AND INSTALLED BY LEVELER SUPPLIER.
4. CONDUIT PENETRATIONS THRU EXTERIOR WALL SHALL HAVE SILICONE SEALANT FILL INSIDE AND AROUND EXTERIOR TO CREATE A VAPOR/MOISTURE BARRIER.
5. TRUCK LOADING LIGHTS PROVIDED BY ELEC. CONTRACTOR.
6. INSTALL AND CONNECT 1-3/C AND 1-5/C CABLE FURNISHED BY SUPPLIER IN CONDUIT.

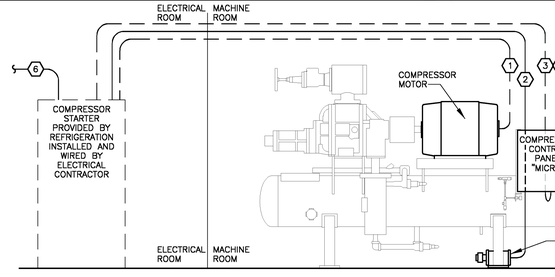
INTERIOR ELEVATION AT DOCK DOORS (9)



NOTE:

1. CONNECTION FROM FEEDER TO DISCONNECTS SHALL BE MADE WITH AN INSULATION PIERCING TOP CONNECTOR AND #10 TAP CONDUCTORS.

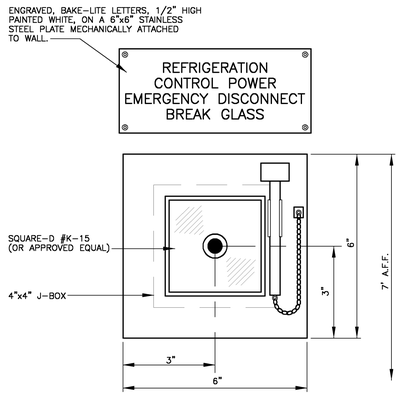
TYPICAL BATTERY CHARGER CONNECTION (10)



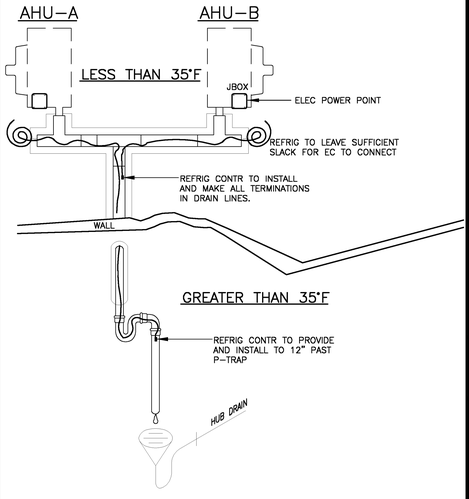
NOTES:

1. COMPRESSOR MOTOR FEEDER FROM COMPRESSOR STARTER. SEE ONE LINE FOR WIRE AND CONDUIT SIZES.
2. OIL PUMP MOTOR FEEDER FROM COMPRESSOR STARTER. 3 #10, #12 G., 3/4" C.
3. 2 #10 FOR POWER, 2 #12 FOR CT, 7 #14 FOR CONTROL AND #10G IN 1" CONDUIT.
4. CAT 5E CABLE FOR COMMUNICATION
5. 7 #14 FOR CONTROL
6. COMPRESSOR STARTER POWER FEEDER FROM MSB. SEE ONE LINE FOR CINDUIT/WIRE SIZES.
7. ALL CONDUIT ENTRIES INTO "MICRO" SHALL BE MADE WITH LIQUID TIGHT FLEX CONDUIT AND ENTER ONLY AT LOCATIONS SHOWN. TOP ENTRY INTO MICRO IS PROHIBITED. ENTRY POINTS SHALL NOT INTERFERE WITH DEVICES WHICH REQUIRE PERIODIC MAINTENANCE.

TYPICAL REFRIGERATION COMPRESSOR WIRING REQUIRMENTS (12)



REFRIGERATION EMERGENCY DISCONNECT (13)



NOTES:

1. REFRIG CONTR TO PROVIDE AND INSTALL SELF REGULATING HEATER CABLE TYPE THERMON # RGS-1 (@ 5 – 11 WATTS PER FOOT) IN DRAIN PANS AND CONDENSATE DRAIN PIPES IN AREAS BELOW 35°F INSIDE PIPE TO 12" PAST P-TRAP ON 35°F OR GREATER SIDE OF LINE TO DRAIN. REFRIG CONTR TO RUN AT LEAST ONE HEATER CABLE TO DISCHARGE END OF PIPE WHERE DRAIN LINES ARE TIED TOGETHER. REMAINING HEATER CABLES MAY BE TERMINATED INSIDE PIPE AT INTERSECTIONS WITH (2) HEATER CABLE BOOTS TYPE THERMON # TBX. REFRIG CONTR SHALL LEAVE SUFFICIENT SLACK AT POWER POINT FOR CONNECTION BY EC AND PROVIDE ALL POWER POINT TERMINATION KITS.
2. EC SHALL INSTALL POWER POINT HEATER CABLE TERMINATION KITS AND MAKE ALL FINAL ELEC CONNECTIONS. EC SHALL PROVIDE AND INSTALL AT EACH POWER POINT A NEMA 3R OR 4X J-BOX AND POWER CIRCUIT WITH 30ma GFCI BREAKER. EC SHALL PERFORM A MEGGER TEST BETWEEN CABLE BUS WIRES AND METALLIC BRAID AFTER COMPLETETION OF HEATER CABLE INSTALLATION.
3. FOR BLAST CELL APPLICATIONS RC SHALL INSTALL (2) HEATER-CABLES PER UNIT. ONE IS A SPARE TO BE CONNECTED IF THE OTHER FAILS.

CATALOG #	OPERATING VOLTAGE	HEATER CABLE OUTPUT	MAX CIRCUIT VS BREAKER SIZE		
		COLD TO WARM	15A BKR	20A BKR	30A BKR
RGS-1	110-120 Vac	11W/FT TO 5W/FT	100FT	130FT	180FT
RGS-2	208-277 Vac	11W/FT TO 5W/FT	180FT	240FT	360FT

DRAIN LINE/PAN-HEATER CABLES (20)

FLORIDA ENGINEERING LICENSE NO. 26535
FLORIDA ARCHITECTURAL LICENSE NO. AA26001976
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

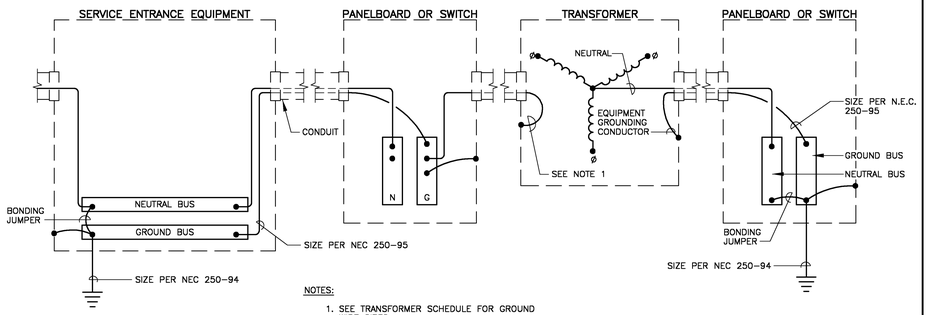
ELECTRICAL DETAILS

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REV.	DATE	BY	DESCRIPTION
0	3/23/06	KBG	CONSTRUCTION ISSUE
1	4/19/06	KBG	REVISED AS NOTED
2	5/23/06	KBG	REVISED AS NOTED

JOB NO. 03019
DRAWN: KBG
CHECKED: MTV
SCALE: NOT TO SCALE

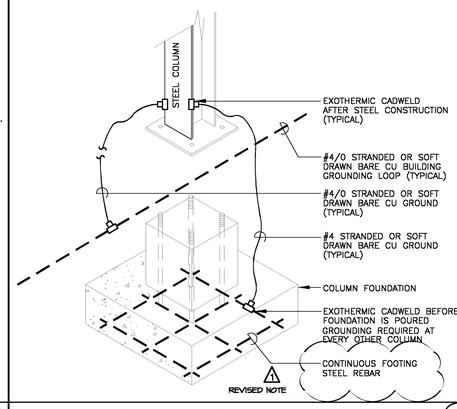
E501
DRAWING NO.



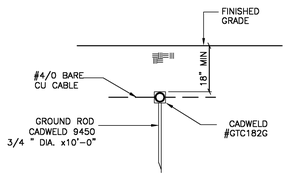
NOTES:

1. SEE TRANSFORMER SCHEDULE FOR GROUND WIRE SIZES.
2. ALL NEUTRAL BUSSES TO BE ISOLATED.
3. PROVIDE SEPARATE GROUND BUSS.

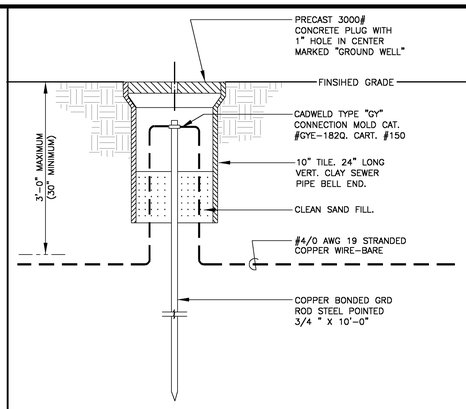
SERVICE AND DISTRIBUTION GROUNDING DETAIL (2)



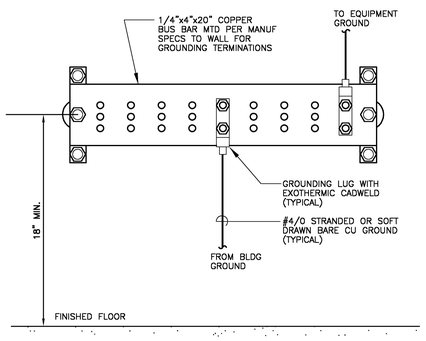
COLUMN BONDING GROUND (3)



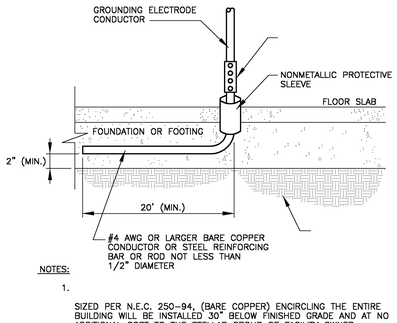
GROUND ROD DETAIL (4)



STANDARD GROUNDWELL (5)



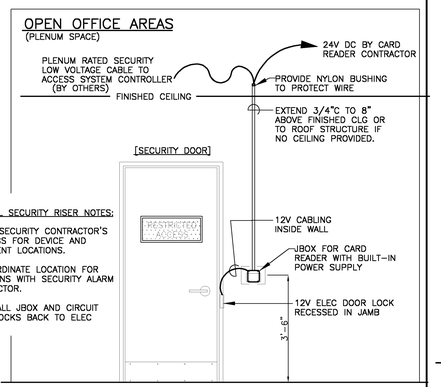
BUILDING GROUND BUS BAR STATION (6)



NOTES:

1. SIZED PER N.E.C. 250-94, (BARE COPPER) ENCIRCLING THE ENTIRE BUILDING WILL BE INSTALLED 30" BELOW FINISHED GRADE AND AT NO ADDITIONAL COST TO THE STELLAR GROUP OF FACILITY OWNER.
2. A BONDING POINT MUST BE MADE AVAILABLE FOR OTHER EQUIPMENT WHICH REQUIRES GROUNDING ACCORDING TO N.E.C. SECTION 250-70(b)

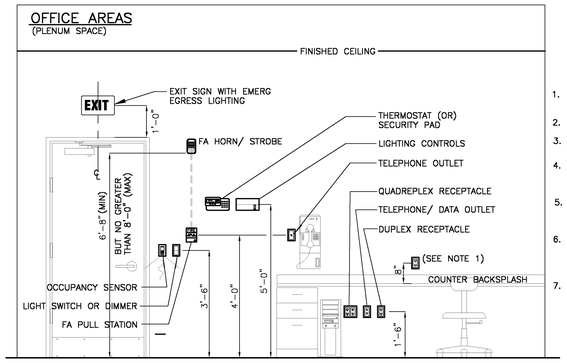
SERVICE GROUNDING DETAIL (7)



GENERAL SECURITY RISER NOTES:

1. SEE SECURITY CONTRACTOR'S DRAWINGS FOR DEVICE AND EQUIPMENT LOCATIONS.
2. COORDINATE LOCATION FOR JUNCTIONS WITH SECURITY ALARM CONTRACTOR.
3. INSTALL JBOX AND CIRCUIT DOOR LOCKS BACK TO ELEC PANEL.

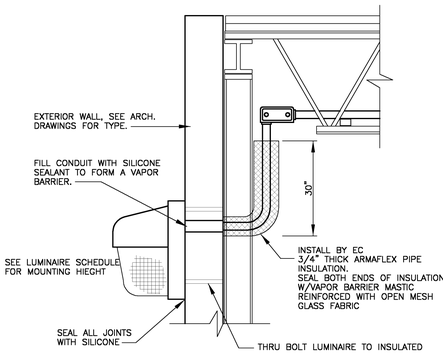
SECURITY DIAGRAM (8)



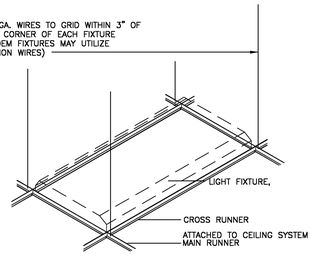
GENERAL DEVICE MOUNTING NOTES:

1. ELECTRICAL CONTRACTOR TO COORDINATE WITH OTHER DISCIPLINES FOR ANY CONFLICTS WITH LOCATION.
2. WAREHOUSE AREAS REQUIRE METAL COVER PLATES FOR POWER OUTLETS
3. EC SHALL PROVIDE AND INSTALL (2) 4" CONDUITS FROM TOP OF EACH IDF CABINET TO THE CEILING BAR JOIST ABOVE.
4. EC SHALL PROVIDE AND INSTALL A SINGLE GANG OUTLET RING WITH PULL STRING ATTACHED ABOVE THE ACCESSIBLE CEILING FOR EACH TELE/DATA OUTLET IN THE OFFICES.
5. EC SHALL PROVIDE AND INSTALL A 4"x4" BACK BOX WITH SINGLE GANG REDUCING RING WITH CONDUIT TO ABOVE ACCESSIBLE CEILING FOR EACH TELE/DATA OUTLET ON BLOCK WALL OR SURFACE MTD.
6. EC SHALL PROVIDE AND INSTALL A 4"x4" BACK BOX WITH SINGLE GANG REDUCING RING WITH CONDUIT TO CABLING PATHWAY FOR EACH TELE/DATA WALL TELE AND STD OUTLET LOCATION IN ALL AREAS WITHOUT A CONCEALED WALL.
7. EC SHALL PROVIDE AND INSTALL A 4"x4" BACK BOX WITH SINGLE GANG REDUCING RING WITH CONDUIT TO CABLE TRAY FOR EACH TELE/DATA OUTLET INSTALLED IN THE DPS RACKING AREA.

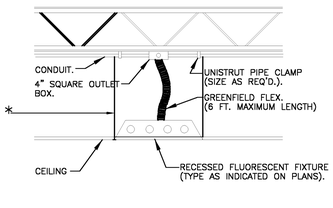
DEVICE MOUNTING DIAGRAM (10)



EXTERIOR WALL PACK MTG DETAIL (11)



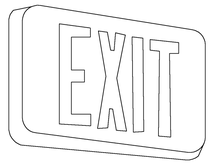
LIGHT FIXTURE SUPPORT (12)



NOTES:

1. FIXTURE SHALL BE SCREWED TO T-BAR GRID AT OPPOSITE CORNERS, TOTAL OF TWO MINIMUM SCREWS BY FIXTURES.
2. FIXTURE SUPPORTING WIRES MUST HAVE THREE TURNS MINIMUM.

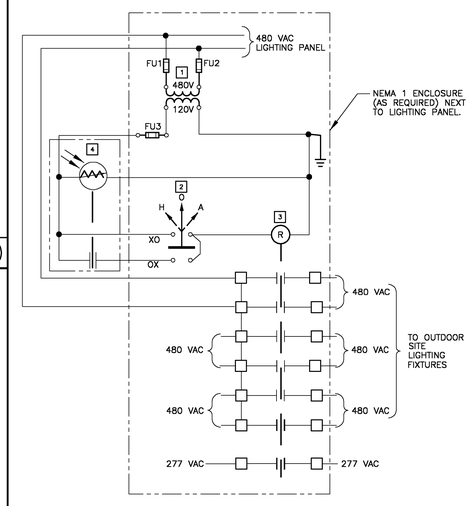
RECESSED FLUORESCENT FIXTURE MTG DETAIL (13)



NOTES:

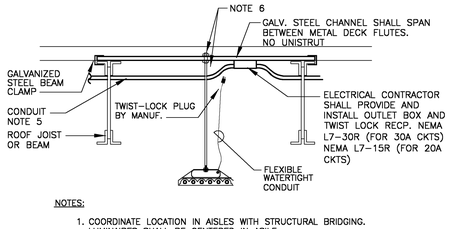
1. ENGINEERING GRADE THERMOPLASTIC HOUSING IS IMPACT AND SCRATCH RESISTANT, AND CORROSION PROOF. UV STABLE RESIN RESISTANT DISCOLORATION FROM NATURAL AND MAN MADE LIGHT SOURCES.
2. UNIVERAL DIRECTIONAL CHEVRON INSERTS ARE EASILY REMOVED AND REINSERTED. UNIFORM GRAPHICS ILLUMINATION WITHOUT SHADOWS OR HOT SPOTS. REINFORCED IMPACT RESISTANT COLOR PANELS.
3. LEDS MOUNTED ON PRINTED CIRCUIT BOARDS. EPECTED LED LIFE OVER 25 YEARS. LOW ENERGY CONSUMPTION-LESS THAN ONE WATT. LED LAMP OPERATES IN NORMAL (AC INPUT) AND EMEGRENCY (DC INPUT) MODES.
4. SEALED MAINTENANCE FREE NICKEL CADMIUM DELIVERS 90 MINUTE CAPACITY TO EMERGENCY LAMPS. AUTOMATIC RECHARGE AFTER BATTERY DISCHARGE.
5. CONSTANT CURRENT SERIES CHARGER MINIMIZES ENERGY CONSUMPTION AND PROVIDES LOW OPERATING COSTS.
6. UL LISTED AND LABELED, NEC AND OSHA ILLUMINATION STANDARDS.

LIGHT MOUNTING (14)



ITEM	DESCRIPTION
1	CONTROL POWER TRANSFORMER
2	HAND-OFF-AUTO SWITCH WITH HAND OFF AUTO LEGEND
3	LIGHTING CONTACTOR - 30 AMPS, 8 POLES, 120 VAC COIL - ELECTRICALLY HELD
4	120 VAC PHOTO CELL MOUNTED A ROOF OF BLDG. (POINTING NORTH)

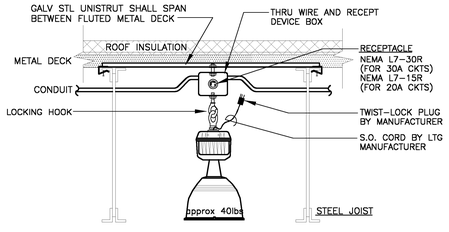
SCHEMATIC DIAG EXTERIOR & SITE LTG CONTROL (20)



NOTES:

1. COORDINATE LOCATION IN AISLES WITH STRUCTURAL BRIDGING. LUMINAIRES SHALL BE CENTERED IN ASILE.
2. ALL LUMINAIRES SHALL BE MOUNTED AT THE HIGHEST POSSIBLE ELEVATION.
3. REPORT ANY CONFLICTS WITH OTHER TRADES PRIOR TO INSTALLATION OF LUMINAIRES.
4. LUMINAIRES MOUNTED IN ANY AIRSTREAM SHALL BE BRACED TO PREVENT SWAYING.
5. CONDUIT MAY BE RUN IN ROOF DECK FLUTES WHEN STRUCTURE IS WIDE FLANGE BEAMS.
6. GALVANIZED STEEL BOLTS, NUTS, AND WASHERS FOR IMP CEILING. ANCHOR BOLTS AND SCREWS FOR CONCRETE CEILING.

LUMINIARE MOUNTING DETAIL (16)



NOTES:

1. COORDINATE LOCATION WITH STRUCTURAL BRIDGING. NO PART OF THE FIXTURE SHALL BE BELOW THE BOTTOM OF THE ROOF JOIST WHERE EXPOSED TO TRUCK TRAFFIC. REPORT ANY CONFLICTS WITH OTHER TRADES PRIOR TO INSTALLATION OF LUMINARES.
2. CONDUIT BOX & ALL SUPPORTS SHALL BE SIZED TO ACCOMMODATE 2x THE WEIGHT LOADS THEY ARE SUPPORTING.
3. THERE WILL BE NO CONNECTIONS MADE TO ROOF DECK WITH SCREWS OR BOLTS.

OPEN AREA HIGHBAY MOUNTING (17)

(18)

(19)

FLORIDA ENGINEERING LICENSE # 26320
FLORIDA ARCHITECTURAL LICENSE # AR 95176
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 292-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

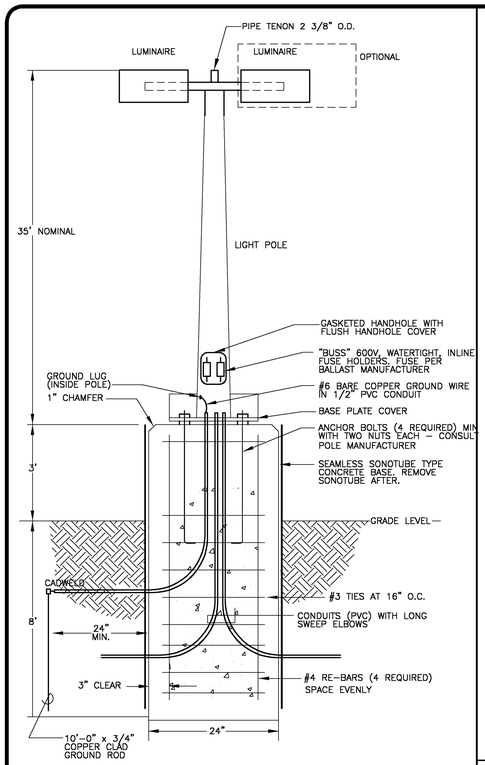
ELECTRICAL DETAILS

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REV.	DATE	BY	DESCRIPTION
1	8/29/07	KBG	REVISED AS NOTED
0	7/20/07	KBG	CONSTRUCTION ISSUE

JOB NO. 03019
DRAWN: KBG
CHECKED: MTV
SCALE: NOT TO SCALE

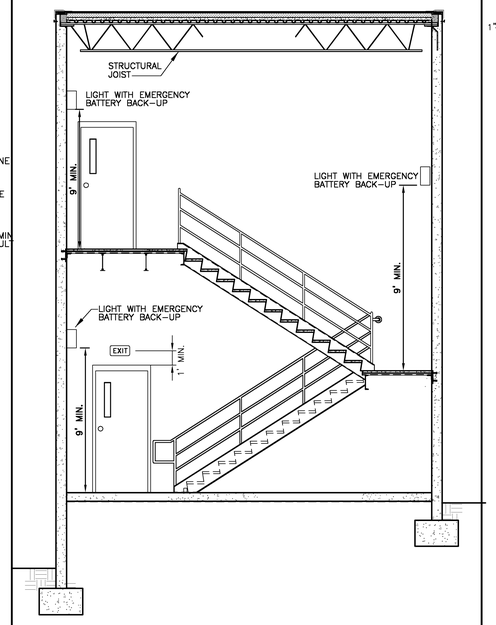
E502
DRAWING NO.



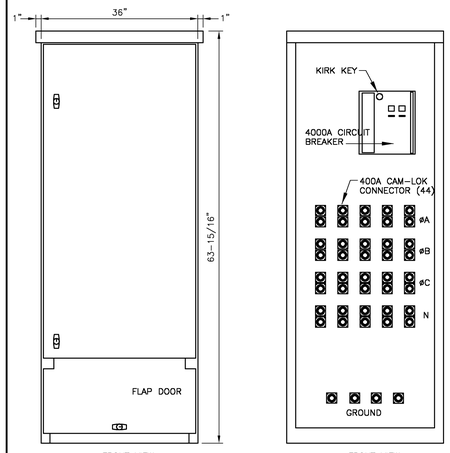
NOTES:

1. ANCHOR BOLTS & TEMPLATES FURNISHED BY ELECTRICAL CONTRACTOR. CONCRETE BASE AND ANCHOR BOLTS INSTALLED BY GENERAL CONTRACTOR.
2. BASE SHALL BE 3000 PSI CONC. STONED & SACKED EXPOSED PORTION.
3. STANDARDS TO WITHSTAND WIND LOADS OF 100 MPH MINIMUM.

SITE LUMINAIRE ASSEMBLY (6)



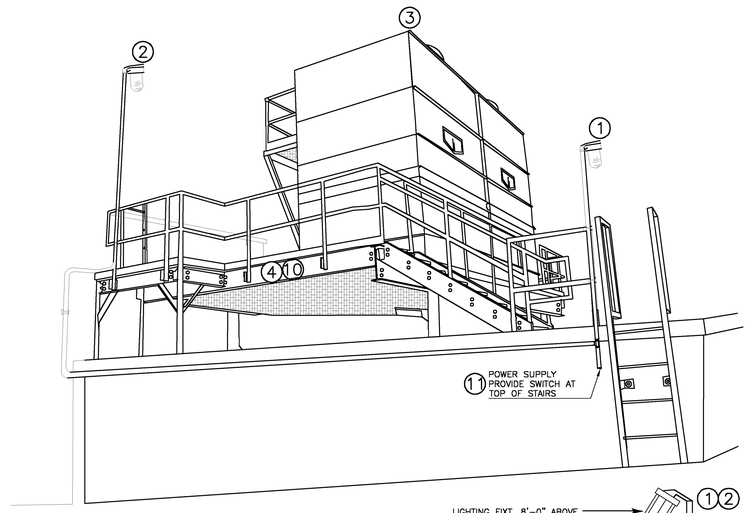
EMERGENCY EGRESS LIGHTING (7)

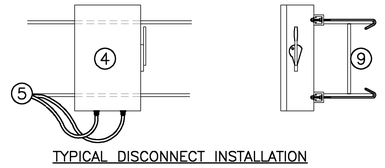


GENERATOR QUICK CONNECT SWITCHBOARD (8)

(12)

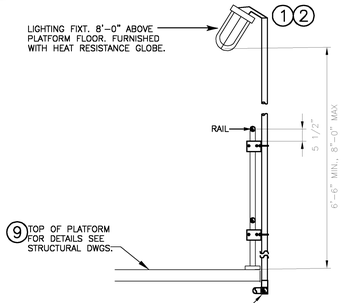
(13)



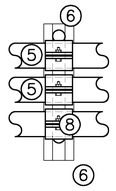


TYPICAL DISCONNECT INSTALLATION

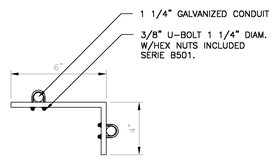


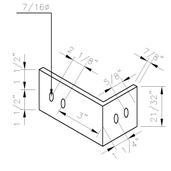


ELECTRICAL CONTRACTOR USED B-LINE SYSTEMS COMPANY FOR CONDUIT ATTACHMENT AND SUPPORT.



1. TOP OF PLATFORM LIGHTING RIG-A-LITE STANCHION MOUNT
2. SAF17H04GGS, 120VOLTS. PROVIDE 8 FIXTURES, 4 WITH RECEPTACLES
3. CONDENSER UNIT
4. TYPICAL ISTALLATION FOR DISCONNECTS.
5. TYPICAL CONDUIT CONNECTION
6. STAINLESS STEEL CHANNEL
7. B-701 SERIES J HOOK W/ CLIP AND NUT.
8. CONDUIT CLAMPS FOR CHANNEL SERIES B2000. SUPPORT CONDUIT IN COLUMNS SERIES B670.
9. COLUMN STRUCTURAL. SEE B-LINE MAY USED OPTIONAL PARTS.
10. SERVICES RECEPTACLE (RP1-19 WP) TYPICAL DETAIL 4/E505
11. ALL RECEPTACLES SHALL BE G.F.C.I. AND HAVE A W.P. COVER. SUBMIT FOR APPROVAL PER SPECIFICATIONS. PROVIDE RECEPTACLE AT LOCATIONS SHOWN ON PLANS.
12. CIRCUIT LIGHTING FIXTURES TO CIRCUITS RP1-43, 45 & 47.
13. RECEPTACLES SHALL BE UNSWITCHED.





TYPICAL PLATFORM WALKWAY LIGHTING AND CONDUIT ATTACHMENTS (15)

(17)

(18)

(19)

(20)

FLORIDA ENGINEERING LICENSED 9430
FLORIDA ARCHITECTURAL LICENSED AA 26001171
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

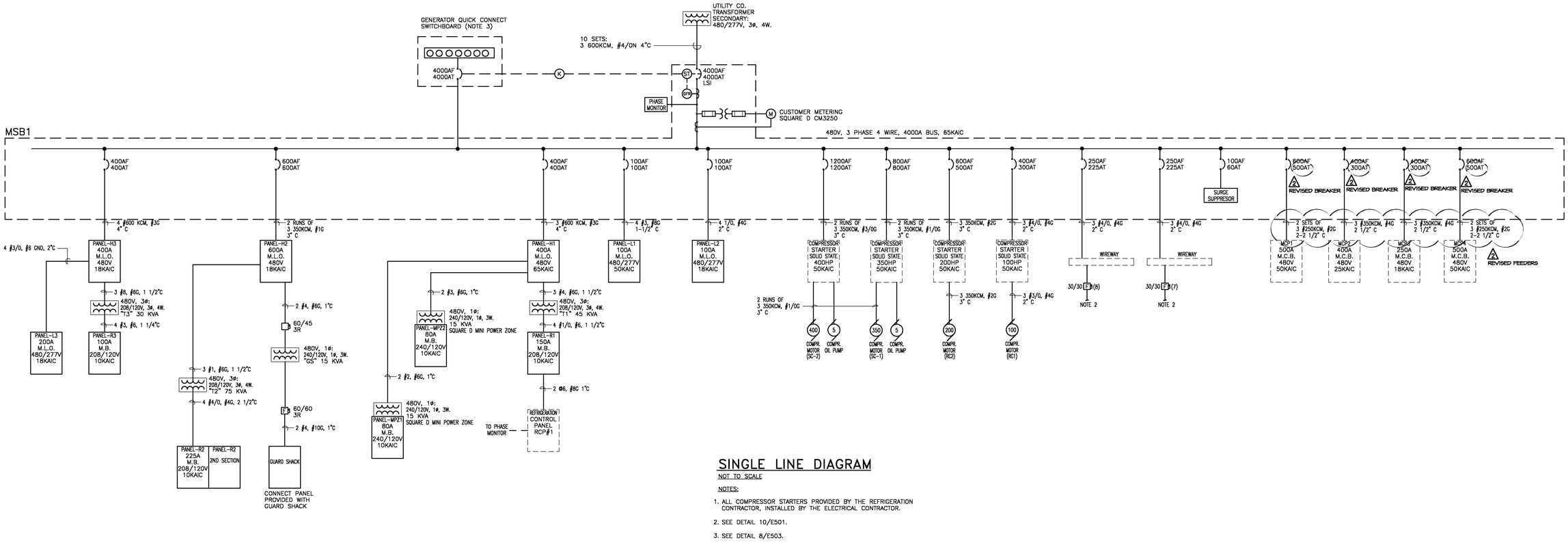
ELECTRICAL DETAILS

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REV.	DATE	BY	DESCRIPTION
0	12/19/07	KBG	CONSTRUCTION ISSUE

JOB NO. 03019
DRAWN: KBG
CHECKED: MTV
SCALE: NOT TO SCALE

E503
DRAWING NO.



SINGLE LINE DIAGRAM

NOT TO SCALE

NOTES:

1. ALL COMPRESSOR STARTERS PROVIDED BY THE REFRIGERATION CONTRACTOR, INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. SEE DETAIL 10/E501.
3. SEE DETAIL 8/E503.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E601.dwg DATE: 07/11/07 TIME: 4:27 pm BY: KIMBERLY GARST

FLORIDA ENGINEERING LICENSE #26530
FLORIDA ARCHITECTURAL LICENSE #AR0015175
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

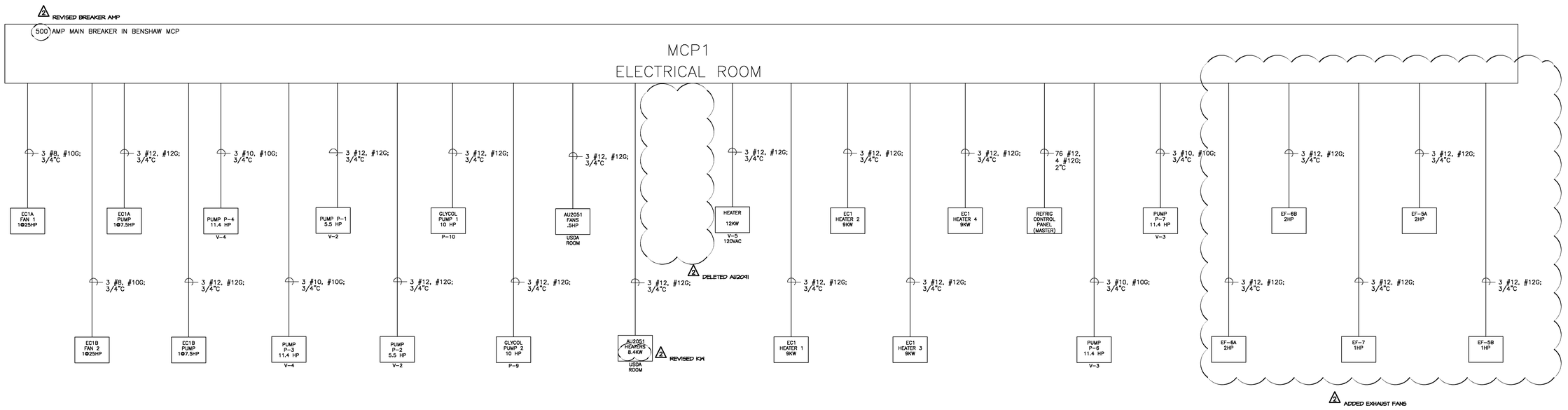
ELECTRICAL SINGLE LINE DIAGRAM

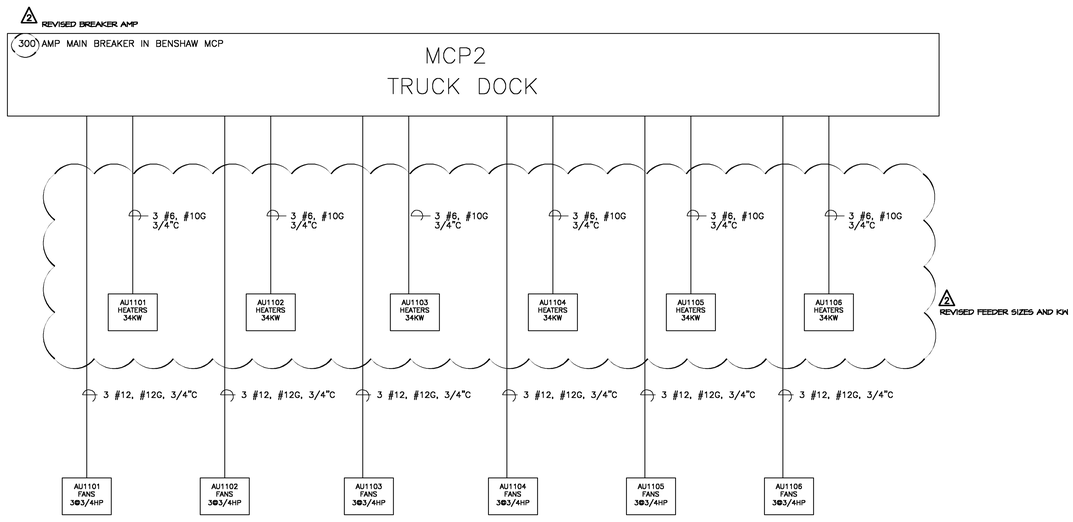
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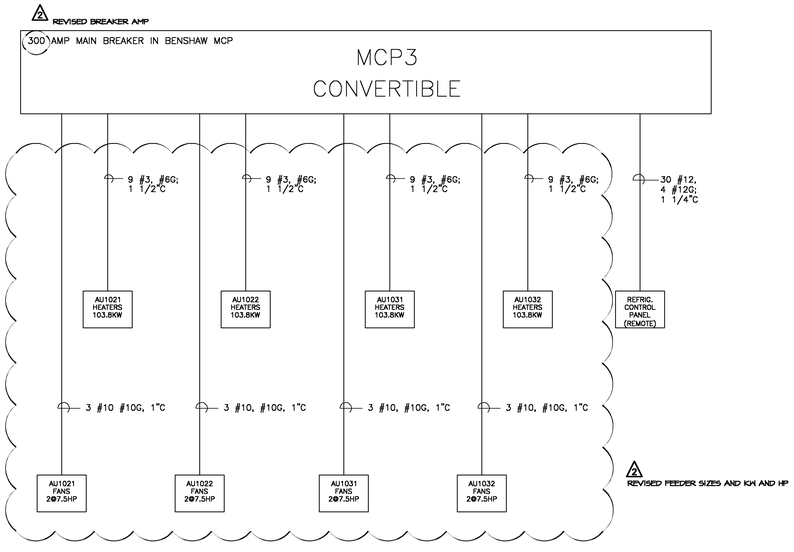
REV.	DATE	BY	DESCRIPTION
2	7/11/07	KBG	REVISED AS NOTED
1	6/27/07	KBG	REVISED AS NOTED
0	5/29/07	KBG	CONSTRUCTION ISSUE

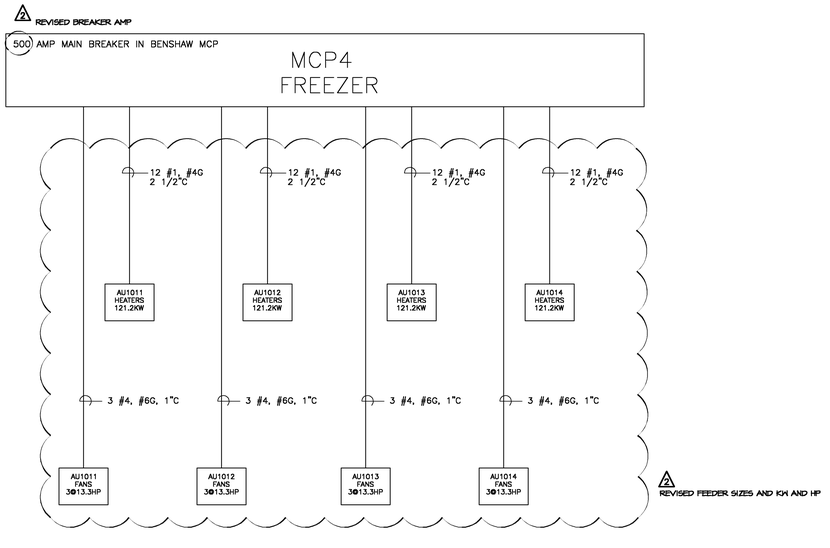
JOB NO.	03019
DRAWN:	KBG
CHECKED:	MTV
SCALE:	NO SCALE

E601
DRAWING NO.









FLORIDA ENGINEERING LICENSE NO. 9630
FLORIDA ARCHITECTURAL LICENSE NO. AA26001171
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

REFRIGERATION MCP DIAGRAM

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REV.	DATE	BY	DESCRIPTION
2	07/11/07	KBG	REVISED AS NOTED
1	04/13/07	KBG	REVISED AS NOTED
0	03/30/07	KBG	CONSTRUCTION ISSUE

JOB NO. 03019
DRAWN: KBG
CHECKED: MTV
SCALE: NO SCALE

E602
DRAWING NO.

FILE: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Elec\03019E602.dwg DATE: 07/11/07 TIME: 4:27 pm BY: KIMBERLY GARST

MSB1

480/277 VOLTS, 3ø 4 WIRE — 65,000 AIC @ 480 VOLTS
4000 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ GND. FAULT ■ SHUNT-TRIP ■ TOP FED ☐ BOTTOM FED

LOCATION: ELECTRICAL ROOM 209
FED FROM: UTILITY TRANSFORMER

CKT NO.	DESCRIPTION OF LOAD	DEVICE (AMPS) NO. POLES	FRAME	TRIP	FEEDER SIZE NO. SETS	WIRE AND CONDUIT	KVA
1	PANEL L1	3	400	400	1	SEE SINGLE LINE DIAGRAM	20.3
2	PANEL L2	3	400	400	1		54.6
3	PANEL H1	3	600	600	1		150.7
4	PANEL H2	3	100	100	1		442.6
5	PANEL H3	3	250	200	1		217.3
6	COMPRESSOR RC1 (100HP)	3	400	300	1		103.0
7	COMPRESSOR RC2 (200HP)	3	600	500	1		199.2
8	COMPRESSOR SC1 (350HP)	3	800	800	1		343.6
9	COMPRESSOR SC2 (400HP)	3	1200	1200	1		396.0
10	WIREWAY (BATTERY CHARGING)	3	250	225	1		150.0
11	WIREWAY (BATTERY CHARGING)	3	250	225	1		150.0
12	MCP1	3	600	500	1		257.0
13	MCP2	3	400	300	1		200.2
14	MCP3	3	400	300	1		228.0
15	MCP4	3	600	500	1		319.4
16	SPARE	3	–	–	1	–	–
17	SURGE SUPPRESSOR	3	100	60	1	–	–
18	SPARE	3	–	–	1	–	–
19	SPARE	3	–	–	1	–	–
20	SPARE	3	–	–	1	–	–

TOTAL CONNECTED KVA: 3231.9 (3)

H1

480/277 VOLTS, 3ø 3 WIRE — 65,000 AIC @ 480 VOLTS
400 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ GND. FAULT ☐ SHUNT-TRIP ■ TOP FED ☐ BOTTOM FED

LOCATION: ELECTRICAL ROOM 209
FED FROM: UTILITY TRANSFORMER

CKT NO.	DESCRIPTION OF LOAD	DEVICE (AMPS) NO. POLES	FRAME	TRIP	FEEDER SIZE NO. SETS	WIRE AND CONDUIT	KVA
1	EF-9 (1-1/2 HP)	3	20	15	1	3 #12, #12 GND, 3/4"C	2.2
2	ELECTRICAL ROOM AHU	3	20	15	1	3 #12, #12 GND, 3/4"C	7.3
3	SPARE	3	20	–	1	– (3)	–
4	WATER HEATER (6KW)	3	20	15	1	3 #12, #12 GND, 3/4"C	6.0
5	WATER BOOSTER PUMP #1 (10 HP)	3	40	40	1	3 #12, #12 GND, 3/4"C	11.6
6	WATER BOOSTER PUMP #2 (10 HP)	3	40	40	1	3 #12, #12 GND, 3/4"C	11.6
7	JOCKEY PUMP (15 HP)	3	40	40	1	3 #10, #10 GND, 3/4"C	17.4
8	FP AIR COMPRESSOR (5 HP)	3	20	20	1	3 #12, #12 GND, 3/4"C	6.3
9	ELEC. OPERATED DOORS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	3.5
10	ELEC. OPERATED DOOR	3	20	20	1	3 #12, #12 GND, 3/4"C	1.7
11	SF-1 (1 HP)	3	20	15	1	3 #12, #12 GND, 3/4"C	1.7
12	PANEL R1 (VIA TRANSFORMER T1)	3	100	70	1	SEE SINGLE LINE DIAGRAM	45.0
13	PANEL MPZ1	3	100	100	1		10.7
14	PANEL MPZ2	3	100	100	1		7.8
15	TRASH COMPACTOR (10HP)	3	40	40	1	3 #12, #12 GND, 3/4"C	11.6
16	SF-3 (3/4HP)	3	20	15	1	3 #12, #12 GND, 3/4"C	1.3
17	SPARE	3	20	–	1	–	–
18	SPARE	3	20	–	1	– (3)	–
19	SPARE	3	20	–	1	–	–
20	EHU-5	3	20	15	1	3 #12, #12 GND, 3/4"C	5.0

TOTAL CONNECTED KVA: 150.7 (3)

H2

480/277 VOLTS, 3ø 3 WIRE — 18,000 AIC @ 480 VOLTS
600 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ GND. FAULT ☐ SHUNT-TRIP ■ TOP FED ☐ BOTTOM FED

LOCATION: ELECTRICAL ROOM
FED FROM: UTILITY TRANSFORMER

CKT NO.	DESCRIPTION OF LOAD	DEVICE (AMPS) NO. POLES	FRAME	TRIP	FEEDER SIZE NO. SETS	WIRE AND CONDUIT	KVA
1	WATER HEATER (4.5 KW)	3	20	15	1	3 #12, #12 GND, 3/4"C	4.5
2	RTU-1	3	100	70	1	3 #3, #8 GND, 1"C	54.8
3	RTU-2	3	100	70	1	3 #4, #8 GND, 1"C	49.8
4	FUTURE RTU-3	3	100	80	1	FUTURE	46.5
5	VAV-1 & VAV-4	3	20	20	1	3 #12, #12 GND, 3/4"C	8.0
6	VAV-2	3	20	20	1	3 #12, #12 GND, 3/4"C	6.0
7	VAV-5	3	30	30	1	3 #12, #12 GND, 3/4"C	14.0
8	VAV-6	3	20	20	1	3 #12, #12 GND, 3/4"C	10.0
9	VAV-7 & VAV-9	3	20	20	1	3 #12, #12 GND, 3/4"C	9.0
10	VAV-8	3	20	20	1	3 #12, #12 GND, 3/4"C	9.0
11	ELEVATOR	3	100	80	1	3 #4, #8 GND, 1"C	37.4
12	EUH-1 (25KW)	3	60	40	1	3 #6, #10 GND, 3/4"C	25.0
13	PANEL R2 (VIA TRANSFORMER T2)	3	225	125	1	SEE SINGLE LINE DIAGRAM	75.0
14	GUARD SHACK (VIA TRANSFORMER GS)	2	60	50	1	SEE SINGLE LINE DIAGRAM	39.8
15	VAV-3 & VAV-10	3	20	20	1	3 #12, #12 GND, 3/4"C	5.0
16	EUH-2 (40KW)	3	100	70	1	3 #4, #8 GND, 1"C	40.0
17	LIFT STATION (2 @ 1.5HP)	3	20	15	1	3 #12, #12 GND, 1"C	4.3
18	WATER HEATER (4.5 KW)	3	20	15	1	3 #12, #12 GND, 3/4"C	4.5
19	SPARE	3	20	–	1	–	–
20	SPARE	3	20	–	1	–	–

TOTAL CONNECTED KVA: 442.6 (3)

H3

480/277 VOLTS, 3ø 4 WIRE — 18,000 AIC @ 480 VOLTS
400 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ GND. FAULT ☐ SHUNT-TRIP ■ TOP FED ☐ BOTTOM FED

LOCATION: DOCK 101
FED FROM: MSB1

CKT NO.	DESCRIPTION OF LOAD	DEVICE (AMPS) NO. POLES	FRAME	TRIP	FEEDER SIZE NO. SETS	WIRE AND CONDUIT	KVA
1	FREEZER DOORS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	5.6
2	FREEZER DOORS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	5.6
3	FREEZER DOORS (3)	3	20	20	1	3 #12, #12 GND, 3/4"C	8.4
4	TILT TABLE (5 HP)	3	20	20	1	3 #12, #12 GND, 3/4"C	6.3
5	DOK COMMANDERS (2)	3	20	20	1	3 #10, #10 GND, 3/4"C	7.0
6	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
7	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
8	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
9	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
10	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
11	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
12	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
13	DOK COMMANDERS (2)	3	20	20	1	3 #12, #12 GND, 3/4"C	7.0
14	FREEZER DOORS (2)	3	20	20	1	3 #10, #10 GND, 3/4"C	5.6
15	FP AIR COMPRESSOR (5 HP)	3	20	20	1	3 #12, #12 GND, 3/4"C	6.3
16	FP AIR COMPRESSOR (5 HP)	3	20	20	1	3 #12, #12 GND, 3/4"C	6.3
17	PANEL L3	3	225	200	1	SEE SINGLE LINE DIAGRAM	95.3
18	PANEL R3 (VIA TRANSFORMER T3)	3	100	60	1	SEE SINGEL LINE DIAGRAM	30.0
19	EUH-4	3	20	15	1	3 #12, #12 GND, 3/4"C	3.3
20	EUH-3	3	20	15	1	3 #12, #12 GND, 3/4"C	3.3
21	SPARE	3	20	20	1	–	–
22	SPARE	3	20	20	1	–	–
23	SPACE	3	–	–	1	–	–
24	SPACE	3	–	–	1	–	–

TOTAL CONNECTED KVA: 213.1

L1

480/277 VOLTS, 3ø 4 WIRE — 50,000 AIC @ 480 VOLTS
100 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ FLUSH ■ SURFACE MOUNTED ☐ TOP FED ■ BOTTOM FED

LOCATION: ELECTRIC ROOM 209
FED FROM: MSB1

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B C	CKT	TRIP	DESCRIPTION OF LOAD	KVA
2.1	LIGHTING – 201	20	1		2	20	EXTERIOR BUILDING LIGHTING (7)	3.4
2.8	LIGHTING – 202,203,209,210,204	20	3		4			–
2.1	LIGHTING – 205,206	20	5		6	20	EXTERIOR BUILDING LIGHTING (7)(17)	3.1
3.6	LIGHTING – 208 (21)	20	7		8			–
3.0	LIGHTING – NIGHT LIGHTS (21)	20	9		10	–	SPACE	–
0.2	EMERGENCY EGRESS LIGHTING	20	11		12	–	SPACE	–
–	SPARE	20	13		14	–	SPACE	–
–	SPARE	20	15		16	–	SPACE	–
–	SPARE	20	17		18	–	SPACE	–
–	SPARE	20	19		20	–	SPACE	–
–	SPARE	20	21		22	–	SPACE	–
–	SPARE	20	23		24	–	SPACE	–
–	SPARE	20	25		26	–	SPACE	–
–	SPARE	20	27		28	–	SPACE	–
–	SPARE	20	29		30	–	SPACE	–
–	SPACE	–	31		32	–	SPACE	–
–	SPACE	–	33		34	–	SPACE	–
–	SPACE	–	35		36	–	SPACE	–
–	SPACE	–	37		38	–	SPACE	–
–	SPACE	–	39		40	–	SPACE	–
–	SPACE	–	41		42	–	SPACE	–

TOTAL LOAD KVA: 20.3

L2

480/277 VOLTS, 3ø 4 WIRE — 18,000 AIC @ 480 VOLTS
100 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ FLUSH ■ SURFACE MOUNTED ■ TOP FED ☐ BOTTOM FED

LOCATION: ELEC. ROOM 603
FED FROM: MSB1

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B C	CKT	TRIP	DESCRIPTION OF LOAD	KVA
0.6	BH-1 402	20	1		2	20	SITE LIGHTING (8)(19)	3.6
–	SPARE (3)	20	3		4			–
2.9	LIGHTING – 308,307,306,303,302	20	5		6	20	FLAG POLE LIGHTING (8)	1.8
3.5	LIGHTING – 401,402,403,402,512,513,511	20	7		8			–
4.3	LIGHTING – 501,502,505–510, 2ND FLOOR	20	9		10	20	EXTERIOR BUILDING LIGHTING (7)	4.4
3.2	LIGHTING – 503	20	11		12			–
3.3	LIGHTING – NIGHT LIGHTS	20	13		14	20	EXTERIOR BUILDING LIGHTING (7)(17)	2.5
0.3	EMERGENCY EGRESS LIGHTING	20	15		16			–
2.1	LIGHTING – 101 FREEZER (19)	20	17		18	20	LIGHTING 2ND FL. OVER LOBBY	1.1
2.3	LIGHTING – 101 FREEZER (17)	20	19		20	20	LIGHTING – 504	0.2
2.3	LIGHTING – 101 FREEZER (19)	20	21		22	20	FUTIUTRE SITE LIGHTING (8)(19)	3.6
2.6	LIGHTING – 101 FREEZER (19)	20	23		24			–
2.3	LIGHTING – 101 FREEZER (19)	20	25		26	–	SPACE	–
2.6	LIGHTING – 101 FREEZER (19)	20	27		28	–	SPACE	–
4.4	LIGHTING – 101 NITE LIGHTS (18)	20	29		30	–	SPACE	–
0.5	EMERGENCY EGRESS LIGHTING	20	31		32	–	SPACE	–
–	SPARE	20	33		34	–	SPACE	–
–	SPARE	20	35		36	–	SPACE	–
–	SPARE	20	37		38	–	SPACE	–
–	SPARE	20	39		40	–	SPACE	–
–	SPARE	20	41		42	–	SPACE	–

TOTAL LOAD KVA: 54.6 (3)

L3

480/277 VOLTS, 3ø 4 WIRE — 18,000 AIC @ 480 VOLTS
200 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ FLUSH ■ SURFACE MOUNTED ☐ TOP FED ■ BOTTOM FED

LOCATION: DOCK 101
FED FROM: PANEL H3

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B C	CKT	TRIP	DESCRIPTION OF LOAD	KVA
4.0	LIGHTING – DOCK 101 (19)	20	1		2	20	EXTERIOR BUILDING LIGHTING (DOCK)	3.2
4.2	LIGHTING – DOCK 101 (19)	20	3		4			–
3.7	LIGHTING – DOCK 101 (19)	20	5		6	20	LIGHTING – 101 FREEZER (19)	2.1
2.6	LIGHTING – DOCK 101 (19)	20	7		8	20	LIGHTING – 103 CONVERTIBLE (19)	2.6
3.1	LIGHTING – NITE LIGHTS (19)	20	9		10	20	LIGHTING – 102 CONVERTIBLE (19)	2.6
–	SPARE	20	11		12	20	LIGHTING – 103 CONVERTIBLE (19)	2.6
3.8	LIGHTING – CANOPY (19)	20	13		14	20	LIGHTING – 102 CONVERTIBLE (19)	2.6
0.2	EMERGENCY EGRESS LIGHTING DOCK 101	20	15		16	20	LIGHTING – 103 CONVERTIBLE (18)	2.6
2.3	LIGHTING – 101 FREEZER (19)	20	17		18	20	LIGHTING – 102 CONVERTIBLE (19)	2.6
2.6	LIGHTING – 101 FREEZER (19)	20	19		20	20	LIGHTING – 103 CONVERTIBLE (18)	2.1
2.3	LIGHTING – 101 FREEZER (19)	20	21		22	20	LIGHTING – 102 CONVERTIBLE (19)	2.1
2.6	LIGHTING – 101 FREEZER (19)	20	23		24	20	LIGHTING – 101 NITE LIGHT (19)	3.1
2.3	LIGHTING – 101 FREEZER (19)	20	25		26	20	LIGHTING – 101 NITE LIGHT (19)	3.1
2.6	LIGHTING – 101 FREEZER (19)	20	27		28	20	LIGHTING – 101 NITE LIGHT (19)	3.1
2.3	LIGHTING – 101 FREEZER (19)	20	29		30	20	LIGHTING – 101, 103, 102 NITE LIGHT (18)	3.1
2.6	LIGHTING – 101 FREEZER (19)	20	31		32	20	LIGHTING – 103, 102 NITE LIGHT (18)	3.1
2.3	LIGHTING – 101 FREEZER (19)	20	33		34	20	LIGHTING – 103, 102 NITE LIGHT (17)	1.6
2.6	LIGHTING – 101 FREEZER (19)	20	35		36	20	SPARE	–
2.3	LIGHTING – 101 FREEZER (19)	20	37		38	20	SPARE	–
2.6	LIGHTING – 101 FREEZER (19)	20	39		40	20	SPARE	–
2.1	LIGHTING – 101 FREEZER (19)	20	41		42	20	SPARE	–

TOTAL LOAD KVA: 95.3

R1

208/120 VOLTS, 3ø 4 WIRE — 10,000 AIC @ 240 VOLTS
150 AMPS ■ MAIN BREAKER ☐ M.L.O.
☐ FLUSH ■ SURFACE MOUNTED ☐ TOP FED ■ BOTTOM FED

LOCATION: ELEC. ROOM 209
FED FROM: PANEL H1 VIA TRANS.

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B C	CKT	TRIP	DESCRIPTION OF LOAD	KVA
1.1	EF-2 (1/4 HP) & SF-1	15	1		2	20	RECEPTS. – 206 & EF-10	1.0
1.2	EF-1 (1/2 HP) & SF-1	20	3		4	15	PTAC-1	0.5
1.2	SPARE	20	5		6			/
1.2	EF-8 (1/2 HP)	20	7		8	15	PTAC-2	0.5
0.5	RECEPTS. RMS. 203 & 210, & L-3	20	9		10			/
1.2	EF-3 (1/2 HP)	20	11		12	20	DOOR HEAT DOCK (10)	0.8
1.4	PURGER	20	13		14	20	RECEPTS. – DOCK	1.0
0.5	OIL POT WARMER – VESSEL V1	20	15		16	20	STRETCH WRAPPER – DOCK	1.2
0.5	OIL POT WARMER – VESSEL V3	20	17		18	20	DOCK DOOR LIGHTS	0.8
0.8	DOCK DOOR LIGHTS	20	19		20	20	RECEPTS. – 208 (21)	1.0
1.0	CONDENSER LIGHTS AND RECEPTS.	20	21		22	20	RECEPTS. – 205 & 208 (21)	0.6
0.6	RECEPTS. – 210 & M-101	20	23		24	20	RECEPTS. – 205	1.0
1.0	RECEPTS. – 204	20	25		26	20	RECEPTS. – 202	0.6
6.0	RCP-1	60	27		28	20	RECEPTS. – 203 & 201	0.8
0.5	RECEPTS. – 202	20	29		30	20	SPARE	–
1.2	HAND DRYER – 207	20	31		32	20	AUTO FLUSH SENSOR – 207	0.4
0.9	SF-2 (1/3 HP)	15	33		34	20	L-2 & L-3	1.0
0.2	SF-4	20	35		36	20	SPARE	–
1.5	QUICK CONNECT HEATER	20	37		38	20	SPARE	–
–	SPARE	20	39		40	20	SPARE	–
–	SPARE	20	41		42	20	SPARE	–

TOTAL LOAD KVA: 33.7

R2

208/120 VOLTS, 3ø 4 WIRE — 10,000 AIC @ 240 VOLTS
225 AMPS ■ MAIN BREAKER ☐ M.L.O.
☐ FLUSH ■ SURFACE MOUNTED ■ TOP FED ☐ BOTTOM FED

LOCATION: ELEC. RM. 603
FED FROM: PANEL H2 (VIA TRANSFORMER)

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B C	CKT	TRIP	DESCRIPTION OF LOAD	KVA
0.7	EF-11 & RECEPTS.	20	1		2	20	HAND DRYER – 406	1.2
0.2	RECEPTS. – ROOF	20	3		4	20	HAND DRYER – 405	1.2
1.2	HAND DRYER – 512	20	5		6	20	HAND DRYER – 513	1.2
1.2	GLOVE DRYER – 302	20	7		8	20	HAND DRYER – 307	1.2
1.2	GLOVE DRYER – 302	20	9		10	20	HAND DRYER – 306	1.2
0.2	AHU-1 – ELEV. MACHINE ROOM 504	15	11		12	15	CU-1 ROOF	1.3
0.8	AUTO FLUSH SENSORS – 307	20	13		14	20	RECEPT. – 401,403 WORK STATIONS	0.8
1.0	AUTO FLUSH SENSORS – 306, 307	20	15		16	20	RECEPT. – 403 WORK STATIONS	0.6
0.6	AUTO FLUSH SENSORS – 512	20	17		18	20	RECEPT. – 503,501,401	1.0
0.6	AUTO FLUSH SENSORS – 513	20	19		20	20	RECEPT. – 503 WORK STATIONS	0.6
1.0	RECEPT. – 303, MICROWAVE	20	21		22	20	RECEPT. – 503 WORK STATIONS	0.6
1.0	RECEPT. – 303, MICROWAVE	20	23		24	20	RECEPT. – 505,506	1.2
1.0	RECEPT. – 303, MICROWAVE	20	25		26	20	RECEPT. – 507,508	1.2
1.0	RECEPT. – 303, MICROWAVE	20	27		28	20	RECEPT. – 511,510	1.0
0.8	RECEPT. – 303, COUNTER	20	29		30	20	RECEPT. – 510 TV, PROJECTOR SCREEN	1.0
1.2	RECEPT. – 303, REFRIGERATOR	20	31		32	20	RECEPT. – 509 U/C REFRIG, COUNTER	1.0
1.2	RECEPT. – 303, REFRIGERATOR	20	33		34	20	RECEPT. – 506 COUNTER	0.4
1.0	RECEPT. – 303, COFFEE (2)	20	35		36	20	RECEPT. – 404 VENDING (2)	1.0
0.6	RECEPT. – 303, COUNTER	20	37		38	20	RECEPT. – 404	1.0
1.0	RECEPT. – 304,302	20	39		40	20	RECEPT. – 601,603	–
1.0	RECEPT. – 401,402	20	41		42	20	RECEPT. – 604	–

TOTAL LOAD KVA: 37.2

R2

208/120 VOLTS, 3ø 4 WIRE — 10,000 AIC @ 240 VOLTS
225 AMPS ☐ MAIN BREAKER ■ M.L.O.
☐ FLUSH ■ SURFACE MOUNTED ☐ TOP FED ■ BOTTOM FED

LOCATION: ELEC. RM. 603
SECTION 2 FED FROM SECTION 1

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B C	CKT	TRIP	DESCRIPTION OF LOAD (3)	KVA
1.2	EF-12 (1/2 HP) GIV-1	20	43		44	20	SPARE	–
1.2	EF-13 (1/2 HP) GIV-2	20	45		46	20	SPARE	–
0.6	EF-14 & ROOF RECEPTACLES	20	47		48	20	SPARE	–
0.5	ELEV. PIT LIGHTING & RECEPTACLES	20	49		50	20	RECEPT. – 303 VENDING	1.0
0.5	ELEV. CAB LIGHTS	20	51		52	20	RECEPT. – 303 VENDING	1.0
0.2	ELEV. MACHINE ROOM RECEPTACLES	20	53		54	20	RECEPT. – 303 VENDING	1.0
0.7	EF-15	20	55		56	20	RECEPT. – 303 VENDING	1.0
–	SPARE	20	57		58	20	RECEPT. – 303 VENDING	1.0
–	SPARE	20	59		60	20	RECEPT. – 303 COUNTER	0.6
–	SPARE	20	61		62	20	RECEPT. – EMPLOYEE INFO.	0.6
–	SPARE	20	63		64	20	RECEPT. – EMPLOYEE INFO.	0.6
–	SPARE	20	65		66	–	SPACE	–
–	SPACE	–	67		68	–	SPACE	–
–	SPACE	–	69		70	–	SPACE	–
–	SPACE	–	71		72	–	SPACE	–
–	SPACE	–	73		74	–	SPACE	–
–	SPACE	–	75		76	–	SPACE	–
–	SPACE	–	77		78	–	SPACE	–
–	SPACE	–	79		80	–	SPACE	–
–	SPACE	–	81		82	–	SPACE	–
–	SPACE	–	83		84	–	SPACE	–

TOTAL LOAD KVA: 11.7 (3)

TOTAL CONNECTED KVA: 48.9 (3)

GENERAL NOTES WHICH APPLY TO ALL CONDITIONS:

A: THE ELECTRICAL CONTRACTOR IS ENCOURAGED TO CONTACT THE STELLAR GROUP ELECTRICAL ENGINEERING DEPARTMENT TO VERIFY THAT THE DRAWINGS AND SPECIFICATIONS ARE CURRENT AT ALL TIMES. FAILURE TO DO SO WILL BE CONSIDERED INADEQUATE WORK AND ALL DISCREPANCIES CORRECTED WITH NO EXPENSE TO THE STELLAR GROUP OR FACILITY OWNER.

B: WIRE/CONDUIT SIZES ARE BASED ON ESTIMATED CONTINUOUS LOAD AND COPPER WIRE. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS TO WIRE AND CONDUIT SIZES, ALLOWING FOR VOLTAGE DROP BASED ON THE ACTUAL INSTALLED CONDITIONS OF FEEDERS. SEE SPECIFICATION 1600–2.06F. THE ELECTRICAL CONTRACTOR SHALL ALSO REVIEW ALL NAMEPLATE DATA FOR DISCREPANCIES, WHICH SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FINAL INSTALLATION.

C: VARIATIONS TO CIRCUIT POSITIONS ON PANELS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL FROM ENGINEER. UN–APPROVED VARIATIONS WILL BE CORRECTED WITH NO EXPENSE IN TIME OR MONEY TO THE STELLAR GROUP OR FACILITY OWNER.

D: ALL BOARDS SHALL BE FULLY RATED FOR AVAILABLE FAULT CURRENT. SERIES / INTEGRATED RATINGS ARE NOT ACCEPTABLE.

E: SQUARE 'D' POWERLINK G3 WITH 500 LEVEL CONTROLLER, POWER SUPPLY CAT.# NF277PS G3, CONTROL BUS CAT.# NF21SBLG3, NF21SBRG3, WITH SLAVE ADDRESS SELECTOR CAT.#NFSELG3. OR APPROVED EQUAL.

SPECIFIC NOTES WHICH APPLY AS SPECIFIED:

(1) SERVICE ENTRANCE RATED.
(2) BREAKER SHALL BE 100% RATED.
(3) PROVIDE NEUTRAL PAD ONLY.
(4) PROVIDE FEED THRU LUGS.
(5) PROVIDE LOCK–OUT DEVICE AT ALL BRANCH CIRCUIT BREAKERS.
(6) THERMAL MAGNETIC BREAKER AND CONTACTOR ONLY. OVERLOAD RELAY NOT REQUIRED.
(7) CONTROLED BY PHOTOCELL (ON/OFF) VIA CONTACTOR.
(8) CONTROLED BY PHOTOCELL (ON) TIMESWITCH (OFF) VIA CONTACTOR.
(9) PROVIDE 5 MA G.F.C.I. BREAKER.
(10) PROVIDE 30 MA G.F.C.I. BREAKER.
(11) SEE SINGLE LINE DREWINGS –
(12) BREAKER SHALL BE HID LIGHT SWITCH RATED –
(13) TIME CLOCK CONTROLLED
(14) PROVIDE WITH ISOLATED NEUTRAL AND SEPARATE GROUND BAR –
(15) BRANCH BREAKER SHALL HAVE A SHUNT TRIP (W.O.) TO BE ENABLED BY THE WHEEL CHAIR LIFT'S CONTROLLER DURING A FIRE ALARM CONDITION.
(16) 3–#4, #8G; 1"C. –
(17) 3–#10, #10G; 1/2"C. –
(18) 3–#6, #8G; 3/4"C. –
(19) 3–#8, #10G; 1"C.
(20) 3–#8, #8G; 3/4"C.
(21) CIRCUIT SHALL BE CONTROLLED BY A CONTACTOR. CONTACTOR SHALL BE CONTROLLED BY EITHER RCP OR EMERGENCY POWER SHUT DOWN SWITCH.

(3) REVISION NOTES

PANEL MSB1: REVISED KVA CIRCUITS 23,4,12,14,15, REVISED TRIP CIRCUITS 13 & 14, REVISED TOTAL KVA.

PANEL H1: REVISED DESCRIPTION AND KVA CIRCUIT 2, REVISED CIRCUITS 3,17,18,19 TO SPARE, REVISED TOTAL KVA.

PANEL H2: REVISED CIRCUIT 15, REVISED TOTAL KVA.

PANEL L2: REVISED CIRCUIT 3, REVISED TOTAL KVA

PANEL R2: REVISED 2P CIRCUIT 44 , REVISED TOTAL KVA.

MSB–1	H1	H2	H3
L1	L2	L3	R1
R2(1)	R2(2)	–	–
–	–	–	–

FLORIDA ENGINEERING LICENSED 9430
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
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FLORIDA ARCHITECTURAL LICENSED AA 26001179

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

PANEL SCHEDULES

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REV.	DATE	BY	DESCRIPTION
3	07/11/07	KBG	REVISED AS NOTED
2	07/11/07	KBG	REVISED AS NOTED

R3

LOCATION: DOCK 101
FED FROM: PANEL H3 (VIA TRANSFORMER)

208/120 VOLTS, 3ø 4 WIRE
100 AMPS ■ MAIN BREAKER □ M.L.O.
□ FLUSH ■ SURFACE MOUNTED □ TOP FED ■ BOTTOM FED

10,000 AIC @ 240 VOLTS

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B C	CKT	TRIP	DESCRIPTION OF LOAD	KVA
0.8	DOCK DOOR LIGHTS	20	1		2	20	DOCK DOOR LIGHTS	0.8
0.8	DOCK DOOR LIGHTS	20	3		4	20	DOCK DOOR LIGHTS	0.8
0.8	DOCK DOOR LIGHTS	20	5		6	20	DOCK DOOR LIGHTS	0.8
0.8	DOCK DOOR LIGHTS	20	7		8	20	DOOR HEAT (2) (10)	1.3
0.8	DOOR HEAT (2) (10)	20	9		10	20	DOOR HEAT (2) (10)	0.8
0.8	DOOR HEAT (2) (10)	20	11		12	20	DOOR HEAT (1) (10)	0.6
1.2	STRETCH WRAPPER	20	13		14	20	FA PRE ACTION PANEL	0.5
0.6	RECEPTS. – DOCK	20	15		16	20	FA PRE ACTION PANEL	0.5
0.6	RECEPTS. – DOCK	20	17		18	20	FA PRE ACTION PANEL	0.5
0.5	FA PRE ACTION PANEL	20	19		20	20	RECEPTACLE MDF CABINET	1.0
0.5	FA PRE ACTION PANEL	20	21		22	–	SPACE	–
0.5	FA PRE ACTION PANEL	20	23		24	–	SPACE	–
–	SPARE	20	25		26	–	SPACE	–
–	SPARE	20	27		28	–	SPACE	–
–	SPARE	20	29		30	–	SPACE	–
–	SPARE	20	31		32	–	SPACE	–
–	SPARE	20	33		34	–	SPACE	–
–	SPARE	20	35		36	–	SPACE	–
–	SPARE	20	37		38	–	SPACE	–
–	SPARE	20	39		40	–	SPACE	–
–	SPARE	20	41		42	–	SPACE	–

TOTAL LOAD KVA: 16.3

MPZ1

LOCATION: PENTHOUSE 2A ROOF
FED FROM: PANEL H1

120/240 VOLTS, 1ø 3 WIRE – S/N
80 AMPS ■ MAIN BREAKER OR □ M.L.O.
□ FLUSH OR ■ SURFACE MOUNTED ■ TOP OR □ BOTTOM FED

10,000 AIC @ 240 VOLTS

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B	CKT	TRIP	DESCRIPTION OF LOAD	KVA
0.7	HEAT – FREEZER DOORS (2) (10)	20	1		2	20	HEAT TAPE – CONDENSATE DRAIN LINE (10)	0.6
0.7	HEAT – FREEZER DOORS (2) (10)	20	3		4	20	HEAT TAPE – CONDENSATE DRAIN LINE (10)	0.6
0.4	HEAT – PENTHOUSE DOORS (2) (10)	20	5		6	20	HEAT TAPE – CONDENSATE DRAIN LINE (10)	0.6
0.6	RECEPTS. – P102B	20	7		8	20	HEAT TAPE – CONDENSATE DRAIN LINE (10)	0.6
0.6	RECEPTS. – P102B	20	9		10	20	LIGHITNG – PENTHOUSE	1.0
3.6	RCP–2	40	11		12	–	SPACE	–
0.7	HEAT – CONVERTIBLE 2, FREEZER (2) (10)	20	13		14	–	SPACE	–
–	SPARE	20	15		16	–	SPACE	–
–	SPARE	20	17		18	–	SPACE	–
–	SPARE	20	19		20	–	SPACE	–
–	SPARE	20	21		22	–	SPACE	–
–	SPARE	20	23		24	–	SPACE	–
–	SPARE	20	25		26	–	SPACE	–
–	SPARE	20	27		28	–	SPACE	–
–	SPARE	20	29		30	–	SPACE	–
–	SPACE	–	31		32	–	SPACE	–
–	SPACE	–	33		34	–	SPACE	–
–	SPACE	–	35		36	–	SPACE	–
–	SPACE	–	37		38	–	SPACE	–
–	SPACE	–	39		40	–	SPACE	–
–	SPACE	–	41		42	–	SPACE	–

TOTAL LOAD KVA: 10.7

MPZ2

LOCATION: PENTHOUSE 1 ROOF
FED FROM: PANEL H1

120/240 VOLTS, 1ø 3 WIRE – S/N
80 AMPS ■ MAIN BREAKER OR □ M.L.O.
□ FLUSH OR ■ SURFACE MOUNTED ■ TOP OR □ BOTTOM FED

10,000 AIC @ 240 VOLTS

KVA	DESCRIPTION OF LOAD	TRIP	CKT	A B	CKT	TRIP	DESCRIPTION OF LOAD	KVA
0.6	HEAT TAPE – CONDENSATE DRAIN LINE (10)	20	1		2	20	RECEPTS. – P101	0.6
0.6	HEAT TAPE – CONDENSATE DRAIN LINE (10)	20	3		4	20	RECEPTS. – P101	0.6
0.6	HEAT TAPE – CONDENSATE DRAIN LINE (10)	20	5		6	20	LIGHTING PENTHOUSE	1.6
0.6	HEAT TAPE – CONDENSATE DRAIN LINE (10)	20	7		8	20	LIGHTING PENTHOUSE	1.0
0.2	HEAT TAPE – PENTHOUSE DOOR (10)	20	9		10	20	EXTERIOR LIGHTING PENTHOUSE	1.0
0.4	HEAT – FREEZER (1) (10)	20	11		12	–	SPACE	–
–	SPARE	20	13		14	–	SPACE	–
–	SPARE	20	15		16	–	SPACE	–
–	SPARE	20	17		18	–	SPACE	–
–	SPARE	20	19		20	–	SPACE	–
–	SPARE	20	21		22	–	SPACE	–
–	SPARE	20	23		24	–	SPACE	–
–	SPARE	20	25		26	–	SPACE	–
–	SPARE	20	27		28	–	SPACE	–
–	SPARE	20	29		30	–	SPACE	–
–	SPACE	–	31		32	–	SPACE	–
–	SPACE	–	33		34	–	SPACE	–
–	SPACE	–	35		36	–	SPACE	–
–	SPACE	–	37		38	–	SPACE	–
–	SPACE	–	39		40	–	SPACE	–
–	SPACE	–	41		42	–	SPACE	–

TOTAL LOAD KVA: 7.8

GENERAL NOTES WHICH APPLY TO ALL CONDITIONS:

A: THE ELECTRICAL CONTRACTOR IS ENCOURAGED TO CONTACT THE STELLAR GROUP ELECTRICAL ENGINEERING DEPARTMENT TO VERIFY THAT THE DRAWINGS AND SPECIFICATIONS ARE CURRENT AT ALL TIMES. FAILURE TO DO SO WILL BE CONSIDERED INADEQUATE WORK AND ALL DISCREPANCIES CORRECTED WITH NO EXPENSE TO THE STELLAR GROUP OR FACILITY OWNER.

B: WIRE/CONDUIT SIZES ARE BASED ON ESTIMATED CONTINUOUS LOAD AND COPPER WIRE. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS TO WIRE AND CONDUIT SIZES, ALLOWING FOR VOLTAGE DROP BASED ON THE ACTUAL INSTALLED CONDITIONS OF FEEDERS. SEE SPECIFICATION 1600–2.06F. THE ELECTRICAL CONTRACTOR SHALL ALSO REVIEW ALL NAMEPLATE DATA FOR DISCREPANCIES, WHICH SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FINAL INSTALLATION.

C: VARIATIONS TO CIRCUIT POSITIONS ON PANELS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL FROM ENGINEER. UN–APPROVED VARIATIONS WILL BE CORRECTED WITH NO EXPENSE IN TIME OR MONEY TO THE STELLAR GROUP OR FACILITY OWNER.

D: ALL BOARDS SHALL BE FULLY RATED FOR AVAILABLE FAULT CURRENT. SERIES / INTEGRATED RATINGS ARE NOT ACCEPTABLE.

E: SQUARE 'D' POWERLINK G3 WITH 500 LEVEL CONTROLLER, POWER SUPPLY CAT.# NF277PS G3, CONTROL BUS CAT.# NF21SBLG3, NF21SBRG3, WITH SLAVE ADDRESS SELECTOR CAT.#NFSELG3. OR APPROVED EQUAL.

SPECIFIC NOTES WHICH APPLY AS SPECIFIED:

(1) SERVICE ENTRANCE RATED.
(2) BREAKER SHALL BE 100% RATED.
(3) PROVIDE NEUTRAL PAD ONLY.
(4) PROVIDE FEED THRU LUGS.
(5) PROVIDE LOCK–OUT DEVICE AT ALL BRANCH CIRCUIT BREAKERS.
(6) THERMAL MAGNETIC BREAKER AND CONTACTOR ONLY. OVERLOAD RELAY NOT REQUIRED.
(7) CONTROLED BY PHOTOCELL (ON/OFF) VIA CONTACTOR.
(8) CONTROLED BY PHOTOCELL (ON) TIMESWITCH (OFF) VIA CONTACTOR.
(9) PROVIDE 5 MA G.F.C.I. BREAKER.
(10) PROVIDE 30 MA G.F.C.I. BREAKER.
(11) SEE SINGLE LINE DREWINGS –
(12) BREAKER SHALL BE HID LIGHT SWITCH RATED –
(13) TIME CLOCK CONTROLLED –
(14) PROVIDE WITH ISOLATED NEUTRAL AND SEPARATE GROUND BAR –
(15) BRANCH BREAKER SHALL HAVE A SHUNT TRIP (W.O.) TO BE ENABLED BY THE WHEEL CHAIR LIFT'S CONTROLLER DURING A FIRE ALARM CONDITION.
(16) 3–#4, #8G; 1"C. –
(17) 3–#10, #10G; 1/2"C. –
(18) 3–#6, #8G; 3/4"C. –
(19) 3–#8, #10G; 1"C.
(20) 3–#8, #8G; 3/4"C.

R3	MPZ1	MPZ2	–
–	–	–	–
–	–	–	–
–	–	–	–

FLORIDA DISCIPLINED LICENSE # 9430
FLORIDA ARCHITECTURAL LICENSE # AA26001776
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260–2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

PANEL SCHEDULES

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REV.	DATE	BY	DESCRIPTION
0	05/29/07	KBG	CONSTRUCTION ISSUE

JOB NO. 03019
DRAWN: KBG
CHECKED: MTV
SCALE: NO SCALE

E604
DRAWING NO.

FILE: T:\Jobs\03000–03099\03019 USCS_FL\Design\Active\Elec\03019E604.dwg DATE: 05/29/07 TIME: 1:16 pm BY: KIMBERLY CARST

UNITED STATES COLD STORAGE

NEW FACILITY

LAKE CITY, FLORIDA

710-03019

GENERAL

G001	INDEX SHEET
G002	OVERALL LIFE SAFETY PLAN
G003	ADMIN., WELFARE, MAINTANACE, & MACHINE ROOM LIFE SAFETY PLAN

CIVIL

C100	COVER SHEET
C101	SITE GEOMETRY PLAN
C101A	SITE MASTER PLAN
C102	SITE UTILITIES PLAN
C103	GRADING AND DRAINAGE PLAN
C104	EROSION AND SEDIMENT CONTROL PLAN
C105	PRE DEVELOPMENT DRAINAGE AREAS
C106	POST DEVELOPMENT DRAINAGE AREAS
C107	LANDSCAPING PLAN
C501	SITE DETAILS
C502	SITE DETAILS

ARCHITECTURAL

A100	OVERALL FLOOR PLAN
A101	ENLARGED FLOOR PLAN; +40'F REFRIGERATED DOCK, −20'F − +40'F CONVERTIBLE, & −20'F FREEZER
A101A	ENLARGED OVERALL RACK LAYOUT
A102	ENLARGED RACK LAYOUT
A103	ENLARGED FLOOR PLAN
A104	ADMIN. OFFICE AND WELFARE REFLECTED CEILING PLAN
A105	REFLECTED CEILING PLAN
A106	ROOF PLAN
A200	EXTERIOR ELEVATIONS
A201	ENLARGED EXTERIOR ELEVATIONS
A300	WALL SECTIONS
A301	WALL SECTIONS
A302	WALL SECTIONS
A303	WALL SECTIONS
A304	WALL SECTIONS
A305	WALL SECTIONS
A306	WALL SECTIONS
A306	WALL SECTIONS
A401	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A401A	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A401B	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A401C	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A401D	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A401E	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A401F	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A401G	ENLARGED RAMP PLANS, SECTIONS & DETAILS
A401H	ENLARGED RAMP PLANS, SECTIONS, DETAILS, FLOOR PLANS, & ELEVATIONS
A401J	ELEVATOR PLAN & MISC. DETAILS
A401K	ENLARGED STAIR PLANS, SECTIONS & DETAILS
A402	ENLARGED TOILET PLANS, INTERIOR ELEVATIONS
A403	ENLARGED TOILET INTERIOR ELEVATIONS
A404	ENLARGED TOILET & INTERIOR ELEVATIONS
A405	ENLARGED INTERIOR ELEVATIONS
A406	ADA STANDARD DETAILS
A407	DOCK ENLARGED PLANS
A408	ENLARGED PLANS, SECTIONS, & ELEVATIONS
A501	ROOF DETAILS
A502	MISC. DETAILS
A601	DOOR HARDWARE AND SCHEDULE AND DOOR TYPES
A602	ROOM FINISH SCHEDULE AND WINDOW TYPES
A603	WINDOW DETAILS
A604	DOOR DETAILS
A605	DOOR DETAILS

⚠ ADDED SHEET A502

STRUCTURAL

S000	GENERAL DESIGN NOTES AND TYPICAL DETAILS
S100	FREEZER FOUNDATION PLAN
S101	WELFARE AREA AND PARTIAL DOCK FOUNDATION PLAN
S102	MAINTENANCE AREA AND PARTIAL DOCK FOUNDATION PLAN
S103	FREEZER CONCRETE SLAB PLAN
S104	WELFARE AREA AND PARTIAL DOCK CONCRETE SLAB PLAN
S105	MAINTENANCE AREA AND PARTIAL DOCK CONCRETE SLAB PLAN
S106	FREEZER ROOF FRAMING PLAN
S107	WELFARE AREA AND PARTIAL DOCK ROOF FRAMING PLAN
S108	MAINTENANCE AREA AND PARTIAL DOCK ROOF FRAMING PLAN
S109	PENTHOUSE FLOOR, GRATING AND ROOF FRAMING PLANS
S110	SECOND FLOOR AND MEZZANINE FRAMING PLANS
S111	CONDENSER SUPPORT FRAMING PLANS AND ELEVATIONS
S200	STRUCTURAL ELEVATIONS
S201	STRUCTURAL ELEVATIONS
S205	TILT−UP PANEL ELEVATIONS AND REINFORCING
S206	TILT−UP PANEL ELEVATIONS AND REINFORCING
S207	TILT−UP PANEL ELEVATIONS AND REINFORCING
S208	TILT−UP PANEL ELEVATIONS AND REINFORCING
S209	TILT−UP PANEL ELEVATIONS AND REINFORCING
S215	TILT−UP PANEL EMBEDS
S216	TILT−UP PANEL EMBEDS
S217	TILT−UP PANEL EMBEDS
S218	TILT−UP PANEL EMBEDS
S219	TILT−UP PANEL EMBEDS
S400	FREEZER IN FLOOR STAIR PLAN AND DETAILS
S401	FREEZER IN FLOOR STAIR PLAN AND DETAILS
S402	STAIR #1 & STAIR #2 PLANS AND SECTIONS
S403	STAIR #3 PLAN AND SECTIONS
S404	MISCELLANIOUS STAIRS AND PLATFORMS PLANS AND SECTIONS
S500	FOUNDATION SECTIONS AND DETAILS
S501	FOUNDATION SECTIONS AND DETAILS
S502	FOUNDATION SECTIONS AND DETAILS
S503	FOUNDATION SECTIONS AND DETAILS
S504	FOUNDATION SECTIONS AND DETAILS
S505	FRAMING SECTIONS AND DETAILS
S506	FRAMING SECTIONS AND DETAILS
S507	FRAMING SECTIONS AND DETAILS
S508	FRAMING SECTIONS AND DETAILS
S509	FRAMING SECTIONS AND DETAILS
S510	FRAMING SECTIONS AND DETAILS
S515	BRACING SECTIONS AND DETAILS
S520	TILT−UP PANEL SECTIONS AND DETAILS
S600	JOIST AND JOIST GIRDER LOAD TABLES
S601	ROOF DECK ATTACHMENT DIAGRAM
S602	ROOF JOIST UPLIFT DIAGRAM

MECHANICAL

M001	MECHANICAL LEGEND AND SCHEDULE
M002	MECHANICAL SPECS
M101	OVERALL MECHANICAL FIRST FLOOR PLAN
M102	MECHACNICAL SECOND FLOOR PLAN
M103	OVERALL MECHANICAL ROOF PLAN
M401	ENLARGE MECHANICAL FLOOR PLAN
M402	ENLARGE MECHANICAL FLOOR PLANS
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS

PLUMBING

P001	SCHEDULE, NOTES, AND SPECS
P002	SCHEDULE, NOTES, AND SPECS
P003	PIPE SCOPE AND SPECIFICATIONS
P100	OVERALL FLOOR PLAN
P101	ENLARGED SANITARY AND PROCESS PIPING FLOOR PLAN
P102	ENLARGED SANITARY AND PROCESS PIPING FLOOR PLAN
P401	ENLARGED SANITARY AND UTILITY FLOOR PLANS
P402	ENLARGED SANITARY AND UTILITY FLOOR PLANS
P501	DETAIL SHEET
P502	DETAIL SHEET

ELECTRICAL

E001	LEGEND NOTES AND FIXTURE SCHEDULE
E002	ELECTRICAL SITE PLAN
E101	LIGHTING PLAN WAREHOUSE AND DOCK
E102	LIGHTING PLANS, OFFICE AND 2nd. FLOOR − SOUTH
E103	LIGHTING PLANS MACHINE, MAINTENANCE PENTHOUSES AND MEZZANINE − NORTH
E201	POWER PLAN WAREHOUSE AND DOCK
E202	POWER PLANS, OFFICE AND 2nd. FLOOR − SOUTH
E203	POWER PLANS MACHINE, MAINTENANCE AND MEZZANINE − NORTH
E204	ROOF PLANS OFFICE, MACHINE AND MAINTENANCE
E205	ELECTRICAL GROUNDING PLAN
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL DETAILS
E601	ELECTRICAL SINGLE LINE DIAGRAM
E602	REFRIGERATION MCP DIAGRAM
E603	PANEL SCHEDULES
E604	PANEL SCHEDULES

Sheet Identification

A101X01

- Unit or Floor number (large projects only)
- Sheet Sequence Number
- Sheet Type Designator
- Discipline Designator

DISCIPLINE DESIGNATORS		SHEET TYPE DESIGNATORS	
G	GENERAL	0	GENERAL
H	HAZARDOUS MATERIALS	1	PLANS
C	CIVIL	2	ELEVATIONS
L	LANDSCAPE	3	SECTIONS
S	STRUCTURAL	4	LARGE SCALE VIEWS
A	ARCHITECTURAL	5	DETAILS
I	INTERIORS	6	SCHEDULES AND DIAGRAMS
F	FIRE PROTECTION	7	USER DEFINED
P	PLUMBING	8	3D REPRESENTATIONS
Q	PROCESS EQUIPMENT AND PIPING	9	USER DEFINED
U	UTILITY − PROCESS PIPING		
M	MECHANICAL		
E	ELECTRICAL		
T	TELECOMMUNICATIONS		
R	REFRIGERATION		
X	RESOURCE		

FLORIDA ARCHITECTURAL LICENSE NO. AA−F000112

FLORIDA ENGINEERING LICENSE NO. 5930

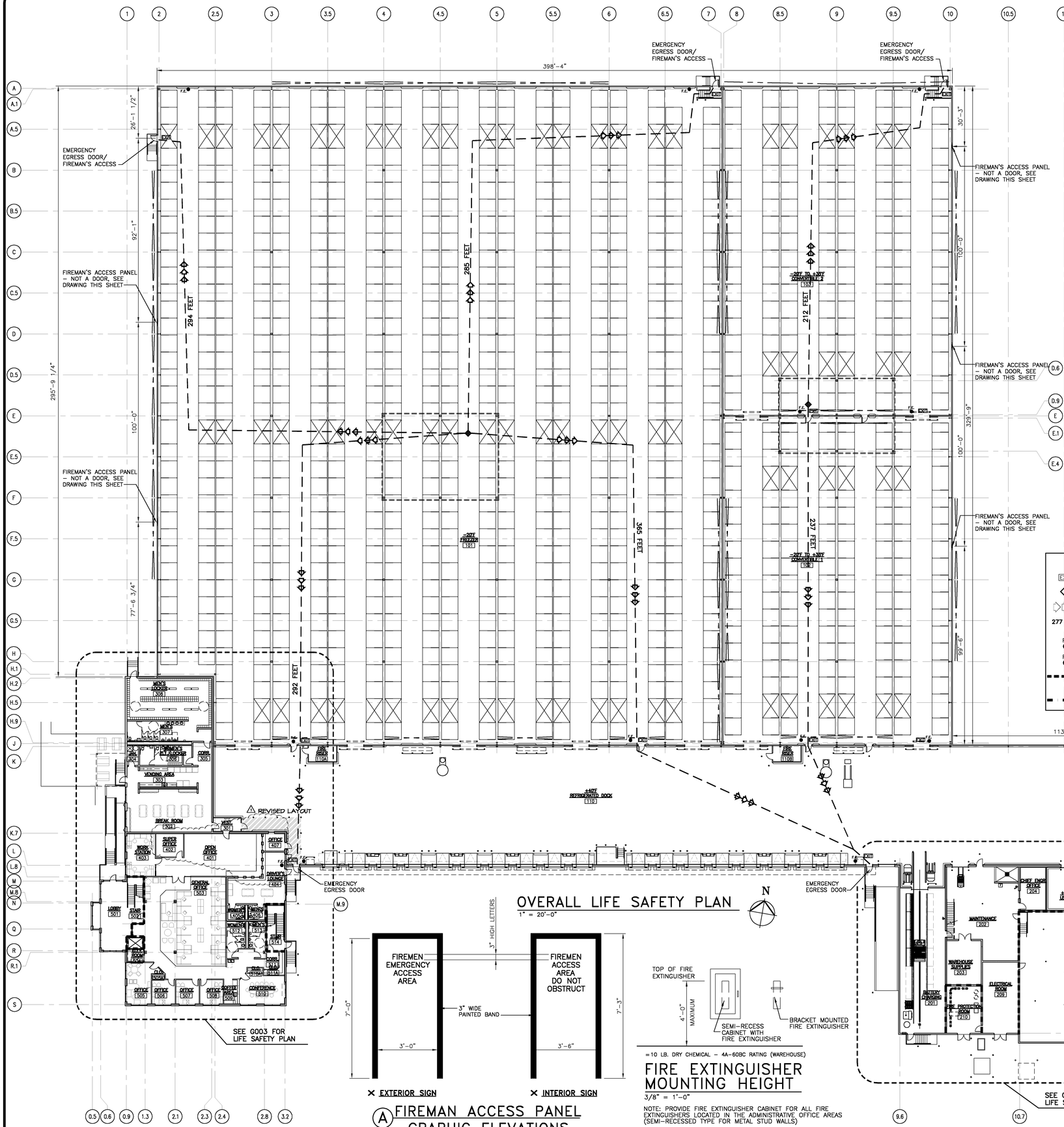
THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION

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06-22-07 REVISION #2

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LEGEND

EXIT	DENOTED EMERGENCY EXITS
◇	DENOTES STARTING POINT FOR EXITING
◇▷◇▷◇	DENOTES PATHS OF EXIT TRAVEL
277 FEET	DENOTES DISTANCE TO TRAVEL FROM STARTING POINT TO EMERGENCY EGRESS DOOR
FE ●	FIRE EXTINGUISHER
FEC ●	FIRE EXTINGUISHER IN CABINETS
▬ ▬ ▬	ONE-HOUR RATED SEPARATION (STAIR SHAFTS, ELEVATOR SHAFT & ELEVATOR EQUIPMENT ROOM)
▬ ▬ ▬	TWO-HOUR RATED WALL (FIRE PROTECTION)

OVERALL LIFE SAFETY PLAN

1" = 20'-0"

× EXTERIOR SIGN × INTERIOR SIGN

A FIREMAN ACCESS PANEL GRAPHIC ELEVATIONS

=10 LB. DRY CHEMICAL – 4A-60BC RATING (WAREHOUSE)

FIRE EXTINGUISHER MOUNTING HEIGHT

3/8" = 1'-0"

NOTE: PROVIDE FIRE EXTINGUISHER CABINET FOR ALL FIRE EXTINGUISHERS LOCATED IN THE ADMINISTRATIVE OFFICE AREAS (SEMI-RECESSED TYPE FOR METAL STUD WALLS)

BUILDING CODE ANALYSIS:

1. References:
A. Building Code: Florida Building Code 2004 w/ 2006 Amendments
B. Florida Accessibility Code – See Chapter 11 of the Florida Building Code 2004

2. Building Use: Chapter 3
Use Group
A. Section 311.3 Group S-2 – Low hazard storage (Freezers).
B. Section 304 Group B – Business (Accessory Use).
C. See Section 302.3.1 Nonseparated uses – Each portion of the building shall be individually classified according to use Fire separations are not required between uses, except as required by other provisions.

3. Type of Construction: Section 602.2
A. Type II B, Unprotected – fully sprinkled – see Table 503 for limits to construction.
All exterior doors and windows must have a Florida Building Code Approval Number or a Notice of Acceptance Number from Miami-Dade County.

4. Building Height: Type II B, Unprotected – fully sprinkled.
A. Table 503: Four stories, 55'-0" (unlimited height per Section 507.2, exception 1).

5. Building Area: Type II B, Unprotected. – fully sprinkled.
A. Allowable — Group S (Storage)
Allowable Area (Table 503) — 28,000 sf (S-2)
See B. below for new amount.

B. Actual (per Stellar's drawings)

Warehouse total area:		162,859 sf
+40°F Refrigerated Dock w/ penthouse	28,671 sf	
–20°F Freezer w/ penthouse	95,000 sf	
Convertibles #1 & #2	39,188 sf	
Maintenance total area:		6,489 sf
Battery Charging	1,709 sf	
Maintenance Room, warehouse supplies, Chief Engineer	2,241 sf	
Storage Mezzanine	423 sf	
Fire protection	465 sf	
Electrical Room	689 sf	
USDA Inspection	962 sf	
Machine Room:		3,750 sf
Welfare total area:		3,232 sf
Administration:		15,219 sf
Total building area:		191,549 sf

C. Section 507.2 Unlimited Area Building: The area of a one-story, Group S building shall not be limited when the building is provided with an automatic sprinkler system throughout and is surrounded on all sides by open yards or public ways of not less than 60 feet.

6. Fire Resistance Ratings (hours) of Building Elements: Table 601 & 602 for Type II B.

Building Element	Type of Construction Type II B (Rating)	Reference 2004 Fla. Bldg. Code
Structural Frame (columns, girders & fuibggw)	0	Table 601
Bearing Walls (Exterior)	0	Table 601
(Interior)	0	Table 601
Nonbearing walls and partitions (Exterior)	0	Table 602 (>30' setbacks)
Nonbearing walls and partitions (Interior)	0	Table 601
Floor construction	0	Table 601
Roof construction	0	Table 601

0 = Rating listed in hours.

Note: Section 302.2 Accessory Use (Administration & Operation Offices) : Any accessory (other than Group H) shall not be required to be separated by a fire barrier provided the accessory use area occupies an area not more than 10 percent of the story in which it is located and does not exceed the values in Table 503 for the allowable height or area or such use.

7. Interior Finish Requirements – Table 803.5:

A. Group S – Storage (fully sprinkled):

Location	Class	Reference 2004 Fla. Bldg. Code
Exits	C	Table 803.5
Exit Access	C	Table 803.5
Other Spaces	C	Table 803.5

8. Smoke and Heat Vents – Chapter 9:

A. Section 910.1: Smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section. Exception: Frozen foods warehouses used solely for the storage of class I and II commodities where protected by an approved automatic sprinkler system.
B. Section 910.3.4: Where required, draft curtains shall be provided in accordance with this section. Exception: Where areas of the building are equipped with early suppression fast response (E.S.F.R.) sprinklers, draft curtains shall not be provided within these areas. Draft curtains shall only be provided at the separation between the E.S.F.R. sprinklers and the conventional sprinklers.

9. Occupancy Load and Egress Requirements Table 1004.1.2:

Use	SF per occupant	Reference 2004 Fla. Bldg. Code
Warehouses (Storage)	500 gross	Table 1004.1.2

A. 173,972 sf divided by 500 sf per occupant = 743 occupants. 743 occupants x 0.2 = 149 exit inches required. Current design shows 6 exit doors or 216 exit inches.

10. Travel Distance, Dead End Length, Exit and Means of Egress Width – Chapter 10:

	Length or Width	Reference Fla. Bldg. Code
Travel Distance	Unlimited @ S-2	Table 1015.1
(Fire Code Travel)	400'	(see Fire Code notes below)
Dead End Limit	20' Length	Section 1016.3
Other egress Components (inches per occupant)	0.2	Table 1005.1
Stairways (inches per occupant)	0.3	Table 1005.1
Corridor / Aisle Width	Not less than 44" min.	Section 1016.2
Exit Door Clear Opening	32" min.	Table 1008.1.1
Common Path of Travel	Unlimited @ S-2 Occupancy	Section 1013.3, Exception #7

11. Accessibility for People with Physical Disabilities – per Chapter Eleven. All occupied levels of the building must be made accessible and provided with facilities that meet the requirements of Chapter 11.

12. 2004 Florida Fire Prevention Code:

Chapter 42 – Storage Occupancies:
Table 42.2.6 Maximum Travel Distance to Exits – Low Hazard Storage Occupancies protected throughout by an approved supervised automatic sprinkler system in accordance with 9.7.1.1(1) is not limited in travel distances. Ordinary Hazard Storage Occupancies protected throughout by an approved supervised automatic sprinkler system in accordance with 9.7.1.1(1) are limited to 400 feet travel distances.

Please note that Table 42.2.6 has a misprint and states that facilities without automatic sprinkler systems have a longer travel distance allowance than facilities with an autimatic sprinkler system.

FLORIDA ENGINEERING LICENSE NO. 9520
FLORIDA ARCHITECTURAL LICENSE NO. AR 0016176
THE STELLAR GROUP
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

OVERALL LIFE SAFETY PLAN

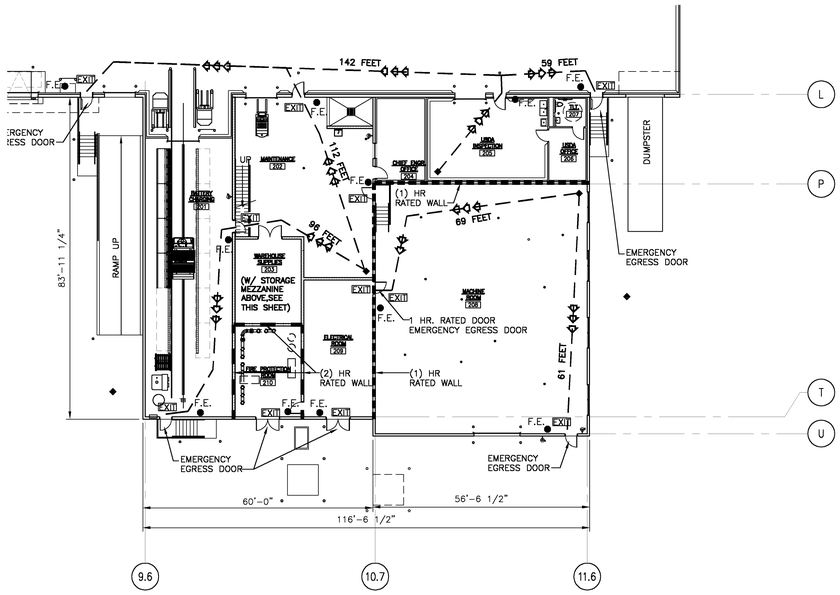
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REV.	DATE	BY	DESCRIPTION
1	10/11/07	LBM	REVISED AS NOTED
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SCALE: AS SHOWN

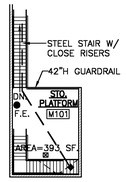
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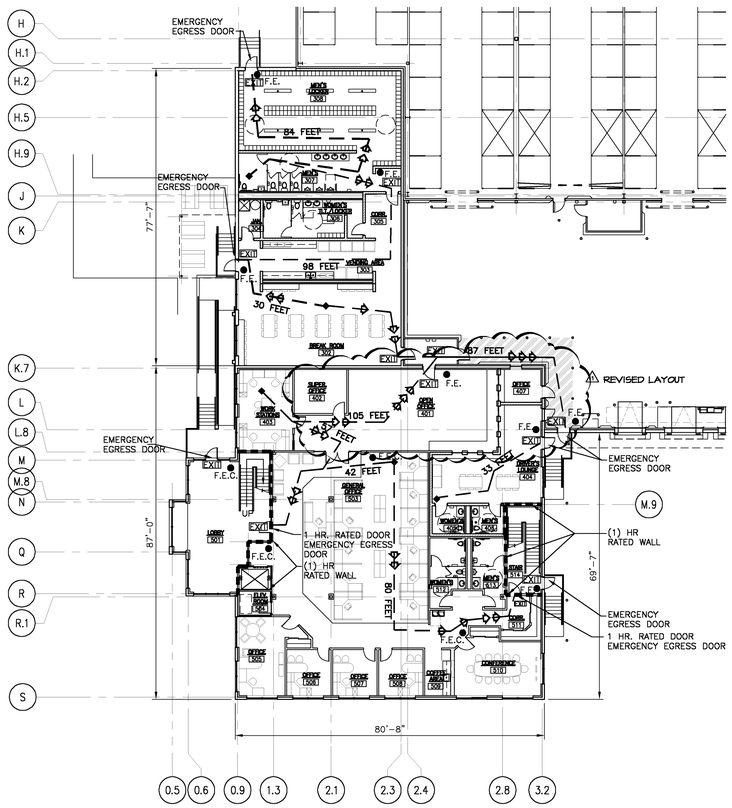
MAINTENANCE & MACHINE ROOM LIFE SAFETY PLAN

1/16" = 1'-0"



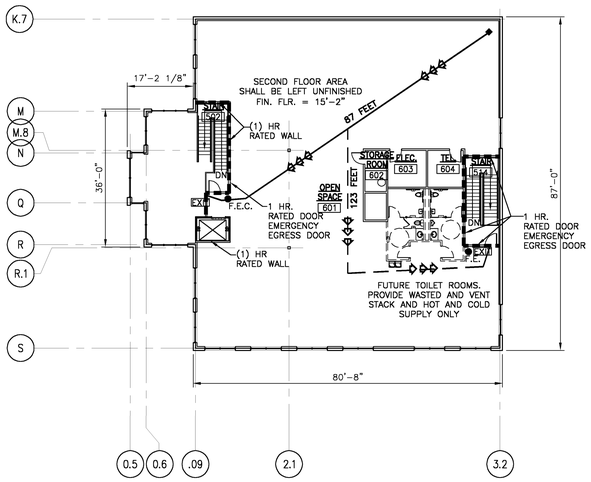
STORAGE MEZZANINE LIFE SAFETY PLAN

1/16" = 1'-0"



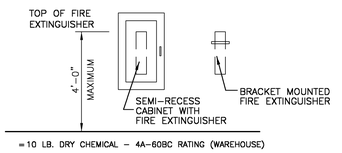
FIRST FLOOR ADMIN. LIFE SAFETY PLAN

1/16" = 1'-0"



SECOND FLOOR ADMIN. LIFE SAFETY PLAN

1/16" = 1'-0"



= 10 LB. DRY CHEMICAL – 4A-60BC RATING (WAREHOUSE)

FIRE EXTINGUISHER MOUNTING HEIGHT

3/8" = 1'-0"

NOTE: PROVIDE FIRE EXTINGUISHER CABINET FOR ALL FIRE EXTINGUISHERS LOCATED IN THE ADMINISTRATIVE OFFICE AREAS (SEMI-RECESSED TYPE FOR METAL STUD WALLS)

LEGEND

EXIT	DENOTED EMERGENCY EXITS
◇	DENOTES STARTING POINT FOR EXITING
◇▷▷▷	DENOTES PATHS OF EXIT TRAVEL
277 FEET	DENOTES DISTANCE TO TRAVEL FROM STARTING POINT TO EMERGENCY EGRESS DOOR
FE ●	FIRE EXTINGUISHER
FEC ●	FIRE EXTINGUISHER IN CABINETS
▬ ▬ ▬	ONE-HOUR RATED SEPARATION (STAIR SHAFTS, ELEVATOR SHAFT & ELEVATOR EQUIPMENT ROOM)
▬ · ▬	TWO-HOUR RATED WALL (FIRE PROTECTION)

FLORIDA ARCHITECTURAL LICENSE AA 26001476

FLORIDA ENGINEERING LICENSE No. 9430

THE STELLAR GROUP

DESIGN • CONSTRUCTION • REFRIGERATION

2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ADMIN., WELFARE, MAINTENANCE & MACH. RM. LIFE SAFETY PLANS

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REV.	DATE	BY	DESCRIPTION
1	07/11/07	LBM	REVISED AS NOTED
0	07/10/07	JVG	CONSTRUCTION ISSUE

JOB NO. 710-03019

DRAWN: PFF

CHECKED:

SCALE: AS SHOWN

G003

DRAWING NO.

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MECHANICAL LEGEND

- 14x18 — SQUARE OR RECTANGULAR DUCT. FIRST FIGURE IS DIMENSION OF SIDE SHOWN ON PLAN
- 14"ø — ROUND DUCT. FIGURE IS DIAMETER OF THE DUCT
- DUCTWORK (POSITIVE PRESSURE)
- DUCTWORK (NEGATIVE PRESSURE)
- CEILING SUPPLY AIR DIFFUSER. SHADED AREA INDICATES BLANKED-OFF SECTION
- CEILING RETURN OR EXHAUST AIR GRILLE/REGISTER
- SIDEWALL SUPPLY AIR REGISTER
- SIDEWALL RETURN AIR GRILLE/REGISTER
- ROUND SPIN-IN TAP W/ MANUAL DAMPER
- ELBOW WITH TURNING VANES
- MANUAL VOLUME DAMPER (MVD)
- MOTORIZED (ELECTRIC OPERATED) DAMPER
- F/SD, AD — FIRE/SMOKE DAMPER (FS/D) AND SLEEVE PROVIDE ACCESS DOOR (AD)
- FLEXIBLE DUCT
- UC 1" — UNDERCUT DOOR 1"
- CONNECTION OF NEW WORK TO EXISTING
- A — AIR DISTRIBUTION DEVICE
- T — THERMOSTAT
- H — HUMIDISTAT
- SD — DUCT MOUNTED SMOKE DETECTOR
- S — MANUAL ON/OFF SWITCH
- —CD— CONDENSATE DRAIN PIPING
- —G— GAS PIPING
- —CWS— CHILLED WATER SUPPLY
- —CWR— CHILLED WATER RETURN
- —FILL— FILL LINE
- TEE (PLAN, UP, DOWN)
- ELBOW (90°, 45°)
- ELBOW (UP, DOWN)
- MBH — 1,000 BRITISH THERMAL UNITS PER HOUR
- CFM — CUBIC FEET PER MINUTE
- SA — SUPPLY AIR
- RA — RETURN AIR
- OA — OUTSIDE AIR
- OAC — OPENING ABOVE CEILING

NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWING.

DESIGN CONDITIONS

	INDOOR	OUTDOOR
SUMMER	75°Fdb / 50%RH	92°Fdb / 77°Fwb (1%)
WINTER	72°Fdb	33°Fdb (99%)

NOTES:
db: DRY BULB TEMPERATURE.
wb: WET BULB TEMPERATURE.
RH: RELATIVE HUMIDITY.
SOURCE: 2001 ASHRAE FUNDAMENTALS HANDBOOK.

STRAIGHT COOLING ROOFTOP UNIT SCHEDULE

PLAN SYMBOL	AREA SERVED	COOLING 95 db/76 wb TOTAL (MBH)	COOLING 95 db/76 wb SENS. (MBH)	ELEC. HEAT (Kw)	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	EXT. S.P. (IN. WG)	EVAPORATOR FAN MOTOR HP	EVAPORATOR FAN FLA	COMPRESSOR NO. 1 RLA	COMPRESSOR NO. 2 RLA	CONDENSER FAN QUANT.	CONDENSER FAN HP	CONDENSER FAN FLA	VOLTAGE / PHASE	MCA	MOCP	SEER / EER	IPLV	DUCT CONNECTIONS LOCATION	DUCT CONNECTIONS SUPPLY	DUCT CONNECTIONS RETURN	WEIGHT (LBS.)	BASIS OF DESIGN	NOTES
RTU-1	LOCKER AREA	148.6	96.4	40.0	3,200	1,300	1.00	3	4.8	10.6	10.6	2	3/4	2.3	460/3	66.0	70	11.3	12.0	DOWNFLOW	21.5" X 38.0"	13.5" X 38.0"	1,800.0	AAON RM-013-3-0	1-8,10-13,16,17,22-24
RTU-2	OFFICE AREA	275.4	215.8	–	6,400	1,335	1.00	7	11	16.6	16.6	3	1	2.3	460/3	85.0	90	10.5	14.0	DOWNFLOW	31.5" X 50.0"	25.0" X 50.0"	2,500.0	AAON RM-025-3-0	1-8,10-13,16,17,22-25
RTU-3	ELECTRICAL ROOM	44.6	44.6	–	1,800	50	0.50	0.88	2.1	6.2	N/A	1	1/3	1.1	460/3	11.0	15	13.3	N/A	DOWNFLOW	10.5"X27.0"	9.5"X27.0"	700.0	AAON HB-004-3	1-8,11,12,14,17

ADDED RTU-3

NOTES:
1. WHILE INDIVIDUAL UNIT COMPONENT ELECTRICAL REQUIREMENTS MAY VARY, THE TOTAL UNIT DESIGN CIRCUIT AMPACITY AND DESIGN BRANCH CIRCUIT BREAKER SIZE SHALL NOT EXCEED THE SCHEDULED VALUES. IF ELECTRICAL DATA VARIES, PROVIDE ELECTRICAL SHOP DRAWINGS WITH HVAC SHOP DRAWING INDICATING CHANGES TO CIRCUIT, OVERCURRENT PROTECTION, PANEL AND FEEDER.
2. SCHEDULED EXTERNAL STATIC PRESSURE DOES NOT INCLUDE PRESSURE LOSS FOR COIL, FILTERS, CASING, ETC.
3. PROVIDE UNIT WITH SINGLE POINT POWER CONNECTION, FACTORY MOUNTED DISCONNECT AND THRU THE BOTTOM ELECTRICAL CONNECTIONS.
4. PROVIDE GALV. INSULATED ROOF CURB OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM 12 INCHES FROM FINISHED ROOF SURFACE TO TOP OF NAILER. CURB INSULATION SHALL BE 2" FIBERBOARD W/ FOIL FACING.
5. PROVIDE COMPRESSOR SHORT CYCLE PROTECTION TO PREVENT COMPRESSOR RESTART FOR AT LEAST 5 MINUTES AFTER SHUTDOWN.
6. COOLING CAPACITY AND ACT WITH FAN ONLY OPERATION.
7. PROVIDE FILTER ENCLOSURE AND 2" PLEATED THROW AWAY FILTER (MERV 7).
8. PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT AS SHOWN ON DRAWINGS.
9. PROVIDE SMOKE DETECTOR IN RETURN AIR DUCT AS SHOWN ON DRAWINGS.
10. PROVIDE NORMALLY OPEN AUXILIARY CONTACT FOR INTERLOCKED EQUIPMENT. COORDINATE AMP RATING WITH LOAD RATING.
11. PROVIDE FACTORY MOUNTED POWERED CONVENIENCE OUTLET. OUTLET SHALL BE INDEPENDENTLY WIRED.
12. PROVIDE CONTROLS FOR STARTING AND OPERATING THE UNIT IN THE COOLING MODE AT LOW AMBIENT TEMPERATURES.
13. PROVIDE HOT GAS REHEAT AND MODULATING FACE AND BYPASS DAMPERS.
14. PROVIDE ECONOMIZER WITH BAROMETRIC RELIEF DAMPER.
15. PROVIDE CONTROL INTERLOCKS WITH DRY CONTACTS FOR DDC INTERFACE.
16. PROVIDE STAGED CONTROLS FOR ELECTRIC HEAT.
17. PROVIDE INSECT SCREEN FOR OUTSIDE AIR INLET.
18. PROVIDE AAONAIRE ENERGY RECOVERY WHEEL WITH BYPASS DAMPER. HEAT WHEEL MODEL ERC-3923.
19. HEAT WHEEL SHALL BE FACTORY MOUNTED TO ROOF TOP UNIT. FIELD MOUNTING IS NOT ACCEPTABLE.
20. PROVIDE SINGLE POINT POWER TO ROOF TOP UNIT. HEAT WHEEL SHALL NOT REQUIRE SEPARATE POWER. POWER AND CONTROL WIRING BETWEEN RTU AND HEAT WHEEL SHALL BE DONE IN THE FACTORY.
21. PROVIDE VFD DRIVE AND PRESSURE CONTROLLER FOR FAN MOTOR.
22. PROVIDE FACTORY MOUNTED ORION VCM CONTROLLER MODEL OE331-21-VCM.
23. PROVIDE DEDICATED ORION SYSTEMS MANAGER OE392-05.
24. CONTROLLER PROGRAMMED FOR MAU UNIT SEQUENCE OF OPERATION WITH HEAT WHEEL.
25. CONTROLLER PROGRAMMED FOR VAV UNIT SEQUENCE OF OPERATION.
26. PROVIDE UNIT WITH R-410A REFRIGERANT.

MODIFIED NOTE

TO ASSURE COMPLIANCE WITH ENGINEER'S SPECIFICATION, PLEASE CONTACT TONY MORMINO WITH HILL COMPANY, LLC AT (904) 268-7881

POWER VENTILATOR SCHEDULE

MARK	AREA SERVED	FAN TYPE	WHEEL TYPE	CONST	VOLUME (CFM)	ESP (IN WC)	FRPM	DRIVE	HP	VOLT / PHASE	ROOF / WALL OPENING	WEIGHT (LBS.)	EQUIPMENT INTERLOCK	MFG	MODEL	NOTES
EF-1	MAINTENANCE (202)	DOWNBLAST	CENT	ALUMINUM	2,760	0.375	1,092	BELT	1/2	120/1	18.5" X 18.5"	125	SF-1	GREENHECK	GB-161-5	1,2,3,7,8,27
EF-2	WAREHOUSE SUPPLIES (203)	DOWNBLAST	CENT	ALUMINUM	690	0.375	1,130	BELT	1/4	120/1	14.5" X 14.5"	50	SF-1	GREENHECK	GB-101-4	1,2,3,7,8,27
EF-3	FIRE PROTECTION ROOM (210)	DOWNBLAST	CENT	ALUMINUM	2,800	0.250	1,050	BELT	1/2	120/1	18.5" X 18.5"	125	L-2,L-3	GREENHECK	GB-161-5	1,2,3,7,8,27
EF-4	DELETED	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
EF-5A,B	MACHINE ROOM (208)	UPBLAST	CENT	ALUMINUM	9,500	0.375	650	BELT	2.0	460/3	32.5"x32.5"	400	N/A	GREENHECK	CUBE-300-20	1,3,4,7,8,11,27
EF-6A,B	MACHINE ROOM (208)	UPBLAST	CENT	ALUMINUM	9,500	0.375	650	BELT	2.0	460/3	32.5"x32.5"	400	N/A	GREENHECK	CUBE-300-20	1,3,4,7,8,11,27
EF-7	MACHINE ROOM (208)	DOWNBLAST	CENT	ALUMINUM	4,000	0.375	1,115	BELT	1	460/3	20.5" x 20.5	150	N/A	GREENHECK	GB-180-10	1,3,4,7,8,27
EF-8	BATTERY CHARGING (201)	DOWNBLAST	CENT	ALUMINUM	2,500	0.250	970	BELT	1/2	120/1	18.5"x18.5"	125	N/A	GREENHECK	GB-161-5	1,3,4,7,8,27
EF-9	BATTERY CHARGING (201)	DOWNBLAST	CENT	ALUMINUM	7,500	0.250	630	BELT	1.5	460/3	32.5"x32.5"	400	N/A	GREENHECK	GB-260-15	1,3,4,7,8,11,27
EF-10	UNISEX LAVATORY (207)	CABINET	CENT	GALV. STEEL	75	0.375	750	DIRECT	80 W	120/1	N / A	10	N/A	GREENHECK	CSP-B110	1,6,9,14,15
EF-11	ADMIN. RESTROOMS	DOWNBLAST	CENT	ALUMINUM	670	0.375	1,107	DIRECT	1/6	120/1	14.5" X 14.5"	50	RTU-2	GREENHECK	G-121-8	1,3,7,8,11,27
EF-12	FUTURE OFFICE SPACE	DOWNBLAST	CENT	ALUMINUM	2,075	0.375	1,271	BELT	1/2	120/1	18.5" X 18.5"	100	GV-1	GREENHECK	GB-141-5	1,3,7,8,11,27
EF-13	FUTURE OFFICE SPACE	DOWNBLAST	CENT	ALUMINUM	2,075	0.375	1,271	BELT	1/2	120/1	18.5" X 18.5"	100	GV-2	GREENHECK	GB-141-5	1,3,7,8,11,27
EF-14	SECOND FLOOR CLOSETS	DOWNBLAST	CENT	ALUMINUM	550	0.375	1,052	DIRECT	1/4	120/1	14.5" X 14.5"	50	GV-1	GREENHECK	G-131-A	1,3,7,8,11,27
EF-15	TOILETS / LOCKERS	DOWNBLAST	CENT	ALUMINUM	1,300	0.500	1,200	BELT	1/4	120/1	14.5" X 14.5"	100	RTU-1	GREENHECK	GB-131-4	1,3,7,8,27
SF-1	MAINTENANCE (202)	FILT. SUPPLY	CENT	GALV. STEEL	3,450	0.375	1,143	BELT	2	460/3	17.0" X 17.0"	200	EF-1,2	GREENHECK	RSF-100-20	1,2,3,7,8,27
SF-2	BATTERY CHARGING (201)	SUPPLY	PROP	ALUMINUM	2,500	0.250	845	BELT	1/3	120/1	26.5"x26.5"	450	N/A	GREENHECK	RBCS-3H24-3	1,3,7,8,27
SF-3	BATTERY CHARGING (201)	SUPPLY	PROP	ALUMINUM	7,500	0.250	725	BELT	3/4	460/3	38.5"x38.5"	650	N/A	GREENHECK	RBCS-3H36-7	1,3,7,8,11,27
SF-4	SPACE ABOVE USDA INSPEC.	SUPPLY	PROP	ALUMINUM	600	0.375	1,195	DIRECT	1/15	120/1	16.0" X 16.0"	50	GV-1	GREENHECK	ACE-12-D	1,3,7,8,27
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
EF-1	MAINTENANCE (202)	CIRCULATION	PROP	–	25,500	–	–	DIRECT	–	120/1	–	50	LEADING EDGE	GREENHECK	SG101	1,22
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

ADDED EF-1

NOTES:
1. PROVIDE FACTORY MOUNTED AND WIRED DISCONNECT.
2. PROVIDE 120 V MOTORIZED DAMPER.
3. PROVIDE INSUL. ROOF CURB OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM 12" FROM FINISHED ROOF SURFACE TO TOP OF NAILER. CURB INSULATION SHALL BE 2" DOW STYROFOAM WITH FOIL FACING.
4. PROVIDE SPARK-PROOF CONSTRUCTION WITH ALUMINUM BLADES.
5. PROVIDE GRAVITY DAMPER W/ MAGNETIC LATCH.
6. SOLID STATE SPEED CONTROLLER LOCATED WITHIN FAN HOOD.
7. PROVIDE ALUMINUM INSECT SCREEN.
8. PROVIDE ADJUSTABLE BELT DRIVE.
9. PROVIDE EXHAUST ROOF CAP/JACK W/ BIRD SCREEN.
10. PROVIDE EXHAUST WALL CAP WITH BIRD SCREEN.
11. PROVIDE GRAVITY BACKDRAFT DAMPER.
12. PROVIDE OSHA APPROVED INLET AND OUTLET GUARD.
13. PROVIDE WALL BOX, SHUTTER AND WIRE GUARD.
14. PROVIDE HANGING RODS, BRACKETS AND VIBRATION ISOLATORS.
15. PROVIDE TIME DELAY SWITCH.
16. PROVIDE RAIN HOOD.
17. PROVIDE 4 SPEED FAN: XXX RPM, LOW, XXX RPM HIGH.
18. PROVIDE EXTENDED LUBRICATION LINES.
19. PROVIDE FAN WITH COATED, NON-STICK WHEEL.
20. PROVIDE ALLEN BRADLEY VFD FOR FAN MOTOR.
21. PROVIDE EXPOSION-PROOF MOTOR.
22. PROVIDE WALL MOUNTED SWITCH TO CONTROL UP TO 8 FANS.
23. PROVIDE DRY CONTACTS WITHIN SUPPLY FAN TO ALLOW SHUT DOWN UPON DETECTION OF THE AMMONIA DETECTION SYSTEM.
24. PROVIDE XX FIRE RATED DAMPER.
25. PROVIDE FILTER RACK WITH 1" DISPOSIBLE FILTERS (MERV 7).
26. PROVIDE 480V TO 115V SINGLE PHASE TRANSFORMER TO POWER THE MOTORIZED DAMPER.
27. PROVIDE 120 MPH HOLD DOWN STRAPS FOR CURB AND FAN HEAD.

PTAC AIR CONDITIONING UNIT SCHEDULE

MARK	AREA SERVED	COOLING (MBH)	HEATING (MBH)	CFM	O.A. CFM	AUX. HT. (KW)	VOLT/PH	AMPS	FUSE SIZE	EER	COP	WGT. (LBS)	BASIS OF DESIGN	NOTES
PTAC-1	ENGINEERS OFFICE (204)	9.1	–	260	50	3.0	208/1	11.8	20	11.4	3.2	125	TRANE PTHE 09	1-5,7,8,10
PTAC-2	USDA OFFICE (206)	12.0	9.9	320	70	3.0	208/1	11.8	20	11.2	3.1	140	TRANE PTHE 12	1-5,7,8,10,11
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NOTES:
1. PROVIDE WALL SLEEVE.
2. PROVIDE SINGLE POINT CONNECTION.
3. PROVIDE REMOTE MOUNTED PROGRAMMABLE THERMOSTAT.
4. PROVIDE CONDENSATE PUMP DRAIN KIT.
5. PROVIDE EXTRUDED ALUMINUM ARCHITECTURAL GRILLE.
6. PROVIDE EXHAUST CONTROL.
7. PROVIDE INBUILT CIRCUIT BREAKER.
8. PROVIDE SUBBASE.
9. PROVIDE WINDOW INSTALLATION KIT.
10. PROVIDE PVC CONDENSATE DRAIN TO HUB DRAIN.
11. PROVIDE POWER VENT KIT.

VARIABLE AIR VOLUME UNIT SCHEDULE

MARK	AREA SERVED	PRIMARY CFM	MIN. COOL CFM	MIN. HEAT CFM	ASSOC. RTU	TYPE	HEAT (KW)	STEPS	VOLTAGE / PHASE	INLET SIZE	S.P. (" W.G.)	WGT. (LBS)	MFG.	MODEL	NOTES
VAV-1	WORKSTATIONS (403)	685	335	335	RTU-2	SINGLE DUCT	4.0	2	480/3	8#	0.13	50	TITUS	DESV	1 THRU 10
VAV-2	OPEN OFFICE (401)	785	400	400	RTU-2	SINGLE DUCT	6.0	2	480/3	8#	0.13	50	TITUS	DESV	1 THRU 10
VAV-3	OFFICE (407)	125	65	65	RTU-2	SINGLE DUCT	2.5	2	480/3	4#	0.13	46	TITUS	DESV	1 THRU 10
VAV-4	DRESS LOUNGE (404)	570	285	285	RTU-2	SINGLE DUCT	4.0	2	480/3	7#	0.13	50	TITUS	DESV	1 THRU 10
VAV-5	LOBBY (501)	2,900	1,450	1,450	RTU-2	SINGLE DUCT	14.0	3	480/3	14#	0.13	70	TITUS	DESV	1 THRU 10
VAV-6	GENERAL OFFICE AREA	1,630	815	815	RTU-2	SINGLE DUCT	10.0	3	480/3	12#	0.13	70	TITUS	DESV	1 THRU 10
VAV-7	OFFICE (505)	570	285	285	RTU-2	SINGLE DUCT	4.0	2	480/3	7#	0.13	50	TITUS	DESV	1 THRU 10
VAV-8	SOUTH OFFICES	1,300	650	650	RTU-2	SINGLE DUCT	9.0	3	480/3	10#	0.13	60	TITUS	DESV	1 THRU 10
VAV-9	CONFERENCE ROOM (502)	750	375	375	RTU-2	SINGLE DUCT	5.0	2	480/3	8#	0.13	50	TITUS	DESV	1 THRU 10
VAV-10	SUPER OFFICE (402)	125	65	65	RTU-2	SINGLE DUCT	2.5	2	480/3	4#	0.13	46	TITUS	DESV	1 THRU 10
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

MODIFIED VAV-2 AND VAV-3

ADDED VAV-10

NOTES:
1. PROVIDE MINIMUM 22 GAUGE GALV. STEEL CASING WITH FIBRE FREE LINER (1.5 LB DENSITY, CLOSED CELL FOAM).
2. PROVIDE FACTORY INSTALLED, ETL LISTED, ELECTRIC UNIT HEATER.
3. PROVIDE AUTOMATIC THERMAL CUTOUTS, AIR FLOW SENSOR AND LINE TERMINAL BLOCK.
4. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
5. MOUNT VAV'S AWAY FROM WALLS AND OTHER OBSTRUCTIONS PER MANUFACTURER'S RECOMMENDED CLEARANCES.
6. PROVIDE 24 V CONTROL TRANSFORMER.
7. PROVIDE 24 V ADJUSTABLE ZONE SENSOR.
8. PROVIDE FACTORY MOUNTED ORION VAV BOX CONTROLLER MODEL OE324-00-VAVZ.
9. PROVIDE ARI CERTIFIED UNIT.
10. PROVIDE UL LISTED UNIT.

DUCTLESS SPLIT SYSTEM SCHEDULE

PLAN SYMBOLS INDOOR UNIT	PLAN SYMBOLS OUTDOOR UNIT	AREA SERVED	COOLING 95 db/76 wb TOTAL (MBH)	SENS. (MBH)	MIN. SEER / EER	HEATING 47 F db (MBH)	MIN. HSPF / COP	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	INDOOR UNIT VOLT / PH	FLA	AUX. HT. (KW)	BASIS OF DESIGN	OUTDOOR UNIT VOLT / PH	MCA	MOCP	IPLV	BASIS OF DESIGN	NOTES
AHU-1	CU-1	ELEVATOR MACHINE RM (504)	8.5	–	10.2	N/A	N/A	260	0	120 / 1	0.4	0.0	MITSUBISHI MS09TW	120 / 1	11	15	N/A	MITSUBISHI MUQ09TW	1 THRU 6
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NOTES:
1. PROVIDE SINGLE POINT POWER CONNECTION C/W DISCONNECT.
2. PROVIDE INTERNAL CONDENSATE PUMP.
3. PROVIDE CHARCOAL FILTER KIT.
4. PROVIDE POWER VENTILATION KIT.
5. PROVIDE 24V REMOTE THERMOSTAT.
6. PROVIDE CONTROLS AND RELAY FOR 24V THERMOSTAT.
7. PROVIDE HAND HELD-INFRARED REMOTE CONTROLLER.

ELECTRIC UNIT HEATER SCHEDULE

MARK	AREA SERVED	CAPACITY (KW)	CFM	MAX MOUNTING HGT (FT)	MAX MOUNTING THROW (FT)	VOLTAGE	AMPS	FAN HP	WHT (LBS)	BASIS OF DESIGN	NOTES
EUH-1	OPEN SPACE (601)	25.0	2,000	12	45	480 / 3	30.1	1/15	120	TRANE UHEC-2530	1 THRU 7
EUH-2	OPEN SPACE (601)	40.0	3,100	15	55	480 / 3	47.0	1/5	120	TRANE UHEC-4030	1 THRU 7
EUH-3	FIRE RISER (110A)	3.3	400	8	12	480 / 3	4.0	1/125	35	TRANE UHEC-0330	1 THRU 7
EUH-4	FIRE RISER (110B)	3.3	400	8	12	480 / 3	4.0	1/125	35	TRANE UHEC-0330	1 THRU 7
EUH-5	SPACE ABOVE USDA INS.	5.0	400	18	12	480 / 3	6.1	1/125	50	TRANE UHEC-0530	1 THRU 7
–	–	–	–	–	–	–	–	–	–	–	–

NOTES:
1. PROVIDE SINGLE POINT POWER CONNECTION.
2. PROVIDE WALL BRACKET.
3. PROVIDE UNIT WITH THERMAL SAFETIES.
4. PROVIDE BUILT-IN CONTACTORS AND CONTROL CIRCUIT TRANSFORMERS.
5. PROVIDE UNIT WITH FAN DELAY FOR REMOVAL OF RESIDUAL HEAT.
6. PROVIDE UNIT MOUNTED THERMOSTAT.
7. PROVIDE CONTACTOR STARTER/DISCONNECT COMBINATION
8. PROVIDE HAZARDOUS LOCATION ELECTRIC UNIT HEATER.
9. PROVIDE WASH DOWN GRADE ELECTRIC UNIT HEATER.

WALL LOUVER SCHEDULE

MARK	AREA SERVED	FREE AREA (SF)	WIDTH (IN.)	HGT. (IN.)	MOUNTING HEIGHT (IN.)	DAMPER INTERLOCK	MFG.	MODEL	NOTES
L-1	WAREHOUSE SUPPLIES (203)	1.28	18	24	24	NO	GREENHECK	ESJ-602	1,2,3,5
L-2	FIRE PROTECTION (210)	4.42	24	48	24	YES	GREENHECK	ESD-635X	1,2,3,5,7
L-3	DELETED	–	–	–	–	–	–	–	–
L-4	DELETED	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–

NOTES:
1. LOUVER DIMENSIONS ARE FOR NOMINAL WALL OPENING.
2. MOUNTING HEIGHT FROM TOP OF FINISHED FLOOR TO BOTTOM OF LOUVER.
3. ANODIZED ALUMINUM. COORDINATE COLOR W/ ARCH. DRAWINGS.
4. BAKED ACRYLIC ENAMEL. COORDINATE COLOR W/ ARCH.
5. PROVIDE ALUMINUM BIRD SCREEN.
6. PROVIDE COUNTERBALANCED BACKDRAFT DAMPER.
7. PROVIDE 120V MOTORIZED DAMPER.
8. DAMPER ACTUATOR SHALL BE POWERED CLOSED AND FAIL OPEN.
9. PROVIDE FILTER RACK WITH 1" EGGCRATE FILTERS (MERV 3).
10. PROVIDE TAMCO SERIES 9000 INSULATED DAMPER
11. PROVIDE BELIMO DAMPER OPERATOR FOR MOTORIZED DAMPER
12. PROVIDE BELIMO MODULATING DAMPER OPERATOR FOR MTR. DAMPER
13. PROVIDE STAINLESS STEEL LOUVER.
14. PROVIDE PLENUM EXTENSION AT INSIDE OF LOUVER.

AIR DISTRIBUTION DEVICES SCHEDULE

MARK	CFM	NECK SIZE	FACE SIZE (IN.)	DESCRIPTION
A	140 - 250	8"ø	24x24	SUPPLY DIFFUSER
	251 - 420	10"ø	24x24	BASIS OF DESIGN: TITUS TMS-AA
	421 - 620	12"ø	24x24	COLOR: WHITE
	621 - 750	14"ø	24x24	MATERIAL: ALUMINUM
	751 - 980	16"ø	24x24	ALUMINUM OPPOSED BLADE DAMPER: YES
B	000 - 50	4"ø	12x12	SUPPLY DIFFUSER
	51 - 115	6"ø	12x12	BASIS OF DESIGN: TITUS TMS-AA
	116 - 139	8"ø	12x12	COLOR: WHITE
				MATERIAL: STEEL
				ALUMINUM OPPOSED BLADE DAMPER: YES
C	000 - 500	22x8	24x10	RETURN / EXHAUST GRILLE (NON-DUCTED)
	501-1100	22x12	24x14	BASIS OF DESIGN: TITUS 50F
	1101-2200	22x22	24x24	MATERIAL: ALUMINUM
				ALUMINUM OPPOSED BLADE DAMPER: YES
D	000 - 135	6x6	8x8	RETURN / EXHAUST GRILLE (DUCTED)
	136 - 260	8x8	10x10	BASIS OF DESIGN: TITUS 50F
	261 - 415	10x10	12x12	MATERIAL: ALUMINUM
	416 - 1150	16x16	18x18	ALUMINUM OPPOSED BLADE DAMPER: YES
	1151 - 2200	22x22	24x24	
E	000 - 205	12x6	14x8	TRANSFER GRILLE
	206 - 675	18x12	20x14	BASIS OF DESIGN: TITUS 350FL
	676 - 1300	24x18	26x20	MATERIAL: ALUMINUM
	1301 - 1750	30x18	30x18	ALUMINUM OPPOSED BLADE DAMPER: YES
F	000 - 800	12x12	12x12	SUPPLY DIFFUSER
	801 - 1800	18x18	18x18	BASIS OF DESIGN: KEES MODEL 2AV
	1801 - 3200	24x24	24x24	MATERIAL: 304 STAINLESS STEEL
	3201 - 4600	30x30	30x30	SS OPPOSED BLADE DAMPER: YES
	4601 - 7200	36x36	36x36	
	7201 - 9200	42x42	42x42	
	9201 - 12200	48x48	48x48	
G	000 - 410	12x12	14x14	RETURN / EXHAUST GRILLE
	411 - 635	18x12	20x14	BASIS OF DESIGN: KEES MODEL SSEC
	636 - 865	24x12	26x14	MATERIAL: 304 STAINLESS STEEL
	866 - 1815	24x24	26x26	SS OPPOSED BLADE DAMPER: YES
	1816 - 2895	30x30	32x32	
	2896 - 3725	48x24	50x26	
	3726 - 5655	48x48	50x50	
H	000 - 175	12x12	12x12	DOOR GRILLE
	176 - 350	24x12	24x12	BASIS OF DESIGN: TITUS CT-700
	351 - 750	24x24	24x24	MATERIAL: ALUMINUM
	751 - 1150	30x30	30x30	BORDER TYPE: SURFACE MOUNT
I	3000 - 4500	48x48	50x50	RETURN / EXHAUST GRILLE
				BASIS OF DESIGN: KEES MODEL R45 SS
J	000 - 350	10x10	12x12	SUPPLY DIFFUSER (SIDEWALL)
	351 - 650	10x18	12x24	BASIS OF DESIGN: TITUS 300FS
	651 - 800	10x22	12x24	MATERIAL: ALUMINUM
	801 - 1500	22x22	24x24	ALUMINUM OPPOSED BLADE DAMPER: YES
				BORDER TYPE: SURFACE MOUNT
K	000 - 300	10x10	12x12	RETURN / EXHAUST GRILLE (SIDEWALL)
	301 - 550	10x18	12x24	BASIS OF DESIGN: TITUS 355FL
	551 - 650	10x22	12x24	MATERIAL: ALUMINUM
	651 - 1500	22x22	24x24	ALUMINUM OPPOSED BLADE DAMPER: YES
				BORDER TYPE: SURFACE MOUNT
–	–	–	–	–

NOTES:
1. AIR DISTRIBUTION DEVICES LOCATED WITHIN ACOUSTICAL TILE CEILINGS SHALL BE PROVIDED WITH BORDER TYPE J FOR LAY-IN MOUNTING. AIR DISTRIBUTION DEVICES LOCATED WITHIN GYPSUM BOARD CEILINGS OR WALLS SHALL BE PROVIDED WITH BORDER TYPE 1 FOR SURFACE MOUNTING. REFER TO ARCH DWGS FOR CEILING TYPES.
2. AIR DISTRIBUTION DEVICES LOCATED IN SMALL ROOMS WHERE FULL 24"x24" GRID ARE NOT AVAILABLE SHALL BE PROVIDED WITH SURFACE MOUNTING BORDERS IN LIEU OF LAY-IN. SECURE EACH DEVICE TO CEILING GRID WITH FIELD FABRICATED SUPPORTS.

GRAVITY VENTILATOR SCHEDULE

MARK	AREA SERVED	CFM	MAX SP (IN. WG)	DAMPER INTERLOCK	THROAT OPENING	WHT (LBS)	MFG.	MODEL	NOTES
GIV-1	OPEN SPACE (601)	2,275	0.086	EF-12	24" x 24"	100	GREENHECK	FHI	1,3,4,5,8
GIV-2	OPEN SPACE (601)	2,275	0.086	EF-13	24" x 24"	100	GREENHECK	FHI	1,3,4,5,8
GIV-3	MACHINE ROOM (208)	21,000	0.095	N/A	60" x 80"	375	GREENHECK	FHI	1,3,4,5,8
GIV-4	MACHINE ROOM (208)	21,000	0.095	N/A	60" x 80"	375	GREENHECK	FHI	1,3,4,5,8
GRV-1	SPACE ABOVE USDA INS.	300	0.040	N/A	16" X 19"	10	GREENHECK	GRSI	2,3,4,5,8
–	–	–	–	–	–	–	–	–	–

NOTES:
1. GIV – INTAKE VENTILATOR.
2. GRV – RELIEF VENTILATOR.
3. PROVIDE INSULATED ROOF CURB OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM OF 12" FROM FINISHED ROOF TO TOP OF NAILOR. CURB INSUL. SHALL BE 2" DOW STYROFOAM WITH FOIL FACING. CURB SHALL BE ALUM. CONSTRUCTION.
4. PROVIDE ALUMINUM BIRD SCREEN.
5. PROVIDE GRAVITY BACKDRAFT DAMPER.
6. PROVIDE MOTORIZED DAMPER-120 V.
7. PROVIDE SUPPLY FILTERS IN DUCTWORK.
8. ROOF OPENING DIMENSIONS ARE 2.5 INCHES LARGER THAN THE THROAT OPENING.

ELECTRIC BASEBOARD HEATER SCHEDULE

| MARK | AREA SERVED | CAPACITY (WATTS) | WATTS/FT | LENGTH (FT.) | VOLT / PH | BAS

MECHANICAL SPECIFICATIONS

1.0 GENERAL

1.1 UPON COMPLETION OF WORK, THOROUGHLY CLEAN THE ENTIRE SYSTEM AND TEST TO ENSURE THAT THE SYSTEM PERFORMS TO REQUIREMENTS. LEAVE WORK IN PERFECT OPERATING CONDITION.

1.2 ALL EQUIPMENT SUPPLIED UNDER THIS DIVISION, WHICH MAY HAVE BEEN DAMAGED OR SCRATCHED, SHALL BE TOUCHED UP WITH THE MANUFACTURER'S PAINT OR COMPLETELY PAINTED IF SO DESIRED BY THE OWNER.

1.3 COOPERATE WITH OTHER TRADES AS REQUIRED. SUPPLY TO THE GENERAL CONTRACTOR, WHERE REQUIRED, THE LOCATIONS OF ALL HOLES, CHASES, ANCHOR BOLTS, SLEEVES AND INSERTS. OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST.

1.4 WORK TO EQUAL OR EXCEED MINIMUM STANDARDS FOR MATERIALS, INSTALLATION METHODS AND WORKMANSHIP AS SPECIFIED BY APPLICABLE LOCAL, STATE AND FEDERAL CONSTRUCTION CODES.

1.5 MATERIALS AND EQUIPMENT ARE SPECIFICALLY DESCRIBED AND NAMED IN THESE SPECIFICATIONS FOR THE PURPOSE OF ESTABLISHING A STANDARD OF MATERIALS AND WORKMANSHIP. THE PRICE SUBMITTED FOR THIS CONTRACT SHALL BE BASED ON SUPPLY AND INSTALLATION OF MATERIALS AND EQUIPMENT AS SPECIFIED. ALTERNATES SHALL BE SUBMITTED AS AN EXTRA OR CREDIT TO THE BASE EQUIPMENT SPECIFIED BASIS.

1.6 ALL EQUIPMENT AND COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER.

1.7 WHERE A MANUFACTURER'S NAME APPEARS, NOTE THAT THE DESIGN IS BASED ON THE DIMENSIONS AND PHYSICAL CONFIGURATION OF THE MANUFACTURER'S EQUIPMENT LISTED.

1.8 THE DRAWINGS ARE TO BE CONSIDERED AS DIAGRAMMATICAL ONLY AND DO NOT SHOW ALL THE STRUCTURAL AND CONSTRUCTION DETAILS. ANY INFORMATION INVOLVING ACCURATE MEASUREMENTS OF THE BUILDING SHALL BE TAKEN AT THE SITE. ANY NECESSARY CHANGES OR ADDITIONS TO ACCOMMODATE STRUCTURAL CONDITIONS SHALL BE MADE WITHOUT ADDITIONAL COSTS.

1.9 ALL LOCATIONS ARE APPROXIMATE. OBTAIN DIRECTION FROM THE GENERAL CONTRACTOR FOR FINAL LOCATIONS.

1.10 DO ALL WORK IN ACCORDANCE WITH ALL RULES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. PROVIDE ALL ADDITIONAL COMPONENTS REQUIRED BY THESE AUTHORITIES.

1.11 ALL MATERIALS AND EQUIPMENT SHALL BE PROTECTED DURING CONSTRUCTION FROM ALL SOURCES OF DAMAGE.

1.12 VISIT THE SITE BEFORE SUBMITTING BID TO DETERMINE EXISTING CONDITIONS AND THE EXTEND TO WHICH THEY WILL AFFECT THE WORK UNDER THIS CONTRACT. FAILURE TO DO SO WILL NOT RELIEVE THIS CONTRACTOR FROM THE COST OF RESULTING ADDITIONAL WORK.

1.13 VERIFY ALL SPACES IN WHICH EQUIPMENT AND DUCTWORK ARE TO BE LOCATED.

1.14 ONLY FIRST CLASS WORKMANSHIP WILL BE ACCEPTED IN REGARD TO ACCEPTED STANDARD PRACTICES, SAFETY, ACCESSIBILITY, DURABILITY AND NEATNESS OF DETAIL.

1.15 ALL DAMAGE TO THE EXISTING STRUCTURE DUE TO MECHANICAL INSTALLATION UNDER THIS PROJECT SHALL BE REPAIRED AND MADE GOOD BY THIS CONTRACTOR.

1.16 ALL CORE DRILLING, CUTTING AND PATCHING OF STRUCTURE SHALL BE CARRIED OUT OUTSIDE NORMAL WORKING HOURS AT A TIME CONVENIENT TO THE PROJECT MANAGER. CUTTING AND CORE DRILLING SHALL NOT BE CARRIED OUT WITHOUT THE PERMISSION OF THE PROJECT STRUCTURAL ENGINEER.

1.17 THE DRAWINGS SHOW THE WORK IN ITS FINAL, COMPLETED FORM. EQUIPMENT REMOVED AND NOT REQUIRED TO SUIT NEW LAYOUT SHALL BE TURNED OVER TO OWNER OR DISPOSED OF AS PER PROJECT MANAGER'S INSTRUCTIONS.

1.18 AT THE END OF THE PROJECT, THE CONTRACTOR MUST PROVIDE TO THE OWNER/ ENGINEER A COMPLETE SET OF "AS-RECORDED" DRAWINGS IN PRINT FORM. FINAL PAYMENT OF THIS CONTRACT WILL BE SUBJECT TO THE OWNER/ENGINEER'S RECEIPT OF THE ABOVE.

1.19 ALL SERVICES SHALL BE INSTALLED PARALLEL TO BUILDING LINES.

1.20 ALL MECHANICAL SYSTEMS INDICATED ON THE DRAWINGS OR WITHIN THE SPECIFICATION ARE NEW. REFER TO ARCHITECTURAL DRAWINGS TO DETERMINE LOCATIONS OF NEW AND FUTURE CONSTRUCTION.

1.21 PRIOR TO ORDERING OR FABRICATING ANY EQUIPMENT, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS TO THE ENGINEER.

1.22 MOUNT THE OUTDOOR GROUND MOUNTED EQUIPMENT ON 4-INCH THICK CONCRETE PADS WHICH EXTEND 6-INCHES BEYOND THE EQUIPMENT IN EACH DIRECTION. PROVIDE 6"x6" WWM REINFORCING IN THE SLABS. SECURE EQUIPMENT TO PADS.

1.23 CONTRACTOR SHALL COORDINATE MOUNTING OF UNITS WITH ALL TRADES TO ENSURE THAT UNITS CAN BE SERVICED AS REQUIRED BY ALL APPLICABLE CODES. SERVICING SHALL INCLUDE BUT NOT BE LIMITED TO CHANGING OF FILTERS AND REMOVAL OF COMPRESSORS, FANS AND DRIVES.

1.24 ELECTRICAL EQUIPMENT ROOMS: CAREFULLY COORDINATE THE INSTALLATION OF DUCTWORK AND PIPING WITH ELECTRICAL EQUIPMENT ROOMS TO PROVIDE CODE REQUIRED CLEARANCES IN FRONT OF AND ABOVE ELECTRICAL EQUIPMENT.

1.25 PLENUM RATED WIRE SHALL BE NEATLY BUNDLED IN GROUPS AND SHALL BE COMBINED WHERE APPLICABLE TO FOLLOW A SINGULAR PATH BETWEEN DEVICES. BUNDLES SHALL BE SUPPORTED WITH APPROPRIATE STRAPS INTENDED FOR THIS PURPOSE ON SPACING NOT TO EXCEED 6 FEET. AT RATED WALL ASSEMBLY PENETRATIONS PROVIDE A METAL CONDUIT SLEEVE TO EXTEND A MINIMUM OF ONE FOOT BEYOND EACH SIDE OF THE ASSEMBLY. SEAL CONDUIT ENDS WITH FIRE PROOF PUTTY UPON COMPLETION OF WIRE INSTALLATION.

1.26 EACH WIRE ENTERING THE CONTROL PANEL SHALL BE IDENTIFIED WITH A CODED NUMBER TAG. THE CODED NUMBER SHALL IDENTIFY THE WIRE'S FUNCTION, TYPE OF DEVICE SERVED AND WHERE THE DEVICE IS LOCATED. A LEGEND CARD IDENTIFYING THE NUMBERED CODE SYSTEM SHALL BE PROVIDED. CORRESPONDING NUMBERED TAGS SHALL BE INSTALLED ON ALL WIRES AT INTERVALS NOT TO EXCEED 30 FEET AND AT WALL OUTBOUND WIRE TERMINATIONS.

1.27 ALL CONTROL WIRING SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. ALL CONTROL WIRING SHALL BE PLENUM RATED WIRE OR ROUTED WITHIN CONDUIT PER DIVISION 16 SPECIFICATIONS.

1.28 COORDINATE EXACT LOCATIONS OF ROOF MOUNTED EQUIPMENT WITH STRUCTURAL DRAWINGS.

1.29 COORDINATE EXACT LOCATIONS OF ROOF MOUNTED EQUIPMENT WITH EXISTING STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED.

1.30 CURBS PROVIDED FOR ROOF MOUNTED EQUIPMENT SHALL MATCH ROOF PITCH SUCH THAT NAILER IS LEVEL.

1.31 MECHANICAL EQUIPMENT SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE NEAREST ROOF EDGE. EQUIPMENT LOCATED WITHIN THE 10 FEET FROM THE ROOF EDGE WILL REQUIRE A HANDRAIL ALONG EDGE OF ROOF.

1.32 ALL AIR DISTRIBUTION SYSTEMS SHALL BE TESTED AND BALANCED BY AN INDEPENDENT TESTING, ADJUSTING AND BALANCING AGENCY. TAB AGENCY SHALL ALSO REVIEW REFRIGERATION DRAWINGS AND PROVIDE TESTING AND BALANCING OF ALL RMAUS. FINAL PRESSURE BALANCE OF RMAUS AND EFS IN PROCESS AREAS TO MAINTAIN PROPER AIRFLOWS FOR SANITATION SHALL BE PERFORMED BY THE TAB AGENCY. A CERTIFIED TAB REPORT DEMONSTRATING COMPLIANCE WITH THE DESIGN SHALL BE PROVIDED TO THE ENGINEER.

2.0 HEATING, VENTILATION AND AIR CONDITIONING:

2.1 GENERAL:

2.1.1 PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE THE WORK AS INDICATED.

2.1.2 ALL MECHANICAL EQUIPMENT SHALL BE FURNISHED COMPLETE WITH MOTOR STARTERS AND HEATER CONTACTORS. ALL OPERATING CONTROLS AND SAFETIES SHALL BE UL OR ETL LISTED. PROVIDE ELECTRICAL DISCONNECT PER NFPA 70.

2.1.3 PROVIDE SYSTEMS AND EQUIPMENT IDENTIFICATION.

2.1.4 BALANCE RTUS, MAUS, EFS, DIFFUSERS AND GRILLES TO AIR FLOWS SHOWN ON THE DRAWINGS.

2.1.5 SUPPORT AIR CONDITIONING INDOOR UNITS FROM BAR JOISTS WITH MINIMUM OF FOUR THREADED RODS AND SPRING TYPE VIBRATION ISOLATORS.

2.1.6 PROVIDE AUXILIARY CONDENSATE DRAIN PAN BELOW INTERIOR UNITS ABOVE CEILING. AHUS AUXILIARY DRAIN PAN SHALL EXTEND THREE INCHES BEYOND LENGTH AND WIDTH OF UNIT. PAN SHALL BE CONSTRUCTED OF NOT LESS THAN NO. 24 GAUGE GALVANIZED SHEET METAL.

2.1.7 ROUTE CONDENSATE PIPING FROM AUXILIARY DRAIN PANS ON AHUS TO DISCHARGE OVER HUB DRAIN. CONDENSATE PIPING SHALL BE 1-INCH MIN.

2.1.8 ADJUST EXACT DIFFUSER, REGISTER AND GRILLE LOCATIONS IN FIELD IN ORDER TO FIT THE CEILING GRID AS ACTUALLY INSTALLED.

2.1.9 AN AIR BALANCING DAMPER MAY NOT BE OMITTED FROM A SUPPLY DIFFUSER EVEN WHEN AN ACCESSIBLE BALANCING DAMPER IS PROVIDED IN THE BRANCH DUCT SERVING THE DIFFUSER.

2.1.10 PROVIDE SMOKE DETECTOR ON SUPPLY AND/OR RETURN DUCTWORK AS SHOWN ON THE DRAWINGS. INTERLOCK WITH FAN FOR SHUTDOWN UPON ACTIVATION. PROVIDE SIGNAL TO CENTRAL FIRE ALARM SYSTEM. SMOKE DETECTORS SHALL BE 24-VOLT POWER AND POWERED BY THE CONTROL TRANSFORMER FROM THE UNIT SERVED. SMOKE DETECTORS SHALL BE PROVIDED, INSTALLED AND WIRED TO RTU BY THE MECHANICAL CONTRACTOR. WIRING TO THE CENTRAL FIRE ALARM SHALL BE DONE BY THE ELECTRICAL CONTRACTOR. SMOKE DETECTOR SAMPLING TUBE SHALL EXTEND THE FULL WIDTH OF THE DUCT AND A ACCESS DOOR IS REQUIRED FOR SERVICE AND INSPECTION.

2.1.11 THERMOSTATS SHALL BE LOCATED AT 4'-6" AFF (UNLESS INDICATED OTHERWISE).

2.1.12 CONDENSATE PIPING FOR MECHANICAL ROOFTOP EQUIPMENT SHALL BE PVC TYPE DWV ROUTED TO ROOF DRAIN OR GUTTER AND COATED WITH UV PROTECTANT. PROVIDE TRAP IN PIPING AT UNIT.

2.2 DUCTWORK:

2.2.1 PROVIDE ALL DUCTWORK SHOWN. MAKE ALL NECESSARY CONNECTIONS TO COMPLETE THE SYSTEM.

2.2.2 ALL NEW DUCTWORK SHALL BE FABRICATED AND INSTALLED TO THE LATEST STANDARDS PUBLISHED IN ASHRAE AND SMACNA.

2.2.3 DUCTWORK SHALL BE FREE FROM NOISE AND VIBRATION AND WITH ALL NECESSARY REINFORCEMENT BRACKETS AND GASKETING.

2.2.4 PRIOR TO ORDERING OR FABRICATING ANY NEW EQUIPMENT, THIS CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS TO THE PROJECT MANAGER.

2.2.5 ALL DUCTWORK DIMENSIONS SHOWN ARE INSIDE DIMENSIONS.

2.2.6 DUCT CONNECTIONS TO EQUIPMENT INTAKES: TRANSITION FROM DUCT SIZE INDICATED ON PLAN TO THE FULL SIZE ON THE FAN INLET AT CONNECTION TO THE FAN. MAXIMUM TRANSITION IS 30 DEGREES.

2.2.7 PROVIDE CURBS FOR ROOF MOUNTED EQUIPMENT AND DUCT PENETRATIONS TO MATCH ROOF PITCH SUCH THAT NAILER IS LEVEL. ALL ROOF MOUNTED EQUIPMENT SHALL BE PROVIDED WITH CURBS THAT MATCH THE UNIT FROM THE RESPECTIVE EQUIPMENT SUPPLIER OF AT LEAST 12" IN HEIGHT. CURB INSULATION SHALL BE DOW STYROFOAM WITH FOIL FACING. CURB CONSTRUCTION SHALL BE ALUMINUM.

2.2.8 CURB MOUNTED EQUIPMENT SHALL BE SECURED TO THE CURB IN SUCH A WAY TO SUSTAIN 120 MPH WINDS.

2.2.9 COORDINATE FINAL ON SITE LOCATIONS OF ROOF MOUNTED EQUIPMENT WITH ARCHITECTURAL, STRUCTURAL AND REFRIGERATION DRAWINGS.

2.2.10 LOADS SUSPENDED FROM THE ROOF OR FLOOR STRUCTURE ABOVE SHALL HANG DIRECTLY FROM THE STRUCTURAL ROOF MEMBER (CONCRETE TEE BEAM, BAR JOIST, STEEL BEAM, ETC) NOT ROOF DECK. PROVIDE SECONDARY SUPPORT MATERIAL DESIGNED TO CARRY THE LOAD, BETWEEN THE STRUCTURAL MEMBERS. DO NOT SUPPORT LOADS FROM BRIDGING OR ROOF DECK.

2.2.11 THIS CONTRACTOR SHALL COORDINATE MOUNTING OF ALL UNITS WITH ALL TRADES TO INSURE THAT UNITS CAN BE SERVICED IN ACCORDANCE WITH ALL APPLICABLE CODES AND NORMAL GOOD TRADE PRACTICE.

2.2.12 SECURE EQUIPMENT TO SUPPORTS PER LOCAL CODE AUTHORITY. PROVIDE SEISMIC BRACING PER LOCAL CODE AUTHORITY. THIS CONTRACTOR SHALL PROVIDE SHOP DRAWINGS INDICATING METHODS INTENDED.

2.2.13 DUCTWORK SHALL BE SUSPENDED IN ACCORDANCE WITH SMACNA STANDARDS. ON INSULATED DUCTWORK, MAINTAIN VAPOR BARRIER INTEGRITY OF DUCTWORK INSULATION. PROTECT INSULATION WITH GALV. STEEL SHIELDS 6" LONG MIN.

2.2.14 REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO DETERMINE LOCATIONS OF STRUCTURAL CONSTRUCTION FEATURES.

2.2.15 HANGER RODS SHALL BE PLAIN GALV. STEEL ROD WITH THREADED ENDS. CONTINUOUSLY THREADED ROD WILL NOT BE PERMITTED.

2.2.16 RUN DUCTWORK PARALLEL TO THE BUILDING STRUCTURE.

2.2.17 SEAL OUTLETS AIR TIGHT TO DUCTWORK.

2.2.18 DUCTWORK SHALL BE IN ACCORDANCE WITH SPECIFICATION ON THIS SHEET, UNLESS NOTED OTHERWISE ON DRAWINGS.

2.2.19 FLEXIBLE DUCTWORK SHALL BE THE SAME SIZE AS THE NECK OF AIR DISTRIBUTION DEVICE WHICH IT SERVES.

2.2.20 FIRE DAMPERS SHALL BE RATED PER HOURLY RATING OF WALLS AND FLOORS AS INDICATED ON ARCHITECTURAL DRAWINGS.

2.3 DUCT INSULATION:

2.3.1 SUBMIT MANUFACTURER'S DESCRIPTIVE PRODUCT DATA SHEETS ON CATALOGUED ITEMS TO BE USED.

2.3.2 SUBMIT SHOP DRAWINGS SHOWING DETAILS OF DUCTWORK INSULATION AND DUCTWORK INSULATION COVERINGS.

2.3.3 MATERIALS: UL LISTED; FLAME SPREAD/FUEL CONTRIBUTED/SMOKE DEVELOPED RATING OF 25/50/50 IN ACCORDANCE WITH ASTM E84.

2.3.4 TYPE A: POLY-ISOCYANURATE INSULATION EQUAL TO "DOW TRYMER 2000", K=0.190

A. ADHERE SHEET TO THE DUCT SURFACE, USING STAINLESS STEEL PINS AND CUPS AND 100% ADHESIVE COVERAGE. ADJACENT SHEETS SHALL BE APPLIED USING THE COMPRESSION FIT METHOD. APPLY THE ADHESIVE ON BOTH SURFACES TO BE JOINED WITH A BRUSH OR SHORT-NAP ROLLER. JOIN SURFACES AFTER THE ADHESIVE IS DRY TO THE TOUCH.

B. FOR SQUARE AND RECTANGULAR DUCTS, APPLY SHEET INSULATION FIRST ON THE BOTTOM SURFACE, NEATLY FITTING THE WIDTH. EXTEND SIDE INSULATION DOWN OVER THE EDGES OF THE BOTTOM INSULATION. THE TOP INSULATION SHALL EXTEND OVER THE TOP OF THE INSULATION ON BOTH SIDES.

2.3.5 TYPE B: MINERAL FIBER BOARD THERMAL INSULATION EQUAL TO "OWENS CORNING 700 SERIES INSULATION" (1.5 pcf) WITH FOIL FACED VAPOR BARRIER.

A. ADHERE SHEET TO THE DUCT SURFACE, USING GALVANIZED STEEL PINS AND CUPS AND 100% ADHESIVE COVERAGE. ADJACENT SHEETS SHALL BE APPLIED USING THE COMPRESSION FIT METHOD. APPLY THE ADHESIVE ON BOTH SURFACES TO BE JOINED WITH A BRUSH OR SHORT-NAP ROLLER. JOIN SURFACES AFTER THE ADHESIVE IS DRY TO THE TOUCH.

B. FOR SQUARE AND RECTANGULAR DUCTS, APPLY SHEET INSULATION FIRST ON THE BOTTOM SURFACE, NEATLY FITTING THE WIDTH. EXTEND SIDE INSULATION DOWN OVER THE EDGES OF THE BOTTOM INSULATION. THE TOP INSULATION SHALL EXTEND OVER THE TOP OF THE INSULATION ON BOTH SIDES.

2.3.6 APPLY THE SAME SHEET INSULATION THICKNESS ON STANDING METAL DUCT SEAMS AS INSTALLED ON THE DUCT SURFACE.

2.3.7 ADHESIVES:

A. FIRE RESISTANT ADHESIVE FOR SECURING INSULATION TO METAL DUCTWORK SHALL BE FOSTER 85-20 AS MANUFACTURERED BY H.B. FULLER CO., OR APPROVED EQUAL.

B. ADHESIVE FOR FLEXIBLE SYNTHETIC ELASTOMER DUCT INSULATION APPLICATION AND JOINT SEALER SHALL BE RUBBER BASE CONTACT ADHESIVE #520 AS MANUFACTURED BY ARMSTRONG WORLD INDUSTRIES OR APPROVED EQUAL.

2.3.8 INSTALL EXTERIOR MATERIALS AFTER DUCTWORK HAS BEEN TESTED AND APPROVED.

2.3.9 CLEAN SURFACES FOR ADHESIVES.

2.3.10 INSTALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

2.3.11 OUTDOOR INSULATION JACKET SHALL BE LISTED IN DUCT INSULATION SPECIFICATION.

2.3.12 PVC JACKET SHEET MATERIAL SHALL BE LOSMOKE, FROM 25/50 RATED SHEET AND SHALL BE APPLIED TO THE DUCTWORK INSULATION USING A SOLVENT BASED CONTACT ADHESIVE. APPLY THE ADHESIVE TO BOTH THE INSULATION AND THE PVC MATERIAL AND ALLOW TO FLASH. CAREFULLY ADHERE PVC TO INSULATION. FINISH JOINTS AND ANGLES WITH PRE-MOLDED ANGLES OF THE SAME THICKNESS AS SHEET PVC MATERIAL, USING A WHITE SOLVENT BASED ADHESIVE THAT BONDS THE PVC TOGETHER ATTACH THE ANGLES TO EFFECT A WATERPROOF MEMBRANE.

2.3.13 ALL DUCTWORK INSULATION THICKNESS HAS BEEN CHECKED FOR R-VALUE AND COMPLIES TO ASHRAE 90.1.

2.3.14 DUCTWORK, INSULATION AND JACKET SHALL BE IN ACCORDANCE WITH THE SPEC. ON THIS SHEET UNLESS NOTED OTHERWISE ON DRAWINGS.

2.3.15 INSULATE NON-INTERNALLY LINED SUPPLY AND RETURN DUCTWORK WHICH IS EXPOSED TO THE NON-AIR CONDITIONED SPACE ABOVE THE CEILING.

2.3.16 INSULATE THE BACKS OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES.

2.4 SHOP DRAWINGS:

2.4.1 CONTRACTOR TO SUBMIT SHOP DRAWINGS ON MECHANICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT FOR REVIEW.

2.4.2 SHOP DRAWINGS: SUBMIT TO THE ENGINEER FOR REVIEW, BEFORE COMMENCING WORK, SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT TO BE PROVIDED UNDER THIS CONTRACT. THE FOLLOWING APPLIES TO THE SHOP DRAWINGS.

A. SUBMIT DRAWINGS OR CUTS OF ALL MATERIALS AND EQUIPMENT FOR REVIEW BY ENGINEER. SUCH SUBMITTALS MUST CONTAIN OUTLINE DIMENSIONS, OPERATING CLEARANCES, INSTALLATION, OPERATING AND MAINTENANCE INFORMATION AND SUFFICIENT ENGINEERING DATA TO INDICATE SUBSTANTIAL COMPLIANCE WITH SPECIFICATIONS. ALL SHOP DRAWINGS FOR ONE SECTION OF WORK OR ONE MECHANICAL SYSTEM SHALL BE SUBMITTED AT ONE TIME IN LOOSE-LEAF THREE RING BINDERS. NO REVIEW WILL BE GIVEN IF SUBMITTED PIECEMEAL.

B. WHERE SUBCONTRACTOR CONSIDERS ADDITIONAL DETAIL OR SHOP DRAWING ESSENTIAL TO PROPER FABRICATION OR INSTALLATION OF EQUIPMENT AND PIPING, THEY SHALL PREPARE SUCH DRAWINGS AND SUBMIT FOR REVIEW.

C. DESIGN IS BASED ON MANUFACTURER NAMED ON DRAWINGS OR IN SPECIFICATIONS. SHOP DRAWINGS SHALL INDICATE EXCEPTIONS TO OR DEVIATIONS FROM THE DESIGN BASIS.

D. CHANGES IN FOUNDATIONS, BASES, CONNECTIONS, CONTROLS, STARTERS, ELECTRICAL EQUIPMENT, WIRING AND CONDUIT, SPACE OPENINGS, WALLS AND CEILINGS, AND SOUND AND VIBRATION ISOLATION REQUIRED FOR PRIOR APPROVED EQUAL EQUIPMENT SHALL BE MADE AT NO COST TO ENGINEER.

E. INDICATE ON EACH SHOP DRAWING THAT SUBCONTRACTOR HAS CHECKED THAT IT COMPLIES WITH THE DRAWINGS AND SPECIFICATIONS BY AFFIXING A STAMP INDICATING THE FOLLOWING: DATE, SPECIFICATION PAGE AND SECTION, DRAWING NOTE INDICATING THAT MANUFACTURER IS AS SPECIFIED OR THAT MANUFACTURER IS TO BE APPROVED AS "OR EQUAL", AND SIGNATURE OF PERSON REVIEWING SHOP DRAWING.

F. SUBCONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND RECEIVE ENGINEER'S REVIEW BEFORE INSTALLING MATERIALS AND EQUIPMENT LISTED.

3.0 PERMITS:

3.1 THE CONTRACTOR WILL MAKE APPLICATION AND PAY ALL FEES FOR ALL BUILDING PERMITS AND APPLICATIONS TO LOCAL AUTHORITIES.

3.2 PROVIDE COPIES OF CERTIFICATES AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.

DUCTWORK SPECIFICATIONS

SYSTEM	DUCT TYPE	SEAL CLASS	MATERIAL	LATERAL JOINTS	LONGITUDINAL SEAMS	ELBOWS	TAKE OFF	DUCT REINFORCEMENT	PRESSURE RATING	CODE REFERENCES AND PERFORMANCES	DUCTWORK COMMENTS
LOCKER/BREAK ROOM DUCTWORK AND OFFICE AREA MAIN TRUNK RUNS OUT TO VAV BOXES	RECTANGULAR AND ROUND	SMACNA CLASS "B"	GALVANIZED SHEET METAL	SMACNA FIG. 1-4, TYPES T-17 THROUGH T-19, TYPES T-21 THROUGH T-23	SMACNA - FIG. 1-5 - PITTSBURGH LOCK SEAM	SQUARE TURN WITH SINGLE THICKNESS TURNING VANES - SMACNA FIG. 2-3 OR 1-1/2 RADIUS ROUND ELBOWS.	SMACNA FIG. 2-7 AND 2-8. CONNECTION SHALL BE SEALED FOR AIR TIGHT CONSTRUCTION.	PER LATEST EDITION OF SMACNA DUCT CONSTRUCTION STANDARDS - EXTERNAL ONLY. NO TIE RODS.	LOW - 2 INCH, WG. POSITIVE OR NEGATIVE, VELOCITIES LESS THAN 2,500 FPM	NFPA, ASTM - A167, ASHRAE, SMACNA, UL, ANSI/ASTM - A534, ASTM - E84, ASTM - C177.	1. SEAL ALL JOINTS AND SEAMS WITH GLASS CLOTH AND DUCT SEALER.

DUCTWORK INSULATION SPECIFICATIONS

SYSTEM	DUCT LOCATION	DUCT SYSTEM	INSULATION MATERIAL	INSULATION THICKNESS	JACKET MATERIAL	JACKET THICKNESS	INSULATION COMMENTS
LOCKER/BREAK ROOM DUCTWORK AND OFFICE AREA MAIN TRUNK RUNS	INDOOR	SUPPLY AIR	MINERAL FIBER WRAP	TWO INCH	FRK FACING	-	1. INSULATION SHALL BE EQUAL TO OWENS CORNING TYPE 100 (1.00 PCF) ALL SERVICE DUCT WRAP. REVIEW MECHANICAL SPECIFICATION.
		RETURN / EXHAUST AIR	MINERAL FIBER WRAP	TWO INCH	FRK FACING	-	
	-	-	-	-	-	-	2. SEAL ALL SHEET METAL JOINTS PRIOR TO INSULATING DUCTS.
		-	-	-	-	-	3. PROVIDE SEALED VAPOR BARRIER FOR INSULATION.
DUCTWORK FROM OUTLET OF VAV BOXES	INDOOR	SUPPLY AIR	MINERAL-FIBER BOARD	1-1/2 INCH	FOIL FACING	-	1. INSULATION SHALL BE EQUAL TO "OWENS CORNING TYPE 800 DUCT BOARD". REVIEW MECHANICAL SPECIFICATION.
		RETURN / EXHAUST AIR	MINERAL-FIBER BOARD	1-1/2 INCH	FOIL FACING	-	
	-	-	-	-	-	-	2. SEAL ALL SHEET METAL JOINTS PRIOR TO INSULATING DUCTS.
		-	-	-	-	-	3. PROVIDE SEALED VAPOR BARRIER FOR INSULATION.

⚠ MODIFIED DUCTWORK AND INSULATION SPECIFICATIONS

⚠ MODIFIED CONTROLS

CONTROL SEQUENCE NOTES:

TOILETS / LOCKERS
RTU-1, EF-15

1. RTU-1 SHALL BE CONTROLLED BY AN ELECTRONIC, PROGRAMMABLE LOW VOLTAGE THERMOSTAT LOCATED AS SHOWN.
2. THERMOSTAT TO MAINTAIN ROOM TEMPERATURE OF 75 F SUMMER AND 70 F WINTER.
3. THERMOSTAT SHALL BE PROVIDED, MOUNTED AND WIRED BY THE MECHANICAL CONTRACTOR.
4. EF-15 SHALL BE INTERLOCKED WITH RTU-1 TO RUN WHEN RTU-1 IS OPERATING. THIS WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR.
5. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

ADMINISTRATIVE OFFICE AREA
RTU-2, EF-11, VAV-1 THRU 9

1. RTU-2 TO BE CONTROLLED BY INDEPENDENT VAV BOXES. COOLING DEMAND SHALL MODULATE AS REQUIRED BY EACH VAV ZONE.
2. VAV-1 THRU 9 EACH SHALL BE CONTROLLED BY AN ELECTRONIC, PROGRAMMABLE LOW VOLTAGE THERMOSTATS LOCATED AS SHOWN.
3. THERMOSTATS TO MAINTAIN ROOM TEMPERATURE OF 75 F SUMMER AND 70 F WINTER.
4. THERMOSTATS SHALL BE PROVIDED, MOUNTED AND WIRED BY THE MECHANICAL CONTRACTOR.
5. EF-11 SHALL BE INTERLOCKED WITH RTU-2 TO RUN WHEN RTU-2 IS OPERATING. THIS WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR.
6. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

MACHINE ROOM (208)
EF-5A,B, EF-6A,B, EF-7, GV-3, GV-4

1. EF-7 SHALL RUN CONTINUOUSLY AND SHALL BE PROVIDED WITH A SAIL SWITCH TO ACTIVATE AND ALARM IF AIRFLOW STOPS. THE SWITCH SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR. SAIL SWITCH SHALL BE A HONEYWELL MODEL 5688A OR APPROVED EQUAL.
2. EF-5A,B AND EF-6A,B SHALL BE ENERGIZED BY THE AMMONA DETECTION SYSTEM OR BY THE LINE VOLTAGE THERMOSTATS (ADJUST SETPOINT TO 85 F).
3. THERMOSTATS SHALL BE PROVIDED AND MOUNTED BY THE MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.
4. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

CHIEF ENGINEER OFFICE (204)
PTAC-1

1. PTAC-1 SHALL EACH BE CONTROLLED BY AN ELECTRONIC, LOW VOLTAGE THERMOSTAT LOCATED ON THE UNIT.
2. INTERNAL CONDENSATE PUMP SHALL BE ACTUATED BY A FLOAT SWITCH. CONDENSATE LINE SHALL BE ROUTED TO NEAREST HUB DRAIN.
3. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

ELECTRICAL ROOM (209)
DELETED

- – – – – – – – – – – – – –

USDA OFFICE / TOILET
PTAC-2, EF-10

1. PTAC-2 SHALL EACH BE CONTROLLED BY AN ELECTRONIC, LOW VOLTAGE THERMOSTAT LOCATED ON THE UNIT.
2. INTERNAL CONDENSATE PUMP SHALL BE ACTUATED BY A FLOAT SWITCH. CONDENSATE LINE SHALL BE ROUTED TO NEAREST HUB DRAIN.
3. EF-10 SHALL BE INTERLOCKED WITH TOILET ROOM LIGHT SWITCH TO RUN WHEN LIGHT SWITCH IS ON. THIS WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR.
4. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

FIRE PROTECTION (210)
L-2, EF-3

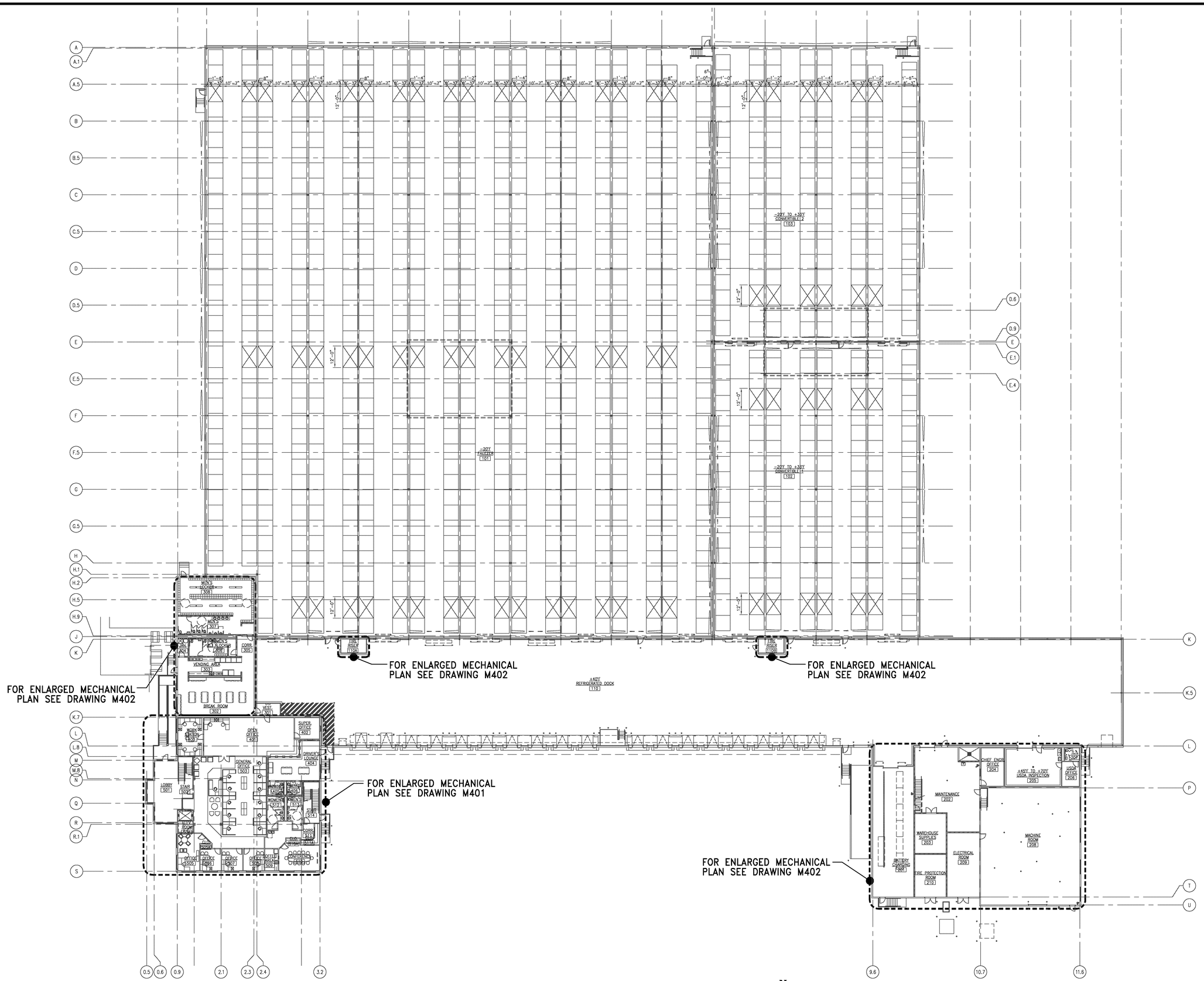
1. EF-3 SHALL EACH BE CONTROLLED BY LINE VOLTAGE THERMOSTAT LOCATED AS SHOWN.
2. THERMOSTAT SETPOINT SHALL BE 85 F SUMMER.
3. THERMOSTAT SHALL BE PROVIDED AND MOUNTED BY THE MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.
4. THE MOTORIZED DAMPERS FOR L-2 SHALL BE INTERLOCKED WITH EF-3 TO BE OPEN WHEN EF-3 IS OPERATING. THIS WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR.
5. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

MAINTENANCE (202), WAREHOUSE SUPPLIES (203)
EF-1, EF-2, SF-1, L-1

1. SF-1 SHALL BE CONTROLLED BY A LINE VOLTAGE THERMOSTAT LOCATED AS SHOWN.
2. THERMOSTAT SETPOINT SHALL BE 80 F SUMMER.
3. THERMOSTAT SHALL BE PROVIDED AND MOUNTED BY THE MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.
4. EF-1 AND EF-2 SHALL BE INTERLOCKED WITH SF-1 TO RUN WHEN SF-1 IS OPERATING. THIS WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR.
5. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

BATTERY CHARGING (201)
SF-2, SF-3, EF-8, EF-9

1. EF-8 SHALL RUN CONTINUOUSLY AND SHALL BE PROVIDED WITH A SAIL SWITCH TO ACTIVATE AN ALARM I



OVERALL MECHANICAL FIRST FLOOR PLAN

SCALE: 1" = 20'-0"

0' 10' 20' 40' 60'

N

FLORIDA DESIGNERS LICENSE NO. 9430

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

OVERALL MECHANICAL FIRST FLOOR PLAN

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REV.	DATE	BY	DESCRIPTION
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A	06.29.07	WMW	OWNER REVIEW

JOB NO. 710-03019

DRAWN: ACM

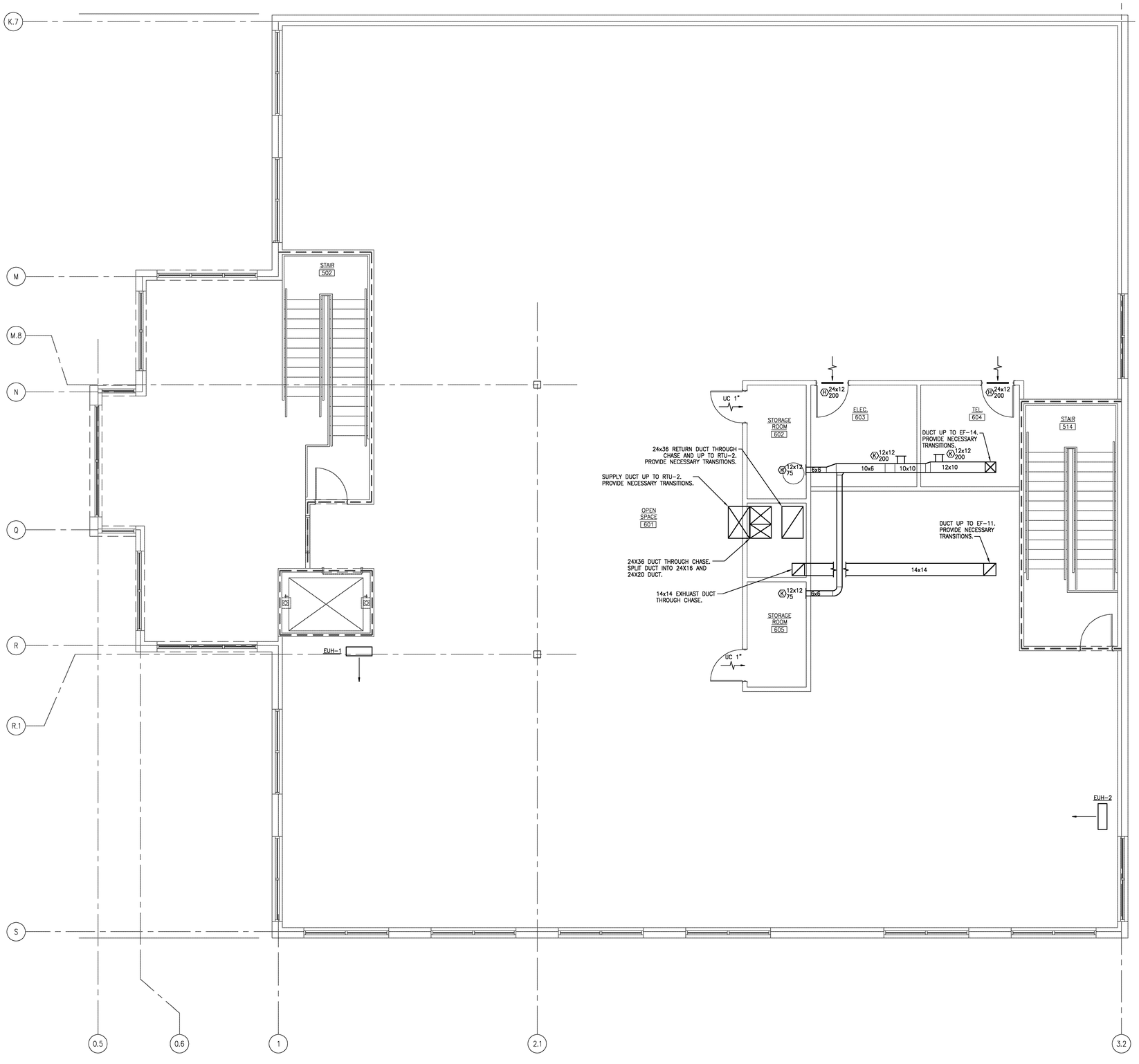
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MECHANICAL SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

N

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FLORIDA ENGINEERING LICENSE # 9430

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MECHANICAL SECOND FLOOR PLAN

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A	04/27/07	WMW	OWNER REVIEW

JOB NO. 710-03019

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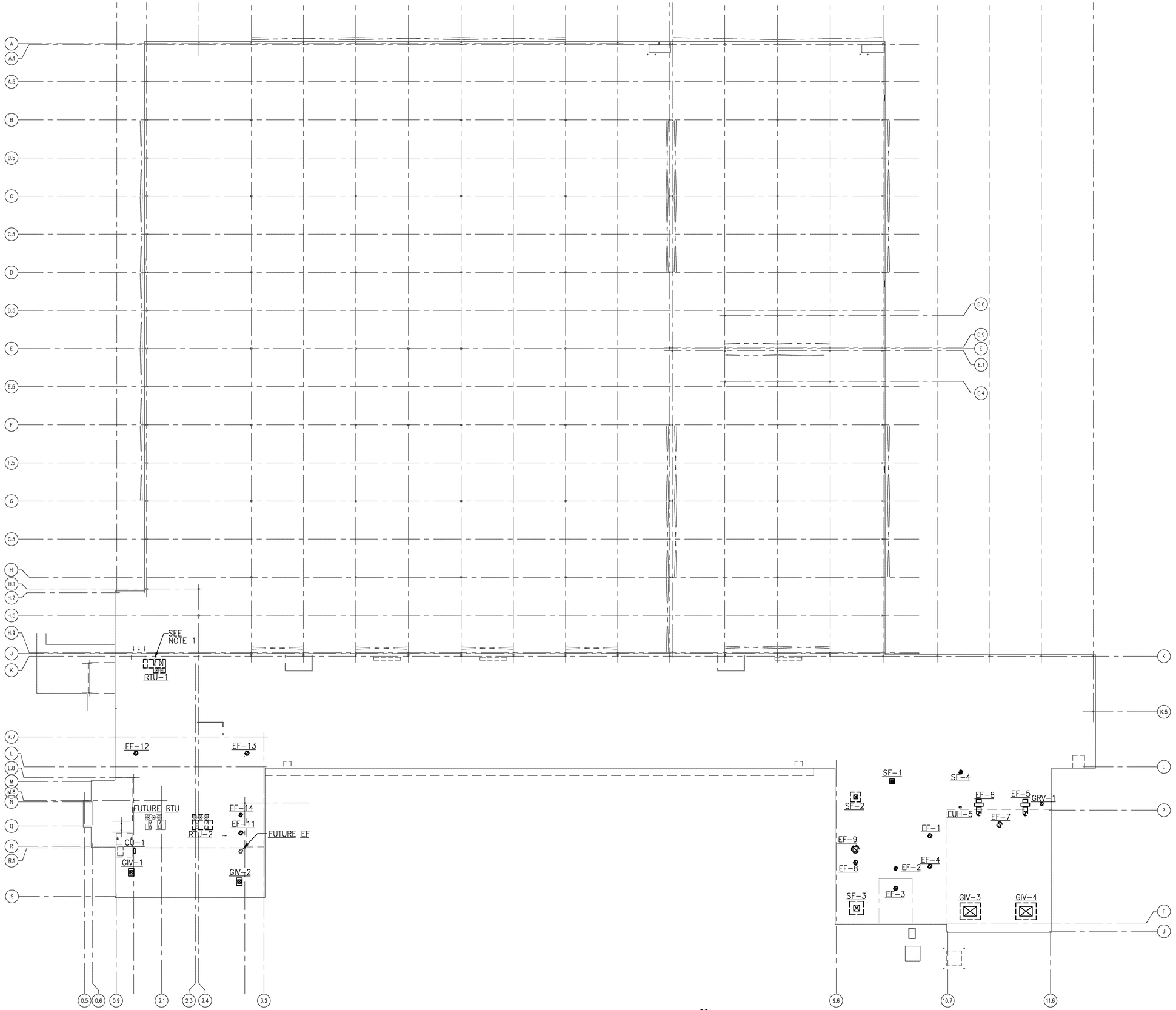
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NOTE:
1. ROUTE CONDENSATE PIPING DOWN TO JANITOR SINK IN JANITOR (304).

OVERALL MECHANICAL ROOF PLAN

SCALE: 1" = 20'-0"

0 10' 20' 40' 60'

N

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OVERALL MECHANICAL ROOF PLAN

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REV.	DATE	BY	DESCRIPTION
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A	04-27-07	WMW	OWNER REVIEW

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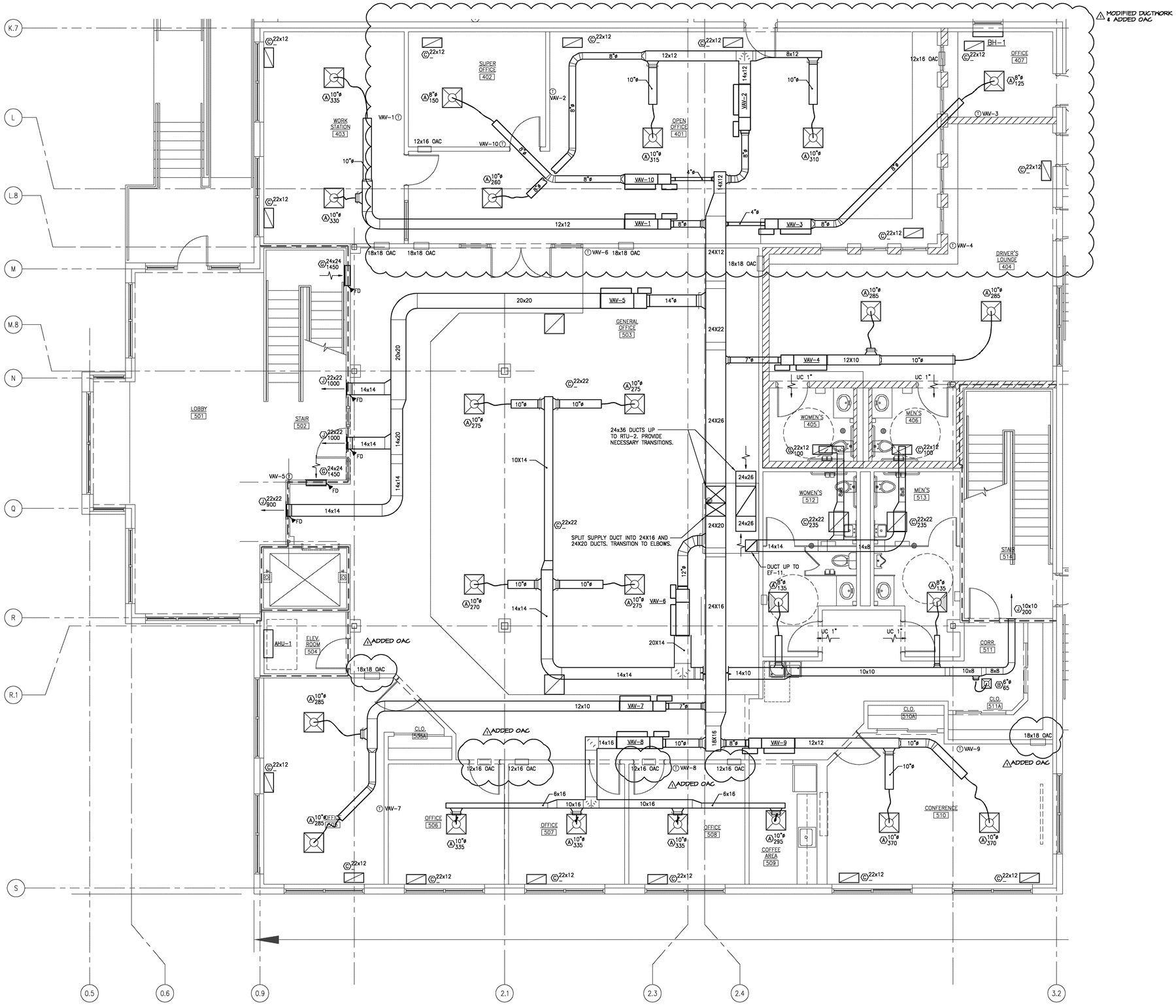
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ADMIN. OFFICE
ENLARGED FLOOR PLAN

N

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

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ENLARGED MECHANICAL FLOOR PLAN

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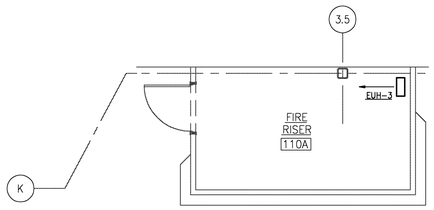
REV.	DATE	DESCRIPTION
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0	6-29-07	CONSTRUCTION ISSUE
A	5-25-07	OWNER REVIEW

VSS VSS WMW EY

JOB NO. 710-03019
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CHECKED: WMW
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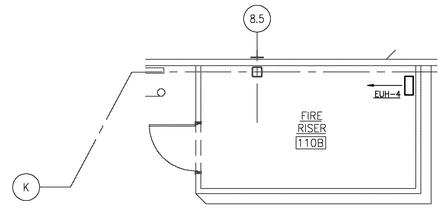
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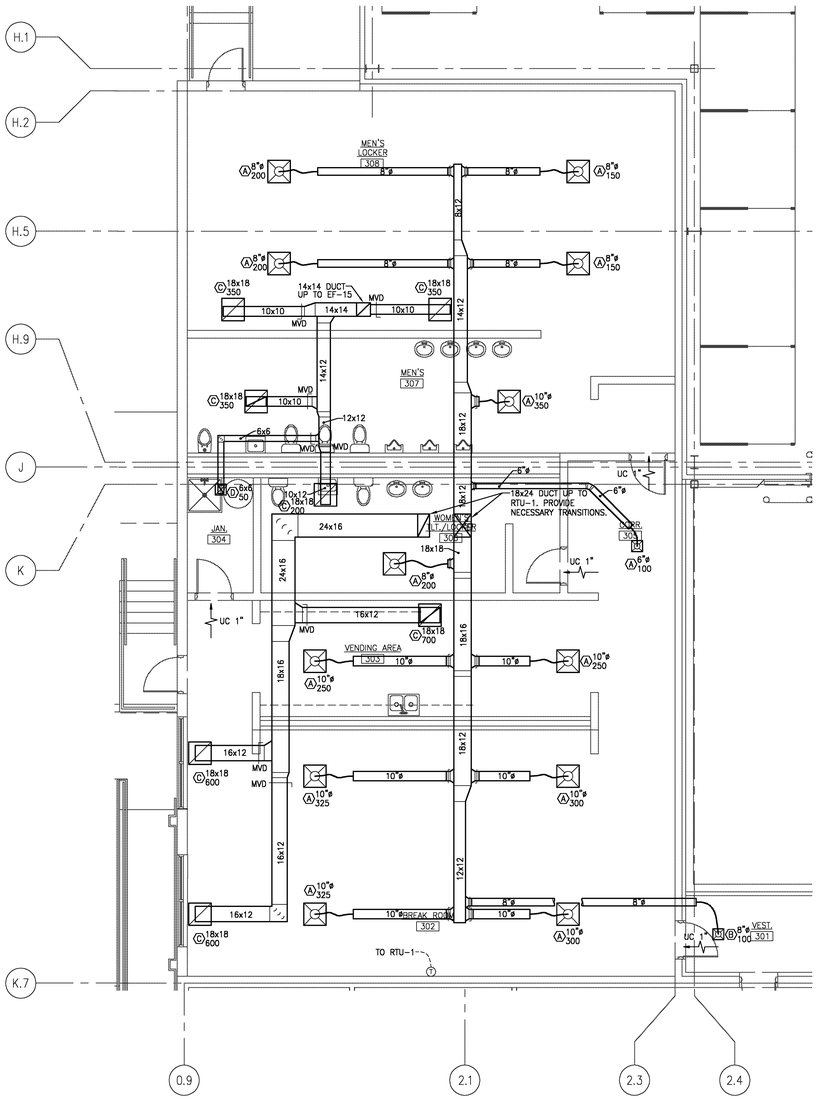
ENLARGED FIRE RISER ROOM

SCALE: 1/4" = 1'-0"



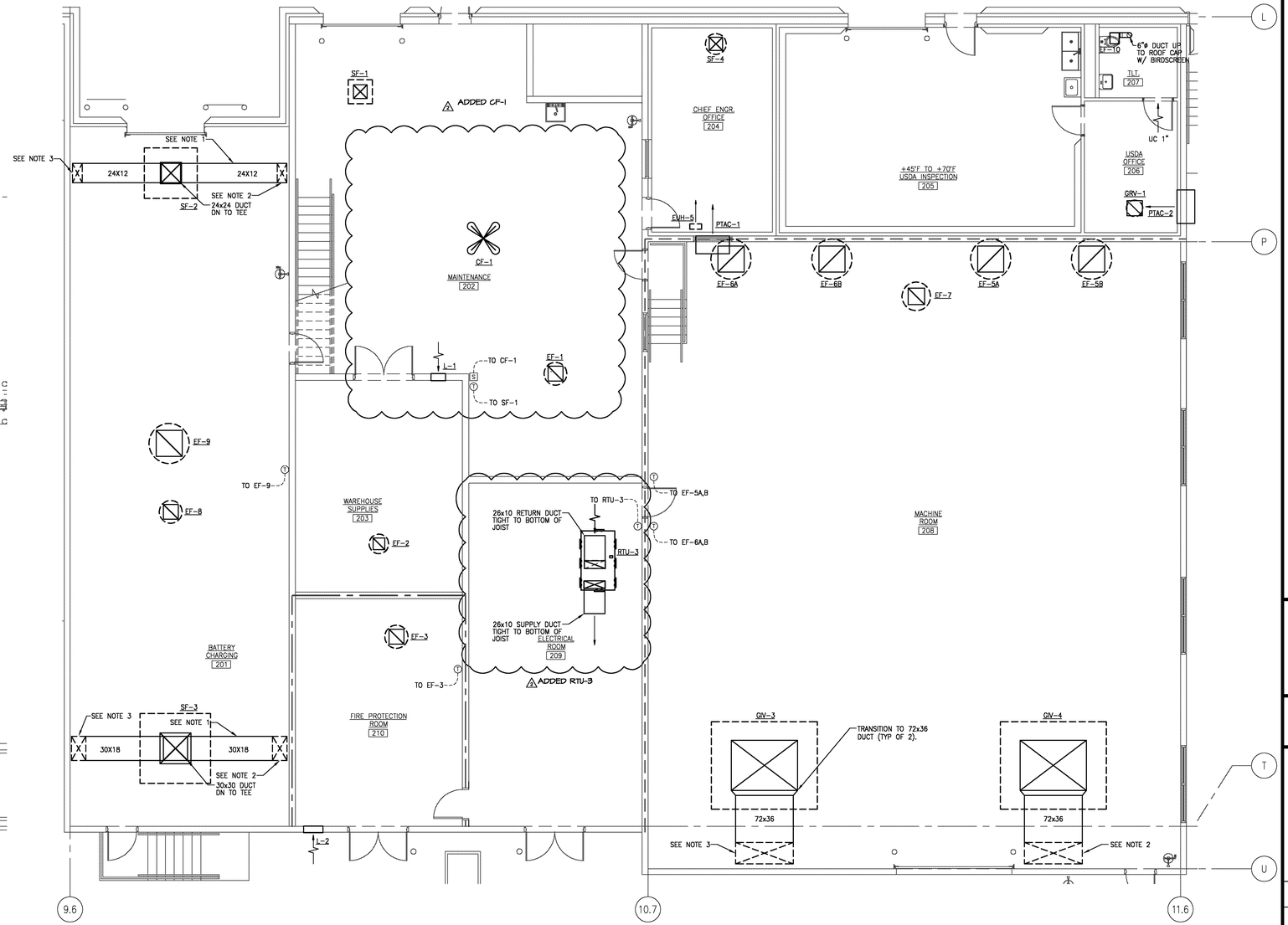
ENLARGED FIRE RISER ROOM

SCALE: 1/4" = 1'-0"



WELFARE AREA FLOOR PLAN

SCALE: 3/16" = 1'-0"



NOTES:
1. ROUTE DUCT TIGHT TO BOTTOM OF JOIST.
2. DUCT DROP DOWN TO 8'-0" AFF. TERMINATE WITH ALUMINUM BIRD SCREEN.
3. DUCT DOWN TO 3'-0" AFF. TERMINATE WITH ALUMINUM BIRD SCREEN.

ENLARGED PLAN
MACHINE ROOM & MAINTENANCE

SCALE: 3/16" = 1'-0"

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FLORIDA ARCHITECTURAL LICENSE #AR0014175

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REV.	DATE	DESCRIPTION
A	04.27.07	OWNER REVIEW
0	05.29.07	CONSTRUCTION ISSUE
1	06.25.07	REVISED AS NOTED
2	07.11.07	REVISED AS NOTED
		BY: EY / WMW / VSS / VSS / VSS

JOB NO. 710-03019

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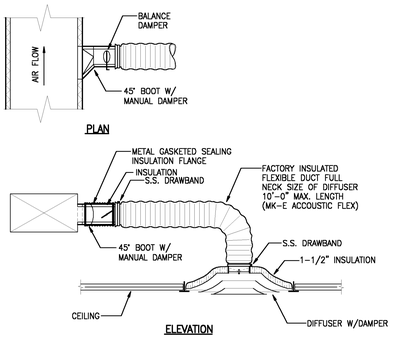
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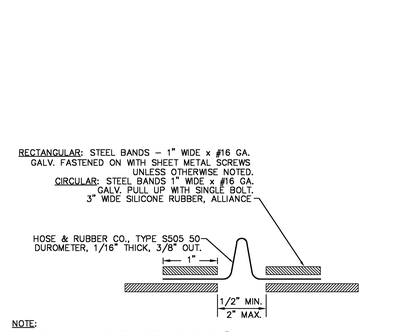
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NOTE: PROVIDED AND INSTALLED BY CONTRACTOR

BRANCH DUCT TAKE-OFF DETAIL (1)

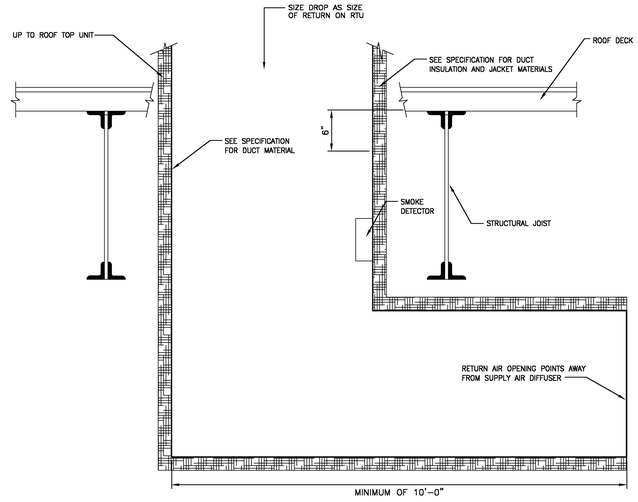
SCALE: N.T.S.



NOTE:
1. THE END LAPS TO BE LAPPED AT LEAST 3".
2. ON DUCTS WHERE FLEXIBLE CONNECTION IS FOR FUME EXHAUST OR EXPLOSIVE DUST HANDLING, PROVIDE REINFORCED CARBON FIBER OVER THE SILICONE RUBBER.

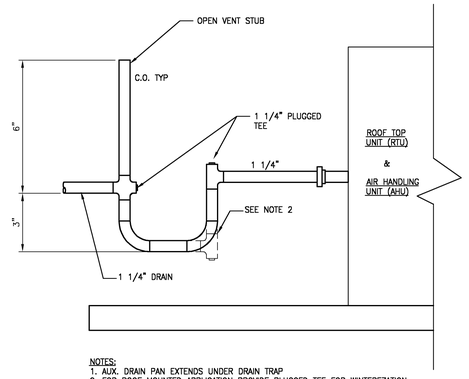
FLEXIBLE CONNECTION DETAIL (2)

SCALE: N.T.S.



RETURN DUCT DETAIL (3)

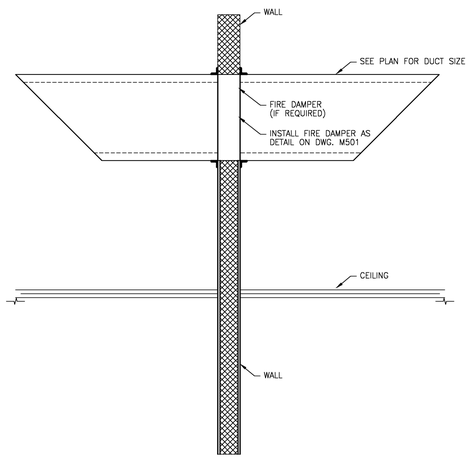
SCALE: N.T.S.



NOTES:
1. AUX. DRAIN PAN EXTENDS UNDER DRAIN TRAP.
2. FOR ROOF MOUNTED APPLICATION PROVIDE PLUGGED TEE FOR WINTEREZATION

COOLING COIL CONDENSATE DRAIN (TYPICAL) (4)

SCALE: N.T.S.

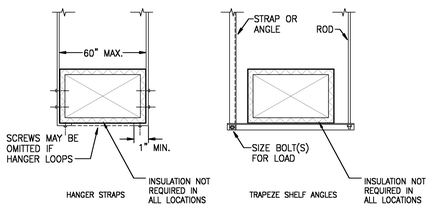


TYPICAL AIR TRANSFER DUCT DETAIL (5)

SCALE: N.T.S.

LONGEST DUCT DIMENSION	STRAP HANGERS	TRAPEZE SHELF ANGLE	MAX. SPACING
–18"	1" x 22 GAUGE	1" x 1" x 1/8"	8'–0"
19"–30"	1" x 20 GAUGE	1" x 1" x 1/8"	8'–0"
31"–42"	1" x 18 GAUGE	1–1/2" x 1–1/2" x 1/8"	8'–0"
43"–60"	1" x 16 GAUGE	1–1/2" x 1–1/2" x 1/8"	8'–0"

NOTES:
1. ALL HANGERS MUST BE SECURELY ATTACHED TO A STRUCTURAL MEMBER AND NOT TO THE ROOF DECK.
2. SEAL ALL INSULATION PENETRATIONS W/ MASTIC.



HANGERS FOR RECTANGULAR DUCT (6)

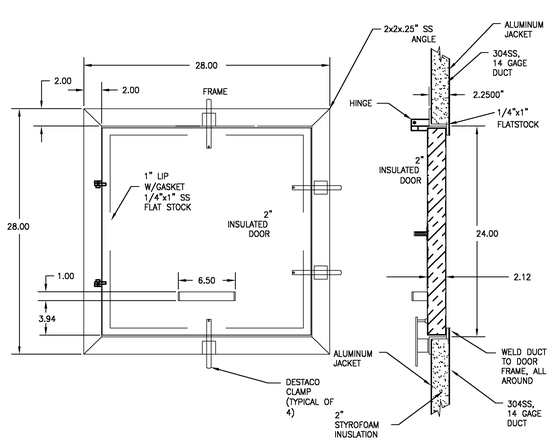
SCALE: N.T.S.

GRILL ACCESS FIRE DAMPER (7)

SCALE: N.T.S.

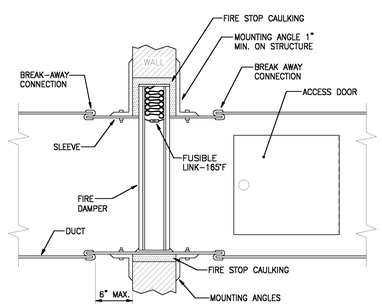
– (8)

SCALE: N.T.S.



DUCT ACCESS DOOR DETAIL (9)

SCALE: N.T.S.



NOTES:
1. DAMPERS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES SAFETY STANDARD 555.
2. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS
3. CLEARANCE BETWWEN FIRE DAMPER SLEEVE AND OPENING SHALL BE 1/8" PER FOOT OF HEIGHT (OR WIDTH).
4. SEE LIFE SAFTEY PLAN FOR LOCATIONS OF FIRE WALLS AND PROVIDE FIRE DAMPERS AS REQUIRED.

FIRE DAMPER DETAIL (10)

SCALE: N.T.S.

– (11)

SCALE: N.T.S.

– (12)

SCALE: N.T.S.

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FLORIDA ARCHITECTURAL LICENSE #AR95676
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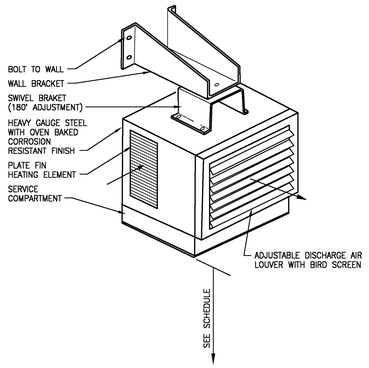
MECHANICAL DETAILS

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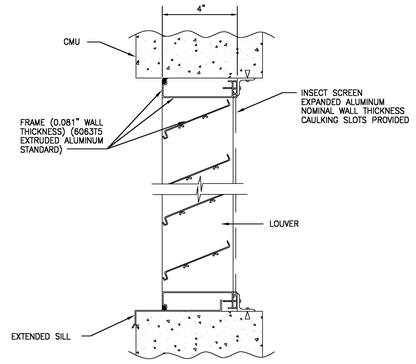
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A	04-27-07	WMW	OWNER REVIEW

JOB NO. 710–03019
DRAWN: ACM
CHECKED: WMW
SCALE: NONE

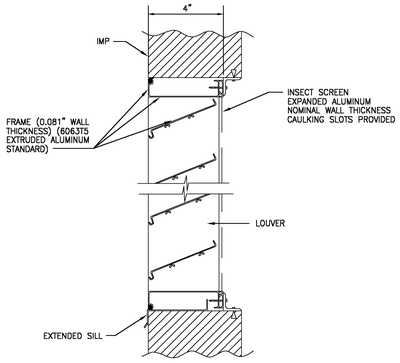
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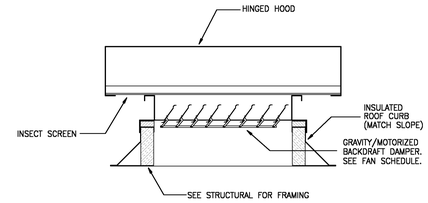
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WALL LOUVER DETAIL — SCALE: N.T.S. — 2

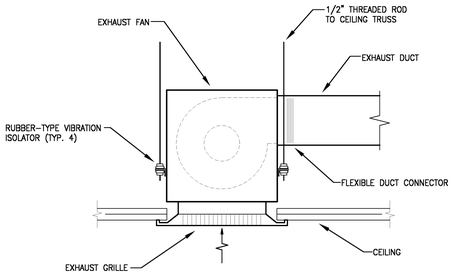


WALL LOUVER DETAIL — SCALE: N.T.S. — 3

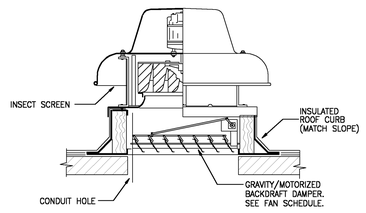


NOTE:
ALL ROOF MOUNTED EQUIPMENT MUST ADHERE TO CURRENT HURRICANE CODES REGARDING ROOF TIE-IN AND WIND RESISTANCE. SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS.

GRAVITY VENTILATOR DETAIL — SCALE: N.T.S. — 4

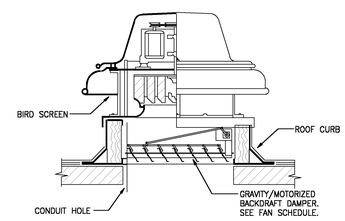


CABINET EXHAUST FAN DETAIL — SCALE: N.T.S. — 5



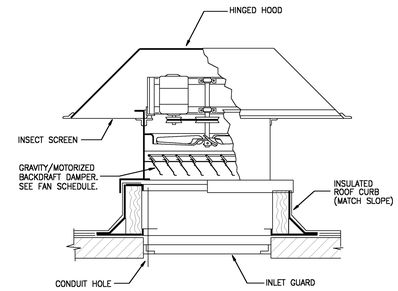
NOTE:
ALL ROOF MOUNTED EQUIPMENT MUST ADHERE TO CURRENT HURRICANE CODES REGARDING ROOF TIE-IN AND WIND RESISTANCE. SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS.

EXHAUST FAN DETAIL — SCALE: N.T.S. — 6



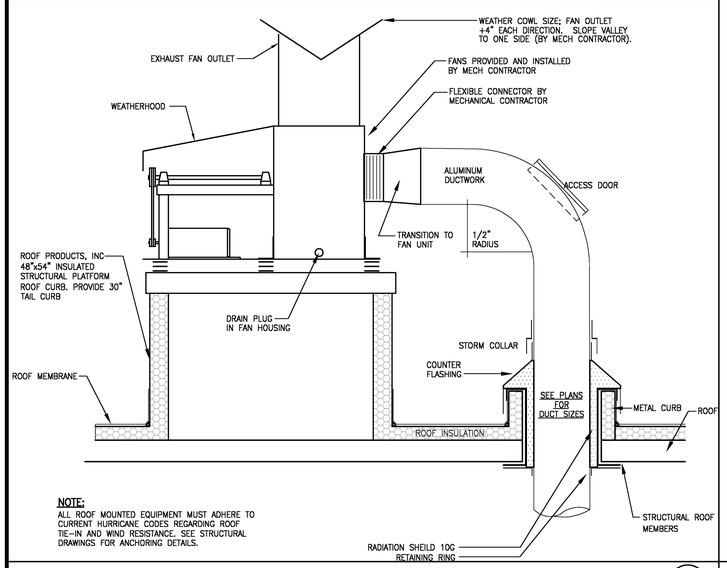
NOTE:
ALL ROOF MOUNTED EQUIPMENT MUST ADHERE TO CURRENT HURRICANE CODES REGARDING ROOF TIE-IN AND WIND RESISTANCE. SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS.

EXHAUST FAN DETAIL — SCALE: N.T.S. — 7



NOTE:
ALL ROOF MOUNTED EQUIPMENT MUST ADHERE TO CURRENT HURRICANE CODES REGARDING ROOF TIE-IN AND WIND RESISTANCE. SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS.

HOODED ROOF SUPPLY FAN — SCALE: N.T.S. — 8



NOTE:
ALL ROOF MOUNTED EQUIPMENT MUST ADHERE TO CURRENT HURRICANE CODES REGARDING ROOF TIE-IN AND WIND RESISTANCE. SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS.

UTILITY SET FAN DETAIL — SCALE: N.T.S. — 9

– — SCALE: N.T.S. — 10

– — SCALE: N.T.S. — 11

– — SCALE: N.T.S. — 12

FLORIDA ENGINEERING LICENSE #: 9430
FLORIDA ARCHITECTURAL LICENSE #: AR 0015176
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

MECHANICAL DETAILS

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REV.	DATE	BY	DESCRIPTION
0	05/25/07	VSS	CONSTRUCTION ISSUE
A	06/25/07	WMW	OWNER REVIEW

JOB NO. 710-03019
DRAWN: ACM
CHECKED: WMW
SCALE: NONE

M502
DRAWING NO.

PLUMBING SPECIFICATIONS

PART I – GENERAL

1.01 DESCRIPTION

THE GENERAL REQUIREMENTS, ARE HEREBY MADE A PART OF THIS SECTION AS IF FULLY REPEATED HEREIN.

THIS WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

TRENCH EXCAVATION, PUMPING, BACKFILLING AND COMPACTION FOR UNDERGROUND PIPING AND PLUMBING.

DOMESTIC SOIL, WASTE AND VENT PIPING.

DOMESTIC HOT AND COLD WATER PIPING CONNECTIONS TO FIXTURES.

FIXTURES INCLUDING ELECTRIC WATER COOLERS.

JOINTS, FITTINGS, HANGERS, SLEEVES, ESCUTCHEONS, ETC.

LEAD FLASHING.

GREASE TRAPS AND INTERCEPTORS.

ACID NEUTRALIZING TANK.

RELATED WORK: PIPING SYSTEMS REQUIRING FIXED LOCATIONS AND SLOPES SHALL TAKE PRIORITY OVER THOSE, WHICH DO NOT HAVE BOTH REQUIREMENTS. THE FOLLOWING WORK IS SPECIFIED IN OTHER SECTIONS OF THESE SPECIFICATIONS.

FIRE PROTECTION SPRINKLERS: FIRE PROTECTION SPRINKLERS

AIR CONDITIONING AND HEATING: HEATING, VENTILATING & AIR CONDITIONING

TOILET ROOM ACCESSORIES: TOILET ROOM ACCESSORIES

FORCE MAIN: SEWAGE TREATMENT PLANT, INFLUENT STRUCTURE, PUMPING STATIONS, AND ON-SITE PROCESS WASTE LINES

PROCESS WASTE LINES BEYOND THE BUILDING AND SEWAGE TREATMENT FACILITIES: SEWAGE TREATMENT PLANT, INFLUENT STRUCTURE, PUMPING STATIONS, AND ON-SITE PROCESS WASTE LINES

WELL: DEEP WELL, PUMP AND PUMP FOR EXISTING DEEP WELL

WATER STORAGE TANK: GROUND STORAGE TANK & AERATOR

EXCAVATION & BACKFILL: EXCAVATION AND BACKFILL

POWER WIRING: ELECTRICAL

1.02 QUALITY

MATERIALS AND EQUIPMENT: ALL MATERIALS SHALL BE NEW AND FIRST CLASS IN EVERY RESPECT AS IS PRACTICAL, SIMILAR PRODUCTS SHALL BE BY ONE MANUFACTURER.

INDUSTRY STANDARDS: WHERE COMPLIANCE WITH AN INDUSTRY, SOCIETY, OR ASSOCIATION STANDARD IS SPECIFIED OR INDICATED, CERTIFICATION OF SUCH COMPLIANCE SHALL BE SUBMITTED WITH SHOP DRAWINGS.

1.03 SUBMITTALS

MANUFACTURER'S SUBMITTALS: REFER TO SECTION ENTITLED "BASIC MECHANICAL MATERIALS AND METHODS" SUBMIT SHOP DRAWINGS OR CATALOG DATA FOR THE ENGINEER'S REVIEW AND RECEIVE APPROVAL BEFORE PURCHASING OR INSTALLING EQUIPMENT. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

PIPING WHERE REVISED FROM DRAWINGS.

FLOOR DRAINS AND ROOF DRAINS.

PLUMBING FIXTURES INCLUDING ELECTRIC WATER COOLERS.

FIXTURE SUPPLIES, TRAPS AND STOP VALVES AND APPURTENANCES.

GREASE TRAPS.

PIPE HANGERS.

INSULATION.

ACID NEUTRALIZING TANK.

ACID RESISTANT PIPE AND FITTINGS.

WHERE COMPLIANCE WITH AN INDUSTRY, SOCIETY OR ASSOCIATION STANDARD IS SPECIFIED OR INDICATED, CERTIFICATION OF SUCH COMPLIANCE SHALL BE MADE WITH SHOP DRAWINGS.

1.04 STORAGE OF MATERIALS:

PIPE AND FITTINGS MAY BE STORED AT THE SITE PROVIDED THEY ARE STORED IN SUCH A MANNER AS TO PROTECT THEM FROM DAMAGE AND PROHIBIT ENTRANCE OF DIRT AND CONSTRUCTION DEBRIS. USE OF THE SITE SHALL COMPLY WITH GENERAL CONDITIONS AND SUCH OTHER PROVISIONS OF CONTRACT DOCUMENTS AS MAY LIMIT OR RESTRICT SAID USE.

PART II – PRODUCTS

2.01 FIXTURES AND TRIM

GENERAL: PROVIDE ALL FIXTURES AND TRIM AS SCHEDULED ON THE DRAWINGS. ALL EXPOSED METAL PARTS SHALL BE POLISHED CHROMIUM PLATED BRASS. COLOR SHALL BE WHITE. COMPARABLE ITEMS OF THE FOLLOWING MANUFACTURERS ARE CONSIDERED EQUAL.

FIXTURES: KOHLER, AMERICAN STANDARD, CRANE, ELJER.

STAINLESS STEEL FIXTURES: AMTEXCO, ELKAY AND JUST.

PLUMBING BRASS: SPEAKMAN, SLOAN, CHICAGO, JUST, BRADLEY, T&S BRASS AND BRONZE WORKS, ELKAY.

SEATS: OLSON, CHURCH, BENEKE, BEMIS AND FIXTURE MANUFACTURERS.

ELECTRIC WATER COOLERS AND DRINKING FOUNTAINS: SUNROCK, OASIS, ELKAY, HAWS, HALSEY TAYLOR.

STAINLESS STEEL FLOOR DRAINS: KUSEL, SCHERPING.

FLUSH VALVES: SLOAN.

SHALL BE AS SCHEDULED ON THE DRAWINGS.

2.02 PIPE

PIPING SHALL BE AS SPECIFIED IN PIPE SPECS BELOW.

LEAD:

PIPE: CLASS D FOR SOIL AND WASTE CONNECTIONS, CONFORMING TO FED. SPEC. WW-P-325.

SHEET: WEIGHT NOT LESS THAN FOUR (4) LBS. PER SQUARE FOOT, CONFORMING TO FED. SPEC. QQ-L-201, GRADE A.

CAULKING: FED. SPEC. QQ-L-156, TYPE 1.

SOLDERING NIPPLES: RED BRASS PIPE CONFORMING TO ASTM STD. SPEC. B-43, AND OF FOLLOWING WEIGHTS:

DIAMETER IN INCHES	WEIGHT IN OUNCES
1–1/4	6
1–1/2	8
2	14

CAULKING FERRULES: STANDARD QUALITY RED CAST BRASS, WITH WEIGHTS AND DIMENSIONS AS FOLLOWS:

PIPE SIZE	INSIDE DIAMETER	LENGTH	WEIGHT
2"	2–1/2"	4–1/2"	1 LB.
3"	3–1/2"	4–1/2"	1 LB.–12 OZ.
4"	4–1/4"	4–1/2"	2 LB.–8 OZ.

WIPING SOLDER: COMPOSITION SN35, FED. SPEC. QQ-S-571D.

2.07 DRAINAGE SPECIALTIES

GENERAL: AS SPECIFIED IN FIXTURE SPECIFICATIONS.

FLOOR DRAINS: AS SPECIFIED IN FIXTURE SPECIFICATIONS.

FLOOR CLEANOUTS: AS SPECIFIED IN FIXTURE SPECIFICATIONS.

WALL CLEANOUTS: AS SPECIFIED IN FIXTURE SPECIFICATIONS.

2.08 PIPE HANGERS: AS SPECIFIED IN FIXTURE SPECIFICATIONS.

2.09 PIPE SLEEVES: AS SPECIFIED IN FIXTURE SPECIFICATIONS.

2.10 ESCUTCHEONS: AS SPECIFIED IN FIXTURE SPECIFICATIONS.

2.11 INSULATION

AS SPECIFIED IN INSULATION SPECIFICATION SCHEDULE.

2.12 GREASE TRAPS

SHALL BE AS SCHEDULED ON THE DRAWINGS.

PART III – EXECUTION

3.01 INSPECTION

EXAMINE AREAS TO RECEIVE PIPING FOR:

DEFECTS THAT ADVERSELY AFFECT EXECUTION AND QUALITY OF WORK.

DEVIATIONS BEYOND ALLOWABLE TOLERANCES FOR PIPING CLEARANCES.

CHECK LOCATION OF ROUGH-IN WORK TO ASSURE MATCH WITH FIXTURES.

VERIFY THAT ELECTRICAL FACILITIES ARE COMPATIBLE WITH EQUIPMENT.

START WORK ONLY WHEN CONDITIONS ARE SATISFACTORY.

3.02 INSTALLATION

PIPING LAYOUT:

COMPLETE INSTALLATION TO PRESENT A NEAT, ORDERLY APPEARANCE.

RUN PIPING PARALLEL TO WALLS OF BUILDING UNLESS OTHERWISE INDICATED.

KEEP PIPING FREE FROM CONTACT WITH STRUCTURE OF INSTALLED ITEMS.

ABOVE CEILING: HANG AND SUPPORT AS REQUIRED.

PIPING WITHIN WALLS: ANCHOR AS REQUIRED TO PREVENT RATTLE OR MOVEMENT OF ANY KIND.

PENETRATIONS:

COORDINATE PENETRATIONS FOR VENTS WITH ROOF SYSTEM AND HVAC SYSTEMS AIR INTAKES.

DO NOT PENETRATE STRUCTURAL MEMBERS UNLESS APPROVED IN WRITING BY ENGINEER.

A. JOINTS AND CONNECTIONS:

1. GENERAL: JOINTS AND CONNECTIONS SHALL BE MADE PERMANENTLY AIR, GAS, AND WATER TIGHT.

2. CAST IRON:

A. HUB AND SPIGOT JOINTS: INSERT THE SPIGOT INTO HUB AFTER CAREFULLY CLEANING BOTH. INSERT AN OAKUM STRAND INTO JOINT SUFFICIENTLY LONG TO MAKE THREE TURNS AROUND PIPE AND OF A DIAMETER THAT CAN BE PRESSED INTO THE JOINT BY HAND. DRIVE THE OAKUM TO THE BOTTOM OF JOINT USING A YARNING IRON, THEN PACK SOLIDLY AND EVENLY USING A PACKING IRON AND HAMMER. INSERT ADDITIONAL STRANDS OF OAKUM SUFFICIENT TO FILL THE JOINT TO WITHIN ONE-HALF INCH (1/2") OF THE TOP AND THEN PACK WITH HAMMER AND PACKING IRON TO FORM A UNIFORM SURFACE ONE INCH (1") BELOW TOP OF THE HUB. POUR MOLTEN LEAD INTO THE JOINT UNTIL IT ARCHES SLIGHTLY ABOVE TOP OF THE HUB. ALLOW LEAD TO COOL AND DRIVE IT DOWN AT QUARTER POINTS USING A CAULKING IRON. CAULK THE JOINT ON THE INSIDE AND OUTSIDE EDGES USING A ONE POUND BALL PEEN HAMMER AND APPROPRIATE CAULKING IRONS.

3. COPPER: CUT PIPE SQUARE USING CUTTING TOOL WHICH DOES NOT CRIMP THE PIPE. REMOVE ALL BURRS USING PIPE REAMER AND TAKING CARE NOT TO FLARE THE PIPE END. THOROUGHLY CLEAN THE OUTSIDE OF THE PIPE AND THE INTERIOR OF THE VALVES AND FITTINGS USING A FINE SAND CLOTH. APPLY NONCORROSIVE PASTE FLUX TO THE CLEANED SURFACES IMMEDIATELY AND APPLY SOLDER AND HEAT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO COMPLETE JOINT. USE CARE NOT TO DAMAGE VALVES AND FOLLOW THE VALVE MANUFACTURER'S INSTALLATION INSTRUCTIONS EXPLICITY.

4. CONNECTIONS: PROVIDE FIXTURE AND EQUIPMENT CONNECTIONS IN COMPLIANCE WITH REQUIREMENTS OF LOCAL CODES.

B. FLASHINGS: PROVIDE PROPER FLASHINGS FOR PIPES PASSING THROUGH ROOFING. FLASHINGS SHALL BE OF SHEET LEAD WITH FLANGES NOT LESS THAN EIGHTEEN INCHES (18") SQUARE AND WITH TUBULAR SECTIONS EXTENDING OVER TOP OF THE VENT AND TURNED INTO TOP APPROXIMATELY ONE INCH (1"). VENT EXTENSION SHALL STAND APPROXIMATELY ONE FOOT (1') ABOVE ROOF. PROVIDE FOR EXPANSION WHERE LEAD TURNS INTO PIPE.

C. FIXTURES, FLOOR DRAINS AND CLEANOUTS: PROVIDE ALL FIXTURES AND FLOOR DRAINS WITH TRAPS TO COMPLY WITH LOCAL REGULATIONS, AND AS HEREINAFTER SPECIFIED. PROVIDE EXPOSED TRAPS WITH BRASS CLEANOUT PLUGS. PROVIDE CLEANOUTS IN SOIL AND WASTE LINES AS SHOWN ON THE PLANS AND AS REQUIRED BY THE GOVERNING CODES. EXTEND CLEANOUTS FOR PIPING CONCEALED IN FLOOR OR CEILING CONSTRUCTION THROUGH THE FLOOR ABOVE AND PROVIDE WITH ADJUSTABLE FLOOR LEVEL CLEANOUT SET FLUSH WITH THE FINISHED FLOOR. USE SCREW TYPE CLEANOUTS FOR PIPING CONCEALED IN WALL CONSTRUCTION AND PROVIDE CHROMIUM PLATED BRONZE ACCESS COVER PLATES.

D. WATER SUPPLY PIPING: PROVIDE A COMPLETE SYSTEM OF HOT AND COLD WATER PIPING EXTENDING FROM WATER SUPPLY TO EACH FIXTURE AND ITEM OF EQUIPMENT REQUIRING WATER AS INDICATED ON THE DRAWINGS. INSTALL GATE VALVES AT TAKEOFF FROM THE MAIN AND UPSTREAM OF ALL EQUIPMENT CONNECTIONS AND ELSEWHERE AS INDICATED ON THE DRAWINGS OR AS REQUIRED. PROVIDE WATER HAMMERS ARRESTORS IN ACCORDANCE WITH PDI SELECTION STANDARDS. MAKE FINAL CONNECTION TO THE PLUMBING FIXTURES AS SPECIFIED WITH THE PLUMBING FIXTURE. PROVIDE A UNION IN THE CONNECTION TO EACH THREADED VALVE, FIXTURE OR PIECE OF APPARATUS SO THAT IT MAY BE READILY REMOVED. INSTALL UNIONS DOWNSTREAM OF SHUT OFF VALVES.

E. ESCUTCHEONS: PROVIDE ESCUTCHEONS ON ALL FINISHED SURFACES WHERE EXPOSED PIPING, BARE OR INSULATED, PASS THROUGH FLOORS, WALLS, OR CEILINGS, EXCEPT IN BOILER, UTILITY OR EQUIPMENT ROOMS. FASTEN ESCUTCHEONS SECURELY TO PIPE OR PIPE COVERING.

F. PIPE HANGERS: PVC PIPES SHALL BE SUPPORTED BY SPLIT RING TYPE, ADJUSTABLE SWIVEL RING HANGERS. HANGERS FOR COPPER PIPES SHALL BE COPPER PLATED OR PLASTIC COATED. PIPE HANGERS SHALL BE COMPLETE WITH RODS AND SUPPORTS, PROPORTIONED TO THE SIZE OF PIPE TO BE SUPPORTED.

3.03 TESTS

A. GENERAL REQUIREMENTS: TESTING REQUIREMENTS ARE MINIMUM AND ARE NOT INTENDED TO BE LIMITING WHERE ADDITIONAL TESTING METHODS ARE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. TEST PRIOR TO COVERING OR CONCEALING PIPING.

B. DRAINAGE AND VENT PIPING: ALL DRAINAGE, VENT AND INSIDE CONDUCTOR PIPING SHALL BE TESTED BEFORE FIXTURES ARE INSTALLED, BY CAPPING OR PLUGGING THE OPENINGS AND FILLING THE ENTIRE SYSTEM WITH WATER TO A MINIMUM OF 15' HEAD AND ALLOWING IT TO STAND THUS FILLED FOR 24 HOURS. PROVIDE NECESSARY TEST TEES AND PLUGS TO TEST THE SYSTEM IN SECTIONS. REMAKE ALL LEAKING JOINTS.

C. FIXTURES: TEST EACH FIXTURE FOR SOUNDNESS, STABILITY OF SUPPORT, AND SATISFACTORY OPERATION OF ALL ITS PARTS.

3.04 STERILIZATION

A. GENERAL REQUIREMENTS: AFTER TESTS ARE COMPLETED AND APPROVED BY THE CONTRACTOR, FILL ALL WATER SUPPLY SYSTEMS WITH A SOLUTION CONTAINING 50 PPM OF AVAILABLE CHLORINE AND ALLOW TO STAND FOR A PERIOD OF 4 HOURS BEFORE BEING FLUSHED WITH CLEAN WATER, STERILIZE IN ACCORDANCE WITH LOCAL CODES. THEN DELIVER TO THE ENGINEER A DATED LETTER CERTIFYING STERILIZATION.

PLUMBING LEGEND AND ABBREVIATIONS

———	SANITARY PIPING (S)	⋈	GATE VALVE (GV)
———	WASTE PIPING (W)	⋈	BALL VALVE (BV)
– – – – –	VENT PIPING (V)	⊙	FLOOR DRAIN
—— – ——	COLD WATER PIPING (CW)	⊙	HUB DRAIN
– – – –	HOT WATER PIPING (HW)	⊙	FLOOR CLEAN-OUT
	TEE (PLAN, UP, DOWN)	⊙	WALL CLEAN-OUT
	ELBOW (90°, 45°)		VENT THRU ROOF (VTR)
	ELBOW (UP, DOWN)		

AFF	ABOVE FINISHED FLOOR	W/	WITH
B.F.F.	BELOW FINISHED FLOOR	FL	FLOOR
B.F.G.	BELOW FINISHED GRADE	V	VENT
RW	RAINWATER	WC	WATER CLOSET
OF	OVERFLOW	UR	URINAL
CO	CLEANOUT (ON PIPE STACK)	LAV	LAVATORY
ST	STORM	SK	SINK
DN	DOWN	JAN	JANITOR SINK
I.E.	INVERT ELEVATION	EWC	ELECTRIC WATER COOLER
RD	ROOF DRAIN	SH	SHOWER
FD	FLOOR DRAIN	H	HELP
HD	HUB DRAIN	VAC	VACUUM
FS	FLOOR SINK	O2	OXYGEN
SAN	SANITARY	N2O	NITROUS OXIDE
S.S.	STAINLESS STEEL	EWC	ELECTRIC WATER COOLER
TYP	TYPICAL	SH	SHOWER
VTR	VENT THRU ROOF	H	HELP

PLUMBING NOTES

1. PRIOR TO ORDERING OR FABRICATING ANY NEW EQUIPMENT THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS TO THE ENGINEER.
2. ALL PIPE SIZES ARE NOT SHOWN ON PLANS. REFER TO RISER DIAGRAMS FOR COMPLETE PIPE SIZING AND CONFIGURATION.
3. VERIFY ALL FLOOR DRAIN FINISH ELEVATIONS AND LOCATIONS WITH ARCHITECTURAL AND STRUCTURAL PLANS.
4. ALL PIPING AND EQUIPMENT SHALL BE COORDINATED WITH MECHANICAL, ELECTRICAL, STRUCTURAL AND GENERAL CONTRACTORS BEFORE INSTALLATION.
5. OFFSET VENTS THROUGH ROOF AS REQUIRED TO MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL DISTANCE FROM OUTSIDE AIR INTAKES. REFER TO MECHANICAL DRAWINGS FOR COORDINATION.
7. PROVIDE ALL VENTS WITH EFFECTIVE RODENT SCREENS.
8. ALL FLOOR DRAIN TRAPS AND CLEANOUTS BELOW GRADE SHALL BE ENCASED IN CONCRETE.
9. FLOOR DRAINS AND CLEANOUTS SHALL NOT BE LOCATED NEAR DOORS OR IN LINE WITH PATHWAYS OF DOORS AND HEAVY TRAFFIC AREAS.
10. SHOP DRAWINGS: SUBMIT TO THE ENGINEER FOR APPROVAL, BEFORE COMMENCING WORK, SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT TO BE PROVIDED UNDER THIS CONTRACT. THE FOLLOWING APPLIES TO THE SHOP DRAWINGS:
   A. DESIGN IS BASED ON MANUFACTURER NAMED DRAWINGS OR IN SPECIFICATIONS. SHOP DRAWINGS SHALL INDICATE EXCEPTIONS TO OR DEVIATIONS FROM THE DESIGN BASIS.
   B. EQUIPMENT IS GENERALLY SELECTED AT MIDRANGE CAPACITY TO PROVIDE FLEXIBILITY FOR CHANGES. SELECTIONS AT FULL MAXIMUM OR MINIMUM CAPACITY WILL NOT BE ACCEPTED.
11. SECURE EQUIPMENT TO SUPPORTS PER LOCAL CODE AUTHORITY. PROVIDE SEISMIC BRACING PER LOCAL CODE AUTHORITY. PLUMBING SUBCONTRACTOR SHALL PROVIDE SHOP DRAWINGS INDICATING METHODS INTENDED.
12. ANY LOAD SUSPENDED FROM THE ROOF OR FLOOR STRUCTURE ABOVE SHALL HANG DIRECTLY FROM THE BAR JOIST OR STRUCTURAL MEMBER; OTHERWISE, PROVIDE ADDITIONAL SUPPORT MATERIAL DESIGNED TO CARRY THE LOAD BETWEEN THE STRUCTURAL MEMBERS. DO NOT SUPPORT LOADS FROM BRIDGING.
13. ALL PLUMBING EQUIPMENT, PIPING, INSULATION, ETC. INSTALLED IN HVAC PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
14. THE CONTRACTOR SHALL MAINTAIN A FULL SET OF "INSTALLATION AND OPERATING MANUALS" ON SITE DURING CONSTRUCTION FOR THE USE OF THE BUILDING OFFICIAL. (CMC 304)

△ MODIFIED FIXTURES

PLUMBING FIXTURE SPECIFICATIONS

WC–1 WATER CLOSET – AMERICAN STANDARD MODEL 2257.103 AFWALL ELONGATED, WALL MOUNTED VITREOUS CHINA TOILET. TOILET RATED FOR 1.6–GALLONS PER FLUSH. PROVIDE SLOAN OPTIMA 111 ES–S EXPOSED SENSOR OPERATED FLUSH VALVE WITH SLOAN MODEL EL–154 120V TO 24V TRANSFORMER. PROVIDE OLSONITE 95–SS EXTRA HEAVY DUTY PLASTIC SEAT FOR ELONGATED BOWL LESS COVER WITH CONCEALED CHECK AND STAINLESS STEEL HINGE POST. TOILET AND SEAT COLOR WILL BE WHITE. PROVIDE ZURN CARRIER WITH NEOPRENE FIXTURE GASKET.

WC–2 WATER CLOSET – AMERICAN STANDARD MODEL 2257.103 AFWALL ELONGATED, WALL MOUNTED VITREOUS CHINA TOILET. TOILET RATED FOR 1.6–GALLONS PER FLUSH. PROVIDE SLOAN OPTIMA 111 ES–S EXPOSED SENSOR OPERATED FLUSH VALVE WITH SLOAN MODEL EL–154 120V TO 24V TRANSFORMER. PROVIDE OLSONITE 95–SS EXTRA HEAVY DUTY PLASTIC SEAT FOR ELONGATED BOWL LESS COVER WITH CONCEALED CHECK AND STAINLESS STEEL HINGE POST. WATER CLOSET TO BE MOUNTED FOR HANDICAPPED HEIGHT. TOILET AND SEAT COLOR WILL BE WHITE. PROVIDE ZURN CARRIER WITH NEOPRENE FIXTURE GASKET.

UR–1 URINAL – AMERICAN STANDARD MODEL 6501.010 WASHBROOK VITREOUS CHINA URINAL. URINAL RATED FOR 1.0–GALLON PER FLUSH. PROVIDE SLOAN OPTIMA 186 ES–S EXPOSED SENSOR OPERATED FLUSH VALVE WITH SLOAN MODEL EL–154 120V TO 24V TRANSFORMER. MOUNT URINAL 24" FROM FINISH FLOOR TO LIP OF URINAL. URINAL COLOR TO BE WHITE. PROVIDE ZURN CARRIER. (PROVIDE CLEANOUT)

UR–2 URINAL – AMERICAN STANDARD MODEL 6501.010 WASHBROOK VITREOUS CHINA URINAL. URINAL RATED FOR 1.0–GALLON PER FLUSH. PROVIDE SLOAN OPTIMA 186 ES–S EXPOSED SENSOR OPERATED FLUSH VALVE WITH SLOAN MODEL EL–154 120V TO 24V TRANSFORMER. MOUNT URINAL 17" FROM FINISH FLOOR TO LIP OF URINAL. URINAL COLOR TO BE WHITE. PROVIDE ZURN CARRIER. (PROVIDE CLEANOUT)

L–1 LAVATORY – AMERICAN STANDARD 0355.012 LUCERNE WALL MOUNTED 20" x 17" OVAL SELF–RIMMING VITREOUS CHINA LAVATORY WITH 4" CENTERSET. UNIT TO BE PROVIDED WITH T&S MODEL B–2711 SINGLE LEVER POLISHED CHROME FAUCET WITH McGUIRE CHROME PLATED 17 GA. CAST BRASS BODY ADJUSTABLE "P" TRAP WITH CLEANOUT, AND McGUIRE 3/8" ANGLED LOOSE KEY STOPS WITH ANNEALED VERTICAL TUBES AND CHROME PLATED BRASS ESCUTCHEON PLATES. LAVATORY COLOR TO BE WHITE. (PROVIDE CLEANOUT)

L–2 LAVATORY – AMERICAN STANDARD 0355.012 LUCERNE WALL MOUNTED 20" x 18" VITREOUS CHINA LAVATORY WITH 4" CENTERSET. UNIT TO BE PROVIDED WITH SLOAN OPTIMA MODEL ETF–600–C POLISHED CHROME SENSOR FAUCET, SLOAN HARDWIRED TRANSFORMER, SLOAN ETF–460–A CHROME PLATED STRAINER AND OUTLET TUBE, McGUIRE CHROME PLATED 17 GA. CAST BRASS BODY ADJUSTABLE "P" TRAP WITH CLEANOUT AND OFFSET DRAIN, McGUIRE 3/8" ANGLED LOOSE KEY STOPS WITH ANNEALED VERTICAL TUBES AND CHROME PLATED BRASS ESCUTCHEON PLATES, ZURN CONCEALED ARM TYPE CARRIER AND McGUIRE MODEL PM200DWC OFFSET DRAIN AND SUPPLIES INSULATION KIT. LAVATORY COLOR TO BE WHITE. (PROVIDE CLEANOUT)

S–1 COUNTERTOP SINK – ELKAY MODEL LR–3321 DOUBLE COMPARTMENT 33" x 21" STAINLESS STEEL SINGLE LEDGE SELF–RIMMING SINK. SINK TO BE CONSTRUCTED OF 18 GAUGE, TYPE 304 STAINLESS STEEL. SINK TO BE FURNISHED WITH ELKAY MODEL LK2318H5 FAUCET WITH SPRAY, ELKAY LK–35 STRAINER, McGUIRE 17 GAUGE CAST BRASS P–TRAP WITH CLEANOUT, McGUIRE MODEL H2166 1/2" x 3/8" ANGLED LOOSE KEY STOPS WITH ANNEALED VERTICAL TUBES AND CHROMED PLATED BRASS ESCUTCHEON PLATES.

S–2 COUNTERTOP SINK – ELKAY MODEL LR–2522 SINGLE COMPARTMENT 25" x 22" STAINLESS STEEL SINGLE LEDGE SELF–RIMMING SINK. SINK TO BE CONSTRUCTED OF 18 GA., TYPE 304 STAINLESS STEEL. SINK TO BE FURNISHED WITH ELKAY MODEL BRASS P–TRAP WITH CLEANOUT, McGUIRE MODEL H2166 1/2" x 3/8" ANGLED LOOSE KEY STOPS WITH ANNEALED VERTICAL TUBES AND CHROMED PLATED BRASS ESCUTCHEON PLATES.

S–3 HAND SINK – AMTEKCO MODEL DH–22, 16" x 19" x 10" DEEP, 18 GA. STAINLESS STEEL WALL MOUNTED SINK WITH SOAP DISPENSER. PROVIDE SINK WITH SLOAN OPTIMA MODEL ETF–600–C POLISHED CHROME SENSOR FAUCET, SLOAN HARDWIRED TRANSFORMER, SLOAN ETF–460–A CHROME PLATED BRASS STRAINER AND OUTLET TUBE. SINK SHALL BE ADA COMPLIANT. ALL SINKS AND FAUCETS TO BE NSF CERTIFIED.

S–4 SCULLERY SINK – AMTEKCO MODEL C–2–2424 24" x 24" x 11"d COMPARTMENT STAINLESS STEEL SINK. SINK TO BE CONSTRUCTED OF 16 GCAUGE, TYPE 304 NICKEL BEARING STAINLESS STEEL. SINK TO BE FURNISHED WITH (2) T&S MODEL B–331 GOOSENECK FAUCET WITH 8WH–6 6" WRIST BLADE, (2) T&S B3912 ROTARY LEVER OPERATED DRAIN OUTLET STRAINER, McGUIRE 17 GAUGE SACT BRASS P–TRAP WITH CLEANOUT, McGUIRE MODEL H2166 1/2" x 3/8" ANGLED LOOSE KEY STOPS WITH ANNEALED VERTICAL TUBES AND CHROMED PLATED BRASS ESCHUTCHEON PLATES.

SS–1 JANITOR'S RECEPTOR – FIAT TSB–100 PRECAST TERRAZZO, 24" x 24 " x 12" WITH STAINLESS STEEL CAP. PROVIDE BRASS DRAIN WITH NICKEL BRONZE STRAINER, FIAT MODEL 830–AA CHROME PLATED FITTING WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK, 3/4" HOSE THREAD ON SPOUT, FIAT MODEL 832–AA 30"x5/8" HOSE AND HOSE BRACKET AND POWER FIAT 888–CC 24" LONG x 3" WIDE STAINLESS STEEL MOP HANGER.

SS–2 JANITOR'S RECEPTOR – AMERICAN STANDARD MODEL 7692.008 "LAKEWELL" ENAMELED CAST IRON SERVICE SINK TYPE SINK. SINK TO BE PROVIDED WITH WALL HANGER BRACKET, MODEL 8379.018 RIM GUARD, MODEL 8341.076 EXPOSED YOKE WALL MOUNT FAUCET WITH VACUUM BREAKER AND STOPS IN SHANKS, AND 7798.030 ENAMELED CAST IRON "P" TRAP STANDARD TO WALL WITH CLEANOUT AND STRAINER FOR 3" IRON PIPE.

EWC–1 WATER COOLER – OASIS MODEL PBACSL BI–LEVEL WHEELCHAIR ACCESS LEAD FREE ELECTRIC WATER COOLER WITH A COOLER CAPACITY OF 8.0 GPH. UNIT TO USE HFC–134a REFRIGERANT. PROVIDE UNIT WITH SAFTEY BUBBLER, FRONT PUSH BAR ON/OFF AND ONE PIECE STAINLESS STEEL BASIN WITH INTEGRAL DRAIN GRID. UNIT TO BE MECHANICALLY OPERATED. PROVIDE WALL SUPPORT BRACKET. PROVIDE POWDER COATED FINISH WITH 3 YEAR WARRANTY.

FD–1 FLOOR DRAIN – ZURN MODEL Z–415–ZN. DRAIN TO BE DURA–COAT CAST IRON WITH FLANGE, INTEGRAL REVERSIBLE CLAMPING RING COLLAR, SEEPAGE OPENINGS AND HAVE A SATIN NICKEL BRONZE FINISHED STRAINER AND VANDAL PROOF SCREWS. DRAIN TO BE PROVIDED WITH TRAP PRIMER CONNECTION. PROVIDE CAST IRON P– TRAP.

FD–2 FLOOR DRAIN – ZURN MODEL Z–415–ZN. DRAIN TO BE DURA–COAT CAST IRON WITH FLANGE, INTEGRAL REVERSIBLE CLAMPING RING COLLAR, SEEPAGE OPENINGS AND HAVE A SATIN NICKEL BRONZE FINISHED STRAINER AND VANDAL PROOF SCREWS. PROVIDE CAST IRON P–TRAP.

FD–3 FLOOR DRAIN – ZURN MODEL Z–508 12" CAST IRON DRAIN. DRAIN TO HAVE DURA–COAT COATING AND SUPPLIED WITH FLANGE, INTERGRAL CLAMPING RING COLLAR SEEPAGE OPENING AND HAVE A 9" DIAMETER HEAVY DUTY CAST IRON GRATE. PROVIDE DEEP SEAL CAST IRON P–TRAP IN OUTLET SIZE INDICATED ON DRAWINGS.

FD–4 FLOOR DRAIN – KUSEL MDEL KE–100 304 STAINLESS STEEL WITH STAINLESS STRAINER BASKET, SOLID STAINLESS STEEL TOP AND FIXED OUTLET STRAINER. PROVIDE UNIT WITH KUSEL STAINLESS STEEL P–TRAP TO MATCH OUTLET SIZE INDICATED ON DRAWINGS.

FCO–1 FLOOR CLEANOUT – ZURN MODEL 1444 DURA–COATED CAST IRON BODY WITH AIR TIGHT ABS THREADED PLUG. PROVIDE TOP TO ALLOW FOR FLOOR FINISH.

FCO–2 FLOOR CLEANOUT – KUSEL STAINLESS STEEL TYPE CLEANOUT WITH SEALING STAINLESS STEEL COVER AND NYLON PLUG.

COOG CLEANOUT ON GRADE – ZURN MODEL 1444 CAST IRON BODY WITH AIR TIGHT ABS THREADED PLUG. PROVIDE CAST IRON COVER. PROVIDE CONCRETE PAD SURROUNDING TOP.

HD–1 HUB DRAIN – CAST IRON FUNNEL AS MANUFACTURED BY ZURN.

EWS–1 EMERGENCY SHOWER – GAURDIAN MODEL G8F1909–FC20–YEL BARRIER–FREE COMBINATION SHOWER AND EYE / FACE WASH UNIT. UNIT TO BE PROVIDED WITH ARMSTRONG – LYNWOOD MODEL RADA Z358–20 MIXING VALVE, MIXING VALVE SHALL MAINTAIN 60° TO 100° F TEMPERATURE WITH MINIMUM WATER FLOW OF 0.40 GPM AND A MAXIMUM FLOW OF 24.0 GPM.

EWS–2 EMERGENCY SHOWER – GAURDIAN MODEL GFR1205 FREEZE–PROOF SHOWER AND GAURDIAN MODEL GFR1724 FREEZE–PROOF EYE/FACE WASH WITH ARMSTRONG – LYNWOOD MODEL RADA Z358–20 MIXING VALVE, MIXING VALVE SHALL MAINTAIN 60° TO 100° F TEMPERATURE WITH MINIMUM WATER FLOW OF 0.40 GPM AND A MAXIMUM FLOW OF 24.0 GPM.

EWS–3 EMERGENCY SHOWER – GAURDIAN MODEL GFR1902 FREEZE–PROOF SHOWER AND EYE/FACE WASH WITH ARMSTRONG RADA MODEL Z358–20 MIXING VALVE, MIXING VALVE SHALL MAINTAIN 60° TO 100° F TEMPERATURE WITH MINIMUM WATER FLOW OF 0.4 GPM AND 24.0 GPM MAX. FLOW. PROVIDE HEAT TRACE FOR ALL PIPING BELOW WEEP VALVE.

TD–1 TRENCH DRAIN – 6" WIDE PRE–SLOPED POLY TYPE TRENCH DRAIN SEE DRAWING P503/#1 FOR OVERALL LENGTH AND CONFIGURATION. TRENCH TO BE PROVIDED WITH FORK RATED FRAME AND GRATE ASSEMBLY. PROVIDE UNIT WITH P–TRAP IN OUTLET SIZE AND PIPING MATERIAL INDICATED ON DRAWINGS. TRENCH EQUAL TO ZURN Z–886

BFP–1 BACKFLOW PREVENTER – WATTS MODEL #009QT 2 1/2"

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SCHEDLUES, NOTES & SPECS

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REV.	DATE	BY	DESCRIPTION
1	6/28/07

SPECIFICATION PIPEWORK INSULATION –1A

PIPE INSULATION (INSULATION TYPES) TABLE 1

ITEM	DESCRIPTION
INS–TYPE1	PREFORMED FLEXIBLE ELASTOMERIC PIPE INSULATION: COMPLY WITH ASTM C–534, TYPE I, AND ASTM E–84 FOR FLAME SPREAD RATE OF 25 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS, FOR 1" THICKNESS. K VALUE OF 0.30 AT 75'F MEAN TEMPERATURE; EQUAL TO AP ARMAFLEX, CLOSED CELL TUBE AND PIPE INSULATION. UTILIZE ADHESIVE RECOMMENDED BY INSULATION MANUFACTURER FOR JOINTS AND SEAMS.
INS–TYPE2	PREFORMED POLYISOCYANURATE PIPE INSULATION: COMPLY WITH ASTM E–84 FOR FLAME SPREAD RATE OF 25 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS FOR 1 ½" THICKNESS AND LESS. K VALUE OF 0.19 AT 75'F. COMPRESSIVE STRENGTH OF 25 PSI. EQUAL TO DOW TRYMER 2000. UTILIZE ADHESIVES RECOMMENDED BY THE INSULATION MANUFACTURER FOR JOINTS AND SEAMS.
INS–TYPE3	PREFORMED CALCIUM SILICATE PIPE INSULATION: INORGANIC HYDROUS CALCIUM SILICATE WITH NON–ASBESTOS FIBROUS REINFORCEMENT COMPLYING WITH ASTM C533 TYPE I, AND ASTM E84 FOR FLAME SPREAD RATE OF 25 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS. K VALUE OF 0.41 AT 200'F. EQUAL TO JOHNS MANVILLE THERMO 12 GOLD FORM PIPE INSULATION. WIRE INSULATION TO PIPE UTILIZING STAINLESS STEEL WIRE OR METAL BANDS.
INS–TYPE4	PREFORMED FOAMGLAS PIPE INSULATION: COMPLYING WITH ASTM C552–00,INSULATION SHALL BE NON COMBUSTIBLE EQUAL TO PITTSBURG CORNING FOAMGLAS PREFORMED SECTIONAL INSULATION WIRE INSULATION TO PIPE UTILIZING STAINLESS STEEL WIRE OR METAL BANDS.
JACKET J–1	PVC JACKET 30 MIL THICK, UV RESISTANT WHITE IN COLOR. PREFABRICATED SHAPES FOR FITTINGS, JOINTS, VALVES, ETC. USE ADHESIVE RECOMMENDED BY THE JACKET MANUFACTURER. SOLVENT WELD ALL JOINTS AND SEAMS. LAP SEAMS 1–1/2", LAP JOINTS 3". INSTALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
JACKET J–2	EMBOSSED ALUMINUM JACKET 0.016" THICK COMPLYING WITH ASTM–B209, 3003 ALLOY, H–14 TEMPER. USE 0.007" THICK ALUMINUM BANDS TO FASTEN JACKET TO INSULATION. USE 2" OVERLAP ON SEAMS AND JOINTS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
JACKET J–3	PLAIN STAINLESS STEEL JACKET 0..0149 THICK COMPLYING WITH ASTM–A666, 304 STAINLESS STEEL C/W 3/4" WIDE BANDS .02" THICK TO FASTEN JACKET TO INSULATION. USE 2" OVERLAP ON SEAMS AND JOINTS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER?S RECOMMENDATIONS.
VB–1	VAPOR BARRIER FILM: DOW SARAN 560 INDUSTRIAL FILM, 6 MIL THICK. SEAL SEAMS AND JOINTS WITH PRESSURE SENSITIVE TAPE RECOMMENDED BY THE PRODUCT MANUFACTURER.

SPECIFICATION PIPEWORK INSULATION –1B

PIPE INSULATION (INSULATION THICKNESS) TABLE 2

SERVICE	INSULATION TYPE	INSULATION JACKET	INSULATION THICKNESS (INCHES)					
			PIPE SIZE (INCHES)					
			1/2"	3/4"	1"	1–1/4" to 2"	2–1/2' to 6"	8" to 12"
CW, HW, HW RECIRC.	INS–TYPE1	J1 & J3	1?	1?	1?	1?	1?	NA
CW, HW, HW RECIRC.IN COOLERS	INS–TYPE1	J1 & J3	1" SEE NOTE 7	1" SEE NOTE 7	1" SEE NOTE 7	1" SEE NOTE 7	1" SEE NOTE 7	NA
COMPRESSED AIR, AL,AD AND CA IN COOLERS ONLY	INS–TYPE2	J1 & J3	1" SEE NOTE 7	1" SEE NOTE 7	1" SEE NOTE 7	1" SEE NOTE 7	1" SEE NOTE 7	NA
STEAM	INS–TYPE3	J1, J2 & J3	NA	1–1/2"	2?	2–1/2"	3? see notes 3 and 4	3? see notes 3 and 4
CR	INS–TYPE3	J1, J2 & J3	NA	1?	1–1/2"	1–1/2"	1–1/2"	NA
HPHW,	INS–TYPE1	J1 & J3	1?	1?	1?	1?	1?	NA
HWHS, HWHR	INS–TYPE2	J1 & J2	NA	1?	1–1/2"	1–1/2"	1–1/2"	NA
RWL	INS–TYPE1	J1 & J3	NA	NA	NA	NA	1?	1?
CHWS, CHWR, CHGS, CHGR	INS–TYPE2	J1 & J2	1?	1?	1?	1?	1?	1?
THERMAL FLUID	INS–TYPE4	J1 & J2	NA	SEE NOTES 5 AND 6	SEE NOTES 5 AND 6	SEE NOTES 5 AND 6	SEE NOTES 5 AND 6	SEE NOTES 5 AND 6

GENERAL INSTALLATION NOTES

1. REVIEW TABLE 1 FOR INSULATION TYPES
2. REVIEW TABLE 3 FOR JACKET TYPES AND LOCATIONS WHERE J1, J2 AND J3 JACKETS MAY BE USED.
3. PROVIDE DOUBLE LAYER OF INSULATION TO THICKNESS SHOWN
4. OFFSET ALL LATERAL AND LONGITUDINAL JOINTS
5. THICKNESS OF INSULATION SHALL LIMIT SURFACE TEMPERATURE OF INSULATION TO 139'F MAXIMUM
6. THE TEMPERATURE OF THE THERMAL FLUID SHALL BE ASSUMED AT 600'F
7. PROVIDE 5 WATTS PER FOOT TRACING ON ALL PIPEWORK COMPLETE WITH TEMPERATURE CONTROLLER

SPECIFICATION PIPEWORK INSULATION –1C

DESCRIPTION	SYMBOL	PIPE INSULATION (INSULATION INSTALLATION NOTES) TABLE 3
STEAM AND CONDENSATE	HPS, LPS, HPC & LPC	1. USE J1 JACKET IN ALL LOCATIONS OTHER THAN BOILER ROOMS, MECHANICAL ROOMS AND FINAL CONNECTIONS TO HOSE STATIONS AND EQUIPMENT IN PROCESS AREAS 2. USE J2 JACKET IN BOILER ROOMS, MECHANICAL EQUIPMENT ROOMS AND OUTDOOR APPLICATIONS 3. USE J3 JACKET FOR FINAL CONNECTIONS TO HOSE STATIONS & PROCESS EQUIPMENT IN PROCESS AREAS. JACKET SHALL EXTEND FROM EQUIPMENT TO 10'–00" ABOVE FINISHED FLOOR
HOT WATER SUPPLY AND RECIRCULATION HIGH PRESSURE HOT WATER COLD WATER	HW AND HWR HPHW CW	1. USE J1 JACKET IN ALL LOCATIONS OTHER THAN FINAL CONNECTIONS TO HOSE STATIONS AND EQUIPMENT IN PROCESS AREAS 2. USE J3 JACKET FOR FINAL CONNECTIONS TO HOSE STATIONS & PROCESS EQUIPMENT IN PROCESS AREAS. JACKET SHALL EXTEND FROM EQUIPMENT TO 10'–00" ABOVE FINISHED FLOOR 3. COVER INSULATION ON CW WITH VAPOR BARRIER VB–1.
HOT WATER HYDRONICS SUPPLY AND RETURN CHILLED WATER SUPPLY AND RETURN CHILLED GLYCOL SUPPLY AND RETURN	HWHS & HWHR CHWS & CHWR CHGS & CHGR	1. USE J1 JACKET IN INDOOR APPLICATIONS 2. USE J2 JACKET IN OUTDOOR APPLICATIONS 3. COVER INSULATION ON CHWS, CHWR, CHGS AND CHGR WITH VAPOR BARRIER VB–1.
RAINWATER LEADERS	RWL	1. USE J1 JACKET IN ALL LOCATIONS OTHER 10'–00 VERTICAL DROP IN PROCESS AREAS 2. USE J3 JACKET TO 10'–00" ABOVE FINISHED FLOOR 3. COVER INSULATION WITH VAPOR BARRIER VB–1.
THERMAL FLUID	TH 600	1. USE J2 JACKET IN BOILER ROOMS, MECHANICAL EQUIPMENT ROOMS AND OUTDOOR APPLICATIONS 2. USE J3 JACKET IN PROCESS AREAS.

GENERAL INSTALLATION NOTES

A. USE PREFORMED INSULATION WITH PREFABRICATED SECTIONS FOR FITTINGS AND VALVES. IF FABRICATED SECTIONS ARE NOT AVAILABLE, MITER AND/OR FABRICATE FROM LARGER SIZED INSULATION TO INSULATION THICKNESS SPECIFIED.

B. BUTT ALL JOINTS TOGETHER FIRMLY AND SEAL WITH TAPE OR ADHESIVE ACCORDING TO MANUFACTURERS? RECOMMENDATIONS.

C. ALL FITTINGS AND VALVES TO BE COVERED WITH THE SAME JACKETING AS PIPING. (NO HAND APPLIED SEALER).

D. CONTROL VALVES AND REGULATORS SHALL NOT BE INSULATED. SEAL PIPE INSULATION INDEPENDENTLY OF VALVES TO ENABLE REMOVAL OF VALVE WITHOUT DAMAGE TO VAPOR BARRIER OF PIPE INSULATION.

E. INSULATION COVERS ON ALL SHUTOFF VALVES MUST BE TRIMMED AND VAPOR SEALED TO ALLOW ACCESS TO PACKING NUTS AND SCREWED BONNETS.

F. PROVIDE STAINLESS STEEL SHEET METAL SADDLES, GAUGE AS REQUIRED TO PROTECT INSULATION FROM BEING CRUSHED, AT EACH HANGER OR STAND. INSULATION CONTRACTOR SHALL SEAL AND GLUE THE SADDLES TO THE INSULATION JACKET TO AVOID MOISTURE ACCUMULATION.

G. PIPE HANGERS AND SUPPORTS MUST NOT PENETRATE INSULATION. WHERE PIPE WEIGHT WILL CRUSH OR DEFORM THE INSULATION, INSTALL INSULATING BLOCKS TO CARRY WEIGHT. SADDLE SHALL BE SIZED TO DISTRIBUTE WEIGHT TO BELOW MANUFACTURERS MAXIMUM LOAD RECOMMENDATIONS.

H. NO INSULATION SHALL BE APPLIED UNTIL ALL PIPES AND EQUIPMENT HAVE BEEN PRESSURE TESTED, DRIED AND PROVEN TIGHT, BALANCED, AND ACCEPTED BY THE ENGINEER AND ALL WELD AREAS AND EXPOSED BARE METAL INCLUDING PIPE THREADS HAS BEEN CLEANED AND PRIMED.

J. INSULATION ON ALL COLD SURFACES WHERE VAPOR BARRIER JACKETS ARE USED WILL BE APPLIED WITH A CONTINUOUS UNBROKEN VAPOR SEAL. HANGERS, SUPPORTS, ANCHORS, ETC. THAT ARE SECURED DIRECTLY TO COLD SURFACES MUST BE ADEQUATELY INSULATED AND VAPOR SEALED TO PREVENT CONDENSATION.

K. CONTRACTOR SHALL SUBMIT MATERIAL DATA SHEETS AND RECEIVE APPROVAL BEFORE STARTING WORK DO NOT USE GLASS FIBER INSULATION.

L. USE SELF ADHESIVE PIPE MARKERS TO IDENTIFY ALL PIPE SERVICES AND FLOW DIRECTION PER ASME A 13.1

M. INSTALL INSULATION TO PREVENT LATERAL AND LONGITUDINAL JOINT SEPARATION WHEN PIPEWORK EXPANDS TO OPERATING TEMPERATURE

N. INSULATION SHALL BE CONTINUOUS THROUGH ALL WALLS. COORDINATE WITH MECHANICAL UTILITIES AND PLUMBING CONTRACTOR TO ENSURE SLEEVES ARE CORRECTLY SIZED

O. WHERE INSULATION PASSES THROUGH RATED FIRE WALL PROVIDE INSULATION TO MATCH THE FIRE RATING OF THE WALL IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS

PLUMBING FIXTURE SCHEDULE

MARK	DESIGNATION	CONNECTIONS			REMARKS
		CW	HW	WASTE	
WC–1	WATER CLOSET	1"	–	3"	
WC–2	WATER CLOSET	1"	–	3"	HANDICAPPED ROUGH–IN
UR–1	URINAL	3/4"	–	2"	
UR–2	URINAL	3/4"	–	2"	HANDICAPPED ROUGH–IN
L–1	LAVATORY	1/2"	1/2"	1 1/4"	
L–2	LAVATORY	1/2"	1/2"	1 1/4"	HANDICAPPED ROUGH–IN
S–1	KITCHEN SINK	1/2"	1/2"	1 1/2"	DOUBLE COMPARTMENT
S–2	KITCHEN SINK	1/2"	1/2"	1 1/2"	SINGLE COMPARTMENT
S–3	HAND WASH SINK	1/2"	1/2"	1 1/4"	INDIRECT WASTE
S–3	SCULLERY SINK	1/2"	1/2"	1 1/2"	
SS–1	JANITOR'S RECEPTOR	1/2"	1/2"	2"	FLOOR MOUNTED
SS–1	JANITOR'S RECEPTOR	1/2"	1/2"	2"	WALL MOUNTED WITH TRAP STANDARD
EWC–1	ELECTRIC WATER COOLER	1/2"	1/2"	1 1/4"	BI–LEVEL WITH SINGLE DRAIN
EWS–1	EMERGENCY SHOWER	1 1/4"	–	–	WITH MIXING VALVE
EWS–2	EMERGENCY SHOWER	1 1/4"	–	–	
EWS–3	EMERGENCY SHOWER	1 1/4"	–	–	WITH MIXING VALVE

⚠ ADDED SCHEDULE

PIPING SPECIFICATION PS–4a

SYSTEM	DOMESTIC WATER– (CW, HW, HW AND HWR)	
PRESSURE	UP TO 100 PSIG	
TEMPERATURE	UP TO 120 DEGREES FAHRENHEIT	
SIZE	3" AND SMALLER	4" AND LARGER
PIPE	HARD COPPER TUBE, TYPE L TO ASTM B 88	SCHEDULE 40, CARBON STEEL TO ASTM A53 GR B SEAMLESS, GALVANIZED
JOINTING	95–5 TIN–ANTIMONY SOLDER TO ASTM B62 GR 95 TA	VICTAULIC FLEXIBLE GALVANIZED STEEL COUPLING STYLE 75 OR EQUAL WITH EDPM GASKET AND PLATED NUTS AND BOLTS TO ASTM A–183.
FITTINGS	COPPER PRESSURE FITTINGS WROUGHT COPPER SOLDER JOINT FITTINGS TO ASTM B16.22 CAST COPPER ALLOY FITTINGS TO ASTM B16.18	GALVANIZED STEEL ROLL GROOVE IPS PIPING SYSTEM EQUAL TO VICTAULIC: FLEXIBLE SYSTEM
FLANGES	CLASS 150 BRONZE, SOLDER JOINT TO ASME B16.24	VICTAULIC ON EQUAL STYLE 741 CLASS 125
UNIONS	CAST COPPER ALLOY, HEXAGONAL STOCK BODY, METAL–TO–METAL SEATING, SOLDER JOINT OR THREADED ENDS TO MSS–SP–123	NOT APPLICABLE
BALL VALVES	VALVES SHALL BE 600 WOG ASTM B584 BRONZE BODY WITH FULL PORTING, STAINLESS STEEL BALL AND STEM, REINFORCED TEFLON SEATS, PTFE PACKING AND PACKING ADJUSTMENT NUT. VALVES SHALL COMPLY WITH MSS–SP–110. EQUAL TO CRANE 9303 (THREADED) OR 9323–5 (SOLDER ENDS).	NOT APPLICABLE
CHECK VALVE	VALVES SHALL BE CL125 ASTM B62 BRONZE T–PATTERN BODY WITH BRONZE INTEGRAL SEAT, FREE ROTATING BRONZE DISC, AND SCREEWED CAP. VALVES SHALL COMPLY WITH MSS–SP–80. EQUAL TO CRANE 1707 (THREADED) OR 1707S (SOLDER ENDS).	SWING CHECK, 125 LB, BRONZE DISC 3" TO 6" BRONZE FACED IRON DISC 8" AND UP" CAST IRON BODY, EQUAL TO CRANE SERIES 373
STRAINER	STRAINERS SHALL BE Y–TYPE CL125 ASTM B62 BRONZE BODY WITH STRAIGHT THREAD CAP, MACHINED SCREEN SEAT, AND 20 MESH 1304 STAINLESS STEEL SCREENS. EQUAL TO TITAN YS55–BZ (THREADED) OR YS56–BZ (SOLDER ENDS).	NOT APPLICABLE
DRAIN VALVES	BRASS BODY, THREADED OR SOLDER CONNECTION, AND HOSE THREAD CONNECTION WATTS SERIES BD.	NOT APPLICABLE
BUTTERFLY VALVES	NOT APPLICABLE	200 PSI, DI BODY, ALUMINUM / BRONZE DISC 316 SS STEM, EDPM SEAT LEVER LOCKING HANDLE, GEAR OPERATOR 12" AND LARGER; EQUAL TO CRANE QUARTERMASTER SERIES
PRESSURE GAUGE	4" DIA LIQUID FILLED, 304SS CASE, WHITE DIAL WITH BLACK FIGURES AND GRADUATIONS, IN PSI, POLYCARBONATE WINDOW, BRONZE BOURDON TUBE, SNUBBER 1/4" NPT CONNECTION, ACCURACY, 1% OF FULL SCALE PER ASME B40.1 EQUAL TO TRERICE SERIES 700. RANGE TO EQUAL TWO TIMES SYSTEM WORKING PRESSURE. USE 1/4" BALL VALVE FOR ISOLATION.	
THERMOMETER	7", ALUMINUM CASE, ACRYLIC WINDOW, ALCOHOL FILLED TUBE, SCALE WITH WHITE BACKGROUND, BLACK NUMBERS AND GRADUATIONS, ACCURACY OF +–1 SCALE DIVISION, ADJUSTABLE BASE, RANGE 0–200 DEGREES F. 3/4" NPT CONNECTION, EQUAL TO TRERICE NO 700 SERIES. SELECT INSERTION LENGTH AND 304SS THERMOWELL TO SUIT PIPE SIZE AND INSULATION THICKNESS.	

NOTES:
1. SLOPE PIPE IN DIRECTION OF FLOW 1" / 40' DOWN. PROVIDE MANUAL DRAIN VALVES AT SYSTEM DRIP LEGS.
2. PERFORM A HYDROSTATIC PRESSURE TEST ON THE SYSTEM AT 1 1/2 TIMES WORKING PRESSURE BUT NOT LESS THAN 150 PSIG FOR 2 HOURS, WITH MAX PRESSURE LOSS OF 2 PSIG.
3. CONNECTIONS TO ALL DISSIMILAR METALS SHALL BE MADE WITH DIELECTRIC ISOLATED COUPLINGS

PIPE & FITTINGS SPECIFICATION (PS–7c)

SERVICE	PROCESS DRAIN, WASTE AND VENT PIPING	
PRESSURE	GRAVITY	
LOCATION	ABOVE AND BELOW GROUND	
SIZE	2" AND SMALLER	3" AND LARGER
SLOPE (MIN.)	1/4" PER FOOT	1/8" PER FOOT
PIPE & FITTINGS	CAST IRON NO–HUB PIPE AND FITTINGS CONFORMING TO LATEST VERSION OF OF FEDERAL SPECIFICATION WW–P–401 F, ASTM A–888, CISPI 301.	CAST IRON NO–HUB PIPE AND FITTINGS CONFORMING TO LATEST VERSION OF OF FEDERAL SPECIFICATION WW–P–401 F, ASTM A–888, CISPI 301.
JOINTS	JOINT GASKETS SHALL CONFORM TO ASTM C–564 AND CISPI HSN.	JOINT GASKETS SHALL CONFORM TO ASTM C–564 AND CISPI HSN.
TESTING	TEST PIPING USING REQUIREMENTS OF LOCAL OR STATE CODE OR BY MEANS OF THE WATER TEST TEST WITH A WATER HEIGHT OF 10'–0" OR 4.3 PSI.	

NOTES:
1. BEDDING, COMPACTION AND BACKFILL SHALL CONFORM TO LOCAL AND STATE CODES, CISPI AND MANUFACTURES RECOMMENDATIONS.
2. FOR VENT AND ABOVE GROUND PIPING, REFER TO ABOVE GROUND PIPING SPECIFICATION THIS DRAWING.
3. USE OF NO–HUB PIPING MEETING THE ABOVE MENTIONED APPLICABLE CODES IS ACCEPTABLE.

PIPE & FITTINGS SPECIFICATION (PS–7i)

SERVICE	SANITARY DRAIN, WASTE AND VENT PIPING	
PRESSURE	GRAVITY	
LOCATION	ABOVE AND BELOW GROUND	
SIZE	2" AND SMALLER	3" AND LARGER
SLOPE (MIN.)	1/4" PER FOOT	1/8" PER FOOT
PIPE & FITTINGS	PVC SCHEDULE 40 TYPE DWV PIPE AND FITTINGS CONFORMING TO ASTM D–1784, ASTM D–1785, ASTM D–2665 AND NSF STANDARD 14.	PVC SCHEDULE 40 TYPE DWV PIPE AND FITTINGS CONFORMING TO ASTM D–1784, ASTM D–1785, ASTM D–2665 AND NSF STANDARD 14.
JOINTS	SLOVENT WELD WITH PRIMER CONFORMING TO ASTM SOLVENT CEMENT SHALL CONFORM TO ASTM D–2564.	SLOVENT WELD WITH PRIMER CONFORMING TO ASTM SOLVENT CEMENT SHALL CONFORM TO ASTM D–2564.
TESTING	TEST PIPING USING REQUIREMENTS OF LOCAL OR STATE CODE OR BY MEANS OF THE WATER TEST TEST WITH A WATER HEIGHT OF 10'–0" OR 4.3 PSI.	

NOTES:
1. BEDDING, COMPACTION AND BACKFILL SHALL CONFORM TO LOCAL AND STATE CODES AND MANUFACTURERS RECOMMENDATIONS.
2. THE USE OF FOAM CORE TYPE PIPE AND FITTINGS IS NOT PERMITTED.
3. THE USE OF PVC DWV PIPING IN PLENUM AREAS IS PROHIBITED UNLESS PIPING MEETS OR EXCEEDS SMOKE AND FLAME SPREAD REQUIREMENTS
4.

ELECTRIC WATER HEATER SCHEDULE

MARK	LOCATION	STORAGE CAPACITY	RECOVERY GPH	ELEMENT KW	ELEMENT QUANTITY	E.W.T. 0° F	E.W.T. 0° F	ELECTRICAL V / ø / Hz	RELIEF SIZE	MANUF.	MODEL	NOTES
EWH–1	JANITOR RM# 304	60	30	4.5	2	60	140	480 / 3 / 60	3/4"	A.O. SMITH	DEN–60	1 & 2
EWH–2	STORAGE RM# 602	60	30	4.5	2	60	140	480 / 3 / 60	3/4"	A.O. SMITH	DEN–60	1 & 2
EWH–3	MAINTENANCE RM# 202	80	30	6	2	60	140	480 / 3 / 60	3/4"	A.O. SMITH	DEN–80	1 & 2

NOTES:
1 NON–SIMULTANIOUS OPERATION OF ELEMENTS.
2. VERIFY ELECTRICAL REQUIREMENTS PRIOR TO EQUIPMENT PURCHASE.
3. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.

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NEW FACILITY
LAKE CITY, FLORIDA

SCHEDULES, NOTES & SPECS

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REV.	DATE	BY	DESCRIPTION
1	6/8/2007	LRA	REVISED AS NOTED
D	5/25/2007	LRA	CONSTRUCTION ISSUE
C	3/23/2007	LRA	PERMIT ISSUE
B	2/23/2007	LRA	OWNER REVIEW
A	2/9/2007	LRA	

JOB NO. 710 03019
DRAWN: LRA
CHECKED: JDP
SCALE: NONE

P002
DRAWING NO.

Filename: T:\Jobs\03000–03099\03019 USCS_FL\Design\Active\Plumb\03019P002.dwg Last Saved By: LALVAREZ Date: 6/8/2007 12:40:28 PM Plotted: 6/8/2007 12:40:44 PM

1.1 SCOPE

1.1.1 THE NOTES, TOGETHER WITH OTHER PROJECT SPECIFICATIONS REFERENCED HEREIN, PIPING DRAWING, AND DIAGRAMS (P&ID), ESTABLISH THE REQUIREMENTS FOR FIELD FABRICATION, ERECTION, EXAMINATION, INSPECTION & TESTING, CLEANING & FLUSHING OF PIPING SYSTEMS AND THEIR COMPONENTS FOR SPECIFIC SERVICES.

1.1.2 INTENT IS NOT TO SUBSTITUTE THE CODES AND STANDARDS REFERENCED, BUT TO SUPPLEMENT, AMEND OR LIMIT THEM AS REQUIRED.

1.1.3 THE PIPING MATERIAL SPECIFICATION, PIPING AND INSTRUMENT DIAGRAMS, AND SERVICE INDEX ARE TO BE USED FOR SPECIFIC SERVICES

1.2 CODES AND STANDARDS

1.2.1 ALL PIPING MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS AND ADDENDA OF THE APPLICABLE CODES AND STANDARDS LISTED BELOW:

ANSI – AMERICAN NATIONAL STANDARD INSTITUTION
ASTM – AMERICAN SOCIETY FOR TESTING AND MATERIALS
ASME – AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AWWA – AMERICAN WATER WORKS ASSOCIATION
MSS – MANUFACTURERR STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY
3-A – SANITARY STANDARDS, INTERNATIONAL ASSOCIATION OF MILK, FOOD AND – ENVIRONMENTAL SANITARIANS, INC.
AWS – AMERICAN WELDING SOCIETY

1.2.2 PIPING SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
ASTM–B31.7 – UNFIRED PRESSURE VESSEL CODE
ASTM–B31.1 – POWER PIPING (GENERAL PIPING)
ASTM–B31.3 – PROCESS PIPING
ASTM–B31.5 – REFRIGERATION PIPING (REFRIGERATION SYSTEM)
ASTM–B31.4 – FUEL PIPING
ASTM–B31.9 – SERVICE PIPING
3-A – SANITARY STANDARDS, MILK AND FOOD PRODUCTS

1.2.3 UNLESS OTHERWISE NOTED, ALL UNDERGROUND FERROUS (CAST IRON & BLACK STEEL) PIPES SHALL BE COATED AND/OR WRAPPED IN ACCORDANCE WITH THE STANDARD OF AWWA C–203.

1.2.4 ALL STEEL BUTT–WELDING FITTINGS SHALL CONFORM DIMENSIONALLY TO ANSI B16.9, WITH WALL THICKNESS AT LEAST EQUAL TO THAT OF THE PIPE. WHERE THE FITTING IS HEAVIER THAN THE PIPE, INDICATING WELDING ALIGNMENT TO ANSI CODE IS NOT POSSIBLE, ENDS OF FITTINGS SHALL BE BEVELED TO MEET CODE REQUIREMENTS.

1.2.5 PIPE IN SIZES 48" AND SMALLER SHALL CONFORM DIMENSIONALLY TO ANSI B36.10 FOR CARBON STEEL. PIPE WALL THICKNESS SHALL BE AS INDICATED IN THE PIPING MATERIAL SPECIFICATIONS.

1.2.6 ALL STEEL SCREWED AND SOCKET WELDING FITTINGS SHALL CONFORM TO ANSI B16.11.

2.0 PRODUCTS NOTES

2.1 MATERIALS NOTES

2.1.1 PIPING MATERIAL SPECIFICATIONS WILL BE USED AS ASSIGNED ON THE DRAWINGS AND SPECIFICATIONS. ANY DEVIATIONS FROM THE PIPING MATERIAL SPECIFICATIONS WILL BE NOTED ON THE PIPING DRAWINGS.

2.1.2 MATERIALS COVERED BY THE ABOVE SPECIFICATIONS SHALL BE NEW, FREE FROM DEFECTS AND IMPERFECTIONS.

2.1.3 MATERIALS WHICH ARE NOT COVERED BY DETAILED SPECIFICATION SHALL BE STANDARD PRODUCT OF APPROVED MANUFACTURERS AND SUITABLE FOR INTENDED SERVICE.

2.1.4 FULL LENGTHS OF PIPES SHALL BE USED WHEREVER POSSIBLE. SHORT LENGTHS OF PIPES WITH COUPLINGS WILL NOT BE PERMITTED.

2.1.5 LONG RADIUS WELD ELLS SHALL BE USED WHEREVER POSSIBLE. SHORT RADIUS ELLS WILL NOT BE USED UNLESS A WRITTEN APPROVAL IS SECURED FROM ENGINEER.

2.1.6 THE VALVE TYPE; GATE, GLOBE, CHECK, BUTTERFLY, BALL, ETC., SHALL BE AS INDICATED ON PIPING AND INSTRUMENT DIAGRAMS OR PER THE VALVE SPECIFICATIONS FOR SERVICE & FUNCTION. VALVE MATERIALS AND END CONNECTIONS SHALL BE PROVIDED AS SPECIFIED IN PIPING MATERIAL SPECIFICATION.

2.1.7 SHUTOFF VALVES ON BOTH SIDES OF A CONTROL VALVE AND THE BY–PASS VALVE SHALL TAKE THE SAME SPECIFICATION AS THE LINE WITH THE HIGHEST RATING.

2.1.8 VALVE TRIM MATERIAL SHALL BE MANUFACTURER'S STANDARD FOR SERVICE SPECIFIED.

2.1.9 VALVES REQUIRING SPECIAL TRIM OR OTHER FEATURES NOT IN AGREEMENT WITH THE PIPING MATERIAL SPECIFICATION WILL BE NOTED ON THE PIPING AND INSTRUMENT DIAGRAMS.

2.1.10 WHERE A VENT LINE, DRAIN LINE, ETC. CONNECTS TO A PROCESS LINE THAT HAS SPECIAL TRIM VALVES, ALL VALVES IN THE CONNECTING LINE SHALL HAVE THE SPECIAL TRIM.

2.1.11 CHAIN WHEELS OR EXTENSION STEMS SHALL BE PROVIDED FOR VALVE USED IN NORMAL PLANT OPERATION WHEN BOTTOM HAND WHEEL IS IN EXCESS OF 7'–0" ABOVE NORMAL WORKING LEVEL. CHAIN WHEELS OR EXTENSION STEMS MAY BE BUT ARE NOT NECESSARILY SHOWN ON PIPING DRAWING, BUT ARE REQUIRED.

2.1.12 GEAR OPERATORS SHALL BE CONSIDERED FOR VALVES, ONLY WHEN FREQUENT OR RAPID OPERATION IS REQUIRED UNDER UNIT OPERATIONS. GEAR OPERATORS WILL BE REQUIRED FOR BLOCK VALVES LARGER THAN 10"ø.

2.1.13 A MANUFACTURER'S NAME AND FIGURE NUMBER SHOWN IN PIPING MATERIAL SPECIFICATION DOES NOT REPRESENT A PREFERENCE. THE INTENT IS TO INDICATE QUALITY, DESIGN, MATERIALS, AND CONSTRUCTION REQUIRED. EQUIVALENT ITEMS NOT SPECIFIED BY NAME / MODEL SHALL BE SUBMITTED FOR APPROVAL.

2.1.14 PRESSURE AND TEMPERATURE LIMITS FOR VALVES WITH NONMETALLIC SEATING OR LINING MATERIALS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION FOR INTENDED SERVICE.

2.1.15 STEEL OR STAINLESS STEEL FLANGES AGAINST 125 LBS. CAST IRON FLANGES SHALL BE FLAT FACE.

2.1.16 GASKET FOR FLAT FACE FLANGES SHALL BE OF THE FLAT FACE TYPE.

2.1.17 WHERE VALVE LININGS EXTEND OVER FLANGE FACING, NO GASKET IS REQUIRED.

2.2 WELDING.

2.2.1 WELDING PROCEDURES, WELDERS, AND WELDING OPERATORS SHALL BE QUALIFIED IN ACCORDANCE WITH THE ASME BOILER AND PRESSURE VESSEL CODE, SECTION IX AND APPLICABLE ASTM B31 CODE FOR PRESSURE PIPING.

2.2.2 ALL WELDING PROCEDURES AND WELDERS SHALL BE QUALIFIED IN COMPLIANCE WITH STANDARD WELDING PROCEDURE QUALIFICATION TEST AND WELDER QUALIFICATION TEST FOR PIPE WELDING.

2.2.3 BUTT–WELDING ENDS SHALL BE PREPARED FOR WELDING ACCORDING TO THE APPLICABLE ASTM B31 CODE. BUTT WELDS MADE IN THE EFFECTIVE STRAIGHT RUN OF PIPE, BOTH UP AND DOWNSTREAM OF ANY MEASURING DEVICE SHALL BE GROUND FLUSH WITH THE INSIDE PIPE DIAMETER. THE GROUND JOINTS SHALL BE INSPECTED AND APPROVED BY A FIELD REPRESENTIVE PRIOR TO FURTHER FABRICATION OR INSTALLATION.

2.2.4 ALL PIPE ENDS SHALL BE SQUARE AND SMOOTH PRIOR TO WELDING. ALL CHAMFERING SHALL BE DONE BY MACHINING, GRINDING OR FLAME CUTTING.

2.2.5 WELDING SHALL NOT BE USED TO JOIN DISSIMILAR METALS. ALL SUCH JOINTS SHALL BE FLANGED OR THREADED ACCORDING TO THE PIPING MATERIAL SPECIFICATION. DIELECTRIC FITTINGS OR FLANGES SHALL BE UTILIZED.

2.2.6 TACK WELDS SHALL BE MADE BY QUALIFIED WELDERS. TACK WELDS WHICH ARE NOT REMOVED, WILL BE MADE WITH AN ELECTRODE WHICH IS THE SAME AS THE ELECTRODE TO BE USED FOR THE FIRST PASS. TACK WELDS WHICH HAVE CRACKED WILL BE REMOVED.

2.2.7 ALL COMPONENTS (PIPES, FITTINGS, FLANGES AND VALVES) SHALL BE FITTED UP AND RESTRAINED TO ENSURE THAT THE ROOT GAP IS MAINTAINED AT A CLEARANCE OF MINIMUM OF 1/16" AND MAXIMUM OF 1/8" FOR STEEL BUTT WELDING ENDS.

2.2.8 WELDED CONNECTIONS SHALL BE MADE WITH FULL PENETRATION WELDS. BRANCH PIPE REINFORCEMENT WELDING JOINTS SHALL HAVE A MINIMUM THROAT FILLET WELD EQUAL TO THE THICKNESS OF THE THINNER MATERIALS BEING JOINED.

2.2.9 ALIGNMENT: THE INSIDE DIAMETER OF PIPING COMPONENTS TO BE JOINED SHALL BE ALIGNED AS ACCURATELY AS IS PRACTICABLE WITHIN EXISTING TOLERANCES OF DIAMETERS, WALL THICKNESS, AND OUT OF ROUNDNESS. ALIGNMENT SHALL BE PRESERVED DURING WELDING. WHERE ENDS ARE JOINED AND THE INTERNAL MISALIGNMENT EXCEEDS 1/16", IT IS PREFERRED THAT THE COMPONENT WITH THE WALL EXTENDING INTERNALLY BE INTERNALLY TRIMMED SO THAT ADJOINING INTERNAL SURFACES ARE APPROXIMATELY FLUSHED. HOWEVER TRIMMING SHALL NOT RESULT IN PIPING COMPONENT WALL THICKNESS LESS THAN MINIMUM DESIGN THICKNESS AND THE CHANGE IN CONTOUR SHALL NOT EXCEED 30°.

2.2.10 NO WELDING SHALL BE DONE IF THERE IS IMPINGEMENT OF ANY RAIN, OR HIGH WINDS ON THE WELD AREAS EXCEPT WHEN SUITABLE PROTECTION OR EFFECTIVE SHIELD AGAINST THE RAIN OR WIND IS PROVIDED.

2.2.11 SPECIAL PRECAUTIONS SHALL BE TAKEN AT ALL TIMES DURING FABRICATION AND ERECTION TO PREVENT ENTRANCE OF ANY FOREIGN MATTER INTO PIPING OR EQUIPMENT. LOOSE RUST, SLAG, WELD SPATTER, DIRT, OIL, GREASE AND OTHER FOREIGN SUBSTANCES SHALL BE REMOVED FROM INTERIOR SURFACES OF PIPING PRIOR TO CONNECTING PIPING TO EQUIPMENT. PRIOR TO FABRICATION IN SHOP OR FIELD, ALL SURFACES FOR WELDING SHALL BE CLEANED TO BRIGHT METAL AND FREE OF PAINT, OIL, RUST OR OTHER FOREIGN MATTER FOR A DISTANCE OF AT LEAST 2 TIMES THE NOMINAL DIAMETER FROM THE JOINT. AFTER FABRICATION OPEN ENDS OF PIPE LINES SHALL BE CAPPED OR PLUGGED TO KEEP OUT DIRT AND OTHER MATERIALS UNTIL PIPE LINES ARE CONNECTED TO EQUIPMENT.

2.2.12 COMPLETED PIPING SHALL BE CLEANED WITH AIR, STEAM AND WATER FLUSHED TO SATISFACTION OF OWNER, ENGINEER, AND THIRD PARTY REPRESENTATIVE BEFORE FINAL CONNECTION TO EQUIPMENT. AFTER COMPLETION OF ANY TESTING WHERE NON–POTABLE SOLUTIONS ARE USED, ALL PARTS OF INSTALLATIONS SHALL BE THOROUGHLY CLEANED.

2.2.13 PROTECT ROOF MEMBRANE WHEN WELDING ON THE ROOF. DAMAGE TO THE ROOF MEMEBRANE WILL BE REPAIRED BY THE ROOFING CONTRACTOR AT THIS CONTRACTORS EXPENSE.

2.3.1 FLANGED JOINTS SHALL BE ARRANGED SO THAT IT IS NOT NECESSARY TO UNDULY STRAIN THE ASSOCIATED PIPE OR EQUIPMENT TO DISMANTLE THE JOINT.

2.3.2 ALL FLANGE JOINTS SHALL BE MADE PERFECTLY SQUARE AND TIGHT WITH THE BOLT HOLES ALIGNED SO THAT THERE IS NO BOLT BINDING. FLANGES SHALL NOT BE ALIGNED BY FORCING OR SPRINGING.

2.3.3 FLANGE BOLTING ARRANGEMENTS SHALL BE MADE SO THAT THE BOLTS HOLES STRADDLE THE CENTERLINE OF THE PIPE.

2.3.4 ALL BOLT HOLES SHALL BE FITTED WITH LOCKING WASHERS AND SHALL SHOW A MINIMUM OF TWO COMPLETE THREADS BEYOND THE NUT AFTER TIGHTENING.

2.3.5 DURING ASSEMBLY, ALL BOLTS SHALL BE COATED WITH AN APPROVED ANTI–SEIZE COMPOUND AND FITTED WITH SPRING WASHERS OR A SIMILAR LOCKING DEVICE.

2.3.6 AFTER ASSEMBLY, ALL FLANGED JOINTS SHALL BE DEGREASED AND RE–PAINTED WITH PRIMER.

2.4 THREADED JOINTS

2.4.1 THE PIPE ASSEMBLY SHALL BE ARRANGED SO THAT:

ALL JOINTS MAY BE DISMANTLED FOR MAINTENANCE WITHOUT FORCING OR SPRINGING THE PIPING.

THERE IS ADEQUATE SPACE AROUND THE JOINT TO USE APPROPRIATE TOOLS TO ENSURE THAT THE JOINT IS PROPERLY MADE.

2.4.2 THE THREAD SHALL BE MADE WITH UNIFORM TAPERED THREADS PROPERLY CUT WITH SHARP, CLEAN DIES.

BEFORE ASSEMBLY:

THE CUT THREAD SHALL BE DEGREASED TO REMOVE CUTTING LUBRICANT.
THE INSIDE OF THE PIPE SHALL BE THOROUGHLY CLEANED OF ALL BURRS OR FOREIGN MATERIAL.

2.4.3 DURING ASSEMBLY, THE JOINT SHALL BE MADE PERFECTLY TIGHT WITH AN APPROVED FOOD GRADE SEALANT. UNION TYPE COUPLINGS SHALL BE COATED WITH AN APPROVED TYPE OF ANTI–SEIZE COMPOUND. TEFLON TAPE OR ANY DERIVATIVE IS NOT ACCEPTABLE.

2.4.4 AFTER ASSEMBLY, ALL THREADED JOINTS SHALL BE DEGREASED AND RE–PAINTED WITH PRIMER IN ACCORDANCE WITH THE SPECIFICATION FOR PIPING AND EQUIPMENT PAINTING.

3.0 EXECUTION

3.1 PREPARATION

3.1.1 CONTRACTOR SHALL CAREFULLY CHECK AND BECOME FAMILIAR WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS AND DETAILS AND MAKE NOTE OF ALL LOCATIONS WHERE WALLS, PARTITIONS, CEILINGS, STRUCTURAL MEMBERS, ETC. ARE CALLED FOR TO BE FURRED OR CLOSED IN.

3.1.2 MODIFICATIONS TO THE ARRANGEMENT OF PIPING SYSTEMS MAY BE REQUIRED TO SUIT STRUCTURAL CONDITIONS OR TO AVOID INTERFERENCE WITH THE WORK OF OTHER TRADES. CONTRACTOR SHALL FURNISH ALL OFFSETS, ADDITIONAL DETAIL FITTINGS, ETC., AS REQUIRED TO MEET THE INSTALLATION CONDITIONS WHETHER DETAILED ON THE PLANS OR NOT.

3.1.3. ANY QUESTIONABLE INFORMATION IN THE SPECIFICATIONS AND DRAWINGS, SHALL BE CALLED TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR CLARIFICATION BEFORE PROCEEDING WITH FABRICATION OR ERECTION OF THE PARTS AFFECTED. IF, IN THE OPINION OF THE CONTRACTOR, ANY ADDITIONAL DETAIL DRAWINGS ARE NECESSARY, THE CONTRACTOR SHALL PREPARE THEM AT HIS OWN EXPENSE, TOGETHER WITH A BILL OF MATERIALS.

3.2 INSTALLATION

3.2.1 WHENEVER PRACTICABLE, PIPING SHALL BE GROUPED AND RUN OVERHEAD. SPECIFIC ELEVATIONS SHALL BE ESTABLISHED FOR ALL PIPING RUNNING IN ANY ONE DIRECTION AND AT ANOTHER SPECIFIC ELEVATION FOR PIPING RUNNING AT RIGHT ANGLES TO PROVIDE FOR BRANCH CONNECTIONS AND CROSSING OF LINES.

3.2.2 PIPING AT PUMP NOZZLES SHALL BE ARRANGED TO PERMIT REMOVAL OF PUMP OR DRIVE WITHOUT REMOVING BLOCK VALVES.

3.2.3 PERMANENT STRAINERS SHALL BE PROVIDED AS INDICATED ON PIPING AND INSTRUMENT DIAGRAMS.

3.2.4 ALL PIPING SHALL BE ARRANGED AND ALIGNED IN ACCORDANCE WITH THE DRAWINGS. REFERENCE ELEVATIONS GIVEN WAS BASED ON PLANT BENCHMARK ELEVATION. DIMENSIONS WHERE NOTED MUST BE HELD AS CLOSELY AS POSSIBLE. ALL DIMENSIONS ARE TO BE FIELD CHECKED FOR ACCURACY BEFORE PIPE IS FABRICATED. DO NOT SCALE DRAWINGS.

3.2.5 RUN PIPING IN WALL CHASES, PIPE SHAFT, CEILINGS, RECESSES, ETC., WHERE PROVIDED.

3.2.6 DO NOT MITER PIPES TO FORM ELBOWS, NOTCHING STRAIGHT PIPE RUNS TO FORM FULL FIXED TEES OR ANY SIMILAR CONSTRUCTION METHOD.

3.2.7 BENDING OF PIPE TO FORM ELBOWS IS NOT BE PERMITTED. BENDING OF TUBING MAY BE PERMITTED PROVIDED IT HAS BEEN REVIEWED AND APPROVED BY OWNER'S ENGINEER AND:

THE BEND RADIUS IS AT LEAST 5 TIMES THE PIPE DIAMETER.

THE BEND IS FREE OF ANY FLATTENING, WRINKLING, THINNING OR DIAMETER REDUCTION.

THE ELBOWS ARE STRESS RELIEVED AFTER BENDING BY AN APPROVED HEAT TREATMENT METHOD.

3.2.8 DRAWINGS IN GENERAL ARE TO SCALE. IN ORDER TO CLARIFY THE WORK, HOWEVER, SOME OF THE PIPING MAY BE SHOWN ON THE DRAWINGS NOT TO SCALE, THE CONTRACTOR SHALL USE DIMENSIONS AND GRADES, WHERE GIVEN. ALL DIMENSIONS, SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE FINAL CONNECTIONS ARE FABRICATED. REPORT ANY CONFLICTS TO THE ENGINEER. DO NOT SCALE DRAWINGS.

3.2.9 DRAWINGS FOR SMALL BORE PIPING ARE IN GENERAL DIAGRAMMATIC AND THE EXACT LOCATION OF THESE LINES SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD MEASUREMENTS TAKEN BY HIM. THE ACTUAL ARRANGEMENT OF THE SMALL BORE PIPING, WHEN ERECTED, SHALL FOLLOW THE GENERAL LOCATIONS SHOWN ON THE DRAWINGS AS FAR AS PRACTICABLE. THE INSTALLATION MADE IN THIS WAY SHALL BE NEAT IN APPEARANCE AND CONVENIENT TO OPERATE, AND SHALL PROVIDE FOR PROPER EXPANSION AND DRAINAGE.

3.2.10 INSTALLATION OF PIPING SYSTEMS SHALL BE COORDINATED WITH THE OTHER WORKED / OR WITH EXISTING FACILITIES, TO AVOID BLOCKING BUILDING OPENINGS, LIGHT FIXTURES, ETC. PIPING SHALL NOT INTERFERE WITH ACCESS TO VALVES OR EQUIPMENT AND SHALL NOT OBSTRUCT PASSAGEWAYS.

3.2.11 LINES SHALL NOT BE EXTENDED BY MEANS OF DEAD END BRANCH FOR THE PURPOSE OF PROVIDING SUPPORT.

3.2.12 ALL PIPES SHALL BE CUT TO EXACT MEASUREMENT TO BE INSTALLED WITHOUT FORCING, (EXCEPT WHERE COLD SPRINGING IS SPECIFICALLY CALLED FOR). AFTER CUTTING, ENDS SHALL BE REAMED AND CLEANED TO ELIMINATE FOREIGN MATTER.

3.2.13 CUTTING OR OTHER WEAKENING OF THE BUILDING STRUCTURE TO FACILITATE PIPING INSTALLATION WILL NOT BE PERMITTED.

3.2.14 ALL PIPE PENETRATIONS THROUGH WALLS SHALL BE THROUGH A SLEEVE WHICH IS WHICH IS SEALED AND DOES NOT RESTRAIN PIPE MOVEMENT. ALL PENETRATIONS THROUGH EXTERNAL WALLS OF THE BUILDINGS SHALL BE FINISHED IN AN APPROVED MANNER.

PIPE PENETRATIONS SHALL NOT BE USED FOR SUPPORT OR RESTRAINT UNLESS THE WALL HAS BEEN SPECIFICALLY DESIGNED TO ACCEPT THE ADDITIONAL LOADS. WHERE INSULATED PIPE PASSES THROUGH THE WALLS, THE PIPE PENETRATION SHALL ENSURE CONTINUITY OF THE INSULATION AND VAPOR BARRIER.

PIPES PASSING THROUGH FIRE RATED WALLS MUST BE FIRE STOPPED IN AN APPROVED MANNER TO MAINTAIN THE INTEGRITY OF THE FIRE RATING.

3.2.15 PIPING COMPONENTS (VALVES, FITTINGS OR JOINTS) SHALL NOT BE PLACED WITHIN 12" OF ANY WALL, FLOOR CEILING PENETRATION. SUCH FITTINGS SHALL NOT BE CONCEALED WITHIN ANY WALL, FLOOR OR CEILING.

3.2.16 CLOSE NIPPLES SHALL NOT BE PERMITTED; NIPPLES WITH A SHOULDER LENGTH OF LESS THAN 1–1/2" MUST BE OF SAME SCHEDULE AS CONNECTED PIPE.

3.2.17 UNLESS OTHERWISE SHOWN ON THE DRAWINGS, INSTALL ALL SUPPLY PIPING TO COILS, PUMPS AND OTHER EQUIPMENT INCLUDING VALVES AND STRAINERS THEREIN, AT LINE SIZE. IF A REDUCTION IS REQUIRED AT A PUMP OR CONTROL VALVE, THE REDUCER SHALL BE INSTALLED ABUTTING THE INLET AND OR OUTLET OF THE PUMP VALVE.

3.2.18 USE ECCENTRIC REDUCING FITTINGS OR ECCENTRIC REDUCING COUPLINGS TO PREVENT POCKETING OF LIQUID OR NON–CONDENSABLES.

3.2.19 REDUCTIONS IN LINE SIZE SHALL BE MADE WITH BUTT–WELDING REDUCERS, SWAGE NIPPLES, SCREWED OR SOCKET WELD REDUCERS. DO NOT USE BUSHINGS.

3.2.20 ALL PIPE SYSTEMS SHALL BE DESIGNED FOR EXPANSION AND / OR CONTRACTION UNDER START UP, OPERATING, SHUT–DOWN, AND STEAM–OUT CONDITIONS, WITHOUT OVER–STRESSING PIPING, VALVES OR EQUIPMENT.

3.2.21 PIPE ANCHORS, GUIDES, HANGERS AND SUPPORTS SHALL BE PROVIDED AS REQUIRED AND IN ACCORDANCE WITH PIPING DRAWINGS AND PIPE SUPPORT DETAILS.

3.2.22 SANITARY PIPING AT EQUIPMENT SHALL BE ARRANGED TO FACILITATE COMPLETE AND EASY REMOVAL OF EQUIPMENT. WHERE NECESSARY, REMOVAL OF PIECES WITH UNION OF FLANGE TYPE ENDS SHALL BE INSTALLED AT EQUIPMENT NOZZLES.

3.2.23 SYSTEM COMPONENTS WHICH REQUIRE OBSERVATION OPERATION OR MAINTENANCE SUCH AS VALVES, TRAPS, GAUGES, CONTROLS, STRAINERS, DIRT POCKETS, CLEANOUTS, UNIONS AND FLANGES, ETC. SHALL BE LOCATED SO AS TO BE READILY ACCESSIBLE.

3.2.24 INSTALL ALL VALVES WITH STEMS IN EITHER AN UPRIGHT (PREFERRED) OR HORIZONTAL POSITION. CONTROL VALVES SHALL BE INSTALLED WITH TOP WORKS UPWARD UNLESS SPECIFICALLY SHOWN OTHERWISE.

3.2.25 CHECK VALVES SHALL BE INSTALLED HORIZONTALLY, OR IN A VERTICAL LINE WITH UPWARD FLOW ONLY.

3.2.26 ALL PIPING VALVES SHALL BE FREE DRAINING IN THEIR INSTALLED POSITION.

3.2.27 CLEANING THE USE OF COMPANION FLANGES IN PIPING SHALL BE LIMITED TO CONNECTIONS AT FLANGED EQUIPMENT AND DISSIMILAR METALS. FIELD JOINTS MAY BE FLANGED WHERE EXPEDIENT AND ECONOMICAL TO AVOID FIELD WELDING OF JOINT REQUIRING HEAT TREATMENT AND EXAMINATION.

3.2.28 THE LOCATION OF FLANGED JOINTS ARE SHOWN ON PIPING DRAWINGS, STRADDLE THE CENTER LINES OF PIPE UNLESS OTHERWISE SHOWN AND NOTED. EACH PIPING MATERIAL SPECIFICATION DESCRIBES THE TYPE OF FLANGES TO BE USED TOGETHER WITH THE MATERIAL, FACING ETC.

3.2.29 VENTS AND DRAINS SHALL BE PROVIDED FOR PIPING AND EQUIPMENT AS INDICATED ON PIPING AND INSTRUMENTATION DIAGRAMS AND AS REQUIRED FOR THE PURPOSE OF FILLING AND DRAINING SYSTEMS FOR TESTING, START–UP, SHUT–DOWN AND IN BY–PASS PIPING. VENTS AND DRAINS SHALL BE PROVIDED IN ADDITION TO THOSE SHOWN ON PIPING AND INSTRUMENTATION DIAGRAMS WHEN THE PHYSICAL ARRANGEMENT OF PIPING RESULTS IN HIGH AND LOW POINTS THAT CANNOT BE VENTED OR DRAINED THROUGH CONNECTION SHOWN.

3.2.30 ALL DRAINS EMPTYING INTO OPEN OUTLET SHALL BE PROVIDED.

3.2.31 PUMP CASING VENTS AND DRAINS SHALL BE PROVIDED.

3.2.32 COMPRESSIBLE FLUID CONNECTIONS SHALL BE MADE EITHER ON TOP OR SIDE OF MAIN LINE, NEVER OFF THE BOTTOM.

3.2.33 VENT, DRAIN AND SAMPLE CONNECTIONS ON PIPING SHALL BE 3/4" UNLESS OTHERWISE NOTED ON PIPING AND INSTRUMENT DIAGRAMS.

3.2.34 VENTS AND DRAINS ON ALL LINES WITH SOCKET WELD VALVES TO HAVE PIPE NIPPLE WITH ONE END PLAIN AND ONE END THREADED WITH CAP.

3.2.35 INSTRUMENT CONNECTIONS ON PIPING AND EQUIPMENT SUCH AS LOCAL MOUNTED PRESSURE AND TEMPERATURE INSTRUMENTS, GAGE GLASS AND LEVEL CONTROLS, SHALL BE ACCESSIBLE FROM GRADE, PLATFORMS OR LADDERS.

3.2.36 SEAL WELDING IS NOT PREMITTED ON SCREWED THERMOMETERS AND THERMOCOUPLES.

3.2.37 PLATFORMS SHOULD BE PROVIDED FOR ACCESS WHEN THE LOWER CONNECTIONS OF THE GAGES AND LEVEL CONTROL ON THE PROCESS TANK OR VESSEL ARE 10'–0" AND MORE ABOVE FINISHED SURFACE.

3.2.38 ALL CONTROL VALVES SHALL BE ACCESSIBLE FROM GRADE OR PERMANENT PLATFORMS AND CONVENIENTLY LOCATED FOR OPERATION.

3.2.39 RELIEF VALVES SHALL BE IN AN UPRIGHT VERTICAL POSITION. WHEN DISCHARGING TO ATMOSPHERE, PROVIDE A 3/4" DIAMETER HOLE AT LOW POINT AND CHAMFER OUTLET PIPE END AT 30 DEGREE ANGLE.

3.2.40 PRESSURE RELIEF VALVE DISCHARGING LINES, VENTING NON TOXIC, NON FLAMMABLE GASES OR MEDIA BELOW 140°F TO ATMOSHPERE, SHALL TERMINATE A MINIMUM OF 10' ABOVE ANY SERVICE PLATFORM WITHIN A RADIUS OF 40' OF THE OUTLET. FOR TOXIC AND FLAMMABLE GASES THE CONTRACTOR SHALL SUBMIT A PROPOSED ARRANGEMENT FOR APPROVAL WITH THE OWNER.

3.2.41 INSTRUMENTS (I.E. PRESSURE GAUGES, THERMOMETERS, ETC.) WHERE SHOWN ON THE DRAWINGS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS. EXACT LOCATIONS SHALL CONSIDER VISIBILITY AND ANY SPECIAL INSTALLATION REQUIREMENTS, AND SHALL BE AS APPROVED BY OWNER'S REPRESENTATIVES. ANY RELOCATION REQUIRED BECAUSE CONTRACTOR FAILED TO OBTAIN APPROVAL SHALL BE DONE AT CONTRACTOR'S EXPENSE.

3.2.42 DRIP LEGS WITH STEAM TRAPS ARE TO BE PROVIDED UPSTREAM OF ALL PRESSURE REDUCING STATIONS, OR TEMPERATURE CONTROL STATIONS, AT LOW POINT OF PIPING SYSTEM AND AT THE END OF HEADERS AND MAINS.

3.2.43 INSULATION FOR ALL PIPING AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE INSULATION SPECIFICATION. NO LOOSE FIBER, WRAP TYPE, OR FIBERGLASS INSULATION SHALL BE PERMITTED ON SITE.

4.0 PIPE SUPPORTS

4.1.1 WELDING

WELDING OF PIPE SUPPORTS WHICH ARE WELDED TO THE PIPE DIRECTLY SHALL CONFORM TO THE SAME REQUIREMENTS AS FOR THE PIPE CONNECTION. ALL WELDING SHALL CONFORM TO THE STANDARD OF LATEST EDITION OF AWS.

4.1.2 FABRICATION

ALL SUPPORTS, INCLUDING ANCHOR BOLTS, SHALL BE FABRICATED TO THE DIMENSIONS AND MATERIALS CONFORMING TO PIPE SUPPORT DETAIL DRAWINGS UNLESS SPECIFIED OTHERWISE ON THE PIPING DRAWINGS. EACH SUPPORT SHALL BE FABRICATED AND ASSEMBLED SO THAT IT CANNOT BE DISENGAGED BY MOVEMENT OF THE SUPPORTED PIPING.

4.1.3 ERECTION

PIPE SUPPORTS SHALL BE PROPERLY LEVELED AND PLUMBED AS INDICATED ON PIPING DRAWINGS AND PIPE SUPPORT DETAIL SHEETS. SHIMS AND WEDGES MAY BE EMPLOYED FOR LEVELING AND ALIGNMENT OF THE SUPPORTS ON THE GRADE. RIGID TEMPORARY FRAMES OR OTHER SUITABLE DEVICES MAY BE USED SUPPORTING PIPING BEFORE INSTALLATION OF PIPE SUPPORTS. SUCH FRAMES SHALL BE RIGID SO AS NOT TO MISALIGN THE PIPING SYSTEM.

4.1.4 SUPPORTS PERMITTING PIPE MOVEMENT

SUPPORTS PERMITTING PIPE MOVEMENT SHALL BE ASSEMBLED TO ALLOW THE NECESSARY MOVEMENT OF PIPE AS CAUSED BY THERMAL EXPANSION AND CONTRACTION IN ACCORDANCE WITH THE PIPING DRAWING. REFER TO SPECIFICATIONS AND DETAILS ON DRAWINGS.

4.1.5 BRACING

THE FIRST NIPPLE AND VALVE OF SMALL CONNECTIONS INCLUDING INSTRUMENT CONNECTIONS TO PIPING, VESSEL OR EQUIPMENT SHALL BE BRACED TO PREVENT DAMAGE / BREAKAGE.

NOTE: FOR 2" AND SMALLER PIPING, ADDITIONAL PIPE SUPPORTS MAY BE REQUIRED TO IMPROVE THE STABILITY OF THE PIPING AFTER APPROVAL OF OWNER'S ENGINEER OR TO COMPLY WITH SUPPORT DETAILS REQUIRED BY THESE DOCUMENTS OR BY CODE.

5.0 QUALITY CONTROL FOR WELDING

5.1 INSPECTION AND MAINTENANCE OF WELDING MACHINE

WELDING MACHINES SHALL BE PERIODICALLY INSPECTED AT LEAST ONCE A MONTH.

THIS INSPECTION AND MAINTENANCE SHALL BE DONE MAINLY TO CHECK ELECTRICAL INSULATION, INTERNAL TROUBLES OF THE MACHINES, LUBRICATION, AND ADJUSTMENT OF ELECTRIC CURRENT FOR THE MACHINES.

ALL WELDING MACHINES SHALL BE NUMBERED FOR QUANTITY AND QUALITY CONTROL PURPOSE AND SHALL BE PERIODICALLY RECORDED ON A LIST SHOWING THE LOCATIONS AND CONDITIONS OF THE WELDING MACHINES BEING USED.

5.1.2 INSTALLATION

LOCATION OF WELDING MACHINES AND SWITCHBOARDS SHALL BE DECIDED IN CONSULTATION WITH OWNER TO PREVENT DISTURBING OTHER WORK AND TO PREVENT OVERLOADING OF THE SWITCH BOARDS, CABLES AND ELECTRICAL POWER SOURCES.

5.1.3 ELECTRICAL CABLES, SWITCH AND CONNECTIONS FOR WELDING MACHINES SHALL BE CAREFULLY CHECKED AND REPAIRED AT LEAST ONCE A MONTH AND BEFORE OPERATING THE WELDING MACHINES.

5.1.4 PORTABLE POWER CABLES USED WITH WELDING MACHINES SHALL BE CAREFULLY EXAMINED EVERY DAY AND REPAIRED AS NECESSARY.

5.2.1 QUALIFICATION OF WELDERS

ALL WELDING ON PIPING SHALL BE CARRIED OUT BY SUITABLY QUALIFIED WELDERS, WITH RECENT SIMILAR EXPERIENCE, WHO (MUST DOCUMENT AND COPY BE ON FILE WITH CONSTRUCTION MANAGER) HAVE PASSED AN APPROVED QUALIFICATION TEST WITHIN ONE MONTH OF COMMENCING WORK.

THE REQUIRED QUALIFICATION TESTS SHALL:

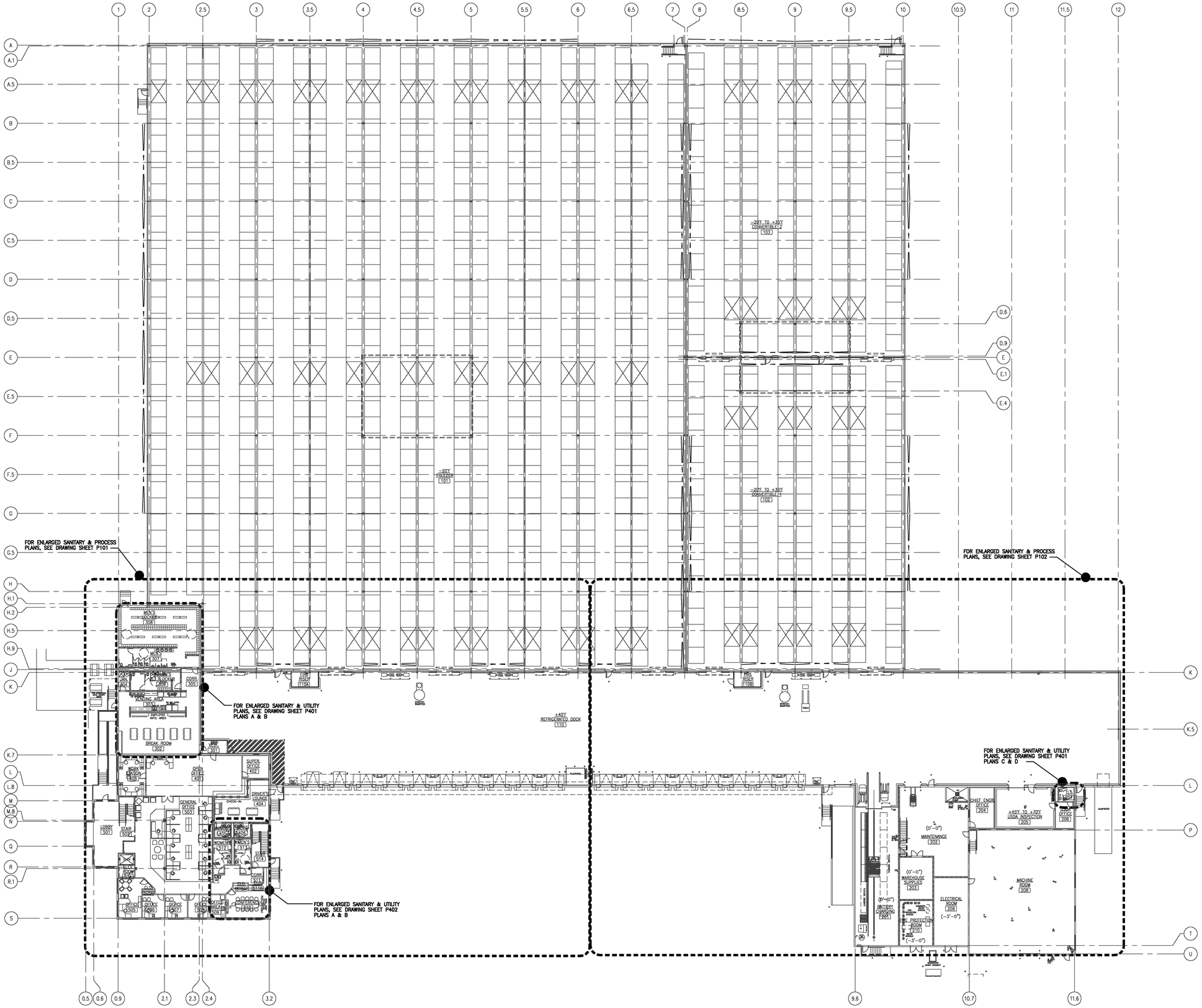
BE CARRIED OUT WITH THE MOST CRITICAL MATERIALS TO BE USED IN THE SYSTEM. TESTS ON MORE THAN ONE MATERIAL MAY BE NECESSARY.

USE WELDING METHOD APPROPRIATE FOR THE INSTALLATION.

TAKE INTO ACCOUNT WELDING POSITION IN DIFFICULT LOCATIONS.

BE APPROVED AND WITNESSED BY OWNER OR THIRD PARTY REPRESENTATIVE.

OWNER RESERVES THE RIGHT TO REJECT AN



OVERALL FLOOR PLAN

SCALE: 1" = 20'-0"

0 10' 20' 40' 60'

N

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OVERALL FLOOR PLAN

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REV.	DATE	BY	DESCRIPTION
0	5/30/07	LRA	CONSTRUCTION ISSUE
B	5/07/07	LRA	PERMIT ISSUE
A	3/07/07	LRA	OWNER REVIEW

JOB NO. 710 03019

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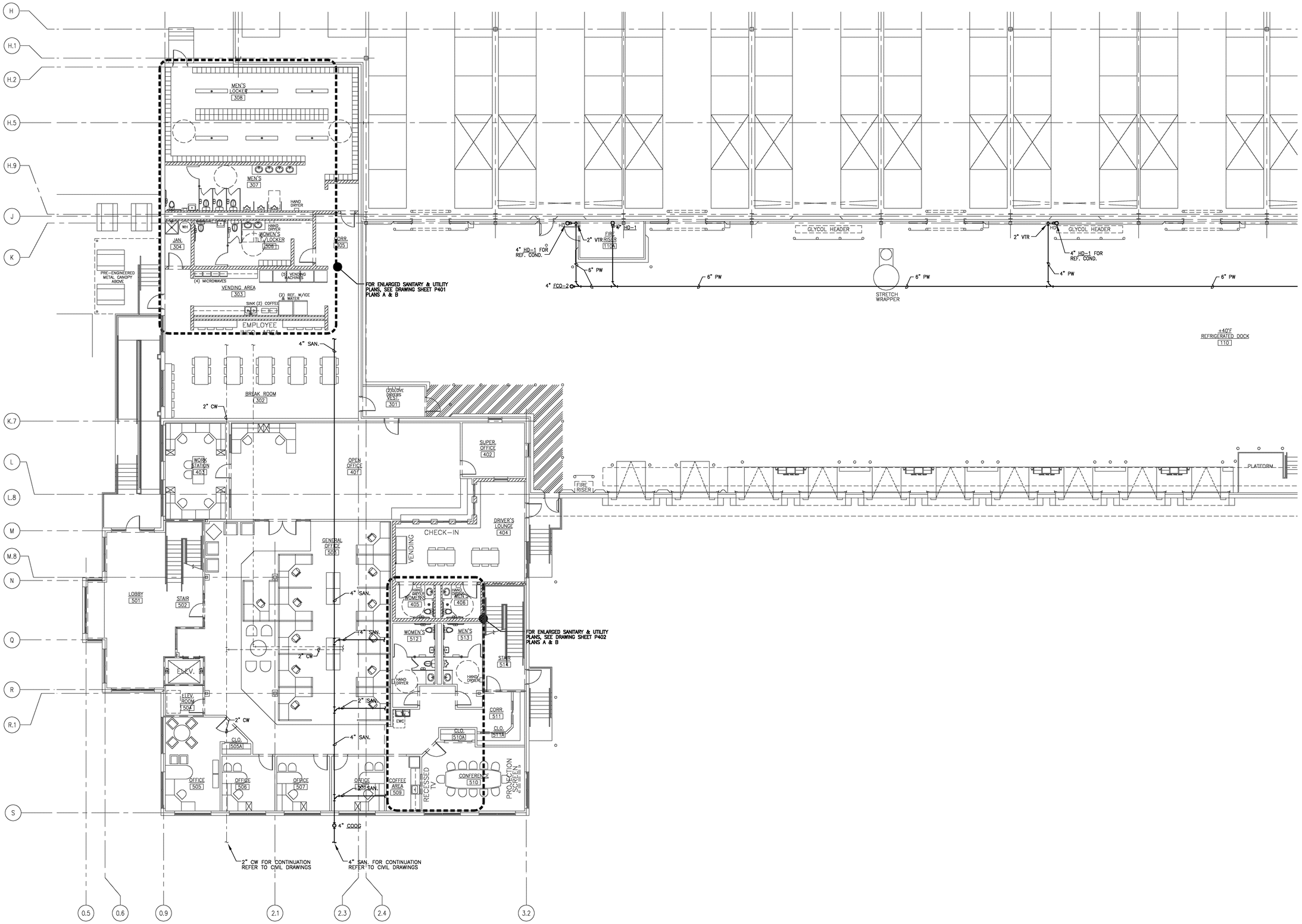
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SCALE: 1"=20'-0"

P100

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ENLARGED SANITARY & PROCESS PIPING FLOOR PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16'

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ENLARGED SANITARY & PROCESS PIPING FLOOR PLAN

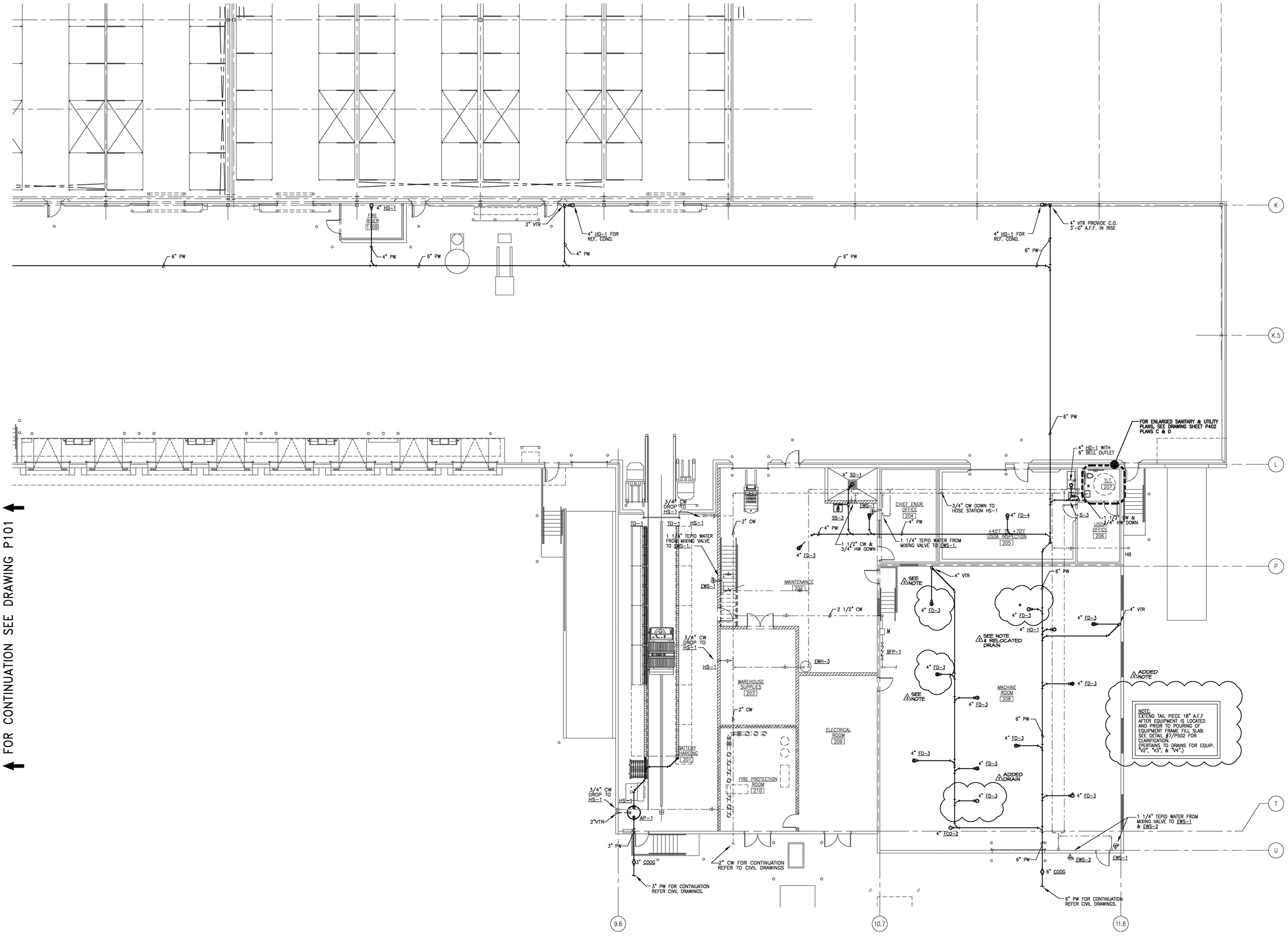
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REV.	DATE	BY	DESCRIPTION
0	05/30/07	LRA	CONSTRUCTION ISSUE
B	04/20/07	LRA	PERMIT ISSUE
A	04/09/07	LRA	OWNER REVIEW

JOB NO. 710 03019
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CHECKED: JDP
SCALE: 1/8"=1'-0"

P101
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FOR CONTINUATION SEE DRAWING P101

ENLARGED SANITARY & PROCESS PIPING FLOOR PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16'

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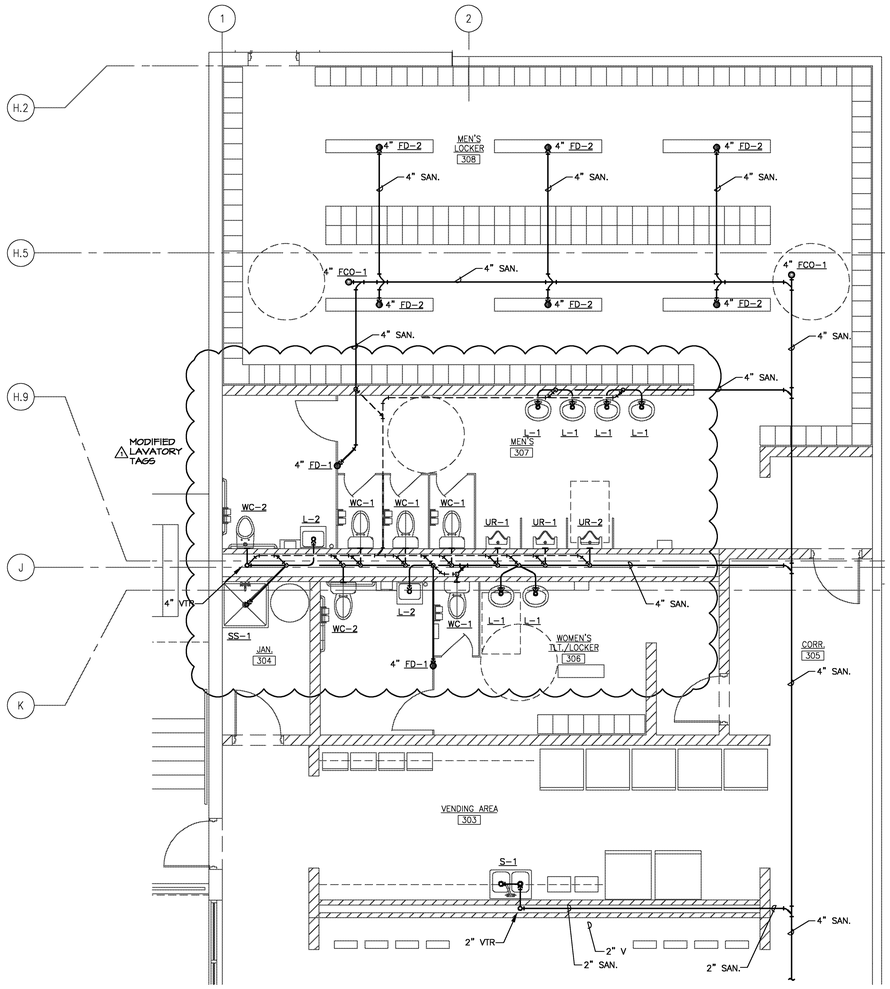
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REV.	DATE	BY	DESCRIPTION
2	07/10/07	LRA	REVISED AS NOTED
1	06/29/07	LRA	PERMIT ISSUE
0	06/22/07	LRA	CONSTRUCTION ISSUE
B	04/27/07	LRA	OWNER REVIEW
A	04/20/07	LRA	OWNER REVIEW

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SCALE: 1/8"=1'-0"

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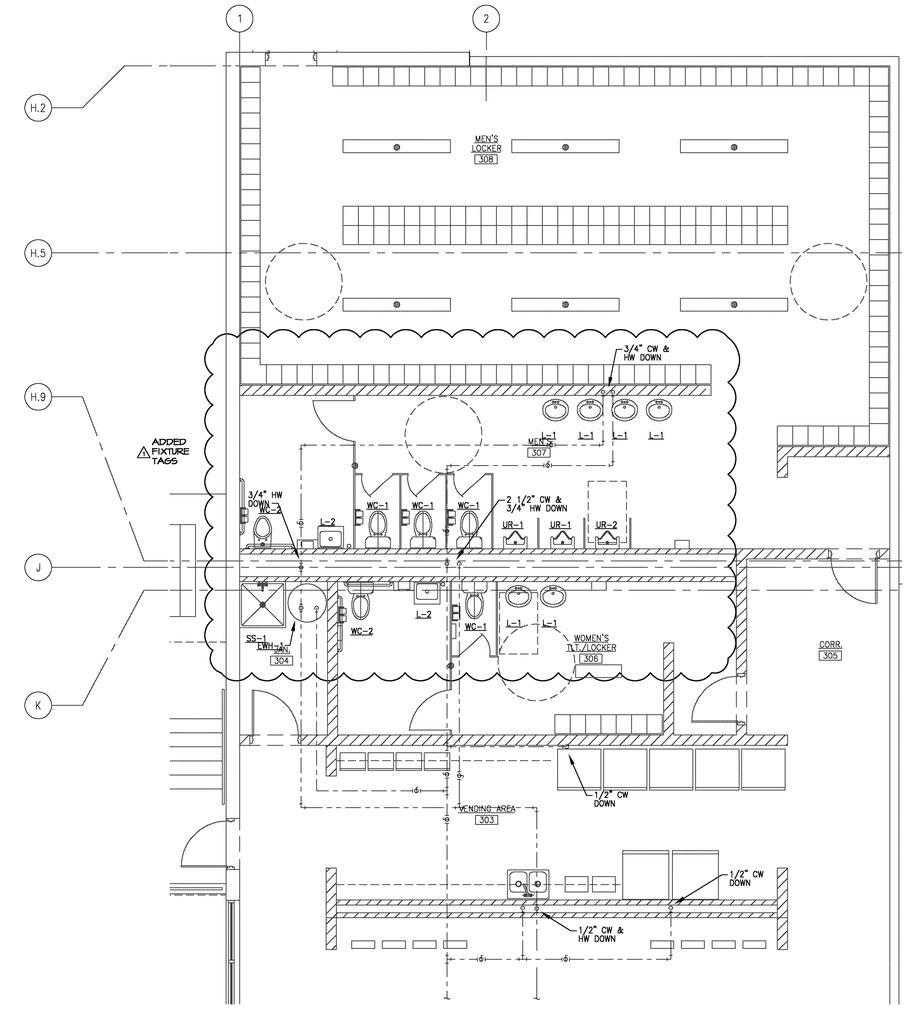


(A) ENLARGED SANITARY FLOOR PLAN ROOMS #303-308

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

N



(B) ENLARGED UTILITY FLOOR PLAN ROOMS #303-308

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

N

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ENALRGED SANITARY & UTILITY FLOOR PLANS

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REV.	DATE	BY	DESCRIPTION
1	6/7/07	VSS	REVISED AS NOTED
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B	3/7/07	LRA	PERMIT ISSUE
A	12/12/06	LRA	OWNER REVIEW

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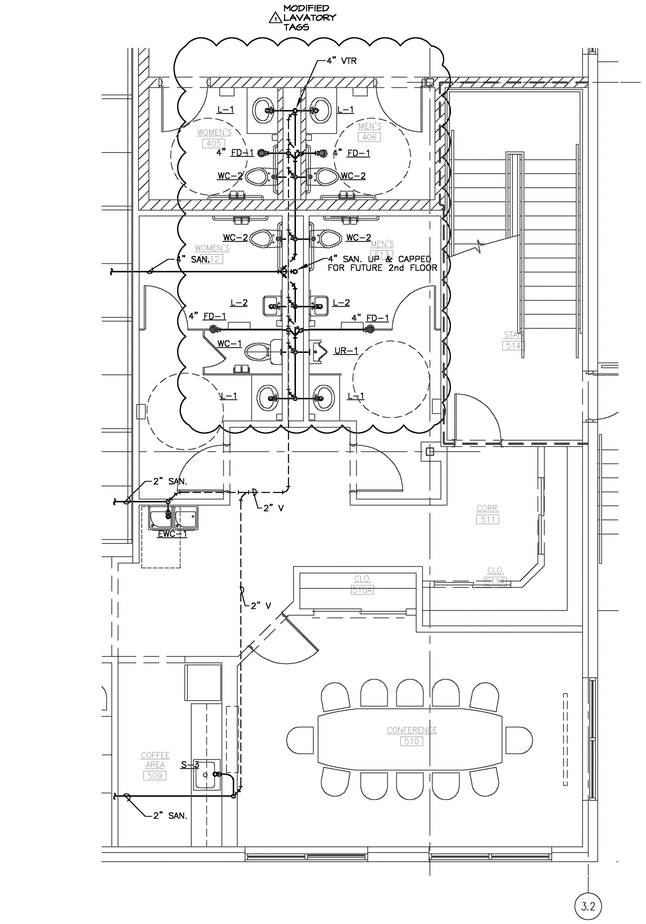
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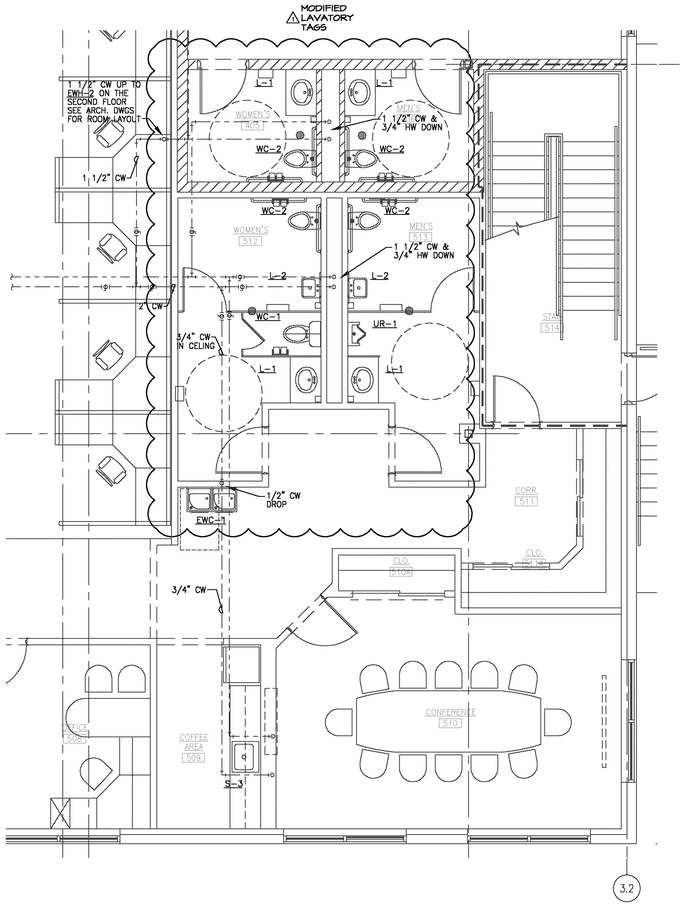
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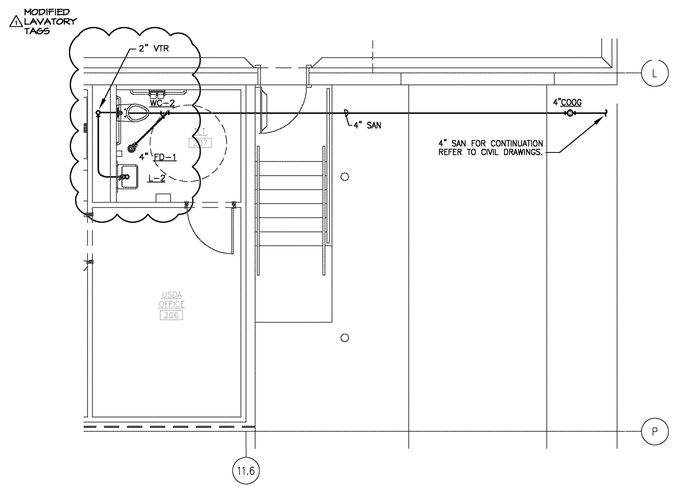
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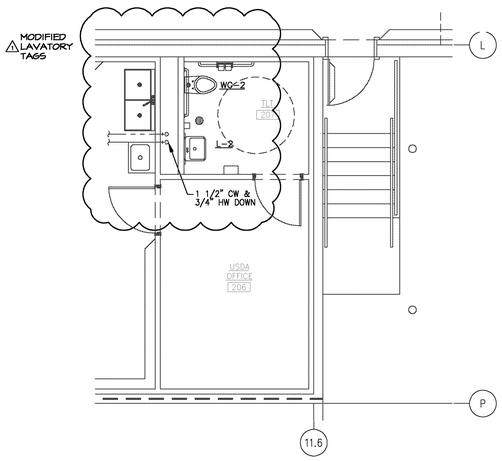
(B) ENLARGED UTILITY FLOOR PLAN

SCALE: 1/4" = 1'-0"



(C) ENLARGED SANITARY FLOOR PLAN

SCALE: 1/4" = 1'-0"



(D) ENLARGED UTILITY FLOOR PLAN

SCALE: 1/4" = 1'-0"

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ENLARGED SANITARY & UTILITY FLOOR PLANS

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B	3/7/07	LRA	PERMIT ISSUE
A	2/12/07	LRA	OWNER REVIEW

JOB NO. 710 03019

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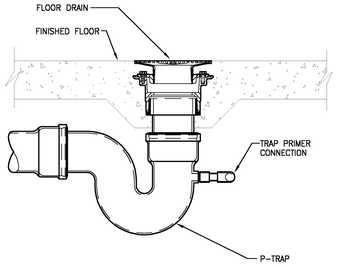
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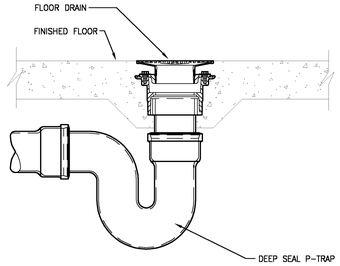
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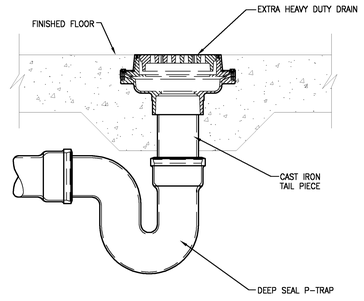
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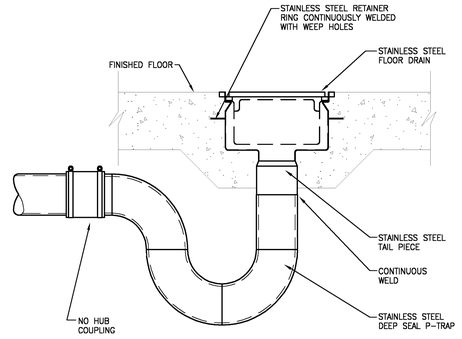
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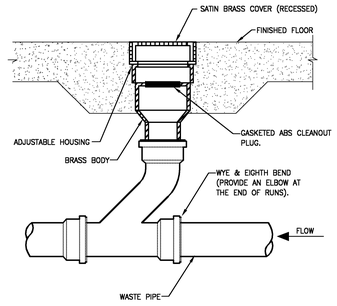
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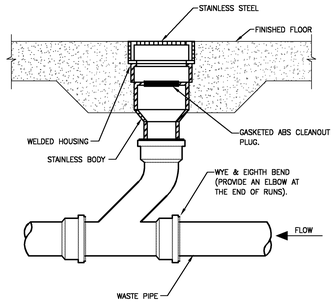
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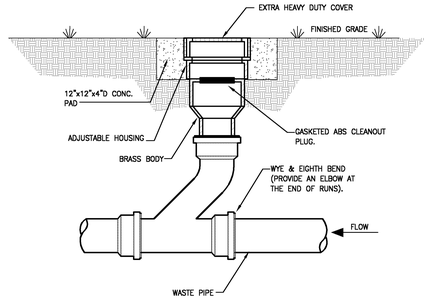
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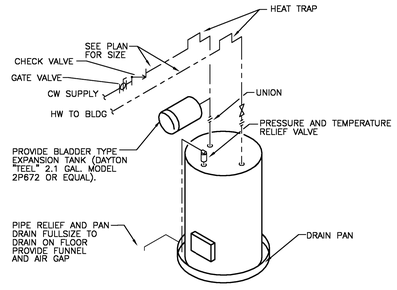
FLOOR CLEANOUT (FCO-1) SCALE: N.T.S. 5



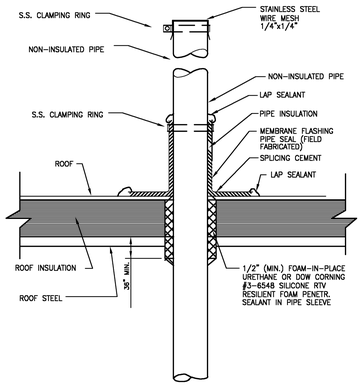
FLOOR CLEANOUT (FCO-2) SCALE: N.T.S. 6



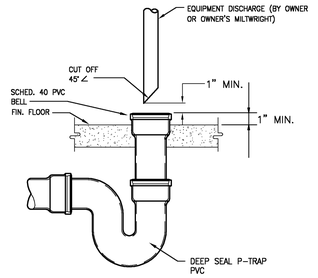
CLEANOUT ON GRADE (COOG) SCALE: N.T.S. 7



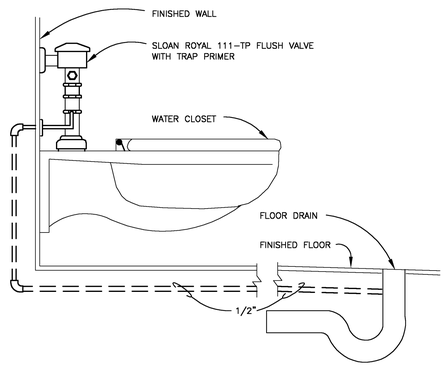
ELECTRIC WATER HEATER PIPING DETAIL SCALE: N.T.S. 8



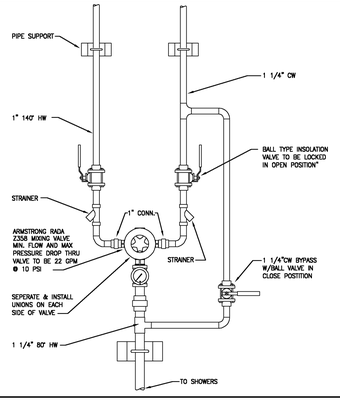
VENT THRU ROOF SCALE: N.T.S. 9



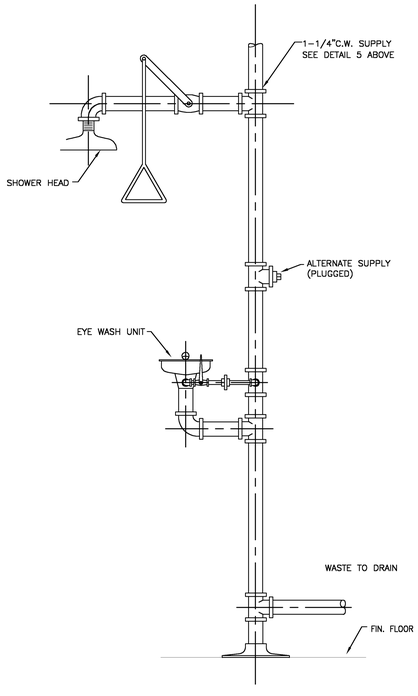
HUB DRAIN (HD-1) SCALE: N.T.S. 10



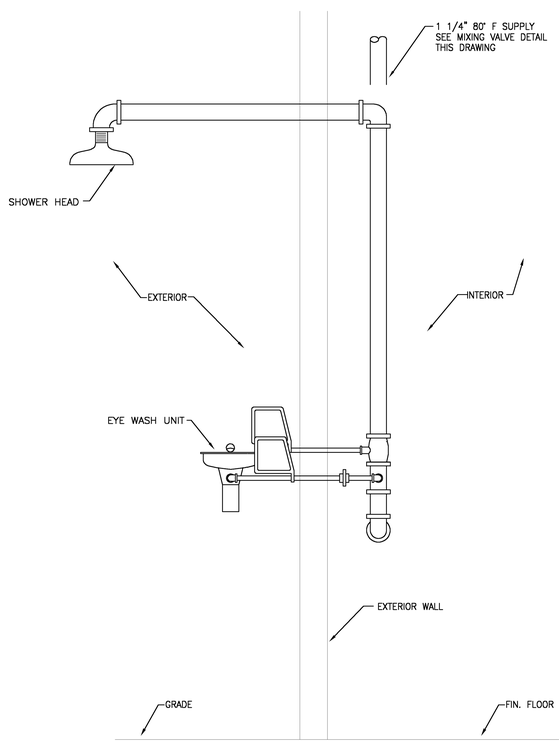
TRAP PRIMER DETAIL SCALE: N.T.S. 11



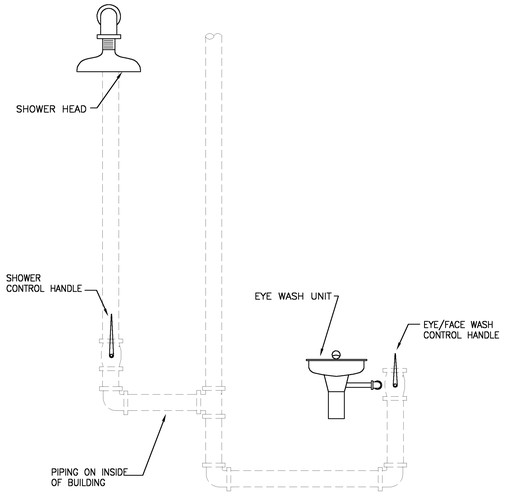
EMERGENCY SHOWER TEPID WATER SCALE: N.T.S. 16



EMERGENCY SHOWER, EYE/FACE WASH (EWS-1) SCALE: N.T.S. 17



SECTION



ELEVATION

EMERGENCY SHOWER, EYE/FACE WASH (EWS-2) SCALE: N.T.S. 20

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DETAIL SHEET

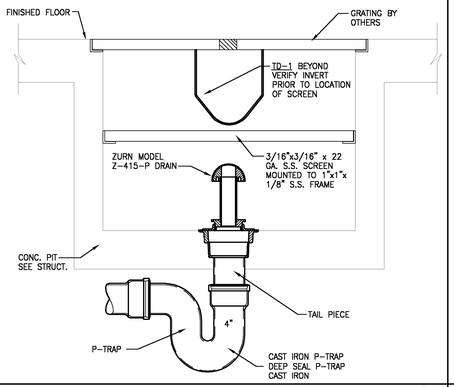
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REV.	DATE	DESCRIPTION
0	5/30/07	CONSTRUCTION ISSUE
B	5/30/07	PERMIT ISSUE
A	5/30/07	OWNER REVIEW
REV.	DATE	DESCRIPTION

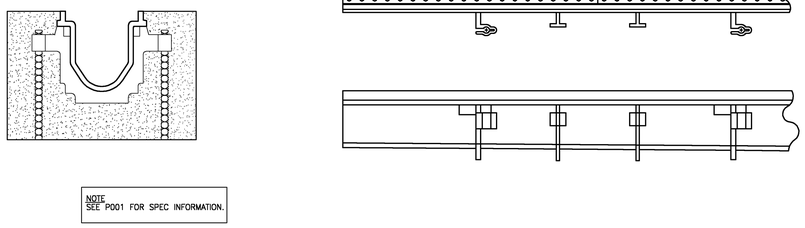
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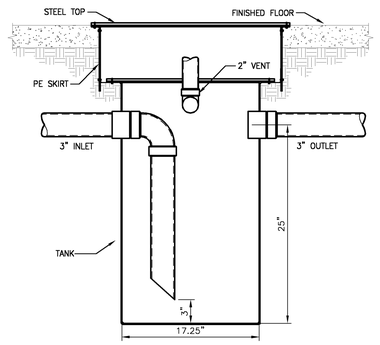
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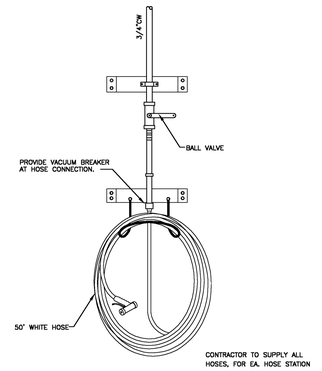
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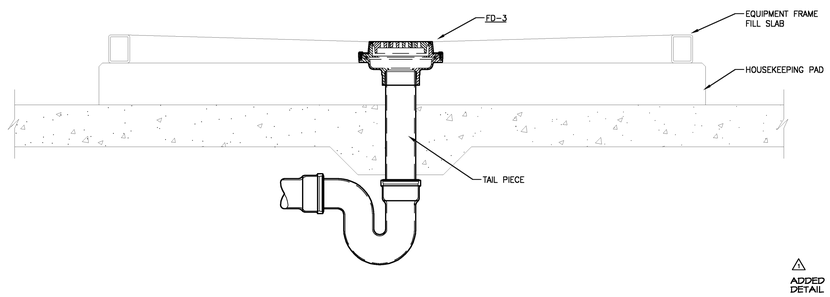
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ACID NEUTRALIZATION PIT (AP-1) — SCALE: N.T.S. — 4



HOSE STATION (HS-1) — SCALE: N.T.S. — 5



FDLOOR DRAIN (FD-3 EQUIPMENT V2, V3, & V4) — SCALE: N.T.S. — 7

– — SCALE: N.T.S. — 8

– — SCALE: N.T.S. — 9

– — SCALE: N.T.S. — 10

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– — SCALE: N.T.S. — 20

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2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2900
WWW.STELLARNET.US
FLORIDA ARCHITECTURAL LICENSE NO. AA-C000112
FLORIDA ENGINEERING LICENSE NO. 28230

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

DETAIL SHEET

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REV.	DATE	BY	DESCRIPTION
1	07/10/07	LRA	REVISED AS NOTED
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CHECKED: JDP
SCALE: NONE

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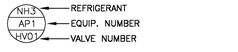
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

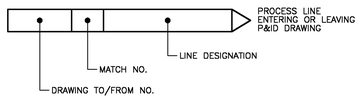
ABBREVIATIONS

AAT	AMMONIA ABSORPTION TANK	LBS	POUNDS
ACC	ACCUMULATOR	LIOC	LIQUID INJECTION OIL COOLING
AD	AMMONIA DETECTOR	LLA	LOW LEVEL ALARM
ADP	AMMONIA DIFFUSION PANEL	LLCO	LOW LEVEL CUTOUT
AHU	AIR HANDLING UNIT	LLSS	LOW LOW STAGE SUCTION
AP	AUTO PURGER	LLTRL	LOW LOW TEMP. RECIRC. LIQUID
BD	BOOSTER DISCHARGE	LLTRS	LOW LOW TEMP. RECIRC. SUCTION
BOI	BOTTOM OF INSULATION	LPL	LOW PRESSURE LIQUID
BOP	BOTTOM OF PIPE	LS	LEVEL SWITCH
BW	BUTT WELD	LSS	LOW STAGE SUCTION
CD	CONDENSER DRAIN	LT	LEVEL TRANSMITTER
CDR	CONDENSATE DRAIN	LTR	LOW TEMP. RECIRCULATOR
CG	CONTROL GROUP	LTRL	LOW TEMP. RECIRC. LIQUID
CHPL	CHILLED HIGH PRESSURE LIQUID	LTRS	LOW TEMP. RECIRC. SUCTION
CHWR	CHILLED WATER RETURN	LTS	LOW TEMP. SUCTION
CHWS	CHILLED WATER SUPPLY	LTU	LIQUID TRANSFER UNIT
CP	COMPRESSOR	MAR	MALE ADAPTER RING
CO2	CARBON DIOXIDE	MAU	MAKE-UP AIR UNIT
CPR	CONTROLLED PRESSURE RECEIVER	MSC	MISCELLANEOUS
CV	CONTROL VALVE	MTR	MOTOR
CW	CITY WATER	NH3	AMMONIA
CWP	CONDENSER WATER PUMP	OD	OIL DRAIN
CWR	CONDENSER WATER RETURN	OL	OPERATING LEVEL
CWS	CONDENSER WATER SUPPLY	OS	OIL SEPARATOR
DAHU	DEHUMIDIFYING AIR UNIT	PERF	PERFORATED
DC	DEFROST CONDENSATE	PI	PRESSURE INDICATOR
DR	DRAIN	PLF	POUNDS PER LINEAR FEET
EC	EVAPORATIVE CONDENSER	PO	PUMPOUT
EQ	EQUALIZING LINE	PR	PILOT RECEIVER
ERFOB	ECCENTRIC REDUCER FLAT ON BOTTOM	PRG	PURGE
ERFOT	ECCENTRIC REDUCER FLAT ON TOP	PRV	PRESSURE REDUCING VALVE
ES	ECONOMIZER SUCTION	PSF	POUNDS PER SQUARE FEET
ESP	EXTERNAL STATIC PRESSURE	PSIG	POUNDS PER SQUARE INCH GAUGE
FAR	FEMALE ADAPTER RING	PSV	PRESSURE SAFETY VALVE
FLNG	FLANGE	PT	PRESSURE TRANSMITTER
FLTR	FILTER	RA	RETURN AIR
FPT	FEMALE PIPE THREAD	RAU	REFRIGERATION AIR UNIT
GB	GAUGE BOARD	RCP	REFRIGERATION CONTROL PANEL
GLY	GLYCOL	RMAU	REFRIGERATED MAKE-UP AIR UNIT
GPM	GALLONS PER MINUTE	RV	RELIEF VENT
GR	GLYCOL RETURN	SA	SUPPLY AIR
GS	GLYCOL SUPPLY	ST	STYROFOAM INSULATION
HG	HOT GAS	STR	STRAINER
HGD	HOT GAS DEFROST	SV	SOLENOID VALVE
HLA	HIGH LEVEL ALARM	SW	SOCKET WELD
HLCO	HIGH LEVEL CUTOUT	TI	TEMPERATURE INDICATOR
HPG	HIGH PRESSURE GAS	TIT	TEMPERATURE IND. AND TRANSMITTER
HPL	HIGH PRESSURE LIQUID	TL	TRANSFER LIQUID
HPR	HIGH PRESSURE RECEIVER	TS	TEMPERATURE SENSOR
HSD	HIGH STAGE DISCHARGE	TSR	THERMOSYPHON RETURN
HSS	HIGH STAGE SUCTION	TSS	THERMOSYPHON SUPPLY
HTR	HIGH TEMP. RECIRCULATOR	TSV	THERMOSYPHON VESSEL
HTRL	HIGH TEMP. RECIRC. LIQUID	TT	TEMPERATURE INDICATOR
HTRS	HIGH TEMP. RECIRC. SUCTION	UF	UNDERFLOOR SENSOR
HTS	HIGH TEMP. SUCTION	WD	WATER DRAIN
HT	HEATER	WN	WELD NECK
IC	INTERCOOLER	WP	WATER PUMP
IPL	INTERMEDIATE PRESSURE LIQUID	WR	WATER RETURN
ISD	INTERMEDIATE STAGE DISCHARGE	WS	WATER SUPPLY
ISS	INTERMEDIATE STAGE SUCTION		

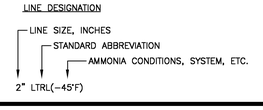
VALVE TAG



SHEET ARROW



LINE DESIGNATION



SYMBOLS

	ANGLE VALVE (NORMALLY OPEN)		THREE WAY VALVE
	ANGLE VALVE (NORMALLY CLOSED)		THREE WAY CONTROL VALVE
	ANGLE EXPANSION VALVE		TIE-IN POINT
	BACK PRESSURE REGULATOR		UNION
	BALL VALVE	PI	PRESSURE INDICATOR
	BLEED VALVE HENRY MODEL 7773		PRESSURE RELIEF VALVE
	BUTTERFLY VALVE	PI	PRESSURE INDICATOR
	CHECK VALVE	PIT	PRESSURE INDICATOR AND TRANSMITTER
	CIRCUIT SETTER VALVE	PS	PRESSURE SENSOR
	CONTROL GROUP	PT	PRESSURE TRANSMITTER
MTR	ELECTRIC MOTOR		PUMP
	ERFOB	R	RUPTURE DISC
	ERFOT		REDUCER
	FLOAT SWITCH	W	ROTARY SCREW COMPRESSOR
	FLOW ARROW		SIGHT GLASS
	GAUGE W/VALVE		SOCK FILTER
	GLOBE VALVE (NORMALLY OPEN)	S	SOLENOID
	GLOBE VALVE (NORMALLY CLOSED)	S	SOLENOID OPERATED PRESSURE REGULATOR VALVE W/STRAINER
	HAND EXPANSION VALVE	S	SOLENOID VALVE W\STRAINER
	HEAT EXCHANGER	TI	TEMPERATURE INDICATOR
M	MOTORIZED	TIT	TEMPERATURE IND. AND TRANSMITTER
	PIPE STAND	TT	TEMPERATURE TRANSMITTER
	PISTON OPERATED CHECK VALVE		THERMOMETER
	PRESS REGULATOR VALVE W/STRAINER		

GENERAL NOTES

1. ALL REFRIGERATION CONSTRUCTION SHALL COMPLY WITH APPLICABLE SECTIONS OF THE 2004 FLORIDA MECHANICAL CODE, 2006 AMMENDMENTS AND ANY OTHER ORDINANCES IN EFFECT AT THE PLACE OF WORK. NOTHING SHALL BE INTERPRETED TO ALLOW WORK NOT CONFORMING.
2. QUALITY ASSURANCE:
   MANUFACTURERS: THE DESIGN SHOWN ON THE DRAWINGS ARE BASED UPON PRODUCTS OF THE MANUFACTURERS SCHEDULED. ALTERNATE EQUIPMENT MANUFACTURERS WILL BE ACCEPTABLE IF EQUIPMENT MEETS THE SCHEDULED PERFORMANCE AND COMPLIES WITH THESE SPECIFICATIONS. THE INTENT OF THESE SPECIFICATION REQUIREMENTS ARE TO ASSURE THAT THE PRODUCTS ARE DELIVERED THROUGH A QUALITY SYSTEM AND FRAMEWORK THAT WILL ASSURE CONSISTENT QUALITY. IF EQUIPMENT MANUFACTURED BY MANUFACTURER OTHER THAN THAT SCHEDULED IS UTILIZED, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR AND ALL AFFECTED SUBCONTRACTORS TO ENSURE PROPER PROVISIONS FOR INSTALLATION OF THE FURNISHED UNIT. THIS COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
   A. STRUCTURAL SUPPORTS FOR UNITS
   B. ELECTRICAL POWER REQUIREMENTS AND WIRE/CONDUIT AND OVER CURRENT PROTECTION SIZES.
   C. PIPING SIZE AND CONNECTION HEADER LOCATIONS.
   D. THE CONTRACTOR SHALL BE RESPONSIBLE FOE ALL COST INCURRED BY THE GENERAL CONTRACTOR, SUBCONTRACTORS AND CONSULTANTS TO MODIFY THE BUILDING PROVISIONS TO ACCEPT THE ALTERNATE FURNISHED UNITS.
3. ALL PIPING SHALL BE SUITABLE FOR REFRIGERATION SERVICE PER ANSI B31.5. SEE SPECIFICATIONS FOR PIPING AND FITTINGS REQUIREMENTS.
4. ALL PRESSURE VESSELS SHALL BE ASME CODE STAMPED. SEE SPECIFICATIONS FOR DETAILS.
5. ALL WELDERS/WELDING OPERATORS SHALL BE QUALIFIED AND CERTIFIED BY THE CONTRACTOR IN ACCORDANCE WITH ASME SECTION IX REQUIREMENTS PRIOR TO PERFORMING ANY WELDING. CERTIFICATION DOCUMENTS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROJECT AND AVAILABLE TO OWNER ON REQUEST. WELDER SHALL STAMP PIPE NEXT TO EACH WELD WITH A UNIQUE MARK. CONTRACTOR SHALL PROVIDE OWNER WITH A LIST OF WELDERS AND THEIR RESPECTIVE STAMP MARKS. ALL WELDING, FABRICATION OF REFRIGERATION PIPING SYSTEM SHALL BE IN ACCORDANCE WITH ANSI B31.5.
6. INSTALL PIPING AND DUCTWORK TO PROVIDE THE MAXIMUM POSSIBLE CLEAR HEIGHT UNDERNEATH UNLESS OTHERWISE NOTED.
7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS DURING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ALL DISCREPANCIES BETWEEN THE ACTUAL AND DRAWING DIMENSIONS.
8. THE CONTRACTOR SHALL VERIFY THE REFRIGERATION SYSTEM DESIGN AND SHALL BE RESPONSIBLE TO MAKE THE REFRIGERATION SYSTEM OPERATIONAL.
9. ON THE ROOF, HIGH AND LOW TEMPERATURE RECIRCULATED AMMONIA LINES SHALL BE SLOPED TOWARD THE ENGINE ROOM RECIRCULATORS AT 1/2" PER 40' (MINIMUM).
10. SLOPE CONDENSATE DRAIN LINES TOWARD DISCHARGE (DRAIN), 1/4" PER FOOT (MINIMUM).
11. IN THE ENGINE ROOM, SLOPE HIGH AND LOW TEMPERATURE COMPRESSOR SUCTION HEADERS AND LOW PRESSURE DISCHARGE HEADER TOWARD THE RECIRCULATORS AT 1/16" PER FOOT (MINIMUM).
12. ALL CONDUIT DROPPING DOWN FROM CEILING SHALL NOT BLOCK REQUIRED SERVICE CLEARANCES.
13. VALVES AND STRAINERS SHALL BE SIZED TO MATCH LINE SIZES UNLESS OTHERWISE NOTED.
14. CONTRACTOR TO PROVIDE DAVIT ARM FOR CONDENSER FAN AND MOTOR REMOVAL.
15. DRY NITROGEN SHALL BE USED FOR TESTING.

DRAWING LIST

REV	DWG	DESCRIPTION
A	R001	COVER SHEET
A	R002	SPECIFICATIONS
A	R003	SPECIFICATIONS
A	R004	SPECIFICATIONS, RELIEF AND AMMONIA CALCULATIONS
A	R100	UNDERFLOOR WARMING PLAN
A	R101	OVERALL FLOOR PLAN
A	R102	OVERALL ROOF PLAN
A	R301	UNDERFLOOR WARMING DETAILS
A	R401	MACHINE ROOM AND ROOF EQUIPMENT LOCATION PLANS
A	R402	MACHINE ROOM AND ROOF PIPING PLANS
A	R501	INSULATION DETAILS
A	R502	INSULATION AND REFRIGERATION DETAILS
A	R503	+11F HORIZ. RECIRCULATOR AND +30F FLASH ECONOMIZER DETAILS
A	R504	CO2/NH3 HEAT EXCHANGER/RECIRCULATOR & -25F CO2 PUMP PACKAGE "V4" DETAILS
A	R505	M&M MODEL H96EWF AND H74EWF SCREW COMPRESSOR DETAILS
A	R506	M&M MODEL HPC104S AND HPC108S RECIPROCATING COMPRESSOR DETAIL
A	R601	SCHEDULES
A	R701	MACHINE ROOM P & ID
A	R702	PLANT P & ID

CODE COMPLIANCE

CHAPTER 11 - REFRIGERATION		
2004 FLORIDA MECHANICAL CODE - CODE COMPLIANCE SUMMARY		
SECTION AND DESCRIPTION	COMPLIANCE	REFERENCE
SECTION 1101 - GENERAL	COMPLIES	REFRIGERANT ARE R-717 & R-744 (EXCEEDS 220LBS)
SECTION 1102 - SYSTEM REQUIREMENTS	COMPLIES	
SECTION 1103 - CLASSIFICATION	COMPLIES	AMMONIA IS GROUP "B2" AND CO2 IS "A1" - HIGH PROBABILITY
SECTION 1104 - REQUIREMENT FOR USE	COMPLIES	
SECTION 1105 - GENERAL REQUIREMENTS	COMPLIES	MECHANICAL VENTILATION PROVIDED
SECTION 1106 - MACHINERY ROOM	COMPLIES	VAPOR DETECTOR PROVIDED
SECTION 1107 - REFRIGERANT PIPING	COMPLIES	
SECTION 1108 - FIELD TEST	COMPLIES	TEST CERTIFICATE TO BE PROVIDED
SECTION 1109 - PERIODIC TESTING	WILL COMPLY	BY OTHERS
NOTE: SECTIONS WITHOUT REFERENCE NOTES ARE NOT SPECIFIC TO A SINGLE LOCATION IN THE FACILITY AND ARE GENERAL ITEMS.		

MATERIALS

SERVICE: CO2/AMMONIA
DESIGN PRESSURE: 600 PSIG/250 PSIG
DESIGN TEMP: -25F TO +20F
TEST PRESSURE: 385 PSIG/275 PSIG

ITEM	SIZES	DESCRIPTION
PIPE	1/2" - 2"	ASTM A106, GRADE B, SEAMLESS, SCHEDULE 80, PLAIN ENDS TO MATCH FITTINGS.
	2 1/2" & LARGER	ASTM A106, GRADE B, SEAMLESS, SCHEDULE 40, BUTT WELD ENDS.
FITTINGS	2" & SMALLER	ASTM A105, CLASS 3000#, SOCKET WELD CONFORMING TO ANSI B16.11.
	2 1/2" & LARGER	ASTM A234, GRADE WPB SEAMLESS, BUTT WELD ENDS WITH SAME SCHEDULE AS THE CONNECTION PIPE.

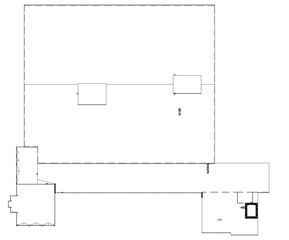
NOTE: A106 & A53B MEETING ASME B31.5 - 2001 PARAGRAPHS 523.2.2 ARE ALLOWABLE

SERVICE: CO2/AMMONIA
DESIGN PRESSURE: 600 PSIG/250 PSIG
DESIGN TEMP: +20F TO +300F
TEST PRESSURE: 640 PSIG/275 PSIG

ITEM	SIZES	DESCRIPTION
PIPE	1/2" - 2"	ASTM A106, GRADE B, SEAMLESS, SCHEDULE 80, PLAIN ENDS TO MATCH FITTINGS.
	2 1/2" & LARGER	ASTM A106, GRADE B, SEAMLESS, SCHEDULE 40, BUTT WELD ENDS.
FITTINGS	2" & SMALLER	ASTM A105, CLASS 3000#, SOCKET WELD CONFORMING TO ANSI B16.11.
	2 1/2" & LARGER	ASTM A234, GRADE WPB SEAMLESS, BUTT WELD ENDS WITH SAME SCHEDULE AS THE CONNECTION PIPE.

SERVICE: CONDENSER WATER, GLYCOL
DESIGN PRESSURE: 150 PSIG
DESIGN TEMP: 100F

ITEM	SIZES	DESCRIPTION
PIPE	1/2" - 2"	A120, SCHEDULE 40, SCREWED ENDS.
	2 1/2" & LARGER	A120, SCHEDULE 40 BUTT WELD ENDS.
FITTINGS	2" & SMALLER	150# MALLEABLE IRON, SCREWED
	2 1/2" & LARGER	150# MALLEABLE IRON, BUTT WELDED



KEY PLAN

NOT TO SCALE

N

NOT FOR CONSTRUCTION
DATE: 06-28-2007

stellar
DRAWING AS THE STELLAR GROUP
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2900
WWW.STELLARNET.US, AA-C000112
FLORIDA ARCHITECTURE LICENSE NO. 26301
FLORIDA ENGINEERING LICENSE NO. 68301

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

COVER SHEET

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REV.	DATE	BY	PERMIT ISSUE DESCRIPTION
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JOB NO. 03019
DRAWN: GLW
CHECKED: RAS
SCALE: NONE

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Proposed Cold Storage Building for:
United States Cold Storage, Inc
Lake City, Florida

REFRIGERATION

It is proposed that the refrigeration system for this facility be a new state-of-the-art CO2 / Ammonia Cascade Refrigeration System. The following are Guidelines and Practices to be used by the Refrigeration Contractor in performing his work for the installation and start-up of the system.

TABLE OF CONTENTS

1.0 Scope
2.0 Requirements for Installation in Food Processing Areas
3.0 Standards, Codes, Regulations, and References
4.0 General Requirements
5.0 Scope of Work
6.0 Piping Material and Sizing
7.0 Pipe Installation
8.0 Pipe Insulation
9.0 Contractor's Qualifications and Guidelines
10.0 Start-up of Equipment and Systems
11.0 Warranty
12.0 General Notes

Appendix A Major Equipment List
Variable Frequency Drive & Refrigeration Control Guidelines
Installation Guide for Refrigeration Pipe Insulation

1. Scope

1.1 In this document, "Owner" shall refer to the authorized agent of United States Cold Storage (USCS), usually, but not limited to, the Project Manager. "USCS" shall refer to United States Cold Storage, Inc. "Contractor" shall refer to the authorized agent of any construction contractor or vendor supplying refrigeration equipment, piping, or refrigeration installation for USCS.

1.2 These specifications cover mandatory requirements governing all materials and construction relating to the installation of the industrial refrigeration system at United States Cold Storage, Inc. located at the following address.

United States Cold Storage, Inc.
Still Road
Lake City, Florida

1.3 These specifications, and any associated contract drawings, govern the installation of refrigeration piping, valves, vessels, compressors, condensers, evaporators, and insulation. They are intended to identify materials, equipment and installation practices.

1.4 These specifications, and any associated contract drawings, will follow all applicable Process Safety Management (29 CFR 1910.119) and safety codes in effect at time of installation. Should there be any conflicts Owner will determine which shall govern. Deviation from these specifications or project drawings must be authorized in advance by Owner.

1.5 A separate "Scope of Work" document will be supplied for each project.

1.6 Contractor shall be responsible for obtaining all permits associated with work being performed under contracts with USCS.

1.7 In no case shall Contractor begin any work in, on, or adjacent to commissioned and operating refrigeration system without prior approval of Owner, Owner's representative or the on site Chief Engineer.

1.8 Contractor shall provide all tools, equipment, and materials necessary for completion of the contract. Contractor will not be allowed to use plant tools, equipment, or other materials without prior consent of Owner. Owner's consent does not relieve Contractor of liability for damage to loaned plant tools, equipment, or materials. Contractor shall repair or replace at his own expense, any plant tools, equipment, or materials damaged or destroyed by his employees.

1.9 Nothing in this specification shall be construed as to excuse Contractor from compliance with all national, state, and local codes of governing authority, or from accepted standards of practice.

1.10 Contractor and their subs shall comply with all applicable USCS site security and control procedures.

2. Requirements for Installations in Food Processing Areas

2.1 Sanitary requirements for interior spaces are not limited to production areas, which are considered wash-down, rinse-down, or dry. Wash-down and rinse- down areas require that the hanger rods, washers, nuts, and pipe supports shall be constructed of stainless steel. The hanger rods shall be solid with threads on each end, sufficient enough to attach the rod to the supports. Dry areas inside the plant require that the hanger rods and pipe supports be constructed of galvanized steel. Hanger rods and pipe supports located outside the building shall be constructed of galvanized steel. All pipe insulation in wash-down, rinse-down, or dry areas inside the plant shall be jacketed with white PVC covering, and all seams glued to prevent infiltration of moisture (Refer to Section 7.3 of this specification).

2.2 Areas to be considered wash-down:

2.2.1 Raw Materials, (to be specified in "Scope of Work")
2.2.1.1 Raw Material Storage (frozen and refrigerated)
2.2.1.2 Raw Materials Receiving Docks
2.2.2 Process:
2.2.2.1 Evisceration
2.2.2.2 De-boning
2.2.2.3 Pre-cook
2.2.2.4 Batter/Breading
2.2.2.5 Spiral and/or tunnel freezers
2.2.2.6 All grinding and marinating areas
2.2.2.7 Fryer and surrounding area and equipment
2.2.2.8 Oven and surrounding area and equipment
2.2.3 Packaging, Before and Including Wrapping Machines
2.2.4 Refrigerated Shipping Docks, (raw products).
2.2.5 Inedible Docks

2.3 Areas to be considered rinse-down:

2.3.1 Packaging, after Wrapping Machines
2.3.2 Outdoor Areas

2.4 Areas to be considered dry:

2.4.1 Dry Material Storage
2.4.2 Packaging Materials Storage
2.4.3 Finished Product Storage (dry and frozen)
2.4.4 Boiler, Air Compressor, and Refrigeration Engine Room
2.4.5 Maintenance and spare parts area

2.5 Pipe installations inside the production facility shall be installed to eliminate any voids, nooks, and crevices. Piping shall stand off walls, ceilings, and equipment by one-inch. If it is not feasible to provide the one-inch stand off, then allow a ¼ inch clearance and seal with white silicon rubber sealant (G.E. RTV type). Vertical pipe rows 30-inches or greater in width shall be mounted a minimum of 4-inches off the wall you provide for adequate cleaning.

2.6 Equipment must be installed at a minimum of 12" out from the wall, or curb, to allow for access and cleaning as per USDA regulations.

3. Standard, Codes, Regulations, and References

3.1 All work shall be performed in accordance with this specification, and the standards listed below in force at the time of the contract award.

3.1.1 Occupational Safety and Health Administration (OSHA).
3.1.2 USCS Process Safety Management (PSM).
3.1.3 Local codes and ordinances in force at the construction site.
3.1.4 ASME Section VIII, Division 11987 pressure vessel.
3.1.5 ASME B31.5 2004 Refrigeration Piping and Heat Transfer Components. Maintain pipe mill certification data on site and at the completion of work; install in operations manual.
3.1.6 ASHRAE 15-2004 Safety Standard for Refrigeration Systems.
3.1.7 ANSI/IIAR 2-1999 Equipment Design, and Installation of Ammonia Mechanical Refrigerating Systems.
3.1.8 IIAR Bulletin No. 107 12/97 Suggested Safety and Operating Procedures When Making Ammonia Refrigeration Plant Tie-Ins.
3.1.9 USCS Engine Room Color Coding.
3.1.10 Bulletin No.111, 1991 Guidelines for: Ammonia Machinery Room Ventilation
3.1.11 IIAR Ammonia Refrigeration Piping Handbook.
3.1.12 Bulletin #112, 1998 Guidelines for: Ammonia Machinery Room Design
NOTE: In a case where codes or standards conflict, the most recently dated code shall supersede.

4. General Requirements

4.1 Within 15 days after award of contract, Contractor must submit to Owner for approval, two copies of the material list showing type, grade and manufacture of the pipes, valves, check valves, pressure regulators, pumps, vessels, and all other major equipment.

4.2 Electrical equipment and control systems are unique to each different project, and therefore shall be covered in a separate scope of work. The electrical contractor shall ensure that all electrical equipment and materials are adequately protected from theft, damage, deterioration, and inclement weather during construction.

4.3 Owner drawings will be revised by detailed drawings or specifications. Items not specifically mentioned in the specifications or noted on the drawings, but which are required to make the installation complete, shall be brought to the Owner's attention for written authorization to proceed.

4.4 Discrepancies between plans and "AS CONSTRUCTED" conditions shall be brought to the Owner's attention. Red lines shall be made on Contractor's and Owner's drawings and signed by both.

4.5 Contractor shall verify the location and method of installation for all equipment prior to final installation. Any discrepancies shall be brought to Owner's attention

4.6 Equipment and materials shall be installed in accordance with scope of work, as well as all codes/standards, and equipment manufactures guidelines established in the contract Any materials or equipment not meeting these requirements shall be removed and reinstalled to the satisfaction of Owner, at Contractor's expense.

4.7 All refrigeration equipment and piping installations furnished by the Contractor will require a process safety review per Owner's PSM program, and testing per IIAR Bulletin 109 by Contractor prior to start-up. Contractor, at his expense, shall replace any equipment damaged by Contractor's failure to perform these steps.

4.8 All refrigeration signage, and placards, required per IIAR Bulletin 109 and Owner shall be supplied by the Contractor 15 days prior to start-up.

4.9 Any equipment upgrades, revisions, additions of new equipment or increase in capacity, or other changes to existing systems or equipment must be reviewed in accordance with Owner's "Management of Change" section of PSM program, and appropriate actions taken prior to beginning any work.

4.10 Upon completion of work, any discrepancies between the plans and the actual construction will be submitted to Owner in compliance with these specifications. Drawings reflecting conditions shall be provided to Owner by Contractor within 15 days after the completion of the project. These drawings will be supplied to Owner in both hard copy and "AutoCAD" format In addition, the Contractor will submit to Owner pipeline, valve, vessel, pump, heat exchanger, equipment, and instrumentation sheets (P&ID drawings) for each item installed.

4.11 The following documentation will be submitted to the Owner to support the "AS BUILT" drawings by the Contractor within 15 days after the completion of the project. These "AS BUILT" documents will be supplied to the Owner in both hard copy and electronic copy such as; however, not limited to "Word.doc" "PDF" and AutoCAD" formats.

4.11.1 Refrigeration piping mill papers
4.11.2 Operation and Maintenance Manuals, Shop drawings and "Cut sheets" for;

4.11.2.1 Valves, (Hand/Controls)
4.11.2.2 Compressors
4.11.2.3 Vessels
4.11.2.4 All type of heat exchangers
4.11.2.5 Pumps
4.11.2.6 Condensers
4.11.2.7 Refrigeration Computer control system
4.11.2.8 Instrumentation

4.11.3 List of model numbers with serial numbers
4.11.4 ASME vessel documentation
4.11.5 Electrical single line drawing
4.11.6 Energy balance
4.11.7 Electrical classification
4.11.8 Emergency ventilation requirements
4.11.9 Calculations for the pressure safety relief valves system.

5. Scope of Work

5.1 Work required under this specification shall include furnishing of all labor and materials for the complete installation of the refrigeration system, as described herein and shown on drawings.

5.2 The intent of the plans and specifications is not to show every thing required for proper operation of the system and service. No extra charges will be allowed for any items such as offsets, supports, valves, thermometers, etc, which are required for operation and maintenance, but which may not be shown.

5.3 The scope of work shall include, but not be limited to the furnishing and installation of the following:

5.3.1 All transportation, storage, unloading, moving, and rigging of all equipment furnished by Refrigeration Contractor or purchased by owner except where otherwise noted.
5.3.2 Compressor, pressure vessels, evaporators, condensers, heat exchangers, and control systems furnished by the Contractor.
5.3.3 All valves, gauges, thermometers, oil recovery devices, accessories and all other equipment required for the complete installation and proper operation of the refrigeration system.
5.3.4 All refrigeration controls including float valves, level controllers, automatic valves, thermally operated valves, pressure switches, temperature switches, flow switches, safety controls and all other controls required for proper operation of the system.
5.3.5 Refrigeration piping.
5.3.6 Relief piping.
5.3.7 Condenser water piping.
5.3.8 Gauge and control piping.
5.3.9 Water Drain piping.
5.3.10 All steel supports for all piping including all hangers, brackets, stands, and guards.
5.3.11 Full charges of refrigerant, glycol and oil for all equipment and as required for proper operation of the whole system under full design load conditions.
5.3.12 Shop painting and touch-up painting on equipment and piping.
5.3.13 All required vessel and pipe insulation and jacketing.
5.3.14 Automatic non-condensable gas purger(s).
5.3.15 Under-floor warming piping. Below ground and above ground.
5.3.16 Ductwork for exhaust fans, intake hoods, and penthouse air units.
5.3.17 Heat trace for water & drain lines in area that can be below 32 degrees.
5.3.18 Valve tags & pipe markers.
5.3.19 Start-up of system and warranty.
5.3.20 All applicable sales tax and permits.
5.3 .21 All control wiring.
5.3.22 All MCP panels.

5.3.23 The following items are not included under this specification:

5.3.23.1 General construction, foundation, housekeeping pads and footings.
5.3 .23 .2 All power wiring.
5.3.23.3 Structural steel for refrigeration equipment or related equipment.
5.3.23.4 Process Safety Management Data

5.4 Instruction Manuals

5.4.1 The Contractor shall furnish to the Owner six (6) copies of an instruction manual. This manual shall include all maintenance and operating instructions for the major equipment, lubrication instructions, wiring diagrams for all controls, and power wiring, etc., recommended spare parts, and replacement parts list.

5.5 Review of Materials and Submittals

5.5.1 The Contractor shall submit three (3) copies, plus the required number of copies for his use, of shop drawings to the Owner for review before installation. Each shop drawing shall be certified as being checked and approved by the contractor before being submitted to the Owner.

5.5.2 The following shop drawings shall be submitted to the Owner for review:

5.5.2.1 Air units.
5.5.2.2 Compressor.
5.5.2.3 Condensers.
5.5.2.4 Shells and pressure vessels.
5.5.2.5 Glycol pump.
5.5.2.6 Controls.
5.5.2.7 Valves
5.5.2.8 Piping and vessel insulation (materials and sample).
5.5.2.9 Under-floor tubing.

5.5.3 The contractor shall submit to the Owner three (3) copies of record drawings showing all changes made during construction.

5.6 Basics of Design

5.6.1 Each piece of equipment as listed in the specifications provides model number of various equipment manufacturers. The manufacturers listed have all been approved by the Owner.
5.6.2 In order to show design criteria and equipment layouts, one of the acceptable manufacturers had to be chosen. The basis of design is listed in the specification as the first acceptable manufacturer shown.

5.7 Equipment

5.7.1 See the attached equipment list marked Appendix A.
5.7.2 Total sell price for the equipment FOB the factory is $1,209,873.00 The price does not include any local or federal sales tax. The price on the equipment is valid for 60 days.

5.8 Refrigeration

5.8.1 Contractor to supply CO2 and ammonia charge using refrigerant grade CO2 and ammonia. Contractor to submit documentation or refrigerant purity and quantity in system.

5.9 Evacuation of CO2 System

5.9.1 During the installation and start-up of the refrigeration system the Contractor shall take every precaution necessary to ensure that the CO2 side of the refrigeration system is protected from any contaminations such as moisture and dirt entering the system.
5.9.2 To ensure a moisture free system the Contractor shall at a minimum perform the following steps:

5.9.2.1 The complete system must be pump-down at one time.
5.9.2.2 The entire system shall be evacuated to a vacuum of 300 microns. With the vacuum pumps stopped this vacuum shall be held for a period of at least 3 hours and the pressure shall not increase above 400 microns within that time period. If the pressure increases above 400 microns, the above procedure shall be repeated.

5.9.2.3 During the pump-down period all non-insulated piping and equipment shall be examined for any evidences of moisture in the system; such as however not limited to:

5.9.2.3.1 Sweating or damp surfaces
5.9.2.3.2 Ice

5.9.2.4 Hold the 300 microns of vacuum for a period of 24 hours after all evidences of moisture is gone.
5.9.2.5 Break the vacuum with CO2 vapor.

5.9.3 After evacuation of the refrigeration system the Contractor shall replace refrigerant dryers.

6. Piping Material and Sizing

This section will identify the types, grade, and size of pipe that USCS will require for refrigeration installations at its facilities. Where there is a conflict between other codes and standards, this specification will supercede.

6.1 General

6.1.1 The Contractor shall furnish and install all necessary refrigerant fittings, valves, and pipe supports as required for a complete refrigeration system.
6.1.2 It is extremely important that any foreign matter shall not enter the system and that NO STRAINS ARE IMPOSED ON THE SYSTEM MACHINERY BY PIPING CONNECTIONS. When connections are made, piping strains shall be checked by removing flange bolts at compressors, pumps, etc., which shall be loose and readily removed. ANY PIPING MIS-ALIGNMENT EVIDENCED BY BOUND BOLTS SHALL BE CORRECTED AT NO COST TO THE OWNER.
6.1.3 The Owner's representative will witness the final leveling of equipment and the proper alignment of all piping and flanges.
6.1.4 Contractor to supply owner mill reports on the piping supplied for the refrigeration system.
6.1.5 Pipe and fittings for the CO2 portion of the system will be the same as the ammonia system.

6.2 Pipe Material and Schedule

All material used in the refrigeration system shall be suitable for ammonia service, comply with ASME/ANSI B31.5 2004, and meet system pressure-temperature requirements.

6.2.1 Piping
Carbon steel pipe shall be ASTM A106. Type E pipe shall not be used or allowed on the lob site (See ASME/ANSI B31.5-2001, Refrigerant Piping (a, c),

6.2.1.1 Liquid Lines (regardless of pressure)

6.2.1.1.1 2-inch and smaller shall be seamless
Schedule 80.
6.2.1.1.2 2-1/2 inch thru 12-inch shall be seamless
Schedule 40.

6.2.1.2 Vapor Lines (regardless of pressure)

6.2.1.2.1 2-inch and smaller shall be seamless Schedule 80.
6.2.1.2.2 2-1/2-inch and larger shall be seamless Schedule 40.

6.2.1.3 Threaded Pipe

6.2.1.3.1 Threaded pipe can only be used with Owner authorization. If threaded pipe is used, it must be Schedule 80. Screwed joints shall be avoided wherever possible. All threaded
piping 1/z through 3/4" will be schedule 160 seamless.

6.2.1.4 Pipe Fittings

6.2.1.4.1 Pipe fittings shall match pipe schedule.
6.2.1.4.2 Joints in lines 2" and smaller shall be welded, using 3000 psi forged steel socket weld couplings. Jointslines 2 ½" and larger shall be butt-welded. Pipe fitting shall match schedule. Where screwed joints on gauges, screwed automatic controls, or where equipment materials do not permit seal welding, joints shall be made using X-Pando joint compound, manufactured by X-Pando Corporation, Long Island City, New York.
6.2.1.4.3 Unions will not be allowed on any refrigeration piping.
6.2.1.4.4 All piping ¼" and 3/8" shall be seamless .065" wall thickness stainless steel hydraulic tubing using
compression fittings.

6.3 Pipe and Fitting Inspection

6.3.1 The Contractor is responsible for Receiving and Quality Inspection for all piping and fittings arriving at the job site.
6.3.2 All piping must be supplied coated and capped. Contractor must inspect for cleanliness and general overall condition of pipe, components, and reject any pieces which are dirty, scored, or bent

6.4 Copper Piping (Copper Piping Not Permitted On Anhydrous Ammonia Systems)

6.5 Flanges and Fittings

6.5.1 Standard refrigerant flanges shall be used for interconnection to refrigerant valves, refrigerant control valves, refrigerant check valves, and refrigerant strainers. Standard ANSI FLAT FACE FLANGES are to be used where required to match valves or equipment.
6.5.2 Forged steel flanges are to be ASTM A181, fittings other than socket weld are to be ASTM A234 and socket fittings are to be ASTM A86.
6.5.3 For pipe fittings in piping operating between -20° F and -50° F, the Contractor shall use ASTM A350 LF2 fittings for all socket welds and ASTM A420 WPL6 for all buff weld fittings.
6.5.4 For pipe fittings in piping operating below -50° F, the Contractor shall use ASTM A350 LF3 fittings for all socket welds and ASTM A420 WPL3 for all but weld fittings.
6.5.5 Non-ferrous flanges should be used only when flowing fluid and valve specifications require. Flanges of this type must be supplied as companion flanges or flange kits for the specific valve. Copper bearing alloy flanges must not be used on ammonia systems.
6.5.6 Bolts for cast iron flanges shall be ASTM A307, Grade B. All bolts for steel ANSI flanges shall be ASTM A320, Grade L7. Bolt threads and nut to flange matching surfaces shall be coated with an anti-seizing compound. Fel-pro C-5A, manufactured by Felt Products, or Approved Equal.
6.5.7 All refrigerant gaskets shall be 1/8" thick Durabla. Refrigerant flanges are tongue and groove type. ANSI Flanges are to have gaskets applied as ring type gaskets-not as full face gaskets-to permit sealing the gaskets without overstressing bolts.
6.5.8 All gasketed flange joints shall be assembled so as not to overstress bolts and/or flanges and be evenly torqued to prevent cocking and flange fracture.

6.6 Valves

6.6.1 Refrigeration Shut-Off Valves

6.6.1.1 All valves except for specified ball valves and butterfly valves shall be of the globe or angle type as shown on the plans, designed for the refrigerant in the system and as specified. Valves will be socket weld or butt weld. Valves located outdoors will have seal caps. Valves indoors will have hand wheels. Approved valves are Danfoss valves.
6.6.1.2 All valves shall be of the back seating type to permit repacking under pressure, except small forged steel
angle valves, ¼" to ¾" used in gauge lines.
6.6.1.3 Valves shall be installed with stems horizontal, unless otherwise shown on drawings. All valves shall have flow through the seat toward the stem, unless otherwise noted on the Drawings. Valves shall not be installed with stems vertically down.
6.6.1.4 CLOSE OPEN END OF ANY ATMOSPHERIC VALVE WITH A LUBRICATED (DOPED) STEEL PLUG FINGER-TIGHT OR WITH A LUBRICATED BLANK FLANGE LESS GASKET UNLESS NOTED OTHERWISE ON THE DRAWINGS.
6.6.1.5 All control valves will be Danfoss 120/1/60 as called for on the Drawings.
6.6.1.6 All valves are to have seal caps.

6.7 Condensate Drain Piping

6.7.1 The Contractor shall furnish and install all condensate drain piping from air units as shown on the Drawings and as required to complete the system. Drain piping shall be schedule 40 galvanized pipe with screwed joints. Fittings shall be 150 psi galvanized malleable iron.
6.7.2 All condensate drains must be pitched ¼" per foot and must be provided with plugged tees for cleanout at EVERY change of direction.
6.7.3 Provide wet traps as indicated on the Drawings.
6.7.4 All threads cut on galvanized steel pipe shall be spray painted with ZRC zinc paint.
6.7.5 Drains and traps shall be insulated and heated, either continuously or intermittently as noted on the Drawings and where ambient conditions, to both the interior and exterior, necessitate.
6.7.6 Drain line heating cable shall be Wintergard Wet Self-Limiting Heating Cable as manufactured by Raychem Corp., or Approved Equal. Cable shall be rated at 6W/foot 120 volt, with a maximum length/section of 330 feet.

6.8 Pressure Safety Relief Valve Piping

6.8.1 General

6.8.1.1 All ammonia Pressure Safety Relief Valve (PSRV) piping shall be sized and installed in accordance with ANSI/ASHRAE 15-2001 Safety Standard for Refrigeration Systems and any applicable local or federal codes and regulations.
6.8.1.2 CO2 relief piping as shown on the Drawings.

6.8.2 Pipe

6.8.2.1 1-1/4" and smaller shall be Schedule 80 black steel ASTM A53.
6.8.2.2 1-1/2" and larger shall be Schedule 40 black steel ASTM A53.

6.8.3 Joints

6.8.3.1 1-1/4" and smaller shall be screwed.
6.8.3.2 1-1/2" and larger shall be welded.

6.8.4 Fittings

6.8.4.1 1-1/2" and larger shall be black steel butt-weld fittings.

6.9 Under-floor Glycol Tubing

6.9.1 Tubing will be made of the highest quality 1" cross-linked polyethylene (Engel method, PEXa). Circuits will be overlapping on 4' centers with a maximum length of 1,000 feet. NO JOINTS WILL BE ALLOWED IN THE FLOOR PIPING. Tubing will be anchored no less than every 5 feet. The tubing will be pressure tested to 50 psi and test will be held on the tubing until the finished floor is poured. Coupling will only be allowed to repair tubing damaged during construction. Tubing installer will be on site to witness mud slab pour and make any repairs to tubing that may be damaged during the pour. Isolation and balancing valves for this system will be REHAU Everloc. Approved manufacture REHAU RAUPEX B.
6.9.2 Glycol systems to be charged with premix 40% Propylene Glycol Fluid. Glycol must be FDA & USDA approved for use in food processing and food storage facilities. Premix Glycol with De-ionized water.

6.10 Equipment Supports

6.10.1 The Contractor shall furnish and install all necessary steel supports for the suction traps, heat exchangers, high pressure receiver, air units, and all other supports required for his equipment except main steel supports for the condenser which will be provided under a separate contract. Supports shall be complete so as to provide a firm, rigid support for all equipment mounted thereon.
6.10.2 The Contractor shall be responsible for accurately sizing, locating and cutting and patching all openings for refrigerant piping except where otherwise noted.
6.10.3 If the Contractor installs approved equipment by manufacturers other than specified, he shall be responsible for any extras required to modify the supporting steel.

6.11 Condenser Water Piping

6.11.1 The Refrigeration Contractor shall furnish and install all water piping as required for proper functioning and operation of the refrigeration system as shown on the drawings and as listed below.
6.11.2 All piping shall be black AS-120 Schedule 40.
6.11.3 All piping shall have screwed ends through 2".
6.11.4 All piping 2 ½" and above shall be butt welded joints between runs of pipe.
6.11.5 All fittings shall be 150 psi rated malleable iron or standard butt weld wherever used.
6.11.6 All threads cut on galvanized pipe shall be painted with ZRC Zinc point after installation for corrosion protection as manufactured by ZRC Chemical Products, Co., Quincy Mass.

6.12 Galvanized Steel Piping

6.12.1 Galvanized steel pipe may be used for piping other than refrigeration.
6.12.2 All pipes shall be SA-120 Schedule 40 hot dip galvanized at the mill.
6.12.3 If the pipe is to be bent or coiled, it shall be SA-53 seamless.

6.13 Condenser Water and Glycol Valves

6.13.1 The Refrigeration Contractor shall furnish and install all stop valves on condenser water circulation lines and make-up lines as shown on the drawings and as required for proper operation of the system. All valves shall be as follows:

6.13.1.1 Through 1" screwed-ends ball type 600 psi WOG with:

6.13.1.1.1 Full port, chrome plated ball.
6.13.1.1.2 Cast of forged bronze bodied
6.13.1.1.3 Teflon seats
6.13.1.1.4 Blow-out-proof stems

6.13.1.2 1 ¼" through 2" screwed-end ball type, 1500 psi WOG with:

6.13.1.2.1 Full port, chrome plated ball
6.13.1.2.2 Carbon steel bodies
6.13.1.2.3 Teflon seats.
6.13.1.2.4 Blow-out proof stems

Valves per 5.11.1.1 and 5.11.1.2 shall be manufactured by Conbraco Industries, Inc., "Apollo" Ball Valve Division or approved equal.

6.13.1.3 Above 2" butterfly lug type, 150 psi rated with:

6.13.13.1 Cast iron bodies
6.13.1.3.2 Bronze discs
6.13.1.3.3 Stainless steel stems
6.13.1.3.4 EPDM seats
6.13.1.3.5 10-position latch lock handle

6.14 Gauges and Thermometers

6.14.1 Refrigeration Pressure Gauges

6.14.1.1 The Refrigeration Contractor shall furnish and install all refrigeration pressures gauges as shown on drawings and as required for proper functioning of the system.

6.14.1.2 All pressure gauges shall be designed and manufactured specifically for refrigeration service and refrigerant in the system and shall be as follows:

6.14.1.2.1 Liquid Filled
6.14.1.2.2 3" dials
6.14.1.2.3 Stainless steel bourdon tube
6.14.1.2.4 Pressure and corresponding temperature scales
6.14.1.2.5 Refrigerant clearly identified on the dial
6.14.1.2.6 Stainless steel casing

6.14.1.3 Each gauge shall have a gauge valve mounted upstream.

6.14.1.4 Pressure ranges shall be adequate for all operating and standing pressures encountered in the system and general
shall be:

6.14.1.4.1 0 psig to 400 psig on low side of the system.
6.14.1.4.2 0 psig to 600 psig on high side of the system.

6.14.1.5 All gauges shall be liquid filled manufactured by Span or approved equal.

6.14.2 Non-Refrigeration Pressure Gauges

6.14.2.1 The Refrigeration Contractor shall furnish and install all non-refrigeration pressure gauges as shown on drawings and as required for proper functioning of the system.

6.14.2.2 All pressure gauges shall be designed and manufactured specifically for service intended and shall be as follows:

6.14.2.2.1 Dry type
6.14.2.2.2 4 V2" dials
6.14.2.2.3 Adjustable pointer

6.14.2.3 Each gauge shall have a gauge valve mounted upstream.
6.14.2.4 In case of pulsation, liquid filled gauges shall be used or If dry gauges are furnished, these shall be protected with pressure snubbers of appropriate design and made of appropriate material.
6.14.2.5 Pressure ranges shall be adequate for all operating and standing pressures encountered in the system.
6.14.2.6 All gauges shall be manufactured by Ashcroft or approved equal.

6.14.3 Thermometers

6.14.3.1 The Refrigeration Contractor shall furnish and install all thermometers as shown on drawings and as required
for proper operation of the system.

6.14.3.2 All thermometers shall be designed and manufactured specifically for service intended with ranges suitable for all operating and standing conditions and shall be as follows:

6.14.3.2.1 Bi-metal, dry type
6.14.3.2.2 5" dia. dials
6.14.3.2.3 Stainless steel hermetically sealed case
6. 14.3.2.4 Stainless steel stem
6. 14.3.2.5 Externally adjustable pointer

6.14.3.3 All thermometers shall be provided with screwed stainless steel thermowells. On insulated piping, thermowells shall have appropriate lagging extensions. The location, size and lengths of thermowells shall have no adverse effect upon the flow of fluid whose temperature is to be measured.

6.14.3.4 All thermometers shall be accessible for ease of reading.

6.14.3.5 All thermometers shall be manufactured by Ashcroft or approved equal.

6.14.3.6 Thermo conductive paste shall be used on all thermometers.

6.15 Liquid Level Columns

6.15.4.1 The Refrigeration Contractor shall furnish and install all liquid level columns as shown on drawings as required for proper operation of the system and as follows:

6.15.4.1.1 Material: 3" diameter SA-53B black steel pipe or as shown on drawings.
6.15.4.1.2 Liquid level eyes shall be spaced maximum 12" cc. or as shown on drawings.
6.15.4.1.3 Liquid level eyes shall be 1100-R welded with reflex lens as manufactured by H.A. Phillips & Co. or approved equal. For operating temperatures below 350 F, each level eye shall have a frost shield.
6.15.4.1.4 All columns shall have a 34" drain connection located so that complete draining of column can be facilitated.
6.15.4.1.5 Each column shall be pressure tested with air at 125% of the design pressure of the vessel on which the column is to be installed.

6.16 Cleaning

6.16.5.1 To avoid loss of time, damage to equipment, and start-up difficulties, each section of pipe, fittings and valves shall be thoroughly cleaned and positively free of all foreign matter before erection. Prior to erection, each piece of pipe shall be held in an inclined position and thoroughly hammered to loosen scale and foreign matter. Each pipe shall then be swabbed immediately prior to erection. Open ends of mains shall be plugged or capped during all shutdown period. Lines shall not be left open at any place where any foreign matter might accidentally enter pipe.

6.17 Roof Protection

6.17.6.1 Roof is to be fully protected by the Contractor. Protective sheets are to be laid under each cutting and welding area. Hot welding rod stubs are to be deposited in a suitable container and must not be dropped on the roof. All precautions are to be taken against potential fire hazards. Oil of any type must not come in contact with rubber roof membranes. The roof will be covered with rubber roof membrane underneath ¼" thick plywood. The plywood will be covered with fireproof tarps.

REFRIGERATION SPECIFICATIONS (CONTINUED ON SHEET R003)

stellar
DRIVING AS THE STELLAR GROUP
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900
WWW.STELLARNET.US, A-7000112
FLORIDA ARCHITECTURE LICENSE NO. AA26001612
FLORIDA ENGINEERING LICENSE NO. 28301

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SPECIFICATIONS

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REV.	DATE	BY	DESCRIPTION
A	06-28-07	GLW	PERMIT ISSUE

JOB NO. 03019
DRAWN: GLW
CHECKED: RAS
SCALE: NONE

NOT FOR CONSTRUCTION
DATE: 06-28-2007

R002
DRAWING NO.

Filename: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Refrig\030198702.dwg Last Saved By: GWHITE Date: 6/29/2007 3:38:04 PM Plotted: 7/2/2007 9:50:38 AM

REFRIGERATION SPECIFICATIONS (CONTINUED FROM SHEET R002)

7. Pipe Installation

7.1 Hangers and Supports

7.1.1 The supports shall carry the weight of the pipe, including contents and insulation. If necessary, provide sway bracing to minimize vibration
7.1.2 Hanger rod sizing and spacing shall conform to ANSI/IIAR-2-1999. The table below shows recommended spacing and the maximum loads from ANSIIIAR-2-1999. All hanger rods shall be galvanized steel.

Table 6-1
Maximum Spacing

Nominal Pipe Size (Inches)	Maximum Span (Feet)	Minimum Diameter (Inches)
Up to 1	7	3/8
I-I/4&1-1/2	9	3/8
2	10	3/8
2-1/2	10	1/2
3	12	1/2
3-1/2	13	1/2
4	14	5/8
5	16	5/8
6	17	?
8	19	7/8
10	22	7/8
12	23	7/8
14	25	1
16	27	1
18	28	1-1/4
20	30	1-1/4

Table 6-2
Maximum
Allowable Hanger Rod Loading

Rod Diameter (Inches)	3/8	1/2	5/8	3/4	1	1-1/8	1-1/4	1-1/2
Maximum Load (Pounds)	619	1130	1810	2710	4960	6230	8000	11630

7.1.3 Hangers shall be sized to accommodate insulation, and allow sufficient space to permit installation of the insulation. Whether using trapeze-type hangers or clevis hangers, metal saddles shall be provided to avoid crushing the insulation material.
7.1.4 Extra attention shall be given to pipe hangers and supports in the mechanical room, so as to ensure that no piping weight is supported by compressor flanges or other equipment components.

Table 6-3
Typical Weight Per Foot of Pipe Full of Liquid Ammonia at -20'F

Nominal Pipe Size	Empty Weight	Loaded Weight	Nominal Pipe Size	Empty Weight	Loaded Weight
Inches	lb/ft	lb/ft	Inches	lb/ft	lb/ft
½ (schedule 80)	1.088	1.16	6 (schedule 40)	18.98	27.45
? (schedule 80)	1.474	1.6	8 (schedule 40)	28.56	39.7
1 (schedule 80)	2.172	2.38	10 (schedule 40)	40.48	64.14
1-1/4 (schedule 80)	2.997	3.37	12 (standard weight)	49.56	82.72
1-1/2 (schedule 80)	3.653	4.14	14 (standard weight)	54.57	95
2 (schedule 80)	5.022	6	16 (standard weight)	62.58	116.13
2-1/2 (schedule 40)	5.794	7.2	18 (standard weight)	70.59	134.4
3 (schedule 40)	7.58	9.7.	20 (standard weight)	78.6	163.93
4 (schedule 40)	10.79	14.52	24 (standard weight)	94.62	219.09
5 (schedule 40)	14.62	20.48			

7.2 Rooftop Piping Systems

7.2.1 The same design principles apply to roof mounted piping as to any refrigeration system. The spacing between roof stands is determined by the smallest pipe to be carried. See Table 6-1 for distance between roof supports per minimum size of pipe.
7.2.2 The design of the roof stands shall be dependent upon the number and size of pipes to be carried and the weights imposed. This must include insulation and pipe contents. Refer to Table 6-3.
7.2.3 Roof stands shall be designed to provide slope for suction lines, hot gas drainage, branch line tie-ins, etc. Suction line lift from evaporators mounted below the valve stations on the roof shall be incorporated into the design.
7.2.4 Liquid and suction lines shall be sloped @ minimum of ¼" per 10' toward mechanical room for proper drainage.
7.2.5 Sufficient space between pipes shall be provided for inspection and service. Insulation thickness will be considered and galvanized saddles shall be used to support insulated lines.
7.2.6 Secure pipe(s) to roof stands using design methods that conform to the local Uniform Mechanical Code, Uniform Plumbing Code and Uniform Building Code for wind or seismic conditions (if applicable).
7.2.7 Cross bracing for roof stands shall conform to local Uniform Mechanical Code, Uniform Plumbing Code, and Uniform Building Code for wind or seismic conditions (if applicable).
7.2.8 Roof stands will be constructed of galvanized steel and all welded joints will be galvanized painted. Stands will be bolted to a synthetic wood footer and a piece of roofing material will be placed between the footer and the roof. UNISTRUT will not be allowed.

7.3 Penetrations

7.3.1 Where pipes penetrate walls or ceilings, pipes shall be installed in a pipe sleeve large enough to accommodate the pipe and its insulation. All voids in the sleeve will be filled and sealed.
7.3.2 Where electrical conduit penetrates walls or ceilings in refrigerated spaces, these conduits must absolutely be sealed internally at the nearest junction box adjacent to penetration, to prevent condensation from occurring inside the conduit creathg possible short circuits and/or fire hazard.

7.4 Thermal Expansion/Contraction

7.4.1 Long pipe runs must accommodate movement due to temperature changes, both in commissioning and in service. Changes in direction, including expansion loops in the horizontal plane, can provide sufficient flexibility to control thermal-induced movement, in most cases.
7.5 Joint Alignment
7.5.1 All pipe joints will be installed, using generally accepted and proper alignment procedures so as to be free of any misalignment to avoid undue stress.

7.6 Refrigeration Control Stations

7.6.1 When more than one set of refrigeration control stations are installed next to each other, they will be spaced to allow for maintenance and ease of removal. Valve stations will be assembled to allow for isolating and removal of each component. Isolation valves must be provided for all control valve assemblies.

7.7 Welding

7.7.1 Welders shall be certified for welding pressure piping and refrigeration piping per IIAR Piping Handbook, Chapter 8, ASME Boiler and Pressure Vessel Code and ASME B31.5-2004 Refrigeration Piping and Heat Transfer Components.

7.7.2 Contractor is responsible for having all certificates available for Owner's inspection.

7.7.4 While working within any existing USCS facility and before cutting, grinding, and welding can be started, a "HOT WORK PERMIT" must be obtained from the Owner or his representative. Once the "HOT WORK PERMIT" has been reviewed; it will be signed by both Contractor and Owner.

7.7.5 Inspection of welds will be the responsibility of the Contractor and completed by a certified weld inspection company.

7.7.5.1 All welds will be 100% visually inspected per ASME 31.5 standards.
7.7.5.3 Negative pressure lines will have 10% of each welder's welds tested by Ultra-Sound per ASME 31.5 and correlated to the welding maps. These tests will be submitted to Owner at their completion.*

7.8 Tie-Ins

7.8.1 Because tie-ins into existing ammonia systems are the cause of many ammonia releases, it is very important that proper procedures and safety precautions are followed. The Contractor is responsible for following all ammonia safety procedures and USCS PSM Program.
7.8.2 Before cutting into existing ammonia lines, the Contractor will have read and signed a copy of the Standard Operating Procedure regarding tie-ins. Owner or his representative must inspect and approve the pump down before tie-in can proceed.
7.8.3 Prior to making any tie-ins or commissioning new equipment, a "Pre-Start-Up Safety Review" must be performed by the Contractor and the Owner, as per OSHA, PSM requirements.

7.9 Testing

.7.9.1 Upon completion of the piping system, the following tests shall be accomplished and reports submitted to Owner:

7.9.1.1 Pressure and leak-test the entire piping system per ANSI/IIAR 2-1999 standard. Compressed air will not
be allowed. Only dry nitrogen will be used.
7.9.1.2 Test pressure minimum:
-58' F CO2 suction side 385#
-25' F CO2 suction side 385#
+20' F CO2 side 640#
+110 F R-717 side 275#
7.9.1.3 Clean all joints (carbon steel, welded and threaded), and remove any rust spots on the piping. Paint joints with
a rust-preventative coating.
7.9.1.4 The entire system must be evacuated and pulled down to 400 microns and signed off by the Owner.

8. Pipe Insulation, Painting and Marking (See Insulation Specifications)

9. Contractor Requirements

9.0 CONTRACTOR QUALIFICATIONS GUIDELINES

9.1 Purpose

The purpose of this section is to ensure that all contractors that work on or around the ammonia refrigeration system are properly trained and aware of the hazards associated with anhydrous ammonia. In addition, the guidelines are established to ensure that USCS considers the safety record of contractors in the bidding process.

9.2 Scope
This section applies to all contractors performing any type of work (e.g. maintenance, renovation) in the vicinity of a PSM covered process. It does not apply to contractors who provide a service (e.g. food, janitorial) that does not directly influence the safety of the process or the system. It is the Contractor's responsibility to train and inform their employees.

9.3 Definitions
Contractor: A company or individual that will provide services, labor, materials, and tools to perform specific work under contract or purchase order from the employer.
Employer: A company or individual who has obtained the services of a contractor through a contract or purchase order.

9.4 Procedures
The following steps are required as part of the Contractor selection/notification guidelines:
1. Contractor Selection
2. Contractor Awareness-Pre-Bid
3. Contractor Awareness-Post-Bid
4. Contractor Responsibilities
5. Follow-Up

9.5 Contractor Selection
USCS will administer a selection process prior to allowing contractors to bid work directly associated with or in the vicinity of the ammonia refrigeration process. It is a requirement for the contractors to have previous working experience on ammonia refrigeration systems as well as demonstrate technical and procedural knowledge of ammonia refrigeration systems and Process Safety Management USCS personnel will obtain and evaluate information regarding the contractor's historical safety performance and current safety programs. If a contractor has previously worked for USCS and the work to be bid is similar to that which was previously performed, a documented evaluation may be based upon such prior performance. Contractor evaluations, their respective safety records and programs will be kept on file.

9.6 Contractor Awareness-Pre.-Bid
USCS personnel must inform the Contractor of the potential hazards related to the refrigeration system. This notification shall occur during a pre-bid meeting and site walk-through. The Contractor shall exhibit documentation to support experience in generally accepted good engineering and work practices with ammonia refrigeration systems. This exhibit may be in the form of work references or similar documents. USCS personnel must notify contractors of potential toxic release and potential fire hazards by reviewing an ammonia MSDS with each contractor. Contractor personnel shall review the process flow diagram and/or operator manuals for the refrigeration system, as appropriate for the project. During job walk through, USCS personnel shall point out hazards associated with the ammonia refrigeration process. USCS personnel shall review site-specific safety work practices with Contractor personnel to help control the presence, entrance and exit of other contract employees in the area of the ammonia refrigeration system. The contractor shall review the USCS Emergency Response Plan for the facility. The contractor shall document and keep on file notes from pre-bid meetings.

9.7 Contractor Awareness-Post-Bid
USCS personnel shall evaluate any Contractor's response to the safety issues related to the ammonia refrigeration system. It is recommended this occur during post bid meetings. The Contractor shall review the safety record and program of subcontractors prior to beginning work at the facility. USCS personnel must verify how the Contractor will train their employees concerning safe work practices and the hazards associated with the ammonia refrigeration system. USCS personnel shall issue a confirmation letter detailing safety communications to the contractor and shall maintain notes and documents from these meetings.

9.8 Contractor Responsibilities
The PSM requires a Contractor to train its employees and ensure that any sub-contractors have been informed of the various aspects of PSM and how it relates to their work tasks. Each Contractor employee shall be aware of the potential hazards of the covered process. Using information from Section 3.0 may assist in providing such awareness. The Contractor shall document that each employee has been trained. The documentation shall identify the employee, the dates of training, and the method used to verify that the employee understood the training.

9.9 Follow-Up
USCS personnel shall routinely follow-up with the Contractor and evaluate the performance of the Contractor to ensure the Contractor is meeting PSM and other safety obligations. Evaluation of a Contractor's performance with respect to OSHA PSM shall be reviewed through an evaluation inquiry. USCS personnel shall maintain an injury and illness log related to the Contractor's employees working on or in the vicinity of the ammonia refrigeration system. All completed Contractor related forms are filed in Maintenance Manger's or Chief Engineers office.

10.0 Start-Up of Equipment and the System

10.1 Allow a minimum of forty days of start-up of the equipment and the system pull down to design working temperatures. It will be the Contractors responsibility to supply enough time to insure that the pull down is done so as not to damage the building, floor etc. It is also intended during the start-up period that system training is supplied to the Owner.

11.0 Warranty

11.1 Supply all parts and labor for a period of one year from the date of the system acceptance.

12.0 General Notes

12.1 Supply one extra drum of oil for the screw compressors. M&M 717.
12.2 Supply six (10) liter cans of oil for the CO2 compressors.
12.3 All glycol lines are to be insulated, no Armaflex? (see Attachment A.)
12.4 Power and control wiring by the Electrical Contractor.
12.5 All painting of the bare refrigeration lines to be done by the General Contractor per U.S.C.S. color code.
12.7 All wind bracing, foundations, etc. per Florida Code by the Refrigeration Contractor.
12.8 Supply four sets of drawings after acceptance of the system by U.S.C.S. plus one set of electronics on disk.
12.9 Freezer and convertible room air unit drain lines are to be traced with two (2) internal heat tapes; one (1) spare.
12.10 The Refrigeration Contractor will supply sheet metal duct for all penthouse air units.

An Ammonia and Carbon Dioxide gas detection system shall be installed and is included in the M&M Refrigeration Control System as described in Appendix A.

Carbon Dioxide Sensors shall be located as follows:

Convertible Room 1	1 sensor
Convertible Room 2	1 sensor
Freezer Room 3	4 sensors
Truck Dock	2 sensors
Roll Dock 2	
Engine Room	1 sensor
USDA Inspection Room	1 sensor

Ammonia Sensors shall be located as follows:
Engine Room 1 sensors
Ammonia vent line, Engine Room 1 sensors

APPENDIX A
Major Equipment Pre-purchased and Assigned
(1) H86E with PE motor solid state starter
(1) H74EWF with PE motor solid state starter
(1) HPC108S with PE motor and solid state starter
(1) HPC104S with PE motor and solid state starter
(2) SHH 465-1-1 CO2/ R-717 heat exchanger
(1) Hansen AP-16 purger
(1) Vertical -25' F 72" x 161" 350# CO2 pump package
(1) Horizontal +20' F 54" x 224" 580# CO2 pump package
(1) Horizontal +11' F 84" x 143" 250# R-717 pump package
(1) Vertical +30' F 42" x 145" 250# R-717 CPR
(1) Horizontal 16" x 60" 580# CO2 oil return pots
(1) Complete M&M micro processor control system
(1) Evapco ATC 1364B condenser with split coil
(1) Evapco USDA air unit
(5) Evapco truck dock air units
(4) Evapco convertible room penthouse air units
(4) Evapco freezer
(4) Evapco roll dock
(2) B&G 3E under floor glycol pumps
(5) MCP 460/3/60 Starter Panels
(1) Glycol Heat Exchanger

INSTALLATION GUIDE FOR REFRIGERATION PIPE INSULATION

1.0 SCOPE

1.1 United States Cold Storage recommends the use of rigid polyisocyanurate insulation or extruded polystyrene insulation on refrigeration piping systems, including associated vessels, tanks, and equipment. Guidelines are provided for both indoor and outdoor applications.

1.2 It is the intent of this specification to provide standardized guidelines for the installation of refrigeration system pipe and vessel insulation. Due to the variation in service conditions and use, this specification may not be pertinent for every application. A design or specifying engineer can propose alternative specifications, with owner's approval, tailored to site-specific applications or conditions. Such a design or specifying engineer may be more familiar with local conditions, codes, environments and desired service life of the insulation system allowing them to generate a more precise specification.

2.0 GENERAL REQUIREMENTS

2.1 All piping shall be free of foreign substances and free of surface moisture or frost prior to the application of insulation.

2.2 All insulation material shall be delivered to the project site in original, unbroken factory packaging labeled with product designations and thickness. The shipping package should not be air-tight. Shipment of materials from the manufacturer to the job site shall be in weather-tight transportation. Insulation materials delivered to the job-site shall be stored so as to protect the materials from moisture and weather during storage and installation. Insulation material shall be protected form sunlight to avoid exposure to UV light from the sun.

2.3 All testing of piping systems shall be completed prior to the installation of the insulation system.

2.4 Refer to insulation thickness charts in Appendix A to determine recommended insulation thickness based upon desired design criteria for ambient and service conditions.

3.0 MATERIALS OF CONSTRUCTION

3.1 CARBON STEEL PIPING

3.1.1 All carbon steel piping operating at a service temperature above 32 'F and 300'F or in cycling temperature service where the service temperature is between 32 'F and 300 'F for more than 20% of the time shall be at a minimum primer coated with a Polyamine-cured or epoxy-phenolic primer coating. Insulation contractor shall consult a coating manufacturer for the appropriate coating materials and application methods for the operating temperature range of the piping and/or equipment.

3.1.2 Prime paint all high-risk areas including, but not limited to, all pipe welds, control valve groups, areas around pump bases or control columns, evaporator coil headers, oil pots, valves, unions and flanges or any termination of insulation. Piping
10 linear feet in either direction of equipment should be prime-painted. Prime-paint the entire hot gas line. Polyamine-cured or epoxy-phenolic primers are recommended. Before any type of insulation is applied, all equipment and pipe surfaces shall be dry, clean and corrosion-free.

3.2 INSULATION MATERIALS FOR PIPING, VESSELS, VALVES AND EQUIPMENT

3.2.1 For refrigeration systems using ammonia or ammonia/C02 the insulation shall be either:

A. Rigid Polyisocyanurate Insulation as manufactured by The Dow Chemical Company (TRYMER) or an owner approved equivalent. Insulation shall have a minimum thermal conductivity of 0.19
BTU-in/hr112-'F at 75'F mean.

B. Extruded Polystyrene Insulation as manufactured by The Dow Chemical Company (STYROFOAM) or an owner approved equivalent. Insulation shall have a minimum thermal conductivity of 0.259
BTuJ-in/hr-ft2-'F at 75'F mean.

3.3 FABRICATION OF INSULATION

3.3.1 Insulation shall be fabricated in required shapes from bun stock in accordance with ASTM C-450 "Standard Practice for Prefabrication and Field Fabrication of Thermal Insulating Fitting Covers for NPS Piping, Vessel Lagging, and Dished Head Segments" and C-585 "Standard Practice for Inner and Outer Diameters of Rigid Thermal Insulation for Nominal Sizes of Pipe and Tubing (NPS System). Insulation shall be factory fabricated from bun stock.

3.3.2 Fittings, such as valves, valve stations, flanges, 90' and 45' elbows, and tees shall be two piece fly cut or routed to the preferred fabrication method. For diameters too large for fly cutting or routing, the pieces shall be fabricated in two halves with each half made up of mitered sections. Both methods shall be in accordance with ASTM C-450 and ASTM C-585. Larger outer diameter valves and flanges may be slightly oversized and cavities filled with tightly packed loose fiberglass or polyurethane spray foam (Reference Figure 1 in Appendix B). The number and size shall be kept to a minimum.

3.4 ADHESIVES, JOINT SEALERS AND MASTICS

3.4.1 Solvent based adhesives, joint sealers and mastics may be used in contact with polyisocyanurate and polystyrene insulation. Mastics must remain flexible at the lowest expected ambient temperature.
3.4.2 Joint sealers for sealing joints of insulation or PVC jacketing slip joints, shall be vapor retarder type, moisture and water resistant non hardening, and flexible with - a service temperature range from -50'F to +200'F.
3.4.3 Vapor retarder type mastic or joint sealers should be applied on insulation longitudinal joints and butt joints to prevent moisture and moisture vapor infiltration. Typical mastic or joint sealer can be CHIL-Joint CP-70, CHIL- PERM WB CP-35, AK-CRYL CP-9, VICRYL CP-10/11 from Childers Products Company or an owner approved equal.
3.4.4 Solvent or water adhesives may be used to attach the vapor retarder film to the outer surface of the insulation for factory applied vapor retarder film. Refer to vapor retarder film manufacturer specifications. Consult adhesive manufacturer's literature for instructions on handling adhesives including required operating temperatures and compatibility. Typical adhesives for use in this application include but are not limited to:

a) Childers CP88 adhesive (solvent based)
b) Foster 81-05 adhesive (solvent based)
c) Foster 85-50 adhesive (water based)
d) Childers CP56 adhesive (water based)
e) Foster 85-60 adhesive (water based)

3.5 VAPOR RETARDER

3.5.1 Vapor Retarder shall have a maximum permeance of 0.02 perm for applications at or below 32'F and a maximum permeance of 0.030 perm for applications above 32'F.
3.5.2 Vapor retarder shall be Saran 540 Vapor Retarder Film, or owner approved equivalent, for service temperatures above 32'F and Saran 540 or 560 Vapor Retarder Film, or owner approved equivalent, in services at and below 32'F or where a permeance of 0.02 perm or better is required. Refer to ASTM standards C-755 and C-1136 for information on selection and specification of vapor retarders. Refer to product literature and installation guidelines on Saran Film for recommended application instructions.
3.5.3 Elbows and fittings shall be wrapped with Saran 520 Vapor Retarder Tape, or owner approved equivalent. When operating temperature is </= 32'F or when a permeance of 0.02 perms or better is required, elbows and fittings shall be wrapped with Saran 520 Vapor Retarder Tape with a 50% overlap. When operating temperature is > 32'F, elbows and fittings shall be wrapped with a single layer of Saran 520 Tape with minimum overlap. When the nominal pipe size is 6" or less, use 1" wide Saran 520 tape. When the nominal pipe size is between 6" and 12", use 2" wide Saran 520 tape. When the nominal pipe size is
greater than 12", use 3" wide Saran 520 tape.
3.5.4 When operating temperature is </= 32'F or when a permeance of 0.02 perms or better is required, butt joints shall be wrapped with either two layers of Saran 520 Vapor Retarder or a single layer of Saran 560 tape.
3.5.5 For other laminated membrane vapor retarders, consult manufacturer's literature and installation guidelines.
3.4.6 It is preferred that vapor retarder be field-applied to the outer surface of pipe insulation. Seek owner approval prior to utilizing factory applied vapor retarder.
3.4.7 For tanks, vessels, and equipment use Saran 540 or 560 Vapor Retarder Film or owner approved equal.

3.5 PROTECTIVE JACKETING MATERIALS

3.5.1 INDOOR JACKETING APPLICATIONS

3.5.1.1 Jacketing shall be PVC material. PVC thickness shall be a minimum of 0.020 inch. Jacketing shall be tough and capable of enduring frequent wash downs 'with hot water or cleaning agents. All joints of PVC jacket shall be seal welded with manufacturers approved welding adhesive toprevent moisture and moisture vapor infiltration into the insulation system.
3.5.1.2 Supply preformed PVC covers for all fittings, tees, elbows, valves, caps, etc. at same PVC thickness as on straight pipe sections.
3.5.1.3 PVC protective jacketing shall not be considered a vapor retarder.
3.5.1.4 Neither rivets, screws, staples nor any other fastener capable of penetrating the underlying vapor retarder shall be used to secure the PVC jacketing.
3.5.1.5 PVC jacketing color shall comply United States Cold Storage's Color Guide (reference Appendix C).

3.5.2 OUTDOOR JACKETING APPLICATIONS

3.5.2.1 Jacketing shall be aluminum cladding. Jacketing shall be aluminum alloys 3003, 1100 or 3106 meeting ASTM B-209 with H-14 temper and a minimum 2.5 mil thickness polysurlyn moisture barrier on the inner surface. Aluminum cladding shall have a minimum thickness of 0.016"
3.5.2.2 Aluminum jacketing for all fittings, tees, elbows, caps, etc. shall be sectional, fictory contoured, or field-fabricated to fill closely around insulation and arranged so
as not to trap water but allow it to drain. Where this is not possible, use CHIL-BYL CP-76 joint sealant to seal the jacket.
3.5.2.3. Banding for jacketing shall be 0.02" thick by 0.5" wide stainless steel.
3.5.2.4 Aluminum protective jacketing shall not be considered a vapor retarder.
3.5.2.5 Neither rivets, screws, staples nor any other fastener capable of penetrating the underlying vapor retarder shall be used to secure the aluminum jacketing.

4.0 INSULATION APPLICATION

4.1 PIPING INSULATION - GENERAL

4.1.1 Stagger insulation half sections so that butt joints are staggered between top and bottom half sections by 6 to 18 inches on insulation layers that do not have a vapor retarder factory applied to them. On a single layer system, orient longitudinal joints between half sections in the 3 and 9 o'clock position on the pipe. (Reference Insulation Details).
4.1.2 Where insulation thickness required is greater than 2.5", employ a double layer system. Stagger all longitudinal joints between the inner and outer layers. Install the inner and outer layer longitudinal joints 90' to each other with the inner layer joints in the 12 and 6 o'clock positions and the outer layer joints in the 3 and 9 o'clock positions. All butt joints between the inner and outer layers shall be staggered between 6 and 18 inches. (Reference Insulation Details).
4.1.3 Install pre-fabricated insulation fittings on elbows, tees, and valves. Insulation shall be the same thickness at the fittings as pipe sections.
4.1.4 If a double layer is required, all fittings shall be doubled layered. Fittings may be cut to full thickness in lieu of double layered if they are fabricated with shiplap butt ends. Depth of the shiplap shall be cut to the thickness of the inner layer to allow the outer layer to overlap creating a staggered joint. (Reference Insulation Details).
4.1.5 Install half length pipe sections round on bottom of all pipe hanger saddles with a full pipe section half round on the top so as to maintain a staggered joint through the pipe hanger saddle (Reference Insulation Details). In double layer pipe systems install nested half and full pipe half round sections in bottom of saddle or use a full thickness single layer pipe section with shiplap ends cut to the depth of the inner layer thickness so the outer layer will overlap (Reference Insulation Details).
4.1.6 Single layer insulation shall be applied to piping with all joints sealed full depth with joint sealant and spread to uniform thickness so that joints appear tight and uniform. (Reference Insulation Details). In double layer insulation systems, inner layer shall not be installed with sealants. In double layer systems inner and outer layer shall remain independent of each other so as to allow movement between layers. (Reference Insulation Details).
4.1.7 Insulation shall be secured to the pipe with 3/4" wide fiber reinforced tape. Tape should be applied as per Insulation Details.
4.1.8 Insulation shall be secured with fiber-reinforced tape on both inner and outer layers of a double system except as noted in section 4.1.11.
4.1.9 Insulation shall be secured with fiber reinforced tape prior to installation of the vapor retarder material when vapor retarder material is field applied.
4.1.10 Outer layer or single layer insulation and vapor retarder shall be secured with fiber reinforced tap. Use a 25% circumferential overlap on 12" centers when vapor retarder is factory applied to insulation. Fiber tape shall be applied to the exterior of the insulation/vapor retarder system. Contraction/expansion joints in double layer system shall be installed per insulation details or owner approved alternate design.
4.1.11 Contraction/expansion joints in single layer service shall be installed per insulation details or owner approved alternate design. The appropriate insulation designer or engineer must specify the spacing of contraction/expansion joints separately for each system.
4.1.12 All insulation shall be tightly butted and free of voids and gaps at all joints. Vapor retarder must be continuous. All fasteners and bands shall be neatly aligned and overall work must be high quality in appearance and workmanship.
4.1.13 Vapor stops shall be used on either side of valves frequently removed for servicing, valve stations, or odd fittings, elbows, tees, etc. where the chance of moisture infiltration is high. Install vapor stop per insulation Details or by owner approved alternate design.
4.1.14 Saran Vapor Retarder film to be cut to length longitudinally and wrapped around the circumference of the pipe with lap joint facing downward avoiding the placement of the joint at the top or bottom of the pipe. Lap joint to be sealed using SSL tape or an approved liquid adhesive. Butt joints shall be covered with Saran Vapor Retarder tape. Spiral wrap configuration can be used in lieu of the above installation. Spiral wrapping will require adhesive placed on one edge of the Saran film as it is wrapped over the previous layer.
4.1.15 Elbows and fittings shall be wrapped with Saran 520 or approved equivalent, or covered with a mastic type vapor retarder product. Saran tape to be wrapped in a spiral configuration. Where permeance less than 0.02 perm is required, Saran 520 tape shall be spiral wrapped with a minimum 50% overlap. If using mastic type vapor retarder at fittings and elbows, form mastic so that fitting covers can be applied true and tight. Insulation contractor may not install PVC jacket with polyurethane foam fill in lieu of vapor retarder at fittings and elbows without special approval by owner.
4.1.16 On factory applied vapor retarder film, lap joints shall be sealed with SSL tape. All vapor retarder surfaces should be cleaned and free of dust/oil/grease/etc. before application of the SSL tape to ensure good adhesion between the tape and vapor retarder. (Reference Insulation Details). Apply the Saran Tape around the butt joint with a 25% circumference overlap (Reference Insulation Details). For other types of factory applied vapor retarders, consult manufacturer's recommendation on installation.
4.1.17 Before jacketing can be applied on a portion of the piping, the vapor retarder system on that portion must be complete and continuous.
4.1.18 Pipe support legs and appendages attached directly to the pipe shall be insulated out from the pipe five times the insulation thickness and the insulation termination sealed with a vapor stop.
4.1.19 Pipe insulation through roof and wall penetrations will be strictly adhered to as per the Insulation Details. It is imperative to protect the vapor retarder system of the pipe insulation. Exercise care to correctly seal and flash the penetration opening. Protect pipe line insulation and vapor retarder jacket/mastic by placing it inside a PVC or metal sleeve.

4.2 INDOOR PIPING - SPECIFIC REQUIREMENTS

4.2.1 Allow mastic to dry prior to installing PVC jacketing.
4.2.2 Insulation systems on indoor piping, valves and flanges shall be covered with PVC jacketing.
4.2.3 Seal around protrusions such as valves stems with a fill bead of silicone sealant

4.3 OUTDOOR PIPING - SPECIFIC REQUIREMENTS

4.3.1 Polyisocyanurate and polystyrene insulation shall be protected form prolonged exposure to UV light and weather upon installation.
4.3.2 Outdoors, Saran products shall be covered with a jacketing material within two weeks of installation to eliminate long-term exposure to UV light.
4.3.3 Outdoor jacketing overlaps shall be a minimum of 2" at butt joints and minimum of 2" at longitudinal joints. Jacketing shall be caulked before closing and banding and positioned in an orientation to avoid water infiltration.
4.3.4 Straight sections of jacketing shall be neatly secured with bands and seals with a maximum spacing of 9" on center. End joints shall be secured with bands and seals centered directly over joint. Do not use screws, staples or other fasteners on lines containing a vapor retarder system.

4.4 TANK, VESSEL, AND EQUIPMENT INSULATION

4.4.1 All insulation materials shall be the same as those used on the pipe associated with the tank, vessel or equipment.
4.4.2 Tank and vessel head segments shall be curved or flat cut to fit in single piece or segments per ASTM C-450. Head segments shall be cut so as to eliminate voids at the head section and in a minimum number of pieces so as to eliminate through joints.
4.4.3 Prefabricated flat head sections shall be installed in the same number of layers and thicknesses as the vessel walls. Void area behind the flat head shall be filled with a spray applied polyurethane.
4.4.4 Curved segments shall be fabricated to fit the contour of the surface in equal size pieces to go around the vessel with a minimum number ofthroughjoints. Cutting in the field shall be minimized. All sections shall be tightly butted and free of voids and gaps. (Reference Figure 15).
4.4.5 Seal all outer layer and single layer butt joints with joint sealer.
4.4.6 In double layer applications, the horizontal and vertical joints of the inner and outer layer curved segments shall be staggered. (Reference Figure 15).
4.4.7 The top of the outer layer of wall insulation in a double layer system shall be held below the inner layer top a minimum of the insulation thickness. The tank head insulation layers shall be cut so as to meet the staggered joint. (Ref. Figure 15).
4.4.8 Secure the shell insulation with stainless steel bands on 12 inch centers.
4.4.9 Install Saran 540 or 560 Vapor Retarder Film or an owner approved alternate. Tightly wrap the vessel or equipment insulation circumferentially with Saran Film or an owner approved alternate. Overlap the seams by a minimum of 2 inches. Seal
the overlapped seams with Saran Tape. On vertical vessels apply the Saran Film starting at the bottom course and work upwards. Each course should overlap on top of the one below it thus providing ojoint that will naturally shed water.
4.4.10 The vapor retarder on curved head sections shall be mastic/fabric/mastic or an owner approved alternate. Flat head sections can be covered with Saran 540 or 560 films or an owner approved alternate. Lap joints shall be covered with Saran Vapor Retarder tape.
4.4.11 Vessel support legs and appendages attached directly to the shell shall be insulated out from the vessel head or wall five times the insulation thickness and the insulation termination sealed with a vapor stop.
4.4.12 All indoor tanks, vessels, and equipment shall be covered with 0.030 inch PVC jacketing. Top cover shall be one piece or joints sealed with Chil-Byl CP-76 Sealant. On outdoor equipment use aluminum jacketing per section 3.5.2. Rivets and
screws shall not be sued to attach jacketing on system using a vapor retarder.

5.0 PIPE IDENTIFICATION

5.1 All piping shall be identified as specified in section 5.9, 5.10 and 5.11. All marks of identification shall be easily visible from the floor or usual point of vision.

5.2 Piping identification systems shall conform to ANSI 13.1, OSHA Standards, and IIAR Bulletin No. 119 scheme for the identification of piping.

5.3 Ammonia piping markers shall contain the following five (5) sections:

A. Market Body
B. Physical State Section
C. Pressure Level Section
D. Abbreviation Section
E. Directional Arrow
Sections shall be in accordance with IIAR Bulletin No. 119

5.4 Identification colors shall conform to the "USCS Engine Room Color Coding" Scheme.

5.5 Piping Identification systems shall be identified a minimum of once in each room passed through walls, ceilings and floors, to enter room. Place legends on the lower quarter of pipe for piping above eye level.

5.6 All vessels shall be identified in accordance with IIAR Bulletin No. 119

5.7 Identification markers for pipe shall be "Wrap-Mark" as manufactured by Bunting, Inc., Pittsburgh, Pennsylvania or owner approved equivalent.

5.8 Identification markers for vessels shall be "Ammonia Identiflow" as manufactured by Bunting, Inc., Pittsburgh, Pennsylvania or owner approved equivalent.

5.9 The width of the color band shall provide a full background of lettered legend, however, the width of color band and the size legend ledgers shall not be less than that which

OUTSIDE DIAMETER OF PIPING OR COVERING	MARKER SIZE	LEGEND SIZE
Under 3" diameter	1-1/8 X as required by legend	1"
Over 3" diameter	2-1/4 X as required by legend	2"

INSTALLATION GUIDE FOR REFRIGERATION PIPE INSULATION (CONTINUED ON SHEET R004)

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NEW FACILITY
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R003
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INSTALLATION GUIDE FOR REFRIGERATION PIPE INSULATION (CONTINUED)

5.10 Piping shall be identified with the following abbreviations
High Temperature Suction (NH3) HTS
Low Temperature Suction (NH3) LTS
Low Temperature Recirculated Suction (NH3) LTRS
Very Low Temperature Recirculated Suction (CO2) VLTRS
High Pressure Liquid (NH3) HPL
Very High Pressure Liquid (CO2) VHPL
Low Temperature Recirculated Liquid (NH3) LTRL
Very Low Temperature Recirculated Liquid (CO2) VLTRL
Subcooled Liquid (NH3) SCL
Defrost Condensate (NH3) DC
Relief Vent (NH3 and CO2) RV
Hot Gas (NH3) HG
Hot Gas Defrost (NH3) HGD
Condenser Water Supply CWS
Condenser Water Return CWR
Make-Up Water MW
Glycol Supply GS
Glycol Return GR

5.11 Vessels shall be identified with vessels name and pressure rating as follows:
High Temperature Pump Recirculator (CO2) Very High
High Pressure Receiver (NH3) High
Medium Temperature Flash Economizer (NH3) Low
Low Temperature Liquid Recirculator (NH3) Low
Low Temperature Liquid Recirculator (CO2) Very Low

5.12 Provide and install one (1) vessel and pipe marker identification wall chart in the compressor room in full color graphics.
APPENDIX A
Rigid Polyisocyanurate Insulation Thickness for Refrigeration Pipe: (Reference Insulation Details).
NOTE: On all horizontal pipe runs, where there is no change in elevation, the insulation thickness should remain the same size from beginning to end.

Extruded Polystyrene Insulation Thickness for Refrigeration Pipe: (Reference Insulation Details).
NOTE: On all horizontal pipe runs, where there is no change in elevation, the insulation thickness should remain the same size from beginning to end.

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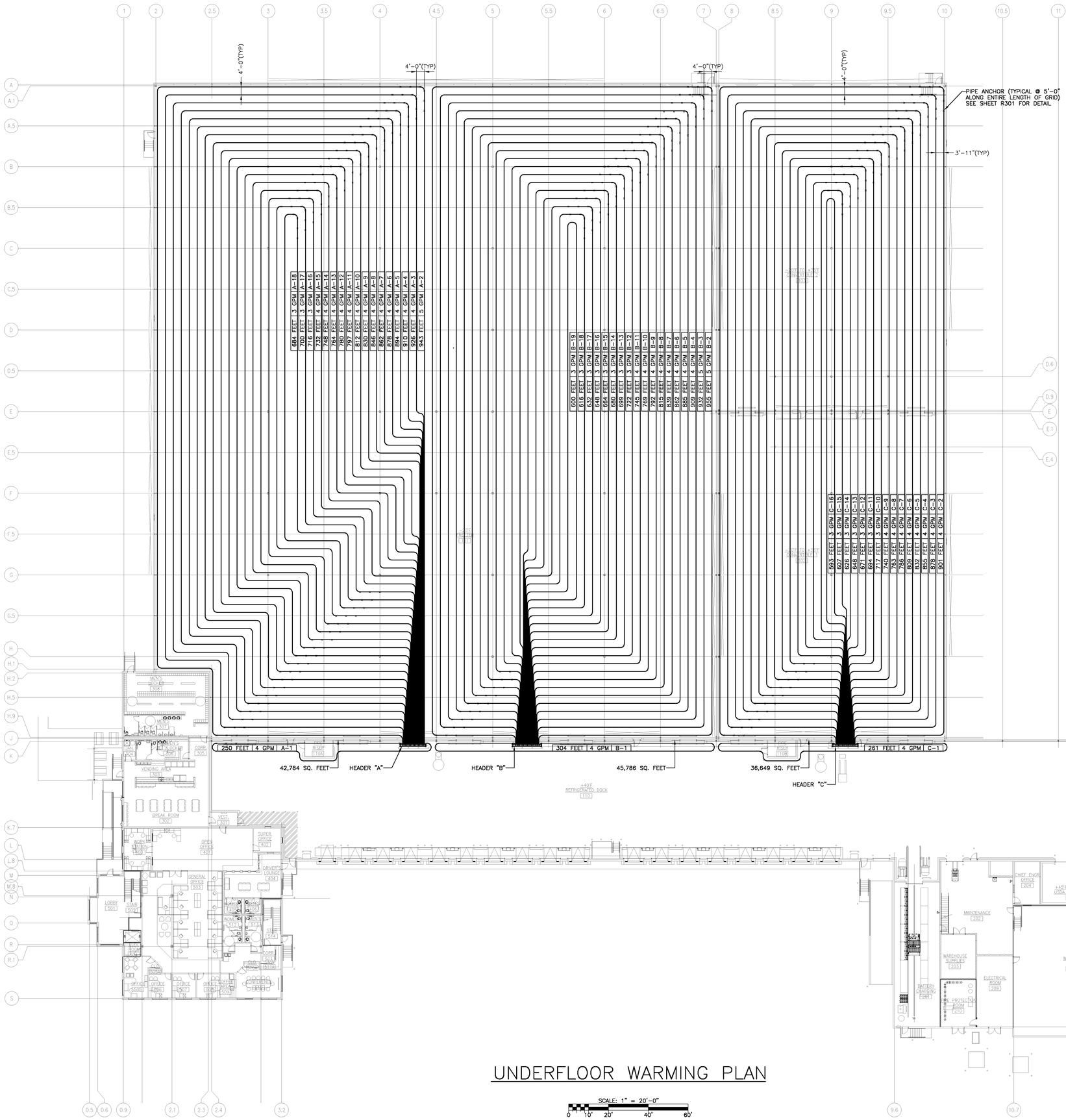
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R004
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UNDERFLOOR WARMING PLAN

SCALE: 1" = 20'-0"

0 10' 20' 40' 60'

NOTES:

1. SET CIRCUITS TO 1/2 GPM/100 FT OF LENGTH.
2. 30'-0" LENGTH HAS BEEN ADDED TO ACCOMODATE FOR FIELD CONDITIONS.
3. SEE R301 FOR HEADER DETAILS.

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UNDERFLOOR WARMING PLAN

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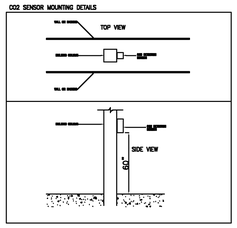
JOB NO.	03019
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SCALE:	1"=20'

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V = AIR UNIT VALVE STATION V
*CO2D = CO2 DETECTION
*RT = ROOM TEMPERATURE
*FTS = UNDERFLOOR TEMP SENSOR (SEE R301) FTS
*AT = AMBIENT AIR TEMPERATURE
*NH3D = AMMONIA DETECTION
*HYD = HUMIDITY DETECTION
GM= GLYCOL MANIFOLD UNDERFLOOR
GS = GLYCOL SUPPLY UNDERFLOOR
GR = GLYCOL RETURN UNDERFLOOR
-25CL = -25° CO2 LIQUID
-25CS = -25° CO2 SUCTION
+20CL = +20° CO2 LIQUID
+20CS = +20° CO2 SUCTION

CO2 SENSOR MOUNTING DETAILS



NOTES:

1. FOR WALL PENETRATION DETAIL SEE SHEET R501, DETAIL #2.
2. CONDENSATE DRAIN LINES IN AREAS BELOW 32°F SHALL BE INSTALLED WITH HEAT TAPE (SEE "REFRIGERATION SPECIFICATION" SECTION "6.7")
3. FOR AIR HANDLING UNIT HANGER DETAIL SEE SHEET R502, DETAIL #8.
4. DIMENSIONS ARE TO THE NEAREST SUPPORT POINT ON THE AHU.

OVERALL FLOOR PLAN

SCALE: 1" = 20'-0"
0 10' 20' 40' 60'

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OVERALL FLOOR PLAN

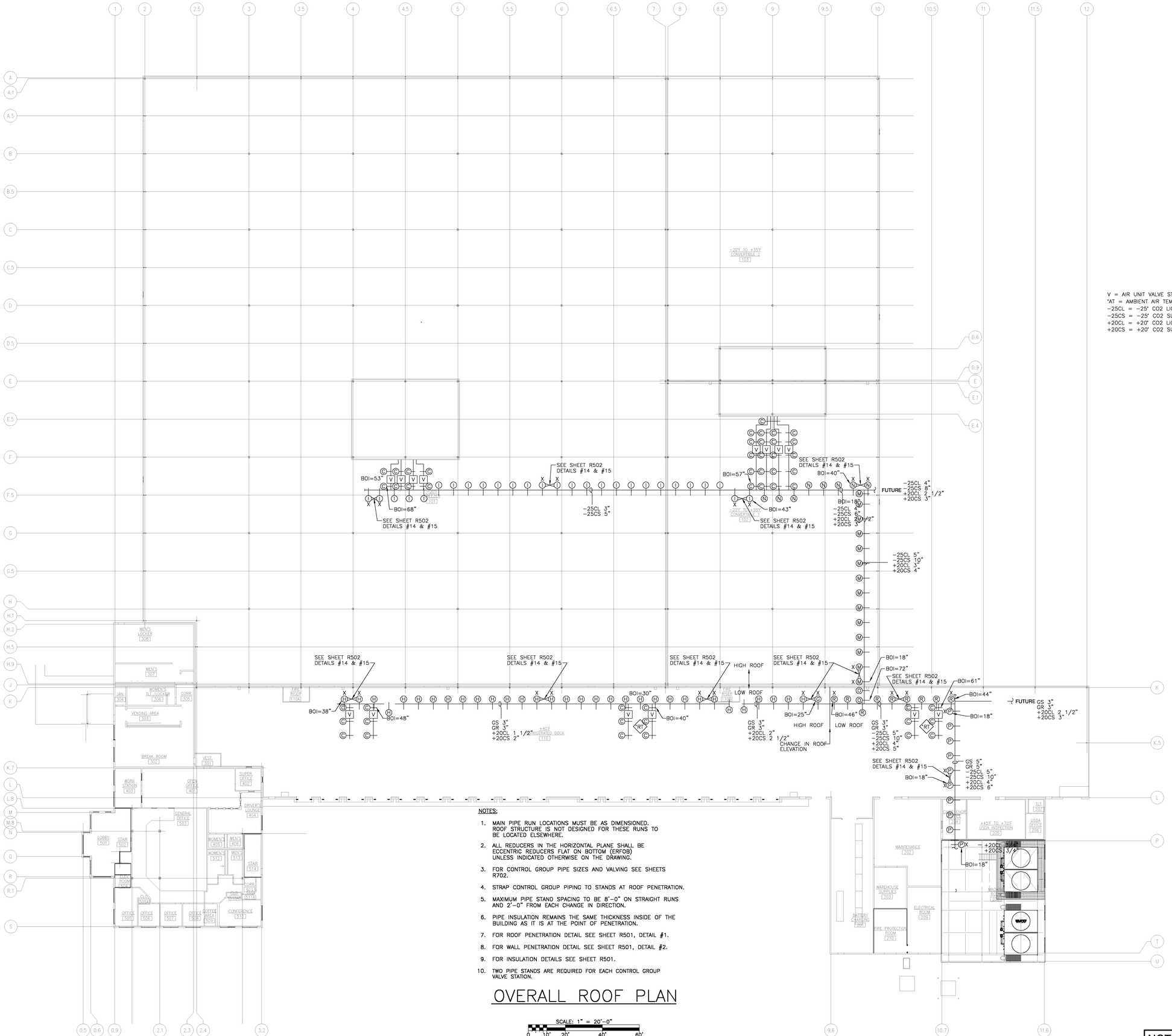
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R101
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V = AIR UNIT VALVE STATION [V]
*AT = AMBIENT AIR TEMPERATURE [M]
-25CL = -25° CO2 LIQUID
-25CS = -25° CO2 SUCTION
+20CL = +20° CO2 LIQUID
+20CS = +20° CO2 SUCTION

NOTES:

1. MAIN PIPE RUN LOCATIONS MUST BE AS DIMENSIONED. ROOF STRUCTURE IS NOT DESIGNED FOR THESE RUNS TO BE LOCATED ELSEWHERE.
2. ALL REDUCERS IN THE HORIZONTAL PLANE SHALL BE ECCENTRIC REDUCERS FLAT ON BOTTOM (ERFOB) UNLESS INDICATED OTHERWISE ON THE DRAWING.
3. FOR CONTROL GROUP PIPE SIZES AND VALVING SEE SHEETS R702.
4. STRAP CONTROL GROUP PIPING TO STANDS AT ROOF PENETRATION.
5. MAXIMUM PIPE STAND SPACING TO BE 8'-0" ON STRAIGHT RUNS AND 2'-0" FROM EACH CHANGE IN DIRECTION.
6. PIPE INSULATION REMAINS THE SAME THICKNESS INSIDE OF THE BUILDING AS IT IS AT THE POINT OF PENETRATION.
7. FOR ROOF PENETRATION DETAIL SEE SHEET R501, DETAIL #1.
8. FOR WALL PENETRATION DETAIL SEE SHEET R501, DETAIL #2.
9. FOR INSULATION DETAILS SEE SHEET R501.
10. TWO PIPE STANDS ARE REQUIRED FOR EACH CONTROL GROUP VALVE STATION.

OVERALL ROOF PLAN

SCALE: 1" = 20'-0"
0 10' 20' 40' 60'

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OVERALL ROOF PLAN

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REFRIGERATION UNDERFLOOR WRAMING LAYOUT

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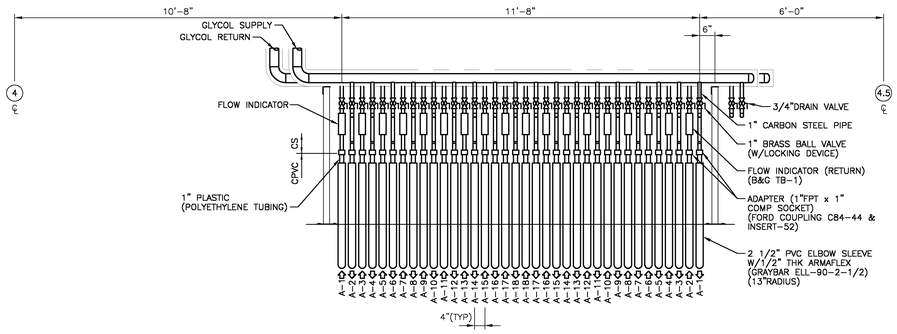
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SCALE:

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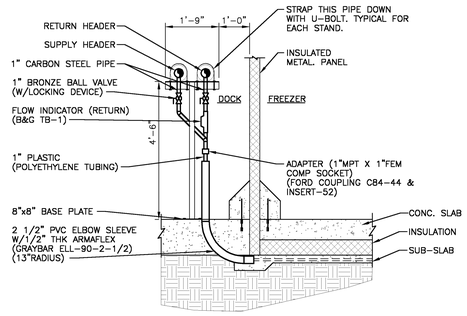
GLYCOL VALVE STATION DETAIL "A"

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

NOTES:

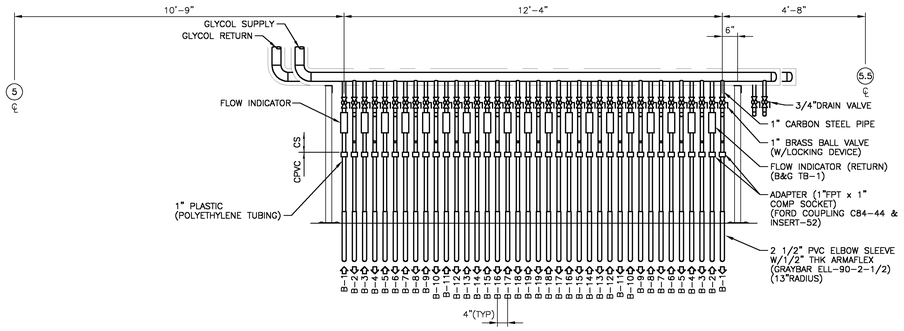
1. 30'-0" LENGTH HAS BEEN ADDED TO ACCOMODATE FOR FIELD CONDITIONS.
2. GLYCOL PIPING SHALL SHALL BE TESTED AND CHARGED PRIOR TO POURING MUD SLAB.



TYPICAL VALVE STATION SECTION

SCALE: 1/2" = 1'-0"

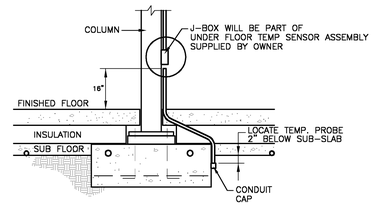
0 1' 2' 4'



GLYCOL VALVE STATION DETAIL "B"

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

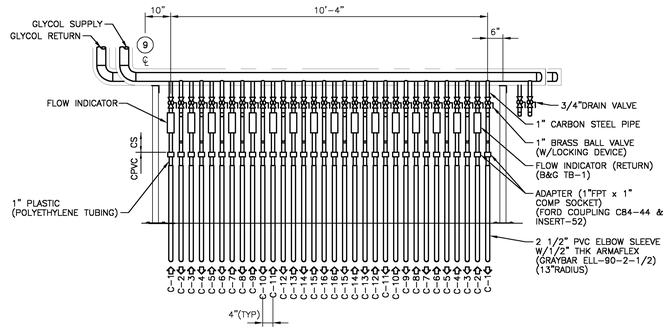


NOTES:

1. ENSURE AT LEAST 10' CLEARANCE FROM EXTERNAL HEAT SOURCES (i.e. DOORS, TRANSFORMERS)
2. COLUMN MOUNTED TEMPERATURE TRANSMITTERS MUST BE INSTALLED ON SIDE NOT FACING ISLE OR RACK SYSTEM.
3. SOLDER ALL CONNECTIONS BETWEEN EXTENSION BELDEN CABLE AND TEMP. SENSOR WIRES.
4. INSTALL ALL UNDERFLOOR TEMP. SENSORS IN 3/4" R.G.C.
5. SENSOR CABLES MAY BE COMBINED IN GROUPS AND RUN TO RCP.
6. SEE EC DRAWINGS FOR SENSOR LOCATIONS.

UNDERFLOOR TEMPERATURE TRANSMITTER WIRING AND INSTALLATION

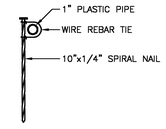
NOT TO SCALE



GLYCOL VALVE STATION DETAIL "C"

SCALE: 1/2" = 1'-0"

0 1' 2' 4'



PIPE ANCHOR DETAIL

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UNDERFLOOR WARMING DETAILS

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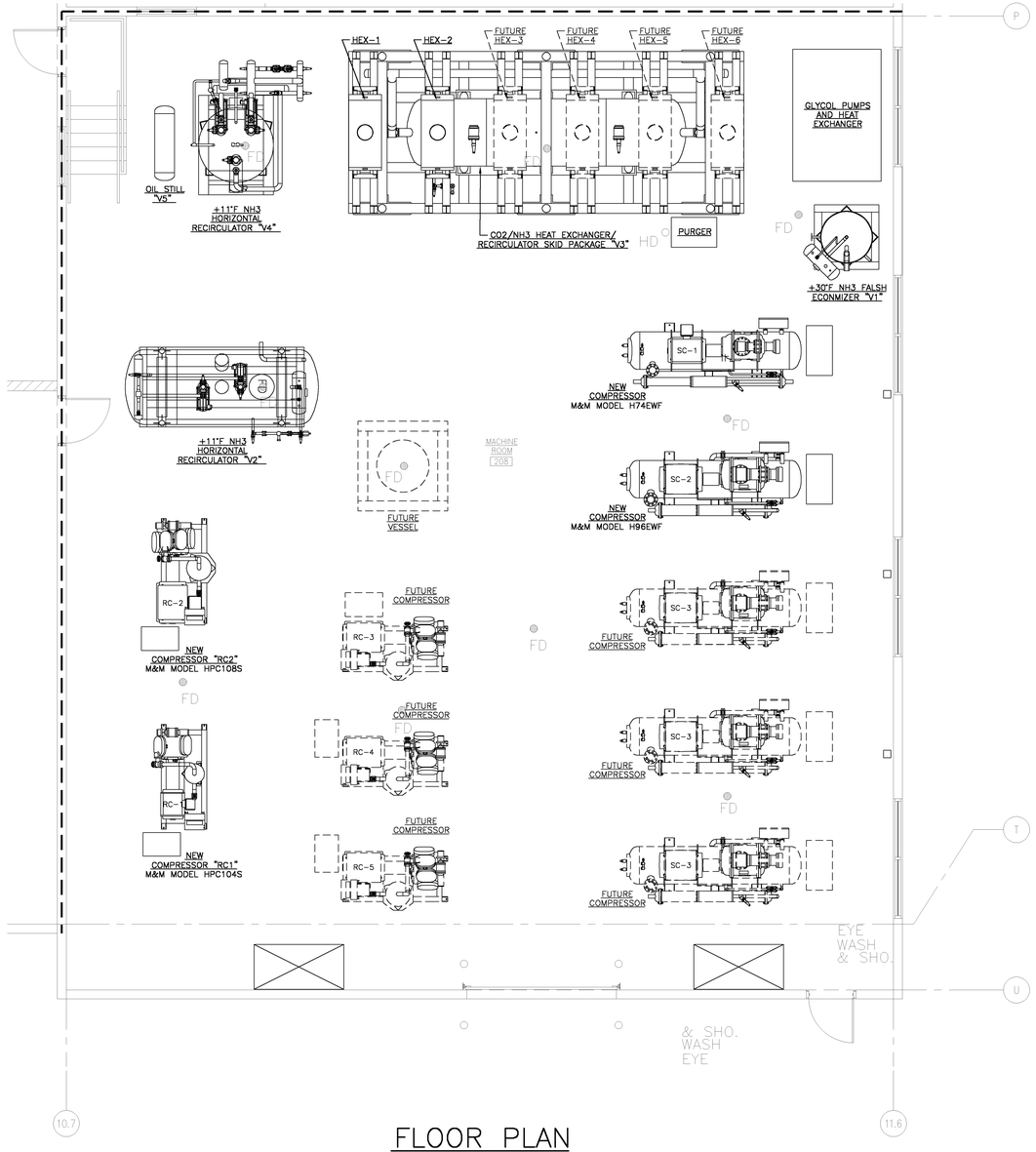
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R301
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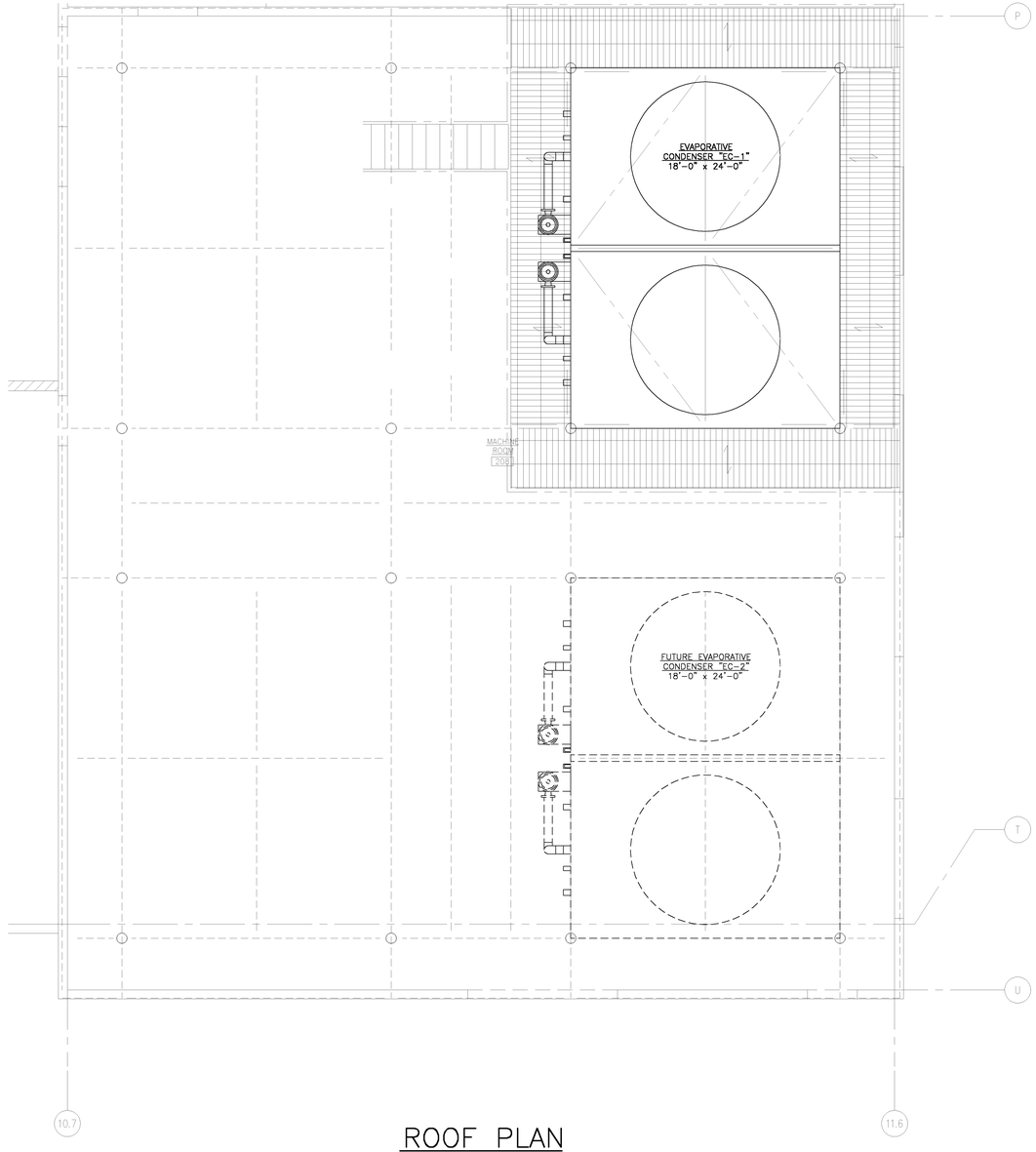
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FLOOR PLAN

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'



ROOF PLAN

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'

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MACHINE ROOM & ROOF EQUIPMENT LOCATION PLAN

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Rigid Polyisocyanurate Insulation Thickness for Refrigeration Pipe

PIPE SIZE	HOT GAS & CONDENSATE LINES (HPL TO AHU'S)	INTERMEDIATE (+1°F TO +50°F)	LOW (+0°F TO −50°F)	VERY LOW (−51°F TO −80°F)
1/2"	1.5	2.0	3.0	3.0
3/4"	1.5	2.0	3.0	4.0
1"	1.5	2.0	3.0	4.0
1 1/4"	1.5	2.0	3.0	4.0
1 1/2"	1.5	2.0	3.0	4.0
2"	1.5	2.0	3.0	5.0
2 1/2"	1.5	2.0	3.0	5.0
3"	1.5	2.0	3.0	5.0
4"	1.5	2.0	3.0	5.0
5"	–	2.0	3.0	6.0
6"	–	3.0	4.0	6.0
8"	–	3.0	4.0	6.0
10"	–	3.0	4.0	6.0
12"	–	3.0	4.0	6.0
14"	–	3.0	4.0	6.0
16"	–	3.0	4.0	6.0
18"	–	3.0	4.0	7.0
20"	–	3.0	4.0	7.0
24"	–	3.0	4.0	7.0
VESSEL BOTTOM	–	4.0	6.0	8.0

NOTE: ON ALL HORIZONTAL PIPE RUNS, WHERE THERE IS NO CHANGE IN ELEVATION, THE INSULATION THICKNESS SHOULD REMAIN THE SAME SIZE FROM BEGINNING TO END.

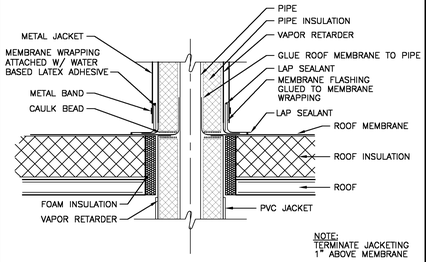
Extruded Polystyrene Insulation Thickness for Refrigeration Pipe

PIPE SIZE	TEMPERATURE (−75°F TO −51°F)	TEMPERATURE (−50°F TO −26°F)	TEMPERATURE (−25°F TO −1°F)	TEMPERATURE (+0°F TO +25°F)	TEMPERATURE (+26°F TO +50°F)	HOT GAS LINE	CONDENSATE DRAIN LINE
1/2"	3.0	2.5	2.0	1.5	1.5	1.5	1.5
3/4"	3.0	2.5	2.0	1.5	1.5	1.5	1.5
1"	3.0	2.5	2.0	1.5	1.5	1.5	1.5
1 1/4"	3.0	3.0	2.5	1.5	1.5	1.5	1.5
1 1/2"	3.0	3.0	2.5	1.5	1.5	1.5	1.5
2"	4.0	4.0	3.0	2.0	1.5	1.5	1.5
2 1/2"	4.0	4.0	3.0	2.0	1.5	1.5	1.5
3"	4.0	4.0	3.0	2.0	1.5	1.5	1.5
4"	4.0	4.0	3.0	2.0	1.5	1.5	1.5
5"	5.0	5.0	4.0	2.0	1.5	1.5	1.5
6"	5.0	5.0	4.0	2.0	2.0	1.5	1.5
8"	5.0	5.0	4.0	3.0	2.0	1.5	1.5
10"	5.0	5.0	4.0	3.0	2.0	1.5	1.5
12"	6.0	5.0	4.0	4.0	3.0	1.5	1.5
VESSEL BOTTOM	6.0	5.0	4.0	4.0	3.0	–	–

NOTE: ON ALL HORIZONTAL PIPE RUNS, WHERE THERE IS NO CHANGE IN ELEVATION, THE INSULATION THICKNESS SHOULD REMAIN THE SAME SIZE FROM BEGINNING TO END.

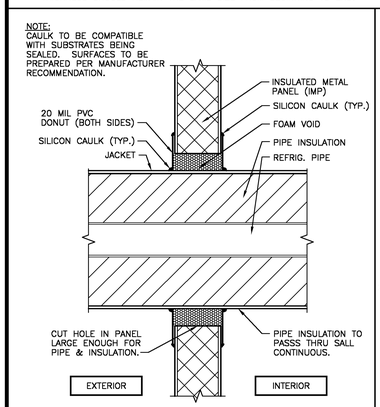
SHIELDS FOR INSULATING PIPE & TUBING

INSULATION DIAMETER, INCHES	GAUGE METAL	ARC LENGTH INCHES	SADDLE LENGTH INCHES	RADIUS INCHES
2.5	20	2.5	12	1.25
3	20	3	12	1.25
3.5	18	3.5	12	1.75
4	18	4	12	2
4.5	18	5	12	2.25
5	16	5.5	12	2.5
6	16	6.5	12	3
8	16	8.5	18	4
10	14	10.5	18	5
12	14	12.5	18	6
14	14	14.5	18	7
15	14	17	18	8
16	12	19	18	9
20	12	21	18	10



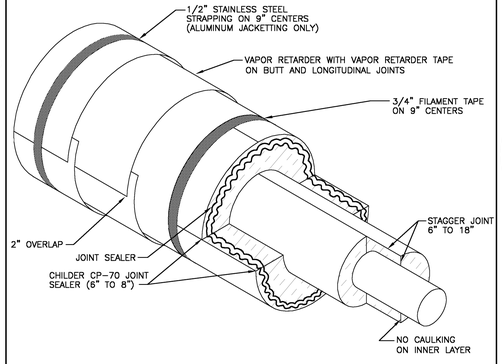
ROOF/PIPE INSULATION PENETRATION DETAIL

DETAIL (1)



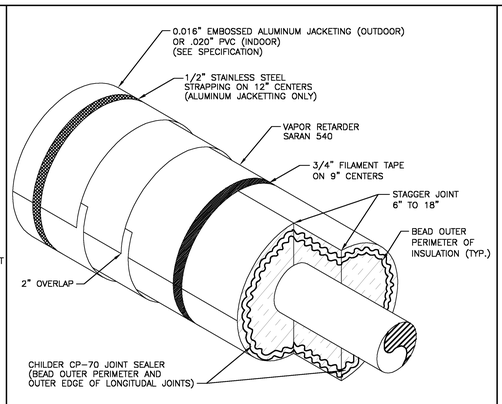
WALL PENETRATION

DETAIL (2)



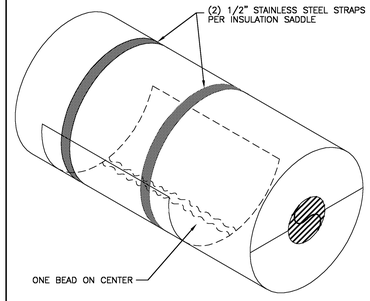
TYPICAL DOUBLE LAYER JOINT
(3" OR GREATER INSULATION THICKNESS)

DETAIL (3)



TYPICAL SINGLE LAYER JOINT SECTION
(LESS THAN 3" INSULATION THICKNESS)

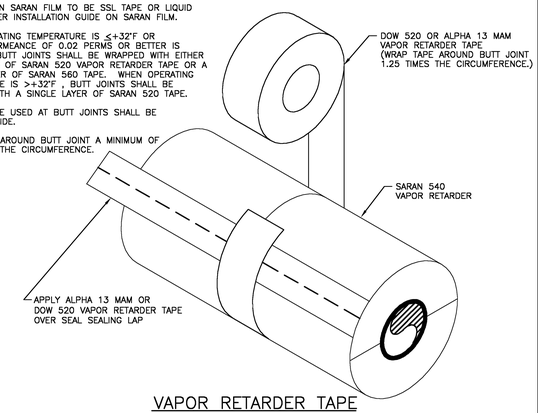
DETAIL (4)



INSULATION SADDLE DETAIL

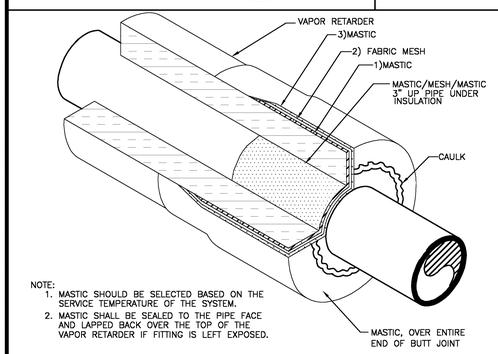
DETAIL (5)

NOTES:
1. LAP SEAL ON SARAN FILM TO BE SSL TAPE OR LIQUID ADHESIVE PER INSTALLATION GUIDE ON SARAN FILM.
2. WHEN OPERATING TEMPERATURE IS ≤+32°F OR WHEN A PERMEANCE OF 0.02 PERMS OR BETTER IS REQUIRED, BUTT JOINTS SHALL BE WRAPPED WITH EITHER TWO LAYERS OF SARAN 520 VAPOR RETARDER TAPE OR A SINGLE LAYER OF SARAN 560 TAPE. WHEN OPERATING TEMPERATURE IS >+32°F , BUTT JOINTS SHALL BE WRAPPED WITH A SINGLE LAYER OF SARAN 520 TAPE.
3. SARRAN TAPE USED AT BUTT JOINTS SHALL BE 3 INCHES WIDE.
4. WRAP TAPE AROUND BUTT JOINT A MINIMUM OF 1.25 TIMES THE CIRCUMFERENCE.



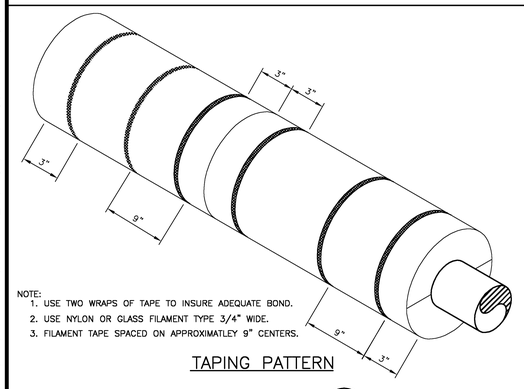
VAPOR RETARDER TAPE

DETAIL (6)



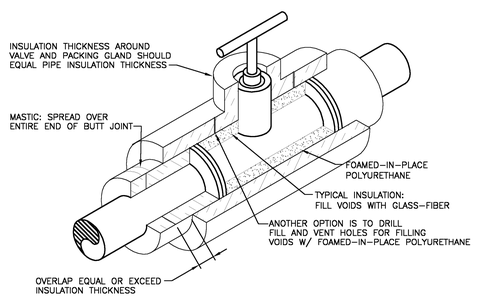
TYPICAL HORIZONTAL VAPOR STOP SECTION

DETAIL (7)



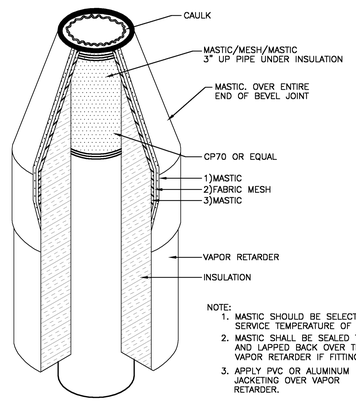
TAPING PATTERN

DETAIL (10)



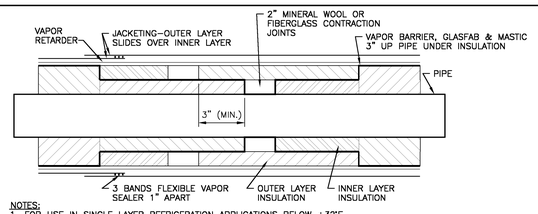
VALVE INSULATION DETAIL
(INCLUDING FILLING OF VOIDS)

DETAIL (8)



TYPICAL VERTICAL VAPOR STOP SECTION

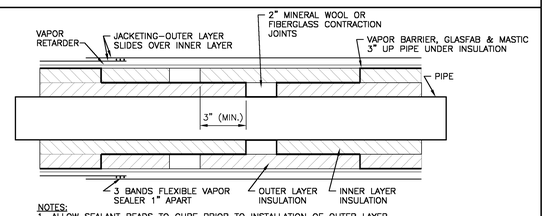
DETAIL (9)



NOTES:
1. FOR USE IN SINGLE LAYER REFRIGERATION APPLICATIONS BELOW +32°F.
2. ALLOW SEALANT BEADS TO CURE PRIOR TO INSTALLATION OF OUTER LAYER.
3. POSITION OUTER LATER PACKED GLASS FIBER BETWEEN SEALANT DAMS ON INNER LAYER AS SHOWN ABOVE.
4. AFTER GLASS FIBER IN CONTRACTION JOINT IS INSTALLED, INSULATION SECTIONS ON EITHER SIDE OF CONTRACTION JOINT SHALL BE FORCED TOGETHER AS TIGHTLY AS POSSIBLE.

TYPICAL SINGLE LAYER CONTRACTION JOINT SECTION

DETAIL (11)

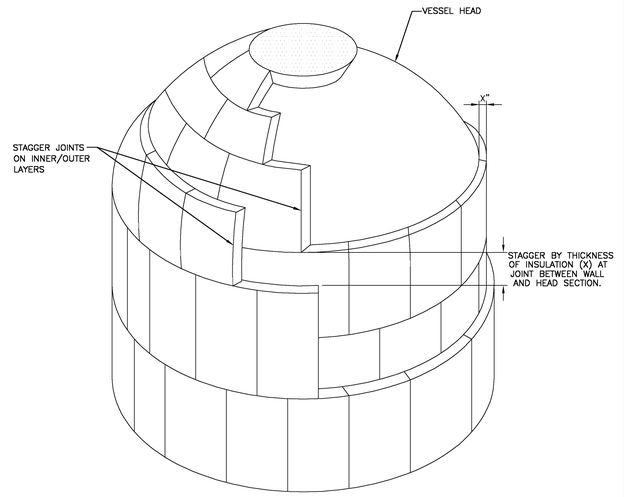


NOTES:
1. ALLOW SEALANT BEADS TO CURE PRIOR TO INSTALLATION OF OUTER LAYER.
2. POSITION OUTER LATER PACKED GLASS FIBER BETWEEN SEALANT DAMS ON INNER LAYER AS SHOWN ABOVE.
3. AFTER GLASS FIBER IN CONTRACTION JOINT IS INSTALLED, INSULATION SECTIONS ON EITHER SIDE OF CONTRACTION JOINT SHALL BE FORCED TOGETHER AS TIGHTLY AS POSSIBLE.

TYPICAL DOUBLE LAYER CONTRACTION JOINT SECTION

DETAIL (12)

NOTE:
1. IN MULTIPLE LAYER SYSTEMS, EACH LAYER SHALL BE INSTALLED SO THAT THE HORIZONTAL AND VERTICAL JOINTS IN THAT LAYER ARE STAGGERED FROM THE CORRESPONDING JOINTS IN THE PRECEDING LAYER BY HALF THE HEIGHT OR WIDTH OF A FULL SECTION.
2. AT JOINT BETWEEN WALL AND HEAD SECTION, THE OUTER LAYER SHALL BE STAGGERED BELOW THE INNER LAYER BY THE THICKNESS OF A SINGLE LAYER.
3. WHERE MASTIC OR SEALANTS ARE REQUIRED TO BOND THE INSULATION SECTIONS TO THE TANK HEAD CONSULT THE MANUFACTURER'S RECOMMENDATIONS ON SERVICE AND APPLICATION TEMPERATURE.



VESSEL HEAD INSULATION

DETAIL (13)

NOT FOR CONSTRUCTION
DATE: 06-28-2007

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FLORIDA ENGINEERING LICENSE NO. 28301

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

INSULATION DETAILS

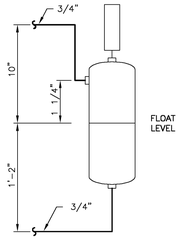
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SCALE:	NONE

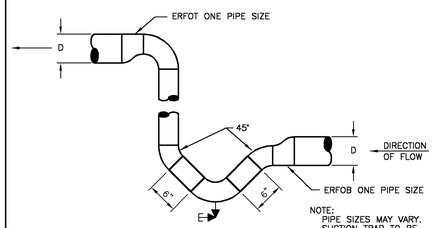
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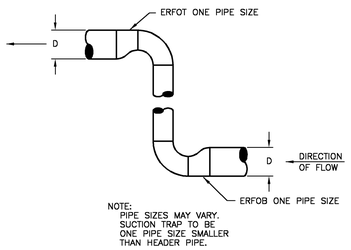
TYPICAL FLOAT PIPING

DETAIL (1)



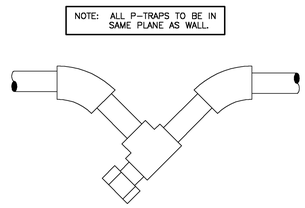
MAIN HEADER SUCTION RISER

DETAIL (2)



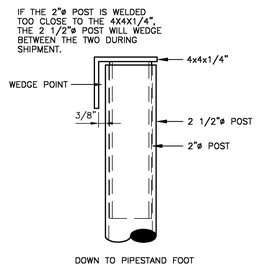
CONTROL GROUP SUCTION RISER

DETAIL (3)



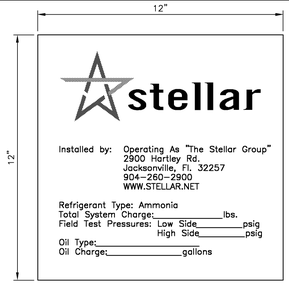
DRAIN LINE P-TRAP

DETAIL (4)



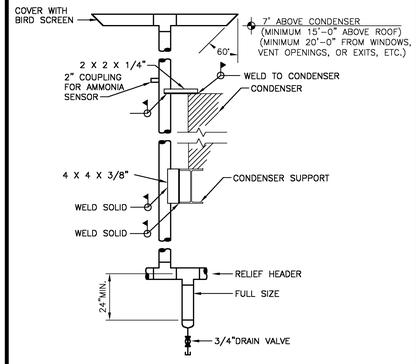
PIPE STAND PREFAB DETAIL

DETAIL (5)



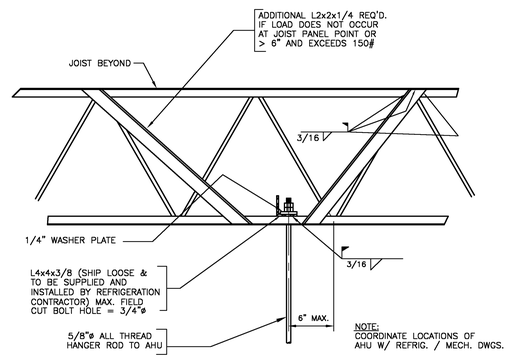
STELLAR SYSTEM NAMEPLATE

DETAIL (6)



TYPICAL RELIEF HEADER TO ATMOSPHERE

DETAIL (7)

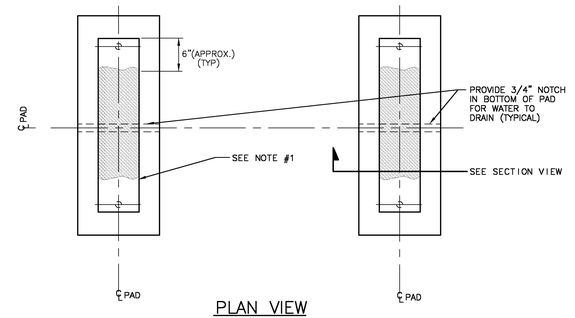


AIR HANDLING UNIT HANGERS

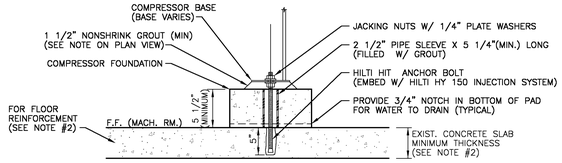
DETAIL (8)

IMPORTANT: PROPER GROUTING TECHNIQUES ARE REQUIRED TO ENSURE UNIFORMITY & 100% CONTACT TO THE BOTTOM OF THE COMPRESSOR BASE!

NOTE:
1. WHEN GROUTING AROUND THE COMPRESSOR BASE, LEAVE ADEQUATE SPACE FOR JACKING NUT ADJUSTMENT. ONCE THE GROUT HAS SET, BACK OFF THE JACKING NUT AS FAR AS POSSIBLE TO ALLOW THE COMPRESSOR TO SET DIRECTLY ON THE GROUT. FINISH GROUTING UNDER THE REMAINDER OF THE BASE. ONCE ALL GROUTING HAS SET, SECURE THE COMPRESSOR BY TIGHTENING THE MOUNTING NUTS AND LOCKING THEM WITH A SECOND NUT.
2. SEE STRUCTURAL FLOOR DRAWINGS FOR FLOOR THICKNESS AND REINFORCEMENT.



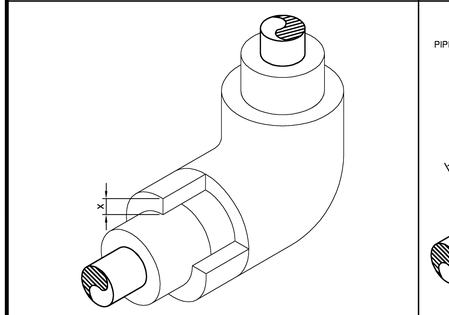
PLAN VIEW



SECTION VIEW

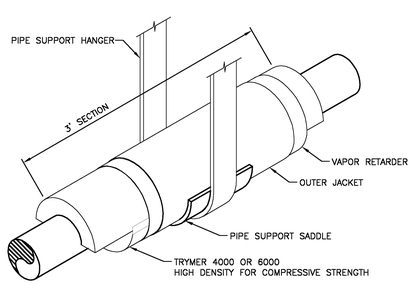
SCALE: NONE

DETAIL (9)



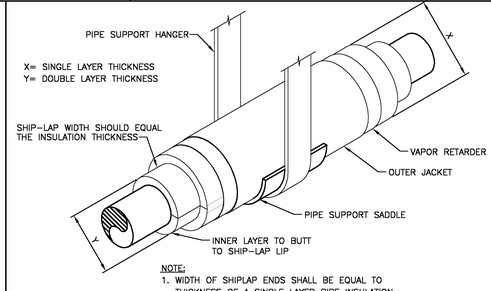
FULL THICKNESS SHIPLAP ELBOW FITTING

DETAIL (10)



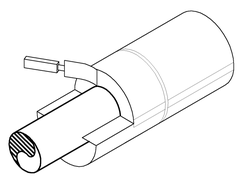
SINGLE LAYER INSULATION SYSTEM THROUGH PIPE HANGER SUPPORT

DETAIL (11)



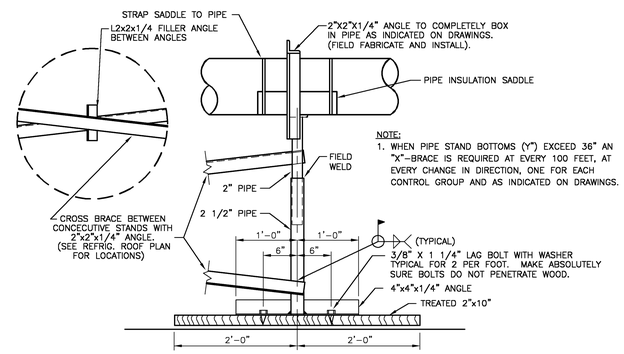
FULL THICKNESS INSULATION SECTION IN DOUBLE LAYERED SYSTEM AT PIPE HANGER SUPPORT

DETAIL (12)



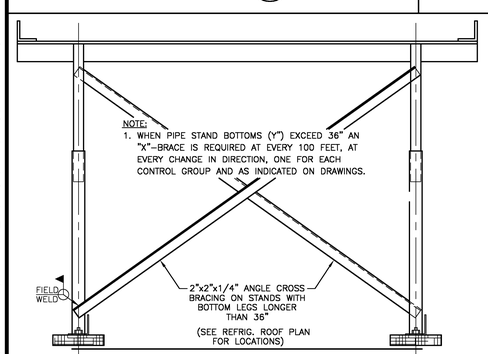
SEALANT APPLICATION TECHNIQUE

DETAIL (13)



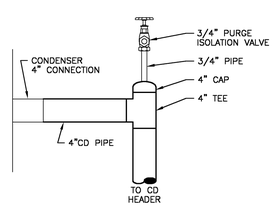
PIPE STAND CROSS BRACING SIDE VIEW

DETAIL (14)



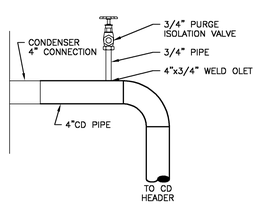
PIPE STAND CROSS BRACING

DETAIL (15)



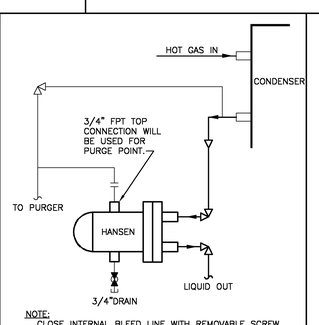
OPTIONAL CONDENSER DRAIN PURGE DETAIL

DETAIL (16)



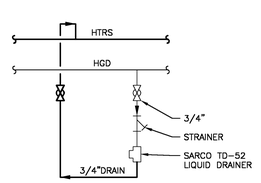
TYPICAL CONDENSER DRAIN PURGE DETAIL

DETAIL (17)



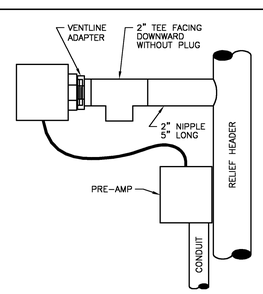
HANSEN LIQUID DRAINER CONDENSER INSTALLATION

DETAIL (18)



SARCO LIQUID DRAINER DETAIL

DETAIL (19)



RELIEF HEADER SENSOR DETAIL

DETAIL (20)

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DATE: 06-28-2007

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FLORIDA ENGINEERING LICENSE NO. 28301

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

INSULATION AND REFRIGERATION DETAILS

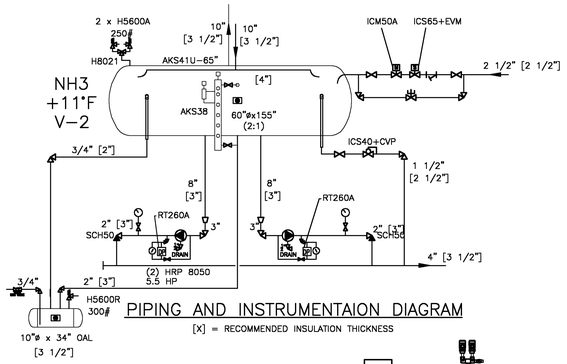
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REV.	DATE	BY	DESCRIPTION
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CHECKED: RAS
SCALE: NONE

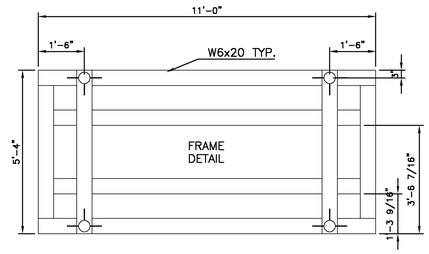
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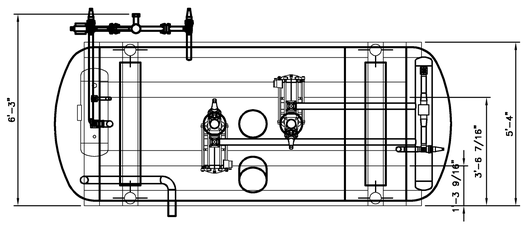


PIPING AND INSTRUMENTAION DIAGRAM

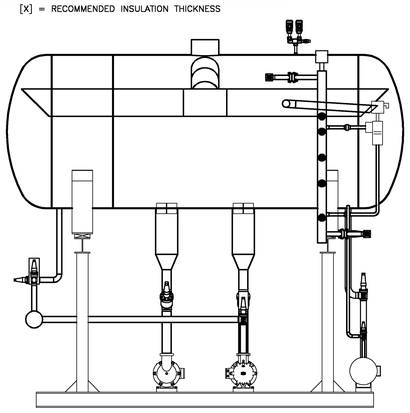
[X] = RECOMMENDED INSULATION THICKNESS



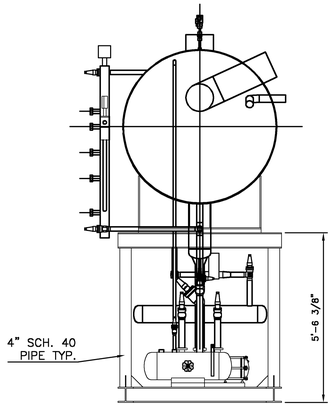
FRAME DETAIL PLAN VIEW



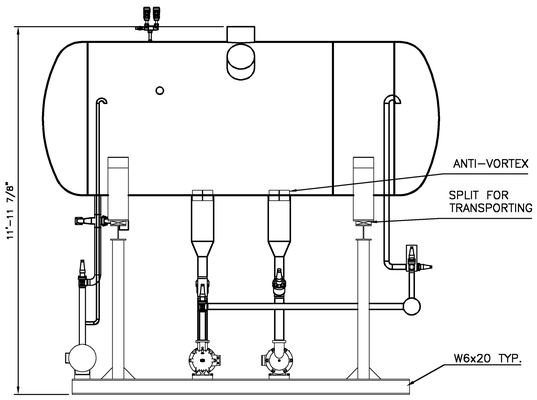
PLAN VIEW



REAR VIEW



SIDE VIEW



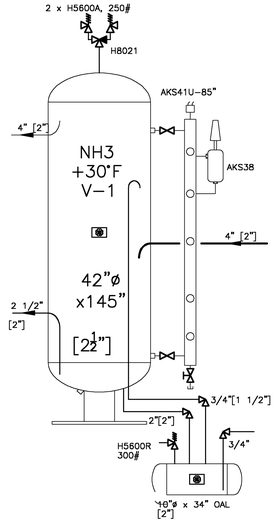
FRONT VIEW

+11°F NH3 HORIZONTAL RECIRCULATOR "V2"

60" ø x 155" OAL

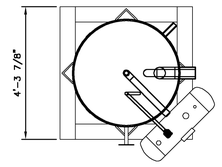
SCALE: 1/2" = 1'-0"

0 1' 2' 4'

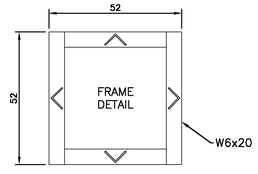


PIPING AND INSTRUMENTAION DIAGRAM

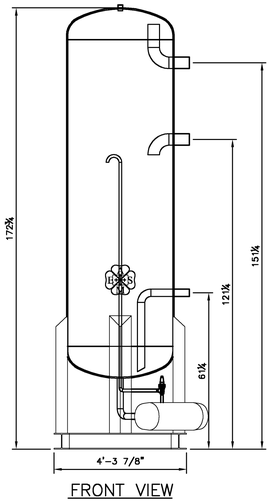
[X] = RECOMMENDED INSULATION THICKNESS



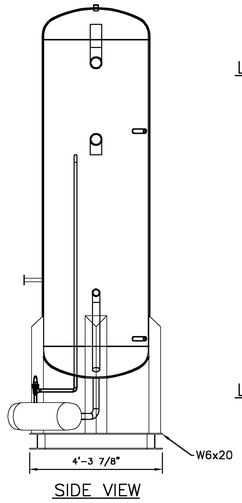
PLAN VIEW



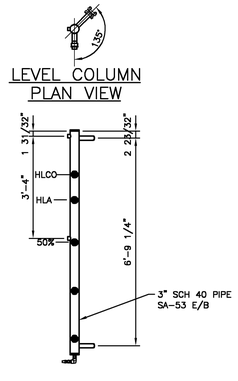
FRAME DETAIL PLAN VIEW



FRONT VIEW

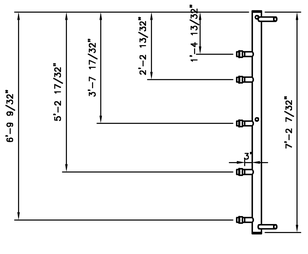


SIDE VIEW



LEVEL COLUMN
PLAN VIEW

LEVEL COLUMN
FRONT VIEW



LEVEL COLUMN
SIDE VIEW

+30°F NH3 FLASH ECONMIZER "V1"

42" ø x 145" OAL

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

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DATE: 06-28-2007

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

+11F HORIZ. RECIRCULATOR AND +30F FLASH ECONOMIZER DETAILS

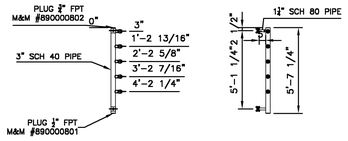
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REV.	DATE	BY	DESCRIPTION
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CHECKED: RAS
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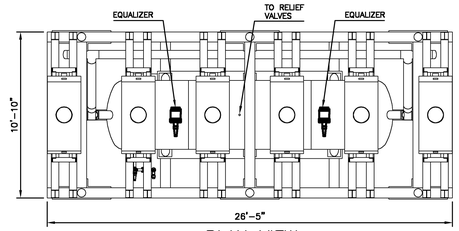
R503
DRAWING NO.

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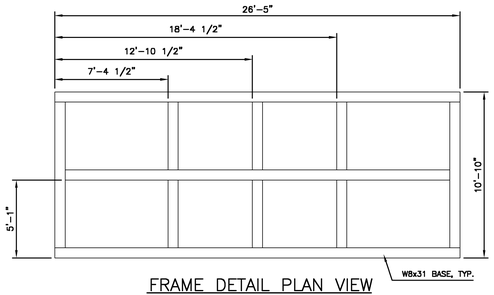


LEVEL COLUMN
SIDE VIEW

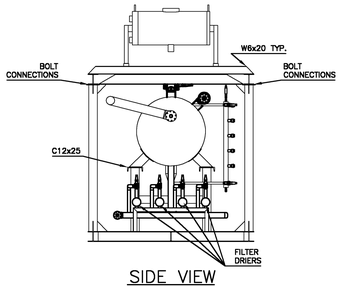
LEVEL COLUMN
FRONT VIEW



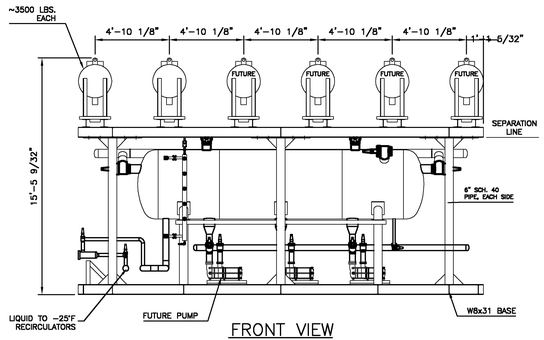
PLAN VIEW



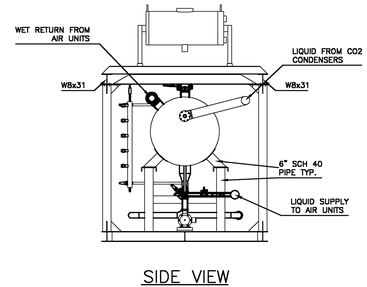
FRAME DETAIL PLAN VIEW



SIDE VIEW



FRONT VIEW



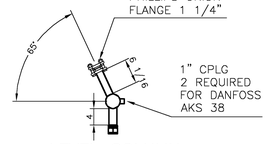
SIDE VIEW

CO2/NH3 HEAT EXCHANGER/RECIRCULATOR SKID PACKAGE

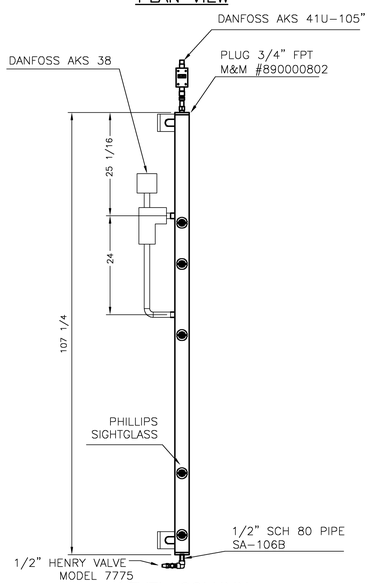
VESSEL SIZE 54" ø x 224" OAL

SCALE: 1/4" = 1'-0"

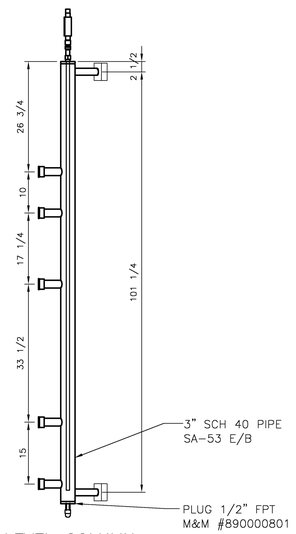
0 1' 2' 4' 8'



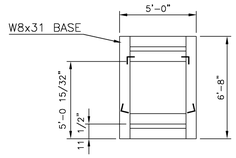
LEVEL COLUMN
PLAN VIEW



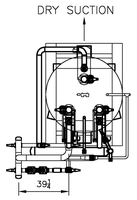
LEVEL COLUMN
FRONT VIEW



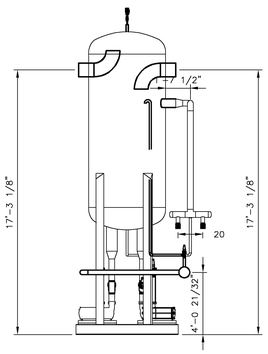
LEVEL COLUMN
SIDE VIEW



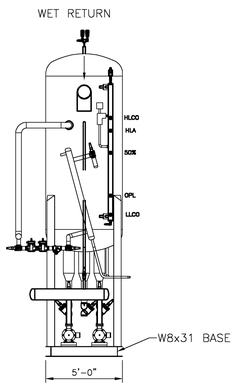
FRAME DETAIL PLAN VIEW



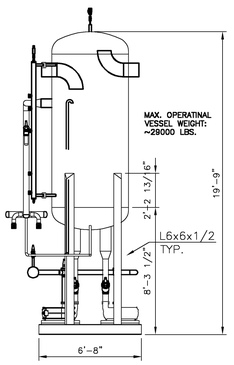
PLAN VIEW



SIDE VIEW



FRONT VIEW



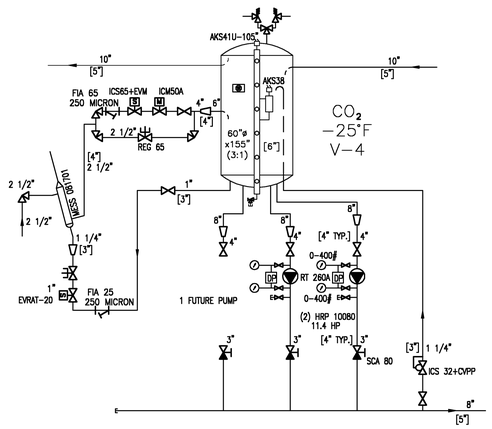
SIDE VIEW

-25°F CO2 PUMP PACKAGE "V4"

60" ø x 155" OAL

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'



PIPING AND INSTRUMENTAION DIAGRAM

[X] = RECOMMENDED INSULATION THICKNESS

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

CO2/NH3 HEAT EXCHANGER/ RECIRCULATOR & -25F CO2 PUMP PACKAGE "V4" DETAILS

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REV.	DATE	BY	DESCRIPTION
A	06-28-07	GLW	PERMIT ISSUE

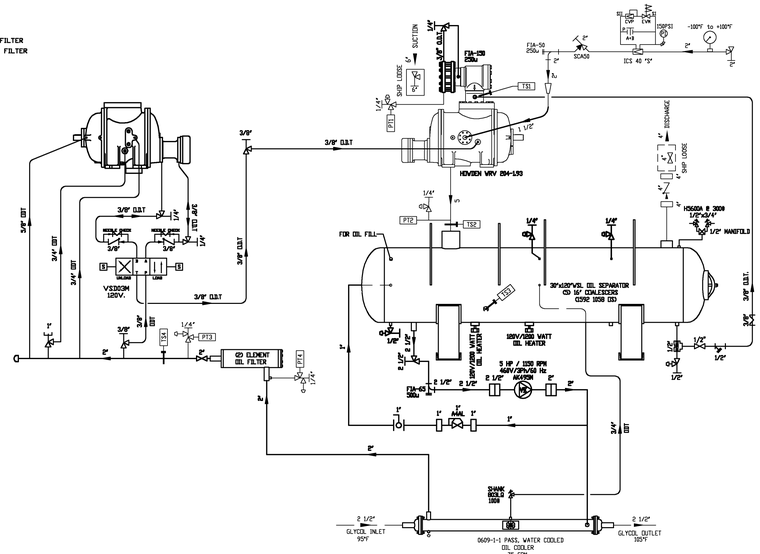
JOB NO. 03019
DRAWN: GLW
CHECKED: RAS
SCALE: 1/4"=1'-0"

R504
DRAWING NO.

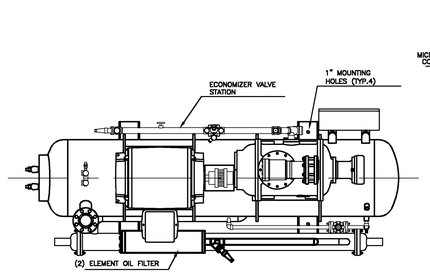
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PT1	0-200 PSIA	SUCTION PRESSURE
PT2	0-500 PSIG	DISCHARGE PRESSURE
PT3	0-500 PSIG	OIL PRESSURE AFTER OIL FILTER
PT4	0-500 PSIG	OIL PRESSURE BEFORE OIL FILTER
TS1	-58°F ; 122°F	SUCTION TEMPERATURE
TS2	32°F ; 302°F	DISCHARGE TEMPERATURE
TS3	32°F ; 302°F	OIL SUMP TEMPERATURE
TS4	32°F ; 302°F	OIL TEMPERATURE

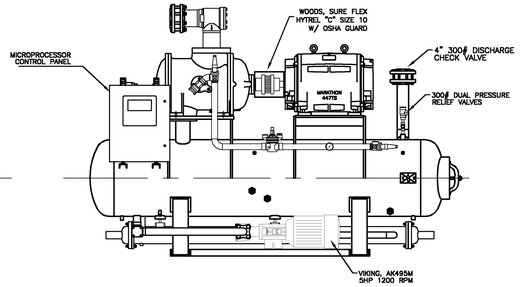
SYMBOL	DESCRIPTION
	DUAL PRESSURE RELIEF VALVE WITH DUAL MANIFOLD
	PRESSURE RELIEF VALVE
	NEEDLE VALVE
	NEEDLE CHECK VALVE
	REDUCER
	BALL VALVE
	ANGLE VALVE
	HAND EXPANSION VALVE
	GLOBE VALVE
	CHECK VALVE
	THREADED PLUG
	SOLENOID VALVE
	TRANSDUCER VALVE
	STRAINER
	SITE GLASS
	FLANGED CONNECTION
	PRESSURE REGULATOR
	COMPRESSOR CONNECTION
PT	PRESSURE TRANSDUCER
TS	TEMPERATURE TRANSDUCER
	FLOW ARROW WITH LINE SIZE
	OIL MIXING VALVE



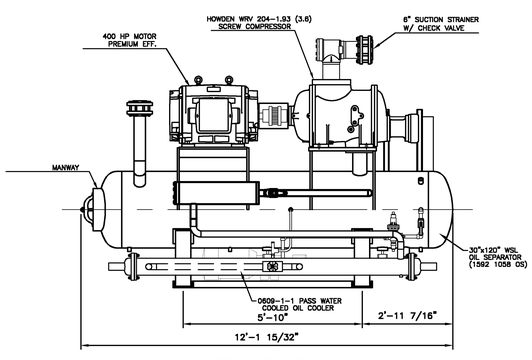
PIPING AND INSTRUMENTAION DIAGRAM



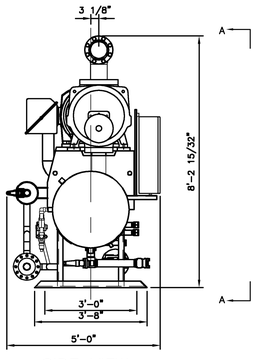
PLAN VIEW



VIEW A-A



FRONT VIEW



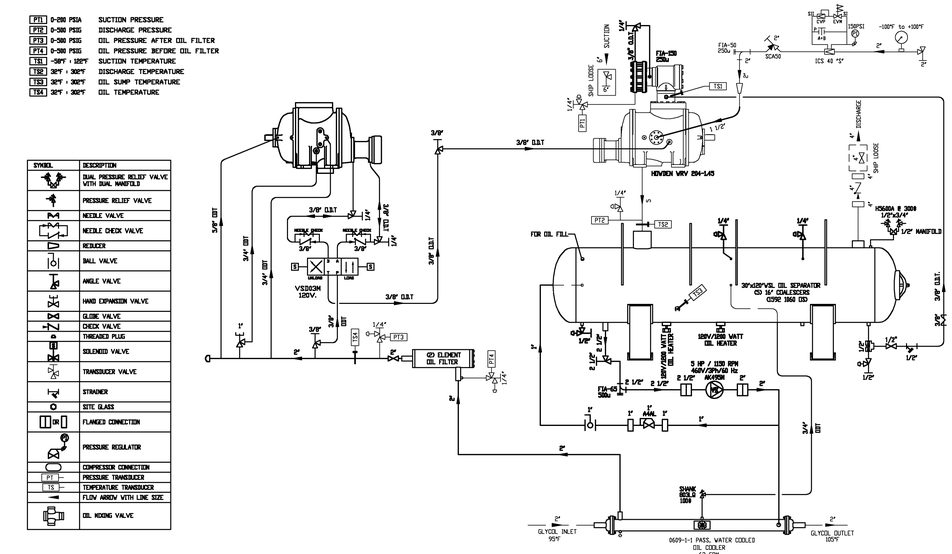
SIDE VIEW

M&M MODEL H96EWF SCREW COMPRESSOR

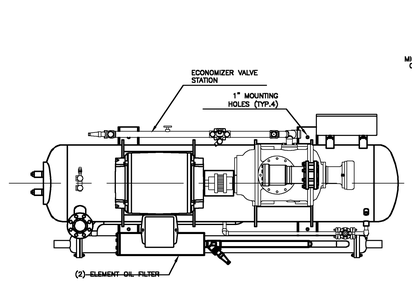
OIL SEPARATOR 30" ø x 120" OAL

SCALE: 1/2" = 1'-0"

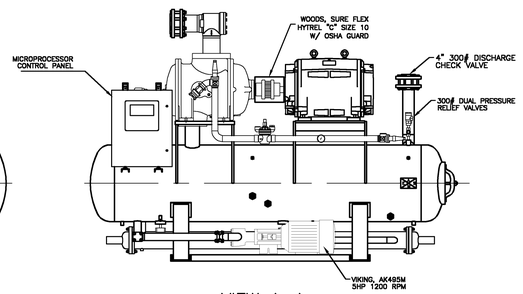
0 1' 2' 4'



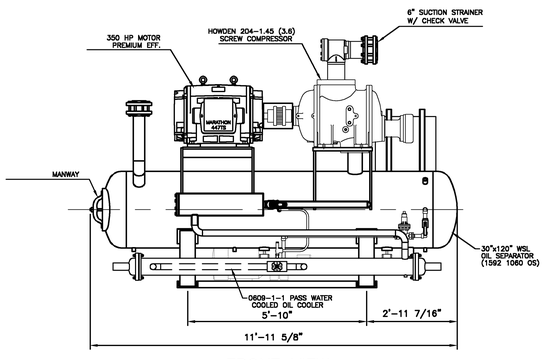
PIPING AND INSTRUMENTAION DIAGRAM



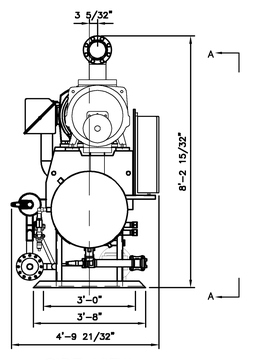
PLAN VIEW



VIEW A-A



FRONT VIEW



SIDE VIEW

M&M MODEL H74EWF SCREW COMPRESSOR

OIL SEPARATOR 30" ø x 120" OAL

SCALE: 1/2" = 1'-0"

0 1' 2' 4'

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M&M MODEL H96EWF AND H74EWF SCREW COMPRESSOR DETAILS

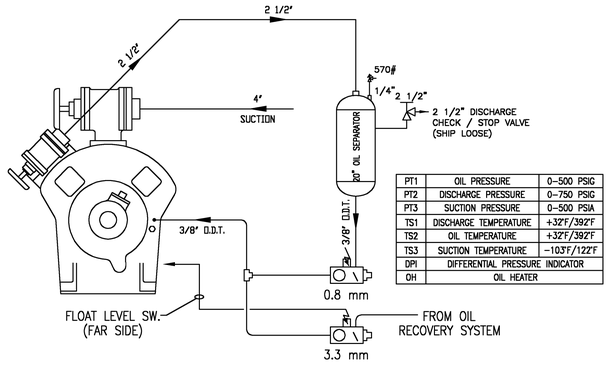
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REV.	DATE	BY	DESCRIPTION
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CHECKED:	RAS
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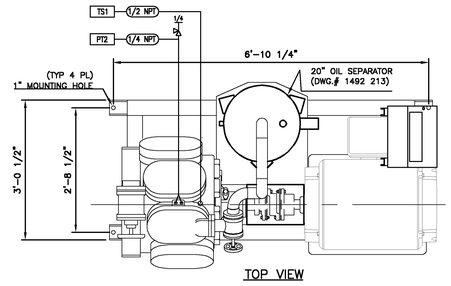
R505
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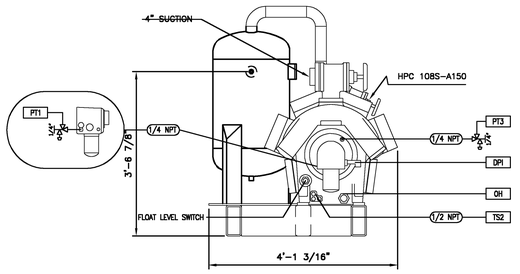


PT1	OIL PRESSURE	0–500 PSIG
PT2	DISCHARGE PRESSURE	0–750 PSIG
PT3	SUCTION PRESSURE	0–500 PSIA
TS1	DISCHARGE TEMPERATURE	+32°F/392°F
TS2	OIL TEMPERATURE	+32°F/392°F
TS3	SUCTION TEMPERATURE	–103°F/122°F
DPI	DIFFERENTIAL PRESSURE INDICATOR	
OH	OIL HEATER	

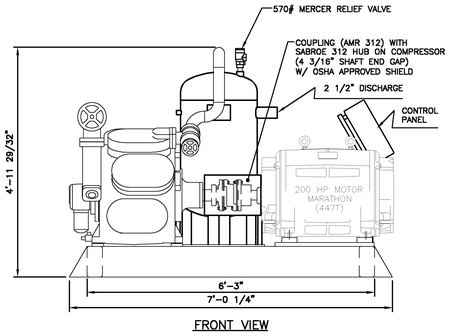
PIPING AND INSTRUMENTAION DIAGRAM



TOP VIEW



SIDE VIEW



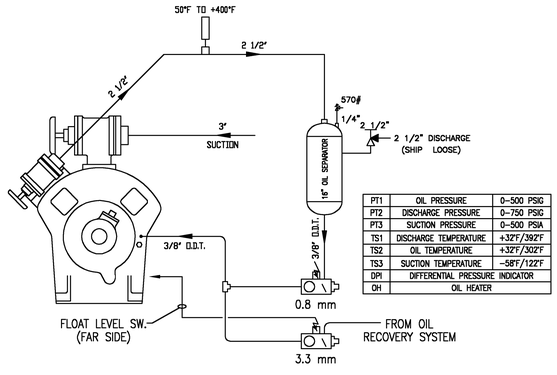
FRONT VIEW

M&M MODEL HPC108S RECIPROCATING COMPRESSOR

OIL SEPARATOR 20" DIA.

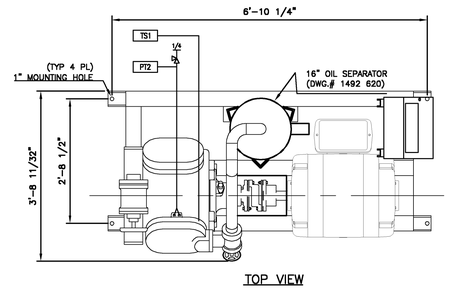
SCALE: 3/4 = 1'–0"

0 1' 2' 3'

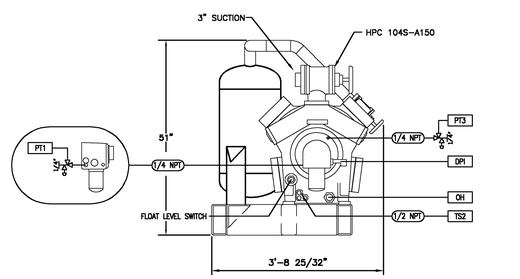


PT1	OIL PRESSURE	0–500 PSIG
PT2	DISCHARGE PRESSURE	0–750 PSIG
PT3	SUCTION PRESSURE	0–500 PSIA
TS1	DISCHARGE TEMPERATURE	+32°F/392°F
TS2	OIL TEMPERATURE	+32°F/302°F
TS3	SUCTION TEMPERATURE	–58°F/122°F
DPI	DIFFERENTIAL PRESSURE INDICATOR	
OH	OIL HEATER	

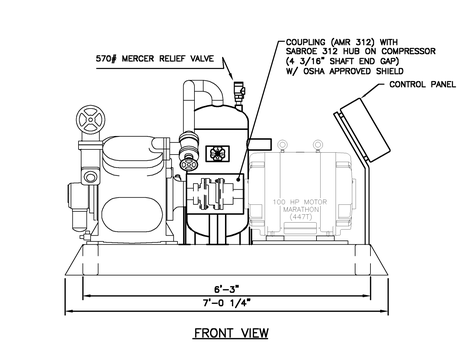
PIPING AND INSTRUMENTAION DIAGRAM



TOP VIEW



SIDE VIEW



FRONT VIEW

M&M MODEL HPC104S RECIPROCATING COMPRESSOR

OIL SEPARATOR 16" DIA.

SCALE: 3/4 = 1'–0"

0 1' 2' 3'

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FLORIDA ENGINEERING LICENSE NO. 28301

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

M&M MODEL HPC104S AND HPC108S RECIPROCATING COMPRESSOR DETAIL

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REV.	DATE	BY	DESCRIPTION
A		GLW	PERMIT ISSUE

JOB NO.	03019
DRAWN:	GLW
CHECKED:	RAS
SCALE:	3/4"=1'–0"

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DATE: 06–28–2007

R506
DRAWING NO.

Filename: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Refrig\03019R702.dwg Last Saved By: GWHITE Date: 6/29/2007 3:36:04 PM Plotted: 7/2/2007 9:51:11 AM

EVAPORATOR SCHEDULE PHASE 1

QTY.	TAG No.	LOCATION	BASIC RATING (TD)	OPERATING DATA: CAPACITY (TR @ °TD)	TYP FEED	FINS/ INCH	COIL MAT'L	ROOM TEMP	COIL TEMP	OPERATING WEIGHT (lbs)	DEFROST ELECTRIC (KW)	NORMAL REFRIG CHARGE (Cu. Ft.)	EQUIPMENT DATA: FANS QTY	FANS TYPE	FANS DRIVE	FAN MOTORS QTY	FAN MOTORS HP	FAN MOTORS RPM	FAN MOTORS V/Ø	PAN	CASING	MANUFACTURER MODEL	REMARKS	MCP MAIN BREAKER SIZE
1	AU2051	USDA	16	5	REC.	4	STN. STEEL	+36	+20	586	7.0	0.72	1	PROP.	DIRECT	1	0.5	1160	460/3/60	STN. STEEL	STN. STEEL	SSTW1-00383-4		MCP #1 500 AMPS
6	AU1101 THRU AU1106	TRUCK DOCK	15	20	REC.	4	STN. STEEL	+35	+20	1850	29.9	2.8	3	PROP.	DIRECT	3	0.75	870	460/3/60	GALV. STEEL	GALV. STEEL	TFCSM3 3964-075N		MCP #2 400 AMPS
4	AU1011 THRU AU1014	FREEZER	10.5	63	REC.	3	STN. STEEL	-10	-20	6922	121.1	11.1	3	PROP.	DIRECT	3	10	1750	460/3/60	GALV. STEEL	GALV. STEEL	TFCS3 91103-10M	PENTHOUSE VFD RETURN HOODS	MCP #4 500 AMPS
4	AU1031 AU1032 AU1021 AU1022	CONVERT.	10	30	REC.	3	STN. STEEL	+36 / -10	+20 / -20	4796	86.46	7.8	2	PROP.	DIRECT	2	3.0	870	460/3/60	GALV. STEEL	GALV. STEEL	TFCS2 63103-30010	PENTHOUSE VFD RETURN HOODS	MCP #3 250 AMPS
1	AU2091	ELECT. ROOM	20	5	REC.	-	COPPER	+70	+50	-	-	-	1	PROP.	DIRECT	1	2.0	-	460/3/60	GALV. STEEL	GALV. STEEL	-	GLYCOL AIR CONDITION COIL	MCP #1 500 AMPS

EVAPORATIVE CONDENSER SCHEDULE PHASE 1 & 2

TAG No.	LOCATION	OPERATING DATA: REFRIG TYPE	RATED HEAT REJECTION (MBH)	ENTERING AIR WET BULB (°F)	SATURATED CONDENSING (°F AT PSIG)	EQUIPMENT DATA: FANS QTY	FANS TYPE	FANS DRIVE	FAN MOTORS QTY	FAN MOTORS HP	FAN MOTORS SERVICE FACTOR	FAN MOTORS V/ø/HZ	WATER SUMP TYPE	INTEGRAL PUMP HP	INTEGRAL PUMP GPM	INTEGRAL PUMP V/Ø	MANUFACTURER MODEL	REMARKS	MPC MAIN BREAKER SIZE
EC-1	ENGINE ROOM ROOF	NH3	13,640	78°	95°	2	VFD	BELT	2	25	1.15	460/3/60	IN CONDENSER	(2) 7.5	2400	460/3/60	ATC 1364B	4 - 9KW HEATERS ONE SECTION HAS A SPLIT COIL FOR GLYCOL COOLING	MPC #1 500 AMPS
EC-2 (FUTURE)	ENGINE ROOM ROOF	NH3	13,640	78°	95°	2	VFD	BELT	2	25	1.15	460/3/60	IN CONDENSER	(2) 7.5	2400	460/3/60	ATC 1364B	4 - 9KW HEATERS ONE SECTION HAS A SPLIT COIL FOR GLYCOL COOLING	MPC #1 - AMPS

REFRIGERATION COMPRESSOR SCHEDULE

TAG No.	LOCATION	OPERATING DATA: REFRIG TYPE	STAGE	SATURATED SUCTION (°F AT PSIG)	SATURATED CONDENSING (°F AT PSIG)	RATED CAPACITY (TR)	RATED BHP	RPM	EQUIPMENT DATA: COMP TYPE	MOTOR DRIVE	MOTOR V/ø/HZ	MOTOR PE HP	MOTOR RPM	MOTOR TYPE	MOTOR SERVICE FACTOR	MOTOR MFG FRAME	MANUFACTURER MODEL	REMARKS	MAIN BREAKER SIZE
RC-1	ENGINE ROOM	CO2	LOW	-25	+20 407.5	116	85	1170	PISTON	DIRECT	460/3/60	100	1200	ODP	1.15		HPC 104S	SOLID STATE STARTER	225 AMPS
RC-2	ENGINE ROOM	CO2	LOW	-25	+20 407.5	231	168	1170	PISTON	DIRECT	460/3/60	200	1200	ODP	1.15		HPC 108S	SOLID STATE STARTER	400 AMPS
SC-1	ENGINE ROOM	NH3	HIGH	+11 24.7	+95 181	255	303	3550	SCREW	DIRECT	460/3/60	350	3600	ODP	1.15		H74EWF	SOLID STATE STARTER	700 AMPS
SC-2	ENGINE ROOM	NH3	HIGH	+11 24.7	+95 181	317	365	3550	SCREW	DIRECT	460/3/60	400	3600	ODP	1.15		H96EWF	SOLID STATE STARTER	800 AMPS

PUMP SCHEDULE

TAG No.	LOCATION	DESCRIPTION	MOTOR HP	MOTOR RPM	MOTOR V/ø/HZ	MANUFACTURER MODEL	REMARKS	MPC MAIN BREAKER SIZE
P-1,2	ENGINE ROOM	11° NH3 LIQUID PUMPS	5.5	3500	460/3/60	WITT 8050	12 AMPS	MCP #1 500 AMPS
P-3,4 5 (FUTURE)	ENGINE ROOM	-25° CO2 LIQUID PUMPS	11.4	3500	460/3/60	WITT 10080	22 AMPS	MCP #1 500 AMPS
P-6,7 8 (FUTURE)	ENGINE ROOM	+20° CO2 LIQUID PUMPS	11.4	3500	460/3/60	WITT 10080	22 AMPS	MCP #1 500 AMPS
P-9,10	ENGINE ROOM	UNDER FLOOR OIL COOLER GLYCOL PUMPS	10	1750	460/3/60	B&G 3E	300 GPM @ 80 FT.	MCP #1 500 AMPS
P-11,12 (FUTURE)	ENGINE ROOM	-58° CO2 LIQUID PUMPS	-	-	460/3/60	WITT		

EXHAUST FANS

LOCATION	HP	V/Ø
ENG. ROOM	-	460/3/60
ENG. ROOM	-	460/3/60

AIR PURGER

MODEL HANSEN AP16

MCP'S

LOCATION	MAIN BREAKER SIZE	DIMENSION
MCP #1	500 AMPS	78"H x 72"W x 24"D
MCP #2	400 AMPS	78"H x 38"W x 24"D
MCP #3	250 AMPS	78"H x 118"W x 24"D
MCP #4	500 AMPS	78"H x 118"W x 24"D

VESSEL & HEAT EXCHANGER SCHEDULE

TAG No.	LOCATION	DESCRIPTION	DIMENSIONS	OPERATING DATA: DWP (PSI)	DWT (°F)	RELIEFS	REMARKS
HEX 1-2	ENGINE ROOM	CO2 CONDENSER	____"x____"	580			MODEL 5HH-465/1/1
V1	ENGINE ROOM	NH3/CPR +50°	VERT 42"x145"	250			
V2	ENGINE ROOM	NH3 PUMP PKG +11°	HORZ 84"x143"	250			
V3	ENGINE ROOM	CO2/HPR PUMP PKG. +20°	HORZ 54"x224"	580			
V4	ENGINE ROOM	CO2 PUMP PKG -25°	VERT 72"x161"	350			
V5	ENGINE ROOM	CO2 OIL RETURN POT	HORZ 16"x72"	580			
FUTURE V6	ENGINE ROOM	CO2 PUMP PKG -58°	VERT 42"x145"	350			
HEX 7	ENGINE ROOM	GLYCOL HEAT EXCHANGER	-	300#			ALFA LAVAL M10 WITH 46 CASSETTES

NOTE:
VESSELS V1, V2, V3, V4 ARE SIZED FOR 3 PHASES.

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

EQUIPMENT SCHEDULES

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REV.	DATE	BY	DESCRIPTION
A	06/28/07	GLW	PERMIT ISSUE

JOB NO. 03019
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CHECKED: RAS
SCALE: NONE

R601
DRAWING NO.

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MACHINE ROOM P & ID

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—— = SUPPLIED BY M&M REFRIGERATION

[X] = RECOMMENDED INSULATION THICKNESS

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NEW FACILITY
LAKE CITY, FLORIDA

MACHINE ROOM P & ID

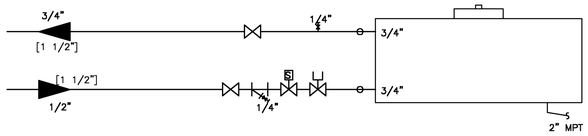
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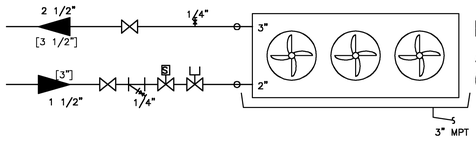
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SCALE:	NONE

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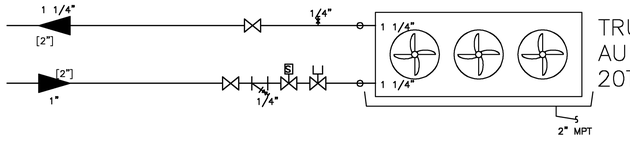
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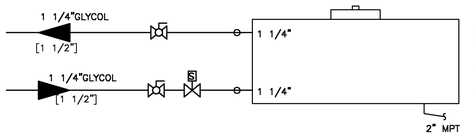
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AU2051
5TR,@ 20°F



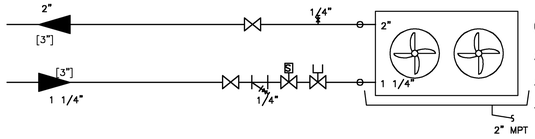
FREEZER
AU1011 – AU1014
63TR EACH, @ –25°F



TRUCK DOCK
AU1101 – AU1106
20TR EACH, @ 20°F



ELECTRICAL ROOM
AU2091
5TR,@ 40°F



CONVERTIBLE ROOM
AU1031, AU1032,
AU1021, AU1022
30TR EACH, @ –25°F

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A	06-28-07	GLW	

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R702
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REINFORCED CONCRETE NOTES

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. THE USE OF FLY ASH IS PROHIBITED. CONCRETE MIX DESIGNS SHALL BE SUBMITTED AND APPROVED PRIOR TO CASTING ANY CONCRETE.
3. ALL CONCRETE PLACED SHALL BE VIBRATED BY MECHANICAL VIBRATORS.
4. COMPLETE FABRICATION AND PLACING DRAWINGS FOR REINFORCING STEEL SHALL BE SUBMITTED FOR APPROVAL. NO FABRICATION MAY BEGIN UNTIL DRAWINGS ARE COMPLETED AND APPROVED.
5. LAP SPLICES FOR REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 318. SPLICES SHALL BE AS CALLED FOR IN THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".
6. REINFORCING OF ALL CONCRETE MEMBERS SHALL HAVE THE FOLLOWING CLEAR CONCRETE COVER.

CAST-IN-PLCAE CONCRETE:	COVER (INCHES)
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 BARS THROUGH #18 BARS	2
#5 BARS OR SMALLER	1 1/2
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH:	
SLAB AND WALLS:	
#14 AND #18 BARS	1 1/2
#11 BARS AND SMALLER	3/4
COLUMNS:	
PRIMARY REINFORCEMENT, TIES, STIRRUPS AND SPIRALS	1 1/2

PRECAST CONCRETE:	COVER (INCHES)
CONCRETE EXPOSED TO EARTH OR WEATHER:	
WALL PANELS:	
#14 & #18 BARS	1 1/2
#11 BARS OR SMALLER	3/4

7. THE CONTRACTOR SHALL PROVIDE CHAIRS AT 4'-0" CENTER TO CENTER TO SUPPORT WIRE MESH WHILE CASTING SLAB. PULL FABRIC UP BETWEEN SUPPORTS TO PROVIDE 2" CLEARANCE TO TOP OF SLAB. MINIMUM SIDE AND END LAP ON FABRIC SHALL BE ONE WIRE SPACE.
8. SPLICE WELDING OF REINFORCING STEEL SHALL BE DONE IN STRICT ACCORDANCE WITH THE AMERICAN WELDING SOCIETY "REINFORCING STEEL WELDING CODE". PREHEATING OF THE REINFORCING SHALL BE BASED ON THE CARBON EQUIVALENCY DETERMINED FROM REINFORCING MILL REPORTS. GRADE 40 REINFORCING SHALL BE WELDED WITH E90XX LOW HYDROGEN ELECTRODES.
9. MANUAL WELDING OF REINFORCING BARS FOR EMBEDS IS NOT ALLOWED.
10. CONCRETE WALLS SHALL BE REINFORCED AROUND ALL OPENINGS WITH 2-#5 BARS ON ALL SIDES AND EXTENDED 2'-0" BEYOND OPENING UNLESS NOTED OTHERWISE.
11. THE LONGITUDINAL REINFORCING STEEL IN BOND BEAMS, WALLS AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS. SEE TYPICAL DETAILS THIS SHEET.
12. CHAMFER EXPOSED EDGES OF COLUMNS AND BEAMS 3/4".
13. SAWN JOINTS IN SLABS-ON-GRADE SHALL SHALL BE CUT AS SOON AS POSSIBLE AFTER THE CONCRETE HARDENS. JOINTS CAN BE CUT WITH A POWER BLADE WITHIN 4 TO 12 HOURS AFTER THE SLAB HAS BEEN PLACED AND FINISHED. JOINTS MUST BE CUT AS SOON AS THE CONCRETE IS FIRM ENOUGH NOT TO BE TORN OR DAMAGED BY THE BLADE. THE CONCRETE IS HARD ENOUGH WHEN THE BLADE DOES NOT DISLODGE ANY AGGREGATE AND WHEN THE EDGES OF THE CUT DO NOT RAVEL.
14. CONTROL JOINTS IN ALL FOUNDATION AND RETAINING WALLS SHALL BE PLACED NOT MORE THAN 15'-0" APART AND SHALL BE 3/4" V-CHAMFERED ON BOTH SIDES, UNLESS NOTED OTHERWISE. EXPANSION JOINTS SHALL BE LOCATED AS NOTED ON THE PLANS. SEE DETAILS THIS SHEET.

REINFORCED MASONRY NOTES

1. ALL MASONRY CONSTRUCTION SHALL COMPLY WITH ACI 530-05/ASCE 5-05/ TMS 402-05 " BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
2. LAP VERTICAL BARS 48 DIAMETERS WITH WIRE TIES.
3. GROUT ALL CELLS CONTAINING VERTICAL REINFORCEMENT IN 4'-0" LIFTS MAXIMUM. DO NOT BEGIN PLACEMENT OF GROUT UNTIL ALIGNMENT OF CELLS ARE INSPECTED AND APPROVED.
4. FILL ALL CELLS BELOW FINISHED GRADE.
5. PROVIDE #9 GALV. HORIZONTAL JOINT REINFORCEMENT IN WALLS AT 16" O.C. VERTICALLY UNLESS NOTED OTHERWISE. PROVIDE HORIZONTAL JOINT REINFORCEMENT IN BOND BEAMS AT 8" O.C. VERTICALLY. LAP JOINT REINFORCEMENT 12" O.C. MINIMUM.
6. PROVIDE HORIZONTAL JOINT REINFORCEMENT AT 32" O.C. ACROSS VERTICAL CONTROL JOINTS IN WALLS AT 16" O.C. & ACROSS VERTICAL CONTROL JOINTS IN BOND BEAMS. TOP AND BOTTOM REINFORCEMENT IN SPANDREL BEAMS SHALL BE CONTINUOUS ACROSS CONTROL JOINTS.
7. PROVIDE VERTICAL CONTROL JOINTS AT 24'-0" O.C. MAXIMUM LOCATE BOND BEAM CONTROL JOINTS AT CENTERLINE OF COLUMNS. SEE DETAIL THIS SHEET.
8. PROVIDE 1-#5 BAR VERTICAL MINIMUM AT ALL CORNERS, INTERSECTIONS AND EACH SIDE OF CONTROL JOINTS.
9. PROVIDE 2-#5 BARS VERTICAL AT 8" O.C. AT END WALLS.
10. PROVIDE 1-#5 BAR VERTICAL MINIMUM EACH SIDE OF OPENING 4'-0" WIDE OR LESS. PROVIDE 2-#5 BARS VERTICAL MINIMUM 8" O.C. ON EACH SIDE OF OPENING GREATER THAN 4'-0".
11. ALL REINFORCED HOLLOW UNIT MASONRY SHALL BE BUILT TO PRESERVE THE UNOBSTRUCTED VERTICAL CONTINUITY OF THE CELLS TO BE FILLED. WALLS AND CROSS WEBS FORMING SUCH CELLS TO BE FILLED SHALL BE FULL-BEDDED IN MORTAR TO PREVENT LEAKAGE OF GROUT. ALL HEAD (OR END) JOINTS SHALL BE SOLIDLY FILLED WITH MORTAR FOR A DISTANCE IN FROM THE FACE OF THE WALL OR UNIT NOT LESS THAN THE THICKNESS OF THE LONGITUDINAL FACE SHELLS. SHALL BE PROVIDED BY LAPPING UNITS IN SUCCESSIVE VERTICAL COURSES OR BY EQUIVALENT MECHANICAL ANCHORAGE.
12. VERTICAL CELLS TO BE FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS, VERTICAL CELL MEASURING NOT LESS THAN 3" AND HAVING A CLEAR AREA OF 10 SQUARE INCHES.
13. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 10 FEET.
14. WHEN THE GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF GROUT NOT LESS THAN 1/2" BELOW THE TOP OF THE UPPERMOST UNIT GROUTED.
15. WHERE LINTELS BEAR ON MASONRY WALLS, THEY SHALL BEAR ON EITHER A BOND BEAM COURSE OR CORES GROUTED SOLID. ALL LINTELS SHALL HAVE AT LEAST 8" OF BEARING AT EACH END UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL GENERAL NOTES

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO 1989 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" OF THE A.I.S.C.
2. FABRICATORS AND ERECTORS SHALL BE MEMBERS OF THE A.I.S.C. OR CERTIFIED FOR CATEGORY I, A.I.S.C. QUALITY CERTIFICATION PROGRAM OR HAVE HAD AT LEAST 10 YEARS EXPERIENCE IN FABRICATION AND ERECTION OF SIMILAR STEEL STRUCTURES.
3. SHOP DRAWINGS FOR ALL STRUCTURAL STEEL SHALL BE SUBMITTED AND APPROVED PRIOR TO ANY FABRICATION.
4. STEEL FRAMING CONNECTIONS SHALL BE BOLTED OR WELDED. ALL CONNECTIONS SHALL HAVE A MINIMUM OF 2-3/4" DIAMETER ASTM A325N BOLTS OR EQUIVALENT WELD. ALL BOLTED CONNECTIONS SHALL BE "SNUG TIGHT" UNLESS NOTED OTHERWISE. TC BOLTS MAY BE USED.
5. THE CONTACT SURFACES WITHIN SLIP CRITICAL JOINTS SHALL BE FREE FROM OIL, PAINT, LACQUER OR GALVANIZING.
6. ROOF DECKING SHALL BE INSTALLED IN ACCORDANCE WITH THE STEEL DECK INSTITUTE AND MANUFACTURER'S RECOMMENDATIONS. DECKING SHALL BE PLACED IN A THREE-SPAN CONTINUOUS CONDITION. SINGLE OR DOUBLE SPAN CONDITIONS REQUIRE PRIOR APPROVAL BY THE STRUCTURAL ENGINEER.
7. BEAMS SHALL BE FABRICATED AND ERECTED WITH NATURAL CAMBER UP.
8. ALL WELDS SHALL CONFORM TO AWS D1.1-2000, "STRUCTURAL WELDING CODE". ALL GROOVE WELDS SHOWN ON CONTRACT DOCUMENTS SHALL BE FULL PENETRATION UNLESS NOTED OTHERWISE. WELDING SHALL BE DONE WITH E-70XX ELECTRODES UNLESS NOTED OTHERWISE.
9. STRUCTURAL STEEL EMBEDDING IN CONCRETE SHALL NOT BE PAINTED.
10. GROUT USED IN GROUT BEDS UNDER COLUMN BASE PLATES SHALL BE CEMENT BASED, NON-SHRINK GROUT. THE GROUT SHALL EXHIBIT NO SHRINKAGE IN ACCORDANCE WITH ASTM C827-82, "TEST METHOD FOR EARLY VOLUME CHANGE OF CEMENTITIOUS MIXTURES" AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5000 PSI WHEN TESTED IN ACCORDANCE WITH ASTM C-109-80, "TEST METHOD FOR COMPRESSIVE STRENGTH OF HYDRAULIC CEMENT MORTARS".
11. SHOP OR FIELD SPLICES NOT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.
12. STRUCTURAL STEEL FRAMING SHALL BE ERECTED TRUE AND PLUMB IN ACCORDANCE WITH A.I.S.C. CODE OF STANDARD PRACTICE. ANY FRAMING EXCEEDING TOLERANCES OF THE CODE OF STANDARD PRACTICE SHALL BE CORRECTED AS DIRECTED BY THE STRUCTURAL ENGINEER.
13. THE STRUCTURAL STEEL ERECTOR SHALL PROVIDE TEMPORARY BRACING OF THE STRUCTURAL STEEL FRAME WORK AGAINST LATERAL LOADINGS SUCH AS WIND. THE BRACING SHALL REMAIN IN PLACE UNTIL THE FINAL SYSTEM FOR RESISTING LATERAL LOADS IS IN PLACE AND EFFECTIVE AS APPROVED BY THE STRUCTURAL ENGINEER.
14. UNLESS OTHERWISE SHOWN, ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED OR SEATED CONNECTIONS. DESIGN ALL FRAMED BEAM END CONNECTIONS FOR THE REACTIONS SHOWN IN THE PLANS. IN NO CASE, HOWEVER, SHALL THE LENGTH OF THE FRAMED CONNECTIONS BE LESS THAN ONE-HALF OF THE "T" DISTANCE OF THE BEAM WEB.
15. GUSSET PLATES SHALL BE 3/8" THICK MINIMUM.
16. WHERE PRACTICAL, UNLESS SHOWN DIFFERENTLY ON DRAWINGS, ALL BRACING CONNECTIONS SHALL BE DESIGNED AND DETAILED SO THAT ALL FORCE COMPONENTS CAN BE DELIVERED DIRECTLY TO THE CENTERLINE OF INTERSECTING MEMBERS. WHERE THIS IS NOT DONE, CONNECTIONS SHALL BE DESIGNED TO ACCOUNT FOR RESULTING ECCENTRICITIES.
17. TRUSSES TO BE ALL WELDED CONSTRUCTION, UNLESS NOTED OTHERWISE. WHERE BOLTS ARE USED, BOTTOM CHORDS SHALL BE DETAILED TO PRODUCE NO REDUCTION OF GROSS SECTION DUE TO SLOT HOLES.
18. (- OR T) INDICATES TENSION IN MEMBERS. (+ OR C) INDICATES COMPRESSION IN MEMBERS.
19. ALL TRUSSES, BOTTOM CHORD BRACING, SWAY FRAMES, X-BRACING, LACE AND SIMILAR TYPE MEMBERS SHALL EITHER DEVELOP THE FORCE INDICATED ON THE DRAWINGS OR ONE-HALF THE ALLOWABLE TENSION FORCE IN THE MEMBER, WHICHEVER IS LARGER.
20. BAR JOISTS SHALL BE FABRICATED AND ERECTED, BRACED WITH RIGID BRIDGING AND ANCHORED TO THE SUPPORTING MEMBERS IN STRICT ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE STEEL JOIST INSTITUTE LATEST EDITION.
21. PROVIDE JOISTS AS SHOWN ON PLANS. EXTEND BOTTOM CHORD OF JOISTS AT COLUMNS.
22. JOISTS AND JOIST GIRDERS SHALL BE DESIGNED FOR LOADS INDICATED ON PLANS. SEE DRAWING S600 FOR JOIST (SP) AND JOIST GIRDER (JGL) LOAD TABLES.
23. JOIST AND GIRDER FABRICATOR SHALL SUBMIT SIGNED AND SEALED CALCULATIONS BY A REGISTERED ENGINEER SHOWING ALL LOADS AND SPECIAL CONDITIONS TOGETHER WITH SHOP DRAWINGS PRIOR TO ERECTION OF JOISTS AND GIRDERS.
24. JOISTS AND GIRDERS SHALL BE DESIGNED FOR UPLIFT AS INDICATED ON PLANS. BOTTOM CHORD BRACES AND UPLIFT BRIDGING SHALL BE DESIGNED AND FURNISHED BY THE JOIST GIRDER MANUFACTURER.
25. WIND POSTS TERMINATE 1 1/2" BELOW JOIST AND JOIST GIRDER BOTTOM CHORD.
26. ALL JOIST GIRDERS SHALL HAVE BOTTOM CHORD BRACES AT MID SPANS TYPICALLY.
27. ALL SAG RODS ARE 5/8"ø.
28. STRUCTURAL STEEL SUPPORTS FOR STOREFRONTS, CURTAIN WALLS AND SKYLIGHTS SHALL BE AS SHOWN ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. ANY ADDITIONAL REINFORCEMENT AND CONNECTIONS REQUIRED FOR THE SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE MANUFACTURER.
29. ALL STRUCTURAL STEEL, MISCELLANEOUS STEEL AND STEEL JOISTS U.N.O. SHALL BE GIVEN ONE SHOP COAT AND ONE FIELD TOUCH UP PAINT, GRAY COLOR.
30. ROD BRACE CLEVIS PIN HOLE DIAMETER = PIN DIAMETER + 1/16" PIN DIAMETER = ROD DIAMETER
31. ROD BRACE CLEVIS GRIP = GUSSET PLATE THICKNESS + 1/4".
32. ROD BRACE TURNBUCKLE MUST BE WELL CLEAR OF SLOT IN GIRT.

INSPECTIONS

1. ANCHOR RODS:
   STEEL INSPECTOR TO VERIFY SIZE, PROJECTION, SPACING AND LOCATION OF ANCHOR RODS BEFORE CONCRETE IS PLACED.
2. STRUCTURAL STEEL:
   A. STEEL INSPECTOR TO VERIFY THAT BOLTED CONNECTIONS ARE TIGHTENED PER SPECIFICATIONS, THAT ROD BRACING IS TIGHT AND NOT RUBBING AGAINST GIRT HOLES.
   B. WELDING ADJACENT TO METAL PANELS TO BE INSPECTED BEFORE PANELS ARE SET.

DESIGN NOTES

DESIGN DATA:
FLORIDA BUILDING CODE 2004 EDITION W/ 2006 SUPPLEMENT
WIND DESIGN — BASIC WIND SPEED: 100 MPH; IMPORTANCE FACTOR: 1.0; CATEGORY: ENCLOSED BUILDING; EXPOSURE: C; INTERNAL PRESSURE COEFFICIENT: ±0.18
COMPONENTS & CLADDING PRESSURES: (10 SQ. FT. CONTRIBUTARY AREA)

		INT. ZONE	
WALL: END ZONE	POS. 25.0 PSF	POS. 25.0 PSF	
	NEG. -33.4 PSF	NEG. -27.1 PSF	
ROOF: CORNER	PERIMETER		FIELD
	POS. 11.1 PSF	POS. 11.1 PSF	POS. 11.1 PSF
	NEG. -69.1 PSF	NEG. -45.9 PSF	NEG. -27.3 PSF

SEISMIC — (SEISMIC NOT CONSIDERED PER CODE)
SOIL BEARING CAPACITY — 2500 PSF; UNIVERSAL ENGINEERING SCIENCES REPORT NO. 458560, DATED: MARCH 29, 2006

LIVE LOADS:

ROOF	20 PSF (WITH TRIBUTARY REDUCTIONS)
PENTHOUSE	40 PSF
MEZZANINE	100 PSF
CATWALK	40 PSF
STAIRS AND LANDINGS	100 PSF
INTERIOR WALLS	5 PSF
GROUND SNOW LOAD	0 PSF

DEAD LOADS:

SINGLE PLY ROOF MEMBRANE	1 PSF
ROOF INSULATION	2 PSF
METAL ROOF DECK	2 PSF
JOIST	3 PSF
MECH/ELEC/PLUMB	3 PSF
CEILING	2 PSF
SPRINKLER	CONVENTIONAL 3 PSF; ESFR 6 PSF

MATERIALS:

WIDE FLANGE STEEL	A572 OR A992 (50 KSI)
CHANNELS, ANGLES & PLATES	A36 (36 KSI)
RECTANGULAR STRUCTURAL TUBING	A500 GRADE B (46 KSI)
STANDARD PIPE	A53 GRADE B
HIGH STRENGTH BOLTS	A325N, A325TC
ANCHOR RODS	A36, A308 OR F1554 GRADE 36
STEEL JOISTS & JOIST GIRDERS	S.J.I.
METAL ROOF DECK	1 1/2", G60, TYPE B, 20 GA. AND 22 GA. (SEE DRAWING S601 FOR GUAGES AND FINISHES) ⚠1
METAL FLOOR DECK	1 1/2", PAINTED, 20 GA. COMPOSITE (SEE DRAWING S110)
WELDING ELECTRODES	E70XX
RIGID UNDER FLOOR INSULATION	MIN. COMPRESSIVE STRENGTH = 25 PSI
RIGID INSULATION BLOCK (LAST-A-FOAM R9330)	MIN. COMPRESSIVE STRENGTH = 1000 PSI
STEEL GRATING	A569
RAISED-PATTERN FLOOR PLATE	A786

CONCRETE (28 DAYS):

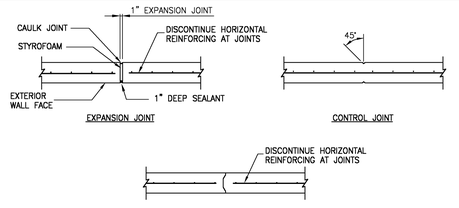
FOOTINGS	3000 PSI
WEAR SLAB/SLAB-ON-GRADE	4000 PSI ⚠1
SUB-SLAB	3000 PSI
TILT-UP PANELS	4000 PSI (2500 PSI AT 7 DAYS)
ALL OTHER CONCRETE	3000 PSI
PRECAST/PRESTRESSED CONCRETE	5000 PSI
REINFORCING STEEL	A615 GRADE 60
COMPOSITE STUDS	3/4"ø x 0'-3" LONG MEETING AWSD1.1
DEFORMED BAR ANCHORS (DBA)	A496
HEADED STUDS	A108
WELDED WIRE FABRIC	A185
STRAND	UNCOATED, ASTM-416 GRADE 270
ADHESIVE ANCHORING	REDHEAD A7 (ICC ER-5560) OR HILTI HIT HY150 (ICC ER-5193)

MASONRY

CONCRETE MASONRY UNIT (CMU)	C90, f'm = 1500 PSI
NET AREA ASSUMED; An	[FACE SHELL BEDDING] [FULL BEDDING] NCMA-TEK 141A
MORTAR	C270 TYPE M OR S BELOW GRADE, TYPE N ABOVE GRADE
GROUT	C476 2000 PSI

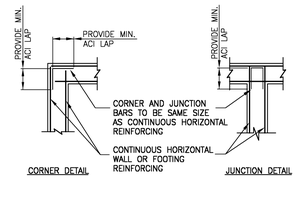
RACK DESIGN DATA:

MAXIMUM RACK POSTLOAD	3000#/PALLET, 5 HIGH
RACK LAYOUT	48" x 106"
UTILIZATION ASSUMED	85%
BASE PLATE	6" x 8" MIN. ø INT. POST



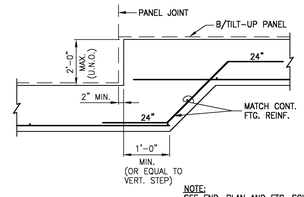
EXPANSION JOINT — CONTROL JOINT — CONSTRUCTION JOINT 1

FOUNDATION WALL JOINT DETAILS
N.T.S.



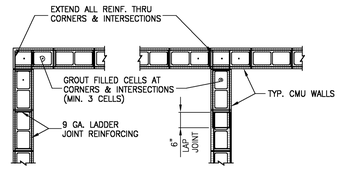
CORNER DETAIL — JUNCTION DETAIL

TYPICAL WALL AND FOOTING DETAILS
N.T.S.

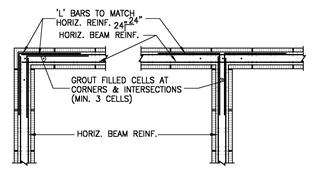


NOTE: SEE FND. PLAN AND FTG. SCHED. FOR FTG. SIZE AND REINF.

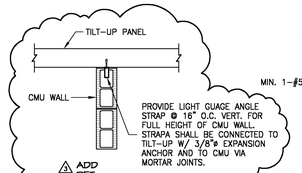
TYPICAL STEP FOOTING DETAIL
N.T.S.



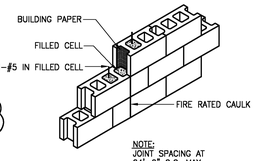
STANDARD JOINT REINFORCING
N.T.S.



TYPICAL TIE OR DOUBLE KNOCKOUT BLOCK BEAMS
N.T.S.

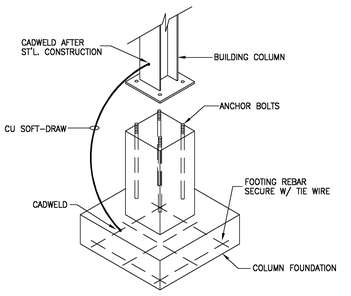


MASONRY WALL TIE TO TILT-IP PANEL
N.T.S.

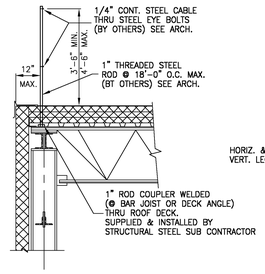


NOTE: JOINT SPACING AT 24'-0" O.C. MAX.

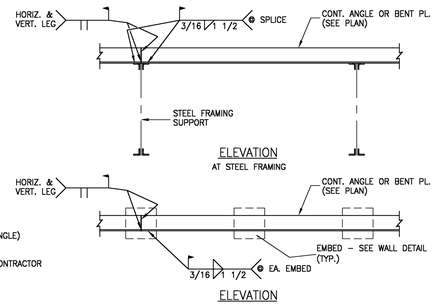
TYPICAL MASONRY WALL CONTROL JOINT
N.T.S.



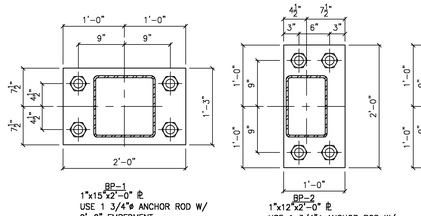
TYPICAL PERIMETER GROUNDED @ COLUMN DETAIL
N.T.S.
NOTE: SEE GROUNDING LOCATION DETAILS ON ELECTRICAL DRAWINGS.

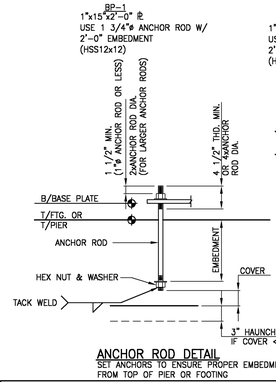


TEMPORARY CONSTRUCTION GUARD DETAIL @ ROOF EDGE
N.T.S.

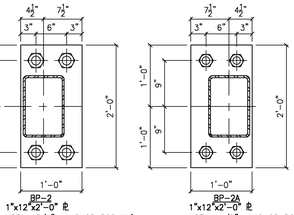


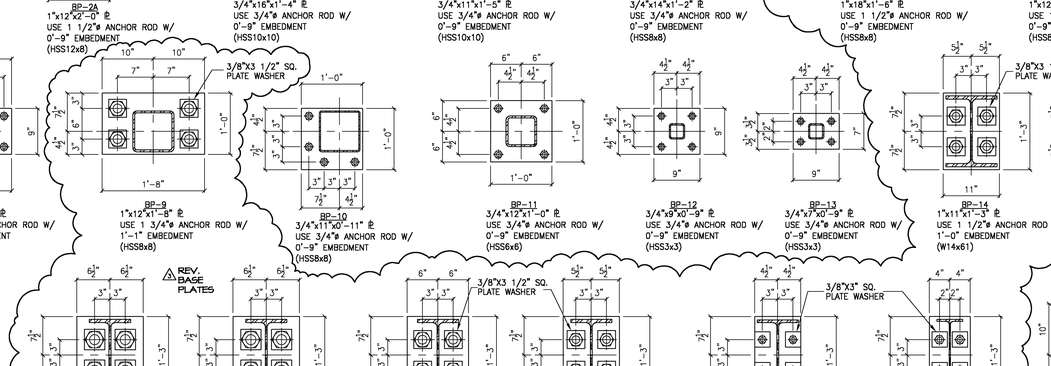
DIAPHRAM CHORD ANGLE SPLICE DETAIL
N.T.S.

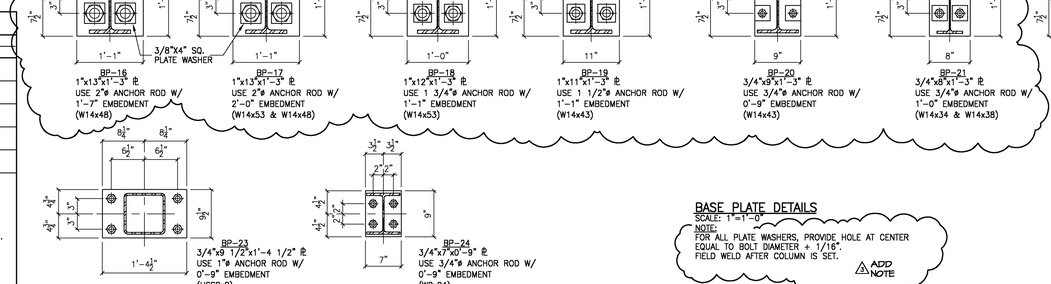




ANCHOR ROD DETAIL
SET ANCHORS TO ENSURE PROPER EMBEDMENT FROM TOP OF PIER OR FOOTING

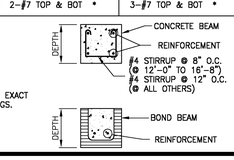






CONCRETE MASONRY LINTEL SCHEDULE

SPAN	DEPTH	REINFORCEMENT 8" WALL	REINFORCEMENT 12" WALL
UP TO 4'-0"	8"	2-#4 BOTTOM	
4'-0" TO 6'-0"	8"	2-#5 BOTTOM	
6'-0" TO 8'-0"	16"	2-#5 TOP & BOT *	
8'-0" TO 12'-0"	16"	2-#6 TOP & BOT *	2-#7 TOP & BOT *
12'-0" TO 16'-8"	16"	2-#7 TOP & BOT *	3-#7 TOP & BOT *



NOTES:
1. PROVIDE 8" MIN. BEARING EACH END.
2. REFER TO ARCH. & MECH. DWGS. FOR EXACT SIZE & LOCATION OF MASONRY OPENINGS.

* USE CONCRETE BEAM ONLY

BASE PLATE DETAILS
SCALE: 1"=1'-0"
NOTE: FOR ALL PLATE WASHERS, PROVIDE HOLE AT CENTER EQUAL TO BOLT DIAMETER + 1/16". FIELD WELD AFTER COLUMN IS SET.
⚠ADD NOTE

FLORIDA ENGINEERING LICENSE #53530
FLORIDA ARCHITECTURAL LICENSE #AR0015176
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

GENERAL DESIGN NOTES AND TYPICAL DETAILS

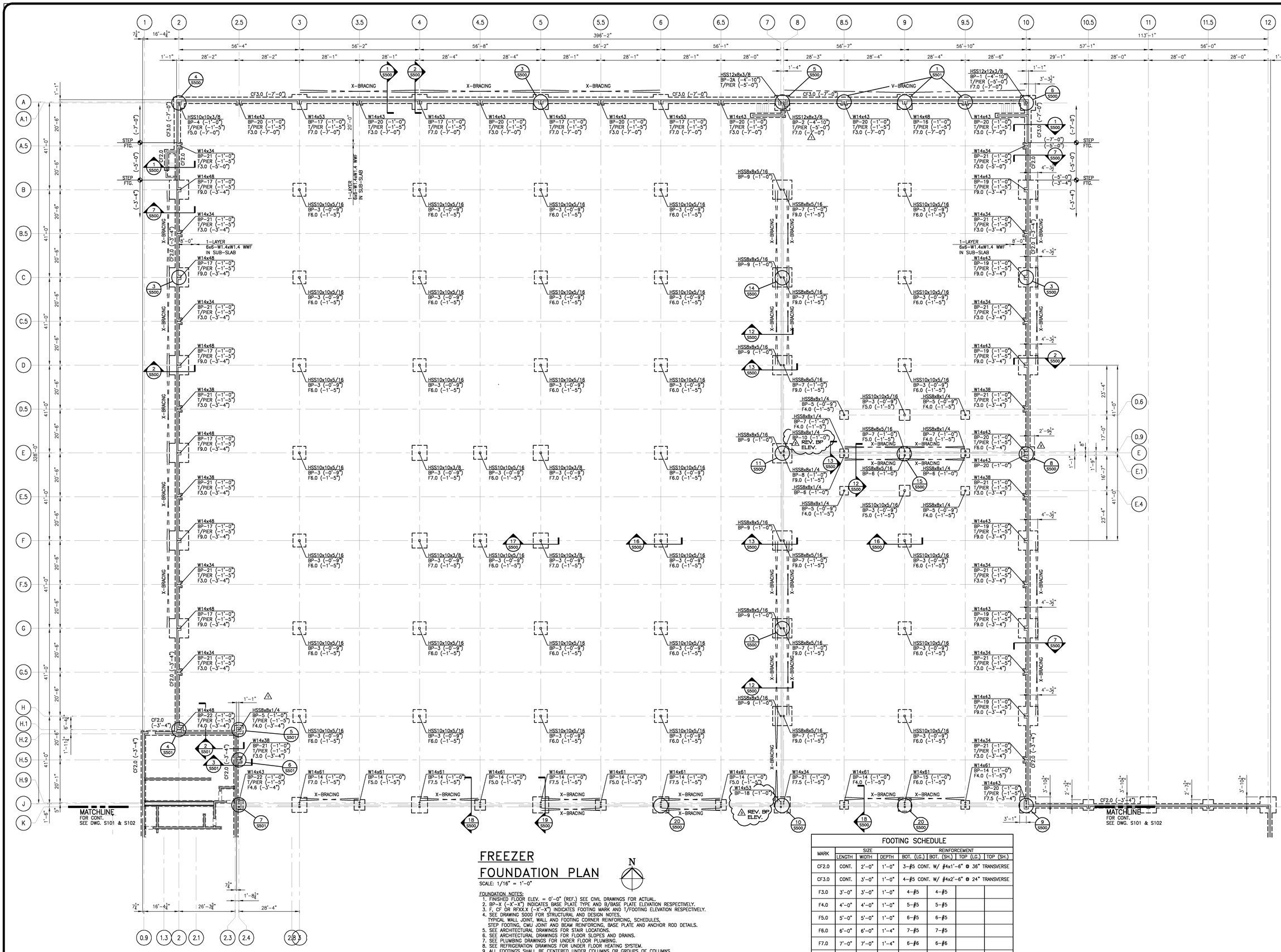
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REV.	DATE	BY	DESCRIPTION
3	6/22/2007	DLP	REVISED AS NOTED
2	6/15/2007	DLP	REVISED AS NOTED
1	4/06/2007	DLP	REVISED AS NOTED
0	2/22/2007	DLP	CONSTRUCTION ISSUE
E	2/22/2007	DLP	STEEL CONSTRUCTION REVISED ISSUE
D	2/22/2007	DLP	STRUCTURAL PERMIT REVISED ISSUE
C	2/22/2007	DLP	FOUNDATION PERMIT ISSUE
B	2/22/2007	DLP	FOUNDATION BID ISSUE
A	2/22/2007	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S000
DRAWING NO.

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FREEZER FOUNDATION PLAN

SCALE: 1/16" = 1'-0"

FOUNDATION NOTES:

1. FINISHED FLOOR ELEV. = 0'-0" (REF.) SEE CIVIL DRAWINGS FOR ACTUAL.
2. BP-X (-X'-X") INDICATES BASE PLATE TYPE AND B/BASE PLATE ELEVATION RESPECTIVELY.
3. F, CF OR RFXX.X (-X'-X") INDICATES FOOTING MARK AND T/FOOTING ELEVATION RESPECTIVELY.
4. SEE DRAWING S000 FOR STRUCTURAL AND DESIGN NOTES, TYPICAL WALL JOINT, WALL AND FOOTING CORNER REINFORCING, SCHEDULES, STEP FOOTING, CMU JOINT AND BEAM REINFORCING, BASE PLATE AND ANCHOR ROD DETAILS.
5. SEE ARCHITECTURAL DRAWINGS FOR STAIR LOCATIONS.
6. SEE ARCHITECTURAL DRAWINGS FOR FLOOR SLOPES AND DRAINS.
7. SEE PLUMBING DRAWINGS FOR UNDER FLOOR PLUMBING.
8. SEE REFRIGERATION DRAWINGS FOR UNDER FLOOR HEATING SYSTEM.
9. ALL FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR GROUPS OF COLUMNS AND WALL CENTERLINES U.N.O.
10. CONTINUOUS FOOTINGS SHALL BE INTEGRAL WITH COLUMN FOOTINGS.
11. SEE DRAWINGS S200 THRU S201 FOR STRUCTURAL ELEVATIONS.

FOOTING SCHEDULE

MARK	SIZE			REINFORCEMENT			
	LENGTH	WIDTH	DEPTH	BOT. (LG.)	BOT. (SH.)	TOP (LG.)	TOP (SH.)
CF2.0	CONT.	2'-0"	1'-0"	3-#5 CONT. W/ #4x1'-6" @ 36" TRANSVERSE			
CF3.0	CONT.	3'-0"	1'-0"	4-#5 CONT. W/ #4x2'-6" @ 24" TRANSVERSE			
F3.0	3'-0"	3'-0"	1'-0"	4-#5	4-#5		
F4.0	4'-0"	4'-0"	1'-0"	5-#5	5-#5		
F5.0	5'-0"	5'-0"	1'-0"	6-#5	6-#5		
F6.0	6'-0"	6'-0"	1'-4"	7-#5	7-#5		
F7.0	7'-0"	7'-0"	1'-4"	6-#6	6-#6		
F7.5	7'-6"	7'-6"	1'-6"	7-#6	7-#6		
F9.0	9'-0"	9'-0"	1'-8"	9-#6	9-#6		

FLORIDA ENGINEERING LICENSED 9520

FLORIDA ARCHITECTURAL LICENSE AR 17556

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FREEZER FOUNDATION PLAN

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REV.	DATE	DESCRIPTION	BY
3	6/27/07	REVISED AS NOTED	DLP
2	6/20/07	REVISED AS NOTED	DLP
1	6/13/07	REVISED AS NOTED	DLP
0	6/6/07	CONSTRUCTION ISSUE	DLP
E	5/25/07	STEEL CONSTRUCTION ISSUE	DLP
D	5/11/07	FOUNDATION STEEL BID ISSUE	DLP
C	5/4/07	FOUNDATION BID ISSUE	DLP
B	4/27/07	OWNER'S REVIEW	DLP
A	4/20/07		DLP

JOB NO. 710-03019

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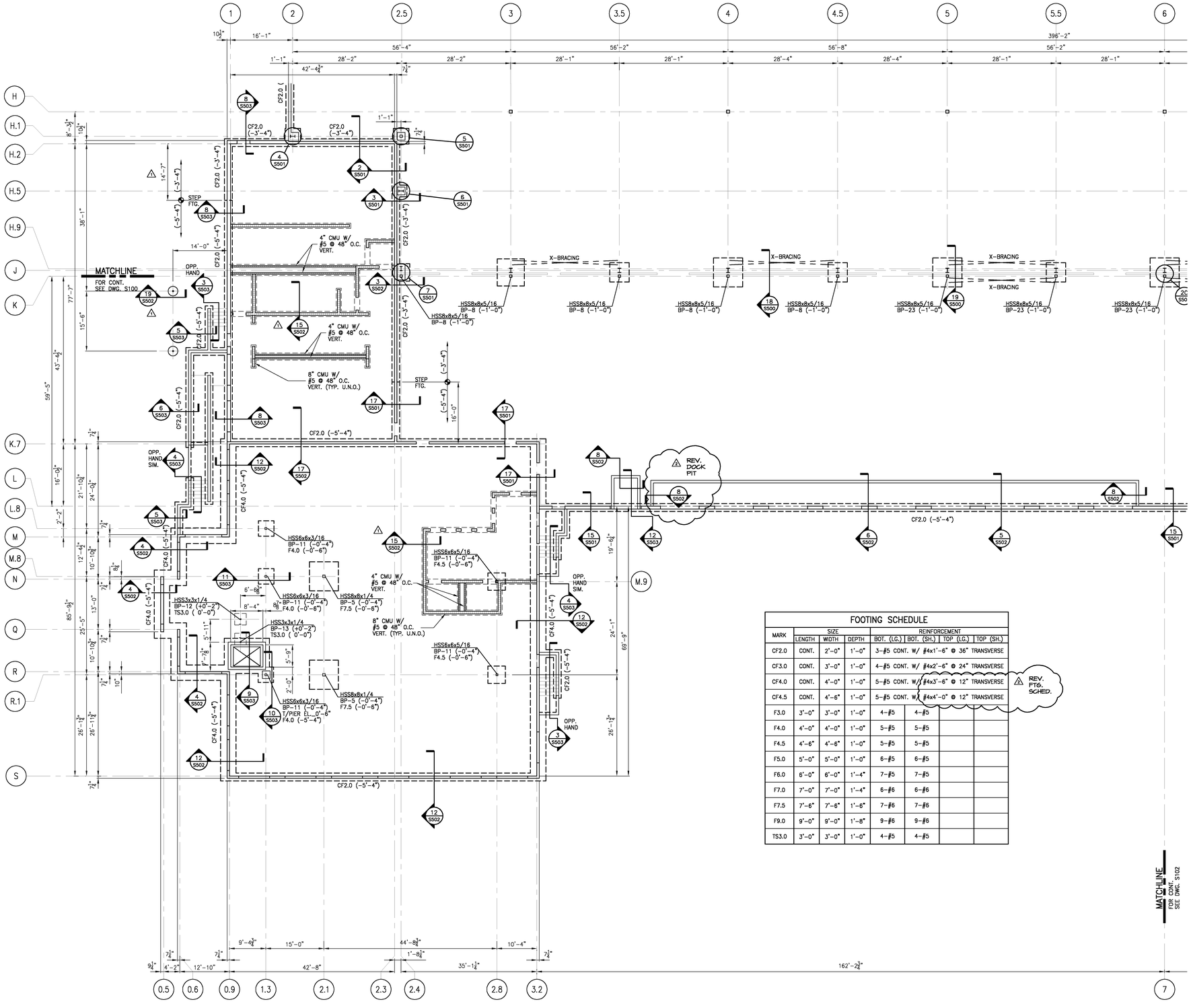
CHECKED: REK

SCALE: 1/16"=1'-0"

S100

DRAWING NO.

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FOOTING SCHEDULE							
MARK	SIZE			REINFORCEMENT			
	LENGTH	WIDTH	DEPTH	BOT. (LG.)	BOT. (SH.)	TOP (LG.)	TOP (SH.)
CF2.0	CONT.	2'-0"	1'-0"	3-#5 CONT. W/ #4x1'-6" @ 36" TRANSVERSE			
CF3.0	CONT.	3'-0"	1'-0"	4-#5 CONT. W/ #4x2'-6" @ 24" TRANSVERSE			
CF4.0	CONT.	4'-0"	1'-0"	5-#5 CONT. W/ #4x3'-6" @ 12" TRANSVERSE			
CF4.5	CONT.	4'-6"	1'-0"	5-#5 CONT. W/ #4x4'-0" @ 12" TRANSVERSE			
F3.0	3'-0"	3'-0"	1'-0"	4-#5	4-#5		
F4.0	4'-0"	4'-0"	1'-0"	5-#5	5-#5		
F4.5	4'-6"	4'-6"	1'-0"	5-#5	5-#5		
F5.0	5'-0"	5'-0"	1'-0"	6-#5	6-#5		
F6.0	6'-0"	6'-0"	1'-4"	7-#5	7-#5		
F7.0	7'-0"	7'-0"	1'-4"	6-#6	6-#6		
F7.5	7'-6"	7'-6"	1'-6"	7-#6	7-#6		
F9.0	9'-0"	9'-0"	1'-8"	9-#6	9-#6		
TS3.0	3'-0"	3'-0"	1'-0"	4-#5	4-#5		

WELFARE AREA & PARTIAL DOCK FOUNDATION PLAN

SCALE: 3/32"=1'-0"

N

THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
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FLORIDA ENGINEERING LICENSE 9630
FLORIDA ARCHITECTURAL LICENSE AR 15586

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

WELFARE AREA AND PARTIAL DOCK FOUNDATION PLAN

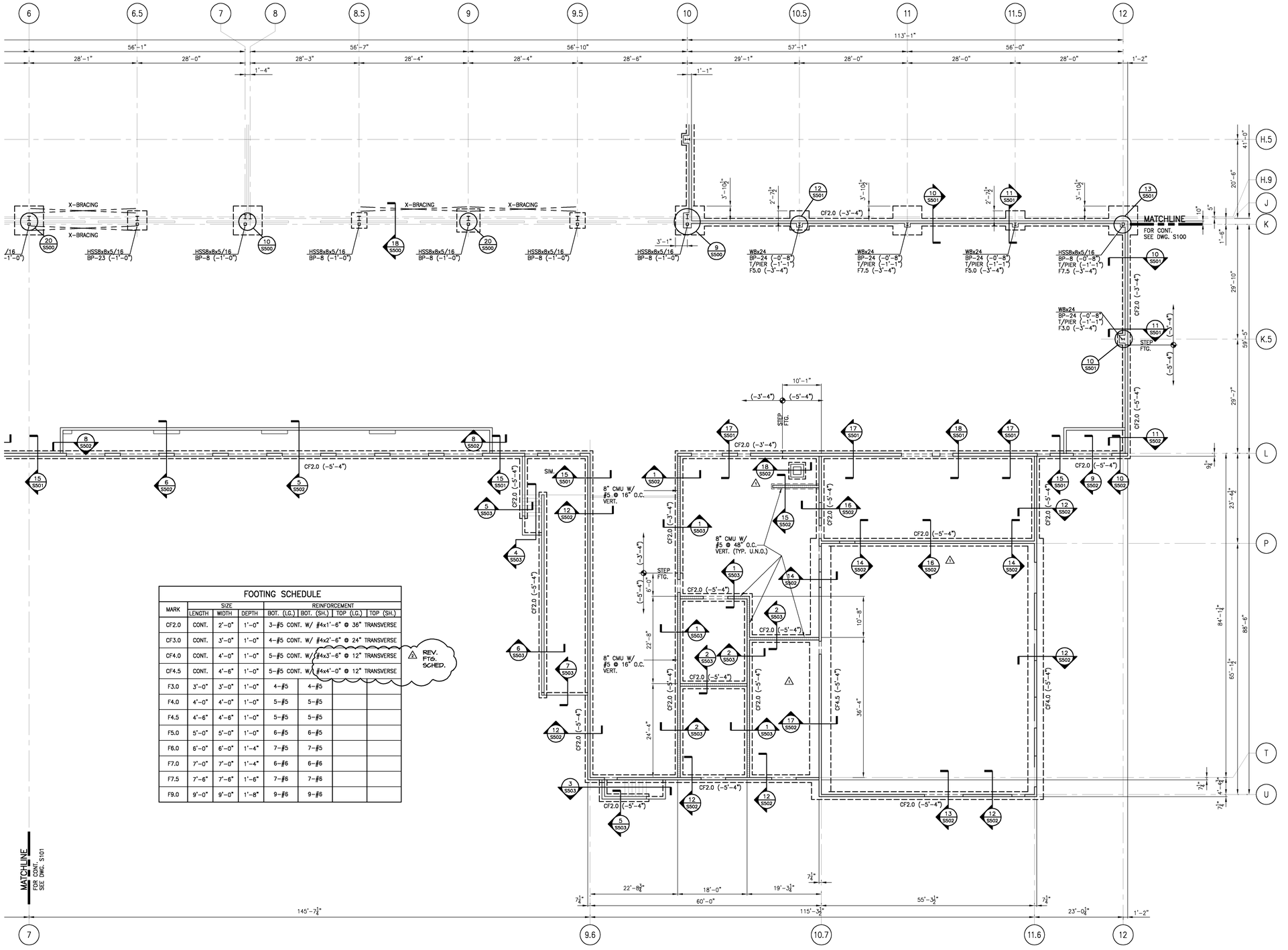
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REV.	DATE	BY	DESCRIPTION
A	4/17/07	DLP	OWNER'S REVIEW
B	5/11/07	DLP	FOUNDATION BID ISSUE
C	5/25/07	DLP	FOUNDATION PERMIT ISSUE
D	6/13/07	DLP	STRUCTURAL STEEL CONSTRUCTION ISSUE
E	6/20/07	DLP	CONSTRUCTION ISSUE
0	7/26/07	DLP	REVISED AS NOTED
1	8/28/07	DLP	REVISED AS NOTED
2	9/21/07	DLP	REVISED AS NOTED

JOB NO. 710-03019
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CHECKED: REK
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S101
DRAWING NO.

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FOOTING SCHEDULE							
MARK	SIZE			REINFORCEMENT			
	LENGTH	WIDTH	DEPTH	BOT. (LG.)	BOT. (SH.)	TOP (LG.)	TOP (SH.)
CF2.0	CONT.	2'-0"	1'-0"	3-#5 CONT. W/ #4x1'-6" @ 36" TRANSVERSE			
CF3.0	CONT.	3'-0"	1'-0"	4-#5 CONT. W/ #4x2'-6" @ 24" TRANSVERSE			
CF4.0	CONT.	4'-0"	1'-0"	5-#5 CONT. W/ #4x3'-6" @ 12" TRANSVERSE			
CF4.5	CONT.	4'-6"	1'-0"	5-#5 CONT. W/ #4x4'-0" @ 12" TRANSVERSE			
F3.0	3'-0"	3'-0"	1'-0"	4-#5	4-#5		
F4.0	4'-0"	4'-0"	1'-0"	5-#5	5-#5		
F4.5	4'-6"	4'-6"	1'-0"	5-#5	5-#5		
F5.0	5'-0"	5'-0"	1'-0"	6-#5	6-#5		
F6.0	6'-0"	6'-0"	1'-4"	7-#5	7-#5		
F7.0	7'-0"	7'-0"	1'-4"	6-#6	6-#6		
F7.5	7'-6"	7'-6"	1'-6"	7-#6	7-#6		
F9.0	9'-0"	9'-0"	1'-8"	9-#6	9-#6		

MAINTENANCE AREA & PARTIAL DOCK FOUNDATION PLAN

SCALE: 3/32"=1'-0"

N

FLORIDA DESIGNING ENGINEERS LICENSE NO. 9520
FLORIDA ARCHITECTURAL LICENSE NO. AA26001975
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

MAINTENANCE AREA AND PARTIAL DOCK FOUNDATION PLAN

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REV.	DATE	BY	DESCRIPTION
2	6/13/07	DLP	REVISED AS NOTED
1	5/8/07	DLP	REVISED AS NOTED
0	4/6/07	DLP	CONSTRUCTION ISSUE
E	3/23/07	DLP	STEEL CONSTRUCTION ISSUE
D	3/16/07	DLP	FOUNDATION STEEL RFI ISSUE
C	3/7/07	DLP	FOUNDATION PERMIT ISSUE
B	2/7/07	DLP	FOUNDATION BID ISSUE
A	1/17/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019

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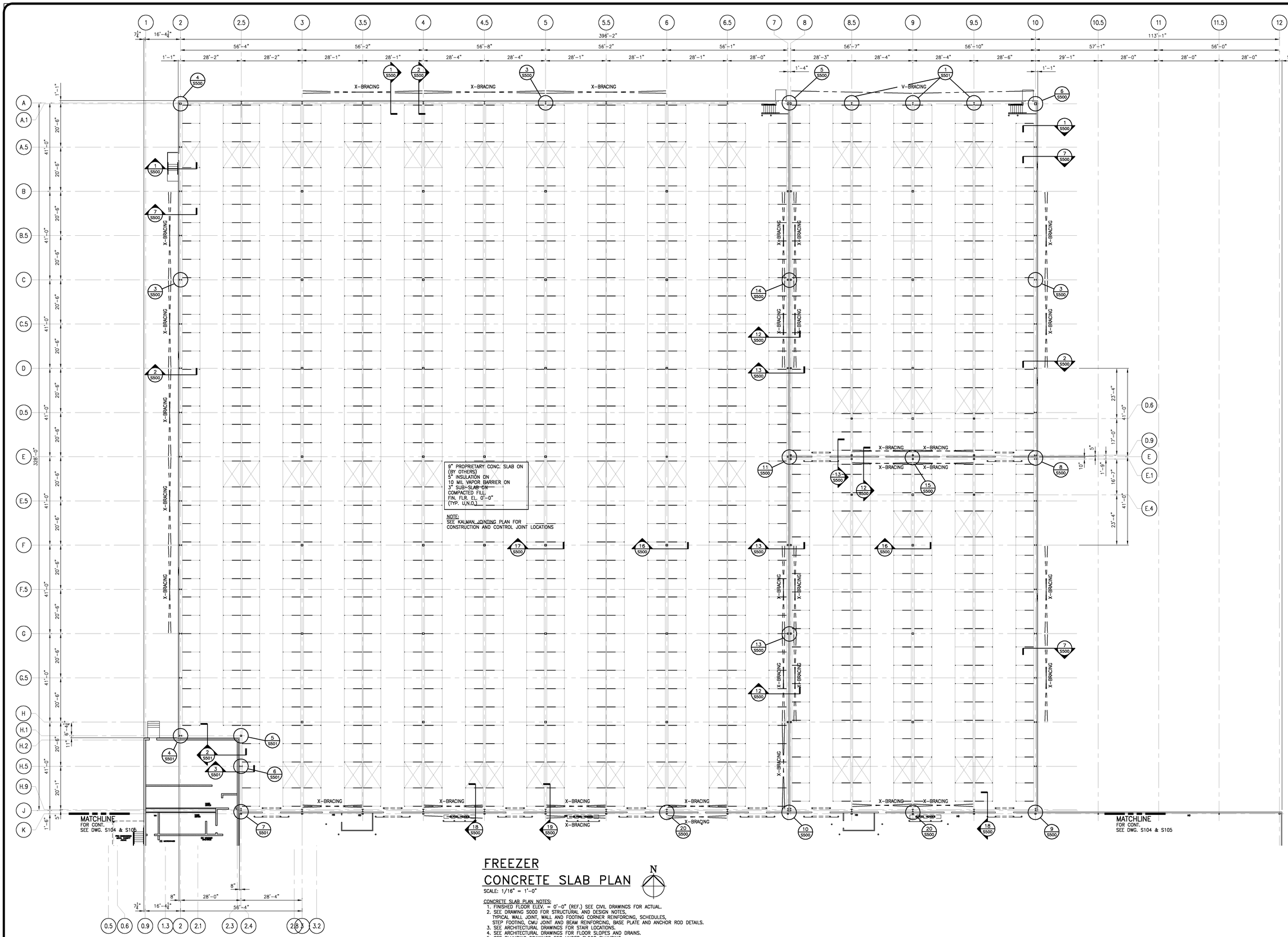
CHECKED: REK

SCALE: 3/32"=1'-0"

S102

DRAWING NO.

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FREEZER CONCRETE SLAB PLAN

SCALE: 1/16" = 1'-0"

CONCRETE SLAB PLAN NOTES:

1. FINISHED FLOOR ELEV. = 0'-0" (REF.) SEE CIVIL DRAWINGS FOR ACTUAL.
2. SEE DRAWING S000 FOR STRUCTURAL AND DESIGN NOTES, TYPICAL WALL JOINT, WALL AND FOOTING CORNER REINFORCING, SCHEDULES, STEP FOOTING, CMU JOINT AND BEAM REINFORCING, BASE PLATE AND ANCHOR ROD DETAILS.
3. SEE ARCHITECTURAL DRAWINGS FOR STAIR LOCATIONS.
4. SEE ARCHITECTURAL DRAWINGS FOR FLOOR SLOPES AND DRAINS.
5. SEE PLUMBING DRAWINGS FOR UNDER FLOOR PLUMBING.
6. SEE REFRIGERATION DRAWINGS FOR UNDER FLOOR HEATING SYSTEM.
7. SEE DRAWINGS S200 THRU S201 FOR STRUCTURAL ELEVATIONS.

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NEW FACILITY
LAKE CITY, FLORIDA

FREEZER CONCRETE SLAB PLAN

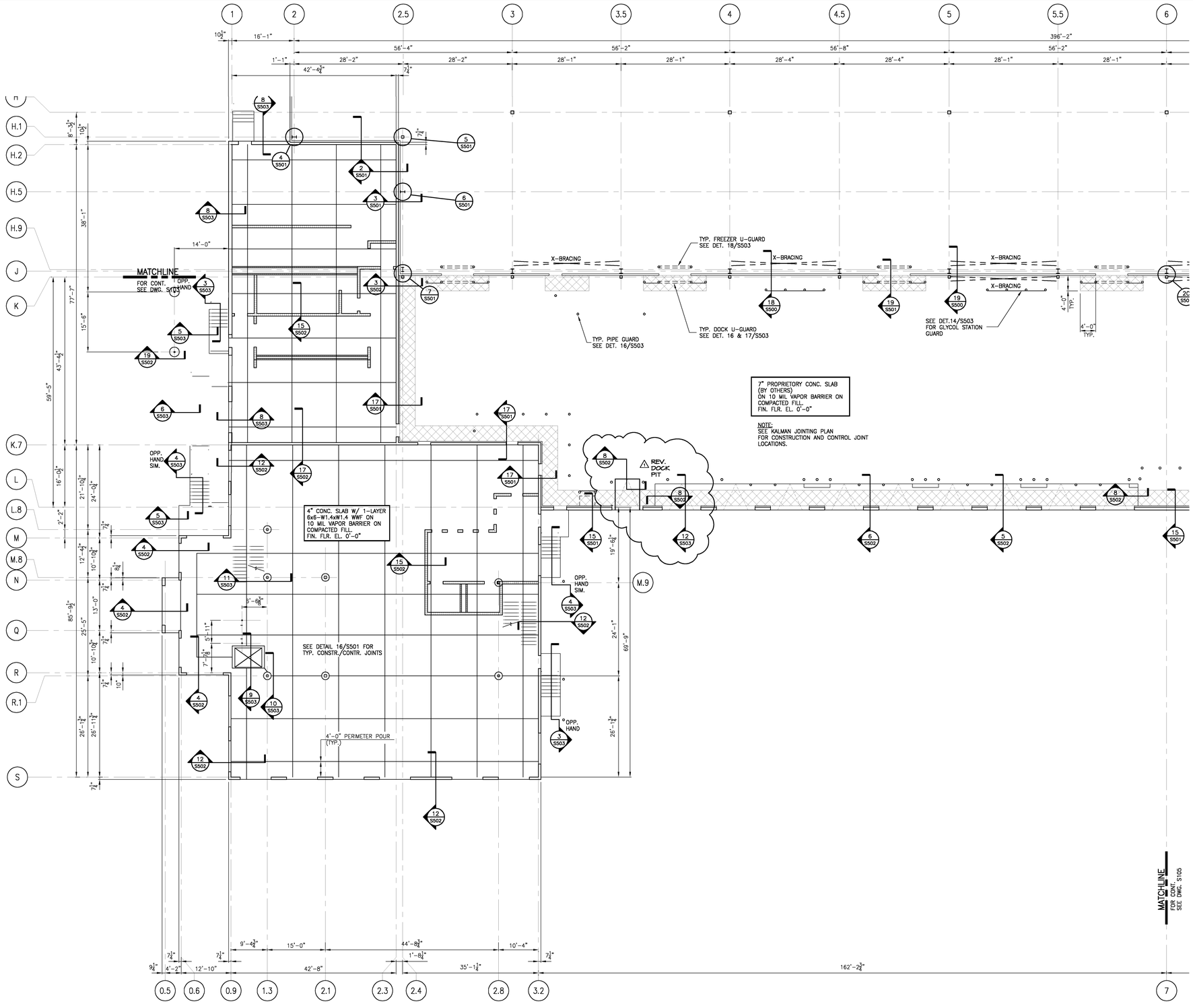
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REV.	DATE	BY	DESCRIPTION
0	8/29/07	DLP	CONSTRUCTION ISSUE
A	9/27/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 1/16"=1'-0"

S103
DRAWING NO.

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WELFARE AREA & PARTIAL DOCK CONCRETE SLAB PLAN

SCALE: 3/32"=1'-0"

N

Filename: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Struct\030195104.dwg Last Saved By: DPUCKETT Date: 6/13/2007 3:08:51 PM Plotted: 6/13/2007 3:07:08 PM

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FLORIDA ARCHITECTURAL LICENSE NO. AR 0015171

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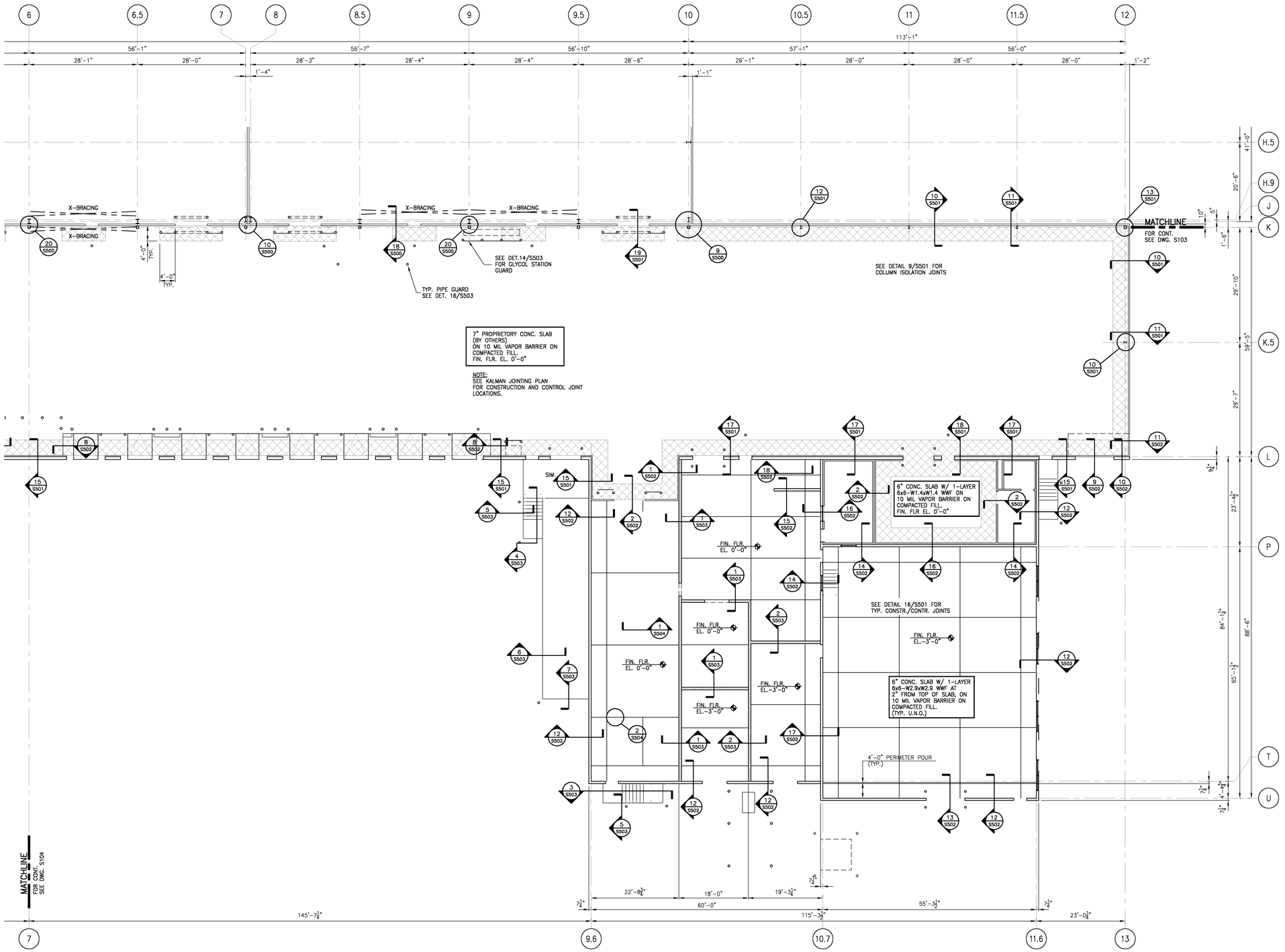
WELFARE AREA AND PARTIAL DOCK CONCRETE SLAB PLAN

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REV.	DATE	BY	DESCRIPTION
1	6/13/07	DLP	REVISED AS NOTED
0	4/27/07	DLP	CONSTRUCTION ISSUE
A	3/27/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 3/32"=1'-0"

S104
DRAWING NO.



MAINTENANCE AREA & PARTIAL DOCK CONCRETE SLAB PLAN

SCALE: 3/32"=1'-0"

N

THE STELLAR GROUP
FLORIDA ARCHITECTURAL LICENSE #AA26001975
FLORIDA ENGINEERING LICENSE #29535
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

MAINTENANCE AREA AND PARTIAL DOCK CONCRETE SLAB PLAN

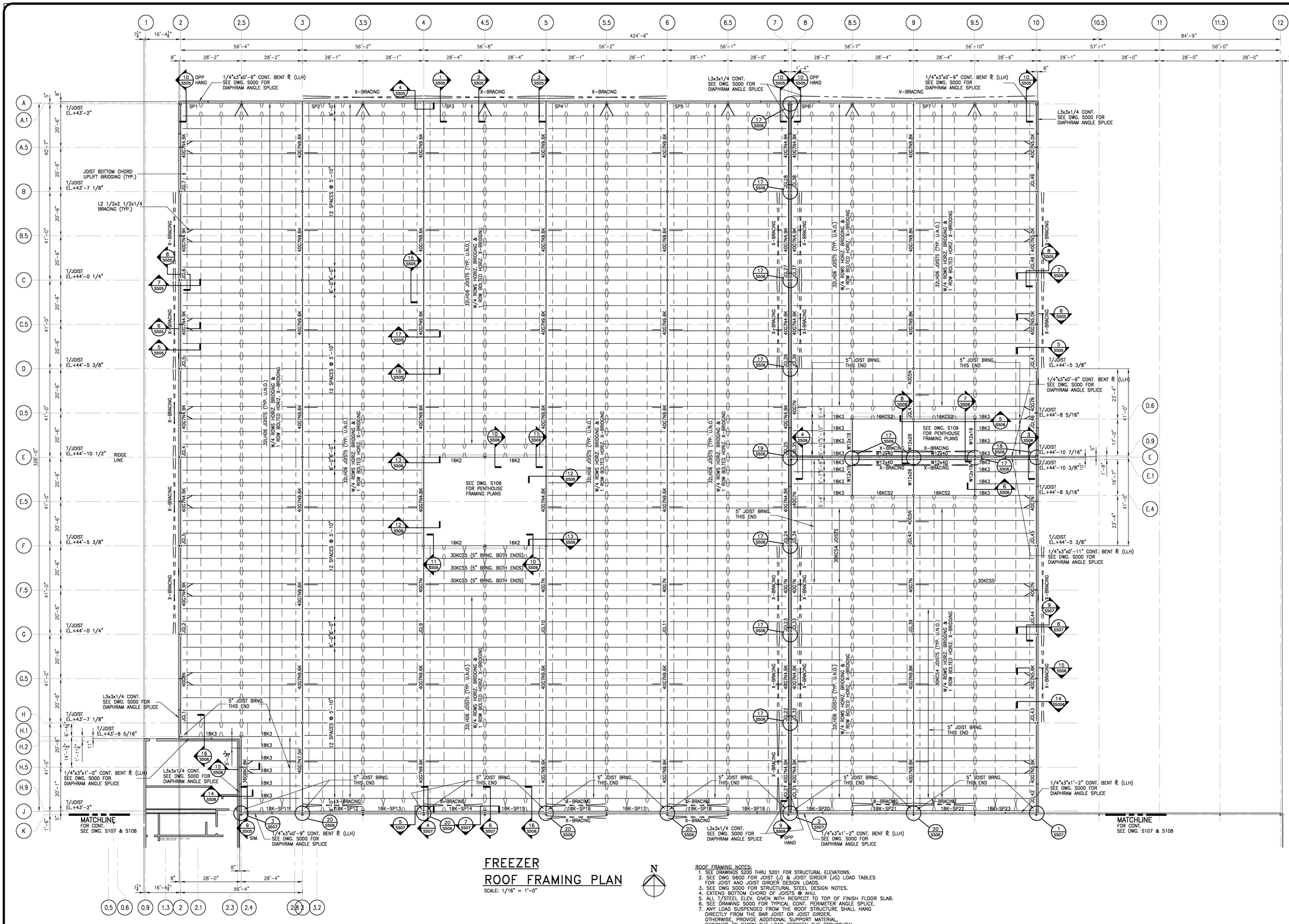
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REV.	DATE	BY	DESCRIPTION
0	6/8/07	DLP	CONSTRUCTION ISSUE
A	6/27/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 3/32"=1'-0"

S105
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FLORIDA ENGINEERING LICENSE NO. 56520
FLORIDA ARCHITECTURAL LICENSE NO. AR 0015176
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FREEZER ROOF FRAMING PLAN

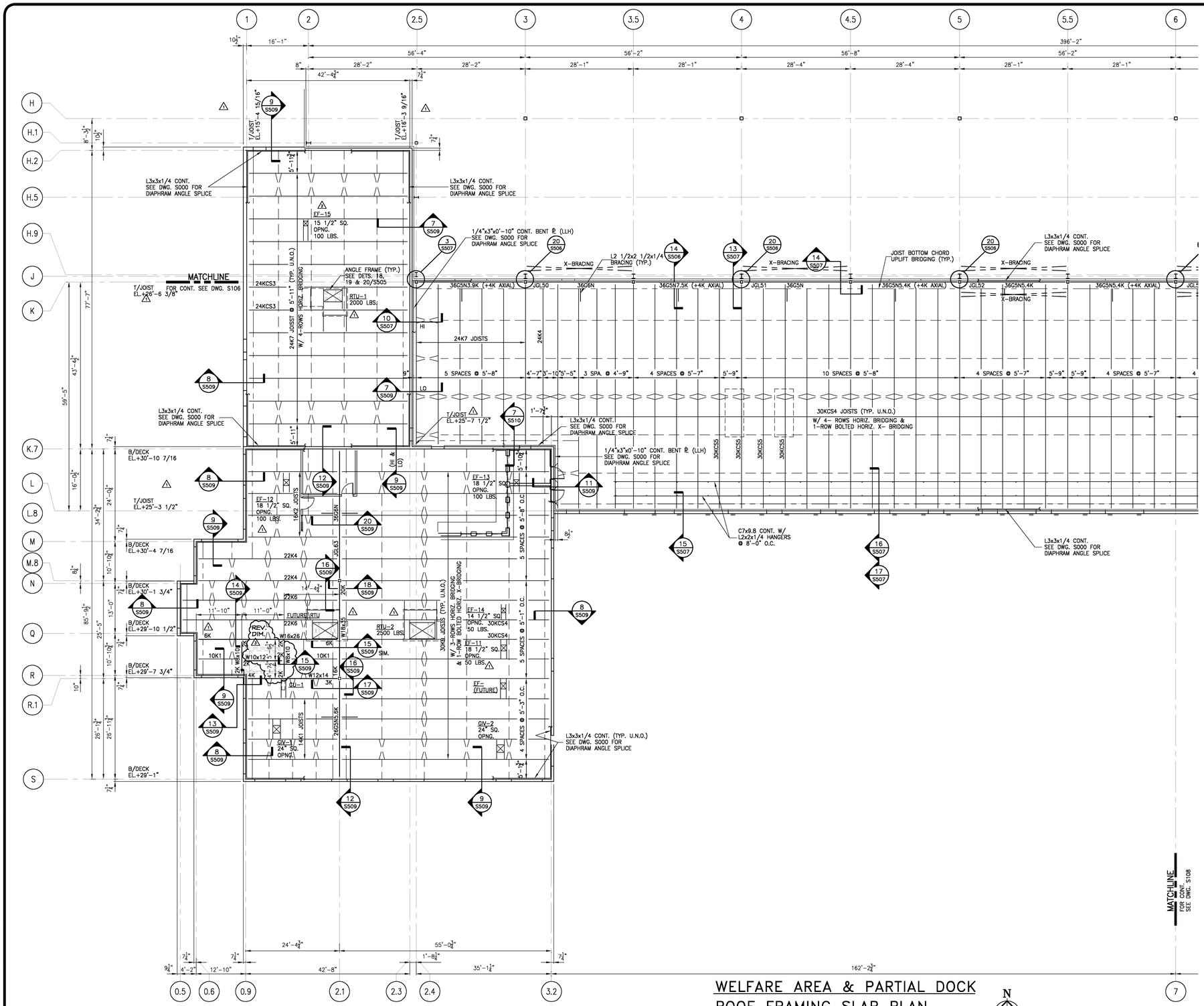
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REV.	DATE	BY	DESCRIPTION
C	4/27/07	DLP	CONSTRUCTION ISSUE
B	4/27/07	DLP	STEEL CONSTRUCTION ISSUE
A	4/27/07	DLP	STRUCTURAL STEEL BID ISSUE
0	5/30/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 1/16"=1'-0"

S106
DRAWING NO.

Filename: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Struct\03019S106.dwg Last Saved By: DPUCKETT Date: 5/30/2007 10:50:21 AM Plotted: 5/30/2007 10:50:33 AM



WELFARE AREA & PARTIAL DOCK ROOF FRAMING SLAB PLAN

SCALE: 3/32"=1'-0"

ROOF FRAMING NOTES:

1. SEE DRAWINGS S200 THRU S201 FOR STRUCTURAL ELEVATIONS.
2. SEE DWG S600 FOR JOIST (J) & JOIST GIRDER (JG) LOAD TABLES FOR JOIST AND JOIST GIRDER DESIGN LOADS.
3. SEE DWG S000 FOR STRUCTURAL STEEL DESIGN NOTES.
4. EXTEND BOTTOM CHORD OF JOISTS @ AHU.
5. ALL T/STEEL ELEV. GIVEN WITH RESPECT TO TOP OF FINISH FLOOR SLAB.
6. SEE DRAWING S000 FOR TYPICAL CONT. PERIMETER ANGLE SPLICE.
7. ANY LOAD SUSPENDED FROM THE ROOF STRUCTURE SHALL HANG DIRECTLY FROM THE BAR JOIST OR JOIST GIRDER. OTHERWISE, PROVIDE ADDITIONAL SUPPORT MATERIAL, DESIGNED TO CARRY THE LOAD BETWEEN THE STRUCTURAL MEMBERS. (REF. DETAIL 19/S505) DO NOT SUPPORT LOADS FROM BRIDGING.
8. NOTIFY STRUCTURAL ENGINEER IF MECHANICAL OR REFRIGERATION EQUIPMENT,DUCTS OR PIPING ARE PLACED IN LOCATIONS OTHER THAN THAT SHOWN ON FRAMING PLANS.
9. SEE DETAIL 20/S505 FOR TYPICAL CONCENTRATED LOAD ON JOIST DETAIL.
10. SEE DETAIL 19/S505 FOR TYPICAL AHU SUPPORT DETAIL.
11. ALL JOIST & GIRDER SIZES SHOWN INCLUDE ALL COLLATERAL LOADS NOTED ON PLAN EXCEPT FOR TOP CHORD COLLECTOR FORCES AND ROOF UPLIFT LOADING OR WHERE SP OR JGL IS NOTED.
13. SEE REFRIGERATION DRAWINGS FOR TYP. PIPE STANDS.
14. TOP BRACE FOR WIND POSTS MUST BE CARRIED TO 2 ADJACENT ROOF JOISTS TO SPREAD LOAD.
15. (+4K AXIAL) INDICATE TOP CHORD FORCE.

N

FLORIDA DESIGNERS LICENSE # 9630
FLORIDA ARCHITECTURAL LICENSE # AA26001775
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NEW FACILITY
LAKE CITY, FLORIDA

WELFARE AREA AND PARTIAL DOCK ROOF FRAMING PLAN

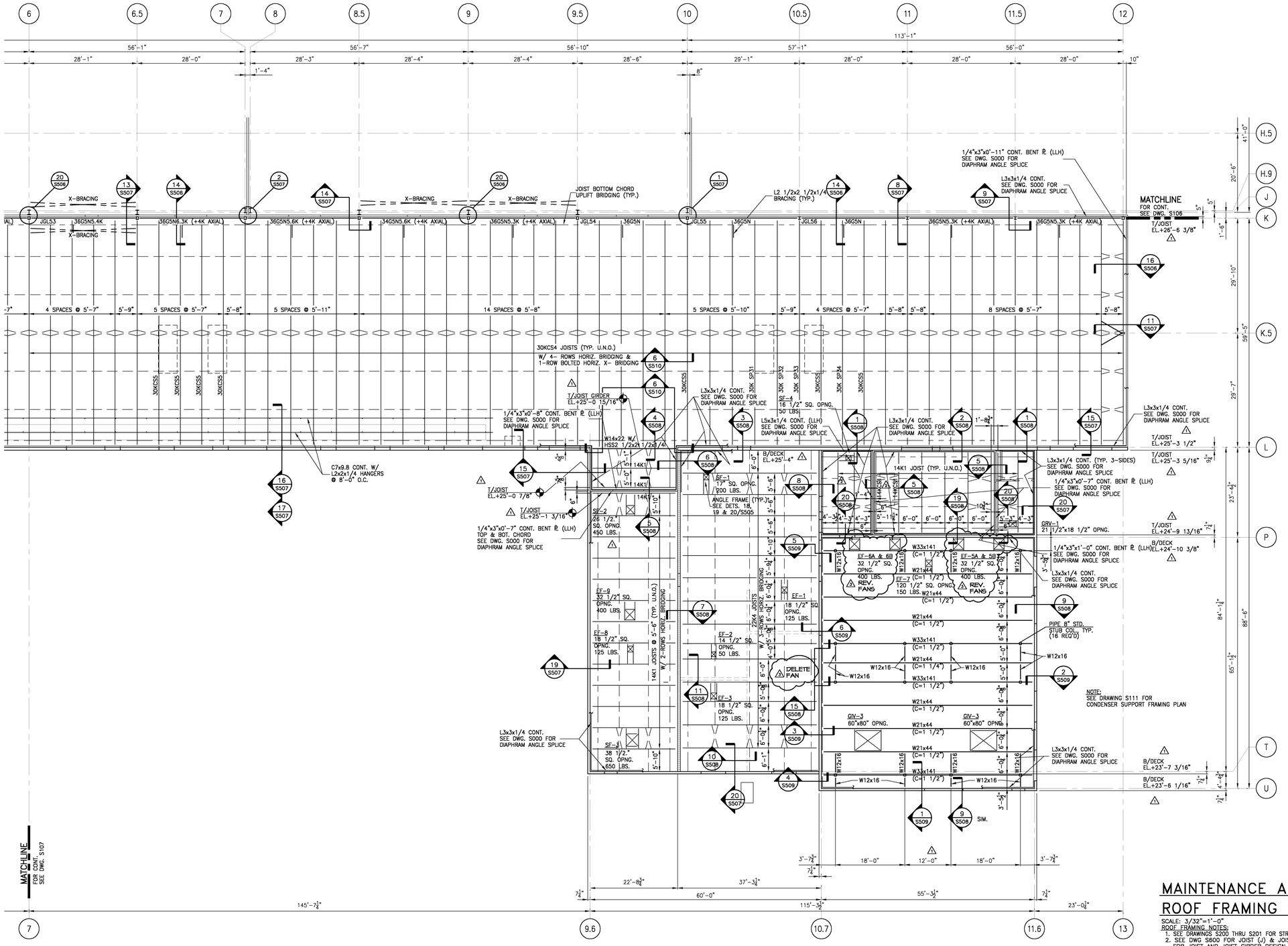
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REV.	DATE	BY	DESCRIPTION
3	XX/XX/07	DLP	REVISED AS NOTED
2	XX/XX/07	DLP	REVISED AS NOTED
1	XX/XX/07	DLP	REVISED AS NOTED
C	XX/XX/07	DLP	CONSTRUCTION ISSUE
B	XX/XX/07	DLP	STEEL CONSTRUCTION ISSUE
A	XX/XX/07	DLP	STRUCTURAL STEEL BID ISSUE
	XX/XX/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 3/32"=1'-0"

S107
DRAWING NO.

Filename: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Struct\03019S107.dwg Last Saved By: DPUCKETT Date: 7/9/2007 9:51:27 AM Plotted: 7/9/2007 9:51:42 AM



MAINTENANCE AREA & PARTIAL DOCK ROOF FRAMING PLAN

SCALE: 3/32"=1'-0"

ROOF FRAMING NOTES:

1. SEE DRAWINGS S200 THRU S201 FOR STRUCTURAL ELEVATIONS.
2. SEE DWG S600 FOR JOIST (J) & JOIST GIRDER (JG) LOAD TABLES FOR JOIST AND JOIST GIRDER DESIGN LOADS.
3. SEE DWG S000 FOR STRUCTURAL STEEL DESIGN NOTES.
4. EXTEND BOTTOM CHORD OF JOISTS @ AHU.
5. ALL T/STEEL ELEV. GIVEN WITH RESPECT TO TOP OF FINISH FLOOR SLAB.
6. SEE DRAWING S000 FOR TYPICAL CONT. PERIMETER ANGLE SPLICE.
7. ANY LOAD SUSPENDED FROM THE ROOF STRUCTURE SHALL HANG DIRECTLY FROM THE BAR JOIST OR JOIST GIRDER. OTHERWISE, PROVIDE ADDITIONAL SUPPORT MATERIAL, DESIGNED TO CARRY THE LOAD BETWEEN THE STRUCTURAL MEMBERS. (REF. DETAIL 19/S505) DO NOT SUPPORT LOADS FROM BRIDGING.
8. NOTIFY STRUCTURAL ENGINEER IF MECHANICAL OR REFRIGERATION EQUIPMENT,DUCTS OR PIPING ARE PLACED IN LOCATIONS OTHER THAN THAT SHOWN ON FRAMING PLANS.
9. SEE DETAIL 20/S505 FOR TYPICAL CONCENTRATED LOAD ON JOIST DETAIL.
10. SEE DETAIL 19/S505 FOR TYPICAL AHU SUPPORT DETAIL.
11. ALL JOIST & GIRDER SIZES SHOWN INCLUDE ALL COLLATERAL LOADS NOTED ON PLAN EXCEPT FOR TOP CHORD COLLECTOR FORCES AND ROOF UPLIFT LOADING OR WHERE SP OR JGL IS NOTED.
13. SEE REFRIGERATION DRAWINGS FOR TYP. PIPE STANDS.
14. TOP BRACE FOR WIND POSTS MUST BE CARRIED TO 2 ADJACENT ROOF JOISTS TO SPREAD LOAD.
15. (+4K AXIAL) INDICATES TOP CHORD AXIAL FORCE.

N

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LAKE CITY, FLORIDA

MAINTENANCE AREA AND PARTIAL DOCK ROOF FRAMING PLAN

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REV.	DATE	BY	DESCRIPTION
3	6/21/07	DLP	REVISED AS NOTED
2	6/14/07	DLP	REVISED AS NOTED
1	6/06/07	DLP	REVISED AS NOTED
0	5/25/07	DLP	CONSTRUCTION ISSUE
B	5/11/07	DLP	STEEL CONSTRUCTION ISSUE
A	4/27/07	DLP	STRUCTURAL STEEL BID ISSUE

JOB NO. 710-03019

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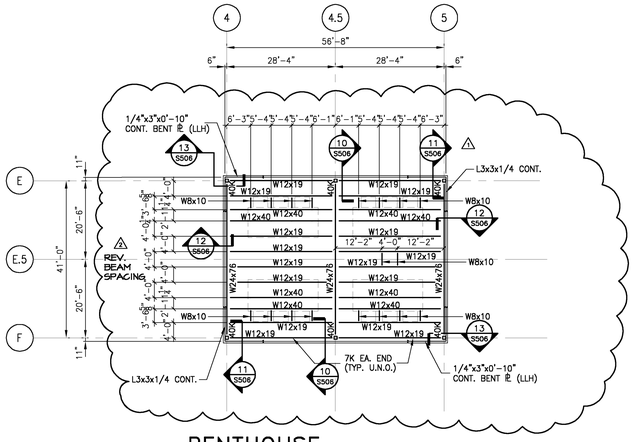
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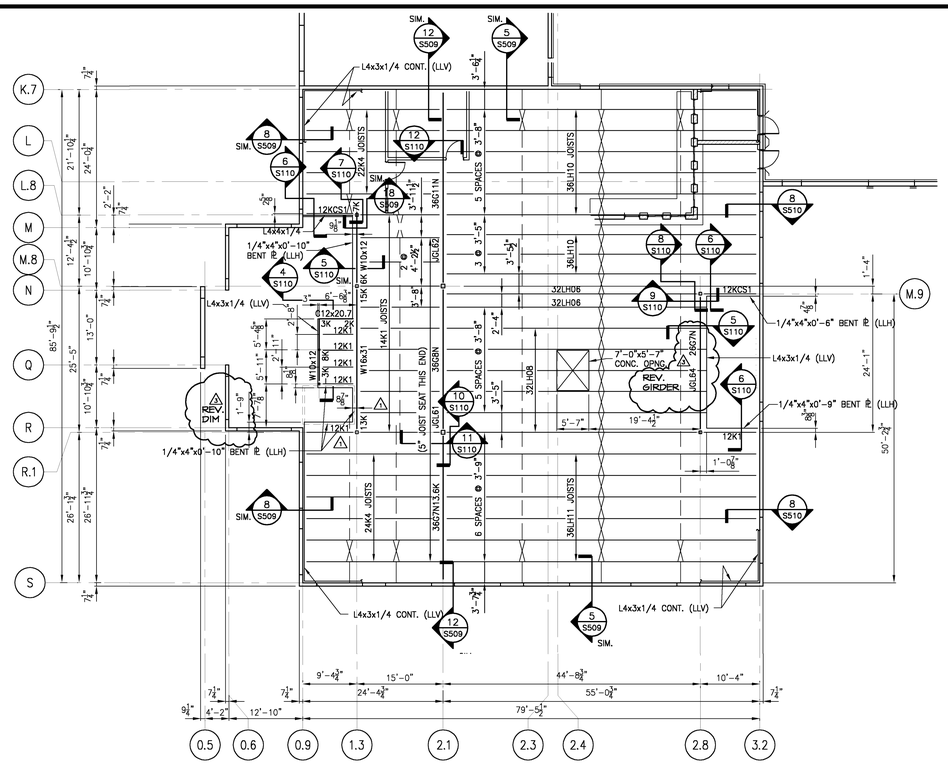
SCALE: 3/32"=1'-0"

S108

DRAWING NO.

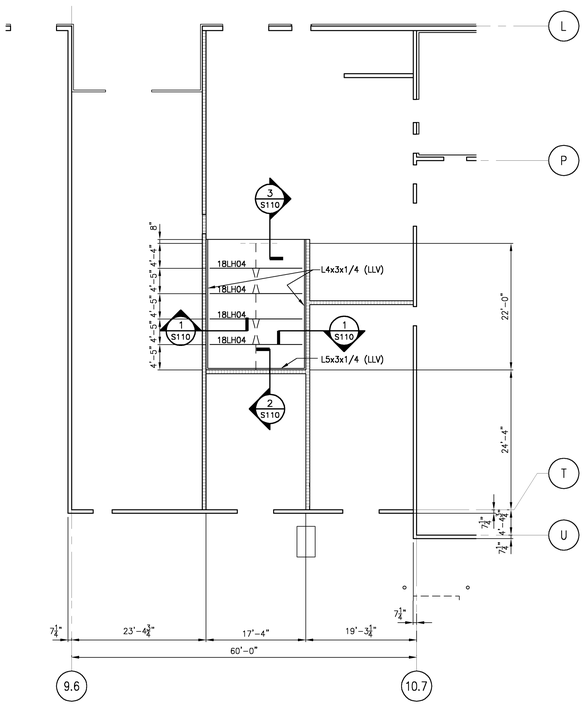
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4
4.5
5
56'-8"
6"
28'-4"
28'-4"
6"
E
E.5
F
41'-0"
20'-6"
20'-6"
1'-1"
1/4"x3"x0'-10" CONT. BENT ℄ (LLH)
L3x3x1/4 CONT.
REV. BEAM SPACING
W8x10
W12x19
W12x40
W12x40 W12x40
W12x40 W12x40
W12x19
W8x10
W8x10
W8x10



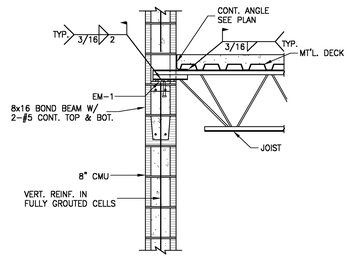
WELFARE AREA
SECOND FLOOR FRAMING PLAN

SCALE: 3/32"=1'-0"
1.5VL, 20 GA., COMPOSITE DECK (PAINTED PER SECTION 05820 OF THE PROJECT SPECIFICATIONS) W/ 2 1/2" LIGHTWEIGHT (120 PCF MAX.) CONC. DECK (4" TOTAL THICKNESS) W/ 1-LAYER 6x6-W1.FxW1.4 WWF CENTERED
T/CONC. EL.+15'-2"
T/JOIST EL.+14'-10"



MAINTENANCE AREA
MEZZANINE FRAMING PLAN

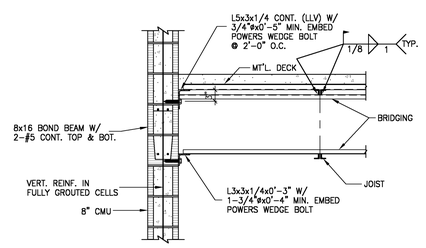
SCALE: 3/32"=1'-0"
1.5VL, 20 GA., COMPOSITE DECK (PAINTED PER SECTION 05820 OF THE PROJECT SPECIFICATIONS) W/ 2 1/2" LIGHTWEIGHT (120 PCF MAX.) CONC. DECK (4" TOTAL THICKNESS) W/ 1-LAYER 6x6-W1.FxW1.4 WWF CENTERED
T/CONC. EL.+11'-4"
T/JOIST EL.+11'-0"



F:\PUP\DWG\420P1

JOIST & CMU WALL

SCALE: 3/4"=1'-0" (1)

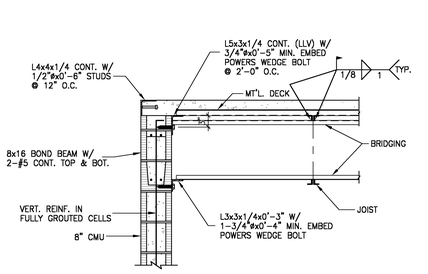


NOTE:
WELD BRIDGING AT ALL CONTACT POINTS

F:\PUP\DWG\420P2

DECK – CMU WALL

SCALE: 3/4"=1'-0" (2)

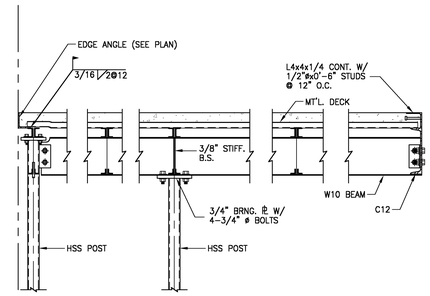


NOTE:
WELD BRIDGING AT ALL CONTACT POINTS

F:\PUP\DWG\420P2

DECK – CMU WALL

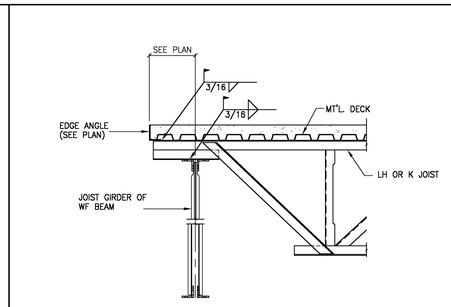
SCALE: 3/4"=1'-0" (3)



F:\PUP\DWG\420P2

FRAMING DETAIL
AT 2nd FLR. ADMIN.

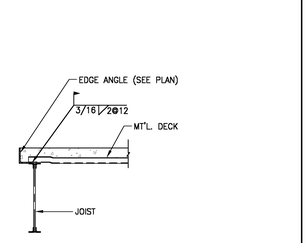
SCALE: 3/4"=1'-0" (4)



F:\PUP\DWG\420P2

DECK ANGLE DETAIL
AT 2nd FLR. ADMIN.

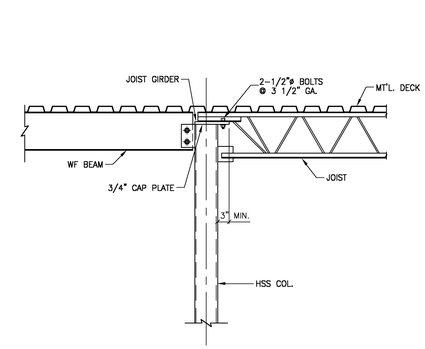
SCALE: 3/4"=1'-0" (5)



F:\PUP\DWG\420P2

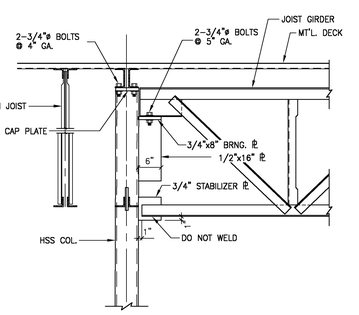
DECK ANGLE DETAIL
AT 2nd FLR. ADMIN.

SCALE: 3/4"=1'-0" (6)



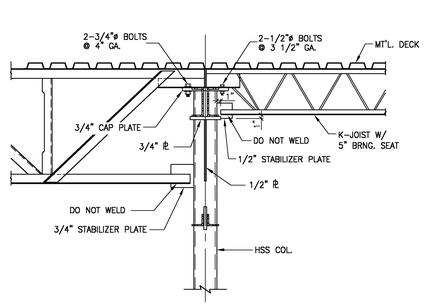
FRAMING DETAIL

SCALE: 3/4"=1'-0" (7)



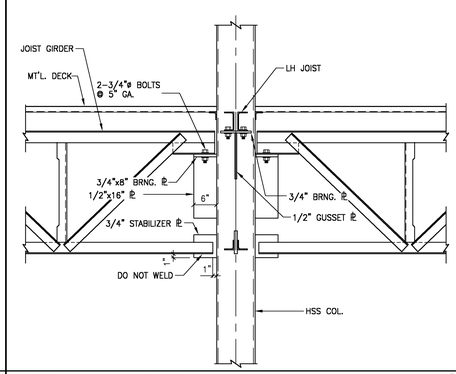
FRAMING DETAIL

SCALE: 3/4"=1'-0" (8)



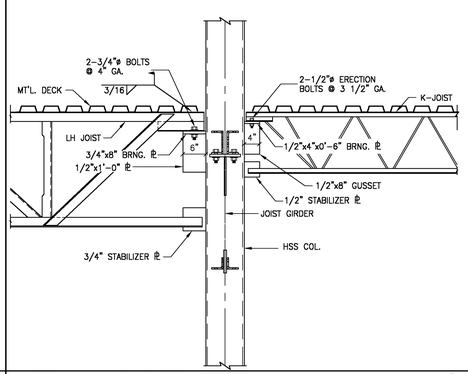
FRAMING DETAIL

SCALE: 3/4"=1'-0" (9)



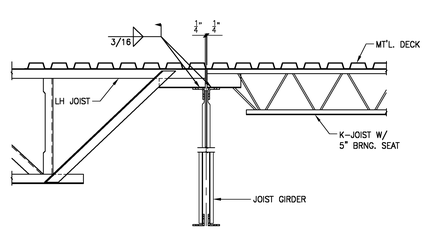
FRAMING DETAIL

SCALE: 3/4"=1'-0" (10)



FRAMING DETAIL

SCALE: 3/4"=1'-0" (11)



FRAMING DETAIL

SCALE: 3/4"=1'-0" (12)

FLORIDA ENGINEERING LICENSE NO. 9630
FLORIDA ARCHITECTURAL LICENSE NO. AR 0017676
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

SECOND FLOOR AND MEZZANINE FRAMING PLANS

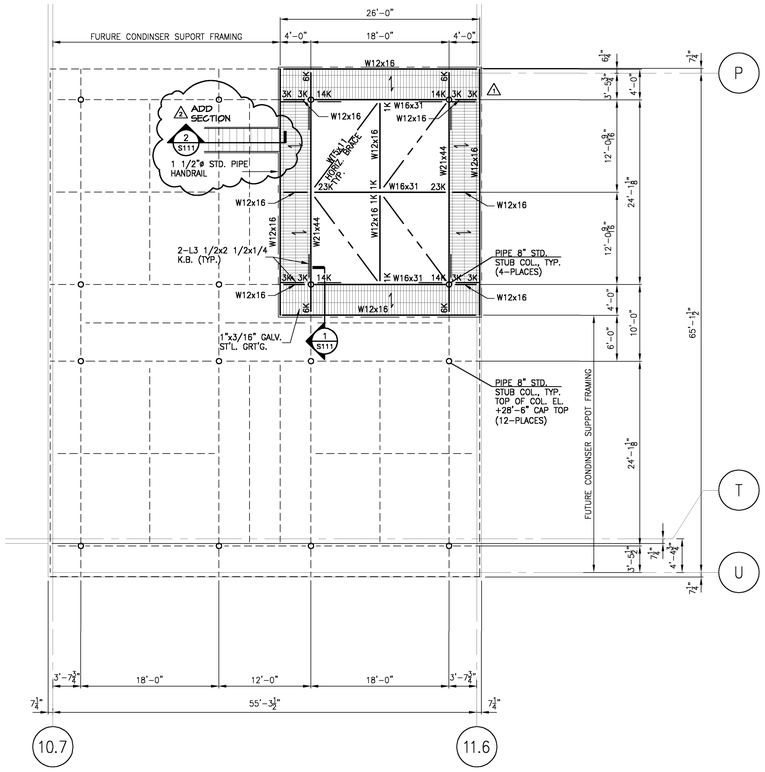
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REV.	DATE	BY	DESCRIPTION
3	7/10/07	DLP	REVISED AS NOTED
2	6/15/07	DLP	REVISED AS NOTED
1	5/25/07	DLP	CONSTRUCTION ISSUE
C	4/20/07	DLP	STEEL CONSTRUCTION ISSUE
B	3/19/07	DLP	STRUCTURAL STEEL BID ISSUE
A	2/23/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 3/32"=1'-0"

S110
DRAWING NO.

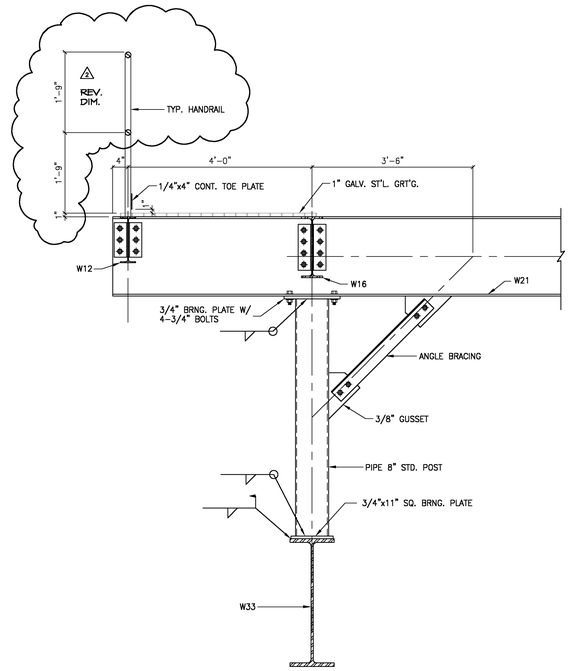
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CONDENSER SUPPORT FRAMING PLAN

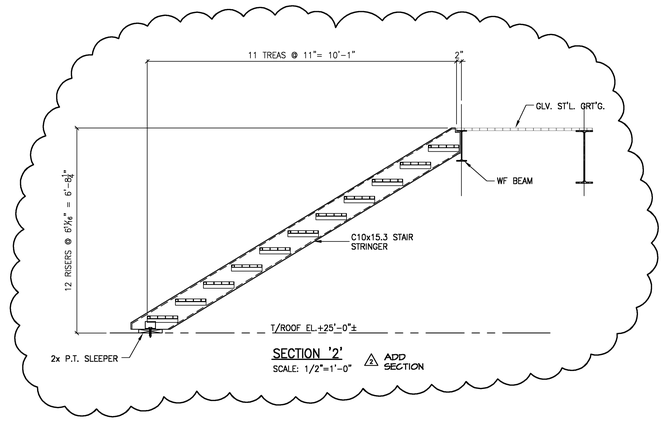
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T/ST'L. EL.+31'-7 1/4" ⚠
T/GRT'G. EL.+31'-8 1/4"

N



SECTION '1'

SCALE: 3/4"=1'-0"



SECTION '2'

SCALE: 1/2"=1'-0" ⚠ ADD SECTION

FLORIDA ENGINEERING LICENSE No. 9430
FLORIDA ARCHITECTURAL LICENSE No. AA26001478
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

CONDENSOR SUPPORT FRAMING PLAN AND ELEVATIONS

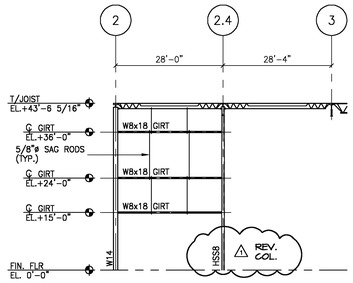
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REV.	DATE	BY	DESCRIPTION
2	9/XX/07	DLP	REVISED AS NOTED
1	8/XX/07	DLP	REVISED AS NOTED
0	8/XX/07	DLP	CONSTRUCTION ISSUE
C	7/XX/07	DLP	STEEL CONSTRUCTION ISSUE
B	6/XX/07	DLP	STRUCTURAL STEEL BID ISSUE
A	5/XX/07	DLP	OWNER'S REVIEW

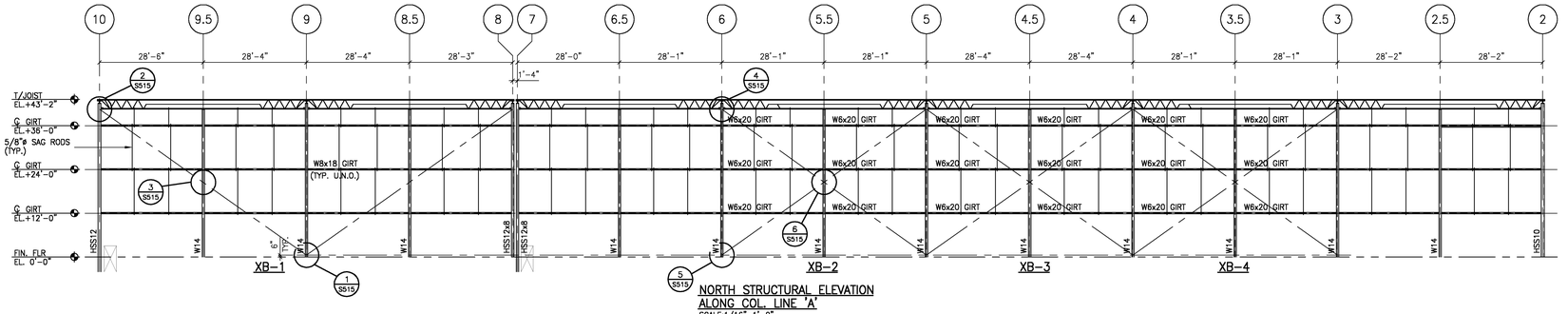
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CHECKED: REK
SCALE: 1/8"=1'-0"

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DRAWING NO.

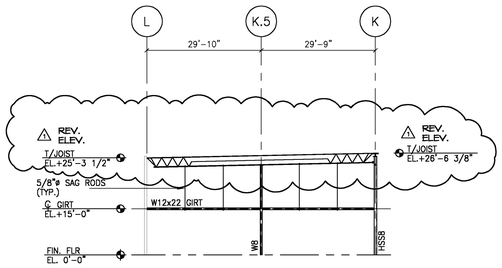
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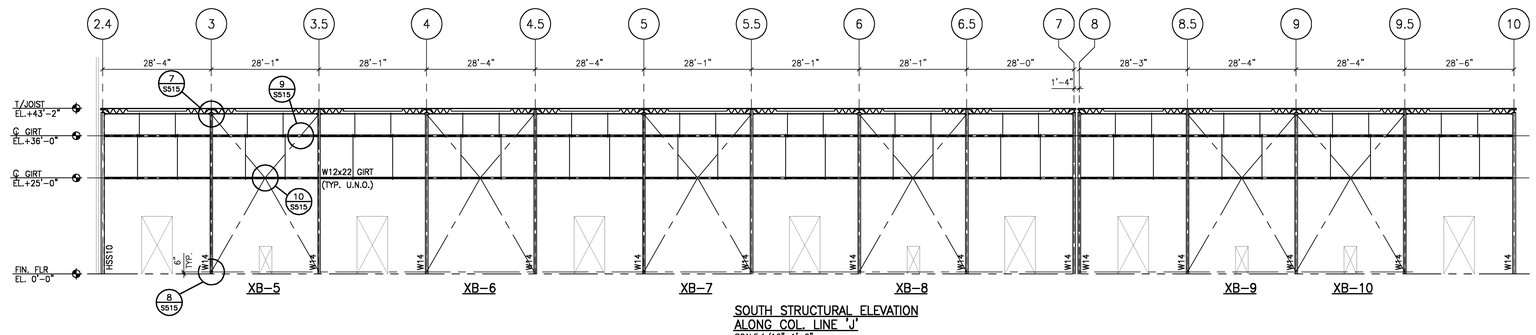
SOUTH STRUCTURAL ELEVATION
ALONG COL. LINE 'H.1'
SCALE:1/16"=1'-0"



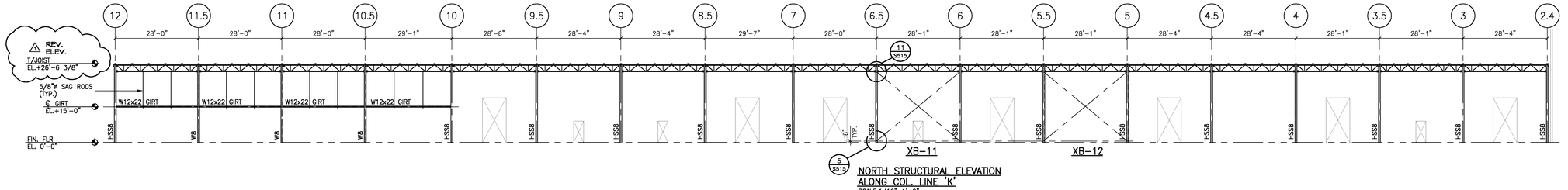
NORTH STRUCTURAL ELEVATION
ALONG COL. LINE 'A'
SCALE:1/16"=1'-0"



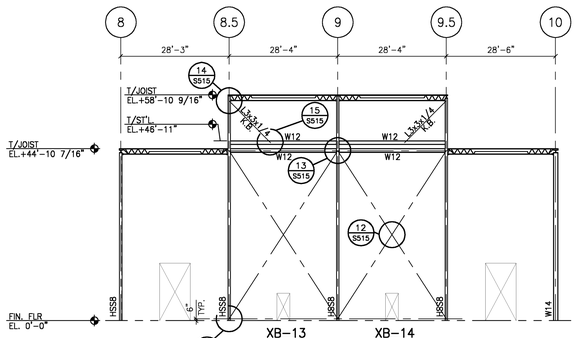
EAST STRUCTURAL ELEVATION
ALONG COL. LINE '12'
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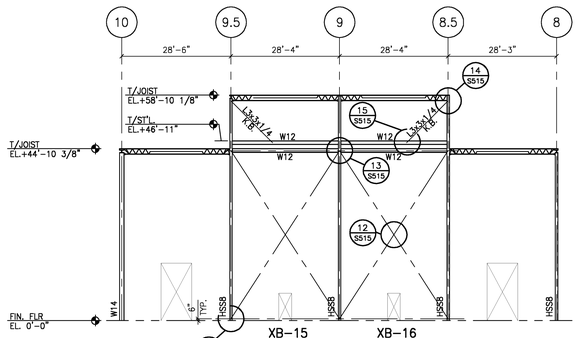
SOUTH STRUCTURAL ELEVATION
ALONG COL. LINE 'J'
SCALE:1/16"=1'-0"



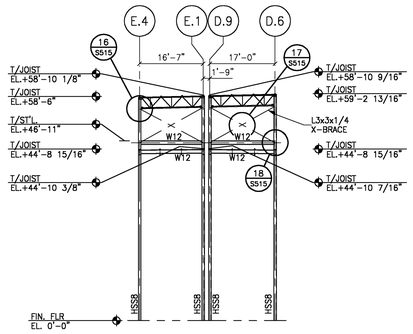
NORTH STRUCTURAL ELEVATION
ALONG COL. LINE 'K'
SCALE:1/16"=1'-0"



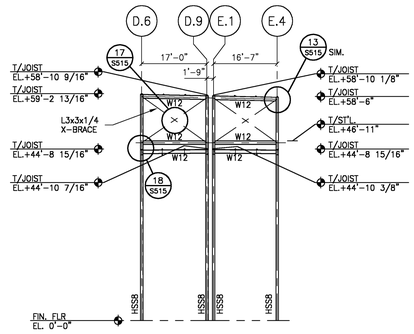
SOUTH STRUCTURAL ELEVATION
ALONG COL. LINE 'D.9'
SCALE:1/16"=1'-0"



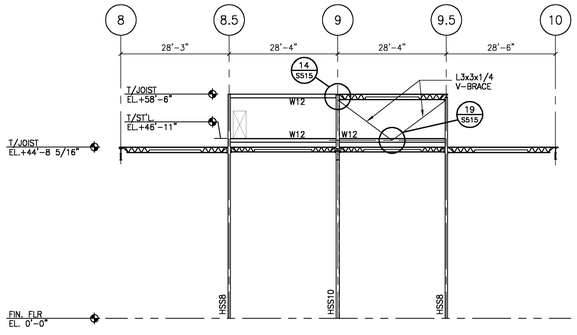
NORTH STRUCTURAL ELEVATION
ALONG COL. LINE 'E.1'
SCALE:1/16"=1'-0"



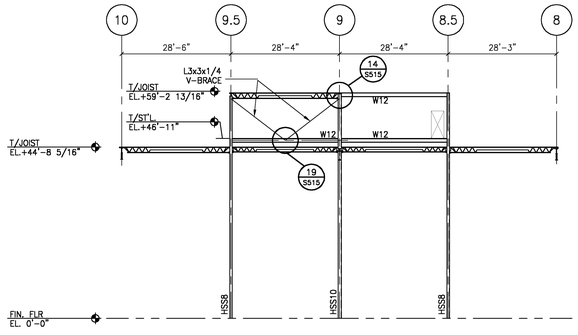
EAST STRUCTURAL ELEVATION
ALONG COL. LINE '9.5'
SCALE:1/16"=1'-0"



WEST STRUCTURAL ELEVATION
ALONG COL. LINE '8.5'
SCALE:1/16"=1'-0"



SOUTH STRUCTURAL ELEVATION
ALONG COL. LINE 'E.4'
SCALE:1/16"=1'-0"



NORTH STRUCTURAL ELEVATION
ALONG COL. LINE 'D.6'
SCALE:1/16"=1'-0"

BRACING SCHEDULE					
BRACE MARK	BRACE SIZE			TENSION (IN KIPS)	COMPRESSION (IN KIPS)
	ROD DIA.	CLEVIS NO.	CLEVIS PIN DIA.		
XB-1	HSS6x6x1/4			22.5	22.5
XB-2	1 1/2"	4	1 1/2"	31.0	–
XB-3	1 1/2"	4	1 1/2"	31.0	–
XB-4	1 1/2"	4	1 1/2"	31.0	–
XB-5	2-L6x4x3/8			21.3	21.3
XB-6	2-L6x4x3/8			21.3	21.3
XB-7	2-L6x4x3/8			21.3	21.3
XB-8	2-L6x4x3/8			21.3	21.3
XB-9	2-L6x4x3/8			16.0	16.0
XB-10	2-L6x4x3/8			16.0	16.0

BRACING SCHEDULE					
BRACE MARK	BRACE SIZE			TENSION (IN KIPS)	COMPRESSION (IN KIPS)
	ROD DIA.	CLEVIS NO.	CLEVIS PIN DIA.		
XB-11	3/4"	2 1/2	3/4"	5.10	–
XB-12	3/4"	2 1/2	3/4"	5.10	–
XB-13	PIPE 5" STD.			18.7	18.7
XB-14	PIPE 5" STD.			18.7	18.7
XB-15	PIPE 5" STD.			18.7	18.7
XB-16	PIPE 5" STD.			18.7	18.7

NOTE:
LONG LEG BACK TO BACK & LONG LEG HORIZONTAL ON DOUBLE ANGLE BRACING TYP. U.N.O.

FLORIDA ENGINEERING LICENSE No. 9535
FLORIDA ARCHITECTURAL LICENSE No. AR 0016175
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

STRUCTURAL ELEVATIONS

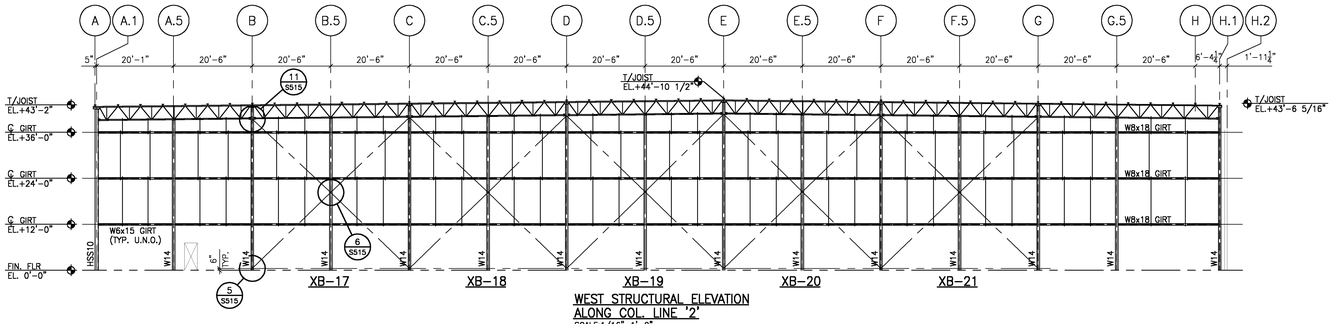
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REV.	DATE	BY	DESCRIPTION
A	12/7/06	DLP	OWNER'S REVIEW
B	1/5/07	DLP	STRUCTURAL STEEL BID ISSUE
C	4/13/07	DLP	CONSTRUCTION ISSUE
1	6/6/07	DLP	REVISED AS NOTED

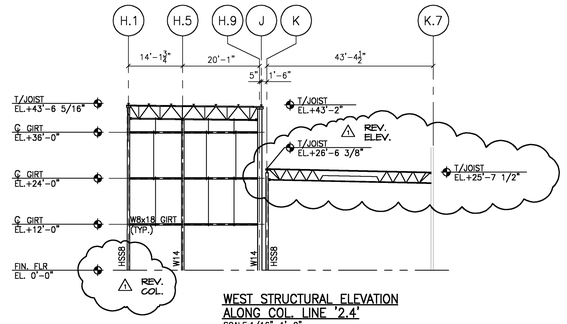
JOB NO. 710-03019
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CHECKED: REK
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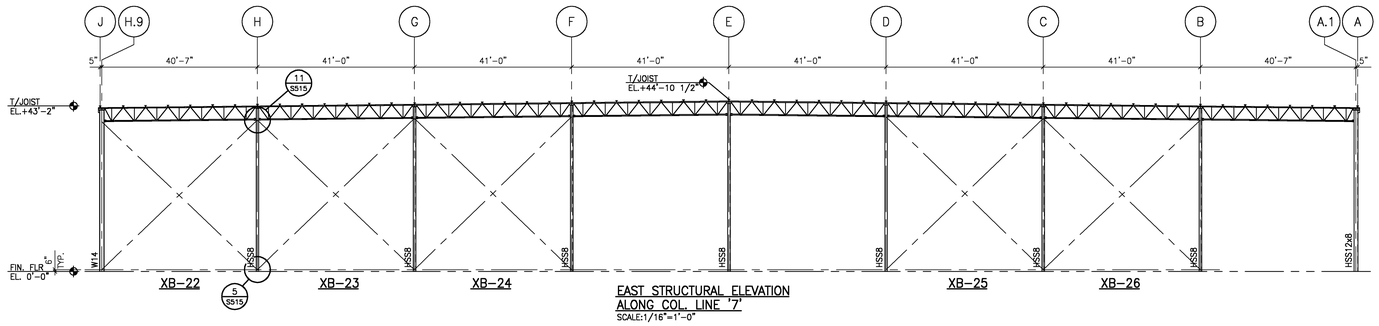
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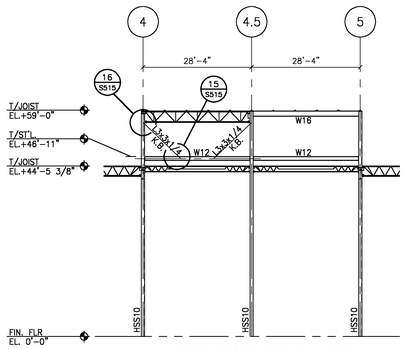
WEST STRUCTURAL ELEVATION
ALONG COL. LINE '2'
SCALE:1/16"=1'-0"



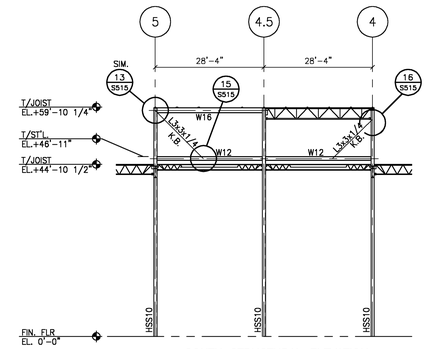
WEST STRUCTURAL ELEVATION
ALONG COL. LINE '2.4'
SCALE:1/16"=1'-0"



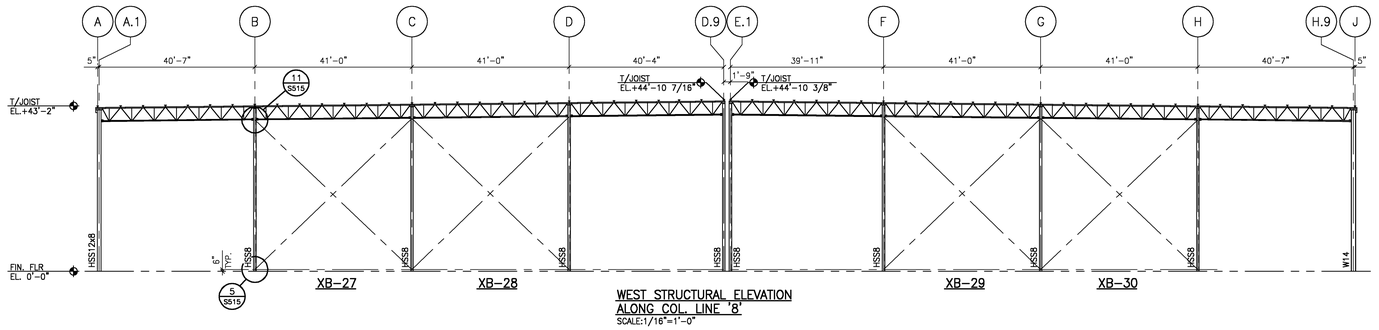
EAST STRUCTURAL ELEVATION
ALONG COL. LINE '7'
SCALE:1/16"=1'-0"



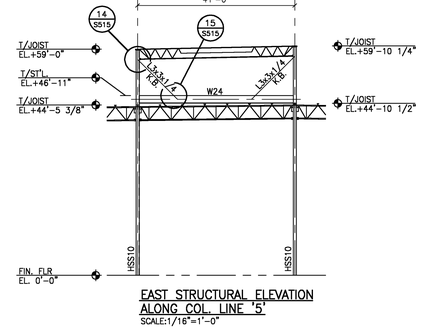
NORTH STRUCTURAL ELEVATION
ALONG COL. LINE 'F'
SCALE:1/16"=1'-0"



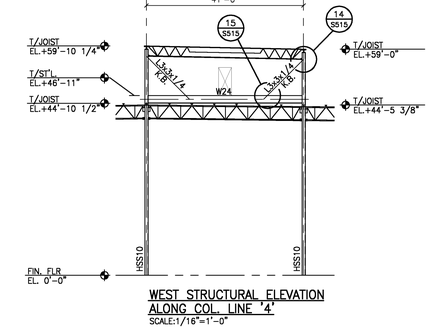
SOUTH STRUCTURAL ELEVATION
ALONG COL. LINE 'E'
SCALE:1/16"=1'-0"



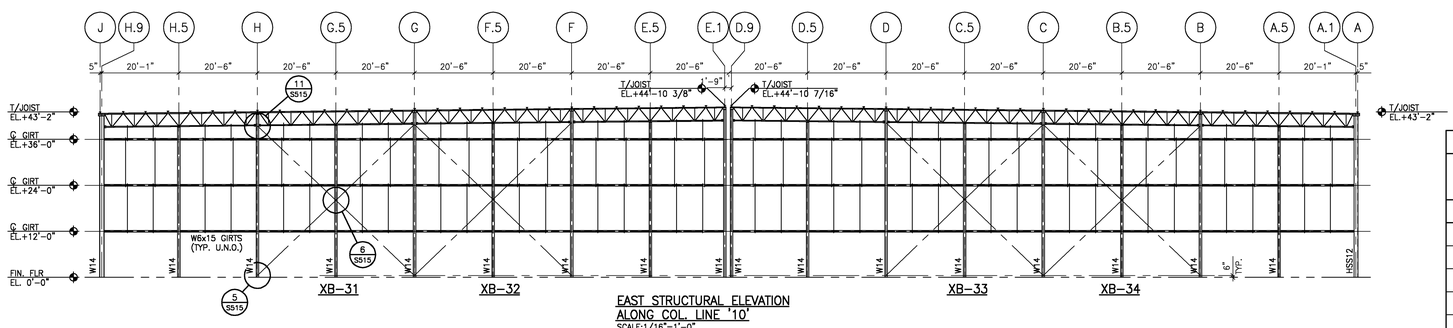
WEST STRUCTURAL ELEVATION
ALONG COL. LINE '8'
SCALE:1/16"=1'-0"



EAST STRUCTURAL ELEVATION
ALONG COL. LINE '5'
SCALE:1/16"=1'-0"



WEST STRUCTURAL ELEVATION
ALONG COL. LINE '4'
SCALE:1/16"=1'-0"



EAST STRUCTURAL ELEVATION
ALONG COL. LINE '10'
SCALE:1/16"=1'-0"

BRACING SCHEDULE					
BRACE MARK	BRACE SIZE			TENSION (IN KIPS)	COMPRESSION (IN KIPS)
	ROD DIA.	CLEVIS NO.	CLEVIS PIN DIA.		
XB-17	1 1/2"	4	1 1/2"	31.2	–
XB-18	1 1/2"	4	1 1/2"	31.2	–
XB-19	1 1/2"	4	1 1/2"	31.2	–
XB-20	1 1/2"	4	1 1/2"	31.2	–
XB-21	1 1/2"	4	1 1/2"	31.2	–
XB-22	1 1/2"	4	1 1/2"	31.2	–
XB-23	1 1/2"	4	1 1/2"	31.2	–
XB-24	1 1/2"	4	1 1/2"	31.2	–
XB-25	1 1/2"	4	1 1/2"	31.2	–
XB-26	1 1/2"	4	1 1/2"	31.2	–

BRACING SCHEDULE					
BRACE MARK	BRACE SIZE			TENSION (IN KIPS)	COMPRESSION (IN KIPS)
	ROD DIA.	CLEVIS NO.	CLEVIS PIN DIA.		
XB-27	1 1/4"	3	1 1/4"	17.3	–
XB-28	1 1/4"	3	1 1/4"	17.3	–
XB-29	1 1/4"	3	1 1/4"	17.3	–
XB-30	1 1/4"	3	1 1/4"	17.3	–
XB-31	1 1/4"	3	1 1/4"	17.3	–
XB-32	1 1/4"	3	1 1/4"	17.3	–
XB-33	1 1/4"	3	1 1/4"	17.3	–
XB-34	1 1/4"	3	1 1/4"	17.3	–

NOTE:
LONG LEG BACK TO BACK & LONG LEG HORIZONTAL ON DOUBLE ANGLE BRACING TYP. U.N.O.

FLORIDA ENGINEERING LICENSE NO. 9535
FLORIDA ARCHITECTURAL LICENSE NO. AA 0026176
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFURBISHMENT
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

STRUCTURAL ELEVATIONS

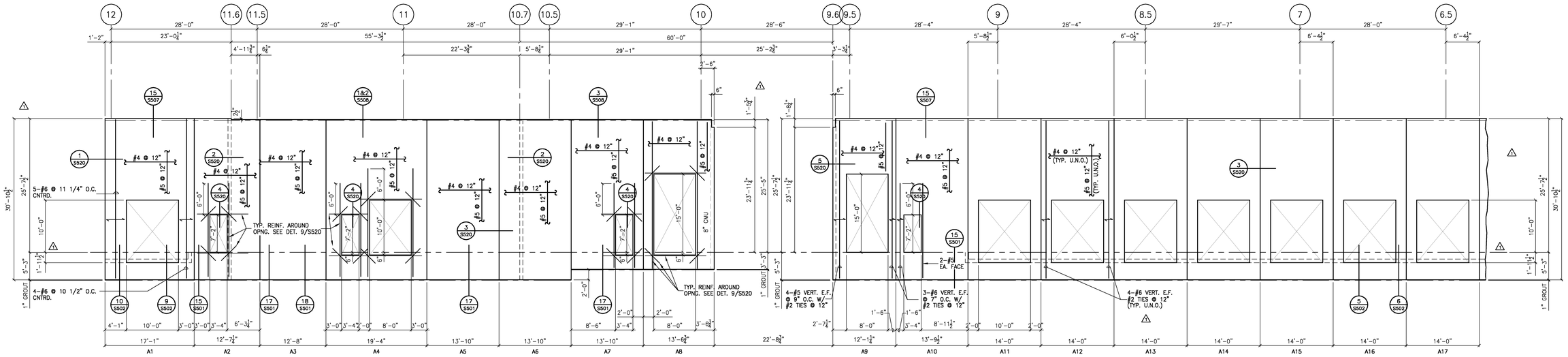
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REV.	DATE	BY	DESCRIPTION
A	7/7/06	DLP	OWNER'S REVIEW
B	7/21/06	DLP	STRUCTURAL STEEL BID ISSUE
C	8/7/06	DLP	STEEL CONSTRUCTION ISSUE
1	10/06/06	DLP	REVISED AS NOTED

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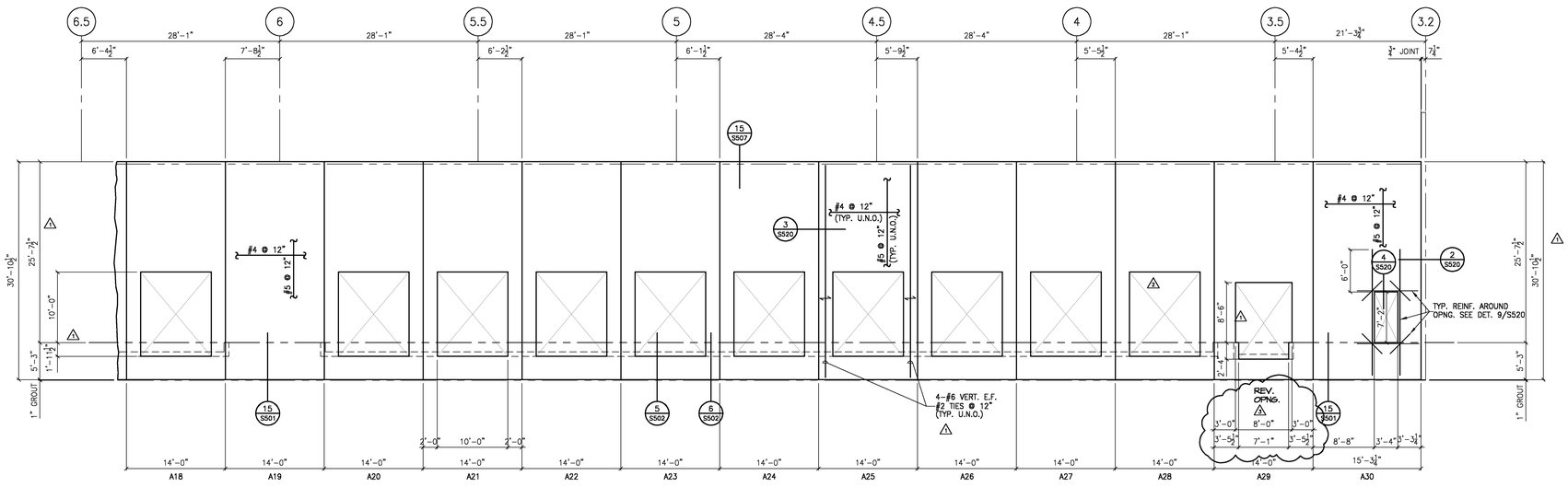
S201
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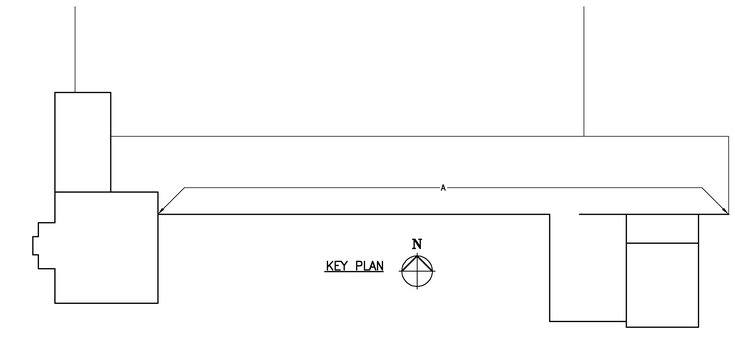
PARTIAL PANEL ELEVATION 'A'

ALONG COLUMN LINE 'L'
SCALE: 1/8" = 1'-0"
9 1/4" TOTAL THICKNESS CONCRETE PANELS



PANEL ELEVATION 'A' (CONTINUED)

ALONG COLUMN LINE 'L'
SCALE: 1/8" = 1'-0"
9 1/4" TOTAL THICKNESS CONCRETE PANELS



KEY PLAN

NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

FLORIDA DESIGNERS LICENSE NO. 9630
FLORIDA ARCHITECTURAL LICENSE NO. AA26001975
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

TILT-UP PANEL ELEVATIONS AND REINFORCING

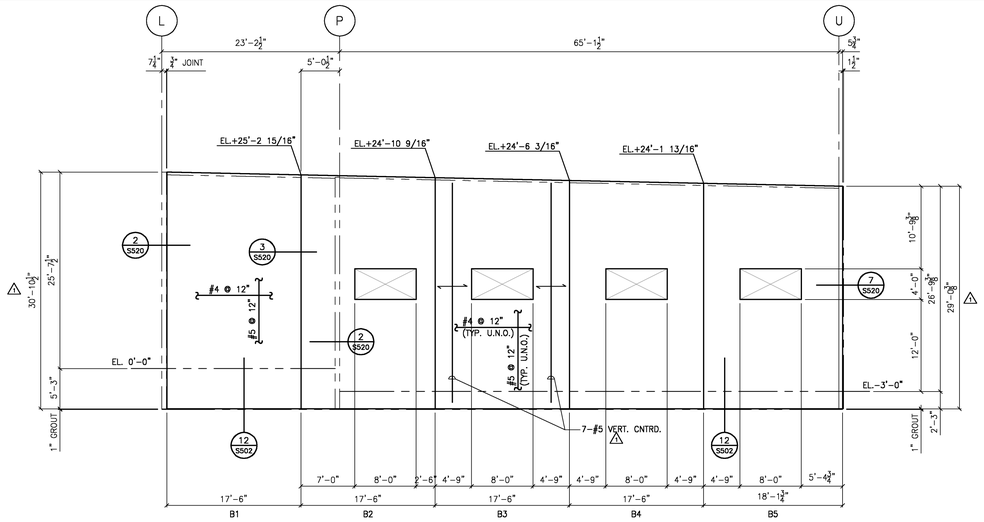
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REV.	DATE	BY	DESCRIPTION
3	6/15/07	DLP	REVISED AS NOTED
2	6/06/07	DLP	REVISED AS NOTED
1	5/30/07	DLP	REVISED AS NOTED
0	5/23/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
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CHECKED: REK
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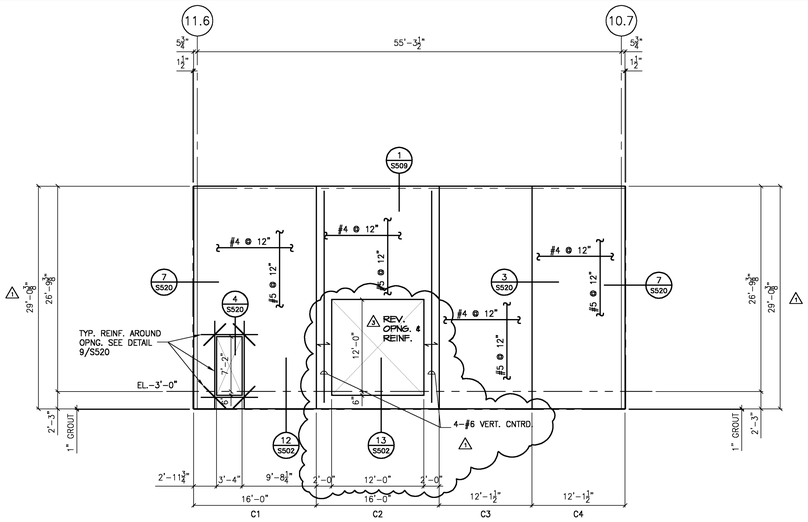
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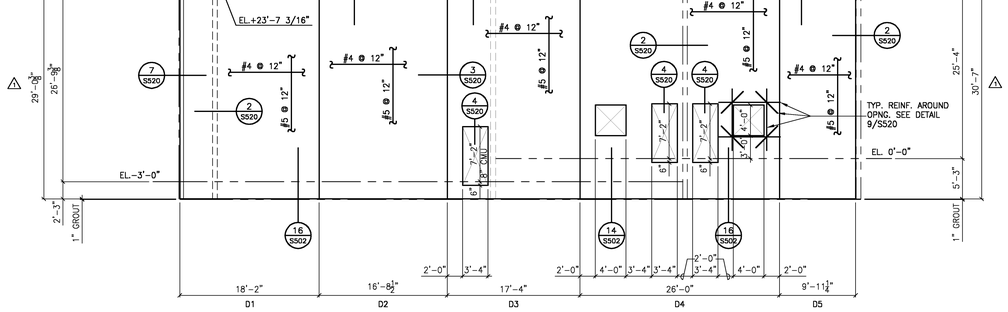
PANEL ELEVATION 'B'

ALONG COLUMN LINE '11.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



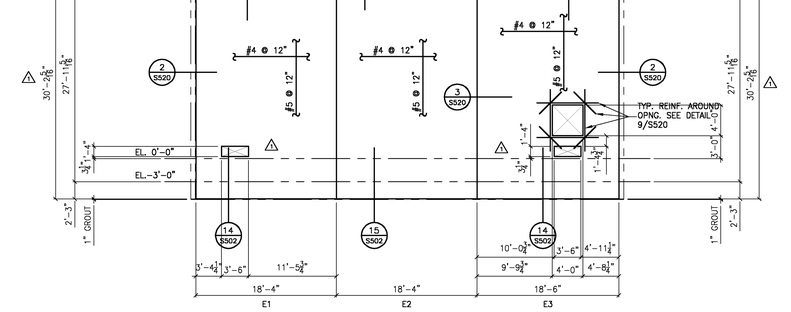
PANEL ELEVATION 'C'

ALONG COLUMN LINE 'U'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



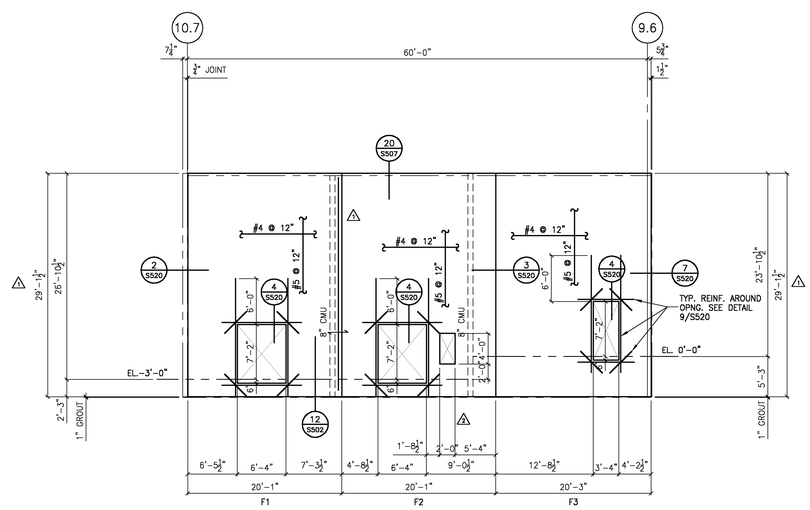
PANEL ELEVATION 'D'

ALONG COLUMN LINE '10.7'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



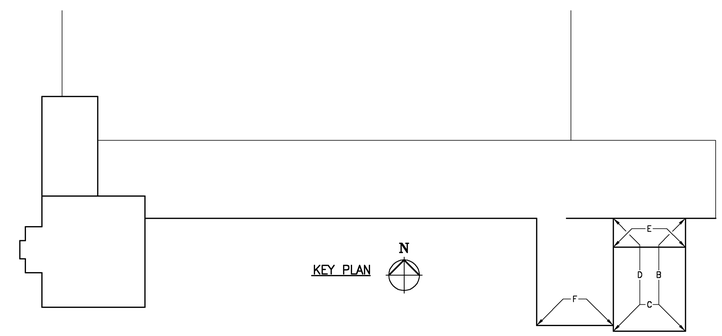
PANEL ELEVATION 'E'

ALONG COLUMN LINE 'P'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



PANEL ELEVATION 'F'

ALONG COLUMN LINE 'T'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

FLORIDA ENGINEERING LICENSE NO. 9430
FLORIDA ARCHITECTURAL LICENSE NO. AA 26001176
THE STELLAR GROUP
DESIGN ▪ CONSTRUCTION ▪ REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

TILT-UP PANEL ELEVATIONS AND REINFORCING

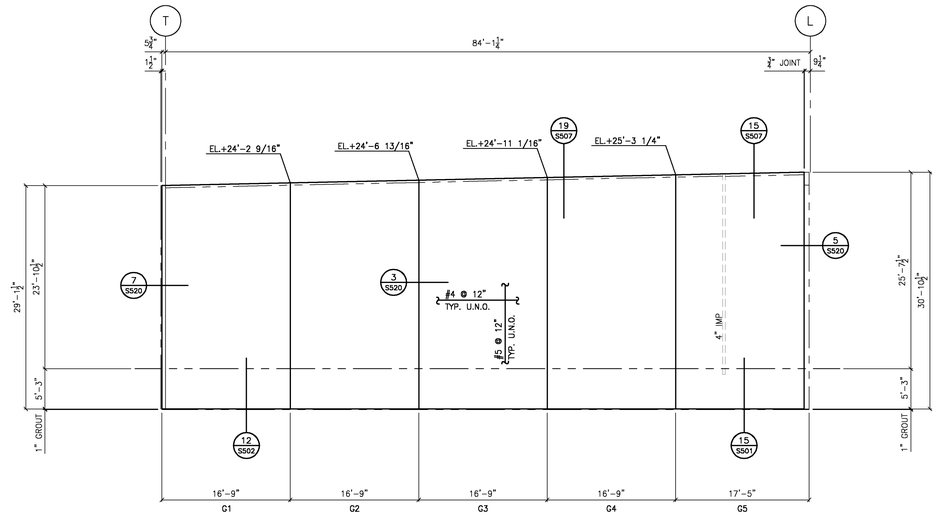
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REV.	DATE	BY	DESCRIPTION
0	7/5/07	DLP	CONSTRUCTION ISSUE
1	8/24/07	DLP	REVISED AS NOTED
2	9/24/07	DLP	REVISED AS NOTED
3	10/5/07	DLP	REVISED AS NOTED

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CHECKED: REK
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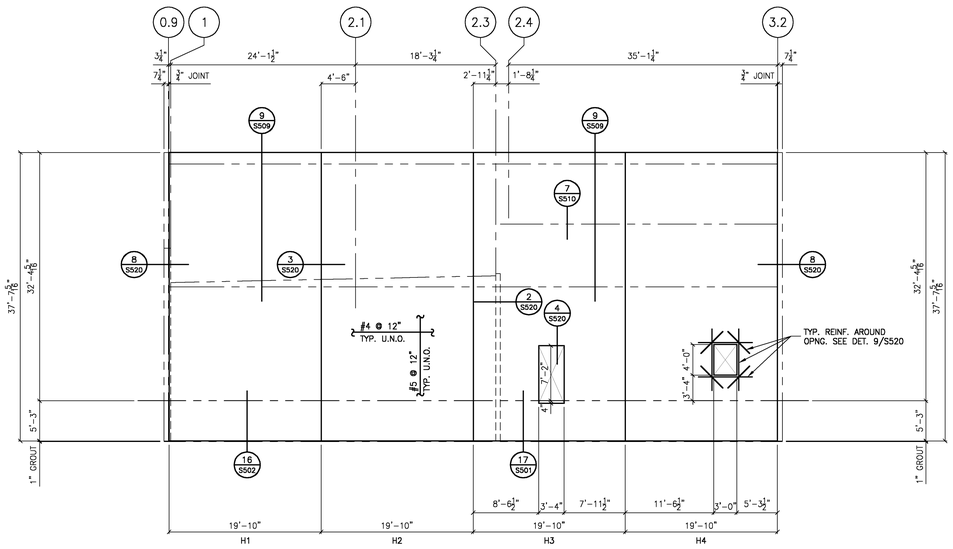
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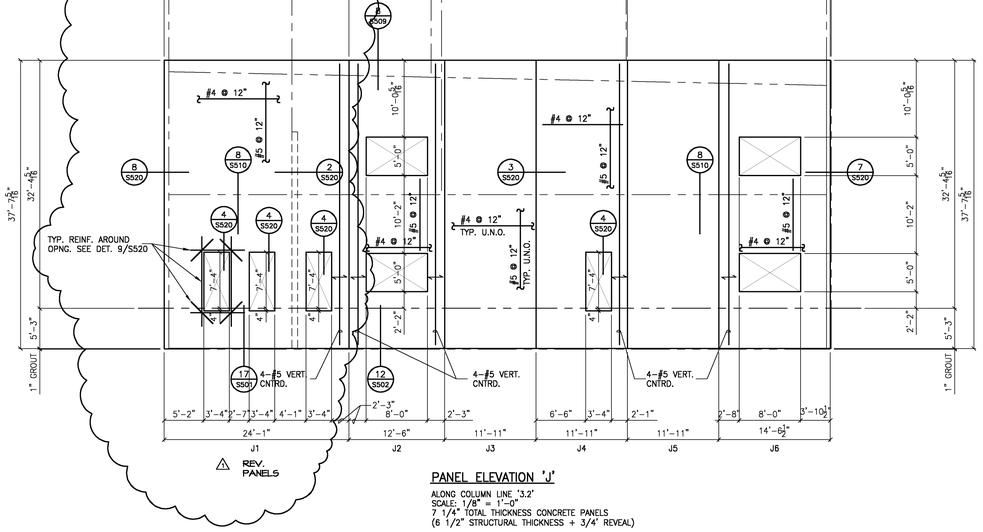
PANEL ELEVATION 'G'

ALONG COLUMN LINE '9.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



PANEL ELEVATION 'H'

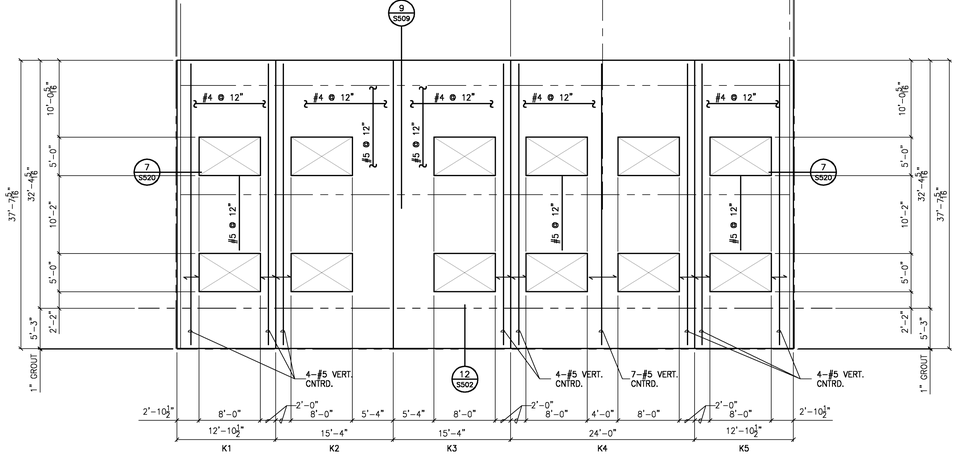
ALONG COLUMN LINE 'K.7'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



⚠ REV. PANELS

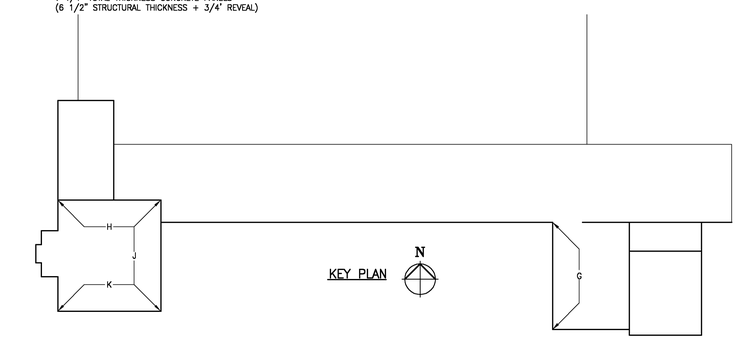
PANEL ELEVATION 'J'

ALONG COLUMN LINE '3.2'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



PANEL ELEVATION 'K'

ALONG COLUMN LINE 'S'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

FLORIDA ENGINEERING LICENSE NO. 35520
FLORIDA ARCHITECTURAL LICENSE NO. AA26001975
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

TILT-UP PANEL ELEVATIONS AND REINFORCING

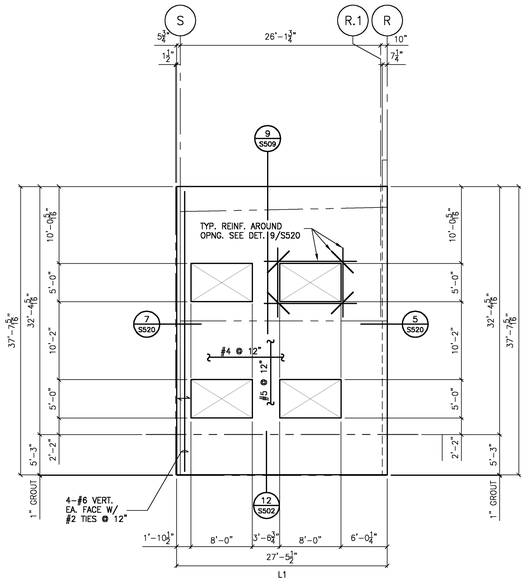
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REV.	DATE	BY	DESCRIPTION
1	7/9/07	DLP	REVISED AS NOTED
0	5/4/07	DLP	CONSTRUCTION ISSUE

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CHECKED: REK
SCALE: 1/8"=1'-0"

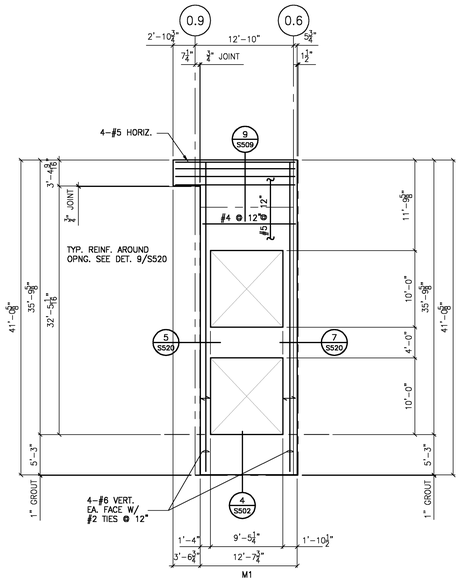
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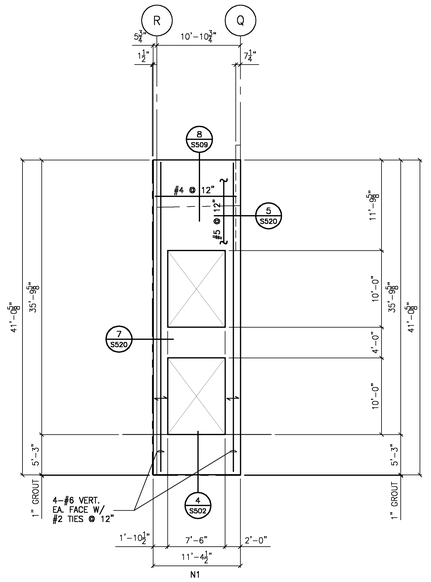
PANEL ELEVATION 'L'

ALONG COLUMN LINE '0.9'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4' REVEAL)



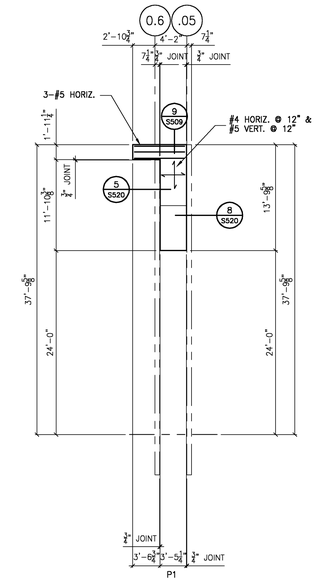
PANEL ELEVATION 'M'

ALONG COLUMN LINE 'R'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4' REVEAL)



PANEL ELEVATION 'N'

ALONG COLUMN LINE '0.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4' REVEAL)



PANEL ELEVATION 'P'

ALONG COLUMN LINE 'Q'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS

PANEL ELEVATION 'Q'

ALONG COLUMN LINE '0.5'
SCALE: 1/8" = 1'-0"
9 1/4" TOTAL THICKNESS CONCRETE PANELS

PANEL ELEVATION 'R'

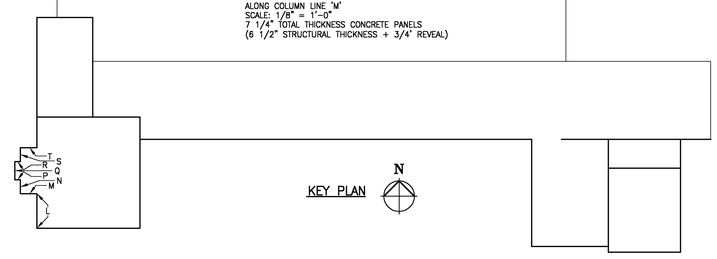
ALONG COLUMN LINE 'N'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS

PANEL ELEVATION 'S'

ALONG COLUMN LINE '0.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4' REVEAL)

PANEL ELEVATION 'T'

ALONG COLUMN LINE 'M'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4' REVEAL)



NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

FLORIDA ENGINEERING LICENSE NO. 35520

FLORIDA ARCHITECTURAL LICENSE NO. AA26001775

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

TILT-UP PANEL ELEVATIONS AND REINFORCING

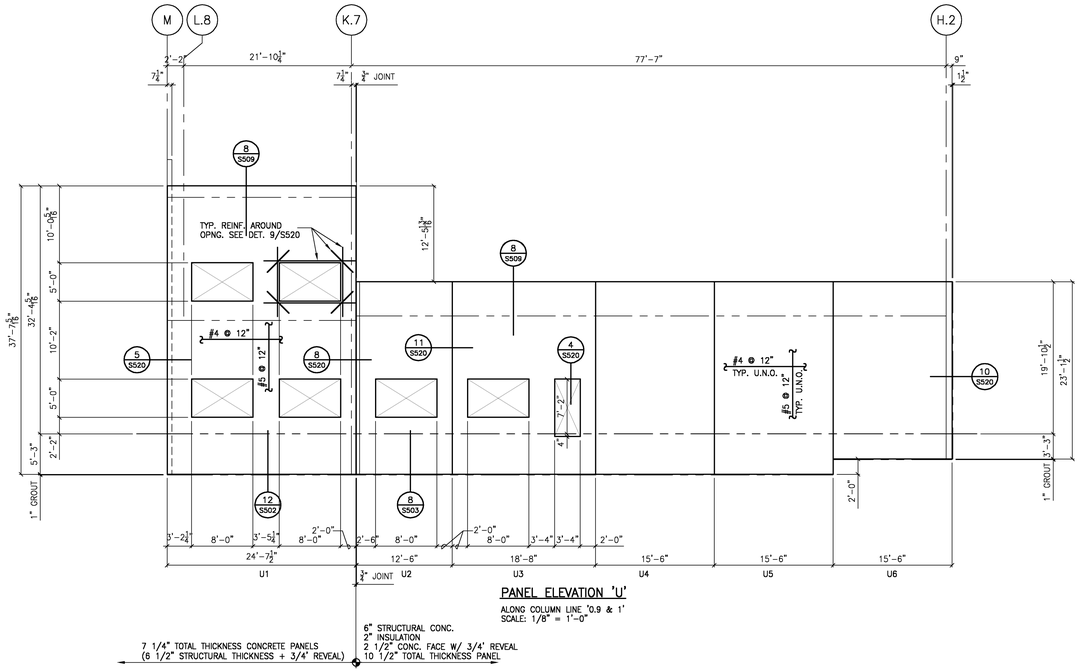
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REV.	DATE	BY	DESCRIPTION
0	6/8/2007	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
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CHECKED: REK
SCALE: 1/8"=1'-0"

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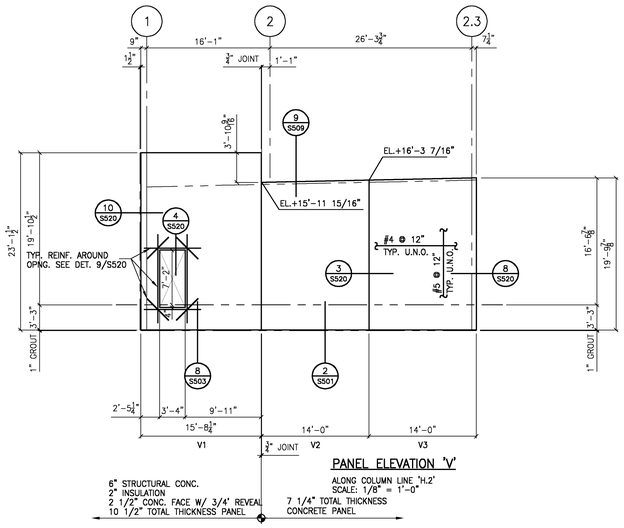


PANEL ELEVATION 'U'

ALONG COLUMN LINE 'O.9 & 1'
SCALE: 1/8" = 1'-0"

7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)

6" STRUCTURAL CONC.
2" INSULATION
2 1/2" CONC. FACE W/ 3/4" REVEAL
10 1/2" TOTAL THICKNESS PANEL

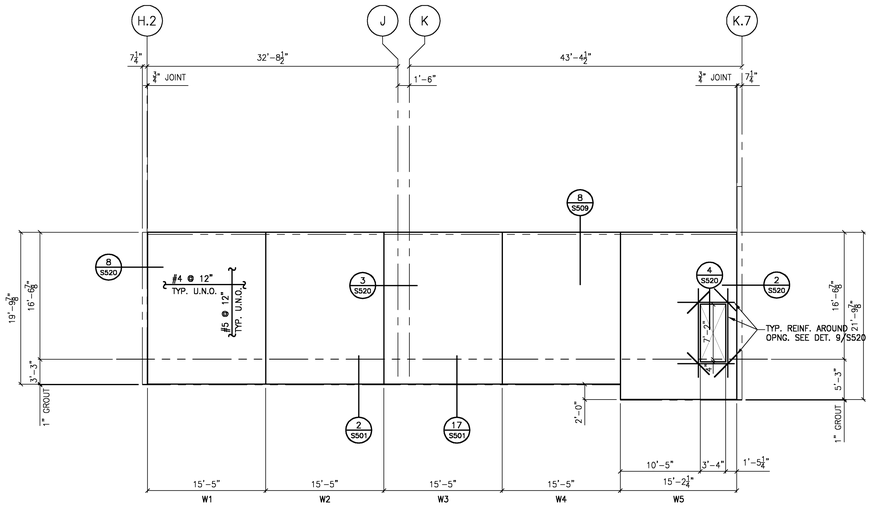


PANEL ELEVATION 'V'

ALONG COLUMN LINE 'H.2'
SCALE: 1/8" = 1'-0"

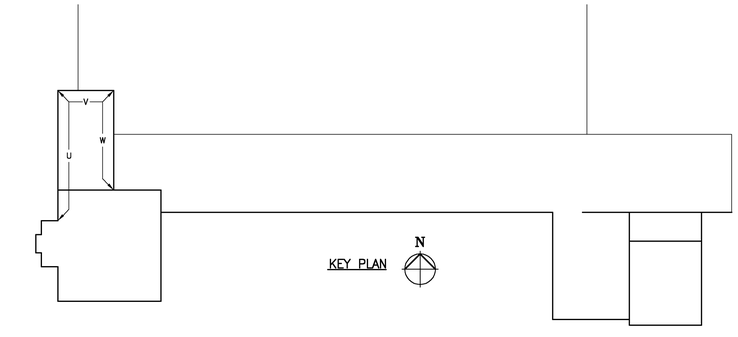
6" STRUCTURAL CONC.
2" INSULATION
2 1/2" CONC. FACE W/ 3/4" REVEAL
10 1/2" TOTAL THICKNESS PANEL

7 1/4" TOTAL THICKNESS
CONCRETE PANEL



PANEL ELEVATION 'W'

ALONG COLUMN LINE '2.3'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



KEY PLAN

NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

FLORIDA DISCIPLINE LICENSE NO. 9630

FLORIDA ARCHITECTURAL LICENSE NO. AA26001975

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

TILT-UP PANEL ELEVATIONS AND REINFORCING

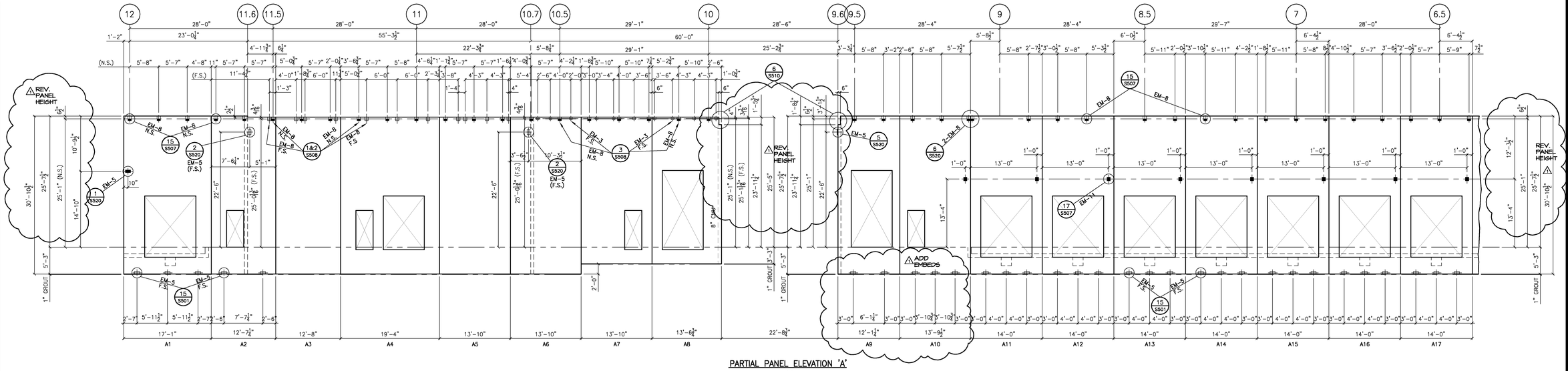
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REV.	DATE	BY	DESCRIPTION
0	6/8/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
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CHECKED: REK
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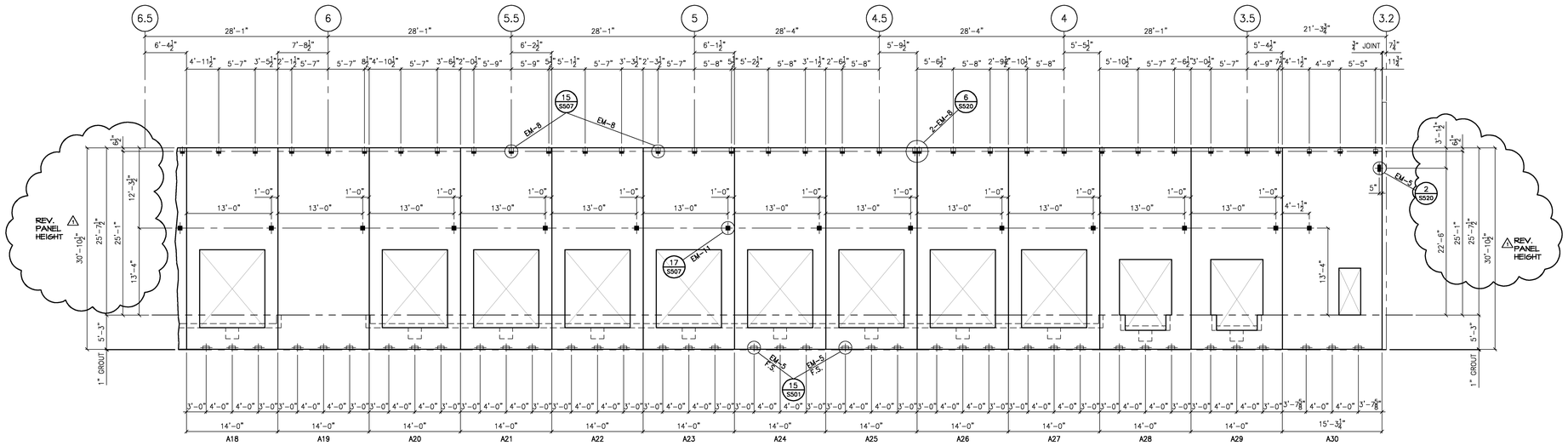
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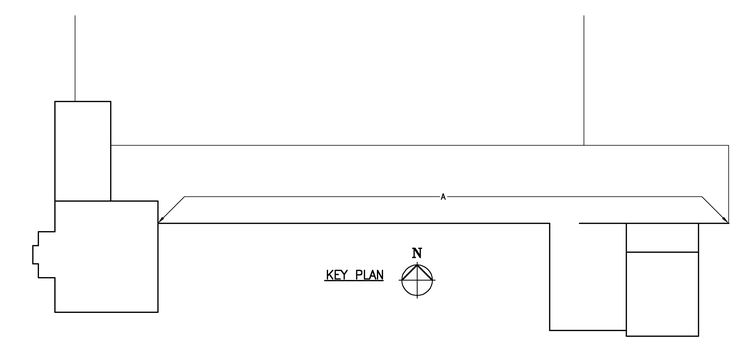
PARTIAL PANEL ELEVATION 'A'

ALONG COLUMN LINE 'L'
SCALE: 1/8" = 1'-0"
9 1/4" TOTAL THICKNESS CONCRETE PANELS



PANEL ELEVATION 'A' (CONTINUED)

ALONG COLUMN LINE 'L'
SCALE: 1/8" = 1'-0"
9 1/4" TOTAL THICKNESS CONCRETE PANELS



NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

INDICATES EMBEDDED PLATES IN NEAR SIDE FACE OF PANEL

INDICATES EMBEDDED PLATES IN FAR SIDE FACE OF PANEL

FLORIDA ENGINEERING LICENSE NO. 9520

FLORIDA ARCHITECTURAL LICENSE NO. AA26001976

THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 BARTLEY ROAD, JACKSONVILLE, FL. 32207 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

TILT-UP PANEL EMBEDS

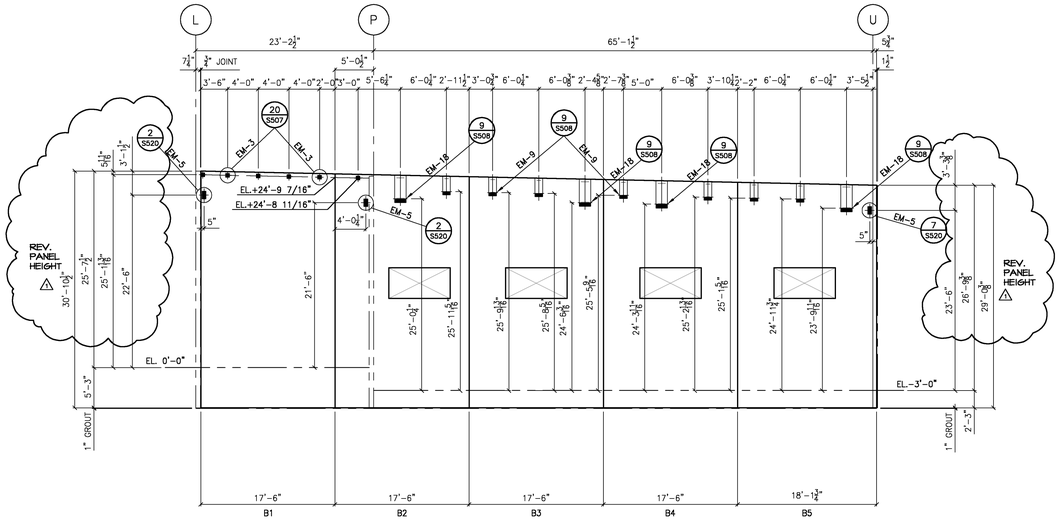
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REV.	DATE	BY	DESCRIPTION
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0	5/24/2007	DLP	CONSTRUCTION ISSUE

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CHECKED: REK
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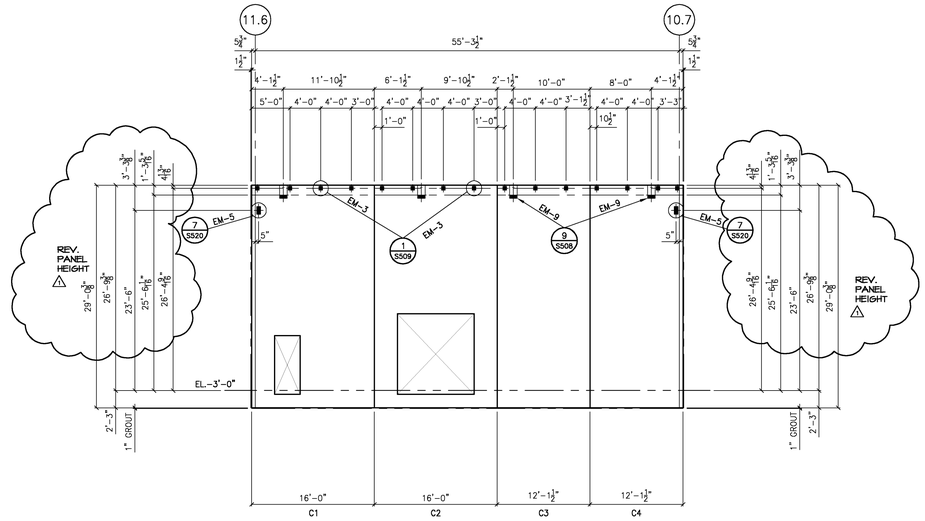
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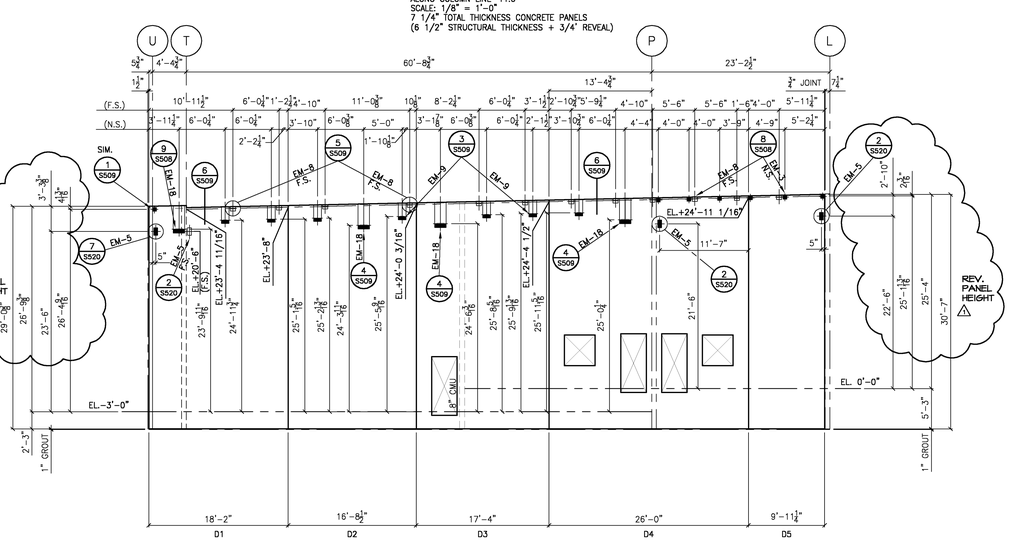
PANEL ELEVATION 'B'

ALONG COLUMN LINE '11.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



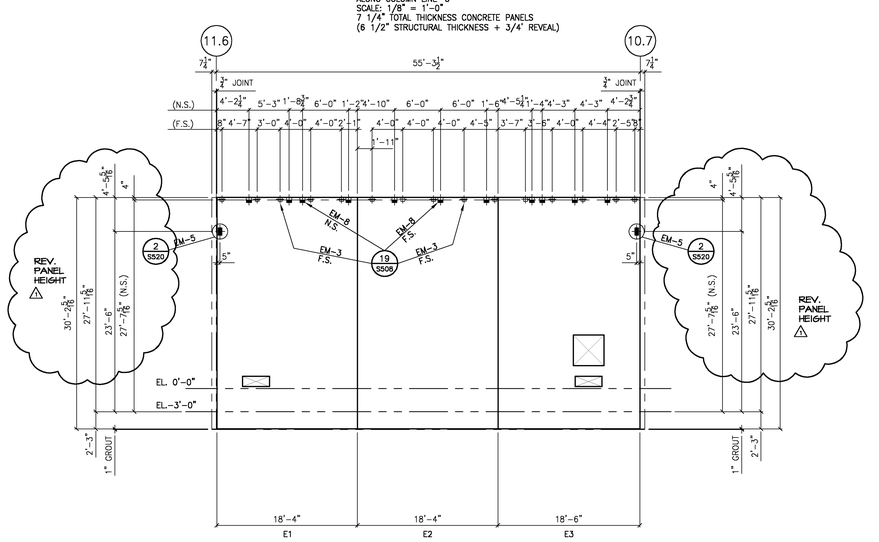
PANEL ELEVATION 'C'

ALONG COLUMN LINE 'U'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



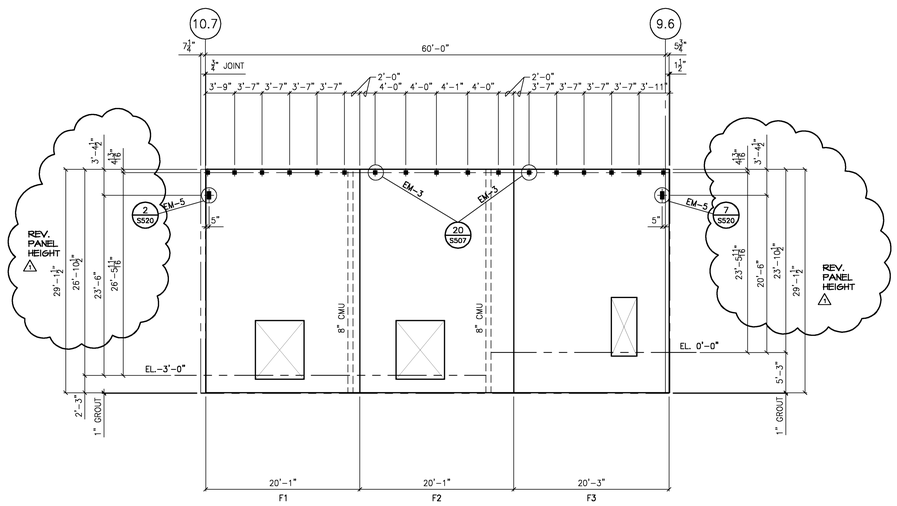
PANEL ELEVATION 'D'

ALONG COLUMN LINE '10.7'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



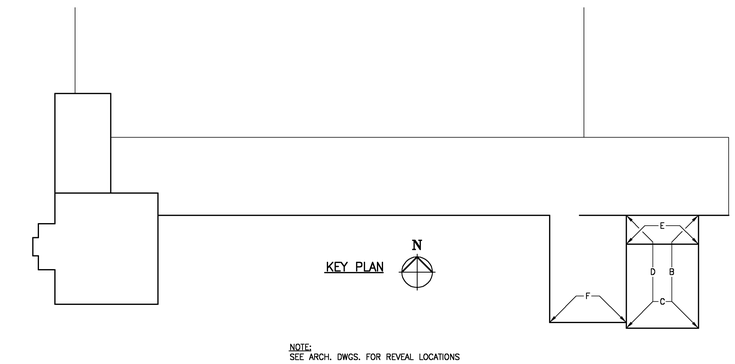
PANEL ELEVATION 'E'

ALONG COLUMN LINE 'P'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



PANEL ELEVATION 'F'

ALONG COLUMN LINE 'T'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

INDICATES EMBEDDED PLATES IN NEAR SIDE FACE OF PANEL

INDICATES EMBEDDED PLATES IN FAR SIDE FACE OF PANEL

THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
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FLORIDA ENGINEERING LICENSE No. 9630
FLORIDA ARCHITECTURAL LICENSE No. AR 0016176

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

TILT-UP PANEL EMBEDS

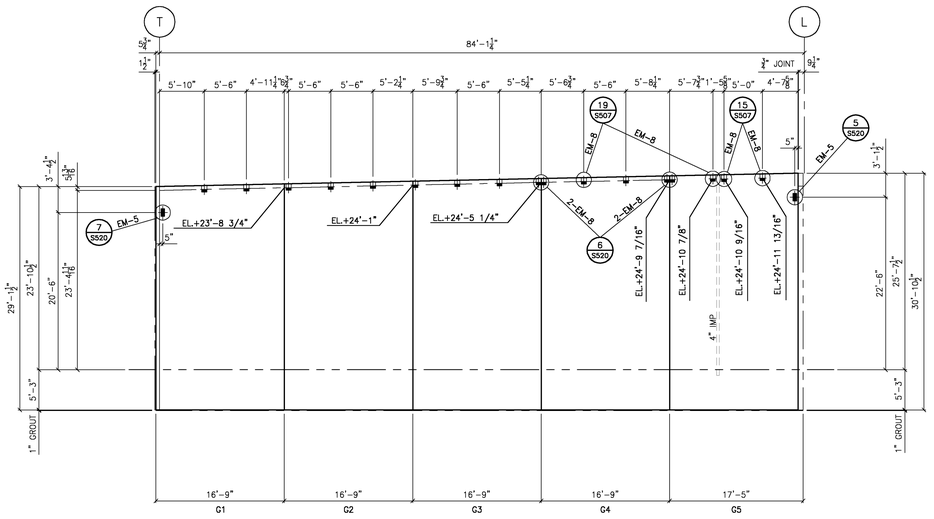
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REV.	DATE	BY	DESCRIPTION
1	6/8/07	DLP	REVISED AS NOTED
0	6/6/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 1/8"=1'-0"

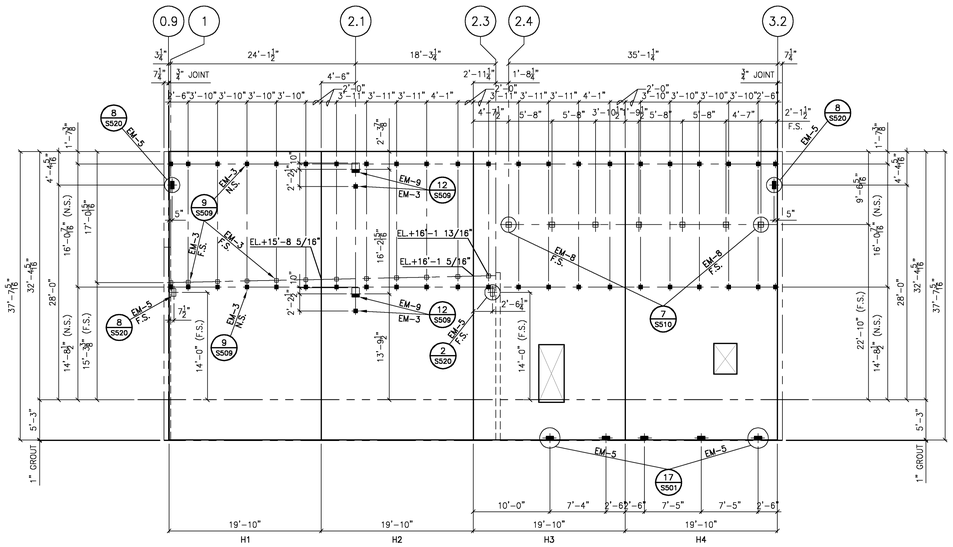
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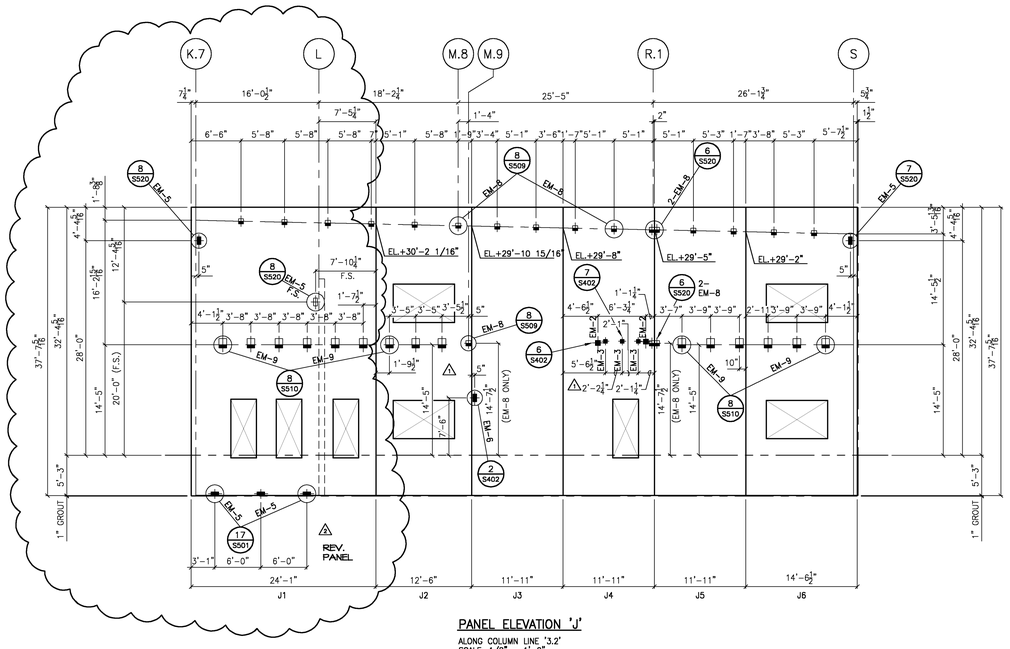
PANEL ELEVATION 'G'

ALONG COLUMN LINE '9.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



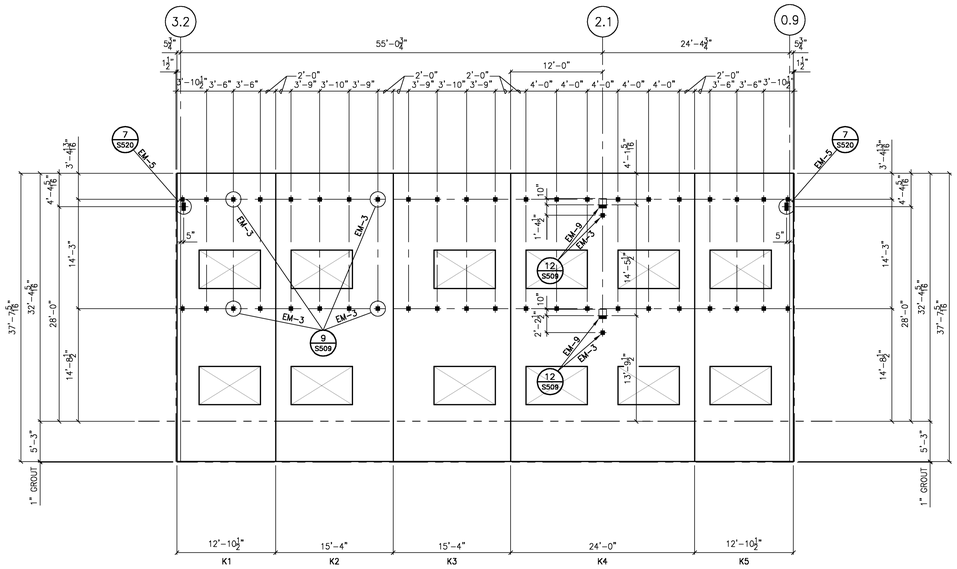
PANEL ELEVATION 'H'

ALONG COLUMN LINE 'K.7'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



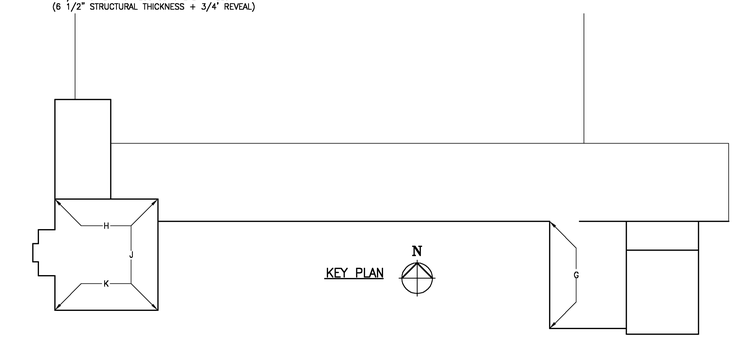
PANEL ELEVATION 'J'

ALONG COLUMN LINE '3.2'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



PANEL ELEVATION 'K'

ALONG COLUMN LINE 'S'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



KEY PLAN

NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

INDICATES EMBEDDED PLATES IN NEAR SIDE FACE OF PANEL

INDICATES EMBEDDED PLATES IN FAR SIDE FACE OF PANEL

FLORIDA ENGINEERING LICENSE NO. 9520
FLORIDA ARCHITECTURAL LICENSE NO. AR 0017176
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

TILT-UP PANEL EMBEDS AND

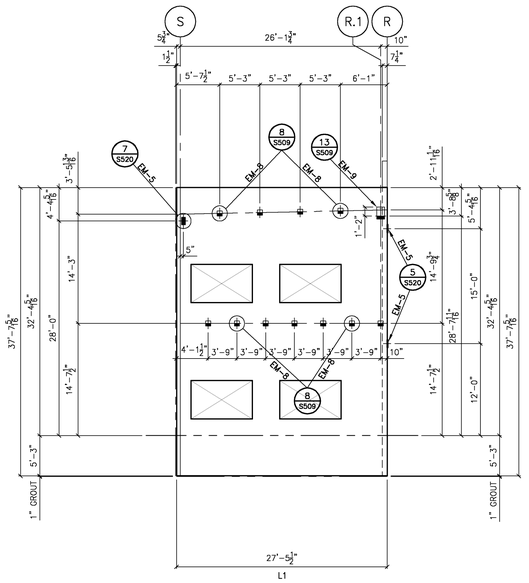
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REV.	DATE	BY	DESCRIPTION
2	7/9/07	DLP	REVISED AS NOTED
1	6/29/07	DLP	REVISED AS NOTED
0	6/08/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
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CHECKED: REK
SCALE: 1/8"=1'-0"

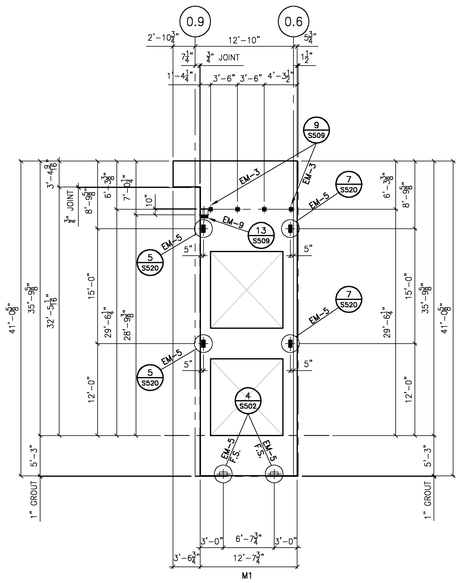
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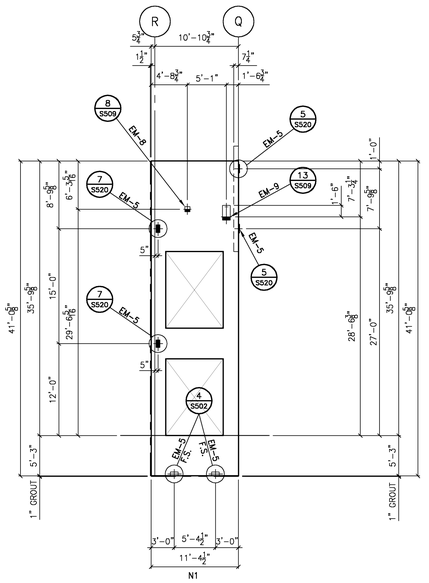
PANEL ELEVATION 'L'

ALONG COLUMN LINE '0.5'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



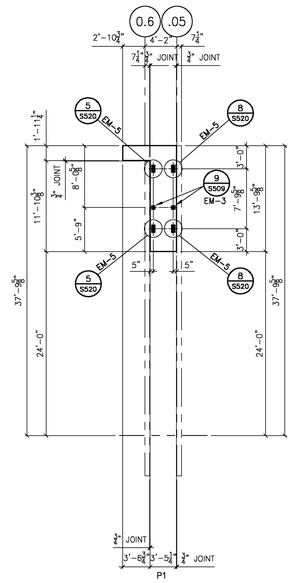
PANEL ELEVATION 'M'

ALONG COLUMN LINE 'R'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



PANEL ELEVATION 'N'

ALONG COLUMN LINE '0.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



PANEL ELEVATION 'P'

ALONG COLUMN LINE 'Q'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS

PANEL ELEVATION 'Q'

ALONG COLUMN LINE '0.5'
SCALE: 1/8" = 1'-0"
9 1/4" TOTAL THICKNESS CONCRETE PANELS

PANEL ELEVATION 'R'

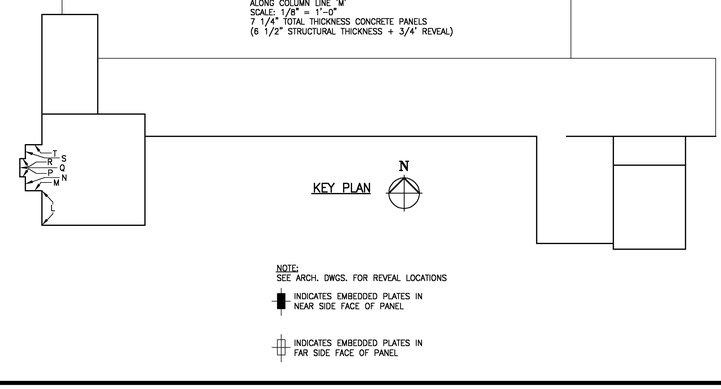
ALONG COLUMN LINE 'N'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS

PANEL ELEVATION 'S'

ALONG COLUMN LINE '0.6'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)

PANEL ELEVATION 'T'

ALONG COLUMN LINE 'M'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS
(6 1/2" STRUCTURAL THICKNESS + 3/4" REVEAL)



KEY PLAN

NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

INDICATES EMBEDDED PLATES IN NEAR SIDE FACE OF PANEL

INDICATES EMBEDDED PLATES IN FAR SIDE FACE OF PANEL

FLORIDA ENGINEERING LICENSE NO. 9630

FLORIDA ARCHITECTURAL LICENSE NO. AA26001976

THE STELLAR GROUP

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

TILT-UP PANEL EMBEDS

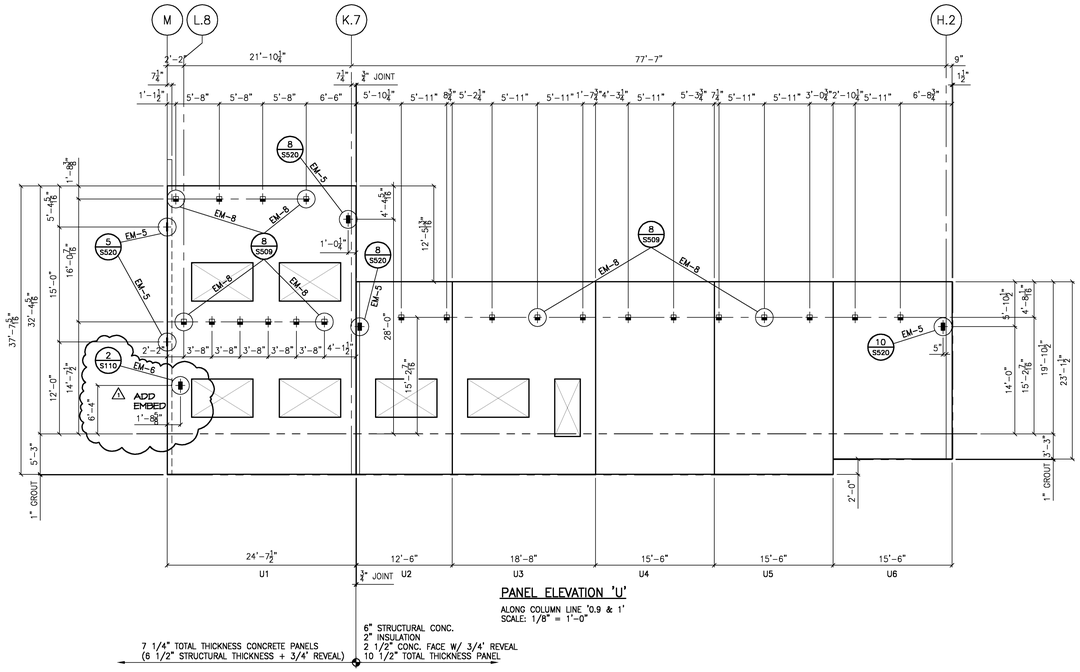
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REV.	DATE	BY	DESCRIPTION
0		DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
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CHECKED: REK
SCALE: 1/8"=1'-0"

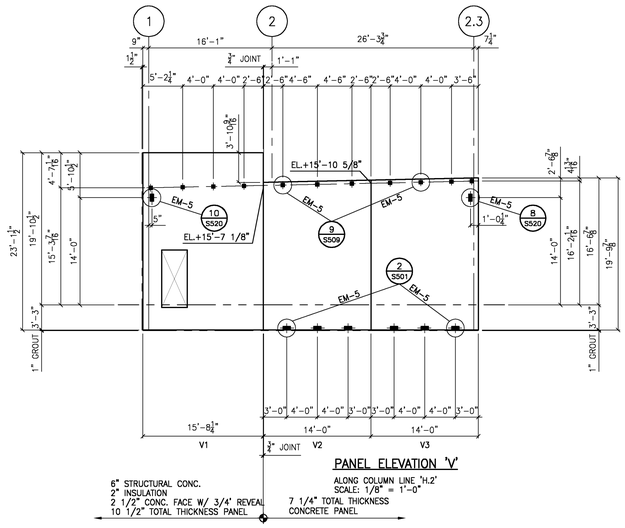
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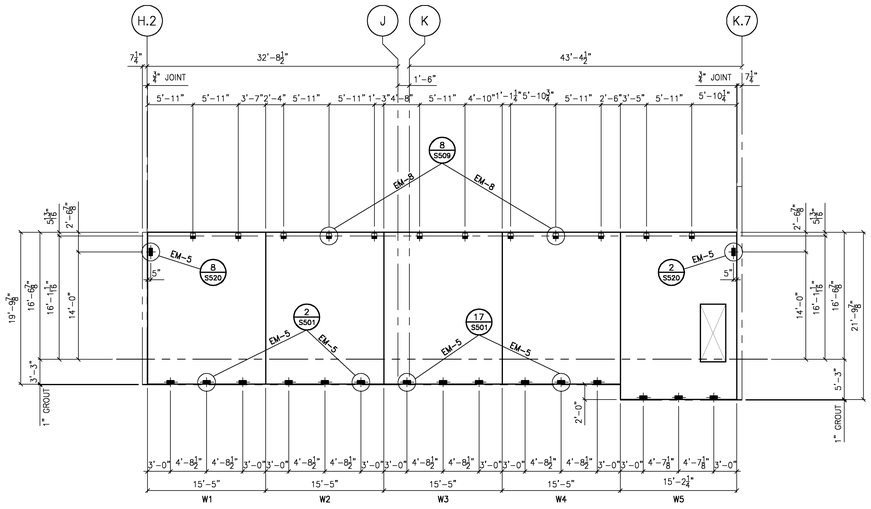
PANEL ELEVATION 'U'

ALONG COLUMN LINE '0.9 & 1'
SCALE: 1/8" = 1'-0"



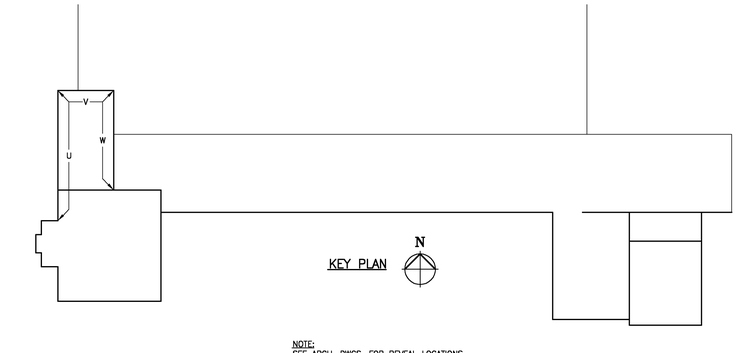
PANEL ELEVATION 'V'

ALONG COLUMN LINE 'H.2'
SCALE: 1/8" = 1'-0"



PANEL ELEVATION 'W'

ALONG COLUMN LINE '2.3'
SCALE: 1/8" = 1'-0"
7 1/4" TOTAL THICKNESS CONCRETE PANELS



KEY PLAN

NOTE:
SEE ARCH. DWGS. FOR REVEAL LOCATIONS

INDICATES EMBEDDED PLATES IN NEAR SIDE FACE OF PANEL

INDICATES EMBEDDED PLATES IN FAR SIDE FACE OF PANEL

FLORIDA ENGINEERING LICENSE NO. 9630

FLORIDA ARCHITECTURAL LICENSE NO. AR 0016176

THE STELLAR GROUP

DESIGN x CONSTRUCTION x REFRIGERATION
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

TILT-UP PANEL EMBEDS

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REV.	DATE	BY	DESCRIPTION
1	6/12/07	DLP	REVISED AS NOTED
0	6/12/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019

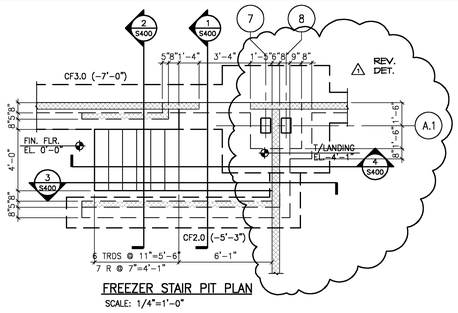
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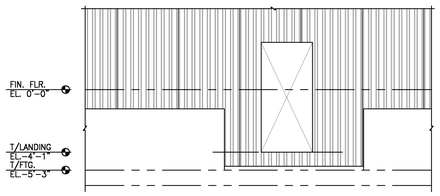
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S219
DRAWING NO.

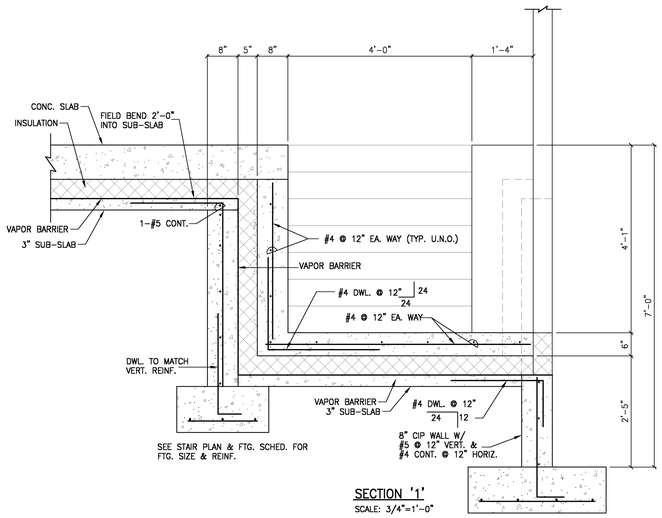
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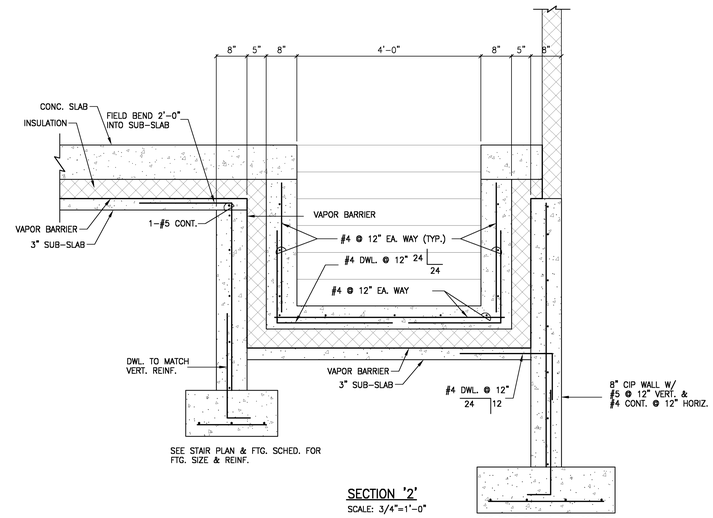
FREEZER STAIR PIT PLAN
SCALE: 1/4"=1'-0"



EXTERIOR ELEVATION @ STAIR PIT
SCALE: 1/4"=1'-0"



SECTION '1'
SCALE: 3/4"=1'-0"



SECTION '2'
SCALE: 3/4"=1'-0"

SECTION '3'
SCALE: 3/4"=1'-0"

SECTION '4'
SCALE: 3/4"=1'-0"

FLORIDA DISCIPLINE LICENSED 9630
FLORIDA ARCHITECTURAL LICENSE AR 15956
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FREEZER IN FLOOR STAIR PLAN & DETAILS

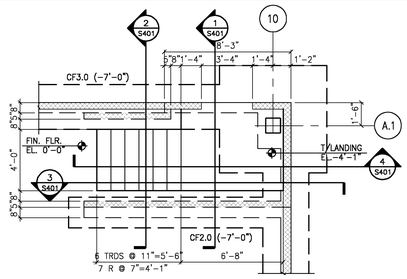
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REV.	DATE	BY	DESCRIPTION
1	6/6/07	DLP	REVISED AS NOTED
0	5/25/07	DLP	CONSTRUCTION ISSUE
C	5/11/07	DLP	STEEL CONSTRUCTION ISSUE
B	4/11/07	DLP	FOUNDATION BID ISSUE
A	3/7/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

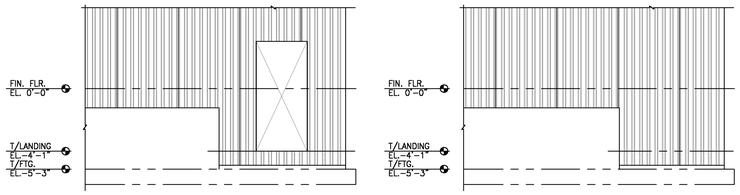
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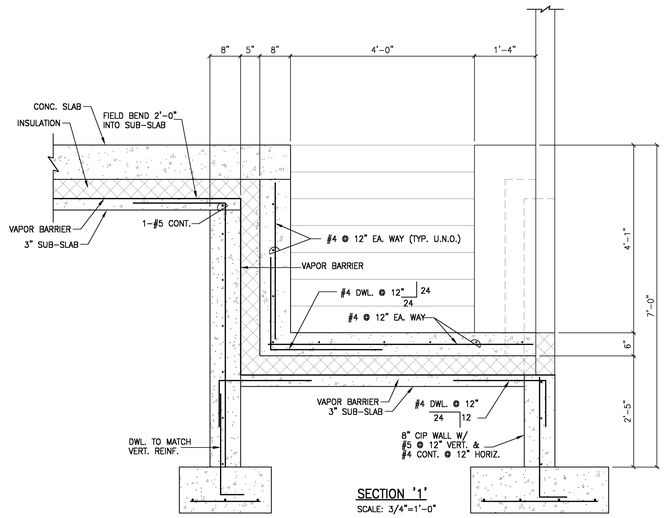
FREEZER STAIR PIT PLAN

SCALE: 1/4"=1'-0"



EXTERIOR ELEVATIONS @ STAIR PIT

SCALE: 1/4"=1'-0"

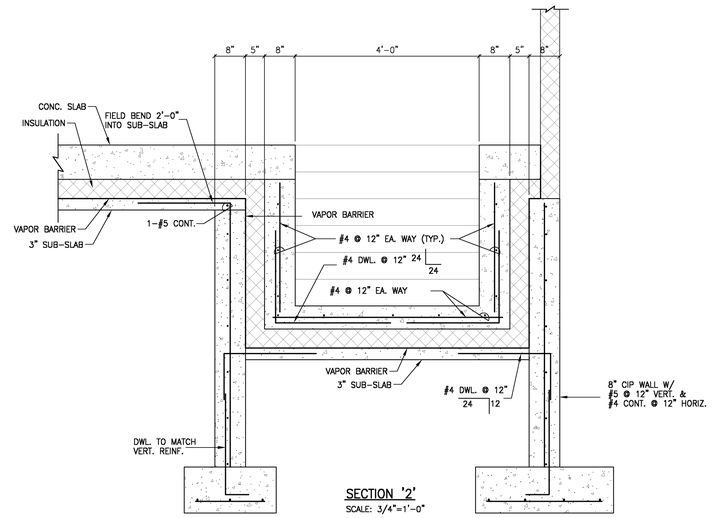


SEE STAIR PLAN & FTG. SCHED. FOR FTG. SIZE & REINF.

SECTION '1'

SCALE: 3/4"=1'-0"

SEE FND. PLAN & FTG. SCHED. FOR FTG. SIZE & REINF.

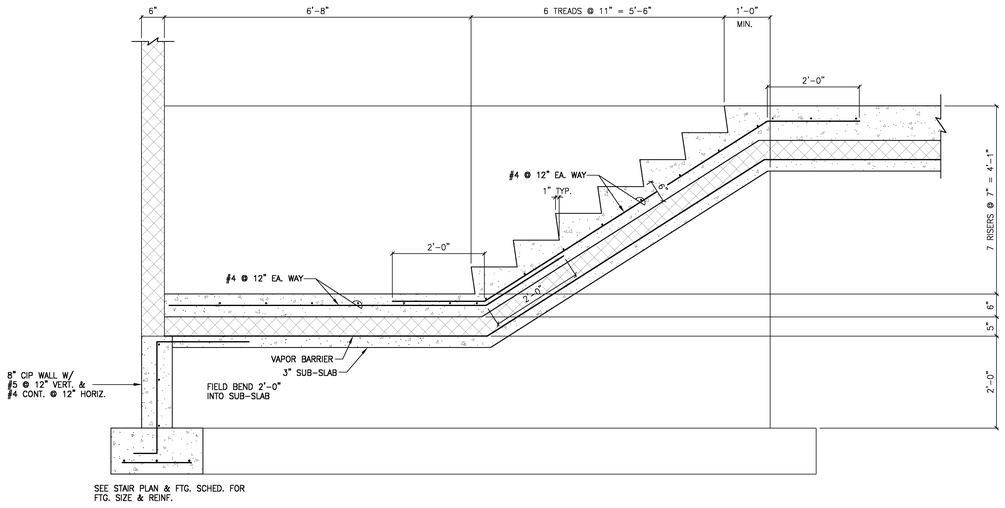


SEE STAIR PLAN & FTG. SCHED. FOR FTG. SIZE & REINF.

SECTION '2'

SCALE: 3/4"=1'-0"

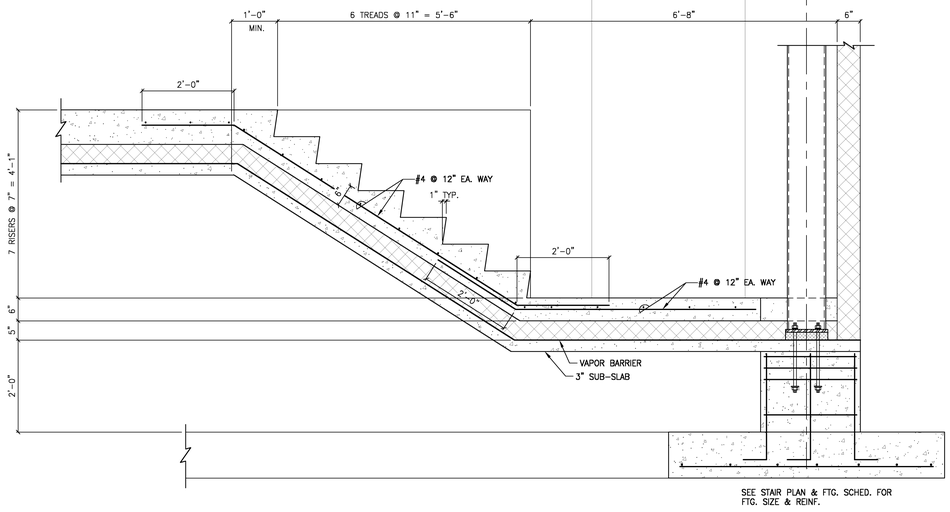
SEE FND. PLAN & FTG. SCHED. FOR FTG. SIZE & REINF.



SEE STAIR PLAN & FTG. SCHED. FOR FTG. SIZE & REINF.

SECTION '3'

SCALE: 3/4"=1'-0"



SEE STAIR PLAN & FTG. SCHED. FOR FTG. SIZE & REINF.

SECTION '4'

SCALE: 3/4"=1'-0"

FLORIDA DISCIPLINE LICENSED 9630
FLORIDA ARCHITECTURAL LICENSE AA 26001775
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FREEZER IN FLOOR STAIR PLAN & DETAILS

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REV.	DATE	BY	DESCRIPTION
0	5/30/07	DLP	CONSTRUCTION ISSUE
C	5/11/07	DLP	STEEL CONSTRUCTION ISSUE
B	4/11/07	DLP	FOUNDATION BID ISSUE
A	3/23/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019

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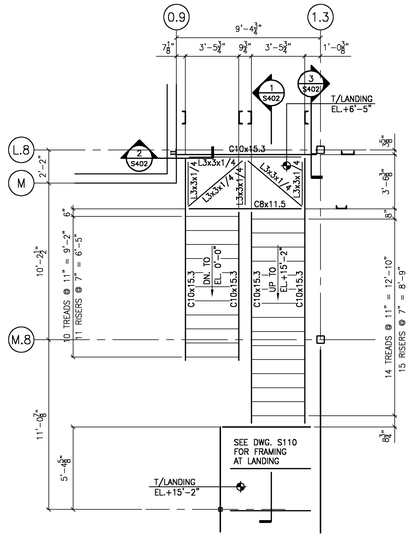
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SCALE: AS NOTED

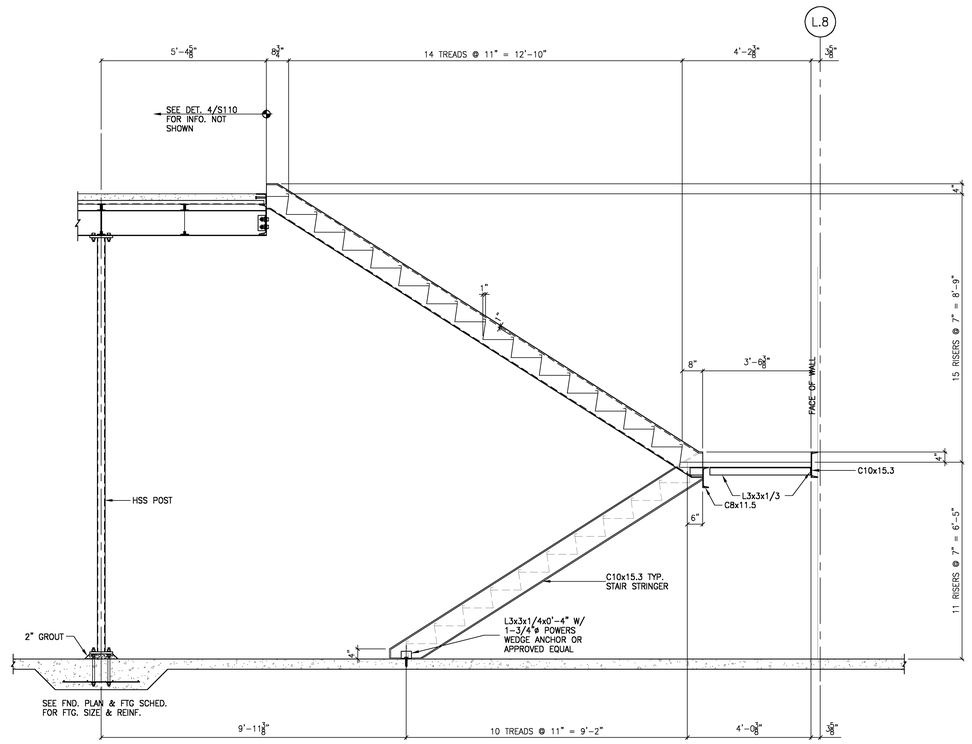
S401

DRAWING NO.

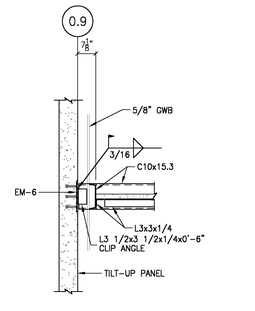
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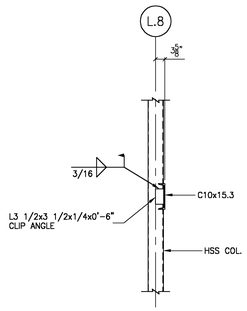
STAIR #1 FRAMING PLAN
@ EL.+6'-5"
SCALE: 1/4"=1'-0"



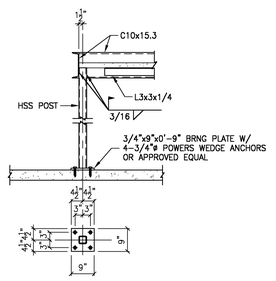
SECTION '1'
SCALE: 1/2"=1'-0"



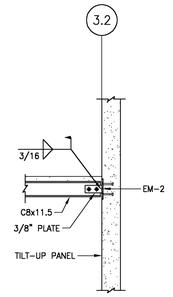
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SCALE: 1/2"=1'-0"



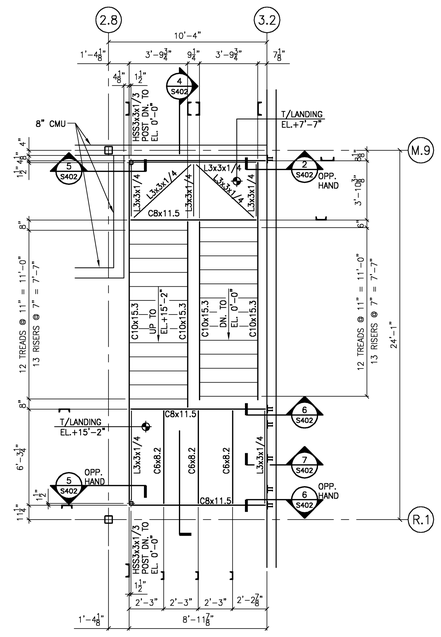
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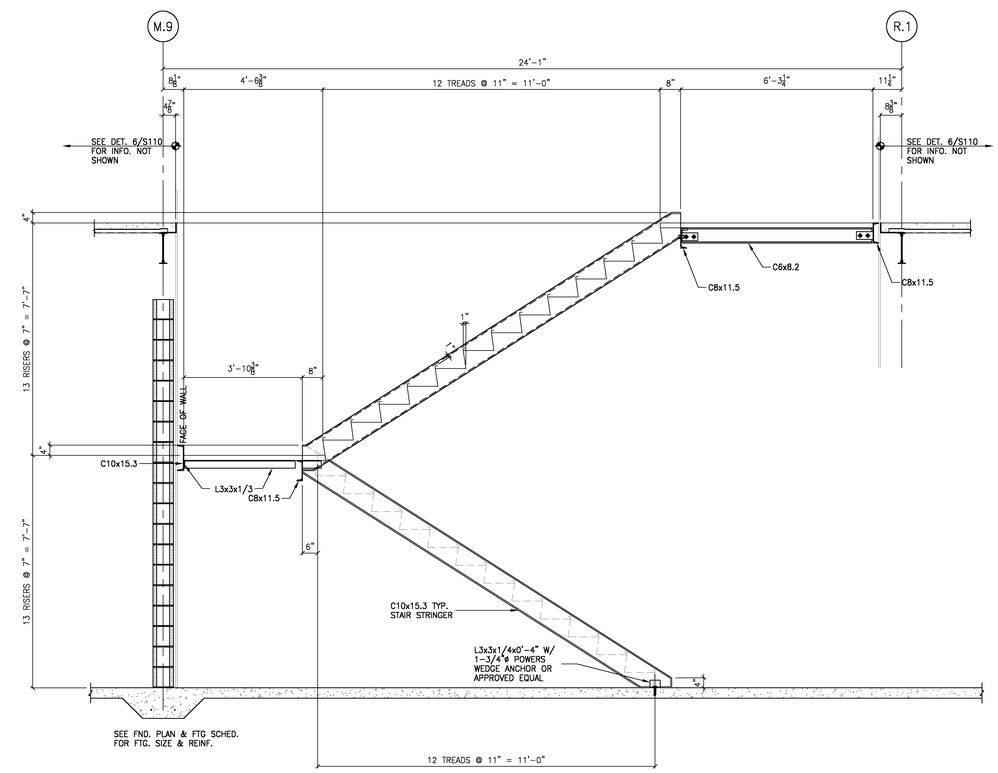
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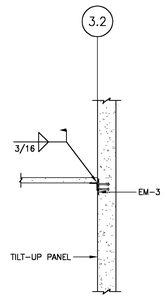
SECTION '6'
SCALE: 1/2"=1'-0"



STAIR #2 FRAMING PLAN
@ EL.+7'-7"
SCALE: 1/4"=1'-0"



SECTION '4'
SCALE: 1/2"=1'-0"



SECTION '6'
SCALE: 1/2"=1'-0"

FLORIDA ENGINEERING LICENSE 9630
FLORIDA ARCHITECTURAL LICENSE AR 15795
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

STAIR #1 & STAIR #2 PLANS AND SECTIONS

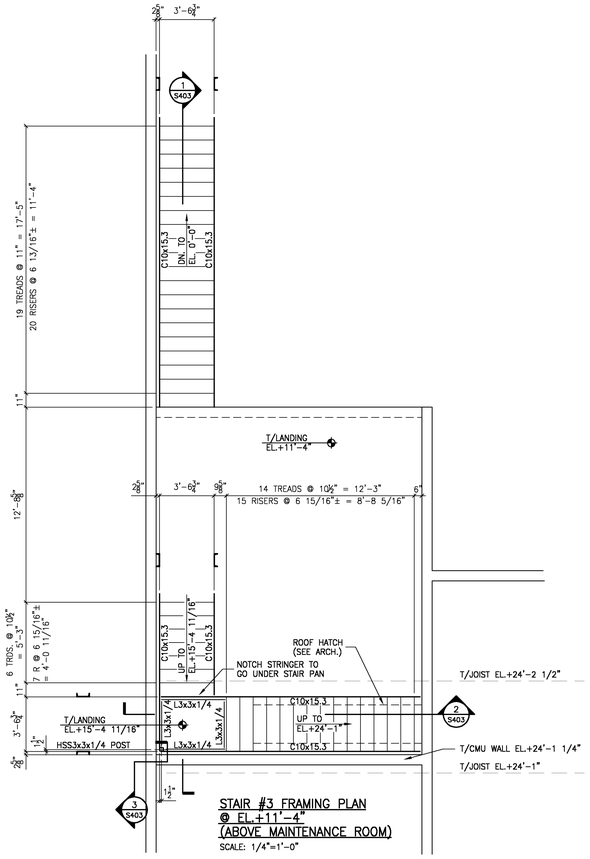
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REV.	DATE	BY	DESCRIPTION
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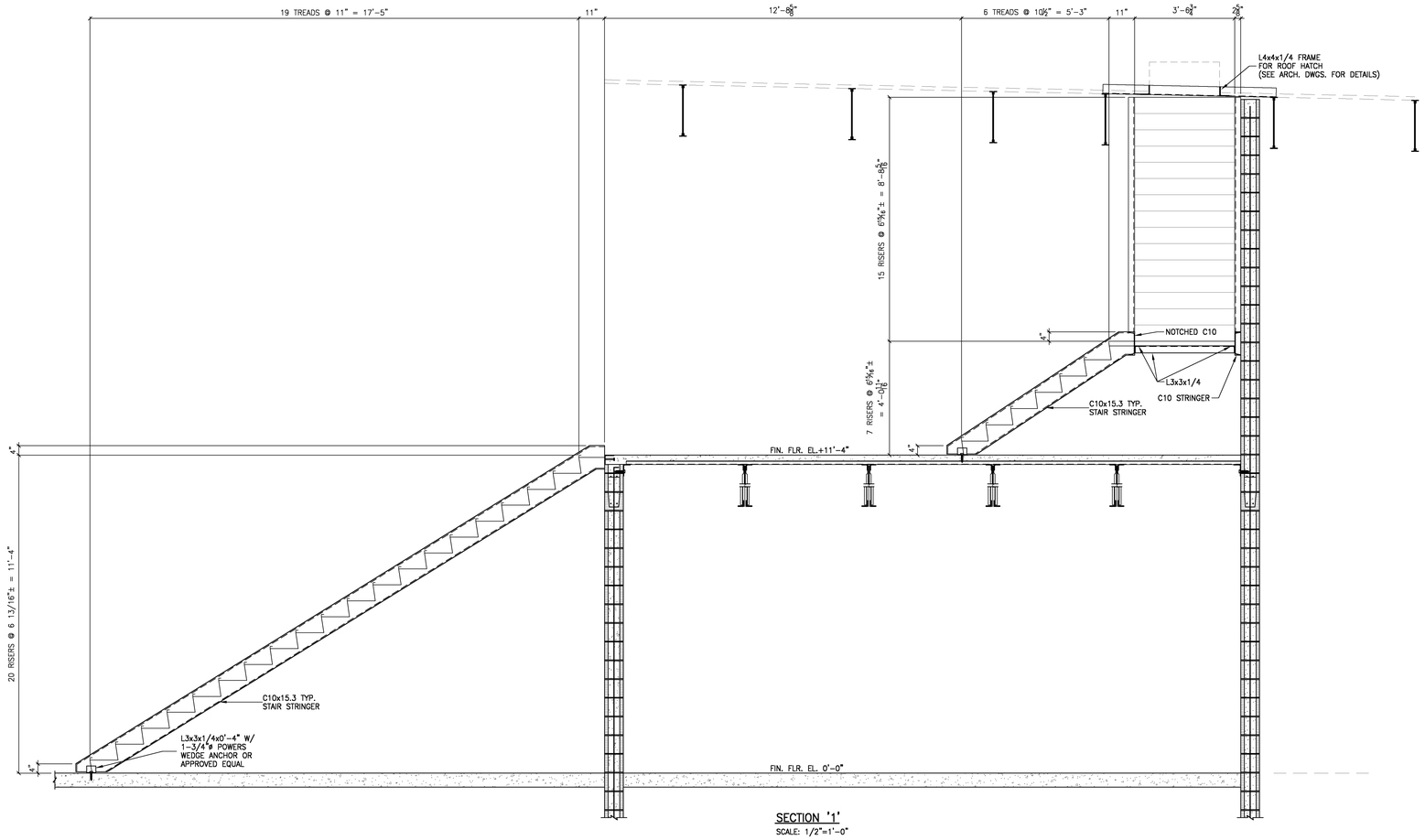
JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S402
DRAWING NO.

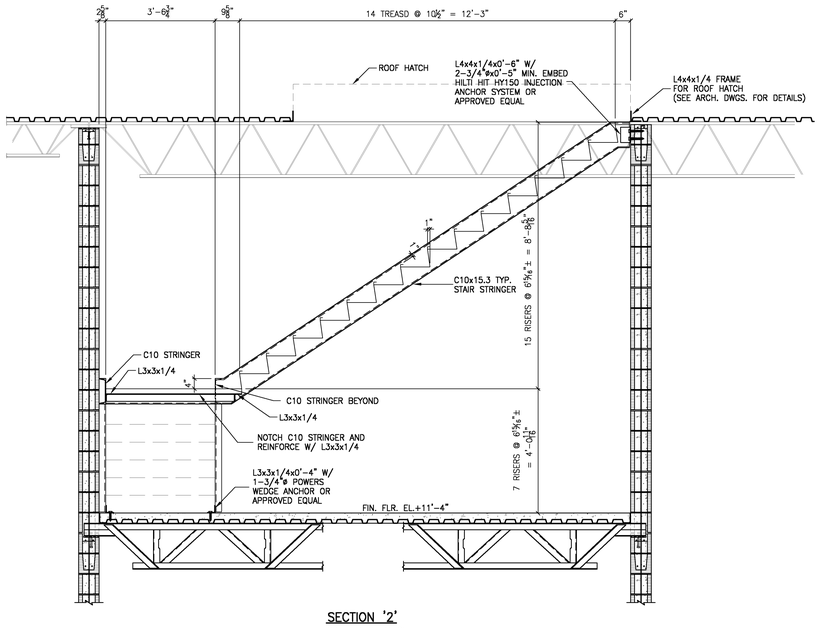
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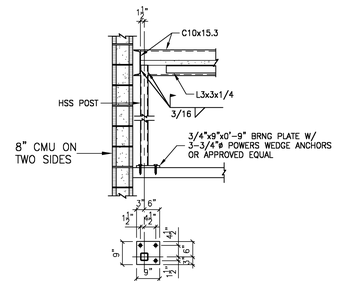
STAIR #3 FRAMING PLAN
@ EL.+11'-4"
(ABOVE MAINTENANCE ROOM)
SCALE: 1/4"=1'-0"



SECTION '1'
SCALE: 1/2"=1'-0"



SECTION '2'
SCALE: 1/2"=1'-0"



SECTION '3'
SCALE: 1/2"=1'-0"

FLORIDA ENGINEERING LICENSE NO. 9630
FLORIDA ARCHITECTURAL LICENSE NO. AR0015175
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

STAIR #3 PLAN AND SECTIONS

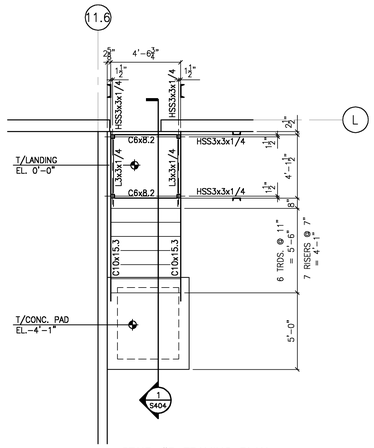
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REV.	DATE	BY	DESCRIPTION
0	6/20/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S403
DRAWING NO.

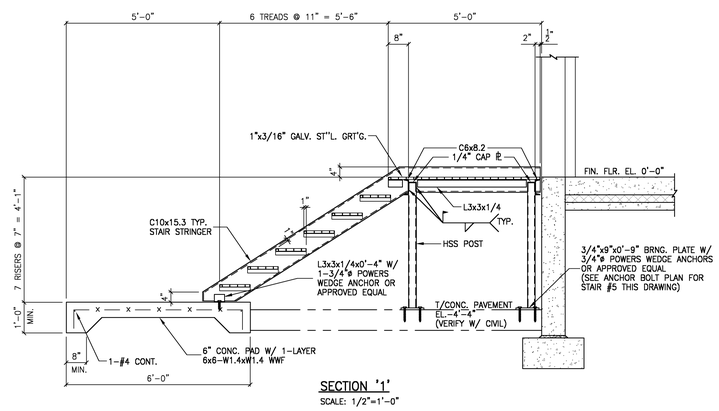
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STAIR #5 FRAMING PLAN

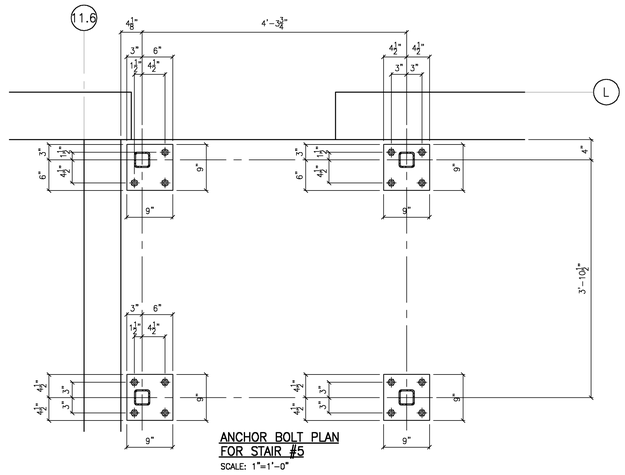
SCALE: 1/4"=1'-0"

ALL STEEL SHALL BE HOT DIPPED GALVANIZED



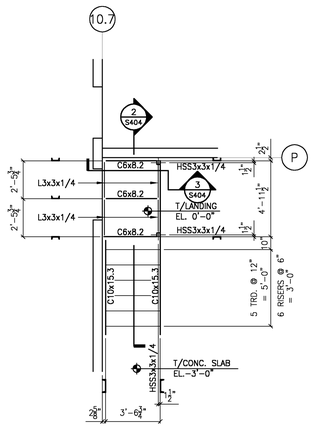
SECTION '1'

SCALE: 1/2"=1'-0"



ANCHOR BOLT PLAN
FOR STAIR #5

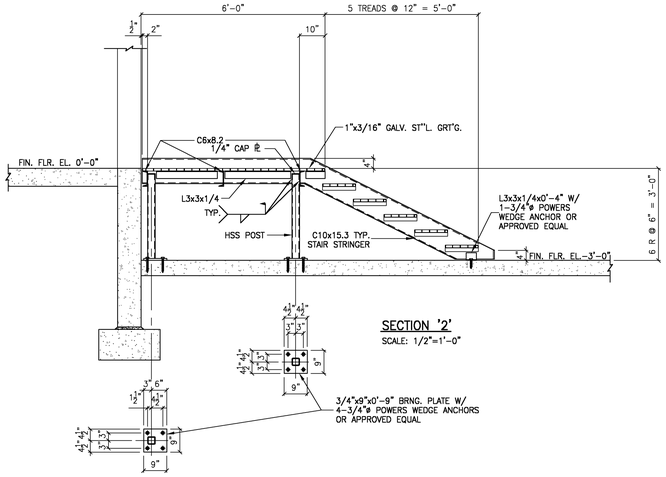
SCALE: 1"=1'-0"



STAIR #11 FRAMING PLAN

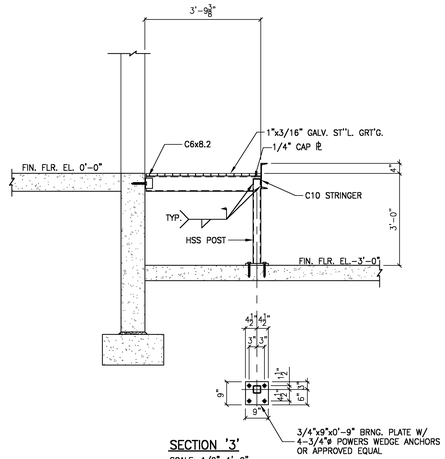
SCALE: 1/4"=1'-0"

ALL STEEL SHALL BE HOT DIPPED GALVANIZED



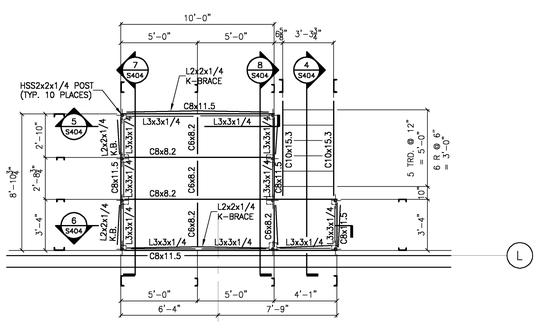
SECTION '2'

SCALE: 1/2"=1'-0"



SECTION '3'

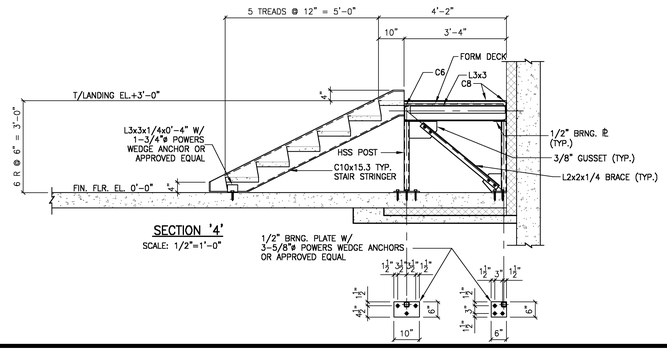
SCALE: 1/2"=1'-0"



DOCK PLATFORM FRAMING PLAN

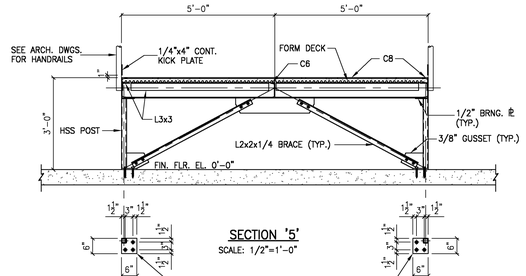
SCALE: 1/4"=1'-0"

2" CONC. SLAB ON 0.6C 22 GA. GALV. FORM DECK
W/ 1-LAYER 6x6-W1.4xW1.4 WWF.
T/CONC. EL.+3'-0"



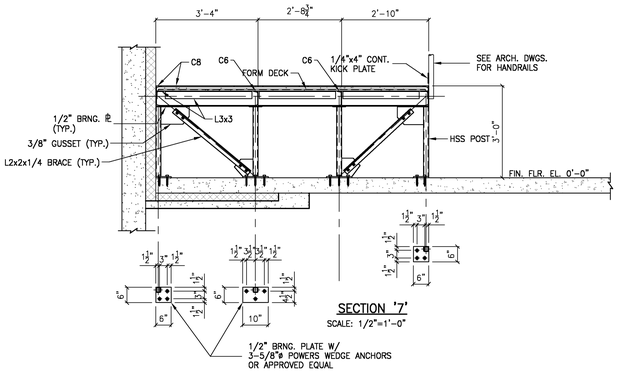
SECTION '4'

SCALE: 1/2"=1'-0"



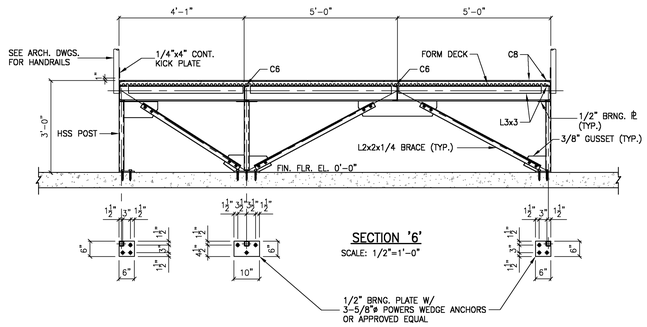
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SCALE: 1/2"=1'-0"



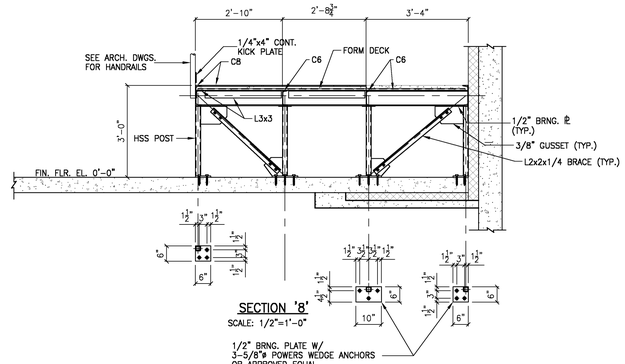
SECTION '7'

SCALE: 1/2"=1'-0"



SECTION '6'

SCALE: 1/2"=1'-0"



SECTION '8'

SCALE: 1/2"=1'-0"

FLORIDA DESIGNING DISTRICT # 9630

FLORIDA ARCHITECTURAL LICENSE #AA 26001171

THE STELLAR GROUP

DESIGN • CONSTRUCTION • REFRIGERATION

2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

MISC. STAIRS & PLATFORMS PLANS AND DETAILS

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JOB NO. 710-03019

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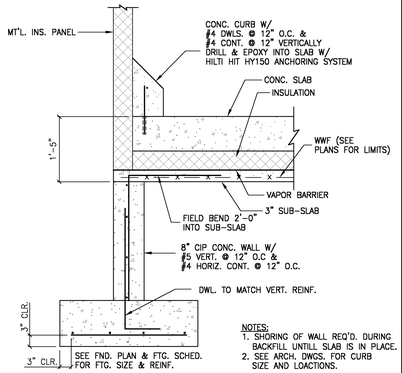
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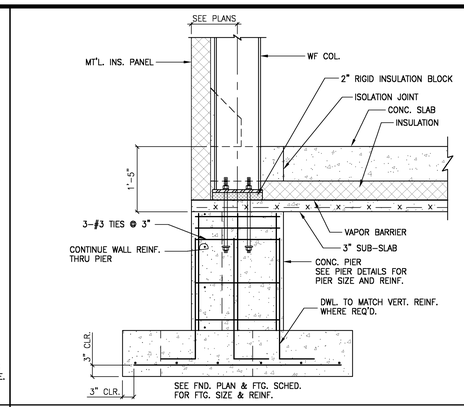


F:\PLOT\P#
330F1

EXTERIOR FND. WALL

SCALE: 3/4" = 1'-0"

1

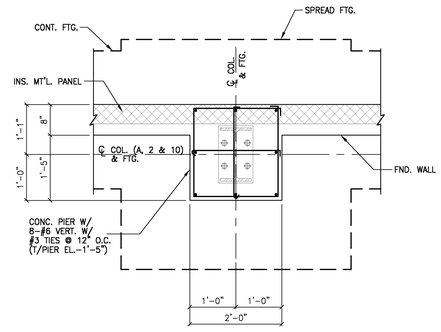


F:\PLOT\P#
330F2

EXTERIOR COL. & PIER

SCALE: 3/4" = 1'-0"

2

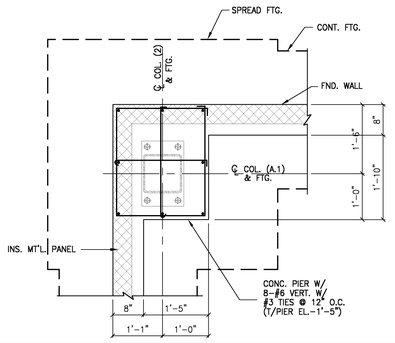


F:\PLOT\P#
330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

3

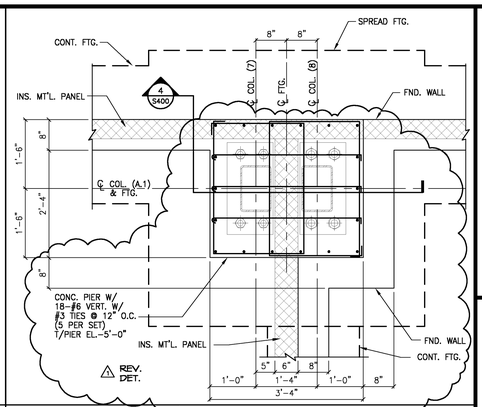


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330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

4

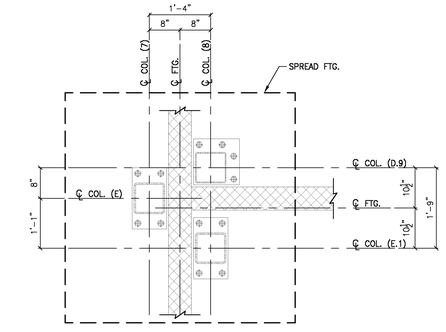


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330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

5

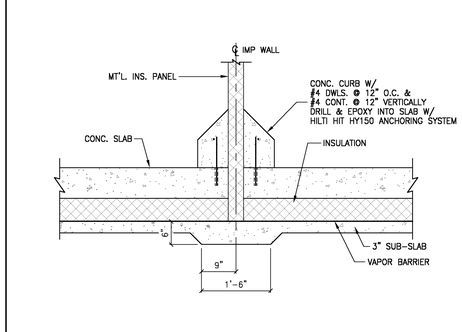


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CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

6

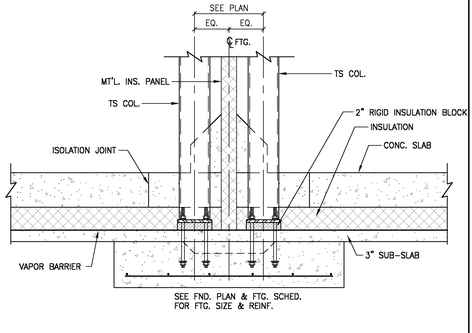


F:\PLOT\P#
330F1

EXTERIOR FND. WALL

SCALE: 3/4" = 1'-0"

7

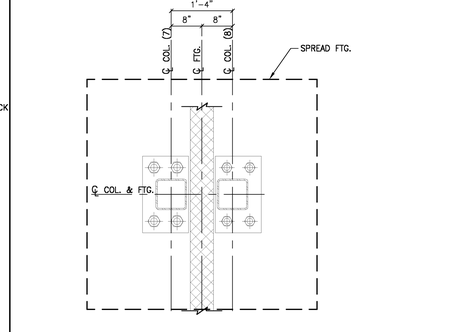


F:\PLOT\P#
330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

8

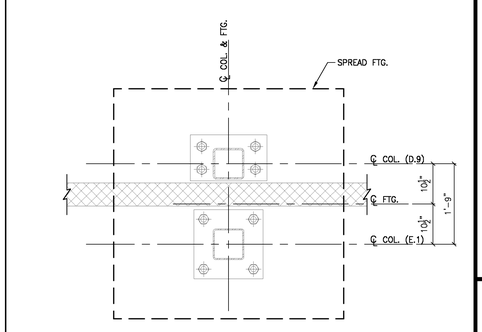


F:\PLOT\P#
330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

9



F:\PLOT\P#
330F2

COL. PLACEMENT DETAIL

SCALE: 3/4" = 1'-0"

10

F:\PLOT\P#
330F2

COL. PLACEMENT DETAIL

SCALE: 3/4"=1'-0"

11

F:\JOB\PTN
330FT10

IMP PARTITION WALL IN FREEZER

SCALE: 3/4" = 1'-0"

12

F:\JOB\PTN
330FT10

COLUMNS & FTGS. @ IMP PARTITION WALL

SCALE: 3/4" = 1'-0"

13

F:\PLOT\P#
330F2

COL. PLACEMENT DETAIL

SCALE: 3/4"=1'-0"

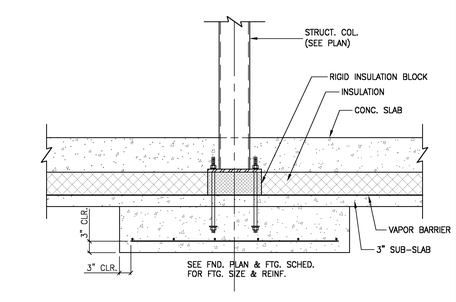
14

F:\PLOT\P#
330F2

COL. PLACEMENT DETAIL

SCALE: 3/4"=1'-0"

15

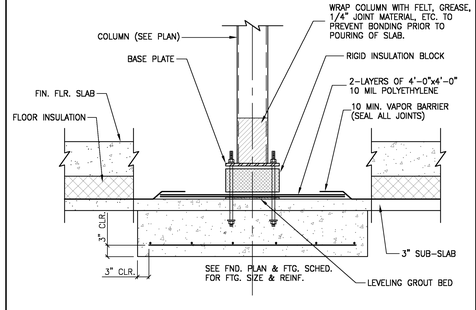


F:\PLOT\P#
330F1

COLUMN & FTG. DETAIL @ FREEZER

SCALE: 3/4" = 1'-0"

16

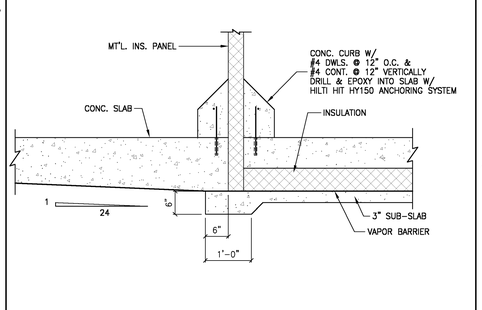


F:\PLOT\P#
330F2

FREEZER COLUMN

SCALE: N.T.S.

17

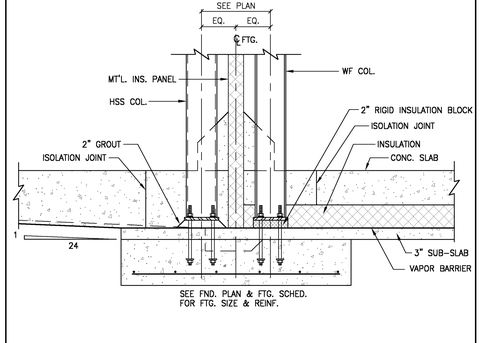


F:\JOB\PTN
330FT63

IMP PARTITION WALL @ FREEZER SEPERATION WALL

SCALE: 3/4" = 1'-0"

18

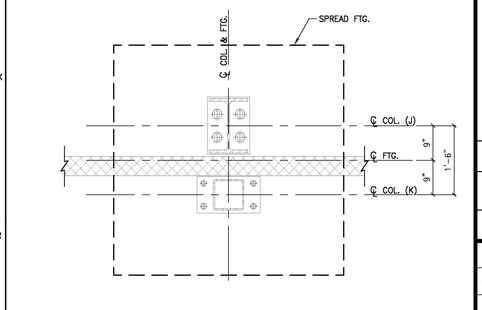


F:\JOB\PTN
330FT63

INTERIOR COLUMNS & FTG. @ FREEZER SEPERATION WALL

SCALE: 3/4" = 1'-0"

19



F:\PLOT\P#
330F2

COL. PLACEMENT DETAIL

SCALE: 3/4"=1'-0"

20

FLORIDA ENGINEERING LICENSE NO. 26520
FLORIDA ARCHITECTURAL LICENSE NO. AA26001976
THE STELLAR GROUP
DESIGN • CONSTRUCTION • REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FOUNDATION SECTIONS AND DETAILS

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REV.	DATE	BY	DESCRIPTION
A	10/19/2006	DLP	FOUNDATION BID ISSUE
B	11/15/2006	DLP	FOUNDATION PERMIT ISSUE
C	12/15/2006	DLP	STEEL CONSTRUCTION ISSUE
1	6/7/2007	DLP	REVISED AS NOTED

JOB NO. 710-03019

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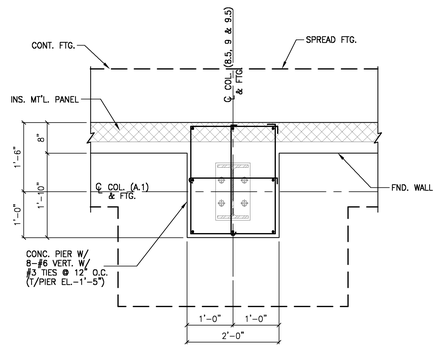
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SCALE: AS NOTED

S500

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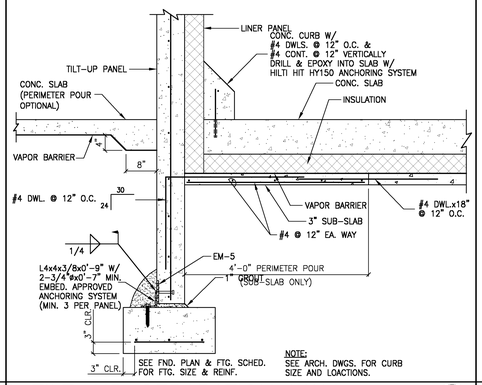


F/P/CON/FR 330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

1

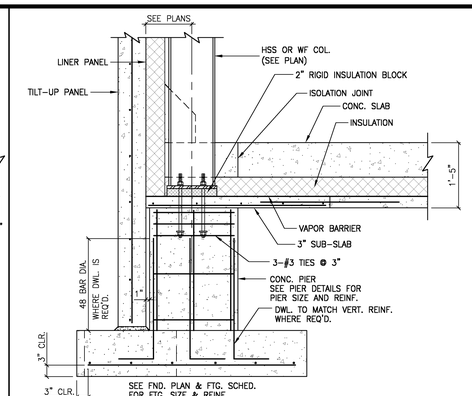


F/P/TILT 340F1

TILT-UP SEPARATION WALL @ FREEZER & ADMIN.

SCALE: 3/4" = 1'-0"

2

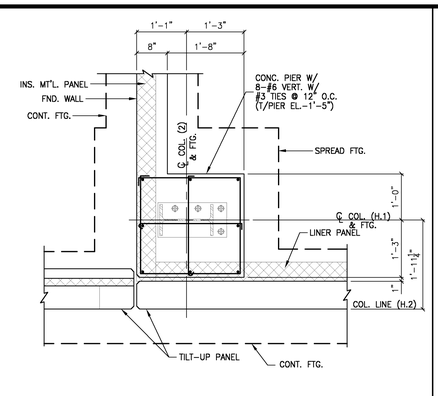


F/P/PLN/FR 330F2

COL. & PIER W/ TILT-UP @ FREEZER & ADMIN.

SCALE: 3/4" = 1'-0"

3

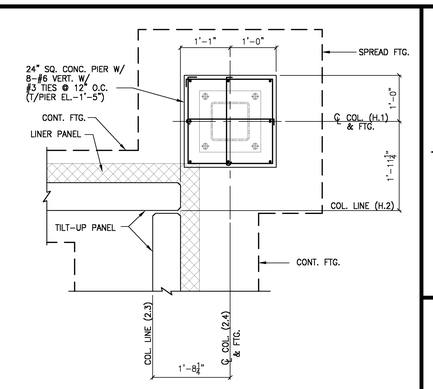


F/P/CON/FR 330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

4

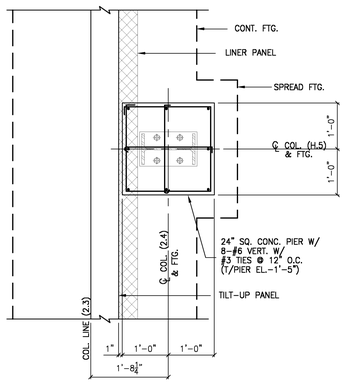


F/P/CON/FR 330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

5

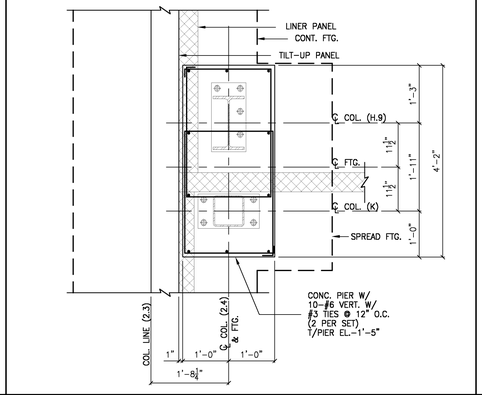


F/P/CON/FR 330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

6

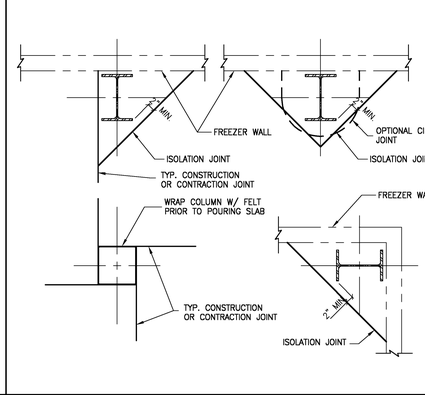


F/P/COL/FR 330F2

COL. PLACEMENT DETAIL

SCALE: 3/4"=1'-0"

7

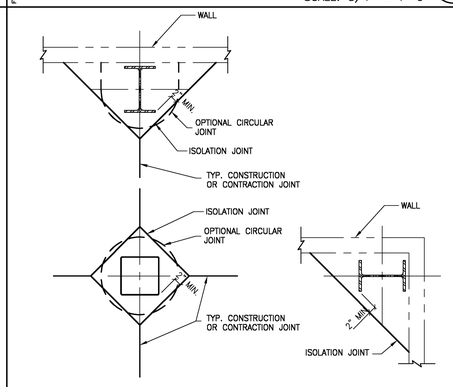


F/CSL/SJ 330S2

TYPICAL ISOLATION JOINTS @ FREEZER

SCALE: N.T.S.

8

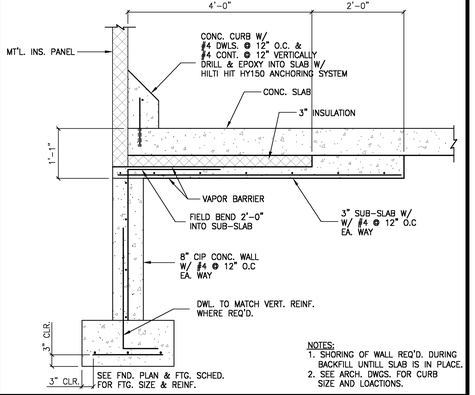


F/CSL/SJ 330S2

TYPICAL ISOLATION JOINTS

SCALE: N.T.S.

9

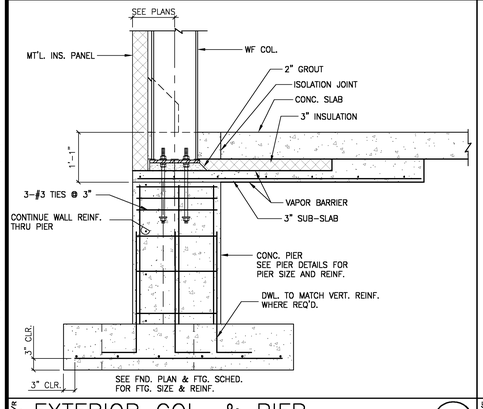


F/P/EXT/FR 330W1

EXTERIOR FND. WALL @ REFRIGERATED DOCK

SCALE: 3/4" = 1'-0"

10

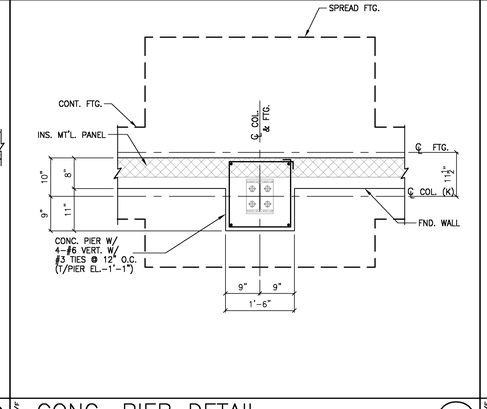


F/P/EXT/FR 330W2

EXTERIOR COL. & PIER @ REFRIGERATED DOCK

SCALE: 3/4" = 1'-0"

11

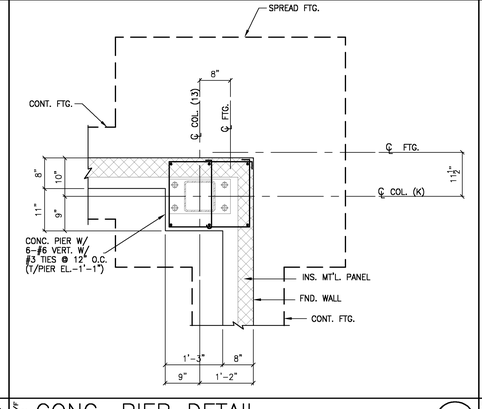


F/P/CON/FR 330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

12

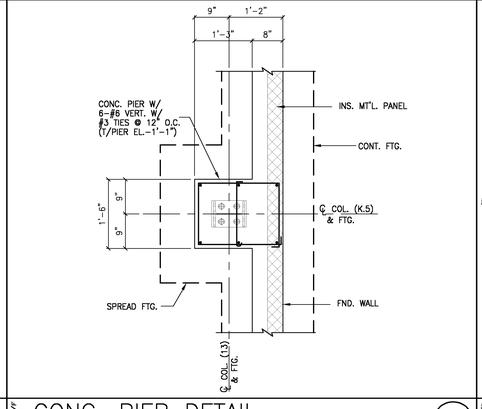


F/P/CON/FR 330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

13

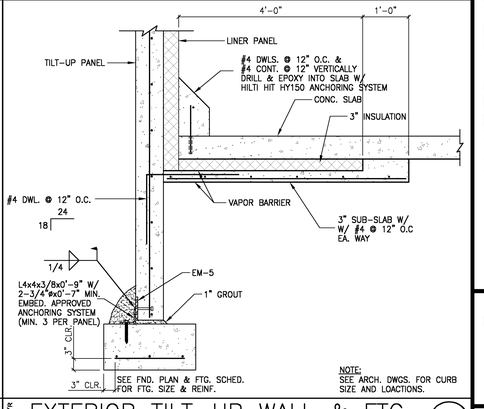


F/P/CON/FR 330F2

CONC. PIER DETAIL

SCALE: 3/4" = 1'-0"

14

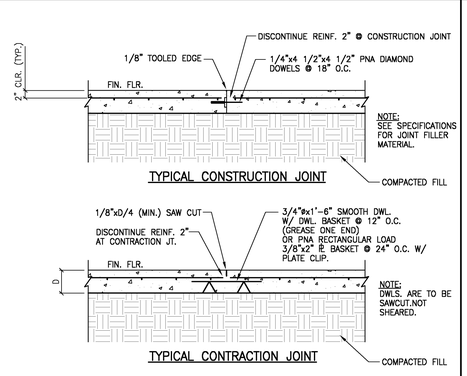


F/P/EXT/FR 340R1

EXTERIOR TILT-UP WALL & FTG. @ REFRIGERATED DOCK

SCALE: 3/4" = 1'-0"

15

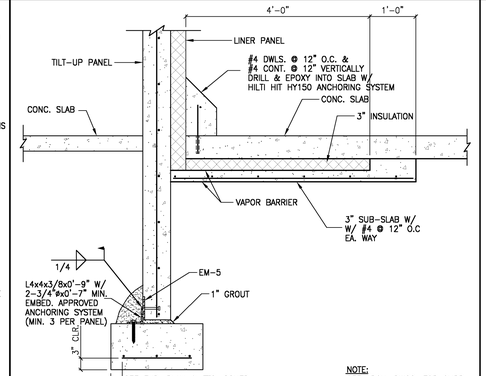


F/P/SJ/JT1 330SJT1

TYPICAL SLAB JOINT DETAIL AT DOCK & MACHINE ROOM

SCALE: N.T.S.

16

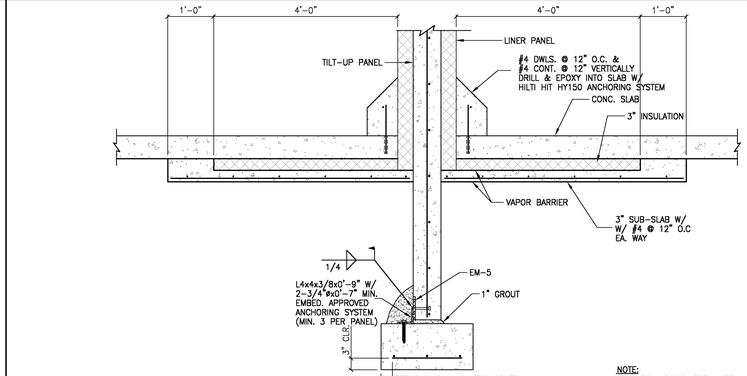


F/P/TILT/FR 340R1

TILT-UP WALL & FTG. @ PARTITION WALL

SCALE: 3/4" = 1'-0"

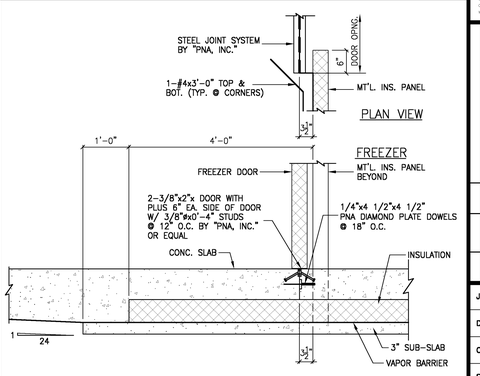
17



TILT-UP WALL & FTG. @ USDA PARTITION WALL

SCALE: 3/4"=1'-0"

18



F/DS/SJ 330S03

THRESHOLD DETAIL @ FREEZER DOORS

SCALE: 3/4" = 1'-0"

19

FLORIDA ENGINEERING LICENSE 9630
FLORIDA ARCHITECTURAL LICENSE AR 15766
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FOUNDATION SECTIONS AND DETAILS

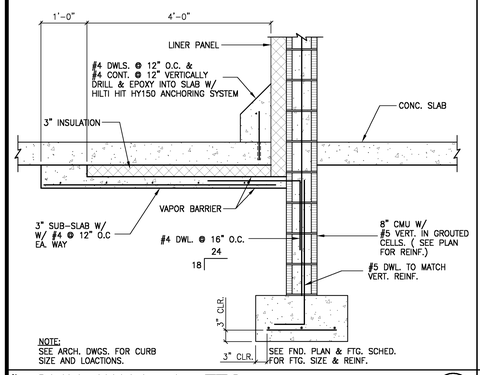
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REV.	DATE	BY	DESCRIPTION
0	10/07/07	DLP	CONSTRUCTION ISSUE
B	09/07/07	DLP	STEEL CONSTRUCTION ISSUE
A	08/07/07	DLP	FOUNDATION PERMIT ISSUE

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S501
DRAWING NO.

Filename: T:\Jobs\03000-03099\03019 USCS_FL\Design\Active\Struct\03019S501.dwg Last Saved By: DPUCKETT Date: 5/30/2007 11:21:05 AM Plotted: 5/30/2007 11:21:23 AM



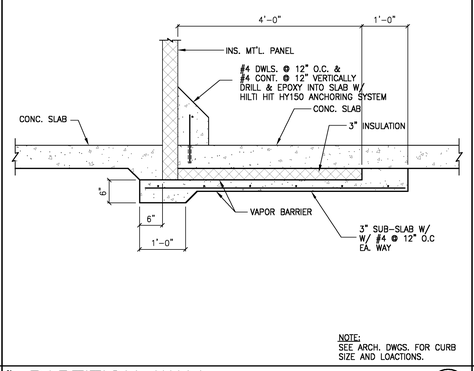
NOTE:
SEE ARCH. DWGS. FOR CURB
SIZE AND LOACTIONS.

SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/P/N/R 3401R1

CMU WALL & FTG. @ BATT. CHARGING ENTRY

SCALE: 3/4" = 1'-0" (1)

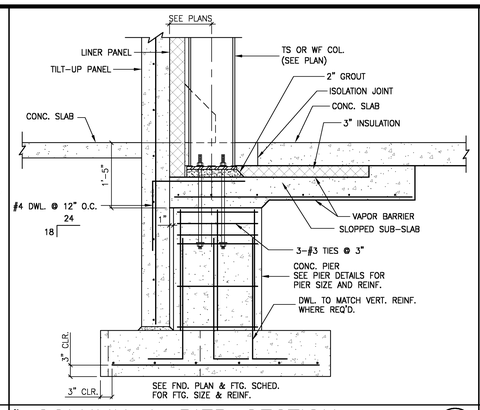


NOTE:
SEE ARCH. DWGS. FOR CURB
SIZE AND LOACTIONS.

F/P/N/R 3401R1

PARTITION WALL @ BATT. CHARGING ENTRY

SCALE: 3/4" = 1'-0" (2)

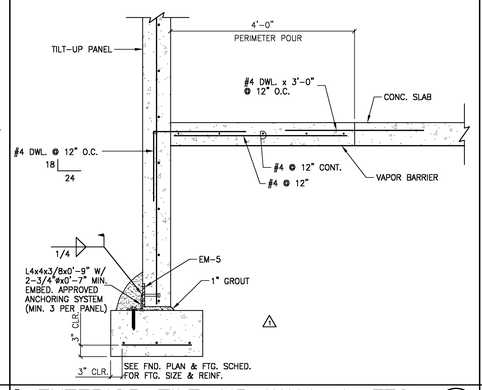


SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/P/N/R 3401R1

COLUMN & PIER SECTION @ TILT-UP WALL

SCALE: 3/4" = 1'-0" (3)

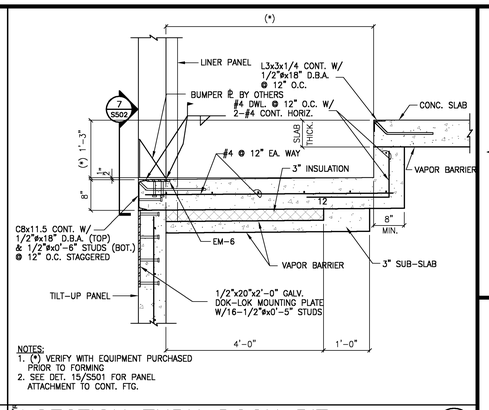


SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/P/N/R 3401R1

EXTERIOR TILT-UP WALL & FTG.

SCALE: 3/4" = 1'-0" (4)

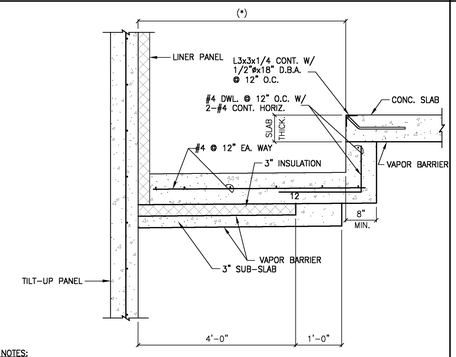


NOTES:
1. (*) VERIFY WITH EQUIPMENT PURCHASED PRIOR TO FORMING
2. SEE DET. 15/S501 FOR PANEL ATTACHMENT TO CONT. FTG.

F/P/N/R 3401R1

SECTION THRU DOCK PIT @ REFRIGERATED DOCKS

SCALE: 3/4" = 1'-0" (5)

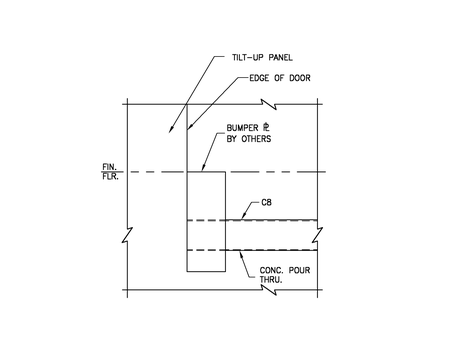


NOTES:
1. (*) VERIFY WITH EQUIPMENT PURCHASED PRIOR TO FORMING
2. SEE DET. 15/S501 FOR PANEL ATTACHMENT TO CONT. FTG.

25/DP/TU/R 3303PR12

SECTION THRU DOCK PIT @ BTWN.DOCK DOORS

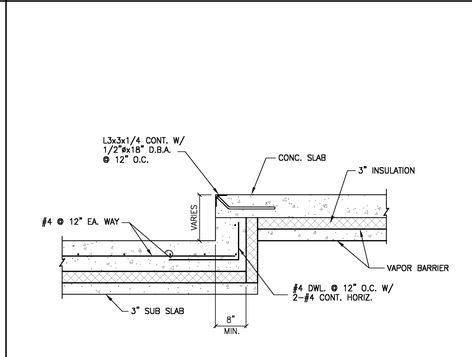
SCALE: 3/4" = 1'-0" (6)



25/DP/TU/R 3408PR15

ELEVATION @ DOCK PIT

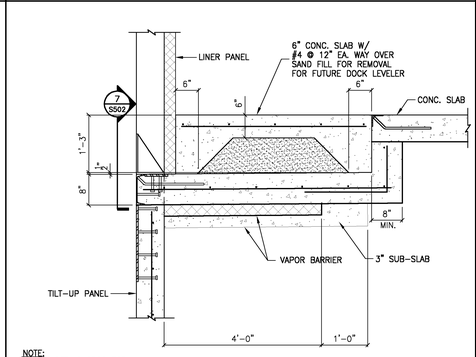
SCALE: 3/4" = 1'-0" (7)



25/DP/TU/R 3408PR12

SECTION THRU DOCK PIT @ REFRIGERATED DOCKS

SCALE: 3/4" = 1'-0" (8)

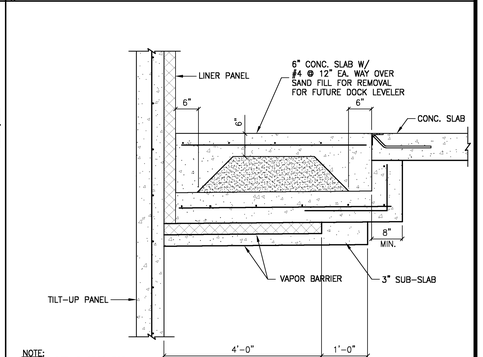


NOTE:
1. SEE DET. 6/S502 FOR INFORMATION NOT SHOWN.

25/DP/TU/R 3402PR10

SECTION THRU FUTURE PIT @ DUMPSTER DOOR

SCALE: 3/4" = 1'-0" (9)

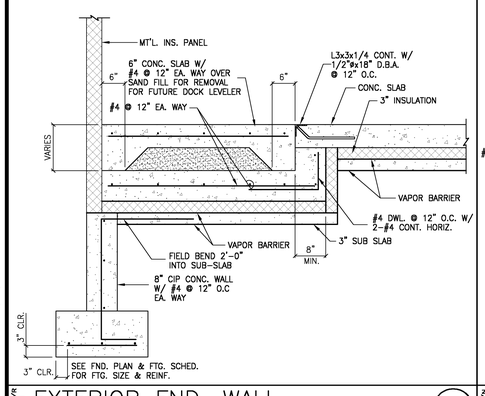


NOTE:
1. SEE DET. 5/S502 FOR INFORMATION NOT SHOWN.

25/DP/TU/R 3302PR12

SECTION THRU FUTURE PIT @ BTWN.DOCK DOORS

SCALE: 3/4" = 1'-0" (10)

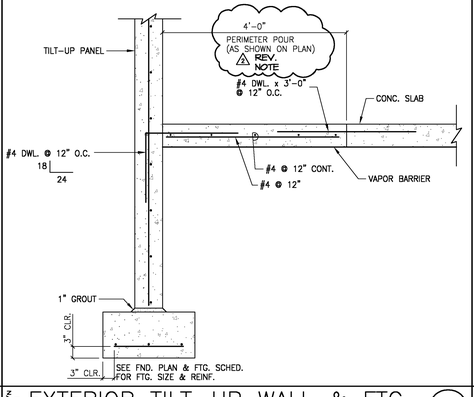


SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/P/N/R 3301R1

EXTERIOR FND. WALL @ REFRIGERATED DOCK

SCALE: 3/4" = 1'-0" (11)

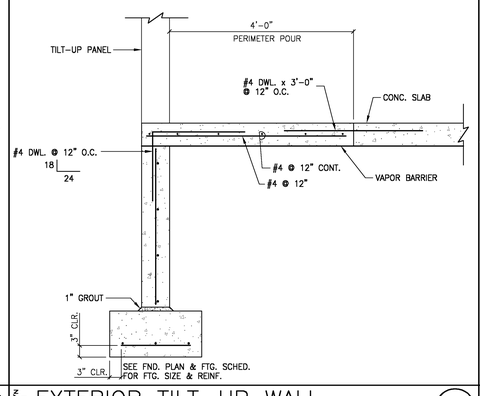


SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/P/N/R 3401N1

EXTERIOR TILT-UP WALL & FTG.

SCALE: 3/4" = 1'-0" (12)

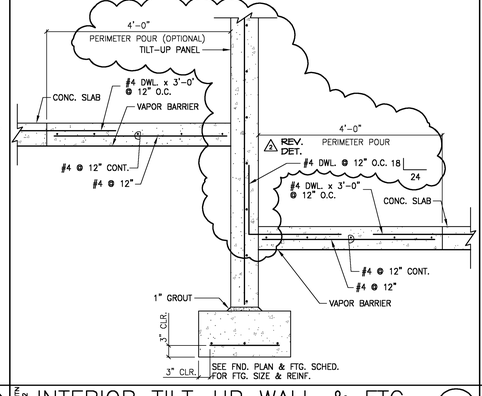


SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/P/N/N 3401N1

EXTERIOR TILT-UP WALL @ DOOR OPNG.

SCALE: 3/4" = 1'-0" (13)

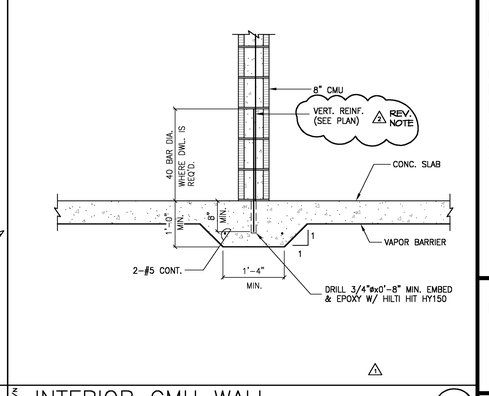


SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/T/CMU/N 3401N2

INTERIOR TILT-UP WALL & FTG.

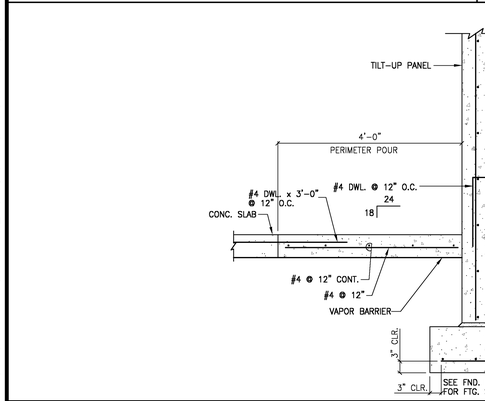
SCALE: 3/4" = 1'-0" (14)



F/T/CMU/N 4204N

INTERIOR CMU WALL THICKENED SLAB

SCALE: 3/4" = 1'-0" (15)



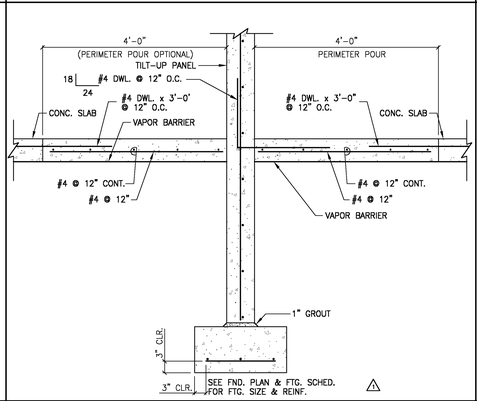
SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

NOTE:
SEE ARCH. DWGS. FOR CURB
SIZE AND LOACTIONS.

25/DP/TU/R 3303PR16

INTERIOR TILT-UP WALL @ USDA

SCALE: 3/4"=1'-0" (16)

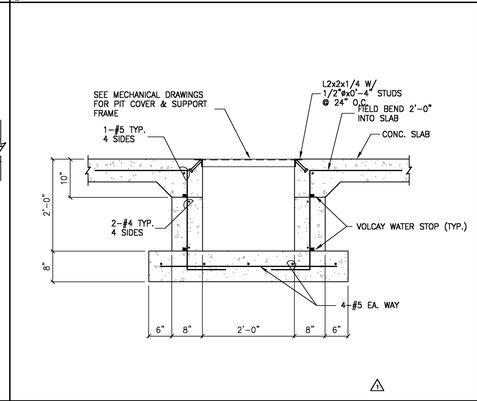


SEE FND. PLAN & FTG. SCHED.
FOR FTG. SIZE & REINF.

F/T/CMU/N 4204N2

INTERIOR TILT-UP WALL & FTG.

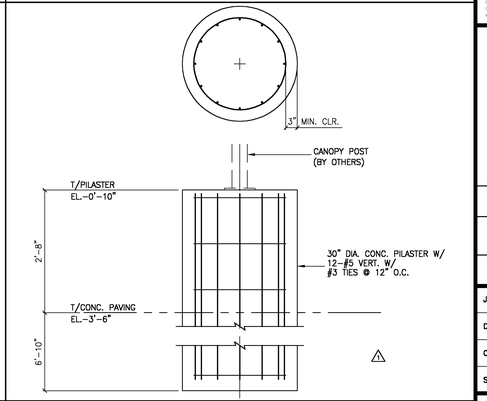
SCALE: 3/4" = 1'-0" (17)



F/CS/VS 3307ST1

SCRUBBER DUMP DETAIL

SCALE: 3/4"=1'-0" (18)



F/T/CMU/N 4204N

CANOPY FND.

SCALE: 3/4" = 1'-0" (19)

FLORIDA ENGINEERING LICENSE NO. 9430
FLORIDA ARCHITECTURAL LICENSE NO. AA26001976
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2900 MARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FOUNDATION SECTIONS AND DETAILS

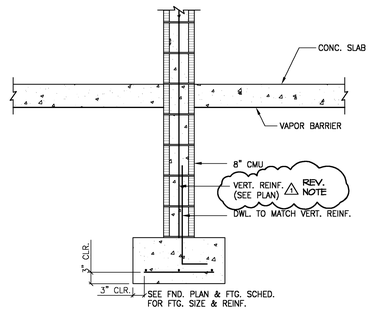
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REV.	DATE	BY	DESCRIPTION
2	6/13/07	DLP	REVISED AS NOTED
1	5/30/07	DLP	CONSTRUCTION ISSUE
0	5/02/07	DLP	STEEL CONSTRUCTION ISSUE
B	4/18/07	DLP	FOUNDATION PERMIT ISSUE
A	3/30/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S502
DRAWING NO.

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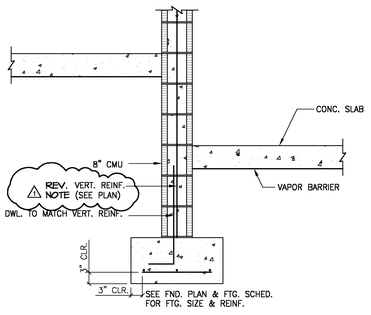
NOTE:
FILL ALL CELLS BELOW FIN. FLR. W/ GROUT

F/CSL/WALL 420N1

INTERIOR CMU WALL

SCALE: 3/4" = 1'-0"

1



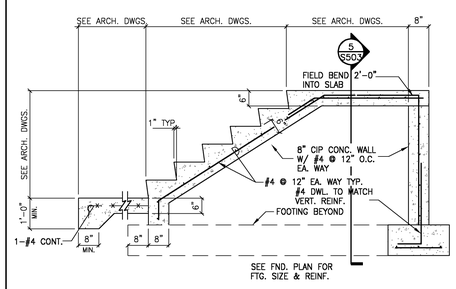
NOTE:
FILL ALL CELLS BELOW FIN. FLR. W/ GROUT

F/CSL/WALL 420N1

INTERIOR CMU WALL

SCALE: 3/4" = 1'-0"

2



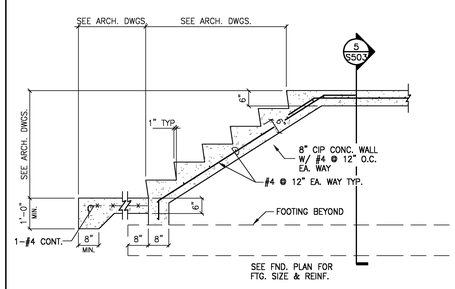
NOTE:
SEE ARCH. DWGS.
FOR HANDRAILS

F/CSL/STR 330S1

CONC. STAIR DETAIL

SCALE: 1/2"=1'-0"

3



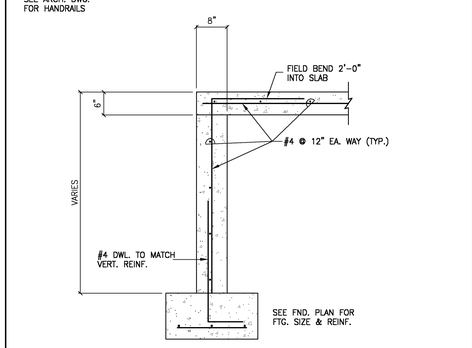
NOTE:
SEE ARCH. DWGS.
FOR HANDRAILS

F/CSL/STR 330S11

CONC. STAIR DETAIL

SCALE: 1/2"=1'-0"

4

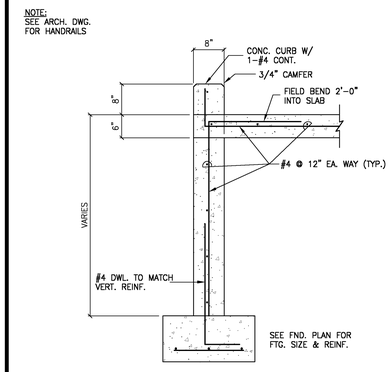


F/CSL/STR 330S12

SECTION THRU STAIR LANDING

SCALE: 3/4"=1'-0"

5

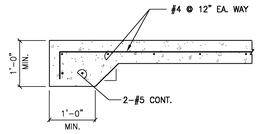


F/CSL/STR 330S15

SECTION THRU CONC. RAMP W/ 8" CURB

SCALE: 3/4"=1'-0"

6

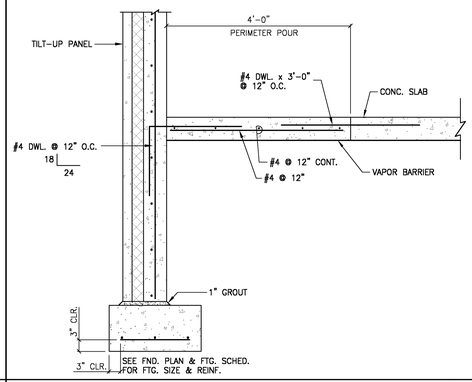


F/CSL/STR 330S16

SECTION THRU END OF RAMP

SCALE: 3/4"=1'-0"

7

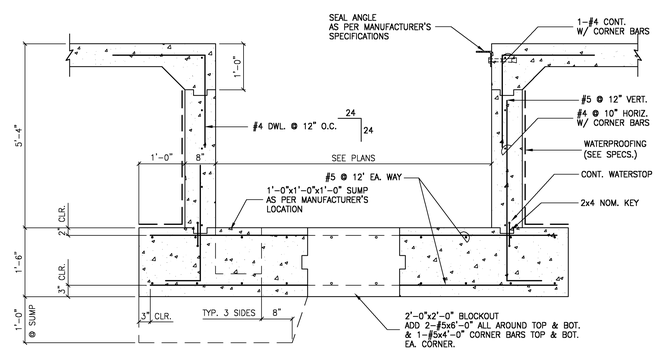


F/CSL/WALL 420N1

EXTERIOR TILT-UP WALL & FTG.

SCALE: 3/4" = 1'-0"

8



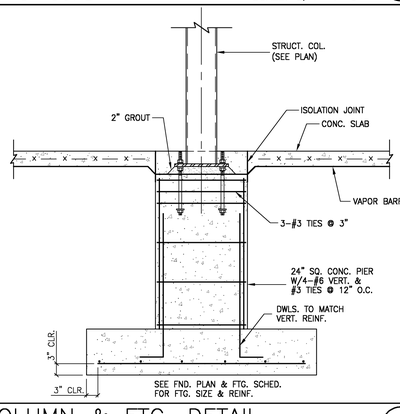
NOTE:
PROVIDE TEMPORARY SHORING FOR WALL UNTIL SLAB IS POURED AND TIED INTO WALL.

F/CSL/EL 330E1

ELEVATOR PIT (CIP)

SCALE: 3/4"=1'-0"

9

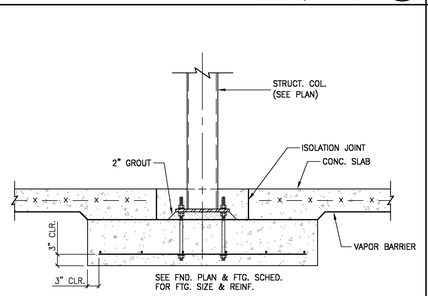


F/CSL/F 330F3

COLUMN & FTG. DETAIL @ OFFICE

SCALE: 3/4" = 1'-0"

10

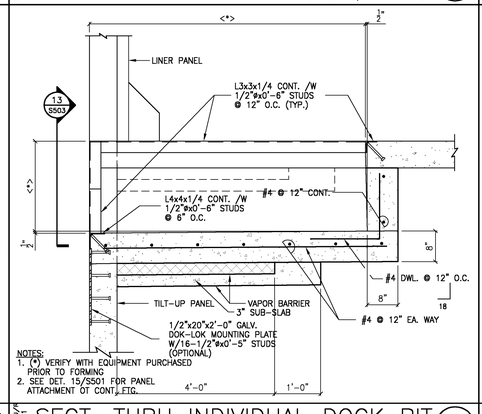


F/CSL/F 330F3

COLUMN & FTG. DETAIL @ OFFICE

SCALE: 3/4" = 1'-0"

11



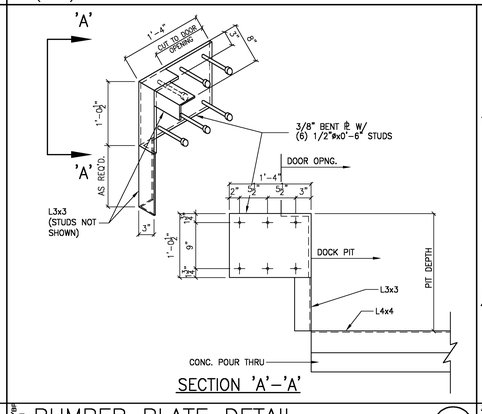
NOTES:
1. (*) VERIFY WITH EQUIPMENT PURCHASED PRIOR TO FORMING
2. SEE DET. 15/S501 FOR PANEL ATTACHMENT OT CONT. ETC.

25/DP/PLN/F 330F1

SECT. THRU INDIVIDUAL DOCK PIT @ REFRIGERATED DOCKS

SCALE: 3/4" = 1'-0"

12

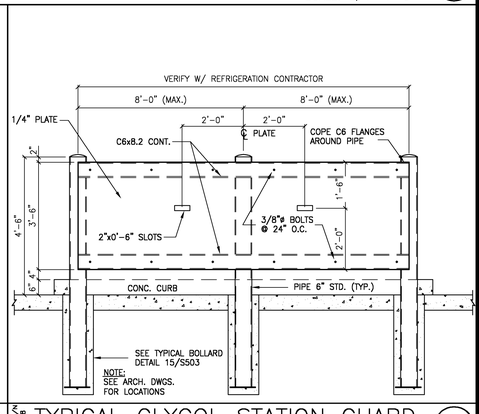


F/CSL/DP/M 330DP1

BUMPER PLATE DETAIL FOR TILT-UP

SCALE: 1"=1'-0"

13

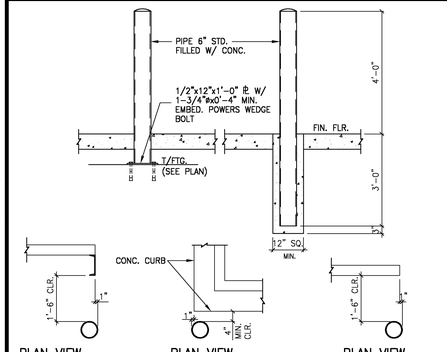


F/CSL/DP/M 330DP66

TYPICAL GLYCOL STATION GUARD

SCALE: 1/2"=1'-0"

14



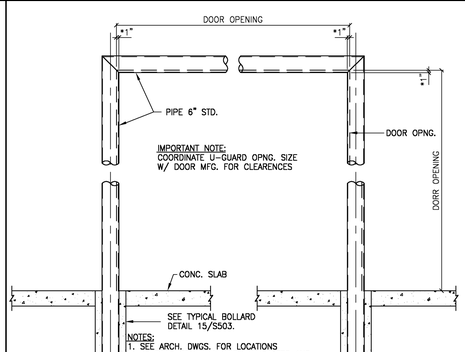
NOTE:
SEE ARCH. DWGS. FOR LOCATIONS

F/CSL/DP/M 330DP41

TYPICAL BOLLARD DETAIL FOR NON-FREEZER FLOORS

SCALE: 1/2"=1'-0"

15

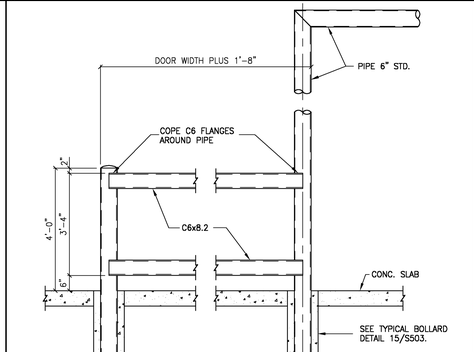


F/CSL/DP/M 330DP42

TYPICAL U-GUARD DETAIL FOR NON-FREEZER FLOORS

SCALE: 1/2"=1'-0"

16



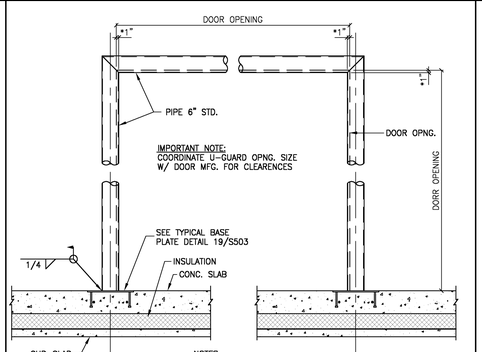
NOTE:
SEE ARCH. DWGS. FOR LOCATIONS

F/CSL/DP/M 330DP43

TYPICAL U-GUARD WING DETAIL FOR NON-FREEZER FLOORS

SCALE: 1/2"=1'-0"

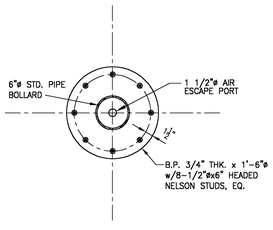
17



TYPICAL U-GUARD DETAIL FOR FREEZER FLOORS

SCALE: 1/2"=1'-0"

18



NOTE: DO NOT CORE
FLOOR IN REFRIG. AREAS

F/CSL/DP/M 330DP44

BASE PLATE DET. FOR FREEZER BOLLARDS & U- GUARDS

SCALE: 1"=1'-0"

19

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FOUNDATION SECTIONS AND DETAILS

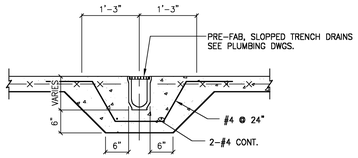
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REV.	DATE	BY	DESCRIPTION
1	10/2007	DLP	REVISED AS NOTED
0	09/2007	DLP	CONSTRUCTION ISSUE
B	08/2007	DLP	STEEL CONSTRUCTION ISSUE
A	07/2007	DLP	FOUNDATION PERMIT ISSUE

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S503
DRAWING NO.

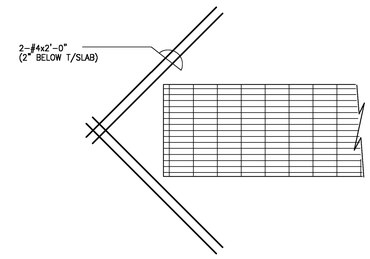
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PRECAST TRENCH DRAIN

SCALE: 3/4"=1'-0"

1



REINF. @ TRENCH DRAIN

SCALE: 3/4"=1'-0"

2

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FLORIDA ARCHITECTURAL LICENSE #AR 15756
FLORIDA ENGINEERING LICENSE #E 9430

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FOUNDATION SECTIONS AND DETAILS

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REV.	DATE	BY	DESCRIPTION
0	6/8/07	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019

DRAWN: DLP

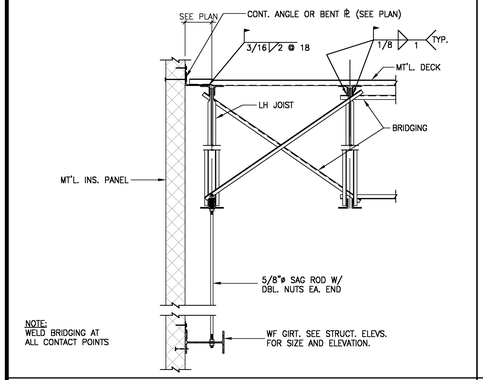
CHECKED: REK

SCALE: AS NOTED

S504

DRAWING NO.

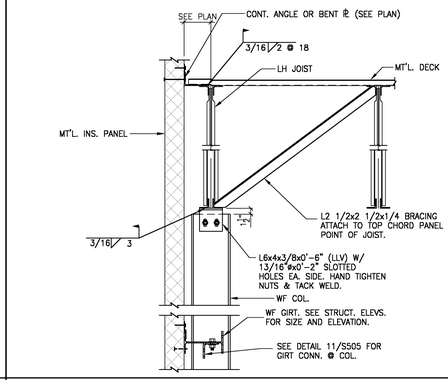
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F:\PLN\P\S20P01 S20P01

LH JOIST & DECK ANGLE CONN. (1)

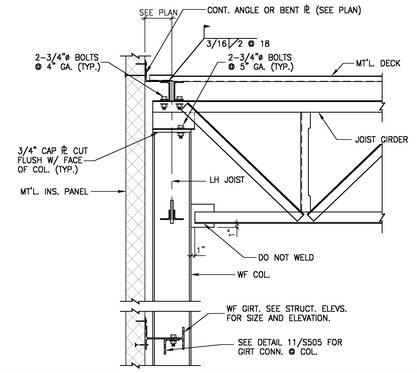
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P36 S20P36

LH JOIST & WIND COL. CONN. (2)

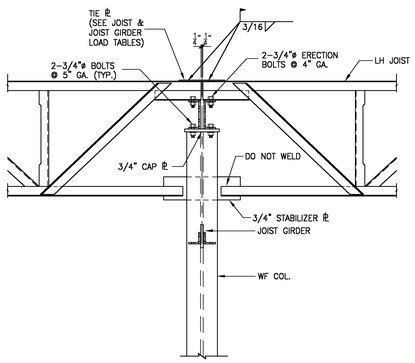
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P01 S20P01

LH JOIST & GIRDER CONN. (3)

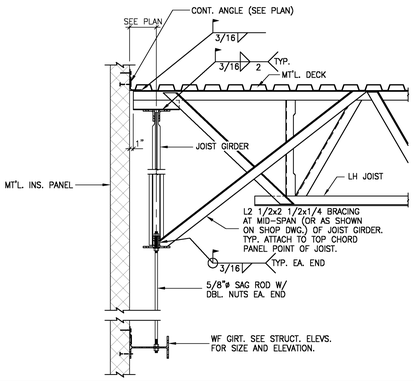
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P32 S20P32

LH JOIST – GIRDER – WF COL. MOMENT CONN. (4)

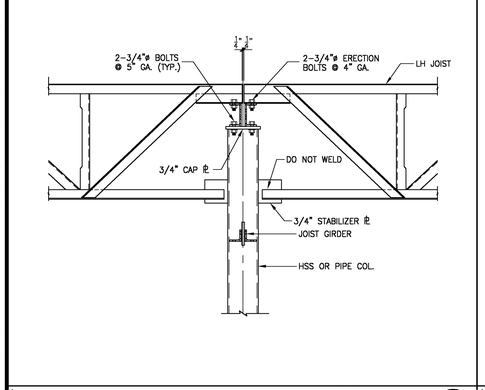
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P03 S20P03

LH JOIST TO JOIST GIRDER CONN (5)

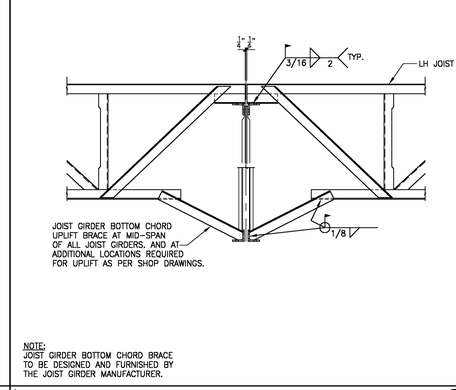
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P05 S20P05

GIRDER & WIND POST CONN. (6)

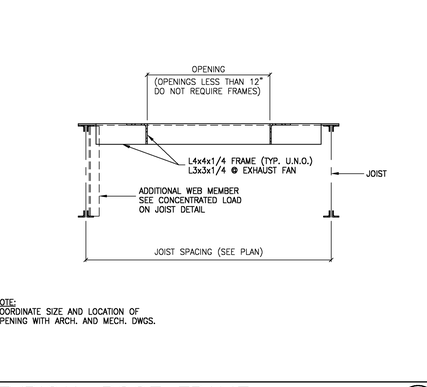
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P27 S20P27

LH JOIST TO JOIST GIRDER CONN (7)

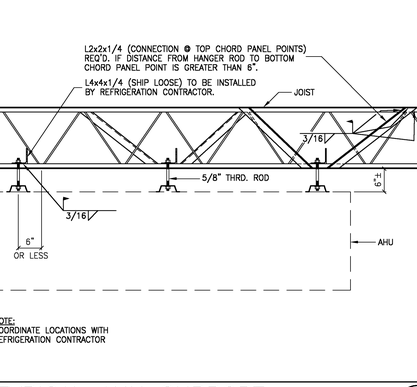
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P24 S20P24

GIRDER – WF COL. (8)

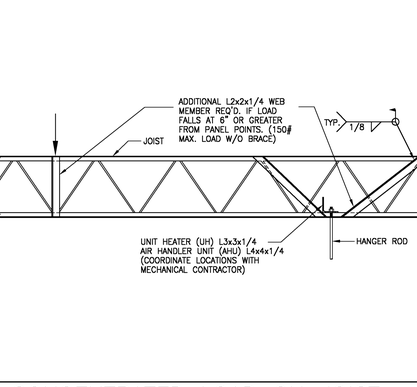
SCALE: 3/4"=1'-0"



F:\PLN\P\S20P03 S20P03

LH JOIST & GIRDER CONN. @ OFFSET COL. (9)

SCALE: 3/4"=1'-0"



F:\PLN\P\S20P03 S20P03

LH JOIST & GIRDER CONN. @ OFFSET COL. (HSS) (10)

SCALE: 3/4"=1'-0"

F:\PLN\P\S10TF1 S10TF1

GIRT – COL. CONN. DETAIL @ WF COL. (11)

SCALE: 1"=1'-0"

F:\PLN\P\S10TF2 S10TF2

GIRT – COL. CONN. DETAIL @ TS COL. (12)

SCALE: 1"=1'-0"

F:\PLN\P\S10TF4 S10TF4

TYP. PANEL ATTACHMENT DETAIL (13)

SCALE: 1 1/2"=1'-0"

F:\PLN\P\S10TF1 S10TF1

OFFSET SAGROD DETAIL @ X-BRACE (14)

SCALE: 1"=1'-0"

F:\PLN\P\S20P01 S20P01

GIRDER – HSS COL. (15)

SCALE: 3/4"=1'-0"

F:\PLN\P\S20T13 S20T13

LH JOIST – GIRDER – HSS COL. (16)

SCALE: 3/4"=1'-0"

F:\PLN\P\S20T16 S20T16

LH JOIST GIRDER UPLIFT BRACE @ MID-SPAN (17)

SCALE: 3/4"=1'-0"

F:\PLN\P\S20T11 S20T11

TYPICAL ROOF FRAME (18)

SCALE: 1"=1'-0"

F:\PLN\P\S20T11 S20T11

TYPICAL AHU SUPPORT (19)

SCALE: 3/4"=1'-0"

F:\PLN\P\S20T13 S20T13

CONCENTRATED LOAD ON JOIST (20)

SCALE: 3/4"=1'-0"

FLORIDA ENGINEERING LICENSE NO. 9430

FLORIDA ARCHITECTURAL LICENSE NO. AA26001476

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FRAMING SECTIONS AND DETAILS

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REV.	DATE	BY	DESCRIPTION
C	4/20/07	DLP	CONSTRUCTION ISSUE
B	3/30/07	DLP	STEEL CONSTRUCTION ISSUE
A	3/09/07	DLP	STRUCTURAL STEEL BID ISSUE
	2/20/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019

DRAWN: DLP

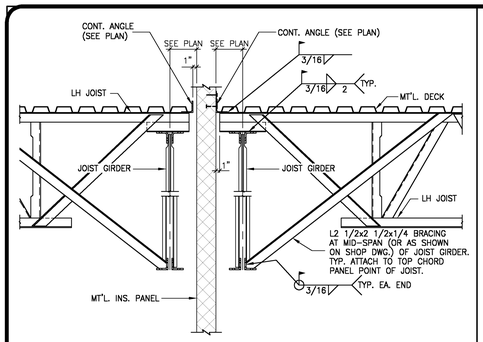
CHECKED: REK

SCALE: AS NOTED

S505

DRAWING NO.

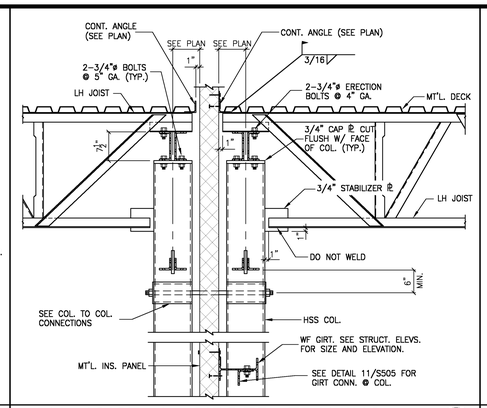
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F/PH/PJ 520D15

LH JOIST & GIRDER FRAMING 1

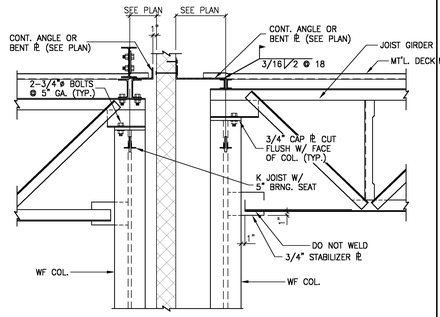
SCALE: 3/4"=1'-0"



F/PH/PJ 520D16

LH JOIST & GIRDER FRAMING D 2

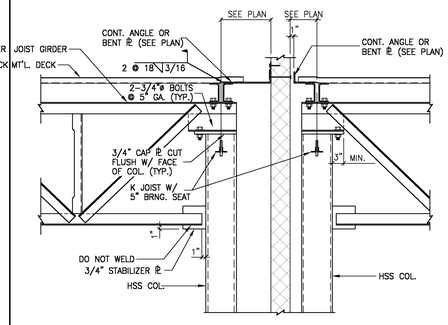
SCALE: 3/4"=1'-0"



F/PH/PJ 520D17

LH JOIST & GIRDER CONN. 3

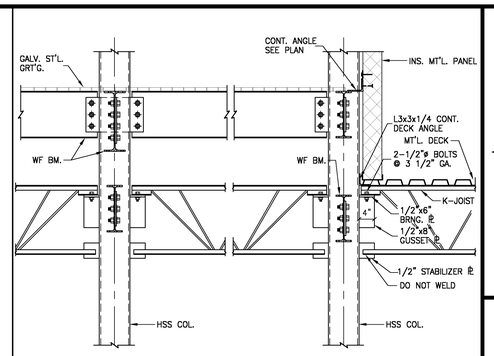
SCALE: 3/4"=1'-0"



F/PH/PJ 520D24

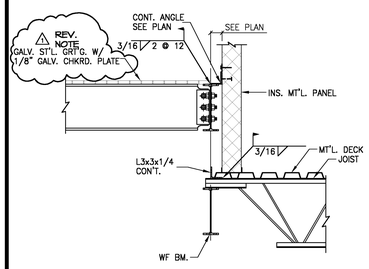
LH JOIST & GIRDER CONN. 4

SCALE: 3/4"=1'-0"



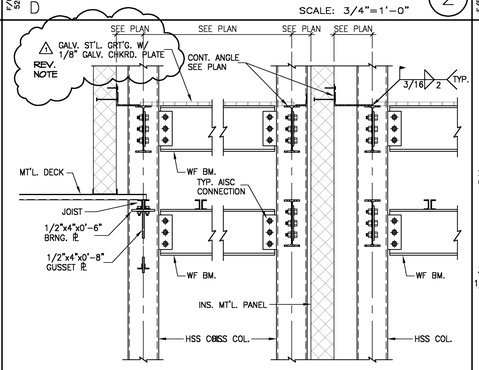
PENTHOUSE FLOOR FRAMING 5

SCALE: 3/4"=1'-0"



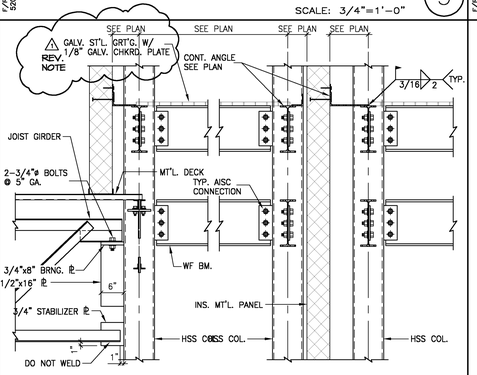
PENTHOUSE FLOOR FRAMING 6

SCALE: 3/4"=1'-0"



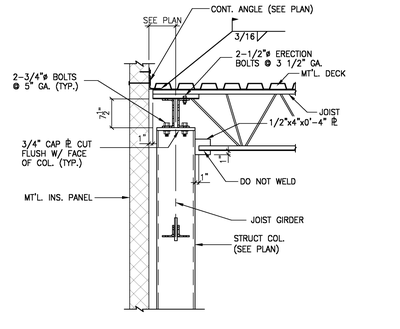
PENTHOUSE FLOOR FRAMING 7

SCALE: 3/4"=1'-0"



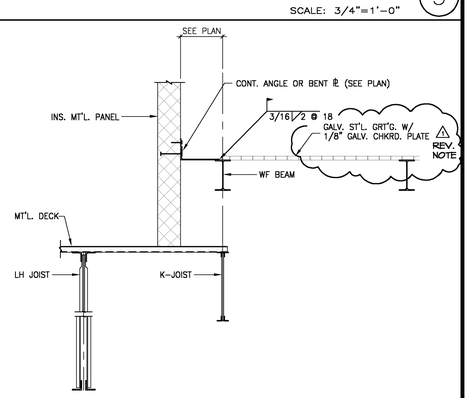
PENTHOUSE FLOOR FRAMING 8

SCALE: 3/4"=1'-0"



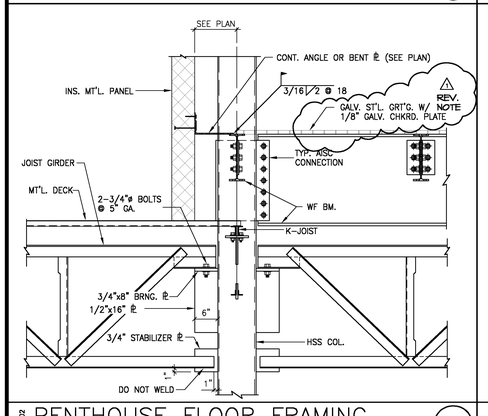
JOIST TO JOIST GIRDER CONN. D 9

SCALE: 3/4"=1'-0"



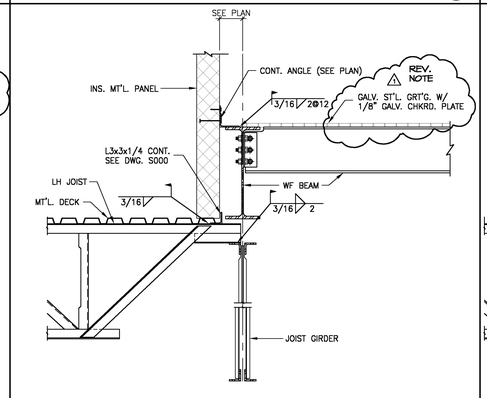
PENTHOUSE FLOOR FRAMING 10

SCALE: 3/4"=1'-0"



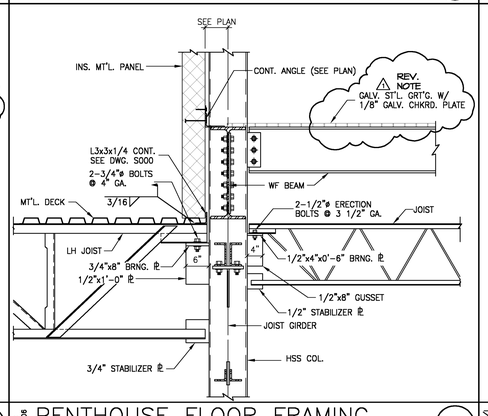
PENTHOUSE FLOOR FRAMING 11

SCALE: 3/4"=1'-0"



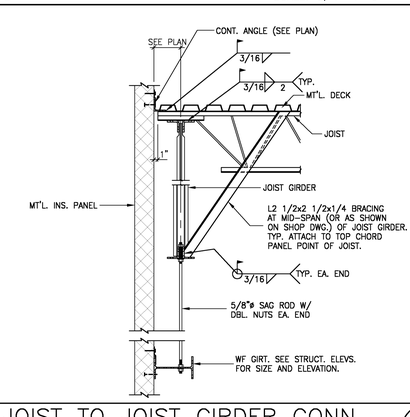
PENTHOUSE FLOOR FRAMING 12

SCALE: 3/4"=1'-0"



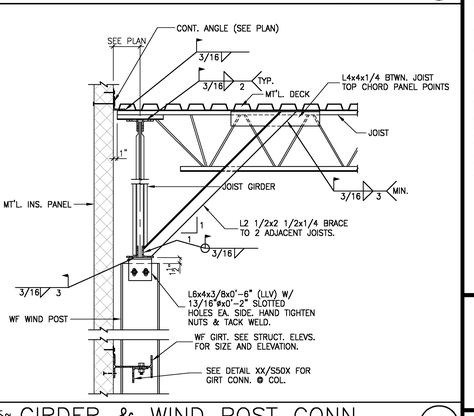
PENTHOUSE FLOOR FRAMING 13

SCALE: 3/4"=1'-0"



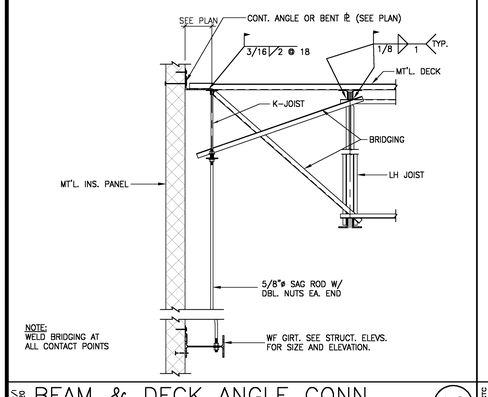
JOIST TO JOIST GIRDER CONN. 14

SCALE: 3/4"=1'-0"



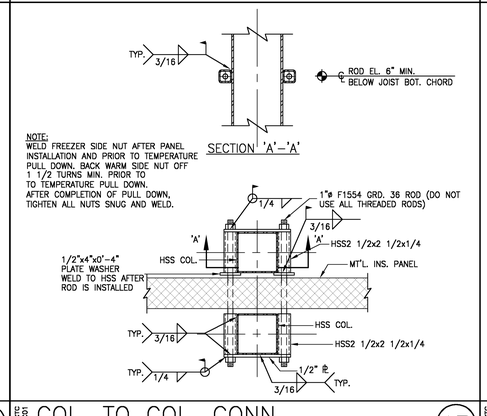
GIRDER & WIND POST CONN. 15

SCALE: 3/4"=1'-0"



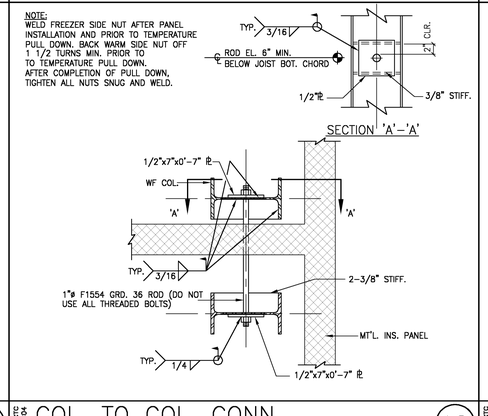
BEAM & DECK ANGLE CONN. 16

SCALE: 3/4"=1'-0"



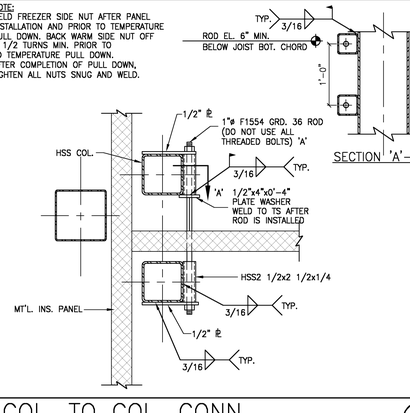
COL. TO COL. CONN. 17

SCALE: 1"=1'-0"



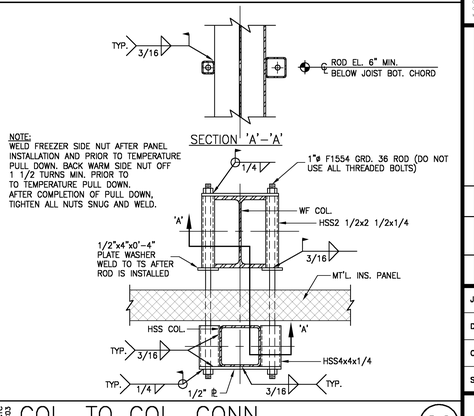
COL. TO COL. CONN. 18

SCALE: 1"=1'-0"



COL. TO COL. CONN. 19

SCALE: 1"=1'-0"



COL. TO COL. CONN. 20

SCALE: 1"=1'-0"

THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
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FLORIDA ENGINEERING LICENSE NO. 9520
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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

FRAMING SECTIONS AND DETAILS

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REV.	DATE	BY	DESCRIPTION
1	6/13/07	DLP	REVISED AS NOTED
0	5/25/07	DLP	CONSTRUCTION ISSUE
B	5/11/07	DLP	STEEL CONSTRUCTION ISSUE
A	4/27/07	DLP	STRUCTURAL STEEL BID ISSUE
			OWNER'S REVIEW

JOB NO. 710-03019

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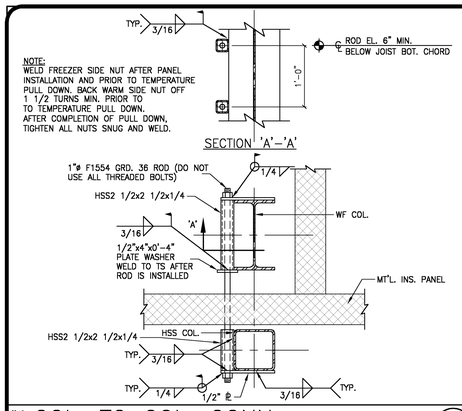
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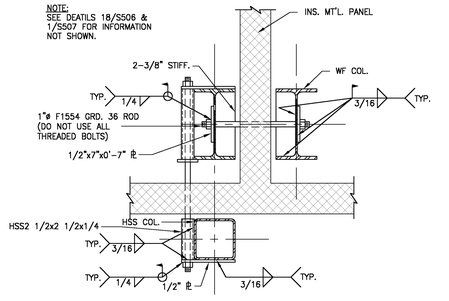
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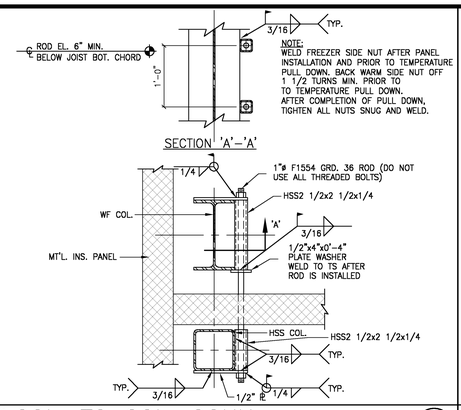
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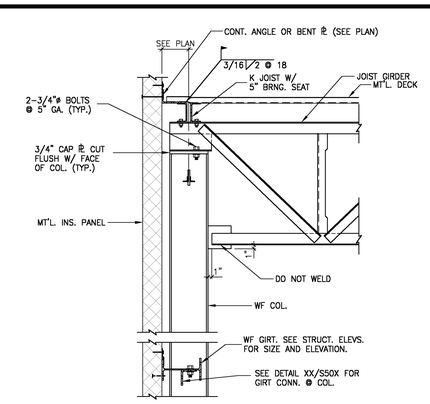
F7/D7/C7/C8 S1/D7/D33 — COL. TO COL. CONN. (1) — SCALE: 1"=1'-0"



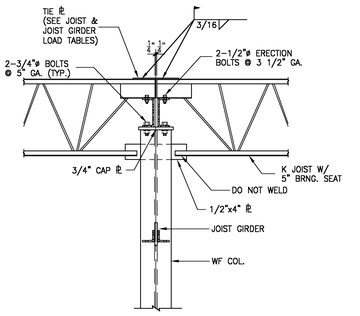
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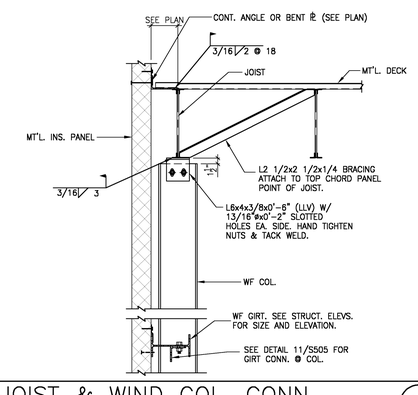
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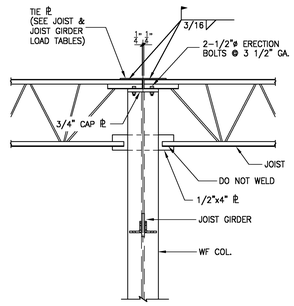
F7/D7/C7/C8 S20P17 — JOIST & GIRDER CONN. (4) — SCALE: 3/4"=1'-0"



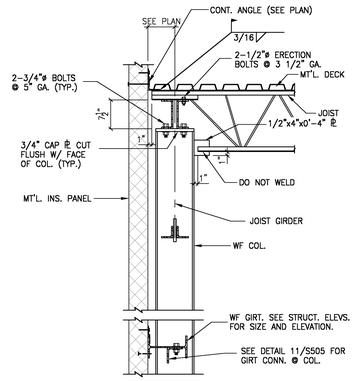
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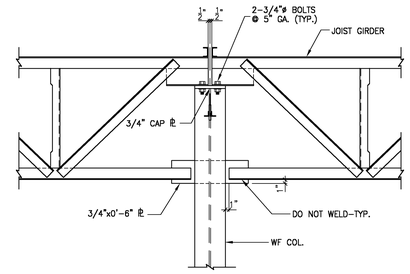
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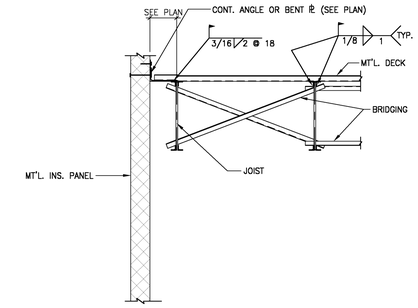
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F7/D7/C7/C8 S20P18 — JOIST TO JOIST GIRDER CONN. (8) — SCALE: 3/4"=1'-0"

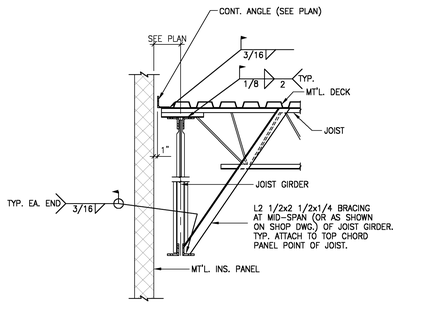


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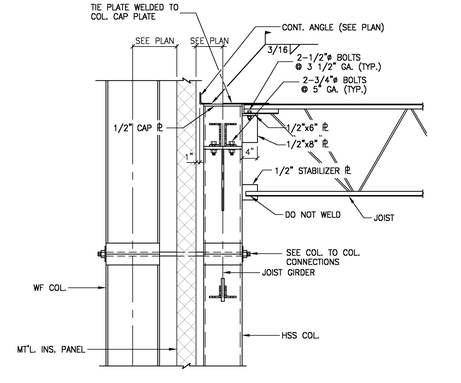


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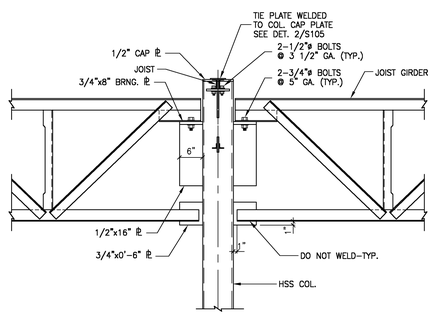
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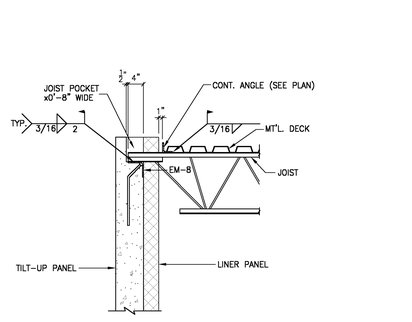
F7/D7/C7/C8 S20P07 — JOIST & GIRDER FRAMING (12) — SCALE: 3/4"=1'-0"



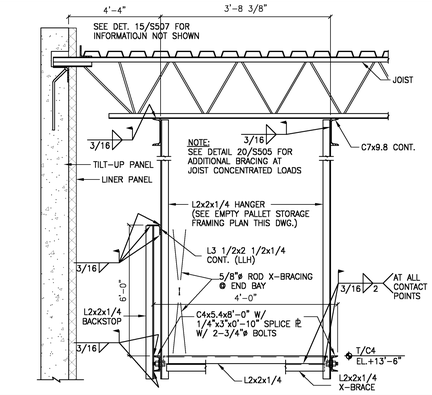
F7/D7/C7/C8 S20P12 — JOIST & GIRDER COLLECTOR DET. (13) — SCALE: 3/4"=1'-0"



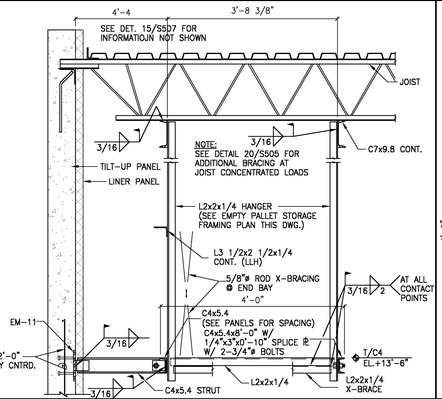
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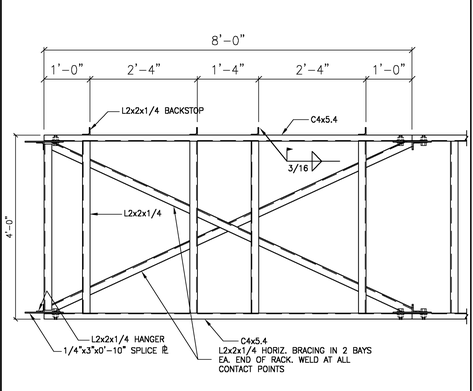
F7/D7/C7/C8 S20P16 — TYP. JOIST POCKET (15) — SCALE: 3/4"=1'-0"



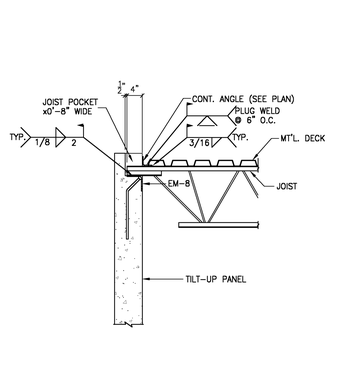
EMPTY PALLET STORAGE RACK (16) — SCALE: 3/4"=1'-0"



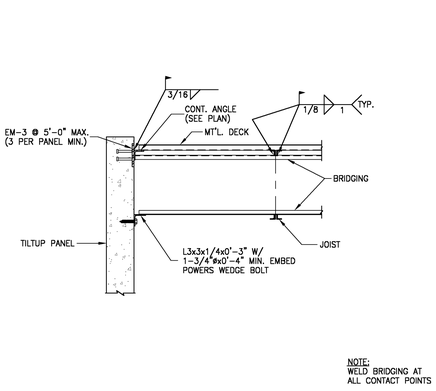
EMPTY PALLET STORAGE RACK (17) — SCALE: 3/4"=1'-0"



EMPTY PALLET STORAGE RACK FRAMING PLAN (18) — SCALE: 3/4"=1'-0"



TYP. JOIST POCKET (19) — SCALE: 3/4"=1'-0"



PERIMETER ANGLE TO PANEL (20) — SCALE: 3/4"=1'-0"

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UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FRAMING SECTIONS AND DETAILS

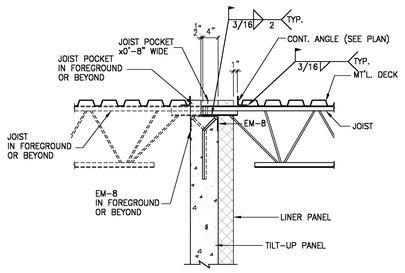
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REV.	DATE	BY	DESCRIPTION
D	05/30/07	DLP	CONSTRUCTION ISSUE
C	04/27/07	DLP	STEEL CONSTRUCTION ISSUE
B	03/16/07	DLP	STRUCTURAL STEEL BID ISSUE
A	02/16/07	DLP	OWNER'S REVIEW

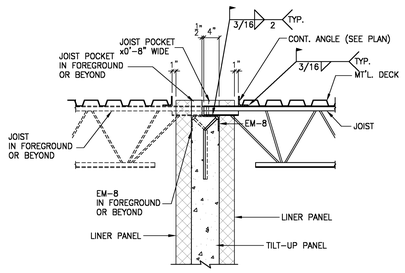
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DRAWN: DLP
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SCALE: AS NOTED

S507
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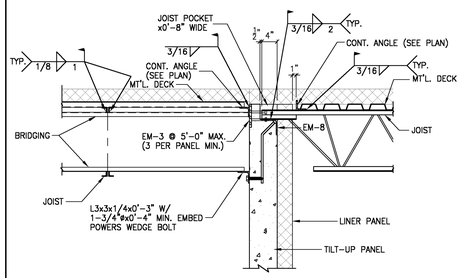
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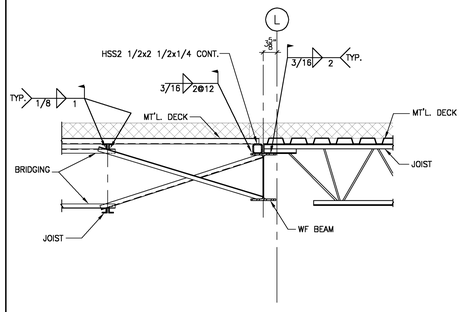
ROOF FRAMING — SCALE: 3/4"=1'-0" — 1



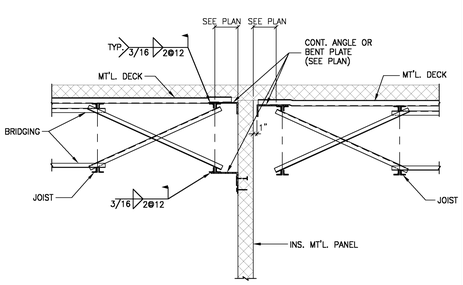
ROOF FRAMING — SCALE: 3/4"=1'-0" — 2



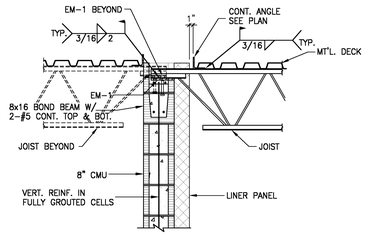
ROOF FRAMING — SCALE: 3/4"=1'-0" — 3



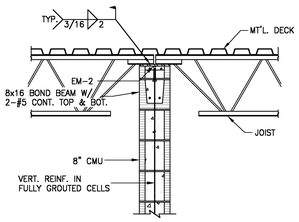
ROOF FRAMING — SCALE: 3/4"=1'-0" — 4



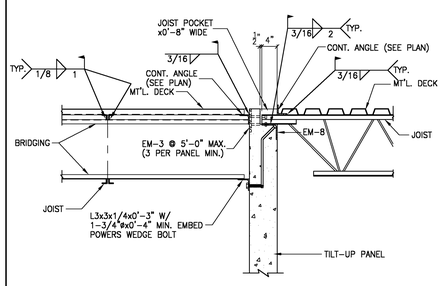
ROOF FRAMING — SCALE: 3/4"=1'-0" — 5



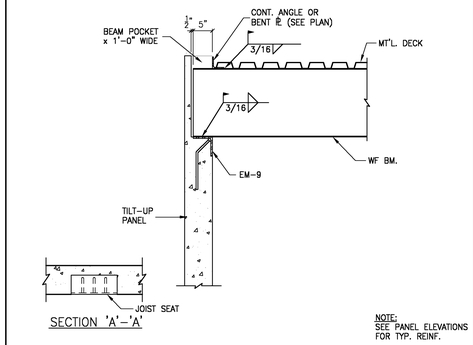
JOIST & CMU WALL — SCALE: 3/4"=1'-0" — 6



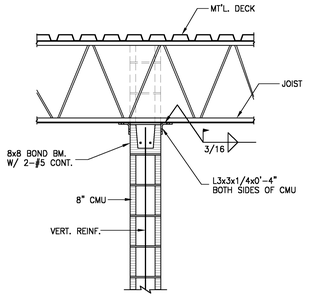
JOIST & CMU WALL — SCALE: 3/4"=1'-0" — 7



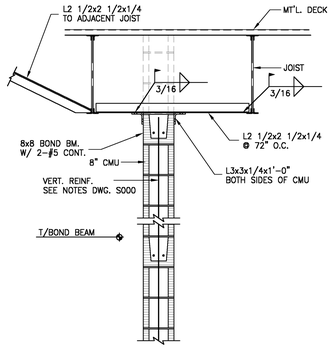
ROOF FRAMING — SCALE: 3/4"=1'-0" — 8



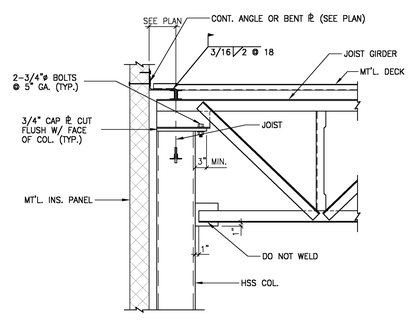
BEAM POCKET DETAIL — SCALE: 3/4"=1'-0" — 9



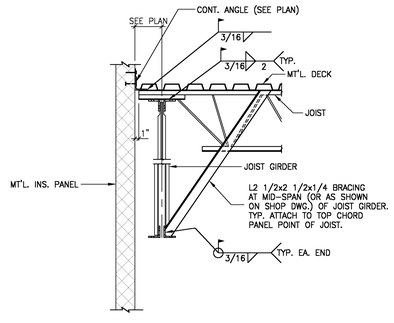
CMU WALL BRACE — SCALE: 3/4"=1'-0" — 10



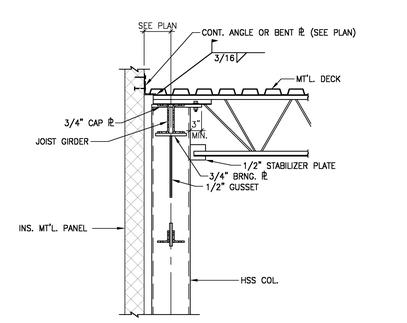
CMU WALL BRACE — SCALE: 3/4"=1'-0" — 11



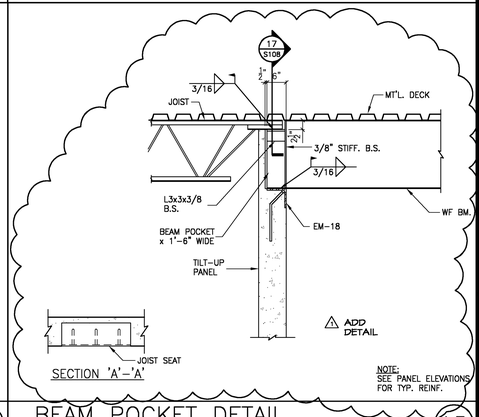
JOIST & GIRDER CONN. — SCALE: 3/4"=1'-0" — 12



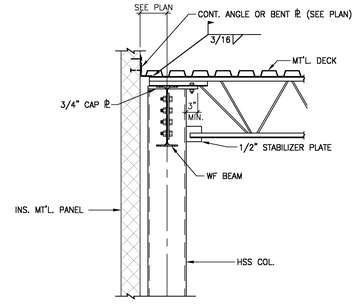
JOIST TO JOIST GIRDER CONN. — SCALE: 3/4"=1'-0" — 13



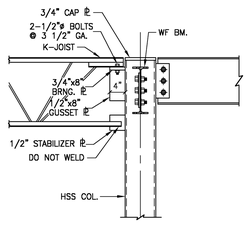
ROOF FRAMING — SCALE: 3/4"=1'-0" — 14



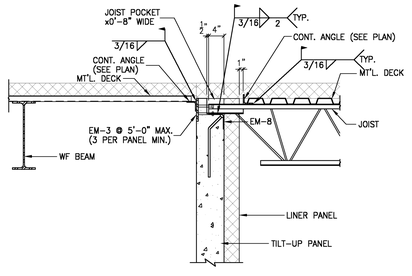
BEAM POCKET DETAIL — SCALE: 3/4"=1'-0" — 15



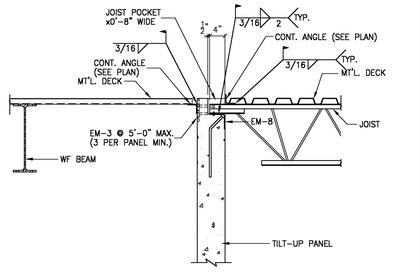
ROOF FRAMING — SCALE: 3/4"=1'-0" — 16



ROOF FRAMING — SCALE: 3/4"=1'-0" — 18



ROOF FRAMING — SCALE: 3/4"=1'-0" — 19



ROOF FRAMING — SCALE: 3/4"=1'-0" — 20

THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFURBISHMENT
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 292-2900
FLORIDA ENGINEERING LICENSE NO. 36520
FLORIDA ARCHITECTURAL LICENSE NO. AA26001478

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FRAMING SECTIONS AND DETAILS

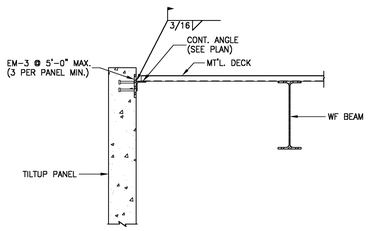
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REV.	DATE	BY	DESCRIPTION
1	10/29/07	DLP	REVISED AS NOTED
0	09/28/07	DLP	CONSTRUCTION ISSUE
C	08/31/07	DLP	STEEL/STRUCTURAL BID ISSUE
B	07/31/07	DLP	STRUCTURAL STEEL BID ISSUE
A	07/20/07	DLP	OWNER'S REVIEW

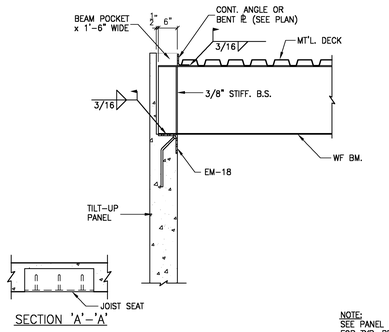
JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S508
DRAWING NO.

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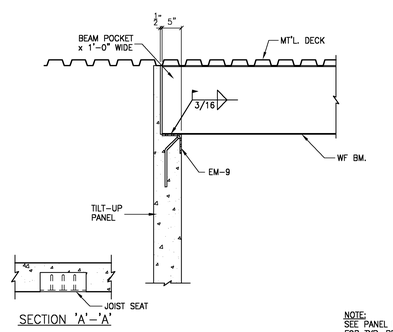


PERIMETER ANGLE TO PANEL (1)
SCALE: 3/4"=1'-0"



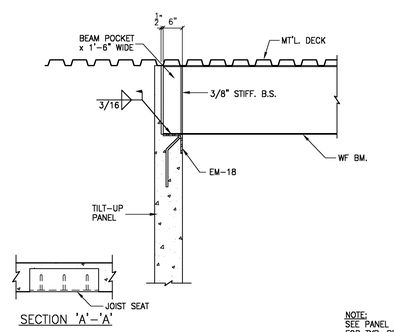
NOTE:
SEE PANEL ELEVATIONS FOR TYP. REINF.

BEAM POCKET DETAIL (2)
SCALE: 3/4"=1'-0"



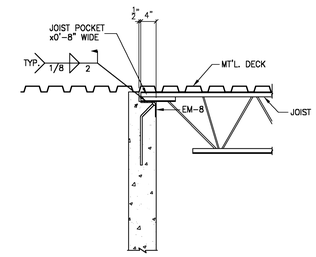
NOTE:
SEE PANEL ELEVATIONS FOR TYP. REINF.

BEAM POCKET DETAIL (3)
SCALE: 3/4"=1'-0"

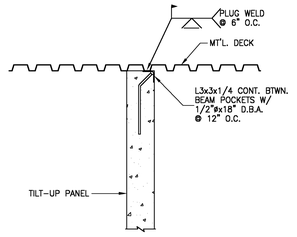


NOTE:
SEE PANEL ELEVATIONS FOR TYP. REINF.

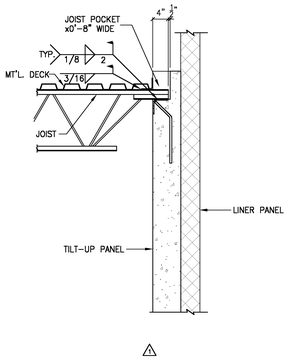
BEAM POCKET DETAIL (4)
SCALE: 3/4"=1'-0"



JOIST POCKET DETAIL (5)
SCALE: 3/4"=1'-0"

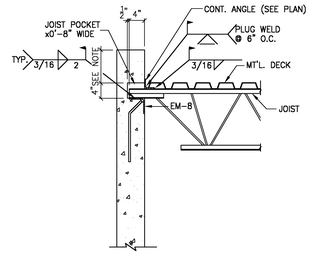


DECK ANGLE DETAIL (6)
SCALE: 3/4"=1'-0"



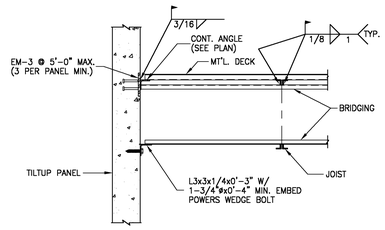
⚠

JOIST POCKET BTWN. WELFARE AND DOCK (7)
SCALE: 3/4"=1'-0"



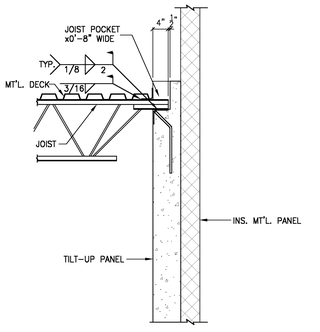
NOTE:
SEE PANEL ELEVATIONS FOR TOP OF PANEL ELEVATION

JOIST POCKET w/ PARAPET (8)
SCALE: 3/4"=1'-0"

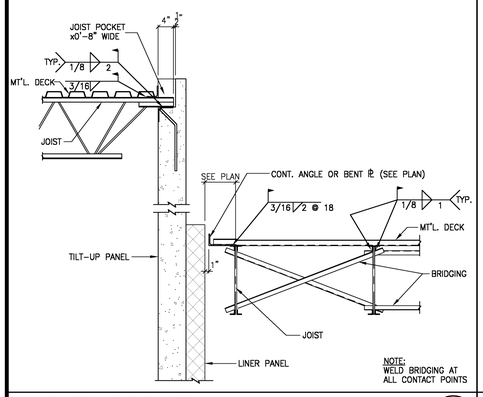


NOTE:
WELD BRIDGING AT ALL CONTACT POINTS

PERIMETER ANGLE TO PANEL (9)
SCALE: 3/4"=1'-0"

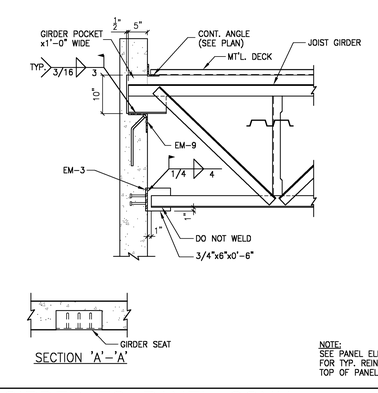


JOIST POCKET BTWN. WELFARE AND FREEZER (10)
SCALE: 3/4"=1'-0"



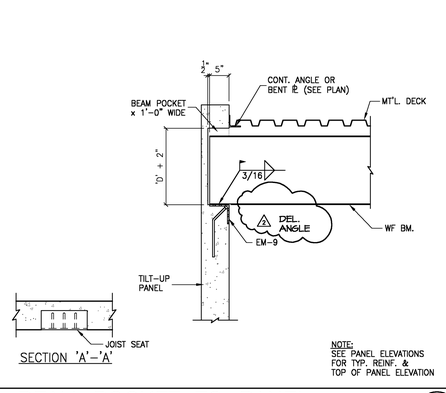
NOTE:
WELD BRIDGING AT ALL CONTACT POINTS

JOIST POCKET BTWN. ADMIN. AND DOCK (11)
SCALE: 3/4"=1'-0"



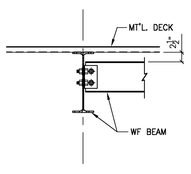
NOTE:
SEE PANEL ELEVATIONS FOR TYP. REINF. & TOP OF PANEL ELEVATION

GIRDER TO PANEL CONN. (12)
SCALE: 3/4"=1'-0"

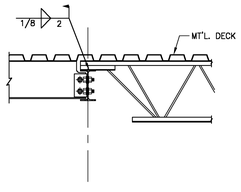


NOTE:
SEE PANEL ELEVATIONS FOR TYP. REINF. & TOP OF PANEL ELEVATION

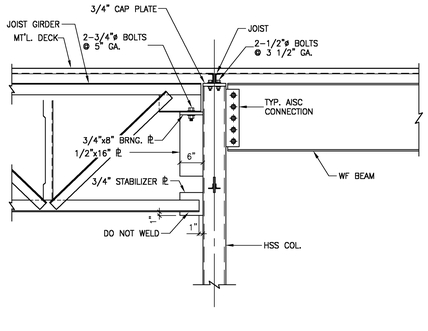
BEAM POCKET TO PANEL (13)
SCALE: 3/4"=1'-0"



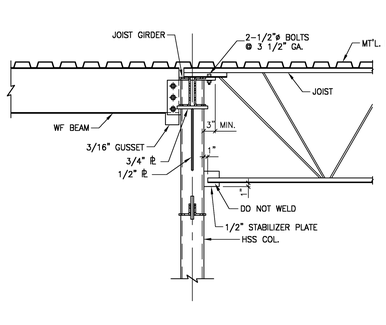
FRAMING DETAIL (14)
SCALE: 3/4"=1'-0"



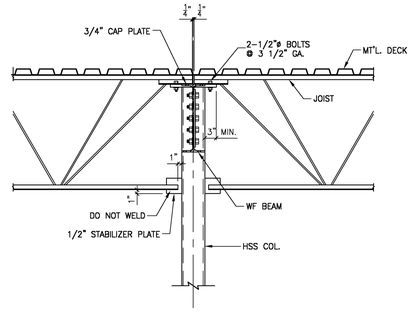
FRAMING DETAIL (15)
SCALE: 3/4"=1'-0"



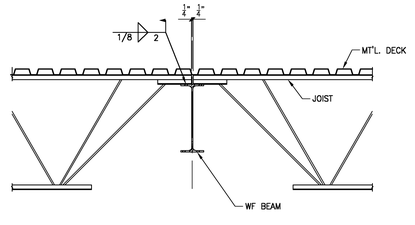
FRAMING DETAIL (16)
SCALE: 3/4"=1'-0"



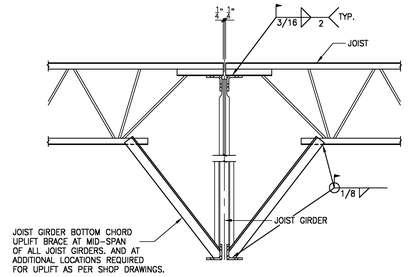
FRAMING DETAIL (17)
SCALE: 3/4"=1'-0"



FRAMING DETAIL (18)
SCALE: 3/4"=1'-0"



FRAMING DETAIL (19)
SCALE: 3/4"=1'-0"



NOTE:
JOIST GIRDER BOTTOM CHORD BRACE TO BE DESIGNED AND FURNISHED BY THE JOIST GIRDER MANUFACTURER.

JOIST GIRDER UPLIFT BRACE @ MID-SPAN (20)
SCALE: 1"=1'-0"

FLORIDA ENGINEERING LICENSE NO. 56530
FLORIDA ARCHITECTURAL LICENSE NO. AR0015171
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 292-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FRAMING SECTIONS AND DETAILS

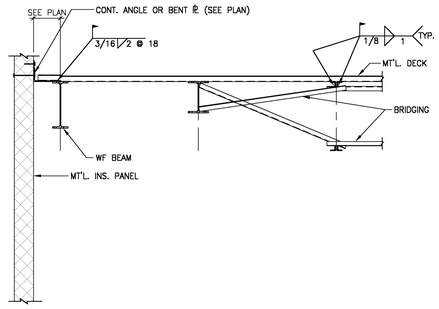
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REV.	DATE	BY	DESCRIPTION
2	12/6/07	DLP	REVISED AS NOTED
1	10/25/07	DLP	REVISED AS NOTED
0	9/24/07	DLP	STEEL CONSTRUCTION ISSUE
B	7/27/07	DLP	STRUCTURAL STEEL BID ISSUE
A	7/13/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

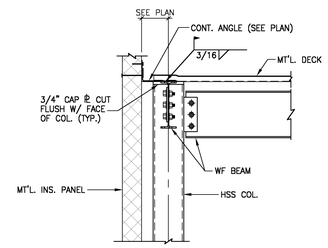
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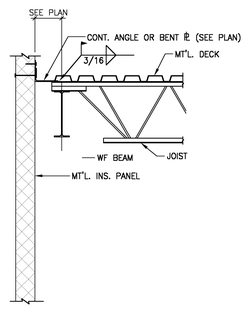


NOTE:
WELD BRIDGING AT
ALL CONTACT POINTS

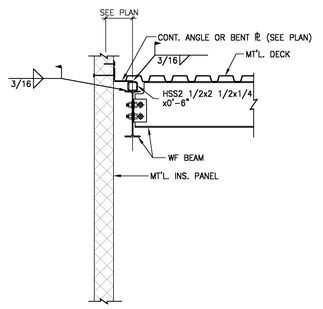
F/PM/P/1 S10P01 — BEAM & DECK ANGLE CONN. (1)
SCALE: 3/4"=1'-0"



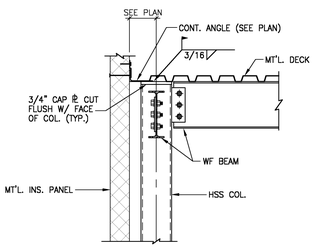
F/PM S20PH02 — ROOF FRAMING (2)
SCALE: 3/4"=1'-0"



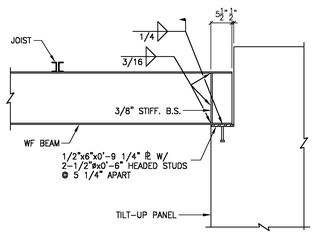
F/PM/P/1 S10P03 — JOIST & DECK ANGLE CONN. (3)
SCALE: 3/4"=1'-0"



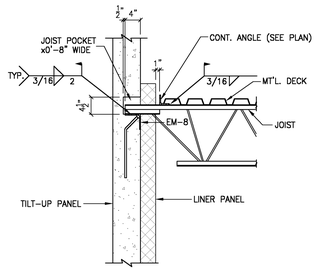
F/PM/P/1 S10P20 — BEAM & DECK ANGLE CONN. (4)
SCALE: 3/4"=1'-0"



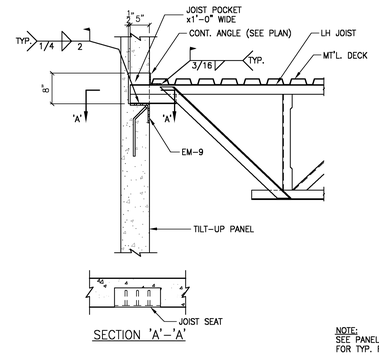
F/PM S20PH02 — ROOF FRAMING (5)
SCALE: 3/4"=1'-0"



F/PM/P/1 S10P20 — BEAM & PANEL CONN. (6)
SCALE: 3/4"=1'-0"



TYP. JOIST POCKET (7)
SCALE: 3/4"=1'-0"



SECTION 'A'-'A'

NOTE:
SEE PANEL ELEVATIONS
FOR TYP. REINF.

TYPICAL LH JOIST POCKET (8)
SCALE: 3/4"=1'-0"

FLORIDA ENGINEERING LICENSE NO. 9630
FLORIDA ARCHITECTURAL LICENSE NO. AA 26001171
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2950 MARTLEY ROAD, JACKSONVILLE, FL 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

FRAMING SECTIONS AND DETAILS

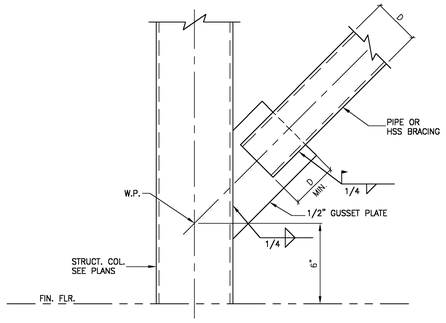
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REV.	DATE	BY	DESCRIPTION
0	12/21/06	DLP	CONSTRUCTION ISSUE
C	3/27/07	DLP	STEEL CONSTRUCTION ISSUE
A	5/30/07	DLP	STRUCTURAL STEEL BID ISSUE

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

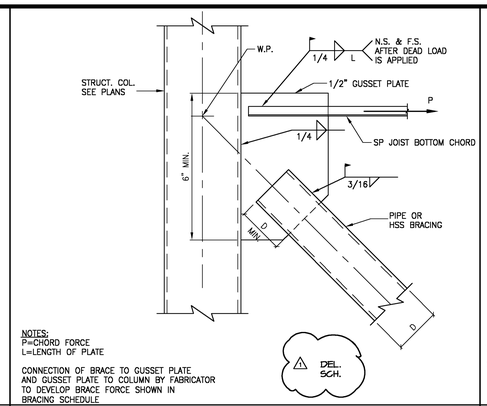
S510
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NOTE:
CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

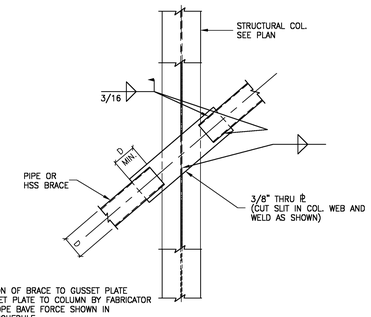
BRACING DETAIL
BOTTOM GUSSET PLATE SCALE: N.T.S. (1)



NOTES:
P=CHORD FORCE
L=LENGTH OF PLATE

CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

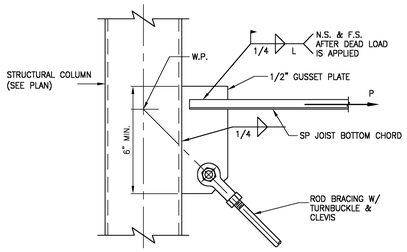
SP JOIST BOTTOM CHORD FORCE
CONNECTION AT PIPE BRACING SCALE: N.T.S. (2)



NOTE:
CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOPE BAVE FORCE SHOWN IN BRACING SCHEDULE.

F17DLP/AB AB11

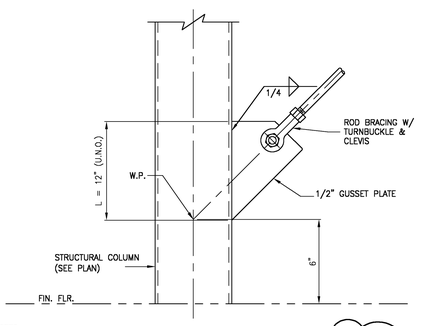
BRACING DETAIL
SCALE: 3/4"=1'-0" (3)



NOTES:
P=CHORD FORCE
L=LENGTH OF PLATE

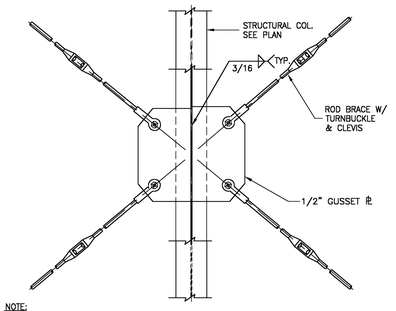
CONNECTION OF BRACE TO GUSSET PLATE BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

SP JOIST BOTTOM CHORD FORCE
CONNECTION AT ROD BRACING SCALE: N.T.S. (4)



NOTES:
1. CONNECTION OF BRACE TO GUSSET PLATE AND PLATE TO COLUMN BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE
2. MIN. EDGE DISTANCE FROM PIN HOLE = 2 x PIN DIA.

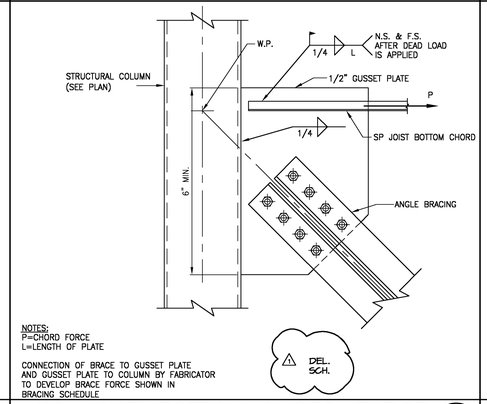
BRACING DETAIL
BOTTOM GUSSET PLATE SCALE: N.T.S. (5)



NOTE:
MIN. EDGE DISTANCE FROM PIN HOLE = 2 x PIN DIA.
GUSSET MAY ATTACH TO WEB OR FLANGE

F17DLP/AB RB4

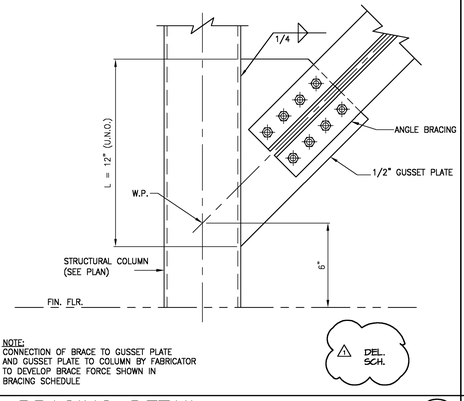
BRACING DETAIL
@ ROD & COL. INTERSECTION SCALE: 3/4"=1'-0" (6)



NOTES:
P=CHORD FORCE
L=LENGTH OF PLATE

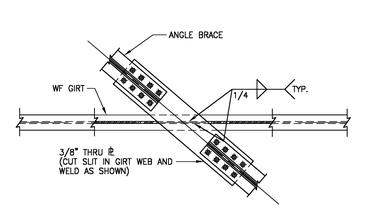
CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

SP JOIST BOTTOM CHORD FORCE
CONNECTION AT ANGLE BRACING SCALE: N.T.S. (7)



NOTE:
CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

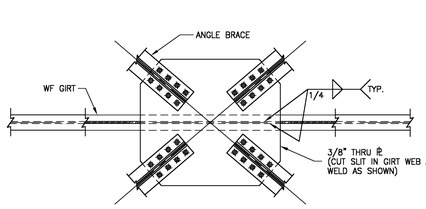
BRACING DETAIL
BOTTOM GUSSET PLATE SCALE: N.T.S. (8)



NOTE:
CONNECTION OF BRACE TO GUSSET PLATE BY FABRICATOR TO DEVELOPE BAVE FORCE SHOWN IN BRACING SCHEDULE.

F17DLP/AB AB14

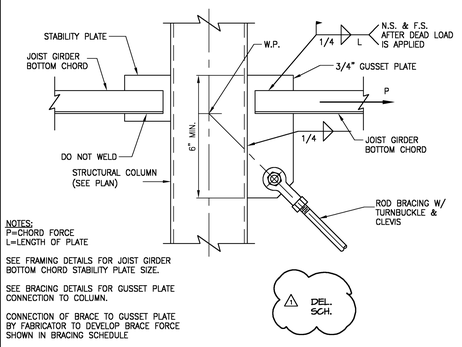
BRACING DETAIL
@ BRACE & GIRT INTER. SCALE: 3/4"=1'-0" (9)



NOTE:
CONNECTION OF BRACE TO GUSSET PLATE BY FABRICATOR TO DEVELOPE BAVE FORCE SHOWN IN BRACING SCHEDULE.

F17DLP/AB AB14

BRACING DETAIL
@ BRACE & GIRT INTER. SCALE: 3/4"=1'-0" (10)



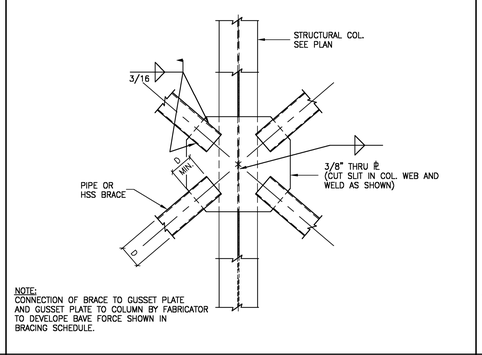
NOTES:
P=CHORD FORCE
L=LENGTH OF PLATE

SEE FRAMING DETAILS FOR JOIST GIRDER BOTTOM CHORD STABILITY PLATE SIZE.

SEE BRACING DETAILS FOR GUSSET PLATE CONNECTION TO COLUMN.

CONNECTION OF BRACE TO GUSSET PLATE BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

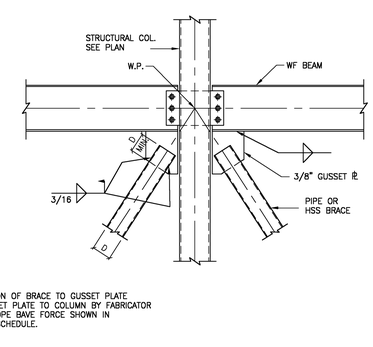
JOIST GIRDER BOT. CHORD FORCE
CONNECTION AT ROD BRACING SCALE: N.T.S. (11)



NOTE:
CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOPE BAVE FORCE SHOWN IN BRACING SCHEDULE.

F17DLP/AB AB17

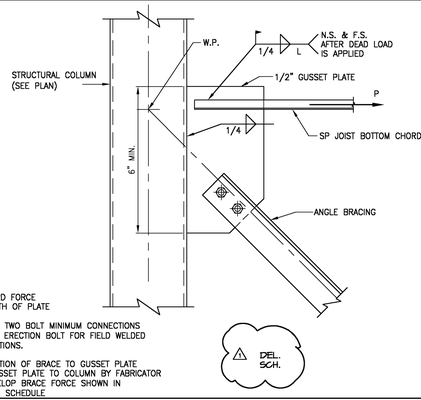
BRACING DETAIL
SCALE: 3/4"=1'-0" (12)



NOTE:
CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOPE BAVE FORCE SHOWN IN BRACING SCHEDULE.

F17DLP/AB AB16

BRACING DETAIL
SCALE: 3/4"=1'-0" (13)

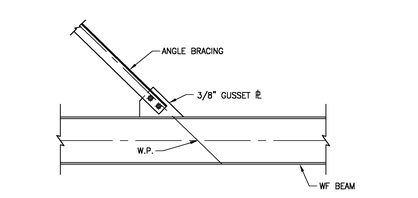


NOTES:
P=CHORD FORCE
L=LENGTH OF PLATE

PROVIDE TWO BOLT MINIMUM CONNECTIONS OR ONE ERECTION BOLT FOR FIELD WELDED CONNECTIONS.

CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

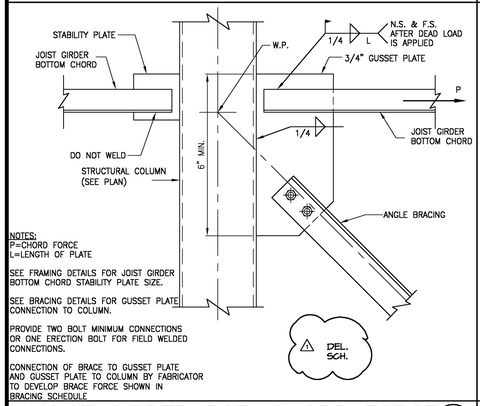
SP JOIST BOTTOM CHORD FORCE
CONNECTION AT ANGLE BRACING SCALE: N.T.S. (14)



NOTE:
PROVIDE TWO BOLT MINIMUM CONNECTIONS OR ONE ERECTION BOLT FOR FIELD WELDED CONNECTIONS.

F17DLP/AB AB13

BRACING DETAIL
SCALE: 3/4"=1'-0" (15)



NOTES:
P=CHORD FORCE
L=LENGTH OF PLATE

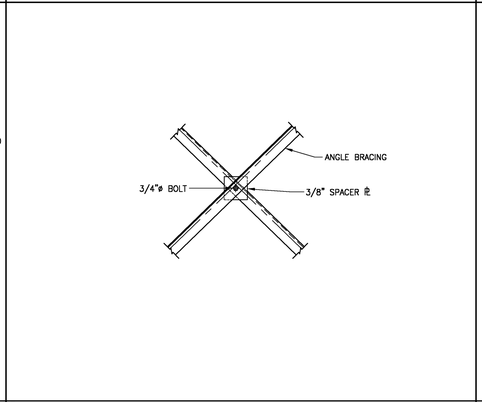
SEE FRAMING DETAILS FOR JOIST GIRDER BOTTOM CHORD STABILITY PLATE SIZE.

SEE BRACING DETAILS FOR GUSSET PLATE CONNECTION TO COLUMN.

PROVIDE TWO BOLT MINIMUM CONNECTIONS OR ONE ERECTION BOLT FOR FIELD WELDED CONNECTIONS.

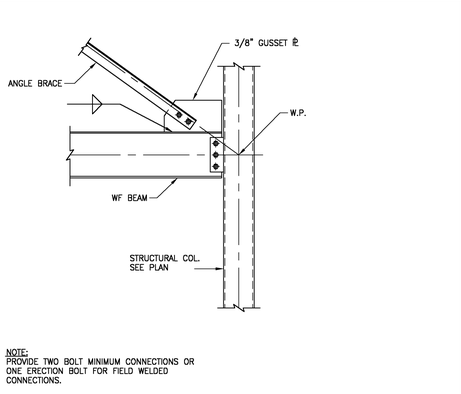
CONNECTION OF BRACE TO GUSSET PLATE AND GUSSET PLATE TO COLUMN BY FABRICATOR TO DEVELOP BRACE FORCE SHOWN IN BRACING SCHEDULE

JOIST GIRDER BOT. CHORD FORCE
CONNECTION AT ANGLE BRACING SCALE: N.T.S. (16)



F17DLP/AB AB8

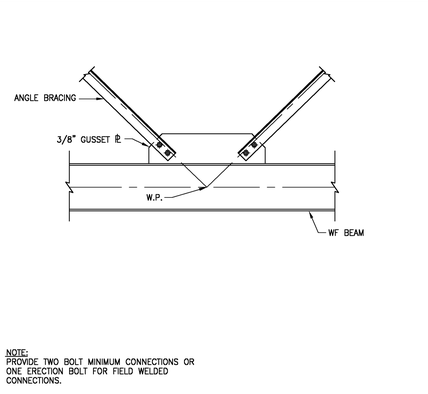
BRACING DETAIL
@ BRACE INTERSECTION SCALE: 3/4"=1'-0" (17)



NOTE:
PROVIDE TWO BOLT MINIMUM CONNECTIONS OR ONE ERECTION BOLT FOR FIELD WELDED CONNECTIONS.

F17DLP/AB AB11

BRACING DETAIL
SCALE: 3/4"=1'-0" (18)



NOTE:
PROVIDE TWO BOLT MINIMUM CONNECTIONS OR ONE ERECTION BOLT FOR FIELD WELDED CONNECTIONS.

F17DLP/AB AB13

BRACING DETAIL
SCALE: 3/4"=1'-0" (19)

FLORIDA ENGINEERING LICENSE #29535
FLORIDA ARCHITECTURAL LICENSE #AR95176
THE STELLAR GROUP
DESIGN x CONSTRUCTION x REFRIGERATION
2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900

UNITED STATES COLD STORAGE, INC
NEW FACILITY
LAKE CITY, FLORIDA

BRACING SECTIONS AND DETAILS

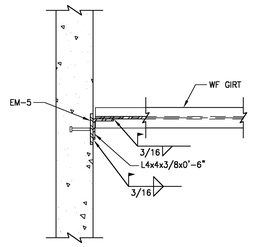
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REV.	DATE	BY	DESCRIPTION
1	6/7/07	DLP	REVISED AS NOTED
0	5/25/07	DLP	CONSTRUCTION ISSUE
B	3/16/07	DLP	STEEL CONSTRUCTION ISSUE
A	2/16/07	DLP	STRUCTURAL STEEL BID ISSUE
	1/31/07		OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S515
DRAWING NO.

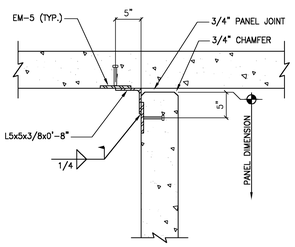
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PNL/PNL 340P14

TYPICAL GIRT TO PANEL CONN. (1)

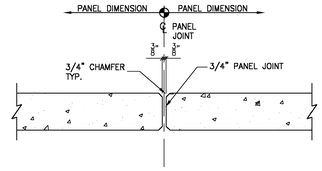
SCALE: N.T.S.



PNL/PNL 340P5

TYPICAL PANEL JOINT @ WALL INTERSECTION (2)

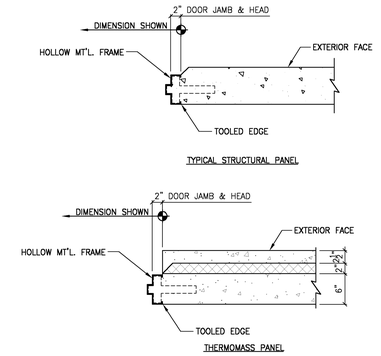
SCALE: 1"=1'-0"



PNL/PNL 340P1

TYPICAL PANEL JOINT (3)

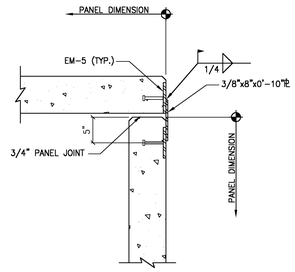
SCALE: 1"=1'-0"



PNL/PNL 340P9

TYPICAL H.M. DOOR FRAME (4)

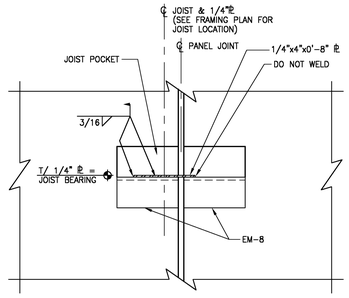
SCALE: 1"=1'-0"



PNL/PNL 340P4

TYPICAL CORNER BUTT JOINT EXTERIOR CONNECTION (5)

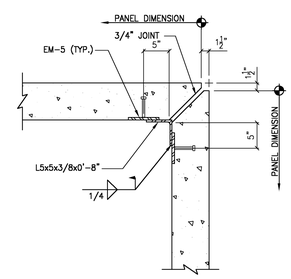
SCALE: 1"=1'-0"



PNL/PNL 340P18

DBL. JOIST POCKET DETAIL @ PANEL JOINT (6)

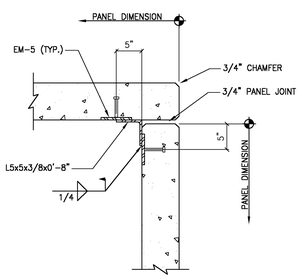
SCALE: 1 1/2"=1'-0"



PNL/PNL 340P6

TYPICAL CORNER MITER JOINT W/O EXPOSED AGGREGATE (7)

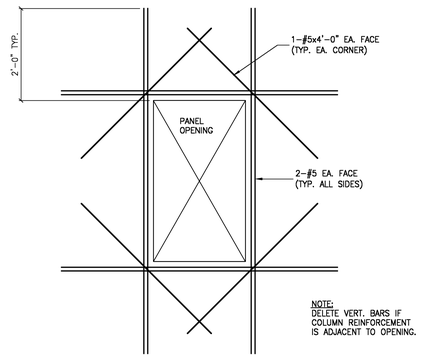
SCALE: 1"=1'-0"



PNL/PNL 340P2

TYPICAL CORNER BUTT JOINT (8)

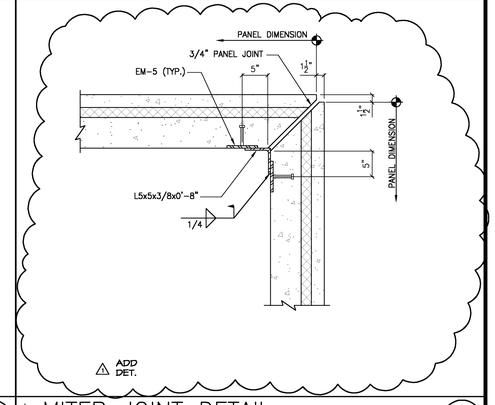
SCALE: 1"=1'-0"



PNL/PNL 340P15

TYPICAL REINF. AROUND OPNG. (9)

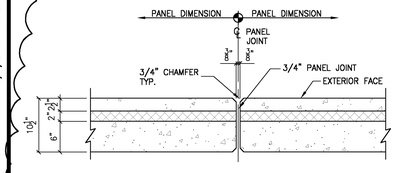
SCALE: N.T.S.



PNL/PNL 340P3

MITER JOINT DETAIL (10)

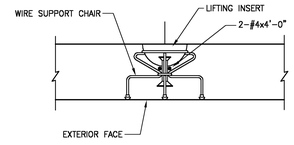
SCALE: 1"=1'-0"



PNL/PNL 340P1

TYPICAL PANEL JOINT (11)

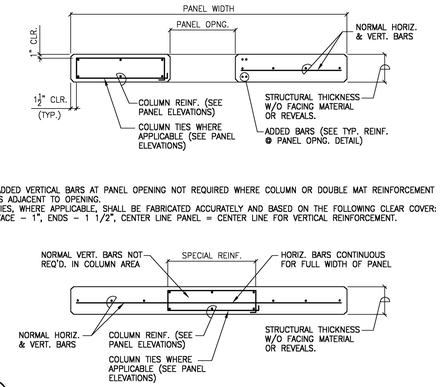
SCALE: 1"=1'-0"



PNL/PNL 340P17

TYPICAL LIFTING INSERT DETAIL (12)

SCALE: N.T.S.



PNL/PNL 340P16

TYPICAL PANEL REINF. LAYOUT (13)

SCALE: N.T.S.

MARK	SIZE
EM-1	3/8"x6"x0'-6" ℄ W/ 2-1/2"ø x0'-4" HD STUDS
EM-2	3/8"x8"x0'-8" ℄ W/ 2-3/4"ø x0'-6" HD STUDS
EM-3	1/2"x6"x0'-6" ℄ W/ 2-1/2"ø x0'-4" HD STUDS
EM-4	1/2"x6"x0'-8" ℄ W/ 2-1/2"ø x0'-4" HD STUDS
EM-5	1/2"x6"x1'-0" ℄ W/ 3-1/2"ø x0'-4" HD STUDS
EM-6	1/2"x6"x1'-0" ℄ W/ 6-1/2"ø x0'-4" HD STUDS
EM-7	1/2"x6"x1'-0" ℄ W/ 6-3/4"ø x0'-6" HD STUDS
EM-8	L4x4x1/4x0'-8" W/ 2-1/2"ø x18" D.B.A.
EM-9	L5x5x3/8x1'-0" W/ 3-1/2"ø x18" D.B.A.
EM-10	L6x6x3/8x1'-0" W/ 3-1/2"ø x18" D.B.A.
EM-11	1/2"x8"x0'-8" ℄ W/ 4-1/2"ø x0'-4" HD STUDS
EM-13	1/2"x8"x1'-0" ℄ W/ 9-1/2"ø x0'-6" HD STUDS
EM-15	L4x4x1/4x1'-0" W/ 1-1/2"ø x24" D.B.A.
EM-16	L5x5x3/8x1'-4" W/ 3-1/2"ø x18" D.B.A.
EM-17	1/2"x8"x1'-0" ℄ W/ 9-1/2"ø x0'-4" HD STUDS
EM-18	L6x6x3/8x1'-6" W/ 3-1/2"ø x18" D.B.A.

PNL/PNL 340P23

EMBED PLATE SCHEDULE (14)

SCALE: N.T.S.

FLORIDA ENGINEERING LICENSE # 36320

FLORIDA ARCHITECTURAL LICENSE # AA26001775

THE STELLAR GROUP

DESIGN • CONSTRUCTION • REFRIGERATION

2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2600

UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

TILT-UP PANEL SECTIONS AND DETAILS

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REV.	DATE	BY	DESCRIPTION
1	6/8/2007	DLP	REVISED AS NOTED
0	5/25/2007	DLP	CONSTRUCTION ISSUE

JOB NO. 710-03019

DRAWN: DLP

CHECKED: REK

SCALE: AS NOTED

S520

DRAWING NO.

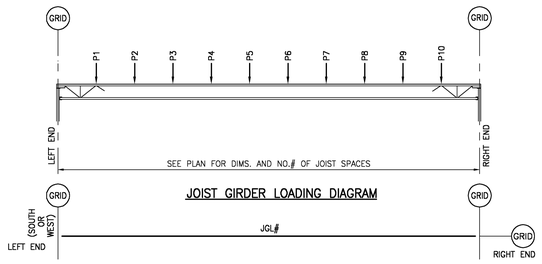
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JOIST GIRDER LOADING TABLE

JOIST GIRDER LOAD DESIGNATION	PANEL POINT LOADS (KIPS)											MOMENT LIVE LOAD (FT-KIP)		CHORD FORCE (KIPS)		REMARKS	JOIST GIRDER LOAD DESIGNATION
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	LEFT	RIGHT	TOP	BOTTOM		
JGL1	5.3	5.1	5.1	5.1	5.1	5.1	5.1					+55.0	-55.0	±20.0			JGL1
JGL2	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL2
JGL3	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL3
JGL4	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL4
JGL5	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL5
JGL6	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL6
JGL7	(SEE PLAN)													±20.0			JGL7
								(JGL8 NOT USED)									
JGL9	9.9	9.9	9.9	11.0	11.3	10.3											JGL9
JGL10	9.9	9.9	9.9	12.5	11.4	11.4											JGL10
JGL11	9.9	9.9	9.9	12.2	9.9	9.9											JGL11
								(JGL12 THRU JGL20 NOT USED)									
JGL21	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL21
JGL22	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL22
JGL23	5.1	5.1	5.1	6.2	5.1	5.1						+55.0	-55.0	±25.0	±25.0		JGL23
JGL24	(SEE PLAN)													±25.0			JGL24
JGL25	(SEE PLAN)													±20.0			JGL25
JGL26	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL26
JGL27	(SEE PLAN)											+55.0	-55.0	±20.0	±20.0		JGL27
JGL28	(SEE PLAN)													±20.0			JGL28
								(JGL29 AND JGL30 NOT USED)									
JGL31														±12.0			JGL31
JGL32												+55.0	-55.0	±12.0	±12.0		JGL32
JGL33	5.1	5.1	5.1	6.4	5.2	5.2						+55.0	-55.0	±12.0	±12.0		JGL33
JGL34	5.2	5.3	5.2	2.6	2.6	2.6								±12.0			JGL34
JGL35	2.7	2.7	2.7	5.1	5.1	5.1								±12.0			JGL35
JGL36												+55.0	-55.0	±12.0	±12.0		JGL36
JGL37												+55.0	-55.0	±12.0	±12.0		JGL37
JGL38														±12.0			JGL38
JGL39	10.0	10.0	10.1	14.7	11.7	11.7											JGL39
JGL40	11.4	13.3	11.6														JGL40
JGL41	9.9	9.9	9.9														JGL41
JGL42														±12.0			JGL42
JGL43												+55.0	-55.0	±12.0	±12.0		JGL43
JGL44	5.9	5.9	6.0	8.0	5.2	5.2						+55.0	-55.0	±12.0	±12.0		JGL44
JGL45	5.2	5.3	5.2	2.6	2.6	2.6								±12.0			JGL45
JGL46	2.7	2.6	2.6	5.1	5.1	5.1								±12.0			JGL46
JGL47												+55.0	-55.0	±12.0	±12.0		JGL47
JGL48												+55.0	-55.0	±12.0	±12.0		JGL48
JGL49														±12.0			JGL49
JGL50	2.9	4.2	4.7	4.4	4.4									±4.0			JGL50
JGL51	6.5	6.5	5.5	5.5										±4.0			JGL51
JGL52	(SEE PLAN)											+23.4	-23.4	±4.0	±4.0		JGL52
JGL53	(SEE PLAN)											+23.4	-23.4	±4.0	±4.0		JGL53
JGL54	5.4	5.4	5.8	7.0										±4.0			JGL54
JGL55	6.3	6.3	8.5	8.5										±4.0			JGL55
JGL56	8.3	9.7	6.8	5.4										±4.0			JGL56
JGL57	(SEE PLAN)											+28.0	-28.0	±6.0	±6.0		JGL57
JGL58	(SEE PLAN)											+28.0	-28.0	±6.0	±6.0		JGL58
JGL59	(SEE PLAN)											+3.0	-3.0	±8.0	±8.0		JGL59
JGL60	(SEE PLAN)											+3.0	-3.0	±8.0	±8.0		JGL60
JGL61	10.2	10.5	10.5	10.5	10.5	9.1	6.3										JGL61
JGL62	8.5	3.1	8.5	11.0 (*)	11.2	12.9	12.9	12.9	12.9	13.0							JGL62
JGL63	7.2	6.4	6.4	6.4	6.4												JGL63
JGL64	8.0	8.3	8.3	8.3	8.3	6.9											JGL64

⚠ ADD JGL64

(*) THIS REPRESENTS COMBINED LOAD OF TWO JOISTS SEPARATED BY 6 1/2" ALONG JOIST GIRDER.



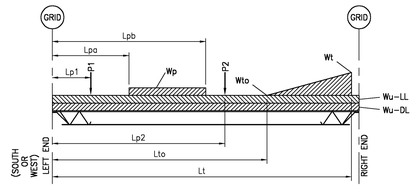
PLAN EXAMPLE

NOTES:
1. ALL LOADS ARE UNFACTORED.
2. AXIAL LOADS: COMPRESSION-POSITIVE; TENSION-NEGATIVE
3. JOIST GIRDER PANEL POINT LOADS INCLUDE DEAD LOADS + LIVE LOADS ONLY
4. SEE ROOF UPLIFT DIAGRAM FOR NET UPLIFT LOADS ON ALL GIRDERS.
5. REFER TO FRAMING PLANS FOR ACTUAL SPACING OF POINT LOADS. NOT ALL LOADS ARE ON TOP PANEL POINTS.

REMARKS:
1. THE TOP CHORD MUST BE DESIGNED TO CARRY THE AXIAL FORCE. THE MANUFACTURER SHALL BE RESPONSIBLE FOR REINFORCEMENT OF GIRDER IF REQUIRED BY ANALYSIS.
2. THE WEB SYSTEM MUST BE DESIGNED TO TRANSFER THE AXIAL FORCE FROM THE TOP CHORD TO THE BOTTOM CHORD.
3. REFER TO THE FRAMING PLANS FOR ACTUAL SPACING OF POINT LOADS. NOT ALL LOADS ARE AT TOP PANEL POINTS.

JOIST LOADING TABLE

SPECIAL JOIST LOAD DESIGNATION	W-DL (KLF)	W-LL (KLF)	Wp1 (KLF)	LP a (FT.)	LP b (FT.)	P1 (KIPS)	Lp1 (FT.)	P2 (KIPS)	Lp2 (FT.)	P3 (KIPS)	Lp3 (FT.)	P4 (KIPS)	Lp4 (FT.)	Wt (KLF)	Lt0 (FT.)	Lt (FT.)	MOMENT LIVE LOAD (FT-KIP) LEFT	MOMENT LIVE LOAD (FT-KIP) RIGHT	CHORD FORCE (KIPS) TOP	CHORD FORCE (KIPS) BOTTOM	REMARKS	SPECIAL JOIST LOAD DESIGNATION	ALTERNATE STANDARD, KCS JOIST SIZE, OR WIDE FLANGE BEAM
SP1	0.060	0.070															+19.0	-19.0	±20	±20		SP1	DEPTH TO MATCH ADJACENT JOISTS
SP2	0.060	0.070															+19.0	-19.0	±20	±20		SP2	
SP3	0.060	0.070															+19.0	-19.0	±20	±20		SP3	
SP4	0.060	0.070															+19.0	-19.0	±20	±20		SP4	
SP5	0.060	0.070																	±20			SP5	
SP6	0.060	0.070															+19.0	-19.0	±20	±20		SP6	
SP7	0.060	0.070															+19.0	-19.0	±20	±20		SP7	
									SP8 THRU SP10 NOT USED														
SP11	0.060	0.070																	±12.0			SP11	
SP12	0.060	0.070															+5.0	-5.0	±12.0	±12.0		SP12	
SP13	0.060	0.070																	±12.0			SP13	
SP14	0.060	0.070															+5.0	-5.0	±12.0	±12.0		SP14	
SP15	0.060	0.070																	±12.0			SP15	
SP16	0.060	0.070															+5.0	-5.0	±12.0	±12.0		SP16	
SP17	0.060	0.070																	±12.0			SP17	
SP18	0.060	0.070															+5.0	-5.0	±12.0	±12.0		SP18	
SP19	0.060	0.070																	±12.0			SP19	
SP20	0.060	0.070																	±20.0			SP20	
SP21	0.060	0.070															+5.0	-5.0	±20.0	±20.0		SP21	
SP22	0.060	0.070															+5.0	-5.0	±20.0	±20.0		SP22	
SP23	0.060	0.070																	±20.0			SP23	
									SP24 THRU SP30 NOT USED														
SP31	0.10	0.10	0.10	25.6	50.8	2.0	25.6	0.25	30.6	1.16	50.7											SP31	
SP32	0.10	0.10	0.10	25.6	50.8	2.0	25.6	0.25	30.6	1.16	50.7											SP32	
SP33	0.10	0.10	0.10	25.6	50.8	2.0	25.6	0.25	30.6	1.16	50.7											SP33	
SP34	0.20	0.169				0.89	50.7															SP34	
									SP35 THRU SP40 NOT USED														
SP41	0.058	0.068															+8.1	-8.1	±8.0	±8.0		SP41	
SP42	0.058	0.068															+8.1	-8.1	±8.0	±8.0		SP42	
SP43	0.063	0.074															+5.2	-5.2	±4.0	±4.0		SP43	
SP44	0.063	0.074															+5.2	-5.2	±4.0	±4.0		SP44	
SP45	0.063	0.074															+5.2	-5.2	±4.0	±4.0		SP45	
SP46	0.063	0.074															+5.2	-5.2	±4.0	±4.0		SP46	
SP47	0.063	0.074															+5.2	-5.2	±4.0	±4.0		SP47	
SP48	0.063	0.074															+5.2	-5.2	±4.0	±4.0		SP48	



JOIST LOADING DIAGRAM

LEGEND
- W-DL — FULL UNIFORM DEAD LOAD
- W-LL — FULL UNIFORM LIVE LOAD
- Wp — PARTIAL UNIFORM LOAD
- Lpa — DISTANCE FROM LEFT END TO START OF Wp
- Lpb — DISTANCE FROM LEFT END TO END OF Wp
- P1,P2 — CONCENTRATED LOAD
- Lp1,Lp2 — DISTANCE FROM SUPPORT TO P1, P2, ETC.
- L — TOTAL SPAN (C/C OF SUPPORT)

NOTES:
1. UNIFORM LOADS ARE IN UNITS OF (KLF)
2. CONCENTRATED LOADS ARE IN UNITS OF KIPS
3. VERTICAL LOADS SIGN CONVENTION POSITIVE ↓ ; ↑ NEGATIVE
4. AXIAL LOADS: COMPRESSION-POSITIVE; TENSION-NEGATIVE
5. SEE ROOF UPLIFT DIAGRAM FOR NET UPLIFT LOADS ON ALL JOISTS.

REMARKS:
1. THE TOP CHORD FORCE MUST BE DESIGNED TO CARRY THE AXIAL FORCE. THE MANUFACTURER SHALL BE RESPONSIBLE FOR REINFORCEMENT OF JOIST IF REQUIRED BY ANALYSIS.
2. THE WEB SYSTEM MUST BE DESIGNED TO TRANSFER THE AXIAL FORCE FROM THE TOP CHORD TO THE BOTTOM CHORD.

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NEW FACILITY
LAKE CITY, FLORIDA

JOIST AND JOIST GIRDER LOAD TABLES

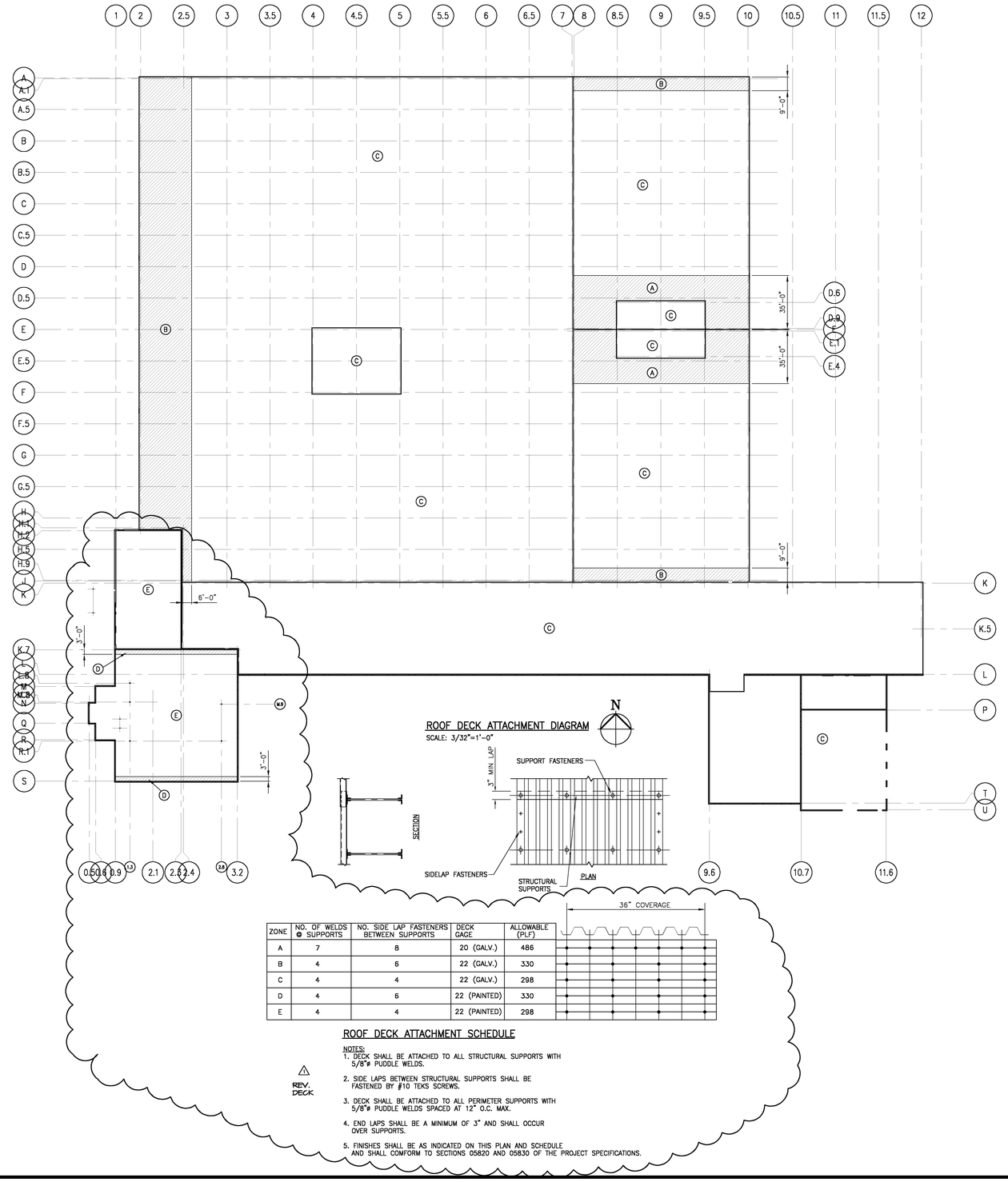
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REV.	DATE	BY	DESCRIPTION
1	7/5/07	DLP	REVISED AS NOTED
0	6/20/07	DLP	CONSTRUCTION ISSUE
B	6/20/07	DLP	STEEL CONSTRUCTION ISSUE
A	5/23/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: AS NOTED

S600
DRAWING NO.

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ROOF DECK ATTACHMENT DIAGRAM

SCALE: 3/32"=1'-0"

ZONE	NO. OF WELDS @ SUPPORTS	NO. SIDE LAP FASTENERS BETWEEN SUPPORTS	DECK GAGE	ALLOWABLE (PLF)
A	7	8	20 (GALV.)	486
B	4	6	22 (GALV.)	330
C	4	4	22 (GALV.)	298
D	4	6	22 (PAINTED)	330
E	4	4	22 (PAINTED)	298

ROOF DECK ATTACHMENT SCHEDULE

NOTES:
1. DECK SHALL BE ATTACHED TO ALL STRUCTURAL SUPPORTS WITH 5/8"ø PUDDLE WELDS.
2. SIDE LAPS BETWEEN STRUCTURAL SUPPORTS SHALL BE FASTENED BY #10 TEKS SCREWS.
3. DECK SHALL BE ATTACHED TO ALL PERIMETER SUPPORTS WITH 5/8"ø PUDDLE WELDS SPACED AT 12" O.C. MAX.
4. END LAPS SHALL BE A MINIMUM OF 3" AND SHALL OCCUR OVER SUPPORTS.
5. FINISHES SHALL BE AS INDICATED ON THIS PLAN AND SCHEDULE AND SHALL COMFORM TO SECTIONS 05820 AND 05830 OF THE PROJECT SPECIFICATIONS.

⚠1 REV. DECK

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UNITED STATES COLD STORAGE, INC

NEW FACILITY

LAKE CITY, FLORIDA

ROOF DECK ATTACHMENT DIAGRAM

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REV.	DATE	BY	DESCRIPTION
1	6/13/07	DLP	REVISED AS NOTED
0	4/20/07	DLP	CONSTRUCTION ISSUE
C	4/20/07	DLP	STEEL CONSTRUCTION ISSUE
B	3/16/07	DLP	STRUCTURAL STEEL BID ISSUE
A	2/27/07	DLP	OWNER'S REVIEW

JOB NO. 710-03019

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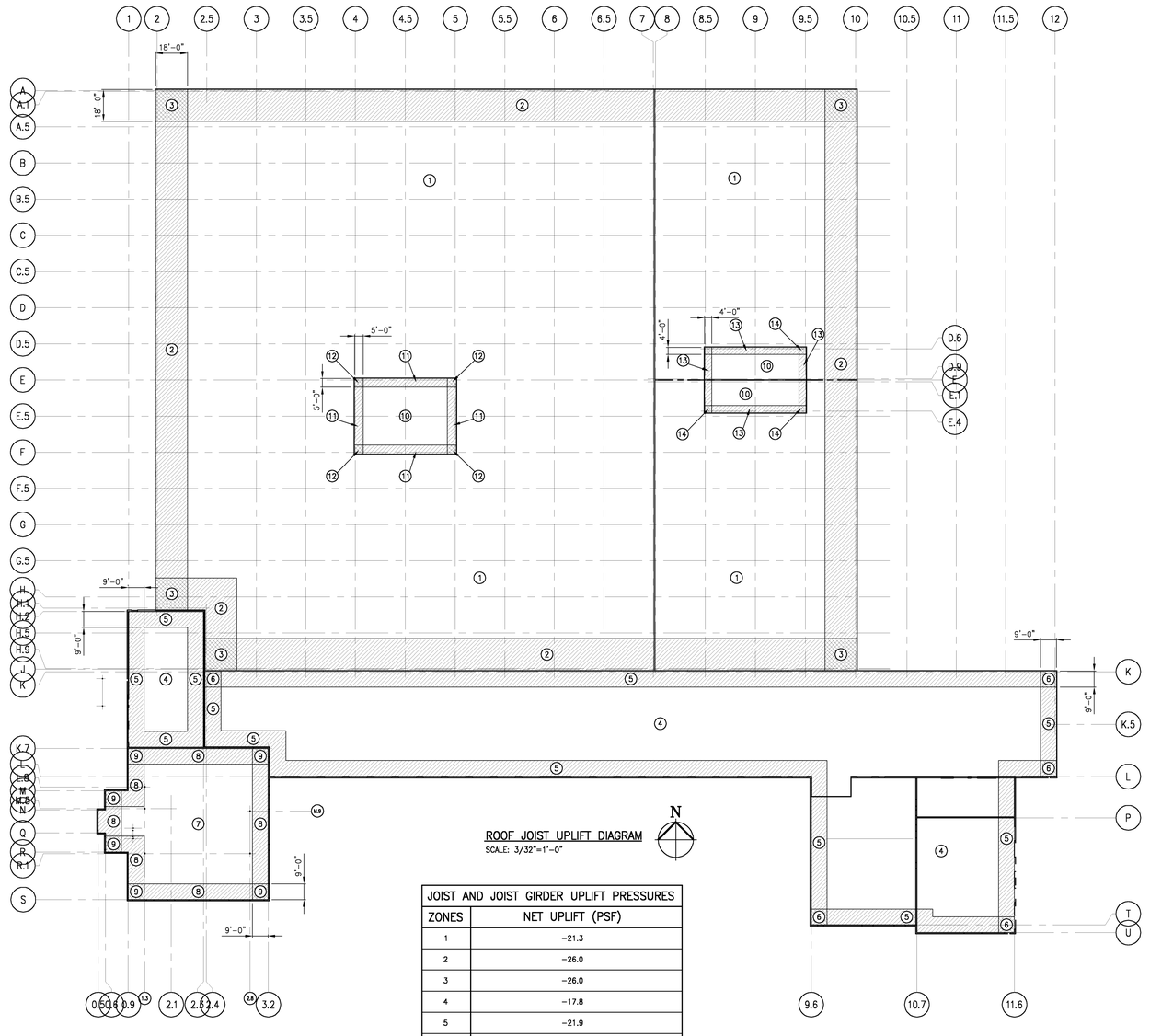
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SCALE: 1/32

S601

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ROOF JOIST UPLIFT DIAGRAM
SCALE: 3/32"=1'-0"

N

JOIST AND JOIST GIRDER UPLIFT PRESSURES	
ZONES	NET UPLIFT (PSF)
1	-21.3
2	-26.0
3	-26.0
4	-17.8
5	-21.9
6	-21.9
7	-19.2
8	-23.6
9	-23.6
10	-22.7
11	-27.7
12	-27.7
13	-27.7
14	-27.7

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ROOF JOIST UPLIFT DIAGRAM

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REV.	DATE	BY	DESCRIPTION
0	12/07/06	DLP	CONSTRUCTION ISSUE
C	10/06/06	DLP	STEEL CONSTRUCTION ISSUE
B	7/07/06	DLP	STRUCTURAL STEEL BID ISSUE
A	6/27/06	DLP	OWNER'S REVIEW

JOB NO. 710-03019
DRAWN: DLP
CHECKED: REK
SCALE: 1/32

S602
DRAWING NO.

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