blue jeans golf

1501 E US HWY 40,
LEE'S SUMMIT, MO 64015

PERMIT REVISIONS SET: 06-01-2023

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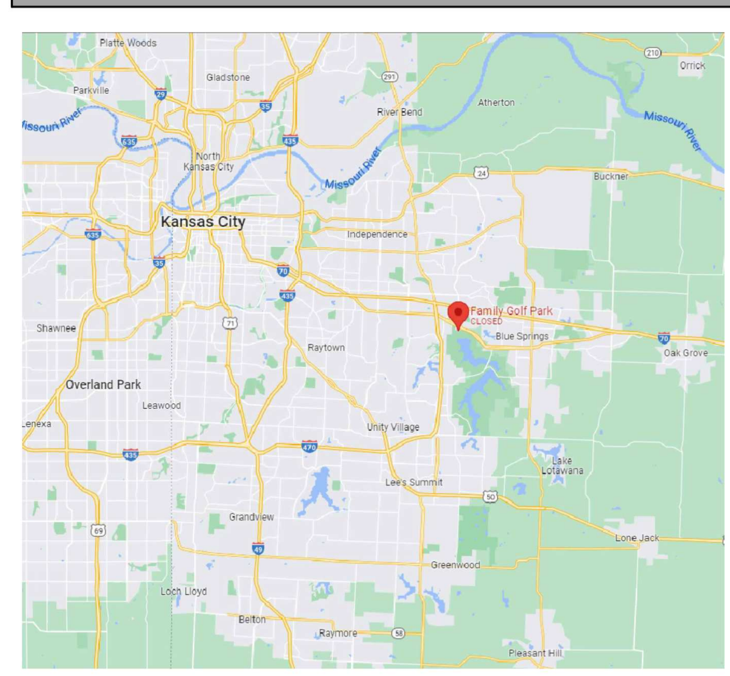

VICINITY MAP

PROJECT CONTACTS

OWNER:
BLUE JEANS GOLF
3333 LEE PARKWAY SUITE 460
DALLAS, TX 75219
ATTN: DEVIN CHARHON

ARCHITECT:
HARRISON FRENCH & ASSOC., LTD
1705 S WALTON BLVD, SUITE 3
BENTONVILLE, AR 72712
ATTN: KARL GUIDER
PH: 479-273-7780, EXT. 125
CELL: 773-679-0600

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JOB NUMBER: 17-22-00007

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CHECKED BY:	NP / EB
DRAWN BY:	KG
DOCUMENT DATE:	06/01/23

DAVID JOHN WILGUS
NUMBER A-2009030404
2023.06.02 13:55:46-05'00'

DAVID JOHN WILGUS, ARCHITECT
A-2009030404
HARRISON FRENCH & ASSOCIATES, LTD
A-2005011993-F

COVER SHEET

SHEET: G001

EGRESS PLAN CODE ANALYSIS

OCCUPANCY TYPE (CHAPTER 3)
BUSINESS GROUP 'B', NON-SPRINKLERED

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE (TABLE 504.3)
BUILDING TYPE = II-B
BUSINESS GROUP 'B' = 65'-0" HEIGHT, ACTUAL EXISTING BUILDING HEIGHT = 19'-0"

ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE (TABLE 504.4)
BUSINESS GROUP 'B' = (5) STORIES, ACTUAL EXISTING STORIES = (2) STORIES

ALLOWABLE AREA FACTOR (TABLE 506.2)
BUSINESS GROUP 'B' = 28,500 GSF
EXISTING CARPORT COVERED WALKWAY = 10,145 GSF
NEW BUILDING 'A' = 640 GSF
NEW BUILDING 'B' = 640 GSF
TOTAL INTERIOR / COVERED ACTUAL GSF = 11,425 GSF

REQUIRED SEPARATION OF OCCUPANCIES (TABLE 508.4):
OCCUPANCY SEPARATION = N/A, ONLY ONE OCCUPANT

INTERIOR OCCUPANCY CALCULATIONS

ALLOWABLE INTERIOR OCCUPANCY CALCULATION BASED ON FLOOR AREA:

BUSINESS AREA	1 OCC.
STORAGE / MECHANICAL	4 OCC.
UNCONCENTRATED AREAS (CARPORT COVERED WALKWAY)	205 OCC.
**UNCONCENTRATED AREAS (OUTDOOR PATIO AREA)	74 OCC.
STANDING SPACE	32 OCC.
KITCHEN	2 OCC.
ALLOWABLE INTERIOR OCCUPANCY TOTAL	318 OCC.

ACTUAL INTERIOR OCCUPANCY CALCULATION BASED ON SEAT COUNT:

BUSINESS AREA	1 OCC.
STORAGE / MECHANICAL	4 OCC.
UNCONCENTRATED AREAS (CARPORT COVERED WALKWAY)	205 OCC.
**UNCONCENTRATED AREAS (OUTDOOR PATIO AREA)	74 OCC.
STANDING SPACE	32 OCC.
KITCHEN	2 OCC.
ALLOWABLE INTERIOR OCCUPANCY TOTAL	318 OCC.

PLUMBING FIXTURE REQUIREMENTS PER TABLE 2902.1
BASED UPON '41 ASSEMBLY: OUTDOOR ENTERTAINMENT' SPACE TYPE = TOTAL 'ALLOWABLE OCCUPANCY TOTAL' W/ 50% OF EACH GENDER:

MEN = 159		WOMEN = 159	
WATER CLOSETS = URINALS REQUIRED (1 PER 25 FOR THE FIRST 50, THEN 1 PER 50)	5	WATER CLOSETS REQUIRED (1 PER 25 FOR THE FIRST 50, THEN 1 PER 50)	5
WATER CLOSETS = URINALS PROVIDED	2+3 = 5	WATER CLOSETS PROVIDED	5
LAVATORIES REQUIRED (1 PER 40 FOR THE FIRST 80, THEN 1 PER 80)	3	LAVATORIES REQUIRED (1 PER 40 FOR THE FIRST 80, THEN 1 PER 80)	3
LAVATORIES PROVIDED	3	LAVATORIES PROVIDED	3

FIRE EXTINGUISHER NOTE:
1) NFPA 10– PORTABLE FIRE EXTINGUISHERS, SHALL BE REFERENCED.
2) CLASS-A TYPE FIRE HAZARD (ORDINARY COMBUSTIBLE MATERIALS SUCH AS WOOD, CLOTH, PAPER, RUBBER, AND PLASTICS, CLASS-B TYPE FIRE HAZARD (FLAMMABLE LIQUIDS, GREASE, OILS, ALCOHOLS), CLASS-C TYPE FIRE HAZARD (ENERGIZED ELECTRICAL EQUIPMENT), CLASS-K (COOKING APPLIANCES, VEGETABLE/ANIMAL OILS).
3) MOUNT FIRE EXTINGUISHERS WITH WALL BRACKETS OR COLUMN STRAPS AT 48" A.F.F. TO TOP OF UNIT.
4) PROVIDE IDENTIFYING SIGNAGE AT WALL OR COLUMN (4 SIDES) ABOVE FIRE EXTINGUISHER AT 80" ABOVE FINISH FLOOR.
5) LOCATION AND INSTALLATION IS SUBJECT TO COORDINATION AND REVIEW BY FIRE DEPARTMENT.

OCCUPANT LOAD KEY

- BUSINESS AREA: 1 OCCUPANT PER 150 GROSS SF
- STORAGE / MECHANICAL: 1 OCCUPANT PER 300 GROSS SF
- KITCHEN AREAS: 1 OCCUPANT PER 200 GROSS SF
- UNCONCENTRATED AREAS: 1 OCCUPANT PER 15 NET SF
- STANDING SPACE (QUEING): 1 OCC. PER 5 NET SF

OCCUPANT LOADS GIVEN ARE PER IBC TABLE 1004.5.

SYMBOL LEGEND

- 'X' — FIRE EXTINGUISHER (F.E.) UNIT 'X' DENOTES TYPE PER F.E. NOTE
- INDICATES TRAVEL DIRECTION
- 'X'–'X' — INDICATES TRAVEL DISTANCE
- X — INDICATES TOTAL NUMBER OF OCCUPANTS IN AN AREA EXITING THROUGH DOOR ARROW INDICATES DIRECTION OF EGRESS
- XX — ALLOWABLE OCCUPANCY OF ROOM
- XXX — DOOR TAG NUMBER, REFER TO DOOR SCHEDULE

KEYNOTES

1. NEW SURFACE MOUNTED FIRE EXTINGUISHER IN FIRE EXTINGUISHER CABINET
2. NEW RECESSED MOUNTED FIRE EXTINGUISHER IN FIRE EXTINGUISHER CABINET
3. KNOCK BOX LOCATION W/ HEIGHT ABOVE ADA MAXIMUM HEIGHT, LOWER HEIGHT SO THAT TOP OF BOX IS AT 48" ABOVE GRADE

INTERIOR FINISH NOTE

1. ALL INTERIOR FINISH MATERIALS TO HAVE THE FOLLOWING FLAME SPREAD RATINGS PER TABLE 803.13 OF IBC FOR THE LOCATION IN WHICH THE MATERIAL IS BEING INSTALLED.
   a. ROOMS AND ENCLOSED SPACES – NO RESTRICTIONS

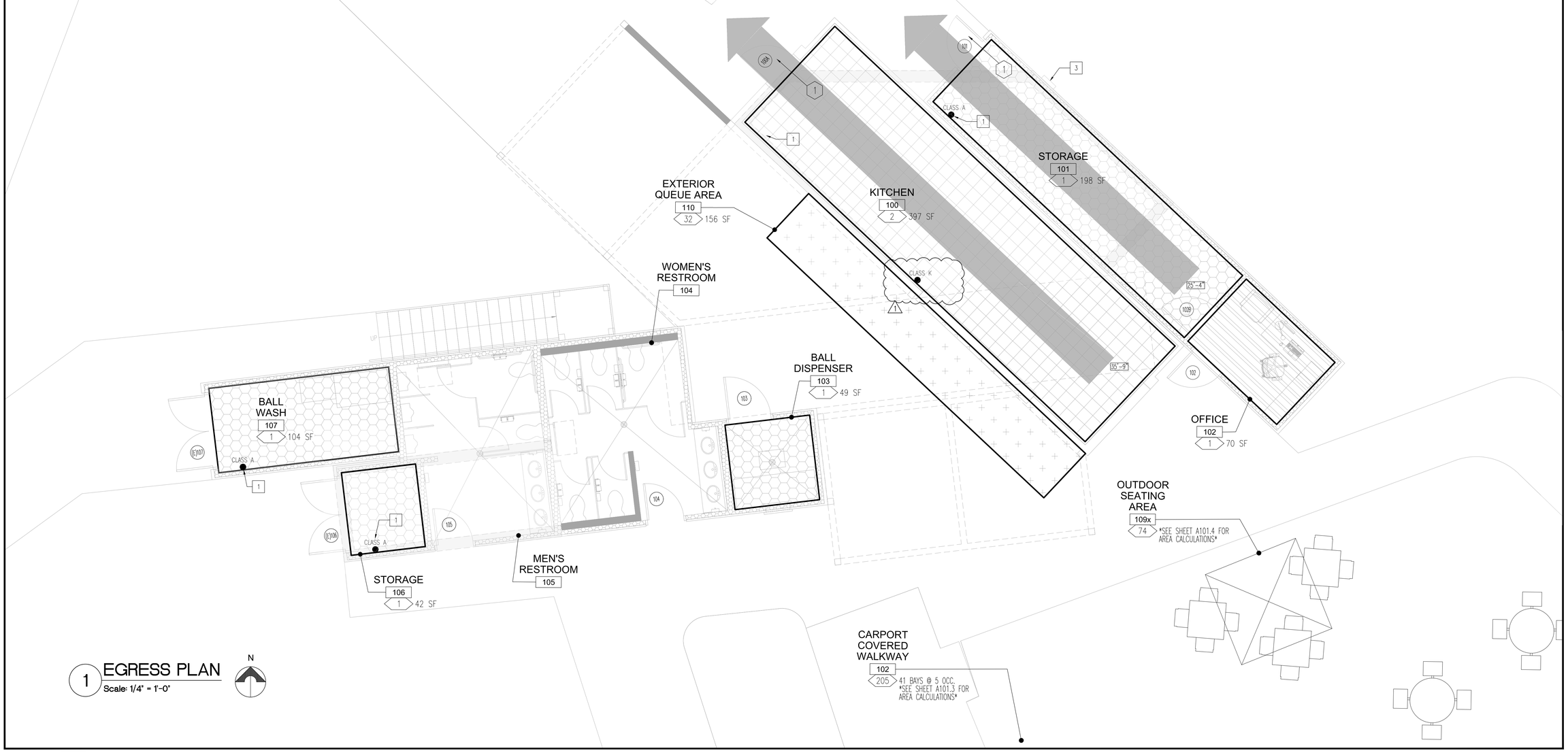
EGRESS CALCULATIONS PER IBC 1005.3.2

– 0.2" PER OCC. W/ NO SPRINKLERS
– 0.15" PER OCC. W/ SPRINKLERS

IMPORTANT NOTE: MAXIMUM TRAVEL DISTANCE PER IBC TABLE 1017.2 FOR A BUSINESS SPACE IS 300'–0" WITHOUT THE USE OF A SPRINKLER SYSTEM AND 400'–0" WITH USE OF A SPRINKLER SYSTEM, SO 300'–0" FOR THIS PROJECT.
THIS FACILITY CONFORMS TO CODE AS THE MAXIMUM TRAVEL DISTANCE IS ONLY 112'–2".

LIST OF APPLICABLE CODES

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL FUEL GAS CODE
2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL FIRE CODE
2017 NATIONAL ELECTRICAL CODE
ICC/ANSI A117.1–2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES



1 EGRESS PLAN
Scale: 1/4" = 1'-0"

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DRAWN BY:	KG
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DAVID JOHN WILGUS NUMBER A-200603404

2023.06.02 13:56:21-05'00'

DAVID JOHN WILGUS, ARCHITECT
A-200603404
HARRISON FRENCH & ASSOCIATES, LTD
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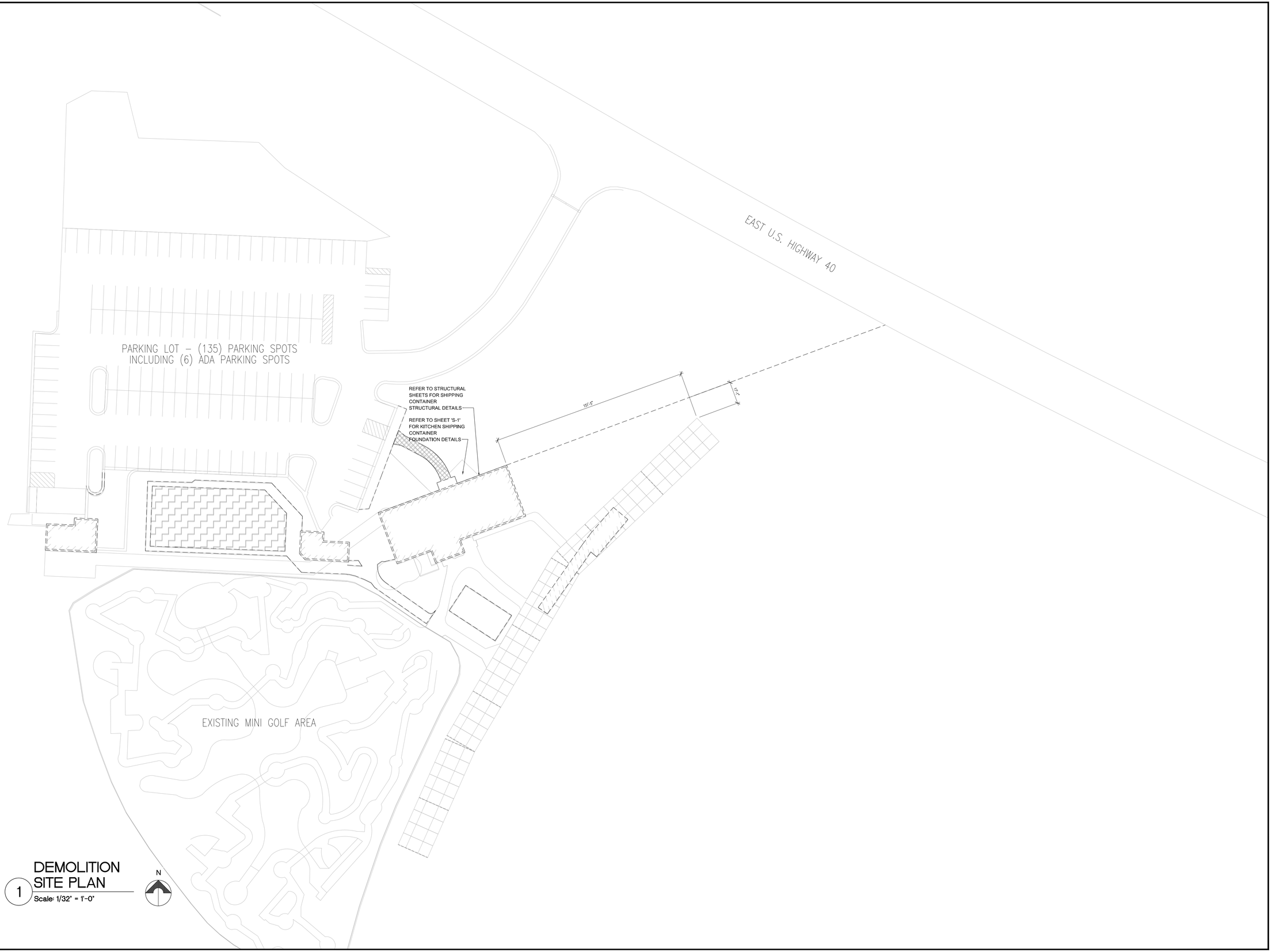
OCCUPANCY AND LIFE SAFETY PLANS

SHEET
G002



1 DEMOLITION SITE PLAN
Scale: 1/32" = 1'-0"

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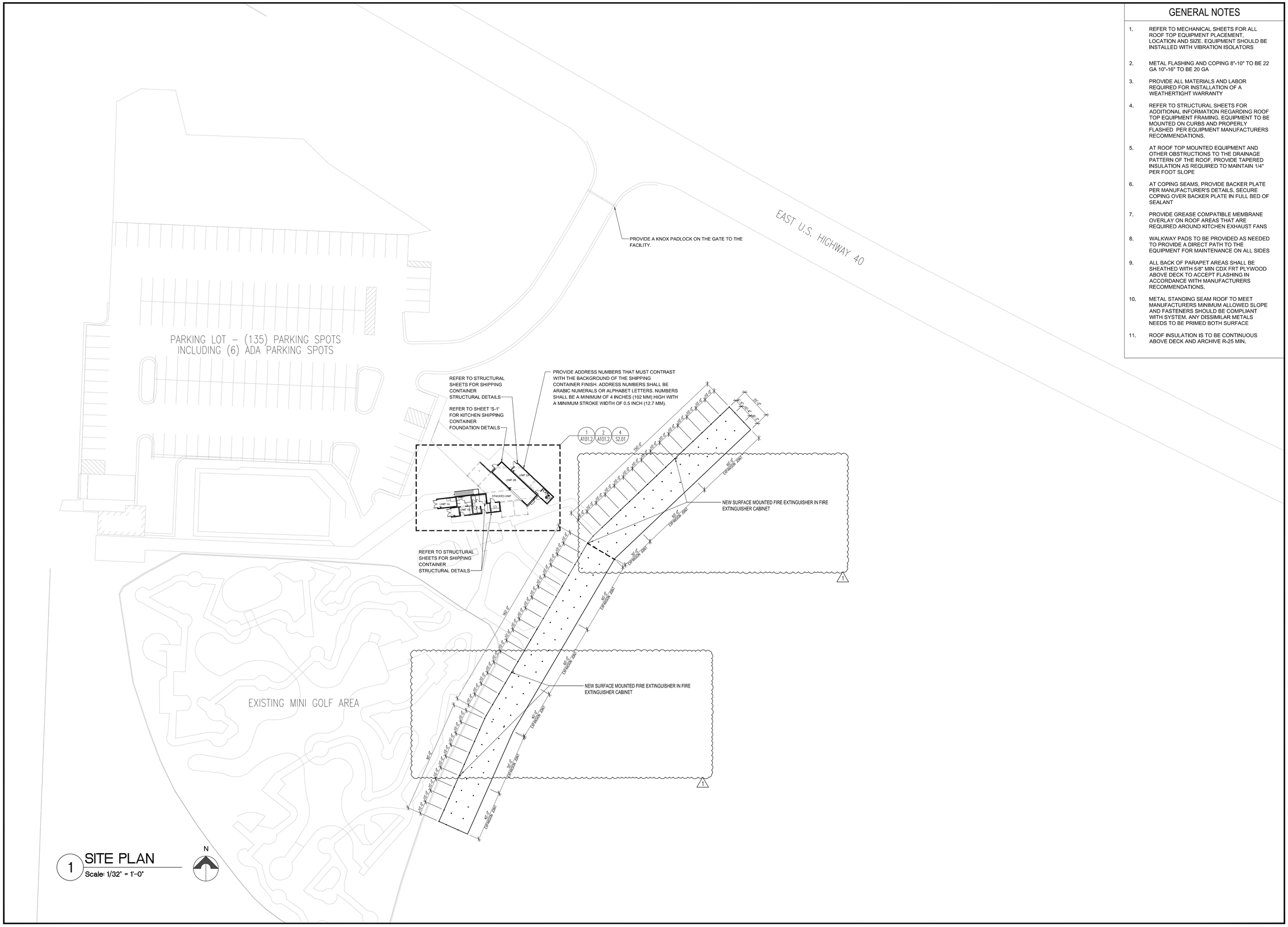
DEMOLITION SITE PLAN

SHEET:
D101.0



1 SITE PLAN
Scale: 1/32" = 1'-0"

GENERAL NOTES

1. REFER TO MECHANICAL SHEETS FOR ALL ROOF TOP EQUIPMENT PLACEMENT, LOCATION AND SIZE. EQUIPMENT SHOULD BE INSTALLED WITH VIBRATION ISOLATORS
2. METAL FLASHING AND COPING 8"-10" TO BE 22 GA 10"-16" TO BE 20 GA
3. PROVIDE ALL MATERIALS AND LABOR REQUIRED FOR INSTALLATION OF A WEATHERTIGHT WARRANTY
4. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL INFORMATION REGARDING ROOF TOP EQUIPMENT FRAMING. EQUIPMENT TO BE MOUNTED ON CURBS AND PROPERLY FLASHED PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS.
5. AT ROOF TOP MOUNTED EQUIPMENT AND OTHER OBSTRUCTIONS TO THE DRAINAGE PATTERN OF THE ROOF. PROVIDE TAPERED INSULATION AS REQUIRED TO MAINTAIN 1/4" PER FOOT SLOPE
6. AT COPING SEAMS. PROVIDE BACKER PLATE PER MANUFACTURER'S DETAILS. SECURE COPING OVER BACKER PLATE IN FULL BED OF SEALANT
7. PROVIDE GREASE COMPATIBLE MEMBRANE OVERLAY ON ROOF AREAS THAT ARE REQUIRED AROUND KITCHEN EXHAUST FANS
8. WALKWAY PADS TO BE PROVIDED AS NEEDED TO PROVIDE A DIRECT PATH TO THE EQUIPMENT FOR MAINTENANCE ON ALL SIDES
9. ALL BACK OF PARAPET AREAS SHALL BE SHEATHED WITH 5/8" MIN CDX FRT PLYWOOD ABOVE DECK TO ACCEPT FLASHING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
10. METAL STANDING SEAM ROOF TO MEET MANUFACTURERS MINIMUM ALLOWED SLOPE AND FASTENERS SHOULD BE COMPLIANT WITH SYSTEM. ANY DISSIMILAR METALS NEEDS TO BE PRIMED BOTH SURFACE
11. ROOF INSULATION IS TO BE CONTINUOUS ABOVE DECK AND ARCHIVE R-25 MIN.

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DAVID JOHN WILGUS
NUMBER 1009030404
2023.06.02 13:56:52-05'00'

DAVID JOHN WILGUS, ARCHITECT
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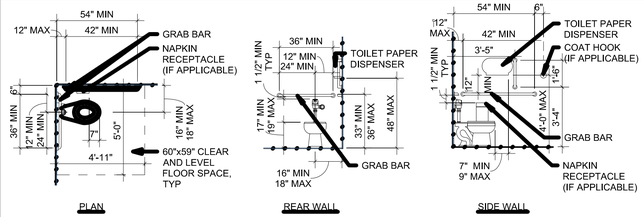
SITE PLAN

SHEET:
A101.0

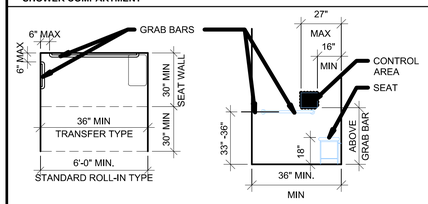
ACCESSIBILITY REQUIREMENTS

TYPICAL ACCESSIBLE WATER CLOSET

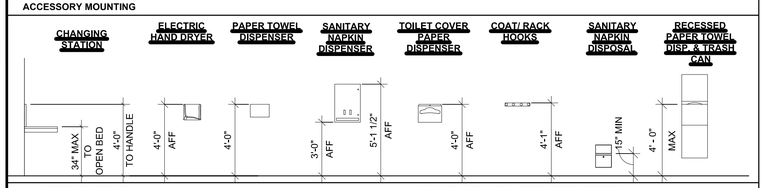


AMBULATORY WATER CLOSET: DIMENSIONS FOR STALL AND DOOR JAMBS ARE CRITICAL.

SHOWER COMPARTMENT

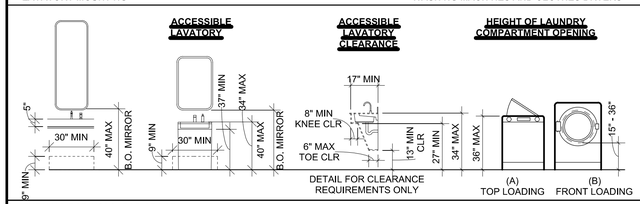


ACCESSORY MOUNTING

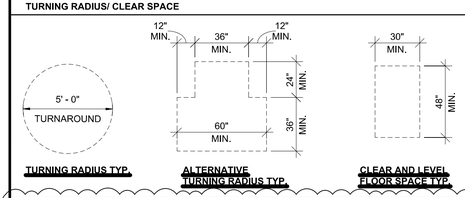


LAVATORY MOUNTING

WASHING MACHINES AND CLOTHES DRYERS



TURNING RADIUS/ CLEAR SPACE



NOTE: ENSURE CHANGING STATION HAS KNEE SPACE OF 27" AFF MIN TO BOTTOM OF TABLE WHEN IN DOWN POSITION

NOTE: INSTALL FRT PLYWOOD BACKING IF EXISTING CONDITION DOES NOT MEET SINK MANUFACTURER SPECS. INSTALL BOTTOM OF SOAP DISPENSER AT 44" AFF IF SHOWN TO BE INSTALLED ON PARTITION OR WALL TO SIDE OF LAVATORY.

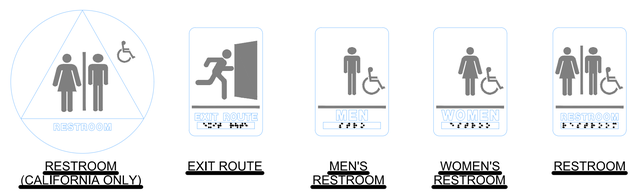
GENERAL NOTES

1. ALL WORK SHALL BE DONE IN A SAFE AND WORKMANLIKE MANNER AND IN STRICT ACCORDANCE WITH THE LOCAL AND/OR STATE (IF APPLICABLE) BUILDING CODES, NATIONAL ELECTRIC CODE (NEC), ADA-ADAAGS (ADOPTED HANDICAP ACCESSIBILITY REQUIREMENTS) TEXAS ACCESSIBILITY CODE, OSHA AND ALL APPLICABLE CODES, REGULATIONS, ORDINANCES, AND AUTHORITIES HAVING JURISDICTION.
2. ALL SUBCONTRACTORS ARE RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL DRAWINGS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT THEMSELVES WITH THIS KNOWLEDGE DOES NOT RELIEVE THEM OF ANY RESPONSIBILITY FOR PERFORMING THEIR WORK PROPERLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILAIRZE WORKERS WITH THIS KNOWLEDGE.
3. THE CONTRACTOR SHALL KEEP WORK AREA CLEAN AND FREE OF DEBRIS AND IS TO REMOVE ALL TRASH AND DEBRIS FROM THE CONSTRUCTION AREA DAILY. NO FLAMMABLE MATERIALS OR LIQUIDS MAY BE STORED IN THE BUIDLINGS
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF ALL PERSONS ON THE JOB SITE AT ALL TIMES, INCLUDING BUT NOT LIMITED TO ALL SUBCONTRACTORS, VENDORS, DESIGN STAFF PROFESSIONALS, AND INSPECTION PERSONNEL.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY ORDERING OF MATERIALS TO PROHIBIT DELAYS OF THE CONSTRUCTION SCHEDULE OF THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE DELIVERY OF MATERIALS IN A TIMELY MANNER.
6. ALL MATERIALS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND ALL SUBCONTRACTORS ARE TO INSURE THAT ALL MANUFACTURERS WARRANTIES WILL BE HONORED.
7. ALL CONSTRUCTION MATERIAL, TECHNIQUES AND PERFORMANCE VALUES ARE TO MEET APPLICABLE CODES INDICATED IN "PROJECT INFORMATION" TABLE LISTED IN THIS SET.
8. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT IS CONSTRUCTED IN ACCORDANCE WITH THESE DOCUMENTS AND IN COMPLIANCE WITH CODES INDICATED HEREIN. THE QUALITY OF WORKMANSHIP AND INSTALLATION OF MATERIALS SPECIFIED BY THE ARCHITECT ARE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR. THE ARCHITECT WILL NOT BE HELD RESPONSIBLE FOR ANY SUBSTANDARD OR INSUFFICIENT WORKMANSHIP, MATERIALS OR SERVICES PROVIDED IN THE EXECUTION OF ANY PHASE OF CONSTRUCTION OF THIS PROJECT.
9. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL RELY ON WRITTEN DIMENSIONS AS GIVEN. LARGE SCALE DETAILS SHALL GOVERN OVER SMALL SCALE DETAILS.
10. THE GENERAL CONTRACTOR SHALL RESPOND TO ALL REQUIREMENTS OF THE STRUCTURAL ENGINEER/ARCHITECT FOR VERIFICATIONS, RESPONSES AND SUBMISSIONS.
11. DURING ENTIRE CONSTRUCTION PERIOD, PROVIDE ONE U.L. LISTED 2A:20BC DRY CHEMICAL FIRE EXTINGUISHER, OR ONE STANDARD U.L. LISTED 2-1/2 GALLON WATER (E-1D) AND ONE U.L. LISTED 10BC CARBON DIOXIDE FIRE EXTINGUISHER MOUNTED TOGETHER IN EACH 3000 SQ. FT. OF WORK AREA OR FRACTION THEREOF (MINIMUM OF TWO AVAILABLE IN ALL CONSTRUCTION AREAS AT ALL TIMES).
12. FIELD CONFIRMATION OF DISCREPANCIES SHALL BE RECORDED ON A REPRODUCIBLE DOCUMENT AND IMMEDIATELY TRANSMITTED TO ARCHITECT FOR PROJECT RECORD, COORDINATION, AND NECESSARY RESOLUTION PRIOR TO CONTINUING WITH WORK.
13. CONTRACTOR SHALL REPORT TO THE OWNER ANY ERRORS, OMISSIONS, OR INCONSISTENCIES THEY MAY DISCOVER ON THE SPECIFICATIONS OR DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY ERROR AFTER THE START OF CONSTRUCTION, WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE OWNER, AT THE CONTRACTOR'S EXPENSE. THE MEANS OF CORRECTING ANY ERROR SHALL FIRST BE APPROVED BY THE OWNER.
14. THE GENERAL BUILDING PERMITS SHALL BE PAID FOR BY THE OWNER AND SECURED BY THE GENERAL CONTRACTOR. ALL OTHER REQUIRED PERMITS SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR OR SUBCONTRACTOR DIRECTLY RESPONSIBLE.
15. ALL REQUIRED CITY AND COUNTY LICENSES SHALL BE ACQUIRED AND PAID FOR BY THE INDIVIDUAL TRADES.
16. ALL CONTRACTORS SHALL HAVE VALID CERTIFICATES OF WORKMAN'S COMPENSATION ON FILE WITH THE APPROPRIATE AGENCIES. INSURANCE REQUIREMENT MUST BE MET PER LEASE AGREEMENT.
17. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREIN OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE FOR THE REPAIR OR REPLACEMENT OF UTILITIES AND ALL OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH EXECUTION OF WORK.
18. CITY APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION, THE CONTRACTOR SHALL ALSO MAINTAIN, IN GOOD CONDITION, ONE (1) COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.
19. CONTRACTOR SHALL PROVIDE REQUIRED PROTECTION INCLUDING, BUT NOT LIMITED TO, SHORING, BRACING, AND ALL OTHER SUPPORTS (INCLUDING ENGINEERING OF SYSTEMS) NECESSARY TO MAINTAIN OVERALL STRUCTURAL INTEGRITY OF THE BUILDINGS.
20. CONTRACTOR SHALL ASSIST OWNER IN OBTAINING FINAL APPROVAL OF LOCAL HEALTH DEPARTMENT AND THE TEMPORARY AND FINAL CERTIFICATES OF OCCUPANCY.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL REMEDY, REPAIR, OR REPLACE ANY FAULTY, IMPROPER OR INFERIOR WORKMANSHIP OR MATERIALS AND ANY RELATED DAMAGE CAUSED BY THESE WHICH SHALL APPEAR WITHIN ONE (1) YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT. REFER TO SPECIFICATIONS FOR WARRANTY REQUIREMENTS IN EXCESS OF ONE (1) YEAR.
22. NOTHING IN THESE DOCUMENTS IS TO BE INTERPRETED AS RELIEVING THE CONTRACTOR OF SOLE RESPONSIBILITY FOR THE METHODS AND MEANS OF CONSTRUCTION, AS WELL AS SAFETY AT THE JOB SITE.

ACCESSIBILITY NOTES

(COMPLY WITH ACCESSIBILITY CODE ON COVER SHEET)

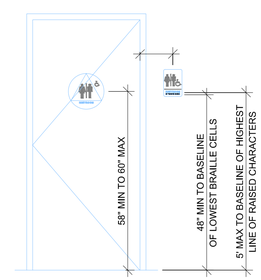
1. ACCESSIBLE TABLES SHALL HAVE A MINIMUM OF 27" CLEAR KNEE SPACE AFF AND HAVE A CLEAR AREA OF AT LEAST 19" DEEP. TOP OF TABLE SHALL BE 34" AFF
2. COAT HOOKS IN TOILET STALLS SHALL BE MOUNTED CENTERED ON THE BACKSIDE OF DOORS AT 48" AFF IN ACCESSIBLE STALLS AND 60" IN STANDARD STALLS.
3. FLUSH VALVES ON THE TOILETS SHALL ALWAYS BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL. UTILIZE 5 LBS. OF FORCE OR LESS TO OPERATE.
4. ALL PANIC HARDWARE SHALL BE MOUNTED NO HIGHER THAN 46" AFF
5. ALL THRESHOLDS, FLOOR LEVEL CHANGES, AND FLOOR TRANSITIONS SHALL NOT EXCEED 1/2" IN HEIGHT AND SHALL BE BEVELED WITH A SLOPE NO GREATER THE 1:2.
6. ALL LIGHT SWITCHES, VOLUME CONTROLS, AND THERMOSTATS IN PUBLIC AREAS SHALL BE MOUNTED NO HIGHER THAN 48" AFF UNO



RESTROOM (CALIFORNIA ONLY) | EXIT ROUTE | MEN'S RESTROOM | WOMEN'S RESTROOM | RESTROOM

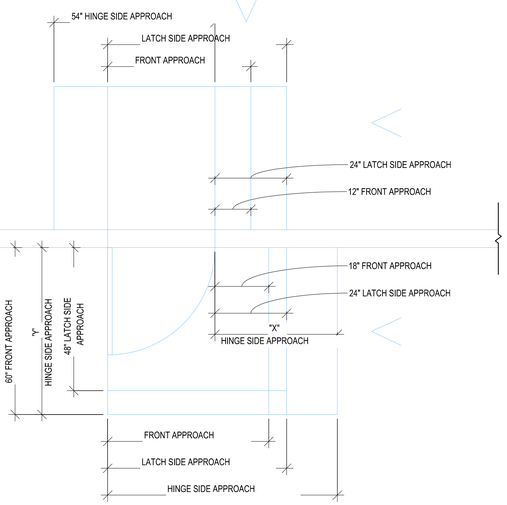
GENERAL NOTES:

1. SIGN TO BE ADHESIVE ACRYLIC WITH RAISED CHARACTERS WITH A MINIMUM HEIGHT OF 5/8" AND MAXIMUM HEIGHT OF 2" ACCOMPANIED BY GRADE 2 BRAILLE
2. PICTOGRAMS SHALL HAVE THE EQUIVALENT VERBAL DESCRIPTION LISTED DIRECTLY BELOW.
3. CHARACTERS, SYMBOLS AND THEIR BACKGROUNDS SHALL HAVE A NON-GLARE FINISH WITH CHARACTERS AND SYMBOLS THAT CONTRAST WITH THE BACKGROUND
4. SIGN TO BE MOUNTED ALONG THE DOOR ON LATCH SIDE. SEE DIAGRAM RIGHT. WHEN SIGN OCCURS AT DOUBLE DOORS, MOUNT TO THE RIGHT OF THE RIGHT-HAND DOOR. WHEN WALL SPACE IS NOT AVAILABLE IN THE ABOVE LOCATIONS, SIGN TO BE INSTALLED ON THE NEAREST ADJACENT WALL
5. PROVIDE 18"x18" CLEAR FLOOR AREA CENTER ON SIGN, BEYOND THE ARC OF ANY DOOR SWING
6. SIGNS TO BE BLACK BACKGROUND WITH WHITE LETTERS, TYP
7. ALL DOOR SIGNS ARE PROVIDED AND INSTALLED BY THE CONTRACTOR. DOOR SIGNAGE SHALL COMPLY WITH ADA INCLUDING CHARACTER HEIGHT AND PROPORTION, BRAILED CHARACTERS, FINISH AND CONTRAST, INTERNATIONAL SYMBOL OF ACCESSIBILITY AND MOUNTING HEIGHTS



ACCESSIBLE/TACTILE SIGN LOCATION

ACCESSIBLE TACTILE SIGNS & PLACEMENT



X=36" MIN IF Y= 60"
X=42" MIN IF Y=54"

NOTE:
CLEARANCES ARE FOR ALL DOORS THAT ARE 3'-0" OR WIDER UNLESS NOTED OTHERWISE. CLEARANCES MEET ADA MIN DOOR CLEARANCES FOR DOORS WITH A LATCH AND CLOSER OR JUST A CLOSER

TYPICAL DOOR CLEARANCES

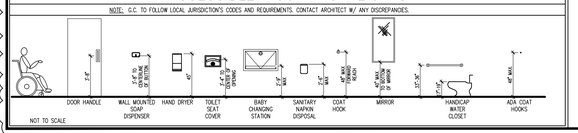
TACTILE SIGNAGE SCHEDULE (NO SUBSTITUTIONS)

NOTE: ALL ACCESSORIES PROVIDED & INSTALLED BY G.C., U.N.O.

KEY	ACCESSORY TYPE	MANUFACTURER	MATERIALS	MODEL	FINISH	MOUNT TYPE	NOTES
18	RESTROOM IDENTIFICATION TACTILE SIGNAGE	SIGNS OF OUR TIMES 302-A RIVERSIDE AVE. ROSEVILLE, CA 95678 916-773-1533	." WOOFIED ACRYLIC PANEL	ADA/ CLEAR BRAILLE (COORDINATE w/ OWNER)	CHARCOAL GREY BACKGROUND/ WHITE LETTERING	SURFACE	REFER TO FLOOR PLANS & INTERIOR ELEVATIONS FOR LOCATIONS & MOUNTING HEIGHTS, G.C. TO INSTALL PER ADA ACCESSIBILITY CODES
19	ADA ACCESSIBLE RESTROOM TACTILE SIGNAGE	SIGNS OF OUR TIMES 302-A RIVERSIDE AVE. ROSEVILLE, CA 95678 916-773-1533	." WOOFIED ACRYLIC PANEL	ADA/ CLEAR BRAILLE (COORDINATE w/ OWNER)	PMS 369 GREEN BACKGROUND/ WHITE LETTERING	SURFACE	REFER TO FLOOR PLANS & INTERIOR ELEVATIONS FOR LOCATIONS & MOUNTING HEIGHTS, G.C. TO INSTALL PER ADA ACCESSIBILITY CODES, MOUNTED LEFT OF RESTROOM IDENTIFICATION SIGN & ALIGN w/ BOTTOM
20	BABY CHANGING STATION TACTILE SIGNAGE	SIGNS OF OUR TIMES 302-A RIVERSIDE AVE. ROSEVILLE, CA 95678 916-773-1533	." WOOFIED ACRYLIC PANEL	ADA/ CLEAR BRAILLE (COORDINATE w/ OWNER)	PMS 369 GREEN BACKGROUND/ WHITE LETTERING	SURFACE	REFER TO FLOOR PLANS & INTERIOR ELEVATIONS FOR LOCATIONS & MOUNTING HEIGHTS, G.C. TO INSTALL PER ADA ACCESSIBILITY CODES, MOUNTED RIGHT OF RESTROOM IDENTIFICATION SIGN & ALIGN w/ BOTTOM
21	"NO SMOKING" & "EMPLOYEE MUST WASH HANDS" TACTILE SIGNAGE	SIGNS OF OUR TIMES 302-A RIVERSIDE AVE. ROSEVILLE, CA 95678 916-773-1533	." WOOFIED ACRYLIC PANEL	(COORDINATE w/ OWNER)	CHARCOAL GREY BACKGROUND/ WHITE AND PMS 369 GREEN LETTERING	SURFACE	MOUNT 6" TO THE RIGHT/ LEFT OF THE MIRROR AND 6" UP FROM THE B/ OF MIRROR, V.I.F., REFER TO RESTROOM FLOOR PLANS FOR LOCATIONS
22	HAND DRYER TACTILE SIGNAGE	SIGNS OF OUR TIMES 302-A RIVERSIDE AVE. ROSEVILLE, CA 95678 916-773-1533	." WOOFIED ACRYLIC PANEL	(COORDINATE w/ OWNER)	CHARCOAL GREY BACKGROUND/ WHITE AND PMS 369 GREEN LETTERING	SURFACE	MOUNT AT CENTER ABOVE HAND DRYER AT 54" A.F.F. W/ CLEAR SILICONE, REFER TO RESTROOM FLOOR PLANS FOR LOCATIONS

ACCESSIBLE MOUNTING HEIGHTS

NOTE: G.C. TO FOLLOW LOCAL JURISDICTION'S CODES AND REQUIREMENTS. CONTACT ARCHITECT W/ ANY DISCREPANCIES.



TOILET ACCESSORIES SCHEDULE (NO SUBSTITUTIONS)

NOTE: SUBSTITUTIONS ALLOWED PER OWNER'S DIRECTION. ALL ACCESSORIES PROVIDED AND INSTALLED BY G.C., U.N.O.

KEY	ACCESSORY TYPE	MANUFACTURER	MATERIALS	MODEL	FINISH	MOUNT TYPE	NOTES
1	42" GRAB BAR @ SIDE 36" GRAB BAR @ BACK 18" VERTICAL GRAB BAR	BOBRICK	STAINLESS STEEL	SERIES B-5806 #B-5806x18 #B-5806x36 #B-5806x42	SATIN STAINLESS STEEL	SURFACE	
2	SANITARY NAPKIN DISPOSAL	BOBRICK	STAINLESS STEEL	CONTURA SERIES #B-270	SATIN STAINLESS STEEL	SURFACE	
3	SOAP DISPENSER	BOBRICK	STAINLESS STEEL	#B-4112	SATIN STAINLESS STEEL	SURFACE	
4	DOUBLE-ROLL TOILET TISSUE DISPENSER w/ HOODS	BOBRICK	STAINLESS STEEL	#B-69997	SATIN STAINLESS STEEL	SURFACE	
5	SEAT COVER DISPENSER	BOBRICK	STAINLESS STEEL	CONTURA SERIES #B-4221	SATIN STAINLESS STEEL	SURFACE	
6	TRAP WRAP	BY G.C.	–	–	WHITE	–	
7	AIRBLADE HAND DRYER	DYSON	POLYCARBONATE CASING	"V – #AB-12	SPRAYED NICKEL FINISH	SURFACE	
8	MIRROR	MAJESTIC MIRROR	–	3364-P, 28" X 60"	BLACK	SURFACE	
9	ADA COAT HOOK	SUGATSUNE	STAINLESS STEEL	UJ-050	SATIN	SURFACE	HOOK MOUNTED PER ADA HEIGHT REQUIREMENTS, COORDINATE LOCATIONS WITH OWNER.
10	BABY CHANGING TABLE	KOALA CARE	PLASTIC	#B2020-05	WHITE GRANITE	SURFACE	
11	WASTE RECEPTACLE	BOBRICK	STAINLESS STEEL	CONTURA SERIES #B-43644	SATIN STAINLESS STEEL	SEMI-RECESSED	
12	ELEVATION MATIC HAND PAPER TOWEL ROLL DISPENSER	TORK	PLASTIC	#H-5805W	WHITE	SURFACE	
13	TOILET	TOTO	–	CT708UGN#01	01 COTTON	WALL	
14	URINAL	TOTO	–	UT105U	01 COTTON	SURFACE	
15	TOILET PARTITIONS	METPAR	–	FP BOTTOM AND FP-TOP SERIES	SATIN STAINLESS STEEL	FLOOR TO CEILING	WALL ANCHORED SIDE PANELS TO BE 9" OFF THE FINISH FLOOR, TOP OF ALL PANELS TO ALIGN
16	LAVATORY	TOTO	–	L7233 ATHERTON LAVATORY	01 COTTON	UNDERMOUNT	
17	RESTROOM COAT HOOK	BOBRICK	STAINLESS STEEL	B-76717	SATIN	SURFACE	(1) IN MEN'S, (2) IN WOMEN'S, COORDINATE LOCATIONS WITH OWNER
18	FAUCET	AMERICAN STANDARD OR SIMILAR	–	7028105.295	BRUSHED NICKEL	SURFACE	

HARDWARE SET #1
(1) CLOSER - STAINLESS STEEL FINISH - LCN 1461 or EQUAL, TOP JAMB MOUNTED, REGULAR
(3) HINGES - STAINLESS STEEL FINISH - HAGER ECBB1103 or EQUAL
(2) KICK PLATES - STAINLESS STEEL FINISH - HAGER 190S or EQUAL, 10" HEIGHT x 2"LDW
(1) LOCKSET: STORAGE - STAINLESS STEEL FINISH - SCHLAGE or EQUAL, MORTISE AT PUBLIC SIDE + LEVEL AT PRIVATE SIDE
(1) PUSH PLATE - STAINLESS STEEL FINISH - HAGER 190S or EQUAL, 6" WIDTH x 14" HEIGHT
(1) WALL BUMPER - STAINLESS STEEL FINISH - ROCKWOOD 409 or EQUAL
(1) WEATHERSTRIPPING - ALUMINUM + RUBBER FINISH - NATIONAL GUARD PRODUCTS 160S or EQUAL
(1) THRESHOLD - STAINLESS STEEL FINISH - HALF or FULL SADDLE PER FLOOR DETAIL(S)
(1) SOUND SEAL - BLACK SILICONE FINISH

HARDWARE SET #2
*ALL OF HARDWARE SET #1 BUT SUBSTITUTE THE FOLLOWING ITEMS:
(1) LOCKSET: OFFICE - STAINLESS STEEL FINISH - SCHLAGE or EQUAL, MORTISE AT PUBLIC SIDE + LEVEL AT PRIVATE SIDE

HARDWARE SET #3
*ALL OF HARDWARE SET #1 BUT SUBSTITUTE THE FOLLOWING ITEMS:
(1) LOCKSET: PUBLIC BATHROOM - STAINLESS STEEL FINISH - SCHLAGE or EQUAL

HARDWARE SET #4
(1) CLOSER - STAINLESS STEEL FINISH - LCN 1461 or EQUAL, TOP JAMB MOUNTED, REGULAR
(3) HINGES - STAINLESS STEEL FINISH - HAGER ECBB1103 or EQUAL
(1) LOCKSET: OFFICE - STAINLESS STEEL FINISH - SCHLAGE or EQUAL, MORTISE AT PUBLIC SIDE + LEVEL AT PRIVATE SIDE
(1) WALL BUMPER - STAINLESS STEEL FINISH - ROCKWOOD 409 or EQUAL
(1) SOUND SEAL - BLACK SILICONE FINISH

HARDWARE SET #5
*ALL HARDWARE IS EXISTING TO REMAIN AND LISTED WITH THE ATTACHED IMAGE FOR REFERENCE.
- DOOR HANDLE
- DOOR HANDLE BRACKET
- LOCKROD
- LOCKING CAM
- LOCKING KEEPERS
- LOCK BOX

ALL SHIPPING CONTAINER DOORS TO BE DOGGED UNLOCKED DURING BUSINESS HOURS

DOOR SCHEDULE

MARK	DOOR TYPE	FRAME TYPE	FIRE RATING	EXTERIOR FINISH	INTERIOR FINISH	WIDTH	HEIGHT	MANUFACTURER	HARDWARE #
100A	EXIST.	EXISTING	-	PER ELEVATIONS	P-7	3'-0"	7'-0"	EXISTING	5 - SHIPPING CONTAINER
101	1	HM	-	PER ELEVATIONS	P-7	3'-0"	7'-0"	TBD BY GC	1 - STORAGE
102	1	HM	-	PER ELEVATIONS	P-7	3'-0"	7'-0"	TBD BY GC	2 - OFFICE
102B	1	HM	-	PER ELEVATIONS	P-7	3'-0"	7'-0"	TBD BY GC	4 - OFFICE
103	1	HM	-	PER ELEVATIONS	P-7	3'-0"	7'-0"	TBD BY GC	1 - STORAGE
104	1	HM	-	PER ELEVATIONS	P-3	3'-0"	7'-0"	TBD BY GC	3 - PUBLIC BT
105	1	HM	-	PER ELEVATIONS	P-1	3'-0"	7'-0"	TBD BY GC	3 - PUBLIC BT
(E)106	(2)EXIST.	EXISTING	-	PER ELEVATIONS	P-7	7'-8.25"	6'-5.75"	EXISTING	5 - SHIPPING CONTAINER
(E)107	(2)EXIST.	EXISTING	-	PER ELEVATIONS	P-7	7'-8.25"	6'-5.75"	EXISTING	5 - SHIPPING CONTAINER
111	1	HM	-	PER ELEVATIONS	P-7	3'-0"	7'-0"	TBD BY GC	1 - STORAGE

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FAMILY GOLF PARK

1501 E US HWY 40
LEE'S SUMMIT, MO 64064

JOB NUMBER: 17-22-00007

ISSUE BLOCK

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1	PERMIT REVS	05/10/23
2	PLAN REVS	05/23/23
3	PERMIT REVS	06/01/23

CHECKED BY:	NP / EB
DRAWN BY:	KG
DOCUMENT DATE:	06/01/23

DAVID JOHN WILGUS NUMBER A-2000030404

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DAVID JOHN WILGUS, ARCHITECT
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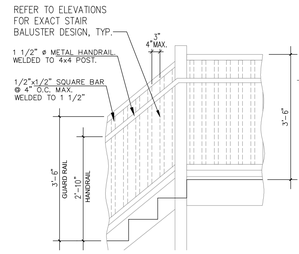
HARRISON FRENCH & ASSOCIATES, LTD
A-2005011993-F

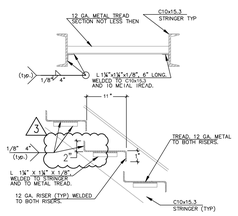
SCHEDULES AND DETAILS

SHEET: A101.1



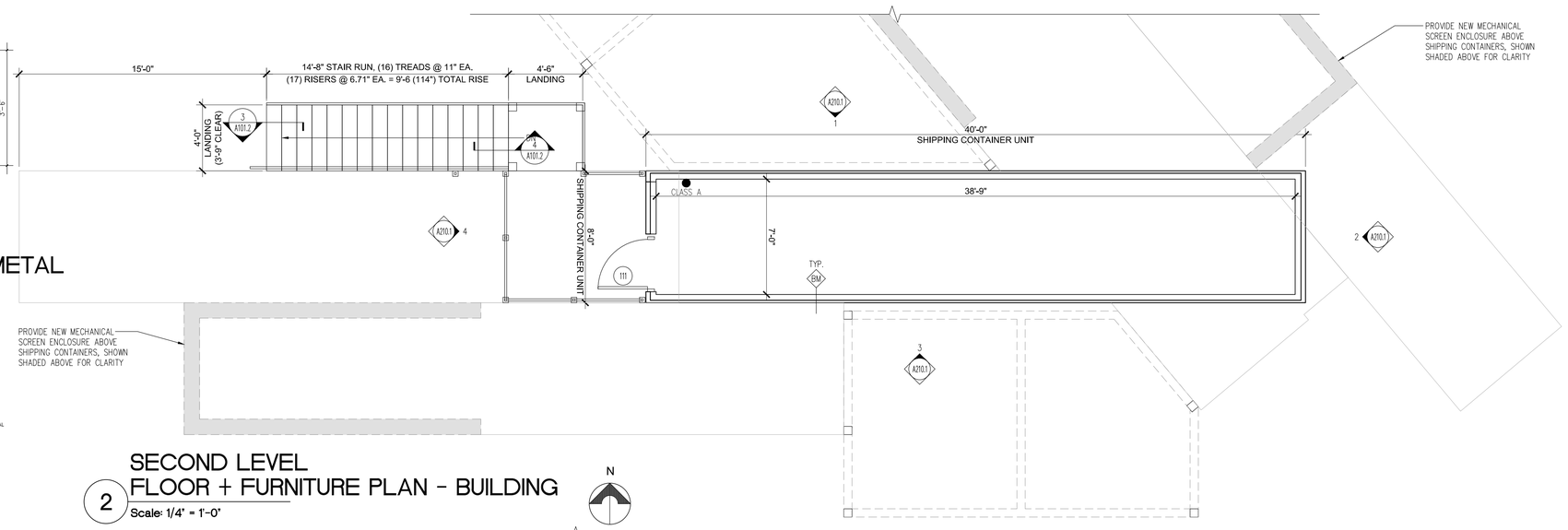
4 STAIR SECTION - METAL

Scale: 1/2" = 1'-0"



3 STAIR SECTION - METAL

Scale: NOT TO SCALE



2 SECOND LEVEL FLOOR + FURNITURE PLAN - BUILDING

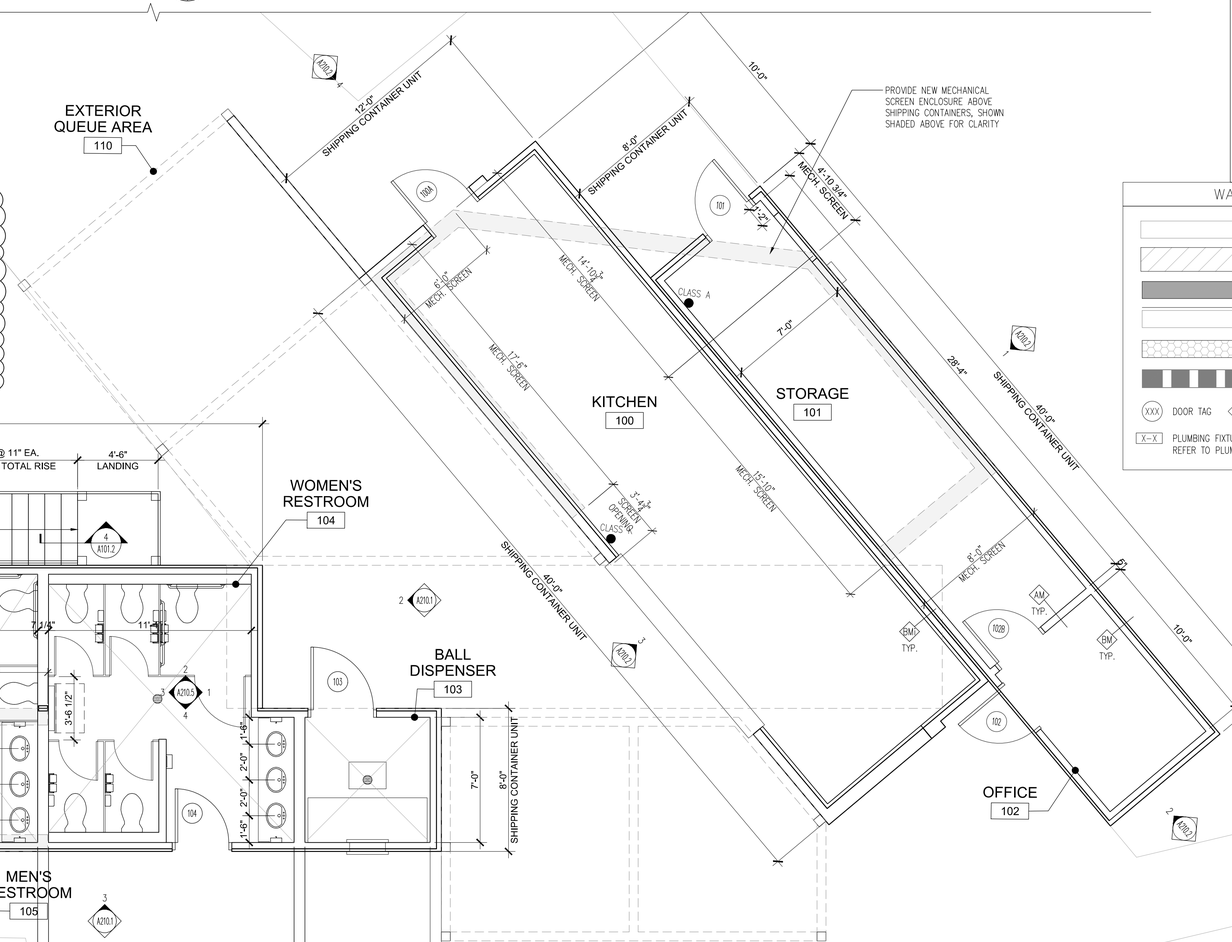
Scale: 1/4" = 1'-0"

GENERAL NOTES

1. FIRE EXTINGUISHERS TO BE INSTALLED PER NFPA10 & 2018 INTERNATIONAL FIRE CODE (SECTION 906). LOCATION APPROVED BY LOCAL FIRE MARSHAL.
2. REFER TO FOOD SERVICE DRAWINGS FOR ROUGH-IN REQUIREMENTS OF KITCHEN EQUIPMENT
3. ALL DIMENSIONS ARE NOMIAL AND ARE FROM FACE OF SUBSTRATE
4. ALL FIXTURES AND ACCESSORIES TO BE MOUNTED AT HEIGHTS THAT CONFORM TO ALL GOVERNING CODES AND ADA REQUIREMENTS
5. PROVIDE IN WALL FRT BLOCKING FOR ALL MILLWORK AND SHELVING
6. PROVIDE CEMENT BOARD FLUSH WITH GYP BD AT ALL RESTROOMS, JANITOR CLOSETS, KITCHEN AREAS, BEV STATIONS, BARS, SERVICE BARS AT 1'-0" AFF.
7. PROVIDE CEMENT BOARD FULL HEIGHT AT ALL DISHWASHING, SHOWER, OR WET WALLS, 5/8 MIN. CEMENT BOARD SHEATING.
8. ELECTRICAL DEVICES SUCH AS T-STATS, FIRE ALARM, EM LIGHTS, LIGHT SWITCHES SHALL NOT INTERFERE WITH TVS, ARTWORK, MIRRORS. GC TO NOTIFIED ARCHITECT OF ANY CONFLICTS IN FIELD PRIOR TO WORK.
9. ARCHITECT TO BE NOTIFIED AFTER FLOOR/WALL LAYOUT FOR REVIEW PRIOR TO CONSTRUCTION AND TO BE ALLOTTED REVIEW PRIOR TO CONSTRUCTION
10. ALL OVERHEAD UTILITIES SUCH AS SPRINKLERS LINES, CONDUITS, CABELING TO BE KEPT AS TIGHT TO STRUTURE WHERE EVER POSSIBLE
11. PIPES, CONDUITS, OR DUCTS EXCEEDING ONE THIRD OF THE SLAB OR MEMBER THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR LOCATION OF SLEEVES AND OTHER ACCESSORIES.
12. CONTRACTOR SHALL VERIFY LOCATIONS OF FOOD SERVICE EQUIPMENT AND COORDINATE LOCATIONS OF FLOOR SINKS, FLOOR DRAINS, TROUGH DRAINS, SLAB DEPRESSIONS, RAISED CURBS, ELECTRICAL STUB-OUTS, PLUMBING STUB-OUTS, AND ALL OTHER WORK UNDER THE SCOPE OF RESPONSIBILITIES RELATED TO THIS EQUIPMENT. REFER TO THE FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.

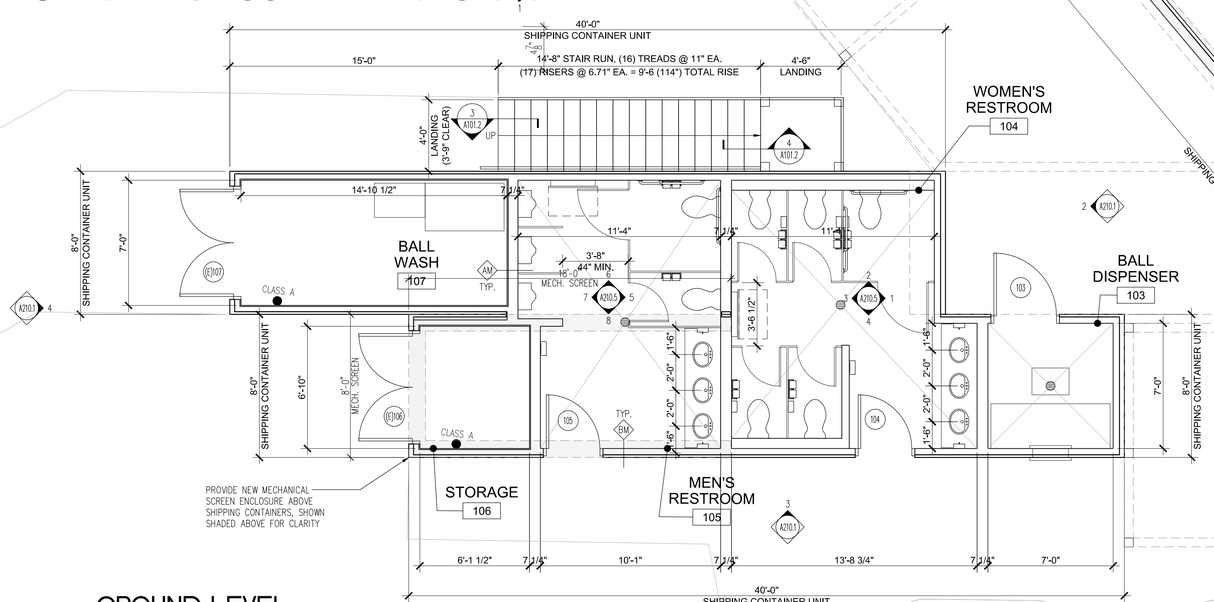
WALL SECTION LEGEND

BM BMi	0 0	– –		• (1) LAYER 5/8" GYPSUM BOARD • WALL TYPE 'BM': 6", 3.625", OR 2.5" 20 GAUGE METAL STUDS @ 16" O.C. W/ R-15 BATT INSULATION (INSULATION SHOWN HATCHED IN PLAN, SOLID HATCH = NO INSULATION) • WALL TYPE 'BMi': 1.5" 20 GAUGE METAL STUDS @ 16" O.C. W/ CLOSED-CELL SPRAY INSULATION AT R-7 PER INCH (R-11 TOTAL MINIMUM) • LOAD BEARING WALL CONSTRUCTION OR AIR SPACE PER PLANS
AM	0	–		• (1) LAYER 5/8" GYPSUM BOARD (PROVIDE TYPE 'X' AT FIRE RATED WALLS) • 10", 8", 6", 3.625", OR 2.5" 20 GAUGE METAL STUDS @ 16" O.C. W/ R-15 BATT INSULATION (INSULATION SHOWN HATCHED IN PLAN, SOLID HATCH = NO INSULATION) • (1) LAYER 5/8" GYPSUM BOARD (PROVIDE TYPE 'X' AT FIRE RATED WALLS)
CM	0	–		CEILING CONSTRUCTION AT ALL SHIPPING CONTAINER CEILINGS: • EXTERIOR SHIPPING CONTAINER METAL CONSTRUCTION (BY MANUFACTURER) • INTERIOR SHIPPING CONTAINER METAL CONSTRUCTION W/ 3" THICK CLOSED-CELL SPRAY INSULATION AT R-7 PER INCH (R-21 TOTAL MINIMUM) • INTERIOR SHIPPING CONTAINER METAL CONSTRUCTION FINISH (BY MANUFACTURER)



WALL AND SYMBOL LEGEND

- EXISTING DEMISING PARTITION WALL
- AREA NOT IN CONTRACT (N.I.C.)
- NEW PARTITION WALL
- NEW SUBSTRATE ON EXISTING WALL
- NEW PARTITION W/ INSULATION
- NEW LOW HEIGHT PARTITION WALL
- XXX DOOR TAG
- X WALL TYPE TAG
- X WINDOW TYPE TAG
- X-X PLUMBING FIXTURE DESIGNATION REFER TO PLUMBING RISER DIAGRAM



1 GROUND LEVEL FLOOR + FURNITURE PLAN - BUILDING

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

FIRE EXTINGUISHER NOTE:
1) NFPA 10– PORTABLE FIRE EXTINGUISHERS, SHALL BE REFERENCED.
2) CLASS–A TYPE FIRE HAZARD (ORDINARY COMBUSTIBLE MATERIALS SUCH AS WOOD, CLOTH, PAPER, RUBBER, AND PLASTICS, CLASS–B TYPE FIRE HAZARD (FLAMMABLE LIQUIDS, GREASE, OILS, ALCOHOLS), CLASS–C TYPE FIRE HAZARD (ENERGIZED ELECTRICAL EQUIPMENT), CLASS–K (COOKING APPLIANCES, VEGETABLE/ANIMAL OILS).
3) MOUNT FIRE EXTINGUISHERS WITH WALL BRACKETS OR COLUMN STRAPS AT 48" A.F.F. TO TOP OF UNIT.
4) PROVIDE IDENTIFYING SIGNAGE AT WALL OR COLUMN (4 SIDES) ABOVE FIRE EXTINGUISHER AT 80" ABOVE FINISH FLOOR.
5) LOCATION AND INSTALLATION IS SUBJECT TO COORDINATION AND REVIEW BY FIRE DEPARTMENT.

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JOB NUMBER: 17-22-00007

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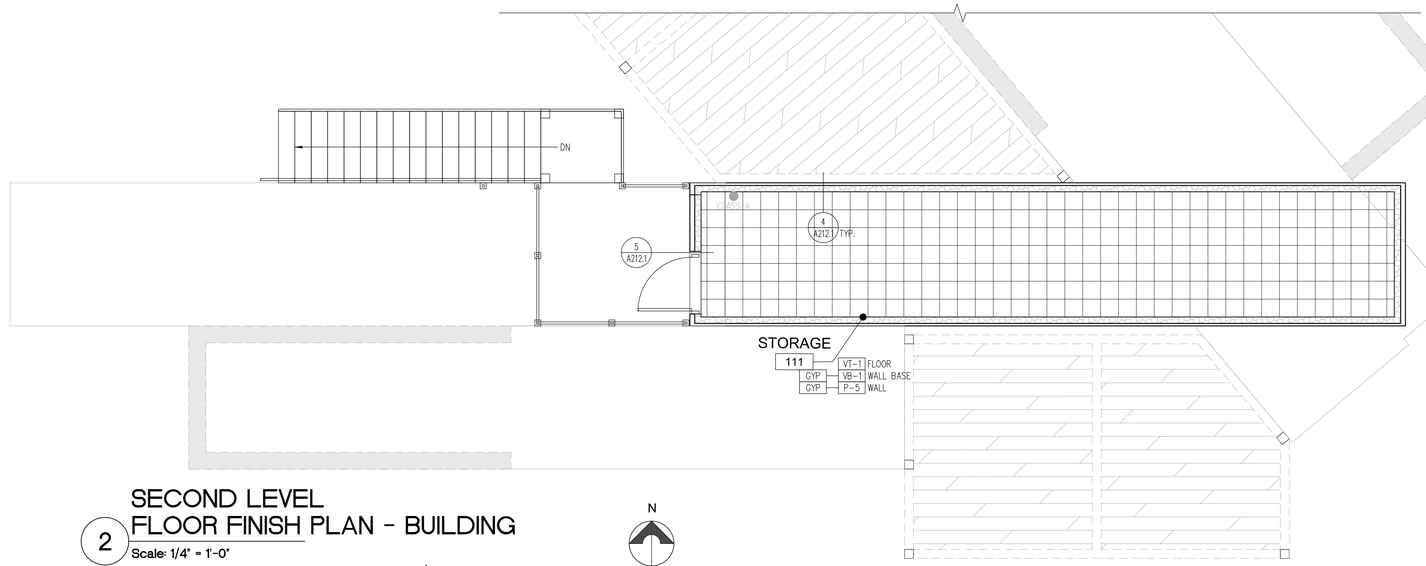
DAVID JOHN WILGUS
NUMBER 1009030404

2023.06.02 13:57:22-05'00'

DAVID JOHN WILGUS, ARCHITECT
A-2009030404
HARRISON FRENCH & ASSOCIATES, LTD
A-2005011993-F

FLOOR + FURNITURE PLAN - BUILDING

SHEET: A101.2



SECOND LEVEL FLOOR FINISH PLAN - BUILDING

2

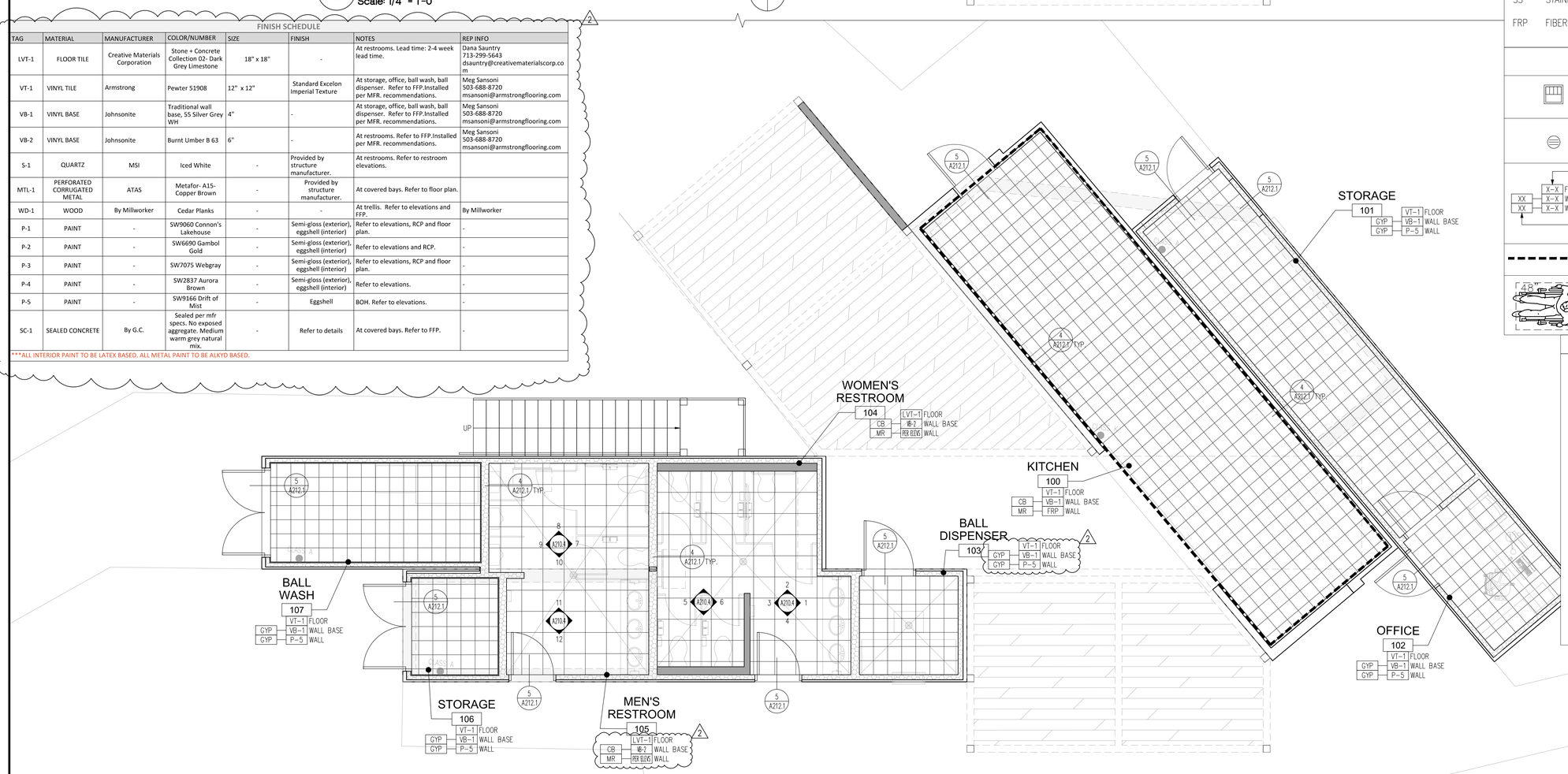
Scale: 1/4" = 1'-0"

N

FINISH SCHEDULE

TAG	MATERIAL	MANUFACTURER	COLOR/NUMBER	SIZE	FINISH	NOTES	REP INFO
LVT-1	FLOOR TILE	Creative Materials Corporation	Stone + Concrete Collection 02- Dark Grey Limestone	18" x 18"	-	At restrooms. Lead time: 2-4 week lead time.	Dana Sauntry 713-299-5643 dsauntry@creativematerialscorp.com
VT-1	VINYL TILE	Armstrong	Pewter 51908	12" x 12"	Standard Excelon Imperial Texture	At storage, office, ball wash, ball dispenser. Refer to FFP.Installed per MFR. recommendations.	Meg Sansoni 503-688-8720 msansoni@armstrongflooring.com
VB-1	VINYL BASE	Johnsonite	Traditional wall base, 55 Silver Grey WH	4"	-	At storage, office, ball wash, ball dispenser. Refer to FFP.Installed per MFR. recommendations.	Meg Sansoni 503-688-8720 msansoni@armstrongflooring.com
VB-2	VINYL BASE	Johnsonite	Burnt Umber B 63	6"	-	At restrooms. Refer to FFP.Installed per MFR. recommendations.	Meg Sansoni 503-688-8720 msansoni@armstrongflooring.com
S-1	QUARTZ	MSI	Iced White	-	Provided by structure manufacturer.	At restrooms. Refer to restroom elevations.	
MTL-1	PERFORATED CORRUGATED METAL	ATAS	Metafor- A15- Copper Brown	-	Provided by structure manufacturer.	At covered bays. Refer to floor plan.	
WD-1	WOOD	By Millworker	Cedar Planks	-	-	At trellis. Refer to elevations and FFP.	By Millworker
P-1	PAINT	-	SW9060 Connon's Lakehouse	-	Semi-gloss (exterior), eggshell (interior)	Refer to elevations, RCP and floor plan.	-
P-2	PAINT	-	SW6690 Gambol Gold	-	Semi-gloss (exterior), eggshell (interior)	Refer to elevations and RCP.	-
P-3	PAINT	-	SW7075 Webgray	-	Semi-gloss (exterior), eggshell (interior)	Refer to elevations, RCP and floor plan.	-
P-4	PAINT	-	SW2837 Aurora Brown	-	Semi-gloss (exterior), eggshell (interior)	Refer to elevations.	-
P-5	PAINT	-	SW9166 Drift of Mist	-	Eggshell	BOH. Refer to elevations.	-
SC-1	SEALED CONCRETE	By G.C.	Sealed per mfr specs. No exposed aggregate. Medium warm grey natural mix.	-	Refer to details	At covered bays. Refer to FFP.	-

***ALL INTERIOR PAINT TO BE LATEX BASED. ALL METAL PAINT TO BE ALKYD BASED.



GROUND LEVEL FLOOR FINISH PLAN - BUILDING

1

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

GENERAL NOTES

1. PROVIDE IN-WALL F.T. WD. BLOCKING FOR MILLWORK, SHELVING, PANELS, TVs, ETC.
2. ALL DIMENSIONS ARE NOMINAL & ARE FROM FACE OF GYPSUM BOARD OR EXTERIOR SHEATHING.
3. ALL PARTITIONS WITH SINKS AND/OR "WET EQUIPMENT", ALL WALLS IN TOILET ROOMS, AND ALL WALLS IN KITCHEN AREAS TO HAVE 5/8" MOISTURE RESISTANT GYPSUM BOARD W/ A 5/8" CEMENT BOARD BASE TO 12" A.F.F., U.N.O. (SMOOTH SIDE OUT).
4. ALL INTERIOR WOOD BLOCKING, FRAMING, PLYWOOD, SUBFLOORS, ETC. TO BE FIRE TREATED (DESIGNATED F.T.).
5. MOUNT ALL FIXTURES & ACCESSORIES AT HEIGHTS CONFORMING WITH ALL GOVERNING CODES & A.D.A. REQUIREMENTS.
6. ALL WORK IS TO BE DONE IN ACCORDANCE WITH ALL GOVERNING STATE & LOCAL CODES AND ORDINANCES.
7. PLUG & SEAL ALL OPENINGS IN FLOOR SLAB.
8. ALL FLOOR, EXTERIOR WALL, FOUNDATION WALL & ROOF PENETRATIONS TO BE SLEEVED & WATERPROOFED. EXTERIOR WALL PENETRATIONS MUST BE RATED.
9. ALL COVER PLATES/ DEVICES FINISHES TO MATCH WALL FINISHES UNLESS DIRECTED OTHERWISE BY THE OWNER
10. ALL INTERIOR FINISHES TO BE DETERMINED BY OWNER.
11. PROVIDE STAINLESS STEEL 'SCHLUTER' TRANSITION STRIPS BETWEEN ALL FLOOR TRANSITIONS BETWEEN ROOMS AND/OR FINISH CHANGES, INCLUDING EXTERIOR TO INTERIOR FULL OR HALF SADDLE, INTERIOR TILE TO TILE, INTERIOR TILE TO CARPET, INTERIOR TILE TO CONCRETE (AND/OR EXISTING FLOOR FINISH)

SUBSTRATE LEGEND

MR	MOISTURE-RESISTANT GYPSUM BOARD
CB	CEMENTITIOUS BACKER BOARD
GYP	GYPSUM WALL BOARD
DS	DENS SHIELD
SS	STAINLESS STEEL
FRP	FIBERGLASS REINFORCED PLASTIC

SYMBOLS

	FLOOR SINK, REFER TO P-SHEETS FOR MORE INFORMATION
	FLOOR DRAIN, REFER TO P-SHEETS FOR MORE INFORMATION
XX X-X FLOOR; XX X-X WALL BASE; XX X-X WALL	DENOTES FINISH, PER FINISH SCHEDULE DENOTES SUBSTRATE, PER SUBSTRATE LEGEND
	INDICATES LIMITS OF NEW WATERPROOFING, REFER TO GENERAL NOTES FOR DETAILS
48" 30"	DENOTES WHEELCHAIR ACCESSIBLE SEATING, REFER TO EGRESS PLAN FOR DETAILS

WALL AND SYMBOL LEGEND

- EXISTING DEMISING PARTITION WALL
- AREA NOT IN CONTRACT (N.I.C.)
- NEW PARTITION WALL
- NEW SUBSTRATE ON EXISTING WALL
- NEW PARTITION W/ INSULATION
- NEW LOW HEIGHT PARTITION WALL

XXX DOOR TAG — X WALL TYPE TAG — X WINDOW TYPE TAG

X-X PLUMBING FIXTURE DESIGNATION REFER TO PLUMBING RISER DIAGRAM

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STIPULATION FOR REUSE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE AT LEE'S SUMMIT, MO AND IS NOT SUITABLE FOR USE ON OTHER SITES OR ON THIS SITE AT A DATE ON OR AFTER 05/23. AND IT IS NOT SUITABLE FOR USE ON ANOTHER PROJECT ON THIS SITE OR AT A LATER TIME. USE OF THIS DRAWING IN WHOLE OR IN PART FOR USE ON ANOTHER PROJECT REQUIRES THE ADVANCE WRITTEN AUTHORIZATION OF THE ARCHITECTS AND ENGINEERS. ADDITIONS OR ALTERATIONS MADE TO THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO LAW.

FAMILY GOLF PARK

1501 E US HWY 40
LEE'S SUMMIT, MO 64064

JOB NUMBER: 17-22-00007

ISSUE BLOCK

	PERMIT	04/06/23
1	PERMIT REVS	05/10/23
2	PLAN REVS	05/23/23
3	PERMIT REVS	06/01/23

CHECKED BY:	NP / EB
DRAWN BY:	KG
DOCUMENT DATE:	06/01/23

DAVID JOHN WILGUS NUMBER 2009304014

2023.06.02 13:57:41-05'00'

DAVID JOHN WILGUS, ARCHITECT
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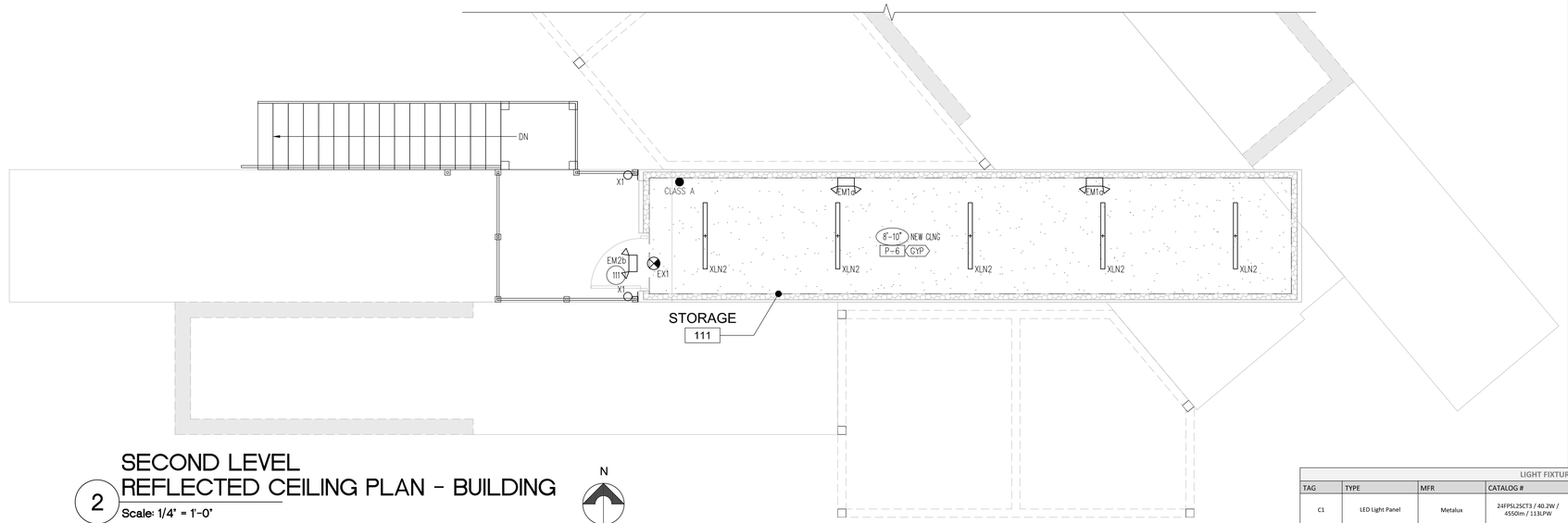
HARRISON, FRENCH & ASSOCIATES, LTD
A-2005011993-F

FLOOR FINISH PLAN

SHEET
A110.1



SECOND LEVEL REFLECTED CEILING PLAN - BUILDING

2

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

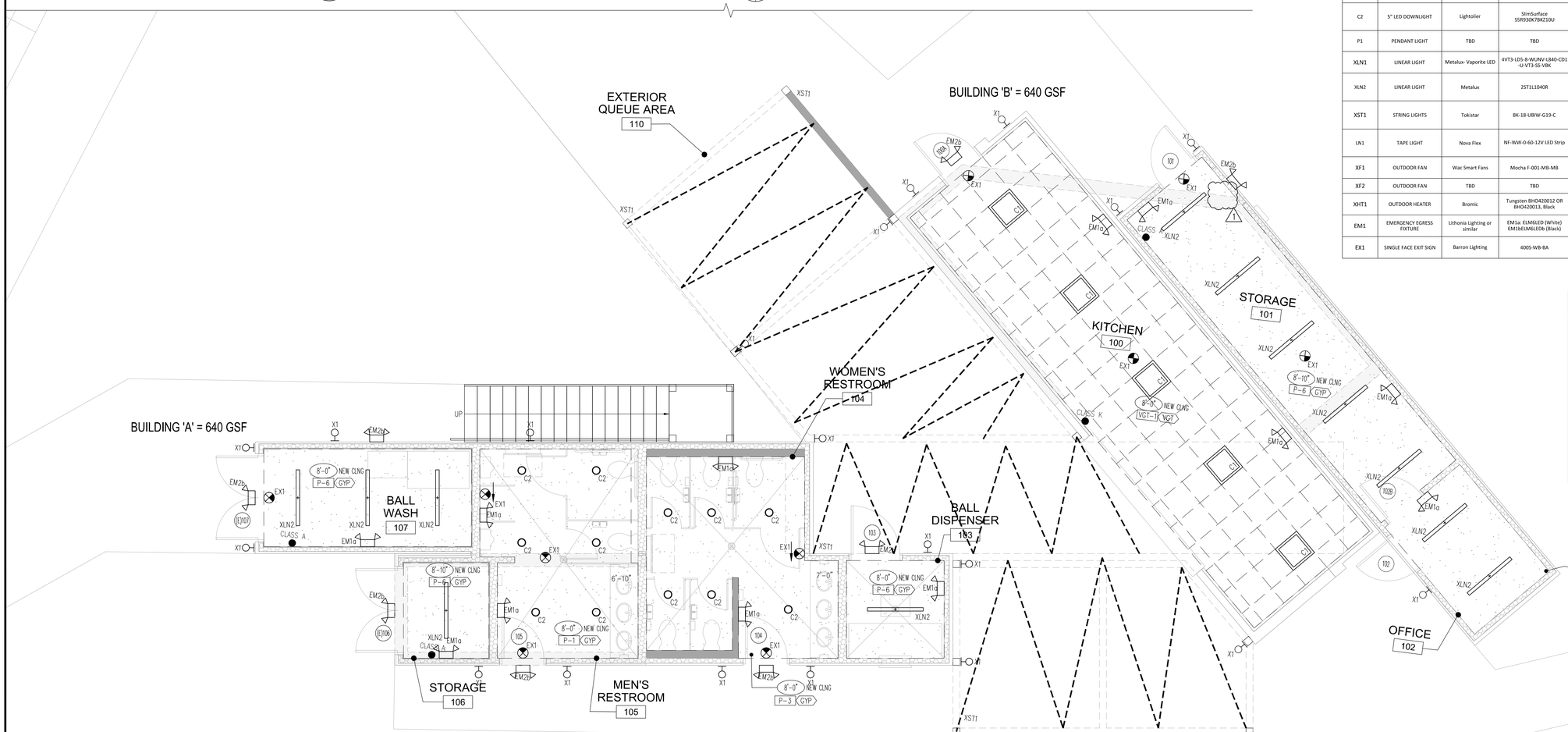
N

GENERAL NOTES

1. GYPSUM BOARD AND SUSPENDED CEILING SYSTEMS SHALL CONFORM TO ALL LOCAL GOVERNING BUILDING CODES AND ORDINANCES
2. DIFFUSERS, GRILLES, SPRINKLER HEADS, RECCESSED CAN LIGHT TRIM RINGS AND ANY SPEAKERS TO BE PAINTED BY MANUFACTURER TO MATCH ADJACENT FINISH UNLESS OTHERWISE NOTED
3. REFER TO EXTERIOR ELEVATIONS, INTERIOR ELEVATIONS, SITE PLAN, MILLWORK DETAILS AND ELECTRICAL DRAWINGS FOR ADDITIONAL LIGHTING LOCATIONS AND SPECIFICATIONS
4. FIXTURES OR SPRINKLER HEADS SHALL BE LOCATED CENTERED IN CEILING TILES UNLESS OTHERWISE NOTED, REFER TO DRAWINGS FOR STARTING POINT ON CEILING GRID
5. GC TO PROVIDE BLOCKING AND POWER FOR ANY REQUIRED SIGNAGE, REFER TO SIGNAGE DRAWINGS UNDER SEPARATE PERMIT FOR ADDITIONAL INFORMATION
6. GC TO SUBMIT LIGHTING CUTSHEETS FOR APPROVAL PRIOR TO ORDERING
7. GC TO NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN ARCHITECTUAL AND ELECTRICAL DRAWINGS
8. ACCESS PANELS SHOULD BE PROVIDED FOR ANY EQUIPMENT AS NEEDED, IF A PANEL IS NOT SHOWN GC TO NOTIFY ARCHITECT FOR PLACEMENT AND SIZE
9. REFER TO ELECTRICAL DRAWINGS FOR DIMMING ZONE LOCATIONS AND DIMMER PANELS

LIGHT FIXTURE SCHEDULE

TAG	TYPE	MFR	CATALOG #	LAMP	NOTES	REP INFO
C1	LED Light Panel	Metalux	24FPSL25CT3 / 40.2W / 4550lm / 113LPW	LED	Refer to RCP.	Villa Lighting Nick Becker 314-478-3141 nick.becker@villalighting.com
C2	5" LED DOWNLIGHT	Lightolier	SlimSurface 5SR930K7BKZ10U	LED	At restrooms. Refer to RCP. Surface mount. Dimmable.	Villa Lighting Nick Becker 314-478-3141 nick.becker@villalighting.com
P1	PENDANT LIGHT	TBD	TBD	LED	At covered bays. Install on a unistrut or Manufacturer provided mounting unit. Refer to RCP.	TBD
XLN1	LINEAR LIGHT	Metalux- Vaporite LED	4VT3-LD5-8-WUNV-L840-CD1 -U-VT3-S5-VBK	LED	At covered bays. Dimmable. Install on a rigid stem. Refer to RCP.	Nick Becker 314-478-3141 nick.becker@villalighting.com
XLN2	LINEAR LIGHT	Metalux	2ST1L1040R	LED	At ball wash, ball hopper, storage, maintenance building. Refer to RCP.	Villa Lighting Nick Becker 314-478-3141 nick.becker@villalighting.com
XST1	STRING LIGHTS	Tokistar	BK-18-UBIW-G19-C	LED	At covered bays and trellis. Dimmable. Refer to RCP. Confirm w/ owner if color changing LED bulbs are prefered.	Nick Becker 314-478-3141 nick.becker@villalighting.com
LN1	TAPE LIGHT	Nova Flex	NF-WW-0-60-12V LED Strip	LED	At restrooms. Refer to RCP.	Villa Lighting Nick Becker 314-478-3141 nick.becker@villalighting.com
XF1	OUTDOOR FAN	Wac Smart Fans	Mocha F-001-MB-MB	3000K LED	At covered bays. Install on a unistrut. Refer to RCP.	Nick Becker 314-478-3141 nick.becker@villalighting.com
XF2	OUTDOOR FAN	TBD	TBD	-	At covered bays. Install on a column. Refer to RCP.	TBD
XHT1	OUTDOOR HEATER	Bromic	Tungsten BH0420012 OR BH0420013, Black	-	At covered bays. Refer to RCP. Final spec to be confirmed w/ owner.	Nick Becker 314-478-3141 nick.becker@villalighting.com
EM1	EMERGENCY EGRESS FIXTURE	Lithonia Lighting or similar	EM1a: ELM6LED (White) EM1bE6M6LEDb (Black)	-	EM1a @ ball wash, ball hopper, storage, office, maintenance building, EM1b @ Restrooms. Refer to RCP.	Nick Becker 314-478-3141 nick.becker@villalighting.com
EX1	SINGLE FACE EXIT SIGN	Barron Lighting	4005-WB-BA	-	Refer to RCP.	Nick Becker 314-478-3141 nick.becker@villalighting.com



GROUND LEVEL REFLECTED CEILING PLAN - BUILDING

1

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

N

R.C.P LEGEND

- OPEN TO STRUCTURE ABOVE - PAINT ALL STRUCTURE, DUCTWORK, CONDUITS, SPRINKLER LINES, ETC.
- PAINTED GYP BD CEILING, SEE R.C.P FOR HEIGHT A.F.F.
- VINYL FACED ACOUSTIC CEILING STAINLESS STEEL GRID, SEE R.C.P FOR HEIGHT A.F.F.
- METAL PANEL CEILING, SEE R.C.P FOR HEIGHT A.F.F.
- WOOD FINISH CEILING, SEE R.C.P FOR HEIGHT A.F.F.

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JOB NUMBER: 17-22-00007

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DRAWN BY:	KG
DOCUMENT DATE:	06/01/23

DAVID JOHN WILGUS NUMBER A-2009030404

2023.06.02 13:57:57-05'00'

DAVID JOHN WILGUS, ARCHITECT
A-2009030404
HARRISON FRENCH & ASSOCIATES, LTD
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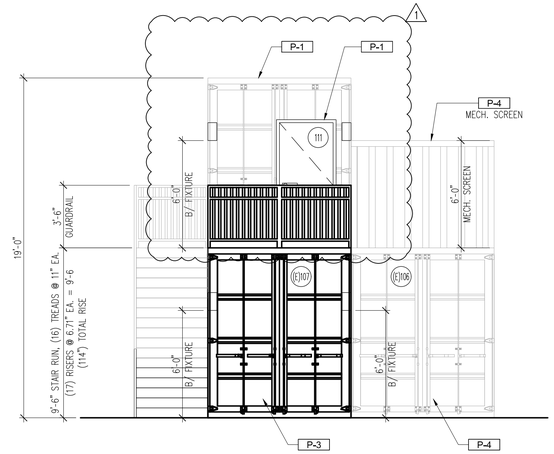
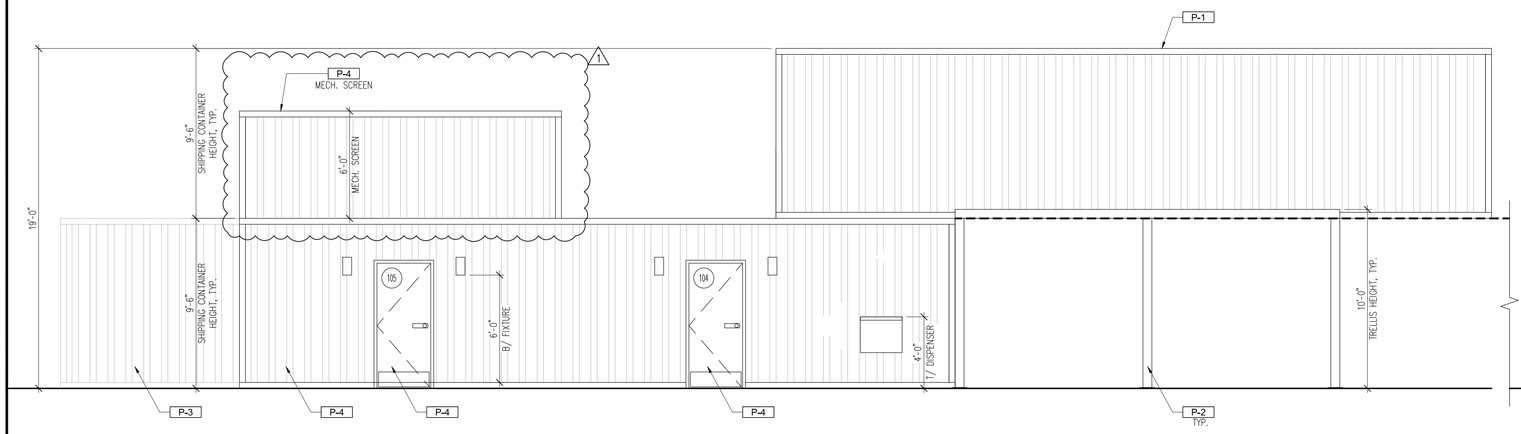
REFLECTED CEILING PLAN - BUILDING

SHEET:
A201.1



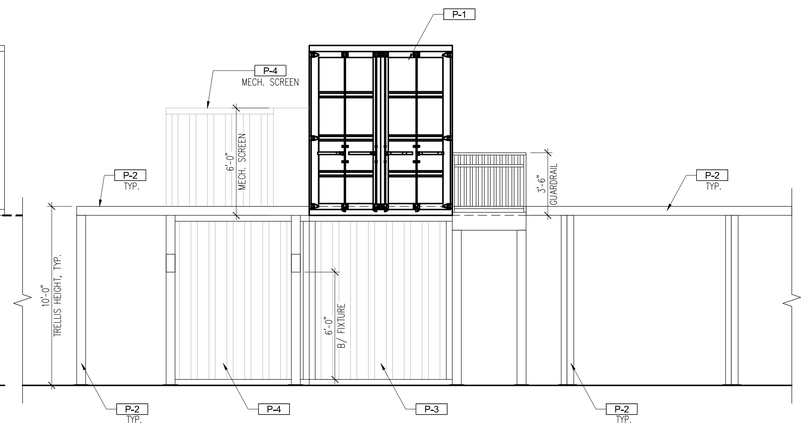
4 EXTERIOR ELEVATION - (WEST)

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



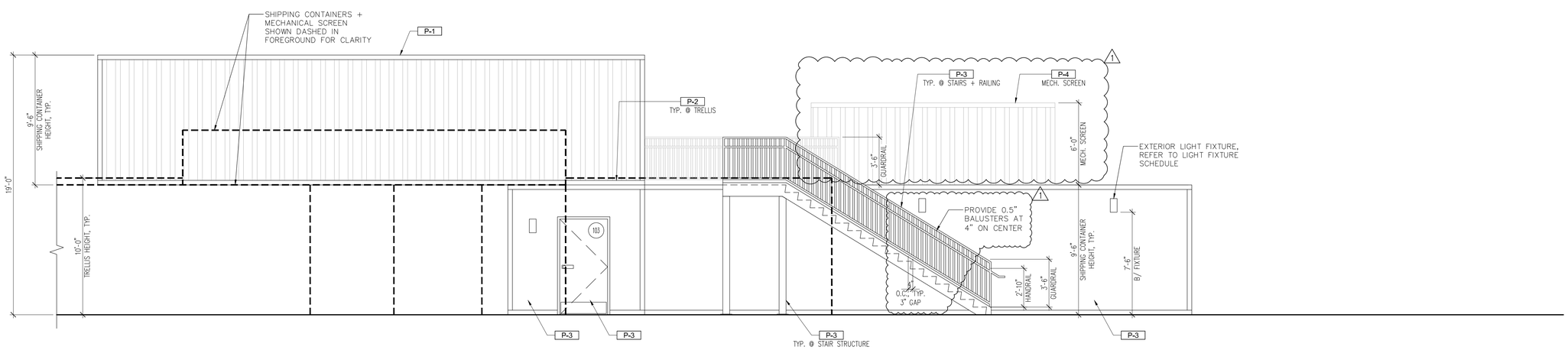
3 EXTERIOR ELEVATION - (SOUTH)

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



2 EXTERIOR ELEVATION - (EAST)

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



1 EXTERIOR ELEVATION - (NORTH)

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

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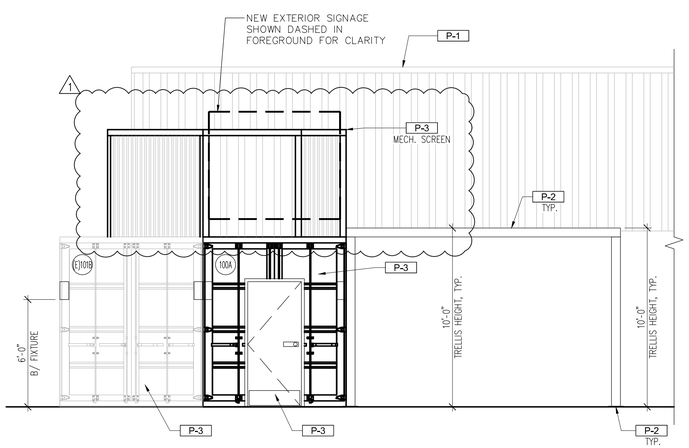
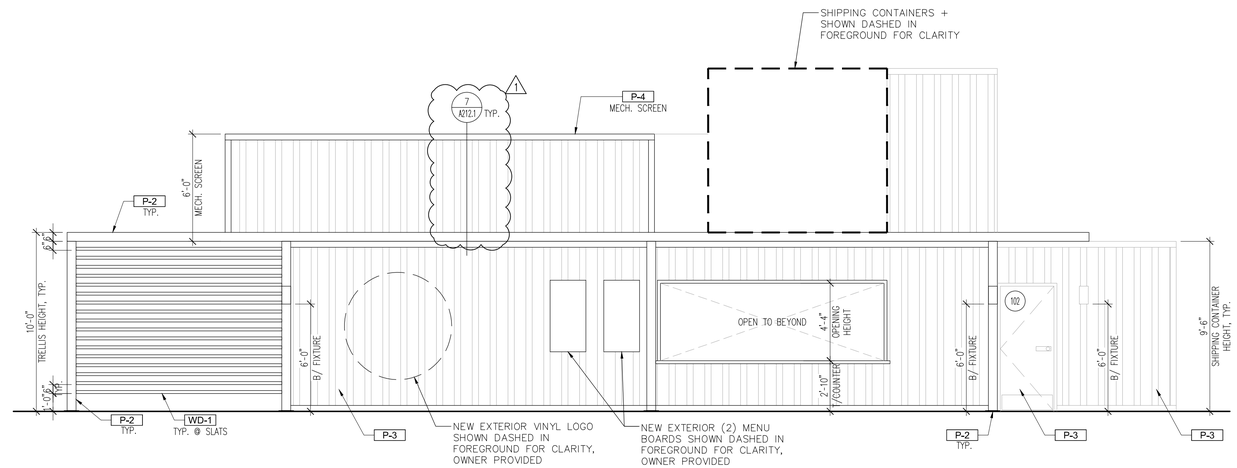
EXTERIOR
ELEVATIONS
- BUILDING

SHEET
A210.1



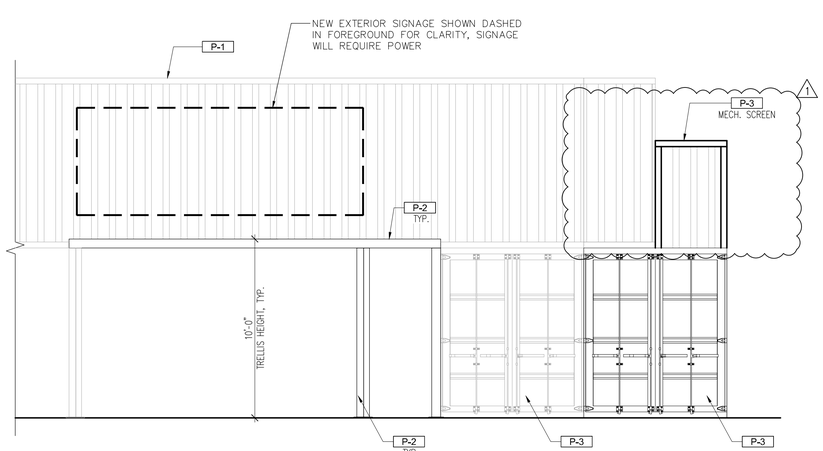
4 EXTERIOR ELEVATION - (NORTHWEST)

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



3 EXTERIOR ELEVATION - (SOUTHWEST)

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



2 EXTERIOR ELEVATION - (SOUTHEAST)

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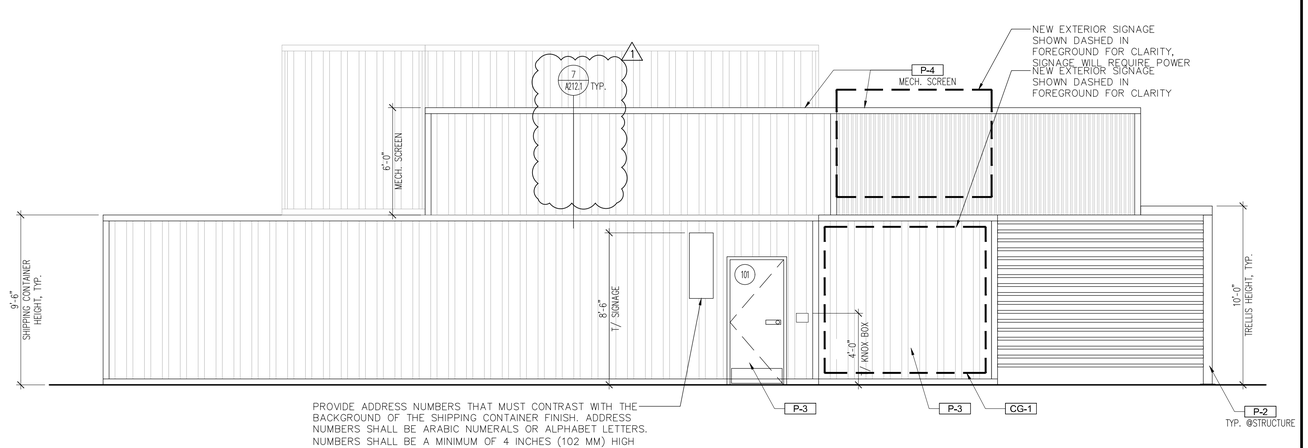

1 EXTERIOR ELEVATION - (NORTHEAST)

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

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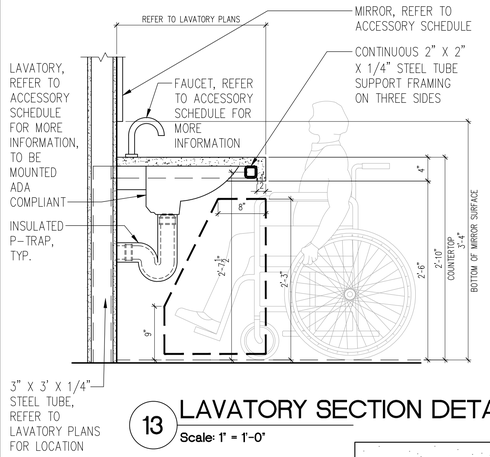
EXTERIOR ELEVATIONS - BUILDING

SHEET:
A210.2

IMPORTANT NOTE

REFER TO 'A101.1 SCHEDULES AND LEGENDS' SHEET FOR RESTROOM ACCESSORY AND SIGNAGE SCHEDULES.

2



13 LAVATORY SECTION DETAIL
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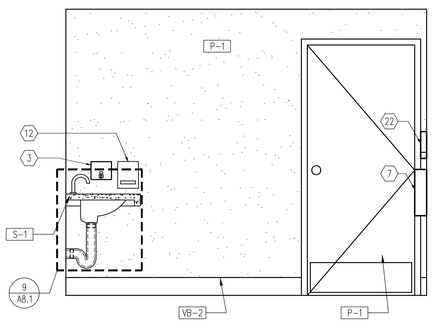
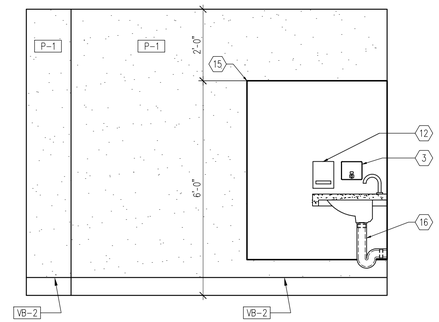


12 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



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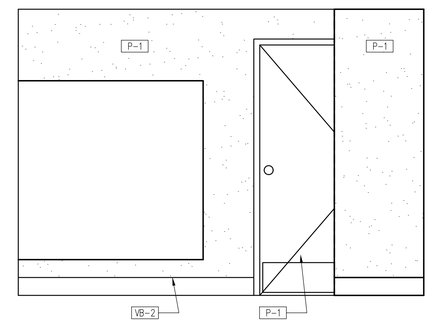

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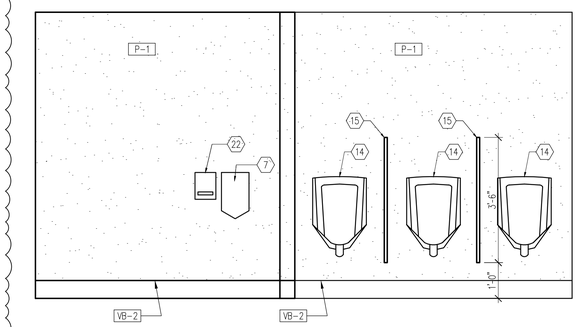

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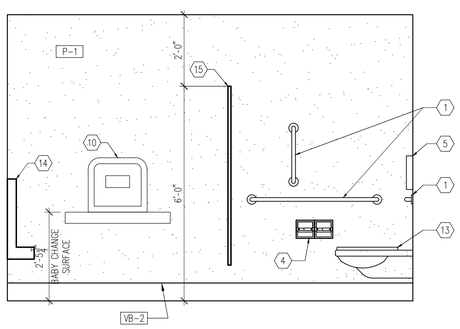
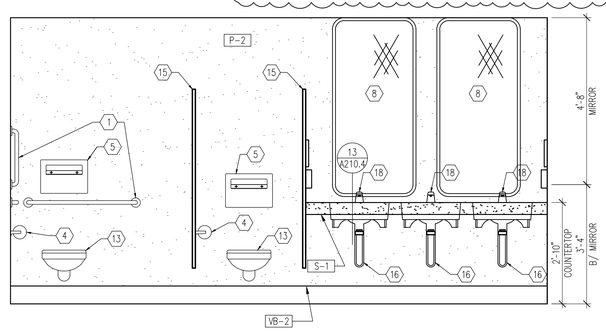
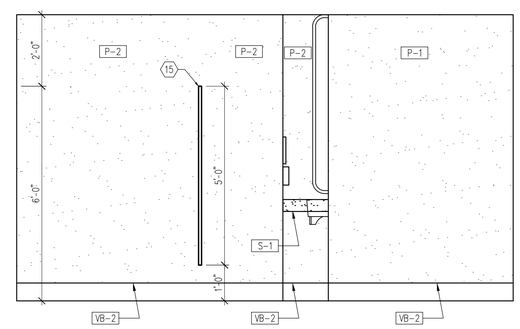


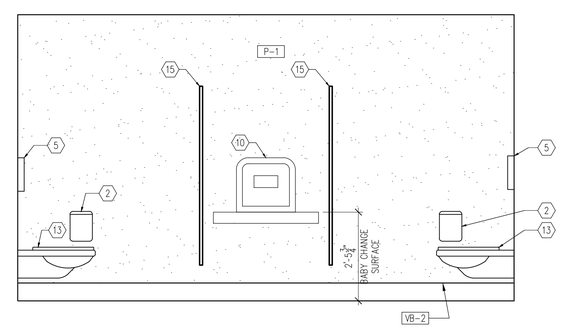
8 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



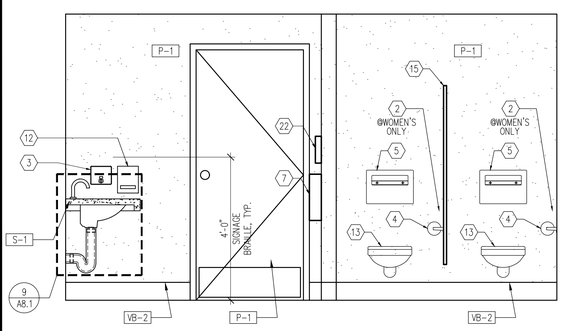
7 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



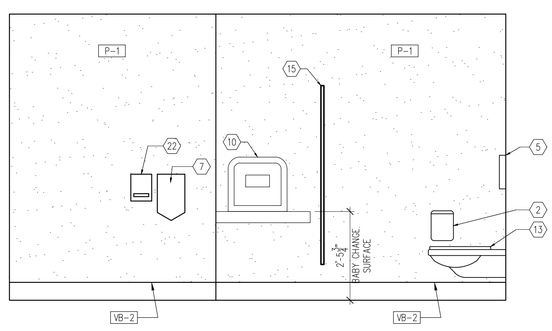
6 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



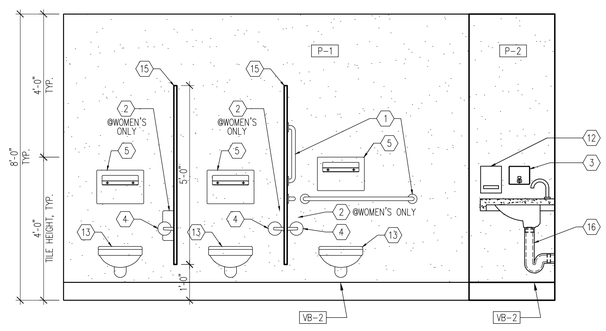
5 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



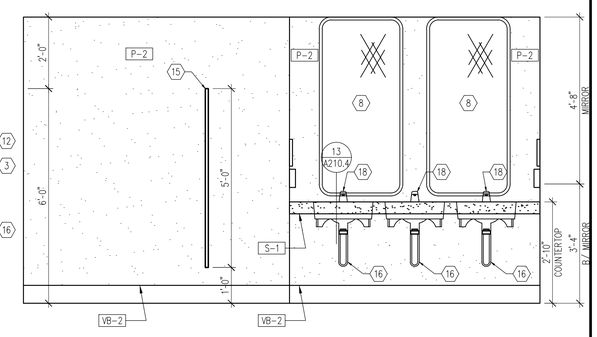
4 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



3 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



2 RESTROOM ELEV.
Scale: 1/2" = 1'-0"



1 RESTROOM ELEV.
Scale: 1/2" = 1'-0"

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FAMILY GOLF PARK

1501 E US HWY 40,
LEE'S SUMMIT, MO 64064

JOB NUMBER: 17-22-00007

ISSUE BLOCK

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3	PERMIT REVS	06/01/23

CHECKED BY:	NP / EB
DRAWN BY:	KG
DOCUMENT DATE:	06/01/23

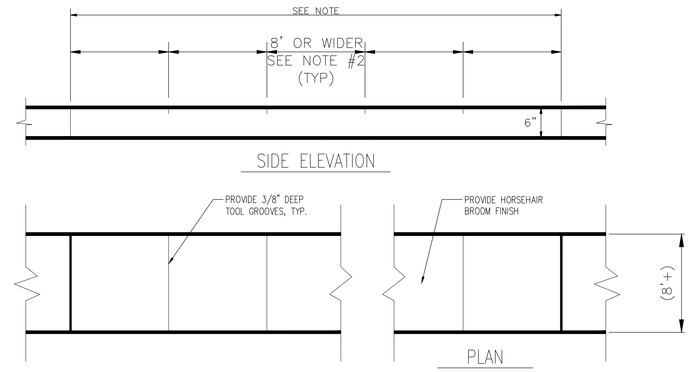
DAVID JOHN WILGUS
NUMBER 2006030404
MISSOURI

2023.06.02 13:58:36-05'00'

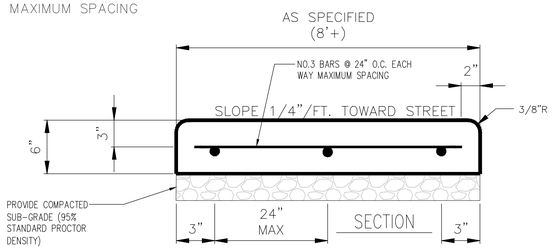
DAVID JOHN WILGUS, ARCHITECT
A-2006030404
HARRISON FRENCH & ASSOCIATES, LTD
A-2005011993-F

RESTROOM ELEVATIONS

SHEET: A210.4



NO. 3 BARS 24" O.C. EACH WAY MAXIMUM SPACING

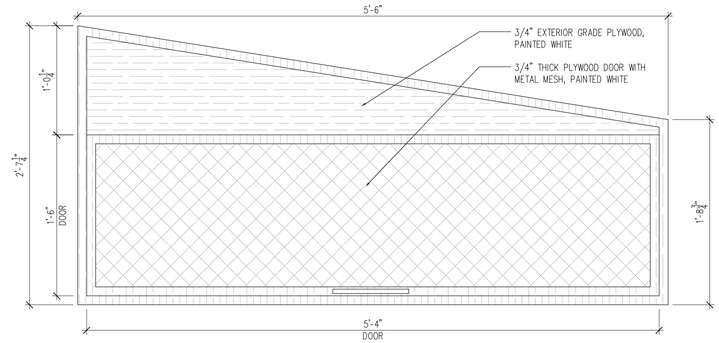


GENERAL NOTES:

1. 1/2" EXPANSION JOINTS SHALL BE SPACED AT 60' MAXIMUM INTERVALS, OR AS OTHERWISE SPECIFIED. JOINTS SHALL HAVE FIVE (5) #3 2' SLIP DOWELS WITH END CAPS AT EQUAL SPACING.
2. TOOL GROOVE EVERY 8' ON 8' WALKS.
3. SIDEWALKS SHALL BE CLASS "A" CONCRETE.
4. WHEN CONCRETE WALK IS ADJACENT TO EXISTING CONCRETE, DEPTH OF BITUMINOUS EXPANSION JOINT FILLER SHALL BE SUFFICIENT TO PREVENT CONCRETE TO CONCRETE CONTACT BETWEEN WALK AND CONCRETE. WHEN SIDEWALK IS LOCATED AT THE BACK OF CURB THE NO. 3 REBAR AT 24" O.C. FOR THE SIDEWALK SHOULD EXTEND TO A DEPTH OF APPROXIMATELY 3" INTO THE BACK OF THE CURB AND SHOULD BE ANCHORED IN PLACE WITH EPOXY RESIN.
5. SIDEWALK SUBGRADE SHALL BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR DENSITY.
6. A MAXIMUM OF 1" OF SAND MAY BE USED FOR LEVEL UP ONLY.
7. SEAL ALL JOINTS WITH RUBBERIZED SEALANT.

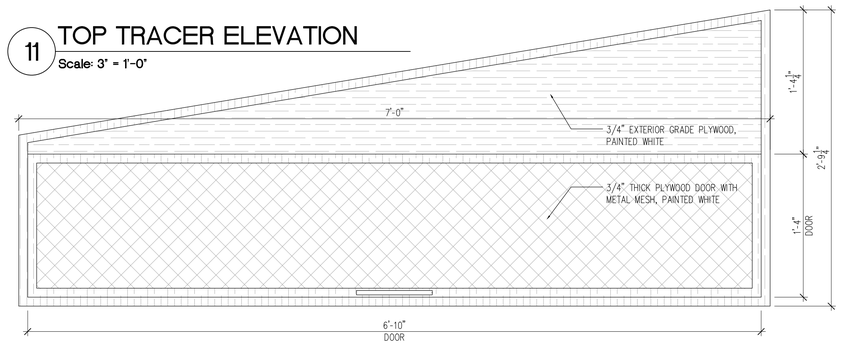
8 CONCRETE PAVEMENT/WALKWAY DETAIL

SCALE: 1.5" = 1'-0"



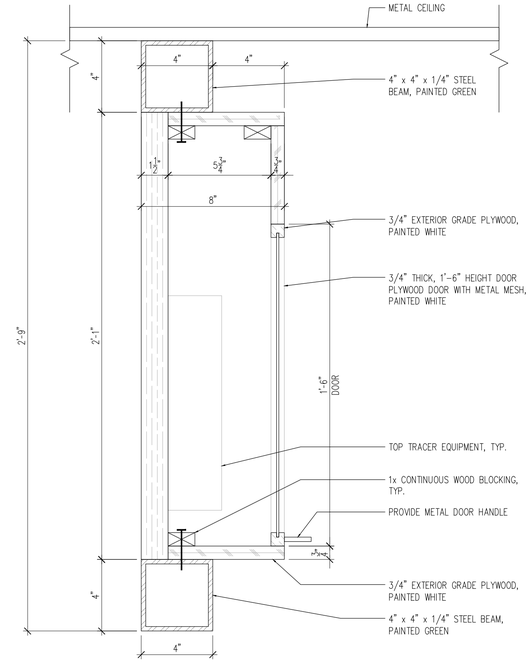
11 TOP TRACER ELEVATION

Scale: 3" = 1'-0"



10 TOP TRACER ELEVATION

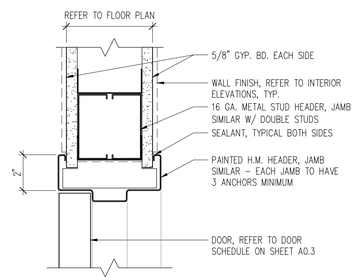
Scale: 3" = 1'-0"



9 TOP TRACER DETAIL

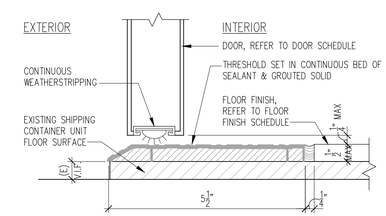
Scale: 3" = 1'-0"

CONTRACTOR NOTES:
1. INSTALL PER THE RECOMMENDATIONS OF THE TCNA
2. INDICATE LOCATIONS ON SHOP DRAWINGS



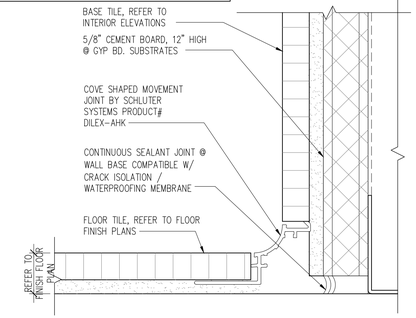
6 DOOR HEAD/JAMB DETAIL

Scale: 1/2" = 1'-0"



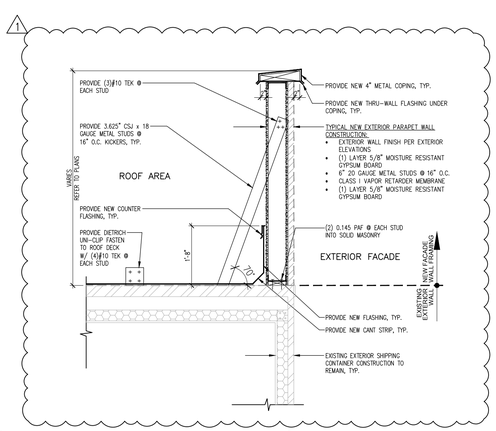
5 THRESHOLD HALF SADDLE

Scale: 1/2" = 1'-0"



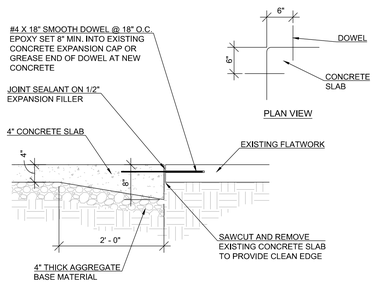
4 FLOOR BASE DETAIL

Scale: 1/2" = 1'-0"



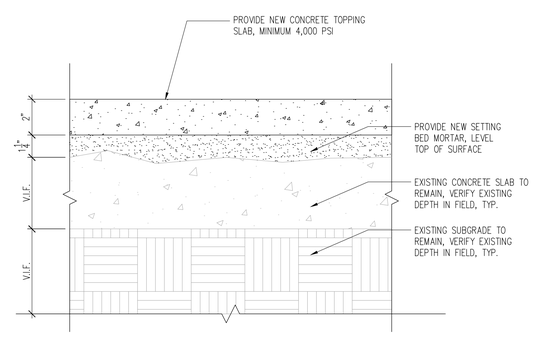
7 (FOR REFERENCE ONLY) SHIPPING CONTAINER PARAPET WALL DETAIL

SCALE: 3/4" = 1'-0"



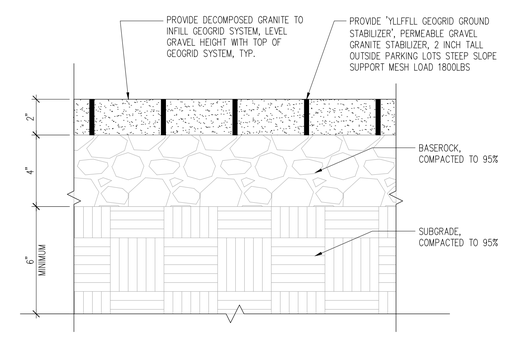
3 CONCRETE DOWEL DETAIL

Scale: 1'-0" = 1'-0"



2 TOPPING SLAB DETAIL

Scale: 3" = 1'-0"



1 COMPOSED GRANITE DETAIL

Scale: 3" = 1'-0"

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DAVID JOHN WILGUS NUMBER 2009030404

2023.06.02 13:58:52-05'00'

DAVID JOHN WILGUS, AIA, ARCHITECT
A-2009030404
HARRISON FRENCH & ASSOCIATES, LTD
A-2005011993-F

INTERIOR AND EXTERIOR DETAILS

SHEET: A212.1

BUILDING CODES: 2018 INTERNATIONAL BUILDING CODE w/ LOCAL AMENDMENTS AND ASCE 7-16 LOAD STANDARD FOR THE BUILDING FOUNDATIONS. DESIGN OF THE INTERMODAL STEEL BUILDING UNITS (ISBU'S) ARE IN ACCORDANCE WITH THE 2021 IBC, CHAPTER 31, INTERMODEL SHIPPING CONTAINERS.

1 ENGINEERING DESIGN LOADS CRITERIA:

A. FLOOR LIVE LOADS (KITCHEN & STORAGE) 125 PSF

B. ROOF LIVE LOAD 20 PSF

C. ROOF SNOW LOAD

a.	GROUND SNOW LOAD, P_g	20 PSF
b.	FLAT ROOF SNOW LOAD, P_f	20 PSF
c.	SNOW EXPOSURE FACTOR, C_e	1.0
d.	RISK CATEGORY	II
e.	SNOW LOAD IMPORTANCE FACTOR, I	1.0
f.	THERMAL FACTOR, C_t	
1	HEATED STRUCTURE	1.0
2	UNHEATED STRUCTURE	1.2
g.	DRIFTING	PER CODE

D. WIND LOADS

a.	BASIC WIND SPEED (3 SECOND GUST)	
1	V(ULTIMATE)	109 MPH
2	V(SERVICE)	84 MPH
b.	RISK CATEGORY	II
c.	WIND EXPOSURE	C
d.	ENCLOSURE CLASSIFICATION	ENCLOSED
e.	INTERNAL PRESSURE COEFFICIENT	+/- 0.18
f.	TRANSPORTATION LONGITUDINAL WIND SPEED	130 MPH
g.	TRANSPORTATION LATERAL WIND SPEED	40 MPH
h.	BASIC WIND-FORCE-RESISTING SYSTEM	STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC

E. SEISMIC LOADS

a.	RISK CATEGORY	II
b.	SPECTRAL ACCELERATION	Ss = 0.099g, S1 = 0.068g
c.	SEISMIC IMPORTANCE FACTOR, I	1.0
d.	SPECTRAL RESPONSE COEFFICIENTS	
1	SDS	0.109
2	SD1	0.109
e.	SITE CLASS	D
f.	SEISMIC DESIGN CATEGORY	B
g.	BASIC SEISMIC-FORCE-RESISTING SYSTEM	ASCE 7-21 3115.8.5.2
h.	RESPONSE MODIFICATION FACTOR, R (FOR THE INTERMODEL SHIPPING CONTAINER)	2
i.	SEISMIC RESPONSE COEFFICIENT, Cs (FOR THE INTERMODEL SHIPPING CONTAINER)	0.036
j.	ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE

F. DEAD LOADS

a.	STRUCTURE (ISBU)	ACTUAL WEIGHT
b.	UNDERHUNG (ISBU)	5 PSF
c.	DECKING OR GRATING	5 PSF
d.	INTERIOR FURRING WALLS	5 PSF

G. THE STRUCTURAL SYSTEMS SHOWN ON THESE DOCUMENTS HAVE BEEN DESIGNED FOR THE FINAL, IN PLACE USAGE OF THE STRUCTURE BASED ON THE INTENDED OCCUPANCY AND CODE REQUIREMENTS. WHILE GENERAL CONSTRUCTABILITY HAS BEEN CONSIDERED, THE STRUCTURAL SYSTEMS HAVE NOT BEEN DESIGNED TO ACCOMMODATE SPECIFIC CONSTRUCTION MEANS AND METHODS THAT MIGHT BE UTILIZED BY THE CONTRACTOR. THIS PROJECT HAS NOT BEEN DESIGNED FOR FUTURE EXPANSION.

2. STATEMENT OF SPECIAL INSPECTIONS

A. THIS STATEMENT OF SPECIAL INSPECTIONS IS IN ACCORDANCE WITH 1704.3 OF THE 2018 INTERNATIONAL BUILDING CODE (2018 IBC). THE INTENT OF THIS SECTION IS THAT ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 17 OF THE 2018 IBC UNLESS SPECIFICALLY NOTED OTHERWISE. ADDITIONAL SPECIAL INSPECTIONS MAY BE REQUIRED BY LOCAL CODE OR BUILDING OFFICIAL, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ANY ADDITIONAL REQUIREMENTS ABOVE AND BEYOND THE CODE REQUIRED SPECIAL INSPECTION INDICATED BELOW.

B. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH THE BUILDING CODE.

a. CONCRETE DESIGN MIX
b. PLACING OF CONCRETE AND REINFORCING STEEL
c. STRUCTURAL STEEL FABRICATIONS
d. STRUCTURAL STEEL WELDING
e. IN-SITU FRAMING OF ISBU'S
f. POST-INSTALLED ANCHORS IN CONCRETE
g. IN-SITU SOILS, EXCAVATIONS, FILLING AND COMPACTION

C. THE ISBU FABRICATOR IS RESPONSIBLE FOR EMPLOYING SPECIAL INSPECTORS TO PERFORM SHOP INSPECTIONS DURING THE ISBU FABRICATION PROCESS. FABRICATION INSPECTIONS SHALL BE DOCUMENTED TO CORRESPOND WITH FINAL ISBU TRACKING LABEL. THE OWNER/END USER IS RESPONSIBLE FOR EMPLOYING SPECIAL INSPECTORS TO PERFORM INSPECTIONS DURING SITE CONSTRUCTION AND INSTALLATION BASED ON REQUIREMENTS OF THE SITE-SPECIFIC ARCHITECT AND/OR ENGINEER OF RECORD.

D. SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE SHALL BE PERFORMED BY THE INSPECTOR PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK.

E. ISBU SPECIAL INSPECTOR SHALL PROVIDE COMPLETE INDIVIDUAL SPECIAL INSPECTION REPORTS FOR EACH SEPARATE ISBU MODULE. EACH REPORT SHALL CORRESPOND TO AN IDENTIFYING DESIGNATION OR TRACKING LABEL PERMANENTLY APPLIED TO THE ISBU. REPORTS SHALL BE DISTRIBUTED TO THE BUILDING OWNER/END USER, SITE-SPECIFIC ARCHITECT AND SITE-SPECIFIC STRUCTURAL ENGINEER OF RECORD UPON COMPLETION OF SHOP FABRICATION, SITE CONSTRUCTION AND SITE INSTALLATION. INSPECTION REPORTS SHALL ALSO BE DISTRIBUTED TO PMA ENGINEERING UPON COMPLETION OF SHOP FABRICATION.

F. ALL DISCREPANCIES NOTED DURING SPECIAL INSPECTIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR, BUILDING OWNER/END USER, SITE SPECIFIC ARCHITECT AND SITE-SPECIFIC ENGINEER OF RECORD. THE INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE CONTRACT DRAWINGS.

3. CONDITIONS AND DIMENSIONS SHOWN ARE BASED ON ISO STANDARD ISBU DRAWINGS. DIMENSIONAL VARIATION AMONG ISBU'S SHOULD BE ANTICIPATED. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO SITE INSTALLATION.

4. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR OTHER PERTINENT INFORMATION RELATED TO THE STRUCTURAL WORK AND COORDINATE AS REQUIRED. THESE STRUCTURAL DRAWINGS ARE INTENDED TO BE UTILIZED AS A COMPLETE SET OF DOCUMENTS THAT REPRESENT THE BUILDING'S STRUCTURAL SYSTEMS. NO SINGLE SHEET OR SERIES OF SHEETS IS INTENDED TO "STAND ALONE." THESE STRUCTURAL DRAWINGS ARE INTENDED TO BE INCLUDED IN A COMPLETE SET OF CONSTRUCTION DOCUMENTS, INCLUDING, BUT NOT LIMITED TO: ARCHITECTURAL DRAWINGS, CIVIL DRAWINGS, MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS, AND DEFERRED DESIGN DRAWINGS. CONTRACTOR SHALL VERIFY COORDINATION OF THESE DRAWINGS WITH CONTENTS OF ABOVE DRAWING SETS SPECIFIED AND ONLY PROCEED WITH BIDDING AND CONSTRUCTION AFTER SUCH HAS TAKEN PLACE.

5. DETAILS LABELED "TYP" OR "TYPICAL" ARE TO BE APPLIED AT LOCATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY INDICATED. WHERE A DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR SIMILAR CONDITIONS OR AS SHOWN IN THE "TYPICAL DETAILS."

6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING STRUCTURAL STABILITY DURING ERECTION AND CONSTRUCTION.

7. THE SHIPPING COMPANY IS SOLELY RESPONSIBLE FOR MAINTAINING STRUCTURAL STABILITY AND ANCHORAGE DURING MOVING AND TRANSPORTATION OPERATIONS.

8. THE MODIFIED ISBU'S SHOWN IN THESE DOCUMENTS ARE NOT STRUCTURALLY STABLE FOR STORAGE OR TRANSPORT UNTIL ALL CONNECTIONS, TEMPORARY BRACING, AND NEW WORK IS COMPLETE AND CORRECTLY INSTALLED PER THESE DOCUMENTS. TEMPORARY BRACING SYSTEMS ARE DESIGNED FOR TRANSPORT OF THE ISBU ON A FLATBED TRACK AND FOR LIFTING OF THE UNIT AT PICK POINTS DESIGNATED ON THE DOCUMENTS. OFFLOADING OF ISBU SHALL BE DONE BY LIFTING AT THE ENDS ONLY.

9. REINFORCING STEEL:

A. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60, EXCEPT WELDED REINFORCING WHICH SHALL BE ASTM A706 GRADE 60.

B. ALL WELDED WIRE FABRIC SHALL BE ASTM A185 AND A82 COLD DRAWN WIRE.

C. ALL ACCESSORIES FOR SUPPORTING REINFORCING SHALL BE GALVANIZED OR HAVE PLASTIC-COATED FEET.

D. REINFORCING SHALL BE DETAILED, FABRICATED, PLACED, AND SUPPORTED IN ACCORDANCE WITH ACI 315, LATEST EDITION.

E. STANDARD COVERAGE OF REINFORCING, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

a. CAST AGAINST EARTH, PERMANENTLY EXPOSED TO WEATHER 3"
b. EXPOSED TO EARTH AND WEATHER (FORMED) 2"

10. CONCRETE:

A. CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE BUILDING CODE REQUIREMENTS, INDUSTRY GUIDES, AND REFERENCE STANDARDS INCLUDING, BUT NOT LIMITED TO:

a. ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE
b. ACI 305R - GUIDE TO HOT WEATHER CONCRETING
c. ACI 306R - GUIDE TO COLD WEATHER CONCRETING
d. ACI 318 - STRUCTURAL CONCRETE BUILDING CODE
e. ACI 347 - GUIDE TO FORMWORK FOR CONCRETE
f. ACI SP-66 - ACI DETAILING MANUAL
g. AWS D1.4 - STRUCTURAL WELDING CODE - REINFORCING STEEL
h. CRSI - MANUAL OF STANDARD PRACTICE

B. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH OF 4,500 PSI AND HAVE MAXIMUM WATER/CEMENT RATIO OF 0.45.

C. NORMAL WEIGHT AGGREGATES SHALL COMPLY WITH ASTM C33 STANDARD SPECIFICATION FOR CONCRETE AGGREGATES. COARSE AGGREGATE SHALL MEET THE DELETERIOUS SUBSTANCE AND PHYSICAL PROPERTIES REQUIREMENTS OF ASTM C33, TABLE 4 FOR CLASS DESIGNATION 3S OR BETTER. FINE AGGREGATE SHALL CONFORM TO ASTM C33.

D. IT IS THE INTENT OF THESE CONCRETE SPECIFICATIONS THAT THE CONTRACTOR SUPPLY CONCRETE MIXES WITH A MINIMUM AMOUNT OF WATER IN ORDER TO LIMIT PLASTIC SHRINKAGE CRACKING IN FRESHLY PLACED CONCRETE. IT IS EXPECTED THAT PRODUCING WORKABILITY FOR CONCRETE MIXES WILL REQUIRE THE ADDITION OF WATER-REDUCING AND/OR SUPER-PLASTICIZING CHEMICAL ADMIXTURES.

E. CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD PRIOR TO USE OF SELF-CONSOLIDATING CONCRETE MIX.

F. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY.

G. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE.

H. THE COMBINED WEIGHT OF FLY ASH OR OTHER POZZOLANS CONFORMING TO ASTM C618, SLAG CEMENT CONFORMING TO ASTM C989, AND SILICA FUME CONFORMING TO ASTM C1240 MAY BE USED AT A RATE NOT TO EXCEED 25% OF THE TOTAL CEMENT CONTENT WEIGHT.

I. PRIOR TO PLACING CONCRETE IN ANY LOCATION, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE THOROUGHLY CHECKED AND COORDINATED ALL DIMENSIONS, ELEVATIONS, OPENINGS, RECESSES, AND BLOCKOUTS SHOWN ON THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS. IN THE EVENT ERRORS, CONFLICTS, OR OMISSIONS EXIST, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ARCHITECT OR ENGINEER FOR NECESSARY CORRECTIVE ACTION.

J. EMBEDDED ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR PRIOR TO PLACING CONCRETE.

K. CONCRETE CURING SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF ACI 318-14 SECTION 26.5.3 AND STANDARD PRACTICE FOR CURING CONCRETE REPORTED BY COMMITTEE 308.

11. STRUCTURAL STEEL:

A. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN, LATEST EDITION, AND AISC "CODE OF STANDARD PRACTICE."

B. ALL STRUCTURAL STEEL FOR WIDE FLANGE AND WT SHAPES SHALL BE ASTM A992, GRADE 50, UNLESS NOTED OTHERWISE ON THE PLANS. ALL ANGLES, PLATES, AND CHANNELS SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. ALL RECTANGULAR AND ROUND HSS SHAPES SHALL BE ASTM A500, GRADE B.

C. ALL STRUCTURAL STEEL WELDS IN THE SHOP OR IN THE FIELD SHALL BE PERFORMED BY A QUALIFIED WELDER AND SHALL CONFORM TO THE CURRENT REQUIREMENTS OF AWS.

D. WELDING ELECTRODES SHALL BE E70XX WITH MINIMUM CHARPY V-NOTCH TOUGHNESS (CVN) OR 20 FT-LB AT -20 DEGREES.

E. CONNECTIONS SHALL BE SNUG-TIGHTENED BEARING TYPE USING A MINIMUM OF TWO A325N OR A490N BOLTS.

N. COORDINATE MATERIAL SURFACE PREP, PRIMING AND PAINTING WITH ARCH AND BOB'S CONTAINER.

O. PRIME AND PAINT ANY BARE AND/OR RUSTED STEEL.

12. ISBU MATERIALS

A.

MATERIAL	ASTM	Fy (KSI)	LOCATION
CORTEN "A"	A242	50	ROOF, BASE, FRONT, REAR ASSEMBLIES
SCW49/SCW480	A216	32	CORNER FITTINGS
SM490A	A572	50	DOOR SILL, BOTTOM END RAIL, CORNER POSTS
SM50YA	--	50	REAR CORNER POST (INNER)
SS50	A101/A414	50	REAR CORNER POST (INNER)

B. ALL ISBU'S SHALL HAVE A VALID CSC INSPECTION PLATE ATTACHED OR A CIN CERTIFICATION AND DOCUMENTATION AT THE TIME OF INITIAL PURCHASE. CSC PLATES OR CIN CERTIFICATION SHALL INDICATE THE DATE MANUFACTURED AND AN IDENTIFICATION NO. ADDITIONALLY EITHER THE CSC OR CIN SHALL INDICATE THE FOLLOWING:

MAX GROSS WEIGHT	30,480 KG/ 67,200 LBS
ALLOW STACK LOAD	192,000 KG/ 423,280 LBS
RACKING TEST LOAD VALUE	15,240 KG/ 33,600 LBS

C. BOB'S CONTAINERS SHALL RETAIN DOCUMENTATION CATALOGING CSC OR CIN INFORMATION AND INSPECTION RECORDS CORRESPONDING TO THE ISBU PERMANENT TRACKING LABELS.

D. AT INITIAL PURCHASE THE ISBU SHALL HAVE NO SIGNIFICANT DAMAGE OR MODIFICATIONS.

13. POST-INSTALLED ANCHORAGE:

A. DESIGN OF ALL POST-INSTALLED ANCHORAGE SHALL BE IN ACCORDANCE WITH ACI 318 CHAPTER 17 AND SHALL CONSIDER CRACKED CONCRETE CONDITIONS.

B. ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED BY TRAINED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AS SHOWN IN THE CORRESPONDING ICC-ESR REPORT AND INCLUDED IN THE ANCHOR PACKAGING.

C. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL POST-INSTALLED ANCHORAGE ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.

D. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. EXISTING REINFORCING BARS SHALL NOT BE CUT UNLESS NOTED OTHERWISE ON THE DRAWINGS. THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS BY FERROSCAN, GPR, X-RAY, OR OTHER MEANS PRIOR TO INSTALLATION OF ANCHORS.

E. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

F. EMBEDMENT DEPTH FOR MECHANICAL EXPANSION ANCHORS SHALL BE DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR WHICH TENSION LOAD IS TRANSFERRED TO THE CONCRETE, MEASURED PRIOR TO APPLYING TORQUE TO THE ANCHOR.

G. EMBEDMENT DEPTH FOR SCREW TYPE ANCHORS SHALL BE DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN INSTALLED INTO THE HOLE.

H. POST-INSTALLED ANCHORAGE SHALL ONLY BE USED WHERE SPECIFIED ON THESE DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO USING POST-INSTALLED ANCHORAGE FOR MISSING OR MIS-LOCATED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS.

I. STAINLESS OR GALVANIZED STEEL ANCHORS ARE REQUIRED AT ALL EXPOSED LOCATIONS.

J. FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW OR ON THE DRAWINGS, CONTRACTOR SHALL SUBMIT DATA SUBSTANTIATING THE SUBSTITUTED PRODUCT PERFORMANCE VALUES. (POST-INSTALLED ANCHOR SUBSTITUTIONS SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THEIR USE.)

K. SUBMITTALS ARE THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE EVALUATION REPORTS FROM THE INTERNATIONAL CODE COUNCIL (ICC-ES EVALUATION REPORT).

L. CONCRETE ANCHORS

a. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:

1 HILTI KWIK BOLT TZ EXPANSION ANCHOR (ICC-ES ESR-1917)
2 HILTI HSL-3 HEAVY DUTY EXPANSION ANCHOR (ICC-ES ESR-1545)
3 HILTI HDA UNDERCUT ANCHOR (ICC-ES ESR-1546)
4 HILTI KWIK HUS EZ SCREW ANCHOR (ICC-ES ESR-3027)
5 SIMPSON STRONG-TIE STRONG-BOLT 2 WEDGE ANCHOR (ICC-ES ESR-3037)
6 SIMPSON STRONG-TIE TITEN-HD SCREW ANCHOR (ICC-ES ESR-2713)

A. LOW VELOCITY FASTENERS

a. ANCHORAGE TO CONCRETE AND MASONRY SHALL BE IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:

1. POWDER ACTUATED FASTENERS:

i HILTI X-U PER ICC-ES EST-2269
ii HILTI X-P PER ICC-ES EST-2269
iii SIMPSON STRONG-TIE 'POWDER ACTUATED PINS' AS SPECIFIED (ICC-ES ESR 2138)

2. GAS-ACTUATED FASTENERS

i SIMPSON STRONG-TIE 'POWDER ACTUATED PINS' AS SPECIFIED (ICC-ES ESR 2811)

b. ANCHORAGE TO STEEL SHALL BE IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:

1. POWDER ACTUATED FASTENERS:

i HILTI X-U PER ICC-ES EST-2269
ii HILTI X-U 15 PER ICC-ES EST-2269
iii SIMPSON STRONG-TIE 'POWDER ACTUATED PINS' AS SPECIFIED (ICC-ES ESR 2138)

2. GAS-ACTUATED FASTENERS

i SIMPSON STRONG-TIE 'POWDER ACTUATED PINS' AS SPECIFIED (ICC-ES ESR 2811)

14. FOUNDATIONS:

B. SPREAD FOOTINGS ARE DESIGNED TO BEAR ON NON-EXPANSIVE SOIL CAPABLE OF SUSTAINING 1,500 KIPS PER SQUARE FOOT.

C. STRIP FOOTINGS ARE DESIGNED FOR 1,300 KIPS PER SQUARE FOOT.

D. EXTERIOR AND BUILDING PERIMETER FOUNDATIONS AND STRIP FOOTINGS HAVE BEEN DESIGNED TO BEAR AT OR BELOW THE LOCAL FROST DEPTH OF 36". PROVIDE FOOTING DEPTHS AS INDICATED IN THE DRAWINGS.

E. COMPLY WITH ALL ASPECTS OF SOILS REPORT NO. 03382420 DATED DECEMBER 22, 2022 PREPARED BY INTERTEK PSI, 2828 S. 44TH STREET, KANSAS CITY, KS 66106, 913-310-1600

F. THE GENERAL CONTRACTOR AND FOUNDATION CONTRACTOR SHALL UNDERSTAND THE SURVEY AND GEOTECHNICAL REPORT BEFORE BIDDING THE WORK. RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT SHALL BE INCLUDED IN THE CONTRACTOR'S WORK, UNLESS SPECIFIED OR DETAILED OTHERWISE.

G. CONTRACTOR SHALL REMOVE EXISTING FOOTINGS AND FOUNDATIONS THAT ARE LOCATED WITHIN THE FOOTPRINT OF THE NEW BUILDING.

H. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNUSUAL SOIL CONDITIONS THAT ARE IN VARIANCE WITH THE GEOTECHNICAL REPORT OR WHEN DIFFERENT BEARING MATERIAL IS EVIDENT AND THERE IS A QUESTION OF BEARING CAPACITY.

GENERAL STRUCTURAL NOTES CONTINUED ON SHEET S0.02

STRUCTURAL GENERAL NOTES

1 / S0.01

A.F.F.	ABOVE FINISH FLOOR	JST	JOIST
ALT	ALTERNATE	JT	JOINT
A.B.	ANCHOR BOLT	K	KIP (1000 LBS)
ARCH	ARCHITECTURAL PLANS	LBS	POUNDS
&	AND	LLH	LONG LEG HORIZONTAL
@	AT	LLV	LONG LEG VERTICAL
BAL	BALANCE	MANUF	MANUFACTURER
BLDG	BUILDING	MAS	MASONRY
BM	BEAM	MAX	MAXIMUM
B.O.	BOTTOM OF	MIN	MINIMUM
BRG	BEARING	MISC	MISCELLANEOUS
BTWN	BETWEEN	MK	MARK
CL	CENTER LINE	N.S.	NEAR SIDE
C.G.S.	CENTER OF GRAVITY OF STRANDS	N.T.S.	NOT TO SCALE
CIP	CAST-IN-PLACE CONCRETE	O.C.	ON CENTER
CLR	CLEAR	O.F.	OUTSIDE FACE
C.J.	CONTROL JOINT	OPNG	OPENING
COL	COLUMN	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT	PC	PRECAST
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
CONT	CONTINUOUS	PSI	POUNDS PER SQUARE INCH
CTR	CENTER	PT	POST TENSION
DIA	DIAMETER	RAD	RADIUS
DEG	DEGREE	REINF	REINFORCEMENT
DIM	DIMENSION	REF	REFERENCE
DTL	DETAIL	RE:	REFERENCE
DWG	DRAWING	SCHED	SCHEDULE
E.F.	EACH FACE	SECT	SECTION
ELEV	ELEVATION	SHT	SHEET
EQ	EQUAL	SIM	SIMILAR
E.W.	EACH WAY	SPA	SPACING
EXIST	EXISTING	SPECS	SPECIFICATION
EXP	EXPANSION	SQ	SQUARE
EXT	EXTERIOR	STD	STANDARD
FND	FOUNDATION	STL	STEEL
FIN	FINISHED	SW	SHEAR WALL
FLR	FLOOR	T&B	TOP & BOTTOM
F.S.	FAR SIDE	T.O.	TOP OF,...(ADD ITEM)
FTG	FOOTING	TYP.	TYPICAL
F.V.	FIELD VERIFY	U.N.O.	UNLESS NOTED OTHERWISE
GA	GAUGE	VAR	VARIES
G.B.	GRADE BEAM	VERT	VERTICAL
GALV	GALVANIZED	w/	WITH
HORIZ	HORIZONTAL	W.W.F.	WELDED WIRE FABRIC
I.F.	INSIDE FACE		

STRUCTURAL ABBREVIATIONS

2 / S0.01

S0.01 GENERAL NOTES & TYPICAL DETAILS
S0.02 GENERAL NOTES & TYPICAL DETAILS

S1.01 FOUNDATION PLAN

S2.01 BUILDING LAYOUT PLANS
S2.02 UNIT 1A LAYOUT
S2.03 UNIT 1B LAYOUT
S2.04 UNIT 2A LAYOUT
S2.05 UNIT 2B LAYOUT
S2.06 UNIT 2B LAYOUT
S2.07 STACKED UNIT LAYOUT
S2.08 PLATFORM LAYOUT
S2.09 STAIR LAYOUT

S3.01 FOUNDATIONS SECTIONS

S4.01 DETAILS & SECTIONS
S4.02 DETAILS & SECTIONS
S4.03 DETAILS & SECTIONS
S4.04 DETAILS & SECTIONS
S4.05 DETAILS & SECTIONS
S4.06 DETAILS & SECTIONS
S4.07 DETAILS & SECTIONS
S4.08 DETAILS & SECTIONS
S4.09 DETAILS & SECTIONS
S4.10 DETAILS & SECTIONS
S4.11 DETAILS & SECTIONS
S4.12 DETAILS & SECTIONS
S4.13 DETAILS & SECTIONS
S4.14 DETAILS & SECTIONS

STRUCTURAL SHEET INDEX

3 / S0.01

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(PROJECT # P23025)

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PROFESSIONAL ENGINEERING
CORPORATION
d/b/a PMA ENGINEERING
MISSOURI STATE CERTIFICATE
OF AUTHORITY # (001400)

MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE K. BAEHL
NUMBER
PE-2012016721
PROFESSIONAL ENGINEER
Valerie K. Baehl
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8308

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
GENERAL NOTES & TYPICAL DETAILS

S0.01

I. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF UNSUITABLE FILL MATERIAL OR ORGANIC MATERIAL.

15. SUBMITTALS:

A. CODE COMPLIANT STRUCTURAL DESIGN OF THE FOLLOWING ITEMS IS DEFERRED TO THE GENERAL CONTRACTOR.

b. STAIR & HANDRAIL FRAMING
c. POST-INSTALLED FABRIC CANOPIES & THEIR FOUNDATIONS.

B. DEFERRED SUBMITTALS SHALL INCLUDE SUBSTANTIATING STRUCTURAL CALCULATIONS & SHALL BEAR THE SIGNED WET OR CERTIFIED ELECTRONIC STAMP OF A REGISTERED PROFESSIONAL ENGINEER WHO IS LEGALLY AUTHORIZED TO PRACTICE IN THE JURISDICTION WHERE THE PROJECT IS LOCATED & WHO IS EXPERIENCED IN PROVIDING ENGINEERING SERVICES OF THE KIND INDICATED DEFERRED SUBMITTALS SHALL BEAR THE APPROVAL STAMP OF THE PROJECT ENGINEER OF RECORD.

C. ALL SHOP DRAWINGS AND SUBMITTALS MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL. ENGINEER'S REVIEW OF SHOP DRAWINGS IS LIMITED TO CHECKING FOR GENERAL CONFORMANCE WITH DESIGN DRAWINGS AND STRENGTH OF COMPONENTS AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES FROM THE DESIGN DRAWINGS, QUANTITIES, DIMENSIONAL ERRORS, OR OMISSIONS IN THE SHOP DRAWINGS.

D. ALL SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS AND SHALL NOT BE REPRODUCTIONS OF THESE CONTRACT DOCUMENTS.

E. SUBMIT SHOP DRAWINGS DETAILING FABRICATION OF EACH MEMBER AND ITS CONNECTIONS. CONNECTION DRAWINGS ARE TO BE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER.

F. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING:

a. CONCRETE MIX DESIGN AND MATERIALS
b. CONCRETE REINFORCING STEEL
c. STRUCTURAL STEEL
d. POST-INSTALLED ANCHORS

STRUCTURAL GENERAL NOTES (CONT) 1 / S0.02

BOB'S CONTAINERS / END USER CUSTOMER RESPONSIBILITIES:

A. IT IS THE RESPONSIBILITY OF BOB'S CONTAINERS AND/OR THE END USE CUSTOMER TO OBTAIN APPROPRIATE APPROVALS AND SECURE NECESSARY PERMITS FROM CITY, COUNTY, STATE OR OTHER LOCAL AUTHORITIES OF JURISDICTION FOR THE INSTALLATION OF THIS MODULAR BUILDING AT THIS LOCATION.

B. PMA ENGINEERING'S DESIGN AS INDICATED ON THESE DOCUMENTS SHALL GOVERN THE WORK WITH ANY OTHER INTERPRETATIONS TO THE CONTRARY NOT WITHSTANDING. BOB'S CONTAINERS AND/OR THE END USE CUSTOMER ARE RESPONSIBLE FOR CLARIFICATION OF INCLUSIONS OR EXCLUSIONS FROM THESE STRUCTURAL DOCUMENTS.

C. IN THE EVENT DISCREPANCIES EXIST BETWEEN PMA'S STRUCTURAL DOCUMENTS AND DOCUMENTS FROM OTHER TRADES, PMA'S DOCUMENTS SHALL GOVERN.

E. BOB'S CONTAINERS AND/OR THE END USE CUSTOMER IS RESPONSIBLE FOR PROJECT COORDINATION WITH THE SITE-SPECIFIC ARCHITECT AND/OR SITE-SPECIFIC ENGINEER OF RECORD.

F. APPROVAL OF PMA'S DOCUMENTS BY THE SITE-SPECIFIC ARCHITECT AND/OR SITE-SPECIFIC ENGINEER OF RECORD SHALL CONSTITUTE ACCEPTANCE OF PMA'S DESIGN CONCEPTS, CODE INTERPRETATIONS, LOADING ASSUMPTIONS AND RESULTS.

G. IT IS THE RESPONSIBILITY OF THE SITE-SPECIFIC ARCHITECT AND/OR SITE-SPECIFIC ENGINEER OF RECORD TO ENSURE PMA'S DRAWINGS COMPLY WITH APPLICABLE REQUIREMENTS OF THE LOCAL GOVERNING BUILDING CODE AUTHORITIES. PMA'S SEALED ENGINEERING DOCUMENTS FOR THIS PROJECT DO NOT IMPLY OR CONSTITUTE AN AGREEMENT THAT PMA OR IT'S DESIGN ENGINEERS ARE ACTING AS THE ENGINEER OF RECORD FOR THIS CONSTRUCTION PROJECT. THESE DOCUMENTS ARE SEALED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY PMA ENGINEERING ONLY TO CERTIFY THE DESIGN OF THE STRUCTURAL COMPONENTS INDICATED ON PMA'S DOCUMENTS.

H. THE WORK INDICATED IN THESE DOCUMENTS SHALL NOT BE ALTERED OR MODIFIED IN ANY WAY WITHOUT PRIOR APPROVAL FROM PMA ENGINEERING. FIELD CUTTING, DRILLING OR OTHER ALTERATION OF THE ISBU MODULES DURING PROGRESSION OF THE INSTALLATION WORK OR TO ACCOMMODATE THE WORK OF OTHER TRADES IS PROHIBITED WITHOUT PRIOR APPROVAL PMA ENGINEERING.

I. STRUCTURAL DAMAGE TO THE ISBU MODULES OR OTHER STRUCTURAL COMPONENTS SHOWN IN THESE DOCUMENTS THAT MAY OCCUR DURING FABRICATION, SHIPPING OR SITE INSTALLATION IS NOT THE RESPONSIBILITY OF PMA ENGINEERING.

J. CHANGES TO THESE DOCUMENTS AFTER COMMENCEMENT OF SHOP FABRICATION SHALL BE BILLED TO BOBS'S CONTAINERS AS AN ADDITIONAL SERVICE AT PMA'S NORMAL HOURLY RATES.

K. ADDITIONAL SITE-SPECIFIC STRUCTURES MAY BE REQUIRED AND ARE THE RESPONSIBILITY OF THE END USER AND THE SITE-SPECIFIC ARCHITECT AND/OR ENGINEER OF RECORD. SITE-SPECIFIC STRUCTURES THAT ARE NOT SHOWN IN THESE SHOP DRAWINGS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

a. EXTERIOR SIDEWALKS AND PAVING
b. UNDERGROUND TANKS
c. MECHANICAL UNIT SUPPORT PADS OR FOUNDATIONS
d. FABRIC CANOPIES AND THEIR FOUNDATIONS.

L. THESE STRUCTURAL DOCUMENTS SHALL NOT BE USED FOR ANY OTHER PROJECTS AT OTHER LOCATIONS, FOR ADDITIONS TO THIS PROJECT, OR FOR COMPLETION OF THIS PROJECT BY OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF PMA ENGINEERING. ANY INDIVIDUAL AND/OR COMPANY THAT USES THESE STRUCTURAL DOCUMENTS UNAUTHORIZED, AGREES TO THE FULLEST EXTENT OF THE LAW, TO INDEMNIFY AND HOLD HARMLESS PMA ENGINEERING, IT'S OFFICERS, DIRECTORS AND EMPLOYEES AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING ATTORNEY'S FEES AND COSTS OF DEFENSE, ARISING OUT OF THE MISUSE OF THESE DOCUMENTS.

M. ARCH & CONTAINER SUPPLIER SHALL REVIEW AND APPROVE ALL OPENING SIZES AND LOCATIONS PRIOR TO CONTAINER MODIFICATION FABRICATION.

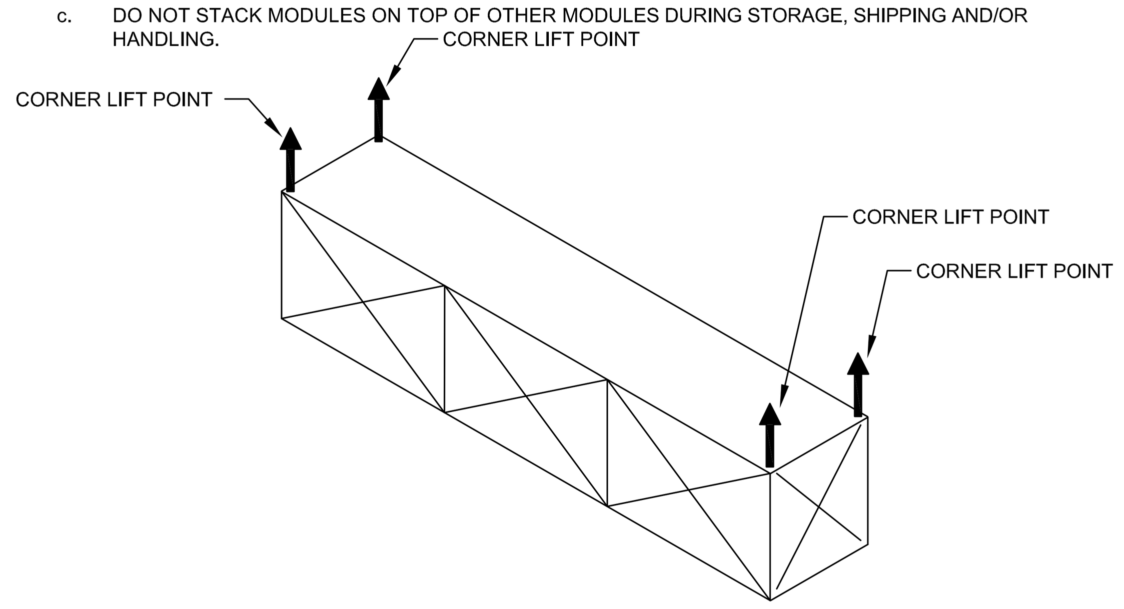
N. COORDINATE MATERIAL SURFACE PREP, PRIMING AND PAINTING WITH ARCH AND BOB'S CONTAINER.

O. MODULE SHIPPING & HANDLING

a. THE STRUCTURAL SYSTEMS SHOWN ON THESE DOCUMENTS HAVE BEEN DESIGNED FOR THE FINAL, IN PLACE USAGE OF THE STRUCTURE BASED ON THE INTENDED OCCUPANCY AND CODE REQUIREMENTS. WHILE GENERAL CONSTRUCTABILITY HAS BEEN CONSIDERED, THE STRUCTURAL SYSTEMS HAVE NOT BEEN DESIGNED TO ACCOMMODATE SPECIFIC CONSTRUCTION MEANS AND METHODS THAT MIGHT BE UTILIZED BY THE FABRICATOR, SHIPPING COMPANY OR THE INSTALLATION CONTRACTOR. THE FABRICATOR, SHIPPING COMPANY AND INSTALLATION CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE STRUCTURAL SYSTEMS SHOWN IN THESE DOCUMENTS DURING FABRICATION, SHIPPING AND ON-SITE INSTALLATION. DAMAGE THAT MAY OCCUR DURING FABRICATION, SHIPPING OR INSTALLATION IS NOT THE RESPONSIBILITY OF PMA ENGINEERING.

b. IF THE MODULE HAS BEEN MODIFIED IN ANY WAY, THE MODULE SHALL BE PICKED UP AT THE FOUR CORNERS. REFER TO THE DIAGRAM BELOW. THE BRACING, BOTH TEMPORARY AND PERMANENT, MUST BE INSTALLED PRIOR TO PICKING UP THE MODULE.

c. DO NOT STACK MODULES ON TOP OF OTHER MODULES DURING STORAGE, SHIPPING AND/OR HANDLING.



NOTE:

1. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL COORDINATE, REVIEW, AND APPROVE WINDOW AND DOOR OPENING SIZES PRIOR TO FABRICATION.

END USER RESPONSIBILITIES 2 / S0.02

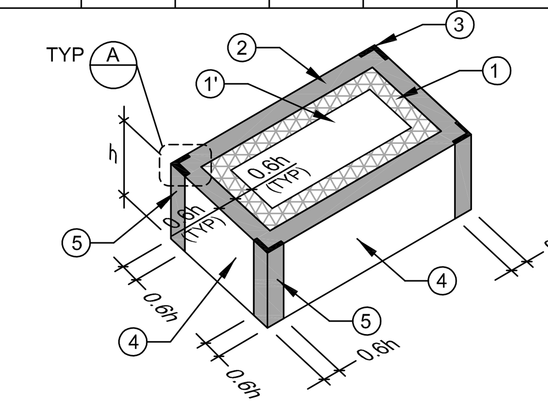
COMPONENTS & CLADDING WIND PRESSURES (PSF)
FLAT/GABLE/HIP ROOF, 0° < θ ≤ 7°, 110 MPH (3 SEC GUST), EXPOSURE C, LRFD

ZONE	HEIGHT																			
	0-15'		15-20'		20-25'		25-30'		30-35'		35-40'		40-45'		45-50'		50-55'		55-60'	
1	+16.0	-42.0	+16.0	-44.8	+16.0	-46.7	+16.0	-48.6	+16.0	-50.3	+16.0	-51.7	+16.0	-53.1	+16.0	-54.1	+16.0	-55.2	+16.0	-56.2
1'	+16.0	-24.1	+16.0	-25.7	+16.0	-26.8	+16.0	-27.9	+16.0	-28.9	+16.0	-29.7	+16.0	-30.4	+16.0	-31.0	+16.0	-31.6	+16.0	-32.2
2	+16.0	-55.3	+16.0	-59.0	+16.0	-61.5	+16.0	-64.0	+16.0	-66.3	+16.0	-68.1	+16.0	-69.9	+16.0	-71.3	+16.0	-72.7	+16.0	-74.0
3	+16.0	-75.4	+16.0	-80.4	+16.0	-83.8	+16.0	-87.2	+16.0	-90.3	+16.0	-92.8	+16.0	-95.3	+16.0	-97.2	+16.0	-99.1	+16.0	-100.9
4	+26.4	-28.6	+28.1	-30.4	+29.3	-31.7	+30.5	-33.0	+31.6	-34.2	+32.5	-35.2	+33.4	-36.1	+34.0	-36.8	+34.7	-37.5	+35.3	-38.2
5	+26.4	-35.2	+28.1	-37.5	+29.3	-39.1	+30.5	-40.7	+31.6	-42.2	+32.5	-43.4	+33.4	-44.5	+34.0	-45.4	+34.7	-46.3	+35.3	-47.1

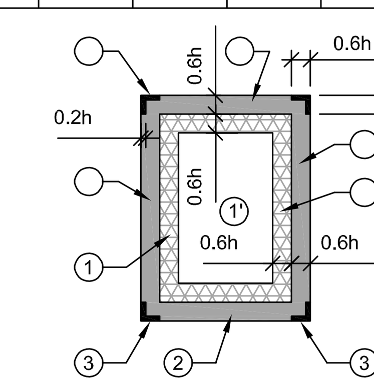
NOTES:

1. WIND ZONES ARE IN ACCORDANCE WITH ASCE 7-16, FIGURE 30.4-1 WITH A ROOF ANGLE 0º - 7º (FLAT ROOF).
2. PRESSURES ARE BASED ON AN EFFECTIVE WIND AREA OF 10 SQUARE FEET.
3. PRESSURES SHOWN ARE NOMINAL WIND PRESSURES AT ULTIMATE LOAD LEVEL (LRFD) AND SHALL BE USED IN ACCORDANCE WITH THE LOAD COMBINATIONS SPECIFIED IN ASCE 7-16, CHAPTER 2.
4. DESIGNER MAY USE THE APPROPRIATE ADJUSTMENT FACTORS OR METHODS OF ASCE 7-16 TO COMPUTE COMPONENT & CLADDING PRESSURES FOR SPECIFIC COMPONENTS OF THIS STRUCTURE.
5. PRESSURES SHOWN ARE APPLIED NORMAL TO THE SURFACE, FOR EXPOSURE & HEIGHT INDICATED ON THE TABLE. ADJUST TO OTHER CONDITIONS USING EQUATION 30.4-1.
6. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
7. PARAPET WIND PRESSURES HAVE NOT BEEN PROVIDED AND SHALL BE CALCULATED USING SECTION 30.8 OF ASCE 7-16.
8. NOTATION:

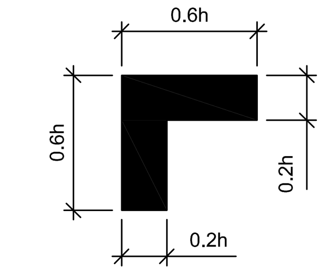
h: MEAN ROOF HEIGHT, IN FEET, EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES <10°.
θ : ANGLE OF PLANE OF ROOF FROM HORIZONTAL, IN DEGREES.



FLAT ROOF



FLAT ROOF PLAN



DETAIL A

INTERIOR ZONES
MIDDLE ZONES
EDGE ZONES
CORNER ZONES

COMPONENTS & CLADDING WIND PRESSURES TABLE 3 / S0.02

NOT USED 4 / S0.02

NOT USED 5 / S0.02

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P: (913) 831-1262, F: (913) 831-0148
www.pmaengineering.com
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(PROJECT # P23025)

PAGE McNAGHTEN ASSOC., INC.
PROFESSIONAL ENGINEERING CORPORATION
d/b/a PMA ENGINEERING
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001400

MISSOURI PE COA
MO# 2017016721

03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

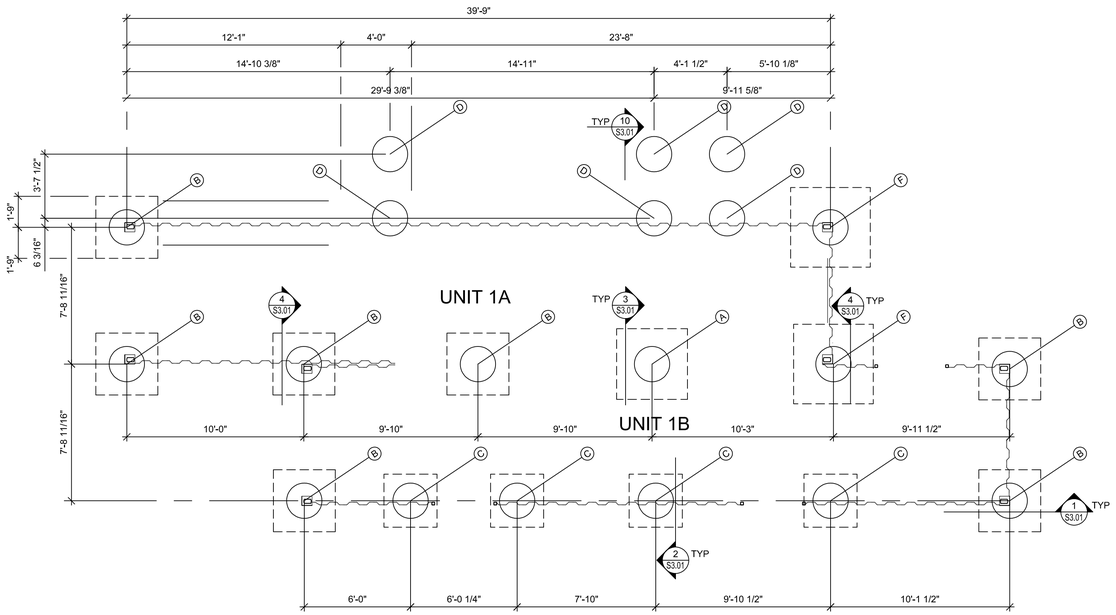
A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
GENERAL NOTES & TYPICAL DETAILS

S0.02



PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UNDER PIPING, DRAINLINES, DUCT BANKS, CONDUIT, ETC. PRIOR TO EXCAVATION FOR THE NEW BELOW-GRADE STRUCTURES.
2. REFER TO CIVIL CONTRACTOR'S DRAWINGS FOR BENCH MARK ELEVATION INFORMATION.
3. REFER TO THE ARCHITECTURAL DRAWINGS FOR UNIT LOCATION AND ORIENTATION INFORMATION.
4. REFER TO ARCH DRAWINGS FOR CONTAINER ELEVATION INFORMATION.
5. REFER TO THE GEOTECH REPORT FOR ADDITIONAL INFORMATION.

PLAN REFERENCE NOTES:

(A) 4'-0'x4'-0"x12" FOOTING WITH 2'-0" Ø PIER, FOOTING REINFORCING: (4) #5 BARS E.W.

(B) 3'-6"x3'-6"x12" FOOTING WITH 2'-0'Ø PIER, FOOTING REINFORCING: (3) #5 BARS E.W.

(C) 3'-0"x3'-0"x12" FOOTING WITH 2'-0'Ø PIER, FOOTING REINFORCING: (3) #5 BARS E.W.

(D) 2'-0"Ø PIER, STAIR AND HANDRAIL DESIGN SHALL BE A DEFERRED SUBMITTAL PER STRUCTURAL GENERAL NOTE 15.A.b ON SHEET S0.01

(E) 5'-0"x3'-0" FOOTING WITH 2'-6"x4'-0" PIER,

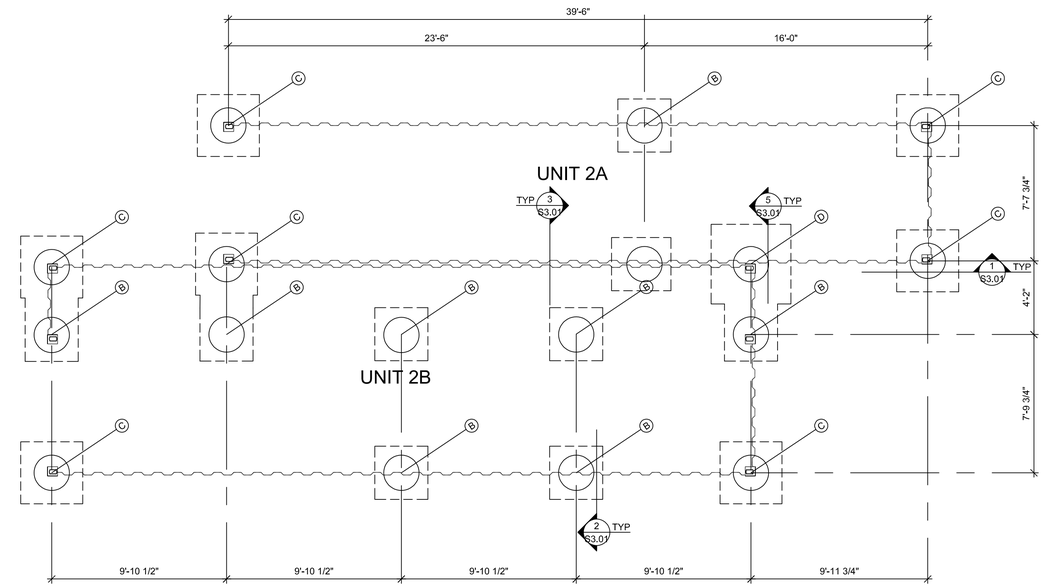
(F) 4'-6"x4'-6"x12" FOOTING WITH 2'-0"Ø PIER, FOOTING REINFORDING: (4) #5 BARS E.W.

PLAN - UNIT 1 FOUNDATIONS

1/4" = 1'-0"

1 / S1.01

NORTH



PLAN NOTES:

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3. REFER TO THE ARCHITECTURAL DRAWINGS FOR UNIT LOCATION AND ORIENTATION INFORMATION.
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PLAN REFERENCE NOTES:

(A) 4'-0'x4'-0"x12" FOOTING WITH 2'-0" Ø PIER FOOTING REINFORCING: (4) #5 BARS E.W.

(B) 3'-0"x3'-0"x12" FOOTING WITH 2'-0'Ø PIER FOOTING REINFORCING: (3) #5 BARS E.W.

(C) 3'-6"x3'-6"x12" FOOTING WITH 2'-0'Ø PIER, FOOTING REINFORCING: (3) #5 BARS E.W.

(D) 4'-6"x4'-6"x12" FOOTING WITH 2'-0"Ø PIER, FOOTING REINFORDING: (4) #5 BARS E.W.

PLAN - UNIT 2 FOUNDATIONS

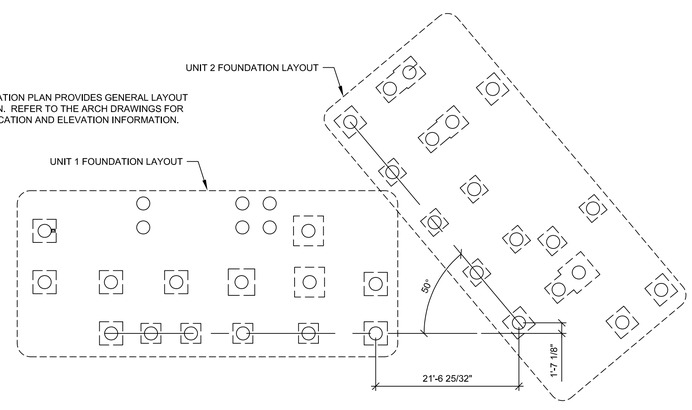
1/4" = 1'-0"

2 / S1.01

NORTH

NOTE:

THIS FOUNDATION PLAN PROVIDES GENERAL LAYOUT INFORMATION. REFER TO THE ARCH DRAWINGS FOR BUILDING LOCATION AND ELEVATION INFORMATION.



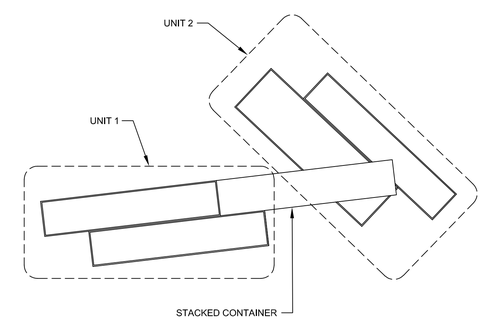
PLAN - FOUNDATION LAYOUT

3/32" = 1'-0"

3 / S1.01

NOT USED

4 / S1.01



KEY PLAN

N.T.S.

6 / S1.01

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MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE R. L. BADEN
NUMBER
PE-2012016721
PROFESSIONAL ENGINEER

03/31/2023

PROJECT #P23025

BOBS CONTAINERS
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DEL VALLE, TX 78617
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A PROJECT FOR:

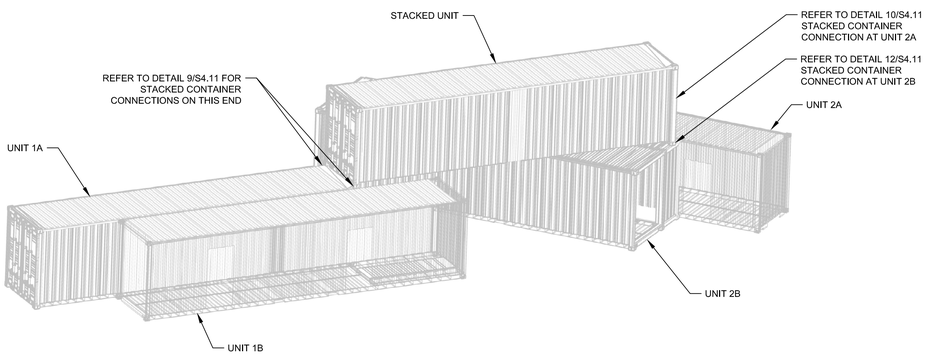
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
FOUNDATION PLAN & SECTIONS

S1.01



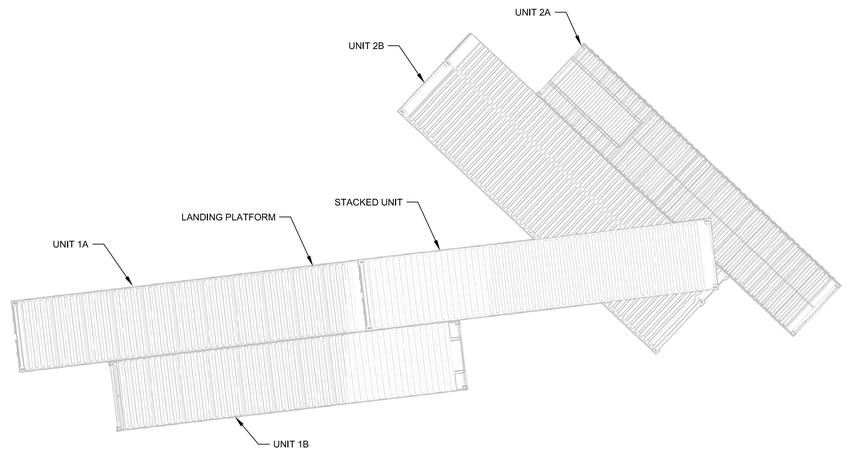
NOTES:

1. COORDINATE THE WEATHERPROOFING OF THE CONTAINER BUILDING SYSTEM SHALL BE COORDINATED BETWEEN THE ARCH & BOB'S CONTAINER.
2. REFER TO SECTIONS 3/S4.12, 4/S4.12, AND 6/S4.12 FOR CONTAINER CONNECTION DETAILS.
3. LOCATE CONTAINER BUILDING ASSEMBLY PER CIVIL DRAWING.

ISBU STRUCTURE ISOMETRIC VIEW

NTS

1 / S2.01



NOTES:

1. COORDINATE THE WEATHERPROOFING OF THE CONTAINER BUILDING SYSTEM SHALL BE COORDINATED BETWEEN THE ARCH & BOB'S CONTAINER.
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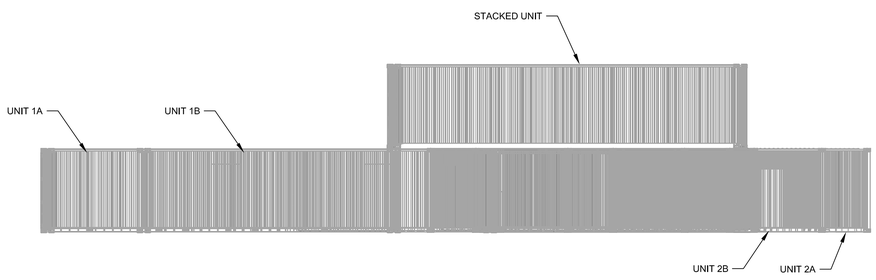
3. LOCATE CONTAINER BUILDING ASSEMBLY PER CIVIL DRAWING.

ISBU STRUCTURE PLAN

NTS

2 / S2.01

NORTH



NOTES:

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2. REFER TO SECTIONS 3/S4.12, 4/S4.12, AND 6/S4.12 FOR CONTAINER CONNECTION DETAILS.
3. LOCATE CONTAINER BUILDING ASSEMBLY PER CIVIL DRAWING.

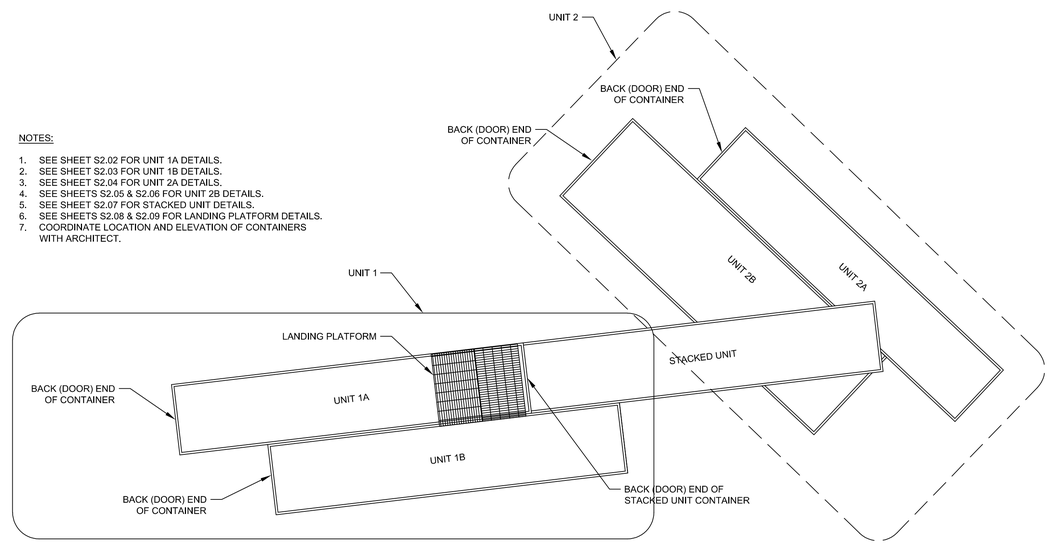
ISBU STRUCTURE ELEVATION

NTS LOOKING NORTH

3 / S2.01

NOTES:

1. SEE SHEET S2.02 FOR UNIT 1A DETAILS.
2. SEE SHEET S2.03 FOR UNIT 1B DETAILS.
3. SEE SHEET S2.04 FOR UNIT 2A DETAILS.
4. SEE SHEETS S2.05 & S2.06 FOR UNIT 2B DETAILS.
5. SEE SHEET S2.07 FOR STACKED UNIT DETAILS.
6. SEE SHEETS S2.08 & S2.09 FOR LANDING PLATFORM DETAILS.
7. COORDINATE LOCATION AND ELEVATION OF CONTAINERS WITH ARCHITECT.



KEY PLAN

NTS

4 / S2.01

NORTH

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STATE OF MISSOURI
VALERIE K. BADILI
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PE-2017016721
PROFESSIONAL ENGINEER

03/31/2023

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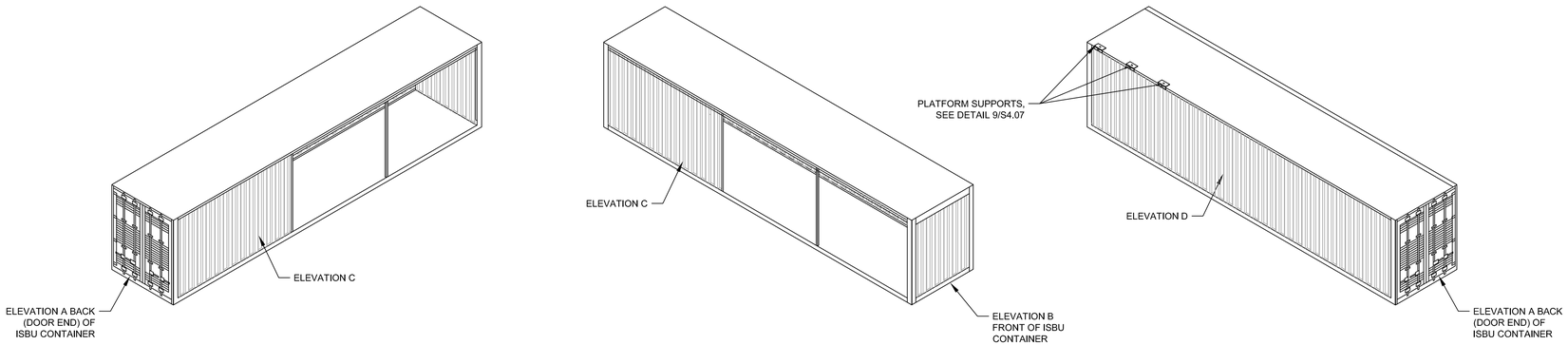
ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
BUILDING LAYOUT

S2.01



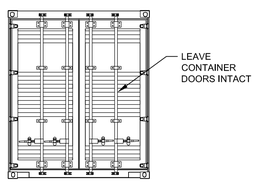
UNIT 1A

NTS

1 / S2.02

NOTE:

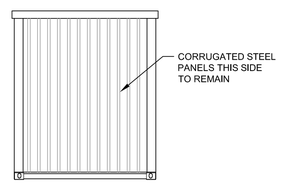
DOORS SHALL BE SECURELY LATCHED DURING TRANSPORT.



UNIT 1A - ELEVATION A

1/4"=1'-0"

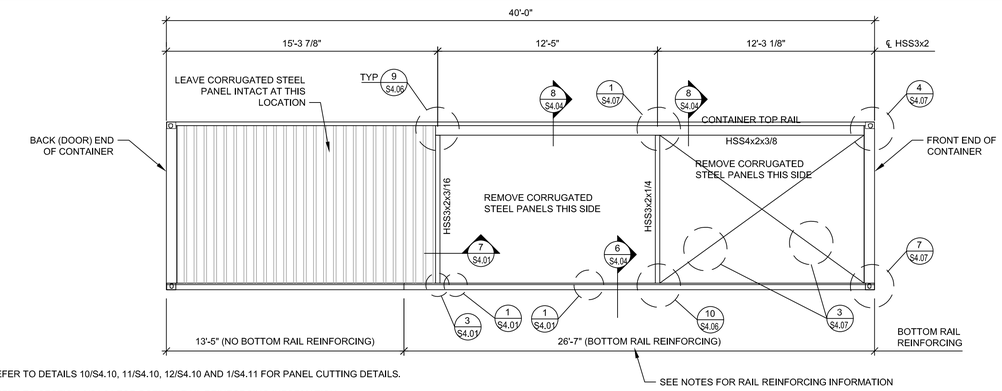
2 / S2.02



UNIT 1A - ELEVATION B

1/4"=1'-0"

3 / S2.02



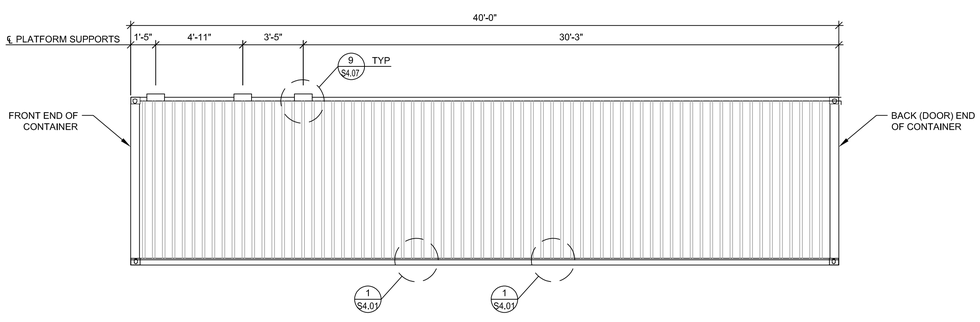
NOTES:

1. REFER TO DETAILS 10/S4.10, 11/S4.10, 12/S4.10 AND 1/S4.11 FOR PANEL CUTTING DETAILS.
2. REFER TO SECTION 6/S4.04 FOR BOTTOM RAIL REINFORCING INFORMATION.
3. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL REVIEW AND APPROVE OPENING SIZES AND LOCATIONS PRIOR TO FABRICATION.
4. TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU AND REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.

UNIT 1A - ELEVATION C

1/4"=1'-0"

4 / S2.02



UNIT 1A - ELEVATION D

1/4"=1'-0"

5 / S2.02

NOT USED

6 / S2.02

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STATE OF MISSOURI
VALERIE K. BADHU
NUMBER PE-2017016721
PROFESSIONAL ENGINEER
03/31/2023

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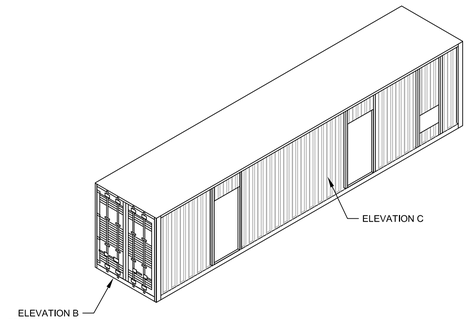
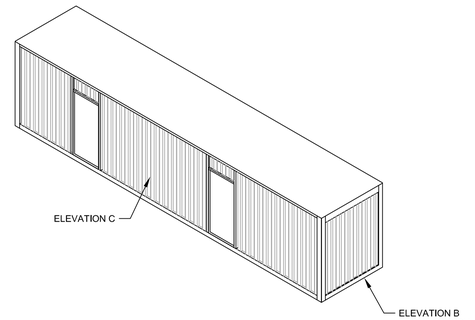
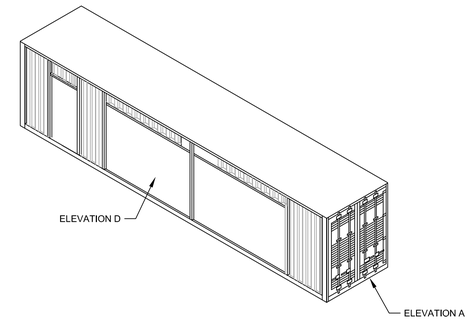
REVISION:

SHEET TITLE
UNIT 1A LAYOUT

S2.02







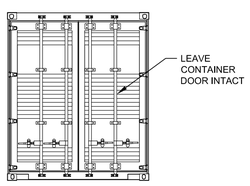
UNIT 1B

NTS

1 / S2.03

NOTE:

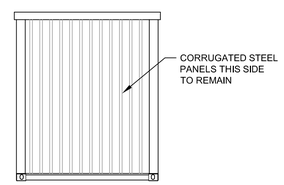
DOORS SHALL BE SECURELY LATCHED DURING TRANSPORT.



UNIT 1B - ELEVATION A

1/4"=1'-0"

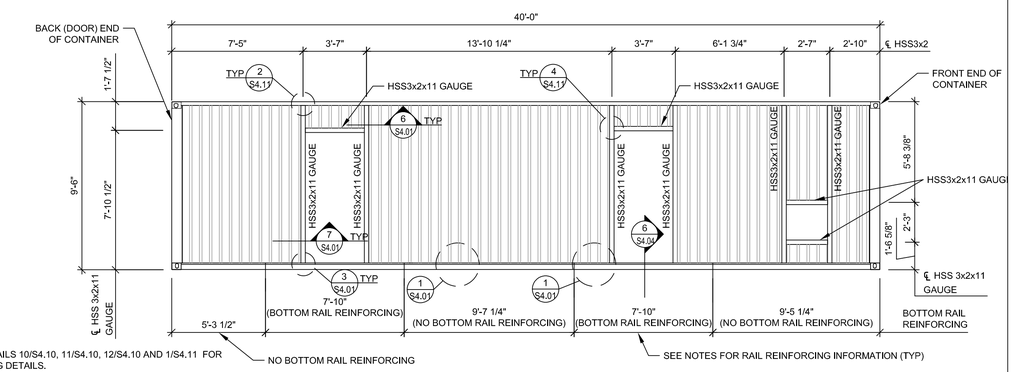
2 / S2.03



UNIT 1B - ELEVATION B

1/4"=1'-0"

3 / S2.03



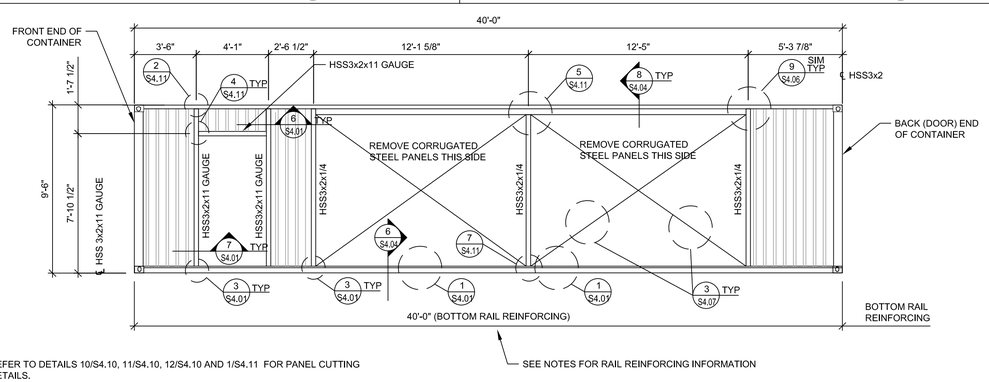
NOTES:

1. REFER TO DETAILS 10/S4.10, 11/S4.10, 12/S4.10 AND 1/S4.11 FOR PANEL CUTTING DETAILS.
2. REFER TO SECTION 6/S4.04 FOR BOTTOM RAIL REINFORCING INFORMATION.
3. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL REVIEW AND APPROVE OPENING SIZES AND LOCATIONS PRIOR TO FABRICATION.

UNIT 1B - ELEVATION C

1/4"=1'-0"

4 / S2.03



NOTES:

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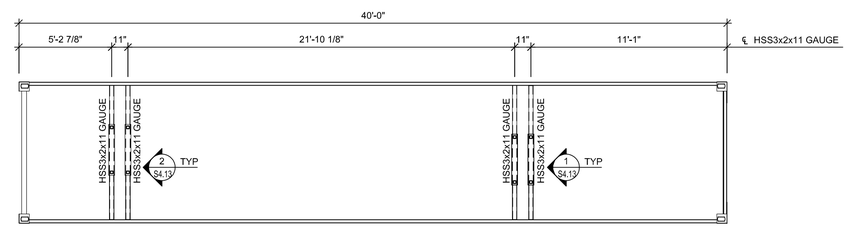
3. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL REVIEW AND APPROVE OPENING SIZES AND LOCATIONS PRIOR TO FABRICATION.
4. TEMPORARY BRACES SHALL REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.

UNIT 1B - ELEVATION D

1/4"=1'-0"

5 / S2.03



UNIT 1B - ROOF PLAN

1/4"=1'-0"

5 / S2.03

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LEE'S SUMMIT, MO 64015

ISSUE DATE:
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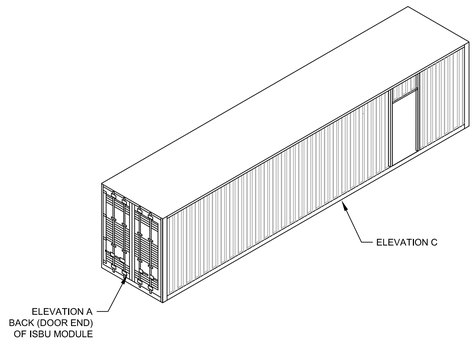
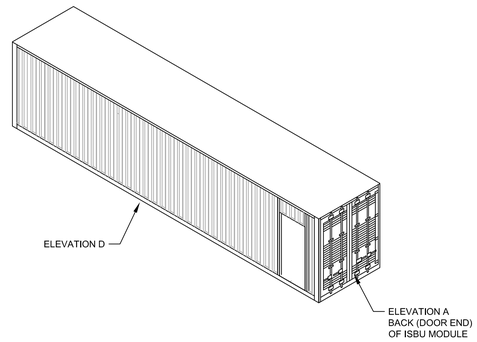
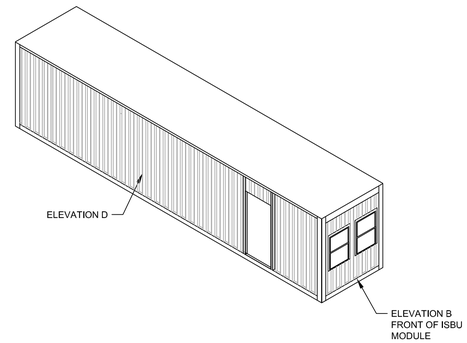
REVISION:

SHEET TITLE
UNIT 1B LAYOUT

S2.03







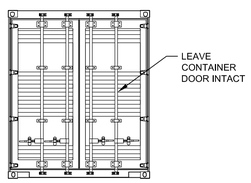
UNIT 2A

NTS

1 / S2.04

NOTE:

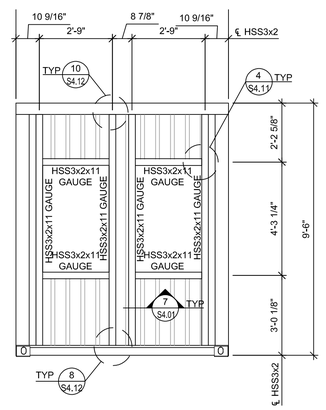
DOORS SHALL BE SECURELY LATCHED DURING TRANSPORT.



UNIT 2A - ELEVATION A

1/4"=1'-0"

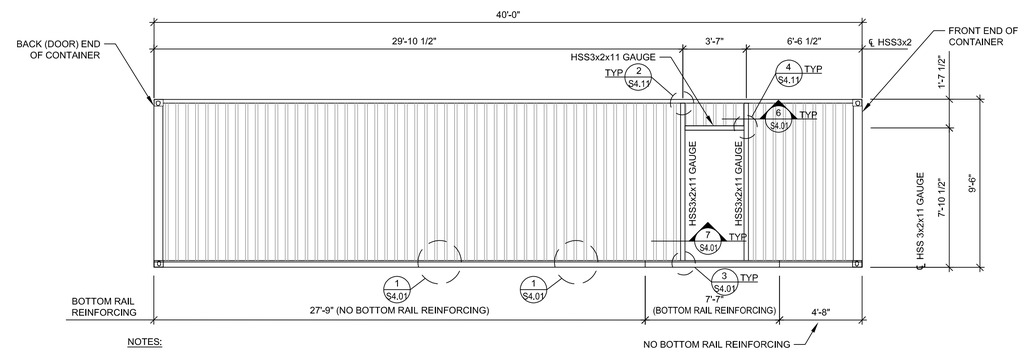
2 / S2.04



UNIT 2A - ELEVATION B

1/4"=1'-0"

3 / S2.04



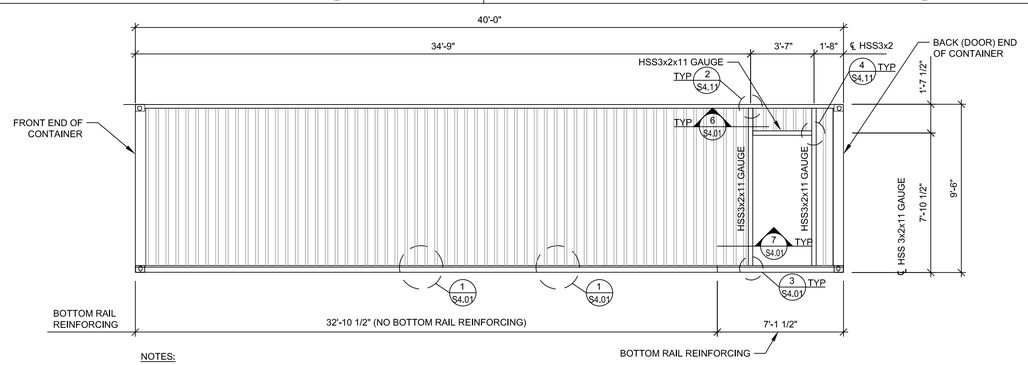
NOTES:

1. REFER TO DETAILS 10/S4.10, 11/S4.10, 12/S4.10 AND 1/S4.11 FOR PANEL CUTTING DETAILS.
2. REFER TO SECTION 6/S4.04 FOR BOTTOM RAIL REINFORCING INFORMATION.
3. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL REVIEW AND APPROVE OPENING SIZES AND LOCATIONS PRIOR TO FABRICATION.

UNIT 2A - ELEVATION C

1/4"=1'-0"

4 / S2.04



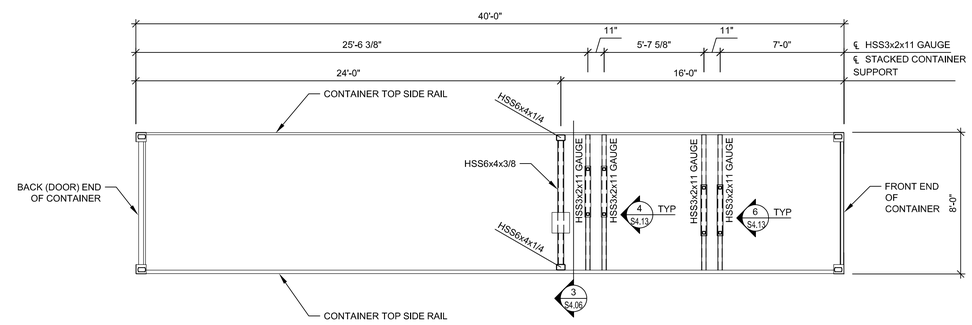
NOTES:

1. REFER TO DETAILS 10/S4.10, 11/S4.10, 3/S4.10 AND 1/S4.11 FOR PANEL CUTTING DETAILS.
2. REFER TO SECTION 6/S4.04 FOR BOTTOM RAIL REINFORCING INFORMATION.
3. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL REVIEW AND APPROVE OPENING SIZES AND LOCATIONS PRIOR TO FABRICATION.

UNIT 2A - ELEVATION D

1/4"=1'-0"

5 / S2.04



UNIT 2A - PLAN

1/4"=1'-0"

6 / S2.04

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MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE K. BAEHR
NUMBER
PE-2012016721
PROFESSIONAL ENGINEER
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:

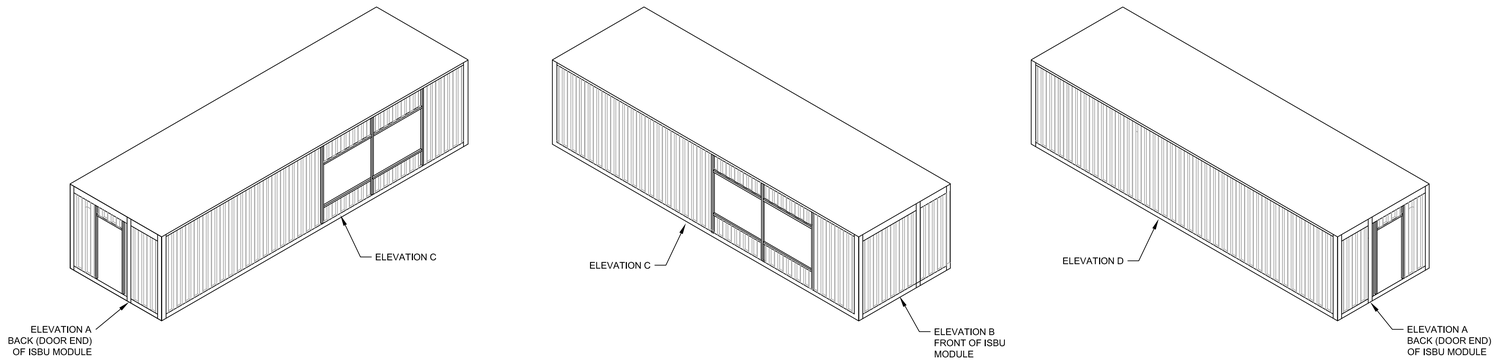
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
UNIT 2A LAYOUT

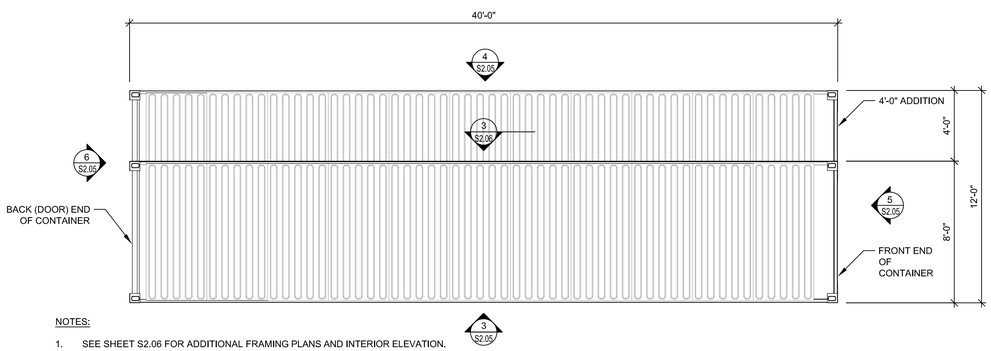
S2.04



UNIT 2B

NTS

1 / S2.05



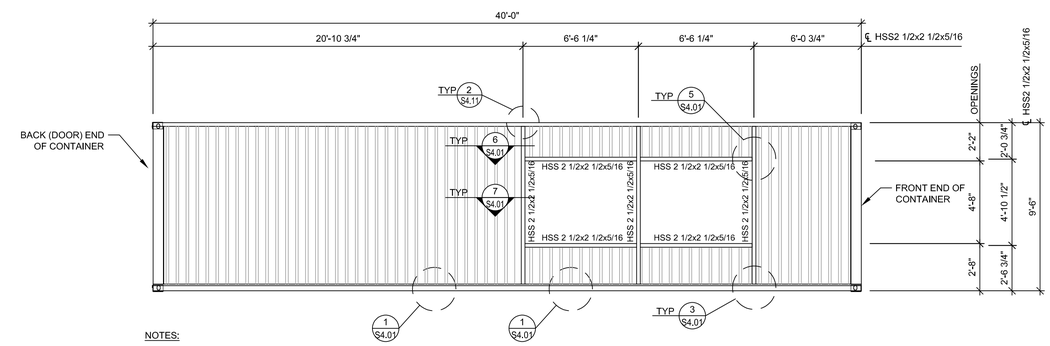
NOTES:

1. SEE SHEET S2.06 FOR ADDITIONAL FRAMING PLANS AND INTERIOR ELEVATION.
2. ACQUIRE NEW CONTAINER ROOF PANEL MATERIAL.

UNIT 2B - PLAN

1/4"=1'-0"

2 / S2.05



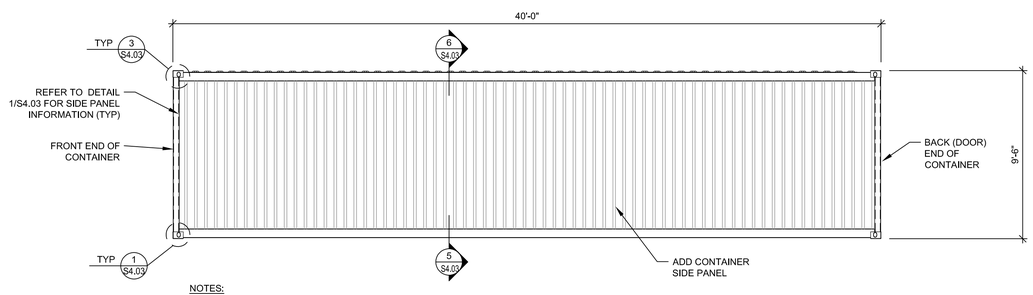
NOTES:

1. REFER TO DETAILS 10/S4.10, 11/S4.10, 12/S4.10 AND 1/S4.11 FOR PANEL CUTTING DETAILS.
2. REFER TO SECTION 6/S4.04 FOR BOTTOM RAIL REINFORCING INFORMATION.
3. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL REVIEW AND APPROVE OPENING SIZES AND LOCATIONS PRIOR TO FABRICATION.

UNIT 2B- ELEVATION C

1/4"=1'-0"

3 / S2.05



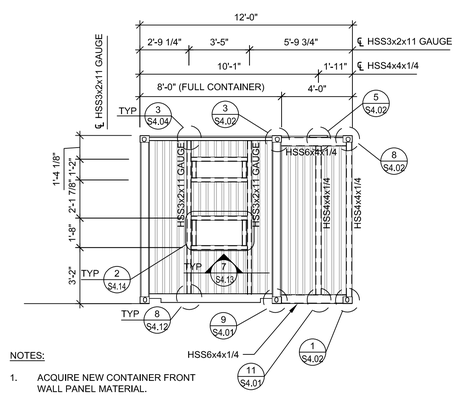
NOTES:

1. ACQUIRE NEW CONTAINER SIDE WALL PANEL MATERIAL.

UNIT 2B - ELEVATION D

1/4"=1'-0"

4 / S2.05



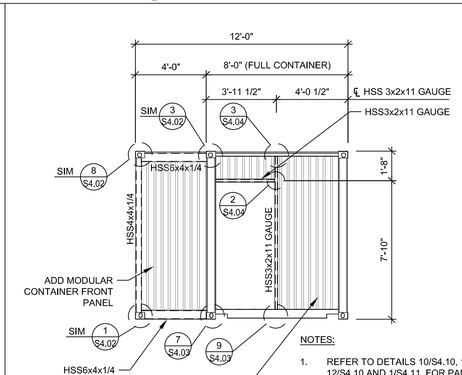
NOTES:

1. ACQUIRE NEW CONTAINER FRONT WALL PANEL MATERIAL.

UNIT 2B- ELEVATION B

1/4"=1'-0"

5 / S2.05



NOTES:

1. REFER TO DETAILS 10/S4.10, 11/S4.10, 12/S4.10 AND 1/S4.11 FOR PANEL CUTTING DETAILS.
2. ARCH / CONTAINER SUPPLIER/FABRICATOR SHALL REVIEW AND APPROVE OPENING SIZES AND LOCATIONS PRIOR TO FABRICATION.

UNIT 2B- ELEVATION B

1/4"=1'-0"

5 / S2.05

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STATE OF MISSOURI
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PROFESSIONAL ENGINEER
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:

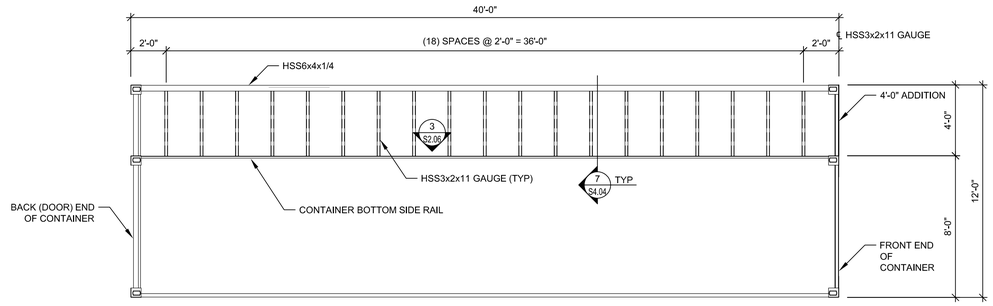
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
UNIT 2B LAYOUT

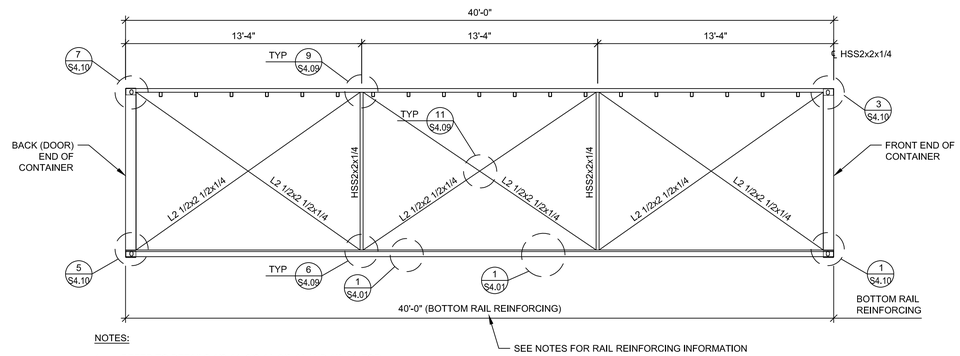
S2.05



UNIT 2B - FLOOR FRAMING PLAN

1/4" = 1'-0"

1 / S2.06



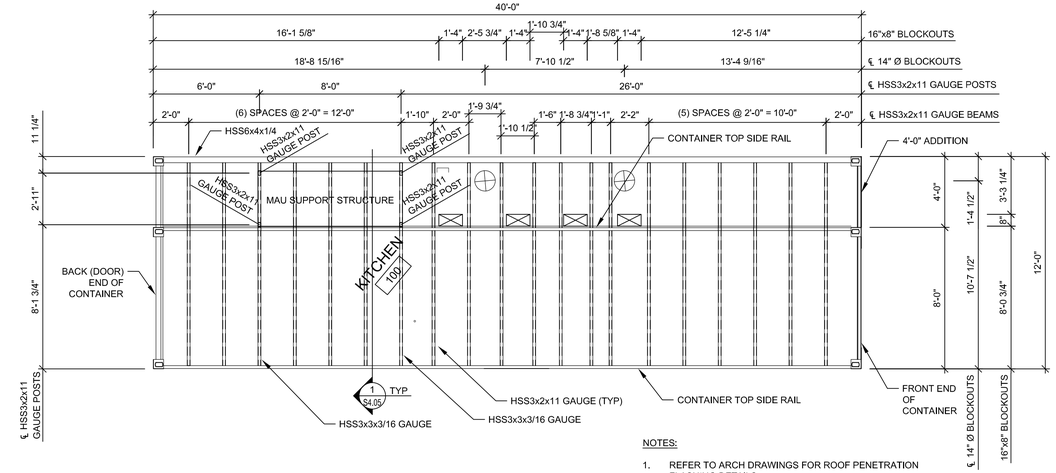
NOTES:

1. REFER TO DETAILS 1/S-14, 2/S-14, 3/S-14 AND 4/S-14 FOR PANEL CUTTING DETAILS.
2. REFER TO SECTION 6/S4.04 FOR RAIL REINFORCING INFORMATION.

UNIT 2B - INTERIOR ELEVATION

1/4"=1'-0"

3 / S2.06



NOTES:

1. REFER TO ARCH DRAWINGS FOR ROOF PENETRATION FLASHING DETAILS.
2. REFER TO PLAN 6/S4.05 FOR MAU SUPPORT STRUCTURE INFORMATION.
3. REFER TO DETAILS 9/S4.05 AND 10/S4.05 FOR ROOF PENETRATION REINFORCING INFORMATION.
4. MECH SUPPLIER SHALL COORDINATE DUCT PATH WITH PENETRATION LOCATIONS
5. COORDINATE ROOF PENETRATION SIZES AND LOCATIONS WITH MECH SUPPLIER.

UNIT 2B - ROOF FRAMING PLAN

1/4" = 1'-0"

2 / S2.06

NOT USED

3 / S2.06

NOT USED

5 / S2.06

NOT USED

6 / S2.06

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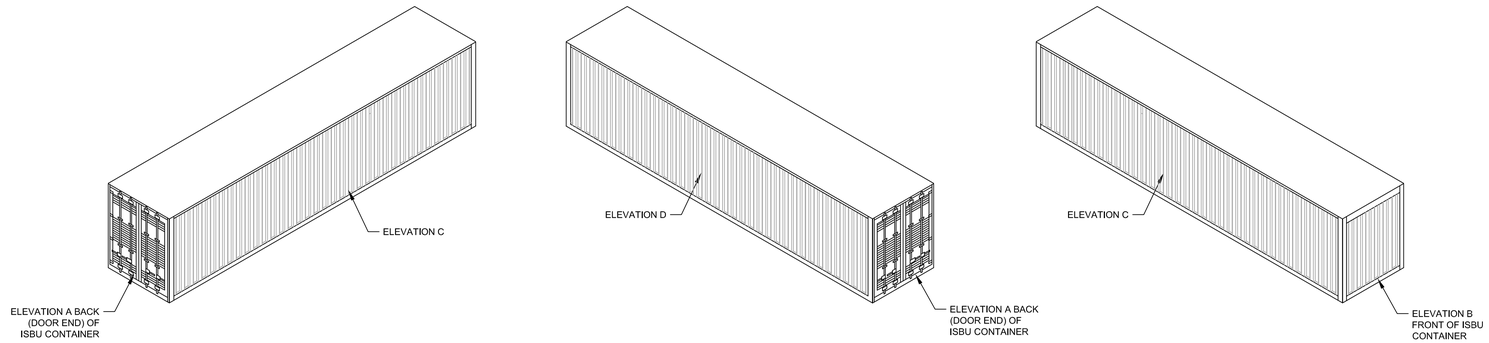
REVISION:

SHEET TITLE
UNIT 2B LAYOUT

S2.06



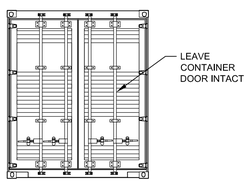
STACKED UNIT

NTS

1 / S2.07

NOTE:

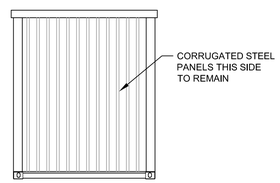
DOORS SHALL BE SECURELY
LATCHED DURING TRANSPORT.



STACKED UNIT - ELEVATION A

1/4"=1'-0"

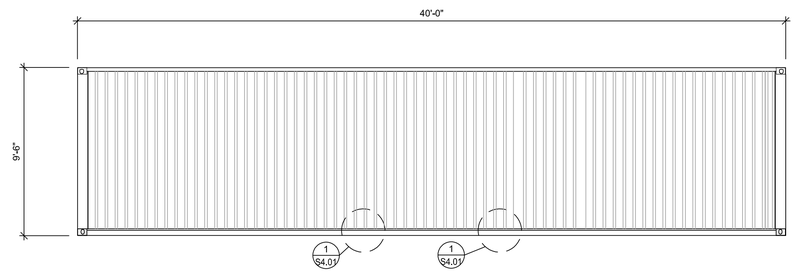
2 / S2.04



STACKED UNIT - ELEVATION B

1/4"=1'-0"

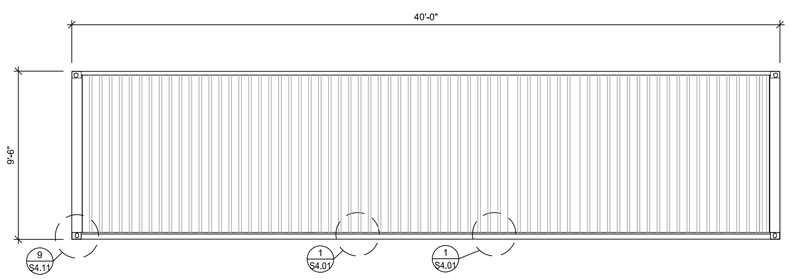
3 / S2.04



STACKED UNIT - ELEVATION C

1/4"=1'-0"

4 / S2.04



STACKED UNIT - ELEVATION D

1/4"=1'-0"

5 / S2.04

NOT USED

6 / S2.07

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PE-2017016721
PROFESSIONAL ENGINEER
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
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A PROJECT FOR:
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LEE'S SUMMIT, MO 64015

ISSUE DATE:
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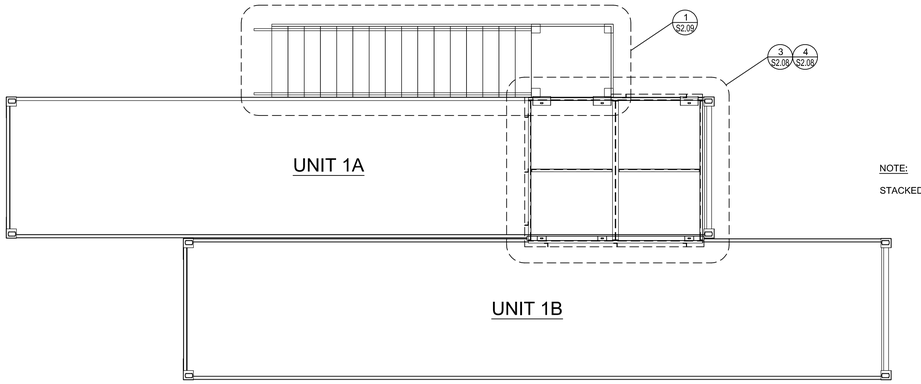
REVISION:

SHEET TITLE
STACKED UNIT
LAYOUT

S2.07



NOTE:

STACKED UNIT NOT SHOWN

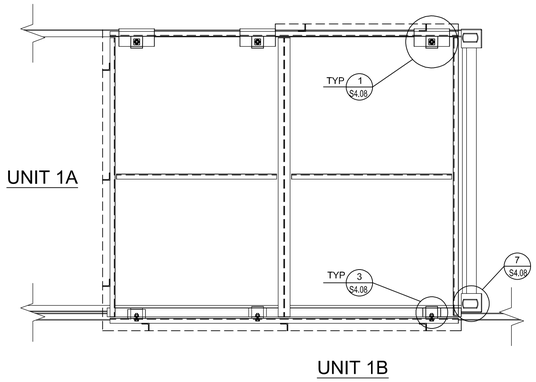
UNIT 1 PLAN

1/4" = 1'-0"

1 / S2.08

NOTES:

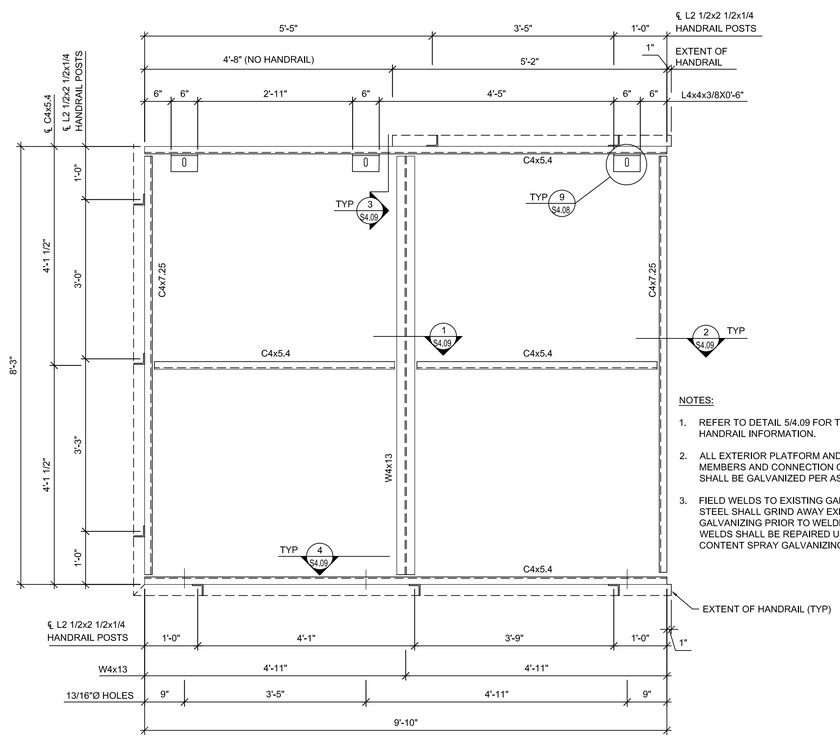
1. SEE DETAIL 3/S2.08 FOR PLATFORM DETAILS.
2. STACKED UNIT NOT SHOWN.
3. COORDINATE THE WEATHERPROOFING OF THE CONTAINER BUILDING SYSTEM SHALL BE COORDINATED BETWEEN THE ARCH & BOB'S CONTAINER.



TOP OF CONTAINER @ LANDING PLAN

1/2" = 1'-0"

2 / S2.08



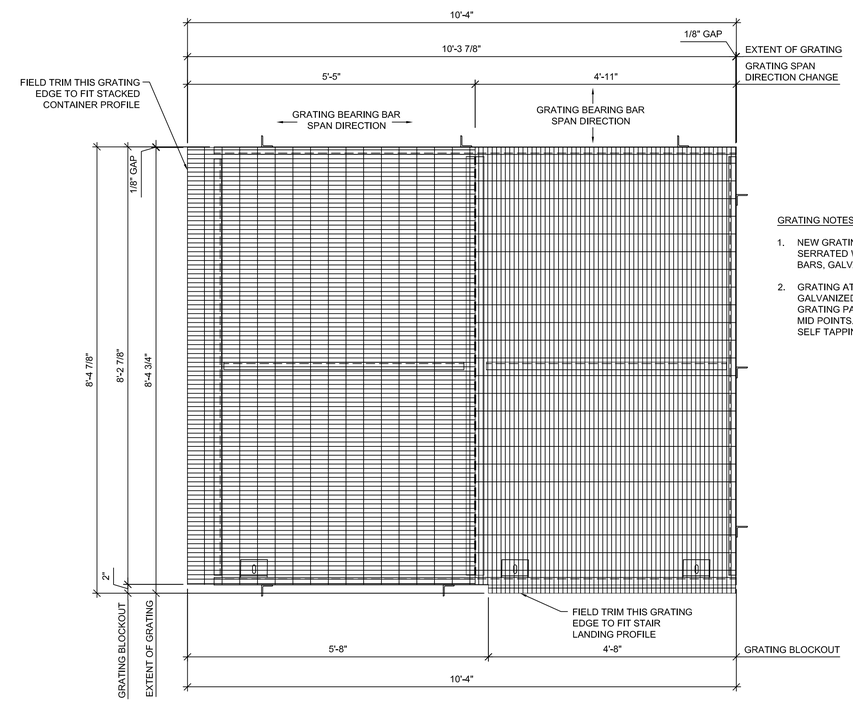
NOTES:

1. REFER TO DETAIL 5/4.09 FOR TYPICAL HANDRAIL INFORMATION.
2. ALL EXTERIOR PLATFORM AND HANDRAIL MEMBERS AND CONNECTION COMPONENTS SHALL BE GALVANIZED PER ASTM A123.
3. FIELD WELDS TO EXISTING GALVANIZED STEEL SHALL GRIND AWAY EXISTING ZINC GALVANIZING PRIOR TO WELDING. FIELD WELDS SHALL BE REPAIRED USING HIGH-ZINC CONTENT SPRAY GALVANIZING REPAIR PAINT.

LANDING FRAMING PLAN

3/4" = 1'-0"

3 / S2.08



GRATING NOTES:

1. NEW GRATING SHALL BE TYPE W-19-4 SERRATED WITH 1 1/4" x 3/16" BEARING BARS, GALVANIZED.
2. GRATING ATTACHMENT: SADDLE CLIPS, GALVANIZED, MINIMUM OF (1) CLIP PER GRATING PANEL CORNER AND (1) AT PANEL MID POINTS. ATTACH CLIPS WITH 1/4 "Ø SELF TAPPING SCREWS, GALVANIZED.

GRATING PLAN

3/4"=1'-0"

4 / S2.08

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PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
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A PROJECT FOR:

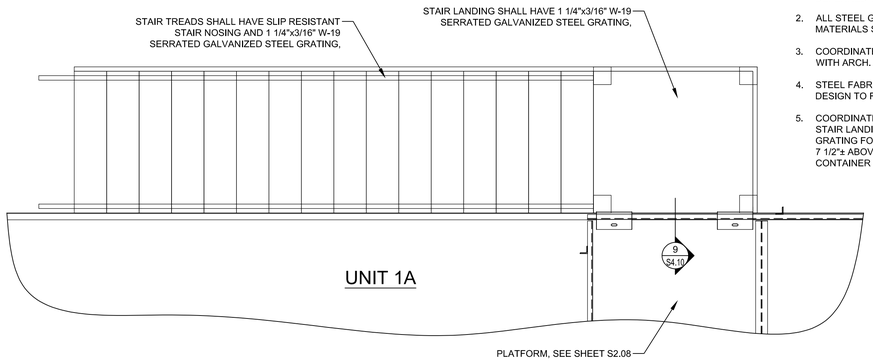
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
PLATFORM LAYOUT

S2.08



NOTES:

1. THE STAIRS AND STAIR LANDING DESIGN IS DEFERRED TO THE STEEL FABRICATOR.
2. ALL STEEL GRATING, MEMBERS AND CONNECTION MATERIALS SHALL BE GALVANIZED PER ASTM A123.
3. COORDINATE STAIR AND STAIR LANDING DESIGN WITH ARCH.
4. STEEL FABRICATOR SHALL PROVIDE CONNECTION DESIGN TO FOUNDATIONS BELOW.
5. COORDINATE THE BOTTOM OF STAIR AND TOP OF STAIR LANDING ELEVATIONS WITH ARCH. TOP OF GRATING FOR PLATFORM ON TOP OF CONTAINER IS 7 1/2"± ABOVE THE TOP SIDE RAIL OF THE CONTAINER BELOW.

PLAN - STAIRS (1 / S2.09)
1/2" = 1'-0"

NOT USED (2 / S2.09)

NOT USED (3 / S2.09)

NOT USED (3 / S2.09)

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LEE'S SUMMIT, MO 64015

ISSUE DATE:
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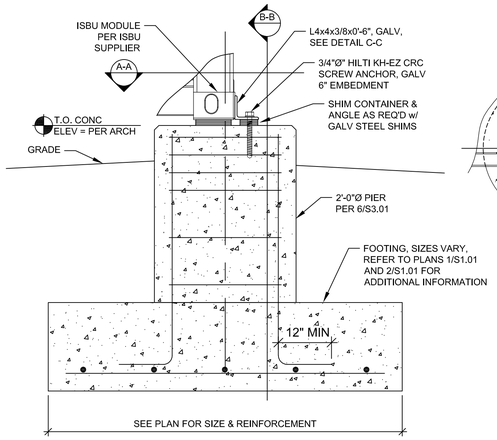
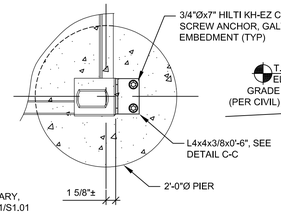
REVISION:

SHEET TITLE
STAIR LAYOUT

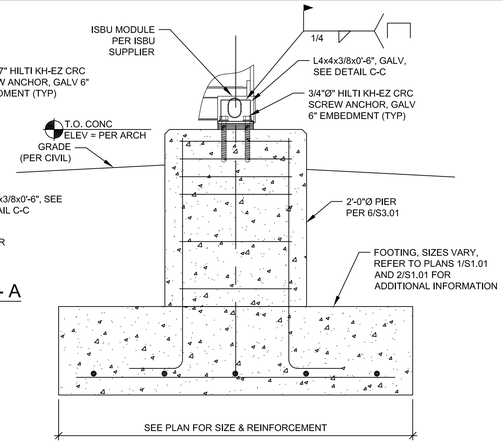
S2.09



FOUNDATION SECTION @ ISBU CORNERS 1 / S3.01
N.T.S.



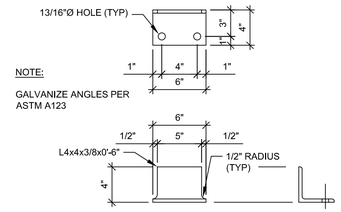
SECTION A - A



SECTION B-B

NOTE:

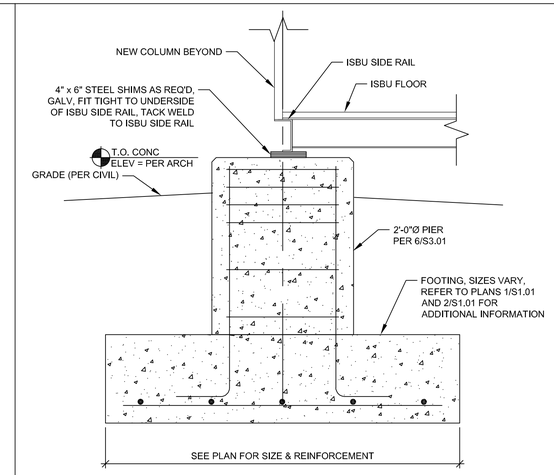
ANGLES SHALL BE GALVANIZED PER ASTM A123.



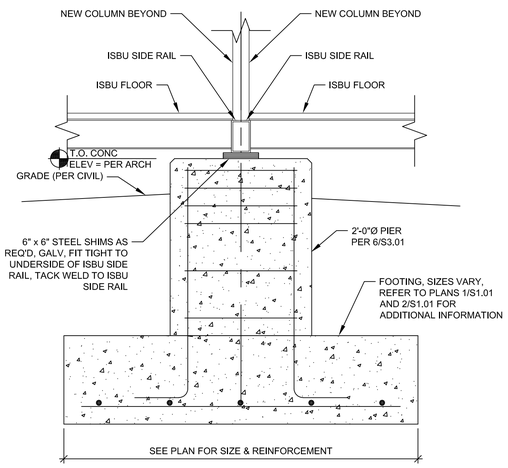
NOTE:

GALVANIZE ANGLES PER ASTM A123

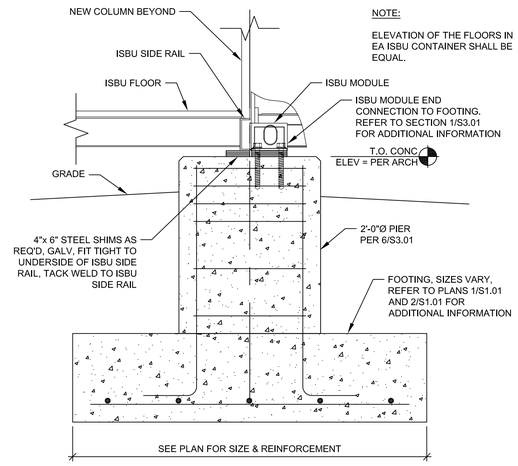
DETAIL C-C



FOUNDATION SECTION @ ISBU PERIMETER 2 / S3.01
N.T.S.



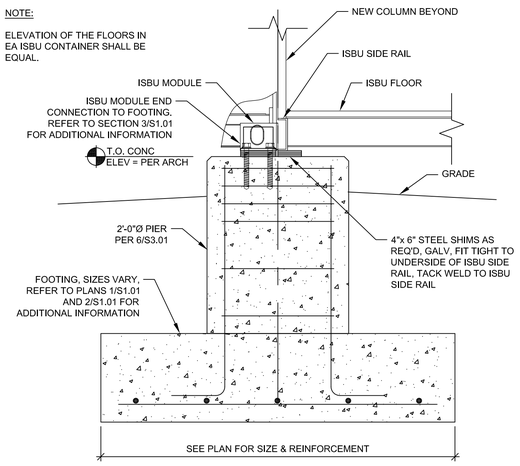
FOUNDATION SECTION @ JOINED ISBUS 3 / S3.01
N.T.S.



NOTE:

ELEVATION OF THE FLOORS IN EA ISBU CONTAINER SHALL BE EQUAL.

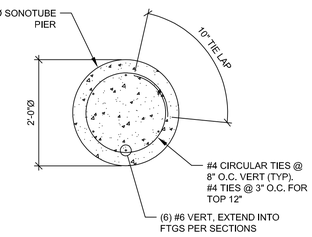
FOUNDATION SECTION 4 / S3.01
N.T.S.



NOTE:

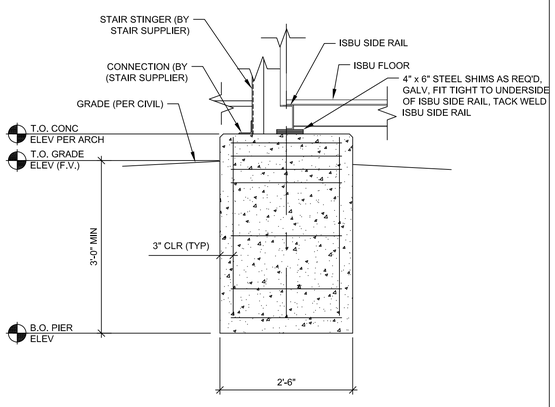
ELEVATION OF THE FLOORS IN EA ISBU CONTAINER SHALL BE EQUAL.

FOUNDATION SECTION 5 / S3.01
N.T.S.

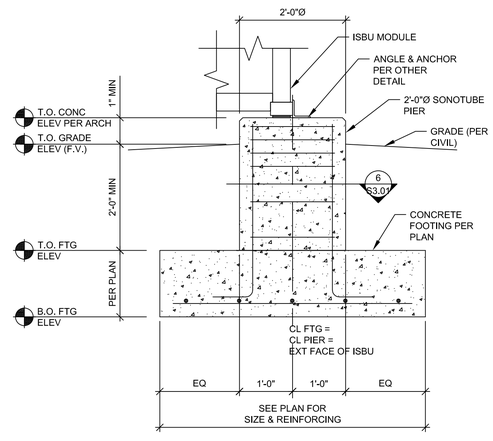


PIER PLAN DETAIL 6 / S3.01
N.T.S.

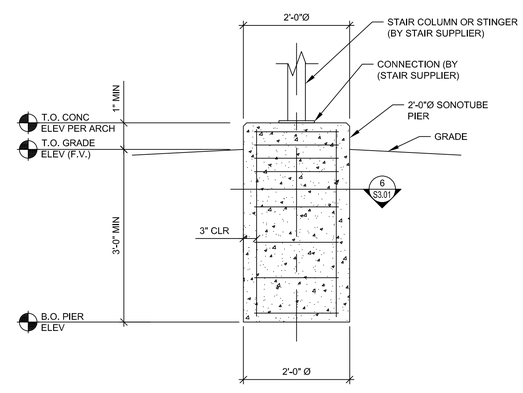
NOT USED 7 / S3.01



FOUNDATION SECTION 8 / S3.01
N.T.S.



FOUNDATION SECTION 9 / S3.01
3/4" = 1'-0"



PIER PLAN DETAIL 10 / S3.01
3/4" = 1'-0"

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PROFESSIONAL ENGINEERING CORPORATION
d/b/a PMA ENGINEERING
MISSOURI STATE REGISTRATION
OF AUTHORITY #001400

MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE K. BADHU
NUMBER PE-2017016721
PROFESSIONAL ENGINEER
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

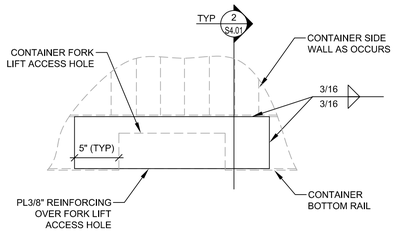
A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

REVISION:

SHEET TITLE
FOUNDATION SECTIONS

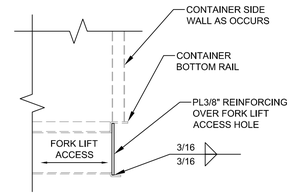
S3.01



ACCESS HOLE DETAIL

1 1/2" = 1'-0"

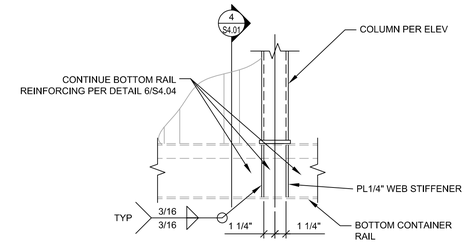
1 / S4.01



ACCESS HOLE SECTION

1 1/2" = 1'-0"

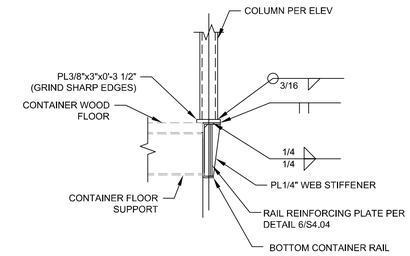
2 / S4.01



COLUMN @ EDGE OF CORREGATION DETAIL

1 1/2" = 1'-0"

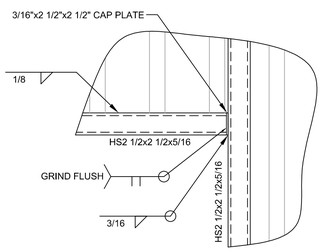
3 / S4.01



SECTION

1 1/2" = 1'-0"

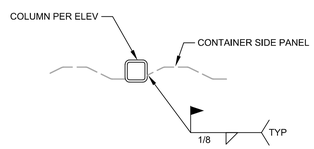
4 / S4.01



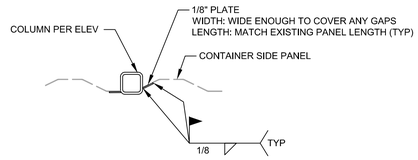
DETAIL

1 1/2" = 1'-0"

5 / S4.01



OPTION 1

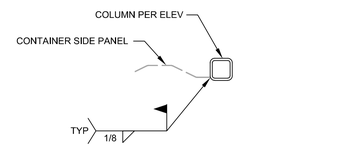


OPTION 2

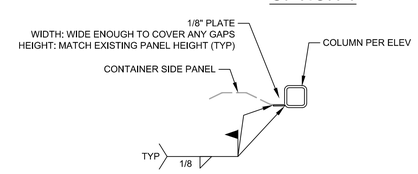
SECTION

1 1/2" = 1'-0"

6 / S4.01



OPTION 1



OPTION 2

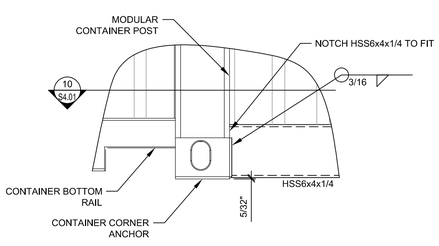
SECTION

1 1/2" = 1'-0"

7 / S4.01

NOT USED

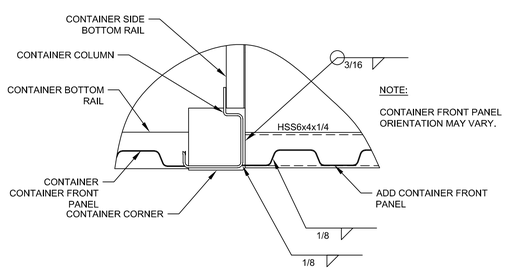
8 / S4.01



DETAIL

1 1/2" = 1'-0"

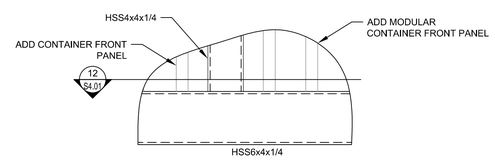
9 / S4.01



SECTION

1 1/2" = 1'-0"

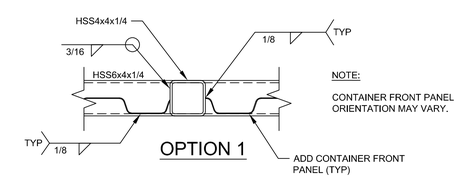
10 / S4.01



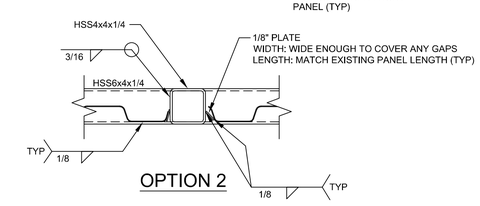
DETAIL

1 1/2" = 1'-0"

11 / S4.01



OPTION 1



OPTION 2

SECTION

1 1/2" = 1'-0"

12 / S4.01

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MISSOURI STATE CERTIFICATE OF AUTHORITY # (001400)

MISSOURI PE COA
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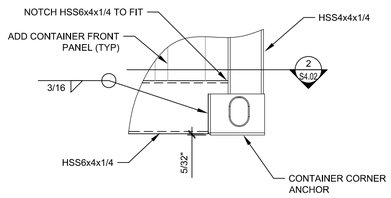
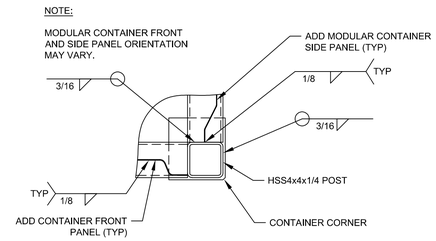
SECTIONS & DETAILS

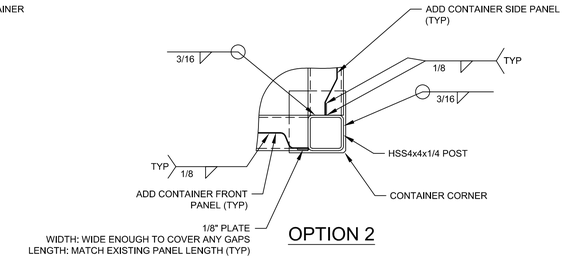
S4.01



DETAIL 1
1 1/2" = 1'-0"
S4.02

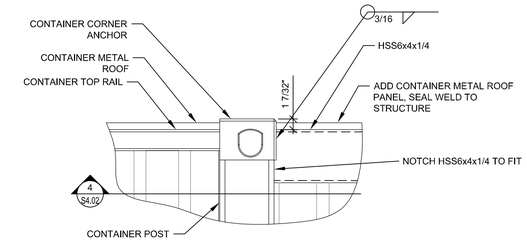


OPTION 1

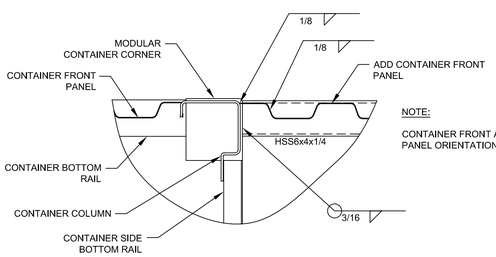


OPTION 2

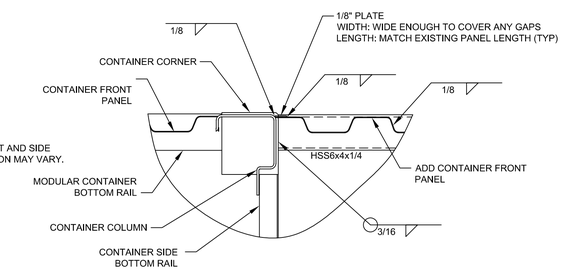
SECTION 2
1 1/2" = 1'-0"
S4.02



DETAIL 3
1 1/2" = 1'-0"
S4.01

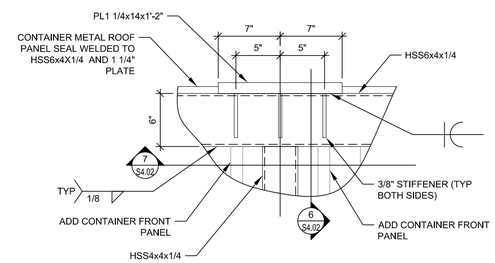


OPTION 1

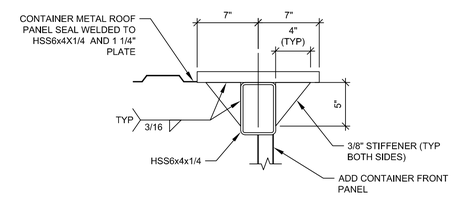


OPTION 2

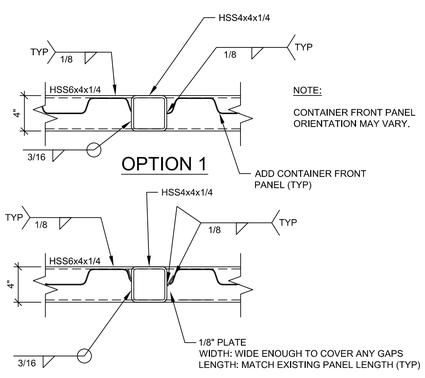
SECTION 4
1 1/2" = 1'-0"
S4.02



SECTION 5
1 1/2" = 1'-0"
S4.02



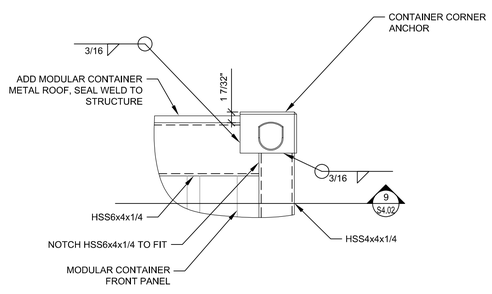
SECTION 6
1 1/2" = 1'-0"
S4.02



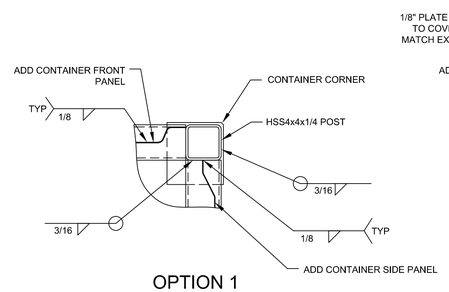
OPTION 1

OPTION 2

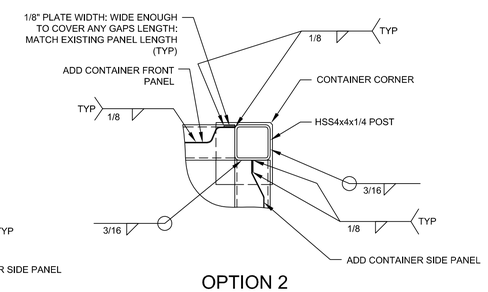
SECTION 7
1 1/2" = 1'-0"
S4.02



SECTION 8
1 1/2" = 1'-0"
S4.02



OPTION 1



OPTION 2

SECTION 9
1 1/2" = 1'-0"
S4.02

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MISSOURI STATE LICENSE (CERTIFICATE OF AUTHORITY # 001400)

MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE K. BADRI
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ISSUE DATE:
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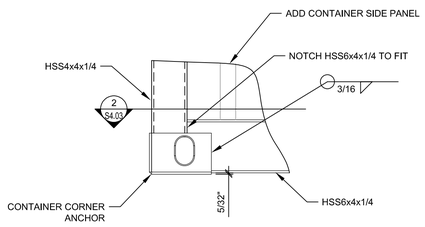
SECTIONS & DETAILS

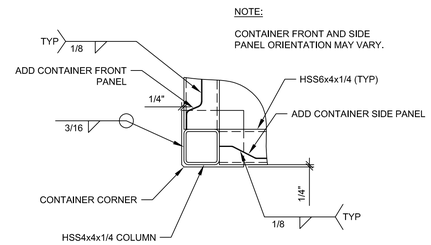
S4.02



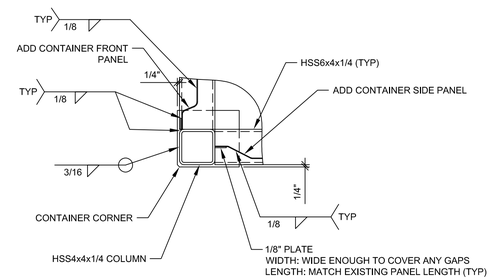
CONTAINER EXTENSION BASE DETAIL

1 1/2" = 1'-0"

1 / S4.03



OPTION 1

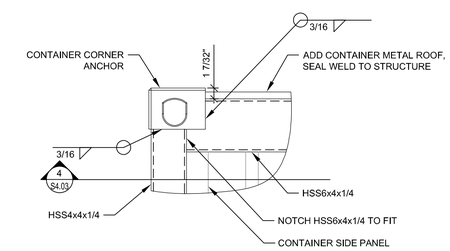


OPTION 2

SECTION

1 1/2" = 1'-0"

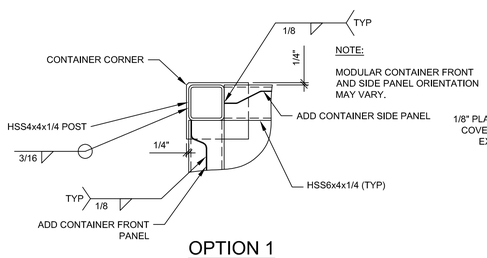
2 / S4.03



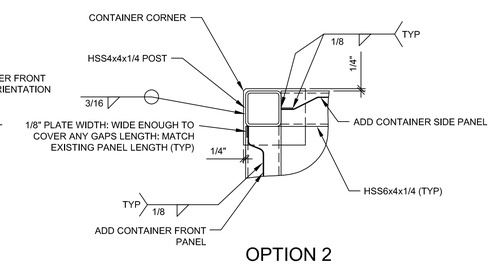
CONTAINER EXTENSION CAP DETAIL

1 1/2" = 1'-0"

3 / S4.03



OPTION 1

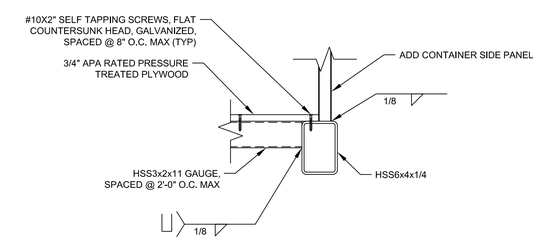


OPTION 2

SECTION

1 1/2" = 1'-0"

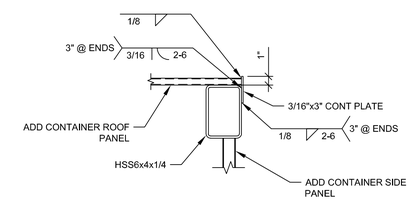
4 / S4.03



CONTAINER EXTENSION FLOOR SECTION

1 1/2" = 1'-0"

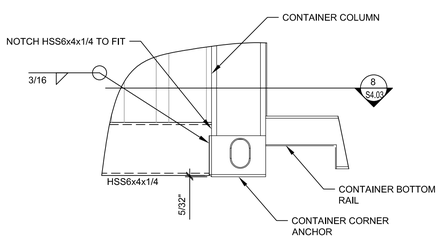
5 / S4.03



CONTAINER EXTENSION ROOF SECTION

1 1/2" = 1'-0"

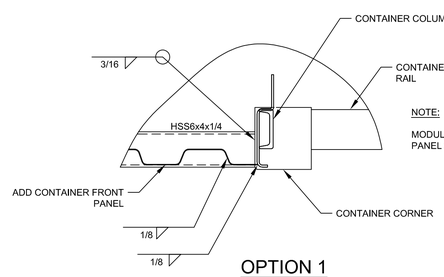
6 / S4.03



DETAIL

1 1/2" = 1'-0"

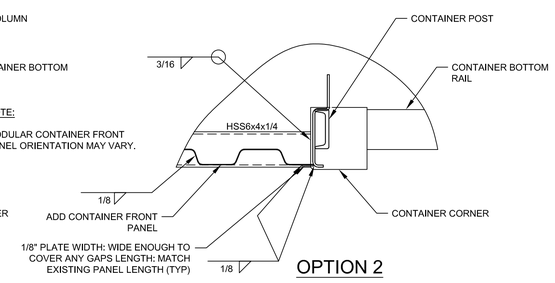
7 / S4.03



OPTION 1

NOTE:

MODULAR CONTAINER FRONT PANEL ORIENTATION MAY VARY.

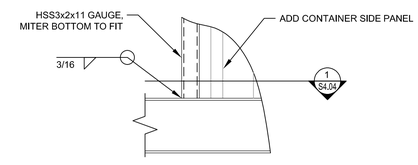


OPTION 2

SECTION

1 1/2" = 1'-0"

8 / S4.03



DETAIL

1 1/2" = 1'-0"

9 / S4.03

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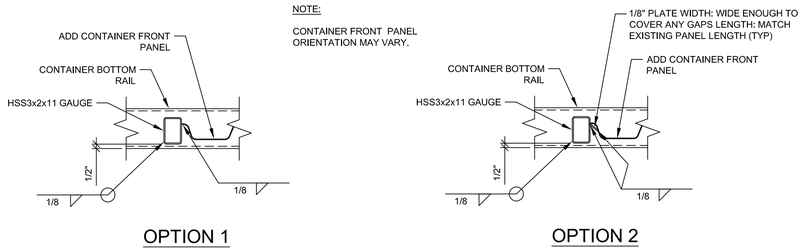
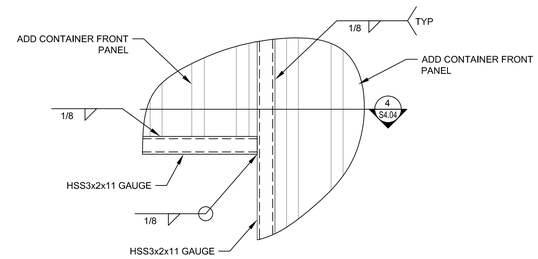
SECTIONS & DETAILS

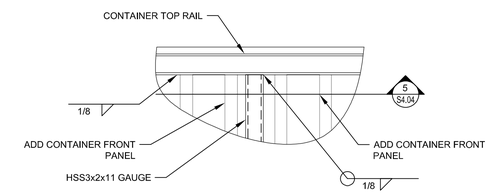
S4.03



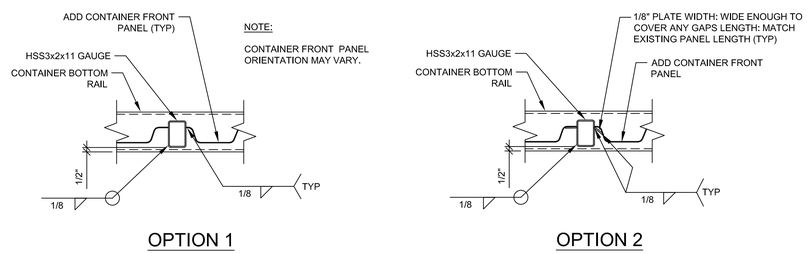
SECTION 1 / S4.04
1 1/2" = 1'-0"



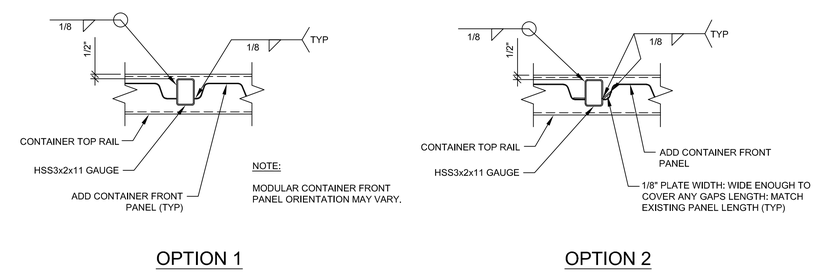
DETAIL 2 / S4.04
1 1/2" = 1'-0"



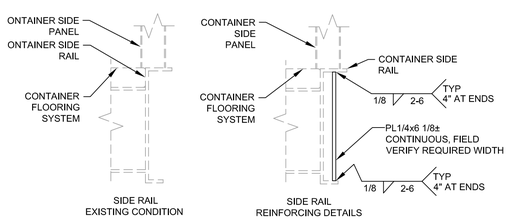
DETAIL 3 / S4.04
1 1/2" = 1'-0"



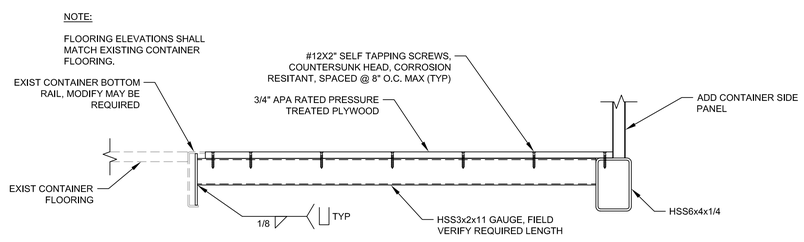
SECTION 4 / S4.04
1 1/2" = 1'-0"



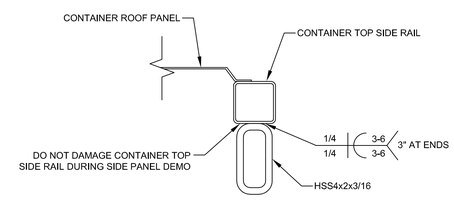
SECTION 5 / S4.04
1 1/2" = 1'-0"



SECTION 6 / S4.04
3" = 1'-0"



SECTION 7 / S4.04
3" = 1'-0"



TOP RAIL REINFORCING SECTION 8 / S4.04
3" = 1'-0"

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d/b/a PMA ENGINEERING
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001400

MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE K. BADER
NUMBER
PE-2012016721
PROFESSIONAL ENGINEER
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

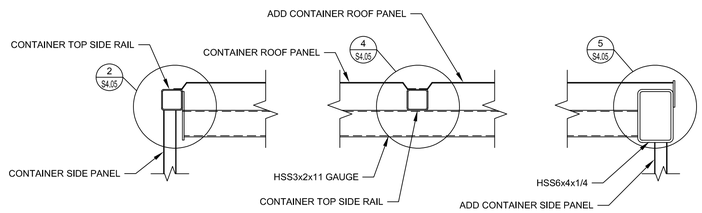
A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

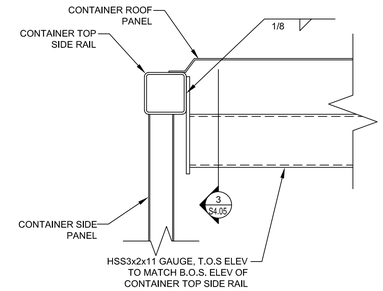
REVISION:

SHEET TITLE
SECTIONS & DETAILS

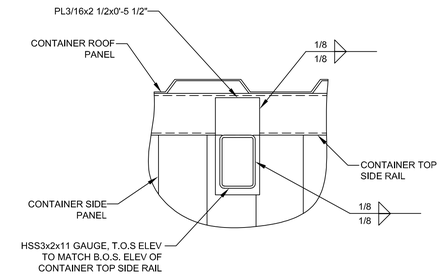
S4.04



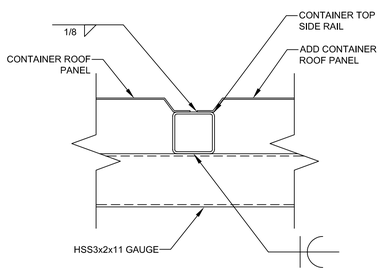
SECTION 1
1 1/2" = 1'-0"
S4.05



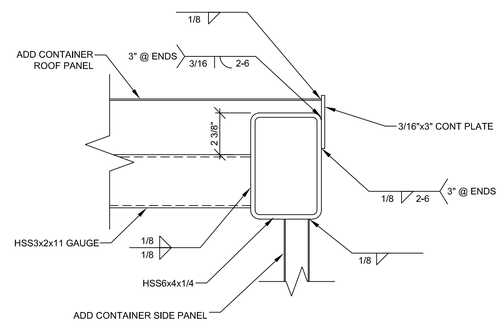
DETAIL 2
3" = 1'-0"
S4.05



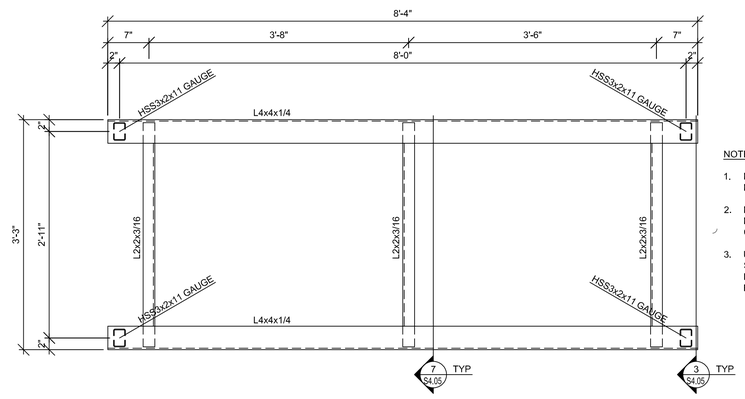
SECTION 3
3" = 1'-0"
S4.05



DETAIL 4
3" = 1'-0"
S4.05



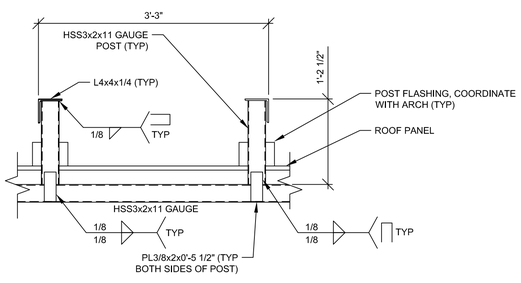
DETAIL 5
3" = 1'-0"
S4.05



NOTES:

1. MAU SUPPORT STEEL EXPOSED TO WEATHER MUST BE GALVANIZED PER ASTM A123.
2. MOUNT MAU TO THE STRUCTURE PER MANUFACTURER'S INSTRUCTIONS. COORDINATE WITH MECH CONTRACTOR.
3. UNIT MAY BE TOO TALL TO SHIP WITH MAU SUPPORT INSTALLED. COORDINATE WITH BOB'S CONTAINER. SUPPORT MAY NEED TO BE FIELD INSTALLED.

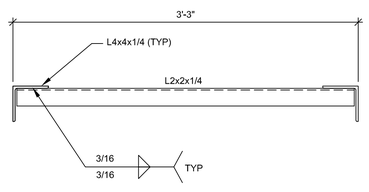
PLAN - MAU SUPP0RT STRUCTURE 6
1" = 1'-0"
S4.05



NOTES:

1. COORDINATE AND GET APPROVAL FOR SUPPORT HEIGHT WITH MECH CONTRACTOR.

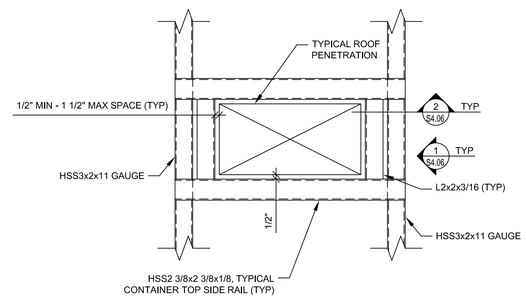
SECTION 7
3" = 1'-0"
S4.05



SECTION 8
1 1/2" = 1'-0"
S4.05

NOTES:

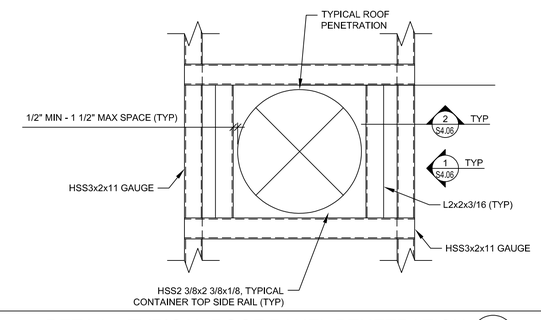
1. COORDINATE SIZE AND LOCATION OF ROOF PENETRATIONS WITH MECH CONTRACTOR.
2. COORDINATE ROOF PANEL FLASHING WITH ARCH.



DETAIL - TYPICAL ROOF PANEL PENETRATION 9
1 1/2" = 1'-0"
S4.05

NOTES:

1. COORDINATE SIZE AND LOCATION OF ROOF PENETRATIONS WITH MECH CONTRACTOR.
2. ROUND ROOF PENETRATIONS LARGE THAN 2" WILL REQUIRED ROOF PANEL REINFORCING PER THIS DETAIL.
3. COORDINATE ROOF PANEL FLASHING WITH ARCH.



DETAIL - TYPICAL ROOF PANEL PENETRATION 10
1 1/2" = 1'-0"
S4.05

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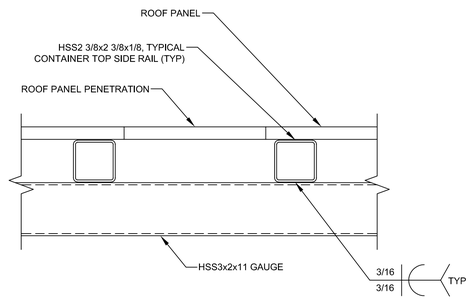
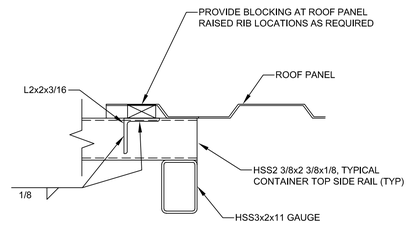
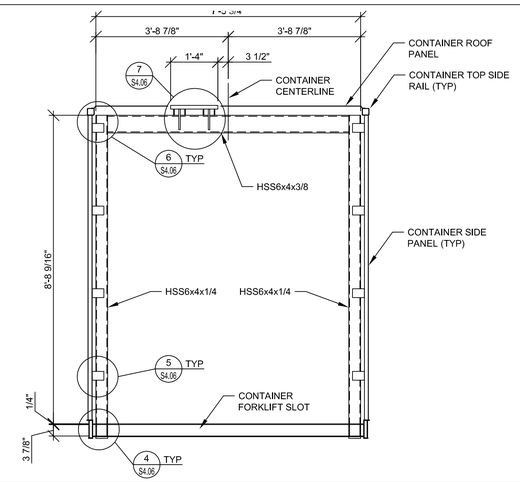
S4.05



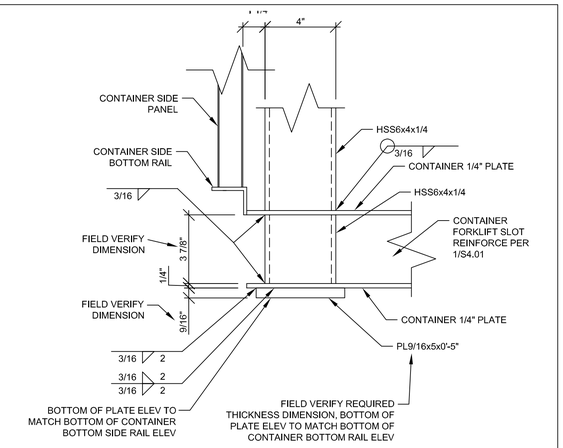
SECTION 1/S4.06
3" = 1'-0"



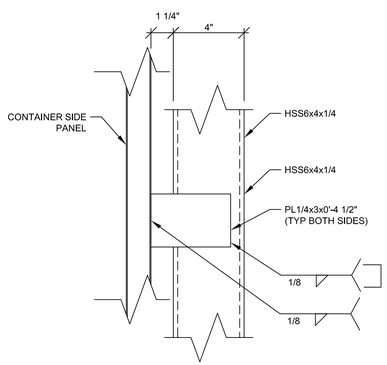
SECTION 2/S4.06
3" = 1'-0"



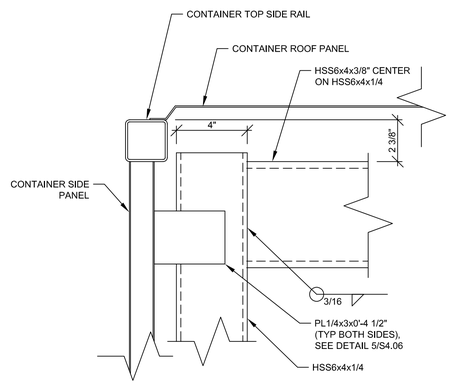
UNIT 2A INTERIOR ELEVATION 3/S4.06
3" = 1'-0"



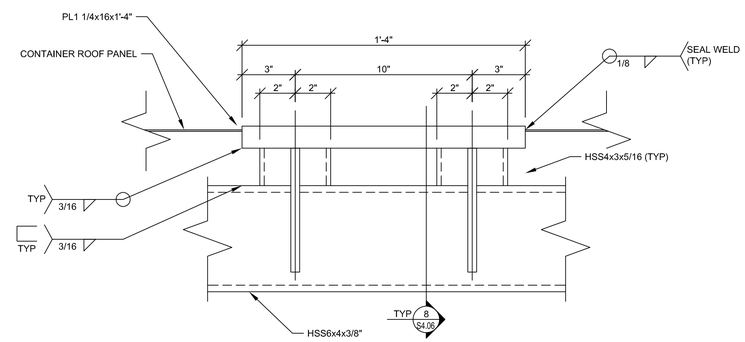
DETAIL 4/S4.06
3" = 1'-0"



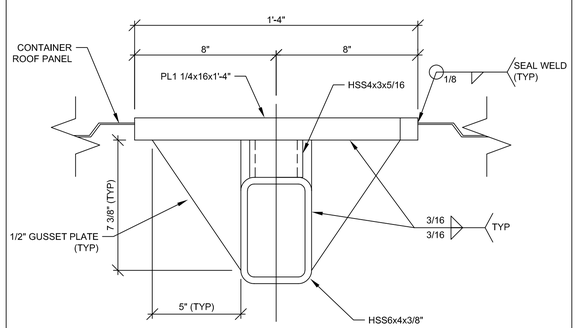
DETAIL 5/S4.06
3" = 1'-0"



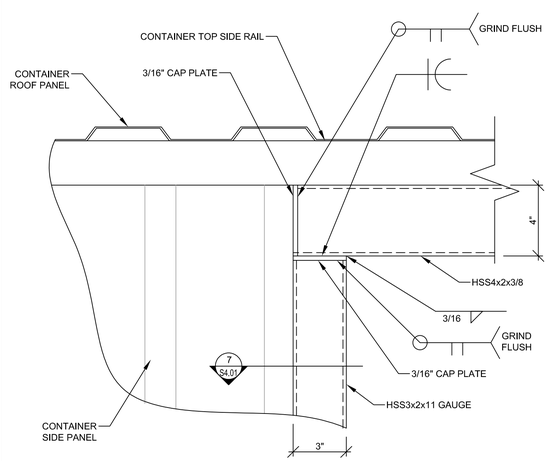
DETAIL 6/S4.06
3" = 1'-0"



STACKED UNIT CONNECTION DETAIL 7/S4.06
3" = 1'-0"



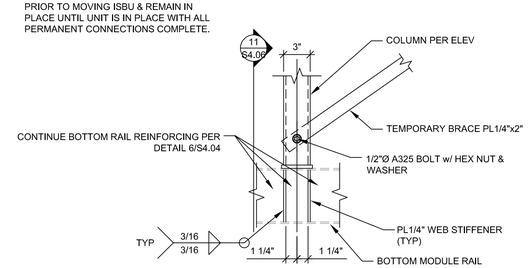
SECTION 8/S4.06
3" = 1'-0"



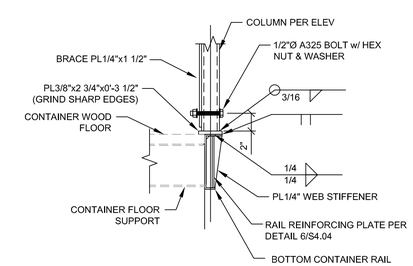
COLUMN CAP @ PANEL EDGE DETAIL 9/S4.06
3" = 1'-0"

NOTE:

TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



COLUMN BASE @ CENTER OF OPENING DETAIL 10/S4.06
1 1/2" = 1'-0"



SECTION 11/S4.06
1 1/2" = 1'-0"

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MISSOURI STATE CERTIFICATE OF AUTHORITY # (001400)

MISSOURI PE COA
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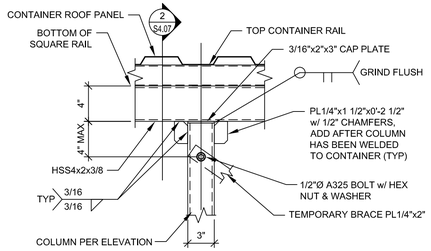
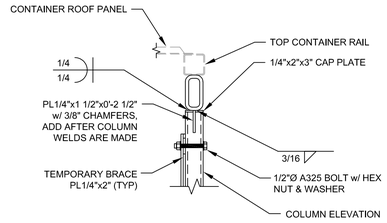
S4.06



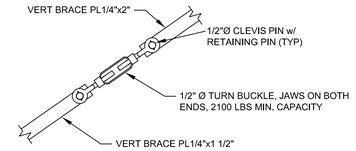
COLUMN TOP @ CENTER OF OPENING DETAIL (1 / S4.07)

3" = 1'-0"



SECTION (2 / S4.07)

3" = 1'-0"

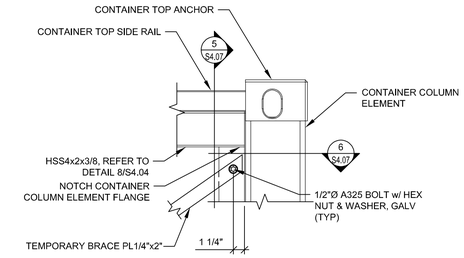


DETAIL (3 / S4.07)

3" = 1'-0"

NOTE:

TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.

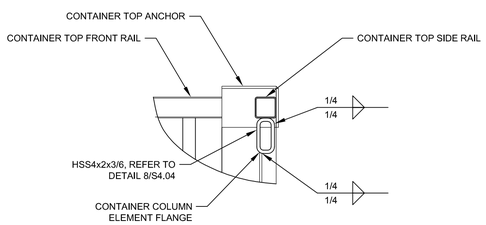


BRACE @ TOP PANEL CORNER DETAIL (4 / S4.07)

3" = 1'-0"

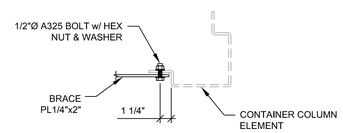
NOTE:

TEMPORARY BRACE NOT SHOWN FOR CLARITY.



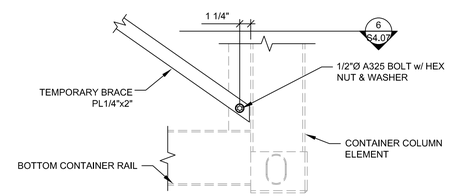
SECTION (5 / S4.07)

3" = 1'-0"



SECTION (6 / S4.07)

3" = 1'-0"



DETAIL (7 / S4.07)

3" = 1'-0"

NOTE:

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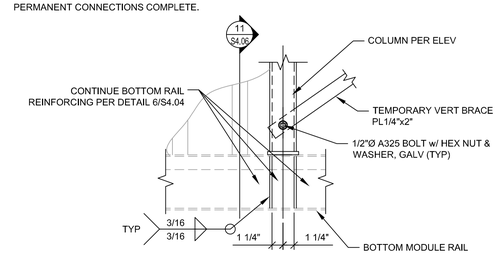
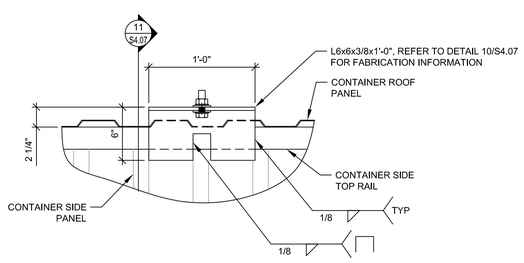


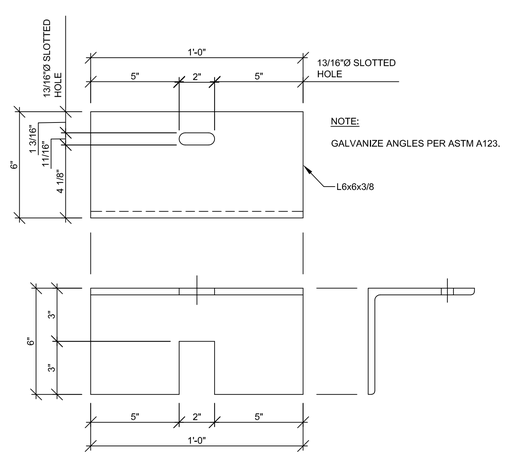
DETAIL (8 / S4.07)

1 1/2" = 1'-0"



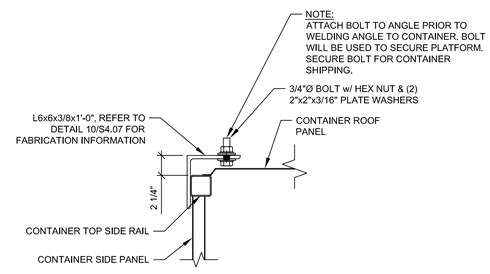
DETAIL (9 / S4.07)

1 1/2" = 1'-0"



DETAIL (10 / S4.07)

3" = 1'-0"



SECTION (11 / S4.07)

1 1/2" = 1'-0"

NOT USED (12 / S4.07)

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(361) 202-8508

A PROJECT FOR:

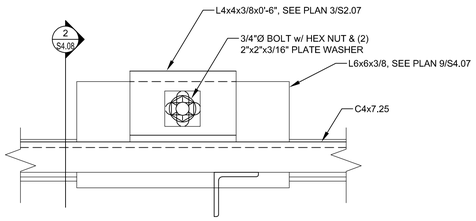
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

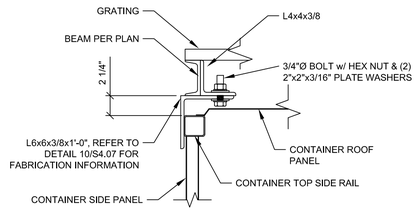
REVISION:

SHEET TITLE
SECTIONS & DETAILS

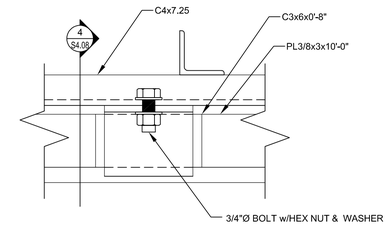
S4.07



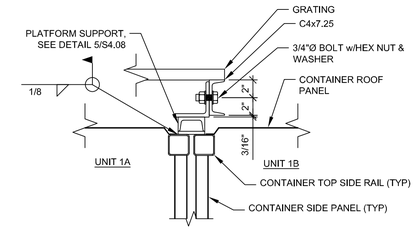
DETAIL 1/S4.08
3" = 1'-0"



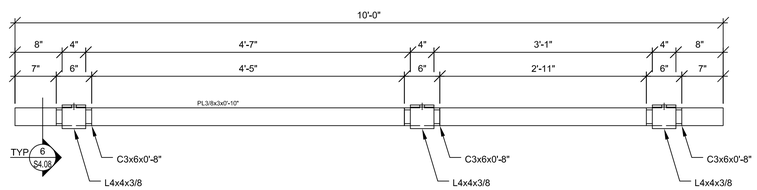
SECTION 1/S4.08
1 1/2" = 1'-0"



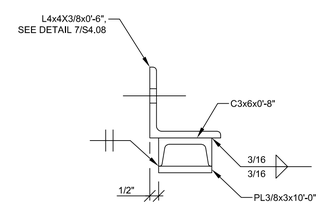
DETAIL 3/S4.08
3" = 1'-0"



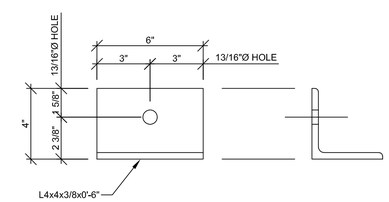
SECTION 4/S4.08
1 1/2" = 1'-0"



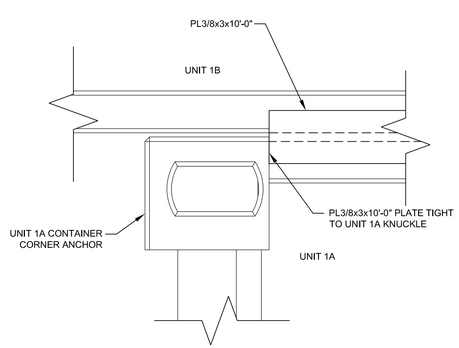
DETAIL 5/S4.08
1" = 1'-0"



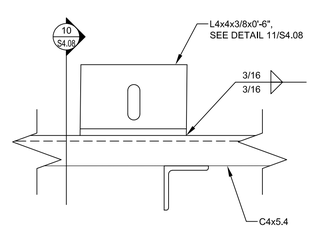
SECTION 6/S4.08
3" = 1'-0"



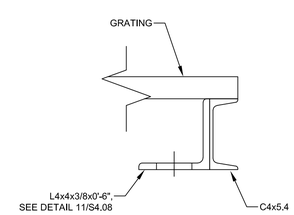
SECTION 7/S4.08
3" = 1'-0"



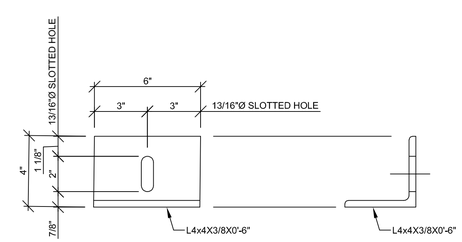
DETAIL 8/S4.08
3" = 1'-0"



DETAIL 9/S4.08
3" = 1'-0"



SECTION 10/S4.08
3" = 1'-0"



DETAIL 11/S4.08
3" = 1'-0"

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4717 Shawnee Mission Pkwy
Suite 100, Overland Park, KS 66202
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(PROJECT # P23025)

PAGE McNAGHTEN ASSOC., INC.
PROFESSIONAL ENGINEERING
CORPORATION
d/b/a PMA ENGINEERING
MISSOURI STATE CERTIFICATE
OF AUTHORITY # (001400)

MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE BRYANT BADHU
NUMBER
PE-2017016721
PROFESSIONAL ENGINEER
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
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1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
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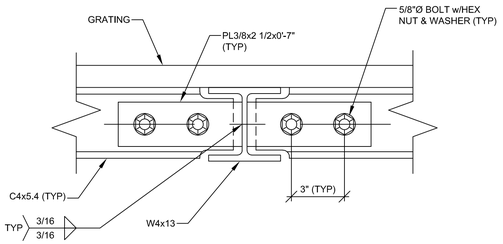
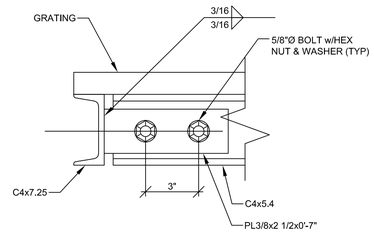
SHEET TITLE
SECTIONS &
DETAILS

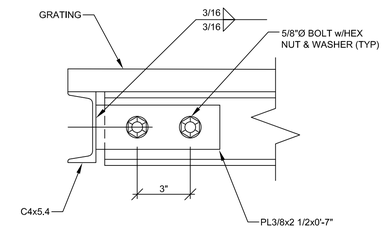
S4.08



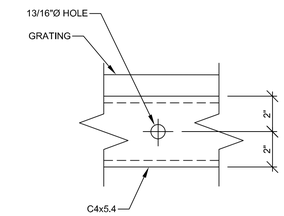
SECTION 1 / S4.09
3" = 1'-0"



SECTION 2 / S4.09
3" = 1'-0"



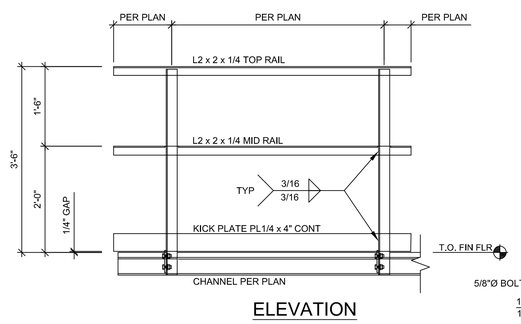
SECTION 3 / S4.09
3" = 1'-0"



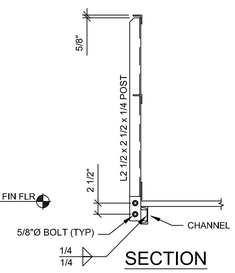
SECTION 4 / S4.09
3" = 1'-0"

NOTES:

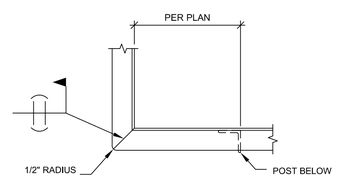
1. GRIND ALL SHARP EDGES SMOOTH



ELEVATION



SECTION

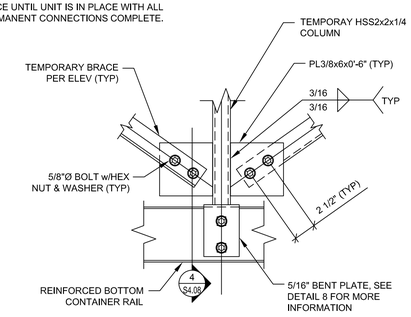


CORNER DETAIL

DETAIL 5 / S4.09
3/4" = 1'-0"

NOTE:

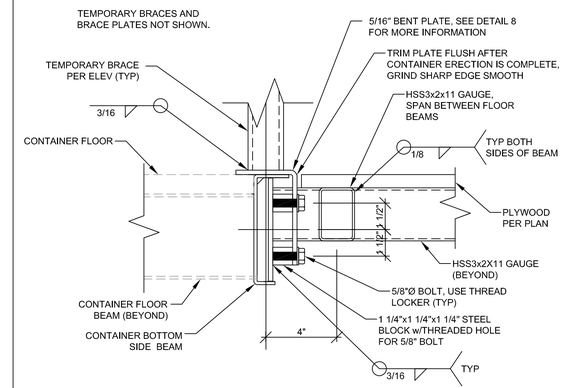
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



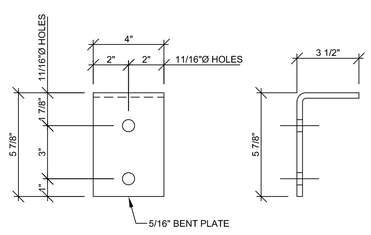
DETAIL 6 / S4.09
1 1/2" = 1'-0"

NOTE:

TEMPORARY BRACES AND BRACE PLATES NOT SHOWN.



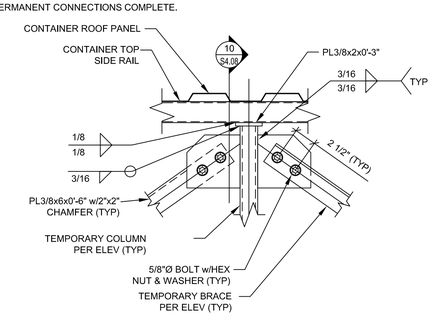
SECTION 7 / S4.09
3" = 1'-0"



DETAIL 8 / S4.09
3" = 1'-0"

NOTE:

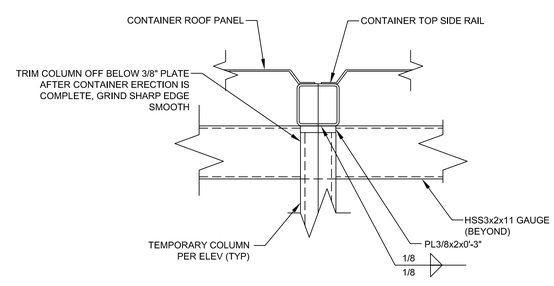
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



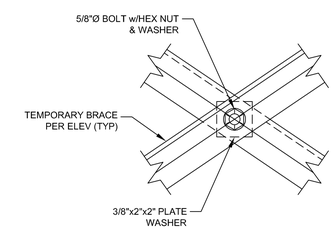
DETAIL 9 / S4.09
1 1/2" = 1'-0"

NOTE:

TEMPORARY BRACES AND BRACE PLATES NOT SHOWN FOR CLARITY.



SECTION 10 / S4.09
3" = 1'-0"



DETAIL 11 / S4.09
3" = 1'-0"

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dba PMA ENGINEERING
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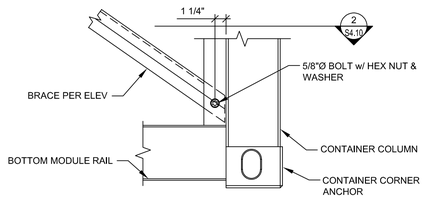
NOTE:

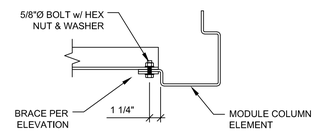
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



DETAIL 1 / S4.10
1 1/2" = 1'-0"

NOTE:

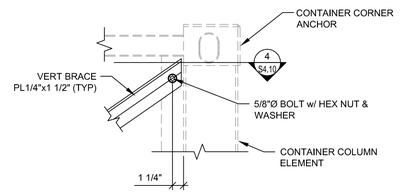
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



SECTION 1 / S4.10
1 1/2" = 1'-0"

NOTE:

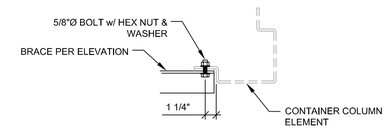
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



DETAIL 3 / S4.10
1 1/2" = 1'-0"

NOTE:

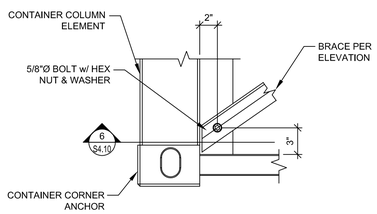
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



SECTION 4 / S4.10
1 1/2" = 1'-0"

NOTE:

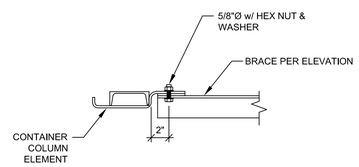
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



DETAIL 5 / S4.10
1 1/2" = 1'-0"

NOTE:

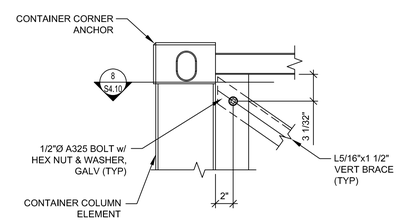
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



SECTION 6 / S4.10
1 1/2" = 1'-0"

NOTE:

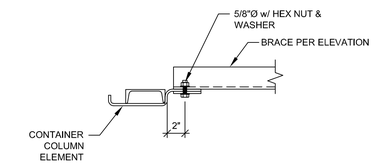
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



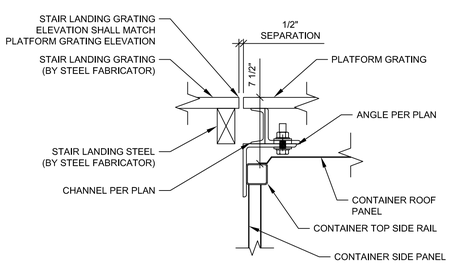
DETAIL 7 / S4.10
1 1/2" = 1'-0"

NOTE:

TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



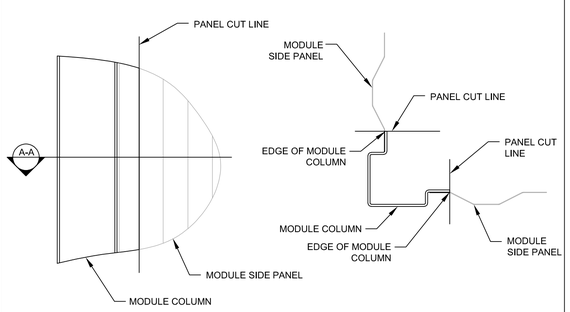
SECTION 8 / S4.10
1 1/2" = 1'-0"



SECTION 9 / S4.10
1 1/2" = 1'-0"

NOTES:

1. DO NOT DAMAGE CONTAINER COLUMN.
2. GRIND SHARP EDGES SMOOTH.

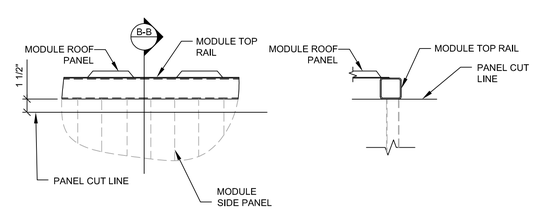


ELEVATION SECTION A-A

DETAIL - SIDE PANEL CUT @ FRONT COLUMN 10 / S4.10
1 1/2" = 1'-0"

NOTES:

1. DO NOT DAMAGE CONTAINER TOP RAIL.
2. GRIND SHARP EDGES SMOOTH.

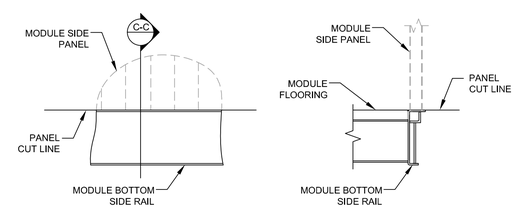


ELEVATION SECTION B-B

DETAIL - SIDE PANEL CUT @ TOP RAIL 11 / S4.10
1 1/2" = 1'-0"

NOTES:

1. DO NOT DAMAGE CONTAINER BOTTOM RAIL.
2. GRIND SHARP EDGES SMOOTH.



ELEVATION SECTION C-C

DETAIL - SIDE PANEL CUT @ BOTTOM RAIL 12 / S4.10
1 1/2" = 1'-0"

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Suite 100, Overland Park, KS 66202
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MISSOURI STATE CERTIFICATE OF AUTHORITY # 001400

MISSOURI PE COA
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ISSUE DATE:
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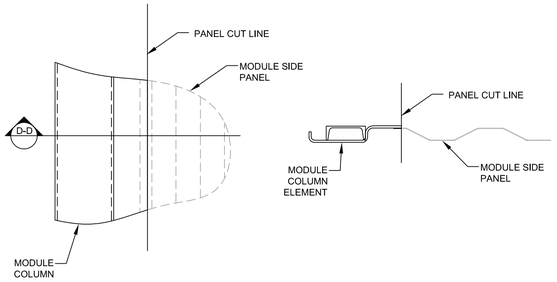
SHEET TITLE
SECTIONS & DETAILS

S4.10

NOTES:

1. DO NOT DAMAGE CONTAINER COLUMN.
2. GRIND SHARP EDGES SMOOTH.



ELEVATION

SECTION D-D

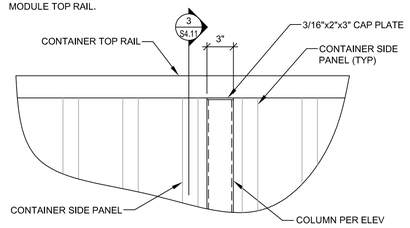
DETAIL - SIDE PANEL CUT @ FRONT COLUMN

1 1/2" = 1'-0"

1 / S4.11

NOTE:

DO NOT DAMAGE EXIST MODULE TOP RAIL.



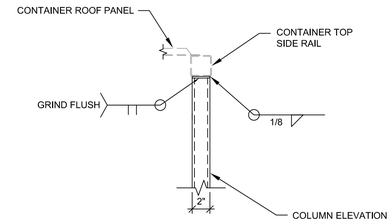
DETAIL

1 1/2" = 1'-0"

2 / S4.11

NOTE:

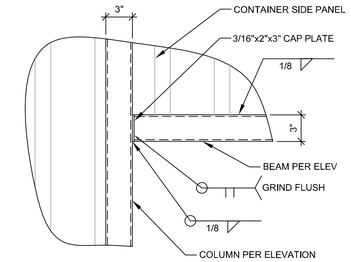
WALL CORRUGATED PANEL NOT SHOWN FOR CLARITY.



SECTION

1 1/2" = 1'-0"

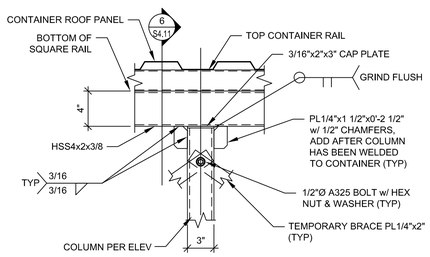
3 / S4.11



DETAIL

1 1/2" = 1'-0"

4 / S4.11



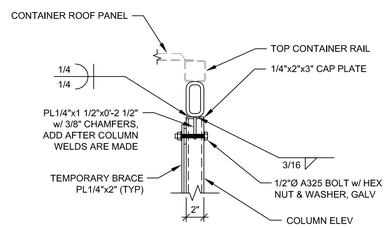
COLUMN CAP @ CENTER OF OPENING DETAIL

1 1/2" = 1'-0"

5 / S4.11

NOTE:

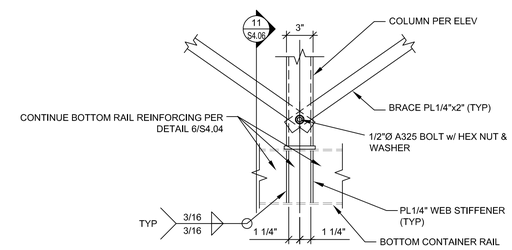
TEMPORARY BRACES SHALL BE INSTALLED PRIOR TO MOVING ISBU & REMAIN IN PLACE UNTIL UNIT IS IN PLACE WITH ALL PERMANENT CONNECTIONS COMPLETE.



SECTION

1 1/2" = 1'-0"

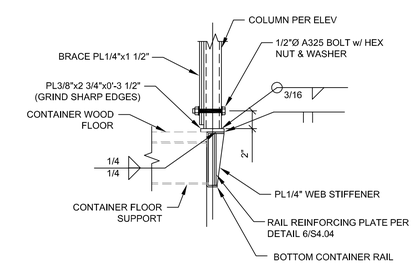
6 / S4.11



DETAIL

1 1/2" = 1'-0"

7 / S4.11

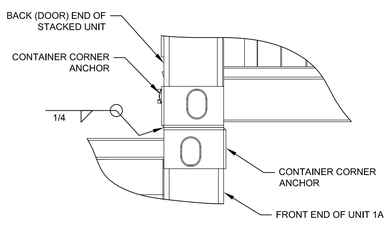


SECTION

1 1/2" = 1'-0"

BOTTOM CONTAINER RAIL

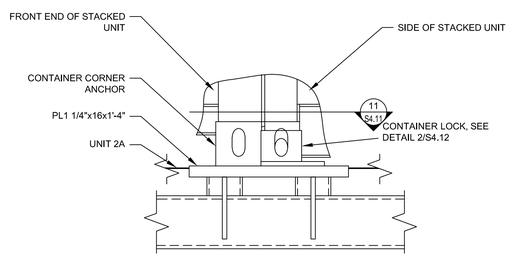
8 / S4.11



DETAIL

1 1/2" = 1'-0"

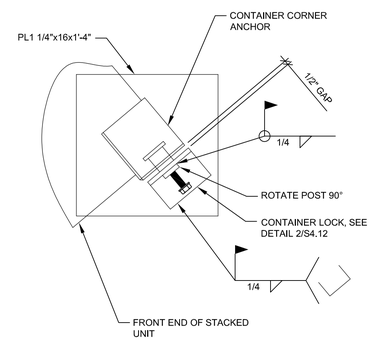
9 / S4.11



DETAIL

1 1/2" = 1'-0"

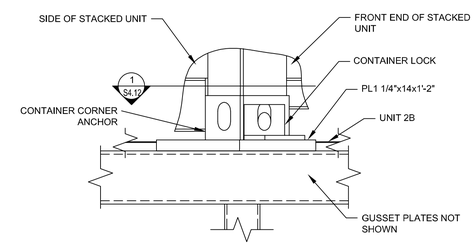
10 / S4.11



SECTION

1 1/2" = 1'-0"

11 / S4.11



DETAIL

3" = 1'-0"

12 / S4.11

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d/b/a PMA ENGINEERING
MISSOURI REGISTRATION/CERTIFICATE OF AUTHORITY # 001400

MISSOURI PE COA
MO# 2017016721

03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:

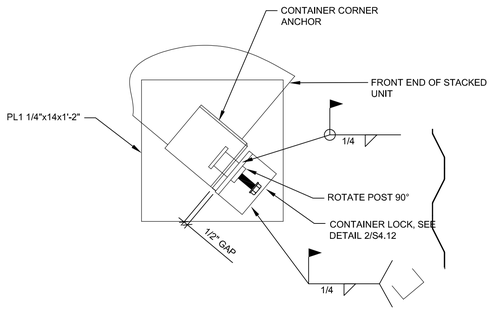
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
3/31/2023

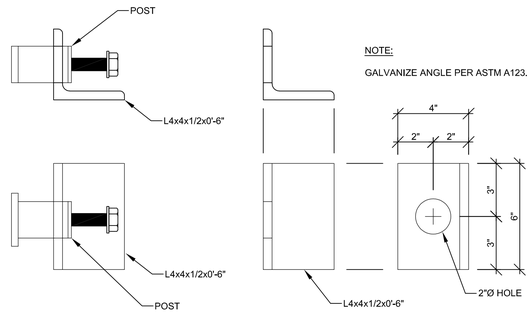
REVISION:

SHEET TITLE
SECTIONS & DETAILS

S4.11



SECTION 1
1 1/2" = 1'-0"
S4.12



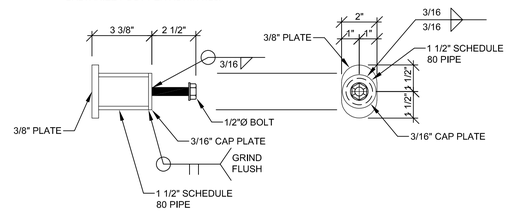
NOTE:

GALVANIZE ANGLE PER ASTM A123.

L4x4x1/2x0'-6"

NOTE:

GALVANIZE POST PER ASTM A123.

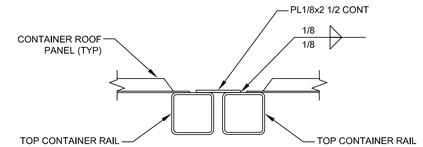


POST

DETAIL 2
3" = 1'-0"
S4.12

NOTE:

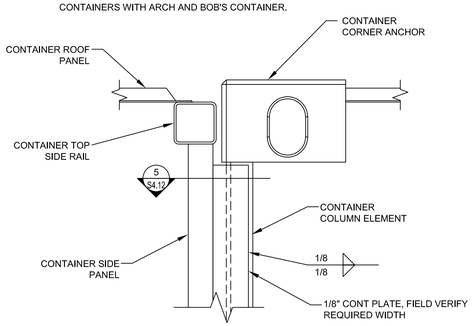
COORDINATE THE WEATHER PROOFING OF CONTAINERS WITH ARCH AND BOB'S CONTAINER.



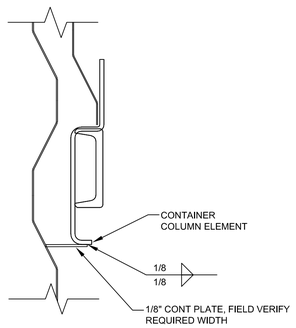
DETAIL 3
3"=1'-0'
S4.12

NOTE:

COORDINATE THE WEATHER PROOFING OF CONTAINERS WITH ARCH AND BOB'S CONTAINER.



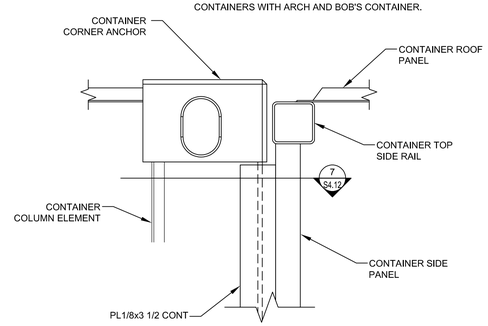
DETAIL 4
3"=1'-0"
S4.12



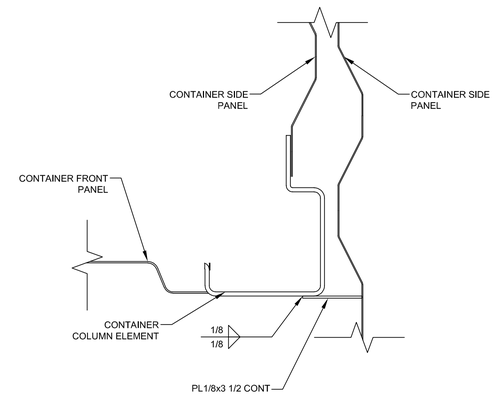
SECTION 5
3"=1'-0"
S4.12

NOTE:

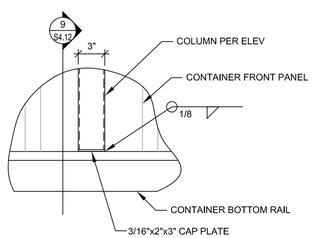
COORDINATE THE WEATHER PROOFING OF CONTAINERS WITH ARCH AND BOB'S CONTAINER.



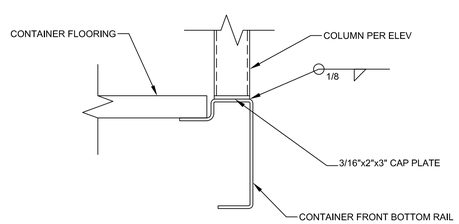
DETAIL 6
3"=1'-0"
S4.12



SECTION 7
3"=1'-0"
S4.12



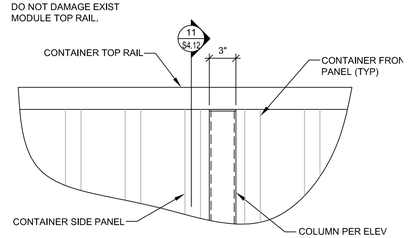
DETAIL 8
1 1/2"=1'-0"
S4.12



SECTION 9
3"=1'-0"
S4.12

NOTE:

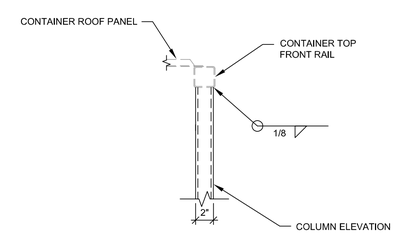
DO NOT DAMAGE EXIST MODULE TOP RAIL.



DETAIL 10
1 1/2"=1'-0"
S4.12

NOTE:

WALL CORRUGATED PANEL NOT SHOWN FOR CLARITY.



SECTION 11
3"=1'-0"
S4.12

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MISSOURI CERTIFICATE OF AUTHORITY # 001400

MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE R. BAEHR
NUMBER
PE-2012016721
PROFESSIONAL ENGINEER
03/31/2023

PROJECT #P23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
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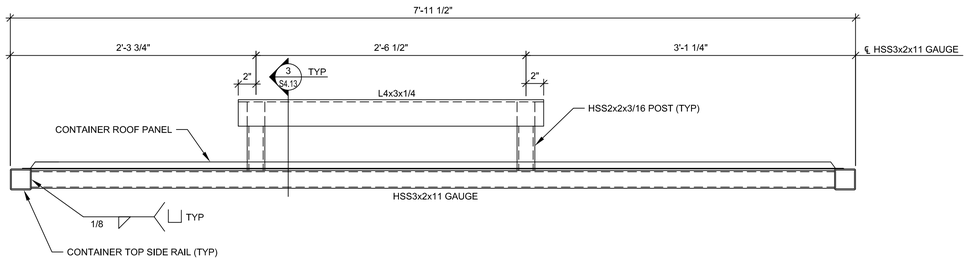
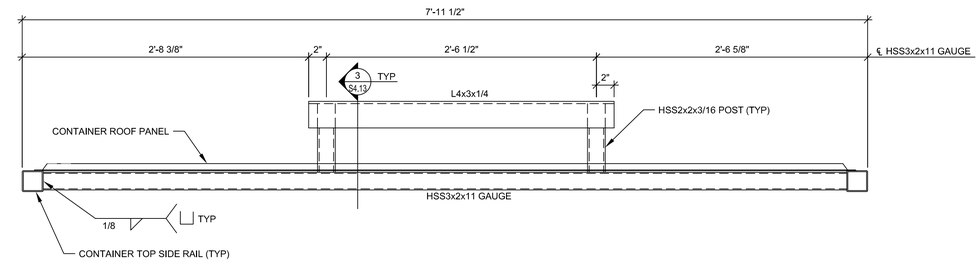
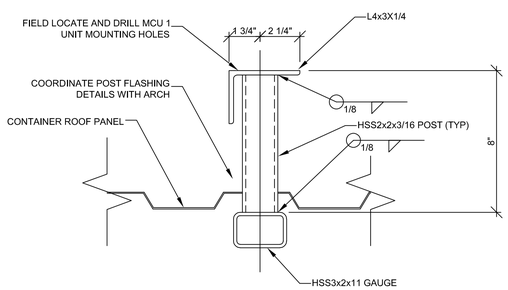
S4.12



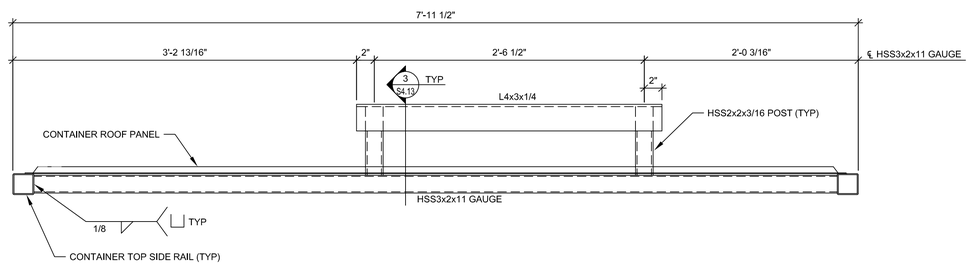
SECTION 1 / S4.13
1 1/2" = 1'-0"



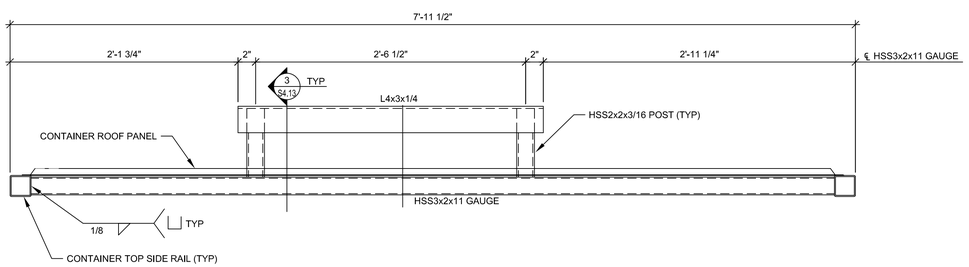
SECTION 2 / S4.13
1 1/2" = 1'-0"



SECTION 3 / S4.13
3" = 1'-0"



SECTION 4 / S4.13
1 1/2" = 1'-0"



SECTION 6 / S4.13
1 1/2" = 1'-0"

SECTION 7 / S4.13
1 1/2" = 1'-0"

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MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE K. BADEN
NUMBER
PE-2012016721
PROFESSIONAL ENGINEER
03/31/2023

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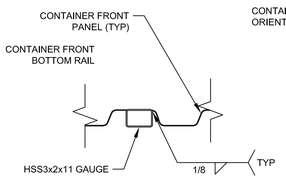
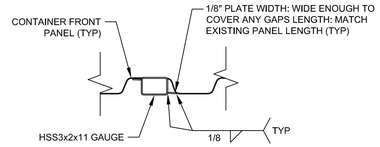
S4.13

NOTE:

CONTAINER FRONT PANEL ORIENTATION MAY VARY.



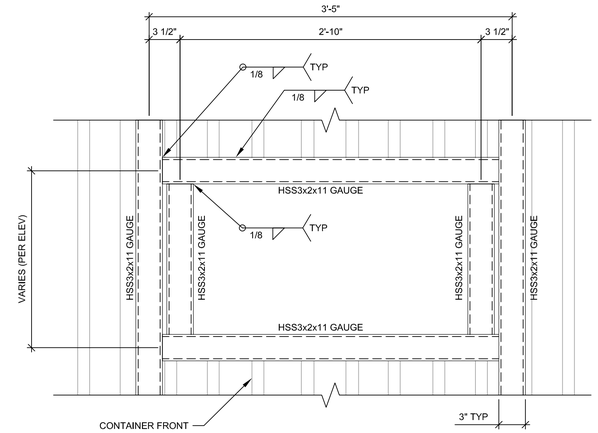
OPTION 1



OPTION 2

SECTION 1 / S4.14

1 1/2" = 1'-0"



DETAIL 2 / S4.14

1 1/2" = 1'-0"

NOT USED 3 / S4.14

NOT USED 4 / S4.14

NOT USED 5 / S4.14

NOT USED 6 / S4.14

NOT USED 7 / S4.14

NOT USED 8 / S4.14

NOT USED 9 / S4.14

NOT USED 10 / S4.14

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MISSOURI STATE CERTIFICATE OF AUTHORITY # 001400

MISSOURI PE COA
MO# 2017016721

STATE OF MISSOURI
VALERIE BLAKE BADRIG
NUMBER PE-2012016721
PROFESSIONAL ENGINEER
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S4.14

MECHANICAL SPECIFICATIONS

1. GENERAL PROVISIONS:

A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE PLUMBING AND MECHANICAL SYSTEMS OUTLINED.

B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.

C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.

D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.

E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, PIPE, DUCT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.

F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.

G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.

2. OPERATION AND MAINTENANCE MANUALS:

A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.

B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.

C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE BOUND IN A 3-RING BINDER AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC.

3. MANUFACTURERS:

A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.

4. MOTORS:

A. PROVIDE THERMAL OVERLOAD PROTECTION FOR EACH MOTOR PROVIDED BY THIS WORK.

5. TESTING, BALANCING, AND CLEANING:

A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR COVERED WITH INSULATION.

B. SEWER AND VENT PIPING SHALL BE HYDROSTATICALLY TESTED WITH NO LESS THAN 10 FEET OF HEAD FOR A PERIOD OF NOT LESS THAN 15 MINUTES, PER THE LOCAL PLUMBING CODE, WITH NO LEAKS.

C. DOMESTIC WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF NOT LESS THAN 1-1/2 TIMES THE OPERATING PRESSURE, BUT NOT LESS THAN 60 PSI, FOR A PERIOD OF NOT LESS THAN 2 HOURS, WITH NO LEAKS.

D. DUCTWORK AND PIPING SHALL BE BALANCED BY QUALIFIED INDEPENDENT BALANCING PERSONNEL WHO HAVE PREVIOUS EXPERIENCE WITH BALANCING PROCEDURES AND ARE CERTIFIED BY THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB).

1) BALANCING SHALL INCLUDE THE BALANCING OF THE EQUIPMENT AND AIR DISTRIBUTION SYSTEMS TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION OF PERFORMANCE OF ALL EQUIPMENT AND AUTOMATIC CONTROLS.

2) WITH IN 30 DAYS OF THE COMPLETION OF THE TESTING AND BALANCING WORK, SUBMIT THE TEST AND BALANCING REPORT BEARING THE SIGNATURE OF THE TEST AND BALANCE ENGINEER. THE REPORTS SHALL BE CERTIFIED PROOF THAT THE SYSTEMS HAVE BEEN TESTED, ADJUSTED, AND BALANCED IN ACCORDANCE WITH THE REFERENCED STANDARDS; ARE AN ACCURATE REPRESENTATION OF HOW THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING. REPORTS SHALL BE BOUND IN A VINYL BINDER AND THE BINDER LABELED OR MAY BE AN ELECTRONIC PDF SUBMITTAL.

E. GREASE DUCT SHALL BE TESTED PRIOR TO USE OR CONCEALMENT OF ANY PORTION OF THE GREASE DUCT SYSTEM. DUCTS SHALL BE CONSIDERED TO BE CONCEALED WHEN INSTALLED IN SHAFTS OR COVERED BY DUCT WRAP INSULATION THAT PREVENTS THE DUCTWORK FROM BEING VISUALLY INSPECTED FROM ALL SIDES. THE PERMIT HOLDER SHALL BE RESPONSIBLE TO PROVIDE THE NECESSARY EQUIPMENT AND PERFORM THE GREASE DUCT LEAKAGE TEST PER NFPA 96 AND ALL LOCAL CODES.

F. BEFORE DOMESTIC WATER PIPING IS PLACED IN SERVICE, ALL DOMESTIC WATER DISTRIBUTION SYSTEMS, INCLUDING THOSE FOR COLD WATER AND HOT WATER SYSTEMS, SHALL BE FLUSHED, STERILIZED AND CHLORINATED IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS. THE SYSTEMS SHALL BE THOROUGHLY FLUSHED OF ALL DIRT AND FOREIGN MATTER, THEN FILLED WITH WATER TREATED WITH 50 PPM OF CHLORINE. DURING THE FILLING PROCESS, VALVES AND FAUCETS SHALL BE OPENED SEVERAL TIMES TO ASSURE TREATMENT OF THE ENTIRE SYSTEM. THE TREATED WATER SHALL BE LEFT IN THE SYSTEM FOR 24 HOURS AFTER WHICH TIME THE SYSTEM SHALL BE FLUSHED; IF THE RESIDUAL CHLORINE IS NOT LESS THAN 10 PPM, THE FLUSHING SHALL BE REPEATED. AFTER STERILIZATION, SAMPLES OF WATER IN THE SYSTEM SHALL BE APPROVED BY THE BOARD OF HEALTH.

6. PLUMBING:

A. PROVIDE AN APPROVED WATER HAMMER ARRESTOR FOR EACH PLUMBING FIXTURE SUPPLY AS REQUIRED BY FIXTURE MANUFACTURER.

B. ALL EXPOSED WASTE PIPE SHALL BE CHROME PLATED BRASS PIPE, NO FERROUS PIPE.

C. PROVIDE CLEANOUTS AT EACH CHANGE OF DIRECTION AND AT 100 FOOT INTERVALS IN STRAIGHT RUNS.

D. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND TRAPS.

E. CLEANOUTS:

1) VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL.
2) QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL.
3) CARPETED FLOOR: JR SMITH #4020-Y, OR EQUAL.
4) UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL.
5) WALL: JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR.
6) GRADE: JR SMITH #4256, OR EQUAL, WITH HEAVY DUTY CAST IRON BODY AND COVER.

F. PROVIDE DIELECTRIC UNIONS WITH APPROPRIATE END CONNECTIONS TO MATCH THE PIPE SYSTEM IN WHICH INSTALLED (SCREWED, SOLDERED, OR FLANGED). PROVIDE DIELECTRIC UNIONS ON ALL PIPING CONNECTIONS TO HOT WATER HEATERS AND EXPANSION TANKS.

G. WATER HEATERS:

1) EVERY WATER HEATER SHALL HAVE AN APPROVED MEANS INSTALLED ON THE COLD WATER SUPPLY LINE ABOVE THE EQUIPMENT TO PREVENT SIPHONING OF A STORAGE WATER HEATER OR TANK.
2) BOTTOM FED WATER HEATERS AND TANKS CONNECT TO WATER HEATERS SHALL HAVE A VACCUM RELIEF VALVE INSTALLED. ANSI Z21.22.
3) STORAGE HEATERS OPERATING ABOVE ATMOSPHERIC PRESSURE SHALL HAVE AN APPROVED PRESSURE RELIEF VALVE AND/OR TEMPERATURE RELIEF VALVE.

H. ALL SEWER PIPING LOCATED INSIDE THE BUILDING SHALL BE INSTALLED WITH THE FOLLOWING SLOPES.

1) INSTALL 2-1/2" AND SMALLER PIPE AT 1/4" PER FOOT FALL.
2) INSTALL 3" AND LARGER PIPE AT 1/8" PER FOOT FALL.
3) INSTALL ALL GREASE WASTE PIPING AT 1/4" PER FOOT FALL.

7. PIPING:

A. DOMESTIC COLD AND HOT WATER (ABOVEGROUND).

1) TYPE L HARD DRAWN COPPER TUBING, ASTM B-88.
a) WROUGHT COPPER SOLDERED FITTINGS, ASTM B75 ALLOY C12200. ANSI B16.22. MSS SP-104.
b) MECHANICAL PRESS COPPER FITTINGS FOR USE IN PLUMBING OR MECHANICAL APPLICATIONS. ASME B16.22, ASME B16.51, or ASME B16.18. MECHANICAL PRESS COPPER FITTINGS SHALL CONFORM TO IAPMO PS-117 OR ASME B16.51.

2) PEX, HIGH-DENSITY CROSS-LINKED POLYETHYLENE TUBING SHALL BE MANUFACTURED TO THE REQUIREMENTS OF ASTM F876 AND MEET THE STANDARD GRADE HYDROSTATIC PRESSURE RATINGS FROM PLASTIC PIPE INSTITUTE IN ACCORDANCE WITH TR-4/03.

a) PEX-A AND PEX-B MEETING ANSI/NSF61 AND ANSI/NSF372 STANDARDS FOR POTABLE WATER SAFETY AND LEAD-FREE STANDARDS AND MUST BE MARKED WITH "PW-G", "NSF-61-G" OR OTHER NSF-APPROVED MARKING. ASTM F2023 FOR USE WITH CHLORINATED WATER.

b) PEX MECHANICAL, CRIMP/INSERT OR EXPANSION FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE, INCREASE PEX PIPING SIZE TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER FOR SUPPLY MAINS.

3) VALVES
a) TO BE INSTALLED ON THE FIXTURE SUPPLY TO EACH PLUMBING FIXTURE.
b) TO BE INSTALLED ON THE WATER SUPPLY SIDE TO EACH APPLIANCE OR MECHANICAL EQUIPMENT.
c) TYPES:
1. GATE VALVE: JOMAR T/S-301G OR EQUAL. LEAD-FREE NSF 61, ANSI B1.20.1.
2. GLOBE VALVE: JOMAR TGG OR EQUAL.
3. BALL VALVE: JOMAR JP100PXP OR EQUAL COMPACT LEAD FREE BRASS BALL VALVE. UL842, CSA 3371-12 & 3371-92, FM, CALIFORNIA CODE AB1953, NSF61 ANNEX G APPROVED.
4. BALL VALVE: JOMAR T-100NE OR EQUAL. UL842, FM, CSA, NSF 61-8, MSS SP-110

B. DOMESTIC WATER SERVICE, 1"-3"

1) TYPE K SOFT DRAWN COPPER TUBING, ASTM B-88.
a) Cast Copper Alloy Fittings for Flared Copper Tube, ASME/ANSI B16.26:

2) HDPE, PIGMENTED BLUE THROUGHOUT, CTS SIZES 1"-2" AWWA C901 4710 DR9 PC250 IPS SIZES 2"-3", AWWA C901 4710 DR11 PC200 MATERIAL AND INSTALLATION MUST CONFORM TO WATER DEPARTMENT REQUIREMENTS.

C. LEAD CONTENT OF WATER SUPPLY PIPE AND FITTINGS:

1) PIPE AND PIPE FITTINGS, INCLUDING VALVES AND FAUCETS, UTILIZED IN THE WATER SUPPLY SYSTEM SHALL NOT HAVE MORE THAN 8% LEAD CONTENT.

2) PIPE, PIPE FITTINGS, JOINTS, VALVES, FAUCETS, AND FIXTURE FITINGS UTILIZED TO SUPPLY WATER FOR DRINKING OR COOKING PURPOSES SHALL COMPLY WITH NSF 372 AND SHALL HAVE A WEIGHTED AVERAGE LEAD CONTENT OF 0.25% OR LESS.

D. SANITARY SEWER, GREASE WASTE AND VENTS. (UNDERGROUND, INTERIOR TO THE BUILDING).

1) ABS PIPE AND FITTINGS: ABS PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL ABS PIPE: ASTM D 2661, SCHEDULE 40. ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS. SOLVENT CEMENT: ASTM D 2235.

2) PVC PIPE AND FITTINGS: PVC PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL PVC PIPE: ASTM D 2665, DRAIN, WASTE, AND VENT. PVC SOCKET FITTINGS: ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE. ADHESIVE PRIMER: ASTM F 656. SOLVENT CEMENT: ASTM D 2564.

3) HUBLESS CAST IRON SOIL PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 888 AND CISPI STANDARD 301. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 AND BE CERTIFIED BY NSF® INTERNATIONAL.

4) HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS: HUB AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 74.

MECHANICAL SPECIFICATIONS (CONTINUED)

E. SANITARY SEWER, GREASE WASTE, AND VENTS. (ABOVE GROUND, INTERIOR TO THE BUILDING).

1) ABS PIPE AND FITTINGS: ABS PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL ABS PIPE: ASTM D 2661, SCHEDULE 40. CELLULAR-CORE ABS PIPE: ASTM F 628, SCHEDULE 40.ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS. SOLVENT CEMENT: ASTM D 2235. (NOT FOR USE IN A RETURN AIR PLENUM)

2) PVC PIPE AND FITTINGS: PVC PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL PVC PIPE: ASTM D 2665, DRAIN, CELLULAR-CORE PVC PIPE: ASTM F 891, SCHEDULE 40. WASTE, AND VENT. PVC SOCKET FITTINGS: ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE. ADHESIVE PRIMER: ASTM F 656. SOLVENT CEMENT: ASTM D 2564. (NOT FOR USE IN A RETURN AIR PLENUM)

3) HUBLESS CAST IRON SOIL PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 888 AND CISPI STANDARD 301. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 AND BE CERTIFIED BY NSF® INTERNATIONAL.

4) HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS: HUB AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 74.

F. CONDENSATE DRAINS & INDIRECT WASTE (ABOVEGROUND).

1) DWV, WROUGHT COPPER, ANSI B-16.29 (CONDENSATE INSIDE BUILDING).
2) POLYVINYLCHLORIDE (PVC) DWV PIPE, SCHEDULE 40, SOLVENT JOINT (INDIRECT WASTE).

G. REFRIGERANT.

1) ASTM B 280, TYPE ACR, HARD-DRAWN STRAIGHT LENGTHS, AND SOFT-ANNEALED COILS, SEAMLESS COPPER TUBING.
2) WROUGHT COPPER, ANSI B16.22, STREAMLINED PATTERN, FITTINGS. BRAZED JOINTS, AWS A 5.8, CLASSIFICATION BAG-1 (SILVER).
3) TUBING SHALL BE FACTORY CLEANED, READY FOR INSTALLATION, AND HAVE ENDS CAPPED TO PROTECT CLEANLINESS OF PIPE INTERIORS PRIOR TO SHIPPING.
4) SIZE AND INSTALLATION OF PIPE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

H. ALL PIPE HANGERS AND SUPPORTS SHALL BE STANDARD PRODUCTS OF GRINNELL, FEE AND MASON, OR ELCEN. HANGER SPACING SHALL BE IN ACCORDANCE WITH MSS-SP-69.

I. SLEEVES

1) PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK. ALL SLEEVES SHALL BE OF SUFFICIENT SIZE TO PERMIT PIPE MOVEMENT DUE TO EXPANSION AND CONTRACTION AND TO ACCOMMODATE PIPE INSULATION.

2) INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN PIPE AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.

3) ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WATERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.

4) PROTECTION AGAINST CONTACT: METALLIC PIPING, EXCEPT FOR CAST IRON, DUCTILE IRON AND GALVANIZED STEEL SHALL NOT BE PLACED IN DIRECT CONTACT WITH STEEL FRAMING MEMBERS, CONCRETE, OR CINDER WALLS AND FLOORS OR OTHER MASONRY. METALLIC PIPING SHALL NOT BE PLACED IN DIRECT CONTACT WITH CORROSIVE SOIL. SHEATHING USED TO PREVENT DIRECT CONTACT SHALL HAVE A THICKNESS OF GREATER THAN .008: AND THE SHEATHING SHALL BE MADE OF PLASTIC. ANY PIPE THAT PASSES THROUGH A FOUNDATION WALL OR FOOTING SHALL BE PROVIDED WITH A RELIEVING ARCH, OR A PIPE SLEEVE SHALL BE BUILT INTO THE FOUNDATION WALL. THE SLEEVE SHALL BE TWO SIZES GREATER THAN THE PIPE PASSING THOUGH THE WALL OR FOOTING.

5) PLUMBING VENTS: FLASH ROOF VENT INTO ROOFING SYSTEM AS REQUIRED BY THE ROOFING CONTRACTOR TO MAINTAIN EXISTING ROOF WARRANTY. ALL PLUMBING VENT TERMINALS SHALL TERMINATE A MINIMUM OF 12" ABOVE ROOF OR EQUAL TO HEIGHT OF PARAPET, WHICHEVER IS GREATER.

J. PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPE ENTERING FINISHED AREAS.

8. WATER HEATERS

A. COMMERCIAL, LIGHT-DUTY, STORAGE, ELECTRIC, DOMESTIC-WATER HEATERS:

1. STANDARD: UL 174
2. STORAGE-TANK CONSTRUCTION: STEEL, VERTICAL ARRANGEMENT.
a. PRESSURE RATING: 150 PSIG.
b. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING LINING MATERIAL INTO TAPPINGS.
3. FACTORY-INSTALLED, STORAGE-TANK APPURTENANCES:
a. ANODE ROD: REPLACEABLE MAGNESIUM.
b. DIP TUBE: REQUIRED UNLESS COLD-WATER INLET IS NEAR BOTTOM OF TANK.
c. DRAIN VALVE: CORROSION-RESISTANT METAL WITH HOSE-END CONNECTION.
d. INSULATION: COMPLY WITH ASHRAE/IES 90.1
e. JACKET: STEEL WITH ENAMELED FINISH OR HIGH-IMPACT COMPOSITE MATERIAL.
f. HEAT-TRAP FITTINGS: INLET TYPE IN COLD-WATER INLET AND OUTLET TYPE IN HOT-WATER OUTLET.
g. HEATING ELEMENTS: ELECTRIC, SCREW-IN IMMERSION TYPE.
h. TEMPERATURE CONTROL: ADJUSTABLE THERMOSTAT.
i. SAFETY CONTROL: HIGH-TEMPERATURE-LIMIT CUTOFF DEVICE OR SYSTEM.
j. RELIEF VALVE: ASME RATED AND STAMPED FOR COMBINATION TEMPERATURE-AND-PRESSURE RELIEF VALVES. INCLUDE RELIEVING CAPACITY AT LEAST AS GREAT AS HEAT INPUT, AND INCLUDE PRESSURE SETTING LESS THAN WORKING-PRESSURE RATING OF DOMESTIC-WATER HEATER. SELECT RELIEF VALVE WITH SENSING ELEMENT THAT EXTENDS INTO STORAGE TANK.

B. DOMESTIC-WATER EXPANSION TANKS:

1. DESCRIPTION: STEEL, PRESSURE-RATED TANK CONSTRUCTED WITH WELDED JOINTS AND FACTORY-INSTALLED, BUTYL-RUBBER DIAPHRAGM. INCLUDE AIR PRECHARGE TO MINIMUM SYSTEM-OPERATING PRESSURE AT TANK.
2. CONSTRUCTION:
a. TAPPINGS: FACTORY-FABRICATED STEEL, WELDED TO TANK BEFORE TESTING AND LABELING. INCLUDE ASME B1.20.1 PIPE THREAD.
b. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING FINISH INTO AND THROUGH TANK FITTINGS AND OUTLETS.
c. AIR-CHARGING VALVE: FACTORY INSTALLED.
3. CAPACITY AND CHARACTERISTICS:
a. WORKING-PRESSURE RATING: 150 PSIG .

9. INSULATION AND DUCT LINING:

A. ALL INSULATIONS AND ACCESSORIES SHALL HAVE A FIRE HAZARD CLASSIFICATION WITH A FLAME SPREAD RATING OF NOT OVER 25, A FUEL CONTRIBUTION RATING OF NOT OVER 50, AND A SMOKE DEVELOPED RATING OF NOT OVER 50, IN ACCORDANCE WITH NFPA.

B. PIPE INSULATION - ABOVE GRADE:

1) THE PIPING INSULATION USED SHALL HAVE A THERMAL CONDUCTIVITY OF 0.27 Btu PER in/hr*sqft*F° OR LESS.

2) FIBERGLASS INSULATION WITH FACTORY APPLIED VAPOR BARRIER, ASJ JACKET, FACTORY APPLIED PRESSURE SEALING LONGITUDE LAP JOINT, NO STAPLES, ZESTON PREMOLDED PVC FITTING COVERS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

3) FLEXIBLE CLOSED CELL ELASTOMERIC THERMAL INSULATION, UNSLIT OR PRESLIT WITH PRESSURE SENSITIVE ADHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING, EQUAL TO ARMSTRONG AP ARMAFLEX OR ARMAFLEX 2000.

4) FOR NON CIRCULATING SYSTEMS, THE FIRST 8 FEET OF INLET AND OUTLET PIPING BETWEEN THE TANK AND THE HEAT TRAP (INCLUDING THE HEAT TRAP) MUST BE INSULATED.

5) FOR CIRCULATING SYSTEMS, ALL HOT WATER PIPING IN THE CIRCULATION LOOP MUST BE INSULATED AS SPECIFIED BELOW.

6) INSULATION SCHEDULE:

a) DOMESTIC COLD WATER 1/2"
b) DOMESTIC HOT WATER 1" FOR PIPING UP TO 1-1/4"Φ, & 1-1/2" FOR PIPING 1-1/2"Φ AND LARGER
c) CONDENSATE DRAINS INSIDE BUILDING 1/2"
d) REFRIGERANT SUCTION 3/4" FOR PIPING UP TO 1-1/4"Φ, & 1" FOR PIPING 1-1/2"Φ AND LARGER

C. PIPE INSULATION - CRAWLSPACE:

1) THE PIPING INSULATION USED SHALL HAVE A THERMAL CONDUCTIVITY OF 0.27 Btu PER in/hr*sqft*F° OR LESS.

2) FLEXIBLE CLOSED CELL ELASTOMERIC THERMAL INSULATION, UNSLIT OR PRESLIT WITH PRESSURE SENSITIVE ADHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING, EQUAL TO KFLEX INSUL-TUBE OR EQUAL RATED FOR UNDERGROUND INSTALLATION ABOVE THE WATER TABLE. COVER PIPING WITH A CLEAN FILL SUCH AS SAND (3"-5" LAYER) TO PROTECT INSULATION FROM COMPACTION.

3) PRE-INSULATED PIPE SYSTEMS WITH CLOSED CELL PEX-FOAM INSULATION AND COVERED BY A WATERPROOF CORRUGATED HDPE JACKET. UPONOR ECOFLEX OR EQUAL. ASTM F876, F877, CSA B137.5

4) INSULATION SCHEDULE:

a) DOMESTIC HOT WATER 1-1/2"
b) HOT WATER RECIRCULATING 1-1/2"

D. DUCTWORK: ACOUSTICAL INSULATION.

1) DUCT LINING: 2 LB/CF, THICKNESS AS SCHEDULED, AIR STREAM SIDE COATED, INSTALL PER SMACNA STANDARDS.

a) DUCT LINING SCHEDULE:

(1) RECTANGULAR SUPPLY DUCT 1/2" : THROUGHOUT THE FIRST 10 FEET OF DUCT.

E. DUCTWORK: THERMAL INSULATION.

1) DUCT COVERING: 3/4 LB/CF, FIBERGLASS BLANKET WITH FACTORY APPLIED VAPOR BARRIER AND FACING, THICKNESS AS SCHEDULED, INSTALLATION IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

a) DUCT COVERING SCHEDULE: MINIMUM R-6

(1) ROUND SUPPLY DUCT 2"
(2) RECTANGULAR SUPPLY DUCT 2"
(3) MAKE-UP AIR DUCT 2"

2) DUCT COVERING (EXTERIOR MAKEUP AIR)

a) EXTERIOR INSULATION: JOHN MANVILLE XSPECT ISOFOAM APF BOARD, 1-1/2" THICK R-9.3, UNIFORM CLOSED-CELL POLYISOCYANURATE FOAM CORE BONDED WITH A FOIL FACER. INSTALLED PER MANUFACTURER'S REQUIREMENTS. COVER ISOFOAM BOARD INSULATION WITH POLYGUARD ALUMAGUARD, COMPOSITE MEMBRANE MULTI-PLY EMBOSSED UV-RISISTANT ALUMINUM FOIL/POLYMER LAMINATE, ALL WEATHER FLEXIBLE WEATHER-PROOFING JACKET. MINIMUM R-8 RATING. MINIMUM R-12 CLIMATE ZONES 5-8.

MECHANICAL SPECIFICATIONS (CONTINUED)

10. DUCTWORK:

A. ALL DUCTWORK, UNLESS OTHERWISE INDICATED, SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A 527, LOCKFORMING QUALITY, WITH G 90 ZINC COATING IN ACCORDANCE WITH ASTM A 525; AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS.

B. WHERE DUCTWORK IS INDICATED TO BE EXPOSED TO VIEW IN OCCUPIED SPACES, PROVIDE MATERIALS WHICH ARE FREE FROM VISUAL IMPERFECTIONS INCLUDING PITTING, SEAM MARKS, ROLLER MARKS, STAINS AND DISCOLORATIONS, AND OTHER IMPERFECTIONS, INCLUDING THOSE WHICH WOULD IMPAIR PAINTING.

C. DUCTWORK, METAL GAUGES, REINFORCING, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION FOR A 2 INCH WATER GAUGE STATIC PRESSURE.

1) RECTANGULAR DUCT:

a) ELBOWS, UNLESS INDICATED OTHERWISE SHALL BE CONSTRUCTED WITH CENTERLINE RADIUS OF NOT LESS THAN 1.5 DUCT WIDTH OR SQUARE ELBOW WITH DOUBLE WALL STREAMLINE VANES.

b) RETURN AIR ACOUSTICAL ELBOWS AND SOUND BOOTS SHALL BE A SQUARE ELBOW WITH NO TURNING VANES.

c) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.

2) ROUND AND OVAL SPIRAL SEAM DUCT:

a) PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15 DEGREE CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45 DEGREE LATERALS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90 DEGREE BRANCHES ARE INDICATED PROVIDE CONICAL TYPE TEES.

b) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.

c) AS AN OPTION, PROVIDE FACTORY-FABRICATED DUCT AND FITTINGS, IN LIEU OF SHOP-FABRICATED DUCT AND FITTINGS.

(1) ELBOWS: ONE PIECE CONSTRUCTION FOR 90 DEGREES AND 45 DEGREE ELBOW 14" AND SMALLER. PROVIDE MULTIPLE GORE CONSTRUCTION FOR LARGER DIAMETERS WITH STANDING SEAM CIRCUMFERENTIAL JOINT.

(2) DIVIDED FLOW FITTINGS: 90 DEGREE TEES, CONSTRUCTED WITH SADDLE TAP SPOT WELDED AND BONDED TO DUCT FITTING BODY.

d) ROUND LONGITUDINAL SEAM DUCT. USE FOR RIGID METAL DUCT ON LEAVING SIDE OF DUCT IN CONCEALED LOCATIONS FOR EXTENSION TO FLEX FOR DIFFUSERS, UNLESS OTHERWISE INDICATED.

D. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEETMETAL SIZES, ALLOWANCE FOR DUCT LINER HAS BEEN MADE WHERE APPLICABLE.

E. INSTALLATION OF METAL DUCTWORK:

1) GENERAL: ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE AIR-TIGHT SYSTEMS (MAXIMUM 5% LEAKAGE), WITH NO OBJECTIONABLE NOISE, AND CAPABLE OF PERFORMING INDICATED SERVICE. INSTALL EACH RUN WITH MINIMUM NUMBER OF JOINTS. ALIGN DUCTWORK ACCURATELY WITH INTERNAL SURFACES SMOOTH. SUPPORT DUCTS RIGIDLY WITH SUITABLE STRAPS, BRACES, HANGERS AND ANCHORS IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" LATEST EDITION. DUCT HANGERS SHALL BE OF THE TYPE WHICH WILL HOLD DUCTS TRUE-TO-SHAPE AND TO PREVENT BUCKLING. SUPPORT VERTICAL DUCTS AT EVERY FLOOR.

2) AUXILIARY STEEL: PROVIDE AUXILIARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT DUCTWORK.

3) ROUTING: LOCATE DUCTWORK RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY AND AVOID DIAGONAL RUNS WHEREVER POSSIBLE. LOCATE RUNS AS INDICATED BY DIAGRAMS, DETAILS AND NOTATIONS OR, IF NOT OTHERWISE INDICATED, RUN DUCTWORK IN SHORTEST ROUTE WHICH DOES NOT OBSTRUCT USABLE SPACE OR BLOCK ACCESS FOR SERVICING BUILDING AND ITS EQUIPMENT. HOLD DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS, AND OTHER STRUCTURAL AND PERMANENT ENCLOSURE ELEMENTS OF BUILDING. WHEREVER POSSIBLE IN FINISHED AND OCCUPIED SPACES, CONCEAL DUCTWORK FROM VIEW, BY LOCATING IN MECHANICAL SHAFTS, HOLLOW WALL CONSTRUCTION OR ABOVE SUSPENDED CEILINGS. DO NOT ENCASE HORIZONTAL RUNS IN SOLID PARTITIONS, EXCEPT AS SPECIFICALLY SHOWN. COORDINATE LAYOUT WITH SUSPENDED CEILING AND LIGHTING LAYOUTS AND SIMILAR FINISHED WORK.

4) DO NOT ROUTE DUCTWORK THROUGH ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES, UNLESS INDICATED OTHERWISE.

5) PENETRATIONS:

a) WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS OR EXTERIOR WALLS, AND ARE EXPOSED TO VIEW, CONCEAL SPACE BETWEEN OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-1/2". FASTEN TO DUCT AND WALL.

b) WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRESTOPPING BETWEEN DUCT AND WALL.

6) COORDINATION: COORDINATE DUCT INSTALLATIONS WITH INSTALLATION OF ACCESSORIES, DAMPERS, COIL FRAMES, EQUIPMENT, CONTROLS, AND OTHER ASSOCIATED WORK OF THE DUCTWORK SYSTEM.

7) INSTALLATION: INSTALL METAL DUCTWORK IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS", LATEST EDITION.

F. EQUIPMENT CONNECTIONS:

1) CONNECT METAL DUCTWORK TO EQUIPMENT AS INDICATED, PROVIDE FLEXIBLE CONNECTION FOR EACH DUCTWORK CONNECTION TO EQUIPMENT MOUNTED ON VIBRATION ISOLATORS, AND/OR EQUIPMENT CONTAINING ROTATING MACHINERY. PROVIDE ACCESS DOORS AS REQUIRED.

G. SEAL ALL CONCEALED DUCTWORK JOINTS WITH NON-HARDENING, NON-MIGRATING MASTIC SEALANT, AS RECOMMENDED FOR SEALING SEAMS AND JOINTS IN DUCTWORK. OIL BASE CAULKING AND GLAZING COMPOUNDS SHALL NOT BE ACCEPTABLE. DUCTS SHALL BE SEALED TO THE CLASS LEVEL LISTED BELOW.

1) UNCONDITIONED SPACES	CLASS B	CLASS A	CLASS C	CLASS B
2) CONDITIONED SPACES (PLENUM)	CLASS C	CLASS B	CLASS B	CLASS C
	SUPPLY ≤ 2" W.C.	SUPPLY > 2" W.C.	EXHAUST/DRYER	RETURN

11. GREASE HOOD AND EXHAUST DUCT:

A. HOOD SHALL BE CONSTRUCTED OF 18 GAUGE STEEL OR 20 GAUGE STAINLESS STEEL IN ACCORDANCE WITH NFPA 96 AND LOCAL CODES.

1) GREASE FILTERS SHALL BE UL LISTED ALUMINUM GREASE EXTRACTORS.

2) PROVIDE A COMPLETE AUTOMATIC WET CHEMICAL FIRE EXTINGUISHING SYSTEM FOR THE HOOD AND DUCT AS REQUIRED BY NFPA AND LOCAL CODES. ALL COOKING EQUIPMENT UNDER THE HOOD SHALL BE INTERLOCKED WITH THE SYSTEM, TO SHUTDOWN IN AN ALARM CONDITION.

a) THE GREASE HOOD FIRE SUPPRESSION SYSTEM SHALL BE EQUAL TO AMEREX KP SERIES PRE-ENGINEERED , WET CHEMICAL, STORED-PRESSURE TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION SYSTEM. THE SYSTEM SHALL BE UL LISTED AND TESTED TO UL STANDARD 300.

b) THE SYSTEM SHALL UTILIZE AN AGENT EQUAL TO AMEREX KP LIQUID FIRE SUPPRESSANT, A POTASSIUM ACETATE BASED SOLUTION THAT SUPPRESSES COOKING GREASE FIRES, SHALL HAVE A PH OF 9 OR LESS, AND SHALL NOT HARM STAINLESS STEEL SURFACES.

c) THE SYSTEM SHALL BE PROVIDED WITH A MANUAL "DUAL ACTION" TYPE PULL STATION. PULL STATION SHALL BE LOCATED NOT LESS THAN 10 FEET AND A MAXIMUM OF 20 FEET FROM THE GREASE HOOD AND IN THE PATH OF EGRESS. THE MANUAL ACTUATION SHALL REQUIRE A MAXIMUM FORCE OF 40 POUNDS AND A MAXIMUM MOVEMENT OF 14 INCHES TO ACTUATE THE FIRE SUPPRESSION SYSTEM.

d) PROVIDE A GAS SHUT OFF VALVE FOR MOUNTING IN THE GAS PIPE THAT WILL SHUT OFF GAS FLOW TO EQUIPMENT UNDER THE HOOD IN AN ALARM CONDITION. PROVIDE AN ELECTRICAL SWITCH WHICH SHALL BE CAPABLE OF DE-ENERGIZING ALL ELECTRICAL DEVICES AND EQUIPMENT UNDER THE HOOD IN AN ALARM CONDITION.

B. GREASE DUCT SHALL BE CONSTRUCTED OF 16 GAUGE CARBON STEEL OR 18 GAUGE STAINLESS STEEL IN ACCORDANCE WITH NFPA 96 AND LOCAL CODES.

a) JOINTS, SEAMS AND PENETRATIONS OF GREASE DUCTS SHALL BE MADE WITH A CONTINUOUS LIQUID TIGHT WELD OR BRAZE MADE ON THE EXTERNAL SURFACE OF THE DUCT SYSTEM.

b) DUCT JOINTS SHALL BE BUTT JOINTS, WELDED FLANGE JOINTS WITH A MAXIMUM FLANGE DEPTH OF 1/2" OR OVERLAPPING DUCT JOINTS OF EITHER THE TELESCOPING OR BELL TYPE. OVERLAPPING JOINTS SHALL BE INSTALLED TO PREVENT LEDGES AND OBSTRUCTIONS FROM COLLECTING GREASE OR INTERFERING WITH GRAVITY DRAINAGE TO THE INTENDED COLLECTION POINT.

c) DUCT TO HOOD CONNECTIONS SHALL BE MADE WITH LISTED AND LABELED DUCT TO HOOD COLLAR CONNECTIONS THAT ARE INSTALLED PER THE TERMS OF THEIR APPROVAL AND PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.

d) DUCT TO EXHAUST FAN CONNECTIONS SHALL BE FLANGED AND GASKETED AT THE BASE OF THE FAN FOR VERTICAL DISCHARGE FANS, OR SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET OF THE FAN FOR SIDE INLET UTILITY FANS. GASKET SEALING MATERIALS SHALL BE RATED FOR A MINIMUM CONTINUOUS DUTY TEMPERATURE OF 1,500°F.

12. EXHAUST/SUPPLY FANS:

A. CENTRIFUGAL TYPE FAN WITH CHARACTERISTICS AND CAPACITY AS SCHEDULED, ELECTRICALLY POWERED, SUITABLE FOR MOUNTING ON ROOF CURB, DIRECT OR BELT DRIVEN, HEAVY GAUGE SPUN-ALUMINUM WEATHERPROOF HOUSINGS OF THE HOODED DOME OR UPBLAST TYPE. PROVIDE PERMANENT SPLIT-CAPACITOR TYPE MOTOR FOR DIRECT DRIVEN FANS, AND CAPACITOR-START, INDUCTION-RUN TYPE MOTOR FOR BELT DRIVEN FANS.

B. CENTRIFUGAL CEILING EXHAUSTERS SHALL BE ELECTRICALLY POWERED CENTRIFUGAL TYPE FAN SUITABLE FOR MOUNTING IN THE CEILING WITH A PERFORATED OFF-WHITE METAL GRILLE WITH A THUMBSCREW ATTACHMENT FOR EASY ACCESS TO FAN HOUSING. UNIT SHALL CONSIST OF A GALVANIZED STEEL HOUSING LINED WITH ACOUSTICAL INSULATION AND SHALL INCLUDE AN INTEGRAL BACKDRAFT DAMPER ON FAN DISCHARGE. MOTOR SHALL BE A PERMANENT SPLIT-CAPACITOR TYPE MOTOR, PERMANENTLY LUBRICATED, WITH THERMAL OVERLOAD PROTECTION. PROVIDE DISCONNECT SWITCH OR OTHER MEANS OF DISCONNECT AT MOTOR IN FAN HOUSING.

C. CENTRIFUGAL INLINE SUPPLY SHALL BE ELECTRICALLY POWERED CENTRIFUGAL TYPE FAN SUITABLE FOR MOUNTING ABOVE THE CEILING WITH A THUMBSCREW ATTACHMENT FOR EASY ACCESS TO FAN HOUSING. UNIT SHALL CONSIST OF A GALVANIZED STEEL HOUSING LINED WITH ACOUSTICAL INSULATION AND SHALL INCLUDE AN INTEGRAL BACKDRAFT DAMPER ON FAN DISCHARGE. MOTOR SHALL BE A PERMANENT SPLIT-CAPACITOR TYPE MOTOR, PERMANENTLY LUBRICATED, WITH THERMAL OVERLOAD PROTECTION. PROVIDE DISCONNECT SWITCH OR OTHER MEANS OF DISCONNECT AT MOTOR IN FAN HOUSING.

MECHANICAL SPECIFICATIONS (CONTINUED)

13. SINGLE-ZONE MINI SPLIT SYSTEM WITH HEAT PUMP CONDENSING UNIT:

A. AIR HANDLING UNIT SHALL BE FACTORY ASSEMBLED, PRE-WIRED UNIT CONSISTING OF WIRING, PIPING, ELECTRONIC EXPANSION VALVE, AND CONTROLS. CAPACITY SHALL BE AS SCHEDULED.

1) THE UNIT SHALL BE EQUIPPED WITH THE MANUFACTURER'S STANDARD CONTROLS INCLUDING 24 VOLT CONTROL TRANSFORMER AND A WIRELESS OR WIRED REMOTE CONTROLLER.

2) UNIT SHALL BE EQUIPPED WITH A FILTER THAT IS EASILY REMOVABLE AND WASHABLE.

3) FAN SHALL BE A DC MOTOR, CAPABLE OF OPERATING AT 3 FAN GRADES: LOW, MEDIUM AND HIGH. MOTOR SHALL BE PROVIDED WITH THERMAL OVERLOAD PROTECTION.

4) CONNECTIONS: UNIT SHALL BE EQUIPPED WITH LIQUID AND GAS FLARE FITTINGS. SHALL HAVE CONNECTIONS FOR BOTH REFRIGERANT PIPING AND DRAINAGE ON BOTH SIDES OF UNIT. UNIT SHALL OFFER MULTIPLE ACCESS POINTS FOR REFRIGERANT OUTLET PIPES.

B. HEAT PUMP CONDENSING UNIT SHALL BE FACTORY-ASSEMBLED, PRE-WIRED AND TESTED AIR-COOLED CONDENSING UNIT, CONSISTING OF COMPRESSOR, CONDENSER COIL, FAN, MOTOR, REVERSING VALVE, SOLID-STATE DEFROST CONTROL UTILIZING THERMISTERS, REFRIGERANT RESERVOIR, OPERATING CONTROLS, ETC. CAPACITY AND ELECTRICAL CHARACTERISTICS SHALL BE AS SCHEDULED.

1) HERMETICALLY SEALED COMPRESSOR WITH BUILT-IN OVERLOADS AND VIBRATION ISOLATION. COMPRESSOR MOTOR, SHALL HAVE THERMAL AND CURRENT SENSITIVE OVERLOAD DEVICES, INTERNAL HIGH-PRESSURE PROTECTION, HIGH AND LOW PRESSURE CUTOUT SWITCHES, START CAPACITOR AND RELAY, 2-POLE CONTACTOR, CRANKCASE HEATER, AND TEMPERATURE ACTUATED SWITCH AND TIMER TO PREVENT COMPRESSOR RAPID CYCLE.

2) COIL SHALL BE COPPER TUBING WITH ALUMINUM FINS; A GRILLE GUARD SHALL BE INCLUDED COIL SHALL BE FACTORY COATED FOR INCREASED CORROSION RESISTANCE.

3) ALUMINUM PROPELLER FAN SHALL BE DIRECT DRIVEN, WITH PERMANENTLY LUBRICATED FAN MOTOR HAVING THERMAL OVERLOAD PROTECTION.

4) UNIT SHALL HAVE AN OPERATING COOLING RANGE OF AT LEAST 5°F TO 122°F AND AN OPERATING HEATING RANGE OF AT LEAST -13°F TO 86°F.

14. CONTROL WIRING:

A. ELECTRICAL WIRING AND WIRING CONNECTIONS REQUIRED FOR THE INSTALLATION OF THE TEMPERATURE CONTROL SYSTEM, SHALL BE PROVIDED BY THIS CONTRACTOR, UNLESS SPECIFICALLY SHOWN ON THE ELECTRICAL DRAWINGS OR SPECIFICATIONS.

B. INSTALL CONTROL WIRING, WITHOUT SPLICES BETWEEN TERMINAL POINTS, COLOR CODED. INSTALL IN NEAT WORKMANLIKE MANNER, SECURELY FASTENED. INSTALL IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND THE ELECTRICAL SPECIFICATIONS.

1) INSTALL CIRCUITS OVER 25 VOLT WITH COLOR CODED NUMBER 12 WIRE.

2) INSTALL CIRCUITS UNDER 25 VOLT WITH COLOR CODED NUMBER 18 WIRE WITH 0.031 INCH HIGH TEMPERATURE 105 DEGREES F PLASTIC INSULATION ON EACH CONDUCTOR AND PLASTIC SHEATH OVER ALL.

3) INSTALL ELECTRONIC CIRCUITS WITH COLOR CODED NUMBER 22 WIRE WITH 0.023 INCH POLYETHYLENE INSULATION ON EACH CONDUCTOR WITH PLASTIC JACKETED COPPER SHIELD OVER ALL.

4) INSTALL LOW VOLTAGE CIRCUITS, LOCATED IN CONCRETE SLABS AND MASONRY WALLS, OR EXPOSED IN OCCUPIED AREAS, IN ELECTRIC CONDUIT.

5) ALL WIRING IN AREAS USED AS AIR PLENUMS SHALL BE IN ELECTRIC CONDUIT EXCEPT THAT LOW VOLTAGE WIRING MAY BE TEFLON COATED, ALUMINUM SHEATHED CABLE OR OTHER WIRE SPECIFICALLY APPROVED FOR INSTALLATION IN AIR PLENUMS, WHERE ACCEPTABLE BY LOCAL CODES.

6) ALL WIRING IN AREAS NOT USED FOR AIR MOVEMENT SHALL BE IN ELECTRIC METALLIC TUBING EXCEPT LOW VOLTAGE WIRING MAY BE IN APPROVED SIGNAL CABLE WHERE ACCEPTED BY LOCAL CODES.

C. THERMOSTATIC CONTROLS TO HAVE A 5°F DEADBAND AND SETPOINT OVERLAP RESTRICTIONS.

1) TEMPERATURE CONTROLS SETBACK TO BE 55°F (HEAT) AND 85° (COOL), 2-HOUR OCCUPANT OVERRIDE, 10-HOUR BACKUP.

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MISSOURI
PE COA #2009003629

4/5/2023

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ERIK B. KNUDSEN
NUMBER
PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
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REVISION:

SHEET TITLE
MECHANICAL/PLUMBING SPECIFICATIONS

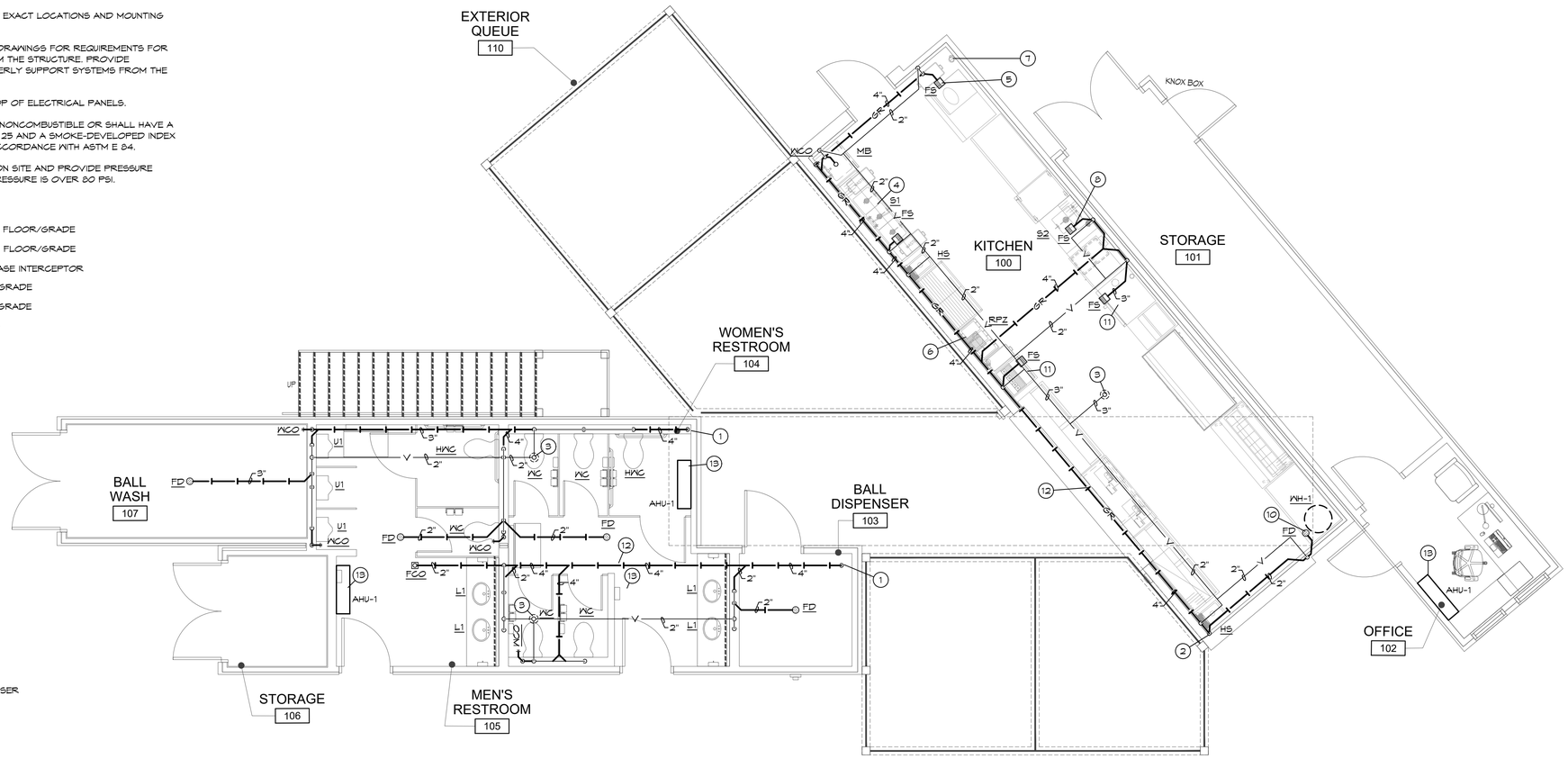
MP0

PLUMBING GENERAL NOTES:

1. INSTALL ALL PIPE, ETC. AS HIGH AS POSSIBLE.
2. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES.
4. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING PIPING, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
5. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
6. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
7. CONTRACTOR TO TEST WATER PRESSURE ON SITE AND PROVIDE PRESSURE REDUCING VALVE ON WATER SERVICE IF PRESSURE IS OVER 80 PSI.

PLUMBING SYMBOLS

- SOIL AND WASTE PIPING BELOW FLOOR/GRADE
- SOIL AND WASTE PIPING ABOVE FLOOR/GRADE
- GREASE WASTE PIPING TO GREASE INTERCEPTOR
- SANITARY VENT PIPING ABOVE GRADE
- SANITARY VENT PIPING BELOW GRADE
- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER PIPING
- PIPING TURNING DOWN
- PIPING TURNING UP
- TEE TOP CONNECTION
- UNION
- BACKFLOW PREVENTER
- FD — FLOOR DRAIN
- FCO — FLOOR CLEAN OUT
- WCO — WALL CLEAN OUT
- GCO — GRADE CLEAN OUT
- VALVE
- BALANCING VALVE
- SOLENOID VALVE
- PRESSURE REGULATOR
- CHECK VALVE
- CONNECT TO EXISTING
- I.E. — INVERT ELEVATION OF PIPE
- (A) — MATCH MARKS ON PLUMBING RISER DIAGRAM



PLUMBING PLAN NOTES:

1. 4" WASTE PIPING ROUTED DOWN BELOW GRADE. SEE CIVIL PLAN FOR CONTINUATION OF 4" SANITARY SEWER. MAINTAIN 30" COVER.
2. 4" GREASE WASTE ROUTED DOWN BELOW GRADE AND TO GREASE INTERCEPTOR. MAINTAIN 36" COVER.
3. PROVIDE VENT THROUGH ROOF. FLASH AS REQUIRED TO SEAL PENETRATION WEATHER TIGHT. VERIFY 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
4. CONNECT (3) 1-½" DRAINS FROM 3-COMPARTMENT SINK AND ROUTE TO FLOOR SINK WITH AN AIR GAP. LOCATE FLOOR SINK IN ACCESSIBLE LOCATION.
5. ROUTE DRAIN FROM ICE MACHINE TO FLOOR SINK WITH AN AIR GAP, AND PER THE MANUFACTURERS REQUIREMENTS.
6. ROUTE DRAIN FROM RPZ BFP TO FLOOR SINK WITH AIR GAP.
7. ROUTE DRAIN FROM WATER FILTER TO FLOOR SINK WITH AN AIR GAP AS REQUIRED.
8. ROUTE 1-½" DRAIN FROM PREP SINK TO FLOOR SINK WITH AN AIR GAP.
9. CONNECT WASTE AND VENT PIPING TO GREASE INTERCEPTOR AS DETAILED AND AS REQUIRED BY LOCAL JURISDICTION. LOCATE IN GRASSY AREA BEHIND BUILDING. SEE CIVIL DRAWINGS FOR EXACT LOCATION.
10. FLOOR DRAIN IN UPPER CONTAINER. ROUTE WASTE DOWN IN WALL AS REQUIRED.
11. ROUTE 1-½" DRAIN FROM KITCHEN EQUIPMENT TO FLOOR SINK WITH AN AIR GAP.
12. ALL WASTE PIPING IS TO BE ROUTED IN CRAWLSPACE AS REQUIRED.
13. ROUTE AIR HANDLER CONDENSATE TO DAYLIGHT AS REQUIRED.

NORTH

PLUMBING WASTE AND VENT FLOOR PLAN

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

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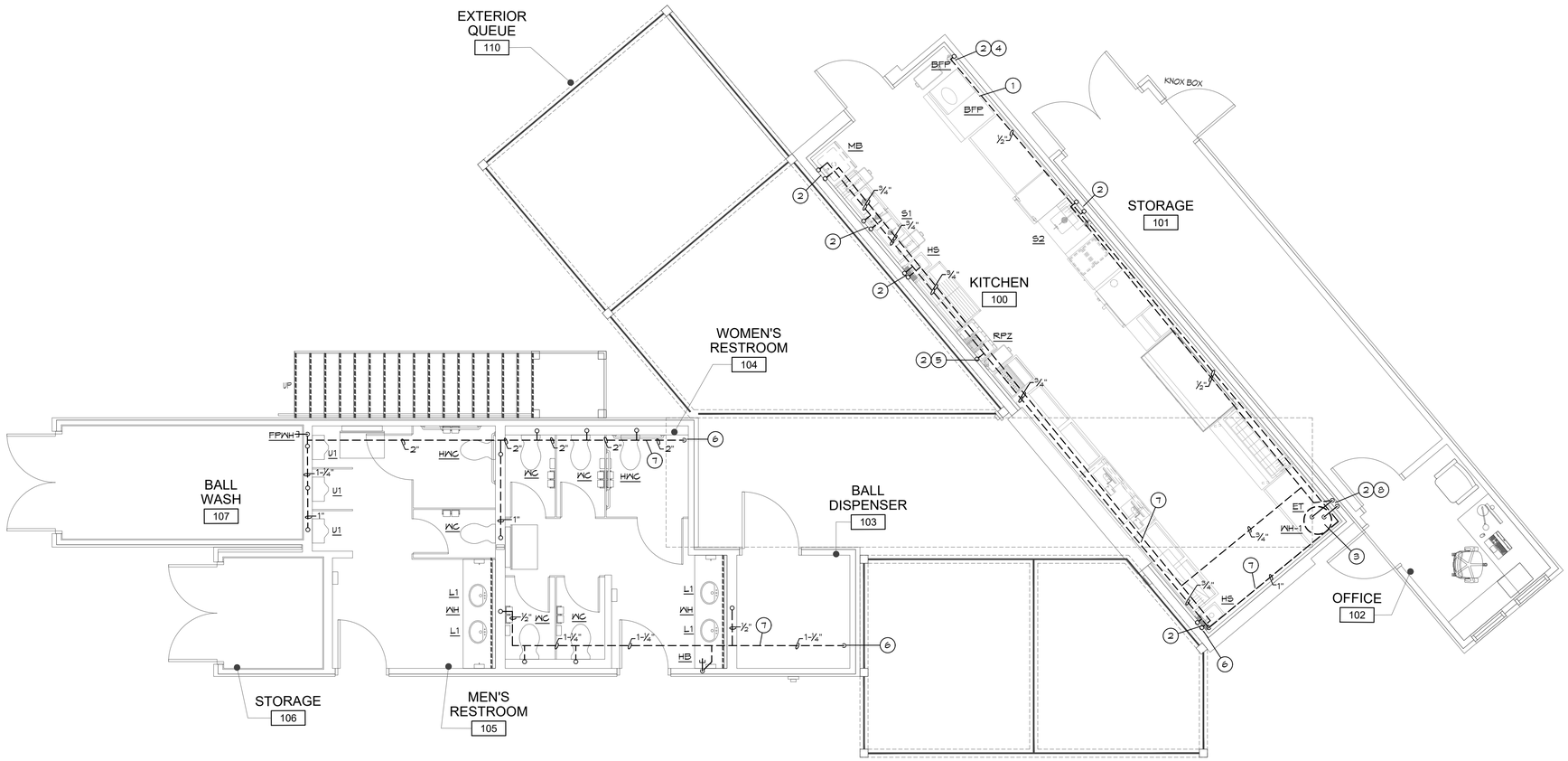
PLUMBING WASTE AND VENT FLOOR PLAN

P1



NORTH

PLUMBING WATER FLOOR PLAN

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

PLUMBING PLAN NOTES:

1. PROVIDE ½" FILTERED CW TO ICE MACHINE WITH SHUT-OFF VALVE.
2. ROUTE PIPING ON WARM SIDE OF INSULATION TO PROTECT FROM FREEZING.
3. SEE RISER DIAGRAM FOR WATER HEATER PIPING DIAGRAM. REFER TO MANUFACTURERS INSTRUCTIONS FOR EXACT REQUIREMENTS SET HOT WATER HEATER THERMOSTAT TO 140° F.
4. CONNECT ¾" CW TO WATER FILTER WITH BYPASS PER THE MANUFACTURER'S REQUIREMENTS. PLUMBING CONTRACTOR TO LOCATE WATER FILTER SUPPLY LINE ACCORDINGLY.
5. PROVIDE ½" CW TO SODA SYSTEM. PROVIDE RPZ BACKFLOW PREVENTOR AS APPROVED BY WATER DEPARTMENT IN ACCESSIBLE LOCATION ADJACENT TO BAG-IN-BOX. NO COPPER PIPE DOWNSTREAM OF BFP.
6. INCOMING DOMESTIC WATER SERVICE LINE INTO CRAWL SPACE. SEE CIVIL PLAN FOR CONTINUATION OF DOMESTIC SERVICE LINE OUTSIDE OF BUILDING.
7. CW AND HW PIPING ROUTED IN CRAWL SPACE AS REQUIRED. COORDINATE WITH E.C. FOR HEAT TRACING.
8. CW AND HW PIPING ROUTED IN WALL UP TO WATER HEATER IN CONTAINER ABOVE.

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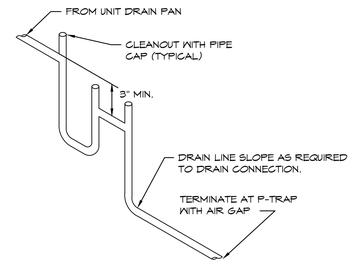
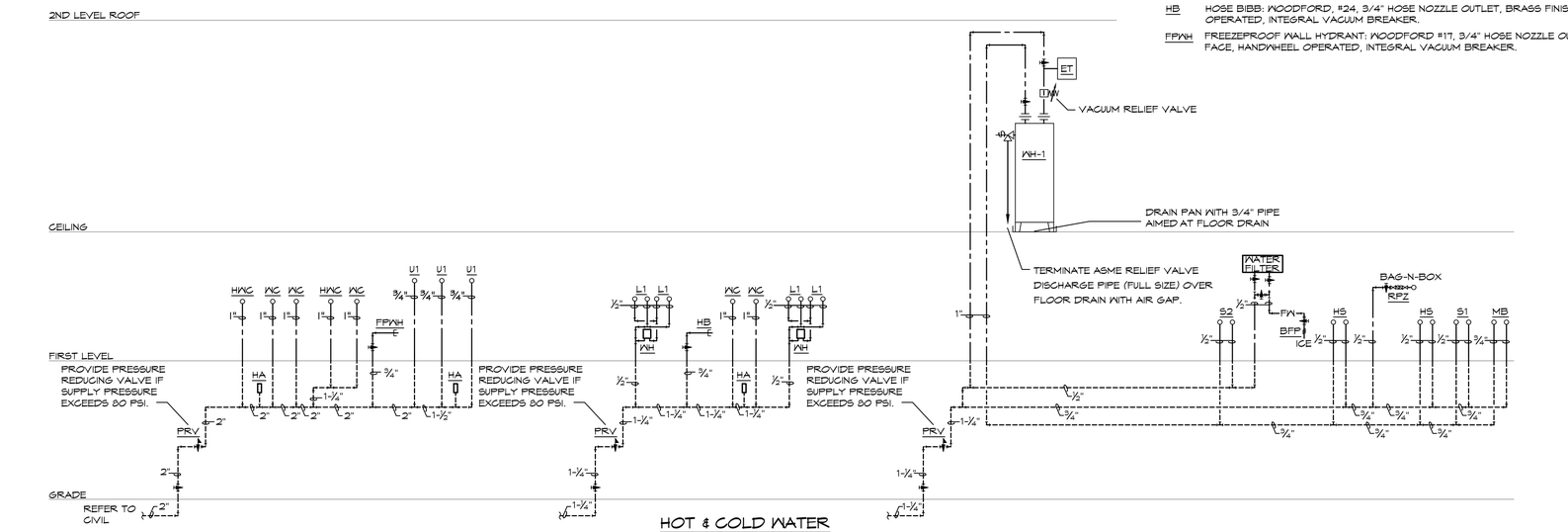
P2



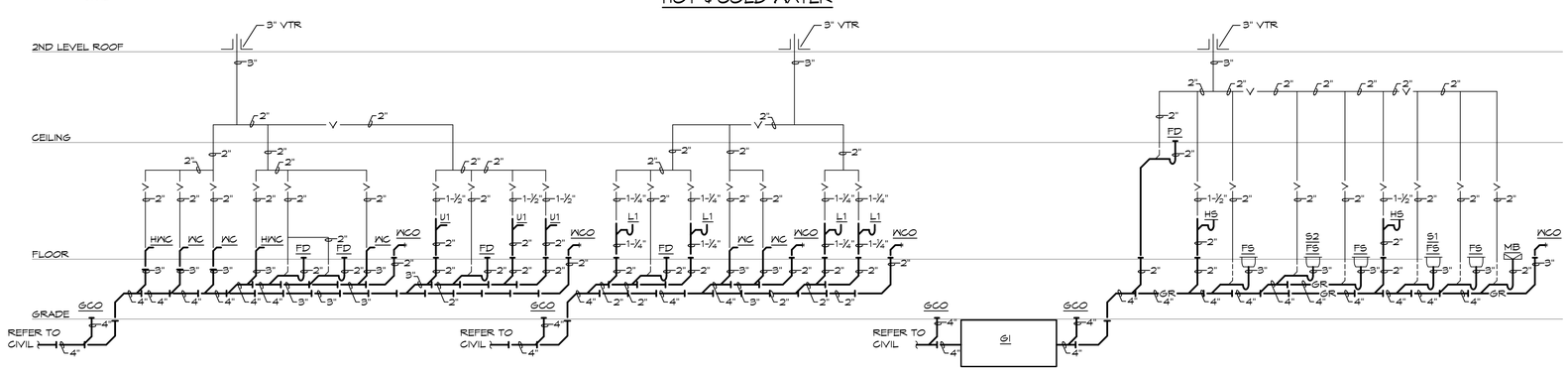
CONDENSATE DRAIN DETAIL
SCALE: NONE

PLUMBING FIXTURE SCHEDULE (OR EQUAL):

WH	TANKLESS HOT WATER HEATER: STIEBEL ELTRON MINI-E 6, 208 VOLT, 6.0 KW.
WH-1	HOT WATER HEATER: AO SMITH #DEL-40, 40 GALLON STORAGE, 208 VOLT 1ϕ, (2) 4500 WATT ELEMENT, NON-SIMULTANEOUS, ASME TEMPERATURE AND PRESSURE RELIEF VALVE.
S1	3-COMPARTMENT SINK: PROVIDED BY KITCHEN EQUIPMENT SUPPLIER, INSTALLED BY PLUMBING CONTRACTOR. PROVIDE (3) 1-1/2" ROTARY OPERATED DRAINS WITH TAILPIECES, WASTE MANIFOLD PIPING, CHROME PLATED ANGLE STOPS AND RISERS.
S2	PREP SINK: PROVIDED BY KITCHEN EQUIPMENT SUPPLIER, INSTALLED BY PLUMBING CONTRACTOR. PROVIDE 1-½" ROTARY OPERATED DRAIN WITH TAILPIECE, WASTE PIPING, CHROME PLATED ANGLE STOPS AND RISERS.
HS	HAND SINK: PROVIDED BY KITCHEN EQUIPMENT SUPPLIER. PROVIDE GRID DRAIN WITH 1-1/2" TAILPIECE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS, CONCEALED ARM FLOOR MOUNTED LAVATORY CARRIER.
MB	MOP BASIN: FIAT, #MSB-2424, MOLDED STONE MOP BASIN, 2" DRAIN, 24"x 24" BASIN, VINYL BUMPER GUARD, STERN WILLIAMS #T-10-VB FAUCET, SPRING CHECKS, VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE & PAIL HOOK, WALL BRACKET WITH 30" HOSE.
FS	FLOOR SINK: SIOUX CHIEF;, #861 SQUARE PVC FLOOR SINK WITH STAINLESS STEEL MESH DEBRIS SCREEN, PVC HALF OPEN STRAINER.
FD	FLOOR DRAIN: SIOUX CHIEF, #842-PB, PVC FLOOR DRAIN WITH ADJUSTABLE TOP AND CAST BRASS STRAINER.
RPZ	REDUCED ZONE PRESSURE BACKFLOW PREVENTOR: WATTS #LF009, LEAD FREE BRONZE BODY CONSTRUCTION, TWO, IN-LINE INDEPENDENT CHECK VALVES, REPLACEABLE CHECK SEATS WITH AN INTERMEDIATE RELIEF VALVE, AND BALL VALVE TEST COCKS. USC APPROVED.
WC	WATER CLOSET: OWNER PROVIDED VITREOUS CHINA, WALL HUNG, ELONGATED BOWL, SIPHON JET ACTION, OWNER PROVIDED FLUSH VALVE, 1.28 GAL/FLUSH, WHITE OPEN FRONT ELONGATED SEAT, FLOOR MOUNTED FIXTURE SUPPORT (HEAVY DUTY 500 LB CAPACITY).
HWC	WATER CLOSET (HANDICAPPED): SAME AS WC, EXCEPT 18" HIGH BOWL FOR HANDICAPPED.
L1	HANDICAP LAVATORY, COUNTERTOP: OWNER PROVIDED, INSTALLED BY PLUMBING CONTRACTOR. PROVIDE CHROME PLATED ANGLE STOPS AND RISERS, INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROWRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
BFP	BACKFLOW PREVENTOR: WATTS #SD-3, DUAL CHECK VALVE WITH ATMOSPHERIC PORT & STRAINER.
GI	GREASE INTERCEPTOR: SCHIER GB-250 100 GPM GREASE INTERCEPTOR, PROVIDE FIELD CUT RISERS, GAS TIGHT COVERS, AND ASSOCIATED PIPING PER LOCAL CODE REQUIREMENTS.
HA	WATER HAMMER ARRESTOR: JR SMITH 'HYDROTROL' #5000 LEAD-FREE WATER HAMMER ARRESTOR, SIZED AS PER MANUFACTURER'S RECOMMENDATIONS.
HB	HOSE BIBB: WOODFORD, #24, 3/4" HOSE NOZZLE OUTLET, BRASS FINISH, HANDWHEEL OPERATED, INTEGRAL VACUUM BREAKER.
FPWH	FREEZEPROOF WALL HYDRANT: WOODFORD #17, 3/4" HOSE NOZZLE OUTLET, BRASS FACE, HANDWHEEL OPERATED, INTEGRAL VACUUM BREAKER.



HOT & COLD WATER



WASTE & VENT

PLUMBING RISER DIAGRAMS

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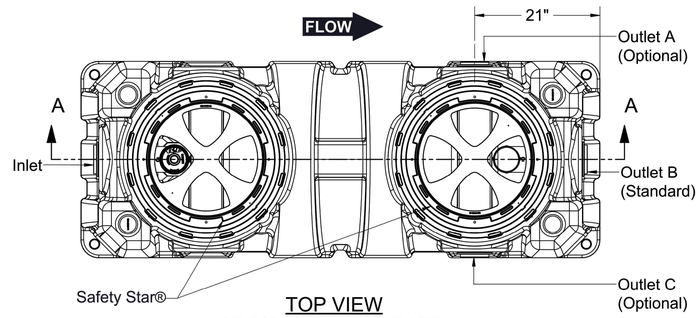
P3

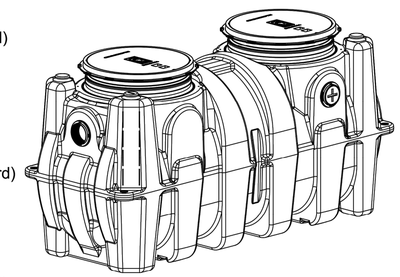
SPECIFICATIONS

Notes:

1. 4" FPT inlet/outlet with 4" plain end adapters, single inlet and triple outlet.
2. Unit weight - w/ cast iron covers: 376 lbs. (For wet weight add 2,310 lbs.)
3. Maximum operating temperature: 150º F continuous
4. Capacities - Liquid: 277 gal.;
   Grease: 1,895 lbs. (260 gal.) @100GPM
   Grease: 1,196 lbs. (164 gal.) @200GPM
   Solids: 69 gal.
5. This unit does not require flow control for 100 GPM applications. Built-in flow control is provided for 200 GPM applications. For series installations, only install flow control on the first unit in the series if necessary.
6. For gravity drainage applications only.
7. Do not use for pressure applications.
8. Cover placement allows full access to tank for proper maintenance.
9. Vent not required unless per local code.
10. Engineered inlet and outlet diffusers with inspection ports are removable to inspect / clean piping.
11. Integral air relief / Anti-siphon / Sampling access.
12. Adjustable cover adapters provide up to 4" of additional height.
13. Designed for below-grade, above-grade, indoor or outdoor installations.
14. Safety Star®, access restrictor built into each cover adapter, prevents accidental entry to tanks (450 lb rating).



TOP VIEW
(COVERS REMOVED FOR CLARITY)



ISOMETRIC VIEW

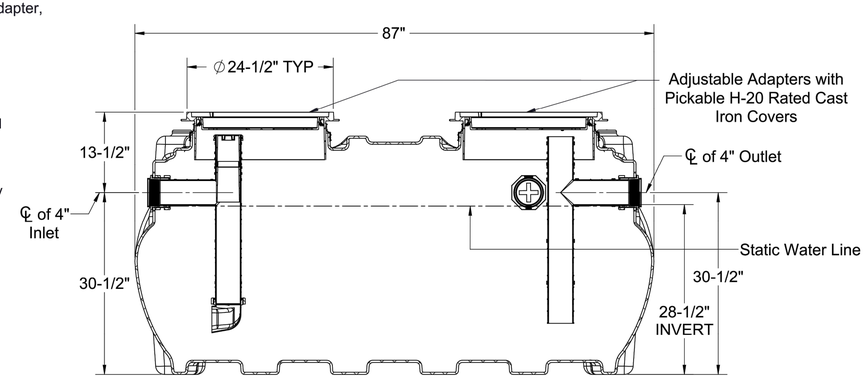
ENGINEER SPECIFICATION GUIDE

Schier Great Basin™ grease interceptor model # GB-250 shall be lifetime guaranteed and made in USA of seamless, rotationally-molded polyethylene with minimum 3/8" uniform wall thickness. Interceptor shall be furnished for above or below-grade installation with adjustable cover adapters, Safety Star® access restrictor built into each cover adapter, built-in flow control (for 200 GPM only) and three outlet options. Interceptor shall be certified to ASME A112.14.3 (Type D for 100 GPM, type C for 200 GPM) and CSA B481.1. Interceptor flow rate shall be 100 GPM or 200 GPM. Interceptor grease capacity shall be 1,895 lbs. @ 100 GPM or 1,196 lbs. @ 200 GPM. Cover shall provide water/gas-tight seal and have minimum 16,000 lbs. load capacity.

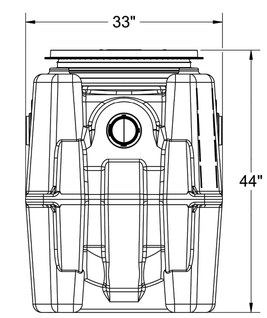
CERTIFIED PERFORMANCE

Great Basin™ hydromechanical grease interceptors are third party performance-tested and listed by IAPMO to ASME #A112.14.3 and CSA B481.1 grease interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code and the International Plumbing Code.

Type D certification does not require a flow control



SECTION A-A



END VIEW

SPECIFICATION SHEET

MODEL NUMBER:

GB-250

PROPRIETARY AND CONFIDENTIAL

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PART NUMBER: 4055-007-02

DESCRIPTION:
GB-250 GREASE INTERCEPTOR 100 GPM / 200 GPM, 4" INLET/OUTLET, H-20 RATED CAST IRON COVERS

DWG BY:	C.SINCLAIR	**DATE:**	5/4/2022	**REV:**	-	**ECO:**	-

UPC ® UPC C ®

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Shawnee, KS 66218
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MISSOURI
PE COA #2009003629

4/5/2023

STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER
PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
04/06/2023

REVISION:

SHEET TITLE
GREASE INTERCEPTOR DETAIL

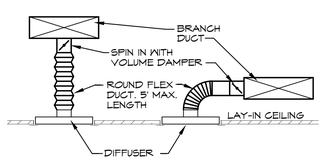
P4

MECHANICAL GENERAL NOTES:

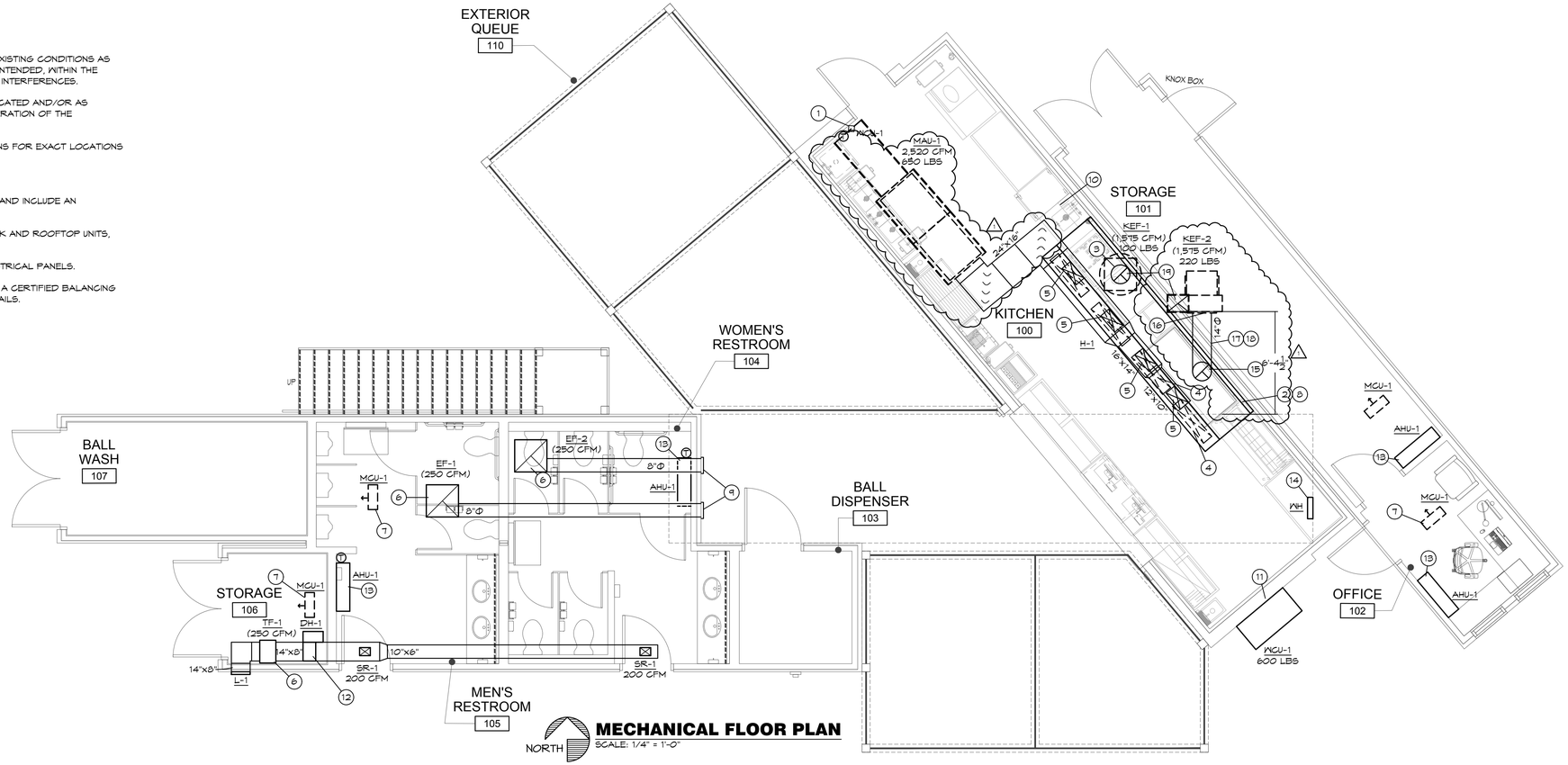
1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
4. INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
5. DUCT SIZES SHOWN ARE ACTUAL SHEET METAL SIZES AND INCLUDE AN ALLOWANCE FOR DUCT LINER WHERE APPLICABLE.
6. PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND ROOFTOP UNITS, EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
7. NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
8. ALL MECHANICAL SYSTEMS SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REFER TO SPECIFICATIONS FOR DETAILS.

MECHANICAL SYMBOLS

- NEW SUPPLY DIFFUSER
- NEW RETURN AIR GRILLE
- EXHAUST GRILLE/FAN
- (S) REMOTE TEMPERATURE SENSOR
- (T) THERMOSTAT, MOUNTED AT 48" AFF
- NEW DUCTWORK
- 32"X14" SIZE OF RECTANGULAR DUCT
- 6"Φ SIZE OF ROUND DUCT
- FLEXIBLE DUCTWORK
- FLEXIBLE CONNECTION TO FAN
- (3) FLOOR PLAN NOTE DESIGNATION
- S.A. SUPPLY AIR
- R.A. RETURN AIR
- EXH. EXHAUST AIR
- TRANSITION IN DUCT SIZE
- ELBOW WITH TURNING VANES
- MANUAL VOLUME DAMPER
- MANUAL VOLUME DAMPER
- MOTORIZED CONTROL DAMPER
- FD FIRE DAMPER
- SPLITTER DAMPER WITH HORIZONTAL REGULATOR
- SUPPLY AIR DUCT UP/DOWN
- RETURN AIR DUCT UP/DOWN
- EXHAUST AIR DUCT UP/DOWN
- UP CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW
- RTU-1 SCHEDULED MECHANICAL EQUIPMENT



DIFFUSER DETAIL
SCALE: NONE



MECHANICAL FLOOR PLAN
SCALE: 1/4" = 1'-0"

MECHANICAL PLAN NOTES:

1. LOCATION OF MANUAL PULL STATION. INSTALL PER THE MANFUACTURERS REQUIREMENTS.
2. EXHAUST HOOD PROVIDED BY OTHERS. INSTALLED BY THIS CONTRACTOR PER THE MANUFACTURERS INSTRUCTIONS.
3. TRANSITION AND CONNECT 14"Φ GREASE DUCT TO EXHAUST HOOD WITH AS SHOWN. ROUTE DUCT UP AND CONNECT TO EXHAUST FAN. OFFSET AS NECESSARY TO MISS ROOF STRUCTURE, AND TO MAINTAIN 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES, AIMED AWAY FROM CONTIGUOUS BUILDING. ALL GREASE DUCT IS TO BE INSTALLED WITH DUCT WRAP AS DETAILED AND PER THE MANUFACTURERS REQUIREMENTS FOR 0" CLEARANCE TO COMBUSTIBLES.
4. TRANSITION AND CONNECT MAKE-UP AIR DUCT TO EXHAUST HOOD SUPPLY PLENUM PER THE MANUFACTURERS REQUIREMENTS. ROUTE DUCT DOWN THROUGH ROOF. SEAL PENETRATION WEATHERTIGHT. SEE SHEET M3 FOR CONNECTION SIZE AND SUPPLY CFM.
5. 16X8" DUCT DOWN THROUGH ROOF, TRANSITION AND CONNECT MAKE-UP AIR DUCT TO EXHAUST HOOD SUPPLY PLENUM PER THE MANUFACTURERS REQUIREMENTS. SEE SHEET M3 FOR CONNECTION SIZE AND SUPPLY CFM.
6. SUPPORT EXHAUST FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
7. MOUNT CONDENSING UNIT ON ROOF AS DETAILED AND AS REQUIRED BY THE MANUFACTURER. CONNECT REFRIGERANT PIPING AS REQUIRED BY THE MANUFACTURER. SEE ARCHITECTURAL PLANS FOR MOUNTING DETAIL.
8. HOOD SHALL BE PROVIDED WITH FACTORY PRE-WIRE PACKAGE AND A PRE-ENGINEERD UL-300 FIRE SUPPRESSION SYSTEM. SEE HOOD DRAWINGS FOR DETAILS.
9. ROUTE 10"Φ EXHAUST TO WALL CAP WITH BACKDRAFT DAMPER. MAINTAIN 10'-0" CLEARANCE TO ALL OUTDOOR AIR INTAKES.
10. MAKEUP AIR DUCT ROUTED ON ROOF AS REQUIRED.
11. INSTALL WALL SLEEVE AND ARCHITECTURAL GRILLE PER MANUFACTURERS INSTRUCTIONS. SUPPORT FROM WALL PER MANUFACTURER'S REQUIREMENTS.
12. SUPPORT DUCT HEATER FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
13. REFRIGERANT PIPING UP THROUGH ROOF. SEAL PENETRATION WEATHERTIGHT. ROUTE PIPE UP INSIDE WALL AS HIGH AS POSSIBLE AND ROUTE TO UNITS. SUPPORT UNIT FROM WALL AS REQUIRED BY MANUFACTURER'S REQUIREMENTS.
14. WALL HEATER LOCATED IN UPPER CONTAINER. SUPPORT FROM STRUCTURE AS REQUIRED BY MANUFACTURER. △
15. TRANSITION AND CONNECT 14"Φ GREASE DUCT TO EXHAUST HOOD WITH AS SHOWN. ROUTE DUCT UP THROUGH ROOF AND TOO EXHAUST FAN. OFFSET AS NECESSARY TO MISS ROOF STRUCTURE, AND TO MAINTAIN 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES, AIMED AWAY FROM CONTIGUOUS BUILDING. ALL GREASE DUCT IS TO BE INSTALLED WITH DUCT WRAP AS DETAILED AND PER THE MANUFACTURERS REQUIREMENTS FOR 0" CLEARANCE TO COMBUSTIBLES.
16. TRANSITION CONNECT GREASE DUCT TO EXHAUST FAN AS REQUIRED. OFFSET FAN AS REQUIRED TO MAINTAIN 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES AND PROPERTY LINES.
17. SLOPE GREASE DUCT 1/4"/FT TOWARDS HOOD AS REQUIRED.
18. SUPPORT DUCTWORK ON ROOF AS REQUIRED.
19. INSTALL 45° WIND BAND EXTENSION, POINTED AWAY FROM 2ND STORY STRUCTURE.

KITCHEN AIR BALANCE SCHEDULE

SUPPLY AIR UNIT	OUTSIDE AIRFLOW (CFM)	RETURN AIRFLOW (CFM)	SUPPLY AIRFLOW (CFM)	OA/SA %	EXHAUST AIR UNIT	EXHAUST AIRFLOW (CFM)
WCU-1	650	1750	2400	27.0%	KEF-1	1575
					KEF-2	1575
MUA-1	2520	0	2520	100.0%		
TOTAL	3170	1750	4920	64.4%	TOTAL	3150
RESULTING BUILDING PRESSURIZATION						20 CFM

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MISSOURI
PE COA #2009003629

5/16/2023

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ERIK B. KNUDSEN
NUMBER
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REGISTERED PROFESSIONAL ENGINEER

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SHEET TITLE
MECHANICAL FLOOR PLAN

M1

ELECTRIC WALL HEATER SCHEDULE

MARK	MFGR	MODEL NO.	BTUH	ELECTRICAL VOLT/Ø/HZ	ELECTRICAL KW	REMARKS
WH-1	MARKEL	HF3325TD-RP	7763	208/1/60	2.25	-

NOTES: 1. UNITS SHALL BE SURFACE MOUNTED.
2. PROVIDE INTEGRAL DISCONNECT & INTEGRAL THERMOSTAT FOR EACH UNIT.

LOUVER SCHEDULE

MARK	MFGR	MODEL	FRAME	SIZE W X H	NOTES
L-1	RUSKIN	ELF375DX	STD	14"X8"	1,2,3,4

NOTES: 1. PROVIDE WITH BIRDSCREEN.
2. ARCHITECT TO SELECT COLOR, PRIMED FOR FIELD PAINT.
3. NORMALLY CLOSED MOTORIZED DAMPER TO OPEN WITH EF, COORDINATE WITH ELECTRICAL.
4. PROVIDE WITH BACKDRAFT DAMPER.

DUCT MOUNTED HEATER SCHEDULE

MARK	MFGR	MODEL NO.	DIMENSION W X H (IN)	BTUH	ELECTRICAL VOLT/Ø/HZ	ELECTRICAL WATTS	NOTES
DH	INDEECO	TFQU	14"X8"	27296	208/3/60	8 KW	1

NOTES: 1. PROVIDE INTEGRAL DISCONNECT & INTEGRAL THERMOSTAT FOR EACH UNIT.

MINI SPLIT SYSTEM AC/HEAT PUMP CONDENSING UNIT SCHEDULE

MARK	MFGR	MODEL NO.	NOMINAL TONS	COOLING BTU/h	ELECTRICAL VOLT/Ø/HZ	ELECTRICAL BREAKER SIZE (AMPS)	SEER	NOTES
MCU-1	AUX	FVR1DI-US	1.0	12,000	120/1/60	25	25	4 REQ'D

1. MECHANICAL CONTRACTOR SHALL COORDINATE ALL UNIT MOCP'S OF ACTUAL INSTALLED EQUIPMENT WITH ELECTRICAL CONTRACTOR.
2. PROVIDE HAIL GUARDS, HEATED DRAIN PAN, EQUIPMENT STAND FOR EACH UNIT.

MINI SPLIT SYSTEM AC INDOOR UNIT SCHEDULE

MARK	MFGR	INDOOR UNIT MODEL NO.	EVAP. CFM	NOMINAL TONS	ELECTRICAL MCA (A)	ELECTRICAL VOLT/Ø/HZ	AHU WEIGHT (LBS)	OUTDOOR UNIT	REMARKS
AHU-1	AUX	ASW-12UB	353	1	1	120/1/60	30	CU-1	4 REQ'D

NOTES: 1. PROVIDE WIRED THERMOSTAT CONTROL, REFRIGERANT LINESETS, ELECTRICAL WHIPS. COORDINATE UNIT MOCP WITH ELECTRICAL CONTRACTOR.

EXHAUST FAN SCHEDULE

MARK	MFGR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL VOLT/Ø/HZ	ELECTRICAL P/WR	FAN TYPE	CONTROLS	NOTES
EF-1	COOK	GC-542	250	0.25	1,600	120/1/60	85 W	CEILING EXH.	CONTINUOUS	1
EF-2	↓	GC-542	250	↓	1,600	↓	85 W	↓	CONTINUOUS	1
TF-1	↓	GN-642	400	↓	1,500	↓	131 W	↓	CONTINUOUS	2

NOTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), FACTORY MEANS OF DISCONNECT AND WEATHER HEAD.
2. PROVIDE VARI-SPEED CONTROLLER NEAR FAN AND ABOVE CEILING.

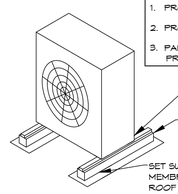
DIFFUSER SCHEDULE

MARK	MFGR	MODEL	BORDER TYPE	NECK SIZE	FACE SIZE	FINISH	DAMPER	ACCESSORIES	NOTES
SR-1	TITUS	300FS	1	8"X8"	-	WHITE	OB DAMPER	-	

WALL MOUNT AIR CONDITIONER UNIT SCHEDULE

MARK	MFGR	MODEL NO.	CFM	COOLING TOTAL BTUH	COOLING AMB.	COOLING EVAP. EAT DB/WB	HEATING TOTAL BTUH	HEATING KW	ELECTRICAL VOLT/Ø/HZ	ELECTRICAL MIN. MCA (AMPS)	ELECTRICAL MIN. MOCP (AMPS)	OUTDOOR AIR CFM	EER	WEIGHT	NOTES
WCU-1	BARD	W12ACPB	2,400	11,000	95	80/67	51,180	15	230/3/60	54	60	650	10	600 LBS	1 1 UNIT TOTAL

NOTES: 1. PROVIDE WIRED THERMOSTAT CONTROL, WALL SLEEVE, REFRIGERANT LINESETS, ELECTRICAL WHIPS DAH 30X10 SUPPLY REGISTER AND DARHFG 30X16 RETURN AIR FILTER GRILLE. COORDINATE UNIT MOCP WITH ELECTRICAL CONTRACTOR.



NOTES:
1. PROVIDE MANUFACTURERS RECOMMENDEDCLEARANCES BETWEEN CU & HP UNITS.
2. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED IF UNITS ARE NOT SAME WIDTH.
3. PAINT EXPOSED INSULATION WITH MANUFACTURER RECOMMENDED ULTRAVIOLET PROTECTIVE COATING.

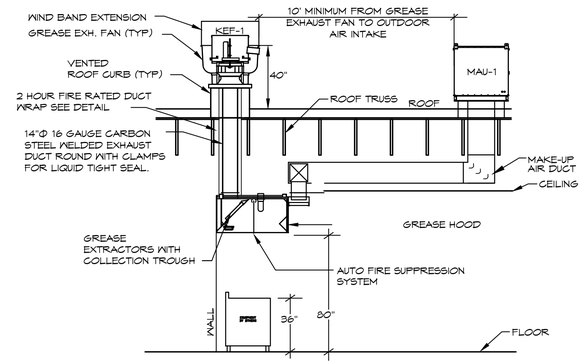
SECURE CONDENSING UNIT TO MOUNTING BLOCK.

MIFAB G6 (MINIMUM 19.2" LONG) ROOF SUPPORTS. ROUTE SUPPORTS PERPENDICULAR TO ROOF STRUCTURAL MEMBERS.

SET SUPPORTS ON ADDITIONAL MEMBRANE IN MASTIC (APPROVED BY ROOF MEMBRANE MANUFACTURER)

ROOF CONDENSING UNIT MOUNTING DETAIL

SCALE: NONE



GREASE HOOD DETAIL

SCALE: NONE

FIRE RATED ENCLOSURE - GREASE DUCTS

1. THERMAL CERAMICS FIREMASTER FASTWRAP XL IS TESTED TO ASTM E2336 AND UL LISTED PER HNKT.G18 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND TO PROVIDE A 1- OR 2- HOUR ENCLOSURE. THROUGH PENETRATIONS FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH ASTM E 814 (UL 1479). ICC-ES APPROVAL PER REPORT ESR 2213 OR ESR 2832.

2. COMPLIANT TO THE FOLLOWING CODES:
NFPA 96
INTERNATIONAL MECHANICAL CODES
UNIFORM MECHANICAL CODE.
CALIFORNIA MECHANICAL CODE

3. INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON BOTH LAYERS AT ALL JOINTS.

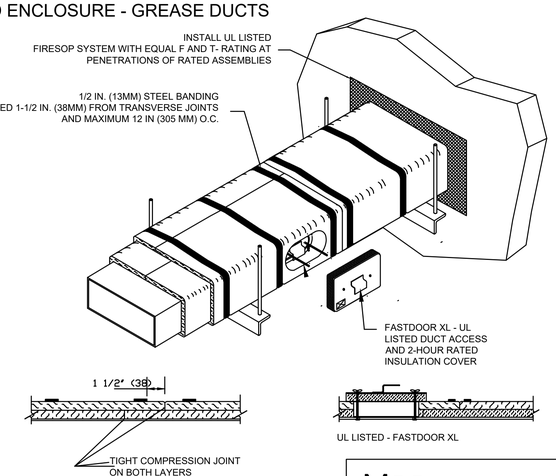
4. MINIMUM 16 GAUGE CARBON STEEL (OR 18 GAGE STAINLESS STEEL) RECTANGULAR OR ROUND GREASE EXHAUST DUCT

5. INSTALL UL LISTED AND LIQUID TIGHT THERMAL CERAMICS FASTDOOR XL ACCESS DOORS AT ALL CHANGES IN DIRECTION AND AT MINIMUM EVERY 20 FT ON HORIZONTAL RUNS.

6. SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE MINIMUM OF 3/8 IN. DIAMETER AND SUPPORTS ARE MINIMUM 2 X 2 X 1/8 IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.

7. THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED DIRECTLY ONTO THE DUCT AND APPLIED FROM THE HOOD CONNECTION TO THE CONNECTION TO THE FAN.

8. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND UL LISTINGS.



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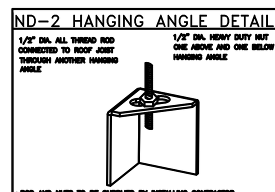
SHEET TITLE
MECHANICAL SCHEDULES

M2

ND-2 HANGING ANGLE DETAIL



*ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR HANGING ANGLE IS PRE-PUNCHED AT FACTORY

HANGING ANGLE LOCATIONS

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24"H)	DIM FROM FRONT (30"H)
CANOPY ND2	4.166"	2.246"	2.246"
ND2-PSP-F	4.166"	2.246"	2.246"
BACKSHELF BD-2	4.166"	2.246	-
VHB/VHB-G	36"X36"	42"X42"	48"X48"
FRONT/BACK DIMS BY SIZE	2.246"	2.246"	2.246"

CALCULATIONS UTILIZED

EXHAUST CFM=LENGTH OF HOOD X CFM/LIN.FT. (LOAD)

SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED

TOTAL DUCT AREA=144 X CFM / FPM(*)

DUCT LENGTH= TOTAL DUCT AREA / DUCT DEPTH

* CAPTIVE-AIRE DUCT CONNECTION SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 300-400 FPM.

BUILDING CODES

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:

LISTED #3054804-001 & #3054804-002 — STANDARD 710 — Intertek — BUILT IN ACCORDANCE WITH NFPA No. 96

Listed under ETL File number 3054804-001/002

CLEARANCE TO COMBUSTIBLES

CAPTIVE-AIRE HOODS HAVE OPTIONAL CLEARANCE REDUCTION SYSTEMS AVAILABLE AS FOLLOWS:

MATERIAL	CLEARANCE REDUCTION SYSTEM
NON-COMBUSTIBLE	NONE REQUIRED
LIMITED-COMBUSTIBLE	3" UNINSULATED STANDOFF
COMBUSTIBLE	1" INSULATED STANDOFF

GENERAL NOTES

INSTALLATION

1. ALL ELECTRICAL "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
2. ALL PLUMBING "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
3. HANGING BRACKETS LOCATED AND WELDED AS SHOWN ON PLANS. ALL OTHER HANGER MATERIALS PROVIDED BY INSTALLING CONTRACTORS.
4. ALL CONNECTIONS FROM CAPTIVE-AIRE DUCT PER MECHANICAL CONTRACTORS'S PLANS.
5. COOKING EQUIPMENT TO SHUTOFF IN EVENT OF FIRE.
6. EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
7. ALL LIGHTS FIXTURE SHOWN INSTALLED BY CAPTIVE-AIRE ARE FACTORY PREWIRED. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
8. LAMPS FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
9. SEISMIC RESTAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
10. INSTALLING CONTRACTORS ASSUME ALL RELATED REPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON THESE DOCUMENTS FOR ACCURACY, INTEGRATION, AND ADMINISTRATION OF CODE REQUIREMENTS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

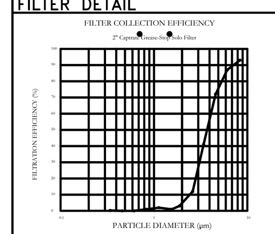
BALANCE

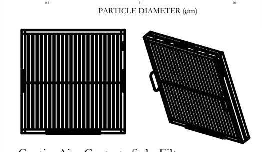
11. KITCHEN HOODS MUST BE BALANCED WITH KITCHEN.
12. KITCHEN SHALL BE NEGATIVE WITH RESPECT TO DINING AREA.
13. RESTAURANT SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.

ADDITIONAL

14. WRITTEN HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
15. SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE RECEIVED BY THE FACTORY PRIOR TO COMMENCEMENT OF FABRICATION.

FILTER DETAIL





CaptiveAire Captrate Solo Filter
ETL Listed Grease Extracting Filters
Made From 430 Stainless Steel

HOOD INFORMATION - JOB#5869548

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1	KH-1	3347 ELPX-2	ECON-AIR	15' 9"	450 DEG	I	MEDIUM	200	3150			4"	14"	1575	1473	-0.908"	0	430 SS WHERE EXPOSED	ALONE	ALONE
												4"	14"	1575	1473	-0.908"				
2	PSP-1	166 MISC-PSP	ECON-AIR	15' 9"	300 DEG	I	N/A	0	0								2520	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	KH-1	CAPTRATE SOLO FILTER	11	16"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	WALL MNT	12"x60"x24"	TANK FS	4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	508 LBS
2	PSP-1						0									NO	114 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	KH-1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 103.00" HIGH X 225.00" LONG 430 SS VERTICAL.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		STRUCTURAL FRONT PANEL.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
2	PSP-1	Front	189"	16"	6"	MUA	8"	36"		630	0.177"
						MUA	8"	36"		630	0.177"
						MUA	8"	36"		630	0.177"
						MUA	8"	36"		630	0.177"

WALL-MOUNT UTILITY CABINET

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S) FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	WEIGHT
1	WALL MNT	12"x60"x24"	TANK FS	4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	440.00 LBS

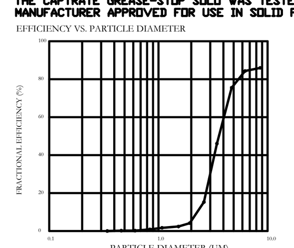
SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

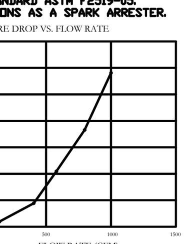
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE. THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.





CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

FOR QUESTIONS, CALL THE:
KANSAS CITY REGIONAL OFFICE
1126 SWIFT STREET, KANSAS CITY, MO 64116
PHONE: (816) 221-8575
FAX: (816) 221-8311

CUSTOMER APPROVAL TO MANUFACTURE:

- ☐ Approved as Noted
- ☐ Approved with NO Exception Taken
- ☐ Revise and Resubmit

SIGNATURE ____________

Your Title ____________ Date ________

*** NOTE ***
ALL WALLS AND STRUCTURES THAT COME WITHIN 18" OF HOOD MUST BE METAL STUDS AND SHEETROCK. WOOD STUDS OR ANY OTHER COMBUSTIBLE MATERIAL WITHIN 18" OF HOOD NO ALLOWED.

*** NOTE ***
HOOD MANUFACTURER RECOMMENDS NO RETURNS OR 4-WAY DIFFUSERS WITHIN 10 FEET OF HOOD IN ALL DIRECTION.

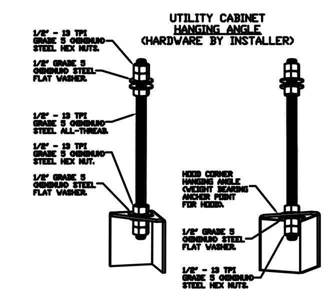
*** NOTE ***
MAKEUP AIR SHALL BE DELIVERED INTO SPACE IN MANNER THAT WILL NOT DISRUPT HOODS ABILITY TO CAPTURE AND CONTAIN.

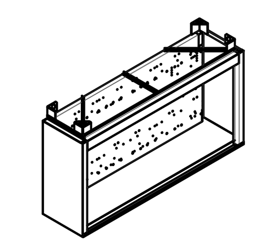
PATENT NUMBERS

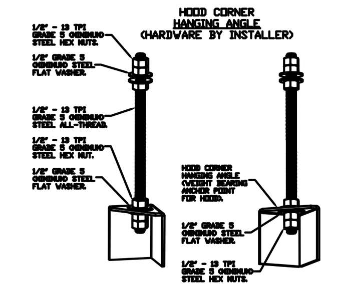
AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

WALL-MOUNT UTILITY CABINET ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH UTILITY CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.







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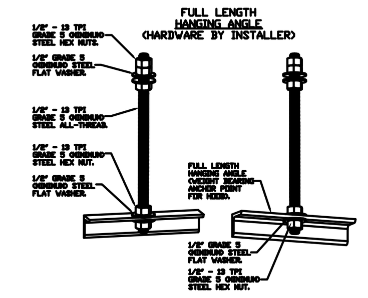

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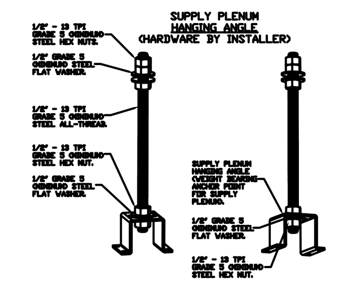

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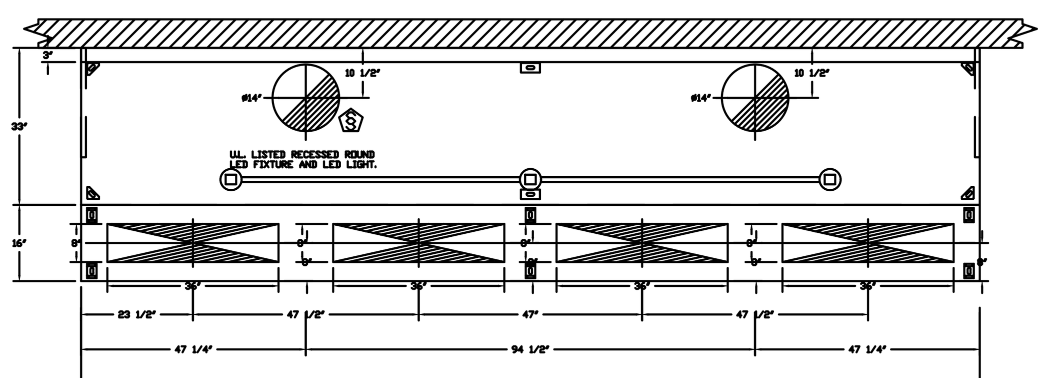
REVISIONS — DESCRIPTION — DATE

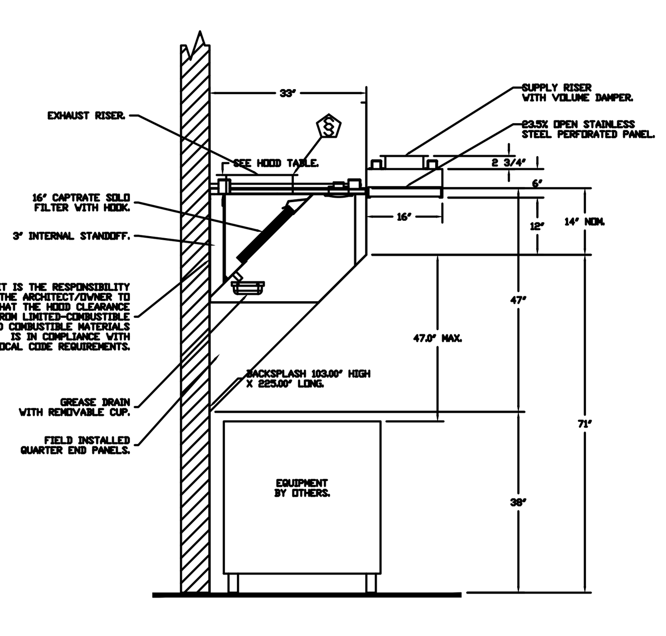
econ·air Air Solutions — www.econair.com
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg120@captiveaire.com

Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 2/23/2023
DWG.#: 5869548
DRAWN BY: michael.co
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1



PLAN VIEW - HOOD #1 (KH-1)
15' 9.00" LONG 3347ELPX-2
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.



SECTION VIEW - MODEL 3347ELPX-2
HOOD - #1 (KH-1)

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Blue Jeans Golf
BLUE SPRINGS, MO, 64014

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SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 2

FIRE SYSTEM INFORMATION - JOB#5869548

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION SYSTEM	LOCATION ON HOOD
1	FSS-1	TANK FS	4.0/4.0/4.0	28	WALL UTILITY CABINET LEFT	N/A

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1	FSS-1	0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F.	2	0
		0 - 0 - 361091 3/8" BRASS PLUG.	3	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	3	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 - 0 - 79425 3/8" NPT FEMALE TO 1/2" MALE PROPRESS ADAPTER.	3	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2"NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2"NPT FEMALE CONNECTION, VIEGA.	3	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	12	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	9	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	4	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	6	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" NPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	4	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - SLPCON-20FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UPTO 19' GAP. KIT CONTAINS 22 FEET OF BLACK MG WIRE, 22 FEET OF TAN MG WIRE, 20 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	9	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	3	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	7	0
		16 - 16 - OL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE)- 4 FLOW POINTS.	7	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	7	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

REVISIONS — DESCRIPTION — DATE

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Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 2/23/2023
DWG.#: 5869548
DRAWN BY: michael.co
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 3

BC ENGINEERS INCORPORATED
5720 Reeder
Shawnee, KS 66203
(913)262-1772

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MISSOURI
PE COA #2009003629

4/5/2023

STATE OF MISSOURI — ERIK B. KNUDSEN — NUMBER PE-2004026504 — REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

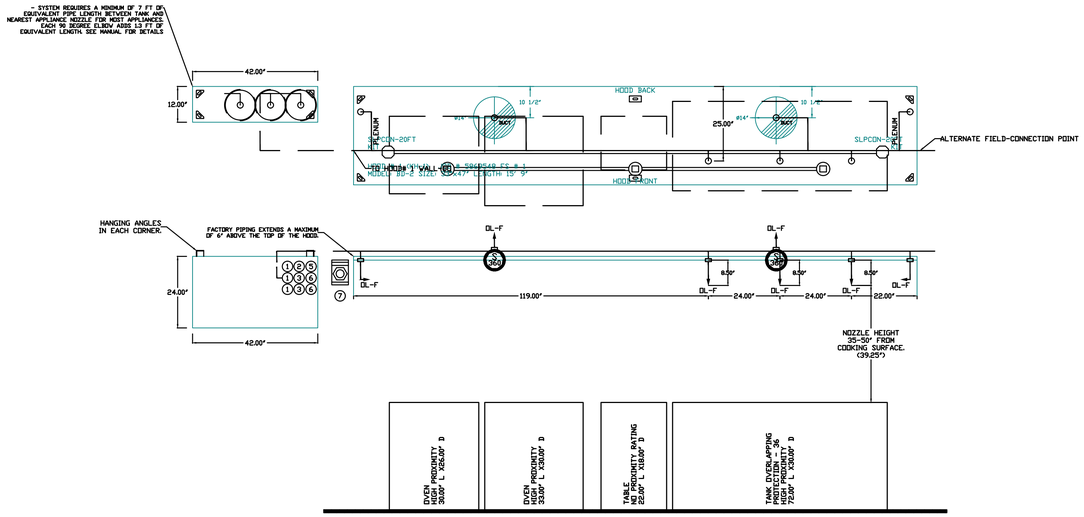
A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE: 04/06/2023

REVISION:

SHEET TITLE
MECHANICAL HOOD SHEETS

M3



NOTES
- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH UL 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

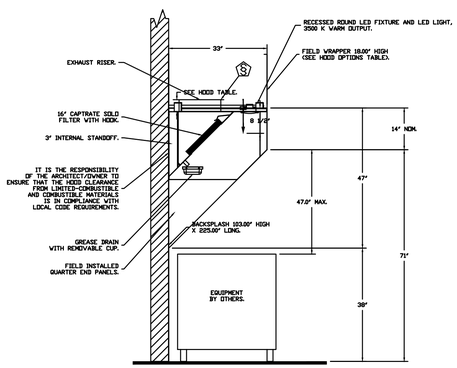
JOB #: 5869548.
JOB NAME: BLUE JEANS GOLF.

SYSTEM SIZE: TANK-SP-3-WC TOTAL FP REQUIRED: 28.
HOOD # 1 15' 9.00" LONG x 33" WIDE x 47" HIGH.
RISER # 1 SIZE: 14" DIA.
RISER # 2 SIZE: 14" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND - FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.



SECTION VIEW - MODEL 3347BD-2
HOOD - #1

REVISIONS

DESCRIPTION	DATE:

econ·air
Air Solutions
www.econair.com
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg120@capitveaire.com

Blue Jeans Golf
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SHEET NO. 4

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PE COA #2009003629
4/5/2023
STATE OF MISSOURI
ERIK B. KNUDSEN
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REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
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A PROJECT FOR:
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LEE'S SUMMIT, MO 64015

ISSUE DATE: 04/06/2023
REVISION:

SHEET TITLE
MECHANICAL HOOD SHEETS

M4

EXHAUST FAN INFORMATION – JOB#5869548

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF-1	1	EADU85H	ECON-AIR	1575	1.200	1391	TEAO-ECM	1.000	0.4730	1	208	6.9	498 FPM	131	12.1
2	KEF-2	1	USBI13DD-RM	CAPTIVEAIRE	1575	1.000	1567	TEAO-ECM	1.000	0.5180	1	208	6.9	1379 FPM	219	13.4

1

MUA FAN INFORMATION – JOB#5869548

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
3	MAU-1	1	E2-E.452-20D	20MF-2-MOD	A2-E.452	2000	2520	0.500	1036	ODP,PREMIUM	1.000	0.6280	3	230	3.4	5.3A	15A	637	7.3

ELECTRIC MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	DSGN KW'S	MAX KW'S	PHASE	VOLTS	AMPERAGE	TEMP RISE	OUTPUT BTUs
3	MAU-1	43	44	3	240	106.0	55 °F	150172

FAN OPTIONS

1

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF-1	1	GREASE BOX
		1	EXHAUST FAN HEAT BAFFLE
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	45° WIND BAND EXTENSION 15 (SHIPS LOOSE). ADDS 3 WEEKS TO FAN LEAD TIME
		1	2 YEAR PARTS WARRANTY
2	KEF-2	1	BI13 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 14" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER
		1	UTILITY SET GREASE CUP
		1	BI13 - INLET CONNECTION STANDARD 14" FLANGED GREASE DUCT
		1	UTILITY SET - SPRING VIBRATION ISOLATORS - BI11 THRU BI15 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE
		1	BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE
		1	BI13 - 14" DISCHARGE ADAPTER
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
3	MAU-1	1	EH 2 MUA CONTROLS SHEET METAL
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	FREEZESTAT (10)
		1	OPPOSITE SIDE ELECTRIC HEATER CONTROLS
		1	CUSTOM KW COIL (ADDITIONAL 3 WEEKS LEAD TIME)
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-1	YES						
2	KEF-2	YES						
3	MAU-1				YES		YES	

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1	36 LBS	CURB	23.000"W X 23.000"L X 20.000"H ALONG LENGTH, RIGHT VENTED HINGED.
2	# 2	KEF-2	36 LBS	RAIL	4.000"W X 36.000"L X 12.000"H ALONG WIDTH, RIGHT COMES AS A SET OF 2.
3	# 3	MAU-1	76 LBS	CURB	31.000"W X 79.000"L X 15.000"H ALONG WIDTH, RIGHT INSULATED.

REVISIONS

	DESCRIPTION	DATE:
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Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 5/2/2023

DWG.#: 5869548

DRAWN BY: michael.co

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 5

BC ENGINEERS INCORPORATED
5720 Reeder
Shawnee, KS 66203
(913)262-1772

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MISSOURI
PE COA #2009003629

5/16/2023

STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER
PE-2004026504
PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

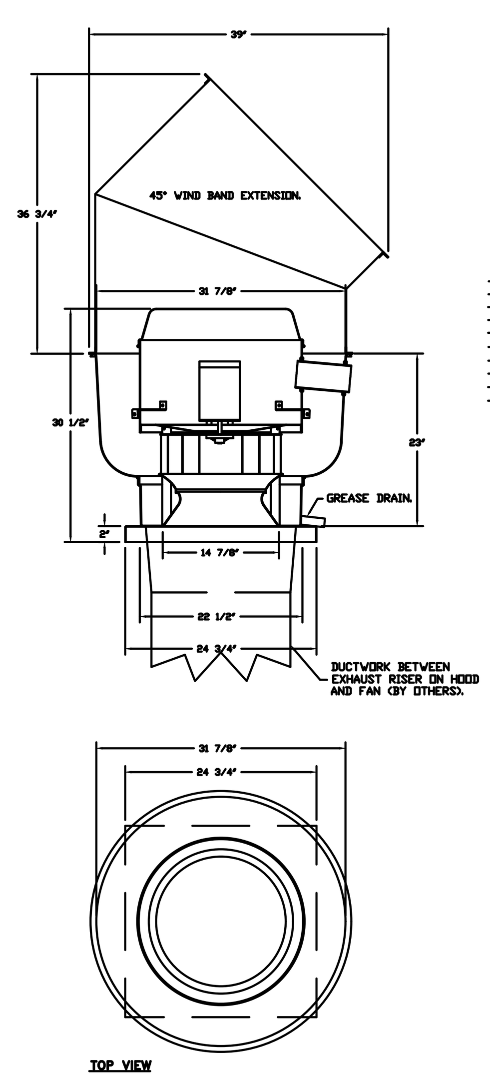
ISSUE DATE: 04/06/2023

REVISION:
△1 05/16/2023

SHEET TITLE
MECHANICAL HOOD SHEETS

M5

FAN #1 EADU85H - EXHAUST FAN (KEF-1)



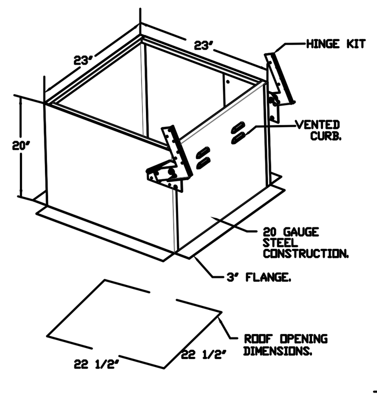
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

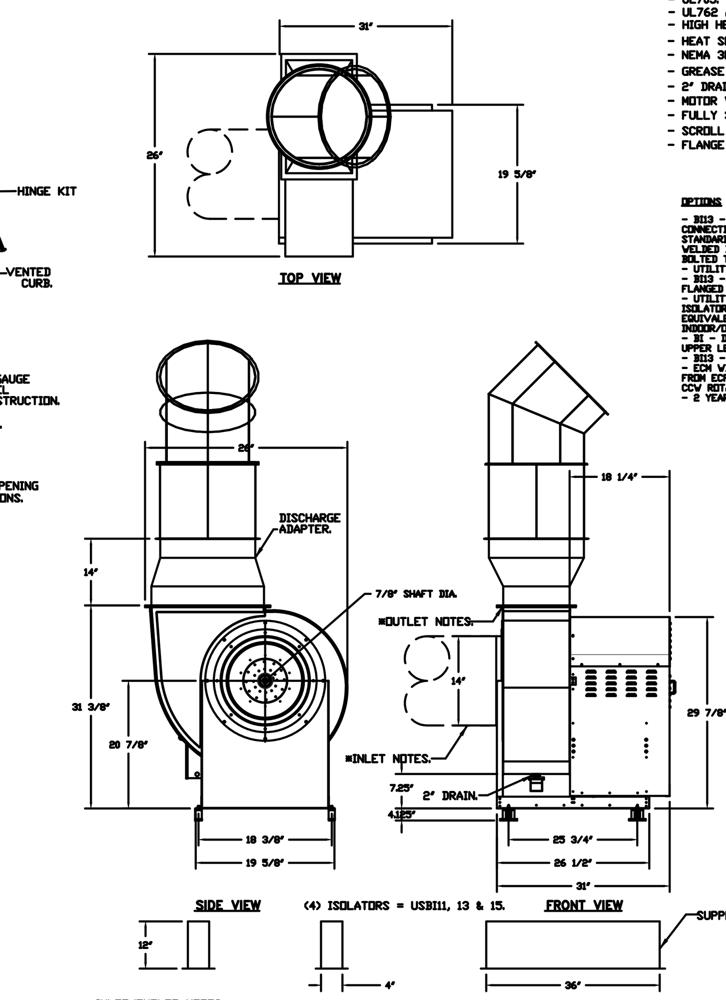
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS
- GREASE BOX.
- EXHAUST FAN HEAT BAFFLE.
- FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 45° WIND BAND EXTENSION 15 (SHIPS LOOSE). ADDS 3 WEEKS TO FAN LEAD TIME.
- 2 YEAR PARTS WARRANTY.



FAN #2 USBI13DD-RM - EXHAUST FAN (KEF-2)



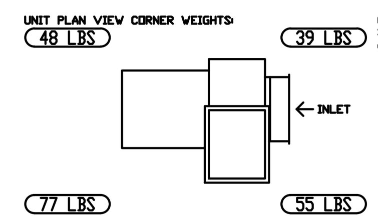
FEATURES:

- ROOF MOUNTED FANS.
- UL705.
- UL762 AND ULC-S645 (RESTAURANT MODEL).
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C).
- HEAT SLINGER.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- GREASE CLASSIFICATION TESTING.
- 2" DRAIN.
- MOTOR WEATHER COVER.
- FULLY SEALED SCROLL HOUSING.
- SCROLL ACCESS DOOR.
- FLANGE 1 1/4".

OPTIONS
- BI13 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 14" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER.
- UTILITY SET GREASE CUP.
- BI13 - INLET CONNECTION STANDARD 14" FLANGED GREASE DUCT.
- UTILITY SET - SPRING VIBRATION ISOLATORS - BI11 THRU BI15 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE.
- BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
- BI13 - 14" DISCHARGE ADAPTER.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.

* INLET/OUTLET NOTES:
LENGTH OF THE STRAIGHT DUCT ON THE INLET AND OUTLET TO BE 3 TIMES THE EQUIVALENT DUCT DIAMETER BEFORE CONNECTING TO ANY FITTINGS SUCH AS ELBOWS TO AVOID SYSTEM EFFECT.

UNIT PLAN VIEW CORNER WEIGHTS:



CORNER WEIGHTS ARE CALCULATED BASED ON VERTICAL DISCHARGE. SUPPORT DUCT PROPERLY BEFORE FAN TO ENSURE CORNER WEIGHTS ARE NOT AFFECTED.

NORMAL TEMPERATURE TEST DIRECT DRIVE
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 350°F (176°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

REVISIONS

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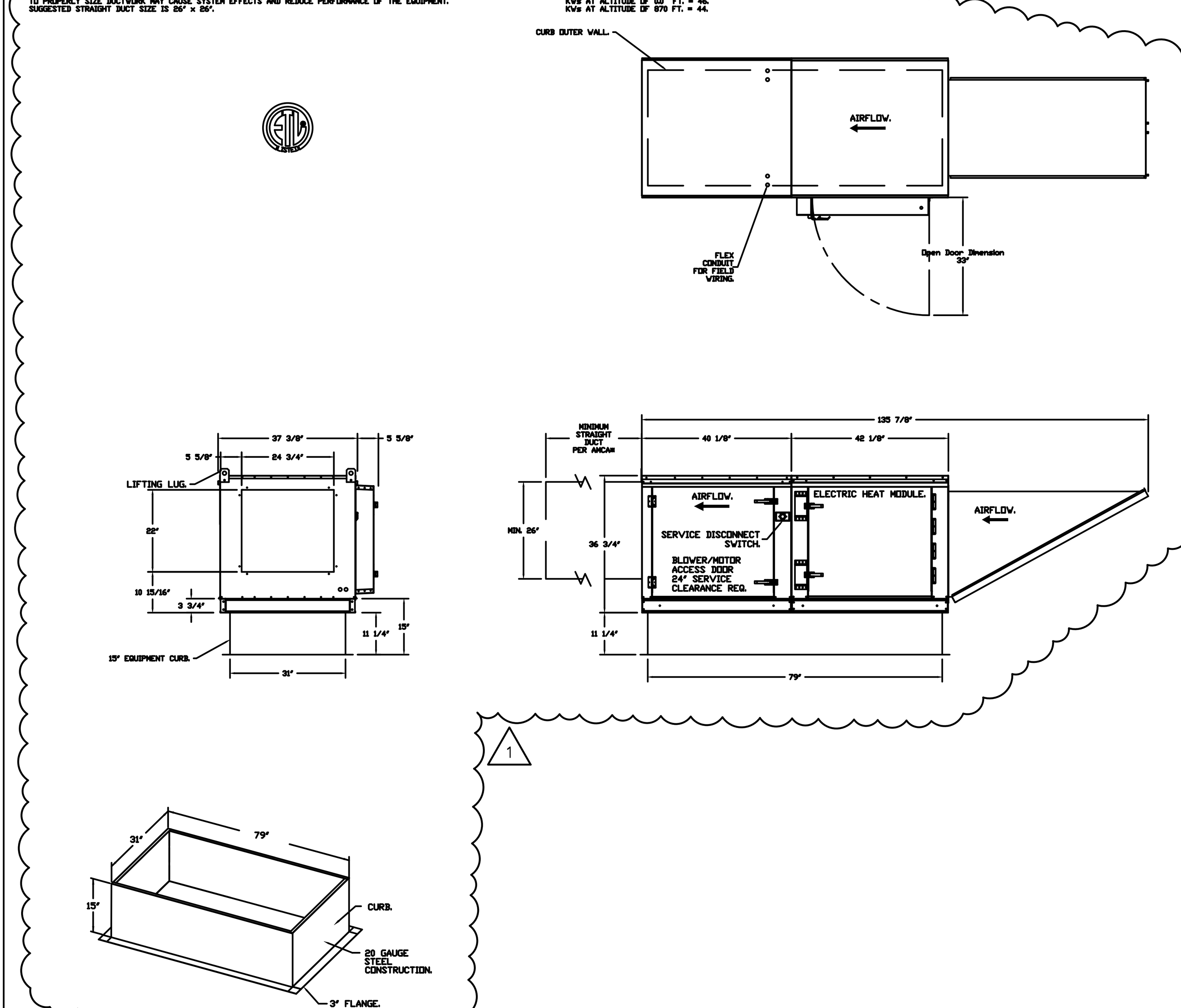
Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 5/1/2023
DWG.#: 5869548
DRAWN BY: michael.co
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 6

FAN #3 E2-E.452-20D - HEATER (MAU-1)
1. ELECTRIC HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN AND A 3 STAGE TOTAL, 1 MODULATING, 45KW 240 - 3 COIL.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. SIZE 2 ELECTRIC HEATER WITH MUA CONTROLS SHEET METAL.
5. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED.
6. FREEZESTAT WITH 10' SENSOR. FACTORY SET AT 35°F AND 10 MINUTES.
7. 2 YEAR PARTS WARRANTY

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 26" x 26".

SUPPLY SIDE HEATER INFORMATION:
WINTER TEMPERATURE = 9°F. TEMP. RISE = 57°F.
KWs CALCULATED OFF ACTUAL AIR DENSITY.
KWs AT ALTITUDE OF 0.0 FT. = 46.
KWs AT ALTITUDE OF 870 FT. = 44.



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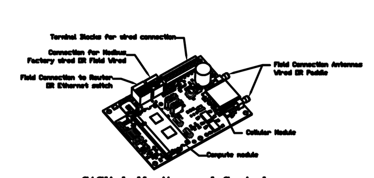
Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 4/3/2023
DWG.#: 5869548
DRAWN BY: michael.co
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 7

ELECTRICAL PACKAGE - JOB#5869548

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	HP	VOLT	FLA
1	ECP-1	DCV-2111	WALL UTILITY CABINET RIGHT	FACE MOUNT RIGHT SIDE OF HOOD	1 LIGHT	SMART CONTROLS DCV	KEF-1	EXHAUST	1	1.000	208	6.9
							KEF-2	EXHAUST	1	1.000	208	6.9
				HOOD # 1	1 FAN			SUPPLY	3	0.250	208	1.2



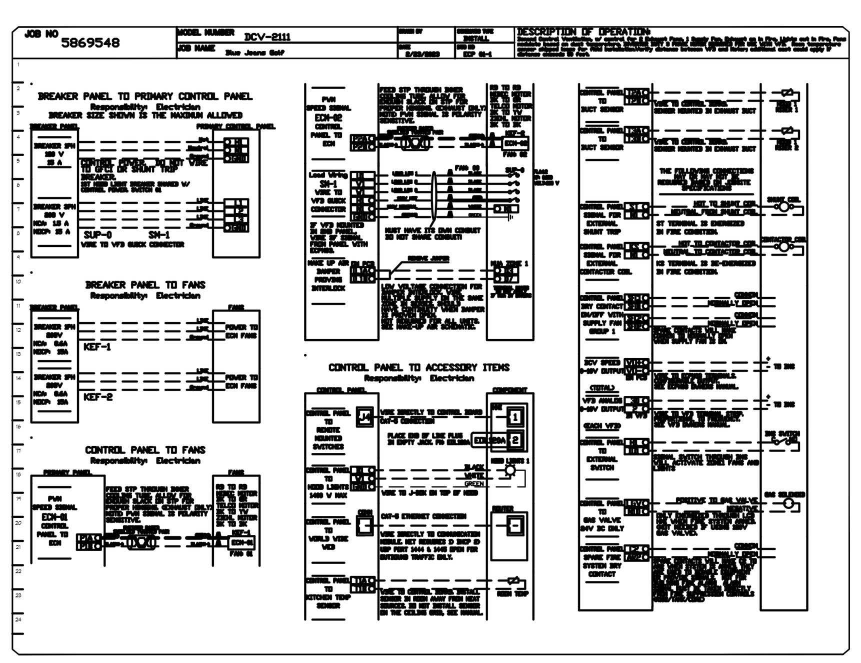
CASlink Monitor and Control

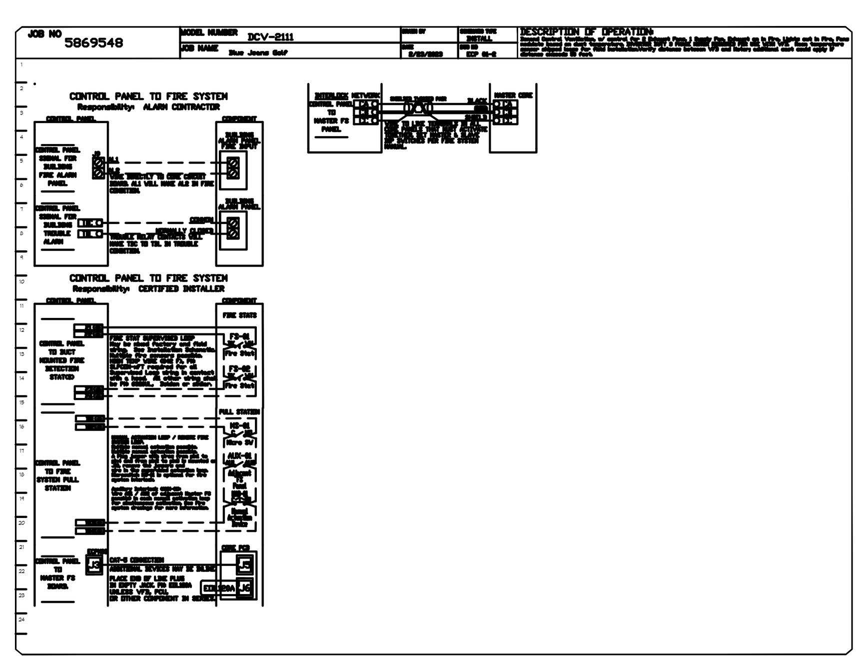
- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

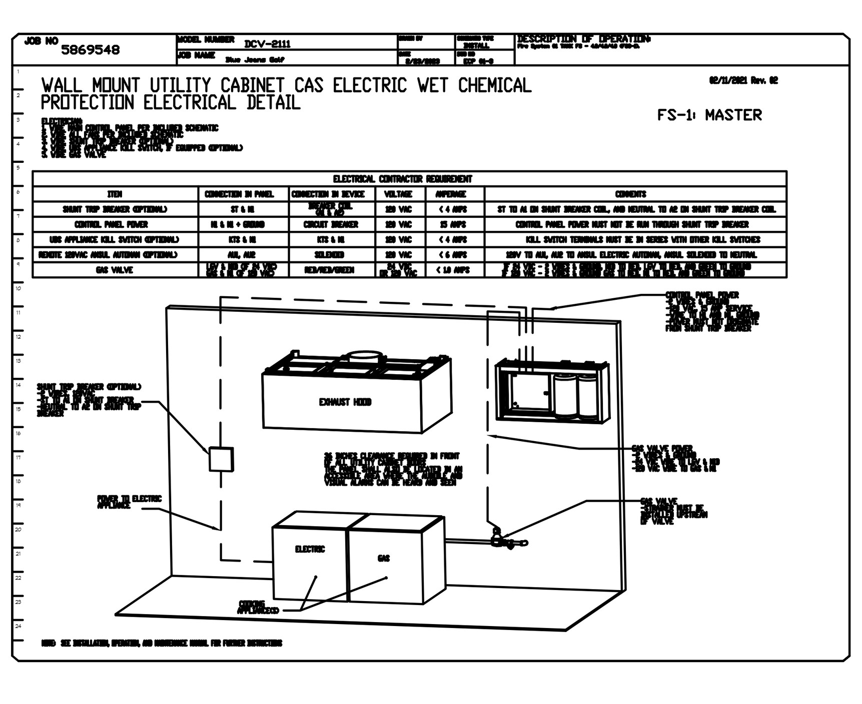
MONITORING AND CONTROL POINTS LIST

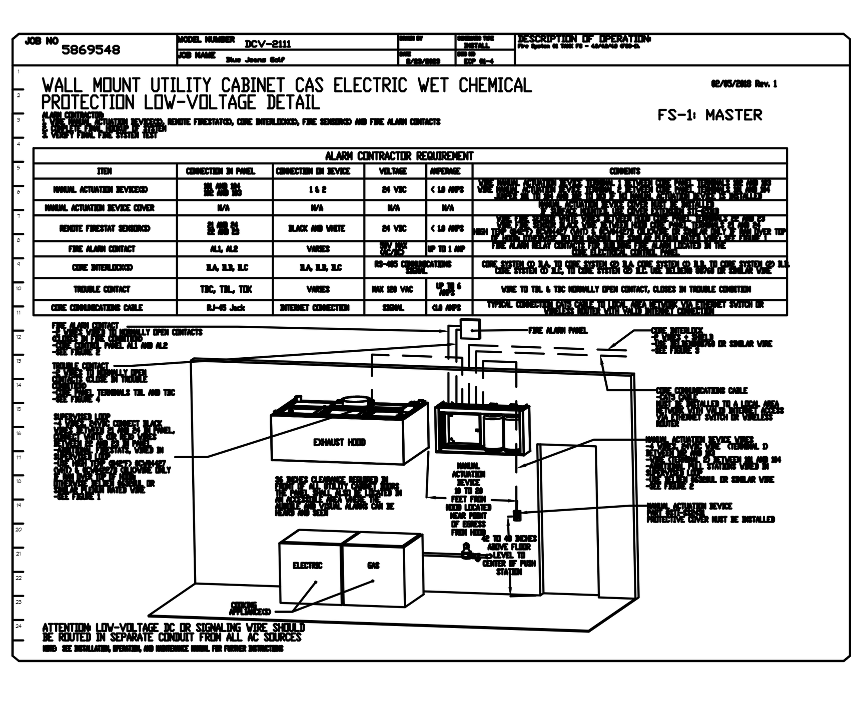
DCV Packages	Function
Room Temperature	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR
Fan Amperage	MONITOR
Fan Power	MONITOR
VFD Faults	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressures	MONITOR
Prep Time Button	MONITOR & CONTROL
Fans Button	MONITOR & CONTROL
Lights Button	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL

SC Packages	Function
Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressures	MONITOR
Fans Button(s)	MONITOR & CONTROL
Lights Button(s)	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL









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Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 2/23/2023
DWG.#: 5869548
DRAWN BY: michael.co
SCALE: 3/4" = 1'-0"
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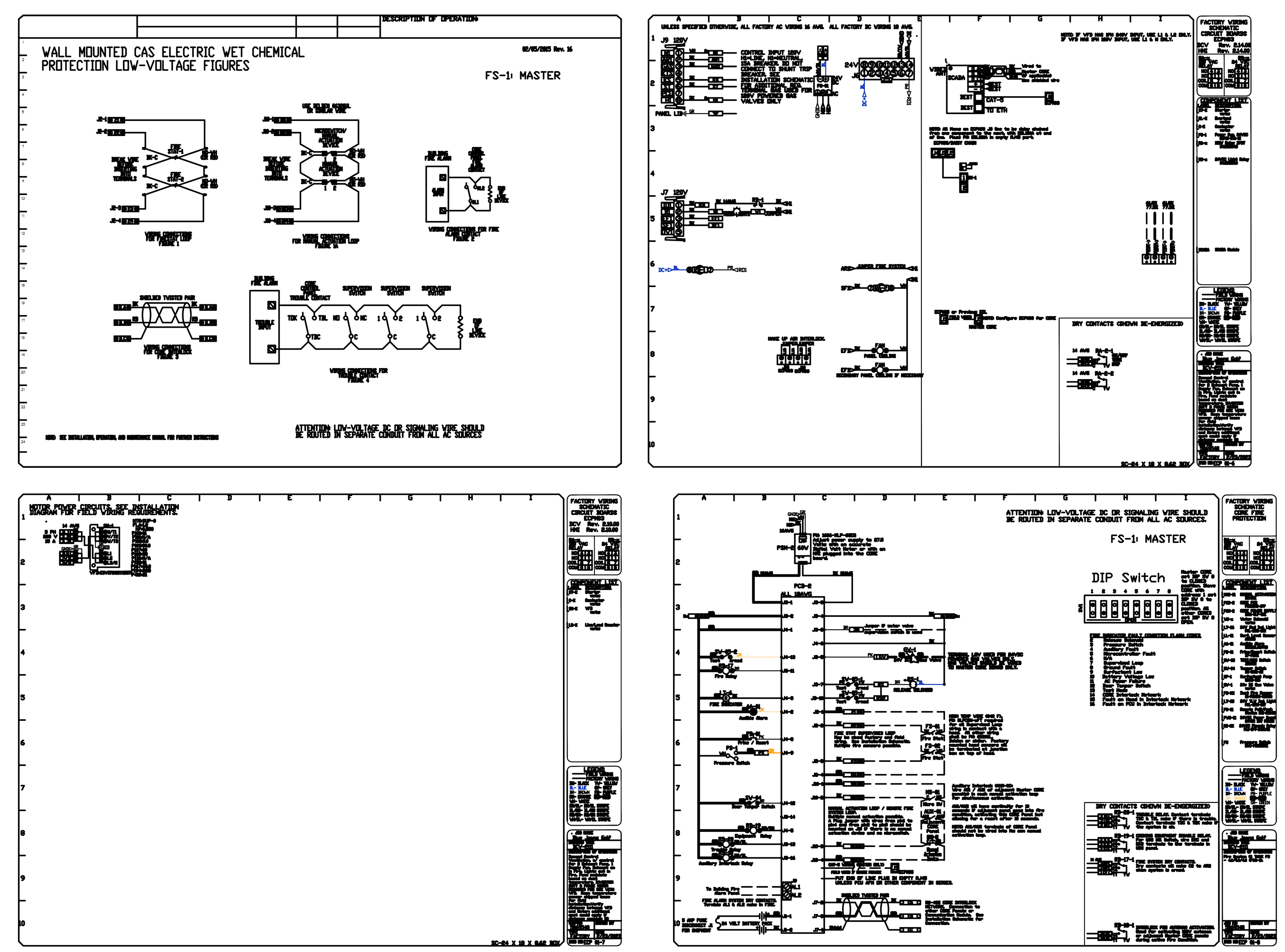
SHEET NO.



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MISSOURI
PE COA #2009003629

5/16/2023

STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
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DEL VALLEM TX 78617
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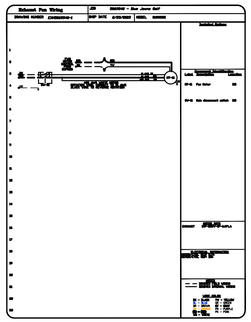
A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

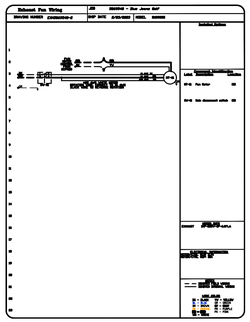
ISSUE DATE: 04/06/2023

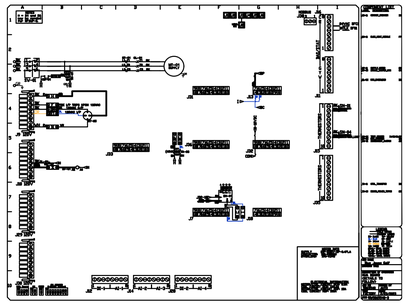
REVISION:
△1 05/16/2023

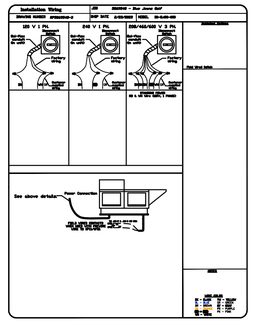
SHEET TITLE
MECHANICAL HOOD SHEETS

M6









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Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 2/23/2023
DWG.#: 5869548
DRAWN BY: Michael.co
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 8

DUCTWORK #1 PARTS - JOB#5869548 DOUBLE WALL

TAG	PART #	CFM	GPM	ZONE	COVERED?	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	CDV14112DWL-T-DR-S	1575				-0.004	14.89	1473.32	1	DOUBLE WALL DUCT - 14" INNER DUCT, 11' LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P2 ASSEMBLED V/P3	CDV14215SDWL-TTP-DR-S	1575				-0.007	29.35	1473.32	1	DOUBLE WALL DUCT - 14" INNER DUCT, 21.5' LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P3 ASSEMBLED V/P2	CDV22314TP	1575					8.49	1473.32	1	DUCT TO CURB TRANSITION, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON BOX15, DU75 & B15.
SYSTEM AT P3						-0.919	0.00			
P4	CDV14112DWL-T-DR-S	1575				-0.004	14.89	1473.32	1	DOUBLE WALL DUCT - 14" INNER DUCT, 11' LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P5 ASSEMBLED V/P6	CDV14215SDWL-TTP-DR-S	1575				-0.007	29.35	1473.32	1	DOUBLE WALL DUCT - 14" INNER DUCT, 21.5' LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. - USED WITH TRANSITION PLATE.
P6 ASSEMBLED V/P5	CDV22314TP	1575					8.49	1473.32	1	DUCT TO CURB TRANSITION, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON BOX15, DU75 & B15.
SYSTEM AT P6						-0.919	0.00			
	IC3M-2000PLUS						0.00		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	CDV143DWCLAST-DR-S						7.21		2	DUCT - 14" DUCT - 18" DOUBLE "V" CLAMP - 2M INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							121.48			

DOUBLE WALL FACTORY BUILT DUCTWORK

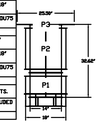
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5"	7'
6"	7'
7"	7'
8"	7'
10"	7'
12"	7'
14"	7'
16"	7'
18"	5'
20"	5'
22"	5'
24"	5'
26"	5'
28"	5'
30"	5'
32"	5'
34"	5'
36"	5'

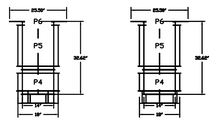
VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
2R & 2R HT (5"-16")	20'	24'	24'
2R (18")	18'	24'	24'
3R & 3Z (5"-24")	10'	24'	24'
3Z (26" -36")	10'	20'	20'

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

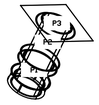
DUCTWORK #1 FRONT VIEW

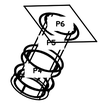


DUCTWORK #1 SIDE VIEW



DUCTWORK #1 SE VIEW





DUCTWORK #1 TOP VIEW

REVISIONS

DESCRIPTION	DATE

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Blue Jeans Golf
BLUE SPRINGS, MO, 64014

DATE: 2/23/2023
DWG.#: 5869548
DRAWN BY: Michael.co
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 11

BC
ENGINEERS
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Shawnee, KS 66203
(913)262-1772

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MISSOURI
PE COA #2009003629

4/5/2023

STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER
PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
04/06/2023

REVISION:

SHEET TITLE
MECHANICAL HOOD SHEETS

M7

ELECTRICAL SPECIFICATIONS

1. GENERAL PROVISIONS:

   A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS OUTLINED.

   B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.

   C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRIC CODE (NEC), AND ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.

   D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.

   E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.

   F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.

   G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.

   H. CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE NECESSARY FOR CONCEALED ELECTRICAL COMPONENTS.

   I. CONTRACTOR SHALL PROMPTLY CALL ENGINEERS ATTENTION TO ANY APPARENT CONTRADICTIONS, AMBIGUITIES, ERRORS, DISCREPANCIES, OR OMISSIONS IN THE PLANS OR SPECIFICATIONS.

2. OPERATION AND MAINTENANCE MANUALS:

   A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.

   B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.

   C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE COLLATED AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC. CONTRACTORS, ETC. DOCUMENTS SHALL BE COMPILED AND BOUND IN DIGITAL FILE OR 3 RING BINDER.

3. MANUFACTURERS:

   A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.

4. TESTING, AND BALANCING:

   A. ALL CIRCUITS SHALL BE TESTED FOR CONTINUITY, SHORTS, AND GROUNDS BEFORE CONNECTING TO THE PROPER PHASE AS DESIGNED TO BALANCE THE LOADING BETWEEN PHASES.

   B. POWER AND LIGHTING PANELS SHALL BE PROPERLY PHASED TO DISTRIBUTE THE LOAD AND SHALL BE CONNECTED AND ADJUSTED TO OPERATE AS SPECIFIED.

   C. ALL MOTORS AND SIMILAR EQUIPMENT SHALL BE CHECKED FOR PROPER PHASE ROTATION AND OPERATION.

5. RACEWAYS:

   A. CONDUIT INSIDE THE BUILDING SHALL BE METALLIC TUBING (EMT), BEARING THE UL LABEL, WITH COMPRESSION TYPE FITTINGS OR SCREW SET FITTINGS.

   B. CONDUIT EXPOSED TO THE WEATHER, INSTALLED UNDERGROUND, IN CONCRETE, OR USED FOR SERVICE ENTRANCE SHALL BE STANDARD RIGID CONDUIT (GALVANIZED) WITH THREADED FITTINGS.

   C. UNDERGROUND CONDUIT MAY BE POLYVINYL CHLORIDE WITH A DEFLECTION TEMPERATURE, UNDER LOAD AT 264 PSI, OF 78 DEGREES C, AND A TENSILE STRENGTH OF 5,200 PSI. JOINTS SHALL BE FLUSH SOLVENT WELDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE EQUAL TO CARLON POWER AND COMMUNICATIONS DUCT TYPE DB (DIRECT BURIAL). CONDUIT AND FITTINGS SHALL BE PRODUCED BY THE SAME MANUFACTURER.

   D. FLEXIBLE METAL CONDUIT SHALL ONLY BE USED FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND LIGHT FIXTURES. MAXIMUM LENGTH SHALL BE 6'-0".

6. CONDUCTORS:

   A. WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR TAPS IN CONDUIT RUNS. ALL SPLICES SHALL BE MADE IN JUNCTION, PULL, OR OUTLET BOXES. ALL WIRE SHALL BE INSTALLED IN CONDUIT, WIREWAYS, OR OTHER PROTECTIVE COVER SANCTIONED BY CODES.

   B. CONDUCTORS FOR LIGHTING AND POWER SHALL BE COPPER, MINIMUM NO. 12 A.W.G., 600 VOLT.

   C. NO. 10 GAUGE AND SMALLER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), SOLID CONDUCTOR, UNLESS OTHERWISE INDICATED.

   D. NO. 8 GAUGE AND LARGER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED, UNLESS OTHERWISE INDICATED.

   E. SERVICE ENTRANCE AND PANEL FEEDER CONDUCTORS, NO. 3 GAUGE AND LARGER SHALL BE TYPE XHHW-2 (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED COPPER, UNLESS OTHERWISE INDICATED.

7. MC CABLE: ABOVE ACT CEILING(KITCHEN)

   A. MC CABLE SHALL CONSIST OF INTERLOCK ARMORED CABLE MADE OF THREE OR FOUR TYPE THHN SOLID (#8 AWG AND LARGER MAY BE STRANDED) COPPER CONDUCTORS RATED 90°C FOR DRY LOCATIONS, WITH NYLON OR EQUIVALENT UL LISTED JACKET, PER UL STANDARD 83 THE THREE CONDUCTORS SHALL BE TWISTED TOGETHER WITH THE COPPER GROUNDING CONDUCTOR, SUITABLE FILLERS, AND WRAPPED IN BINDER TAPE. THE ASSEMBLY SHALL BE ARMORED WITH SPIRALLY WRAPPED INTERLOCKED ARMOR OF ALUMINUM OR GALVANIZED STEEL.

   B. CABLES SHALL BE TESTED IN ACCORDANCE WITH UL STANDARD 1569 FOR TYPE MC CABLE AND RATED AT 600 VOLTS, 90 DEG. C FOR DRY LOCATIONS AND 75 DEG. C FOR WET LOCATIONS.

8. 'NM' CABLE: ABOVE GYP CEILING/IN WALL

   A. TYPE NMC CABLE SHALL BE SECURED BY STAPLES, CABLE TIES, STRAPS OR SIMILAR FITTINGS SO DESIGNED AND INSTALLED AS NOT TO DAMAGE THE CABLE. CABLE SHALL BE SECURED IN PLACE AT INTERVALS NOT EXCEEDING 4.5 FEET AND WITHIN 12 INCHES FROM EVERY CABINET, BOX, OR FITTING. TWO CONDUCTOR CABLES SHALL NOT BE STAPLED ON EDGE.

   B. CABLE SHALL ONLY BE USED IN CONCEALED LOCATIONS, NOT ALLOWED ABOVE ACCOUSTICAL CEILINGS. ALL CABLING INSTALLED PER NEC ARTICAL 334.

9. WIRING DEVICES:

   A. WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, FLUSH TOGGLE SWITCH, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES.

      1) SINGLE POLE: HUBBELL #CS1221-X, OR EQUAL.
      2) THREE WAY: HUBBELL #CS1223-X, OR EQUAL.
      3) AS SPECIFIED ON PLANS

   B. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX, GROUNDING, THREE-WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES. HUBBELL #CR5352-X, OR EQUAL.

   C. GROUND FAULT INTERRUPTER RECEPTACLES (GFI) SHALL BE HUBBELL #GF20-XL. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED.

   D. ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #CR5352IG, ORANGE COLOR. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED.

   E. RECEPTACLES OUTSIDE BUILDING AND WHERE NOTED AS WEATHERPROOF, SHALL BE LISTED 'WEATHER-RESISTANT' HUBBEL #GFTR20-X OR EQUAL AND SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE WHICH SHALL BE INTERMATIC #WP1010MXD OR #WP1010HMXD DIECAST METAL WEATHERPROOF RECEPTACLE COVER. COVER SHALL BE WEATHER PROOF RATED WHILE IN USE.

   F. VERIFY DEVICES AND DEVICE COVERPLATES COLOR AND STYLE WITH ARCHITECT.

10. BOXES:

   A. HOT DIPPED GALVANIZED STEEL BOX(MC CABLE) OR NON-METALLIC BOX(NM CABLE). PROVIDE TYPE TO SUIT CONDITIONS FOR INSTALLATION.

   B. ALL BOXES SHALL BE FLUSH MOUNTED, UNLESS INDICATED OTHERWISE.

11. PANELBOARDS:

   A. FURNISH AND INSTALL CIRCUIT BREAKER PANELBOARDS AS SHOWN ON THE DRAWINGS. PANELBOARDS SHALL BE LISTED BY UL AND SO LABELED, AND SHALL BE FULLY RATED FOR THE VOLTAGE AND CURRENT CAPACITY INDICATED ON THE PANEL SCHEDULE. PANELBOARDS SHALL BE EQUAL TO SQUARE D TYPE NQ OR NF WITH BOLT IN TYPE BREAKERS. PANELBOARD LUGS SHALL BE RATED AT 75°C.

      1) CIRCUIT BREAKER INTERRUPTING CAPACITIES SHALL MEET OR EXCEED THE AVAILABLE RMS SYMMETRICAL FAULT CURRENTS INDICATED AND AS REQUIRED TO MEET OR EXCEED THE AVAILABLE FAULT CURRENT FROM LOCAL UTILITY.

   B. CIRCUIT BREAKERS SHALL MEET APPLICABLE PORTIONS OF UL STANDARD 489 AND NEMA AB-L. CIRCUIT BREAKERS SHALL BE BOLT-ON, GROUP MOUNTED, AMBIENT MAGNETIC, WITH COMMON TRIP, UL RATED TO CARRY 80% OF NAMEPLATE RATING CONTINUOUSLY IN FREE AIR AT 40° C. CIRCUIT BREAKERS SHALL BE TRIP INDICATING AND FULLY INTERCHANGEABLE WITHOUT DISTURBING ADJACENT UNITS. WIRE TERMINALS SHALL BE RATED 75 DEGREES C. THE OPERATING MECHANISM SHALL BE TRIP-FREE SO THAT CONTACTS CANNOT BE HELD CLOSED AGAINST ANY ABNORMAL OVERCURRENT OR SHORT CIRCUIT CONDITION.

      a) BREAKERS SHALL MEET APPLICABLE NEMA AND/OR UL SPECIFICATIONS.

   C. PANELBOARD BOXES SHALL BE GALVANIZED SHEET STEEL WITH AMPLE WIRING GUTTER SPACE IN ACCORDANCE WITH NEC. FRONTS SHALL BE OF SHEET STEEL PAINTED LIGHT GREY OVER A SUITABLE RUST INHIBITOR PRIMER. PANELBOARDS SHALL BE EQUIPPED WITH ONE PIECE DOOR, CYLINDER TUMBLER TYPE LOCK, DIRECTORY CARD-HOLDER AND QUARTER-TURN ADJUSTABLE TRIM CLAMPS.

   D. PANELBOARD INTERIORS SHALL CONSIST OF REINFORCED GALVANIZED SHEET STEEL FRAMES WITH ALUMINUM BUS BARS AND CIRCUIT BREAKERS, PROPERLY SUPPORTED TO PREVENT VIBRATIONS AND BREAKAGE IN HANDLING. BUS BARS SHALL BE SEQUENCE PHASED. PANELBOARD SHALL HAVE A FULL SIZED SOLID ALUMINUM NEUTRAL AND GROUND BUS.

ELECTRICAL SPECIFICATIONS (CONTINUED)

   E. BUS BAR BRACING SHALL BE UL LISTED AS INDICATED ON DRAWINGS. ADDITIONAL BRACING SHALL BE PROVIDED AS REQUIRED TO MEET OR EXCEED INDICATED AVAILABLE FAULT CURRENTS.

   F. DIRECTORY CARDS SHALL BE COMPLETELY FILLED IN BY TYPEWRITER, LISTING CIRCUIT NUMBERS AND LOAD SERVED, INCLUDING EXISTING CIRCUITS. CIRCUIT BREAKERS SHALL BE IDENTIFIED BY CIRCUIT NUMBER LABELS AS HEREINBEFORE SPECIFIED.

12. LOAD CENTERS:

   A. FURNISH AND INSTALL CIRCUIT BREAKER LOAD CENTERS AS SHOWN ON THE DRAWINGS. LOAD CENTERS SHALL BE LISTED BY UL AND SO LABELED, AND SHALL BE FULLY RATED FOR THE VOLTAGE AND CURRENT CAPACITY INDICATED ON THE PANEL SCHEDULE. LOAD CENTERS SHALL BE EQUAL TO GENERAL ELECTRIC POWER MARK SERIES WITH PLUG IN TYPE BREAKERS.

   B. CIRCUIT BREAKERS SHALL MEET APPLICABLE PORTIONS OF UL STANDARD 489 AND NEMA AB-L. CIRCUIT BREAKERS SHALL BE PLUG-IN TYPE, WITH COMMON TRIP, UL RATED TO CARRY 100% OF NAMEPLATE RATING CONTINUOUSLY IN FREE AIR AT 25 DEGREE C. CIRCUIT BREAKERS SHALL BE TRIP INDICATING AND FULLY INTERCHANGEABLE WITHOUT DISTURBING ADJACENT UNITS. WIRE TERMINALS SHALL BE RATED 75 DEGREES C.

      1) BREAKERS SHALL MEET APPLICABLE NEMA AND/OR UL SPECIFICATIONS.

      2) ALL BREAKERS SHALL BE "HACR" RATED.

   C. PANELBOARD BOXES SHALL BE GALVANIZED SHEET STEEL WITH AMPLE WIRING GUTTER SPACE IN ACCORDANCE WITH NEC. FRONTS SHALL BE OF SHEET STEEL PAINTED LIGHT GREY OVER A SUITABLE RUST INHIBITOR PRIMER. PANELBOARDS SHALL BE EQUIPPED WITH ONE PIECE DOOR, SEMI-CONCEALED HINGES, DOOR LATCH, AND DIRECTORY CARD-HOLDER.

   D. PANELBOARD INTERIORS SHALL CONSIST OF REINFORCED GALVANIZED SHEET STEEL FRAMES WITH ALUMINUM BUS BARS AND CIRCUIT BREAKERS, PROPERLY SUPPORTED TO PREVENT VIBRATIONS AND BREAKAGE IN HANDLING. BUS BARS SHALL BE SEQUENCE PHASED. PANELBOARD SHALL HAVE A FULL SIZED SOLID ALUMINUM NEUTRAL AND GROUND BUS.

   E. BUS BAR BRACING SHALL BE UL LISTED AT 10,000 SYMMETRICAL AMPERES MINIMUM. ADDITIONAL BRACING SHALL BE PROVIDED AS REQUIRED TO MEET OR EXCEED INDICATED AVAILABLE FAULT CURRENTS.

   F. DIRECTORY CARDS SHALL BE COMPLETELY FILLED IN BY TYPEWRITER, LISTING CIRCUIT NUMBERS AND LOAD SERVED. CIRCUIT BREAKERS SHALL BE IDENTIFIED BY CIRCUIT NUMBER LABELS AS HEREINBEFORE SPECIFIED.

   G. LOAD CENTERS INSTALLED IN ACCESSIBLE DWELLING UNITS SHALL MEET ALL REQUIREMENTS OF ANSI A117.1. OPENING LATCH AND ALL BREAKERS SHALL BE MOUNTED BETWEEN 48" AND 15" AFF. CONTRACTOR SHALL VERIFY WITH ARCHITECT IF UNIT IS ACCESSIBLE PRIOR TO ROUGH IN.

13. DISCONNECTS:

   A. DISCONNECTS SHALL BE EXTERNALLY OPERATED, QUICK-MAKE, QUICK-BREAK, SAFETY, WITH PROVISIONS FOR PAD LOCKING. FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL BE PROVIDED AS INDICATED.

   B. INDOOR SWITCHES SHALL BE NEMA I AND OUTDOOR SWITCHES SHALL BE NEMA 3R, UNLESS INDICATED OTHERWISE.

14. FUSES:

   A. FUSES PROTECTING CIRCUIT BREAKER PANELS SHALL BE CURRENT LIMITING U.L. CLASS RK-1 FUSES WITH 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR RATINGS ABOVE 60 AMPERES.

   B. ALL OTHER FUSES SHALL BE U.L. CLASS RK-5, DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 SECONDS AT 500% RATING. FUSES SHALL HAVE CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE COPPER.

15. LIGHT FIXTURES:

   A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.

   B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.

   C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS.

16. SLEEVES:

   A. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.

   B. INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.

   C. ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.

17. GROUNDING:

   A. GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250, AND ANY LOCAL REQUIREMENTS. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT.

   B. BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).

ELECTRICAL GENERAL NOTES:

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.
3. ALL EXPOSED RACEWAYS SHALL BE IN EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.
4. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. EQUIPMENT DISCONNECTS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE IN MECHANICAL SCHEDULES.
5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF LIGHT FIXTURES AND DEVICES.
6. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING TRANSFORMERS, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
7. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.
8. KITCHEN EQUIPMENT - VERIFY ALL ELECTRICAL REQUIREMENTS AND ROUGH-IN LOCATION PRIOR TO WORK.
9. ALL BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.
10. PROVIDE LOW VOLTAGE WIRING BETWEEN ALL 0-10V DIMMING DRIVERS CONTROLLED BY 0-10V DIMMERS PER MANUFACTURER'S INSTRUCTIONS.
11. ALL 120 VOLT 20 AMP RECEPTACLES IN KITCHEN SHALL BE GFCI PROTECTED PER NEC 210.8 (B)(2). (GFCI DEVICE OR GFCI BREAKER AS INDICATED ON PLANS)
12. ALL 120 VOLT THROUGH 250 VOLT RECEPTACLES SUPPLIED BY SINGLE PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPS OR LESS, AND THREE-PHASE BRANCH CIRCUITS 150 VOLTS OR LESS TO GROUND, 100 AMPS OR LESS, IN KITCHEN SHALL BE GFCI PROTECTED PER NEC 210.8 (B)(2). (GFCI DEVICE OR GFCI BREAKER AS INDICATED ON PLANS)
13. PROVIDE SEAL-OFF FITTINGS AT ALL COOLER/FREEZER PENETRATIONS.

ELECTRICAL SYMBOLS LIST

CIRCUITING & NOTES

+46"	SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
WP	WEATHERPROOF ENCLOSURE ON DEVICE
WR	WEATHERPROOF RESISTANT DEVICE
(TIE)	PARTIAL HOMERUN. REFER TO PLANS FOR ADDITIONAL DEVICES CONNECTED TO THIS CIRCUIT.
X	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
2 LP	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
	#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	CONDUIT ROUTED UNDER FLOOR/GRADE

LIGHTING

	EMERGENCY TWIN HEAD LIGHT FIXTURE
	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
A	STRIP FIXTURE WITH TYPE DESIGNATION
A	RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION
A NL	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
A	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
A	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION

POWER DEVICES

	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	FOURPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	DEVICE MOUNTED ABOVE COUNTER AND/OR SPLASH GUARD
	HEAVY DUTY OUTLET - NEMA CONFIGURATION SIZE PER EQUIPMENT MANUFACTURER'S RECOMMENDATION
	PANEL BOARD, TOP OF BOX 6'-0" AFF
J	JUNCTION BOX
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	MOTOR WITH DESIGNATION

CONTROLS

S	SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S_3	THREE-WAY WALL SWITCH, TOP OF BOX AT 48" AFF
S_D	DIMMER SWITCH, TOP OF BOX AT 48" AFF
S_D	MANUAL MOTOR STARTER WITH OVERLOADS
OS	LINE VOLTAGE DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSORS, WATTSTOPPER DT-355

COMMUNICATIONS

▼	DATA/TELEPHONE OUTLET WITH MINIMUM 1" CONDUIT PHONE BOARD, PLAN NOTE 12 ON SHEET E2, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. PROVIDE WITH PULL STRING

△2

PANEL: LC | VOLTS: 120/208V | PH: 1Φ | 3W | LOCATION: EXT. STRG | MOUNTING: SURFACE
BUS: 100A | MAIN: 60A MCB | IC: 22,000 RMS SYM AMPS | FEEDER: 3#6, 1#10G, IN 1"C

CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦA	ΦB	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	INTERIOR LIGHTS	20	1	12	250		1,125		12	2	20	WALL HEATER WH [HL]	2
3	BUILDING SIGNAGE	20	1	12		1,200		1,125					4
5	EXTERIOR LIGHTS	20	1	12	50		2,250		12	2	20	WATER HEATER WH-1 [HL]	6
7	SPARE	20	1					2,250					8
9	RECS -111	20	1	12	540					1	20	SPARE	10
11	SPARE	20	1							1	20	SPARE	12
13	SPARE	20	1							1	20	SPARE	14
15	SPARE	20	1							1	20	SPARE	16
17	SPARE	20	1							1	20	SPARE	18
19	SPARE	20	1							1	20	SPARE	20
NOTES:					840	1,200	3,375	3,375					
[HL]-HANDLE LOCK					4,215		4,575					TOTAL CONNECTED LOAD:	8,790 VA
												NEC DEMAND LOAD:	10,290 VA
												DEMAND AMPS @ 208 VOLT / 1Φ:	49.47 A

PANEL: LD | VOLTS: 120/208V | PH: 3Φ | WIRE: 4W | LOCATION: EXTERIOR KITCHEN | MOUNTING: SURFACE
BUS: 225A | MAIN: 200A MCB | IC: 22,000 RMS SYM AMPS | FEEDER: 4#3/0, 1#6G IN 2"C

CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦC	ΦA	ΦB	ΦC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	INTERIOR LIGHTS	20	1	12	303			5,400							2
3	EXTERIOR LIGHTS	20	1	12		287			5,400		6	3	60	ELECTRIC GRIDDLE #18 [HL]	4
5	ROOF/EXT RECS	20	1	12			360			5,400				[ST]	6
7	HOOD CONTROL	20	1	12	500									(SHUNT TRIP SPACE)	8
9	HOOD LIGHTS	20	1	12		500		5,400							10
11	RECS - 100	20	1	12			540			5,400	6	3	60	ELECTRIC GRIDDLE #18 [HL]	12
13	SPARE	20	1					5,400						[ST]	14
15	BEVERAGE DISP #7 [GF]	20	1	12		500								(SHUNT TRIP SPACE)	16
17	BOTTLE COOLER #8 [GF]	20	1	12			720			1,800	12	1	20	BAG N BOX #6 [GF]	18
19	POS STATION #10 [GF]	20	1	12	800							1	20	SPARE	20
21	POS STATION #10 [GF]	20	1	12		800			1,200		12	1	20	CHEF BASE#19 [GF]	22
23	REF CABINET #9 [GF]	20	1	12			720			3,750	8	2	45	CONVECTION OVEN #23 [HL]	24
25	BOTTLE COOLER #8 [GF]	20	1	12	720			3,750						[ST]	26
27	REACH IN REF#14 [GF]	20	1	12		720								(SHUNT TRIP SPACE)	28
29	SANDWICH REF #15 [GF]	20	1	12			720					1	20	SPARE	30
31	SPARE	20	1					6,480							32
33	FRY WARMER #20 [GF]	20	1	12		1,050			6,480		6	3	60	WCU-1	34
35	KITCHEN COUNTER REC	20	1	12			180			6,480					36
37	HEATED CABINET [GF]	20	1	12	1,200			5,400			6	2	65	COMBI OVEN #22 [HL]	38
39	REACH IN FREEZER [GF]	20	1	12		1,200			5,400					[ST]	40
41	ICE MAKER [HL]	20	1	12			1,200							(SHUNT TRIP SPACE)	42
NOTES:					3,523	5,057	4,440	26,430	23,880	22,830					
[GF]-GFCI BRKR 5mA, [HL]-HANDLE LOCK					29,953		28,937		27,270					TOTAL CONNECTED LOAD:	86,160 VA
[ST]-SHUNT TRIP BRKR														NEC DEMAND LOAD:	63,890 VA
NEMA 3R ENCLOSURE														DEMAND AMPS @ 208 VOLT / 3Φ:	177.34 A

PANEL: LD2 | VOLTS: 120/208V | PH: 3Φ | WIRE: 4W | LOCATION: EXTERIOR KITCHEN | MOUNTING: SURFACE
BUS: 225A | MAIN: 200A MCB | IC: 22,000 RMS SYM AMPS | FEEDER: 4#3/0, 1#6G IN 2"C

CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦC	ΦA	ΦB	ΦC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1					15,000			828			12	2	15	KEF-1	2
3	MAU-1 ELECTRIC HEAT	150	3	1/0		15,000			828						4
5							15,000			828	12	2	15	KEF-2	6
7					540			828							8
9	MAU-1 FAN	15	3	12		540						1	20	SPARE	10
11							540					1	20	SPARE	12
13	SPARE	20	1									1	20	SPARE	14
15	SPARE	20	1									1	20	SPARE	16
17	SPARE	20	1									1	20	SPARE	18
19	SPARE	20	1									1	20	SPARE	20
21	SPARE	20	1									1	20	SPARE	22
23	SPARE	20	1									1	20	SPARE	24
25	BUSSED SPACE													BUSSED SPACE	26
27	BUSSED SPACE													BUSSED SPACE	28
29	BUSSED SPACE													BUSSED SPACE	30
NOTES:					15,540	15,540	15,540	1,656	828	828					
[HL]-HANDLE LOCK					17,196		16,368		16,368					TOTAL CONNECTED LOAD:	49,932 VA
														NEC DEMAND LOAD:	48,206 VA
NEMA 3R ENCLOSURE														DEMAND AMPS @ 208 VOLT / 3Φ:	133.81 A

△2

PANEL: LA | VOLTS: 120/208V | PH: 1Φ | 3W | LOCATION: EXT WASH | MOUNTING: SURFACE
BUS: 100A | MAIN: 60A MCB | IC: 22,000 RMS SYM AMPS | FEEDER: 3#6, 1#10G, IN 1"C

CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦA	ΦB	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	INTERIOR LIGHTS	20	1	12	425		451		12	1	20	EXTERIOR LIGHTS	2
3	SPARE	20	1					2,750	10	1	25	MCU-1/AHU-1	4
5	PRE SOAKER - 107	20	1	12	1,200		1,200		12	1	20	BALL WASHER - 107	6
7	REC - 107	20	1	12		180				1	20	SPARE	8
9	SPARE	20	1							1	20	SPARE	10
11	SPARE	20	1							1	20	SPARE	12
NOTES:					1,625	180	1,651	2,750					
					3,276		2,930					TOTAL CONNECTED LOAD:	6,206 VA
												NEC DEMAND LOAD:	6,425 VA
												DEMAND AMPS @ 208 VOLT / 1Φ:	30.89 A

PANEL: LB | VOLTS: 120/208V | PH: 3Φ | WIRE: 4W | LOCATION: EXTERIOR WASH | MOUNTING: SURFACE
BUS: 100A | MAIN: 100A MCB | IC: 22,000 RMS SYM AMPS | FEEDER: 4#3, 1#8G IN 1-1/4"C

CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦC	ΦA	ΦB	ΦC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	INTERIOR LIGHTS	20	1	12	217			250			12	1	20	EXTERIOR LIGHTS	2
3	RECS - 103/106	20	1	12		360			1,500		12	1	20	HAND DRYER - 104 [HL]	4
5	SPARE	20	1							1,500	12	1	20	HAND DRYER - 105 [HL]	6
7	SPARE	20	1					800				1	20	SPARE	8
9	SPARE	20	1						2,150		10	2	25	WATER HEATER WH [HL]	10
11	RECS - 104/105/ROOF/TF-1	20	1	12			720			2,150					12
13	MCU-1/AHU-1	25	1	10	2,750			2,150			10	2	25	WATER HEATER WH [HL]	14
15	SPARE	20	1						2,150						16
17	SPARE	20	1							1,200	12	1	20	BALL DISPENSER	18
19	SPARE	20	1					2,667							20
21	SPARE	20	1						2,667		10	3	30	DH-1	22
23	SPARE	20	1							2,667					24
25	SPARE	20	1									1	20	SPARE	26
27	SPARE	20	1									1	20	SPARE	28
29	SPARE	20	1									1	20	SPARE	30
NOTES:					2,967	360	720	5,867	8,467	7,517					
[HL]-HANDLE LOCK					8,834		8,827		8,237					TOTAL CONNECTED LOAD:	25,898 VA
														NEC DEMAND LOAD:	28,365 VA
NEMA 3R ENCLOSURE														DEMAND AMPS @ 208 VOLT / 3Φ:	78.73 A

△2

PANEL: LE | VOLTS: 120/208V | PH: 1Φ | 3W | LOCATION: EXT. STRG | MOUNTING: SURFACE
BUS: 100A | MAIN: 60A MCB | IC: 22,000 RMS SYM AMPS | FEEDER: 3#6, 1#10G, IN 1"C

CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦA	ΦB	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	INTERIOR LIGHTS	20	1	12	250		800		12	1	20	GOLF TRACKER REC	2
3	EXTERIOR LIGHTS	20	1	12		200		2,750	12	1	20	MCU-1/AHU-1	4
5	RECS - 101/ROOF/EXT	20	1	12	900		2,750		12	1	20	MCU-1/AHU-1	6
7	TELCOM BOARD	20	1	12		500		1,008	12	1	20	RECS - 102	8
9	SPARE	20	1							1	20	SPARE	10
11	SPARE	20	1							1	20	SPARE	12
13	SPARE	20	1							1	20	SPARE	14
15	SPARE	20	1							1	20	SPARE	16
17	SPARE	20	1							1	20	SPARE	18
19	SPARE	20	1							1	20	SPARE	20
NOTES:					1,150	700	3,550	3,758					
					4,700		4,458					TOTAL CONNECTED LOAD:	9,158 VA
												NEC DEMAND LOAD:	9,271 VA
												DEMAND AMPS @ 208 VOLT / 1Φ:	44.57 A

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MISSOURI
PE COA #2009003629

5/24/2023

STATE OF MISSOURI
BRETT M. HERMANN
NUMBER
PE-2018035615
REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
04/06/2023

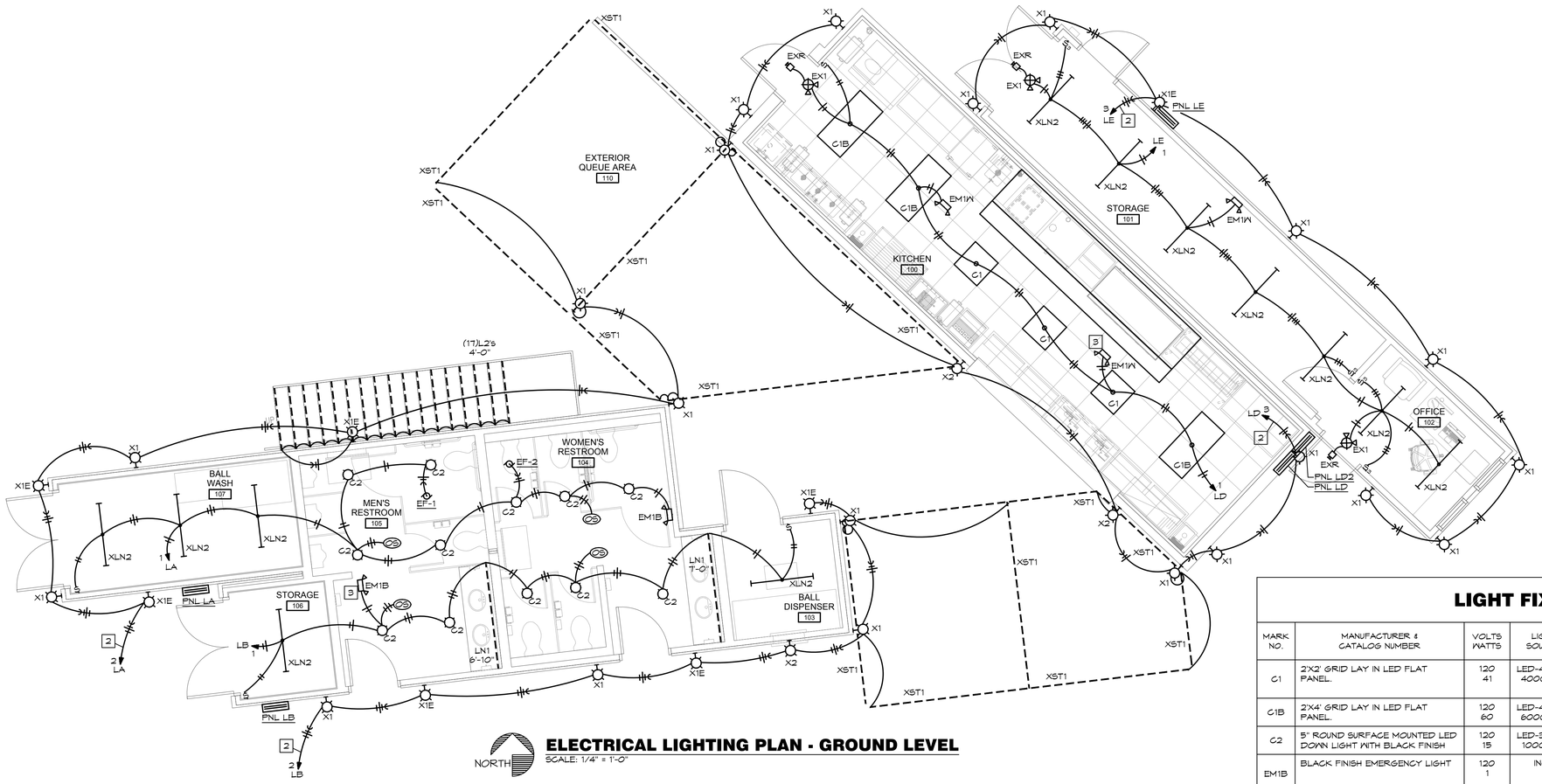
REVISION:
△1 05/16/2023
△2 05/24/2023

SHEET TITLE
ELECTRICAL SPECIFICATIONS

E0

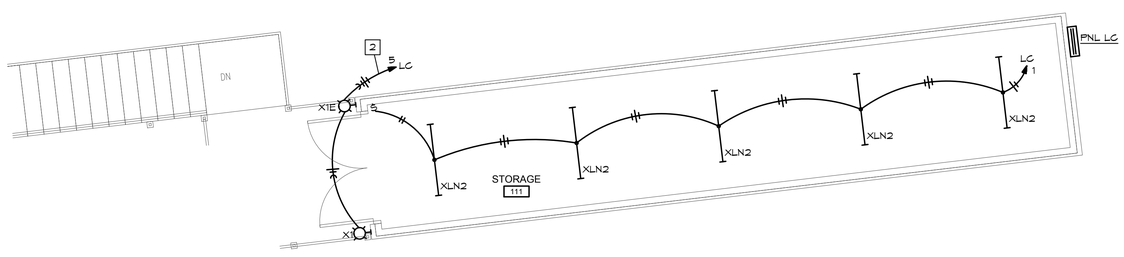
LIGHTING PLAN NOTES:

1. ROUTE SWITCHED LEG OF CIRCUIT THROUGH INTERMATIC #ET2725C OR EQUAL - 365 DAY PROGRAMMABLE TIMECLOCK. PROVIDE UNSWITCHED "HOT" CONDUCTOR ROUTED AHEAD OF LIGHTING CONTROLS FOR EXIT, EMERGENCY AND NIGHT-LIGHTS. OTHER CIRCUIT IS FOR BUILDING SIGNAGE (PLAN NOTE 6, SHEET E2). LOCATE TIME CLOCK ADJACENT TO PANEL.
2. ROUTE SWITCHED LEG OF CIRCUIT THROUGH INTERMATIC #ET2705C OR EQUAL - 365 DAY PROGRAMMABLE TIMECLOCK. PROVIDE UNSWITCHED "HOT" CONDUCTOR ROUTED AHEAD OF LIGHTING CONTROLS FOR EXIT, EMERGENCY AND NIGHT-LIGHTS. LOCATE TIME CLOCK ADJACENT TO PANEL.
3. EMERGENCY LIGHT TO BE CEILING MOUNTED.



ELECTRICAL LIGHTING PLAN - GROUND LEVEL

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



ELECTRICAL LIGHTING PLAN - UPPER LEVEL

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

LIGHT FIXTURE SCHEDULE

MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LIGHT SOURCE	DESCRIPTION
C1	2'X2' GRID LAY IN LED FLAT PANEL.	120 41	LED-4000K 4000 LUM	2'X2' GRID LAY IN LED FLAT PANEL.
C1B	2'X4' GRID LAY IN LED FLAT PANEL.	120 60	LED-4000K 6000 LUM	2'X2' GRID LAY IN LED FLAT PANEL.
C2	5" ROUND SURFACE MOUNTED LED DOWN LIGHT WITH BLACK FINISH	120 15	LED-3000K 1000 LUM	5" ROUND SURFACE MOUNTED LED DOWN LIGHT WITH BLACK FINISH
EM1B	BLACK FINISH EMERGENCY LIGHT	120 1	INCL	BLACK FINISH EMERGENCY LIGHT WITH TWIN ADJUSTABLE 1 WATT LED HEADS AND BATTERY, MOUNT AT 7'-6"±, TO CLEAR OBSTACLES. (PROVIDES 1 FC AVG. ON 25' CENTER FIXTURE SPACING)
EM1W	WHITE FINISH EMERGENCY LIGHT	120 1	INCL	WHITE FINISH EMERGENCY LIGHT WITH TWIN ADJUSTABLE 1 WATT LED HEADS AND BATTERY, MOUNT AT 7'-6"±, TO CLEAR OBSTACLES. (PROVIDES 1 FC AVG. ON 25' CENTER FIXTURE SPACING)
EX1	COMBINATION EMERGENCY/EXIT LIGHT	120 3	INCL	COMBINATION EMERGENCY/EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, TWIN LED EMERGENCY LIGHT HEADS, UNIVERSAL MOUNT, BATTERY BACKUP
EXR	REMOTE TWIN HEAD OUTDOOR RATED EMERGENCY FIXTURE	120 5	INCL	REMOTE TWIN HEAD OUTDOOR RATED EMERGENCY FIXTURE
LN1	LED TAPE LIGHT	120 3W/FT	LED-3000K 300 LUM/FT	LED TAPE LIGHT IN COVE ABOVE RESTROOM VANITY. PROVIDE ALL NECESSARY COMPONENTS FOR COMPLETE SYSTEM.
L2	EXTERIOR RATED LED TAPE LIGHT	120 3W/FT	LED-3000K 300 LUM/FT	LED TAPE LIGHT IN ENCLOSURE MOUNTED TO UNDERSIDE OF STEP. VERIFY EXACT LOCATION PRIOR TO ROUGH IN. PROVIDE ALL NECESSARY COMPONENTS FOR COMPLETE SYSTEM.
XLN2	4' LED STRIP LIGHT	120 50	LED-4000K 5000 LUMS	4' LED STRIP LIGHT
XST1	FESTOON LED STRING LIGHTS	120 1W/FT	LED-3000K	FESTOON LED STRING LIGHTS WITH 18" SPACING AT COVERED TRELLIS. PROVIDE ALTERNATE BID FOR COLOR CHANGING BULBS
X1	EXTERIOR RATED WALL MOUNTED LED LIGHT	120 25	LED-4000K	GENERAL EXTERIOR RATED WALL MOUNTED LED LIGHT. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION.
X1E	EXTERIOR RATED WALL MOUNTED EMERGENCY LED LIGHT	120 25	LED-4000K	SAME AS TYPE X1 EXCEPT WITH BATTERY BACK-UP OR MICRO INVERTER FOR EMERGENCY OPERATION.
X2	EXTERIOR RATED WALL MOUNTED LED LIGHT	120 15	LED-4000K	EXTERIOR RATED WALL MOUNTED LED LIGHT AT PASS THRU WINDOWS. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION.

NOTES:

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MISSOURI
PE COA #2009003629

5/24/2023

STATE OF MISSOURI
BRETT M. HERMANN
NUMBER
PE-2018035615
PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

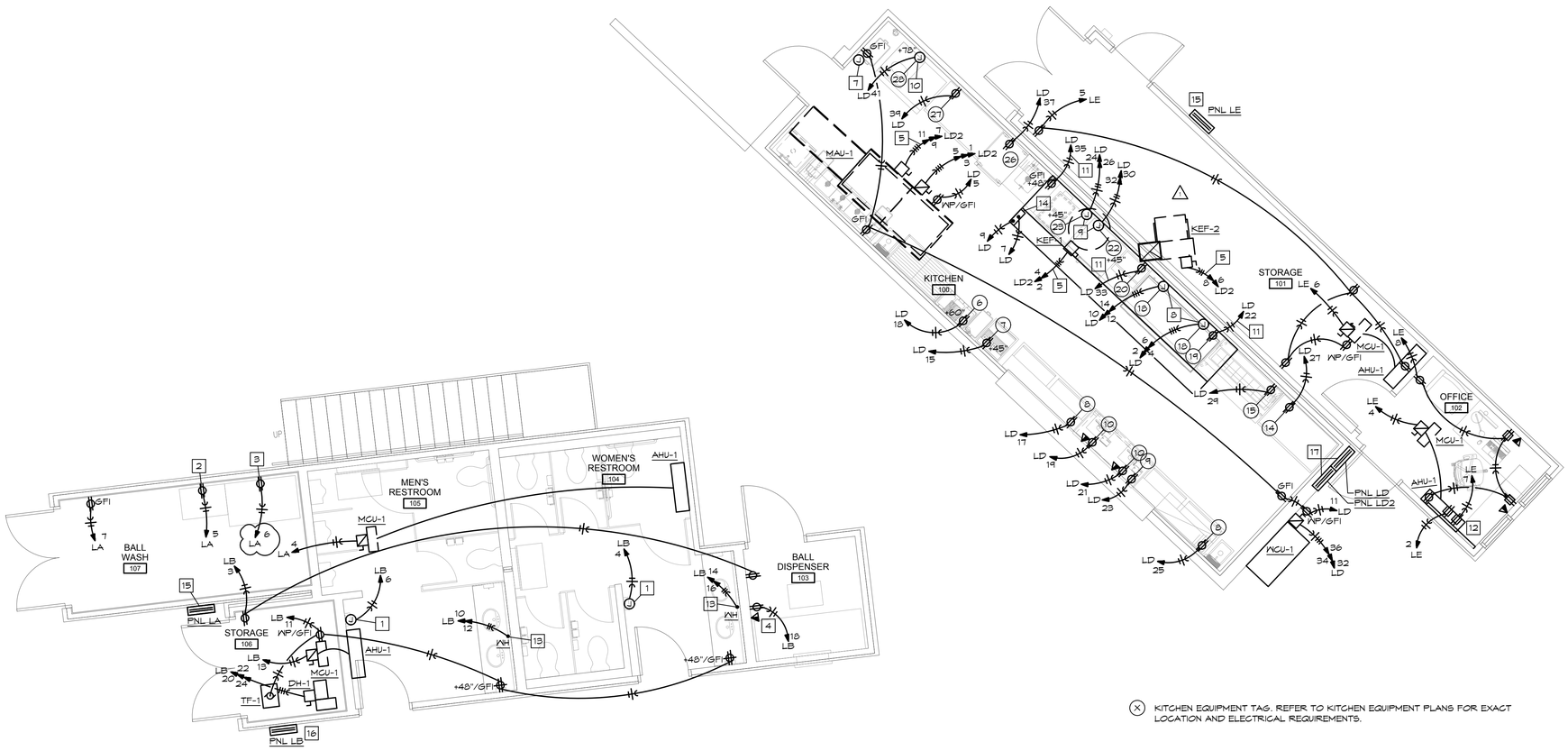
A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
04/06/2023

REVISION:
1 05/16/2023
2 05/24/2023

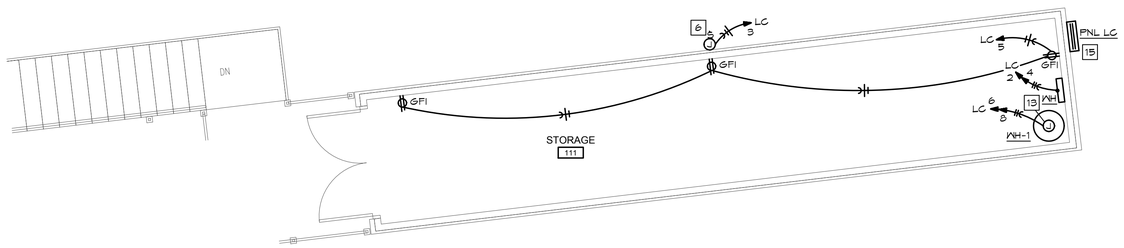
SHEET TITLE
ELECTRICAL
LIGHTING PLAN

E1



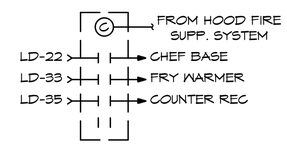
ELECTRICAL POWER PLAN - GROUND LEVEL

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



ELECTRICAL POWER PLAN - UPPER LEVEL

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



4 - POLE 20A CONTACTOR W/ 120V COIL. SQUARE D #LG40-V02 OR EQUAL. LOCATE ADJACENT TO HOOD EQUIPMENT IS UNDER

HOOD-SHUTOFF DETAIL

SCALE: NONE

POWER PLAN NOTES:

1. MAKE CONNECTION TO HAND DRYER PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION.
2. MAKE CONNECTION TO PRE-SOAKER PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
3. MAKE CONNECTION TO BALL WASHER PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
4. MAKE CONNECTION TO BALL DISPENSER PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
5. ROUTE CIRCUIT IS TO PANEL INDICATED VIA EXHAUST HOOD CONTROL PANEL (PLAN NOTE 14). REFER TO HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
6. PROVIDE WEATHER PROOF JUNCTION BOX WITH DISCONNECTING MEANS FOR CONNECTION TO BUILDING MOUNTED SIGNAGE. MAKE FINAL CONNECTION TO SIGN PER MANUFACTURERS INSTRUCTIONS. ROUTE CIRCUIT THROUGH INTERMATIC #ET2725C OR EQUAL - 365 DAY PROGRAMMABLE TIMECLOCK. OTHER CIRCUIT IS FOR BUILDING LIGHTS (PLAN NOTE 1, SHEET E1). LOCATE TIME CLOCK ADJACENT TO PANEL.
7. PROPOSED LOCATION OF HOOD SUPPRESSION PULL SYSTEM. VERIFY EXACT LOCATION AND REQUIREMENTS.
8. MAKE CONNECTION TO ELECTRIC COUNTER TOP GRIDDLE PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
9. MAKE CONNECTION TO ELECTRIC OVEN PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
10. MAKE CONNECTION TO ICE MAKER PER MANUFACTURERS INSTRUCTIONS. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
11. ROUTE CIRCUIT TO PANEL INDICATED VIA HOOD SHUT DOWN DETAIL OR VIA SHUNT TRIP BREAKER IN PANEL. THIS SHEET.
12. 2X4' PLYWOOD TELEPHONE BACKBOARD WITH SIEMENS #EGB-5 GROUND BAR AND #6CU BOND TO BUILDING ELECTRODE SYSTEM. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH IN. PROVIDE 2"C WITH PULL STRING TO PROPERTY LINE AS DIRECTED BY SERVICE PROVIDER. PROVIDE (2) 4"C SLEEVE STUBBED OUT INTO GREEN SPACE FOR LV CABLES THROUGHOUT SITE BY OTHERS. VERIFY LOCATIONS. CLEARLY LABEL CONDUIT.
13. MAKE CONNECTION TO WATER HEATER PER MANUFACTURERS INSTRUCTIONS.
14. HOOD CONTROL PANEL. VERIFY CONNECTION TO LIGHTS, FANS, FIRE SUPPRESSION SYSTEM, ETC PER MANUFACTURER'S INSTRUCTIONS. REFER TO HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
15. △2 PROVIDE PANELS LA, LC, & LE, THEY ARE FED FROM 60A/2P BREAKERS IN PANEL MDP(120/208V 3Ø, 4W) BY OTHERS. REFER TO OVERALL SITE ELECTRICAL PLANS FOR RISER DIAGRAM. SEE PANEL SCHEDULE ON SHEET E0 FOR ADDITIONAL INFORMATION. PROVIDE #6 CU GROUND TO DRIVEN GROUND ROD PER NEC 250, #6 CU GROUND TO CONTAINER STRUCTURE PER NEC 250, ISOLATE NEUTRAL AND GROUND BUS AT PANEL PER NEC 250.32.
16. PROVIDE PANELS LB, IT IS FED FROM 100A/3P BREAKER IN PANEL MDP(120/208V 3Ø, 4W) BY OTHERS. REFER TO OVERALL SITE ELECTRICAL PLANS FOR RISER DIAGRAM. SEE PANEL SCHEDULE ON SHEET E0 FOR ADDITIONAL INFORMATION.PROVIDE #6 CU GROUND TO DRIVEN GROUND ROD PER NEC 250, #6 CU GROUND TO CONTAINER STRUCTURE PER NEC 250, ISOLATE NEUTRAL AND GROUND BUS AT PANEL PER NEC 250.32.
17. PROVIDE PANELS LD AND LD2, THEY ARE FED FROM 200A/3P BREAKERS IN PANEL MDP(120/208V 3Ø, 4W)BY OTHERS. REFER TO OVERALL SITE ELECTRICAL PLANS FOR RISER DIAGRAM. SEE PANEL SCHEDULE ON SHEET E0 FOR ADDITIONAL INFORMATION. PROVIDE #6 CU GROUND TO DRIVEN GROUND ROD PER NEC 250, #4 CU GROUND TO CONTAINER STRUCTURE PER NEC 250, ISOLATE NEUTRAL AND GROUND BUS AT PANEL PER NEC 250.32.

(X) KITCHEN EQUIPMENT TAG. REFER TO KITCHEN EQUIPMENT PLANS FOR EXACT LOCATION AND ELECTRICAL REQUIREMENTS.

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MISSOURI
PE COA #2009003629

5/24/2023

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BRETT M. HERMANN
NUMBER
PE-2018035615
REGISTERED PROFESSIONAL ENGINEER

BC PROJECT #23025

BOBS CONTAINERS
11411 FM 812
DEL VALLEM TX 78617
(361) 202-8508

A PROJECT FOR:
BLUE JEANS GOLF
1501 E US HWY 40
LEE'S SUMMIT, MO 64015

ISSUE DATE:
04/06/2023

REVISION:
△1 05/16/2023
△2 05/24/2023

SHEET TITLE
ELECTRICAL POWER PLAN

E2

GENERAL NOTES

1. REFER TO SHEETS E601-E603 FOR FURTHER DETAILS OF THE ELECTRICAL DISTRIBUTION.
2. REFER TO ARCHITECTURAL SHEETS FOR DETAILED LIGHTING AND EQUIPMENT LAYOUTS.

1 ELECTRICAL SITE PLAN
1/32" = 1'-0"

N

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FAMILY GOLF PARK

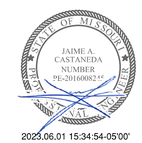
1501 E US HWY 40,
LEE'S SUMMIT, MO 64064

JOB NUMBER: 17-22-00007

ISSUE BLOCK

	PERMIT	04/06/23
1	PERMIT REVS	05/10/23
2	PLAN REVS	05/23/23
3	PERMIT REVS	06/01/23

CHECKED BY:	JAC
DRAWN BY:	TMM
DOCUMENT DATE:	06/01/23



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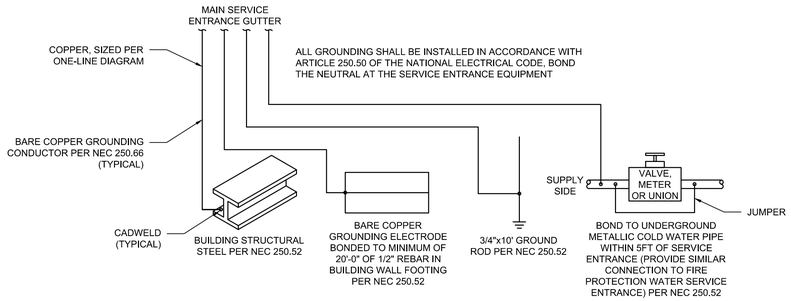
JAIME A. CASTANEDA, P.E.
PE-2016008245
HARRISON FRENCH & ASSOCIATES, LTD
E-2005011725-F

ELECTRICAL SITE PLAN

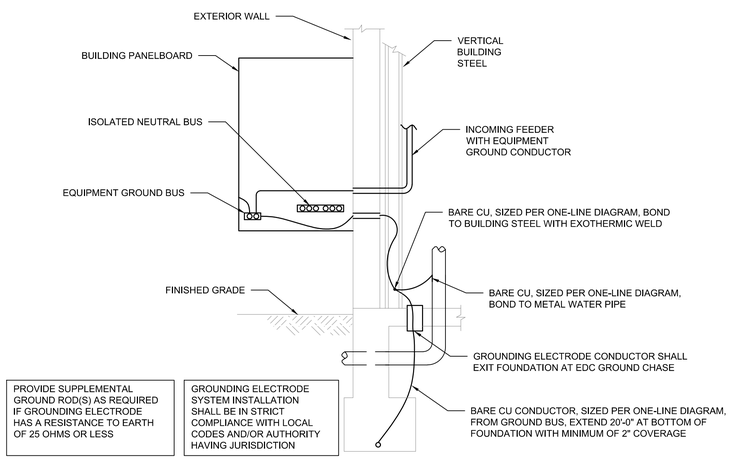
SHEET:
E101

Jun01,2023-2:22pm - User tim.mccabe
F:\17\17-22-00007 Blue Jeans Golf - Kansas City, MO\Sheets\ E101 ELECTRICAL SITE PLAN.dwg



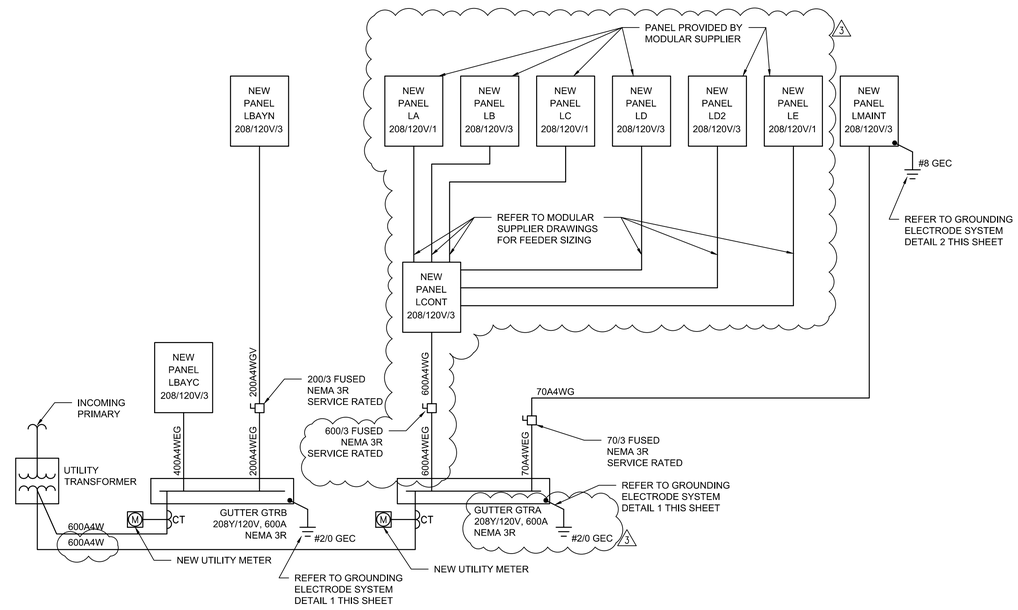
1 GROUNDING ELECTRODE SYSTEM DETAIL 1

NTS



2 GROUNDING ELECTRODE SYSTEM DETAIL 2

NTS



3 ONE-LINE DIAGRAM

NTS

SERVICES TABLE [1]

SERVICE SIZE	MAX CIRCUIT AMPS	3PH 4W COPPER CONDUCTORS [2,3]	*3PH 4W ALUMINUM CONDUCTORS [2,3]*
600A4W	600	(2) SETS OF 3"C, (4) 350kcmil	*(2) SETS OF 3"C, (4) 500kcmil*

[1] Used for Electrical Service Entrance conductors only. Reference electric utility info for max number and size of conduits and conductors.

[2] Conduit sized per NEC for Schedule 80 PVC. Calculations required for any other conduit types.

[3] Assumes THHN/THWN Copper wire and XHHW-2 Aluminum wire. Calculations required for any other wire type.

[4] The next higher standard overcurrent device is used as allowed by NEC 240.4(B). The actual load cannot exceed the Max Circuit Amps.

THREE PHASE SERVICE TAP FEEDER TABLE [1]

OCP SIZE	MAX AMPS	3PH 4WG COPPER	3PH 4WG ALUMINUM
70A4WEG[4]	70	1-1/4"C, (4) #4, (1) #8 G	*1-1/2"C, (4) #2, (1) #6 G*
200A4WEG[4]	200 [3]	2-1/2"C, (4) #3/0, (1) #4 G	*3"C, (4) 250kcmil, (1) #2 G*
400A4WEG[4]	380 [2]	3-1/2"C, (4) 500kcmil, (1) #1/0 G	*5"C, (4) 750kcmil, (1) #3/0 G*
600A4WEG[4]	600	(2) SETS OF 3"C, (4) 350kcmil, (1) #2 G	*(2) SETS OF 3-1/2"C, (4) 500kcmil, (1) #1/0 G*

[1] All wire and conduit sizes based on THHN/THWN and PVC. Calculations required for other types.

[2] The next higher standard overcurrent device is used as allowed by NEC 240.4(B). The actual load cannot exceed the Max Circuit Amps. Normally used for branch circuits.

[3] Feeder upsized due to voltage drop.

[4] Feeder shall be provided with supply-side bonding jumper sized per NEC Table 205.102(C)(1).

THREE PHASE FEEDER AND BRANCH CIRCUIT TABLE [1]

OCP SIZE	MAX AMPS	3PH 4WG COPPER	3PH 4WG ALUMINUM
70A4WG	70	1-1/4"C, (4) #4, (1) #8 G	*1-1/2"C, (4) #2, (1) #6 G*
200A4WGV	200 [3]	3"C, (4) 250kcmil, (1) #4 G	*3-1/2"C, (4) 400kcmil, (1) #1 G*
600A4WG	600	(2) SETS OF 3"C, (4) 350kcmil, (1) #1 G	*(2) SETS OF 3-1/2"C, (4) 500kcmil, (1) #2/0 G*

[1] All wire and conduit sizes based on THHN/THWN and PVC. Calculations required for other types.

[2] The next higher standard overcurrent device is used as allowed by NEC 240.4(B). The actual load cannot exceed the Max Circuit Amps. Normally used for branch circuits.

[3] Feeder upsized due to voltage drop.

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FAMILY GOLF PARK

1501 E US HWY 40,
LEE'S SUMMIT, MO 64064

JOB NUMBER: 17-22-00007

ISSUE BLOCK

	PERMIT	04/06/23
1	PERMIT REVS	05/10/23
2	PLAN REVS	05/23/23
3	PERMIT REVS	06/01/23

CHECKED BY:	JAC
DRAWN BY:	TMM
DOCUMENT DATE:	06/01/23

2023.06.01 15:35:01 -05'00'

JAIME A. CASTANEDA, P.E.
PE-2016008245
HARRISON FRENCH & ASSOCIATES, LTD
E-2005011725-F

ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES

SHEET:
E601

Jun01 2023-2:25pm - User tim.mcabe
F:\17\17-22-00007 Blue Jeans Golf - Kansas City, MO\Sheets\ E601 ONE-LINE DIAGRAM.dwg

LCONT

NEW PANELBOARD

208Y/120V, 3PH, 4W
600A M.L.O.
35,000 AIC
SURFACE MOUNT
NEMA 3R ENCLOSURE

SERVES: CONTAINER BUILDING
LOCATION: BALL WASH EXTERIOR
FED FROM: GUTTER GTRA
UPSTREAM OVERCURRENT DEVICE: 600A

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	PANEL LA (1) (3)		60	2	2.14	8.03					3	100		PANEL LB (1) (3)	2
3	–		–	–			4.13	8.83			–	–		–	4
5	PANEL LC (1) (3)		60	2					4.22	8.24	–	–		–	6
7	–		–	–	4.58	0.00								SPACE	8
9	PANEL LE (1) (3)		60	2			4.70	0.00						SPACE	10
11	–		–	–					4.53	0.00				SPACE	12
13	SPACE				0.00	0.00								SPACE	14
15	SPACE						0.00	0.00						SPACE	16
17	SPACE								0.00	0.00				SPACE	18
19	SPACE				0.00	0.00								SPACE	20
21	SPACE						0.00	0.00						SPACE	22
23	SPACE								0.00	0.00				SPACE	24
25	PANEL LD (1) (3)		200	3	30.0	17.2					3	200		PANEL LD2 (1) (3)	26
27	–		–	–			28.9	16.4			–	–		–	28
29	–		–	–					27.3	16.4	–	–		–	30

TOTAL CONNECTED	61.9	63.0	60.6	KVA
TOTAL CONNECTED	515.8	524.7	505.2	AMPS
TOTAL LOAD	185.5	KVA	514.8	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	187.1	KVA	519.2	AMPS
100%	7.26	100%	7.26	KVA
125%	70.0	125%	87.4	KVA
LIGHTING	4.38	125%	5.48	KVA
MOTORS	35.4	100%	35.4	KVA
RECEPTACLES*	6.06	*	6.06	KVA
KITCHEN	62.5	65%	40.6	KVA
REFRIGERATION	0.00	100%	0.00	KVA
HVAC – COOLING**	0.00	100%	0.00	KVA
HVAC – HEAT**	0.00	0%	0.00	KVA
LARGEST MOTOR	19.4	25%	4.86	KVA
			187.1	KVA

*FIRST 10kVA AT 100% AND REMAINING AT 50%
**LARGEST OF COOLING OR HEATING

LMAINT

NEW PANELBOARD

208Y/120V, 3PH, 4W
70A M.C.B.
10,000 AIC
SURFACE MOUNT
GROUND BAR
NEMA 1 ENCLOSURE

SERVES: MAINTENANCE BUILDING
LOCATION: MAINTENANCE BUILDING
FED FROM: GUTTER GTRA

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	WELDER	3	80	2	4.34	0.00					2	80	3	WELDER (REDUNDANT)	2
3	–	3	–	–			4.34	0.00			–	–	3	–	4
5	MAINTENANCE RECEPTACLES	12	20	1					0.72	0.72	1	20	12	MAINTENANCE RECEPTACLES	6
7	MAINTENANCE RECEPTACLES	12	20	1	0.72	0.72					1	20	12	MAINTENANCE RECEPTACLES	8
9	SPARE		20	1			0.00	0.00			1	20		SPARE	10
11	SPARE		20	1					0.00	0.00	1	20		SPARE	12
13	SPACE				0.00	0.00								SPACE	14
15	SPACE						0.00	0.00						SPACE	16
17	SPACE								0.00	0.00				SPACE	18

TOTAL CONNECTED	5.78	4.34	1.44	KVA
TOTAL CONNECTED	48.1	36.1	12.0	AMPS
TOTAL LOAD	11.6	KVA	32.1	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	11.6	KVA	32.1	AMPS
100%	8.67	100%	8.67	KVA
125%	0.00	125%	0.00	KVA
LIGHTING	0.00	125%	0.00	KVA
MOTORS	0.00	100%	0.00	KVA
RECEPTACLES*	2.88	*	2.88	KVA
KITCHEN	0.00	100%	0.00	KVA
REFRIGERATION	0.00	100%	0.00	KVA
HVAC – COOLING**	0.00	100%	0.00	KVA
HVAC – HEAT**	0.00	0%	0.00	KVA
LARGEST MOTOR	0.00	25%	0.00	KVA
			11.6	KVA

*FIRST 10kVA AT 100% AND REMAINING AT 50%
**LARGEST OF COOLING OR HEATING

GTRA

NEW LOAD SUMMARY

208Y/120V, 3PH, 4W
600A M.L.O.
35,000 AIC
SURFACE MOUNT
GROUND BAR
SERVICE ENTRANCE RATED
NEMA 3R ENCLOSURE

SERVES: MAIN BUILDING SERVICE
LOCATION: BALL WASH EXTERIOR
FED FROM: UTILITY TRANSFORMER

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	PANEL LCONT	--	–	–	61.9	5.78					–	–	--	PANEL LMAINT	2
3	–	--	–	–			63.0	4.34			–	–	--	–	4
5	–	--	–	–					60.6	1.44	–	–	--	–	6
7		--	–	–	0.00	0.00					–	–	--		8
9		--	–	–			0.00	0.00			–	–	--		10
11		--	–	–					0.00	0.00	–	–	--		12

TOTAL CONNECTED	67.7	67.3	62.1	KVA
TOTAL CONNECTED	563.9	560.8	517.2	AMPS
TOTAL LOAD	197.0	KVA	546.9	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	198.6	KVA	551.3	AMPS
100%	15.9	100%	15.9	KVA
125%	70.0	125%	87.4	KVA
LIGHTING	4.38	125%	5.48	KVA
MOTORS	35.4	100%	35.4	KVA
RECEPTACLES*	8.94	*	8.94	KVA
KITCHEN	62.5	65%	40.6	KVA
REFRIGERATION	0.00	100%	0.00	KVA
HVAC – COOLING**	0.00	100%	0.00	KVA
HVAC – HEAT**	0.00	0%	0.00	KVA
LARGEST MOTOR	19.4	25%	4.86	KVA
			198.6	KVA

*FIRST 10kVA AT 100% AND REMAINING AT 50%
**LARGEST OF COOLING OR HEATING

LBAYC

NEW PANELBOARD

208Y/120V, 3PH, 4W
400A M.C.B.
22,000 AIC
SURFACE MOUNT
NEMA 3R ENCLOSURE

SERVES: HITTING BAYS CENTRAL
LOCATION: HITTING BAYS CENTRAL
FED FROM: GUTTER GTRB

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	INFRARED HEATER	8	40	2	3.00	3.00					2	40	8	INFRARED HEATER	2
3	–	8	–	–			3.00	3.00			–	–	8	–	4
5	INFRARED HEATER	8	40	2					3.00	3.00	2	40	8	INFRARED HEATER	6
7	–	8	–	–	3.00	3.00					–	–	8	–	8
9	INFRARED HEATER	8	40	2			3.00	3.00			2	40	8	INFRARED HEATER	10
11	–	8	–	–					3.00	3.00	–	–	8	–	12
13	INFRARED HEATER	8	40	2	3.00	3.00					2	40	8	INFRARED HEATER	14
15	–	8	–	–			3.00	3.00			–	–	8	–	16
17	INFRARED HEATER	8	40	2					3.00	3.00	2	40	8	INFRARED HEATER	18
19	–	8	–	–	3.00	3.00					–	–	8	–	20
21	INFRARED HEATER	8	40	2			3.00	3.00			2	40	8	INFRARED HEATER	22
23	–	8	–	–					3.00	3.00	–	–	8	–	24
25	INFRARED HEATER	8	40	2	3.00	3.00					2	40	8	INFRARED HEATER	26
27	–	8	–	–			3.00	3.00			–	–	8	–	28
29	HITTING BAY L/R/FAN	12	20	1					1.01	1.01	1	20	12	HITTING BAY L/R/FAN	30
31	HITTING BAY L/R/FAN	12	20	1	1.01	1.01					1	20	12	HITTING BAY L/R/FAN	32
33	HITTING BAY L/R/FAN	12	20	1			1.01	1.01			1	20	12	HITTING BAY L/R/FAN	34
35	HITTING BAY L/R/FAN	12	20	1					1.01	1.01	1	20	12	HITTING BAY L/R/FAN	36
37	HITTING BAY L/R/FAN	12	20	1	1.01	1.01					1	20	12	HITTING BAY L/R/FAN	38
39	HITTING BAY L/R/FAN	12	20	1			1.01	1.01			1	20	12	HITTING BAY L/R/FAN	40
41	HITTING BAY L/R/FAN	12	20	1					0.51	1.20	1	20	12	LED FLOODLIGHTS	42
43	TOP TRACER MONITORS	12	20	1	0.48	1.20					1	20	12	LED FLOODLIGHTS	44
45	TOP TRACER MONITORS	12	20	1			0.48	0.60			1	20	12	LED FLOODLIGHTS	46
47	TOP TRACER MONITORS	12	20	1					0.48	0.32	1	20	12	TOP TRACER CAMERAS	48
49	TOP TRACER MONITORS	12	20	1	0.48	0.28					1	20	12	TOP TRACER SERVERS	50
51	TOP TRACER MONITORS	12	20	1			0.48	0.00			1	20		SPARE	52
53	TOP TRACER MONITORS	12	20	1					0.36	0.00	1	20		SPARE	54
55	TOP TRACER MONITORS	12	20	1	0.24	0.00					1	20		SPARE	56
57	SPARE		20	1			0.00	0.00			1	20		SPARE	58
59	SPARE		20	1					0.00	0.00	1	20		SPARE	60
61	FUTURE PANEL LBAYS (1)		70	3	5.60	0.00								SPACE	62
63	–		–	–			4.52	0.00						SPACE	64
65	–		–	–					4.18	0.00				SPACE	66

TOTAL CONNECTED	42.3	40.1	35.1	KVA
TOTAL CONNECTED	352.6	334.3	292.4	AMPS
TOTAL LOAD	117.5	KVA	326.2	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	123.9	KVA	343.8	AMPS
100%	0.00	100%	0.00	KVA
125%	15.0	125%	18.7	KVA
LIGHTING	10.4	125%	13.0	KVA
MOTORS	0.00	100%	0.00	KVA
RECEPTACLES*	8.10	*	8.10	KVA
KITCHEN	0.00	100%	0.00	KVA
REFRIGERATION	0.00	100%	0.00	KVA
HVAC – COOLING**	0.00	0%	0.00	KVA
HVAC – HEAT**	84.0	100%	84.0	KVA
LARGEST MOTOR	0.00	25%	0.00	KVA
			123.9	KVA

*FIRST 10kVA AT 100% AND REMAINING AT 50%
**LARGEST OF COOLING OR HEATING

GTRB

NEW LOAD SUMMARY

208Y/120V, 3PH, 4W
600A M.L.O.
22,000 AIC
SURFACE MOUNT
GROUND BAR
SERVICE ENTRANCE RATED
NEMA 3R ENCLOSURE

SERVES: MAIN HITTING BAY SERVICE
LOCATION: HITTING BAYS CENTRAL
FED FROM: UTILITY TRANSFORMER

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	PANEL LBAYC	--	–	–	42.3	16.0					–	–	--	PANEL LBAYN	2
3	–	--	–	–			40.1	16.1			–	–	--	–	4
5	–	--	–	–					35.1	14.5	–	–	--	–	6
7		--	–	–	0.00	0.00					–	–	--		8
9		--	–	–			0.00	0.00			–	–	--		10
11		--	–	–					0.00	0.00	–	–	--		12

TOTAL CONNECTED	58.3	56.2	49.6	KVA
TOTAL CONNECTED	486.1	468.2	413.2	AMPS
TOTAL LOAD	164.1	KVA	455.5	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	172.0	KVA	477.5	AMPS
100%	0.00	100%	0.00	KVA
125%	19.8	125%	24.7	KVA
LIGHTING	13.5	125%	16.9	KVA
MOTORS	0.00	100%	0.00	KVA
RECEPTACLES*	10.8	*	10.4	KVA
KITCHEN	0.00	100%	0.00	KVA
REFRIGERATION	0.00	100%	0.00	KVA
HVAC – COOLING**	0.00	0%	0.00	KVA
HVAC – HEAT**	120.0	100%	120.0	KVA
LARGEST MOTOR	0.00	25%	0.00	KVA
			172.0	KVA

*FIRST 10kVA AT 100% AND REMAINING AT 50%
**LARGEST OF COOLING OR HEATING

LBAYN

NEW PANELBOARD

208Y/120V, 3PH, 4W
200A M.L.O.
10,000 AIC
SURFACE MOUNT
NEMA 3R ENCLOSURE

SERVES: HITTING BAYS NORTH
LOCATION: HITTING BAYS NORTH
FED FROM: GUTTER GTRB
UPSTREAM OVERCURRENT DEVICE: 200A

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	INFRARED HEATER	8	40	2	3.00	3.00					2	40	8	INFRARED HEATER	2
3	–	8	–	–			3.00	3.00			–	–	8	–	4
5	INFRARED HEATER	8	40	2					3.00	3.00	2	40	8	INFRARED HEATER	6
7	–	8	–	–	3.00	3.00					–	–	8	–	8
9	INFRARED HEATER	8	40	2			3.00	3.00			2	40	8	INFRARED HEATER	10
11	–	8	–	–					3.00	3.00	–	–	8	–	12
13	HITTING BAY L/R/FAN	12	20	1	1.01	1.01					1	20	12	HITTING BAY L/R/FAN	14
15	HITTING BAY L/R/FAN	12	20	1			1.01	1.01			1	20	12	HITTING BAY L/R/FAN	16
17	HITTING BAY L/R/FAN	12	20	1					1.01	1.01	1	20	12	HITTING BAY L/R/FAN	18
19	HITTING BAY L/R/FAN	12	20	1	1.01	0.51					1	20	12	HITTING BAY L/R/FAN	20
21	TOP TRACER MONITORS	12	20	1			0.48	1.20			1	20	12	LED FLOODLIGHTS	22
23	TOP TRACER MONITORS	12	20	1					0.48	0.00	1	20		SPARE	24
25	TOP TRACER MONITORS	12	20	1	0.48	0.00					1	20		SPARE	26
27	TOP TRACER MONITORS	12	20	1			0.36	0.00			1	20		SPARE	28
29	SPARE		20	1					0.00	0.00	1	20		SPARE	30
31	SPARE		20	1	0.00	0.00					1	20		SPARE	32
33	SPARE		20	1			0.00	0.00			1	20		SPARE	34
35	SPARE		20	1					0.00	0.00	1	20		SPARE	36
37	SPACE				0.00	0.00								SPACE	38
39	SPACE						0.00	0.00						SPACE	40
41	SPACE								0.00	0.00				SPACE	42

TOTAL CONNECTED	16.0	16.1	14.5	KVA
TOTAL CONNECTED	133.5	133.8	120.8	AMPS
TOTAL LOAD	46.6	KVA	129.3	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	48.5	KVA	134.7	AMPS
100%	0.00	100%	0.00	KVA
125%	4.80	125%	6.00	KVA
LIGHTING	3.08	125%	3.84	KVA
MOTORS	0.00	100%	0.00	KVA
RECEPTACLES*	2.70	*	2.70	KVA
KITCHEN	0.00	100%	0.00	KVA
REFRIGERATION	0.00	100%	0.00	KVA
HVAC – COOLING**	0.00	0%	0.00	KVA
HVAC – HEAT**	36.0	100%	36.0	KVA
LARGEST MOTOR	0.00	25%	0.00	KVA
			48.5	KVA

*FIRST 10kVA AT 100% AND REMAINING AT 50%
**LARGEST OF COOLING OR HEATING

PANELBOARD NOTES ( )

(1) INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-OFF FOR MAINTENANCE).

(2) GFCI BREAKER FOR PERSONNEL PROTECTION (5 mA).

(3) REFER TO ONE-LINE DIAGRAM FOR WIRE SIZES.

1705 S. Walton Blvd., Suite 3
Bentonville, Arkansas 72712
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FAMILY GOLF PARK
1501 E US HWY 40,
LEE'S SUMMIT, MO 64064
JOB NUMBER: 17-22-00007

ISSUE BLOCK

	PERMIT	04/06/23
1	PERMIT REVS	05/10/23
2	PLAN REVS	05/23/23
3	PERMIT REVS	06/01/23

CHECKED BY: JAC
DRAWN BY: TMM
DOCUMENT DATE: 06/01/23

STATE OF MISSOURI
JAIME A. CASTANEDA
NUMBER
PE-2016008245
PROFESSIONAL ENGINEER

2023.06.01 15:35:10-05'00'
JAIME A. CASTANEDA, P.E.
PE-2016008245
HARRISON FRENCH & ASSOCIATES, LTD
E-2005011725-F

PANEL SCHEDULES

SHEET:
E602

Jun01,2023-2:27pm - User tim.mccabe
F:\17\17-22-00007 Blue Jeans Golf - Kansas City, MO\Sheets\ E601 ONE-LINE DIAGRAM.dwg