BON SECOUR VISITOR CENTER & ADMINISTRATION

LOCATION MAP
NOT TO SCALE

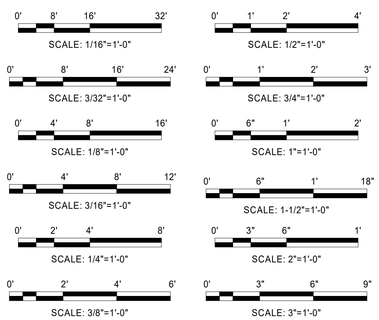
ISSUED FOR
CONSTRUCTION
05/02/2024

VICINITY MAP
NOT TO SCALE

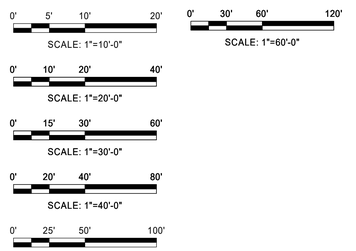
FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

12295 STRONG RD.
GULF SHORES, AL 36542

ARCHITECTURAL GRAPHIC SCALES



ENGINEERING GRAPHIC SCALES



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STATE of ALABAMA
NEIL A. ESSER
8916
REGISTERED ARCHITECT
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

REVISION DESCRIPTION	DATE	MRK

COMM NO:	230182
DATE:	05/02/2024
DRAWN: NXE	DESIGN: NXE
CHECK:	SAT

SHEET TITLE
COVER SHEET

SHT. NO. G-001
REV. NO.

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PROJECT GENERAL NOTES

1. THE DRAWINGS ARE PREPARED AND COORDINATED WITH THE PROJECT MANUAL WHICH INCLUDE TECHNICAL SPECIFICATIONS. THEY, ALONG WITH OTHER DOCUMENTS ISSUED BY WILEY | WILSON AND ENUMERATED IN THE OWNER-CONTRACTOR AGREEMENT, MUST FORM THE CONSTRUCTION DOCUMENTS. A DIRECTIVE STATED IN ONE DOCUMENT MUST BE UNDERSTOOD AS STATED IN ALL. ANY AMBIGUITIES OR INCONSISTENCIES MUST BE RESOLVED BY WILEY | WILSON.
2. DRAWING REFERENCES ARE FOR CONVENIENCE ONLY AND DO NOT LIMIT THE EXTENT OF APPLICATION OF THE DRAWINGS OR DETAILS. ALL DIMENSIONS, DESCRIPTIONS AND/OR SYMBOLS WITHIN A DRAWING ARE COMPLEMENTARY. DRAWINGS AND SPECIFICATIONS WHETHER TAKEN SEPARATELY OR TOGETHER ARE TO BE INTERPRETED ACCORDING TO THEIR FULL INTENT, MEANING, AND SPIRIT; AND MUST BE DEEMED TO EXPLIN MUTUALLY EACH OTHER AND TO BE DESCRIPTION OF THE WORK TO BE DONE UNDER THE CONTRACT.
3. THE OWNER RESERVES THE RIGHT TO REJECT MATERIAL AND OR WORK THAT IS NOT IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. ALL WORK INDICATED MUST INCLUDE ALL LABOR, MATERIALS AND FINISHED ASSEMBLIES NECESSARY TO MAKE A COMPLETE, PROPERLY WORKING AND FINISHED INSTALLATION.
5. COMPLY WITH ALL APPLICABLE AND GOVERNING CODES AND REGULATIONS; AND MUST COMPLY WITH ALL LIFE SAFETY REQUIREMENTS OF APPLICABLE GOVERNING AUTHORITIES. ALL WORK MUST BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. SEE SHEET GL001 FOR ADDITIONAL CODE INFORMATION.
6. ALL WORK MUST BE IN ACCORDANCE WITH ACCEPTED HIGH QUALITY CONSTRUCTION PRACTICES AND STANDARDS AND DONE IN A WORKMAN-LIKE MANNER.
7. IF AN UNSAFE CONDITION OR A LIFE THREATHENING HAZARD IS NOTED AT THE SITE, NOTIFY THE ARCHITECT AND THE AUTHORITY HAVING JURISDICTION IMMEDIATELY.
8. CONFIRM AND VERIFY WITH THE OWNER PRIOR TO STARTING WORK ANY RULES OR REGULATIONS FOR THE USE AND CONSTRUCTION ON THE PROPERTY WITH RESPECT TO BUT NOT LIMITED TO HOURS OF CONSTRUCTION, LIMITS OF WORK, OPERATIONS OF THE BUILDING, SAFETY OF THE OWNERS EMPLOYEES OR GENERAL LOCATIONS OF DUMPSTERS, USE OF THE OWNER'S UTILITIES AND FACILITIES, SCHEDULING OF DELIVERIES, ETC.
9. COORDINATE WITH THE OWNER ALL WORK SO AS TO AVOID DISRUPTION TO THE NORMAL OPERATIONS AND WORK OF THE OWNER.
10. INSTALL ALL MANUFACTURED ITEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
11. MANUFACTURER'S NAMES AND/OR MODEL NUMBERS CITED ARE USED TO PROVIDE AN INDICATION OF QUALITY, STYLE AND/OR SIZE DESIRED. OTHER MANUFACTURERS ARE ACCEPTABLE IF PRODUCTS ARE EQUAL IN QUALITY, STYLE AND SIZE.
12. MANUFACTURER'S NAMEPLATES, INCLUDING TRADEMARK AND OTHER IDENTIFYING SYMBOLS, MUST NOT BE PERMITTED IN SURFACES VISIBLE TO THE PUBLIC, UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.
13. REMOVE ALL CONSTRUCTION AND/OR DEMOLITION DEBRIS FROM THE JOB SITE TO MAINTAIN A CLEAN AND SAFE ENVIRONMENT AND TO PREVENT THE POSSIBILITY OF A FIRE OR LIFE SAFETY HAZARD.
14. ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS, OR ANY AMBIGUITIES OR INCONSISTENCIES CONTAINED THEREIN, MUST BE REPORTED TO THE ARCHITECT IMMEDIATELY, AND A SUITABLE RESOLUTION ESTABLISHED PRIOR TO THE SUBMITTAL OF BIDS OR THE BEGINNING OF THE AFFECTED WORK. WORK THAT PROCEEDS IN VIOLATION OF THIS PRINCIPLE IS AT THE CONTRACTOR'S OWN RISK, AND THE COST OF ANY CHANGES REQUIRED BY THE CLIENT TO SUITABLY MODIFY SUCH WORK MUST BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
15. SAFEGUARD THE OWNERS' PROPERTY AND ADJACENT PROPERTIES DURING CONSTRUCTION AND MUST PROTECT FROM DAMAGE ANY EXISTING OR ADJACENT FINISHES, MATERIALS, FIXTURES OR BUILDING ASSEMBLIES. REPAIR ALL AREAS AFFECTED BY THE CONSTRUCTION AS REQUIRED TO MAINTAIN THEIR EXISTING APPEARANCE, UNLESS NOTED OTHERWISE.
16. MUST NOT REMOVE, ALTER, LOAD, PENETRATE OR ADD TO ANY EXISTING BUILDING ASSEMBLY OR STRUCTURE WHICH MAY COMPROMISE ITS INTEGRITY OR STRUCTURAL STABILITY OR THE INTEGRITY AND STRUCTURAL STABILITY OF ADJACENT BUILDING ASSEMBLIES WITHOUT PRIOR INVESTIGATION, REMEDY OR ACTION.
17. IF DEMOLITION IS REQUIRED, PROTECT ALL AREAS SCHEDULED TO REMAIN. REPAIR ALL SURFACES AND FINISHES TO MATCH EXISTING, AFTER DEMOLITION IS COMPLETE. IF A PORTION OF AN EXISTING WALL TO REMAIN IS DEMOLISHED, THE ENTIRE WALL OR CEILING MUST BE PAINTED AFTER NEW CONSTRUCTION IS COMPLETED. DEMOLITION OF ENTIRE PROJECT IS REQUIRED
18. IF DEMOLITION IS REQUIRED, THE CONTRACTOR MUST BE RESPONSIBLE FOR MAINTAINING THE STRUCTURAL INTEGRITY OF THE BUILDING DURING DEMOLITION AND CONSTRUCTION. THE CONTRACTOR MUST BRACE ALL STRUCTURAL ELEMENTS DURING DEMOLITION AND NEW CONSTRUCTION AS REQUIRED. THE CONTRACTOR MUST INFORM THE ARCHITECT OF ANY STRUCTURAL CONDITIONS UNCOVERED DURING THE DEMOLITION AND NEW WORK WHICH ARE NOT ADDRESSED ON THE CONSTRUCTION DOCUMENTS.
19. IF DEMOLITION IS REQUIRED, CONTRACTOR MUST MAINTAIN SAFE PUBLIC ACCESS TO AND FROM ALL BUILDING EXITS AT ALL TIMES. CONTRACTOR MUST COORDINATE WITH OWNER THE SCHEDULING OF WORK TIMES, PRIOR TO COMMENCEMENT OF ANY AND ALL WORK.

PROJECT GENERAL NOTES

20. THE CONTRACTOR OR ANY OF HIS EMPLOYEES, OR SUB-CONTRACTORS MUST NOT SCALE THESE DRAWINGS FOR DIMENSIONS. IF THERE IS ANY QUESTION CONCERNING THE DIMENSIONS THE CONTRACTOR MUST CONTACT THE ARCHITECT TO CLARIFY THE DIMENSIONS.
21. VERIFY THAT THERE ARE NO UTILITIES IN THE AREA OF CONSTRUCTION OR PROTECT ALL KNOWN UTILITIES BEFORE ANY WORK IS STARTED.
22. FIELD VERIFY ALL CONDITIONS, DIMENSIONS AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK OR ORDERING OF MATERIALS. ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS MUST BE REPORTED TO THE ARCHITECT IN WRITING PRIOR TO THE PROCEEDING WITH THAT PORTION OF WORK.
23. THE FLOOR ELEVATIONS INDICATED ON ARCHITECTURAL DRAWINGS ARE REFERENCED FROM THE TOP OF THE FIRST FLOOR STRUCTURE/SLAB (DATUM) ELEVATION OF 00.00 FEET. REFER TO CIVIL DRAWINGS FOR ABSOLUTE ELEVATION.
24. DIMENSIONS INDICATED FOR INTERIOR ARE FROM THE FACE OF STUD FACE OF MASONRY STRUCTURE OR FACE OF EXISTING SURFACES UNLESS OTHERWISE NOTED.
25. DIMENSIONS INDICATED FOR EXTERIOR ARE FROM THE EXTERIOR FACE OF WALL.
26. DIMENSIONS FOR EXISTING WORK ARE INDICATED AS "±". ALL DISCREPANCIES MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTING OFFICER IN WRITING.
27. ALL WOOD MUST BE PRESSURE TREATED WHEN IN CONTACT THE GROUND OR CONCRETE.
28. ALL WOOD BLOCKING AND MISCELLANEOUS STEEL SHOWN IN DETAILS AND SECTIONS MUST BE CONTINUOUS UNLESS SPECIFICALLY NOTED OTHERWISE.
29. MAINTAIN ALL MEANS OF EGRESS DURING CONSTRUCTION OR MAKE ARRANGEMENTS FOR CODE COMPLIANT EXITS FOR TIMES WHEN THE BUILDING IS OCCUPIED.
30. COORDINATE ALL WORK INCLUDING, SOFFIT FRAMING AS NEEDED WITH ALL WORK SHOWN ON THE MECHANICAL, PLUMBING, FIRE-PROTECTION, ELECTRICAL AND STRUCTURAL DRAWINGS.
31. FOLLOW LATEST ASTM C840 AND USG GYPSUM CONSTRUCTION HANDBOOK FOR THE INSTALLATION AND RECOMMENDED LOCATIONS OF CONTROL JOINTS IN GYPSUM BOARD WALLS AND CEILINGS, TYPICAL U.N.O.

SHEET INDEX

SHEET INDEX

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

STATE of ALABAMA — NEIL K. NESSER — 9168 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

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SHEET INDEX & PROJECT GENERAL NOTES

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APPLICABLE BUILDING CODES:

The *2021 International Building Code* adopted on July 1, 2022 as the State Building Code and enforced by the Division of Construction Management (DCM) includes the following:

Companion Codes
- 2021 International Existing Building Code July 1, 2022
- 2021 International Plumbing Code July 1, 2022
- 2021 International Fuel Gas Code July 1, 2022
- 2021 International Mechanical Code July 1, 2022
- 2020 National Electrical Code (NFPA 70) July 1, 2022
- 2021 International Fire Code July 1, 2022
- July 1, 2022 ANSI/ASHRAE/IES Standard 90.1-2013 Energy Standard for Buildings Except Low-Rise Residential Buildings, with exceptions permitted to:
- 6.5.1 – Economizers
- 8.4.2 - Automatic Receptacle Control
- 8.4.3 - Electrical Energy Monitoring
- 2010 ADA Standards for Accessible Design April 18, 2011
- These requirements supersede the accessibility requirements contained in the International Building Code and ANSI A117.1.

DCM Code Supplements
- *2020 ICC/NSSA-500 Standard for the Design and Construction of Storm Shelters* July 1, 2022
- *2019 National Fire Alarm and Signaling Code (NFPA 72)* July 1, 2022

PROJECT SCOPE:
NEW CONSTRUCTION OF A VISITOR CENTER AND OFFICES FOR THE BON SECOUR WILDLIFE REFUGE

ZONING:
N/A

OCCUPANCY CLASSIFICATION (IBC CH 3, 304, 311:

BUSINESS GROUP B

CONTROL AREAS (IBC TABLE 414.2.2):
PERMITTED: N/A
PROPOSED: N/A

ALLOWABLE HEIGHT IN FEET (IBC TABLE 504.3):
MAXIMUM PERMITTED: 55 FEET, NOT SPRINKLERED (TYPE IIB)
PROVIDED: 30 FEET 0 INCHES

ALLOWABLE NUMBER OF STORIES (IBC TABLE 504.4):
MAXIMUM PERMITTED: 2 STORIES, NOT SPRINKLERED (TYPE IIB)
PROVIDED: 1 STORY

AREA LIMITATION (IBC 505.2.1):
MAXIMUM PERMITTED: AGGREGATE FLOOR AREA OF MEZZANINE NOT > 1/3 OF FLOOR AREA OF THAT SPACE.
PROVIDED: N/A

ALLOWABLE FLOOR AREA (IBC TABLE 506.2):
MAXIMUM PERMITTED: 23,000 SQFT NOT SPRINKLERED GROUP-B (TYPE IIB)
PROVIDED: 4440 GROSS SQFT

FIRE RESISTANCE REQUIREMENTS (IBC TABLE 601):
CONSTRUCTION TYPE:
PROPOSED: TYPE IIB

STRUCTURAL FRAME, INCLUDING COLUMNS:
REQUIRED: NO FIRE RESISTANCE RATING
PROVIDED: NO FIRE RESISTANCE RATING

FLOORS, INCLUDING SUPPORT BEAMS:
REQUIRED: NO FIRE RESISTANCE RATING
PROVIDED: NO FIRE RESISTANCE RATING

ROOF, INCLUDING SUPPORT BEAMS:
REQUIRED: NO FIRE RESISTANCE RATING
PROVIDED: NO FIRE RESISTANCE RATING

EXTERIOR WALL PROJECTION DISTANCE (IBC TABLE 705.2):
REQUIRED: EXCEPTION - BUILDINGS ON SAME LOT NOT REQUIRED TO COMPLY
PROVIDED: NO FIRE SEPARATION DISTANCE FOR PROJECTIONS.

BUILDINGS ON SAME LOT (IBC TABLE 705.3):
ASSUME IMAGINARY LINE BETWEEN BUILDINGS FOR DETERMINING REQUIRED WALL AND OPENING PROTECTION

FIRE-RESISTANCE RATINGS (IBC TABLE 705.5):
MIN. DISTANCE OF PROJECTION: 30FEET OR GREATER FIRE SEPARATION DISTANCE MUST HAVE NO LIMIT FOR EXPOSURE FROM BOTH SIDES.
PROVIDED: BUILDING SEPARATION IS MORE THAN 30 FEET FROM ADJACENT STRUCTURES.

ALLOWABLE AREA BASED ON FIRE SEPARATION DISTANCE (IBC TABLE 705.8):
MAXIMUM PERMITTED: ALLOWABLE AREA PERMITTED FOR 30 FEET OR GREATER SEPARATION DISTANCE
PROVIDED: NO LIMIT

FIRE BARRIERS: INTERIOR FIRE RESISTANCE SEPARATION (IBC SECTION 707):

MECHANICAL ROOM (IBC TABLE 509).1:
REQUIRED: 1-HOUR FIRE RESISTANCE RATING WHERE EQUIPMENT IS OVER 400,000 BTU PER HOUR INPUT
PROVIDED: NOT EXCEEDED, NOT REQUIRED

INFORMATION TECHNOLOGY EQUIPMENT (ITE) ROOM (NFPA 75 SECTION 6.1.3.4):
REQUIRED: 1-HOUR FIRE RESISTANCE RATING
PROVIDED: 1-HOUR FIRE RESISTANCE RATING

STORAGE ROOMS
NOT REQUIRED TO BE SEPARATED BY SMOKE OR FIRE RESISTANCE RATED CONSTRUCTION IN ACCORDANCE WITH IBC, AS THESE SPACES STORE ROUTINE OFFICE SUPPLIES.

OPENING PROTECTION IN 1-HOUR WALLS, EXCLUDING SHAFT, EXIT ENCLOSURE AND EXIT PASSAGEWAY WALLS (IBC TABLE 716.1(2)):
REQUIRED: 45-MINUTE FIRE DOORS
PROVIDED: N/A

OPENING PROTECTION IN 2-HOUR WALLS, EXCLUDING SHAFT, EXIT ENCLOSURE AND EXIT PASSAGEWAY WALLS (IBC TABLE 716.1(2)):
REQUIRED: 1 1/2-HOUR FIRE DOORS
PROVIDED: N/A TO PROJECT

CORRIDORS (IBC 1020):
REQURIED: OCCUPANT LOAD SERVED BY CORRIDOR GREATER THAN 30 MUST HAVE 1 HOUR FIRE-RESISTANCE RATING.
PROVIDED: N/A

MEANS OF EGRESS:
OCCUPANT LOAD (IBC 1004):
REQUIRED: 150 GROSS SQFT FOR BUSINESS AREAS, 500 GROSS FOR WAREHOUSES
TOTAL OCCUPANT LOAD: SEE SHEET GI002

NUMBER OF EXITS (IBC 1006.1):
REQUIRED: 2 (OCCUPANCY LOAD DOES NOT EXCEED 600 PERSONS)
PROVIDED: 2
TWO EXITS ARE REQUIRED .
THE EXITS ARE ALSO ARRANGED TO DISCHARGE DIRECTLY TO THE OUTSIDE AND CONFIGURED TO PREVENT UNOCCUPIED AREAS FROM OPENING DIRECTLY INTO AN EXIT ENCLOSURE.

EXIT CAPACITY (IBC SECTION 1005.3.2):
REQUIRED: 32 INCHES (0.2 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS)
PROVIDED: 32 INCHES

TRAVEL DISTANCE (IBC 1017.1):
MAXIMUM PERMITTED: 200 FEET WITHOUT SPRINKLER SYSTEM
MAXIMUM PROVIDED: -- FEET

COMMON PATH OF TRAVEL (IBC SECTION 1016.2.1):
MAXIMUM PERMITTED: 75 FEET WITHOUT SPRINKLER SYSTEM
MAXIMUM PROVIDED: -- FEET -- INCHES

DEAD-END CORRIDORS (IBC 1020.5):
MAXIMUM PERMITTED: 20 FEET
MAXIMUM PROVIDED: 20 FEET

INTERIOR FINISHES (IBC CHAPTER 8):
EXIT ENCLOSURES: CLASS A OR B
EXIT ACCESS CORRIDORS: CLASS A OR B
ROOMS AND ENCLOSED SPACES: CLASS A, B OR C
FLOOR FINISH: CLASS I OR II
SPECIFIC WALL AND FLOOR FINISHES WILL BE SHOWN ON THE INTERIOR FINISH SCHEDULE

EMERGENCY LIGHTING (IBC 1008.3.5):
ALL MEANS OF EGRESS, INCLUDING EXIT ACCESS CORRIDORS AND EXIT DISCHARGE WILL BE PROVIDED WITH EMERGENCY LIGHTING. EMERGENCY LIGHTING WILL BE PROVIDED VIA STANDARD FIXTURES ON THE EMERGENCY POWER SYSTEM CONNECTED TO A CENTRALIZED INVERTER SYSTEM. EMERGENCY LIGHTING WILL ALSO BE PROVIDED IN THE MECHANICAL ROOM. EMERGENCY LIGHTING WILL BE PROVIDED FOR A MINIMUM OF 1½ HOURS IN THE EVENT OF INTERNAL POWER FAILURE. AVERAGE ILLUMINATION WILL NOT BE LESS THAN 10 LUX (1-FOOT CANDLE) WITH A MINIMUM OF 1 LUX (0.1-FOOT CANDLE) AT ANY POINT.

EXIT SIGNS (IBC 1013.1):
EXIT SIGNS MUST BE INTERNALLY-ILLUMINATED LED TYPE. BACKUP POWER TO THE EXIT SIGNS WILL BE VIA A CENTRALIZED INVERTER SYSTEM CONNECTED TO THE EMERGENCY CIRCUIT. SIGNS WILL BE LOCATED AT ALL BUILDING EXITS AND WHENEVER THE DIRECTION TO THE EXIT IS NOT READILY APPARENT.

PORTABLE FIRE EXTINGUISHERS (IBC SECTION 906):
PORTABLE FIRE EXTINGUISHERS REQUIRED IN GROUPS A,B,E,F,H,I,M,R-1,R-2,R-4 AND S OCCUPANCIES. PORTABLE FIRE EXTINGUISHERS WILL BE SIZED AND SPACED IN ACCORDANCE WITH NFPA 10. AT LEAST ONE CLASS 4A:80B:C RATED DRY CHEMICAL PORTABLE FIRE EXTINGUISHER WILL BE PROVIDED FOR EVERY 11,250 SQUARE FEET OF FLOOR AREA AND LOCATED SUCH THAT AN OCCUPANT TRAVELS NO MORE THAN 75 FEET BEFORE REACHING A PORTABLE FIRE EXTINGUISHER IN ALL AREAS OF THE. ONE CLASS 4A:80B:C RATED PORTABLE FIRE EXTINGUISHER WILL BE LOCATED WITHIN 30 FEET OF THE APPROPRIATE HAZARD, SUCH AS THE MAIN ELECTRICAL PANEL.

FIRE ALARM SYSTEM (IBC SECTION 907):
A FIRE ALARM SYSTEM IS NOT REQUIRED PER CODE. PER EXCEPTION FOR GROUP-B HAVING LESS THAN 500 OCCUPANT LOAD AND FOR GROUP-S NOT SELF-STORAGE.

ACCESSIBILITY:
ACCESSIBILITY MUST BE AS PER THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.

PLUMBING FIXTURE COUNT:
PLUMBING CALCULATIONS ARE BASED ON IPC TABLE 403.1 BUSINESS OCCUPANCY.
REQUIRES 1 WATER CLOSET PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50 OCCUPANTS.
REQUIRES LAVARTORIES OF 1 PER 40 FOR THE FIRST 80 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 80. DRINKING FOUNTAIN REQUIRES 1 PER 100 OCCUPANTS. 1 SERVICE SINK IS REQUIRED.

OCCUPANCY USE CLASSIFICATION - IBC

#	Room Name	Occupancy Classification	Area (SF)	Floor Area per OCC	IBC Occupancy Gross or Net	Calc Occupant Load
xxx	EXTERIOR		1498.91 SF			
			1498.91 SF			0
101	VISITORS CENTER	GROUP-B	424.53 SF	150.00 SF	Gross	3
102	CONFERENCE	GROUP-B	231.59 SF	150.00 SF	Gross	2
103	BREAK	GROUP-B	169.60 SF	150.00 SF	Gross	2
104	DOUBLE	GROUP-B	120.59 SF	150.00 SF	Gross	1
105	PRIVATE OFFICE	GROUP-B	174.86 SF	150.00 SF	Gross	2
106	CORRIDOR	GROUP-B	278.82 SF	150.00 SF	Gross	2
107	IT/PRINTER	GROUP-B	103.01 SF	150.00 SF	Gross	1
108	SHOP	GROUP-B	111.94 SF	150.00 SF	Gross	1
109	EMPLOYEE RR	GROUP-B	66.97 SF	150.00 SF	Gross	1
111	SPARE PRIVATE OFFICE	GROUP-B	90.25 SF	150.00 SF	Gross	1
112	MECH.	GROUP-B	88.66 SF	150.00 SF	Gross	1
113	PUBLIC RR	GROUP-B	55.32 SF	150.00 SF	Gross	1
114	SPARE PRIVATE OFFICE	GROUP-B	108.90 SF	150.00 SF	Gross	1
116	CLO.	GROUP-B	13.69 SF	150.00 SF	Gross	1
GROUP-B			2038.72 SF			20
LEVEL 1			3537.63 SF			20
Grand total			3537.63 SF			20

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U.S. FISH & WILDLIFE SERVICE

STATE of ALABAMA
NEIL A. NESSER
9168
REGISTERED ARCHITECT
5/2/2024

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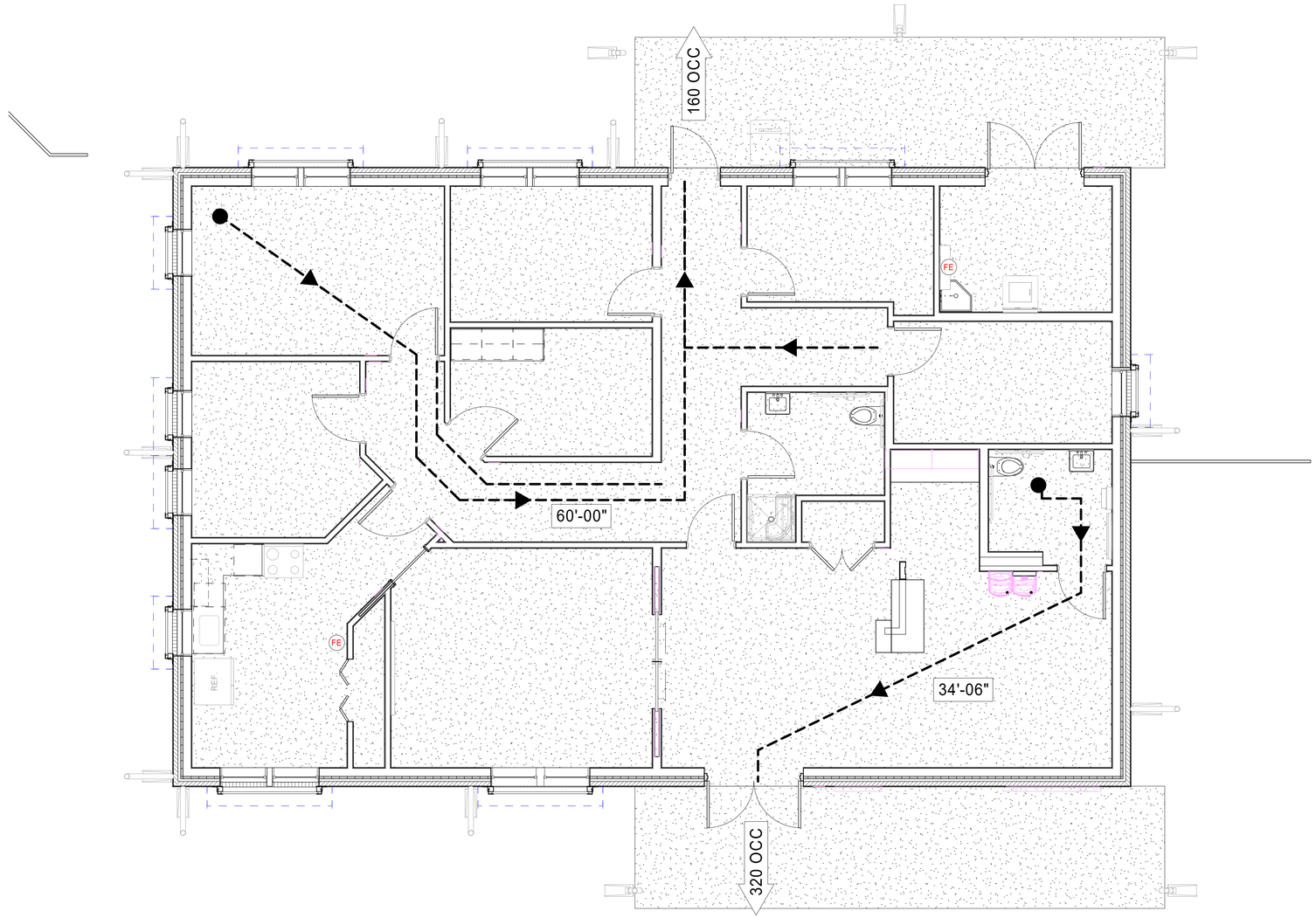
LIFE SAFETY - CODE ANALYSIS

SHT. NO. GL001
REV. NO.

Code_BLDG ANALYSIS - EGRESS

EXIT NUMBER	DOOR (0.20 INCHES PER OCCUPANT)			STAIR (0.3 INCHES PER OCCUPANT)		MOST STRINGENT OCCUPANT LOAD
	SIZE	EGRESS WIDTH	OCCUPANT LOAD	EGRESS WIDTH	OCCUPANT LOAD	
101A	6'-0"	68	340	---	---	340
101B	3'-0"	32	160	---	---	160
106	3'-0"	32	160	---	---	160
112	6'-0"	68	340	---	---	340
TOTAL: 4						



LIFE SAFETY PLAN

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

PLAN NORTH

0 2' 4' 8'

GENERAL SHEET NOTES

1 PROVIDE SEMI-RECESSED FIRE EXTINGUISHER CABINETS. PROVIDE FIRE EXTINGUISHER AT ALL FIRE EXTINGUISHER CABINETS.
2 SURFACE MOUNTED FIRE EXTINGUISHER CABINETS ARE REQUIRED IN MECHANICAL AND ELECTRICAL SPACES ONLY.
3 ALL ROOM OCCUPANT LOADS ARE BASED ON NFPA 101 CALCULATIONS.
4 PROVIDE APPLICABLE SIGNAGE FOR AED AND FIRE EXTINGUISHERS AS REQUIRED. SEE SIGNAGE SHEETS FOR ADDITIONAL INFORMATION.
5 SEE WALL TYPES FOR WALL CONSTRUCTION AND ADDITIONAL INFORMATION AND RATINGS.
6 SEE DOOR SCHEDULE FOR DOOR/FRAME RATINGS.
7 REFER TO CIVIL DRAWINGS FOR THE LOCATION OF THE ADJACENT BUILDINGS.
8 REFER TO CIVIL DRAWINGS FOR FIRE DEPARTMENT VEHICLE ACCESS.
9 SEE SHEET GL001 FOR ADDITIONAL CODE AND LIFE SAFETY INFORMATION.
10 PERMANENTLY IDENTIFY WITH SIGNS OR STENCILING THAT ARE NOT LESS THAN 3 INCHES IN HEIGHT , MIN 3/8 INCH STROKE IN CONTRACTING COLOR AND LOCATED WITHIN 15 FEET OF EACH END WALL AND AT INTERVALS NOT EXCEEDING 30 FEET MEASURED HORIZONTALLY FOR FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS.

LIFE SAFETY LEGEND

SYMBOL	DESCRIPTION
	OPEN PERIMETER
	1 HOUR FIRE WALL
S S S	SMOKE PARTITION
	FIRE SEPARATION WALL
	EGRESS PATH & DIRECTION
	EGRESS START
### OCC	CALCULATED OCCUPANCY
### OCC	EGRESS CAPACITY (MAX)
##'-##"	EGRESS DISTANCE
AED	AUTOMATIC EXTERNAL DEFIBRILLATOR
FEC	FIRE EXTINGUISHER CABINET
FE	FIRE EXTINGUISHER
	EXIT LIGHT
	EXIT LIGHT (DOUBLE SIDED)
	EXIT LIGHT WITH ARROW
	EMERGENCY LIGHT (WALL MOUNTED)
	EXIT LIGHT (WALL MOUNTED)
	EMERGENCY LIGHT (CEILING MOUNTED)

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STATE of ALABAMA NEIL A. NESSER 9168 REGISTERED ARCHITECT 5/2/2024

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LIFE SAFETY - FIRST FLOOR PLAN

SHT. NO. GL101 REV. NO.

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GENERAL CIVIL NOTES

1. ALL WORK MUST BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE , AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED TO, ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).
2. WHEN DURING THE COURSE OF CONSTRUCTION, ANY OBJECT OF AN UNUSUAL NATURE IS ENCOUNTERED, CEASE WORK IN THAT AREA AND IMMEDIATELY NOTIFY THE CONTRACTING OFFICER.
3. GRADING, EXCAVATING, AND CONSTRUCTION OF THE PROJECT MUST NOT COMMENCE UNTIL THE APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AS SPECIFIED ON THIS PLAN.
4. PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES IN ALL GRADED AREAS.
5. IF PORTABLE TOLIETS ARE NECESSARY FOR THE CONSTRUCTION OF THE PROJECT, LOCATE A MINIMUM OF 25 FEET AWAY FROM THE NEAREST STORMWATER FEATURE (INLET, SWALE, POND, ETC.).
6. A SMOOTH GRADE MUST BE MAINTAINED FROM EDGE OF EXISTING PAVEMENT TO CURB AND GUTTER AND/OR PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER ON THE PAVEMENT. REMOVE AND RECONSTRUCT EXISTING PAVEMENT AND/OR CURB AS DICTATED BY FIELD CONDITIONS TO PROVIDE POSITIVE DRAINAGE AT TIE-IN-POINTS.
7. ALL SOLID WASTE, HAZARDOUS WASTE, AND HAZARDOUS MATERIALS MUST BE MANAGED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.
8. ALL EXISTING UTILITIES MAY OR MAY NOT BE SHOWN IN THEIR EXACT LOCATION. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.
9. REPAIR ANY ACTIVE UTILITIES DAMAGED DURING CONSTRUCTION AND NOTIFY THE CONTRACTING OFFICER OF THE DAMAGE.
10. LENGTHS OF LINES INDICATED ON THE DRAWINGS FOR UTILITY SYSTEMS ARE APPROXIMATE ONLY. DETERMINE THE EXACT AMOUNT OF PIPING REQUIRED TO FURNISH A COMPLETE WORKING SYSTEM IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS.
11. SUBMIT A UTILITY OUTAGE REQUEST A MINIMUM OF SEVEN (7) DAYS IN ADVANCE OF ANY UTILITY OUTAGE.
12. PHASE CONSTRUCTION IN ORDER TO MINIMIZE DISRUPTION TO UTILITIES DURING INSTALLATION, DEMOLITION, AND REMOVAL.
13. GEOTECHNICAL INFORMATION IS CONTAINED IN A REPORT PREPARED BY ECS SOUTHEAST, LLC, REPORT NUMBER 30:2596, DATED FEBRUARY 14, 2024. BORING LOGS AND LABORATORY TEST RESULTS ARE INCLUDED FOR REFERENCE IN THE PROJECT MANUAL.
14. THE CONTRACTOR MUST PROCURE AND MAINTAIN AN ECS GEOTECHNICAL RESPRESENTATIVE ON-SITE FULL TIME DURING EARTHWORK AND FOUNDATION CONSTRUCTION ACTIVITIES. THE GEOTECHNICAL REPRESENTATIVE MUST VERIFY COMPLIANCE WITH THE PROJECT'S GEOTECHNICAL REPORT AND PROVIDE REMEDIAL ACTIONS, AS REQUIRED.
15. LOW CONSISTENCY AND MOISTURE SENSITIVE SOILS, THAT MUST BE UNDERCUT, REMOVED, AND REPLACED, ARE EXPECTED TO BE ENCOUNTERED ON SITE. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT AND THE PROJECT SPECIFICATIONS WHEN PERFORMING EXCAVATIONS AND PREPARING THE SUBGRADE UNDER SIDEWALKS AND PAVEMENTS.
16. TOTAL LIMITS OF DISTURBANCE = 0.60 ACRES

GENERAL EROSION AND SEDIMENT CONTROL NOTES

THE PURPOSE OF THE EROSION CONTROL MEASURES SHOWN ON THESE PLANS IS TO PRECLUDE THE TRANSPORT OF ALL WATERBORNE SEDIMENTS RESULTING FROM CONSTRUCTION ACTIVITIES FROM ENTERING ONTO ADJACENT PROPERTIES OR STATE WATERS. IF FIELD INSPECTION REVEALS THE INADEQUACY OF THE PLAN TO CONFINE SEDIMENT TO THE PROJECT SITE, APPROPRIATE MODIFICATIONS WILL BE MADE TO CORRECT ANY PLAN DEFICIENCIES.

1. THE CONTRACTOR MUST BE THOROUGHLY FAMILIAR WITH ALL APPROVED PROCEDURES, WHICH MAY BE PERTINENT TO THE PROJECT. MAINTENANCE WILL INCLUDE THE REPAIR OF MEASURES DAMAGED BY ANY SUBCONTRACTOR INCLUDING THOSE OF THE PUBLIC UTILITY COMPANIES.
2. SEDIMENT CONTROL DEVICES NOT LOCATED IN PROPOSED FILL OR EXCAVATION AREAS MUST BE CONSTRUCTED PRIOR TO ALL OTHER LAND DISTURBANCE.
3. SURFACE FLOWS OVER CUT AND FILL SLOPES MUST BE CONTROLLED BY REDIRECTING FLOWS FROM TRAVERSING THE SLOPES.
4. SEDIMENT CONTROL MEASURES MAY REQUIRE MINOR FIELD ADJUSTMENTS AT THE TIME OF CONSTRUCTION TO ENSURE THEIR INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTING OFFICER APPROVAL WILL BE REQUIRED FOR OTHER DEVIATION FROM THE APPROVED PLANS.
5. TEMPORARY STOCKPILES OF SOIL / TOPSOIL EXCAVATED DURING SITE CONSTRUCTION MUST BE KEPT ONSITE AT A TEMPORARY LOCATION IN ACCORDANCE WITH STATE AND FEDERAL LAW.
6. TEMPORARY VEGETATIVE COVER MUST BE PROVIDED IN ALL AREAS WHICH ARE NOT DESIGNATED FOR PAVING, UNDERGROUND UTILITIES, OR STRUCTURAL USES. SUCH AREAS MUST NOT BE EXPOSED FOR PERIODS EXCEEDING 14 DAYS. TEMPORARY VEGETATIVE COVER MAY BE ELIMINATED IN FAVOR OF FINAL VEGETATIVE COVER IF CONSTRUCTION AND SEASONAL CONDITIONS PERMIT.
7. ALL AREAS DESIGNATED FOR PAVING, UNDERGROUND UTILITIES, AND STRUCTURAL USE MUST BE COMPACTED, SEEDED, AND MULCHED AS SOON AS POSSIBLE BUT NOT EXCEEDING 14 DAYS FOLLOWING INSTALLATION. NO MORE THAN 500' OF UTILITY TRENCHES ARE TO BE OPEN AT ONE TIME.
8. THE TERM SEEDING, FINAL VEGETATIVE COVER OR STABILIZATION, ON THIS PLAN MUST MEAN THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF A STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED CONTAINING THE SPECIFIED AMOUNTS OF SEED, LIME, AND FERTILIZER. IRRIGATION MUST BE REQUIRED AS NECESSARY TO ENSURE ESTABLISHMENT OF GRASS COVER.
9. INLET PROTECTION MUST BE PROVIDED FOR ALL CULVERTS AS SOON AS PRACTICAL.
10. BASE COURSE MATERIAL MUST BE PLACED IN ALL PAVED AREAS WITHIN 30 DAYS OF FINAL GRADING.
11. TEMPORARY EROSION CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES MUST BE REMOVED WITHIN 30 DAYS. TRAPPED SEDIMENT MUST BE SPREAD AND SEEDED.
12. SEED AND MULCH AND PROVIDE TOPSOIL TO ALL DISTURBED AREAS THAT WILL NOT BE COVERED WITH PAVEMENT.

GENERAL UTILITY NOTES

1. A MINIMUM COVER OF THREE (3) FEET IS REQUIRED OVER PROPOSED LINES UNLESS SHOWN OTHERWISE IN DESIGN PROFILE.
2. ALL EXISTING UTILITIES MAY OR MAY NOT BE SHOWN IN THEIR EXACT LOCATION.
3. VERIFY ALL UTILITY LOCATIONS PRIOR TO EXCAVATION.
4. REPAIR ANY ACTIVE UTILITIES DAMAGED DURING CONSTRUCTION AND NOTIFY THE COR OF THE DAMAGE AT NO COST TO THE GOVERNMENT.
5. LENGTHS OF LINES INDICATED ON THE DRAWINGS FOR UTILITY SYSTEMS ARE APPROXIMATE ONLY. DETERMINE THE EXACT AMOUNT OF PIPING REQUIRED TO FURNISH A COMPLETE WORKING SYSTEM IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS.
6. PHASE CONSTRUCTION IN ORDER TO MINIMIZE DISRUPTION TO UTILITIES DURING INSTALLATION, DEMOLITION, AND REMOVAL. COORDINATE ALL UTILITY DISCONNECTION AND DEMOLITION. ALL TRANSITION AND RECONNECTION OF UTILITIES MUST BE COORDINATED WITH OWNER. COORDINATE FINAL TRANSITION AND RECONNECTION PLAN AFTER CONTRACT AWARD.
7. CONSTRUCTION OF WATER AND SEWER LINES MUST BE IN ACCORDANCE WITH DECATUR UTILITIES CONSTRUCTION REQUIREMENTS.

ABBREVIATIONS

COMMUNICATION	COMM
CONCRETE	CC
EASTING	E
ELEVATION	EL
FINISHED FLOOR ELEVATION	FFE
FORCEMAIN	FM
LIMITS OF DISTURBANCE	LOD
NORTHING	N
OVERHEAD POWER	OHP
SANITARY SEWER	SS
WATER	W

DESIGN	EXISTING	
		EDGE OF VEGETATION
		MAJOR CONTOURS
		MINOR CONTOURS
		CHAIN LINK FENCE
W		WATER LINE
FM		SANITARY SEWER FORCEMAIN
OHE	OHP OHP OHP	OVERHEAD ELECTRIC
	T T T	BURIED FIBER
LOD		LIMITS OF CONSTRUCTION
		TREELINE
		BUILDING OVERHANG
		EDGE OF PAVEMENT
		DEMOLISH UTILITY
	BM	BENCHMARK
	TV	CABLE TV JUNCTION BOX
	CV	CLOSED CIRCUIT SECURITY CAMERA
	C	COMMUNICATIONS JUNCTION PEDESTAL
		FIRE HYDRANT
		IRON PIPE
	S	SANITARY SEWER DOSING TANK
		SANITARY SEWER MANHOLE
		SIGN
		UTILITY POLE
	W	WATER METER /VALVE
		CONCRETE
		BUILDING
		DEMOLITION
		PAVEMENT
		GRAVEL

SURVEY NOTES

HORIZONTAL CONTROL:	ALABAMA STATE PLANE COORDINATE SYSTEM (WEST ZONE)
GPS EQUIPMENT:	TOPCON HIPER VR
ROBOTIC TOTAL STATION:	TOPCON
DATUM:	NAD 1983(CONUS)
GEOID MODEL:	G2018U7
CONVERGENCE:	-0.15799444
COMBINED SCALE FACTOR:	0.99994834

*ALL COORDINATES REPORTED AND DRAWING PROVIDED IN ASP

GENERAL CONSTRUCTION SEQUENCE

SEE SPECIFICATION SECTION 01 10 00 SUMMARY OF WORK.

1. DEMOLITION OF EXISTING OFFICE TRAILER TO BE COMPLETED BY OTHERS PRIOR TO THIS PROJECT.
2. PROVIDE TEMPORARY POWER TO EXISTING PARKING CANOPY EAST OF THE REMOVED OFFICE TRAILER.
3. DEMOLISH OVERHEAD POWER AND UTILITY POLE.
4. CLEAR STUMPS AND GRUB THE SITE (TREES WILL HAVE BEEN REMOVED PRIOR TO THIS PROJECT)
5. COMPLETE OTHER DEMOLITION AND SITEWORK. CONSTRUCT NEW BUILDING. MAINTAIN VISITOR PARKING ACCESS TO THE EXISTING OFFICE BUILDING THROUGHOUT CONSTRUCTION.
6. PROVIDE 1 MONTH NOTICE PRIOR TO DEMOLITION OF THE EXISTING OFFICE BUILDING BY OTHERS.
7. DISCONNECT UTILITIES FROM EXISTING OFFICE BUILDING.
8. DEMOLISH EXISTING OFFICE BUILDING.
9. FINISH GRADING AND PARKING LOT CONSTRUCTION.

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U.S. FISH & WILDLIFE SERVICE

STATE OF ALABAMA
No. 33385
PROFESSIONAL ENGINEER
STEVEN M SCHAD
05/02/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
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SHEET TITLE
CIVIL NOTES

SHT. NO. C-001
REV. NO. 0

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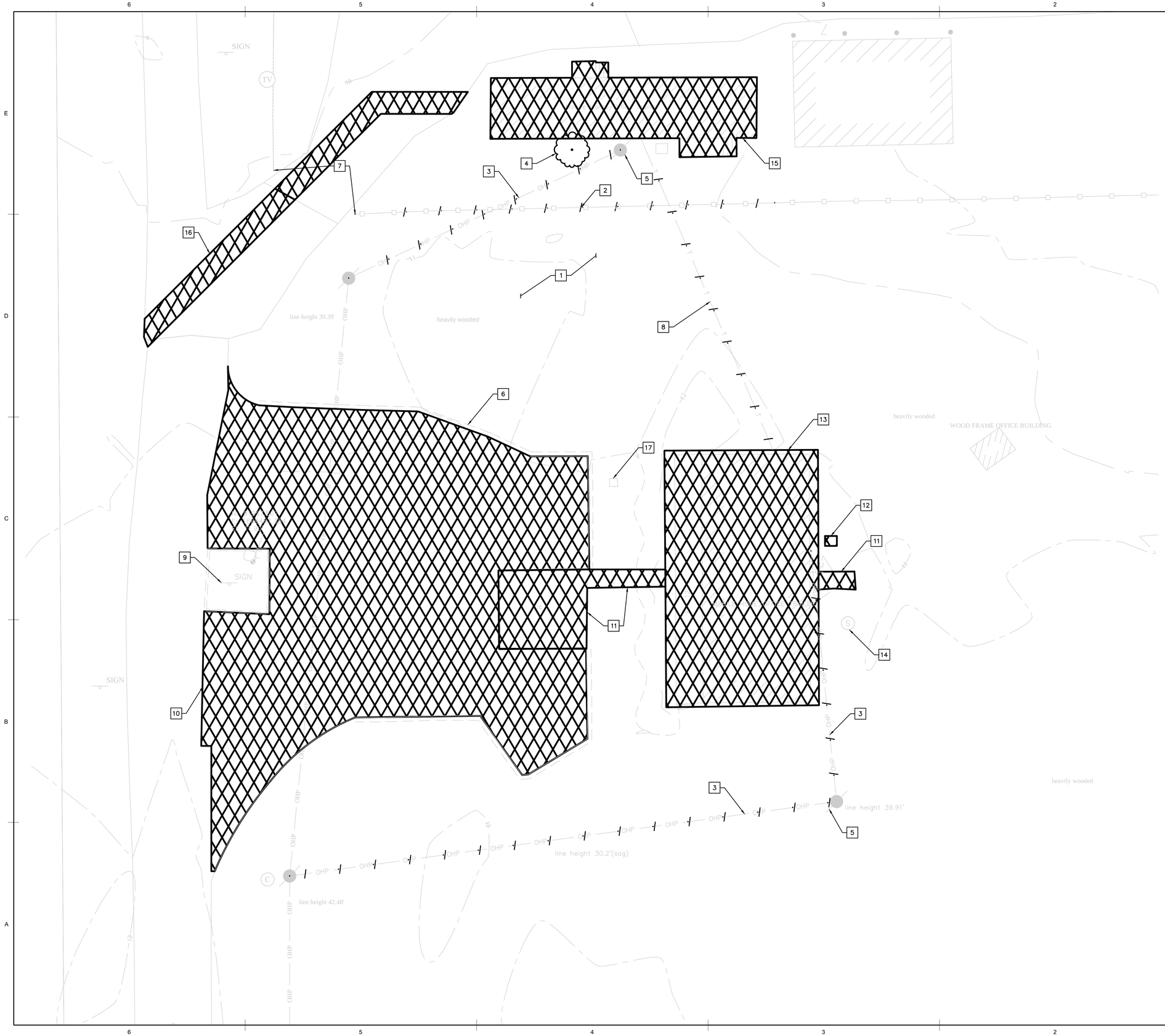

GENERAL PLAN NOTES

1. SEE SHEET C-001 FOR CIVIL NOTES, LEGENDS, AND ABBREVIATIONS
2. KEEP EXISTING BUILDING OPERATIONAL UNTIL NEW BUILDING IS COMPLETE

DEMOLITION NOTES

1	CLEAR STUMPS AND GRUB THIS AREA. AREA TO BE CLEARED OF TREES AND STRUCTURES BY OTHERS PRIOR TO CONSTRUCTION
2	DEMOLISH AND REMOVE FENCE. STOP DEMOLITION AT THE NEXT EXISTING FENCE POST
3	REMOVE OVERHEAD ELECTRIC
4	TREE TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION
5	DEMOLISH AND REMOVE POWER POLE; COORDINATE WITH LOCAL UTILITY
6	REMOVE LANDSCAPING
7	REMOVE GATE
8	REMOVE UNDERGROUND COMMUNICATION
9	DEMOLISH AND REMOVE SIGN
10	DEMOLISH AND REMOVE PAVEMENT. REPLACE WITH GRAVEL TO MAINTAIN PARKING LOT FOR EXISTING BUILDING
11	DEMOLISH AND REMOVE CONCRETE
12	REMOVE EQUIPMENT AND CONCRETE PAD
13	BUILDING TO BE DEMOLISHED BY OTHERS
14	DEMOLISH AND REMOVE SANITARY MANHOLE AND PUMP
15	OFFICE TRAILER TO BE DEMOLISHED BY OTHERS
16	SAWCUT PAVEMENT
17	REMOVE FLAG POLE

N

0 10' 20'

SCALE: 1" = 10'

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EXISTING CONDITIONS AND DEMOLITION PLAN

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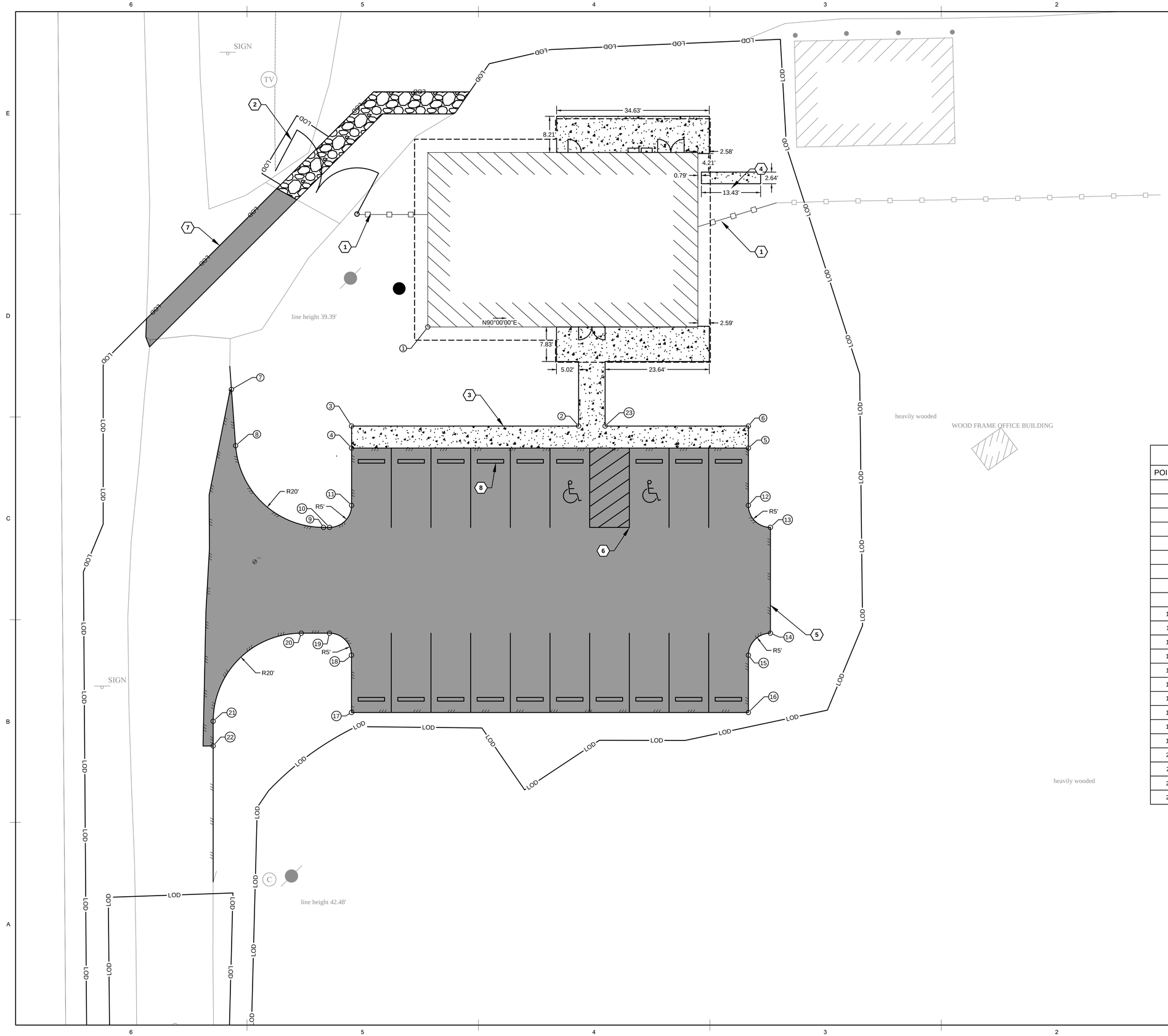

GENERAL PLAN NOTES

1. SEE SHEET C-001 FOR SITE NOTES, LEGENDS, AND ABBREVIATIONS
2. 19 TOTAL PARKING SPACES PROVIDED, INCLUDING 2 VAN ACCESSIBLE SPACES

WORK NOTES

		DETAIL
1	INSTALL NEW FENCE LINE AND CONNECT TO BUILDING. CONNECT TO EXISTING FENCE POST. FENCE TO MATCH EXISTING	1/C-501
2	VEHICLE GATE	2/C-501
3	CONCRETE SIDEWALK	6,12/C-501
4	EQUIPMENT PAD	11/C-501
5	PAVEMENT	5/C-501
6	ACCESSIBLE PARKING SPACES	7,8,9/C-501
7	PAVEMENT TRENCH	3/C-502
8	PRECAST CONCRETE WHEEL STOP	4/C-501

COORDINATE POINTS

POINT #	NORTHING	EASTING	DESCRIPTION
1	92,010.85	1,869,526.64	BUILDING CORNER
2	91,988.37	1,869,560.85	SIDEWALK CORNER
3	91,988.37	1,869,509.35	SIDEWALK CORNER
4	91,983.37	1,869,509.35	SIDEWALK CORNER
5	91,983.37	1,869,599.35	SIDEWALK CORNER
6	91,988.37	1,869,599.35	SIDEWALK CORNER
7	91,996.67	1,869,482.09	PAVEMENT END
8	91,983.90	1,869,483.03	PAVEMENT POINT OF CURVATURE
9	91,965.37	1,869,502.98	PAVEMENT POINT OF TANGENCY
10	91,965.37	1,869,504.35	PAVEMENT POINT OF CURVATURE
11	91,970.37	1,869,509.35	PAVEMENT POINT OF TANGENCY
12	91,970.37	1,869,599.35	PAVEMENT POINT OF CURVATURE
13	91,965.37	1,869,604.35	PAVEMENT CORNER
14	91,941.37	1,869,604.35	PAVEMENT POINT OF CURVATURE
15	91,936.37	1,869,599.35	PAVEMENT POINT OF TANGENCY
16	91,923.37	1,869,599.35	PAVEMENT CORNER
17	91,923.37	1,869,509.32	PAVEMENT CORNER
18	91,936.37	1,869,509.32	PAVEMENT POINT OF CURVATURE
19	91,941.37	1,869,504.32	PAVEMENT POINT OF TANGENCY
20	91,941.37	1,869,497.94	PAVEMENT POINT OF CURVATURE
21	91,921.37	1,869,477.94	PAVEMENT POINT OF TANGENCY
22	91,915.78	1,869,477.94	PAVEMENT END
23	91,988.37	1,869,566.86	SIDEWALK CORNER

N

0 10' 20'

SCALE: 1" = 10'

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MARK No. 33185 PROFESSIONAL ENGINEER STEVEN M SCHAD 05/02/2024

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BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION

12285 STRONG RD.
GULF SHORES, AL 36542

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SITE PLAN

SHT. NO. C-102
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GENERAL PLAN NOTES

1. SEE SHEET C-001 FOR CIVIL NOTES, LEGENDS, AND ABBREVIATIONS

WORK NOTES

		DETAIL
1	1.25" PVC SANITARY SEWER FORCEMAIN	
2	SANITARY SEWER PUMP STATION	2/C-502
3	2.5" PVC WATER LINE	
4	2.5" PVC WATER LINE 90° BEND	
5	2.5" PVC WATER LINE 45° BEND	
6	2.5" PVC WATER LINE 22.5° BEND	
7	CONNECT TO EXISTING GULF SHORES UTILITIES WATER LINE ON THE NORTH SIDE OF FORT MORGAN ROAD (TOTAL WATER LINE LENGTH APPROXIMATELY 520 FEET).	
8	CONNECT TO EXISTING GULF SHORES UTILITIES SANITARY SEWER ON THE NORTH SIDE OF FORT MORGAN ROAD (TOTAL FORCE MAIN LENGTH APPROXIMATELY 400 FEET).	

SIGN
TV
line height 39.39'
heavily wooded
WOOD FRAME OFFICE BUILDING
heavily wooded
10.68'
line height 41.48'
EXISTING 20.00' ELECTRIC EASEMENT
SIGN

N
0 10' 20'
SCALE: 1" = 10'

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PROFESSIONAL ENGINEER
STEVEN M SCHAD
05/02/2024

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BON SECOUR VISITOR
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SHEET TITLE
UTILITY PLAN

SHT. NO. C-103
REV. NO. 0

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GENERAL PLAN NOTES

1. SEE SHEET C-001 FOR CIVIL NOTES, LEGENDS, AND ABBREVIATIONS

FFE = 11.75

11.60 11.60 11.25 11.25 11.70 11.24 11.25 10.66 11.24 10.77

11.25 11.25 11.70 11.25 11.60 11.60

10.60 10.90 10.95 10.76 10.90 10.90 10.90 10.95 11.23 11.04 11.01 11.10 11.10 11.07 11.31 11.49 11.30 11.30 11.24 11.32 11.21 11.43 11.31 11.89 11.84

LOD

SIGN TV OHP FM UGE

line height 39.39'

heavily wooded

WOOD FRAME OFFICE BUILDING

line height 39.48'

N

0 10' 20'

SCALE: 1" = 10'

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GEORGIA No. 33185 PROFESSIONAL ENGINEER STEVEN M SCHAD

05/02/2024

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GRADING PLAN

SHT. NO. C-104
REV. NO. 0

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GENERAL PLAN NOTES

1. SEE SHEET C-001 FOR CIVIL NOTES, LEGENDS, AND ABBREVIATIONS
2. USE NATIVE TEMPORARY AND PERMANENT SEEDING PER APPROPRIATE GOVERNING BODY. FOLLOW MANUFACTURER'S OR GOVERNING BODY GUIDELINES FOR ALL SEEDING SCHEDULES, RATES, AND MIXTURES.

EROSION AND SEDIMENT CONTROL LEGEND

SILT FENCE	SF	X—X—X
MULCHING, TEMPORARY SEEDING, PERMANENT SEEDING	TS PS MU	

FFE = 11.75

line height 39.39'

line height 42.48'

heavily wooded

WOOD FRAME OFFICE BUILDING

SIGN

N

0 10' 20'

SCALE: 1" = 10'

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STEVEN M SCHAD
No. 33385
PROFESSIONAL ENGINEER
05/02/2024

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BON SECOUR NATIONAL
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BON SECOUR VISITOR
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EROSION AND SEDIMENT CONTROL PLAN

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C-105	0

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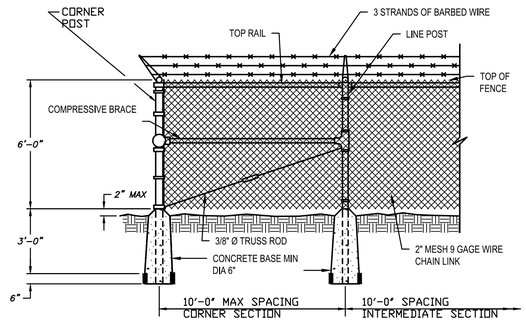
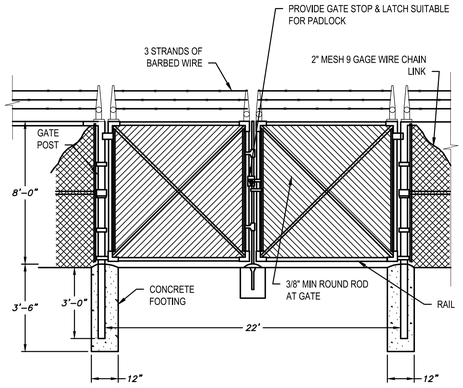
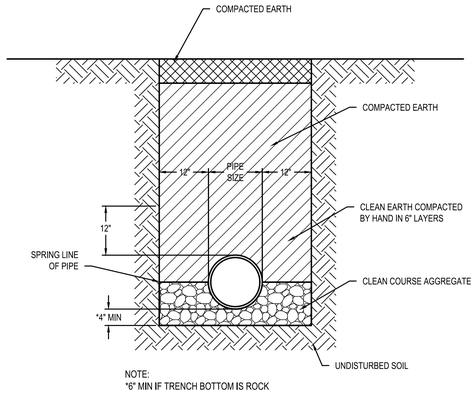


NOTE: MIN 28-DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE 2500 PSI

1 CHAIN LINK FENCE
NOT TO SCALE

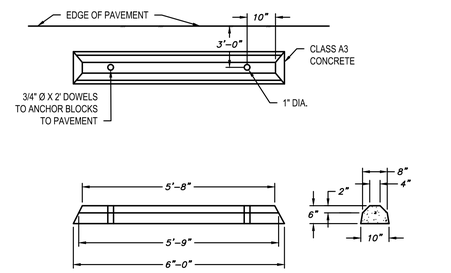


2 DOUBLE SWING GATE
NOT TO SCALE



NOTE:
"6" MIN IF TRENCH BOTTOM IS ROCK

3 PIPE TRENCH
NOT TO SCALE



4 PRECAST CONCRETE PARKING BLOCK
NOT TO SCALE

5 ASPHALT PAVEMENT
NOT TO SCALE

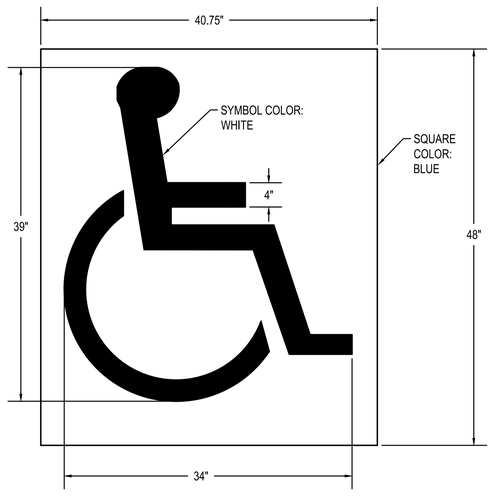
NOTE:
CONCRETE MATERIAL OF ALDOT STANDARD AND TO BE INSTALLED AS PER ALDOT SPECIFICATIONS

6 CONCRETE SIDEWALK
NOT TO SCALE

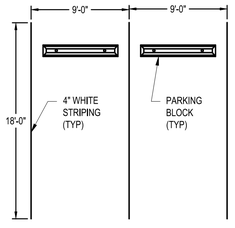
7 ACCESSIBLE PARKING SPACES
NOT TO SCALE

NOTES:
1. HANGING ORDER OF THE VAN ACCESSIBLE SPACE AND PENALTY SIGN DOES NOT MATER.
2. THE VAN ACCESSIBLE SIGN IN NOT REQUIREDED BY CODE AND SHALL ONLY BE HUNG WHEN INDICATED ON THE PLAN.

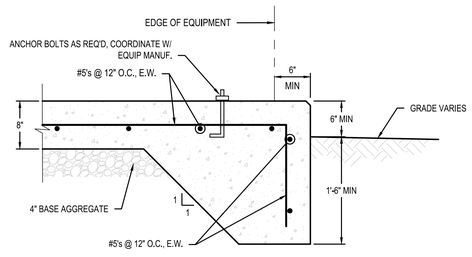
8 ACCESSIBLE PARKING SIGN
NOT TO SCALE



9 ACCESSIBLE PARKING MARKER
NOT TO SCALE

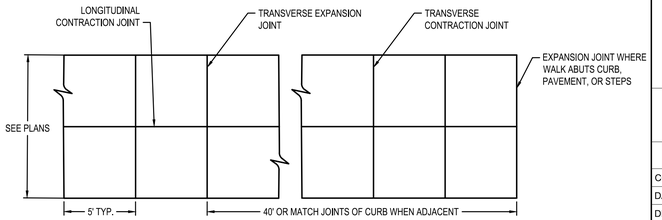


10 PARKING SPACE
NOT TO SCALE



NOTE: SEE STRUCTURAL GENERAL NOTES ON S-001 FOR FOUNDATION AND SUBGRADE PREPARATION REQUIREMENTS.

11 EXTERIOR CONCRETE EQUIPMENT PAD
NOT TO SCALE



WALK WIDTHS	LONGITUDINAL CONTRACTION JOINT
< 5' 11"	NONE
6' 0" - 7' 11"	ONE ALONG WALK AT CENTERLINE
8' 0" - 12' 0"	TWO ALONG WALK AT THIRD POINTS

12 CONCRETE SIDEWALK JOINT LAYOUT
NOT TO SCALE

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U.S. FISH & WILDLIFE SERVICE

KARA M. ALLEN
No. 33385
PROFESSIONAL ENGINEER
STEVEN M SCHAD
05/02/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182
DATE:	05/02/2024
DRAWN: MKA	DESIGN: SMS
CHECK: GKT	

SHEET TITLE

CIVIL DETAILS

SHT. NO.	REV. NO.
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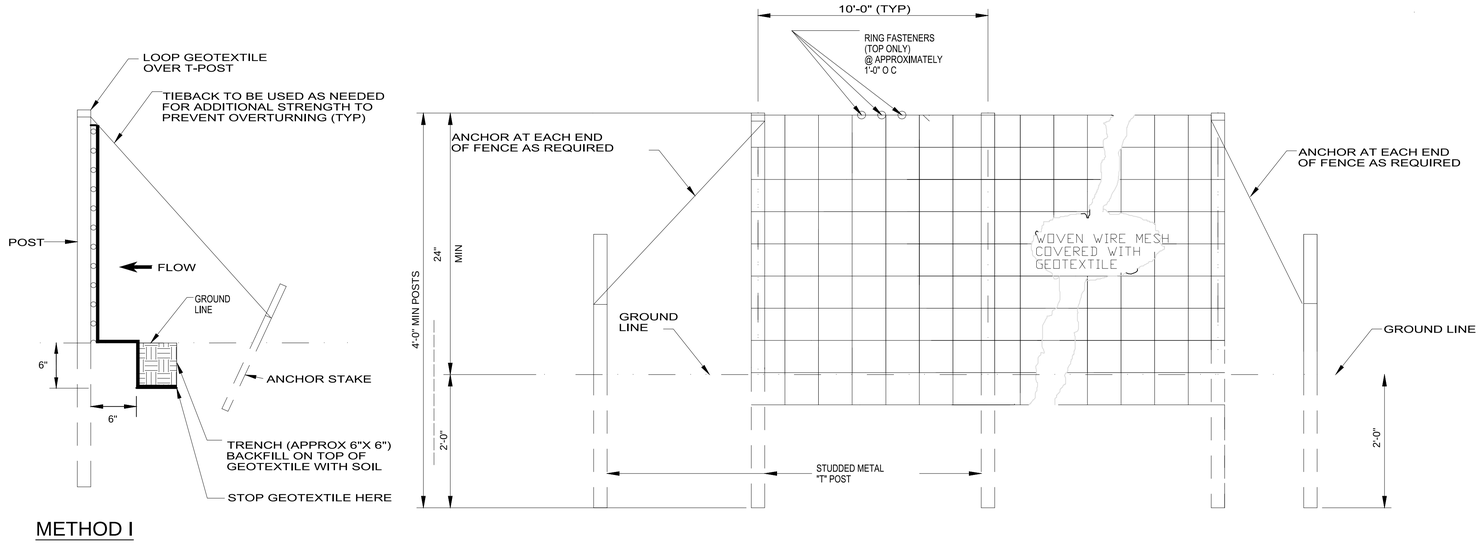
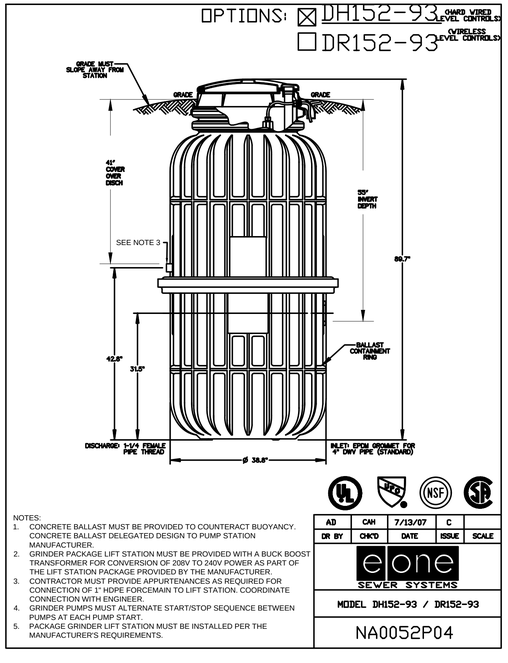


METHOD I

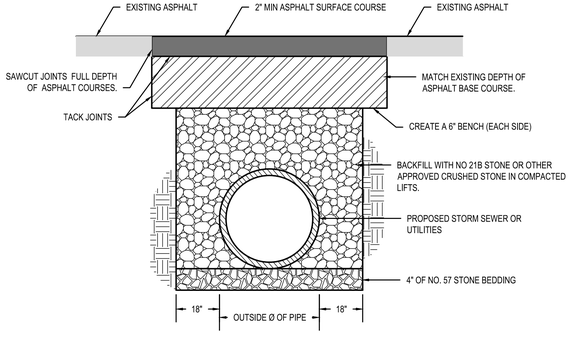
SIDE VIEW

ELEVATION VIEW

1 SILT FENCE
NOT TO SCALE



2 GRINDER LIFT STATION
NOT TO SCALE



3 PAVEMENT PATCH FOR UTILITY TRENCH
NOT TO SCALE

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12281 STRONG RD.
GULF SHORES, AL 36542

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A. GENERAL

1. STRUCTURAL GENERAL NOTES ARE INTENDED TO HIGHLIGHT OR IN SOME CASES SUPPLEMENT PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR COMPLETE WORK COVERAGE.

2. THE DESIGN OF THE STRUCTURE COMPLIES WITH THE INTERNATIONAL BUILDING CODE 2021 AS ADOPTED BY THE 2021 ALABAMA BUILDING CODE.

3. GRAVITY DESIGN LOADS ARE AS FOLLOWS:

   a. SUPERIMPOSED DEAD LOADS:

FINISHES	ACTUAL
MECHANICAL AND CEILING	5 PSF
ROOFING – MECHANICALLY FASTENED SINGLE PLY	1 PSF
SPRINKLER SYSTEMS	AS REQ'D (3 PSF MIN)

   b. LIVE LOADS:

MECHANICAL SPACE	150 PSF
STORAGE – LIGHT	125 PSF
ASSEMBLY AREAS – MOVEABLE SEATS	100 PSF
LOBBIES	100 PSF
LATRINES, HEADS, TOILETS	70 PSF
OFFICE SPACE	50 PSF
ROOF – MINIMUM	20 PSF

4. HANDRAILS AND GUARDS RAILS MUST BE DESIGNED FOR A LINEAR LOAD OF 50 POUNDS PER FOOT OR CONCENTRATED LOAD OF 200 POUNDS, EACH APPLIED NON-CONCURRENTLY TO THE TOP OF THE HANDRAIL, IN ANY DIRECTION TO CREATE THE WORST LOAD EFFECT. BALUSTERS, PANEL FILLERS, AND GUARDRAIL INFILL COMPONENTS, INCLUDING ALL RAILS EXCEPT THE HANDRAIL AND TOP RAIL, MUST BE DESIGNED FOR A HORIZONTAL LOAD OF 50 POUNDS OVER A 12 INCH BY 12 INCH AREA LOCATED TO CREATE THE WORST LOAD EFFECT.

5. IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE'S SECTION 1607.4, THE FLOOR SYSTEM IS DESIGNED TO WITHSTAND CONCENTRATED LOADS ASSUMED ACTING UNIFORMLY ON A 2-1/2 FEET SQUARE AREA AND LOCATED TO PRODUCE THE MAXIMUM EFFECT IN STRUCTURAL MEMBERS.

6. THE DESIGN OF THE STRUCTURE TO RESIST SNOW LOADS IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE'S SECTION 1608 AND ASCE 7, CHAPTER 7

GROUND SNOW LOAD	P_g = 0.0 PSF
FLAT ROOF SNOW LOAD	P_f = 0.0 PSF
EXPOSURE FACTOR	C_e = 1.0
IMPORTANCE FACTOR	I_S = 1.0
ROOF THERMAL FACTOR	C_t = 1.0
ROOF SLOPE FACTOR	C_s = 1.0

7. THE DESIGN OF THE STRUCTURE TO RESIST WIND PRESSURES IS IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE'S SECTION 1609.0, WHICH IS BASED ON ASCE 7, CHAPTER 26. DESIGN INFORMATION IS AS FOLLOWS:

DESIGN WIND SPEED (ULTIMATE)	V = 160 MPH
DESIGN WIND SPEED (SERVICE)	V_{ASD} = 124 MPH
RISK CATEGORY	II
WIND EXPOSURE CATEGORY FOR MWFRS	D
INTERNAL PRESSURE COEFFICIENT	GC_{PI} = ± 0.18
COMPONENTS AND CLADDING PRESSURE	SEE PLANS

8. THE DESIGN OF THE STRUCTURE TO RESIST RAIN LOADS IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE'S SECTION 1611, AND ASCE 7 CHAPTER 8. THE 60-MINUTE RAIN INTENSITY, I, IS 4.94 IN/HR.

9. THE DESIGN OF THE STRUCTURE TO RESIST SEISMIC FORCES IS IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE'S SECTION 1613, AND ASCE 7, CHAPTERS 11 TO 18:

RISK CATEGORY	II
IMPORTANCE FACTOR	I_e = 1.0
MAPPED SPECTRAL RESPONSE ACCELERATIONS	
SHORT PERIODS (T=0.2 s)	S_S = 0.085g
LONG PERIODS (T=1.0 s)	S_1 = 0.055g
SITE CLASS	D
DESIGN SPECTRAL RESPONSE ACCELERATIONS	
SHORT PERIODS (T=0.2s)	S_{DS} = 0.09g
LONG PERIODS (T=1.0s)	S_{D1} = 0.087g
SEISMIC DESIGN CATEGORY	B
BASIC SEISMIC FORCE RESISTING SYSTEM	STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
RESPONSE MODIFICATION FACTOR	R= 3.0
SEISMIC RESPONSE COEFFICIENT	C_S = 0.03
DESIGN BASE SHEAR	V = 10.0 KIPS
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE

10. IMPOSED CONSTRUCTION LOADS IN EXCESS OF STATED DESIGN LOADS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO THE IMPOSITION OF SUCH LOADS.

11. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS MUST DETERMINE THE SCOPE OF THE STRUCTURAL WORK FROM THE CONTRACT DOCUMENTS TAKEN AS A WHOLE. THE STRUCTURAL DRAWINGS MUST NOT BE CONSIDERED SEPARATELY FOR PURPOSES OF BIDDING THE STRUCTURAL WORK. DUE CONSIDERATION MUST BE GIVEN TO OTHER STRUCTURAL WORK OR WORK RELATED TO THE STRUCTURE, INCLUDING NECESSARY COORDINATION DESCRIBED OR IMPLIED BY THE ARCHITECTURAL AND MECHANICAL DRAWINGS.

12. THE REPRODUCTION OF THE STRUCTURAL CONTRACT DOCUMENTS IN ANY FASHION AS STRUCTURAL SHOP DRAWING DOCUMENTS IS PROHIBITED.

13. SCALES NOTED IN THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY. NO DIMENSIONAL INFORMATION MUST BE OBTAINED BY DIRECT SCALING OF THE DRAWINGS.

14. DETAILS, SECTIONS AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND MUST APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS OTHERWISE SHOWN OR NOTED.

15. STRUCTURAL MEMBERS HAVE BEEN LOCATED AND DESIGNED TO ACCOMMODATE THE MECHANICAL EQUIPMENT AND OPENINGS SPECIFIED BY THE MECHANICAL ENGINEER. ANY SUBSTITUTIONS RESULTING IN REVISIONS TO THE STRUCTURE MUST BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE STRUCTURAL ENGINEER.

16. COORDINATE STRUCTURAL SUPPORT LOCATIONS WITH EQUIPMENT SERVICE ACCESS CLEARANCES PER EACH EQUIPMENT MANUFACTURER AND PER BUILDING CODE.

17. PRINCIPAL OPENINGS IN THE STRUCTURE ARE INDICATED ON THE CONTRACT DOCUMENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS, ETC. NOT HERIN INDICATED. OPENINGS IN SLABS WITH A MAXIMUM SIDE DIMENSION OR DIAMETER OF 12 INCHES OR LESS MUST NOT REQUIRE ADDITIONAL FRAMING OR REINFORCEMENT, UNLESS NOTED OTHERWISE. LOCATION OF SLEEVES OR OPENINGS IN STRUCTURAL MEMBERS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.

18. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL RESULTING REVISIONS TO THE STRUCTURAL SYSTEM AS A RESULT OF ACCEPTANCE OF CONTRACTOR PROPOSED ALTERNATIVES OR SUBSTITUTIONS.

19. THE GENERAL CONTRACTOR (OR CONSTRUCTION MANAGER) MUST SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS FOR APPROVAL. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT IF THE GENERAL CONTRACTOR FAILS TO OBTAIN APPROVAL OF THE SHOP DRAWINGS. SHOP DRAWINGS ARE REVIEWED AS A CONVENIENCE TO THE GENERAL CONTRACTOR AND ARE NOT A CONTRACT DOCUMENT. THE GENERAL CONTRACTOR MUST STATE ON THE SHOP DRAWINGS THAT CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET AND THAT ALL DIMENSIONS, CONDITIONS, AND QUANTITIES HAVE BEEN REVIEWED AND VERIFIED AS SHOWN AND/OR CORRECTED ON THE SHOP DRAWINGS.

20. THE CONTRACTOR MUST BE RESPONSIBLE FOR PROVIDING TEMPORARY BRACING AND SHORING, AS REQUIRED, TO ENSURE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OR PORTION THEREOF DURING CONSTRUCTION.

21. TEMPORARY BRACING MUST BE PROVIDED FOR ALL WALLS SUBJECT TO UNBALANCED BACKFILL. BRACE WALL PLUMB UNTIL STABILIZING ELEMENT ABOVE IS IN PLACE.

22. ALL WALLS ARE DESIGNED AS LATERALLY BRACED BY THE FLOOR SYSTEMS. CONTRACTOR MUST ENSURE THAT WALLS ARE ADEQUATELY BRACED DURING CONSTRUCTION.

23. ALL COLUMNS AND FOOTINGS MUST BE CENTERED ON GRIDLINES IN EACH DIRECTION, UNLESS NOTED OTHERWISE.

24. THE STRUCTURE HAS BEEN DESIGNED FOR THE IN-SERVICE LOADS ONLY. THE METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUPPORTING FORMWORK FOR THE CONCRETE CONSTRUCTION MUST NOT BE REMOVED BEFORE THE CONCRETE HAS GAINED SUFFICIENT STRENGTH TO SAFELY SUPPORT THE DEAD AND SUPERIMPOSED LOADS WHICH WOULD BE SUBSEQUENTLY APPLIED. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

25. METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBLILITY OF THE CONTRACTOR. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

26. THE CONTRACTOR MUST FABRICATE AND ERECT STEEL IN ACCORDANCE WITH OSHA'S SAFETY REQUIREMENTS, 29 CFR 1926 SAFETY STANDARDS FOR STEEL ERECTION; FINAL RULE.

27. A REGISTERED ENGINEER MUST DESIGN ALL NON-PRIMARY STRUCTURAL ELEMENTS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING: MULLIONS, RAILINGS AND COLD-FORMED STEEL FRAMING TO MEET THE REQUIREMENTS OF THE LOCAL GOVERNING JURISDICTION. SUBMIT CALCULATIONS AND SHOP DRAWINGS WITH THE RESPONSIBLE ENGINEER'S SEAL AND SIGNATURE FOR THE STATE WHERE THE CONSTRUCTION TAKES PLACE.

28. DELEGATED DESIGN ITEMS IDENTIFIED IN THE CONSTRUCTION DRAWINGS MUST BE ENGINEERED BY A REGISTERED ENGINEER TO MEET THE REQUIREMENTS OF THE LOCAL GOVERNING JURISDICTION. SUBMIT CALCULATIONS AND SHOP DRAWINGS WITH THE RESPONSIBLE ENGINEER'S SEAL AND SIGNATURE FOR THE STATE WHERE THE CONSTRUCTION TAKES PLACE.

B. FOUNDATIONS AND EARTHWORK

1. GEOTECHNICAL INFORMATION IS CONTAINED IN A REPORT PREPARED BY ECS SOUTHEAST, LLC, REPORT NUMBER 30:2598, DATED FEBRUARY 12, 2024. BORING LOGS AND LABORATORY TEST RESULTS ARE INCLUDED FOR REFERENCE IN THE PROJECT MANUAL.

2. THE CONTRACTOR MUST PROCURE AND MAINTAIN AN ECS GEOTECHNICAL RESPRESENTATIVE ON-SITE FULL TIME DURING EARTHWORK AND FOUNDATION CONSTRUCTION ACTIVITIES. THE GEOTECHNICAL REPRESENTATIVE MUST VERIFY COMPLIANCE WITH THE PROJECT'S GEOTECHNICAL REPORT, CONFIRM ALLOWABLE BEARING PRESSURE, AND PROVIDE REMEDIAL ACTIONS, AS REQUIRED.

3. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT AND THE PROJECT SPECIFICATIONS WHEN PERFORMING EXCAVATIONS, FOOTING CONSTRUCTION, AND PREPARING THE SUBGRADE UNDER THE SLAB ON GRADE.

4. LOW CONSISTENCY AND MOISTURE SENSITIVE SOILS ARE EXPECTED TO BE ENCOUNTERED ON SITE. AREAS OF THE SITE WITH THESE SOILS MUST BE DENSIFIED PRIOR TO PLACEMENT OF STRUCTURAL FILL. BEFORE STRUCTURAL FILL IS PLACED, DENSIFIED AREAS MUST BE PROOFROLLED UNDER THE OBSERVATION OF AN ECS ENGINEER. IF DENSIFIED SOILS EXHIBIT EXCESSIVE MOVEMENT OR DEFLECTION DURING PROOFROLLING THAN THE SOIL MUST BE UNDERCUT AND REPLACED WITH STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

5. CONTRACTOR MUST PROVIDE SITE DRAINAGE AND DEWATERING PLAN AT THE ONSET AND DURING CONSTRUCTION IN ACCORANCE WITH THE GEOTEHCANIAL REPORT AND PROJECT SPECIFICATIONS. CONSTRUCTION TRAFFIC MUST BE MINIMIZED ACROSS THE SITE DURING WET PERIODS TO MITIGATE STRENGTH LOSE OF SITE SOILS.

6. THE FOUNDATION DESIGN FOR THE STRUCTURE IS FOR AN ALLOWABLE SOIL BEARING CAPACITY OF 1,500 PSF. FOUNDATIONS EXPOSED TO FROST MUST BEAR A MINIMUM OF 24 INCHES BELOW FINISHED GRADE.

7. DO NOT OVER EXCAVATE THE FOOTPRINT OF SPREAD FOOTINGS, STRIP FOOTINGS, OR OTHER SOIL FORMED FOUNDATION ELEMENTS. IF OVER EXCAVATION IS REQUIRED BEYOND THE 4 INCH CONSTRUCTION TOLERANCE, FORM THE SIDES OF THE FOOTING.

8. CLEAN AND TAMP SHALLOW FOUNDATION EXCAVATIONS TO A UNIFORM SURFACE. PLACE FOUNDATION CONCRETE THE SAME DAY THAT PROPER EXCAVATION AND BEARING PRESSURE CAPACITY IS ACHIEVED AND APPROVED BY THE GEOTECHNICAL REPRESENTATIVE. IF THE FOUNDATION EXCAVATION MUST REMAIN OPEN OVERNIGHT, OR IS SUBJECT TO RAIN, PROVIDE A 3" THICK MUD MAT OF LEAN CONCRETE OVERTOP THE EXPOSED BEARING SOILS. REMOVE ANY WATER FROM FOUNDATION EXCAVATIONS PRIOR TO PLACEMENT OF FOUNDATION CONCRETE.

9. PLACE CONCRETE FOR WALL FOOTINGS MONOLITHICALLY WITH COLUMN FOOTINGS. CONSTRUCTION JOINTS IN WALL FOOTINGS MUST BE MADE ONLY MIDWAY BETWEEN COLUMN FOOTINGS UNLESS OTHERWISE NOTED OR DIRECTED BY GEOTECHNICAL REPRESENTATIVE. PROVIDE A CONSTRUCTION JOINT, IN ACCORDANCE WITH DETAIL ON S-501, WHERE CONTINUOUS FOOTINGS TRANSITION FROM EXISTING SOIL TO NEWLY PLACED AND COMPACTED FILL. FINAL LOCATIONS OF ALL CONSTRUCTION JOINTS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT.

10. ALWAYS PROVIDE POSITIVE SURFACE WATER DRAINAGE AWAY FROM THE STRUCTURE.

C. SOIL SUPPORTED SLABS

1. FILL THAT SUPPORTS SLABS MUST HAVE A MAXIMUM PLASTICITY INDEX OF <10. PREPARE, PLACE AND COMPACT AS RECOMMENDED IN THE GEOTECHNICAL REPORT.

2. FOR SOIL SUPPORTED SLABS, PROPERLY COMPACT AND PROOFROLL SUBGRADE AS RECOMMENDED IN THE GEOTECHNICAL REPORT. MAINTAIN THE SUBGRADE FREE OF STANDING WATER, MUD AND FROZEN SOIL. PROVIDE A MINIMUM OF 6 INCHES OF GRANULAR PER THE GEOTECHNICAL REPORT. COVER GRANULAR MATERIAL WITH A VAPOR RETARDER BEFORE PLACING THE SLAB.

3. FOR SLAB ON GRADE REINFORCEMENT, PROVIDE WELDED WIRE FABRIC IN FLAT SHEETS.

4. SUPPORT SLAB ON GRADE REINFORCEMENT WITH STANDARD CORROSION RESISTANT HIGH CHAIRS WITH SAND BEARING PLATES.

5. PROVIDE SLAB CONTROL JOINTS AT EACH COLUMN LINE IN EACH DIRECTION FOR SLABS ON GRADE. SPACE ADDITIONAL JOINTS AT A MAXIMUM OF 30 TIMES THE SLAB THICKNESS OR 15 FEET, WHICHEVER IS LESS. PLACE JOINTS SO THAT PANEL LENGTH TO WIDTH RATIOS ARE LESS THAN 1.5.

6. FREE WATER ON THE SLAB SURFACE DURING FINISHING OPERATIONS IS PROHIBITED. SOFT CUT CONTROL JOINTS AS SOON AS POSSIBLE – GENERALLY WITHIN 6 HOURS AFTER FINISHING.

7. WHERE SLAB CONTROL JOINTS ARE SHOWN ON THE DRAWINGS, CONSTRUCTION JOINTS MAY BE SUBSTITUTED TO ACCOMMODATE THE CONTRACTOR'S PLACEMENT STRATEGY. UNLESS OTHERWISE NOTED ON THE DRAWINGS, PROVIDE ¾" DIAMETER BY 1'-4" SMOOTH DOWELS AT 12 INCHES ON CENTER AT SLAB ON GRADE CONSTRUCTION JOINTS. GREASE ONE END OF DOWELS.

8. WHERE SHEAR TRANSFER IS REQUIRED ACROSS SLAB CONTROL JOINTS, PROVIDE DOWEL BASKET ASSEMBLIES. AREA OF STEEL MUST MEET THE REQUIREMENTS OF ACI 360 TABLE 6.1 FOR ROUND DOWELS OR SQUARE BARS OR AS REQUIRED BY MANUFACTURER FOR PLATE DOWELS.

D. CONCRETE

1. ALL CONCRETE WORK MUST BE IN ACCORDANCE WITH ACI 301, ACI 318 AND ACI 302.

2. PROVIDE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH (f'_c) AT 28 DAYS, A MAXIMUM WATER/CEMENT RATIO, AND DURABILITY EXPOSURE CATEGORIES (FREEZE/THAW, SULFATE, WATER CONTACT, AND CORROSION PROTECTION, RESPECTIVELY) AS FOLLOWS:

ELEMENT	*COMPRESSIVE STRENGTH*	*WATER/ CEMENT RATIO*	*DURABILITY*
FOOTINGS	3000 PSI	0.55	F0, S0, W0, C0
SLABS ON GRADE	4000 PSI	0.45	F0, S0, W0, C0
PIERS & STEM WALLS	4500 PSI	0.45	F2, S0, W1, C0
EXTERIOR CONCRETE	4500 PSI	0.45	F2, S0, W1, C0

   USE NORMAL WEIGHT AGGREGATES CONFORMING TO ASTM C33 AND TYPE I/II PORTLAND CEMENT CONFORMING TO ASTM C150.

3. FLY ASH CONFORMING TO ASTM C618, TYPE C OR F MAY BE USED AS TO REPLACE A PORTION OF THE PORTLAND CEMENT IN A CONCRETE MIX. THE AMOUNT OF PORTLAND CEMENT CONTENT MUST NOT BE LESS THAN 70 PERCENT OF THE TOTAL AMOUNT OF CEMENTITIOUS MATERIAL IN THE MIX.

4. GROUND GRANULATED BLAST-FURNACE SLAG CONFORMING TO ASTM C989, MAY BE USED AS TO REPLACE A PORTION OF THE PORTLAND CEMENT IN A CONCRETE MIX. THE AMOUNT OF PORTLAND CEMENT CONTENT MUST NOT BE LESS THAN 70 PERCENT OF THE TOTAL AMOUNT OF CEMENTITIOUS MATERIAL IN THE MIX.

5. CONCRETE REINFORCEMENT BARS MUST CONFORM TO ASTM A615, GRADE 60. REINFORCEMENT BARS MUST NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE STRUCTURAL ENGINEER.

6. PROVIDE WELDED WIRE FABRIC CONFORMING TO ASTM A1064 IN FLAT SHEETS. LAP FABRIC TWO MESHES AT SPLICES.

7. GROUT UNDER ALL COLUMN BASE PLATES AND BEAM BEARING PLATES WITH NON-SHRINK, NON-METALLIC GROUT WHICH CONFORMS TO CORPS OF ENGINEERS SPECIFICATION CRD-C 621-82 OR ASTM C1107.

8. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES MUST CONFORM TO THE RECOMMENDATIONS OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP-66 "DETAILING MANUAL". PLACING OF REINFORCING BARS MUST CONFORM TO THE RECOMMENDATIONS OF ACI 315R "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" AND CRSI "MANUAL OF STANDARD PRACTICE".

9. MIX, TRANSPORT, AND PLACE CONCRETE PER THE RECOMMENDATIONS OF ACI 301.

10. PROVIDE CONCRETE COVER PROTECTION OF REINFORCEMENT PER ACI 318 SECTION 20.6.1.3 WITH STANDARD BAR CHAIRS AND SPACERS REQUIRED TO MAINTAIN MINIMUM CONCRETE PROTECTION. TYPICAL COMMON MINIMUM CONCRETE COVER APPLYING TO THIS PROJECT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3 INCHES
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 BARS AND LARGER	2 INCHES
#5 BARS AND SMALLER	1 1/2 INCHES
CONCRETE NOT EXPOSED TO WEATHER OR GROUND CONTACT	
SLABS, WALLS OR JOISTS	
#14 BARS AND LARGER	1 1/2 INCHES
#11 BARS AND SMALLER	¾ INCHES

   ADDITIONALLY, COVERS MUST NOT EXCEED THE FOLLOWING:

WALLS BELOW GRADE (BACKFILL SIDE)	2 INCHES
WALLS BELOW GRADE (NO BACKFILL)	¾ INCHES
SLABS ON GRADE	2 INCHES (TOP)

11. WELDING OF REINFORCEMENT BARS IS NOT PERMITTED.

12. REINFORCEMENT DESIGNATED AS "CONTINUOUS" MUST LAP 48 BAR DIAMETERS AT SPLICES UNLESS NOTED OTHERWISE. REINFORCEMENT BAR SPLICES IN GRADE BEAMS MUST BE LOCATED AT THE CENTERLINE OF SUPPORTS FOR BOTTOM BARS AND AT MIDSPAN FOR TOP BARS. PROVIDE STANDARD ACI HOOKS FOR TOP AND BOTTOM BARS AT DISCONTINUOUS ENDS OF ALL GRADE BEAMS.

13. HORIZONTAL FOOTING AND HORIZONTAL WALL REINFORCEMENT MUST BE CONTINUOUS AND MUST HAVE 90-DEGREE BENDS AND EXTENSIONS, OR CORNER BARS OF EQUIVALENT SIZE LAPPED 48 BAR DIAMETERS, AT CORNERS AND INTERSECTIONS.

14. PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS WITH SIZE AND SPACING TO MATCH HORIZONTAL WALL REINFORCEMENT.

15. TIE DOWELS IN PLACE BEFORE PLACING CONCRETE. DO NOT STAB OR "WET-SET" DOWELS.

16. HORIZONTAL JOINTS WILL NOT BE PERMITTED IN CONCRETE CONSTRUCTION EXCEPT AS SHOWN ON THE CONTRACT DOCUMENTS. VERTICAL JOINTS MUST OCCUR AT CENTER OF SPANS AT LOCATIONS APPROVED BY THE STRUCTURAL ENGINEER.

17. PROVIDE HORIZONTAL CONSTRUCTION JOINTS ONLY WHERE SHOWN IN THE CONTRACT DOCUMENTS. AT HORIZONTAL JOINTS, ROUGHEN THE LOWER CONTACT SURFACE WITH ABOUT A ¼ INCH AMPLITUDE. REMOVE ANY LAITANCE FROM THE HARDENED CONTACT SURFACE AND MAINTAIN A CLEAN CONTACT SURFACE FOR THE ADJOINING POUR.

18. CHAMFER EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

D. CONCRETED CONTINUED

19. SHORING UNDER FORMS MUST NOT BE REMOVED UNTIL THE CONCRETE IT SUPPORTS IS CAPABLE OF SUPPORTING ITSELF AND ALL SUPERIMPOSED LOADS.

20. PROTECT AND CURE ALL CONCRETE SURFACES. BEGIN CURING WALLS IMMEDIATELY AFTER STRIPPING FORMS AND FLATWORK IMMEDIATELY AFTER FINISHING.

21. INSTALL AND SECURE EMBEDMENTS SUCH AS ANCHOR BOLTS AND EMBEDMENT PLATES WITHIN SPECIFIED TOLERANCES BEFORE CONCRETE PLACEMENT.

22. DO NOT SLEEVE BEAMS OR COLUMNS WHERE NOT SHOWN ON THE STRUCTURAL DRAWINGS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

23. DO NOT PLACE CONDUIT OR PIPES IN ANY CONCRETE ELEMENTS INCLUDING SLABS, BEAMS, WALLS OR COLUMNS UNLESS INDICATED IN THE STRUCTURAL DOCUMENTS.

E. STRUCTURAL COLD-FORMED STEEL

1. ALL GALVANIZED STUDS AND JOISTS 16 GAGE AND HEAVIER MUST BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A1003, GRADE ST50H, WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI. ALL 18 GAGE STUDS MUST CONFORM TO ASTM A1003 GRADE ST33H, WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI.

2. ALL GALVANIZED TRACK, BRIDGING, END CLOSURES AND ACCESSORIES MUST BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A1003, GRADE ST33H, WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI.

3. ALL GALVANIZED STUDS AND ACCESSORIES MUST BE FORMED FROM STEEL HAVING A GALVANIZED COATING WHICH CONFORMS TO ASTM A525 G-60.

4. ALL PAINTED STUDS AND JOISTS 16 GAGE AND HEAVIER MUST BE FORMED FROM STEEL THAT CONFORMS TO ASTM A570 GRADE 50, MINIMUM YIELD STRENGTH 50,000 PSI. ALL PAINTED STUDS AND JOISTS 18 GAGE AND LIGHTER MUST BE FORMED FROM STEEL THAT CONFORMS TO ASTM A611 GRADE C, MINIMUM YIELD STRENGTH 33,000 PSI.

5. ALL PAINTED TRACK, BRIDGING, END CLOSURES AND ACCESSORIES MUST BE FORMED FROM STEEL THAT CORRESPONDS TO THE REQUIREMENTS OF ASTM A611, GRADE C WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI.

6. WELDING MUST CONFORM TO AWS D1.1, AWS D1.3 AND AISI MANUAL SECTION 4.2.

7. WELDING MUST BE BY FUSION WELDING UTILIZING ELECTRODES WITH ASTM CLASSIFICATION E60. ALL WELDERS MUST BE QUALIFIED BY TESTING IN ACCORDANCE WITH THE "CODE FOR WELDING IN BUILDING CONSTRUCTION", AWS D1.1 OF THE AMERICAN WELDING SOCIETY.

8. BOLTING AND SELF DRILLING/SELF TAPPING SCREWS MAY BE EMPLOYED. THE CONTRACTOR MUST SUBMIT MECHANICAL FASTENER DATA FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.

9. STUD MEMBERS MAY BE PUNCHED. JOIST AND HEADER MEMBERS MUST NOT BE PUNCHED.

10. ALL PAINTED MATERIAL AND ACCESSORIES MUST BE PRIMED WITH RUST INHIBITIVE PAINT MEETING THE PERFORMANCE REQUIREMENTS OF TT-P-636C.

11. METAL STUDS MUST BE EITHER PAINTED OR GALVANIZED AS INDICATED ABOVE WITH THE EXCEPTION OF STUDS, HEADERS AND TRACK LOCATED AT EXTERIOR WALLS WHICH MUST BE GALVANIZED.

12. MILL CERTIFICATION OF THE STEEL PROPERTIES IS REQUIRED.

13. PRIOR TO PREFABRICATION OF FRAMING, THE CONTRACTOR MUST SUBMIT FABRICATION AND ERECTION DRAWINGS TO THE ARCHITECT AND/OR STRUCTURAL ENGINEER FOR REVIEW.

14. ALL FRAMING COMPONENTS MUST BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS, OR AS REQUIRED FOR AN ANGULAR FIT AGAINST ABUTTING MEMBER. MEMBERS MUST BE HELD POSITIVELY IN PLACE UNTIL PROPERLY FASTENED.

15. AXIALLY LOADED STUDS MUST BE INSTALLED IN A MANNER WHICH WILL ASSURE THAT ENDS OF THE STUDS ARE POSITIONED AGAINST THE INSIDE TRACK WEB, PRIOR TO STUD AND TRACK ATTACHMENT.

16. WIRE TYING IS NOT PERMITTED.

17. ALL LOAD BEARING PANELS AND HEADER MEMBERS WITH STIFFENERS MUST BE PRE-LOADED WITH CLAMPING DEVICE TO INSURE FULL BEARING BETWEEEN STUDS AND TRACKS. HEADERS MUST BE REVIEWED BY THE STRUCTURAL ENGINEER OR AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION.

18. METAL STUD ERECTOR IS RESPONSIBLE FOR INSTALLING WIND BRACING WHERE INDICATED ON THE PLANS. FLOOR PLATES WILL BE INSTALLED BY GENERAL CONTRACTOR.

19. COLD FORMED HEADERS MUST HAVE STIFFENERS COMPRISED OF 14 GAGE TRACK PLACED VERTICALLY BETWEEN THE FLANGES. CONNECTION BETWEEN THE 2 MEMBERS COMPRISING THE LINTEL, END SPACERS AND STIFFENERS MUST BE WELDED OR SCREWED AT FIFTH POINTS.

20. STUDS MUST BE ATTACHED TO TRACK ON TWO SIDES.

23. METAL STUD ERECTOR MUST BE RESPONSIBLE FOR LOCATION AND ATTACHING CONNECTION PLATES TO HOT ROLLED STEEL SECTIONS.

24. HEADER WITH INTERIOR STIFFENERS MUST HAVE INDIVIDUAL STIFFENERS INSPECTED PRIOR TO ASSEMBLING THE TWO JOIST MEMBERS.

25. AT TRACK BUTT JOINTS, ABUTTING PIECES OF TRACK MUST BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, OR THEY MUST BE BUTT-WELDED OR SPLICED TOGETHER.

26. STUDS MUST BE PLUMBED, ALIGNED AND SECURELY ATTACHED TO THE FLANGE OR WEBS OF BOTH UPPER AND LOWER TRACKS.

27. WALL STUD BRIDGING MUST BE ATTACHED IN A MANNER TO PREVENT STUD ROTATION. BRIDGING ROWS MUST BE SPACED AT THIRD POINTS AND BRIDGING MUST BE 16 GAGE, 1-1/2" WIDE WITH 9/16" FLANGES.

28. SPLICES IN AXIALLY LOADED STUDS ARE NOT PERMITTED.

29. WINDOW SILLS MUST BE THE SAME SIZE AND GAGE AS THE OTHER MEMBERS DESIGNATED IN THE WALL PANEL UNLESS OTHERWISE NOTED.

30. CFS TRUSSES MUST BE LOCATED DIRECTLY OVER BEARING STUDS.

F. CONCRETE MASONRY

1. MASONRY CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH TMS 402 "BUILDING CODE FOR MASONRY STRUCTURES" AND TMS 602, "SPECIFICATION FOR MASONRY STRUCTURES."

2. CONCRETE MASONRY UNITS MUST CONFORM TO ASTM C90, GRADE N-1 UNLESS OTHERWISE NOTED. COMPRESSIVE STRENGTH ON NET CROSS SECTIONAL AREA OF INDIVIDUAL MASONRY UNITS MUST BE 2,000 PSI. NET AREA COMPRESSIVE STRENGTH OF MASONRY (f'_m) MUST BE 1,500 PSI.

3. MASONRY MUST BE LAID IN ASTM C270, TYPE "S" MORTAR, UNLESS NOTED OTHERWISE AND MUST HAVE FULL MORTAR COVERAGE OF THE FACE SHELLS IN BOTH HORIZONTAL AND VERTICAL JOINTS.

4. GROUT FOR REINFORCED MASONRY MUST CONFORM TO ASTM C476.

5. GROUT FOR REINFORCED MASONRY MUST HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS AND MUST CONFORM TO THE FOLLOWING:
   a. GROUT IN SPACES 3" X 4" AND GREATER MUST HAVE A SLUMP OF 9" TO 11" WITH 3/8" MAXIMUM AGGREGATE SIZE.
   b. GROUT IN SPACES 2" X 4" AND SMALLER MUST HAVE A SLUMP OF 5" AND CONFORM TO ASTM C476.

6. GALVANIZED HORIZONTAL JOINT REINFORCEMENT MUST BE PLACED IMMEDIATELY ABOVE AND BELOW ALL OPENINGS AND AT 16 INCHES ON CENTER VERTICALLY. REINFORCEMENT MUST BE LADDER, TRUSS TYPE, AND WHERE SPLICED, MUST LAP A MINIMUM OF 6 INCHES. REINFORCEMENT MUST CONFORM TO ATSM A82.

7. EXCEPT FOR WALL PILASTERS, VERTICAL MASONRY REINFORCEMENT MUST BE FIELD CUT FOR 4'-0" LIFTS AND LAPPED SPLICED A MINIMUM OF 48 BAR DIAMETERS. MASONRY CORES CONTAINING VERTICAL REINFORCEMENT MUST BE GROUTED SOLID.

8. CELLS TO BE GROUTED MUST BE CLEAN AND FREE OF EXCESS MORTAR AND FOREIGN MATERIALS.

9. GROUT ALL CELLS THAT INCLUDE REINFORCEMENT, ANCHORS OR STRUCTURAL EMBEDMENTS. PLACE GROUT IN 4'-0" LIFTS. CONSOLIDATE ALL GROUT PLACEMENTS BY MECHANICAL VIBRATION. PROVIDE CLEANOUTS FOR TOTAL GROUT PLACEMENT HEIGHT OVER 5'-0".

10. PROVIDE MASONRY ACCESSORIES TO SECURE VERTICAL REINFORCEMENT IN PLACE AND CORRECTLY POSITIONED. VERTICAL REINFORCEMENT IS TO BE CENTERED IN THE MASONRY CELLS UNLESS INDICATED OTHERWISE.

11. REINFORCEMENT MUST CONFORM TO THE STANDARDS SPECIFIED IN THE CONCRETE NOTES. REINFORCEMENT MUST BE LAP SPLICED A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE.

12. THE MASONRY CONTRACTOR MUST PROVIDE AND PLACE SUCH SPECIAL UNITS AS MAY BE REQUIRED TO FORM ALL CORNERS, RETURNS, AND OFFSETS WHILE MAINTAINING THE PROPER BOND.

13. WHERE INTERIOR CONCRETE MASONRY PARTITIONS INTERSECT WITH OTHER INTERIOR PARTITIONS OR EXTERIOR WALLS, A MASONRY BOND, OR THE EQUILVALENT IN APPROVED METAL TIES, MUST BE PROVIDED UNLESS NOTED OTHERWISE ON THE DRAWINGS.

14. REINFORCE ALL JAMB CELLS, CORNER CELLS, TEE CELLS, END CELLS AND AT EACH SIDE OF CONTROL JOINTS FULL HEIGHT – MATCH TYPICAL WALL REINFORCING UNLESS OTHERWISE NOTED.

15. FACE SHELL BEDDING MUST BE USED WITH COMPLETE COVERAGE OF FACE SHELLS. FURROWING OF THE MORTAR MUST NOT BE PERMITTED.

16. MORTAR JOINTS MUST BE 3/8" THICK WITH FULL MORTAR COVERAGE ON VERTICAL AND HORIZONTAL FACE SHELLS.

17. SECURE MASONRY VENEER TO SUPPORTING WALLS OR COLUMNS AT 16" ON CENTER VERTICAL AND HORIZONTAL WITH APPROVED TIES AND/OR ANCHORS.

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U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

ALABAMA REGISTERED No. 20576 PROFESSIONAL ENGINEER ROBERT A BASS
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

BON SECOUR MWR, AL

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182.00
DATE:	05/02/2024
DRAWN: JH	DESIGN: JH
CHECK:	JR

SHEET TITLE

STRUCTURAL GENERAL NOTES

SHT. NO. S-001 | REV. NO.

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G. STRUCTURAL STEEL

1. UNLESS NOTED OTHERWISE, STRUCTURAL STEEL MUST CONFORM TO THE FOLLOWING:

ANCHOR BOLTS	ASTM F1554, GRADE 36
WIDE FLANGE SHAPES	ASTM A992-01, 50 KSI
ANGLES	ASTM A36
CHANNELS	ASTM A36
PLATES	A36
HSS RECTANGULAR	ASTM A500, GRADE C (F_y = 50 KSI)
HSS ROUND	ASTM A500, GRADE C (F_y = 50 KSI)

SUBMIT MILL TEST REPORTS FOR REVIEW.

2. BOLTS FOR STRUCTURAL STEEL CONNECTIONS MUST BE HIGH STRENGTH BOLTS PER THE REQUIREMENTS OF ASTM A325, TYPE N, OR X. UNLESS NOTED OTHERWISE, PROVIDE BOLTS DESIGNED AS BEARING TYPE BOLTS AND INSTALL PER THE "SNUG TIGHT" CONDITION. INSTALL A HARDENED WASHER UNDER THE ELEMENT TO BE TIGHTENED.
3. ANCHOR BOLTS LOCATED OUTSIDE OF THE BUILDING ENVELOPE MUST BE HOT DIPPED GALVANIZED PER ASTM F2329 UNLESS OTHERWISE NOTED.
4. DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL PER THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND THE SAFETY REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND THE LOCAL JURISDICTION. PROVIDE TEMPORARY SEATS TO FACILITATE SAFE ERECTION.
5. THE FABRICATOR MUST PREPARE THE SHOP DRAWINGS BASED ON DESIGN LOADS PROVIDED OR CONNECTION DESIGN INFORMATION SHOWN IN THE TYPICAL DETAILS. THE FABRICATOR IS RESPONSIBLE FOR CHOOSING, DESIGNING AND DETAILING ALL CONNECTIONS PARTIALLY DETAILED IN THE CONTRACT DRAWINGS IN ACCORDANCE WITH PART 10 OF THE AISC "MANUAL OF STEEL CONSTRUCTION" FOURTEENTH EDITION.
6. STEEL CONNECTION MUST DEVELOP FACTORED END REACTIONS SHOWN ON DRAWINGS. PROVIDE AT LEAST TWO ROWS OF BOLTS AND USE A MINIMUM FACTORED END REACTION OF 14.0 KIPS.
7. IF THE FABRICATOR USES ALTERNATE CONNECTION DESIGNS, A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CONSTRUCTION MUST SEAL AND SIGN THE CONNECTION DESIGNS AND SUBMIT WITH THE SHOP DRAWINGS.
8. FOR SIMPLE SHEAR CONNECTIONS, THE MINIMUM DEPTH OF THE CONNECTION MUST EXCEED 1/2 OF THE DEPTH OF THE SUPPORTED MEMBER. ADDITIONALLY, THE MINIMUM NUMBER OF ROWS OF BOLTS FOR BOLTED CONNECTIONS IS 2.
9. PERFORM WELDING IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARD D1.1. PROVIDE ELECTRODES FOR SHOP AND FIELD WELDS IN ACCORDANCE WITH AWS A5.1 OR AWS A5.5, CLASS E70XX, LOW HYDROGEN. ALL WELDS MUST USE FILLER METAL WITH A MINIMUM CVN VALUE OF 20 FT-LBS AT -20 DEGREES FAHRENHEIT.
10. ALL SHOP AND FIELD WELDING MUST BE EXECUTED BY WELDERS AND WELDING OPERATORS WHO HAVE BEEN PREVIOUSLY QUALIFIED BY TEST AS PRESCRIBED IN AWS D1.1 OF THE AMERICAN WELDING SOCIETY TO PERFORM THE TYPES OF WELDS REQUIRED ON THE PROJECT.
11. SHOP OR FIELD WELDS AT NON-BOLTED CONNECTIONS THAT ARE NOT SPECIFICALLY DETAILED MUST BE 3/16" CONTINUOUS FILLETS AT EACH CONTACT EDGE OR SURFACE.
12. RETURN ALL WELDS AT CORNERS TWICE THE NOMINAL SIZE OF THE WELD MINIMUM, UNLESS OTHERWISE NOTED.
13. ALL COPES, BLOCKS, CUT-OUTS, AND OTHER CUTTING OF STRUCTURAL MEMBERS MUST HAVE ALL RE-ENTRANT CORNERS SHAPED, NOTCHED FREE TO A RADIUS OF AT LEAST ½".
14. SEE ARCHITECTURAL AND OTHER ENGINEERING DRAWINGS FOR MISCELLANEOUS STEEL NOT SHOWN ON THE STRUCTURAL DRAWINGS.
15. NO FABRICATION MAY PROCEED PRIOR TO SHOP DRAWING APPROVAL.
16. NO OPENINGS IN BEAMS OR COLUMNS ARE PERMITTED UNLESS SPECIFIED IN THE STRUCTURAL DOCUMENTS. CONTRACTOR MUST SUBMIT ALL PROPOSED OPENING IN BEAMS FOR REVIEW BY THE STRUCTURAL ENGINEER.
17. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.
18. THE CONTRACTOR MUST NOTIFY WILEY WILSON, INC. OF ANY MISFABRICATION OF STRUCTURAL STEEL PRIOR TO ERECTION OF SAME.
19. ONE COAT OF SHOP PAINT MUST BE APPLIED TO ALL STRUCTURAL STEEL WITH THE EXCEPTION OF AREAS TO BE WELDED.
20. STRUCTURAL STEEL CAST INTO OR IN CONTACT WITH CONCRETE MUST NOT BE PAINTED.
21. EXPOSED STEEL MUST BE HOT DIPPED GALVANIZED. STEEL SHAPES, PLATES AND BARS MUST BE GALVANIZED PER ASTM A123. STEEL BOLTS, NUTS AND WASHERS MUST BE GALVANIZED PER ASTM A153, CLASS C. DAMAGED AND UNCOATED AREAS MUST BE REPAIRED PER ASTM A780.

H. ROOF DECK

1. ROOF DECK MUST BE TYPE B ROOF DECK. TYPE B DECK MUST BE 20 GAGE COLD FORMED STEEL CONFORMING TO ASTM A653 SQ GRADE 50, COATING DESIGNATION G60 FOR GALVANIZED DECK METAL DECK MUST BE 1-1/2 INCHES DEEP.
2. CONTRACTOR MUST PROVIDE MATERIALS, DESIGN AND INSTALLATION OF DECK FOR THE REQUIREMENTS OF STEEL DECK INSTITUTE'S "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS." DECK PROPERTIES MUST BE COMPUTED USING THE LATEST EDITION OF AISI SPECIFICATIONS FOR THE "DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."
3. STEEL DECK MUST BE INSTALLED CONTINUOUS OVER 3 SPANS MINIMUM (UNLESS OTHERWISE NOTED) AND MUST BEAR AT LEAST 2 INCHES ON STEEL SUPPORTS.
4. THE CONTRACTOR MUST PROVIDE SUPPLEMENTAL FRAMING L4 X 4 X 3/8. TS 2-1/2 X 2-1/2 X ¼ AS NECESSARY FOR THE SUPPORT OF METAL DECK WHERE NOT SHOWN ON DRAWINGS UNLESS OTHERWISE INDICATED.

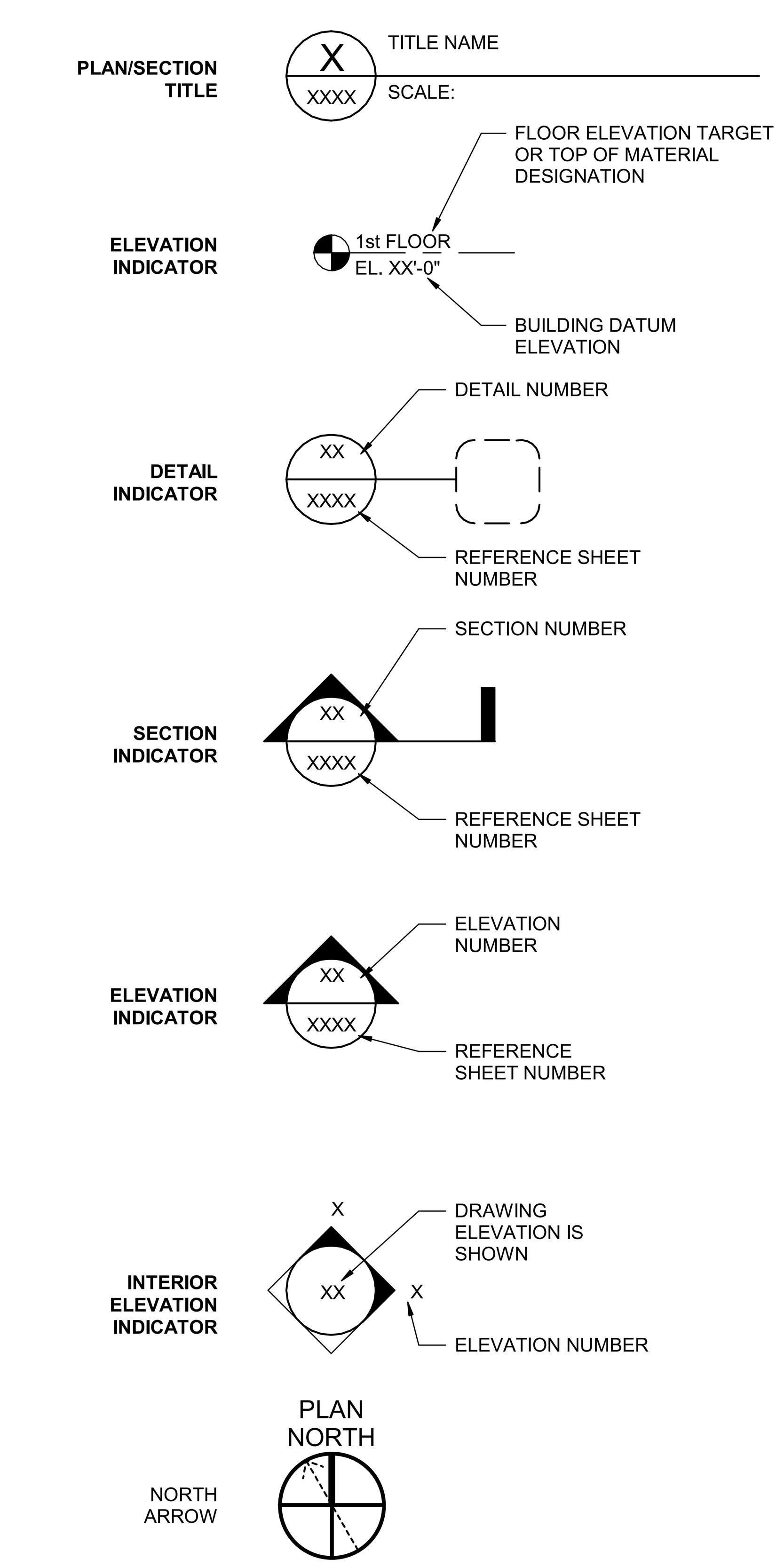
I. POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHORS MUST ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS.
2. THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
3. ANCHORAGE TO CONCRETE:
   a. MECHANICAL ANCHORS MUST HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION.
   b. ADHESIVE ANCHORS MUST HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACE 355.4 AND ICC-ES AC 308 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION.
4. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
5. ANCHOR CAPACITY IS DEPENDANT 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.
6. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR MUST REVIEW THE EXISTING STRUCTURAL DRAWINGS AND MUST UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS.
7. THE CONTRACTOR MUST TAKE MEASURES TO COORDINATE THE CONSTRUCTION SUCH THAT INTERFERENCE OF EXISTING REINFORCING STEEL WITH PLACEMENT OF NEW ANCHORS (DOWELS, EXPANSION BOLTS, ADHESIVE ANCHORS) DOES NOT OCCUR. IF EXISTING REINFORCING STEEL IS ENCOUNTERED DURING DRILLING, ADJUST THE ANCHOR LOCATION IF POSSIBLE AND NOTIFY THE STRUCTURAL ENGINEER. ABANDONED HOLES MUST BE FILLED WITH GROUT. ANCHORS MUST BE SET WITHIN 3 INCHES OF THEIR SPECIFIED LOCATION, BUT AT LEAST 1 INCH FROM ANY ABANDONED HOLE. CARE MUST BE TAKEN NOT TO BREAK OR DAMAGE REINFORCING STEEL DURING DRILLING, UNLESS OTHERWISE DIRECTED BY THE STRUCTURAL ENGINEER.

J. SPECIAL INSPECTIONS

1. AN INDEPENDENT AGENCY MUST PERFORM SPECIAL INSPECTIONS PER THE INTERNATIONAL BUILDING CODE. IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE SECTION 1704.2.1, THE RESPONSIBLE INSPECTOR MUST MEET THE COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING REQUIREMENTS OF THE STATE WHERE CONSTRUCTION TAKES PLACE. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN SECTION 110. WHEN THE CONSTRUCTION CONTRACTOR IS REQUIRED BY THE GOVERNMENT TO PROVIDE SPECIAL INSPECTIONS AS PART OF THEIR WORK, THE CONTRACTOR MUST RETAIN THIRD-PARTY ASSURANCE AGENCIES TO CONDUCT THE SPECIAL INSPECTIONS REQUIRED BY THE INTERNATIONAL BUILDING CODE. THE INSPECTING AGENCY MUST PROVIDE REPORTS OF THE SPECIAL INSPECTIONS DIRECTLY TO THE GOVERNMENT.
2. WRITTEN REPORTS MUST BE SUBMITTED TO THE BUILDING OFFICIAL STATING COMPLIANCE OR NON-COMPLIANCE WITH DESIGN DOCUMENTS AND SPECIFICATIONS. ALL REPORTS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE CONSTRUCTION TAKES PLACE.
3. WITH REGARDS TO SPECIAL INSPECTIONS:
   a. CONTINUOUS - THE CONSTANT MONITORING OF SPECIFIC TASKS BY AN APPROVED SPECIAL INSPECTOR. THESE INSPECTIONS MUST BE CARRIED OUT CONTINUOUSLY OVER THE DURATION OF THE PARTICULAR TASKS.
   b. PERFORM - PERFORM THESE TASKS FOR EACH ELEMENT, OCCURANCE, WELD, FASTENER OR BOLTED CONNECTION.
   c. OBSERVE - OBSERVE THESE SPECIAL INSPECTION ITEMS ON A PERIODIC DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
   d. DOCUMENT MEANS TO DOCUMENT, WITH A REPORT, THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS IS IN ADDITION TO ANY OTHER REPORTS REQUIRED IN THE SPECIAL INSPECTIONS GUIDE SPECIFICATION.
4. FAILURE TO RETAIN AN INDEPENDENT TESTING AGENCY TO PERFORM THE REQUIRED SERVICES SPECIFIED ABOVE, OR FAILURE TO SUBMIT SIGNED AND SEALED REPORTS, INDICATES NON-COMPLIANCE WITH THE CONTRACT DOCUMENTS.

DRAWING SYMBOLS



PLAN/SECTION TITLE
X
XXXX
TITLE NAME
SCALE:
ELEVATION INDICATOR
FLOOR ELEVATION TARGET OR TOP OF MATERIAL DESIGNATION
1st FLOOR
EL. XX'-0"
BUILDING DATUM ELEVATION
DETAIL INDICATOR
DETAIL NUMBER
XX
XXXX
REFERENCE SHEET NUMBER
SECTION INDICATOR
SECTION NUMBER
XX
XXXX
REFERENCE SHEET NUMBER
ELEVATION INDICATOR
ELEVATION NUMBER
XX
XXXX
REFERENCE SHEET NUMBER
INTERIOR ELEVATION INDICATOR
X
XX
X
DRAWING ELEVATION IS SHOWN
ELEVATION NUMBER
PLAN NORTH
NORTH ARROW

ABBREVIATIONS

#	NUMBER
&	AND
=	EQUAL, EQUALS
@	AT
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADD'L	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISEHD FLOOR
AH, AHU	AIR HANDLING UNIT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
AWS	AMERICAN WELDING SOCIETY
BOT, B/	BOTTOM
BRG	BEARING
CFS	COLD-FORMED STEEL
CIP	CAST IN PLACE
CJ	CONTROL JOINT/CEILING JOIST
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DWG(S)	DRAWINGS
DWL	DOWEL
EA	EACH
EF	EACH FACE
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXT	EXTERNAL, EXTERIOR
FF	FAR FACE
FFE	FINISH FLOOR ELEVATION
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FS	FAR SIDE
FT, '	FOOT
FTG	FOOTING
Fy	YIELD STRESS
GA	GAUGE
HORIZ	HORIZONTAL
HP	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HVAC	HEATNG/ VENTILATING/ AIR CONDITIONING
I	MOMENT OF INERTIA
IBC	INTERNATIONAL BUILDING CODE
ICF	INSULATED CONCRETE FORM
ID	INSIDE DIAMETER
IN, "	INCH
INCL	INCLUDE
INFO	INFORMATION
INS	INSULATED, INSULATION
JST	JOIST
K, KIPS	THOUSAND POUNDS
L	LENGTH, ANGLE
LB	POUND
LG	LONG
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATE, LOCATION
LONG	LONGITUDINAL
LP	LOW POINT
LW	LIGHT WEIGHT
MAS	MASONRY
MB	MACHINE BOLT
MBR	MEMBER
MECH	MECHANICAL
MED	MEDIUM
MEZZ	MEZZANINE
MF	MOMENT FRAM
MFG, MANUF	MANUFACTURING
MIN	MINIMUM
MO	MASONRY OPENING
MOD	MODIFY, MODIFIED

MRF	MANUFACTURER
NF	NEAR FACE
NOM	NOMINAL
NS	NEAR SIDE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND, OVERHEAD
OWSJ	OPEN WEB STEEL JOIST
P/C	PIN CONNECTED
PAR	PARALLEL
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PEN	PENETRATION
PFJ	PERIMETER FELT JOINT
PL	PLATE
PLUMB	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED, POINT, PRETENSIONED
RAP	AGGREGATE PIERS
REINF	REINFORCING, REINFORCED
REQ	REQUIRED
RET	RETURN, RETAINING
REV	REVISION, REVISED
RF	ROOF
RFT	RAFTERS
RPM	REVOLUTIONS PR MINUTE
RS	ROUGH SAWN
RT	ROOF TRUSS
S	SECTION MODULUS
SC	SLIP CRITICAL
SCBRW	SEGMENTAL CONCRETE BLOCK RETAINING WALL
SCHED	SCHEDULE
SDI	STEEL DECK INSTITUTE
SECT	SECTION
SEIS	SEISMIC
SEP	SEPARATION
SHT	SHEET
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SMS	SHEET METAL SCREW
SPEC(S)	SPECIFICATION(S)
SPRT	SUPPORT
SQ	SQUARE
SS	STAINLESS STEEL
ST	SNUG TIGHT
STD	STANDARD
STIF/STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL, STRUCTURE
SUSP	SUSPENDED
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T/	TOP OF
TGB	TOP OF GRADE BEAM
THK	THICK, THICKNESS
TL	TOTAL LOAD
TN	TOE NAIL
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOW	TOP OF WALL
TYP	TYPICAL
UFC	UNITED FACILITES CRITERIA
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
VB	VAPOR BARRIER
VERT	VERTICAL
W	WIDTH, WEST, WIDE FLANGE
w/	WITH
WF	WIDE FLANGE
WPT	WORKING POINT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
x	BY, TIMES

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5/2/2024

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STRUCTURAL GENERAL NOTES

SHT. NO. S-002

REV. NO.

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A. STRUCTURAL STEEL - WELDED SECTION

STEEL INSPECTION PRIOR TO WELDING-VERFIY THE FOLLOWING ARE IN COMPLIANCE WITH IBC 1705.2.1, AISC 360-10:TABLE C-N5.4-1

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. VERIFY THAT THE WELDING PROCEDURES SPECIFICATION (WPS) IS AVAILABLE	P	
Y	2. VERIFY MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES ARE AVAILABLE	P	
Y	3. VERIFY MATERIAL IDENTIFICATION	P	TYPE AND GRADE
Y	4. WELDER IDENTIFICATION SYSTEM	P	THE FABRICATOR OR ERECTOR, AS APPLICABLE, MUST MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE
Y	5. FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETERY)	O	• JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE
Y	6. CONFIGURATION AND FINISH OF ACCESS HOLES	O	
Y	7. FIT-UP OF FILLET WELDS	O	• DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)

STEEL INSPECTION DURING WELDED-VERIFY THE FOLLOWING ARE IN COMPLIANCE WITH IBC 1705.2.1, AISC 360-10: TABLE C-N5.4-2

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	8. USE OF QUALIFIED WELDERS	P	WELDING BY WELDERS, WELDING OPERATORS, AND TACK WELDERS WHO ARE QUALIFIED IN CONFORMANCE WITH REQS
Y	9. CONTROL AND HANDLING OF WELDING CONSUMABLES	O	• PACKAGING • ELECTRODE ATMOSPHERIC EXPOSURE CONTROL
Y	10. NO WELDING OVER CRACKED TACK WELDS	O	
Y	11. ENVIRONMENTAL CONDITIONS	O	• WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE
Y	12. WELDING PROCEDURES SPECIFICATIONS FOLLOWED	O	• SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH) • INTERMIX OF FILLER METALS AVOIDED
Y	13. WELDING TECHNIQUES	O	• INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS

STEEL INSPECTION AFTER WELDING-VERFIY THE FOLLOWING ARE IN COMPLIANCE WITH IBC 2015 1705.2.1, AISC 360-10: TABLE C-N5.4-3

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	14.WELDS CLEANED	O	
Y	15.SIZE, LENGTH, AND LOCATION OF ALL WELDS	P	SIZE, LENGTH, AND LOCATION OF ALL WELDS CONFORM TO THE REQUIREMENTS OF THE DETAIL DRAWINGS
Y	16.WELDS MEET VISUAL ACCEPTANCE CRITERIAL	P AND D	• CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY
Y	17. ARC STRIKES	P	
Y	18. k-AREA	P	WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS
Y	19.BACKING REMOVED, WELD TABS REMOVED AND FINISHED, AND FILLET WELDS ADDED WHERE REQUIRED	P AND D	
Y	20. REPAIR ACTIVITIES	P AND D	
Y	21.DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	

B. STRUCTURAL - STEEL- BOLTING SECTION

STEEL INSPECTION PRIOR TO BOLTING-VERIFY THE FOLLOWING ARE IN COMPLIANCE WITH IBC 1705.2.1, AISC 360-10: TABLE C-N5.6-1

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	P	
Y	2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQS	O	
Y	3. PROPER FASTENERS SELECTED FOR JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	
Y	4. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	
Y	5. CONNECTING ELEMENTS, INCLUDING APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	
Y	6. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS	O	

STEEL INSPECTION DURING BOLTING-VERIFY THE FOLLOWING ARE IN COMPLIANCE WITH IBC 1705.2.1, AISC 360-10: TABLE C-N5.6-2

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	7. FASTENER ASSEMBLIES OF SUITABLE CONDITION PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQD	O	
Y	8. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATION	O	
Y	9. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	
Y	10.BOLTS ARE PRETENSIONED IN ACCORDANCE WITH RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	

STEEL INSPECTION AFTER BOLTING-VERIFY THE FOLLOWING ARE IN COMPLIANCE WITH IBC 2015 1705.2.1, AISC 360-10: TABLE C-N5.6-3

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	11.DOCUMENT ACCEPTANCE OR REJECTION OF ALL BOLTED CONNECTIONS	D	

C. STRUCTURAL - STEEL - NON DESTRUCTIVE TESTING SECTION

NONDESTRUCTIVE TESTING OF WELDED JOINTS-VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC 1705.2.1, AISC 360-10: SECTION N5.5

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. USE OF QUALIFIED NONDESTRUCTIVE TESTING	P	VISUAL WELD INSPECTION AND NONDESTRUCTIVE TESTING (NDT) SHALL BE CONDUCTED BY PERSONNEL QUALIFIED IN ACCORDANCE WITH AWS D1.8 CLAUSE 7.2
Y	2. CJP GROOVE WELDS	O	DYE PENETRANT TESTING (DT) AND ULTRASONIC TESTING (UT) SHALL BE PERFORMED ON 20% OF CJP GROOVE WELDS FOR MATERIALS GREATER THAN 5/26" (8mm) THICK. TESTING RATE MUST BE INCREASED TO 100% IF GREATER THAN 5% OF WELDS TESTED HAVE UNACCEPTABLE DEFECTS.
Y	3. WELDED JOINTS SUBJECT TO FATIGUE	O	DYE PENETRAN TESTING (DT) AND ULTRASONIC TESTING (UT) SHALL BE PERFORMED ON 100% OF WELDED JOINTS IDENTIFIED ON CONTRACT DRAWINGS AS BEING SUBJECT TO FATIGUE
Y	4. WELD TAB REMOVAL SITES	O	AT THE ENDS OF WELDS WHERE WELD TABS HAVE BEEN REMOVED, MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON THE SAME BEAM-TO-COLUMN JOINTS RECEIVING UT

INSPECTION DEFINITIONS:

1. **PERFORM:**

   PERFORM THESE TASKS FOR EACH ELEMENT, OCCURANCE, WELD, FASTENER OR BOLTED CONNETION, AND REQUIRED VERIFICATION.

2. **OBSERVE:**

   OBSERVE THESE ITEMS RANDOMLY DURING THE COURSE OF EACH WORK DAY TO INSURE THAT APPLICABLE REQUIREMENTS ARE BEING MET. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS AT CONTRACTOR'S RISK.

3. **DOCUMENT:**

   DOCUMENT, WITH A REPORT, THAT THE WORK HAS BEEN PERFOMRED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS IS IN ADDITION TO ANY OTHER REPORTS REQUIRED IN THE SPECIAL INSPECTIONS GUIDE SPECIFICATION.

4. **CONTINUOUS:**

   CONSTANT MONITORING OF IDENTIFIED TASKS BY A SPECIAL INSPECTOR OVER THE DURATION OF PERFORMANCE OF SAID TASKS.

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D. STRUCTURAL - STEEL - OTHER INSPECTIONS

NONDESTRUCTIVE TESTING OF WELDED JOINTS-VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC 1705.2.1, AISC 360-10			
INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL	P	VERIFY THE DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT PRIOR TO PLACEMENT OF CONCRETE

E. STRUCTURAL - STEEL - COLD-FORMED METAL DECK - PLACEMENT SECTION

METAL DECK INSPECTION PRIOR TO DECK PLACEMENT – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.1			
INSP REQ	TASK	INSP TYPE	DESCRIPTION
Y	1. VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	P	
Y	2. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	D	

METAL DECK INSPECTION DURING DECK PLACEMENT – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.2			
INSP REQ	TASK	INSP TYPE	DESCRIPTION
Y	3. VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS	P	
Y	4. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	P	
Y	5. DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES	D	

METAL DECK INSPECTION AFTER DECK PLACEMENT – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.3			
INSP REQ	TASK	INSP TYPE	DESCRIPTION
Y	6. WELDING PROCEDURE SPECIFICATION (WPS) AVAILABLE	P	
Y	7. MANUFACTURER'S CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	O	
Y	8. MATERIAL IDENTIFICATION (TYPE/GRADE)	O	
Y	9. CHECK WELDING EQUIPMENT	O	

F. STRUCTURAL - STEEL - COLD-FORMED METAL DECK - WELDING SECTION

METAL DECK INSPECTION DURING WELDING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.4			
INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. USE OF QUALIFIED WELDERS	O	
Y	2. CONTROL AND HANDLING OF WELDING CONSUMABLES	O	
Y	3. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	O	
Y	4. WPS FOLLOWED	O	

METAL DECK INSPECTION AFTER WELDING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.5			
INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	5. VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS	P	
Y	6. WELDS MEET VISUAL ACCEPTANCE CRITERIAL	P	
Y	7. VERIFY REPAIR ACTIVITIES	O	
Y	8. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	D	

G. STRUCTURAL - STEEL - COLD-FORMED METAL DECK - FASTENING SECTION

METAL DECK INSPECTION BEFORE MECHANICAL FASTENING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.6			
INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. MANUFACTURER'S INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENER'S	O	
Y	2. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	O	

METAL DECK INSPECTION DURING MECHANICAL FASTENING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.7			
INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	3. FASTENERS ARE POSITIONED AS REQUIRED	O	
Y	4. FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	O	

METAL DECK INSPECTION AFTER MECHANICAL FASTENING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, APPENDIX 1, TABLE 1.8			
INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	5. CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENER'S	P	
Y	6. CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS	P	
Y	7. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS	P	
Y	8. VERIFY REPAIR ACTIVITIES	P	
Y	9. DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENER'S	D	

INSPECTION DEFINITIONS:

1. **PERFORM:**

   PERFORM THESE TASKS FOR EACH ELEMENT, OCCURANCE, WELD, FASTENER OR BOLTED CONNETION, AND REQUIRED VERIFICATION.

2. **OBSERVE:**

   OBSERVE THESE ITEMS RANDOMLY DURING THE COURSE OF EACH WORK DAY TO INSURE THAT APPLICABLE REQUIREMENTS ARE BEING MET. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS AT CONTRACTOR'S RISK.

3. **DOCUMENT:**

   DOCUMENT, WITH A REPORT, THAT THE WORK HAS BEEN PERFOMRED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS IS IN ADDITION TO ANY OTHER REPORTS REQUIRED IN THE SPECIAL INSPECTIONS GUIDE SPECIFICATION.

4. **CONTINUOUS:**

   CONSTANT MONITORING OF IDENTIFIED TASKS BY A SPECIAL INSPECTOR OVER THE DURATION OF PERFORMANCE OF SAID TASKS.

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H. STRUCTURAL - LIGHT GAUGE STEEL FRAMING AND/OR LIGHT GAUGE TRUSSES SECTION

LIGHT GAUGE STEEL CONSTRUCTION AND CONNECTIONS – VERIFY THE FOLLOWING ARE IN COMPLIANCE
IBC 1705.2.2, 1705.11.2, 1705.11.3, UFC 4 023 03

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. TRUSSES SPANNING 60-FEET OR GREATER WHERE/IF APPLIES	P	VERIFY THAT TEMPORARY AND PERMANENT TRUSS RESTRAINT/BRACING IS INSTALLED IN ACCORDANCE WITH APPROVED TRUSS SUBMITTAL PACKAGE.
Y	2. WELDED CONNCECTIONS (SEISMIC AND/OR WIND RESISTING SYSTEM)	O	VISUALLY INSPECT ALL WELDS COMPOSING PART OF THE MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, INCLUDING SHEARWALLS, BRACES, COLLECTORS (DRAG STRUTS), AND HOLD-DOWNS
Y	3. CONNECTIONS (SEISMIC AND/OR WIND RESISTING SYSTEM)	O	VISUALLY INSPECT ALL SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, INCLUDING ROOF DECK, ROOF FRAMING, EXTERIOR WALL COVERING, WALL TO ROOF/FLOOR CONNECTIONS, BRACES, COLLECTORS (DRAG STRUTS) AND HOLD-DOWNS

I. STRUCTURAL - CONCRETE CONSTRUCTION SECTION

CONCRETE CONSTRUCTION, INCLUDING COMPOSITE DECK – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC TABLE 1705.3 (ACI 318 REFERENCES NOTED IN IBC TABLE)

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT	O	VERIFY PRIOR TO PLACING CONCRETE THAT REINFORCING IS OF SPECIFIED TYPE, GRADE AND SIZE; THAT IS FREE OF OIL, DIRT AND UNACCEPTABLE RUST; THAT IS LOCATED AND SPACED PROPERLY; THAT HOOKS, BENDS, TIES, STIRRUPS AND SUPPLEMENTAL REINFORCEMENT ARE PLACED CORRECTLY; THAT LAP LENGTHS, STAGGER AND OFFSETS ARE PROVIDED; AND THAT ALL MECHANICAL CONNECTIONS ARE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS AND/OR EVALUATION REPORT
Y	2. REINFORCING BAR WELDING	O	• VERIFY WELDABILITY OF REINFORCING BARS OTHER THA ASTM A 706 • INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16" IN ACCORDANCE WITH AWS D1.4
Y	3. ALL OTHER WELDING	C	VISUALLY INSPECT ALL WELDS IN ACCORDANCE WITH AWS D1.4
Y	4. CAST IN PLACE ANCHORS AND POST INSTALLED DRILLED ANCHORS (DOWNWARD INCLINED)	O	VERIFY PRIOR TO PLACING CONCRETE THAT CAST IN PLACE ANCHOR AND POST INSTALLED DRILLED ANCHORS HAVE PROPER EMBEDMENT, SPACING AND EDGE DISTANCE
Y	5. POST-INSTALLED ADHESIVE ANCHORS IN HORIZONTAL OR UPWARD INCLINED ORIENTATION	C & D	• INSPECT AS REQUIRED PER APPROVED ICC-ES REPORT • VERIFY THAT INSTALLER IS CERTIFIED FOR INSTALLATION OF HORIZONTAL AND OVERHEAD APPLICATIONS • INSPECT PROOF LOADING AS REQUIRED BY THE • CONTRACT DOCUMENTS
Y	6. VERIFY USE OF REQUIRED MIX DESIGN	O	VERIFY THAT ALL MIXES USED COMPLY WITH THE APPROVED CONSTRUCTION DOCUMENTS
Y	7. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORMSLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	C	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TEST VERIFY THESE TESTS ARE PERFORMED BY QUALIFIED TECHNICIANS
Y	8. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	C	VERIFY PROPER APPLICATION TECHNIQUES ARE USED DURING CONCRETE CONVEYANCE AND DEPOSITING AVOIDS SEGREGATION OR CONTAMINATION. VERIFY THAT CONCRE...
Y	9. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUE	O	INSPECT CURING, COLD WEATHER PROTECTION, AND HOT WEATHER PROTECTION PROCEDURES
Y	10. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	O	

J. STRUCTURAL - MASONRY CONSTRUCTION SECTION (ALL RISK CATEGORIES)

MASONRY CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE AT START OF CONSTRUCTION IBC 1705.4 (ACI 530-13 TABLE 3.1.2 & 3.1.3)

INSP REQ ?	TASK	INSP TYPE	DESCRIPTION
Y	1. COMPLIANCE WITH APPROVED SUBMITTALS PRIOR TO START	O	
Y	2. PROPORTIONS OF SITE-MIXED MORTAR	O	
Y	3. GRADE AND TYPE OF REINFORCEMENT, ANCHOR BOLTS, AND ANCHORAGES	O	

MASONRY CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE PRIOR TO GROUTING IBC 1705.4 (ACI 530-13 TABLE 3.1.2 & 3.1.3)

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	4. GROUT SPACE	O	
Y	5. PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS	O	
Y	6. WELDING OF REINFORCEMENT	C	

MASONRY CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE DURING CONSTRUCTION IBC 1705.4 (ACI 530-13 TABLE 3.1.2 & 3.1.3)

INSP REQ ?	TASK	INSP TYPE	DESCRIPTION
Y	7. SIZE AND LOCATION OF STRUCTURAL ELEMENTS IS IN COMPLIANCE	O	
Y	8. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 DEGREES (4.4 DEGREES CELSIUS) OR HOT WEATHER (TEMP ABOVE 9 DEGREES FARENHEIT 932.2 DEGRESS CELSIUS)	O	
Y	9. OBSERVE PREPARATION OF GROUT SPECIMENS,MORTAR SPECIMENS, AND/OR PRISMS	O	
Y	10. TYPE, SIZE AND PLACEMENT OF REINFORCEMENT, CONNECTORS, ANCHOR BOLTS AND ANCHORAGES, INDLUDING DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	O	

K. GEOTECHNICAL - SOILS INSPECTION SECTION

SOILS INSPECTION - VERIFY THE FOLLOWING ARE IN COMPLIANCE...

INSP REQ?	TASK	INSP TYPE	DESCRIPTION
Y	1. MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	O	
Y	2. EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		
Y	3. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	C	
Y	4. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	O	DURING FILL PLACEMENT, THE SPECIAL INSPECTOR SHALL VERIFY THAT PROPER MATERIALS AND PROCEDURES ARE USED IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT

INSPECTION DEFINITIONS:

1. **PERFORM:**

   PERFORM THESE TASKS FOR EACH ELEMENT, OCCURANCE, WELD, FASTENER OR BOLTED CONNETION, AND REQUIRED VERIFICATION.

2. **OBSERVE:**

   OBSERVE THESE ITEMS RANDOMLY DURING THE COURSE OF EACH WORK DAY TO INSURE THAT APPLICABLE REQUIREMENTS ARE BEING MET. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS AT CONTRACTOR'S RISK.

3. **DOCUMENT:**

   DOCUMENT, WITH A REPORT, THAT THE WORK HAS BEEN PERFOMRED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS IS IN ADDITION TO ANY OTHER REPORTS REQUIRED IN THE SPECIAL INSPECTIONS GUIDE SPECIFICATION.

4. **CONTINUOUS:**

   CONSTANT MONITORING OF IDENTIFIED TASKS BY A SPECIAL INSPECTOR OVER THE DURATION OF PERFORMANCE OF SAID TASKS.

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5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
BON SECOUR MWR, AL

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182.00
DATE: 05/02/2024
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SHEET TITLE
SPECIAL INSPECTIONS

SHT. NO. S-005
REV. NO.

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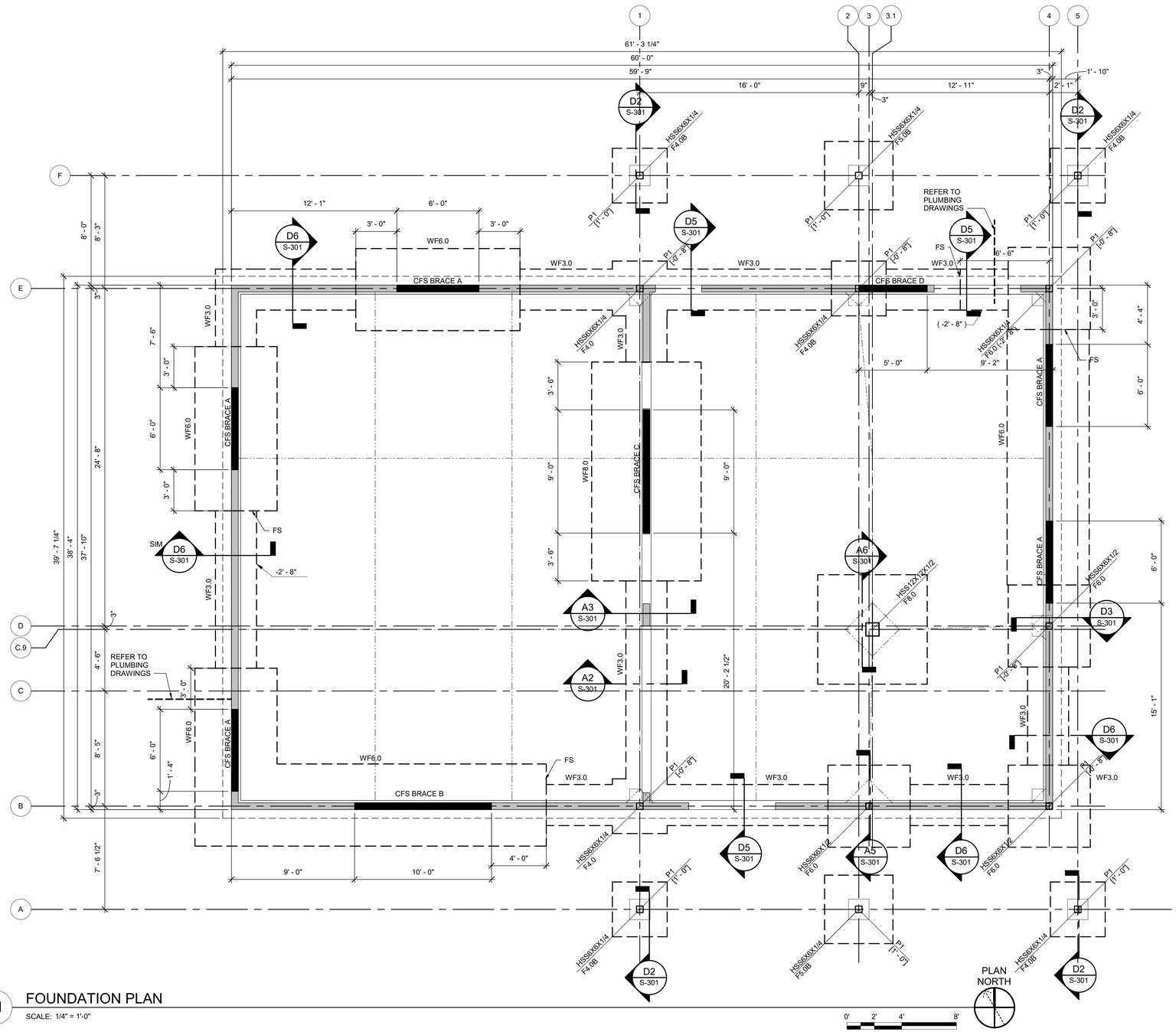

A1 FOUNDATION PLAN

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

FOUNDATION PLAN NOTES

1. ALL ELEVATIONS ARE RELATIVE TO THE REFERENCE FINISH FLOOR ELEVATION = 0'-0" (ACTUAL 11.75') - SEE CIVIL FOR ADDITIONAL INFORMATION.
2. TOP OF CONCRETE SLAB MUST BE 0'-0" UNLESS NOTED OTHERWISE.
3. TOP OF ALL FOOTINGS ARE -2'-0" UNLESS NOTED OTHERWISE.
3. SLAB ON GRADE MUST BE 5" THICK OVER 6" GRANULAR FILL REINFORCED WITH 6x6 W2.9x2.9 WWF UNLESS NOTED OTHERWISE.
4. UTILITIES HAVE BEEN SHOWN ON THE DRAWINGS FOR REFERERENCE ONLY. THE CONTRACTOR MUST COORDINATE ALL UTILITIES IN THE FIELD.
5. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS WHERE THE SLAB ON GRADE IS DEPRESSED. REFER TO DETAIL ON S-501 FOR STRUCTURAL REQUIREMENTS.

6. (X'-X") EXAMPLE, DENOTES THE TOP OF THE FOOTING RELATIVE TO THE REFERENCED FINISH FLOOR ELEVATION. UNLESS NOTED OTHERWISE, TOP OF FOOTING -2'-0" TYPICAL.
7. FX.0 EXAMPLE, DENOTES FOOTING SIZE. REFER TO FOOTING SCHEDULE ON THIS SHEET.
8. FS EXAMPLE, DENOTES FOOTING STEP. REFER TO S-501.
9. EXAMPLE, DENOTES LOAD-BEARING CFS WALL.
10. EXAMPLE, DENOTES CFS FLAT STRAP BRACING
11. EXAMPLE, DENOTES CONTROL JOINT IN SLAB ON GRADE, REFER TO S-501 FOR ADDITIONAL INFORMATION.
12. P1 EXAMPLE, DENOTES REINFORCED CONCRETE PIER, REFER TO S-501 FOR ADDITIONAL INFORMATION.
13. [X'-X"] EXAMPLE, DENOTES TOP OF PIER ELEVATION REFERENCED FROM FINISH FLOOR.
14. EXAMPLE, DENOTES BUILDING LINE.
15. X EXAMPLE, DENOTES CFS WALL STUD SIZE, SEE S-511 FOR ADDITIONAL INFORMATION. ALL CFS STUD SPACING IS 16" OC MAX UNLESS NOTED OTHERWISE.

COLUMN FOOTING SCHEDULE

MARK	DIMENSIONS WIDTH	LENGTH	DEPTH	REINFORCING
F4.0	4' - 0"	4' - 0"	1' - 4"	(5) #5 EW BOTT
F4.0B	4' - 0"	4' - 0"	2' - 0"	(5) #5 EW TOP&BOTT
F5.0	5' - 0"	5' - 0"	1' - 4"	(6) #5 EW BOTT
F5.0B	5' - 0"	5' - 0"	2' - 0"	(6) #5 EW TOP&BOTT
F6.0	6' - 0"	6' - 0"	2' - 0"	(7) #5 EW TOP&BOTT
F8.0	8' - 0"	8' - 0"	2' - 0"	(9) #5 EW TOP&BOTT

WALL FOOTING SCHEDULE

MARK	DIMENSIONS WIDTH	DEPTH	REINFORCING
WF3.0	3' - 0"	1' - 4"	(3) #5 LONG, #5 @10" OC SHORT, TOP & BOTT
WF6.0	6' - 0"	2' - 6"	(6) #5 LONG, #5 @10" OC SHORT, TOP & BOTT
WF8.0	8' - 0"	3' - 0"	(8) #5 LONG, #5 @10" OC SHORT, TOP & BOTT

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5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

BON SECOUR MWR, AL

MRK	DATE	REVISION DESCRIPTION

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SHEET TITLE

FOUNDATION PLAN

SHT. NO. S-101 | REV. NO.

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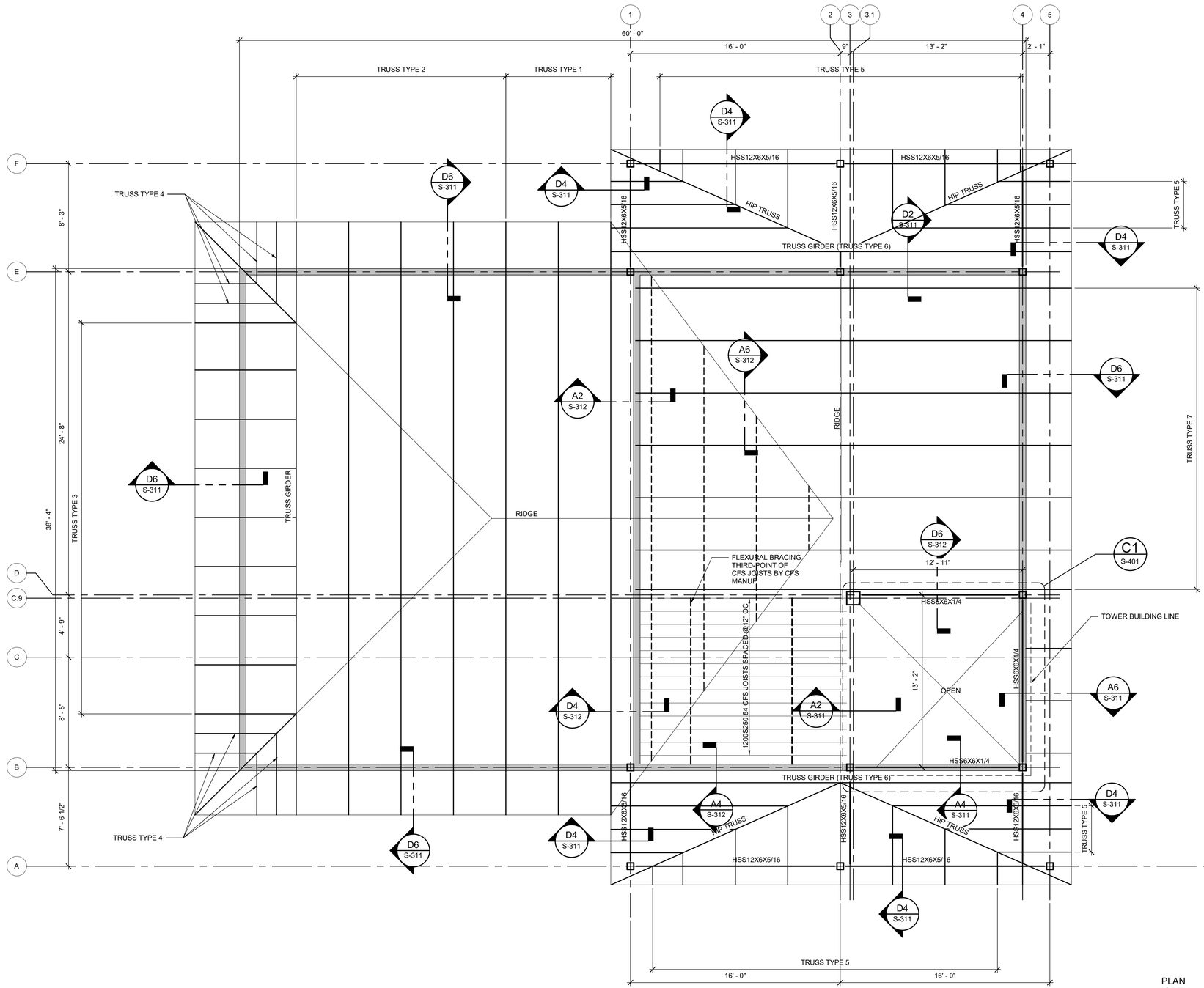

A1 ROOF FRAMING PLAN

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

PLAN NORTH

0' 2' 4' 8'

FOUNDATION PLAN NOTES

1. ALL ELEVATIONS ARE RELATIVE TO THE REFERENCE FINISH FLOOR ELEVATION = 0'-0" (ACTUAL = 11.75') - SEE CIVIL FOR ADDITIONAL INFORMATION.
2. TRUSS BEARING ELEVATION, UNLESS OTHERWISE NOTED, MUST BE 23.75' RELATIVE TO THE REFERENCE FINISH FLOOR ELEVATION.
3. TOP OF CFS WALL ELEVATION, UNLESS NOTED OTHERWISE, MUST BE 23.75' RELATIVE TO THE REFERENCE FINISH FLOOR ELEVATION.
4. ROOF DECK MUST BE 1 1/2" 20 GAUGE TYPE B ROOF DECKING. FASTEN DECK TO SUPPORTS WITH #12 SCREW AT 36/4 ATTACHMENT PATTERN. PROVIDE (4) #10 SCREWS AT DECK SIDELAPS. REFER TO S-521 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. REFER TO S-201 FOR CFS TRUSS FRAMING REQUIREMENTS.
6. ALL ROOF FRAMING MUST BE BRACED BY THE CONTRACTOR/ERECTOR UNTIL THE DIAPHRAGM AND WALLS HAVE BEEN COMPLETELY INSTALLED.
7. (X'-X") EXAMPLE, DENOTES TOP OF STEEL
8. ▶— INDICATES MOMENT CONNECTION
9. – – – – – INDICATES OVERBUILD TRUSSES AT 4'-0" OC MAX.

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ROOF FRAMING PLAN

SHT. NO. S-102

REV. NO.

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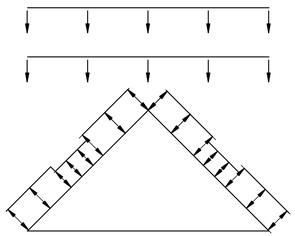


ROOF LL=20 PSF

(MAX) SUPERIMPOSED DL=15 PSF
(MIN) SUPERIMPOSED DL=5 PSF

WIND PRESSURES,
SEE S-602

BOTTOM CHORD
SUPERIMPOSED DL=10 PSF
TYP UNO

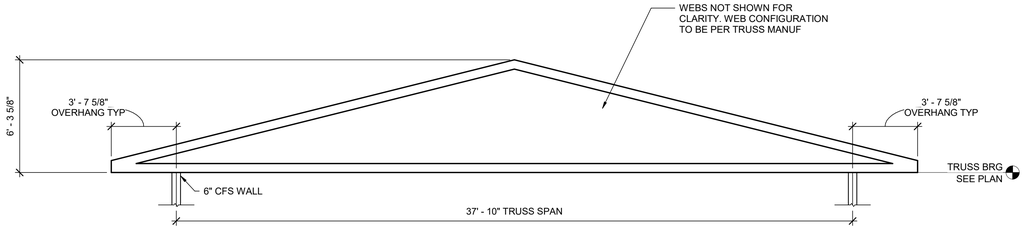
BOTTOM CHORD LIVE LOAD: 10 PSF

NOTES:

1. PROVIDED SUPERIMPOSED DEAD, LIVE & SNOW LOADS ARE UNFACTORED.
2. SELF-WEIGHT OF TRUSS NOT INCLUDED IN PROVIDED SUPERIMPOSED LOAD.
2. REFER TO ROOF PRESSURE DIAGRAM ON S-602 FOR WIND LOAD.
3. TRUSS DESIGNER MUST CHECK ALL REQUIRED LOAD COMBINATIONS PER ASCE 7, CHAPTER 2.
4. DESIGN TRUSSES FOR 5,000 LBS POINT LOAD IN ANY DIRECTION AT ROOF TIE-OFFS. SEE ARCH FOR ROOF TIE-OFF LOCATIONS.

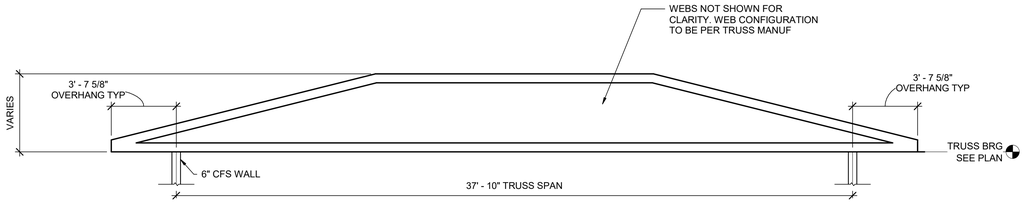
D6 TRUSS LOADING DIAGRAM

NOT TO SCALE:



E3 TRUSS TYPE 1

NOT TO SCALE



D3 TRUSS TYPE 2

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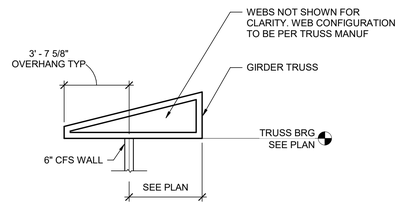

C6 TRUSS TYPE 3

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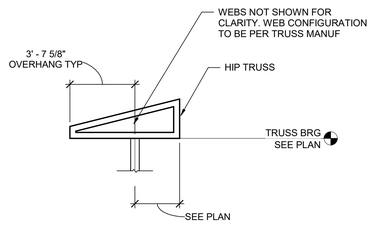
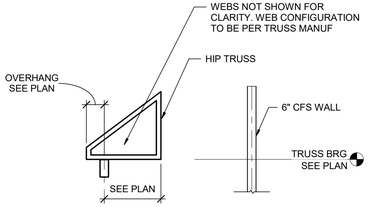


C5 TRUSS TYPE 4

NOT TO SCALE



C4 TRUSS TYPE 5

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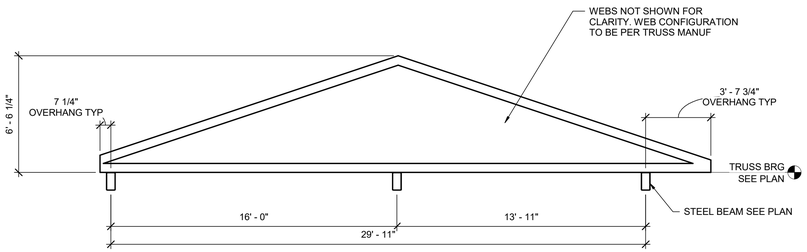

C3 TRUSS TYPE 6

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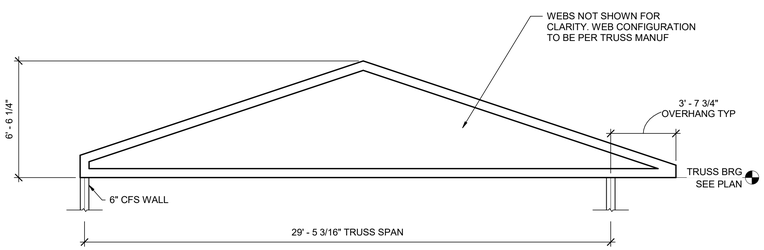

A6 TRUSS TYPE 7

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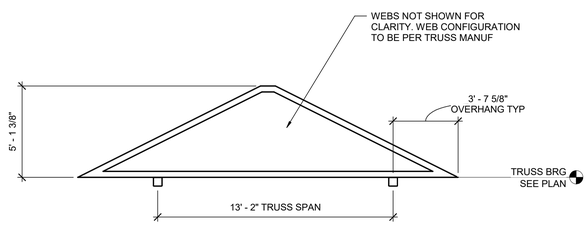

A4 TRUSS TYPE 8

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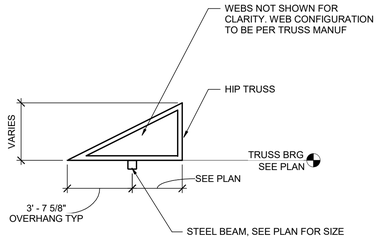

A3 TRUSS TYPE 9

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WILDLIFE REFUGE

BON SECOUR VISITOR
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BON SECOUR MWR, AL

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SHEET TITLE

TRUSS ELEVATIONS

SHT. NO.	REV. NO.
S-201	

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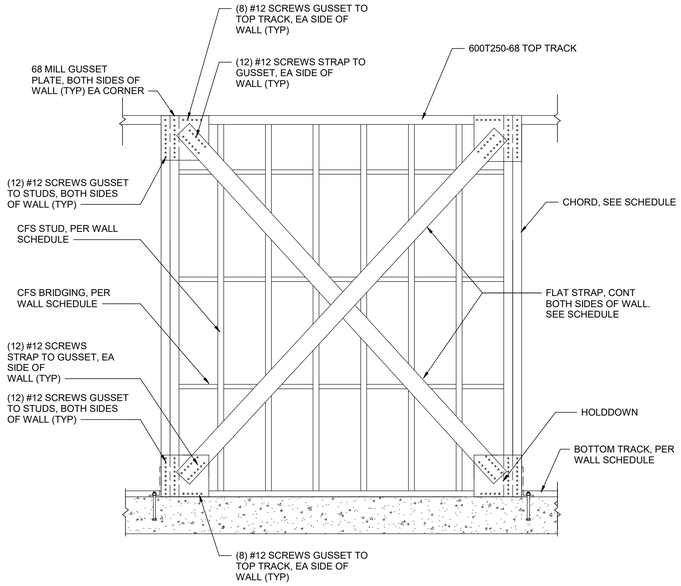
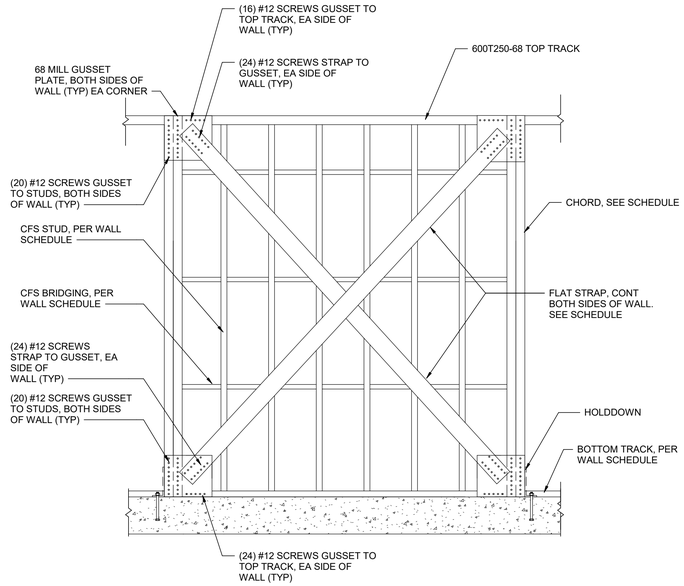


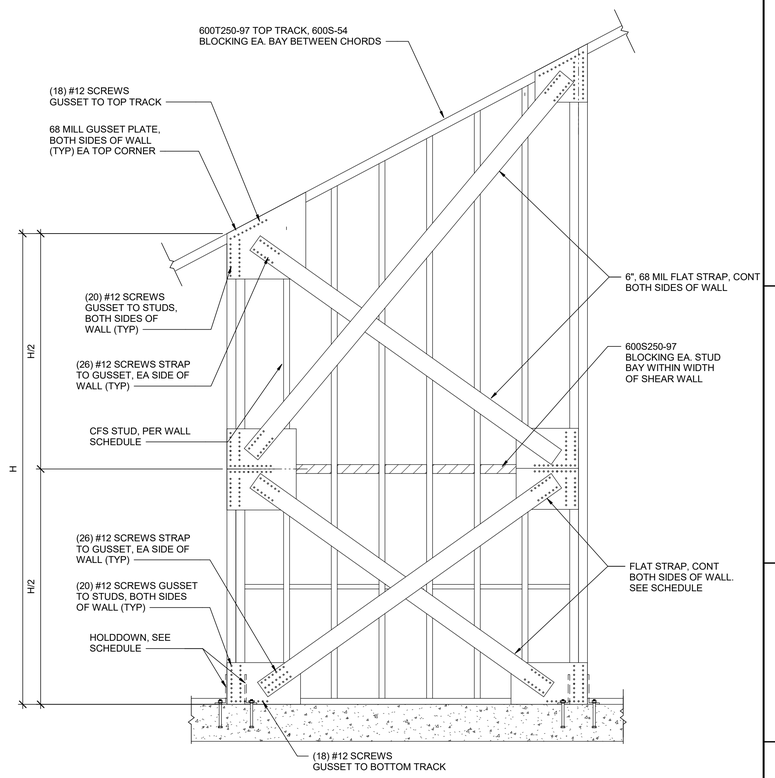
D6 BRACE A - STRAP BRACE FRAME

NOT TO SCALE



D4 BRACE B - STRAP BRACE FRAME

NOT TO SCALE

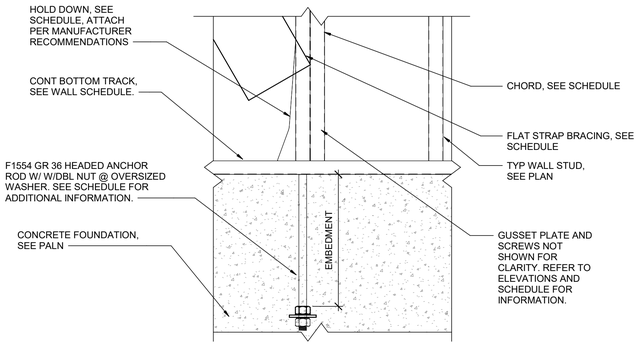


D2 BRACE C - STRAP BRACE FRAME

NOT TO SCALE

A6 BRACE D - STRAP BRACE FRAME

NOT TO SCALE



A4 DETAIL - CFS SHEAR WALL ANCHORAGE

NOT TO SCALE

CFS SHEAR WALL SCHEDULE								
MARK	LENGTH	CHORDS	DIAGONAL STRAPS		HOLDDOWN (NOTE 2)			
		EXTERIOR	"A"	"B"	PRODUCT	SCEWS	ANCHOR	EMBEDMENT
A	6'-0"	(2) 600S250-68	6" x 54 MIL	6" x 54 MIL	(1) CD8	(17) #14	7/8" DIA	0' - 10"
B	9'-0"	(2) 600S250-68	6" x 54 MIL	6" x 54 MIL	(1) CD8	(17) #14	7/8" DIA	0' - 10"
C	8'-0"	(2) 600S250-68 (BOXED)	6" x 68 MIL	6" x 68 MIL	(2) CD10	(23) #14	7/8" DIA	0' - 10"
D	5'-0"	(2) 600S250-68	6" x 54 MIL	6" x 54 MIL	(1) CD8	(17) #14	7/8" DIA	0' - 10"

NOTES:
1. ALL CHORDS ARE BACK-TO-BACK MEMBERS OF LISTED ABOVE UNLESS NOTED OTHERWISE.
2. PROVIDE CLARKDIETRICH OR EQUIVALENT HOLDDOWNS.
3. LISTED HOLDDOWN SCREWS ARE FOR EACH HOLDOWN.
4. 'H' INDICATEDS HEIGHT FROM TOP OF THE CONCRETE SLAB TO THE BOTTOM OF ROOF DECK.

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BON SECOUR MWR, AL

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CFS STRAP BRACE ELEVATIONS

SHT. NO.	REV. NO.
S-202	

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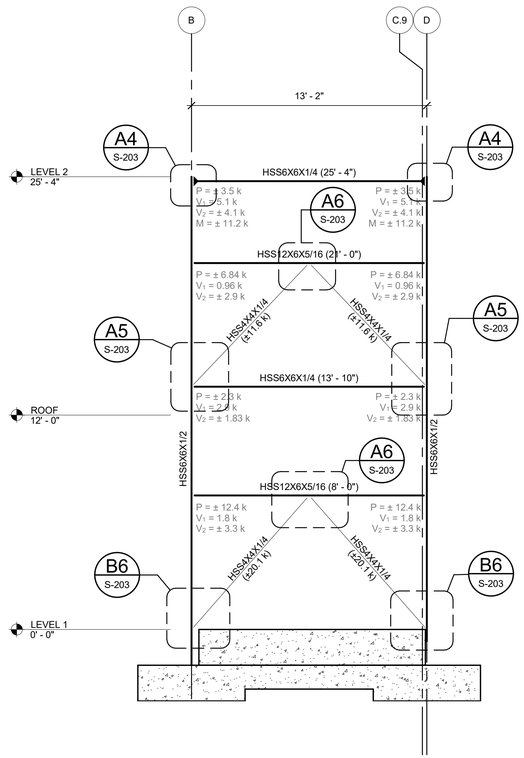
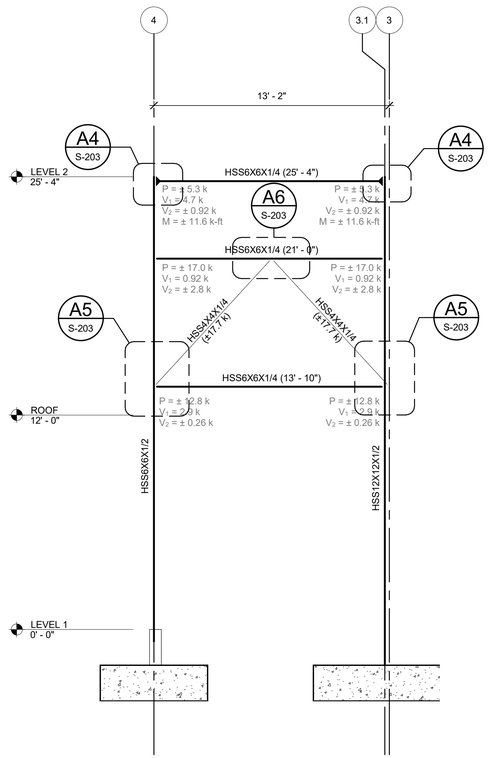


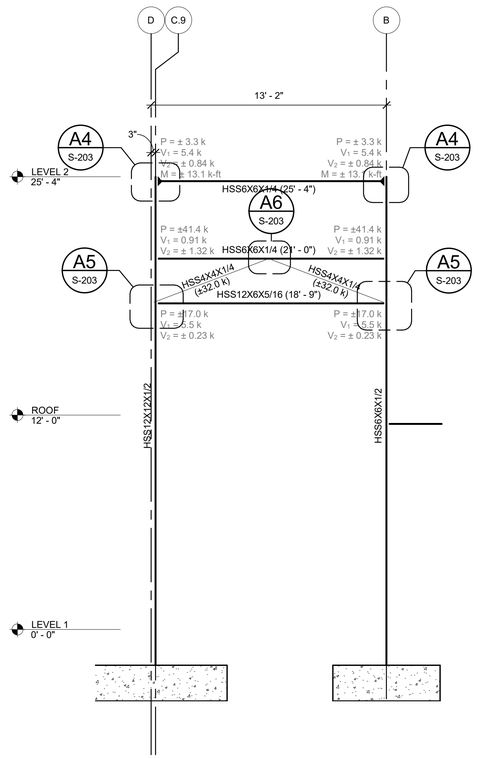
C6 TOWER ELEVATION

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



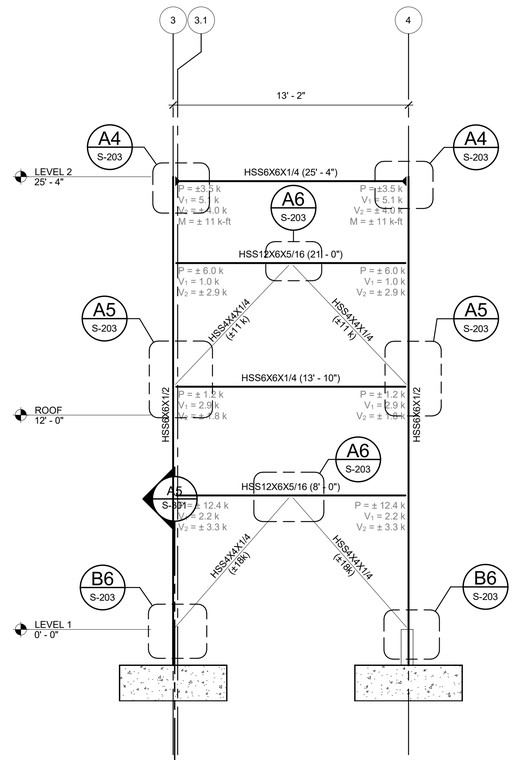
C5 TOWER ELEVATION

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



C3 TOWER ELEVATION

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



C2 TOWER ELEVATION

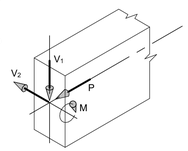
SCALE: 1/4" = 1'-0"

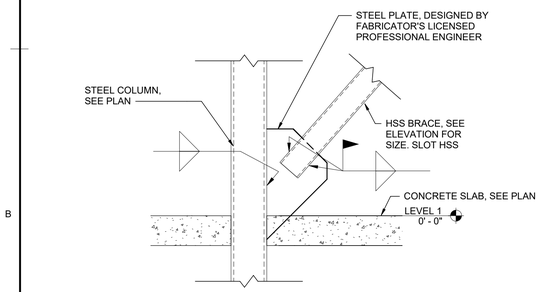
BRACED FRAME NOTES

1. DETAILS SHOWN ON SCHEMATIC AND ARE NOT FULLY DESIGNED. ALL DETAILS MUST BE DESIGNED BY THE FABRICATOR'S LICENSE PROFESSIONAL ENGINEER. SIGNED AND SEALED CALCULATIONS AND DETAILS OF EACH DELEGATED DESIGN CONENCTION MUST BE SUBMITTED TO THE DOR FOR REVIEW. SEE STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.
2. FORCES DENOTED (XXXK), EXAMPLE, IN FRAMING ELEVATIONS ARE THE UNREDUCED, FACTORED ENEVELOPE LOADS FOR LOAD AND RESISTANCE FACTOR DESIGN (LRFD) USING AISC 360 SPECIFICATIONS. LOADS ARE SPECIFIED AS FOLLOWS:
   - V_1 SHEAR LOAD IN VERTICAL DIRECTION RELATIVE TO BEAM IN KIPS (K)
   - V2 SHEAR LOAD IN HORIZONTAL DIRECTION RELATIVE TO BE IN KIPS (K)
   - M FLEXURAL MOMENT IN KIP-FT (K-FT)
   - P AXIAL LOAD IN KIPS (K)
3. ALL AXIAL FORCES MUST BE CONSIDERED "+/-", DENOTING "TENSION/COMPRESSION".

LEGEND:

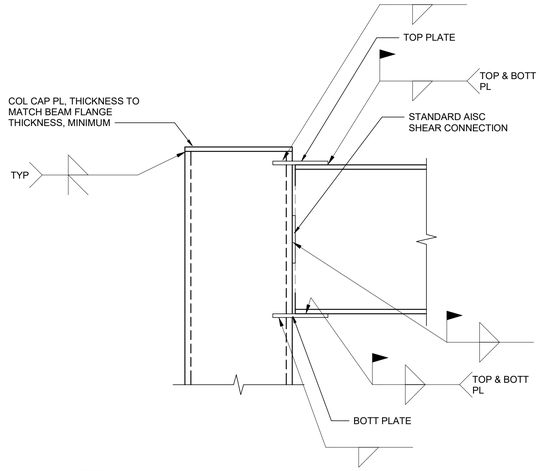
DENOTES MOMENT CONNECTION, SEE TYPICAL DETAILS FOR SCHEMATIC CONNECTIONS.





B6 DETAIL

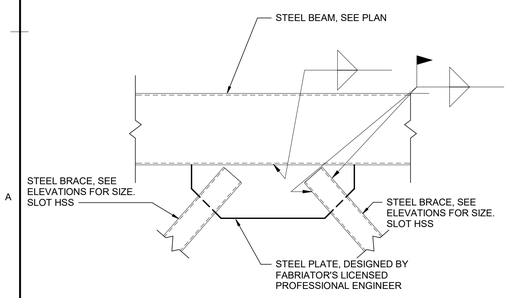
NOT TO SCALE



NOTES:
1. USE AISC STANDARD HOLES OR HORIZONTAL SHORT SLOTTED HOLES IN SHEAR PLATE. HARDENED WASHERS ARE REQUIRED WITH SLOTTED HOLES.
2. FOR CONDITION AT ROOF, BEAM CAN BE AT EITHER OR BOTH SIDES OF COLUMN.
3. SHEAR CONNECTIONS MUST DEVELOP MAXIMUM UNIFORM LOADS INDICATED IN BEAM TABLES 3-6 IN THE "MANUAL OF STEEL CONSTRUCTION".

A4 DETAIL

NOT TO SCALE



A6 DETAIL

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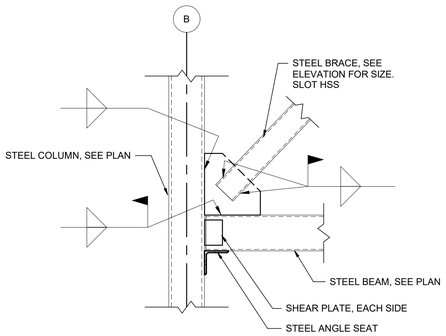

A5 DETAIL

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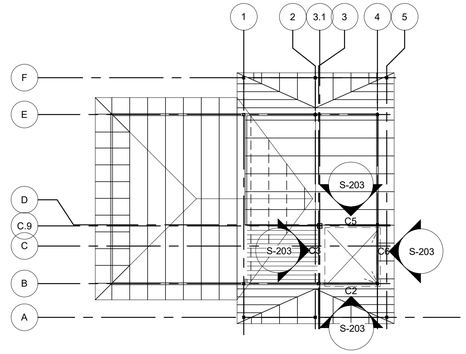

5 TOWER ELEVATION KEY PLAN

S-203

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FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION

BON SECOUR MWR, AL

MRK.	DATE	REVISION DESCRIPTION

COMM NO:	230182.00
DATE:	05/02/2024
DRAWN:	JH
DESIGN:	JH
CHECK:	JR

SHEET TITLE

TOWER ELEVEVATIONS

SHT. NO. S-203

REV. NO.

5/2/2024 1:59:51 PM
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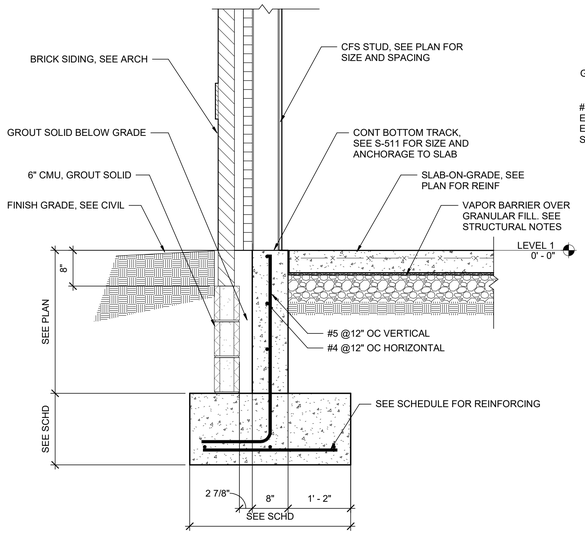

D6 SECTION
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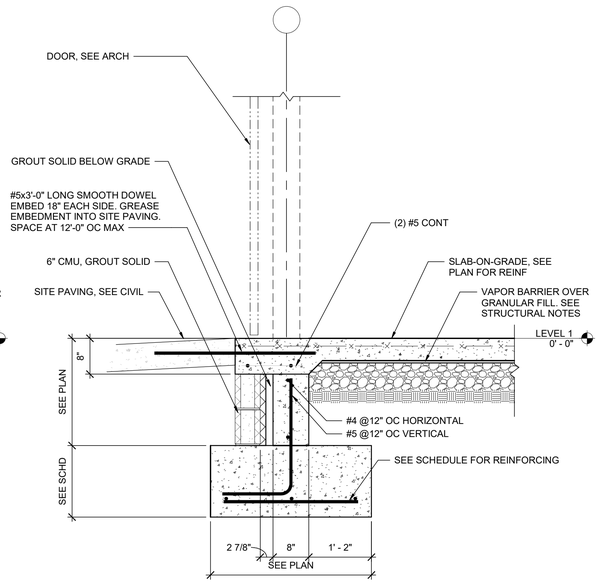

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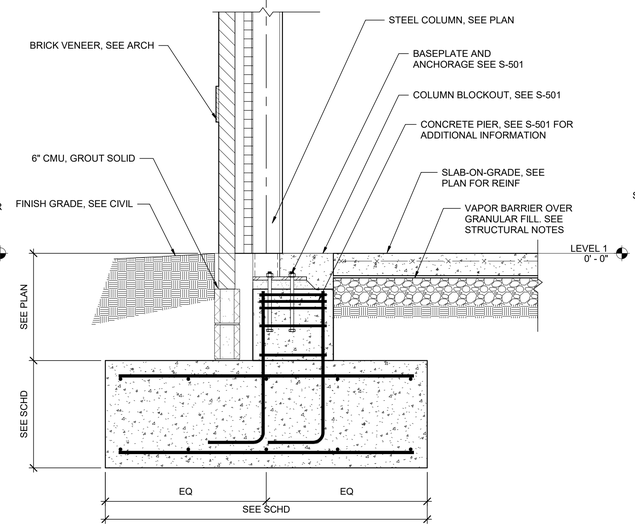

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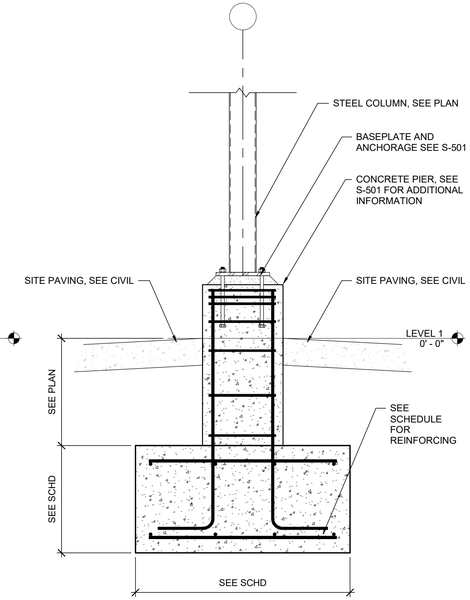

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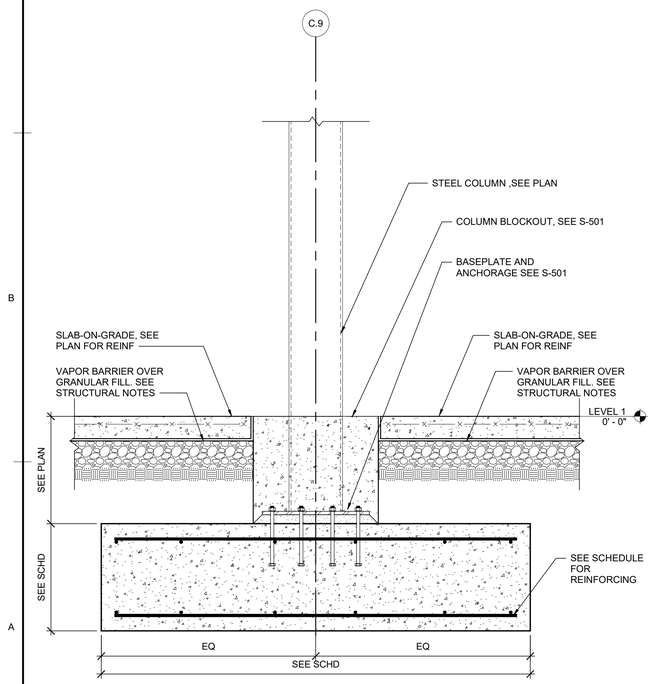

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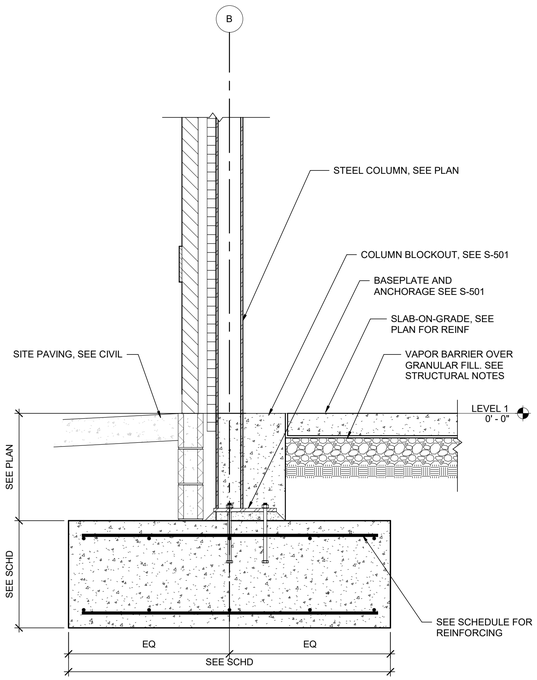

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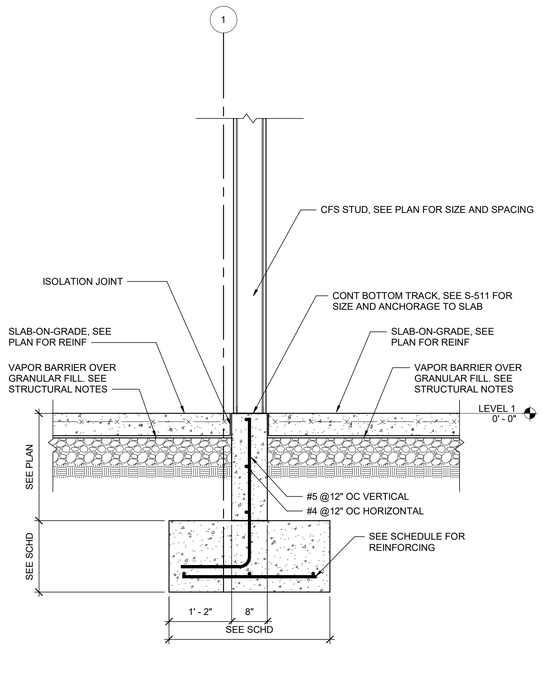

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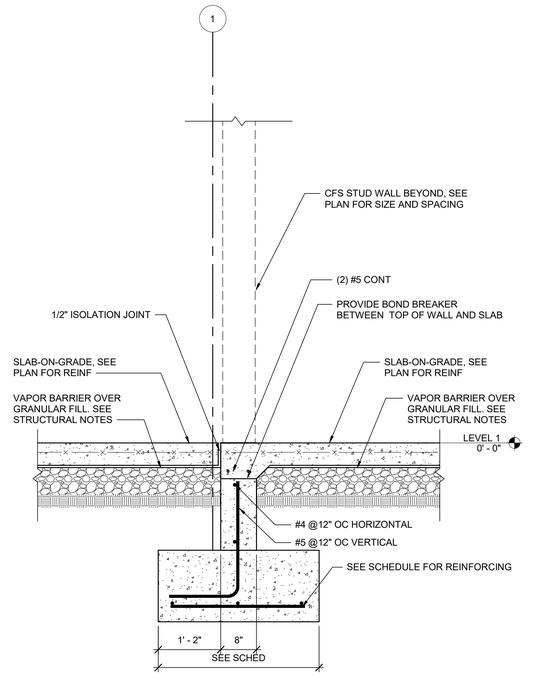

A2 SECTION
SCALE: 3/4" = 1'-0"

0' 1' 2' 3'

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U.S. FISH & WILDLIFE SERVICE

ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 20276 ROBERTA BEST
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
BON SECOUR MWR, AL

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182.00
DATE:	05/02/2024
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CHECK:	JR

SHEET TITLE

STRUCTURAL SECTIONS

SHT. NO. S-301

REV. NO.

5/2/2024 1:59:52 PM
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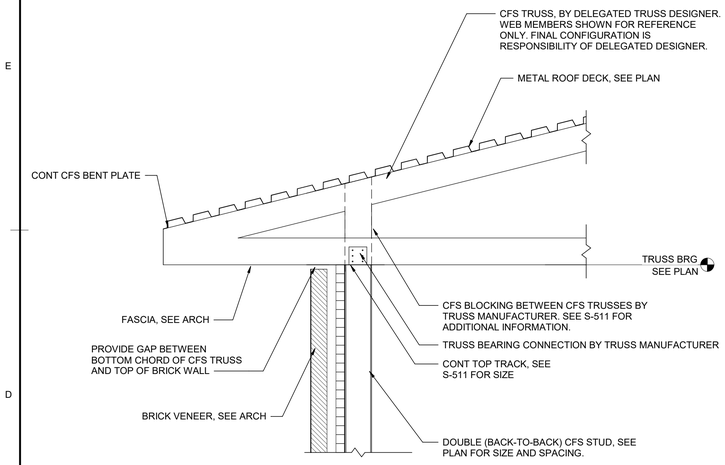
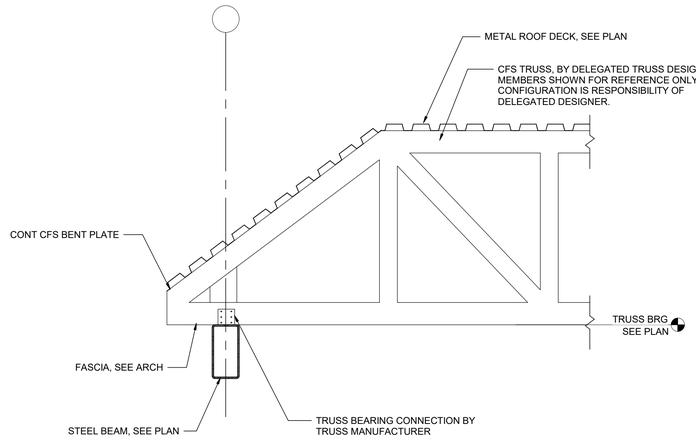


D6 SECTION

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



D4 SECTION

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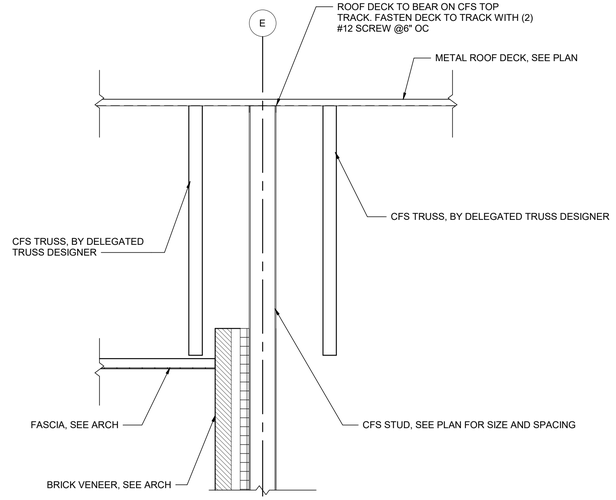

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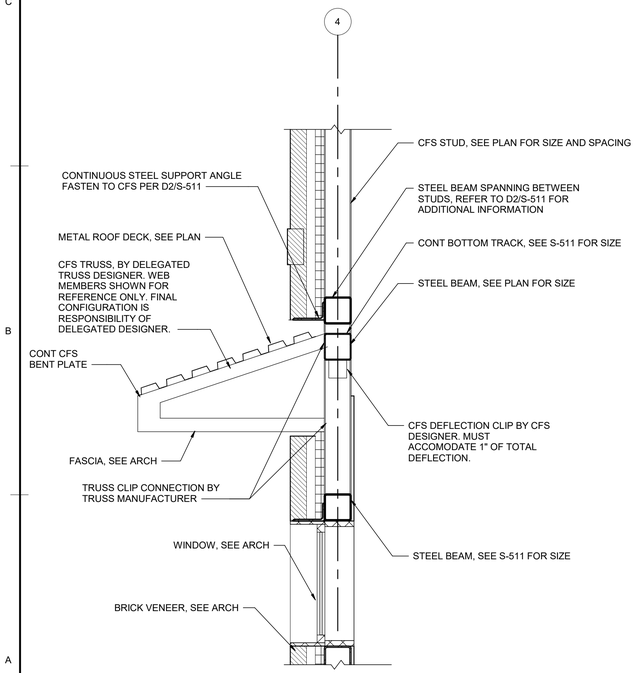

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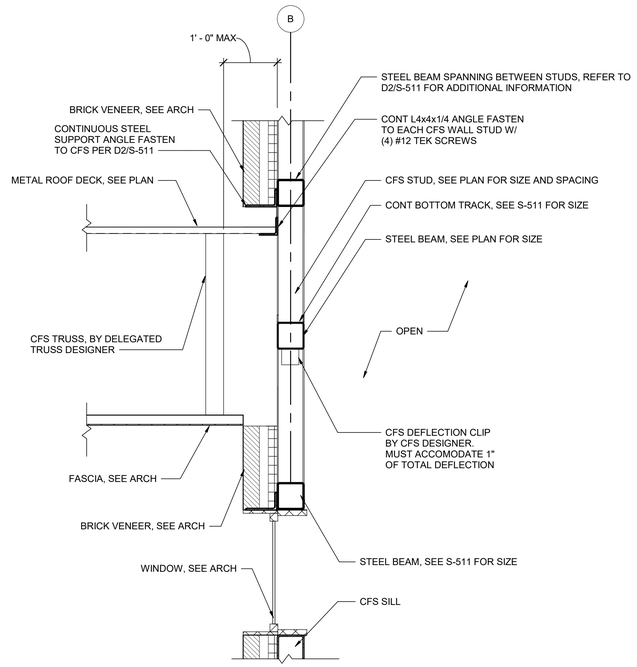

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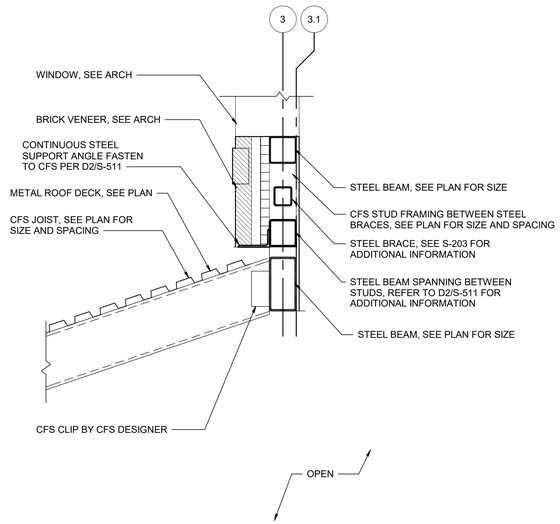

A2 SECTION

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

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U.S. FISH & WILDLIFE SERVICE

ALABAMA REGISTERED No. 20276 PROFESSIONAL ENGINEER ROBERT A BEST
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION

BON SECOUR MWR, AL

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182.00
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DRAWN: JH | DESIGN: JH
CHECK: JR

SHEET TITLE

STRUCTURAL SECTIONS

SHT. NO. S-311

REV. NO.

5/2/2024 1:59:53 PM
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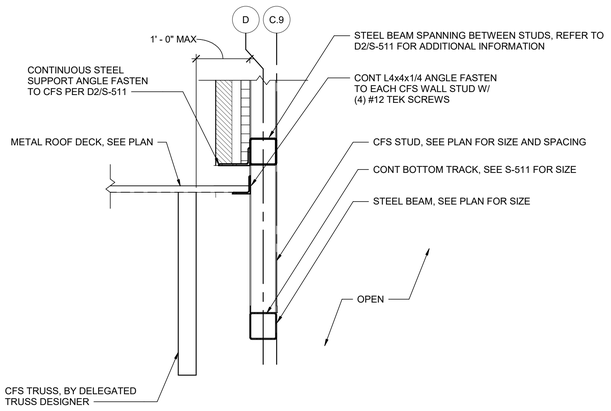

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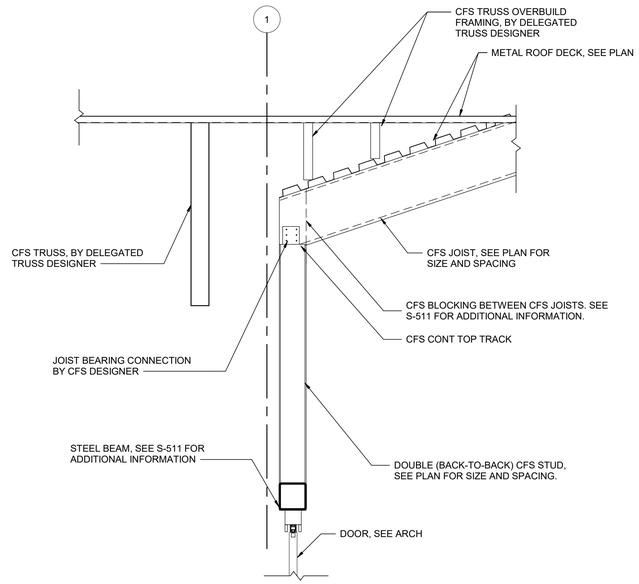

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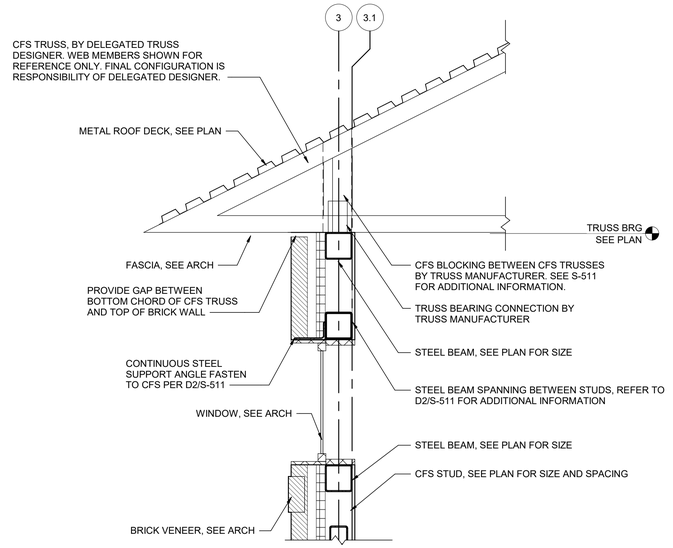

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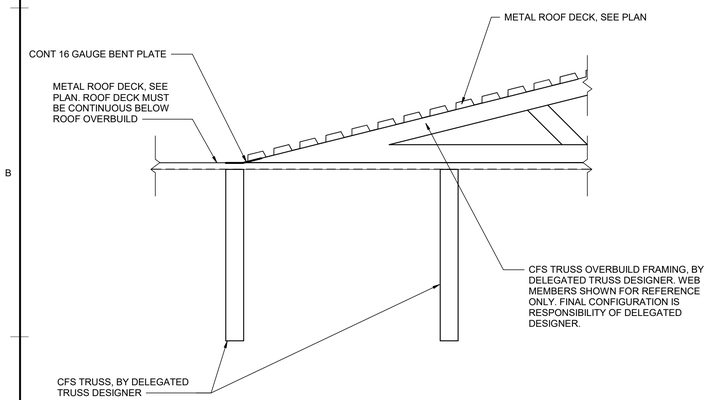

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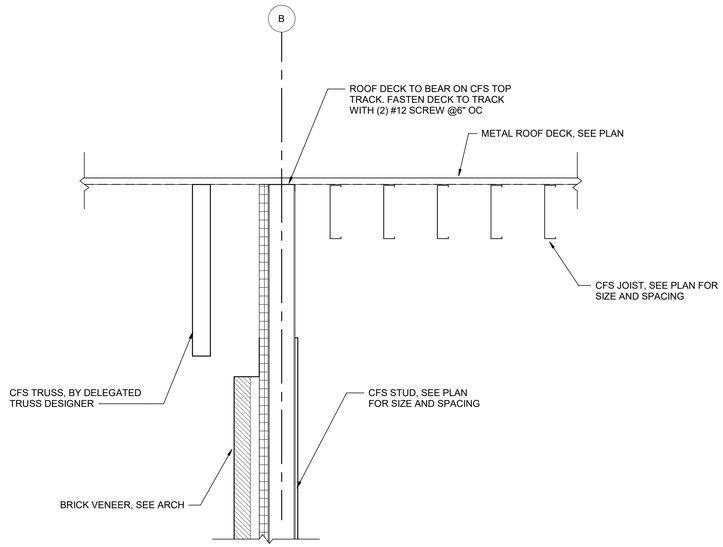

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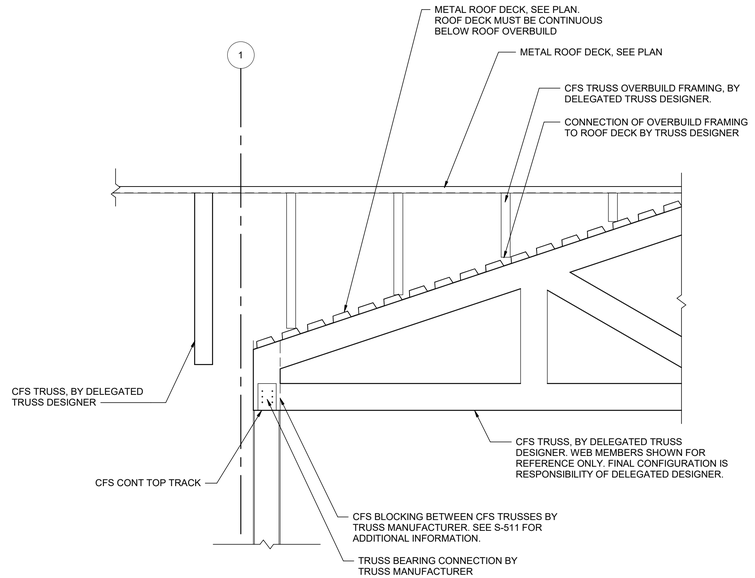

A2 SECTION

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

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U.S. FISH & WILDLIFE SERVICE

ALABAMA REGISTERED No. 25078 PROFESSIONAL ENGINEER ROBERT A. PRICE 5/22/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION

BON SECOUR MWR, AL

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SHEET TITLE

STRUCTURAL SECTIONS

SHT. NO.	REV. NO.
S-312	

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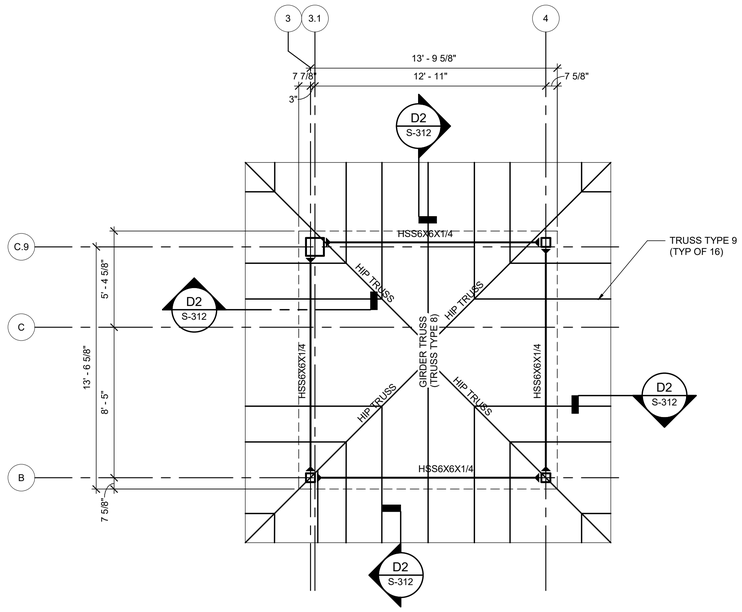

C1 HIGH ROOF FRAMING PLAN

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

1. ALL ELEVATIONS ARE RELATIVE TI THE REFERENCE FINISH FLOOR ELEVATION = 0'-0" (ACTUAL = 11.75') - SEE CIVIL FOR ADDITIONAL INFORMATION.
2. TRUSS BEARING ELEVATION, UNLESS OTHERWISE NOTED, MUST BE 36'-11" RELATIVE TO THE REFERENCE FINISH FLOOR ELEVATION.
3. TOP OF CFS WALL ELEVATION, UNLESS NOTED OTHERWISE, MUST BE 36'-11"RELATIVE TO THE REFERENCE FINISH FLOOR ELEVATION.
4. ROOF DECK MUST BE 1 1/2" 20 GAUGE TYPE B ROOF DECKING. FASTEN DECK TO SUPPORTS WITH #12 SCREW AT 36/4 ATTACHMENT PATTERN. PROVIDE (4) #10 SCREWS AT DECK SIDELAPS. REFER TO S-521 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. REFER TO S-201 FOR CFS TRUSS FRAMING REQUIREMENTS.
6. ALL ROOF FRAMING MUST BE BRACED BY THE CONTRACTOR/ERECTOR UNTIL THE DIAPHRAGM AND WALLS HAVE BEEN COMPLETELY INSTALLED.
7. (X'-X") EXAMPLE, DENOTES TOP OF STEEL
8. ▶— INDICATES MOMENT CONNECTION

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ALABAMA REGISTERED No. 20376 PROFESSIONAL ENGINEER ROBERTA BRIGHT
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

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CHECK: JR

SHEET TITLE

PARTIAL PLANS

SHT. NO. S-401
REV. NO.

5/2/2024 1:59:54 PM
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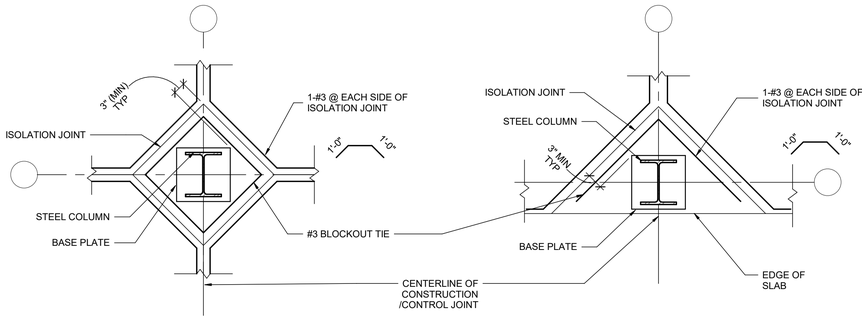
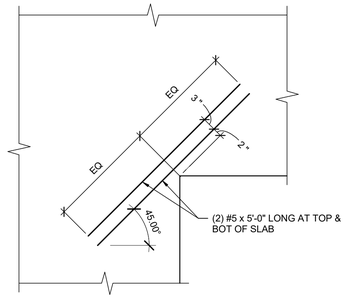


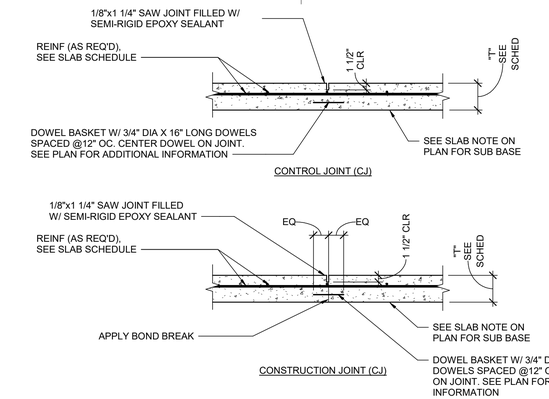
D6 TYPICAL COLUMN BLOCKOUT

NOT TO SCALE:



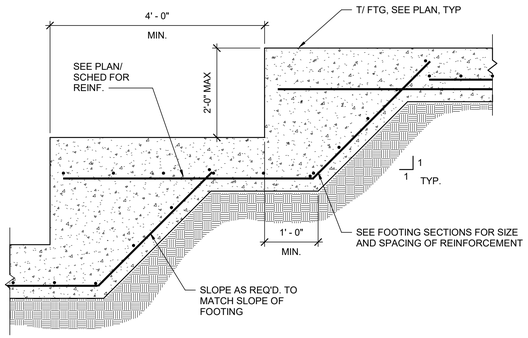
D4 TYPICAL SLAB INSIDE CORNER

NOT TO SCALE:



D2 TYPICAL SLAB ON GRADE JOINT

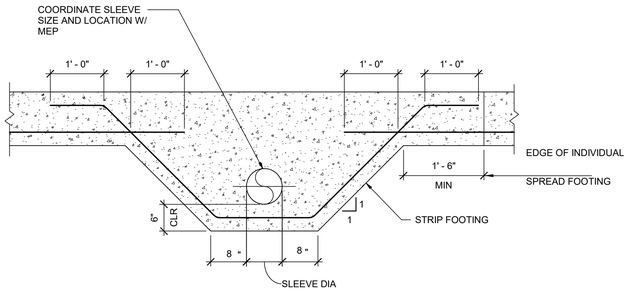
NOT TO SCALE:



NOTE: SEE PLAN FOR LOCATION OF STEPS. DETAILS FOR SINGLE STEP SIMILAR.

C6 TYPICAL STEP FOOTING DETAIL

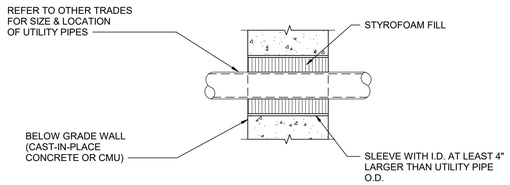
NOT TO SCALE:



NOTE:
1. ALL UNDERGROUND UTILITIES MUST PASS ABOVE BEARING ELEVATION
2. THIS DETAIL APPLIES TO CONTINUOUS FOOTINGS, NOT SPREAD FOOTINGS.

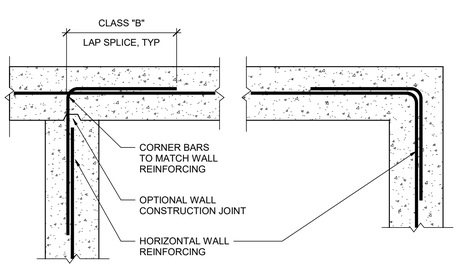
C4 TYPICAL SLEEVE FOR UNDERGROUND UTILITIES

NOT TO SCALE:

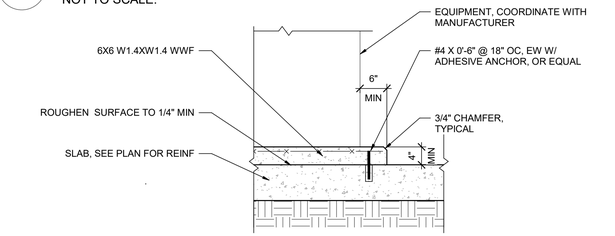


B4 TYPICAL BELOW GRADE UTILITY PENETRATION

NOT TO SCALE:

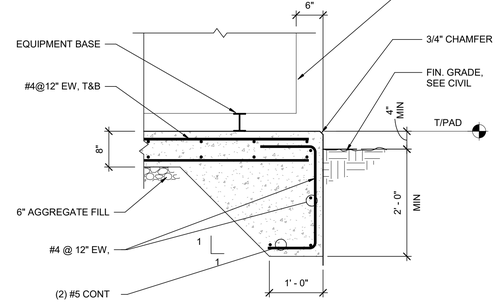


NOTES:
1. VERTICAL REINFORCING NOT SHOWN FOR CLARITY.
2. FOUNDATION WALL LEDGE NOT SHOWN FOR CLARITY.
3. "W" = FOUNDATION WALL WIDTH.



C2 TYPICAL INTERIOR EQUIPMENT PAD

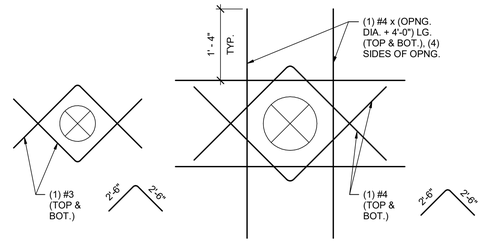
NOT TO SCALE:



NOTE:
1. SEE CIVIL DRAWINGS FOR PAD LOCATION AND EXTENT.
2. COORD PAD DIM W/ ACTUAL EQUIP DIMS MANUF REQ.

B2 TYPICAL EXTERIOR LARGE EQUIPMENT PAD

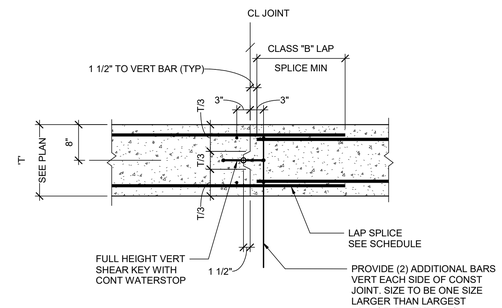
NOT TO SCALE:



SLEEVE OPENINGS OF 6" Ø TO 12" Ø

SLEEVE OPENINGS OF 14" Ø TO 28" Ø

NOTES:
1. ADJACENT SLEEVE OPENINGS SHALL HAVE 6", MIN., CONCRETE BETWEEN OPENING. PLACE ONE SCHEDULE BAR MIN. BETWEEN SLEEVES.
2. PRINCIPAL OPENINGS IN THE STRUCTURE ARE INDICATED ON THE DRAWINGS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR SECONDARY SLEEVES AND OPENINGS. CONTRACTOR SHALL COORDINATE EXACT SIZE AND LOCATION OF SLEEVES OR OPENINGS IN STRUCTURAL MEMBERS AND SUBMIT TO THE STRUCTURAL ENGINEER FOR APPROVAL.



NOTES:
1. PROVIDE VERTICAL WALL CONSTRUCTION JOINTS AT 40'-0" OC MAX UNO ON DWGS.
2. SUBMIT PROPOSED WALL JOINT LOCATIONS PRIOR TO POURING WALL.
3. WHERE WALL SPANS HORZ JOINTS SHALL BE LOCATED IN MIDDLE THIRD OF WALL SPANS UNO
4. SEE ARCH DWGS FOR TREATMENT OF EXPOSED CONST JOINTS (RUB OUT REVEAL OR OTHERS.
5. SEE ARCH DWGS FOR ADDITOINAL CONSTRUCTION JOINT REQS.

A6 TYPICAL - WALL CONSTRUCTION JOINT

NOT TO SCALE:

A4 TYPICAL FOUNDATION WALL CORNER DETAIL

NOT TO SCALE:

A2 TYPICAL SLEEVE OPENING IN SLAB ON GRADE

NOT TO SCALE:

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U.S. FISH & WILDLIFE SERVICE

ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 20278 ROBERT A BELL
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
BON SECOUR MWR, AL

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SHEET TITLE

TYPICAL FOUNDATION DETAILS

SHT. NO.	REV. NO.
S-501	

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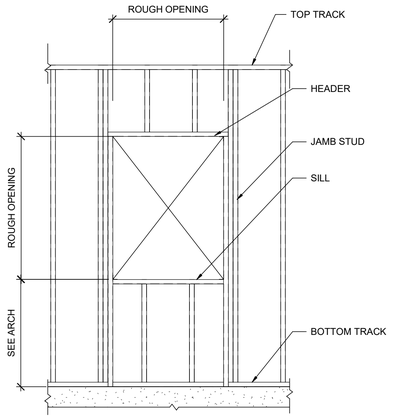
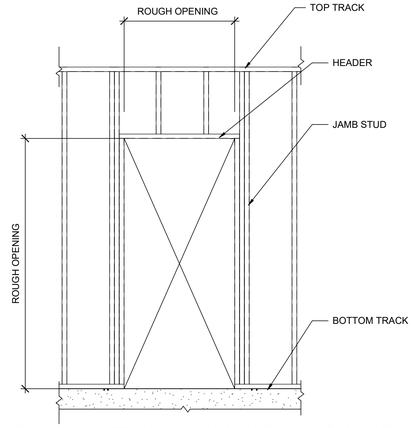
CFS WALL STUD SCHEDULE							
MARK	MAX STUD HEIGHT	STUD SECTION	YIELD STRENGTH	BOTTOM TRACK	TOP TRACK	FLEXURAL BRACING	AXIAL BRACING
A	12' - 0"	600S200-68	50 KSI	600T150-68	600T150-68	THIRD-PT	THIRD-PT
B	18' - 0"	600S250-97	50 KSI	600T150-97	600T150-97	THIRD-PT	THIRD-PT

E6 CFS WALL STUD SCHEDULE

NOT TO SCALE



* CONTRACTOR SHALL COORDINATE ROUGH OPENING DIMENSIONS WITH ARCH DRAWINGS & WINDOW MANUF



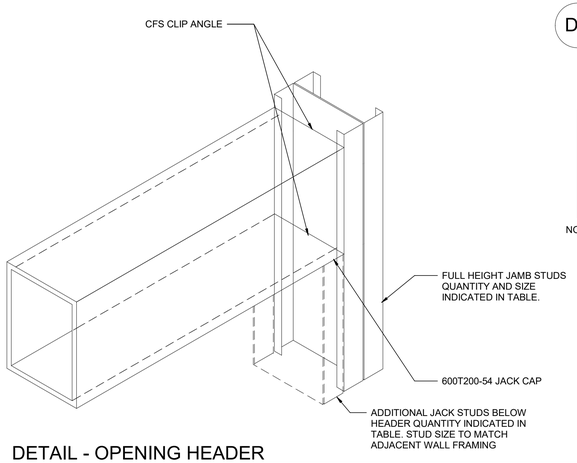
* CONTRACTOR SHALL COORDINATE OPENING DIMENSIONS WITH ARCH DRAWINGS

D4 ELEVATION - TYPICAL OPENINGS

NOT TO SCALE

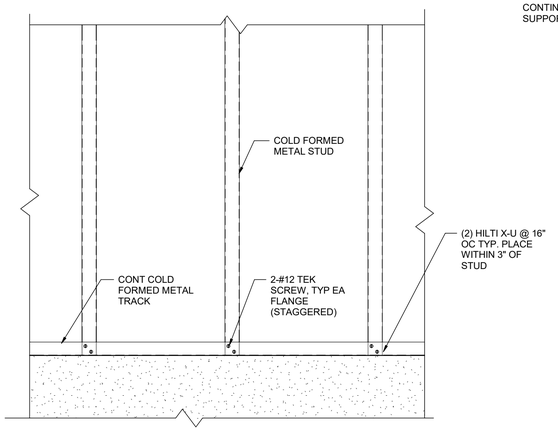
LOAD BEARING WALL OPENING SCHEDULE					
MAX CLEAR OPENING	HEADER	SILL	QUANTITY JAMB STUDS	JAMB STUD	QUANTITY ADDITIONAL JAMB STUDS
< 4'-0"	HSS6X6X1/4	600T150-54	(1)	600S200-97	(2)
4'-0" < X < 6'-6"	HSS6X6X1/4	600T150-68	(2)	600S200-68	(2)
12'-0" (NOTE A)	HSS6X6X1/4	N/A	(2)	600S200-68	(2)

NOTE A: OPENING INFORMATION FOR INTEIOR CONFERENCE ROOM (102) DOOR OPENING



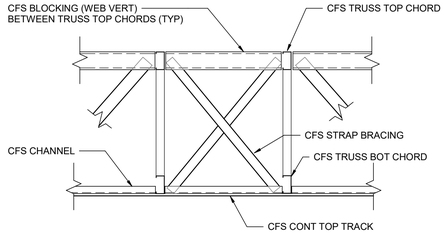
B6 DETAIL - OPENING HEADER

NOT TO SCALE



B4 TYP WALL (INT & EXT) BASE CONNECTION DETAIL

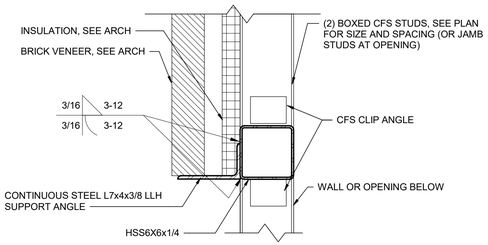
NOT TO SCALE



NOTE: TRUSS SPECIALTY ENGINEER TO DESIGN BRACE TO TRANSFER AN UNFACTORED ULTIMATE WIND SHEAR LOAD OF 300 PLF FROM ROOF DIAPHRAGM TO TOP OF CFS WALL.

E2 DETAIL - TRUSS BRACING

NOT TO SCALE

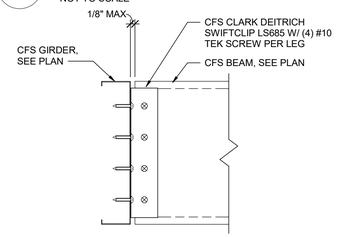


D2 DETAIL - BRICK SUPPORT

NOT TO SCALE

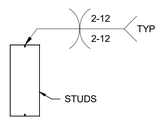
C2 DETAIL - CFS STUD WALL

NOT TO SCALE



NOTE: REVISED AS NEEDED FOR DIFFERENT DEPTH JOISTS, USE 14 GA (68 MIL) CLIP

BOXED CONNECTION - SCREWED
NOT TO SCALE



BOXED CONNECTION - WELDED
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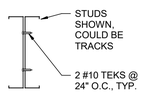
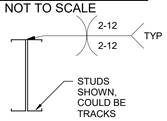
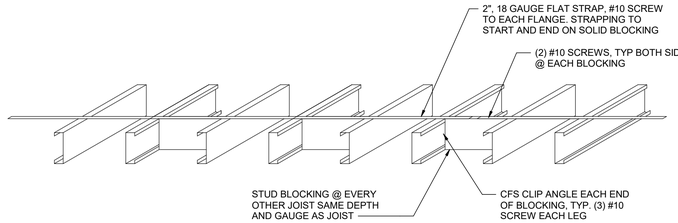


BACK-TO-BACK CONNECTION - SCREWED
NOT TO SCALE

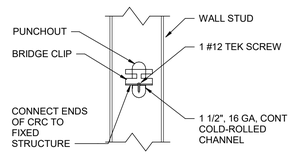


BACK-TO-BACK CONNECTION - WELDED
NOT TO SCALE

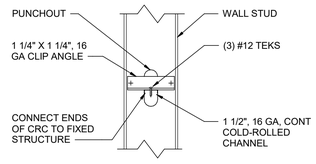


B2 DETAIL - CFS TO CFS BEAM

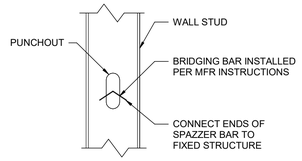
NOT TO SCALE



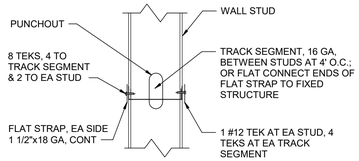
BRIDGING OPTION 1
NOT TO SCALE



BRIDGING OPTION 2
NOT TO SCALE



BRIDGING OPTION 3
NOT TO SCALE



BRIDGING OPTION 4
NOT TO SCALE

A6 DETAIL - BRIDGING

NOT TO SCALE

A4 DETAIL - CFS BUILT UP SECTION

NOT TO SCALE

A2 DETAIL - CFS JOIST BLOCKING

NOT TO SCALE

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BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION

BON SECOUR MWR, AL

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182.00
DATE:	05/02/2024
DRAWN: JH	DESIGN: JH
CHECK:	JR

SHEET TITLE

TYPICAL CFS DETAILS

SHT. NO. S-511

REV. NO.

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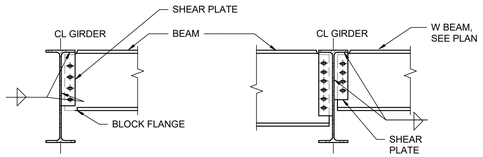


ONE-SIDED CONDITION

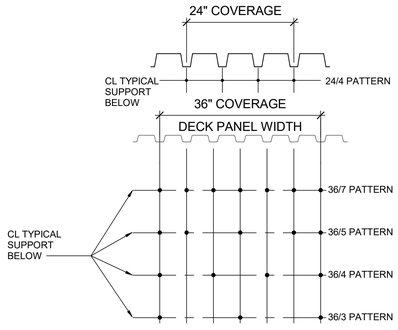
TYPICAL CONDITION

BEAM TO BEAM & BEAM TO COL CONNECTION SCHEDULE				
NOM DEPTH OF FRAMING BM	#OF ROWS, n	STIFF PLATE THICKNESS	ATTACHMENT WELD, tw	CAPACITY
W8, W10	2	1/4"	3/16"	26k
W12, W14	3	1/4"	3/16"	39k
W16, W18	4	3/8"	1/4"	78k
W21,W24	5	3/8"	1/4"	97k
W27	6	1/2"	5/16"	161k

NOTES:
1. CONNECTION AT SKEWED BEAMS MUST BE SIMILAR.
2. USE AISC STANDARD HOLESOR HORIZONTAL SHORT SLOTTED HOLES IN SHEAR PLATE. HARDENED WASHERS ARE REQUIREDWITHSLOTTED HOLES.

D6 TYPICAL GRAVITY BEAM TO GIRDER CONNECTIONS

NOT TO SCALE:

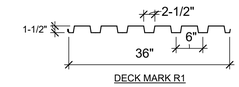


D4 TYPICAL FASTENER ATTACHMENT PATTERN

NOT TO SCALE

DECK MARK	DECK TYPE	DEPTH	GAUGE (THICKNESS)	YIELD STRESS (KSI)	MINIMUM SECTION PROPERTIES			
					+I (IN^4/FT)	-I (IN^4/FT)	+S (IN^3/FT)	-S (IN^3/FT)
R1	ROOF	1½"	20 (0.0358)	50	0.197	0.217	0.224	0.229

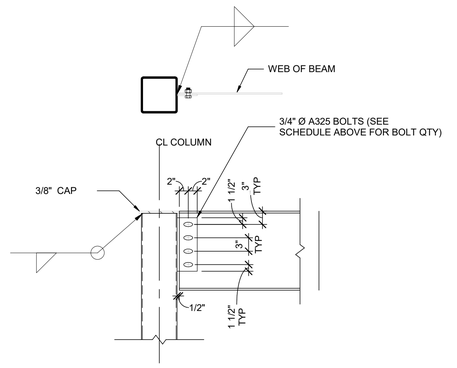
NOTES:
1. ALL DECK MUST BE GALVANIZED G90, U.N.O.
2. REFER TO DIAPHRAGM ATTACHMENT SCHEDULE FOR DECK FASTENING.



DECK MARK R1

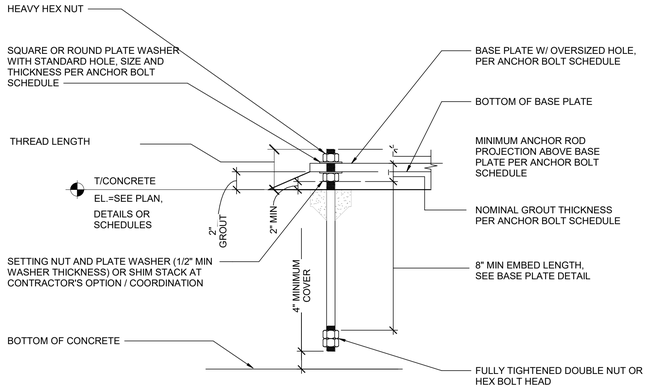
D2 TYPICAL METAL DECK PROPERTIES

NOT TO SCALE



C6 TYPICAL BEAM TO HSS COL CONN

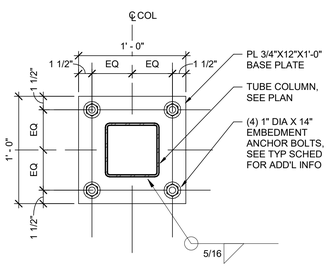
NOT TO SCALE:



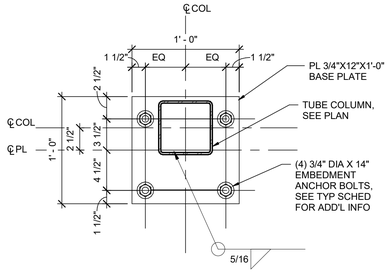
C4 TYPICAL - STEEL ANCHOR ROD DETAIL

NOT TO SCALE:

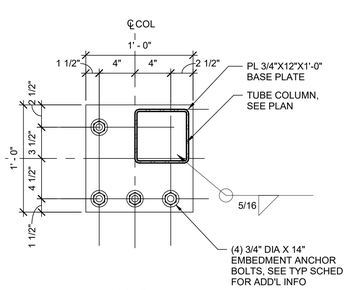
ANCHOR BOLT SCHEDULE					
ANCHOR ROD DIAMETER	BASE PL HOLE DIA	MIN WASHER SIZE (EDGE OR DIAMETER)	MIN WASHER t	MIN PROJ ABOVE BASE PL	NOMINAL GROUT THICKNESS
3/4"	1 5/16"	2"	1/4"	3"	2"



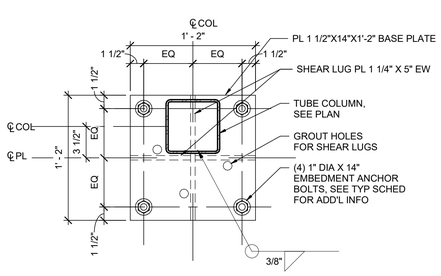
TYPE 1



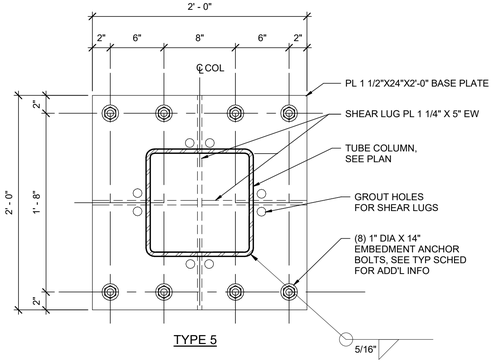
TYPE 2



TYPE 3



TYPE 4



TYPE 5

A6 BASE PLATE - TYPE 1

NOT TO SCALE:

A5 BASE PLATE - TYPE 2

NOT TO SCALE:

A4 BASE PLATE - TYPE 3

NOT TO SCALE:

A3 BASE PLATE - TYPE 4

NOT TO SCALE:

A2 BASE PLATE - TYPE 5

NOT TO SCALE:

BASE PLATE SCHEDULE	
TYPE MARK	LOCATION
TYPE 1	A-1, A-2, A-5, F-1, F-2, F-5
TYPE 2	B-1, E-1, E-2, D-4
TYPE 3	B-4, E-4
TYPE 4	B-3
TYPE 5	C.9-3.1

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ALABAMA REGISTERED PROFESSIONAL ENGINEER No. 20376 ROBERT A BASS 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
BON SECOUR MWR, AL

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182.00
DATE:	05/02/2024
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SHEET TITLE

TYPICAL FRAMING DETAILS

SHT. NO.	REV. NO.
S-521	

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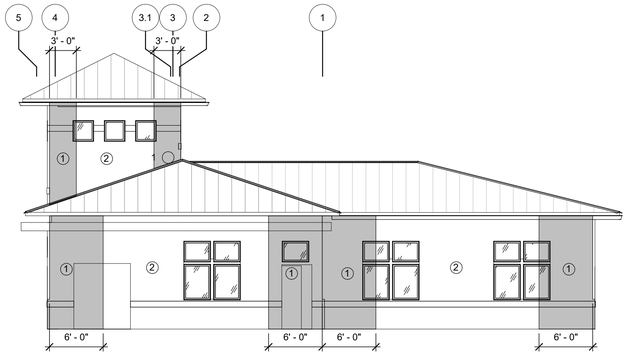
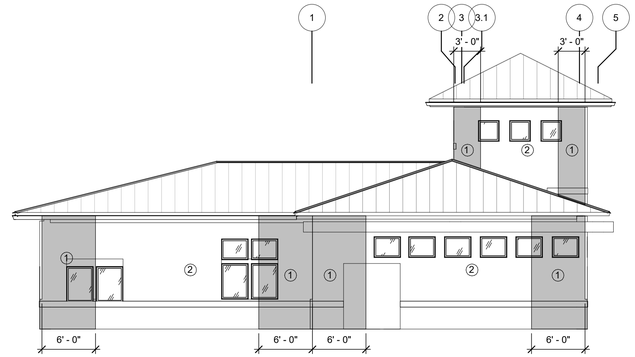


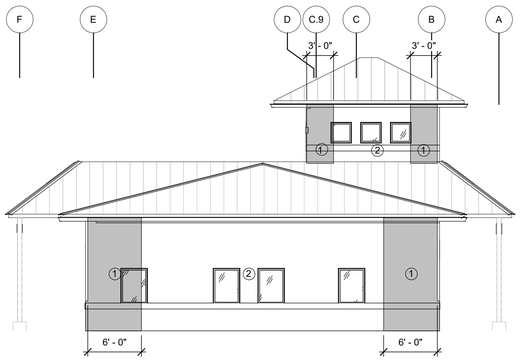
D6 WALL PRESSURE ELEVATION - NORTH

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



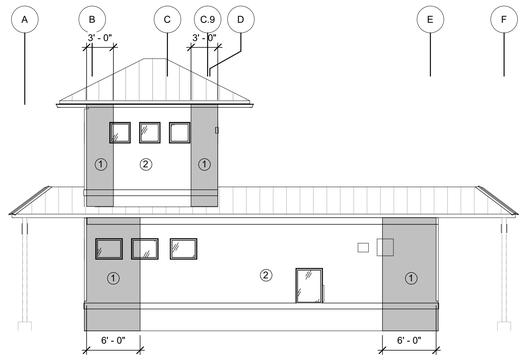
D3 WALL PRESSURE ELEVATION - SOUTH

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



B6 WALL PRESSURE ELEVATION - WEST

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



C3 WALL PRESSURE ELEVATION -EAST

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

WALL WIND PRESSURES (PSF)		
LOCATION	EFFECTIVE AREA <= 10FT2	EFFECTIVE AREA <= 500FT2
1	-90.7	-56.2
	+67.7	+50.5
2	-73.4	-56.2
	+67.7	+50.5

NOTES:
1. Ae DENOTES EFFECTIVE AREA.
2. WIND PRESSURES ARE ULTIMATE VALUE.
3. FOR INTERMEDIATE AREAS OF AFFECTED, LINEAR INTERPOLATION IS PERMITTED.
4. VALUES SHOWN INCLUDE DIRECTIONALITY FACTOR Kd=0.85.
5. PRESSURE MAY NOT BE REDUCED BY 33% NOR MAY ALLOWABLE STRESSES BE INCREASED BY 33%.
6. POSITIVE VALUES INDICATE WIND PRESSURE TOWARD SURFACE. NEGATIVE WIND PRESSURES INDICATES WIND PRESSURE AWAY FROM THE SURFACE.
7. ALL WIND PRESSURES ACT NORMAL TO THE SURFACE.

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WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

BON SECOUR MWR, AL

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WALL WIND PRESSURE ELEVATIONS

SHT. NO. S-601 | REV. NO.

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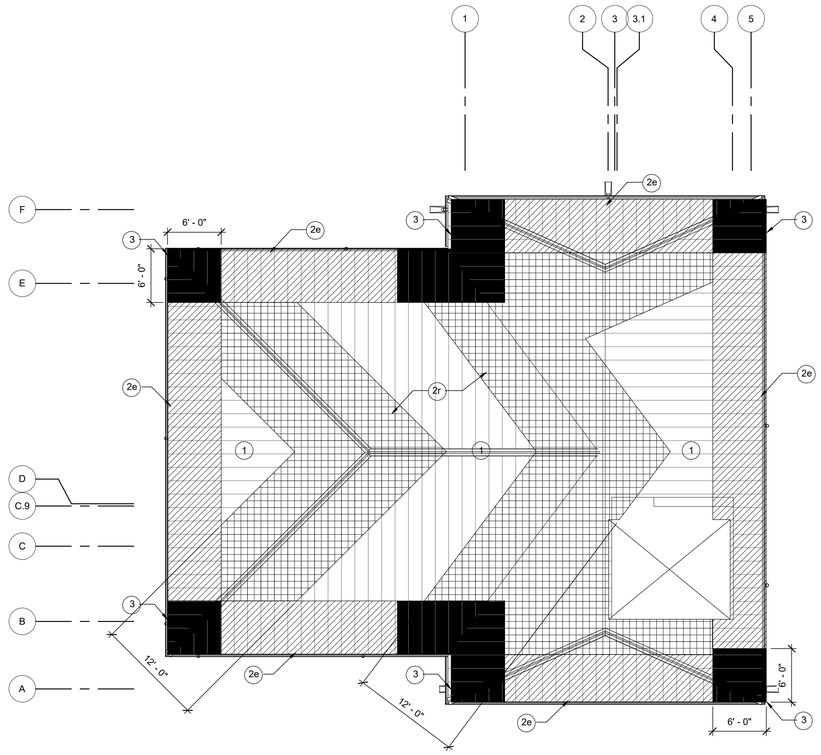
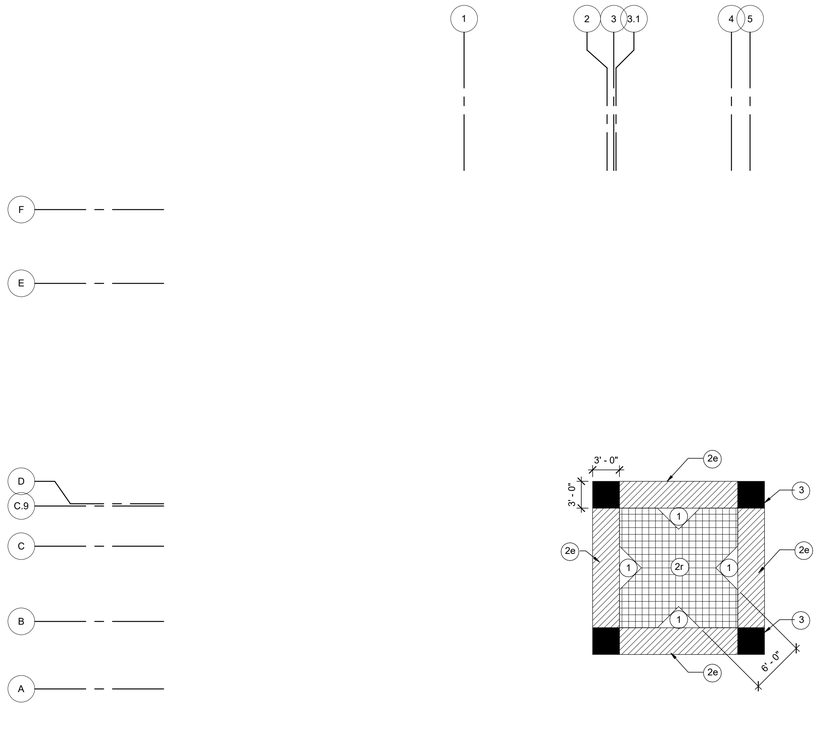


C6 ROOF UPLIFT WIND DIAGRAM - LOW ROOF

NOT TO SCALE:



C3 ROOF UPLIFT WIND DIAGRAM - HIGH ROOF

NOT TO SCALE:

ROOF UPLIFT LOADING

EFFECTIVE WIND AREA	LOW ROOF PRESSURE (PSF)				HIGH ROOF PRESSURE (PSF)			
	ZONE 3	ZONE 2e	ZONE 2r	ZONE 1	ZONE 3	ZONE 2e	ZONE 2r	ZONE 1
≤ 10 FT²	-113.6	-113.6	-148.0	-84.9	-159.5	-159.5	-148.0	-113.6
	+50.5	+50.5	+50.5	+50.5	+50.5	+50.5	+50.5	+50.5
≥ 500 FT²	-73.4	-73.4	-84.9	-67.7	-73.4	-73.4	-84.9	-67.7
	+27.5	+27.5	+27.5	+27.5	+27.5	+27.5	+27.5	+27.5

NOTES:

1. WIND PRESSURES SHOWN ARE ULTIMATE WIND LOADS PER ASCE 7-16. THE USE OF A 0.6 FACTOR TO COVERT DESIGN LEVEL WIND LOADS TO SERVICE LEVEL LOADS IS PERMITTED.
2. LINEAR INTERPOLATION IS NOT PERMITTED.
3. (-) NEGATIVE PRESSURES ACT OUTWARD (AWAY FROM THE ROOF SURFACE.
4. (+) POSITIVE PRESSURE ACT INWARD (TOWARDS) THE BUILDING.
5. ROOF COMPONENTS AND FASTENERS MUST BE DESIGNED FOR THE WIND PRESSURES SHOWN IN THE TABLE AND DIAGRAM.
6. VALUES SHOWN INCLUDE DIRECTIONALITY FACTOR Kd=0.85.
7. PRESSURE MAY NOT BE REDUCED BY 33% NOR MAY THE ALLOWABLE STRESSES BE INCREASED BY 33%.
8. NET UPLIFT MUST BE CALCULATED USING THE APPROPRIATE LOAD COMBINATIONS FROM IBC AND AISC 7.
9. LOADS PROVIDED ARE FOR WIND LOAD ONLY, DEAD LOADS HAVE NOT BEEN INCLUDED.

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FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION

BON SECOUR,MW,R, AL

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CHECK: JR

SHEET TITLE

ROOF UPLIFT DIAGRAM

SHT. NO. S-602
REV. NO.

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STANDARD ARCHITECTURAL ABBREVIATIONS

A
A/C - AIR CONDITION
AB - ANCHOR BOLT
ABA - ARCHITECTURAL BARRIERS ACT
ABBRV - ABBREVIATION
AC - ACOUSTICAL
ACC - ACCESSIBLE
ACS PNL - ACCESS PANEL
ACT - ACOUSTICAL CEILING TILE
ACOUS - ACOUSTIC(AL)
ACU - AIR CONDITIONING UNIT
ADA - AMERICAN WITH DISABILITIES ACT
ADDM - ADDENDUM
ADJ - ADJUSTABLE, ADJACENT
AED - AUTOMATIC EXTERNAL DEFIBRILLATOR
AFF - ABOVE FINISH FLOOR
AHU - AIR HANDLING UNIT
ALT - ALTERNATE
ALUM - ALUMINUM
ANOD - ANODIZE
APP - APPLICABLE
APPROX - APPROXIMATE
ARCH - ARCHITECT(URAL)
ASB - ASBESTOS
ASWG - AMERICAN STEEL WIRE GAUGE
AVE - AVERAGE
AWC - ACRYLIC WALL COVERING

B
B - BOTTOM
B LABEL - CLASS B DOOR
BAT - BATTEN, BATTERY
BD - BOARD
BDRY - BOUNDARY
BKBD - BACKBOARD
BKD - BACKING
BLDG - BUILDING
BLW - BELOW
BM - BEAM
BMS - BEAMS
BOT - BOTTOM
BR - BEDROOM
BRG - BEARING
BS - BOTH SIDES
BTWN - BETWEEN
BUR - BUILT UP ROOFING
BW - BOTH WAYS
B-U - BUILT-UP

C
C - CONTINUED
C LABEL - CLASS C DOOR
C TO C - CENTER TO CENTER
CAB - CABINET
CALC - CALCULATE(D)
CB - CERAMIC BASE
CEM - CEMENT
CER - CERAMIC
CF - CUBIC FEET
CFCI - CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFS - COLD FORMED STEEL
CG - CORNER GUARD
CIR - CIRCLE
CJ - CONSTRUCTION/CONTROL JOINT
CL - CENTER LINE
CL D - CLOTHES DRYER
CLG - CEILING
CLO - CLOSET
CLR - CLEAR
CNTR - COUNTER
CMU - CONCRETE MASONRY UNIT
COL - COLUMN
COMM - COMMUNICATION
CONC - CONCRETE
CONST - CONSTRUCTION
CONT - CONTINUOUS
CONTR - CONTRACTOR
COORD - COORDINATE
CORR - CORRIDOR
COTR - CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE
COV - COVER
CPT - CARPET, COMMON PATH OF TRAVEL
CRS - COURSE
CSWK - CASEWORK
CT - CERAMIC TILE
CTG - COATING
CTR - CENTER
CUST - CUSTODIAN

D
D - DEEP/DEPTH, DRYER
DBL - DOUBLE
DEG - DEGREE
DEMO - DEMOLITION
DEG - DEGREE
DET - DETAIL
DF - DRINKING FOUNTAIN
DH - DOUBLE HUNG (DOOR WINDOW)
DIA(M) - DIAMETER
DIAG - DIAGONAL
DIM - DIMENSION
DIST - DISTANCE
DN - DOWN
DOR - DESIGNER OF RECORD
DR - DOOR
DS - DOWN SPOUT
DUPL - DUPLICATE
DW - DISHWASHER
DWG(S) - DRAWING(S)

E
EA - EACH
EJ - EXPANSION JOINT
EL(EV) - ELEVATION, ELEVATOR
ELEC - ELECTRICAL, ELECTRIC
ENCL - ENCLOSURE
ENGR - ENGINEER
ENVIR - ENVIRONMENT
EP - ELECTRICAL PANELBOARD
EPDM - ETHYLENE PROPYLENE DIENE MONOMER
EQ - EQUAL
EQ(UIP) - EQUIPMENT
ETR - EXISTING TO REMAIN
ETC - ETCETERA
EW - EACH WAY
EWC - ELECTRIC WATER COOLER
EWH - ELECTRIC WATER HEATER
EXH - EXHAUST
EX(IST) - EXISTING
EXP - EXPOSED
EXT - EXTERIOR

F
F - FEMALE
FCU - FAN COIL UNIT
FD - FLOOR DRAIN
FDTN - FOUNDATION
FE - FIRE EXTINGUISHER
FEC - FIRE EXTINGUISHER CABINET
FF - FINISH FLOOR
FF&E - FURNITURE, FIXTURE & EQUIPMENT
FIN - FINISH
FIXT - FIXTURE
FLASH - FLASHING
FL(R) - FLOOR
FLOUR - FLUORESCENT
FNV - FEMALE NAPKIN/TAMPON VENDOR
FR - FIRE RATING, FRAME
FRMG - FRAMING
FRT - FIRE RETARDANT TREATED
FSTNR - FASTENER
FT - FEET (FOOT)
FTD - FACIAL TISSUE DISPENSER
FUR - FURRING
FURG - FURRING
FURN - FURNITURE
FWC - FABRIC WALLCOVERING

G
GA - GAUGE
GALV - GALVANIZED
GB - GRAB BAR
GC - GENERAL CONTRACTOR
GEN - GENERAL
GFCI - GOVERNMENT FURNISHED, CONTRACTOR INSTALLED
GFGI - GOVERNMENT FURNISHED, GOVERNMENT INSTALLED
GLZ - GLAZING
GOVT (GOV'T) - GOVERNMENT
GP - GLAZED PARTITION
GR - GRILLE
GWB - GYPSUM WALL BOARD
GYP - GYPSUM

H
H - HIGH
HB - HOSE BIB
HC - HANDICAP/HOLLOW CORE
HDR - HEADER
HDW - HARDWARE
HM - HOLLOW METAL
HNDRL - HANDRAIL
HORIZ - HORIZONTAL
HR - HOUR
H(G)T - HEIGHT
HVAC - HEATING VENTILATION AIR CONDITIONING

I
IBC - INTERNATIONAL BUILDING CODE
IBC - INTERNATIONAL BUILDING CODE
ID - INSIDE DIMENSIONS
IN. - INCHES
INFO - INFORMATION
INS(UL) - INSULATION/INSULATED
INSTL - INSTALL
INT - INTERIOR
INV - INVERT

J
JAN - JANITOR
JS - JANITOR'S CLOSET
JST - JOIST
JT - JOINT

K
KIT - KITCHEN

L
L - LENGTH
LAM - LAMINATE(D)
LAV - LAVATORY
LB - POUND
LF - LINEAR FEET (FOOT)
LLH - LONG LEG HORIZONTAL
LLV - LONG LEG VERTICAL
LOC - LOCATION
LR - LIVING ROOM
LRG - LARGE
LT - LIGHT

M
M - MALE
MACH - MACHINE
MAINT - MAINTENANCE
MAS - MASONRY
MAT(L) - MATERIAL
MAX - MAXIMUM
MECH - MECHANICAL
MEZZ - MEZZANINE
MFR - MANUFACTURER
MH - MOUNTING HEIGHT
MIN - MINIMUM
MISC - MISCELLANEOUS
MO - MASONRY OPENING
MOD - MODIFY, MODEL
MRT - MARBLE THRESHOLD
MT - METAL THRESHOLD
MTL - METAL

N
N - NORTH
N(/)A - NOT APPLICABLE
NIC - NOT IN CONTRACT
NL - NIGHT LIGHT
NO. - NUMBER
NOM - NOMINAL
NTS - NOT TO SCALE

O
OA - OVERALL
OC - ON CENTER
OCC - OCCUPANT/OCCUPANCY
OD - OUTSIDE DIAMETER
OH - OVERHEAD/ OVERHANG
OPNG - OPENING
OPP - OPPOSITE
OPH - OPPOSITE HAND
ORD - OVERFLOW ROOF DRAIN

P
PANEL'G - PANELING
PART - PARTIAL
PCF - POUNDS PER CUBIC FOOT
PEMB - PRE-ENGINEERED METAL BUILDING
PL - PLATE
PLAS - PLASTER, PLASTIC
PLAM - PLASTIC LAMINATE
PLBG - PLUMBING
PL(Y)WD - PLYWOOD
PNL - PANEL
PR - PAIR
PREFIN - PREFINISH(ED)
PRMLD - PREMOLDED
PSF - POUNDS PER SQUARE FOOT
PT - PRESSURE TREATED / PAINT
PTD - PAPER TOWEL DISPENSER
PTN - PARTITION
PTR - PAPER TOWEL RECEPTACLE

R
R - RISER/RADIUS
RA - RETURN AIR
RB - RUBBER BASE
RCP - REFLECTED CEILING PLAN
RD - ROOF DRAIN
REC - RECOMMEND(ED)
REF - REFRIGERATOR, REFERENCE
REFL - REFLECT
REINF - REINFORCING
REPL - REPLACE
REQ('D) - REQUIRE(D)
RESIL - RESILIENT
RG - RETURN AIR GRILLE
RM - ROOM
RND - ROUND
RO - ROUGH OPENING

S
S - STEEL
SAFB - SOUND ATTENTUATION FIRE BLANKET
S/L - STEEL LINE
SC - SOLID CORE
SCH(ED) - SCHEDULE
SCWD - SOLID CORE WOOD DOOR
SECT - SECTION
SF - SQUARE FOOT (FEET)
SGL - SINGLE
SHR - SHOWER
SHT - SHEET
SIM - SIMILAR
SND - SOUND
SPEC(S) - SPECIFICATIONS
SQ - SQUARE
SST - STAINLESS STEEL
ST - STREET/ STAIRS
STC - SOUND TRANSMISSION COEFFICIENT
STD - STANDARD
STD(NT) - STUDENT
STL - STEEL
STOR - STORAGE
STR - STRUCTURE, STRUCTURAL
SUSP - SUSPEND, SUSPENDED

T
T - TREAD
T.O. - TOP OF
TB - TOWEL BAR
TBD - TO BE DETERMINED
TC - TOP OF CURB
TD - TOWEL DISPENSER
TECH - TECHNOLOGY/ TECHNICAL
TEL - TELEPHONE
TEMP - TEMPORARY, TEMPERATURE
THK - THICKNESS
THRESH - THRESHOLD
THRU - THROUGH
TOB - TOP OF BEAM
TOC - TOP OF CONCRETE
TOF - TOP OF FLOOR
TOM - TOP OF MASONRY
TOS - TOP OF SLAB, TOP OF STEEL
TOW - TOP OF WALL
TPD - TOILET PAPER DISPENSER
TPH - TOILET PAPER HOLDER
TRANS - TRANSLUCENT
TWC - TEXTILE WALL COVERING
TYP - TYPICAL

U
UL - UNDERWRITERS LABORATORY
UON - UNLESS OTHERWISE NOTED
UNO - UNLESS NOTED OTHERWISE

V
VAR - VARIES
VB - VINYL BASE
VCT - VINYL COMPOSITION TILE
VERT - VERTICAL
VEST - VESTIBULE
VIF - VERIFY IN FIELD
VR - VAPOR RETARDER
VTR - VENT TROUGH ROOF
VWC - VINYL WALL COVERING

W
W - WIDE, WASH, WASHER
W/ - WITH
W/O - WITHOUT
WB - WOOD BASE
WC - WALL COVERING/ WATER CLOSET
WD - WOOD/ WOOD DOOR
WF - WIDE FLANGE/ WATER FOUNTAIN
WP - WORK POINT, WATER PUMP
WR - WATER RESISTANT
WWF - WELDED WIRE FABRIC

SYMBOLS

&	AND
@	AT
L	ANGLE
℄	CENTERLINE
±, +/-	MORE OR LESS, APPROXIMATELY
#	POUND (WEIGHT)/ REFERENCE NUMBER
X	REFERENCE LETTER
℄	STEEL LINE

MATERIALS LEGEND

SECTION		ELEVATION	
	WOOD - ROUGH		EIFS - PAINTED
	WOOD BLOCKING		CMU - PAINTED
	PLYWOOD		CMU - PAINTED - ACCENT
	CONCRETE MASONRY UNIT		GLAZED BLOCK
	BRICK		GLAZING
	CAST-IN-PLACE CONCRETE		SPANDREL GLAZING / STEEL PANEL
	STEEL		CONCRETE FOUNDATION
	ALUMINUM		
	GYPSUM BOARD		
	BATT/LOOSE FILL INSULATION		
	RIGID INSULATION		
	SAND / MORTAR / PLASTER		
	EARTH / COMPACT FILL		
	POROUS FILL / GRAVEL		
	ACOUSTICAL TILE CEILING		
	CERAMIC TILE		
	FINISHED WOOD		

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STATE of ALABAMA — NEIL A. ESSER — 9168 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
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SHEET TITLE
GENERAL NOTES & ABBREVIATIONS

SHT. NO. AG001 | REV. NO.

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ANNOTATION LEGEND

NAME — ANNOTATION

AREA TAG — Room name / 150 SF

CALLOUT HEAD — 1 / A101, SIM

CENTERLINE

DOOR TAG — 101

ELEVATION MARKER (CIRCLE BODY)
- DETAIL NUMBER
- DETAIL NUMBER AND VIEW NAME
- FILLED ARROW
- FILLED ARROW AND VIEW NAME

ELEVATION MARK POINTER (CIRCLE)
- DETAIL NUMBER
- DETAIL NUMBER AND VIEW NAME
- FILLED ARROW
- FILLED ARROW AND VIEW NAME

FLOOR ASSEMBLY TAG — F-XX

GRID HEAD (CIRCLE) — 0

GRID HEAD (NO BUBBLE) — 0

KEYNOTE TAG
- KEYNOTE NUMBER
- KEYNOTE NUMBER - BOXED - LARGE
- KEYNOTE NUMBER - BOXED - SMALL
- KEYNOTE TEXT

LEVEL HEAD (CIRCLE) — Name / Elevation

LEVEL HEAD (NO BUBBLE) — Name / Elevation

MATERIAL TAG

NORTH ARROW

PROPERTY LINE TAG
- N 90.00 E Distance — DECIMAL DEGREES
- N 90 00' 00" E Distance — DEGREES MINUTES SECONDS
- N 90 00' 00" E Distance — PROPERTY LINE TAG

PROPERTY LINE TAG (RADIUS) — R=Radius L=Distance

REVISION TAG — 1

ROOM TAG
- Room name / 101 — ROOM TAG
- Room name / 101 / 150 SF — ROOM TAG WITH AREA
- Room name / 101 / Volume — ROOM TAG WITH VOLUME

ROOF TAG — R-XX; This is a sample type comment / This is a sample comment

SECTION HEAD (FILLED) — 1 / A101, SIM

SECTION HEAD (NO ARROW) — 1 / A101, SIM

SECTION HEAD (OPEN) — 1 / A101, SIM

SECTION TAIL (FILLED)
- 3/16" X 1/2"
- 3/32" X 3/8"

SECTION TAIL (FILLED HORIZONTAL)
- 1/2" X 3/16"
- 3/8" X 3/32"

SPAN DIRECTION
- ONE WAY SLAB
- TWO WAY SLAB

SPOT ELEVATION (CROSSHAIR)

SPOT ELEVATION (TARGET FILLED)

STAIR LANDING TAG — 1t

STAIR RUN TAG
- 20R @ 7 1/2" — STANDARD
- Run 1 — TYPE MARK

STAIR SUPPORT TAG — 1t

STAIR TAG
- 20R @ 7 1/2" — STANDARD
- Stair 1 — TYPE MARK

STRUCTURAL BEAM SYSTEM TAG — Beam Type @ Spacing

STRUCTURAL FRAMING TAG
- 1i — BOXED
- 1i — STANDARD

VIEW REFERENCE — 1 / A101

VIEW TITLE

VERTICAL EXTERIOR WALL ASSEMBLY TAG — XX-XX-XX

WALL TAG — XXXX

WINDOW TAG — 1t

ELEVATION MARKER (SQUARE BODY)
- DETAIL NUMBER
- DETAIL NUMBER AND VIEW NAME
- FILLED ARROW
- FILLED ARROW AND VIEW NAME

ELEVATION MARK POINTER (SQUARE)
- DETAIL NUMBER
- DETAIL NUMBER AND VIEW NAME
- FILLED ARROW
- FILLED ARROW AND VIEW NAME

ARCHITECTURAL SYMBOLS

- DETAIL TAG — DETAIL NUMBER; SHEET WHERE DRAWN
- ROOM TAG — ROOM NAME; ROOM NUMBER
- PHOTOGRAPH TAG — PHOTOGRAPH NUMBER; SHEET WHERE SHOWN
- BUILDING SECTION TAG — SECTION NUMBER; SHEET WHERE DRAWN
- INTERIOR ELEVATION TAG — INTERIOR ELEVATION NUMBER; SHEET WHERE DRAWN
- WALL / PARTIAL BUILDING SECTION TAG — SECTION NUMBER; SHEET WHERE DRAWN
- NEW WORK KEYNOTE TAG — KEYNOTE NUMBER
- SPECIALITY ITEM TAG — SPECIALITY ITEM NUMBER
- EXTERIOR ELEVATION TAG — DIRECTION OF VIEW; ELEVATION NUMBER; SHEET WHERE DRAWN
- DEMO KEYNOTE TAG — KEYNOTE NUMBER
- PARTITION TYPE TAG — PARTITION IN PLAN; PARTITION TYPE DESIGNATION (REFER TO PARTITION SCHEDULE)
- DOOR TAG — DOOR NUMBER (REFER TO DOOR SCHEDULE)
- WINDOW TYPE TAG — WINDOW TYPE LETTER

GENERAL PROJECT SYMBOLS

- DETAIL TAG — DETAIL NUMBER; SHEET WHERE DRAWN
- ROOM IDENTIFIER — ROOM NAME; ROOM NUMBER
- PHOTOGRAPH INDICATOR — PHOTOGRAPH NUMBER; SHEET WHERE SHOWN
- BUILDING SECTION INDICATOR — SECTION NUMBER; SHEET WHERE DRAWN
- INTERIOR ELEVATION INDICATOR — INTERIOR ELEVATION NUMBER; SHEET WHERE DRAWN
- WALL / PARTIAL BUILDING SECTION INDICATOR — SECTION NUMBER; SHEET WHERE DRAWN
- NEW WORK KEYNOTE INDICATOR — KEYNOTE NUMBER
- VIEW TITLE — DETAIL NUMBER; SCALE: 1/8" = 1'-0"; SHEET REFERENCED FROM (A-101)
- EXTERIOR ELEVATION INDICATOR — DIRECTION OF VIEW; ELEVATION NUMBER; SHEET WHERE DRAWN
- DEMOLITION KEYNOTE INDICATOR — KEYNOTE NUMBER
- PLAN TITLE — TRUE NORTH; PLAN NORTH; SCALE: 1/8" = 1'-0"

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U.S. FISH & WILDLIFE SERVICE — CONSERVING THE NATURE OF AMERICA

STATE of ALABAMA — NEIL A. ESSER — 9168 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
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SHEET TITLE

LEGENDS

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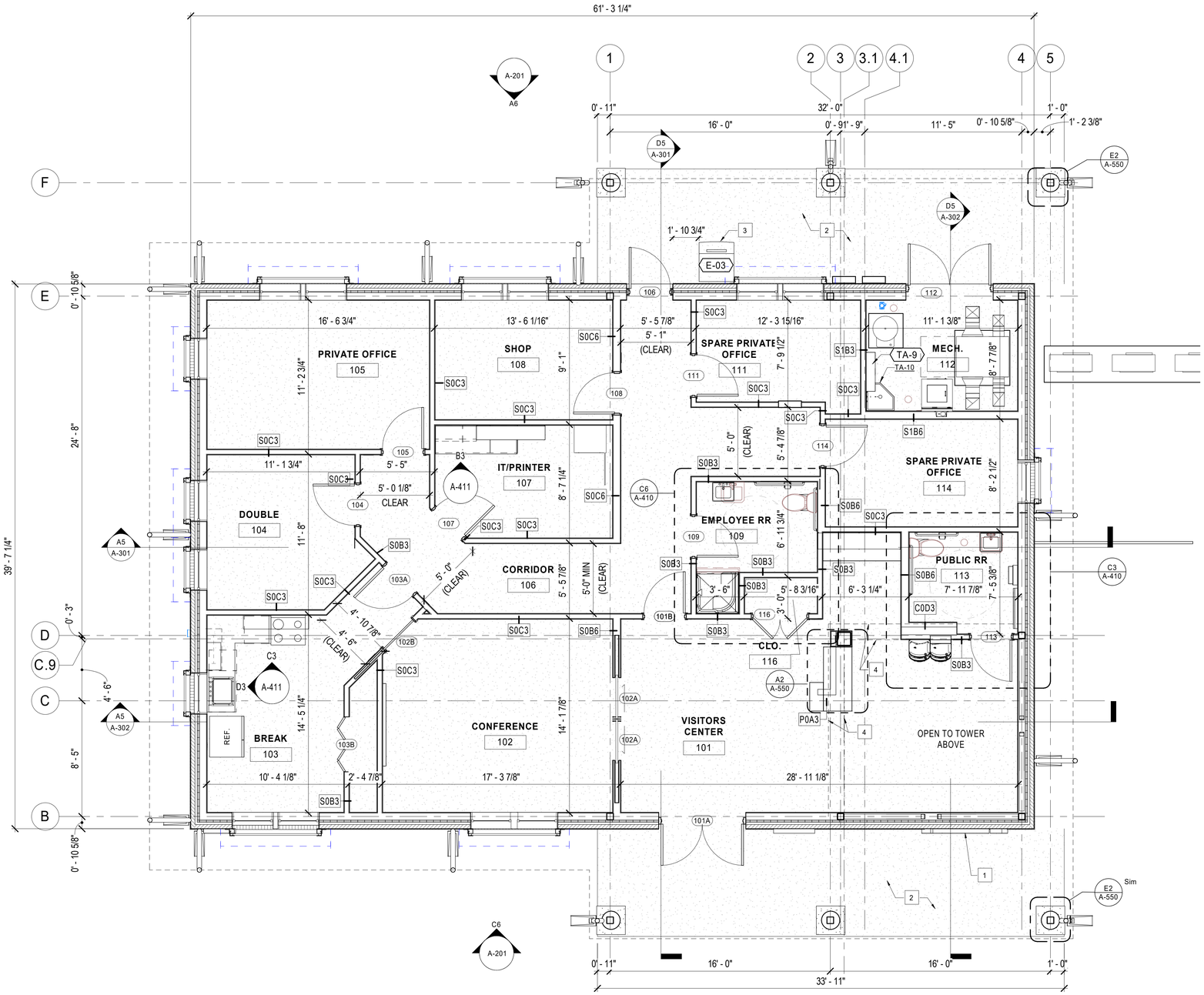

LEVEL 1 - FIRST FLOOR PLAN

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

PLAN NORTH

0 2' 4' 8'

GENERAL SHEET NOTES

1. DIMENSIONS FOR NEW CONSTRUCTION ARE FROM FACE OF STUD OR FACE OF MASONRY UNLESS OTHERWISE NOTED.
2. EXTERIOR DIMENSIONS ARE TAKEN FROM THE BUILDING WALL LINE (EXTERIOR FACE OF EXTERIOR WALL) - UNLESS NOTED OTHERWISE.
3. REFER TO LIFE SAFETY DRAWINGS FOR ASSEMBLY FIRE RATINGS; REFER TO DETAIL SHEETS FOR PENETRATION DETAILS.
4. REFER TO PARTIAL AND ENLARGED FLOOR PLANS A-410 AND A-411 AND ENLARGED PLANS FOR ADDITIONAL ROOM TAGS, WALL TYPE TAGS, DOOR NUMBER TAGS, AND WALL DIMENSIONS
5. REFERENCE OTHER DISCIPLINES FOR ADDITIONAL INFORMATION. ANY CONFLICT WITH FIELD CONDITIONS, DRAWINGS AND/OR OTHER TRADES MUST BE REPORTED IMMEDIATELY UPON DISCOVERY FOR CLARIFICATION PRIOR TO PROCEEDING WITH ASSOCIATED WORK.
6. REFER TO INTERIOR DRAWINGS FOR SIGNAGE LOCATIONS AND TYPES.
7. PROVIDE CONCEALED FIRE RETARDANT WOOD BLOCKING AS REQUIRED IN ALL WALLS SUPPORTING SHELVES, CABINETS, MARKER BOARDS, TV'S, AND ETC. REFER TO DETAILS AND PLANS FOR EXTENT.

KEYNOTES

1. ART INSTALLATION MOUNTED ON WALL FURNISHED BY GOVERNMENT. COORDINATE INSTALLATION WITH GOVERNMENT AND PROVIDE REQUIRED BLOCKING, ANCHORING PER LOADING REQUIREMENTS AS REQUIRED ASSUME DEAD LOAD OF 200 LBS.
2. CONCRETE PORCH, BROOM FINISH, SLOPE TO DRAIN. COORDINATE WITH STRUCTURAL DWGS.
3. ICE MAKER AND STORAGE BIN
4. INDICATES SOFFIT OVERHEAD, SEE REFLECTED CEILING PLANS

ROOM SCHEDULE

ROOM No.	ROOM NAME	NET AREA
101	VISITORS CENTER	424.53 SF
102	CONFERENCE	231.59 SF
103	BREAK	169.60 SF
104	DOUBLE	120.59 SF
105	PRIVATE OFFICE	174.86 SF
106	CORRIDOR	278.82 SF
107	IT/PRINTER	103.01 SF
108	SHOP	111.94 SF
109	EMPLOYEE RR	66.97 SF
111	SPARE PRIVATE OFFICE	90.25 SF
112	MECH.	88.66 SF
113	PUBLIC RR	55.32 SF
114	SPARE PRIVATE OFFICE	108.90 SF
116	CLO.	13.69 SF
xxx	EXTERIOR	1498.91 SF
Grand total: 15		3537.63 SF

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STATE of ALABAMA — NEIL A. ESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

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BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
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SHEET TITLE
OVERALL FIRST FLOOR PLAN

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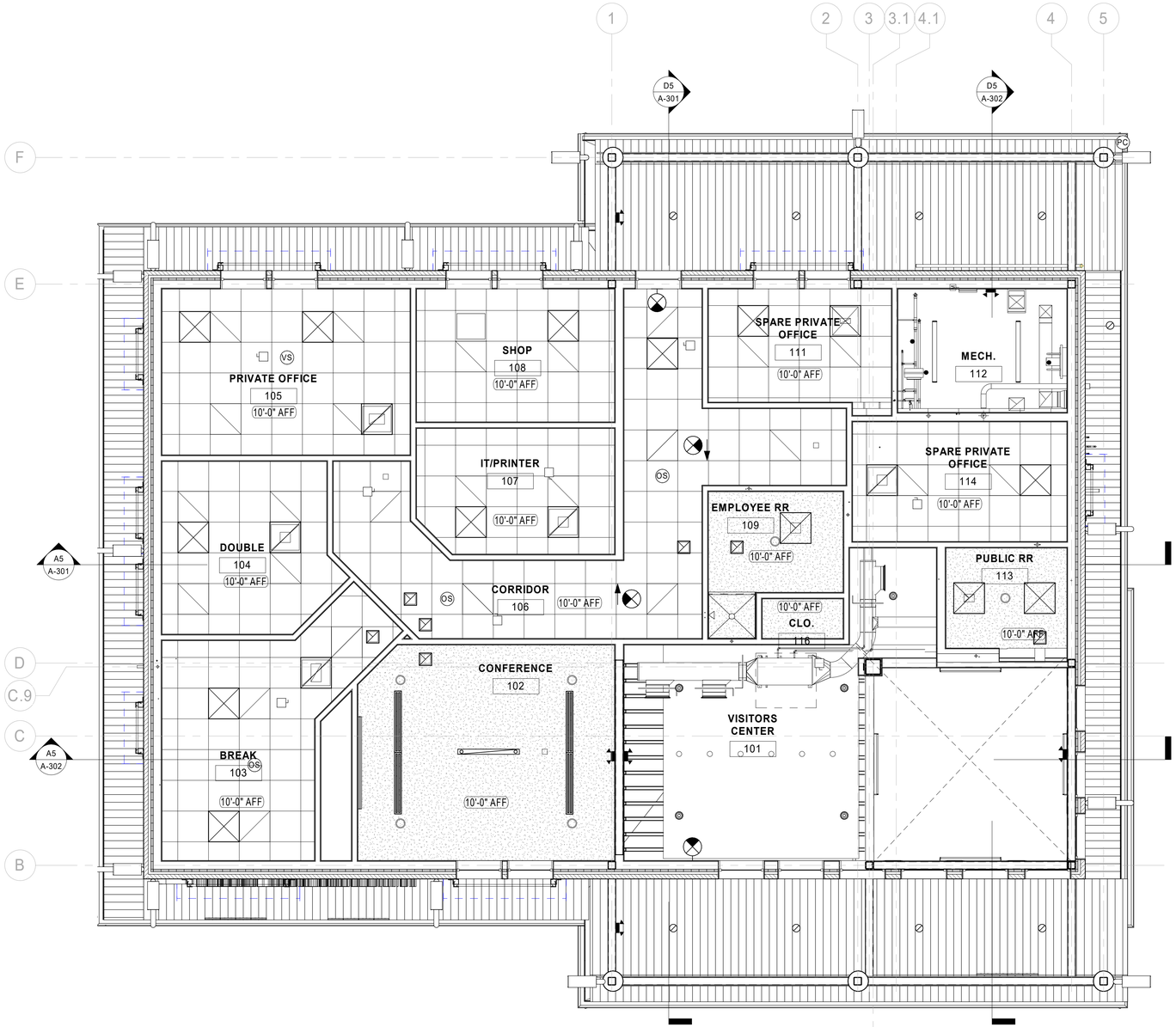

REFLECTED CEILING PLAN

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

PLAN NORTH

0 4' 8' 16'

REFLECTED CEILING PLAN LEGEND

SYMBOL	DESCRIPTION
	2' - 0" X 2' - 0" ACOUSTICAL CEILING TILE.
	ACOUSTICAL PANEL CEILING
	GYPSUM BOARD CEILING.
	NO CEILING - EXPOSED TO ROOF DECK ABOVE.
8'-0" AFF (X'-X")	FINISHED CEILING HEIGHT ABOVE FINISHED FLOOR
	LIGHT FIXTURE. REFER TO ELECTRICAL DRAWINGS.
	EMERGENCY LIGHT FIXTURE. REFER TO ELECTRICAL DRAWINGS.
	2X2 LIGHT FIXTURE (SURFACE SUSPENDED)
	LIGHT FIXTURE (RECESSED/SUSPENDED)
	1X4 LIGHT FIXTURE
	LINEAR PENDANT - LENGTH VARIES, SEE ELECTRICAL DRAWINGS
	EXIT SIGN. REFER TO ELECTRICAL DRAWINGS.
	ILLUMINATED EXIT SIGN - SHADE DENOTES FACE W/ TEXT - DIRECTIONAL ARROWS AS INDICATED
OS	OCCUPANCY SENSOR. REFER TO ELECTRICAL DRAWINGS.
	CEILING SUPPLY DIFFUSER. REFER TO MECHANICAL DRAWINGS.
	CEILING RETURN OR EXHAUST. REFER TO MECHANICAL DRAWINGS.
	MECHANICAL DIFFUSER TERMINAL
	MECHANICAL RETURN TERMINAL
	MECHANICAL EXHAUST TERMINAL

GENERAL SHEET NOTES

1 DIMENSIONS FOR NEW CONSTRUCTION ARE FROM FACE OF STUD OR FACE OF MASONRY UNLESS OTHERWISE NOTED. DIMENSIONS FOR EXISTING TO REMAIN WALLS ARE FROM FACE OF FINISHED ASSEMBLY

2 COORDINATE ALL CEILING SYSTEMS WITH ALL WORK SHOWN ON THE MECHANICAL, PLUMBING, ELECTRICAL, AND FIRE-PROTECTION DRAWINGS FOR ALL CEILING MOUNTED EQUIPMENT, FIXTURES, DIFFUSERS, ETC. ANY CONFLICT WITH FIELD CONDITIONS, DRAWINGS AND/OR OTHER TRADES MUST BE REPORTED IMMEDIATELY UPON DISCOVERY FOR CLARIFICATION PRIOR TO PROCEEDING WITH ASSOCIATED WORK.

3 PROVIDE SAG RESISTANT GYPSUM BOARD ON ALL CEILINGS AND SOFFITS. PROVIDE MOISTURE RESISTANT GYPSUM BOARD IN ALL RESTROOMS UNLESS NOTED OTHERWISE. PROVIDE 5/8" TYPE "X" GYPSUM BOARD ON ALL FIRE-RATED ASSEMBLIES. FOLLOW ASTM C840 AND USG GYPSUM CONSTRUCTION HANDBOOK FOR THE INSTALLATION AND RECOMMENDED LOCATIONS OF CONTROL JOINTS IN GYPSUM BOARD CEILINGS AND SOFFITS.

4 PROVIDE TYPICAL ANNUAL INSPECTION AND CERTIFICATION OF EXISTING BRIDGE CRANES, ALL OF WHICH ARE ASSUMED TO BE IN GOOD WORKING ORDER.

5 ENSURE THAT LENSES IN LIGHTING FIXTURES ARE CLEAN AND FREE OF DUST, DIRT AND SMUDGES. PLASTIC AND LABELS MUST BE REMOVED FROM ALL LIGHT FIXTURES AT PROJECT COMPLETION.

KEYNOTES

#

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STATE of ALABAMA
NEIL K. ESSER
9168
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5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

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SHEET TITLE

FIRST FLOOR RCP

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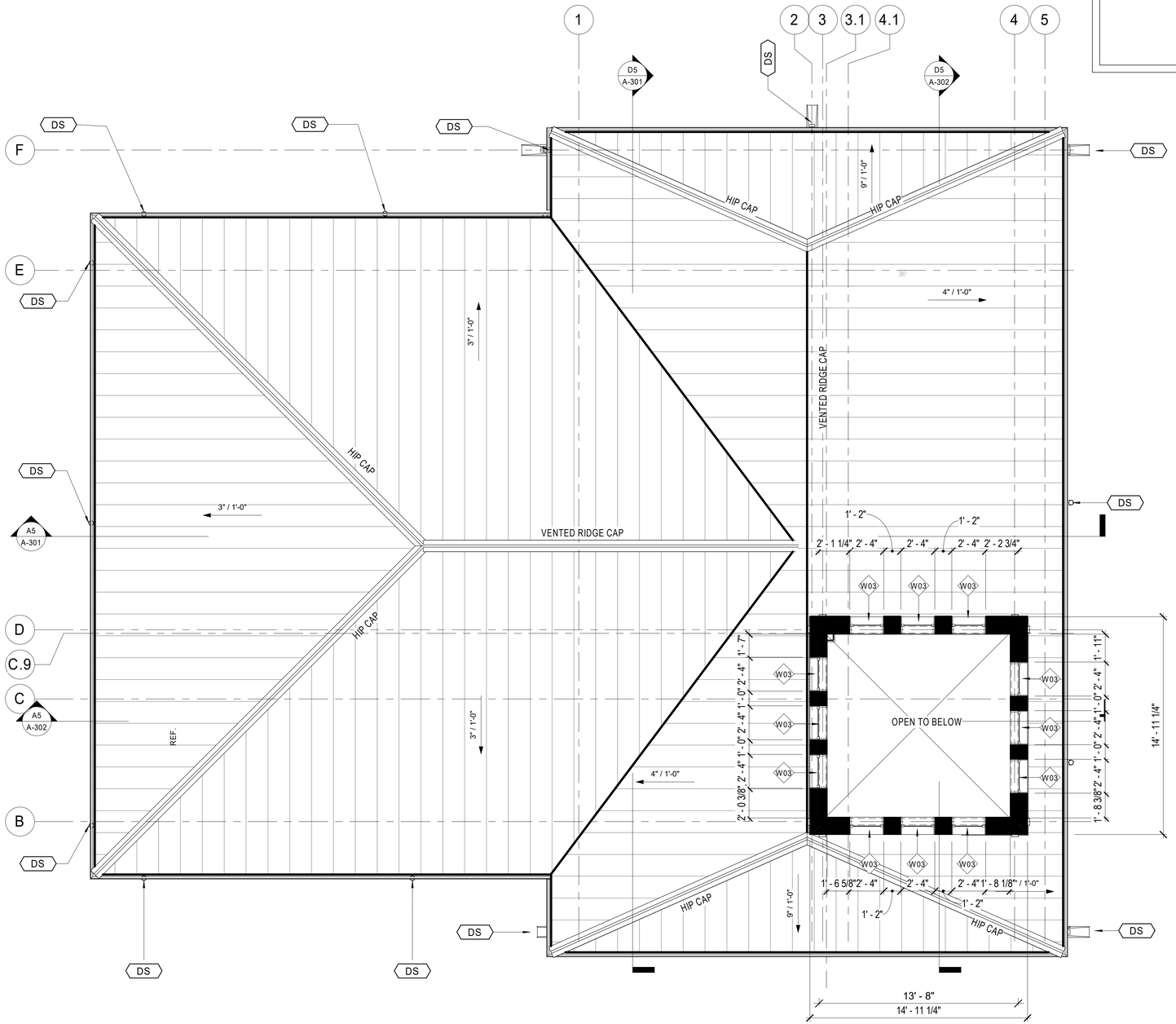

ROOF PLAN LEGEND

PRE-FINISHED 2" STANDING SEAM METAL ROOF PANEL SYSTEM

ROOF TOP MECHANICAL EQUIPMENT (REFER TO MECH DRAWINGS)

1/2"/12" MIN — SLOPE DIRECTION

GENERAL SHEET NOTES

1. DIMENSIONS FOR NEW CONSTRUCTION ARE FROM FACE OF STUD OR FACE OF MASONRY UNLESS OTHERWISE NOTED.
2. PROVIDE POSITIVE DRAINAGE TO ALL ROOF DRAINS, GUTTERS, AND SCUPPERS.
3. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR THE INSTALLATION OF ALL ROOFING ACCESSORIES AND TRIM INDICATED ON DRAWINGS.
4. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND STANDARD DETAILS FOR THE INSTALLATION OF THE ROOFING SYSTEMS INDICATED.
5. COORDINATE AND VERIFY ALL ROOF PENETRATIONS AND ROOFTOP EQUIPMENT LOCATIONS WITH PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS & SPECIFICATIONS.
6. MECHANICAL EQUIPMENT LOCATIONS ARE SHOWN AS APPROXIMATE. COORDINATE EXACT ITEMS AND LOCATIONS FOR STRUCTURAL SUPPORT AND ROOF PENETRATIONS. PROVIDE WALKPADS AT SERVICE SIDE, TYP.
8. LIGHTNING PROTECTION, REFER TO ELECTRICAL DRAWINGS FOR DETAILS. COORDINATE WITH ELECTRICAL DRAWINGS.

KEYNOTES

LOW ROOF PLAN

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

PLAN NORTH

0 2' 4' 8'

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STATE of ALABAMA — NEIL A. ESSER — 9168 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE | DESIGN: NXE
CHECK: SAT

SHEET TITLE

ROOF PLANS

SHT. NO. A-103 | REV. NO.

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ROOF PLAN LEGEND

PRE-FINISHED 2" STANDING SEAM METAL ROOF PANEL SYSTEM

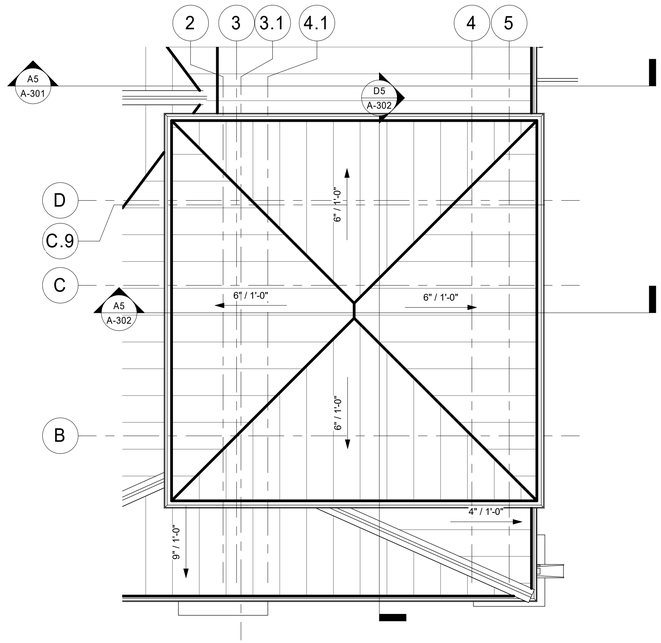
ROOF TOP MECHANICAL EQUIPMENT (REFER TO MECH DRAWINGS)

1/2"/12" MIN — SLOPE DIRECTION

GENERAL SHEET NOTES

1. DIMENSIONS FOR NEW CONSTRUCTION ARE FROM FACE OF STUD OR FACE OF MASONRY UNLESS OTHERWISE NOTED.
2. PROVIDE POSITIVE DRAINAGE TO ALL ROOF DRAINS, GUTTERS, AND SCUPPERS.
3. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR THE INSTALLATION OF ALL ROOFING ACCESSORIES AND TRIM INDICATED ON DRAWINGS.
4. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND STANDARD DETAILS FOR THE INSTALLATION OF THE ROOFING SYSTEMS INDICATED.
5. COORDINATE AND VERIFY ALL ROOF PENETRATIONS AND ROOFTOP EQUIPMENT LOCATIONS WITH PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS & SPECIFICATIONS.
6. MECHANICAL EQUIPMENT LOCATIONS ARE SHOWN AS APPROXIMATE. COORDINATE EXACT ITEMS AND LOCATIONS FOR STRUCTURAL SUPPORT AND ROOF PENETRATIONS. PROVIDE WALKPADS AT SERVICE SIDE, TYP.
8. LIGHTNING PROTECTION, REFER TO ELECTRICAL DRAWINGS FOR DETAILS. COORDINATE WITH ELECTRICAL DRAWINGS.

KEYNOTES



1 **TOWER ROOF PLAN**
SCALE: 1/4" = 1'-0" (A-201)
0 2' 4' 8'

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WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

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GULF SHORES, AL 36542

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ROOF PLANS

SHT. NO. A-104
REV. NO.

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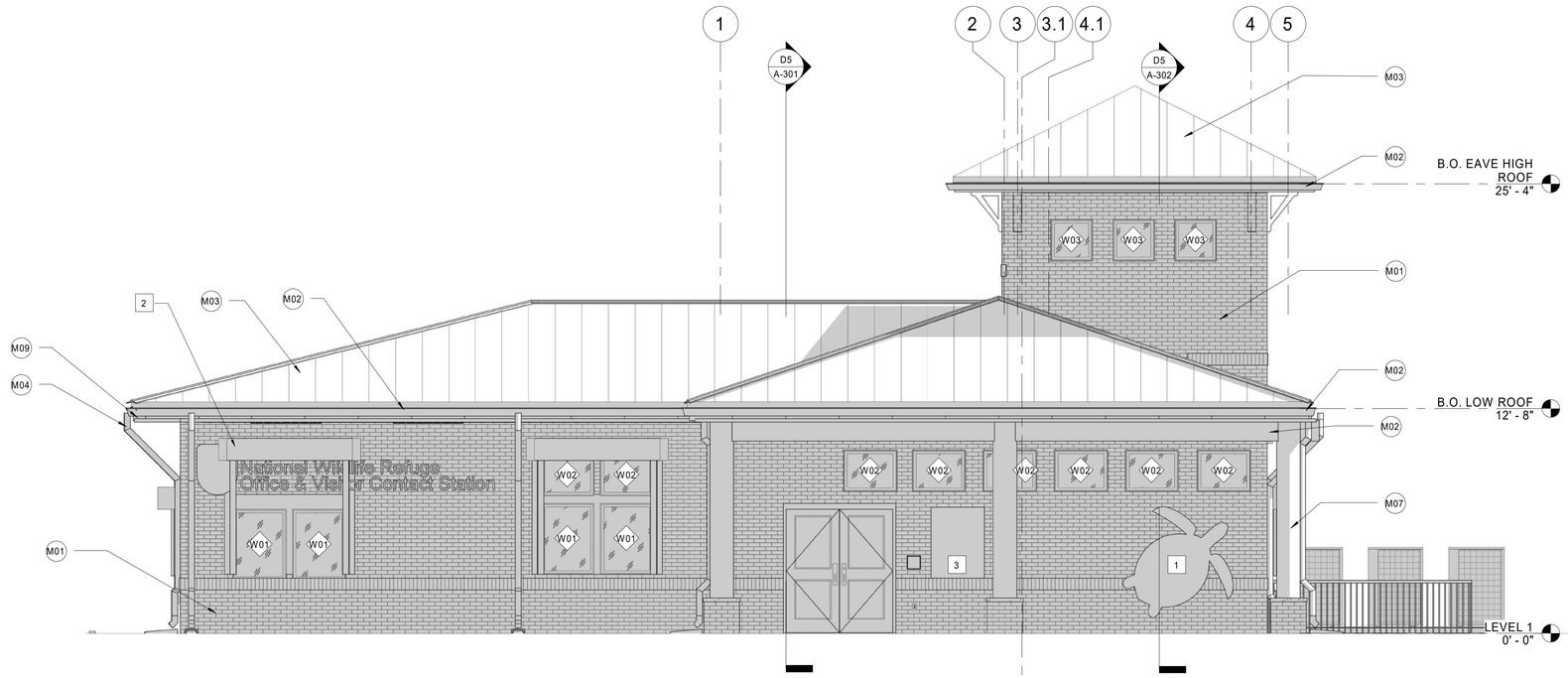
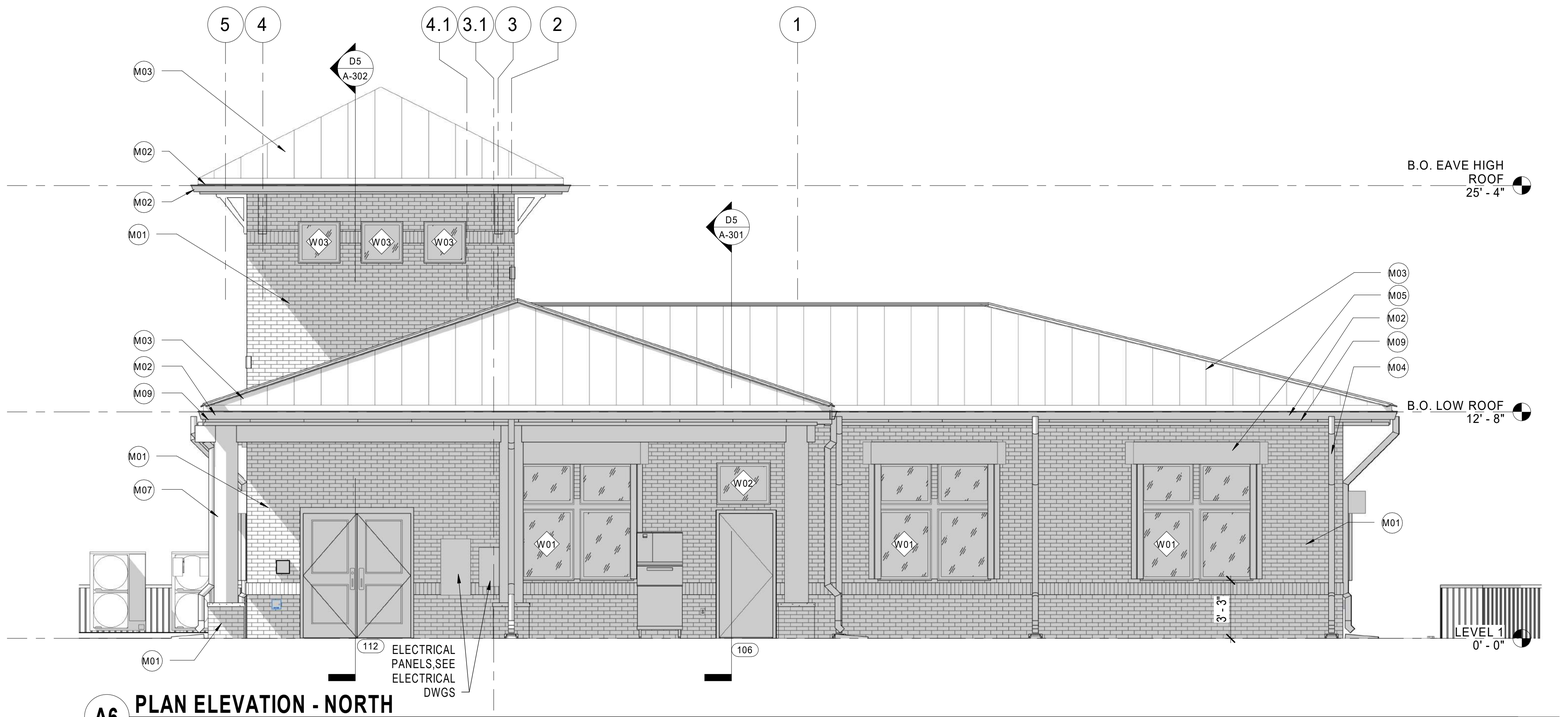


C6 PLAN ELEVATION - SOUTH

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

0 4' 8' 16'



A6 PLAN ELEVATION - NORTH

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

0 4' 8' 16'

GENERAL SHEET NOTES

1. WHERE COLOR IS SHOWN AS BEING SPECIFIC TO ONE MANUFACTURER, AN EQUIVALENT COLOR BY ANOTHER MANUFACTURER MAY BE SUBMITTED FOR APPROVAL. MANUFACTURERS AND MATERIALS SPECIFIED ARE NOT INTENDED TO LIMIT THE SELECTION OF EQUAL COLORS FROM OTHER MANUFACTURERS. PRIOR TO PROCURING MATERIAL THE FINAL COLOR SELECTIONMUST BE PER USFWS APPROVAL.
2. REFER TO HORIZONTAL AND VERTICAL ASSEMBLY DETAILS ON SHEETS A-601 THRU A-603 FOR EXTERIOR WALL AND ROOF ASSEMBLY.
3. REFER TO DOOR SCHEDULE FOR DOOR TYPES, FRAME TYPES, FINISH AND STYLE.
4. REFER TO WINDOW SCHEDULE FOR WINDOW TYPES, FRAME TYPES, FINISH AND STYLE.
5. REFER TO WALL SECTION SHEETS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
6. CONTROL JOINT LOCATIONS INDICATED ARE APPROXIMATE. COORDINATE CONTROL JOINT LOCATIONS IN FIELD TO AVOID CONFLICT WITH LINTELS. MOVEMENT JOINTS AT CHANGES IN WALL DIRECTION, WALL OPENINGS, CHANGES IN WALL HEIGHTS, CHANGES IN WALL MATERIALS, AND BELOW SELF ANGLE SUPPORTS, TYPICALLY
7. ALL CAULK/SEALANT ADJACENT TO WINDOWS/DOOR FRAMES MUST MATCH THEIR RESPECTIVE COLORS UNLESS SPECIFIED OTHERWISE.
8. REFER TO AND COORDINATE WITH THE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE LOCATIONS, SIZES AND QUANTITIES OF EXTERIOR LIGHTS, LOUVERS AND VENTS.

KEYNOTES

1. INSTALL WALL MOUNTED ART FURNISHED BY GOVERNMENT. COORDINATE INSTALLATION WITH GOVERNMENT AND PROVIDE REQUIRED BLOCKING, ANCHORING PER LOADING REQUIREMENTS AS REQUIRED ASSUME DEAD LOAD OF 200 LBS.
2. INSTALL AND PROCURE CAST METAL LETTERING & USFWS LOGO. CONFIRM FINAL SIGNAGE VERBIAGE WITH USFWS PRIOR TO ORDERING AND INSTALLING.
3. INSTALL AND PROCURE WALL MOUNTED INFORMATION KIOS. COORDINATE INSTALLATION WITH GOVERNMENT AND PROVIDE REQUIRED BLOCKING, ANCHORING PER LOADING REQUIREMENTS AS REQUIRED ASSUME DEAD LOAD OF 200 LBS.

ELEVATION FINISH SCHEDULE

MARK	BOD MFR	BOD PRODUCT	COLOR
M01	SOUTH ALABAMA BRICK COMPANY	COMMON BRICK MASONRY	SEASPRAY KLAYCOAT
M02	BASIS OF DESIGN MANUFACTURER	---	
M03	PAC-CLAD	1 3/4" HIGH STANDING SEAM SNAP-CLAD PANEL	SILVER SMITH
M04	PAC-CLAD	PAC-TITE GOLD GUTTER & DOWNSPOUTS	MATCH M03
M05	COOKSON	STORM DEFENDER	MATCH WINDOW TRIM
M06	ARCHITECTURAL MALL, INC	FIBERGLASS BEAM WRAP	WHITE
M07	ARCHITECTURAL MALL, INC	FRP COLUMN WRAP	WHITE
M08	BASIS OF DESIGN MANUFACTURER	---	

PLAN NORTH

GRAPHIC SCALE(S)

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FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

MRK.	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
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CHECK: SAT

SHEET TITLE

OVERALL BUILDING ELEVATIONS

SHT. NO. A-201 | REV. NO.

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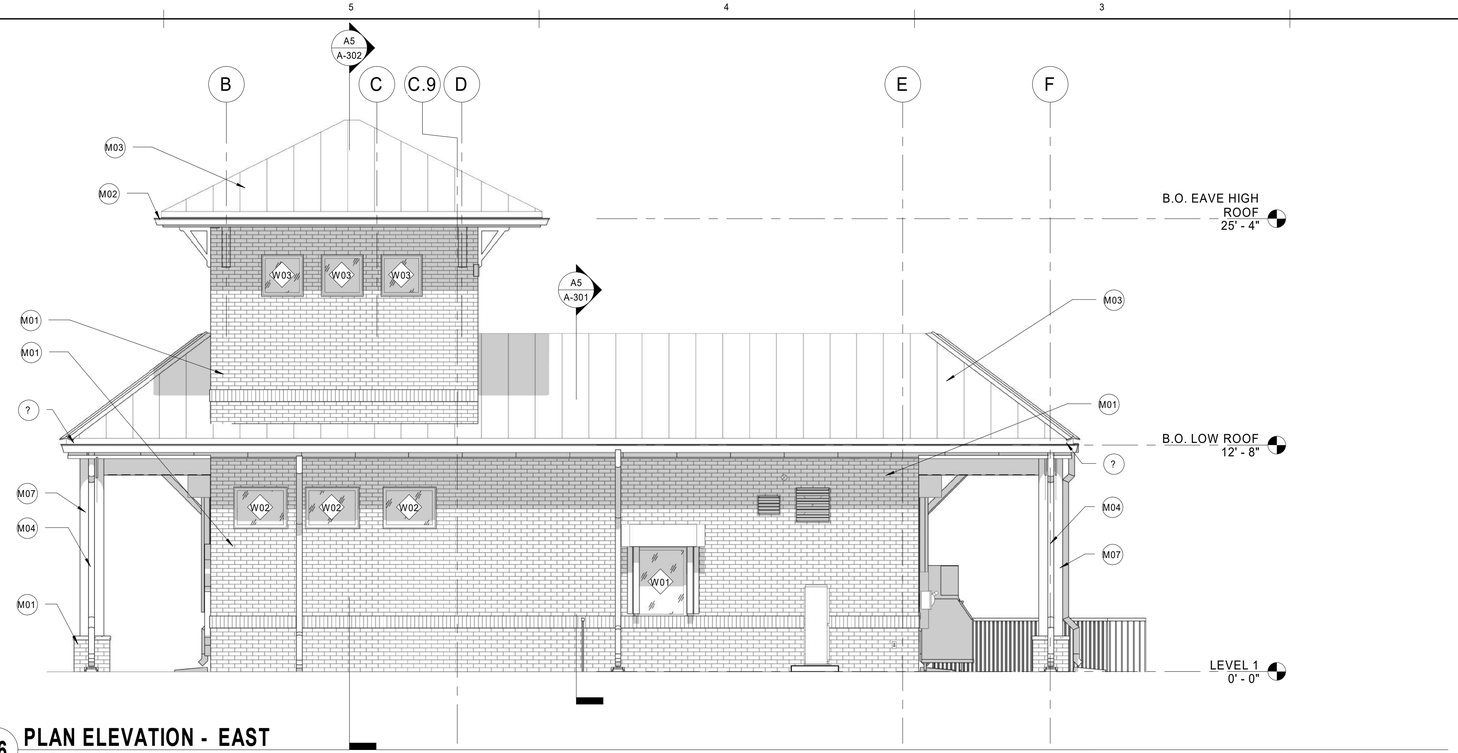
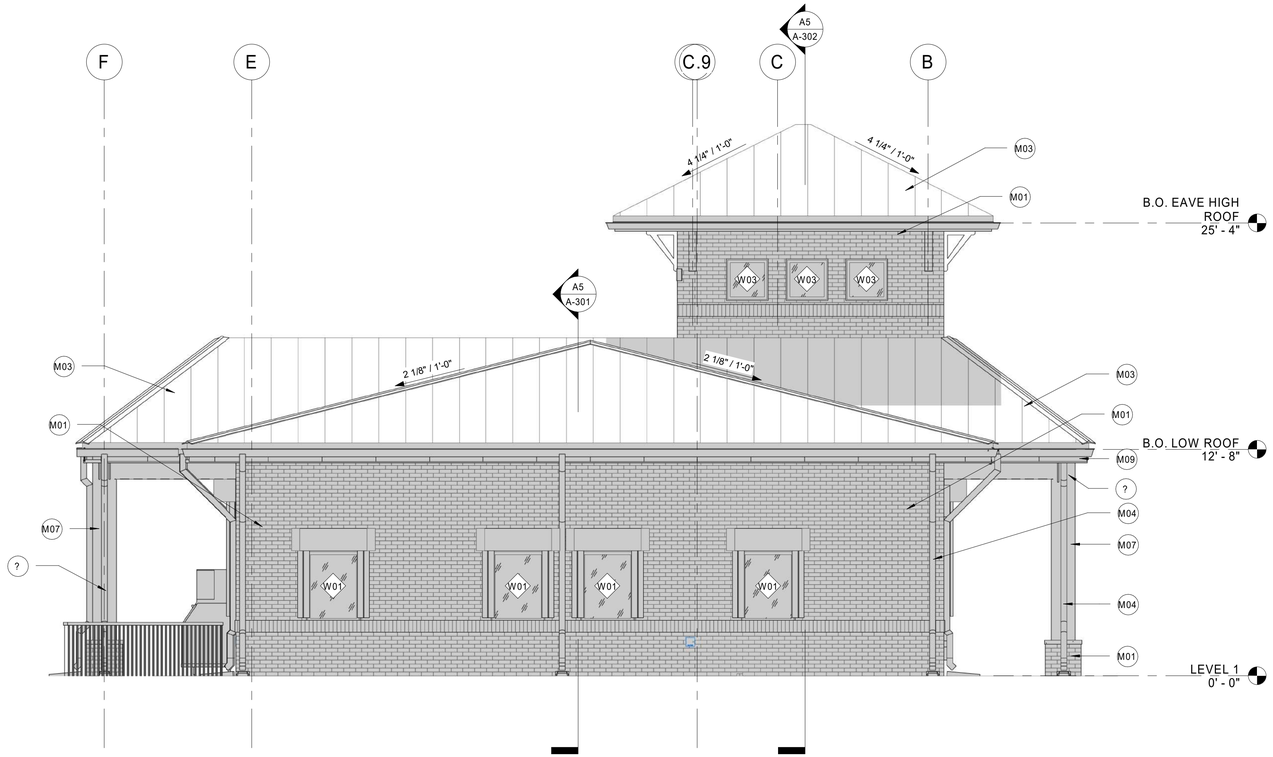


D6 PLAN ELEVATION - EAST

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

0 4' 8' 16'



A6 PLAN ELEVATION - WEST

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

0 4' 8' 16'

GENERAL SHEET NOTES

1. WHERE COLOR IS SHOWN AS BEING SPECIFIC TO ONE MANUFACTURER, AN EQUIVALENT COLOR BY ANOTHER MANUFACTURER MAY BE SUBMITTED FOR APPROVAL. MANUFACTURERS AND MATERIALS SPECIFIED ARE NOT INTENDED TO LIMIT THE SELECTION OF EQUAL COLORS FROM OTHER MANUFACTURERS. PRIOR TO PROCURING MATERIAL THE FINAL COLOR SELECTIONMUST BE PER USFWS APPROVAL.
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KEYNOTES

ELEVATION FINISH SCHEDULE

MARK	BOD MFR	BOD PRODUCT	COLOR
M01	SOUTH ALABAMA BRICK COMPANY	COMMON BRICK MASONRY	SEASPRAY KLAYCOAT
M02	BASIS OF DESIGN MANUFACTURER	---	
M03	PAC-CLAD	1 3/4" HIGH STANDING SEAM SNAP-CLAD PANEL	SILVER SMITH
M04	PAC-CLAD	PAC-TITE GOLD GUTTER & DOWNSPOUTS	MATCH M03
M05	COOKSON	STORM DEFENDER	MATCH WINDOW TRIM
M06	ARCHITECTURAL MALL, INC	FIBERGLASS BEAM WRAP	WHITE
M07	ARCHITECTURAL MALL, INC	FRP COLUMN WRAP	WHITE
M08	BASIS OF DESIGN MANUFACTURER	---	

PLAN NORTH

GRAPHIC SCALE(S)

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FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

MRK.	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
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CHECK: SAT

SHEET TITLE

OVERALL BUILDING ELEVATIONS

SHT. NO. A-202 REV. NO.

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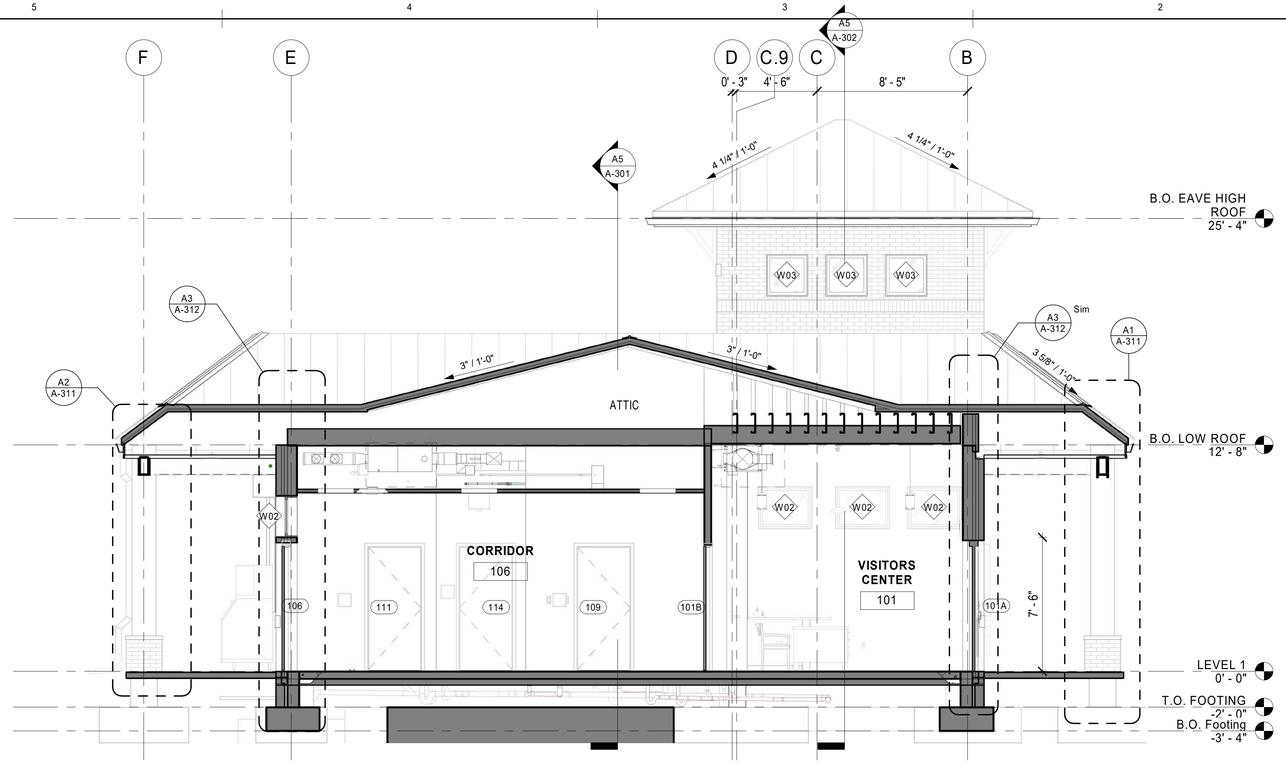

D5 BUILDING SECTION

SCALE: 1/4" = 1'-0" (A-101)

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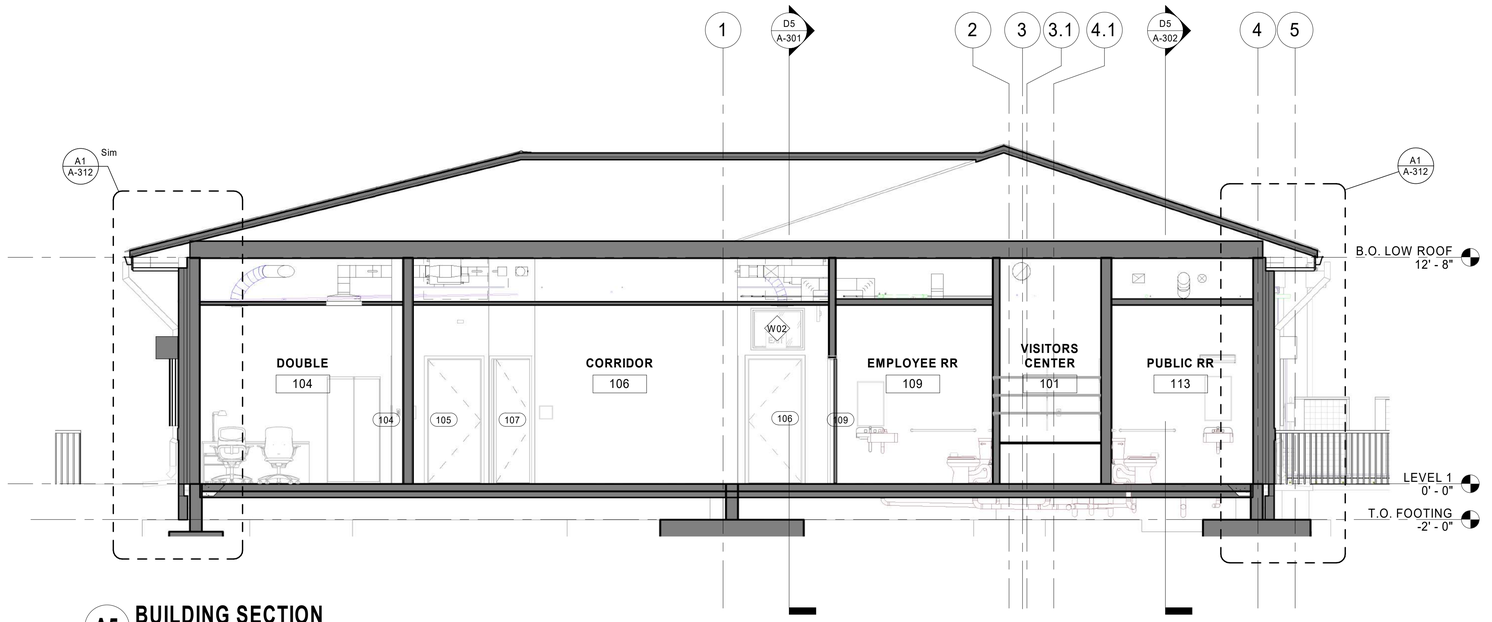

A5 BUILDING SECTION

SCALE: 1/4" = 1'-0" (A-101)

0 2' 4' 8'

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U.S. FISH & WILDLIFE SERVICE

STATE of ALABAMA
NEIL A. ESSER
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REGISTERED ARCHITECT
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

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COMM NO: 230182
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SHEET TITLE

OVERALL BUILDING SECTIONS

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REV. NO.

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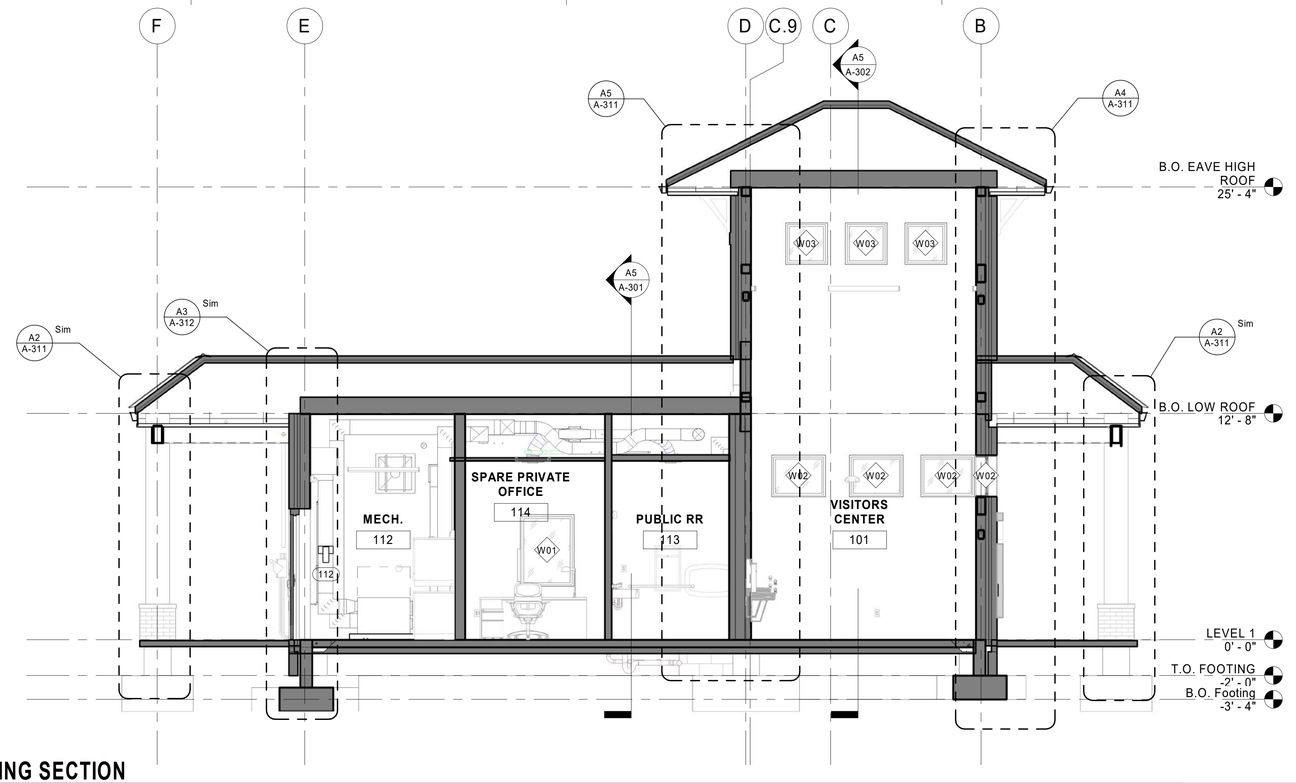

D5 BUILDING SECTION

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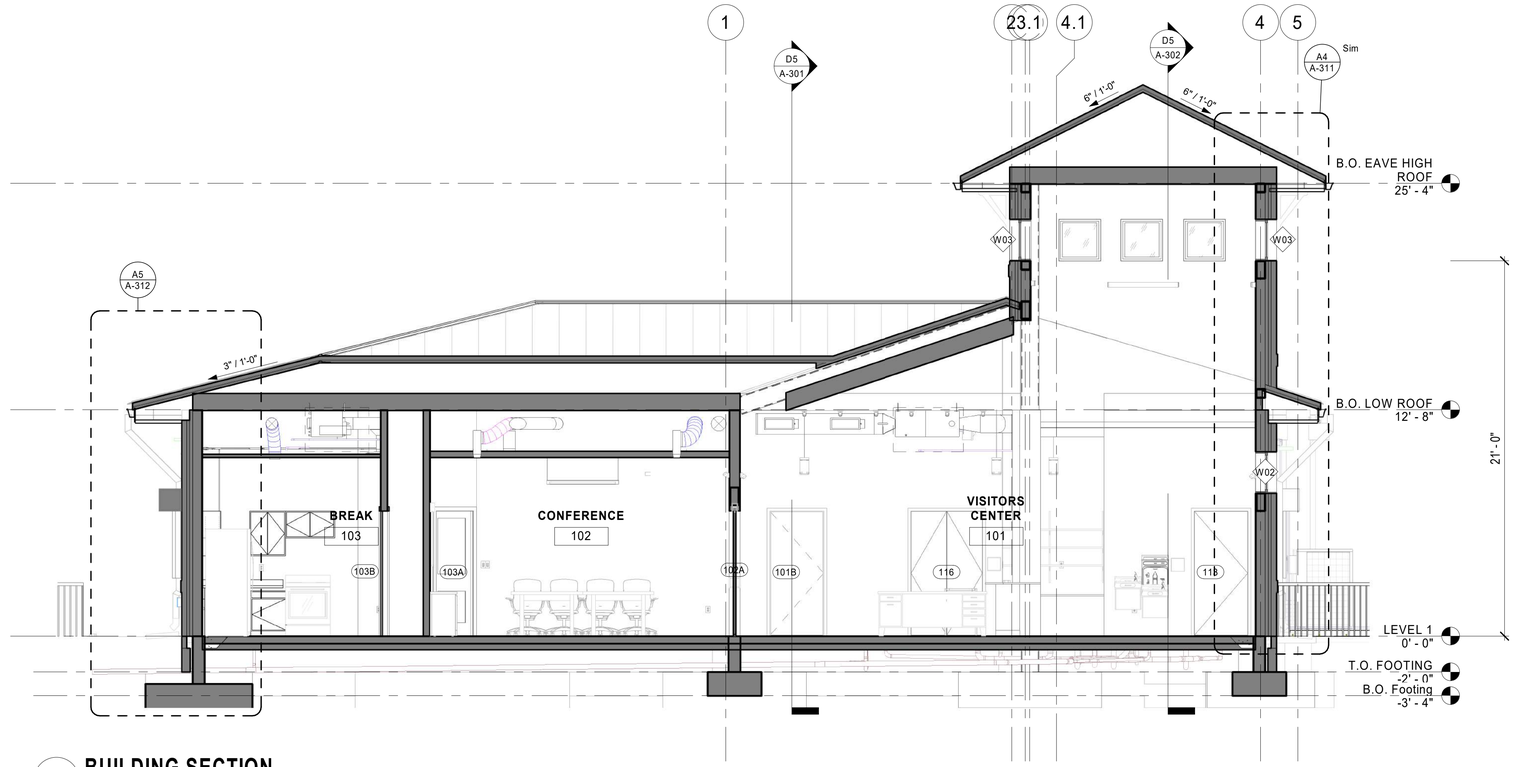

A5 BUILDING SECTION

SCALE: 1/4" = 1'-0" (A-101)

0 2' 4' 8'

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STATE of ALABAMA — NEIL K. ESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
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COMM NO: 230182
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SHEET TITLE

OVERALL BUILDING SECTIONS

SHT. NO. A-302
REV. NO.

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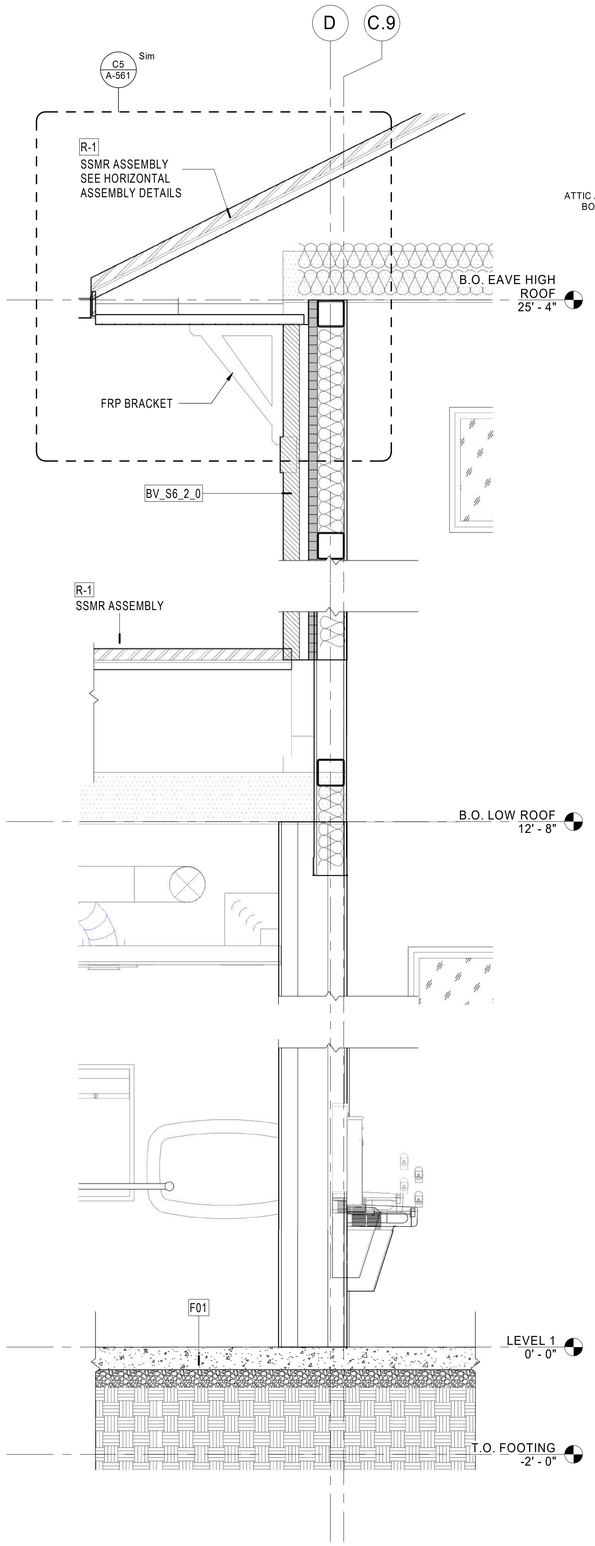
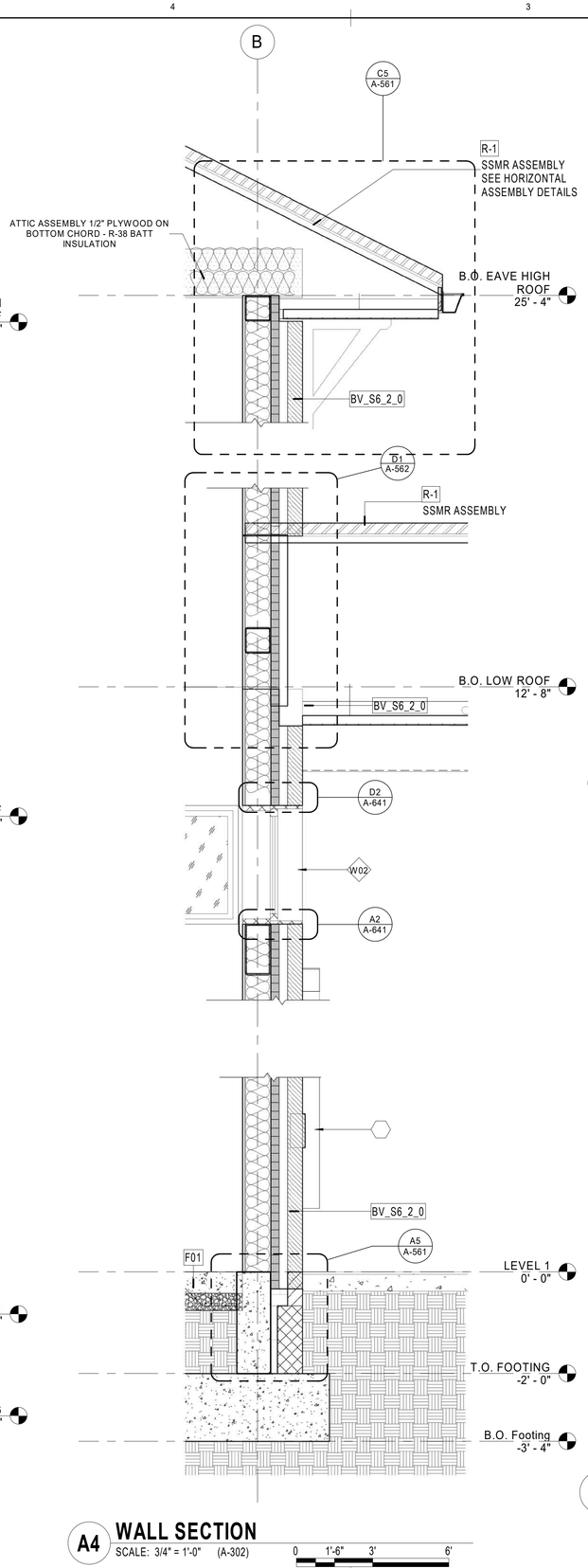


A5 **WALL SECTION**
SCALE: 3/4" = 1'-0" (A-302) 0 1'-6" 3' 6'



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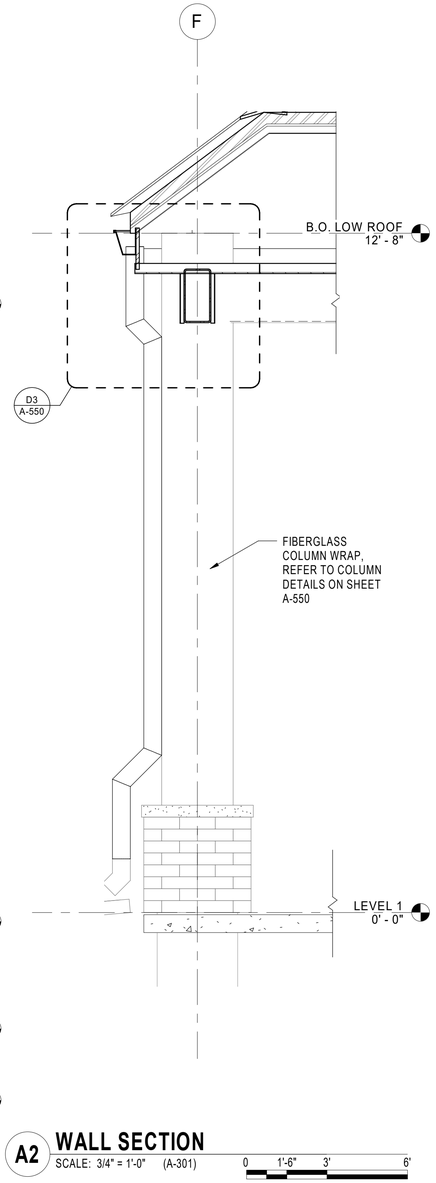
SCALE: 3/4" = 1'-0" (A-302) 0 1'-6" 3' 6'



A2 **WALL SECTION**
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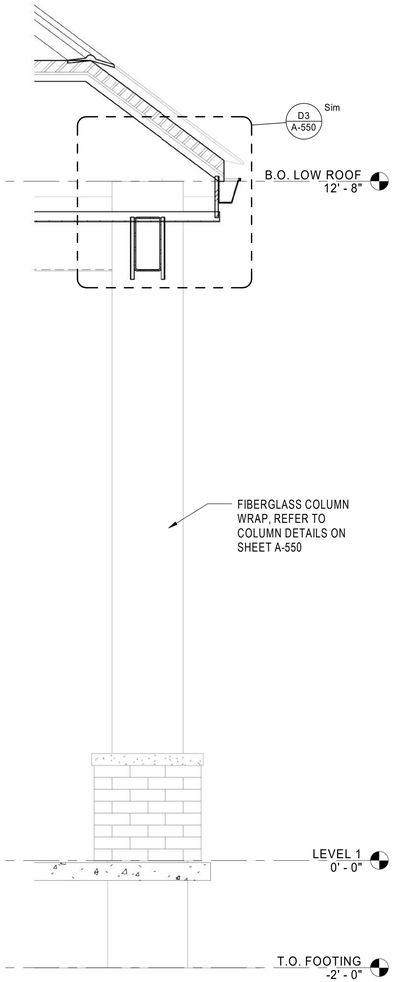

A1 **WALL SECTION @ PORCH**
SCALE: 3/4" = 1'-0" (A-301) 0 1'-6" 3' 6'

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STATE of ALABAMA REGISTERED ARCHITECT NEIL T. ESSER 9168 5/2/2024

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BON SECOUR VISITOR
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12295 STRONG RD.
GULF SHORES, AL 36542

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SHEET TITLE
WALL SECTIONS

SHT. NO. A-311
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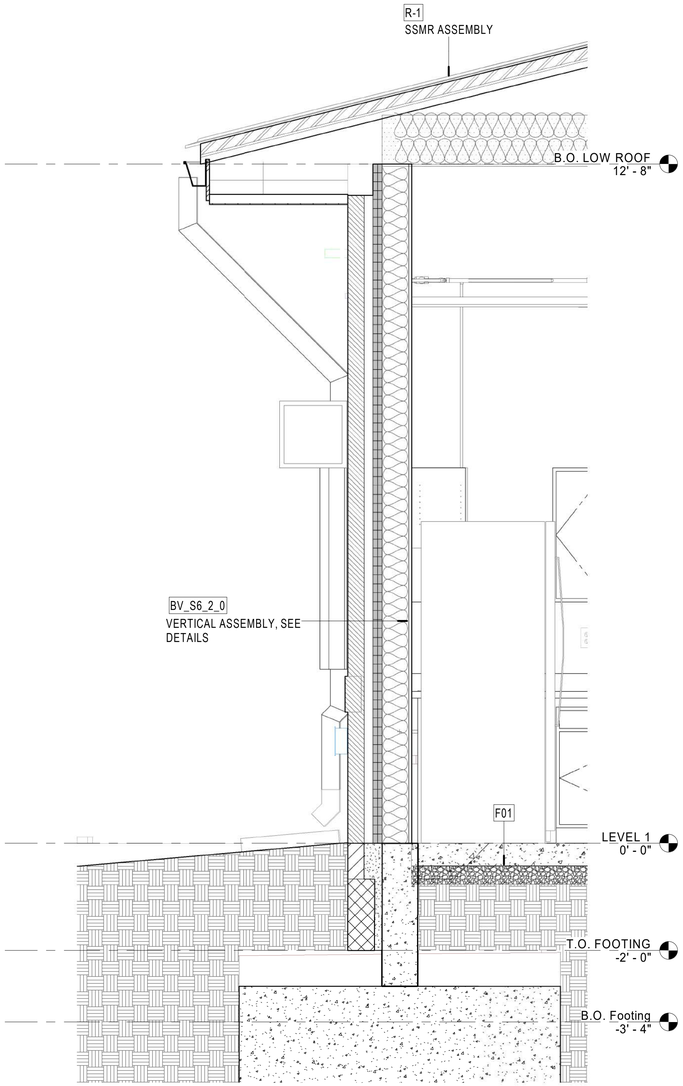
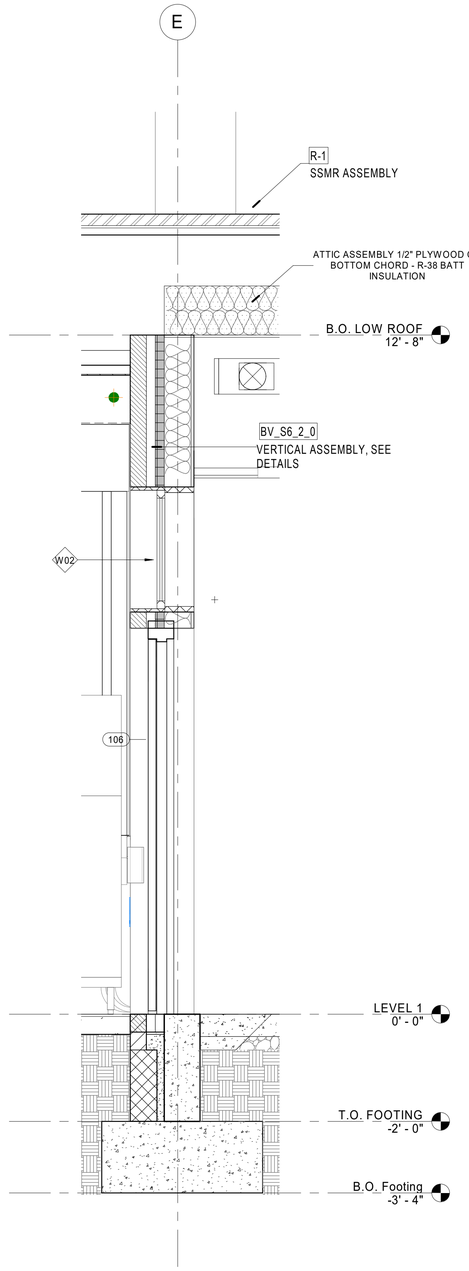


A5 WALL SECTION

SCALE: 3/4" = 1'-0" (A-302)

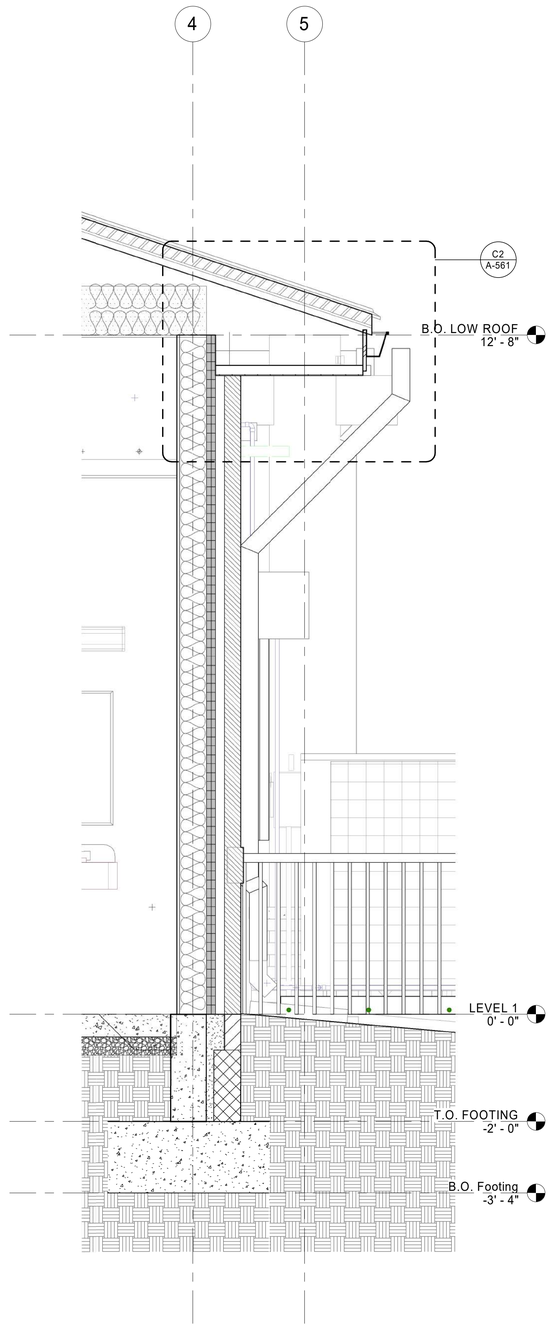
0 9" 1'-6" 3'



A3 WALL SECTION

SCALE: 3/4" = 1'-0" (A-301)

0 9" 1'-6" 3'



A1 WALL SECTION

SCALE: 3/4" = 1'-0" (A-301)

0 9" 1'-6" 3'

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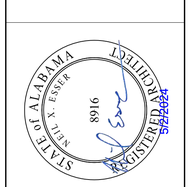
U.S. FISH & WILDLIFE SERVICE



FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

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GULF SHORES, AL 36542

MRK.	DATE	REVISION DESCRIPTION

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DATE: 05/02/2024
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SHEET TITLE

WALL SECTIONS

SHT. NO. A-312 | REV. NO.

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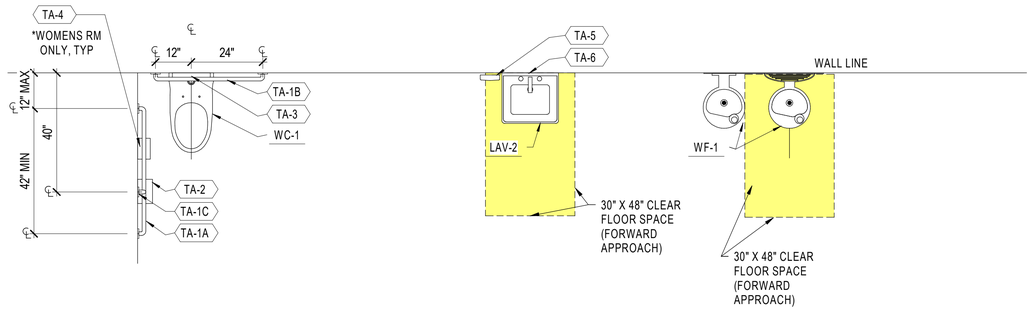


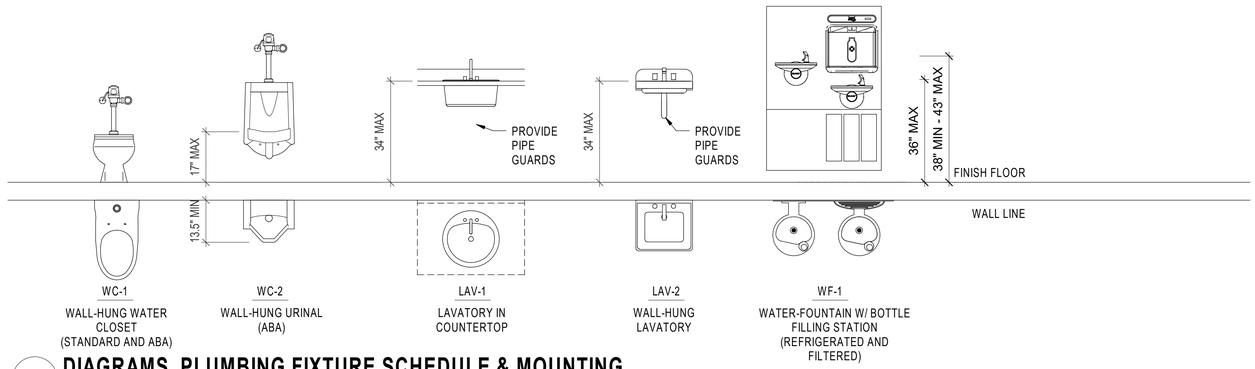
ST1 — UNISEX

S2 — ABA/ANSI WALL-HUNG LAVATORY

WF1 — WATER-FOUNTAIN W/ BOTTLE FILLING STATION (REFRIGERATED AND FILTERED)

D6 TOILET ROOMS STANDARD LAYOUTS

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



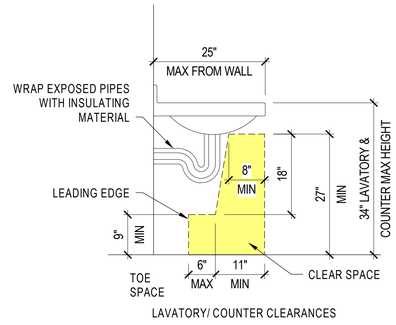
WC-1 — WALL-HUNG WATER CLOSET (STANDARD AND ABA)

WC-2 — WALL-HUNG URINAL (ABA)

LAV-1 — LAVATORY IN COUNTERTOP

LAV-2 — WALL-HUNG LAVATORY

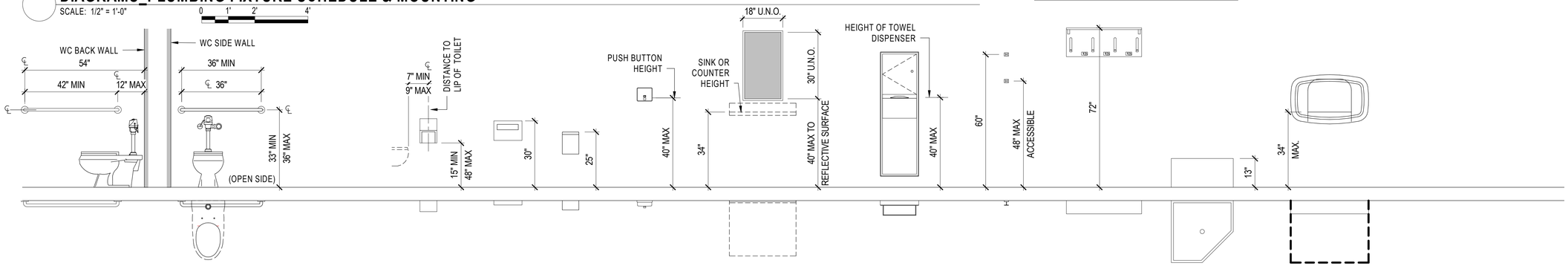
WF-1 — WATER-FOUNTAIN W/ BOTTLE FILLING STATION (REFRIGERATED AND FILTERED)



LAVATORY/ COUNTER CLEARANCES

DIAGRAMS_PLUMBING FIXTURE SCHEDULE & MOUNTING

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



TA-1A — 42" HORIZONTAL GRAB BAR W/ SNAP FLANGE

TA-1B — 36" HORIZONTAL GRAB BAR W/ SNAP FLANGE

TA-1C — 18" VERTICAL GRAB BAR W/ SNAP FLANGE

TA-2 — TOILET PAPER DISPENSER

TA-3 — TOILET SEAT COVER DISPENSER

TA-4 — FEMANINE NAPKIN RECEPTABLE, GFGI

TA-5 — SURFACE MOUNTED SOAP DISPENSER, GFGI

TA-6 — 30" H X 18" W MIRROR

TA-7 — RECESSED PAPER TOWEL HOLDER AND WASTE RECEPTACLE, GFGI

TA-8 — COAT HOOK(S)

TA-9 — UTILITY SHELF WITH MOP HOLDERS AND RAG HOOKS

TA-10 — MOP SINK

TA-11 — BABY CHANGING STATION

A6 TOILET ACCESSORY SCHEDULE & MOUNTING DIAGRAMS

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

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STATE of ALABAMA — NEIL A. ESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

MRK.	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE | DESIGN: NXE
CHECK: SAT

SHEET TITLE

TOILET ACCESSORY DIAGRAMS

SHT. NO. A-401 | REV. NO.

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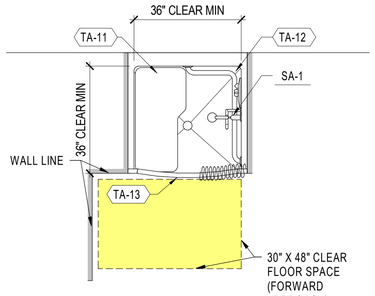
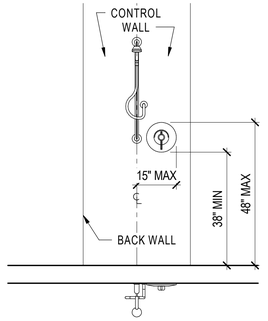


ST4

TRANSFER TYPE SHOWER COMPARTMENT



SA-1

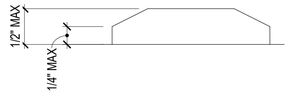
SHOWER CONTROLS AND SHOWER SPRAY UNIT

D4 SHOWER ROOMS STANDARD LAYOUTS

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

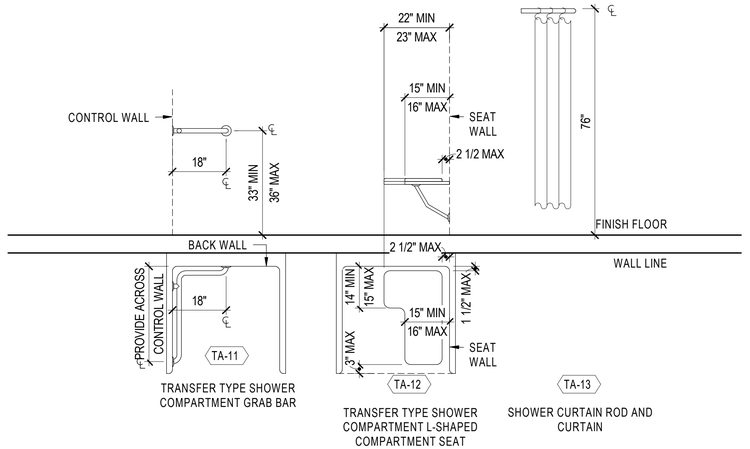
D3 SHOWER PLUMBING SCHEDULE & MOUNTING DIAGRAMS

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



C3 SHOWER THRESHOLD DETAIL

SCALE: 12" = 1'-0" 0 1/2" 1" 2"



TRANSFER TYPE SHOWER COMPARTMENT GRAB BAR

TRANSFER TYPE SHOWER COMPARTMENT L-SHAPED COMPARTMENT SEAT

SHOWER CURTAIN ROD AND CURTAIN

B4 SHOWER SCHEDULE & MOUNTING DIAGRAMS

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

GENERAL SHEET NOTES

1. EQUIPMENT AND FIXTURES SHOWN ARE GENERAL REPRESENTATIONS.
2. SEE SHEETS A-701 FOR FINISH SCHEDULE AND FINISH LEGEND/PLAN.
3. VERIFY AND COORDINATE INSTALLATION OF TOILET ACCESSORIES AND REQUIRED BLOCKING FOR THE WALL CONSTRUCTION INDICATED. REINFORCE STUD WALLS FOR MOUNTING EQUIPMENT AND PROVIDE BLOCKING FOR TOILET ACCESSORIES. WHERE RECESSED IN RATED WALL, EITHER EXTEND FULL RATING AROUND ITEM OR PROVIDE RATED ITEM TO MAINTAIN INTEGRITY. INSTALL ALL EQUIPMENT AND FIXTURES PER MANUFACTURER REQUIREMENTS, U.N.O.
4. MAINTAIN ALL REQUIRED CLEARANCES, TYP ALL RESTROOMS.
5. COORDINATE WITH PLUMBING DRAWINGS FOR ACCESS PANEL LOCATIONS.
6. COORDINATE FLOOR DRAIN LOCATIONS SO THAT THEY COINCIDE WITH 2 CORNER JOINTS ON THE TILE PATTERN.
7. INSULATE OR PROTECT EQUIPMENT FROM CONTACT ALL EXPOSED PIPES. ALL EXPOSED PIPING UNDER LAVATORY MUST HAVE ADA/ANSI A117.1 COMPLIANT PIPE INSULATION.
8. TOILET FLUSH HANDLE MUST BE INSTALLED ON THE WIDE SIDE OF THE TOILET (TRANSFER SIDE) ADJACENT TO THE LAVATORY/STALL.
9. IF LOCATION OR HEIGHT CONFLICT OCCURS, COORDINATE WITH DOR PRIOR TO INSTALLING ACCESSORY.
10. AS A GUIDELINE MOUNT THE OPERATING FEATURE AND/OR RECEPTACLE 40" AFF
11. PROVIDE WALL STOPS ON HANDICAP TOILET STALL DOORS.
12. PROVIDE WATERPROOF MEMBRANE UNDER FLOOR TILE AND CONTINUOUS PERIMETER FLASHING TURNED UP 6" ABOVE FLOOR TILE ELEVATION.
13. PRE-FABRICATED SHOWER STALL

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SHEET TITLE

SHOWER ACCESSORY DIAGRAMS

SHT. NO. A-402
REV. NO.

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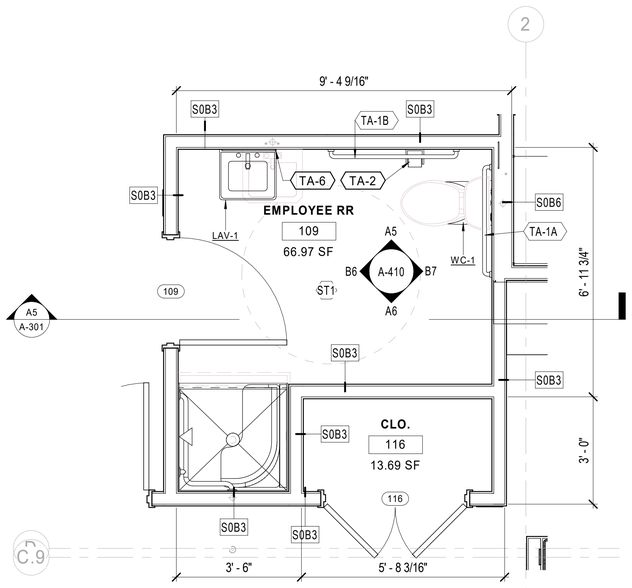
TOILET ACCESSORIES SCHEDULE

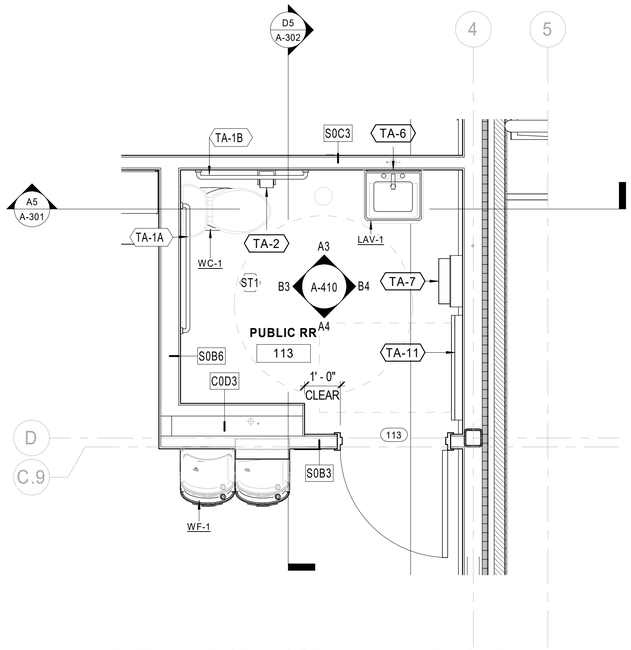
SEE SHEET A-401 & A-402 FOR ADDITIONAL ACCESSORIES AND DETAILS, TYP.

TYPE	TYPE/MODEL	DESCRIPTION	BASIS OF DESIGN MFR	Body Material
TA-1	GRAB BAR T-1A AND TA-1B	GRAB BAR, SEE SHEET A-401		
TA-6	MIRROR/ 18Wx30H B-165 1830	Bobrick B-165 18Wx30H Channel Frame Mirror	Bobrick Washroom Equipment, Inc.	
TA-7	WASTE RECEPTACLE	Toilet Accessory as Specified in 10 28 13	American Specialties, Inc.	Metal - Stainless Steel
TA-9	UTILITY SHELF / B-239	Bobrick B-239 Utility Shelf with Rag Hooks and Broom Holders	Bobrick Washroom Equipment, Inc.	
TA-11	BABY CHANGING STATION / KB200-05SS	Bobrick Horizontal Baby Changing Station - Koala Kare KB200-05SS	Bobrick Washroom Equipment, Inc.	



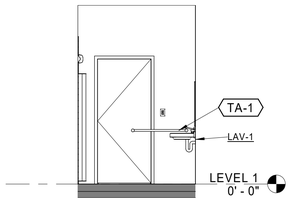
C6 LEVEL 1 - FIRST FLOOR PLAN - EMPLOYEE RR

SCALE: 1/2" = 1'-0" (A-101) 0 1' 2' 4'



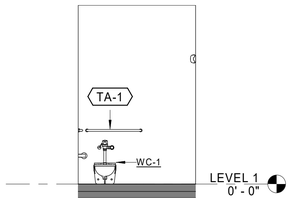
C3 LEVEL 1 - FIRST FLOOR PLAN - PUBLIC RR

SCALE: 1/2" = 1'-0" (A-101) 0 1' 2' 4'



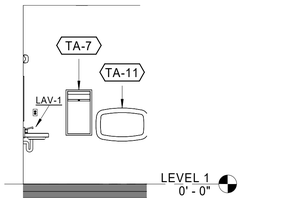
B6 EMPLOYEE RR WEST ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'



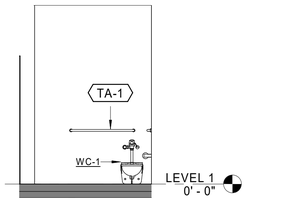
B7 EMPLOYEE RR EAST ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'



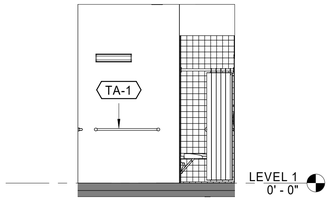
B4 PUBLIC RR EAST ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'



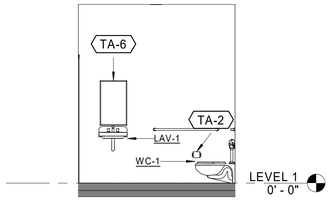
B3 PUBLIC RR WEST ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'



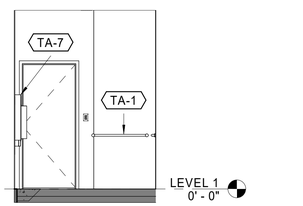
A6 EMPLOYEE RR SOUTH ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'



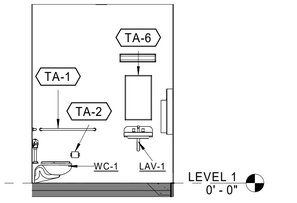
A5 EMPLOYEE RR NORTH ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'



A4 PUBLIC RR SOUTH ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'



A3 PUBLIC RR NORTH ELEVATION

SCALE: 1/4" = 1'-0" (A-410) 0 2' 4' 8'

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13. PRE-FABRICATED SHOWER STALL

KEYNOTES

#

KEY PLAN

PLAN NORTH

GRAPHIC SCALE(S)

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DATE: 05/02/2024
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SHEET TITLE

ENLARGED RESTROOM PLANS AND ELEVATIONS

SHT. NO. A-410 REV. NO.

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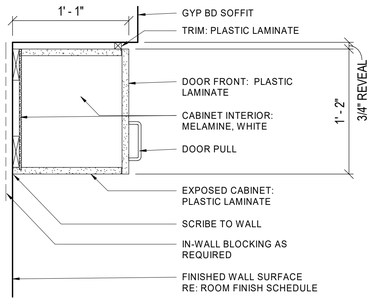
EQUIPMENT SCHEDULE

Type Mark	DESCRIPTION	MANUFACTURER	MODEL No.	UTILITY				REMARKS
				ELEC	GAS	WATER	SEWER	
E-01	REFRIGERATOR	SEE SPECIFICATIONS	36" X 30"	X		X		
E-02	OVEN W/ RANGE	SEE SPECIFICATIONS	30" x 26"	X				

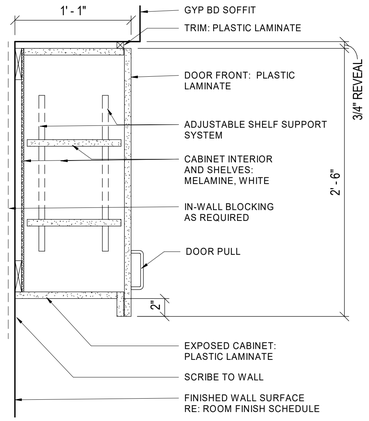
GENERAL SHEET NOTES

CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO CONSTRUCTION, THE DELIVER, HANDLING, SEQUENCING, EQUIPMENT SIZES & UTILITY CONNECTIONS REQUIRED FOR ANY EQUIPMENT SCHEDULED TO BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. COORDINATE SCHEDULING TO PROVIDE FOR THE TIMELY ORDERING OF EQUIPMENT, SHOP DRAWINGS IF REQUIRED, INSTLALATION, AND OTHER RELATED ACTIVITIES TO AVOID DELAY OF CONSTRUCTION.



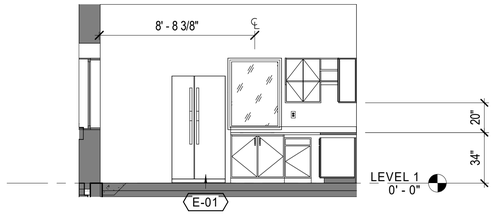
D6 CASEWORK SECTION UPPER CABINET

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



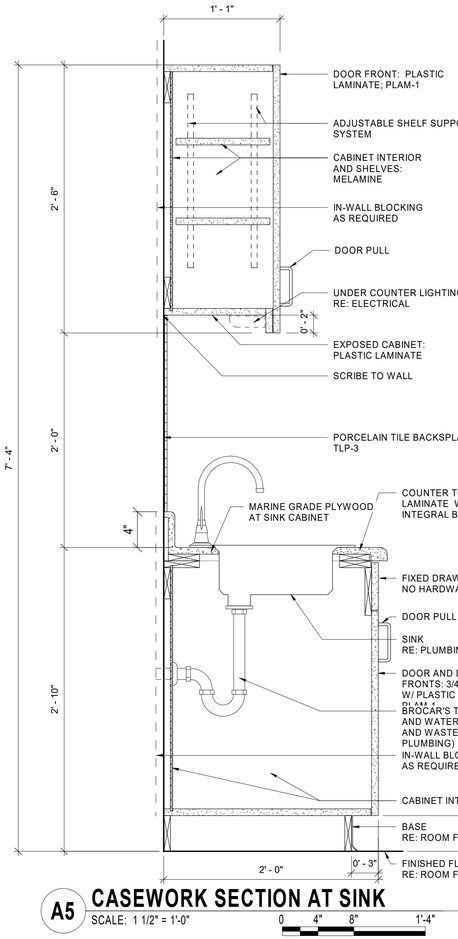
D5 CASEWORK SECTION UPPER CABINET

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



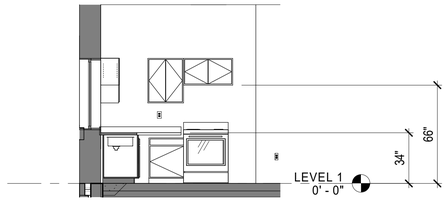
D3 BREAKROOM ELEVATION

SCALE: 1/4" = 1'-0" (A-101) 0 2' 4' 8'



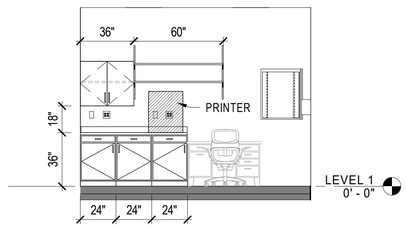
A5 CASEWORK SECTION AT SINK

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



C3 BREAKROOM ELEVATION

SCALE: 1/4" = 1'-0" (A-101) 0 2' 4' 8'



B3 INTERIOR ELEVATION - IT/PRINTER

SCALE: 1/4" = 1'-0" (A-101) 0 2' 4' 8'

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INTERIOR ELEVATIONS & DETAILS

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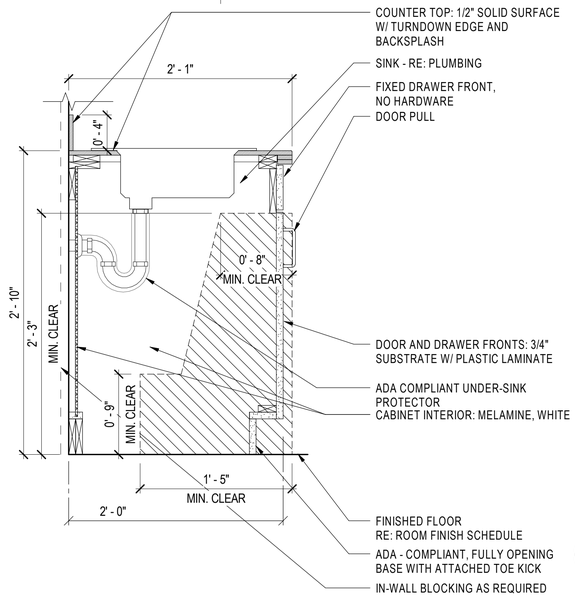
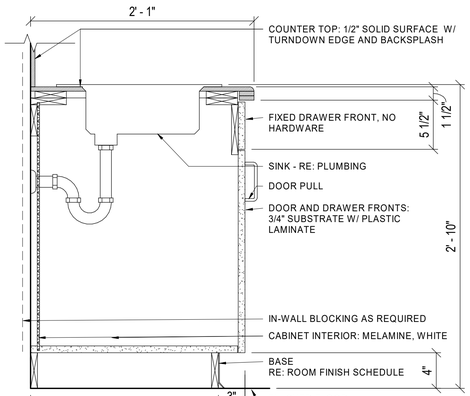
A-411	



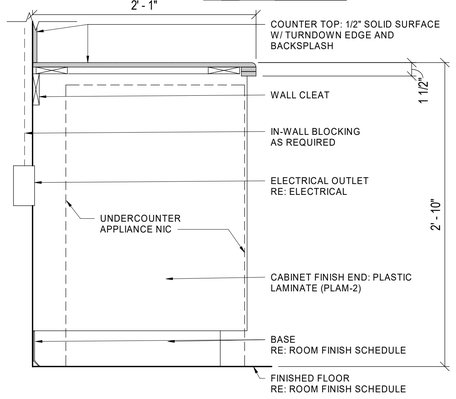
D5 MILLWORK SECTION 3

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



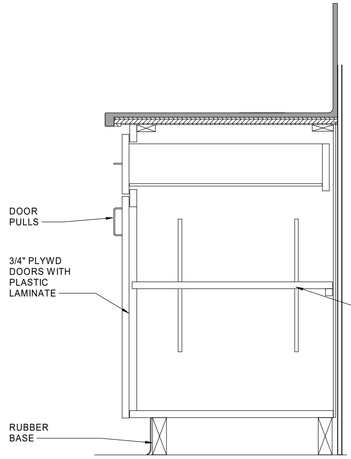
C5 CASEWORK SECTION BASE CABINET

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



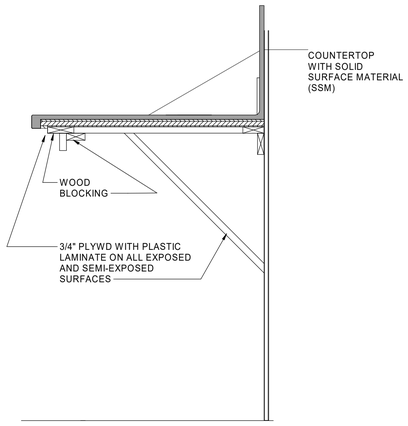
A5 BASE CABINET - UNDER COUNTER APPLIANCE

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



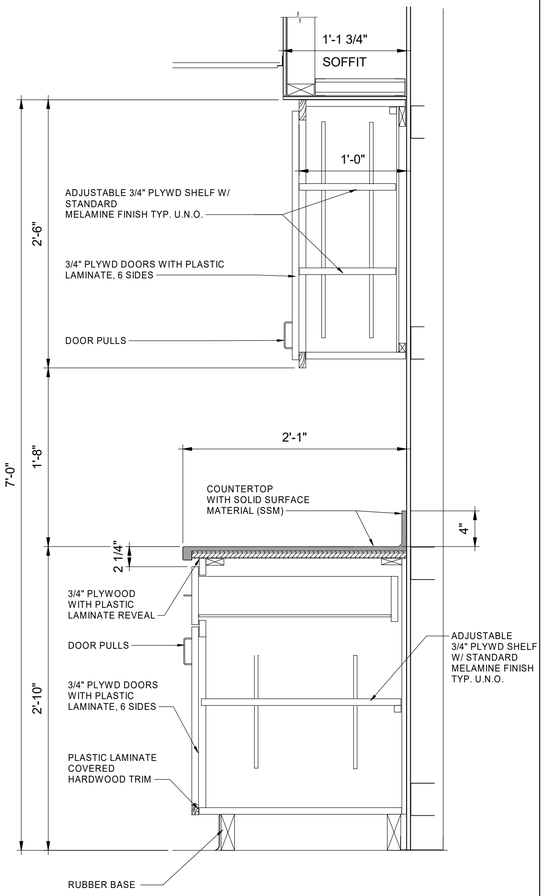
D3 SECTION - COUNTER

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



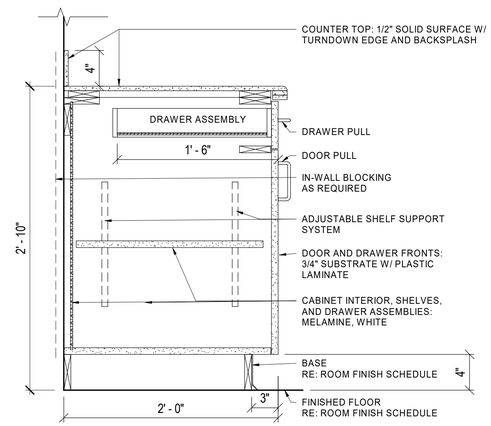
C3 SECTION - COUNTER

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



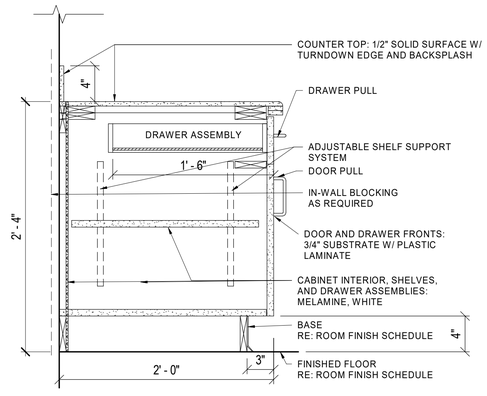
C2 SECTION - CABINETS

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



A3 CASEWORK SECTION BASE CABINET

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



A2 LOWER CASEWORK SECTION

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"

GENERAL SHEET NOTES

1. ALL EXPOSED CASEWORK SURFACE UNLESS OTHERWISE NOTED MUST BE PLASTIC LAMINATE AS SPECIFIED. SEE ROOM FINISH SCHEDULE AND COLOR LEGEND FOR ADDITIONAL INFORMATION.
2. WHEN CASEWORK OCCURS AT RESILIENT FLOORING APPLY SCHEDULED BASE TO TOE KICK.
3. FILLER STRIPS MUST BE USED WHERE NEEDED TO FILL VOIDS BETWEEN CASEWORK AND ADJACENT OBJECTS.
4. PROVIDE CONCEALED 16 GAUGE SHEET METAL STRAPPING AT ALL WALL MOUNTED CABINETS, SHELVING STANDARDS, TOILET ACCESSORIES, SHELVES, AND MISCELLANEOUS WALL MOUNTED PRODUCTS.

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BON SECOUR VISITOR CENTER & ADMINISTRATION
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COMM NO: 230182
DATE: 05/02/2024
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SHEET TITLE

MILLWORK PLANS & SECTIONS

SHT. NO. A-412
REV. NO.

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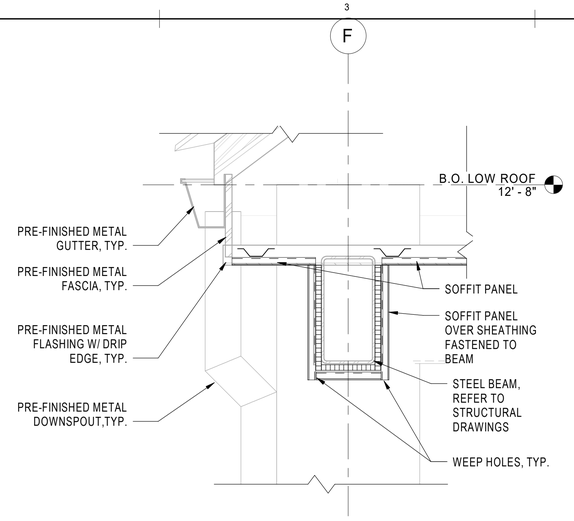
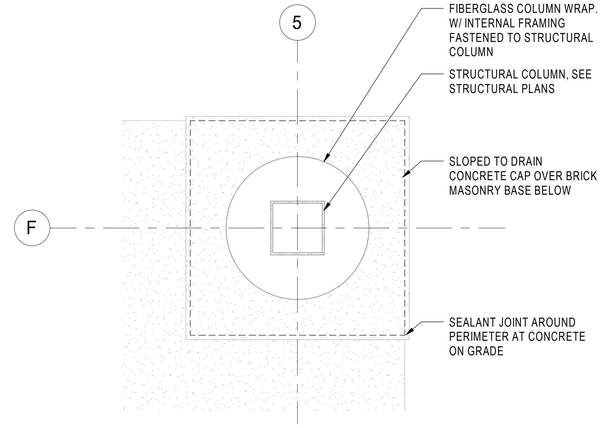
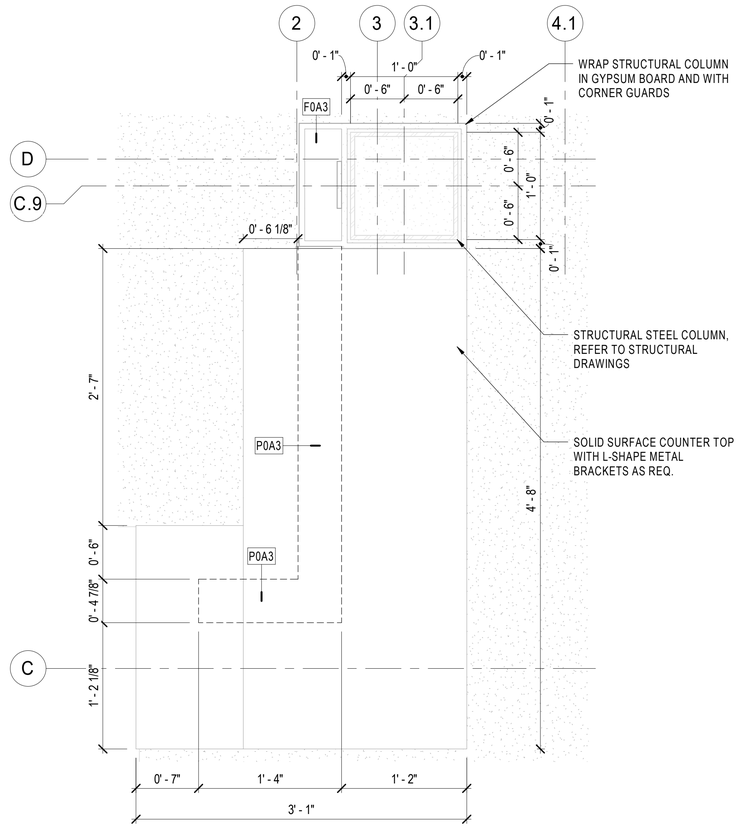


D3 SECTION DETAIL - BEAM TYPICAL
SCALE: 1 1/2" = 1'-0" (A-311) 0 4" 8" 1'-4"



E2 EXTERIOR COLUMN PLAN DETAIL- TYPICAL
SCALE: 1 1/2" = 1'-0" (A-101) 0 4" 8" 1'-4"



A2 INTERIOR COLUMN PLAN DETAIL
SCALE: 1 1/2" = 1'-0" (A-101) 0 4" 8" 1'-4"

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SHEET TITLE

COLUMN PLAN & SECTION DETAILS

SHT. NO.	REV. NO.
A-550	

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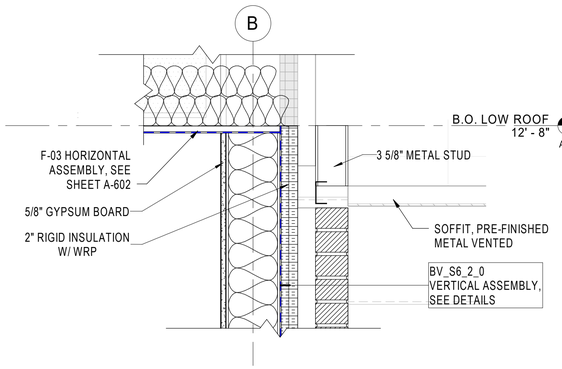
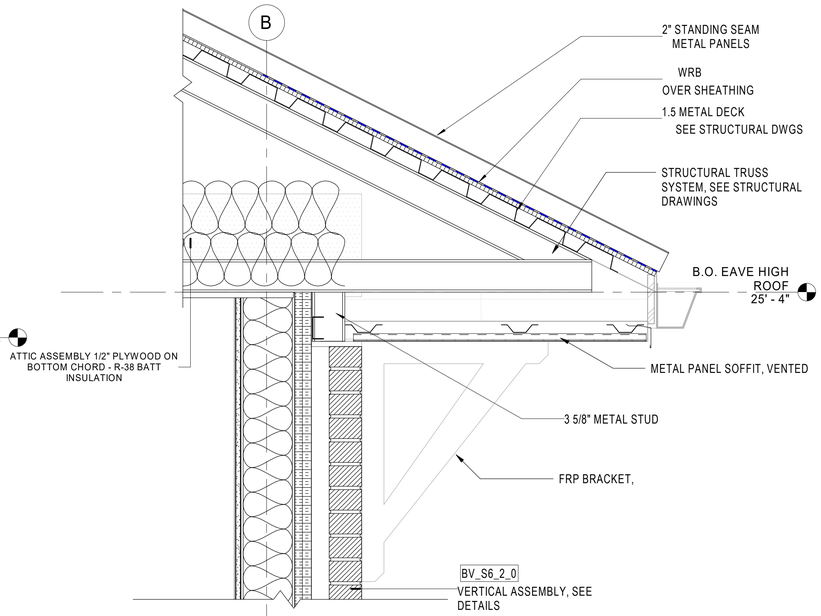


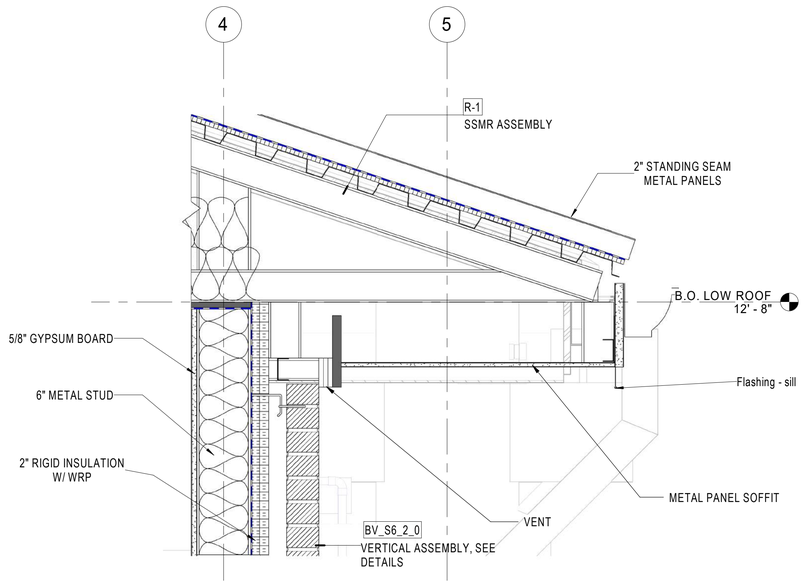
C6 SECTION DETAIL - WALL TO SOFFIT

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



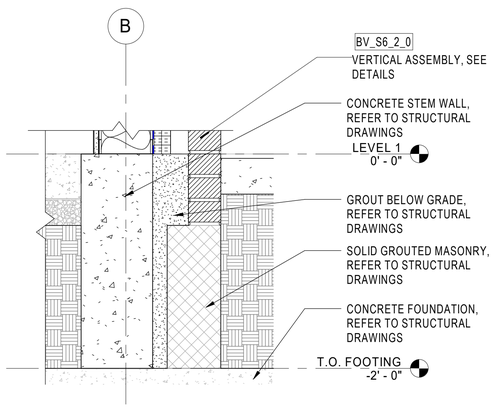
C5 SECTION DETAIL - TYPICAL UPPER ROOF EAVE

SCALE: 1 1/2" = 1'-0" (A-311) 0 2" 4" 8"



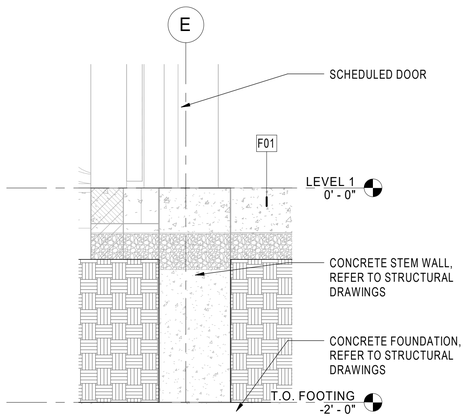
C2 SECTION DETAIL -TYPICAL LOWER ROOF EAVE

SCALE: 1 1/2" = 1'-0" (A-312) 0 2" 4" 8"



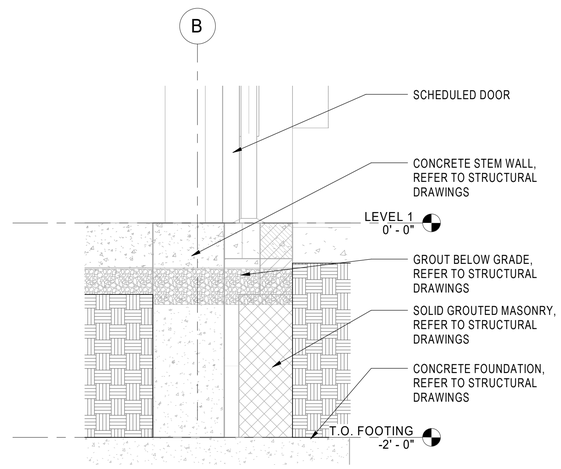
A5 SECTION DETAIL - FOUNDATION

SCALE: 1 1/2" = 1'-0" (A-311) 0 4" 8" 1'-4"



A3 SECTION DETAIL -FOUNDATION

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"



SECTION DETAIL @ FLOOR SLAB - TYPICAL

A2

SCALE: 1 1/2" = 1'-0" 0 4" 8" 1'-4"

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SECTION DETAILS
SHT. NO. A-561
REV. NO.

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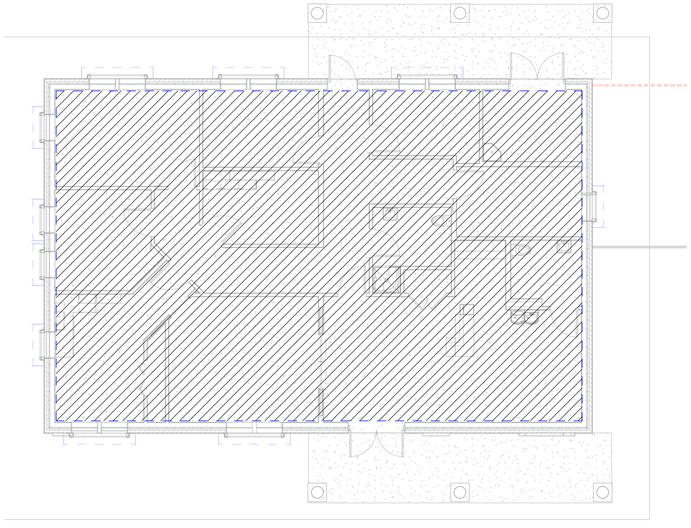
AIR BARRIER ENVELOPE TABLE	
SURFACE AREA	<<EDIT SF>>
MAXIMUM ALLOWABLE LEAKAGE RATE	0.25 CFM/FT2 AT 1.57 PSF
MAXIMUM LEAKAGE	<<EDIT 4,288 CFM >>

THERMAL & MOISTURE PROTECTION LEGEND

DEPICTS AREA TO BE TESTED FOR AIRTIGHTNESS. SINGLE ZONE BUILDING IS STRATEGY INDICATED.

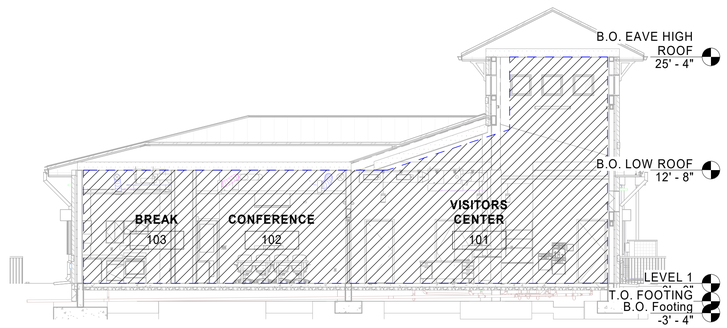
AIR BARRIER ENVELOPE, CONTINUOUS



THERMAL PLAN DIAGRAM

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

0 4' 8' 16'



A6 **BUILDING SECTION**

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

0 4' 8' 16'

GENERAL SHEET NOTES

1. SEE SHEETS A-551 THROUGH A-563 FOR AIR BARRIER DETAILS AND SPECIFIC AIR BARRIER COMPONENTS. REFER TO SPECIFICATION SECTION 01 91 19.43 FOR PRESSURE TESTING AN AIR BARRIER ENVELOPE FOR AIR TIGHTNESS.
2. PROVIDE WEATHERSTRIPPING AND SEALS AT ALL DOORS AND LOUVER HEADS, JAMBS AND SILLS THAT ARE PART OF THE AIR BARRIER ENVELOPE. PROVIDE AIR BARRIER SHEET MEMBRANE FLASHING AT HEADS, JAMBS AND SILLS OF EXTERIOR DOOR, WINDOW AND EXTERIOR WALL OPENINGS AND PENETRATIONS.
3. AIR BARRIER MATERIALS. ACCESSORIES AND BUILDING CONSTRUCTION THAT ARE INDICATED WITHIN THE BUILDING EXTERIOR ENVELOPE SERVES AS A CONTINUOUS AND WHOLE AIR BARRIER SYSTEM TO RESTRICT THE MOVEMENT OF AIR THROUGH THESE ASSEMBLIES.
4. THE AIR BARRIER SYSTEM INCLUDES BUILDING SYSTEMS AND ASSEMBLIES SUCH AS FOUNDATION WALLS AND SLABS, EXTERIOR WALLS, VARIOUS EXTERIOR WALLS, ROOFS, ATTIC SPACES AND CONSTRUCTION, CONTROL JOINTS AND EXPANSION JOINTS, PENETRATIONS; AND THEIR CONTINUITY, CONNECTIONS AND TRANSITIONS FROM ONE BUILDING SYSTEM AND ASSEMBLY TO ANOTHER AND BETWEEN DIFFRENT MATERIALS AND PRODUCTS MUST BE CONTINUOUSLY SEALED. AIR BARRIER MATERIALS AND ACCESSORIES MUST HAVE THE CAPABILITY OF PREFORMING AS A CONTINUOUS AIR BARRIER AND MUST BE CAPABLE OF MOVEMENT, EXPANSION, MATERIAL CHANGES WITHOUT DETERIORATION AND SHRINKAGE. ALL PENETRATIONS THROUGH THE AIR BARRIER SYSTEMS ARE FULLY SEALED IN ACCORDANCE WITH THE MANUFACTURER'S DESIGN INTENT IS TO ADDRESS ALL EXTERIOR JOINTS, CRACKS, AND HOLES WITH PROPER SEALING COMPONENT. RECOMMENDATIONS.
5. THERMAL INSULATION AT EXTERIOR WALLS, ROOF, AND FLOOR ASSEMBLIES IS NOT INDICATED ON THIS SHEET. REFER TO VERTICAL AND HORIZONTAL ASSEMBLY SHEETS.
6. ACOUSTIC INSULATION IS NOT INDICATED ON THIS SHEET. REFER TO FLOOR PLANS AND INTERIOR PARTITION TYPES SCHEDULE.
7. THE CONTRACTOR MUST COORDINATE BETWEEN THE TRADES, THE PROPER INSTALLATION, SCHEDULING AND SEQUENCING OF THE WORK, INSPECTIONS, AND TESTS OF THE CONSTRUCTION OF THE BUILDING ENCLOSURE AND THE CONTINOUS AIR BARRIER SYSTEM TO CONTROL THE AIR LEAKAGE. THE BUILDING'S CONTINUOUS AIR BARRIER MUST WITHSTAND THE BUILDING'S POSITIVE/NEGATIVE AIR PRESSURE BARRIER TESTING APPLIED TO THE BUILDING ENCLOSURE. THE CONTRACTOR MUST COORDINATE ALL TESTING SERVICES THAT ARE REQUIRED TO VERIFY COMPLIANCE WITH REQUIREMENTS SPECIFIED OR INDICATED. THE CONTRACTOR MUST INSPECT AIR BARRIER FOR TEARS, GAPS, HOLES, DISCONTINUITY, AND REPAIR FOR A FULLY SEALED SYSTEM.
8. WHERE REQUIRED BY THE SPECIFICATIONS OR CONTRACT, AN INDEPENDENT QUALIFIED AGENCY OR PROVIDER IS TO BE ENGAGED TO PREFORM INSPECTIONS, SAMPLING, AND/OR TESTING OF THE AIR BARRIER MATERIALS, LEAKAGE RATES, COMPONENTS AND ASSEMBLIES SPECIFIED IN THE TESTING REQUIREMENTS. REFER TO THE DRAWINGS FOR ANY ROOMS OR ZONES THAT ARE NOT REQUIRED TO BE TESTED, IF ANY.
9. FAILURE IN THE AIR BARRIER TESTING AND/OR INSPECTIONS WILL BE CONSIDERED AND DEEMED NOT IN COMPLIANCE WITH THE BUILDING SPECIFIED REQUIREMENTS. THE CONTRACTOR MUST CORRECT ANY DEFECTIVE OR DEFICIENT MATERIAL, PRODUCT OR ASSEMBLY.
10. ALL ROOF ASSEMBLY SYSTEMS ARE PART OF THE AIR BARRIER ENVELOPE. ALL PENETRATIONS, TRANSISTIONS, AND JOINTS MUST BE AIR TIGHT.

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AIR, THERMAL AND MOISTURE PROTECTION DIAGRAMS

SHT. NO.	REV. NO.
A-601	

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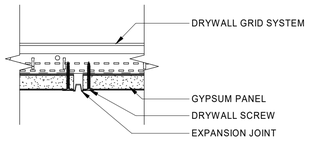
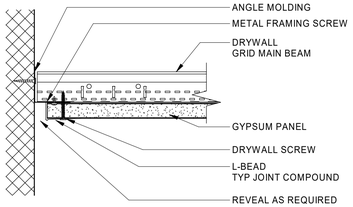


E5 GYPSUM CEILING CONTROL JOINT

SCALE: 3" = 1'-0"



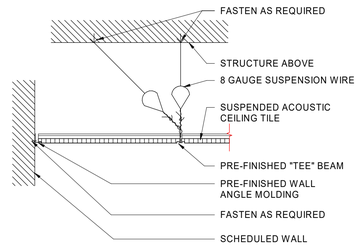
D5 GYPSUM CEILING REVEAL AT WALL

SCALE: 3" = 1'-0"

NOTE:
CONTRACTOR OPTION - IN LIEU OF CONVENTIONAL GRILLAGE SYSTEM, PROVIDE DRYWALL CEILING SUSPENSION SYSTEM SUCH AS "CHICAGO-METALLIC", 670 (STAB) SYSTEM OR APPROVED EQUAL. MAIN TEES ARE TO BE 1 1/2" HIGH WITH 1 3/8" DOUBLE WEB FACE RUNNERS AND FURRING TEES ARE TO BE 1 1/2" HIGH WITH 1 3/8" DOUBLE WEB FACE TEES. WIRE HANGERS ARE TO BE 12 GA WIRE. RUNNER SPACING: 48" OC, TEE SPACING: 16" OC.

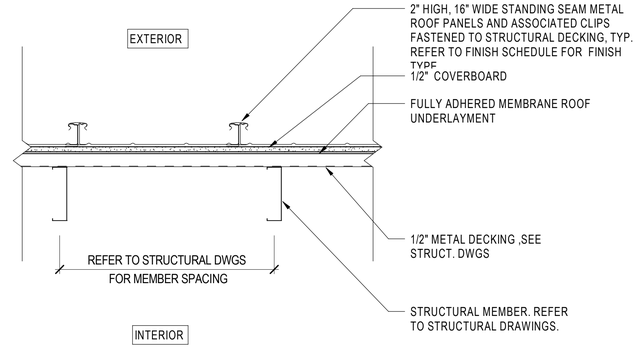
C5 TYPICAL SUSPENDED GYPSUM CEILING

SCALE: 1" = 1'-0"



E3 TYPICAL SUSPENDED ACT CEILING - SEISMIC

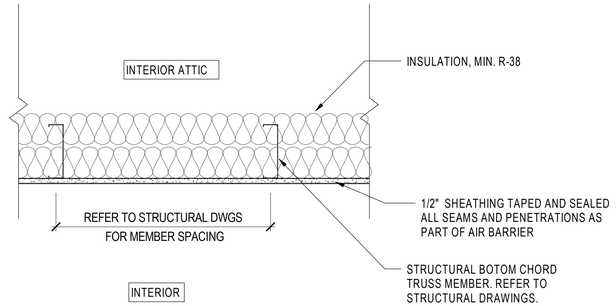
SCALE: 1" = 1'-0"



INSULATION IS AT CEILING, VENTED ROOF ASSEMBLY

D2 R-01 STANDING SEAM METAL ROOF ASSEMBLY

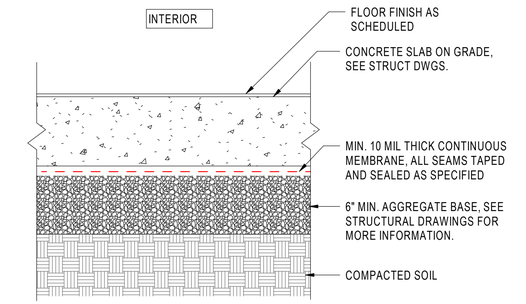
SCALE: 1 1/2" = 1'-0"



R-38 INSULATION MIN. AT ATTIC AND OTHER PER ENERGY CODE

C2 F-03 ATTIC CEILING DETAIL, TYP.

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



A2 F-01 HORIZ ASSEMBLY-SOG

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

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STATE of ALABAMA — NEIL A. ESSER — 9168 — REGISTERED ARCHITECT — 5/2/2024

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HORIZONTAL ASSEMBLIES

SHT. NO. A-602 | REV. NO.

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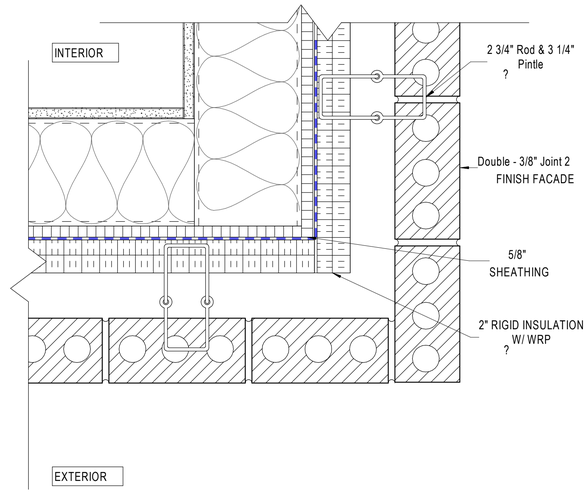
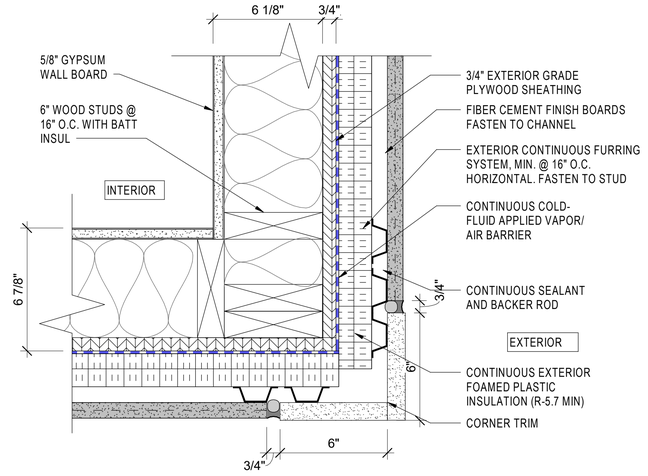


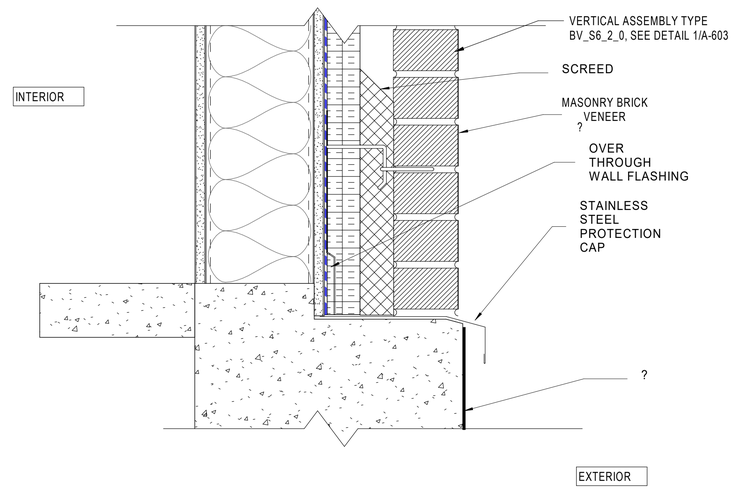
D4 OUTSIDE CORNER MASONRY DETAIL

SCALE: 3" = 1'-0" 0 2" 4" 8"



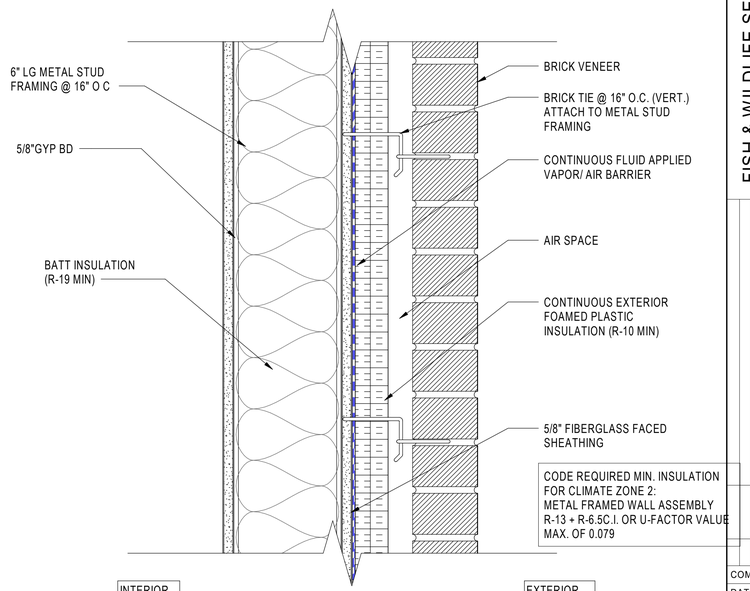
D3 INSIDE CORNER FIBER CEMENT DETAIL

SCALE: 3" = 1'-0" 0 2" 4" 8"



A4 BASE MASONRY DETAIL

SCALE: 3" = 1'-0" 0 2" 4" 8"



A2 VERTICAL ASSEMBLY BV_S6_2_0 WALL DETAIL

SCALE: 3" = 1'-0" 0 2" 4" 8"

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EXTERIOR VERTICAL ASSEMBLIES

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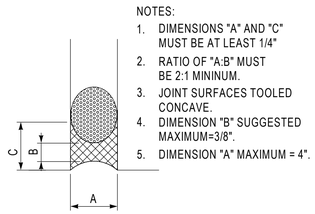
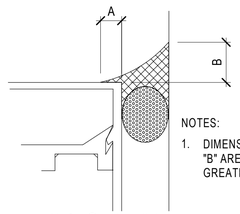


E3 TYP. SEALANT BUTT JOINT DETAIL

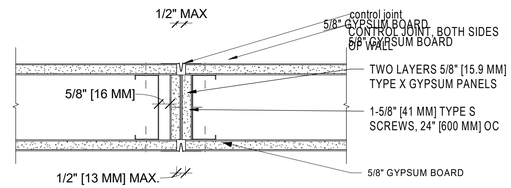
NOT TO SCALE



D3 TYP. SEALANT FILLET PERIMETER JOINT DETAIL

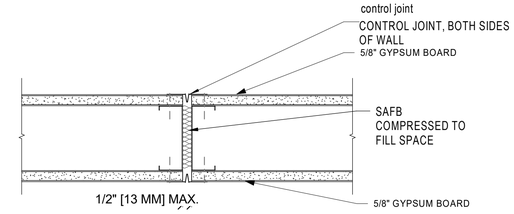
NOT TO SCALE

1 HOUR CONTROL JOINT
NOTE: THIS DETAIL REPRESENTS A TYPICAL CONTROL JOINT CONSTRUCTION. REFERENCE THE PUBLISHED DESIGN CRITERIA FOR PANEL, FRAMING AND OTHER CONSTRUCTION REQUIREMENTS.



1 HOUR PARTITION - METAL STUDS

1 HOUR CONTROL JOINT
NOTE: THIS DETAIL REPRESENTS A TYPICAL CONTROL JOINT CONSTRUCTION. REFERENCE THE PUBLISHED DESIGN CRITERIA FOR PANEL, FRAMING AND OTHER CONSTRUCTION REQUIREMENTS.



D2 CONTROL JOINT - GYPSUM IN METAL

1 HOUR PARTITION - METAL STUDS

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Certificate of Authorization Number: PEPC003490 Expiration: 06/30/2024

U.S. FISH & WILDLIFE SERVICE

STATE of ALABAMA — NEIL A. ESSER — 9168 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE | DESIGN: NXE
CHECK: SAT

SHEET TITLE

EXTERIOR VERTICAL ASSEMBLIES & EXPANSION JOINT & PENETRATION DETAILS

SHT. NO. A-604
REV. NO.

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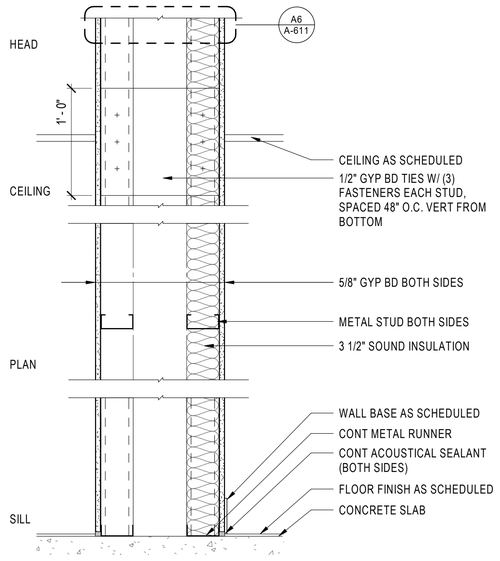
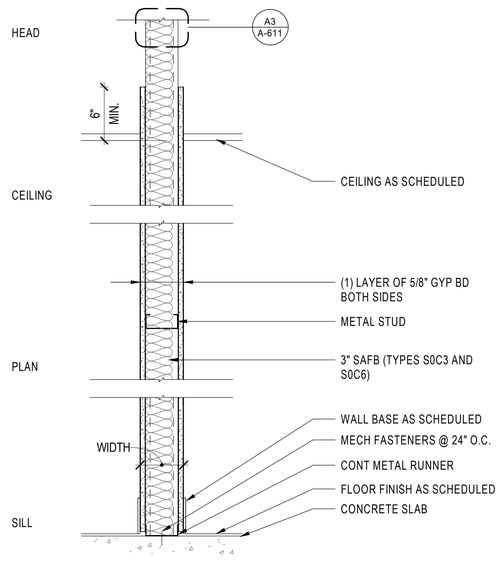
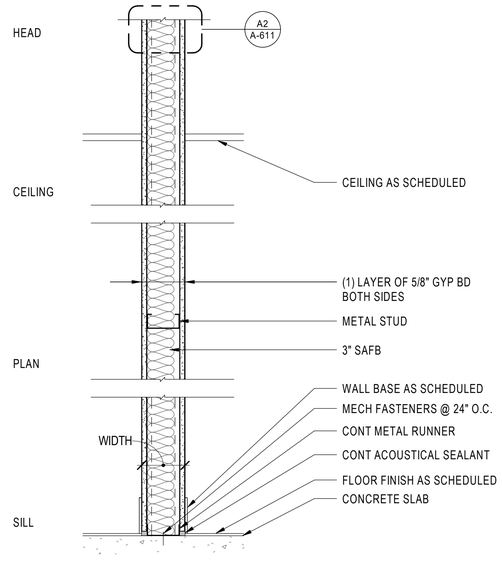


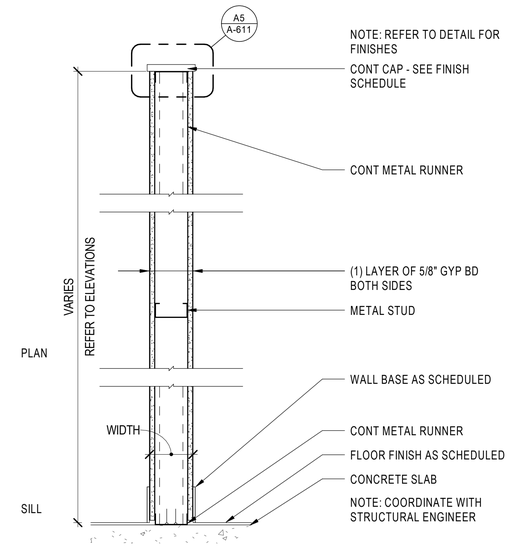
C0#	CHASE WALL-DOUBLE MTL STUD W/ (1) LAYER 5/8" GYP BD BOTH SIDES W/ AIR SPACE AND BATT							
ID	STUD SIZE	WIDTH	FIRE RATING	UL DESIGNATION	STC RATING	STC TEST NUMBER	COMMENTS	
C0C3	3 5/8"	15 1/4"	N/A	U420	52	RAL-TL-76-155	3 1/2" INSULATION ONE SIDE, 6" MIN AIR SPACE	



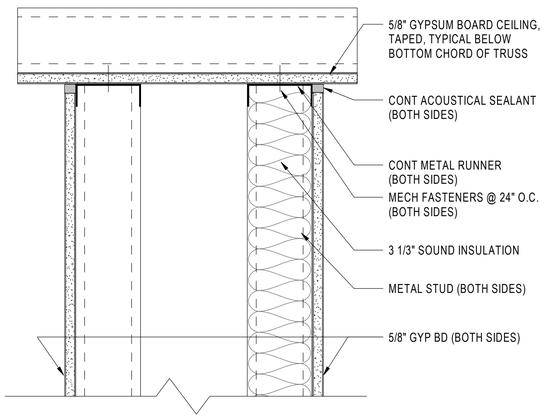
S0#	MTL STUD W/ (1) LAYER 5/8" GYP BD BOTH SIDES						
ID	STUD SIZE	WIDTH	FIRE RATING	UL DESIGNATION	STC RATING	STC TEST NUMBER	COMMENTS
S0B3	3 5/8"	4 7/8"	N/A	U465/UL DES 419	40	USG-860808	
S0B6	6"	7 1/4"	N/A	U465/UL DES 419	40	USG-860808	
S0C3	3 5/8"	4 7/8"	N/A	U465/UL DES 419	49	SA-870717	BASED ON 3" SAFB
S0C6	6"	7 1/4"	N/A	U465/UL DES 419	49	SA-870717	BASED ON 3" SAFB



S1#	1 HR - MTL STUD W/ (1) LAYER 5/8" GYP BD BOTH SIDES						
ID	STUD SIZE	WIDTH	FIRE RATING	UL DESIGNATION	STC RATING	STC TEST NUMBER	COMMENTS
S1B3	3 5/8"	4 7/8"	1 HR	U465/UL DES U419	40	USG-860808	
S1B6	6"	7 1/4"	1 HR	U465/UL DES U419	40	USG-860808	

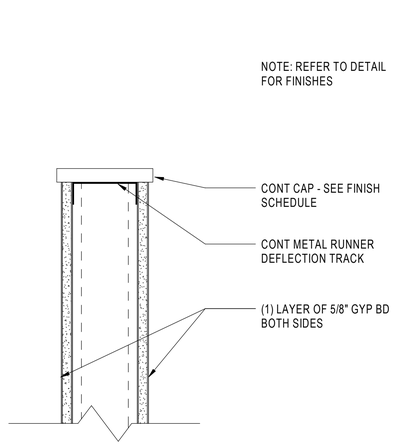


P0#	PONY WALL - MTL STUD W/ (1) LAYER 5/8" GYP BD BOTH SIDES - OPTIONAL CAP						
ID	STUD SIZE	WIDTH	FIRE RATING	UL DESIGNATION	STC RATING	STC TEST NUMBER	COMMENTS
P0A3	3 5/8"	4 7/8"	N/A	N/A	N/A	N/A	



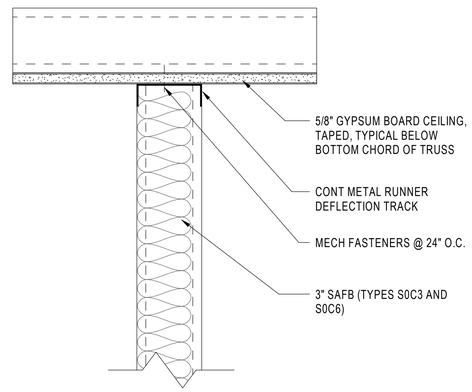
A6 WALL C0# - HEAD DETAIL - TRUSS

SCALE: 3" = 1'-0" (A-611) 0 2" 4" 8"



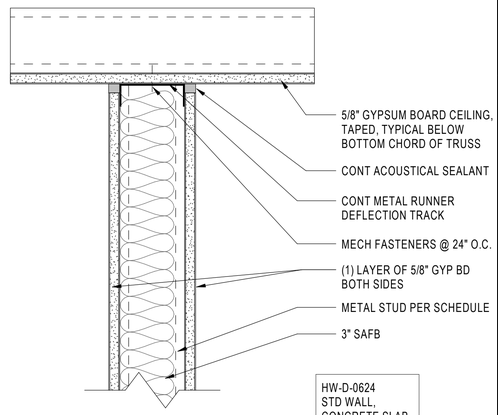
A5 WALL P0# - HEAD DETAIL

SCALE: 3" = 1'-0" (A-611) 0 2" 4" 8"



A3 Wall S0# - HEAD DETAIL - TRUSS

SCALE: 3" = 1'-0" (A-611) 0 2" 4" 8"



A2 Wall S1# - HEAD DETAIL -TRUSS

SCALE: 3" = 1'-0" (A-611) 0 2" 4" 8"

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U.S. FISH & WILDLIFE SERVICE

STATE of ALABAMA NEIL A. ESSER 8916 REGISTERED ARCHITECT 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

1329E STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182
DATE:	05/02/2024
DRAWN: NXE	DESIGN: NXE
CHECK:	SAT

SHEET TITLE

INTERIOR PARTITION SCHEDULE

SHT. NO.	REV. NO.
A-611	

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DOOR AND FRAME FINISH LEGEND

KEY	FRAME MATERIAL
AL	ALUMINUM
AN1	ANODIZED
BR	STAINLESS STEEL, BRUSHED FINISH
GALV	GALVANIZED STEEL
HM	HOLLOW METAL
RWV	REAL WOOD VENEER
S1	STAIN AND FINISH
STL	STEEL

DOOR PANEL FRAME MATERIAL LEGEND

KEY	PANEL MATERIAL
AL	ALUMINUM
FGL	FIBERGLASS
FRP	FIBERGLASS REINFORCED POLYESTER
GL	GLAZING
HCWD	HOLLOW CORE WOOD
HM	HOLLOW METAL
IG	INSULATING GLASS
MDF	MEDIUM DENSITY FIBERBOARD
OH	OVERHEAD
SCWD	SOLID CORE WOOD
SFGL	SAFETY GLASS
SRWD	STILE AND RAIL WOOD
SS	STAINLESS STEEL
WD	WOOD

DOOR SCHEDULE REMARKS

REMARK NUMBER	REMARKS
1	SOUNDER INTEGRATED INTO PANIC DEVICE (PADDLE TYPE, INSTEAD OF FULL BAR).
2	SCHEDULED DOOR IS INSTALLED AS PART OF INTERIOR ALUMINUM FRAME AND GLAZING SYSTEM AND IS SHOWN FOR REFERENCE ONLY. FRAME, DOOR AND HARDWARE TO BE PROVIDED BY GLAZING SYSTEM MANUFACTURER.

GENERAL NOTES - DOORS

1 ALL EXTERIOR HOLLOW METAL DOORS MUST BE INSULATED AND WEATHER STRIPPED. EXTERIOR DOOR U-VALUES MUST HAVE 0.45 MAX OPERABLE U-VALUE. (DOOR ASSEMBLY U-VALUE)

2 WALL PARTITIONS STC RATING TAKES PRECEDENCE OVER DOOR OPENING STC RATING. DOORS ACHIEVING STC RATINGS MAY ALSO REQUIRE COMPLIANCE WITH UL DESIGN FIRE RATINGS. THE NECESSITY FOR STC COMPLIANCE, FIRE RATING COMPLIANCE OR BOTH ARE INDICATED WITHIN THE DOOR SCHEDULE.

3 ALL INTERIOR DOORS MUST BE A MINIMUM STC 35 EVEN IF NO STC RATING IS INDICATED IN SCHEDULE.

4 ACOUSTIC REQUIREMENTS EXCEEDING THE CAPABILITIES OF A STANDARD STC RATED DOOR WITH ACOUSTIC DOOR HARDWARE MUST BE A PREFABRICATED DOOR INCLUDING A PREASSEMBLED DOOR, FRAME AND SPECIFIED DOOR HARDWARE.

5 SWINGING DOOR SURFACES WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY MUST CONFORM TO REQUIREMENTS OF ADA 404.2.1. DOORS MUST HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE THE FULL WIDTH OF THE DOOR. TEMPERED GLASS DOORS WITHOUT STILES AND HAVING A BOTTOM RAIL OR SHOE WITH THE TOP LEADING EDGE TAPERED AT 60 DEGREES MINIMUM FROM THE HORIZONTAL MUST NOT BE REQUIRED TO MEET THE 10" BOTTOM SMOOTH REQUIREMENT.

6 WHERE A DOOR IS LOCATED NEAR A CORNER OF A ROOM OR PERPENDICULAR TO A WALL AND IS NOT LOCATED BY DIMENSION ON PLAN OR DETAILS, DIMENSION SHALL BE 4" FROM FACE OF STALL (WALL) TO FACE OF ROUGH OPENING. DIMENSION SHALL BE 6" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CONCRETE WALLS AND 8" FROM FACE OF WALL TO EDGE OF ROUGH OPENING AT CMU WALLS, U.N.O.

7 THE FINISH ELEVATIONS OF EXIT LANDINGS MUST NOT EXCEED A MAXIMUM OF 1/2" BELOW THRESHOLDS.

8 ALL LOCKING EXIT DOORS ARE TO HAVE EXIT DEVICES (PANIC HARDWARE) AND MUST SWING IN THE DIRECTION OF EGRESS.

9 ALL HOLLOW METAL FRAMES MUST BE FACTORY PRIME FINISHED AND PAINTED IN THE FIELD.

10 ALL HOLLOW METAL FRAMES WITH STC RATINGS OF 45 OR GREATER MUST BE FILLED TO COMPLY WITH ICS-705 SOUND INSULATION REQUIREMENTS. ACOUSTICAL SEALS AROUND FRAME AND ON THE FLOOR AS REQUIRED. DOUBLE DOORS AND UNEVEN PAIR DOORS MUST NOT HAVE A CENTER MULLION.

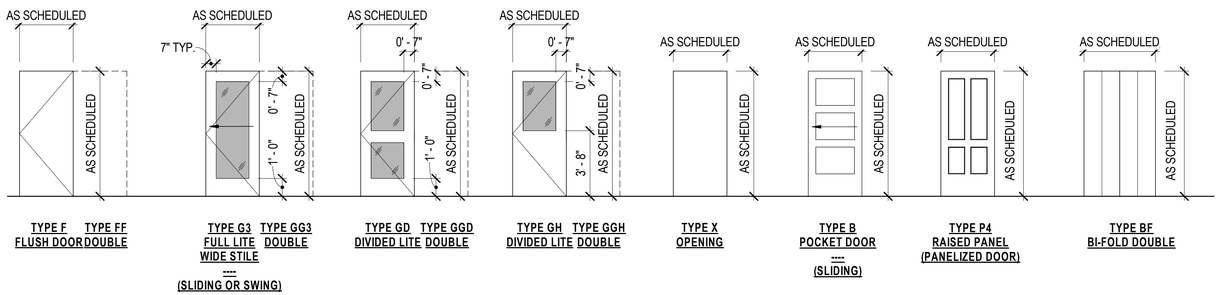
12 VERIFY AND COORDINATE ALL KEYING WITH THE END USER.

13 PROVIDE BACKER ROD AS REQUIRED AND CONTINUOUS CAULK SEALANT COMPLETELY AROUND ALL FRAMES.

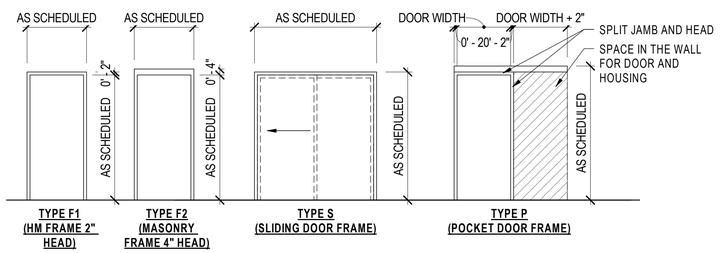
14 ALL GLAZING IN DOOR PANELS MUST BE SAFETY GLAZING. TEMPERED GLASS MUST BE 1/4" THICK, U.N.O.

DOOR SCHEDULE

DOOR No.	From Room: Number	From Room: Name	To Room: Number	To Room: Name	DOOR PANEL SIZE TYPE	WIDTH	HEIGHT	THICKNESS	MATL	FINISH	FRAME TYPE	MATL	FINISH	DETAILS HEAD	JAMB	SILL	FIRE RATING	HARDWARE SET No.	COMMENTS	REMARK NUMBER
LEVEL 1																				
101A	xxx	EXTERIOR	101	VISITORS CENTER	GG3	6' - 0"	7' - 0"	1 3/4"	ALUM					D4/A-632	B4/A-632		N/A	01		
101B	101	VISITORS CENTER	106	CORRIDOR	F	3' - 0"	7' - 0"	1 3/4"	HM	PT	F1	HM	PT				N/A	03		
102A	101	VISITORS CENTER	102	CONFERENCE	B	3' - 0"	7' - 5 3/128"	1 3/4"	SC/WD	ST	MFR			MFR STD TRIM	MFR STD TRIM	-	N/A	08	SLIDING POCKET DOOR	
102A	102	CONFERENCE	101	VISITORS CENTER	B	3' - 0"	7' - 5 3/128"	1 3/4"	SC/WD	ST	MFR			MFR STD TRIM	MFR STD TRIM	-	N/A	08	SLIDING POCKET DOOR	
102B	103	BREAK	102	CONFERENCE	B	3' - 0"	7' - 0"	1 3/8"	SC/WD	ST	MFR			MFR STD TRIM	MFR STD TRIM	-	N/A	09	SLIDING POCKET DOOR	
103A	106	CORRIDOR	103	BREAK	F	3' - 0"	7' - 0"	1 3/4"	SC/WD	ST	F1	HM	PT				N/A	11		
103B	103	BREAK			BF	4' - 0"	7' - 0"	1 3/4"	SC/WD	ST	MFR			MFR STD TRIM	MFR STD TRIM			10	BI-FOLDING DOOR	
104	106	CORRIDOR	104	DOUBLE	F	3' - 0"	7' - 0"	1 3/4"	SC/WD	ST	F1	HM	PT				N/A	06		
105	106	CORRIDOR	105	PRIVATE OFFICE	F	3' - 0"	7' - 0"	1 3/4"	SC/WD	ST	F1	HM	PT				N/A	06		
106	106	CORRIDOR	xxx	EXTERIOR	F	3' - 0"	7' - 0"	1 3/4"	HM	PT	F3	HM	PT				N/A	02		
107	106	CORRIDOR	107	IT/PRINTER	F	3' - 0"	7' - 0"	1 3/4"	HM	PT	F1	HM	PT				N/A	03		
108	106	CORRIDOR	108	SHOP	F	3' - 0"	7' - 0"	1 3/4"	SC/WD	ST	F1	HM	PT				N/A	06		
109	106	CORRIDOR	109	EMPLOYEE RR	F	3' - 0"	7' - 0"	1 3/4"	HM	PT	F1	HM	PT				N/A	05		
111	106	CORRIDOR	111	SPARE PRIVATE OFFICE	F	3' - 0"	7' - 0"	1 3/4"	SC/WD	ST	F1	HM	PT				N/A	06		
112	xxx	EXTERIOR	112	MECH.	F	6' - 0"	7' - 0"	1 3/4"	ALUM					D4/A-632	B4/A-632		N/A	07		
113	113	PUBLIC RR	101	VISITORS CENTER	F	3' - 0"	7' - 0"	1 3/4"	HM	PT	F1	HM	PT				N/A	05		
114	106	CORRIDOR	114	SPARE PRIVATE OFFICE	F	3' - 0"	7' - 0"	1 3/4"	SC/WD	ST	F1	HM	PT				N/A	06		
116	116	CLO.	101	VISITORS CENTER	FF	4' - 0"	7' - 0"	1 3/4"	HM	PT	F1	HM	PT				N/A	04		



DOOR TYPES



FRAME TYPES

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U.S. FISH & WILDLIFE SERVICE — CONSERVING THE NATURE OF AMERICA

STATE OF ALABAMA — NEIL X. NESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE
BON SECOUR VISITOR CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE DESIGN: NXE
CHECK: SAT

SHEET TITLE
DOOR SCHEDULE

SHT. NO. A-631
REV. NO.

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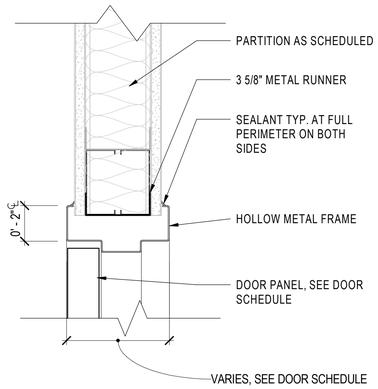
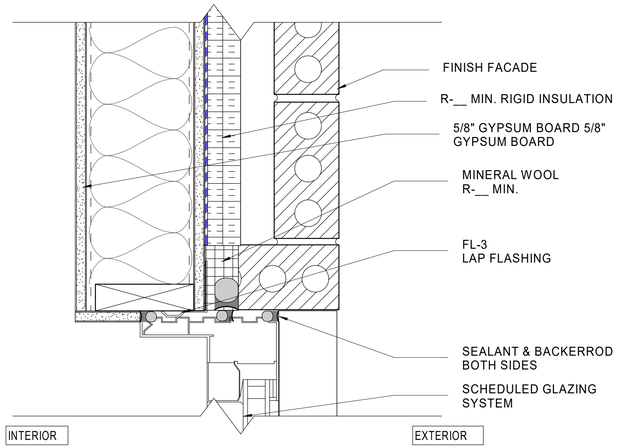
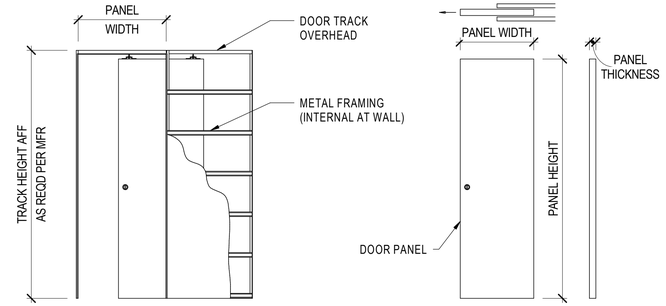
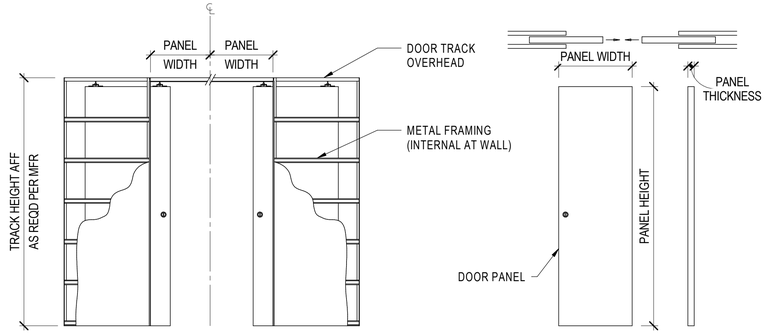




SINGLE POCKET DOOR



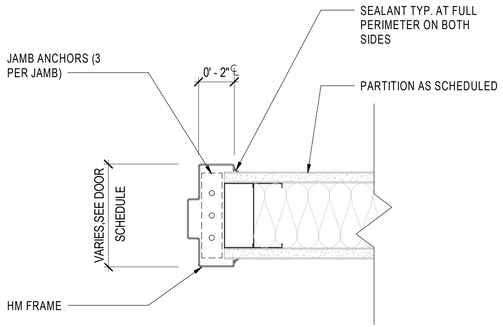
DOUBLE POCKET DOOR



NOTE:
COORDINATE HORIZONTAL FRAMING AS REQ'D PER DOOR MANUFACTURER WITH STRUCTURAL FRAMING.

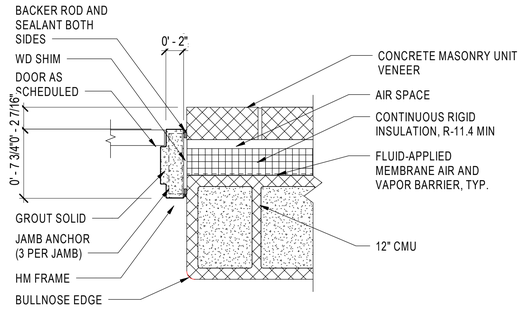
C3 POCKET DOOR DETAILS
SCALE: 1/2" = 1'-0"

D6 TYP. DOOR HEAD - INTERIOR
SCALE: 3" = 1'-0"

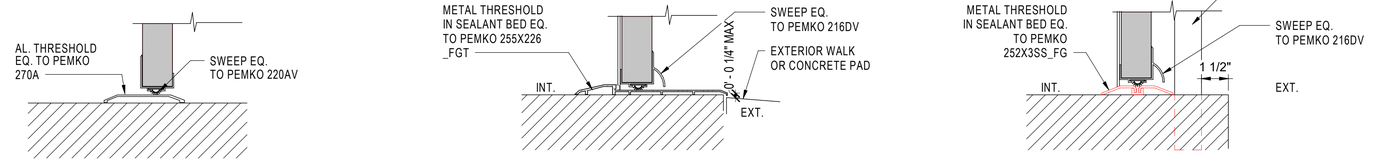


C6 TYP. DOOR JAMB - INTERIOR
SCALE: 3" = 1'-0"

D4 DETAIL DOOR JAMB @ MASONRY
SCALE: 3" = 1'-0"



B4 DOOR JAMB - EXTERIOR WALL - GROUT
SCALE: 1 1/2" = 1'-0"



A4 DOOR THRESHOLD DETAILS
SCALE: 3" = 1'-0"

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

STATE of ALABAMA — NEIL A. ESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

REVISION DESCRIPTION	DATE	MRK

COMM NO:	230182
DATE:	05/02/2024
DRAWN: NXE	DESIGN: NXE
CHECK:	SAT

SHEET TITLE

DOOR DETAILS

SHT. NO.	REV. NO.
A-632	

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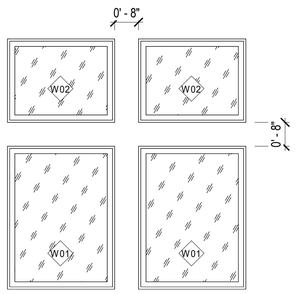
WINDOW SCHEDULE

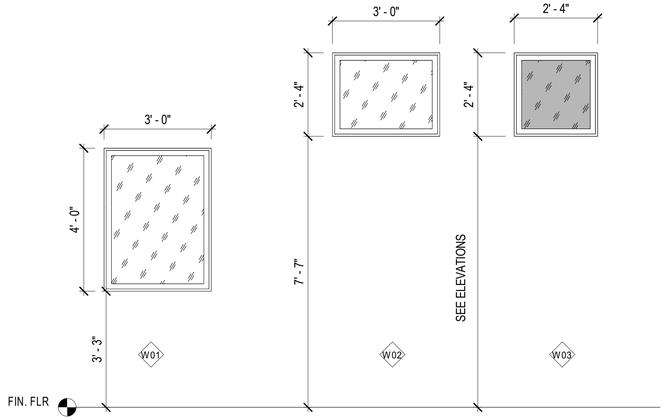
TYPE MARK	R.O. WIDTH	R.O. HEIGHT	TYPE	MANUFACTURER	HEAD	JAMB	SILL	GLAZING THICKNESS	GLAZING TYPE	COMMENTS
W01	3' - 0"	4' - 0"	WNDW_FIXED	SEE SPECIFICATIONS	D2/A-641	D4/A-641	A2/A-641	1"	GL-01	
W02	3' - 0"	2' - 4"	WNDW_FIXED	SEE SPECIFICATIONS	D2/A-641	D4/A-641	A2/A-641	1"	GL-01	UPPER WINDOWS
W03	2' - 4"	2' - 4"	WNDW_FIXED	SEE SPECIFICATIONS	D2/A-641	D4/A-641	A2/A-641	1"	GL-02	AT TOWER

GENERAL NOTES

1. SEE SPECIFICATIONS AND SCHEDULE FOR APPLICABLE WIND, BLAST, AND BALLISTIC REQUIREMENTS. ALL GLAZING, FRAMING, STRUCTURAL SILICONE, MECHANICAL FASTENERS AND OTHER WINDOW COMPONENTS TO BE PROVIDED BASED ON WIND, BLAST, AND BALLISTIC REQUIREMENTS.
2. INSTALL HURRICANE RATED OPERABLE ROLL DOWN SHUTTERS FOR ALL WINDOWS, TYP.
3. REFER TO SHEET A-701 FOR REQUIREMENTS ON WINDOW TREATMENTS, TYP.
4. ALL GLAZING SHALL HAVE BIRD SAFE COATING, TYP.
5. ALL OPERABLE WINDOWS SHALL HAVE EXTERNAL INSECT SCREENS FOR FULL SIZE OF OPENING, TYP.

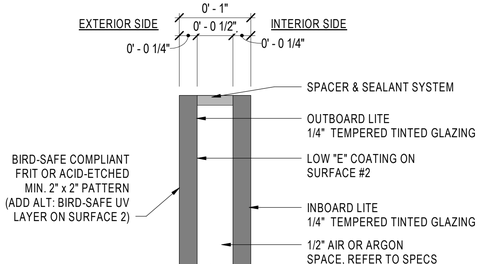


WINDOW GROUP SPACING



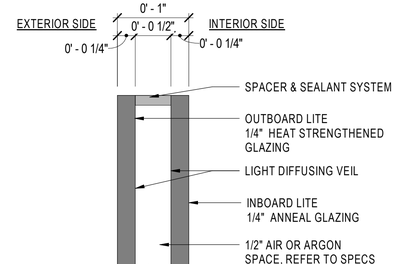
DIAGRAMS_WINDOW TYPES

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



GL-01

DOUBLE PANE INSULATED GLAZING UNIT



GL-02

TRANSLUCENT DOUBLE PANE INSULATED GLAZING UNIT

D4 GLAZING TYPE

SCALE: 12" = 1'-0"

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

STATE of ALABAMA — NEIL A. ESSER — 9168 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

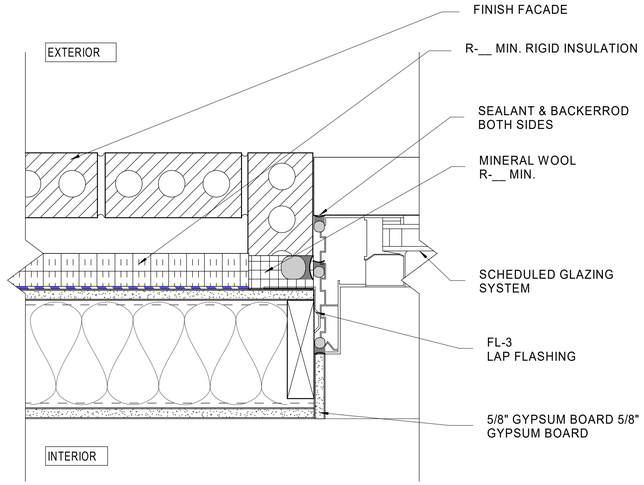
MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE | DESIGN: NXE
CHECK: SAT

SHEET TITLE

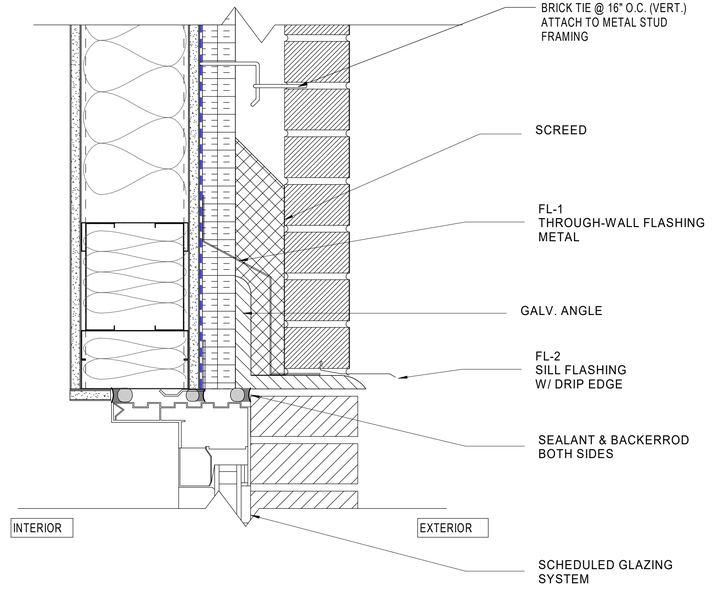
WINDOW SCHEDULE

SHT. NO. A-640
REV. NO.



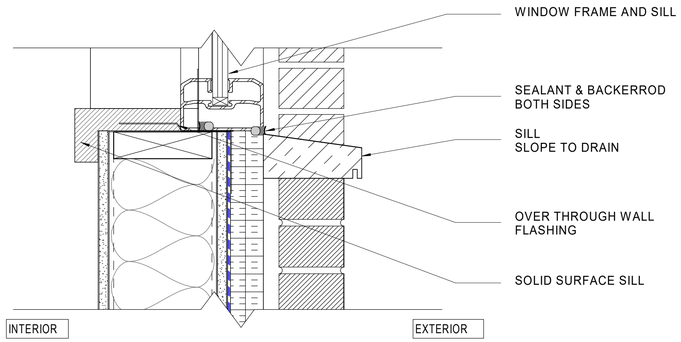
D4 DETAIL WINDOW JAMB @ MASONRY

SCALE: 3" = 1'-0" 0 2" 4" 8"



D2 DETAIL WINDOW HEAD @ MASONRY

SCALE: 3" = 1'-0" (A-311) 0 2" 4" 8"



A2 DETAIL WINDOW SILL @ MASONRY

SCALE: 3" = 1'-0" (A-311) 0 2" 4" 8"

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

STATE of ALABAMA — NEIL A. ESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE DESIGN: NXE
CHECK: SAT

SHEET TITLE

WINDOW DETAILS

SHT. NO. A-641
REV. NO.

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INTERIOR FINISH KEY

TAG	IMAGE	MATERIAL	MANUFACTURER	MODEL/COLLECTION/PATTERN	COLOR	DESCRIPTION	REMARKS
		BASIS OF DESIGN					
CASEWORK							
PL-1		LAMINATE	NEVAMAR	#W8343, COLOR: CREST MAHOGANY	BROWN		
PL-2		LAMINATE		COLLECTION: PATTERN:	COLOR		
SSM-1		SOLID SURFACE	HI-MACS	COLOR: #G111 MACCHIATO (CREAM WITH BROWN SPECKLE), FINISH: SATIN	BEIGE		
SSM-2		SOLID SURFACE	HI-MACS	COLOR: #VN24 KOHALA (BROWN W/ BROWN, BLACK, GRAY), FINISH: SATIN	BROWN. BLACK		
CEILING							
ACP-1		CEILING TILE	ARMSTRONG	#673 KITCHEN ZONE, COLOR: WHITE, SQUARE LAY-IN, PRELUDE 15/16" GRID, COLOR: WHITE	WHITE	24" X 24" X 5/8"	
ACT-1		CEILING TILE	ARMSTRONG	#1911 ULTIMA TEGULAR, COLOR: WHITE, BEVELED EDGE, PRELUDE 15/16" GRID, COLOR: WHITE	WHITE	24" X 24" X 3/4"	
FLOOR COVERINGS							
EPT-1		EPOXY	STONHARD		COLOR	FINISH WITH CONTINUOUS SEALANT	
PC-1		POLISHED CONCRETE		COLLECTION:/ PATTERN:	COLOR		
SC-1		SEALED CONCRETE	SIKA				
PAINTS							
P-1		PAINT	BENJAMIN MOORE	COLOR: I-04 DECORATORS WHITE, FINISH SEMI-GLOSS	WHITE	TWO COATS PAINT OVER ONE COAT PRIMER	
P-2		PAINT	BENJAMIN MOORE	COLOR: I-04 DECORATORS WHITE, FINISH: FLAT	WHITE	TWO COATS PAINT OVER ONE COAT PRIMER	
P-3		PAINT	BENJAMIN MOORE	COLOR: #1-06 WHITE DOVE, EPOXY BLOCK FILLER, FINISHI SEMI-GLOSS (CMU)	WHITE		
P-4		PAINT	BENJAMIN MOORE	COLOR: #OC-95 NAVAJO WHITE, FINISH: EGGSHELL	WHITE	TWO COATS PAINT OVER ONE COAT PRIMER	
WALL COVERINGS							
AWP-1		ACOUSTIC WALL PANELING		COLLECTION: /PATTERN:	COLOR		
B-1		RESILIENT BASE	ROPPE	4" COVE BASE, TYPE TS; COLOR: 178 PEWTER	BEIGE		
B-2		EPOXY COVE BASE	STONHARD	6" COVE BASE	BEIGE	EPOXY	USE WHERE ALL EPOXY FLOORING IS SPECIFIED, EPT-1
CWT-1		WALL TILE	STONEPEAK	PATTERN: PARKLAND, COLOR: SHENANDOAH (WHITE), 12" X 12"	WHITE	GROUT BY MAPEI, COLOR: 14 BISCUIT	
CWT-2		WALL TILE	DALTILE	#0100, COLOR: WHITE, 4.25" X 4.25"	WHITE	EPOXY GROUT BY MAPEI, COLOR: 00 WHITE	
WP-1		WALL PANELING	SPECTRUM	DAN LURIE ASSOC, 704-521-9328	COLOR		INSTALL TO 36" AFF. INCLUDE CROWN MOLDING SAME FINISH
WINDOW COVERINGS							
WW-1		WINDOW BLINDS	PER SPEC	WHITE/LINEN	WHITE		

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLR	BASE	WALL	WAINSCOT	CEILING MATL	REMARKS
101	VISITORS CENTER	PC-1	B-1	P-1		GYP BD/P-2	
102	CONFERENCE	PC-1	B-1	P-1		GYP BD/P-2	
103	BREAK	PC-1	B-1	P-1		ACP-1	
104	DOUBLE	PC-1	B-1	P-1		ACT-1	
105	PRIVATE OFFICE	PC-1	B-1	P-1		ACT-1	
106	CORRIDOR	PC-1	B-1	P-1		ACT-1	
107	IT/PRINTER	PC-1	B-1	P-1		ACT-1	
108	SHOP	PC-1	B-1	P-1		ACT-1	
109	EMPLOYEE RR	EPT-1	B-5	P-1	CWT-2	GYP BD/P-2	
111	SPARE PRIVATE OFFICE	PC-1	B-1	P-1		ACT-1	
112	MECH.	PC-1	B-1	P-1		---	INSTALL STAINLESS STEEL WAINSCOT BEHIND MOP SINK
113	PUBLIC RR	EPT-1	B-5	P-1	CWT-1	GYP BD/P-2	
114	SPARE PRIVATE OFFICE	PC-1	B-1	P-1		ACT-1	
116	CLO.	PC-1	B-1	P-1		ACT-1	

GENERAL SHEET NOTES

1. PRODUCTS LISTED ARE FOR BASIS OF DESIGN PUPROSES ONLY. PROVIDE SCHEDULED FINISH OR APPROVED EQUAL FOR USFWS VERIFICATION AND APPROVAL PRIOR TO PROCURING MATERIALS.
2. MANUFACTURER'S INSTALLATION INSTRUCTIONS TO BE FOLLOWED FOR ALL PRODUCTS.
3. WALL FINISHES ARE BASED ON PLAN NORTH LOCATIONS. IF COLOR OR FINISH IS NOT SPECIFIED, CONTACT DOR FOR DIRECTION.
4. PROVIDE FLOOR TRANSITION STRIP (ADA/ANSI A117.1 COMPLIANT) BETWEEN DIFFERENT ADJACENT FLOOR MATERIALS.
5. PROVIDE BLOCKING IN ALL WALLS FOR ALL WALL-MOUNTED ACCESSORIES, EQUIPMENT AND SYSTEMS FURNITURE AS REQUIRED.
6. PRIME AND PAINT ALL EXPOSED STEEL.
7. PRIME AND PAINT HOLLOW METAL DOORS AND FRAMES. FINISH: SEMI-GLOSS.
8. REFER TO SHEET A-410 FOR WALL TILE PATTERNS.
9. PROVIDE CONTINUOUS SEALANT AT EPOXY PAINT AND SEALED CONCRETE FLOORS, U.N.O.
10. RUBBER BASE REQUIRED AT ALL GYPSUM BOARD AND MASONRY WALLS AS NOTED, U.N.O..
11. PROVIDE 1" ALUMINUM HORIZONTAL BLINDS ON INTERIOR SIDE OF ALL OFFICE WINDOWS BY HUNTER DOUGLAS OR EQUAL. CL MODEL MOUNT.
12. PROVIDE HPDE TOILET PARTITIONS.
13. REFER TO FINISH PLAN SHEET xxx FOR CORNER GUARD LOCATIONS.
14. PROVIDE EPOXY SEAL ON ALL EXPOSED CONCRETE FLOORS WHERE INDICATED. PROVIDE SILICA SAND/GROUT FOR NON-SLIP SURFACE.
15. CHANGES IN LEVEL OF 1/4 INCH HIGH MAXIMUM ARE PERMITTED TO BE VERTICAL, A CHANGE IN LEVEL BETWEEN 1/4 INCH AND 1/2 INCH MUST BE 1/4 INCH VERTICAL PLUS 1/4 INCH BEVELED. MAX VERTICAL CHANGE OF 1/2 INCH.
16. FLOOR FINISH SURFACE STATIC FRICTION COEFFICIENT MUST BE SLIP RESISTANT. 0.5 IS ADEQUATE, EQUAL TO OR LESS THAN 0.40 CAUTION IS NECESSARY AND MUST BE REVIEWED AND APPROVED BY DESIGNER OF RECORD.
17. PROVIDE CORNER AND END-WALL GUARDS AT OUTSIDE GYPSUM BOARD CORNERS. SEE SHEET A-702 FOR DETAILS AND REFER TO SPECIFICATIONS
18. TEMPORARY FLOOR PROTECTION MUST BE USED THROUGHOUT THE PROJECT TO SAFEGUARD THE SURFACE THAT WILL BE EXPOSED AS FINAL FLOOR FINISH, TYP.
19. REMOVE SCRAPS, DEBRIS AND WASTE MATERIALS DAILY.

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STATE of ALABAMA
NEIL A. ESSER
8916
REGISTERED ARCHITECT
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
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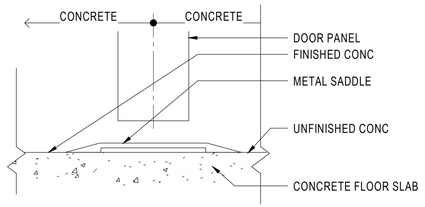
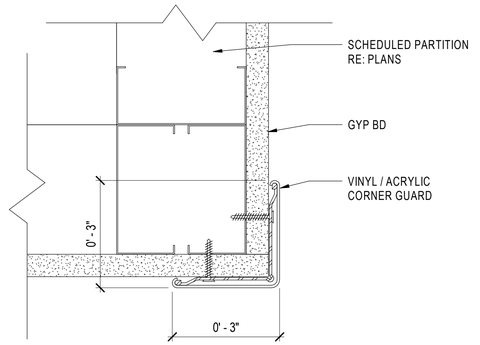
SHEET TITLE

MATERIAL AND FINISH SCHEDULE

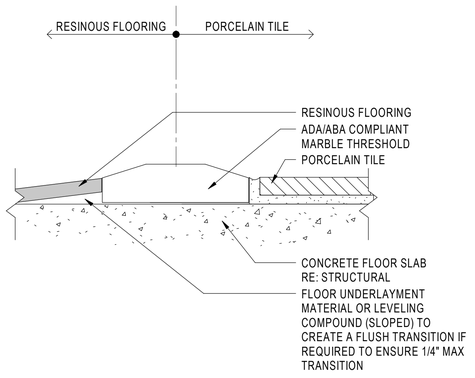
SHT. NO. A-701
REV. NO.



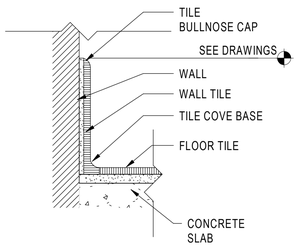
D6 FLOOR TRANSITION
SCALE: 12" = 1'-0" 0 1/2" 1" 2"



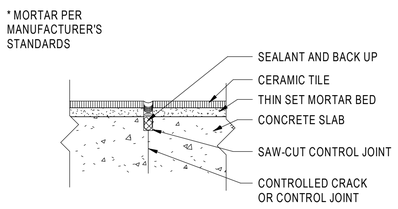
E2 CORNER GUARD - SURFACE MOUNTED
SCALE: 6" = 1'-0" 0 1" 2" 4"



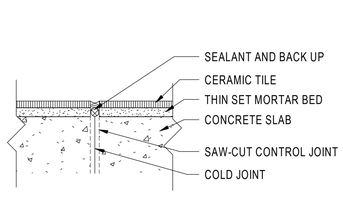
C2 FLOOR TRANSITION - RESILIENT FLOOR TO PORCELAIN TILE
SCALE: 12" = 1'-0" 0 1/2" 1" 2"



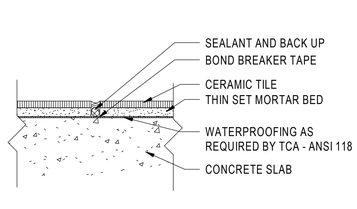
3 TYPICAL TILE DETAIL
SCALE: NTS



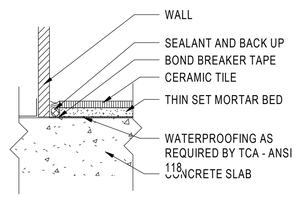
4 CONSTRUCTION JOINT 1
SCALE: NTS



5 CONSTRUCTION JOINT 2
SCALE: NTS



6 MOVEMENT JOINT
SCALE: NTS



7 PERIMETER JOINT
SCALE: NTS

A6 JOINTS
SCALE: 3" = 1'-0" 0 2" 4" 8"

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STATE of ALABAMA — NEIL A. ESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
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SHEET TITLE
INTERIOR DETAILS

SHT. NO. A-702
REV. NO.

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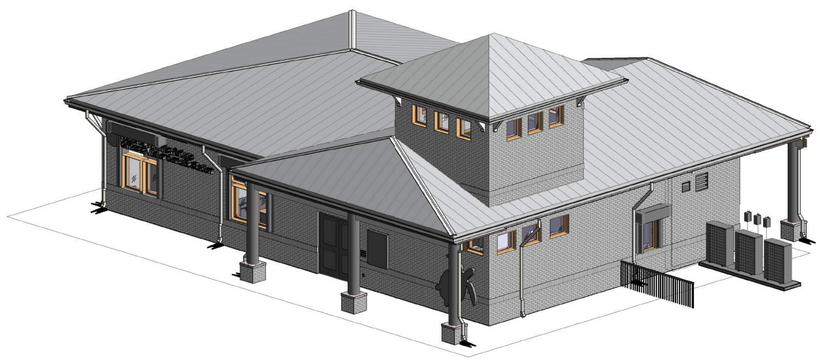
D5 PERSPECTIVE - NW
NOT TO SCALE

D3 PERSPECTIVE - NE
NOT TO SCALE

A5 PERSPECTIVE - SW
NOT TO SCALE



A3 PERSPECTIVE - SE
NOT TO SCALE

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

STATE of ALABAMA — NEIL X. ESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE | DESIGN: NXE
CHECK: SAT

SHEET TITLE

2D/3D PRESENTATION VIEWS

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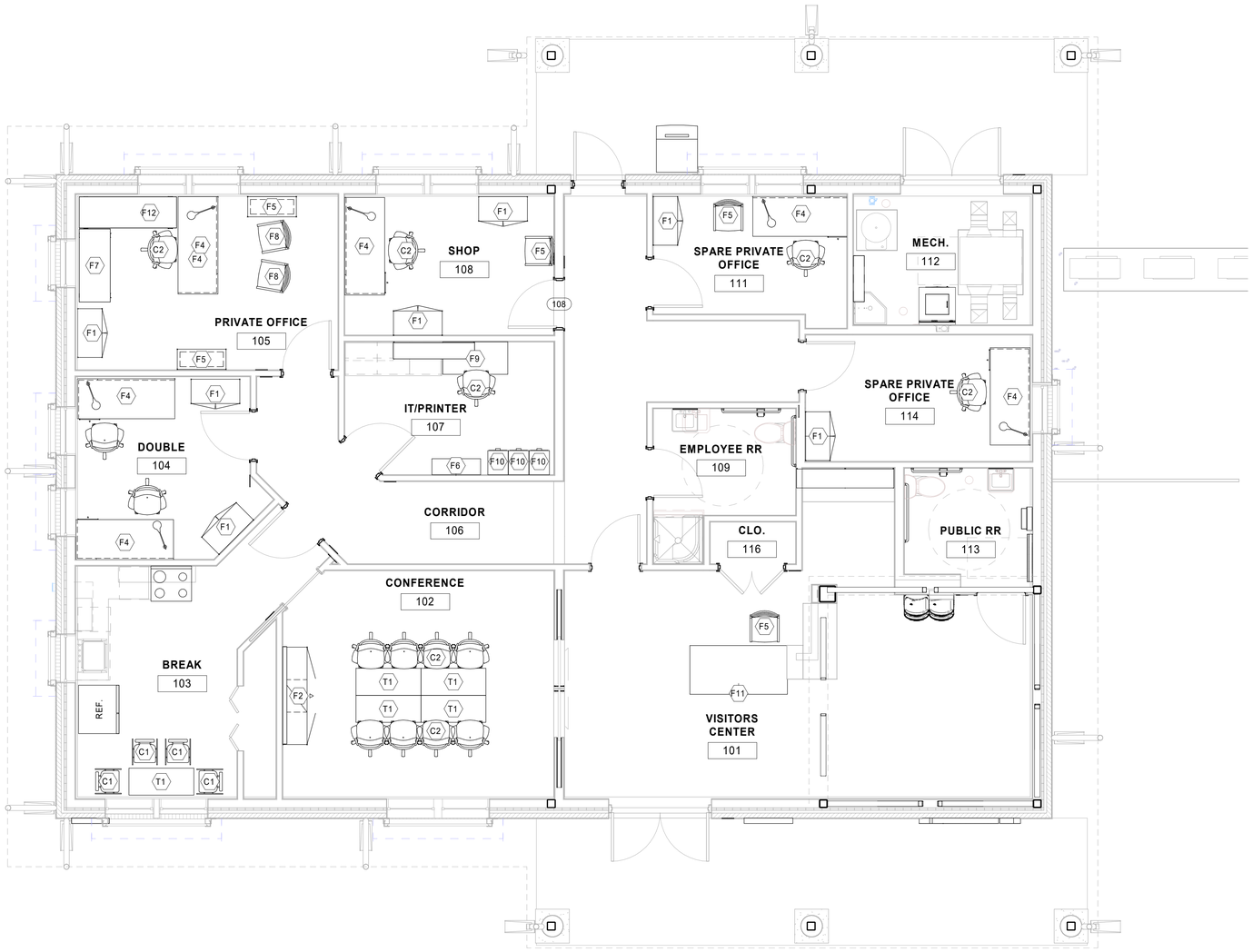
FURNITURE TAG LIST

COORDINATE WITH USFWS FOR COMPLETE FURNISH AND INSTALL REQUIREMENTS. MOST OFFICE FURNITURE IS EXISTING TO BE REINSTALLED FROM EXISTING BUILDING, TYP.

TAG	TYPE	MANUFACTURER	BOD MODEL #	DESCRIPTION	FINISH
C1	CHAIR W/ ROLLERS	CFCI		PLASTIC CHAIR 18" WIDE, ROLLERS	
C2	CHAIR: WORK	EXISTING - GFCI	EXISTING	Generation by Knoll Work Chair High Performance Arms Plastic Base Standard Cylinder with Lumbar Hard Casters	
F1	WARDROBE UNIT	EXISTING - GFCI	EXISTING	Knoll Wardrobe Unit with Coat Rod and Shelf 24D 36W 72HT.	
F2	CREDENZA	CFCI	RCDHHBH11	Reff Profiles Credenza Desk Height Hinged Door Pedestal Left Box/File w/Single Drawer Front Center Hinged Door Pedestal Right 78W 20D	
F3	PEDESTAL STORAGE	EXISTING - GFCI	EXISTING	Series 2 Pedestal Steel Front Series 2 Pull Mobile Pedestal Open Top 24D Box/File Drawers	
F4	DESK	EXISTING - GFCI	EXISTING	Dividends Horizon Series 2 End Panel Return 42W 24D No Grommet	
F5	CHAIR	EXISTING - GFCI	EXISTING	ADMINISTRATIVE/GUEST CHAIRS	
F6	CABINET	EXISTING - GFCI	EXISTING	Library Cabinet	
F7	TABLE	EXISTING - GFCI	FNWR62	Float Table- FNWR62	
F8	CHAIR	EXISTING - GFCI	EXISTING	Ricchio Chair With Upholstered Seat With Arms	
F9	DESK	EXISTING - GFCI			
F10	FILING CABINETS	EXISTING - GFCI	123		
F11	RECEPTIONIST DESK	EXISTING - GFCI	EXISTING		
F12	TABLE	EXISTING - GFCI	FNWR62	Float Table- FNWR62	
L1	LIGHT	CFCI	COPE01	KnollExtra Copeland Light Standard Arm	
T1	TABLE	CFCI		MODULAR TABLE - 20" x 48"	



FURNITURE PLAN

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

PLAN NORTH

0 4' 8' 16'

GENERAL SHEET NOTES

1. OFFICE FURNITURE IS TYPICALLY EXISTING FROM EXISTING BUILDING. INSTALL AND COORDINATE EXISTING FURNITURE WITH GOVERNMENT.
2. FURNISH AND INSTALL CONFERENCE ROOM, IT/PRINTER ROOM, AND BREAKROOM FIXTURES, FURNITURE, AND EQUIPMENT UNLESS OTHERWISE PROVIDED BY GOVERNMENT.

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

STATE of ALABAMA — NEIL A. NESSER — 8916 — REGISTERED ARCHITECT — 5/2/2024

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BON SECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

MRK.	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
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SHEET TITLE

FURNITURE PLAN

SHT. NO. I-801

REV. NO.

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ROOM SIGNAGE SCHEDULE BY ROOM

ROOM NO	ROOM NAME / SIGN TAG	SIGN TYPE	BOD MNFR	SIGN TEXT
101	VISITORS CENTER			
	A	ROOM ID SIGN	APCO	VISITORS STATION
102	CONFERENCE			
	F	ROOM ID SIGN	APCO	CONFERENCE
103	BREAK			
	A	ROOM ID SIGN	APCO	BREAK
104	DOUBLE			
	C	ROOM ID SIGN	APCO	DOUBLE
105	PRIVATE OFFICE			
	C	ROOM ID SIGN	APCO	PRIVATE OFFICE
106	CORRIDOR			
		ROOM ID SIGN	APCO	COORIDOR
107	IT/PRINTER			
	A	ROOM ID SIGN	APCO	IT/PRINTER
108	SHOP			
	C	ROOM ID SIGN	APCO	SHOP
109	EMPLOYEE RR			
	R4	RESTROOM SIGN	APCO	UNISEX W/ SHOWER
112	MECH.			
	A	ROOM ID SIGN	APCO	MECH
113	PUBLIC RR			
	R3	RESTROOM SIGN	APCO	UNISEX
114	SPARE PRIVATE OFFICE			
	C	ROOM ID SIGN	APCO	OFFICE
116	CLO.			
	A	ROOM ID SIGN	APCO	
xxx	EXTERIOR			

GENERAL SHEET NOTES

1 SIGNS SHOWN ARE TYPICAL. PROVIDE SIGNS MEETING ALL REQUIREMENTS OF THE ADA AND ABA ACCESSIBILITY GUIDELINES.
2 SIGN INSTALLATION HEIGHT AND LOCATION SMUST BE AS PER ALL REQUIREMENT OF THE ADA AND ABA ACCESSIBILITY GUIDELINES.
3 PROVIDE TACTILE EXIT SIGNS AT ALL EGRESS EXIT DOORS, TYP.
5 PRIOR TO ORDERING ANY MATERIAL, PROVIDE SIGN SUBMITTALS INDICATING SIGNAGE MATERIAL, COLORS, LETTER SIZE AND HEIGHT, AND ALL OTHER SALIENT FEATURES. SUBMITTED COLORS MUST BE COORDINATED WITH THE ARCHITECTURAL FINISH SCHEDULE. ADDITIONALLY, SUBMIT PROPOSED ROOM NUMBERS AND ROOM NAMES.
6 REFER TO SPECIFICATIONS SECTION <10 14 23.16> FOR MORE INFORMATTION.
7 INSTALL SIGNS AS PER MANUFACTURER WRITTEN INSTALLATION INSTRUCTIONS.
8 SIGN SIZES INDICATED ARE TYPICAL. PROVIDE MANUFACTURER STANDARD SIGNS WITH DIMENSIONS SIMIALR TO SIZES INDICATED.
9 STAIR SIGN TO BE LOCATED IN ACCESS FOYER, AT SIMILAR LOCATION ON ALL LEVELS. EXACT LOCATION TO BE FIELD VERIFIED AND COORDINATED WITH THE COR PRIOR TO INSTALLATION.

SIGNAGE SPECIFICATIONS

SIGNAGE SPECIFICATIONS (OPT A):

MANUFACTURER: APCO OR EQUAL
PRODUCT: FULLVIEW SERIES OR EQUAL

1. RECTANGLE/INSERT STYLE WITH OPTIONAL PAINTED ACRYLIC BACKPLATE
2. RADIUS TOP TRACK, EXTRUDED ALUMINUM. FINISH: SATIN ANODIZED
3. TEXT, BRAILLE AND BACKGROUND TO BE ADA/ABA COMPLIANT.
4. TEXT TO BE RAISED 1/32" MATTE POLYCARBONATE AND SUBSURFACE COLORED.
   BRAILLE: GRADE 2
   END CAPS: SATIN ANODIZED
   TEXT COLOR: SATIN ALUM (SILVER)
   FONT STYLE: HELVETICA NEUE-ROMAN
5. CHANGEABLE INSERT/DISPLAYS WITH PAPER INSERT & NON-GLARE OVERLAY LENS
6. SURFACE MOUNT OR AS NOTED WITH CONCEALED FASTENERS.

NOTE: ALL ROOM NAMES/SIGN COPY TO BE VERIFIED AND APPROVED BY USER PRIOR TO FABRICATION.

SIGNAGE SPECIFICATIONS (OPT B):

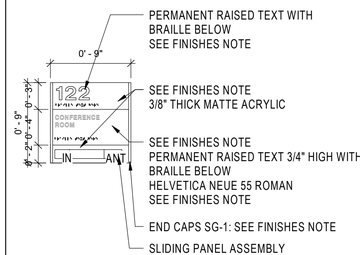
MANUFACTURER: ASI OR EQUAL
PRODUCT: VENUS SERIES OR EQUAL

1. RECTANGLE/INSERT STYLE WITH OPTIONAL PAINTED ACRYLIC BACKPLATE
2. RADIUS TOP TRACK, EXTRUDED ALUMINUM. FINISH: SATIN ANODIZED
3. TEXT, BRAILLE AND BACKGROUND TO BE ADA/ABA COMPLIANT.
4. TEXT TO BE RAISED 1/32" MATTE POLYCARBONATE AND SUBSURFACE COLORED.
   BRAILLE: GRADE 2
   END CAPS: SATIN ANODIZED
   TEXT COLOR: SATIN ALUM (SILVER)
   FONT STYLE: HELVETICA NEUE-ROMAN
5. CHANGEABLE INSERT/DISPLAYS WITH PAPER INSERT & NON-GLARE OVERLAY LENS
6. SURFACE MOUNT OR AS NOTED WITH CONCEALED FASTENERS.

NOTE: ALL ROOM NAMES/SIGN COPY TO BE VERIFIED AND APPROVED BY USER PRIOR TO FABRICATION.

STANDARD SIGNAGE FINISHES:

BACKER TYPE: CURVE 1
BACKER A FINISH: OXIDIZED BRASS 28-0001
HOLDER: NATURAL SATIN
ADA/ABA BKGD: PUTTY
ADA/ABA TEXT: BLACK
PRIMARY INSERT BKGD: WHITE
PRIMARY INSERT TEXT COLOR: MX55
PAPER INSERT BKGD: PUTTY
PAPER INSERT TEXT: BLACK
DIVIDER BAR COLOR: MX55



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STATE of ALABAMA
NEIL K. ESSER
8916
REGISTERED ARCHITECT
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL
WILDLIFE REFUGE

BON SECOUR VISITOR
CENTER & ADMINISTRATION

1329E STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: NXE | DESIGN: NXE
CHECK: SAT

SHEET TITLE

SIGNAGE SCHEDULES

SHT. NO. I-811
REV. NO.

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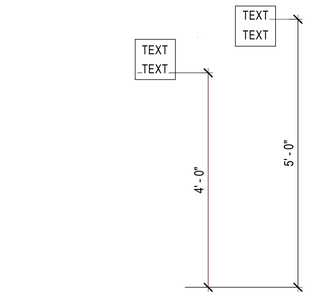
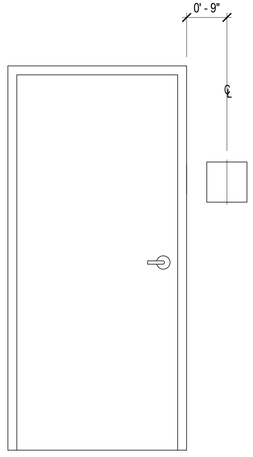


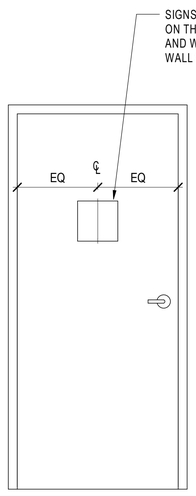
1

NOTE: MOUNTING HEIGHT FOR LOCATIONS WITHOUT DOORS



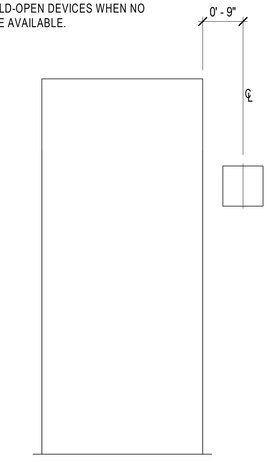
2

NOTE: MOUNT ON LATCH SIDE OF DOOR OR ADJACENT WALL.



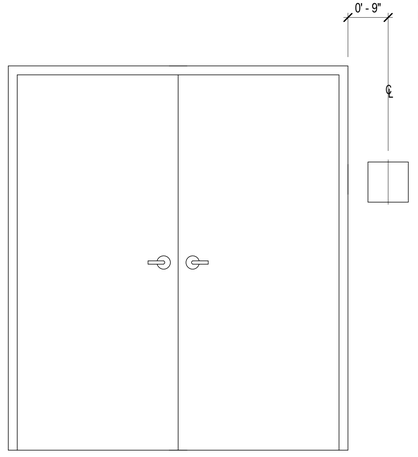
3

NOTE: MOUNT ON CENTER OF DOOR.



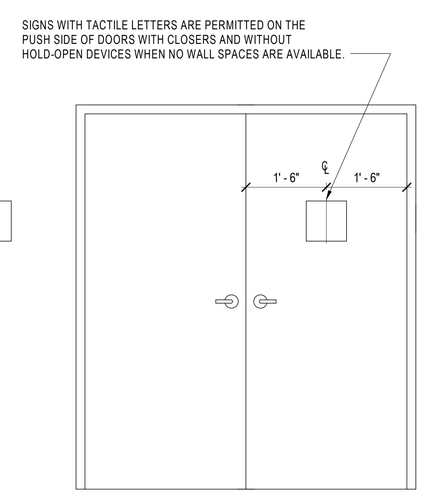
4

NOTE: MOUNT TO THE RIGHT SIDE WHEN AVAILABLE FOR DOORWAY CASED OPENING



5

NOTE: MOUNT ON RIGHT SIDE OF DOUBLE DOORS.



6

NOTE: MOUNT ON RIGHT DOOR.

D6 SIGNAGE DOORWAY LOCATIONS

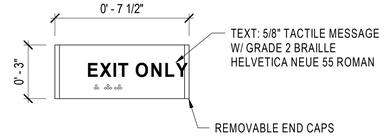
SCALE: 3/4" = 1'-0"

0 9" 1'-6" 3'

ROOM IDENTIFIER TYPE A

CHANGEABLE SIGN TYPE C

SIGN TYPE F



SIGN TYPE EO

SIGN TYPE R3

SIGN TYPE R4 WITH SHOWER

SIGN TYPE NS

SIGN TYPE L

A6 SIGNAGE TYPICAL DETAILS

SCALE: 3" = 1'-0"

0 2" 4" 8"

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STATE of ALABAMA
NEIL A. ESSER
9168
REGISTERED ARCHITECT
5/2/2024

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

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TYPICAL SIGNAGE DETAILS & DOORWAY LOCATIONS

SHT. NO. I-812
REV. NO.

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PLUMBING ABBREVIATIONS

(D)	DEMOLISH
(E)	EXISTING TO REMAIN
AC	AIR COMPRESSOR
AD	AIR DRYER
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATELY
ARCH	ARCHITECTURE
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BV	BALANCING VALVE
CA	COMPRESSED AIR
CO	CLEANOUT
DCW	DOMESTIC COLD WATER
DEG	DEGREES
DET	DOMESTIC WATER EXPANSION TANK
DHW	DOMESTIC HOT WATER
DHWP	DOMESTIC HOT WATER RECIRCULATION
DN	DOWN
DWP	DOMESTIC HOT WATER RECIRCULATION PUMP
EA	EACH
EFS	EMERGENCY SHOWER AND EYE/FACE WASH
EFW	EMERGENCY EYE AND FACE WASH
EL OR ELEV	ELEVATION
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F OR °F	DEGREES FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FT	FOOT OR FEET
GAL	GALLON (U.S.)
GPC	GALLONS PER CYCLE
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HD	HUB DRAIN
HR	HOSE REEL
L	LAVATORY
LB	POUND
MS	MOP SINK
N2	NITROGEN
NTS	NOT TO SCALE
OD	OVERFLOW DRAIN
PSI	POUNDS PER SQUARE INCH
RHD	ROOF HYDRANT
S	SINK
SAN	SANITARY DRAIN
SD	STORM DRAIN
SH	SHOWER
SP	SUMP PUMP
STM	STORM DRAIN
TP	TRAP PRIMER
TYP	TYPICAL
U	URINAL
UG	UNDERGROUND
V	VENT
VAC	VACUUM
VB	DCW VALVE BOX
VOL	VOLUME
VS	VENT STACK
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER
WHA	WATER HAMMER ARRESTER
WHD	WALL HYDRANT
WR	WASTE RECEPTOR

PLUMBING DESIGN CRITERIA

LOCATION: GULF SHORES, AL

PLUMBING PIPING LEGEND

CONSTRUCTION PHASING

DEMO — EXISTING TO REMAIN — POINT OF DISCONNECTION

POINT OF CONNECTION — WORK IN THIS PHASE — EXISTING TO REMAIN

EXISTING TO REMAIN

DEMOLITION

WORK IN THIS PHASE

1 KEYNOTE

PIPING SYSTEMS

DCW — DOMESTIC COLD WATER

DHW — DOMESTIC HOT WATER

DHWR — DOMESTIC HOT WATER RECIRCULATION

SAN — SANITARY SEWER

V — SANITARY SEWER VENT

PIPE ACCESSORIES & FITTINGS

DRAIN PIPING

COMBINATION (WYE & 1/8 BEND)

DOUBLE COMBINATION

WYE FITTING

DOUBLE WYE FITTING

SANITARY TEE

DOUBLE SANITARY TEE

P-TRAP

FLOOR CLEANOUT

WALL CLEANOUT

SUPPLY PIPING

TEE

TEE UP

TEE DN

90 DEG ELBOW

45 DEG ELBOW

PIPE UP

PIPE DN

REDUCER, CONCENTRIC

REDUCER, ECCENTRIC

FLANGE JOINT

BLIND FLANGE

PIPE CAP

ACCESSORIES

VALVE, BALL, MANUAL

VALVE, BALL, CONTROL

VALVE, BUTTERFLY, MANUAL

VALVE, BUTTERFLY, CONTROL

VALVE, CHECK

VALVE, GATE

VALVE, GLOBE

VALVE, BALANCING

WYE STRAINER

WATER HAMMER ARRESTOR

PLUMBING GENERAL NOTES

GENERAL

1. REFER TO EACH DRAWING FOR NOTES SPECIFIC TO THAT DRAWING SHEET.
2. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND INDICATE THE GENERAL AND APPROXIMATE LOCATION OF EQUIPMENT, PIPING AND DUCTWORK. DO NOT SCALE DRAWINGS. THEY ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. THE CONTRACTOR MUST CAREFULLY REVIEW ALL THE CONTRACT DOCUMENTS AND COORDINATE BETWEEN ALL TRADES PRIOR TO SUBMITTING SHOP DRAWINGS. THE CONTRACTOR MUST VERIFY ALL SIZES, MATERIALS, TEMPERATURE AND PRESSURE RATINGS BEFORE ORDERING OR INSTALLING ANY MATERIALS OR EQUIPMENT. THE CONTRACTOR MUST PREPARE INSTALLATION INSTRUCTIONS AND FABRICATION DRAWINGS PRIOR TO ACTUAL INSTALLATION.
3. ALL PLUMBING EQUIPMENT AND ACCESSORIES MUST BE INSTALLED IN STRICT ACCORDANCE WITH THE CURRENT APPROVED EDITION OF THE INTERNATIONAL PLUMBING CODE (IPC) AND ALL OTHER APPLICABLE LOCAL CODES AND BUILDING STANDARDS, UNLESS DRAWINGS AND/OR SPECIFICATIONS INDICATE WORK OVER AND ABOVE CODE REQUIREMENTS.
4. FURNISH ALL MATERIALS AND LABOR NECESSARY FOR THE COMPLETION OF WORK UNLESS NOTED OTHERWISE.
5. ALL MISCELLANEOUS MATERIAL REQUIRED TO ENSURE PROPER INSTALLATION MUST BE PROVIDED.
6. ALL PLUMBING EQUIPMENT AND SYSTEMS MUST BE INSTALLED IN A MANNER WHICH MINIMIZES NOISE AND VIBRATION.
7. ALL MATERIALS REQUIRED FOR PROPER INSTALLATION MUST BE NEW UNLESS THE ITEM IS INDICATED AS EXISTING TO REMAIN OR RELOCATED ON THE DRAWINGS.

COORDINATION

1. COORDINATE THE INSTALLATION OF ALL WORK WITH THE WORK OF OTHER TRADES. MINOR DEVIATIONS FROM THE PLANS, TO INCLUDE OFFSETS AND TRANSITIONS, MAY BE MADE TO AVOID CONFLICTS. MAJOR CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
2. EQUIPMENT SIZES SHOWN ARE BASED UPON TYPICAL MANUFACTURED EQUIPMENT AVAILABLE. SHOP DRAWINGS MUST BE PROVIDED FOR REVIEW AND APPROVAL, SHOWING SPACE FOR ACCESS, EGRESS, MAINTENANCE, AND REQUIRED CODE CLEARANCES PRIOR TO ANY PROCUREMENT, FABRICATION, OR INSTALLATION.
3. COORDINATE THE ELECTRICAL REQUIREMENTS OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACT DOCUMENTS PRIOR TO ORDERING.
4. REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL LOUVERS, VENTS, DUCTS, AND PIPING THAT PENETRATE EXTERIOR WALLS.
5. COORDINATE THE EXACT LOCATION OF OPENINGS IN BUILDING CONSTRUCTION WITH STRUCTURAL DRAWINGS PRIOR TO BEGINNING WORK. DO NOT PENETRATE STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL.
6. DO NOT PLACE PIPING ABOVE ELECTRICAL, COMMUNICATIONS, DATA EQUIPMENT OR PANELS.
7. PROVIDE PERMANENT ACCESS TO ALL EQUIPMENT, VALVES, AND APPURTENANCES INSTALLED ABOVE CEILINGS OR BEHIND WALLS. LOCATE IN AREAS WITH ACCESSIBLE CEILINGS WHERE FEASIBLE, OTHERWISE PROVIDE ACCESS PANELS.

PIPING

1. SLOPE SANITARY SEWER PIPING 2 1/2" OR SMALLER AT 1/4" PER FOOT IN DIRECTION OF FLOW. PIPING 3" OR LARGER MUST BE SLOPED AT A MINIMUM OF 1/8" PER FOOT IN THE DIRECTION OF FLOW. COMPLY WITH ALL LOCAL CODES FOR SLOPING OF PIPING.
2. PROVIDE SHUTOFF VALVES FOR ISOLATION OF INDIVIDUAL FIXTURES, FIXTURE GROUPS, AND PLUMBING EQUIPMENT.
3. ALL PIPING MUST HAVE ITS SLOPE AND INVERT ESTABLISHED PRIOR TO THE INSTALLATION OF ANY PIPING.
4. PROVIDE UL LISTED FIRESTOPPING ASSEMBLIES FOR EACH PENETRATION OF RATED ASSEMBLIES.
5. ALL PIPING MUST BE SLEEVED THROUGH MASONRY WALL PENETRATIONS. ALL PARTITION PENETRATIONS MUST BE ACOUSTICALLY SEALED.
6. CONNECTIONS BETWEEN DISSIMILAR METALS MUST BE MADE WITH DIELECTRIC FITTINGS.
7. LOCATE CLEANOUTS IN ACCESSIBLE LOCATIONS. PLACE CLEANOUT IN VERTICAL RISER UNLESS HORIZONTAL CLEANOUT OR ACCESS EXISTS WITHIN 25 FEET.

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GEORGIA REGISTERED No. PE49818 PROFESSIONAL 05/02/2024 ENGINEER TIMBERLY RUTH LOVE REESE

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION
12295 STRONG RD.
GULF SHORES, AL 36542

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DATE:	05/02/2024
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CHECK:	SWL

SHEET TITLE

LEGEND, ABBREVIATIONS & GENERAL NOTES

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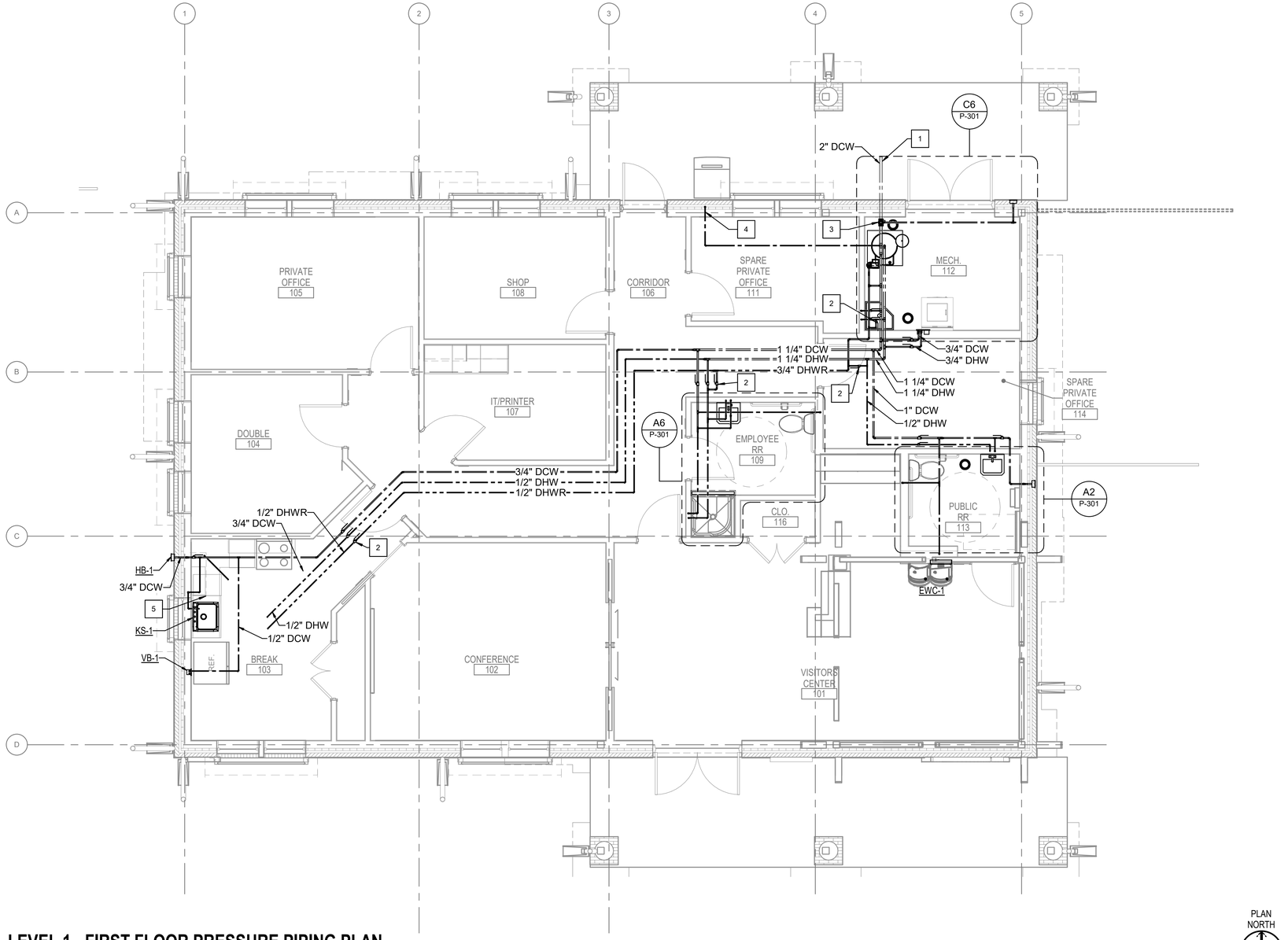

LEVEL 1 - FIRST FLOOR PRESSURE PIPING PLAN

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

GENERAL SHEET NOTES

1. SEE FIXTURE SCHEDULE FOR CONNECTION SIZES UNLESS NOTED OTHERWISE.
2. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
3. DOMESTIC HOT WATER RECIRCULATION CONNECTION TO DOMESTIC HOT WATER PIPE SHALL BE NO FURTHER THAN 4 FEET FROM FIXTURE CONNECTION.

KEYNOTES

1. 2" DCW WITH INVERT 2'-0" BELOW FINISHED FLOOR. REFER TO CIVIL DRAWING C-102 FOR CONTINUATION.
2. DOMESTIC HOT WATER RECIRCULATION VALVES ARE TO BE BALANCED AT 0.5 GPM.
3. PROVIDE REDUCED PRESSURE ZONE BACKFLOW PREVENTER IN VERTICAL RISER. DISCHARGE DRAIN THROUGH WALL.
4. ROUTE DIRECTLY TO ICEMAKER. PROVIDE A LEAD FREE DUAL CHECK VALVE UPSTREAM OF ICEMAKER.

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FISH & WILDLIFE SERVICES
BON SECOUR NAT'L
WILDLIFE REFUGE

BONSECOUR VISITOR
CENTER & ADMINISTRATION
12295 STRONG RD.
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DATE:	05/02/2024
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CHECK:	SWL

SHEET TITLE

FIRST FLOOR PRESSURE PIPING PLAN

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P-101	

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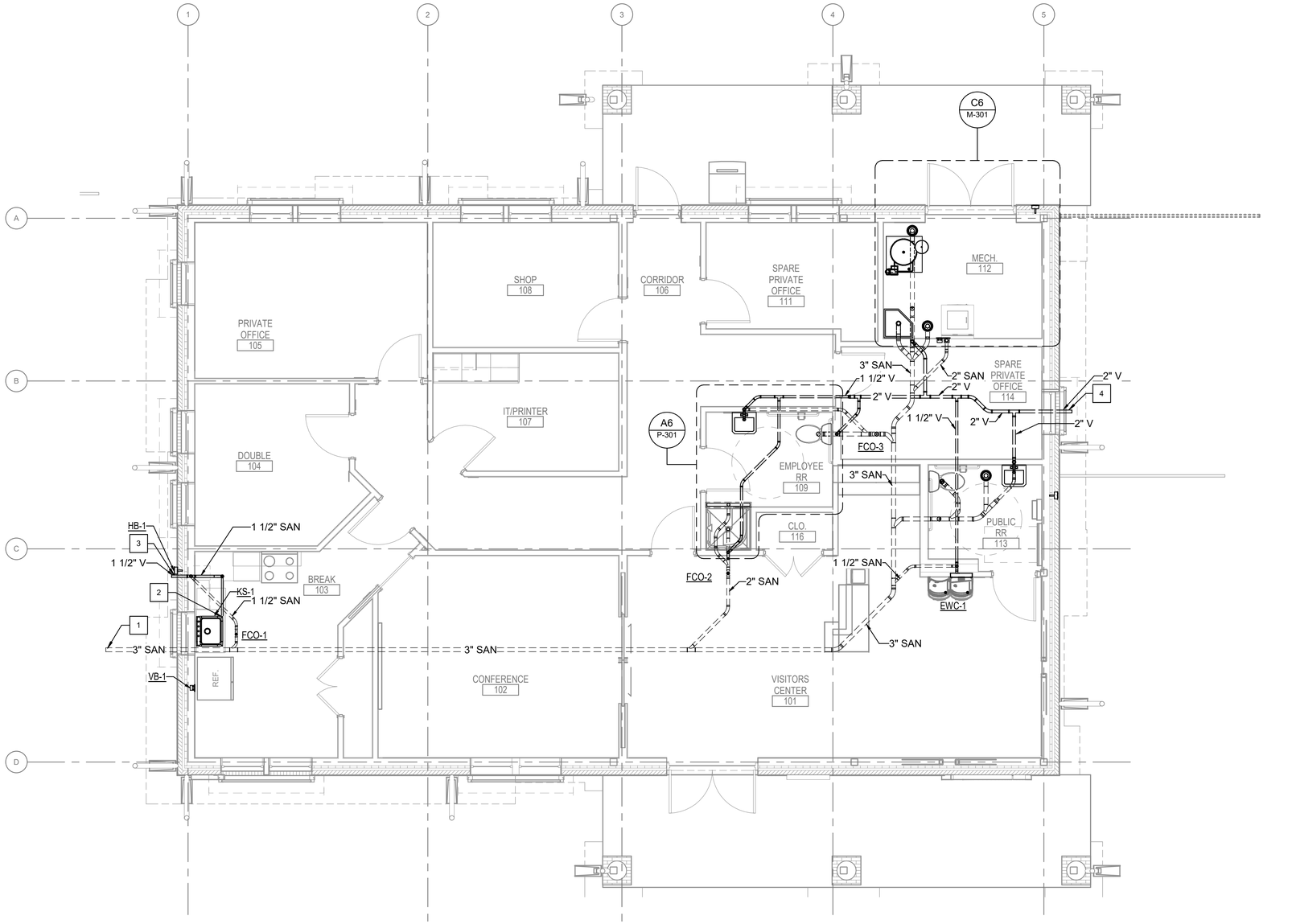

LEVEL 1 - FIRST FLOOR SANITARY PIPING PLAN

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

PLAN NORTH

0 2' 4' 8'

GENERAL SHEET NOTES

KEYNOTES

1. 3" SANITARY WITH INVERT 2'-0" BELOW FINISHED FLOOR. REFER TO CIVIL DRAWING C-102 FOR CONTINUATION.
2. PROVIDE 1-1/2" SANITARY P-TRAP WITH STUB FOR DISHWASHER CONNECTION. ROUTE 1-1/2" SANITARY FLEXIBLE CONNECTION FROM DISHWASHER TO P-TRAP.
3. 1-1/2" VENT TO WALL. PROVIDE INSECT SCREEN AT OPENING.
4. 2" VENT TO WALL. PROVIDE INSECT SCREEN AT OPENING.

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FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

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FIRST FLOOR SANITARY PIPING PLAN

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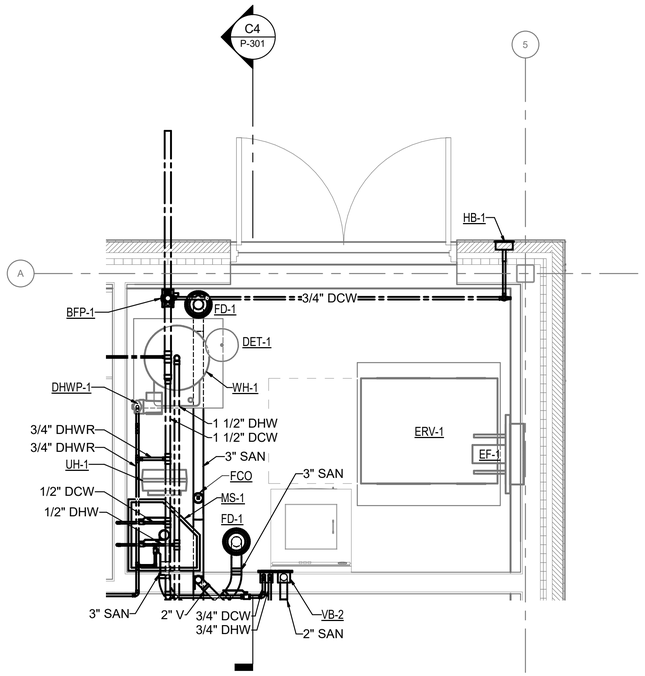
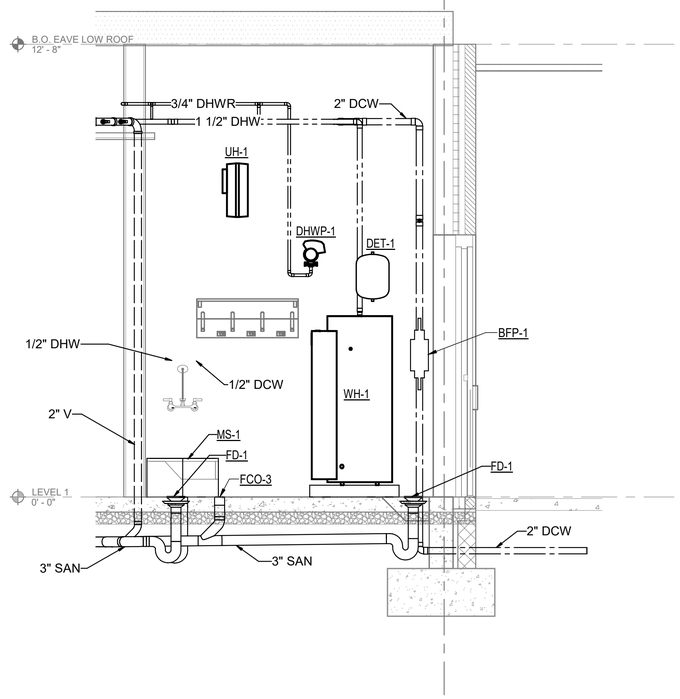


C6 ENLARGED PLAN - MECHANICAL ROOM - PLUMBING

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

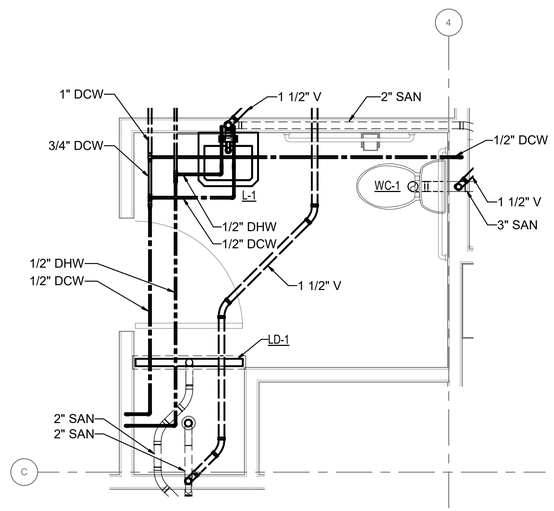
0' 1' 2' 4'



C4 PLUMBING SECTION - DOMESTIC WATER ENTRY

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

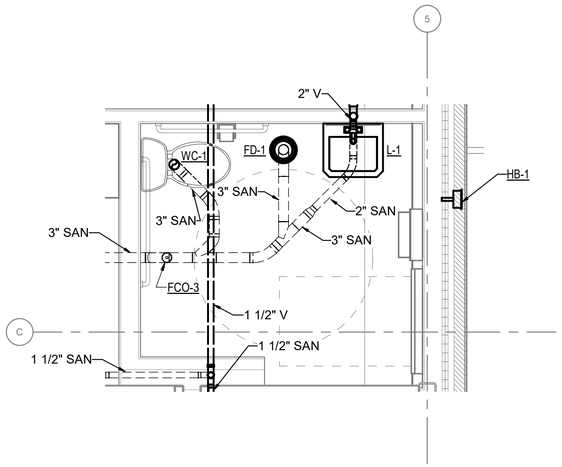
0' 1' 2' 4'



A6 ENLARGED PLAN - EMPLOYEE RESTROOM

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

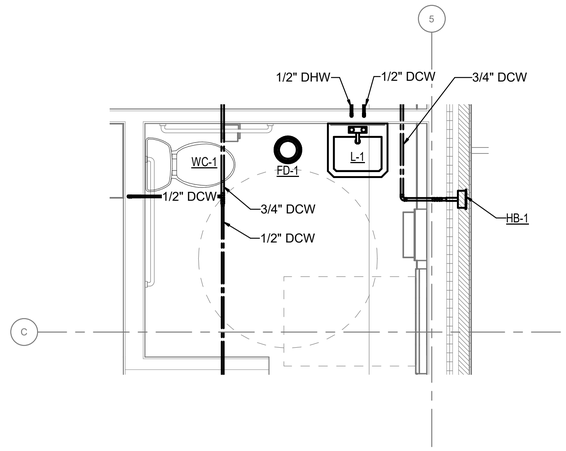
0' 1' 2' 4'



A4 ENLARGED PLAN - PUBLIC RESTROOM - SANITARY PIPING

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

0' 1' 2' 4'



A2 ENLARGED PLAN - PUBLIC RESTROOM - DOMESTIC PIPING

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

0' 1' 2' 4'

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FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

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COMM NO:	230182
DATE:	05/02/2024
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SHEET TITLE

ENLARGED PLANS AND SECTIONS

SHT. NO.	REV. NO.
P-301	

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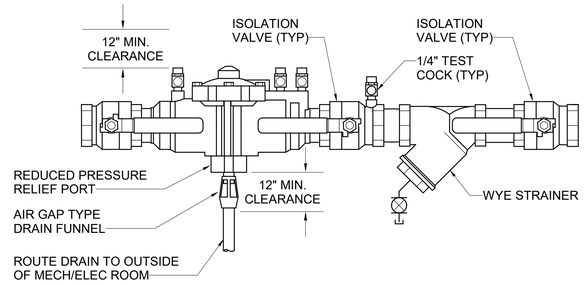
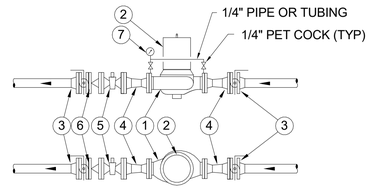


E6 BACK FLOW PREVENTER DETAIL

SCALE: NONE

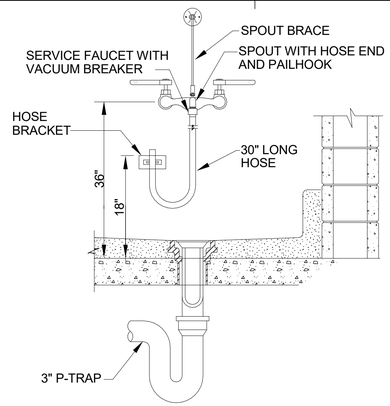


1. IN-LINE CIRCULATOR PUMP
2. MOTOR
3. BALL VALVE
4. CONCENTRIC REDUCER
5. BALANCING VALVE
6. SPRING CHECK VALVE
7. PRESSURE GAUGES

NOTE:
1. EXTERNAL GAGE TAPS ON PIPES SHALL NOT BE REQUIRED WHEN PUMP IS PROVIDED WITH FLANGE GAGE CONNECTOR.

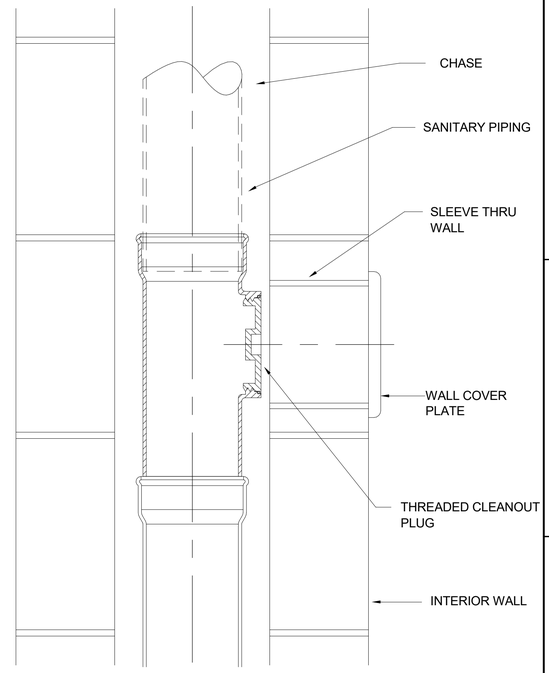
E4 DOMESTIC HOT WATER PUMP DETAIL

NO SCALE



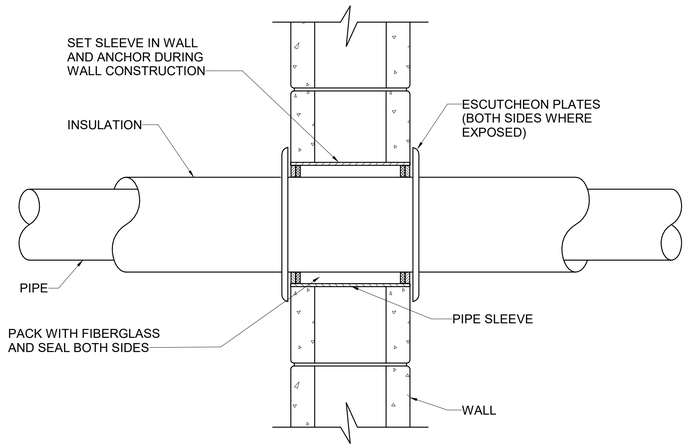
D3 MOP SINK DETAIL

NO SCALE



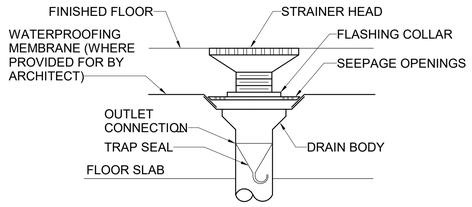
D1 WALL CLEANOUT DETAIL

NO SCALE



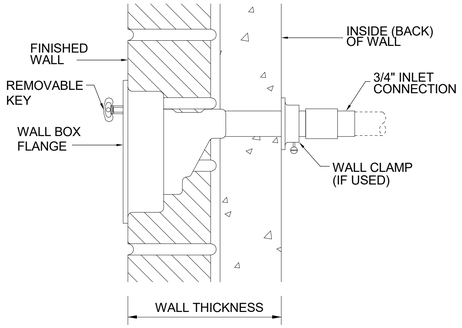
C6 PIPE SLEEVE THRU INTERIOR WALL DETAIL

SCALE: NONE



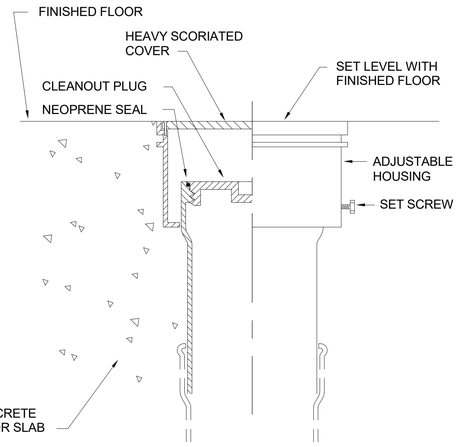
C4 NO PRIMER FLOOR DRAIN DETAIL

SCALE: NONE



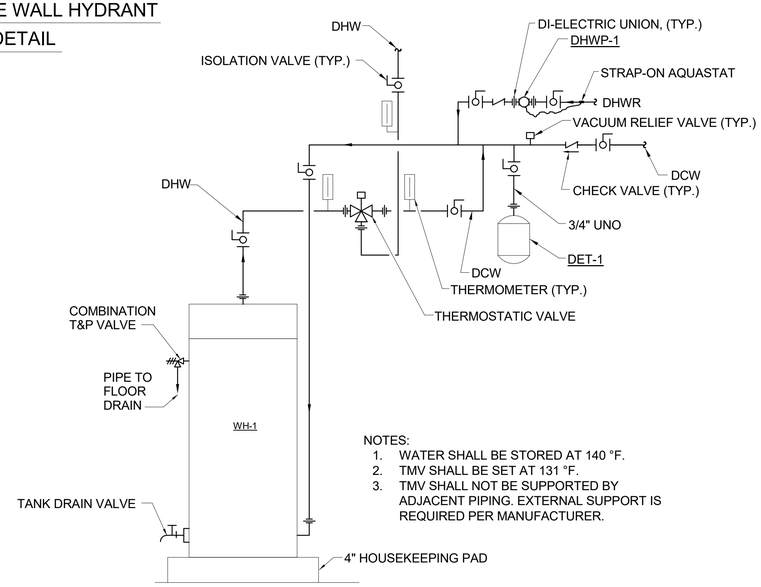
NONFREEZE WALL HYDRANT BOX TYPE DETAIL

C3 NO SCALE



A4 FLOOR CLEANOUT DETAIL

NO SCALE



NOTES:
1. WATER SHALL BE STORED AT 140 °F.
2. TMV SHALL BE SET AT 131 °F.
3. TMV SHALL NOT BE SUPPORTED BY ADJACENT PIPING. EXTERNAL SUPPORT IS REQUIRED PER MANUFACTURER.

A2 ELECTRIC WATER HEATER DETAIL

SCALE: NONE

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. PE49818
PROFESSIONAL
05/02/2024
ENGINEER
KIMBERLY RUTH LOVE REESE

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION
12296 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182		
DATE:	05/02/2024		
DRAWN:	ZDA	DESIGN:	KRR
CHECK:			SWL

SHEET TITLE

DETAILS

SHT. NO.	REV. NO.
P-501	

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PLUMBING FIXTURES

DESIGNATION	FIXTURE	ACCESSIBILITY	MATERIAL	FLUSH VALVE	SUPPLY FITTINGS AND STOPS	TRAP	CARRIER	CONNECTION SIZES				NOTES
								WASTE	VENT	HOT	COLD	
EWC-1	ELECTRIC WATER COOLER	ADA	STAINLESS STEEL	--	ANGLE STOP	1 1/2"	WALL MOUNTED	1 1/2"	1 1/2"	--	1/2"	STAINLESS STEEL BI-LEVEL WALL-MOUNT WATER COOLER WITH SUPPORT. PROVIDE BOTTLE FILLING STATION. PROVIDE 120V/1PH.
KS-1	BREAK ROOM SINK	ADA	STAINLESS STEEL	- -	ANGLE STOPS	1 1/2"	UNDERMOUNT	1 1/2"	1 1/2"	1/2"	1/2"	25" X 21-1/4" X 6-7/8" SS BOWL, ONE COMPARTMENT WITH FOUR HOLE PUNCH AND CENTER DRAIN. 1.5 GPM CHROME FAUCET WITH SIDE SPRAY, 4" VANDLE-PROOF WRISTBLADE HANDLES. PROVIDE ASSE 1070 VALVE TO LIMIT WATER TO 110 DEG F.
L-1	LAVATORY	ADA	VITREOUS CHINA	- -	ANGLE STOPS	1 1/2"	WALL MOUNTED	1 1/2"	1 1/2"	1/2"	1/2"	MAXIMUM 0.5 GPM FAUCET WITH MANUAL CONTROL. PROVIDE ASSE 1070 VALVE TO LIMIT WATER 110 DEG F.
MS-1	MOP SINK	- -	TERRAZZO	- -	- -	3"	FLOOR	3"	1 1/2"	1/2"	1/2"	24" X 24" X 12" BOWL SIZE WITH NEO-CORNER AND STAINLESS STEEL GUARDS, STRAINER GRATE.
SH-1A	SHOWER	ADA	FRP	- -	--	2"	FLOOR	2"	1 1/2"	1/2"	1/2"	PROVIDE 1.5 GPM SHOWER SYSTEM. PROVIDE DOUBLE CERAMIC PRESSURE BALANCE CARTRIDGE (ONE-PIECE CARTRIDGE TO INCLUDE CERAMIC DISC MIXING VALVE AND CERAMIC BALANCING SPOOL). CARTRIDGE SHALL PROVIDE ADJUSTABLE HOT LIMIT SAFETY STOP AND INTEGRATED CHECK VALVES. PROVIDE VALVE TRIM KIT WITH RED/BLUE INDICATOR RING. PROVIDE WITH METAL LEVER SINGLE HANDLE AND MINIMUM 3 FUNCTION SHOWER HEAD. SHOWER HEAD/ARM SHALL BE SLIDING ADJUSTABLE SPRAY TYPE. PROVIDE LINEAR STYLE DRAIN. REFER TO ARCHITECTURAL DETAILS FOR FURTHER INFORMATION.
VB-1	VALVE BOX	ASME A112.19.2	ABS PLASTIC BOX	- -	WALL MOUNTED RECESSED	- -	- -	- -	- -	- -	1/2"	6" X 6" X 3-3/8" SINGLE VALVE WITH CONNECTION FOR REFRIGERATOR WATER AND/OR ICE. PROVIDE TOP MOUNT HOSE BIBB 1/4 TURN BRASS VALVE WITH TYPE L COPPER TUBE WATER HAMMER ARRESTOR.
VB-2	VALVE BOX	ASME A112.18.1 / CSA B125.1	BMC PLASTIC BOX	- -	WALL MOUNTED RECESSED	- -	- -	2"	1 1/2"	3/4"	3/4"	10.10" X 8.36" X 3.92" DOUBLE VALVE WITH CONNECTIONS FOR LAUNDRY. PROVIDE 2" DWV DRAIN PIECE. PROVIDE WATER HAMMER ARRESTOR, COPPER SWEAT.
WC-1	WATER CLOSET	ADA	VITREOUS CHINA	- -	ANGLE STOP	INTEGRAL	FLOOR	3"	1 1/2"	- -	1/2"	FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE. LOW FLOW 1.28 GPF WATER CLOSET WITH MANUAL FLUSH VALVE. RIM HEIGHT AT 17" AFF.

NOTES:
1. ALL EXPOSED PIPING AT PLUMBING FIXTURES SHALL BE CHROME-PLATED WITH CHROME-PLATED ESCUTCHEONS AT WALL PENETRATIONS.
2. PROVIDE CHROME-PLATED BRASS P-TRAP AND SUPPLIES WITH STOP VALVES AT ALL SINKS, LAVATORIES, AND DRINKING FOUNTAINS.
3. PROVIDE INSULATION FOR P-TRAP AND SUPPLIES AT ALL ADA SINKS AND LAVATORIES.
4. CONNECTION SIZES SHOWN ARE MINIMUM SIZES.
5. SEE PLANS FOR COMMON VENT SIZES.

PLUMBING SPECIALTIES SCHEDULE

DESIGNATION	FIXTURE	BODY MATERIAL	COLOR FINISH	OUTLET CONNECTION	INLET CONNECTION	DESCRIPTION
FD-1	FLOOR DRAIN	CAST-IRON	NICKEL BRONZE	3"	---	NO HUB CONNECTION. PROVIDE P-TRAP WITH ASSE 1072 BARRIER-TYPE FLOOR DRAIN TRAP SEAL PROTECTION DEVICE.
HB-1	HOSE BIBB	BRONZE / STAINLESS STEEL	STAINLESS STEEL	3/4"	3/4"	ENCASED, ANTI-SIPHON, AUTOMATIC DRAINING WALL HYDRANT WITH 3/4" HOSE CONNECTION, FLUSH INSTALLATION, NON-FREEZE TYPE INTEGRAL BACKFLOW PREVENTER.
LD-1	LINEAR SHOWER DRAIN	STAINLESS STEEL	STAINLESS STEEL	2"	---	NO HUB CONNECTION, ANTI-PONDING V-SHAPED CHANNEL WITH 2" DRAIN CONNECTION, ANCHORING SUPPORT LEGS, BUILT-IN TILE EDGE, WATERPROOFING MEMBRANE.
FCO-1	FLOOR CLEANOUT	CAST-IRON	NICKEL BRONZE	1-1/2"	---	NO HUB CONNECTION. PROVIDE P-TRAP WITH ASSE 1072 BARRIER-TYPE FLOOR DRAIN TRAP SEAL PROTECTION DEVICE.
FCO-2	FLOOR CLEANOUT	CAST-IRON	NICKEL BRONZE	2"	---	NO HUB CONNECTION. PROVIDE P-TRAP WITH ASSE 1072 BARRIER-TYPE FLOOR DRAIN TRAP SEAL PROTECTION DEVICE.
FCO-3	FLOOR CLEANOUT	CAST-IRON	NICKEL BRONZE	3"	---	NO HUB CONNECTION. PROVIDE P-TRAP WITH ASSE 1072 BARRIER-TYPE FLOOR DRAIN TRAP SEAL PROTECTION DEVICE.

BACKFLOW PREVENTER SCHEDULE

DESIGNATION	LOCATION	SERVICE	SIZE	DESCRIPTION
BFP-1	MECH	BUILDING CW SUPPLY	2"	VERTICAL TYPE WITH WYE STRAINER, REDUCED PRESSURE ZONE VALVE ASSEMBLY. BASIS OF DESIGN: WATTS 909.

WATER HEATER

DESIGNATION	WH-1
TYPE	ELECTRIC
LOCATION	MECH
STORAGE (GAL)	50
STORAGE TEMPERATURE (F)	140
INPUT (kW)	12.3
GPH AT 90 DEG F RISE	56
ELECTRICAL DATA	- -
VOLTS	240
PHASE	1
HZ	60
BASIS OF DESIGN	AO SMITH
MODEL	DRE-52-12
REMARKS	1, 2
REMARKS LEGEND:	
1. PROVIDE DISCONNECT SWITCH.	
2. TEMPERATURE RISE: 50°F TO 140°F	

DOMESTIC HOT WATER RECIRCULATION PUMP

DESIGNATION	DHWP-1
FLOW RATE (GPM)	2
HEAD (FT-H2O)	5
TYPE	IN-LINE CENTRIFUGAL
RPM	1,471
VOLTS	120
PHASE	1
FREQUENCY (Hz)	60
REMARKS	1,2
REMARKS LEGEND:	
1. PUMP MUST BE DESIGNED FOR POTABLE WATER USE.	
2. PROVIDE AQUASTAT AND TIME CLOCK.	

DW EXPANSION TANK

DESIGNATION	DET-1
SERVICE	DOMESTIC HOT WATER
LOCATION	MECH
TYPE	DIAPHRAGM
FILL PRESSURE (PSI)	60
RELIEF VALVE PRESSURE SETTING (PSI)	80
MINIMUM TANK SIZE (GAL)	10.3
MINIMUM ACCEPTANCE VOLUME (GAL)	10.3
BASIS OF DESIGN	AMTROL ST-25V

MIXING VALVE SCHEDULE

DESIGNATION	MV-1
SERVICE	BUILDING DHW
TYPE	THERMOSTATIC
MAXIMUM FLOW DEMAND (GPM)	143
MAXIMUM PRESSURE DROP (PSI)	10
MINIMUM FLOW (GPM)	2
SETPOINT	131°F
RATING	ASSE 1017
REMARKS	1, 2
REMARKS LEGEND:	
1. MIXING VALVE SHALL MAINTAIN OUTLET TEMPERATURE AT MINIMUM FLOW RATE OF 0.5 GPM WHEN INSTALLED WITH RECIRCULATION LOOP.	
2. PROVIDE MANIFOLD MIXING VALVE ARRANGEMENT TO ACHIEVE SCHEDULED PERFORMANCE.	

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GEORGIA REGISTERED ENGINEER No. PE49818 PROFESSIONAL 05/02/2024 ENGINEER IMBERLY RUTH LOVE REESE

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BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION
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GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: ZDA | DESIGN: KRR
CHECK: SWL

SHEET TITLE

SCHEDULES

SHT. NO. P-601 | REV. NO.

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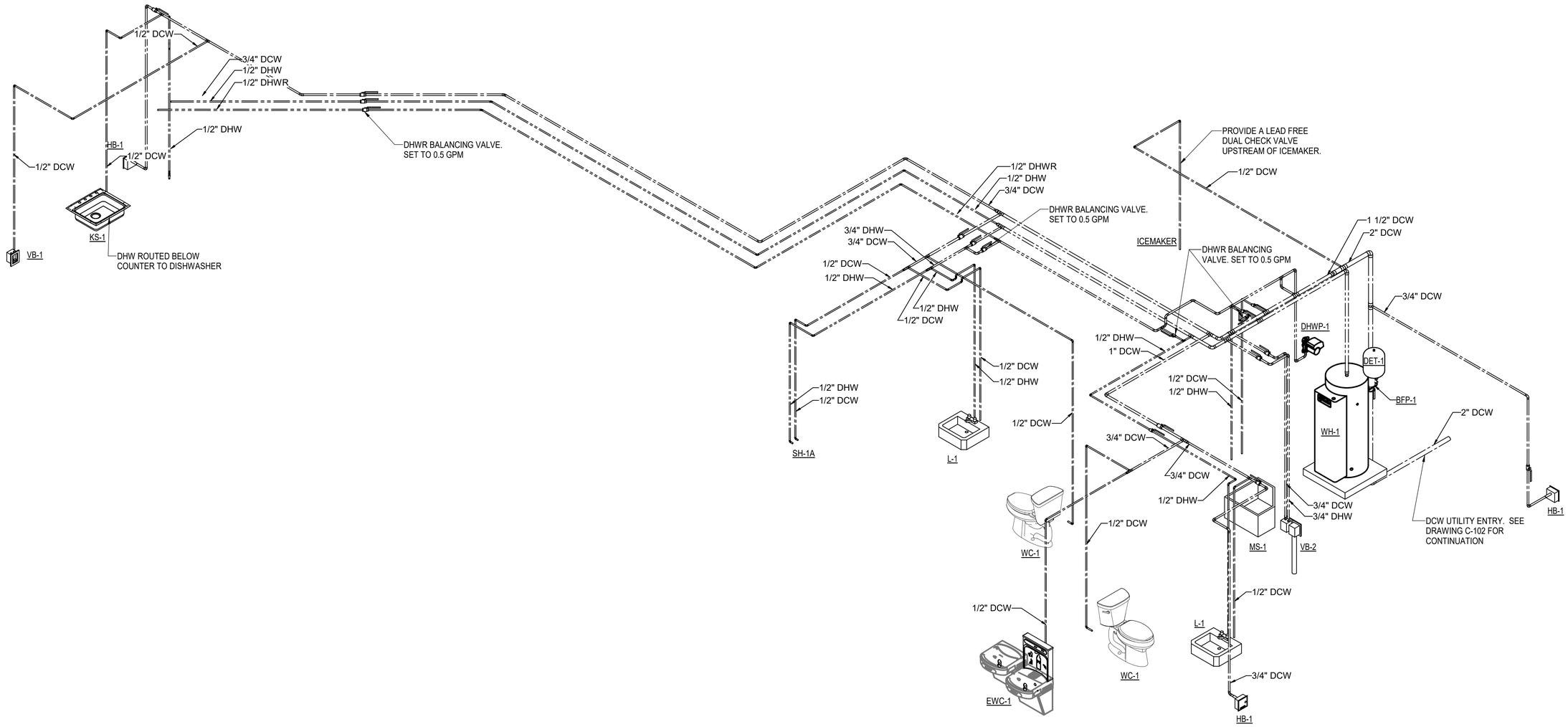

C6 RISER DIAGRAM - DOMESTIC PIPING

SCALE: NONE

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GULF SHORES, AL 36542

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COMM NO:	230182
DATE:	05/02/2024
DRAWN: ZDA	DESIGN: KRR
CHECK:	SWL

SHEET TITLE

DOMESTIC WATER RISER DIAGRAMS

SHT. NO.	REV. NO.
P-801	

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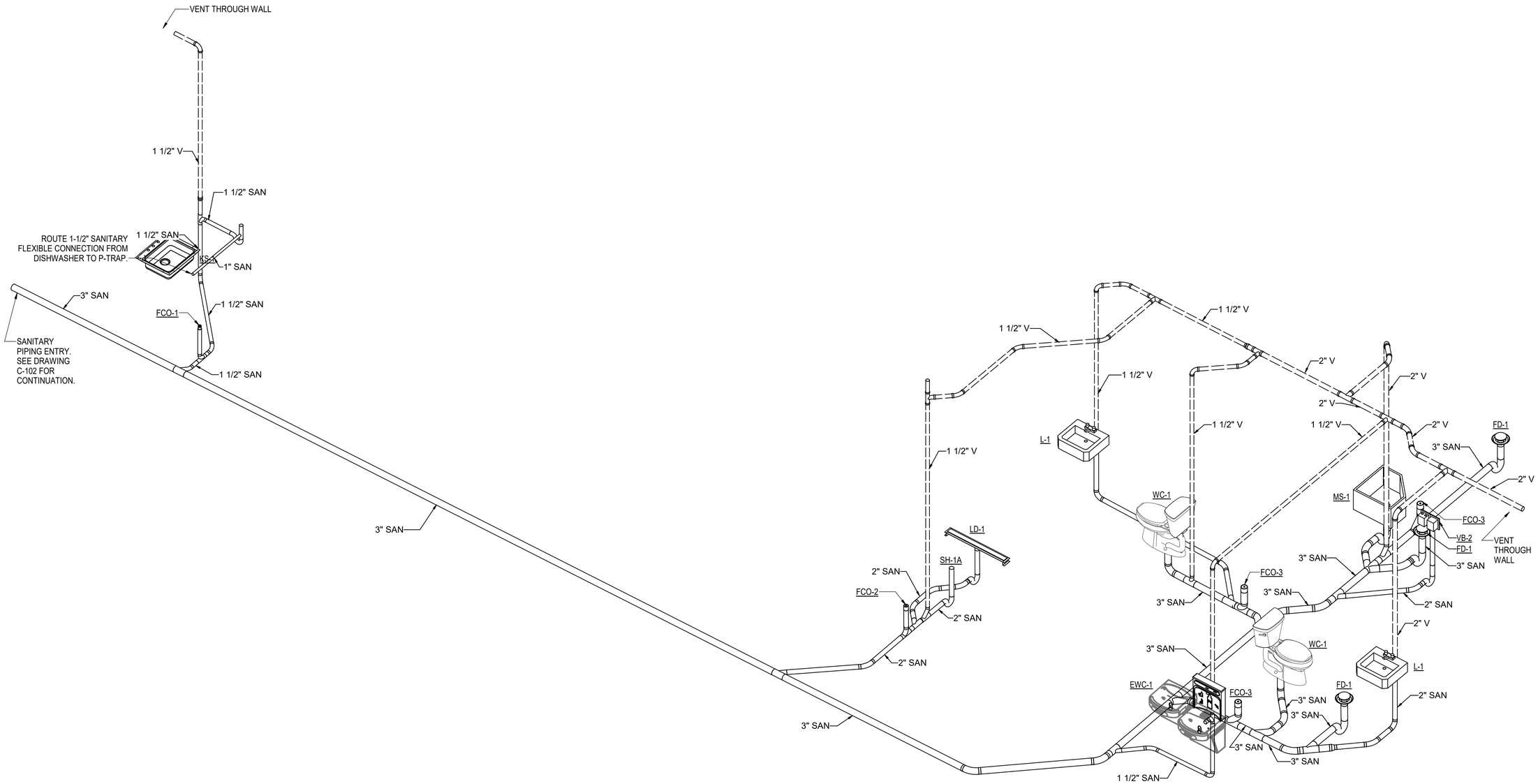

A6 RISER DIAGRAM - SANITARY PIPING

SCALE: NONE

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FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

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12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182
DATE:	05/02/2024
DRAWN: ZDA	DESIGN: KRR
CHECK:	SWL

SHEET TITLE

SANITARY WASTE RISER DIAGRAM

SHT. NO.	REV. NO.
P-802	

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MECHANICAL ABBREVIATIONS

(D)	DEMOLISH
(E)	EXISTING ELEMENT TO REMAIN
ACC	AIR COOLED CHILLER
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMS	AIR FLOW MEASUREMENT STATION
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
APD	AIR PRESSURE DROP
APPROX	APPROXIMATELY
ARCH	ARCHITECTURE
AS	AIR SEPARATOR
ATFP	ANTI-TERRORISM / FORCE PROTECTION
BEL	BELLMOUTH FITTING
BT	BUFFER TANK
CD	CONTROL DAMPER
CDW	CONDENSER WATER
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CHP	CHILLED WATER PUMP
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CLG	COOLING OR CEILING
CO	CLEANOUT
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
COND	CONDENSATE OR CONDENSER
CT	COOLING TOWER
CU	CONDENSING UNIT
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREES
DI	DIGITAL INPUT
DN	DOWN
DO	DIGITAL OUTPUT
DOAS	DEDICATED OUTDOOR AIR SYSTEM
DP	DIFFERENTIAL PRESSURE
EA	EXHAUST AIR OR EACH
EF	EXHAUST FAN
EL	ELEVATION
ESS	EMERGENCY STOP SWITCH
EXH	EXHAUST
F OR °F	DEGREES FAHRENHEIT
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FO	FUEL OIL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FPM	FEET PER MINUTE
FS	FLOW SWITCH
FT	FOOT OR FEET
FZ	FREEZESTAT
GA	GAUGE
GAL	GALLON (U.S.)
GALV	GALVANIZED
H	HUMIDITY
HGI	HOODED GRAVITY INTAKE
HGR	HOODED GRAVITY RELIEF
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HWB	HOT WATER BOILER
HWP	HOT WATER PUMP
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
L	LOUVER
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
MD	MANUAL VOLUME DAMPER
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
NC	NOISE CRITERIA OR NORMALLY CLOSED
NG	NATURAL GAS
NO	NUMBER OR NORMALLY OPEN
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OCC	OCCUPANCY
P	PRESSURE
PC	PUMPED CONDENSATE
PG	PROPANE GAS
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
RA	RETURN AIR
REF	REFRIGERANT
RH	RELATIVE HUMIDITY
RLF	RELIEF AIR
SA	SUPPLY AIR
SD	SMOKE DAMPER OR SMOKE DETECTOR
SF	SQUARE FEET
SFD	COMBINATION FIRE & SMOKE DAMPER
SP	STATIC PRESSURE
STD	STANDARD
STL	STEEL
T	TEMPERATURE
TB	TERMINAL BOX
TSTAT	THERMOSTAT
TUC	TERMINAL UNIT CONTROLLER
TYP	TYPICAL
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VLV	VALVE
VRF	VARIABLE REFRIGERANT FLOW
W/	WITH
W/O	WITHOUT
WG	WATER GAUGE
XFER	TRANSFER

HVAC DESIGN CRITERIA

LOCATION: GULF SHORES, AL

CLIMATE ZONE: 2A

OUTDOOR DESIGN

DESIGN CONDITION	TEMPERATURE DRY BULB	TEMPERATURE WET BULB
COOLING	93.8 °F	78.4 °F
HEATING	33.2 °F	XX.X °F

INDOOR DESIGN

SPACE TYPE	COOLING TEMPERATURE	COOLING RH	HEATING TEMPERATURE	HEATING RH	NOTES
OFFICE AREAS	70 °F	50 %	75 °F	50 %	

HVAC AND MECHANICAL PIPING LEGEND

CONSTRUCTION PHASING

DEMO — EXISTING TO REMAIN

POINT OF DISCONNECTION

POINT OF CONNECTION

WORK IN THIS PHASE — EXISTING TO REMAIN

EXISTING TO REMAIN

DEMOLITION

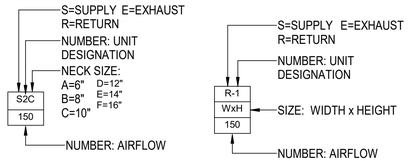
WORK IN THIS PHASE

1 KEYNOTE

SENSORS

T TEMPERATURE
H HUMIDITY
SD SMOKE
CO CARBON MONOXIDE
CO2 CARBON DIOXIDE
P PRESSURE
DP DIFFERENTIAL PRESSURE
SP STATIC PRESSURE
OCC OCCUPANCY

AIR TERMINAL TAGS

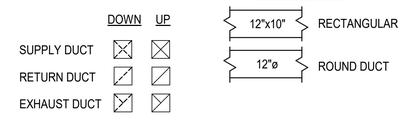


PIPING SYSTEMS

D — CONDENSATE DRAIN

RS/RL — REFRIGERANT SUPPLY AND RETURN

DUCT SYSTEMS



DUCT ACCESSORIES & FITTINGS

ACCESSORIES

DAMPER, MANUAL BALANCING

DAMPER, BACKDRAFT

DAMPER, CONTROL (M)

DAMPER, FIRE (F)

DAMPER, SMOKE (S)

DAMPER, FIRE & SMOKE (FS)

SECURITY BARS

AIRFLOW MONITORING STATION (AFMS)

FLEXIBLE DUCT

RECTANGULAR DUCTWORK

MITERED — RADIUS

90 DEG BEND

45 DEG BEND

DOWN

UP

ROUND DUCTWORK

90 DEG BEND — 45 DEG BEND

DOWN — UP

OVAL DUCTWORK

GORED — MITERED

90 DEG BEND

45 DEG BEND

DOWN

UP

PIPE ACCESSORIES & FITTINGS

TEE

TEE UP

TEE DN

90 DEG ELBOW

45 ELBOW

PIPE UP

PIPE DN

REDUCER, CONCENTRIC

REDUCER, ECCENTRIC

FLANGE JOINT

BLIND FLANGE

PIPE CAP

VALVE, BALL, MANUAL

VALVE, BALL, CONTROL

VALVE, BUTTERFLY, MANUAL

VALVE, BUTTERFLY, CONTROL

VALVE, CHECK

VALVE, GATE

VALVE, GLOBE

VALVE, BALANCING

WYE STRAINER

MECHANICAL GENERAL NOTES

GENERAL

1. REFER TO EACH DRAWING FOR NOTES SPECIFIC TO THAT DRAWING SHEET.
2. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND INDICATE THE GENERAL AND APPROXIMATE LOCATION OF EQUIPMENT, PIPING AND DUCTWORK. DO NOT SCALE DRAWINGS. THEY ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. A COMPLETE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM (HVAC) WITH ALL NECESSARY EQUIPMENT, APPURTENANCES AND CONTROLS MUST BE PROVIDED. THE CONTRACTOR MUST CAREFULLY REVIEW ALL THE CONTRACT DOCUMENTS AND COORDINATE BETWEEN ALL TRADES PRIOR TO SUBMITTING SHOP DRAWINGS. THE CONTRACTOR MUST VERIFY ALL SIZES, MATERIALS, TEMPERATURE AND PRESSURE RATINGS BEFORE ORDERING OR INSTALLING ANY MATERIALS OR EQUIPMENT. THE CONTRACTOR MUST PREPARE INSTALLATION INSTRUCTIONS AND FABRICATION DRAWINGS PRIOR TO ACTUAL INSTALLATION.
3. ALL MECHANICAL EQUIPMENT AND ACCESSORIES MUST BE INSTALLED IN STRICT ACCORDANCE WITH THE CURRENT APPROVED EDITION OF THE INTERNATIONAL MECHANICAL CODE (IMC) AND ALL OTHER APPLICABLE LOCAL CODES AND BUILDING STANDARDS, UNLESS DRAWINGS AND/OR SPECIFICATIONS INDICATE WORK OVER AND ABOVE CODE REQUIREMENTS.
4. FURNISH ALL MATERIALS AND LABOR NECESSARY FOR THE COMPLETION OF WORK UNLESS NOTED OTHERWISE.
5. ALL MISCELLANEOUS MATERIAL REQUIRED TO ENSURE PROPER INSTALLATION MUST BE PROVIDED.
6. ALL MECHANICAL EQUIPMENT AND SYSTEMS MUST BE INSTALLED IN A MANNER WHICH MINIMIZES NOISE AND VIBRATION.
7. ALL MATERIALS REQUIRED FOR PROPER INSTALLATION MUST BE NEW UNLESS THE ITEM IS INDICATED AS EXISTING TO REMAIN OR RELOCATED ON THE DRAWINGS.

COORDINATION

1. COORDINATE THE INSTALLATION OF ALL WORK WITH THE WORK OF OTHER TRADES. MINOR DEVIATIONS FROM THE PLANS, TO INCLUDE OFFSETS AND TRANSITIONS, MAY BE MADE TO AVOID CONFLICTS. MAJOR CONFLICTS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
2. EQUIPMENT SIZES SHOWN ARE BASED UPON TYPICAL MANUFACTURED EQUIPMENT AVAILABLE. SHOP DRAWINGS MUST BE PROVIDED FOR REVIEW AND APPROVAL, SHOWING SPACE FOR ACCESS, EGRESS, MAINTENANCE, AND REQUIRED CODE CLEARANCES PRIOR TO ANY PROCUREMENT, FABRICATION, OR INSTALLATION.
3. COORDINATE THE ELECTRICAL REQUIREMENTS OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACT DOCUMENTS PRIOR TO ORDERING.
4. REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL LOUVERS, VENTS, DUCTS, AND PIPING THAT PENETRATE EXTERIOR WALLS.
5. COORDINATE THE EXACT LOCATION OF OPENINGS IN BUILDING CONSTRUCTION WITH STRUCTURAL DRAWINGS PRIOR TO BEGINNING WORK. DO NOT PENETRATE STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL.
6. DO NOT PLACE PIPING ABOVE ELECTRICAL, COMMUNICATIONS, DATA EQUIPMENT OR PANELS.

DUCTWORK

1. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEET METAL SIZES. WHERE INTERNAL LINING OR DOUBLE WALL DUCTWORK ARE INDICATED, DIMENSION ACCOUNT FOR THE THICKNESS OF THE INSULATION.
2. ALL BRANCH DUCTWORK MUST BE SIZED TO MATCH THE TERMINAL CONNECTION SERVED UNLESS NOTED OTHERWISE. FLEXIBLE DUCT TO DIFFUSERS MUST BE INSTALLED FREE OF KINKS AND SAGS. MAXIMUM LENGTH OF FLEXIBLE DUCT MUST BE 5'-0". ALL RUNOUT AND BRANCH DUCTS MUST CONTAIN A MANUAL VOLUME DAMPER FOR BALANCING.
3. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND MUST BE SMOOTH SQUARE TO ROUND TRANSITIONS.
4. ALL DIFFUSERS MUST HAVE FOUR-WAY BLOW UNLESS NOTED OTHERWISE.
5. SEE REFLECTED CEILING PLANS FOR EXACT LOCATION OF AIR DEVICES.
6. ALL DAMPERS, DAMPER OPERATORS, AND FANS MUST BE ACCESSIBLE. LOCATE ALL EQUIPMENT OR APPURTENANCES IN AREAS WITH ACCESSIBLE CEILINGS. THE CONTRACTOR MAY UTILIZE ACCESS PANELS FOR THOSE AREAS NOT EASILY ACCESSIBLE. ALL ACCESS PANEL LOCATIONS MUST BE COORDINATED WITH THE CONTRACT DOCUMENTS AND APPROVED BY THE OWNER PRIOR TO INSTALLATION OF EQUIPMENT.
7. PROVIDE UL LISTED FIRESTOPPING ASSEMBLIES FOR EACH PENETRATION OF RATED ASSEMBLIES.
8. ALL DUCTWORK MUST BE SLEEVED THROUGH WALL PENETRATIONS EXCEPT INTERIOR PARTITIONS. ALL WALL PENETRATIONS OF DUCTWORK MUST BE SEALED.
9. PROVIDE TURNING VANES IN MITERED 90 DEGREE BENDS EXCEPT TRANSFER DUCTS OR OTHERWISE NOTED.
10. PROVIDE CONICAL TEES FOR TAKE-OFFS FROM ROUND AND FLAT OVAL DUCTWORK. PROVIDE TAPS WITH 45 DEGREE DUCT HEEL FOR TAKE-OFFS FROM RECTANGULAR DUCTWORK.

PIPING

1. SLOPE CONDENSATE DRAINS AT 1/8" PER FOOT MINIMUM IN THE DIRECTION OF FLOW. PROVIDE FITTINGS TO ALLOW CLEANING OF ENTIRE SYSTEM.
2. ALL PIPING MUST HAVE ITS SLOPE AND INVERT ESTABLISHED PRIOR TO THE INSTALLATION OF ANY PIPING.
3. ALL PIPING SYSTEMS THAT ARE NOT OPEN TO ATMOSPHERE MUST BE PROVIDED WITH VALVED DRAINS AT LOW POINTS AND MANUAL AIR VENTS AT HIGH POINTS.
4. PROVIDE UL LISTED FIRESTOPPING ASSEMBLIES FOR EACH PENETRATION OF RATED ASSEMBLIES.
5. ALL PIPING MUST BE SLEEVED THROUGH MASONRY WALL PENETRATIONS. ALL PARTITION PENETRATIONS MUST BE ACOUSTICALLY SEALED.
6. SIZE AND ROUTE REFRIGERANT PIPING PER EQUIPMENT MANUFACTURER'S WRITTEN INSTRUCTIONS.
7. CONNECTIONS BETWEEN DISSIMILAR METALS MUST BE MADE WITH DIELECTRIC FITTINGS.

EQUIPMENT

1. INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
2. ALL MECHANICAL EQUIPMENT MUST BE INSTALLED IN SUCH A MANNER SO THAT ALL FILTERS, VALVES, MOTORS, DAMPERS, ETC., ARE COMPLETELY ACCESSIBLE AND SERVICEABLE, INCLUDING ACCESS DOORS IF REQUIRED.
3. COMPLETE AND PROPER INSTALLATION OF THERMOSTATS AND ALL OTHER NECESSARY FIELD MOUNTED CONTROL COMPONENTS MUST BE THE RESPONSIBILITY OF THE MECHANICAL OR CONTROLS CONTRACTOR. THE EQUIPMENT MANUFACTURER MUST FURNISH COMPLETE WIRING CONTROLS. ALL CONTROL WIRING IN MECHANICAL ROOMS OR AREAS SUBJECT TO DAMAGE MUST BE IN CONDUIT AND INSTALLED PER ELECTRICAL CONTRACT DOCUMENTS.
4. PROVIDE FLEXIBLE CONNECTIONS BETWEEN HVAC EQUIPMENT AND SHEET METAL DUCTWORK.

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

GEORGIA REGISTERED No. PE49818 PROFESSIONAL 05/02/2024 ENGINEER KIMBERLY RUTH LOVE REESE

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION

12295 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182
DATE:	05/02/2024
DRAWN: ZDA	DESIGN: KRR
CHECK:	SWL

SHEET TITLE

LEGEND, ABBREVIATIONS & GENERAL NOTES

SHT. NO. M-001

REV. NO.

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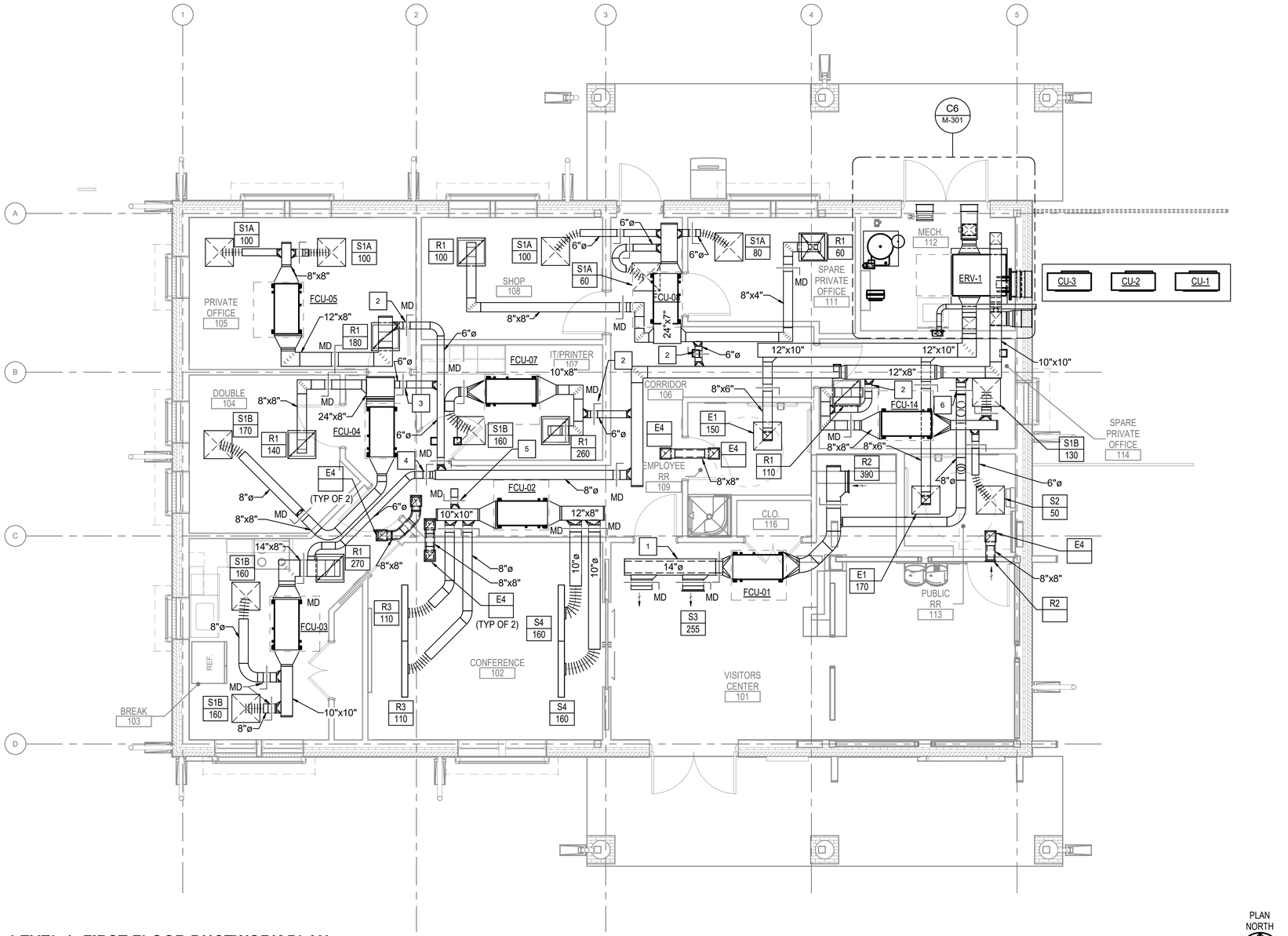

LEVEL 1- FIRST FLOOR DUCTWORK PLAN

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

PLAN NORTH

0 2' 4' 8'

GENERAL SHEET NOTES

1. ALL RUNOUTS TO AIR TERMINALS ARE NECK SIZE UNLESS OTHERWISE NOTED.
2. REFER TO MECHANICAL PIPING PLANS FOR TEMPERATURE SENSOR LOCATIONS.
3. DUCT TRANSITIONS AT INDOOR FAN-COIL UNIT CONNECTIONS MUST BE MAXIMUM 45 DEGREE TRANSITION. PROVIDE CONCENTRIC TRANSITIONS.

KEYNOTES

1. PROVIDE DOUBLE WALL DUCTWORK WITH 1" ANNULAR INSULATION. OUTSIDE DIAMETER SHOWN. SUPPORT DUCTWORK PER DETAIL B4 ON DRAWING M-501.
2. BALANCE MANUAL DAMPER TO 20 CFM.
3. BALANCE MANUAL DAMPER TO 30 CFM.
4. BALANCE MANUAL DAMPER TO 50 CFM.
5. BALANCE MANUAL DAMPER TO 100 CFM.
6. BALANCE MANUAL DAMPERT TO 120 CFM.

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FISH & WILDLIFE SERVICES
BON SECOUR NAT'L
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BONSECOUR VISITOR
CENTER & ADMINISTRATION

13296 STRONG RD.
GULF SHORES, AL 36542

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SHEET TITLE

FIRST FLOOR DUCTWORK PLAN

SHT. NO.	REV. NO.
M-101	

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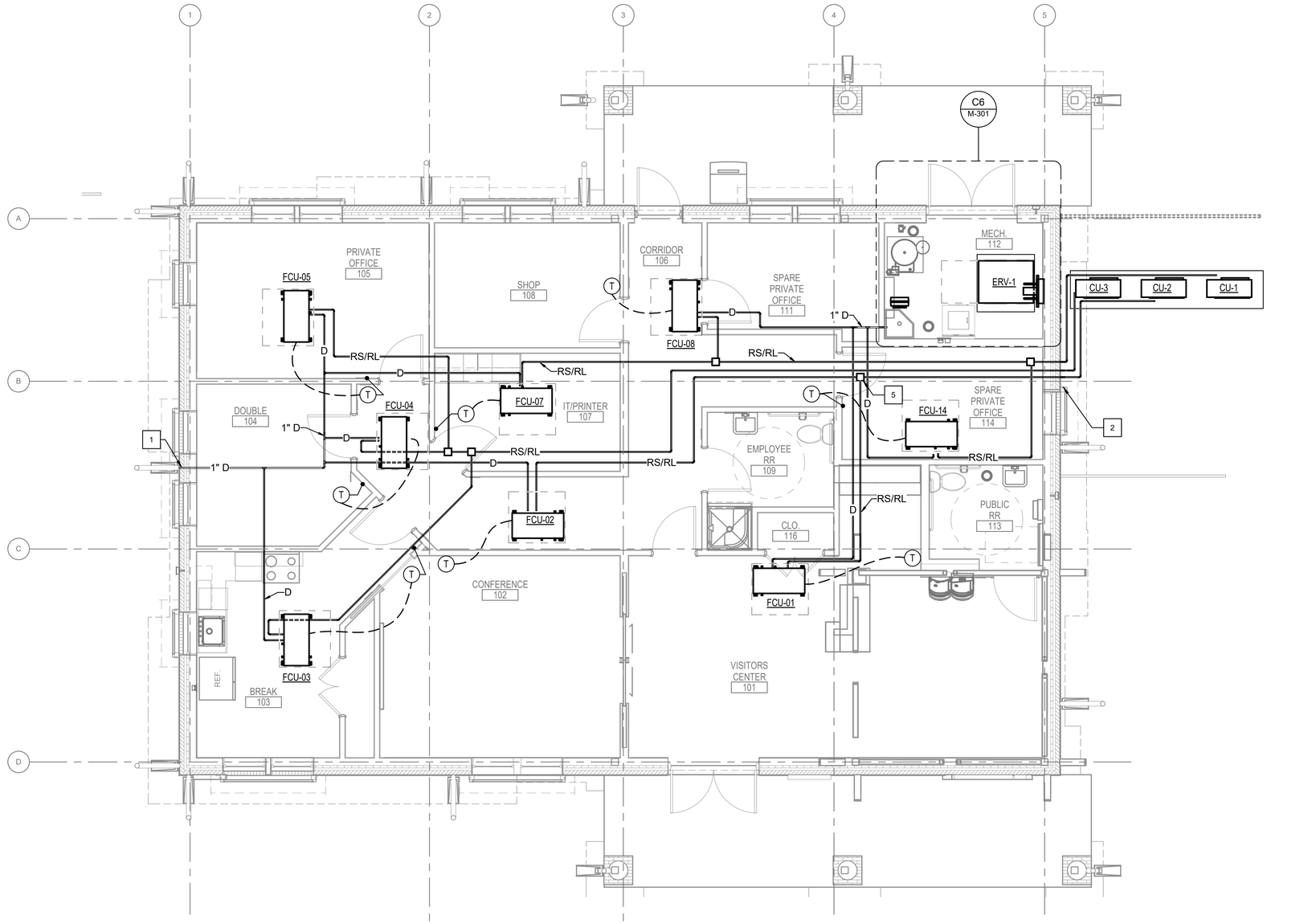

LEVEL 1 - FIRST FLOOR MECHANICAL PIPING PLAN

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

PLAN NORTH

0 2' 4' 8'

GENERAL SHEET NOTES

1. CONDENSATE CRAIN PIPING IS 0.75" UNLESS OTHERWISE NOTED. MAINTAIN RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.

KEYNOTES

1. ROUTE 1" CONDENSATE DRAIN THROUGH WALL TO TERMINATE INTO DOWNSPOUT.
2. PROVIDE LINESET COVERS AND ALUMINUM JACKET ON EXPOSED PIPE OUTSIDE.

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FIRST FLOOR MECHANICAL PIPING PLAN

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M-201	

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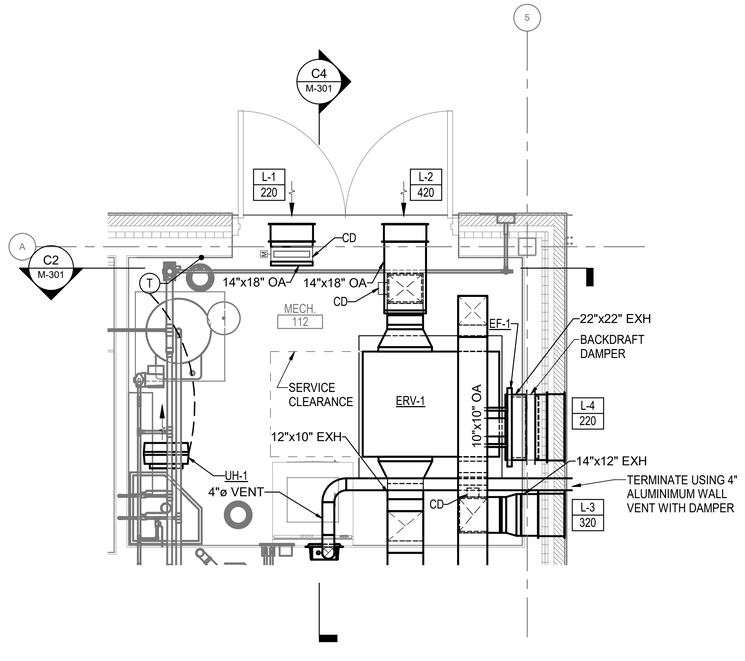
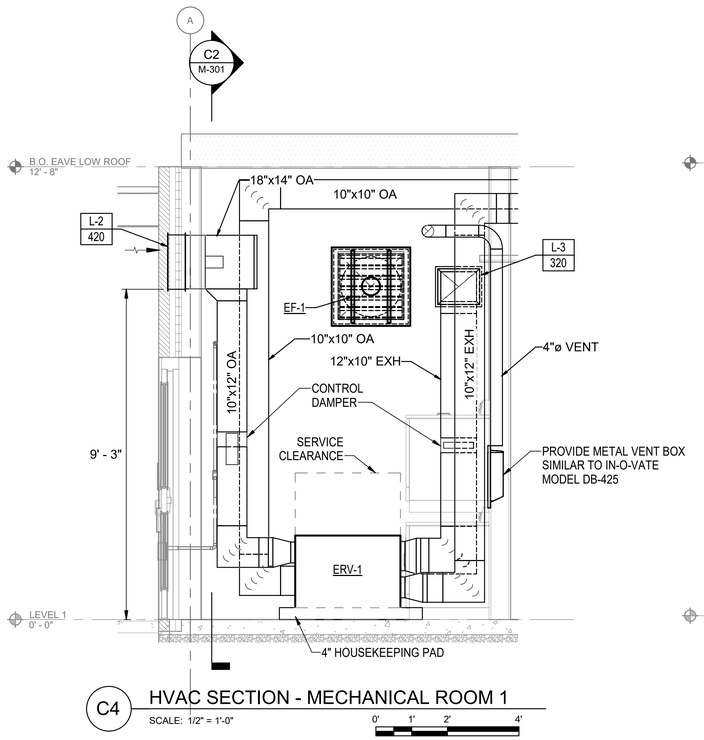


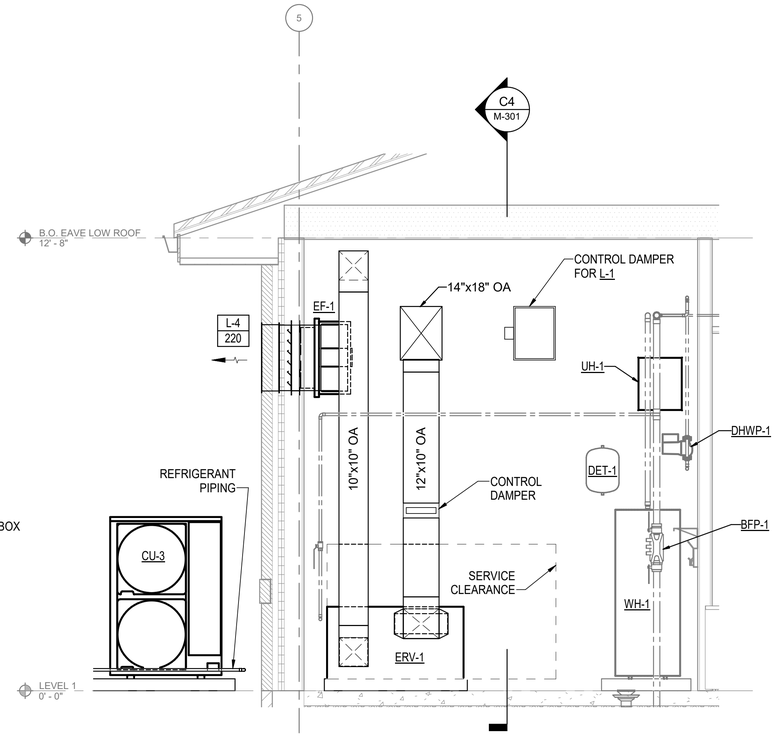
C6 ENLARGED PLAN - MECHANICAL ROOM

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



C4 HVAC SECTION - MECHANICAL ROOM 1

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



C2 HVAC SECTION - MECHANICAL ROOM 2

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

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SHEET TITLE

ENLARGED PLANS AND SECTIONS

SHT. NO.	REV. NO.
M-301	

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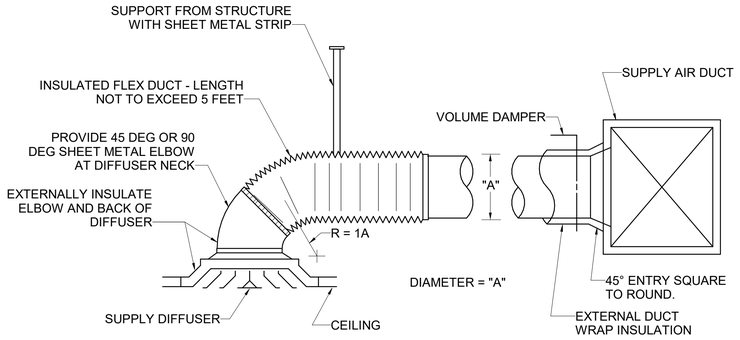
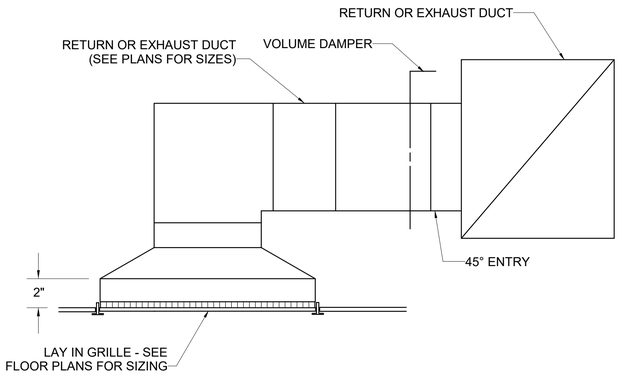


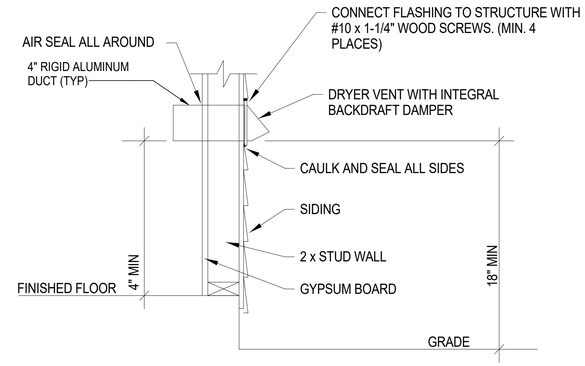
D6 TYPICAL CEILING SUPPLY DIFFUSER CONNECTION DETAIL

SCALE: NONE



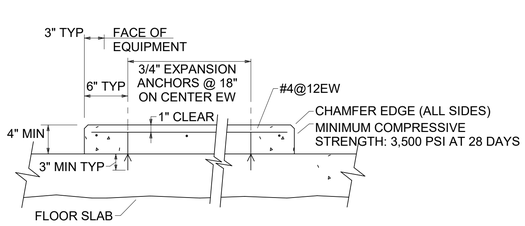
D4 CEILING RETURN/EXHAUST GRILLE DETAIL

SCALE: NONE



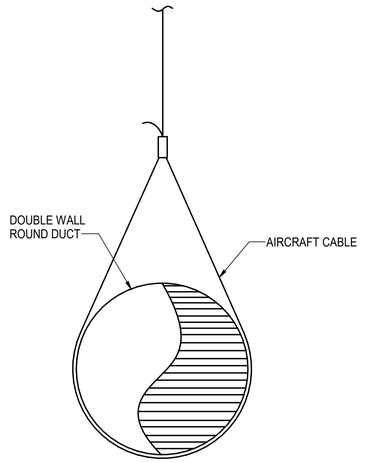
D2 DRYER VENT THROUGH WALL

SCALE: NONE



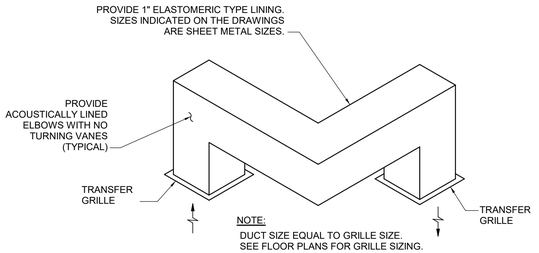
C6 INDOOR EQUIPMENT PAD DETAIL

SCALE: NONE



B4 EXPOSED DUCTWORK HANGER DETAIL

SCALE: NONE



D1 TRANSFER DUCT DETAIL

SCALE: NONE

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GEORGIA — REGISTERED — No. PE49818 PROFESSIONAL — 05/02/2024 — ENGINEER — KIMBERLY RUTH LOVE REESE

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION
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DETAILS

SHT. NO.	REV. NO.
M-501	

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FAN COIL UNIT SCHEDULE

INDOOR UNIT DESIGNATION			FCU-01	FCU-02	FCU-03	FCU-04	FCU-05	FCU-07	FCU-08	FCU-14
OUTDOOR UNIT DESIGNATION			CU-01		CU-02			CU-03		
AREA SERVED			VISITOR CENTER	CONFERENCE	BREAK	104 DOUBLE	PRIVATE OFFICE O1	IT/PRINTER	SHOP, 111 SPARE PRIVATE OFFICE	EMPLOYEE RR, PUBLIC RR, 114 SPARE PRIVATE OFFICE
OUTSIDE AIR (CFM)			120	100	50	30	20	20	60	20
UNIT TYPE			DUCTED CEILING CONCEALED	DUCTED CEILING CONCEALED	DUCTED CEILING CONCEALED	DUCTED CEILING CONCEALED	DUCTED CEILING CONCEALED	DUCTED CEILING CONCEALED	DUCTED CEILING CONCEALED	DUCTED CEILING CONCEALED
INDOOR UNIT	EVAPORATOR	AIRFLOW (HIGH)	690	690	430	350	350	430	430	350
		EXTERNAL STATIC PRESSURE (IN. WG)	0.16	0.29	0.31	0.42	0.40	0.34	0.37	0.40
		TOTAL COOLING CAPACITY (MBH)	16.1	10.2	9.4	5.3	5.8	7.1	7.8	5.3
		SENSIBLE COOLING CAPACITY (MBH)	12.7	7.6	8.0	4.4	5.3	6.5	6.4	4.8
		COOLING ENTERING AIR TEMP (DB / WB)	78.5 / 64.3	78.9 / 64.7	78.1 / 64.0	78.4 / 64.4	77.9 / 63.9	78.2 / 63.9	78.9 / 64.9	77.2 / 63.6
		COOLING LEAVING AIR TEMP (DB)	55	55	55	55	55	55	55	55
	ELECTRICAL	ELECTRIC HEATING COIL CAPACITY (KW)	3	3	3	3	3	3	3	3
		MINIMUM CIRCUIT AMPACITY (A)	26.16	20.40	20.40	11.39	11.39	14.40	15.10	15.00
		MOCP	30	25	25	15	15	15	20	20
		VOLTAGE (V)	240	240	240	240	240	240	240	240
		PHASE	1	1	1	1	1	1	1	1
		FREQUENCY (Hz)	60	60	60	60	60	60	60	60
REFRIGERANT			R-410A		R-410A			R-410A		
OUTDOOR UNIT	CONDENSER	AMBIENT DESIGN TEMPERATURE (DEG F)	95		95			95		
		RATED TOTAL COOLING CAPACITY (MBH)	3.2		3.2			3.2		
		MINIMUM RATED COOLING CAPACITY (MBH)	7.16		7.16			7.16		
		RATED HEATING CAPACITY (MBH)	38.8		38.8			38.8		
		SEER	16		16			16		
		HSPF	9		9			9		
	ELECTRICAL	MINIMUM CIRCUIT AMPACITY (A)	16		16			16		
		MOCP	25		25			25		
		VOLTAGE (V)	240		240			240		
		PHASE	1		1			1		
		FREQUENCY (Hz)	60		60			60		
BASIS OF DESIGN			TIAH018B22M5H/Y VAHP036B21S	TIAH018B22M5H/Y VAHP036B21S	TIAH012B22M3H/Y VAHP036B21S	TIAH008B22M3H/Y VAHP036B21S	TIAH008B22M3H/Y VAHP036B21S	TIAH0B22M3H/YV AHP036B21S	TIAH0B22M3H/YV AHP036B21S	TIAH008B22M3H/Y VAHP036B21S
REMARKS			1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6

REMARKS LEGEND:

1. INSTALL PER MANUFACTURER'S INSTRUCTIONS, ADJUST CHARGE AS NEEDED FOR REFRIGERANT PIPE LENGTH.
2. PROVIDE 3/4" CONDUIT BETWEEN INDOOR AND OUTDOOR UNIT. PROVIDE CORROSION RESISTANT COATING ON CONDENSER COIL.
3. PROVIDE ALL REQUIRED HANGERS AND SUPPORTS TO SUSPEND INDOOR UNIT AT A HEIGHT TO ALLOW RETURN AIR AND OUTSIDE AIR DUCTWORK CONNECTIONS.
4. PROVIDE SECONDARY DRAIN PAN UNDER UNIT WITH FLOAT TYPE SHUTOFF SWITCH.
5. PROVIDE VARIABLE SPEED INVERTER COMPRESSORS CAPABLE OF MODULATING DOWN TO MINIMUM CAPACITY.
6. PROVIDE FILTER BOX ON INLET WITH MINIMUM 2" MERV 8 FILTERS. EXTERNAL STATIC PRESSURE INCLUDES LOSS OF CLEAN RETURN FILTER.

ENERGY RECOVERY VENTILATOR SCHEDULE

DESIGNATION		ERV-1
SUPPLY FAN	AIRFLOW (CFM)	420
	FAN TYPE	FORWARD CURVED
	QUANTITY	1
	CONTROL TYPE	ECM
	EXTERNAL STATIC PRESSURE (IN. WG)	1.0
	SUPPLY FAN MOTOR SPEED (RPM)	1,725
	DRIVE TYPE	DIRECT
EXHAUST FAN	AIRFLOW (CFM)	320
	FAN TYPE	FORWARD CURVED
	QUANTITY	1
	CONTROL TYPE	ECM
	EXTERNAL STATIC PRESSURE (IN. WG)	1.0
	SUPPLY FAN MOTOR SPEED (RPM)	1,725
	DRIVE TYPE	DIRECT
ENTHALPY WHEEL	OPERATING OUTSIDE AIRFLOW	420
	OPERATING EXHAUST AIRFLOW	320
	OUTDOOR EAT DB/WB (COOLING)	93.8 / 78.4
	OUTDOOR EAT DB (HEATING)	33.2 / 28.0
	INDOOR EAT DB/WB (COOLING)	75 / 63
	INDOOR EAT DB (HEATING)	70 / 54
	DELIVERED CONDITIONS DB/WB (COOLING)	81.0 / 69.0
	DELIVERED CONDITIONS DB/WB (HEATING)	57.5 / 46.0
	MINIMUM COOLING EFFECTIVENESS %	64
	MINIMUM HEATING EFFECTIVENESS %	64
FILTERS	SUPPLY FILTER	MERV 8
	EXHAUST FILTER	MERV 8
ELECTRICAL	SUPPLY FAN HP	3/4
	EXHAUST FAN HP	3/4
	VOLTS (V)	240
	PHASE	1
	FREQUENCY (Hz)	60
	MCA	12.4
	MOP	15
BASED ON		GREENHECK
MODEL		MINIVENT-450-VG
REMARKS		1, 2, 3

REMARKS LEGEND:

1. PROVIDE SINGLE POINT POWER CONNECTION.
2. PROVIDE UNIT MOUNTED DISCONNECT.
3. PROVIDE ECM WITH SPEED CONTROL.

AIR TERMINAL SCHEDULE

TAG NUMBER	S1	S3	S4	R1	R2	R3	E1	E2	E4
DESCRIPTION	SUPPLY	SUPPLY	SUPPLY	RETURN	TRANSFER	RETURN	EXHAUST	EXHAUST	EXHAUST
TYPE	3-CONE	SIDEWALL	LINEAR	EGGCRATE	EGGCRATE	LINEAR	EGGCRATE	EGGCRATE	EGGCRATE
NECK SIZE	A=6"	12 X 6	8"	12 X 6	8 X 8	8"	8 X 8	8 X 8	8 X 8
	B=8"								
	C=10"								
	D=12"								
FRAME STYLE	LAY-IN	EXPOSED	SURFACE MOUNTED	EXPOSED	SURFACE MOUNTED	SURFACE MOUNTED	LAY-IN	SURFACE MOUNTED	SURFACE MOUNTED
FRAME SIZE	24 X 24	12 X 6	4 FT	12 X 6	8 X 8	4 FT	24 X 24	24 X 24	8 X 8
AIR PATTERN	4-WAY	DOUBLE DEFLECTION	TWO 1" WIDE SLOTS	- -	- -	TWO 1" WIDE SLOTS	- -	- -	- -
MAX PRESSURE DROP	0.075	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
MATERIAL	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
FINISH	BAKED ENAMEL	BAKED ENAMEL	BAKED ENAMEL	BAKED ENAMEL	BAKED ENAMEL	BAKED ENAMEL	BAKED ENAMEL	BAKED ENAMEL	BAKED ENAMEL
REMARKS	- -	- -	1	- -	- -	2	- -	- -	- -

REMARKS LEGEND:

1. PROVIDE FACTORY PLENUM. BASIS OF DESIGN: TITUS ML-39 WITH MP-39.
2. PROVIDE FACTORY PLENUM. BASIS OF DESIGN: TITUS MLR-39 WITH MP-39.

ELECTRIC UNIT HEATER SCHEDULE

DESIGNATION	UH-1
LOCATION	112 MECH
TYPE	CEILING HUNG
AIRFLOW (CFM)	350
THROW	HORIZONTAL
CAPACITY (KW)	3
ENTERING AIR TEMPERATURE (DEG F)	55
VOLTAGE (V)	240
PHASE	1
FREQUENCY (HZ)	60
MAXIMUM MOUNTING HEIGHT (FT)	9
REMARKS	1, 2

REMARKS LEGEND:

1. PROVIDE UNIT MOUNTED DISCONNECT.
2. PROVIDE UNIT MOUNTING KIT FROM MANUFACTURER.

LOUVER SCHEDULE

DESIGNATION	L-1	L-2	L-3	L-4
USAGE	INTAKE	INTAKE	EXHAUST	EXHAUST
DESCRIPTION	DRAINABLE BLADE	DRAINABLE BLADE	DRAINABLE BLADE	DRAINABLE BLADE
DEPTH (IN)	6	6	6	6
FRAME TYPE	CHANNEL	CHANNEL	CHANNEL	CHANNEL
WIDTH (IN)	14	14	14	22
HEIGHT (IN)	18	18	14	22
AIRFLOW (CFM)	220	420	320	220
FREE AREA (SF)	0.6	0.6	0.4	1.4
FREE AREA VELOCITY (FPM)	379	723	914	158
PRESSURE DROP (IN H2O)	0.02	0.08	0.11	0.004
BASIS OF DESIGN:	GREENHECK ESD-635	GREENHECK ESD-635	GREENHECK ESD-635	GREENHECK ESD-635
REMARKS	1, 3	1, 3	1, 3	1, 2, 3

REMARKS LEGEND:

1. PROVIDE BIRD SCREEN.
2. PROVIDE BACKDRAFT DAMPER.
3. SUBMIT COLOR CHART. COLOR TO BE CHOSE BY THE ARCHITECT.

EXHAUST FAN SCHEDULE

UNIT NUMBER	SERVICE	FAN TYPE	FAN DATA					ELECTRICAL DATA				BASIS OF DESIGN		REMARKS
			AIRFLOW - CFM	ESP - IN WG	RPM	MOTOR TYPE	DRIVE TYPE	VOLTAGE	PHASE	FREQUENCY	MOTOR POWER - HP	MANUFACTURER	MODEL	
EF-1	112 MECH	WALL EXHAUST	220	0.1	445	VARI-GREEN	DIRECT	120	1	60	1/4	GREENHECK	AER-20-02-0605-VG	1,2

REMARKS:

1. PROVIDE UNIT WITH ALUMINUM HOUSING WITH DUCT COLLARS, PROPELLER, DIRECT DRIVEN MOTOR MOUNTED WITH VIBRATION ISOLATION, AND 1/2" X 1/2" WIRE MESH CAGE FOR DUCT OPENING INSIDE MECHANICAL ROOM.
2. PROVIDE UNIT WITH SIDEWALL MOUNTING KIT FROM MANUFACTURER AT MOUNTING HEIGHT OF 10'-0".

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U.S. FISH & WILDLIFE SERVICE

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. PE49818 PROFESSIONAL 05/02/2024 ENGINEER KIMBERLY RUTH LOVE REESE

FISH & WILDLIFE SERVICES
BON SECOUR NAT'L WILDLIFE REFUGE

BONSECOUR VISITOR CENTER & ADMINISTRATION
12206 STRONG RD.
GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO: 230182
DATE: 05/02/2024
DRAWN: ZDA | DESIGN: KRR
CHECK: SWL

SHEET TITLE

SCHEDULES

SHT. NO. M-601 | REV. NO.

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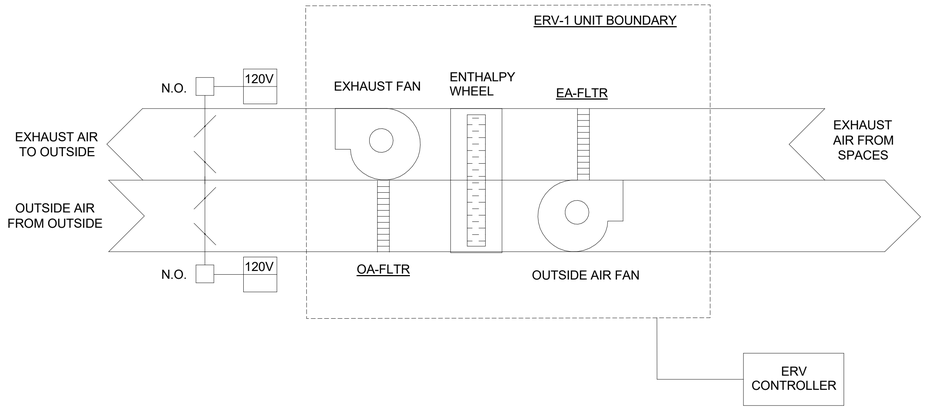


ENERGY RECOVERY VENTILATOR (ERV-1)

NOTE: ALL SET POINTS DICTATED IN SEQUENCE OF OPERATION SHALL BE ADJUSTABLE.

ENERGY RECOVERY VENTILATOR SEQUENCE OF OPERATIONS:

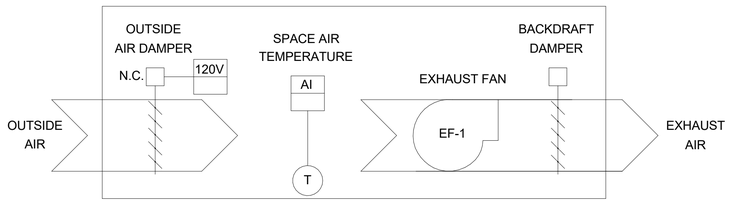
RUN CONDITIONS:
THE ERV AND SPLIT SYSTEMS SHALL OPERATE ON AN IDENTICAL OCCUPANCY SCHEDULE. ERV-1 AND EACH SPLIT SYSTEM SUPPLY FAN SHALL OPERATE CONTINUOUSLY DURING PERIODS OF BUILDING OCCUPANCY AND SHALL REMAIN OFF DURING TIMES THE BUILDING IS UNOCCUPIED.

SHUT DOWN MODE:
DURING THE SHUT DOWN MODE, ERV-1 AND THE SPLIT SYSTEMS SHALL REMAIN OFF. THE INTAKE AND EXHAUST DAMPERS SHALL BE CLOSED, AND THE OUTSIDE AIR AND EXHAUST FANS SHALL BE OFF.

OCCUPIED MODE:
ERV-1 FANS AND WHEEL DRIVE SHALL RUN CONTINUOUSLY TO MAINTAIN VENTILATION AND EXHAUST TO THE BUILDING. ERV-1 SHALL OPERATE IN CONCERT WITH THE SPLIT SYSTEMS, WHICH THEN DISTRIBUTE AIR THROUGHOUT THE BUILDING.

UNOCCUPIED MODE:
THE ERV SHALL REMAIN IN SHUTDOWN MODE.

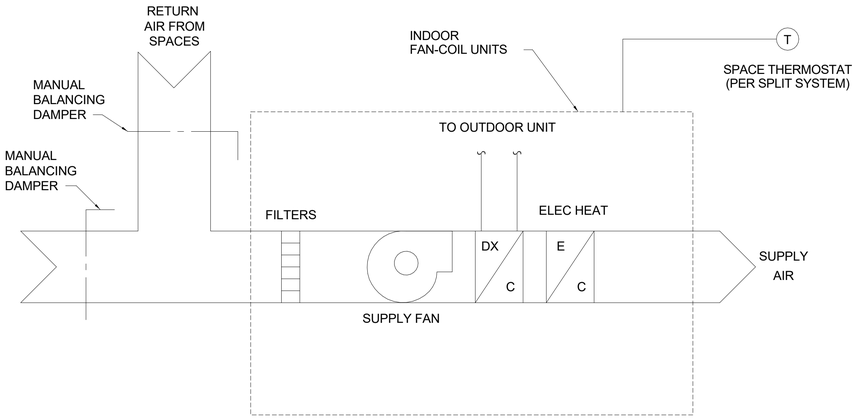
IF A CALL FOR CONDITIONING OCCURS DURING UNOCCUPIED HOURS THE ASSOCIATED SPLIT SYSTEM SHALL START AND OPERATE THE OUTDOOR UNIT TO MEET SETPOINT CONDITIONS. ERV-1 SHALL NOT BE ACTIVATED AND THE OUTDOOR AIR AND EXHAUST DAMPERS SHALL REMAIN CLOSED.



TYPICAL UTILITY EXHAUST FAN CONTROL DIAGRAM (EF-1)

SCALE: NONE

SEQUENCE OF OPERATION:
ON A RISE IN SPACE TEMPERATURE ABOVE SET POINT (85°F, ADJUSTABLE, MEHCANICAL ROOM TEMP) THE OUTSIDE AIR DAMPER SHALL BE OPENED AND THE EXHAUST FAN SHALL BE ENABLED. ON A FALL BELOW SET POINT THE REVERSE SHALL OCCUR.



SPLIT SYSTEMS

NOTE: ALL SET POINTS DICTATED IN SEQUENCE OF OPERATION SHALL BE ADJUSTABLE.

SPLIT SYSTEM SEQUENCE OF OPERATION:

RUN CONDITIONS:
EACH SPLIT SYSTEM SHALL BE CONTROLLED FROM A WALL-MOUNTED PROGRAMMABLE GRAPHIC THERMOSTAT. THE ERV AND SPLIT SYSTEMS SHALL OPERATE ON AN IDENTICAL OCCUPANCY SCHEDULE.

SHUT DOWN MODE:
THE SUPPLY FAN AND OUTDOOR UNIT SHALL BE OFF.

UNOCCUPIED MODE:
IF A CALL FOR CONDITIONING OCCURS DURING UNOCCUPIED HOURS THE FAN SHALL START AND THE OUTDOOR UNIT SHALL OPERATE TO MEET SETPOINT CONDITIONS.

OCCUPIED MODE:
DURING THE PERIOD OF BUILDING OCCUPANCY THE AHU FAN AND ERV WILL OPERATE CONTINUOUSLY TO PROVIDE REQUIRED VENTILATION AND EXHAUST. THE SUPPLY AIR FAN MOTOR SHALL REMAIN ON TO CONTROL SPACE TEMPERATURE AND LIMIT HUMIDITY. THE WALL-MOUNTED THERMOSTAT WILL MONITOR SPACE CONDITIONS AND SHALL START, STOP AND MODULATE THE REFRIGERANT COOLING AND HEATING SYSTEM ACCORDING TO THE SPECIFIC MODE OF OPERATION.

OCCUPANCY SCHEDULE

DAY	OCCUPIED HOURS	UNOCCUPIED HOURS
MONDAY	0700 - 1700	0000 - 0659 AND 1701 - 2400
TUESDAY	0700 - 1700	0000 - 0659 AND 1701 - 2400
WEDNESDAY	0700 - 1700	0000 - 0659 AND 1701 - 2400
THURSDAY	0700 - 1700	0000 - 0659 AND 1701 - 2400
FRIDAY	0700 - 1700	0000 - 0659 AND 1701 - 2400
SATURDAY	- -	0000 - 2400
SUNDAY	- -	0000 - 2400

NOTE: OCCUPANCY SCHEDULE SET POINTS ARE ADJUSTABLE.

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COMM NO: 230182
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DRAWN: ZDA | DESIGN: KRR
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SHEET TITLE
CONTROLS

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REV. NO.

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POWER DISTRIBUTION SYSTEM LEGEND

- 120/240V PANELBOARD. DASHED REGION IS WORKING CLEARANCE.
- ELECTRIC MOTOR CONNECTION.
- DRY TYPE TRANSFORMER.
- 30/3 — DISCONNECT SWITCH (NON-FUSED): RATING AS INDICATED ON FLOOR PLANS.
  - INDICATES NUMBER OF POLES.
  - INDICATES FRAME SIZE.
- 30/20/3 — DISCONNECT SWITCH (FUSED): COORDINATE ACTUAL FUSE SIZE WITH EQUIPMENT MANUFACTURER.
  - INDICATES NUMBER OF POLES.
  - INDICATES FUSE SIZE. ASTERISK (*) INDICATES FUSE SIZE PER MANUFACTURER'S REQUIREMENTS.
  - INDICATES FRAME SIZE.
- COMBINATION MOTOR STARTER AND DISCONNECTING MEANS.
- MAGNETIC MOTOR STARTER.
- $_{M}$ MOTOR RATED DISCONNECT SWITCH.
- J — WALL MOUNTED JUNCTION BOX.
- J — CEILING MOUNTED JUNCTION BOX.

WIRING DEVICES LEGEND

NOTE:

1. REFER TO "TYPICAL DEVICE MOUNTING HEIGHTS" DETAIL FOR DEVICE MOUNTING HEIGHTS.

- DUPLEX RECEPTACLE, NEMA 5-20R. TYPICAL ALL RECEPTACLE TYPES.
- QUADRUPLEX RECEPTACLE, NEMA 5-20R.
- SHADING OF RECEPTACLE AS SHOWN INDICATES RECEPTACLE TO BE MOUNTED 6" ABOVE COUNTER HEIGHT UNLESS OTHERWISE NOTED.
- SIMPLEX RECEPTACLE, NEMA 5-20R.
- X-XX — SPECIAL PURPOSE RECEPTACLE. "X-XX" DENOTES NEMA CONFIGURATION AS INDICATED ON DRAWINGS.
- RECESSED DUAL PORT DATA CONNECTION. COORDINATE INSTALLATION WITH TECHNOLOGY PLANS.

RECEPTACLE SUBSCRIPT KEY:

SAMPLE SYMBOL: GF, X19
- GF — INDICATES DEVICE CHARACTERISTIC. REFER TO SUBSCRIPT LIST BELOW FOR DESCRIPTION.
- X19 — NUMBER INDICATES CIRCUIT NUMBER. LETTER DESIGNATES PANEL WHEN PRESENT. REFER TO PANEL SCHEDULES TO COORDINATE.

SUBSCRIPT LIST:

GFI	=	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE (GFCI)
MW	=	DEDICATED MICROWAVE GFCI RECEPTACLE; MOUNTED 72" AFF
RF	=	DEDICATED REFRIGERATOR RECEPTACLE WITH GFCI CIRCUIT BREAKER; MOUNTED 24" AFF
TV	=	TELEVISION RECEPTACLE. COORDINATE WITH TELECOM DRAWINGS TO COLOCATE FINAL MOUNTING LOCATION WITH AUDIO/VISUAL CONNECTION DEVICE
EWC	=	GFCI ELECTRIC WATER COOLER DEDICATED RECEPTACLE; 24" ABOVE FINISHED FLOOR
WR	=	GFCI WEATHER RESISTANT RECEPTACLE WITH 'WEATHERPROOF WHILE-IN-USE' COVER.

GROUNDING, LIGHTNING PROTECTION LEGEND

- GROUNDING BUS BAR
- BONDING CONNECTION, EXOTHERMIC WELDED OR MECHANICAL
- GROUNDING COUNTERPOISE CONDUCTOR
- GROUNDING ROD
- AIR TERMINAL (STRIKE TERMINATION DEVICE)
- LIGHTNING PROTECTION CONDUCTOR CABLE

1. SIZE CABLES I.A.W NFPA 780-2020 TABLE A 4.1.1.1 AND TABLES 4.1.1.1.1 OR 4.1.1.1.2, UNLESS SPECIFICATIONS ARE MORE RESTRICTIVE.
2. PROVIDE WHERE AVAILABLE LABELED AND LISTED OR APPROVED BY THE AUTHORITY HAVING JURISDICTION ALL FITTINGS, CONNECTORS, DEVICES, CONDUCTORS, AIR TERMINAL, GROUND RODS AND ALL OTHER COMPONANTS APPROVED FOR USE IN LIGHTING PROTECTION SYSTEMS.
3. REFER TO SHEET NOTES, DETAILS AND SPECIFICATIONS FOR MORE INFORMATION.

CIRCUITRY, RACEWAYS AND FEEDERS LEGEND

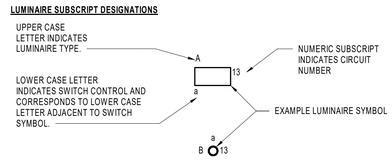
- HN3-1,3,5 — FEEDER HOMERUN TO PANEL HN3, CIRCUITS #1, 3 AND 5 (VIA ONE 3-POLE CIRCUIT BREAKER). REFER TO PANEL SCHEDULE FOR BREAKER RATING AND CONDUCTOR INFORMATION.
- CONDUIT RUN CONCEALED IN FINISHED AREAS AND EXPOSED IN UNFINISHED AREAS. SEE GENERAL NOTES.
- CONDUIT RUN BELOW GRADE OR IN SLAB AS INDICATED.
- CONDUIT TURN UP.
- CONDUIT TURN DOWN.
- CONDUIT CAP.

POWER ONE-LINE LEGEND

- UTILITY SOURCE.
- DISTRIBUTION TRANSFORMER.
- CURRENT TRANSFORMER.
- DELTA CONFIGURATION.
- WYE CONFIGURATION.
- FUSE.
- TU — D — **AT — CIRCUIT BREAKER:
  - "AT" - INDICATES AMPERE TRIP SETTING
  - "D" - INDICATES INTEGRAL ADD-ON DEVICE WHERE PRESENT
  - "TU" - INDICATES TRIP UNIT TYPE
- SPD — SURGE PROTECTIVE DEVICE.
- DISCONNECT SWITCH: RATING AS INDICATED ON ONE-LINE DIAGRAM. DISCONNECT IS FUSED WHERE SHOWN WITH INTERNAL FUSING.
- VARIABLE FREQUENCY DRIVE.
- M — MOTOR CONNECTION.
- EQUIPMENT ENCLOSURE AS INDICATED ON ONE LINE DIAGRAM. EQUIPMENT SIZE AND SHAPE MAY VARY.
- NODE/ LUG CONNECTION.
- EARTH GROUND.
- BUS/ FEEDER.
- CONTROL WIRING.
- INTERCEPTION POINT.
- CONTINUATION.

LIGHTING EQUIPMENT LEGEND

LUMINAIRE SUBSCRIPT DESIGNATIONS



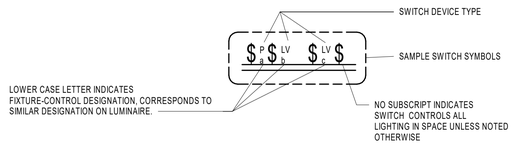
NOTE: REFER TO LUMINAIRE SCHEDULE FOR LUMINAIRE SPECIFIC INFORMATION AND PLAN SPECIFIC SYMBOLOGY.

EMERGENCY & EXIT LIGHTING SYMBOLS

- SHADED LUMINAIRES INDICATE EMERGENCY EGRESS, AND DISCHARGE LIGHTING. SPECIFIC APPLICATION INDICATED ON PLANS.
- EMERGENCY LIGHTING BATTERY UNIT WITH DUAL HEADS. UNIT SHALL PROVIDE 90 MINUTES (MINIMUM) OF EMERGENCY POWER. MOUNTED AT 9'-0" OC, UON.
- CEILING MOUNTED / WALL MOUNTED — ILLUMINATED EXIT SIGN. PROVIDE STENCILED FACE(S) AND DIRECTIONAL ARROWS AS REQUIRED AND AS SHOWN ON PLANS.
  - ONE SHADED QUADRANT = SINGLE FACE EXIT SIGN
  - TWO SHADED QUADRANT = DOUBLE FACE EXIT SIGN
  - ACTIVATE DIRECTIONAL ARROWS TO MATCH DIRECTIONAL ARROWS SHOWN ON LIGHTING PLANS. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.

LIGHTING CONTROL DEVICE LEGEND

SWITCHING DEVICE SUBSCRIPT DESIGNATIONS



NOTES:

1. GANG ALL ADJACENT LIGHTING CONTROL DEVICES OF SIMILAR VOLTAGE TYPE HORIZONTALLY TOGETHER UNDER A SINGLE COVER PLATE. PROVIDE SWITCH(ES) OF VARYING VOLTAGES AT THE SAME LOCATION WITH INDIVIDUAL COVER PLATE(S) AND INSTALLED IN TIGHT ALIGNMENT WITH EACH OTHER.

SWITCHING DEVICE SYMBOLS

- $ — SINGLE POLE LIGHT SWITCH
- $3 — SINGLE POLE LIGHT SWITCH, 3-WAY
- $4 — SINGLE POLE LIGHT SWITCH, 4-WAY
- $D — SINGLE POLE DIMMER SWITCH
- $O — ON-OFF OCCUPANCY SENSOR
- $V — ON-OFF VACANCY SENSOR

SENSOR SYMBOLS

SENSOR SYMBOL — (OS)a — LOWER CASE LETTER INDICATES LIGHTING SWITCH LEG CONTROL AND CORRESPONDS TO LOWER CASE LETTER ADJACENT TO LIGHTING FIXTURE.

NOTE:

1. ALL OCCUPANCY SENSOR DEVICES SHOWN ON PLAN DEPICT INTENT OF COVERAGE ONLY. PROVIDE OCCUPANCY SENSORS AND ANCILLARY POWER PACKS, DEVICES, AND ASSOCIATED WIRING AS REQUIRED FOR COMPLETE AND FULLY FUNCTIONING SYSTEM AND INSTALL PER MANUFACTURER'S REQUIREMENTS TO MEET MAXIMUM COVERAGE.

- (OS) — CEILING MOUNTED OCCUPANCY SENSOR.
- (PC) — PHOTOCELL CONTROL.

TELECOM DEVICES LEGEND

- VOICE ONLY (TELEPHONE) OUTLET. PROVIDE SINGLE TELEPHONE JACK.
- DATA (COMPUTER) OUTLET
- COMBINATION VOICE/DATA OUTLET
- FLUSH FLOOR MOUNTED COMBINATION VOICE/DATA OUTLET
- FLUSH CEILING MOUNTING COMMUNICATIONS OUTLET JUNCTION BOX FOR COMMUNICATIONS FEED
- C — FLUSH WALL MOUNTED TELECOM JUNCTION BOX FOR TELECOM FEED TO SYSTEMS FURNITURE WORKSTATIONS. COORDINATE EXACT LOCATION WITH WORKSTATION VENDOR.
- TV — CABLE TV OUTLET JUNCTION BOX

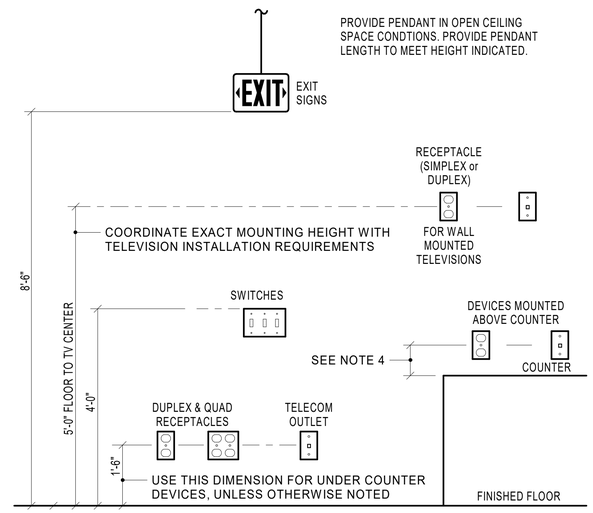
TELECOM OUTLET SUBSCRIPT KEY:

W	=	WALL MOUNTED TELEPHONE OUTLET
C	=	MOUNTED OVER COUNTER
H	=	HOUSE PHONE

NOTES:

1. COMMUNICATION DEVICES TO BE FURNISHED AND INSTALLED UNDER TELECOM SECTIONS OF THE SPECIFICATIONS AND CONTRACT AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. REFER TO TYPICAL DEVICE MOUNTING HEIGHTS LEGEND.
3. AT EACH COMMUNICATION DEVICE AND COMMUNICATION FEED JUNCTION BOX LOCATION INDICATED ON DRAWINGS, PROVIDE A WALL RECESSED SINGLE-GANG JUNCTION BOX WITH SINGLE-GANG PLASTER RING AND 1" EMT CONDUIT WITH NYLON PULLSTRING. ROUTE FROM BOX TO 6" EXTENSION INTO ACCESSIBLE CEILING PLENUM SPACE, UON. FIELD COORDINATE FINAL OUTLET LOCATION WITH THE ARCHITECT PRIOR TO INSTALLATION.

TYPICAL DEVICE MOUNTING HEIGHTS



NOTES:

1. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT EXIT SIGNS & SWITCHES.
2. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
3. ALL DEVICES SHALL BE INSTALLED AT THE MOUNTING HEIGHT INDICATED ON THIS DETAIL, UNLESS OTHERWISE NOTED.
4. MOUNT 6" ABOVE COUNTERTOP OR ASSOCIATED BACKSPLASH. REFER TO ARCHITECTURAL DRAWINGS FOR COUNTERTOP HEIGHTS AND ASSOCIATED BACKSPLASH HEIGHT INFORMATION.

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U.S. FISH & WILDLIFE SERVICE — DEPARTMENT OF THE INTERIOR

COMMONWEALTH OF VIRGINIA
ERIC A. GAVLEK
Lic. No. 60662
05/02/2024
PROFESSIONAL ENGINEER

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITORS CENTER & ADMINISTRATION
12295 STRONG RD., GULF SHORES, AL 36542

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230182
DATE:	05/02/2024
DRAWN:	EAG
DESIGN:	EAG
CHECK:	JWG

SHEET TITLE

ELECTRICAL LEGENDS AND SYMBOLS

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ELECTRICAL GENERAL NOTES

1. IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. PROVIDE ALL LABOR, MATERIALS, TESTS, AND OTHER SERVICES AS MAY BE NECESSARY TO ACHIEVE THIS PRODUCT. ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY AND DEPICT SYSTEMS CONCEPTS, MAIN COMPONENTS, AND APPROXIMATE GEOMETRICAL RELATIONSHIP OF SYSTEMS COMPONENTS. PROVIDE ALL COMPONENTS AND MATERIALS NECESSARY TO PROVIDE FULLY COMPLETE AND FUNCTIONING SYSTEMS AS INDICATED ON DRAWINGS. PROVIDE INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS BUT NOT SHOWN ON PLANS AND VICE VERSA, AS IF EXPRESSLY REQUIRED ON BOTH.
2. SYMBOLS SHOWN IN THE LEGENDS ARE STANDARD SYMBOLS AND ALL MAY NOT NECESSARILY BE APPLICABLE TO THIS PROJECT.
3. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. CORRECTLY SPACE THE CIRCUITS IN THE PANEL AND BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS.
4. CONDUIT HOMERUNS SHOWN ON THE DRAWING WITH MORE THAN 3 CURRENT CARRYING CONDUCTORS ARE SHOWN DIAGRAMMATICALLY. INSTALL NO MORE THAN 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY UNLESS DONE SO STRICTLY IN COMPLIANCE OF THE NATIONAL ELECTRIC CODE.
5. REVIEW ENTIRE CONSTRUCTION DOCUMENTS PACKAGE AND COORDINATE WORK OF OTHER TRADES. COORDINATE LOCATIONS OF EQUIPMENT, MOUNTING HEIGHTS, CONNECTION REQUIREMENTS, CONSTRUCTION HEADROOM, FINISHES, CASEWORK, ETC.
6. VERIFY WIRE SIZES, CB AND FUSE RATINGS FOR ALL HVAC EQUIPMENT, AND BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES AFFECTING THE WORK PRIOR TO PROCEEDING.
7. COORDINATE SIZING OF ALL MOTOR OVERLOAD DEVICES (HEATERS) IN STARTERS BASED ON ACTUAL NAMEPLATE RATINGS ON THE EQUIPMENT BEING INSTALLED.
8. COORDINATE WITH GENERAL CONTRACTOR FOR PROVISION OF DISCONNECT SWITCHES, STARTERS, VFD'S, AND ACCESSORIES PROVIDED UNDER OTHER DIVISIONS.
9. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER AS WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEMS. COORDINATE ALL POWER OUTAGES, FIRE ALARM SHUT DOWNS, ETC. WITH THE OWNER.
10. INSTALL ALL EQUIPMENT, DEVICES, AND CONDUIT IN A NEAT AND WORKMANLIKE MANNER PERPENDICULAR AND PARALLEL TO BUILDING STRUCTURE.
11. FIRESTOP ALL PENETRATIONS OF FLOOR AND WALLS TO RETAIN ORIGINAL FIRE RATING IN ACCORDANCE WITH IBC, NEC, NFPA AND OTHER STANDARDS ENFORCEABLE BY THE AHJ. REFER TO ARCHITECTURAL LIFE SAFETY PLANS FOR LOCATIONS OF ALL RATED WALLS, CEILINGS AND FLOORS.
12. REFER TO ARCHITECTURAL PLANS FOR ALL WALL ASSEMBLIES. PROVIDE EXTENDER RINGS WHERE NECESSARY FOR FLUSH MOUNTED WIRING DEVICES.
13. PROVIDE ALL RACEWAYS ROUTED ACROSS BUILDING EXPANSION JOINTS WITH EXPANSION FITTINGS.
14. CONCEAL ALL CONDUCTORS, RACEWAYS AND CABLES IN CEILING OR WALL UNLESS OTHERWISE NOTED.
15. PROVIDE AN UPDATED PRINTED PANEL DIRECTORY IN EACH PANEL AFTER COMPLETION OF WORK. VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.
16. FOR FLUSH MOUNTED PANELBOARDS PROVIDE ONE SPARE CONDUIT, 3/4" (19MM), FOR EVERY THREE SPARE CIRCUITS BREAKERS. PROVIDE THE SPARE CONDUITS EXTENDING ABOVE THE CEILING AND DOWN BELOW RAISED FLOORS WHEN APPLICABLE.
17. USE CHANNEL SUPPORTS TO MOUNT ELECTRICAL EQUIPMENT SUCH AS CABINETS, PANELBOARDS, CONTROL ENCLOSURES, STARTERS, DISCONNECT SWITCHES, TRANSFORMERS, ETC. ON CONCRETE, MASONRY WALLS OR FIRE-RATED WALLS (1 HOUR OR HIGHER).
18. PROVIDE ALL STUBBED UP CONDUIT WITH BUSHINGS TO PROTECT CABLE.
19. ROUTE CONTROL WIRING IN SEPARATE CONDUITS FROM POWER WIRING.
20. INSTALL CONDUCTORS CONTINUOUS BETWEEN DEVICES, WITH SPLICES LOCATED ONLY IN JUNCTION BOXES OR IN CABINETS. CONDUCTORS SHALL BE OF SUFFICIENT LENGTH TO REACH THE FARTHEST TERMINAL IN PANELS. PROVIDE A MINIMUM OF 6" LOOPS WHERE CONNECTIONS OR TAPS ARE TO BE MADE IN BRANCH CIRCUIT WIRING.
21. PROVIDE ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FT. WITH A NYLON PULL WIRE OR FISH TAPE/CORD.
22. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
23. COMPLY WITH BUY AMERICAN ACT REQUIREMENTS FOR ALL MATERIAL AND EQUIPMENT .
24. REDUCE DEPENDENCY ON THE NETWORK. AVOID DEPENDENCE ON THE NETWORK FOR THE EXECUTION OF SYSTEM CONTROL. WHERE DEPENDENCE ON A NETWORK COMMAND IS UNAVOIDABLE, ISOLATE THAT PORTION OF THE NETWORK SO THAT OTHER NETWORK OUTAGES DO NOT AFFECT THE LOCAL NETWORK. WHERE A USER INTERFACE IS REQUIRED FOR THE FUNCTIONING OF A SYSTEM CONTROL, PHYSICALLY CO-LOCATED THE LOCAL INTERFACE OR A DEDICATED FRONT END WITH THE EQUIPMENT.
25. VERIFY ELECTRICAL REQUIREMENTS OF OWNER PROVIDED EQUIPMENT WITH OWNER PRIOR TO INSTALLATION OF WORK.
26. REFER TO ARCHITECTURAL DRAWINGS FOR REFLECTED CEILING PLAN AND EXACT LOCATION AND QUANTITIES OF LUMINAIRES. ELECTRICAL LIGHTING PLANS ARE NOT INTENDED TO BE UTILIZED FOR LUMINAIRE LOCATIONS. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION.
27. SUPPORT LUMINAIRES INSTALLED IN SUSPENDED CEILINGS DIRECTLY FROM THE STRUCTURE. LABEL ALL ELECTRICAL J-BOXES WITH: PANEL NAME, CIRCUIT NUMBER, VOLTAGE, AND (IF APPLICABLE) EQUIPMENT SERVED.
28. ORIENT RECEPTACLES AS FOLLOWS:
    a. MOUNTED VERTICALLY, GROUND CONDUCTOR IS ON TOP.
    b. MOUNTED HORRIZONTALLY, GROUNDED CONDUCTOR (NEUTRAL) IS ON TOP.
29. LABEL ALL CURRENT CARRYING CONDUCTORS, WHERE SPLICED OR TERMINATED AT A DEVICE, WITH THE CIRCUIT NUMBER A MINIMUM OF 3 INCHES BEFORE END OF WIRE.
30. PERFORM ALL ELECTRICAL WORK IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF NFPA 70 NATIONAL ELECTRICAL CODE (NEC), LOCAL CODES, AND THE AUTHORITY HAVING JURISDICTION (AHJ). PROVIDE ALL EQUIPMENT, DEVICES, AND MATERIAL WITH UNDERWRITERS LABORATORIES FOR ITS APPLICATION AS INSTALLED AND THE UL LABEL.
31. OBTAIN ALL PERMITS AND PAY SUCH FEES AS MAY BE NECESSARY FOR INSPECTIONS, TESTS, AND OTHER SERVICES WHICH ARE REQUIRED FOR THE COMPLETION OF THE WORK.
32. VISIT THE SITE AND EXAMINE CONDITIONS OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS. BRING ANY DIFFICULTIES IN COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS TO THE ATTENTION OF ARCHITECT/ENGINEER BEFORE BIDDING.
33. SUBMIT REQUIRED SHOP DRAWINGS FOR ELECTRICAL EQUIPMENT, FIXTURES, DEVICES AND MATERIALS FOR APPROVAL BEFORE DELIVERY TO THE JOB SITE. EQUIPMENT, LUMINAIRES, DEVICES, AND MATERIAL DELIVERED TO THE JOB SITE OR INSTALLED PRIOR TO APPROVAL OF THE SHOP DRAWINGS, AND FOR WHICH THE SHOP DRAWINGS ARE SUBSEQUENTLY REJECTED, REPLACE WITH AN APPROVED ITEM AT NO ADDITIONAL COST TO THE OWNER.
34. PROVIDE AS BUILT DRAWINGS AND ALL MANUFACTURER'S DATA AND WARRANTY LITERATURE AT THE COMPLETION OF THE CONTRACT.
35. GUARANTEE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER.
36. LABEL DEVICE FINISH PLATES (RECEPTACLES AND SWITCHES) WITH PANEL NAME AND CIRCUIT NUMBER.

LIGHTING GENERAL NOTES

1. SEE LUMINAIRE SCHEDULES, LIGHTING CONTROL DIAGRAMS, AND SEQUENCE OF OPERATIONS FOR MORE INFORMATION.
2. UNLESS OTHERWISE NOTED, MOUNTING HEIGHT OF A LUMINAIRE IS TO THE BOTTOM OF THE LUMINAIRE.
3. VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.
4. COORDINATE PLACEMENT OF LUMINAIRES ON AND IN CEILINGS WITH ARCHITECTURAL CEILING PLANS AND ALL OTHER CEILING MOUNTED DEVICES FROM OTHER TRADES.
5. COORDINATE THE LOCATIONS AND MOUNTING HEIGHTS OF LUMINAIRES IN MECHANICAL, ELECTRICAL, TELECOM ROOMS AND OTHER SPACES THAT MAY HAVE CONFLICTS, WITH THE FINAL LOCATIONS OF PIPES, DUCTS, RACKS, AND OTHER EQUIPMENT FOR OPTIMAL ARRANGEMENT. LOCATING LUMINAIRES ABOVE EQUIPEMENT IS NOT PERMITTED. LOCATE LUMINAIRES TO ENSURE CIRCULATION AROUND EQUIPMENT IS PROPERLY ILLUMINATED AND SO THAT LUMINAIRES ARE EASILY ACCESSIBLE FOR MAINTENANCE.
6. WHERE LIGHT SWITCHES ARE INDICATED TO BE MOUNTED BEHIND A DOOR, MOUNT SUCH SWITCHES A MINIMUM OF 3'-9" FROM HINGED SIDE.
7. SUPPORT LUMINAIRES FROM THE BUILDING STRUCTURE INDEPENDENT OF DUCTS, PIPES, CEILINGS AND THEIR SUPPORT MEMBERS. COORDINATE ALL ELECTRICAL EQUIPMENT WITH ALL OTHER TRADES TO AVOID CONFLICTS. PROVIDE ALL NECESSARY FITTINGS, STRUT CHANNELS, EQUIPMENT, HANGERS, OFFSETS, ROUTING, ETC. TO AVOID CONFLICTS.
8. INSTALL DRIVERS, LOW-VOLTAGE TRANSFORMERS, LIGHTING SYSTEM CONTROL DEVICES, AND SIMILAR LUMINAIRES ACCESSORIES IN ACCESSIBLE LOCATION. PROVIDE ACCESS PANELS AS REQUIRED.
9. PROVIDE ALL ACCESSORIES INCLUDING LED ARRAYS, DRIVERS, TRANSFORMERS, SUPPORTS, AND CIRCUITRY AS NECESSARY FOR A COMPLETE AND OPERATIONAL LIGHTING SYSTEM PER PROJECT REQUIREMENTS.
10. PROVIDE A SEPARATE NEUTRAL FOR EACH SINGLE PHASE LIGHTING CIRCUIT. SHARED NEUTRALS ARE NOT PERMITTED.
11. PROVIDE PLENUM RATED LIGHTING CONTROL CABLES FOR LIGHTING CONTROL DEVICES LOCATED ABOVE CEILINGS NOT ROUTED IN CONDUIT.
12. ENSURE DIMMING DRIVER COMPATIBILITY WITH ASSOCIATED DIMMING CONTROL DEVICES AND ANY BUILDING LIGHTING CONTROL SYSTEM.
13. PROVIDE CONTROLLED EGRESS LIFE SAFETY LIGHTING WITH A UL924 LISTED BY-PASS RELAY DEVICE TO TRANSFER LIFE-SAFETY LIGHTING FROM CONTROLLED NORMAL POWER TO LIFE SAFETY POWER OR A UL924 LISTED SHUNT DEVICE TO TRANSITION CONTROLLED LIFE SAFETY LIGHTING TO FULL OUTPUT.
14. CONNECT EXIT SIGNS AND EMERGENCY LIGHTING UNITS AHEAD OF LOCAL SWITCHING.
15. PROVIDE LUMINAIRES THAT COMPLY WITH BUY AMERICAN ACT (BAA). PROVIDE CERTIFICATE OF COMPLIANCE WITH BUY AMERICAN ACT FOR EACH LIGHT FIXTURE TYPE AND INCLUDE IN THE LIGHTING SUBMITTAL REVIEW PACKAGE FOR GOVERNMENT APPROVAL.

LIGHTNING PROTECTION GENERAL NOTES

1. THIS CONTRACTOR SHALL OBTAIN THE SERVICES OF A QUALIFIED LIGHTNING PROTECTION CONTRACTOR TO PERFORM THE WORK AS DESCRIBED. THE LIGHTNING PROTECTION CONTRACTOR SHALL GIVE EVIDENCE OF HAVING A MINIMUM OF FIVE YEARS EXPERIENCE.
2. THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH U.L. 96A, NFPA 78 AND ANSI CODE REQUIREMENTS. UPON COMPLETION OF THE INSTALLATION, A U.L. MASTER LABEL SHALL BE ISSUED TO THE OWNER BY THE INSTALLING CONTRACTOR.
3. CONDUCTORS SHALL MAINTAIN A HORIZONTAL OR DOWNWARD COURSE, FREE FROM "U" OR "V" (SOWN AND UP) POCKETS.
4. NO BEND OF A CONDUCTOR SHALL FORM AN ANGLE OF LESS THAN 90 DEGREES AND SHALL HAVE A MAXIMUM BEND RADIUS OF 8 INCHES.
5. ALL ADHESIVE AIR TERMINAL BASES AND FITTINGS SHALL BE SECURED TO ROOF WITH AN ADHESIVE COMPOUND OR PITCH WHICH COMPLIES WITH ROOFING BOND REQUIREMENTS. ADHESIVE COMPOUND SHALL BE FURNISHED BY ROOFING CONTRACTOR.
6. THE DRAWINGS INDICATE THE EXTENT AND GENERAL ARRANGEMENT OF THE LIGHTNING PROTECTION SYSTEM SHOWING THE LOCATION OF THE GROUNDS AND CABLE COURSING.
7. LIGHTNING PROTECTION SYSTEM DESIGN IS NOTIONAL AND THE ACTUAL JOBSITE CONDITIONS MAY REQUIRE ALTERATIONS IN AIR TERMINAL AND GROUND ROD QUANTITIES AND LOCATIONS, BUT SHALL BE INSTALLED TO MAINTAIN UL MASTER LABEL REQUIREMENTS.
8. BARE COPPER MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM SURFACE AND ALUMINUM MATERIALS SHALL NOT BE INSTALLED ON COPPER SURFACE.
9. THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN A NEAT, WORKMANLIKE AND INCONSPICUOUS MANNER SO THAT ALL COMPONENTS WILL BLEND IN WITH THE BUILDING AESTHETICS.
10. UTILIZE BUILDING STRUCTURE COLUMNS AS DOWNLEADS. ENSURE ALL BUILDING STRUCTURE COLUMN AND BEAMS ARE ELECTRICALLY BONDED. NO EXPOSED DOWNLEAD CONDUCTORS ARE ALLOWED.
11. METALLIC EQUIPMENT, INCLUDING BUT NOT LIMITED TO, HVAC EQUIPMENT, VENTILATION COVERS, ROOF, PARAPET LOCATED WITHIN 6 FEET OF THE LPS SHALL BE BONDED TO THE LPS.

ELECTRICAL ABBREVIATIONS

ABBREVIATION	DEFINITION
A, AMP	AMPERE
AF	AMPERE FRAME OR AMPERE FUSE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AT	AIR TERMINAL
AWG	AMERICAN WIRE GUAGE
BFG	BELOW FINISHED GRADE
C	CONDUIT
CATV	CABLE TELEVISION
CB, CKT BKR	CIRCUIT BREAKER
CKT	CIRCUIT
COMM	COMMUNICATIONS
DDC	DIRECT DIGITAL CONTROLS
DISC	DISCONNECT SWITCH
E, EX	EXISTING
EGB	EQUIPMENT GROUND BUSBAR
EM	EMERGENCY
FUS	FUSE
FVNR	FULL VOLTAGE NON-REVERSING
G	GROUND
GF, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GF/CI, (OF/CI)	GOVERNMENT (OWNER) FURNISHED/CONTRACTOR INSTALLED
GF/GI, (OF/OI)	GOVERNMENT (OWNER) FURNISHED/GOVERNMENT (OWNER) INSTALLED
HP	HORSEPOWER
J, JB	JUNCTION BOX
kAIC	THOUSAND AMPERES INTERRUPTING CAPACITY
kV	KILOVOLTS
kVA	KILOVOLT AMPERES
kW	KILOWATTS
LAN	LOCAL AREA NETWORK
LED	LIGHT EMITTING DIODE
LPS	LIGHTNING PROTECTION SYSTEM
M	METER
MCB	MAIN CIRCUIT BREAKER
MCCB	MOLDED CASE CIRCUIT BREAKER
MGB	MAIN BUILDING GROUND BUSBAR
MLO	MAIN LUGS ONLY
MS	MAGNETIC STARTER
MTD	MOUNTED
MTR	MOTOR
N	NEUTRAL
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NEC	NATIONAL ELECTRICAL CODE
NETA	NATIONAL ELECTRICAL TESTING ASSOCIATION
NF	NON-FUSED
NIC	NOT IN CONTRACT
O.C.	ON CENTER
OS	OCCUPANCY SENSOR
P	POLE
PC	PHOTOELECTRIC CELL
PH	PHASE
PNL	PANELBOARD
PVC	POLYVINYL CHLORIDE
PWR	POWER
RCPT	RECEPTACLE
S	SURFACE WALL MOUNTED
SC	SHORT CIRCUIT
SCC	SHORT CIRCUIT CURRENT
SPD	TRANSIENT VOLTAGE SURGE PROTECTIVE DEVICE
ST	SHUNT TRIP CIRCUIT BREAKER
SW	SWITCH
SYM	SYMMETRICAL
TMGB	TELECOM MAIN GROUND BUSBAR
TR	COMMUNICATIONS ROOM
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE OR WATT
WP	WEATHERPROOF IN USE
XFMR OR T	TRANSFORMER
XMTR	TRANSMITTER
Y	WYE CONNECTED
YDCT	WYE DELTA CLOSED TRANSITION

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COMMONWEALTH OF VIRGINIA
ERIC A. GAVLEK
Lic. No. 60662
05/02/2024
PROFESSIONAL ENGINEER

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITORS CENTER & ADMINISTRATION
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SHEET TITLE

ELECTRICAL GENERAL NOTES AND ABBREVIATIONS

SHT. NO. E-002 | REV. NO.

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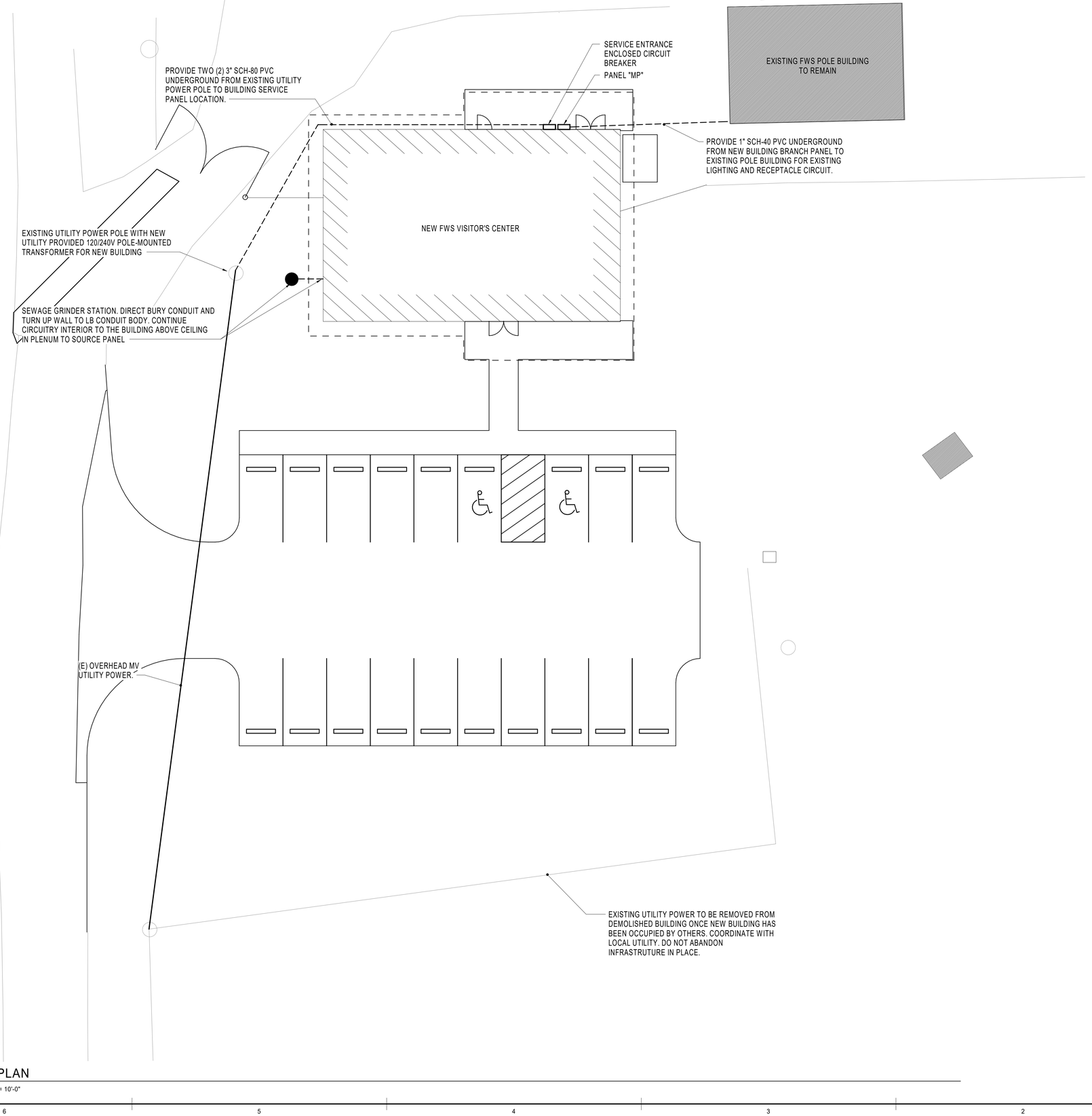

PLAN NORTH

A6 SITE PLAN

SCALE: 1" = 10'-0"

0' 5' - 0" 10' - 0" 20' - 0"

SCALE: 0' - 1" = 10' - 0"

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SITE PLAN

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E-100	

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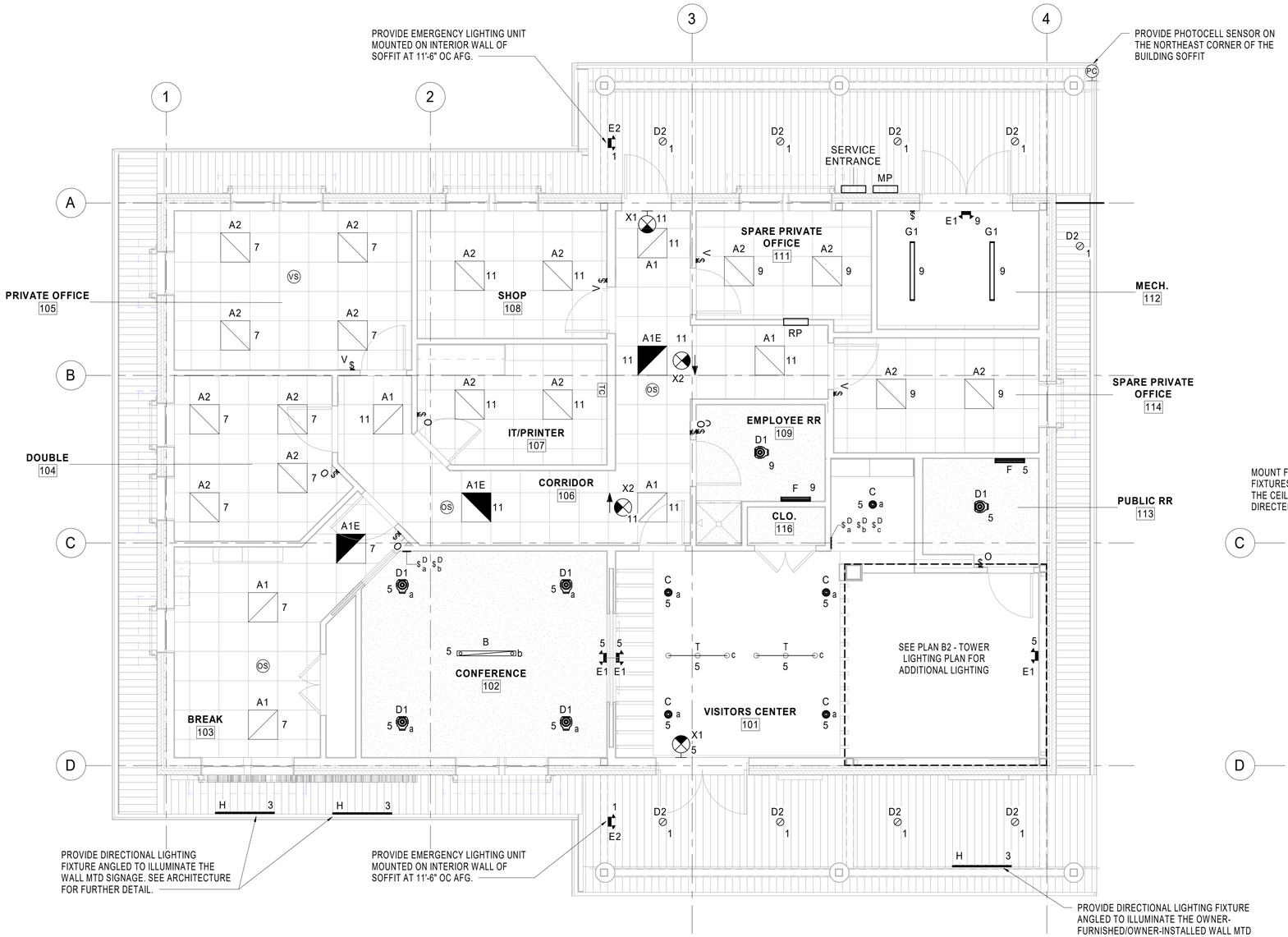
GENERAL NOTES:

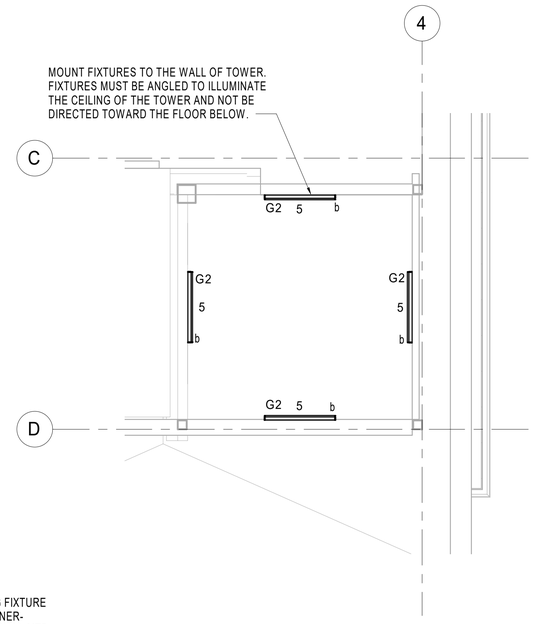
1. REFER SHEET E-601 FOR ADDITIONAL INFORMATION ON CONTROL DIAGRAMS AND LIGHTING FIXTURE SCHEDULE.
2. ALL LIGHTING CIRCUITS ARE SOURCED FROM PANEL 'RP'. REFERENCE SHEET E-701 FOR PANEL SCHEDULE.



PLAN NORTH B6

FIRST FLOOR - LIGHTING PLAN

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



PLAN NORTH B2

TOWER - LIGHTING PLAN

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

0' 2' - 0" 4' - 0" 8' - 0"
SCALE: 0' - 0 1/4" = 1' - 0"

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LIGHTING PLAN

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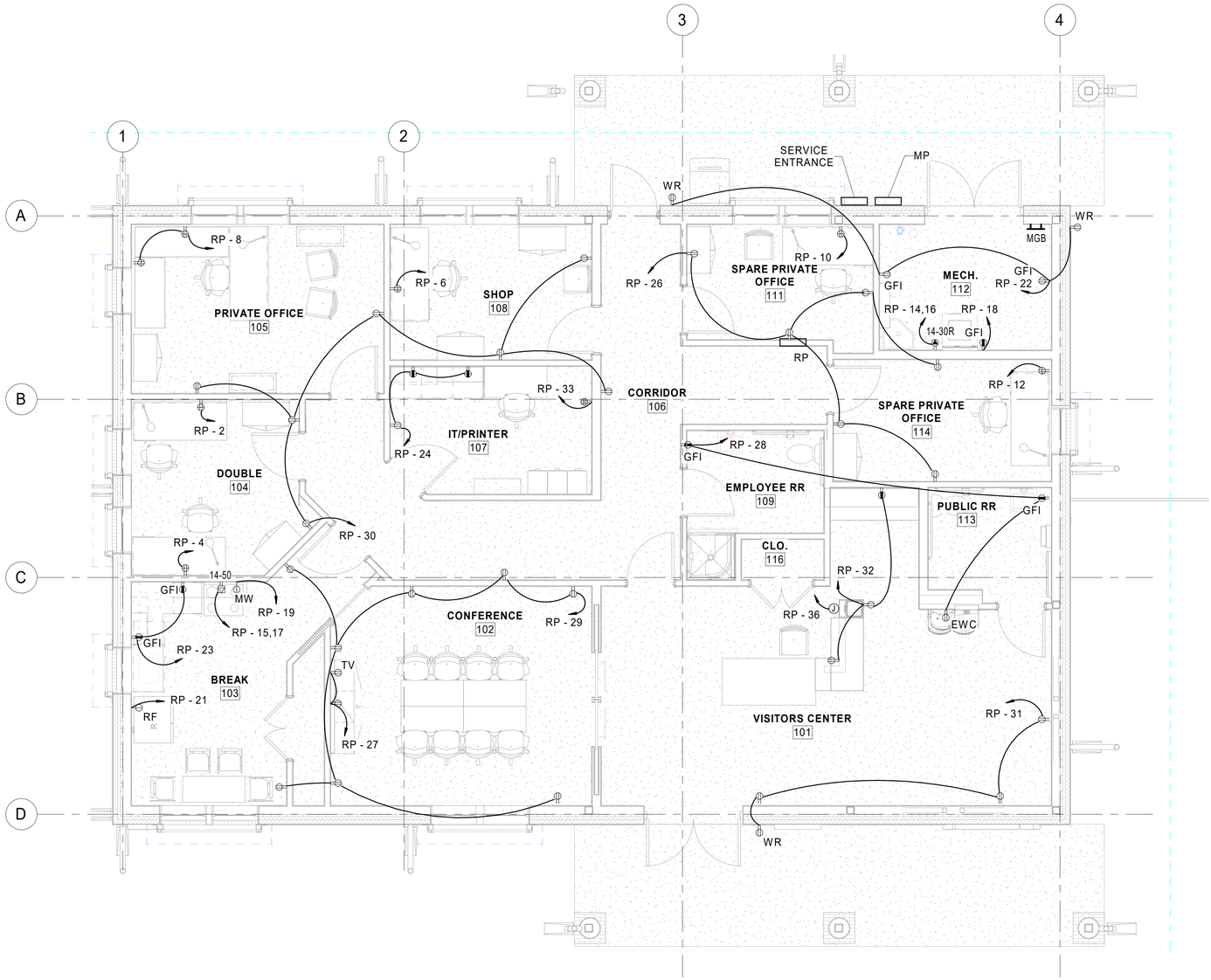

PLAN NORTH

B6 FIRST FLOOR - POWER PLAN

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

0' 2' - 0" 4' - 0" 8' - 0"

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

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POWER PLAN

SHT. NO. E-102

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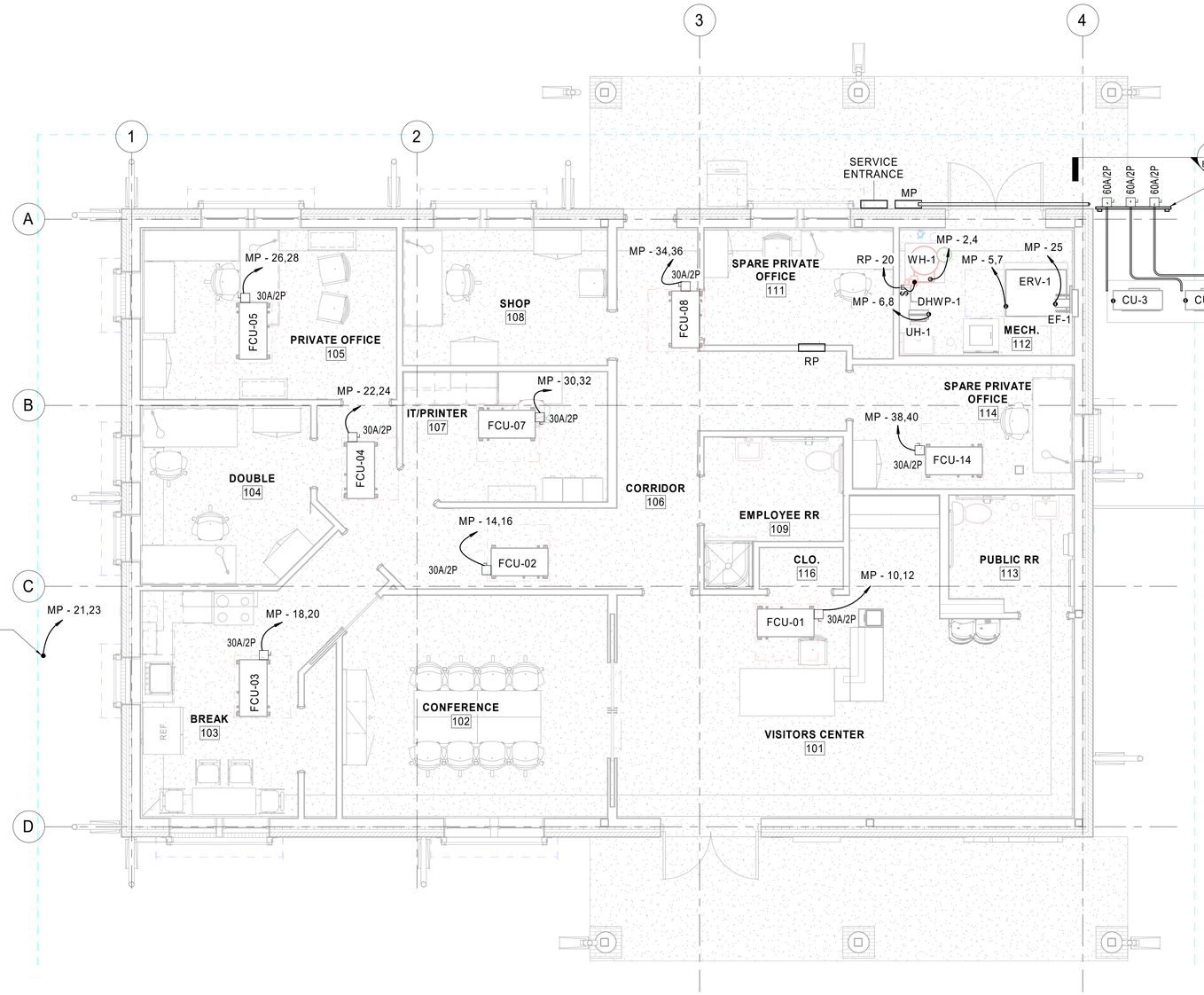

PLAN NORTH

B6 FIRST FLOOR - MECHANICAL POWER PLAN

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

B2 SECTION - MECHANICAL DISCONNECT RACK

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

0' 2' - 0" 4' - 0" 8' - 0"

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

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MECHANICAL POWER PLAN

SHT. NO. E-103

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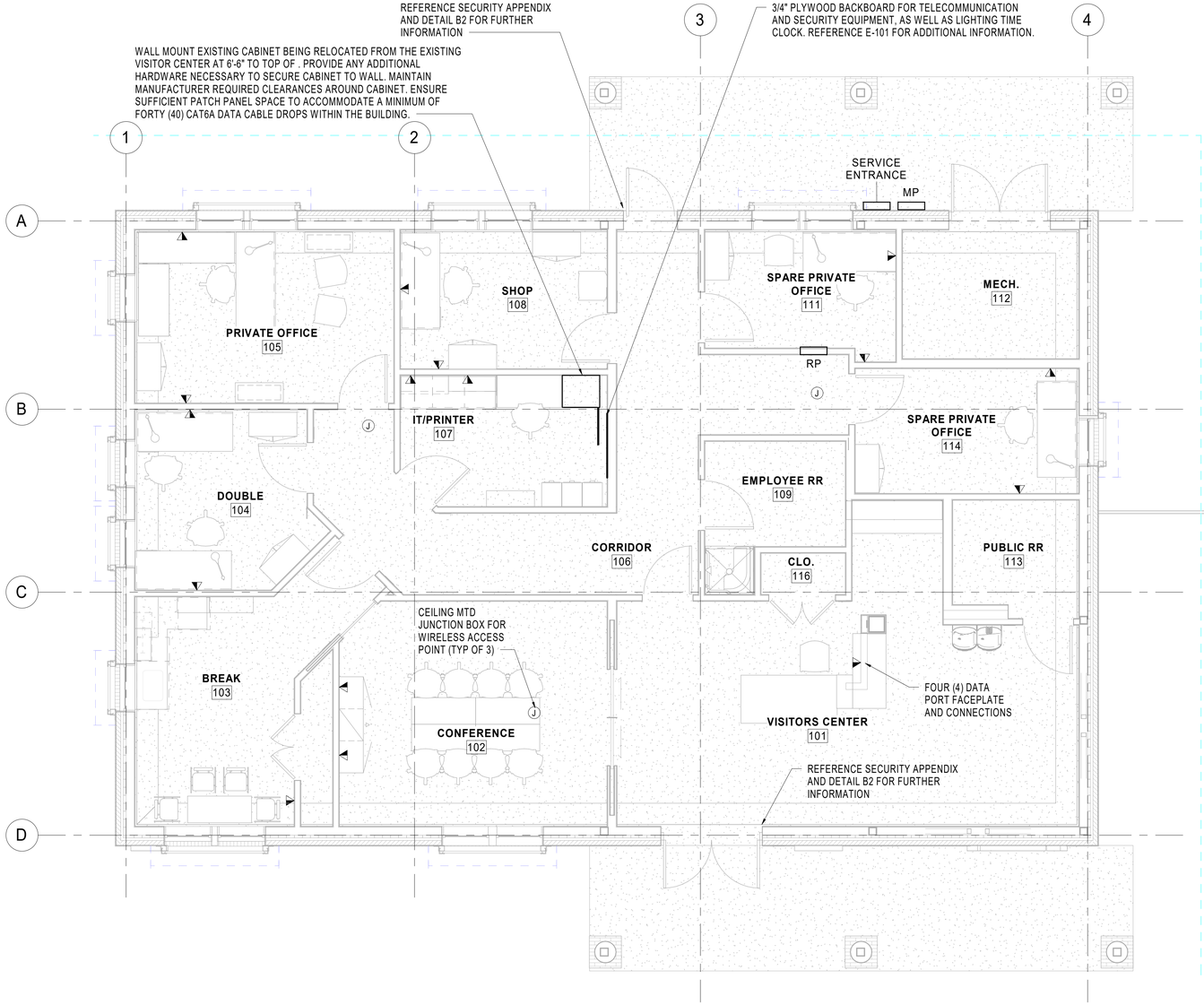
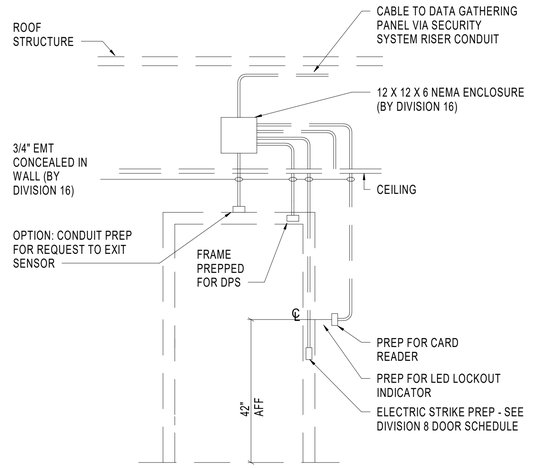


PLAN NORTH

B6 FIRST FLOOR - TELECOMMUNICATION & TECHNICAL SECURITY PLAN

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



B2 DETAIL - TYPICAL DOOR ELECTRONIC SECURITY

SCALE: NONE

0' 2' - 0" 4' - 0" 8' - 0"

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

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TELECOMMUNICATION & TECHNICAL SECURITY PLAN

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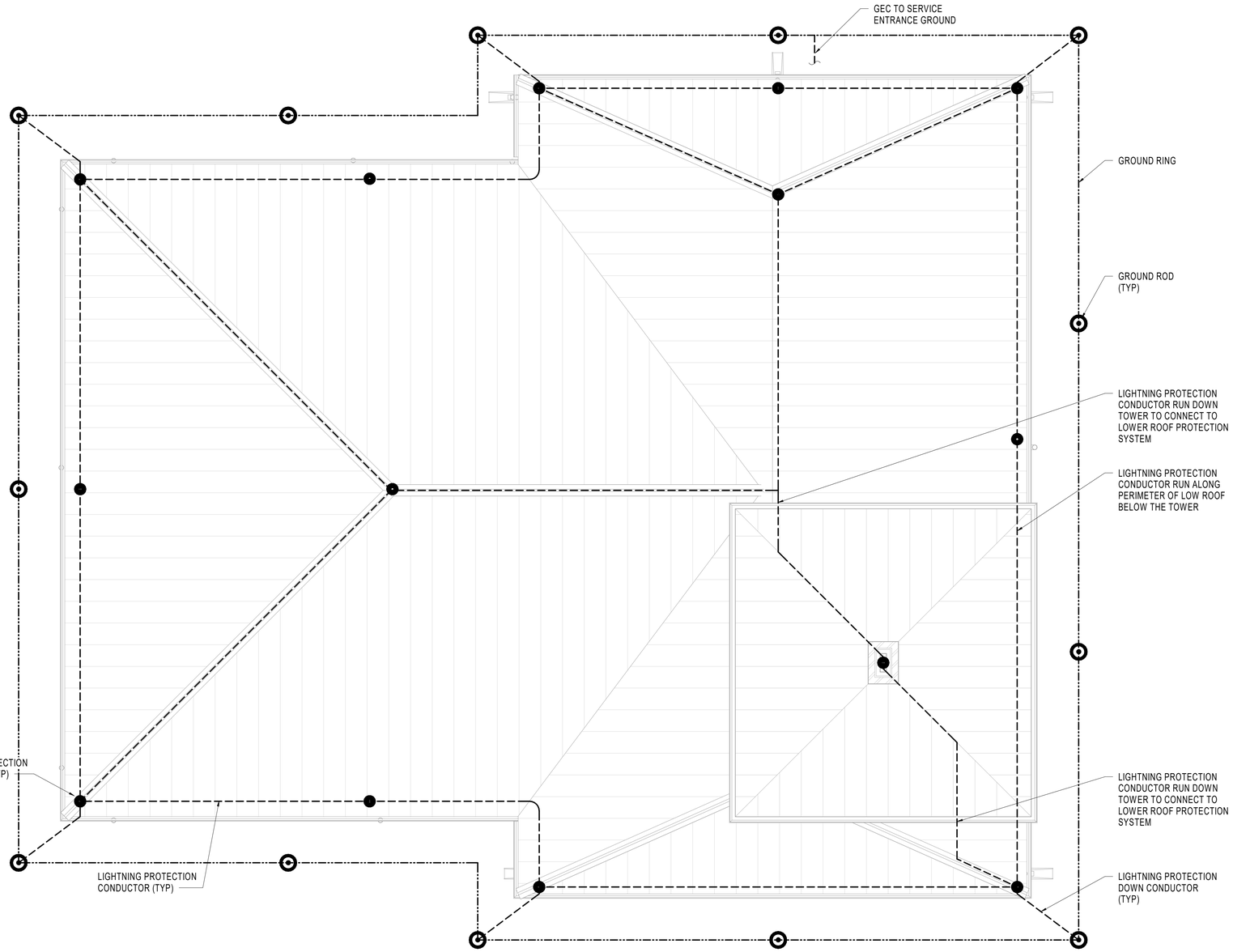

PLAN NORTH

B6 LIGHTNING PROTECTION & GROUNDING PLAN

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

0' 2' - 0" 4' - 0" 8' - 0"

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

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LIGHTNING PROTECTION & GROUNDING PLAN

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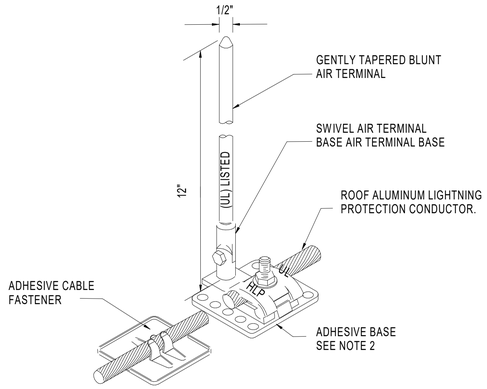
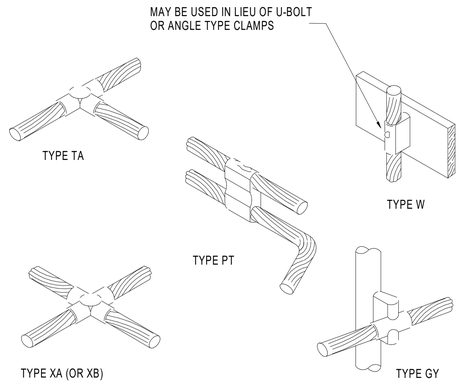


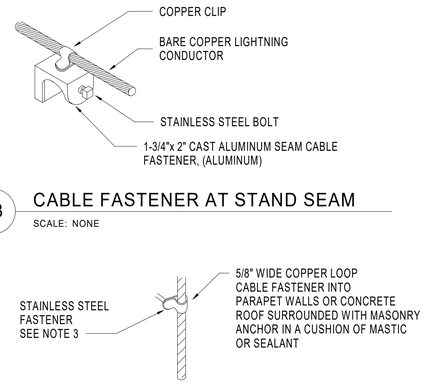
D6 AIR TERMINAL BASE

SCALE: NONE



D5 LIGHTNING PROTECTION CABLE CONNECTION TYPES

SCALE: NONE

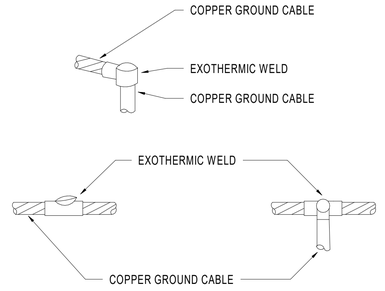


E3 CABLE FASTENER AT STAND SEAM

SCALE: NONE

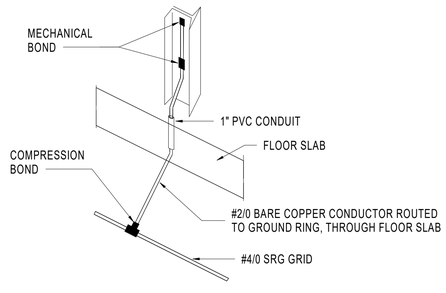
D3 CABLE FASTENER

SCALE: NONE



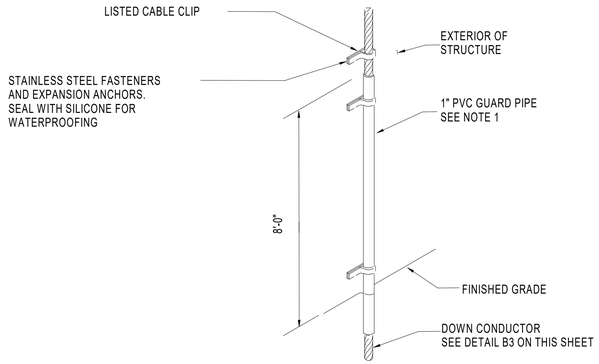
D2 EXOTHERMIC WELDS

SCALE: NONE



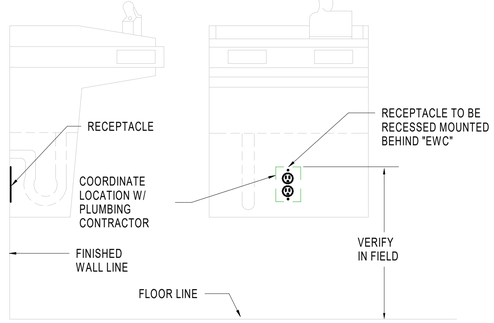
C6 BUILDING STEEL GROUNDING DETAIL

SCALE: NOT TO SCALE



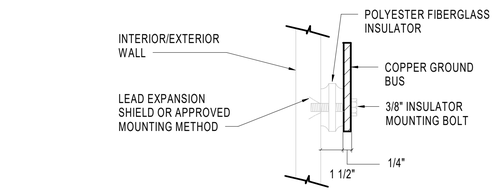
C5 TYP DOWN CONDUCTOR INSTALLATION

SCALE: NOT TO SCALE

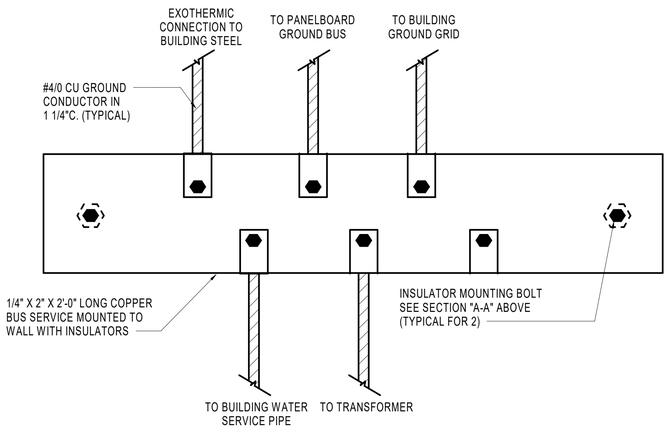


C2 "EWC" RECEPTACLE DETAIL

SCALE: 12" = 1'-0"



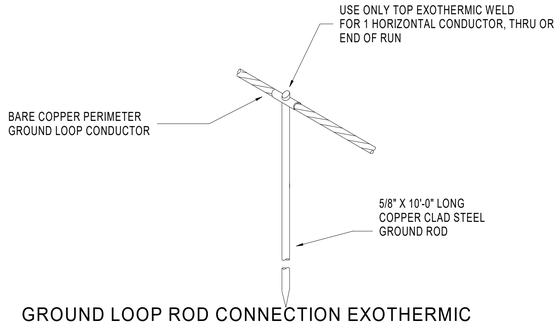
SECTION "A-A"



FRONT VIEW

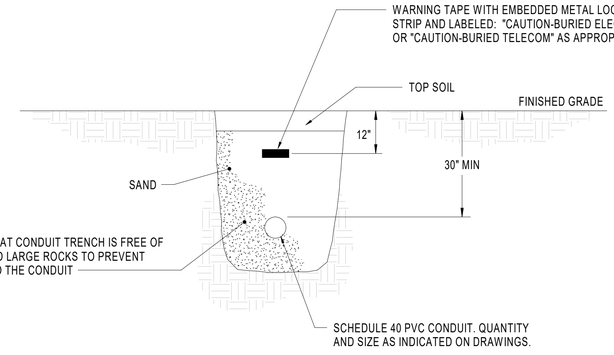
A6 BUILDING SYSTEM GROUND BUS DETAIL

SCALE: 12" = 1'-0"



A4 GROUND LOOP ROD CONNECTION EXOTHERMIC PROCESS

SCALE: NOT TO SCALE



A2 TYP DIRECT BURIED CONDUIT DETAIL

SCALE: NOT TO SCALE

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COMMONWEALTH OF VIRGINIA
ERIC A. GAVLEK
Lic. No. 60662
05/02/2024
PROFESSIONAL ENGINEER

FISH & WILDLIFE SERVICES
BON SECOUR NATIONAL WILDLIFE REFUGE

BON SECOUR VISITORS CENTER & ADMINISTRATION
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MRK.	DATE	REVISION DESCRIPTION

COMM NO:	230182
DATE:	05/02/2024
DRAWN: EAG	DESIGN: EAG
CHECK:	JWG

SHEET TITLE

DETAILS

SHT. NO. E-501 | REV. NO.

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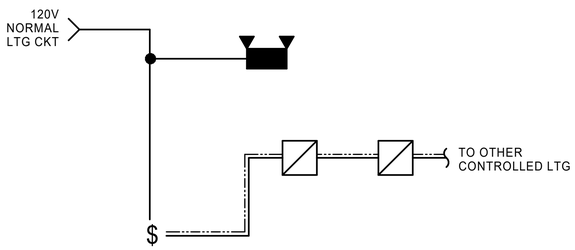
INTERIOR LIGHTING LUMINAIRE SCHEDULE (BASIS OF DESIGN)

TYPE MARK	Type	MANUFACTURER	LAMP	LUMENS	VOLTAGE	INPUT POWER	CRI	CCT	COMMENTS
	-			89 lm					
A1	2BLT2 33L ADSM GZ1 LP840 BAA	LITHONIA LIGHTING	LED	3369 lm	120 V	27 VA	80	4000K	
A1E	2BLT2 33L ADSM GZ1 LP840 E10WLCP/BAA	LITHONIA LIGHTING	LED	3369 lm	120 V	27 VA	80	4000K	BATTERY BACKUP
A2	2BLT2 40L ADSM GZ1 LP840 BAA	LITHONIA LIGHTING	LED	4117 lm	120 V	31 VA	80	4000K	
B	PLLR10ID LSL 4FT MSL4 80CRI 40K 500LM I700LMF SCT MIN1 MVOLT WHSG ZT FLEP F1/36A WHTCY WCRD	MARK ARCHITECTURAL LIGHTING	LED	3248 lm	120 V	42 VA			
C	LDN6CYL 40/20 L06AR LD	LITHONIA LIGHTING	LED	1800 lm	120 V	23 VA	80	4000K	
D1	LDN6 40/20 L06AR LD	LITHONIA LIGHTING	LED	1800 lm	120 V	23 VA	80	4000K	
D2	11242-610-IC	ALCON LIGHTING	LED	982 lm	120 V	9 VA		AMBER	"TURTLE SAFE" REQUIREMENT
E1	ELM4L	LITHONIA LIGHTING	LED		120 V	3 VA			90 MINUTE RUNTIME
E2	ELM4L WPVS LRG W	LITHONIA LIGHTING	LED		120 V	3 VA			90 MINUTE RUNTIME; WET LOCATION & VANDEL RESISTANT
F	BLWP2 8L ADSM LP840	LITHONIA LIGHTING	LED	839 lm	120 V	7 VA	80	4000K	
G1	CLX L48 4000LM SEF WDL MVOLT 40K 90CRI CLXRW48	LITHONIA LIGHTING	LED		120 V	35 VA		4000K	
G2	CLX L48 3000LM SEF L/Lens MVOLT GZ10 40K 80CRI	LITHONIA LIGHTING	LED	3199 lm	120 V	35 VA	80		
H	HLF107 1FT 30DEG 30K	HYDREL	LED		120 V	15 VA		3000K	
T	LTIHMSBK BN	LITHONIA LIGHTING	LED	440 lm	120 V	8 VA	80		
X1	EXRG EL M6	LITHONIA LIGHTING	LED		120 V	1 VA			WALL MTD; BATTERY BACKUP
X2	EXRG EL M6	LITHONIA LIGHTING	LED		120 V	1 VA			CEILING MTD; BATTERY BACKUP

NOTES:

1. SEE DRAWINGS E-001 AND E-002 FOR GENERAL NOTES, LEGENDS, & ABBREVIATIONS.
2. LIGHT FIXTURES SHALL COMPLY WITH BUY AMERICAN ACT (BAA). CONTRACTOR SHALL PROVIDE DOCUMENTATION DURING THE SUBMITTAL PHASE TO PROVE COMPLIANCE.
3. MANUFACTURERS AND CATALOG NUMBERS INDICATED ON LUMINAIRE SCHEDULE(S) CONSTITUTE THE BASIS OF DESIGN FOR CALCULATION PURPOSES. SUBSTITUTES AND "OR EQUALS" WILL BE CONSIDERED AS SUBMITTED IN ACCORDANCE WITH SPECIFICATION 01 25 00.



STRATEGY DESCRIPTION:

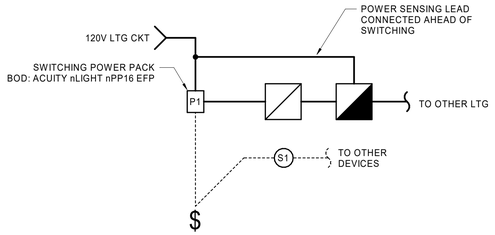
1. AUTOMATIC CONTROL: NONE.
2. MANUAL CONTROL: ON / OFF / RAISE / LOWER (DIMMING)
3. STAND-ALONE LINE-VOLTAGE SINGLE-ZONE CONTROL.
4. LOCAL EMERGENCY LIGHTING IS WALL MOUNTED EMERGENCY LIGHTING UNITS CONNECTED AHEAD OF ANY SWITCHING AND LUMINAIRES WITH INTEGRAL BATTERY UNITS CONNECTED AHEAD OF ANY SWITCHING.

APPLIES TO:

- LARGE OPEN SPACE

C6 DETAIL - LOBBY/VISITOR SWITCH SEQUENCE

SCALE: NONE



STRATEGY DESCRIPTION:

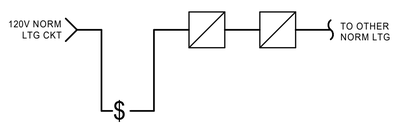
1. AUTOMATIC CONTROL: OCCUPANCY FULL ON, VACANCY FULL OFF.
2. MANUAL CONTROL: ON / OFF.
3. LOW-VOTAGE SINGLE-ZONE CONTROL.
4. EMERGENCY LIGHTING IS CONTROLLED WITH LOCAL LIGHTING ZONES, CONNECTED TO LOCAL CIRCUIT AHEAD OF ANY SWITCHING AND TRANSFERS TO FULL ON UPON SENSING POWER LOSS OF LOCAL NORMAL LIGHTING PANEL.

APPLIES TO:

- RESTROOM
- CORRIDOR

C4 DETAIL - RESTROOM/CORRIDOR/OFFICE SWITCH SEQUENCE

SCALE: NONE



STRATEGY DESCRIPTION:

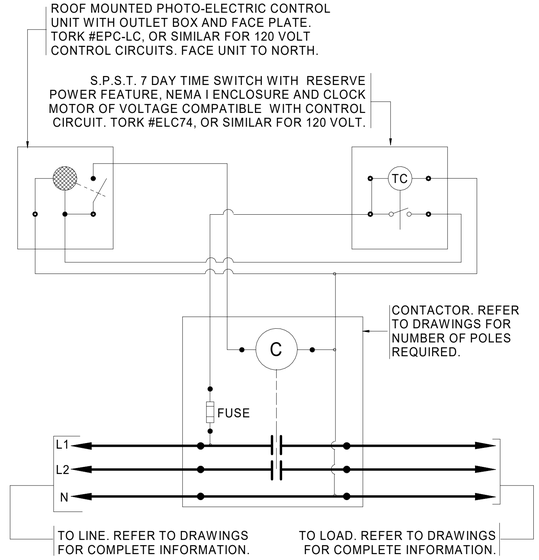
1. AUTOMATIC CONTROL: NONE.
2. MANUAL CONTROL: ON / OFF.
3. LINE-VOLTAGE SINGLE-ZONE CONTROL.
4. LOCAL EMERGENCY LIGHTING IS UNSWITCHED ON.

APPLIES TO:

- UTILITY ROOMS

B6 DIAGRAM - UTILITY SPACE SWITCH SEQUENCE

SCALE: 12" = 1'-0"



D2 DIAGRAM - TIME SWITCH & PHOTOCELL CONTACTOR

SCALE: NONE

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MRK.	DATE	REVISION DESCRIPTION

COMM NO:	230182
DATE:	05/02/2024
DRAWN: EAG	DESIGN: EAG
CHECK:	JWG

SHEET TITLE

LIGHTING DIAGRAMS

SHT. NO.	REV. NO.
E-601	

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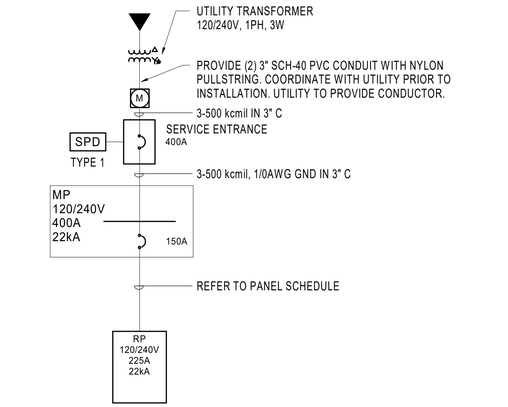

D6 ONE-LINE DIAGRAM

SCALE: NONE

MP

LOCATION: EXTERIOR xxx
SUPPLY FROM: SERVICE ENTRANCE
MOUNTING: SURFACE
ENCLOSURE: TYPE 3R

VOLTS: 120/240
PHASES: 1
WIRES: 3
NEUTRAL RATING: 100%
A.I.C. RATING: 22000

MAINS TYPE: MLO
MAINS RATING: 400 A

NOTES:

CKT	CIRCUIT DESCRIPTION	TRIP	# P	Wire Size	A		B		Wire Size	# P	TRIP	CIRCUIT DESCRIPTION	CKT
1	RP	150 A	2	2-#3/0, 1-#3/0, 1-#6	14.03	6.15			2-#4, 1-#8	2	70 A	DWH-1 - 112	2
3							14.32	6.15					4
5	ERV-1 - 112	15 A	2	2-#12, 1-#12	1.43	1.5			2-#12, 1-#12	2	20 A	UH-1 - 112	6
7							1.43	1.5					8
9	CU-01 - EXT	40 A	2	2-#8, 1-#10	3.57	2.85			2-#10, 1-#10	2	30 A	FCU-01 - 101	10
11							3.57	2.85					12
13	CU-02 - EXT	40 A	2	2-#8, 1-#10	3.57	2.85			2-#10, 1-#10	2	30 A	FCU-02 - 106 S	14
15							3.57	2.85					16
17	CU-03 - EXT	40 A	2	2-#8, 1-#10	3.57	1.74			2-#12, 1-#12	2	20 A	FCU-03 - 103	18
19							3.57	1.74					20
21	SEWAGE GRINDER STATION	15 A	2	2-#12, 1-#12	0.37	1.73			2-#12, 1-#12	2	20 A	FCU-04 - 106 W	22
23							0.37	1.73					24
25	EF-1 - 112	20 A	1	1-#12, 1-#12, 1-#12	0.1	1.73			2-#12, 1-#12	2	20 A	FCU-05 - 105	26
27	(E) POLE BUILDING CKT	20 A	1	--			0	1.73					28
29	SPARE	20 A	1	--	0	1.74			2-#12, 1-#12	2	20 A	FCU-07 - 107	30
31	SPARE	40 A	2	--			0	1.74					32
33					0	1.73			2-#12, 1-#12	2	20 A	FCU-08 - 106 N	34
35	SPARE	30 A	2	--			0	1.73					36
37					0	1.73			2-#12, 1-#12	2	20 A	FCU-14 - 114	38
39	SPARE	20 A	2	--			0	1.73					40
41					0	--			--	1	--	SPACE	42
	TOTAL LOAD (KVA):				50.3		50.5						
	TOTAL AMPS (KVA):				419.5		421.1						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED...	PANEL TOTALS	
EQUIPMENT - NON-CONTINUOUS	73038 VA	75.00%	54779 VA		
LIGHTING	1689 VA	100.00%	1689 VA	**TOTAL CONN. LOAD:**	101 kVA
DRYER - NEC 220.54	5000 VA	100.00%	5000 VA	**TOTAL EST. DEMAND:**	79 kVA
RANGE 3.5 - 8.75 kW - NEC 220.55	8000 VA	80.00%	6400 VA	**TOTAL CONN. CURRENT:**	420 A
General - Use Receptacle	13155 VA	88.01%	11578 VA	**TOTAL EST. CURRENT:**	331 A

RP

LOCATION: CORRIDOR 106
SUPPLY FROM: MP
MOUNTING: RECESSED
ENCLOSURE: TYPE 1

VOLTS: 120/240
PHASES: 1
WIRES: 3
NEUTRAL RATING: 100%
A.I.C. RATING: 22000

MAINS TYPE: MLO
MAINS RATING: 225 A

NOTES:
*(GFCI) CIRCUIT BREAKER EQUIPPED WITH GROUND FAULT PROTECTION

CKT	CIRCUIT DESCRIPTION	TRIP	# P	Wire Size	A (KVA)		B (KVA)		Wire Size	# P	TRIP	CIRCUIT DESCRIPTION	CKT
1	LTG - EXT SOFFIT	20 A	1	1-#12, 1-#12, 1-#12	0.08	0.36			1-#12, 1-#12, 1-#12	1	20 A	RCPT - 104 WORKSTATION N	2
3	LTG - EXT SIGNAGE	20 A	1	1-#12, 1-#12, 1-#12			0.18	0.36	1-#12, 1-#12, 1-#12	1	20 A	RCPT - 104 WORKSTATION S	4
5	LTG - 101,102,113	20 A	1	1-#12, 1-#12, 1-#12	0.43	0.36			1-#12, 1-#12, 1-#12	1	20 A	RCPT - 108 WORKSTATION	6
7	LTG - 103,104,105	20 A	1	1-#12, 1-#12, 1-#12			0.4	0.72	1-#12, 1-#12, 1-#12	1	20 A	RCPT - 105 WORKSTATION	8
9	LTG - 109,111,112,114	20 A	1	1-#12, 1-#12, 1-#12	0.26	0.36			1-#12, 1-#12, 1-#12	1	20 A	RCPT - 111 WORKSTATION	10
11	LTG - 106,107,108	20 A	1	1-#12, 1-#12, 1-#12			0.34	0.36	1-#12, 1-#12, 1-#12	1	20 A	RCPT - 114 WORKSTATION	12
13	SPARE	20 A	1	--	0	2.5			2-#10, 1-#10, 1-#10	2	30 A	DRYER - 112 (GFCI)	14
15	RANGE - 103	50 A	2	2-#6, 1-#6, 1-#10			4	2.5					16
17					4	0.18			1-#12, 1-#12, 1-#12	1	20 A	WASHER - 112	18
19	MICROWAVE - 103	20 A	1	1-#12, 1-#12, 1-#12			1.2	0.51	1-#12, 1-#12, 1-#12	1	20 A	DHWP-1 - 112	20
21	REFRIGERATOR - 103	20 A	1	1-#12, 1-#12, 1-#12	0.5	0.72			1-#12, 1-#12, 1-#12	1	20 A	RCPT - 112, EXT	22
23	RCPT - 103 COUNTER	20 A	1	1-#12, 1-#12, 1-#12			0.36	0.9	1-#12, 1-#12, 1-#12	1	20 A	RCPT - 107	24
25	SPARE	20 A	1	--	0	1.08			1-#12, 1-#12, 1-#12	1	20 A	RCPT - 111, 114	26
27	RCPT - 102 TV	20 A	1	1-#12, 1-#12, 1-#12			0.36	0.38	1-#12, 1-#12, 1-#12	1	20 A	RCPT - 109, 113, EWC	28
29	RCPT - 102, 103, 106 S	20 A	1	1-#10, 1-#10, 1-#10	1.44	1.26			1-#12, 1-#12, 1-#12	1	20 A	RCPT - 104, 105, 108	30
31	RCPT - 101, EXT	20 A	1	1-#12, 1-#12, 1-#12			0.72	0.54	1-#12, 1-#12, 1-#12	1	20 A	RCPT - 101 WORKSTATION	32
33	TELECOM - 107	20 A	1	1-#12, 1-#12, 1-#12	0.5	0			--	1	20 A	SPARE	34
35	SPARE	20 A	1	--			0	0.5	1-#12, 1-#12, 1-#12	1	20 A	SHUTTERS - TOWER	36
37	SPARE	20 A	1	--	0	0			--	1	20 A	SPARE	38
39	SPARE	20 A	1	--			0	0	--	1	20 A	SPARE	40
	TOTAL LOAD (KVA):				14.0		14.3						
	TOTAL AMPS (KVA):				116.9		119.3						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED...	PANEL TOTALS	
EQUIPMENT - NON-CONTINUOUS	506 VA	75.00%	380 VA		
LIGHTING	1689 VA	100.00%	1689 VA	**TOTAL CONN. LOAD:**	28 kVA
DRYER - NEC 220.54	5000 VA	100.00%	5000 VA	**TOTAL EST. DEMAND:**	25 kVA
RANGE 3.5 - 8.75 kW - NEC 220.55	8000 VA	80.00%	6400 VA	**TOTAL CONN. CURRENT:**	118 A
General - Use Receptacle	13155 VA	88.01%	11578 VA	**TOTAL EST. CURRENT:**	104 A

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SHEET TITLE

ONE-LINE & PANEL SCHEDULES

SHT. NO. E-701
REV. NO.

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