NEW CONSTRUCTION PROJECT FOR:
BERTIE COUNTY 911 CENTER

206 County Farm Road, Windsor NC 27983

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FP101 FIRST FLOOR PLAN - FIRE PROTECTION

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4208 Six Forks Road, Suite 1000
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p 919.825.4882
www.sgarc.com

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Key Plan:

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CS.1

SITE DATA:

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   WINDSOR, NC 27983
   (252) 794-5300

2. SITE INFORMATION:
   PIN: 6801-87-3148
   MAP: CAB C-189
   D.B. 74, PG. 326
   ZONING: M-I (MANUFACTURING AND INDUSTRIAL DISTRICT)
   PARCEL AREA: 3.28 AC
   ADDRESS: 206 COUNTY FARM ROAD
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4. BUILDING SETBACKS
   FRONT: 50'
   SIDE: 15'
   REAR: 20'

5. SITE IS LOCATED IN FLOOD ZONE "X", SHADED "X" AND "AE(7.2)" AS SHOWN ON FIRM PANEL 3720680100J, DATED FEBRUARY 4. 2009. SUBJECT TO CHANGE BY FEMA.

6. PARKING REQUIREMENTS:
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7. ON-SITE COVERAGE CALCULATIONS:

   EXISTING:
   GRAVEL: 11,026 SF (7.71%)

   PROPOSED:

BUILDING (ROOF):	6,594 SF	(4.61%)
PAVEMENT:	11,817 SF	(8.27%)
CONCRETE:	3,298 SF	(2.31%)
GRAVEL:	12,459 SF	(1.00%)
TOTAL:	23,142 SF	(16.18%)

   TOTAL ON SITE COVERAGE: 34,168 (23.90%)

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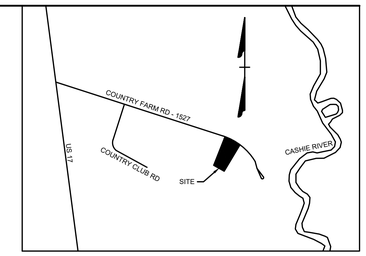

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NO SCALE

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Kimberly D. Hamby
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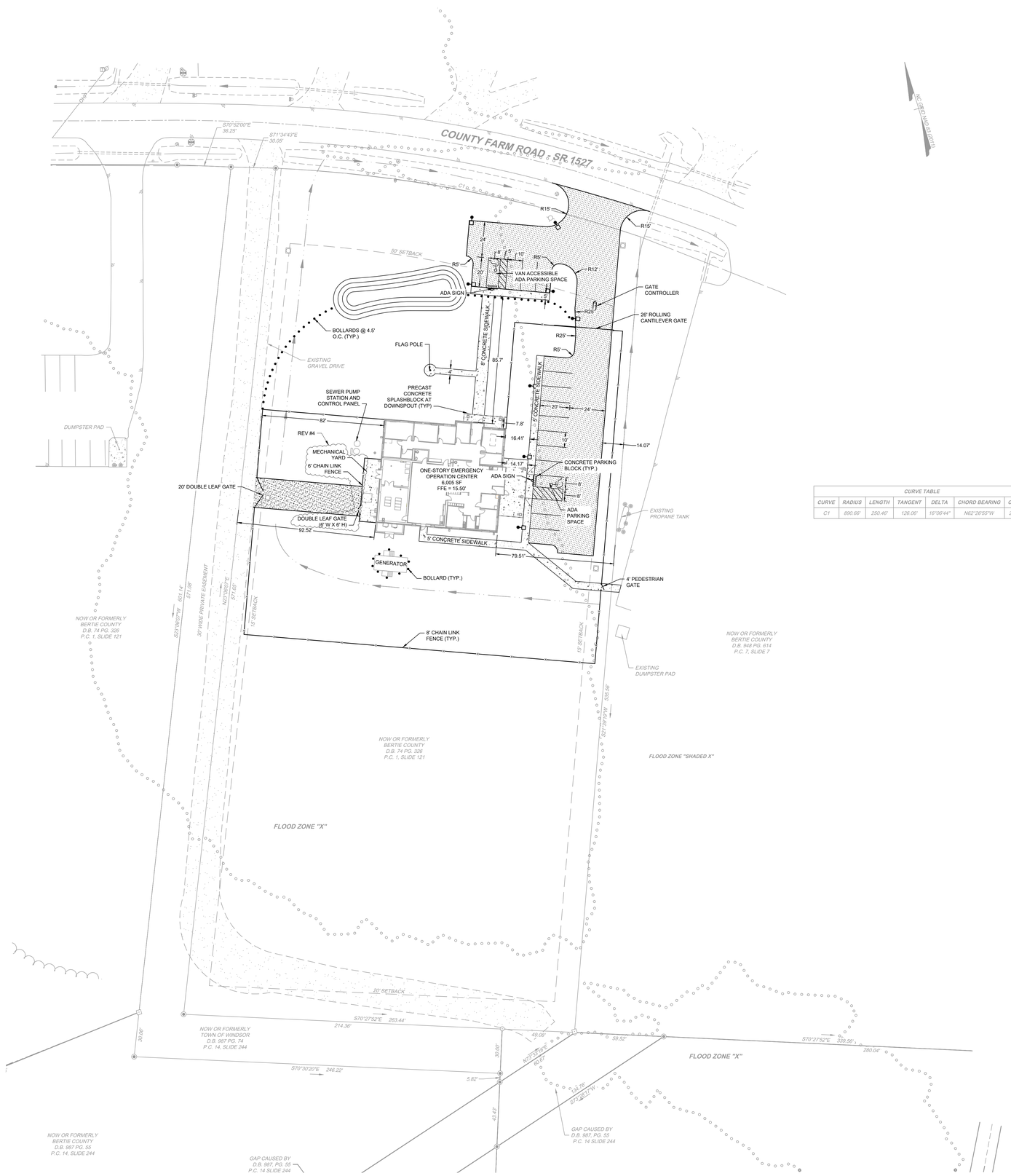

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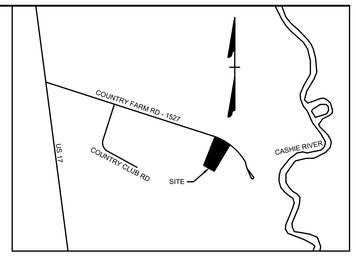

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C2.0

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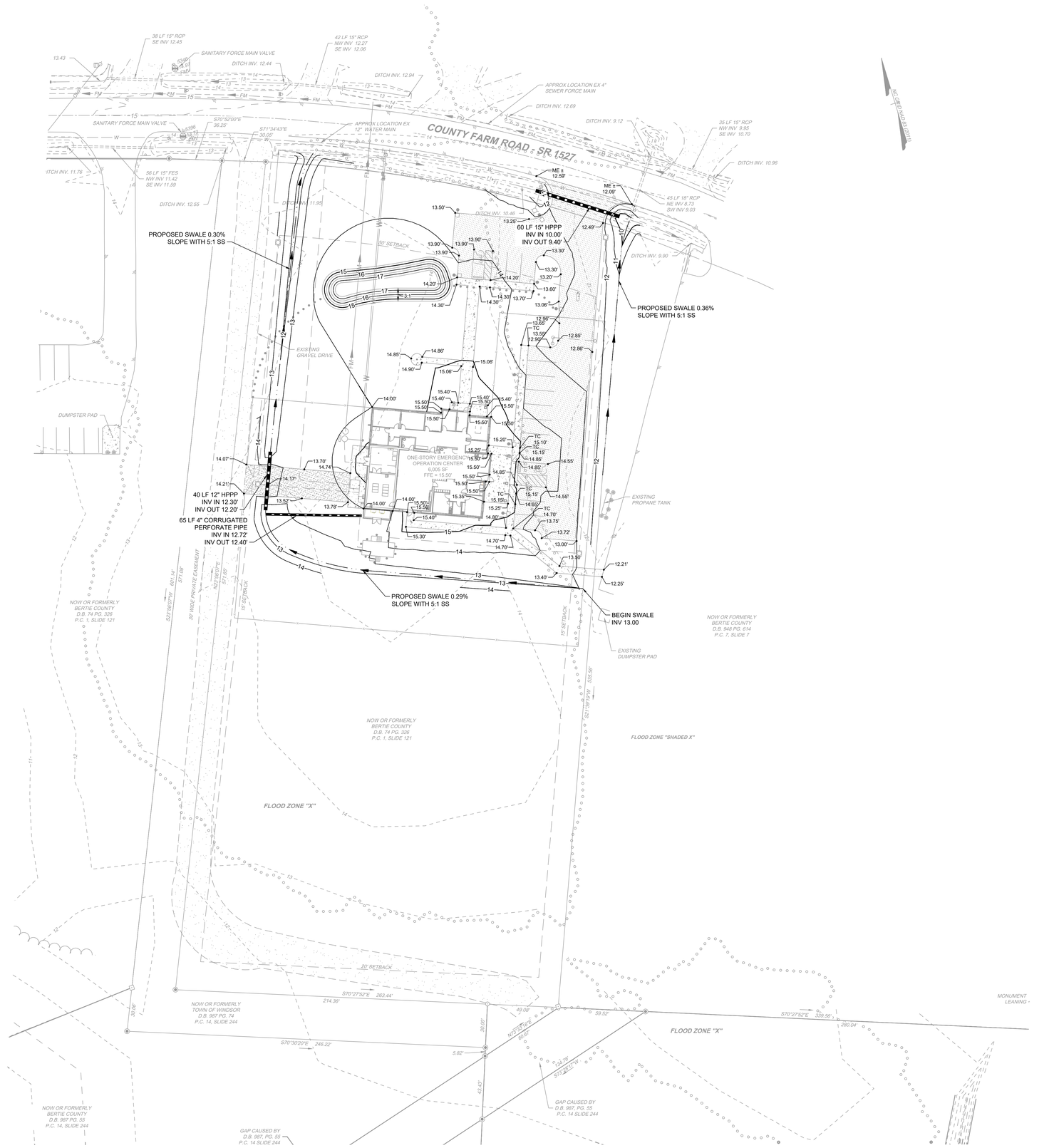

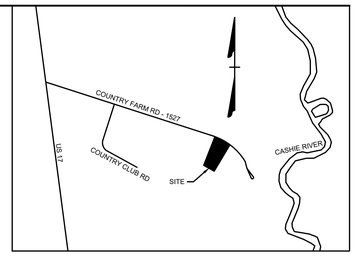

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   REQUIRED: 9 EMPLOYEES * 1 SPACE/ EMPLOYEE = 9 SPACES
   6 SEATS IN LARGEST ASSEMBLY ROOM / 5 SPACES = 2 SPACES
   TOTAL REQUIRED = 11 SPACES

   PROVIDED: 17 SPACES WITH 2 ADA SPACES

7. ON-SITE COVERAGE CALCULATIONS:

   EXISTING:
   GRAVEL: 11,026 SF (7.71%)

   PROPOSED:

BUILDING (ROOF):	6,594 SF	(4.61%)
PAVEMENT:	11,817 SF	(8.27%)
CONCRETE:	3,298 SF	(2.31%)
GRAVEL:	12,459 SF	(1.00%)
TOTAL:	23,142 SF	(16.18%)

   TOTAL ON SITE COVERAGE: 34,168 (23.90%)

8. ALL UTILITY CONNECTIONS SHALL CONFORM TO TOWN OF WINDSOR STANDARDS AND SHALL BE COORDINATED WITH THE TOWN OF WINDSOR PUBLIC WORKS DEPARTMENT.

9. CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP EROSION CONTROL DEVICES IN GOOD WORKING ORDER MAY RESULT IN THE ISSUANCE OF A STOP WORK ORDER.

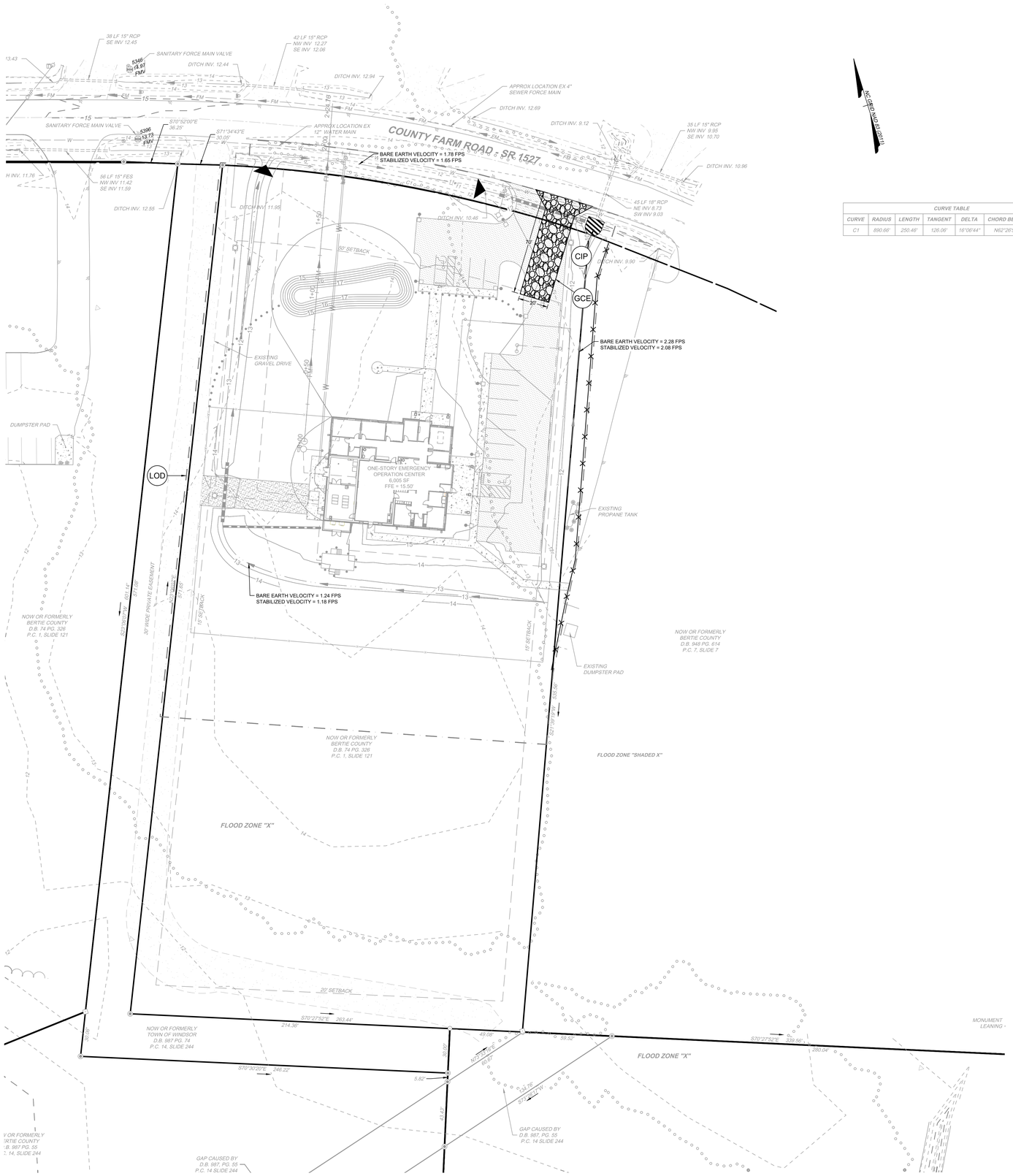
10. ANY FILL BROUGHT ON SITE SHALL BE FROM AN APPROVED SITE/MINE. ANY MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN A SINGLE APPROVED LOCATION.

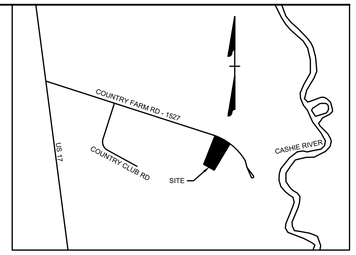
11. DISTURBED AREA SHALL NOT EXCEED 2.28 ACRES.

12. ANY STORAGE BINS, TRASH RECEPTACLES, AND RECYCLE CONTAINERS SHALL BE SCREENED.

13. EXISTING CONDITIONS DATA IS BASED UPON THE FOLLOWING SOURCES: TOPOGRAPHIC SITE SURVEY THAT WAS PERFORMED BY TIMMONS GROUP IN SEPTEMBER 2024.

    BOUNDARY INFO TAKEN FROM ALTA SURVEY TITLED "ALTA SURVEY FOR PARTNERS FOR BERTIE COUNTY PUBLIC SCHOOLS", CERTIFIED BY JASON A. MIZELLE, PLS ON OCTOBER 25, 2024.





VICINITY MAP

NO SCALE

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD BEARING	CHORD
C1	890.66'	250.46'	126.06'	16°06'44"	N62°26'55"W	249.64'

LEGEND

LOD	LIMIT OF DISTRUBANCE
GCE	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
SF	SILT FENCE
HIP	HORSHOE INLET PROTECTION
	CHECK DAM
	RIP RAP
	TEMP DIVERSION SWALE

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
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p: 919.825.4882
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SCHRADER GROUP
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717.299.8965

Professional Seal:

NORTH CAROLINA PROFESSIONAL SEAL 042614 ENGINEER KIMBERLY D. HAMBY
Kimberly D. Hamby
5-27-26

Owner:
BERTIE COUNTY
Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
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DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
EROSION AND SEDIMENT CONTROL PLAN

Drawing Number:
C3.1

811 Know what's below. Call before you dig.

SCALE 1"=30'
0 30' 60'

BID SET

SITE DATA:

1. OWNER/DEVELOPER:
   BERTIE COUNTY
   PO BOX 530
   WINDSOR, NC 27983
   (252) 794-5300

2. SITE INFORMATION:
   PIN: 6801-87-3148
   MAP: CAB C-189
   D.B. 74, PG. 326
   ZONING: M-I (MANUFACTURING AND INDUSTRIAL DISTRICT)
   PARCEL AREA: 3.28 AC
   ADDRESS: 206 COUNTY FARM ROAD
   WINDSOR, NC 27983

4. BUILDING SETBACKS
   FRONT: 50'
   SIDE: 15'
   REAR: 20'

5. SITE IS LOCATED IN FLOOD ZONE "X", SHADED "X" AND "AE(7.2)" AS SHOWN ON FIRM PANEL 3720680100J, DATED FEBRUARY 4, 2009. SUBJECT TO CHANGE BY FEMA.

6. PARKING REQUIREMENTS:
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   ONE SPACE FOR EACH FIVE SEATS IN THE LARGEST ASSEMBLY ROOM.

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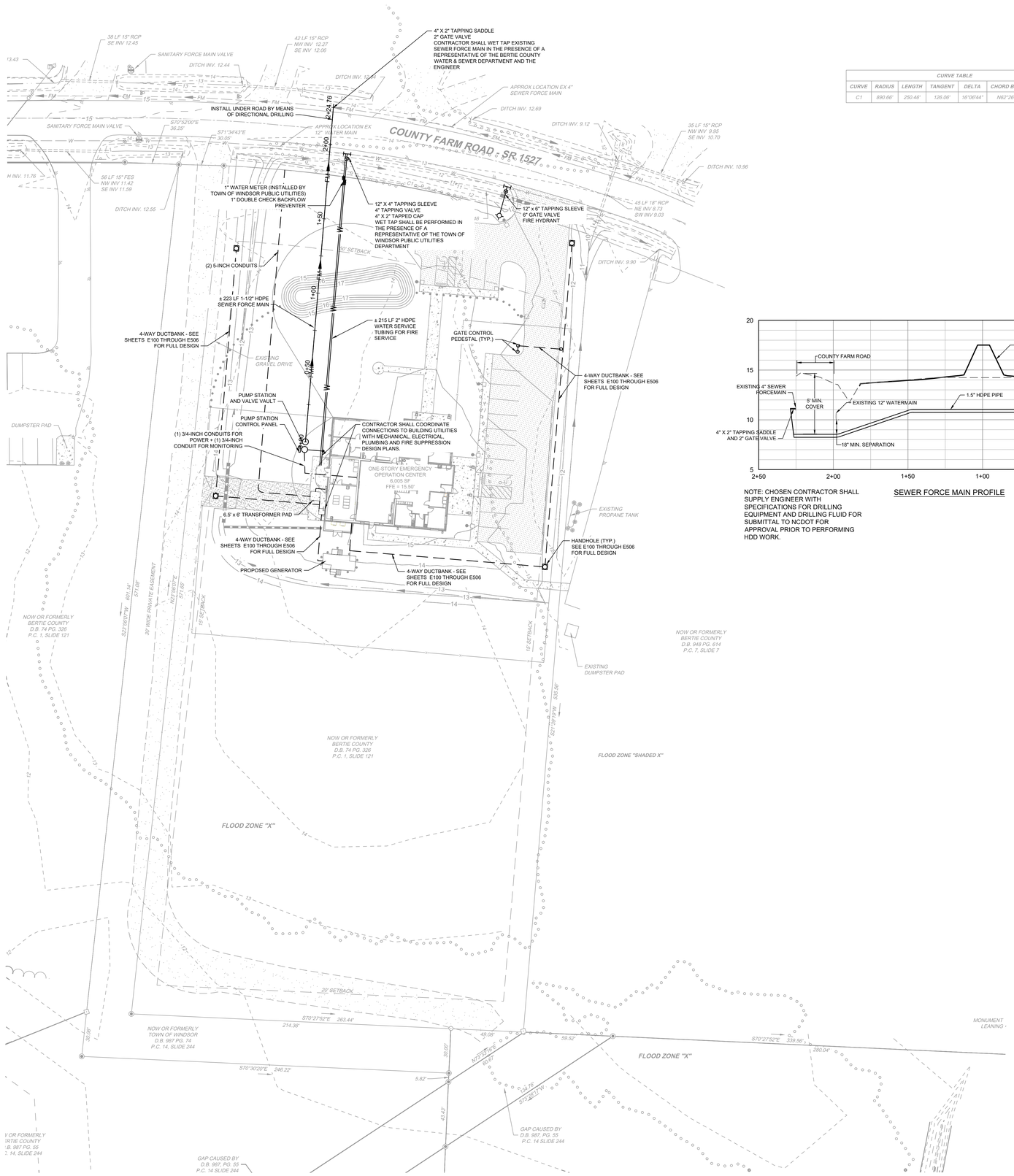

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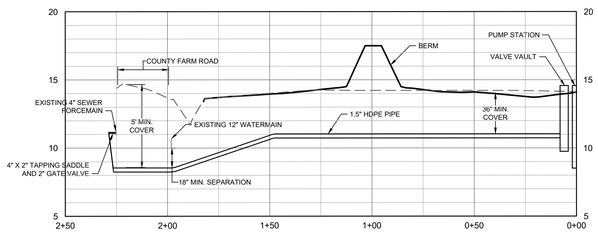
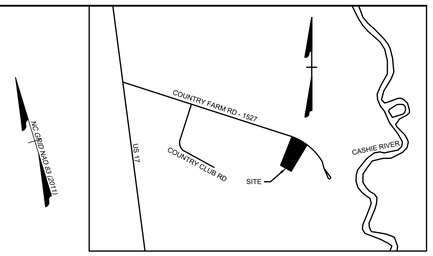


NOTE: CHOSEN CONTRACTOR SHALL SUPPLY ENGINEER WITH SPECIFICATIONS FOR DRILLING EQUIPMENT AND DRILLING FLUID FOR SUBMITTAL TO NCDOT FOR APPROVAL PRIOR TO PERFORMING HDD WORK.

SEWER FORCE MAIN PROFILE



VICINITY MAP
NO SCALE

LEGEND

- BENCHMARK
- EXISTING IRON REBAR (EIR)
- CALCULATED POINT
- EX SANITARY FORCE MAIN VALVE
- EX WATER VALVE
- EX SEWER MANHOLE
- EX TELEPHONE PEDESTAL
- EX LIGHT POLE
- EX GUY ANCHOR
- EX GAS REGULATOR
- EX SIGN
- EX BOLLARD
- PROP CURB INLET
- PROP DROP INLET
- PROP SEWER CLEANOUT
- PROP SEWER MANHOLE
- PROP WATER VALVE
- PROP WATER METER
- PROP FIRE HYDRANT
- PROP RPZ BACKFLOW PREVENTER
- PROP GATE CONTROL PEDESTAL
- PROP ELECTRICAL HANDHOLE
- PROPERTY BOUNDARY
- RIGHT OF WAY
- ADJACENT PROPERTY BOUNDARY
- EX EDGE OF PAVEMENT
- EX ROAD CENTERLINE
- OHP — EX OVERHEAD POWER
- SAN — EX SEWER LINE
- W — EX WATER LINE
- EX CENTER OF DITCH
- EX TOP OF BANK
- 5 — EX MAJOR CONTOUR
- 4 — EX MINOR CONTOUR
- EX STORM PIPE
- EX EDGE OF TREE LINE
- EX WETLAND LINE
- FLOOD ZONE
- X.X.XX' — EX SPOT GRADE
- EX GRAVEL
- PROP ASPHALT PAVEMENT
- PROP CONCRETE SIDEWALK
- PROP CONCRETE PAVEMENT
- PROP GRAVEL
- PROP FENCE
- 5 — PROP MAJOR CONTOUR
- 4 — PROP MINOR CONTOUR
- PROP STORM PIPE
- W — PROP WATER LINE
- SAN — PROP SEWER LINE
- FM — PROP FORCE MAIN
- PROP UNDERGROUND CONDUIT
- PROP SWALE
- X.XX' — PROP SPOT GRADE

SCALE 1"=30'
0 30' 60'

Know what's **below.** **Call** before you dig.

BID SET

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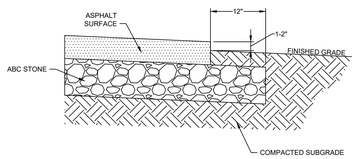
DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

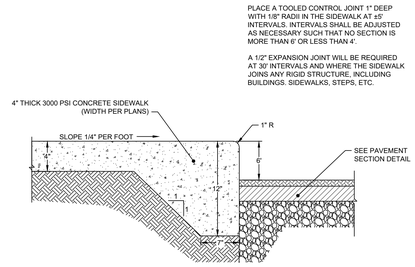
Key Plan:

Drawing Title:
UTILITIES PLAN

Drawing Number:
C4.0

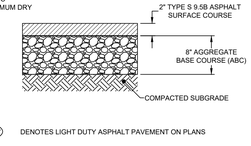


EDGE OF PAVEMENT
NO SCALE

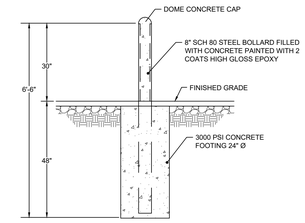


TURNDOWN SIDEWALK
NO SCALE

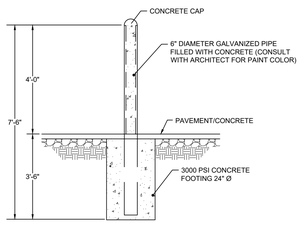
NOTE:
1. ABC STONE BASE COURSE TO BE COMPACTED TO 100% OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY.



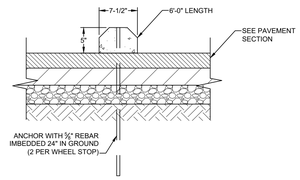
LIGHT DUTY PAVEMENT
NO SCALE



PERIMETER PROTECTION BOLLARD
NO SCALE

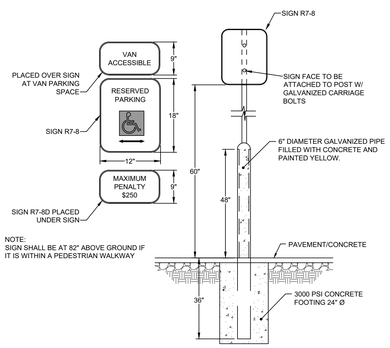


BOLLARD
NO SCALE



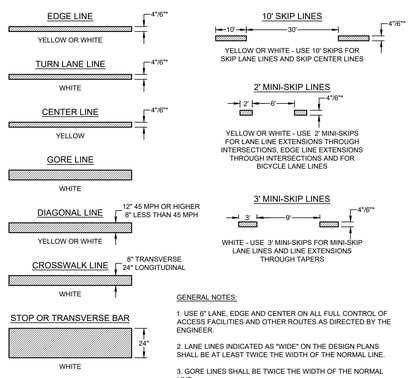
PRECAST BUMPER BLOCK (WHEEL STOP)
NO SCALE

REV #4



NOTE:
SIGN SHALL BE AT 82" ABOVE GROUND IF IT IS WITHIN A PEDESTRIAN WALKWAY

HANDICAP PARKING SIGN IN BOLLARD
NO SCALE



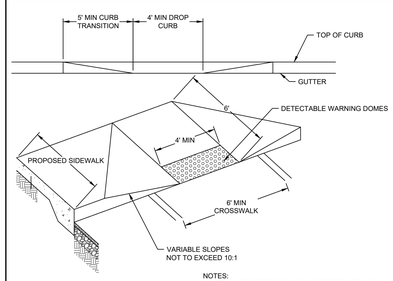
GENERAL NOTES:

1. USE 6" LANE, EDGE AND CENTER ON ALL FULL CONTROL OF ACCESS FACILITIES AND OTHER ROUTES AS DIRECTED BY THE ENGINEER.

2. LANE LINES INDICATED AS "WIDE" ON THE DESIGN PLANS SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.

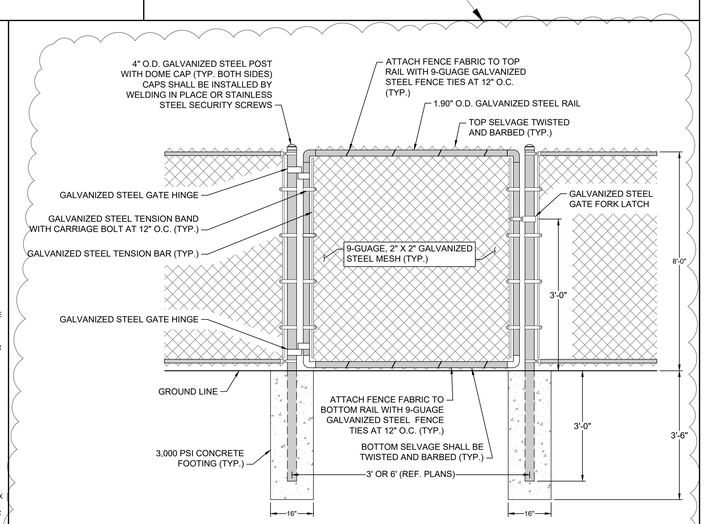
3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

PAVEMENT MARKINGS - LINE TYPES
NO SCALE

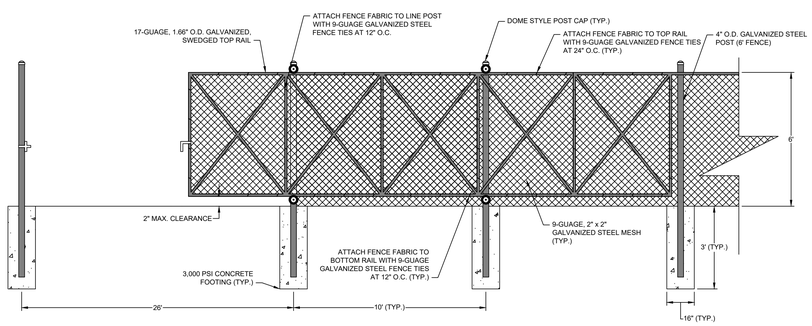


NOTES:
1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN ON PLANS OR DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS WHERE SHOWN ON PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING RAMPS OR MARKINGS, CONTACT AND LOCATE AS DIRECTED BY ENGINEER.
3. COORDINATE THE CURB RAMP AND CROSSWALK MARKING SO A 4' X 4' CLEAR SPACE AT THE BASE OF THE RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SETBACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. CONSTRCT THE RUNNING SLOPE OF THE RAMP 12:1 (8.33%) MAXIMUM SLOPE.
6. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
7. CONSTUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10:1 (10%) MEASURED ALONG THE CURB LINE.
8. CONSTRUCT THE COUNTER SLOPE OF THE CUTTER OR STREET AT THE BASE OF THE RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
9. CONSTRUCT LANDINGS FOR SIDEWALK A MINIMUM OF 4' X 4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
10. CONSTRUCT WHEELCHAIR RAMPS 40" (3'-4") OR GREATER FOR DUAL RAMPS.
11. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AND AS SHOWN ON NCDOT 848.01.

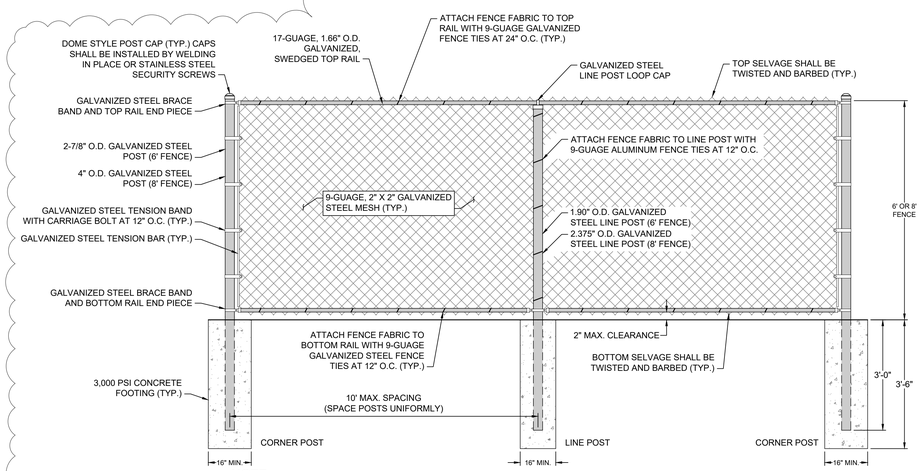
ADA CURB RAMP DETAIL
NO SCALE



CHAIN LINK FENCE - SINGLE GATE DETAIL
NO SCALE



26' CANTILEVER GATE
NO SCALE



NOTE:
1. ALL POSTS, RAILS, AND GATE FRAMES SCHEDULE 40 MINIMUM

CHAIN LINK FENCE DETAIL
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5	RE BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
SITE DETAILS

Drawing Number:
C5.0

BID SET

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes			
	Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b)	High Quality Water (HQW) Zones	7	None
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

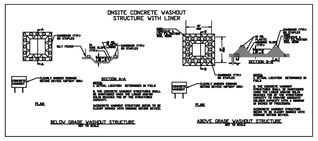
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NORTH CAROLINA *Environmental Quality*

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indications of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after Initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

PART III, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

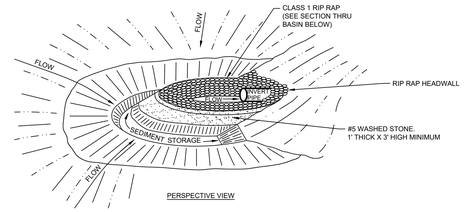
Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

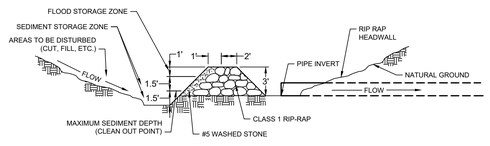
NORTH CAROLINA *Environmental Quality*

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



PERSPECTIVE VIEW



HORSESHOE INLET PROTECTION

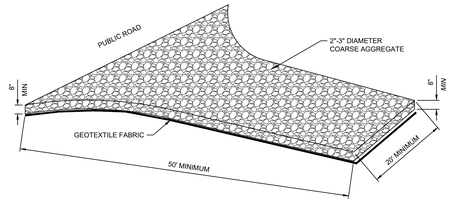
NO SCALE

CONSTRUCTION SPECIFICATIONS:

1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL, AND PROPERLY GRADE IT.
2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLAN.
3. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

MAINTENANCE

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH TWO-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

NO SCALE

CONSTRUCTION SEQUENCING

1. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE PADS. (SEE DETAIL)
2. INSTALL EROSION CONTROL DEVICES AT SITE DISCHARGE POINTS AND ALL SILT FENCE TO PREVENT OFF SITE SEDIMENTATION.
3. PERFORM CLEARING DEMOLITION WORK AND INSTALL SKIMMER BASIN.
4. PERFORM GRADING AND INSTALL STORM DRAINAGE.
5. INSTALL THE REMAINING SEDIMENT AND EROSION CONTROL PROTECTION.
6. INSTALL THE STONE BASE AND ASPHALT FOR THE PROPOSED PARKING.
7. PROVIDE GROUNDCOVER IN ACCORDANCE WITH DETAIL MARKED 'EROSION CONTROL MEASURES', THIS SHEET.
8. MONITOR AND MAINTAIN THE INSTALLED EROSION CONTROL MEASURES AND REPAIR AS NECESSARY.
9. ONCE SITE IS SUBSTANTIALLY STABILIZED, REMOVE SKIMMER BASIN COMPONENTS AND GRADE SKIMMER BASIN AREA ACCORDING TO FINISHED GRADES AND IMMEDIATELY SEED AND MULCH.
10. ONCE THE SKIMMER BASIN AREA IS VEGETATED AND THE REMAINDER OF THE SITE IS FULLY STABILIZED, REMOVE ANY REMAINING EROSION CONTROL DEVICES.

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS OF THE DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PROVIDED ON ALL AREAS OF THE SITE WHICH ALL DISTURBED OR GRADED.

PROVIDE A GROUNDCOVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY FOR SLOPES 3:1 OR FLATTER AND LESS THAN 50' IN LENGTH, FOR SLOPES 4:1 OR FLATTER OF ANY LENGTH (EXCEPT FOR PERIMETERS AND HQW ZONES), AND SLOPES NO STEEPER THAN 2:1 AND LESS THAN 10' IN LENGTH.

PROVIDE GROUNDCOVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES WITHIN 7 CALENDAR DAYS FOR SLOPES STEEPER THAN 3:1 OR SLOPES 3:1 OR FLATTER GREATER THAN 50' IN LENGTH, FOR HIGH QUALITY WATER (HWQ) ZONES, AND PERIMETER DIKES, SWALES, DITCHES AND SLOPES.

PROVIDE GROUNDCOVER (TEMPORARY OR PERMANENT) ON ALL EXPOSED SLOPES WITH IN 21 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING; AND, A PERMANENT GROUNDCOVER FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

THE CONTROL MEASURES SHALL BEGIN PRIOR TO ANY LAND DISTURBING ACTIVITY INCLUDING CLEARING; SHALL CONTINUE DURING CONSTRUCTION AND SHALL CONTINUE WITH THE NECESSARY MAINTENANCE UNTIL THE DISTURBED LAND IS STABILIZED. COMPLIANCE WITH LOCAL AND/OR STATE SOIL EROSION AND SEDIMENTATION CONTROL LAWS SHALL BE THE ENTIRE RESPONSIBILITY OF THE CONTRACTOR. THIS PARAGRAPH IS INTENDED TO SERVE ONLY AS A GUIDE TO THE CONTRACTOR FOR COMPLIANCE WITH SUCH LAWS. ORDERS, RULES AND REGULATIONS CONCERNING EROSION AND SEDIMENTATION CONTROL PROTECTION OF EXISTING STRUCTURES AND FACILITIES FROM SEDIMENTATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ITEMS TO BE PROTECTED SHALL INCLUDE, BUT ARE NOT LIMITED TO, CATCH BASINS, NATURAL WATERWAYS, DRAINAGE DITCHES, WALKS, DRIVES, ROADS, LAWNS, AND STREAMS.

EROSION CONTROL MEASURES

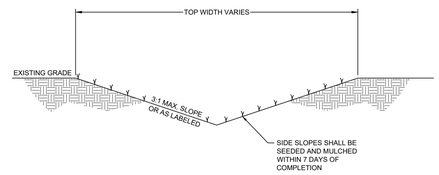
NO SCALE

PERMANENT SEEDING SCHEDULE FOR COASTAL PLAIN

DATE	TYPE	BROADCAST SEEDING RATES
SEP 1 - MAR 31	COMMON BERMUDA 'SAHARA' (UNHULLED) REBEL II FESCUE	130 LBS/ACRE 175 LBS/ACRE
APR 1 - AUG 31	COMMON BERMUDA 'SAHARA' (HULLED) REBEL II FESCUE	90 LBS/ACRE 175 LBS/ACRE
AUG 15 - APR 30	PERENNIAL RYE (AS A NURSE PLANT)	40 LBS/ACRE IN ADDITION TO OTHER SEED TYPES

TEMPORARY SEEDING SCHEDULE

DATE	TYPE	PLANTING RATES
APR 15 - AUG 15	GERMAN MILLET	40 LBS/ACRE
AUG 15 - APR 15	RYE GRAIN	120 LBS/ACRE



TYPICAL DITCH/SWALE

NO SCALE

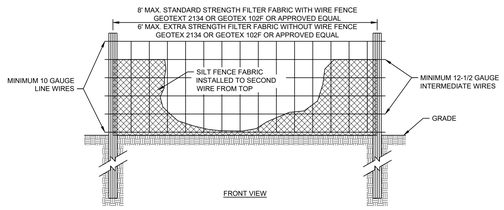
SEEDBED PREPARATION

CONSTRUCTION SPECIFICATIONS

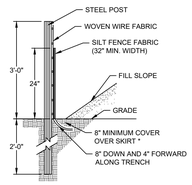
1. PREPARE SOIL AS NECESSARY TO ESTABLISH AN ADEQUATE SEEDBED FOR RECEIVING SEED USING TILLAGE AND/OR REMOVAL OF DEBRIS (ROCKS, ROOTS, OBSTRUCTIONS). CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. SOIL SHALL RECEIVE LIME, FERTILIZER,AND/OR SUPERPHOSPHATE UNIFORMLY AS NEEDED PER RECOMMENDATIONS FROM NORTH CAROLINA DEPARTMENT OF AGRICULTURE OR OTHER COMMERCIAL LABORATORY.
3. SEED ON A FRESHLY PREPARED SEEDBED AND ENSURE SEED IS LIGHTLY COVERED FOLLOWING INSTALLATION.
4. MULCH IMMEDIATELY AFTER SEEDING.
5. CONTRACTOR SHALL SEED ALL AREAS THAT ARE DISTURBED WITHIN TWO DAYS. INSPECT ALL SEEDED AREAS AND MAKE SURE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETE, AN INSPECTION WILL BE COMPLETED TO DETERMINE IF ADDITIONAL SEEDING WILL BE REQUIRED.

*APPLY:
FERTILIZER, LIME, AND MULCH SHALL BE APPLIED AT RATES RECOMMENDED BY NCDA (OR OTHERS). OTHERWISE, APPLY AS DESCRIBED BELOW.

AGRICULTURAL LIMESTONE - 1-1.5 TONS/ACRE ON COURSE TEXTURED SOILS AND 2-3 TONS/ACRE IN FINE-TEXTURED SOILS.
SOILS WITH PH OF 6 OR HIGHER NEED NOT BE LIMED.
FERTILIZER - 700/1000 LBS/ACRE (10-10-10)
MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)
ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE



FRONT VIEW



SIDE VIEW

CONSTRUCTION SPECIFICATIONS

1. USE SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461.
2. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0-120 DEGREES F.
3. ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LB/LF STEEL WITH A MINIMUM LENGTH OF 5'. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
4. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

MAINTENANCE

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SILT FENCE

NO SCALE

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Consultants:
Civil:
Timmons Group
1805 West City Drive, Unit E
Elizabeth City, NC 27909
License No. C-1652
Contact: Kim Hamby, PE

MEP:
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8081 Arco Corporate Drive, Suite 300
Raleigh, NC 27317
919.941.9876

Structural Engineer
SCHRADER GROUP
153 East King Street, Suite 211-212
Lancaster, PA 17602
717.299.8965

Professional Seal:

NORTH CAROLINA PROFESSIONAL SEAL 042614 ENGINEER KIMBERLY D. HAMBY
Kimberly D. Hamby
5-27-26

Owner:
BERTIE COUNTY
Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
1	PERMIT SET	01/26/2026
2	BID SET	03/16/2026
3	BID SET REVISION	04/06/2026
4	RE-BID SET	05/27/2026

DATE: 05/27/2026

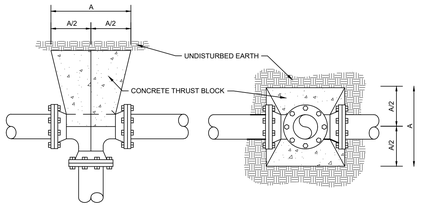
SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
EROSION & SEDIMENT CONTROL DETAILS

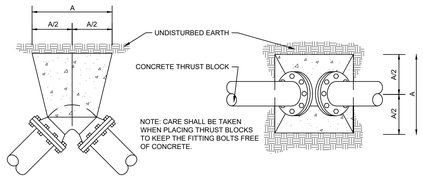
Drawing Number:
C5.1

BID SET



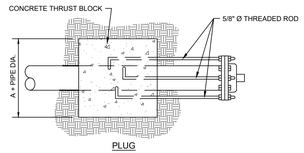
TEE - PLAN VIEW

TEE - ELEVATION VIEW



BEND - PLAN VIEW

BEND - ELEVATION VIEW



PLUG

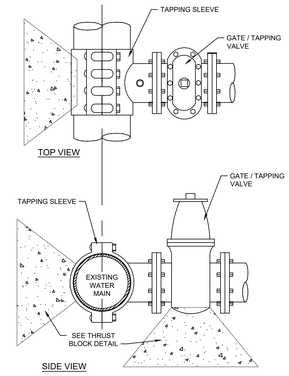
NOTE: GRIP RINGS MAY BE USED ON PIPE UP TO 12" IN DIAMETER IN LIEU OF BLOCKING IN SOME LOCATIONS. USE OF GRIP RINGS SHALL BE PRIOR APPROVED BY THE WATER SYSTEM. PIPE 14" AND LARGER SHALL UTILIZE RETAINER GLANDS AND SHALL INSTALL CONCRETE THRUST BLOCKING PER THIS DETAIL.

SIZE	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND	TEE	PLUG
2	10	10	12	18	18	16
4	12	12	16	22	22	18
6	18	18	24	34	34	28
8	24	24	34	46	46	40
10	30	30	42	56	56	46
12	36	36	52	70	70	60
14	42	42	60	80	80	66
16	48	48	66	90	90	74
18	54	54	74	102	102	84
20	60	60	82	112	112	90
24	66	66	92	132	132	108

THRUST BLOCKS - DIMENSION "A" (INCHES)

CONCRETE THRUST BLOCKING

NO SCALE

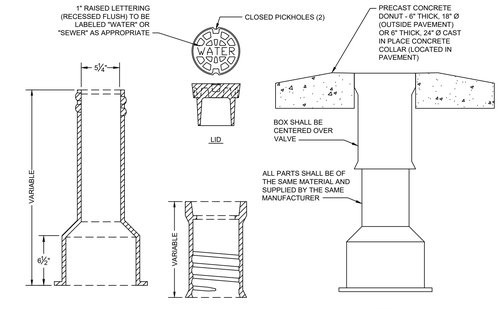


NOTES:

1. TAPPING SLEEVE AND VALVE TO BE OF TYPE AND MANUFACTURE APPROVED BY THE WATER SYSTEM.
2. THRUST BLOCKING SHALL BE IN PLACE PRIOR TO CONDUCTION TAP. CONCRETE SHALL NOT COME IN CONTACT WITH BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
3. TAP SHALL BE PERFORMED IN THE PRESENCE OF A REPRESENTATIVE OF THE WATER SYSTEM AND THE ENGINEER.
4. ALL COUPONS SHALL BE DELIVERED TO THE OWNER.
5. TAPPING SLEEVE AIR TEST SHALL BE PERFORMED AT 100 PSI FOR 15 MINUTES.

TAPPING SLEEVE AND VALVE ASSEMBLY

NO SCALE

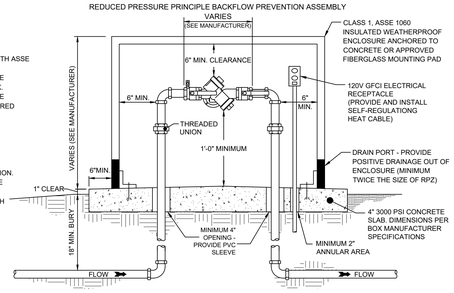


VALVE BOX

NO SCALE

NOTES:

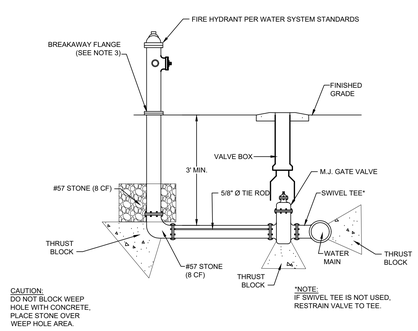
1) REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2) BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED WITHIN 5-FT OF THE METER BOX.
4) BACKFLOW PREVENTION ASSEMBLY SHALL BE CENTERED ON CONCRETE PAD AND CENTERED WITHIN ENCLOSURE.
5) MINIMUM INSULATED CLASS I, ASSE 1060 WEATHERPROOF HEATED ENCLOSURE REQUIRED.
6) 120V GFCI ELECTRICAL RECEPTACLE TO BE INSTALLED IN ACCORDANCE WITH THE N.C. ELECTRICAL CODE FOR OUTDOOR OPERATION.
7) PIPE MATERIAL WITHIN ENCLOSURE SHALL BE BRASS (ASTM B43).
8) INSTALLATION SHALL BE IN COMPLIANCE WITH THE N.C. PLUMBING CODE.



1" RPZ BACKFLOW PREVENTER

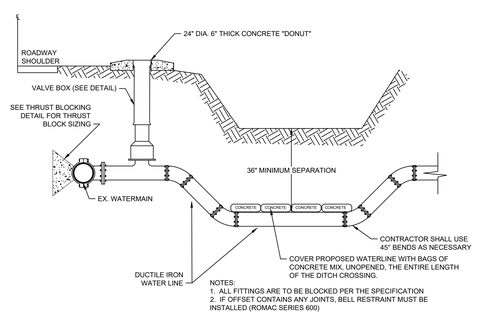
NO SCALE

1. ALL JOINTS FROM HYDRANT TEE TO HYDRANT ARE RESTRAINED WITH APPROVED JOINT RESTRAINT DEVICE.
2. THE CONNECTOR PIPE SHALL BE DUCTILE IRON AWWA C153-ANSO A21.53
3. HYDRANT BREAKAWAY FLANGE SHOULD BE LOCATED NO MORE THAN 6" ABOVE FINISHED GRADE AND NOT BELOW FINISHED GRADE.
4. HYDRANT SHALL BE EQUIPPED WITH 5" HYDRA-SHIELD, HYDRA-STORZ QUICK CONNECT SYSTEM.



TYPICAL FIRE HYDRANT DETAIL

NO SCALE



NOTES:
1. ALL FITTINGS ARE TO BE BLOCKED PER THE SPECIFICATION
2. IF OFFSET CONTAINS ANY JOINTS, BELL RESTRAINT MUST BE INSTALLED (ROMAC SERIES 600)

DITCH CROSSNG DETAIL

NO SCALE

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153 East King Street, Suite 211-212
Lancaster, PA 17602
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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

216 County Farm Road, Windsor, NC
27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
1	PERMIT SET	01/26/2026
2	BID SET	03/16/2026
3	BID SET REVISION	04/06/2026
4	RE-BID SET	05/27/2026

DATE: 05/27/2026

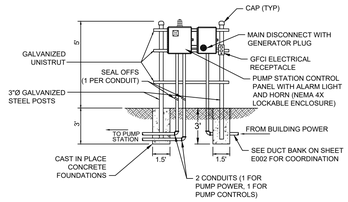
SG PROJECT NUMBER: 24-011

Key Plan:

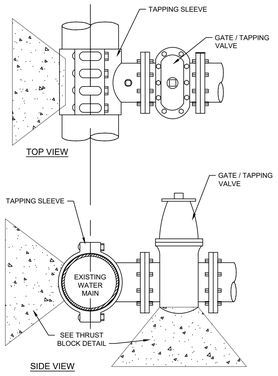
Drawing Title:
UTILITY DETAILS

Drawing Number:
C5.2

BID SET



PUMP STATION CONTROL STRUCTURE
NO SCALE



NOTES:

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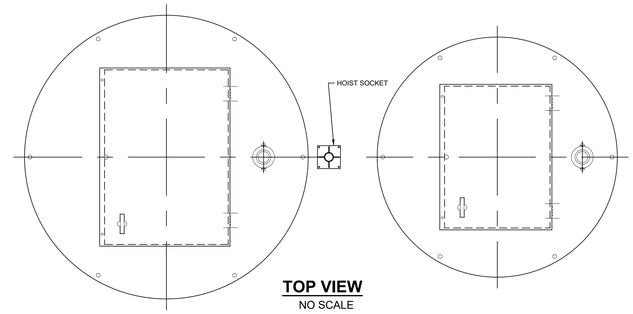
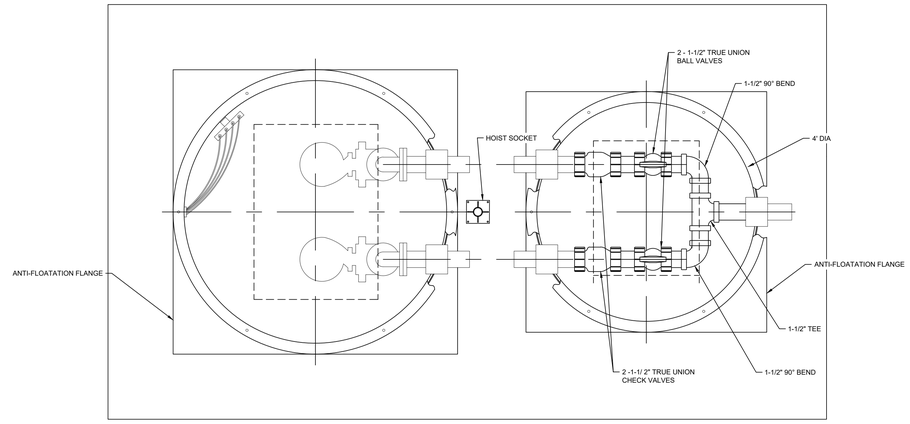
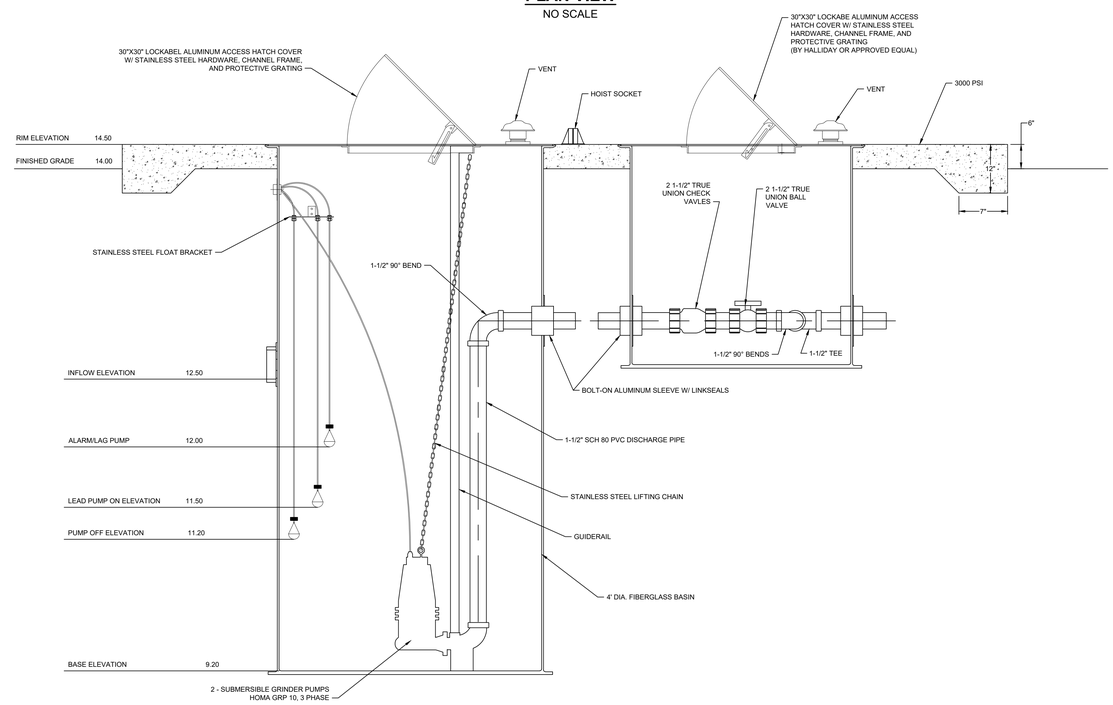


TOP VIEW
NO SCALE



PLAN VIEW
NO SCALE



SECTION VIEW
NO SCALE

PUMP STATION DETAIL

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Key Plan:

Drawing Title:
UTILITY DETAILS

Drawing Number:
C5.3

BID SET

CODE COMPLIANCE: 2018 NORTH CAROLINA BUILDING CODE
2018 NORTH CAROLINA STATE BUILDING CODE
2018 NORTH CAROLINA PLUMBING CODE
2018 NORTH CAROLINA STATE MECHANICAL CODE
2018 NORTH CAROLINA STATE ELECTRIC CODE
2018 NORTH CAROLINA STATE FIRE PREVENTION CODE
2018 NORTH CAROLINA STATE ENERGY CONSERVATION CODE
2012 ADA STANDARDS FOR ACCESSIBLE DESIGN
ASCE 7-10

BUILDING CONSTRUCTION DATA (CHAPTER 5 OF IBC 2018)

AREA	GROUP	CONSTRUCTION TYPE	BUILDING AREA	ALLOWABLE AREA	MAXIMUM HEIGHT	ALLOWABLE HEIGHT
FIRE AREA 1 (1ST FLOOR - HARDENED)	BUSINESS - 'B'	* IIB - ANY NONCOMBUSTIBLE MATERIAL PERMITTED BY CODE	2,056 SF	23,000 SF	21'-5"	55 FEET, 3 STORIES
FIRE AREA 1 (1ST FLOOR)	BUSINESS - 'B'	* IIB - ANY NONCOMBUSTIBLE MATERIAL PERMITTED BY CODE	3,782 SF	23,000 SF	21'-5"	55 FEET, 3 STORIES
BUILDING TOTAL			5,838 SF			

OCCUPANCY CALCULATIONS (CHAPTER 10 OF IBC 2018)

NET OCCUPANT CALCULATIONS:

1 QUIET ROOMS (175 SF)	X	(50 OCCUPANT LOAD FACTOR)	=	4
1 MOTHERS ROOM (175 SF)	X	(50 OCCUPANT LOAD FACTOR)	=	4
1 COMMUNICATION WORKSTATIONS (1015 SF)	X	(15 OCCUPANT LOAD FACTOR)	=	68
			=	76 CALCULATED OCCUPANTS

GROSS OCCUPANT CALCULATIONS:

1 ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM (905 SF)	X	(300 OCCUPANT LOAD FACTOR)	=	4 OCCUPANTS
BUSINESS AREA (2,430 SF)	X	(150 OCCUPANT LOAD FACTOR)	=	17 OCCUPANTS
			=	21 OCCUPANTS

2018 NORTH CAROLINA PLUMBING CODE (TABLE 403.1 MINIMUM NUMBER OF PLUMBING FIXTURES)

TOTAL NUMBER OF FIXTURES REQUIRED:

OCCUPANCY: 97 OCCUPANTS

WATER CLOSETS - 1/25 FOR THE FIRST 50 AND 1/50 FOR THE REMAINDER EXCEEDING 50 = 3

LAVATORIES - 1/40 FOR THE FIRST 80 AND 1/80 FOR THE REMAINDER EXCEEDING 80 = 2
DRINKING FOUNTAINS = 1/100 = 1
SERVICE SINKS = 1 REQUIRED

TOTAL NUMBER OF FIXTURES PROVIDED:

WATER CLOSETS
UNISEX = 3 WATER CLOSETS
LAVATORIES = 3
DRINKING FOUNTAINS = 2
SERVICE SINKS = 1

NORTH CAROLINA STATE BUILDING CODE, 2018

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

SECTION 302: CLASSIFICATION
BUSINESS: GROUP B

SECTION 304: GROUP B
SECTION 304.1: GROUP B
BUSINESS GROUP B OCCUPANCY INCLUDES, AMONG OTHERS, THE USE OF A BUILDING OR STRUCTURE, OR A PORTION THEREOF, FOR OFFICE, PROFESSIONAL OR SERVICE-TYPE TRANSACTIONS, INCLUDING STORAGE OF RECORDS AND ACCOUNTS. BUSINESS OCCUPANCIES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWIONG: CIVIC ADMINISTRATION

CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS

SECTION 503: GENERAL BUILDING HEIGHT AND AREA LIMITATIONS
SECTION 503.1
THE BUILDING HEIGHT AND AREA SHALL NOT EXCEED THE LIMITS SPECIFIED IN TABLE 503 BASED ON THE TYPE OF CONSTRUCTION AS DETERMINED BY SECTION 602 AND THE OCCUPANCIES AS DETERMINED BY SECTION 302 EXCEPT AS MODIFIED HEREAFTER. EACH PORTION OF A BUILDING SEPARATED BY ONE OR MORE FIRE WALLS COMPLYING WITH SECTION 706 SHALL BE CONSIDERED A SEPARATE BUILDING.

SECTION 509: INCIDENTAL USES
SECTION 509.1: GENERAL
THE INCIDENTAL USES LOCATED WITHIN SINGLE OCCUPANCY OR MIXED OCCUPANCY BUILDING SHALL COMPLY WITH THE PROVISIONS OF THIS SECTION. INCIDENTAL USES ARE ANCILLARY FUNCTIONS ASSOCIATED WITH A GIVEN OCCUPANCY THAT GENERALLY POSE A GREATER LEVEL OF RISK TO THAT OCCUPANCY AND ARE LIMITED TO THOSE USED LISTED IN TABLE 509.
- FURNACE ROOM WHERE ANY PIECE OF EQUIPMENT IS OVER 400,000 BTU PER HOUR INPUT; PROVIDE 1 HOUR SEPARATION OR AUTOMATIC FIRE-EXTINGUISHING SYSTEM.
- ROOMS WITH BOILERS WHERE THE LARGEST PIECE OF EQUIPMENT IS OVER 15 PSI AND 10 HORSEPOWER; PROVIDE 1 HOUR SEPARATION OR AUTOMATIC FIRE EXTINGUISHING SYSTEM.
- IN GROUP E OCCUPANCIES, LABORATORIES, AND VOCATIONAL SHOPS NOT CLASSIFIED AS GROUP H; SEPARATION AND/OR PROTECTION 1 HOUR OR AUTOMATIC SPRINKLER SYSTEM

CHAPTER 6: TYPES OF CONSTRUCTION

TABLE 601: FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

CONSTRUCTION TYPE IIB (NEW BUILDING ADDITION)
STRUCTURAL FRAME (COLUMNS, GIRDERS, TRUSSES): 0
BEARING WALLS (INTERIOR, EXTERIOR): 0
NON-BEARING WALLS (INTERIOR, EXTERIOR): 0
FLOOR CONSTRUCTION (INCLUDING BEAMS & JOISTS): 0
ROOF CONSTRUCTION (INCLUDING BEAMS & JOISTS): 0-

TABLE 602: FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
FIRE SEPARATION DISTANCE LESS THAN 5 FEET, TYPE IIB CONSTRUCTION; 1 HOUR FIRE SEPARATION

SECTION 602.2: TYPES I AND II
TYPES I AND II CONSTRUCTION ARE THOSE TYPES OF CONSTRUCTION IN WHICH BUILDING ELEMENTS LISTED IN TABLE 601 ARE OF NONCOMBUSTIBLE MATERIALS, EXCEPT AS PERMITTED IN 603 AND ELSEWHERE IN THIS CODE.

SECTION 603: COMBUSTIBLE MATERIAL IN TYPE I AND II CONSTRUCTION
SECTION 603.1: ALLOWABLE MATERIALS
COMBUSTIBLE MATERIALS SHALL BE PERMITTED IN BUILDINGS TYPE I OR II CONSTRUCTION IN THE FOLLOWING APPLICATIONS AND IN ACCRODANCE WITH SECTIONS 603.1.1 THROUGH 603.1.3.

CHAPTER 7: FIRE AND SMOKE PROTECTION FEATURES

FIRE BARRIER. A FIRE-RESISTANCE-RATED WALL ASSEMBLY OF MATERIALS DESIGNED TO RESTRICT THE SPREAD OF FIRE IN WHICH CONTINUITY IS MAINTAINED.
FIRE SEPARATION DISTANCE. THE DISTANCE MEASURED FROM THE BUILDING FACE TO ONE OF THE FOLLOWING:
- THE CLOSEST INTERIOR LOT LINE;
- TO THE CENTERLINE OF THE STREET, AN ALLEY OR PUBLIC WAY; OR
- TO AN IMAGINARY LINE BETWEEN TWO BUILDINGS ON THE PROPERTY.

THE DISTANCE SHALL BE MEASURED AT RIGHT ANGLES FROM FACE TO FACE OF THE WALL.

FIRE WALL. A FIRE-RESISTANCE-RATED WALL HAVING PROTECTED OPENINGS, WHICH RESTRICTS THE SPREAD OF FIRE AND EXTENDS CONTINUOUSLY FROM THE FOUNDATION TO OR THROUGH THE ROOF, WITH SUFFICIENT STRUCTURAL STABILITY UNDER FIRE CONDITIONS TO ALLOW COLLAPSE OF CONSTRUCTION ON EITHER SIDE WITHOUT COLLAPSE OF THE WALL.

SECTION 705: EXTERIOR WALLS
SECTION 705.5: FIRE-RESISTANCE RATINGS
EXTERIOR WALLS SHALL BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH TABLES 601 AND 602 AND THIS SECTION. THE REQUIRED FIRE-RESISTANCE RATING OF EXTERIOR WALLS WITH A FIRE SEPARATION DISTANCE OF GREATER THAN 10 FEET SHALL BE RATED FOR EXPOSURE TO THE FIRE FROM INSIDE. THE REQUIRED FIRE-RESISTANCE RATING OF EXTERIOR WALLS WITH A FIRE SEPARATION DISTANCE OF LESS THAN OR EQUAL TO 10 FEET SHALL BE RATED FOR EXPOSURE TO FIRE FROM BOTH SIDES.
SECTION 705.8.1: ALLOWABLE AREA OF OPENINGS
THE MAXIMUM AREA OF UNPROTECTED AND PROTECTED OPENINGS PERMITTED IN AN EXTERIOR WALL IN ANY STORY OF A BUILDING SHALL NOT EXCEED THE PERCENTAGES IN TABLE 705.8.

TABLE 705.8: MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION
-FIRE SEPARATION DISTANCE 5 TO LESS THAN 10 FEET; UNPROTECTED, SPRINKLERED; 25%
-FIRE SEPARATION DISTANCE 10 TO LESS THAN 15 FEET; UNPROTECTED, SPRINKLERED; 45%
-FIRE SEPARATION DISTANCE 15 TO LESS THAN 20 FEET; UNPROTECTED, SPRINKLERED; 75%
-FIRE SEPARATION DISTANCE 20 TO LESS THAN 25 FEET; UNPROTECTED, SPRINKLERED; NO LIMIT
-FIRE SEPARATION DISTANCE 25 TO LESS THAN 30 FEET; UNPROTECTED, SPRINKLERED; NO LIMIT
-FIRE SEPARATION DISTANCE 30 FEET OR GREATER; UNPROTECTED, SPRINKLERED; NOT REQUIRED

SECTION 705.8.2: PROTECTED OPENINGS
EXCEPTION: OPENING PROTECTIVES ARE NOT REQUIRED WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 AND THE EXTERIOR OPENINGS ARE PROTECTED BY A WATER CURTAIN USING AUTOMATIC SPRINKLERS APPROVED FOR THAT USE.

SECTION 706: FIRE WALLS
TABLE 706.4: FIRE WALL FIRE-RESISTANCE RATINGS
USE GROUP E - FIRE WALL FIRE-RESISTANCE RATING / 3 HOURS
IN TYPE II OR V CONSTRUCTION, WALLS SHALL BE PERMITTED TO HAVE A 2-HOUR FIRE-RESISTANCE RATING.
SECTION 706.5.1: EXTERIOR WALLS
WHERE THE FIRE WALL INTERSECTS EXTERIOR WALLS, THE FIRE RESISTANCE RATING AND OPENING PROTECTION OF THE EXTERIOR WALLS SHALL COMPLY WITH ONE OF THE FOLLOWING:
1. EXTERIOR WALL INTERSECTIONS AT FIRE WALLS THAT FORM AN ANGLE EQUAL TO OR GREATER THAN 180 DEGREES DO NOT NEED EXTERIOR WALL PROTECTION.
SECTION 706.6: VERTICAL CONTINUITY
FIRE WALLS SHALL EXTEND FROM THE FOUNDATION TO A TERMINATION POINT AT LEAST 30 INCHES ABOVE BOTH ADJACENT ROOFS.
EXCEPTION 2: TWO-HOUR FIRE-RESISTANCE-RATED WALLS SHALL BE PERMITTED TO TERMINATE AT THE UNDERSIDE OF THE ROOF SHEATHING, DECK OR SLAB, PROVIDED:
2.1: THE LOWER ROOF ASSEMBLY WITHIN 4 FEET OF THE WALL HAS NOT LESS THAN A 1-HOUR FIRE-RESISTANCE RATING AND THE ENTIRE LENGTH AND SPAN OF SUPPORTING ELEMENTS FOR THE RATED ROOF ASSEMBLY HAS A FIRE-RESISTANCE RATING OF NOT LESS THAN 1 HOUR.
2.2: OPENINGS IN THE ROOF SHALL NOT BE LOCATED WITHIN 4 FEET OF THE FIRE WALL.
2.3 EACH BUILDING SHALL BE PROVIDED WITH NOT LESS THAN A CLASS B ROOF COVERING.

SECTION 707: FIRE BARRIERS
SECTION 707.3.9: FIRE AREAS
THE FIRE BARRIERS OR HORIZONTAL ASSEMBLIES, OR BOTH, SEPARATING A SINGLE OCCUPANCY INTO DIFFERENT FIRE AREAS SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN THAT INDICATED IN TABLE 709.3.9. THE FIRE BARRIERS OR HORIZONTAL ASSEMBLIES, OR BOTH, SEPARATING FIRE AREAS OF MIXED OCCUPANCIES SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN THE HIGHEST VALUE INDICATED IN TABLE 707.3.9 FOR THE OCCUPANCIES UNDER CONSIDERATION.

TABLE 707.3.9: FIRE-RESISTANCE RATING REQUIREMENTS FOR FIRE BARRIER ASSEMBLIES OR HORIZONTAL ASSEMBLIES BETWEEN FIRE AREAS
USE GROUP E - FIRE BARRIER FIRE-RESISTANCE RATING / 2 HOURS
SECTION 707.4 EXTERIOR WALLS:
WHERE EXTERIOR WALLS SERVE AS A PART OF A REQUIRED FIRE-RESISTANCE-RATED SHAFT OR EXIT ENCLOSURE, OR SEPARATION, SUCH WALLS SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 705 FOR EXTERIOR WALLS AND THE FIRE-RESISTANCE-RATED ENCLOSURES OR SEPARATION SHALL NOT APPLY.
SECTION 707.5.1: SUPPORTING CONSTRUCTION
EXCEPTION 3: SUPPORTING CONSTRUCTION FOR 1-HOUR FIRE BARRIERS REQUIRED BY TABLE 508.2.5 IN BUILDINGS TYPE IIB, IIIB AND VB CONSTRUCTION IS NOT REQUIRED TO BE FIRE RESISTANCE RATED UNLESS OTHER SECTIONS OF THIS CODE.
SECTION 707.6: OPENINGS
OPENINGS IN A FIRE BARRIER SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 715. OPENINGS SHALL BE LIMITED TO A MAXIMUM AGGREGATE WIDTH OF 25 PERCENT OF THE LENGTH OF THE WALL, AND THE MAXIMUM AREA OF ANY SINGLE OPENING SHALL NOT EXCEED 156 SQUARE FEET (15 M2). OPENINGS IN EXIT ENCLOSURES AND EXIT PASSAGEWAYS SHALL ALSO COMPLY WITH SECTIONS 1022.3 AND EXIT 1023.5, RESPECTIVELY.
EXCEPTION 1: OPENINGS SHALL NOT BE LIMITED TO 156 SQUARE FEET WHERE ADJOINING FLOOR AREAS ARE EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1.

SECTION 709: FIRE PARTITIONS
SECTION 709.3: FIRE-RESISTANCE RATING
FIRE PARTITIONS SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 1 HOUR.
TABLE 1018.1: CORRIDOR FIRE-RESISTANCE RATING - USE GROUP E; W/SPRINKLER / 0 HOURS

SECTION 713: PENETRATIONS
SECTION 713.3.1: THROUGH PENETRATIONS
EXCEPTION: WHERE THE PENETRATING ITEMS ARE STEEL, FERROUS OR COPPER PIPES, TUBES OR CONDUITS, THE ANNULAR SPACE BETWEEN THE PENETRATING ITEM AND THE FIRE RESISTANCE-RATED WALL IS PERMITTED TO BE PROTECTED AS FOLLOWS:
2. THE MATERIAL USED TO FILL THE ANNULAR SPACE SHALL PREVENT THE PASSAGE OF FLAME AND HOT GASES SUFFICIENT TO IGNITE COTTON WASTE WHEN SUBJECTED TO ASTM E 119 OR UL23 TIME-TEMPERATURE FIRE CONDITIONS UNDER A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 IN OF WATER AT THE LOCATIONS OF THE PENETRATION FOR THE TIME PERIOD EQUIVALENT TO THE FIRE-RESISTANCE RATING OF THE CONSTRUCTION PENETRATED.

SECTION 715: OPENING PROTECTIVES
SECTION 715.2: FIRE-RESISTANCE-RATED GLAZING
FIRE-RESISTANCE-RATED GLAZING TESTED AS PART OF A FIRE-RESISTANCE-RATED WALL ASSEMBLY IN ACCORDANCE WITH ASTM E 119 OR UL 263, AND LABELED IN ACCORDANCE WITH SECTION 703.5 SHALL BE PERMITTED IN FIRE DOORS AND FIRE WINDOW ASSEMBLIES IN ACCORDANCE WITH THEIR LISTINGS AND SHALL NOT OTHERWISE BE REQUIRED TO COMPLY WITH THIS SECTION.
SECTION 715.4: FIRE DOOR AND SHUTTER ASSEMBLIES
-FIRE WALL AND FIRE BARRIERS: 2 HOUR / 1-1/2 HOUR

CHAPTER 8: INTERIOR FINISHES

SECTION 803: WALL AND CEILING FINISHES
SECTION 803.1.1: INTERIOR WALL AND CEILING FINISH MATERIALS
- CLASS A: FLAME SPREAD 0-25; SMOKE-DEVELOPED INDEX 0-450
- CLASS B: FLAME SPREAD 26-75; SMOKE-DEVELOPED INDEX 0-450
- CLASS C: FLAME SPREAD 76-200; SMOKE-DEVELOPED INDEX 0-450

TABLE 803.9: INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY GROUP B / SPRINKLERED
- EXIT ENCLOSURES AND EXIT PASSAGEWAYS B
- CORRIDORS C
- ROOMS AND ENCLOSED SPACES C

SECTION 804: INTERIOR FLOOR FINISH
SECTION 804.4.1: MINIMUM CRITICAL RADIANT FLUX
INTERIOR FLOOR FINISH AND FLOOR COVERING MATERIALS IN EXIT ENCLOSURES, EXT PASSAGEWAYS AND CORRIDORS SHALL NOT BE LESS THAN CLASS I IN GROUPS I-1, I-2 AND I 3 AND NOT LESS THAN CLASS II IN GROUPS A,B,E,H,I-4,M,R-1,R-2 AND S. IN ALL AREAS, FLOOR COVERING MATERIALS SHALL COMPLY WITH THE DOC FF-1 "PILL TEST" (CPSC 16 CFR, PART 1630).
EXCEPTION: WHERE A BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2, CLASS II MATERIALS ARE PERMITTED IN ANY AREA WHERE CLASS I MATERIALS ARE REQUIRED AND MATERIALS COMPLYING WITH DOC FF-1 "PILL TEST" (CPSC 16 CFR, PART 1630) ARE PERMITTED IN ANY AREA CLASS II MATERIALS ARE REQUIRED.

SECTION 805: COMBUSTIBLE MATERIALS IN TYPES I AND II CONSTRUCTION
SECTION 805.1: APPLICATION
COMBUSTIBLE MATERIALS INSTALLED ON OR EMBEDDED IN FLOORS OF BUILDINGS OF TYPE I OR II CONSTRUCTIONS SHALL COMPLY WITH SECTIONS 805.1.1 THROUGH 805.1.3.

CHAPTER 9: FIRE PROTECTION SYSTEMS

SECTION 903: AUTOMATIC SPRINKLER SYSTEMS
NOTE: THERE IS NO REQUIREMENT FOR AUTOMATIC SPRINKLER SYSTEMS IN GROUP B OCCUPANCIES LISTED IN SECTION 903.

PER SECTION 903.2, THERE ARE NO LISTED REQUIREMENTS FOR AUTOMATIC SPRINKLER SYSTEMS THAT THIS BUILDING WOULD MEET.
1. SECTION 903.2.11 - SPECIFIC BUILDING AREAS AND HAZARDS
A. THERE ARE NO LISTED REQUIREMENTS IN SECTION 903.2.11 THAT ARE MET IN THIS BUILDING.

SECTION 906: PORTABLE FIRE EXTINGUISHERS
SECTION 906.1: WHERE REQUIRED
1. IN NEW AND EXISTING GROUP A,B,E,F,H,I,M,R-1,R-2,R-4 AND S OCCUPANCIES.
EXCEPTION: IN NEW AND EXISTING GROUP A,B AND E OCCUPANCIES EQUIPPED THROUGHOUT WITH QUICK RESPONCE SPRINKLERS, PORTABLE FIRE EXTINGUISHERS SHALL BE REQUIRED ONLY IN LOCATIONS SPECIFIED IN ITEMS2 THROUGH 6.
2. WITHIN 30 FEET OF COMMERCIAL COOKING EQUIPMENT.
TABLE 906.3 FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS: LIGHT (LOW) HAZARD OCCUPANCY
- MINIMUM RATED EXTINGUISHER 2-A
- MAX FLOOR AREA FOR EXTINGUISHER 11,250 SQUARE FEET
- MAXIMUM TRAVEL DISTANCE 75 FEET

SECTION 907: FIRE ALARM AND DETECTION SYSTEMS
SECTION 907.2.3: GROUP B
A MANUAL FIRE ALARM SYSTEM THAT ACTIVATES THE OCCUPANT NOTIFICATION SYSTEM IN ACCORDANCE WITH SECTION 907.5 SHALL BE INSTALLED IN GROUP B OCCUPANCIES. WHEN AUTOMATIC SPRINKLER SYSTEMS OR SMOKE DETECTORS ARE INSTALLED, SUCH SYSTEMS OR DETECTORS SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM

CHAPTER 10: MEANS OF EGRESS

SECTION 1004: OCCUPANT LOAD
TABLE 1004.1.1: MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT
- ACCESSORY STORAGE AREAS 300 GROSS
- BUSINESS AREAS 150 GROSS

SECTION 1005: EGRESS WIDTH
SECTION 1005.1: MINIMUM REQUIRED EGRESS WIDTH
THE TOTAL WIDTH OF MEANS OF EGRESS IN INCHES SHALL NOT BE LESS THAN THE TOTAL OCCUPANT LOAD SERVED BY THE MEANS OF EGRESS MULTIPLIED BY 0.2 INCHES PER OCCUPANT FOR OTHER EGRESS COMPONENTS.
SECTION 1005.7: DOOR ENCROACHMENT
DOORS, WHEN FULLY OPENED, AND HANDRAILS SHALL NOT REDUCE THE REQUIRED MEANS OF EGRESS WIDTH BY MORE THAN 7 INCHES.

SECTION 1006: EXIT AND EXIT ACCESS DOORWAYS

TABLE 1006.2.1: SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY
GROUP B - MAXIMUM OF 49 OCCUPANTS

SECTION 1016: EXIT ACCESS TRAVEL DISTANCE
SECTION 1016.1: TRAVEL DISTANCE LIMITATIONS
EXCEPTION 3: IN OTHER THAN GROUPS H AND I. THE EXIT ACCESS TRAVEL DISTANCE TO A MINIMUM OF 50 PERCENT OF THE EXITS IS PERMITTED TO BE MEASURED FROM THE MOST REMOTE POINT WITHIN A BUILDING TO AN EXIT USING UNENCLOSED EXIT ACCESS STAIRWAYS OR RAMPS WHEN CONNECTING A MAXIMUM OF TWO STORIES. THE TWO CONNECTED STORIES SHALL BE PROVIDED WITH ATLEASR TWO MEANS OF EGRESS. SUCH INTERCONNECTED STORIES SHALL NOT BE OPEN TO OTHER STORIES.

SECTION 1017: EXIT ACCESS TRAVEL DISTANCE
GROUP B - WITHOUT SPRINKLER SYSTEM: 200 FEET

SECTION 1020: CORRIDORS
TABLE 1020.2 CORRIDOR FIRE-RESISTANCE RATING
GROUP B - OCCUPANT LOAD SERVED BY CORRIDOR (GREATER THAN 30) WITHOUT SPRINKLER SYSTEM: 1 HOUR

SECTION 1020.3: CORRIDOR WIDTH
THE MINIMUM CORRIDOR WIDTH SHALL BE AS DETERMINED IN SECTION 1005.1, BUT NOT LESS THAN 44 INCHES.

CHAPTER 11: ACCESSIBILITY

SECTION 1109: OTHER FEATURES AND FACILITIES
SECTION 1109.2.2: WATER CLOSET COMPARTMENT
WHERE WATER CLOSET COMPARTMENTS ARE PROVIDED IN A TOILET ROOM OR BATHING ROOM, AT LEAST ONE WHEELCHAIR-ACCESSIBLE COMPARTMENT SHALL BE PROVIDED. WHERE THE COMBINED TOTAL WATER CLOSET COMPARTMENTS AND URINALS PROVIDED IN A TOILET ROOM OR BATHING ROOM IS SIX OR MORE, AT LEAST ONE AMBULATORY ACCESSIBLE WATER CLOSET COMPARTMENT SHALL BE PROVIDED IN ADDITION TO THE WHEELCHAIR-ACCESSIBLE COMPARTMENT.
SECTION 1109.5.1: MINIMUM NUMBER
NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED. ONE DRINKING FOUNTAIN SHALL COMPLY WITH THE REQUIREMENTS FOR PEOPLE WHO USE A WHEELCHAIR AND ONE DRINKING FOUNTAIN SHALL COMPLY WITH THE REQUIREMENTS FOR STANDING PERSONS.
EXCEPTION: A SINGLE DRINKING FOUNTAIN THAT COMPLIES WITH THE REQUIREMENTS FOR PEOPLE WHO USE WHEELCHAIRS AND STANDING PERSONS SHALL BE PERMITTED TO BE SUBSTITUTED FOR TWO SEPARATE DRINKING FOUNTAINS.
SECTION 1109.8.1 LOCKERS
WHERE LOCKERS ARE PROVIDED IN ACCESSIBLE SPACES, AT LEAST FIVE PERCENT, BUT NOT LESS THAN ONE, OF EACH TYPE SHALL BE ACCESSIBLE.

CHAPTER 12: INTERIOR ENVIRONMENT

SECTION 1209: ACCESS TO UNOCCUPIED SPACES
SECTION 1209.3: MECHANICAL APPLIANCES
ACCESS TO MECHANICAL APPLIANCES INSTALLED IN UNDER-FLOOR AREAS, IN ATTIC SPACES AND ON ROOFS OR ELEVATED STRUCTURES SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE.

CHAPTER 16: STRUCTURAL

SECTION 1209: ACCESS TO UNOCCUPIED SPACES
SECTION 1209.3: MECHANICAL APPLIANCES
ACCESS TO MECHANICAL APPLIANCES INSTALLED IN UNDER-FLOOR AREAS, IN ATTIC SPACES AND ON ROOFS OR ELEVATED STRUCTURES SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE.

CHAPTER 29: PLUMBING SYSTEMS

-SEE CHART TO RIGHT OF SHEET A001

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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

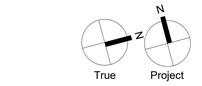
DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
CODE REVIEW

Drawing Number:
A001



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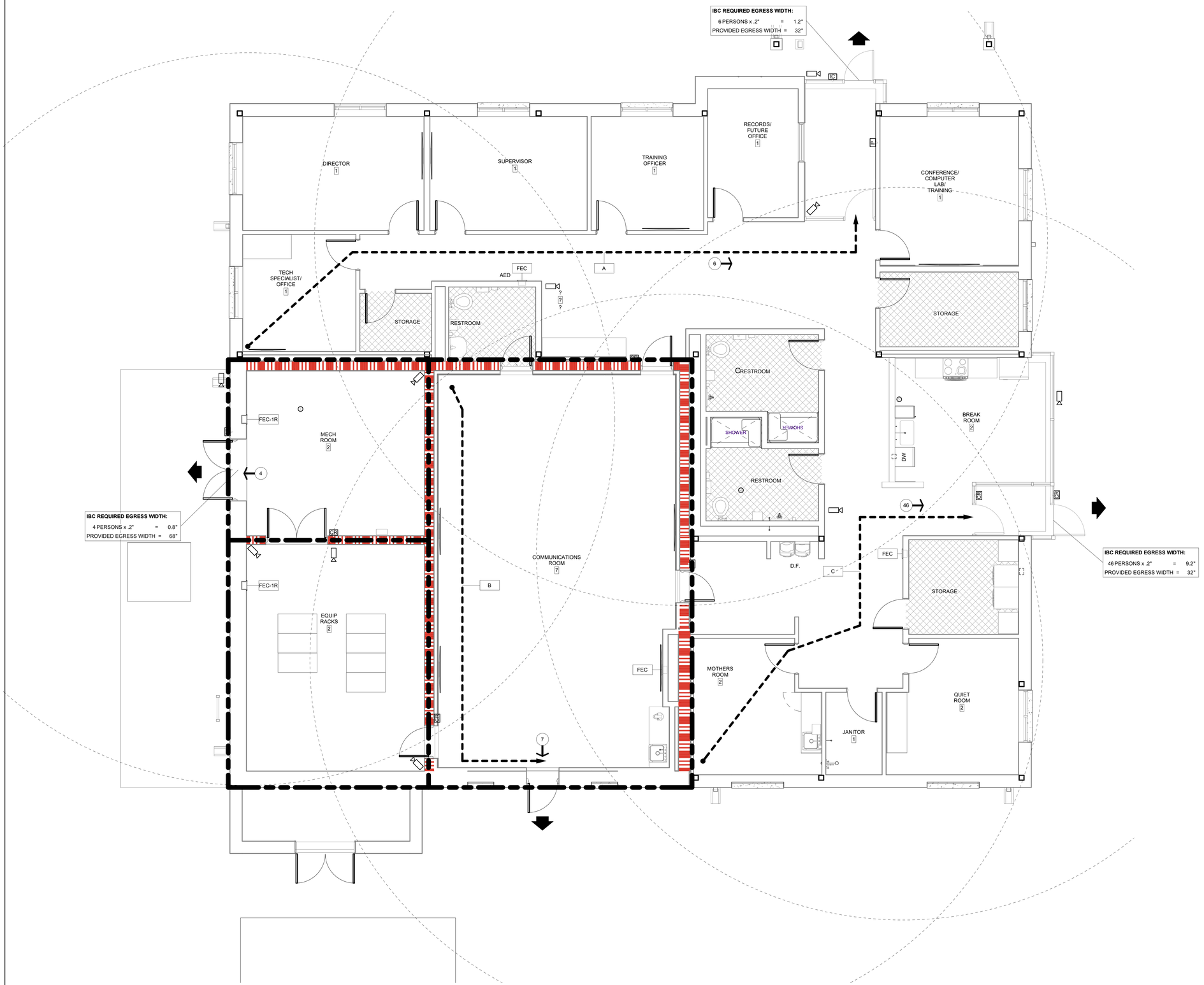
0' 4' 16'

BID SET



1 FIRST FLOOR EGRESS PLAN

A002 SCALE: 1/4" = 1'-0"

SYMBOL KEY

41	CALCULATED OCCUPANT LOAD
(25)	INDICATES ACTUAL OCCUPANT LOAD
	2 HOUR FIRE WALL
	EGRESS PATHWAY
	INDICATES POINT OF EXIT DISCHARGE
###	INDICATES ACTUAL NUMBER OF PERSONS DESIGNATED FOR EGRESS FROM SPACE
	NON-SIMULTANEOUS OCCUPANCY
FEC	FIRE EXTINGUISHER CABINET
FEC-1R	FIRE RATED FIRE EXTINGUISHER CABINET
AED	AUTOMATED EXTERNAL DEFIBRILLATOR

PATH OF TRAVEL

MARK	TRAVEL DISTANCE
A	70' - 0"
B	38' - 6"
C	44' - 6"

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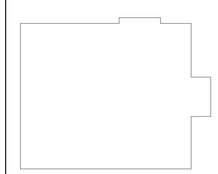
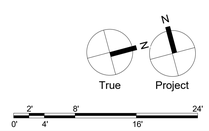


Drawing Title:

FIRST FLOOR FIRE SAFETY & EGRESS PLAN

Drawing Number:

A002



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GENERAL NOTES

1. THE CONTRACTOR SHALL INVESTIGATE JOB SITE TO COMPARE CONTRACT DOCUMENTS AND EXISTING CONDITIONS. INCLUDE COST FOR ALL WORK DESCRIBED IN CONTRACT DOCUMENTS AND REQUIRED OR IMPLIED BY EXISTING CONDITIONS. NOTIFY ARCHITECT OF ANY OMISSIONS OR CONFLICTS IN THE DRAWINGS AND ANY RESTRICTIONS RELATED TO THE EXECUTION OF THE WORK.
2. THE CONTRACTOR SHALL COMPLY AND COORDINATE ALL WORK WITH BUILDING OWNER REGARDING HEAT, WATER, ELECTRICITY, DELIVERIES, ACCESS, ELEVATOR AVAILABILITY, NOISE CONTROL, TRASH AND DEBRIS REMOVAL, HOISTING, AND ANY OTHER UTILITIES OR OWNER'S RULES AND REGULATIONS CONCERNING THE PROJECT SITE.
3. THE CONTRACTOR SHALL COORDINATE SCHEDULING, PROVISIONS FOR INSTALLATION, LOCATIONS AND THE ACTUAL INSTALLATION OF ITEMS FURNISHED BY OWNER OR BY OTHERS.
4. THE CONTRACTOR SHALL VERIFY DIMENSIONS IN THE FIELD AND IS RESPONSIBLE FOR BIDDING, FABRICATION, COORDINATION AND CONSTRUCTION.
5. DO NOT SCALE DRAWINGS.
6. THE CONTRACTOR SHALL SUBMIT FOR ARCHITECT'S REVIEW PRIOR TO FABRICATION OR PURCHASE, SHOP DRAWINGS OR SAMPLES FOR ALL MILLWORK, CUSTOM METALWORK, CUSTOM CASEWORK, AND ALL OTHER ITEMS AS REQUESTED BY THE ARCHITECT FOR ALL ABOVE BUILDING STANDARD ITEMS.
7. CHANGES IN DRAWINGS OR ACTUAL WORK MUST BE ISSUED BY THE ARCHITECT.
8. PERFORM ALL WORK AND INSTALL MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS AND IN A MANNER CONSISTENT WITH INDUSTRY STANDARD OF WORKMANSHIP.
9. THE CONTRACTOR SHALL EXAMINE ALL SURFACES TO DETERMINE THAT THEY ARE SOUND, DRY, CLEAN AND READY TO RECEIVE FINISHES PRIOR TO INSTALLATION. START OF INSTALLATION SHALL IMPLY ACCEPTANCE OF SUBSTRATE AND SHALL NOT BE GROUNDS FOR CLAIMS AGAINST IMPROPER PERFORMANCE OF INSTALLED MATERIALS. ADVISE ARCHITECT OF ANY EXISTING CONSTRUCTION NOT LEVEL, SMOOTH AND PLUMB WITHIN INDUSTRY STANDARDS PRIOR TO START OF CONSTRUCTION.
10. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL NECESSARY COVERINGS, PROTECTIVE ENCLOSURES, TEMPORARY DOORS AND PARTITIONS AND DUST BARRIERS TO PROTECT ALL OCCUPANTS AND EXISTING WORK AND FINISHES TO REMAIN. LOCATION OF SUCH PROTECTION SHALL BE VERIFIED WITH OWNER AND LOCAL CODE OFFICIALS FOR EGRESS CONFORMANCE, PRIOR TO COMMENCING WORK AND IN COORDINATION WITH PROGRESSION OF WORK SCHEDULE. PERFORM WORK IN A MANNER THAT WILL AVOID HAZARDS TO PERSONS IN ADJACENT AREAS AND THAT WON'T INTERFERE WITH WORK OR PASSAGE TO ANY OF THESE AREAS. REPAIR AND REPLACE ANY DAMAGES CAUSED BY IMPROPER PROTECTIONS AT NO ADDITIONAL CHARGE TO OWNER.
11. WORK DAMAGED DURING CONSTRUCTION OR NOT CONFORMING TO SPECIFIED STANDARDS, TOLERANCES OR MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION SHALL BE REPLACED, BY THE CONTRACTOR, AT NO ADDITIONAL CHARGE TO THE OWNER.
12. THE CONTRACTOR SHALL MAINTAIN ALL EXITS, EXIT LIGHTING, FIRE PROTECTION DEVICES AND LIFE SAFETY SYSTEMS IN WORKING ORDER. CONTRACTOR TO PROVIDE TEMPORARY FIRE EXTINGUISHERS DURING THE COURSE OF CONSTRUCTION AS REQ'D BY THE AUTHORITIES HAVING JURISDICTION .
13. EXIT DOORS, EGRESS DOORS, AND OTHER DOORS REQUIRED FOR MEANS OF EGRESS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
14. CONTRACTOR SHALL FULLY ACQUAINT HIMSELF WITH THE CONDITIONS OF THE CONTRACT, LOCAL CONDITIONS RELATING TO LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE CONSTRUCTION SITE AND LOCAL LABOR CONDITIONS SO THAT HE UNDERSTANDS THE NATURE, EXTENT, DIFFICULTIES, AND RESTRICTIONS RELATED TO THE EXECUTION OF WORK. NOTIFY ARCHITECT OF ALL DISCREPANCIES PRIOR TO COMMENCING WORK.
15. WOOD BLOCKING IN FIRE RATED ASSEMBLIES TO BE FIRE RETARDANT.
16. WOOD ON EXTERIOR WALLS AND ROOF TO BE MOISTURE RESISTANT.
17. WHERE WORK IS BEING CORRECTED OR REPAIRED, CONTRACTOR IS TO REPAINT ENTIRE WALL TO NEAREST CORNER OR BREAK-LINE WHERE WALL CHANGES DIRECTION.
18. CONTRACTOR TO COORDINATE WITH E.C. THE MOUNTING HEIGHT OF ALL SWITCHES AND OUTLETS AT MILLWORK, COUNTERS, SHELVING, SINKS, ETC.
19. PROVIDE MISC. FRAMING, BLOCKING, ETC. TO HANG SCREENS, BULLETIN BOARDS, RAILS, TOILET ACCESSORIES, WOODWORK, ETC.
20. MASONRY VENEER SHELVES TO TERMINATE A MINIMUM OF 6" BELOW PROPOSED FINISHED GRADE. REFERENCE CIVIL DRAWINGS FOR PROPOSED GRADING.
21. CONTROL JOINTS IN GYPSUM BOARD PARTITIONS AND GYPSUM BOARD CEILINGS SHALL BE SPACED AS FOLLOWS:

PARTITIONS	- 30 FT. MAXIMUM IN EITHER DIRECTION.
INTERIOR CEILINGS	- 30 FT. MAXIMUM IN EITHER DIRECTION.
EXTERIOR CEILINGS	- 30 FT. MAXIMUM IN EITHER DIRECTION.

22. PENETRATIONS THROUGH RATED WALLS ARE TO BE SEALED TO MAINTAIN INTEGRITY OF WALL CONSTRUCTION AND RATING (ASTM E814 SYSTEM BY 3M, HILTI, OR SIM).
23. INSULATION EXPOSED TO CEILING PLENUM IS TO BE FIRE AND DUST PROOF.
24. NEW SUPPLY AIR AND RETURN GRILLES SHALL BE LOCATED IN THE CENTER LINE OF ACOUSTICAL TILES UNLESS OTHERWISE INDICATED ON PLANS.
25. CONTRACTOR SHALL COMPLY WITH MANUFACTURER'S INSTRUCTIONS WHEN RELOCATING AND/OR INSTALLING ANY EQUIPMENT AND FURNISHINGS.
26. CONTRACTOR SHALL VERIFY EQUIPMENT LOCATIONS WITH OWNER PRIOR TO INSTALLATION.
27. PENETRATIONS THROUGH DRYWALL AND MASONRY SURFACES INCLUDING BUT NOT LIMITED TO PIPE, CONDUIT, DUCTWORK, GRILLES, REGISTERS, DEVICE BOXES, HANGER RODS, ETC. SHALL HAVE THEIR COMMON JOINTS WITH DRYWALL AND/OR MASONRY CAULKED TO PROVIDE AN AIR-TIGHT SEAL.
28. CONTRACTOR TO REMOVE ANY STRAY PAINT, DIRT, OR STAINS INCURRED DURING THE CONSTRUCTION PROCESS. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TEMPORARY EQUIPMENT COVERINGS USED DURING CONSTRUCTION AND HE SHALL ALSO BE RESPONSIBLE FOR REMOVING HIS TRASH OFF OF THE JOB SITE DAILY.
29. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND WELDING IN COMPLIANCE WITH THE PUBLISHED STANDARDS OF NFPA. THE CONTRACTOR SHALL PROVIDE FIRE WATCHES FOR ALL CUTTING, GRINDING, AND WELDING OPERATIONS. THE TRAINING OF THESE FIRE WATCHES AND THE USE OF THE CONTRACTOR'S SUPPLIED FIRE EXTINGUISHERS IS THE RESPONSIBILITY OF THE CONTRACTOR.
30. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR DETAILS OF UTILITY WALL PENETRATIONS.
31. FIXTURES LABELED " " INDICATE HANDICAP ACCESSIBLE FIXTURES.
32. WHERE TWO DISSIMILAR METALS MEET, PAINT FACE OF ONE WITH BITUMINOUS PAINT.
33. EXTERIOR ENTRANCE DOORS AND FRAMES TO RECEIVE PERIMETER WEATHER STRIPPING AS PER SPECIFICATIONS.
34. CONTRACTOR IS TO PROVIDE STUD BRACING AS REQUIRED FOR METAL STUD PARTITIONS ABOVE 10'-0".
35. MASONRY WEEP HOLES MUST BE LOCATED ABOVE GRADE, CONCRETE WALKS, PAVEMENT MULCH, ETC. DO NOT COVER UNDER ANY CIRCUMSTANCES. CONTRACTOR IN CHARGE OF MASONRY WORK IS RESPONSIBLE FOR COORDINATING WITH ALL CIVIL WORK (TYPICAL).
36. ANY AREA OUTSIDE THE LIMITS OF CONSTRUCTION DISTURBED BY OPERATIONS OF THE CONTRACTOR SHALL BE RESTORED AT THE CONTRACTORS EXPENSE.
37. CONCRETE WALKS, ASPHALT, CURBS AND LANDSCAPING DAMAGED DURING CONSTRUCTION ARE TO BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
38. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL WEEP JOINTS AROUND WINDOWS AND EXTRUDED ALUM. STORE FRONTS FREE OF CAULK.
39. 2 X 6 CONTINUOUS WOOD BLOCKING SHALL BE PROVIDED AT DRYWALL PARTITIONS FOR CABINET WORK AT TOP AND BOTTOM OF WALL MOUNTED UNITS AND UNDER COUNTER TOP LEVEL OF BASE CABINET. OPEN-FACE SHELVING UNITS SHALL HAVE CONCEALED ANCHOR BRACKETS.
40. ALL EXTERIOR WINDOWS, DOORS, LOUVERS, VENTS, EXHAUST FANS, PIPE PENETRATIONS, AND ALL OTHER PENETRATIONS THRU EXTERIOR WALLS SHALL BE SEALED AROUND ENTIRE PERIMETER WITH SEALANT. (BOTH ON EXTERIOR AND INTERIOR SIDES), EXCEPT AS NOTED IN NOTE 38.
41. ALL INTERIOR PARTITIONS WHICH RECEIVE CERAMIC TILE SHALL BE FRAMED WITH 20 GA. MIN. STUDS AT 12" O.C. W/ HORIZONTAL COLD ROLLED STIFFENER CHANNELS AT 4'-0" O.C. (MAX.) AND EXTEND FROM FINISHED FLOOR TO STRUCTURE ABOVE. 20 GA. DIAGONAL STUD KICKERS MUST ALSO BE INSTALLED AT EVERY OTHER VERTICAL STUD ABOVE CEILING.
42. FIRE EXTINGUISHER CABINETS TO BE MOUNTED 4'-0" A.F.F. TO TOP MAXIMUM IN ACCORDANCE ACCESSIBILITY REQUIREMENTS. (FIRE EXTINGUISHERS WITH GROSS WEIGHT OVER 40LBS. MUST BE MOUNTED 3'-6" MAX.). CLEARANCE BETWEEN THE BOTTOM OF THE FLOOR AND THE EXTINGUISHER MAY NOT BE LESS THAN 4".)

TYPICAL ABBREVIATIONS:

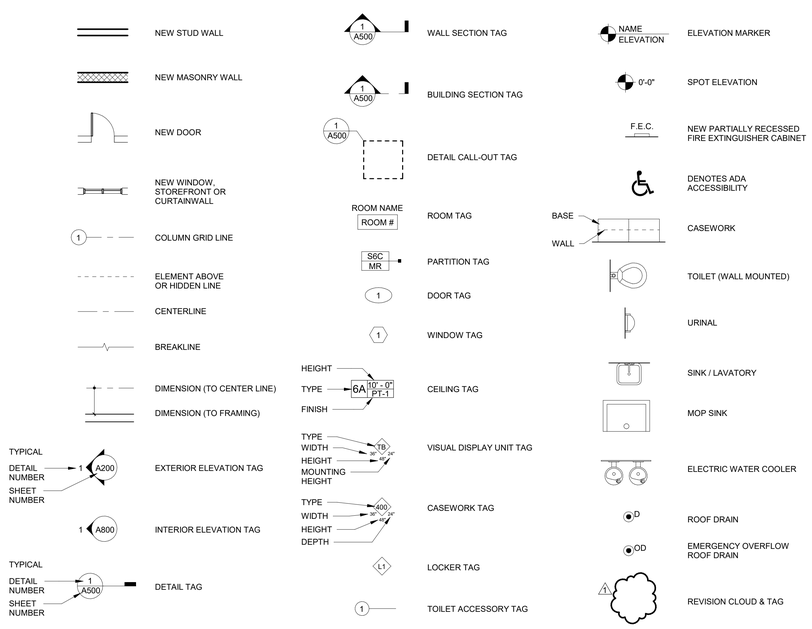
AP	ACOUSTICAL PANEL
ACT	ACOUSTICAL CEILING TILE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALUM, AL	ALUMINUM
ARCH	ARCHITECTURAL
ASPH	ASPHALT
ATTCHMT	ATTACHMENT
BD	BOARD
BLDG	BUILDING
BLK	BLOCKING)
BM	BEAM
B.O.S.	BOTTOM OF SLAB
BRG	BEARING
BRK	BRICK
BTM	BOTTOM
BYND	BEYOND
CJ	CONTROL OR CONSTRUCTION JOINT
CLO.	CLOSET
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CORR	CORRIDOR
COV	COVER
CPT	CARPET
CT/CER	CERAMIC TILE/CERAMIC
C.U.H.	CABINET UNIT HEATER
CW	CURTAINWALL
D (or) DRN	DRAIN
DBL	DOUBLE
DET	DETAIL
D.F.	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DIV. STRIP	DIVIDER STRIP
DN	DOWN
DP	DAMPPROOF(ING)
DR	DOOR
D.S.	DOWN SPOUT
DT	DRAIN TILE
D.W.	DISH WASHER
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
EJC	EXPANSION JOINT COVER
EIFS	EXTERIOR INSUL. FINISH SYSTEM
ELEC	ELECTRICAL
EL	ELEVATION
ELEV	ELEVATOR
ENCL	ENCLOSURE
EQ	EQUAL
EQUIP	EQUIPMENT
EXG	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FA	FRESH AIR
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
F.F. / FIN. FL.	FINISH FLOOR

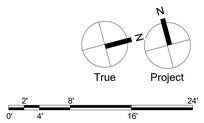
FIN	FINISH
FL.	FLOOR
FLSH	FLASHING
FLUOR	FLUORESCENT
F.O.S.	FACE OF STUDS
FR(G)	FRAME(ING)
FRTW	FIRE RATED TREATED WOOD
FT	FEET OR FOOT
FUR	FURRING
FVC	FIRE VALVE CABINET
GA	GAGE OR GAUGE
GALV	GALVANIZE
GC	GENERAL CONTRACTOR
G.I.	GALVANIZED IRON
GL	GLASS
GM	GALVANIZED METAL
GR	GRADE
GWB	GYPSUM WALL BOARD
GYP.BD / GWB	GYPSUM BOARD
H.B.	HOSE BIB
H.C.	HOLLOW CORE
"H"	HANDICAPPED ACCESSIBLE
HDW	HARDWARE
HDWD	HARDWOOD
H.M.	HOLLOW METAL
HOR	HORIZONTAL
HT	HEIGHT
HTR	HEATER
I.D.	INSIDE DIAMETER
INFO	INFORMATION
INSUL	INSULATION OR INSULATED
INT	INTERIOR
INV	INVERT
JAN	JANITOR
JT	JOINT
KO	KNOCKOUT
LAM	LAMINATE
LAV	LAVATORY
LP	LOW POINT
LT	LIGHT
MFGR / MANUF.	MANUFACTURER
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MBM	METAL BUILDING MANUFACTURER
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MEMB	MEMBRANE
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
M.O.	MASONRY OPENING
MOV	MOVABLE
M.T.	MARBLE THRESHOLD
MTL	METAL
N	NORTH
NIC	NOT IN CONTRACT
NOM	NOMINAL
NO.	NUMBERS
NTS	NOT TO SCALE

O.C.	ON CENTER
OFF	OFFICE
O.H.	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
O.S.B.	ORIENTED STRAND BOARD
OVHD	OVERHEAD
P.LAM.	PLASTIC LAMINATE
PTN	PARTITION
P.C.PL	PORTLAND CEMENT PLASTER
P.H.	PAPER HOLDER
PL	PROPERTY LINE
PLAS	PLASTER
PLUM	PLUMBING
PNL	PANEL
PNT	PAINT
POL	POLISHED
PR	PAIR
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTS	POINTS
P.T.	PRESSURE TREATED
PWD	PLYWOOD
Q.T.	QUARRY TILE
R	RADIUS
R. VENT	RANGE VENT
REF	REFERENCE
REINF	REINFORCE, REINFORCED
REQ'D.	REQUIRE(D)
RET	RETURN
REV	REVISE, REVISION
RM	ROOM
R.O.	ROUGH OPENING
RSTRM	RESTROOM
SA	SELF-ADHERED
SAN	SANITARY
SAN. ST.	SANITARY STACK
SCR	SCREEN
SEC	SECTION
SCHED	SCHEDULE(D)
SCU	SELF-CONTAINED UNIT
SF	SQUARE FOOT (FEET)
SG	SCHRADERGROUP
SHT	SHEET
SIM	SIMILAR
SOG	SLAB ON GRADE
SP	STANDPIPE
SPLSH. BLK.	SPLASH BLOCK
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SOLID SURFACE
SSTL	STAINLESS STEEL
SSD	SEE STRUCTURAL DRAWINGS
STN	STAIN(ED)
STL	STEEL
STG/STOR	STORAGE
STRFRNT	STOREFRONT
STRUCT	STRUCTURAL, STRUCTURE
SUSP	SUSPEND(ED)

T	TEMPERED
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TB	TACKBOARD
TEMP	TEMPORARY
TH	THRESHOLD
THK	THICK(NESS)
THRU	THROUGH
T.O.C.	TOP OF CURB
T.O.M.	TOP OF MASONRY
T.O.	TOP OF
T.O.S.	TOP OF STEEL
TPFS	THROUGH-PENETRATION FIRE SAFING
TRTD	TREATED
TYP	TYPICAL
U.L.	UNDERWRITERS LABORATORY
UNFIN	UNFINISHED
U.N.O.	UNLESS NOTED OTHERWISE
V	VENT
VCT	VINYL COMPOSITION TILE
VENT.	VENTILATE
VERT	VERTICAL
VEST	VESTIBULE
V.I.F.	VERIFY IN FIELD
V.W.C.	VINYL WALL COVERING
VOL	VOLUME
W	WIDTH
W/	WITH
WxH	WIDTH x HEIGHT
WB	WHITE BOARD
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WH	WATER HEATER
WK	WORK
WP	WORK POINT
WPF	WATERPROOF
WSHP	WATER SOURCE HEAT PUMP
WT	WEIGHT
&	AND
@	AT
'	FEET
"	INCHES
#	POUNDS

SYMBOL LEGEND





BID SET

Consultants:

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License No. C-1652
Contact: Kim Hamby, PE

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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:

BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

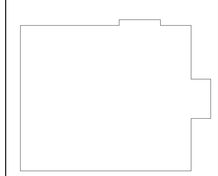
ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:



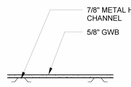
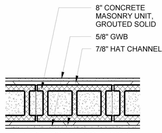
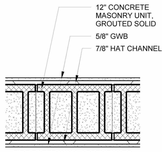
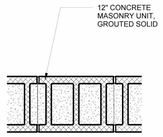
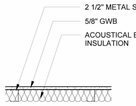
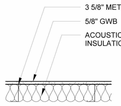
Drawing Title:

GENERAL NOTES AND ABBREVIATION

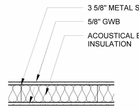
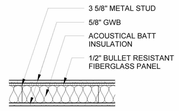
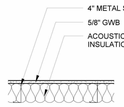
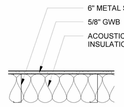
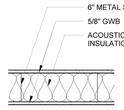
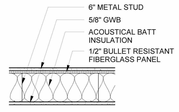
Drawing Number:

A003

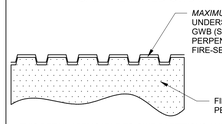
PARTITION SCHEDULE

WALL TYPE	WALL CONSTRUCTION	WALL FRAMING			WALL RATING			Heat Transfer Coefficient (U)	Thermal Resistance (R)
		TYPE	SIZE	SPACING	FIRE RATING	UL#	STC		
		-	-	-	-	-	-		
H7A	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	7/8"	16" O.C.	-	-	-	7.0679 BTU/(h·ft²·°F)	0.1415 (h·ft²·°F)/BTU
M8CZ	 FIRE RATED WALL ASSEMBLY TO UNDERSIDE OF DECK - PROVIDE TPFS AT ALL VOIDS AND PENETRATIONS	METAL	7/8"	16" O.C.	2 HR	IBC TABLE 720.1(2) ITEM 3.1.4	57	0.8858 BTU/(h·ft²·°F)	1.1289 (h·ft²·°F)/BTU
M12CZ	 FIRE RATED WALL ASSEMBLY TO UNDERSIDE OF DECK - PROVIDE TPFS AT ALL VOIDS AND PENETRATIONS	METAL	7/8"	16" O.C.	2 HR	IBC TABLE 720.1(2) ITEM 3.1.4	63	0.6358 BTU/(h·ft²·°F)	1.5727 (h·ft²·°F)/BTU
M12Z	 FIRE RATED WALL ASSEMBLY TO UNDERSIDE OF DECK - PROVIDE TPFS AT ALL VOIDS AND PENETRATIONS	METAL	7/8"	16" O.C.	2 HR	IBC TABLE 720.1(2) ITEM 3.1.4	62	0.7754 BTU/(h·ft²·°F)	1.2897 (h·ft²·°F)/BTU
S2A	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	2 1/2"	16" O.C.	-	-	-	0.0687 BTU/(h·ft²·°F)	14.5615 (h·ft²·°F)/BTU
S3A	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	3 5/8"	16" O.C.	-	-	34	0.0475 BTU/(h·ft²·°F)	21.0517 (h·ft²·°F)/BTU

PARTITION SCHEDULE

WALL TYPE	WALL CONSTRUCTION	WALL FRAMING			WALL RATING			Heat Transfer Coefficient (U)	Thermal Resistance (R)
		TYPE	SIZE	SPACING	FIRE RATING	UL#	STC		
S3C	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	3 5/8"	16" O.C.	-	-	45	0.0472 BTU/(h·ft²·°F)	21.1904 (h·ft²·°F)/BTU
S3ER	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	3 5/8"	16" O.C.	-	-	45	0.0469 BTU/(h·ft²·°F)	21.3013 (h·ft²·°F)/BTU
S4A	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	4"	16" O.C.	-	-	34	0.0431 BTU/(h·ft²·°F)	23.2151 (h·ft²·°F)/BTU
S6A	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	6"	16" O.C.	-	-	37	0.0288 BTU/(h·ft²·°F)	34.7534 (h·ft²·°F)/BTU
S6C	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	6"	16" O.C.	-	-	40	0.0287 BTU/(h·ft²·°F)	34.8921 (h·ft²·°F)/BTU
S6ER	 WALL ASSEMBLY TO UNDERSIDE OF DECK	METAL	6"	16" O.C.	-	-	47	0.0286 BTU/(h·ft²·°F)	35.0030 (h·ft²·°F)/BTU

TYPICAL FIRE-RATED GWB PARTITION DETAIL



THIS DETAIL APPLICABLE TO GWB PARTITIONS AND SHAFTWALLS THAT ARE DESIGNED TO IBC TABLE 720.1 AND/OR 'UL' DESIGN STANDARDS PER THE PRECEDING PARTITION TYPES

PARTITION SCHEDULE NOTES:

1. REFERENCE STRUCTURAL DRAWINGS FOR TYPICAL T.O. WALL DETAIL WHEN MASONRY PARTITION IS CONTINUOUS TO UNDERSIDE OF DECK ABOVE.
2. IN THE EVENT OF THE ROOF STRUCTURE INTERRUPTING A PROPOSED PARTITION'S PATH TO THE UNDERSIDE OF THE DECK, CONTRACTOR IS RESPONSIBLE FOR PROVIDING CLOSURE / PARTITION OF EQUAL OR GREATER FIRE, SOUND AND RESILIENCE RATINGS TO UNDERSIDE OF DECK TO MAINTAIN ALL PROPOSED FIRE, SOUND AND SAFETY RATINGS AT NO ADDITIONAL COST TO THE OWNER. IN THE EVENT OF SAID CONFLICT, CONTRACTOR TO SUBMIT ALL PROPOSED PARTITION SUBSTITUTION REQUESTS DUE TO CONFLICTS WITH ROOF FRAMING TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
3. WET WALLS TO RECEIVE MOISTURE RESISTANT GYPSUM WALL BOARD, REFERENCE PLANS FOR LOCATIONS,
4. WALLS UTILIZING WALL WASH LIGHT FIXTURES OR LIGHT FIXTURES LOCATED WITHIN 24" OF WALL ARE TO RECEIVE A 'LEVEL 5' FINISH.
5. FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING PER IBC 703.6'
6. EXTERIOR PARTITION TYPES DO NOT SHOW OR DICTATE INTERIOR FINISHES. WALL CONSTRUCTION SHOWN STOPS AT WALL STRUCTURE / BACK-UP.

PARTITION SCHEDULE LEGEND:

1. PREFIX CODES (CORE TYPES)

S	METAL STUD
M	MASONRY
W	WOOD STUD
H	FURRING / HAT CHANNEL
U	SHAFTWALL

2. FINISH CODES

A	(1) LAYER OF FINISH ON ONE SIDE
B	(2) LAYERs OF FINISH ON ONE SIDE
C	(1) LAYER OF FINISH ON BOTH SIDES
D	(2) LAYER OF FINISH ON BOTH SIDES
E	(1) LAYER OF FINISH ON ONE SIDE, (2) LAYERS ON THE OTHER SIDE

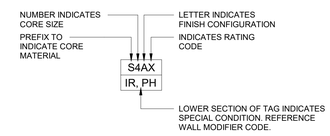
3. RATING CODES

R	BALLISTIC RESISTANT
Q	ACOUSTIC RATED
X	1 HOUR FIRE RATED
Z	2 HOUR FIRE RATED

4. SPECIAL CONDITION CODES

SP	SMOKE PARTITION - SEAL ALL PENETRATIONS AND TOP/BOTTOM OF PARTITION. SEE DETAIL ABOVE.
PH	PARTIAL HEIGHT - FINISH TO TERMINATE 12" ABOVE FINISHED CEILING; FRAMING TO CONTINUE TO DECK ABOVE
MR	MOISTURE RATED GYPSUM WALL BOARD
CB	Fiber Cement BACKING PANEL
PW	PROVIDE 3/4" FIRE RATED TREATED PLYWOOD BEHIND FINISH
IR	IMPACT RESISTANT GYPSUM WALL BOARD TO 10' ABOVE FINISHED FLOOR
NB	BATT INSULATION IS NOT REQUIRED
HW	HALF HEIGHT WALL, REFERENCE DETAILS FOR SPECIFIC WALL HEIGHT

PARTITION TAG SYMBOL LEGEND:



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Timmons Group
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License No. C-1652
Contact: Kim Hamby, PE

MEP:
RMF Engineering
8081 Arco Corporate Drive, Suite 300
Raleigh, NC 27317
919.941.9876

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4208 Six Forks Road, Suite 1000
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Professional Seal:

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BERTIE COUNTY

Windsor Township,
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New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
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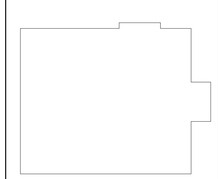
ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

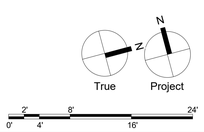


Drawing Title:

INTERIOR PARTITION TYPES

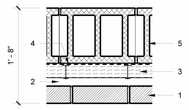
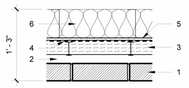
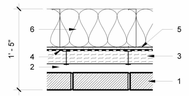
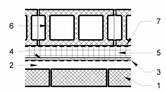
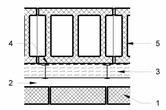
Drawing Number:

A004

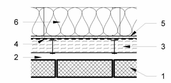
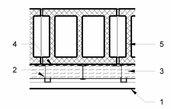
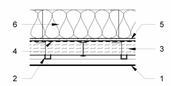
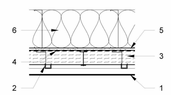
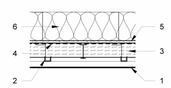


BID SET

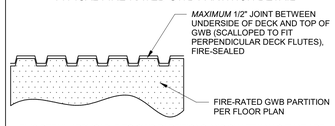
EXTERIOR PARTITION SCHEDULE

WALL TYPE	WALL CONSTRUCTION	WALL FRAMING TYPE	WALL FRAMING SIZE	WALL FRAMING STUD SPACING	Thermal Resistance (R)	Heat Transfer Coefficient (U)
BR-M12Z	 1. BRICK VENEER 2. AIR SPACE 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. DAMPPROOFING 5. 12" CMU	CMU	12" NOMINAL	-	26.2616 (h·ft²·°F)/BTU	0.0381 BTU/(h·ft²·°F)
BR-S6	 1. BRICK VENEER 2. AIR SPACE 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. AIR BARRIER 5. 1/2" EXTERIOR GYPSUM SHEATHING 6. 6" MTL STUDS @ 16" O.C. W/ BATT INSULATION	METAL	6"	16" O.C.	59.8362 (h·ft²·°F)/BTU	0.0167 BTU/(h·ft²·°F)
BR-S8	 1. BRICK VENEER 2. AIR SPACE 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. AIR BARRIER 5. 1/2" EXTERIOR GYPSUM SHEATHING 6. 8" MTL STUDS @ 16" O.C. W/ BATT INSULATION	METAL	8"	16" O.C.	70.5502 (h·ft²·°F)/BTU	0.0142 BTU/(h·ft²·°F)
GB-M8	 1. GROUND FACE BLOCK 2. AIR SPACE 3. AIR BARRIER 4. 1/2" EXTERIOR GYPSUM SHEATHING 5. 2-1/2" RIGID INSULATION W/ Z-GIRTS (HORIZ.) 6. 8" CMU 7. DAMPPROOFING	CMU	8" NOMINAL	-	10.9419 (h·ft²·°F)/BTU	0.0914 BTU/(h·ft²·°F)
GB-M12	 1. GROUND FACE BLOCK 2. AIR SPACE 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. DAMPPROOFING 5. 12" CMU	CMU	12" NOMINAL	-	24.5722 (h·ft²·°F)/BTU	0.0407 BTU/(h·ft²·°F)

EXTERIOR PARTITION SCHEDULE

WALL TYPE	WALL CONSTRUCTION	WALL FRAMING TYPE	WALL FRAMING SIZE	WALL FRAMING STUD SPACING	Thermal Resistance (R)	Heat Transfer Coefficient (U)
GB-S6	 1. GROUND FACE BLOCK 2. AIR SPACE 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. AIR BARRIER 5. 1/2" EXTERIOR GYPSUM SHEATHING 6. 6" MTL STUDS @ 16" O.C. W/ BATT INSULATION	METAL	6"	16" O.C.	58.8680 (h·ft²·°F)/BTU	0.0170 BTU/(h·ft²·°F)
MC-M12	 1. COMPOSITE METAL PANEL 2. EXTERIOR FINISH SUBFRAMING SYSTEM 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. DAMPPROOFING 5. 12" CMU	CMU	12" NOMINAL	-	14.4827 (h·ft²·°F)/BTU	0.0690 BTU/(h·ft²·°F)
MC-S6	 1. COMPOSITE METAL PANEL 2. EXTERIOR FINISH SUBFRAMING SYSTEM 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. AIR BARRIER 5. 1/2" EXTERIOR GYPSUM SHEATHING 6. 6" MTL STUDS @ 16" O.C. W/ BATT INSULATION	METAL	6"	16" O.C.	48.0573 (h·ft²·°F)/BTU	0.0208 BTU/(h·ft²·°F)
MC-S8	 1. COMPOSITE METAL PANEL 2. EXTERIOR FINISH SUBFRAMING SYSTEM 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. AIR BARRIER 5. 1/2" EXTERIOR GYPSUM SHEATHING 6. 8" MTL STUDS @ 16" O.C. W/ BATT INSULATION	METAL	8"	16" O.C.	58.7714 (h·ft²·°F)/BTU	0.0170 BTU/(h·ft²·°F)
MCE-S6	 1. COMPOSITE METAL PANEL 2. EXTERIOR FINISH SUBFRAMING SYSTEM 3. 3" MINERAL WOOL BOARD INSULATION W/ INSULATION HANGERS 4. AIR BARRIER 5. 1/2" EXTERIOR GYPSUM SHEATHING 6. 6" MTL STUDS @ 16" O.C. W/ BATT INSULATION	METAL	6"	16" O.C.	45.1727 (h·ft²·°F)/BTU	0.0221 BTU/(h·ft²·°F)

TYPICAL FIRE-RATED GWB PARTITION DETAIL



THIS DETAIL APPLICABLE TO GWB PARTITIONS AND SHAFTWALLS THAT ARE DESIGNED TO IBC TABLE 720.1 AND/OR 'UL' DESIGN STANDARDS PER THE PRECEDING PARTITION TYPES

PARTITION SCHEDULE NOTES:

1. REFERENCE STRUCTURAL DRAWINGS FOR TYPICAL T.O. WALL DETAIL WHEN MASONRY PARTITION IS CONTINUOUS TO UNDERSIDE OF DECK ABOVE.
2. IN THE EVENT OF THE ROOF STRUCTURE INTERRUPTING A PROPOSED PARTITION'S PATH TO THE UNDERSIDE OF THE DECK, CONTRACTOR IS RESPONSIBLE FOR PROVIDING CLOSURE / PARTITION OF EQUAL OR GREATER FIRE, SOUND AND RESILIENCE RATINGS TO UNDERSIDE OF DECK TO MAINTAIN ALL PROPOSED FIRE, SOUND AND SAFETY RATINGS AT NO ADDITIONAL COST TO THE OWNER. IN THE EVENT OF SAID CONFLICT, CONTRACTOR TO SUBMIT ALL PROPOSED PARTITION SUBSTITUTION REQUESTS DUE TO CONFLICTS WITH ROOF FRAMING TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
3. WET WALLS TO RECEIVE MOISTURE RESISTANT GYPSUM WALL BOARD, REFERENCE PLANS FOR LOCATIONS,
4. WALLS UTILIZING WALL WASH LIGHT FIXTURES OR LIGHT FIXTURES LOCATED WITHIN 24" OF WALL ARE TO RECEIVE A 'LEVEL 5' FINISH.
5. FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING PER IBC 703.6'
6. EXTERIOR PARTITION TYPES DO NOT SHOW OR DICTATE INTERIOR FINISHES. WALL CONSTRUCTION SHOWN STOPS AT WALL STRUCTURE / BACK-UP.

PARTITION SCHEDULE LEGEND:

1. PREFIX CODES (CORE TYPES)

S	METAL STUD
M	MASONRY
W	WOOD STUD
H	FURRING / HAT CHANNEL
U	SHAFTWALL

2. FINISH CODES

A	(1) LAYER OF FINISH ON ONE SIDE
B	(2) LAYERs OF FINISH ON ONE SIDE
C	(1) LAYER OF FINISH ON BOTH SIDES
D	(2) LAYER OF FINISH ON BOTH SIDES
E	(1) LAYER OF FINISH ON ONE SIDE, (2) LAYERS ON THE OTHER SIDE

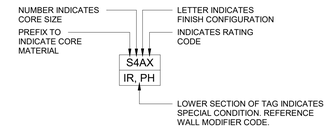
3. RATING CODES

R	BALLISTIC RESISTANT
Q	ACOUSTIC RATED
X	1 HOUR FIRE RATED
Z	2 HOUR FIRE RATED

4. SPECIAL CONDITION CODES

SP	SMOKE PARTITION - SEAL ALL PENETRATIONS AND TOP/BOTTOM OF PARTITION. SEE DETAIL ABOVE.
PH	PARTIAL HEIGHT - FINISH TO TERMINATE 12" ABOVE FINISHED CEILING; FRAMING TO CONTINUE TO DECK ABOVE
MR	MOISTURE RATED GYPSUM WALL BOARD
CB	Fiber Cement BACKING PANEL
PW	PROVIDE 3/4" FIRE RATED TREATED PLYWOOD BEHIND FINISH
IR	IMPACT RESISTANT GYPSUM WALL BOARD TO 10' ABOVE FINISHED FLOOR
NB	BATT INSULATION IS NOT REQUIRED
HW	HALF HEIGHT WALL, REFERENCE DETAILS FOR SPECIFIC WALL HEIGHT

PARTITION TAG SYMBOL LEGEND:



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Structural Engineer
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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
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ISSUED FOR:

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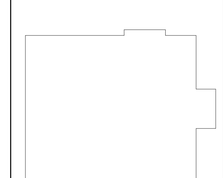
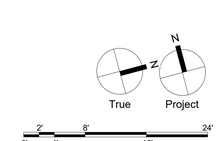
SG PROJECT NUMBER: 24-011

Key Plan:



Drawing Title:
EXTERIOR PARTITION TYPES

Drawing Number:
A005



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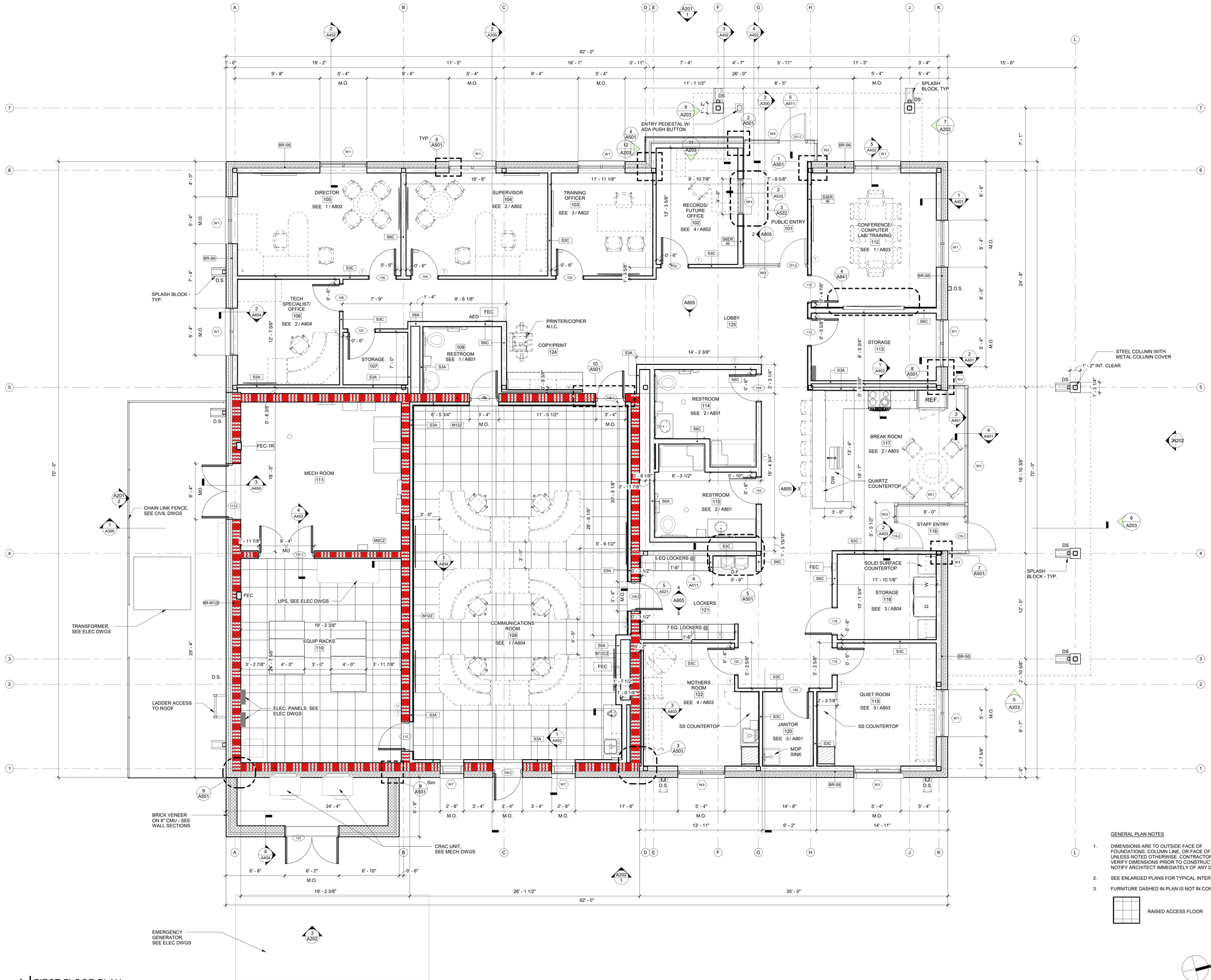

1 FIRST FLOOR PLAN

A101 SCALE: 1/4" = 1'-0"

GENERAL PLAN NOTES

1. DIMENSIONS ARE TO OUTSIDE FACE OF FOUNDATIONS, COLUMN LINE, OR FACE OF FRAMING UNLESS NOTED OTHERWISE. CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
2. SEE ENLARGED PLANS FOR TYPICAL INTERIOR ELEVATIONS.
3. FURNITURE DASHED IN PLAN IS NOT IN CONTRACT, TYP.

RAISED ACCESS FLOOR

True Project

0' 2' 4' 8' 16' 24'

BID SET

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SG PROJECT NUMBER: 24-011

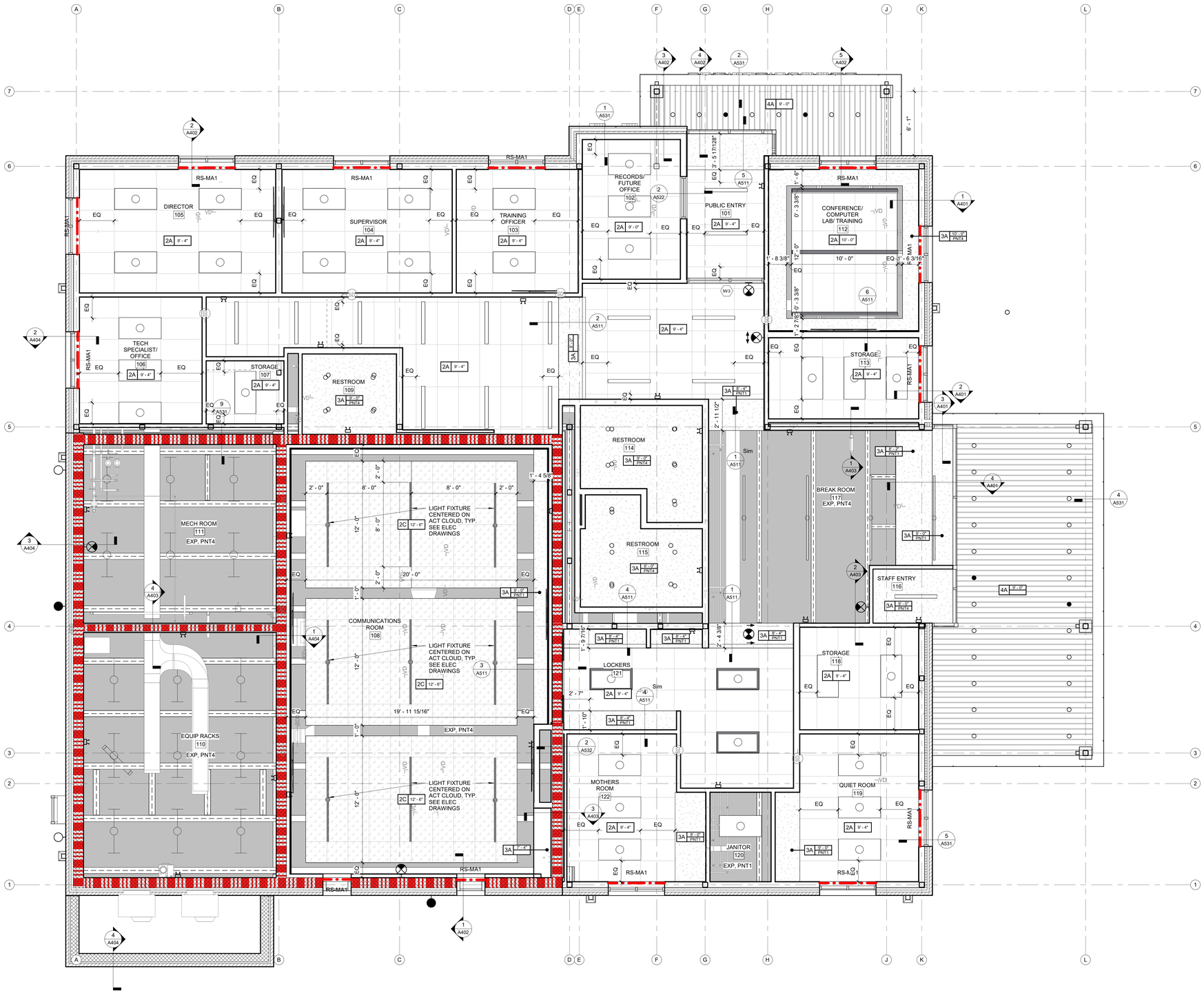
Key Plan:

Drawing Title:

FIRST FLOOR PLAN

Drawing Number:

A101



1 FIRST FLOOR REFLECTED CEILING PLAN

A121 SCALE: 1/4" = 1'-0"

CEILING NOTES

1.) ALL CEILING TILE TO BE CENTERED IN ROOMS, UNLESS OTHERWISE NOTED.

2.) CEILING HEIGHTS REFERENCE ROOMS FINISHED FLOOR ELEVATION.

3.) CONTRACTOR TO PROVIDE CEILING EXPANSION JOINTS PER SPECIFICATION REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS AT ALL BUILDING EXPANSION JOINT LOCATIONS.

4) REFERENCE MECHANICAL DRAWINGS FOR CEILING MOUNTED DUCTS, PIPES, ETC.

5.) REFERENCE ELECTRICAL DRAWINGS FOR LIGHTING FIXTURE TYPES AND LOCATIONS.

6.) "EXPOSED, PTD" INCLUDES STRUCTURE, DUCTWORK, PIPING, CONDUIT, HANGERS AND ACCESSORIES.

GENERAL NOTES

1.) ALL DIMENSIONS ARE TO FACE OF MASONRY, ROUGH FRAME OR CENTER LINE OF COLUMN - TYPICAL, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL VERIFY **ALL** DIMENSIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.

RCP LEGEND

6A 10' - 0" PT-1	INDICATES CEILING TYPE (SEE LEGEND), HEIGHT ABOVE FINISHED FLOOR & FINISH
	RECESSED LIGHTING FIXTURE
	2X LAY-IN LIGHTING FIXTURE
	EXPOSED TO STRUCTURE ABOVE, PAINT
	MANUAL ROLLER WINDOW SHADE

CEILING LEGEND

2A	2x4 ACOUSTICAL CEILING TILE SYSTEM
2C	2x4 HIGH NRC CEILING TILE SYSTEM
3A	GWB CEILING FINISH
4A	LINEAR METAL CEILING SYSTEM

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BERTIE COUNTY

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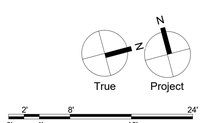
Key Plan:

Drawing Title:
FIRST FLOOR REFLECTED CEILING PLAN

Drawing Number:
A121



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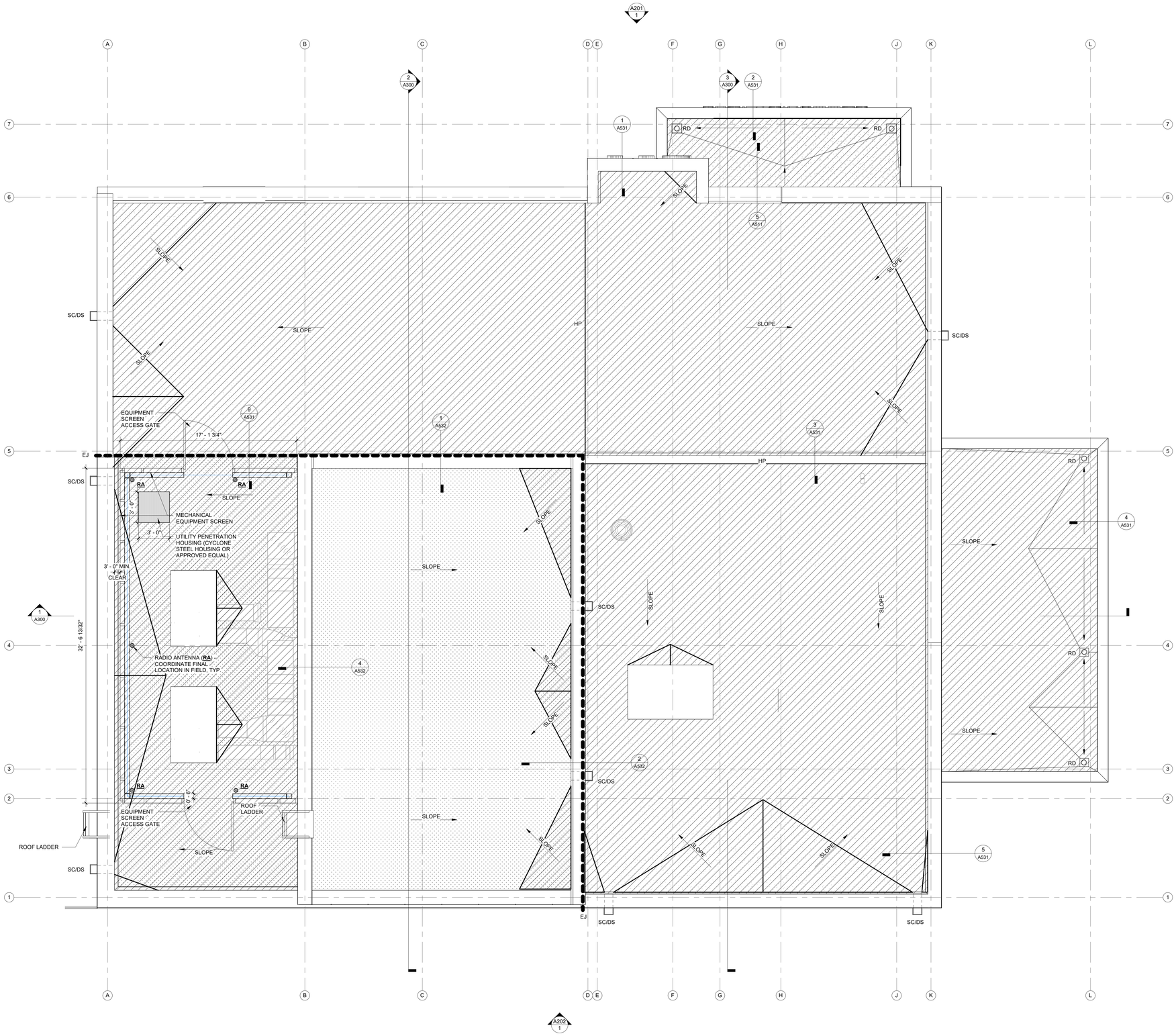

1 ROOF PLAN

A141 SCALE: 1/4" = 1'-0"

ROOF NOTES

1.) REVIEW ALL CONTRACT DOCUMENTS RELATING TO THE ROOF SYSTEM PRIOR TO BEGINNING WORK.

2.) CERTIFY THAT ALL ROOFING AND SUBSTRATE MATERIALS ARE CHEMICALLY AND PHYSICALLY COMPATIBLE WITH EACH OTHER AND THE ROOFING SYSTEM.

3.) GUARANTEE THAT THE ROOFING SYSTEM IS DESIGNED APPROPRIATELY TO BE CERTIFIED FOR THE REQUESTED WARRANTY PERIOD.

4.) SHOW PROOF THAT THE ROOFING CONTRACTOR IS AN APPROVED APPLICATOR OF THE ROOFING SYSTEM TO BE INSTALLED.

5.) PROVIDE CERTIFICATION FROM THE ROOFING MANUFACTURER THAT ALL MATERIALS USED IN ROOFING SYSTEMS ARE COVERED IN THE WARRANTY.

6.) PROVIDE A DAILY REPORT TO THE ARCHITECT COVERING:
- ROOF DECK CONDITIONS
- LAYOUT AND ATTACHMENT OF INSULATION
- WEATHER CONDITIONS
- SIZE OF CREW
- EQUIPMENT USED

7.) INSTALL ALL ROOFING MATERIALS IN ACCORDANCE WITH ROOFING INDUSTRY RECOMMENDED STANDARDS AND PRACTICES.

8.) VERIFY THE CONDITION OF THE ROOF DECK PRIOR TO BEGINNING WORK AND NOTIFY ARCHITECT OF ANY ADVERSE CONDITIONS REQUIRING ATTENTION.

9.) PROVIDE PROPER COORDINATION AND APPLICATION OF FASTENERS TO ENSURE THAT NO FASTENER PROTRUDES THROUGH EXPOSED ROOF DECKING.

10.) CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER CONTRACTORS REGARDING LOCATION AND SEALING OF ROOF TOP PENETRATIONS.

11.) PROVIDE AND INSTALL TAPERED INSULATION TO ACHIEVE POSITIVE SLOPE (MIN. 1/4"/1'-0") OF ROOF SURFACE TO DRAINS SCUPPERS AND GUTTERS.

12.) REFER TO PLUMBING DRAWINGS FOR VENT STACK LOCATIONS.

13.) REFER TO MECHANICAL DRAWINGS FOR ROOF TOP EQUIPMENT LOCATIONS, PENETRATIONS AND REQUIREMENTS AND CURB DETAILS. PROVIDE GUSSETS AND CRICKETS AS REQUIRED AROUND ALL MECHANICAL ROOF TOP EQUIPMENT.

14.) REFER TO ARCHITECTURAL WALL SECTIONS AND ROOF DETAILS DRAWINGS FOR ADDITIONAL DETAILS.

15.) SEE PLUMBING DRAWING FOR PIPING OF ROOF BACK-UP OVERFLOW SCUPPERS AND DOWNSPOUTS.

16.) ALL GUTTERS DISCHARGING ONTO LOWER ROOFS TO RECEIVE SPLASH BLOCKS ON 3x3 WALKWAY PAD BELOW DISCHARGING AREA.

17.) ALL ROOF NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A MINIMUM FORCE OF 300 POUNDS PER LINEAR FOOT. REFER TO FACTORY MUTUAL DATA SHEET 1-49.

18.) ROOFING VAPOR BARRIER SHALL BE SEALED AT ALL EDGES.

19.) REFERENCE ROOFING SPECIFICATIONS FOR ENTIRE ROOF SYSTEM PERFORMANCE CITERIA.

20.) ROOF MIN R-VALUE - r30

21.) GC TO COORDINATE ALL PENETRATION TYPES, SIZES, LOCATIONS. ALL ROOF OPENINGS INCLUDING VENTS SHALL BE FLASHED ACCORDING TO MFR'S STANDARD.

22.) ANY SERVICE LINES RUNNING ON THE ROOF SURFACE MUST BE SUPPORTED WITH NON-PENETRATING PREFABRICATED SUPPORTS SPACED 4' MAX. SET ON WALKWAY PADS.

23.) ALL EQUIPMENT SHALL BE MTD. SUCH THAT ACCESSIBLE PARTS ARE NOT OBSTRUCTED OR MADE INACCESSIBLE BY OTHER EQUIPMENT, PIPING, DUCTWORK, ETC.

24.) PROVIDE OVERFLOW SCUPPERS AT EACH PRIMARY ROOF DRAIN OR DOWNSPOUT AT 3" ABOVE FINISHED ROOF SURFACE.

25.) EQUIPMENT SCREEN SHALL HAVE MIN 50% OPEN AREA FOR REQUIRED AIR MOVEMENT.

ROOF LEGEND

SLOPE	INDICATES ROOF DOWN SLOPE
SC/DS	SCUPPER W/ DOWNSPOUT
RD	ROOF DRAIN
OD	OVERFLOW ROOF DRAIN
EJ	INDICATES LINE OF BUILDING EXPANSION JOINT
	SINGLE PLY ROOFING MEMBRANE
	SINGLE PLY ROOFING MEMBRANE (HARDENED)

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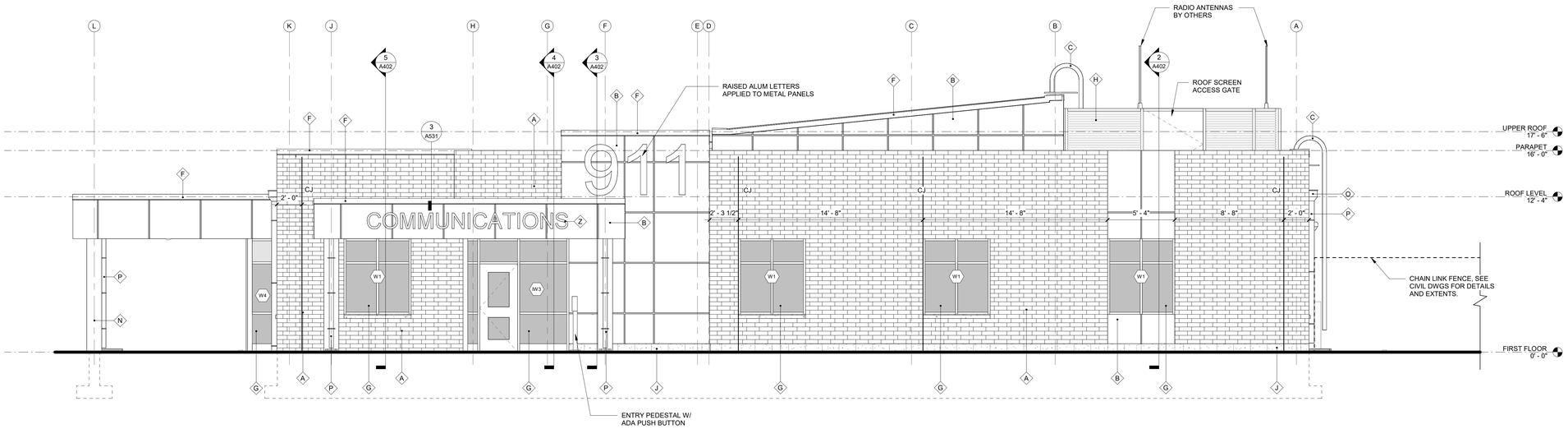
Key Plan:

Drawing Title:
ROOF PLAN

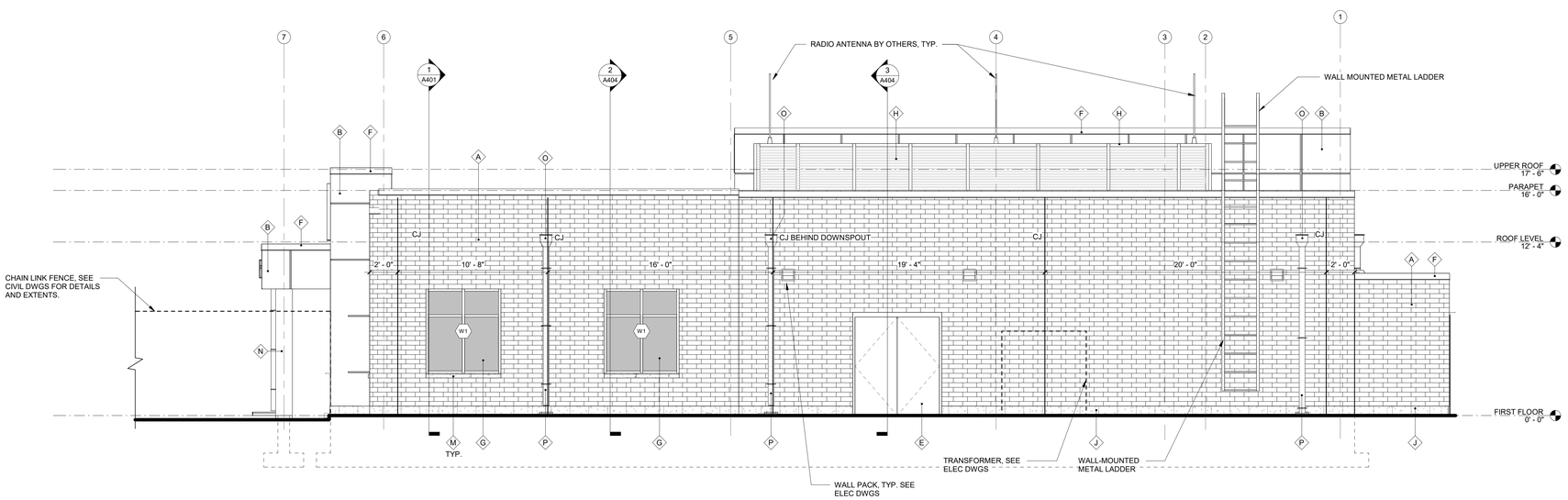
Drawing Number:
A141

BID SET



1 BUILDING ELEVATION - NORTH

A201 SCALE: 1/4" = 1'-0"



2 BUILDING ELEVATION - WEST

A201 SCALE: 1/4" = 1'-0"

ELEVATION KEY

CLEAR GLAZING

SPANDREL GLAZING

EJ EXPANSION JOINT

CJ CONTROL JOINT

IJ BUILDING ISOLATION JOINT

ELEVATION LEGEND

A	BRICK VENEER
B	COMPOSITE ALUMINUM METAL WALL PANEL
C	ROOF LADDER
D	METAL DECK
E	HOLLOW METAL
F	ALUMINUM COPING
G	ALUMINUM STOREFRONT SYSTEM
H	ALUMINUM ROOF SCREEN ASSEMBLY
J	GROUND-FACE BLOCK
K	SINGLE PLY ROOFING MEMBRANE
L	ANODIZED
M	CAST STONE SILL
N	METAL COLUMN COVER
O	ALUMINUM SCUPPER
P	ALUMINUM DOWNSPOUT
Q	2 HR FIRE RATED LARGE MISSILE IMPACT RATED ALUMINUM CURTAINWALL SYSTEM

True Project

0' 2' 4' 8' 16' 24'

BID SET

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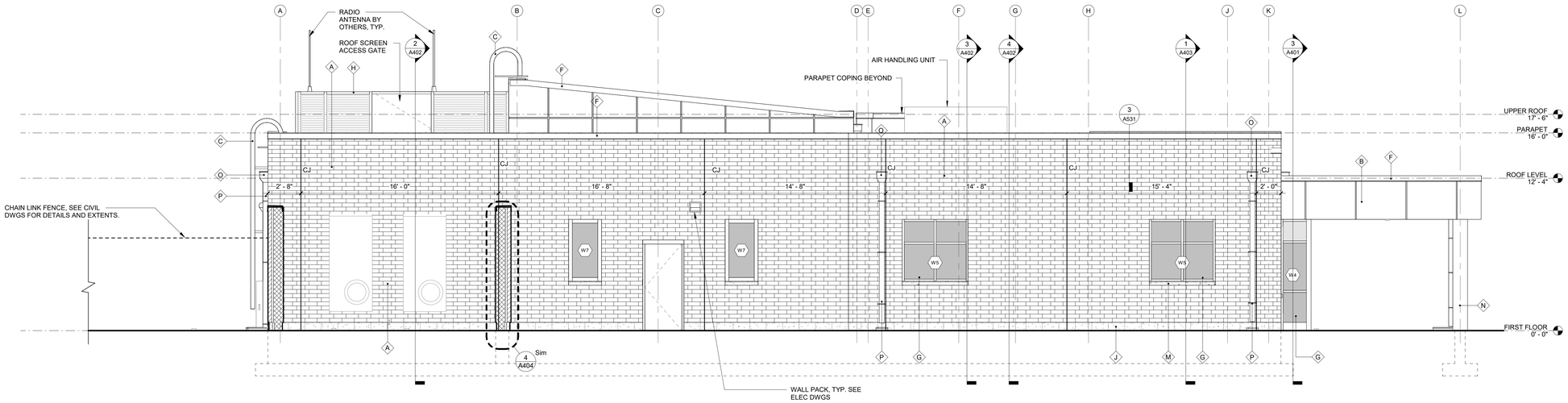
Key Plan:

Drawing Title:

BUILDING ELEVATIONS

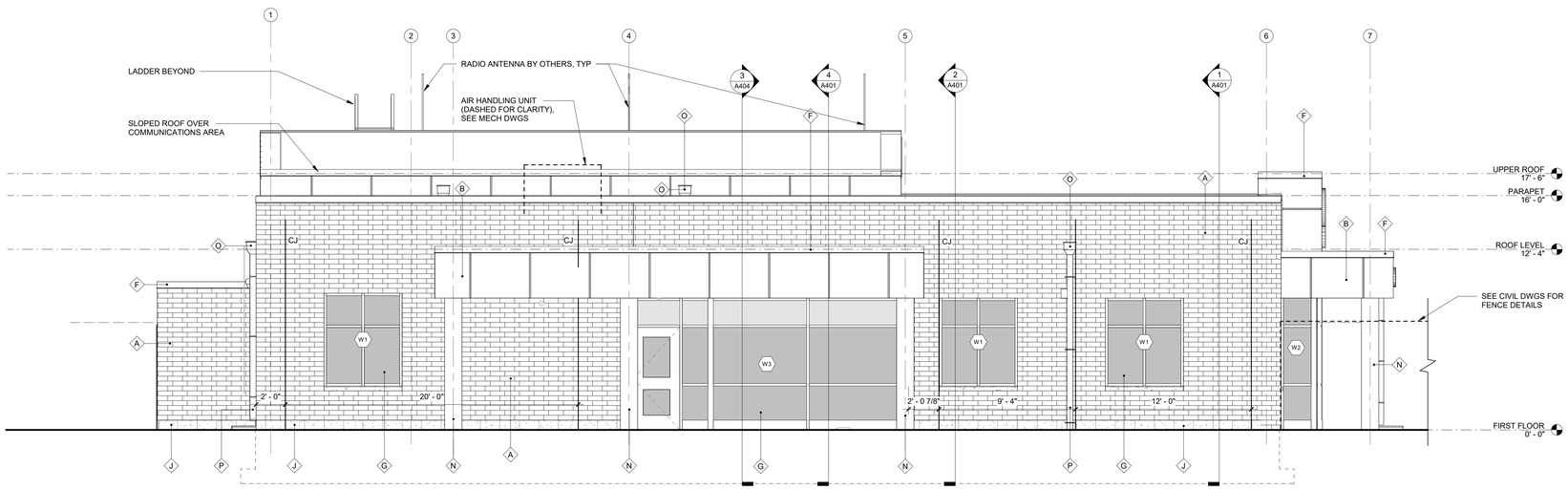
Drawing Number:

A201



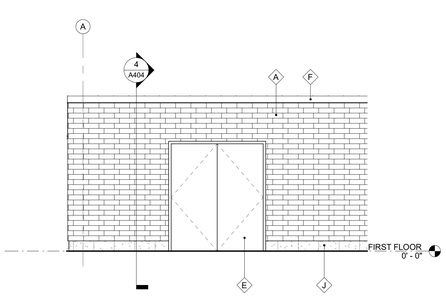
1 BUILDING ELEVATION - SOUTH

A202 SCALE: 1/4" = 1'-0"



2 BUILDING ELEVATION - EAST

A202 SCALE: 1/4" = 1'-0"



3 PARTIAL ELEVATION - MECH. HOUSE

A202 SCALE: 1/4" = 1'-0"

ELEVATION KEY

CLEAR GLAZING

SPANDREL GLAZING

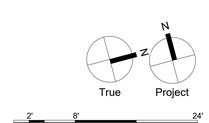
EJ EXPANSION JOINT

CJ CONTROL JOINT

IJ BUILDING ISOLATION JOINT

ELEVATION LEGEND

A BRICK VENEER
B COMPOSITE ALUMINUM METAL WALL PANEL
C ROOF LADDER
D METAL DECK
E HOLLOW METAL
F ALUMINUM COPING
G ALUMINUM STOREFRONT SYSTEM
H ALUMINUM ROOF SCREEN ASSEMBLY
J GROUND-FACE BLOCK
K SINGLE PLY ROOFING MEMBRANE
L ANODIZED
M CAST STONE SILL
N METAL COLUMN COVER
O ALUMINUM SCUPPER
P ALUMINUM DOWNSPOUT
Q 2 HR FIRE RATED LARGE MISSILE IMPACT RATED ALUMINUM CURTAINWALL SYSTEM



BID SET

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
p: 919.825.4882
www.sgarc.com

Consultants:

Civil:

Timmons Group
1805 West City Drive, Unit E Elizabeth City, NC 27909
License No. C-1652
Contact: Kim Hamby, PE

MEP:

RMF Engineering
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Raleigh, NC 27317
919.941.9876

Structural Engineer

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
919.825.4882

Professional Seal:

Owner:

BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:

BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

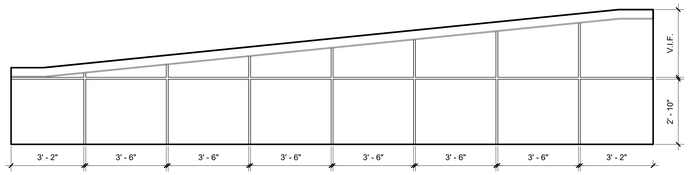
Key Plan:

Drawing Title:

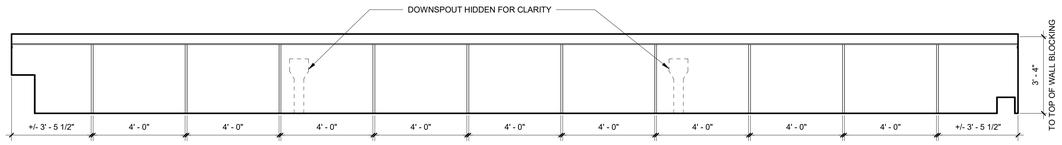
BUILDING ELEVATIONS

Drawing Number:

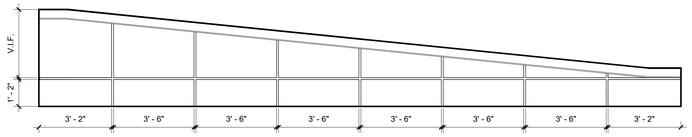
A202



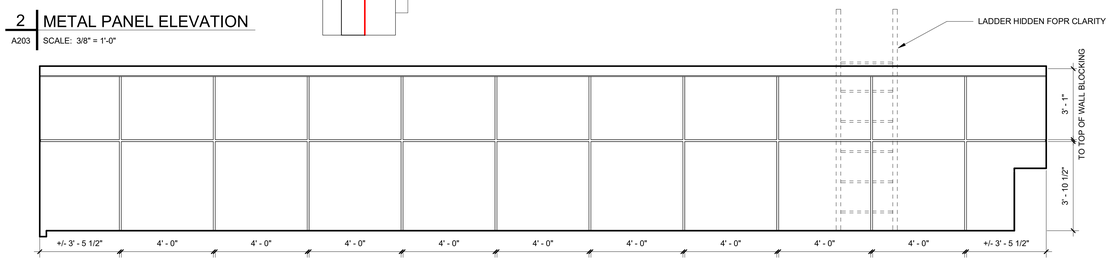
1 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



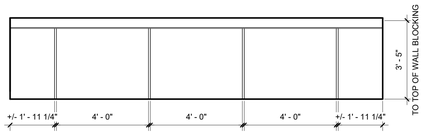
2 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



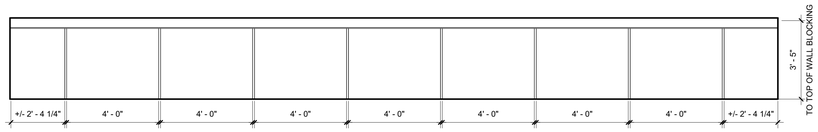
3 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



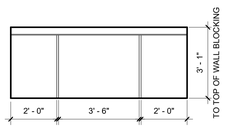
4 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



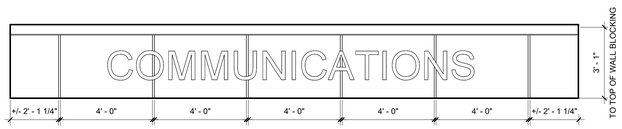
5 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



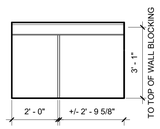
6 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



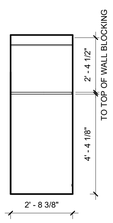
7 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



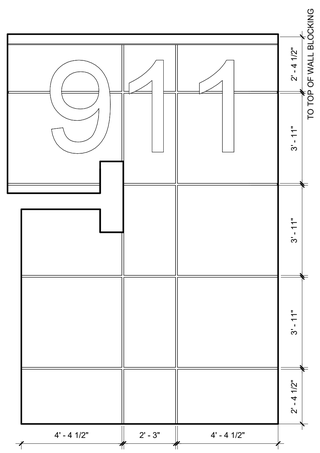
8 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



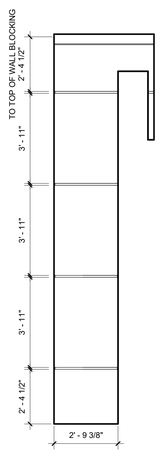
9 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



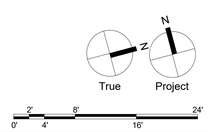
10 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



11 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



12 METAL PANEL ELEVATION
A203 SCALE: 3/8" = 1'-0"



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DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

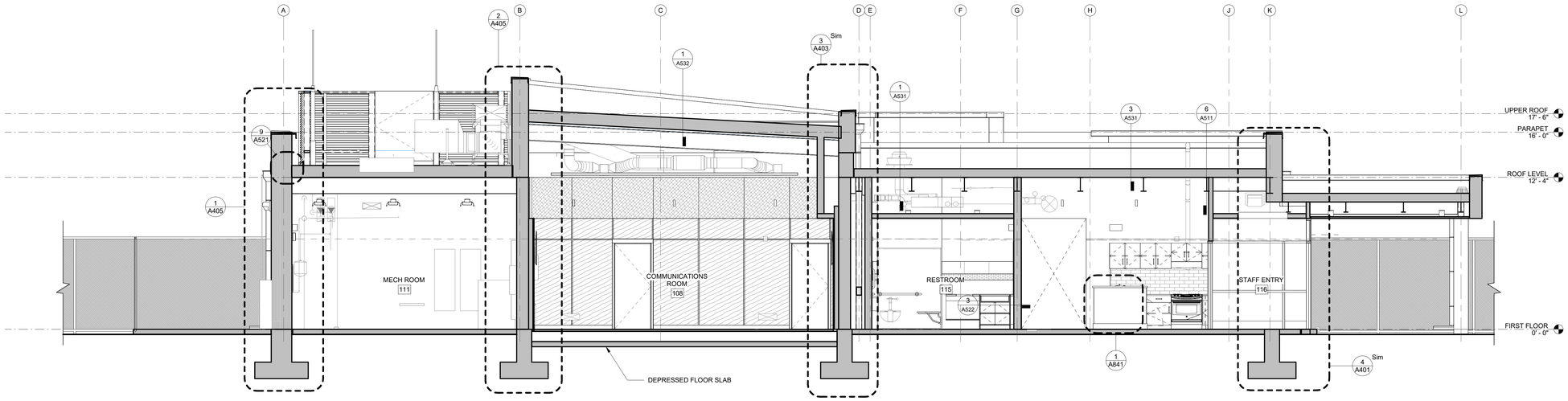
Key Plan:

Drawing Title:

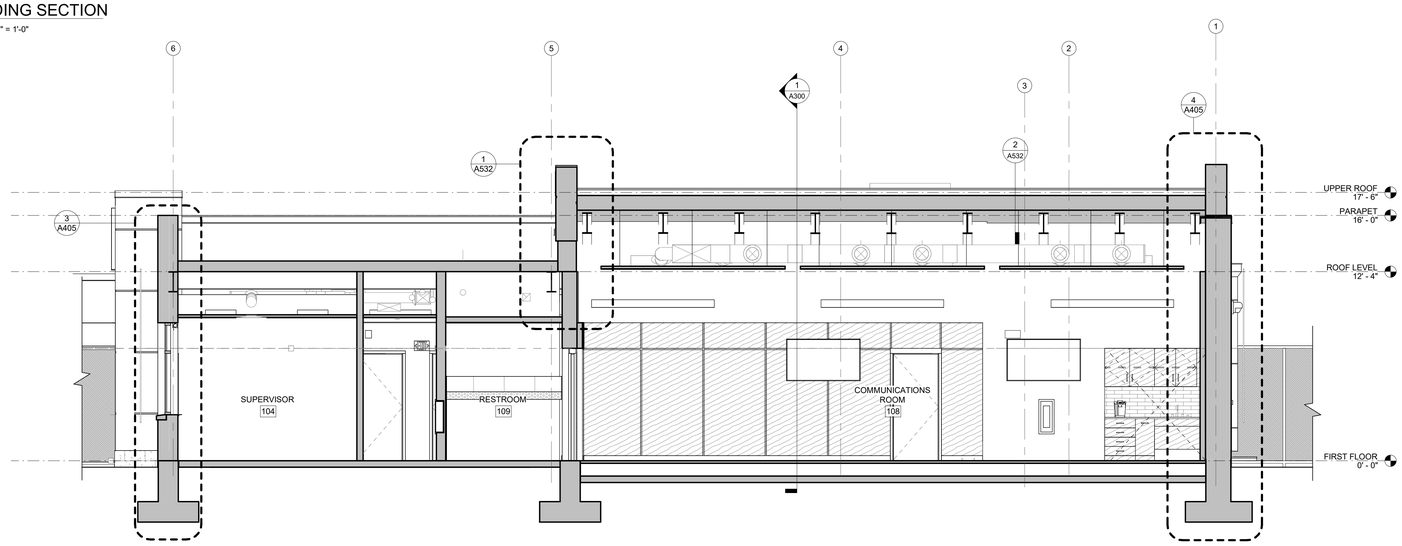
METAL PANEL ELEVATIONS

Drawing Number:

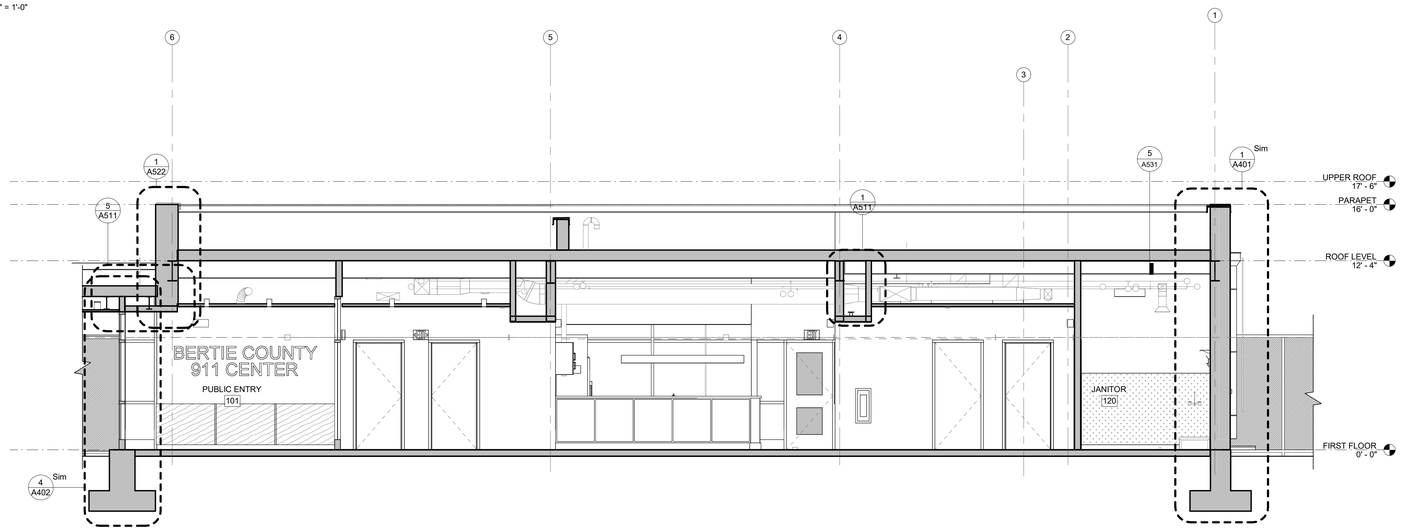
A203



1 BUILDING SECTION
A300 SCALE: 1/4" = 1'-0"



2 BUILDING SECTION
A300 SCALE: 1/4" = 1'-0"



3 BUILDING SECTION
A300 SCALE: 1/4" = 1'-0"

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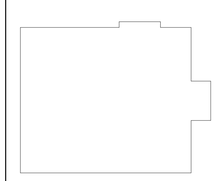
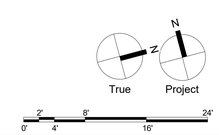


Drawing Title:
BUILDING SECTIONS

Drawing Number:
A300



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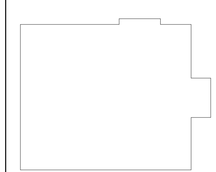
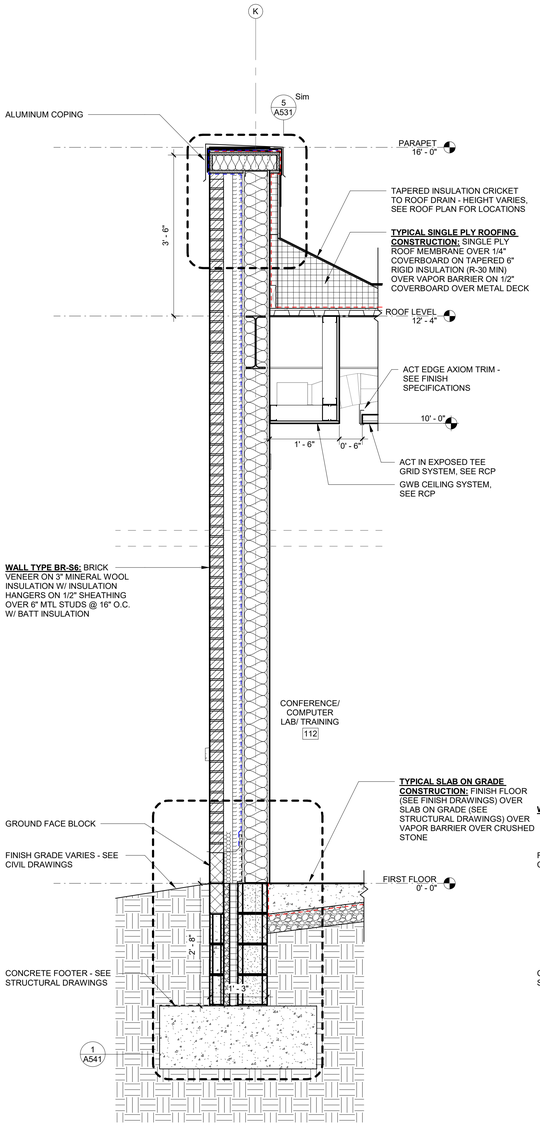
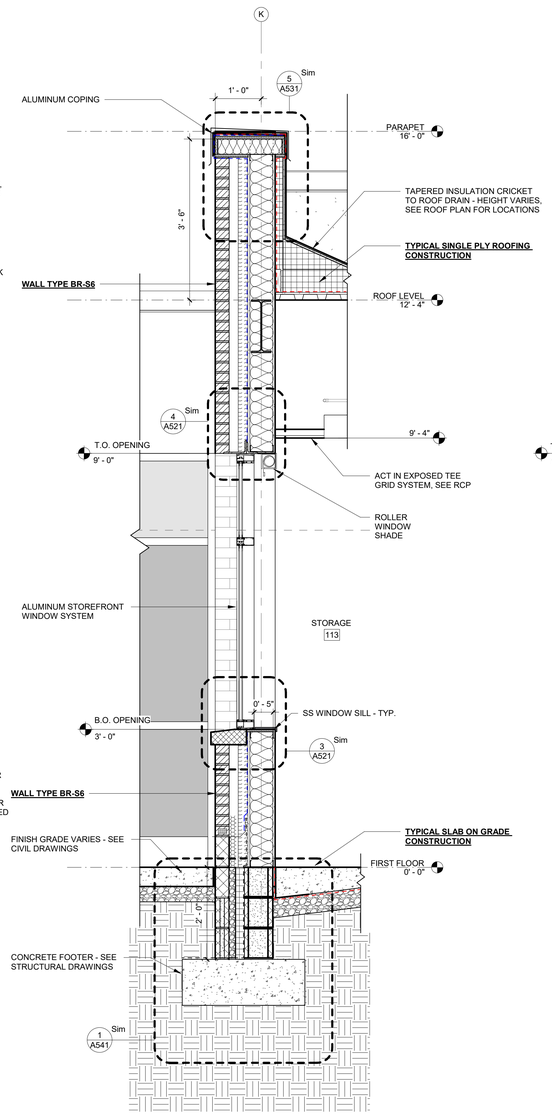
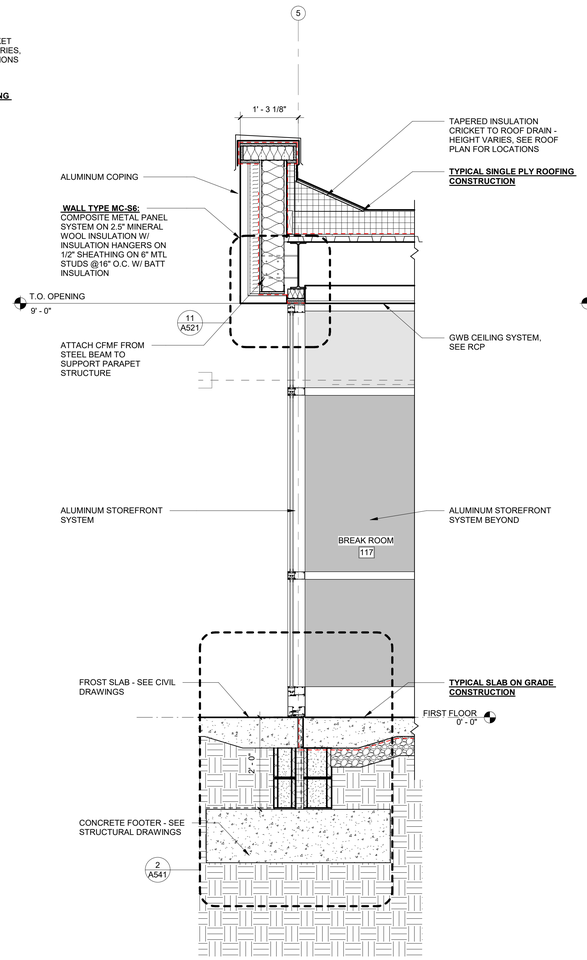




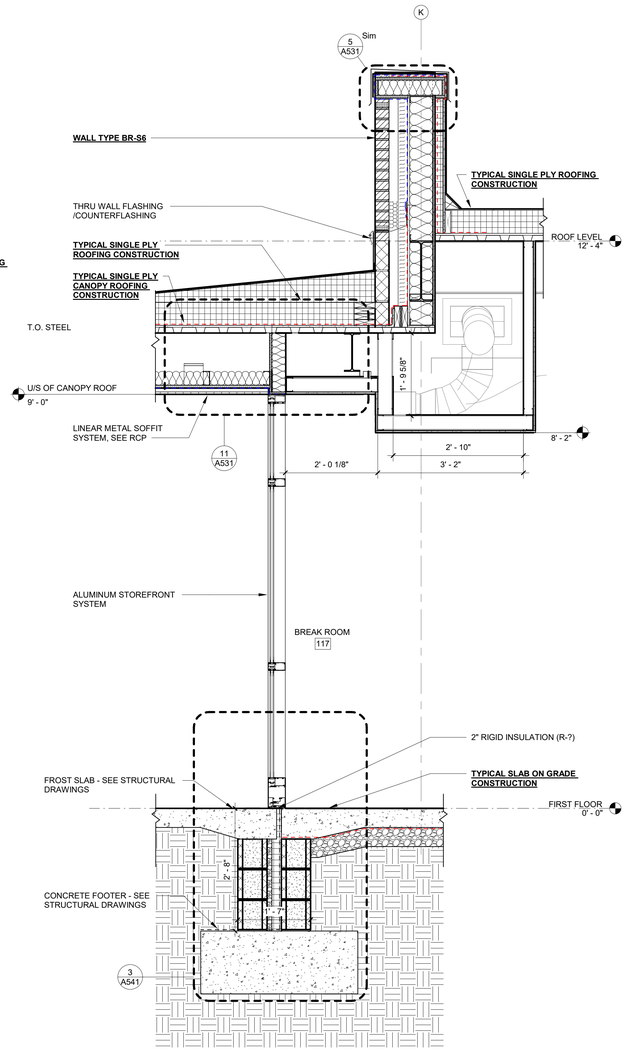
1 | WALL SECTION - BRICK VENEER ON STUD
A401 | SCALE: 3/4" = 1'-0"



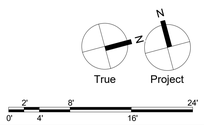
2 | WALL SECTION - BRICK VENEER ON STUD THRU WINDOW
A401 | SCALE: 3/4" = 1'-0"



3 | WALL SECTION - BREAKROOM STOREFRONT RETURN
A401 | SCALE: 3/4" = 1'-0"



4 | WALL SECTION - BREAKROOM STOREFRONT
A401 | SCALE: 3/4" = 1'-0"



Drawing Title:

WALL SECTIONS

Drawing Number:

A401

BID SET

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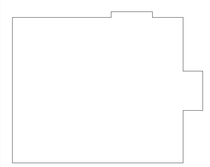
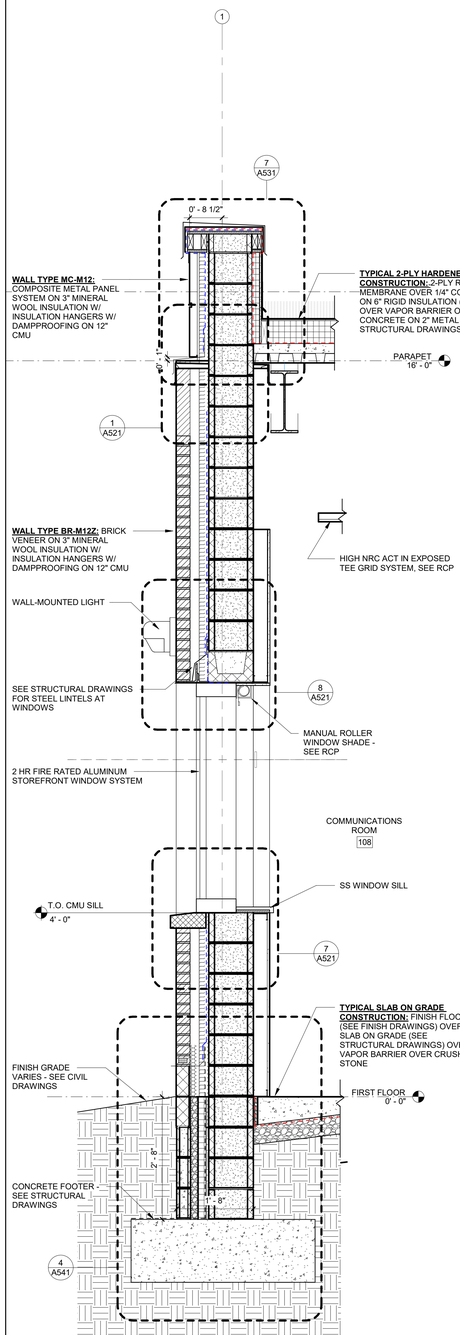
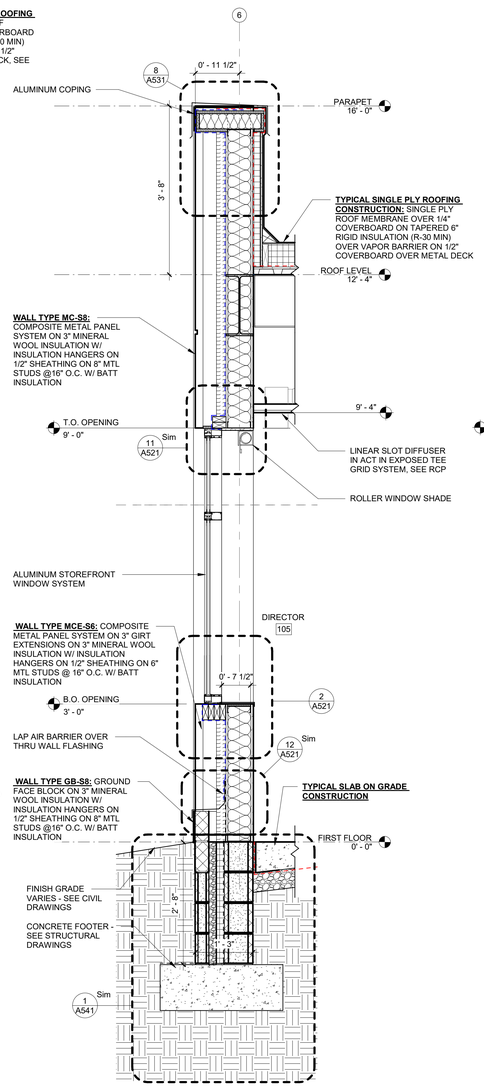
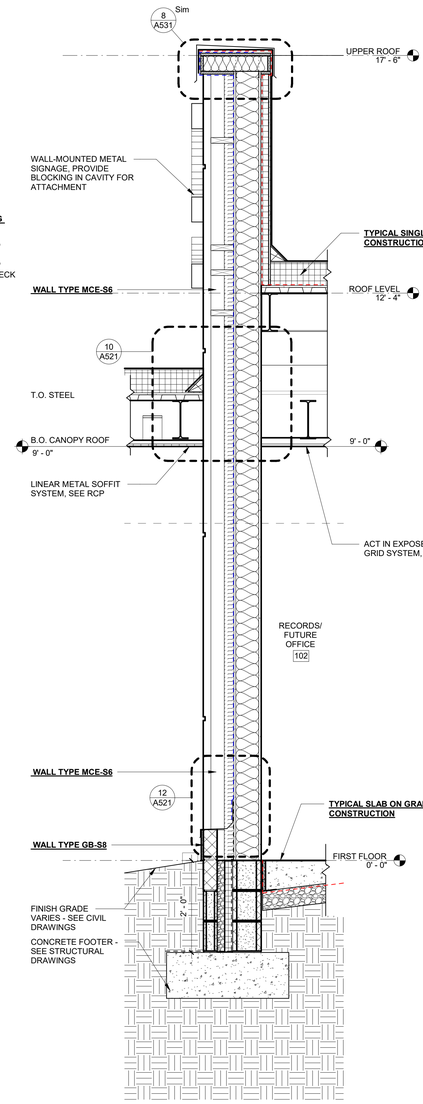




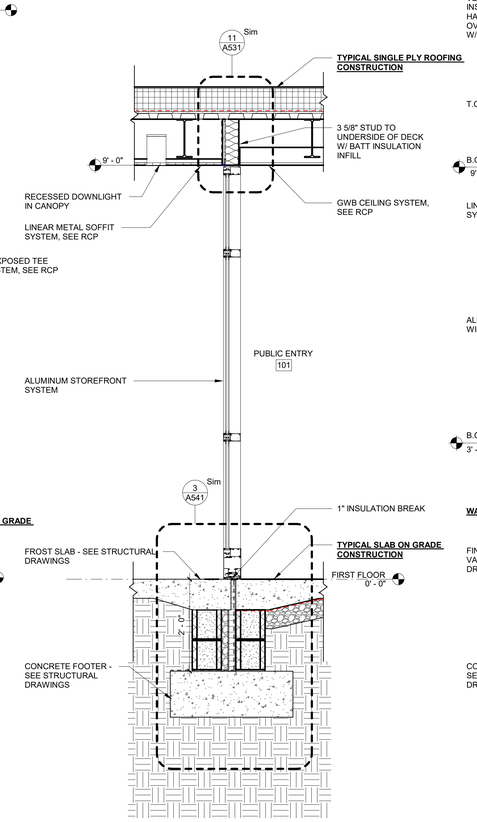
1 | WALL SECTION - BRICK VENEER ON CMU
A402 | SCALE: 3/4" = 1'-0"



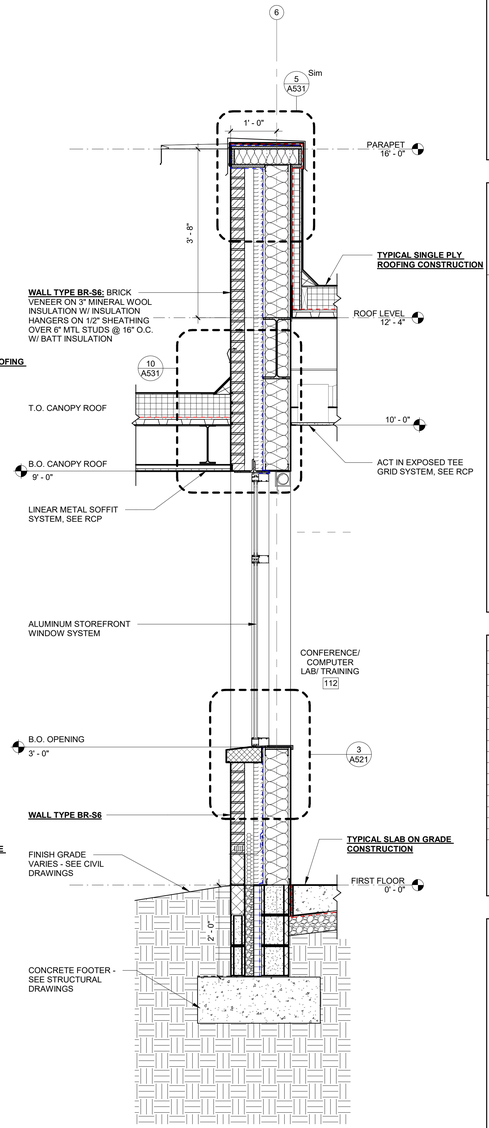
2 | WALL SECTION - METAL PANEL ON STUD THRU WINDOW
A402 | SCALE: 3/4" = 1'-0"



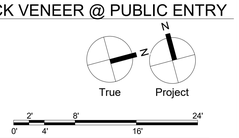
3 | WALL SECTION - METAL PANEL ON STUD
A402 | SCALE: 3/4" = 1'-0"



4 | WALL SECTION - PUBLIC ENTRY STOREFRONT
A402 | SCALE: 3/4" = 1'-0"



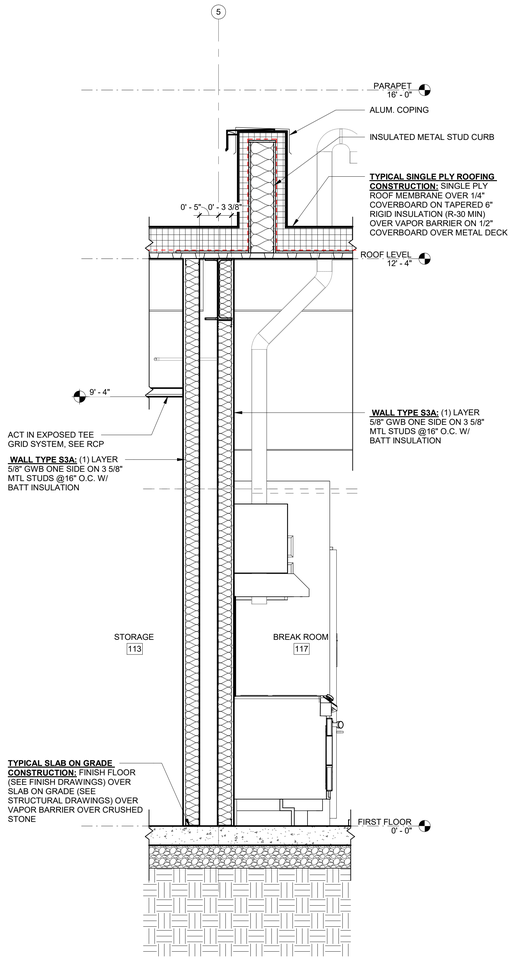
5 | WALL SECTION - BRICK VENEER @ PUBLIC ENTRY
A402 | SCALE: 3/4" = 1'-0"



Drawing Title:
WALL SECTIONS

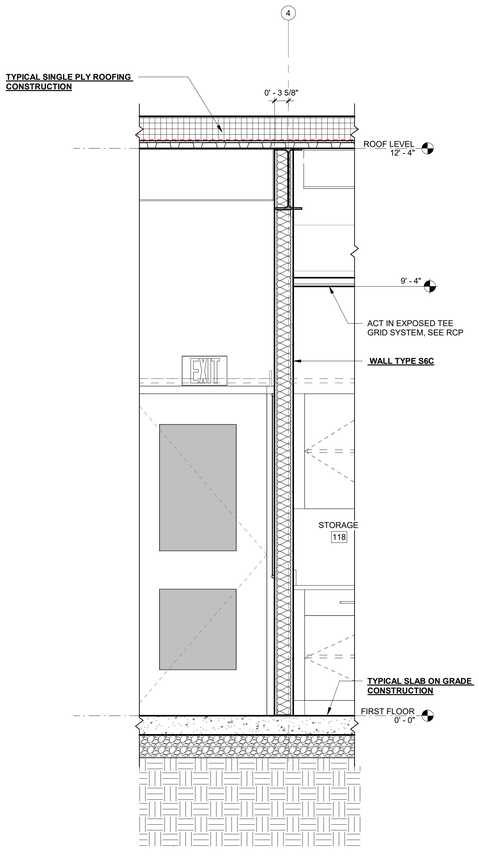
Drawing Number:
A402

BID SET



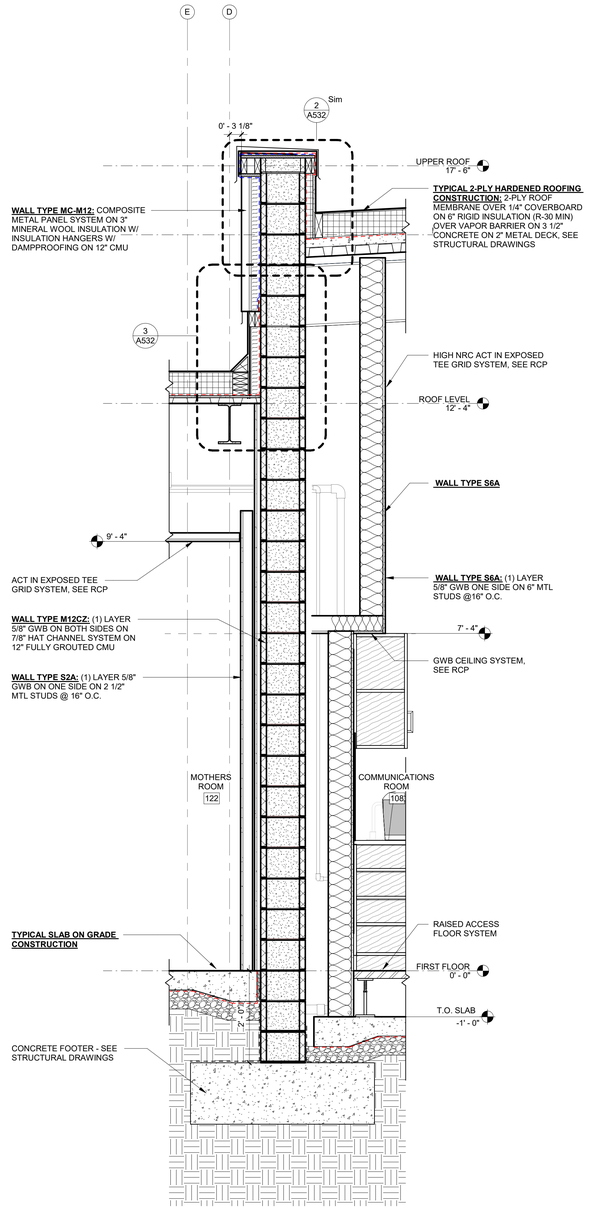
1 WALL SECTION - BREAKROOM / STORAGE SHARED WALL

A403 SCALE: 3/4" = 1'-0"



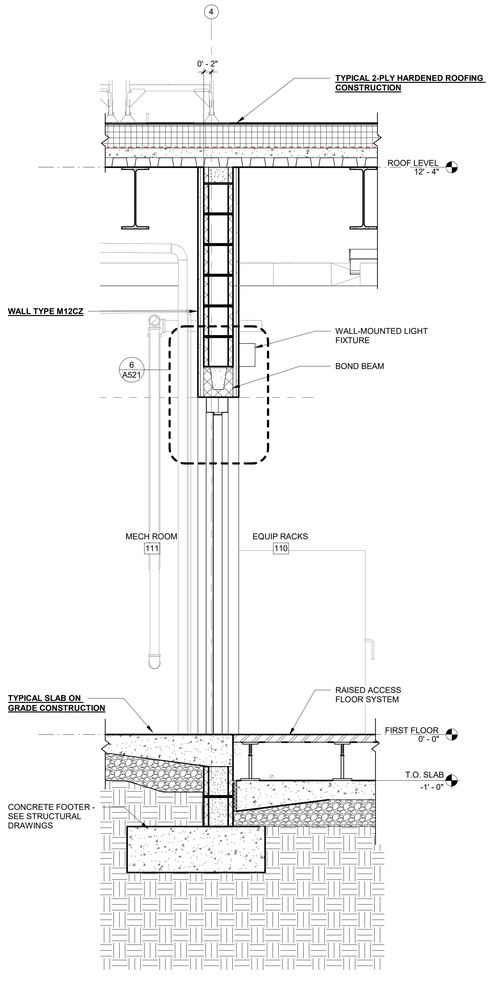
2 WALL SECTION - BREAKROOM / STORAGE SHARED WALL

A403 SCALE: 3/4" = 1'-0"



3 WALL SECTION - CMU @ COMMUNICATION WORKSTATIONS

A403 SCALE: 3/4" = 1'-0"



4 WALL SECTION - CMU @ MECH. ROOM

A403 SCALE: 3/4" = 1'-0"

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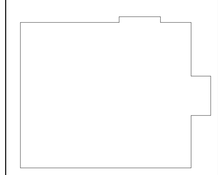
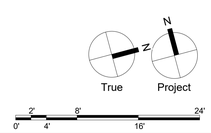


Drawing Title:

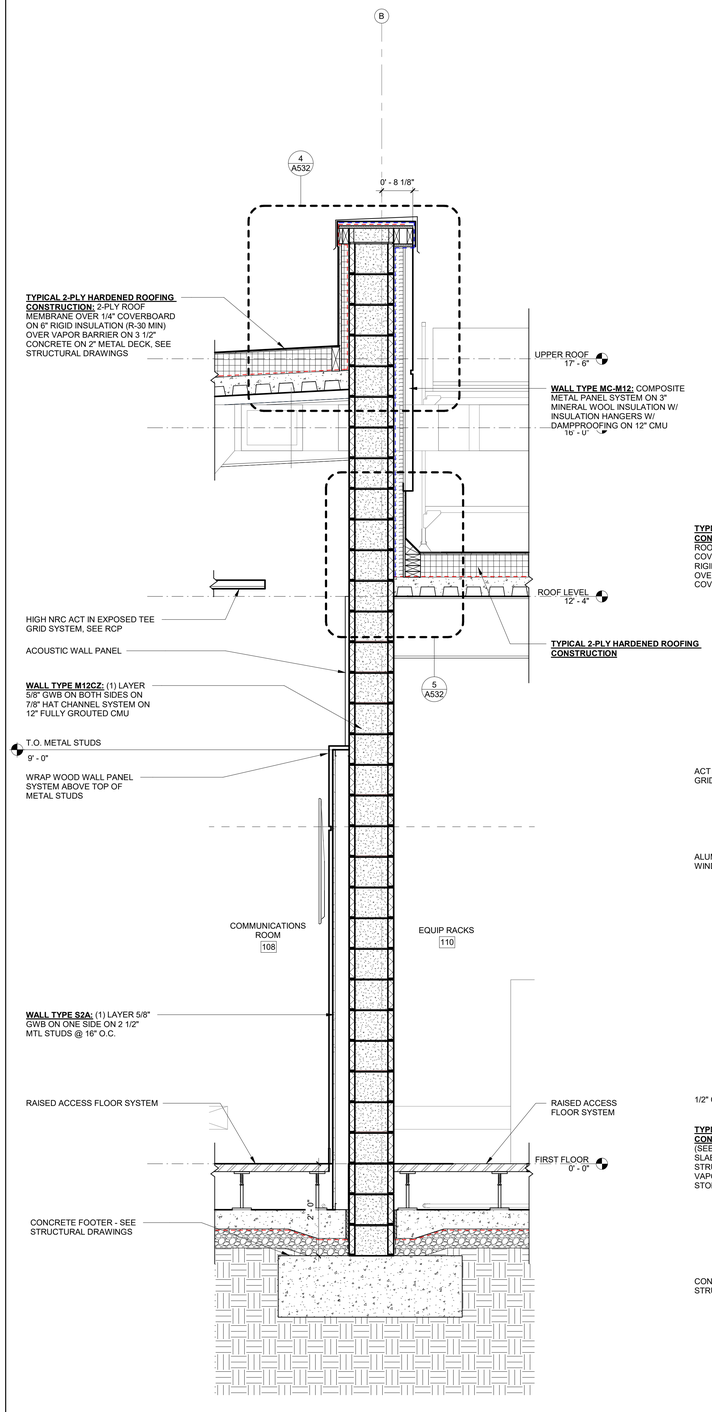
WALL SECTIONS

Drawing Number:

A403

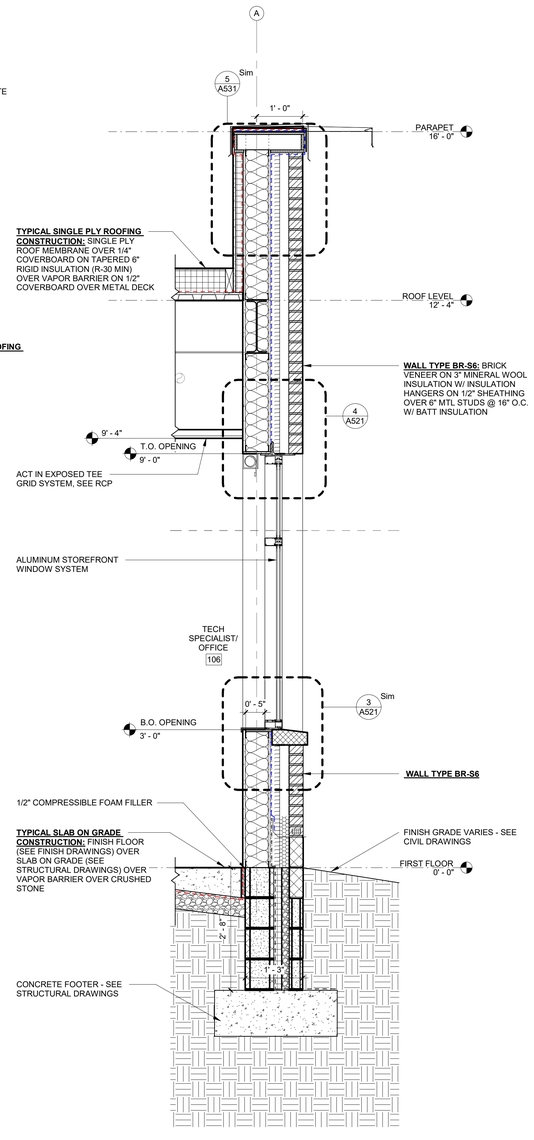


BID SET



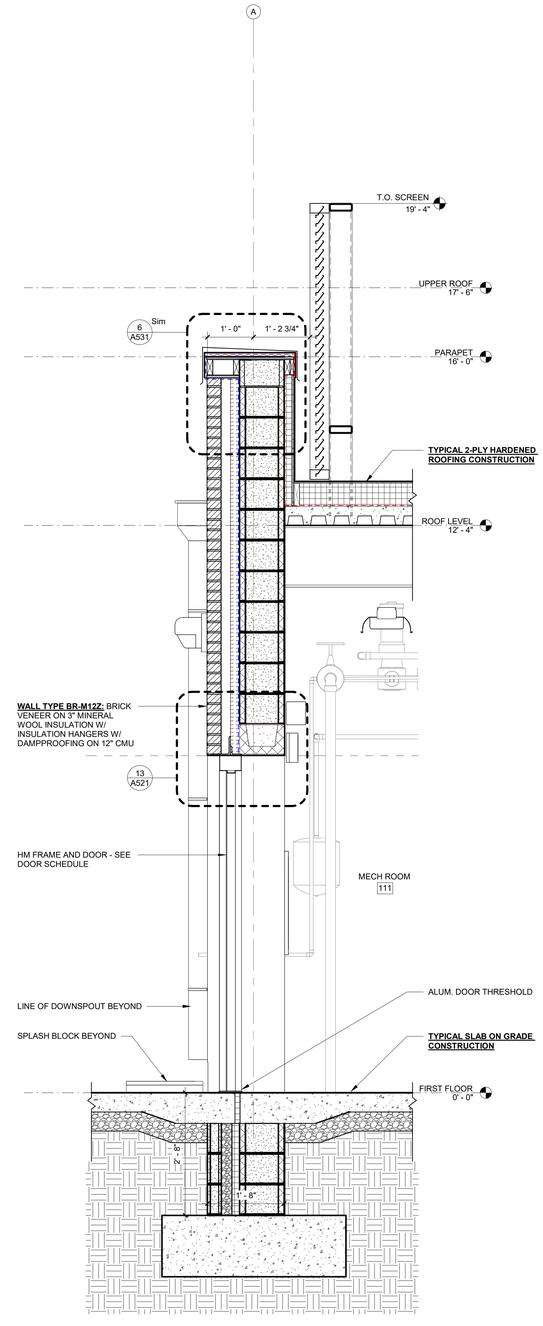
1 WALL SECTION - MECH. ROOM / COMM. WORKSTATION SHARED WALL

A404 SCALE: 3/4" = 1'-0"



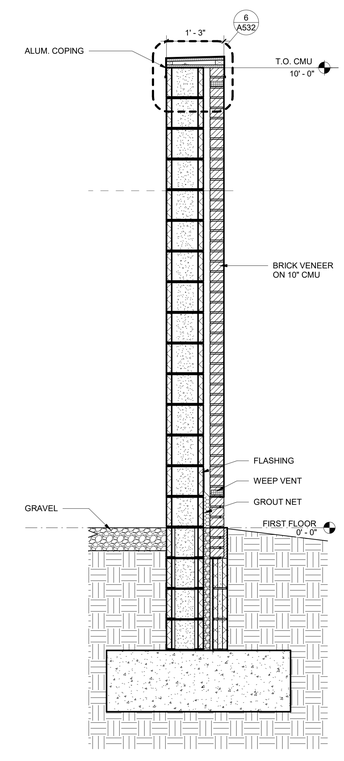
2 WALL SECTION - BRICK VENEER ON CMU THRU WINDOW

A404 SCALE: 3/4" = 1'-0"



3 WALL SECTION - BRICK VENEER ON CMU THRU DOOR

A404 SCALE: 3/4" = 1'-0"



4 WALL SECTION - MECH. HOUSE

A404 SCALE: 3/4" = 1'-0"

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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:

BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

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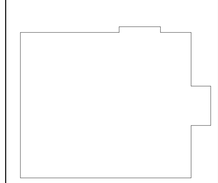
DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

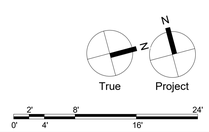


Drawing Title:

WALL SECTIONS

Drawing Number:

A404



BID SET

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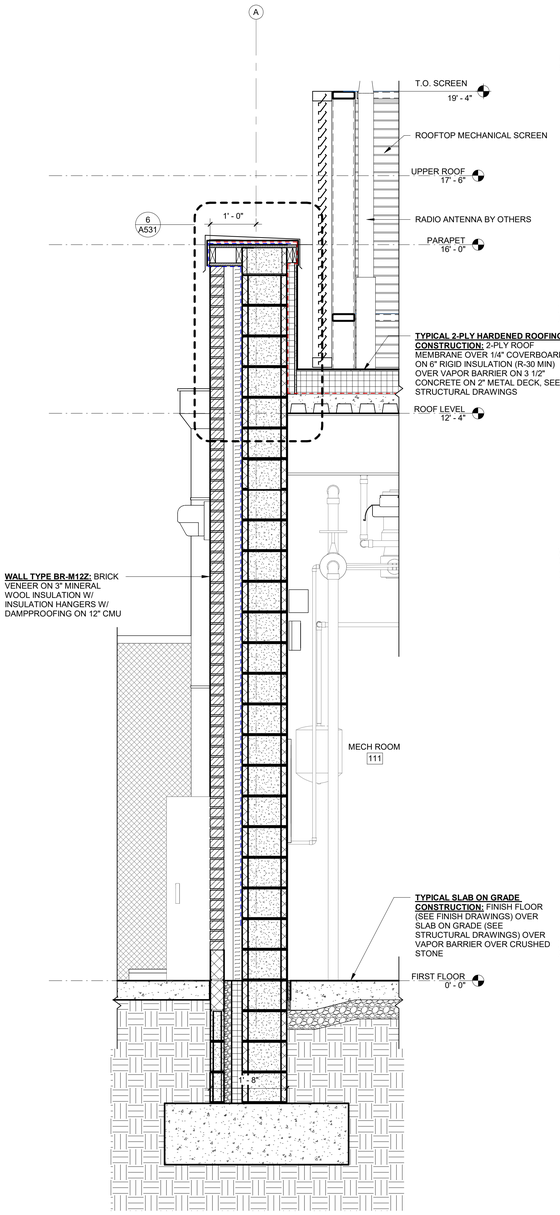
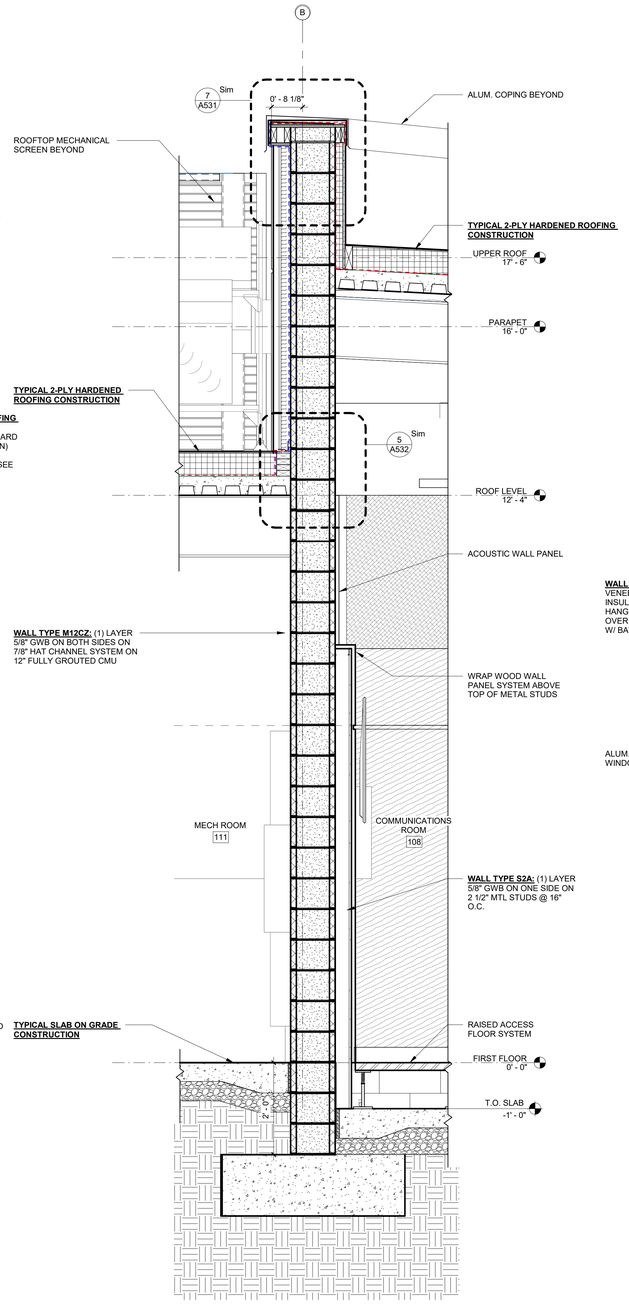
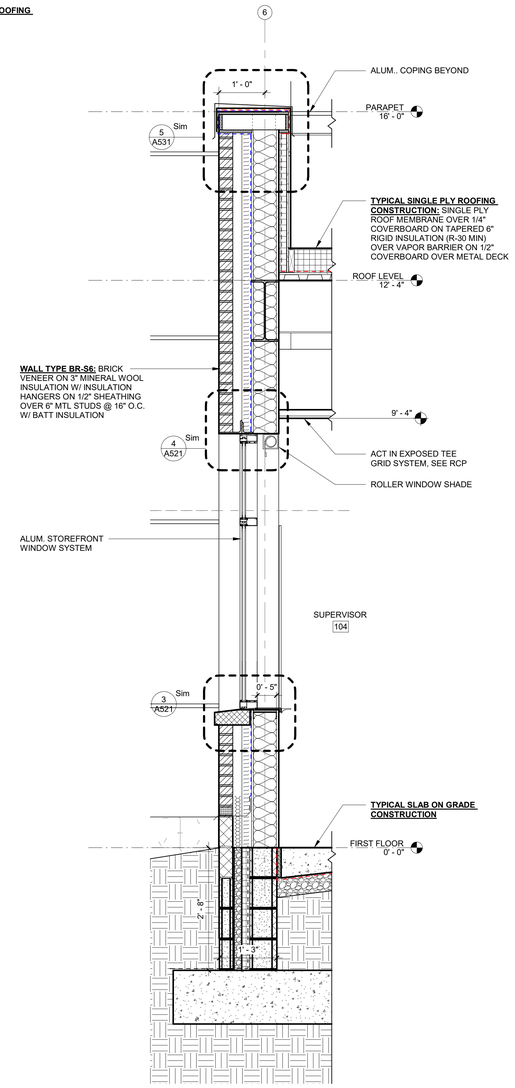


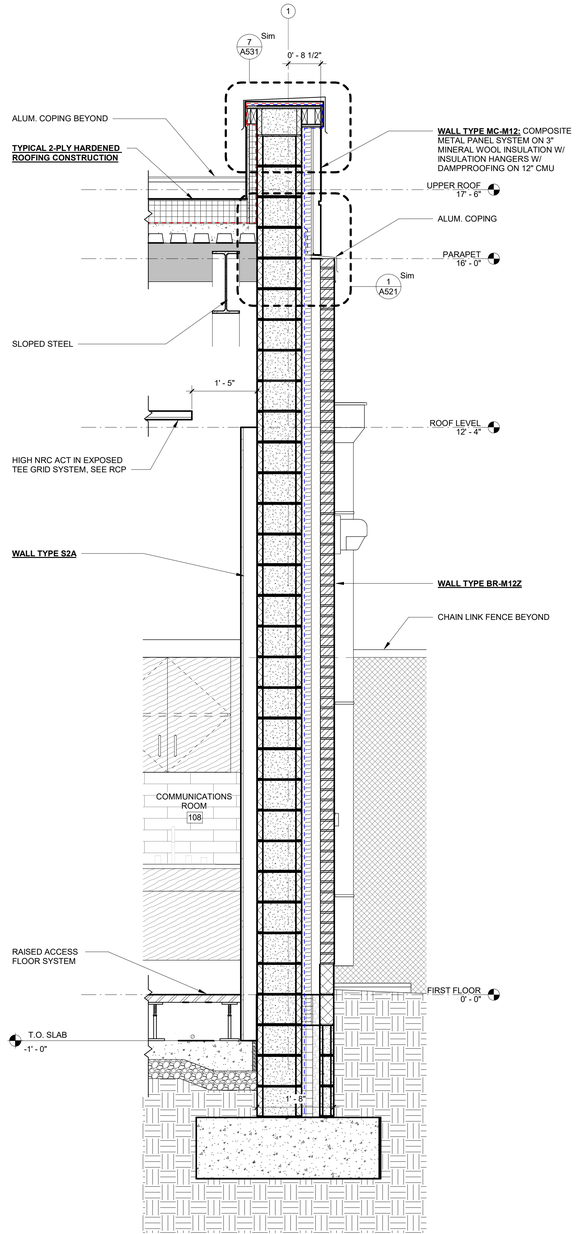
1 WALL SECTION - BRICK VENEER ON RATED CMU
A405 SCALE: 3/4" = 1'-0"



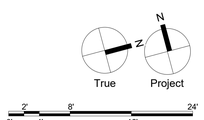
2 WALL SECTION - MECH. @ RAISED ACCESS FLOOR
A405 SCALE: 3/4" = 1'-0"



3 WALL SECTION - SUPERVISOR
A405 SCALE: 3/4" = 1'-0"



4 WALL SECTION - RATED CMU BRICK VENEER @ METAL PANEL
A405 SCALE: 3/4" = 1'-0"



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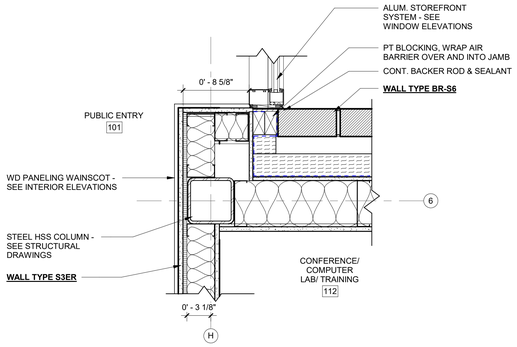
SG PROJECT NUMBER: 24-011

Key Plan:

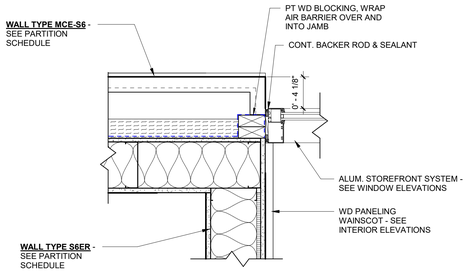
Drawing Title:
WALL SECTIONS

Drawing Number:
A405

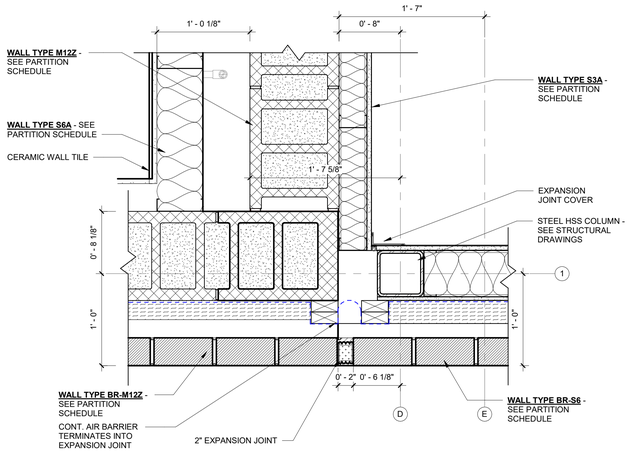
BID SET



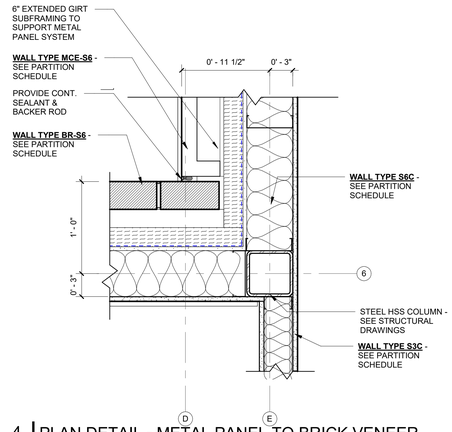
1 PLAN DETAIL - PUBLIC ENTRY STOREFRONT RETURN
A501 SCALE: 1 1/2" = 1'-0"



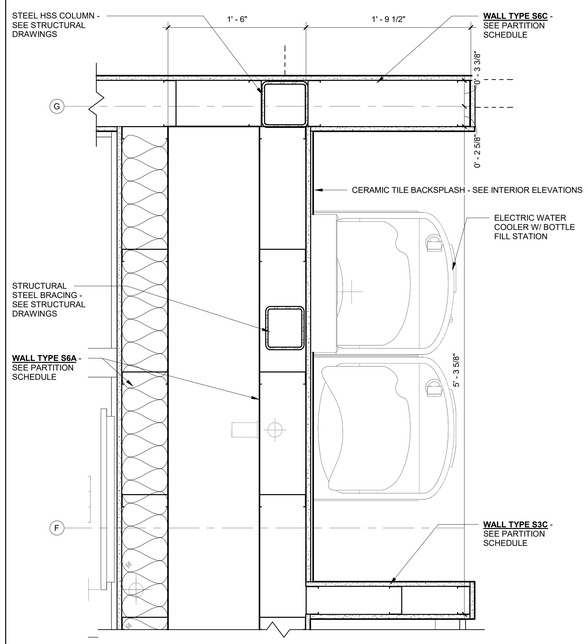
2 PLAN DETAIL - PUBLIC ENTRY STOREFRONT TO METAL PANEL
A501 SCALE: 1 1/2" = 1'-0"



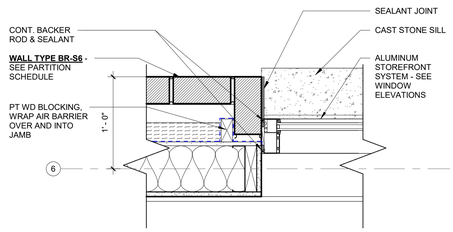
3 PLAN DETAIL - CMU @ COMMUNICATION WORKSTATIONS
A501 SCALE: 1 1/2" = 1'-0"



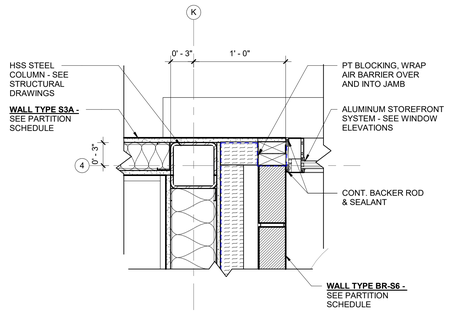
4 PLAN DETAIL - METAL PANEL TO BRICK VENEER
A501 SCALE: 1 1/2" = 1'-0"



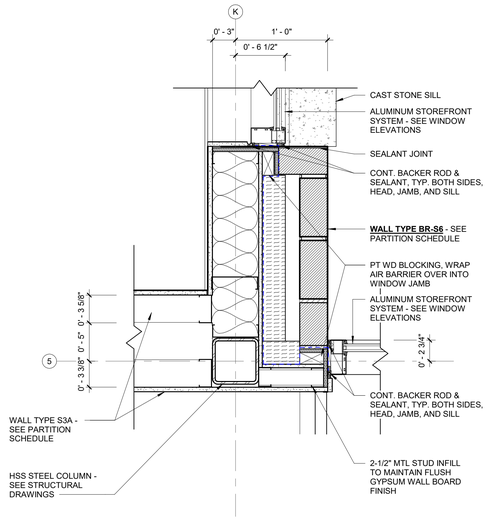
5 PLAN DETAIL - WATER FOUNTAIN RECESS
A501 SCALE: 1 1/2" = 1'-0"



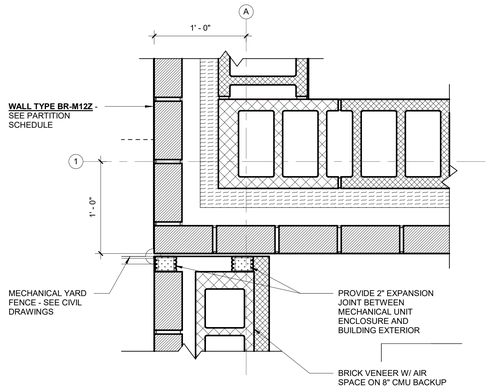
6 PLAN DETAIL - METAL PLANEL @ BRICK VENEER
A501 SCALE: 1 1/2" = 1'-0"



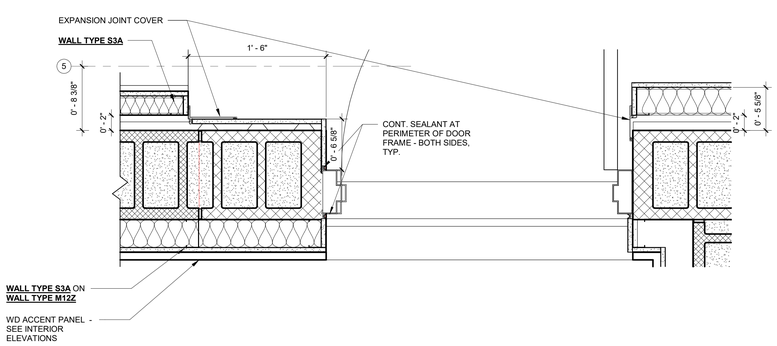
7 PLAN DETAIL - STAFF ENTRY STOREFRONT
A501 SCALE: 1 1/2" = 1'-0"



8 PLAN DETAIL - BREAK ROOM CORNER
A501 SCALE: 1 1/2" = 1'-0"



9 PLAN DETAIL - MECHANICAL HOUSE CONNECTION
A501 SCALE: 1 1/2" = 1'-0"



10 PLAN DETAIL - HARDENED CMU DOOR OPENING
A501 SCALE: 1 1/2" = 1'-0"

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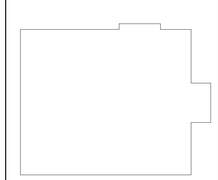
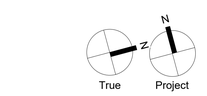


Drawing Title:
PLAN DETAILS

Drawing Number:
A501



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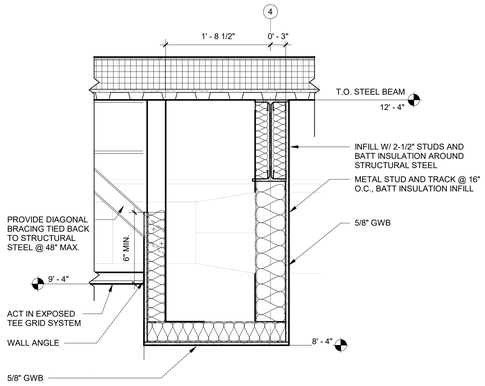
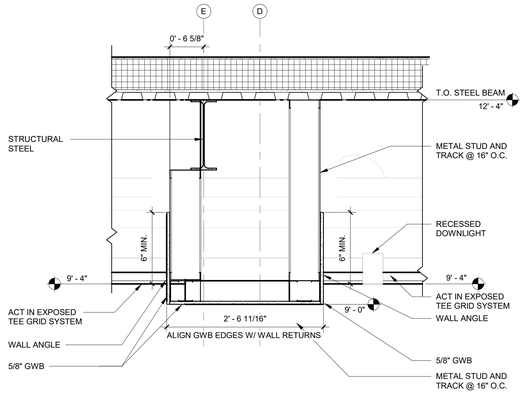
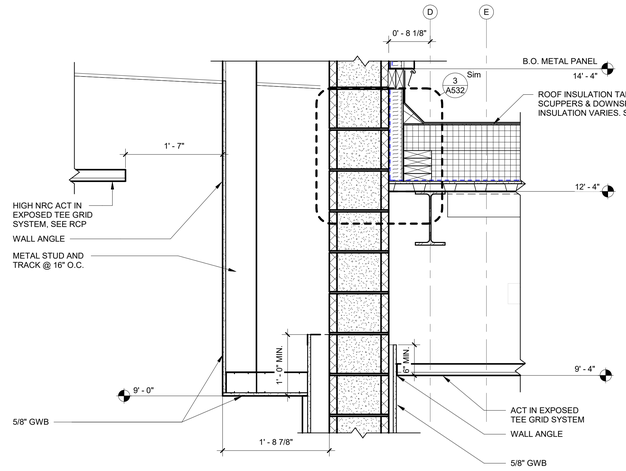


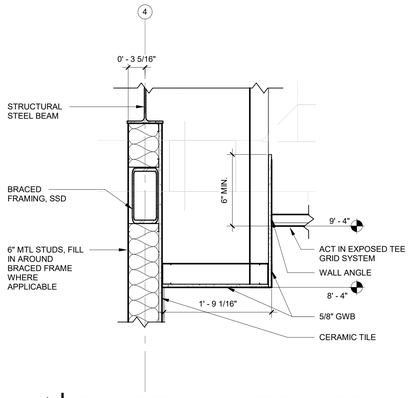
1 CEILING DETAIL - ACT TO EXPOSED CEILING
A511 SCALE: 1" = 1'-0"



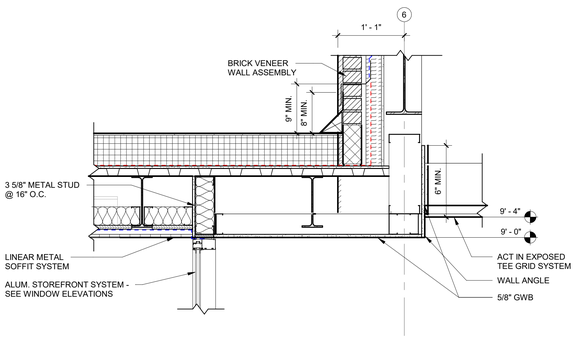
2 CEILING DETAIL - ACT @ GYP BULKHEAD
A511 SCALE: 1" = 1'-0"



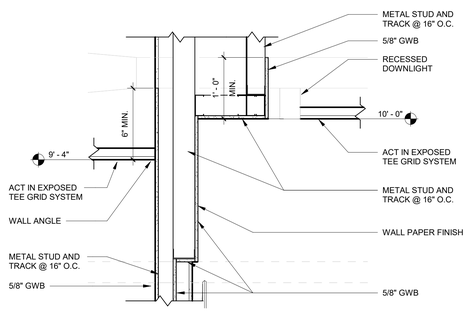
3 CEILING DETAIL - ACT TO WOOD HIGH NRC ACT CEILING
A511 SCALE: 1" = 1'-0"



4 CEILING DETAIL - LOCKER BULKHEAD
A511 SCALE: 1" = 1'-0"



5 CEILING DETAIL - PUBLIC ENTRY
A511 SCALE: 1" = 1'-0"



6 CEILING DETAIL - CONFERENCE ACT TO GYP
A511 SCALE: 1" = 1'-0"

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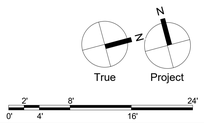
Key Plan:

Drawing Title:
CEILING DETAILS

Drawing Number:
A511



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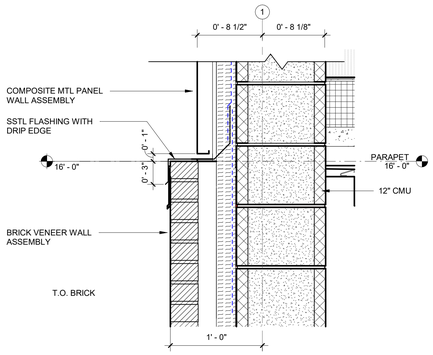
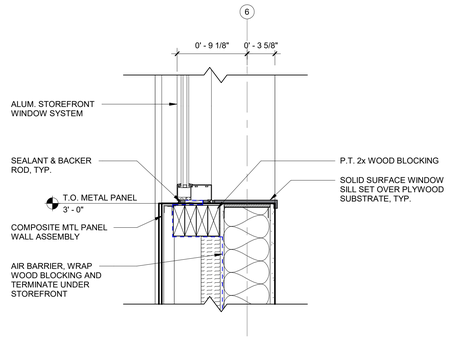
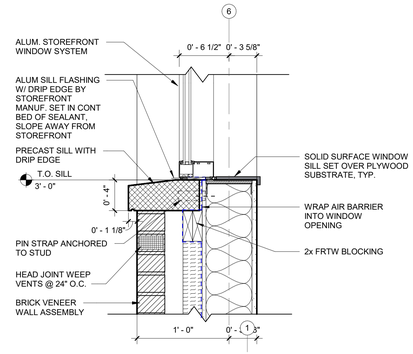


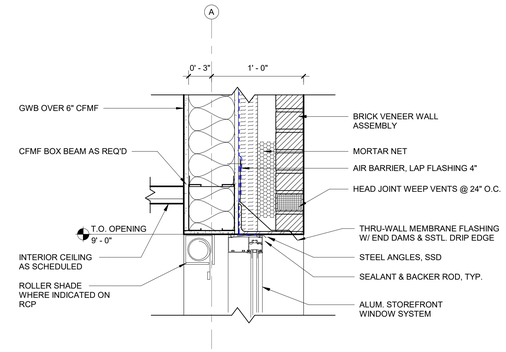
1 SECTION DETAIL - METAL PANEL TO BRICK ON CMU
A521 SCALE: 1 1/2" = 1'-0"



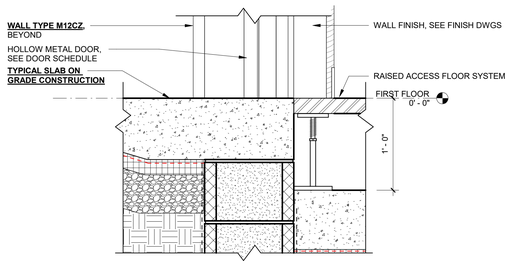
2 SECTION DETAIL - METAL PANEL ON STUD @ SILL
A521 SCALE: 1 1/2" = 1'-0"



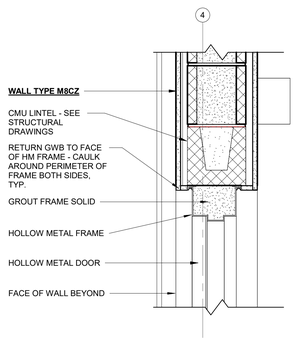
3 SECTION DETAIL - BRICK VENEER ON STUD @ SILL
A521 SCALE: 1 1/2" = 1'-0"



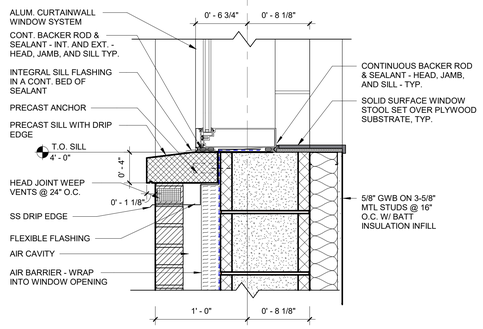
4 SECTION DETAIL - BRICK VENEER ON STUD @ HEAD
A521 SCALE: 1 1/2" = 1'-0"



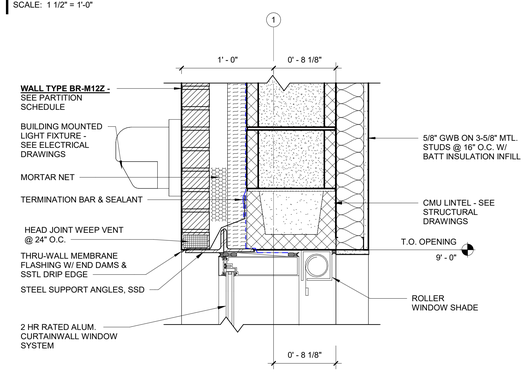
5 SECTION DETAIL - RAISED FLOOR TRANSITION
A521 SCALE: 1 1/2" = 1'-0"



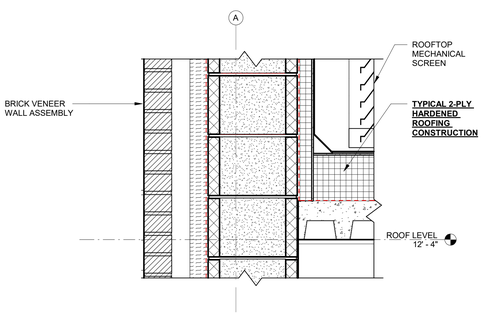
6 SECTION DETAIL - DOOR HEAD @ RATED CMU
A521 SCALE: 1 1/2" = 1'-0"



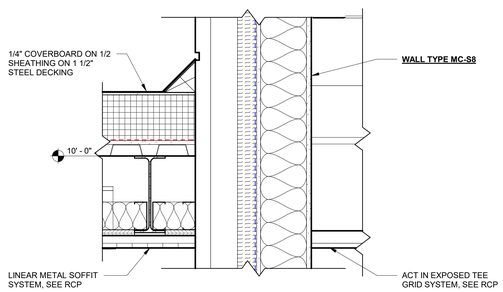
7 SECTION DETAIL - HARDENED CMU @ RATED STOREFRONT SILL
A521 SCALE: 1 1/2" = 1'-0"



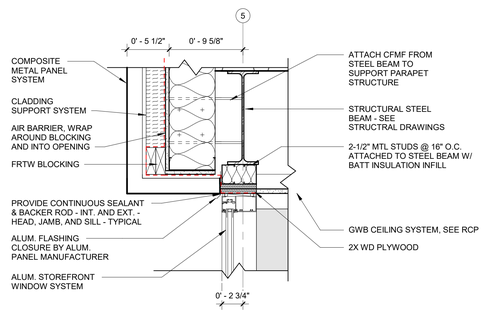
8 SECTION DETAIL - HARDENED CMU @ RATED STOREFRONT HEAD
A521 SCALE: 1 1/2" = 1'-0"



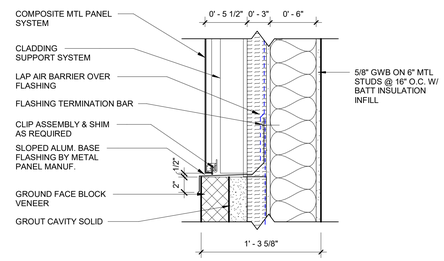
9 SECTION DETAIL - ROOFTOP MECHANICAL SCREEN
A521 SCALE: 1 1/2" = 1'-0"



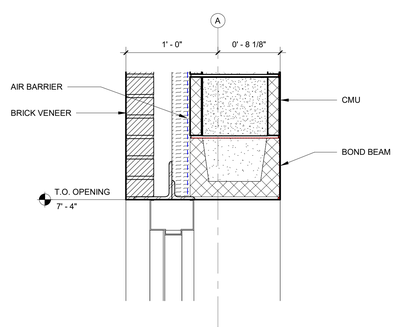
10 SECTION DETAIL - CANOPY ROOF @ METAL PANEL
A521 SCALE: 1 1/2" = 1'-0"



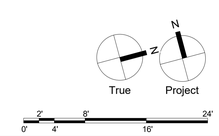
11 SECTION DETAIL - METAL PANEL @ STOREFRONT HEAD
A521 SCALE: 1 1/2" = 1'-0"



12 SECTION DETAIL - GROUND FACE BLOCK @ METAL PANEL
A521 SCALE: 1 1/2" = 1'-0"



13 SECTION DETAIL - DOOR HEAD
A521 SCALE: 1 1/2" = 1'-0"



BID SET

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Consultants:
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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
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New Construction of:
BERTIE COUNTY 911 CENTER

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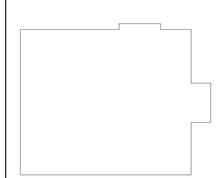
DATE: 05/27/2026

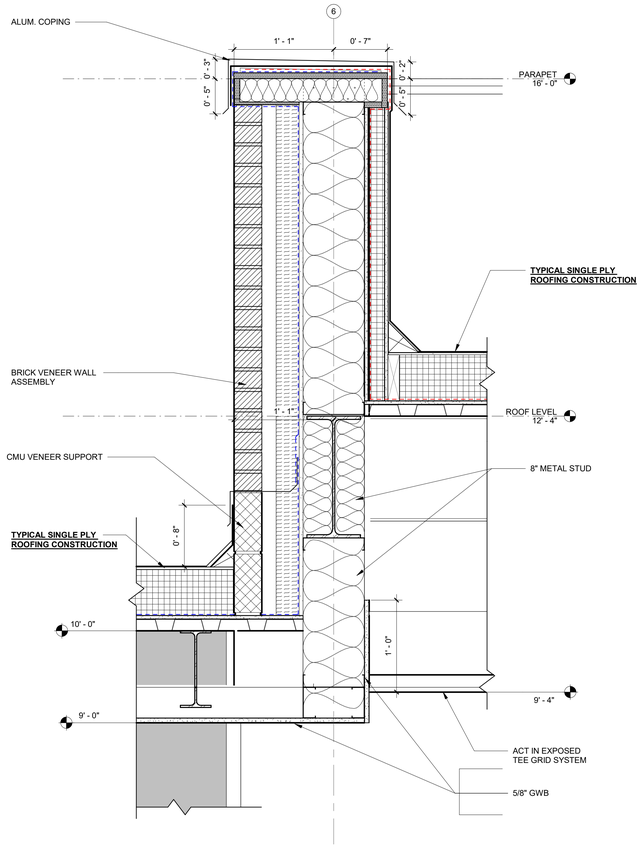
SG PROJECT NUMBER: 24-011

Key Plan:

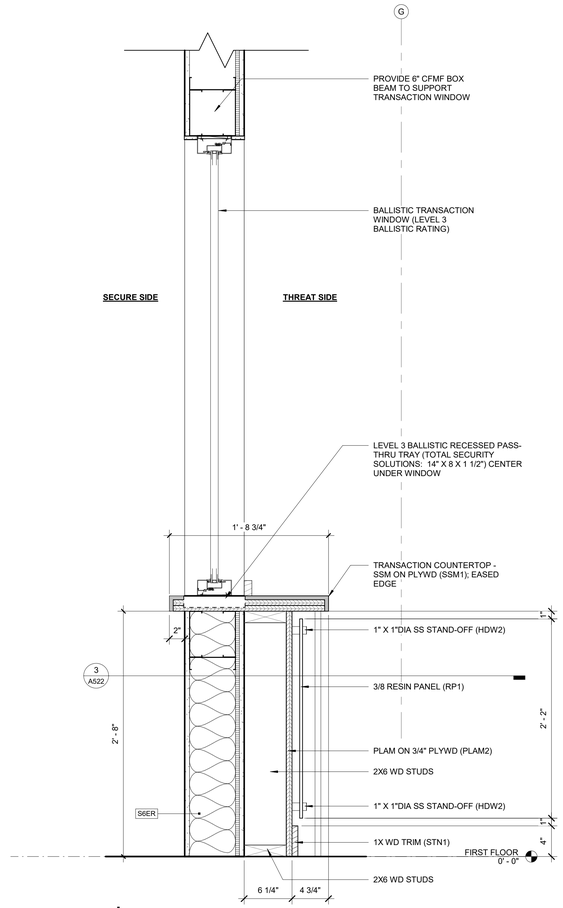


Drawing Title:
SECTION DETAILS

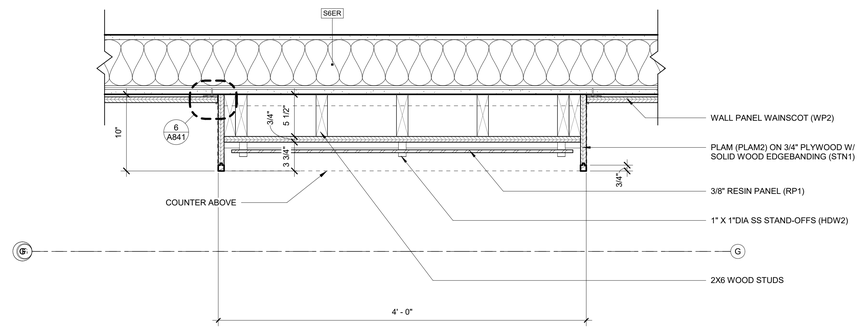
Drawing Number:
A521



1 SECTION DETAIL - PUBLIC ENTRY BRICK VENEER
A522 SCALE: 1 1/2" = 1'-0"



2 SECTION DETAIL - TRANSACTION WINDOW
A522 SCALE: 1 1/2" = 1'-0"



3 SECTION DETAIL - PLAN VIEW - TRANSACTION WINDOW
A522 SCALE: 1 1/2" = 1'-0"

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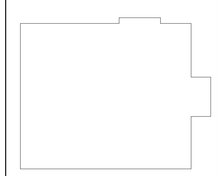
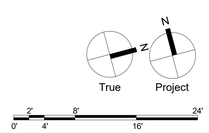


Drawing Title:

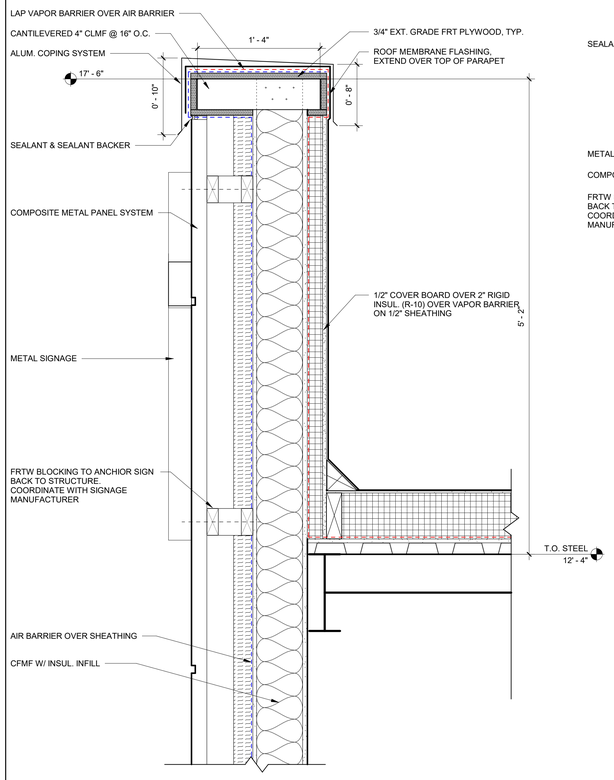
SECTION DETAILS

Drawing Number:

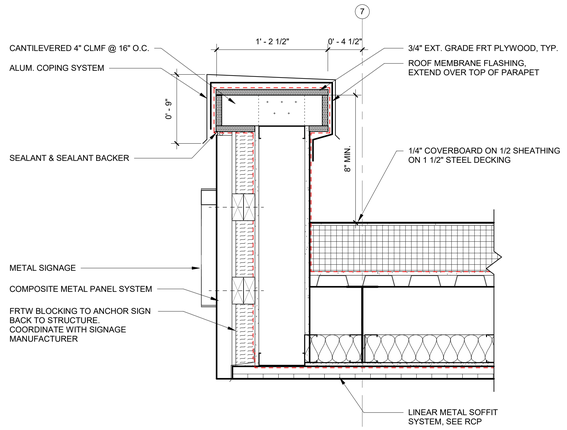
A522



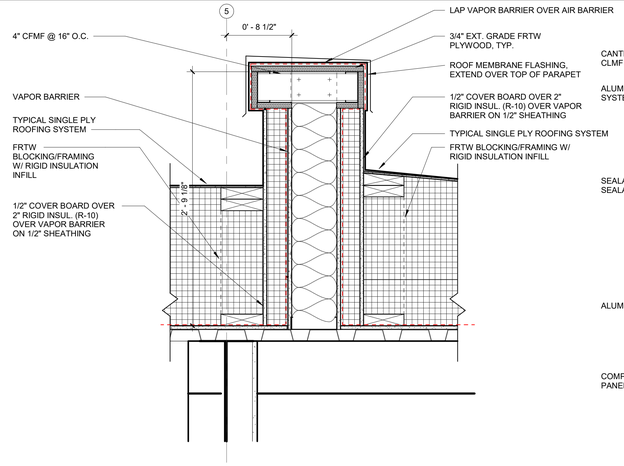
BID SET



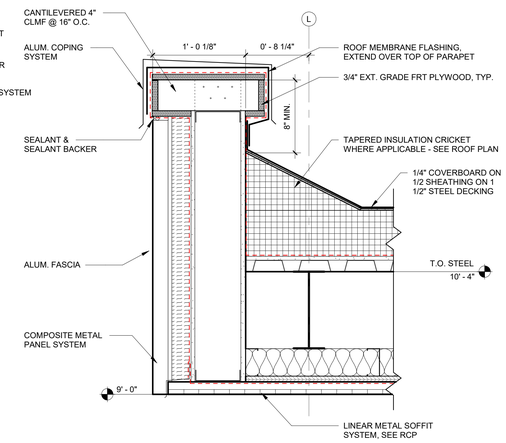
1 ROOF DETAIL - METAL PANEL PARAPET W/ TEXT
A531 SCALE: 1 1/2" = 1'-0"



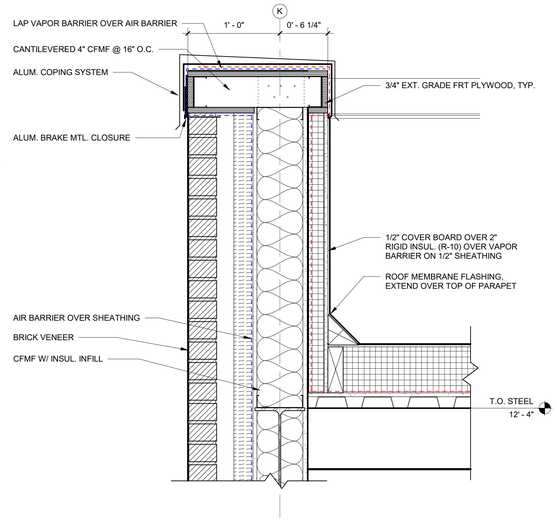
2 ROOF DETAIL - METAL PANEL CANOPY W/ TEXT
A531 SCALE: 1 1/2" = 1'-0"



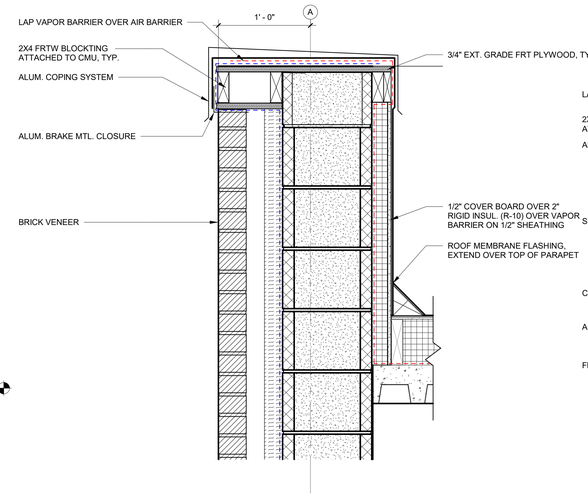
3 ROOF DTL - PARAPET ROOF BREAK
A531 SCALE: 1 1/2" = 1'-0"



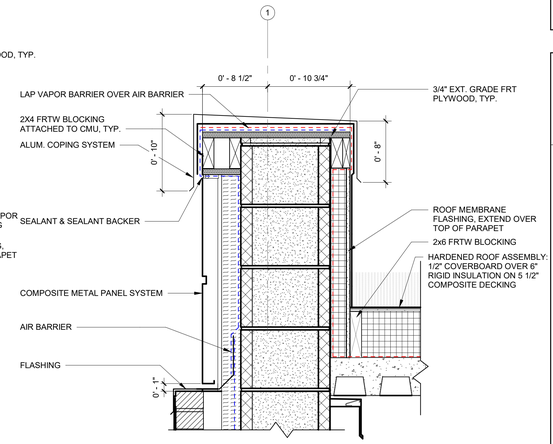
4 ROOF DETAIL - METAL PANEL CANOPY
A531 SCALE: 1 1/2" = 1'-0"



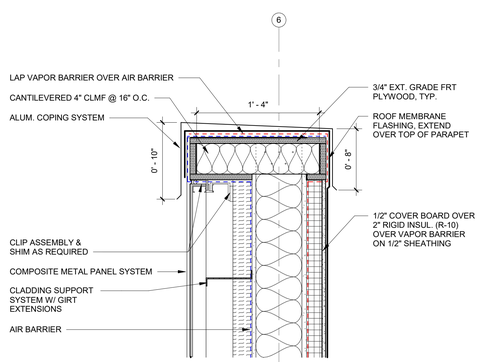
5 ROOF DETAIL - BRICK PARAPET @ SINGLE PLY ROOF
A531 SCALE: 1 1/2" = 1'-0"



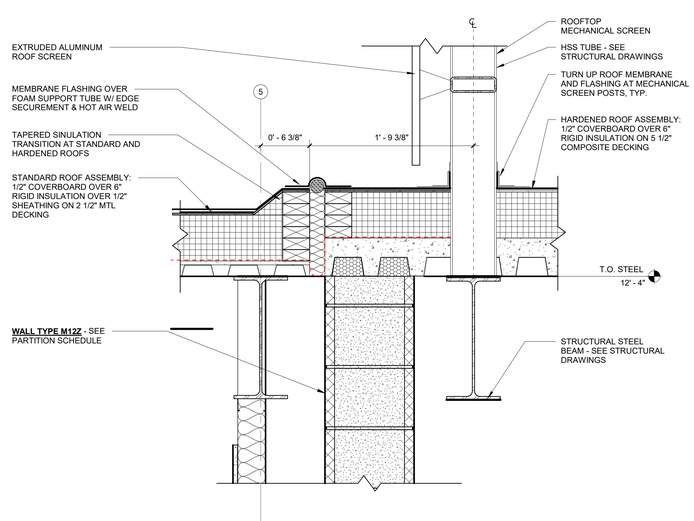
6 ROOF DETAIL - BRICK PARAPET
A531 SCALE: 1 1/2" = 1'-0"



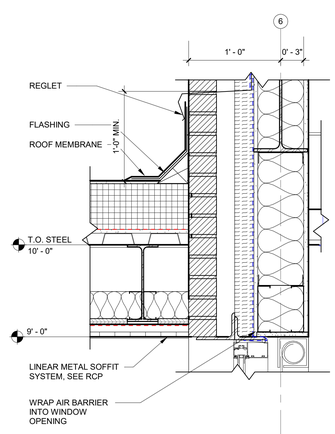
7 ROOF DETAIL - METAL PANEL ON CMU PARAPET
A531 SCALE: 1 1/2" = 1'-0"



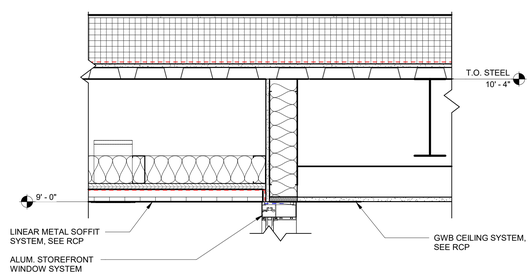
8 ROOF PARAPET DETAIL - MCE-S6
A531 SCALE: 1 1/2" = 1'-0"



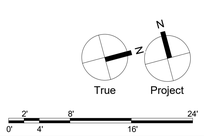
9 ROOF DETAIL - HARDENED 2 PLY ROOF @ SINGLE PLY ROOF
A531 SCALE: 1 1/2" = 1'-0"



10 ROOF DETAIL - BRICK VENEER ON STUD @ CANOPY ROOF
A531 SCALE: 1 1/2" = 1'-0"



11 ROOF DETAIL - CANOPY ROOF TRANSITION
A531 SCALE: 1 1/2" = 1'-0"



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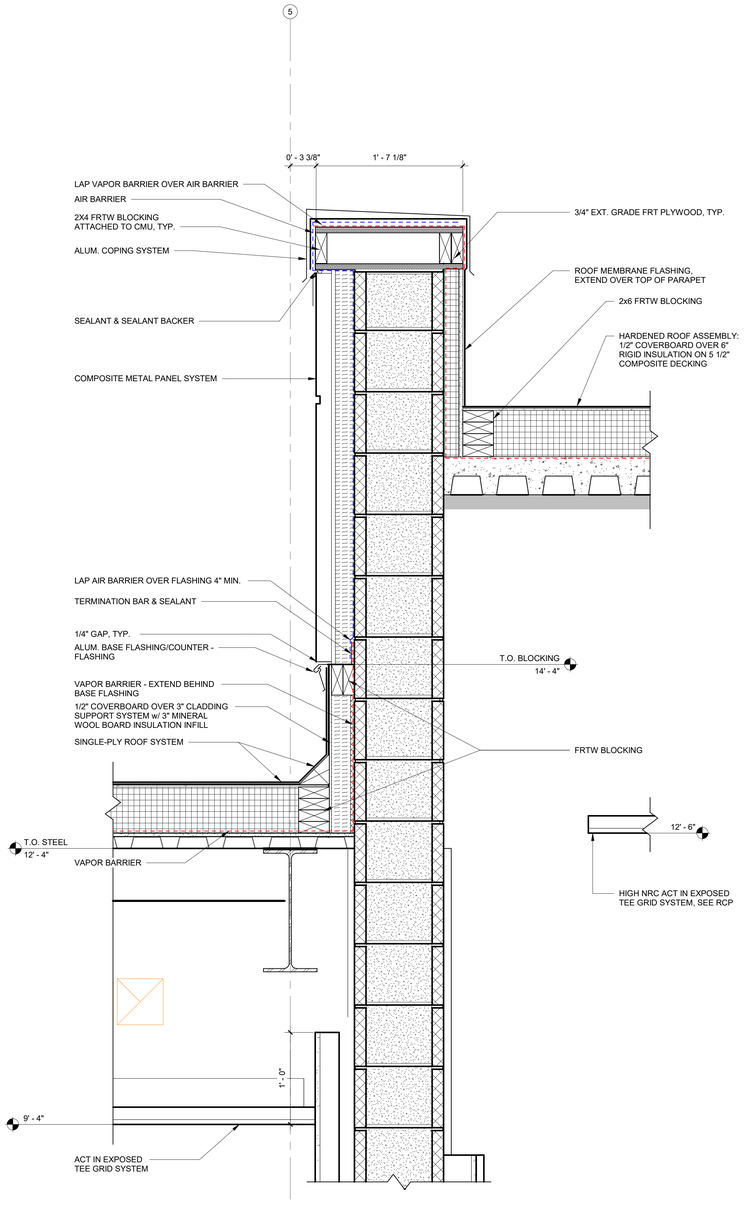
Key Plan:

Drawing Title:

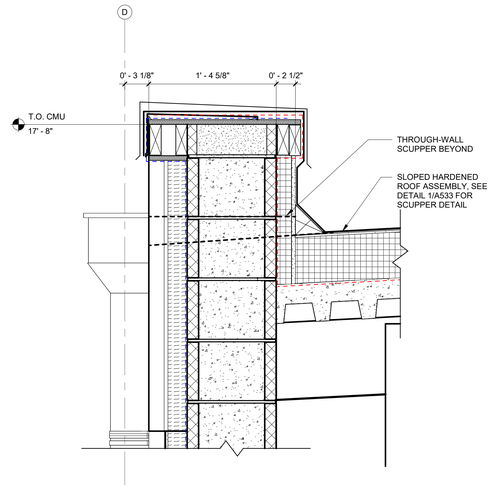
ROOF DETAILS

Drawing Number:

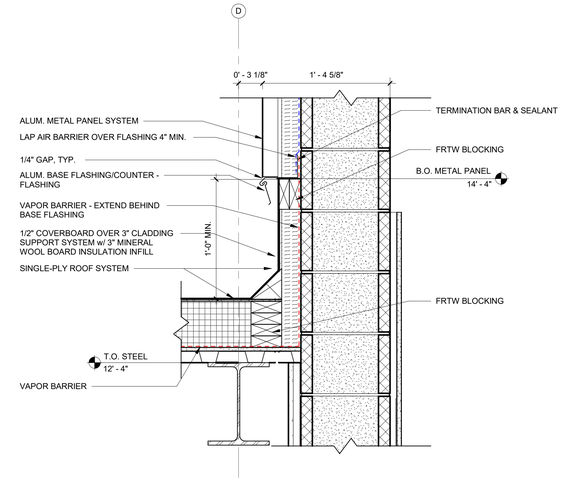
A531



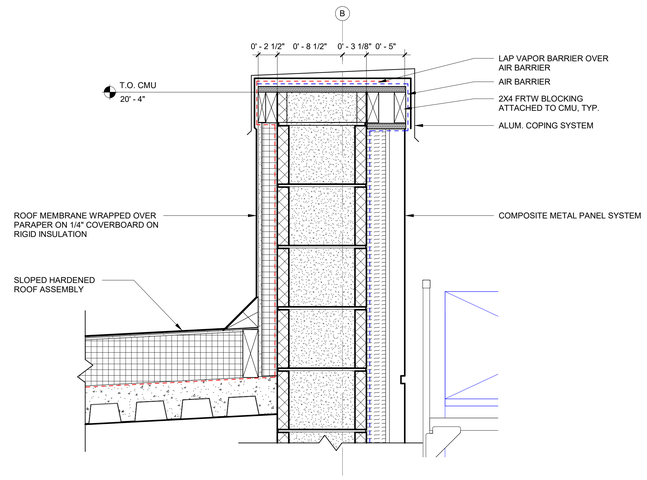
1 ROOF DETAIL - METAL PANEL ON CMU @ HARDENED & TYPICAL SINGLE PLY ROOF
A532 SCALE: 1 1/2" = 1'-0"



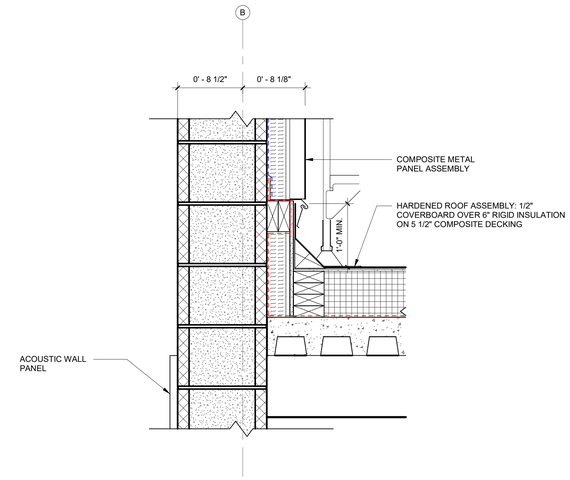
2 ROOF DETAIL - METAL PANEL ON CMU @ HARDENED ROOF
A532 SCALE: 1 1/2" = 1'-0"



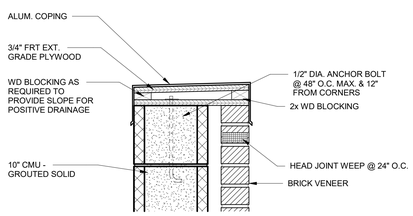
3 ROOF DETAIL - SINGLE PLY ROOF @ RATED CMU
A532 SCALE: 1 1/2" = 1'-0"



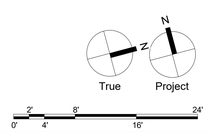
4 ROOF DETAIL - METAL PANEL ON CMU @ HARDENED ROOF
A532 SCALE: 1 1/2" = 1'-0"



5 ROOF DETAIL - METAL PANEL ON CMU @ HARDENED ROOF
A532 SCALE: 1 1/2" = 1'-0"



6 ROOF DETAIL - BR-M10
A532 SCALE: 1 1/2" = 1'-0"



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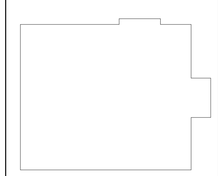
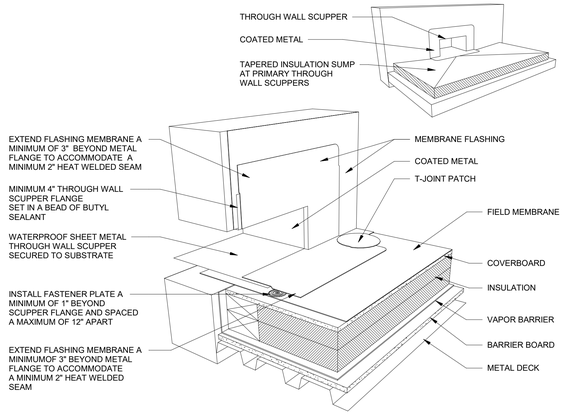


Drawing Title:

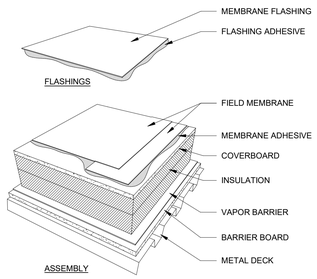
ROOF DETAILS

Drawing Number:

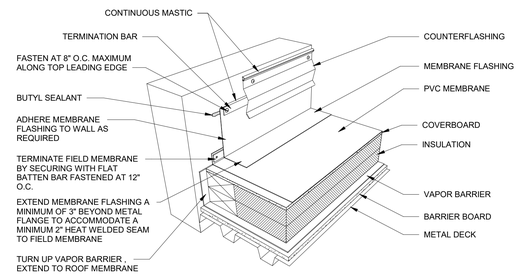
A532



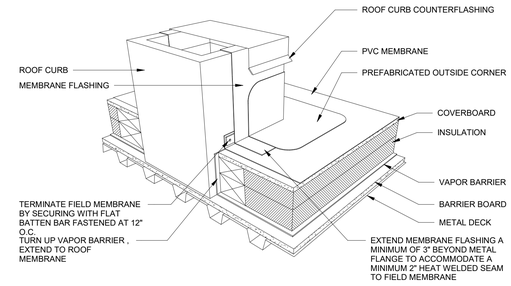
1 ROOF SCUPPER DETAIL
A533 SCALE: 1" = 1'-0"



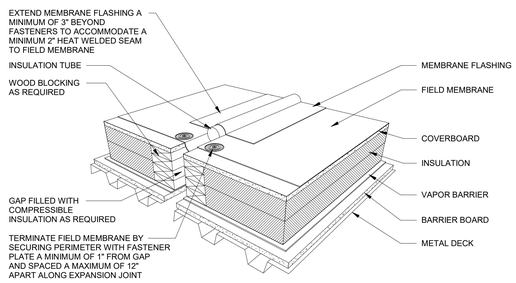
2 SINGLE PLY ROOF MEMBRANE ASSEMBLY
A533 SCALE: 1" = 1'-0"



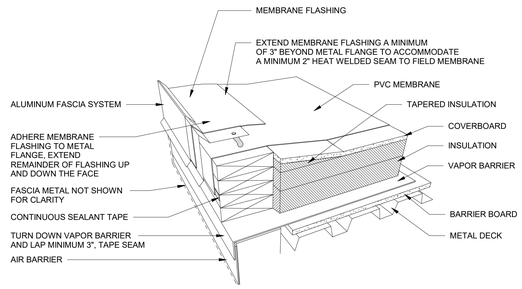
3 SINGLE PLY COUNTERFLASHING DETAIL
A533 SCALE: 1" = 1'-0"



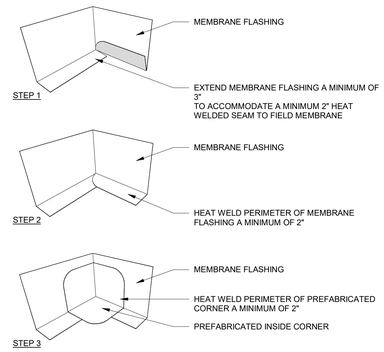
4 ROOF CURB DETAIL
A533 SCALE: 1" = 1'-0"



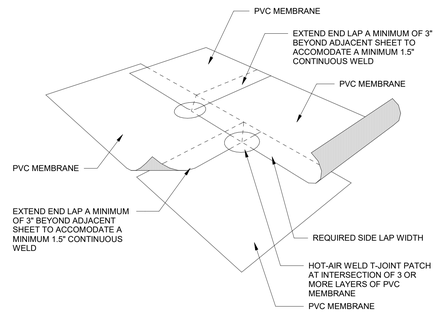
5 SINGLE PLY ROOFING EXPANSION JOINT DETAIL
A533 SCALE: 1" = 1'-0"



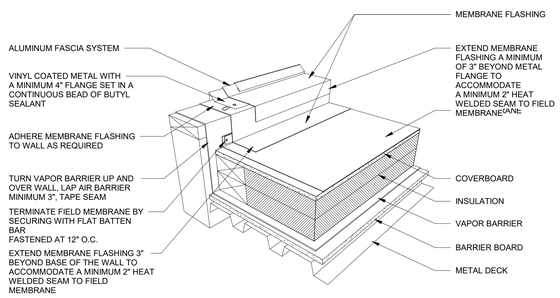
6 SINGLE PLY ROOF EDGE DETAIL
A533 SCALE: 1" = 1'-0"



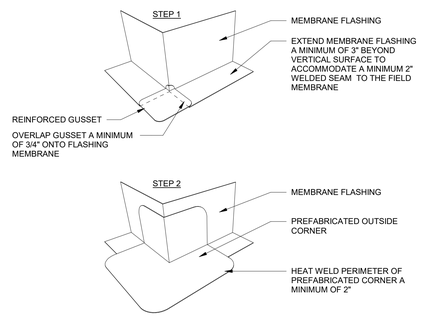
7 SINGLE PLY INSIDE ROOF CORNER DETAIL
A533 SCALE: 1" = 1'-0"



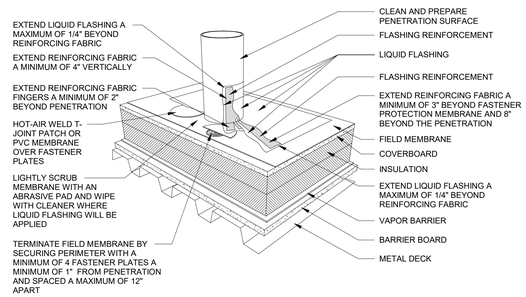
8 SINGLE PLY ROOF LAP DETAIL
A533 SCALE: 1" = 1'-0"



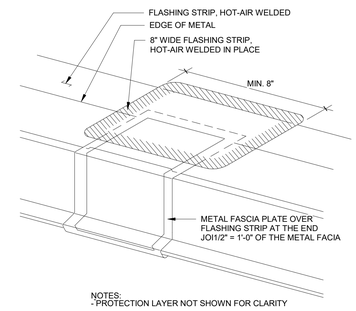
9 SINGLE PLY ROOF EDGE DETAIL
A533 SCALE: 1" = 1'-0"



10 SINGLE PLY OUTSIDE ROOF CORNER DETAIL
A533 SCALE: 1" = 1'-0"

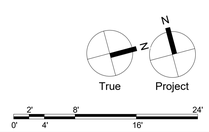


11 SINGLE PLY ROOF PIPE PENETRATION
A533 SCALE: 1" = 1'-0"



NOTES:
- PROTECTION LAYER NOT SHOWN FOR CLARITY

12 OVERLAPPING ROOF SEAM DETAIL
A533 SCALE: 3/4" = 1'-0"



BID SET

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Consultants:
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Structural Engineer
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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

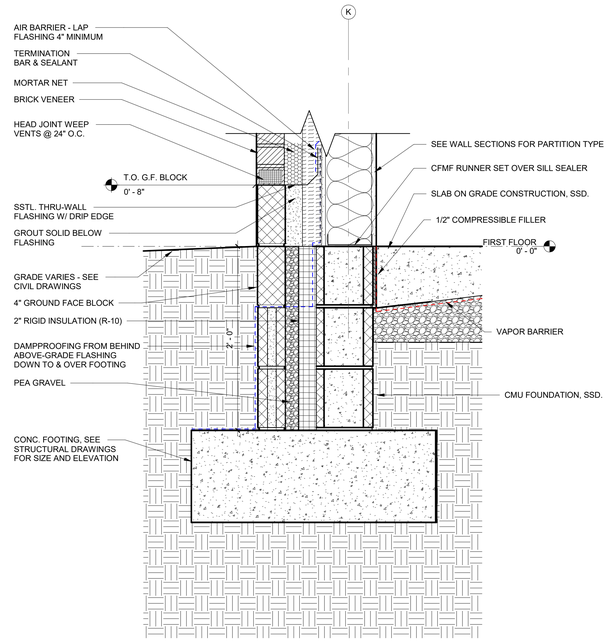
DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

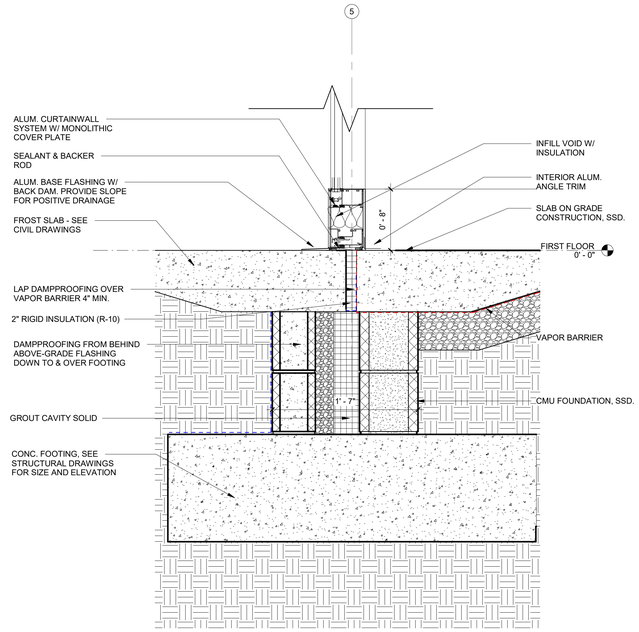
Drawing Title:
ROOF DETAILS

Drawing Number:
A533



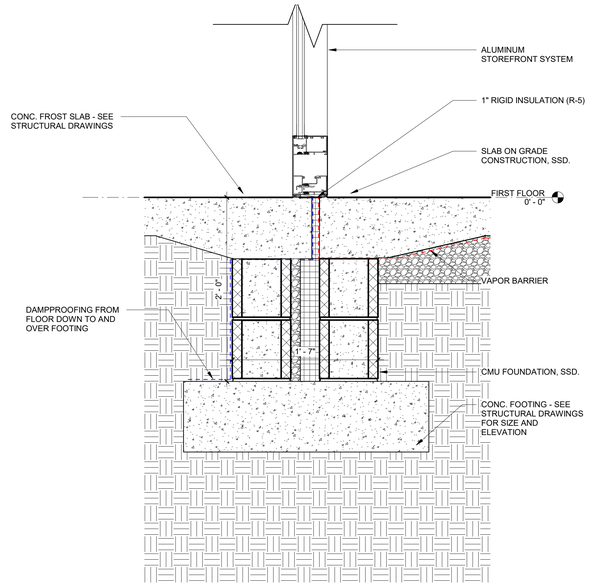
1 FOUNDATION DETAIL - STUD

A541 SCALE: 1 1/2" = 1'-0"



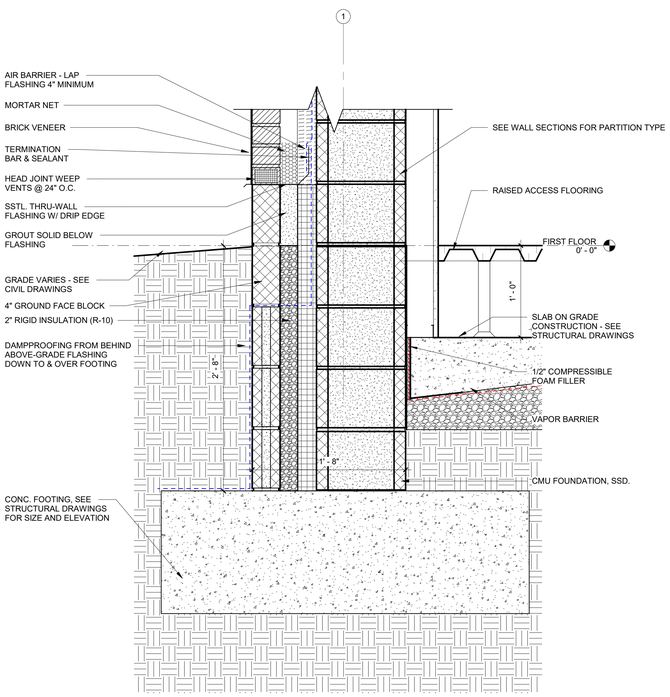
2 FOUNDATION DETAIL - STOREFRONT RETURN

A541 SCALE: 1 1/2" = 1'-0"



3 FOUNDATION DETAIL - BREAKROOM STOREFRONT

A541 SCALE: 1 1/2" = 1'-0"



4 FOUNDATION DETAIL - CMU

A541 SCALE: 1 1/2" = 1'-0"

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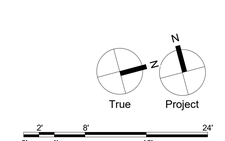
Key Plan:

Drawing Title:

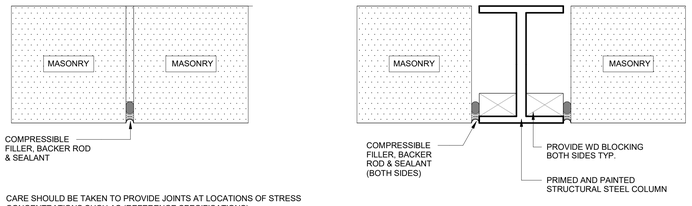
FOUNDATION DETAILS

Drawing Number:

A541



BID SET

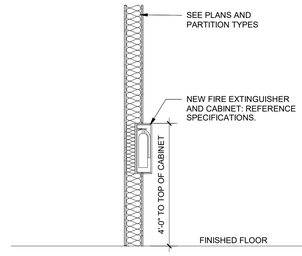


CARE SHOULD BE TAKEN TO PROVIDE JOINTS AT LOCATIONS OF STRESS CONCENTRATIONS SUCH AS (REFERENCE SPECIFICATIONS):

1. AT CHANGES IN WALL HEIGHT;
2. BETWEEN MAIN AND INTERSECTING WALLS;
3. AT CHANGES IN WALL THICKNESS, SUCH AS AT PIPE AND DUCT CHASES AND PILASTERS;
4. AT (ABOVE) MOVEMENT JOINTS IN FOUNDATIONS AND FLOORS;
5. AT (BELOW) MOVEMENT JOINTS IN ROOFS AND FLOORS THAT BEAR ON A WALL;
6. NEAR ONE OR BOTH SIDES OF DOOR AND WINDOW OPENINGS, (GENERALLY, A CONTROL JOINT IS PLACED AT ONE SIDE OF AN OPENING LESS THAN 6 FT (1.83 M) WIDE AND AT BOTH JAMBS OF OPENINGS OVER 6 FT (1.83 M) WIDE. CONTROL JOINTS CAN BE AWAY FROM THE OPENING IF ADEQUATE TENSILE REINFORCEMENT IS PLACED ABOVE, BELOW, AND BESIDE WALL OPENINGS.);
7. ADJACENT TO CORNERS OF WALLS OR INTERSECTIONS WITHIN A DISTANCE EQUAL TO HALF THE CONTROL JOINT SPACING.

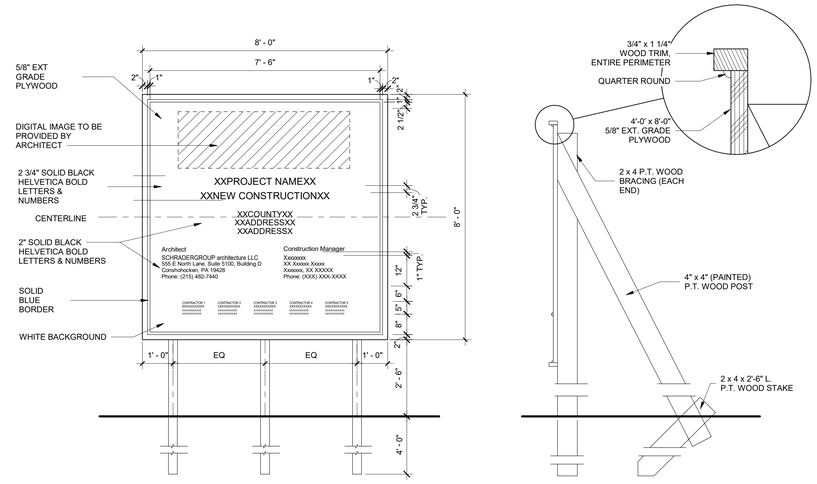
1 TYPICAL CONTROL JOINT DETAILS

A571 SCALE: 3" = 1'-0"



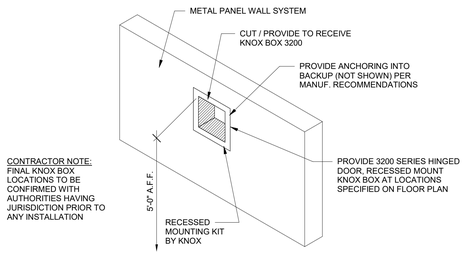
2 TYPICAL FEC CABINET DETAIL

A571 SCALE: 1/2" = 1'-0"



3 CONSTRUCTION SIGN

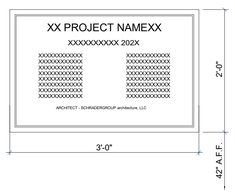
A571 SCALE: 1/2" = 1'-0"



CONTRACTOR NOTE:
FINAL KNOX BOX LOCATIONS TO BE CONFIRMED WITH AUTHORITIES HAVING JURISDICTION PRIOR TO ANY INSTALLATION

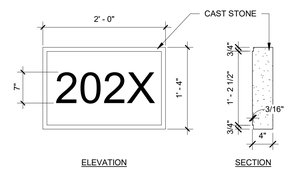
4 TYPICAL KNOX BOX DETAIL

A571 SCALE: 1" = 1'-0"



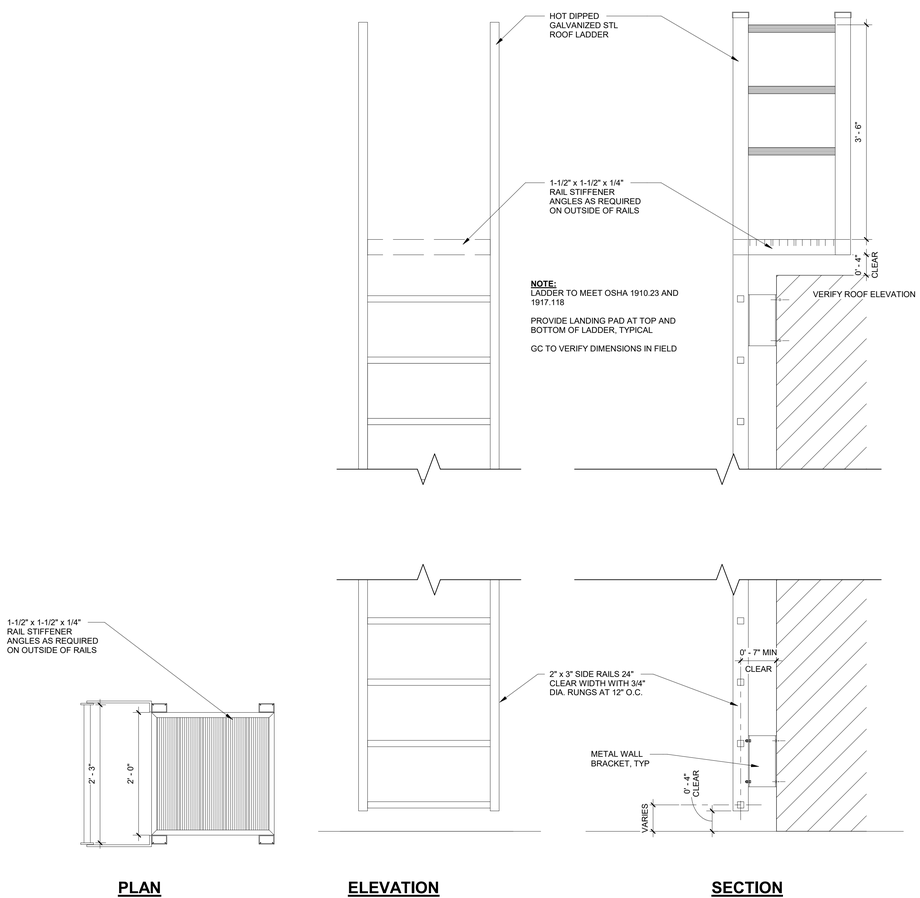
5 DEDICATION PLAQUE DETAIL

A571 SCALE: 1" = 1'-0"



6 DATE STONE DETAIL

A571 SCALE: 1" = 1'-0"



7 TYPICAL ROOF LADDER DETAIL

A571 SCALE: 1" = 1'-0"

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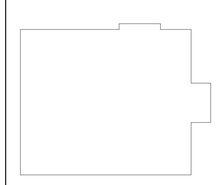
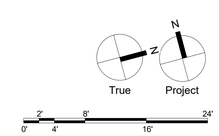


Drawing Title:
MISCELLANEOUS DETAILS

Drawing Number:
A571



BID SET

SCHRADERGROUP
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DOOR AND FRAME SCHEDULE

NO.	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME DEPTH	GLAZING TYPE	FIRE RATING	Hardware Set	COMMENTS
101-1	DA	3' - 0"	7' - 0"	0' - 2"	Aluminum	ANODIZED	W6	Aluminum	ANODIZED		-	-	-	CARD READER, DOOR GLAZING AND FRAME TO BE BULLET RESISTANT
101-2	DA	2' - 11 1/2"	7' - 0"	0' - 2"	Aluminum	ANODIZED	IW3	Aluminum	ANODIZED		-	-	-	CARD READER, DOOR GLAZING AND FRAME TO BE BULLET RESISTANT
102	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
103	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
104	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
105	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
106	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
107	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
108-1	SH	3' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	4	HOLLOW METAL	Paint	0' - 5 3/4"		90 MIN		2 HR RATED MISSILE IMPACT HOLLOW METAL SYSTEM; CARD READER, DOOR TO BE BULLET RESISTANT
108-2	SH	3' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	4	HOLLOW METAL	Paint	0' - 5 3/4"		90 MIN		2 HR RATED MISSILE IMPACT HOLLOW METAL SYSTEM; CARD READER, DOOR TO BE BULLET RESISTANT
108-3	SH	3' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	4	HOLLOW METAL	Paint	0' - 5 3/4"		90 MIN		2 HR RATED MISSILE IMPACT HOLLOW METAL SYSTEM; DOOR TO BE BULLET RESISTANT - EGRESS ONLY
109	SH	3' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	4	HOLLOW METAL	Paint	0' - 5 3/4"		90 MIN		2 HR RATED MISSILE IMPACT HOLLOW METAL SYSTEM
110	SH	3' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	4	HOLLOW METAL	Paint	0' - 5 3/4"		90 MIN		CARD READER
111-1	SH	6' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	4	HOLLOW METAL	Paint	0' - 5 3/4"		90 MIN		CARD READER
111-2	SH	6' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	4	HOLLOW METAL	Paint	0' - 5 3/4"		90 MIN		2 HR RATED MISSILE IMPACT HOLLOW METAL SYSTEM; CARD READER, DOOR TO BE BULLET RESISTANT
112	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
113	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
114	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 8 1/4"		-		
115	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 8 1/4"		-		
116-1	DA	3' - 2"	7' - 0"	0' - 2"	Aluminum	ANODIZED	W3	Aluminum	ANODIZED		T	-	-	
116-2	DA	3' - 0"	7' - 0"	0' - 2"	Aluminum	ANODIZED	IW2	Aluminum	ANODIZED		-	-	-	CARD READER, DOOR GLAZING AND FRAME TO BE BULLET RESISTANT
118	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 8 1/4"		-		DOOR GLAZING AND FRAME TO BE BULLET RESISTANT
119	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 8 1/4"		-		PRIVACY INDICATOR
120	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		
122	SW	3' - 0"	7' - 0"	0' - 1 3/4"	Wood	Stain	2	HOLLOW METAL	Paint	0' - 6 3/4"		-		PRIVACY INDICATOR
123	SH	6' - 0"	7' - 0"	0' - 1 3/4"	HOLLOW METAL	Paint	2	HOLLOW METAL	Paint	1' - 0 3/4"	T	-		

AD3

DOOR NOTES

1.) ALL GLAZING IN FIRE RATED DOORS TO BE FIRE GLASS COMPLYING WITH ANSI IMPACT REQUIREMENTS.

2.) ALL CLOSERS TO HAVE CLOSING SPECS SET 90º - 12º, 5 SECONDS MIN.

3.) ALL DOOR LOCKS, LATCHES, PANIC HARDWARE AND PULLS TO BET SET 34"-48" AFF.

4.) ALL DOOR OPERATING DEVICES (OTHER THAN PANIC HARDWARE) TO BE LEVER OPERATED.

5.) ALL THRESHOLDS TO BE 1/2" MAX. HEIGHT, BEVELED TO 1:2 SLOPE.

6.) ALL GLASS IN DOORS AND WITHIN 24" OF A DOOR TO BE SAFETY TEMPERED GLASS (T).

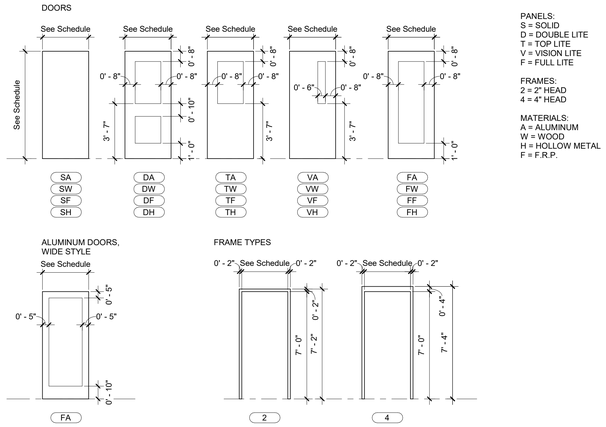
7.) *SEE DOOR TYPES* DIMENSION NOTED IS FROM FINISHES FLOOR TO BOTTOM OF GLAZING.

8.) ALL DOOR HARDWARE TO BE MOUNTED A MINIMUM OF 34 INCHES ABOVE FINISHED FLOOR AND A MAXIMUM OF 48 INCHES ABOVE FINISHED FLOOR.

GLAZING KEY

T TEMPERED GLAZING
L LAMINATED GLAZING
B BALLISTIC RATED GLAZING
F FIRE RATED GLAZING
S SECURITY GLAZING
M LARGE MISSILE IMPACT RATED GLAZING

NOTE: REFERENCE SPECIFICATIONS FOR FULL GLAZING TINT/ ASSEMBLY / PERFORMANCE REQUIREMENTS. GLAZING IDENTIFICATION NOTED IN THE DRAWINGS ARE NOT INTENDED TO REPLACE OR SUPERCEDE ANY ADDITIONAL PERFORMANCE REQUIREMENTS INDICATED IN THE SPECIFICATION FOR EACH OF THE GLAZING TYPES NOTED IN THE LEGEND BELOW.

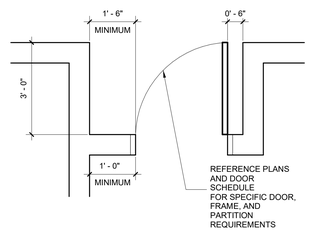


PANELS:
S = SOLID
D = DOUBLE LITE
T = TOP LITE
V = VISION LITE
F = FULL LITE

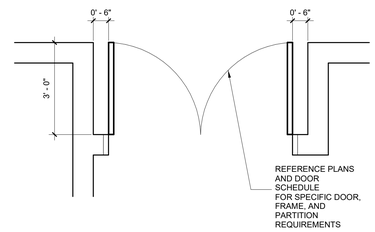
FRAMES:
2 = 2" HEAD
4 = 4" HEAD

MATERIALS:
A = ALUMINUM
W = WOOD
H = HOLLOW METAL
F = F.R.P.

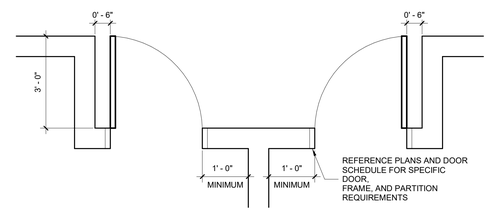
DOOR AND FRAME TYPES
SCALE: 1/4" = 1'-0"



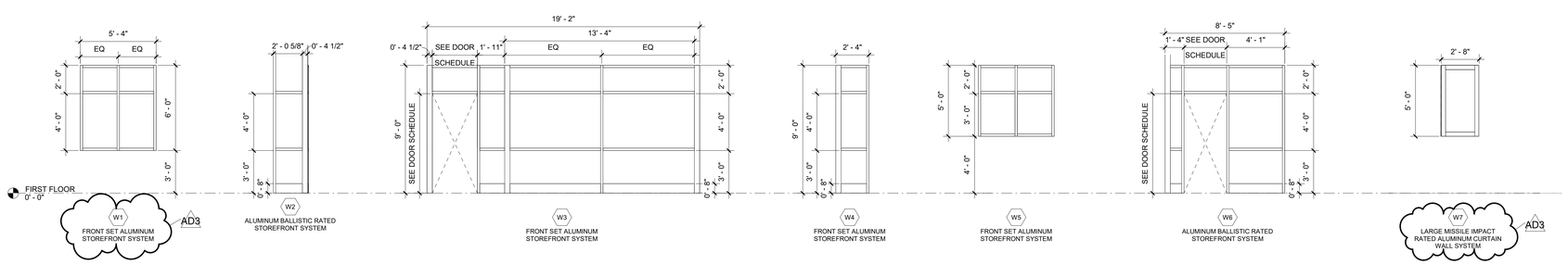
DOOR CLEARANCE - SINGLE
SCALE: 1/2" = 1'-0"

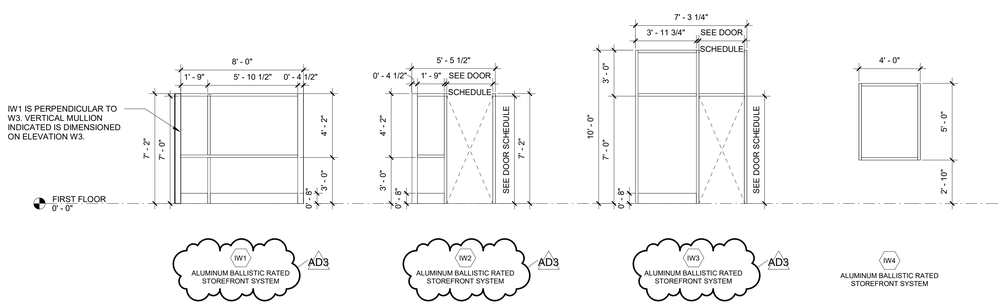


DOOR CLEARANCE - DOUBLE
SCALE: 1/2" = 1'-0"



DOOR CLEARANCE - TWO SINGLE
SCALE: 1/2" = 1'-0"





WINDOW NOTES

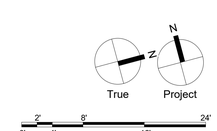
1. GLAZING TO BE INSULATED UNITS AND FRAMES ARE TO BE THERMALLY BROKEN EXCEPT FOR TYPES MARKED AS INTERIOR.
2. HOLLOW METAL AND STOREFRONT FRAMES TO HAVE 2 INCH FRAME UNLESS OTHERWISE NOTED.
3. BALLISTIC AND FIRE RATED WINDOWS HAVE CONSISTENT RATINGS FOR FRAMES AND GLAZING.
4. GLASS WITHIN 24" OF A DOOR TO BE SAFETY TEMPERED GLASS (T) UNLESS OTHERWISE NOTED.
5. SEE SECURITY SPECIFICATIONS FOR ALL SECURITY WINDOW INFORMATION NOT SHOWN.
6. WINDOW FRAME AND GLAZING DETAILS TO BE CONSISTENT WITH BALLISTIC OR FIRE RATING OF ENTIRE ASSEMBLY AND ASSOCIATED PARTITION.
7. GROUT FULL, REINFORCE AND ANCHOR AS REQUIRED.

WINDOW KEY

T TEMPERED GLAZING
L LAMINATED GLAZING
B BALLISTIC RATED GLAZING
F FIRE RATED GLAZING
S SECURITY GLAZING
M LARGE MISSILE IMPACT RATED GLAZING

EXTERIOR GLAZING KEY

GX 1" INSULATED TINT GLAZING - HIGH VLT
GX 1" INSULATED TINT LARGE MISSILE IMPACT GLAZING - HIGH VLT + 2 HR F.R. GLAZING UNIT
GXb 1" INSULATED TINT GLAZING - HIGH VLT - SPANDREL



Consultants:

Civil:
Timmons Group
1805 West City Drive, Unit E Elizabeth City, NC 27909
License No. C-1652
Contact: Kim Hamby, PE

MEP:
RMF Engineering
8081 Arco Corporate Drive, Suite 300
Raleigh, NC 27317
919.941.9876

Structural Engineer
SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
919.825.4882

Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

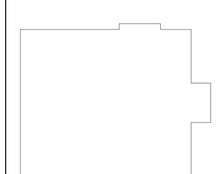
ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
AD3	ADDENDUM #3	05/14/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:



Drawing Title:
DOOR SCHEDULE

Drawing Number:
A601

BID SET

TOILET ACCESSORY LEGEND	
1	HANDICAP GRAB BAR (BOBRICK B-6806X36, B-6806X42, AND B-6806X18 VERTICAL)
1a	HANDICAP GRAB BAR (BOBRICK B-6806X36)
1b	HANDICAP GRAB BAR (BOBRICK B-6806x24)
2	LED BACKLIT MIRROR (OUTER ETCHED)
3	SURFACE MOUNTED ROBE HOOK (BOBRICK B-76717)
4	UTILITY SHELF W/ MOP/BROOM HOLDERS (BOBRICK B-239)
5	SURFACE MOUNTED SOAP DISPENSER (OWNER FURNISHED / CONTRACTOR INSTALLED)
6	SURFACE MOUNTED TOILET TISSUE DISPENSER (OWNER FURNISHED / CONTRACTOR INSTALLED)
7	SURFACE MOUNTED PAPER TOWEL DISPENSER (OWNER FURNSHED / CONTRACTOR INSTALLED)
8	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL (BOBRICK B-270 CONTURA SERIES)
9	ADA FOLDING SHOWER SEAT (BOBRICK B-5181)

FINISH KEYNOTES

A	SCHLUTER TRIM: QUADEC EDGE (TYP) SEE 2 / A900.1
B	SCHLUTER TRIM: QUADEC OUTSIDE CORNER (TYP) SEE 3 / A900.1
C	SCHLUTER TRIM: DILEX COVE BASE DETAIL (TYP) SEE 4 / A900.1
D	SCHLUTER TRIM: RUBBER BASE/CERAMIC TILE DETAIL (TYP) SEE 5 / A900.1
E	WALL PANEL: BASE DETAIL (TYP) SEE 5 / A841
F	WALL PANEL: EDGE TRIM DETAIL (TYP) SEE 6 / A841
G	WALL PANEL: VERTICAL REVEAL (TYP) SEE 7 / A841
H	WALL PANEL: HORIZONTAL REVEAL (TYP) SEE 8 / A841
J	WALL PANEL: CEILING LINE DETAIL (TYP) SEE 9 / A841

NOTES:

DENOTES HDCP ACCESSIBLE FIXTURE/ ACCESSORY COMPLYING WITH ANSI 117.1

SEE DETAILS THIS SHEET FOR TYPICAL FIXTURE AND ACCESSORY MOUNTING INFORMATION.

ALL DIMENSIONS NOTED ON TOILET ROOM PLANS ARE FROM FINISHED SURFACE.

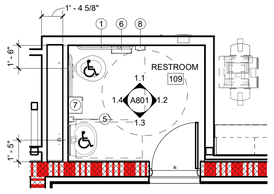
PROVIDE DOOR PULLS ON BOTH SIDES OF STALL DOORS

DOORS TO ACCESSIBLE STALLS TO BE 32" MIN. CLEAR AND SELF-CLOSING

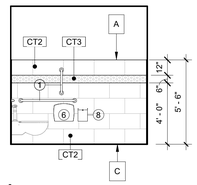
GARMENT HOOK TO BE MOUNTED 48" MAX TO TOP OF HOOK

ALL ACCESSIBLE GRAB BARS TO SUPPORT A LOAD OF 250 LBS MIN.

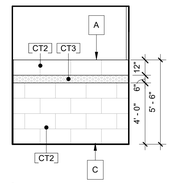
INSTALL HANDICAPPED SYMBOL STICKER TO ALL HANDICAPPED LAVATORIES AND LOCKERS WHEN MORE THAN ONE FIXTURE / LOCKER IS LOCATED WITHIN ROOM.



1 ENLARGED RESTROOM PLAN
A801 SCALE: 1/4" = 1'-0"



1.1 IE - RESTROOM 109
A801 SCALE: 1/4" = 1'-0"



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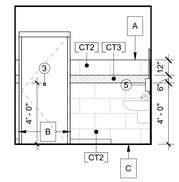
A801 SCALE: 1/4" = 1'-0"



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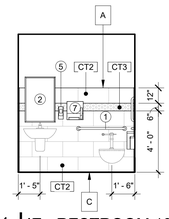

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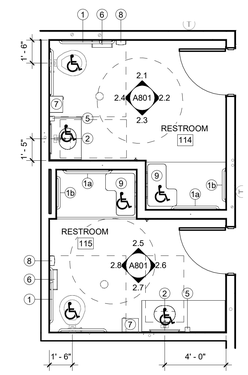
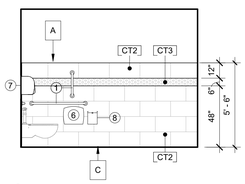
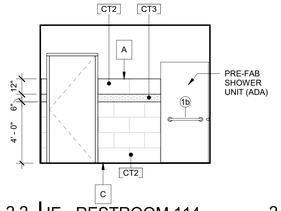
A801 SCALE: 1/4" = 1'-0"



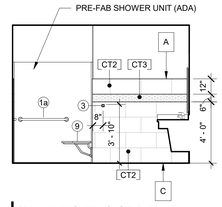
2 ENLARGED TOILET ROOM PLAN
A801 SCALE: 1/4" = 1'-0"



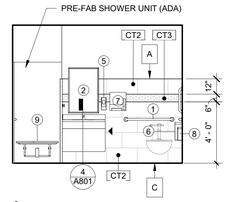
2.1 IE - RESTROOM 114
A801 SCALE: 1/4" = 1'-0"



2.2 IE - RESTROOM 114
A801 SCALE: 1/4" = 1'-0"



2.3 IE - RESTROOM 114
A801 SCALE: 1/4" = 1'-0"



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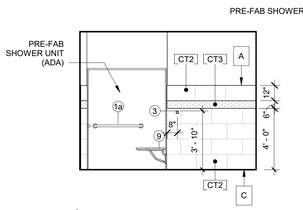
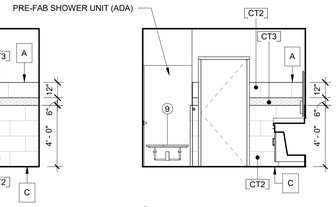
A801 SCALE: 1/4" = 1'-0"



2.5 IE - RESTROOM 115
A801 SCALE: 1/4" = 1'-0"



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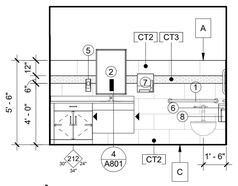

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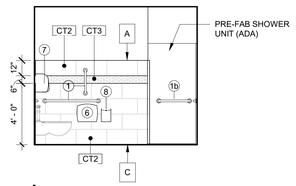
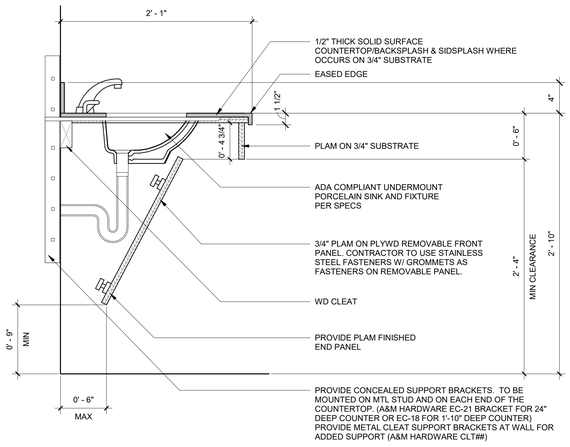
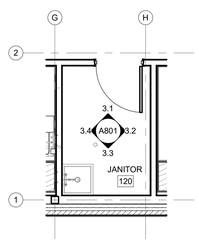


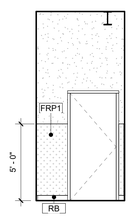
2.8 IE - RESTROOM 115
A801 SCALE: 1/4" = 1'-0"



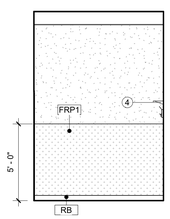
4 ADA TOILET ROOM SINK DETAIL
A801 SCALE: 1 1/2" = 1'-0"



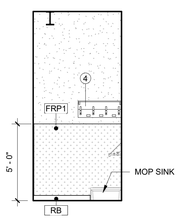
3 ENLARGED JANITORS CLOSET PLAN
A801 SCALE: 1/4" = 1'-0"



3.1 IE - JANITOR 120
A801 SCALE: 1/4" = 1'-0"



3.2 IE - JANITOR 120
A801 SCALE: 1/4" = 1'-0"



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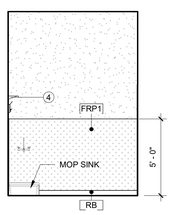

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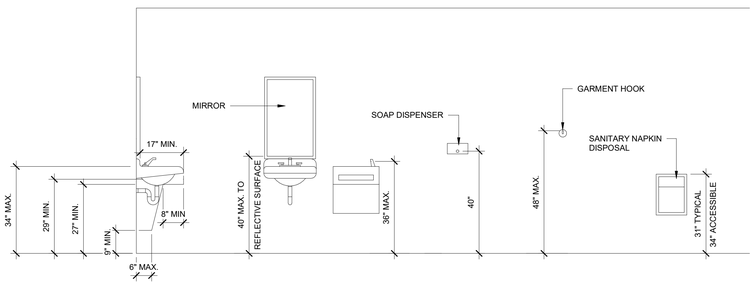
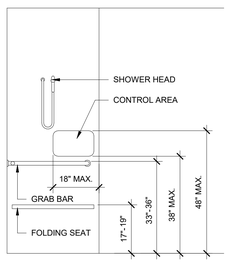
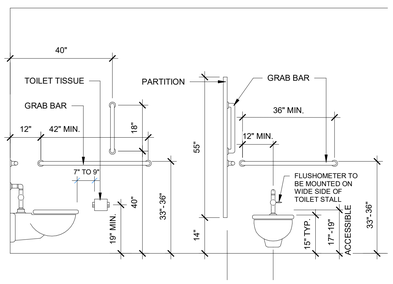
A801 SCALE: 1/4" = 1'-0"



LAVATORY AND MIRROR — FOUNTAIN — MISCELLANEOUS ACCESSORIES

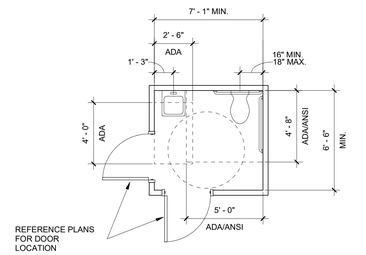


ACCESSIBLE SHOWER STALL

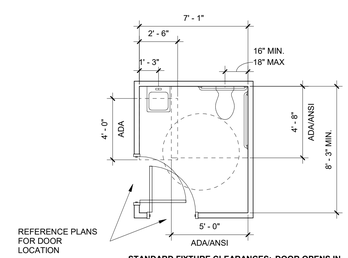


TOILET — ACCESSIBLE TOILET STALL DOOR WIDTH 32" MIN.

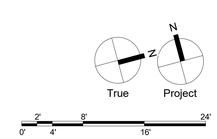
NOTE: CONTRACTOR SHALL FURNISH AND INSTALL ALL BLOCKING AND SUPPLEMENTAL SUPPORT REQUIRED FOR SECURE AND PROPER INSTALLATION OF TOILET ROOM FIXTURES AND ACCESSORIES. ALL EXPOSED WATER LINES UNDER LAVATORIES OR SINK SHALL BE INSULATED ANSI A117.1-4.17.5



STANDARD FIXTURE CLEARANCES: DOOR OPENS OUT



STANDARD FIXTURE CLEARANCES: DOOR OPENS IN



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4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
p: 919.825.4882
www.sgarc.com

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New Construction of:
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	PERMIT SET	01/26/2026
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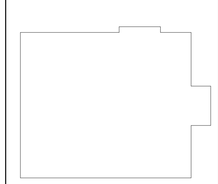
DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:



Drawing Title:
ENLARGED TOILET ROOM PLANS & DETAILS

Drawing Number:
A801

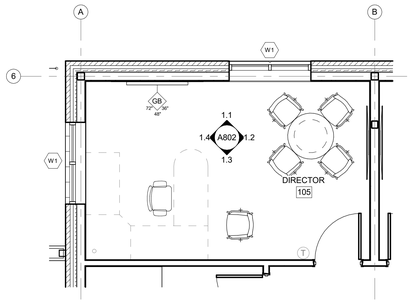
BID SET

NOTES:

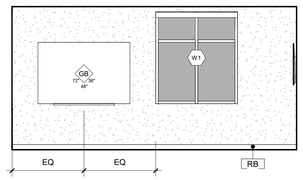
1. CONTRACTOR TO PROVIDE CASEWORK FILLER PANELS TO MATCH CASEWORK FINISH WHERE NECESSARY TO COMPLETE A LINE OF CASEWORK.
2. CONTRACTOR TO REVIEW ALL MECHANICAL, PLUMBING, ELECTRICAL, AND A/V DRAWINGS TO COORDINATE LOCATION OF ALL SERVICES THAT MAY BE ROUTED THROUGH AND AROUND CASEWORK.
3. FOR EXACT ELEVATION OF DOORS AND WINDOWS, REFER TO DOOR AND WINDOW ELEVATION DRAWINGS.
4. ALL BASE CASEWORK WITH HEIGHT @ 2'-10" SHALL HAVE ACTUAL DIMENSIONS TO ENSURE HEIGHT OF SINK DOES NOT EXCEED 34" A.F.F. THIS APPLIES TO ALL BASE CASEWORK WITH AND WITHOUT SINKS IN ORDER TO KEEP HEIGHTS UNIFORM.
5. ALL APPLIANCES ARE TO BE OWNER PROVIDED AND OWNER INSTALLED, UNLESS NOTED OTHERWISE.

▶ CASEWORK FINISH END

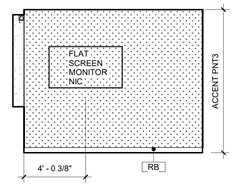
▷ CASEWORK FINISH END PANEL



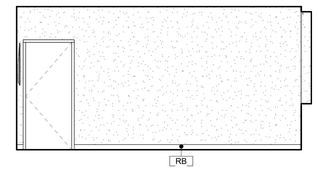
1 ENLARGED DIRECTORS PLAN
A802 SCALE: 1/4" = 1'-0"



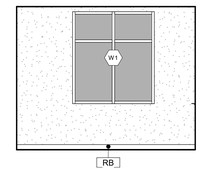
1.1 IE - DIRECTOR OFFICE 105
A802 SCALE: 1/4" = 1'-0"



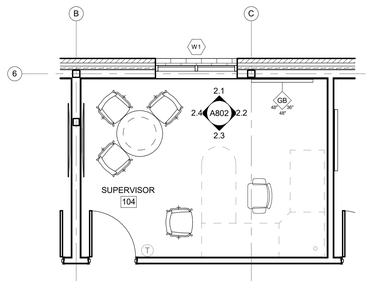
1.2 IE - DIRECTOR OFFICE 105
A802 SCALE: 1/4" = 1'-0"



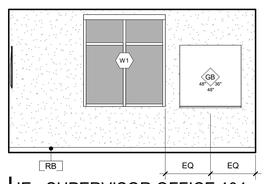
1.3 IE - DIRECTOR OFFICE 105
A802 SCALE: 1/4" = 1'-0"



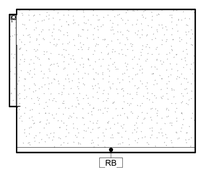
1.4 IE - DIRECTOR OFFICE 105
A802 SCALE: 1/4" = 1'-0"



2 ENLARGED SUPERVISOR PLAN
A802 SCALE: 1/4" = 1'-0"



2.1 IE - SUPERVISOR OFFICE 104
A802 SCALE: 1/4" = 1'-0"



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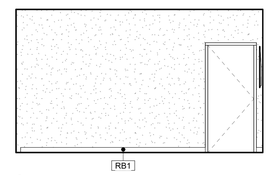
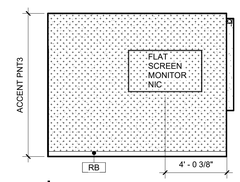
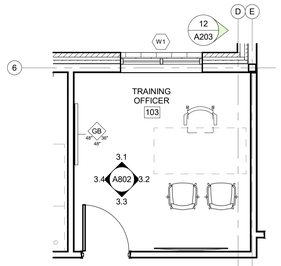
A802 SCALE: 1/4" = 1'-0"



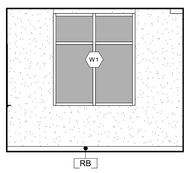
2.3 IE - SUPERVISOR OFFICE 104
A802 SCALE: 1/4" = 1'-0"



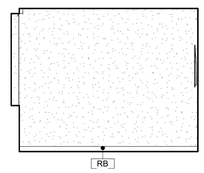
2.4 IE - SUPERVISOR OFFICE 104
A802 SCALE: 1/4" = 1'-0"



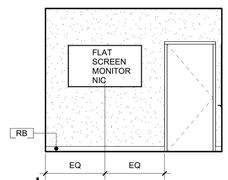
3 ENLARGED TRAINING OFFICER PLAN
A802 SCALE: 1/4" = 1'-0"



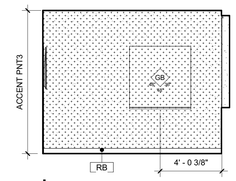
3.1 IE - TRAINING OFFICER 103
A802 SCALE: 1/4" = 1'-0"



3.2 IE - TRAINING OFFICER 103
A802 SCALE: 1/4" = 1'-0"

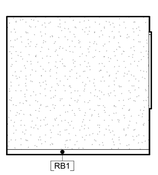


3.3 IE - TRAINING OFFICER 103
A802 SCALE: 1/4" = 1'-0"

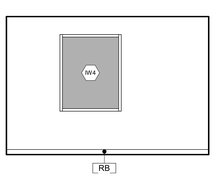


3.4 IE - TRAINING OFFICER 103
A802 SCALE: 1/4" = 1'-0"

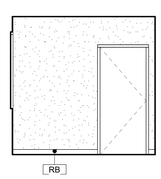
4 ENLARGED RECORDS PLAN
A802 SCALE: 1/4" = 1'-0"



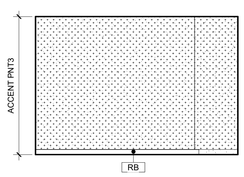
4.1 IE - RECORDS/FUTURE OFFICE 102
A802 SCALE: 1/4" = 1'-0"



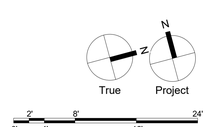
4.2 IE - RECORDS/FUTURE OFFICE 102
A802 SCALE: 1/4" = 1'-0"



4.3 IE - RECORDS/FUTURE OFFICE 102
A802 SCALE: 1/4" = 1'-0"



4.4 IE - RECORDS/FUTURE OFFICE 102
A802 SCALE: 1/4" = 1'-0"



0' 2' 4' 8' 16' 24'

BID SET

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
p: 919.825.4882
www.sgarc.com

Consultants:

Civil:

Timmons Group
1805 West City Drive, Unit E Elizabeth City, NC 27909
License No. C-1652
Contact: Kim Hamby, PE

MEP:

RMF Engineering
8081 Arco Corporate Drive, Suite 300
Raleigh, NC 27317
919.941.9876

Structural Engineer

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
919.825.4882

Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

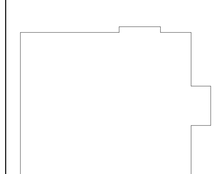
ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:



Drawing Title:

ENLARGED PLANS AND ELEVATIONS - OFFICES

Drawing Number:

A802

NOTES:

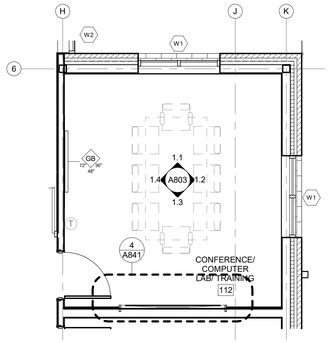
1. CONTRACTOR TO PROVIDE CASEWORK FILLER PANELS TO MATCH CASEWORK FINISH WHERE NECESSARY TO COMPLETE A LINE OF CASEWORK.
2. CONTRACTOR TO REVIEW ALL MECHANICAL, PLUMBING, ELECTRICAL, AND A/V DRAWINGS TO COORDINATE LOCATION OF ALL SERVICES THAT MAY BE ROUTED THROUGH AND AROUND CASEWORK.
3. FOR EXACT ELEVATION OF DOORS AND WINDOWS, REFER TO DOOR AND WINDOW ELEVATION DRAWINGS.
4. ALL BASE CASEWORK WITH HEIGHT @ 2'-10" SHALL HAVE ACTUAL DIMENSIONS TO ENSURE HEIGHT OF SINK DOES NOT EXCEED 34" A.F.F. THIS APPLIES TO ALL BASE CASEWORK WITH AND WITHOUT SINKS IN ORDER TO KEEP HEIGHTS UNIFORM.
5. ALL APPLIANCES ARE TO BE OWNER PROVIDED AND OWNER INSTALLED, UNLESS NOTED OTHERWISE.

▸ CASEWORK FINISH END

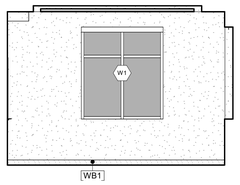
▷ CASEWORK FINISH END PANEL

FINISH KEYNOTES

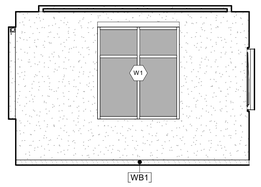
A	SCHLUTER TRIM: QUADEC EDGE (TYP) SEE 2 / A900.1
B	SCHLUTER TRIM: QUADEC OUTSIDE CORNER (TYP) SEE 3 / A900.1
C	SCHLUTER TRIM: DILEX COVE BASE DETAIL (TYP) SEE 4 / A900.1
D	SCHLUTER TRIM: RUBBER BASE/CERAMIC TILE DETAIL (TYP) SEE 5 / A900.1
E	WALL PANEL: BASE DETAIL (TYP) SEE 5 / A841
F	WALL PANEL: EDGE TRIM DETAIL (TYP) SEE 6 / A841
G	WALL PANEL: VERTICAL REVEAL (TYP) SEE 7 / A841
H	WALL PANEL: HORIZONTAL REVEAL (TYP) SEE 8 / A841
J	WALL PANEL: CEILING LINE DETAIL (TYP) SEE 9 / A841



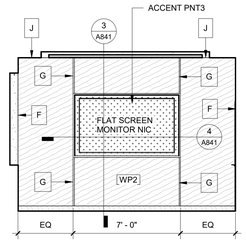
1 ENLARGED CONFERENCE PLAN
A803 SCALE: 1/4" = 1'-0"



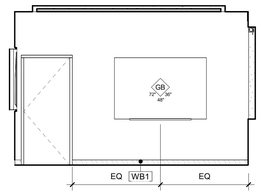
1.1 IE - CONFERENCE/TRAINING 112
A803 SCALE: 1/4" = 1'-0"



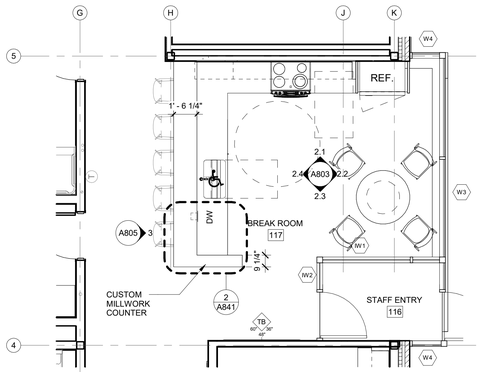
1.2 IE - CONFERENCE/TRAINING 112
A803 SCALE: 1/4" = 1'-0"



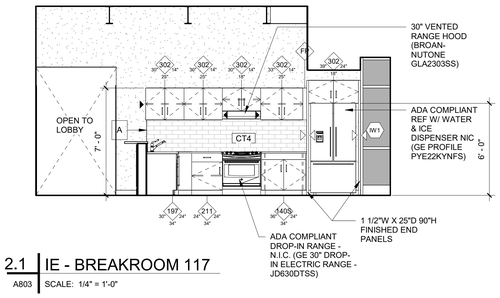
1.3 IE - CONFERENCE/TRAINING 112
A803 SCALE: 1/4" = 1'-0"



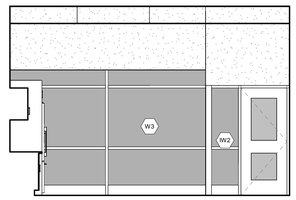
1.4 IE - CONFERENCE/TRAINING 112
A803 SCALE: 1/4" = 1'-0"



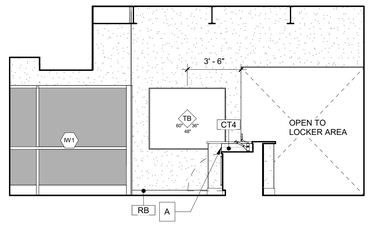
2 ENLARGED BREAK ROOM PLAN
A803 SCALE: 1/4" = 1'-0"



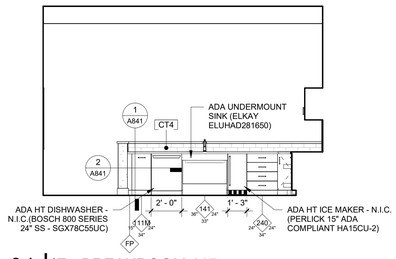
2.1 IE - BREAKROOM 117
A803 SCALE: 1/4" = 1'-0"



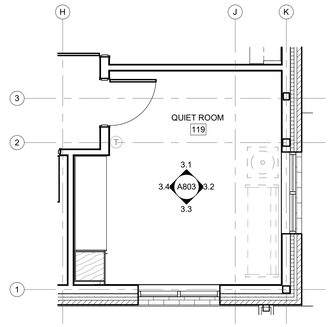
2.2 IE - BREAKROOM 117
A803 SCALE: 1/4" = 1'-0"



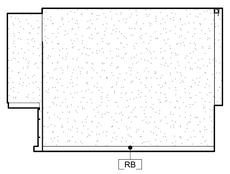
2.3 IE - BREAKROOM 117
A803 SCALE: 1/4" = 1'-0"



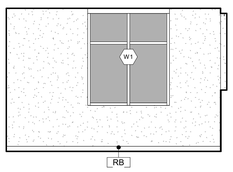
2.4 IE - BREAKROOM 117
A803 SCALE: 1/4" = 1'-0"



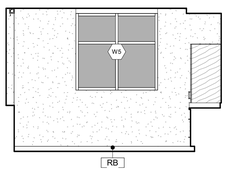
3 ENLARGED QUIET ROOM PLAN
A803 SCALE: 1/4" = 1'-0"



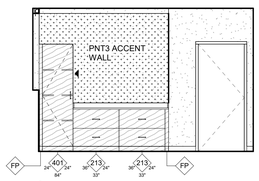
3.1 IE - QUIET ROOM 119
A803 SCALE: 1/4" = 1'-0"



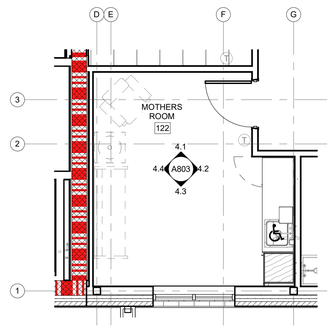
3.2 IE - QUIET ROOM 119
A803 SCALE: 1/4" = 1'-0"



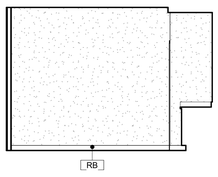
3.3 IE - QUIET ROOM 119
A803 SCALE: 1/4" = 1'-0"



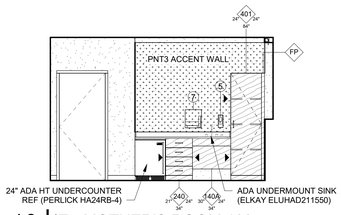
3.4 IE - QUIET ROOM 119
A803 SCALE: 1/4" = 1'-0"



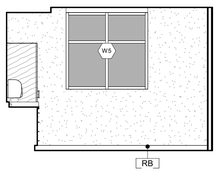
4 ENLARGED MOTHERS ROOM PLAN
A803 SCALE: 1/4" = 1'-0"



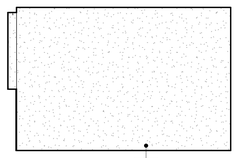
4.1 IE - MOTHER'S ROOM 122
A803 SCALE: 1/4" = 1'-0"



4.2 IE - MOTHER'S ROOM 122
A803 SCALE: 1/4" = 1'-0"



4.3 IE - MOTHER'S ROOM 122
A803 SCALE: 1/4" = 1'-0"



4.4 IE - MOTHER'S ROOM 122
A803 SCALE: 1/4" = 1'-0"

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Consultants:

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License No. C-1652
Contact: Kim Hamby, PE

MEP:
RMF Engineering
8081 Arco Corporate Drive, Suite 300
Raleigh, NC 27317
919.941.9876

Structural Engineer
SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
919.825.4882

Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

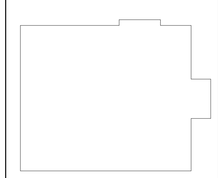
ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

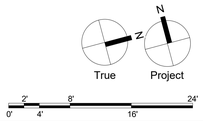
SG PROJECT NUMBER: 24-011

Key Plan:

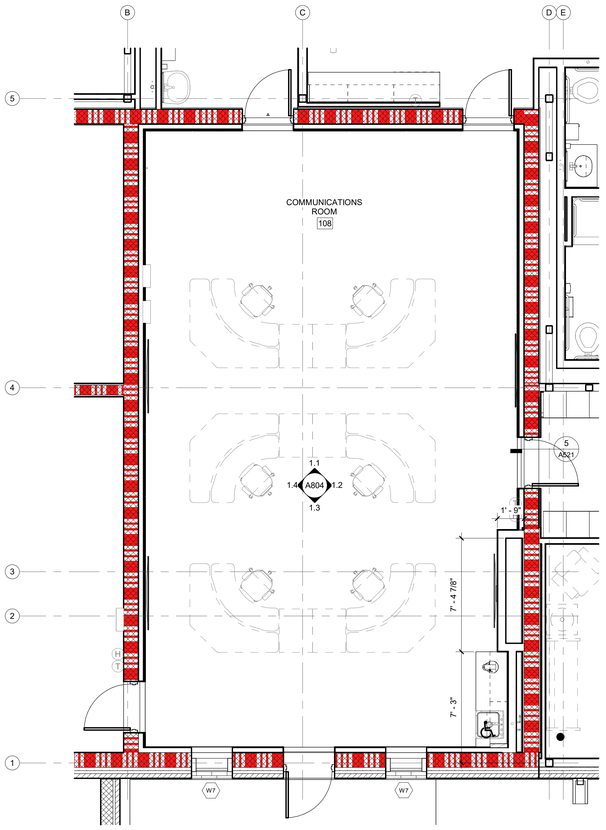


Drawing Title:
ENLARGED PLANS AND ELEVATIONS

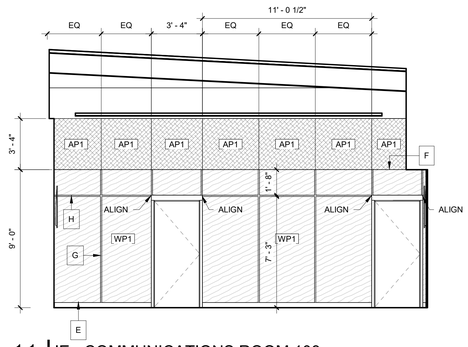
Drawing Number:
A803



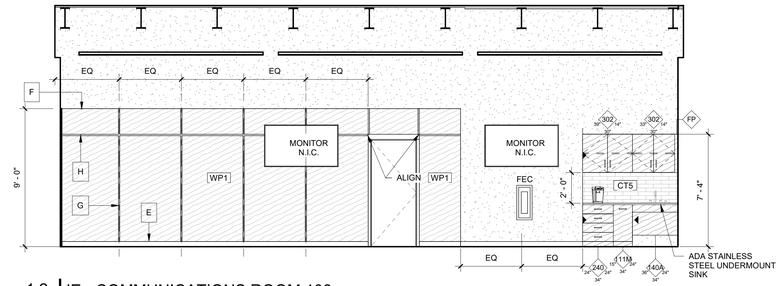
BID SET



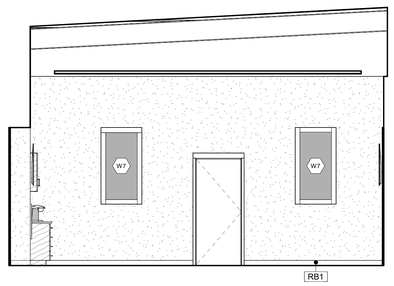
1 ENLARGED COMMUNICATION WORKSTATION PLAN
A804 SCALE: 1/4" = 1'-0"



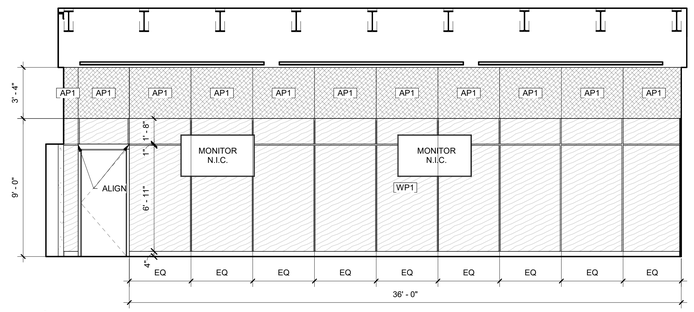
1.1 IE - COMMUNICATIONS ROOM 108
A804 SCALE: 1/4" = 1'-0"



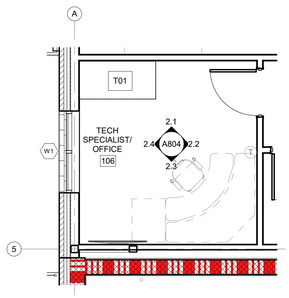
1.2 IE - COMMUNICATIONS ROOM 108
A804 SCALE: 1/4" = 1'-0"



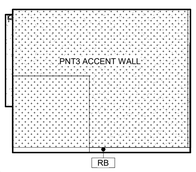
1.3 IE - COMMUNICATIONS ROOM 108
A804 SCALE: 1/4" = 1'-0"



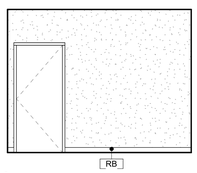
1.4 IE - COMMUNICATIONS ROOM 108
A804 SCALE: 1/4" = 1'-0"



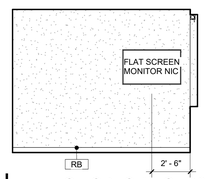
2 ENLARGED TECH SPECIALIST PLAN
A804 SCALE: 1/4" = 1'-0"



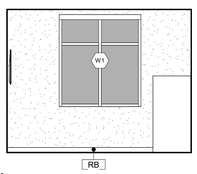
2.1 IE - TECH SPECIALIST 106
A804 SCALE: 1/4" = 1'-0"



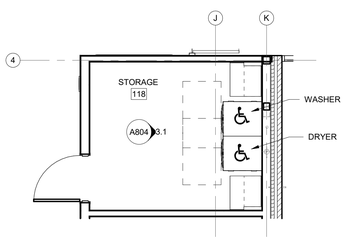
2.2 IE - TECH SPECIALIST 106
A804 SCALE: 1/4" = 1'-0"



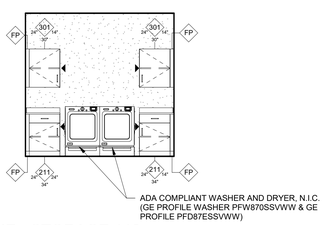
2.3 IE - TECH SPECIALIST 106
A804 SCALE: 1/4" = 1'-0"



2.4 IE - TECH SPECIALIST 106
A804 SCALE: 1/4" = 1'-0"



3 ENLARGED STORAGE ROOM 118 PLAN
A804 SCALE: 1/4" = 1'-0"



3.1 IE - STORAGE 118
A804 SCALE: 1/4" = 1'-0"

NOTES:

1. CONTRACTOR TO PROVIDE CASEWORK FILLER PANELS TO MATCH CASEWORK FINISH WHERE NECESSARY TO COMPLETE A LINE OF CASEWORK.
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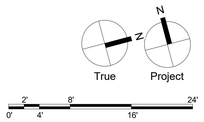
3. FOR EXACT ELEVATION OF DOORS AND WINDOWS, REFER TO DOOR AND WINDOW ELEVATION DRAWINGS.
4. ALL BASE CASEWORK WITH HEIGHT @ 2'-10" SHALL HAVE ACTUAL DIMENSIONS TO ENSURE HEIGHT OF SINK DOES NOT EXCEED 34" A.F.F. THIS APPLIES TO ALL BASE CASEWORK WITH AND WITHOUT SINKS IN ORDER TO KEEP HEIGHTS UNIFORM.
5. ALL APPLIANCES ARE TO BE OWNER PROVIDED AND OWNER INSTALLED, UNLESS NOTED OTHERWISE.

▸ CASEWORK FINISH END

▷ CASEWORK FINISH END PANEL

FINISH KEYNOTES

A	SCHLUTER TRIM: QUADEC EDGE (TYP) SEE 2 / A900.1
B	SCHLUTER TRIM: QUADEC OUTSIDE CORNER (TYP) SEE 3 / A900.1
C	SCHLUTER TRIM: DILEX COVE BASE DETAIL (TYP) SEE 4 / A900.1
D	SCHLUTER TRIM: RUBBER BASE/CERAMIC TILE DETAIL (TYP) SEE 5 / A900.1
E	WALL PANEL: BASE DETAIL (TYP) SEE 5 / A841
F	WALL PANEL: EDGE TRIM DETAIL (TYP) SEE 6 / A841
G	WALL PANEL: VERTICAL REVEAL (TYP) SEE 7 / A841
H	WALL PANEL: HORIZONTAL REVEAL (TYP) SEE 8 / A841
J	WALL PANEL: CEILING LINE DETAIL (TYP) SEE 9 / A841



BID SET

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p: 919.825.4882
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Consultants:

Civil:

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License No. C-1652
Contact: Kim Hamby, PE

MEP:

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Structural Engineer

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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
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New Construction of:

BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	04/06/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

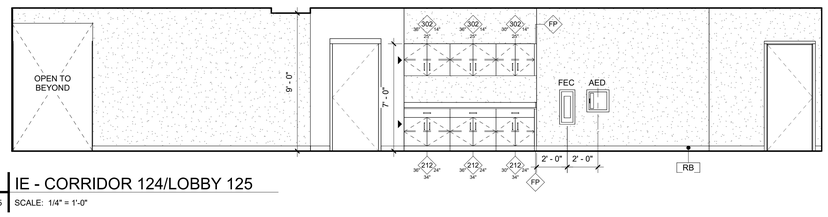
Key Plan:

Drawing Title:

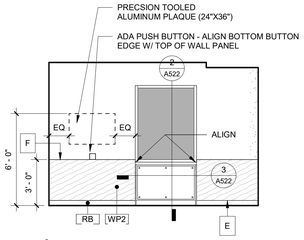
ENLARGED PLANS AND ELEVATIONS - COMMUNICATIONS

Drawing Number:

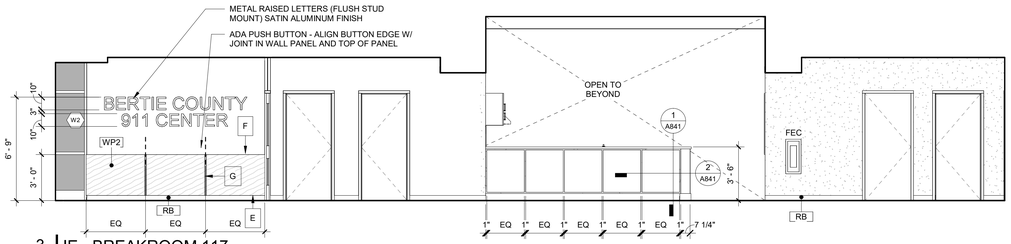
A804



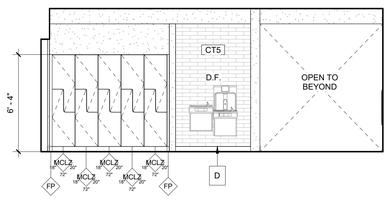
1 IE - CORRIDOR 124/LOBBY 125
A805 SCALE: 1/4" = 1'-0"



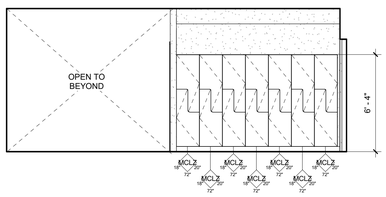
2 IE - PUBLIC ENTRY
A805 SCALE: 1/4" = 1'-0"



3 IE - BREAKROOM 117
A805 SCALE: 1/4" = 1'-0"



4 IE - LOCKERS 123
A805 SCALE: 1/4" = 1'-0"



5 IE - LOCKERS 123
A805 SCALE: 1/4" = 1'-0"

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▸ CASEWORK FINISH END

▷ CASEWORK FINISH END PANEL

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E	WALL PANEL: BASE DETAIL (TYP) SEE 5 / A841
F	WALL PANEL: EDGE TRIM DETAIL (TYP) SEE 6 / A841
G	WALL PANEL: VERTICAL REVEAL (TYP) SEE 7 / A841
H	WALL PANEL: HORIZONTAL REVEAL (TYP) SEE 8 / A841
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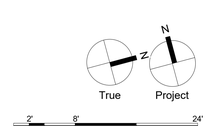
DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

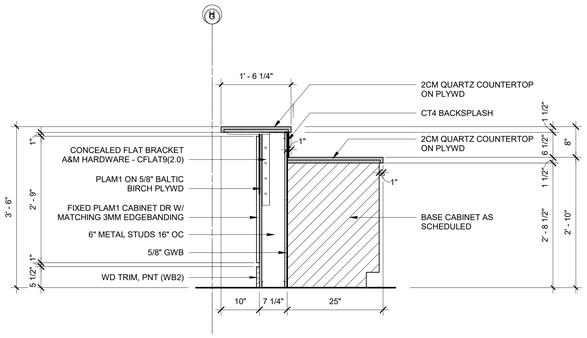
Key Plan:

Drawing Title:
CORRIDOR ELEVATIONS

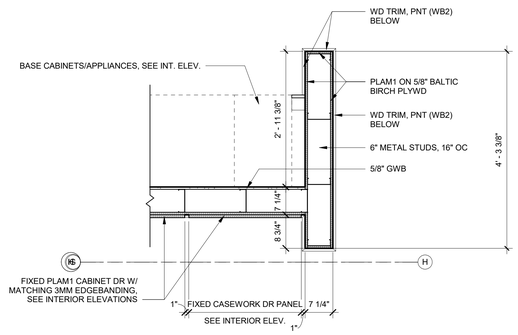
Drawing Number:
A805



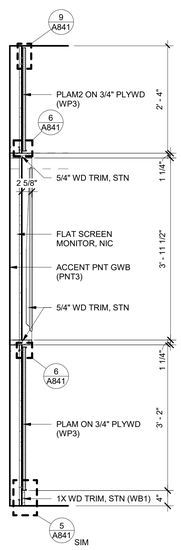
BID SET



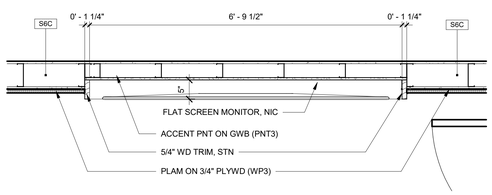
1 BREAKROOM CASEWORK DETAIL
A841 SCALE: 3/4" = 1'-0"



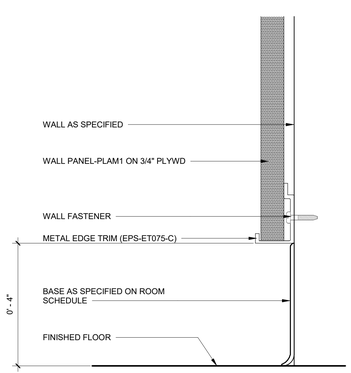
2 BREAKROOM CASEWORK PLAN VIEW
A841 SCALE: 3/4" = 1'-0"



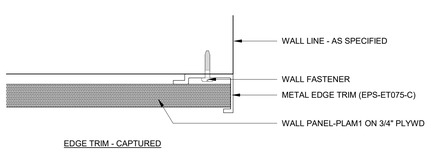
3 CONF. RM WOOD WALL DETAIL
A841 SCALE: 3/4" = 1'-0"



4 CONF. RM WOOD WALL PLAN DETAIL
A841 SCALE: 3/4" = 1'-0"

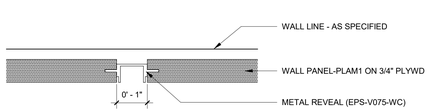


5 WALL PANEL - BASE DETAIL
A841 SCALE: 6" = 1'-0"



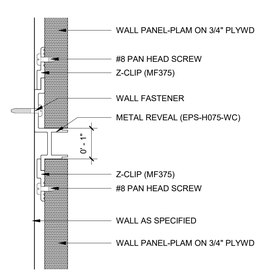
EDGE TRIM - CAPTURED

6 WALL PANEL - EDGE TRIM DETAIL
A841 SCALE: 6" = 1'-0"



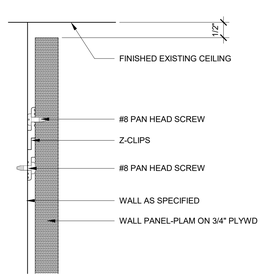
VERTICAL REVEAL - WIDE CHANNEL

7 WALL PANEL - VERTICAL REVEAL
A841 SCALE: 6" = 1'-0"



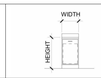
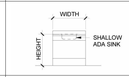
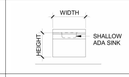
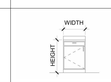
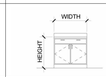
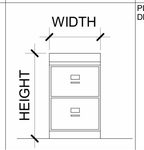
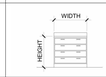
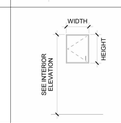
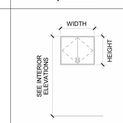
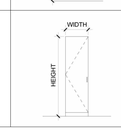
HORIZONTAL REVEAL - WIDE CHANNEL

8 WALL PANEL - HORIZONTAL REVEAL
A841 SCALE: 6" = 1'-0"



9 WALL PANEL - CEILING LINE DETAIL
A841 SCALE: 6" = 1'-0"

CASEWORK SCHEDULE

111M		PLAM BASE CABINET WITH SINGLE PULL-OUT TRASH BIN	MODEL / WIDTH / HEIGHT / DEPTH 111M / 1' - 3" / 2' - 10" / 2' - 0"
140A		PLAM BASE ADA WALL SINK	MODEL / WIDTH / HEIGHT / DEPTH 140A / 2' - 6" / 2' - 10" / 2' - 0" 140A / 2' - 8 5/8" / 2' - 10" / 2' - 0" 140A / 2' - 10" / 2' - 10" / 2' - 0" 140A / 3' - 0" / 2' - 10" / 2' - 0"
140S		PLAM ADA BASE CABINET WITH RETRACTABLE DOORS	MODEL / WIDTH / HEIGHT / DEPTH 140S / 3' - 0" / 2' - 10" / 2' - 0"
141		PLAM ADA SINK BASE WITH SIDE PANELS	MODEL / WIDTH / HEIGHT / DEPTH 141 / 3' - 0" / 2' - 9" / 2' - 0"
197		PLAM CORNER BASE CABINET WITH PIE-CUT DOOR-MOUNTED LAZY SUSAN	MODEL / WIDTH / HEIGHT / DEPTH 197 / 2' - 6" / 2' - 10" / 2' - 0"
211		PLAM BASE CABINET WITH SINGLE DRAWER & DOOR W/ ADJUSTABLE SHELF	MODEL / WIDTH / HEIGHT / DEPTH 211 / 2' - 0" / 2' - 10" / 1' - 2" 211 / 2' - 0" / 2' - 10" / 2' - 0"
212		PLAM BASE CABINET WITH SINGLE DRAWER & DOUBLE DOORS W/ ADJUSTABLE SHELF	MODEL / WIDTH / HEIGHT / DEPTH 212 / 2' - 6" / 2' - 10" / 2' - 0" 212 / 3' - 0" / 2' - 10" / 2' - 0"
213		PLAM BASE CABINET WITH (2) DRAWERS	MODEL / WIDTH / HEIGHT / DEPTH 213 / 3' - 0" / 2' - 9" / 2' - 0"
240		PLAM BASE WITH FOUR DRAWERS	MODEL / WIDTH / HEIGHT / DEPTH 240 / 1' - 9" / 2' - 10" / 2' - 0" 240 / 2' - 0" / 2' - 10" / 2' - 0"
301		PLAM UPPER CABINET WITH SINGLE DOOR AND ADJUSTABLE SHELVES	MODEL / WIDTH / HEIGHT / DEPTH 301 / 2' - 0" / 2' - 6" / 1' - 2"
302		PLAM UPPER CABINET WITH DOUBLE DOORS AND ADJUSTABLE SHELVES	MODEL / WIDTH / HEIGHT / DEPTH 302 / 2' - 6" / 1' - 6" / 1' - 2" 302 / 2' - 6" / 2' - 1" / 1' - 2" 302 / 2' - 9" / 2' - 1" / 1' - 2" 302 / 2' - 9" / 2' - 6" / 1' - 2" 302 / 3' - 0" / 2' - 1" / 1' - 2" 302 / 3' - 3" / 1' - 6" / 2' - 0" 302 / 3' - 3" / 2' - 6" / 1' - 2"
401		PLAM TALL CABINET WITH DOUBLE DOORS AND ADJUSTABLE SHELVES	MODEL / WIDTH / HEIGHT / DEPTH 401 / 2' - 0" / 7' - 0" / 2' - 0"

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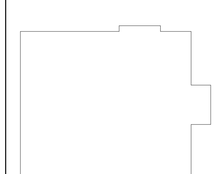
Key Plan:



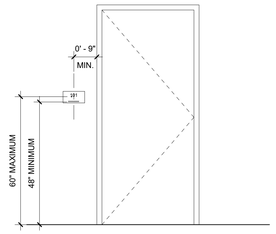
Drawing Title:
CASEWORK SCHEDULE AND DETAILS

Drawing Number:
A841

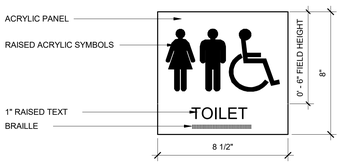
BID SET

SIGNAGE SCHEDULE

DOOR NO.	From Rm: Number	From Rm: Name	To Rm: Number	To Rm: Name	SIGN TYPE	NUMBER ON SIGN	TEXT ON SIGN	COMMENTS
-								
101-1			101	PUBLIC ENTRY	TYPE B			
101-2	125	LOBBY	101	PUBLIC ENTRY	TYPE C			
102	125	LOBBY	102	RECORDS/ FUTURE OFFICE	TYPE D			
103	103	TRAINING OFFICER	124	COPY/PRINT	TYPE D			
104	104	SUPERVISOR	124	COPY/PRINT	TYPE D			
105	124	COPY/PRINT	105	DIRECTOR	TYPE D			
106	124	COPY/PRINT	106	TECH SPECIALIST/ OFFICE	TYPE D			
107	124	COPY/PRINT	107	STORAGE	TYPE G			
108								
108-1	108	COMMUNICATIONS ROOM	124	COPY/PRINT	TYPE E			
108-2	108	COMMUNICATIONS ROOM	121	LOCKERS	TYPE E			
108-3	108	COMMUNICATIONS ROOM			TYPE C			
109	108	COMMUNICATIONS ROOM	109	RESTROOM	TYPE A			
110	108	COMMUNICATIONS ROOM	110	EQUIP RACKS	TYPE F			
111-1	111	MECH ROOM	110	EQUIP RACKS	TYPE G			
111-2			111	MECH ROOM	TYPE C			
112	125	LOBBY	112	CONFERENCE / COMPUTER LAB/ TRAINING	TYPE E			
113	113	STORAGE	125	LOBBY	TYPE G			
114			114	RESTROOM	TYPE A			
115			115	RESTROOM	TYPE A			
116-1			116	STAFF ENTRY	TYPE B			
116-2			116	STAFF ENTRY	TYPE C			
118	121	LOCKERS	118	STORAGE	TYPE G			
119	119	QUIET ROOM	121	LOCKERS	TYPE E			
120	120	JANITOR	121	LOCKERS	TYPE G			
122	121	LOCKERS	122	MOTHERS ROOM	TYPE E			
123								



1 TYP SIGNAGE INSTALL LOCATION
A851 SCALE: 1/2" = 1'-0"



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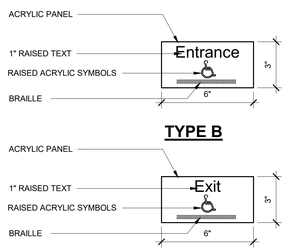
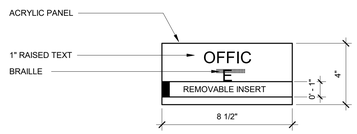


TYPE B

TYPE C



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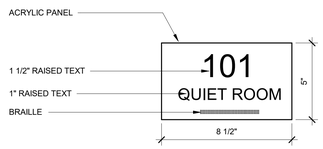
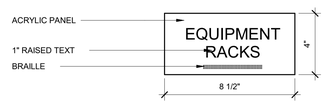
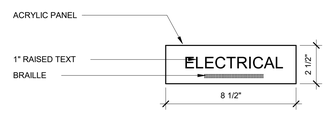


TYPE E

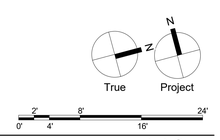


TYPE F



TYPE G

NOTES:
1.SIGNAGE WILL BE MOUNTED VIA DOUBLE FACED TAPE AND SILICONE
2.FONT IS TO BE FUTURA
3.PROVIDE BACKPLATE FOR SIGNAGE MOUNTED ON GLASS
4.SIGN TYPES A THRU G: ROWMARK ADA ALTERNATIVE SUBSTRATE (COLOR: TBD) - RAISED LETTERS/SYMBOLS (ROWMARK TBD)



BID SET

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
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	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
SIGNAGE SCHEDULE AND DETAILS

Drawing Number:
A851

SCHRADERGROUP
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ROOM FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR FINISH	BASE TYPE	WALL FINISH	CASEWORK FINISH		COMMENTS
					COUNTERTOP	CABINET	
101	PUBLIC ENTRY	WOM1	RB1	PNT1/WP2	-	-	SEE INTERIOR ELEVATIONS
102	RECORDS/ FUTURE OFFICE	CPT1	RB1	PNT1/PNT3	-	-	SEE INTERIOR ELEVATIONS & FINISH PLAN
103	TRAINING OFFICER	CPT1	RB1	PNT1/PNT3	-	-	SEE INTERIOR ELEVATIONS & FINISH PLAN
104	SUPERVISOR	CPT1	RB1	PNT1/PNT3	-	-	SEE INTERIOR ELEVATIONS & FINISH PLAN
105	DIRECTOR	CPT1	RB1	PNT1/PNT3	-	-	SEE INTERIOR ELEVATIONS & FINISH PLAN
106	TECH SPECIALIST/ OFFICE	CPT1	RB1	PNT1/PNT3	-	-	SEE INTERIOR ELEVATIONS & FINISH PLAN
107	STORAGE	SC1	RB1	PNT1	-	-	
108	COMMUNICATIONS ROOM	SDRF1	RB1	PNT1/AP1/WP1/CT5	QTZ1	PLAM2	SEE INTERIOR ELEVATIONS
109	RESTROOM	CT1	-	CT2/CT3/PNT1	-	-	SEE INTERIOR ELEVATIONS
110	EQUIP RACKS	SDRF1	RB1	PNT1	-	-	
111	MECH ROOM	SC1	RB1	PNT1	-	-	
112	CONFERENCE/ COMPUTER LAB/ TRAINING	CPT1	WB1	PNT1/WP2	-	-	SEE INTERIOR ELEVATIONS
113	STORAGE	LVT1	RB1	PNT1	-	-	
114	RESTROOM	CT1	-	CT2/CT3/PNT1	SSM1	PLAM1	SEE INTERIOR ELEVATIONS
115	RESTROOM	CT1	-	CT2/CT3/PNT1	SSM1	PLAM1	SEE INTERIOR ELEVATIONS
116	STAFF ENTRY	WOM1	RB1	PNT1	-	-	
117	BREAK ROOM	LVT1	RB1	PNT1/CT4	QTZ1	PLAM1	SEE INTERIOR ELEVATIONS
118	STORAGE	LVT1	RB1	PNT1	SSM1	PLAM1	SEE INTERIOR ELEVATIONS
119	QUIET ROOM	CPT1	RB1	PNT1/PNT3	SSM1	PLAM2	SEE INTERIOR ELEVATIONS & FINISH PLAN
120	JANITOR	SC1	RB1	FRP1/PNT1	-	-	FRP WAINSCOT (ALL 4 WALLS) 4'-4"H AFF
121	LOCKERS	LVT1	RB1	PNT1	-	PLAM1	CT5 - DRINKING FOUNTAIN; SEE INTERIOR ELEVATIONS
122	MOTHERS ROOM	CPT1	RB1	PNT1/PNT3	SSM1	PLAM2	SEE INTERIOR ELEVATIONS & FINISH PLAN
124	COPY/PRINT	LVT1	RB1	PNT1	SSM1	PLAM1	SEE INTERIOR ELEVATIONS
125	LOBBY	LVT1	RB1	PNT1	SSM1	PLAM1	SEE INTERIOR ELEVATIONS

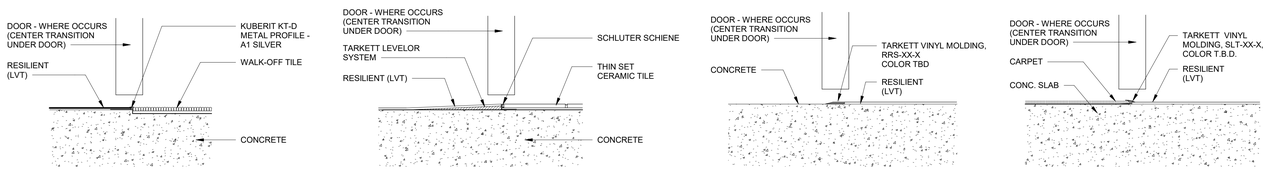
FINISH ABBREVIATIONS

ACT	ACOUSTICAL CEILING PANEL
AP	ACOUSTIC PANEL
CAB	CABINETS
CG	CORNER GUARDS
CPT	CARPET
CT	CERAMIC TILE
FRP	FIBERGLASS REINFORCED PANEL
HDW	DECORATIVE HARDWARE
LC	LOCKER COLOR
LVT	LUXURY VINYL TILE
PF	PANEL FABRIC
PLAM	PLASTIC LAMINATE
PNT	PAINT
QTZ	QUARTZ
RB	RUBBER BASE
SC	SEALED CONCRETE
SSM	SOLID SURFACE MATERIAL
STN	STAIN
TA	TOILET ACCESSORIES
VWC	VINYL WALL COVERING
WC	WALL COVERING
WOM	WALK-OF MAT

FINISH SPECIFICATIONS

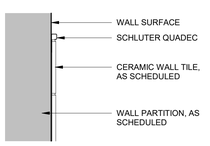
TAG	BASIS OF DESIGN					INSTALLATION METHOD	COMMENTS
	MATERIAL	MANUFACTURER	PRODUCT	COLOR	SIZE		
FLOOR							
CPT1	CARPET TILE	INTERFACE	KNITSTITCH	103339 LINEN/LAPIS	50CM X 50CM	MONOLITHIC	
CT1	CERAMIC (PORCELAIN) TILE	GARDEN STATE TILE	ARDOSIA	SILK GREY RECTIFIED	24X24		EPOXY GROUT COLOR: MAPEI KERAPOXY CQ 5019 PEARL GRAY
LVT1	LUXURY VINYL TILE	INTERFACE	NORTHERN GRAIN 3.0	A02611 OAK SATIN	25CM X 1M X 3.0MM	ASHLAR	
SC1	SEALED CONCRETE						
SDRF1	STATIC DISSIPATIVE RUBBER FLOOR	TATE INC RAISED ACCESS FLOORING	ENVIRONCARE RUBBER BY NORA - FACTORY LAMINATED TO RAISED ACCESS FLOOR	NORA - ENVIRONCARE - CLAM BAKE (STATIC DISSIPATIVE TILE)			
WOM1	WALK-OFF MAT (TILE)	MATTER SURFACES	SUPER NOP 52 TILE	CHARCOAL	19.7"X19.7"X1/2"	QUARTER TURN	
WALL							
AP1	ACOUSTICAL PANEL	KINETICS NOISE CONTROL	HARDSIDE PANEL	FABRIC: KNOLL TEXTILES - REFLECT - TITANIUM W884/2A	1" THICK	BEVELED PROFILE EDGE	
CT2	CERAMIC (PORCELAIN) TILE (RESTROOM FIELD)	GARDEN STATE TILE	PIZZIZA (RECTIFIED)	MORNING MIST LINEN	12X24	RUNNING BOND; 1/8" GROUT JOINT SIZE	EPOXY GROUT COLOR: MAPEI KERAPOXY CQ 5093 WARM GRAY
CT3	CERAMIC (PORCELAIN) TILE (RESTROOM ACCENT)	NEMO TILE + STONE	PENNYROUND (GLOSS)	GREY MIX	12X12 SHEET		EPOXY GROUT COLOR: MAPEI KERAPOXY CQ 5019 PEARL GRAY
CT4	CERAMIC TILE (BREAKROOM BACKSPLASH)	GARDEN STATE TILE	VIBES (GLOSSY)	NIVEO FLAT	2"X10"	RUNNING BOND; 1/8" GROUT JOINT SIZE	EPOXY GROUT COLOR: MAPEI KERAPOXY CQ 5221 MOONBEAM
CT5	CERAMIC TILE (ACCENT TILE)	GARDEN STATE TILE	FORMA (GLOSSY)	AGATA	3"X12"	RUNNING BOND; 1/8" GROUT JOINT SIZE	EPOXY GROUT COLOR: MAPEI KERAPOXY CQ 5231 DEEP OCEAN
FRP1	FIBERGLASS REINFORCED PANEL	MARLITE	STANDARD FRP - PEBBLED	P199 BRIGHT WHITE	.090" THICK		
PNT1	PAINT (TYPICAL WALL PAINT)	SHERWIN WILLIAMS		SW 9166 DRIFT OF MIST			
PNT2	PAINT (HOLLOW METAL TRIM)	SHERWIN WILLIAMS		SW 2849 WESTCHESTER GRAY			
PNT3	PAINT (ACCENT PAINT)	SHERWIN WILLIAMS		SW 9150 ENDLESS SEA			
WP1	WALL PANEL (PERFORATED PLAM)	MONARCH METALS & SOUNDPLY	EASY PANEL SYSTEM W/ SOUNDPLY LR M-19 (3/4") PANEL	MICROPERFORATED PLASTIC LAMINATE: ARBORITE W2011-AW	3/4" THICK PANEL		
WP2	WALL PANEL SYSTEM	MONARCH METALS	EASY PANEL SYSTEM - WIDE CHANNEL	PLAM ARBORITE W2011-AW ESSENTIAL ARTISAN WALNUT			
CEILING							
ACT2A	ACOUTICAL CEILING TILE	ARMSTRONG	ULTIMA 1913	WHITE	2'X4'X3/4"		SQUARE LAY-IN; 15/16" PRELUDE XL GRID - WHITE
ACT2C	ACOUTICAL CEILING TILE	ARMSTRONG	CALLA 2821	WHITE	2'X4'X1"		SQUARE LAY-IN; 15/16" PRELUDE XL GRID - WHITE
PNT4	PAINT (CEILING)	SHERWIN WILLIAMS		SW 7757 HIGH REFLECTIVE WHITE			
BASE							
RB1	RUBBER BASE	ROPPE		669 BATTLESHIP	4"H		
WB1	WOOD BASE (STN)		WOOD SPECIES: PLAIN SLICED WHITE OAK	TO MATCH PLAM ARBORITE W2011-AW ESSENTIAL ARTISAN WALNUT	4"H X .75"THICK		
WB2	WOOD BASE (PNT)		WOOD SPECIES: PLAIN SLICED WHITE OAK	TO MATCH PLAM FENIX J0752 GRIGIO ANTRIM	1X6 WD TRIM		
CABINETRY							
PLAM1	PLASTIC LAMINATE (SOLID FINGERPRINTLESS)	FENIX NTM		J0752 GRIGIO ANTRIM		CASEWORK: CONCEALED HINGES; DRAWER PULLS: HDW1	3MM EDGEBANDING: FRAMA-TECH, FENIX 0752 GRIGIO ANTRIM 15/16" SUPER MATTE FINISH
PLAM2	PLASTIC LAINATE (WOOD LOOK)	ARBORITE		W2011-AW ESSENTIAL ARTISAN WALNUT		CASEWORK: CONCEALED HINGES; DRAWER PULLS: HDW1	3MM EDGEBANDING: CHARTER INDUSTRIES 15/16" AW2011 ESSENTIAL ARTISAN WALNUT
QTZ1	QUARTZ COUNTERTOP (BREAKROOM & COMMUNICATION)	WILSONART		Q1012 LORRAINE	2CM THICK	EASED EDGE COUNTERTOP PROFILE	
SSM1	SOLID SURFACE MATERIAL	MEGANITE		704SA URBAN HABITAT	1/2" THICK MATERIAL	SATIN FINISH; EASED EDGE COUNTERTOP PROFILE	
EQUIPMENT							
LC1	LOCKERS	SPACE SAVER	Z-LOCKERS	FORMICA FENIX J0752 GRIGIO ANTRIM			
T01	WORKBENCH	FORMASPACE	BENCHMARX - CUSTOMIZABLE MODULAR WORKBENCH: FRAME TYPE: WORKBENCH-STANDARD; SPREADER POSITION: REAR; LOAD CAPACITY: HEAVY DUTY; FOOT OPTION: LOCKING CASTERS; HEIGHT ADJUSTABILITY: YES; HYDRAULICS POSITION: RIGHT; HEIGHT ADJUSTABLE TRAVEL RANGE: 12; HEIGHT ADJUSTABILITY: ELECTRIC HYDRAULIC; WORK SURFACE: ESD LAMINATE - COLOR GRAY; ESD KIT: YES; ABOVE SURFACE: UPPER STORAGE - CABINETS; STORAGE MATERIAL: LOW PRESSURE LAMINATE; STORAGE COLOR: BLACK; UNDER SURFACE: LOWER SHELF - HALF DEPTH; SHELF MATERIAL: LOW PRESSURE LAMINATE; SHELF COLOR: BLACK; ACCESSORIES: UNDER SHELF LIGHT; BACK PEG BOARD; WIRE MANAGEMENT; GROMMET; 7-FLEX (QTY-2); 7-FLEX POSITION: ON WORK SURFACE; POWER SUPPLY: YES; POWER SUPPLY PLUGS: 12; POWER SUPPLY POSITION: UNDER WORK SURFACE	FRAME COLOR: BLUE; WORK SURFACE COLOR: GRAY; UPPER CABINET COLOR: BLACK; SHELF COLOR: BLACK	72"W X 36"D X 36" H		
MISC.							
CG1	CORNER GUARDS	CONSTRUCTION SPECIALTIES	ACROVYN - SO CORNER GUARDS	PEARL 934	75MM LEG		
HDW1	HARDWARE (DECORATIVE DRAWER PULLS)	MOCKETT	ROD DRAWER PULL	STAINLESS STEEL	7 9/16"		
HDW2	HARDWARE (STAND-OFFS)	3 FORM		BRUSHED STAINLESS STEEL	1" X 1" DIA.		
RP1	RESIN PANEL (TRANSLUCENT)	3 FORM	VARIA ECORESIN; SANDSTONE (F01) FINISH	MOONSTONE B56	3/8" THICK		
RS1	ROLLER SHADES - MESH (MANUAL)	DRAPER	1% OPENNESS; SHEERWEAVE BASIC	V22 CHARCOAL/GREY			
SSM2	WINDOW SILLS MATERIAL	WILSONART		BROOKLYN CONCRETE 9219GS	1/2" THICK MATERIAL	EASED EDGE COUNTERTOP PROFILE	
STN1	STAIN		WOOD SPECIES - PLAIN SLICED WHITE OAK	TO MATCH PLAM ARBORITE W2011-AW ESSENTIAL ARTISAN WALNUT			
WD1	WOOD DOORS		WOOD SPECIES: PLAIN SLICED WHITE OAK - CUSTOM STAIN COLOR	TO MATCH PLAM ARBORITE W2011-AW ESSENTIAL ARTISAN WALNUT			

NOTE: RECESS NEW CONCRETE SLAB (1/4"-3/8") TO LOWER WALK-OFF TILE CLOSER TO THE LEVEL OF THE RESILIENT FLOOR



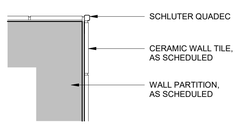
RESILIENT TO WALK-OFF TILE | **RESILIENT TO CERAMIC TILE** | **CONCRETE TO RESILIENT** | **CARPET TILE TO RESILIENT**

1 FLOOR TRANSITION DETAILS
A900.1 SCALE: 3" = 1'-0"



WALL CONDITION

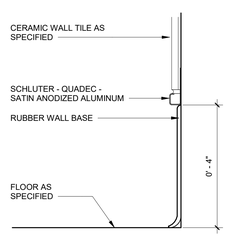
2 SCHLUTER QUADEC - CT WALL DETAIL
A900.1 SCALE: 3" = 1'-0"



WALL CORNER CONDITION

3 SCHLUTER QUADEC - OUTSIDE CORNER
A900.1 SCALE: 3" = 1'-0"

4 SCHLUTER DILEX - COVE DETAIL
A900.1 SCALE: 3" = 1'-0"



5 SCHLUTER QUADEC - RUBBER BASE TO CT
A900.1 SCALE: 6" = 1'-0"

0' 4' 16' 2' 8' 24'

BID SET

Consultants:

Civil:

Timmons Group
1805 West City Drive, Unit E Elizabeth City, NC 27909
License No. C-1652
Contact: Kim Hamby, PE

MEP:

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Raleigh, NC 27317
919.941.9876

Structural Engineer

SCHRADERGROUP
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DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:

FINISH SCHEDULE & FINISH SPECIFICATIONS SCHEDULE

Drawing Number:

A900.1

1 FIRST FLOOR FINISH PLAN

A901 SCALE: 1/4" = 1'-0"

FINISH EXTENTS NOTES

1.) WALL DESIGNATION REFERS TO NORTH NOTED ON THE KEY PLAN.

2.) IN ALL CASES WHERE EXPOSED CEILINGS ARE TO BE PAINTED ALL DUCTWORK AND OTHER EXPOSED MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT TO BE PAINTED AS WELL.

3.) PROVIDE 3/4" AC FIRE RATED PLYWOOD FROM FINISH FLOOR TO 8'-0" A.F.F. BEHIND TELECOM EQUIPMENT. COORDINATE WITH TELECOM REQUIREMENTS. PROVIDE PAINT FINISH TO MATCH ADJACENT CONSTRUCTION PRIOR TO PLACEMENT OF EQUIPMENT.

4.) FLOOR FINISHES TO BE CONTINUOUS UNDER ALL CASEWORK, MILLWORK, CABINETRY, PLUMBING AND FLOOR FIXTURES UNLESS OTHERWISE NOTED.

5.) PAINT EXTENT DESIGNATION INDICATED ON FINISH SCHEDULE ONLY APPLIES TO WALLS AND CEILINGS. DO NOT PAINT INTERIOR BRICK VENEER, GROUND FACED MASONRY SURFACES, GLAZING, DOOR AND WINDOW FRAMES UNLESS OTHERWISE NOTED.

6.) REFER TO PARTITION TYPES AND INTERIOR ELEVATIONS FOR EXTENT OF PAINTING. REFER TO WINDOW AND DOOR SCHEDULES FOR APPLICABLE FINISHES.

7.) REFER TO REFLECTED CEILING PLANS FOR CEILING TYPES, MATERIALS, FINISHES AND HEIGHTS.

8.) PROVIDE ADA / ANSI COMPLIANT METAL THRESHOLDS / TRANSITION STRIPS BETWEEN ALL DISSIMILAR FLOORING MATERIALS. SUBMIT SAMPLES TO ARCHITECT FOR REVIEW VIA SHOP DRAWING / SAMPLE SUBMITTAL PROCESS.

9.) SEE "A800" SERIES INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION ON WALL PAINT LOCATIONS.

ROOM FINISH TAG

CLASSROOM — ROOM NAME
B112 — ROOM NUMBER
PNT-02 — WALL FINISH
CPT-01 — FLOOR FINISH
RB-03 — BASE MATERIAL

FINISH EXTENTS LEGEND

CARPET TILE
LVT (PLANK WOOD LOOK)
SEALED CONCRETE
WALK OFF MAT
STATIC DISSIPATIVE RUBBER FLOOR
CERAMIC TILE FLOOR

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REGISTERED ARCHITECT
12373
NORTH CAROLINA
PHILADELPHIA, PA

Owner:
BERTIE COUNTY

Windsor Township,
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AD3	ADDENDUM #3	05/14/2026
	RE-BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:

FIRST FLOOR FINISH PLAN

Drawing Number:

A901

True Project

0' 2' 4' 8' 16' 24'

BID SET

STRUCTURAL DESIGN LOAD DATA

THE FOLLOWING DESIGN LOADS ARE APPLICABLE TO THIS FACILITY IN ACCORDANCE WITH 2018 NORTH CAROLINA BUILDING CODE (IBC 2018 WITH AMENDMENTS)

DESIGN LIVE LOADING

AREA	UNIFORM LOAD	CONCENTRATED LOAD
OFFICE	50 PSF	2,000 POUNDS
CORRIDOR	100 PSF	1,000 POUNDS
MECHANICAL	150 PSF	-
STORAGE	150 PSF	-
MAIN BUILDING ROOF (NON-SNOW)	30 PSF	300 POUNDS
STORM SHELTER ROOF (NON-SNOW)	100 PSF	1,000 POUNDS

DESIGN SNOW LOADING DATA

GROUND SNOW LOAD	P_g	10 PSF
EXPOSURE FACTOR	C_e	0.9
SLOPE FACTOR	C_s	1.0
THERMAL FACTOR	C_t	1.0
IMPORTANCE FACTOR	I	1.2
FLAT ROOF SNOW LOAD	P_f	8 PSF
SLOPED ROOF SNOW LOAD	P_s	N/A
MINIMUM SNOW LOAD	P_m	12 PSF
DRIFTED SNOW LOAD	P_d	N/A

DESIGN WIND LOADING DATA (MAIN BUILDING)

RISK CATEGORY		IV
BASIC WIND SPEED	V_{ult}	135 MPH
NOMINAL WIND SPEED	V_{asd}	105 MPH
EXPOSURE		C
MEAN ROOF HEIGHT	h	12 FT
DIRECTIONALITY FACTOR	K_d	0.85
TOPOGRAPHIC FACTOR	K_{zt}	1.0
MEAN VELOCITY PRESSURE COEFFICIENT	K_h	0.85
INTERNAL PRESSURE COEFFICIENT	GC_{pi}	±0.18
MEAN VELOCITY PRESSURE	q_h	34 PSF

DESIGN WIND LOADING DATA (STORM SHELTER)

SHELTER TYPE: TORNADO AND HURRICANE		IV
TORNADO DESIGN WIND SPEED	V_T	200 MPH
HURRICANE DESIGN WIND SPEED	V_H	160 MPH
EXPOSURE		C
MEAN ROOF HEIGHT	h	15 FT
DIRECTIONALITY FACTOR	K_d	1.0
TOPOGRAPHIC FACTOR	K_{zt}	1.0
MEAN VELOCITY PRESSURE COEFFICIENT	K_h	0.85
INTERNAL PRESSURE COEFFICIENT	GC_{pi}	±0.55
MEAN VELOCITY PRESSURE (TORNADO)	q_h	87 PSF

DESIGN PRESSURES (C&C MAIN BUILDING)

H	TRIB. AREA	ROOF			WALL	
		ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
≤15'	10	+16.4/-40.2	+16.4/-67.4	+16.4/-101.4	+40.2/-43.6	+40.2/-53.8
	100	+13.0/-36.8	+13.0/-43.6	+13.0/-43.6	+30.0/-33.4	+30.0/-33.4

DESIGN PRESSURES (C&C STORM SHELTER)

H	TRIB. AREA	ROOF			WALL	
		ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
≤17'	10	+75.7/-138.0	+75.7/-209.2	+75.7/-298.2	+138.0/-146.9	+138.0/-173.6
	100	+66.8/-129.1	+66.8/-146.9	+66.8/-146.9	+111.3/-120.2	+111.3/-120.2

* WIND LOADS SHOWN ARE ULTIMATE LOADS
* USE 16 PSF MIN
* CONTRACTORS MAY CALCULATE ALTERNATE WIND LOADING APPLICABLE TO INDIVIDUAL SYSTEMS
* LOADS BASED ON CH. 30 PART 2 FOR FLAT/HIP/GABLE 0≤ θ ≤7

DESIGN SEISMIC LOADING DATA

RISK CATEGORY		IV
IMPORTANCE FACTOR	I	1.5
MAPPED SHORT PERIOD ACCELERATION	S_s	0.088
MAPPED 1 SEC ACCELERATION	S_1	0.043
DESIGN SHORT PERIOD ACCELERATION	S_{DS}	0.094
DESIGN 1 SEC ACCELERATION	S_{D1}	0.07
SITE CLASS		D
SEISMIC DESIGN CATEGORY		C
ANALYSIS METHOD		ELFP

AREA	LATERAL FORCE RESISTING SYSTEM	RESPONSE MOD. COEFF. (R)	SEISMIC RESPONSE COEFF. (C_s)	BASE SHEAR (V)
MAIN BUILDING	STEEL SYSTEMS NOT SPECIFIED DETAILED FOR SEISMIC RESISTANCE	3	0.047	6 KIPS
STORM SHELTER	INTERMEDIATE REINFORCED MASONRY SHEAR WALLS	3.5	0.040	18 KIPS

RAIN LOAD DATA

INTENSITY (100 YEAR+ 6")	i	10.6 IN/HR

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (IBC) 2018, INCLUDING ALL CURRENT REFERENCED STANDARDS PER CHAPTER 35, AND TO ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS INCLUDING BUT NOT LIMITED TO OSHA AND ADA REQUIREMENTS.
2. ANY AND ALL QUESTIONS PERTAINING TO THE WORK DESCRIBED IN THESE CONTRACT DOCUMENTS SHALL BE SUBMITTED IN WRITTEN FORM, IN ACCORDANCE WITH THE ESTABLISHED 'REQUEST FOR INFORMATION' (RFI) PROCEDURES.
3. COORDINATE ALL SPECIFICATION REQUIREMENTS WITH THE INFORMATION SHOWN ON DRAWINGS AND IN THESE STRUCTURAL NOTES.
4. DO NOT SCALE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT/ENGINEER TO RESOLVE ANY DIMENSIONAL DISCREPANCIES RELATED TO THE DRAWINGS AND/OR EXISTING FIELD CONDITIONS WHERE APPROPRIATE.
5. DO NOT MODIFY SIZE, SHAPE, LOCATION, OR SPACING OF STRUCTURAL ELEMENTS WITHOUT APPROVAL FROM THE ENGINEER.
6. TYPICAL DETAILS ARE NOT INDICATED ON PLANS AND ARE REQUIRED TO BE APPLIED AND INTEGRATED INTO THE CONSTRUCTION WHERE APPLICABLE.
7. CONTRACTOR IS RESPONSIBLE FOR PRECISELY LOCATING ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK. ANY DAMAGE INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO DO SO IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. THE GC SHALL BE RESPONSIBLE FOR COORDINATING, OBTAINING AND TRANSMITTING ALL GEOMETRY AND REQUIRED FIELD DIMENSIONING TO THE VARIOUS TRADES IN ORDER TO PERFORM THE WORK. THE GC SHALL BE SOLELY RESPONSIBLE FOR COORDINATING WORK AND FIELD DIMENSIONS AMONG THE VARIOUS TRADES.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL PATCHING, REPAIR, AND RESTORATION OF INSTALLED MATERIALS WHERE SUCH MATERIALS ARE DAMAGED OR DEMOLISHED DURING THE COURSE OF CONSTRUCTION. ALL PATCHING, REPAIR, AND RESTORATION SHALL MATCH THE PREVIOUSLY EXISTING CONDITIONS.
10. ANY ADDITIONAL WORK REQUIRED BY THE ARCHITECT/ENGINEER (DESIGN, SKETCHES, DRAWING DOCUMENTATION, FIELD VISITS, ETC) TO CORRECT OR REVISE CONTRACTOR CONSTRUCTION ERRORS SHALL BE AT THE SOLE EXPENSE OF THE CONTRACTOR.
11. THE COMBINATION OF DRAWINGS AND WRITTEN SPECIFICATIONS REPRESENTS THE DESCRIPTION OF WORK, AND THE CONTRACTOR IS SOLELY RESPONSIBLE TO ENSURE THAT ALL WORK DESCRIBED IS IN ACCORDANCE WITH BOTH THE CONTRACT DRAWINGS AND SPECIFICATIONS. IN THE CASE OF CONFLICT BETWEEN NOTES, DRAWINGS, AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT WILL GOVERN.
12. THE INFORMATION CONTAINED IN THE CONTRACT DOCUMENTS REPRESENT FINISHED DESIGNS AND IN NO WAY CONSIDER OR CONVEY VARIOUS "IN CONSTRUCTION" CONDITIONS. CONSTRUCTION PROCEDURES, INCLUDING BUT NOT LIMITED TO MEANS, METHODS, PROTECTION OF BUILDING COMPONENTS, TEMPORARY WORK (INCLUDING BUT NOT LIMITED TO TEMPORARY FORMWORK, BRACING, SHORING, GUYS, ERECTION ATTACHMENTS), VERIFICATION OF ALL EXISTING CONDITIONS AND CONSTRUCTION, COORDINATION AND SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, U.N.O. THE CONTRACTOR SHALL ENGAGE A LICENSED PROFESSIONAL ENGINEER TO DESIGN ALL TEMPORARY SUPPORT ELEMENTS AND SYSTEMS. ANY REPAIRS, REPLACEMENTS, REINFORCEMENT OR OTHER ALTERATIONS DUE TO CONSTRUCTION PROCEDURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WHO HAS PERFORMED THEM.
13. SPECIAL INSPECTIONS AND SITE OBSERVATION OF THE STRUCTURAL ASPECTS OF THE PROJECT SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER AND IS THE RESPONSIBILITY OF THE OWNER. INSPECTION OR SITE OBSERVATION OF THE WORK BY THE SPECIAL INSPECTOR DOES NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF CONFORMING TO THE DRAWINGS AND SPECIFICATIONS FOR ALL CONSTRUCTION.

EARTHWORK

1. REFER TO 'EARTHWORK' SPECIFICATIONS FOR REQUIREMENTS
2. THE BASIS OF FOUNDATION DESIGN IS THE GEOTECHNICAL INVESTIGATIVE REPORT:
   GEOTECHNICAL ENGINEERING REPORT
   TERRACON
   PROJECT NUMBER K5255001; MAY 22, 2025
3. WHERE NOT SHOWN ON DRAWINGS, THE MINIMUM EMBEDMENT (BELOW FINISHED EXTERIOR GRADE) TO ALL EXTERIOR FOOTINGS SHALL BE:
   2 FEET - 0 INCHES
4. FOUNDATIONS SHALL BEAR ON UNDISTURBED, NATURAL SOIL, OR ON COMPACTED STRUCTURAL FILL THAT OVERLAYS UNDISTURBED, NATURAL SOIL.
5. REFER TO THE SPECIFICATIONS FOR EXCAVATION, BACKFILL AND PREPARATION OF THE FOUNDATION AND SLAB-ON GRADE SUBGRADE, INCLUDING COMPACTION REQUIREMENTS.
6. ALL WORK PERTAINING TO SOIL CONDITIONS (VERIFICATION OF MATERIALS, PLACEMENT OF FILL, COMPACTION, ETC) SHALL BE OVERSEEN BY A LICENSED GEOTECHNICAL ENGINEER.
7. BEARING AND SUBGRADE CONDITIONS SHALL BE OBSERVED AND VERIFIED BY A LICENSED GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION OF ALL FOUNDATION AND ON-GRADE CONCRETE SLAB ELEMENTS.
8. EXCAVATION SHALL BE PERFORMED SO AS NOT TO DISTURB OR UNDERMINE ANY EXISTING ADJACENT BUILDINGS, STREETS, AND UTILITY LINES. VERIFY LOCATIONS OF ALL BELOW GRADE FEATURES AND UTILITIES PRIOR TO COMMENCEMENT OF WORK. HAND EXCAVATE AROUND UTILITIES AS REQUIRED.
9. ALL EXCAVATIONS TO HAVE NEAT CUT BOTTOM CORNERS TO PROVIDE FOR BEARING ON THE FULL BOTTOM AREA OF THE FOOTING.
10. ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER, LOOSE MATERIAL AND DEBRIS PRIOR TO CONCRETE PLACEMENT. CONCRETE SHALL NOT BE PLACED IN ANY WET AREA OR UPON ANY SOFT OR FROZEN MATERIAL. CONTRACTOR SHALL DEWATER EXCAVATIONS AS REQUIRED TO MAINTAIN DRY CONDITIONS.

FOUNDATIONS

1. UNLESS SHOWN OTHERWISE, CENTER ALL FOOTING ELEMENTS UNDER WALLS AND AT COLUMN GRID INTERSECTIONS.
2. FOUNDATIONS ARE DESIGNED FOR THE FOLLOWING ALLOWABLE BEARING PRESSURE(S):
   2,000 PSF
3. ALL STEPPED FOOTINGS SHALL BE CAST CONTINUOUSLY WITHOUT CONSTRUCTION OR CONTROL JOINTS.
4. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL REQUIREMENTS FOR FOUNDATION WALL PENETRATIONS (PIPE, CONDUIT, DUCTS, ETC) AND PROVIDE SLEEVES, OPENINGS, AND ALL OTHER ACCOMMODATIONS AS REQUIRED TO FACILITATE INSTALLATION OF PIPES, CONDUITS, DUCTS, ETC., AFTER THE FOUNDATION WALL IS IN PLACE.
5. UNLESS SPECIFICALLY DETAILED, PENETRATIONS AND OPENINGS ARE NOT PERMITTED IN PIERS, COLUMNS, OR FOOTINGS.
6. IN ALL LOCATIONS WHERE CONCRETE MASONRY UNIT FOUNDATION WALLS ARE CONSTRUCTED BELOW THE FINISHED EXTERIOR GRADE, THE CONCRETE MASONRY UNITS SHALL BE FULLY GROUTED.
7. WHERE EARTH-FORMED FOOTINGS ARE USED, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE SPECIFIED ELEVATIONS AND DIMENSIONS ARE PROVIDED. ANY AND ALL MODIFICATIONS OR CHANGES REQUIRED BY OTHER TRADE CONTRACTORS TO ACCOMMODATE FOOTINGS THAT ARE NOT INSTALLED AT THE SPECIFIED ELEVATIONS AND DIMENSIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR RESPONSIBLE FOR PLACEMENT OF THE FOOTINGS.
8. REFER TO PROJECT SPECIFICATIONS FOR ALL CONCRETE MATERIAL, STRENGTH, MIXTURE, PLACEMENT, AND CURING REQUIREMENTS.
9. CONCRETE FOR FOUNDATIONS SHALL BE PLACED ON THE SAME DAY THE SUBGRADE IS APPROVED BY THE GEOTECHNICAL ENGINEER.
10. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW SPREAD FOOTINGS.

CONCRETE

1. CONCRETE SHALL BE DETAILED AND CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS. IF A STANDARD IS LISTED AS A "REFERENCED STANDARD" WITHIN THE APPLICABLE BUILDING CODE, USE OF NON-REFERENCED EDITIONS IS PROHIBITED. IF A STANDARD IS NOT REFERENCED IN THE BUILDING CODE, THE LATEST EDITION OF THE APPLICABLE STANDARD SHOULD BE USED:
   A. ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   B. ACI MANUAL OF CONCRETE PRACTICE - PARTS 1 THROUGH 5
   C. ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE
   D. ACI 347, GUIDE TO FORMWORK OF CONCRETE
   E. ACI 315, GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS
   F. ACI 305, GUIDE TO HOT WEATHER CONCRETING
   G. ACI 306, GUIDE TO COLD WEATHER CONCRETING
   H. CRSI MANUAL OF STANDARD PRACTICE
2. DETAIL, FABRICATE, AND INSTALL ALL STEEL REINFORCEMENT IN ACCORDANCE WITH ACI AND CRSI STANDARDS.
3. POSITION AND SECURELY FASTEN ALL REINFORCEMENT IN LOCATION PRIOR TO PLACING CONCRETE. POST-PLACEMENT OF REINFORCEMENT (WET STICKING) IS NOT PERMITTED.
4. THROUGHOUT CONSTRUCTION, THE CONCRETE WORK SHALL BE ADEQUATELY PROTECTED AGAINST DAMAGE DUE TO EXCESSIVE LOADING, CONSTRUCTION EQUIPMENT, MATERIAL OR METHODS, ICE, RAIN, SNOW, EXCESSIVELY HOT OR COLD TEMPERATURES AND ANY OTHER DETRIMENTAL ENVIRONMENTAL FACTORS. ANY REPAIRS, REPLACEMENTS, ALTERATIONS OR OTHER ADDITIONAL WORK DUE TO IMPROPER PROTECTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. ON GRADE SLAB CONTRACTION AND CONSTRUCTION JOINTS ARE REQUIRED WHERE SHOWN ON DRAWINGS. REFER TO CONCRETE SPECIFICATIONS FOR SLAB JOINT PLACEMENT WHEN JOINT LAYOUT AND LOCATIONS ARE NOT SHOWN ON PLANS.
6. CURE CONCRETE ELEMENTS IN ACCORDANCE WITH THE SPECIFICATIONS.
7. CHAMFER ALL EXPOSED CONCRETE CORNERS U.N.O. ON THE DRAWINGS.
8. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL LOCATIONS AND DIMENSIONS OF RECESSED SLAB AREAS, PLATFORMS, CURBS, AND MECHANICAL EQUIPMENT PADS.
9. CONSTRUCTION JOINTS FOR SLABS ON METAL DECK SHALL BE LOCATED MIDWAY BETWEEN BEAMS WHERE THE JOINT IS PARALLEL TO BEAM SPAN. JOINTS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF SPAN WHERE THE JOINT IS PERPENDICULAR TO BEAM SPAN. ANY STOP IN CONCRETE WORK MUST BE MADE WITH VERTICAL BULKHEADS, UNLESS OTHERWISE SHOWN. ALL REINFORCING TO BE CONTINUOUS THROUGH JOINTS.
10. CONCRETE SLABS SHALL BE FINISHED FLAT AND LEVEL WITHIN TOLERANCES INDICATED IN THE PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL CONCRETE REQUIRED DUE TO FORMWORK, METAL DECK, AND FRAMING DEFLECTION TO ACHIEVE THE REQUIRED FINISHED TOP OF SLAB ELEVATION. ANY POST-PLACEMENT CORRECTIVE ACTIONS REQUIRED TO LEVEL, FLATTEN, OR OTHERWISE BRING CONCRETE SLABS INTO COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

MASONRY

1. MASONRY SHALL BE DETAILED AND CONSTRUCTED IN ACCORDANCE WITH FOLLOWING CODES AND STANDARDS. IF A STANDARD IS LISTED AS A "REFERENCED STANDARD" WITHIN THE APPLICABLE BUILDING CODE, USE OF NON-REFERENCED EDITIONS IS PROHIBITED. IF A STANDARD IS NOT REFERENCED IN THE BUILDING CODE, THE LATEST EDITION OF THE APPLICABLE STANDARD SHOULD BE USED:
   A. TMS 402, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
   B. TMS 602, SPECIFICATION FOR MASONRY STRUCTURES.
2. GROUT MAY BE EITHER 'FINE' OR 'COARSE' AS APPROPRIATE FOR EACH SPECIFIC APPLICATION.
3. PROVIDE MORTAR IN ACCORDANCE WITH ASTM C270, TYPE AS INDICATED IN PROJECT SPECIFICATIONS FOR APPLICABLE USE.
4. ADMIXTURES IN GROUT AND MORTAR ARE NOT PERMITTED.
5. USE OF MASONRY CEMENT IS NOT PERMITTED.
6. ALL REINFORCING IN CONCRETE MASONRY CONSTRUCTION MUST BE IN PLACE PRIOR TO INSTALLATION OF GROUT. REINFORCING BARS SHALL BE HELD IN PLACE WITH BAR POSITIONERS OR OTHER APPROPRIATE MEANS TO PREVENT DISPLACEMENT. DO NOT WET-SET OR PLUNGE REINFORCING BARS INTO GROUTED AREAS.
7. DO NOT LEAVE UNFINISHED MASONRY WALLS OPEN TO WEATHER AND WATER INTRUSION. ALL UNFINISHED MASONRY SHALL BE TEMPORARILY PROTECTED.
8. LINTELS ARE REQUIRED TO SUPPORT MASONRY ACROSS ALL OPENINGS. TYPICAL DETAILS INDICATE LINTEL TYPES TO BE USED. REFER TO ARCHITECTURAL AND MECHANICAL/ ELECTRICAL/PLUMBING DRAWINGS FOR ALL MASONRY WALL LOCATIONS AND OPENINGS.
9. NOT ALL LINTELS ARE SHOWN ON STRUCTURAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING LINTEL SUBMITTAL TO INDICATE ALL OPENINGS IN MASONRY WALLS AND CORRESPONDING LINTEL TYPE AND INSTALLATION DETAILS.
10. THE CONTRACTOR SHALL COORDINATE LINTEL TYPE (STEEL, MASONRY, ETC.) AT EACH LOCATION WITH ARCHITECTURAL AND STRUCTURAL CONTRACT DOCUMENTS. THE STRUCTURAL CONTRACT DOCUMENTS PROVIDE DESIGN FOR EACH LINTEL TYPE, BUT SHALL NOT BE USED FOR SELECTION OF LINTEL TYPE UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. CONTRACTOR HAS THE OPTION TO PROVIDE ALTERNATE LINTEL CONFIGURATIONS TO ACCOMMODATE CONSTRUCTION. IN DOING SO, CONTRACTOR SHALL SUBMIT ALL PERTINENT LINTEL DATA AND CORRESPONDING ENGINEERING DATA TO THE ENGINEER FOR APPROVAL. PROVIDING ALTERNATES WITHOUT APPROVAL IS PROHIBITED AND REMEDIAL MEASURES FOR UNAPPROVED ALTERNATES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL STEEL LINTELS IN EXTERIOR WALLS SHALL BE HOT-DIPPED GALVANIZED.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS. IF A STANDARD IS LISTED AS A "REFERENCED STANDARD" WITHIN THE APPLICABLE BUILDING CODE, USE OF NON-REFERENCED EDITIONS IS PROHIBITED. IF A STANDARD IS NOT REFERENCED IN THE BUILDING CODE, THE LATEST EDITION OF THE APPLICABLE STANDARD SHOULD BE USED.:
   A. AISC MANUAL OF STEEL CONSTRUCTION
   B. AISC 360, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND BRIDGES
   C. RCSC, SPECIFICATION FOR STRUCTURAL STEEL JOINTS USING HIGH STRENGTH BOLTS
   D. AISC 303, CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES
2. PROVIDE STRUCTURAL STEEL SHAPES USING AISC STANDARDS SECTIONS AND GRADES AS FOLLOWS, UNO

SECTION TYPE	MATERIAL GRADE
W & WT	ASTM A992
M, S, MT & ST	ASTM A36
HP	ASTM A572, GRADE 50
L	ASTM A36
C & MC	ASTM A36
HSS	ASTM A500, GRADE B
STEEL PIPE	ASTM A53, GRADE B
PLATES & BARS	ASTM A36
BOLTS	ASTM A325
HEAVY HEX HEADED ANCHOR RODS	ASTM F1554, GRADE 36

3. WHERE BEAM SPACING IS NOT SHOWN ON DRAWINGS, SPACE BEAMS EQUALLY BETWEEN PRIMARY SUPPORTS (COLUMNS, WALLS, ETC).
4. FIELD MODIFICATIONS TO ALL STRUCTURAL STEEL COMPONENTS INCLUDING, BUT NOT LIMITED TO MEMBERS, CONNECTIONS, ATTACHMENTS, AND REINFORCEMENT ARE PROHIBITED WITHOUT APPROVAL FROM THE ENGINEER AND FABRICATOR. ANY REPAIRS, REPLACEMENT, REINFORCING OR FURTHER ALTERATIONS DUE TO UNAPPROVED FIELD MODIFICATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THAT MADE THE MODIFICATIONS.
5. THE GENERAL CONTRACTOR AND STEEL ERECTOR SHALL NOTIFY THE ENGINEER OF ANY FABRICATION OR ERECTION ERRORS OR DEVIATIONS. FIELD MODIFICATIONS ARE PROHIBITED WITHOUT APPROVAL FROM THE ENGINEER.
6. PRIOR TO COMMENCING STEEL ERECTION, THE GENERAL CONTRACTOR SHALL CONDUCT A FIELD SURVEY OF AS-BUILT FOUNDATION COMPONENTS TO VERIFY QUANTITY, LOCATION, SIZE, SPACING AND ELEVATION OF ANCHOR RODS AND THAT ALL BEARING PLATES, EMBED PLATES, OR LEVELING PLATES ARE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.
7. FIELD WELDED SURFACES SHALL BE PROPERLY PREPARED, INCLUDING CLEANING AND GRINDING SMOOTH, FOR AN AREA EXTENDING (4) INCHES BEYOND THE LIMITS OF WELDING. AFTER WELDING COAT THE EXPOSED AREA WITH THE APPROPRIATE PRIMER/PAINTS AS SPECIFIED. FIELD WELDED SURFACES OF GALVANIZED MEMBERS SHALL BE COATED WITH GALVANIZING REPAIR PAINT PER SPECIFICATIONS.
8. ALL BELOW-GRADE STRUCTURAL STEEL (COLUMNS, BASE PLATES, LEVELING PLATES, ANCHOR RODS, ETC) THAT WILL BE EXPOSED TO SUBBASE MATERIALS SHALL RECEIVE TWO COATS OF RUST-INHIBITIVE COATING PRIOR TO PLACEMENT OF FILL. COATING SHOULD BE FIELD-APPLIED AFTER STEEL ELEMENTS ARE IN PLACE.
9. CONTRACTOR IS REQUIRED TO PROVIDE ALL MISCELLANEOUS FRAMING AS NEEDED TO SUPPORT METAL FLOOR AND ROOF DECK AROUND COLUMNS AND OTHER PENETRATIONS. THESE COMPONENTS ARE NOT TYPICALLY SHOWN OR LOCATED ON STRUCTURAL PLANS.

STRUCTURAL STEEL CONNECTIONS:

1. EXCEPT WHERE OTHERWISE SHOWN ON THESE DOCUMENTS, THE DESIGN OF ALL STRUCTURAL STEEL CONNECTIONS IS DELEGATED TO A LICENSED PROFESSIONAL ENGINEER WORKING FOR THE STRUCTURAL STEEL FABRICATOR IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
   A. ANY AISC-APPROVED OR AISC-PRE-QUALIFIED CONNECTION MAY BE USED AS DETERMINED BY THE FABRICATOR AND FABRICATOR'S LICENSED PROFESSIONAL ENGINEER.
   B. ALL FORCES TO BE USED FOR CONNECTION DESIGN ARE INDICATED ON THESE DRAWINGS
   C. ALL FORCES SHOWN ARE SERVICE-LEVEL (UNFACTORED), AND THE ASD METHOD SHALL BE USED TO SELECT, COMPLETE, AND/OR DESIGN CONNECTION DETAILS
   D. SEALED/SIGNED CALCULATIONS SHALL BE INCLUDED WITH THE APPROVAL DRAWINGS FOR ALL CONNECTIONS DESIGNED AND DETAILED BY THE FABRICATOR'S LICENSED PROFESSIONAL ENGINEER. THIS SHALL INCLUDE ANY TABULATED OR OTHERWISE PRE-DETERMINED DATA FOR ANY PROPOSED AISC-APPROVED OR AISC-PRE-QUALIFIED CONNECTIONS.
2. PRIOR TO THE SUBMISSION OF APPROVAL DRAWINGS, THE FABRICATOR SHALL SUBMIT FOR REVIEW AND ACCEPTANCE REPRESENTATIVE SAMPLES OF THE PROPOSED CONNECTION TYPES AND CORRESPONDING CALCULATIONS
3. MEMBER REINFORCING AT CONNECTIONS CONTAINED IN THE CONTRACT DOCUMENTS IS CONCEPTUAL. THE CONTRACTOR'S DESIGNER SHALL DETERMINE REINFORCING THICKNESSES, WIDTHS, LENGTHS, ETC. AS REQUIRED AT ALL CONNECTIONS.
4. FOR CONNECTIONS SPECIFIED ON THESE DOCUMENTS, THE FABRICATOR MAY PROPOSE ALTERNATIVE CONNECTION DETAILS. REQUESTS FOR ALTERNATE DETAILS SHALL BE MADE PRIOR TO THE SUBMISSION OF APPROVAL DRAWINGS
5. MINIMUM BOLT FOR STRUCTURAL CONNECTIONS: 3/4" DIAM.
6. ALL BOLTED CONNECTIONS SHALL HAVE MINIMUM 2 BOLTS U.N.O. ON THE CONTRACT DOCUMENTS
7. ALL BOLTED CONNECTIONS SHALL BE DESIGNED FOR 'SNUG TIGHT' CONDITION U.N.O ON THE CONTRACT DOCUMENTS.
8. COORDINATE CONNECTION DESIGNS WITH AESS REQUIREMENTS PER THE SPECIFICATIONS AS APPLICABLE.

METAL DECK

1. METAL DECK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS. IF A STANDARD IS LISTED AS A "REFERENCED STANDARD" WITHIN THE APPLICABLE BUILDING CODE, USE OF NON-REFERENCED EDITIONS IS PROHIBITED. IF A STANDARD IS NOT REFERENCED IN THE BUILDING CODE, THE LATEST EDITION OF THE APPLICABLE STANDARD SHOULD BE USED:
   A. SDI CODE OF STANDARD PRACTICE
   B. SDI SDP2, STANDARD PRACTICE DETAILS
   C. SDI MOC3, MANUAL OF CONSTRUCTION WITH STEEL DECK
   D. SDI C-2017, STANDARD FOR COMPOSITE STEEL FLOOR DECK
   E. SDI RD-2010, STANDARD FOR STEEL ROOF DECK
2. DO NOT SUSPEND DUCTWORK, CONDUIT, PIPING, OR ANY OTHER M/E/P COMPONENTS FROM ROOF DECK.
3. CONTRACTOR IS REQUIRED TO PROVIDE ALL MISCELLANEOUS FRAMING AS NEEDED TO SUPPORT METAL FLOOR AND ROOF DECK AROUND COLUMNS AND OTHER PENETRATIONS. THESE COMPONENTS ARE NOT TYPICALLY SHOWN OR LOCATED ON STRUCTURAL PLANS.
4. SPECIFIED DECK HAS BEEN DESIGNED FOR CONTINUOUS, 3-SPAN CONDITION, TYPICAL UNLESS NOTED OTHERWISE.
5. SPECIFIED FLOOR DECK SUPPORTING CONCRETE HAS BEEN DESIGNED FOR USE IN AN UNSHORED CONDITION.
6. FASTEN METAL DECK TO SUPPORTING STRUCTURE PER TYPICAL DETAILS UNLESS OTHERWISE INDICTED IN SPECIFICATIONS.
7. MECHANICAL FASTENERS ARE PERMITTED IN LIEU OF WELDS. CONTRACTOR TO PROVIDE DOCUMENTATION INDICATING FASTENER DATA AND DIAPHRAGM CAPACITY TO MEET OR EXCEED THE WELDED DIAPHRAGM CAPACITY.

COLD-FORMED METAL FRAMING

1. INTENT OF COLD-FORMED METAL FRAMING (CFMF) WORK IS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
2. ALL CFMF COMPONENTS AND SYSTEMS SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE STRUCTURAL LOADING CRITERIA AND CONDITIONS SHOWN ON THE CONSTRUCTION DOCUMENTS.
3. WHERE CFMF MEMBERS ARE USED IN EXTERIOR WALL CONSTRUCTION AS BACKUP FOR MASONRY VENEER OF ALL TYPES, ALL MEMBERS SHALL BE MIN 16 GAUGE THICKNESS WHERE MASONRY WILL BE BUILT EQUAL TO OR GREATER THEN 1/2 THE HEIGHT BETWEEN CFMF BRACE POINTS.
4. ALL OTHER CFMF MEMBERS USED IN EXTERIOR WALL APPLICATIONS SHALL BE A MINIMUM OF 18 GAUGE MATERIAL.
5. SPECIFIC CFMF INFORMATION (MEMBER SIZES, GAUGES, SPACING, ETC.) SHOWN IN CONSTRUCTION DOCUMENTS ARE MINIMUM REQUIREMENTS AND MAY NOT BE REDUCED BY THE DELEGATED DESIGN PROCESS.

POST-INSTALLED ANCHORS/FASTENERS

1. THESE ANCHOR/FASTENER PRODUCTS ARE SPECIFIED AS 'BASIS OF DESIGN'. CONTRACTORS MAY SUBMIT OTHER MANUFACTURERS PRODUCTS FOR REVIEW AND APPROVAL. INCLUDE ALL CORRESPONDING PRODUCT DATA TO SHOW THAT THE SUBMITTED PRODUCT MEETS OR EXCEEDS THE PERFORMANCE OF THE BASIS OF DESIGN:

   EPOXY ANCHORS: PLAIN A36 THREADED ROD W/HILTI HIT-HY 200 ADHESIVE (SIZE AND EMBED PER DETAILS)

   EXPANSION ANCHORS: PLAIN CARBON STEEL HILTI KWIK BOLT 3 (SIZE AND EMBED PER DETAILS)

   SCREW ANCHORS: PLAIN CARBON STEEL HILTI KWIK HUS (SIZE AND EMBED PER DETAILS)
2. WHEN INSTALLING MECHANICAL AND ADHESIVE ANCHORS, THE CONTRACTOR SHALL TAKE MEASURES TO AVOID DRILLING OR CUTTING OF ANY EXISTING REINFORCING AND DESTRUCTION OF CONCRETE. HOLES SHALL BE FREE OF DUST, DIRT, WATER AND DEBRIS PRIOR TO INSTALLING MECHANICAL OR ADHESIVE ANCHORS.

IBC SPECIAL INSPECTION REQUIREMENTS

1. CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE, ENTITLED 'STRUCTURAL TESTS AND SPECIAL INSPECTIONS', OUTLINES THE REQUIRED TESTING AND INSPECTION REQUIREMENTS FOR THIS PROJECT.
2. THE OWNER SHALL ENGAGE AN APPROVED AGENCY TO OVERSEE AND OBSERVE THE IMPLEMENTATION OF ALL REQUIRED STRUCTURAL TESTING AND SPECIAL INSPECTION PROCEDURES AND ACTIVITIES.
3. THE OWNER SHALL ENGAGE A TESTING AND INSPECTION AGENCY TO PERFORM SOIL TESTING AND INSPECTION SERVICES THAT ARE DESIGNATED AS SPECIAL INSPECTIONS, INCLUDING FULL TIME INSPECTION OF THE CONTROLLED COMPACTED FILL AND THE BOTTOMS OF ALL EXCAVATIONS. TESTING AND INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER. REPORTS, INCLUDING RESULTS OF THE COMPACTION TESTING, SHALL BE SUBMITTED TO ARCHITECT OUTLINING WORK PERFORMED AND TEST RESULTS.
4. PERFORMANCE OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC DOES NOT RELIEVE CONTRACTOR FROM ANY OTHER QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES AS DEFINED IN THE PROJECT SPECIFICATIONS.
5. COPIES OF ALL REPORTS DEVELOPED BY THE APPROVED AGENCY SHALL BE PROVIDED TO THE ARCHITECT/ENGINEER.
6. THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF SPECIAL INSPECTIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

THE PORTION OF THIS BUILDING STRUCTURE BOUND BY GRID LINES 1-5 AND A-D IS DESIGNATED AS A TORNADO STORM SHELTER AND THE FOLLOWING DESIGN LOADS ARE APPLICABLE IN ACCORDANCE WITH THE PROVISIONS OF ICC/NSSA 500-2014 AND ASCE 7-2010:

SHELTER TYPE: TORNADO
DESIGN WIND SPEED: 200 MPH
THE DESIGN WIND SPEED CONFORMS TO THE PROVISION OF ICC/NSSA STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS
IMPORTANCE FACTOR 1.0
WIND EXPOSURE CATEGORY C
INTERNAL PRESSURE COEFFICIENT ±0.55
TOPOGRAPHIC FACTOR 1.0
DIRECTIONALITY FACTOR 1.0

QUALITY ASSURANCE PLAN FOR THE STORM SHELTER

THE MAIN LATERAL LOAD-RESISTING SYSTEMS AND COMPONENTS ARE:

1. CAST-IN-PLACE CONCRETE FOUNDATIONS AND CONCRETE FILLED METAL DECK.

2. EXTERIOR CONCRETE MASONRY WALLS.

THE FOLLOWING SPECIAL INSPECTIONS ARE REQUIRED FOR ALL COMPONENTS OF THE STORM SHELTER:

CONCRETE:

REQUIRED VERIFICATION AND INSPECTION OF ALL STORM SHELTER-RELATED CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF CHAPTER 17 OF THE NORTH CAROLINA BUILDING CODE, TABLE 1704.4

MASONRY:

LEVEL 2 REQUIRED VERIFICATION AND INSPECTION OF ALL STORM SHELTER-RELATED MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF CHAPTER 17 OF THE NORTH CAROLINA BUILDING CODE, TABLE 1704.5.3.

STEEL:

REQUIRED VERIFICATION AND INSPECTION OF ALL STORM SHELTER-RELATED STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF CHAPTER 17 OF THE NORTH CAROLINA BUILDING CODE, TABLE 1704.3.

SOILS:

REQUIRED VERIFICATION AND INSPECTION OF ALL STORM SHELTER-RELATED SOIL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF CHAPTER 17 OF THE NORTH CAROLINA BUILDING CODE, TABLE 1704.7.

DESPITE REFERENCES TO "PERIODIC" INSPECTIONS IN PORTIONS OF THE ABOVE- REFERENCED PORTIONS OF THE NORTH CAROLINA BUILDING CODE, PERIODIC INSPECTION OF ANY STORM SHELTER-RELATED ELEMENT IS NOT PERMITTED. ALL TESTS AND SPECIAL INSPECTIONS RELATED TO THE STORM SHELTER STRUCTURE, IN CONFORMANCE WITH THE ABOVE-REFERENCED PORTIONS OF THE NORTH CAROLINA BUILDING CODE, SHALL BE PERFORMED ON A CONTINUOUS BASIS.

THE CONTRACTOR(S) RESPONSIBLE FOR THE CONSTRUCTION OF THE STORM SHELTER SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE AUTHORITY HAVING JURISDICTION, THE ARCHITECT/ENGINEER OF RECORD, AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK TO CONTAIN:

1. ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE QUALITY ASSURANCE PLAN.

2. ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.

4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

SUBMITTAL REQUIREMENTS

1. WORK SHOULD PROCEED ONLY AFTER SUBMITTALS HAVE BEEN REVIEWED AND APPROVED. APPROVAL OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF COMPLYING WITH THE CONTRACT DOCUMENTS. ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO PRODUCT SUBSTITUTIONS, MATERIAL SUBSTITUTIONS, AND RELOCATION OR ALTERATION OF ELEMENTS ARE PROHIBITED WITHOUT APPROVAL FROM THE ENGINEER. SHALL DEVIATIONS FROM THE CONTRACT DOCUMENT REQUIREMENTS EXIST, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR REVISING SHOP DRAWINGS TO BRING THEM INTO COMPLIANCE WITH THE CONTRACT DOCUMENTS.
2. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN SUCH A MANNER WILL BE REJECTED AND RETURNED
3. MAINTAIN COPIES OF APPROVED SHOP DRAWINGS ON SITE DURING CONSTRUCTION
4. PRIOR TO SHOP DRAWING SUBMITTAL THE CONTRACTOR SHALL FURNISH A SUBMITTAL SCHEDULE SHOWING THE ANTICIPATED TRADE SUBMITTALS AND THEIR APPROXIMATE DATES AS WELL AS ANY OTHER PERTINENT INFORMATION SUCH AS PRIORITIZATION, PHASING OF FABRICATION AND ERECTION, ETC.
5. ANY ADDITIONAL WORK REQUIRED BY THE ARCHITECT/ENGINEER (DESIGN, SKETCHES, DRAWING DOCUMENTATION, FIELD VISITS, ETC) TO CORRECT OR REVISE CONTRACTOR CONSTRUCTION ERRORS RELATED TO WORK PERFORMED WITHOUT APPROVED SUBMITTALS SHALL BE AT THE SOLE EXPENSE OF THE CONTRACTOR.
6. SHOP DRAWINGS SHALL CLEARLY INDICATE COORDINATED DIMENSIONS OF MECHANICAL UNIT AND ROOF PENETRATION SIZES. SHOP DRAWINGS SHALL ALSO CLEARLY INDICATE ALL SHOP AND FIELD WELDS.

SUBMITTAL REQUIREMENTS - CONCRETE

1. CONCRETE MIX DESIGNS FOR EACH TYPE INDICATED OR SPECIFIED
2. REINFORCING BAR SHOP DRAWINGS. REINFORCING BAR SHOP DRAWINGS MUST INCLUDE DETAILED ELEVATION DRAWINGS OF ALL WALLS AND OTHER CAST-IN-PLACE CONCRETE ELEMENTS TO SHOW PLACEMENT, SIZE, LOCATION, AND CONFIGURATION OF ALL REINFORCING STEEL ELEMENTS. REINFORCING BAR SUBMITTALS THAT DO NOT INCLUDE THIS INFORMATION WILL BE REJECTED ON THE BASIS OF BEING INADEQUATE AND INCOMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL DIMENSIONS AND ELEVATIONS AS A PART OF THE SHOP DRAWING REVIEW PROCESS PRIOR TO SUBMITTAL TO THE ENGINEER FOR REVIEW.
3. OVERALL ON-GRADE SLAB PLAN SHOWING ALL LOCATIONS OF CONSTRUCTION AND CONTRACTION JOINTS, RECESSED SLAB AREAS, SLAB STEPS, AND THICKENED SLAB LOCATIONS
4. OVERALL ON-DECK SLAB PLAN SHOWING ALL LOCATIONS OF CONSTRUCTION JOINTS.

SUBMITTAL REQUIREMENTS - MASONRY

1. MIX DESIGNS AND PROCEDURES FOR ALL MORTAR AND GROUT
2. REINFORCING BAR SHOP DRAWINGS: REINFORCING BAR SHOP DRAWINGS MUST INCLUDE DETAILED ELEVATION DRAWINGS OF ALL WALLS AND OTHER REINFORCED CONCRETE MASONRY ELEMENTS TO SHOW PLACEMENT, SIZE, LOCATION, AND CONFIGURATION OF ALL REINFORCING STEEL ELEMENTS. REINFORCING BAR SUBMITTALS THAT DO NOT INCLUDE THIS INFORMATION WILL BE REJECTED ON THE BASIS OF BEING INADEQUATE AND INCOMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL DIMENSIONS AND ELEVATIONS AS A PART OF THE SHOP DRAWING REVIEW PROCESS PRIOR TO SUBMITTAL TO THE ENGINEER FOR REVIEW.
3. PRODUCT DATA AND INSTALLATION PROCEDURES FOR ALL ANCHORS, TIES, JOINT REINFORCEMENT, BAR POSITIONERS, ETC USED IN THE CONSTRUCTION OF THE SPECIFIED MASONRY WALLS AND ASSEMBLIES.
4. SHOP DRAWINGS TO CLEARLY INDICATE ALL OPENINGS IN MASONRY WALLS AND CORRESPONDING LINTELS.
5. SHOP DRAWINGS FOR FABRICATION OF STEEL REINFORCEMENT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WITH FABRICATION. REVIEW OF SHOP DRAWINGS IS INTENDED FOR THE PURPOSE OF REVIEWING THE GENERAL CONFORMANCE OF THE REINFORCING STEEL TO THE OVERALL STRUCTURAL DESIGN INDICATED ON THE CONTRACT DOCUMENTS.

SUBMITTAL REQUIREMENTS - STEEL

1. ANCHOR ROD DRAWINGS: PROVIDE DETAILED, DIMENSIONAL LAYOUT OF ALL BASE PLATE, LEVELING PLATE, AND ANCHOR ROD CONDITIONS.
2. STRUCTURAL STEEL AND MISCELLANEOUS STEEL FABRICATIONS SHOP DRAWINGS: STEEL FABRICATION AND ERECTION SHOP DRAWINGS SHALL BE SUBMITTED TO REVIEW GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. SHOP DRAWINGS SHALL INCLUDE ALL INFORMATION REQUIRED TO FABRICATE AND ERECT STEEL ELEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL DIMENSIONS AND ELEVATIONS AS PART OF THE SHOP DRAWING REVIEW PROCESS PRIOR TO SUBMITTAL TO THE ENGINEER FOR REVIEW. ANY REPAIRS, REPLACEMENTS OR ALTERATIONS DUE TO FABRICATION OR ERECTION PRIOR TO SHOP DRAWING APPROVAL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. FIELD ALTERATION TO APPROVED COMPONENTS IS PROHIBITED WITHOUT APPROVAL OF THE ENGINEER AND FABRICATOR.
3. STRUCTURAL STEEL CONNECTION CALCULATIONS: THE CONTRACTOR SHALL SUBMIT CONNECTION CALCULATIONS AS REQUIRED PER "STRUCTURAL STEEL CONNECTIONS" GENERAL NOTES.
4. ALL EXISTING GEOMETRY AND/OR FIELD MEASUREMENTS REQUIRED FOR FABRICATION IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBMITTAL TO THE ENGINEER WILL BE FOR REVIEW/RECORD ONLY.

COLD-FORMED METAL FRAMING

1. PROVIDE DETAILED ELEVATION DRAWINGS FOR ALL AREAS OF COLD-FORMED METAL FRAMING TO SHOW PLACEMENT, SIZE, LOCATION, AND CONFIGURATION OF ALL COMPONENTS. COLD-FORMED METAL FRAMING SUBMITTALS THAT DO NOT INCLUDE THIS INFORMATION WILL BE REJECTED ON THE BASIS OF BEING INADEQUATE AND INCOMPLETE.
2. PROVIDE CALCULATIONS, SEALED AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER, TO SHOW THAT ALL COLD-FORMED METAL FRAMING COMPONENTS AND SYSTEMS HAVE BEEN DESIGNED TO WITHSTAND THE LOADS INDICATED ON THE DRAWINGS, ARE IN COMPLIANCE WITH APPLICABLE BUILDING CODES, AND CONFORM TO THE REQUIREMENTS SHOWN IN THE CFMF NOTES.

SUBMITTAL REQUIREMENTS - STEEL DECKING

1. STEEL DECKING SHOP DRAWINGS SHALL INCLUDE PLAN DRAWINGS FOR ALL AREAS TO BE COVERED BY STEEL DECKING SHOWING DECK TYPE, STEEL THICKNESS, GALVANIZING THICKNESS, FINISH, ATTACHMENT METHOD & SPACING, AND DECK OR SLAB EDGE DIMENSIONS.
2. SHOP DRAWINGS SHALL INCLUDE DETAIL DRAWINGS SHOWING ALL DECK EDGE CONDITIONS AND ACCESSORIES FOR CLOSURE.
3. MANUFACTURER DATA AND LOAD TABLES FOR DECKING TO BE USED ON PROJECT.
4. IF DECK WILL BE MECHANICALLY FASTENED TO SUPPORTING STRUTURE, PROVIDE MANUFACTURER'S PRODUCT DATA AND COMPARISON DATA TO INDICATE FASTENER TYPE AND INSTALLATION PATTERN WILL MEET OR EXCEED THE CAPACITY OF THE WELD PATTERNS PRESCRIBED IN THE SPECIFICATIONS. SUBMITTALS LACKING THIS DATA WILL BE REJECTED.

CONCRETE MASONRY REINFORCEMENT LAP SPLICE LENGTH

BAR SIZE	SPLICE LENGTH
#4	14"
#5	22"
#6	43"

* BASED ON f'_m = 1,500 PSI AND GRADE 60 UNCOATED REINFORCING

CONCRETE REINFORCEMENT LAP SPLICE LENGTH

BAR SIZE	SPLICE LENGTH*
#4	25"
#5	31"
#6	38"
#7	53"
#8	61"

* BASED ON 4,000 PSI NW CONCRETE AND GRADE 60 UNCOATED OR GALVANIZED REINFORCING BAR

MINIMUM CONCRETE COVER FOR CAST-IN-PLACE CONCRETE MEMBERS

CONCRETE EXPOSURE	MEMBERS	REINFORCEMENT	SPECIFIED COVER, IN.
CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	ALL	ALL	3"
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	ALL	#3 - #5 BARS	1 1/2"
		≥ #6 BARS	2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLAB, JOISTS AND WALLS	#3 - #11 BARS	3/4"
		#14, #18 BARS	1 1/2"
	BEAMS, COLUMNS, PEDESTALS AND TENSION TIES	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1 1/2

STRUCTURAL ABBREVIATIONS

AFF	Above Finished Floor
ARCH	Architect or Architectural
B/	Bottom Of
BLDG	Building
BOT	Bottom
BP	Base Plate
BRG	Bearing
CANT	Cantilever
CIP	Cast-in-Place
CFMF	Cold Formed Metal Framing
CMU	Concrete Masonry Unit
COL	Column
CONC	Concrete
CONT	Continuous
COORD	Coordinate
DIAM	Diameter
DIAG	Diagonal
DIM	Dimension
DWG	Drawing
EF	Each Face
ELEV	Elevation
ENGR	Engineer
EOD	Edge of Deck
EOS	Edge of Slab
EOP	Edge of Plate
EQPT	Equipment
EXIST or (E)	Existing
EW	EachWay
FTG	Footing
FLR	Floor
FND	Foundation
GA	Gauge
GALV	Galvanize
HDG	Hot Dipped Galvanized
HEF	Horizontal Each Face
HIF	Horizontal Inside Face
HOF	Horizontal Outside Face
HORZ	Horizontal
ID	Inside Diameter
LTWT	Light Weight
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
MFG	Manufacturer
MAX	Maximum
MIN	Minimum
MECH	Mechanical
NW	Normal Weight
O/C	On Center
OPNG	Opening
OD	Outside Diameter
OPP	Opposite
PERP	Perpendicular
PCF	Pounds Per Cubic Foot
PSF	Pounds Per Square Foot
PSI	Pounds Per Square Inch
REINF	Reinforcement
REQD	Required
SECT	Section
SIM	Similar
SPEC	Specification
SW	Shear Wall
T/	Top Of
TYP	Typical
UNO	Unless Noted Otherwise
VERT	Vertical
VEF	Vertical Each Face
VIF	Vertical Inside Face
VOF	Vertical Outside Face
W/	With

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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026

DATE: 03/16/2026

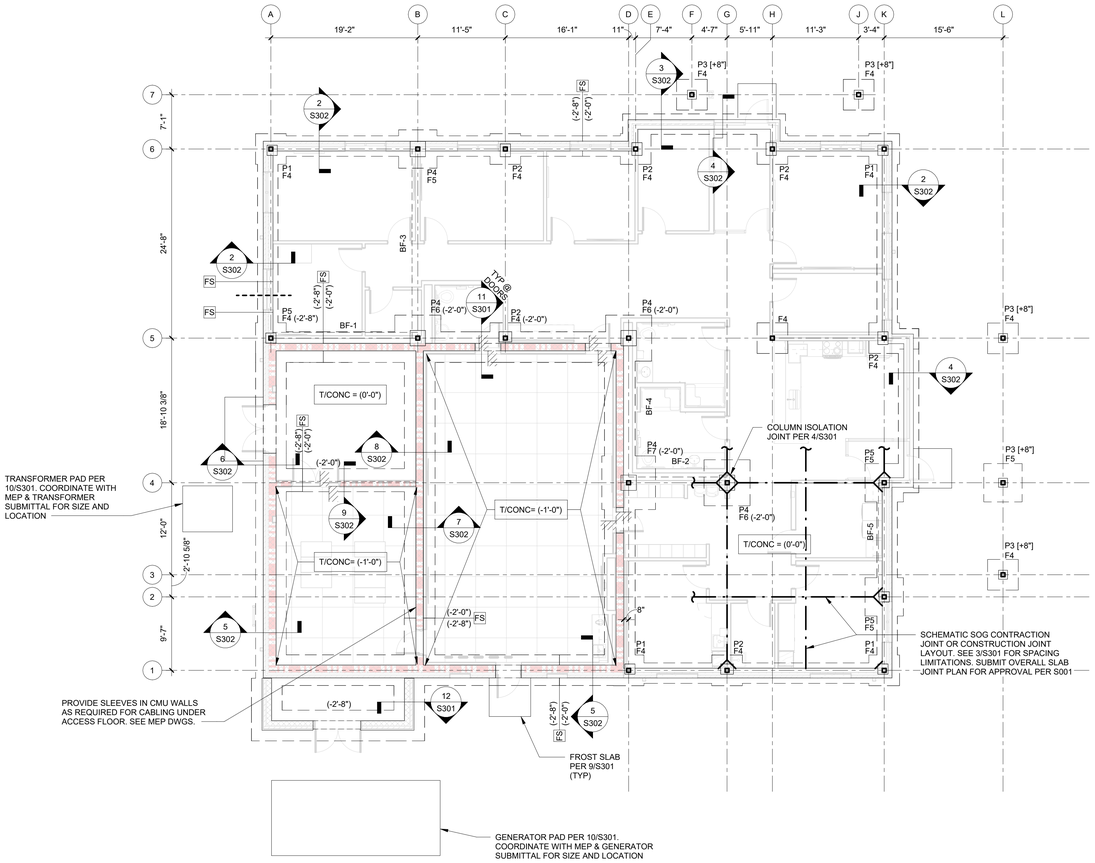
SGA PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
STRUCTURAL NOTES

Drawing Number:
S001

BID SET



1 FOUNDATION PLAN

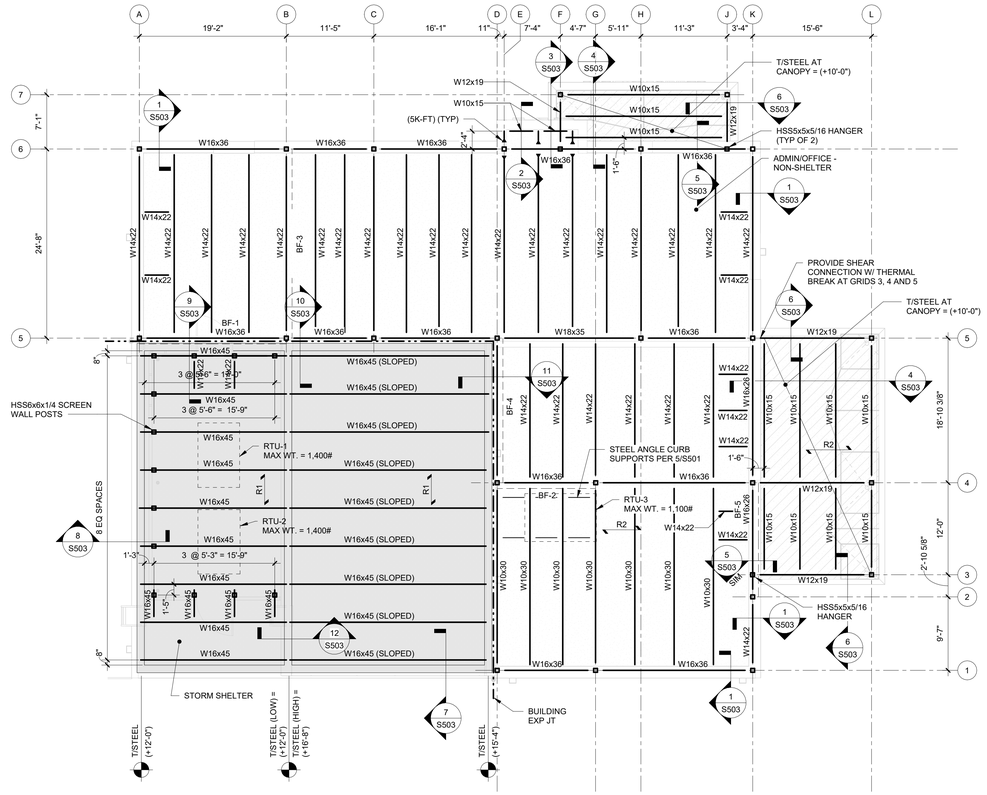
S101 SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. DATUM ELEVATION IS TOP OF SLAB ON GRADE = 0'-0" REFERENCE CIVIL DRAWINGS FOR ACTUAL ELEVATION.
2. TOP OF EXTERIOR COLUMN AND WALL FOOTING ELEVATION (-2'-0") TYP. UNO.
   TOP OF INTERIOR COLUMN FOOTING ELEVATION (-1'-0") TYP. UNO.
   TOP OF PIER ELEVATION [-0'-8"] TYP. UNO.
3. TOP OF ALL FOUNDATIONS/PIERS ARE INDICATED (+/- X'-X") / [+/- X'-X"] WITH RESPECT TO DATUM ELEVATION
4. ON-GRADE CONCRETE SLAB AS FOLLOWS:
   5" THICK NORMAL WEIGHT CONCRETE WITH FIBER REINFORCEMENT
   OVER VAPOR BARRIER ON 6"MIN. COMPACTED STRUCTURAL SUBBASE, TYP UNO
5. FOUNDATION ELEMENTS ARE INDICATED AS FOLLOWS:
   F# =FOOTING INDICATOR (SEE FOOTING SCHEDULE)
   P# = PIER INDICATOR (SEE S302)
6. FOOTING STEPS ARE INDICATED AS FOLLOWS:
   FS (+/- X'-X") / (+/- X'-X") ELEVATIONS INDICATE TOP OF FOOTING EACH SIDE OF STEP
7. STEP FOOTING AS REQUIRED FOR ALL UTILITIES. PROVIDE SLEEVES AT ALL WALL PENETRATIONS. SEE MEP DRAWINGS FOR ALL UTILITY LOCATIONS.
   UTILITY LINES SHOWN THUS ON PLAN: **********
8. BF-# INDICATES BRACED FRAME LOCATION. SEE S502 FOR BRACED FRAME INFORMATION
9. REFER TO ARCHITECTURAL DRAWINGS FOR ALL OTHER DIMENSIONS

FOOTING SCHEDULE

INDICATOR	FOOTING SIZE	REINFORCEMENT
F4	4'-0" x 4'-0" x 1'-4"	(5) #5 EACH WAY
F5	5'-0" x 5'-0" x 1'-4"	(6) #6 EACH WAY
F6	6'-0" x 6'-0" x 1'-4"	(7) #6 EACH WAY
F7	7'-0" x 7'-0" x 1'-6"	(8) #7 EACH WAY

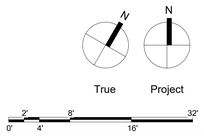


2 ROOF FRAMING PLAN

S101 SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. DATUM ELEVATION IS TOP OF ON-GRADE CONCRETE SLAB = 0'-0"
2. TOP OF STEEL FRAMING ELEVATION = (+12'-6") UNO ON PLAN
3. ELEVATIONS OF FRAMING ELEMENTS INDICATED (+/- X'-X") ARE WITH RESPECT TO DATUM.
4. ROOF DECK IS AS FOLLOWS:
   TYPE R1: 3 1/2" NORMAL WEIGHT CONCRETE ON 2" x 20 GA COMPOSITE METAL DECK (5 1/2" TOTAL THICKNESS), REINFORCED W/ #4 @ 16" O/C EACH WAY
   TYPE R2: 1 1/2" x 20 GA TYPE B GALVANIZED ROOF DECK
5. FRAMING SYMBOLS ARE INDICATED AS FOLLOWS:
   ► MOMENT CONNECTION WITH BENDING MOMENT IN FOOT-KIPS
6. REFER TO ARCHITECTURAL DRAWINGS FOR ALL OTHER DIMENSIONS



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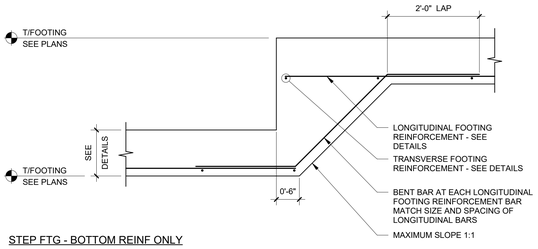
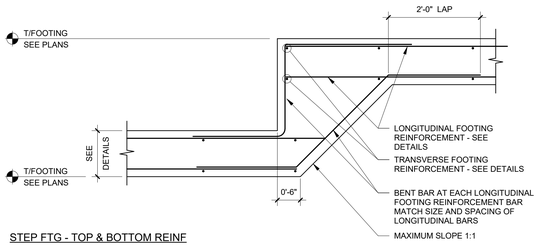
Key Plan:

Drawing Title:
FOUNDATION & ROOF FRAMING PLAN

Drawing Number:
S101

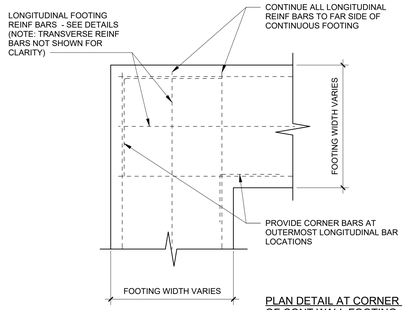


STEP FTG - BOTTOM REINF ONLY

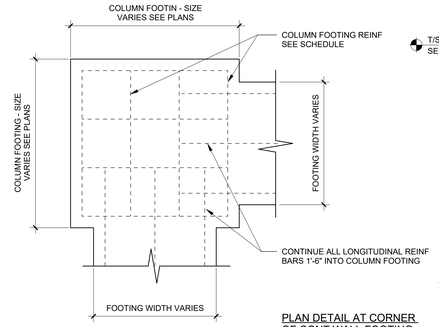


STEP FTG - TOP & BOTTOM REINF

1 TYPICAL WALL FOOTING STEP DETAIL
S301 SCALE: 3/4" = 1'-0"

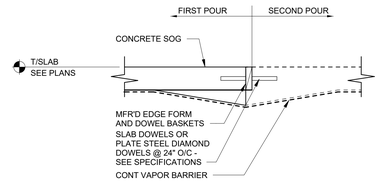


PLAN DETAIL AT CORNER OF CONT WALL FOOTING

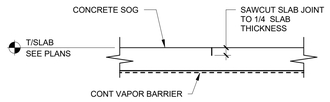


PLAN DETAIL AT CORNER OF CONT WALL FOOTING AND COLUMN FOOTING

2 TYPICAL WALL FOOTING CORNER REINFORCING
S301 SCALE: 3/4" = 1'-0"



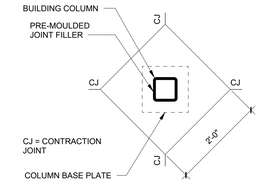
SOG CONSTRUCTION JOINT



UNLESS OTHERWISE SHOWN ON PLAN, LOCATE SOG CONTRACTION JOINTS AT COLUMN LINES. PLACE ADDITIONAL CONTRACTION JOINTS BETWEEN COLUMN LINES SO THAT JOINT SPACING IS LIMITED TOAPPROXIMATELY 15 FEET O/C EACH WAY AND ASPECT RATIO OF RECTANGULARLY DIVIDED SLAB AREAS DOES NOT EXCEED 1.5:1. PROVIDE JOINT LAYOUT PLAN ON SHOP DRAWING SUBMITTAL AS INDICATED ON S001

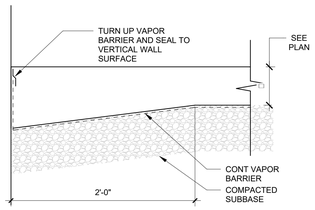
SOG CONTRACTION JOINT

3 TYPICAL SLAB JOINTS
S301 SCALE: 3/4" = 1'-0"

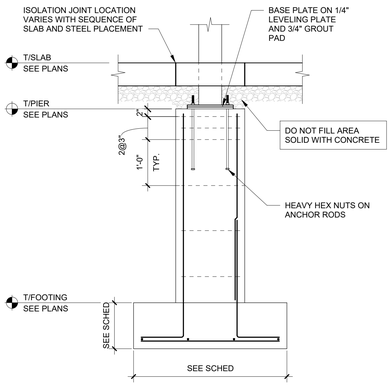


COLUMN/PIER ISOLATION JOINT

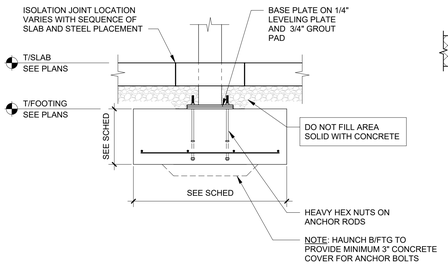
4 TYPICAL COLUMN ISOLATION JOINT
S301 SCALE: 3/4" = 1'-0"



5 TYPICAL ON-GRADE SLAB HAUNCH
S301 SCALE: 1 1/2" = 1'-0"

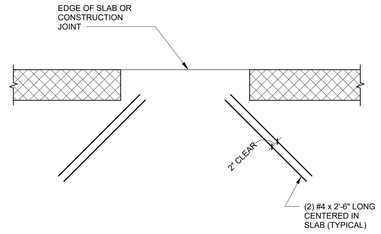


COLUMN ON PIER

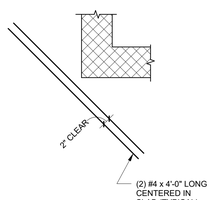


COLUMN ON FOOTING

6 PIER/FOOTING DETAILS AT COLUMNS
S301 SCALE: 3/4" = 1'-0"

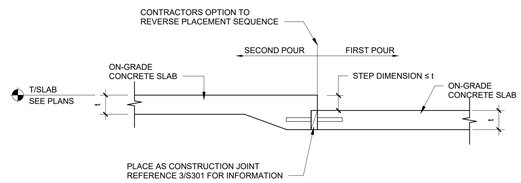


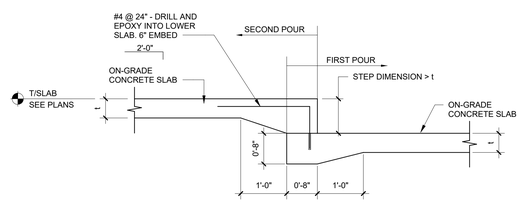
TYPICAL SLAB DETAIL AT WALL OPENING



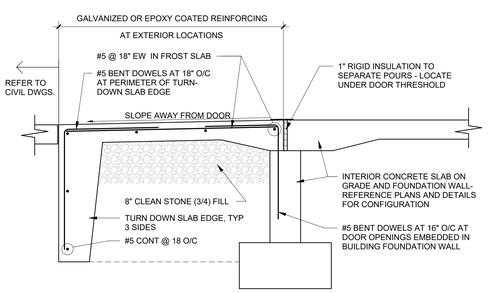
TYPICAL SLAB DETAIL AT RE-ENTRANT WALL CORNER

7 TYPICAL SLAB CORNER REINFORCING
S301 SCALE: 3/4" = 1'-0"

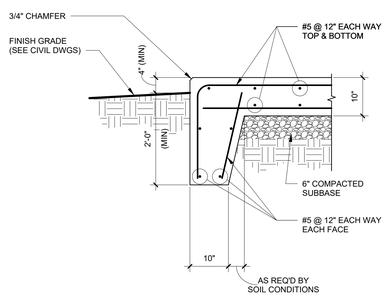




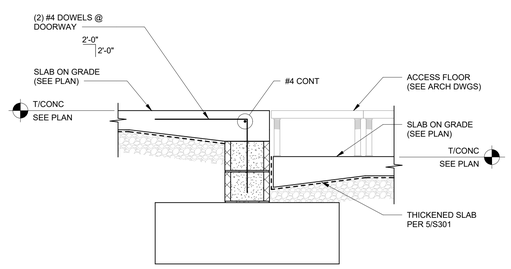
8 TYPICAL ON-GRADE SLAB STEP
S301 SCALE: 3/4" = 1'-0"



9 TYPICAL EXTERIOR DOORWAY FROST SLAB
S301 SCALE: 3/4" = 1'-0"

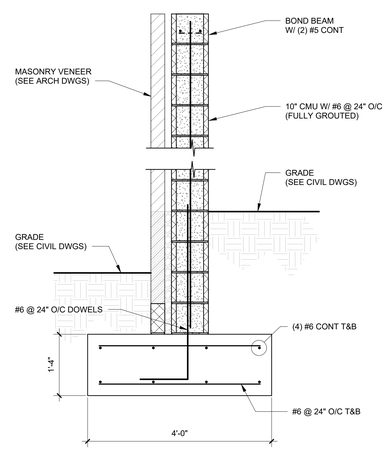


10 EQUIPMENT PAD DETAIL
S301 SCALE: 3/4" = 1'-0"



NOTE: FOOTING AND WALL INFO NOT SHOWN FOR CLARITY. REFER TO ADJACENT FOUNDATION SECTIONS FOR INFO

11 SECTION
S301 SCALE: 3/4" = 1'-0"



12 SECTION
S301 SCALE: 3/4" = 1'-0"

THE TYPICAL FOUNDATION AND ON-GRADE SLAB DETAILS SHOWN ON THIS DRAWING SHALL BE APPLIED THROUGHOUT
THE PROJECT AT ALL LOCATIONS AS REQUIRED. SECTION INDICATORS FOR TYPICAL DETAILS ARE NOT SHOWN ON PLANS

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BERTIE COUNTY

Windsor Township,
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BERTIE COUNTY 911 CENTER

206 County Farm Road
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ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026

DATE: 03/16/2026

SGA PROJECT NUMBER: 24-011

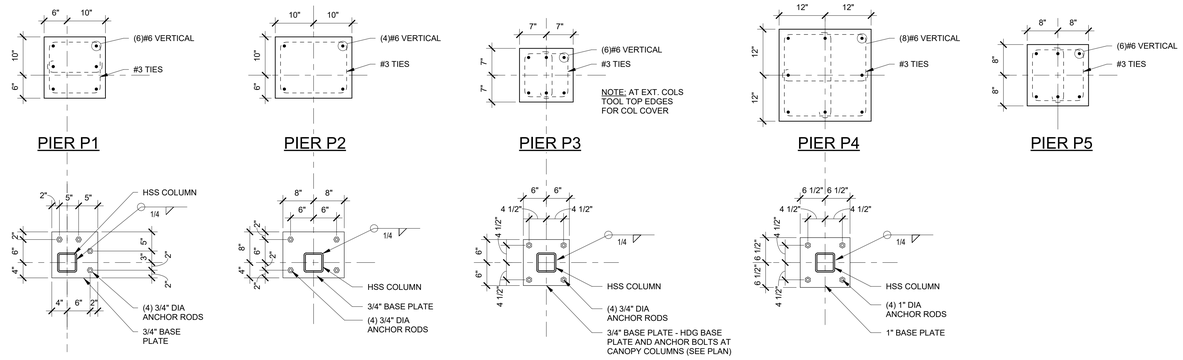
Key Plan:

Drawing Title:
FOUNDATION DETAILS AND SECTION

Drawing Number:
S301

BID SET

STRUCTURAL COLUMN SCHEDULE			
COLUMN LOCATION	TYPE	BASE PLATE	COMMENTS
A-5	HSS6x6x3/8	BP4	
A-5	P5		
A-6	HSS6x6x3/8	BP1	
B-5	HSS6x6x3/8	BP4	
B-6	HSS6x6x3/8	BP4	
C-5	HSS6x6x3/8	BP2	
C-6	HSS6x6x3/8	BP2	
D-1	HSS6x6x3/8	BP1	
D-4	HSS6x6x3/8	BP4	
D-5	HSS6x6x3/8	BP4	
E-6	HSS6x6x3/8	BP2	
F-7	HSS6x6x3/8	BP3	HDG
G-1	HSS6x6x3/8	BP2	
G-4	HSS6x6x3/8	BP4	
H-5	HSS6x6x3/8	BP3	
H-6	HSS6x6x3/8	BP2	
J-7	HSS6x6x3/8	BP3	HDG
K-1	HSS6x6x3/8	BP1	
K-2	HSS6x6x3/8	BP3	
K-4	HSS6x6x3/8	BP3	
K-5	HSS6x6x3/8	BP2	
K-6	HSS6x6x3/8	BP1	
L-3	HSS6x6x3/8	BP3	HDG
L-4	HSS6x6x3/8	BP3	HDG
L-5	HSS6x6x3/8	BP3	HDG

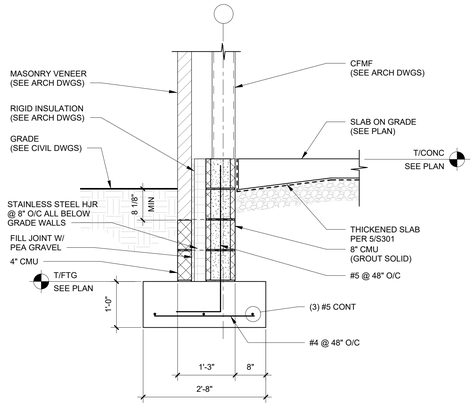


NOTE: BASE PLATE DIMS MAY BE INCREASED AS NEEDED FOR GUSSETS

1 PIER AND BASE PLATE DETAILS

S302 SCALE: 3/4" = 1'-0"

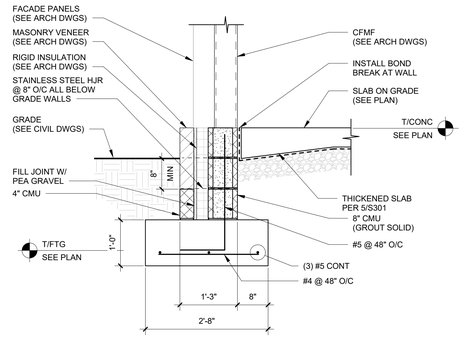
EMBED
12" FOR 3/4" Ø RODS
16" FOR 1" Ø RODS
20" FOR 1 1/2" Ø RODS



NOTE: COORDINATE REQUIREMENTS FOR INSULATION WITH ARCHITECTURAL DRAWINGS

2 SECTION

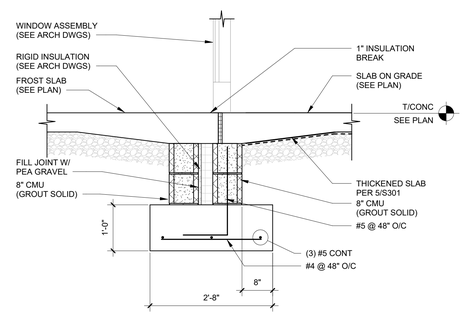
S302 SCALE: 3/4" = 1'-0"



NOTE: COORDINATE REQUIREMENTS FOR INSULATION WITH ARCHITECTURAL DRAWINGS

3 SECTION

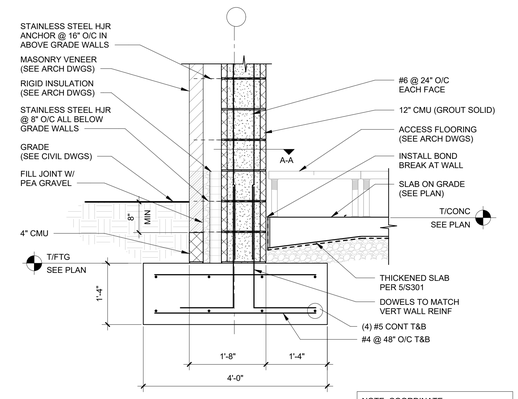
S302 SCALE: 3/4" = 1'-0"



NOTE: COORDINATE REQUIREMENTS FOR INSULATION WITH ARCHITECTURAL DRAWINGS

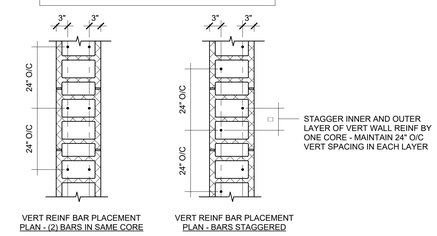
4 SECTION

S302 SCALE: 3/4" = 1'-0"



NOTE: COORDINATE REQUIREMENTS FOR INSULATION WITH ARCHITECTURAL DRAWINGS

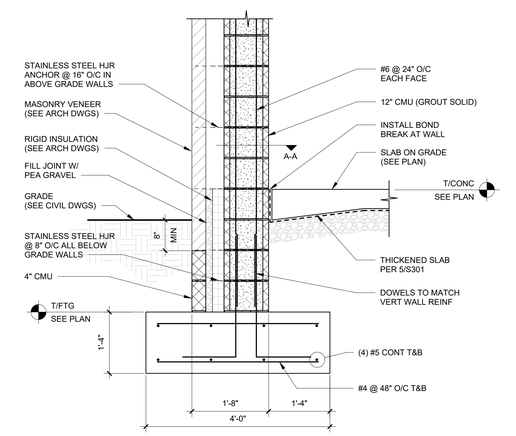
NOTE: IN CMU WALL AREAS THAT REQUIRE (2) LAYERS OF VERTICAL REINFORCING, CONTRACTOR MAY PLACE REINFORCING IN ACCORDANCE WITH EITHER METHOD



A-A

5 SECTION

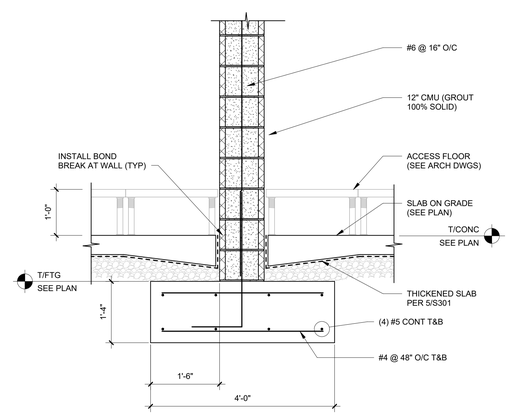
S302 SCALE: 3/4" = 1'-0"



NOTE: COORDINATE REQUIREMENTS FOR INSULATION WITH ARCHITECTURAL DRAWINGS

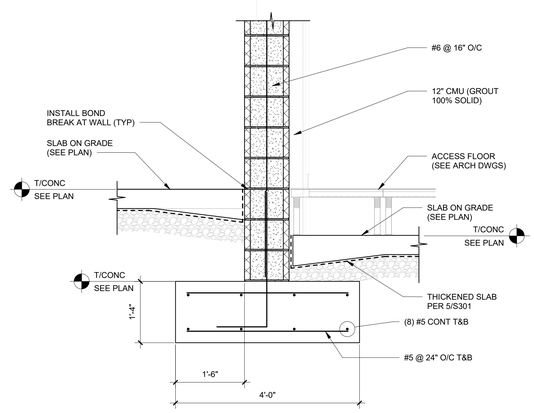
6 SECTION

S302 SCALE: 3/4" = 1'-0"



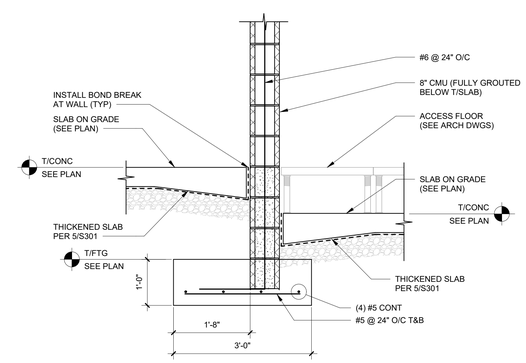
7 SECTION

S302 SCALE: 3/4" = 1'-0"



8 SECTION

S302 SCALE: 3/4" = 1'-0"



9 SECTION

S302 SCALE: 3/4" = 1'-0"

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Professional Seal:

NORTH CAROLINA PROFESSIONAL SEAL 041919 ENGINEER THOMAS E. FORSHEE

Owner:
BERTIE COUNTY

Windsor Township,
North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026

DATE: 03/16/2026

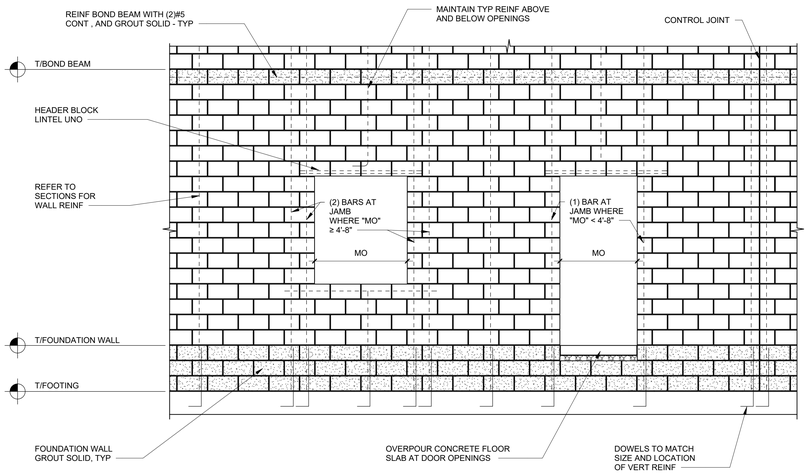
SGA PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
COLUMN & PIER DETAILS AND FOUNDATION SECTIONS

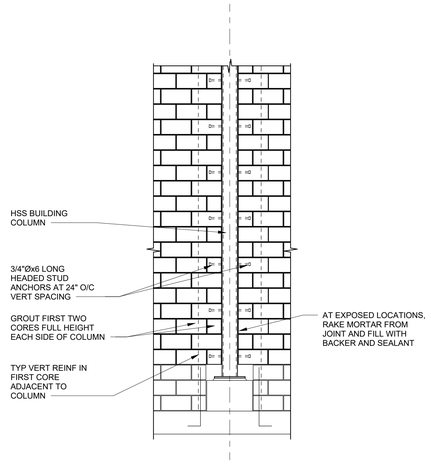
Drawing Number:
S302

BID SET



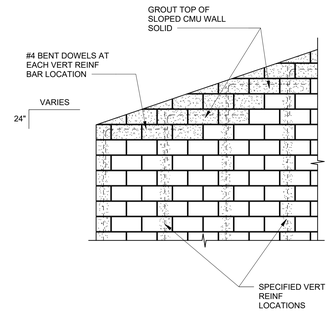
1 TYPICAL CONCRETE MASONRY WALL REINFORCING SCHEMATIC

S401 SCALE: 3/8" = 1'-0"



2 TYPICAL CONCRETE MASONRY WALL AT HSS COLUMN

S401 SCALE: 3/8" = 1'-0"



3 TYPICAL CONCRETE MASONRY WALL SLOPED BOND BEAM REINF ELEVATION

S401 SCALE: 3/8" = 1'-0"

LINTEL SCHEDULE

UNIT SIZE / SPAN	6" CMU	8" CMU	12" CMU
UP TO 4'-0"	WT5x8.5 #3 (2)#4	(2) L4x3 1/2" x5/16 #3 #4 (2) 4" NOMINAL PRECAST LINTELS	(3) L4x3 1/2" x5/16 #3 #4 (3) 4" NOMINAL PRECAST LINTELS
UP TO 8'-0"	WT7x13 #3 (2)#5	(2) L6x3 1/2" x5/16 #3 #5 (2) 4" NOMINAL PRECAST LINTELS	(3) L6x3 1/2" x5/16 #3 #5 (3) 4" NOMINAL PRECAST LINTELS
UP TO 10'-0"	NOT APPLICABLE	HSS8x8x5/16 WITH 3/4"Øx4" STUD ANCHORS AT 16" O/C	3/16 2 -16 2" EA SIDE AT EA END HSS8x8x5/16 + 11x5/16 PLATE WITH 3/4"Øx4" STUD ANCHORS AT 16" O/C ON TOP OF HSS
UP TO 14'-0"	NOT APPLICABLE	HSS8x8x1/2 WITH 3/4"Øx4" STUD ANCHORS AT 16" O/C	3/16 2 -16 2" EA SIDE AT EA END HSS8x8x1/2 + 11x5/16 PLATE WITH 3/4"Øx4" STUD ANCHORS AT 16" O/C ON TOP OF HSS

PROJECT CONDITIONS
1. LINTELS ARE REQUIRED FOR ALL MASONRY WALL OPENINGS (DOORS, WINDOWS, M/E/P, ETC)
2. LINTELS ARE NOT SHOWN ON PLANS. CONTRACTOR IS REQUIRED TO LAY OUT AND COORDINATE ALL LINTELS
3. CONTRACTOR IS REQUIRED TO SUBMIT A LINTEL SHOP DRAWING INDICATING ALL LINTEL LOCATION AND SIZES
4. CONTRACTOR HAS THE OPTION TO PROVIDE ALTERNATE LINTEL CONFIGURATIONS TO ACCOMMODATE INSTALLATION OR EXISTING CONDITIONS. PROVIDE DETAILS ON SHOP DRAWING SUBMITTAL FOR REVIEW

FABRICATIONS AND INSTALLATION
1. "SPAN" = CLEAR MASONRY OPENING DIMENSION. PROVIDE 8" BEARING LENGTH AT EACH END
2. HOT-DIP GALVANIZED ALL STEEL LINTELS IN EXTERIOR WALL CONSTRUCTION
3. UNLESS NOTED OTHERWISE, ALL UNEQUAL LEG ANGLES SHALL BE INSTALLED IN THE 'LLV' ORIENTATION

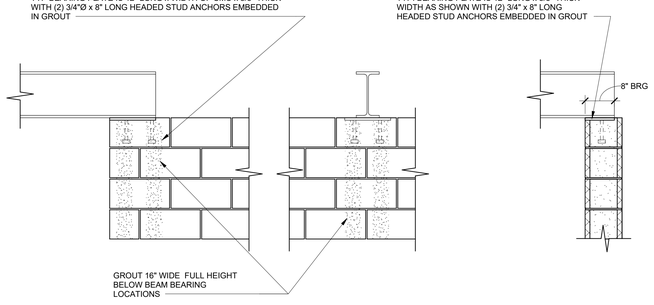
BEARING CONDITIONS
1. FOR SPANS UP TO 8'-0", GROUT MASONRY SOLID 3 COURSES BELOW, AND 16" WIDE, UNDER LINTEL BEARING
2. FOR SPANS OVER 8'-0", GROUT MASONRY SOLID FULL HEIGHT BELOW, AND 16" WIDE, UNDER LINTEL BEARING
3. PROVIDE 8" BEARING LENGTH FOR ALL LINTELS
4. WHERE LINTELS BEAR LESS THAN 16" FROM STEEL COLUMNS, USE STEEL LINTELS ONLY. EXTEND STEEL LINTEL AND CONNECT TO COLUMN

FOR BEAMS PARALLEL TO CMU WALL

TYP BEARING PLATE IS 12" LONG x WIDTH OF CMU x 5/8" THICK WITH (2) 3/4"Ø x 8" LONG HEADED STUD ANCHORS EMBEDDED IN GROUT

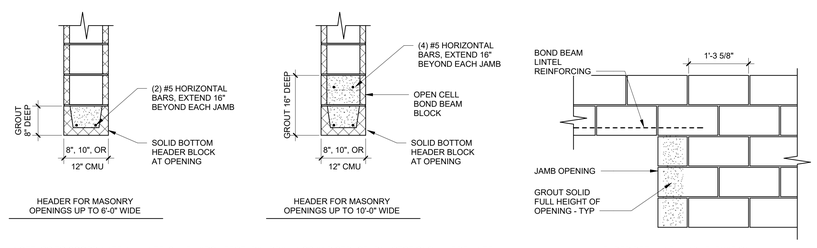
FOR BEAMS PERPENDICULAR TO CMU WALL

TYP. BEARING PLATE IS 12" LONG x 5/8" THICK WIDTH AS SHOWN WITH (2) 3/4" x 8" LONG HEADED STUD ANCHORS EMBEDDED IN GROUT



4 TYP. BEAM BEARING ON MASONRY WALLS

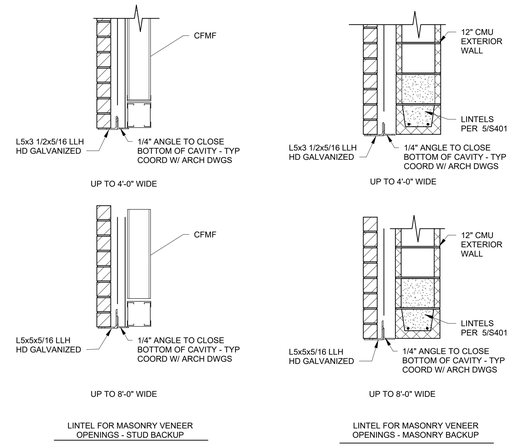
S401 SCALE: 3/4" = 1'-0"



NOTE: GC TO COORDINATE ALL LINTELS WITH ARCHITECTURAL DRAWINGS AND STRUCTURAL SECTIONS. WHERE LINTEL TYPE IS NOT INDICATED ON CONTRACT DOCUMENTS, CONTRACTOR HAS OPTION TO PROVIDE BOND BEAM LINTELS AS ABOVE OR PRECAST/STEEL LINTELS PER SCHEDULE ON S401. CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS FOR ALL LINTELS.

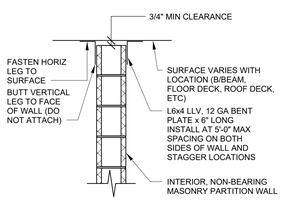
5 TYPICAL BOND BEAM LINTEL IN NON-LOAD BEARING CMU PARTITIONS

S401 SCALE: 3/4" = 1'-0"



6 TYPICAL EXTERIOR WALL OPENING LINTEL DETAILS

S401 SCALE: 3/4" = 1'-0"



BRACE TOP OF ALL INTERIOR NON-BEARING MASONRY PARTITION WALLS IN ACCORDANCE WITH THIS DETAIL

7 TYPICAL CONCRETE MASONRY WALL BRACING DETAIL

S401 SCALE: 3/4" = 1'-0"

THE TYPICAL MASONRY CONSTRUCTION AND LINTEL DETAILS SHOWN ON THIS DRAWING SHALL BE APPLIED THROUGHOUT THE PROJECT AT ALL LOCATIONS AS REQUIRED. SECTION INDICATORS FOR TYPICAL DETAILS ARE NOT SHOWN ON PLANS

BID SET

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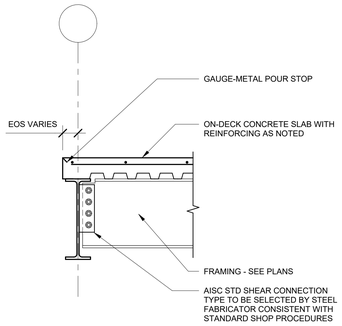
SGA PROJECT NUMBER: 24-011

Key Plan:

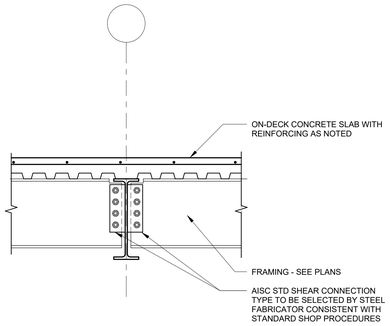
Drawing Title:
MASONRY DETAILS

Drawing Number:
S401



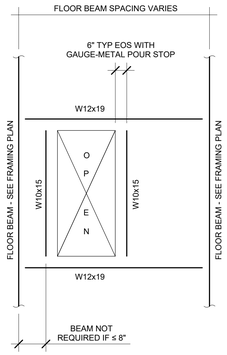
1 TYPICAL SLAB EDGE DETAIL

S501 SCALE: 3/4" = 1'-0"



2 TYPICAL BEAM-GIRDER FRAMING DETAIL

S501 SCALE: 3/4" = 1'-0"

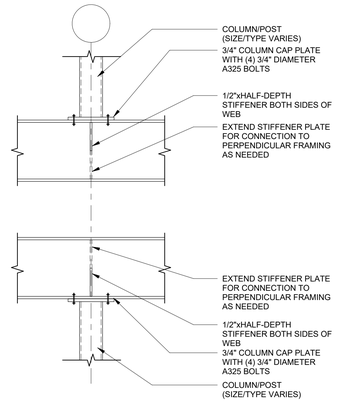


NOTES:

1. ANY OPENING GREATER THAN 16" IN EITHER DIMENSION REQUIRES THE SUPPLEMENTAL FRAMING SHOWN HERE
2. FINAL LOCATION AND SIZE OF ALL OPENINGS SHALL BE COORDINATED BY THE CONTRACTOR REQUIRING THE OPENING

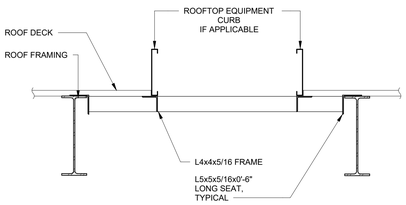
3 TYPICAL FRAMED OPENING IN SLAB ON DECK

S501 SCALE: 3/4" = 1'-0"



4 TYPICAL CONTINUOUS BEAM OVER/UNDER COLUMN

S501 SCALE: 3/4" = 1'-0"

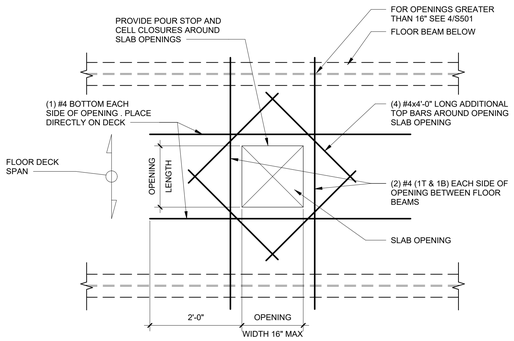


NOTE:

REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXACT NUMBER, SIZE AND LOCATION. PROVIDE FRAMES FOR ALL OPENINGS GREATER THAN 10" DIAMETER

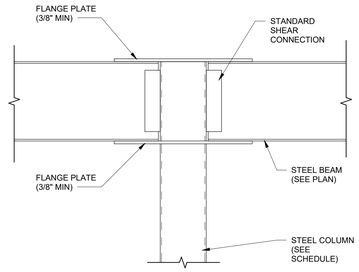
5 TYPICAL ROOF OPENING

S501 SCALE: 3/4" = 1'-0"



6 TYPICAL SMALL OPENING IN SLAB ON DECK

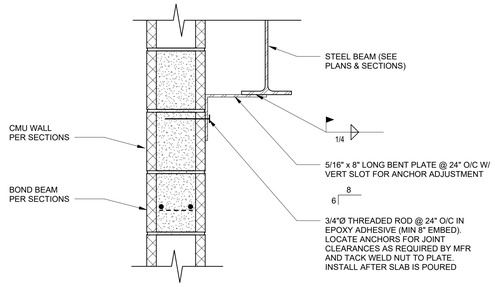
S501 SCALE: 3/4" = 1'-0"



NOTE:
FLANGE PLATES MAY BE BOLTED OR WELDED TO FLANGES. FLANGE PLATES MAY BE RECTANGULAR PLATE OR CUT-OUT PLATES AS REQUIRED BY GEOMETRY AND LOAD. PLATE CONFIGURATION AND SIZE BY FABRICATOR.

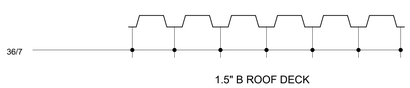
7 TYPICAL WIDE FLANGE TO HSS MOMENT CONNECTION

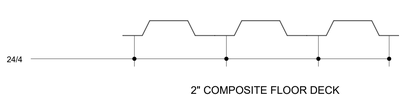
S501 SCALE: 3/4" = 1'-0"



8 TYPICAL BENT PLATE DETAIL

S501 SCALE: 1 1/2" = 1'-0"





NOTES:

1. PATTERNS BASED ON CAPACITY OF 3/4" PUDDLE WELDS W/ #10 SIDELAP FASTENERS. IF CONTRACTOR PROPOSES ALTERNATE ATTACHMENT METHOD OR SPACING, DATA MUST BE PROVIDED INDICATING ALTERNATE HAS EQUIVALENT OR GREATER CAPACITY
2. SIDELAP ATTACHMENTS SPACED AT LESSER OR 1/2 SPAN OR 18"

9 TYPICAL STEEL DECK ATTACHMENT

S501 SCALE: 1 1/2" = 1'-0"

THE TYPICAL FRAMING AND CONNECTION DETAILS SHOWN ON THIS DRAWING SHALL BE APPLIED THROUGHOUT THE PROJECT AT ALL LOCATIONS AS REQUIRED. SECTION INDICATORS FOR TYPICAL DETAILS ARE NOT SHOWN ON PLANS

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Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township,
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New Construction of:
BERTIE COUNTY 911 CENTER

206 County Farm Road
Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026

DATE: 03/16/2026

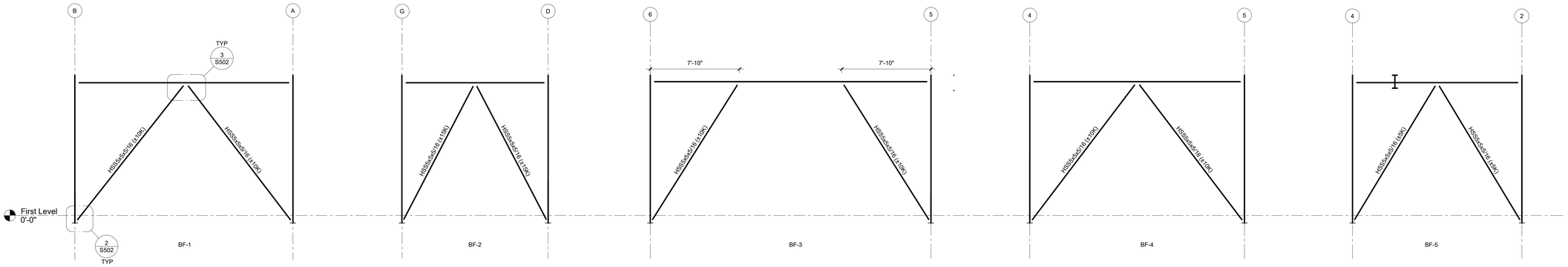
SGA PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
TYPICAL STEEL DETAILS

Drawing Number:
S501

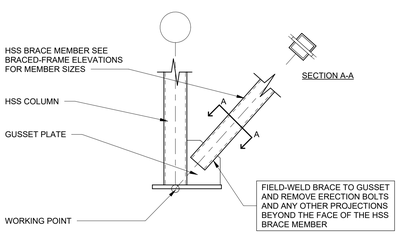
BID SET



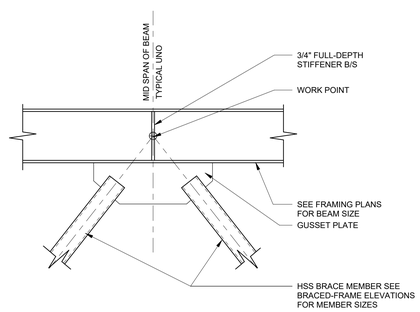
1 BRACED FRAME ELEVATIONS

S502 SCALE: 1/4" = 1'-0"

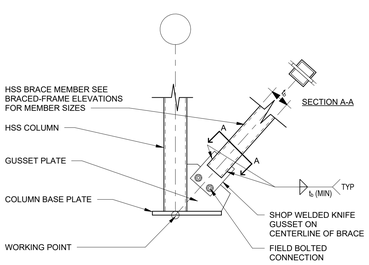
1. BRACING CONNECTIONS SHALL NOT BE MADE UNTIL ROOFS ARE INSTALLED
2. AXIAL FORCES SHOWN ARE SERVICE LEVEL (ASD)



WELDED BRACED FRAME CONNECTION

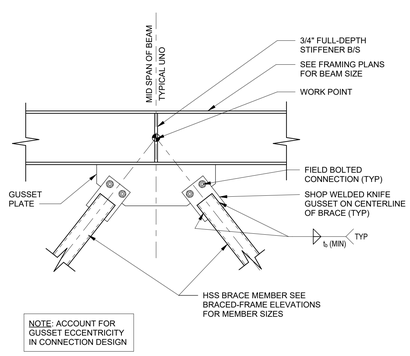


WELDED BRACED FRAME CONNECTION



NOTE: ACCOUNT FOR GUSSET ECCENTRICITY IN CONNECTION DESIGN

BOLTED BRACED FRAME CONNECTION



NOTE: ACCOUNT FOR GUSSET ECCENTRICITY IN CONNECTION DESIGN

BOLTED BRACED FRAME CONNECTION

2 BRACE CONNECTION DETAIL CONCEPT

S502 SCALE: 3/4" = 1'-0"

3 BRACE CONNECTION DETAIL CONCEPT

S502 SCALE: 3/4" = 1'-0"

BRACED FRAME GENERNERAL NOTES:

1. CONNECTION DESIGNER HAS OPTION TO PROVIDE FIELD WELDED OR FIELD BOLTED CONNECTIONS
2. LENGTH OF BOLTS CAN NOT EXTEND BEYOND THE FACE OF COLUMNS

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S502

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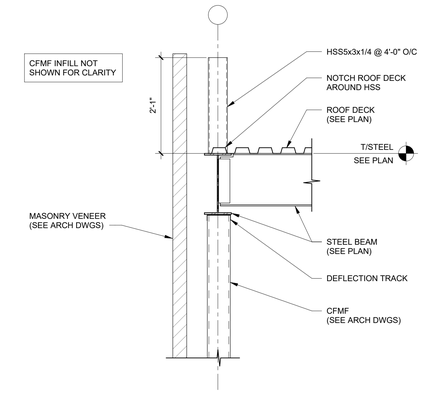
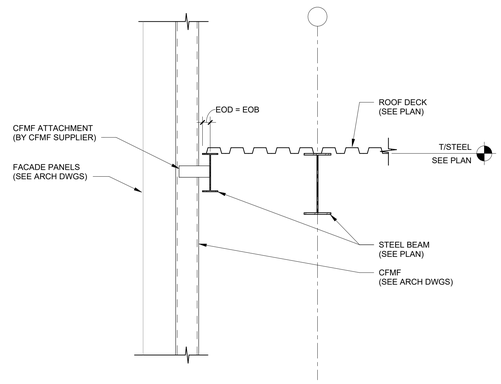
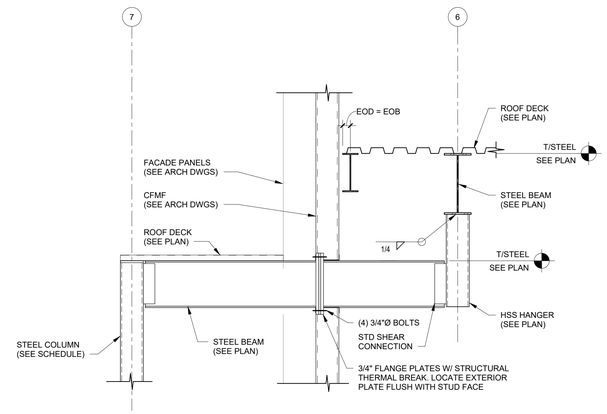


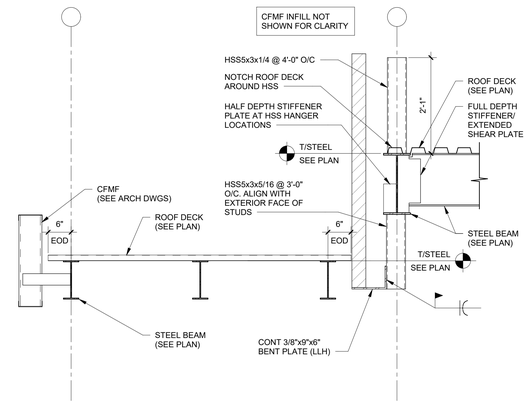
1 SECTION
S503 SCALE: 3/4" = 1'-0"



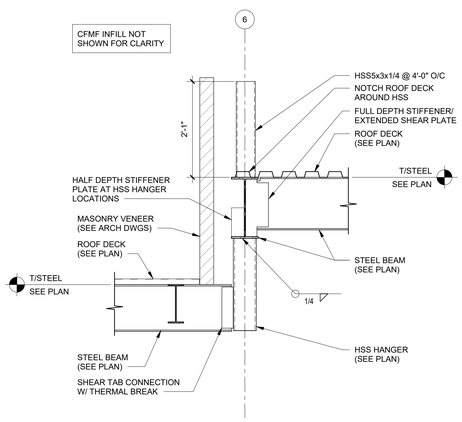
2 SECTION
S503 SCALE: 3/4" = 1'-0"



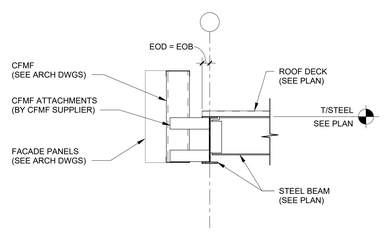
3 SECTION
S503 SCALE: 3/4" = 1'-0"



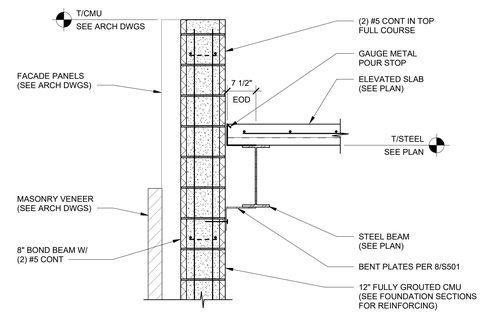
4 SECTION
S503 SCALE: 3/4" = 1'-0"



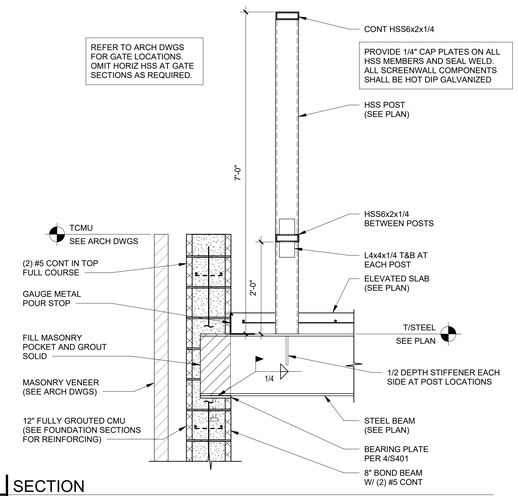
5 SECTION
S503 SCALE: 3/4" = 1'-0"



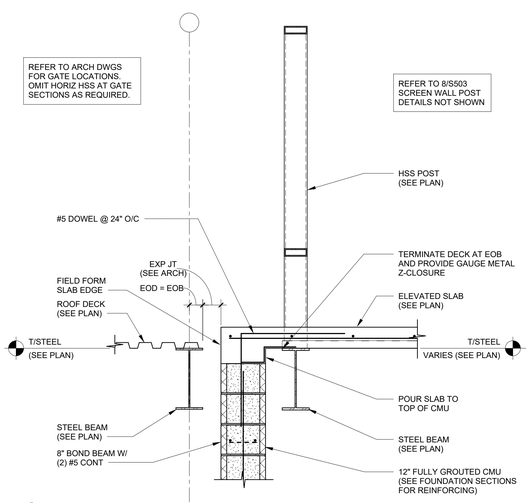
6 SECTION
S503 SCALE: 3/4" = 1'-0"



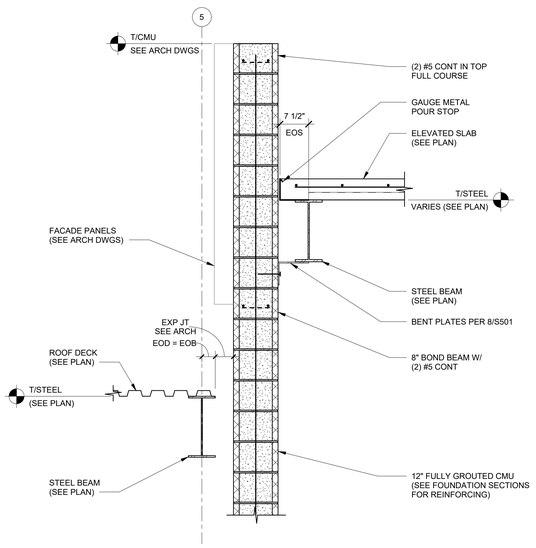
7 SECTION
S503 SCALE: 3/4" = 1'-0"



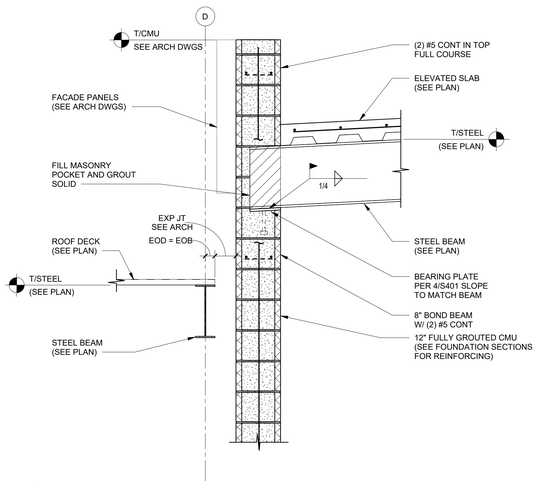
8 SECTION
S503 SCALE: 3/4" = 1'-0"



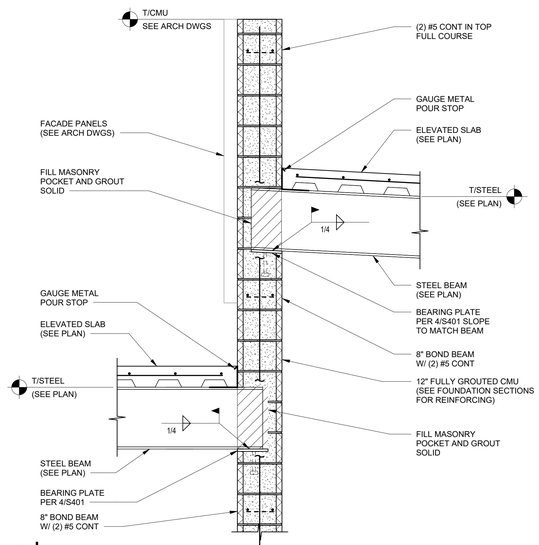
9 SECTION
S503 SCALE: 3/4" = 1'-0"



10 SECTION
S503 SCALE: 3/4" = 1'-0"



11 SECTION
S503 SCALE: 3/4" = 1'-0"



12 SECTION
S503 SCALE: 3/4" = 1'-0"

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Key Plan:

Drawing Title:

FRAMING SECTIONS

Drawing Number:

S503

BID SET

ELECTRICAL SYMBOLS

LIGHTING SYMBOLS

SYMBOL	DESCRIPTION	MH (UON)
$	SINGLE POLE TOGGLE SWITCH	48" TOD
$a	SWITCH: SUB-LETTER INDICATES FIXTURES CONTROLLED (a)	48" TOD
$2	DOUBLE POLE TOGGLE SWITCH	48" TOD
$3	THREE-WAY TOGGLE SWITCH (SPDT)	48" TOD
$4	FOUR-WAY TOGGLE SWITCH (DPDT)	48" TOD
$K	KEY OPERATED SWITCH	48" TOD
$3D a	THREE WAY DIMMER SWITCH: SUBLETTER INDICATES FIXTURES CONTROLLED (a)	48" TOD
$M	MANUAL STARTER W/ OVERLOADS	48" TOD
$P	SWITCH W/ PILOT LIGHT	48" TOD
$D	DIMMER SWITCH	48" TOD
$4D	4 BUTTON DIMMER SWITCH	48" TOD
$LV	LOW VOLTAGE CONTROL SWITCH	48" TOD
$T	MANUAL TIME SWITCH	48" TOD
$C	MOMENTARY CONTACT SWITCH	48" TOD
$WP	SWITCH WITH WEATHERPROOF ENCLOSURE	48" TOD
OS OS	OCCUPANCY SENSOR (CEILING & WALL MOUNTED)	
VS	VACANCY SENSOR	
T	TIME CLOCK	
R	RELAY	
L	LIGHTING CONTACTOR	
P	PHOTOCELL OR PUSHPLATE SWITCH	
DP	LIGHTING CONTROL POWER PACK	
UL924	EMERGENCY SHUNT RELAY, UL 924 LISTED (CEILING MOUNTED)	
	LIGHTING FIXTURE: RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED	
	LIGHTING FIXTURE: 2 BALLAST	
	LIGHTING FIXTURE: INDUSTRIAL	
	LIGHTING FIXTURE: WALL MOUNTED - TYPE AS SPECIFIED	
	LIGHTING FIXTURE: RECESSED, SURFACE, OR PENDANT MOUNTED	
	LIGHTING FIXTURE: WALL MOUNTED - TYPE AS SPECIFIED	
	WALL WASHER	
	ADJUSTABLE WALL WASHER	
	LIGHTING FIXTURE ON EMERGENCY OR NIGHT LIGHT CIRCUIT (NL)	
	EMERGENCY BATTERY PACK: W/ NUMBER OF HEADS INDICATED	
E	EMERGENCY BATTERY PACK: W/ REMOTE HEADS	
	REMOTE EMERGENCY HEAD	
	EMERGENCY BATTERY PACK: SEMI RECESSED, CEILING MOUNT	
	EXIT SIGN: CEILING OR PENDANT MOUNTED (SHADED PORTION INDICATES FACE)	
	EXIT SIGN: WALL MOUNTED - END, BACK	
	EXIT SIGN: W/ DIRECTIONAL ARROWS	
	POLE MOUNTED LIGHTING FIXTURE: SINGLE HEAD, DOUBLE HEAD	
	POLE MOUNTED LIGHTING FIXTURE: SINGLE, POLE TOP	
	LIGHTING POLE (SPORTS)	

SPECIAL SYSTEMS SYMBOLS

SYMBOL	DESCRIPTION	MH (UON)
H	FIRE ALARM HORN TYPE SPEAKER	NOTE 5
	FIRE ALARM FLASHING STROBE LIGHT - WALL MOUNTED	NOTE 5
F	FIRE ALARM HORN	NOTE 5
F	COMBINATION FIRE ALARM HORN AND FLASHING STROBE LIGHT	NOTE 5
S F	S - CEILING SPEAKER, F - FIRE ALARM SPEAKER	
S	FIRE ALARM SPEAKER W/ STROBE	
S	HORN TYPE SPEAKER	
FAAP	FIRE ALARM ANNUNCIATOR PANEL	
FACP	FIRE ALARM CONTROL PANEL	
TP	FIRE ALARM TRANSPONDER	
DS	DOOR SOLENOID - LOCKING DEVICE CONNECTION POINT	
F	FIRE ALARM PULL STATION	48" TOD
H E	HEAT DETECTOR: E = ELEVATOR CONTROLS	
P AB O U	SMOKE DETECTOR (PHOTOELECTRIC): AB = AUDIBLE BASE, E = ELEVATOR CONTROLS	
I U	SMOKE DETECTOR (IONIZATION)	
D	FIRE ALARM DUCT DETECTOR WITH RELAY	
C	CARBON MONOXIDE DETECTOR	
ARC	FIRE ALARM SYSTEM ADDRESSABLE RELAY - CONTROL	
ARM	FIRE ALARM SYSTEM ADDRESSABLE RELAY - MONITOR	
RAL	FIRE ALARM SYSTEM REMOTE ALARM LIGHT	
FS	FLOW SWITCH CONNECTION	
TS	TAMPER SWITCH CONNECTION	
CR	CARD READER	48" TOD
	IP CAMERA	
CAM	CEILING CAMERA	
IP	IP 2 SENSOR CAMERA	
IP	IP 4 SENSOR CAMERA W/ PTZ	
IP	IP 360 CAMERA	
WAP	WIRELESS ACCESS POINT	
AV	AUDIO/VISUAL PLATE	
2D	DATA/TELEPHONE OUTLET: NUMERALS INDICATE QUANTITY OF WIRED JACKS	18" CTR
P	DOOR PUSH BUTTON	
DS	DOOR STATION	
IC	INTERCOM STATION	

POWER SYMBOLS

SYMBOL	DESCRIPTION	MH (UON)
$	COMBINATION SWITCH AND SIMPLEX RECEPTACLE	48" TOD
$	COMBINATION SWITCH AND DUPLEX RECEPTACLE	48" TOD
	SIMPLEX RECEPTACLE	18" CTR
E	DUPLEX RECEPTACLE: "E" (IF SHOWN) INDICATES CONNECTED TO EMERGENCY CIRCUIT	18" CTR
	DUPLEX RECEPTACLE: FLOOR MOUNTED	
	DUPLEX RECEPTACLE: SPLIT WIRED, BOTTOM HALF SWITCHED	18" CTR
	DUPLEX RECEPTACLE: CEILING MOUNTED	
	DUPLEX RECEPTACLE: PEDESTAL TYPE	
	DUPLEX RECEPTACLE: MOUNTED 6" ABOVE BACKSPLASH OR COUNTER	
GFI	DUPLEX RECEPTACLE: GROUND FAULT INTERRUPTER TYPE	18" CTR
GFI	DUPLEX RECEPTACLE: GFI MOUNTED 6" ABOVE BACKSPLASH OR COUNTER	
H	DUPLEX RECEPTACLE: MOUNTED HIGH	84" CTR
IG	DUPLEX RECEPTACLE: ISOLATED GROUND	18" CTR
	DUPLEX RECEPTACLE: AT 54" A.F.F.	54" CTR
	DOUBLE DUPLEX RECEPTACLE	18" CTR
IG	DOUBLE DUPLEX RECEPTACLE ISOLATED GROUND	18" CTR
C	SIMPLEX RECEPTACLE: CART RECHARGE	36" CTR
C	DUPLEX RECEPTACLE: CART RECHARGE	36" CTR
P	DUPLEX RECEPTACLE: PAY PHONE	54" CTR
A	SPECIAL RECEPTACLE: NEMA 6-20R (20A, 2P, 3W, 208V)	18" CTR
B	SPECIAL RECEPTACLE: NEMA 6-30R (30A, 2P, 3W, 208V)	18" CTR
C	SPECIAL RECEPTACLE: NEMA 14-30R (30A, 2P, 4W, 208/120V)	18" CTR
D	SPECIAL RECEPTACLE: NEMA 14-50R (50A, 2P, 4W, 208V/120V)	18" CTR
A	SPECIAL RECEPTACLE: FLOOR MOUNTED, NEMA 6-20R	
A	SPECIAL RECEPTACLE: PEDESTAL TYPE, NEMA 6-20R	
TV	TELEVISION RECEPTACLE	72" CTR
	CLOCK HANGER OUTLET	84" CTR
1 2	PROGRAM CLOCK OUTLET: SINGLE FACE, DOUBLE FACE	84" CTR
EPO	EMERGENCY POWER OFF SWITCH - WITH CLEAR HINGED COVER AND LABELING	48" TOD
J	JUNCTION BOX	
J	JUNCTION BOX - WALL MOUNTED	48" TOD
E	EQUIPMENT CONNECTION AS NOTED	
E	EQUIPMENT CONNECTION AS NOTED - WALL MOUNTED	48" TOD
H 3	HEATER CONNECTION - NUMBER INDICATES KILOWATTS (3KW)	
	HEATER FAN - CEILING MOUNTED	
CB	ENCLOSED CIRCUIT BREAKER	
	NON-FUSED DISCONNECT SWITCH: 30A, 3P (UON)	
(40A)	FUSED DISCONNECT SWITCH: FUSE SIZE AS INDICATED (40A)	
MS	MAGNETIC MOTOR STARTER	
FVNR	COMBINATION MAGNETIC MOTOR STARTER: ABBREVIATION INDICATES TYPE - FVNR, FVR, RVAT, 2S1W, 2S2W, SST	
VFC	VARIABLE FREQUENCY CONTROLLER W/ FUSED DISCONNECT SWITCH	
VFD	VARIABLE FREQUENCY DRIVE W/ DISCONNECT SWITCH	
M HP	MOTOR: NUMERALS (IF SHOWN) INDICATE HP	
G KW	GENERATOR: NUMERALS (IF SHOWN) INDICATE KW	
$M	MANUAL MOTOR STARTER W/ THERMAL OVERLOADS	
M	MOTOR SWITCH	
	MECHANICAL EQUIPMENT CONNECTION - WITH MOTOR	
	MECHANICAL EQUIPMENT CONNECTION - NO MOTOR	
CP	CONTROL PANEL: TYPE AS INDICATED	
PB	MOMENTARY CONTACT START-STOP PUSHBUTTON STATION	48" TOD
PBM	MAINTAINED CONTACT START-STOP PUSHBUTTON STATION	48" TOD
ES	MAINTAINED CONTACT EMERGENCY STOP PUSHBUTTON STATION	48" TOD
	BRANCH PANELBOARD	90" TOC
	DISTRIBUTION PANELBOARD	
T	TRANSFORMER, CONCRETE PAD MOUNTED	

SYMBOL	DESCRIPTION
	CIRCUIT CONCEALED IN WALLS OR CEILING SPACE: CONDUCTORS SHALL BE MINIMUM 2#12 AWG AND 1#12 AWG GROUND IN 3/4" CONDUIT (UON)
	RACEWAY CONCEALED IN SLAB OR BELOW GRADE
	BRANCH CIRCUIT HOMERUN TO PANELBOARD: QUANTITY OF CIRCUITS INDICATED BY ARROWS NUMBER OF CONDUCTORS SHALL BE MINIMUM 4#12 AWG AND 1#12 AWG GROUND IN 3/4" CONDUIT (UON)
	RACEWAY RUN EXPOSED: CONDUCTORS SHALL BE MINIMUM 2#12 AWG AND 1#12 AWG GROUND IN 3/4" CONDUIT (UON)
	BUS DUCT OR CABLE TRAY "UP" OR "TOWARDS"
	BUS DUCT OR CABLE TRAY "DOWN" OR "AWAY"
	BUS DUCT: TYPE AND SIZE AS INDICATED
	TELEPHONE AND POWER POLE ASSEMBLY
	CONCRETE ENCASED DUCTBANK BELOW GRADE
	MULTI-OUTLET ASSEMBLY: DARK SQUARES INDICATE PREWIRED RECEPTACLE LOCATIONS SIZE AS INDICATED
	CABLE TRAY
	GROUND ROD
	LIGHTNING PROTECTION AIR TERMINAL
G G	GROUND WIRE CONNECTION
G G G	GROUND WIRE
	LIGHTNING PROTECTION DOWN LEAD
	UTILITY POLE

CIRCUIT DESIGNATIONS

LIGHTING A # a
- FIXTURE TYPE
- CIRCUIT DESIGNATION (#12AWG MINIMUM)
- SWITCH DESIGNATION

POWER #
- CIRCUIT DESIGNATION (#12AWG MINIMUM)

ELECTRICAL SYMBOLS NOTES

1. THIS IS A STANDARD SYMBOL LIST. SOME SYMBOLS MAY NOT APPEAR ON THE ACCOMPANYING DRAWINGS.
2. REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.
3. PLAN AND SECTION SYMBOLS MAY ALSO BE USED ON RISER DIAGRAMS.
4. ON SINGLE LINE DIAGRAMS FOR 3 PHASE SYSTEMS, DEVICE QUANTITY = 3, UNLESS OTHERWISE NOTED.
5. DEVICE SHALL BE MOUNTED A MINIMUM OF 90" AFF TO BOTTOM OF DEVICE OR BELOW THE FINISHED CEILING OF NOT LESS THAN 6" TO TOP OF DEVICE, WHICHEVER IS LOWER.
6. UNLESS OTHERWISE NOTED, ALL INTERIOR CONDUITS AND BOXES SHALL BE CONCEALED.

ELECTRICAL ABBREVIATIONS

NOTE: THIS IS A STANDARD ABBREVIATION LIST. SOME ABBREVIATIONS MAY NOT APPEAR ON THE ACCOMPANYING DRAWINGS.

2S1W	2 SPEED SINGLE WINDING
2S2W	2 SPEED DOUBLE WINDING
A, AMP	AMPERE
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINAL GRADE
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CAPACITY
ALT	ALTERNATE
ANN	ANNUNCIATOR
APPROX	APPROXIMATELY
ARCH	ARCHITECT
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
BOD	BOTTOM OF DEVICE
C, CND	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT, CCT	CIRCUIT
CL	CURRENT LIMITING
CLG	CEILING
CONN	CONNECT
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CTR	CENTER
CU, CO	COPPER
CX	CONNECT TO EXISTING
DC	DIRECT CURRENT
DISC	DISCONNECT
DN	DOWN
DP	DISTRIBUTION PANEL
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DT	DOUBLE THROW
DWG	DRAWING
E, EMERG	EMERGENCY
EA	EACH
EC	EMPTY CONDUIT
EF	EXHAUST FAN
EH	ELECTRIC HEATER
ELEC	ELECTRIC
ELEV	ELEVATION, ELEVATOR
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EX	EXISTING
EXP	EXPOSED
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FC	FAN COIL
FDR	FEEDER
FLA	FULL LOAD AMPERES
FLR	FLOOR
FR	FRAME
FU	FUSED, FUSIBLE
FUSS	FUSED SAFETY SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GEN	GENERATOR, GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTED
GFR	GROUND FAULT RELAY
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HEAT PUMP, HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
HZ	HERTZ
IG	ISOLATED GROUND
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KVAR	KILOVOLT AMPERES REACTIVE
KW	KILOWATTS
KWH	KILOWATT HOUR
LA	LIGHTNING ARRESTOR
LC	LIGHTING CONTACTOR
LP	LIGHTING PANEL
LRA	LOCKED ROTOR AMPERES
LTG	LIGHTING
LTNG	LIGHTNING
MATV	MASTER ANTENNA TELEVISION
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MEH	METAL HALIDE
MH	MANHOLE, MOUNTING HEIGHT
MLO	MAIN LUGS ONLY
MSP	MOTOR STARTER PANEL
MTD	MOUNTED
MV	MERCURY VAPOR
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NFSS	NON-FUSED SAFETY SWITCH
NO	NUMBER, NORMALLY OPEN
OC	ON CENTER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OVERHEAD
P	POLE
PB	PUSHBUTTON
PF	POWER FACTOR
PFCC	POWER FACTOR CORRECTION CAPACITOR
PL	PILOT LIGHT
PLC	PROGRAMMABLE LIGHTING CONTROL
PNL	PANEL
PP	POWER PANEL
Pp	PUMP
PR	PAIR
PRN	PRINTER
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
Ø, PH	PHASE
QTY	QUANTITY
RCS	REMOTE CONTROL SWITCH
REC, RECPT	RECEPTACLE
REQ'D	REQUIRED
RFI	RADIO FREQUENCY INTERFERENCE
RGS	RIGID GALVANIZED STEEL
RLA	RUNNING LOAD AMPERES
RM	ROOM
RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
RX	REMOVE EXISTING
SC	SURGE CAPACITOR
SEC	SECONDARY
SN, S/N	SOLID NEUTRAL
SP	SURGE PROTECTION
SPD	SURGE PROTECTION DEVICE
SPDT	SINGLE POLE DOUBLE THROW
SS	SAFETY SWITCH
SST	SOLID STATE
ST	SINGLE THROW
SW	SWITCH
SWBD	SWITCHBOARD
TBR	TO BE REMOVED
TC	TIME CLOCK
TEL, TELE	TELEPHONE
TH	TUNGSTEN HALOGEN
TOC	TOP OF CABINET
TOD	TOP OF DEVICE
TRANS, XFMR	TRANSFORMER
TTB	TELEPHONE TERMINAL BOARD
TW	TWISTED
TYP	TYPICAL
UCB	UNIT CIRCUIT BREAKER
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VOLTS
VFC	VARIABLE FREQUENCY CONTROLLER
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS, WIRE
W/	WITH
WP	WEATHER-PROOF
XP	EXPLOSION PROOF

EQUIPMENT DESIGNATIONS

SYMBOL	DESCRIPTION
SWGR	SWITCHGEAR
SWBD	SWITCHBOARD
PNL	PANELBOARD
MCC	MOTOR CONTROL CENTER
XFMR	TRANSFORMER

ELECTRICAL DRAWING PRESENTATION

SYMBOL	DESCRIPTION
#	REVISION NUMBER
1	DRAWING NOTE NUMBER
XX XX	SECTION/ELEVATION IDENTIFICATION
XX XX	PART PLAN AND DETAIL IDENTIFICATION
	EXISTING LINE TYPE
	NEW ELECTRICAL WORK LINE TYPE
	FUTURE ELECTRICAL WORK LINE TYPE
	DEMOLITION LINE TYPE ON DEMOLITION DRAWINGS

N
True Project
0' 2' 4' 8' 16' 24'

ELECTRICAL SHEET LIST	
Sheet Number	Sheet Name
E001	ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS
E002	ELECTRICAL SINGLE LINE DIAGRAM AND FIRE ALARM MATRIX
E003	FIRE ALARM RISER DIAGRAM & DETAILS
E100	ELECTRICAL SITE PLAN
E101	FIRST FLOOR POWER PLAN
E102	ROOF POWER & LIGHTNING PROTECTION PLAN
E201	FIRST FLOOR LIGHTING PLAN
E301	FIRST FLOOR SPECIAL SYSTEMS PLAN
E401	ELECTRICAL PART PLANS
E501	LIGHTNING PROTECTION DETAILS
E502	ELECTRICAL SITE PLAN DETAILS
E503	EQUIPMENT DETAILS
E504	GROUNDING DETAILS
E505	IT DETAILS
E506	CARD READER DOOR DETAILS
E601	PANEL SCHEDULES

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NORTH CAROLINA PROFESSIONAL SEAL 050656 ENGINEER STEPHEN LEE BEATON

Owner:
BERTIE COUNTY
Windsor Township, North Carolina

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BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026
SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS
Drawing Number:
E001

BID SET

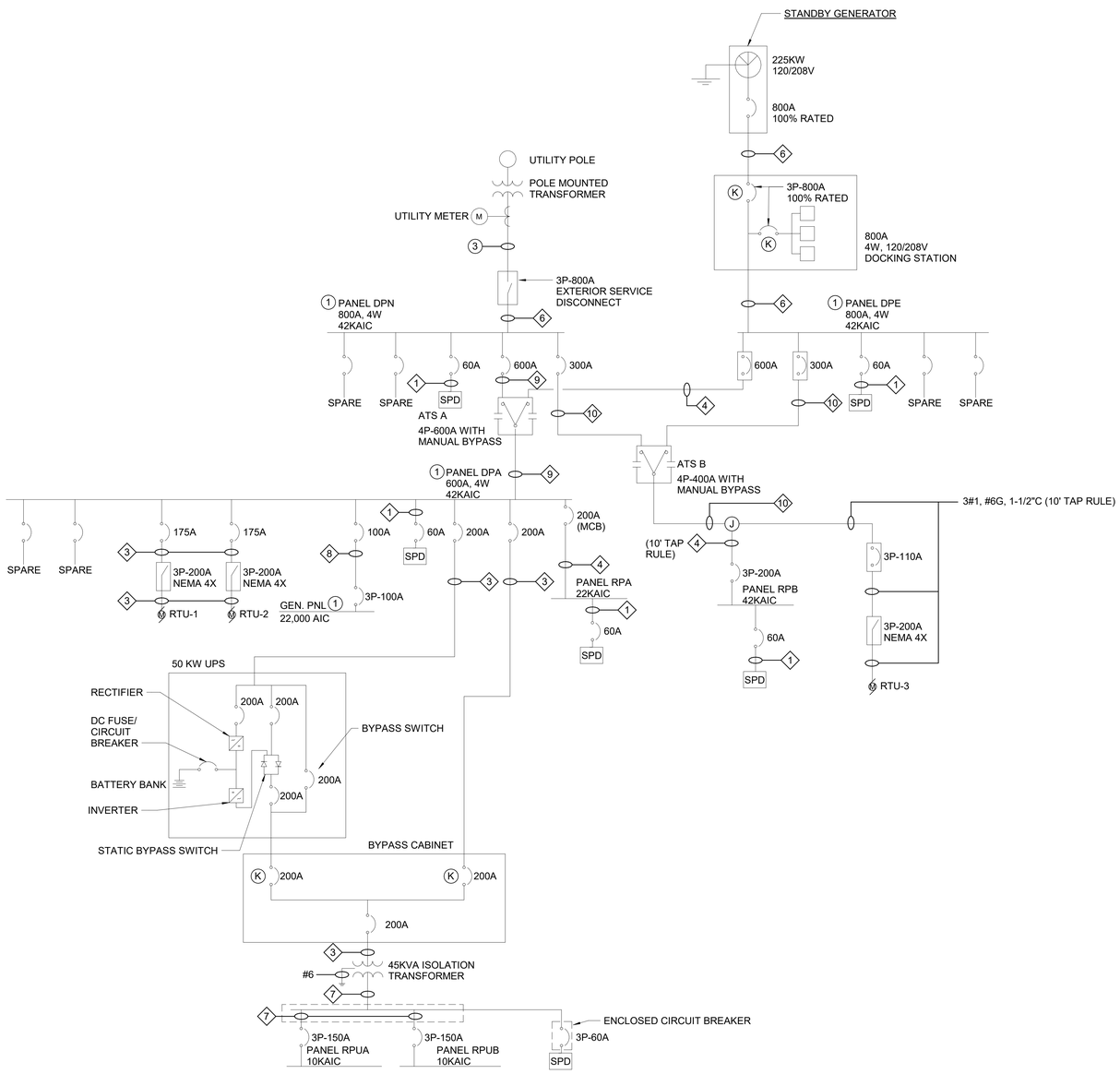
CREATED ON: 5/29/2026 2:44:28 PM

DRAWING NOTES:

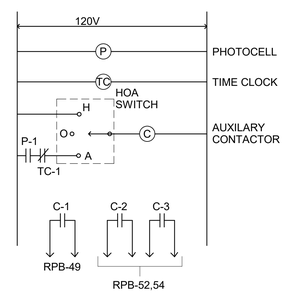
1. A SCHEDULE IS NOT PROVIDED FOR PANEL. PROVIDE PANEL WITH CIRCUIT BREAKERS INDICATED AND SPACE FOR UP TO TWO FUTURE 200A BREAKERS.
2. SPACE FOR UP TO 2: 3P-100A BREAKERS.
3. UTILITY COMPANY SECONDARY CABLING ROUTED IN 2: 3" CONDUIT. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT

FEEDER SCHEDULE

#	DESIGNATION	BREAKER SIZES	# WIRES	FEEDER SIZES
1		3P-60A	4	4#6, #10G, 1-1/4"C.
2		3P-80A	4	4#4, #8G, 1-1/4"C.
3		3P-200A	3	3#3/0, #6G, 2"C.
4		3P-200A	4	4#3/0, #6G, 2-1/2"C.
5		3P-400A	4	4#500KCM, #3G, 3-1/2"C.
6		3P-800A	4	2 SETS (4#600MCM), #1G, 4"C.
7		3P-150A	4	4#1/0, #6G, 2"C.
8		3P-100A	4	4#3, #8G, 1-1/4"C.
9		3P-600A	4	2 SETS (4#350MCM), #1G, 4"C.
10		3P-300A	4	4#350MCM, #4G, 3"C.



ELECTRICAL SINGLE LINE DIAGRAM
SCALE: N.T.S.



CONTROL DIAGRAM - EXTERIOR LIGHTING
SCALE: N.T.S.

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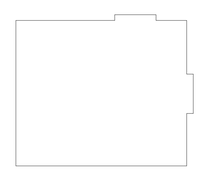
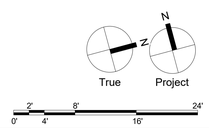
SG PROJECT NUMBER: 24-011

Key Plan:



Drawing Title:
ELECTRICAL SINGLE LINE DIAGRAM AND FIRE ALARM MATRIX

Drawing Number:
E002



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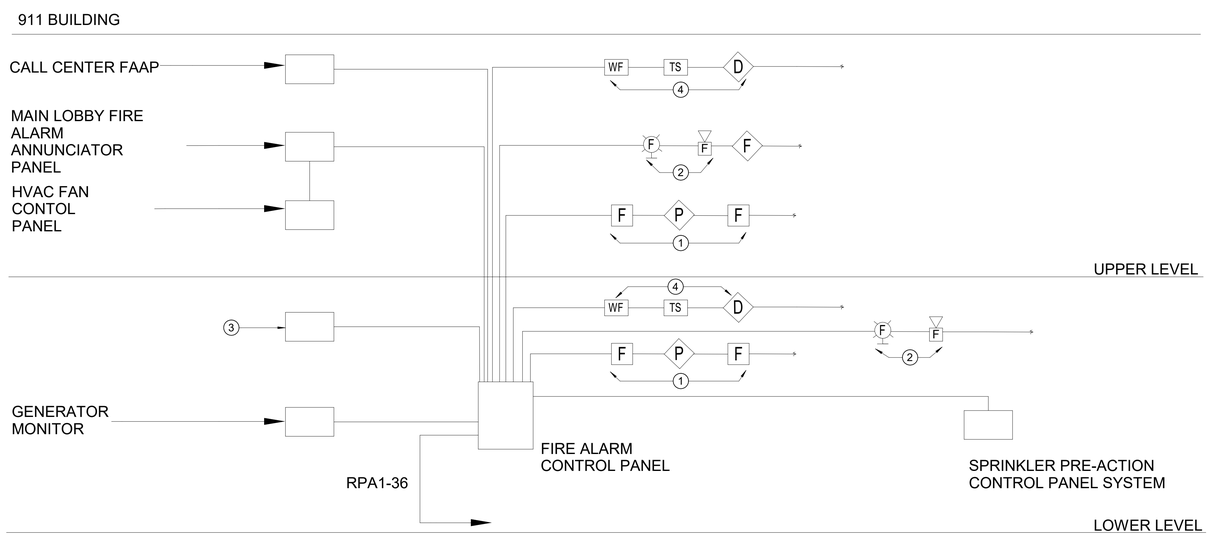
FIRE ALARM OPERATIONAL MATRIX

		CONTROL UNIT ANNUNCIATION							NOTIFICATION										FIRE SAFETY CONTROL			
	FIRE ALARM SYSTEM DEVICE/INPUT	A ACTIVATE COMMON ALARM SIGNAL INDICATOR	B ACTIVATE VOICE/VISUAL ALARM SIGNAL	C ACTIVATE AUTOMATIC SPRINKLER SYSTEM ELECTRIC BELL	D ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR	E ACTIVATE COMMON SUPERVISORY SIGNAL	F ACTIVATE AUDIBLE COMMON SUPERVISORY SIGNAL	G DISPLAY INDIVIDUAL INPUT DEVICE BY TYPE, ADDRESS AND DESCRIPTIVE LOCATION	H SHUTDOWN POWER TO ELEVATOR	I TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION	J TRANSMIT TROUBLE TO SUPERVISING STATION	K STATION	L ELEVATOR RECALL	M ACTIVATE SMOKE DAMPER CLOSURE CIRCUIT	N SHUT DOWN AIR HANDLING EQUIPMENT	O RELEASE ELECTRONICALLY SECURED EGRESS AND EXIT DOORS	P MANUAL ON/OFF CONTROL	Q SHUT SMOKE DAMPER	R .			
	MANUAL FIRE ALARM STATION																					
1	MANUAL FIRE ALARM STATION ACTIVATION (ANY LEVEL)	X	X					X		X				X		X	X					
	SPRINKLER SYSTEM																					
2	SPRINKLER WATERFLOW ACTIVATION (ANY SWITCH)	X		X				X		X						X	X					
3	SPRINKLER VALVE TAMPER ACTIVATION (ANY SWITCH)				X		X	X									X					
	AREA DETECTOR																					
4	AREA SMOKE DETECTOR ACTIVATION	X	X					X		X						X	X					
5	ELEVATOR LOBBY OR SHAFT SMOKE DETECTOR	X	X					X		X			X	X	X	X	X		X			
6	ELEVATOR SHAFT OR MACHINE ROOM HEAT DETECTOR	X	X					X	X	X			X	X	X	X	X					
	DUCT DETECTOR																					
7	DUCT SMOKE DETECTORS IN AHU						X	X			X				X		X					
8	DUCT DETECTOR IN TRANSFER GRILL						X	X			X						X	X				
	PRE-ACTION SYSTEM																					
9	PRE-ACTION SYSTEM ALARM	X	X					X		X	X						X					
	FIRE ALARM TROUBLES																					
10	FIRE ALARM SYSTEM GROUND FAULT (ANYWHERE ON SYSTEM)					X	X	X			X						X					
11	FIRE ALARM SYSTEM SHORT CIRCUIT (ANY CIRCUIT)					X	X	X			X						X					
12	FIRE ALARM SYSTEM OPEN CIRCUIT (ANY CIRCUIT)					X	X	X			X						X					
13	FIRE ALARM SYSTEM BATERY FAIL (ANY PANEL)					X	X	X			X						X					
14	PRIMARY FIRE ALARM A/C POWER FAILURE (ANY PANEL					X	X	X			X						X					
15	COMMUNICATION FAULT WITH ANY ADDRESSABLE SYSTEM DEVICE					X	X	X			X						X					
16	FIRE ALARM NETWORK DATA/DIGITAL AUDIO COMMUNICATION FAULT					X	X	X			X						X					
17	LOCAL FACP PANEL TROUBLE					X	X	X			X						X					
18	INTELLIGENT ADDRESSABLE DEVICE INTERNAL TROUBLE					X	X	X			X						X					
19	FIRE / SMOKE DAMPER IN OFF NORMAL POSITION					X	X	X			X						X					
20	FIRE / SMOKE DAMPER LOSES 24VDC POWER					X	X	X			X						X					
21	PRE-ACTIVATION SYSTEM - PRE ALARM					X	X	X			X						X					
22	GENERATOR RUNNING					X	X	X			X						X					
23	GENERATOR FAULT/MALFUNCTION					X	X	X			X						X					
24	BUILDING EMERGENCY POWER					X	X	X			X						X					
25	DOAS-1					X	X	X		X	X						X					
26	DOAS-2					X	X	X		X	X						X					
27	DOAS-3					X	X	X		X	X						X					
28	DOAS-4					X	X	X		X	X						X					
	ANCILLARY BUILDING: ALL ALARM AND SUPERVISED SIGNALS TO BE MONITORED AS A COMMON SUPERVISORY SIGNAL																					



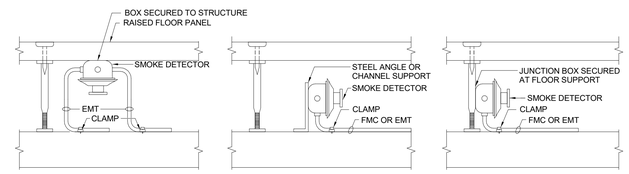
FIRE ALARM RISER DIAGRAM
SCALE: N.T.S.

GENERAL FIRE ALARM NOTES:

1. COORDINATE EXACT AMOUNT AND LOCATION OF ALL WATER FLOW AND TAMPER SWITCHES WITH SPRINKLER SHOP DRAWINGS.
2. COORDINATE EXACT LOCATION OF CEILING SPEAKERS AND WALL MOUNTED DEVICES WITH OTHER EQUIPMENT IN CEILING AND WALL.
3. FIRE ALARM VENDOR TO INCLUDE DEVICES TO PROVIDE COMPLETE COVERAGE OF BUILDING AND NOT LIMITED TO DEVICES SHOWN.

DRAWING NOTES:

1. FIRE ALARM INITIATING DEVICES. REFER TO FLOOR PLANS FOR NUMBER OF DEVICES.
2. FIRE ALARM AUDIBLE/NOTIFICATION APPLIANCES. REFER TO FLOOR PLANS FOR NUMBER OF DEVICES.
3. FIRE ALARM (DACT) DIGITAL ALARM COMMUNICATIONS TRANSMITTER.
4. FIRE ALARM SUPERVISORY DEVICES. REFER TO FLOOR PLANS FOR NUMBER OF DEVICES.



1 **DETAIL - UNDERFLOOR SMOKE DETECTOR**
SCALE: N.T.S.

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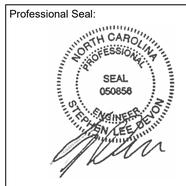

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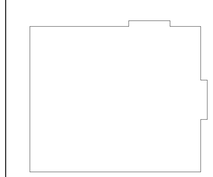
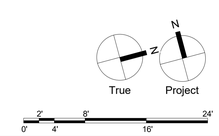


Drawing Title:
FIRE ALARM RISER DIAGRAM & DETAILS

Drawing Number:
E003



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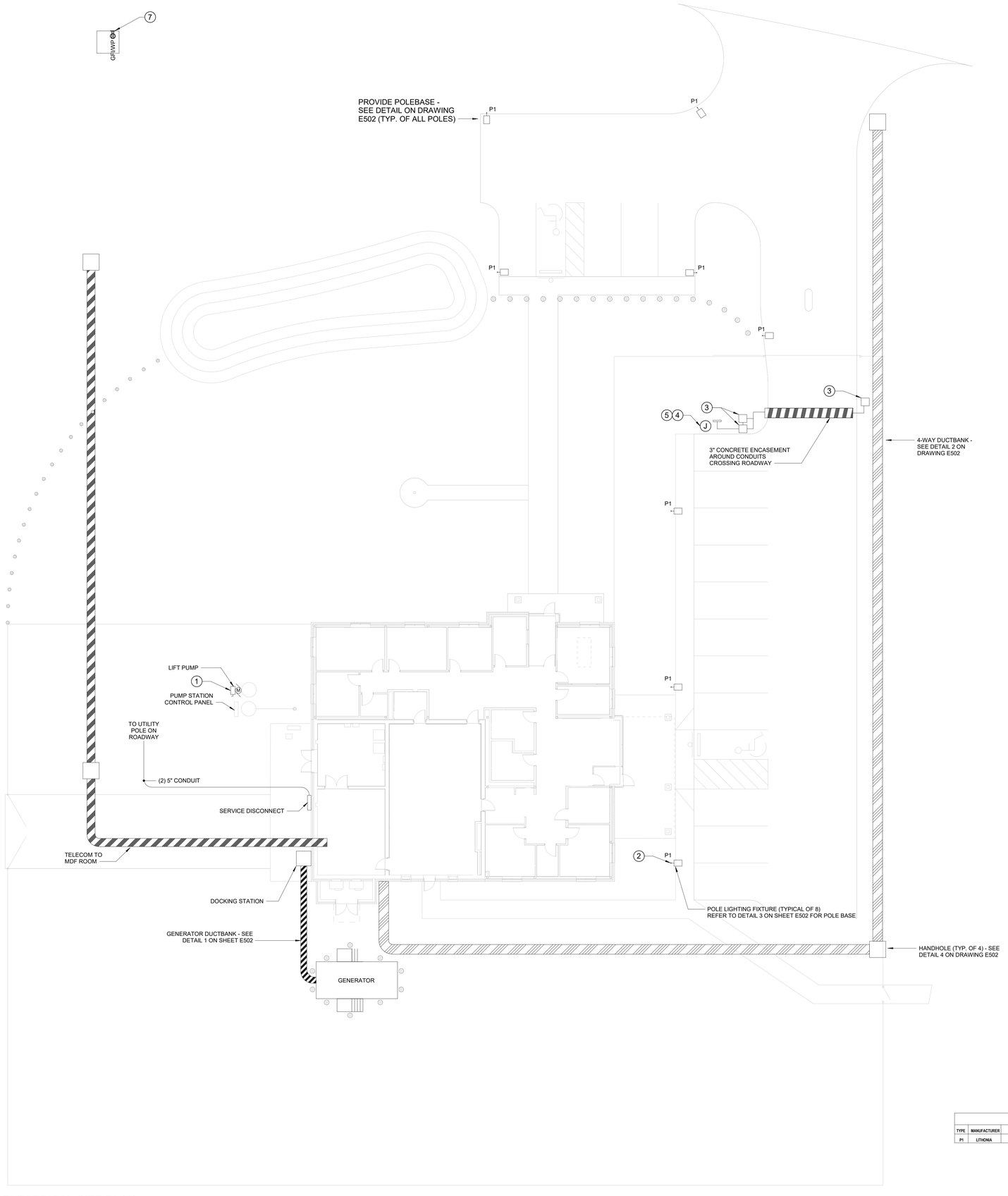


ELECTRICAL SITE PLAN

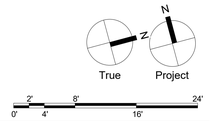
SCALE: 3/32" = 1'-0"

DRAWING NOTES:

1. PROVIDE A 2 POLE NON-FUSED SAFETY DISCONNECT SWITCH IN A NEMA 3R ENCLOSRUE. EXTEND AND CONNECT TO PANEL RPA-25,27. PROVIDE ONE (1) ADDITIONAL 1" CONDUIT BACK TO COMMUNICATIONS ROOM 108 FOR SIGNAL WIRE.
2. EXTEND AND CONNECT TO PANEL RPB CKT #52, 54. (TYP OF 8)
3. PEDESTAL FOR GATE CONTROL - PROVIDE PEDESTAL FOR CARD READER AND SPEAKER PER VENDOR REQUIREMENTS. EXTEND 3:CAT6A CABLES - ONE FOR EACH CARD READER AND CAMERA. CABLES SHALL BE OSP RATED
4. PROVIDE WEATHER SEALED JUNCTION BOX FOR POWER FOR GATE. EXTEND AND CONNECT TO PNL RPA-29.
5. SEE GATE GROUNDING DETAIL 1 ON DRAWING E504.
6. EXTEND EMERGENCY DUCTBANK UNDERGROUND TO PANEL RPE.
7. PROVIDE A GFI 20A RECEPTACLE MOUNTED IN A WEATHERPROOF ENCLOSURE. CONNECT TO PNL RPA-31. PROVIDE HANDHOLES AS REQUIRED TO INSTALL CIRCUITING.

SITE LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL NUMBER	DESCRIPTION	VOLTAGE	WATTAGE	LAMP/TEMP	LUMENS	MOUNT	COMMENTS
P1	LITHONIA	RSX2 P3 4000K R3 M VOLT SPA DBLXD	OUTDOOR LIGHTING ROADWAY LED	208	147W	LED 4000K	19,785	25'	-



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Structural Engineer

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153 East King Street, Suite 211-212
Lancaster, PA 17602
717.299.8965

Professional Seal:

Owner:

BERTIE COUNTY

Windsor Township, North Carolina

New Construction of:

BERTIE COUNTY 911 CENTER

216 County Farm Road, Windsor, NC 27983

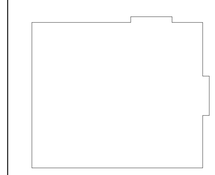
ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:



Drawing Title:

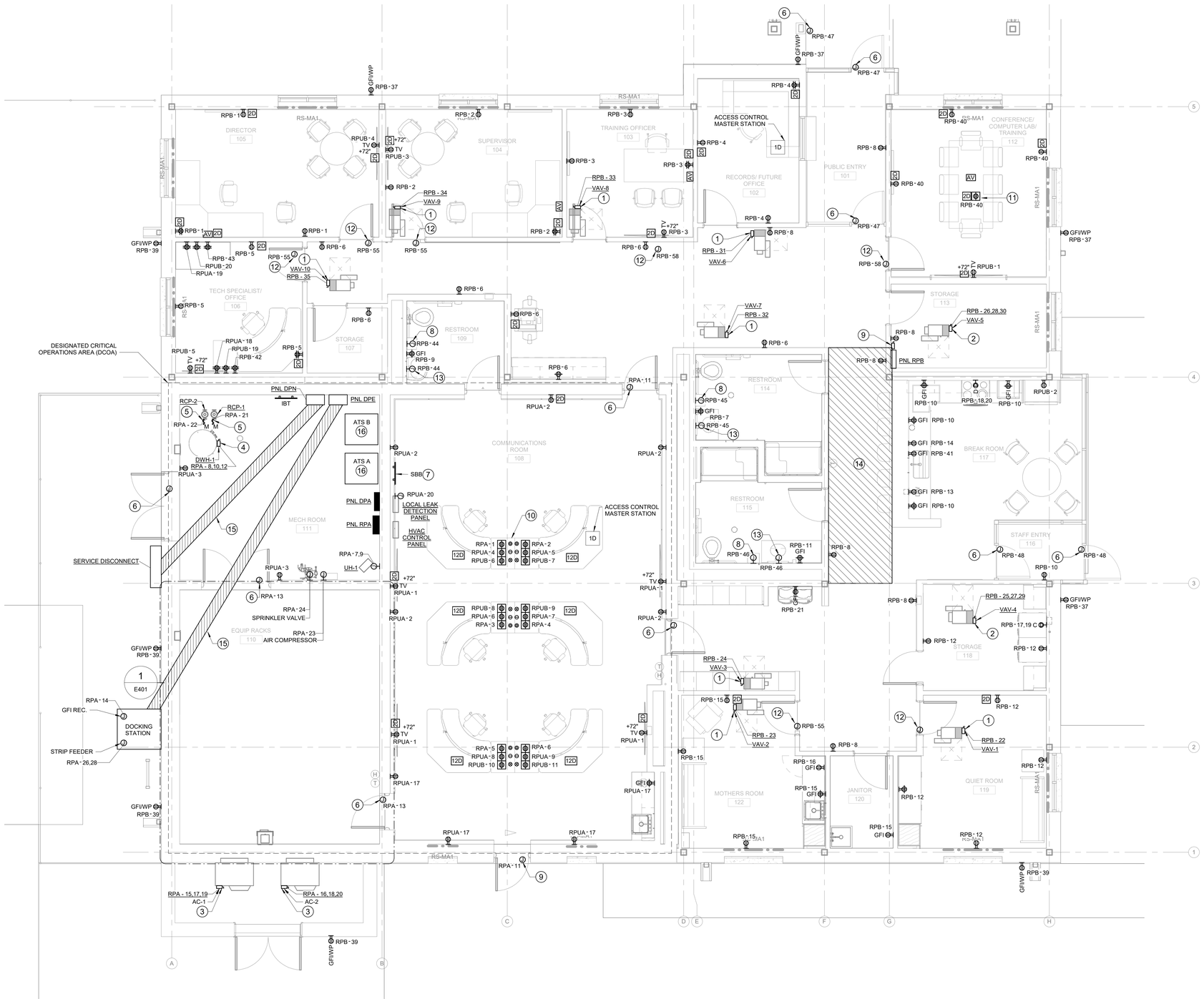
ELECTRICAL SITE PLAN

Drawing Number:

E100

CREATED ON: 5/29/2026 2:44:29 PM

BID SET



FIRST FLOOR POWER PLAN

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

GENERAL NOTES - POWER - NEW WORK

1. COORDINATE EXACT RECEPTACLE MOUNTING HEIGHTS AND LOCATIONS FOR ALL EQUIPMENT WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
2. COORDINATE EXACT A/V MOUNTING HEIGHTS AND LOCATIONS FOR ALL EQUIPMENT WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
3. ALL WIRING LOCATED IN OPEN CEILING SPACES SHALL BE RUN IN CONDUIT WITH COMPRESSION STYLE FITTINGS.
4. FOR ALL EMPTY CONDUIT, PROVIDE PULL STRING WITH MINIMUM 200LB TENSILE STRENGTH.
5. LABEL ALL EMPTY CONDUITS AT BOTH ENDS, DENOTING LOCATION OF OPPOSITE END. THE ENDS SHALL BE PROPERLY SEALED.
6. WHERE ROOF PENETRATIONS OCCUR, ROOF SHALL BE REPAIRED AS NECESSARY TO MAINTAIN ROOF WARRANTY.
7. FOR ALL TELE/DATA/PHONE OUTLETS, DOORBELL, DOOR RELEASE, AND CARD READERS/KEY PADS LOCATED ON WALLS PROVIDE BACK BOX WITH 1-1/4" CONDUIT TO CABLE TRAY. CONDUIT SHALL BOND TO THE CABLE TRAY. COORDINATE EXACT LOCATION AND INFRASTRUCTURE REQUIREMENTS WITH LOW VOLTAGE CONTRACTOR PRIOR TO PURCHASE AND INSTALLATION.
8. COORDINATE ALL CEILING MOUNTED DEVICES WITH ALL OTHER TRADES AND CEILING MOUNTED DEVICES. ADDITIONAL DEVICES SHALL BE PROVIDED AS NECESSARY TO ACCOMMODATE OTHER DEVICES AND MAINTAIN NECESSARY COVERAGE.
9. ALL FOIL SHIELDING SHALL BE GROUNDED BY #6 GROUND AND CONNECTED TO BUILDING STEEL AND/OR BUILDING GROUNDING SYSTEM. REFER TO ARCHITECTURAL DRAWINGS FOR FOIL SHIELDING LOCATIONS.
10. ALL RECEPTACLES CONNECT TO UPS WIRING SHALL BE BLUE. ALL POWER AND SPECIAL OUTLETS TO HAVE STAINLESS STEEL COVER PLATES
11. ALL WORK TO COMPLY WITHIN THE DCOA TO COMPLY WITH NEC SECTION 708.
12. ALL WORK IN THE DCOA TO COMPLY WITH APPLICABLE CODES, INCLUDING NEC 708. ALL POWER WIRING, LIGHTING WIRING, HVAC WIRING, FIRE ALARM WIRING AND OTHER WIRING PER CODE TO BE ROUTED IN 2 HOUR RATED RACEWAYS.
13. SEE IT DEVICE SCHEDULE ON DRAWING E505 FOR ADDITIONAL INFORMATION.
14. CONTRACTOR HAS OPTION TO ROUTE CONDUIT RUNS UNDER SLAB. TRANSITION TO IMC BY USING AN IMC ELBOW.

DRAWING NOTES:

1. PROVIDE A 1 POLE 30 AMP NON-FUSED DISCONNECT IN A NEMA 1 CONTAINER. EXTEND AND CONNECT TO PANEL RPB.
2. PROVIDE A 3 POLE 30 AMP NON-FUSED DISCONNECT IN A NEMA 1 CONTAINER. EXTEND AND CONNECT TO PANEL RPB.
3. PROVIDE A 3 POLE 60 AMP NON-FUSED DISCONNECT IN A NEMA 3R CONTAINER. EXTEND AND CONNECT TO PANEL RPA.
4. PROVIDE A 3 POLE 100 AMP NON-FUSED DISCONNECT IN A NEMA 1 CONTAINER. EXTEND AND CONNECT TO PANEL RPA.
5. PROVIDE A 1 POLE MANUAL MOTOR STARTER WITH THERMAL OVERLOADS IN A NEMA 1 ENCLOSURE. EXTEND AND CONNECT TO PANEL RPB.
6. PROVIDE JUNCTION BOX FOR UTILIZATION WITH DOOR OPERATOR.
7. GROUND BUS BAR TO BE LOCATED BENEATH RAISED FLOOR.
8. PROVIDE JUNCTION BOX FOR UTILIZATION WITH HAND DRYER.
9. ENCLOSED CIRCUIT BREAKER FOR RTU-3. SEE SINGLE LINE DIAGRAM ON DRAWING E002 FOR MORE INFORMATION.
10. SEE DETAIL #1 ON DRAWING E503 FOR WORKSTATION POWER CONFIGURATION.
11. COMBINATION FLOOR BOX AND IT OUTLET WITH 1.25" CONDUIT EXTENDED TO DESIGNATED PARTITION FOR STUB UP TO ACCESSIBLE CEILING FOR POWER AND AV.
12. JUNCTION BOX FOR POWER OF SMOKE DAMPER. INTERCONNECT WITH DUCT DETECTION.
13. PROVIDE JUNCTION BOX FOR BACKLIT MIRROR. REFER TO ARCHITECTURAL PACKAGE FOR MORE INFORMATION.
14. DO NOT ROUTE ANY CONDUITS ACROOS OPEN CEILING.
15. 4-WAY DUCTBANK - SEE DETAIL 2 ON E502.
16. PROVIDE 4" HIGH CONCRETE HOUSEKEEPING PADS UNDER ATS.

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Professional Seal:

NORTH CAROLINA PROFESSIONAL SEAL 050656 ENGINEER STEPHEN LEE BEYON

Owner:
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Windsor Township, North Carolina

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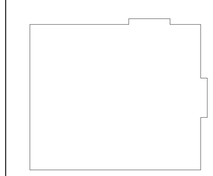
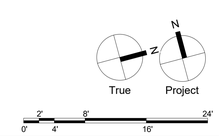


Drawing Title:
FIRST FLOOR POWER PLAN

Drawing Number:
E101



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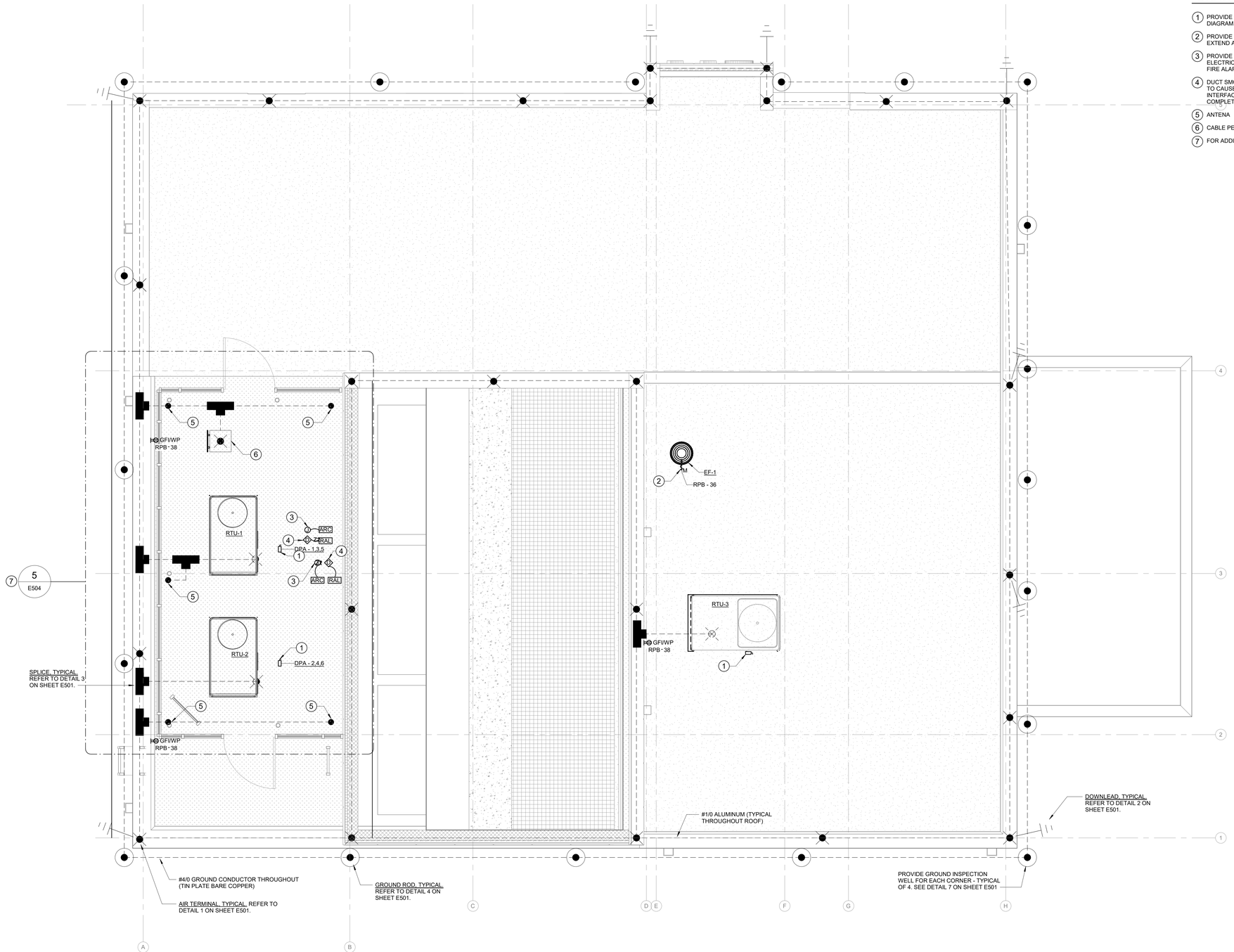
GENERAL NOTES - POWER - NEW WORK

1. WHERE ROOF PENETRATIONS OCCUR, ROOF SHALL BE REPAIRED AS NECESSARY TO MAINTAIN ROOF WARRANTY.
2. CONTRACTOR SHALL BE UL OWAY AND LPI MASTER INSTALLER AND THE SYSTEM SHALL BE DESIGNED BY AN LPI CERTIFIED DESIGNER.

DRAWING NOTES:

1. PROVIDE A 3 POLE 200 AMP NON-FUSED DISCONNECT IN A NEMA 3R ENCLOSURE. REFER TO SINGLE LINE DIAGRAM FOR MORE INFORMATION.
2. PROVIDE A 1 POLE MANUAL MOTOR STARTER WITH THERMAL OVERLOADS IN A NEMA 3R ENCLOSURE. EXTEND AND CONNECT TO PANEL RPB.
3. PROVIDE FIRE ALARM RELAY MODULE AND ELECTRICAL CONNECTION TO SMOKE DAMPER. THE ELECTRICAL CONNECTIONS SHALL BE CIRCUITED TO PANEL RPB, CIRCUIT 55. PROVIDE INTERFACE WITH FIRE ALARM SYSTEM AS NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM.
4. DUCT SMOKE DETECTOR SHALL BE CONNECTED TO FIRE ALARM SYSTEM. DETECTOR SHALL BE WIRED TO CAUSE THE RESPECTIVE RTU SERVING THE RESPECTIVE AREA TO SHUT DOWN. PROVIDE RELAYS ON INTERFACE WITH MECHANICAL EQUIPMENT AND FIRE ALARM SYSTEM AS NECESSARY TO OBTAIN A COMPLETE AND FUNCTIONAL SYSTEM.
5. ANTENA
6. CABLE PENETRATES BOX (DOGHOUSE).
7. FOR ADDITIONAL WORK WITHIN SCREEN AREAS, SEE PARTIAL PLAN 5 ON DRAWING E504.



ROOF POWER & LIGHTNING PROTECTION PLAN

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

Consultants:

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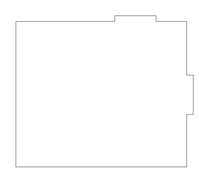
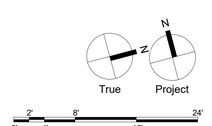


Drawing Title:

ROOF POWER & LIGHTNING PROTECTION PLAN

Drawing Number:

E102



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Lighting Fixture Schedule								
DESIGNATION	Description	Manufacturer	Model	Voltage 1	Total Watts	Initial Color Temperature	MOUNTING	REMARKS
D1	4.5X4.5 TRIMLESS, EXTERIOR SOFFIT	FOCAL POINT	FLC44D-ST-SW-1500L-120-LD1-IC-OD-LC44AT-35K-DN-WFL-WH	<varies>	19	3500 K	RECESSED	
D1E	4.5X4.5 TRIMLESS, EXTERIOR SOFFIT - EMERGENCY	FOCAL POINT	FLC44D-ST-SW-1500L-120-LD1-IC-EM-OD-LC44AT-35K-DN-WFL-WH	120	19	3500 K	RECESSED	
D2	4" DOWNLIGHT	GOTHAM	IVO4S-D-10LM-35K-80CRI-MWD-MVOLT	120	11	3500 K	RECESSED	
E1	EMERGENCY WALL PACK	WILLIAMS	EMER/LED-WHT-D	120	2		WALL	
N1	LINEAR STRIPLIGHT	WILLIAMS	76R-4-L30/835-DIM-UNV	120	20	3500 K	SURFACE	
R1	2x4 TROFFER	WILLIAMS	PT-24-L49/835-RA-DIM-UNV	120	37	3500 K	RECESSED	
S1A	4' LED FIXTURE	MARK	SL6L-LOP-4FT-FLP-FL-80CRI-35K-600LMF-2DL-S80CRI-S35K-MIN1-1-20-ZT	120	24	3500 K	RECESSED	
S1B	10' LED FIXTURE	MARK	SL6L-LOP-10FT-FLP-FL-80CRI-35K-600LMF-2DL-S80CRI-S35K-MIN1-120-ZT	120	60	3500 K	RECESSED	
S2	2" X 8' RECTANGULAR LIGHTING FIXTURE	MARK	S1DPDMP-RPP-8FT-490C-90CRI-35K-1000LMF-SCT-MIN1-FLL-MVOLT-WHTT-ZT-F1/-72A-RDCY-BLKCY-WCRD	120	32	3500 K	PENDANT	
S5	2" X 4' RECTANGULAR LIGHTING FIXTURE	MARK	S1DPDMP-RPP-4FT-490C-90CRI-35K-600LMF-SCT-MIN1-FLL-MVOLT-WHTT-ZT-F1/-72A-RDCY-BLKCY-WCRD	120	16	3500 K	PENDANT	
W2	EXTERIOR WALL PACK	LITHONIA	ARC1 LED-P2-40K-MVOLT-DBLXD	120	17	3500 K	WALL	
W2E	EXTERIOR WALL PACK - EMERGENCY	LITHONIA	ARC1 LED-P2-40K-MVOLT-E4WH-DBLXD	120	17	3500 K	WALL	
X1	EXIT SIGN WITH INTEGRAL BATTERY	LITHONIA	LE S* R EL N SD	120	1		WALL/CEILING	

GENERAL NOTES - LIGHTING - NEW WORK

1. REFER TO ARCHITECTURAL CEILING PLAN FOR EXACT LOCATION OF LIGHTING FIXTURES. IN CASE OF CONFLICT IN FIXTURE QUANTITY OR LOCATION, PROVIDE PRICING FOR WHICHEVER QUANTITY IS GREATER.
2. ALL WIRING LOCATED IN OPEN CEILING SPACES SHALL BE RUN IN CONDUIT WITH COMPRESSION STYLE FITTINGS.
3. COORDINATE ALL CEILING MOUNTED DEVICES WITH ALL OTHER TRADES AND CEILING MOUNTED DEVICES. ADDITIONAL DEVICES SHALL BE PROVIDED AS NECESSARY TO ACCOMMODATE OTHER CEILING MOUNTED DEVICES AND MAINTAIN NECESSARY COVERAGE.
4. ALL SURFACE MOUNTED CONDUIT EXPOSED WITHIN FINISHED AREA SHALL BE PAINTED TO MATCH SURROUNDING WALL COLOR.

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

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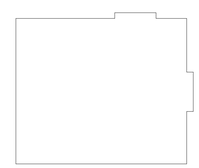
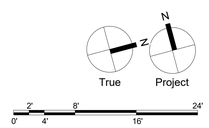


Drawing Title:
FIRST FLOOR LIGHTING PLAN

Drawing Number:
E201



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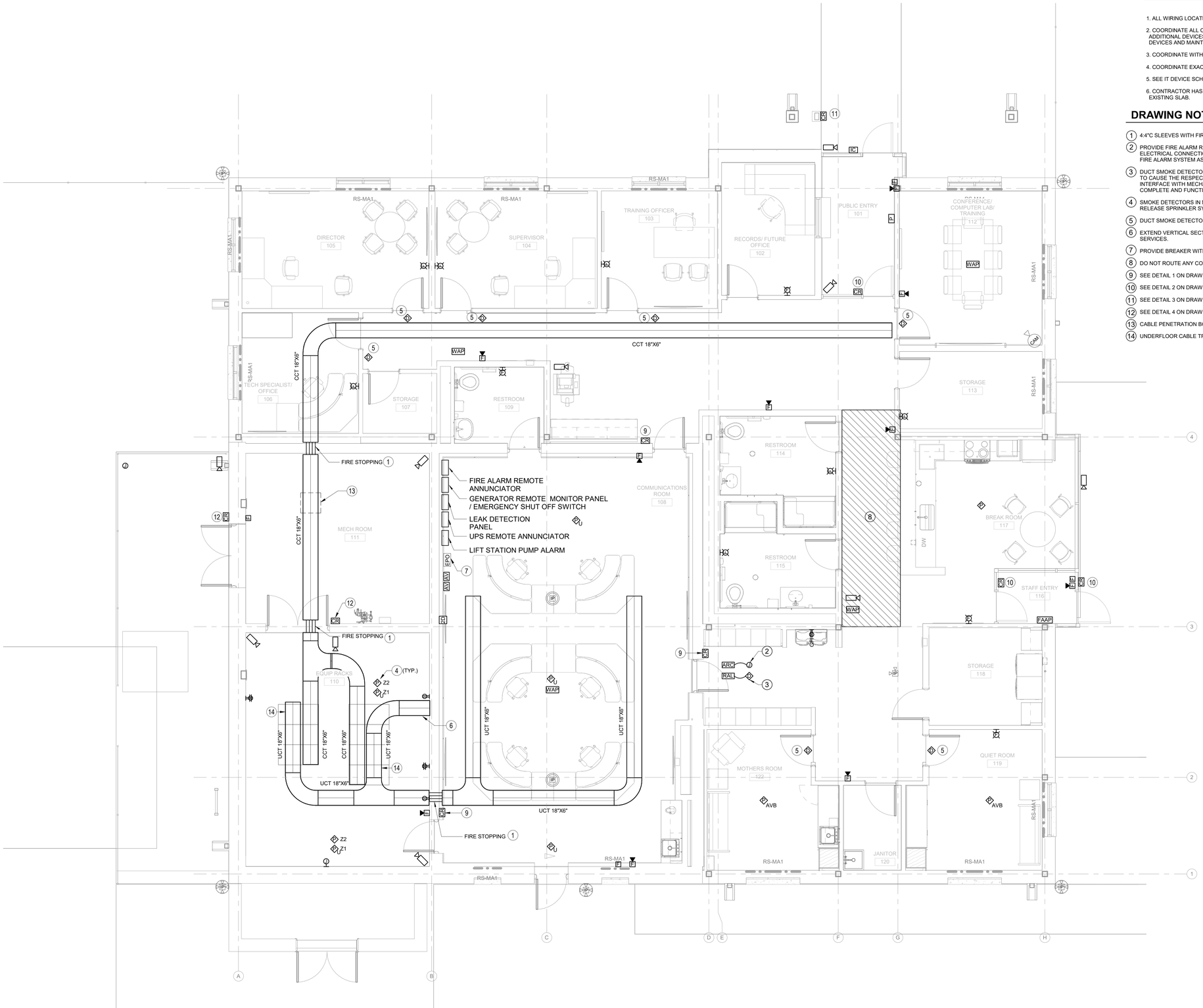

FIRST FLOOR SPECIAL SYSTEMS PLAN

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

GENERAL NOTES - SPECIAL SYSTEMS - NEW WORK

1. ALL WIRING LOCATED IN OPEN CEILING SPACES SHALL BE RUN IN CONDUIT.
2. COORDINATE ALL CEILING MOUNTED DEVICES WITH ALL OTHER TRADES AND CEILING MOUNTED DEVICES. ADDITIONAL DEVICES SHALL BE PROVIDED AS NECESSARY TO ACCOMMODATE OTHER CEILING MOUNTED DEVICES AND MAINTAIN NECESSARY COVERAGE.
3. COORDINATE WITH ARCHITECTURAL DRAWING FOR CEILING LOCATIONS.
4. COORDINATE EXACT MOUNTING HEIGHTS IN FIELD BEFORE FINAL ROUGH IN.
5. SEE IT DEVICE SCHEDULE ON DRAWING E505 FOR ADDITIONAL INFORMATION.
6. CONTRACTOR HAS OPTION TO ROUTE CONDUIT RUNS UNDER SLAB. TRANSITION TO METAL CONDUIT EXISTING SLAB.

DRAWING NOTES:

1. 4:4"C SLEEVES WITH FIRE STOPPING
2. PROVIDE FIRE ALARM RELAY MODULE AND ELECTRICAL CONNECTION TO SMOKE DAMPER. THE ELECTRICAL CONNECTIONS SHALL BE CIRCUITED TO PANEL RPB, CIRCUIT 53. PROVIDE INTERFACE WITH FIRE ALARM SYSTEM AS NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM.
3. DUCT SMOKE DETECTOR SHALL BE CONNECTED TO FIRE ALARM SYSTEM. DETECTOR SHALL BE WIRED TO CAUSE THE RESPECTIVE RTU SERVING THE RESPECTIVE AREA TO SHUT DOWN. PROVIDE RELAYS ON INTERFACE WITH MECHANICAL EQUIPMENT AND FIRE ALARM SYSTEM AS NECESSARY TO OBTAIN A COMPLETE AND FUNCTIONAL SYSTEM.
4. SMOKE DETECTORS IN MDF ROOM TO BE CROSS ZONE. ACTIVATION OF BOTH ZONES TO ACTIVATE PRE-RELEASE SPRINKLER SYSTEM.
5. DUCT SMOKE DETECTOR FOR CONTROL OF SMOKE DAMPER.
6. EXTEND VERTICAL SECTION FOR CABLE TRAY DOWN TO FLOOR DOWN TO DUCTBANK WITH INCOMING SERVICES.
7. PROVIDE BREAKER WITH SHUNT TRIP AND CONNECT TO EPO.
8. DO NOT ROUTE ANY CONDUIT ACROSS OPEN CEILING.
9. SEE DETAIL 1 ON DRAWING E506.
10. SEE DETAIL 2 ON DRAWING E506.
11. SEE DETAIL 3 ON DRAWING E506.
12. SEE DETAIL 4 ON DRAWING E506.
13. CABLE PENETRATION BOX DIRECTLY ABOVE CABLE TRAY.
14. UNDERFLOOR CABLE TRAY SHALL ALIGN WITH CEILING CABLE TRAY ON THE BACK OF THE RACK.

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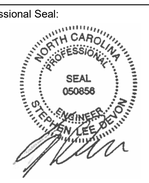

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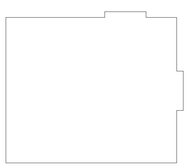
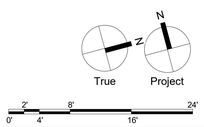


Drawing Title:

FIRST FLOOR SPECIAL SYSTEMS PLAN

Drawing Number:

E301



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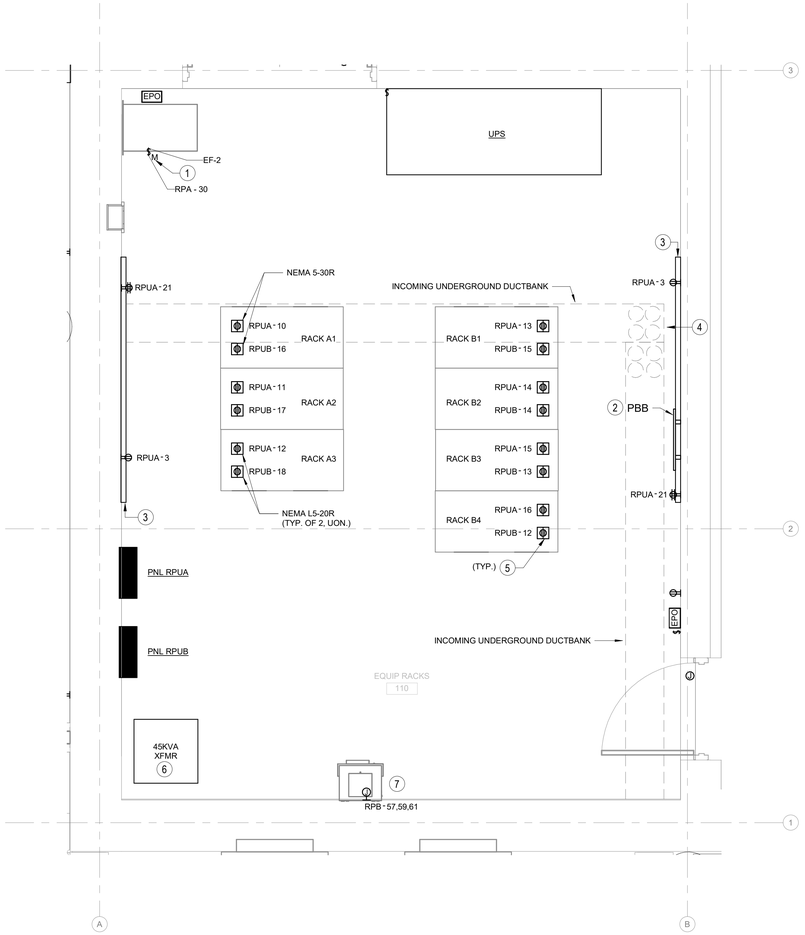


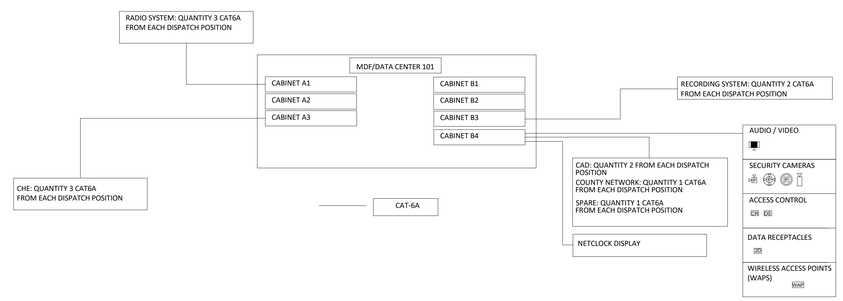
1 E101 **ELECTRICAL PART PLAN - EQUIP RACKS**
SCALE: 1/2" = 1'-0"

GENERAL NOTES:

1. PROVIDE GROMMETS FOR LOW VOLTAGE AND POWER CONNECTIONS UNDER RACKS. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.

DRAWING NOTES:

1. PROVIDE A 1 POLE MANUAL MOTOR STARTER WITH THERMAL OVERLOADS IN A NEMA 1 ENCLOSURE. EXTEND AND CONNECT TO PANEL RPB.
2. GROUND BUS BAR TO BE MOUNTED 18" ABOVE RAISED FLOOR.
3. PROVIDE 3/4" FIRE RATED PLYWOOD UP TO 6" ABOVE RAISED FLOOR - BOTH SIDES.
4. PROVIDE VERTICAL SECTION OF CABLE TRAY FROM OVERHEAD TRAY DOWN TO RAISED FLOOR.
5. MOUNT RECEPTACLE TO THE VERTICAL FACE OF RACK.
6. PROVIDE STEEL FRAME TO SUPPORT TRANSFORMER FROM SLAB BELOW. AC EDGE PDU USED ON RECEPTACLES FOR RACP.
7. PROVIDE 3-POLE NON-FUSED DISCONNECT FOR HUMIDIFIER H-1



SINGLE LINE - EQUIPMENT RACKS
SCALE: N.T.S.

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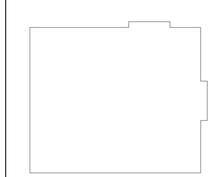
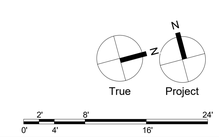


Drawing Title:
ELECTRICAL PART PLANS

Drawing Number:
E401



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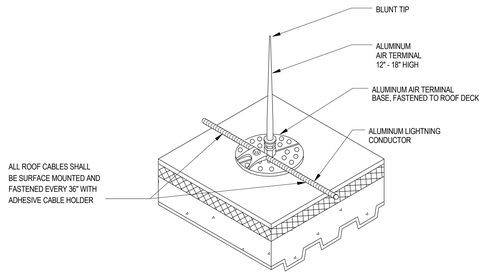
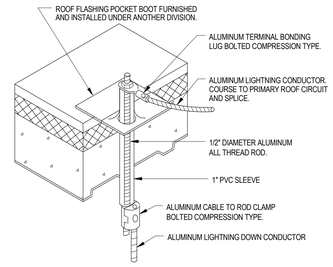
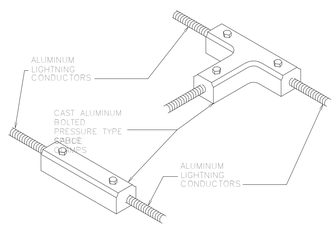


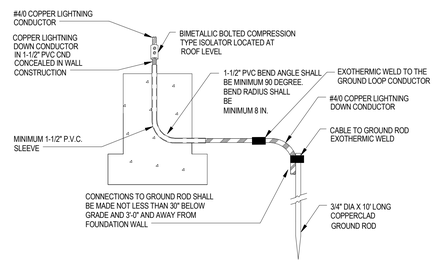
1 **DETAIL - FLAT SURFACE AIR TERMINAL MOUNTING**
SCALE: N.T.S.
NOTE: LIGHTING CONDUCTOR AND AIR TERMINAL TO BE CLASS II



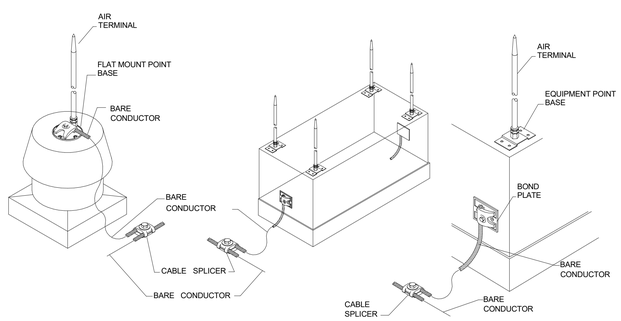
2 **DETAIL - LIGHTING CONDUCTOR DOWN LEAD ROOF PENETRATION**
SCALE: N.T.S.



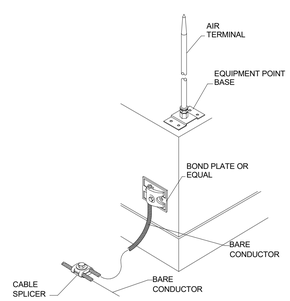
3 **DETAIL - LIGHTNING PROTECTION TYPICAL SPLICE**
SCALE: N.T.S.
NOTE: ALL SPLICES AND FITTINGS TO BE CLASS II



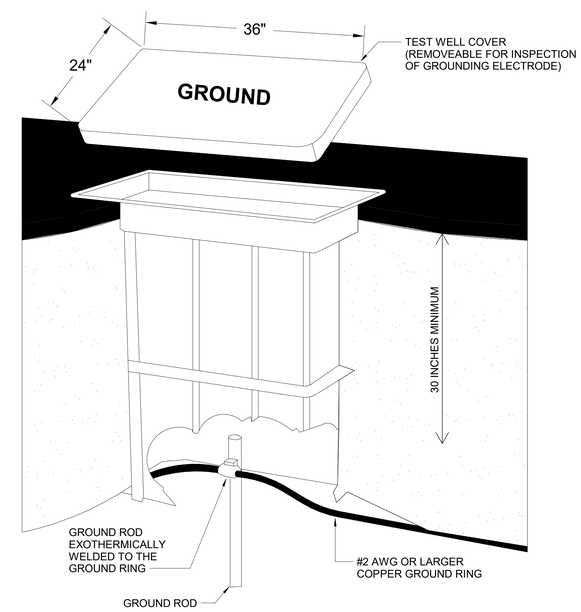
4 **DETAIL - DOWN LEAD TO GROUND CONNECTION**
SCALE: N.T.S.



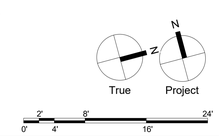
6 **DETAIL - ROOFTOP MECHANICAL METALLIC EQUIPMENT BONDING**
SCALE: N.T.S.



5 **DETAIL - ROOFTOP EQUIPMENT BONDING**
SCALE: N.T.S.



7 **DETAIL - GROUND INSPECTION WELL**
SCALE: N.T.S.
NOTE: MUST BE MOTOROLA R56 STANDARDS.



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ISSUED FOR:

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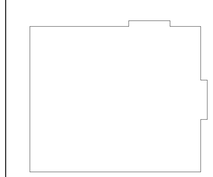
DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

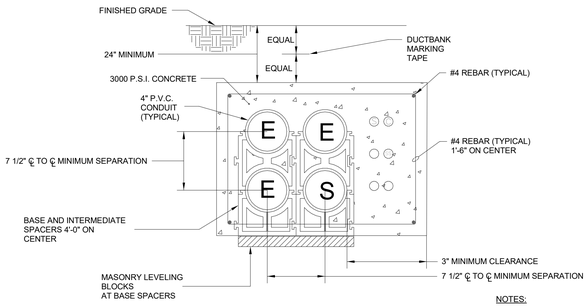
Key Plan:



Drawing Title:
LIGHTNING PROTECTION DETAILS

Drawing Number:
E501

CREATED ON: 5/29/2026 2:44:42 PM

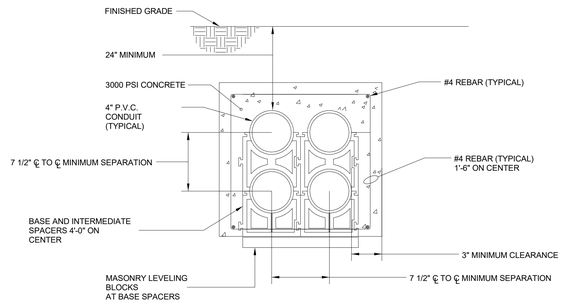


NOTE: REBAR REQUIRED UNDER ROADWAYS ONLY

NOTES:

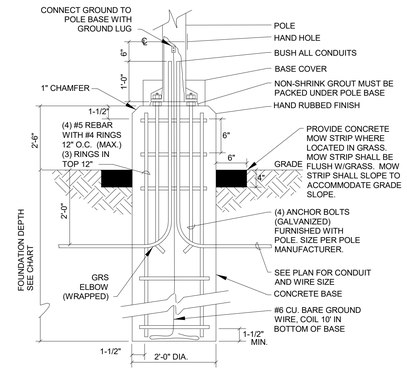
P - PANELBOARD 1 1/2"C
S - SPARE 1"C
C - CONTROL WIRING 1 1/4"C

1 **DETAIL - 4-WAY GENERATOR DUCTBANK**
SCALE: N.T.S.



NOTE: REBAR REQUIRED UNDER ROADWAYS ONLY

2 **DETAIL - 4-WAY DUCTBANK CONCRETE ENCASED**
SCALE: N.T.S.



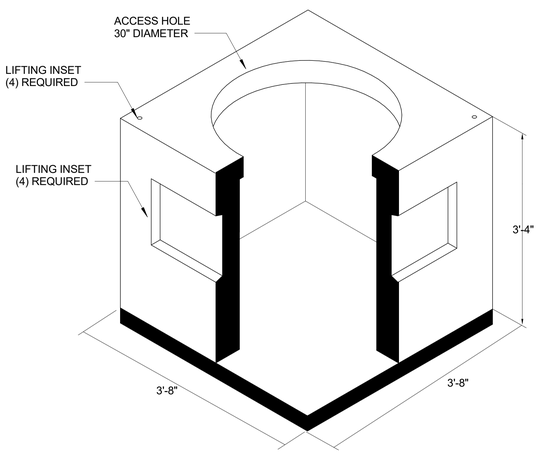
POLE FOUNDATION DEPTH

POLE HEIGHT	2'-6" ABOVE GRADE
12'	4'
16'	4'-6"
20'	5'
25'	5'-6"
30'	6'
35'	6'-6"
40'	7'

NOTES:

1. ALL FOUNDATIONS ARE 24" IN DIAMETER UNLESS NOTED OTHERWISE.
2. THE SITE MAY CONTAIN SANDY OR OTHER UNSTABLE SOIL. THE GENERAL CONTRACTOR SHALL PROVIDE AN EXACT POLE FOUNDATION THAT IS DESIGNED, SIGNED, AND SEALED BY A.S.C. LICENSED STRUCTURAL ENGINEER. GC IS TO REVIEW AND COORDINATE WITH THE GEOTECHNICAL INVESTIGATION REPORT.
3. NO. 2 AWG BARE TIN-PLATED COPPER, ATTACH TO GROUND RING, IF WITHIN 10-FEET OF THE RING.

3 **DETAIL - LIGHTING POLE FOUNDATION (PARKING)**
SCALE: N.T.S.



4 **DETAIL - HANDHOLE**
SCALE: N.T.S.
NOTE: HANDHOLE AND LID TO MEET H20 LOAD. LID TO BE BOLTED ON.

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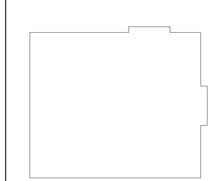
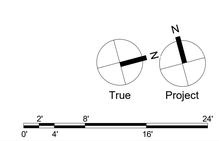
Key Plan:



Drawing Title:
ELECTRICAL SITE PLAN DETAILS

Drawing Number:
E502



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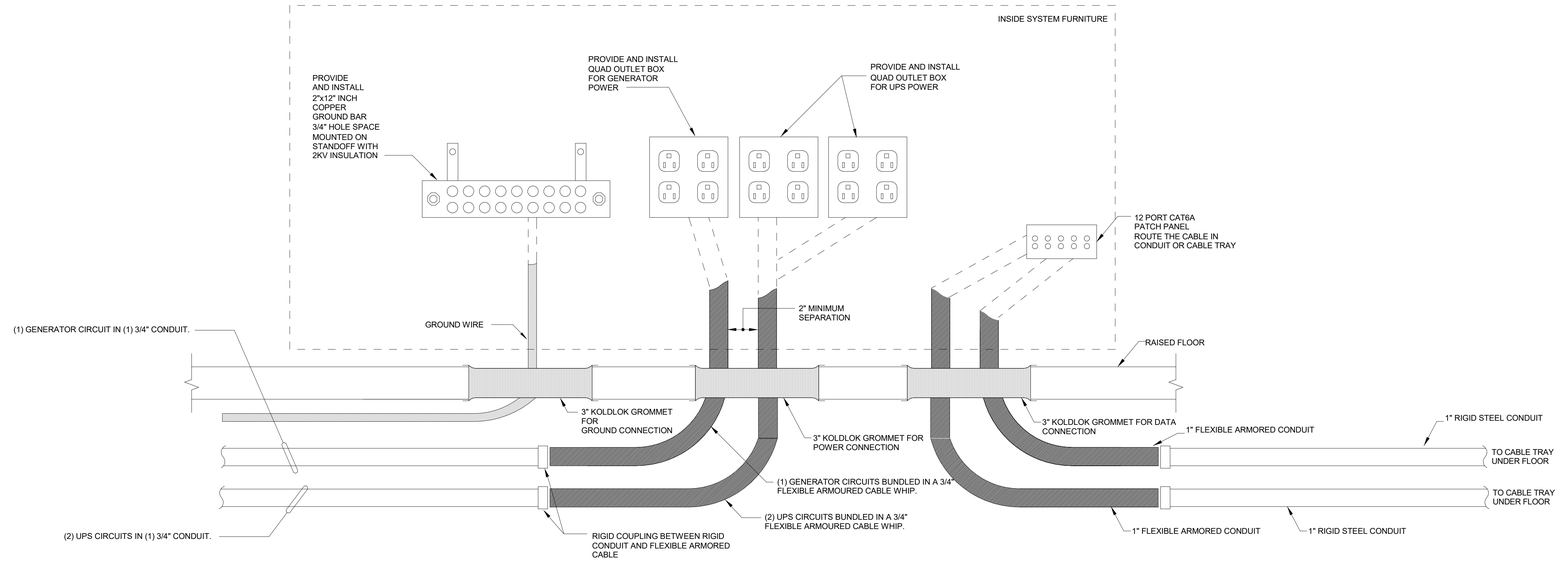
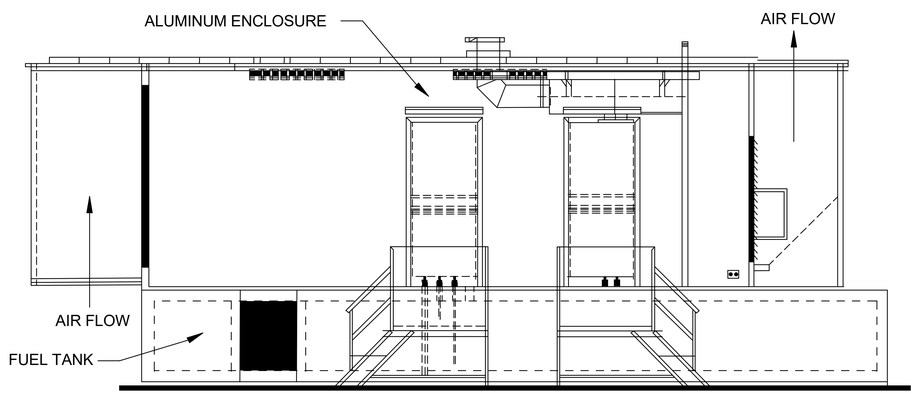


1 **DETAIL -WORKSTATION POWER CONENCTIONS**
SCALE: N.T.S.



2 **DETAIL - GENERATOR HOUSING**
SCALE: N.T.S.

NOTES:

1. GENERATOR SUPPLIER TO PROVIDE STAIRS AND PLATFORM FOR ALL ACCESS DOORS.

2. HOUSING TO HAVE A 72dB RATING AT 23 FEET.

3. GENERATOR TO HAVE A 120/208V, 4W, 100A PANELBOARD WITH MAIN CIRCUIT BREAKER. ALL ACCESSORIES AND BRANCH CIRCUIT CONNECTS TO BE BY GENERATOR SUPPLIER. PANELBOARD CLEARANCE TO MEET HEC REQUIREMENTS.

4. GENERATOR TO HAVE INTERIOR LED LIGHT, GFI RECEPTACLE, BATTERY CHARGER, JACKET WATER HEATER, AND ALL OTHER REQUIRED ACCESSORIES PREWIRED AND IN CONDUIT.

5. GENERATOR TO HAVE 122F AMBIENT RADIATOR SYSTEM.

6. SKID TANK SIZED FOR A MINIMUM OF 72 HOURS RUN TIME AT FULL LOAD, PLUS CAPACITY PER HIPA10. TANK SHALL BE SIZED FOR A LEVEL 1 GENERATOR PER NFPA 110.

7. BOND GENERATOR, SKID AND HOUSING TO GROUNDING SYSTEM.

8. HOUSING TO MEET ICC 500 AND MINIMUM 200 MPH WINDS.

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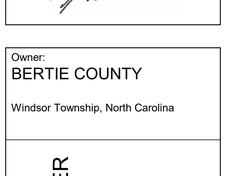
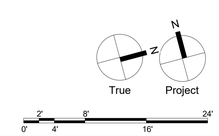


Drawing Title:
EQUIPMENT DETAILS

Drawing Number:
E503



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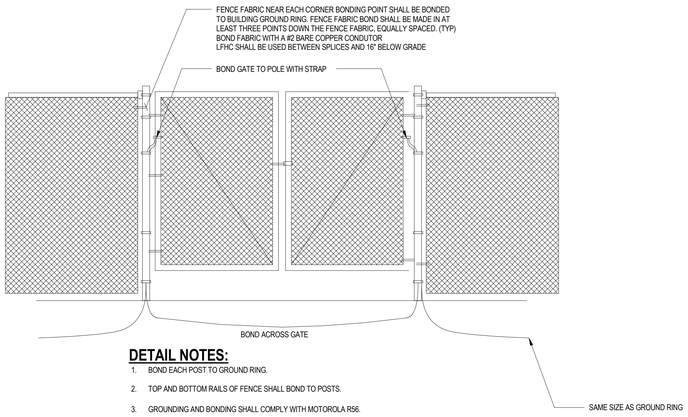
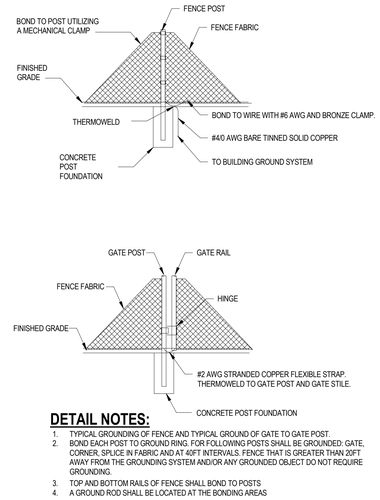


DETAIL NOTES:

1. BOND EACH POST TO GROUND RING.
2. TOP AND BOTTOM RAILS OF FENCE SHALL BOND TO POSTS.
3. GROUNDING AND BONDING SHALL COMPLY WITH MOTOROLA R56.

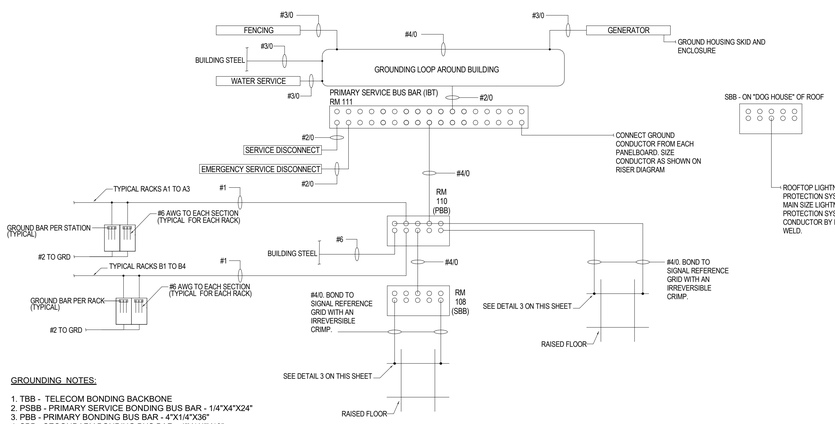
1 DETAIL - GATE GROUNDING
SCALE: N.T.S.



DETAIL NOTES:

1. TYPICAL GROUNDING OF FENCE AND TYPICAL GROUND OF GATE TO GATE POST.
2. BOND EACH POST TO GROUND RING. FOR FOLLOWING POSTS SHALL BE GROUNDED: GATE, CORNER, SPLICE IN FABRIC AND AT 40FT INTERVALS. FENCE THAT IS GREATER THAN 20FT AWAY FROM THE GROUNDING SYSTEM AND/OR ANY GROUNDED OBJECT DO NOT REQUIRE GROUNDING.
3. TOP AND BOTTOM RAILS OF FENCE SHALL BOND TO POSTS
4. A GROUND ROD SHALL BE LOCATED AT THE BONDING AREAS

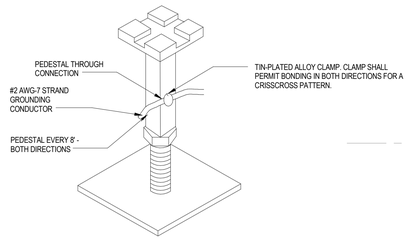
2 DETAIL - FENCE GROUNDING
SCALE: N.T.S.



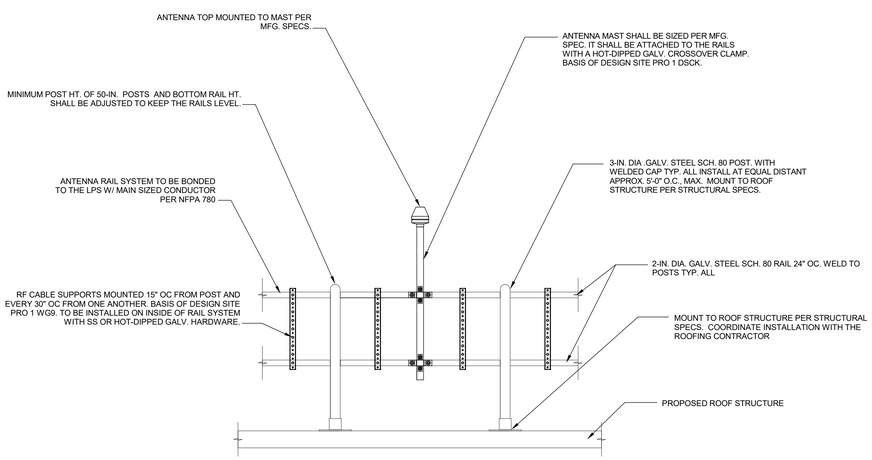
GROUNDING NOTES:

1. TBB - TELECOM BONDING BACKBONE
2. PSBB - PRIMARY SERVICE BONDING BUS BAR - 1/4"X4"X24"
3. PBB - PRIMARY BONDING BUS BAR - 4"X1/4"X36"
4. SBB - SECONDARY BONDING BUS BAR - 4"X1/4"X18"
5. ALL CONDUCTORS TO BE COPPER EXCEPT ROOF MOUNTED AND ASSOCIATED WITH LIGHTNING PROTECTION SYSTEM
6. ANTENNA'S ON ROOF TO BE GROUNDED TO LIGHTING PROTECTION CONDUCTOR AND AS REQUIRED BY MOTOROLA R56

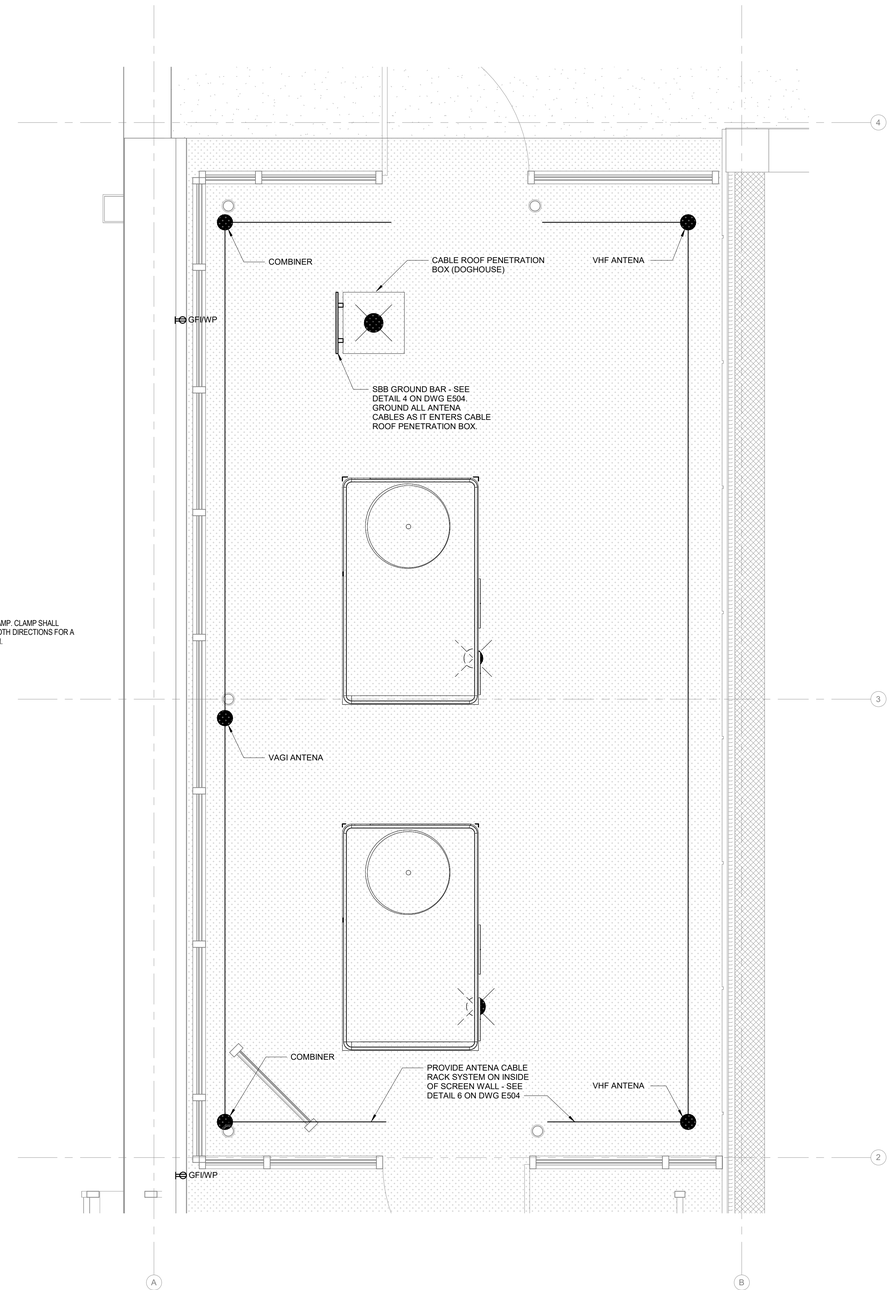
4 DETAIL - GROUNDING
SCALE: N.T.S.



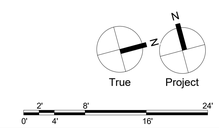
3 DETAIL - RAISED FLOOR GROUNDING
SCALE: N.T.S.



6 DETAIL - ROOF MOUNTED ANTENNA RAIL SYSTEM
SCALE: N.T.S.



5 ROOF POWER & LIGHTNING PROTECTION PLAN - Callout 1
E102
SCALE: 1/2" = 1'-0"



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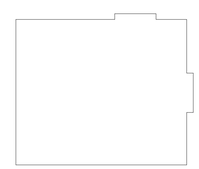


Drawing Title:

GROUNDING DETAILS

Drawing Number:

E504

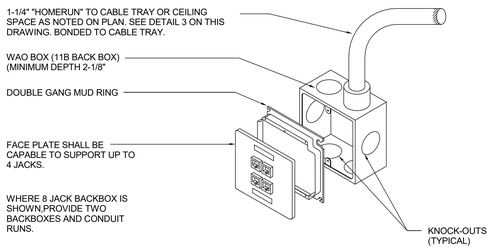
CREATED ON: 5/29/2026 2:44:43 PM

DRAWING NOTES:

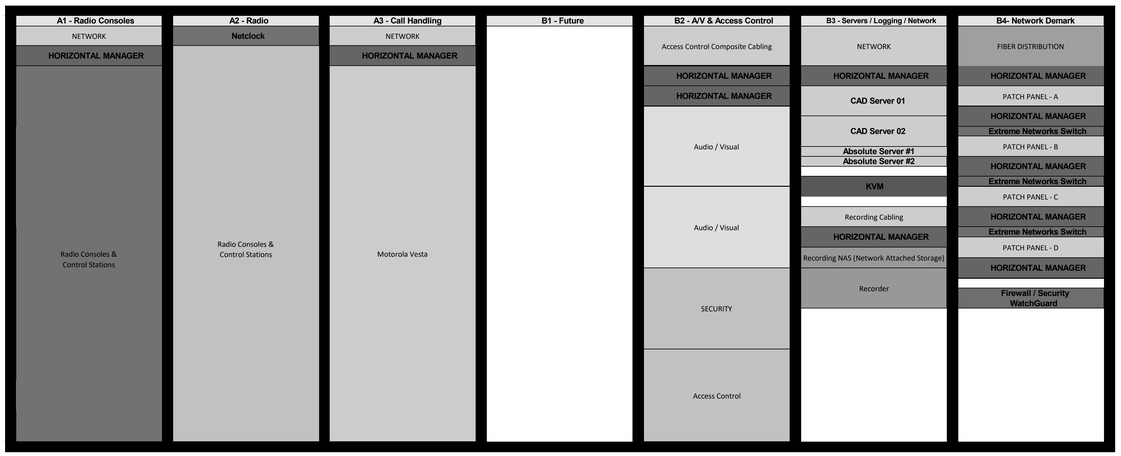
1. SEE DETAIL 1 ON DRAWING E505
2. SEE DETAIL 1 ON E503
3. COORDINATE WITH ARCHITECT

IT DEVICE SCHEDULE

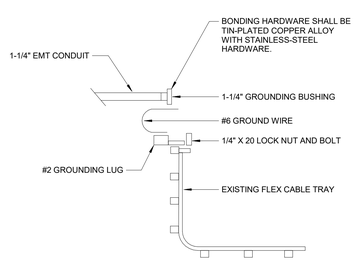
SYMBOL	CONDUIT SIZE	WIRING	OUTLETS	MOUNTING	BACKBOX
D IP	1-1/4"	CAT6A	RJ45	CEILING	1
D IP PC	1-1/4"	CAT6A	RJ45	CEILING	1
IP	1-1/4"	CAT6A	RJ45	CEILING	1
	1-1/4"	CAT6A	RJ45	CEILING	1
CAM	1-1/4"	USB TO VTC DISPLAY	RJ45	CEILING	1
WAP	1-1/4"	2:CAT6A	2:RJ45	CEILING	1
	1-1/4"	HDMI	RJ45	WALL 18"	1
AV	1-1/6"	CAT6A	RJ45	WALL 18"	1
CR	1-1/4"	CAT6A	RJ45	WALL 44"	1
AV	1-1/4"	2:CAT6A	2:RJ45	WALL 54"	1
	1-1/4"	2:CAT6A	2:RJ45	WALL 18"	1
1D	1-1/4"	CAT6A	RJ45	3	1
2D	1-1/4"	2:CAT6A	2:RJ45	WALL 18"	1
12D	CABLE TRAY/ CONDUIT	12:CAT6A	TERMINATE ON STRIP		2
IC	1-1/4"	CAT6A	RJ11	WALL 48"	1



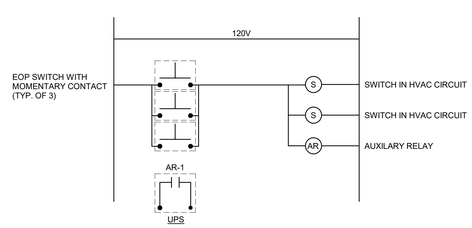
1 **DETAIL - STANDARD WORK AREA OUTLET**
SCALE: N.T.S.



2 **DETAIL - IT RACK LAYOUT**
SCALE: N.T.S.
NOTE: PROVIDE TWO VERTICAL PDU'S PER RACK AND RATED FOR CIRCUITS INDICATED ON PLAN. EATON BASIC PDU OR EQUAL.



3 **DETAIL - BONDING CONDUIT TO CABLE TRAY**
SCALE: N.T.S.



4 **WIRING DIAGRAM - EPO SWITCH**
SCALE: N.T.S.

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BERTIE COUNTY

Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

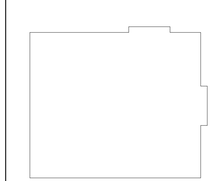
ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026

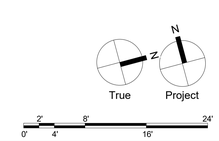
SG PROJECT NUMBER: 24-011

Key Plan:



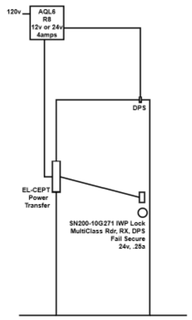
Drawing Title:
IT DETAILS

Drawing Number:
E505

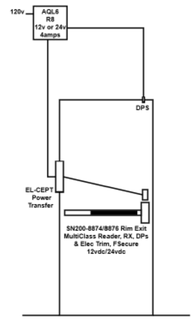


BID SET

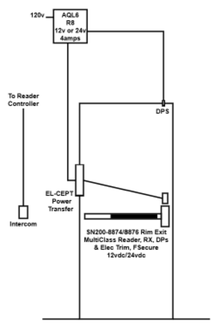
CREATED ON: 5/29/2026 2:44:43 PM



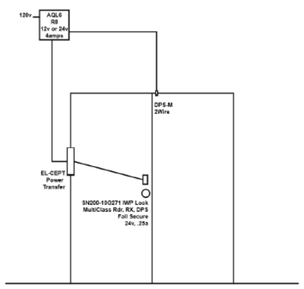
1 **DETAIL - CARD READER I**
SCALE: N.T.S.



2 **DETAIL - CARD READER II**
SCALE: N.T.S.



3 **DETAIL - CARD READER III**
SCALE: N.T.S.



4 **DETAIL - CARD READER IV**
SCALE: N.T.S.

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
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Consultants:

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License No. C-1652
Contact: Kim Hamby, PE

MEP:
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Raleigh, NC 27317
919.941.9876

Structural Engineer
SCHRADERGROUP
153 East King Street, Suite 211-212
Lancaster, PA 17602
717.299.8965

Professional Seal:

Owner:
BERTIE COUNTY

Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER

216 County Farm Road, Windsor, NC
27983

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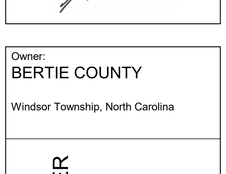
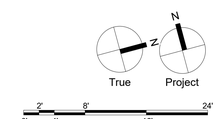
Key Plan:



Drawing Title:
CARD READER DOOR DETAILS

Drawing Number:
E506



BID SET

CREATED ON: 5/29/2026 2:44:43 PM

PANELBOARD: RPA

LOCATION:
MOUNTING: Surface
ENCL NEMA: Type 1
MIN AIC: 42,000 AIC

(1) **MAINS:** MCB 200
VOLTS: 208/120 Wye
PHASE: 3
WIRES: 4

AMPS: 200

PANEL NOTES:
PROVIDE GROUND BUS
PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE

WIRE SIZE	LOAD DESCRIPTION	P	TRIP AMPS	TYPE	CKT	A		B		C		CKT	TYPE	TRIP AMPS	P	LOAD DESCRIPTION	WIRE SIZE
2#12, #12G, 3/4"C	REC 108 WORK STATION	1	20 A		1	0.18	0.18					2		20 A	1	REC 108 WORK STATION	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC 108 WORK STATION	1	20 A		3			0.18	0.18			4		20 A	1	REC 108 WORK STATION	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC 108 WORK STATION	1	20 A		5					0.18	0.18	6		20 A	1	REC 108 WORK STATION	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	ELECTRIC UNIT HEATER	2	20 A		7	1.50	7.67					8		80 A	3	WATER HEATER	3#3, #8G, 1-1/4"C
					9			1.50	7.67			10					
2#12, #12G, 3/4"C	COMM RM 108 DOOR...	1	20 A		11					0.36	7.67	12					
2#12, #12G, 3/4"C	MECH & EQUIP RM DR...	1	20 A		13	0.54	0.00					14		20 A	1	DOCKING STATION REC.	
3#6, #10G, 3/4"C	AC-1	3	60 A	ST	15			3.77	3.77			16	ST	60 A	3	AC-2	3#6, #10G, 3/4"C
					17					3.77	3.77	18					
					19	3.77	3.77					20					
2#12, #12G, 3/4"C	RCP-1	1	20 A		21			1.18	1.18			22		20 A	1	RCP-2	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	AIR COMPRESSOR	1	20 A		23					0.18	0.18	24		20 A	1	SPRINKLER VALVE	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	SEWAGE PUMP	2	20 A		25	0.94	1.50					26		20 A	2	DOCKING STATION STRIP FEEDER	2#12, #12G, 3/4"C
					27			0.94	1.50			28					
2#8, #8G, 1"C	PARKING GATE	1	20 A		29					0.00	0.46	30		20 A	1	EF-2	2#12, #12G, 3/4"C
2#8, #8G, 1-1/4"C	BACKFLOW	1	20 A		31	0.60						32					
					33							34					
					35							36					
					37		0.00					38					
					39				0.00			40	--	60 A	3	SPD	--
					41						0.00	42					
				TOTAL LOAD:		20.64 kVA		21.86 kVA		16.74 kVA							

BREAKER TYPE KEYS:
LO - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
GF - INDICATES C.B. IS GROUND FAULT TYPE (5mA FOR PERSONNEL)
ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
HT - INDICATES C.B. EQUIPPED WITH 30mA GROUND FAULT FOR EQUIPMENT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LTG	2.82	100.00%	2.82		
Power	47.47	100.00%	47.47	**Total Conn. Load:**	59.23 kVA
REC	1.08	100.00%	1.08	**Total Est. Demand:**	59.23 kVA
Equipment	7.86	100.00%	7.86	**Total Conn. Current:**	164.41 A
				Total Est. Demand Current:	164.41 A

PANELBOARD: RPB

LOCATION:
MOUNTING: Surface
ENCL NEMA: Type 1
MIN AIC: 22,000 AIC

(1) **MAINS:** MCB 200
VOLTS: 208/120 Wye
PHASE: 3
WIRES: 4

AMPS: 400

PANEL NOTES:
PROVIDE GROUND BUS
PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE

WIRE SIZE	LOAD DESCRIPTION	P	TRIP AMPS	TYPE	CKT	A		B		C		CKT	TYPE	TRIP AMPS	P	LOAD DESCRIPTION	WIRE SIZE
2#12, #12G, 3/4"C	REC DIRECTOR 105	1	20 A		1	0.72	0.72					2		20 A	1	REC SUPERVISOR 104	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC TRAIN OFF 103	1	20 A		3			0.90	0.72			4		20 A	1	REC RM 102	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC TECH OFFICE 106	1	20 A		5					0.54	1.26	6		20 A	1	REC CORR	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC RESTROOM 114	1	20 A		7	0.18	1.26					8		20 A	1	REC CORR	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC RESTROOM 109	1	20 A		9			0.18	0.90			10		20 A	1	REC BREAK RM 117	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC RESTROOM 115	1	20 A		11					0.18	1.08	12		20 A	1	REC RM 118 & 119	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC BREAK RM DW	1	20 A		13	0.18	0.18					14		20 A	1	REC BREAK RM ICE MAKER	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC RM 122 & 120	1	20 A		15			0.90	0.18			16		20 A	1	REC RM 122 FRDIGE	2#12, #12G, 3/4"C
2#8, #10G, 3/4"C	REC STORAGE 118 DRYER	2	30 A		17					0.09	0.09	18		50 A	2	REC BREAK RM RANGE	2#6, #10G, 3/4"C
					19	0.09	0.09					20					
2#12, #12G, 3/4"C	REC WATER FOUNTAIN	1	20 A		21			0.18	1.50			22		20 A	1	VAV - 1	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	VAV - 2	1	20 A		23					1.00	1.00	24		20 A	1	VAV - 3	2#12, #12G, 3/4"C
3#12, #12G, 3/4"C	VAV - 4	3	20 A		25	0.67	1.33					26		20 A	3	VAV - 5	3#12, #12G, 3/4"C
					27			0.67	1.33			28					
					29					0.67	1.33	30					
2#12, #12G, 3/4"C	VAV - 6	1	20 A		31	1.50	1.50					32		20 A	1	VAV - 7	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	VAV - 8	1	20 A		33			1.50	1.50			34		20 A	1	VAV - 9	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	VAV - 10	1	20 A		35					1.00	0.29	36		20 A	1	EF-1	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC OUTSIDE NE WALLS	1	20 A		37	0.72	0.54					38		20 A	1	REC ROOF TOP	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC OUTSIDE SW WALLS	1	20 A		39			0.90	0.64			40		20 A	1	REC RM 112	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC GARBAGE DISPOSAL	1	20 A		41					0.18	0.36	42		20 A	1	REC WORK STATION RM...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC WORK STATION RM...	1	20 A		43	0.36	1.38					44		20 A	1	RESTROOM 109 HAND...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	RESTROOM 114 HAND...	1	20 A		45			1.38	1.38			46		20 A	1	RESTROOM 115 HAND...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	ENTRY 101 DOOR...	1	20 A		47					0.54	0.36	48		20 A	1	ENTRY 116 DOOR...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	OUTDOOR LIGHTING	1	20 A		49	0.64	2.08					50		20 A	1	LTG DIRECTOR 105	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	LTG MECH ROOM 111	1	20 A		51			1.50	0.59			52		20 A	2	SITE LIGHTING	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	SMOKE DAMPER	1	20 A		53					0.00	0.59	54					
2#12, #12G, 3/4"C	SMOKE DAMPER	1	20 A		55	0.00						56					
3#12, #12G, 3/4"C	H-1	3	25 A		57			2.00	0.00			58		20 A	1	SMOKE DAMPER	
					59					2.00		60					
					61	2.00						62					
					63							64					
					65							66					
					67							68					
					69							70					
					71							72					
					73							74					
					75							76					
					77							78					
					79		0.00					80					
					81				0.00			82	--	60 A	3	SPD	--
					83						0.00	84					
				TOTAL LOAD:		16.12 kVA		18.85 kVA		12.56 kVA							

BREAKER TYPE KEYS:
LO - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
GF - INDICATES C.B. IS GROUND FAULT TYPE (5mA FOR PERSONNEL)
ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
HT - INDICATES C.B. EQUIPPED WITH 30mA GROUND FAULT FOR EQUIPMENT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LTG	5.67	100.00%	5.67		
Power	16.50	100.00%	16.50	**Total Conn. Load:**	47.53 kVA
REC	14.32	84.93%	12.16	**Total Est. Demand:**	45.37 kVA
Equipment	11.04	100.00%	11.04	**Total Conn. Current:**	131.92 A
				Total Est. Demand Current:	125.93 A

PANELBOARD: RPUA

LOCATION:
MOUNTING: Surface
ENCL NEMA: Type 1
MIN AIC: 10,000 AIC

(1) **MAINS:** MCB 150A
VOLTS: 208/120 Wye
PHASE: 3
WIRES: 4

AMPS: 150

PANEL NOTES:
PROVIDE GROUND BUS
PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
PROVIDE MAIN BREAKER WITH SHUNT TRIP DEVICE

WIRE SIZE	LOAD DESCRIPTION	P	TRIP AMPS	TYPE	CKT	A		B		C		CKT	TYPE	TRIP AMPS	P	LOAD DESCRIPTION	WIRE SIZE
2#12, #12G, 3/4"C	REC TV COMMS RM 108	1	20 A		1	0.72	0.90					2		20 A	1	REC COMMS RM 108	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC RM 110 & 111	1	20 A		3			0.90	0.18			4		20 A	1	REC COMMUNICATION...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC COMMUNICATION...	1	20 A		5					0.18	0.18	6		20 A	1	REC COMMUNICATION...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC COMMUNICATION...	1	20 A		7	0.18	0.18					8		20 A	1	REC COMMUNICATION...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC COMMUNICATION...	1	20 A		9			0.18	0.18			10		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#10, #10G, 3/4"C	REC EQUIP RACKS-1 110-1	1	30 A		11					0.18	0.18	12		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#10, #10G, 3/4"C	REC EQUIP RACKS-1 110-1	1	30 A		13	0.18	0.18					14		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#10, #10G, 3/4"C	REC EQUIP RACKS-1 110-1	1	30 A		15			0.18	0.18			16		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#12, #12G, 3/4"C	REC COMMS RM 108	1	20 A		17					0.72	0.36	18		20 A	1	REC TECH SPECIALIST/...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC TECH SPECIALIST/...	1	20 A		19	0.36	0.20					20		20 A	1	LOCAL LEAK/CENTRAL PNL	2#12, #12G, 3/4"C
	REC EQUIP RACKS-1 110-1	1	20 A		21			0.72				22					
					23							24					
					25							26					
					27							28					
					29							30					
					31							32					
					33							34					
					35							36					
					37		0.00					38					
					39				0.00			40	--	60 A	3	SPD	--
					41						0.00	42					
				TOTAL LOAD:		2.90 kVA		2.52 kVA		1.80 kVA							

BREAKER TYPE KEYS:
LO - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
GF - INDICATES C.B. IS GROUND FAULT TYPE (5mA FOR PERSONNEL)
ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
HT - INDICATES C.B. EQUIPPED WITH 30mA GROUND FAULT FOR EQUIPMENT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
REC	7.02	100.00%	7.02		
Equipment	0.20	100.00%	0.20	**Total Conn. Load:**	7.22 kVA
				Total Est. Demand:	7.22 kVA
				Total Conn. Current:	20.04 A
				Total Est. Demand Current:	20.04 A

PANELBOARD: RPUB

LOCATION:
MOUNTING: Surface
ENCL NEMA: Type 1
MIN AIC: 10,000 AIC

(1) **MAINS:** MCB 150A
VOLTS: 208/120 Wye
PHASE: 3
WIRES: 4

AMPS: 150

PANEL NOTES:
PROVIDE GROUND BUS
PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
PROVIDE MAIN BREAKER WITH SHUNT TRIP DEVICE

WIRE SIZE	LOAD DESCRIPTION	P	TRIP AMPS	TYPE	CKT	A		B		C		CKT	TYPE	TRIP AMPS	P	LOAD DESCRIPTION	WIRE SIZE
2#12, #12G, 3/4"C	REC CONFERENCE/...	1	20 A		1	0.18	0.18					2		20 A	1	REC STAFF ENTRY 116	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC SUPERVISOR 104	1	20 A		3			0.18	0.18			4		20 A	1	REC	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC TECH SPECIALIST/...	1	20 A		5					0.18	0.18	6		20 A	1	REC COMMUNICATION...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC COMMUNICATION...	1	20 A		7	0.18	0.18					8		20 A	1	REC COMMUNICATION...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC COMMUNICATION...	1	20 A		9			0.18	0.18			10		20 A	1	REC COMMUNICATION...	2#12, #12G, 3/4"C
2#12, #12G, 3/4"C	REC COMMUNICATION...	1	20 A		11					0.18	0.18	12		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#10, #10G, 3/4"C	REC EQUIP RACKS-1 110-1	1	30 A		13	0.18	0.18					14		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#10, #10G, 3/4"C	REC EQUIP RACKS-1 110-1	1	30 A		15			0.18	0.18			16		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#10, #10G, 3/4"C	REC EQUIP RACKS-1 110-1	1	30 A		17					0.18	0.18	18		30 A	1	REC EQUIP RACKS-1 110-1	2#10, #10G, 3/4"C
2#12, #12G, 3/4"C	REC TECH SPECIALIST/...	1	20 A		19	0.36	0.36					20		20 A	1	REC TECH SPECIALIST/...	2#12, #12G, 3/4"C
					21							22					
					23							24					
					25							26					
					27							28					
					29							30					
					31							32					
					33							34					
					35							36					
					37		0.00					38					
					39				0.00			40	--	60 A	3	SPD	--
					41						0.00	42					
				TOTAL LOAD:		1.80 kVA		1.08 kVA		1.08 kVA							

BREAKER TYPE KEYS:
LO - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
GF - INDICATES C.B. IS GROUND FAULT TYPE (5mA FOR PERSONNEL)
ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
HT - INDICATES C.B. EQUIPPED WITH 30mA GROUND FAULT FOR EQUIPMENT

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
REC	3.96	100.00%	3.96		
				Total Conn. Load:	3.96 kVA
				Total Est. Demand:	3.96 kVA
				Total Conn. Current:	10.99 A
				Total Est. Demand Current:	10.99 A

DRAWING NOTES:

(1) MAIN BREAKER TO HAVE ADJUSTABLE LONG, SHORT, AND INSTANTANEOUS SETTINGS.

RPA	RPB
RPUA	RPUB

SCHRADERGROUP
4208 Six Forks Road, Suite 1000
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153 East King Street, Suite 211-212
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717.299.8965

Professional Seal:

NORTH CAROLINA PROFESSIONAL SEAL 050656 ENGINEER STEPHEN LEE ACTON

Owner:
BERTIE COUNTY
Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026
SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
PANEL SCHEDULES

Drawing Number:
E601

BID SET

CREATED ON: 5/29/2026 2:44:43 PM

MECHANICAL GENERAL NOTES

1 PRIOR TO PREPARING THE BID, IT IS RECOMMENDED THAT THE CONTRACTOR AND SUBCONTRACTORS VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS AND MAKE ALL NECESSARY INVESTIGATIONS AS TO THE LOCATIONS OF UTILITIES AND ALL OTHER MATTERS WHICH CAN AFFECT THE WORK. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR AS A RESULT OF THEIR FAILURE TO FAMILIARIZE THEMSELF WITH THE EXISTING CONDITIONS UNDER WHICH THE WORK MUST BE PERFORMED.

2 THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND BUILDING DIMENSIONS PRIOR TO WORK. ANY VARIATIONS, DISCREPANCIES, OR FIELD ALTERATIONS TO THESE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT ATTENTION PRIOR TO WORK. IF CONTRACTOR COMMENCES WORK WITHOUT NOTIFYING ARCHITECT OF VARIATIONS, DISCREPANCIES, OR FIELD ALTERATIONS, THAT SHALL CONSTITUTE WAIVER TO ANY CLAIM BY CONTRACTOR FOR ADDITIONAL EXPENSES NECESSARY TO PERFORM WORK ASSOCIATED WITH THOSE CONDITIONS.

3 THIS CONTRACT REQUIRES COMPLETE, FINISHED WORKABLE PROJECT OF THE AREAS INDICATED BY THE CONTRACT DOCUMENTS AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE SAME. REGARDLESS OF WHETHER OR NOT EACH AND EVERY NECESSARY WORK OR ITEM IS SPECIFICALLY INDICATED ON ANY OTHER PORTION OF THE DRAWING AND/OR NOTES.

4 AS A MINIMUM, ALL WORK SHALL CONFORM TO THE APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION OF THE WORK. WHERE MORE STRINGENT CODES ARE ADOPTED, THEY SHALL GOVERN THE WORK.

5 CONTRACTOR SHALL FURNISH ALL INFORMATION AND DOCUMENTATION TO SECURE ALL REQUIRED PERMITS AND SHALL COORDINATE THIS DATA WITH THE CONSTRUCTION DOCUMENTS WHERE REQUIRED.

6 CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS SO THAT THE WORK AND SCHEDULE ARE NOT IMPEDED. SCHEDULE WORK PROGRESS THROUGHOUT THE ENTIRE PROJECT TO PREVENT CONFLICTS AND INTERFERENCE, OBTAIN ALL NECESSARY INFORMATION SUCH AS SIZES, LOCATIONS, TEMPLATES, LAYOUT, DIMENSIONS, AND ALL OTHER INFORMATION NECESSARY FOR A PROPER AND WELL-COORDINATED INSTALLATION. PRIOR TO INSTALLATION OF ITEMS, CONFER WITH EACH CONTRACTOR EXACT LOCATION OF ALL ITEMS.

7 WHERE MATERIALS REFERENCED ON DRAWINGS, OR NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT ARE NOT SPECIFIED HEREIN, PROVIDE BEST QUALITY MATERIALS. WHERE MATERIALS ARE INTENDED TO MATCH EXISTING, PROVIDE CLOSEST POSSIBLE MATCH, SUBJECT TO OWNER'S APPROVAL. ALL ITEMS AND WORK ON DRAWINGS ARE NEW UNLESS INDICATED OTHERWISE. ALL WORK WHICH HAS BEEN DAMAGED SHALL BE REPAIRED OR REPLACED. WHERE ITEM CANNOT BE REPAIRED TO A "NEW CONDITION", OR WHERE THE STRUCTURAL INTEGRITY HAS BEEN AFFECTED, ITEM SHALL BE REPLACED.

8 CONTRACTOR SHALL OBTAIN FROM OWNER ALL REQUIREMENTS FOR INSTALLATION OF OWNER PROVIDED EQUIPMENT INCLUDING ROUGHING DIAGRAMS, INSTALLATION INSTRUCTIONS, ELECTRICAL SCHEMATICS, TEMPLATES, LAYOUTS AND DIMENSIONS AND ALL OTHER INFORMATION NECESSARY FOR A PROPER, WELL-COORDINATED INSTALLATION. PRIOR TO ROUGH-IN SERVICES, CONFER WITH OWNER EXACT LOCATION OF ALL ITEMS.

9 DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

10 CONFIRM ALL ROUGH AND/OR FINISH DIMENSIONS FOR ACCURATE FITTING OF MECHANICAL EQUIPMENT, FIXTURES, PIPING, ETC. BEFORE FABRICATION AND INSTALLATION.

11 COORDINATE FINAL EQUIPMENT/FIXTURE LOCATIONS WITH THE GENERAL CONTRACTOR. THE LOCATION AS INDICATED ON THE DRAWING IS APPROXIMATE. INSTALL ALL MECHANICAL EQUIPMENT SUCH THAT MANUFACTURER'S MAINTENANCE AREA IS CLEAR.

12 PROVIDE AND INSTALL ALL NECESSARY HARDWARE, BRACKETS, BRACING, ANCHORING, INSERTS, BLOCKING, FURRING OR OTHER SUPPLEMENTARY ITEMS NEEDED FOR COMPLETE INSTALLATION OF EQUIPMENT, FIXTURES AND ACCESSORIES.

13 ALL WALL MOUNTED MECHANICAL DEVICES OR CONTROLS SHALL BE INSTALLED IN LOCATIONS WHICH ARE UNOBSTRUCTED BY CABINETS, COUNTERS, RACKS, FIXTURES, FURNISHINGS, OR EQUIPMENT. ITEMS INTENDED FOR WALL MOUNTING SHALL NOT BE INSTALLED ON, THROUGH OR INTO ANY OTHER EQUIPMENT UNLESS SPECIFICALLY CALLED FOR. VERIFY MOUNTING HEIGHTS WITH ARCHITECT AND ADA REQUIREMENTS.

14 DRAWING PLANS, SCHEMATICS AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF DUCTWORK AND PIPING SYSTEMS. INDICATED LOCATIONS AND ARRANGEMENTS ARE USED TO SIZE DUCTWORK AND PIPE AND CALCULATE FRICTION LOSS, EXPANSION, AND OTHER DESIGN CONSIDERATIONS. INSTALL DUCTWORK AND PIPING AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON COORDINATION DRAWINGS.

15 COORDINATE ALL ROOF PENETRATION SIZES AND LOCATIONS WITH APPROVED EQUIPMENT AND STRUCTURAL STEEL SHOP DRAWINGS.

16 ALL ROOFTOP EQUIPMENT SHALL BE INSTALLED A MINIMUM OF 10 FEET FROM A ROOF EDGE OR PARAPET LESS THAN 42" HIGH. WHERE EQUIPMENT CANNOT BE LOCATED FURTHER THAN 10 FEET OR IS SHOWN TO BE IS LOCATED WITHIN 10 FEET PROVIDE A ROOF GUARD IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.

17 WHERE EQUIPMENT OR OTHER COMPONENTS THAT REQUIRE SERVICE ARE INSTALLED ON A ROOF HAVING A SLOPE OF THREE UNITS VERTICAL IN 12 UNITS HORIZONTAL OR GREATER, A LEVEL PLATFORM IN ACCORDANCE WITH IMC SHALL BE PROVIDED ON EACH SIDE OF THE EQUIPMENT TO WHICH ACCESS IS REQUIRED FOR SERVICE, REPAIR OR MAINTENANCE.

18 UNLESS OTHERWISE INDICATED, AIR TERMINAL UNITS AND ASSOCIATED CONTROLS SHALL BE INSTALLED AT A HEIGHT NO GREATER THAN 3 FEET ABOVE A CEILING TO ALLOW MAINTENANCE ACCESSIBILITY.

19 AIR TERMINAL UNITS SHALL BE PROVIDED WITH A MINIMUM OF TWO (2) DUCT DIAMETERS OF STRAIGHT DUCT RUN AT THE INLET. INLET DUCT SHALL BE EQUAL OR LARGER THAN THE TERMINAL UNIT INLET SIZE.

20 PROVIDE, AT EACH FAN COIL UNIT, A WATER LEVEL PROTECTION DEVICE THAT CONFORMS TO UL508 THAT WILL SHUT-OFF THE FCU IF THE PRIMARY DRAIN IS BLOCKED. THE DEVICE SHALL BE INSTALLED IN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN IN ACCORDANCE WITH THE APPLICABLE MECHANICAL CODE.

21 PROVIDE FIRE, SMOKE, OR COMBINATION FIRE/SMOKE DAMPERS AT DUCT PENETRATIONS OF RATED ASSEMBLIES TO MAINTAIN THE INTEGRITY OF THE ASSOCIATED FIRE/SMOKE RATED ASSEMBLY. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES.

22 PROVIDE A FLEXIBLE DUCT FLEXIBLE CONNECTION AT BOTH THE INLET AND OUTLET DUCT FAN CONNECTION.

23 FABRICATE ALL DUCTWORK IN ACCORDANCE WITH SMACNA STANDARDS. ALL DUCTWORK SHALL BE A MINIMUM OF 26 GAUGE.

24 DUCTWORK SIZES SHOWN ON PLANS ARE AIR SIDE SIZES. WHERE DUCTS ARE SHOWN AS LINED, DIMENSIONS SHALL BE INCREASED TO REFLECT THAT THICKNESS OF THE LINING.

25 WHERE SHOWN ON THE DRAWINGS OR NOT, PROVIDE MANUAL VOLUME DAMPERS AT EACH DUCT BRANCH LEADING TO AN AIR DEVICE, UNLESS THERE IS ONLY ONE AIR DEVICE SERVED BY A TERMINAL UNIT. INSTALL DAMPERS AS FAR AS POSSIBLE AWAY FROM THE DIFFUSER.

26 PROVIDE ACCESS DOORS IN DUCTWORK WHERE NECESSARY TO SERVICE FIRE DAMPERS & DEVICES WITHIN DUCTWORK.

27 UNLESS ABSOLUTELY NECESSARY, ALL MECHANICAL DEVICES, EQUIPMENT, DAMPERS, VALVES, ETC. THAT REQUIRE ACCESS SHALL NOT BE LOCATED ABOVE INACCESSIBLE CEILINGS. COORDINATE WITH THE ARCHITECTURAL REFLECTED CEILING PLAN. WHERE UNAVOIDABLE, PROVIDE ACCESS DOORS IN INACCESSIBLE CEILINGS TO ACCESS DEVICES, EQUIPMENT, DAMPERS, VALVES, ETC.

28 VERIFY REFLECTED CEILING PLANS IN THE FIELD FOR EXACT LAYOUT LOCATION OF ALL CEILING AIR DEVICES. COORDINATE LOCATION WITH ALL OTHER TRADES AND NOTIFY ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO INSTALLATION.

29 REFER TO AIR DEVICE SCHEDULE FOR INLET DUCT SIZES UNLESS OTHERWISE INDICATED.

30 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT SIZE, LOCATION AND DETAILS OF EXTERIOR WALL LOUVERS.

31 PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS & DRAIN VALVES WITH CAPPED HOSE CONNECTIONS AT ALL LOW POINTS OF PIPING SYSTEMS.

32 SIZE REFRIGERANT PIPING IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS BASED ON THE PROJECT SPECIFIC LAYOUT AND LENGTH OF REFRIGERANT PIPING.

33 RUN ALL PIPING CONCEALED ABOVE CEILING EXCEPT WHERE INDICATED.

34 WHERE NOT INDICATED, DRAIN ALL CONDENSATE DRAIN PANS WITH INSULATED, TRAPPED DRAIN PIPING TO NEAREST FLOOR DRAIN. JANITOR'S SINK, RAIN LEADER WITH OPEN END DRAIN, OR TO THE EXTERIOR AS INSTRUCTED BY THE ENGINEER.

35 INSTALL SHUT-OFF VALVES IN PIPING WHERE SHOWN ON THE DRAWINGS AND WHERE CALLED FOR IN THE SPECIFICATION SECTION "VALVES FOR HVAC PIPING".

36 DO NOT ROUTE ANY WET MECHANICAL PIPING THROUGH ELECTRICAL, DATA/COMMUNICATION OR ELEVATOR EQUIPMENT ROOMS WITHOUT PRIOR APPROVAL FROM ARCHITECT.

37 CONTRACTOR SHALL INSTALL VALVED BYPASSES AT EQUIPMENT, COILS AND PIPE END LOCATIONS PRIOR TO SYSTEM FLUSHING. BYPASS SHALL BE SAME SIZE AS THE SUPPLY AND RETURN PIPE. CONTRACTOR SHALL NOT FLUSH THROUGH EQUIPMENT, COILS, CONTROL VALVES, ETC. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

38 INSTALL ALL DUCT SMOKE DETECTORS FURNISHED UNDER DIVISION 28 SPECIFICATIONS.

39 FOR CLARITY, SOME HVAC SENSORS AND DEVICES MAY BE SHOWN ON THE PIPING DRAWINGS. COORDINATE FINAL SENSOR AND DEVICE LOCATIONS WITH INTERIOR FINISH AND FURNITURE EQUIPMENT DRAWINGS PRIOR TO INSTALLATION. UNLESS OTHERWISE SPECIFICALLY NOTED, MOUNT SENSORS 48" AFF TO THE TOP OF THE DEVICE OR LEVEL WITH ADJACENT ELECTRICAL DEVICES. TYPICAL FOR ALL SENSORS.

40 CONTRACTOR SHALL CONDUCT A PRE-INSTALLATION MEETING AND WALK THROUGH WITH OWNER, ARCHITECT AND ENGINEER PRIOR TO ATC ROUGH-IN TO COORDINATE AND CONFIRM ALL DEVICE LOCATIONS.

41 DUCTWORK SHALL NOT RUN ALONG FULL HEIGHT PARTITIONS.

42 EXISTING ROOM THERMOSTATS AND SENSORS THAT ARE EXISTING TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.

43 WHEN A SECTION OF DUCTWORK OR PIPING IS NOT LABELED FOR SIZE, THE LARGER SIZE INDICATED ON THE CONNECTED DUCT OR PIPE SHALL PREVAIL.

44 CONTRACTOR SHALL PROVIDE THE FOLLOWING SERVICES, AS APPLICABLE, ON ALL EXISTING EQUIPMENT INDICATED TO BE REUSED: 1) FILTER CHANGES, 2) BALANCING, 3) LUBRICATION. CONTRACTOR SHALL REPORT ANY EQUIPMENT DEFICIENCIES FOUND TO THE ARCHITECT AND/OR ENGINEER.

45 THE FIRE PROOFING OF THE BUILDING STRUCTURE IS NOT TO BE REMOVED FOR THE INSTALLATION OF HANGERS, SUPPORTS, DUCTWORK, ETC. IF FIRE PROOFING IS DAMAGED, IT SHALL BE REPAIRED AT THE EXPENSE OF THE TRADE.

46 MANY EQUIPMENT SCHEDULES DO NOT LIST QUANTITES. CONTRACTOR SHALL REFER TO ALL DRAWINGS AND PROVIDE THE REQUIRED QUANTITIES FOR ALL COMPONENTS.

47 CONTRACTOR SHALL ENSURE A RETURN AIR PATH IS AVAILABLE FROM ALL ROOMS AND SPACES BACK TO THE MAIN RETURN AIR DUCT INLETS. CONTRACTOR SHALL PROVIDE LINED TRANSFER DUCTS AT ALL FULL HEIGHT PARTITIONS. TRANSFER DUCTS SHALL BE SIZED FOR A MAXIMUM VELOCITY OF 300 FPM.

48 PROVIDE INSULATED BACKPLATE AT ALL THERMOSTATS AND TEMPERATURE SENSORS LOCATED ON EXTERIOR WALLS.

49 MAXIMUM LENGTH OF FLEXIBLE DUCT RUNOUT TO DIFFUSERS SHALL BE 6'-0". PROVIDE HARD DUCT FOR LONGER DIFFUSER RUNOUTS.

50 ALL EXPOSED DUCTWORK SHALL BE INTERNALLY LINED OR DOUBLE WALL CONSTRUCTION. ALL EXPOSED ROUND AND OVAL DUCTWORK SHALL BE SPIRAL TYPE.

51 ALL EXPOSED DUCTWORK AND PIPING SHALL RUN PARALLEL WITH AND PERPENDICULAR TO WALLS AND BUILDING STRUCTURE.

52 ALL EXPOSED DUCTWORK, EQUIPMENT, AND PIPING SHALL BE PREPPED FOR PAINTING. PAINTING SHALL BE BY OTHERS. TAGS AND LABELS SHALL NOT BE PAINTED.

53 PROVIDE FILTER FABRIC AT ALL RETURN AIR OPENINGS WHERE EXISTING AIR HANDLING EQUIPMENT IS TO REMAIN IN OPERATION DURING CONSTRUCTION.

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE
WINTER DRY BULB: 23.36 °F
SUMMER DRY BULB: 96.68 °F

INTERIOR DESIGN CONDITIONS
WINTER DRY BULB: 70 °F
SUMMER DRY BULB: 72 °F
RELATIVE HUMIDITY: 50%

BUILDING HEATING LOAD: 74.69 MBH
BUILDING COOLING LOAD: 262.91 MBH

MECHANICAL SPACE CONDITIONING SYSTEM

UNITARY

AC-1 / AC-2
DESCRIPTION OF UNIT: ELECTRICALLY OPERATED SINGLE-PACKAGE VERTICAL AIR CONDITIONER
HEATING EFFICIENCY: 100% (ELECTRIC RESISTANCE)
COOLING EFFICIENCY: 10 EER
SIZE CATEGORY OF UNIT: <65,000 BTUH COOLING

RTU-1 / RTU-2
DESCRIPTION OF UNIT: ELECTRICALLY OPERATED UNITARY HEAT PUMP, AIR COOLED
HEATING EFFICIENCY: 3.57 COP AT 47 °F / 2.25 COP AT 17 °F
COOLING EFFICIENCY: 11.40 EER / 16.60 IEER
SIZE CATEGORY OF UNIT: ≥65,000 BTUH AND <135,000 BTUH COOLING

RTU-3
DESCRIPTION OF UNIT: ELECTRICALLY OPERATED UNITARY HEAT PUMP, AIR COOLED
HEATING EFFICIENCY: 3.74 COP AT 47 °F / 2.25 COP AT 17 °F
COOLING EFFICIENCY: 12.10 EER / 17.50 IEER
SIZE CATEGORY OF UNIT: ≥65,000 BTUH AND <135,000 BTUH COOLING

SERVICE WATER HEATING SYSTEM

DWH-1
DESCRIPTION OF UNIT: ELECTRIC STORAGE WATER HEATER
EFFICIENCY: 0.61% PER HOUR STANDBY LOSS
SIZE CATEGORY OF UNIT: >12 KW INPUT

LIST EQUIPMENT EFFICIENCIES:

AC-1 / AC-2
HEATING: 100% ELECTRIC RESISTANCE
COOLING: 10.0 EER

RTU-1 / RTU-2
HEATING: 3.57 COP AT 47°F / 2.25 COP AT 17°F
COOLING: 11.40 EER /16.60 IEER

RTU-3
HEATING: 3.74 COP AT 47°F / 2.25 COP AT 17°F
COOLING: 12.10 EER / 17.50 IEER

DWH-1
STANDBY LOSS: 0.61% PER HOUR

MECHANICAL SYMBOLS

PIPING COMPONENTS AND SPECIATIES

SYMBOL	DESCRIPTION
	PIPE GUIDE
	PIPE HANGER
S	PIPE SLIDE
	PIPE ANCHOR
	FLOAT AND THERMOSTATIC STEAM TRAP
	THERMODYNAMIC STEAM TRAP
	STEAM SEPARATOR
S B	SOOTBLOWER VALVE
	NEEDLE VALVE (NORMALLY OPEN)
	NEEDLE VALVE (NORMALLY CLOSED)
	NON-RETURN ANGLE VALVE
	NON-RETURN STRAIGHT VALVE
	VENTURI EDUCTOR VALVE
	VENTURI FLOW METER
	QUICK OPENING VALVE
	BASKET STRAINER
	BELLOWS EXPANSION JOINT
	COMPRESSION / EXPANSION JOINT
	ELECTRICAL HEAT TRACE
	EXHAUST HEAD WITH SLASH BLOCK
R	REFRIGERANT LEAK DETECTION STROBE/HORN ALARM
CS/CU	CORROSION COUPON
	DUPLEX STRAINER
	FLEXIBLE PIPE
FM	FLOW METER
M	FLOW METER (WITH POSITIVE DISPLACEMENT)
	FLOW METER (PROBE STYLE)
	GOOSENECK VENT
	ORIFICE FITTING
	POSITIVE DISPLACEMENT FLOW INDICATOR
	SUCTION DIFFUSER
	TURBINE
	PUMP

DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
H	HUMIDITY SENSOR
T	TEMPERATURE SENSOR
C	CARBON DIOXIDE SENSOR
	DUCT SMOKE DETECTOR
U	SMOKE DETECTOR (IONIZATION)
	AIR FLOW
100 CFM	TRANSFER AIR FLOW (CFM INDICATED)
DL	DOOR LOUVER
UCD	UNDERCUT DOOR
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	CIRCULAR AIR DIFFUSER
	AIRFLOW MONITORING DEVICE
	STATIC PRESSURE SENSING STATION
FD	FIRE DAMPER
FSD	COMBINATION FIRE / SMOKE DAMPER
VD	VOLUME DAMPER
BDD	BACK DRAFT DAMPER
	AUTOMATIC ISOLATION DAMPER
	AUTOMATIC GAS TIGHT ISOLATION DAMPER
	MANUAL GAS TIGHT ISOLATION DAMPER
SD	SMOKE DAMPER
SD	SMOKE DETECTOR
	FLEXIBLE CONNECTION
	DUCTWORK W/ SOUND LINING
	HORIZONTAL ACCESS DOOR
	VERTICAL ACCESS DOOR
	ELBOW W/ DOUBLE THICKNESS TURNING VANES
	RECTANGULAR BRANCH TAKE-OFF
	BELL MOUTH BRANCH TAKE-OFF
	ROUND BRANCH TAKE-OFF
	ROUND DUCT DROP OFF BOTTOM
	DUCT TRANSITION
	SQUARE TO ROUND TRANSITION
UP/DN	DUCTWORK CHANGE IN ELEVATION (UP OR DOWN)
	SUPPLY / OUTSIDE AIR DUCT RISER
	RETURN AIR DUCT RISER
	EXHAUST / RELIEF AIR DUCT RISER
	ROUND DUCT RISER
	ALL WELDED VEHICLE EXHAUST DUCT CONNECTION
MAINTENANCE ACCESS AREA	TERMINAL UNIT
MAINTENANCE ACCESS AREA	TERMINAL UNIT WITH REHEAT COIL
MAINTENANCE ACCESS AREA	TERMINAL UNIT W/ ATTENUATOR AND REHEAT COIL
MAINTENANCE ACCESS AREA	EXHAUST TERMINAL UNIT
X	SUPPLY AIR VOLUME TERMINAL UNIT IDENTIFIER
X	EXHAUST AIR TERMINAL UNIT IDENTIFIER
X / XX — AIR DEVICE TYPE / CFM	AIR DEVICE IDENTIFIER

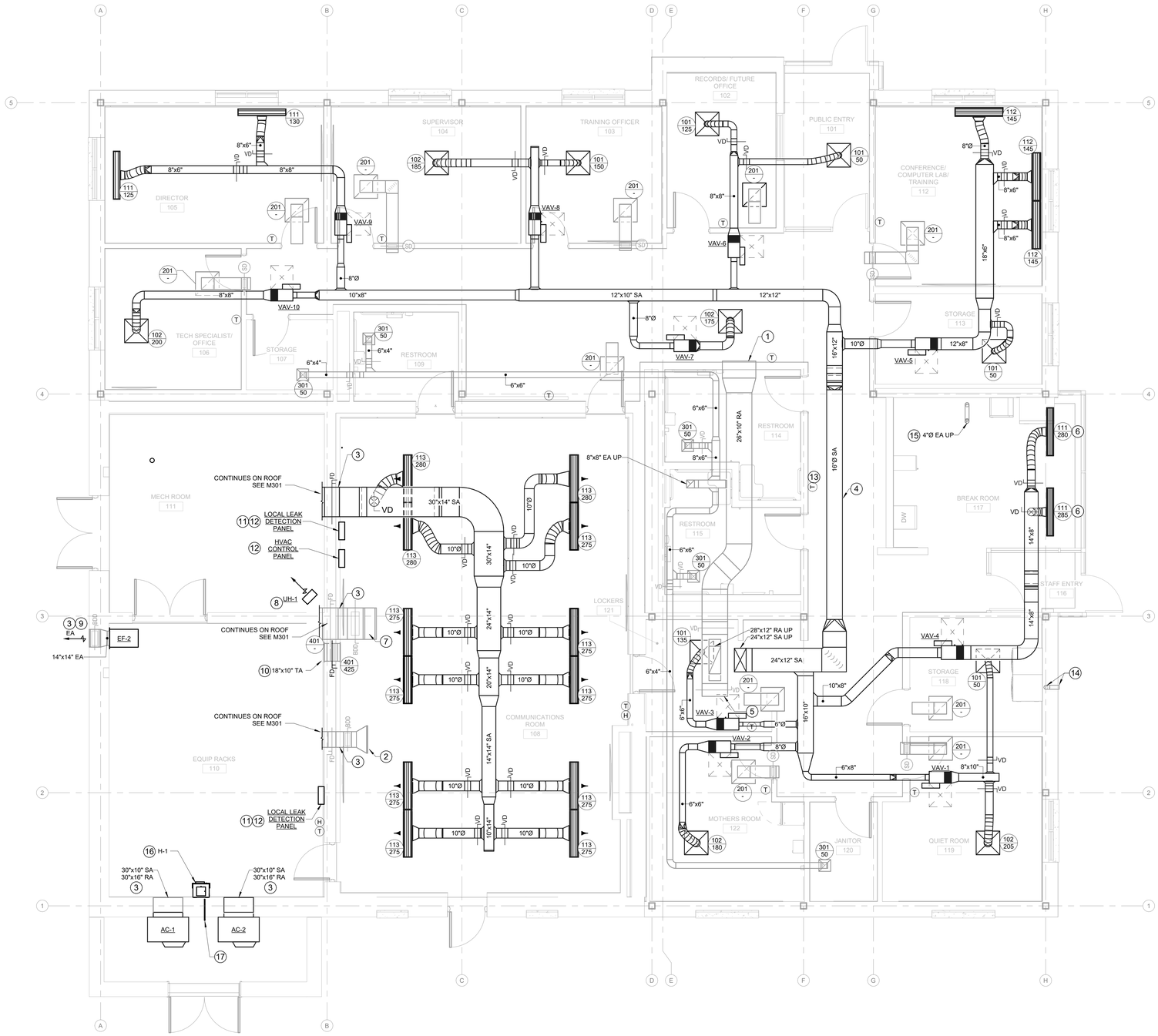
EQUIPMENT DESIGNATIONS

SYMBOL	DESCRIPTION
EF-X	EXHAUST FAN DESIGNATION
RTU-X	ROOFTOP AIR HANDLING UNIT DESIGNATION
VAV-X	SUPPLY AIR TERMINAL UNIT DESIGNATION

MECHANICAL ABBREVIATIONS

NOTE: THIS IS A STANDARD ABBREVIATION LIST. SOME ABBREVIATIONS MAY NOT APPEAR ON THE ACCOMPANYING DRAWINGS.

#	NUMBER, POUND
$	DOLLAR
%	PERCENT
&	AND
+	PLUS
-	MINUS
/	DIVIDE BY, PER
<	LESS THAN
=	EQUALS, EQUAL TO
>	GREATER THAN
x	MULTIPLY BY, BY
x"	INCHES, INCH
x'	FEET, FOOT
±	PLUS OR MINUS
≤	LESS THAN OR EQUAL TO
≥	GREATER THAN OR EQUAL TO
@	AT
A	COMPRESSED AIR
AAV	AUTOMATIC AIR VENT
ACV	AUTOMATIC CONTROL VALVE
AD	ACCESS DOOR, AREA DRAIN
AF	ANTIFREEZE
AFF	ABOVE FINISHED FLOOR
AR	ARGON GAS
ATC	AUTOMATIC TEMPERATURE CONTROL
BAS	BUILDING AUTOMATION SYSTEM
BBD	BOILER BLOWDOWN
BCWR	BEARING COOLING WATER RETURN
BCWS	BEARING COOLING WATER SUPPLY
BDD	BACKDRAFT DAMPER
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BMS	BUILDING MANAGEMENT SYSTEM
BO	BLOW OFF
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
BV	BALANCING VALVE
CA	CONTROL AIR
CBD	CONTINUOUS BLOWDOWN
CC	CAMPUS CONDENSATE
CCMS	CENTRAL CONTROL AND MONITORING SYSTEM
CD	CONDENSATE DRAIN
CF	CHEMICAL FEED
CFM	CUBIC FEET PER MINUTE
CHEL	CHELANT
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CHX	CHILLED WATER HEAT EXCHANGER
CO	CLEANOUT
CO2	CARBON DIOXIDE
CS	CLEAN STEAM
CT	COMBUSTION TURBINE
CW	COLD WATER, DOMESTIC CITY WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
°C	DEGREE(S) CELSIUS
D	DEEP, DRAIN WATER
DB	DECIBEL, DRY BULB
DDC	DIRECT DIGITAL CONTROL
DESIG	DESIGNATION
DHR	DISTRIBUTION HEATING WATER RETURN
DHS	DISTRIBUTION HEATING WATER SUPPLY
DHWR	DOMESTIC HOT WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DIA, Ø	DIAMETER
DIR	DEIONIZED WATER RETURN
DIS	DEIONIZED WATER SUPPLY
DL	DOOR LOUVER
DN	DOWN
DSP	DRY SPRINKLER PIPE
DTR	DUAL TEMPERATURE RETURN
DTS	DUAL TEMPERATURE SUPPLY
DW	DISTILLED WATER
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ED	EQUIPMENT DRAIN
EJ	EXPANSION JOINT
ELEV	ELEVATION
EMS	ENERGY MANAGEMENT SYSTEM
EQ	EQUIPMENT, EQUALIZING
ESP	EXTERNAL STATIC PRESSURE
ETC	ETCETERA
EVAC	GAS EVACUATION
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
#2FOR	NUMBER 2 FUEL OIL RETURN
#2FOS	NUMBER 2 FUEL OIL SUPPLY
#6FOR	NUMBER 6 FUEL OIL RETURN
#6FOS	NUMBER 6 FUEL OIL SUPPLY
F	FIRE LINE
F&T	FLOAT AND THERMOSTATIC TRAP
FC	FLEXIBLE CONNECTION
FD	FIRE DAMPER, FOUNDATION DRAIN
FDR	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FIN/FT	FINS PER FOOT
FIN/INCH	FINS PER INCH
FM	FLOWMETER
FMF	FLOWMETER FITTING
FO	FUEL OIL
FOF	FUEL OIL FILL
FOO	FUEL OIL OVERFLOW
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOSUCT	FUEL OIL SUCTION
FOT	FUEL OIL TRANSFER
FOTP	FUEL OIL TRANSFER PUMP
FOV	FUEL OIL VENT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOW SWITCH
FT	FOOT, FEET
FW	FEED WATER
FWR	FEED WATER RECIRCULATION
FWS	FEED WATER SUCTION
°F	DEGREE(S) FAHRENHEIT
G	NATURAL GAS
GAL	GALLON, GALLONS
GEN	GENERATOR
GHR	GLYCOL HEATING RETURN
GHS	GLYCOL HEATING SUPPLY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	AUTOMOTIVE LUBRICATION PIPING
H	HIGH
HB	HOSE BIB
HED	HOSE END DRAIN VALVE
HP	HORSEPOWER
HPR	HIGH PRESSURE STEAM RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
HR	HEATING WATER RETURN
HRR	HEAT RECOVERY RETURN
HRS	HEAT RECOVERY SUPPLY
HRSG	HEAT RECOVERY STEAM GENERATOR
HS	HEATING WATER SUPPLY
HT	HEIGHT
HTHR	HIGH TEMPERATURE HEATING WATER RETURN
HTHS	HIGH TEMPERATURE HEATING WATER SUPPLY
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
HZ	HERTZ
IA	INSTRUMENT AIR
ICW	INDUSTRIAL COLD WATER
IHR	INDUSTRIAL HOT WATER RECIRCULATION
IHW	INDUSTRIAL HOT WATER
IN	INCH, INCHES
INV EL	INVERT ELEVATION
KW	KILOWATTS
L	LONG, LENGTH
LA	LABORATORY AIR
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LBS/HR	POUNDS PER HOUR
LN	LIQUID NITROGEN
LP	LIQUID PROPANE
LPG	LIQUID PETROLEUM GAS
LPR	LOW PRESSURE STEAM RETURN
LPS	LOW PRESSURE STEAM SUPPLY
LV	LABORATORY VENT, LABORATORY VACUUM
LW	LABORATORY WASTE
LWT	LEAVING WATER TEMPERATURE
MA	MEDICAL AIR
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCC	MOTOR CONTROL CENTER
MEQ	MECHANICAL EQUIPMENT
MH-#	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MOTOR OIL PIPING
MOD	MOTOR OPERATED DAMPER
MPR	MEDIUM PRESSURE STEAM RETURN
MPS	MEDIUM PRESSURE STEAM SUPPLY
MV	MEDICAL VACUUM
N	NITROGEN
NA, N/A	NOT APPLICABLE
NC	NOISE CRITERIA, NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NG	NATURAL GAS
NO	NORMALLY OPEN, NITROUS OXIDE
No	NUMBER
NOM	NOMINAL
NPSH	NET POSITIVE SUCTION HEAD
NPW	NON-POTABLE WATER
O	OXYGEN
OA	OUTSIDE AIR
OD	OVERFLOW DRAIN
OED	OPEN ENDED DUCT
OF	OVERFLOW
OS&Y	OUTSIDE STEM AND YOKE
P&ID	PROCESS AND INSTRUMENTATION DIAGRAM
PA	PLANT AIR
PC	PUMPED CONDENSATE
PCHR	PRIMARY CHILLED WATER RETURN
PCHS	PRIMARY CHILLED WATER SUPPLY
PCP	PUMP CONTROL PANEL
PCR	PUMPED CONDENSATE RECIRCULATION
PCWR	PROCESS COOLING WATER RETURN
PCWS	PROCESS COOLING WATER SUPPLY
PD	PRESSURE DROP, PUMP DISCHARGE
PG	PILOT GAS
PGR	PROCESS GLYCOL WATER RETURN
PGS	PROCESS GLYCOL WATER SUPPLY
PH	PHASE
PHR	PRIMARY HEATING RETURN
PHS	PRIMARY HEATING SUPPLY
PIV	POST INDICATING VALVE
PPH	POUNDS PER HOUR
PRV	PRESSURE REDUCING VALVE, PRESSURE REGULATING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PW	POTABLE WATER
RA	RETURN AIR, RELIEF AIR
RAF	RETURN AIR FAN
RD	REFRIGERANT DISCHARGE
RDR	ROOF DRAIN
RH	RELATIVE HUMIDITY
RHR	REHEAT WATER RETURN
RHS	REHEAT WATER SUPPLY
RI	REMOVE AND REINSTALL
RL	REFRIGERANT LIQUID
ROR	REVERSE OSMOSIS WATER RETURN
ROS	REVERSE OSMOSIS WATER SUPPLY
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RV	RELIEF VENT, REFRIGERANT VENT
RX	REMOVE EXISTING
SA	SUPPLY AIR, SHOCK ARRESTOR
SAN	SANITARY, SOIL, WASTE
SCHR	SECONDARY CHILLED WATER RETURN
SCHS	SECONDARY CHILLED WATER SUPPLY
SD	STORM DRAIN, SMOKE DETECTOR
SF	SQUARE FOOT
SHR	SECONDARY HEATING WATER RETURN
SHS	SECONDARY HEATING WATER SUPPLY
SL	SOUND LINING
SP	STATIC PRESSURE
SPR	SPRINKLER LINE
SQ FT	SQUARE FOOT
SS	STAINLESS STEEL
SSUL	SODIUM SULFITE
STDR	STORM DRAIN
SW	SOFT WATER
TA	TRANSFER AIR
TS	TAMPER SWITCH
TSP	TOTAL STATIC PRESSURE
TW	TREATED WATER
TWR	TEMPERED WATER RETURN
TWS	TEMPERED WATER SUPPLY
TYP	TYPICAL
ΔT	TEMPERATURE DIFFERENCE
UCD	UNDERCUT DOOR
UL	UNDERWRITERS LABORATORIES
V	VACUUM, VOLTS
VD	VOLUME DAMPER
VENT	VENTILATION
VFD	VARIABLE FREQUENCY



FIRST FLOOR PLAN - HVAC DUCTWORK

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

GENERAL NOTES:

1. ALL RETURN AIR TRANSFER DUCTS SHALL BE 12"x12".

DRAWING NOTES:

1. PROVIDE 34"x12" OED WITH WIRE MESH SCREEN. UPSTREAM MANUAL VOLUME DAMPER SHALL BE BALANCED TO 1,475 CFM.
2. PROVIDE 28"x28" OED WITH WIRE MESH SCREEN.
3. PROVIDE 2 HR RATED FIREPROOF WALL PENETRATION PER ICC 500.
4. EXPOSED SUPPLY DUCTWORK SHALL BE DOUBLE-WALL, SPIRAL DUCT. EXPOSED RETURN DUCTWORK SHALL BE SINGLE-WALL, SPIRAL DUCT.
5. PROVIDE 24"x10" OED WITH WIRE MESH SCREEN AND MANUAL VOLUME DAMPER. MANUAL VOLUME DAMPER SHALL BE BALANCED TO 885 CFM.
6. ADJUST DIFFUSER THROW TO BE VERTICALLY CENTERED ON WINDOW.
7. PROVIDE 32"x24" OED WITH WIRE MESH SCREEN.
8. MOUNT UNIT HEATER UH-1 A MINIMUM OF 6'-0" AFF.
9. ICC 500 RATED LOUVER BY ARCHITECT. MINIMUM 0.5 SF FREE AREA.
10. LOCATE BOTTOM OF GRILLE 12" AFF. FIRE DAMPER SHALL BE LOW PRESSURE DROP, DYNAMIC TYPE. INSTALL PER MANUFACTURER'S REQUIREMENTS FOR FLUSH MOUNTING ON BOTH SIDES OF WALL. BASIS OF DESIGN: GREENHECK DFD-150.
11. LEAK DETECTION PANEL SHALL BE HARDWIRED BACK TO THE CENTRAL CONTROL PANEL.
12. COORDINATE LAYOUT AND FINAL LOCATIONS OF CONTROL PANELS WITH THE OWNER.
13. CONNECT THERMOSTAT TO BOTH VAV-4 AND RTU-3.
14. CONNECT 4" DRYER VENT AND ROUTE IN WALL TO EXTERIOR OF BUILDING. PROVIDE HOOD VENT DRYER VENT TERMINATION AT WALL WITH INTEGRATED BACKDRAFT DAMPER.
15. CONNECT 4" EXHAUST DUCT TO RANGE HOOD AND ROUTE UP THROUGH ROOF.
16. CONTRACTOR SHALL INSTALL WALL MOUNTED HUMIDIFIER WITH BLOWER PACK PER MANUFACTURERS INSTALLATION RECOMMENDATIONS AND REQUIREMENTS. BLOWER PACK SHALL BE A MINIMUM OF 8'-0" AFF.
17. PROVIDE 1" CONDENSATE DRAIN FROM HUMIDIFIER H-1 CONNECTION AND ROUTE TO EXTERIOR AND TURN DOWN. PROVIDE CONCRETE SPLASHBLOCK BELOW CONDENSATE DRAIN TERMINATION POINT.

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Professional Seal:
05/27/26
NORTH CAROLINA PROFESSIONAL SEAL 060323 ENGINEER RICHARD W. GIRARD

Owner:
BERTIE COUNTY

Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
FIRST FLOOR PLAN - HVAC DUCTWORK

Drawing Number:
M101

True Project

BID SET

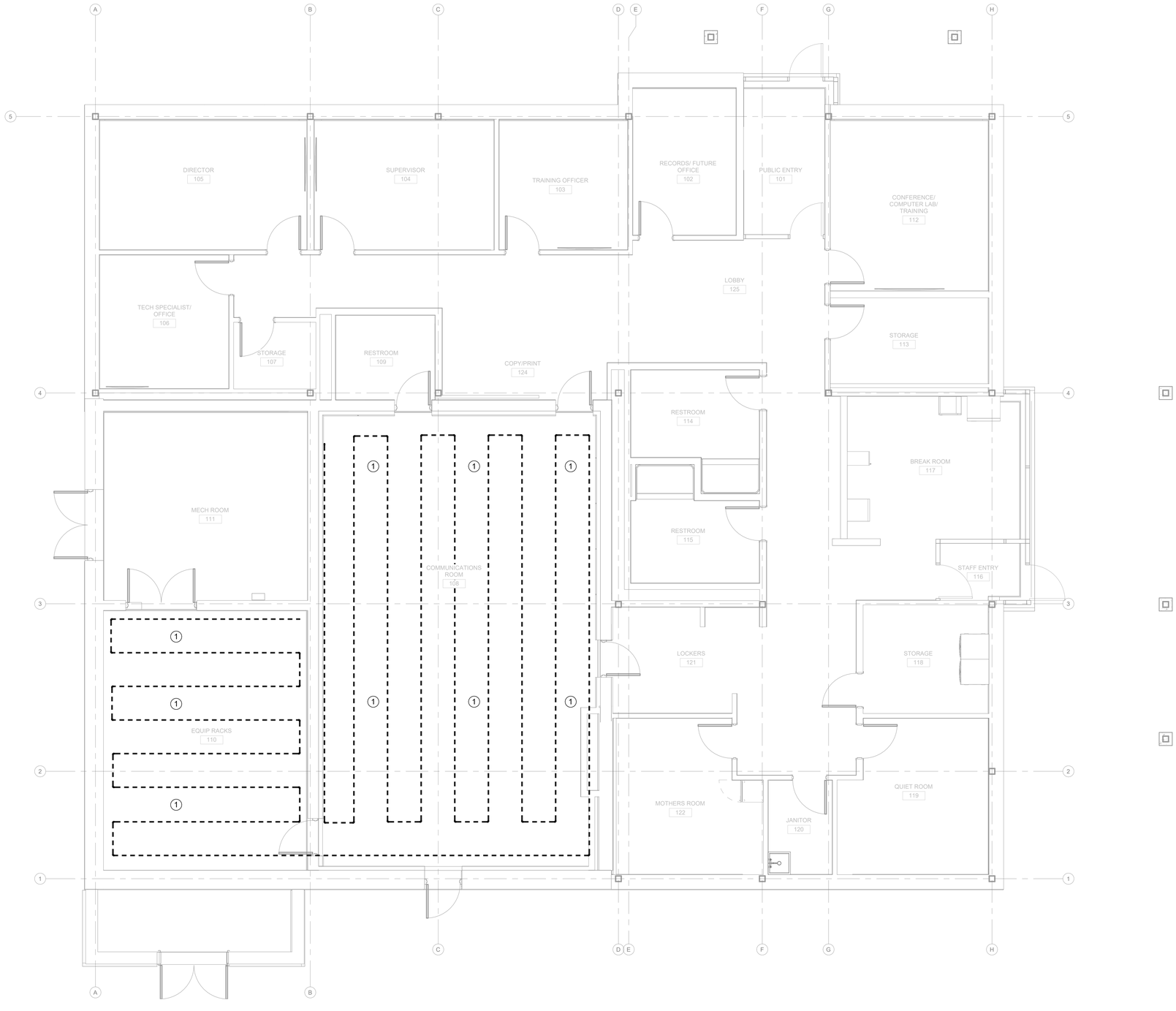
CREATED ON: 5/28/2026 6:56:56 AM

GENERAL NOTES:

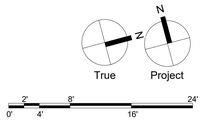
1. ALL LEAK DETECTION CABLING SHOWN ON THIS PLAN LOCATED UNDER RAISED FLOOR.

DRAWING NOTES:

1. CONTRACTOR SHALL PROVIDE TRACETEK WATER LEAK DETECTION MONITORING SYSTEM OR EQUAL FOR RAISED FLOOR PORTION OF THE BUILDING. LOCAL LEAK DETECTION MONITORS SHALL BE INSTALLED AS INDICATED ON PLANS (SEE SHEET M101). LEAK DETECTION CABLING SHALL BE ROUTED UNDER RAISED FLOOR SYSTEM PER MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION PROCEDURES. A COMPLETE SYSTEM LAYOUT SHALL BE PROVIDE BY THE SUPPLIER AS PART OF THE SHOP DRAWING SUBMITTALS. EACH LEAK DETECTION ZONE SHALL HAVE BOTH LOCAL AND AUDIBLE ALARM AND SHALL SEND AN ALARM TO THE CENTRAL CONTROL PANEL.



FIRST FLOOR PLAN - LEAK DETECTION CABLING - UNDERFLOOR
SCALE: 1/4" = 1'-0"



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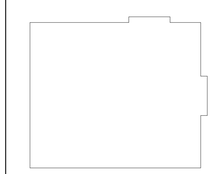
Key Plan:



Drawing Title:
FIRST FLOOR PLAN - LEAK DETECTION CABLING - UNDERFLOOR

Drawing Number:
M201

CREATED ON: 5/28/2026 6:56:56 AM

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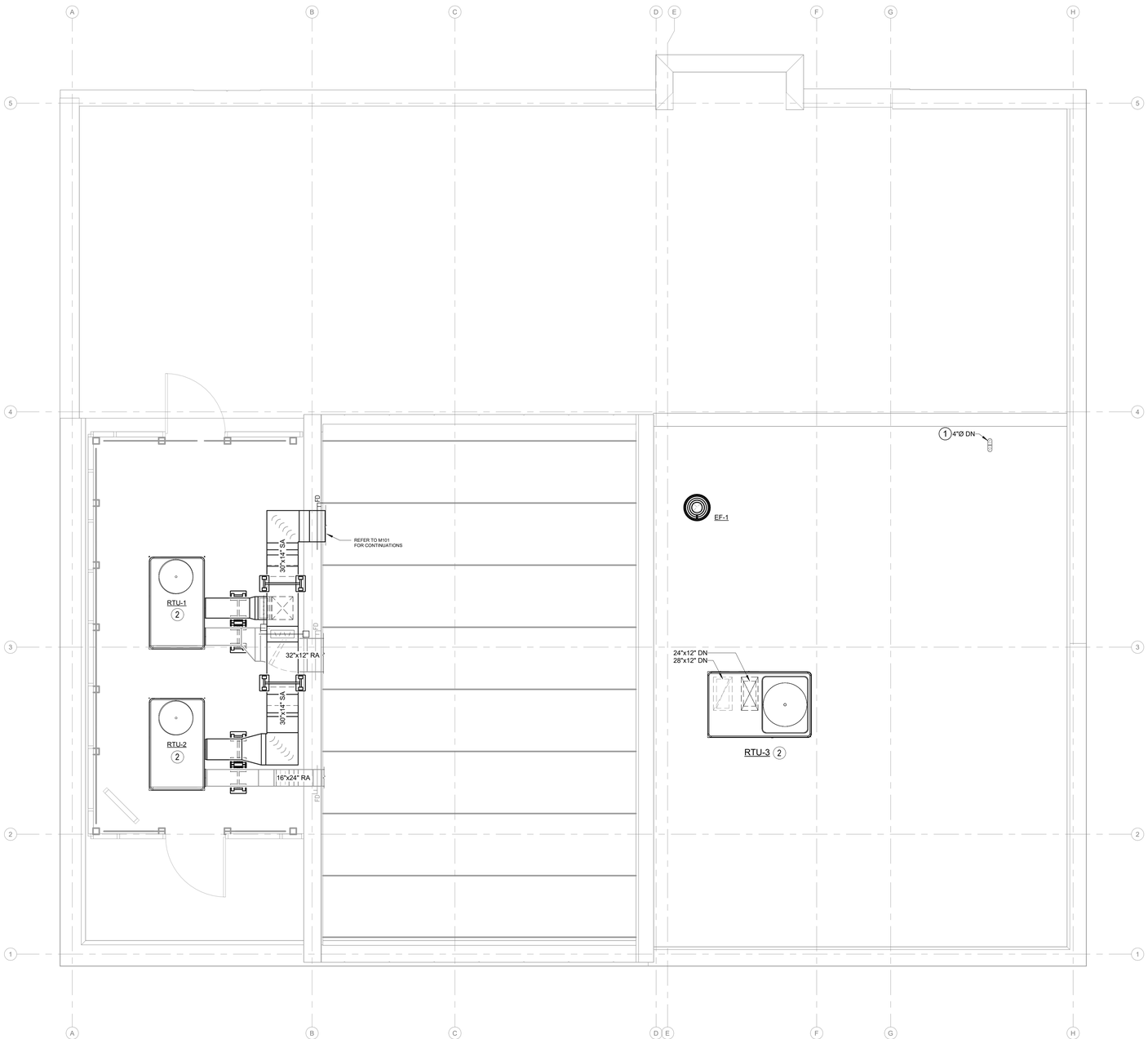
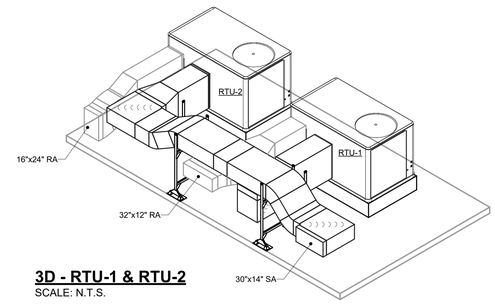
DRAWING NOTES:

1. PROVIDE BACKDRAFT DAMPER IN EXHAUST DUCTWORK. TERMINATE WITH GOOSENECK AND WIRE MESH SCREEN.
2. ENSURE MINIMUM 24" OF STRAIGHT SA/RA DUCT AT THE UNIT. TURNING VANES REQUIRED IN ALL 90° MITERED ELBOWS SERVING THE UNIT.



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



3D - RTU-1 & RTU-2
SCALE: N.T.S.

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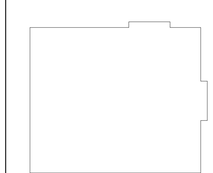
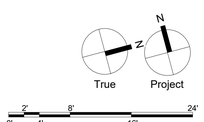


Drawing Title:
ROOF PLAN - HVAC

Drawing Number:
M301



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CONTROL AND INSTRUMENTATION LEGEND

CONTROLS SYMBOLS

SYMBOL	DESCRIPTION
T	SPACE THERMOSTAT
H	SPACE HUMIDISTAT
	DUCT OR PIPE THERMOMETER
TT-	TEMPERATURE TRANSMITTER
HT-	HUMIDITY TRANSMITTER
HLHT-	HIGH LIMIT HUMIDITY TRANSMITTER
PT-	PRESSURE TRANSMITTER
	PRESSURE GAGE WITH BALL VALVE
D-	CONTROL OR ISOLATION DAMPER
BDD	COUNTER BALANCE/GRAVITY BACKDRAFT DAMPER
FZ-	FREEZESTAT
AMS	AIR MONITORING STATION
CT	CURRENT TRANSDUCER
AMD	AIR MONITORING DEVICE WITH PRESSURE TRANSMITTER
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
DPS	DIFFERENTIAL PRESSURE SWITCH OR SENSOR
PT	PRESSURE TRANSMITTER
VFD	VARIABLE FREQUENCY DRIVE
ES	END SWITCH
ATMD	AIRFLOW TEMPERATURE MEASURING DEVICE
M	MAGNAHELIC GAGE
M	METER
M	MOTOR
SD	SMOKE DETECTOR
SPS-	STATIC PRESSURE SENSING STATION
LPS	LOW PRESSURE SWITCH
S-	MANUAL SWITCH - START/STOP, FAN SPEED, OCCUPIED/UNOCCUPIED
BFM-	BUILDING FLOW METER
V-	TWO WAY CONTROL VALVE
V-	THREE WAY CONTROL VALVE
P-	COIL OR DOMESTIC WATER CIRCULATION PUMP
	IP68 22mm DIAMETER RED, YELLOW, OR GREEN LED STATUS INDICATORS
	IP68 22mm DIAMETER KEY SWITCHES, KEYED ALIKE. "ON" TO THE RIGHT
	ROOM PRESSURE SENSOR

SYMBOL	DESCRIPTION
	NORMALLY OPEN CONTACT
	INDICATION INPUT POINT
PI	PRESSURE INDICATOR
UPS	UNINTERUPTIBLE POWER SUPPLY (UPS)
DDCP	DIRECT DIGITAL CONTROL PANEL (DDCP)
XX	DIGITAL PRESSURE, TEMPERATURE OR HUMIDITY INDICATION DEVICE

DEVICE DESIGNATIONS

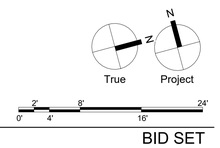
D-X-X	DAMPER DESIGNATION
V-X-X	VALVE DESIGNATION
SPS-X-X	STATIC PRESSURE SENSOR DESIGNATION
HT-X-X	HUMIDITY TRANSMITTER DESIGNATION
TT-X-X	TEMPERATURE TRANSMITTER DESIGNATION
CH-X	CHILLER DESIGNATION
CT-X	COOLING TOWER DESIGNATION
CH-P-X	CHILLED WATER PUMP DESIGNATION
ST-X	STEAM TRAP DESIGNATION
SYSTEM / SIGNAL TYPE (AI,BI,AO,BO) / POINT NUMBER	DDC POINT IDENTIFIER

ABBREVIATIONS

AI	ANALOG INPUT
AO	ANALOG OUTPUT
BI	BINARY INPUT
BO	BINARY OUTPUT
C	COMMON
MOD	MOTOR OPERATED DAMPER
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
2 POS	TWO POSITION

TEMPERATURE CONTROL NARRATIVES

1. THE CONTROL NARRATIVES DESCRIBE THE GENERAL OPERATIONAL INTENT OF THE CONTROL SYSTEMS. PROVIDE ALL HARDWARE, SOFTWARE, DEVICES,EQUIPMENT AND WIRING AS REQUIRED TO PERFORM THE OPERATIONAL INTENT DESCRIBED BY THE VARIOUS CONTROL NARRATIVES AND TO FULLY INTERFACE WITH THE BUILDING MANAGEMENT SYSTEM (BMS).
2. THE CONTROL DIAGRAMS INDICATE THE GENERAL ARRANGEMENT OF SYSTEM COMPONENTS TO THE EXTENT THAT THEY AFFECT PROCESS FLOW OR CONTROL. NOT ALL REQUIRED COMPONENTS ARE SHOWN ON THE CONTROL DIAGRAMS. FOR INSTANCE, EACH AIR HANDLING UNIT ONLY SHOWS ONE DISCHARGE ISOLATION BDAMPER EVEN THOUGH MULTIPLE DAMPER SECTIONS AND/OR OPERATORS ARE REQUIRED BY THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL CONTRACT DOCUMENTS TO ASCERTAIN THE FULL SCOPE OF THEIR WORK.
3. UNLESS OTHERWISE NOTED, SIZE ALL AUTOMATIC CONTROL VALVES FOR MAXIMUM TEN (10) FEET WATER PRESSURE DROP AT THE MAXIMUM DESIGN FLOW RATE.
4. REFER TO DRAWINGS FOR LOCATIONS OF ALL TERMINAL UNITS, ROOM THERMOSTATS AND HUMIDISTATS, PANELS, DAMPERS, VALVES, AND EQUIPMENT; WHERE SUCH DEVICES ARE NOT INDICATED, HOWEVER ARE REQUIRED BY THE CONTROL NARRATIVES TO ACHIEVE THE INTENDED OPERATION, THEY SHALL BE PROVIDED AND LOCATED IN THE FIELD WHERE DIRECTED BY THE ARCHITECT/ENGINEER.
5. THE FIRE ALARM SYSTEM PROVIDER SHALL PROVIDE ALL DETECTION DEVICES (HEAT/SMOKE) AS REQUIRED BY THE CONTRACT DOCUMENTS AND CODES AND REGULATIONS. THE MECHANICAL CONTRACTOR SHALL INSTALL ALL DETECTION DEVICES INCLUDING REQUIRED CONTROL AND POWER WIRING REQUIRED FOR MECHANICAL SYSTEMS. DETECTION DEVICES SHALL PROVIDE AUTOMATIC SHUTDOWN OF THE HVAC SYSTEMS IN ACCORDANCE WITH CODES AND REGULATIONS.
6. LOCAL AIR HANDLING UNIT DUCT MOUNTED SMOKE DETECTORS PROVIDED AS PART OF THE FIRE ALARM SYSTEM SHALL, ON THE DETECTION OF THE PRODUCTS OF COMBUSTION, SHUTDOWN THE SUPPLY FAN. THESE DEVICES SHALL HAVE VOLT-FREE CONTACTS HARD WIRED BY THE CONTROLS CONTRACTOR IN THE MOTOR STARTER CIRCUIT TO SHUT DOWN THE SUPPLY AND RETURN FANS AND SEND AN ALARM SIGNAL TO THE BMS WHEN THEY ARE ACTIVATED.
7. ALL TEMPERATURE, HUMIDITY, AND PRESSURE SETPOINTS SHALL BE FULLY ADJUSTABLE THROUGH THE BMS. FINAL SYSTEM SETPOINTS SHALL BE CONFIRMED THROUGH SYSTEM COMMISSIONING AND FIXED PRIOR TO BUILDING OCCUPANCY. THEREAFTER SETPOINTS SHALL BE ADJUSTABLE THROUGH THE BMS BY TRAINED MAINTENANCE STAFF.
8. ALL TWO POSITION DAMPERS SHALL BE PROVEN OPEN BY THE USE OF END SWITCHES WHERE INDICATED ON THE CONTROL SCHEMATICS.
9. REFER TO INDIVIDUAL INPUT/OUTPUT SUMMARY SCHEDULES FOR ADDITIONAL CONTROL DEVICES NOT SPECIFICALLY DESCRIBED IN THE CONTROL NARRATIVES. INPUT/OUTPUT SUMMARY SCHEDULES ARE MINIMUM REQUIREMENTS; PROVIDE ALL REQUIRED POINTS FOR COMPLETE OPERATION OF THE SYSTEMS.
10. ALL VARIABLE FREQUENCY DRIVES (VFD) FOR FANS AND PUMPS SHALL BE SOFT STARTED AT MINIMUM SPEED AND INCREASED TO REQUIRED OPERATING SPEED BY THE BMS.
11. UPON FAILURE OF ANY DIRECT DIGITAL CONTROL (DDC) UNIT, AN ALARM SHALL BE INDICATED ON THE BMS AND THE SYSTEM SHALL AUTOMATICALLY REVERT TO THE DEFAULT CYCLE. ALL MOTORS AND SUPPLY/RETURN FANS SHALL REMAIN IN THEIR LAST COMMANDED STATE, AT WHICH TIME THE NORMAL SEQUENCE OF OPERATIONS SHALL RESUME FOR SELECTED FANS AND PUMPS ONCE THE DDC UNIT IS RESTORED TO SERVICE.
12. HVAC SYSTEM CONTROLS SHALL NOT FAIL AND LOCK OUT UPON LOSS OF TOTAL BUILDING POWER (SUCH AS UNDER EMERGENCY CONDITIONS WITH A MAJOR POWER OUTAGE) AND LOSS OF POWER SHALL NOT BE ALARMED TO THE BMS. THE CONTROLS CONTRACTOR SHALL PROVIDE LOCAL UPS UNITS FOR EACH CONTROL PANEL. IF POWER IS LOST TO INDIVIDUAL DEVICES TO THE BMS SHALL BE ALARMED FOR THE INDIVIDUAL COMPONENTS.



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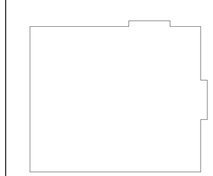
Key Plan:



Drawing Title:
CONTROLS AND INSTRUMENTATION LEGEND

Drawing Number:
M600

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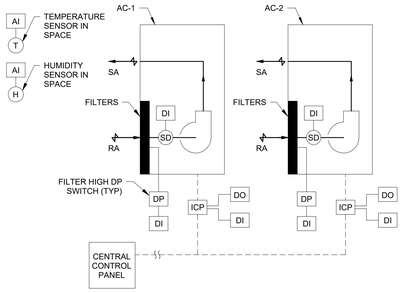


AC-1 (AC-2 TYP) INPUT / OUTPUT SUMMARY					
	AI	AO	DO	DI	
DEVICE / POINT DESCRIPTION	ANALOG READING	MODULATING CONTROL SIGNAL	ON / OFF (OPEN / CLOSE)	DIGITAL STATUS	ALARMS
INTEGRATED CONTROL PANEL (ICP)			X	X	X
SPACE TEMPERATURE SENSOR	X				X
SPACE HUMIDITY SENSOR	X				X
FILTER DP SWITCH				X	X
SMOKE DETECTOR				X	X

AC-1 (AC-2 TYPICAL) SEQUENCE OF OPERATION

GENERAL:
AC-1 (AC-2 TYPICAL) SHALL BE ENERGIZED THROUGH THE CENTRAL CONTROL PANEL. THE FAN SHALL RUN CONTINUOUSLY. THE UNIT'S INTEGRAL CONTROLS SHALL MODULATE COOLING / HEATING AND DEHUMIDIFICATION / HUMIDIFICATION TO MAINTAIN THE SPACE SETPOINT OF 75 °F (ADJUSTABLE).

REDUNDANCY:
AC-1 IS THE DUTY UNIT AND SHALL BE ENABLED AND ENERGIZED THROUGH THE CENTRAL CONTROL PANEL TO MAINTAIN SETPOINT AS DESCRIBED ABOVE. AC-2 IS THE STANDBY SYSTEM AND SHALL BE DISABLED AND DE-ENERGIZED. THE DUTY/STAND-BY SYSTEM SCHEDULE OF OPERATION SHALL MATCH THE RTU-1/RTU-2 SYSTEM SCHEDULE (SEE SCHEMATIC).

COOLING:
COOLING IS ENABLED WHEN SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT PLUS 4 °F DEADBAND (ADJUSTABLE). THE ICP STAGES COMPRESSOR(S) AS REQUIRED TO MAINTAIN TEMPERATURE. ELECTRIC HEAT IS LOCKED OUT DURING COOLING.

HEATING (ELECTRIC HEAT)
HEATING IS ENABLED WHEN SPACE TEMPERATURE FALLS BELOW THE HEATING SETPOINT MINUS 4 °F DEADBAND (ADJUSTABLE). COOLING IS LOCKED OUT DURING HEATING.

SAFETIES:
ANTI-SHORT-CYCLE TIMERS AND INTERNAL SAFETIES ARE FACTORY-CONTROLLED.

SPACE TEMPERATURE SENSOR SHALL ALARM BELOW 50 °F (ADJUSTABLE) AND ABOVE 90 °F (ADJUSTABLE).

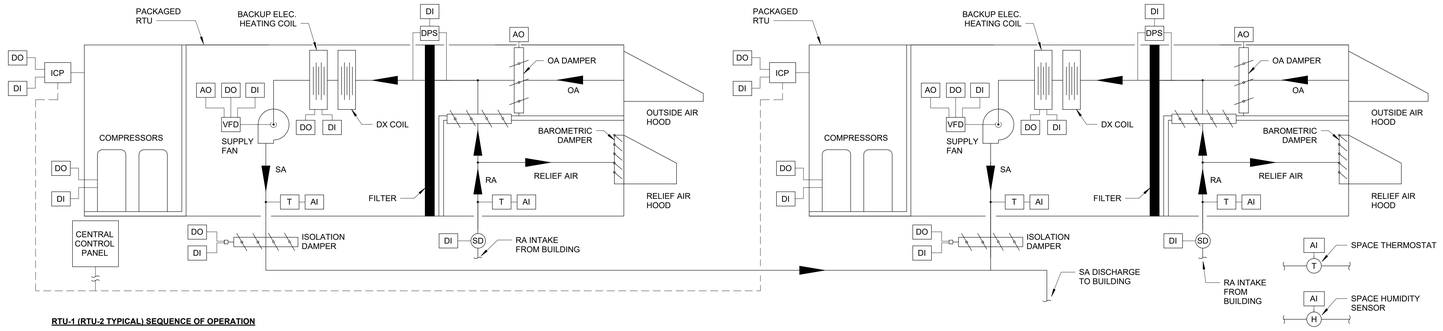
IN THE EVENT OF A DIRTY FILTER, FILTER DP SWITCH SHALL SEND AN ALARM.

SMOKE DETECTOR SHALL DE-ENERGIZE THE UNIT UPON SENSING PRODUCTS OF COMBUSTION.

UNIT PROVIDES NO ACTIVE HUMIDITY CONTROL. SPACE HUMIDITY SENSOR SHALL REPORT TO BAS. BAS SHALL ALARM ABOVE/BELOW 80/20 %RH (ADJUSTABLE).

FAN STATUS IS MONITORED; FAN FAILURE GENERATES AN ALARM.

2 SCHEMATIC - AC-1 & AC-2
SCALE: N.T.S.



RTU-1 (RTU-2 TYPICAL) INPUT / OUTPUT SUMMARY					
POINT DESCRIPTION / DEVICE	AI	AO	DO	DI	
	ANALOG READING	MODULATING CONTROL SIGNAL	ON/OFF	DIGITAL STATUS	ALARMS
RTU-1 (ICP)			X	X	X
SUPPLY FAN VFD		X	X	X	X
COMPRESSORS			X	X	X
ELECTRIC HEATING COIL			X	X	X
OUTDOOR AIR DAMPER		X		X	X
ISOLATION DAMPER			X	X	X
SUPPLY AIR TEMPERATURE	X				X
RETURN AIR TEMPERATURE	X				
FILTER DIFFERENTIAL PRESSURE SWITCH				X	X
OUTDOOR AIR TEMPERATURE	X				
OUTDOOR AIR HUMIDITY	X				
SPACE THERMOSTAT	X				X
SPACE HUMIDITY SENSOR	X				X
DUCT STATIC PRESSURE SENSOR	X				X
SMOKE DETECTOR				X	X

RTU-1 (RTU-2 TYPICAL) SEQUENCE OF OPERATION

A. GENERAL:
1. RTU-1 (RTU-2 TYPICAL) SHALL BE ENERGIZED THROUGH THE CENTRAL CONTROL PANEL. THE UNIT SHALL OPERATE PRIMARILY ON ITS INTEGRAL CONTROL PANEL (ICP). ALL SAFETY INTERLOCKS, COMPRESSOR STAGING, FAN CONTROL, AND ECONOMIZER LOGIC SHALL BE HANDLED LOCALLY. THE UNIT CONTROLLER SHALL BE NETWORKED TO THE CENTRAL CONTROL PANEL TO PROVIDE BASIC COMMANDS (UNIT ENABLE/DISABLE, OCCUPIED/UNOCCUPIED). THE FOLLOWING SENSOR READINGS AND STATUS POINTS SHALL ALSO BE REPORTED TO THE CENTRAL CONTROL PANEL: SUPPLY AIR TEMPERATURE, SPACE TEMPERATURE, SPACE RH, OUTSIDE AIR TEMPERATURE, OUTSIDE AIR HUMIDITY, FILTER STATUS, SUPPLY FAN STATUS, COMPRESSOR STATUS, ELECTRIC HEAT STATUS.

B. REDUNDANCY:
1. THIS SYSTEM IS A 2N REDUNDANT SYSTEM AND SHALL OPERATE UNDER A COLD STANDBY RUNNING STRATEGY. RTU-1 IS THE DUTY UNIT. RTU-2 IS THE STANDBY UNIT AND SHALL BE DISABLED AND DE-ENERGIZED. THE DUTY SYSTEM SHALL OPERATE FOR 8 WEEKS (ADJUSTABLE) THEN SWITCH OVER TO THE STANDBY SYSTEM FOR 1 WEEK (ADJUSTABLE), THEN SWITCH BACK. EACH SWITCH SHALL OCCUR ON A TUESDAY AT 4:00 AM (ADJUSTABLE). THE BAS SHALL ALLOW FOR MANUAL SELECTION OF THE UNIT IN OPERATION AND RECORD DAILY HISTORICAL RUNTIME DATA FOR EACH UNIT.
2. THE UNIT'S ISOLATION DAMPER SHALL BE INTERLOCKED WITH IT'S SUPPLY FAN MOTOR. WHEN THE SUPPLY FAN IS ENERGIZED, THE DAMPER SHALL BE OPEN. WHEN THE FAN IS DE-ENERGIZED, THE DAMPER SHALL BE CLOSED.

C. OCCUPIED MODE:
1. THE UNIT SHALL BE ENERGIZED.
2. OA DAMPER SHALL MODULATE OPEN TO MAINTAIN THE SCHEDULED OA MINIMUM AIRFLOW.
3. SUPPLY FAN SHALL BE ENERGIZED AND RUN CONTINUOUSLY.
4. IF SPACE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING SETPOINT OF 75 °F OR FALLS BELOW THE OCCUPIED HEATING SETPOINT OF 70 °F (ADJUSTABLE), COMPRESSORS SHALL ENERGIZE AND STAGE AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE.
5. IF HEAT PUMP HEATING IS UNABLE TO MAINTAIN THE SPACE TEMPERATURE FOR A FIXED INTERVAL AND DEMAND PERSISTS, ELECTRIC BACKUP HEAT SHALL ENERGIZE. ELECTRIC HEAT SHALL MODULATE AS REQUIRED TO HOLD THE SPACE TEMPERATURE SETPOINT.

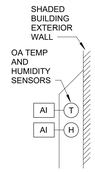
D. UNOCCUPIED MODE:
1. UNIT SHALL BE NORMALLY DE-ENERGIZED. UNIT SHALL ENERGIZE WHEN UNOCCUPIED COOLING OR UNOCCUPIED HEATING IS ENABLED.
2. UNOCCUPIED COOLING – ENABLED WHEN SPACE TEMPERATURE EXCEEDS 78 °F (ADJUSTABLE). OUTSIDE AIR DAMPER SHALL BE COMMANDED CLOSED. SUPPLY FAN SHALL BE ENERGIZED. COMPRESSORS SHALL ENERGIZE AND MODULATE TO SATISFY ZONE TEMPERATURE SETPOINT. UNIT SHALL DE-ENERGIZE ONCE THE REPRESENTATIVE ZONE THERMOSTAT IS SATISFIED.
3. UNOCCUPIED HEATING – ENABLED WHEN SPACE TEMPERATURE FALLS BELOW 65 °F (ADJUSTABLE). OUTSIDE AIR DAMPER SHALL BE COMMANDED CLOSED. SUPPLY FAN SHALL BE ENERGIZED. COMPRESSORS SHALL ENERGIZE AND MODULATE TO SATISFY ZONE TEMPERATURE SETPOINT. IF HEAT PUMP HEATING IS UNABLE TO MAINTAIN THE SPACE TEMPERATURE FOR A FIXED INTERVAL AND DEMAND PERSISTS, ELECTRIC BACKUP HEAT SHALL ENERGIZE. UNIT SHALL DE-ENERGIZE ONCE THE THERMOSTAT IS SATISFIED.

E. MORNING WARM-UP / COOL-DOWN:
1. PRIOR TO OCCUPIED MODE, THE UNIT CONTROLLER SHALL INITIATE HEATING OR COOLING BASED ON SPACE TEMPERATURE TO BRING THE SPACE TO THE OCCUPIED SETPOINT BY THE SCHEDULED OCCUPIED TIME. THE CONTROLLER SHALL DETERMINE THE REQUIRED START TIME USING ITS OPTIMAL START ALGORITHM. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED DURING THIS PERIOD. UPON REACHING THE OCCUPIED SETPOINT, THE UNIT SHALL TRANSITION TO NORMAL OCCUPIED OPERATION.

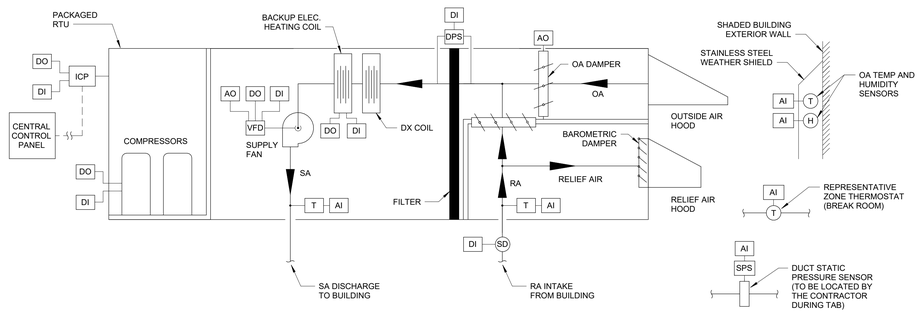
F. ECONOMIZER:
1. ENABLED WHEN OUTDOOR AIR ENTHALPY, AS CALCULATED FROM OA TEMPERATURE AND OA HUMIDITY SENSORS, IS LESS THAN THE REFERENCE ENTHALPY LIMIT OF 28 BTU/LB (ADJUSTABLE) AND OA TEMPERATURE IS LESS THAN 80 °F (ADJUSTABLE).
2. WHEN ECONOMIZER IS ENABLED, OA DAMPER SHALL MODULATE TO MAINTAIN THE SPACE COOLING SETPOINT. IF OA DAMPER IS FULLY OPEN AND SPACE TEMPERATURE REMAINS ABOVE SETPOINT, HEAT PUMP COMPRESSORS SHALL STAGE AS REQUIRED.
3. FREE COOLING – ENABLED WHEN ECONOMIZER MODE IS ACTIVE AND OA TEMPERATURE IS LESS THAN 50 °F (ADJUSTABLE). COMPRESSORS SHALL BE LOCKED OUT. OA DAMPER SHALL MODULATE TO MAINTAIN THE SPACE COOLING SETPOINT.

G. GENERAL:
1. PROVIDE DISCONNECT SWITCH.
2. OUTSIDE AIR DAMPER SHALL CLOSE UPON UNIT SHUTDOWN OR SMOKE DETECTOR TRIP.
3. COMPRESSORS SHALL BE PROVIDED WITH HIGH/LOW PRESSURE SAFETIES, ANTI -SHORT CYCLE TIMERS, AND MINIMUM OFF-TIME PROTECTION.
4. FOLLOWING A POWER FAILURE, THE UNIT SHALL AUTOMATICALLY RESTART WHEN POWER IS RESTORED, SUBJECT TO ALL SAFETIES AND TIMERS.

H. ALARMS:
1. DIRTY FILTERS - IF FILTER DIFFERENTIAL PRESSURE EXCEEDS 1 IWG (ADJUSTABLE), AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
2. SUPPLY FAN FAILURE - IF THE SUPPLY FAN STATUS DOES NOT MATCH ITS COMMAND (AFTER A TIME DELAY) AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER. IF THE FAN FAILS, THE UNIT SHALL BE DE-ENERGIZED.
3. TEMPERATURE SENSOR FAILTURE - IF ANY TEMPERATURE SENSOR FAILS OR READINGS EXCEED ALLOWABLE LIMITS, AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
4. SUPPLY AIR TEMPERATURE LIMITS – IF SUPPLY AIR TEMPERATURE FALLS BELOW A LOW LIMIT OR RISES ABOVE A HIGH LIMIT (ADJUSTABLE), AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
5. HUMIDITY SENSOR FAILURE – IF HUMIDITY SENSOR FAILS OR READINGS EXCEED LIMITS, AN ALARM SHALL BE SENT.
6. COMMUNICATION LOSS – IF COMMUNICATION WITH THE BUILDING AUTOMATION SYSTEM OR ZONE SENSOR IS LOST, AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
7. SMOKE DETECTOR – IF SMOKE IS DETECTED, THE UNIT SHALL DE-ENERGIZE THE SUPPLY FAN, CLOSE THE OUTSIDE AIR DAMPER, AND SEND A TROUBLE SIGNAL TO THE FIRE ALARM SYSTEM.
8. ISOLATION DAMPER FAILURE – IF THE DAMPER DOES NOT PROVE OPEN OR CLOSED AS COMMANDED, AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.



1 SCHEMATIC - RTU-1 & RTU-2
SCALE: N.T.S.



RTU-3 INPUT / OUTPUT SUMMARY					
POINT DESCRIPTION / DEVICE	AI	AO	DO	DI	
	ANALOG READING	MODULATING CONTROL SIGNAL	ON/OFF	DIGITAL STATUS	ALARMS
RTU-3 (ICP)			X	X	X
SUPPLY FAN VFD		X	X	X	X
COMPRESSORS			X	X	X
ELECTRIC HEATING COIL			X	X	X
OUTDOOR AIR DAMPER		X		X	X
SUPPLY AIR TEMPERATURE	X				X
RETURN AIR TEMPERATURE	X				
FILTER DIFFERENTIAL PRESSURE SWITCH				X	X
OUTDOOR AIR TEMPERATURE	X				
OUTDOOR AIR HUMIDITY	X				
REPRESENTATIVE ZONE THERMOSTAT	X				X
DUCT STATIC PRESSURE SENSOR	X				X
SMOKE DETECTOR				X	X

RTU-3 SEQUENCE OF OPERATION

A. GENERAL:
1. RTU-3 SHALL BE ENERGIZED THROUGH THE CENTRAL CONTROL PANEL. THE UNIT SHALL OPERATE PRIMARILY ON ITS INTEGRAL CONTROL PANEL (ICP). ALL SAFETY INTERLOCKS, COMPRESSOR STAGING, FAN CONTROL, AND ECONOMIZER LOGIC SHALL BE HANDLED LOCALLY. THE UNIT CONTROLLER SHALL BE NETWORKED TO THE CENTRAL CONTROL PANEL TO PROVIDE BASIC COMMANDS (UNIT ENABLE/DISABLE, OCCUPIED/UNOCCUPIED). THE FOLLOWING SENSOR READINGS AND STATUS POINTS SHALL ALSO BE REPORTED TO THE CENTRAL CONTROL PANEL: SUPPLY AIR TEMPERATURE, SPACE TEMPERATURE, SPACE RH, OUTSIDE AIR TEMPERATURE, OUTSIDE AIR HUMIDITY, FILTER STATUS, SUPPLY FAN STATUS, COMPRESSOR STATUS, ELECTRIC HEAT STATUS.

B. OCCUPIED MODE:
1. THE UNIT SHALL BE ENERGIZED.
2. OA DAMPER SHALL MODULATE OPEN TO MAINTAIN THE SCHEDULED OA MINIMUM AIRFLOW.
3. SUPPLY FAN SHALL BE ENERGIZED AND RUN CONTINUOUSLY.
4. SUPPLY FAN SPEED SHALL MODULATE TO MAINTAIN DUCT STATIC PRESSURE SETPOINT.
5. COMPRESSORS SHALL ENERGIZE AND STAGE AS REQUIRED TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT OF 55 °F (ADJUSTABLE). IF DISCHARGE AIR TEMPERATURE REMAINS BELOW HEATING SETPOINT FOR A FIXED TIME INTERVAL AND DEMAND PERSISTS, ELECTRIC BACKUP HEAT SHALL ENERGIZE. ELECTRIC HEAT SHALL MODULATE AS REQUIRED TO HOLD THE HEATING SUPPLY AIR TEMPERATURE SETPOINT.

C. UNOCCUPIED MODE:
1. UNIT SHALL BE NORMALLY DE-ENERGIZED. UNIT SHALL ENERGIZE WHEN UNOCCUPIED COOLING OR UNOCCUPIED HEATING IS ENABLED.
2. UNOCCUPIED COOLING – ENABLED WHEN REPRESENTATIVE ZONE TEMPERATURE EXCEEDS 78 °F (ADJUSTABLE). OUTSIDE AIR DAMPER SHALL BE COMMANDED CLOSED. SUPPLY FAN SHALL BE ENERGIZED. HEAT PUMP COMPRESSORS SHALL ENERGIZE AND MODULATE TO SATISFY ZONE TEMPERATURE SETPOINT. UNIT SHALL DE-ENERGIZE ONCE THE REPRESENTATIVE ZONE THERMOSTAT IS SATISFIED.
3. UNOCCUPIED HEATING – ENABLED WHEN REPRESENTATIVE ZONE TEMPERATURE FALLS BELOW 65 °F (ADJUSTABLE). OUTSIDE AIR DAMPER SHALL BE COMMANDED CLOSED. SUPPLY FAN SHALL BE ENERGIZED. HEAT PUMP COMPRESSORS (AND ELECTRIC BACKUP HEAT IF REQUIRED) SHALL ENERGIZE AND CYCLE AS REQUIRED TO SATISFY THE ZONE TEMPERATURE SETPOINT. LEAVING AIR TEMPERATURE MAY BE HIGHER THAN THE TYPICAL 55 °F SETPOINT TO PROVIDE ADEQUATE WARMING AND AVOID OVERCOOLING. UNIT SHALL DE-ENERGIZE ONCE THE REPRESENTATIVE ZONE THERMOSTAT IS SATISFIED.

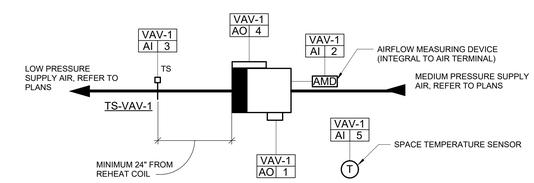
D. MORNING WARM-UP / COOL-DOWN:
1. PRIOR TO OCCUPIED MODE, THE UNIT CONTROLLER SHALL INITIATE HEATING OR COOLING BASED ON REPRESENTATIVE ZONE TEMPERATURE TO BRING THE SPACE TO THE OCCUPIED SETPOINT BY THE SCHEDULED OCCUPIED TIME. THE CONTROLLER SHALL DETERMINE THE REQUIRED START TIME USING ITS OPTIMAL START ALGORITHM. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED DURING THIS PERIOD. UPON REACHING THE OCCUPIED SETPOINT, THE UNIT SHALL TRANSITION TO NORMAL OCCUPIED OPERATION.

E. ECONOMIZER:
1. ENABLED WHEN OUTDOOR AIR ENTHALPY, AS CALCULATED FROM OA TEMPERATURE AND OA HUMIDITY SENSORS, IS LESS THAN THE REFERENCE ENTHALPY LIMIT OF 29 BTU/LB (ADJUSTABLE) AND OA TEMPERATURE IS LESS THAN 80 °F (ADJUSTABLE).
2. WHEN ECONOMIZER IS ENABLED, OA DAMPER SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE OF 55 °F (ADJUSTABLE). IF OA DAMPER IS FULLY OPEN AND SUPPLY AIR TEMPERATURE EXCEEDS SETPOINT, COMPRESSORS SHALL STAGE AS REQUIRED TO ASSIST ECONOMIZER OPERATION.
3. FREE COOLING – ENABLED WHEN ECONOMIZER MODE IS ACTIVE AND OA TEMPERATURE IS LESS THAN 50 °F (ADJUSTABLE). COMPRESSORS SHALL BE LOCKED OUT. OA DAMPER SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE OF 55 °F (ADJUSTABLE).

F. GENERAL:
1. PROVIDE DISCONNECT SWITCH.
2. OUTSIDE AIR DAMPER SHALL CLOSE UPON UNIT SHUTDOWN OR SMOKE DETECTOR TRIP.
3. COMPRESSORS SHALL BE PROVIDED WITH HIGH/LOW PRESSURE SAFETIES, ANTI-SHORT CYCLE TIMERS, AND MINIMUM OFF-TIME PROTECTION.
4. FOLLOWING A POWER FAILURE, THE UNIT SHALL AUTOMATICALLY RESTART WHEN POWER IS RESTORED, SUBJECT TO ALL SAFETIES AND TIMERS.

G. ALARMS:
1. DIRTY FILTERS - IF FILTER DIFFERENTIAL PRESSURE EXCEEDS 1 IWG (ADJUSTABLE), AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
2. SUPPLY FAN FAILURE - IF THE SUPPLY FAN STATUS DOES NOT MATCH ITS COMMAND (AFTER A TIME DELAY) AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER. IF THE FAN FAILS, THE UNIT SHALL BE DE-ENERGIZED.
3. TEMPERATURE SENSOR FAILTURE - IF ANY TEMPERATURE SENSOR FAILS OR READINGS EXCEED ALLOWABLE LIMITS, AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
4. SUPPLY AIR TEMPERATURE LIMITS – IF SUPPLY AIR TEMPERATURE FALLS BELOW A LOW LIMIT OR RISES ABOVE A HIGH LIMIT (ADJUSTABLE), AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
5. COMMUNICATION LOSS – IF COMMUNICATION WITH THE BUILDING AUTOMATION SYSTEM OR ZONE SENSOR IS LOST, AN ALARM SHALL BE SENT TO THE UNIT CONTROLLER.
6. SMOKE DETECTOR – IF SMOKE IS DETECTED, THE UNIT SHALL DE-ENERGIZE THE SUPPLY FAN, CLOSE THE OUTSIDE AIR DAMPER, AND SEND A TROUBLE SIGNAL TO THE FIRE ALARM SYSTEM.

3 SCHEMATIC - RTU-3
SCALE: N.T.S.



SEQUENCE OF OPERATION

PART 1 - GENERAL

A. THE VARIABLE VOLUME SUPPLY AIR TERMINAL UNIT SHALL OPERATE ON AN OCCUPIED/UNOCCUPIED SCHEDULE. OCCUPIED/UNOCCUPIED MODES SHALL BE AS DETERMINED BY THE OCCUPIED/UNOCCUPIED PROGRAM OF THE BUILDING AUTOMATION SYSTEM (BAS).

B. THE MINIMUM AND MAXIMUM HEATING AIRFLOW SETPOINTS SHALL BE COORDINATED WITH MANUFACTURER TO PREVENT COIL OVERHEATING OR HIGH -LIMIT TRIPS.

C. OCCUPIED MODE
1. WHEN THE OCCUPIED MODE IS INITIATED, THE SUPPLY AIR TERMINAL AIR VOLUME REGULATOR SHALL INITIALLY OPEN TO ITS MINIMUM POSITION AND THE ELECTRIC RESISTANCE HEATING COIL SHALL BE DE-ENERGZED.
2. ON A RISE IN SPACE TEMPERATURE ABOVE THE OCCUPIED SETPOINT, THE AIR VOLUME REGULATOR SHALL MODULATE TOWARD ITS MAXIMUM COOLING AIRFLOW TO MAINTAIN SPACE TEMPERATURE SETPOINT.
3. ON A DROP IN SPACE TEMPERATURE BELOW THE OCCUPIED SET POINT, THE AIR VOLUME REGULATOR SHALL MODULATE TOWARD ITS MINIMUM POSITION SET POINT TO MAINTAIN SPACE TEMPERATURE SETPOINT.
4. WHEN THE AIR VOLUME REGULATOR REACHES ITS MINIMUM POSITION SETPOINT AND THE SPACE TEMPERATURE FALLS BELOW SETPOINT THE ELECTRIC RESISTANCE HEATING COIL SHALL ENERGIZE AND MODULATE (VIA SCR CONTROL) TO MAINTAIN SPACE TEMPERATURE SETPOINT.
5. ON A CONTINUED FALL IN SPACE TEMPERATURE THE ELECTRIC RESISTANCE HEATING COIL SHALL CONTINUE TO MODULATE UNTIL THE DISCHARGE AIR TEMPERATURE REACHES THE LEAVING AIR TEMPERATURE SETPOINT (ADJUSTABLE).
6. ON A FURTHER DROP IN SPACE TEMPERATURE WITH THE DISCHARGE AIR TEMPERATURE AT ITS DESIGN MAXIMUM, THE AIR VOLUME REGULATOR SHALL MODULATE FROM ITS MINIMUM AIRFLOW TO ITS MAXIMUM HEATING AIRFLOW.
7. ON A RISE IN SPACE TEMPERATURE, THE REVERSE SHALL OCCUR.
8. WHEN THE SPACE TEMPERATURE IS BETWEEN ITS OCCUPIED COOLING AND HEATING SETPOINTS THE AIR VOLUME REGULATOR SHALL BE AT ITS MINIMUM POSITION SET POINT AND THE ELECTRIC RESISTANCE HEATING COIL SHALL BE DE-EENERGIZED.

D. UNOCCUPIED MODE
1. WHEN THE UNOCCUPIED MODE IS INITIATED, THE AIR VOLUME REGULATOR SHALL CLOSE TO MINIMUM POSITION AND THE ELECTRIC RESISTANCE HEATING COIL SHALL BE DE-ENERGIZED.
2. THE UNOCCUPIED SEQUENCE OF OPERATION SHALL BE THE SAME AS THE OCCUPIED SEQUENCE OF OPERATION, CONTROLLING TO THE UNOCCUPIED SETPOINTS.
3. WHEN THE SPACE TEMPERATURE IS BETWEEN ITS UNOCCUPIED COOLING AND HEATING SETPOINTS THE AIR VOLUME REGULATOR SHALL BE AT ITS MINIMUM POSITION SET POINT AND THE ELECTRIC RESISTANCE HEATING COIL SHALL BE DE-ENERGIZED.

E. WARM-UP MODE
1. THE AIR VOLUME REGULATOR SHALL BE OPEN TO MAXIMUM HEATING POSITION AND THE ELECTRIC RESISTANCE HEATING COIL SHALL ENERGIZE AND MODULATE (VIA SCR CONTROL) TO MAINTAIN THE OCCUPIED ROOM TEMPERATURE SET POINT.

F. COOL-DOWN MODE
1. THE ELECTRIC RESISTANCE HEATING COIL SHALL BE DE-ENERGIZED. THE AIR VOLUME REGULATOR SHALL INITIALLY BE OPEN TO MAXIMUM COOLING POSITION AND SHALL MODULATE TO MAINTAIN THE OCCUPIED ROOM TEMPERATURE SET POINT.

G. UPON LOSS OF POWER, AIR VOLUME REGULATOR SHALL FAIL TO THE LAST POSITION HELD PRIOR TO LOSS OF POWER.

H. TERMINAL UNITS SHALL REQUIRE PROOF OF AIR FLOW BEFORE ACTIVATING THE ELECTRIC RESISTANCE HEATING ELEMENTS.

I. DISCHARGE AIR TEMPERATURE SHALL NOT EXCEED 100 °F (ADJUSTABLE). REHEAT SHALL MODULATE DOWN AND AIR VOLUME REGULATOR SHALL INCREASE TO MAX AIRFLOW AS REQUIRED TO MAINTAIN THIS LIMIT.

J. THE BAS SHALL OWN AND DISTRIBUTE OCCUPIED/UNOCCUPIED SCHEDULES AND SETPOINTS TO RTU AND VAV CONTROLLERS. LOCAL DEVICE SCHEDULES SHALL BE DISABLED.

4 SCHEMATIC - VARIABLE AIR VOLUME SUPPLY AIR TERMINAL UNIT WITH ELECTRIC REHEAT
SCALE: N.T.S.

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919.941.9876

Structural Engineer
SCHRADERGROUP
153 East King Street, Suite 211-212
Lancaster, PA 17602
717.299.8965

Professional Seal:
05/27/26
NORTH CAROLINA PROFESSIONAL SEAL 060323 ENGINEER RICHARD W. GIRARD

Owner:
BERTIE COUNTY
Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026
SG PROJECT NUMBER: 24-011

Key Plan:

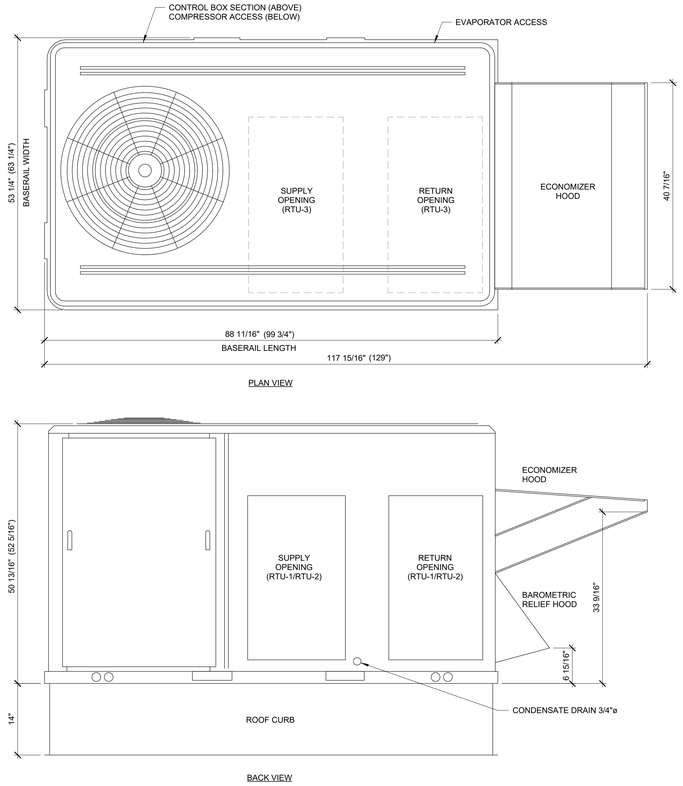
Drawing Title:
MECHANICAL CONTROLS

Drawing Number:
M601

N
True
Project
2' 8' 24'
0' 4' 16'

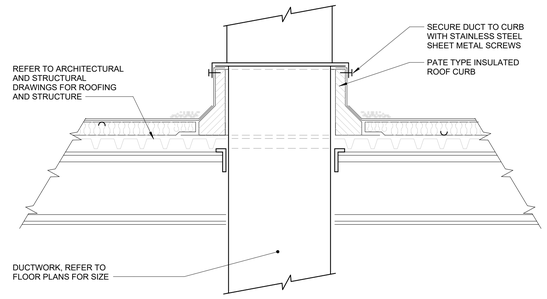
BID SET

CREATED ON: 5/28/2026 6:57:03 AM

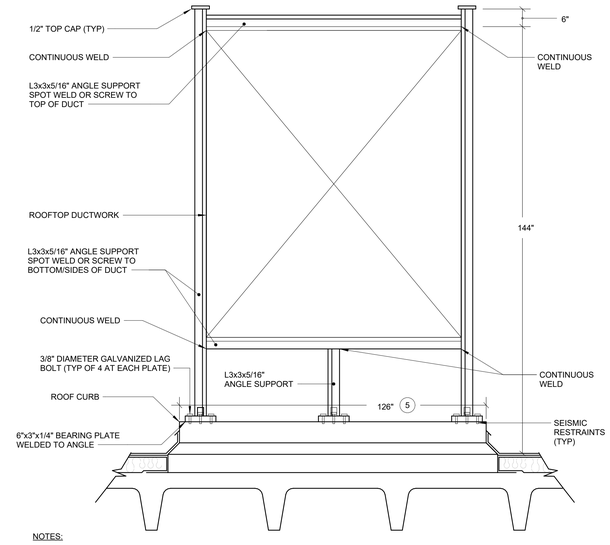


NOTES:
1. INSTALL PER MANUFACTURER REQUIREMENTS.
2. DIMENSIONS SHOWN IN PARENTHESES APPLY TO RTU-1/RTU-2.
3. CLEARANCES:
   FRONT - 48"
   SIDES - 36"
   BACK - 36" (18" RTU-1/RTU-2)
   TOP - 72"
4. PROVIDE NEOPRENE VIBRATION ISOLATION PADS AT RTU/CURB BEARING POINTS. ANCHORAGE PER STRUCTURAL ENGINEER.
5. ROOFING CONTRACTOR TO PROVIDE FLASHING AND COUNTER-FLASHING.
6. ALL PENETRATIONS TO BE SEALED AND FLASHED PER ROOFING WARRANTY REQUIREMENTS.
7. ELECTRICAL TO PROVIDE DISCONNECT AND POWER WIRING.
8. COORDINATE EXACT LOCATION WITH STRUCTURAL AND ARCHITECTURAL AND VERIFY ALL DIMENSIONS IN FIELD PRIOR TO INSTALLATION.

8 DETAIL - ROOFTOP UNITS
SCALE: N.T.S.

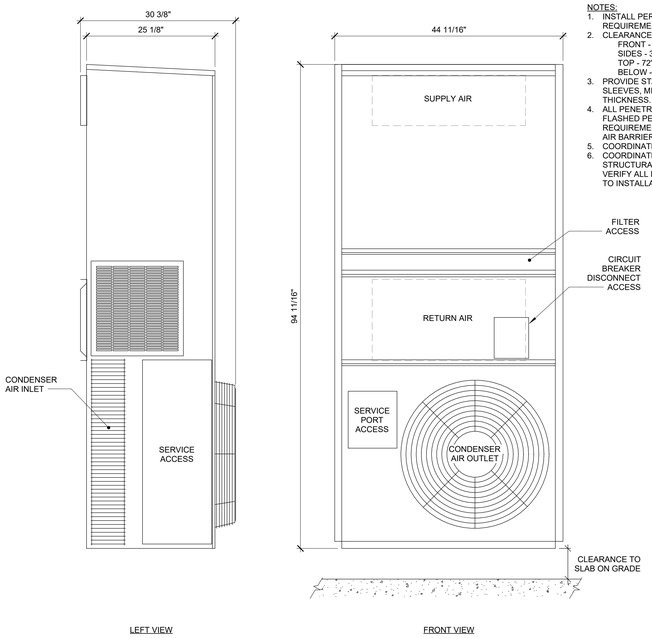


4 DETAIL - DUCT ROOF PENETRATION
SCALE: N.T.S.



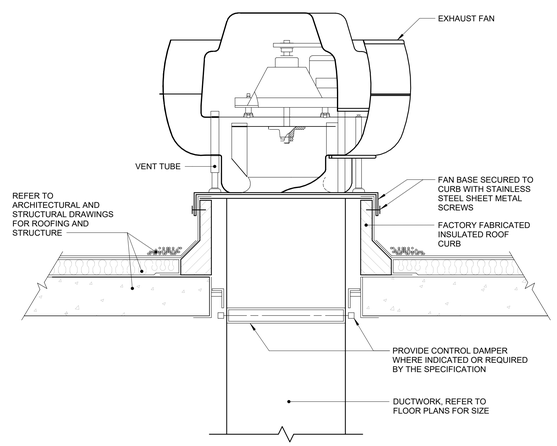
NOTES:
1. ALL STEEL SUPPORTS SHALL BE PAINTED WITH 2 COATS OF EPOXY PAINT.
2. PROVIDE SUPPORTS IN ACCORDANCE WITH "SMACNA" DUCT MANUAL FOR MINIMUM 4" STATIC PRESSURE DUCT CONSTRUCTION. SUPPORT SPACING MAXIMUM 10'-0" ON CENTER.
3. PROVIDE JOINT SEALER UNDER ALL LAP JOINTS TOP LONGITUDINAL SEAMS ARE NOT ALLOWED.
4. CONTRACTOR SHALL FIELD VERIFY ROOFING AND STRUCTURE.
5. COORDINATE DUCT SUPPORT FRAME DIMENSIONS WITH ACTUAL INSTALLATION AND FIELD CONDITIONS.
6. PROVIDE SEISMIC / HIGH-WIND-RATED ROOF CURB WITH CERTIFIED UPLIFT RESISTANCE.

10 DETAIL - ROOF MOUNTED DUCTWORK SUPPORT
SCALE: N.T.S.

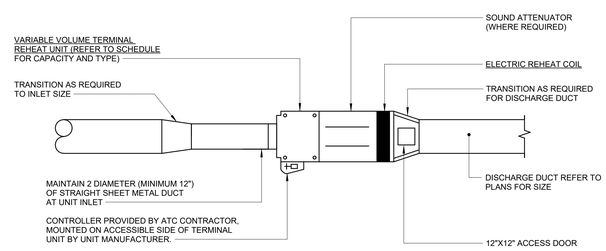


NOTES:
1. INSTALL PER MANUFACTURER REQUIREMENTS.
2. CLEARANCES:
   FRONT - 30"
   SIDES - 30"
   TOP - 72"
   BELOW - 6"
3. PROVIDE STAINLESS STEEL WALL SLEEVES, MINIMUM 16 GAUGE THICKNESS.
4. ALL PENETRATIONS TO BE SEALED AND FLASHED PER BUILDING ENVELOPE REQUIREMENTS. MAINTAIN CONTINUOUS AIR BARRIER AT WALL PENETRATIONS.
5. COORDINATE POWER WITH ELECTRICAL.
6. COORDINATE EXACT LOCATION WITH STRUCTURAL AND ARCHITECTURAL AND VERIFY ALL DIMENSIONS IN FIELD PRIOR TO INSTALLATION.

9 DETAIL - COMPUTER ROOM AC UNITS
SCALE: N.T.S.

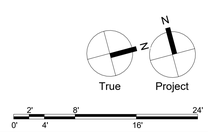


5 DETAIL - UPBLAST EXHAUST FAN - FLAT ROOF
SCALE: N.T.S.



NOTES:
1. THE FIRST TEN (10) FEET OF DUCTWORK DOWNSTREAM OF THE VARIABLE AIR VOLUME TERMINAL UNIT SHALL HAVE 1" INTERNAL ACOUSTICAL DUCT LINING IN ACCORDANCE WITH THE SPECIFICATIONS.
2. A STRAIGHT SECTION OF UNRESTRICTED DUCT AT LEAST TWO (2) DIAMETERS LONG SHALL BE INSTALLED AT THE TERMINAL UNIT INLET.
3. PROVIDE SOUND ATTENUATORS AT VAV BOXES WHERE REQUIRED TO MEET PROJECT NOISE CRITERIA. FINAL LOCATIONS AND SIZING SHALL BE DETERMINED BY THE CONTRACTOR SUBJECT TO APPROVAL BY THE DESIGN TEAM.

1 DETAIL - VARIABLE AIR VOLUME TERMINAL REHEAT UNIT
SCALE: N.T.S.



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Professional Seal:
05/27/26
NORTH CAROLINA PROFESSIONAL SEAL 060323 ENGINEER RICHARD W. GIRARD

Owner:
BERTIE COUNTY
Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026

SG PROJECT NUMBER: 24-011

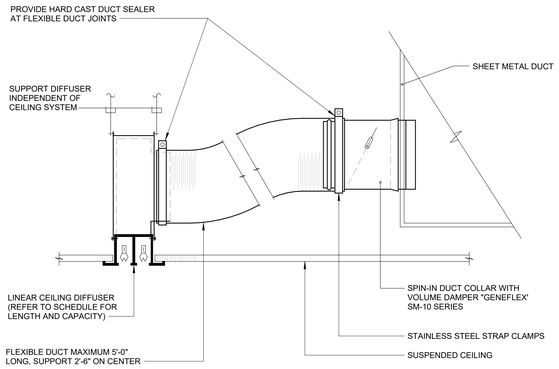
Key Plan:

Drawing Title:
MECHANICAL DETAILS

Drawing Number:
M801

BID SET

CREATED ON: 5/28/2026 6:57:03 AM

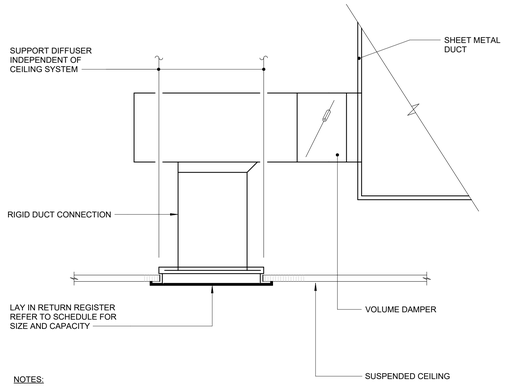


NOTES:

1. DUCT INSULATION SHALL BE PROVIDED AS SPECIFIED.
2. PROVIDE ADDITIONAL ROUND, RIGID SHEET METAL DUCTWORK AS REQUIRED TO LIMIT FLEXIBLE DUCT LENGTH TO 5'-0" MAXIMUM.

2 DETAIL - LINEAR DIFFUSER INSTALLATION

SCALE: N.T.S.

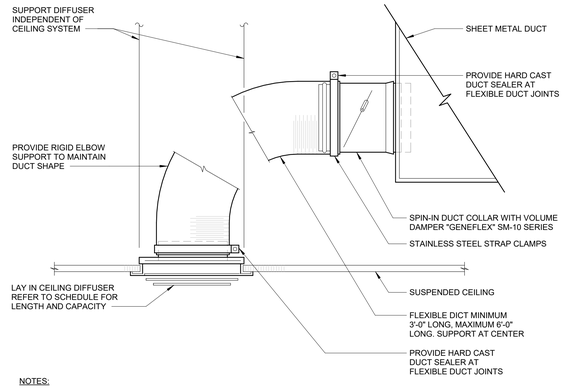


NOTES:

1. DUCT INSULATION SHALL BE PROVIDED AS SPECIFIED.
2. CONTRACTOR SHALL VERIFY MAXIMUM LOADING ON DUCTWORK SUPPORT ASSEMBLIES.

3 DETAIL - EXHAUST AIR REGISTER BRANCH DUCT

SCALE: N.T.S.

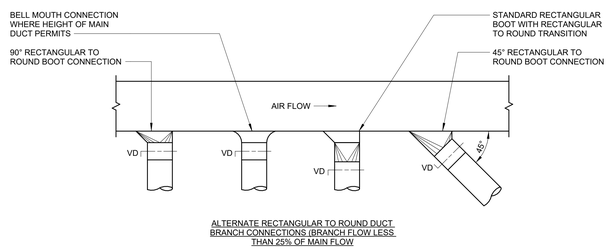


NOTES:

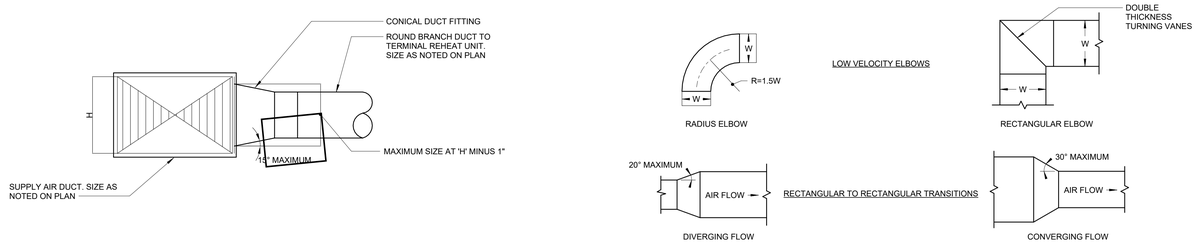
1. DUCT INSULATION SHALL BE PROVIDED AS SPECIFIED.
2. PROVIDE ADDITIONAL ROUND, RIGID SHEET METAL DUCTWORK AS REQUIRED TO LIMIT FLEXIBLE DUCT LENGTH TO 6'-0" MAXIMUM.
3. MAXIMUM SAG 1/2" PER FOOT.
4. CONTRACTOR SHALL VERIFY MAXIMUM LOADING ON DUCTWORK SUPPORT ASSEMBLIES.

1 DETAIL - CEILING DIFFUSER BRANCH DUCTS

SCALE: N.T.S.



ALTERNATE RECTANGULAR TO ROUND DUCT BRANCH CONNECTIONS (BRANCH FLOW LESS THAN 25% OF MAIN FLOW



5 DETAIL - DUCT TRANSITION FITTINGS

SCALE: N.T.S.

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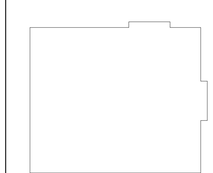
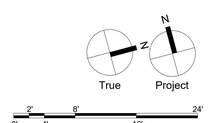


Drawing Title:
MECHANICAL DETAILS

Drawing Number:
M802



0' 2' 4' 8' 16' 24'

BID SET

CREATED ON: 5/28/2026 6:57:03 AM

HUMIDIFIER DUTY

DESIGNATION:	H-1
SERVICE:	EQUIP RACKS 110
CAPACITY (LBS/ HR):	15.9
WATER CONNECTION...	1/2
DRAIN CONNECTION (IN):	1
QUANTITY:	1
POWER: (V/PH/HZ)	208 / 3 / 60
BASIS OF DESIGN:	CONDAIR RS
REMARKS:	WALL MOUNTED WITH BLOWER PACK. MOUNT BLOWER PACK MIN 8'-0" AFF.

COMPUTER ROOM AC DUTY

DESIGNATION:	AC-1, AC-2 (REDUNDANT)
TYPE:	VERTICAL, WALL MOUNTED, RECIRCULATING
SERVICE:	EQUIP RACKS 110
NOMINAL AIRFLOW:	2100 CFM
COMPRESSOR DATA	
TYPE:	SCROLL, 2-STAGE, WITH SOUND BLANKET
REFRIGERANT:	R-454B
COMPRESSOR QTY:	1
COOLING DATA	
TOTAL CAPACITY:	66.0 MBH
SENSIBLE CAPACITY:	56.3 MBH (5 TONS)
SUPPLY FAN	
EXT. STATIC PRESSURE:	0.5 IWG
RPM:	1050
MOTOR SIZE:	3/4 HP
RETURN FILTERS:	QTY 1, MERV 8 (18" x 30" x 2")
MAX INDOOR NC LEVEL:	45
INDOOR DESIGN CONDITIONS:	
SUMMER (DB / WB):	80 / 65 °F
WINTER (DB):	60 °F
OUTDOOR DESIGN CONDITIONS:	
SUMMER (DB / WB):	96.7 / 77.74 °F
WINTER (DB):	23.4 °F
CONDENSER FANS	
QTY:	1
TYPE:	AXIAL
ELECTRIC HEAT	
CAPACITY:	0.5 KW
ELECTRICAL	
POWER SUPPLY:	208 V / 3 PH / 60 HZ
MCA / MOP:	39.1 A / 60 A
APPROXIMATE DRY WEIGHT:	660 LBS
MINIMUM EFFICIENCY:	10 EER
BASIS OF DESIGN:	MARVAIR MGH
NOTES:	PROVIDE WITH FILTER SENSOR AND SUPPLY/RETURN GRILLES BY THE MANUFACTURER. WALL SLEEVES SHALL BE STAINLESS STEEL.

ROOFTOP UNIT SCHEDULE

DESIGNATION	SERVICE	SUPPLY AIR FAN						COOLING COIL						HEAT PUMP HEATING			BACKUP ELECTRIC HEATING KW	REFRIGERANT	ELECTRICAL					BASIS OF DESIGN	REMARKS
		MINIMUM OA CFM	AIRFLOW CFM	TOTAL INCH WG	ESP INCH WG	MOTOR HP	MOTOR RPM	EAT F DB	EAT F WB	LAT F DB	LAT F WB	TOTAL MBH	SENSIBLE MBH	EAT F DB	LAT F DB	TOTAL MBH			VOLTS	PHASE	HERTZ	MCA	MOCP		
RTU-1	COMMUNICATIONS ROOM 108	525	3315	1.3	0.9	4.2	1125	76.3	66.0	55.0	55.0	112.6	77.6	59.0	72.1	47.3	36	R-454B	208	3	60	156	175	TRANE WHK	
RTU-2	COMMUNICATIONS ROOM 108	525	3315	1.3	0.9	4.2	1125	76.3	66.0	55.0	55.0	112.6	77.6	59.0	72.1	47.3	36	R-454B	208	3	60	156	175	TRANE WHK	REDUNDANT
RTU-3	ADMIN BUILDING	560	2760	2.0	1.7	3.0	1455	77.4	66.9	55.0	55.0	101.7	68.0	45.1	55	16.8	18	R-454B	208	3	60	103	110	TRANE WHK	

GENERAL NOTES:
1. RTU-1 AND RTU-2 SHALL OPERATE DOWN TO 0 °F OUTSIDE TEMPERATURE.
2. PROVIDE WITH MERV 8 FILTERS
3. PROVIDE WITH ECONOMIZER
4. PROVIDE WITH BAROMETRIC RELIEF DAMPER
5. MINIMUM EFFICIENCIES AT AHRI: EER/IEER = 11.40/16.60, COP AT 47/17 °F = 3.57/2.25
6. PROVIDE WITH INSULATED ROOF CURB. RTU-1/RTU-2 SHALL HAVE SEISMIC / HIGH -WIND-RATED ROOF CURB WITH CERTIFIED UPLIFT RESISTANCE.

FAN SCHEDULE

DESIGNATION	SERVICE	CFM	ESP INCH WG	APROXIMATE FAN RPM	BHP	HP	ELECTRIC VOLTS	ELECTRIC PHASE	ELECTRIC HZ	DRIVE	WEIGHT(LBS)	BASIS OF DESIGN	REMARKS
EF-1	GENERAL EXHAUST	250	1.0	1672	0.07	1/6	120	1	60	DIRECT	65	GREENHECK CUE	PROVIDE WITH VFD
EF-2	SERVER EXHAUST	425	0.5	1393	0.14	1/4	120	1	60	DIRECT	30	GREENHECK SE1	PROVIDE WITH VFD

GENERAL NOTES:
1. FANS SHALL OPERATE CONTINUOUSLY. PROVIDE WITH BACKDRAFT DAMPER AND INTEGRAL BIRDSCREEN.

SUPPLY VARIABLE AIR VOLUME TERMINAL UNIT SCHEDULE

DESIG.	SERVICE	COOLING CFM MAX	COOLING CFM MIN	HEATING CFM	INLET SIZE	OUTLET SIZE	ELECTRIC REHEAT COIL PERFORMANCE EAT (°F)	LAT (°F)	MBH	CONNECTED COIL SIZE (KW)	VOLTS	PHASE	HZ	BASIS OF DESIGN	REMARKS
VAV-1	STORAGE-118 & QUIET ROOM-119	255	115	115	6"	12"x8"	55	96	4.1	1.5	120	1	60	TITUS DESV	1
VAV-2	MOTHERS ROOM-122	180	80	105	6"	12"x8"	55	85	2.7	1.0	120	1	60	TITUS DESV	1
VAV-3	LOCKERS-121	135	80	80	4"	12"x8"	55	94	2.2	1.0	120	1	60	TITUS DESV	1
VAV-4	BREAK ROOM-117	565	200	200	8"	14"x12"	55	87	6.7	2.0	208	3	60	TITUS DESV	1
VAV-5	STORAGE-113 & CONFERENCE-112	485	485	485	8"	12"x10"	55	81	13.1	4.0	208	3	60	TITUS DESV	1
VAV-6	RECORDS-102	175	175	175	6"	12"x8"	55	82	4.7	1.5	120	1	60	TITUS DESV	1
VAV-7	CORRIDOR	175	120	120	6"	12"x8"	55	94	4.0	1.5	120	1	60	TITUS DESV	1
VAV-8	TRAINING OFFICER 103 & SUPERVISOR-104	335	115	190	8"	12"x10"	55	80	4.1	1.5	120	1	60	TITUS DESV	1
VAV-9	DIRECTOR-105	255	115	115	6"	12"x8"	55	96	4.0	1.5	120	1	60	TITUS DESV	1
VAV-10	TECH SPECIALIST/OFFICE-106	200	80	80	4"	12"x8"	55	94	2.9	1.0	120	1	60	TITUS DESV	1

NOTES:
1. PROVIDE WITH STANDARD DISCONNECT SWITCH AND SCR HEATING MODULATION. VAV TERMINAL UNITS SHALL NOT EXCEED NC 30 IN OCCUPIED OFFICE AREAS AT DESIGN CONDITIONS.

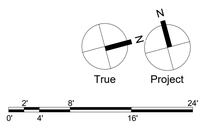
ELECTRIC UNIT HEATER SCHEDULE

DESIGNATION	CFM	CAPACITY (MBH)	MOUNTING	WEIGHT (LBS)	ELECTRICAL VOLTS	PHASE	HERTZ	AMPS	BASIS OF DESIGN	REMARKS
UH-1	350	10.2	WALL	27	208	1	60	14.5	QMARK MUH	

AIR DEVICE SCHEDULE

NO	DUTY	CFM	NECK SIZE (IN)	FACE SIZE	BLOW	BASIS OF DESIGN	REMARKS
101	SUPPLY	0-151	6"	24"x24"	4-WAY	TITUS TDC	
102	SUPPLY	151-275	8"	24"x24"	4-WAY	TITUS TDC	
103	SUPPLY	276-375	10"	24"x24"	4-WAY	TITUS TDC	
104	SUPPLY	376-475	12"	24"x24"	4-WAY	TITUS TDC	
111	SUPPLY	0-265	8"	48", 3/4" SW, 4 SLOT	60° DEFL.	TITUS ML/MPI	
112	SUPPLY	121-250	10"	48", 1" SW, 4 SLOT	-	TITUS TBDI-30	
113	SUPPLY	251-350	12"	48", 1" SW, 4 SLOT	-	TITUS TBDI-30	
201	RETURN	PLENUM	24"x24"	24"x24"		TITUS PAR	
301	EXHAUST	0-100	6"x6"	12"x12"	-	TITUS 350 R	
401	TRANSFER	-	18"x10"	20"x12"	-	TITUS 350 R	1

NOTES:
1. PROVIDE WITH INTEGRAL BALANCING DAMPER WHERE AIRFLOW IS INDICATED ON PLAN.



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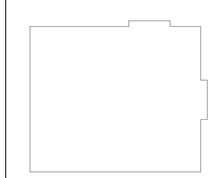

Drawing Title:
MECHANICAL SCHEDULES

Drawing Number:
M901

BID SET

CREATED ON: 5/28/2026 6:37:03 AM

PLUMBING GENERAL NOTES

1 PRIOR TO PREPARING THE BID, IT IS RECOMMENDED THAT THE CONTRACTOR AND SUBCONTRACTORS VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS AND MAKE ALL NECESSARY INVESTIGATIONS AS TO THE LOCATIONS OF UTILITIES AND ALL OTHER MATTERS WHICH CAN AFFECT THE WORK. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR AS A RESULT OF THEIR FAILURE TO FAMILIARIZE THEMSELF WITH THE EXISTING CONDITIONS UNDER WHICH THE WORK MUST BE PERFORMED.

2 THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND BUILDING DIMENSIONS PRIOR TO WORK. ANY VARIATIONS, DISCREPANCIES, OR FIELD ALTERATIONS TO THESE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT ATTENTION PRIOR TO WORK. IF CONTRACTOR COMMENCES WORK WITHOUT NOTIFYING ARCHITECT OF VARIATIONS, DISCREPENCIES, OR FIELD ALTERATIONS, THAT SHALL CONSTITUTE WAIVER TO ANY CLAIM BY CONTRACTOR FOR ADDITIONAL EXPENSES NECESSARY TO PERFORM WORK ASSOCIATED WITH THOSE CONDITIONS.

3 THIS CONTRACT REQUIRES COMPLETE, FINISHED WORKABLE PROJECT OF THE AREAS INDICATED BY THE CONTRACT DOCUMENTS, AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE SAME, REGARDLESS OF WHETHER OR NOT EACH AND EVERY NECESSARY WORK OR ITEM IS SPECIFICALLY INDICATED ON ANY OTHER PORTION OF THE DRAWING AND/OR NOTES.

4 AS A MINIMUM, ALL WORK SHALL CONFORM TO THE APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION OF THE WORK. WHERE MORE STRINGENT CODES ARE ADOPTED, THEY SHALL GOVERN THE WORK.

5 CONTRACTOR SHALL FURNISH ALL INFORMATION AND DOCUMENTATION TO SECURE ALL REQUIRED PERMITS AND SHALL COORDINATE THIS DATA WITH THE CONSTRUCTION DOCUMENTS WHERE REQUIRED.

6 CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS SO THAT THE WORK AND SCHEDULE ARE NOT IMPEDED. SCHEDULE WORK PROGRESS THROUGHOUT THE ENTIRE PROJECT TO PREVENT CONFLICTS AND INTERFERENCE, OBTAIN ALL NECESSARY INFORMATION SUCH AS SIZES, LOCATIONS, TEMPLATES, LAYOUT, DIMENSIONS AND ALL OTHER INFORMATION NECESSARY FOR A PROPER AND WELL COORDINATED INSTALLATION. PRIOR TO INSTALLATION OF ITEMS, CONFER WITH EACH CONTRACTOR EXACT LOCATION OF ALL ITEMS.

7 WHERE MATERIALS REFERENCED ON DRAWINGS, OR NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT ARE NOT SPECIFIED HEREIN, PROVIDE BEST QUALITY MATERIALS. WHERE MATERIALS ARE INTENDED TO MATCH EXISTING, PROVIDE CLOSEST POSSIBLE MATCH, SUBJECT TO OWNER'S APPROVAL. ALL ITEMS AND WORK ON DRAWINGS ARE NEW UNLESS INDICATED OTHERWISE. ALL WORK WHICH HAS BEEN DAMAGED SHALL BE REPAIRED OR REPLACED. WHERE ITEM CANNOT BE REPAIRED TO A "NEW CONDITION", OR WHERE THE STRUCTURAL INTEGRITY HAS BEEN AFFECTED, ITEM SHALL BE REPLACED.

8 CONTRACTOR SHALL OBTAIN FROM OWNER ALL REQUIREMENTS FOR INSTALLATION OF OWNER PROVIDED EQUIPMENT INCLUDING ROUGHING DIAGRAMS, INSTALLATION INSTRUCTIONS, ELECTRICAL SCHEMATICS, TEMPLATES, LAYOUTS AND DIMENSIONS AND ALL OTHER INFORMATION NECESSARY FOR A PROPER, WELL COORDINATED INSTALLATION. PRIOR TO ROUGH-IN SERVICES, CONFER WITH OWNER EXACT LOCATION OF ALL ITEMS.

9 DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

10 CONFIRM ALL ROUGH AND/OR FINISH DIMENSIONS FOR ACCURATE FITTING OF PLUMBING EQUIPMENT, FIXTURES, PIPING, ETC BEFORE FABRICATION AND INSTALLATION.

11 COORDINATE FINAL EQUIPMENT/FIXTURE LOCATIONS WITH THE GENERAL CONTRACTOR. THE LOCATION AS INDICATED ON THE DRAWING IS APPROXIMATE. INSTALL ALL PLUMBING EQUIPMENT SUCH THAT MANUFACTURER'S MAINTENANCE AREA IS CLEAR.

12 PROVIDE AND INSTALL ALL NECESSARY HARDWARE, BRACKETS, BRACING, ANCHORING, INSERTS, BLOCKING, FURRING OR OTHER SUPPLEMENTARY ITEMS NEEDED FOR COMPLETE INSTALLATION OF EQUIPMENT, FIXTURES AND ACCESSORIES

13 ALL WALL MOUNTED PLUMBING DEVICES OR CONTROLS SHALL BE INSTALLED IN LOCATIONS WHICH ARE UNOBSTRUCTED BY CABINETS, COUNTERS, RACKS, FIXTURES, FURNISHINGS OR EQUIPMENT. ITEMS INTENDED FOR WALL MOUNTING SHALL NOT BE INSTALLED ON, THROUGH OR INTO ANY OTHER EQUIPMENT UNLESS SPECIFICALLY CALLED FOR. VERIFY MOUNTING HEIGHTS WITH ARCHITECT AND ADA REQUIREMENTS.

14 DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS. INDICATED LOCATIONS AND ARRANGEMENTS ARE USED TO SIZE PIPE AND CALCULATE FRICTION LOSS, EXPANSION, AND OTHER DESIGN CONSIDERATIONS. INSTALL PIPING AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON COORDINATION DRAWINGS.

15 COORDINATE UNDERGROUND PIPING INVERT ELEVATIONS WITH STRUCTURAL FOOTING ELEVATIONS AND CIVIL INVERT CONNECTIONS PRIOR TO ANY UNDERGROUND PIPING INSTALLATIONS. IF FOOTINGS ARE IN CONFLICT AND WHERE A PIPING ROLL DOWN IS NOT POSSIBLE, COORDINATE WITH GENERAL CONTRACTOR FOR DROPS IN FOOTINGS AS REQUIRED.

16 INSTALL CLEANOUTS IN ABOVEGROUND PIPING AND UNDERSLAB BUILDING DRAIN PIPING AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45 DEGREES, AT BASE OF EACH VERTICAL SOIL AND WASTE STACK, AND AT MINIMUM INTERVALS OF 50 FEET FOR PIPING NPS 4 AND SMALLER AND 100 FEET FOR LARGER PIPING. ON DOUBLE SIDED WALLS, COORDINATE ACCESSIBLE DIRECTION OF BASE CLEANOUTS IN VERTICAL STACKS WITH ARCHITECT AND PROVIDE WALL ACCESS COVER.

17 DO NOT ENCLOSE, COVER, OR PUT PIPING INTO OPERATION UNTIL IT IS TESTED, INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION OR OWNERS REPRESETNAITVE.

18 WHERE INDICATED AS ADA ON THE ARCHITECTURAL DRAWINGS, FIXTURE INSTALLATION SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.

19 UNLESS ABSOLUTELY NECESSARY, ALL PLUMBING DEVICES, EQUIPMENT, VALVES, ETC. THAT REQUIRE ACCESS SHALL NOT BE LOCATED ABOVE INACCESSIBLE CEILINGS. COORDINATE WITH THE ARCHITECTURAL REFLECTED CEILING PLAN. WHERE UNAVOIDABLE, PROVIDE ACCESS DOORS IN INACCESSIBLE CEILINGS TO ACCESS DEVICES, EQUIPMENT, VALVES, ETC.

20 THE CONTRACTOR SHALL ROUGH-IN ALL WASTES AND WATER SUPPLIES FOR FIXTURES AND PERFORM FINAL CONNECTIONS AS NEEDED.

21 PLUMBING VENT PIPING SHOWN IS ONLY FOR DIAGRAMMATIC PURPOSES. COORDINATE VENT THROUGH ROOF LOCATION TO BE MINIMUM 10 FEET FROM HVAC AIR INTAKES.

22 ALL FLOOR DRAINS SHALL BE PROVIDED WITH TRAP PRIMER CONNECTIONS UNLESS NOTED OTHERWISE. WHERE TRAP PRIMERS ARE NOT PROVIDED, PROVIDE TRAP SEAL INSERT DEVICES.

23 ALL FLOOR AND ROOF DRAINS SHALL BE PROTECTED FOR THE DURATION OF THE PROJECT. IF ANY DRAINS ARE FOUND TO CONTAIN DEBRIS THE CONTRACTOR SHALL CLEAN AND SCOPE THE DRAIN SYSTEM AT NO ADDITIONAL CHARGE TO THE OWNER.

24 INSTALL UNIONS OR FLANGES AT ALL CONNECTIONS TO EACH PIECE OF EQUIPMENT AND ON BOTH SIDES OF VALVES AND OTHER IN-LINE DEVICES THAT REQUIRE REMOVAL FOR MAINTENANCE.

25 INSTALL SHUT-OFF VALVES IN PIPING WHERE SHOWN ON THE DRAWINGS AND WHERE CALLED FOR IN THE SPECIFICATION SECTION "VALVES FOR PLUMBING PIPING".

26 ALL VALVES ABOVE CEILINGS AND IN CONCEALED SPACES SHALL BE LABELED AT CEILING TILE WITH METAL CEILING TACKS INDICATING VALVE # AND TYPE OF WATER. (I.E.; BLUE=COLD WATER, LETTERING CW VLV1-001).

27 ALL FLUSH VALVE WATER CLOSETS SHALL BE ROUGHED IN SO THAT THE FLUSH VALVE HANDLE IS TO THE WIDE SIDE OF THE ROOM/STALL.

28 INSTALL WATER-HAMMER ARRESTERS IN WATER PIPING AT THE END OF ALL BRANCH LINES AND AS INDICATED ON THE DRAWINGS ACCORDING TO PDI-WH 201. PIPE EXTENSIONS SHALL NOT BE USED IN PLACE OF SHOCK ABSORBERS.

29 BUILDING GAS MAIN PRESSURE SHALL BE X PSI. PROVIDE INDIVIDUAL GAS REGULATORS FOR EACH GAS-APPLIANCE EQUIPMENT, LOCATED AND SET IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLIANCE EQUIPMENT MANUFACTURER.

30 ALL EXPOSED PIPING SHALL RUN PARALLEL WITH AND PERPENDICULAR TO WALLS AND BUILDING STRUCTURE.

31 ALL EXPOSED EQUIPMENT AND PIPING SHALL BE PREPPED FOR PAINTING. PAINTING SHALL BE BY OTHERS. TAGS AND LABELS SHALL NOT BE PAINTED.

PLUMBING SYMBOLS

RISER DESIGNATIONS

SYMBOL	DESCRIPTION
S	SANITARY RISER DESIGNATION (S, V) RISER NUMBER
W	DOMESTIC WATER RISER DESIGNATION (CW, HW, HWR) RISER NUMBER

EQUIPMENT DESIGNATIONS

SYMBOL	DESCRIPTION
ET-X	EXPANSION TANK DESIGNATION
DWH-X	DOMESTIC WATER HEATER DESIGNATION
FD-X	FLOOR DRAIN DESIGNATION
P-X	PLUMBING FIXTURE DESIGNATION
RP-X	RECIRCULATING PUMP DESIGNATION

RISER DIAGRAM COMPONENTS AND SPECIALTIES

SYMBOL	DESCRIPTION
	BACKFLOW PREVENTER
	EMERGENCY EYE WASH STATION
	EMERGENCY SHOWER
	SHOCK ARRESTER
	VACUUM BREAKER
	VENT THROUGH ROOF
	TRAP ARM
	URINAL / WATER CLOSET (WALL MOUNTED)
	URINAL / WATER CLOSET (FLOOR MOUNTED)
	FLOOR / ROOF DRAIN
CO	CLEAN OUT (WALL / PIPE)
CO	CLEAN OUT (FLOOR)

COMPONENTS AND SPECIATIES

SYMBOL	DESCRIPTION
	BACKWATER VALVE
	BACKFLOW PREVENTER (DUAL CHECK TYPE)
	BACKFLOW PREVENTER (REDUCED PRESSURE TYPE)
CO	CLEAN OUT (WALL / PIPE)
CO	CLEAN OUT (FLOOR)
HB	COLD WATER INTERIOR HOSE BIB
WH	EXTERIOR WALL HYDRANT (FREEZE PROOF)
HED	HOSE END DRAIN VALVE
	AREA DRAIN
	FLOOR DRAIN
	FLOOR DRAIN WITH TRAP PRIMING LINE
	FLOOR SINK
	ROOF DRAIN
	ROOF OVERFLOW DRAIN
RO/DI	RO / DI WATER OUTLET
EW	EMERGENCY EYEWASH (HANDHELD)
	SHOCK ARRESTER WITH ACCESS DOOR
	TEMPERING VALVE
M	WATER METER

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER (POTABLE)
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
	SANITARY
	VENT

PLUMBING ABBREVIATIONS

A	COMPRESSED AIR
BCWR	BEARING COOLING WATER RETURN
BCWS	BEARING COOLING WATER SUPPLY
BO	BLOW OFF
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
CA	CONTROL AIR
CBD	CONTINUOUS BLOWDOWN
CC	CAMPUS CONDENSATE
CF	CHEMICAL FEED
CFM	CUBIC FEET PER MINUTE
CHEL	CHELANT
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CO	CLEANOUT
CW	COLD WATER, DOMESTIC CITY WATER
DCW	DOMESTIC COLD WATER
DHR	DISTRIBUTION HEATING WATER RETURN
DHS	DISTRIBUTION HEATING WATER SUPPLY
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRCULATION
DIA	DIAMETER
DW	DISTILLED WATER
EA	EXHAUST AIR
ED	EQUIPMENT DRAIN
EJ	EXPANSION JOINT
#2FOR	NUMBER 2 FUEL OIL RETURN
#2FOS	NUMBER 2 FUEL OIL SUPPLY
#6FOR	NUMBER 6 FUEL OIL RETURN
#6FOS	NUMBER 6 FUEL OIL SUPPLY
F	FIRE LINE
F&T	FLOAT AND THERMOSTATIC
FD	FORCED DRAFT
FDV	FIRE DEPARTMENT VALVE
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FOF	FUEL OIL FILL
FOO	FUEL OIL OVERFLOW
FOSUCT	FUEL OIL SUCTION
FOT	FUEL OIL TRANSFER
FOVENT	FUEL OIL VENT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FW	FEED WATER
FWR	FEED WATER RECIRCULATION
FWS	FEED WATER SUPPLY
°F	DEGREES FAHRENHEIT
G	NATURAL GAS
GAL	GALLON, GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HPR	HIGH PRESSURE STEAM RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
HR	HEATING WATER RETURN
HRR	HEAT RECOVERY RETURN
HRS	HEAT RECOVERY SUPPLY
HS	HEATING WATER SUPPLY
HTHW	HIGH TEMPERATURE HEATING WATER SUPPLY
HTWR	HIGH TEMPERATURE HEATING WATER RETURN
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
IA	INSTRUMENT AIR
KW	KILOWATTS
LP	LIQUID PROPANE
LPG	LIQUID PETROLEUM GAS
LPR	LOW PRESSURE STEAM RETURN
LPS	LOW PRESSURE STEAM SUPPLY
MAV	MANUAL AIR VENT
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCC	MOTOR CONTROL CENTER
MOD	MOTOR OPERATED DAMPER
MPR	MEDIUM PRESSURE STEAM RETURN
MPS	MEDIUM PRESSURE STEAM SUPPLY
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
No	NUMBER
NPSH	NET POSITIVE SUCTION HEAD
OD	OVERFLOW DRAIN
PA	PLANT AIR
PC	PUMPED CONDENSATE
PCR	PUMP CONDENSATE RECIRCULATION
PPH	POUNDS PER HOUR
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR, RELIEF AIR
RDR	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RV	RELIEF VENT
RX	REMOVE EXISTING
SA	SUPPLY AIR
SAN	SANITARY
SS	STAINLESS STEEL
SSUL	SODIUM SULFITE
STDR	STORM DRAIN
SW	SOFT WATER
TW	TREATED WATER
TYP	TYPICAL
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THROUGH ROOF

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Professional Seal:

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New Construction of:
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216 County Farm Road, Windsor, NC 27983

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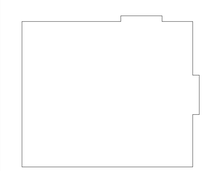
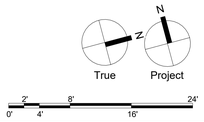
Key Plan:



Drawing Title:
PLUMBING NOTES, SYMBOLS AND ABBREVIATIONS

Drawing Number:
P001



BID SET

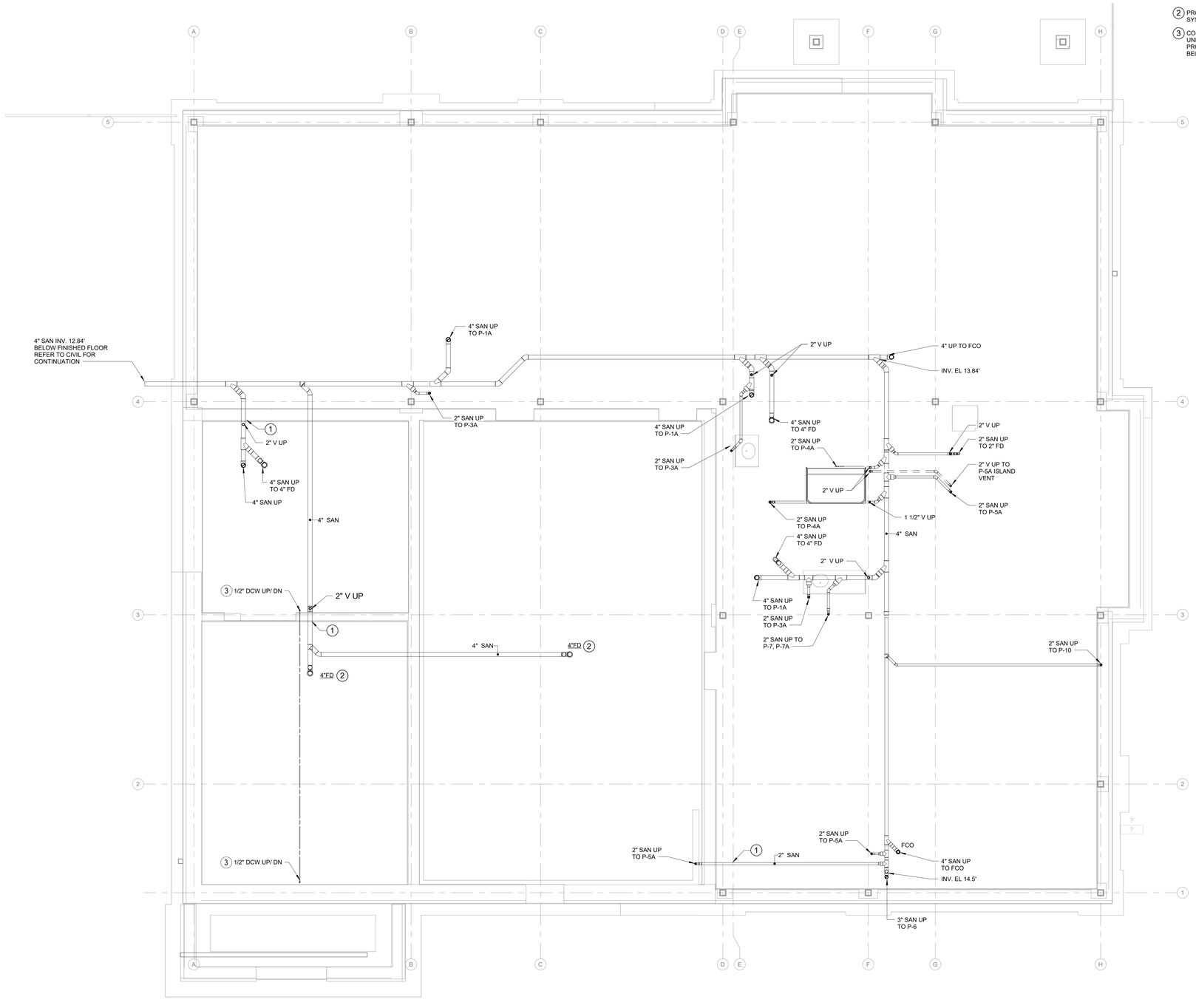
CREATED ON: 5/28/2026 6:57:04 AM

GENERAL NOTES:

1. REFER TO SANITARY/ VENT RISER DIAGRAM FOR ALL PIPE SIZES.
2. ALL SANITART/ VENT PIPING SHALL BE SLOPED A MINIUM OF 1/8" PER FOOT. ALL SANITARY AND VENT 2 1/2" AND SMALLER SHALL BE SLOPED A MINIMUM OF 1/4" PER FOOT.

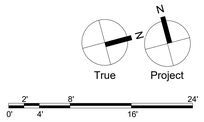
DRAWING NOTES:

1. PROVIDE 2 HR RATED FIREPROOF WALL PENETRATION PER ICC 500. REFER TO FIRE RESISTANT PIPE PENTRATION DETAIL FOR FURTHER INFORMATION.
2. PROVIDE JR SMITH FIGURE 2692 TRAP SEAL DEVICE ON FLOOR DRAINS UNDER RAISED FLOOR SYSTEM.
3. CONTRACTOR SHALL ROUTE 1/2" DCW DN. TRANSITION TO 1/2" PEX AT FLOOR AND ROUTE LINE UNDERSLAB THROUGH DATA ROOM AND UP. TRANSITION BACK TO COPPER IN RAISED FLOOR AND PROVIDE CONNECTION TO HUMIDIFIER H-1 ON WALL ABOVE. LINE SHALL BE ROUTED MINIMUM 6" BELOW SLAB AND INSULATED. ROUTE 1/2" LINE UNDERSLAB IN 3" PVC SLEEVE TO PROTECT LINE.



UNDERSLAB PLUMBING PLAN

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



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Professional Seal:

05/27/26

NORTH CAROLINA PROFESSIONAL SEAL 060323 ENGINEER RICHARD W. GIRARD

Owner:

BERTIE COUNTY

Windsor Township, North Carolina

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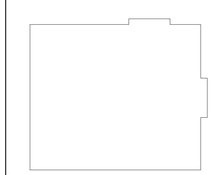


Drawing Title:

UNDERSLAB PLUMBING PLAN

Drawing Number:

P100

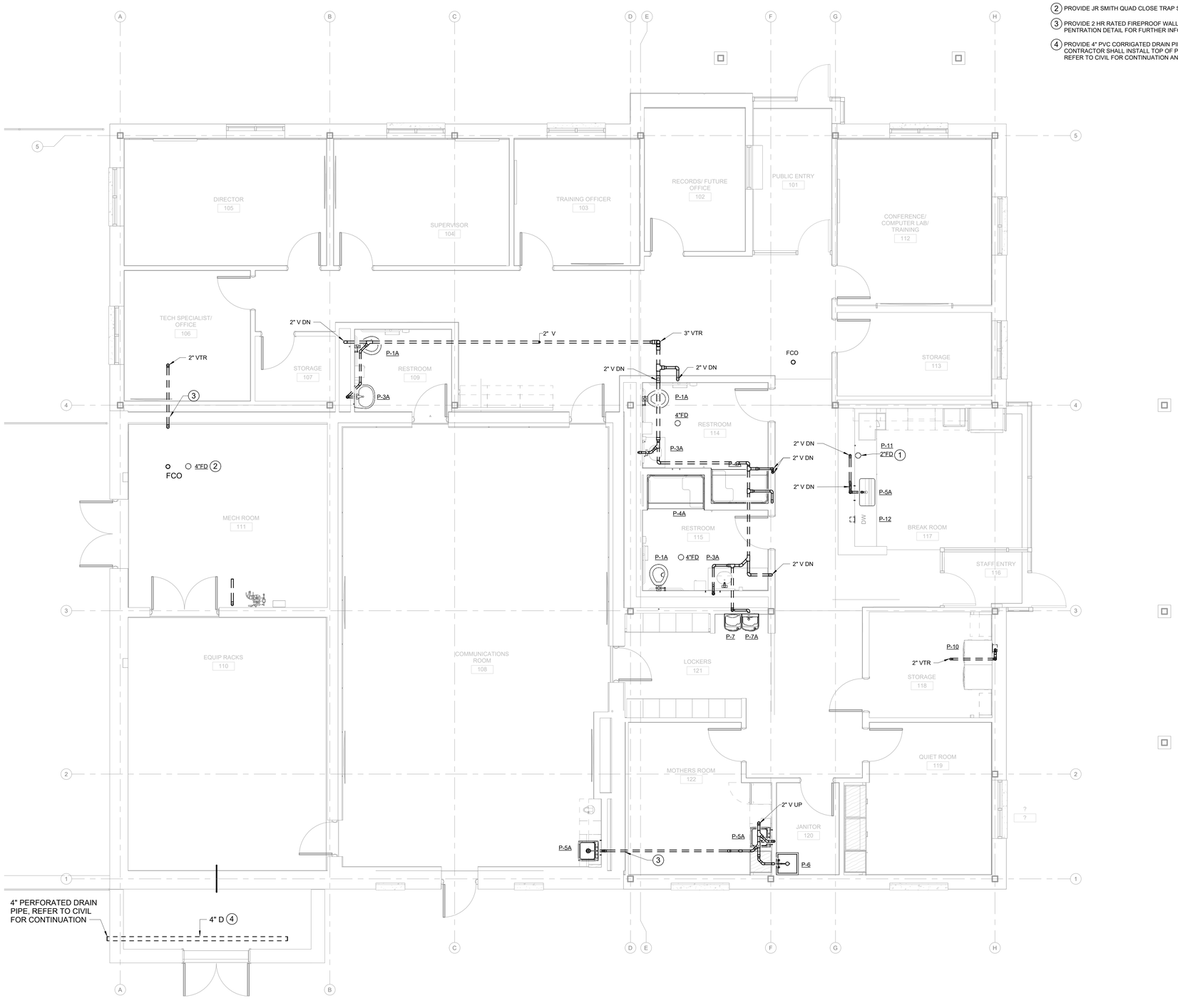
CREATED ON: 5/28/2026 6:57:06 AM

GENERAL NOTES:

1. REFER TO SANITARY/ VENT RISER DIAGRAM FOR ALL PIPE SIZES.
2. ALL SANITART/ VENT PIPING SHALL BE SLOPED A MINIUM OF 1/8" PER FOOT. ALL SANITARY AND VENT 2 1/2" AND SMALLER SHALL BE SLOPED A MINIMUM OF 1/4" PER FOOT.

DRAWING NOTES:

1. CONTRACTOR SHALL PROVIDE 3/4" DRAIN FROM ICE MACHINE SLOPED A MINIMUM OF 1/8" PER FOOT WITH INDIRECT CONNECTION OVER CENTER OF 2" FLOOR DRAIN.
2. PROVIDE JR SMITH QUAD CLOSE TRAP SEAL DEVICE OR EQUAL FOR 4" FD.
3. PROVIDE 2 HR RATED FIREPROOF WALL PENETRATION PER ICC 500. REFER TO FIRE RESISTANT PIPE PENTRATION DETAIL FOR FURTHER INFORMATION.
4. PROVIDE 4" PVC CORRIGATED DRAIN PIPE ACROSS FRONT OF MECHANICAL ENCLOSURE. CONTRACTOR SHALL INSTALL TOP OF PIPE MINIMUM 12" BELOW GRADE WITH 6" OF COVERAGE. REFER TO CIVIL FOR CONTINUATION AND TYPE OF FILL IN MECHANICAL AREA.



FIRST FLOOR PLAN - SANITARY/VENT PIPING

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

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SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:

FIRST FLOOR PLAN - SANITARY/VENT PIPING

Drawing Number:

P101

True Project

0' 2' 4' 8' 16' 24'

BID SET

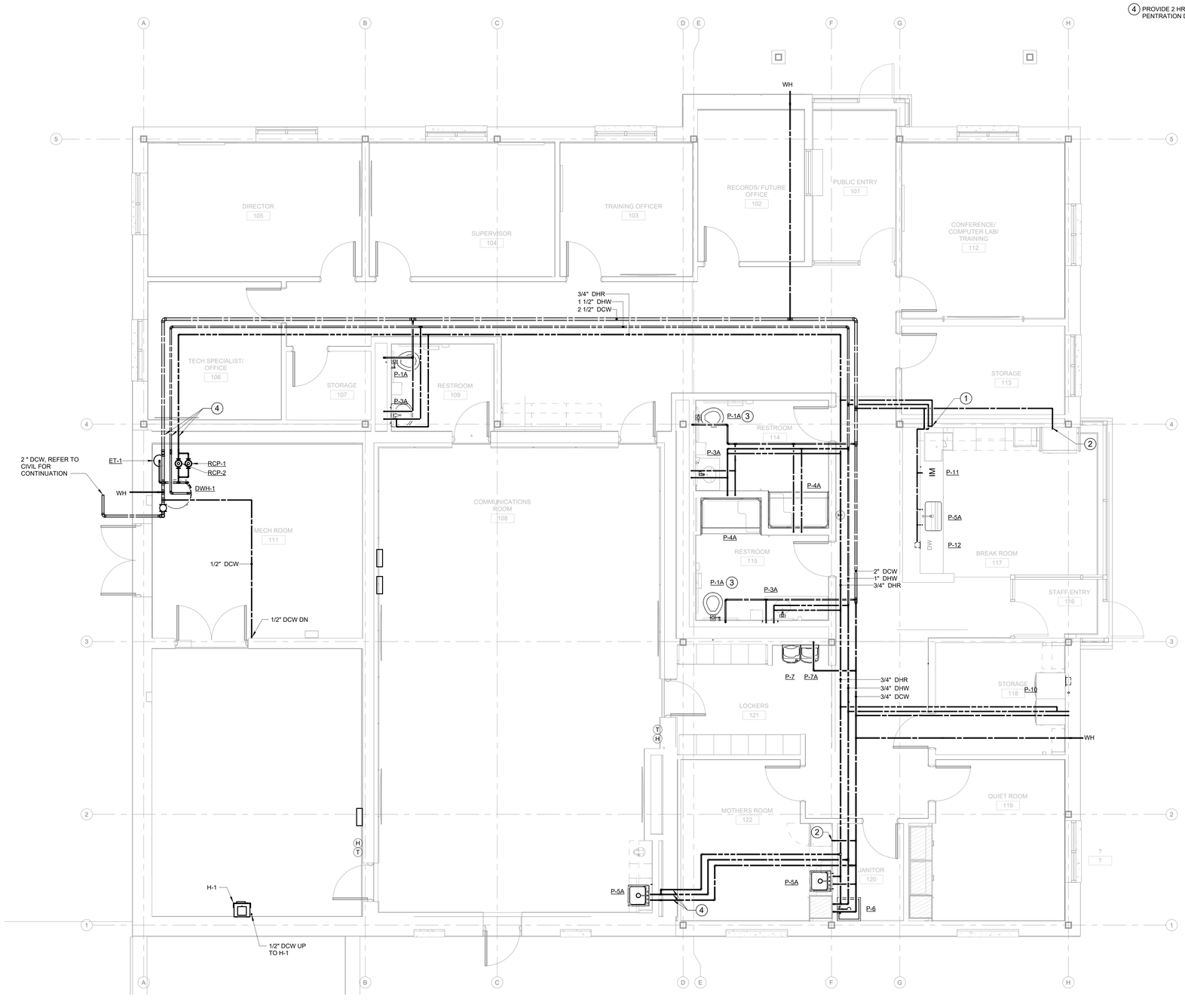
CREATED ON: 5/28/2026 6:57:08 AM

GENERAL NOTES:

1. REFER TO DOMESTIC WATER RISER DIAGRAM FOR ALL PIPE SIZES.

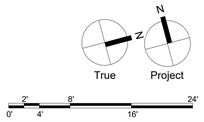
DRAWING NOTES:

1. PROVIDE 3/4" DCW, 3/4" DHW AND 3/4" DWHR DOWN IN WALL TO UNDER CABINET. RACK PIPING ON WALL IN BACK OF CABINETS AND PROVIDE CONNECTION TO P-5A SINK P-11 ICE MAKER AND P-12 DISWASHER. REFER TO PLUMBING FIXUTURE SCHEDULE FOR PIPING CONNECTIONS TO EACH FIXTURE.
2. PROVIDE 1/2" DCW DOWN TO REFRIGERATOR WALL BOX WITH 1/4 TURN SHUT OFF VALVE AND PROVIDE CONNECTION TO REFRIGERATOR.
3. PROVIDE PRECISION PLUMBING PRODUCTS TRAP PRIMER VALVE ON P-1A FLUSH VALVE OR EQUAL. PROVIDE 1/2" SLOPED LINE TO TRAP PRIMER CONNECTION ON 4" FD.
4. PROVIDE 2 HR RATED FIREPROOF WALL PENETRATION PER ICC 500. REFER TO FIRE RESISTANT PIPE PENTRATION DETAIL FOR FURTHER INFORMATION.



FIRST FLOOR PLAN - DOMESTIC WATER PIPING

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



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05/27/26

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Owner:

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Windsor Township, North Carolina

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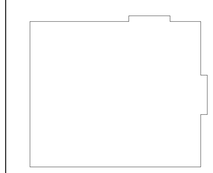


Drawing Title:

FIRST FLOOR PLAN - DOMESTIC WATER PIPING

Drawing Number:

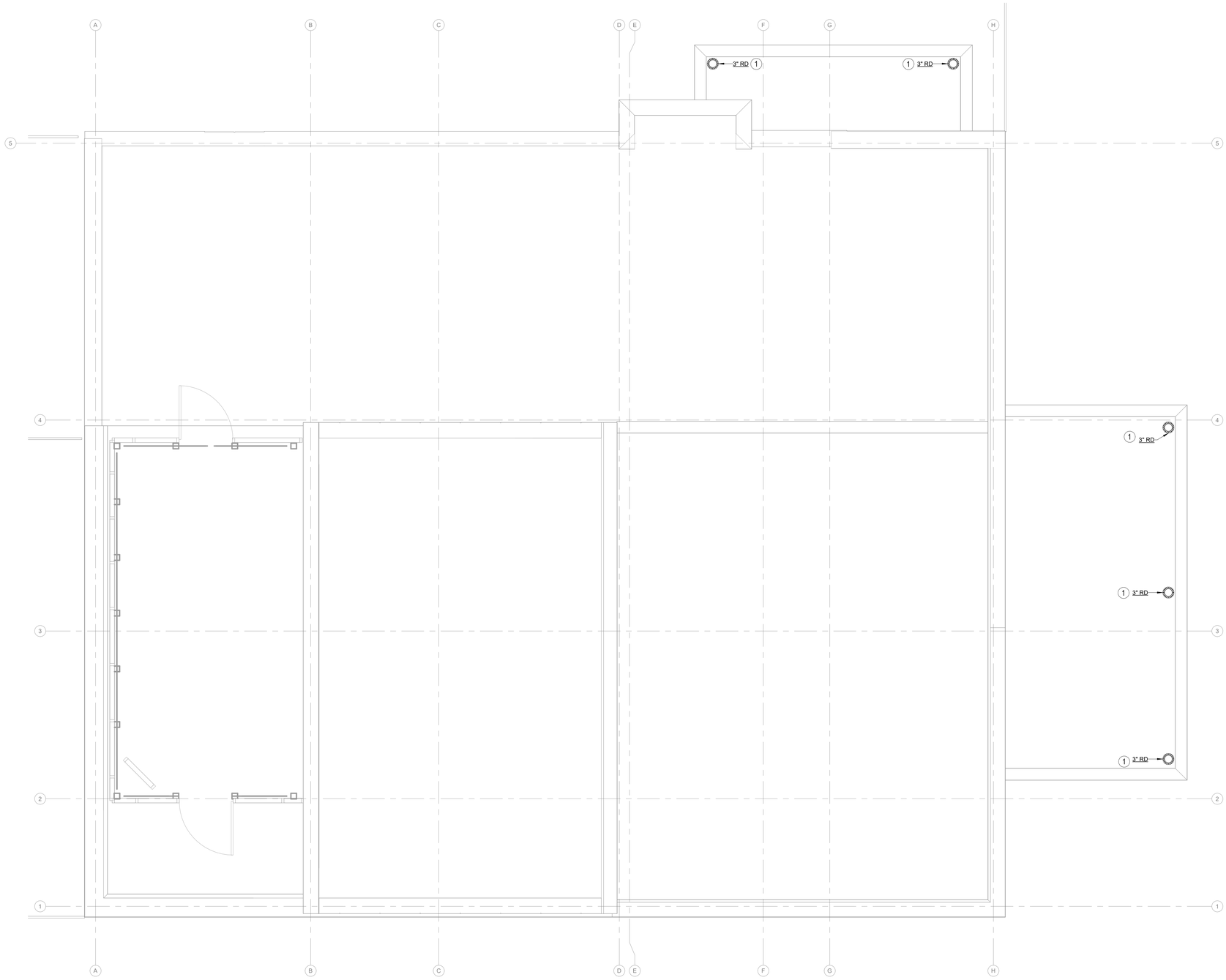
P201

CREATED ON: 5/28/2026 6:57:14 AM

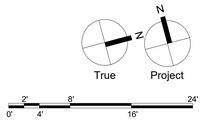
BID SET

DRAWING NOTES:

1. INSTALL 3" ROOF DRAIN AND PROVIDE CONNECTION TO 4" DOWNSPOUT BELOW. REFER TO ARCHITECTURAL DRAWINGS FOR DOWNSPOUT LOCATIONS AND DETAILS.



ROOF PLAN - PLUMBING
SCALE: 1/4" = 1'-0"



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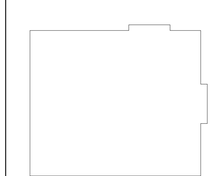
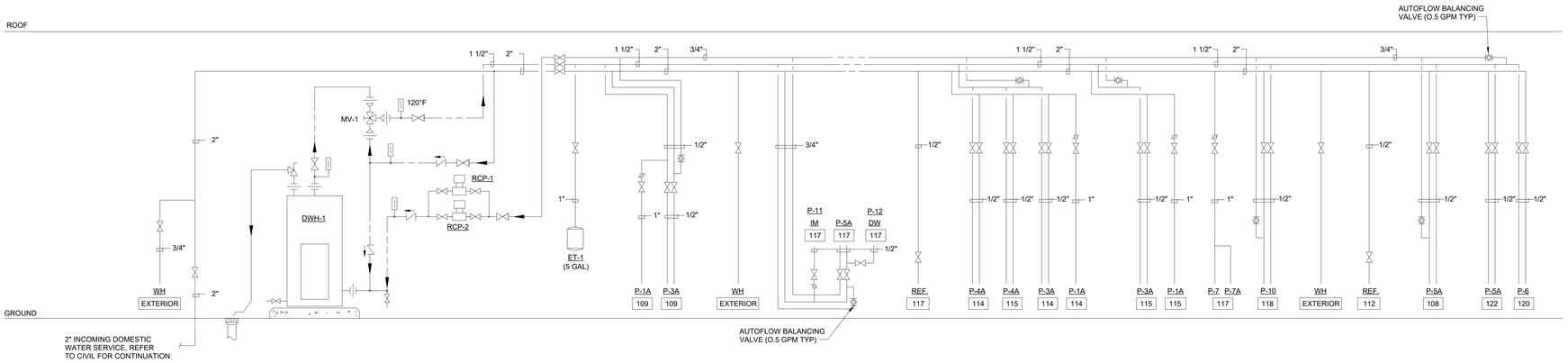


Drawing Title:
ROOF PLAN - PLUMBING

Drawing Number:
P301

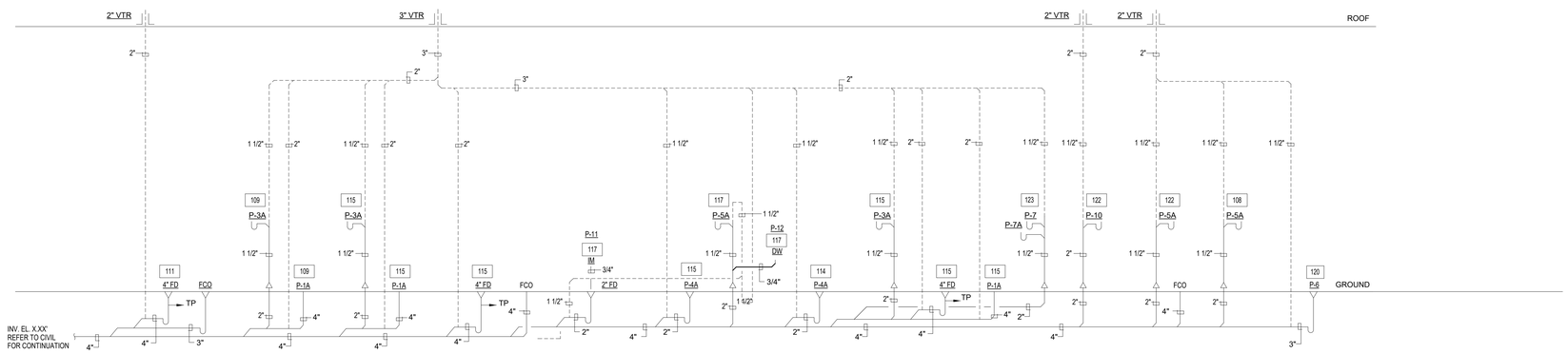
CREATED ON: 5/28/2026 6:57:14 AM

BID SET



DOMESTIC WATER RISER DIAGRAM

SCALE: 12" = 1'-0"



SANITARY RISER DIAGRAM

SCALE: 12" = 1'-0"

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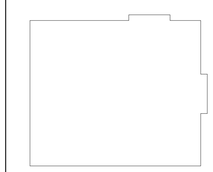
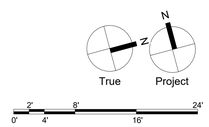


Drawing Title:

PLUMBING RISER DIAGRAMS

Drawing Number:

P401



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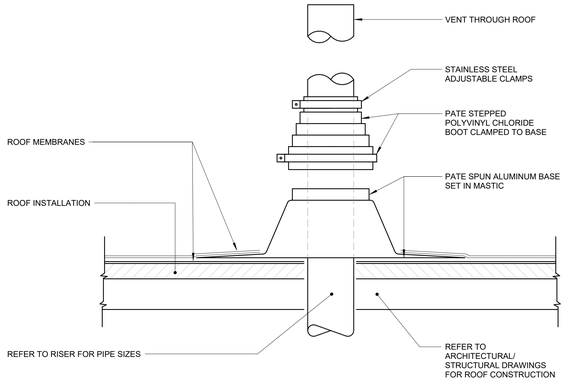
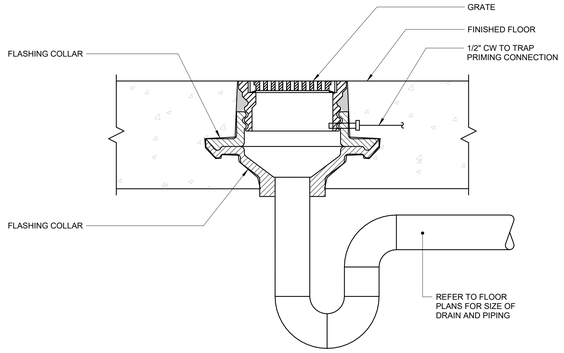
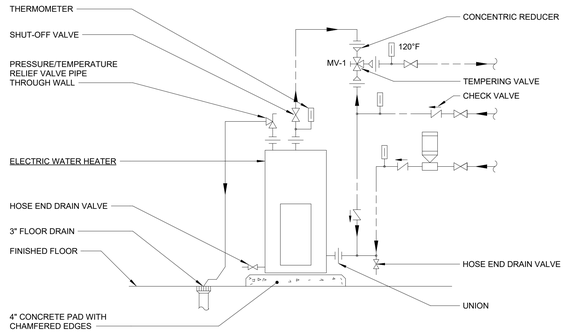
CREATED ON: 5/28/2026 6:57:15 AM



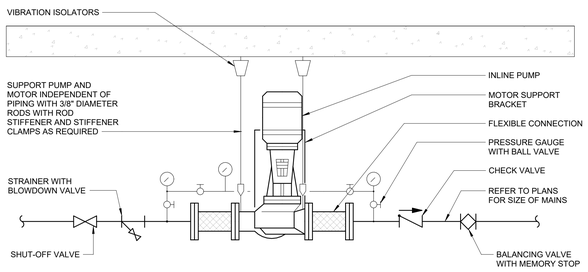
1 DETAIL - SANITARY VENT THROUGH ROOF
SCALE: N.T.S.



2 DETAIL - FLOOR DRAIN (TRAP PRIMER)
SCALE: N.T.S.



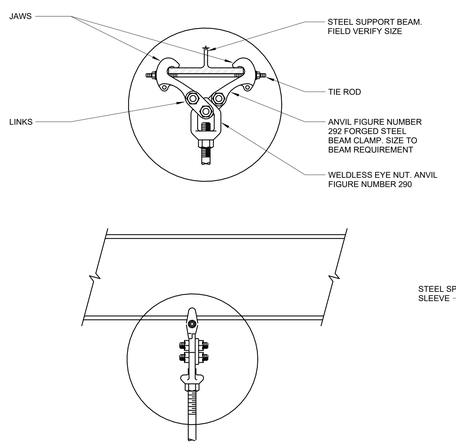
3 DETAIL - ELECTRIC WATER HEATER (WITH RECIRC PUMP)
SCALE: N.T.S.



NOTES:

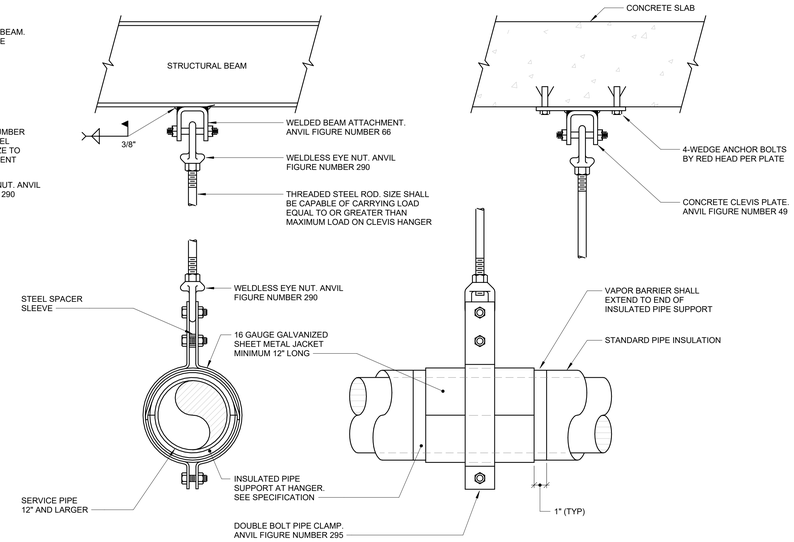
1. PUMP SHALL BE INSTALLED HORIZONTAL OR VERTICAL AS REQUIRED BY THE PUMP MANUFACTURER.

4 DETAIL - INLINE PUMP - SUSPENDED
SCALE: N.T.S.

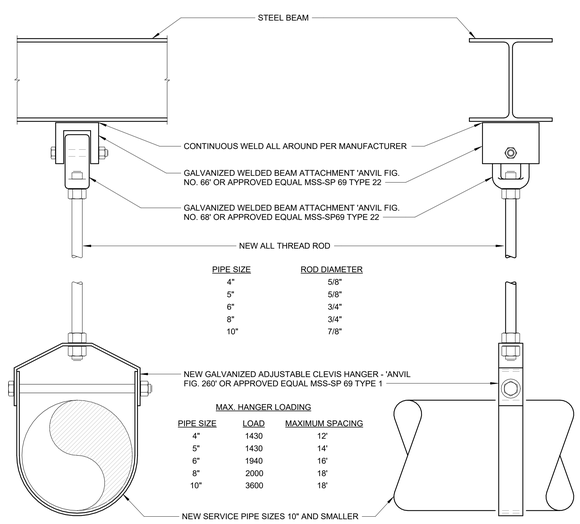


NOTES:

1. HANGER SPACING SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2. PIPE CLAMP HANGERS SHALL BE USED FOR PIPE SIZES 12" AND LARGER AND WHEN PIPING SYSTEM FLEXIBILITY AND EXPANSION IS REQUIRED.



5 DETAIL - PIPE CLAMP HANGER SUPPORT
SCALE: N.T.S.

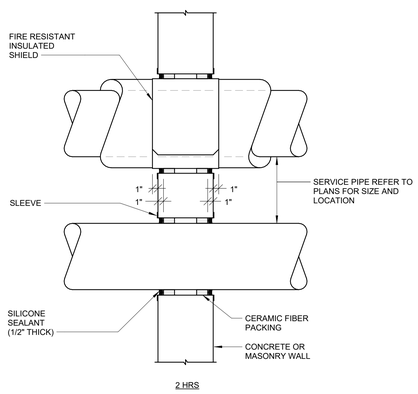


PIPE SIZE	ROD DIAMETER
4"	5/8"
5"	5/8"
6"	3/4"
8"	3/4"
10"	7/8"

MAX. HANGER LOADING

PIPE SIZE	LOAD	MAXIMUM SPACING
4"	1430	12'
5"	1430	14'
6"	1940	16'
8"	2000	18'
10"	3600	18'

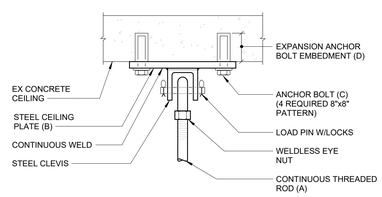
6 DETAIL - PIPE HANGER SUPPORT
SCALE: N.T.S.



NOTES:

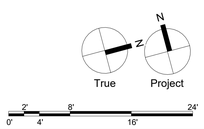
1. PROVIDE UL LISTED FIRE BARRIER SYSTEMS AND MATERIALS.

7 DETAIL - PIPE PENETRATION AT WALL (FIRE RESISTANT)
SCALE: N.T.S.



ROD SIZE (A)	MAX LOAD	CEILING PLATE SIZE (B)	ANCHOR BOLTS (C)	EMBEDMENT (D)
1/2"∅	600 LBS	10"x10"3/8"	(4) 1/2"∅-8"x8"	3 1/2"
5/8"∅	1430 LBS	10"x10"1/2"	(4) 1/2"∅-8"x8"	3 1/2"
3/4"∅	2400 LBS	10"x10"x1/2"	(4) 5/8"∅-8"x8"	4"
1"∅	4200 LBS	12"x12"x3/4"	(4) 3/4"∅-8"x8"	4 3/4"
1 1/4"∅	7800 LBS	12"x12"x3/4"	(4) 7/8"∅-8"x8"	6"

8 DETAIL - HANGER ROD CONCRETE CEILING ATTACHMENT
SCALE: N.T.S.



BID SET

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Professional Seal:
05/27/26
NORTH CAROLINA PROFESSIONAL SEAL 060323 ENGINEER RICHARD W. GIRARD

Owner:
BERTIE COUNTY
Windsor Township, North Carolina

New Construction of:
BERTIE COUNTY 911 CENTER
216 County Farm Road, Windsor, NC 27983

ISSUED FOR:

NO.	DESCRIPTION	DATE
	PERMIT SET	01/26/2026
	BID SET	05/27/2026

DATE: 05/27/2026

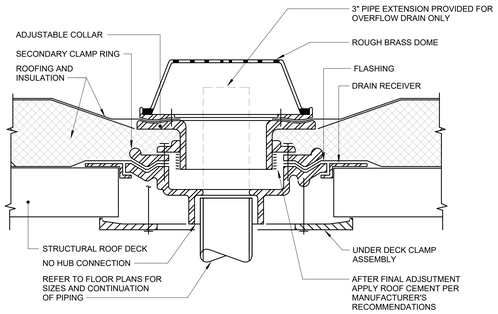
SG PROJECT NUMBER: 24-011

Key Plan:

Drawing Title:
PLUMBING DETAILS

Drawing Number:
P501

CREATED ON: 5/28/2026 6:57:15 AM



1 **P - DETAIL - ROOF-OVERFLOW DRAIN**
SCALE: N.T.S.

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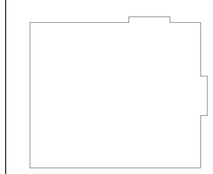
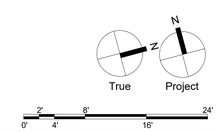


Drawing Title:
PLUMBING DETAILS

Drawing Number:
P502



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CREATED ON: 5/28/2026 6:57:17 AM

PUMP SCHEDULE

DESIGNATION	SYSTEM SERVED	LOCATION	MOUNTING	GPM	HEAD (FT.)	ELECTIRCAL					BASIS OF DESIGN	REMARKS
						HP	VOLTS	PH	HZ	VFD		
RCP-1	DOMESTIC HOT WATER RECIRC.	MECH RM 111	INLINE	5	10	0.5	115	1	60	NO	BELL & GOSSETT ECOCIRC XL	
RCP-2	DOMESTIC HOT WATER RECIRC.	MECH RM 111	INLINE	5	5	0.5	115	1	60	NO	BELL & GOSSETT ECOCIRC XL	REDUNDANT

PLUMBING FIXTURE SCHEDULE

DESIGNATION	FIXTURE	ROUGH-IN CONNECTION				FIXTURE UNITS			REMARKS
		CW	HW	SAN	VENT	CW	HW	SAN	
2"FD	FLOOR DRAIN			2"	1 1/2"			1	
3" RD	ROOF DRAIN			3"				1	
4"FD	FLOOR DRAIN			4"	1 1/2"			1	
P-1A	WATER CLOSET	1"		4"	2"	6		4	
P-3A	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	1	1	2	WALL MOUNTED, ADA
P-4A	SHOWER	1/2"	1/2"	2"	1 1/2"	3	3	2	
P-5A	KITCHEN SINK	1/2"	1/2"	1 1/2"	1 1/2"	1.5	1.5	2	UNDERMOUNT, ADA
P-6	MOP SINK	1/2"	1/2"	3"	1 1/2"	2.25	2.25	2	
P-7	DRINKING FOUNTAIN	1/2"		1 1/2"	1 1/2"	0.25		0.5	
P-7A	DRINKING FOUNTAIN	1/2"		1 1/2"	1 1/2"	0.25		0.5	ADA
P-10	WASHING MACHINE BOX	1/2"	1/2"	2"	1 1/2"	2.25	2.25	2	
P-11	ICE MACHINE VALVE BOX	1/2"				0.25			
P-12	DISHWASHER OUTLET		1/2"				1.4	2	TIE DRAIN INTO SINK TAILPIECE PER IPC

EXPANSION TANK SCHEDULE

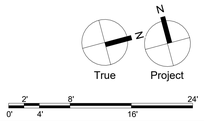
DESIGNATION	SERVICE	TANK VOLUME (GAL)	DIMENSIONS		DRY WEIGHT (LBS)	BASIS OF DESIGN	REMARKS
			DIAMETER (IN)	HEIGHT (IN)			
ET-1	DOMESTIC WATER	5	12	15	9	AMTROL ST-12	

MIXING VALVE SCHEDULE

DESIGNATION	SERVICE	ENTERING WATER TEMP °F	LEAVING WATER TEMP °F	BASIS OF DESIGN	FLOW RATE (GPM)	REMARKS
MV-1	DOMESTIC WATER	140 °F	120 °F	LAWLER / 803		FACTORY ASSEMBLED MIXING SYSTEM

ELECTRIC WATER HEATER DUTY

DESIGNATION:	
SERVICE:	DWH-1
STORAGE CAPACITY:	DOMESTIC HOT WATER:
ENTERING WATER TEMPERATURE:	80 GAL.
LEAVING WATER TEMPERATURE:	55
RECOVERY RATE:	140
INPUT KW:	90 GPH
ELECTRICAL:	18
	208/3/60
BASIS OF DESIGN:	
REMARKS:	HUBBELL - SE80-0-SLT4



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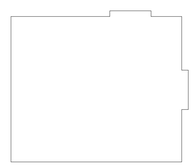


Drawing Title:

PLUMBING SCHEDULES

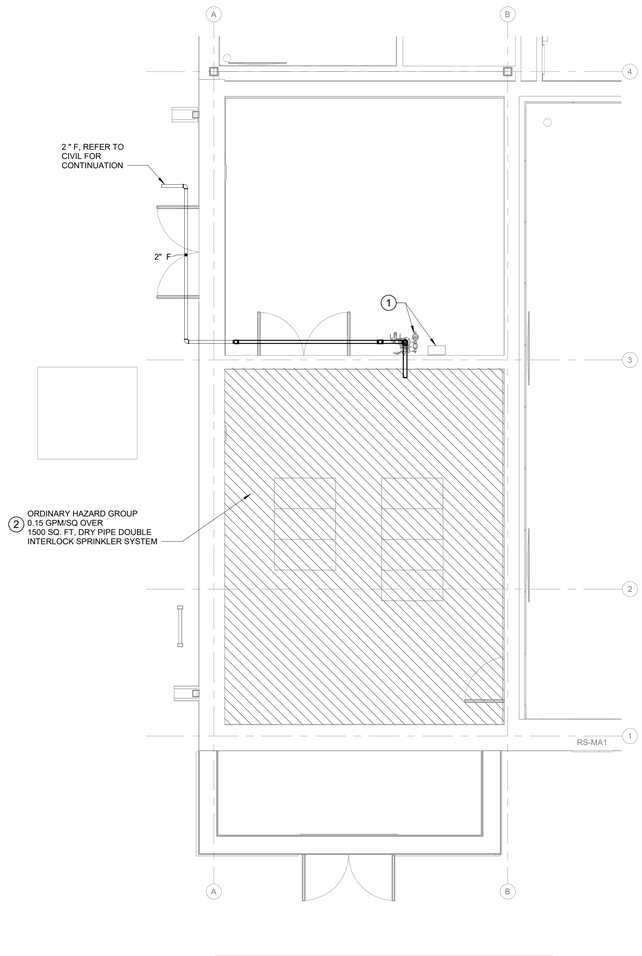
Drawing Number:

P601

CREATED ON: 5/28/2026 6:57:16 AM

FIRE PROTECTION NOTES

ORDINARY HAZARD GROUP
DRY PIPE SYSTEM



FIRST FLOOR PLAN - FIRE PROTECTION
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TESTING AND SERVICES NECESSARY FOR THE COMPLETE AND SATISFACTORY INSTALLATION OF ALL WORK ACCORDING TO CONTRACT DRAWINGS AND SPECIFICATIONS. THIS SHALL BE A TURNKEY PROJECT DESIGNED AND INSTALLED BY THE SPRINKLER CONTRACTOR. IT IS THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS FOR SATISFACTORY INSTALLATION OF ALL WORK. SERVICE MAINS SHALL BE HYDRAULICALLY CALCULATED AND SIZED BY THE FIRE PROTECTION CONTRACTOR.
2. DESIGN AND INSTALLATION OF THE SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 13 AND LOCAL CODES, REDUCTION OF DESIGN AREA FOR USE OF QUICK RESPONSE SPRINKLERS ETC., IS NOT PERMITTED.
3. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE TO PROVIDE A COMPLETE SET OF HYDRAULIC CALCULATIONS AND FULLY COORDINATED SHOP DRAWINGS WHICH SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER EXPERIENCED IN FIRE PROTECTION OR NICET LEVEL III OR IV SPRINKLER DESIGNER.
4. ALL CONCEALED SPRINKLER PIPING AND SPRINKLER PIPING IN STAIRWELLS, STORAGE ROOMS, MECHANICAL ROOMS AND UTILITY ROOMS SHALL BE SCHEDULE 40 AND PAINTED WITH RED ENAMEL. ALL OTHER EXPOSED SPRINKLER PIPING (OUTSIDE THE STAIRWELLS) SHALL BE PAINTED TO MATCH EXISTING CEILING AND RED ENAMEL BANDS 100MM (4 IN.) WIDE SHALL BE PAINTED AT 3,000mm (10FT.) INTERVALS.
5. NO WORK SHALL BE INSTALLED IN VIOLATION OF ANY GOVERNING CODES OR THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ). ANY WORK SHOWN ON THE DRAWINGS WHICH IS CONSIDERED TO BE IN VIOLATION OF SUCH CODES OR THE AHJ SHALL BE BROUGHT TO THE ATTENTION OF CHATHAM COUNTY AND SHALL PROVIDE REQUIRED RESOLUTION WITH APPROVAL PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.
6. SPRINKLER AS-BUILT DRAWINGS MUST BE DELIVERED TO BERTIE COUNTY PRIOR TO REQUESTING A SPRINKLER INSPECTION.
7. ONLY NEW SPRINKLER HEADS AND PIPING SHALL BE INSTALLED. EXISTING SPRINKLERS HEADS AND PIPING SHALL NOT BE REUSED PER NFPA 432/13

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE DOUBLE INTERLOCK DRY PIPE SPRINKLER VALVE AND AIR COMPRESSOR. AIR COMPRESSOR SHALL BE MOUNTED ON WALL NEAR AIR DRY PIPE VALVE.
2. PROVIDE DOUBLE INTERLOCK DRY PIPE SPRINKLER SYSTEM IN THIS AREA.

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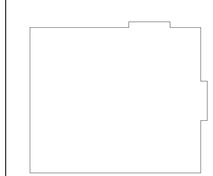
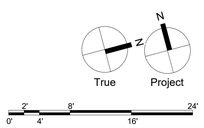


Drawing Title:
FIRST FLOOR PLAN - FIRE PROTECTION

Drawing Number:
FP101



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