



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

JOSH STEIN  
GOVERNOR

DANIEL H. JOHNSON  
SECRETARY

October 31, 2025

**Addendum No. 2**

Contract No.: DA00675

WBS Element: 15RE.22.3

*Dare County Rest Area Renovation on US-64 in Manteo, NC*

To Whom It May Concern:

Reference is made to the proposal and plans previously furnished for this project.

**The following revisions have been made to the proposal:**

**Section 06600 Plastic Fabrications** has been added to the proposal. Please insert the attached section 06600 Plastic Fabrication in the previously provided proposal.

**The following revisions have been made to the plans:**

**Plan Sheet L-3:** The plan sheet has been revised to designate the existing plant removal areas. Please replace the original sheet L-3 with the attached revised sheet L-3 dated 10/30/2025.

**Plan Sheet M1:** The air distribution schedule has been updated. Please replace the original sheet M1 with the attached revised sheet M1 dated 10/30/2025. The updated air distribution scheduled is shown below:

Air Distribution Schedule							
Mark	Manufacturer	Model No.	Neck Size	Face Size	Material	Service	Notes
A	Carnes	RTDBH	12"X4"	14"X6"	Steel	Supply	Duct, Side wall, or Ceiling Mounted
B	Carnes	RTDBH	12"X6"	14"X8"	Steel	Supply	Duct, Side wall, or Ceiling Mounted
EA	Carnes	RSABH	12"X6"	14"X8"	Steel	Exhaust	White, Sidewall Mounted
EB	Carnes	RSABH	14"X14"	16"X16"	Steel	Exhaust	White, Sidewall Mounted

**Plan Sheet A1.2:** The window schedule has been updated to change the dimensions on window marked “D” to be 4’-0” in width instead of 5’-0” to accommodate panel width availability. Please replace the original sheet A1.2 with the attached revised sheet A1.2 dated 10/31/2025.

There have been many questions regarding this project. Please see the information listed below for questions and responses.

- 1) For the selective tree removal, are we removing all existing vegetation and trees where new plantings will be installed? Will any remaining stumps need to be ground down?  
*Answer* - All remaining stumps shall be removed. (See attached Sheet L-3, revised 10/30/2025 designating existing plants removal areas).
- 2) Is there metal edging required around the new plant bed shown on sheet L7?  
*Answer* - There are no metal edging required for new plants on **Sheet #L7**. See planting detail **Sheet #L9** (Plant Bed Edge Detail). Metal Edging only is required for new plant beds shown on **Sheet #L5**.
- 3) What type of weathered stone boulder is desired (off-white, mountain, etc.)?  
*Answer* - Boulders shall be **Tennessee Garden Fieldstone**.
- 4) Will there be a one-year warranty period from completion for landscaping?  
*Answer* - All new plant materials shall be warranted for one year from completion of the project.
- 5) The air distribution schedule does not appear to match the intent of the plans. If we follow the AD schedule, the sidewall grilles will be oversized, and there are also duplicated tags. Please confirm the correct sizes and intent.  
*Answer* - See addendum change noted above, and revised plan sheet M1 dated 10/30/2025.
- 6) Storefront D, E, and frame B are calling for 601UT 2” x 6” Ultra Thermal. These elevations are interior — should these be 1 ¾” x 4 ½”?  
*Answer* - Interior storefront allowed be equal to the non-thermal performance version spec’d (Trifab Versa 450 system)
- 7) What type of glazing is specified for storefront frame B with door #8 (vending area)?  
*Answer* - Door #8 to be as spec’d in 0810 metal storefronts. It does require the thermal version since it is part of the exterior envelope.
- 8) I cannot find any information on the architectural resin panels for storefront frames D & E — please provide product information or specification reference.  
*Answer* - See attached spec. – **06600 Plastic fabrications**.
- 9) In reference to page E1 and the general notes: the note states that EMT conduit is to be used for all circuit wiring. Please confirm whether this requirement includes all jumpers between receptacles, lights, and switch legs.  
*Answer* - Refer to spec ahead of general notes, Spec section 16100.
- 10) Please confirm whether synthetic shake is an acceptable option for pricing, or if the intent is strictly to use natural wood shake.  
*Answer* - To stay consistent on site, the intent is to keep the natural wood roof.

11) Questions about acceptable alternatives for the Dedicated Outdoor Air System (DOAS) for Dare County.  
*Answer* - Daikin is also an acceptable alternative for the DOAS manufacturer.

12) Are we to remove and replace all windows. It appears on A1.1 that some windows are hatched while others are not but on A1.2 (Finish Plan) it appears all windows are to be replaced. Can you please clarify? Also, On A2 elevations windows around the top (2nd story) call for new windows and trim board while there are not any notes on the first story windows. Are all windows to have new trim. Please clarify these locations.

*Answer* -

- a. On the demo plan, all the windows shown are dotted per the legend.
- b. On the finish plan, the windows are shown solid since they will be new on this plan.
- c. On the elevations, the new for new windows and trim should be a typical note for all windows.

13) Can you give us a linear footage allowance and also an LF Unit Price for us to fill in for anything above or below the allowance for the expansion joints to be replaced to assure everyone is bidding apples to apples in the bidding process?

*Answer* - The measurement is 700 linear feet of concrete expansion joints.

14) Page A1.2 elevation "D" calls for 5'0" x 7'2" with 3/8" 3Form "Sweep Sliver". The DLO for "D" Elevation will be 56" the Sweep Sliver panels only come in 48" width. Please advise

*Answer* - Please revise interim window 'D' to be 4'-0" in width instead of 5'-0" to accommodate panel width availability. **(See attached Sheet A1-2, revised 10/31/2025)**

15) The specs call for fir wood on the interior windows and vinyl clad on the exterior windows. The A400 series window by Anderson has vinyl clad on the exterior and pine on the interior, is this acceptable. If this is not acceptable, the only other option is fir on the interior and fibrex on the exterior which is not vinyl clad and is also a more expensive window. Please advise.

*Answer* - It is acceptable for the interior finish of the vinyl clad windows to be pine in lieu of fir as specified.

Sincerely,

DocuSigned by:

Mark S. Winslow

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Mark S. Winslow  
Division Contract Engineer

Cc: C. W. Bridgers, Jr., PE  
R. K. Sawyer, PE  
M. B. Gill, PE  
B. N. Braswell, PE  
D. B. Otts, PE  
T. Davis

## **SECTION 06600 -PLASTIC FABRICATIONS**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification sections, apply to this Section.

#### **1.2 SUMMARY**

- A. This Section includes the Plastic Fabrication as shown and specified in the described system(s):
  - 1. Framed panels
- B. Related Sections include the following:
  - 1. Section 08410 Metal Framed Storefronts

#### **1.3 SUBMITTALS**

- A. General: Submit the following in accordance with conditions of contract and Division 1 specification section 01 33 00 "Submittal Procedures".
- B. Product Data: Submit manufacturer's product data; include product description, fabrication information, and compliance with specified performance requirements.
- C. Submit product test reports from a qualified independent 3<sup>rd</sup> party testing agency indicating each type and class of panel system complies with the project performance requirements, based on comprehensive testing of current products. Previously completed test reports will be acceptable if for current manufacturer and indicative of products used on this project.
  - 1. Test reports required are:
    - a. Rate of Burning (ASTM D 635)
    - b. Self-Ignition Temperature (ASTM D 1929)
    - c. Density of Smoke (ASTM D 2843)
    - d. Flame Spread and Smoke Developed testing (ASTM E 84)
    - e. Room Corner Burn Test (NFPA 286)
    - f. Extent of Burning (UL 94)
    - g. Impact strength (ASTM D 3763)
    - h. Safety glazing impact resistance (ANSI Z97.1-2004)
    - i. UPITT Test for Combustion Product Toxicity
    - j. Passes NFPA 269/ASTM1678 for Combustion Product Toxicity

- k. Dynamic environmental testing (ASTM standards D 5116 or D 6670)
  - l. UL Yellowcard
- D. Shop Drawings: Include plans, elevations, sections, panel dimensions, details, and attachments to other work.
- E. Samples for Initial Selection:
  - 1. Submit minimum 2-inch by 2-inch samples. Indicate full color, texture and pattern variation.
- F. Samples for Verification:
  - 1. Submit minimum 4-inch by 4-inch sample for each type, texture, pattern and color of solid plastic fabrication.
- G. Maintenance Data: Submit manufacturer's care and maintenance data, including care, repair and cleaning instructions. Include in Project closeout documents.

#### **1.4 QUALITY ASSURANCE**

- A. Manufacturers Qualifications
  - 1. Materials and systems shall be manufactured by a company continuously and regularly employed in the manufacture of specified materials for a period of at least five (5) consecutive years and which can show evidence of those materials being satisfactorily used on at least six (6) projects of similar size, scope and location. At least three (3) of the projects shall have been successful for use five (5) years or longer.
  - 2. Manufactured panels must be produced from a minimum of 40% pre-consumer recycle content. This recycle content must be certified by a recognized 3<sup>rd</sup> party certification group, such as Scientific Certification Systems (SCS).
  - 3. Completely PVC – Free product
  - 4. Manufacturer must offer a documented reclaim process that will take back, at the manufacturers cost, panels that are at their end-of life cycle. Return process is preceded by following requirements highlighted in Section 02 42 00 Removal and Salvage of Construction Materials.
  - 5. Manufacturer must have a 3<sup>rd</sup> party completed Life Cycle Analysis
  - 6. Manufacturer must have an Environmental Product Declaration (EPD).

#### **1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver Plastic Fabrications, systems and specified items in manufacturer's standard protective packaging.

- B. Do not deliver Plastic Fabrications, system, components and accessories to Project site until areas are ready for installation.
- C. Store materials in a flat orientation in a dry place that is not exposed to exterior elements.
- D. Handle materials to prevent damage to finished surfaces. Provide protective coverings to prevent damage or staining following installation for duration of project.
- E. Before installing Plastic Fabrications, permit them to reach room temperature.

## 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install Solid Polymer Fabrications until spaces are enclosed and weatherproof, and ambient temperatures and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

## 1.7 WARRANTY

- A. Manufacturer's Special Warranty on Plastic Fabrications: Manufacturer's standard form agreeing to repair or replace units that fail in material or workmanship within the specified warranty period.
- B. Warranty Period: 1 year after the date of substantial completion.
- C. The warranty shall not deprive the owner of other rights or remedies the Owner may have under other provisions of the Contract Documents, and is in addition to and runs concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER

- A. Manufacturer: 3form, LLC., Salt Lake City, Utah, USA / telephone 801-649-2500

### 2.2 MATERIALS

- A. Resin laminated panels
  - 1. Engineered co-polyester resin produced in the USA
  - 2. Sheet Size: Maximum 4' x 10'
  - 3. Thickness: Minimum 9.5 mm"
  - 4. Basis of Design Product: The design of plastic fabrications is based on **Varia style: Swift Silver (vertical)** as provided by 3form, LLC.
  - 5. Other acceptable manufacturers include: Lumicor & Nova Display Systems, Inc. Color and patterns must be reviewed by Architect.

- B. Interlayer Materials: Compatible with polyesters and bonding process to create a monolithic sheet of material when complete.
- C. Sheet minimum performance attributes:
  1. Rate of Burning (ASTM D 635). Material must attain CC1 Rating for a nominal thickness of 1.5 mm (0.060 in.) and greater.
  2. Self-Ignition Temperature (ASTM D 1929). Material must have a Self-ignition temperature greater than 650°F.
  3. Density of Smoke (ASTM D 2843). Material must have a smoke density less than 75%.
  4. Flame spread and Smoke developed testing (ASTM E 84). Material must be able to meet a level of Class A (Flame spread less than 25 and smoke less than 450) at thickness of 1/8", 3/16" and 1".
  5. Room Corner Burn Test (NFPA 286). Material must meet Class A criteria at 1/4" (walls only) and 3/8" (walls only/standoffs only) thickness as described by the 2012 *International Building Code*.
  6. Extent of Burning (UL 94). Must submit UL card.
  7. Impact strength. Minimum impact strength test as measured by ASTM D 3763 of 20 ft. lbs. (for durability, shipping, installation, and use).
  8. Safety Glazing. Material must attain a Class A impact rating in accordance with ANSI Z97.1-2004 at 1/8" thickness.
  9. UPITT Test for Combustion Product Toxicity: Product must be recorded as "not more toxic than wood".
  10. NFPA 269/ASTM 1678 test for toxicity: Product must have a best predicted LC<sub>50</sub> value ≤ 80.8 g/m<sup>3</sup> Product must have a best predicted corrected for post-flashover conditions LC<sub>50</sub> value ≤ 19.0 g/m<sup>3</sup>

### 2.3 FABRICATION

- A. General: Fabricate Plastic Fabrications to designs, sizes and thicknesses indicated and to comply with indicated standards. Sizes, profiles and other characteristics are indicated on the drawings.
- B. Comply with manufacturer's written recommendations for fabrication.
- C. Machining: Acceptable means of machining are listed below. Ensure that material is not chipped or warped by machining operations.
  1. Sawing: Select equipment and blades suitable for type of cut required.
  2. Drilling: Drills specifically designed for use with plastic products.
  3. Milling: Climb cut where possible.
  4. Routing
  5. Tapping

- D. Forming: Form products to shapes indicated using the appropriate method listed below. Comply with manufacturer's written instructions.
  - 1. Cold Bending
  - 2. Hot Bending
  - 3. Thermoforming: Acceptable only on uncoated material.
  - 4. Drape Forming
  - 5. Matched Mold Forming
  - 6. Mechanical Forming
- E. Laminating: Laminate to substrates indicated using adhesives and techniques recommended by manufacturer.

## **2.4 MISCELLANEOUS MATERIALS**

- A. General: Provide products of material, size, and shape required for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- B. Cleaner: Type recommended by manufacturer.
- C. Fasteners: Use screws designed specifically for plastics. Self-threading screws are acceptable for permanent installations. Provide threaded metal inserts for applications requiring frequent disassembly such as light fixtures.
- D. Bonding Cements: May be achieved with solvents or adhesives, suitable for use with product and application.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates, areas, and conditions where installation of Plastic Fabrications will occur, with Installer present, for compliance with manufacturer's requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.

### **3.2 INSTALLATION**

- A. General: Comply with manufacturer's written instructions for the installation of Plastic Fabrications.
- B. Manufacturer's shop to fabricate items to the greatest degree possible.
- C. Utilize fasteners, adhesives and bonding agents recommended by manufacturer for type of installation indicated. Material that is chipped, warped, hazed or discolored as a result of installation or fabrication methods will be rejected.
- D. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.

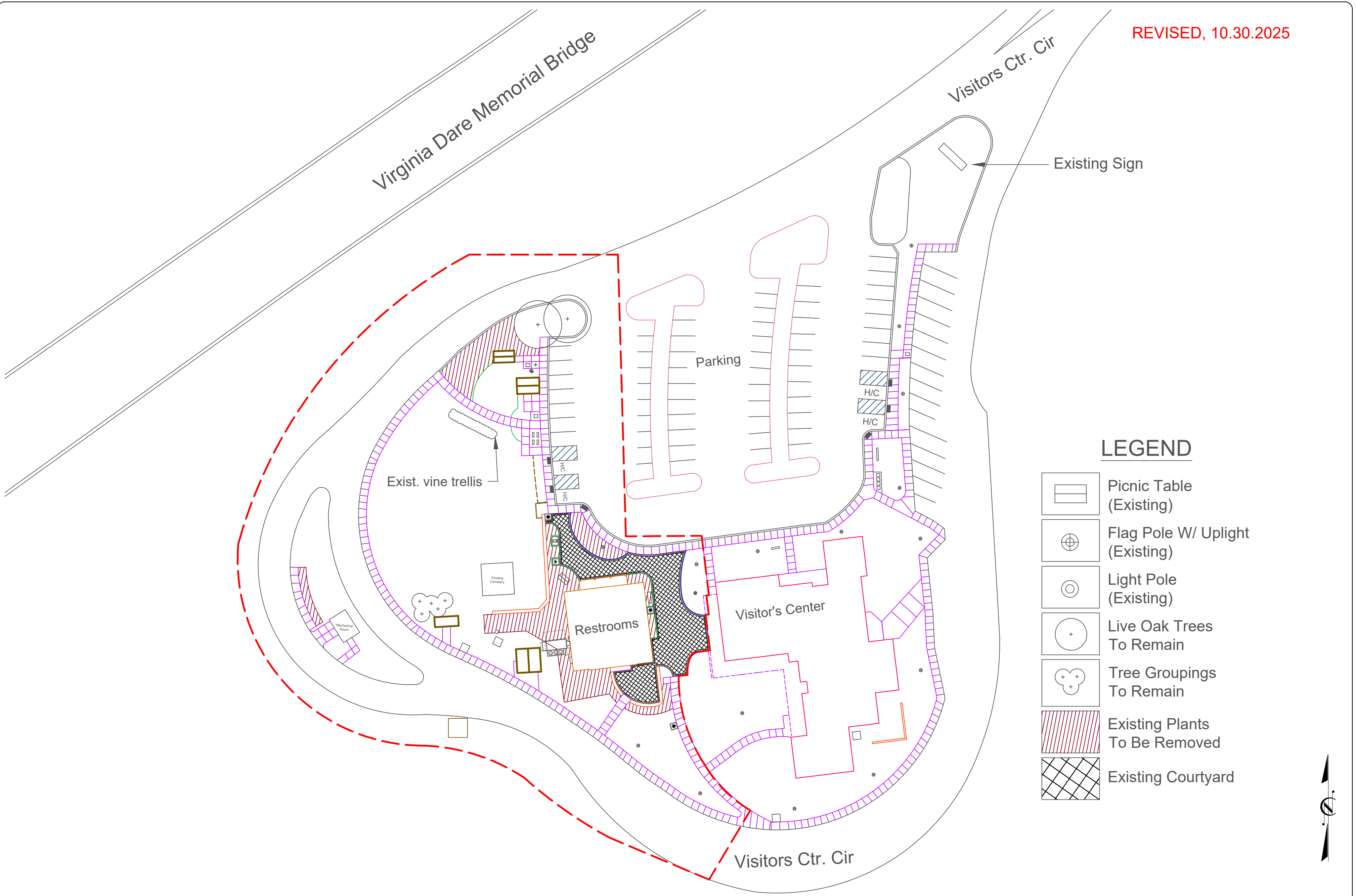
- E. Form field joints using manufacturer's recommended procedures. Locate seams in panels so that they are not directly in line with seams in substrates.

**3.3 CLEANING AND PROTECTION**



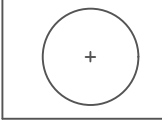
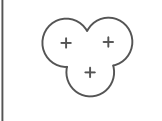


- A. Protect surfaces from damage until date of substantial completion. Repair work or replace damaged work, which cannot be repaired to Architect's satisfaction.

End of Section 06600

REVISED, 10.30.2025



**LEGEND**

-  Picnic Table (Existing)
-  Flag Pole W/ Uplight (Existing)
-  Light Pole (Existing)
-  Live Oak Trees To Remain
-  Tree Groupings To Remain
-  Existing Plants To Be Removed
-  Existing Courtyard

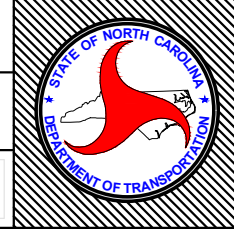


NCDOT - ROADSIDE ENVIRONMENTAL UNIT  
 AESTHETIC ENGINEERING SECTION  
 1557 MAIL SERVICE CENTER RALEIGH NC 27699-1557  
 PH: 919-707-2935 FAX: 919-715-2554

Dare County Visitor Center  
 Landscape Improvement Project Restrooms Area  
 Manteo, North Carolina

PREL. DESIGN DATE: 06.15.2025  
 FINAL DESIGN DATE: 08.15.2025  
 LANDSCAPE ARCHITECT: Azad Atashi

Restroom Demolition Plan  
 Scale: 1' = 60'-0"  
 PROJECT TEAM: Taylor Dunston



T.I.P. #	-----
WBS #	15RE.22.1
FED I.D. #	-----
SHEET NO.:	TOTAL SHEET NO.:
L-3	L-9



# HVAC EQUIPMENT SCHEDULE (100% OUTSIDE AIR DOAS UNIT)

REVISED 10/30/2025

FAN INFORMATION										ELECTRICAL INFORMATION					COOLING INFORMATION					HOT GAS REHEAT INFORMATION				ELECTRIC HEAT INFORMATION						
TAG	QTY	DOAS MODEL #	MANUFACTURER	RETURN AIR CFM	OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	SUPPLY FAN HP	PHASE	VOLT	MCA	MOCP	OUTSIDE AIR		MIXED AIR		LEAVING AIR COIL		CAPACITY		DISCHARGE		RELATIVE HUMIDITY	HEATING CAPACITY	INPUT KW	ENTERING AIR DB	LEAVING AIR DB	ELEC HEAT FLA	
														DB	WB	DB	WB	DB	WB	TOTAL	SENS.	IEER	DB	WB						
DOAS-1	1	RNA-018-C-A-B-GAATC-B03NO A-00-ED-0-AVD-EB-FA0A-00-000-00000-00000-U0-CB0 A-00-ED-0-AVD-EB-FA0A-00-000-00000-00000B	AAON*	0	2400	2400	2800	1.00	2.00	3	208	166A	175A	95.0F	78F	---	---	51.1F	51.1F	204 MBH	107 MBH	15.68	72.0F	59.4F	47.5%	153.9 MBH	372852	28 F	87.2 F	125.2

PROVIDED WITH DOAS UNIT:  
 - 304 STAINLESS STEEL EVAPORATOR COIL END CASINGS  
 - POLYMER E-COATED CONDENSER AND EVAPORATOR COILS  
 - EXTERIOR PAINT TO HAVE 2,500HR SALT SPRAY RATING PER ASMT B 117-95 TEST PROCEDURE  
 - 100% OA W/ MOTORIZED DAMPERS (NO RETURN)  
 - VCC COMPRESSORS (10% TO 100% TURNDOWN)  
 - FILTERS: 4 MERV 13 & 2 MERV 8 PRE-FILTER  
 - CLOGGED FILTER SWITCH  
 - PHASE & BROWNOUT PROTECTION  
 - SCR ELECTRIC HEAT (0-100% FULL MODULATION)  
 - MODULATING HOT GAS REHEAT  
 - 2 THICK FOAM INJECTED DOUBLE WALL CABINET CONSTRUCTION  
 - CONDENSER FANS WITH HEAD PRESSURE CONTROL

COASTAL CORROSION PROTECTION:  
 COILS SHALL HAVE A FLEXIBLE EPOXY POLYMER E-COAT UNIFORMLY APPLIED TO ALL COIL SURFACE AREAS WITHOUT MATERIAL BRIDGING BETWEEN FINS. HUMIDITY AND WATER IMMERSION RESISTANCE SHALL BE UP TO A MINIMUM 1,000 HOURS EACH (ASTM D2247-92 AND ASTM D570-92). CORROSION DURABILITY SHALL BE CONFIRMED THROUGH TESTING, WITH COATING CAPABLE OF WITHSTANDING AT LEAST 10,000 HOURS OF SALT SPRAY PER ASTM B117-90. COATED COILS SHALL RECEIVE A SPRAY-APPLIED, UV-RESISTANT POLYURETHANE TOPCOAT TO PREVENT UV DEGRADATION OF THE E-COAT. COATING SHALL CARRY A 5 YEAR WARRANTY, FROM THE DATE OF ORIGINAL EQUIPMENT SHIPMENT FROM THE FACTORY.

EXTERIOR PAINT FINISH SHALL BE CAPABLE OF WITHSTANDING AT LEAST 2,500 HOURS, WITH NO VISIBLE CORROSIVE EFFECTS, WHEN TESTED IN A SALT SPRAY AND FOG ATMOSPHERE IN ACCORDANCE WITH ASTM B 117-95 TEST PROCEDURE.

SYSTEM NOTES:  
 PROVIDE ALL SENSORS AND CONTROLS REQUIRED TO PROVIDE A COMPLETE AND OPERATING SYSTEM. ENTIRE INSTALLATION SHALL BE PER MANUFACTURER'S INSTRUCTIONS. PROVIDE MANUFACTURER'S START-UP OF SYSTEM AND OWNER TRAINING FOR SYSTEM OPERATION. UNIT SHALL RUN CONTINUOUSLY WHEN BUILDING IS OCCUPIED. INTERLOCK CONTROLS FOR DOAS UNIT EXHAUST FANS EF-1 AND EF-2 SO THAT EXHAUST FANS RUN AT ALL TIMES WHEN DOAS UNIT IS RUNNING.

\* OR APPROVED EQUAL BY ADDISON OR GREENHECK

Dare County Rest Area Mt		EXHAUST FAN SCHEDULE	
EXHAUST FAN #1 (EF-1)	* GREENHECK MODEL# SQ-100-VG IN-LINE DIRECT DRIVE EXHAUST FAN, 1150 CFM @ 0.50" SP, 1654 RPM, 1/4 HP, 120V. SINGLE PHASE. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, GRAVITY BACKDRAFT DAMPER, AND VIBRATION ISOLATION ON HANGING RODS. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES. PROVIDE FACTORY SPEED CONTROLLER FOR BALANCING FAN.		
EXHAUST FAN #2 (EF-2)	* GREENHECK MODEL# SQ-100-VG IN-LINE DIRECT DRIVE EXHAUST FAN, 1000 CFM @ 0.50" SP, 1518 RPM, 1/4 HP, 120V. SINGLE PHASE. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, GRAVITY BACKDRAFT DAMPER, AND VIBRATION ISOLATION ON HANGING RODS. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES. PROVIDE FACTORY SPEED CONTROLLER FOR BALANCING FAN.		

\* OR APPROVED EQUAL

NOTE: INTERLOCK THE CONTROLS FOR BOTH EXHAUST FANS SO THAT WHEN DOAS-1 IS RUNNING THE EXHAUST FANS ARE RUNNING.

Table Replaced, see addendum 2.

AIR DISTRIBUTION SCHEDULE							
MARK	* MANUFACTURER	MODEL NO.	NECK SIZE	FACE SIZE	MATERIAL	SERVICE	NOTES
B	CARNES	RTDBH	4" X 48"	16" X 8"	STEEL	SUPPLY	DUCT, SIDE-WALL, OR CEILING-MOUNTED
B	CARNES	RTDBH	4" X 48"	16" X 8"	STEEL	SUPPLY	DUCT, SIDE-WALL, OR CEILING-MOUNTED
RB	CARNES	RSABH	24" X 16"	26" X 18"	STEEL	RETURN	WHITE, SIDEWALL-MOUNTED
RB	CARNES	RSABH	24" X 16"	26" X 18"	STEEL	RETURN	WHITE, SIDEWALL-MOUNTED

\* OR APPROVED EQUAL BY METALAIR OR PRICE.

COORDINATE BORDER TYPE WITH THE CEILING TYPE. SEE ARCH SHEETS PROVIDE CUT SHEETS TO OWNER/ARCH. PRIOR TO ORDERING.

FLEXIBLE DUCTWORK SIZES		
MAXIMUM CFMS		
SIZES	SUPPLY	RETURN
4"	100	100
6"	175	175
10"	250	250
12"	400	350
14"	550	500
16"	NA	900

(CHANGE OUT EXISTING FLEX DUCTS AND COLLARS AS REQUIRED TO GET NEW CFMS SHOWN)

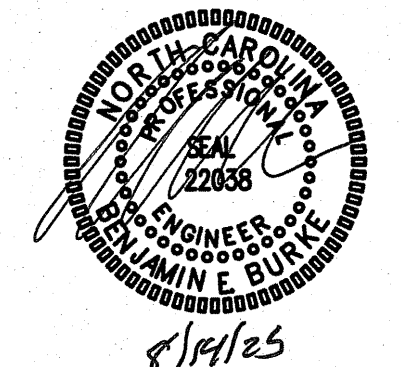
FLEXIBLE DUCTWORK NOTES	
1	INSTALL FLEXIBLE DUCTWORK RUNS AS STRAIGHT AS POSSIBLE.
2	DO NOT ALLOW FLEXIBLE DUCT TO SAG BETWEEN SUPPORTS.
3	DO NOT STRETCH A SHORT SECTION TO FIT A SLIGHTLY LONGER SECTION. THIS DISTORTS THE DUCT SHAPE AND IMPEDES AIR FLOW.
4	DO NOT CRUSH DUCTWORK TO FIT IN A SPACE SMALLER THAN ITS ORIGINAL OUTSIDE DIAMETER. MAXIMUM ALLOWABLE DEFORMATION IS 15% OF ORIGINAL VOLUME.
5	USE RIGID 90 DEGREE ELBOWS AT ANY LOCATION WHERE THE DUCTWORK BECOMES DISTORTED.
6	EXTREME CARE SHALL BE TAKEN TO ELIMINATE ANY REDUCTION IN FLOW WITHIN THE FLEXIBLE DUCTS. THE MECH. CONTRACTOR WILL BE REQUIRED TO REPLACE THE FLEXIBLE DUCT WITH RIGID IF PROPER FLOW IS NOT OBTAINED.
7	SIZE ALL FLEXIBLE DUCT SO AS NOT TO EXCEED MAXIMUM CFMS GIVEN IN TABLE.

## GENERAL NOTES - MECHANICAL

- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE AND ALL LOCAL AND OTHER APPLICABLE CODES.
- ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (MC).
- ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE MC SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC) AND OTHER TRADES.
- THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES.
- THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS REFER TO THE ARCHITECTURAL PLANS.
- THE MC SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS INTERLOCKS, CONTROL WIRING CONDUIT AND POWER WIRING FROM DISCONNECTS TO HIS EQUIPMENT, USING A LICENSED ELECTRICIAN.
- THE MC SHALL USE FIRE DAMPERS FOR PROTECTION OF THE OPENING IN ACCORDANCE WITH STATE AND LOCAL CODES IN ALL LOCATIONS WHERE PENETRATIONS OF RATED WALLS AND FLOORS OCCUR. SEE ARCHITECTURAL PLANS FOR RATED WALL AND FLOOR LOCATIONS. PROVIDE ACCESS DOORS AT ALL DAMPER LOCATIONS. LOCATE DOORS FOR EASY ACCESS.
- INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AHU. ALL MECHANICAL EQUIPMENT SHALL OPERATE FREE OF OBJECTIONAL NOISE AND VIBRATION.
- INSTALL TURNING VANES IN SUPPLY DUCTS AT ALL ELBOWS AND SPLITTER DAMPERS. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE SHOWN OR REQUIRED FOR SYSTEM BALANCING.
- DUCT DIMENSIONS ARE SHOWN INSIDE CLEAR.
- THE MC SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF HIS WORK. HE SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN HIS CONTRACT.
- PROVIDE ALL REQUIRED ROOF PENETRATIONS FOR THE INSTALLATION OF THE NEW EQUIPMENT. ALL FLASHINGS ARE BY THE MECHANICAL CONTRACTOR. ALL ROOFING WORK SHALL BE DONE BY A LICENSED ROOFING CONTRACTOR SO AS TO MAINTAIN ORIGINAL WARRANTY.
- THE M.C. SHALL COORDINATE WITH AND PROVIDE EQUIPMENT SPEC. SHEETS TO THE GENERAL AND ELECTRICAL CONTRACTORS FOR REVIEW PRIOR TO ORDERING EQUIPMENT.
- PROPERLY SUPPORT ALL DUCT WORK, AND EQUIP FROM STRUCTURE. PROVIDE ALL STRUCTURAL SUPPORTS FOR THE LOADS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.

## LEGEND - MECHANICAL

	RECTANGULAR DUCTWORK, INSIDE CLEAR DIMENSION INDICATED (WIDTH X HEIGHT)
	FLEXIBLE DUCTWORK
	ROUND GALVANIZED STEEL DUCT INSIDE CLEAR DIMENSION INDICATED.
	WALL OR DUCT MOUNTED SUPPLY AIR REGISTER
	WALL MOUNTED EXHAUST GRILLE
	WALL MOUNTED CONTROL PANEL FOR DOAS UNIT. MOUNT AT 48" AFF.
	WALL MOUNTED REMOTE TEMPERATURE/HUMIDITY SENSOR. MOUNT AT 72" AFF.
	GRILLE TYPE MIN. CFM



## APPENDIX B

### 2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)  
 MECHANICAL SUMMARY

#### MECHANICAL SYSTEMS, SERVICE SYSTEM AND EQUIPMENT

Thermal Zone	3A
winter dry bulb	28F
summer dry bulb	93F
Interior Design Conditions	
winter dry bulb	72F
summer dry bulb	75F
relative humidity	50%
Building Heating Load	131,200 BTU/hr
Building Cooling Load	139,200 BTU/hr
Mechanical Spacing Conditioning System	
Unitary -	The tenant space is served the following systems: (1) 2400 CFM, 17 Ton, 100% Outside air DOAS unit. DX Cooling with electric heating.
Boiler -	Not applicable to this project.
Chiller -	Not applicable to this project.
Equipment efficiencies	
Efficiencies and outputs are listed on equipment schedules - See drawings.	

OA SCHEDULE OUTDOOR VENTILATION AIR PROVIDED PER TABLE 403.3 NCSBC MECHANICAL CODE.							
APPLICATION	SQUARE FOOTAGE (SF)	AREA OUTDOOR AIR FLOW RATE (CFM/SF)	PEOPLE OUTDOOR AIR FLOW RATE (CFM/PERSON)	OCCUPANCY DENSITY RATE (# PEOPLE/1000SF)	OCCUPANCY (# PEOPLE)	AREA OUTDOOR AIR FLOW (CFM)	PEOPLE OUTDOOR AIR FLOW (CFM)
CORRIDOR	675	0.06	-	-	-	41	-
STORAGE	300	0.12	-	-	-	36	-
TOTAL REQUIRED							77
OUTDOOR AIR PROVIDED FROM EACH HVAC UNIT							
HVAC UNIT				OUTDOOR AIR (CFM)			
DOAS-1				2400 CFM			
TOTAL PROVIDED				2400 CFM *			
APPLICATION CFM							
TOILETS				70 CFM/FLUSHING FIXTURE			
17 FLUSHING FIXTURE X 70 CFM = 1190 CFM							
2150 CFM EXHAUST PROVIDED BY TWO EXHAUST FANS. MAKE UP AIR BY TRANSFER AIR							

\* OUTSIDE AIR QUANTITY PROVIDED FOR MAKE-UP AIR FOR TOILET EXHAUST AND BUILDING PRESSURIZATION.

SCO#25-29818-01A

PROJECT TITLE  
 DARE COUNTY  
 REST AREA (US-64)  
 VISITORS CENTER CIRCLE  
 MANTEO, NORTH CAROLINA

PROJECT NO.  
 2404b

DRAWING TITLE  
 HVAC SCHEDULES

M1

PLOT DATE 08/14/2025

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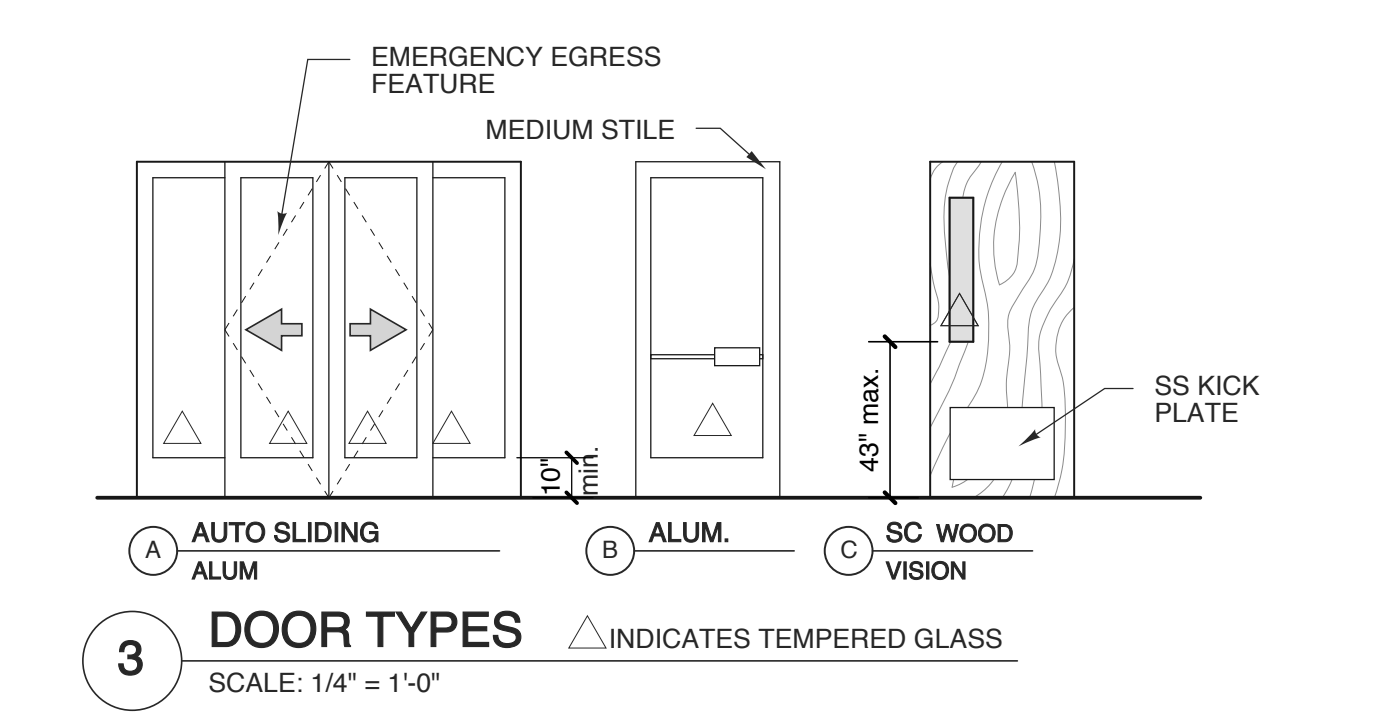
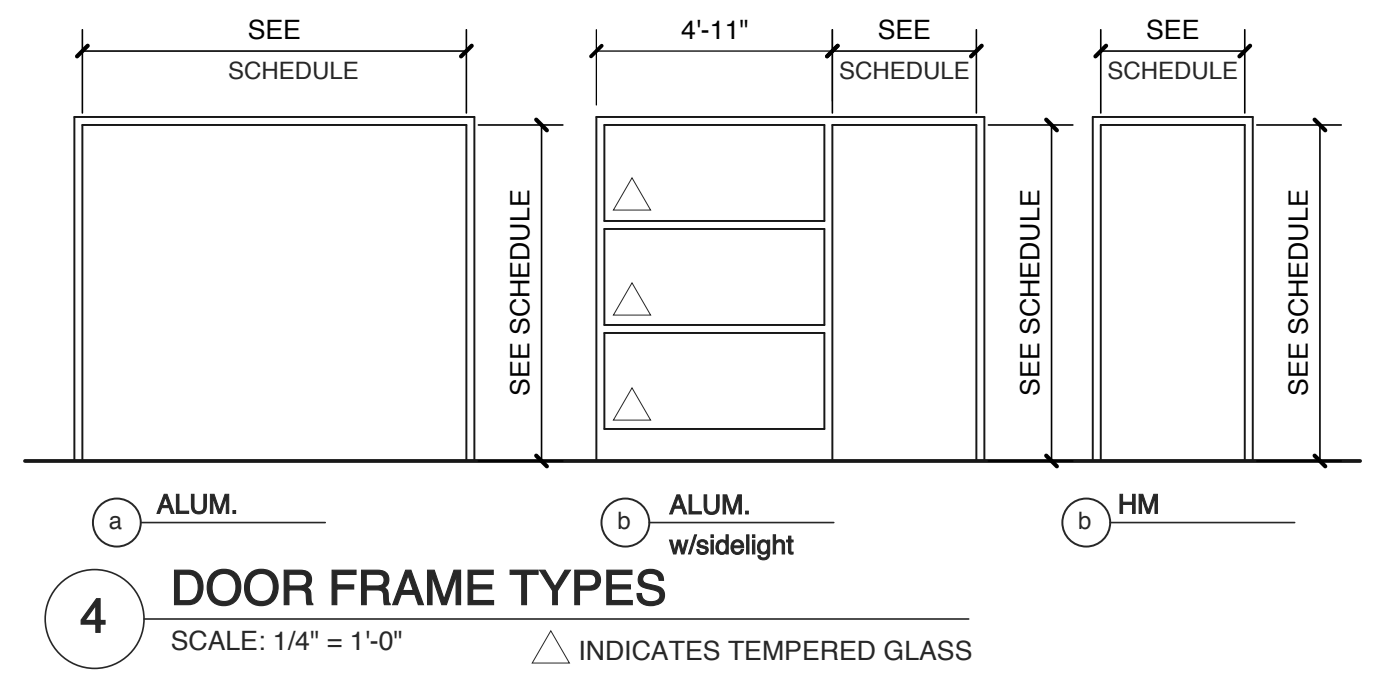
ENGINEER

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DOOR SCHEDULE							
MARK	DOOR			FRAME		HWDR SET NO.	REMARKS
	SIZE	MATL	TYPE	TYPE	DETAILS		
1	8'-0" x 7'-0" x 1-3/4"	ALUM	A	a	---	1	CLEAR ANODIZED FINISH & TINTED INSULATED GLASS-SEE NOTES
2	8'-0" x 7'-0" x 1-3/4"	ALUM	A	a	---	1	CLEAR ANODIZED FINISH & TINTED INSULATED GLASS-SEE NOTES
3	2'-0" x 7'-0" x 1-3/4"	existing	---	---	---	4	REFINISH DOOR - REPLACE ALL HARDWARE
4	2'-0" x 7'-0" x 1-3/4"	existing	---	---	---	4	REFINISH DOOR - REPLACE ALL HARDWARE
5	3'-0" x 7'-0" x 1-3/4"	SC WD	C	c	---	2	OBSURE, TEMPERED GLASS
6	3'-0" x 7'-0" x 1-3/4"	existing	---	---	---	3	REFINISH DOOR - REPLACE ALL HARDWARE
7	3'-0" x 7'-0" x 1-3/4"	existing	---	---	---	3	REFINISH DOOR - REPLACE ALL HARDWARE
8	3'-0" x 7'-0" x 1-3/4"	ALUM	B	b	---	5	CLEAR ANODIZED FINISH & TINTED INSULATED GLASS-SEE NOTES

**NOTES:**  
 - COORDINATE KEYING OF HARDWARE WITH OWNER  
 - DOOR HANDLES TO BE LEVER HANDLE  
 - ALL DOORS TO MEET NCSBC SECTION 1609.1.2  
 - ALL NEW ENTRANCE DOORS TO MEET ENERGY REQ.  
 U-FACTOR = 0.77 MAX.  
 SHCG = 0.25 MAX.

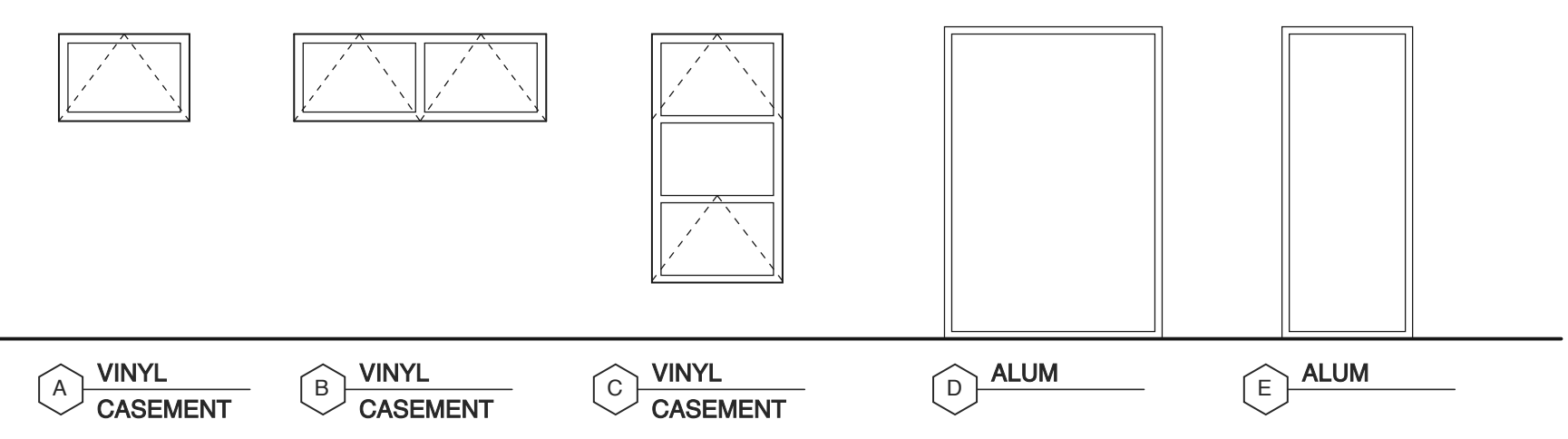
**HARDWARE SETS**  
 1. AUTOMATIC SLIDING WEMERGENCY BREAK AWAY OPERATION  
 2. PASSAGE SET  
 3. STOREROOM FUNCTION LOCKSET  
 4. ADA CUP PULL (COL-405-15CC OR EQUAL)  
 SEE SPEC FOR MORE INFORMATION



Window size in Mark "D" changed to 4'-0" x 7'-2", see Addendum 2.

WINDOW SCHEDULE							
MARK	W	SIZE	H	TYPE	MATERIAL	GLASS	REMARKS
A	3'-0"	x	2'-0"	A	VINYL	1" INSUL. - OBSCURE	CASEMENT-WHITE
B	2'-3'-0"	x	2'-0"	B	VINYL	1" INSUL. - OBSCURE	CASEMENT-WHITE
C	3'-0"	x	6'-0"	C	VINYL	1" INSUL. - CLEAR	CASEMENT-WHITE
D	5'-0"	x	7'-2"	D	ALUM	ARCH. RESIN PANELS	CLEAR ANODIZED FRAME
E	3'-0"	x	7'-2"	E	ALUM	ARCH. RESIN PANELS	CLEAR ANODIZED FRAME

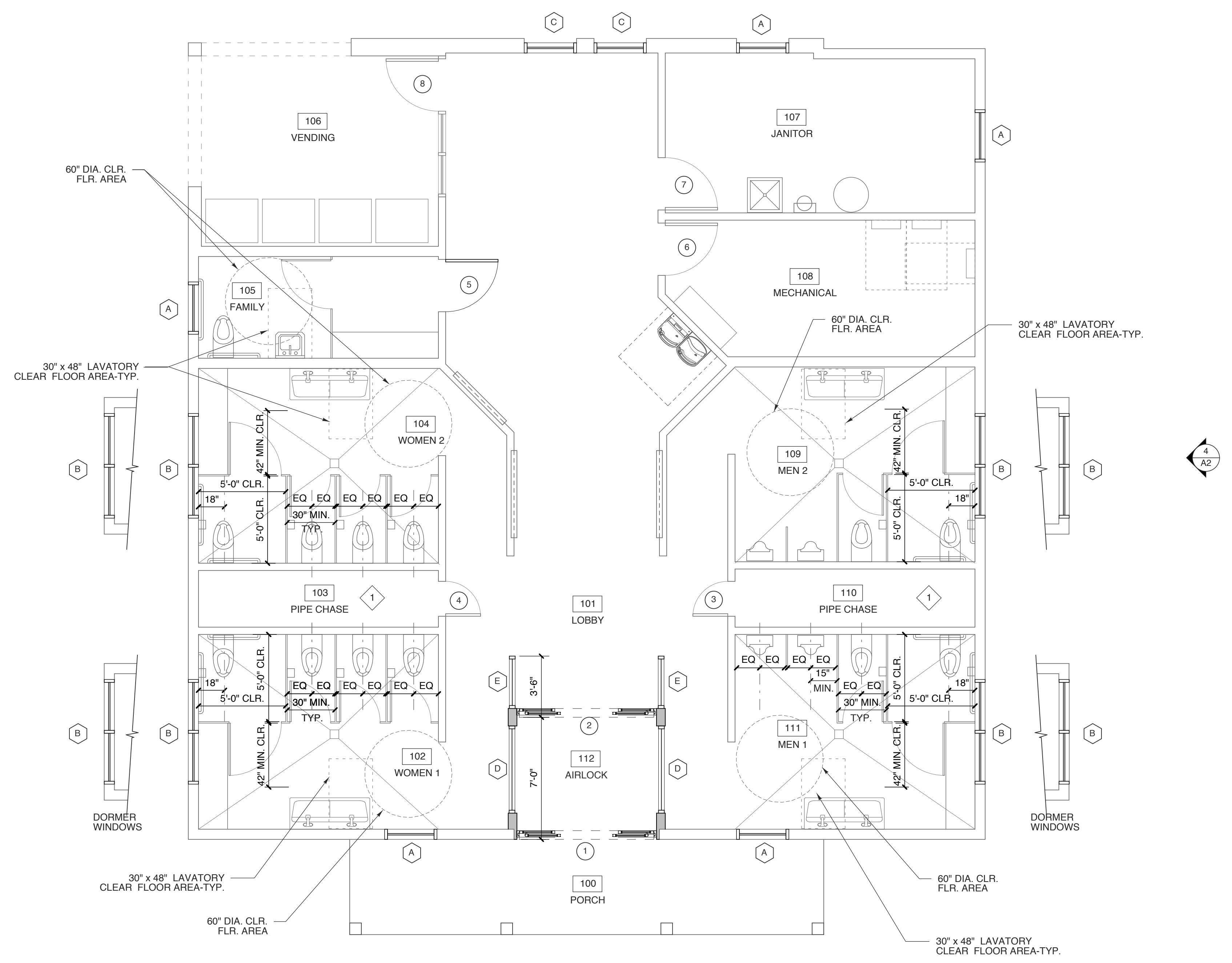
**NOTES:**  
 -SEE WINDOW TYPE ELEVATIONS AND DETAILS.  
 -DIMENSIONS ARE NOMINAL  
 -GLASS TO MEET NC ENERGY CODE-SEE COVER  
 -ALL WINDOWS TO MEET NCSBC SECTION 1609.1.2  
 -PROVIDE CONTINUOUS BEAD OF SILICONE CAULK BEHIND ALL NAIL FINS BEFORE INSTALLING NEW WINDOWS PER MANF. SPEC.



**KEYED NOTES**  
 1. PC & EC TO COORDINATE HEIGHTS OF VALVES AND SENSOR POWER BOX FOR SERVICABILITY-ELECTRICAL BOX TO HAVE REMOVABLE COVER FOR SERVICABILITY FROM CHASE SIDE.

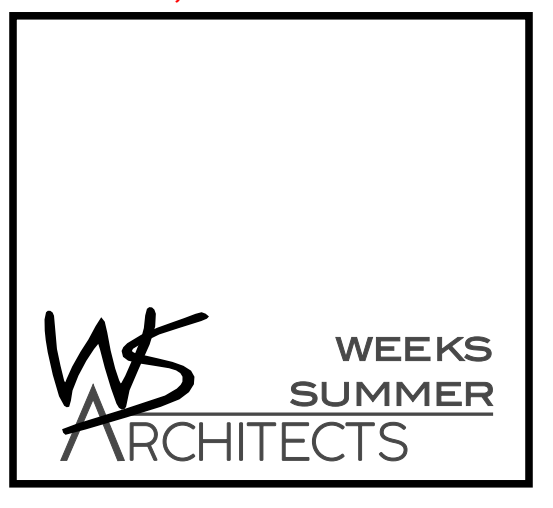
**NOTES**  
 1. CONTRACTOR TO SUPPLY ALL BLOCKING NEEDED TO SUPPORT REQUIRED RESTROOM ITEMS UNLESS OTHERWISE NOTED OR STATED PER MANF.  
 2. VERIFY ALL ROUGH OPENING DIMENSIONS WITH MANUFACTURERS REQUIREMENTS  
 3. SEE SHEET A1.3 FOR FINISH INFORMATION

**WALL LEGEND**  
 --- EXIST. EXT. WALL W/ SIDING AND WOOD FRAMING  
 --- EXIST. INT. WALL WOOD FRAMING  
 --- NEW EXT. WALL W/ SIDING & WOOD FRAMING

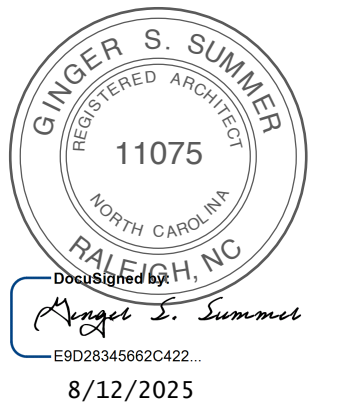


**SCOPE OF WORK NOTES**

- REMOVE AND REPLACE ROOFING ON REST AREA AND PICNIC SHELTERS.
- REMOVE AND REPLACE EXISTING GUTTERS AND DOWNSPOUTS (LEAF GUARD TYPE)
- ADD AIRLOCK AT FRONT ENTRY
- REMOVE AND REPLACE EXISTING TILE AND VCT
- REMOVE AND REPLACE EXISTING TOILET PARTITIONS AND ACCESSORIES.
- REMOVE AND REPLACE EXISTING LIGHTING WITH NEW LED FIXTURES.
- PAINT ALL INTERIOR WALLS, CEILING AND REFINISH DOORS AS SCHEDULED.
- REPLACE ALL ALUM. STOREFRONT DOOR AND ENTRY
- REMOVE AND REPLACE EXISTING HVAC
- PAINT EXTERIOR FIBER CEMENT SIDING AND PICNIC SHELTERS-PAINT NEW TRIM
- REPLACE DOOR HARDWARE AS SCHEDULED
- REMOVE AND REPLACE ALL INTERIOR AND EXTERIOR BUILDING SIGNAGE
- REMOVE AND REPLACE WATER HEATER
- REMOVE AND REPLACE ALL PLUMBING FIXTURES
- REPLACE WINDOWS & WINDOW TRIM INT & EXT.



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**BID SET**  
 8.12.25

SCO # 25-29818-01A

PROJECT TITLE  
**DARE COUNTY REST AREA (US-64)**  
 VISITORS CENTER CIRCLE  
 MANTEO, NORTH CAROLINA

PROJECT NO.  
**2404b**  
 DRAWING TITLE  
**FLOOR PLAN**

SHEET 4 OF 10

**A1.2**

PLOT DATE 8/12/25  
 REVISION ---

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