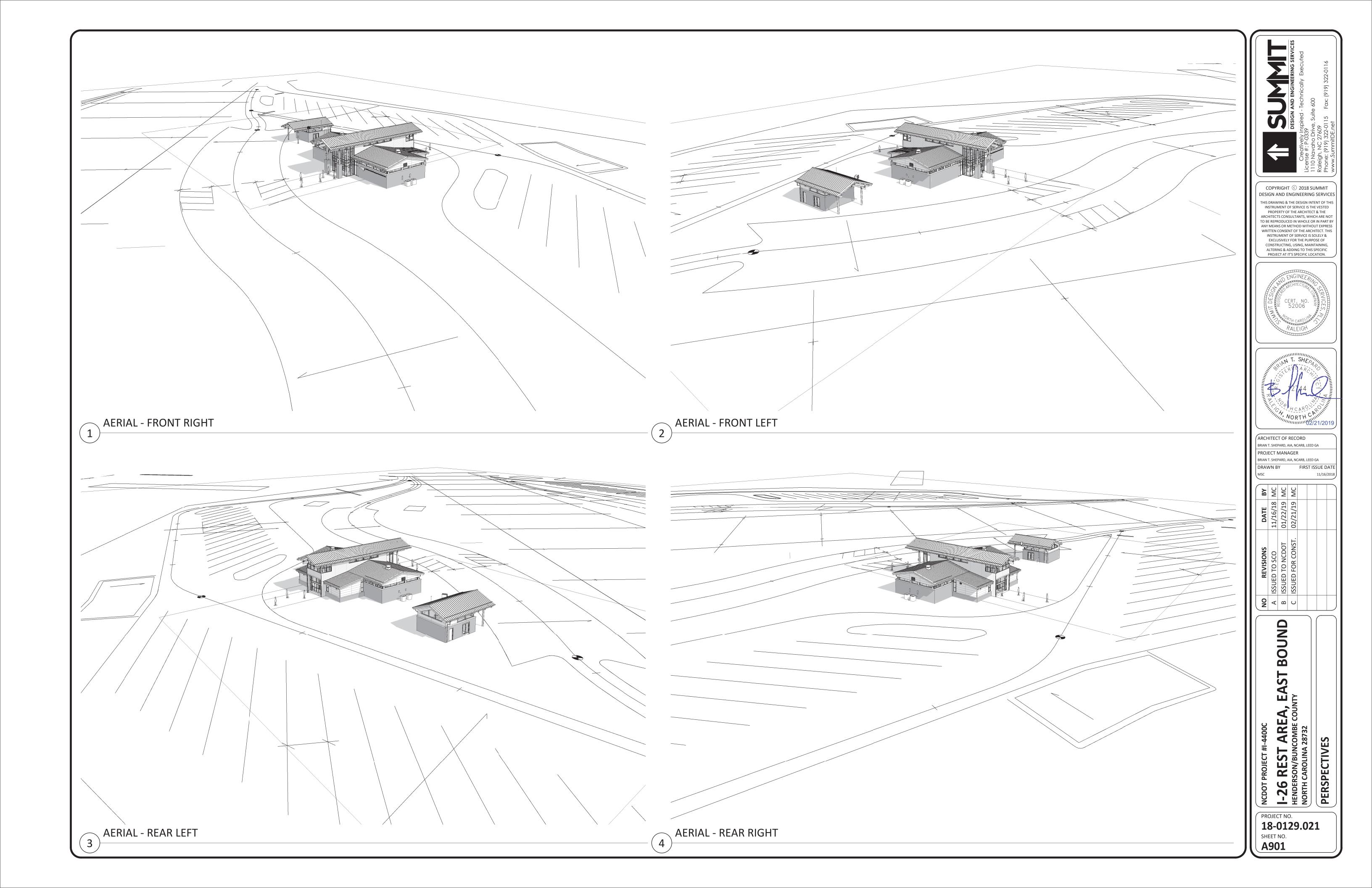
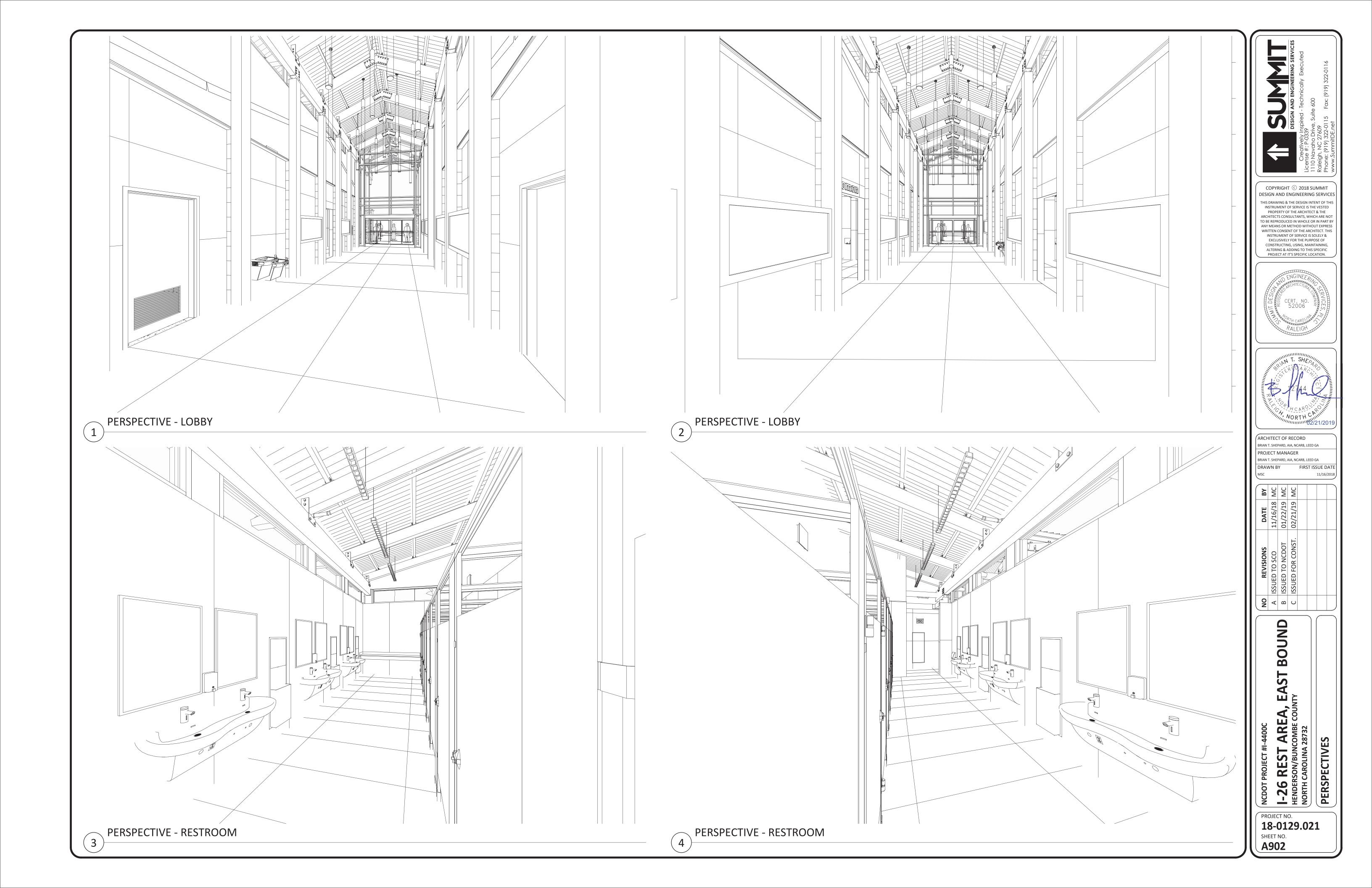
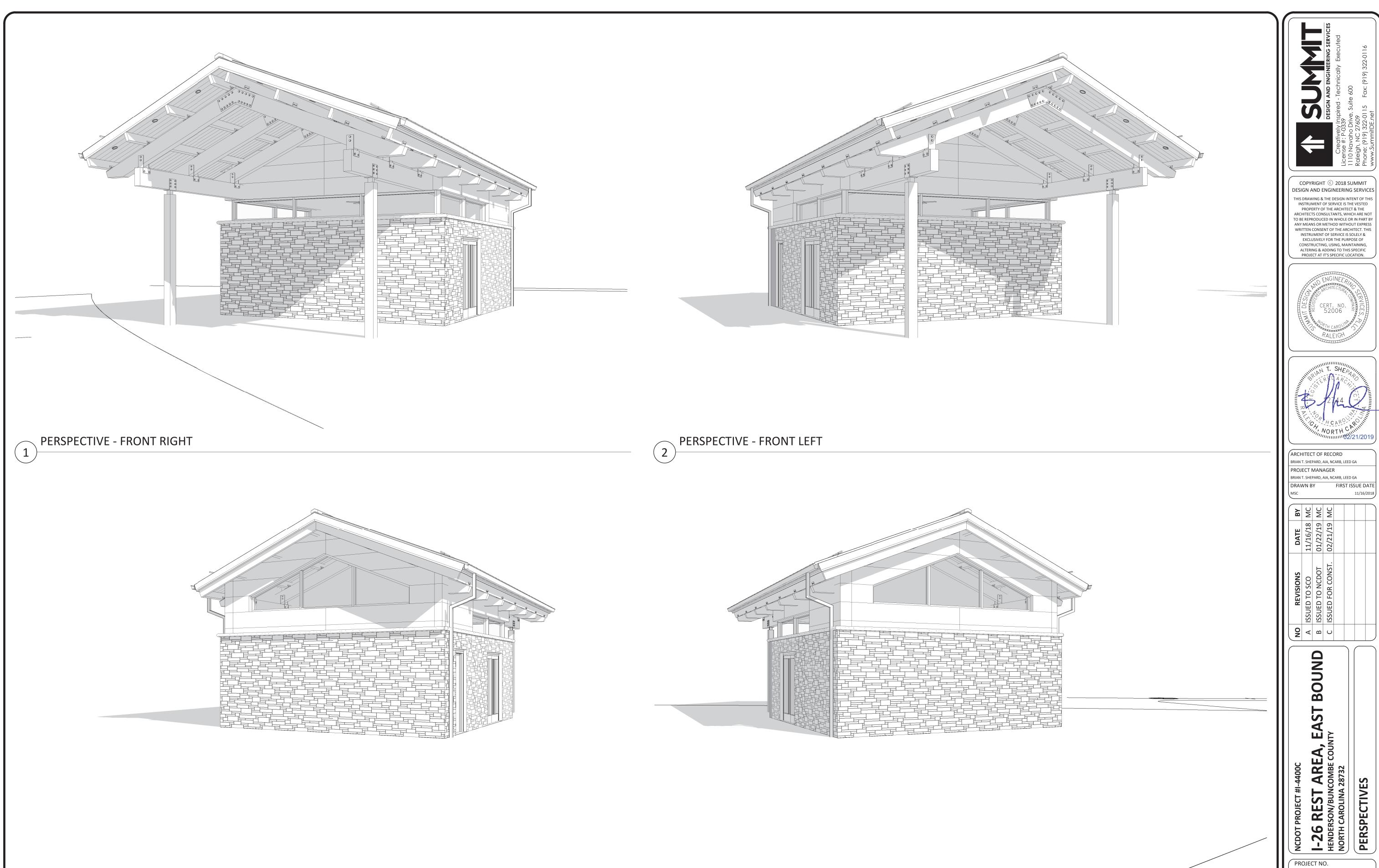
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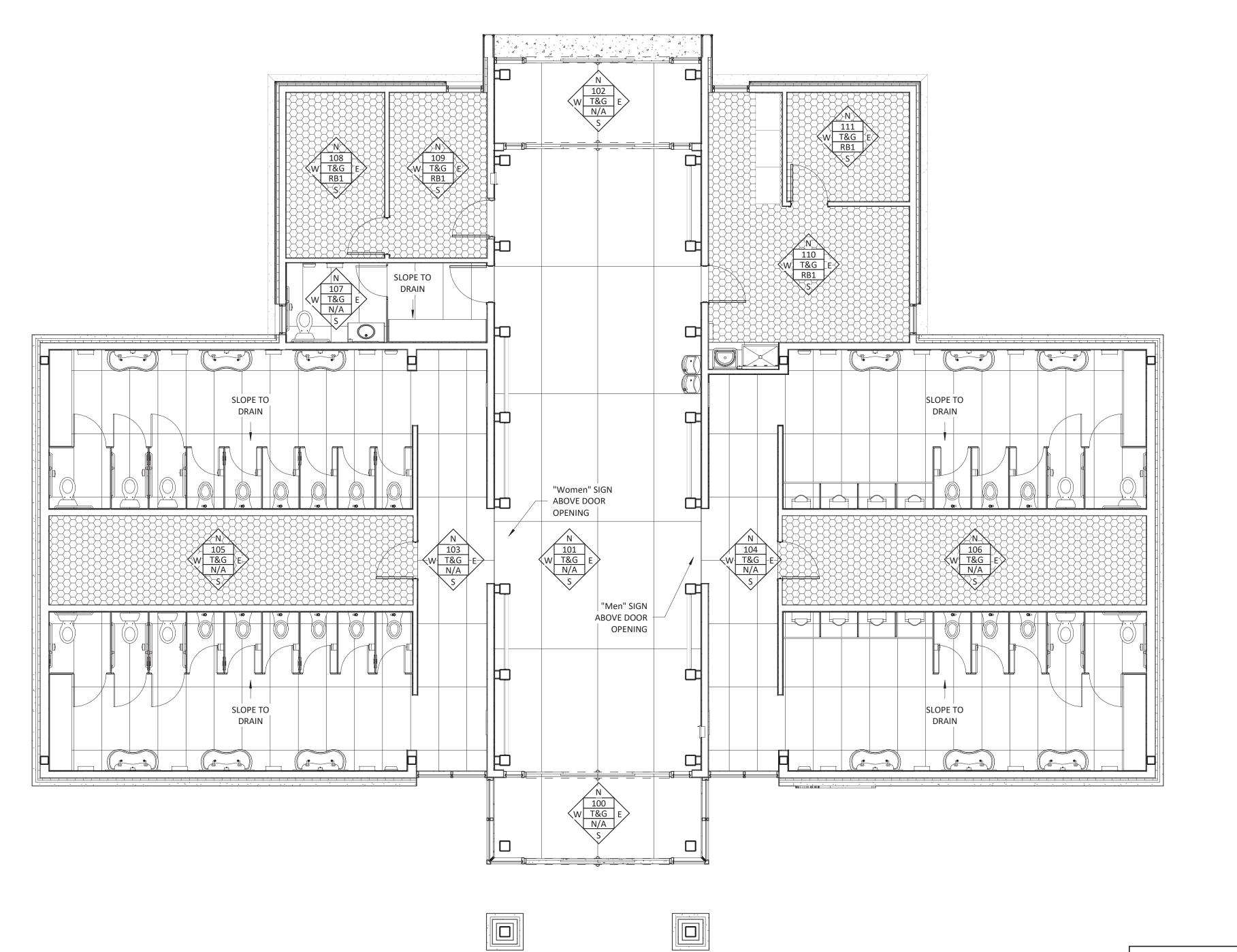






PROJECT NO. **18-0129.021**SHEET NO. A903

FIRST ISSUE DATE



N PLAN WALL

SYMBOL LEGEND W CF E CEILING FINISH WALL BASE

		FINISH LEGEND		
		P2		
		UC1		
		UC2		
		CPT1		
,	1			

GENERAL FINISH NOTES

- 1. SEE SPECIFICATIONS FOR SELECTED FINISHES. 2. ALL GYPSUM WALLBOARD WALLS AND CEILINGS SHALL RECEIVE A LEVEL 4 OR 5 FINISH (SEE
- SPECIFICATIONS). PREPARE MOCK-UP FOR ARCHITECTS APPROVAL. 3. SEAL ALL GAPS BETWEEN WALLS AND CEILINGS/FLOORS.
- 4. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
- 5. REVIEW INTERIOR ELEVATIONS, WALL SECTIONS AND DETAILS FOR SPECIAL CONDITIONS RELATING TO
- FINISHING. 6. WHERE STOREFRONT INSTALLED, BASE FINISH SHALL

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ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED GA

BRIAN T. SHEPARD, AIA, NCARB, LEED GA

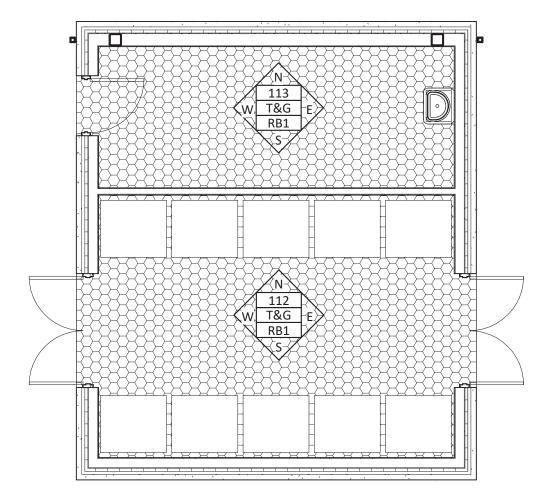
FIRST ISSUE DATE

PROJECT MANAGER

DRAWN BY

THIS DRAWING & THE DESIGN INTENT OF THIS

- NOT BE INSTALLED 7. WHERE STOREFRONT INSTALLED, WALL FINISH
- REFERS TO GYPSUM WALLBOARD ABOVE



VENDING FINISH FLOOR PLAN

RESTROOMS FINISH FLOOR PLAN

[/] 3/16" = 1'-0"

ROOM	FLO	ORS	WALLS					COMMITME	
NO. NAME	FINISH	BASE	NORTH	EAST	SOUTH WEST		CEILING	COMMENTS	
FIRST FLOOR									
100 VESTIBULE	UC1	N/A	-	P1	-	P1	T&G		
101 LOBBY	UC1	N/A	-	UC4/P1	-	UC4/P1	T&G	WALL TILE TO EXTEND 12'-0" A.F.F.	
102 VESTIBULE	UC1	N/A	P1	P1	-	P1	T&G		
103 WOMEN'S	UC2	N/A	UC3/P1	UC3/P1	UC3/P1	UC3/P1	T&G	SEE ENLARGED ELEVATIONS FOR PATTERN	
104 MEN'S	UC2	N/A	UC3/P1	UC3/P1	UC3/P1	UC3/P1	T&G	SEE ENLARGED ELEVATIONS FOR PATTERN	
105 CHASE	P2	N/A	-	-	-	-	T&G		
106 CHASE	P2	N/A	-	-	-	-	T&G		
107 FAMILY	UC2	N/A	UC3/P1	UC3/P1	UC3/P1	UC3/P1	T&G	SEE ENLARGED ELEVATIONS FOR PATTERN	
108 ELECTRICAL	P2	RB1	P1	P1	P1	P1	T&G		
109 STORAGE	P2	RB1	P1	P1	P1	P1	T&G		
110 STORAGE	P2	RB1	P1	P1	P1	P1	T&G	SEE ENLARGED JANITOR PLAN AND ELEVATIONS FOR	
								TILE LOCATIONS	
111 STORAGE	P2	RB1	P1	P1	P1	P1	T&G		
112 VENDING	P1	RB1	P1	P1	P1	P1	T&G		
113 STORAGE	P1	RB1	P1	P1	P1	P1	T&G		

	FINISH LEGEND								
	MNFR.	STYLE/ID	COLOR	COMMENTS					
LOORII	NG								
AINT									
2	SEE SPECIFICATIONS	SEE SPECIFICATIONS	SEE SPECIFICATIONS	CONCRETE SEALER					
ILE									
IC1	SEE SPECIFICATIONS	SEE SPECIFICATIONS	SEE SPECIFICATIONS	FULL SLAB IN LOBBY					
IC2	SEE SPECIFICATIONS	SEE SPECIFICATIONS	SEE SPECIFICATIONS	27.5" X 62" IN RESTROOMS					
VALLS									
1	SEE SPECIFICATIONS	SEE SPECIFICATIONS	SEE SPECIFICATIONS						
ILE		SEE SPECIFICATIONS	SEE SPECIFICATIONS	FULL SLAB IN RESTROOMS					
	SEE SPECIFICATIONS		+	+					
C3	SEE SPECIFICATIONS SEE SPECIFICATIONS	SEE SPECIFICATIONS	SEE SPECIFICATIONS	FULL SLAB IN LOBBY					
C3		SEE SPECIFICATIONS	SEE SPECIFICATIONS	FULL SLAB IN LOBBY					
IC3 IC4 VOOD		SEE SPECIFICATIONS -	SEE SPECIFICATIONS TO MATCH T&G	FULL SLAB IN LOBBY 1X12 BOARDS INSTALLED HORIZONTALLY					
TILE JC3 JC4 WOOD WD1 CEILING	SEE SPECIFICATIONS -	SEE SPECIFICATIONS -							

18-0129.021 SHEET NO. ID100

BOUND FINISH PLAN, NOTES AND SCHEDULE EAST I-26 REST AREA, E HENDERSON/BUNCOMBE COUNT NORTH CAROLINA 28732

DESIGN CRITERIA

BUILDING CODE: CONCRETE DESIGN CODE: CONCRETE DESIGN METHOD: STEEL DESIGN CODE: STEEL DESIGN METHOD: LIGHT GAUGE STEEL:

NORTH CAROLINA SATE BUILDING OCDE, 2012 EDITION ACI 318-11, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE EQUIV. RECTANGULAR STRESS BLOCK AISC MANUAL OF STEEL CONSTRUCTION, LRFD, FOURTEENTH EDITION ELASTIC ANALYSIS, PLASTIC DESIGN

AISI NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 2007 EDITION

SNOW LOAD

TERRAIN CATEGORY:	С
GROUND SNOW LOAD (Pg):	15 PSF
SNOW EXPOSURE FACTOR (Ce):	1.0
THERMAL FACTOR (Ct):	1.0
SNOW IMPORTANCE FACTOR (Is):	1.0
FLAT ROOF SNOW LOAD (Pf): `´	15 PSF

WINDLOADS

MINIMUM WIND PRESSURE:	10 PSF
BASIC WIND VELOCITY:	90 MPH
RISK CATEGORY:	II
WIND EXPOSURE CATEGORY:	С
INTERNAL PRESSURE COEFFICIENT:	±0.18
BASE SHEAR:	N/A
COMPONENTS & CLADDING:	CALCULATED BY PROVDER PER ASCE 7-05

SEISMIC DATA

BUILDING OCCUPANCY CATEGORY: SEISMIC IMPORTANCE FACTOR (le): MAPPED SPECTRAL RESPONSE ACCELERATION (SS): MAPPED SPECTRAL RESPONSE ACCELERATION (S1): SITE CLASS: DESIGN SPECTRAL RESPONSE ACCELERATION (SDS): DESIGN SPECTRAL RESPONSE ACCELERATION (SD1): SEISMIC DESIGN CATEGORY: BASIC SEISMIC FORCE RESISTING SYSTEM:	II 1.0 37.9% 10.6% D 37.8% 16.8% C NOT DETAILED
	D
DESIGN SPECTRAL RESPONSE ACCELERATION (SDS):	37.8%
DESIGN SPECTRAL RESPONSE ACCELERATION (SD1):	16.8%
	С
BASIC SEISMIC FORCE RESISTING SYSTEM:	NOT DETAILED
RESPONSE MODIFICATION FACTOR (R):	1.25
DEFLECTION AMPLIFICATION FACTOR (Cd):	1.25
BASE SHEAR:	N/A
ANALYSIS PROCEDURE:	EQUIV. LATERAL F

LIVELOADS

ROOF (MINIMUM):

20 PSF

GENERAL NOTES

- THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL. CIVIL MECHANICAL AND ELECTRICAL DRAWINGS
- THE CONTRACTOR WILL COORDINATE BETWEEN ALL TRADES. CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND THE DRAWINGS OF OTHERS WILL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER IN A TIMELY FASHION THAT PERMITS CLARIFICATIONS WITHOUT EFFECTING THE CONSTRUCTION SCHEDULE.
- HESE DRAWINGS ALONG WITH ANY SPECIFICATIONS ISSUED CONSTITUTE THE CONTRACT DESIGN DOCUMENTS FOR THIS PROJECT. ANY DISCREPANCY BETWEEN THE TWO WILL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR STRUCTURAL ENGINEER FOR CLARIFICATION. FOR ESTIMATING PURPOSES THE CONTRACTOR WILL ASSUME THE MORE COSTLY ALTERNATIVE. NO MATERIALS MAY BE ORDERED, AND NO WORK MAY PROCEED UNTIL THE DISCREPANCY IS RESOLVED BY THE DESIGN PROFESSIONAL.
- ALTERNATES OR SUBSTITUTIONS TO STRUCTURAL MATERIALS OR DESIGN ARE AT THE SOLE DISCRETION OF THE LICENSED STRUCTURAL ENGINEER OF RECORD. ANY MODIFICATION MUST BE APPROVED IN THE MANNER SET FORTH IN THE "FRONT END" SPECIFICATIONS.
- ALL STANDARDS REFERENCED WITHIN THESE DOCUMENTS ARE TO BE THE EDITIONS REFERENCED IN CHAPTER THIRTY-FIVE OF THE INTERNATIONAL BUILDING CODE.
- STRUCTURAL MEMBERS, INCLUDING BEAMS, COLUMNS, JOISTS, TRUSSES, WALLS, SLABS AND BRACING ELEMENTS, ARE DESIGNED FOR THE FINAL DESIGN LOADS GIVEN ON THIS SHEET. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING. CONTRACTOR SHALL PROVIDE COMPLETE SHORING PLANS AND CERTIFIED STRUCTURAL CALCULATIONS PREPARED AND SEALED BY A QUALIFIED ENGINEER, REGISTERED IN NORTH CAROLINA, FOR APPROVAL PRIOR TO INSTALLATION. SHORING IS TO BE DESIGNED TO PRECLUDE THE OVERSTRESSING ANY STRUCTURAL ELEMENT (AS REQUIRED AT ANY STAGE OF CONSTRUCTION) UNTIL COMPLETION OF THIS PROJECT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ON-SITE SAFETY. AT A MINIMUM, THE CONTRACTOR IS TO RESEARCH AND IMPLEMENT ALL SAFETY REGULATIONS IN FORCE IN THE JURISDICTION OF THIS PROJECT. PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR WILL BRING TO THE ATTENTION OF THE STRUCTURAL ENGINEER ANY STRUCTURAL DETAIL THAT WOULD PRODUCE AN UNUSUALLY UNSAFE CONDITION.

FOUNDATIONS

- THE PRIMARY BUILDING STRUCTURE IS DESIGNED FOR SUPPORT ON SPREAD FOOTINGS WITH AN ASSUMED ALLOWABLE NET SOIL BEARING PRESSURE OF 3000 PSF ON UNDISTURBED SOILS OR
- IF SOIL AT THE SCHEDULED FOOTING ELEVATION IS OF QUESTIONABLE BEARING VALUE, THE ARCHITECT AND STRUCTURAL ENGINEER ARE TO BE NOTIFIED IMMEDIATELY. LOWER FOOTING ELEVATIONS IF REQUIRED BY ARCHITECT AND ENGINEER TO REACH FIRM SOIL
- CONTRACTOR IS TO PROVIDE PROPERLY DESIGNED SHEETING AND SHORING AT ALL OPEN EXCAVATIONS, OR LAY BACK THE CUT AT A SLOPE APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER IN ORDER TO ENSURE SAFE WORKING CONDITIONS AND AS NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. ALL EXCAVATIONS SHALL BE ADEQUATELY DEWATERED BEFORE PLACEMENT OF CONCRETE.

CONCRETE

- ALL CONCRETE WORK SHALL COMPLY WITH THE SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI-301 AND THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI-318
- CONCRETE MIX DESIGNS ARE REFERENCED IN THE PROJECT SPECIFICATIONS. FOR EACH DESIGN A SUBMITTAL WILL BE MADE BY THE CONTRACTOR AS OUTLINED IN THE SPECIFICATIONS.
- ALL REINFORCING STEEL IS TO BE TIED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT TACK WELDING OF REINFORCEMENT STEEL IS PROHIBITED. THE CONTRACTOR WILL SUBMIT A COMPLETE LIST OF ACCESSORIES AND PLACING DETAILS WITH SHOP
- DRAWINGS. ALL REINFORCING STEEL IS TO BE CONTINUOUS. LAP BARS 40 DIAMETERS FOR BARS #6 AND SMALLER OR 48 DIAMETERS FOR BARS #7 AND LARGER AT SPLICE UNLESS NOTED OTHERWISE ON SCHEDULES OR
- THE LOCATION OF ALL LAP SPLICES WILL BE SHOWN ON SHOP DRAWINGS
- NO CONCRETE ELEMENT MAY BE CORED TO PLACE THROUGH ITEMS (ie PIPES, ELECTRICAL LINES, ETC.). ALL THROUGH ITEMS PENETRATING HORIZONTAL SURFACES ARE TO BE PLACED IN SCHEDULE 40. STEEL, PIPE SLEEVES OF A DIAMETER SUFFICIENT TO ACCOMMODATE THE THROUGH ITEM. AT PENETRATIONS IN THE VERTICAL PLANE OF ELEMENTS THE PIPE SLEEVE DIAMETER WILL BE INCREASED
- BY AN AMOUNT TO PROVIDE 1 1/2" CLEAR DIMENSION AROUND THE THROUGH ITEM
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING OF CONCRETE BELOW GRADE NO HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED IN CONCRETE ELEMENTS. LOCATE VERTICAL CONSTRUCTION JOINTS AT THE MIDDLE THIRD OF THE SPAN. PROVIDE 2x4, CONTINUOUS, BEVELED KEYWAYS AT SLABS AND (ONE MINIMUM) AND 2X8 BEVELED KEYWAY AT BEAMS. SUBMIT PROPOSED CONSTRUCTION JOINT LOCATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL
- ALL INTERSECTING BEAMS, WALLS, AND FOOTINGS SHALL HAVE CORNER BARS. REFER TO TYPICAL DETAILS.

STEEL

- DIMENSIONS GIVEN ON THE STRUCTURAL DRAWINGS ARE PROVIDED AS A CONVENIENCE AND ARE SOLELY TO CONVEY THE QUANTITY AND NATURE OF THE STRUCTURAL STEEL LAYOUT. ALL FINAL DIMENSIONS ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE PROJECT ARCHITECT BEFORE MATERIAL IS ORDERED OR FABRICATIONS HAS BEGUN.
- UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS, SHEAR CONNECTIONS ARE TO BE DESIGNED USING THE AISC ALLOWABLE STRESS DESIGN METHOD FOR THE MINIMUM SERVICE LOAD REACTIONS PROVIDED ON THE FRAMING PLANS. ADDITIONALLY, SINGLE ANGLE CONNECTIONS ARE PROHIBITED AND MEMBERS WILL BE FURNISHED WITH A MINIMUM NUMBER OF WEB BOLT ROWS AS FOLLOWS:

MEMBER DEPTH MIN. NUMBER OF WEB BOLT ROWS 2 BOLTS W4 - W10 W12 OR GREATER 3 BOLTS

- GENERALLY, 3/4" DIA., ASTM A-325-N BOLTS ARE TO BE USED FOR ALL BOLTED SHEAR CONNECTIONS UNLESS OTHERWISE INDICATED. THE FABRICATOR MAY USE OTHER DIAMETER BOLTS WHERE AISC RECOMMENDATIONS REQUIRE A SMALLER BOLT FOR GAGE OR BLOCK SHEAR REASONS OR WHERE STRENGTH REASONS REQUIRE LARGER DIAMETER BOLTS. THE PROVIDER OF BOLTS WILL PAINT THE HEADS OF THE NONSTANDARD BOLTS WITH IDENTIFYING COLORS UNIQUE TO A PARTICULAR DIAMETER OF BOLT AND WILL STRIPE THE FRAMING MEMBER AT THE CONNECTION SITE OUTSIDE THE FAYING SURFACE WITH THE CORRESPONDING COLOR.
- 4. FULLY TENSION ALL BOLTS WHERE DESIGNATED ON STRUCTURAL DRAWINGS AND AT MOMENT CONNECTIONS, INCLUDING BOLTS RESISTING ONLY GRAVITY LOADS. PROVIDE ASTM A-325-SC BOLTS AT CONNECTIONS WHERE INDICATED ON DRAWINGS. PREPARE FAYING SURFACES AT SUCH CONDITIONS PER AISC REQUIREMENTS.
- SINGLE PLATE SHEAR CONNECTION IS THE PREFERRED METHOD OF ATTACHMENT BETWEEN BEAMS AND GIRDERS AND WHERE HORIZONTAL FRAMING MEMBERS ATTACH TO COLUMNS AT ANGLES OTHER THAN 90°.
- COLD BENDING OF PLATE MATERIAL IS NOT PERMITTED FOR USE IN SKEWED CONNECTIONS. HEAT MEMBER OR BUILD UP FROM TWO PLATES AS REQUIRED AND FULLY TEST ANGLE FOR WELD DEFECTS.
- ALL COPES AND CUTS IN STRUCTURAL MEMBERS ARE TO BE MADE FREE OF NOTCHES OR OTHER STRESS CONCENTRATORS. COPES ARE TO BE CUT AT A MINIMUM RADIUS OF 1/2".
- ALL ROLLED STEEL MEMBERS ARE TO FABRICATED WITH MILL CAMBER UP COLUMN SPLICES ARE NOT ANTICIPATED ON THIS PROJECT. THE FABRICATOR MAY REQUEST COLUMN SPLICES SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD. ALTHOUGH THE ACTUAL TYPE OF SPLICE WILL BE DETERMINED ON AN INDIVIDUAL BASIS, AISC TYPE VIIID COLUMN SPLICES MAY BE ASSUMED FOR PRICING PURPOSES.
- 10. ALL WELDS ARE TO CONFORM WITH ANSI/AWS D1.1 STANDARD AND ARE TO BE MADE BY CERTIFIED WELDERS.
- 11. ALL FULL AND PARTIAL PENETRATION WELDS IN MOMENT CONNECTIONS ARE TO MEET CYCLICAL LOADING STANDARDS.
- 12. A WELD SCHEDULE FOR ALL FIELD WELDS WILL BE FURNISHED BY THE ERECTOR. THIS SCHEDULE IS TO BE PREPARED BY A COMPETENT DESIGNER OF WELDS AND WILL INDICATE AT A MINIMUM PREHEAT, THE WELD FILLER MATERIAL, THE PROPER WELD DEPOSITION RATE AND THE WELDING MACHINE SETTINGS.
- 13. THE TOP FLANGES OF ALL MEMBERS ARE TO REMAIN UN-PRIMED AND UNPAINTED UNLESS EXPOSED TO VIEW. ADDITIONALLY, MEMBERS TO RECEIVE SPRAY APPLIED FIRE PROOFING OR MEMBERS EMBEDDED OR ENCASED IN CONCRETE ARE TO REMAIN UN-PRIMED AND UNPAINTED
- ALL STEEL ELEMENTS AND CONNECTIONS WHICH WILL BE PERMANENTLY EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

LIGHT GAGE METAL FRAMING

LIGHT GAUGE METAL WALL FRAMING IS TO BE DESIGNED BY IT'S SUPPLIER FOR ALL APPLICABLE LOADS INCLUDING WIND LOAD, SELF WEIGHT, AND WEIGHT OF SUSPENDED PRE-FABRICATED CANOPIES.

600S162-43 @ 16" O.C.

- THE CONTRACTOR WILL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL LIGHT GAUGE FRAMING. WHICH BE SEALED BY A NC PROFESSIONAL ENGINEER
- THE FOLLOWING MINIMUM SIZES SHALL BE ASSUMED.. FINAL STUD SIZES MAY EXCEED THESE AND SHALL BE DETERMINED BY THE ENGINEER PREPARING THE LIGHT GAUGE DRAWINGS:

TYPICAL WALL STUDS: TYPICAL JAMB STUD: TYPICAL HEADER:

(2) 600S162-54 (2) 600S162-54 W/ (2) 600T125-33

ENGINEERED LUMBER

- CODE FOR MEMBER DESIGN: ANSI/AF&PA NATIONAL DESIGN SPECIFICATION AND SUPPLEMENT. ALL MEMBERS SHALL BEAR AN APPROVED GRADE STAMP
- 2. ENGINEERED LUMBER DESIGN IS BASED ON THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2600 PSI Fv = 285 PSIFc (PERP) = 750 PSI E = 1900 KSI Fb = 2400 PSI Fc (PARA) = 2500 PSI

Fv = 190 PSI E = 1800 KSI

GLULAM: 24F-V3 SP/SP ARCHITECTURAL STOCK LVLs AND PSLs SHALL BE PROTECTED FROM WEATHER ACCORDING TO THEIR MANUFACTURER'S RECOMMENDATIONS. GLULAM BEAMS ARE TO PRESERVATIVE TREATED IF THEY ARE EXPOSED TO WEATHER.

DIMENSIONAL LUMBER

- CODE FOR MEMBER DESIGN: ANSI/AF&PA NATIONAL DESIGN SPECIFICATION AND SUPPLEMENT. ALL MEMBERS SHALL BEAR AN APPROVED GRADE STAMP
- DESIGN IS BASED ON SP. NO. 2 WITH DESIGN PROPERTIES ACCORDING TO THE SOUTHERN PINE 2013
- ALL DIMENSIONAL LUMBER SIZES SHOWN ON DRAWINGS ARE NOMINAL DIMENSIONS.
- UNLESS NOTED OTHERWISE, LOAD BEARING PLATES AND LEDGERS SHALL BE PRESERVATIVE TREATED AND ANCHORED TO MASONRY OR CONCRETE WITH 1/2"Ø SILL ANCHORS AT 36" O.C.
- ALL LUMBER EXPOSED TO WEATHER SHALL BE PRESERVATIVE TREATED.

DELEGATED DESIGN:

- THE STRUCTURAL DESIGN OF SEVERAL ELEMENTS IN THIS BUILDING HAVE BEEN DELEGATED TO THE PRODUCT MANUFACTURER. FOR EACH OF THESE ITEMS. A SUBMITTAL SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA SHALL BE PROVIDED CERTIFYING THAT THE ELEMENTS HAVE BEEN DESIGNED TO SATISFY ALL REQUIRED LOADS AS NOTED ON THE DRAWING AND PER THE NORTH CAROLINA STATE BUILDING CODE
- ITEMS CLASSIFIED AS "DELEGATED STRUCTURAL DESIGN" ON THIS PROJECT ARE, BUT NOT LIMITED TO:
- LIGHT GAUGE FRAMING AND ASSOCIATED CONNECTIONS
- CURTAIN WALLS AND ASSOCIATED SUPPORT SYSTEMS STRUCTURAL ITEMS NOT LISTED ABOVE THAT MAY REQUIRE AN ENGINEER'S SEAL SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER TO VERIFY CERTIFICATION REQUIREMENTS.

MATERIALS

WIDE FLANGE MEMBERS ANGLES & CHANNELS PLATES & BARS (GENERAL) PLATES & BARS (MOMENT CONNECTIONS) HOLLOW STRUCTURAL SECTIONS (RECT) MISCELLANEOUS PIPES **BOLTS (FRAMING MEMBERS) ANCHOR RODS**

REINFORCING STEEL GENERAL REINFORCING WELDED WIRE FABRIC

ROOF DECKING

WELD ELECTRODES GENERAL - ROLLED OR FORMED MEMBERS DECKING TO FRAME WELDS

<u>CONCRETE</u> **FOOTINGS** SLABS ON GRADE

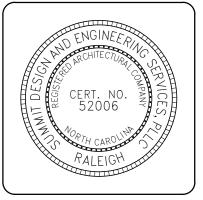
ASTM A992, Fy = 50KSI ASTM A36, Fy = 36KSI **ASTM A36, Fy = 36KSI** ASTM A572, Fy = 50KSI ASTM A500 GRADE B, Fy = 46KSI ASTM A53, $F_V = 35KSI$ ASTM A352-N ASTM F1554 GRADE 55, WELDABLE ASTM A653SQ, GRADE 33 GALV.

ASTM A615, Fy = 60KSI ASTM A185, IN FLAT SHEETS

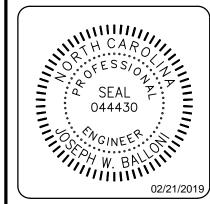
E70xx ELECTRODES, CVN = 20#-FT AT 40 DEG. E70xx OR E60xx

MIX F'c = 3000PSI NORMAL WEIGHT MIX F'c = 4000PSI NORMAL WEIGHT

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ALTERING & ADDING TO THIS SPECIFIC



ENGINEER OF RECORD

CHRISTIAN BERG. PE FIRST ISSUE DATE DRAWN BY

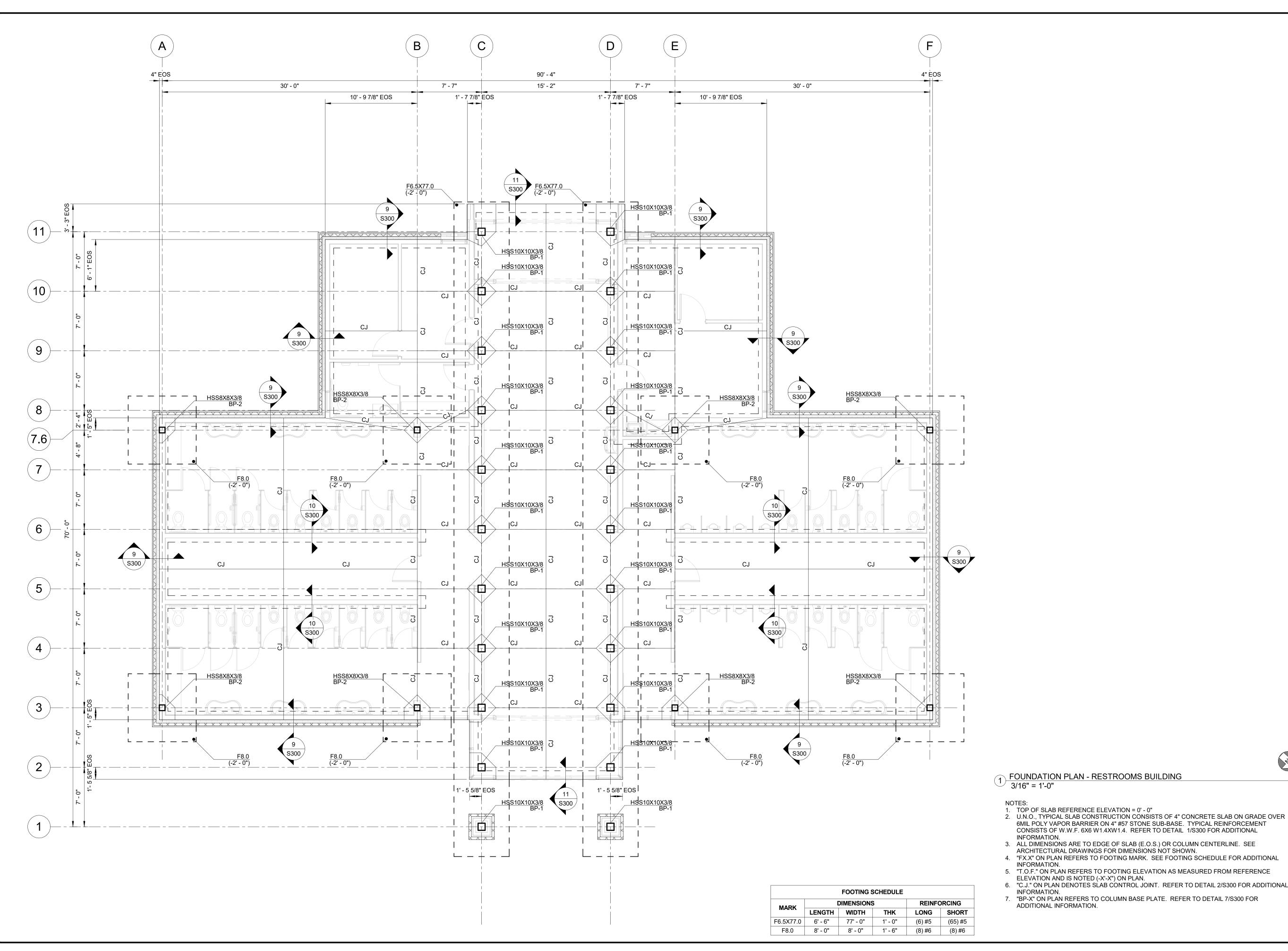
BK BB B**K** REVISIONS
ISSUED TO SCO
ISSED TO NCDOT
ISSUED FOR CONST **9** A B O

NOTES

~ GENERAL

PROJECT NO.

18-0129 SHEET NO. **S000**





- NOTES:
 1. TOP OF SLAB REFERENCE ELEVATION = 0' 0" 2. U.N.O., TYPICAL SLAB CONSTRUCTION CONSISTS OF 4" CONCRETE SLAB ON GRADE OVER 6MIL POLY VAPOR BARRIER ON 4" #57 STONE SUB-BASE. TYPICAL REINFORCEMENT CONSISTS OF W.W.F. 6X6 W1.4XW1.4. REFER TO DETAIL 1/S300 FOR ADDITIONAL
- INFORMATION. 3. ALL DIMENSIONS ARE TO EDGE OF SLAB (E.O.S.) OR COLUMN CENTERLINE. SEE
- ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN. 4. "FX.X" ON PLAN REFERS TO FOOTING MARK. SEE FOOTING SCHEDULE FOR ADDITIONAL INFORMATION.
- 5. "T.O.F." ON PLAN REFERS TO FOOTING ELEVATION AS MEASURED FROM REFERENCE ELEVATION AND IS NOTED (-X'-X") ON PLAN.
- INFORMATION. 7. "BP-X" ON PLAN REFERS TO COLUMN BASE PLATE. REFER TO DETAIL 7/S300 FOR ADDITIONAL INFORMATION.

PROJECT NO. 18-0129 FOUNDATION PLAN - RESTROOMS

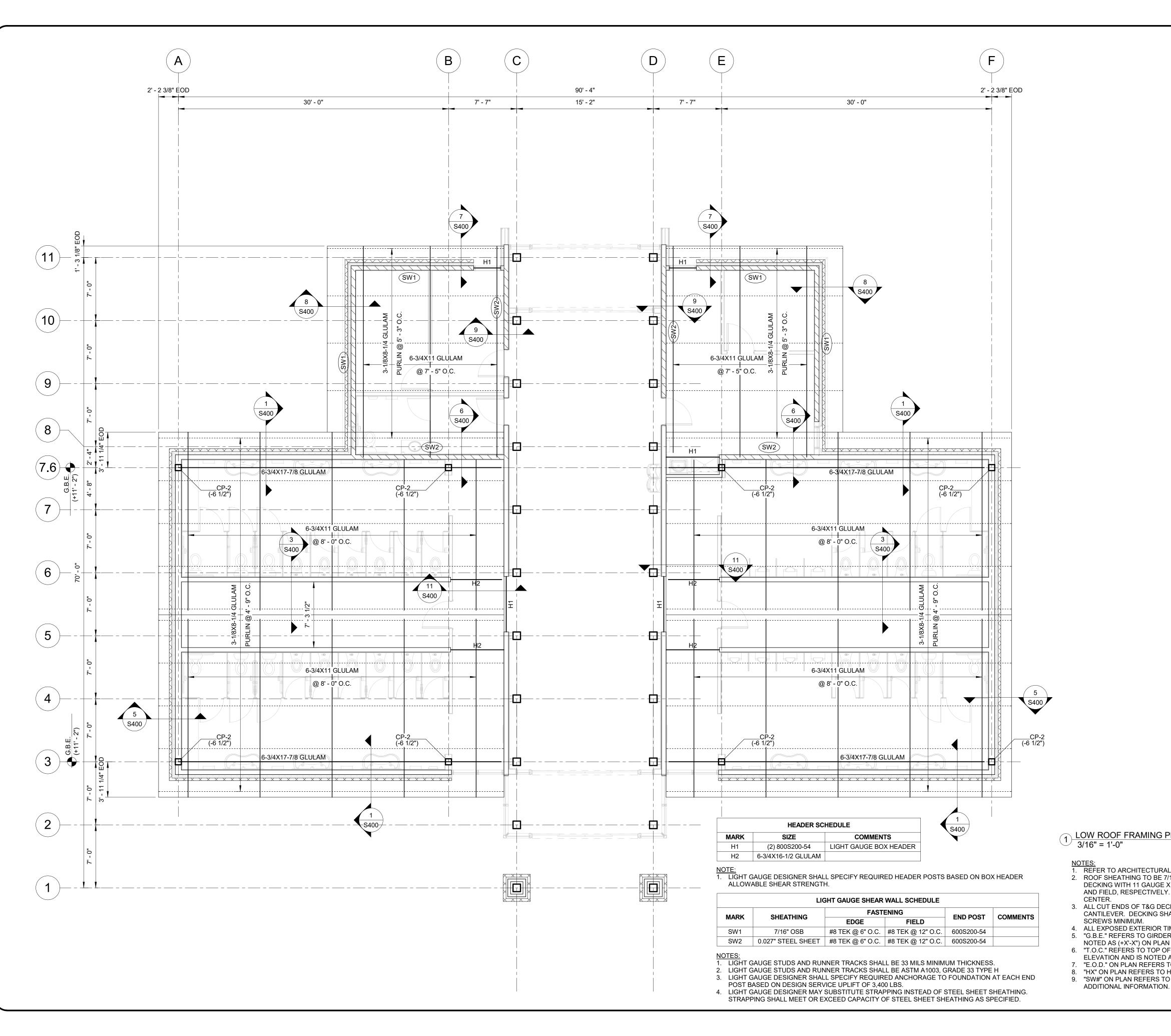
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ENGINEER OF RECORD JOSEPH W. BALLONI, PE PROJECT MANAGER C. CHRISTIAN BERG. PE DRAWN BY

SHEET NO. **S100**



1 LOW ROOF FRAMING PLAN - RESTROOMS BUILDING 3/16" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

2. ROOF SHEATHING TO BE 7/16" APA RATED OSB. SHEATHING SHALL BE NAILED TO T&G DECKING WITH 11 GAUGE X 1-3/4" ROOFING NAILS WITH MAX. SPACING 4" AND 12" AT EDGE AND FIELD, RESPECTIVELY. FIELD NAILING LINES SHALL BE SPACED A MAXIMUM OF 24" ON

3. ALL CUT ENDS OF T&G DECKING SHALL BEAR ON A PURLIN, EXCEPT AT ROOF EDGE CANTILEVER. DECKING SHALL BE FASTENED TO EACH PURLIN WITH (2) #12 X 4" WOOD

SCREWS MINIMUM. ALL EXPOSED EXTERIOR TIMBER MEMBERS SHALL BE PRESSURE TREATED.
 "G.B.E." REFERS TO GIRDER BEARING ELEVATION AS MEASURED FROM TOP OF SLAB AND IS

NOTED AS (+X'-X") ON PLAN
6. "T.O.C." REFERS TO TOP OF COLUMN ELEVATION AS MEASURED FROM GIRDER BEARING ELEVATION AND IS NOTED AS (-X") ON PLAN.

"E.O.D." ON PLAN REFERS TO EDGE OF DECK. "HX" ON PLAN REFERS TO HEADER, SEE HEADER SCHEDULE FOR ADDITIONAL INFORMATION. 9. "SW#" ON PLAN REFERS TO SHEAR WALL, SEE LIGHT GAUGE SHEAR WALL SCHEDULE FOR

PROJECT NO.

RESTROOMS

PLAN

ROOF

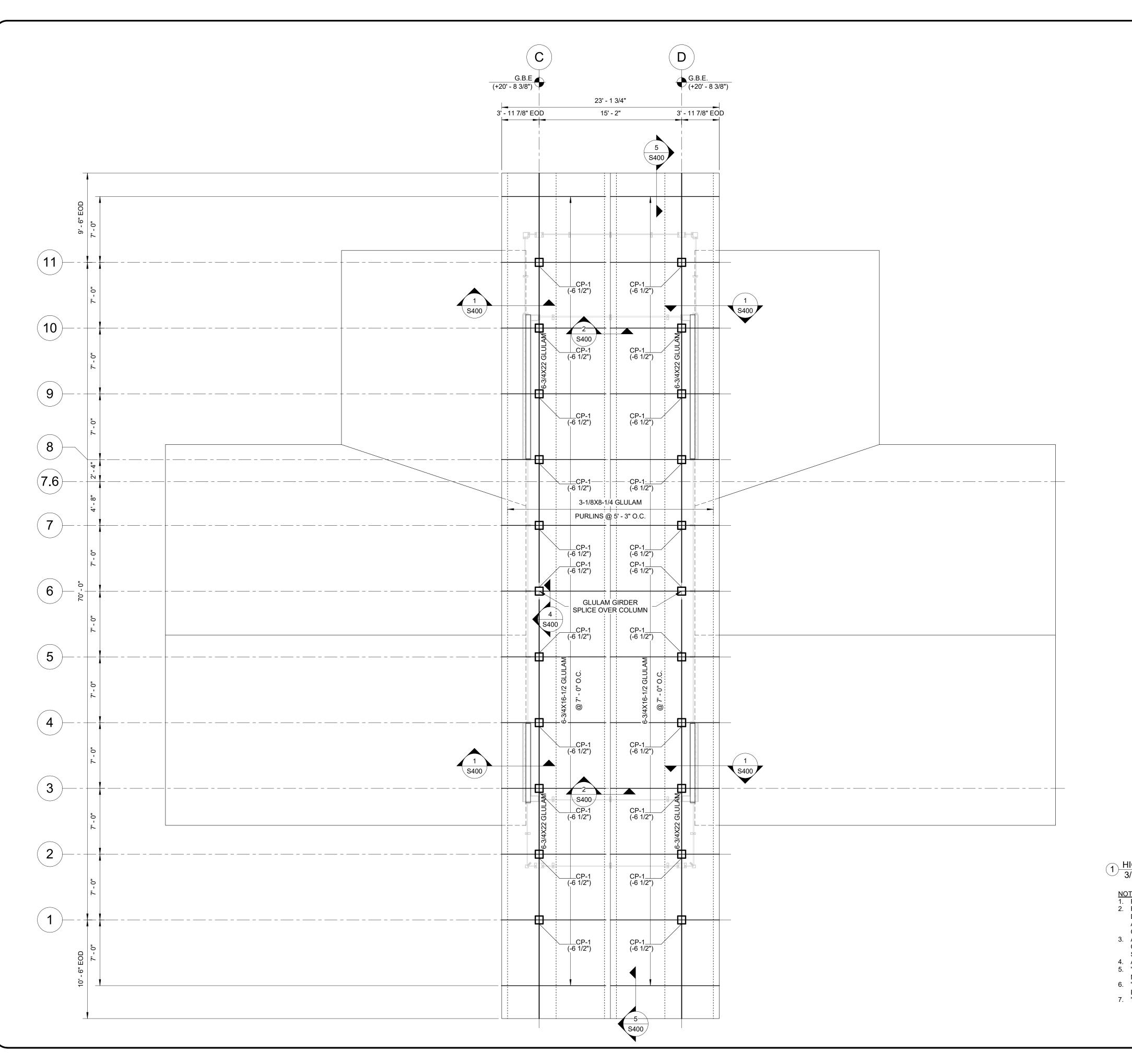
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ENGINEER OF RECORD JOSEPH W. BALLONI, PE

PROJECT MANAGER C. CHRISTIAN BERG. PE DRAWN BY

18-0129 SHEET NO. **S101**



1 HIGH ROOF FRAMING PLAN - RESTROOMS BUILDING 3/16" = 1'-0"

- NOTES:
 1. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
 2. ROOF SHEATHING TO BE 7/16" APA RATED OSB. SHEATHING SHALL BE NAILED TO T&G DECKING WITH 11 GAUGE X 1-3/4" ROOFING NAILS WITH MAX. SPACING 4" AND 12" AT EDGE AND FIELD, RESPECTIVELY. FIELD NAILING LINES SHALL BE SPACED A MAXIMUM OF 24" ON
- CENTER.

 3. ALL CUT ENDS OF T&G DECKING SHALL BEAR ON A PURLIN, EXCEPT AT ROOF EDGE CANTILEVER. DECKING SHALL BE FASTENED TO EACH PURLIN WITH (2) #12 X 4" WOOD
- SCREWS MINIMUM.

 4. ALL EXPOSED EXTERIOR TIMBER MEMBERS SHALL BE PRESSURE TREATED.

 5. "G.B.E." REFERS TO GIRDER BEARING ELEVATION AS MEASURED FROM TOP OF SLAB AND IS
- NOTED AS (+X'-X") ON PLAN
 6. "T.O.C." REFERS TO TOP OF COLUMN ELEVATION AS MEASURED FROM GIRDER BEARING
- ELEVATION AND IS NOTED AS (-X") ON PLAN.
 7. "E.O.D." ON PLAN REFERS TO EDGE OF DECK.

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ENGINEER OF RECORD JOSEPH W. BALLONI, PE PROJECT MANAGER

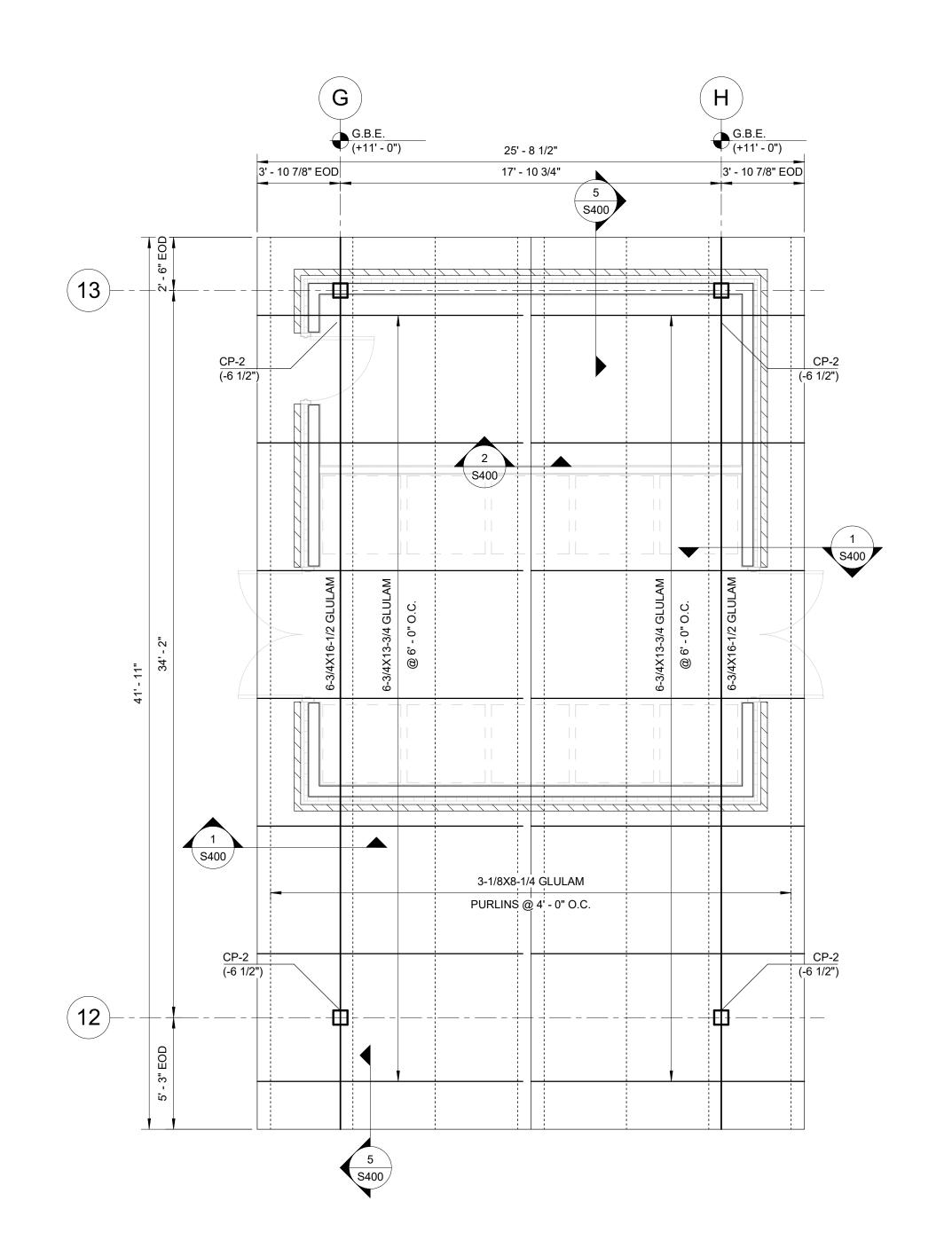
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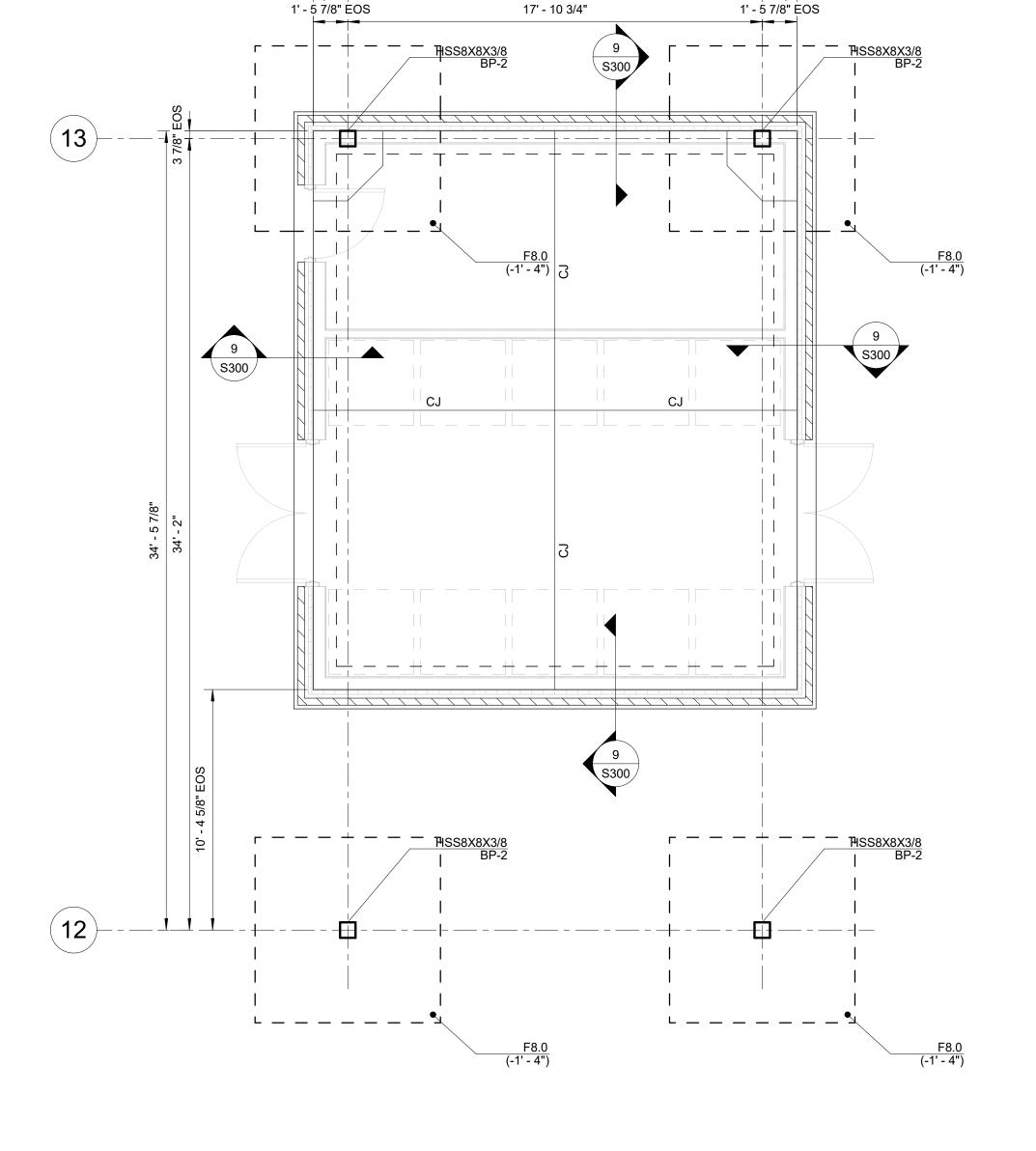
PROJECT NO. 18-0129 SHEET NO. **S102**





2 ROOF FRAMING PLAN - VENDING BUILDING 1/4" = 1'-0"

- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN. 2. ROOF SHEATHING TO BE 7/16" APA RATED OSB. SHEATHING SHALL BE NAILED TO T&G DECKING WITH 11 GAUGE X 1-3/4" ROOFING NAILS WITH MAX. SPACING 4" AND 12" AT EDGE AND FIELD, RESPECTIVELY. FIELD NAILING LINES SHALL BE SPACED A MAXIMUM OF 24" ON CENTER.
- 3. ALL CUT ENDS OF T&G DECKING SHALL BEAR ON A PURLIN, EXCEPT AT ROOF EDGE. DECKING SHALL BE FASTENED TO EACH PURLIN WITH (2) #12 X 4" WOOD SCREWS MINIMUM. 4. ALL EXPOSED EXTERIOR TIMBER MEMBERS SHALL BE PRESSURE TREATED.
- 5. "G.B.E." REFERS TO GIRDER BEARING ELEVATION AS MEASURED FROM TOP OF SLAB AND IS NOTED AS (+X'-X") ON PLAN 6. "T.O.C." REFERS TO TOP OF COLUMN ELEVATION AS MEASURED FROM GIRDER BEARING
- ELEVATION AND IS NOTED AS (-X") ON PLAN. 7. "E.O.D." ON PLAN REFERS TO EDGE OF DECK.



20' - 10 1/2"

FOOTING SCHEDULE **DIMENSIONS** REINFORCING THK LONG SHORT F6.5X77.0 6' - 6" 77' - 0" 1' - 0" (6) #5 (65) #5

F8.0 8' - 0" 8' - 0" 1' - 6" (8) #6 (8) #6

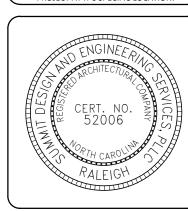
1 FOUNDATION PLAN - VENDING BUILDING 1/4" = 1'-0"

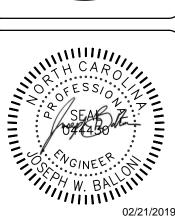
- TOP OF SLAB REFERENCE ELEVATION = 0' 0"
 U.N.O., TYPICAL SLAB CONSTRUCTION CONSISTS OF 4" CONCRETE SLAB ON GRADE OVER 6MIL POLY VAPOR BARRIER ON 4" #57 STONE SUB-BASE. TYPICAL REINFORCEMENT CONSISTS OF W.W.F. 6X6 W1.4XW1.4. REFER TO DETAIL 1/S300 FOR ADDITIONAL INFORMATION.
- 3. ALL DIMENSIONS ARE TO EDGE OF SLAB (E.O.S.) OR COLUMN CENTERLINE. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- 4. "FX.X" ON PLAN REFERS TO FOOTING MARK. SEE FOOTING SCHEDULE FOR ADDITIONAL 5. "T.O.F." ON PLAN REFERS TO FOOTING ELEVATION AS MEASURED FROM REFERENCE
- ELEVATION AND IS NOTED (-X'-X") ON PLAN. 6. "C.J." ON PLAN DENOTES SLAB CONTROL JOINT. REFER TO DETAIL 2/S300 FOR ADDITIONAL

INFORMATION. 7. "BP-X" ON PLAN REFERS TO COLUMN BASE PLATE. REFER TO DETAIL 7/S300 FOR ADDITIONAL INFORMATION.



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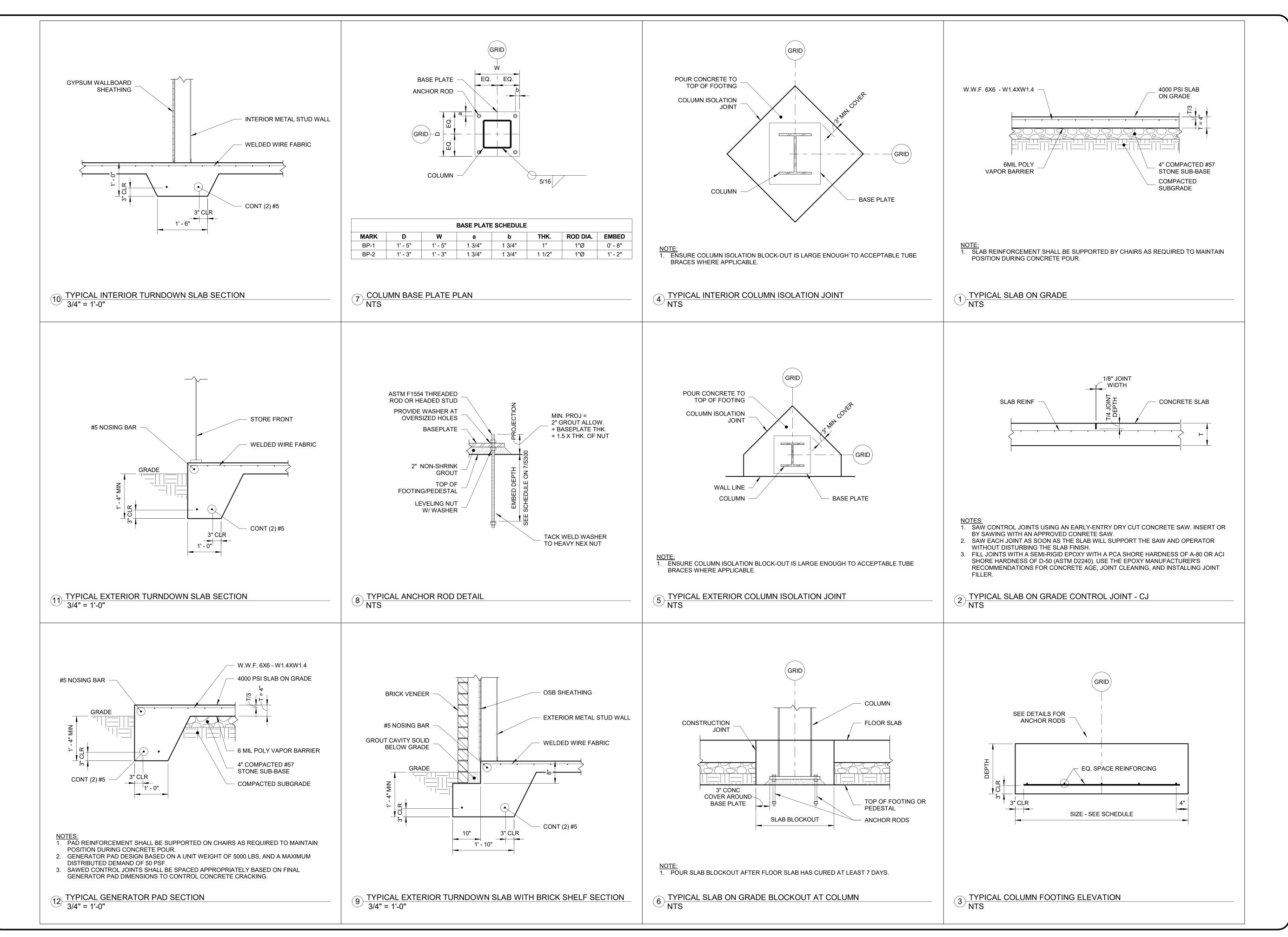


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ENGINEER OF RECORD									
JOSEPH W. BALLONI, PE									
PROJECT MANAGER									
C. CHRISTIAN BERG, PE									
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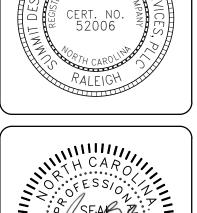
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PROJECT NO. 18-0129 SHEET NO. **S200**



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JOSEPH W. BALLONI, PE	
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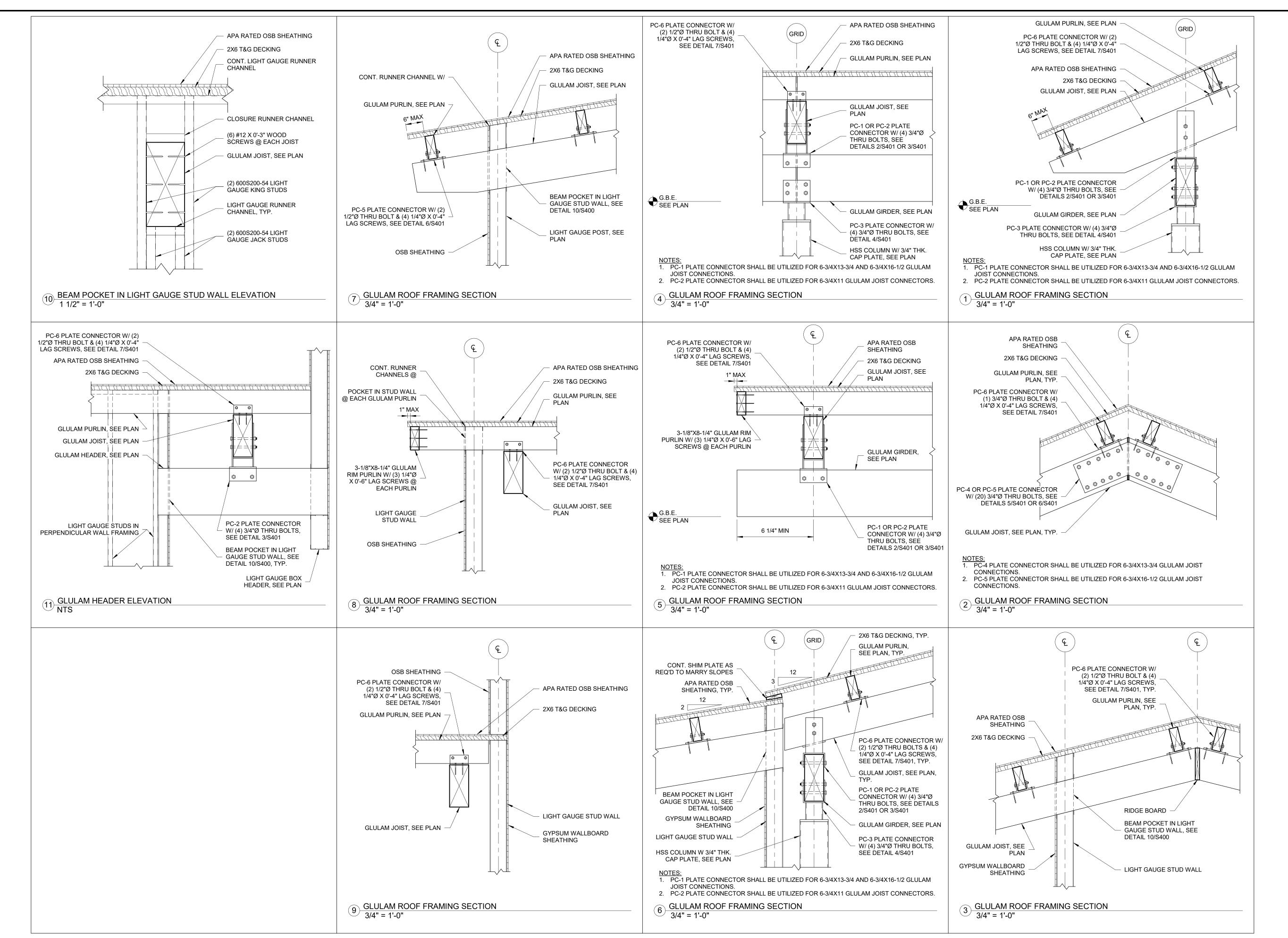
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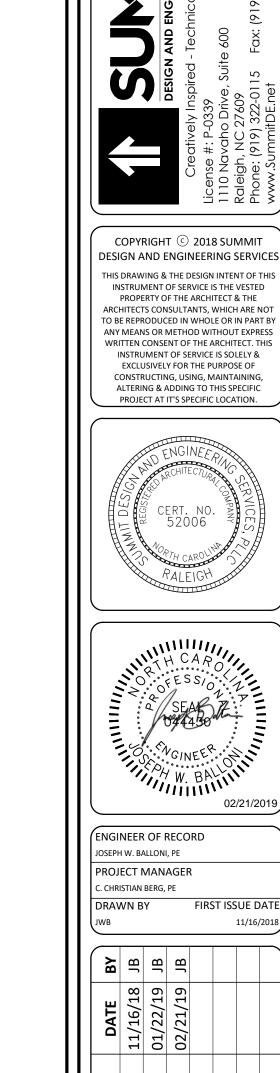
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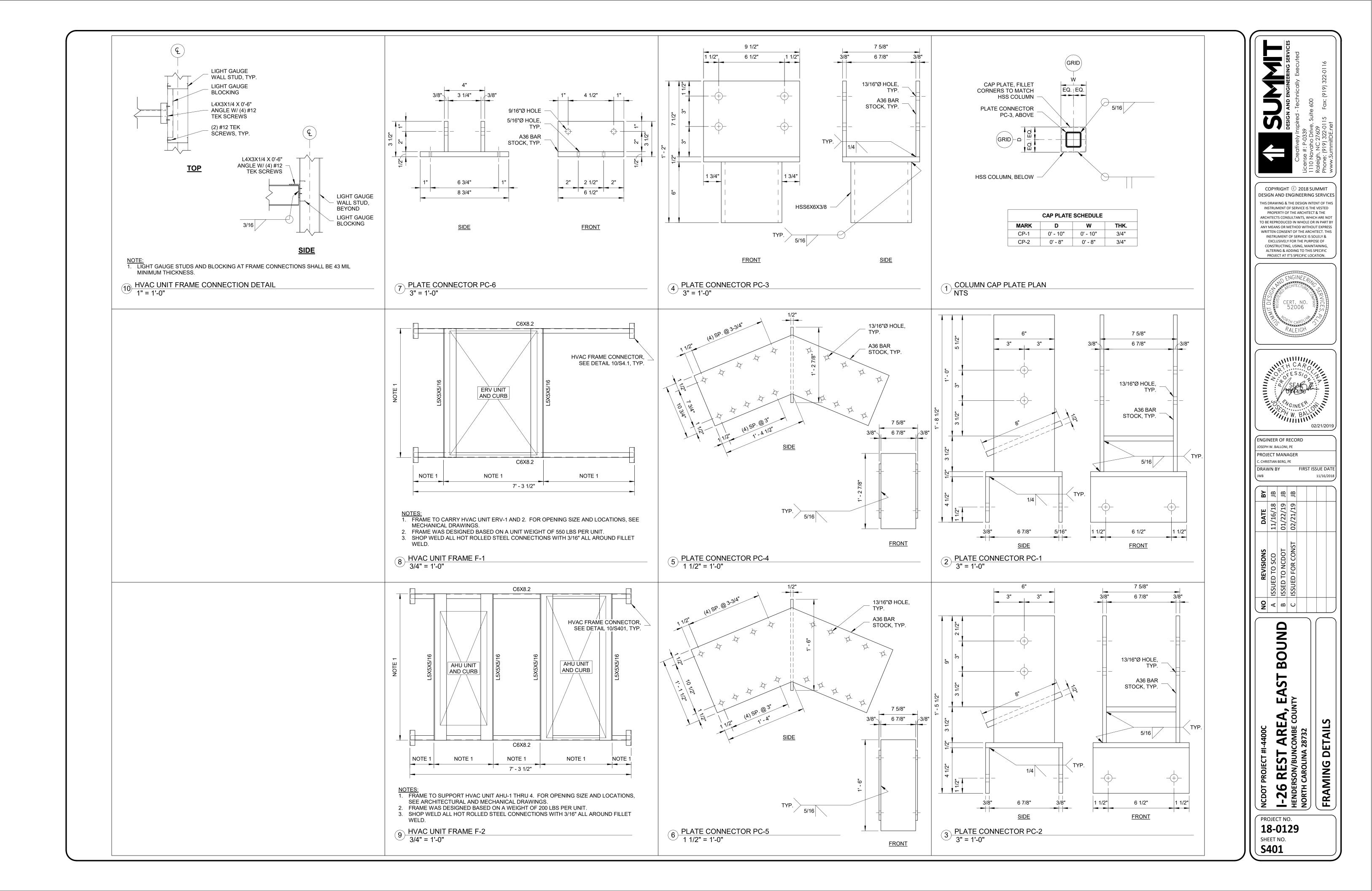
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SHEET NO. **\$400**

18-0129

DETAILS

FRAMING



PLUMBING SYMBOLS & ABBREVIATIONS

FLOOR CLEANOUT

FREEZE-PROOF HOSE BIBB

FLOOR DRAIN

FLOOR SINK

FIXTURE UNITS

	A DOLUTE OT/ENIONNEED		0.444.044	50	DI LIMADINIO CONITDA OTOD
A/E	ARCHITECT/ENGINEER	G	GALLON	PC	PLUMBING CONTRACTOR
AC	ABOVE CEILING	GC	GENERAL CONTRACTOR	PD	PRESSURE DROP
AFF	ABOVE FINISHED FLOOR	GCO	GRADE CLEANOUTS	PDI	PLUMBING AND DRAINAGE INSTITUT
AG	AIR GAP	GD	GARBAGE DISPOSAL	PG	PRESSURE GAUGE
AP	ACCESS PANEL	GPD	GALLONS PER DAY	PPM	PARTS PER MILLION
AFG	ABOVE FINISHED GRADE	GPH	GALLONS PER HOUR	PRV	PRESSURE REDUCING VALVE
ASHRAE	AMERICAN SOCIETY HEATING,	GPM	GALLONS PER MINUTE	PSI	POUNDS PER SQUARE INCH
	REGRIGERATING, AIR CONDITIONING			PSIA	POUNDS PER SQUARE INCH
	ENGINEERS	H&CW	HOT AND COLD WATER		ATMOSPHERE
ASME	AMERICAN SOCIETY OF MECHANICAL	HB	HOSE BIBB (INTERIOR)	PSIG	POUNDS PER SQUARE INCH GAUGE
	ENGINEERS	HD	HUB DRAIN	PTRV	PRESSURE TEMPERATURE RELIEF
ASPE	AMERICAN SOCIETY PLUMBING	HP	HORSEPOWER		VALVE
	ENGINEERS	HWCP	HOT WATER CIRCULATING PUMP	PW	POTABLE WATER
		HYD	HYDRANT		
BF	BELOW FLOOR			SAN	SANITARY SEWER
BFP	BACKFLOW PREVENTER	INV	INVERT	SCFM	STANDARD CUBIC FOOT/MIN
BG	BELOW GRADE	IW	INDIRECT WASTE	SQFT	SQUARE FOOT
BHP	BREAK HORSEPOWER	IWH	INSTANTANEOUS WATER HEATER	SS	STAINLESS STEEL
BOP	BOTTOM OF PIPE			ST	STORAGE TANK
BSP	BLACK STEEL PIPE	KW	KILOWATT		
BTUH	BRITISH THERMAL UNITS PER HOUR	KWHR	KILOWATT-HOUR	TCV	TEMPERATURE CONTROL VALVE
				TD	TRENCH DRAIN
С	CELSIUS	L/S	LITER PER SECOND	TDH	TOTAL DYNAMIC HEAD
CF	COMBINATION FIXTURE	LAV	LAVATORY	TDL	TEMPERATURE DIFFERENTIAL
CI	CAST IRON	LW	LOW WATER	TEMP	TEMPERATURE
CO	CLEANOUT	_,,	LOW WILL	TMV	THERMOSTATIC MIXING VALVE
00	02E/ (100)	М	METER	TP	TRAP PRIMER
DCW	DOMESTIC COLD WATER	MAV	MANUAL AIR VENT	TSTAT	THERMOSTAT
DHW	DOMESTIC HOT WATER	MBH	THOUSANDS OF BTU PER HOUR	TWR	TEMPERED WATER RETURN
HWR	DOMESTIC HOT WATER DOMESTIC HOT WATER RETURN	MC	MECHANICAL CONTRACTOR	TWS	TEMPERED WATER SUPPLY
DF	DRINKING FOUNTAIN	MH	MANHOLE	TYP	TYPICAL
DN	DOWN	MSB	MOP SINK BASIN	TIF	TIFICAL
DOE	DEPARTMENT OF ENERGY	IVIOD	WOI SINK BASIN	V	SANITARY VENT
DS	DOWNSPOUT	NC	NORMALLY CLOSED	V VAC	VACUUM
DWG	DRAWING	NIC	NOT IN CONTRACT	VAC VB	VACUUM BREAKER
		NO NO	NORMALLY OPEN	VB VS	VACOUM BREAKER VENT STACK
DWH	DOMESTIC WATER HEATER		NOMINAL NOMINAL		VENT STACK VENT THROUGH ROOF
DWV	DRAIN WASTE VENT	NOM		VTR	VENT THROUGH ROOF
50	ELECTRICAL CONTRACTOR	NTS	NOT TO SCALE	147	NA OTE
EC	ELECTRICAL CONTRACTOR	00	OVACEN	W	WASTE
EL	ELEVATION	02	OXYGEN	WC	WATER CLOSET
EPA	ENVIRONMENTAL PROTECTION	OC	ON CENTER	WCO	WALL CLEANOUT
	AGENCY	OD	OUTSIDE DIAMETER	WG	WATER GAUGE
EPACT	ENERGY POLICY ACT	OFD	OVERFLOW DRAIN	WH	WATER HEATER
ESC	ESCUTCHEON			WHA	WATER HAMMER ARRESTOR
ET	EXPANSION TANK			WHD	WALL HYDRANT
_				WL	WATER LINE
F.	FAHRENHEIT			WM	WATER METER
FA	FROM ABOVE			WPD	WATER PRESSURE DROP
FB	FROM BELOW			WS	WASTE STACK
FBO	FURNISHED BY OTHERS				

YARD CLEANOUT

YARD HYDRANT

PLU	MBING SYMBOLS
	PIPE SLOPE ARROW
-	FLOW ARROW
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	3-WAY CONTROL VALVE
	ANGLE GATE VALVE
	ANGLE GLOBE VALVE
	BALANCING/SHUTOFF VALVE
	BALL VALVE
—	BUTTERFLY VALVE
	CALIBRATED BALANCING VALVE
	CHECK VALVE
T	CONTROL VALVE
	EXPANSION VALVE
	GAS COCK
	GATE VALVE
	
	GLOBE VALVE
─	PLUG VALVE
<u> </u>	PRESSURE REDUCING VALVE (WATER)
	PRESSURE REGULATOR (GAS)
	QUICK OPEN VALVE
	SAFETY RELIEF VALVE
<u> </u>	SOLENOID VALVE
	VACUUM RELIEF VALVE
	BACKFLOW PREVENTER
-\$1	HOSE BIBB / SILLCOCK
1	AUTOMATIC AIR VENT
7	PRESSURE GAUGE
<u> </u>	THERMOMETER
■ F	FLOW SWITCH
■ -P	PRESSURE SWITCH
■ (T)	TEMPERATURE SWITCH
——I	PIPE UNION
	WYE STRAINER
	WYE STRAINER W/DRAIN VALVE
•	PUMP
⊜ OR ■	FLOOR DRAIN - ROUND OR SQUARE
⊕ or ⊞	FLOOR CLEANOUT - ROUND OR SQUARE
—і СО	SUSPENDED CLEANOUT
—II WCO	WALL CLEANOUT
	PIPE CAP
— <u> </u>	PIPE TURNING DOWN
—	PIPE TURNING UP
-0-	TEE UP
-	TEE DOWN
	DROP AND RUN
- 0	DROP AND TURN
-	TEE OFF TOP
	TEE OFF BOTTOM
	CROSS AND RISER
7	PLAN 90° ELBOW
	PIPE TEE
	FLEXIBLE PIPE CONNECTOR
X	PIPE ANCHOR
	PIPE GUIDES
	WATER METER
(M)	VVAILIN IVIL I EN

PLUMBING SYMBOLS

PIPI	NG SYSTEM
 CD	CONDENSATE DRAIN
 SAN	SANITARY WASTE
 V	SANITARY VENT
 DCW	DOMESTIC COLD WATER
 DHW	DOMESTIC HOT WATER
 HWR	DOMESTIC HW RECIRCULATION

ANNOTATION SYMBOLS

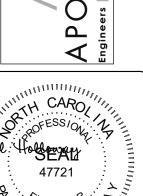
(#)	NEW KEYNOTE
NEW	BOLD TEXT INDICATES NEW ITEM
#####	DETAIL MODULE NUMBER DETAIL OR SECTION MARK SHOWN ON DRAWING

PLUMBING EQUIPMENT DESIGNATION

PLUMBING GENERAL NOTES

- WORK SHALL BE PERFORMED BY A PLUMBING CONTRACTOR LICENSED IN THE STATE OF NORTH CAROLINA.
- MATERIALS, INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF STATE AND LOCAL CODE PROCEDURES, METHODS AND REQUIREMENTS, INCLUDING THE MOST STRINGENT OF HEALTH AND SAFETY STANDARDS AS REQUIRED AND AS INTERPRETED BY THE AUTHORITY HAVING JURISDICTION. SYSTEMS, MATERIALS, AND WORK SHALL COMPLY WITH THE 2012 NORTH CAROLINA PLUMBING CODE, THE 2012 NORTH CAROLINA MECHANICAL CODE, THE 2012 NORTH CAROLINA BUILDING CODE, AND OTHER APPLICABLE LOCAL AND MUNICIPAL CODES AND ORDINANCES.
- DRAWINGS ARE DIAGRAMMATICAL IN NATURE. AS SUCH, THE DRAWINGS DO NOT SHOW ALL RISES, DROPS OR FITTINGS THAT MAY BE REQUIRED. IT IS UNDERSTOOD THAT THE DRAWINGS MUST BE FOLLOWED AS CLOSELY AS CIRCUMSTANCES WILL PERMIT, THE PROPER INSTALLATION ACCORDING TO THE TRUE INTENT AND MEANING OF THE DRAWINGS, LOCAL CODES AND STANDARD PRACTICES SHALL BE PROVIDED. REPORT ANY PROBLEMS OR CONFLICTS TO THE ARCHITECT/ENGINEER. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. ANY MINOR CHANGES IN LOCATION OF EQUIPMENT, WASTE VENT, WATER PIPE, ETC., FROM THOSE LOCATIONS SHOWN ON THE DRAWINGS, SHALL BE MADE WITHOUT EXTRA COST, IF SO DIRECTED BY THE ARCHITECT/ENGINEER BEFORE THE INSTALLATION IS MADE. ANY ADDITIONAL PIPE, FITTING, OR ACCESSORY REQUIRED, EVEN IF NOT SPECIFICALLY MENTIONED HEREIN, SHALL BE PROVIDED WITHOUT CLAIM FOR ADDITIONAL PAYMENT; IT BEING UNDERSTOOD THAT A COMPLETE AND OPERATIONAL PLUMBING SYSTEM, SATISFACTORY TO THE ARCHITECT/ENGINEER AND THE OWNER SHALL BE PROVIDED. USE ONLY THE MANUFACTURER'S TESTED ASSEMBLIES.
- ALL GENERAL NOTES ARE PART OF THIS CONTRACT.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL SERVICES IN BUILDING AND TO 5'-0" BEYOND THE BUILDING CONSTRUCTION LINE. SITE UTILITY CONTRACTOR IS RESPONSIBLE FOR ALL OTHER PIPING.
- COORDINATE ROUTING OF PIPING WITH ALL OTHER TRADES AND STRUCTURAL CONDITIONS.
- MAINTAIN A MINIMUM CLEARANCE OF 3'-0" IN FRONT OF ELECTRICAL PANELS (OR AS REQUIRED BY TYPE OF PANEL AND NEC) AND 1'-0" EITHER SIDE FROM STRUCTURE TO STRUCTURE AND FLOOR TO STRUCTURE. ROUTE PIPING AROUND AND NOT DIRECTLY ABOVE ELECTRICAL PANELS. VERIFY CLEARANCE REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO INSTALLING PIPE.
- INCLUDE IN THE BID ALL LICENSE. PERMIT, INSPECTION AND OTHER FEES REQUIRED BY UTILITY COMPANIES OR AUTHORITIES HAVING JURISDICTION REQUIRED FOR COMPLETION OF WORK.
- PROMPTLY INFORM THE ENGINEER, IN WRITING, OF ANY DEVIATIONS IN THE CONTRACT DOCUMENTS FROM REQUIREMENTS OF LOCAL UTILITIES, MUNICIPALITIES, STATE OR FEDERAL LAWS AND REGULATIONS.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, ETC. REQUIRED FOR COMPLETE AND FUNCTIONAL SYSTEMS AS SPECIFIED AND INDICATED ON THE DRAWINGS.
- ALL CLEANOUTS, VALVES, AIR CHAMBERS, ETC. ARE TO BE ACCESSIBLE. EXTEND PIPING AND PROVIDE ACCESS PANELS AS NECESSARY. PLUMBING CONTRACTOR WILL BE REQUIRED TO DEMONSTRATE ACCESSIBILITY IF IT IS QUESTIONABLE. ACCESS PANEL SIZES, LOCATIONS, AND FINAL COLOR SHALL BE COORDINATED WITH THE ARCHITECT AS WELL AS ALL OTHER TRADES TO AVOID ANY CONFLICTS. ACCESS PANELS SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR INSTALLATION BY THE GENERAL CONTRACTOR.
- DURING CONSTRUCTION PROCEDURES, THE ENTIRE WORK AREA SHALL BE CLEAN OF ALL DUST, DIRT AND OTHER DEBRIS BEFORE APPLICATION OF ANY NEW MATERIALS.
- ALL VALVES IN CORRIDORS SHALL BE LOCATED A MINIMUM OF 1'-0" AWAY FROM WALLS UNLESS NOTED OTHERWISE. VALVES SHALL NOT BE LOCATED OVER INACCESSIBLE CEILINGS UNLESS ADEQUATE ACCESS
- 14. FURNISH AND INSTALL BALL TYPE SHUTOFF VALVES IN ALL DOMESTIC WATER BRANCH PIPING OFF OF THE MAINS, RISERS, AND IN ALL BRANCH PIPING TO EACH SEPARATE ROOM TO PERMIT WATER SUPPLY SHUT OFF WITHOUT INTERFERING WITH ANY OTHER ROOM OR PORTION OF BUILDING. THESE VALVES SHALL BE FURNISHED AND INSTALLED EVEN IF NOT SHOWN ON THE DRAWINGS.
- SANITARY WASTE PIPING SHALL BE SLOPED AT 1/8-INCH PER FOOT MINIMUM FOR ALL PIPING 4-INCH AND LARGER AND AT 1/4-INCH PER FOOT MINIMUM FOR ALL PIPING 3-INCH AND SMALLER.
- INDIRECT WASTE FROM FIXTURES AND SPECIALTIES, AND EQUIPMENT DRAIN LINES TERMINATING AT FLOOR DRAINS, OR APPROVED RECEPTACLES SHALL HAVE A MINIMUM 2" AIR GAP. SUPPORT PIPING SO INDIRECT WASTE CANNOT BE DEFLECTED FROM DRAIN OPENING.
- ALL VENTS FROM HORIZONTAL SOIL OR WASTE PIPE SHALL COME OFF TOP OR AT 45 DEGREE VERTICALLY FROM CENTER OF PIPE BEFORE OFFSETTING HORIZONTALLY TO RISER.
- 18. ALL VENT TERMINATIONS SHALL BE COORDINATED WITH BUILDING OPENINGS, AIR INTAKES AND AIR EXHAUST OPENINGS. ADJUST VENT THROUGH ROOF LOCATIONS TO COMPLY WITH APPLICABLE CODE AND TO BE IN THE LEAST VISIBLE EXTERIOR VIEWPOINT.
- 19. SUPPORT ALL NEW PIPING AND EQUIPMENT FROM STRUCTURE ABOVE AS REQUIRED, EXCEPT IN MECHANICAL SPACES PIPING MAY BE SUPPORTED FROM FLOOR IF MORE PRACTICAL THAN SUPPORTING IT FROM STRUCTURE ABOVE. PLUMBING CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTAL STEEL TO SPAN BETWEEN PRIMARY BUILDING STRUCTURAL MEMBERS. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE DESIGN OF SUPPLEMENTAL STEEL AND PIPE SUPPORTS, INCLUDING REACTION LOADS TO PRIMARY BUILDING STRUCTURAL MEMBERS.
- 20. PLUMBING CONTRACTOR SHALL PROVIDE NAIL PLATES WHERE PIPING PASSES THROUGH STUD(S) WITHIN 2" OF NAILING SURFACE TO PROTECT PIPE FROM NAILS OR DRYWALL SCREWS.
- PLUMBING CONTRACTOR SHALL INSTALL APPROVED WATER HAMMER ARRESTORS IN WATER LINES, BOTH HOT AND COLD, SERVING BATTERY AND BACK TO BACK FIXTURE INSTALLATIONS IN PIPE SPACE AND PIPE CHASES. WATER HAMMER ARRESTORS SHALL BE ACCESSIBLE.
- 22. PLUMBING CONTRACTOR SHALL INSTALL HOT WATER DISTRIBUTION LOOP AND BRANCH SUPPLY PIPING AS CLOSE AS POSSIBLE TO THE HOT WATER INLET SIDE OF POINT OF USE THERMOSTATIC MIXING VALVE, INCLUDING FIXTURES WITH INTEGRAL MIXING VALVES. SO THAT THERE IS NO MORE THAN 10 LINEAR FEET DISTANCE. THIS SHALL BE IN SINGLE FIXTURE APPLICATIONS. IN MULTIPLE FIXTURE APPLICATIONS BATTERIED IN WALL OR PIPE CHASES, THE HOT WATER SUPPLY PIPING SHALL BE AS CLOSE AS REASONABLY POSSIBLE TO THE FIXTURE CONNECTIONS.
- 23. ALL P-TRAPS FOR FLOOR DRAINS AND FLOOR SINKS SHALL BE DEEP SEAL TRAP FILLED WITH VEGETABLE OIL. 2" TRAPS SHALL HAVE A 4" MINIMUM WATER SEAL, 3" AND LARGER SHALL HAVE A 5" WATER SEAL.
- 24. PLUMBING CONTRACTOR SHALL INSTALL, TEST, AND FIELD BALANCE APPROVED EQUIPMENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
- PROVIDE DISCONNECT SWITCHES OR MAGNETIC MOTOR STARTERS FOR ALL DIVISION 22 EQUIPMENT. MAGNETIC MOTOR STARTERS SHALL COMPLY WITH SPECIFICATION SECTION 26 29 13. COORDINATE WITH DIVISION 26. REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.

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ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER

JOSEPH A. ANGELL II, PE, F. SAME

FIRST ISSUE DATE DRAWN BY

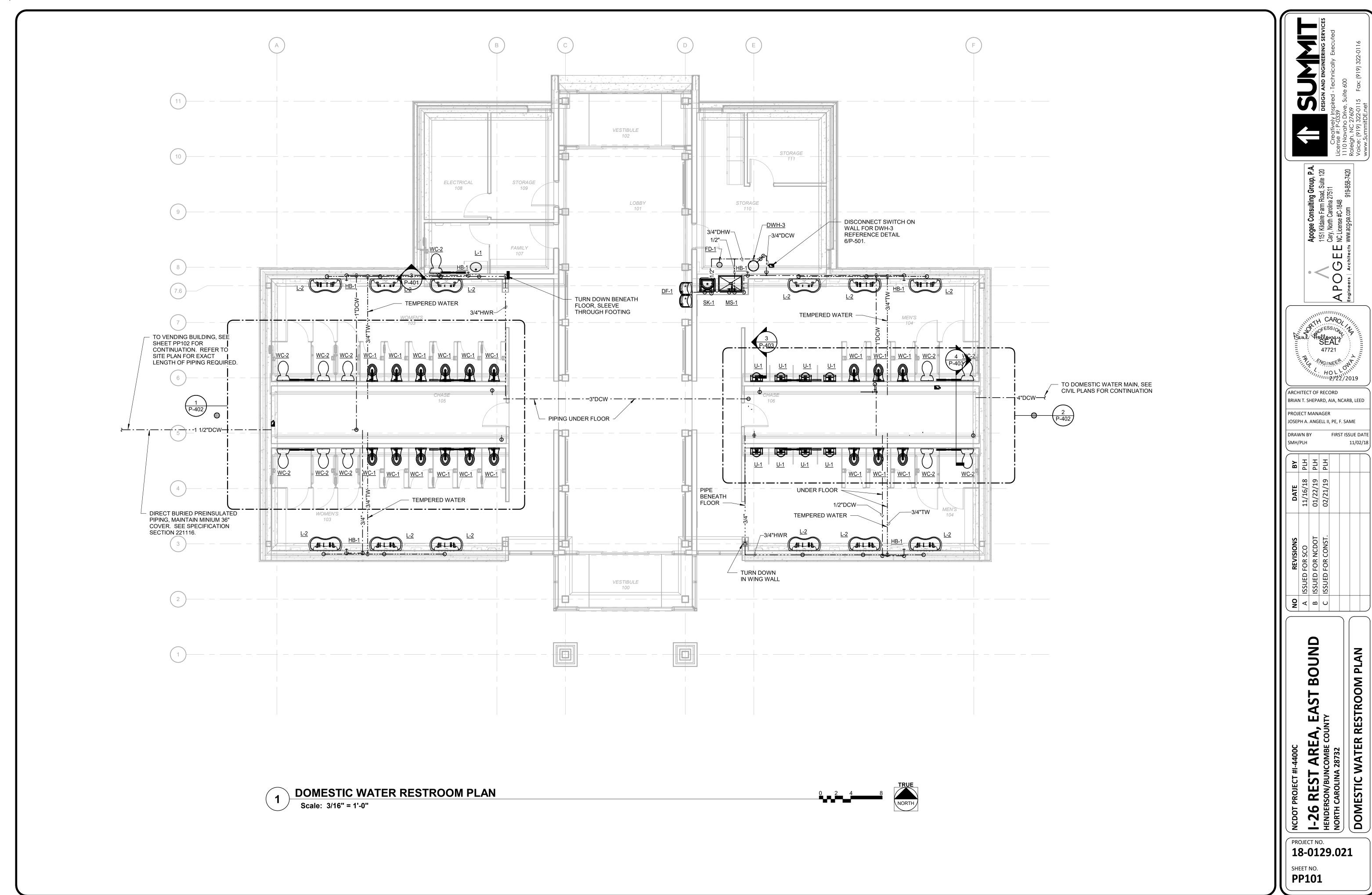
11/02/18

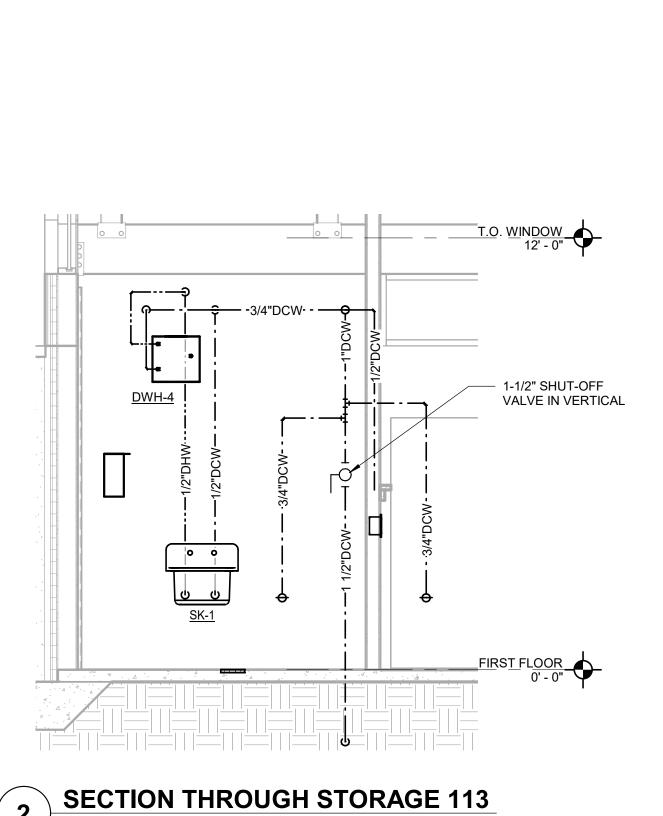
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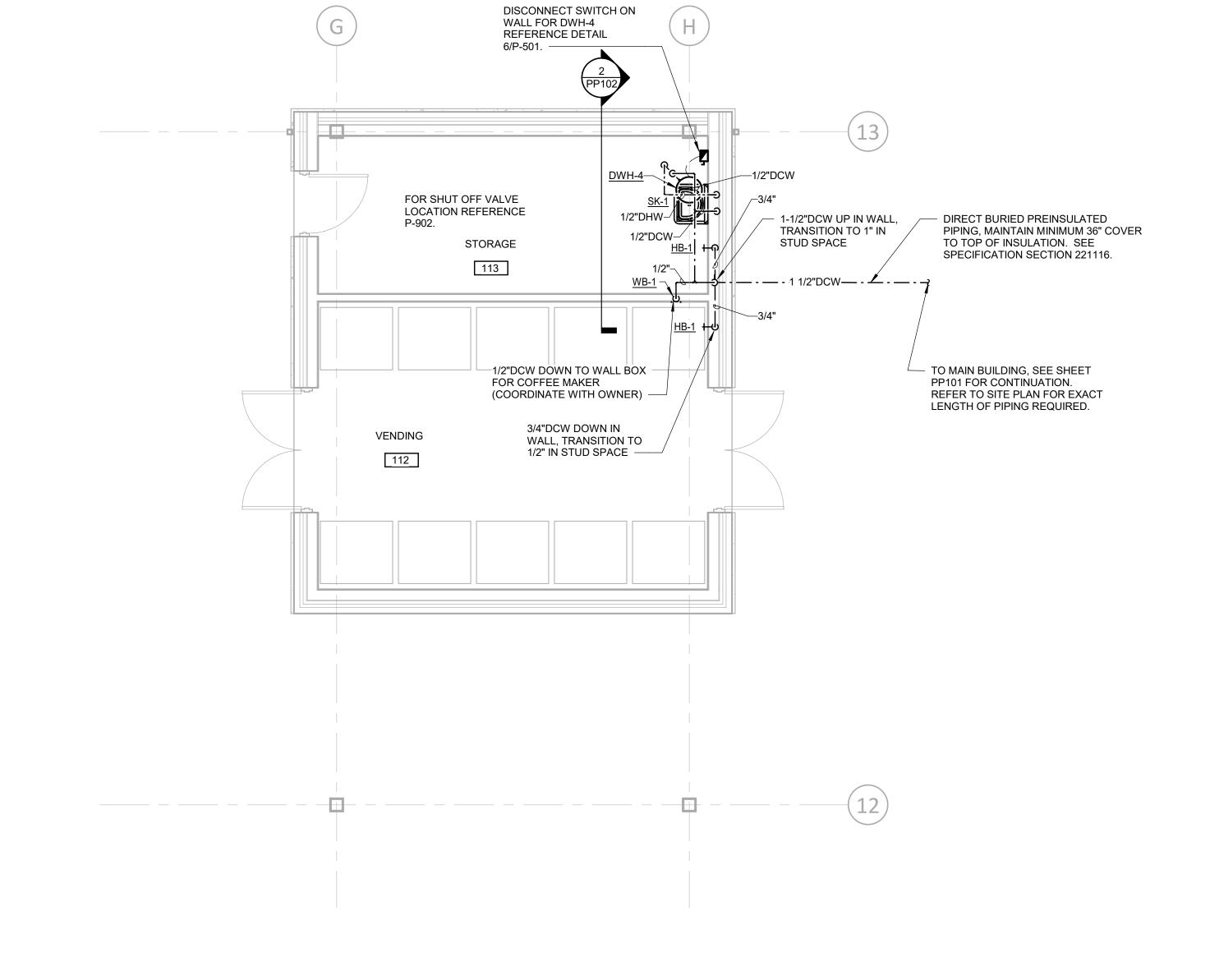
ARE COMBE C 28732 S RE -2 ENC

18-0129.021

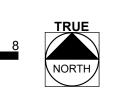




Scale: 3/8" = 1'-0"



DOMESTIC WATER VENDING PLAN Scale: 1/4" = 1'-0"



EAST BOUND COMBE COUNTY 28732

18-0129.021

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ARCHITECT OF RECORD

PROJECT MANAGER

DRAWN BY

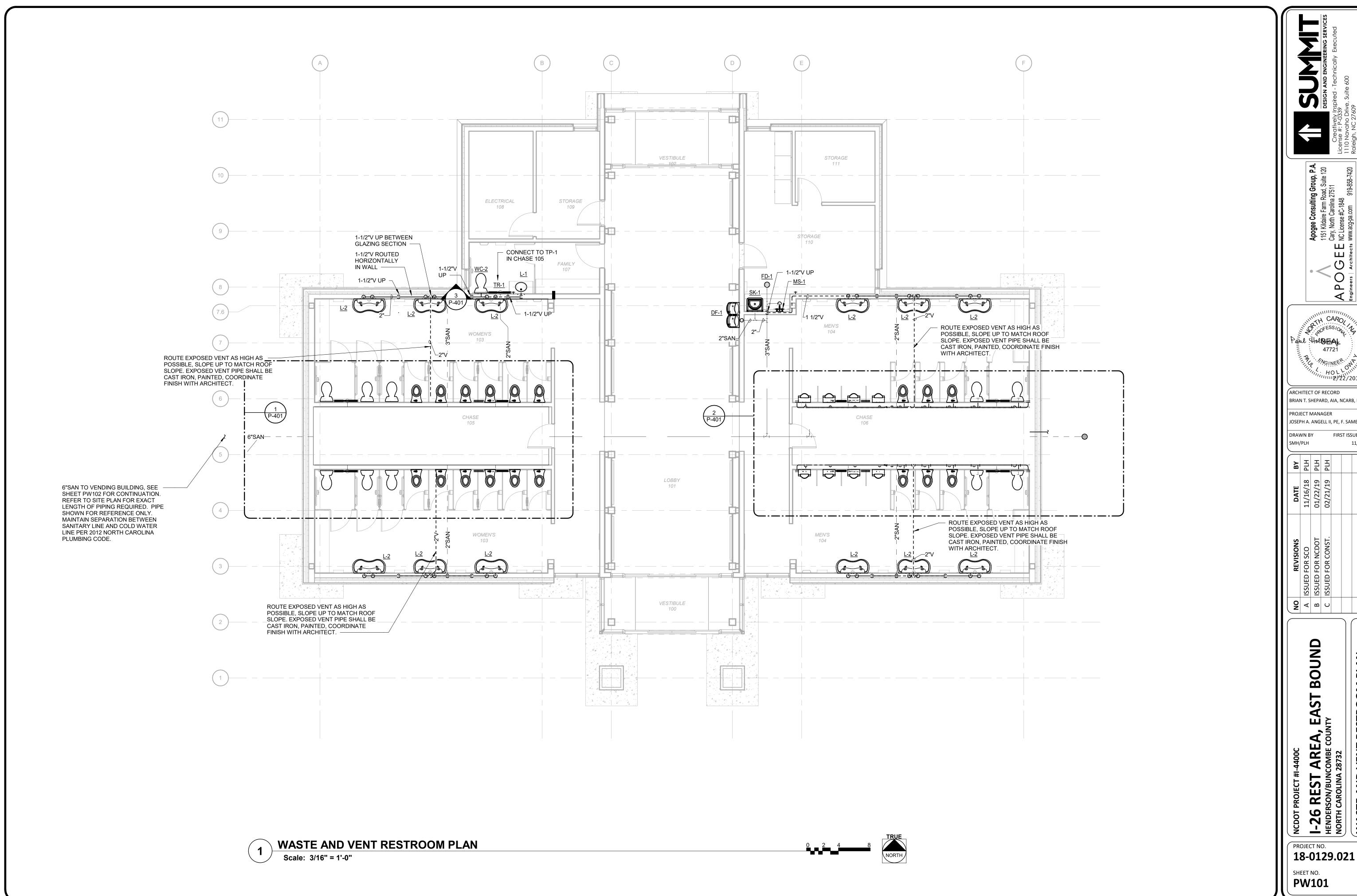
BRIAN T. SHEPARD, AIA, NCARB, LEED

JOSEPH A. ANGELL II, PE, F. SAME

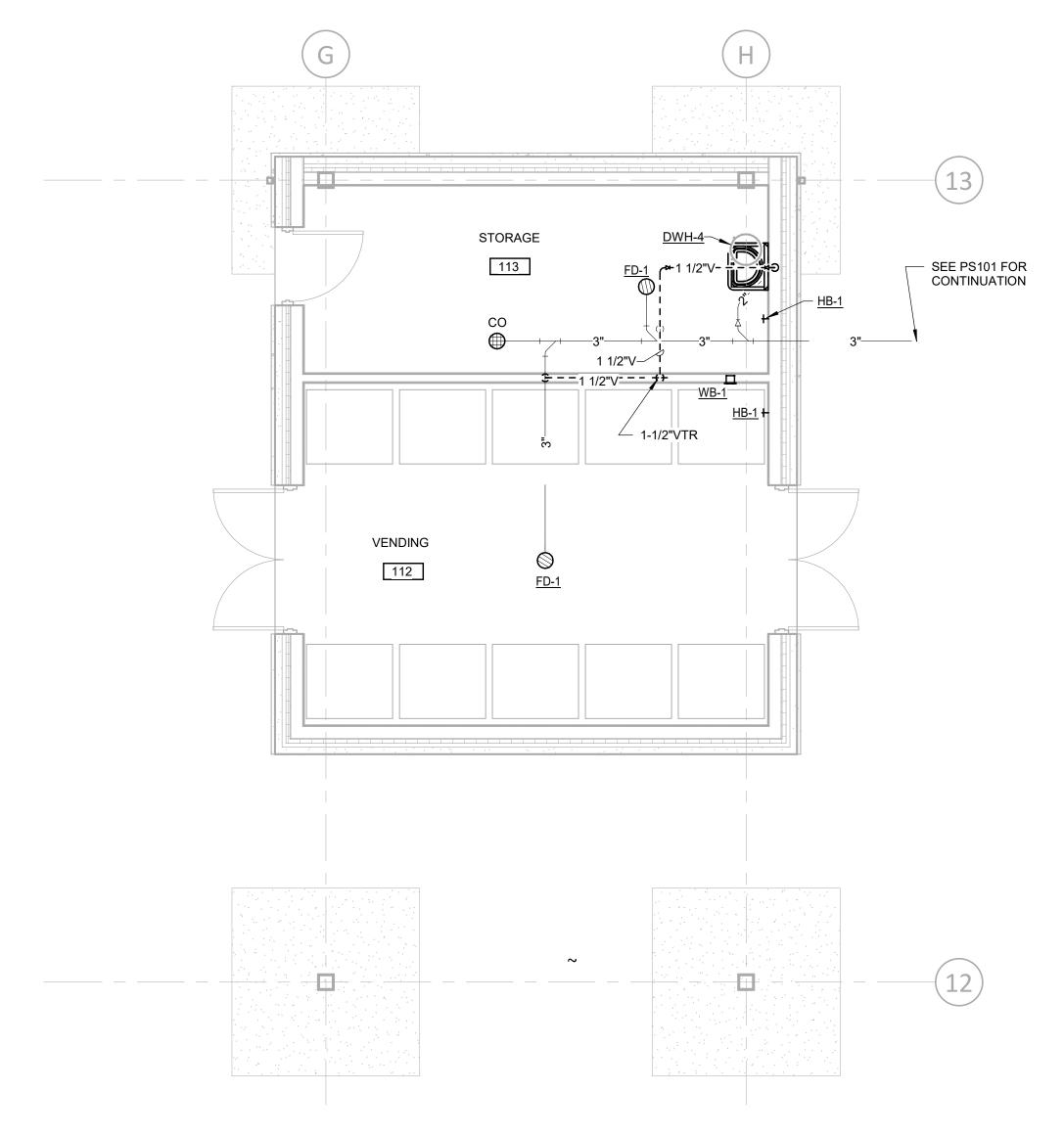
FIRST ISSUE DATE

11/02/18

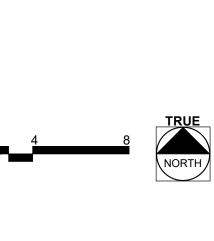
PP102



Ш / Ш ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE DRAWN BY 11/02/18 REVISIONS
ISSUED FOR SCO
ISSUED FOR NCDOT
ISSUED FOR CONST. 0 A B C BOUND EAST I-26 REST AREA, E HENDERSON/BUNCOMBE COUNT NORTH CAROLINA 28732



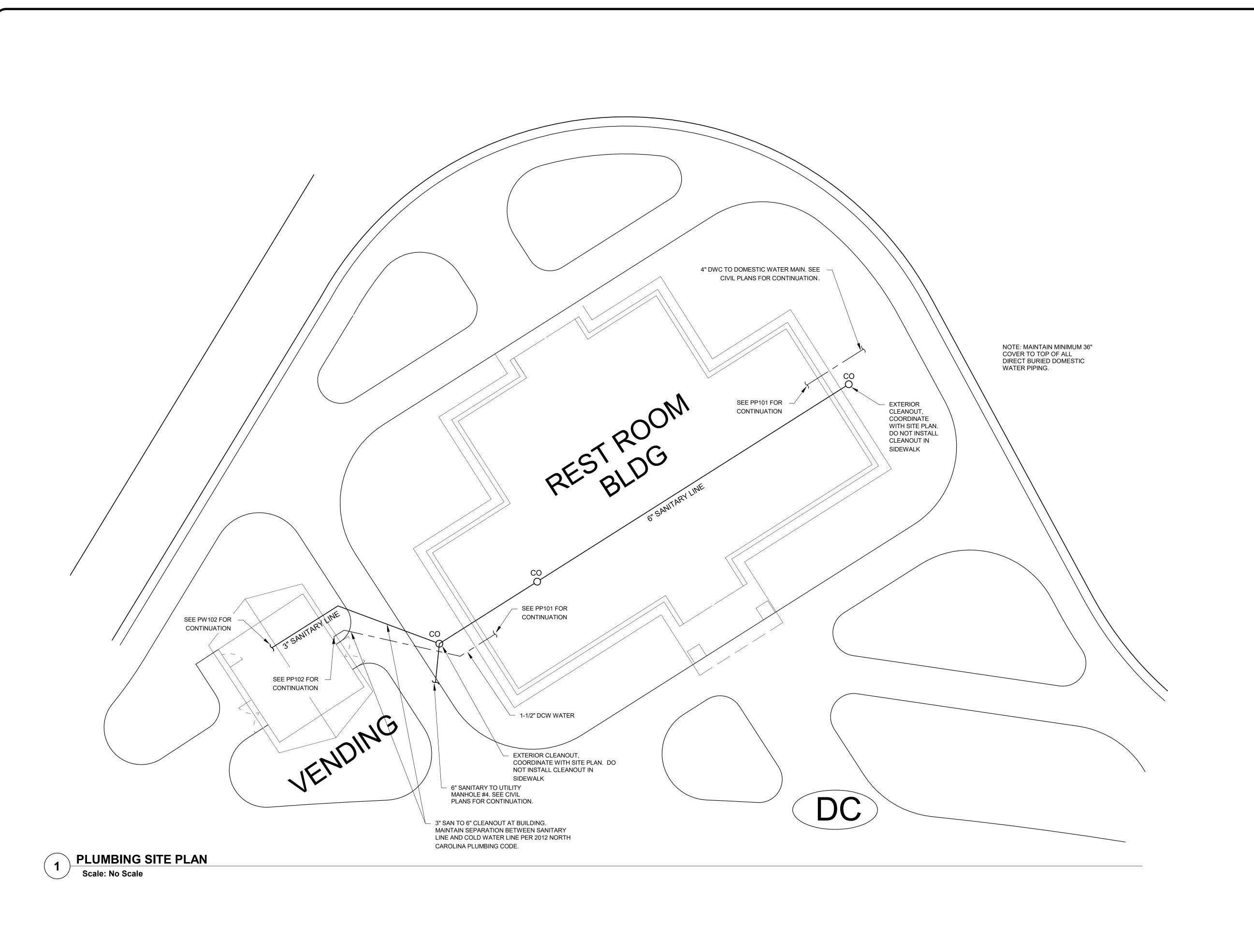
DRAIN, WASTE, AND VENT VENDING PLAN
Scale: 1/4" = 1'-0"





18-0129.021

PW102



ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE DRAWN BY ISSUED FOR SCO
ISSUED FOR NCDOT
ISSUED FOR CONST. 0 A B C BOUND

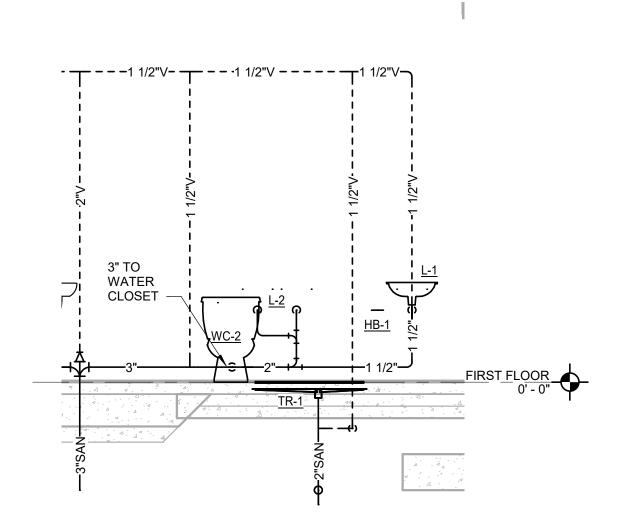
NCDOT PROJECT #I-4400C

I-26 REST AREA, EAST B
HENDERSON/BUNCOMBE COUNTY
NORTH CAROLINA 28732

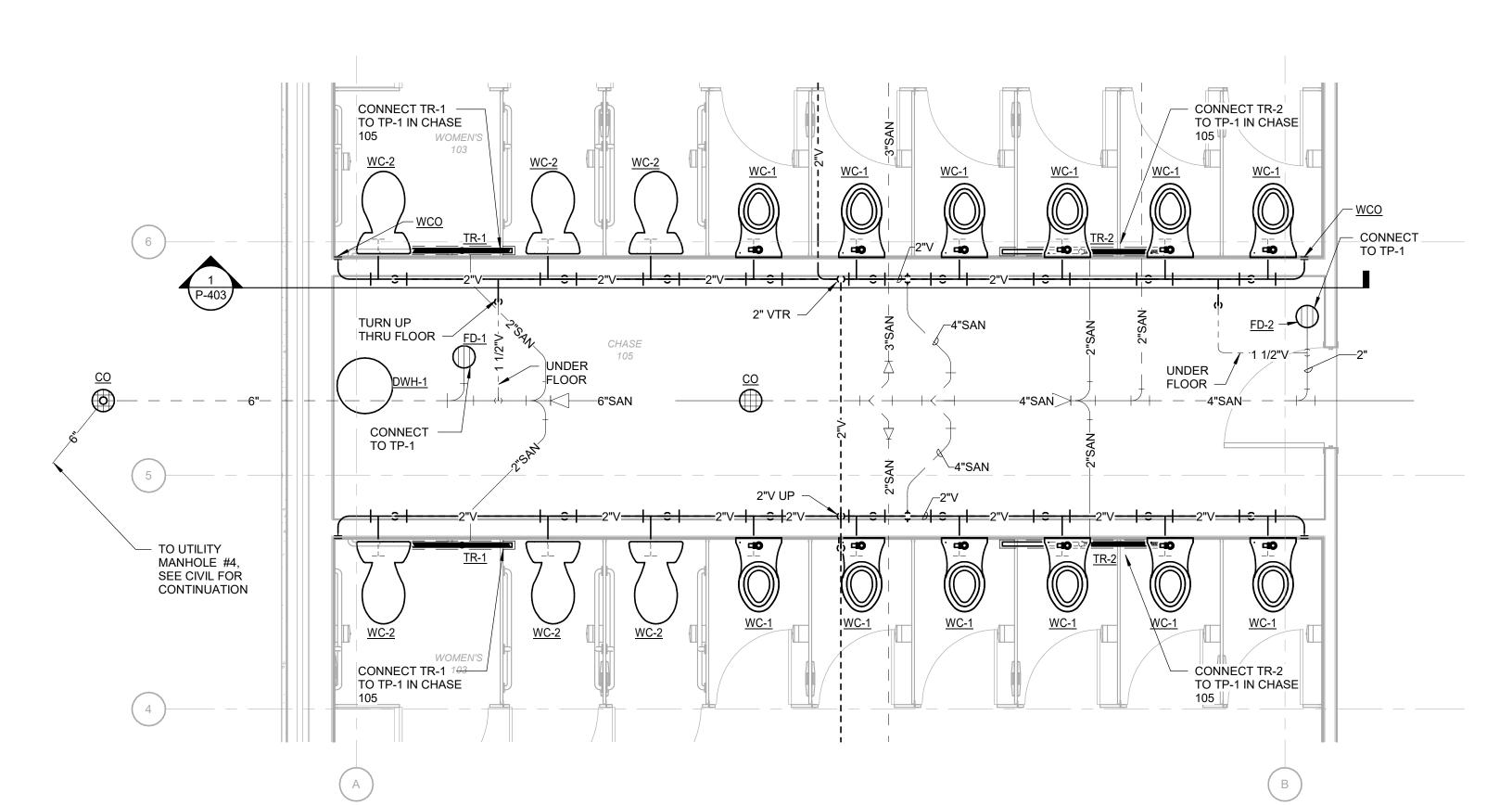
PROJECT NO.

18-0129.021

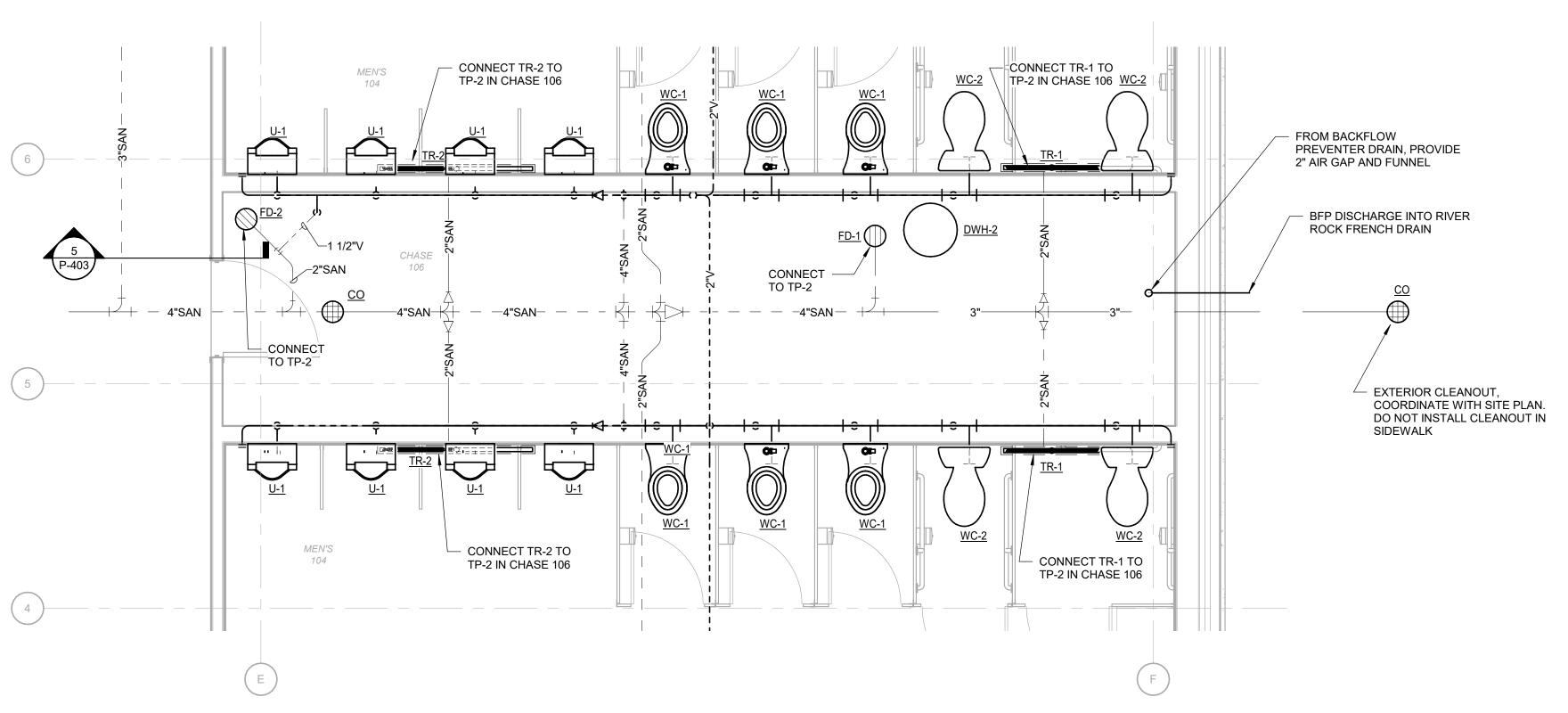
SHEET NO.
PS101



FAMILY ROOM 107 WASTE PIPING Scale: 3/8" = 1'-0"



CHASE 105 ENLARGED FLOOR PLAN - DRAIN, WASTE, AND VENT Scale: 3/8" = 1'-0"



ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE DRAWN BY REVISIONS
ISSUED FOR SCO
ISSUED FOR NCDOT
ISSUED FOR CONST. **8** A B C BOUND AST AREA, ICOMBE COU

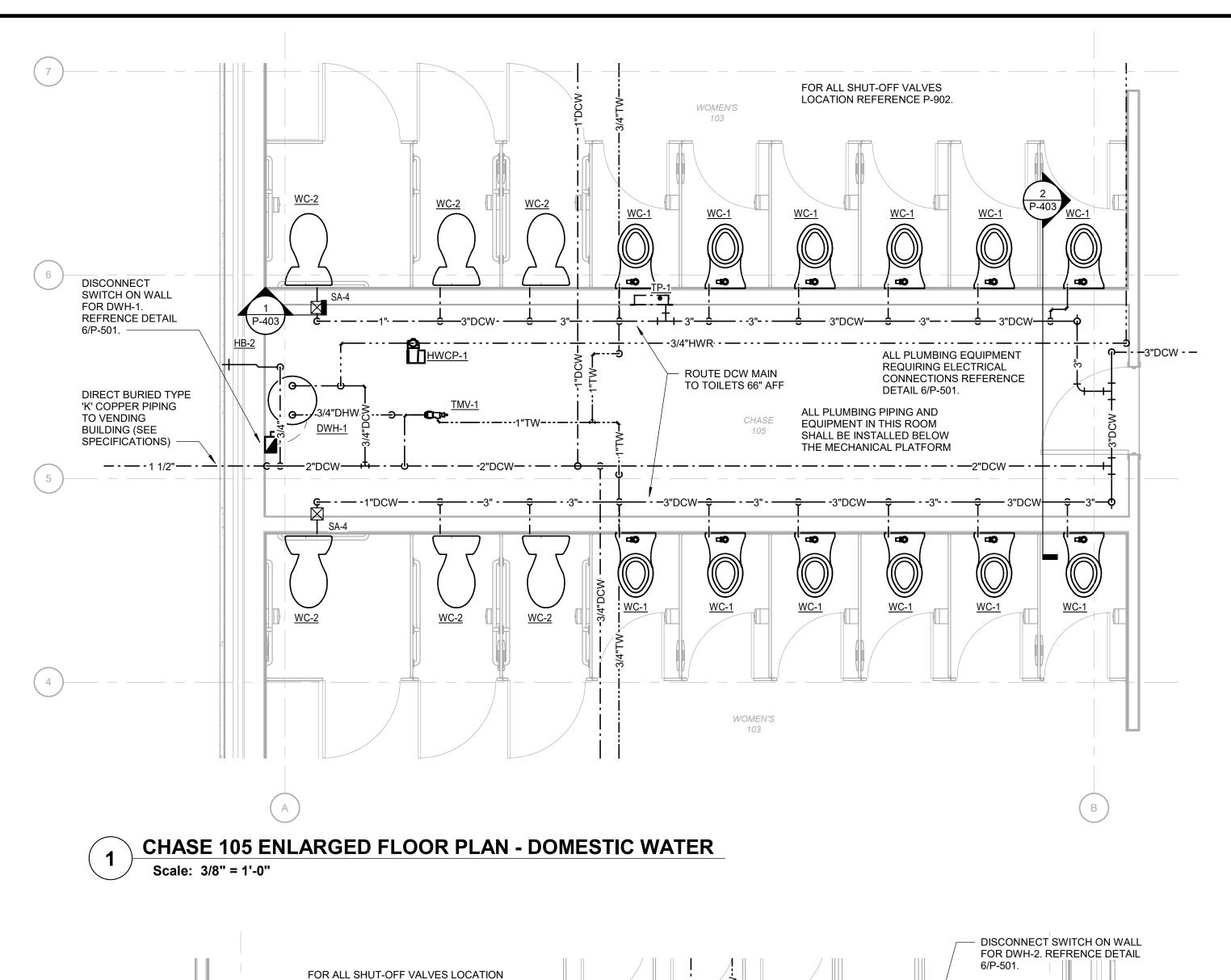
I-26 REST AND HENDERSON/BUNC NORTH CAROLINA 2

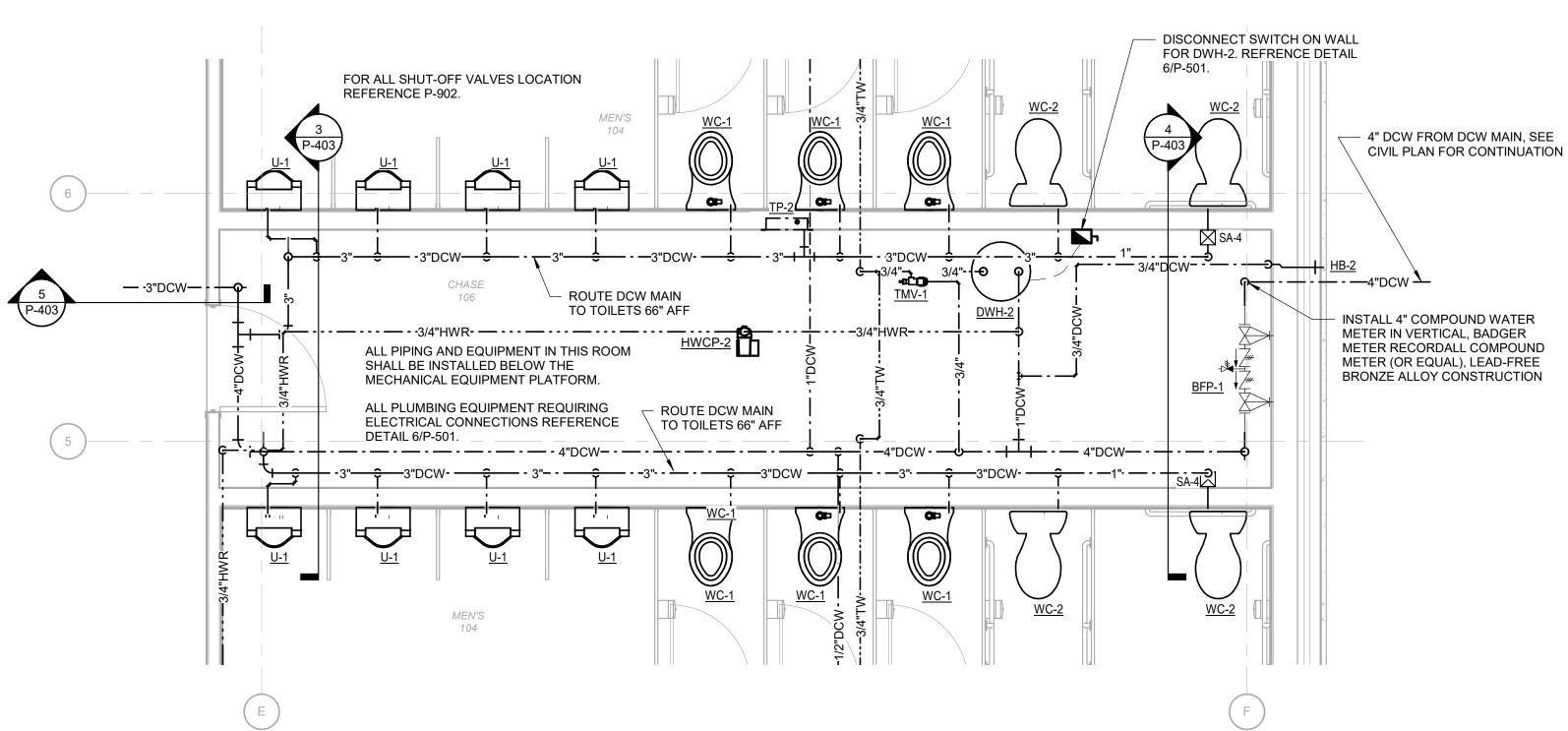
18-0129.021

P-401

CHASE 106 ENLARGED FLOOR PLAN - DRAIN, WASTE AND VENT

Scale: 3/8" = 1'-0"



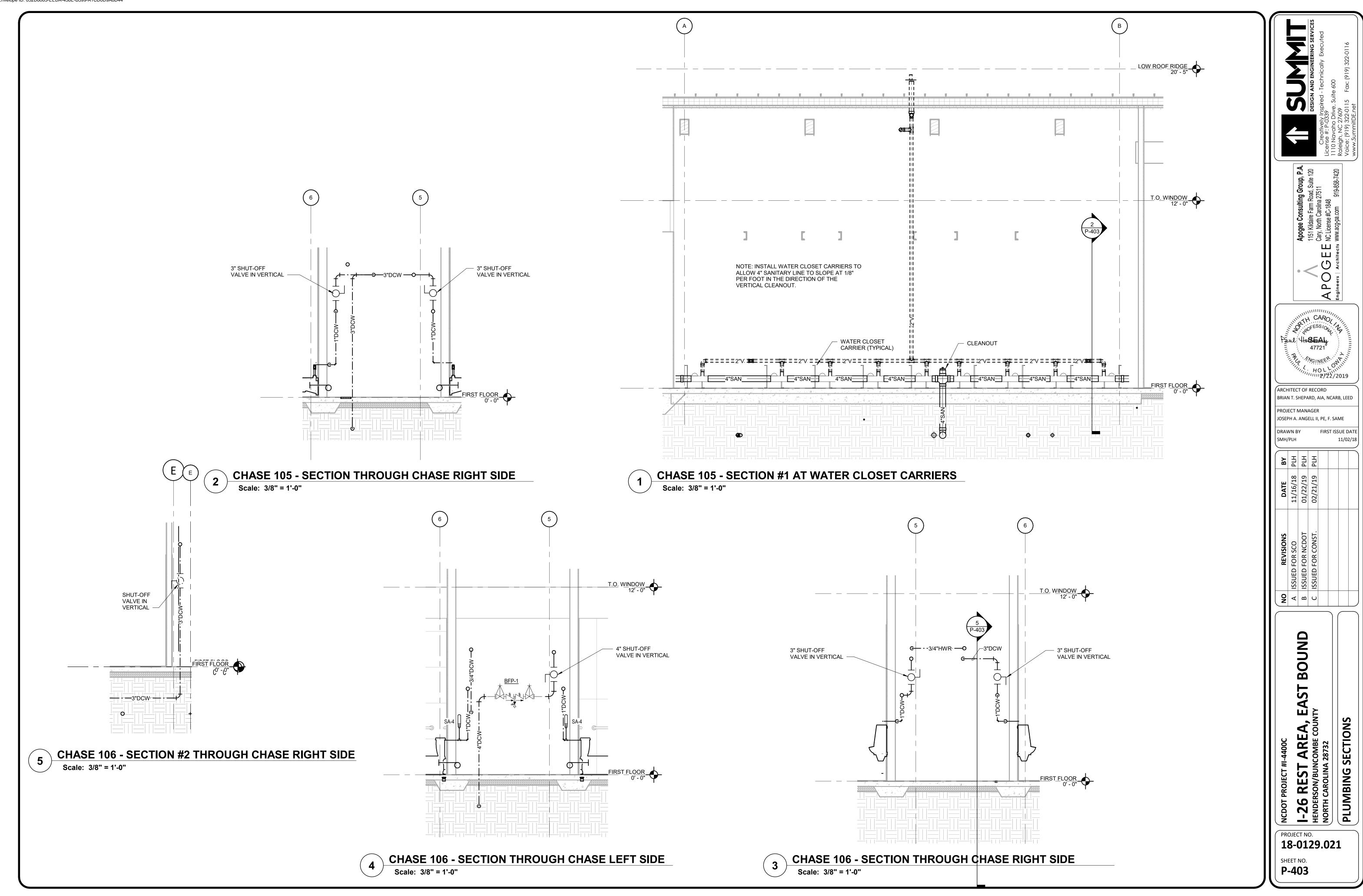


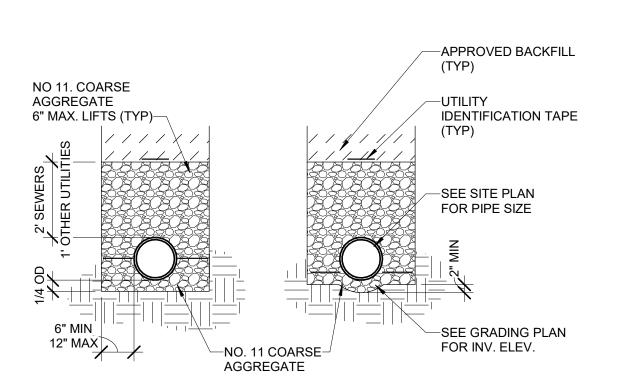
Ш : Ш APO ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE DRAWN BY 11/02/18 REVISIONS
ISSUED FOR SCO
ISSUED FOR NCDOT
ISSUED FOR CONST. **8** A B C BOUND AST AREA, COMBE COU RSON/BUNC 1-26 HENDER NORTH (PROJECT NO.

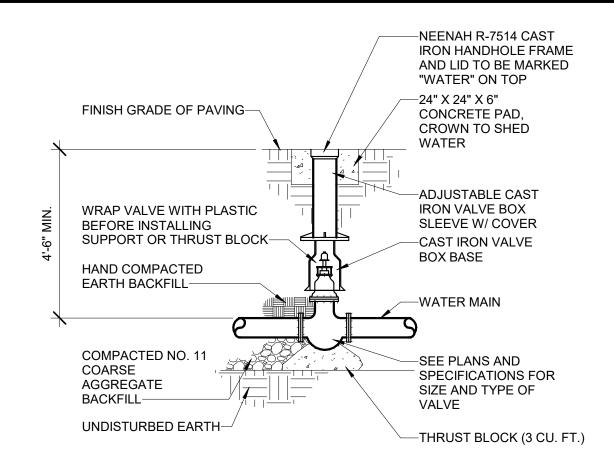
CHASE 106 ENLARGED FLOOR PLAN - DOMESTIC WATER Scale: 3/8" = 1'-0"

18-0129.021

P-402

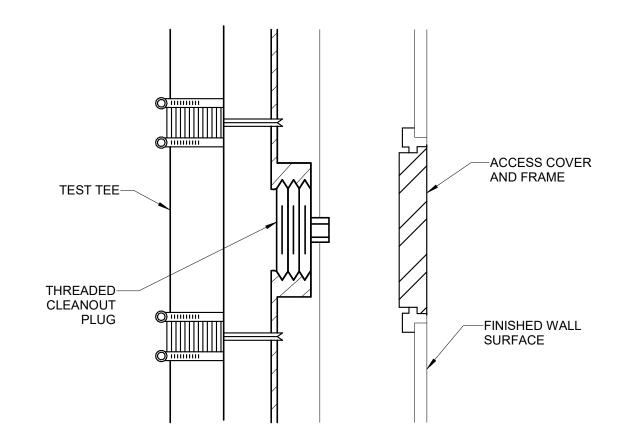






7 PIPE BEDDING AND BACKFILL DETAIL Scale: N.T.S.





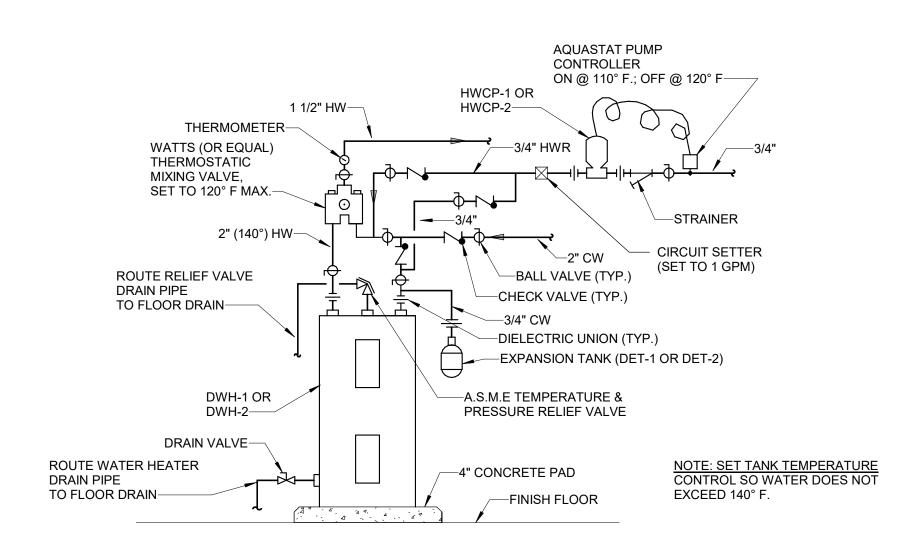


GENERAL NOTES:

- 1. THE PURPOSE OF THIS DIAGRAM IS TO INDICATE THE RESPONSIBILITIES OF THE DIVISION 22 AND DIVISION 26 CONTRACTORS. THIS DIAGRAM IS NOT INTENDED TO BE USED TO SHOW THE METHOD OF INSTALLATION OF WIRING, CONDUIT OR EQUIPMENT. DO NOT USE THIS DIAGRAM FOR PURPOSES OTHER THAN THE INTENDED PURPOSE STATED ABOVE.
- 2. COORDINATE WITH THE DIVISION 26 CONTRACTOR THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT, AS WELL AS THE SIZING AND ROUTING OF
- 3. ALL WIRING AND CONDUIT SHALL BE SIZED, ROUTED AND INSTALLED IN ACCORDANCE WITH NEC AND THE APPLICABLE PORTIONS OF THE DIVISION 26 SPECIFICATIONS.
- 4. THE DIVISION 22 CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
- SEE SPECIFICATION SECTION 26 28 16 FOR DISCONNECT SWITCHES.
 REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.

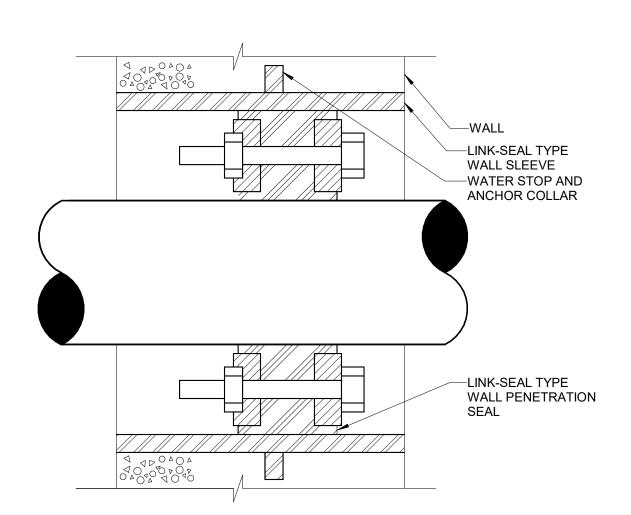
DIAGRAM KEY NOTES:

- 1. EQUIPMENT BY DIVISION 22.
- 2. CONDUIT & WIRING BY DIVISION 22.
- 3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, OR IS CALLED FOR ON THE FLOOR PLANS, EQUIPMENT SCHEDULES, OR SPECIFICATIONS, IT SHALL BE PROVIDED AND INSTALLED BY THE DIVISION 22 EQUIPMENT CONTRACTOR.
- 4. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
- FEEDER CIRCUIT WIRING AND CONDUIT BY DIVISION 26.
- 6. JUNCTION BOX BY DIVISION 26 (WHERE SHOWN ON PLANS).
- 7. WIRING AND CONDUIT BY DIVISION 26.
- 8. BY DIVISION 26.

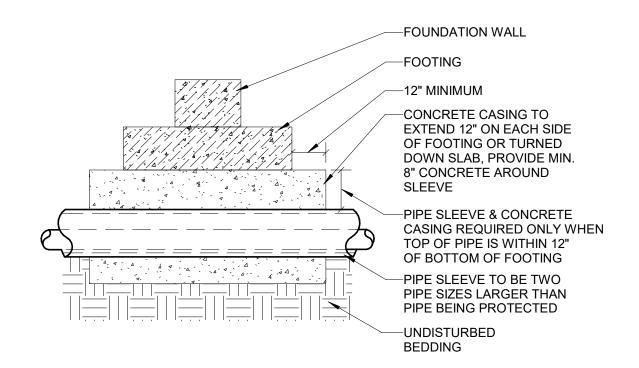


ELECTRIC HEATER PIPING DIAGRAM

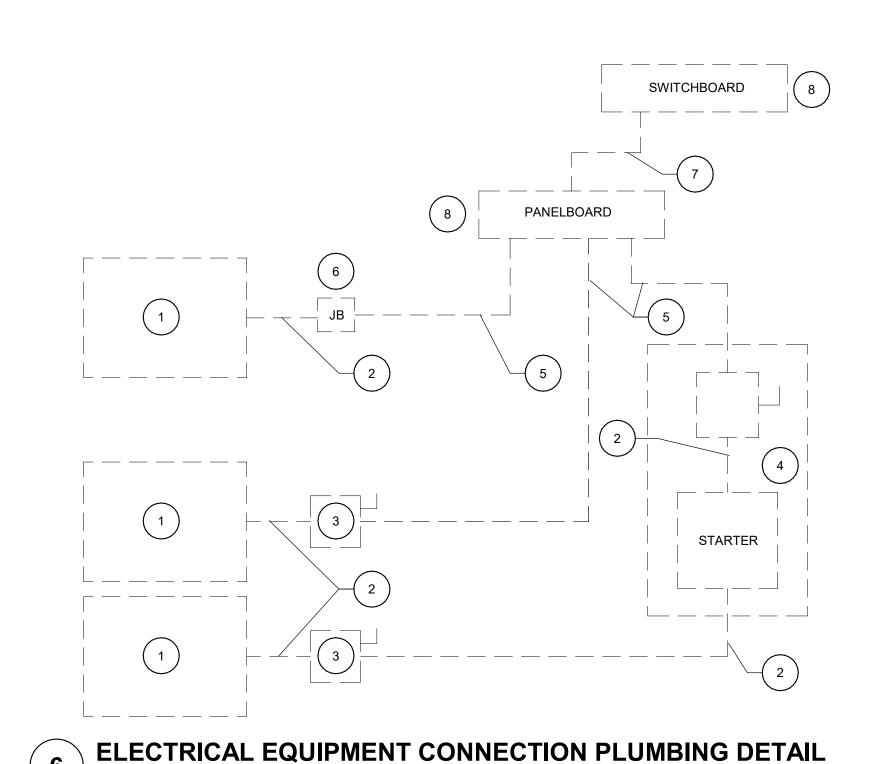
1 ELECTRIC HEATER PIPING DIAGRAM (DWH-1 AND DWH-2) Scale: N.T.S.







PIPE SLEEVE BELOW FOOTING OR TURNED DOWN SLAB DETAIL



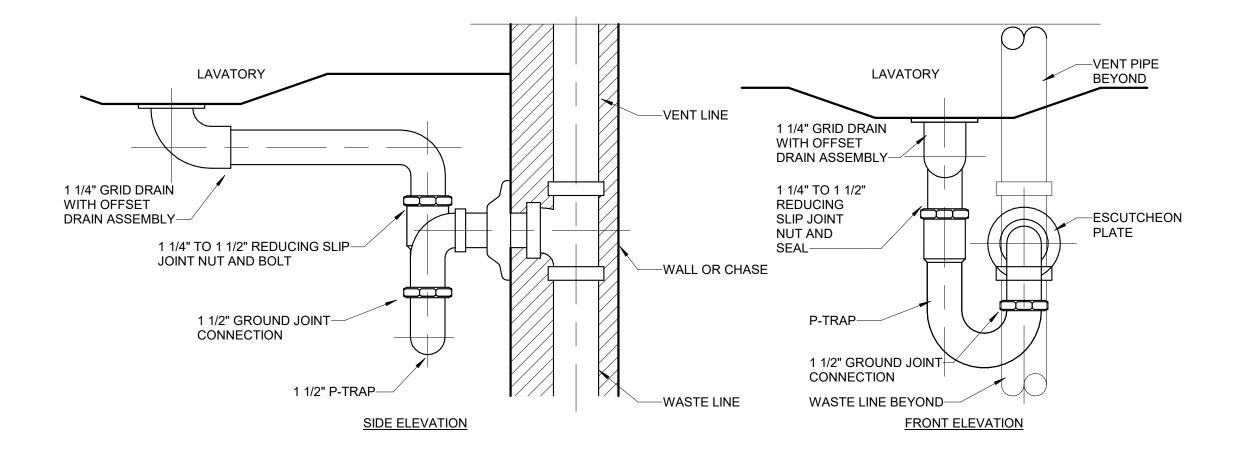
Scale: N.T.S.

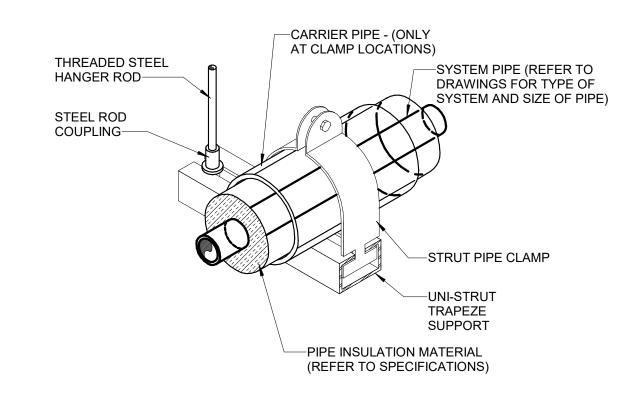


ш TH CARO ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE DRAWN BY 11/02/18 ISSUED I **8 8 9** 0 8 ST __``_` AREA, COMBE COU **RES** 1-26 HENDER NORTH (

18-0129.021

P-501

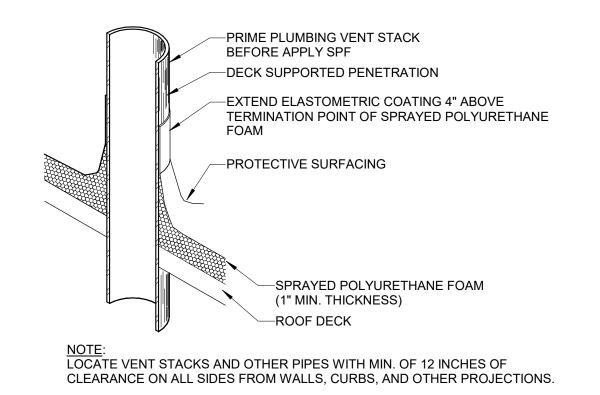




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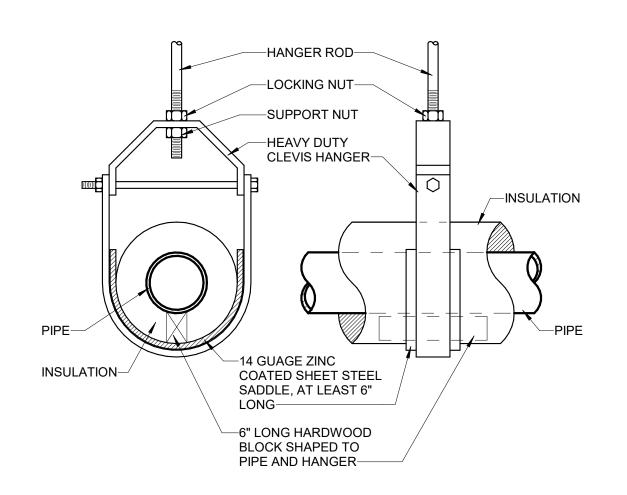
ADA OFFSET P-TRAP DETAIL

Scale: No Scale



5 SPRAYED POLYURETHANE FOAM ROOF VENT DETAIL
Scale: No Scale

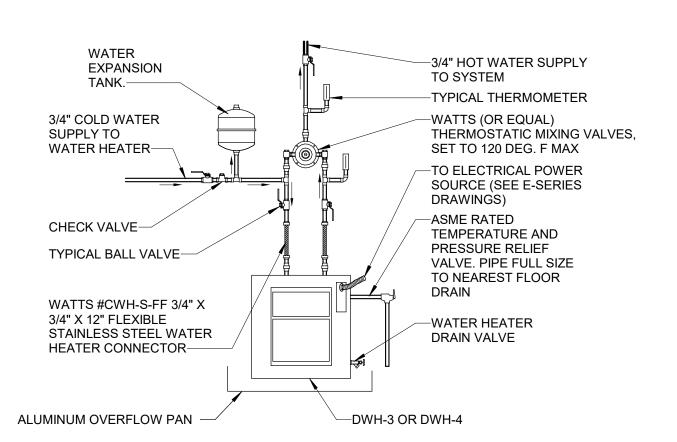




PIPE HANGER (6" & SMALLER) DETAIL

Scale: No Scale

Scale: No Scale



POINT-OF-USE-ELECTRIC WATER HEATER DETAIL (DWH-3 AND DWH-4)

//12//22/2019 ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE DRAWN BY 11/02/18 REVISIONS
ISSUED FOR SCO
ISSUED FOR NCDOT
ISSUED FOR CONST. 0 A B C BOUND EAST AREA, ICOMBE COUNT DETAILS I-26 REST ANDERSON/BUNC NORTH CAROLINA 2

PROJECT NO.

P-502

18-0129.021

				HEAD, FT.	MOTOR		MOTOR				MODEL # (BELL &	
MARK	SERVICE	TYPE	GPM	H2O	HP	RPM	ELECTRICAL (V/Ph/Hz)	SERIES	GOSSETT)	REMARKS		
HWCP-1	DWH-1 RECIRCULATION	WET ROTOR CIRCULATOR	1.0	8	1/12	3600	115/1/60	ECOCIRC XL	XL N 20-35	1, 2		
HWCP-2	DWH-2 RECIRCULATION	WET ROTOR CIRCULATOR	1.0	8	1/12	3600	115/1/60	ECOCIRC XL	XL N 20-35	1, 2		
REMARKS:			<u> </u>		<u> </u>	L				I		

					EATERS (I	ELECT			
MARK	DESCRIPTION	STORAGE CAP., GALLONS	PRESSURE RATING, PSI	QUANTITY	kW (EACH)	V/Ph/Hz	FLA	MODEL#	REMARKS
DWH-1	STORAGE TANK TYPE	40	150	2	3.0	240/1/60	25	DEN-40 (AO SMITH)	1, 4, 5
DWH-2	STORAGE TANK TYPE	40	150	2	3.0	240/1/60	25	DEN-40 (AO SMITH)	1, 4, 5
DWH-3	POINT-OF-USE TANK TYPE	10	150	1	3.0	240/1/60	12.5	EGSP10 (RHEEM)	2, 3, 4, 6
DWH-4	POINT-OF-USE TANK TYPE	10	150	1	1.5	240/1/60	6.3	EGSP10 (RHEEM)	2, 3, 4, 6
REMARKS:									
. INSTALL 28	" DIAMETER ALUMINUM DRAIN PA	AN UNDER WAT	ER HEATER WIT	H 1" DRAIN CON	INECTION.				

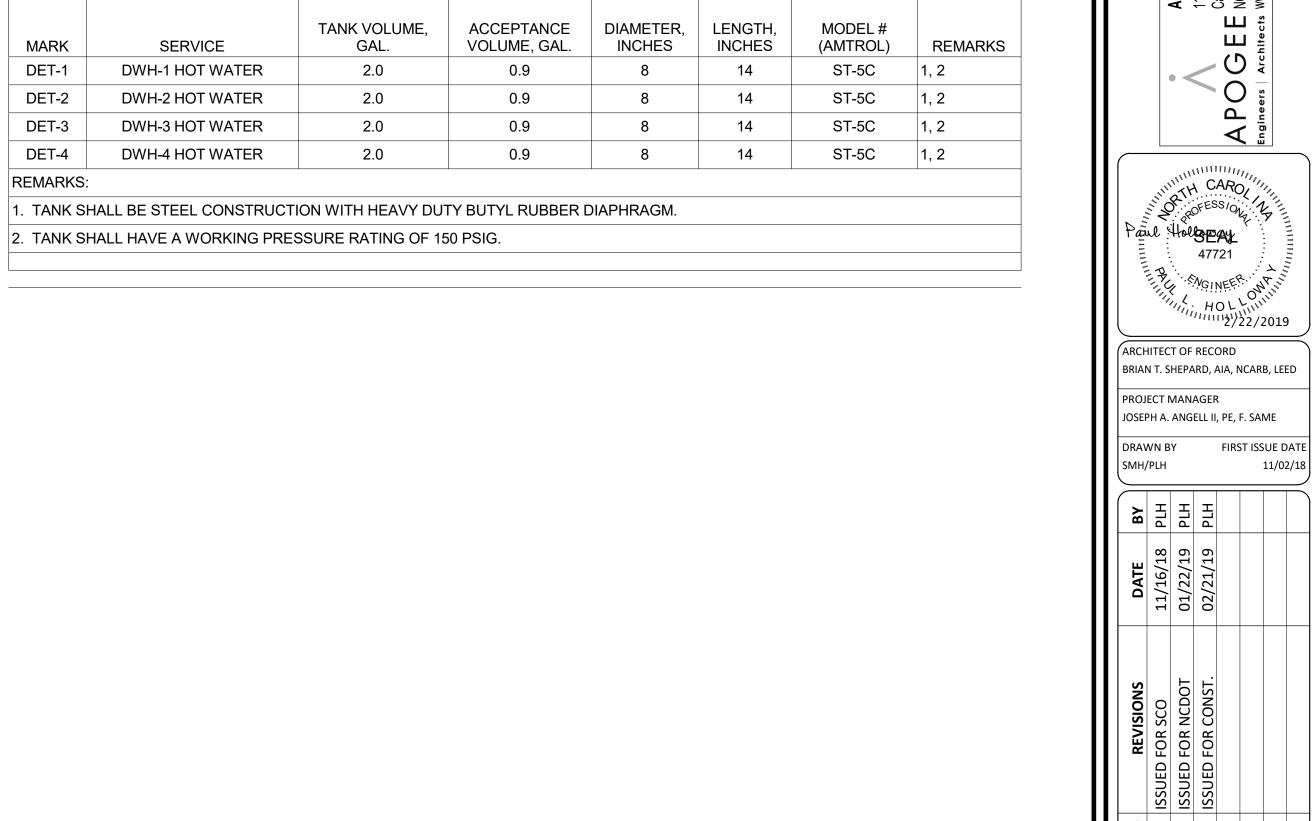
3. MOUNT WATER HEATER ON FIELD-FABBRICATED WELDED STEEL CANTILEVERED PLATFORM BOLTED TO WALL.

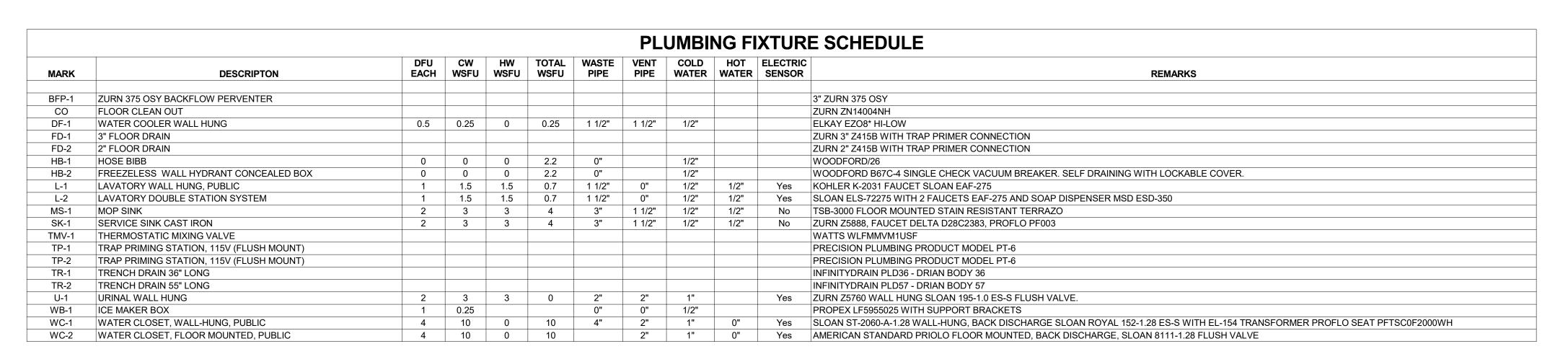
		PLUM	BING LO	AD SU	MMARY		* - PRIVA	TE FIXTURES		
MARK	DESCRIPTION	QUANTITY	DFU EACH	DFU	CW WSFU EACH	CW WSFU	HW WSFU EACH	HW WSFU	TOTAL WSFU EACH	TOTAL WSFU
DF-1	WATER COOLER WALL HUNG	1	0.5	0.5	0.25	0.25	0	0	0.25	0.25
HB-1	HOSE BIBB	8	0	0	0	0	0	0	2.2	17.6
HB-2	FREEZELESS WALL HYDRANT CONCEALED BOX	2	0	0	0	0	0	0	2.2	4.4
L-1	LAVATORY WALL HUNG, PUBLIC	1	1	1	1.5	1.5	1.5	1.5	0.7	0.7
L-2	LAVATORY DOUBLE STATION SYSTEM	12	1	12	1.5	18	1.5	18	0.7	8.4
MS-1	MOP SINK	1	2	2	3	3	3	3	4	4
SK-1	SERVICE SINK CAST IRON	2	2	4	3	6	3	6	4	8
TP-1	TRAP PRIMING STATION, 115V (FLUSH MOUNT)	0		0		0		0		0
TP-2	TRAP PRIMING STATION, 115V (FLUSH MOUNT)	0		0		0		0		0
U-1	URINAL WALL HUNG	12	2	24	3	36	3	0	0	0
WB-1	ICE MAKER BOX	1		0	0.25	0.25		0		0
WC-1	WATER CLOSET, WALL-HUNG, PUBLIC	19	4	76	10	190	0	0	10	190
WC-2	WATER CLOSET, FLOOR MOUNTED, PUBLIC	11	4	44	10	110	0	0	10	110
		70		163.5		365		28.5		343.35

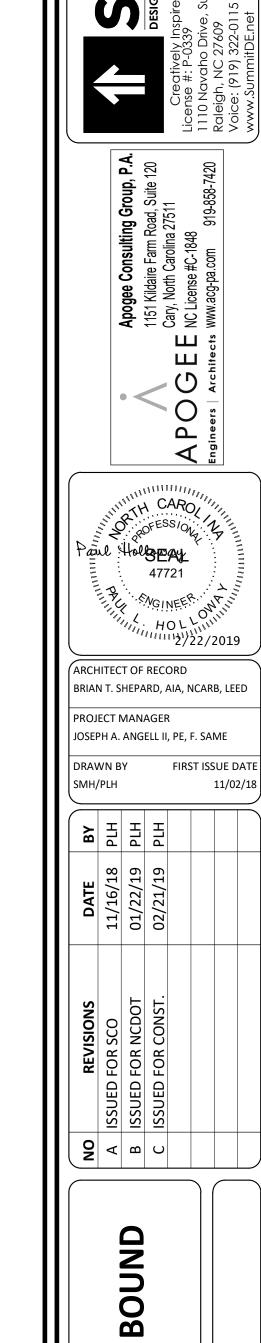
MARK	FIXTURE UNIT RATING	
SA-1	1 - 11	
SA-2	12 - 32	
SA-3	33 - 60	
SA-4	61 - 113	
SA-5	114 - 154	
SA-6	155 - 330	

NOTE: USE ZURN MODEL Z1700100 SIZE 100 OR EQUAL.

EXPANSION TANKS									
MARK	SERVICE	TANK VOLUME, GAL.	ACCEPTANCE VOLUME, GAL.	DIAMETER, INCHES	LENGTH, INCHES	MODEL# (AMTROL)	REMARKS		
DET-1	DWH-1 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2		
DET-2	DWH-2 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2		
DET-3	DWH-3 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2		
DET-4	DWH-4 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2		







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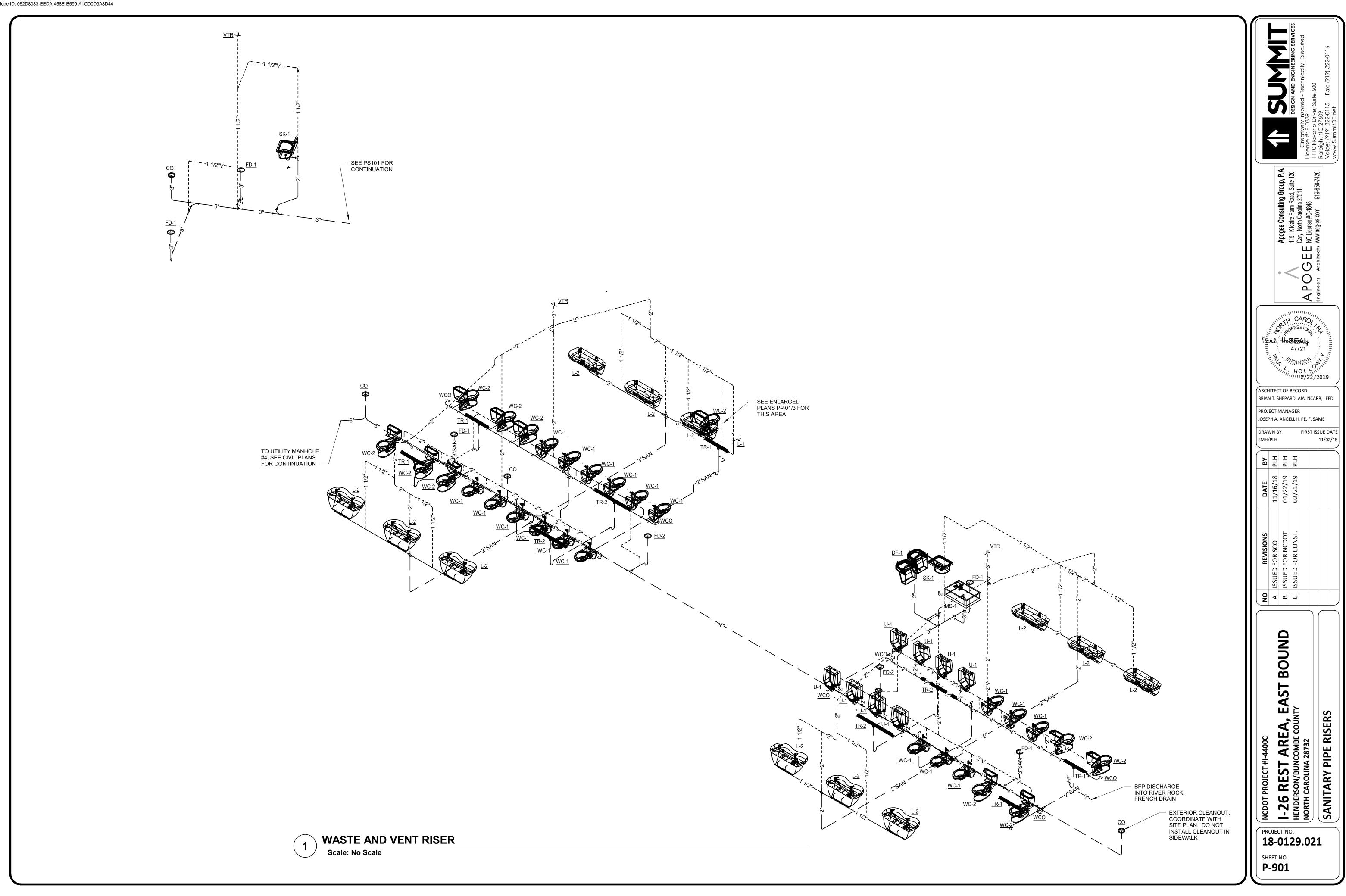
AREA, COMBE COUN

RSON/BUNC

1-26 HENDER NORTH (

18-0129.021

P-601



Scale: No Scale

SHEET NO. **P-902**

MECHANICAL ABBREVIATIONS ARCHITECT / ENGINEER RETURN OR EXHAUST DIFFERENTIAL PRESSURE ASSEMBLY **INCHES ACCU** AIR-COOLED CONDENSING UNIT DPS DIFFERENTIAL PRESSURE SENSOR INCHES OF MERCURY RETURN AIR IN HG AUTOMATIC CONTROL DAMPER, DIRECT EXPANSION INCH WATER COLUMN RETURN AIR TEMPERATURE REA **MODULATING** IN WG **INCH WATER GAUGE** RELIEF AIR AUTOMATIC CONTROL DAMPER, TWO **EXHAUST AIR** IN-LB **INCH-POUND RETURN GRILLE** POSITION EAT **ENTERING AIR TEMPERATURE** INSECT SCREEN RELATIVE HUMIDITY ACCESS DOOR EER REFRIGERANT LIQUID LINE **ENERGY EFFICIENCY RATIO** AFTER FILTER **KILOPASCAL** EXHAUST FAN RUN LOAD AMPERE **EXHAUST GRILLE** AFF KILOWATT ABOVE FINISHED FLOOR EG REVOLUTIONS PER MINUTE RS REFRIGERANT SUCTION AFMD AIR FLOW MEASURING DEVICE ENT ENTERING kWh KILOWATT HOUR ESP EXTERNAL STATIC PRESSURE RELIEF VENT AIR-HANDLING UNIT LAT AMPERGE LEAVING AIR TEMPERATURE AMP LINEAR FOOT (FEET) **ACCESS PANEL FAHRENHEIT** SUPPLY AIR AIR PRESSURE DROP FREE AREA LVG LEAVING SAT SUPPLY AIR TEMPERATURE AIR CONDITIONING AND REFRIGERATION LVR FLEXIBLE CONNECTION LOUVER SHADING COEFFICIENT FLOOR DRAIN STANDARD CUBIC FEET PER MINUTE METER, SI UNIT AMERICAN SOCIETY OF MECHANICAL SCR FIRE DAMPER SILICON CONTROLLED RECTIFIER METERS PER SECOND (OR FINAL FILTER SUPPLY AIR DIFFUSER **ENGINEERS** M/s FLOW METER SUPPLY FAN METERS/SECOND SQUARE INCHES FPM **BUTTERFLY DAMPER** FEET PER MINUTE MIXED AIR FPS MAT BDD **BACKDRAFT DAMPER** FEET PER SECOND MIXED AIR TEMPERATURE STATIC PRESSURE MAX BFP BACKFLOW PREVENTER FLOW SWITCH MAXIMUM SP GF SPECIFIC GRAVITY **BRAKE HORSEPOWER FSTAT FREEZESTAT** MB **MIXING BOX** STATIC PRESSURE SENSOR **BRITISH THERMAL UNIT FEET** MBH 1000 BTUH SQUARE FOOT (FEET) MCA BTUH BRITISH THERMAL UNIT PER HOUR FT-LB FOOT-POUND MINIMUM BRANCH CIRCUIT AMPACITY SUPPLY AIR REGISTE **FACE VELOCITY** MERV MINIMUM EFFICIENCY REPORTING STAINLESS STEEL **CENTIGRADE (CELCIUS)** VALUE CC GΑ **GAUGE** MHP MOTOR HORSEPOWER COOLING COIL TESTING, ADJUSTING, BALANCE CCD COOLING COIL CONDENSATE DRAIN GAL GALLONS MIN MINIMUM TEMPERATURE DIFFERENCE TSP CENT CENTRIFICAL **GALVANIZED STEEL** MM MILLIMETER TOTAL STATIC PRESSURE MOD **TSTAT** CFH MOTOR-OPERATED DAMPER CUBIC FEET PER HOUR CFM **CUBIC FEET PER MINUTE** HD **HEAD** MVD MANUAL VOLUME DAMPER CFT **UNDERWRITERS LABORATORY** CUBIC FEET HOA HAND/OFF/AUTOMATIC CO **CLEAN OUT** HEAT PUMP **NOT APPLICABLE** VAF CARBON DIOXODE **HORSEPOWER NOISE CRITERIA** VANE-AXIAL FAN NOM VAV COEFFICIENT OF PERFORMANCE HRW HEAT RECOVERY WHEEL VARIABLE AIR VOLUME COP NOMINAL NTS **VOLUME DAMPER (MANUAL OPPOSED** CU CONDENSING UNIT **HSTAT HUMIDISTAT** NOT TO SCALE CV CONSTANT VOLUME HX **HEAT EXCHANGER** BLADE) OA **OUTSIDE AIR** VIBRATION ISOLATOR HERTZ DAMPER - AUTOMATIC **OUTSIDE AIR INTAKE** INDOOR AIR QUALITY OD WATTS **OUTSIDE DIAMETER** DECIBELS WET-BULB (TEMPERATURE) DRY-BULB TEMPERATURE OSA **OUTSIDE SUPPLY AIR (CONDITIONED)** Wb Db **INSIDE DIAMETER** DEG DEGREE WATER GAGE **PCF** DF DIFFUSER POUNDS PER CUBIC FOOT (FEET) DIA DIAMETER PD PRESSURE DROP DEW POINT TEMPERATURE PRE-FILTER PG PRESSURE GAGE PARTS PER MILLION PSI POUNDS PER SQUARE INCH **PSIA** POUNDS PER SQUARE INCH -

MECHANICAL SYSTEMS AND EQUIPMENT METHOD OF COMPLIANCE:

PRESCRIPTIVE X ENERGY COST BUDGET THERMAL ZONE: 4A **EXTERIOR DESIGN CONDITIONS** WINTER DRY BULB: SUMMER DRY/WET BULB: 92.4°F INTERIOR DESIGN CONDITIONS WINTER DRY BULB: SUMMER DRY BULB: 75°F RELATIVE HUMIDITY: 50% BUILDING HEATING LOAD: 145.8 MBH **BUILDING COOLING LOAD: 147.4 MBH** MECHANICAL SPACE CONDITIONING SYSTEM: UNITARY - SPLIT SYSTEM AHUS BOILER - NOT APPLICABLE TO THIS PROJECT CHILLER -NOT APPLICABLE TO THIS PROJECT **EQUIPMENT EFFICIENCIES**: REFER TO EQUIPMENT SCHEDULES **EQUIPMENT SCHEDULES WITH MOTORS:** SEE DRAWINGS FOR EFFICIENCIES

DESIGNER STATEMENT

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS REPLACEMENT SYSTEM COMPLIES WITH THE MECHANICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE, 2012 EDITION - ENERGY.

Paul Holloway SIGNED: PAUL L. HOLLOWAY PROFESSIONAL ENGINEER

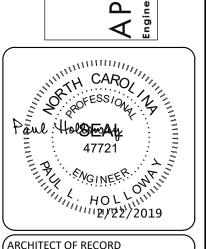
MECHANICAL LEGEND **THERMOSTAT** SIDE MOUNTED GRILLE SUPPLY DIFFUSER TERMINAL UNIT SUPPLY RETURN DIFFUSER/GRILLE **DUCT BRANCH (CONICAL** SUPPLY TAP) EXHAUST GRILLE SUPPLY STANDARD BRANCH SUPPLY OR DIFFUSER TAG | DIFFUSER CFM EG-10 2000 RETURN, NO SPLITTER (45° TAP) BALANCING DAMPER (RECTANGULAR) BALANCING DAMPER (ROUND) MOTOR-OPERATED DAMPER REFRIGERANT LIQUID PIPING **ROUND FLEX DUCT** REFRIGERANT SUCTION PIPING ##- R⊅ INCLINED RISE, IN -cond-CONDENSATE DRAIN LINE DIRECTION OF AIRFLOW PIPE UP INCLINED DROP, IN DIRECTION OF AIRFLOW PIPE DOWN **BOTTOM CONNECTION** UP DN SUPPLY DUCT (UP & DOWN) TOP CONNECTION UP DN EXHAUST DUCT (UP & DOWN) CAPPED OUTLET UP DN RETURN DUCT (UP & DOWN) WALL-MOUNTED INDOOR SPLIT-SYSTEM VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SPLIT-SYSTEM CONDENSING UNIT SYMBOL IS MISSING) STANDARD RADIUS ELBOW DISCONNECT SWITCH (LONG RADIUS) **NEW DUCT (INSIDE** 10x8 DIMENSIONS: WIDTH X DEPTH) **DUCT TRANSITION**

POUNDS PER SQUARE INCH - GAGE

MECHANICAL GENERAL NOTES

- ALL MECHANICAL SYSTEMS SHALL BE INSTALLED TO THE SATISFACTION OF THE LOCAL CODE AUTHORITIES HAVING JURISDICTION. MECHANICAL SYSTEMS SHALL COMPLY WITH THE 2012 NORTH CAROLINA MECHANICAL CODE, THE 2012 NORTH CAROLINA ENERGY CONSERVATION CODE, THE 2012 NORTH CAROLINA BUILDING CODE, AND OTHER APPLICABLE CODES.
- INSTALL EQUIPMENT TO ALLOW MAXIMUM POSSIBLE HEADROOM UNLESS SPECIFIC MOUNTING HEIGHTS ARE INDICATED
- INSTALL EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS IN EXPOSED INTERIOR SPACES, UNLESS OTHERWISE INDICATED.
- ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS
- INSTALL HVAC EQUIPMENT TO FACILITATE SERVICE, MAINTENANCE, AND REPAIR OR REPLACEMENT OF COMPONENTS. CONNECT EQUIPMENT FOR EASE OF REMOVAL, WITH MINIMUM INTERFERENCE TO OTHER INSTALLATIONS.
- PROVIDE ALL SUPPORTS REQUIRED TO INSTALL DUCTWORK, PIPING AND EQUIPMENT.
- ALL FLOOR-MOUNTED MECHANICAL EQUIPMENT SHALL BE MOUNTED ON 4" THICK CONCRETE HOUSEKEEPING PADS UNLESS NOTED OTHERWISE
- AIR FILTERS SHALL BE REPLACED IN ALL AIR HANDLING EQUIPMENT EMPLOYING SUCH PRIOR TO FINAL COMPLETION AND OWNER OCCUPANCY. ANY TEMPORARY FILTERS USED IN EQUIPMENT PRIOR TO TAB SHALL BE REPLACED WITH NEW FILTERS TO BE USED DURING TAB.
- ALL RETURN AND EXHAUST DUCT OPENINGS ASSOCIATED WITH MECHANICAL EQUIPMENT USED DURING CONSTRUCTION SHALL BE COVERED WITH ROLL TYPE FILTER MEDIA DURING SUCH TEMPORARY OPERATION. OPERATION OF THE MECHANICAL EQUIPMENT PRIOR TO FINAL COMPLETION SHALL NOT IMPACT THE EQUIPMENT WARRANTY. WARRANTY SHALL BE MINIMUM 1-YEAR FROM SUBSTANTIAL COMPLETION UNLESS SPECIFIED OTHERWISE.
- PROVIDE FLEXIBLE DUCT CONNECTION BETWEEN MOTOR DRIVEN MECHANICAL UNITS AND SHEET METAL SUPPLY, OUTDOOR AIR, EXHAUST, AND/OR RETURN AIR DUCTWORK
- BASIS OF DESIGN MECHANICAL EQUIPMENT IS AS SCHEDULED ON THE DRAWINGS. INSTALLING CONTRACTOR ASSUMES RESPONSIBILITY FOR COORDINATING PHYSICAL SPACE REQUIREMENTS OF EQUIVALENT CAPACITY MECHANICAL EQUIPMENT DEEMED ACCEPTABLE BY THE ENGINEER
- MECHANICAL EQUIPMENT FACTORY FINISH DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION PRIOR TO FINAL ACCEPTANCE
- DUCTWORK IS SHOWN IN SCHEMATIC FORM. ALL REQUIRED DUCT RISERS AND DROPS TO ALLOW GENERAL ROUTING DEPICTED MAY NOT BE SHOWN. PROVIDE OFFSETS AS REQUIRED TO MEET SPACE REQUIREMENTS AND TO AVOID INTERFERENCE WITH OTHER TRADES AND FIELD CONDITIONS, EXACT LOCATION OF THE DUCTWORK MAY VARY ACCORDING TO THE COORDINATED SPACE REQUIREMENTS. EACH TRADE SHALL BE TOTALLY RESPONSIBLE FOR COORDINATION WITH OTHER TRADES. NOTIFY ENGINEER OF CONDITIONS REPRESENTING SIGNIFICANT CHANGES TO THE DESIGNED ROUTING.
- COMPLY WITH NFPA 90A. "INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS." UNLESS OTHERWISE INDICATED.
- COMPLY WITH NFPA 90B, "INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS," UNLESS OTHERWISE INDICATED.
- FABRICATE RECTANGULAR DUCTS, ELBOWS, TRANSITIONS, OFFSETS, BRANCH CONNECTIONS, AND OTHER CONSTRUCTION WITH GALVANIZED, SHEET STEEL, ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE." COMPLY WITH REQUIREMENTS FOR METAL THICKNESS, REINFORCING TYPES AND INTERVALS, TIE-ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS.
- COORDINATE SIZE, QUANTITY, AND LOCATION OF ALL OPENINGS REQUIRED FOR DUCT AND PIPE PENETRATIONS THROUGH WALLS, FLOORS, AND ROOFS, WITH CONTRACTOR RESPONSIBLE FOR ROUGH FRAMING. COORDINATE LOCATION OF AIR INTAKES WITH EXHAUST AND PLUMBING VENTS SO THAT INTAKES ARE A MINIMUM OF 10 FEET FROM EXHAUST
- INSTALL DUCTS IN LONGEST LENGTH POSSIBLE AND FEWEST POSSIBLE JOINTS. INSTALL FABRICATED FITTINGS FOR CHANGES IN DIRECTIONS, CHANGES IN SIZE AND SHAPE, AND
- ROOF CURBS ON SLOPING ROOFS SHALL BE INSTALLED SUCH THAT THE EQUIPMENT ON THE CURB IS INSTALLED LEVEL
- INSTALL DUCTS, UNLESS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY, PARALLEL AND PERPENDICULAR TO BUILDING LINES; AVOID DIAGONAL RUNS UNLESS SPECIFICALLY INDICATED ON DRAWINGS.
- CEILING DIFFUSERS SHALL BE 4-WAY THROW TYPE, UNLESS NOTED OTHERWISE
- COORDINATE MECHANICAL CEILING DEVICES SUCH AS DIFFUSERS AND REGISTERS WITH LIGHT FIXTURES, FIRE ALARM DEVICES, AND OTHER CEILING DEVICES
- ELECTRICAL EQUIPMENT SPACES: ROUTE DUCTWORK TO AVOID PASSING THROUGH ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES. AVOID ROUTING DUCTWORK DIRECTLY ABOVE ELECTRICAL EQUIPMENT UNLESS SPECIFICALLY INDICATED ON THE MECHANICAL DRAWINGS.
- NON-FIRE-RATED PARTITION PENETRATIONS: WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS AND ARE EXPOSED TO VIEW IN MECHANICAL ROOMS, CONCEAL SPACE BETWEEN CONSTRUCTION OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME METAL THICKNESS AS DUCT. OVERLAP OPENING ON FOUR SIDES BY AT LEAST 1-1/2 INCHES UNLESS INDICATED OTHERWISE
- PROVIDE MANUAL VOLUME-CONTROL BALANCING DAMPER AT ALL BRANCH DUCTS AND AT ALL OTHER LOCATIONS REQUIRED FOR A COMPLETE AND BALANCEABLE AIR DISTRIBUTION SYSTEM. BALANCE ENTIRE AIR DISTRIBUTION SYSTEM TO AIRFLOW QUANTITIES INDICATED ON MECHANICAL DRAWINGS
- FLEXIBLE DUCTWORK SHALL BE ALLOWED ONLY IN POSITIVE PRESSURE APPLICATIONS AT SUPPLY BRANCH RUNOUTS TO DIFFUSERS ABOVE ACCESSIBLE CEILINGS. FLEXIBLE DUCTWORK SHALL NOT EXCEED 60" IN LENGTH. 90 DEGREE TURNS SHALL ONLY BE ALLOWED IF RETAINING BANDS EQUAL TO THERMAFLEX "FLEX-FLOW" ARE EMPLOYED. UNDER NO CIRCUMSTANCES SHALL FLEXIBLE DUCTWORK BE ALLOWED IN NEGATIVE PRESSURE APPLICATIONS.
- DELIVER PIPES AND TUBES WITH FACTORY-APPLIED END CAPS. MAINTAIN END CAPS THROUGH SHIPPING, STORAGE, AND HANDLING TO PREVENT PIPE END DAMAGE AND TO PREVENT ENTRANCE OF DIRT, DEBRIS, AND MOISTURE.
- COORDINATE PIPE ROUTINGS AND OPENINGS IN BUILDING STRUCTURE WITH ALL TRADES DURING PROGRESS OF CONSTRUCTION. COORDINATE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SET SLEEVES IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS AS THEY ARE CONSTRUCTED.
- INSTALL PIPING IN CONCEALED LOCATIONS, UNLESS OTHERWISE INDICATED AND EXCEPT IN EQUIPMENT ROOMS AND SERVICE AREAS. INSTALL PIPING INDICATED TO BE EXPOSED AND PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED UNLESS SPECIFICALLY INDICATED
- INSTALL PIPING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL.
- VERIFY FINAL EQUIPMENT LOCATIONS FOR ROUGH-IN.
- SYSTEMS SHALL OPERATE UNDER CONDITIONS OF LOAD WITHOUT UNUSUAL OR EXCESSIVE NOISE OR VIBRATION. UNUSUAL OR EXCESSIVE NOISE OR VIBRATION SHALL BE CORRECTED.
- PROVIDE DISCONNECT SWITCHES OR MAGNETIC MOTOR STARTERS FOR ALL DIVISION 23 EQUIPMENT. MAGNETIC MOTOR STARTERS SHALL COMPLY WITH SPECIFICATION SECTION 26 29 13. COORDINATE WITH DIVISION 26. REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.

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BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER

JOSEPH A. ANGELL II, PE, F. SAME

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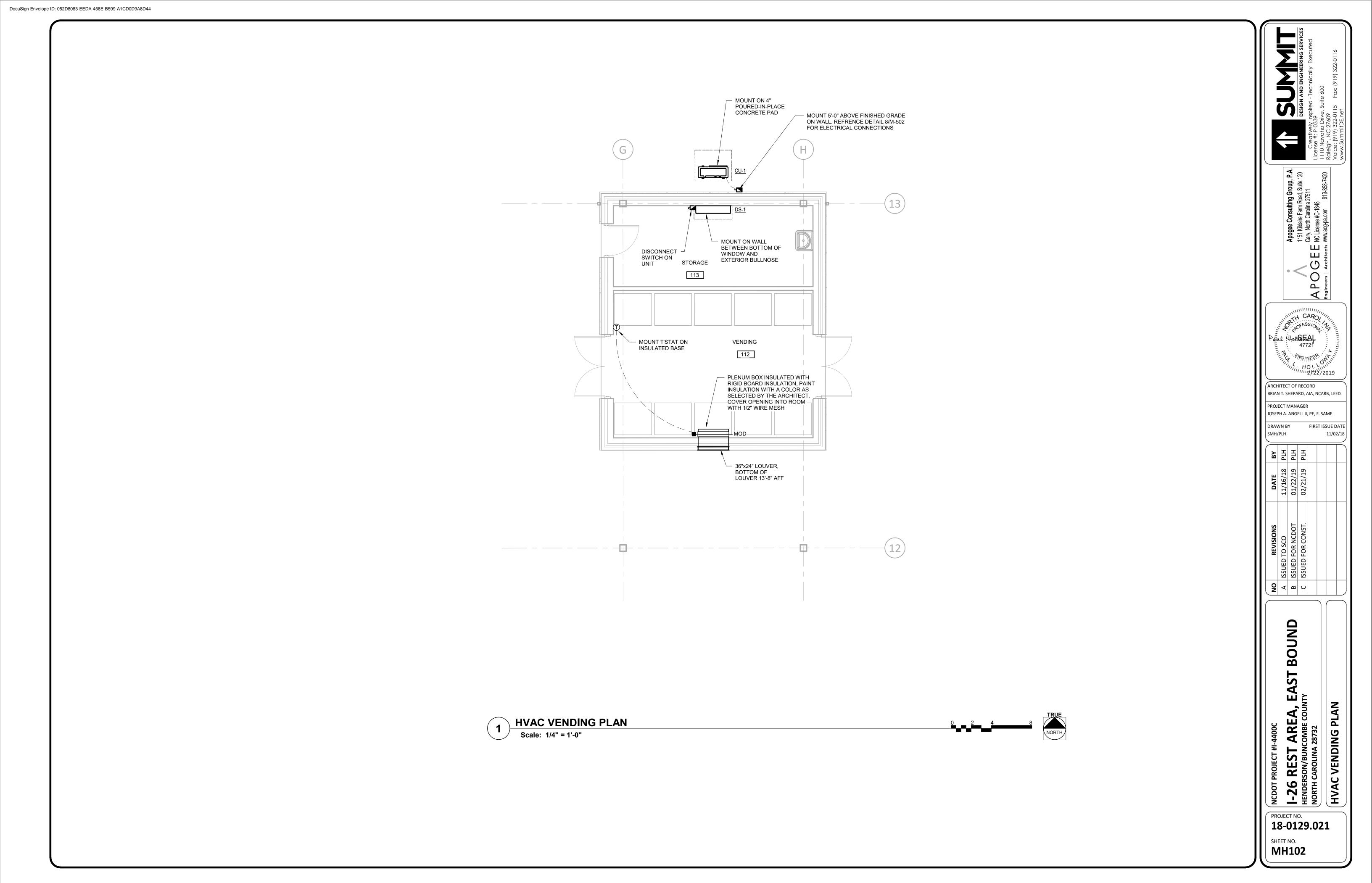
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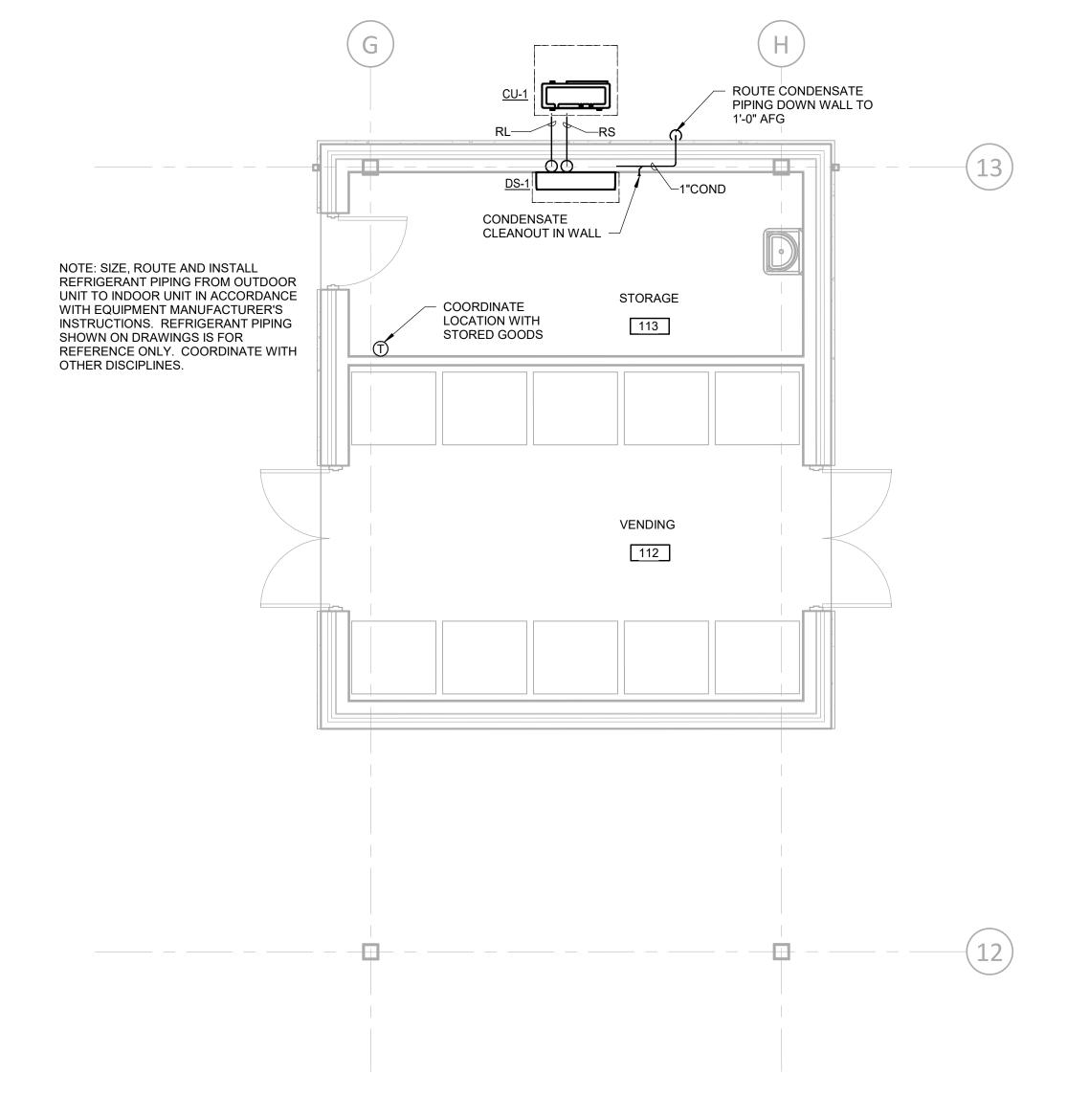
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Ш: ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE 11/02/18

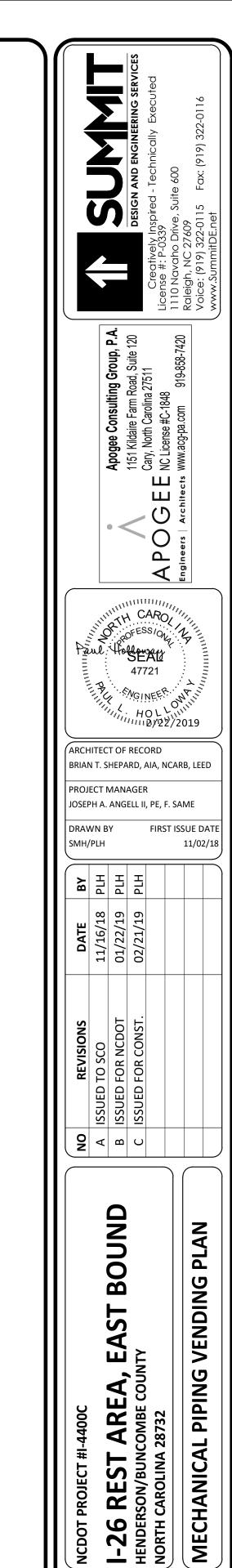
SHEET NO. **MP101**

Scale: 3/16" = 1'-0"



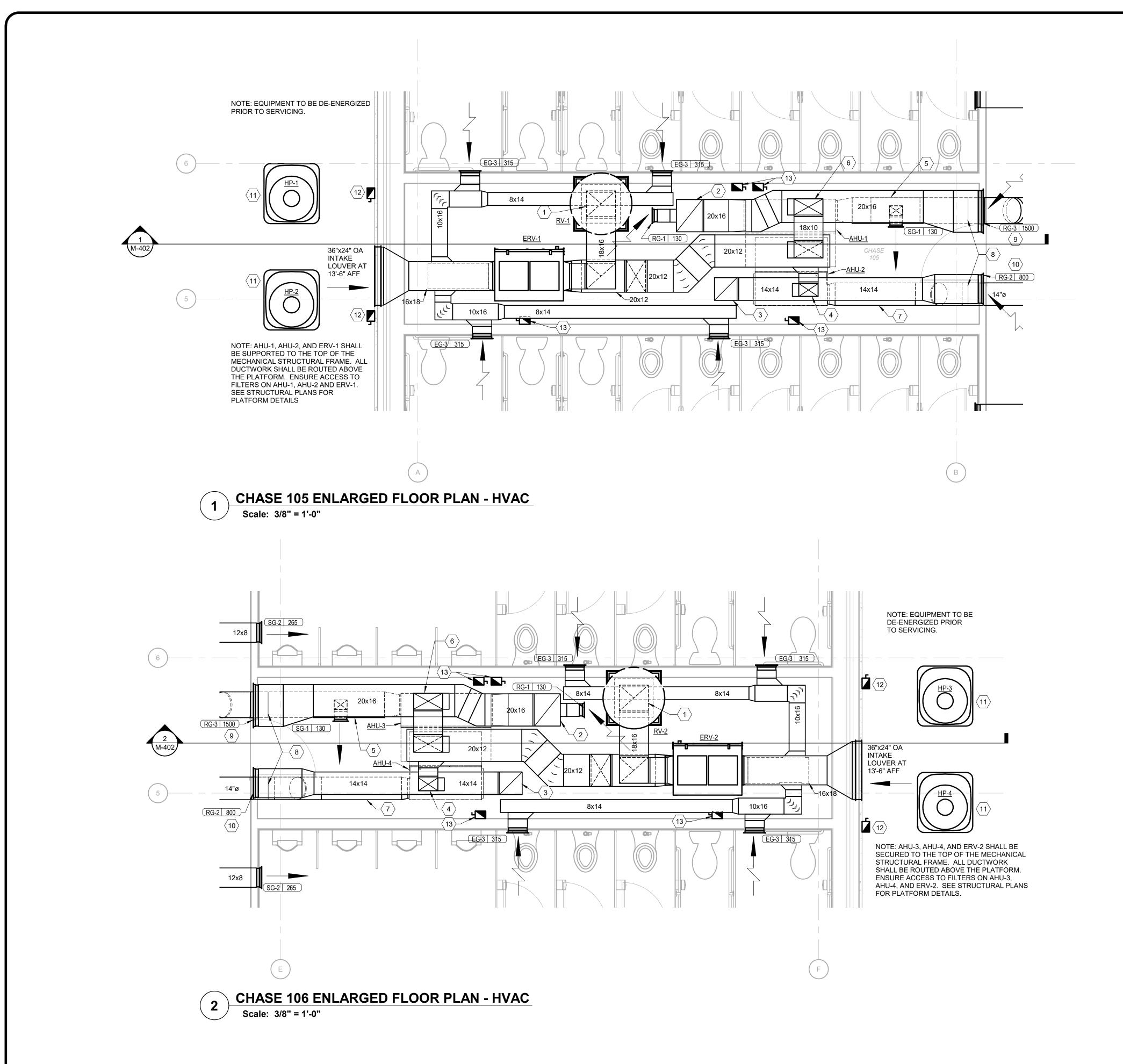






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MP102



KEYNOTES

NUMBER

16"x18" UP TO RV-1 ON ROOF. 20"x16" RETURN DUCT DN TO AHU-1 RETURN AIR

CONNECTION. 14"x14" RETURN DUCT DN TO AHU-2 RETURN AIR

CONNECTION. 12"x8" OUTSIDE AIR DUCT, CONNECT TO TOP OF RETURN DUCT. PROVIDE MANUAL BALANCING

450 CFM. 16" DIA SUPPLY DUCT BENEATH 20"x16" RETURN DUCT.

DAMPER IN VERTICAL, BALANCE OUTSIDE AIR TO

18"x10" OUTSIDE AIR DUCT, CONNECT TO TOP OF RETURN DUCT. PROVIDE MANUAL BALANCING DAMPER IN VERTICAL, BALANCE OUTSIDE AIR TO 970 CFM.

7 14" DIA SUPPLY DUCT BENEATH 14"x14" RETURN DUCT.

TRANSITION FROM SINGLE WALL ROUND TO

DOUBLE WALL ROUND AT THIS POINT. SCHEDULED RETURN AIRFLOW WILL OCCUR WHEN ERV IS DE-ENERGIZED. RETURN AIRFLOW WHEN ERV-1 IS ENERGIZED SHALL BE 570 CFM.

SCHEDULED RETURN AIRFLOW WILL OCCUR WHEN ERV IS DE-ENERGIZED. RETURN AIRFLOW WHEN ERV-1 IS ENERGIZED SHALL BE 350 CFM.

MOUNT 5'-0" ABOVE FINISHED GRADE ON WALL.

MOUNT OUTDOOR UNIT ON 4" POURED-IN-PLACE CONCRETE PAD.

REFRENCE DETAIL 8/M-502 FOR ELECTRICAL CONNECTIONS MOUNT 6'-0" ABOVE FINISHED FLOOR ON WALL.

REFRENCE DETAIL 8/M-502 FOR ELECTRICAL CONNECTIONS

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ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER

11/02/18

JOSEPH A. ANGELL II, PE, F. SAME

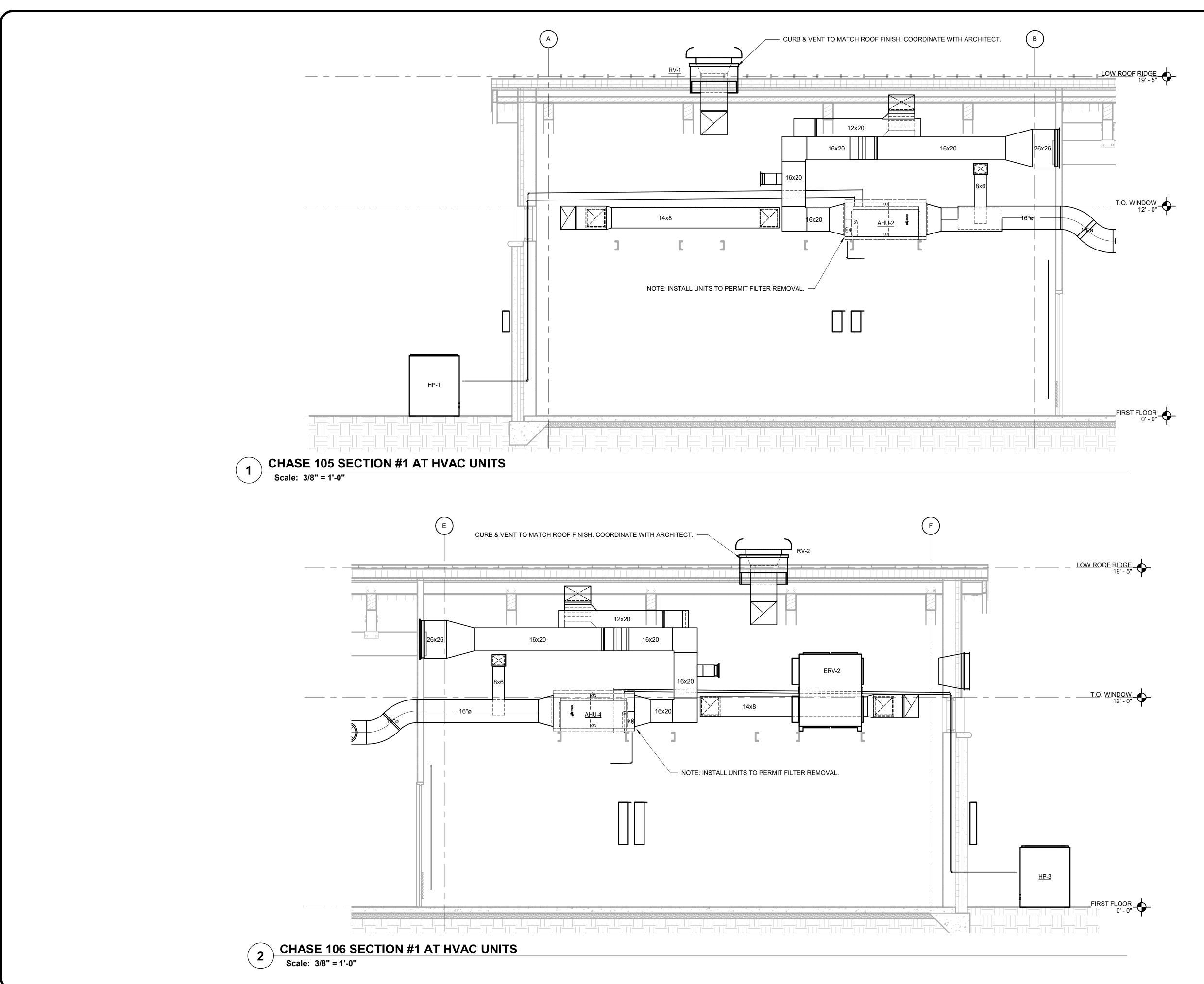
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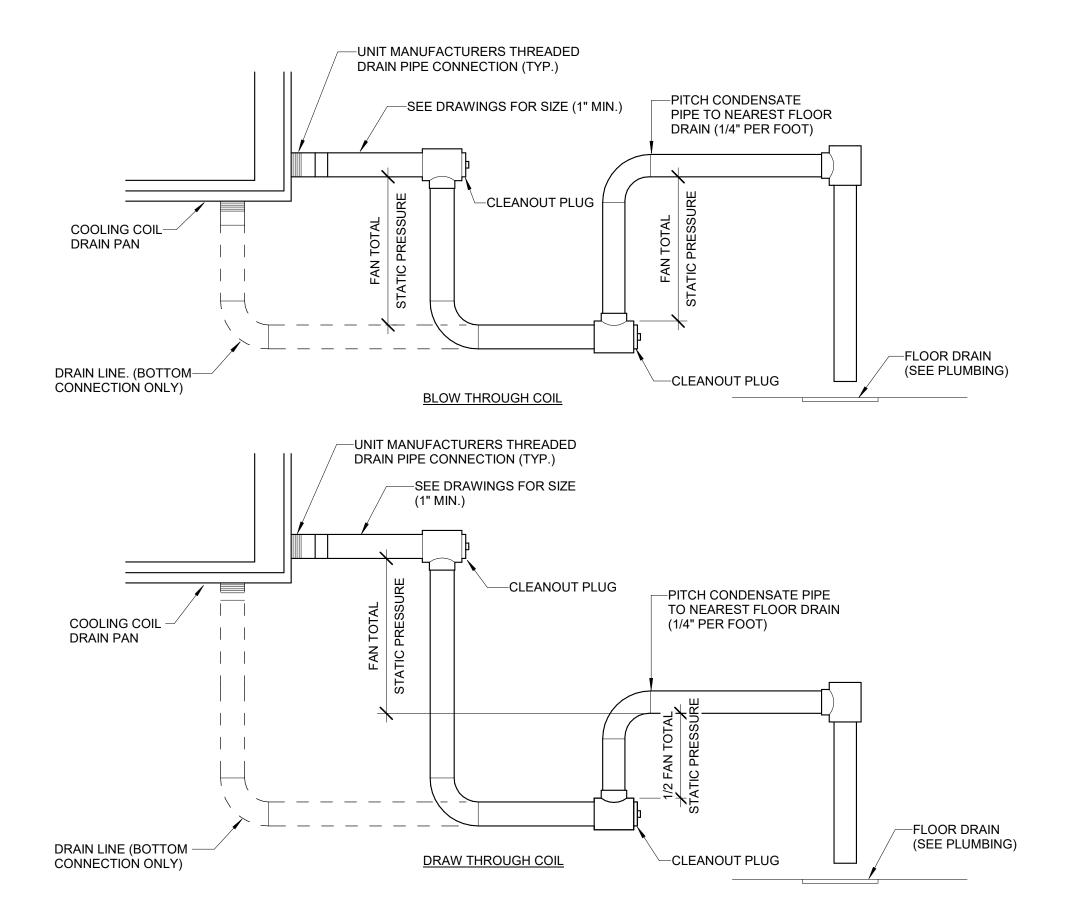
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ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER JOSEPH A. ANGELL II, PE, F. SAME FIRST ISSUE DATE DRAWN BY I-26 REST AREA, EAST BOUND HENDERSON/BUNCOMBE COUNTY NORTH CAROLINA 28732

18-0129.021

M-402



CONDENSATE DRAIN PIPING DETAIL

Scale: N.T.S.

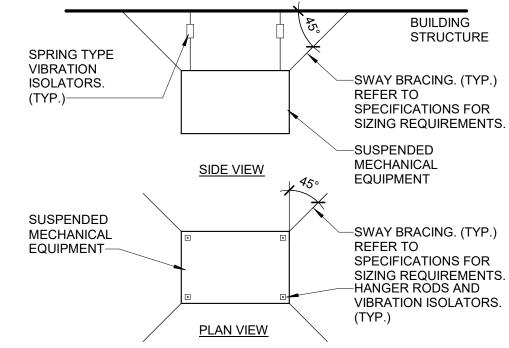
-FLOOR OR ROOF STRUCTURE. REFER TO STRUCTURAL DRAWINGS FOR TYPE ALL-THREAD HANGER -PROVIDE STEEL ANGLE SUPPORT WELDED OR SECURED TO BUILDING RODS (TYP. OF 4) STRUCTURE RUBBER-IN-SHEAR VIBRATION ISOLATOR BY TRANSITION AS REQUIRED UNIT MFR. (TYP.)-NOTE: REFER TO SUSPENDED EQUIPMENT SUPPORT DETAIL. RECTANGULAR OR ROUND DUCTWORK. REFER TO HVAC FLOOR PLANS FOR EXACT SIZE FLEXIBLE DUCT CONNECTION, AND ROUTING (TYP.) REFER TO FLEXIBLE DUCT CONNECTION DETAIL -DIRECT DRIVE FAN

-HANGER ROD -LOCKING NUT -SUPPORT NUT -HANGER ROD -LOCKING NUT -HEAVY DUTY CLEVIS -SUPPORT NUT HANGER HEAVY DUTY **CLEVIS HANGER** -INSULATION -14 GAUGE ZINC COATED SHEET STEEL SADDLE AT LEAST 6" LONG -14 GAUGE ZINC COATED SHEET STEEL SADDLE AT LEAST 6" LONG -INSULATION

PIPE HANGER (6" AND SMALLER) DETAIL

PIPE HANGER (6" AND SMALLER) DETAIL

Scale: N.T.S.

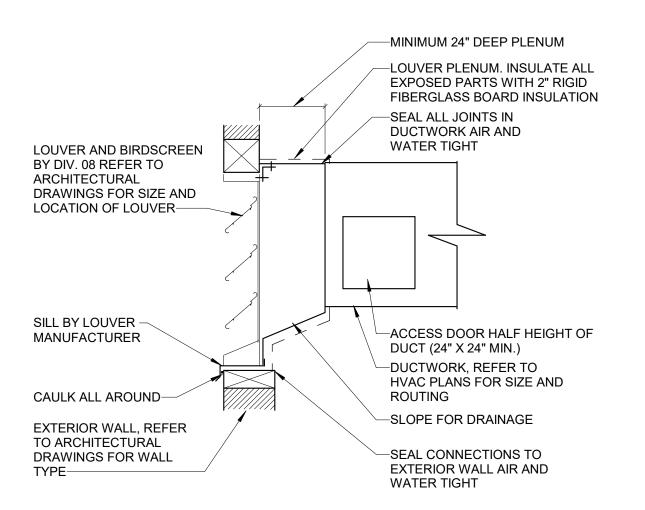


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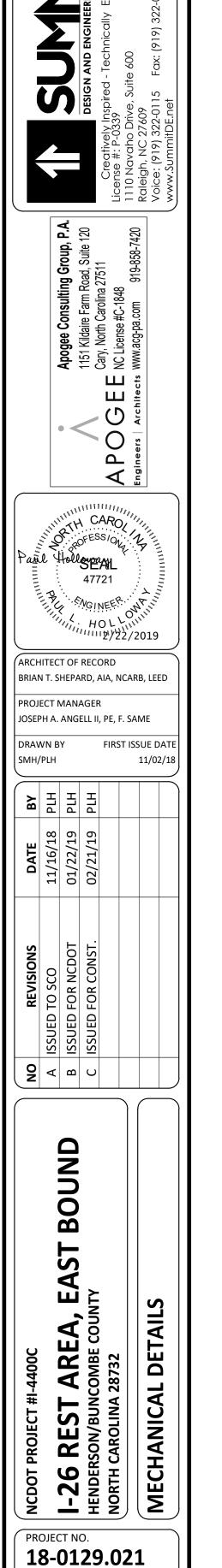
1. PROVIDE ALL ASSOCIATED HARDWARE FOR THE ATTACHMENT OF THE SWAY BRACING TO THE BUILDING STRUCTURE AND TO THE HANGING EQUIPMENT.

INSTALL SWAY BRACING TO AVOID BENDING ACROSS SHARP EDGES.
 SWAY BRACING SHALL BE INSTALLED WITH ADEQUATE SLACK TO ALLOW VIBRATION ISOLATION TO FUNCTION PROPERLY.

2 SUSPENDED EQUIPMENT SUPPORT DETAIL Scale: N.T.S.



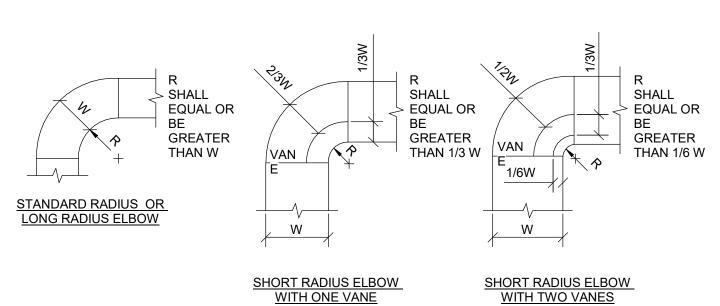




SHEET NO. **M-501**

5 IN-LINE EXHAUST FAN DETAIL

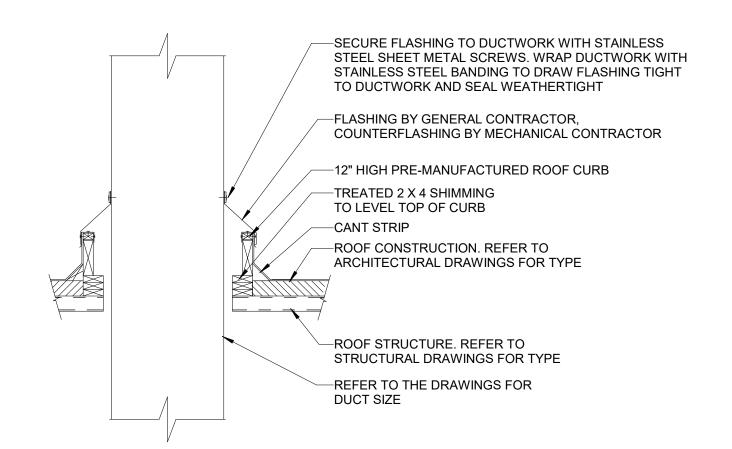
Scale: 1/8" = 1'-0"



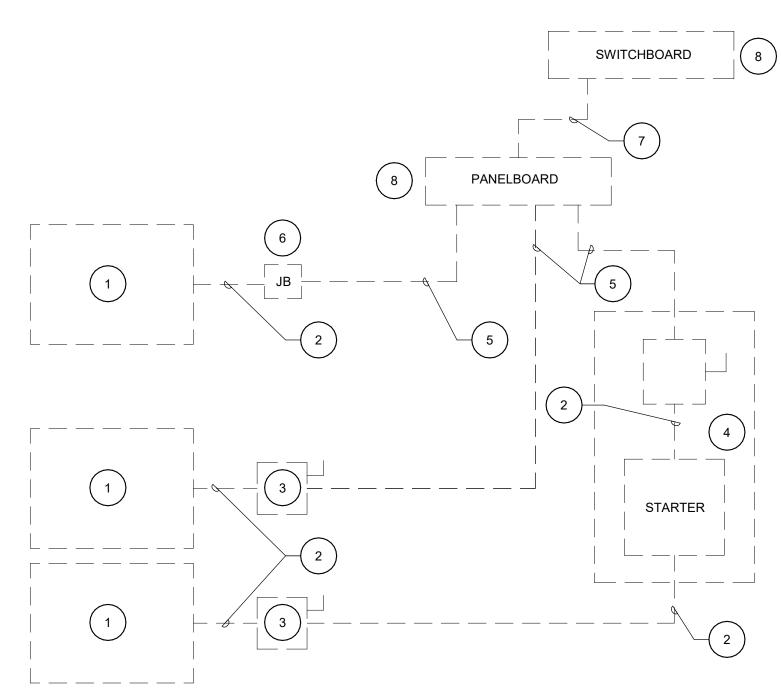
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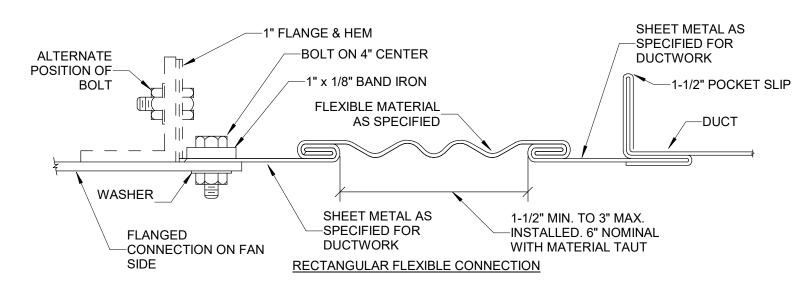
- 1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
- 2. ALL STANDARD ELBOWS MAY BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

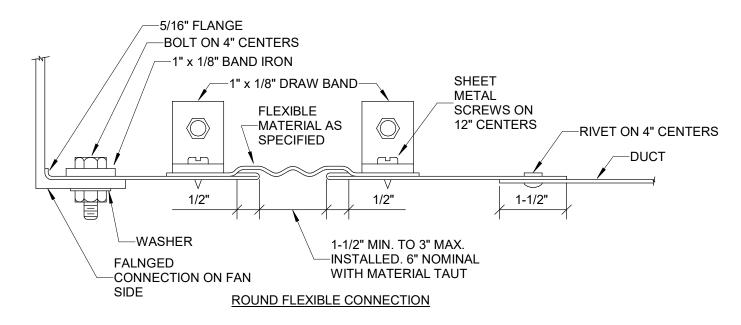
6 DUCTWORK RADIUS ELBOW SCALE: N.T.S.



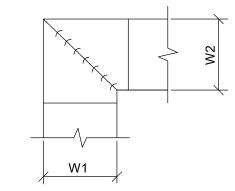
7 DUCTWORK ROOF PENETRATION DETAIL SCALE: N.T.S.











NOTES:

- 1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
- 2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
- 3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" RADIUS, 1-1/2" MAXIMUM SPACE BETWEEN VANES AND A 3/4" TRAILING EDGE.
- 4. WHEN W EQUAL W2 AND W1 IS GREATER THAN 20" VANES SHALL BE DOUBLE VANE TYPE.

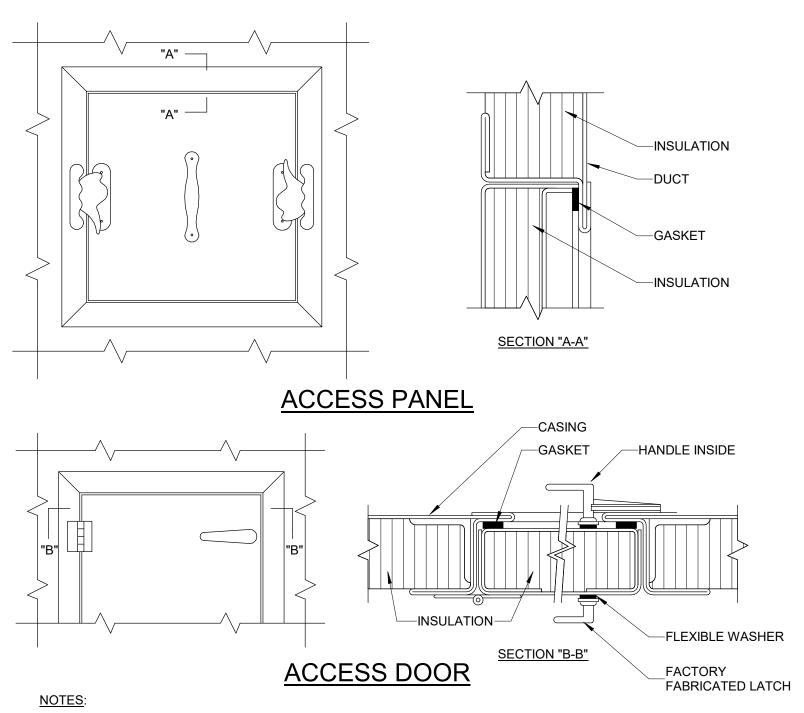
5 DUCTWORK SQUARE VANE ELBOWS

GENERAL NOTES:

- 1. THE PURPOSE OF THIS DIAGRAM IS TO INDICATE THE RESPONSIBILITIES OF THE DIVISION 23 AND DIVISION 26 CONTRACTORS. THIS DIAGRAM IS NOT INTENDED TO BE USED TO SHOW THE METHOD OF INSTALLATION OF WIRING, CONDUIT OR EQUIPMENT. DO NOT USE THIS DIAGRAM FOR PURPOSES OTHER THAN THE INTENDED PURPOSE STATED ABOVE.
- 2. COORDINATE WITH THE DIVISION 26 CONTRACTOR THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT, AS WELL AS THE SIZING AND ROUTING OF ALL CONDUIT.
- ALL WIRING AND CONDUIT SHALL BE SIZED, ROUTED AND INSTALLED IN ACCORDANCE WITH NEC AND THE APPLICABLE PORTIONS OF THE DIVISION 26 SPECIFICATIONS.
- 4. THE DIVISION 23 CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP,
- SEE SPECIFICATION SECTION 26 28 16 FOR DISCONNECT SWITCHES.
 REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.

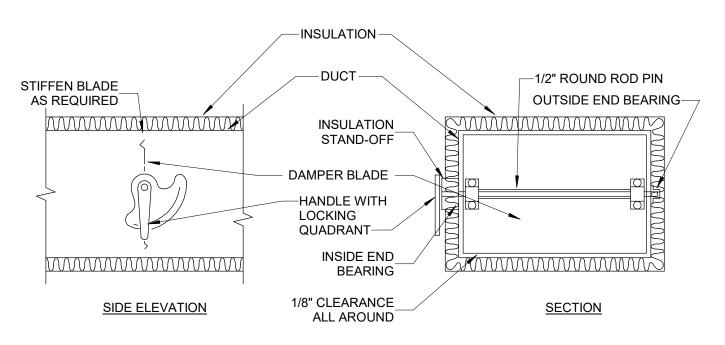
DIAGRAM KEY NOTES:

- 1. EQUIPMENT BY DIVISION 23.
- CONDUIT & WIRING BY DIVISION 23.
- 3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, OR IS CALLED FOR ON THE FLOOR PLANS, EQUIPMENT SCHEDULES, OR SPECIFICATIONS, IT SHALL BE PROVIDED AND INSTALLED BY THE DIVISION 23 EQUIPMENT CONTRACTOR.
- 4. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
- 5. FEEDER CIRCUIT WIRING AND CONDUIT BY DIVISION 26.
- 6. JUNCTION BOX BY DIVISION 26 (WHERE SHOWN ON PLANS).
- 7. WIRING AND CONDUIT BY DIVISION 26.
- 8. BY DIVISION 26.



- 1. LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS TIGHTLY.
- 2. HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROSIVE PINS.
- 3. SEE SMACNA 2005, FIGURE 9-16

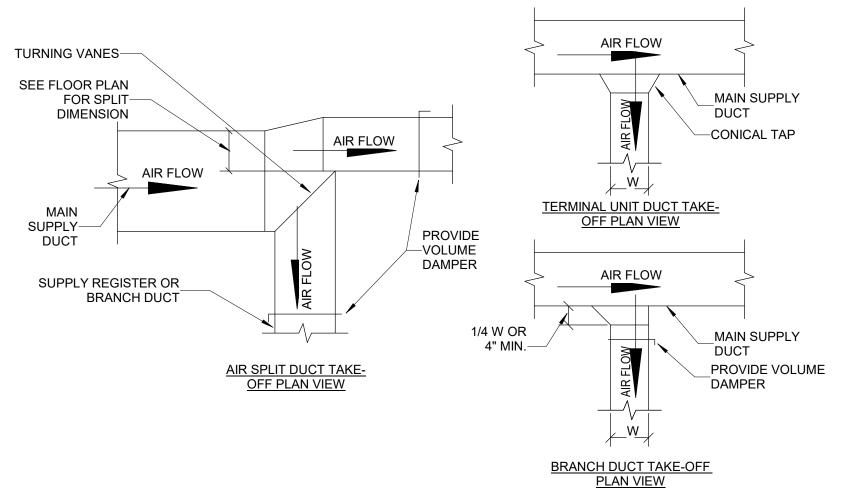
1 ACCESS PANEL AND DOOR DETAIL SCALE: N.T.S.



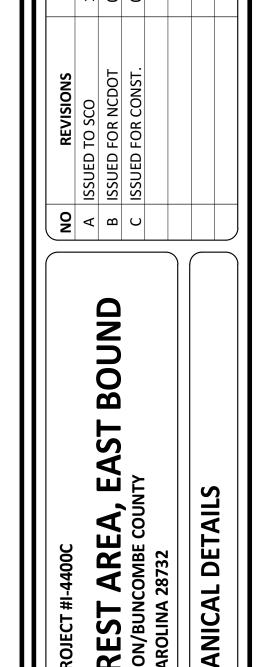
NOTES:

- 1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
- 2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.









1-26 HENDER NORTH

18-0129.021

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ARCHITECT OF RECORD

PROJECT MANAGER

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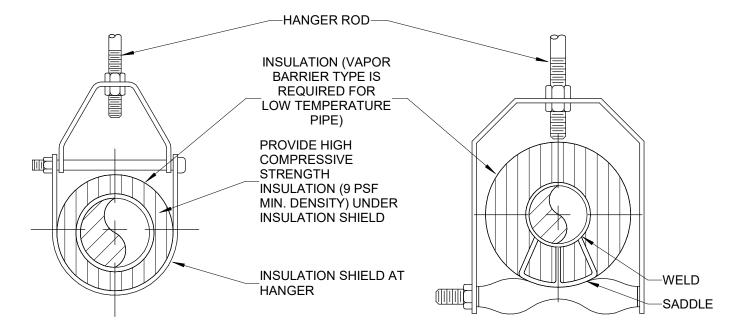
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JOSEPH A. ANGELL II, PE, F. SAME

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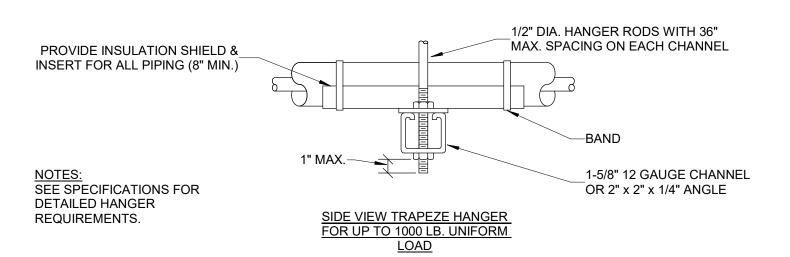
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8 ELECTRICAL EQUIPMENT CONNECTION MECHANICAL DETAIL
SCALE: 1/4" = 1'-0"



ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS

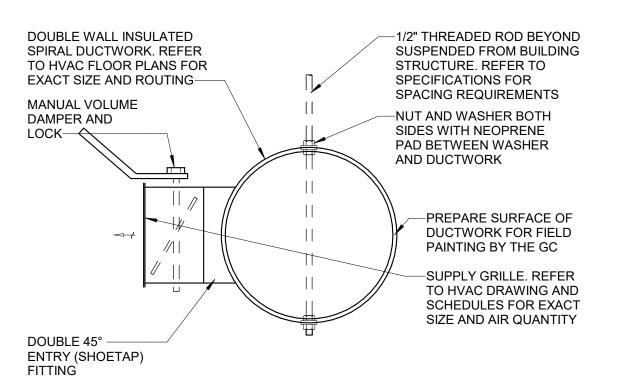
ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS



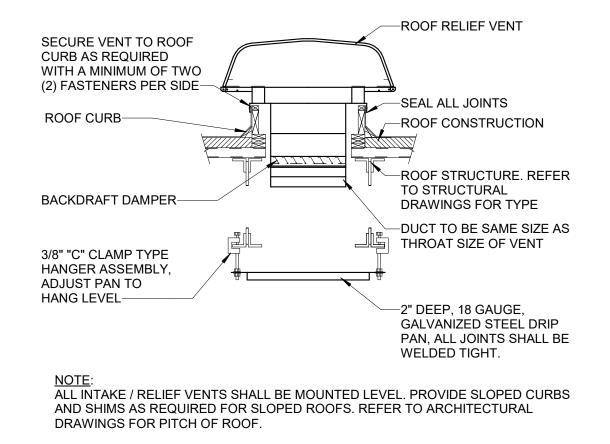
MAXIMUM PIPE/TUBING SUPPORT SPACING													
NOM. SIZE (IN.)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
PIPE (FT.)	7	7	7	9	10	11	12	14	16	17	19	22	23
TUBING (FT.) 5 FT 6 7 8 8 9 10 12 13 14 16													
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE													

PIPE HANGER

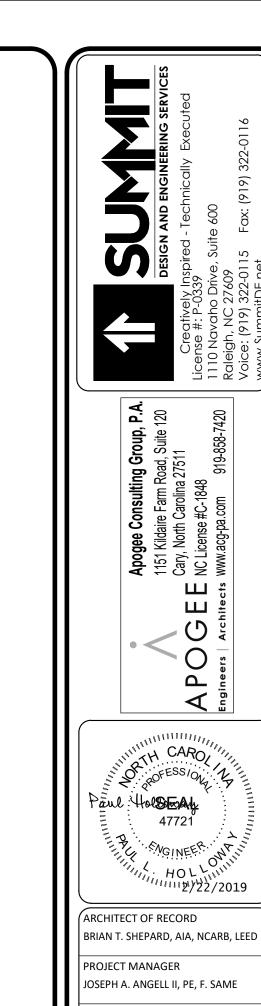
SCALE: N.T.S.



EXPOSED SUPPLY GRILLE AND DUCTWORK DETAIL



2 RELIEF VENT INSTALLATION DETAIL
Scale: N.T.S.



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AREA, EAST BOUND
ICOMBE COUNTY

I-26 REST ARE, HENDERSON/BUNCOMBE C NORTH CAROLINA 28732

PROJECT NO. **18-0129.021**SHEET NO.

M-503

					IND	OOR EN	ERGY F	RECOVE	RY VEN	ITILATIO	ON UN	ITS				
	Ol	UTSIDE AIR	TOTAL ENERGY RECOVERY CORE				E	(HAUST AIR								
	AIRFLOW	FAN POWER	ESP	SUMI	MER CONDITI	ONS	WIN	ITER CONDITI	ONS	AIRFLOW	FAN POWER	ESP	ELECTF	RICAL		
MARK	CFM	HP	IN. W.G.	OA EAT, °F DB/WB	OA LAT, °F DB/WB	EA EAT, °F DB/WB	OA EAT, °F DB/WB	OA LAT, °F DB/WB	EA EAT, °F DB/WB	CFM	HP	IN. W.G.	V/Ph/Hz	MOP	MODEL # (RENEWAIRE)	REMARKS
ERV-1	1,420	1	0.25	88/72	79.9/68.0	75/62.6	15/12	49.4/39.3	70/54	1,260	1	0.35	240/1/60	15	HE1.5XINH	1, 2, 3, 4
ERV-2	1,420	1	0.25	88/72	79.9/68.0	75/62.6	15/12	49.4/39.3	70/54	1,260	1	0.35	240/1/60	15	HE1.5XINH	1, 2, 3, 4
REMARKS	:					•						•		•		

- 1. PROVIDE UNIT WITH SINGLE POINT POWER CONNECTION AND DISCONNECT SWITCH.
- 2. PROVIDE UNIT WITH WITH ELECTRONICALLY COMMUTATED (EC) MOTORS WITH MOTOR-MOUNTED POTENTIOMETER.
- 3. PROVIDE 2" MERV 8 FILTER AND PREWIRED MOTORIZED DAMPERS IN OUTSIDE AIR AND EXHAUST AIR STREAMS.
- 4. PROVIDE 30 AMP DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

EXHAUST FANS												
			505 III			МОТО	ЭR	ELECTRICAL	MODEL #			
MARK	MARK TYPE CFM W.C. RPM MAX SONES HP RPM V/Ph (GREENHECK) REMARKS											
EF-1	EF-1 INLINE CENTRIFUGAL 200 0.25 1,592 5.1 1/10 1,725 115/1 SQ-70-VG 1, 2, 3											
EF-2	EF-2 INLINE CENTRIFUGAL 350 0.25 1,576 6.4 1/10 1,725 115/1 SQ-80-VG 1, 2, 3											
REMARKS	S:											
1. DIREC	CT DRIVE FAN. PROVIDE MO	TOR DISC	ONNECT SI	WITCH.								
2. PROVIDE ELECTRONICALLY COMMUTATED (EC) MOTOR WITH POTENTIOMETER ON MOTOR FOR ADJUSTING MOTOR SPEED.												
3. PROVI	IDE FAN WITH WALL-MOUNT	red motic)N DETECT	OR.								

NOTE: FOR EQUIPMENT CONDUCTOR SIZES REFRENCE E-601.

						IN	DOOR S	PLIT SY	STEM	HEAT P	UMP AIR HA	NDLING	UNITS				
	SI	JPPLY FAN			DX COC	DLING COIL		HEAT F	PUMP HEAT	ING	ELECTRIC HEAT		ELECTRICAL	-			
l	TOTAL AIRFLOW	FAN POWER	ESP	TOTAL	SENSIBLE	EAT	LAT	TOTAL			CAPACITY		CIRCUIT #1	CIRCUIT #2	MAX. WEIGHT	MODEL#	
MARK	CFM	HP	IN. W.G.		MBH	°F DB/WB	°F DB/WB	MBH	EAT, °F	LAT, °F	kW/kW	V/Ph/Hz	MCA/MOP	MCA/MOP	(LBS)	(TRANE)	REMARKS
AHU-1	1,500	3/4	0.6	48.7	35.2	80/67	57.9/56.3	48.0/30.4	60	89.6	9.6/4.8	240/1/60	59/60	25/25	200	TEM6A0C48	1, 2, 3, 4, 5, 6, 7, 9
AHU-2	800	1/3	0.4	25.0	18.8	80/67	57.9/56.7	24.2/15.3	60	88.0 7.68/ 240/1/60 44/45 200 TEM6ACB30 1							1, 2, 3, 4, 5, 6, 7, 8
AHU-3	1,500	3/4	0.6	48.7	35.2	80/67	57.9/56.3	48.0/30.4	60	89.6	9.6/4.8	240/1/60	59/60	25/25	200	TEM6A0C48	1, 2, 3, 4, 5, 6, 7, 9
AHU-4	800	1/3	0.4	25.0	18.8	80/67	57.9/56.7	24.2/15.0	60	88.0	7.68/	240/1/60	44/45		200	TEM6ACB30	1, 2, 3, 4, 5, 6, 7, 8
REMARKS:				1		1											
. AIR HAI	NDLING UNIT	SHALL HAVE	SINGLE F	POWER C	ONNECTION.					2. HEATING	G CAPACITIES ARE B	BASED ON 47 D	EG. F OUTDOOR	AMBIENT AND 1	7 DEG. F. OUT	DOOR AMBIEN	Т.
. COOLIN	G CAPACITY I	S BASED ON	N 95 DEG.	F OUTDO	OR AMBIENT.					4. PROVID	E FILTER RACK WITH	H 1" MERV 8 FIL	TER.				
. ELECTR	RICAL HEATER	S SHALL HA	VE INTEG	RAL CIRC	UIT BREAKER	S.				6. PROVIDE OVERFLOW SWITCH IN CONDENSATE DRAIN PAN.							
7. SUPPLY	ELECTRICAL HEATERS SHALL HAVE INTEGRAL CIRCUIT BREAKERS. SUPPLY FAN MOTOR SHALL BE VARIABLE SPEED ELECTRONICALLY COMMUTATED MOTOR.									8. PROVIDE 60 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.							

4. HEATING CAPACITIES BASED ON 47 DB AND 17 DB OUTDOOR AMBIENT.

			COOLING			HEAT	ING		ELEC.	TRICAL		
		TOTAL COOLING CAPACITY	AMBIENT TEMP	EFFICIENCY	TOTAL HEATING CAPACITY	AMBIENT TEMP	EFFECI	IENCY				
MARK	REFRIGERANT	MBH	°F DB/WB	EER/SEER	MBH	°F	COP	HSPF	V/Ph/Hz	MCA/MOP	MODEL # (TRANE)	REMARKS
HP-1	410A	48.0	95/75	13/17	48.7/30.4	47/17	4.1/2.8	9.5	240/1/60	28/45	4TWR7048	1, 2, 3, 4, 5
HP-2	410A	25.0	95/75	13/17	24.2/15.3	47/17	3.9/2.5	9.0	240/1/60	15/25	4TWR7024	1, 2, 3, 4, 6
HP-3	410A	48.0	95/75	13/17	48.7/30.4	47/17	4.1/2.8	9.5	240/1/60	28/45	4TWR7048	1, 2, 3, 4, 5
HP-4	410A	25.0	95/75	13/17	24.2/15.3	47/17	3.9/2.5	9.0	240/1/60	15/25	4TWR7024	1, 2, 3, 4, 6

5. PROVIDE 60 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS. 6. PROVIDE 30 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

9. PROVIDE 60 AMP - 2 POLE (CIRCUIT #1), AND 30 AMP - 2 POLE (CIRCUIT #2), DISCONNECT SWITCHES, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCHES CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

GRAVITY RELIEF ROOF VENTS											
MARK	FREE AREA. SQ. FT.	AIRFLOW, CFM	THROAT DIA., IN.	DAMPER	MODEL # (GREENHECK)	REMARKS					
RV-1	1.83	1,260	20-1/4	NO	GRSR 24	1, 2					
RV-2	1.83	1,260	20-1/4	NO	GRSR 24	1, 2					
REMARKS	S:		1			-					
1. MOUNT VENT ON 8" HIGH ROOF CURB. CURB SHALL MATCH SLOPE OF ROOF.											
2. VENT SHALL HAVE INTEGRAL BIRD SCREEN.											

3. MOUNT UNIT ON 4" POURED-IN-PLACE CONCRETE PAD.

AIR DEVICE SCHEDULE (SUPPLY)											
			PANEL/ FRAME SIZE	NECK SIZE	ΜΑΧ ΔΡ			MODEL#			
MARK	TYPE	MATERIAL	INxIN	IN	IN. W.C.	MAX NC	DAMPER	(PRICE)	REMARKS		
SG-1	SURFACE-MOUNTED REGISTER	STEEL	10x8	8x6	0.1	25	YES	520D/F/S/A	1, 2		
SG-2	SURFACE-MOUNTED REGISTER	STEEL	14x10	12x8	0.1	25	YES	520D/F/S/A	1, 2		
SG-3	SURFACE-MOUNTED REGISTER	STEEL	20x12	18x10	0.1	25	YES	520D/F/S/A	1, 2		
REMARKS	S:	I			1	I					

REMARKS: 1. FINISH COLOR AS SELECTED BY ARCHITECT.

2. PROVIDE SURFACE MOUNTING FRAME.

AIR DEVICE SCHEDULE (EXHAUST)											
			PANEL/ FRAME SIZE	NECK SIZE	ΜΑΧ ΔΡ			MODEL#			
MARK	TYPE	MATERIAL	INxIN	IN	IN. W.C.	MAX NC	DAMPER	(PRICE)	REMARKS		
EG-1	DUCT-MOUNTED GRILLE	STEEL	8x8	6x6	0.05	20	NO	530/F/L/A			
EG-2	DUCT-MOUNTED GRILLE	STEEL	10x10	8x8	0.05	20	NO	530/F/L/A			
EG-3	SURFACE-MOUNTED GRILLE	STEEL	14x14	12x12	0.05	20	NO	530/F/L/A			
EG-4	SIDE WALL GRILLE	STEEL	8x8	8x6	0.05	20	NO	530/F/L/A			
EG-5	DUCT-MOUNTED GRILLE	STEEL	8x8	8x6	0.05	20	NO	530/F/L/A			
REMARKS	:			<u> </u>							

			PANEL/ FRAME SIZE	NECK SIZE	ΜΑΧ ΔΡ			MODEL#	
MARK	TYPE	MATERIAL	INxIN	IN	IN. W.C.	MAX NC	DAMPER	(PRICE)	REMARKS
RG-1	SURFACE-MOUNTED REGISTER	STEEL	10x10	8x8	0.05	20	YES	530D/F/L/A	
RG-2	SURFACE-MOUNTED GRILLE	STEEL	20x20	18x18	0.05	20	NO	530/F/L/A	
RG-3	SURFACE-MOUNTED GRILLE	STEEL	28x28	26x26	0.05	20	NO	530/F/L/A	

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DUCTLESS SPLIT SYSTEM INDOOR UNITS ELECTRICAL TOTAL TOTAL SENSIBLE COOLING COOLING HEATING HEATING CAPACITY CAPACITY EAT CAPACITY EAT MBH °F DB/WB MBH °F DB/WB MOP MARK TYPE REFRIGERANT CFM (HI/LO) V/Ph MODEL # (DAIKIN) REMARKS DS-1 WALL MOUNTED 410A 70/60 240/1 0.4/15 FAQ18PVJU 500/400 18 13.7 80/67 20 1, 2, 3

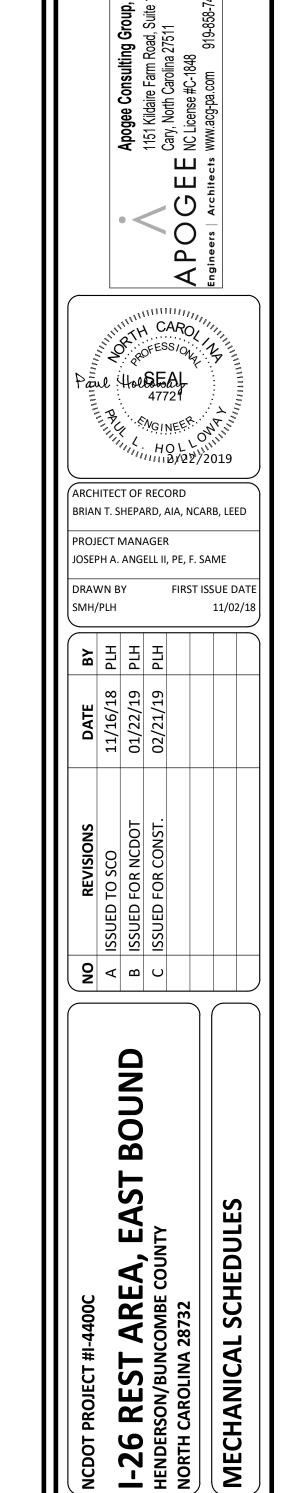
REMARKS:

- 1. SIZE, ROUTE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S INSTRUCTIONS.
- 2. PROVIDE WALL-MOUNTED 7-DAY PROGRAMMABLE THERMOSTAT.
- 3. PROVIDE 30 AMP 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

	DUCTLESS SPLIT SYSTEM OUTDOOR UNITS												
		TOTAL COOLING	SENSIBLE COOLING	COOLING AMBIENT	TOTAL HEATING	HEATING AMBIENT	EFFIC	IENCV	ELECT				
MARK	REFRIGERANT	MBH	MBH	°F DB/WB	MBH	°F DB/WB	EER	SEER	V/Ph	MCA/ MOP	MODEL # (DAIKIN)	REM	IARKS
CU-1	410A	18	13.7	95/75	20	47/43	12.7	18.6	240/1	16.5/20	RZQ18PVJU8	1, 2, 3, 4	

REMARKS:

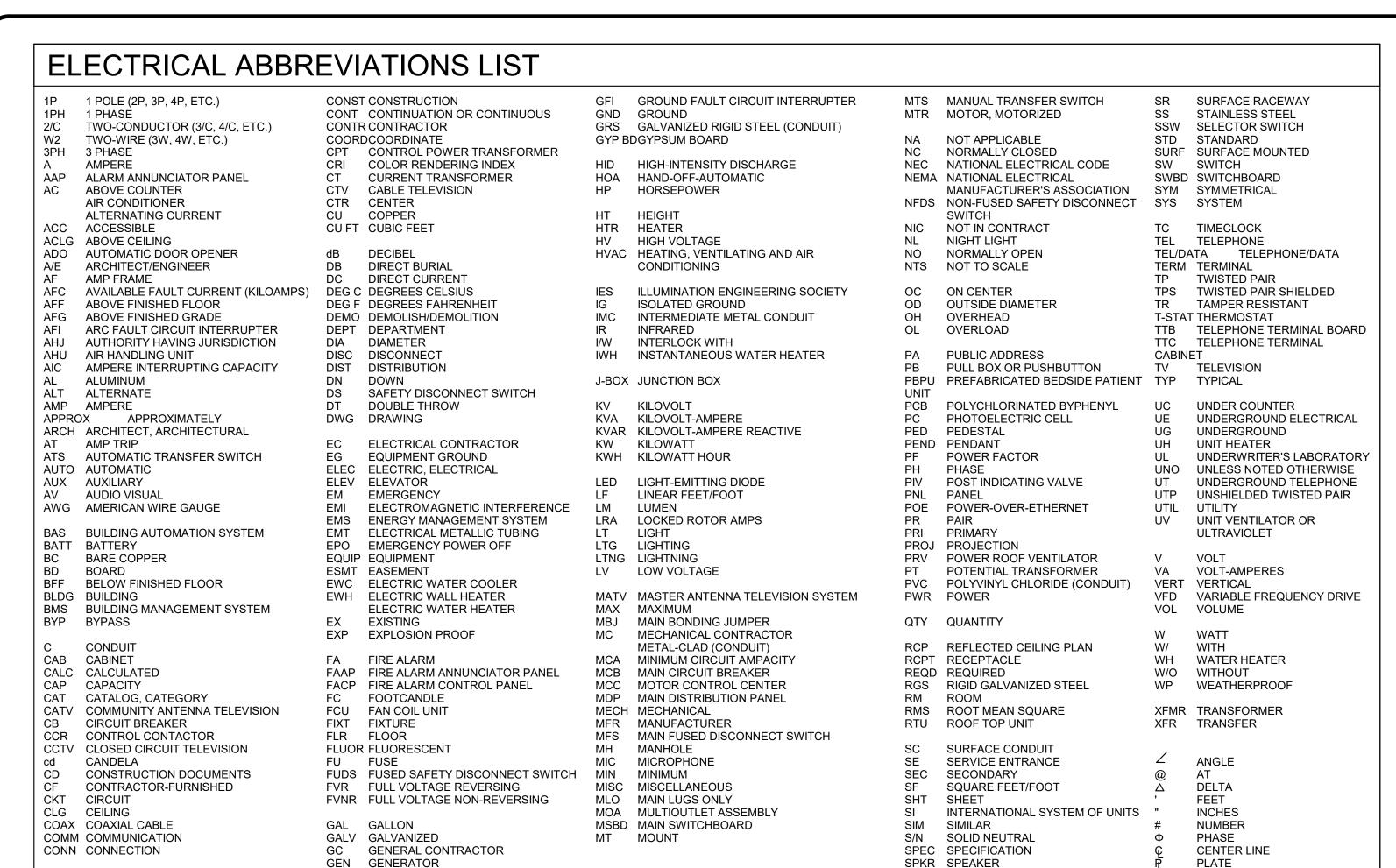
- 1. SIZE, ROUTE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S INSTRUCTIONS.
- 2. UNIT SHALL BE CAPABLE OF COOLING DOWN TO 23°F AMBIENT TEMPERATURE WITHOUT A WIND BAFFLE.
- 3. INSTALL UNIT ON 4" HIGH POURED-IN-PLACE CONCRETE PAD.
- 4. PROVIDE 30 AMP 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

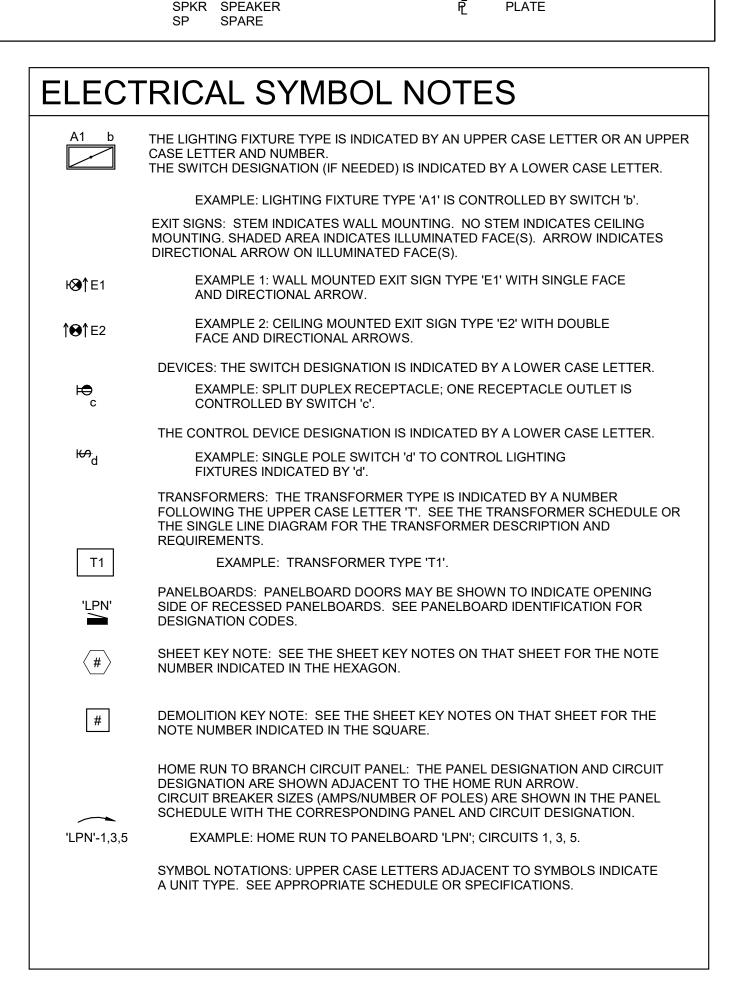


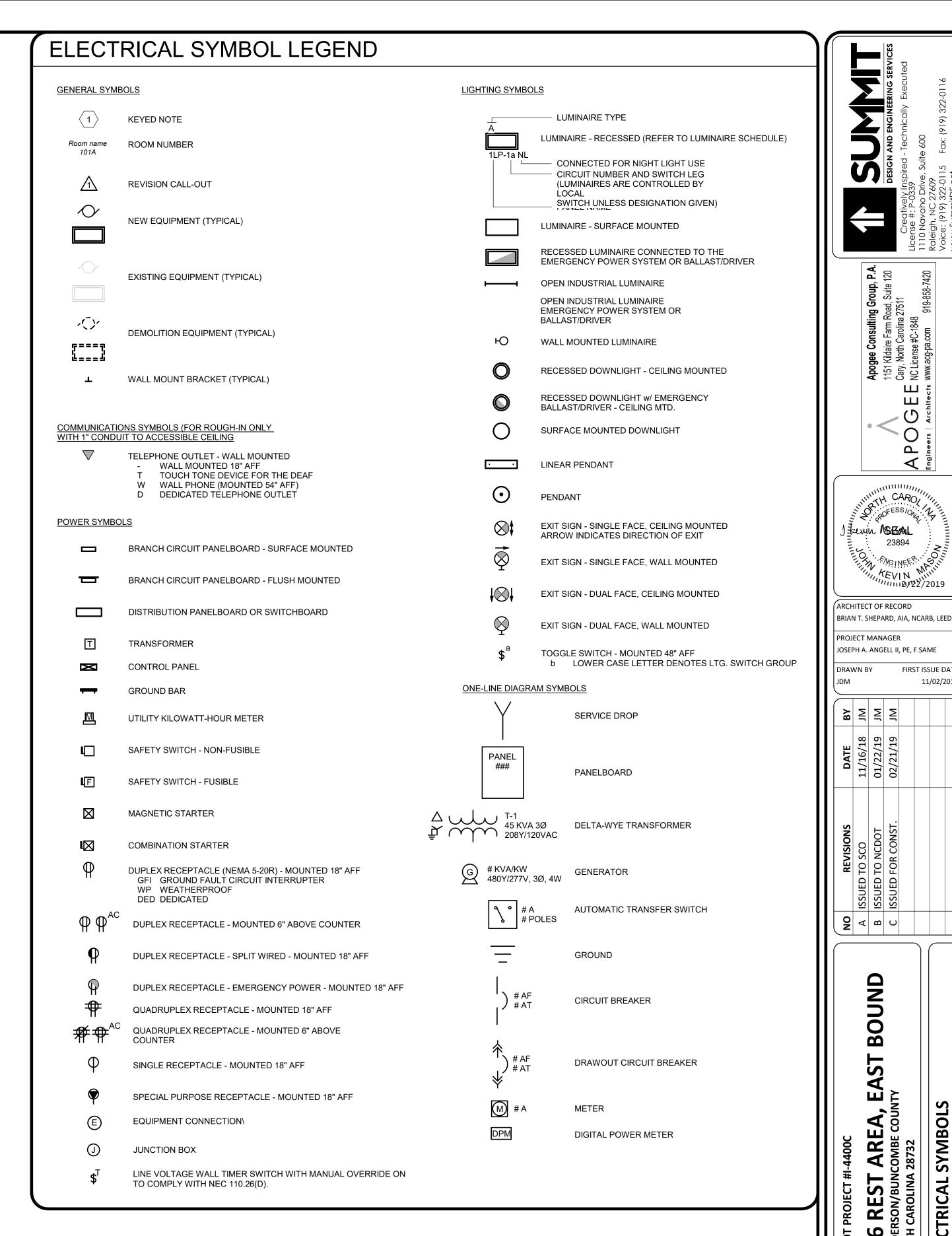
MECHANICAL SCHEDULES

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SHEET NO. **M-602**







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SHEET NO. E-001

	LUMINAIRE SCHEDULE												
TYPE	MANUFACTURER	CATALOG NUMBER	LAMP DESCRIPTION	VOLTAGE	LOAD (VA)	FINISH	MOUNTING	DESCRIPTION					
Α	FLUXWERX	APS-RD-B-35-B-06-S-F1-M-06	LED	120 V	21	BLACK	LINEAR PENDANT	6' LED LINEAR LED PENDANT MOUNT LIGHT					
В	COLUMBIA	CFP24-4135-HE	LED	120 V	34	MATTE WHITE	CABLE MOUNT	2'X4' EDGE LIT PANEL WITH CABLE MOUNTING KIT					
С	KENALL	MLHA84FMWCP45L40KDCC120	LED	120 V	50	MATTE WHITE	SURFACE	4' LED INDUSTRIAL STRIP					
C2	VODE	707-Z2-SL-57/0-36-M-0-RP-AE-1-0-Z-HO-40-A1-0-WH-0	LED	120 V	565	WHITE	SURFACE	57' 3' SECTION LINEAR LED LIGHTS					
D1	PRESCOLITE	LF4SL-4LFSL15L40KSPBL	LED	120 V	10	BLACK	RECESSED	4" RECESSED LED WET-LOCATION RATED DOWNLIGHT					
D2	PRESCOLITE	LF4SL-4LFSL20L40KSPBL	LED	120 V	10	BLACK	RECESSED	4" RECESSED LED WET-LOCATION RATED DOWNLIGHT					
E1	LITHONIA	LED-X-EM-R-WA-TR	LED	120 V	7.2	WHITE	WALL MOUNT	CONTEMPORARY LED EXIT SIGN, WHITE WITH ALUMINUM HOUSING, BRUSHED ALUMINUM FACE, RED LETTERS, AND CHEVRON ARROWS AS SHOWN ON PLANS. FACE LIGHTING AS SHOWN ON PLANS.					
Н	LUMINIS	CL672 L504W100-120-DGT-CAT2-FT6-K35	LED	120 V	100	GUNMETAL	PENDANT	75" LED PENDANT FIXTURE					
J	LUMINIS	SY802-L2W30r1-DGT-PH	LED	120 V	62	GUNMETAL	WALL	UP/DOWN LED OUTDOOR WALL SCONCE					
NOTES:	A. FOR CONTINUOUS FIXTURES,	COORDINATE WITH SUPPLIER ON LENGTH AND REQUIRED FI	TTINGS, AND INSTALL WITH UN	IFORM ILLUMINA	ATION ALONG F	IXTURE INCLUDI	NG CORNERS.						
	B. REMOVE ALL FINGER PRINTS F	FROM LENSES, REFLECTORS, AND LOUVERS FOLLOWING LIG	HT FIXTURE INSTALLATION.										

C. FIXTURES FROM MANUFACTURERS OTHER THAN THOSE LISTED SHALL BE ACCEPTABLE PROVIDED THAT THEY ARE SIMILAR IN APPEARANCE AND ARE EQUAL IN QUALITY AND PHOTOMETRY.

METHOD OF SHORT CIRCUIT

CURRENT CALCULATIONS

D. EXTERIOR LIGHTING CIRCUITS SHALL BE PHOTOCELL CONTROLLED.

SHORT CIRCUIT CURRENT CALCULATIONS WILL BE PERFORMED ON THE ELECTRICAL SYSTEM USING A BOLTED THREE PHASE FAULT CONDITION FOR CALCULATIONS TO ACHIEVE MAXIMUM THERMAL AND MECHANICAL STRESS TO THE SYSTEM FOR CALCULATIONS PURPOSES. EXISTING SHORT CIRCUIT VALUES WILL BE USED OUTSIDE THE WORK AREA, FOR THE STARTING POINT OF THE CALCULATIONS.

METHOD OF VOLTAGE DROP CALCULATIONS

USING OHM'S LAW AND THE KNOWN RESISTIVITY CONSTANT OF CONDUCTOR METAL (CIRCULAR MIL-OHM PER FOOT) FOR COPPER CONDUCTORS, OUR INTENT IS TO CALCULATE THE REQUIRED WIRE SIZE NECESSARY SO AS NOT TO EXCEED THE RECOMMENDED VOLTAGE DROP OF 3% FOR BRANCH CIRCUIT CONDUCTORS.

BUILDING CODE DATA

ELECTRICAL SYSTEM AND EQUIPMENT

ENERGY COST BUDGET

METHOD OF COMPLIANCE: PERFORMANCE

LIGHTING SCHEDULE

LAMP TYPE REQUIRED IN FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
NUMBER OF LAMPS IN FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
BALLAST TYPE USED IN THE FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
NUMBER OF BALLASTS IN FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
TOTAL WATTAGE PER FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
TOTAL INTERIOR WATTAGE SPECIFIED V	S. ALLOWED: 5593 W SPECIFIED VS. 5615.39 W ALLOWED
TOTAL EXTERIOR WATTAGE SPECIFIED V	VS. ALLOWED: 1002 W SPECIFIED VS. 1819 W ALLOWED

EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)

MOTOR HORSEPOWER:	N/A	
NUMBER OF PHASES:	N/A	
MINIMUM EFFICIENCY:	N/A	
MOTOR TYPE:	N/A	
NUMBER OF POLES:	N/A	

DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF 2012 NORTH CAROLINA ENERGY CONSERVATION CODE.

GENERAL ELECTRICAL NOTES

- ALL ELECTRICAL DEVICES, FIXTURES, EQUIPMENT AND FEEDERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDED PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICANS WITH DISABILITIES ACT AND WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- PROVIDE ADDITIONAL SUPPORT FOR DEVICES, FIXTURES, EQUIPMENT AND FEEDERS WHERE THE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
- FIRESTOP, DRAFTSTOP, SMOKESTOP AND/OR PROTECT THE ANNULAR SPACE AROUND ALL PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILING, AND ROOFS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, UL LISTING REQUIREMENT AND THE APPLICABLE BUILDING CODES.
- VERIFY CEILING SYSTEMS AND PROVIDE MOUNTING ACCESSORIES. TRIMS AND ALL REQUIRED MOUNTING HARDWARE TO SUIT THE PARTICULAR INSTALLATION.
- PROTECT EXISTING UNDERGROUND AND BUILDING INTERIOR UTILITIES DURING CONSTRUCTION.
- BRANCH CIRCUIT CONDUCTORS SHALL BE 12 AWG COPPER MINIMUM.
- COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION SO AS TO AVOID CONFLICT DURING CONSTRUCTION.
- ALL PANELS SHALL HAVE TYPED, COMPLETED DIRECTORIES INDICATING EQUIPMENT SERVED AND ROOM NUMBER (AS INDICATED ON FINAL BUILDING ROOM SIGNAGE) OF EQUIPMENT LOCATION, OR
- MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD, AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE DESIGNER WILL BE ACCEPTED. ALL PRODUCTS MUST COMPLY WITH "BUY AMERICAN ACT".
- ALL FEEDERS AND CIRCUITRY SHALL BE TORQUED PER THE PANEL, BREAKER, AND/OR PARTICULAR EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- CIRCUITRY TO SWITCHES, RECEPTACLES, AND ALL OTHER DEVICES SHALL BE TERMINATED ON THE DEVICE'S SCREW TERMINALS.
- MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, OUTLET, FIXTURE, OR EQUIPMENT UNLESS NOTED OTHERWISE.
- 13. ALL WIRE TERMINATIONS SHALL BE RATED FOR 75 DEGREES C.
- 14. ALL CONDUCTORS SHALL HAVE THHN/THWN INSULATION, UNLESS OTHERWISE NOTED.
- ALL CONDUIT SHALL BE RGS OR EMT UNLESS OTHERWISE NOTED. FMC CONDUIT SHALL BE USED ON VIBRATING EQUIPMENT (MAXIMUM LENGTH OF 6 FEET). PVC SHALL BE USED FOR UNDERGROUND CONDUIT OR WHERE CONCRETE-ENCASED. WHERE VIBRATING EQUIPMENT IS LOCATED OUTSIDE, LFMC CONDUIT SHALL BE USED (MAXIMUM SIX FEET) FOR FINAL CONNECTIONS.
- ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.
- FOR ALL LED FIXTURES, THE FIXTURE MUST BE CAPABLE OF SELF-RESETTING TO THE SWITCHED/CONTROLLED STATE DURING ANY FLUCTUATION IN POWER SUPPLY WHERE AUTOMATIC PROTECTIVE MEASURES DISABLE THE LED LAMPS. PROVIDE A LETTER OR STATEMENT FROM THE MANUFACTURER, OR OTHER ACCEPTABLE PROOF, THAT ALL LED FIXTURES, WITH OR WITHOUT BROWNOUT PROTECTION, WILL RETURN TO THE SWITCHED/CONTROLLED STATE AUTOMATICALLY PROVIDE STATEMENT WITH THE FIXTURE SUBMITTALS.
- IN CASE OF CONFLICTS OR DISCREPANCIES WITHIN OR AMONG THE CONTRACT DRAWINGS, THE BETTER QUALITY, MORE STRINGENT REQUIREMENTS OR GREATER QUANTITY OF WORK . AS DETERMINED BY THE GOVERNMENT, SHALL BE PROVIDED.
- COMPRESSION COUPLINGS SHALL BE USED. NO SET SCREW FITTINGS ARE ALLOWED.



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ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED PROJECT MANAGER

JOSEPH A. ANGELL II, PE, F.SAME

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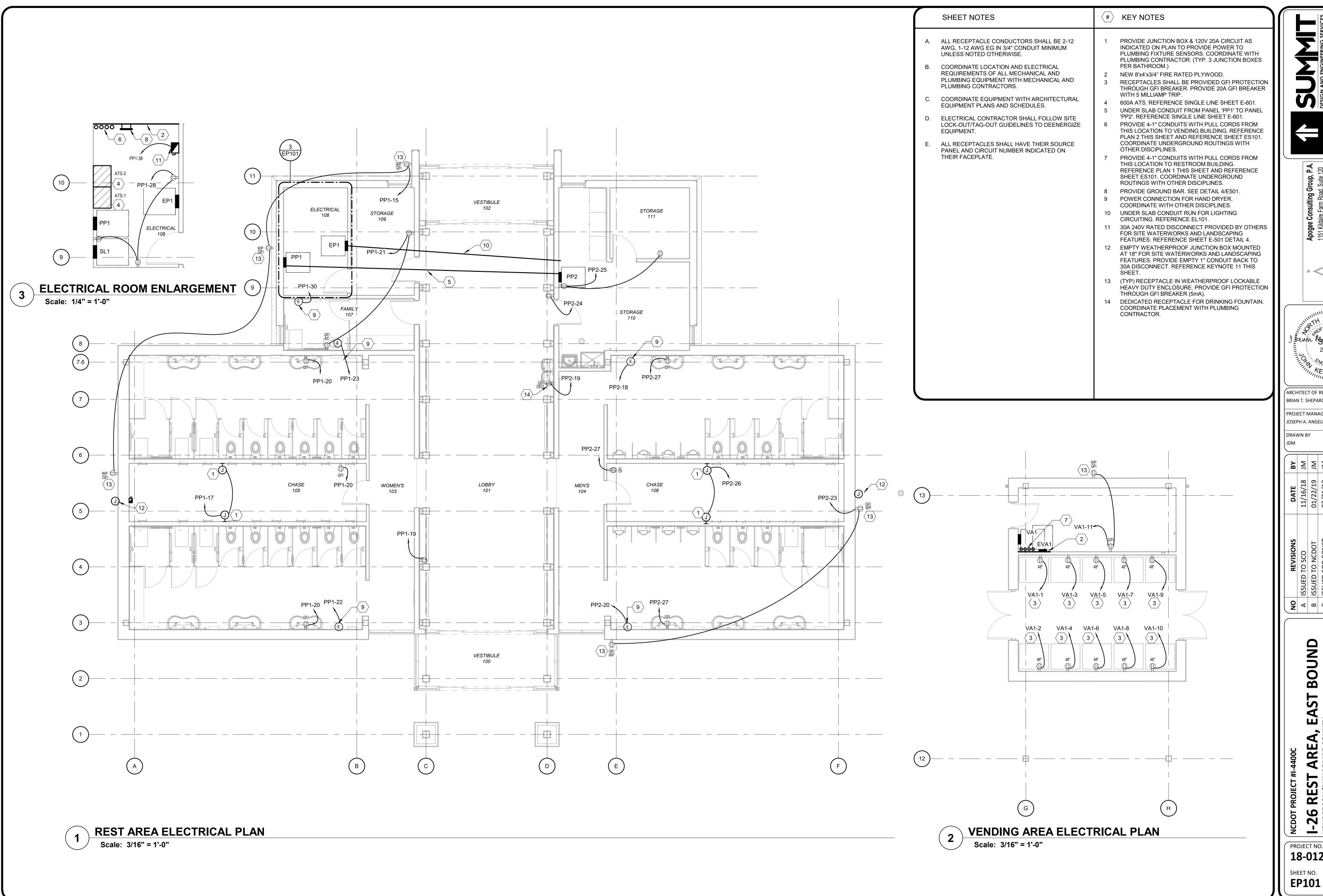
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ш ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED JOSEPH A. ANGELL II, PE, F.SAME FIRST ISSUE DATE 11/02/2018

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ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER JOSEPH A. ANGELL II, PE, F.SAME

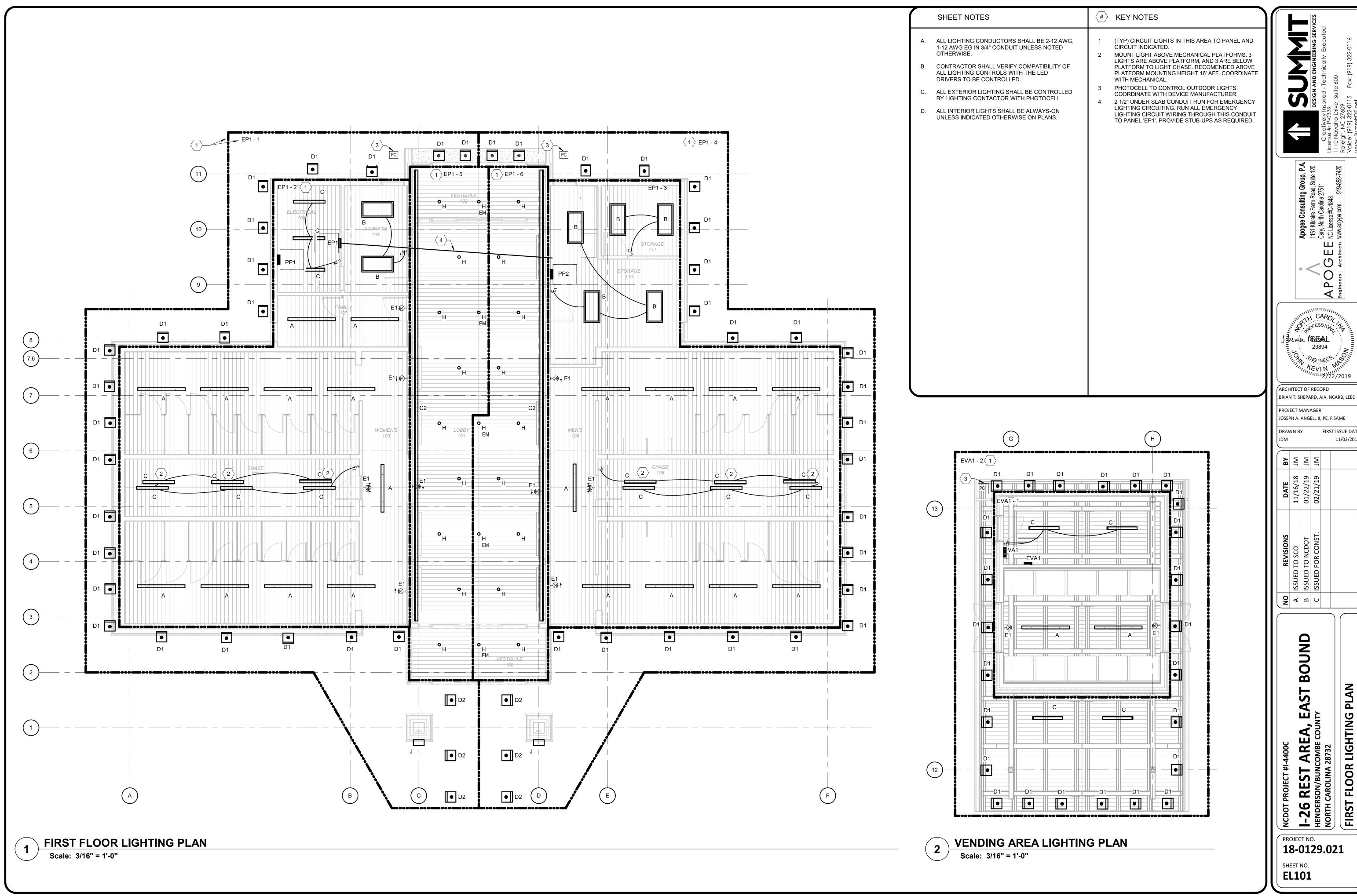
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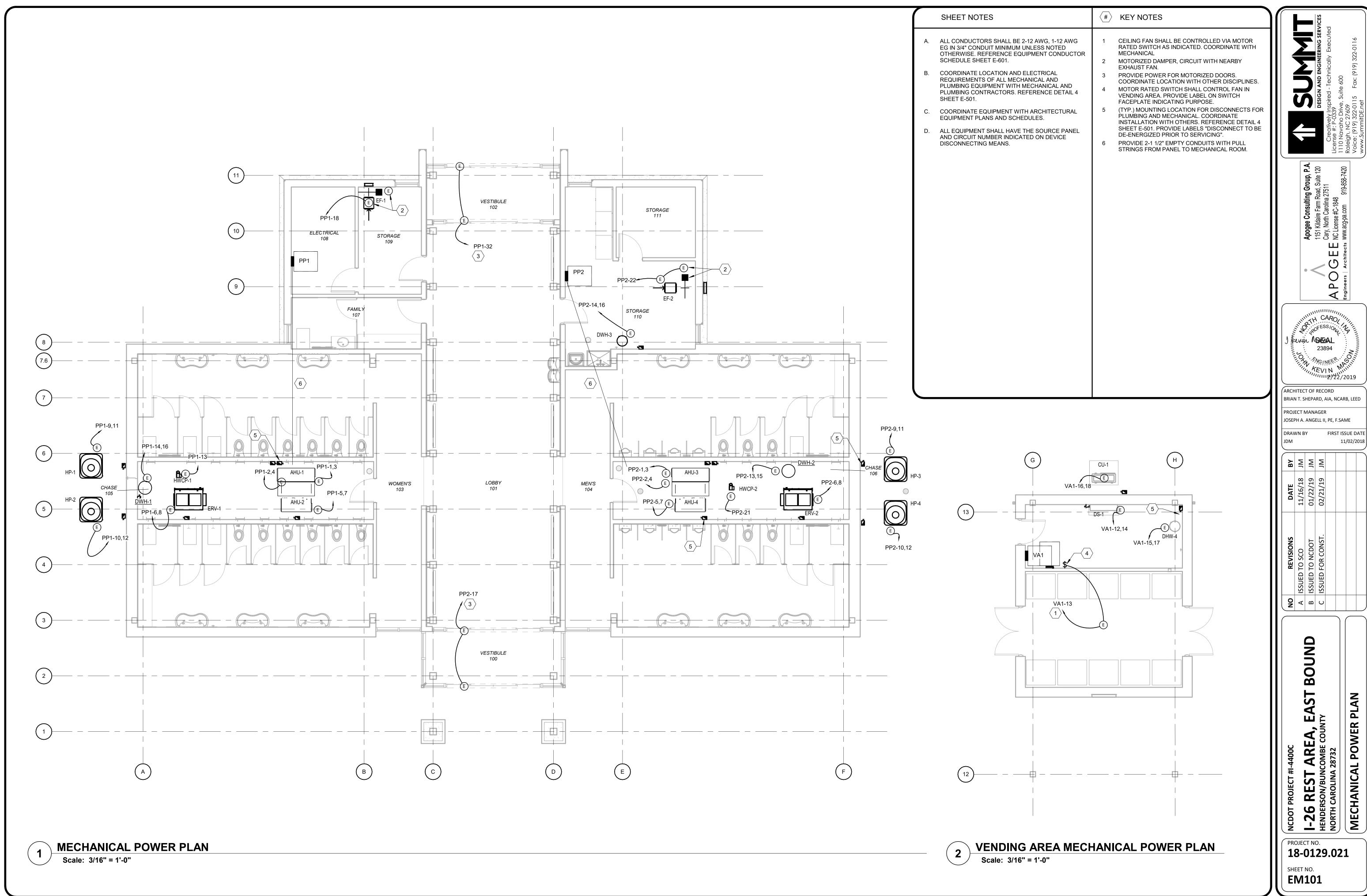
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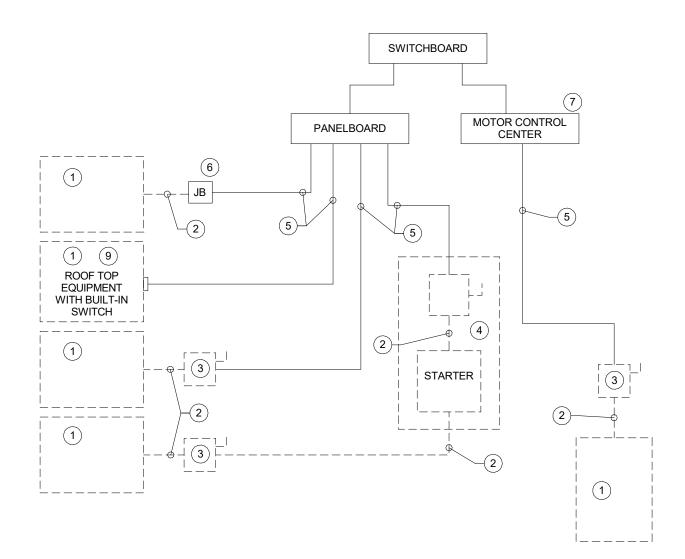
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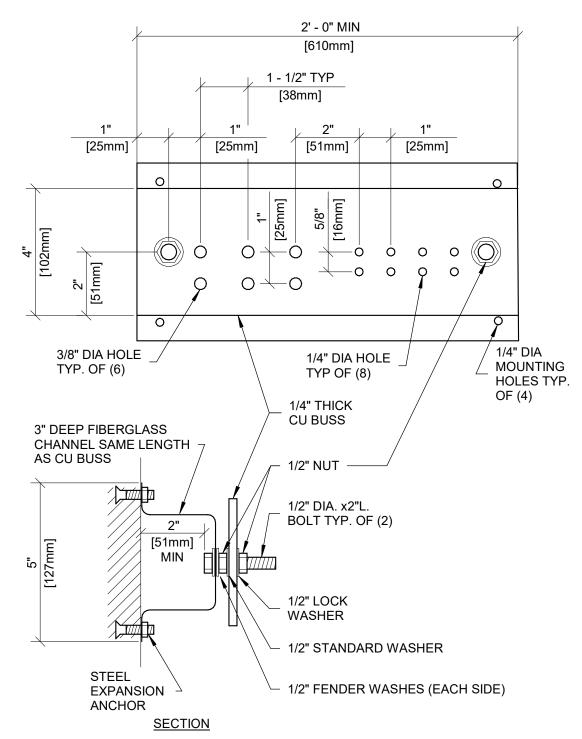




ELECTRICAL NOTES:

- (1) EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
- (2) CONDUIT & WIRING BY HVAC, PLUMBING CONTRACTOR, OR OTHER TRADES.
- (3) IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
- A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
- (5) FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
- G
 JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
- PROJECT UTILIZING AN MCC, THE STARTER, CB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- 8 IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
- (9) IF THE ROOF TOP EQUIPMENT IS NOT PROVIDED WITH BUILT IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.

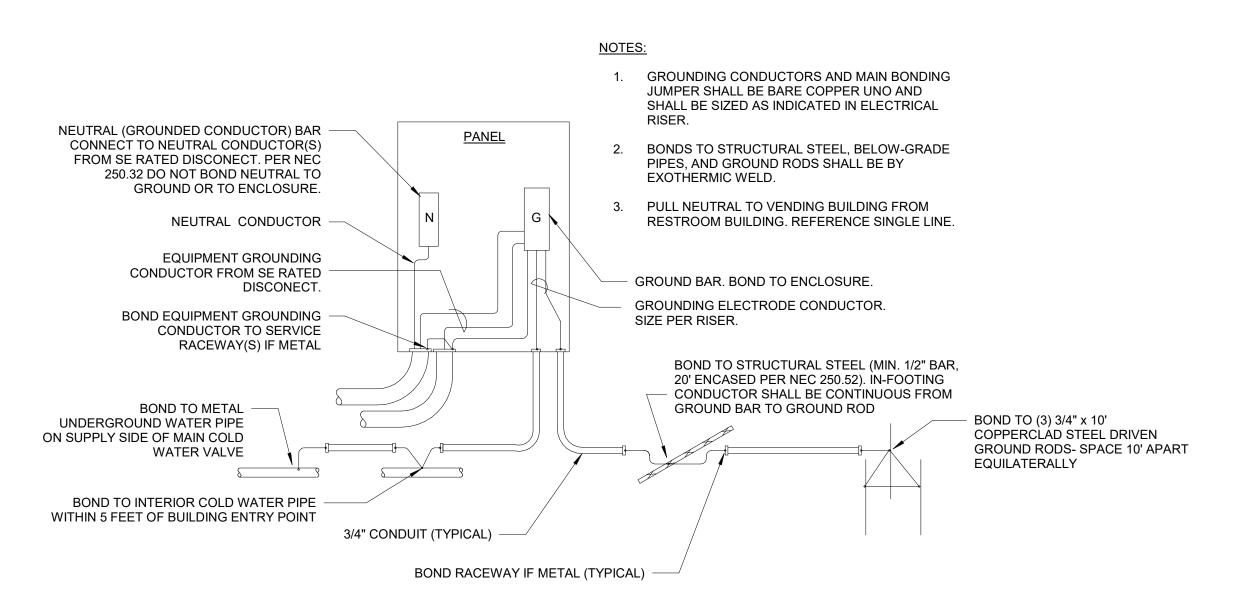
4 ELECTRICAL EQUIPMENT CONNECTION DETAIL
Scale: N.T.S.



<u>ENERAL NOTES:</u> ALL HARDWARE SHOWN SHALL BE STAINLESS STEEL.

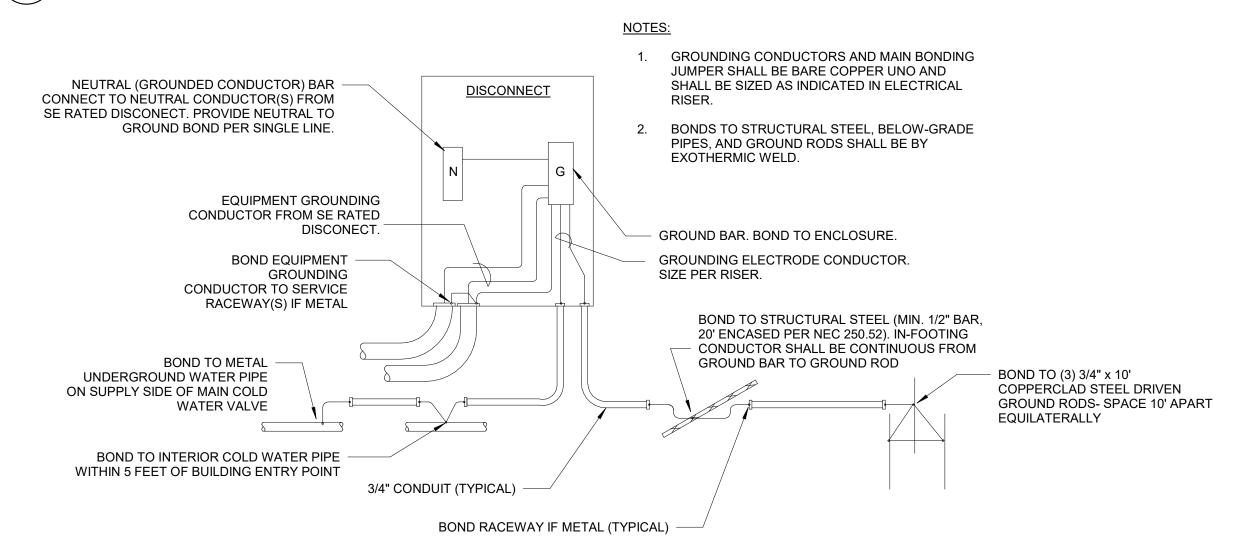
- PROVIDE 1 MOUNTING POINT PER 12" OF BAR LENGTH.
- HOLES MAY BE ADDED IF REQUIRED.

5 GROUND BAR Scale: N.T.S.



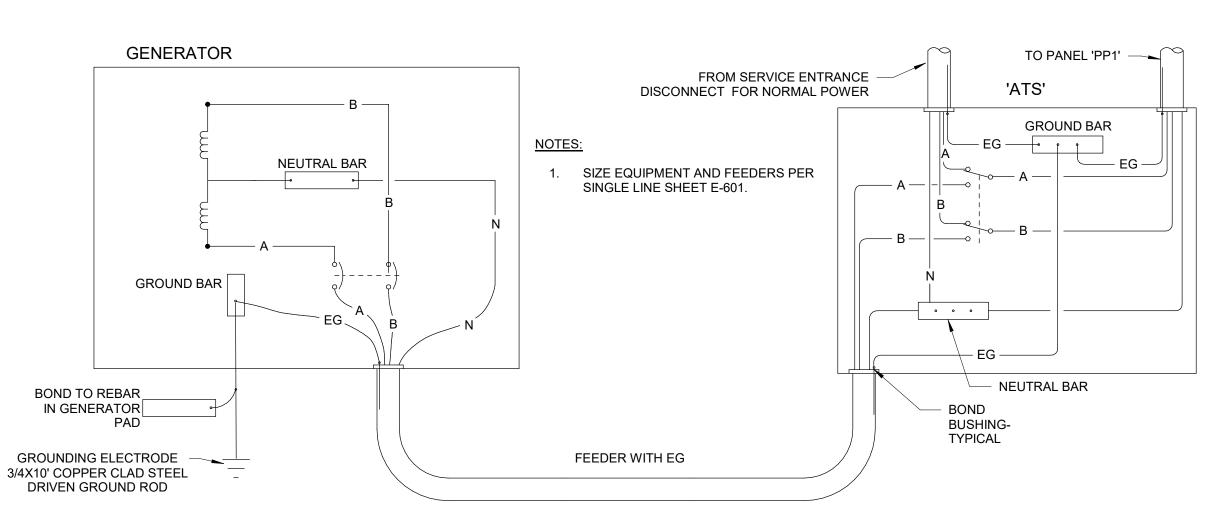
GROUND BOND AT VENDING BUILDING

Scale: N.T.S.



GROUND BOND AT RESTROOM BUILDING

Scale: N.T.S.



GENERATOR GROUNDING - 2 POLE ATS
Scale: N.T.S.

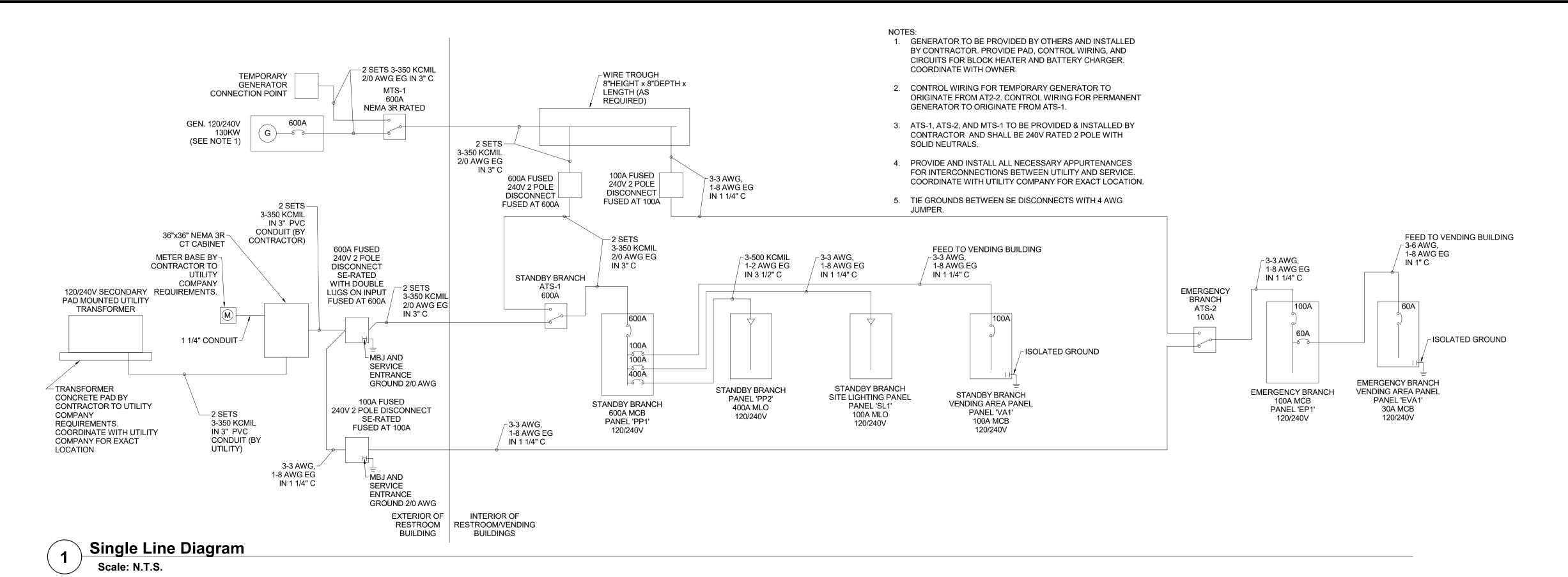
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B ISSUED TO NCDOT
C ISSUED FOR CONST.

REST AREA, EAST BOUL
SON/BUNCOMBE COUNTY
CAROLINA 28732

PROJECT NO. 18-0129.021

SHEET NO. **E-501**



	EQUIPMENT CONDUCTOR SCHEDULE												
Equipment Designation	EQUIPMENT TYPE	LOCATION	PANEL FED FROM	VOLTAGE (VOLTS)	PHASE	MOTOR HP / POWER REQUIREMENTS	LOAD (A)	CIRCUIT BREAKER SIZE	PHASE CONDUCTORS	NEUTRAL CONDUCTOR	GROUND WIRE	CONDUIT INCH SIZE	COMMENTS
ERV-1	INDOOR ENERGY RECOVERY VENTILATION UNIT	RESTROOM - CHASE 105	'PP1'	240	1	2-1 HP (MOP=15A)	14.00	20	2-12 AWG	-	1-12 AWG	3/4"	30A FUSED DISCONNECT (BY OTHERS) FUSED AT 15A.
ERV-2	INDOOR ENERGY RECOVERY VENTILATION UNIT	RESTROOM - CHASE 106	'PP2'	240	1	2-1 HP (MOP=15A)	14.00	20	2-12 AWG	_	1-12 AWG	3/4"	30A FUSED DISCONNECT (BY OTHERS) FUSED AT 15A.
EF-1	EXHAUST FAN	RESTROOM - ELECTRICAL 108	'PP1'	120	1	128 W	1.10	20	1-12 AWG	1-12 AWG	1-12 AWG	3/4"	
EF-2	EXHAUST FAN	RESTROOM - STORAGE 110	'PP2'	120	1	1/10 HP	3.00	20	1-12 AWG	1-12 AWG	1-12 AWG	3/4"	CIRCUIT WITH NEARBY MOTORIZED DAMPER ON THERMOSTAT FOR CONTROL (REFERENCE EM101).
AHU-1	INDOOR SPLIT SYSTEM HEAT PUMP AIR HANDLING UNIT	RESTROOM - CHASE 105	'PP1'	240	1	59A MCA/60A MOP	48.00	60	2-6 AWG	-	1-10 AWG	3/4"	
(AHU-1)	-	-	'PP1'	240	1	25A MCA/ 25A MOP	20.00	25	2-10 AWG	-	1-10 AWG	3/4"	
AHU-2	INDOOR SPLIT SYSTEM HEAT PUMP AIR HANDLING UNIT	RESTROOM - CHASE 105	'PP1'	240	1	44A MCA/45A MOP	35.20	45	2-8 AWG	-	1-10 AWG	3/4"	
AHU-3	INDOOR SPLIT SYSTEM HEAT PUMP AIR HANDLING UNIT	RESTROOM - CHASE 106	'PP2'	240	1	59A MCA/60A MOP	48.00	60	2-6 AWG	-	1-10 AWG	3/4"	
(AHU-3)	•	-	'PP2'	240	1	25A MCA/ 25A MOP	20.00	25	2-10 AWG	-	1-10 AWG	3/4"	
AHU-4	INDOOR SPLIT SYSTEM HEAT PUMP AIR HANDLING UNIT	RESTROOM - CHASE 106	'PP2'	240	1	44A MCA/45A MOP	35.20	45	2-8 AWG	-	1-10 AWG	3/4"	
HP-1	SPLIT SYSTEM HEAT PUMP OUTDOOR CONDENSING UNIT	RESTROOM - EXTERIOR	'PP1'	240	1	28 MCA/45 MOP	22.40	45	2-8 AWG	-	1-10 AWG	3/4"	
HP-2	SPLIT SYSTEM HEAT PUMP OUTDOOR CONDENSING UNIT	RESTROOM - EXTERIOR	'PP1'	240	1	15 MCA/25 MOP	12.00	25	2-10 AWG	-	1-10 AWG	3/4"	
HP-3	SPLIT SYSTEM HEAT PUMP OUTDOOR CONDENSING UNIT	RESTROOM - EXTERIOR	'PP2'	240	1	28 MCA/45 MOP	14.00	45	2-8 AWG	-	1-10 AWG	3/4"	
HP-4	SPLIT SYSTEM HEAT PUMP OUTDOOR CONDENSING UNIT	RESTROOM - EXTERIOR	'PP2'	240	1	15 MCA/25 MOP	12.00	25	2-10 AWG	-	1-10 AWG	3/4"	
DWH-1	DOMESTIC WATER HEATER	RESTROOM - CHASE 105	'PP1'	240	1	6.0 kW	25.00	40	2-8 AWG	-	1-10 AWG	3/4"	
DWH-2	DOMESTIC WATER HEATER	RESTROOM - CHASE 106	'PP2'	240	1	6.0 kW	25.00	40	2-8 AWG	-	1-10 AWG	3/4"	
DWH-3	DOMESTIC WATER HEATER	RESTROOM - STORAGE 110	'PP2'	240	11	3.0 kW	12.50	20	2-12 AWG	-	1-12 AWG	3/4"	
DWH-4	DOMESTIC WATER HEATER	VENDING AREA	'VA1'	240	1	1.5 kW	6.25	20	2-12 AWG	-	1-12 AWG	3/4"	
HWCP-1	DOMESTIC HOT WATER RECIRCULATION PU MP	RESTROOM - CHASE 105	'PP1'	120	1	1/12 HP	4.00	20	1-12 AWG	1-12 AWG	1-12 AWG	3/4"	
HWCP-2	DOMESTIC HOT WATER RECIRCULATION PU MP	RESTROOM - CHASE 106	'PP2'	120	1	1/12 HP	4.00	20	1-12 AWG	1-12 AWG	1-12 AWG	3/4"	
DS-1	SPLIT UNIT (INDOOR)	VENDING AREA - INTERIOR	'VA1'	240	1	0.4A MCA/15A MOP	0.40	20	2-12 AWG	-	1-12 AWG	3/4"	30A FUSED DISCONNECT (BY OTHERS) FUSED AT 15A.
CU-1	SPLIT UNIT (OUTDOOR)	VENDING AREA - EXTERIOR	'VA1'	240	1	16.5A MCA/20A MOP	13.20	20	2-12 AWG	-	1-12 AWG	3/4"	

	VOLTAGE	2.40					/ A1				1001	ATER ORGANIS BUILD ((40.1)	
	VOLTAGE: 2				C	CONNECTE		=R			ISOL	ATED GROUND BUS (N
	PHASE/WIRE:	1Ø / 3W					ASE	_				BUSS		SPEC
	RATED AMPERAGE:					A		В				MOUNT		FACE
		60 A MCB								MCB G	ROUND	FAULT PROTECTION (N
	SCC RATING (SYM):	10,000 AMPS SY	MMETRI	CAL		4 VA		VA				MCB SHUNT TRIP (,	N
						1 A	0	Α				MCB 100% RATED (Y/N):	Y
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		Α		В	POLES	BKR SIZE	TYPE (*)	IDENTIFICA	ΓΙΟΝ	СКТ
1	VENDING INTERIOR LIGHTS		20 A	1	154	350			1	20 A		VENDING EXTERIOR	LIGHTS	2
3	SPARE		20 A	1			0	0	1	20 A		SPARE		4
5	SPARE		20 A	1	0	0			1	20 A		SPARE		6
7	SPACE						0	0				SPACE		8
9	SPACE				0	0						SPACE		10
11	SPACE						0	0				SPACE		12
	Classification		(Connected		Demand			nd Load			PANEL TOTALS		
ghtin	g - Continuous			0.50 kV	A	125.0	0%	0.63	kVA					
											TOTA	L CONNECTED LOAD:		
												TOTAL DEMAND:		
										TO		NNECTED CURRENT:		
											TOTA	L DEMAND CURRENT:	3 A	
OTES	S:										TOTA	L DEMAND CURRENT:	3 A	

						El	P1							
	VOLTAGE: 24	0			С	ONNECTE	D LOAD PE				ISOL	ATED GROUND BUS (Y/N): I	N
	PHASE/WIRE: 1Ø	i / 3W				PH	ASE					BUSSING		SPEC
	RATED AMPERAGE:					A	l l	 В				MOUNTING	S: SUR	FACE
	MAIN: 100	0 A MCB								MCB GI	ROUND	FAULT PROTECTION (Y/N):	N
	SCC RATING (SYM): 22	,000 AMPS SY	MMETRIC	CAL	517	0 VA	128	0 VA				MCB SHUNT TRIP (Y/N	_	N
	,	,			43	3 A	11	I A				MCB 100% RATED (Y/N		Y
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		A		В	POLES	BKR SIZE	TYPE (*)	IDENTIFICATIO	<u>′ </u>	СКТ
1	EXTERIOR LIGHTS		20 A	1	320	891			1	20 A		LIGHTING 103, 105, 107,	108, 109	2
3	LIGHTING 104, 106, 110, 111		20 A	1			960	320	1	20 A		EXTERIOR LIGHTS		4
5	LIGHTING LOBBY 101		20 A	1	1677	1777			1	20 A		LIGHTING LOBBY 101		6
7	SPARE		20 A	1			0	0	1	20 A		SPARE		8
9	SPARE		20 A	1	0	0			1	20 A		SPARE		10
11	SPARE		20 A	1			0	0	1	20 A		SPARE		12
13	SPARE		20 A	1	0	0			1	20 A		SPARE		14
15	SPARE		20 A	1			0	0	1	20 A		SPARE		16
17	SPARE		20 A	1	0	0			1	20 A		SPARE		18
19	SPACE						0	0				SPACE		20
21	SPACE				0	504	_	_	2	60 A		EVA1		22
23	SPACE						0	0				BANEL TOTAL 0		24
	Classification			Connected		Demand			nd Load			PANEL TOTALS		
ignun	g - Continuous			6.45 kV	4	125.00	J%	8.00	6 kVA		TOTA	L CONNECTED LOAD: 6.4	E 1///	
											TOTA	TOTAL DEMAND: 8.0		
	TOTAL CONNECTED CURRENT: 27 A													
										10				
											1017	L DEMAND CURRENT: 34	/ \	

Apogee Consulting Group, P.A.

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ARCHITECT OF RECORD
BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER
JOSEPH A. ANGELL II, PE, F.SAME

DRAWN BY
FIRST ISSUE DATE
JDM

11/02/2018

 NO
 REVISIONS
 DATE

 A ISSUED TO SCO
 11/16/18

 B ISSUED TO NCDOT
 01/22/19

 C ISSUED FOR CONST.
 02/21/19

AREA, EAST BOUND

SCHEDULES

I-26 REST AREA, EA:
HENDERSON/BUNCOMBE COUNTY
NORTH CAROLINA 28732

PROJECT NO. 18-0129.021

E-601

							SI	_1							
		VOLTAGE:	240				CONNECTE	D I OAD PE	-R			ISOI	_ATED GROUND BUS (Y/N):	N	<u> </u>
		PHASE/WIRE:						ASE	-1 (1001	BUSSING:	SEE S	
	R	ATED AMPERAGE:					Α		 B				MOUNTING:	SURF	
	10		100 A MLO					•			MCB G	SULIND	FAULT PROTECTION (Y/N):	N	
	9	CC RATING (SYM):		/MMETRI	CAL	35	600 VA	350	0 VA		IVICD CI	TOOND	MCB SHUNT TRIP (Y/N):	N	
	3	CC IVATING (3 TW).	10,000 AMF3 31	I IVIIVIL I IXIV	CAL		29 A		9 A				MCB 3110N1 TRIP (1/N): MCB 100% RATED (Y/N):		
						•	29 A	28	7 A						
CKT		IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		Α	ı	В	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION		СКТ
1	E1			15 A	2	850	1000			2	15 A		E2		2
3	151			15 A	2			850	1000		15 A		E2		4
5	E3			15 A	2	500	450			2	15 A		E4		6
7	LJ			13 A				500	450		13 A		L4		8
9	E5			15 A	2	700	0			2	15 A		SPARE		10
11				13 /				700	0		10 /				12
13	SPACE					0	0						SPACE		14
15	SPACE							0	0				SPACE		16
17	SPACE					0	0						SPACE		18
19	SPACE							0	0				SPACE		20
21	SPACE					0	0						SPACE		22
23	SPACE							0	0				SPACE		24
Load C	lassificat	ion		(Connected	Load	Demand I	-actor	Demar	nd Load			PANEL TOTALS		
												IOIA	L CONNECTED LOAD: 7.00		
											Τ/	TAL 00	TOTAL DEMAND: 7.00		
											10		NNECTED CURRENT: 29 A		
												IOIA	L DEMAND CURRENT: 29 A	L	

- 1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED
- 2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE LOCKABLE USING A PADLOCK, IN ACCORDANCE WITH OSHA LOCK-OUT-TAG RULES, 6 = LSI, 7 = LSIG.
- 3. THIS IS AN EMPTY PANEL FOR FUTURE EXPANSION AND SITE LIGHTING CIRCUITING.

CKT 1 (VOLTAGE: 240 PHASE/WIRE: 1Ø / 3V RATED AMPERAGE: 100 A MAIN: 100 A N SCC RATING (SYM): 10,000 IDENTIFICATION GFI - RCPT VENDING L1 GFI - RCPT VENDING L2	МСВ	MMETRI BKR SIZE		960	PHA A 06 VA 0 A	ASE	В		MCB GF		ATED GROUND BUS (Y/N): BUSSING: MOUNTING: FAULT PROTECTION (Y/N):	SEE S SURF	SPEC FACE
	RATED AMPERAGE: 100 A MAIN: 100 A N SCC RATING (SYM): 10,000 IDENTIFICATION GFI - RCPT VENDING L1	MCB AMPS SY TYPE (*)	BKR		960	A 06 VA				MCB G	SOLIND I	MOUNTING:	SURF	ACE
	MAIN: 100 A M SCC RATING (SYM): 10,000 IDENTIFICATION GFI - RCPT VENDING L1	AMPS SY TYPE (*)	BKR		960	06 VA				MCB GI	SUIND			
	SCC RATING (SYM): 10,000 IDENTIFICATION GFI - RCPT VENDING L1	AMPS SY TYPE (*)	BKR				754			MCB GF	SOLIND			
	IDENTIFICATION GFI - RCPT VENDING L1	TYPE (*)	BKR				754				(COIVE	N		
	GFI - RCPT VENDING L1	(*)			8	Λ Λ		2 VA				MCB SHUNT TRIP (Y/N):	N	
	GFI - RCPT VENDING L1	(*)				UA	63	3 A				MCB 100% RATED (Y/N):	Υ	
1 (2		POLES		A		В	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION		СКТ
	CEL DODT VENDING LO		20 A	1	1200	1200			1	20 A	2	GFI - RCPT VENDING R1		2
3 (GFI - ROPT VENDING LZ	2	20 A	1			1200	1200	1	20 A	2	GFI - RCPT VENDING R2		4
5 (GFI - RCPT VENDING L3	2	20 A	1	1200	1200			1	20 A	2	GFI - RCPT VENDING R3		6
7 (GFI - RCPT VENDING L4	2	20 A	1			1200	1200	1	20 A	2	GFI - RCPT VENDING R4		8
9	GFI - RCPT VENDING L5	2	20 A	1	1200	1200			1	20 A	2	GFI - RCPT VENDING R5		10
	GFI - RCPT VENDING STORAGE	2	20 A	1			360	48	2	20 A		DS-1		12
13 \	VENDING AREA FAN		20 A	1	24	48				20 A D3-1				14
15 _г	DHW-4	5	20 A	2			750	1584	2	20 A		CU-1		16
17					750	1584								18
	SPARE		20 A	1			0	0	1	20 A		SPARE		20
	SPARE		20 A	1	0	0		_	1	20 A		SPARE		22
_	SPARE		20 A	1			0	0	1	20 A		SPARE		24
	SPACE				0	0						SPACE		26
	SPACE SPACE				0	0	0	0				SPACE SPACE		28
	assification			 Connected		Demand	Footor	Domoi	nd Load			PANEL TOTALS		30
MOTOR/I				3.29 kV		124.09			B kVA			PANEL IUIALS		
	ACLES (GENERAL)			12.36 kV		90.45			8 kVA		ΤΟΤΔ	L CONNECTED LOAD: 17.15	k\/Δ	
	HEATER (TANK)			1.50 kV		125.0			3 kVA	TOTAL CONNECTED LOAD: 17.15 K				
VV/(1 E1(1	TIE/(TEIX(T/WIX)			1.00 KV		120.0	0 70	1.00	7 1 1 1 1	TO	OTAL CO	NNECTED CURRENT: 71 A	ICV/ C	
·												L DEMAND CURRENT: 71 A		

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PP1	
CONNECTED LOAD PER	ISOLATED GROUND BUS (Y/N):
PHASE	BUSSING:
A B	MOUNTING:

					1									
	PHASE/WIRE:	1Ø / 3W				PH	ASE					BUSSING: S	EE SF	EC
	RATED AMPERAGE:	600 A				Α		В				MOUNTING: S	URFA	√CE
	MAIN:	600 A MCB								MCB G	ROUND	FAULT PROTECTION (Y/N):	N	
	SCC RATING (SYM):	22,000 AMPS	SYMMETR	ICAL	612	30 VA	6546	80 VA				MCB SHUNT TRIP (Y/N):	N	
					5	10 A	54	6 A				MCB 100% RATED (Y/N):	Υ	
СКТ	IDENTIFICATION	TYP	BKR SIZE	POLES		A		В	POLES	BKR SIZE	TYPE (*)	IDENTIFICATION		СКТ
1	AHU-1		60 A	2	5760	2400			2	25 A		(AHU-1)		2
3	AHO-1		00 A				5760	2400		25 A		(AHO-1)		4
5	AHU-2		45 A	2	4224	1920			2	20 A		ERV-1		6
7	A110-2		457				4224	1920		207		LIXV-I		8
9	 −HP-1		45 A	2	2688	1440			2	25 A		HP-2		10
11	111 -1						2688	1440		207		T II Z		12
13	HWCP-1		20 A	1	270	3000			2	40 A	5	DWH-1		14
15	GFI - RCPT EXTERIOR	2	20 A	1			540	3000				DVVII I		16
17	PLUMB FIXT. WOMENS 103		20 A	1	400	492			1	20 A		EF-1		18
19	RCPT LOBBY 101, VEST 10		20 A	1			180	540	1	20 A		RCPT RR 103 CHASE 105		20
21	RCPT FAMILY 107, STOR 10	09	20 A	1	360	1200			1	20 A		HAND DRYERS RR 103		22
23	HAND DRYERS RR 103		20 A	1			1200	1008	1	20 A		GENERATOR BATTERY CHARG	ER	24
25	SPARE		20 A	1	0	120			1	20 A		GENERATOR HEATER		26
27	SPARE		20 A	1			0	540	1	20 A		RCPT ELECTRICAL 108		28
29	SPARE		20 A	1	0	1200			1	20 A		HAND DRYER RR 107		30
31	SPARE		20 A	1			0	1200	1	20 A		POWER DOORS VEST 102		32
33	SPARE		20 A	1	0	0			1	20 A		SPARE		34
35	VA1		100 A	2			9606	0	1	20 A		SPARE		36
37					7542	0			1	30 A		SITE LANDSCAPING		38
39	SL1		100 A	2			3500	25714	2	400 A		PP2		40
41					3500	24714		_	1					42
∣Load C	Classification			Connected	Load	Demand	Factor	Demai	nd Load			PANEL TOTALS		

oad Classification	Connected Lo	pad Demand Factor	Demand Load	PANEL TOTALS)		
Other Non-Continuous Load	0.80 kVA	100.00%	0.80 kVA				
//OTOR/HVAC	78.79 kVA	103.66%	81.67 kVA	TOTAL CONNECTED LOAD	: 126.69 kVA		
RECEPTACLES (GENERAL)	16.47 kVA	80.36%	13.24 kVA	TOTAL DEMAND	: 130.46 kVA		
RECEPTACLES (DEDICATED)	7.13 kVA	100.00%	7.13 kVA	TOTAL CONNECTED CURRENT	: 528 A		
VATER HEATER (TANK)	16.50 kVA	125.00%	20.63 kVA	TOTAL DEMAND CURRENT	: 544 A		

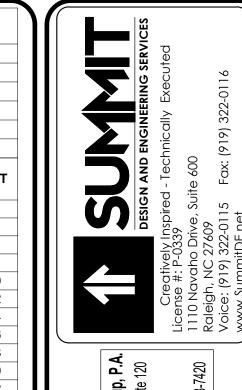
1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED

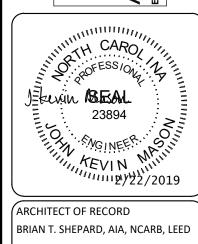
VOLTAGE: 240

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						P	P2							
	VOLTAGE:	. 240			С	CONNECTE	D LOAD PF	 <i>Ē</i> R	T		ISO	LATED GROUND BUS (Y/N):	N	
	PHASE/WIRE:						IASE					BUSSING:	SEE SF	PEC
	RATED AMPERAGE:					Α		В				MOUNTING:	SURFA	
		: 400 A MLO								MCB G'	ROUND	FAULT PROTECTION (Y/N):	N	
	SCC RATING (SYM):		YMMETRI	CAL	257	'14 VA	2471	14 VA				MCB SHUNT TRIP (Y/N):	N	
		13,322				14 A		06 A				MCB 100% RATED (Y/N):		
СКТ	IDENTIFICATION	TYPE (*)	BKR SIZE	POLES		A		В	POLES	BKR SIZE	TYPE (*)	, , ,		Cł
1			20.4	+	5760	2400				25.4		(41111.0)		2
3	AHU-3		60 A	2			5760	2400	2	25 A		(AHU-3)	ļ	4
5			45.0		4224	1920				20.4				(
7	AHU-4		45 A	2			4224	1920	2	20 A		ERV-2		
9	LID 0		45 A		1680	1440				25.4		LID 4		1
11	HP-3		45 A	2			1680	1440	2	25 A		HP-4		1
13	DMILO	5	40.0		3000	1500				20.4		DIBMO		1
15	DWH-2	5	40 A	2			3000	1500	2	20 A	5	DHW-3		1
17	POWER DOORS VEST 100		20 A	1	1200	1200			1	20 A		HAND DRYERS RR 104		1
19	WATER FOUNTAIN	2	20 A	1			510	1200	1	20 A		HAND DRYERS RR 104		2
21	HWCP-2		20 A	1	270	360			1	20 A		EF-2		2
23	GFI - RCPT EXTERIOR	2	20 A	1			360	180	1	20 A		RCPT LOBBY 101, VEST 102	2	2
	RCPT STORAGE 110, 111		20 A	1	360	400			1	20 A		PLUMB FIXT. MENS 104		2
	RCPT RR 104 CHASE 106		20 A	1			540	0	1	20 A		SPARE		2
	SPARE		20 A	1	0	0			1	20 A		SPARE		,
	SPARE		20 A	1			0	0	1	20 A		SPARE		;
	SPARE		20 A	1	0	0			1	20 A		SPARE		(
	SPARE		20 A	1			0	0	1	20 A		SPARE		(
	SPARE		20 A	1	0	0			1	20 A		SPARE		(
	SPACE						0	0				SPACE		4
	SPACE				0	0						SPACE		4
	Classification			Connected		Demand F		-	nd Load			PANEL TOTALS		
	Non-Continuous Load			0.40 kV		100.00			0 kVA					
	R/HVAC			36.68 kV		107.85		-	56 kVA		TOTA	AL CONNECTED LOAD: 50.43		
	PTACLES (GENERAL)			1.95 kV		100.00			5 kVA			TOTAL DEMAND: 55.56		
	PTACLES (DEDICATED)			2.40 kV		100.00		-	0 kVA	TC		ONNECTED CURRENT: 210 A		
NATER	R HEATER (TANK)			9.00 kV	/A	125.00	ე%	11.2	25 kVA		TOTA'	AL DEMAND CURRENT: 231 A		

- 1. ALL BREAKERS ARE STANDARD UNLESS OTHERWISE NOTED
- 2. (*) NUMBER INDICATES BREAKER TYPE: 1 = AFCI, 2 = CLASS A 5mA GFCI, 3 = 30mA GFPE, 4 = SHUNT TRIP ACTIVATED, 5 = PANELBOARD FEEDER SERVING UNIT SHALL BE LOCKABLE USING A PADLOCK, IN ACCORDANCE WITH OSHA LOCK-OUT-TAG RULES, 6 = LSI, 7 = LSIG.3.





PROJECT MANAGER JOSEPH A. ANGELL II, PE, F.SAME

FIRST ISSUE DATE 11/02/2018

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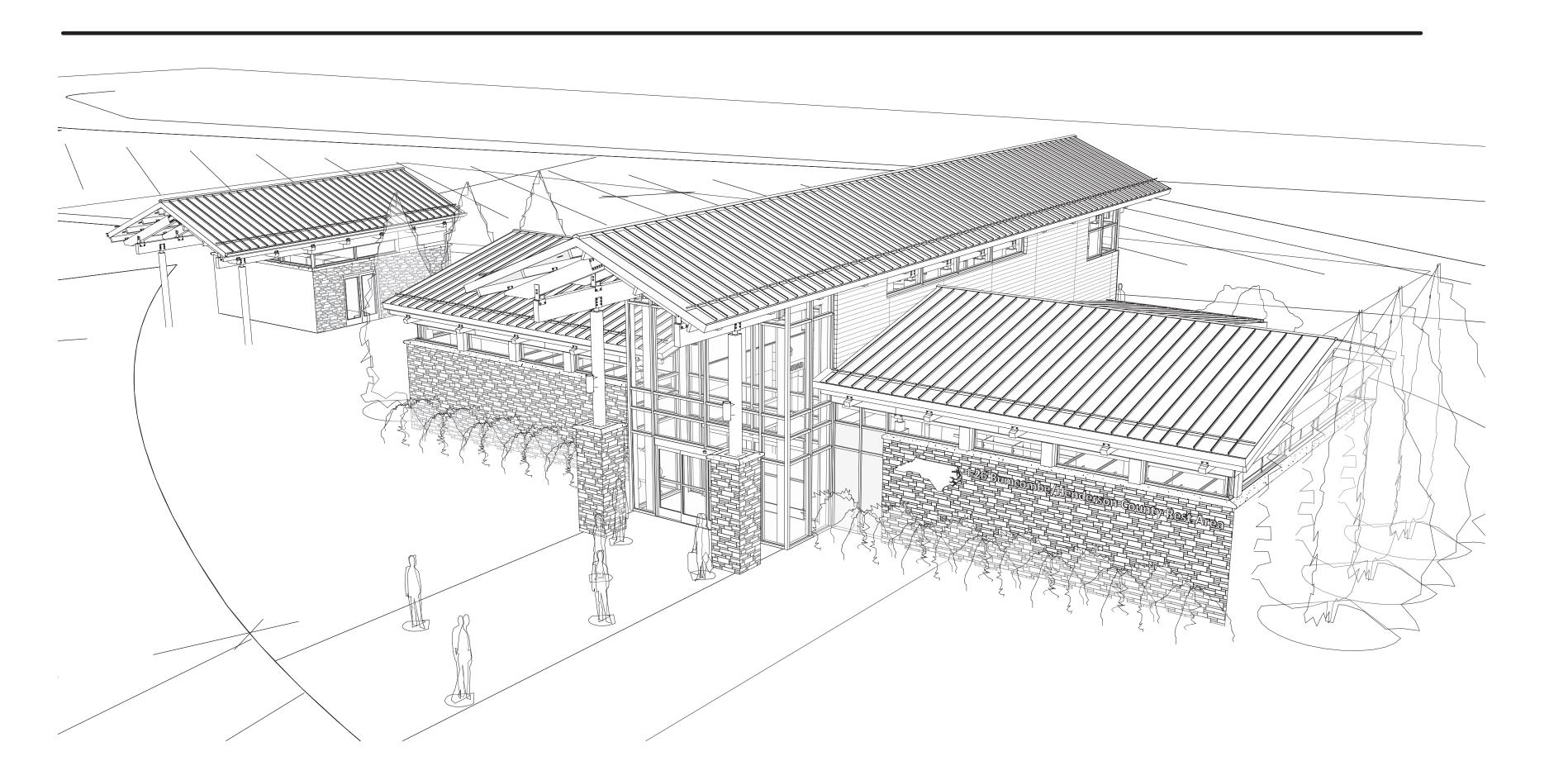
AST AREA, ICOMBE COUNTY 28732 I-26 REST ANDERSON/BUNCONORTH CAROLINA 2

18-0129.021

E-602

NCDOT PROJECT #I-4400C

I-26 RESTAREA, WEST BOUND HENDERSON/BUNCOMBE COUNTY, NORTH CAROLINA, 28732



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S4.1 FRAMING DETAILS	S3.0	FOUNDATION DETAILS
	S4.0	GLULAM FRAMING DETAILS & CONNECTORS
PLUMBING	S4.1	FRAMING DETAILS
	PLUMBIN	G

P-001	PLUMBING GENERAL INFORMATION
PP101	DOMESTIC WATER RESTROOMS PLAN
PP102	DOMESTIC WATER VENDING PLAN
PS101	PLUMBING SITE PLAN
PW101	WASTE AND VENT RESTROOM PLAN
PW102	DRAIN, WASTE, AND VENT VENDING PLAN
PLUMBING	G
P-401	ENLARGED FLOOR PLANS - PLUMBING
P-402	ENLARGED FLOOR PLANS - PLUMBING
P-403	PLUMBING SECTIONS
P-501	PLUMBING DETAILS
P-502	PLUMBING DETAILS
P-601	PLUMBING SCHEDULES
P-901	SANITARY PIPE RISERS
P-902	DOMESTIC WATER PIPE RISERS
MECHANI	CAL
M001	MECHANICAL GENERAL INFORMATION
MH101	HVAC RESTROOM PLAN
MH102	HVAC VENDING PLAN
MP101	MECHANCIAL PIPING RESTROOM PLAN
MP102	MECHANICAL PIPING VENDING PLAN
MECHANI	CAL
M-401	ENLARGED MECHANICAL PLANS
M-402	ENLARGED MECHANICAL PLANS
M-501	MECHANICAL DETAILS
M-502	MECHANICAL DETAILS

M-503 MECHANICAL DETAILS M-601 MECHANICAL SCHEDULES M-602 MECHANICAL SCHEDULES

E-001 ELECTRICAL SYMBOLS

ES101 ELECTRICAL SITE PLAN

E-501 ELECTRICAL DETAILS

E-602 PANEL SCHEDULES

EP101 FIRST FLOOR POWER PLAN

EL101 FIRST FLOOR LIGHTING PLAN EM101 MECHANICAL POWER PLAN

E-601 ONE-LINE DIAGRAM AND SCHEDULES

E-002 ELECTRICAL NOTES AND ABBREVIATIONS

OWNER

North Carolina Department of Transportation 1 South Wilmington Street Raleigh, N.C. 27601

Contact: Paul Stankiewicz E-Mail: PStankiewicz@NCDOT.gov Phone: (919) 707-2929

ARCHITECT

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Contact: Brian T. Shepard, AIA, NCARB, LEED GA E-Mail: Brian.Shepard@SummitDE.net Phone: (919) 322-0115 Fax: (919) 322-0116

STRUCTURAL

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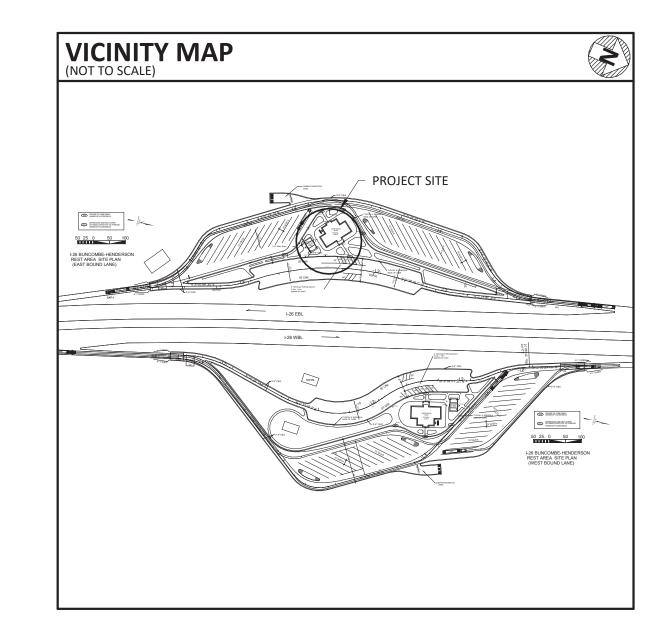
Contact: Joseph W. Balloni, PE E-Mail: Joseph.Balloni@SummitDE.met Phone: (919) 322-0115 Fax: (919) 322-0116

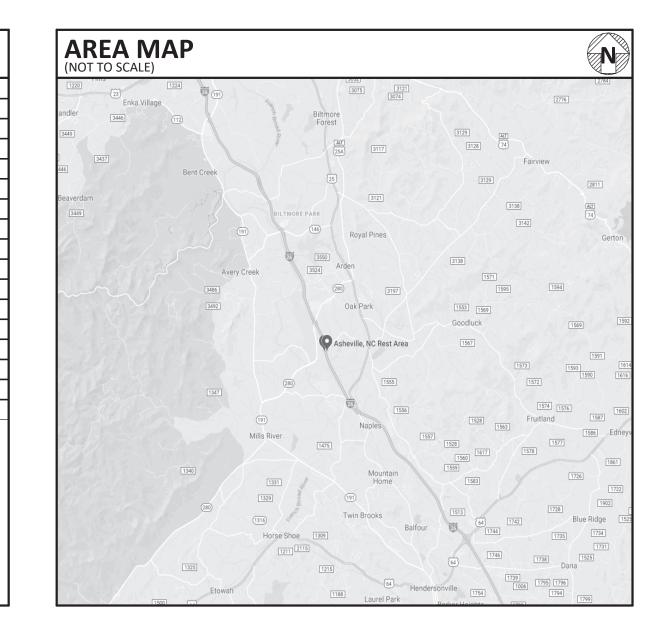
Cary, NC 27511

Contact: Joseph A. Angell II, PE, F.SAME E-Mail: JAngell@ACP-PA.com Phone: (919) 858-7420 Fax: (919) 234-6268

STATE CONSTRUCTION PROJECT NUMBER

18-19751.01A





MECH., ELEC., PLBG.

Apogee Consulting Group 1151 Kildaire Farm Road, Suite 120



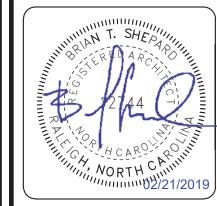
DESIGN AND ENGINEERING SERVICES

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INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING

ALTERING & ADDING TO THIS SPECIFIC PROJECT AT IT'S SPECIFIC LOCATION.



BRIAN T. SHEPARD, AIA, NCARB, LEED GA BRIAN T. SHEPARD, AIA, NCARB, LEED GA

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	REVISIONS	SUED TO SCO	SUED TO NCDOT	UED FOR CONST.				

18-0129.021 **CS000**

2012 APPENDIX B **BUILDING CODE SUMMARY** FOR ALL COMMERCIAL PROJECTS

Ground Snow Load:

(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)	Occupancy: Assembly A-1 A-2 A-3 A-4 A-5 Business Educational
Name of Project: 1-26 REST AREA, WEST BOUND Address: 1-26 Rest Area, Buncombe & Henderson County, North Carolina Zip Code 28732	Factory
Proposed Use: Rest Area Owner/Authorized Agent: Paul Stankiewicz Phone # (919) 707-2929 E-Mail PStankiewicz@NCDOT.gov Owned By: NCDOT City/County Private State Code Enforcement Jurisdiction: City County County State	Mercantile Residential R-1 R-2 R-3 R-4 Storage S-1 Moderate S-2 Low High-piled Parking Garage Open Enclosed Repair Garage Utility and Miscellaneous Accessory Occupancies:
LEAD DESIGN PROFESSIONAL: Brian T. Shepard, AIA, NCARB, LEED GA DESIGNER FIRM NAME LICENSE # TELEPHONE # E-MAIL Architectural Summit Design & Engineering Brian T. Shepard 12744 (919) 322-0115 Brian.Shepard@SummitDE.net	Assembly A-1 A-2 A-3 A-4 A-5 Business Educational —
Civil xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx@xxx Electrical Apogee Consulting Group John Kevin Mason 23894 (919) 858-7420 KMason@ACG-PA.com Fire Alarm — — — — — — —	Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM Institutional I-1 I-2 I-3 I-4 I-3 Condition I I I I I I I I I I I I I I I I I I I
Plumbing Apogee Consulting Group Paul L. Holloway 47721 (919) 858-7420 PHolloway@ACP-PA.com Mechanical Apogee Consulting Group Paul L. Holloway 47721 (919) 858-7420 PHolloway@ACP-PA.com Sprinkler-Standpipe Structural Summit Design & Engineering Joseph W. Balloni 044430 (919) 322-0115 Joseph.Balloni@SummitDE.net Retaining Walls>5' Joseph Balloni@SummitDE.net Other Design & Engineering Doseph W. Balloni	Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4 Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled
2012 EDITION OF NC CODE FOR: EXISTING: Reconstruction Addition Upfit Repair Renovation CONSTRUCTED: (date) ORIGINAL USE (S) CURRENT USE(S) (Ch. 3):	 ☐ Furnace room where any piece of equipment is over 400,000 Btu per hour input ☐ Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower ☐ Refrigerant machine room ☐ Hydrogen cutoff rooms, not classified as Group H
RENOVATED: (date) CURRENT USE(S) (Ch. 3): PROPOSED USE(S) (Ch. 3): (B) Business	 ☐ Incinerator rooms ☐ Paint shops, not classified as Group H, located in occupancies other than Group F ☐ Laboratories and vocational shops, not classified as Group H located in a Group E or I-2 occupancy.
BASIC BUILDIGN DATA Construction Type:	 □ Laundry rooms over 100 square feet □ Group I-3 cells equipped with padded surfaces □ Group I-2 waste and linen collection rooms □ Waste and linen collection rooms over 100 square feet
Fire District: No Yes (Primary) Flood Hazard Area: No Yes Building Height: (feet) 29'-4" Gross Building Area:	☐ Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies.
FLOOR EXISTING (SQFT) NEW (SQFT) SUB-TOTAL Sth Floor Sth Floor	 ☐ Rooms containing fire pumps ☐ Group I-2 storage rooms over 100 square feet ☐ Group I-2 commercial kitchens
th Floor rd Floor	☐ Group I-2 laundries equal to or less than 100 square feet ☐ Group I-2 rooms or spaces that contain fuel-fired heating equipment
P nd Floor Mezzanine St Floor 4,658 4,658	Special Uses: 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423
1st Floor 4,658 4,658 Classement Vending Building 566 566 TOTAL 5,224	☐ 424 ☐ 425 ☐ 426 ☐ 427 Special Provisions: ☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8 ☐ 509.9 Mixed Occupancy: ☐ No ☐ Yes Separation: ☐ Exception: ☐ Exception:
 □ Exterior wall opening area with respect to distance to assumed proprty lines (705.8) □ Existing structures within 30' of the proposed building □ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1) □ Occupant loads for each area □ Exit access travel distances (1016) 	Wind Load: Basic Wind Speed $\frac{90}{C}$ mph (ASCE-7) Exposure Category $\frac{C}{Wind Base Shears (for MWFRS)}$ $Vx = \frac{N/A}{C}$ $Vy = \frac{N/A}{C}$
 Common path of travel distances (1014.3 & 1028.8) Dead end lengths (1018.4) Clear exit widths for each exit door Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1) Actual occupant load for each exit door A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for 	SEISMIC DESIGN CATEGORY: Provide the following Seismic Design Parameters: Occupancy Category (Table 1604.5) Spectral Responce Acceleration Ss. 37.9 %g Site Classification (Table 1613.5.2)
purposes of occupancy separation Location of doors with panic hardware (1008.1.10) Location of doors with delayed egress locks and the amount of delay (1008.1.9.7) Location of doors with electromagnetic egress locks (1008.1.9.8) Location of doors equipped with hold-open devices Location of emergency escape windows (1029)	□ Bearing Wall □ Dual w/ Special Moment Frame □ Building Frame □ Dual w/ Intermediate R/C or Special Steel □ Moment Frame □ Seismic base shear □ V _X = N/A □ V _Y = N/A □ Simplified □ Equivalent Lateral Force □ Dynamic □ Dual w/ Special Moment Frame □ Special Steel □ Moment Frame □ Simplified □ Simplified □ Equivalent Lateral Force □ Dynamic □ Dynamic
The square footage of each fire area (902) The square footage of each smoke compartment (407.4)	LATERAL DESIGN CONTROL: ☑ Earthquake ☐ Wind
Note any code exceptions or table notes that may have been utilized regarding the items above	SOIL BEARING CAPACITIES: Field Test (provide copy or test report) Presumptive Bearing capacity Pile size, type, and capacity N/A N/A Presumptive Bearing capacity N/A
ACCESSIBLE DWELING UNITS (SECTION 1107) TOTAL ACCESSIBLE TYPE A TYPE B TYPE B TOTAL ACCESSIBLE UNITS	SPECIAL INSPECTIONS REQUIRED: Yes No
UNITS REQUIRED PROVIDED REQUIRED PROVIDED REQUIRED PROVIDED N/A N/A 0 N/A 0 O O	PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)
ACCESSIBLE PARKING	USE WATER CLOSETS URINALS LAVATORIES SHOWERS/ DRINKING FOUNTAINS MALE FEMALE MALE FEMALE TUBS REGULAR ACCESSIBLE
(SECTION 1106) LOT OR PARKING TOTAL # OF PARKING SPACES # OF ACCESSIBLE SPACES PROVIDED TOTAL # AREA REQUIRED PROVIDED REGULAR WITH VAN SPACES WITH ACCESSIBLE 5' ACCESS 132" ACCESS 8' ACCESS PROVIDED	SPACE EXISTING N/A N/A
AISLE AISLE AISLE	SPECIAL APPROVALS
TOTAL	Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)
STRUCTURAL DESIGN DESIGN LOADS:	
Importance Factors: Wind (I_W) $\frac{1.0}{1.0}$ Snow (I_S)	
Seismic (I _E) 1.0 Live Loads: Roof 20 psf	

ALLOWABLE AREA

□ Non-: The r limita const Separ For e each	separation is not Separated Use (5 equired type of cations for each of cruction, so deterrated Use (508.4) ach story, the are use divided by the ctual Area of Occiwable Area of Occi	construction the applicable mined, shall a see below the according allowable to the allowab	for the building le occupancies apply to the er for area calcul upancy shall be floor area for e + Actua	shall be detern to the entire b itire building. ations such that the s ach use shall no	mined by apuilding. The sum of the ot exceed 1 ancy B	e most r	estrictive t	ype of
			+		+		=	_ ≤1.00
STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503 ⁵ AREA	(C) AREA FOR FRONTAGE INCREASE ¹	(D) AREA FOI SPRINKLE INCREAS	R	(E) LLOWABLE AREA OR INLIMITED ³	(F) MAXIMUM BUILDING AREA ⁴
1	(B) Business	4,658	9,000	5,400	N/A		14,400	, <u>-</u> , .
1	(ACC) Accessory	566	9,000	N/A	N/A		N/A	14,400
Frontage area increases from Section 506.2 are computed thus: a. Perimeter which fronts a public way or open space having 20 feet minimum width = (F) b. Total Building Perimeter = \frac{229'-0"}{P} c. Ratio (F/P) = \frac{1.00}{1.00} (F/P) d. W = Minimum width of public way = \frac{24'-0"}{W} e. Percent of frontage increase I = 100 [F/P - 0.25] x W/30 = \frac{60.0}{W} The sprinkler increase per Section 506.3 is as follows: a. Multi-story building I = 200 percent b. Single story building I = 300 percent Unlimited area applicable under conditions of Section 507. Maximum Building Area = total number of stories in the building x E (506.4). The maximum area of open parking garages must comply with Table 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.								
		WICH +12.1.2	ALLOWABI	E HEIGHT				
		ALLOW (TABLE	ABLE IN	CREASE FOR SPRIN	IKLERS S	HOWN O	N PLANS	CODE REFERENCE
Type of Constr	ruction			/-B	Ту	pe	V-B	Table 601

Type of Construction	Туре	V-B	TypeV-B	_ Table 601	* Indicate section num
Building Height in Feet	40'-0"	H + 20 ft =	29' - 4"	Table 503	
Building Height in Stories	2	S + 1 =	1	Table 503	
					Emergency Light Exit Signs: Fire Alarm: Smoke Detection Panic Hardware:
					Life Safety Plan She Fire and.or s Assumed and
ENERGY REQUIREMENTS: The following data shall be cor code shall also be provided. Eafor the plan data sheet. If performantial energy cost for the pro-	nsidered minimum an ach Designer shall furr ormance method, sta	ish the required por	tions of the project informa	ation	MECHANICAL SYST Thermal Z V S
Method of Compliano ☐ Perscript ☐ Performa ☐ Prescript	ce:				Interior do V S R Building h
THERMAL ENVELOPE					Building o
Roof/ceiling Assembl Description o U-Value of to R-Value of in Skylights in e	of assembly: otal assembly: otal assembly: osulation: each assembly: N	ensdeck roof sheathing o sulation over 1/2" roof s 028 30 /A	WITH AIR GAP AND UNDERLAYMENT O VER POLYISOCYANURATE RIGID BOARE HEATHING OVER TONGUE AND GROOV		Mechanic U
total square Exterior Walls (each Description o	footage of skylights ir assembly) graph of assembly: of assembly:	JILL WIDTH MASONRY STONE, DARD INSULATION, OVER 1/2" TERGRATED VAPOR SYSTEM, PEN CELL SPRAY FOAM INSULA	N/A OVER AIR SPACE, OVER 2" POLSYTREN. EXTERIOR GRADE SHEATHING WITH OVER 6" METAL STUDS AT 16" OC, WIT ATION, WITH 5/8" GYPSUM WALLBOAF	TH 3" MIN.	В
R-Value of in Openings (w U-V Sola proj	isulation: indows or doors with alue of assembly: ir heat gain coefficien ection factor:	glazing) 0.24 t: 0.39 24" / 24" = 1	.1, 2" Polystyrene Rigid Board = R-10		List equip
	or R-Values:	R-3.23			ELECTRICAL SYSTEI
Walls below grade (e Description o U-Value of to R-Value of in	of assembly: otal assembly:	/A			Method o Energy Co
Floors over uncondit i Description o U-Value of to R-Value of in	of assembly: otal assembly:	• •			Lighting So
R-Value of in	otal assembly: <u>0</u> .	oncrete slab over 24" wide x 2' 08 	" thick Polystyrene at slab edge.		N A A A A A A A A A A A A A A A A A A A
Slab heated:					Additiona

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING PROVIDED (W/HR* REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESI FO RA' JOI
Structural Frame, including	(1221)		KEDUCTION		ASSLIVIDET		3011
columns, girders, trusses		0					
Bearing Walls		0					
Exterior		0					
North		0					
East		0					
West		0					
South		0					
Interior		0					
Nonbearing Walls and Partitions		0					
Exterior Walls		0					
North		0					
East		0					
West		0					
South		0					
Interior Walls & Partitions		0					
Floor Construction Including supporting beams and joists		0					
Roof Construction Including supporting beams and joists		0					
Shaft Enclosures - Exit		N/A					
Shaft Enclosures - Other		N/A					
Corridor Separation		N/A					
Occupancy Separation		N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Tenant Separation		N/A					
Incidental Use Separation		N/A					

LIFE SAFETY SYSTEM REQUIREMENTS

hting:		No		Yes	
		No			
	\boxtimes	No		Yes	
ion Systems:	\boxtimes	No		Yes	Partial ———
re: ´		No	\boxtimes	Yes	

LIFE SAFETY PLAN REQUIREMENTS

^ce Safety Plan Sheet#: <u>G100</u>

Fire and.or smoke rated wall locations (Chapter 7)

Assumed and real property line locations

MECHANICAL SUMMARY

ECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Winter dry bulb: Summer dry bulb: **Interior design conditions** Winter dry bulb: Summer dry bulb: Relative humidity: 145.8 MBH **Building heating load: Building cooling load:**

Mechanical Spacing Conditioning System

Unitary Description of unit: Split System AHUs Heating efficiency: Cooling efficiency: Size category of unit: Size category. If oversized, state reason: Size category. If oversized, state reason: List equipment efficiencies: See Equipment Schedules

ELECTRICAL SUMMARY

ECTRICAL SYSTEMS AND EQUIPMENT

Method of Compliance: Energy Code: Prescriptive Performance ASHRAE 90.1: Prescriptive Performance

Lighting Schedule (each fixture type) Lamp type required in fixture Number of lamps in fixture

Refer to Lighting Schedule Refer to Lighting Schedule Ballast type used in the fixture Refer to Lighting Schedule Number of ballasts in fixture Refer to Lighting Schedule Total wattage per fixture

Total interior wattage specified vs. allowed (whole building or space by space) 5120W vs. 5615.39W Total exterior wattage specified vs. allowed 940W vs. 1819W

Refer to Lighting Schedule

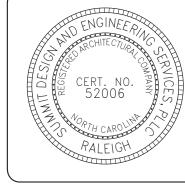
Additional Prescriptive Compliance

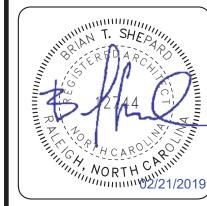
506.2.1 More Efficient Mechanical Equipment 506.2.2 Reduced Lighting Power Density 506.2.3 Energy Recovery Ventilation Systems

506.2.4 Higher Efficiency Service Water Heating 506.2.5 On-Site Supply of Renewable Energy 506.2.6 Automatic Daylighting Control Systems

PROJECT NO. 18-0129.021 SHEET NO.

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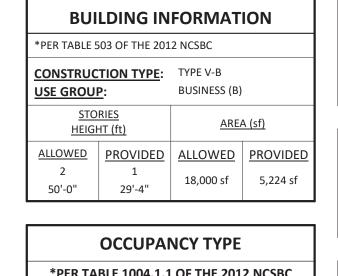
 $\widetilde{\mathbf{Q}}$ AREA, ICOMBE COUNT

I-26 REST ANDERSON/BUNC NORTH CAROLINA 2

SUMMARY

CODE

G000



OCCUPANCY TYPE							
*PER TA	*PER TABLE 1004.1.1 OF THE 2012 NCSBC						
Туре	Area	Factor	Count				
ACC	1069 SF	300	5				
S-1	478 SF	300	3				
В	2989 SF	100	31				
FIRST FLOOR	4536 SF		39				
TOTAL	4536 SF		39				

N		COMMON PA	TH OF TRAVEL			
		*PER 1014.3 OF THE 2012 NCSBC				
		<u>REQUIRED</u> 75'-0"	<u>PROVIDED</u> 56'-6"			
	l '					

EXIT TRAVEL DISTANCE				
*PER TABLE 1016.1 OF THE 2012 NCSBC				
REQUIRED	PROVIDED			
200'-0"	80'-10"			

REMOTENESS OF	EXIT SEPARAT
*PER 1015.21 OF THE 2012N	ICSBC
<u>REQUIRED</u> (1/2) * (99'-5") = 49'-8 1/2"	PROVIDED 65'-0"

NUMBER OF EXITS		
*PER TABLE 1021.1 OF THE 2012 NCSBC		
REQUIRED	PROVIDED	
2	2	

		LIFE SAFETY NOTES
		STORAGE OCCUPANCY
_		ACCESSORY OCCUPANCY
		BUSINESS OCCUPANCY
ON		ADA COMPLIANT SEMI-RECESSED FIRE EXTINGUISHER CABINET
	\bigcirc	WALL MOUNTED FIRE EXTINGUISHER
	፟	WALL MOUNTED DIRECTIONAL LED EXIT SIGN
4	◄ ◆▶	CEILING MOUNTED DIRECTIONAL LED EXIT SIGN
 	# xx	EGRESS WIDTH IN INCHESOCCUPANT LOADMAXIMUM OCCUPANT CAPAC
		OCCUPANT TRAVEL PATH
		COMMON PATH OF TRAVEL

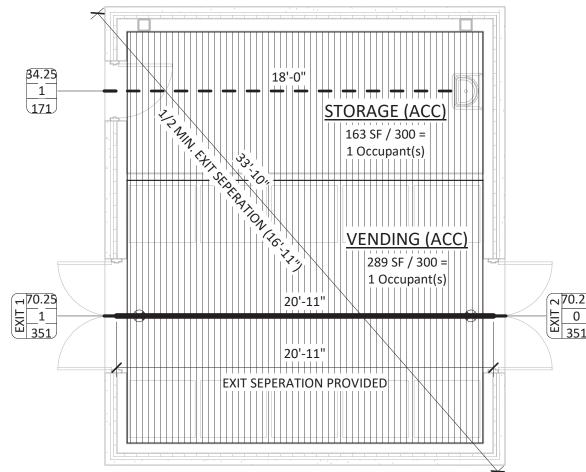
LIFE SAFETY SYMBOL LEGEND

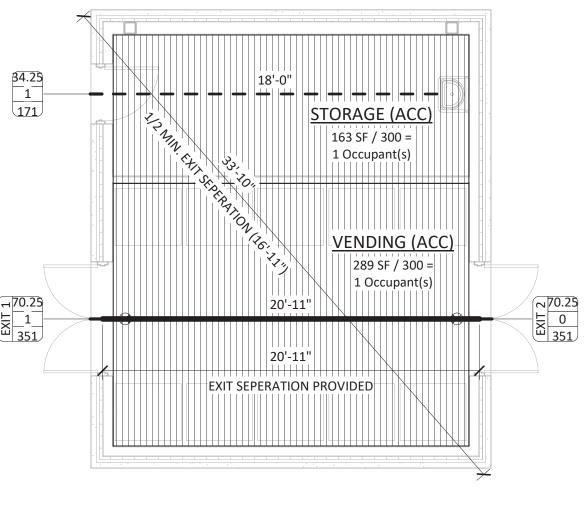
1.	INSTALL FIRE EXTINGUISHERS IN LOCATION INDICATED AND IN COMPLIANCE WITH
	REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

CLEAR EXIT WIDTH *PER 1005.1 OF THE 2012 NCSBC <u>PROVIDED</u> REQUIRED EXIT #1 = 72" 39 x (0.2) = 7.8" EXIT #2 = 72"

MAX. CALCULATED OCCUPANT **LOAD CAPACITY PER EGRESS EXIT**

EXIT #1: CLEAR WIDTH = 72" / 0.2" = 360 OCCUPANTS EXIT #2: CLEAR WIDTH = 72" / 0.2" = 360 OCCUPANTS





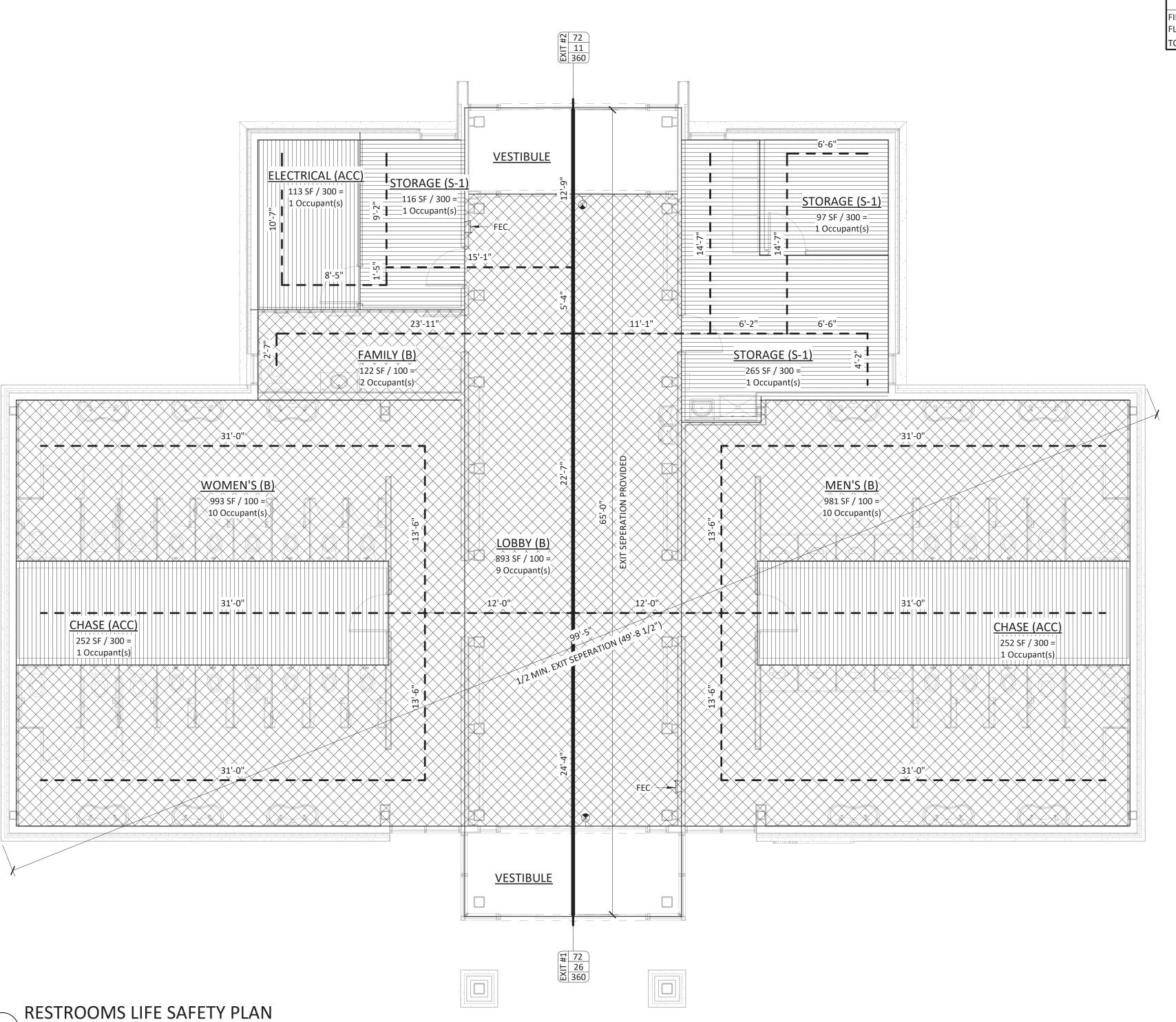
VENDING LIFE SAFETY PLAN 3/16" = 1'-0"

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I-26 REST AREA, WEST BOUND HENDERSON/BUNCOMBE COUNTY NORTH CAROLINA 28732 LIFE SAFETY PLAN

PROJECT NO. 18-0129.021 SHEET NO.

G100



3/16" = 1'-0"

ABBREVIATIONS GENERAL NOTES THE ARCHITECTURAL DRAWINGS SHOULD BE USED IN CONJUNCTION WITH THE CIVIL, STRUCTURAL, MEP, FIRE PROTECTION DRAWINGS AND KEY DESCRIPTION SPECIFICATIONS. DISCREPENCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT THE AVAILABLE SPACE FOR ROUTING ALL ELECTRICAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND DUCTWORK MAY BE LIMITED IN MAN' LOCATIONS. THE GENERAL CONTRACTOR SHALL COORDINATE ALL OF THE TRADES WORK AND MAKE ADJUSTMENTS WITH THE ARCHITECT'S APPROVAL TO THE ROUTING OF THESE ITEMS AS REQUIRED. ANY REWORK RESULTING FROM THE FAILURE TO COORDINATE WILL BE PERFORM BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE GENERAL CONTRACTOR SHALL FULLY ACQUAINT THEMSELVES WITH THE CONDITIONS OF THE CONTRACT, LOCAL CONDITIONS RELATING T THE JOB SITE, ACCESSIBILITY AND GENERAL CHARACTER OF THE CONSTRUCTION SITE AND LOCAL LABOR CONDITIONS SO THAT THEY UNDERSTA THE NATURE, EXTENT, DIFFICULTIES AND RESTRICTIONS RELATED TO THE EXECUTION OF THE WORK. NOTHING IN THE DRAWINGS AND/OR THE SPECIFICATIONS/PROJECT MANUAL SHALL BE CONSTRUED TO PERMIT AN INSTALLATION IN VIOLATION OF APPLICABLE CODES, MANUFACTURER RECOMMENDATIONS, AND/OR REQUIREMENTS. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND OWNER IMMEDIATELY AND CEASE WORK ON ALL PARTS OF THE CONTRACT THAT ARE AFFECTED. THE WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL BE IN FULL ACCORDANCE WITH THE MOST CURRENT ADOPTED, AND AS APPLICABLE, AMENDED, RULES, REGULATIONS, RESTRICTIONS, REQUIREMENTS AND CODES THE CONTRACTOR/SUB-CONTRACTOR EXPRESSLY WARRANTS THAT ALL WORK SHALL BE EXECUTED IN A SOUND AND WORKMANLIKE MANNER CONFORMANCE WITH THE HIGHEST STANDARDS WITHIN THE INDUSTRY AND WARRANTS THAT ALL MATERIALS USED TO COMPLETE THE WORK/PROJECT ARE MERCHANTABLE, FREE FROM ANY PATENT OR LATENT DEFECT, FIT FOR THEIR INTENDED USE, AND EQUAL IN QUALITY TO BEST OF THEIR KIND. 6. THE DRAWINGS ARE ONLY INTENDED TO PARTIALLY DESCRIBE THE OVERALL SCOPE OF WORK. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND ALERT THE ARCHITECT AND OWNER IN ADVANCE, TO ANY UNFORESEEN CONDITIONS AND/OR CONSTRUCTION DIFFICULTIES PRIOR TO COMMENCING WORK OR WORKING ON THE AFFECTED PORTION OF THE WORK. WHERE WORK IS REQUIRED FOR A COMPLETE PROJECT, BUT NOT SPECIFICALLY DRAWN OR INDICATED, THE CONTRACTOR SHALL PROVIDE THE **NECESSARY WORK.** 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES. ANY EXISTING UTILITIES INDICATED HAVE BEEN OBTAI FROM AVAILABLE RECORDS AND ARE INDICATED FOR CONVENIENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL UTILITY LOCATIONS NOT INDICATED. CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGE OR DISTURBANCE TO EXISTING UTILITIES. ITEMS NOTED AS TYPICAL MAY NOT BE NOTED AT EVERY OCCURRENCE. DIMENSIONS, NOTES, FINISHES, AND FIXTURES SHOWN ON TYPICAL PLANS, SECTIONS, OR DETAILS SHALL APPLY TO SIMILAR, SYMMETRICAL OR OPPOSITE PLANS, SECTIONS OR DETAILS. ALL PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRE BLOCKED AND SEALED PER UL APPROVED METHODS. 11. ALL CONCEALED FIRE RATED ASSEMBLIES SHALL BE PROVIDED WITH SIGNAGE INDICATING THE TYPE OF ASSEMBLY AND THE FIRE RATING IN HO IN LETTERS NO SMALLER THAN 2" HIGH. SEE NCSBC SECTION 701.2. 12. THE GENERAL CONTRACTOR TO PROVIDE KNOX BOX AS REQUIRED BY LOCAL FIRE MARSHAL. GC TO REVIEW LOCATIONS WITH ARCHITECT PRIOF INSTALLATION. 13. IN CASE OF ANY CONFLICT WHEREIN THE METHODS OR STANDARDS OF INSTALLATION OR THE MATERIALS SPECIFIED DO NOT EQUAL OR EXCEE THE REQUIREMENTS OF THE LAWS OR ORDINANCES, THE LAWS OR ORDINANCES SHALL GOVERN. CONTRACTOR SHALL NOTIFY THE ARCHITECT OWNER OF ALL CONFLICTS ONCE KNOWN. 14. THE ARCHITECT ASSUMES NO RESPONSIBILITY AS TO THE PHYSICAL CHARACTERISTICS OF THE SOIL(S) OR THE ACCURACY OF ENGINEERING DATA SUPPLIED BY OTHERS. 15. THE G.C. SHALL VERIFY DIMENSIONS, LEVELS, EASEMENTS, BOUNDARIES AND CONSTRUCTION INDICATED ON CONTRACT DRAWINGS BEFORE PROCEEDING WITH THE WORK. ALSO, THE G.C. SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS BETWEEN CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS, BEFORE COMMENCING WITH ANY WORK AND REQUEST CLARIFICATION AS REQUIRED. DIMENSIONS NOTED AS "CLR." ARE TO BE CLEAR FROM FACE OF FINISH MATERIAL TO FACE OF FINISH MATERIAL OR CENTERLINE OF FIXTURE AI ARE NOT ADJUSTABLE WITHOUT WRITTEN APPROVAL OF ARCHITECT. 17. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS FOR THE EQUIPMENT FURNISHED AND INSTALLED BY CONTRACTOR OR OTHERS. 18. PROVIDE RIGID BAFFLES (RESISTANT TO WIND DRIVEN MOISTURE). ALL EAVE VENTS TO DEFLECT INCOMING AIR ABOVE INSULATION SURFACE. INSTALL BAFFLES FROM TOP OF OUTSIDE OF EXTERIOR WALL TO MINIMUM 6" VERTICAL ABOVE TOP OF INSULATION. FOR LOOSE FILL INSULATION INSTALL PERMANENT RETAINER TO MAINTAIN REQUIRED CLEARANCES. 19. INSTALL AND SEAL ALL BATHROOM ACCESSORIES (I.E. GRAB BARS, TOWEL BARS, ETC.) ON OR WITHIN WALLS TO PROTECT ELEMENTS FROM MOISTURE. WALLS AT SHOWERS AND BATHTUBS SHALL BE WATERTIGHT TO A MINIMUM OF 7'-0" HIGH ABOVE DRAIN INLET. 20. PROVIDE APPROPRIATE SEALANT AROUND WINDOWS, DOOR JAMBS & HEADS, AND ADJACENTCONSTRUCTION. 21. WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE PRESERVATIVE TREATED; USE OF CCA PRESERVATIVE IS PROHIBITED. US APPROPRIATE FASTENERS PER PRESERVATIVE.

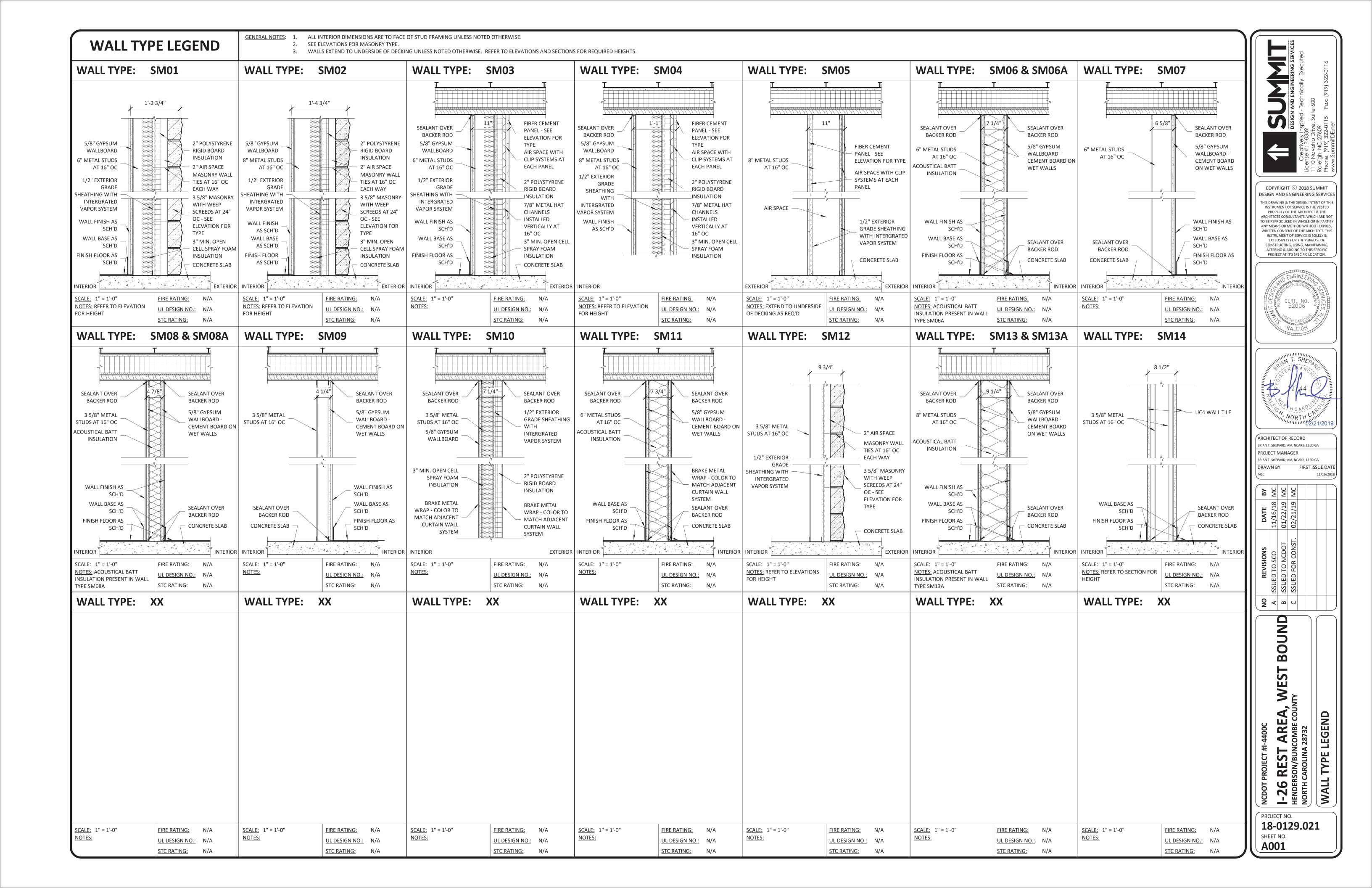
1.	THE ARCHITECTURAL DRAWINGS SHOULD BE USED IN CONJUNCTION WITH THE CIVIL, STRUCTURAL, MEP, FIRE PROTECTION DRAWINGS AND	KEY DESCRIPTION
_	SPECIFICATIONS. DISCREPENCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.	# POUND OR NUMBER & AND
2.	THE AVAILABLE SPACE FOR ROUTING ALL ELECTRICAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND DUCTWORK MAY BE LIMITED IN MANY	@ AT
	LOCATIONS. THE GENERAL CONTRACTOR SHALL COORDINATE ALL OF THE TRADES WORK AND MAKE ADJUSTMENTS WITH THE ARCHITECT'S	
	APPROVAL TO THE ROUTING OF THESE ITEMS AS REQUIRED. ANY REWORK RESULTING FROM THE FAILURE TO COORDINATE WILL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.	ABV ABOVE
3.	THE GENERAL CONTRACTOR SHALL FULLY ACQUAINT THEMSELVES WITH THE CONDITIONS OF THE CONTRACT, LOCAL CONDITIONS RELATING TO	ACT ACOUSTIC CEILING TILE AD AREA DRAIN
	THE JOB SITE, ACCESSIBILITY AND GENERAL CHARACTER OF THE CONSTRUCTION SITE AND LOCAL LABOR CONDITIONS SO THAT THEY UNDERSTAND	AFF ABOVE FINISHED FLOOR
	THE NATURE, EXTENT, DIFFICULTIES AND RESTRICTIONS RELATED TO THE EXECUTION OF THE WORK.	AHJ AUTHORITY HAVING JURISDICTION
4.	NOTHING IN THE DRAWINGS AND/OR THE SPECIFICATIONS/PROJECT MANUAL SHALL BE CONSTRUED TO PERMIT AN INSTALLATION IN VIOLATION	ALT ALTERNATE ALUM ALUMINUM
	OF APPLICABLE CODES, MANUFACTURER RECOMMENDATIONS, AND/OR REQUIREMENTS. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND	ANOD ANODIZED
	OWNER IMMEDIATELY AND CEASE WORK ON ALL PARTS OF THE CONTRACT THAT ARE AFFECTED. THE WORK TO BE PERFORMED UNDER THIS	
	CONTRACT SHALL BE IN FULL ACCORDANCE WITH THE MOST CURRENT ADOPTED, AND AS APPLICABLE, AMENDED, RULES, REGULATIONS,	B/O BY OTHERS BLDG BUILDING
5.	RESTRICTIONS, REQUIREMENTS AND CODES. THE CONTRACTOR/SUB-CONTRACTOR EXPRESSLY WARRANTS THAT ALL WORK SHALL BE EXECUTED IN A SOUND AND WORKMANLIKE MANNER IN	BLK BLOCK
5.	CONFORMANCE WITH THE HIGHEST STANDARDS WITHIN THE INDUSTRY AND WARRANTS THAT ALL MATERIALS USED TO COMPLETE THE	BLKG BLOCKING
	WORK/PROJECT ARE MERCHANTABLE, FREE FROM ANY PATENT OR LATENT DEFECT, FIT FOR THEIR INTENDED USE, AND EQUAL IN QUALITY TO THE	BLW BELOW BOT BOTTOM
	BEST OF THEIR KIND.	BTW BETWEEN
6.	THE DRAWINGS ARE ONLY INTENDED TO PARTIALLY DESCRIBE THE OVERALL SCOPE OF WORK. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING	BYND BEYOND
	CONDITIONS AND ALERT THE ARCHITECT AND OWNER IN ADVANCE, TO ANY UNFORESEEN CONDITIONS AND/OR CONSTRUCTION DIFFICULTIES	CHNL CHANNEL
-	PRIOR TO COMMENCING WORK OR WORKING ON THE AFFECTED PORTION OF THE WORK.	CIP CAST IN PLACE
7.	WHERE WORK IS REQUIRED FOR A COMPLETE PROJECT, BUT NOT SPECIFICALLY DRAWN OR INDICATED, THE CONTRACTOR SHALL PROVIDE THE NECESSARY WORK.	CJ CONTROL JOINT
8.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES. ANY EXISTING UTILITIES INDICATED HAVE BEEN OBTAINED	CL CENTERLINE CLG CEILING
0.	FROM AVAILABLE RECORDS AND ARE INDICATED FOR CONVENIENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL UTILITY	CLG CEICING CLR CLEAR
	LOCATIONS NOT INDICATED. CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGE OR DISTURBANCE TO EXISTING UTILITIES.	CMU CONCRETE MASONRY UNIT
9.	ITEMS NOTED AS TYPICAL MAY NOT BE NOTED AT EVERY OCCURRENCE. DIMENSIONS, NOTES, FINISHES, AND FIXTURES SHOWN ON TYPICAL	COL COLUMN COMPR COMPRESSIBLE
	PLANS, SECTIONS, OR DETAILS SHALL APPLY TO SIMILAR, SYMMETRICAL OR OPPOSITE PLANS, SECTIONS OR DETAILS.	COMPR COMPRESSIBLE CONC CONCRETE
10.	ALL PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRE BLOCKED AND SEALED PER UL APPROVED METHODS.	CONT CONTINIOUS
11.	ALL CONCEALED FIRE RATED ASSEMBLIES SHALL BE PROVIDED WITH SIGNAGE INDICATING THE TYPE OF ASSEMBLY AND THE FIRE RATING IN HOURS	COORD COORDINATE
12.	IN LETTERS NO SMALLER THAN 2" HIGH. SEE NCSBC SECTION 701.2. THE GENERAL CONTRACTOR TO PROVIDE KNOX BOX AS REQUIRED BY LOCAL FIRE MARSHAL. GC TO REVIEW LOCATIONS WITH ARCHITECT PRIOR TO	CPT CARPET CT CERAMIC TILE
12.	INSTALLATION.	DBL DOUBLE
13.	IN CASE OF ANY CONFLICT WHEREIN THE METHODS OR STANDARDS OF INSTALLATION OR THE MATERIALS SPECIFIED DO NOT EQUAL OR EXCEED	
	THE REQUIREMENTS OF THE LAWS OR ORDINANCES, THE LAWS OR ORDINANCES SHALL GOVERN. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND	DEMO DEMOLISH OR DEMOLITION DIA DIAMETER
	OWNER OF ALL CONFLICTS ONCE KNOWN.	DIM DIMENSION
14.	THE ARCHITECT ASSUMES NO RESPONSIBILITY AS TO THE PHYSICAL CHARACTERISTICS OF THE SOIL(S) OR THE ACCURACY OF ENGINEERING DATA	DN DOWN
	SUPPLIED BY OTHERS.	DR DOOR DS DOWNSPOUT
15.	THE G.C. SHALL VERIFY DIMENSIONS, LEVELS, EASEMENTS, BOUNDARIES AND CONSTRUCTION INDICATED ON CONTRACT DRAWINGS BEFORE	DTL DETAIL
	PROCEEDING WITH THE WORK. ALSO, THE G.C. SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS BETWEEN THE	DW DISHWASHER
16.	CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS, BEFORE COMMENCING WITH ANY WORK AND REQUEST CLARIFICATION AS REQUIRED. DIMENSIONS NOTED AS "CLR." ARE TO BE CLEAR FROM FACE OF FINISH MATERIAL TO FACE OF FINISH MATERIAL OR CENTERLINE OF FIXTURE AND	DWG DRAWING
10.	ARE NOT ADJUSTABLE WITHOUT WRITTEN APPROVAL OF ARCHITECT.	EA EACH
17.	THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS FOR THE EQUIPMENT FURNISHED AND INSTALLED BY CONTRACTOR OR OTHERS.	EJ EXPANSION JOINT
18.	PROVIDE RIGID BAFFLES (RESISTANT TO WIND DRIVEN MOISTURE). ALL EAVE VENTS TO DEFLECT INCOMING AIR ABOVE INSULATION SURFACE.	ELEV ELEVATION OR ELEVATOR EDDM ETHYLENE PROPYLENE DIENE M. CLASS
	INSTALL BAFFLES FROM TOP OF OUTSIDE OF EXTERIOR WALL TO MINIMUM 6" VERTICAL ABOVE TOP OF INSULATION. FOR LOOSE FILL INSULATION,	EPDM ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING)
	INSTALL PERMANENT RETAINER TO MAINTAIN REQUIRED CLEARANCES.	EQ EQUAL
19.	INSTALL AND SEAL ALL BATHROOM ACCESSORIES (I.E. GRAB BARS, TOWEL BARS, ETC.) ON OR WITHIN WALLS TO PROTECT ELEMENTS FROM	EXIST EXISTING EXT EXTERIOR
20.	MOISTURE. WALLS AT SHOWERS AND BATHTUBS SHALL BE WATERTIGHT TO A MINIMUM OF 7'-0" HIGH ABOVE DRAIN INLET. PROVIDE APPROPRIATE SEALANT AROUND WINDOWS, DOOR JAMBS & HEADS, AND ADJACENTCONSTRUCTION.	EXTERIOR
20.	WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE PRESERVATIVE TREATED; USE OF CCA PRESERVATIVE IS PROHIBITED. USE	FA FIRE ALARM
21.	APPROPRIATE FASTENERS PER PRESERVATIVE.	FD FLOOR DRAIN FE FIRE EXTINGUISHER
22.	ALL MATERIALS AND/OR EQUIPMENT SHALL BE INSTALLED/USED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND/OR	FEC FIRE EXTINGUISHER CABINET
	RECOMMENDATIONS & SHALL COMPLY W/ ALL APPLICABLE CODES, ORDINANCES AND REGULATIONS.	FIXT FIXTURE
23.	FIRE DEPARTMENT REQUIRED WATER MAINS, FIRE HYDRANTS AND TEMPORARY FIRE DEPARTMENT ACCESS TO BE INSTALLED, INSPECTED, AND	FLR FLOOR FND FOUNDATION
2 -	APPROVED BY THE FIRE DEPARTMENT PRIOR TO COMMENCEMENT OF COMBUSTIBLE CONSTRUCTION.	FO FACE OF
24.	THESE DRAWINGS DO NOT CONTAIN THE REQUIREMENTS FOR JOB SAFETY. ALL PROVISIONS FOR SAFETY SHALL BE THE SOLE RESPONSIBILITY OF	FOC FACE OF CONCRETE
25.	THE CONTRACTOR. THE G.C. SHALL MAINTAIN A CURRENT AND COMPLETE SET OF APPROVED CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF	FOF FACE OF FINISH FOM FACE OF MASONRY
25.	CONSTRUCTION FOR USE BY ALL TRADES.	FOS FACE OF STUDS
26.	THE G.C. SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND FOR ITEMS LISTED IN THE PROJECT MANUAL (UNDER SEPARATE COVER).	FOW FACE OF WALL
27.	ALL FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM OF 8" ABOVE THE FINISHED GRADE OR AS INDICATED ON THE DRAWINGS. GRADE SHALL	GA GAUGE
	BE SLOPED AWAY FROM BUILDING FOR POSITIVE DRAINAGE.	GALV GALVANIZED
28.	PROVIDE TEMPERED GLASS AS REQUIRED BY CODE ADJACENT TO DOORS AND EXITWAYS.	GC GENERAL CONTRATOR
29.	RIGID INSULATION SHALL BE PER IBC SECTION 2603	GWB GYPSUM WALL BOARD
30. 31.	ROWLOCKS ARE TO PROJECT MIN. 1/2" FROM THE FACE OF RUNNING BOND BELOW. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. ALL HVAC, PLUMBING AND ELEC. PENETRATIONS THROUGHOUT THE EXTERIOR WALLS AND AT THE TOP AND BOTTOM PLATES SHALL BE PROPERLY	HC HOLLOW CORE
51.	SEALED.	HM HOLLOW METAL
32.	ALL CAULKING/SEALANT COLORS TO MATCH ADJACENT SURFACES.	HVAC HEATING, VENTILATING, AND AIR CONDITIONING
33.	THE G.C. SHALL ASSURE THAT ANY AND ALL MATERIAL COMPATIBILITY IS ACHIEVED WITH NO NEGATIVE EFFECT ON MATERIALS; I.E. CONTACT OF	CONDITIONING
	DISSIMILAR MATERIALS WILL HAVE NO NEGATIVE IMPACT/EFFECT ON EITHER MATERIAL OR SURROUNDING CONSTRUCTION. G.C. SHALL INFORM	INSUL INSULATION
	ARCHITECT OF ANY AND ALL CONCERNS PRIOR TO FABRICATION/INSTALLATION.	INT INTERIOR IRGWB IMPACT RESISTANT GYPSUM WALL
34.	EXPOSED STEEL LINTELS AND 'BREAK' METAL TO BE PAINTED TO MATCH ADJACENT SURFACE UNLESS NOTES OTHERWISE.	BOARD
~ -		BUARD
35.	PROVIDE SOLID BLOCKING WITHIN WALL CAVITY SEGMENTS BEHIND ALL EXTERIOR LIGHTS, SIGNAGE, BRACKETS, ETC.	
36.	PROVIDE SOLID BLOCKING WITHIN WALL CAVITY SEGMENTS BEHIND ALL EXTERIOR LIGHTS, SIGNAGE, BRACKETS, ETC. VERIFY ALL FINISH FLOOR ELEVATIONS WITH CIVIL DRAWINGS.	LH LEFT HAND
	PROVIDE SOLID BLOCKING WITHIN WALL CAVITY SEGMENTS BEHIND ALL EXTERIOR LIGHTS, SIGNAGE, BRACKETS, ETC. VERIFY ALL FINISH FLOOR ELEVATIONS WITH CIVIL DRAWINGS. COORDINATE DOWNSPOUT/ROOF DRAIN LEADER TIE-INS WITH THE CIVIL DRAWINGS; FOR THOSE WITHOUT TIES, PROVIDE SPLASH BLOCKS.	
36.	PROVIDE SOLID BLOCKING WITHIN WALL CAVITY SEGMENTS BEHIND ALL EXTERIOR LIGHTS, SIGNAGE, BRACKETS, ETC. VERIFY ALL FINISH FLOOR ELEVATIONS WITH CIVIL DRAWINGS.	LH LEFT HAND

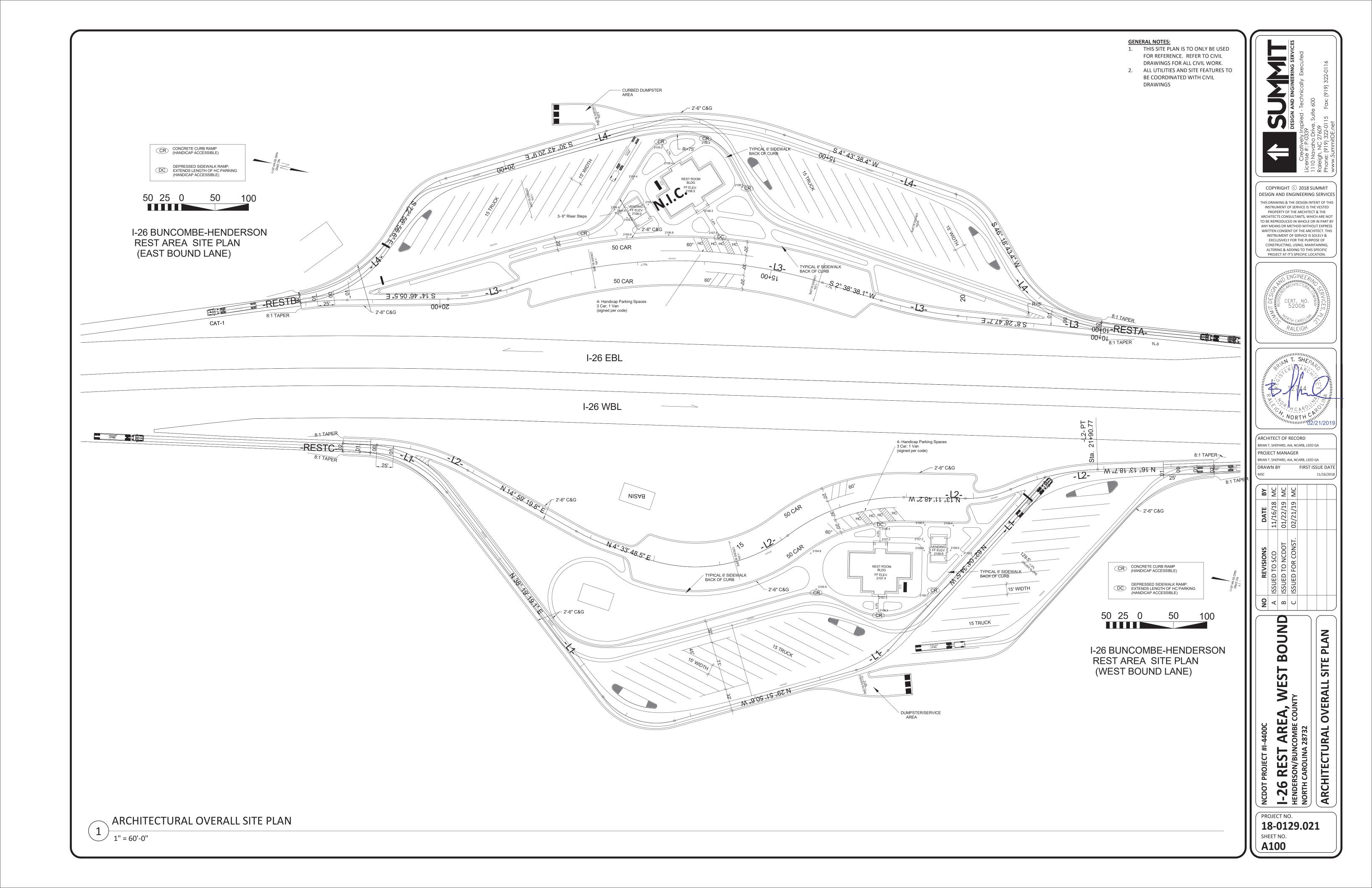
ΓΙΟΙ	NS	MATERIAL	SYMBOLS
1/5)/	DESCRIPTION 1		
KEY MEMBR	DESCRIPTION MEMBRANE		ACOUSTICAL BATT
MFR	MANUFACTURER		INSULATION
MIN	MINIMUM MIRROR		
MO	MASONRY OPENING		
MRGWB	MOISTURE RESISTANT GYPSUM WALL		ALUMINUM
MTL	BOARD METAL		
IVITE	WEIZE		
NIC	NOT IN CONTRACT		BLOCKING/WOOD STUD
NOM NTS	NOMINAL NOT TO SCALE		(CONTINUOUS)
	NOT TO SOME		
OC	ON CENTER		
OPNG	OPENING		BLOCKING (NON-CONTINUOUS)
PCC	PRE-CAST CONCRETE		(NON CONTINUOUS)
PL	PROPERTY LINE	4 4 4	
PLAM PLUMB	PLASTIC LAMINATE PLUMBING	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
PLYD	PLYWOOD	4	CONCRETE
PNT	PAINT OR PAINTED	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
PT PVC	PRESSURE TREATED POLYVINYL CHLORIDE		
			CONCRETE BLOCK
QTY	QUANTITY		
RAD	RADIUS		
RBR	RUBBER		
RCP RD	REFLECTED CEILING PLAN ROOF DRAIN		EARTH, COMPACTED FILL
REF	REFERENCE		
REFR	REFRIGERATOR		
REQ'D REV	REQUIRED REVISION		FACE BRICK
RH	RIGHT HAND		TAGE BAILOR
RM	ROOM		
RO	ROUGH OPENING		
SCH	SCHEDULE		GYPSUM WALLBOARD
SIM	SIMILAR		
SPEC SPK	SPECIFIED OR SPECIFICATION SPEAKER		
SQ	SQUARE		PLYWOOD
SSTL	STAINLESS STEEL		FLIWOOD
STC STL	SOUND TRANSMISSION COEFFICIENT STEEL		
STRUCT	STRUCTURE OR STRUCTURAL		
T&G	TONGUE AND GROOVE		RIGID INSULATION
T/D	TELEPHONE/DATA		
T/O	TOP OF		
TELE THK	TELEPHONE THICK		SAND/MORTAR
TLT	TOILET		SAND/WORTAN
TOC	TOP OF CONCRETE		
TOS TPD	TOP OF STEEL TOILET PAPER DISPENSER		
TYP	TYPICAL		SPRAY FOAM INSULATION
UL	UNDERWRITERS LABORATORY UNLESS NOTED OTHERWISE		
ONO	ONLESS NOTED OTHERWISE		
VB	VAPOR BARRIER		STEEL
VIF VR	VERIFY IN FIELD VAPOR RETARDER		
VIX	VALOR RETARDER		
W/	WITH		STONE/GRAVEL
W/O WD	WITHOUT		
VVD	Weed		
			WOOD
		1	

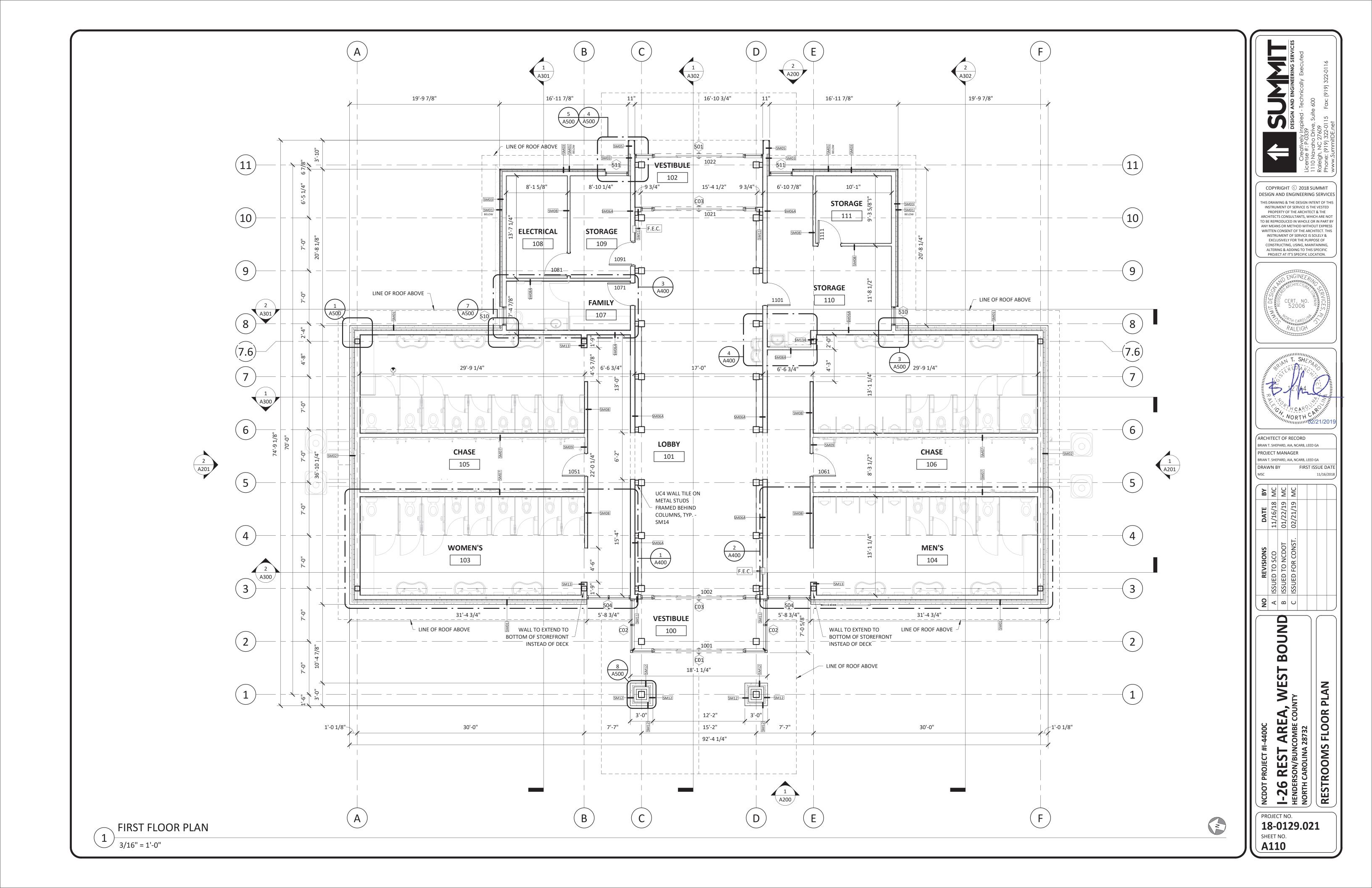
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			SIM
N CONTRACT		BLOCKING/WOOD STUD	##
NAL O SCALE		(CONTINUOUS)	AXXX/XX
J SCALE			
NTER			^
NG		BLOCKING	SIM ##
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CONCRETE			
STEEL			
PAPER DISPENSER			1 11
		SPRAY FOAM INSULATION	xx'-xx"
VRITERS LABORATORY			
NOTED OTHERWISE			
24225		STEEL	[<u>-</u>
BARRIER			L
N FIELD			DASHED LINE
RETARDER			
	55555555555555555555555555555555555555		
JT		STONE/GRAVEL	
			SOLID LINE
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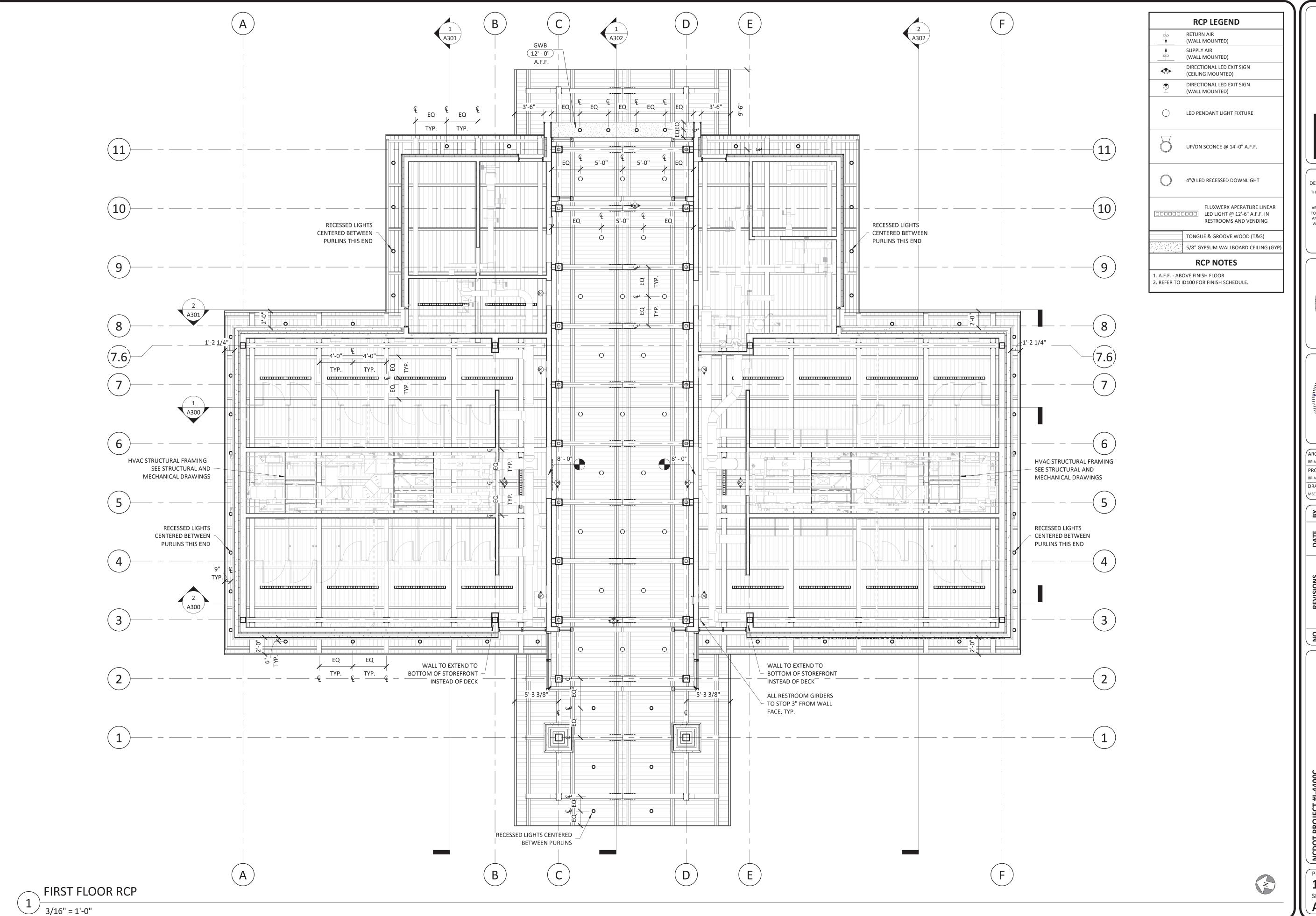
DRAWING	SYMBOLS	S SERVICE:
1001	DOOR WITH TAG	SUPPLIES FAX: (919) 322-0116
SIM ## AXXX/XX	ELEVATION TAG	vely In P-0339 No Driv C 2760 9) 322-
## AXXX/XX	BUILDING SECTION	Creati: License #: 1110 Nava Raleigh, NG Phone: (91)
SIM ## AXXX/XX	WALL SECTION	DESIGN AND ENGINEERING SERVICES THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS
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ROOM NAME ###	ROOM TAG, NAME & NUMBER	ENGINEERING SERVICES, SERV
## ##	WALL TAG	RALEIGH
###	STOREFRONT/ WINDOW TAG	T. SHEDARONINI
Œ.	CENTERLINE	HCAROLINA NORTH CAMINING V21/2019
GRID —	GRID LINE	ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED GA PROJECT MANAGER BRIAN T. SHEPARD, AIA, NCARB, LEED GA DRAWN BY FIRST ISSUE DATE
?	MATERIAL TAG	MSC 11/16/2018 MC 22/19 MC 21/19 MC 21/
$\sqrt{1}$	REVISION TAG	D 111/ 001/
xx'-xx"	SPOT ELEVATION	REVISIONS ISSUED TO SCO ISSUED TO NCDOT ISSUED FOR CONST
DASHED LINE	DEMOLISHED ITEM TO BE REMOVED	
SOLID LINE	NEW WALL	T BOU
SHADED	EXISTING ITEM TO REMAIN	EST AREA, WEST BOUND N/BUNCOMBE COUNTY SOLINA 28732 ABBREVIATIONS, SYMBOLS
x"/x"	SLOPE ARROW	OJECT #I-4400C EST AREA, V N/BUNCOMBE COUNTY ROLINA 28732 ABBREVIATION
x" x"	SLOPE TRIANGLE	I-26 RESTHENDERSON/BUNORTH CAROLIN
##	EQUIPMENT TAG	PROJECT NO. 18-0129.021

SHEET NO. **G200**

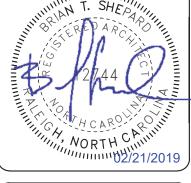








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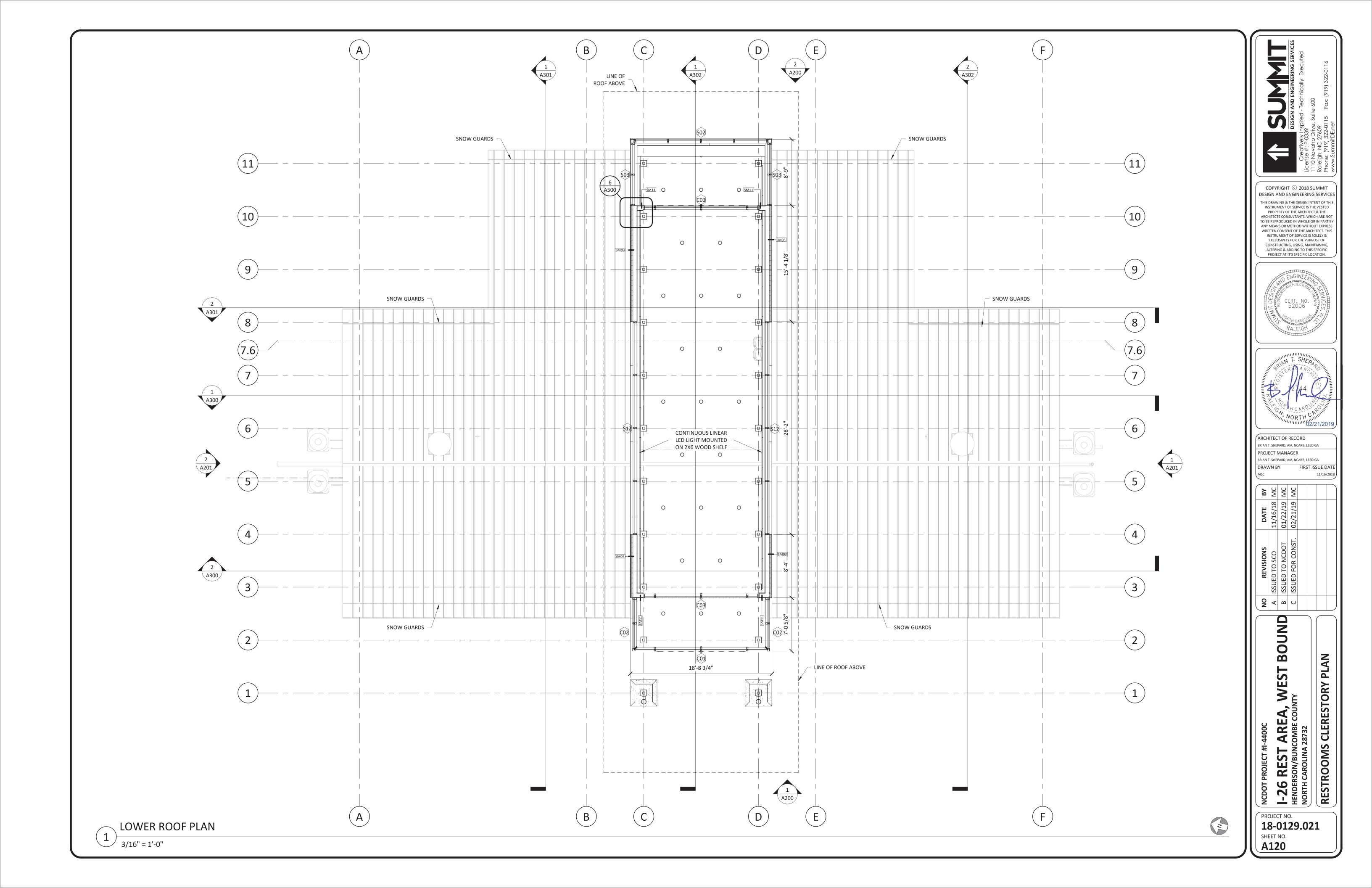


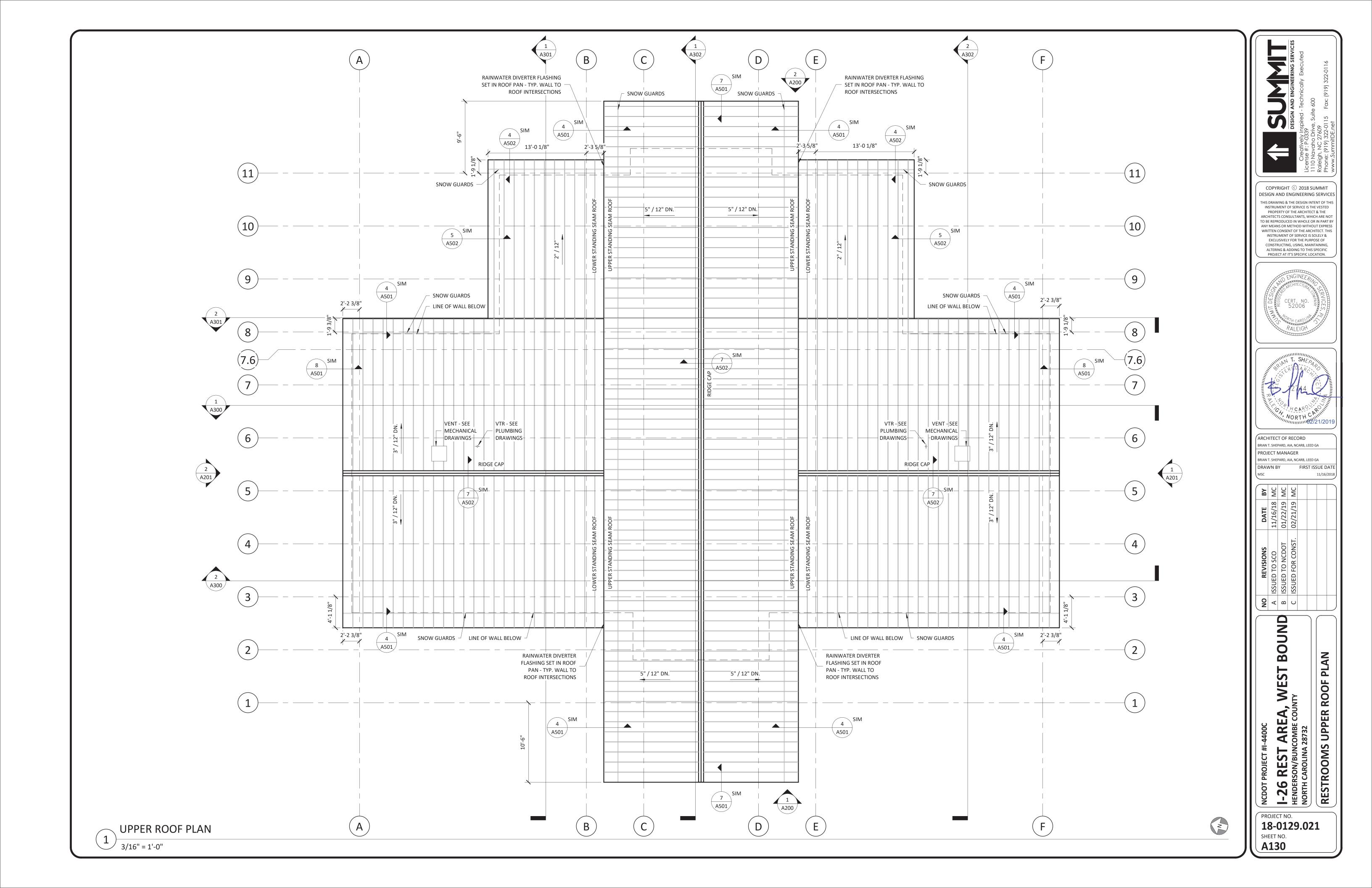
ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED GA PROJECT MANAGER BRIAN T. SHEPARD, AIA, NCARB, LEED GA FIRST ISSUE DATE DRAWN BY

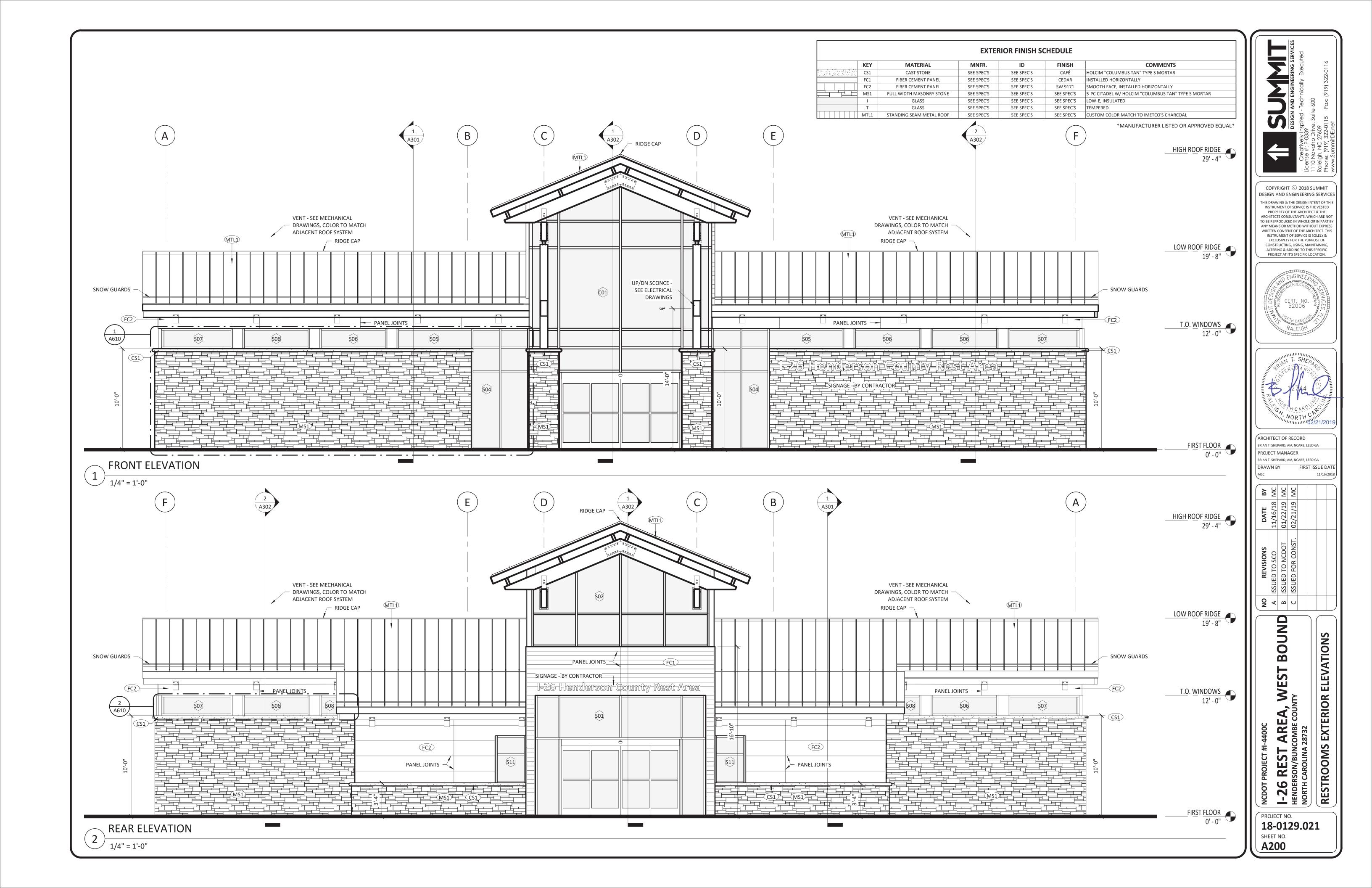
BOUND

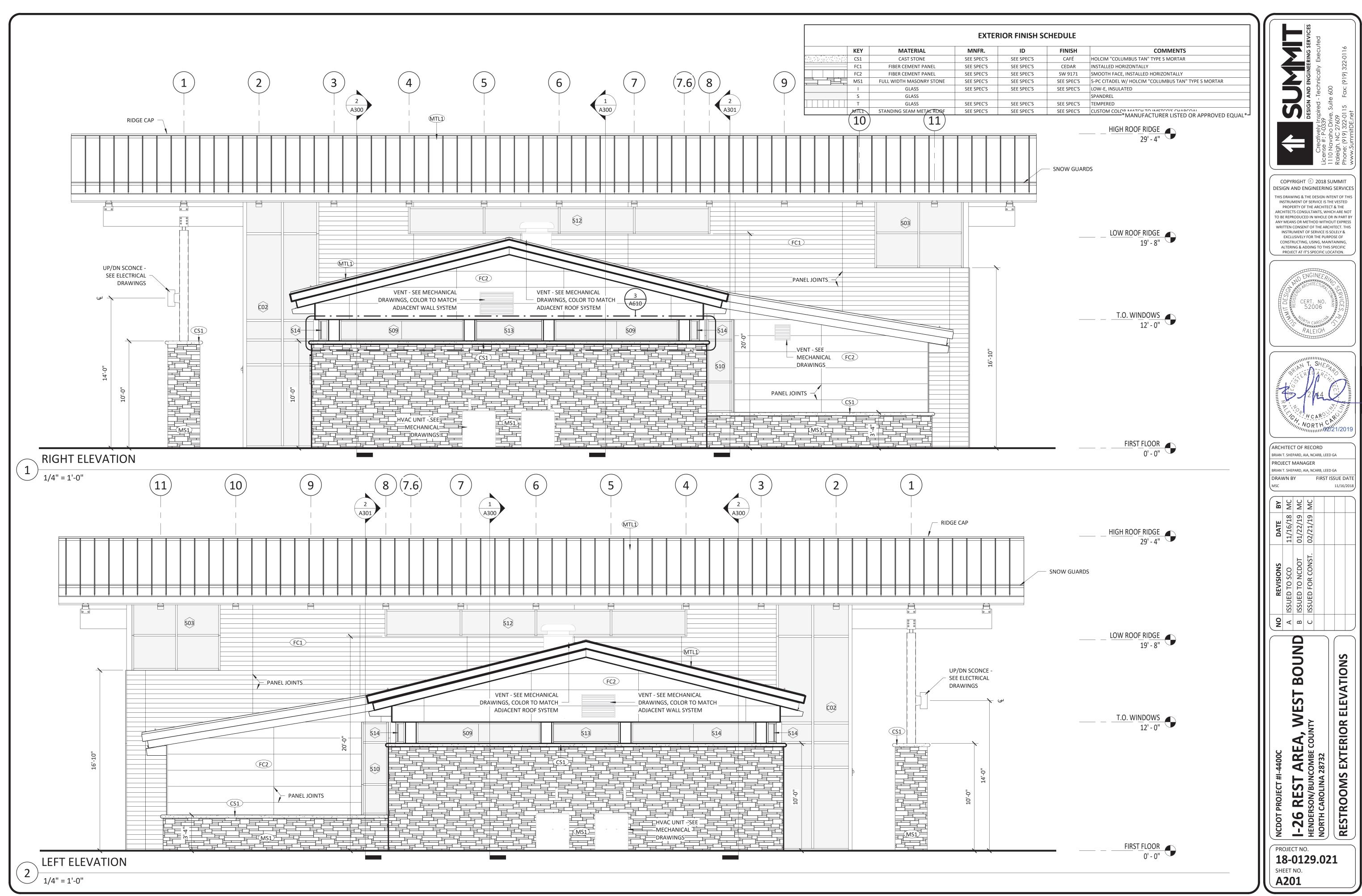
RESTROOMS REFLECTED CEILING PLAN WEST I-26 REST AREA, V HENDERSON/BUNCOMBE COUNTY NORTH CAROLINA 28732

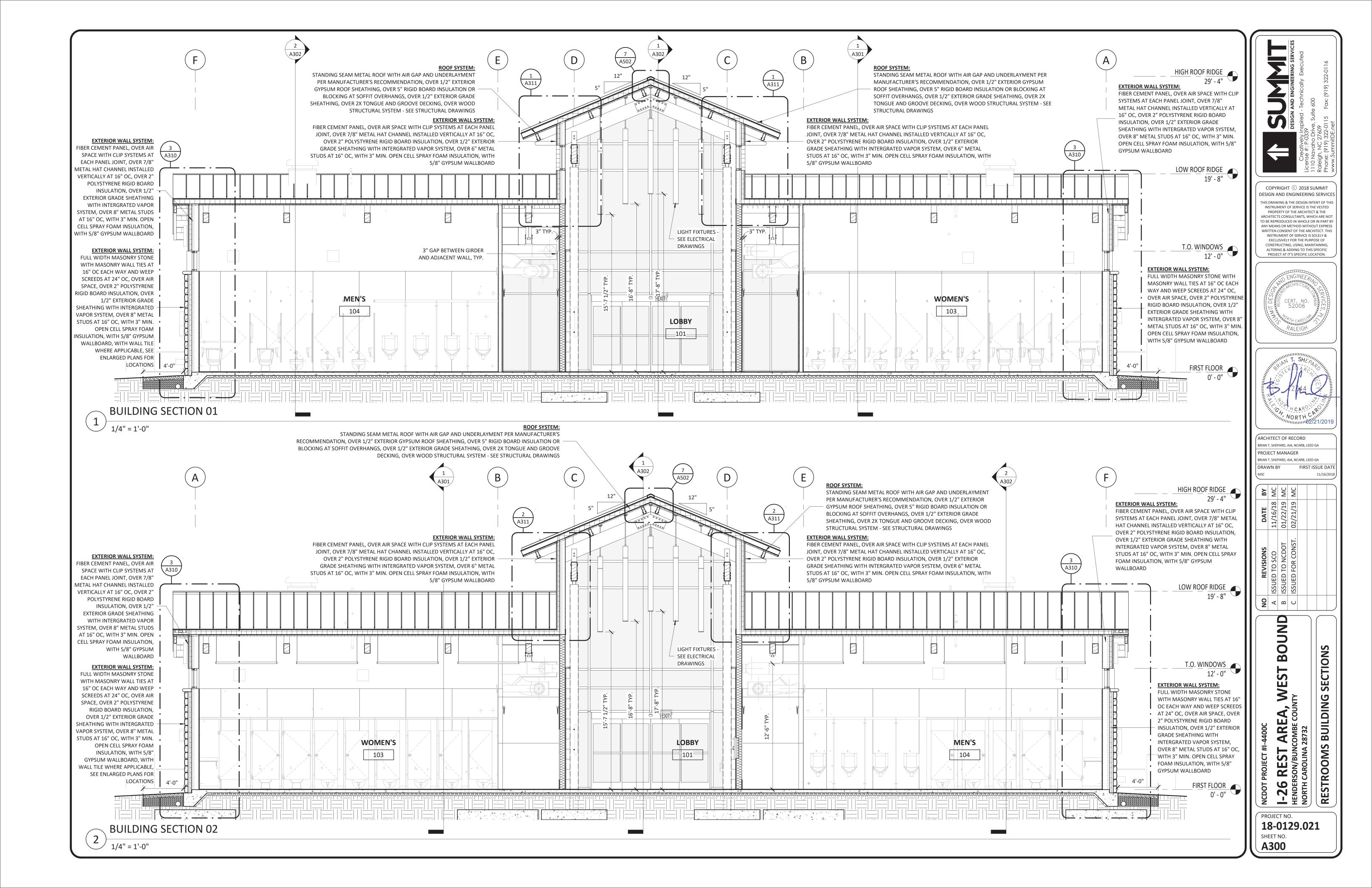
PROJECT NO. 18-0129.021 SHEET NO. **A111**

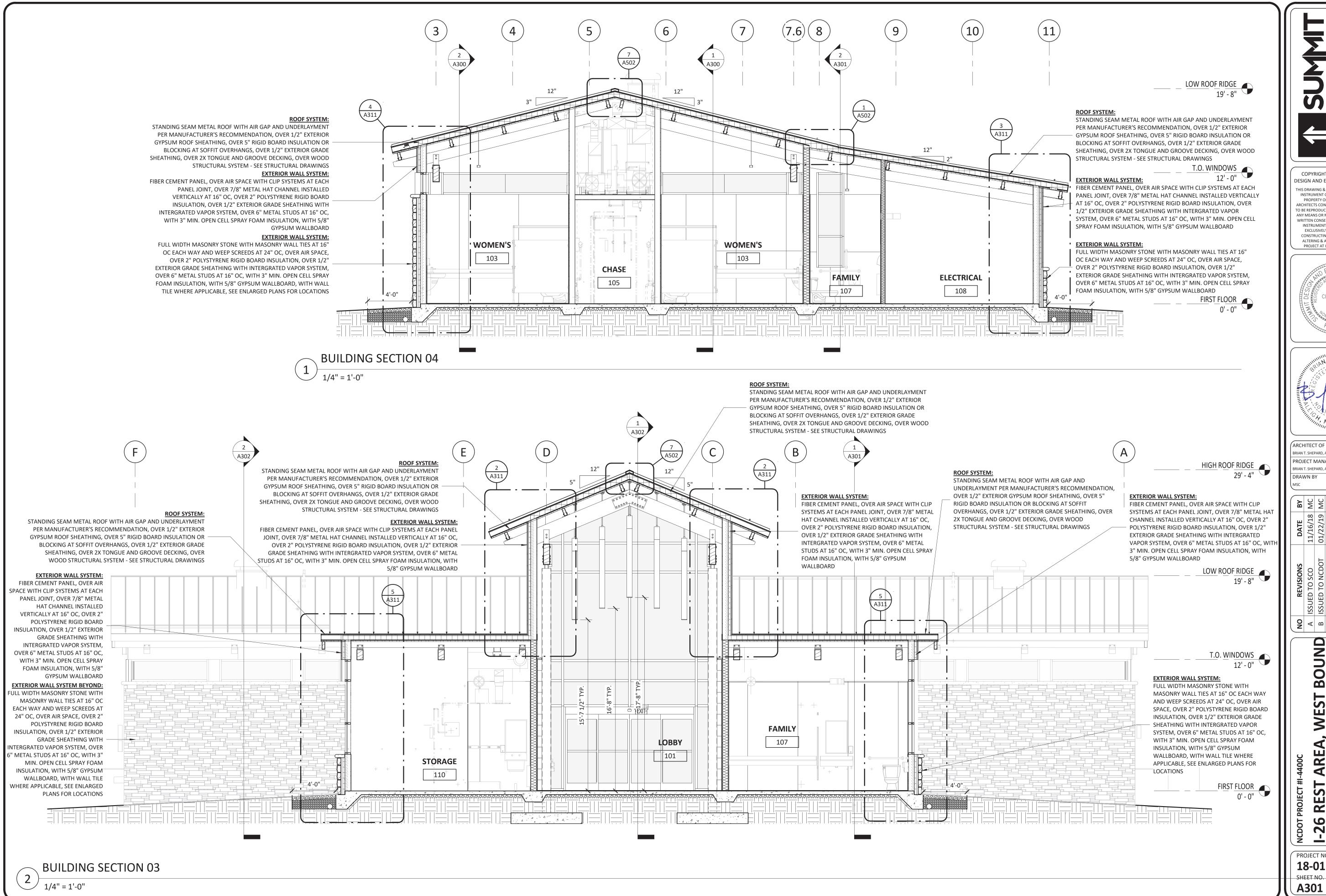




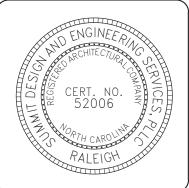


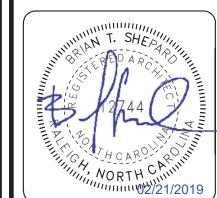






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ARCHITECT OF RECORD BRIAN T. SHEPARD, AIA, NCARB, LEED GA BRIAN T. SHEPARD, AIA, NCARB, LEED GA

FIRST ISSUE DATE

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RESTROOMS N DN PROJECT NO. 18-0129.021