# BUILDING 500 EXTERIOR CANOPY SHELTER

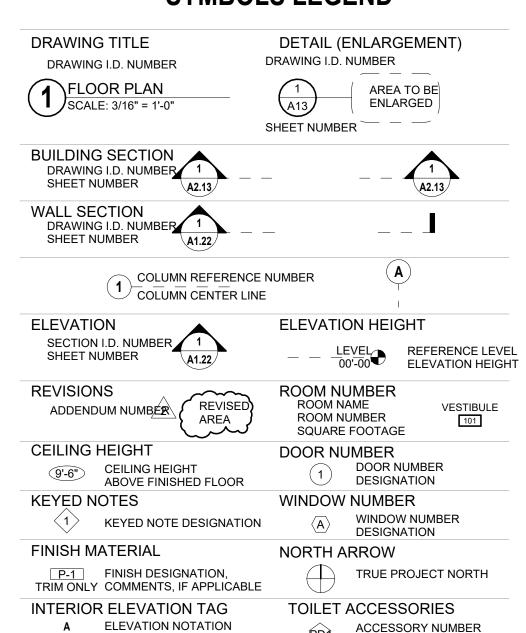
HORRY-GEORGETOWN TECHNICAL COLLEGE 4003 SOUTH FRASER STREET GEORGETOWN, SC 29440

> SOUTH CAROLINA STATE PROJECT NUMBER H59-N269-CB HGTC BLDG. 500 EXTERIOR RENOVATION





### SYMBOLS LEGEND



A3.33 DIRECTION OF ELEVATION EQUIPMENT NUMBER

DETAIL NUMBER

FIRE EXTINGUISHER

WALL HUNG

REFERENCE DRAWING NOMBER

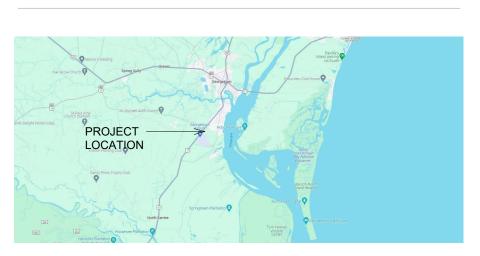
DESIGNATION

AH-12 ACCESSORY NUMBER

WITH CABINET

DESIGNATION

#### **VICINITY MAP**



#### **CONTACT LIST**

OWNERS CLIENT NAME: DIANNA CECALA / KEVIN BROWN ORGANIZATION NAME: HORRY GEORGETOWN TECH COLLEGE, BUILDING 500 ORGANIZATION ADDRESS: 2050 HWY 501 EAST, CONWAY SC 29526 TELEPHONE: 843-602-8543 EMAIL: DIANNA.CECALA@HGTC.EDU KEVIN.BROWN@HGTC.ED ARCHITECT & STRUCTURAL ENGINEER EARTHWORKS GROUP INC. ATTN: STEVE STRICKLAND / CHARLES MILLONZI 11655 HWY. 707 MURRELLS INLET, SC 29576 TELEPHONE: 843.651.7900 EMAIL: SSTRICKLAND@EARTHWORKSGROUP.COM CMILLONZI@EARTHWORKSGROUP.COM

ELECTRICAL \ HVAC \ PLUMBING ENGINEER EARTHWORKS GROUP INC. ATTN: CHRIS J. HAMMEL, P.E., 7410 S HIGHWAY 1, SUITE 104 PORT ST. LUCIE, FL 34952 TELEPHONE: 843-457-7858

EMAIL: CHAMMEL@EARTHWORKSGROUP.COM

## **EARTHW RKS**

11655 HIGHWAY 707, MURRELLS INLET, SC 843.651.7900 / www.earthworksgroup.com

	ISSUED ONLY FOR:	ACCEPTANCE by:
	SCHEMATIC DESIGN APPROVAL	1st Owner:
X	DESIGN DEVELOPMENT APPROVAL	
	CONSTRUCTION DOCUMENTS APPROVA	LDate:
	STRUCTURAL DESIGN APPROVAL	2nd Owner:
	M-E-P DESIGN APPROVAL	Date:

planning and design consultants

## **BUILDING CODES UTILIZED**

2021 INTERNATIONAL BUILDING CODE 2021 INTERNATIONAL EXISTING BUILDING CODE 2021 INTERNATIONAL MECHANICAL CODE 2021 INTERNATIONAL FIRE CODE 2021 INTERNATIONAL PLUMBING CODE 2021 INTERNATIONAL FUEL GAS CODE 2021 NATIONAL ELECTRIC CODE 2021 INTERNATIONAL ENERGY CONSERVATION CODE 2021 ICC A117.1 ACCESSIBILITY CODE NFPA STANDARDS (AS ADOPTED BY THE OFFICE OF STATE FIRE

## **ABBREVIATIONS**

4 D 4	AMEDICANS WITH DISABILITIES ACT
A.D.A. A.F.F.	AMERICANS WITH DISABILITIES ACT ABOVE FINISHED FLOOR
A.F.F. A/C	AIR CONDITIONING
	ALUMINUM
BLDG.	
C/C	CENTER TO CENTER
CI	CENTERLINE
CMU	CONCRETE MASONRY UNIT
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
_	DRAWING
	EXTERIOR INSULATION FINISH SYSTEM ELECTRICAL
ELEC.	
EWC	
EWH	FLOOR DRAIN
	FIRE EXTINGUISHER
	FINISH FLOOR
	GENERAL CONTRACTOR GALLONS PER HOUR
	GROUND FAULT INTERCEPT CIRCUIT
	GYPSUM BOARD
	HEATING VENTILATION AND AIR
HVAC	
IBC	INTERNATIONAL BUILDING CODE
MFR.	MANUFACTURER
MIN.	MINIMUM
MTL.	METAL
_	NOT IN CONTRACT
	NOT TO SCALE
N/A	NOT APPLICABLE
#	NUMBER
O.C. P.E.	ON CENTER PHOTO-ELECTRIC
	PLUMBING
_	PLYWOOD
PVC	POLY-VINYL CHLORIDE
R.D.	ROOF DRAIN
R.O.	ROUGH OPENING
R.R.	RESTROOM
RTU	ROOF TOP UNIT
S/S	STAINLESS STEEL
	SPECIFICATIONS
SS	SANITARY SEWER
ST.	STORM DRAIN
TYP.	TYPICAL
U.L.	UNDERWRITERS LABORATORIES
U.N.O. V.C.T.	UNLESS NOTED OTHERWISE VINYL COMPOSITE TILE
V.C.T. VTR	VENT THROUGH ROOF
W.C.	WATER CLOSET
W.H.	WATER HEATER
W/	WITH
WC	WATER CLOSET

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E1.01	ELECTRICAL PLAN
S1.01	FOUNDATION PLAN
S2.01	STRUCTURAL DETAILS
S3.01	STRUCTURAL NOTES

- #1) SPECIAL INSPECTOR: PER IBC "A QUALIFIED PERSON EMPLOYED OR RETAINED BY AN APPROVED AGENCY AND APPROVED BY THE BUILDING OFFICIAL AS HAVING THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION"
- #2) PERIODIC SPECIAL INSPECTION: PER IBC "SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED". #3) CONTINUOUS SPECIAL INSPECTION: PER IBC "SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED". THIS IS INTENDED TO BE A CONTINUOUS INSPECTION.

#### ALUMINUM:

WHERE ALUMINUM IS PLACED IN CONTACT WITH DISSIMILAR MATERIALS, THE ALUMINUM SHALL BE PROTECTED AGAINST CORROSION OR BACK-PAINTED BEFORE ERECTION 1. WITH ZINC CHROMATE PAINT. THE METHOD OF PROTECTION SHALL BE APPROVED BY THE SUPPLIER FOR THE SYSTEM. ALL ALLIMINUM SURFACES SHALL BE PROTECTED FROM DAMAGE BY MORTAR, LIME, ACIDS, CONCRETE OR OTHER MATERIALS/SUBSTANCES. PROCEDURES AS 2. PRESCRIBED BY THE MANUFACTURER SHALL BE

FOR HANDLING, PROTECTION, CLEANING AND STORAGE.

#### WINDOWS/ STOREFRONT/ GLASS SYSTEMS

- 1) ALL MEMBERS PART OF GLASS SYSTEMS SHALL BE SECURELY ANCHORED TO THE STRUCTURAL SYSTEM(S) AS DETAILED BY THE MANUFACTURER AND/OR IN THE STOREFRONT/GLASS SHOP DRAWINGS. CARE SHALL BE TAKEN TO INSTALL THE GLASS SYSTEM MEMBERS TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT EXCESSIVE DEFLECTION OR BUCKLING AS REQUIRED BY THE GLASS SYSTEM DESIGNER. ADDITIONAL CONSTRUCTION AND ATTACHMENT INFORMATION MAY BE CONTAINED IN THE
- 2) WHEN THE HEAD TRACK IS ATTACHED TO STRUCTURAL MEMBERS LOCATED ABOVE THE GLASS SYSTEM THE STOREFRONT SUPPLIER/DESIGNER SHALL PROVIDE A HEAD TRACK OR "SPECIAL TRACK" TO ALLOW FOR THE NORMAL VERTICAL DEFLECTIONS OF THOSE MEMBERS. TYPICALLY, THE VERTICAL DEFLECTION CAN BE APPROXIMATED AS THE SPAN/360
- 3) WHERE ALUMINUM IS PLACED IN CONTACT WITH DISSIMILAR MATERIALS, THE ALUMINUM SHALL BE PROTECTED AGAINST CORROSION OR BACK-PAINTED BEFORE ERECTION WITH ZINC CHROMATE PAINT. THE METHOD OF PROTECTION SHALL BE APPROVED BY THE GLASS SYSTEM DESIGNER FOR THE SUPPLIED
- 4) ALL ALUMINUM SURFACES SHALL BE PROTECTED FROM DAMAGE BY MORTAR, LIME, ACIDS, CONCRETE OR OTHER HARMFUL MATERIALS/SUBSTANCES. PROCEDURES AS PRESCRIBED BY THE MANUFACTURER SHALL BE FOLLOWED FOR HANDLING, PROTECTION, CLEANING AND STORAGE.
- 5) ALL GLASS SYSTEM COMPONENTS AND GLASS SHALL BE DESIGNED TO SATISFY THE WIND REQUIREMENTS (BOTH NEGATIVE AND POSITIVE PRESSURES) AS SET FORTH IN THE LATEST EDITION OF THE APPLICABLE BUILDING CODE. THE PRESSURES INDICATED IN THE BUILDING LOAD TABLE (IF PRESENT) MAY BE USED AS A GUIDE IN PRELIMINARY PRICING FOR THE PROJECT. THE FINAL DESIGN OF THE GLASS

SYSTEM(S) SHALL CONSIDER THE SIZE AND LOCATION OF THE GLASS SYSTEM ON THE BUILDING AS WELL

AS THE GEOGRAPHIC LOCATION OF THE BUILDING RELATIVE TO THE REQUIRED BUILDING CODE(S). 6) THE GLASS SYSTEM SUBCONTRACTOR SHALL PROVIDE THE NECESSARY STRUCTURAL DESIGN FOR THE SUPPLIED GLASS, METAL FRAME COMPONENTS AND CONNECTIONS TO THE STRUCTURAL SYSTEM FOR THE BUILDING. THE DESIGN AS INDICATED IN THE SHOP DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL LICENSED IN THE PROJECT STATE.

## STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL COMPONENTS (PER CHAPTER 17, 2021 IBC)

SPECIAL INSPECTION COMPANY / COORDINATOR - TO BE RETAINED BY OWNER **TESTING** QUALITY ASSURANCE (PER IBC) INSPECTION (PER IBC) **BUILDING SYSTEM** MATERIAL OR COMPONENT SUBMITTAL REQUIREMENTS **FREQUENCY** AGENCY MONITORING **FREQUENCY** AGENCY PART OF WIND PART OF SEISMIC 1. COLUMNS AND SHEAR 1. COLUMNS AND SHEAR INSPECTION AGENCY TO N/A 1. PERIODIC 1. TEST IN PLACE DRY AS EXCAVATION AND FILL PLACEMENT BEGINS, THE 1. AS APPROVED WALLS ACCORDANCE WALLS ACCORDANCE TESTING LAB TO BE BE APPROVED BY SPECIAL DENSITY OF FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE 2. PERIODIC GEOTECHNICAL (COMPACTED FILL) APPROVED BY SPECIAL INSPECTION 3. PERIODIC APPROVED SOILS REPORT | APPROVED SOILS REPORT COMPACTED FILL **ENGINEER** WITH GEOTECHNICAL REPORT INSPECTION **COORDINATOR &** 4. CONTINUOUS PRIOR TO PLACEMENT TO PRIOR TO PLACEMENT TO MATERIALS BELOW SHALLOW FOUNDATIONS ARE COORDINATOR & BUILDING PERIODIC ADEQUATE TO ACHIEVE THE DESIGN BEARING BUILDING OFFICIAL CAPACITY AS SPECIFIED IN SOILS REPORT. OFFICIAL 2 EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. 3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS. 4. USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUB-GRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY TESTING LAB TO BE INSPECTION AGENCY TO 1. (1) SET OF CYLINDERS 1. SPREAD FOOTINGS 1. SUBMIT CONCRETE 1. TEST AS CONCRETE AND REINFORCING STEEL CONSTRUCTION | 1. PERIODIC I. SPREAD FOOTINGS AT CONCRETE BE APPROVED BY SPECIAL FOR FACH VERTICAL APPROVED BY BEGINS, THE FOLLOWING SHALL BE INSPECTED TO 2. PERIODIC BEARING WALLS AND MIX DESIGN. CONCRETE **FOUNDATIONS** SPECIAL BEARING WALLS AND 2. SUBMIT FOUNDATION LIFT OR EACH 50 YARDS **ENSURE COMPLIANCE:** 3 PERIODIC SHEARWALL. INSPECTION **COORDINATOR &** 1. VERIFY REINFORCING SIZE, QUANTITY & PLACEMENT 4. PFRIODIC SHEARWALL. REINFORCEMENT SHOP OF CONCRETE BUILDING COORDINATOR & 5. CONTINUOUS DRAWINGS ANCHORS CAST IN CONCRETE **BUILDING OFFICIAL** 3. VERIFY PROPER ANCHORS POST INSTALLED IN HARDENED AT THE 7. PERIODIC CONCRETE TIME FRESH CONCRETE IS CONCRETE SAMPLED TO STRENGTH. 4. VERIFYING USE OF REQUIRED DESIGN MIX FABRICATE SPECIMENS FOR STRENGTH TEST, AND DETERMINE THE TEMPERATURE OF CONCRETE CONCRETE PLACEMENT FOR PROPER APPLICATION 7. INSPECT FORMWORK FOR; SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING 1. INSPECT STEEL FRAME JOINT DETAIL FOR 1. PERIODIC INSPECTION AGENCY TO 1. FLOOR AND 1. FLOOR AND 1. SUBMIT N/A MANUFACTURER'S COMPLIANCE WITH CONSTRUCTION BE APPROVED BY SPECIAL STEEL SYSTEM FRAMING DOCUMENTS. SYSTEM FRAMING CERTIFIED MILL TEST COORDINATOR & REPORTS FOR **BUILDING OFFICIAL IBC** STRUCTURAL STEEL. 1. SUBMIT 1. VERIFY BOLTING IN BEARING-TYPE CONNECTIONS 1. PERIODIC INSPECTION AGENCY TO 1. FLOOR AND ROOF 1. FLOOR AND ROOF STRUCTURAL MANUFACTURER'S BE APPROVED BY ARE INSTALLED IN ACCORDANCE WITH AISC SYSTEM BOLTING SYSTEM BOLTING CERTIFICATE OF SPECIFICATIONS. HIGH-STRENGTH COMPLIANCE FOR **INSPECTION** VERIFY BOLTING IN SLIP-CRITICAL CONNECTIONS BOLTING HIGH-STRENGTH BOLTS, COORDINATOR & ARE INSTALLED IN ACCORDANCE WITH AISC (AND MECHANICAL NUTS, WASHERS **BUILDING OFFICIAL IBC** SPECIFICATIONS. **FASTENING OF** AND/OR VERIFY IDENTIFICATIONS MARKING ON HIGH-METAL DECK) **FASTENERS** STRENGTH BOLTS. NUTS AND WASHERS CONFORMING TO ASTM STANDARDS SPECIFIC. 4 VERIEV FASTENER TYPE AND ADHERENCE TO SPECIFIED FASTENER ATTACHMENT PATTERN. BOLTS, NUTS, WASHERS. 1. CONTINUOUS N/A VERIFY WELDING IS IN COMPLIANCE WITH AWS D1.1 INSPECTION AGENCY TO 1. FLOOR AND ROOF 1. FLOOR AND ROOF 1. COMPLETE AND PARTIAL PENETRATION GROOVE 2. CONTINUOUS BE APPROVED BY SPECIAL SYSTEM WELDING SYSTEM WELDING 1. SUBMIT STRUCTURAL 3. CONTINUOUS INSPECTION MANUFACTURER'S STEEL 2. MULTIPASS FILLET WELDS 4. PERIODIC COORDINATOR 8 CERTIFICATE OF WELDING 5. PERIODIC BUILDING 3. SINGLE-PASS FILLET WELDS > 5/16" COMPLIANCE FOR WELD OFFICIAL IBC 4. SINGLE-PASS FILLET WELDS < OR = 5/16" FILLER MATERIAL. FLOOR AND DECK WELDS TESTING LAB TO BE 1. PERIODIC INSPECTION AGENCY TO 1. YES 1. NONE 1. NONE SUBMIT AS WOOD CONSTRUCTION BEGINS, THE FOLLOWING BE APPROVED BY SPECIAL APPROVED CONSTRUCTION PER-ENGINEERED SHALL BE INSPECTED TO ENSURE COMPLIANCE 2. PERIODIC BY SPECIAL INSPECTION 3. PERIODIC TRUSS DWG'S 1. VERIFY WOOD STRUCTURAL ELEMENTS PROPER INSPECTION **COORDINATOR &** 4. PERIODIC PREPARED UNDER SIZE AND GRADE **COORDINATOR &** BUILDING 5. PERIODIC REGISTERED ENGINEER 2. VERIFY GRADE & THICKNESS OF ALL STRUCTURAL BUILDING OFFICIAL IBC 2. SUBMIT HOLD DOWN PANEL SHEATHING OFFICIAL PER IBC. SHOP DRAWINGS. 3. VERIFY ALL STRUCTURAL FASTENING & BLOCKING 3. SUBMIT INCLUDING PATTERNS OF WALL, FLOOR & ROOF MANUFACTURER DATA SHEATHING 4. VERIFY ALL BRIDGING, STRAPPING & CLIPS ARE ON CONNECTION INSTALLED PER CONSTRUCTION DOCUMENTS. HARDWARE.

NOTE: ALL TESTING, INSPECTION & RELATED REPORTS SHALL BE SENT TO THE SPECIAL INSPECTION COORDINATOR & THE OWNER. ANY DEFICIENCIES SHALL BE CLEARLY NOTED & BROUGHT TO THE ATTENTION OF THE SPECIAL INSPECTION COORDINATOR BEFORE THE END OF THE INSPECTOR'S SHIFT.

#### SEISMIC QUALITY ASSURANCE PLAN

- THE FOLLOWING SEISMIC SYSTEMS AND SEISMIC-FORCE-RESISTING SYSTEM ARE SUBJECT TO QUALITY ASSURANCE:
- MASONRY SHEARWALL REINFORCEMENT.
- B. ATTACHMENT OF ROOF STRUCTURAL SYSTEM TO SHEARWALLS.
  C. INSTALLATION OF SUSPENDED CEILINGS AND THEIR ANCHORAGE. ). ANCHORAGE OF ELECTRICAL EQUIPMENT USED FOR EMERGENCY OR STANDBY POWER
- E. ANCHORAGE OF EXTERIOR WALL PANELS &/OR GLAZING. PROVIDE SPECIAL INSPECTIONS FOR SYSTEMS INDICATED ABOVE AS INDICATED
- IN SPECIAL INSPECTIONS CHART. TYPE AND FREQUENCY OF TESTING PER CHART.
- TYPE AND FREQUENCY OF SPECIAL INSPECTIONS SEE CHART. ALL REPORTS TO ARCHITECT, STRUCTURAL ENGINEER AND SPECIAL
- INSPECTIONS COORDINATOR. 6. PERIODIC STRUCTURAL OBSERVATION WILL BE PERFORMED AT SIGNIFICANT CONSTRUCTION STAGES AND AT THE COMPLETION OF THE STRUCTURAL
- STRUCTURAL OBSERVATION REPORTS TO ARCHITECT, STRUCTURAL ENGINEER

#### CONTRACTOR'S RESPONSIBILITY

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A SEISMIC - FORCE -RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A COMPONENT LISTED IN THE SEISMIC QUALITY ASSURANCE PLAN SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND TO THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT

- OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING: ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE WIND QUALITY ASSURANCE PLAN. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN
- CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE PROCEDURES FOR EXERCISING CONTROL WITHIN THE THE CONTRACTOR'S
- ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS. IDENTIFICATIONS AND QUALIFICATIONS OF PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.
  IDENTIFICATIONS AND QUALIFICATIONS OF PERSON(S) EXERCISING SUCH
- CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

#### WIND QUALITY ASSURANCE PLAN

5. VERIFY HOLD DOWNS ARE LOCATED & INSTALLED

PER CONSTRUCTION DOCUMENTS

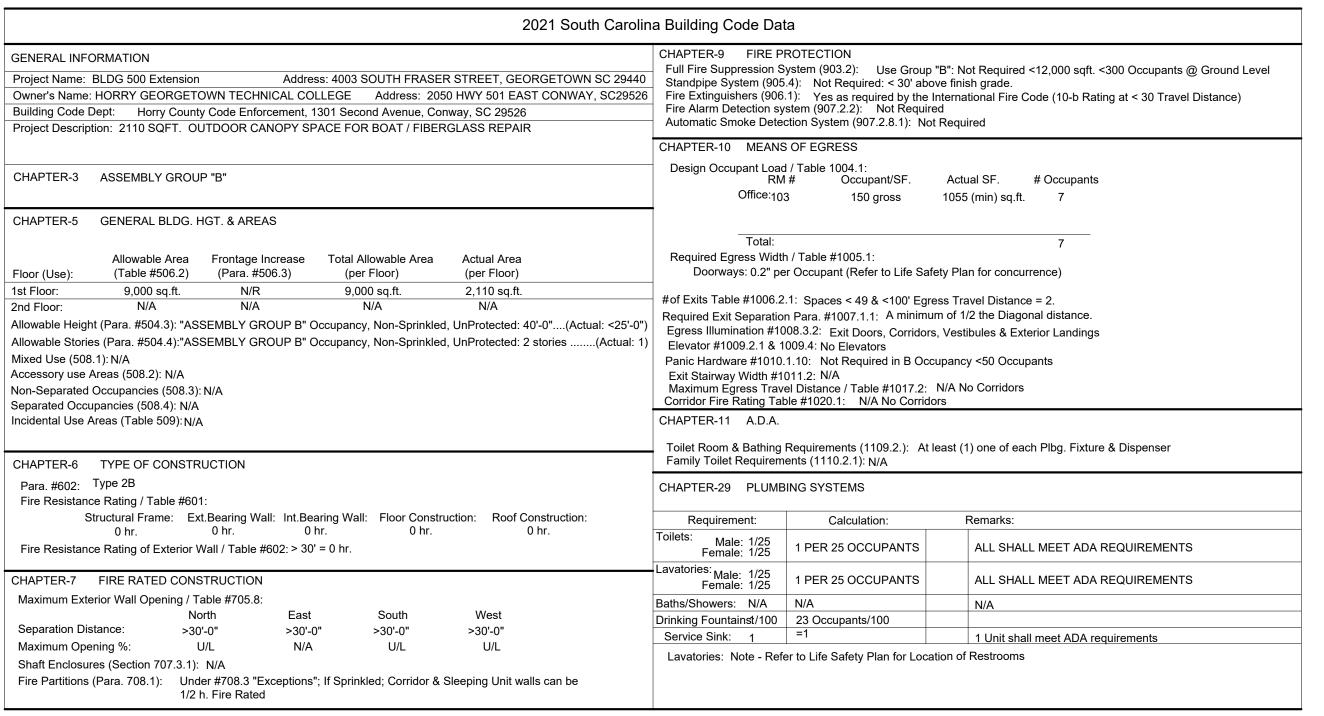
- THE FOLLOWING MAIN WIND FORCE-RESISTING SYSTEMS AND WIND RESISTING COMPONENTS ARE SUBJECT TO QUALITY ASSURANCE:
  A. MASONRY SHEARWALL CONSTRUCTION AND REINFORCEMENT B. ROOF DIAPHRAGM SYSTEMS. WALL CONNECTIONS TO ROOF DIAPHRAGM AND FRAMING. GLAZING SYSTEM FABRICATION AND INSTALLATION. ROOF CLADDING AND ROOF FRAMING COMPONENTS PROVIDE SPECIAL INSPECTIONS FOR SYSTEMS INDICATED ABOVE AS
- INDICATED IN SPECIAL INSPECTIONS CHART.
  TYPE AND FREQUENCY OF TESTING PER CHART. TYPE AND FREQUENCY OF SPECIAL INSPECTIONS SEE CHART. ALL REPORTS TO ARCHITECT, STRUCTURAL ENGINEER AND SPECIAL INSPECTIONS COORDINATOR.
- PERIODIC STRUCTURAL OBSERVATION WILL BE PERFORMED AT SIGNIFICANT CONSTRUCTION STAGES AND AT THE COMPLETION OF THE STRUCTURAL
- STRUCTURAL OBSERVATION REPORTS TO ARCHITECT, STRUCTURAL

#### CONTRACTOR'S RESPONSIBILITY

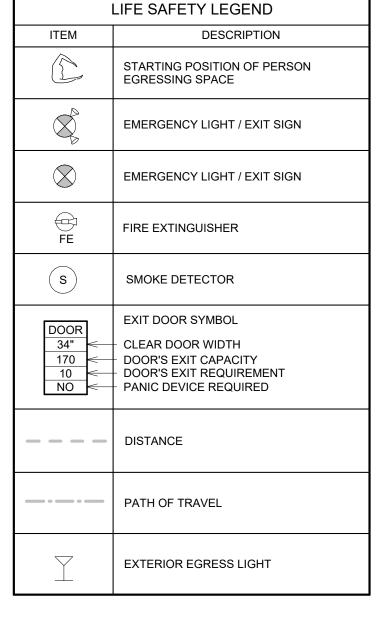
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- ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE WIND QUALITY ASSURANCE PLAN. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN
- CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL. PROCEDURES FOR EXERCISING CONTROL WITHIN THE THE
- CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS. IDENTIFICATIONS AND QUALIFICATIONS OF PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

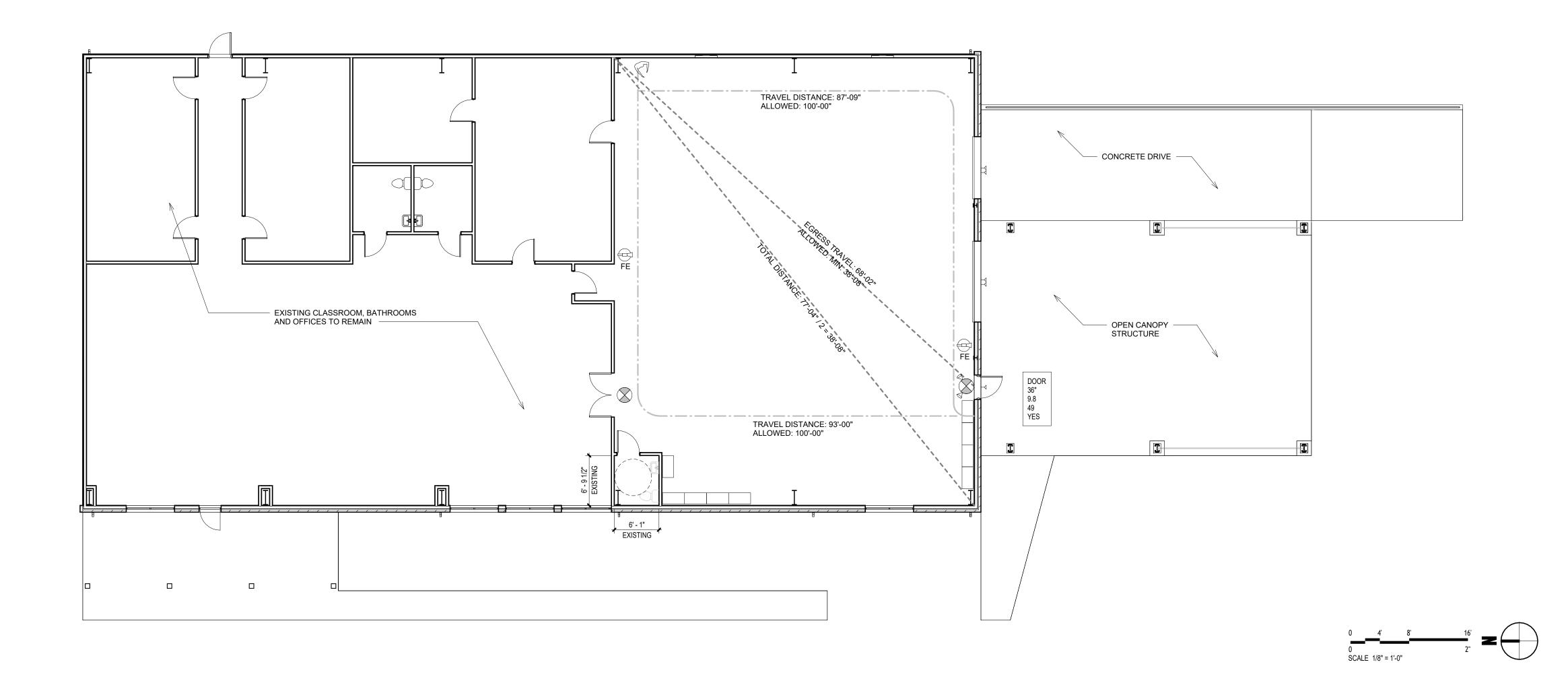
9-28-49-86-21-21 CTIO **INSPE** SPECIAL -GEORGET 



]	LIFE SAFETY LEGEND
ITEM	DESCRIPTION
	STARTING POSITION OF PERSON EGRESSING SPACE
	EMERGENCY LIGHT / EXIT SIGN
$\otimes$	EMERGENCY LIGHT / EXIT SIGN
∰ FE	FIRE EXTINGUISHER
S	SMOKE DETECTOR
DOOR 34" 170 10 NO	EXIT DOOR SYMBOL  - CLEAR DOOR WIDTH  - DOOR'S EXIT CAPACITY  - DOOR'S EXIT REQUIREMENT  - PANIC DEVICE REQUIRED
	DISTANCE
	PATH OF TRAVEL
Y	EXTERIOR EGRESS LIGHT
	FE S DOOR 34" 170 10

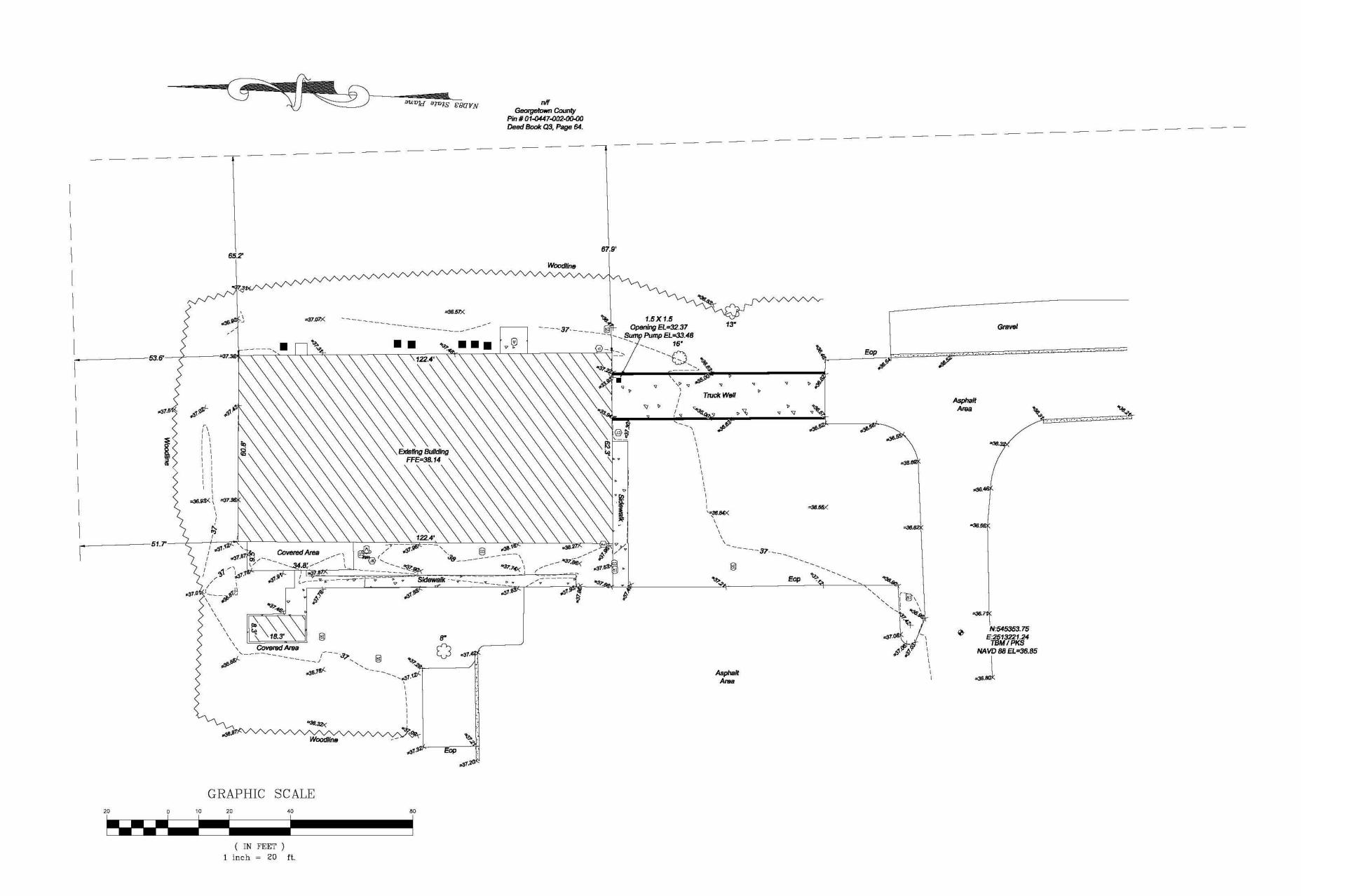


ARTHW



G1.03

1 LEVEL 1 FLOOR PLAN
SCALE 1/8" = 1'-0"



SOUTH CAR SPARTANBURG, SC SPARTANBURG, SC ST83 ST84 ST8



241006

BUILDING 500 EXTERIOR

5/13/2024

S NOTED

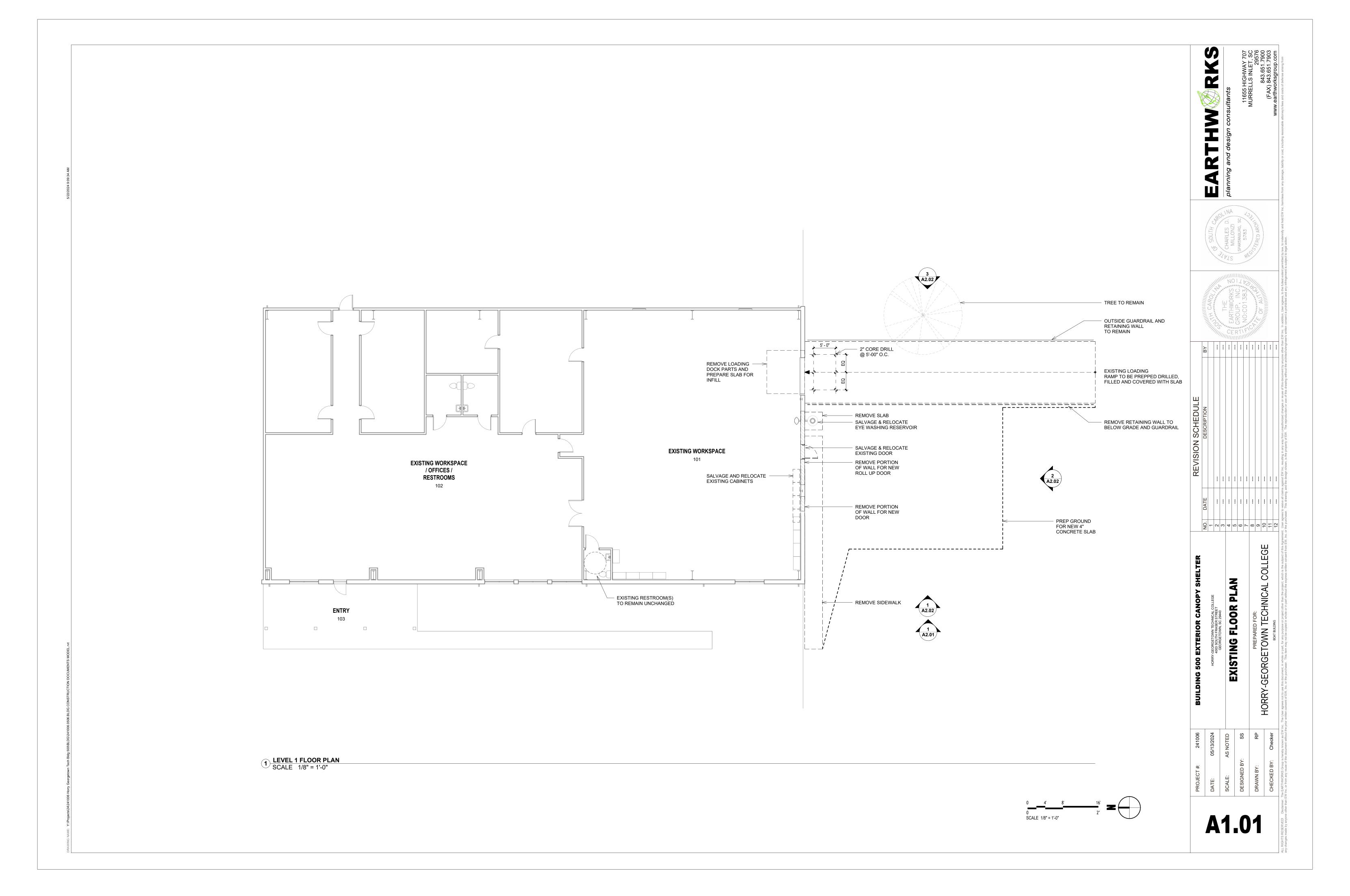
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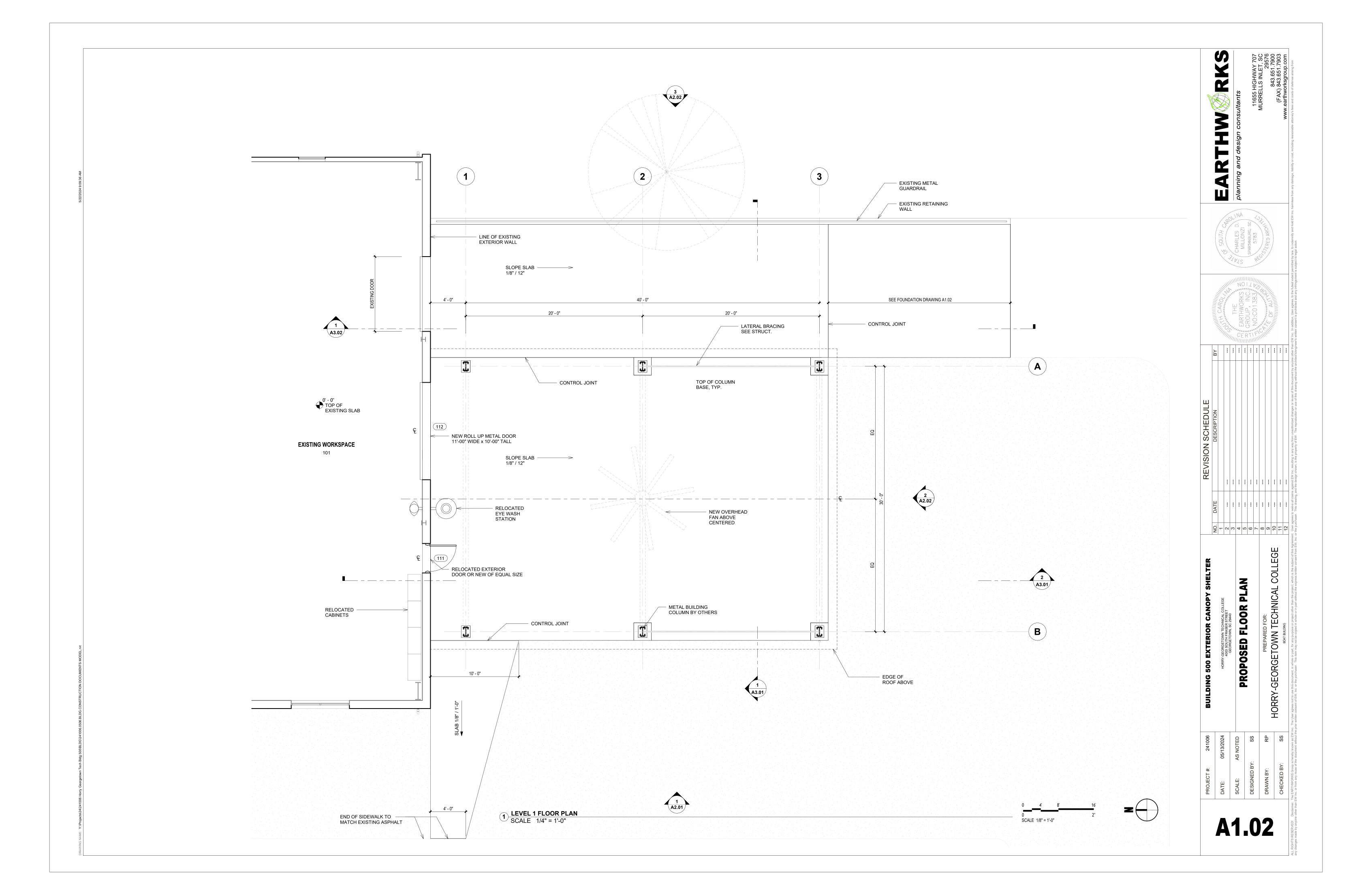
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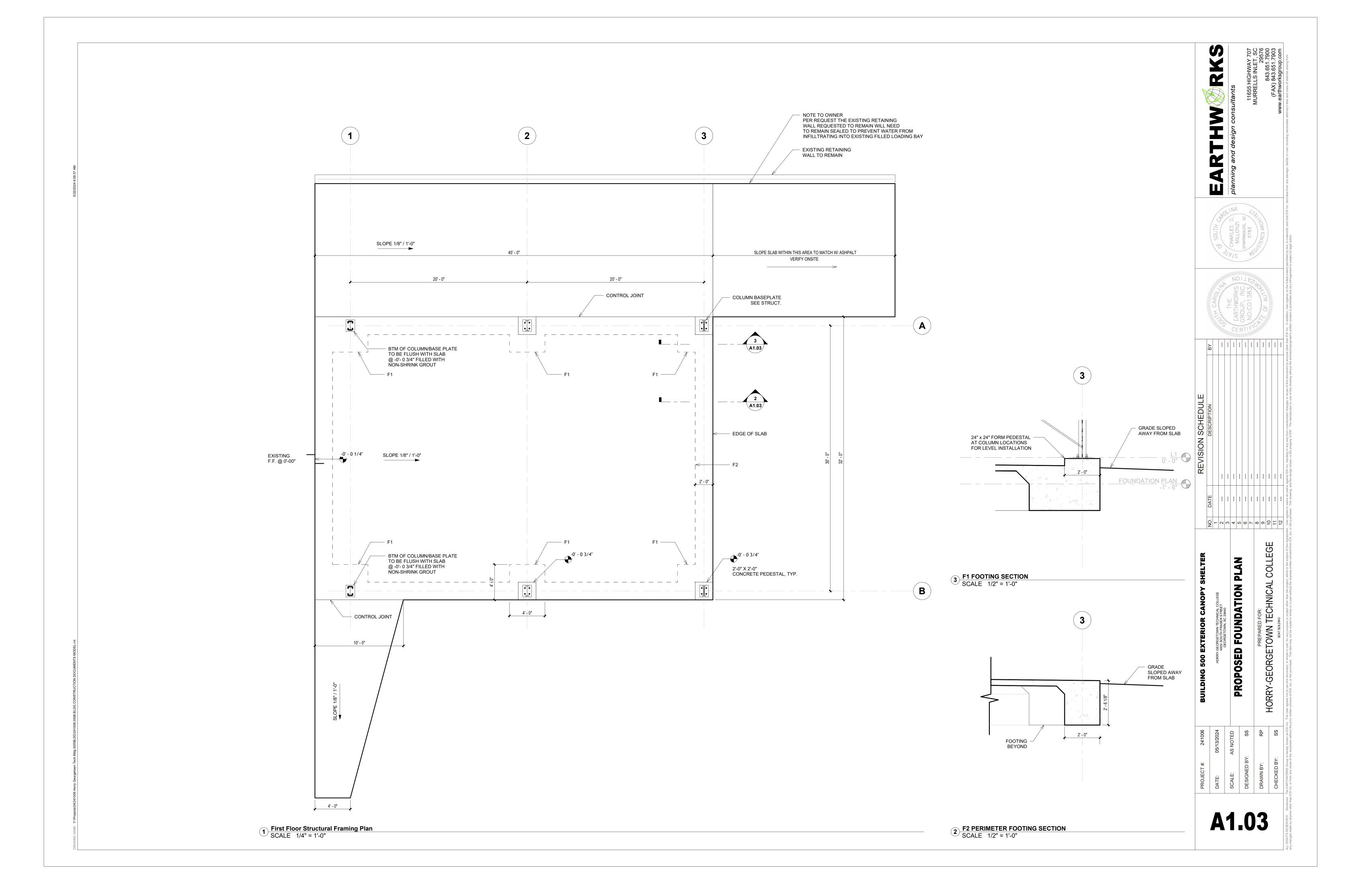
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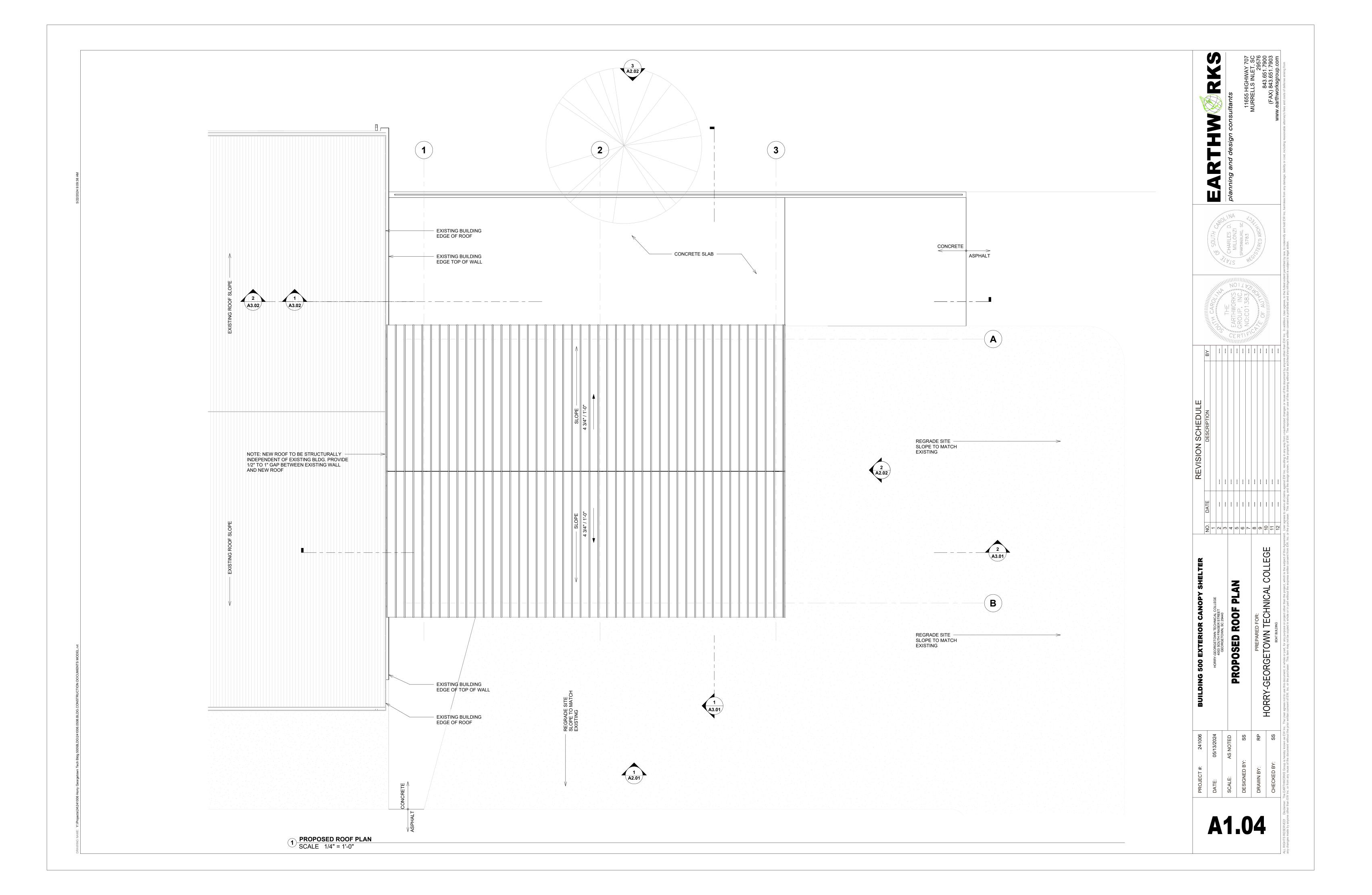
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DESIGNED BY: XX
DRAWN BY: XX
HOR

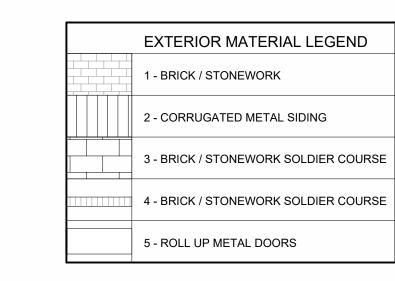
C1.01

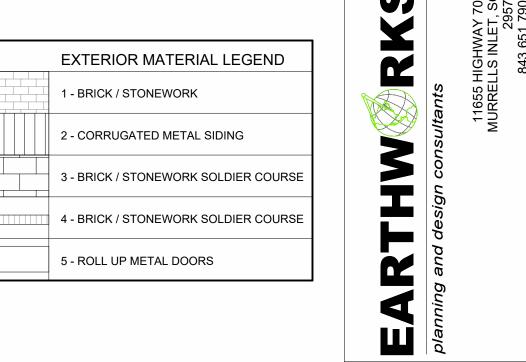


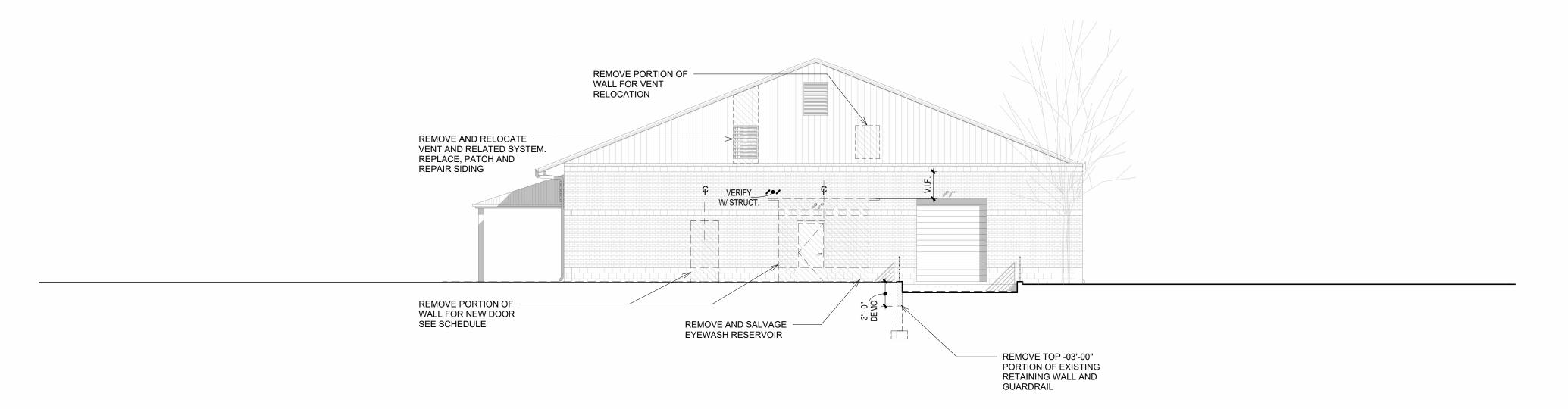




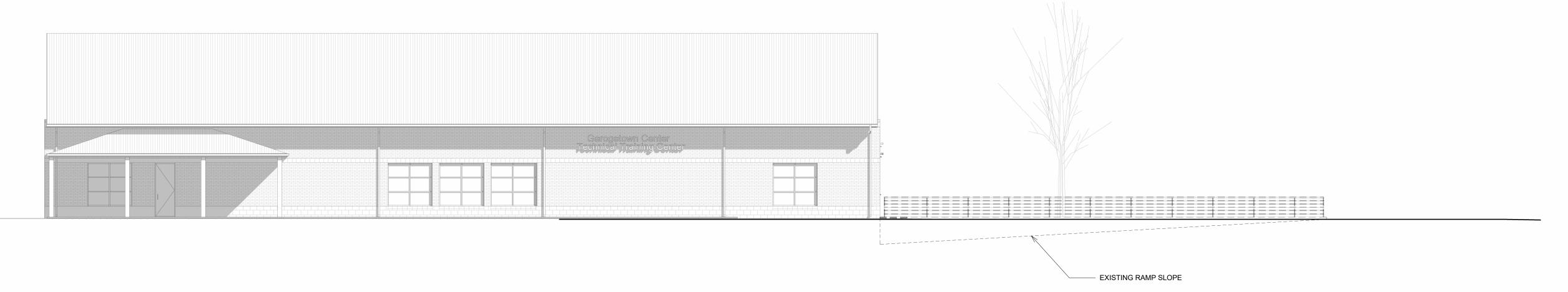








2 EAST ELEVATION
SCALE 1/8" = 1'-0"

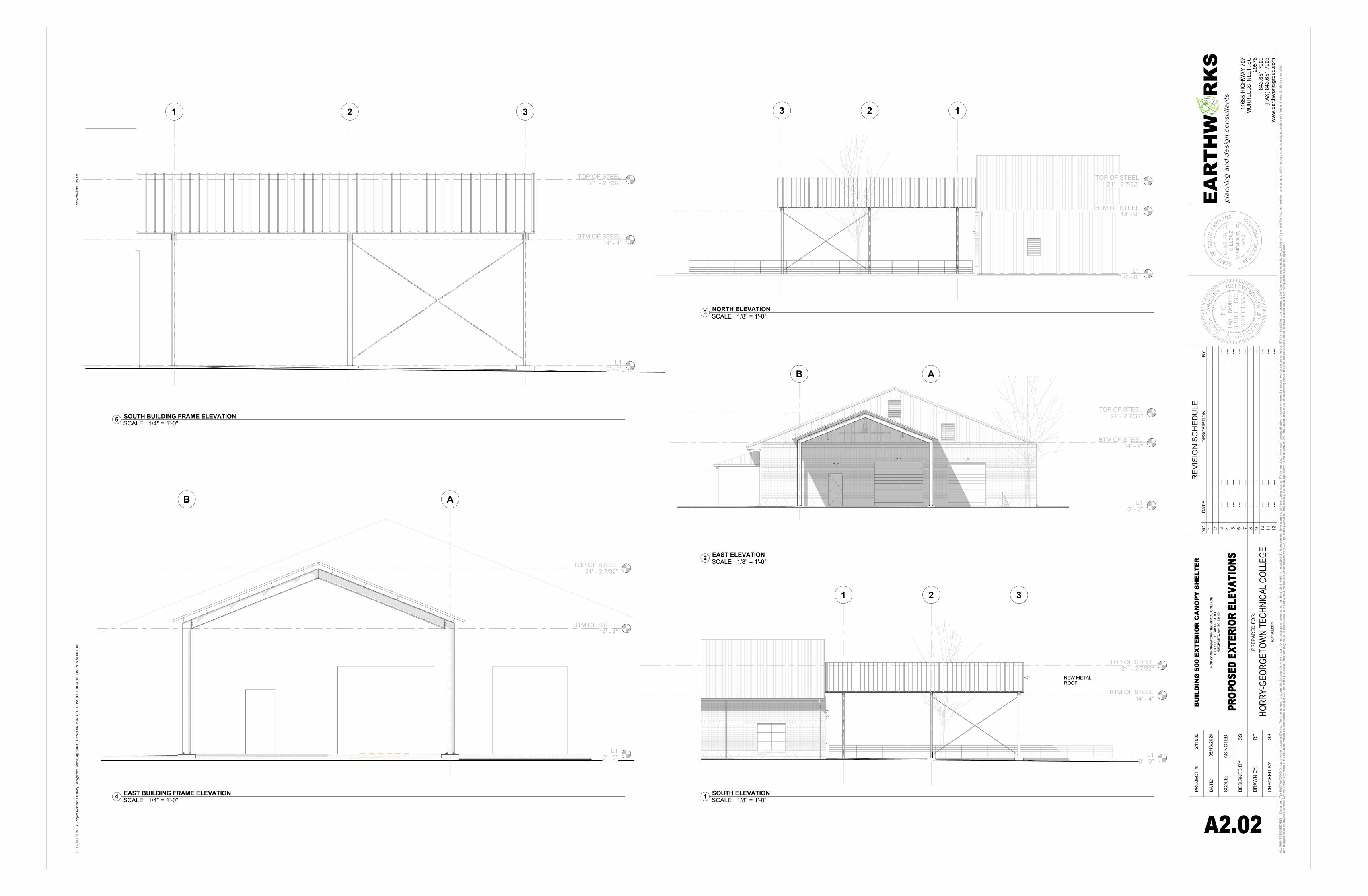


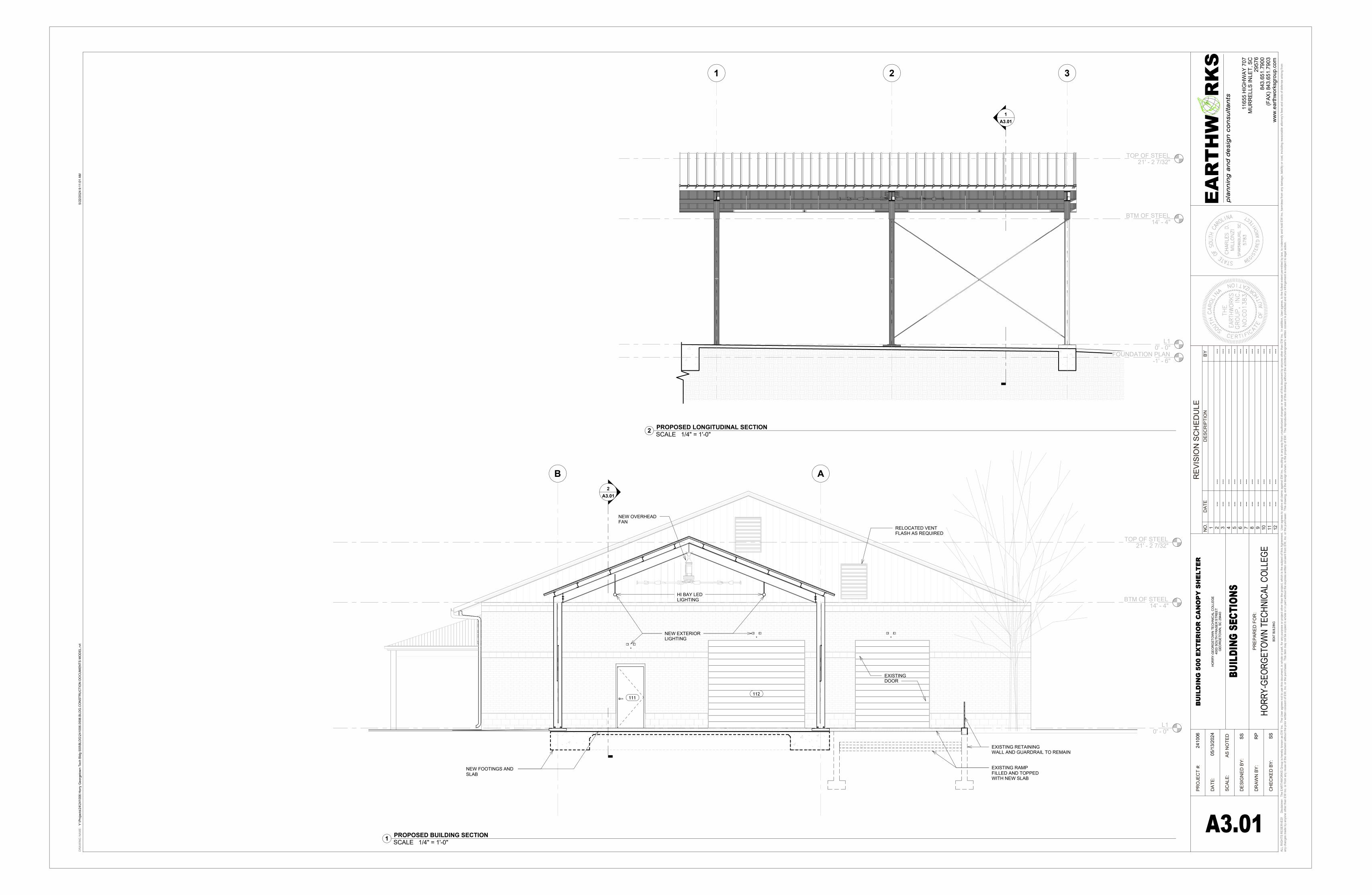
SOUTH ELEVATION
SCALE 1/8" = 1'-0"

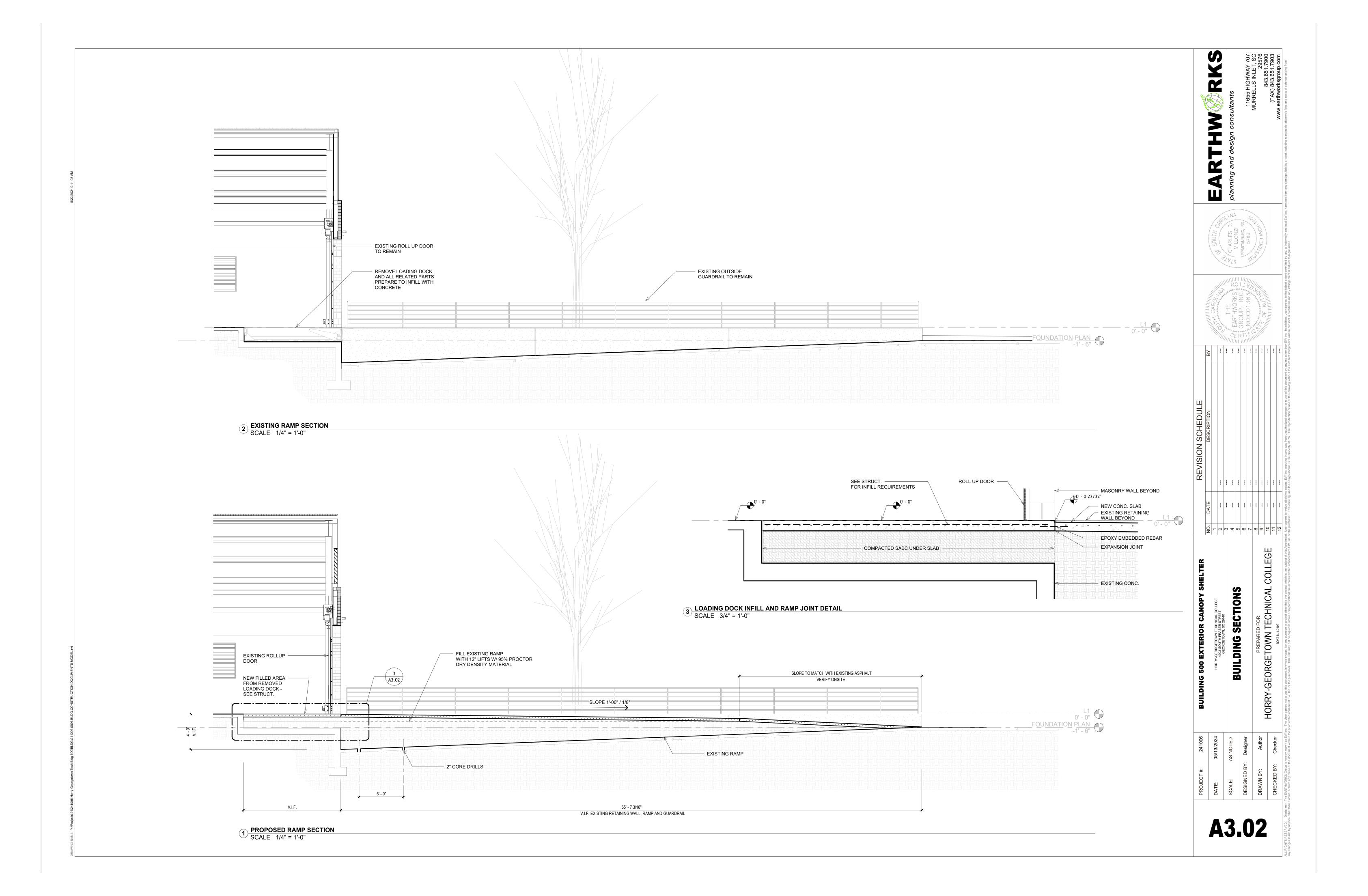
**A2.01** 

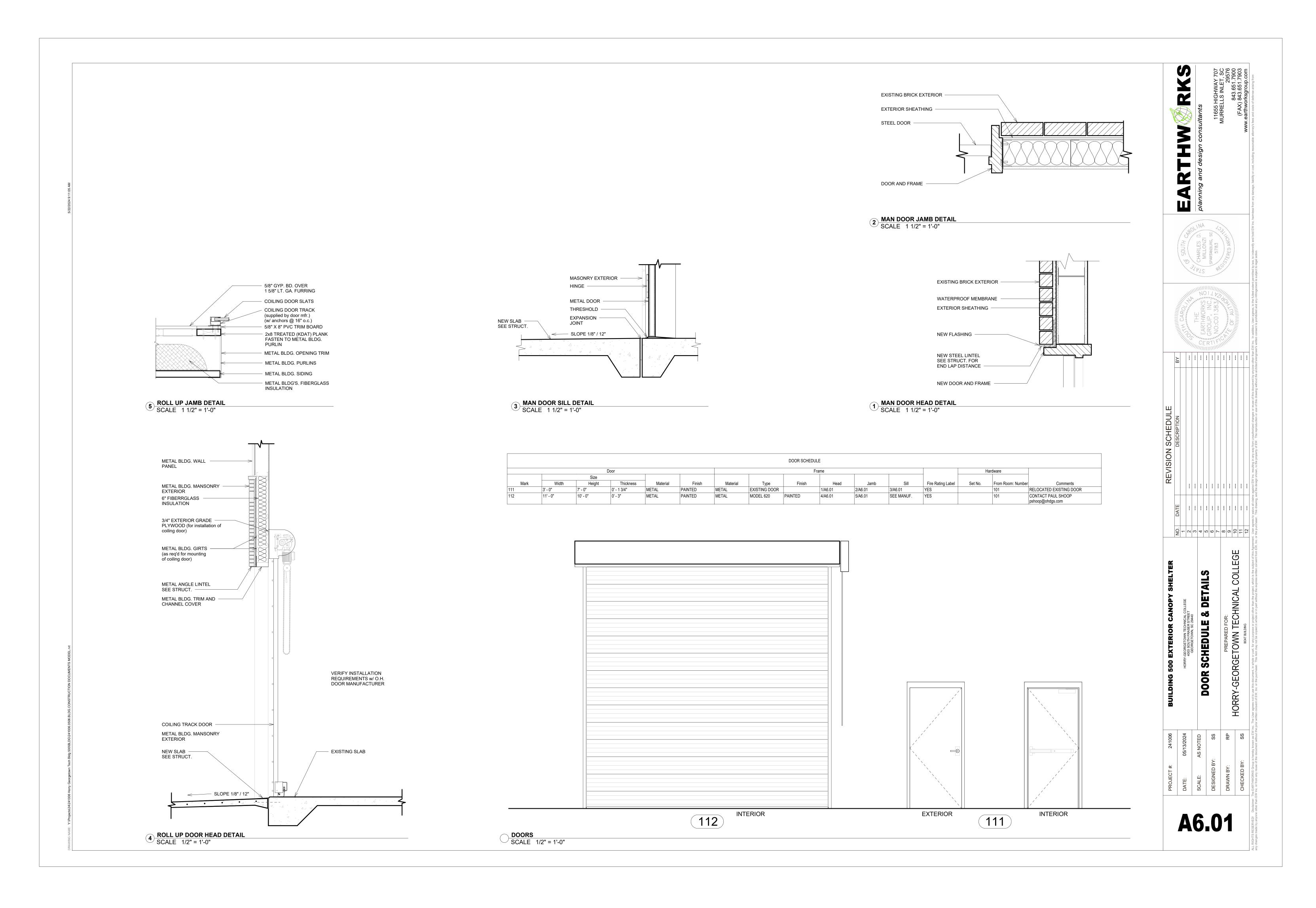
**EXISTING EXTERIOR ELEVATIONS** 

HORRY-GEORGETOWN TECHNICAL COLLEGE









#### PLUMBING NOTES:

- ALL WORK SHALL BE EXECUTED AND INSPECTED IN ACCORDANCE WITH ALL LOCAL OR STATE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS APPLICABLE TO THE PARTICULAR CLASS OF WORK. IF, TO THE KNOWLEDGE OF THE CONTRACTOR, THE DRAWINGS AND SPECIFICATIONS ARE IN CONFLICT WITH THE ABOVE, HE SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT ANY NECESSARY CHANGES CAN BE PROVIDED FOR IN HIS CONTRACT. IF THE CONTRACTOR PERFORMS ANY WORK WITHOUT NOTICE AS REQUIRED, HE SHALL BEAR ALL COSTS OF CORRECTIVE ACTION.
- 2. THE CONTRACTOR SHALL INCLUDE IN HIS QUOTATION ALL APPLICABLE SERVICE CHARGES, FEES, PERMITS, ROYALTIES, AND OTHER SIMILAR COSTS IN CONNECTION WITH THE WORK. OBTAIN PERMITS, AND REQUEST INSPECTIONS FROM AUTHORITY HAVING JURISDICTION.
- 3. INSTALL WORK IN LOCATIONS SHOWN ON DRAWINGS, UNLESS PREVENTED BY PROJECT CONDITIONS. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC, AND ALTHOUGH SIZE AND LOCATION OF EQUIPMENT ARE DRAWN TO SCALE WHENEVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND SHALL VERIFY THIS INFORMATION AT THE SITE.
- 4. THE DRAWINGS INDICATE REQUIRED SIZE AND POINTS OF TERMINATION OF PIPES AND DUCTS, AND SUGGEST PROPER ROUTES OF PIPE TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS AND PRESERVE CLEARANCES. HOWEVER, IT IS NOT INTENDED THAT DRAWINGS INDICATE ALL NECESSARY OFFSETS, AND IT SHALL BE THE WORK OF THIS SECTION TO INSTALL PIPING AND DUCTS IN SUCH A MANNER AS TO CONFORM TO STRUCTURE, AVOID ALL OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR WITHOUT FURTHER INSTRUCTION OR COST TO THE OWNER
- CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF WITNESSED AND APPROVED STARTUP.
- TRANSPORT AND HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
   STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, WITH
- SEALS AND LABELS INTACT AND LEGIBLE.

  8. VERIFY THAT EACH PIECE OF EQUIPMENT OR SYSTEM HAS BEEN CHECKED FOR PROPER
- LUBRICATION, DRIVE ROTATION, BELT TENSION, CONTROL SEQUENCE, OR FOR OTHER CONDITIONS WHICH MAY CAUSE DAMAGE.
- 9. DEMONSTRATE OPERATION AND MAINTENANCE OF PRODUCTS TO OWNER'S PERSONNEL ONE WEEK PRIOR TO DATE OF FINAL INSPECTION.
- PRIOR TO DATE OF FINAL INSPECTION.

  10. EXECUTE FINAL CLEANING PRIOR TO FINAL PROJECT ASSESSMENT.
- PROVIDE SUPPORT AND EQUIPMENT REQUIRED TO CONTROL EXPANSION AND CONTRACTION OF PIPING. PROVIDE LOOPS, PIPE OFFSETS, AND SWING JOINTS, OR EXPANSION JOINTS WHERE REQUIRED.
- 12. ALL WATER HEATERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 13. ELECTRIC WATER HEATER SHALL CONFORM TO THE REQUIREMENTS OF THE 2015 IPC AND 2014 NEC.
   14. WATER HEATER IN OVERHEAD OR ATTIC SHALL BE PROVIDED WITH AN OPENING LARGE ENOUGH TO ALLOW THE REMOVAL OF WATER HEATER (NOT LESS THAN 30" HIGH X 22" WIDE).
- 15. ALL DISCHARGE FROM THE RELIEF VALVE SHALL BE PIPED FULL-SIZE TO AN OUTSIDE DRAIN OR AN INDIRECT WASTE RECEPTOR LOCATED INSIDE THE BUILDING AT THE WATER HEATER LOCATION (PER IPC 504.6.1)
- 16. A DRAIN PAN OF 1 1/2" DEEP MINIMUM WILL BE PROVIDED FOR WATER HEATER. ROUTE DRAIN FULL-SIZE TO AN OUTSIDE DRAIN OR AN INDIRECT WASTE RECEPTOR LOCATED INSIDE THE BUILDING.

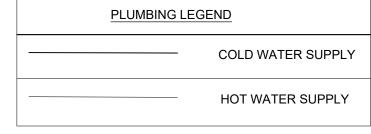
  17. SANITARY DRAIN PIPING SHALL BE SCHEDULE 40 PVC (ASTM F1488) OR SERVICE WEIGHT CAST IRON
- (ASTM A74). CONFORM TO LOCAL CODE REQUIREMENTS.
  18. DOMESTIC WATER PIPING SHALL BE TYPE "L" COPPER (ASTM B88), CPVC (ASTM D2846), PEX (ASTM F877) OR SCHEDULE 40 GALVANIZED STEEL (ASTM A53). UNDERGROUND WATER PIPING SHALL BE TYPE "K" COPPER, PEX (ASTM F876/F877) OR SCHEDULE 40 CPVC (ASTM D2846), AS LOCAL CODES ALLOW. INSULATE DOMESTIC COLD WATER LINES WITH 1/2" THICK FIBERGLASS OR FOAM INSULATION AND HOT WATER LINES WITH 1" THICK FIBERGLASS OR FOAM INSULATION TO PREVENT
- CONDENSATION ON COPPER OR PVC LINES.

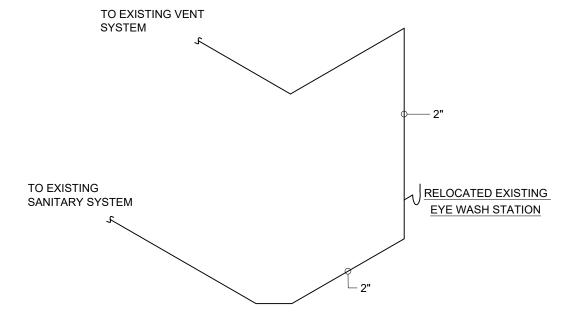
  19. BEFORE COMMENCING WORK ON SANITARY SEWER, CHECK INVERTS AND ENSURE THAT THESE CAN
- BE PROPERLY CONNECTED WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING.

  20. PROVIDE NEW WATER SERVICE COMPLETE WITH REDUCED PRESSURE BACKFLOW PREVENTOR.
- 21. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINTING DISSIMILAR METALS.22. PROVIDE ACCESSIBLE STOPS IN PIPING CONNECTIONS TO ALL PLUMBING FIXTURES.
- 22. PROVIDE ACCESSIBLE STOPS IN PIPING CONNECTIONS TO ALL PLOMBING FIXTURES.

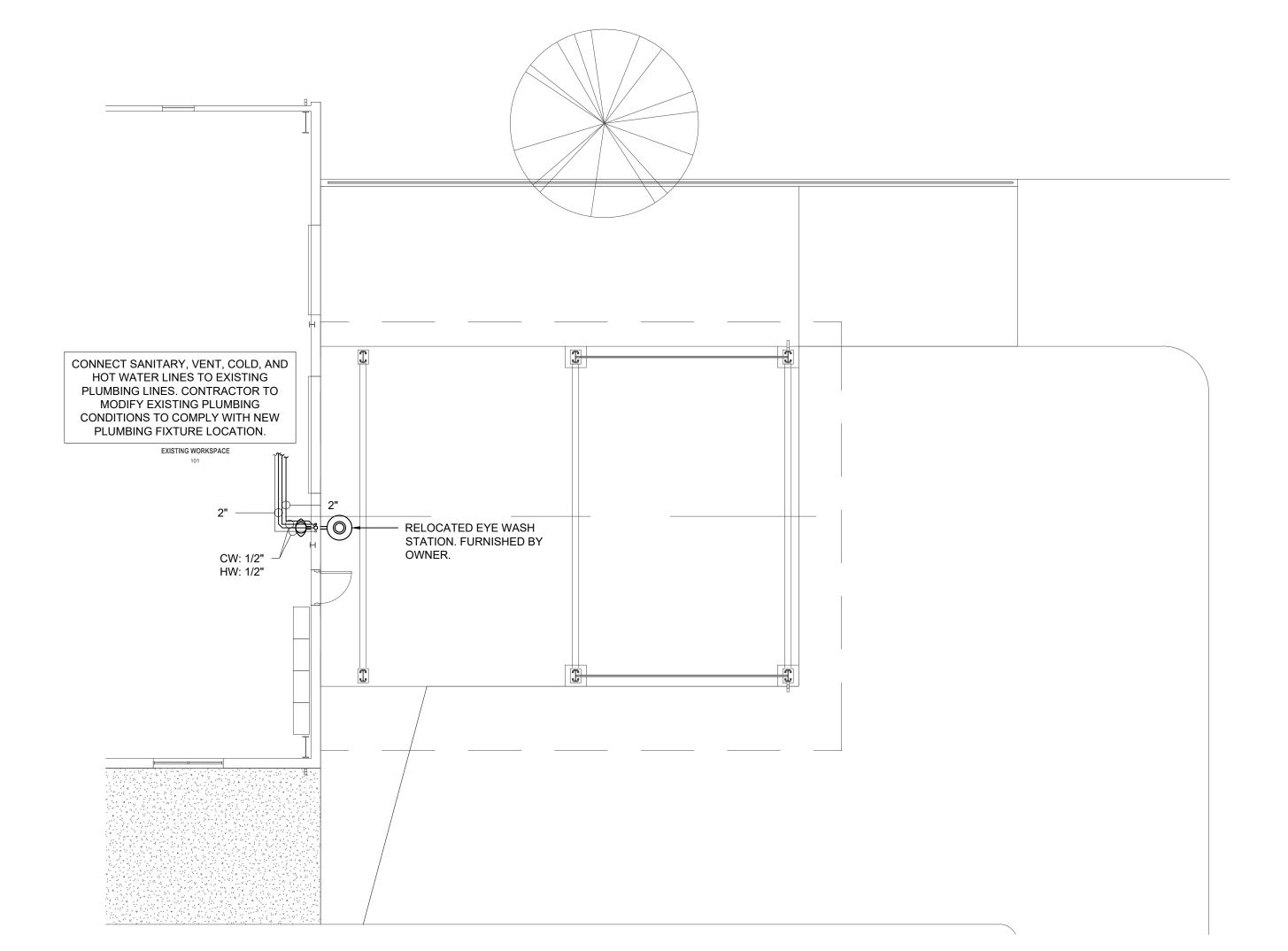
  23. ASSURE EXTERIOR WALL CHASES ARE INSULATED TO PREVENT FREEZING.
- 24. PROVIDE INSULATING ADA PLUMBING JACKETS UNDER EACH ADA FIXTURE WITH EXPOSED DRAIN AND WATER PIPING.
- 25. PROVIDE PIPE LABELS FOR ALL PIPING SYSTEMS.
- 26. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS.27. PROVIDE AND INSTALL SHOCKSTOPS FOR DOMESTIC WATER PIPING SYSTEM. TWO REQUIRED PER
- BATHROOM UNIT. ONE DCW AND ONE DHW. PROVIDE SHUTOFF VALVE FOR SERVICING SHOCKSTOP.

  28. VERIFY FLOOR PLAN AND WALL/FLOOR/CEILING RATINGS WITH ARCHITECTURAL PLANS. PROVIDE RATED PENETRATIONS AT EACH INSTANCE WHERE PLUMBING INSTALLATION PENETRATES A RATED ASSEMBLY. PENETRATIONS SHALL BE PER DETAILS ON THE DRAWINGS OR SOME OTHER U.L. LISTED DESIGN.
- 29. CONTRACTOR TO VERIFY ALL FIELD CONDITIONS PRIOR TO WORK COMMENCING. COORDINATE WITH OTHER TRADES FOR THE PLACEMENT OF PIPING AND EQUIPMENT.
- 30. PROVIDE 3/8" DCW CONNECTION TO ICE MAKER, IF APPLICABLE.
- 31. IF NATURAL GAS IS USED ON PROJECT, NATURAL GAS PIPING SHALL BE SCH. 40 METALLIC PIPE. PAINT PIPING LOCATED OUTDOORS.
- 32. ALL EQUIPMENT SHALL BE SUBMITTED, WITH DESCRIPTIVE DATA, TO THE DESIGNER FOR APPROVAL OR REJECTION. ALL EQUIPMENT SHALL BE SUBMITTED IN AN INDEXED, BOUND BROCHURE WITH THREE COPIES. ALL ITEMS SHALL BE SUBMITTED AT ONE TIME. PARTIAL PRE-SUBMITTALS WILL BE CONSIDERED ONLY AS AN EXPEDIENCY UPON SPECIAL REQUEST. EACH SUBMITTAL BROCHURE SHALL BE SIGNED, ON THE INDEX PAGE, BY THE CONTRACTOR. THIS SIGNATURE SHALL INDICATE THE CONTRACTOR HAS EXAMINED ALL DATA THEREIN AND FOUND SAME TO BE IN ORDER. ALL ITEMS SUBMITTED THAT ARE NOT AS SUBMITTED SHALL HAVE ANY AND ALL CHARACTERISTICS THAT DIFFER CLEARLY HIGHLIGHTED.





2 SANITARY RISER





EARTHWMM RKS

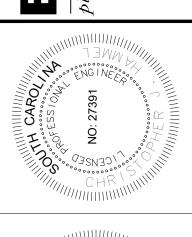
planning and design consultants

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PLUMBING PLAN

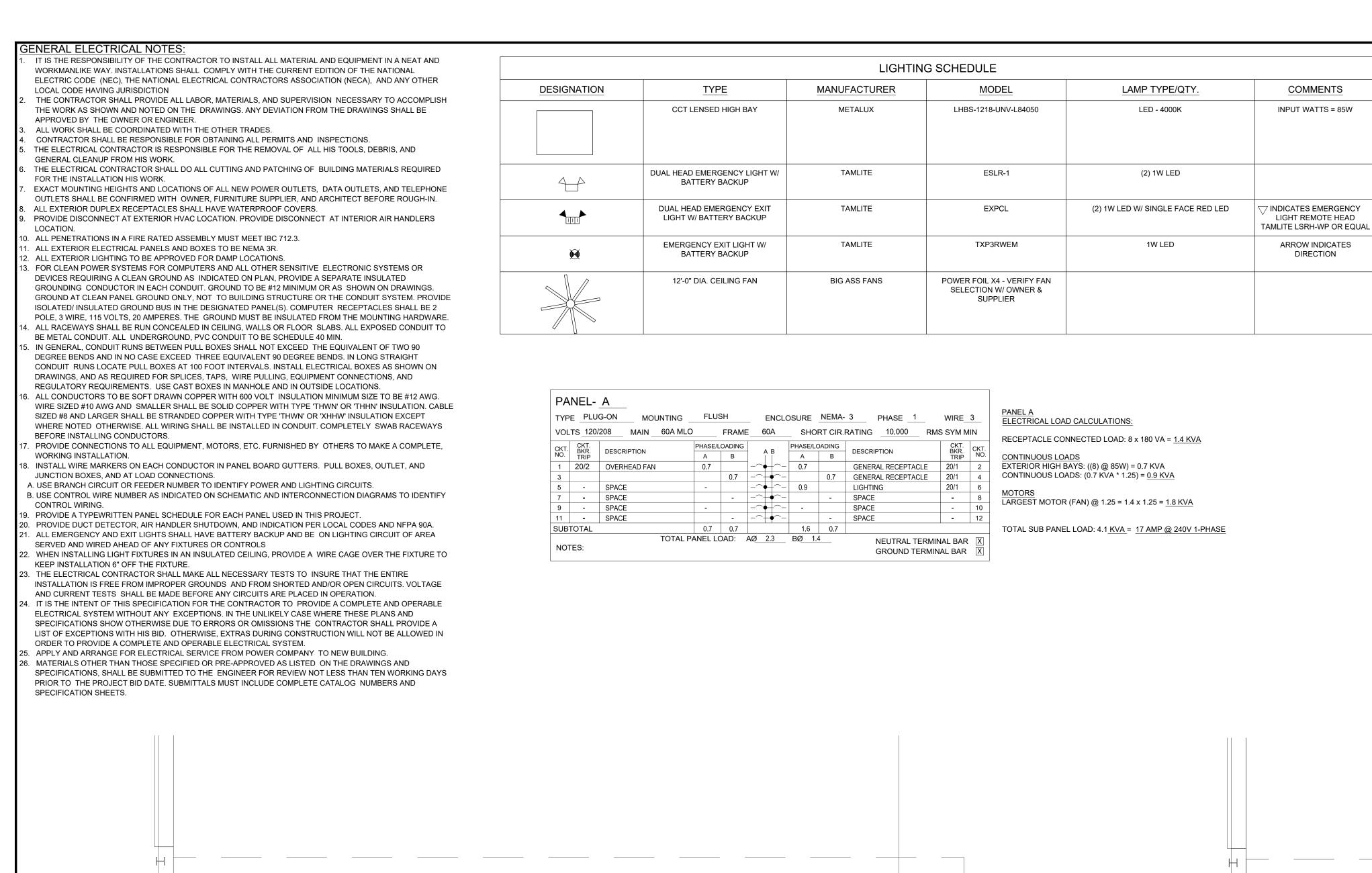
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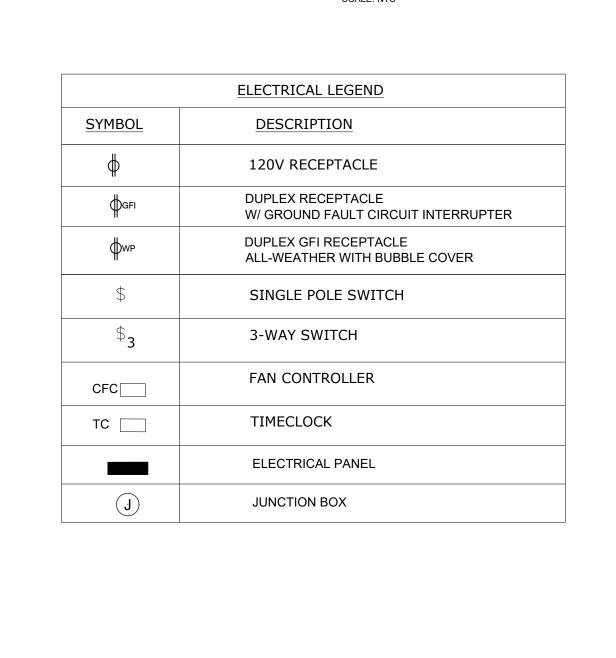
HORRY - GEORGETOWN TECHNICAL COLLEGE

4003 SOUTH FRASER STREET, GEORGETOWN, SC 29440

SCALE: AS NOTED
DESIGNED BY: CH
DRAWN BY: NL

P1.01





TO PHOTOCELL CONTROL & TIMECLOCK MOUNTED ADJACENT PANEL

ELECTRICAL LIGHTING PLAN

FROM 60 AMP 2-POLE

BREAKER @ EXISTING

INTERIOR PANEL -

AVAILABLE CAPACITY @

WORK

CONTRACTOR TO VERIFY

EXISTING PANEL PRIOR TO

WIRE SIZE LEGEND

NOTES: 1) BASED ON THWN COPPER WIRE. 2) CONDUIT IS

ELECTRICAL RISER DIAGRAM

MINIMUM SIZE 3) GROUND WIRE TO BE BARE COPPER.

**PANEL** 

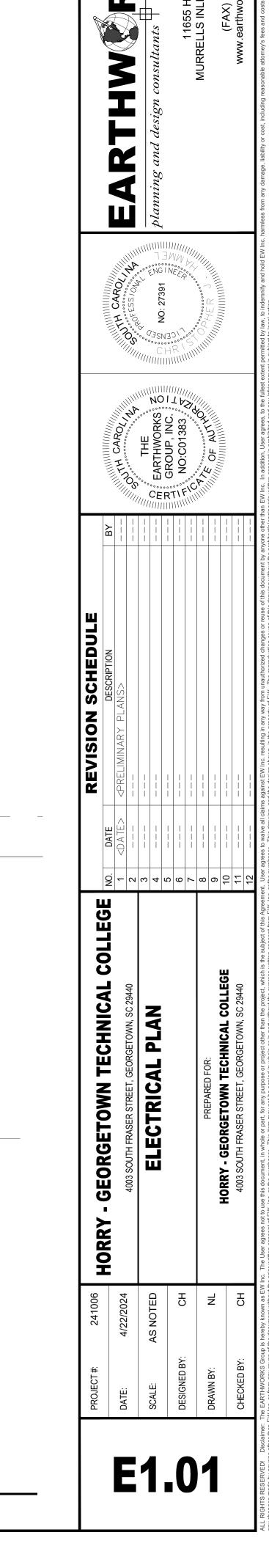
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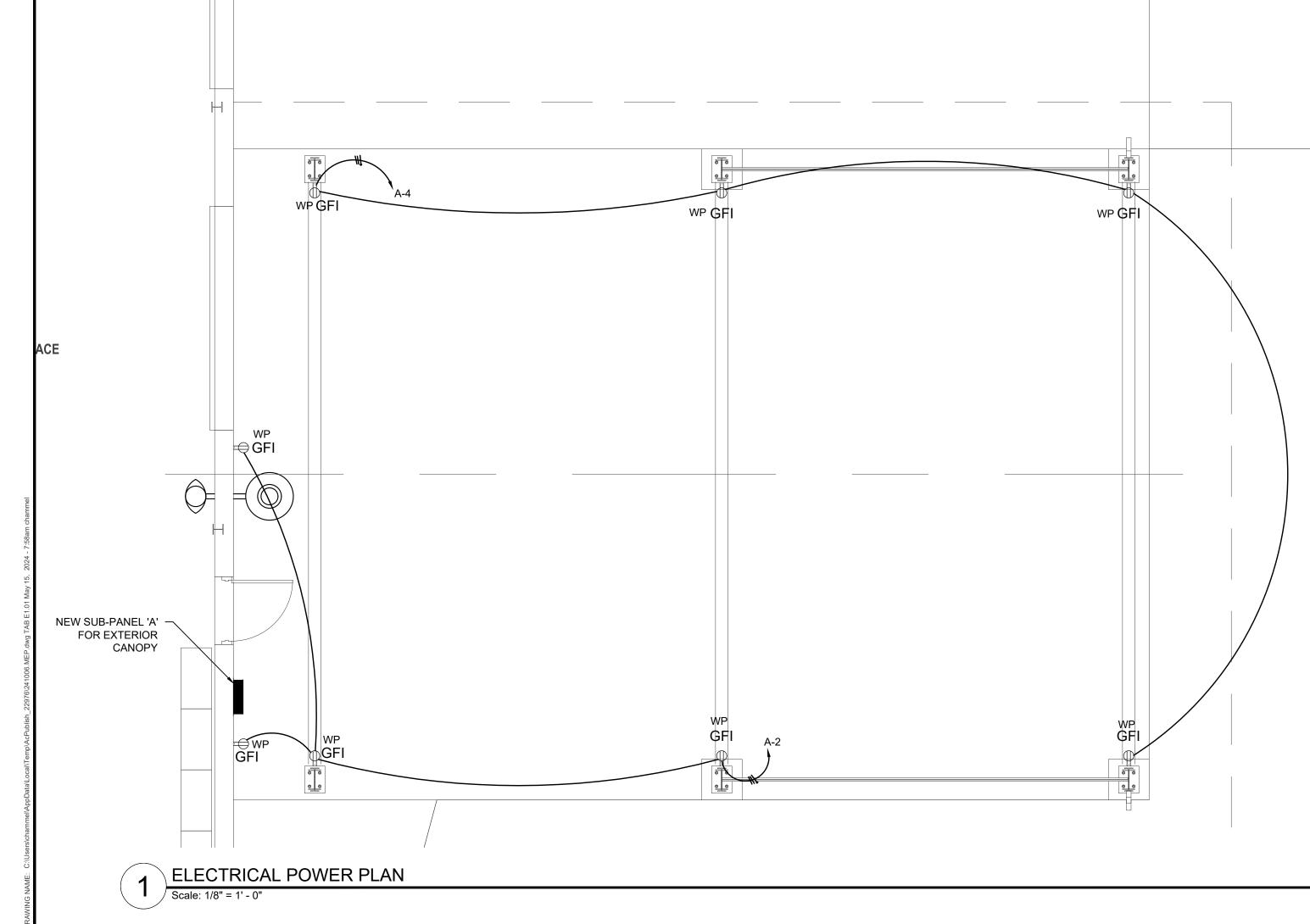
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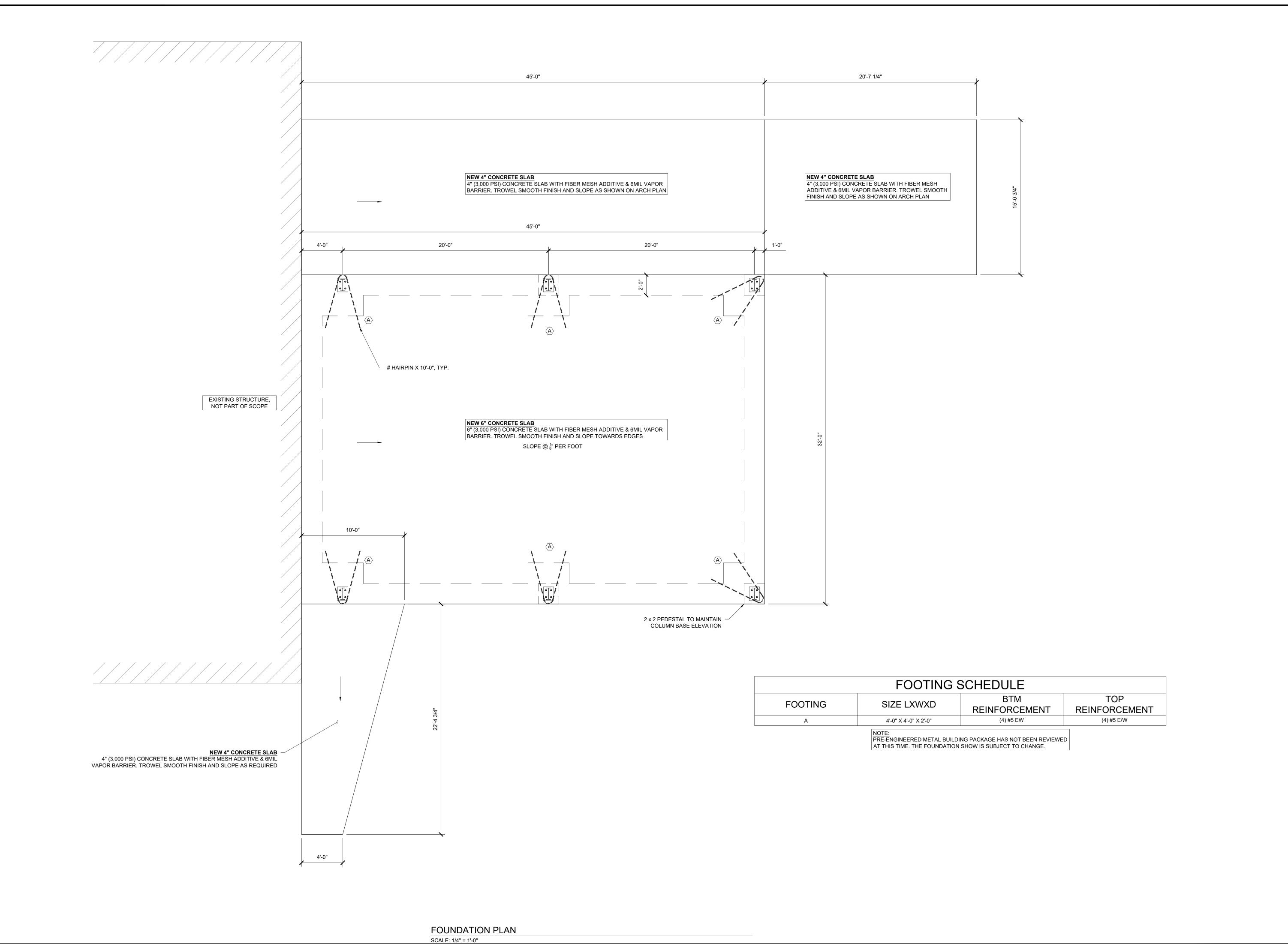
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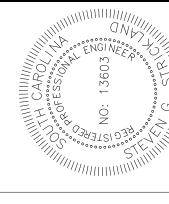
120/240 VAC

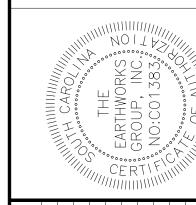






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BUILDING 500 EXTERIOR CAN SHELTER
SHELTER
FOUNDATION PLAN
HORRY-GEORGETOWN TECHNICAL COLLEGE
4003 SOUTH FRASER STREET
GEORGETOWN, SC 29440
PROJECT LOCATION: 4003 SOUTH FRASER STREET

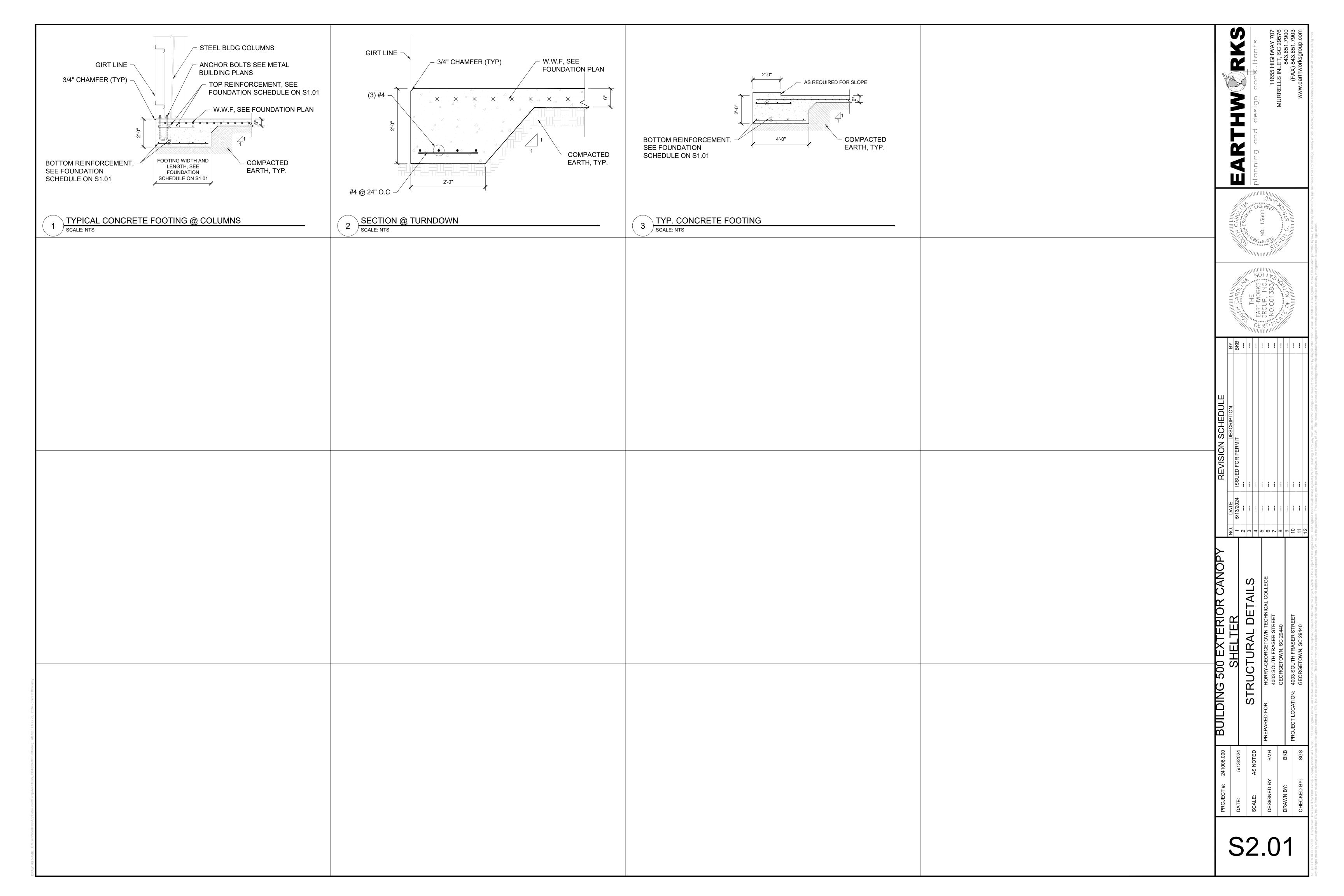
PROJECT#:

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SCALE:

DESIGNED BY:

DRAWN BY:



#### STRUCTURAL NOTES

	RNING CODE:			ONAL BUILDING CODE WITH SOUTH CAROL LOADS ARE IN ACCORDAN	
1.	RISK CATEGORY:	II	5.6.	INTERNAL PRESSURE COEFFICIENTS (GCa)	:
1.1.	SNOW IMPORTANCE FACTOR (/s)	1.00	5.6.1.	ENCLOSED STRUCTURE:	± 0.18
1.2.	ICE IMPORTANCE FACTOR - THICKNESS	( <i>I</i> <sub>i</sub> ) 1.00	5.6.2.	PARTIALLY ENCLOSED STRUCTURE:	± 0.55
1.3.	ICE IMPORTANCE FACTOR - WIND $(I_w)$	1.00	5.6.3.	OPEN STRUCTURE:	± 0.00
1.4.	SEISMIC IMPORTANCE FACTOR (/e)	1.00			
			6. SE	ISMIC LOAD INFORMATION	
2.	DEAD LOADS PER M	MATERIAL WEIGHTS	6.1.	BASIC PARAMETERS	
			6.1.1.	$MCE_R$ GROUND MOTION (S <sub>S</sub> )	0.511
3.	LIVE LOADS		6.1.2.	MCE <sub>R</sub> GROUND MOTION (S <sub>1</sub> )	0.167
3.1.	ROOF LIVE LOAD	20 PSF	6.1.3.	SEISMIC DESIGN VALUE @ 0.2s SA (S <sub>DS</sub> )	0.474
3.2.	FLOOR LIVE LOADS	40 PSF	6.1.4.	SEISMIC DESIGN VALUE @ 0.1s SA (S <sub>D1</sub> )	0.252
			6.2.	SITE CLASS:	D (Stiff Soils)
4.	SNOW LOADS		6.3.	SEISMIC DESIGN CATEGORY:	SDC D
4.1.	GROUND SNOW LOAD $(P_g)$	5 PSF	6.4.	BASIC FORCE RESISTING SYSTEM:	
4.2.	SNOW EXPOSURE FACTOR (C <sub>e</sub> )	0.9			
4.3.	THERMAL FACTOR (Ct)	1.2		MOMENT-RESISTING FRAME SYSTE	MS
4.4.	FLAT ROOF SNOW LOAD (P <sub>f</sub> )	5 PSF			
4.5.	SLOPED ROOF SNOW LOAD (Ps)	5 PSF	6.4.1.	` ,	3.25
			6.4.2.	( 9)	0.15
5.	WIND LOADS			$C_{\rm S} = S_{\rm DS} / (R / I_{\rm e})$	
5.1.			0.5	DECION DAGE QUEAD	0.45 * \\
	1.1. V <sub>ULT</sub> :	157 MPH		DESIGN BASE SHEAR:	0.15 * W
	1.2. V <sub>ASD</sub> :	116 MPH	6.6.	ANALYSIS PROCEDURE USED:	
5.2.		EXPOSURE B		EQUIVALENT LATERAL FORCE	
5.3.		< 30 FT	7. GE	OTECHNICAL INFORMATION	
5.4.	MAIN WIND FORCE RESISTING PRESSUR	ES (PSF)			ER TABLE 1806.2)
	ROOF: -51.0 <i>(MAX UPLIFT)</i> & +18.5/-36.4 <i>(O</i> 1	·	7.1.	2,000 1 01 77	- 17 17 1BLL 1000.2)
	WALL: +36.6 <i>(NET WINDWARD &amp; LEE</i>	WARD)	8. FL0	OOD DESIGN DATA	
				FLOOD ZONE	X-ZONE
5.5.	`	,			
	ROOF: +22.2/-61.0 <i>(ZONE 3)</i> & +22.2/-24.0	•	9. RA	IN LOAD	
	WALL: +24.0/-26.0 <i>(ZONE 4)</i> & +24.3/-32.0	) <i>(ZONE 5)</i>	9.1.	RAIN INTENSITY - 100 YEAR, 1 HOUR (/):	4.00 IN/HR

#### A. GENERAL

- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE, AND TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS, DURING ERECTION. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY, BRACING OR TIEDOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN ON THE DRAWINGS. IF APPLIED, THEY SHALL BE REMOVED AS CONDITIONS PERMIT. THE ENGINEER TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY C. STRUCTURAL STEEL THE CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, SHALL NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY THE ENGINEER OF ANY RESPONSIBILITY FOR SAFETY PROCEDURES.
- 2. IT IS SOLELY THE RESPONSIBILITY OF EACH CONTRACTOR TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE ENGINEER DOES NOT SUPERVISE, CONSTRUCTION UNLESS CONTRACTED TO DO SO. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
- EQUIPMENT FRAMING LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO HVAC, PLUMBING, OR ELECTRICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE THIS INFORMATION WITH THE INVOLVED TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN THESE REQUIREMENTS TO BE BORNE BY THE APPROPRIATE CONTRACTOR.
- 4. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL FLOOR PLANS PRIOR TO CONSTRUCTION. ARCHITECTURAL FLOOR PLANS SHALL GOVERN DIMENSIONS, AND ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. DO NOT SCALE
- FIRST FLOOR WINDOWS AND DOORS SHALL HAVE A RATING OF DP55. GARAGE DOORS TO HAVE A RATING OF DP50. SECOND FLOOR WINDOWS SHALL HAVE A RATING OF **DP55**.
- NOTE ON TREATED LUMBER CONNECTIONS ALL NAILS, BOLTS, SCREWS, AND CONNECTORS THAT MAY COME INTO CONTACT WITH TREATED LUMBER WILL BE HOT DIPPED GALVANIZED (HDG), STAINLESS STEEL (SS), OR OTHER MATERIALS APPROVED BY THE MANUFACTURE TO MINIMIZE CORROSION CAUSED BY ACQ TREATMENT CHEMICALS.
- SOIL LOAD BEARING CAPACITY FOR SANDS, SILTY SANDS AND CLAYEY SAND ARE PRESUMED TO BE 2,000 POUNDS PER SQUARE FOOT FOR DESIGN PURPOSES. SOIL LOAD BEARING CAPACITY FOR CLAYS AND SILTS (SL, ML, MH, AND CH) ARE PRESUMED TO BE 1,500 POUNDS PER
- SHOULD A CONFLICT OCCUR BETWEEN THESE DRAWINGS AND THE AFOREMENTIONED CODE REFERENCES, THE MORE STRINGENT SHALL GOVERN.

#### REINFORCED CONCRETE

#### MATERIALS:

- 1.a. SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI 318-14 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
- 1.b. STRUCTURAL CONCRETE:

LOCATION	F'c (PSI)
FOOTINGS	3,000
MONOLITHIC SLABS ON GRADE & ALL INTERIOR CONCRETE NOT OTHERWISE IDENTIFIED	3,500
RAISED STEMWALL SLABS & CONCRETE ON-GRADE, PIERS	3,000
BACKFILL BELOW FOOTINGS (MUD MAT)	2,000
ALL EXTERIOR CONCRETE NOT OTHERWISE IDENTIFIED	3,000
RECORMED DEINEODOINO DADO E	

- 1.c. ALL DEFORMED REINFORCING BARS: Fy = 60,000 ASTM A-615 GRADE 60
- MIXES: ALL CONCRETE MIXES SHALL BE DESIGNED BY THE SUPPLIER TO MEET THE REQUIREMENTS SET FORTH HEREIN.
- SLUMP: MAXIMUM ALLOWABLE SLUMP FOR CONCRETE SHALL BE 4", UNLESS OTHERWISE NOTED OR APPROVED. IF HIGHER SLUMP IS DESIRED TO INCREASE WORKABILITY, CONTRACTOR SHALL CONSULT WITH CONCRETE SUPPLIER ABOUT USING A CONCRETE ADDITIVE THAT WILL INCREASE SLUMP WITHOUT INCREASING WATER/CEMENT RATIO OF THE CONCRETE. THE CONTRACTOR SHALL VERIFY THAT ANY CONCRETE ADDITIVES WILL NOT HAVE ANY DETRIMENTAL EFFECTS ON EMBEDDED ITEMS, FINISHES INDICATED ON PLANS, OR LIKELY FUTURE FINISHES.
- 1.e. FINISHING: FINISHING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301 (LATEST EDITION).
- CURING: BEGINNING IMMEDIATELY AFTER PLACEMENT, CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING, EXCESSIVELY HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY AND SHALL BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR THE PERIOD NECESSARY FOR THE HYDRATION OF THE CEMENT AND HARDENING OF THE CONCRETE. THE MATERIALS AND METHODS OF CURING SHALL CONFORM TO ACI 301.
- FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, SP-15, IN THE FIELD OFFICE AT ALL TIMES.

- BENT BARS, IF REQUIRED, SHALL BE BENT PER MANUFACTURER RECOMMENDATIONS, UNLESS OTHERWISE APPROVED.
- PROVIDE SUPPORTS AS REQUIRED TO MAINTAIN ALIGNMENT OF SCHEDULED REINFORCING.
- GROUT UNDER COLUMN BASE PLATES SHALL BE NON-SHRINKING TYPE. THE USE OF LEVELING PLATES AT COLUMN BASES IS PROHIBITED. GROUT BELOW BEARING PLATES, SETTING PLATES AND COLUMN BASE PLATES IS TO BE INSTALLED ONLY AFTER THE STEEL IS PLUMBED.
- CONCRETE SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.IR-96 "GUIDE FOR CONCRETE".
- CONTROL JOINTS SHALL BE SPACED IN INTERIOR SLABS ON GRADE AT A MAXIMUM OF 20 FEET ON CENTER AND IN EXTERIOR SLABS ON GRADE AT A MAXIMUM OF 10 FEET ON CENTER, UNLESS OTHERWISE NOTED.
- CONTROL JOINTS SHALL BE PRODUCED USING CONVENTIONAL PROCESSES WITHIN 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED. REINFORCING STEEL SHALL NOT EXTEND THROUGH THE CONTROL JOINT.

- CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER. CONSTRUCTION JOINTS ARE TO BE KEYED. KEYWAYS SHALL BE 1-1/2 INCHES DEEP x 1/3 MEMBER THICKNESS.
- PROVIDE 6 MIL POLYETHYLENE VAPOR BARRIER BETWEEN SUBGRADE AND CONCRETE SLAB.
- TREAT SOIL FOR TERMITES PRIOR TO PLACEMENT OF CONCRETE.
- PREPARE SITE BY REMOVING ORGANIC/EXPANSIVE SOILS AND COMPACTING TO 95% PROCTOR DRY DENSITY.
- 4.h. SLAB FINISHES:
- ALL OFFICE SPACES, RETAIL, RESIDENTIAL AND SIMILAR SLABS SHALL HAVE MACHINE FINISH WITH  $\frac{1}{8}$ " PER 10'-0" TOLERANCE.
- ALL EXTERIOR, WET SURFACE, DRIVEWAYS, SIDEWALKS AND SIMILAR SLABS SHALL BE FINISHED WITH ROUGH NON-SKID SURFACE (BROOM FINISH). BRUSH LINES IN THE FINISH SHALL BE PARALLEL TO THE DIRECTION OF SLOPE.
- THE CONCRETE SLAB ON GRADE HAS BEEN DESIGNED USING A SUBGRADE MODULUS OF K=250 PCI AND A DESIGN LOADING OF 2,000 PSF. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR DIFFERENTIAL SETTLEMENT, SLAB CRACKING OR OTHER FUTURE DEFECTS RESULTING FROM UNREPORTED CONDITIONS MITIGATING THE ABOVE ASSUMPTIONS.
- REINFORCEMENT FOR SLAB ON GRADE SHALL BE PLACED AT A LOCATION BETWEEN THE CENTER AND UPPER THIRD OF THE SLAB.

- OPENINGS SHOWN ARE FOR BIDDING PURPOSES ONLY. COORDINATE THEIR EXACT SIZES AND LOCATIONS WITH HVAC, PLUMBING, AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH WORK.
- 5.b. IF ANY OPENING NOT SHOWN ON THE PLANS IS REQUIRED, SECURE APPROVAL OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING
- PROVIDE TWO #5 BARS AROUND ALL SLAB OPENINGS, EXTENDING 2 FEET BEYOND OPENING IN EVER DIRECTION, UNLESS NOTED OTHERWISE. OPENINGS NOT EXCEEDING 16 INCHES x 16 INCHES MAY BE SLEEVED AS REQUIRED BY WORKING THE REINFORCING STEEL

#### AROUND THEM. 6. FOOTINGS AND PIERS:

- 6.a. INSTALL DOWELS IN FOOTINGS TO MATCH VERTICAL PIER OR WALL REINFORCING STEEL.
- PROVIDE CORNER BARS AT FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING. MINIMUM LAP LENGTH WITH HORIZONTAL REINFORCING STEEL = 35 BAR DIAMETERS.
- BACKFILL AGAINST BOTH SIDES OF WALLS EQUALLY UNTIL THE LOWER ELEVATION IS ATTAINED.
- PROVIDE MINIMUM 18 INCH THICK LAYER OF GRANULAR BACKFILL FULL HEIGHT OF ALL FOUNDATION WALLS.
- CAST IN CONTINUOUS DOVE TAIL ANCHOR SLOTS ON VERTICAL SURFACES WHERE MASONRY ABUTS, 16 INCHES ON CENTER FOR PARALLEL MASONRY SURFACES. INSTALL AT CENTERLINE OF MASONRY FOR PERPENDICULAR MASONRY SURFACES.
- PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR ACCIDENTAL OVER EXCAVATION, SOFT SPOTS, AND TRENCHES.
- VENTILATING FOUNDATION WALL OPENINGS SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING. AREA OF OPENINGS SHALL BE
- NOT LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF UNDER FLOOR SPACE AREA. 7. SPLICES: UNLESS OTHERWISE NOTED, MINIMUM LAP SPLICE LENGTHS TO BE AS FOLLOWS:

	REINFORCING STEEL	LAP LENGTH
	VERTICAL BARS (INCLUDING DOWELS)	30 BAR DIAMETERS
	HORIZONTAL BARS IN SLABS & FOOTINGS	30 BAR DIAMETERS
8.	CONCRETE COVER: UNLESS OTHERWISE NOTED, DETAIL REINFORCING TO PROVIDE CONCRETE COVER AS FO	DLLOWS:
	STEEL LOCATION	CONCRETE COVER
	CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3 INCHES
	CONCRETE EXPOSED TO EARTH OR WEATHER:	
	#5 BARS AND SMALLER	1-1/2 INCHES
	OTHERS	2 INCHES
	PILE CAPS_	2-1/2 INCHES

1. THE MISCELLANEOUS STEEL FRAMING AS DESIGNED IS A NON-SELF-SUPPORTING STEEL FRAME AS DEFINED BY THE AISC CODE OF STANDARD PRACTICE, PARAGRAPH 7.9.3. COORDINATE THE ERECTION WITH THE INSTALLATION OF OTHER BUILDING ELEMENTS REQUIRED FOR THE STRUCTURE'S STABILITY. THESE ELEMENTS INCLUDE SLABS, ROOF SHEATHING, WOOD JOISTS, STUD WALLS, AND LIGHT GAGE METAL FRAMING.

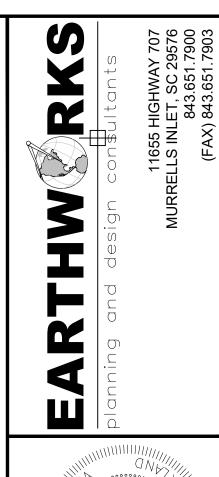
#### MATERIAL:

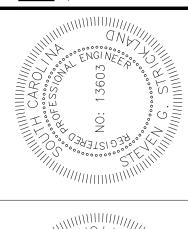
- 2.a. STRUCTURAL STEEL: ASTM A36, FY = 36 KSI
- 2.b. HIGH STRENGTH BOLTS: ASTM A325 OR A490
- 2.c. ANCHOR BOLTS: ASTM A307 OR A36
- 2.d. ELECTRODES: SERIOUS E70
- 2.e. STRUCTURAL PIPES: ASTM A53 OR A501, FY = 35 KSI MIN
- SQUARE AND RECTANGULAR TUBING: ASTM A500, FY = 46 KSI
- 2.g. EXPANSION BOLTS: HILTI "KWIK-BOLT II" OR APPROVED EQUAL
- 3. SPECIFICATION: WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION TO BE GOVERNED BY:
- 3.a. AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (JUNE 1, 1989)
- AISC CODE OF STANDARD PRACTICE (SEPTEMBER 1, 1986)
- STRUCTURAL WELDING CODE, AWS D1.1-98 OF THE AMERICAN WELDING SOCIETY
- 3.d. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS (NOVEMBER 13, 1985)

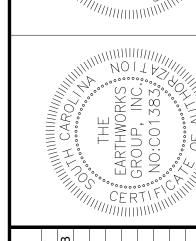
- FIELD CONNECTION TO BE BOLTED, UNLESS SHOWN OTHERWISE, SHOP CONNECTIONS TO BE WELDED OR BOLTED. CONNECTION TO BE DESIGNED BY THE FABRICATOR TO DEVELOP THE FULL UNIFORM LOAD CAPACITY OF THE MEMBER OR FORCES SHOWN ON PLANS,
- 5. GALVANIZING: ALL EXTERIOR STEEL EXPOSED TO THE ELEMENTS AND ALL ITEMS INDICATED ON THE DRAWINGS AS "GALVANIZED" SHALL BE HOT 6. PAINT:
- DO NOT PAINT STEEL OR ANCHOR BOLTS WHICH WILL BE GALVANIZED, ENCASED IN CONCRETE, OR ANY STEEL NOT EXPOSED TO VIEW IN THE FINISHED STRUCTURE, EXCEPT COLUMNS AND PORTIONS OF BEAMS EMBEDDED IN OR BUILT WITHIN EXTERIOR WALLS, WHICH SHALL BE PAINTED WITH TWO COATS OR PRIMER.

#### MISCELLANEOUS:

- ANCHOR BOLTS AT STEEL COLUMN BASE ARE NOT DESIGNED TO PROVIDE, AND WILL NOT PROVIDE, STABILITY FOR THE STEEL FRAME DURING ERECTION. FOR SAFETY CONSIDERATIONS DURING ERECTION, SEE STRUCTURAL NOTE A.1.
- PROVIDE HOLES FOR OTHERS. IF OPENINGS IS NOT SHOWN OF THE STRUCTURAL DRAWINGS, OBTAIN PRIOR APPROVAL.
- THE USE OF LEVELING PLATES AT COLUMN BASES IS PROHIBITED. SEE THE REINFORCED CONCRETE NOTES ABOVE FOR GROUT AND
- GROUTING REQUIREMENTS. STEEL BELOW GRADE IS TO BE PROTECTED BY A MINIMUM OF 3 INCHES OF CONCRETE.
- PROVIDE SHOP WELDED ANCHORS FOR ATTACHMENTS OF MASONRY. SPACING TO BE 16 INCHES ON COLUMNS AND BEAMS.
- PROVIDE WASHER AND HEAVY NUT AT ALL ANCHOR BOLTS (BOTH ENDS).
- FINISH ENDS OF ALL COLUMNS, STIFFENERS AND ALL OTHER MEMBERS IN DIRECT BEARING.
- EMBEDMENT LENGTH OF EXPANSION BOLTS INTO SOLIDS MASONRY OR CONCRETE SHALL BE AS FOLLOWS:
  - <sup>3</sup>/<sub>4</sub> INCH DIAMETER BOLTS 5 INCH EMBEDMENT
  - $\frac{1}{2}$  INCH DIAMETER BOLTS  $3\frac{1}{2}$  INCH EMBEDMENT







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