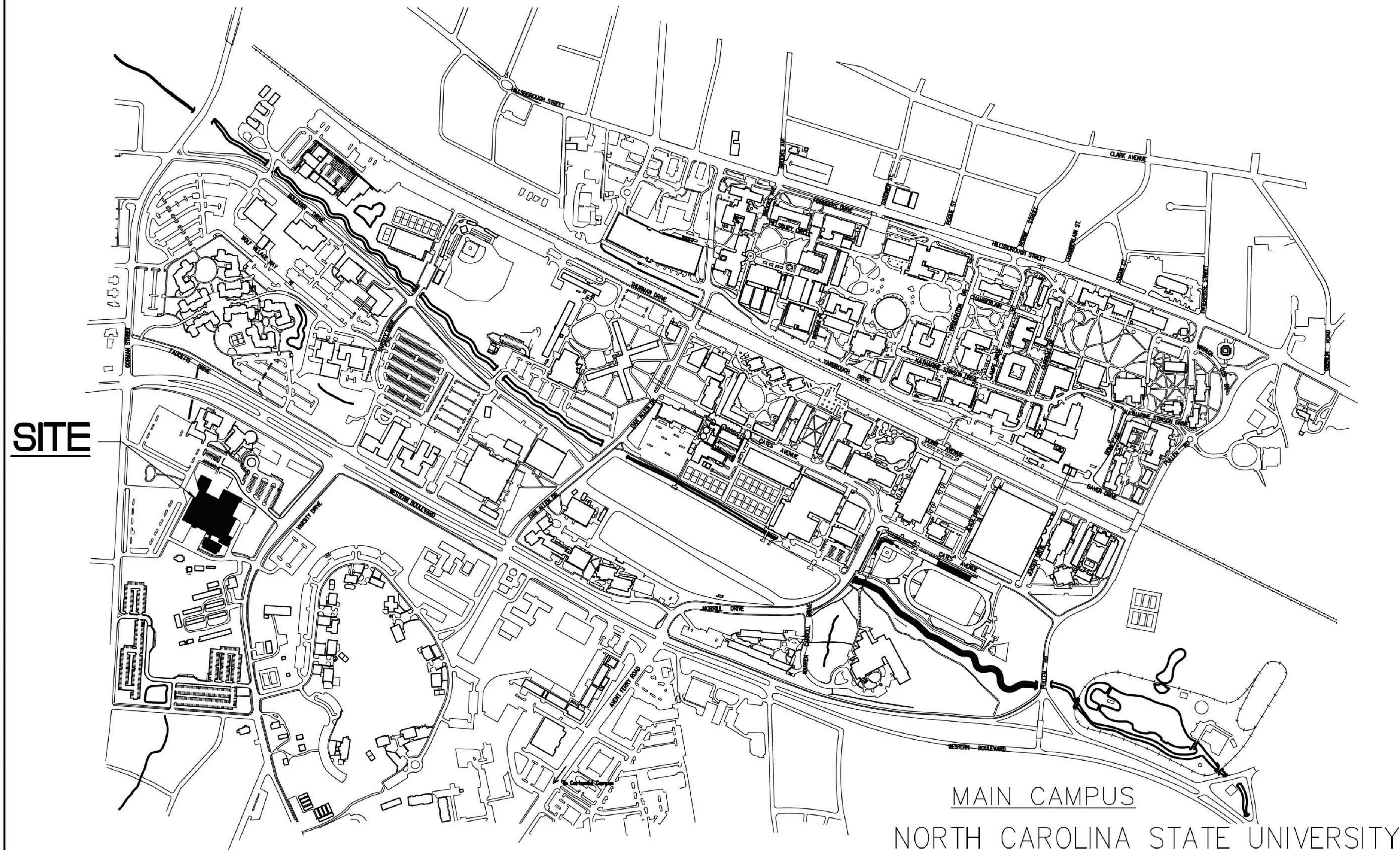


# NORTH CAROLINA STATE UNIVERSITY McKIMMON CENTER RESTROOM RENOVATION

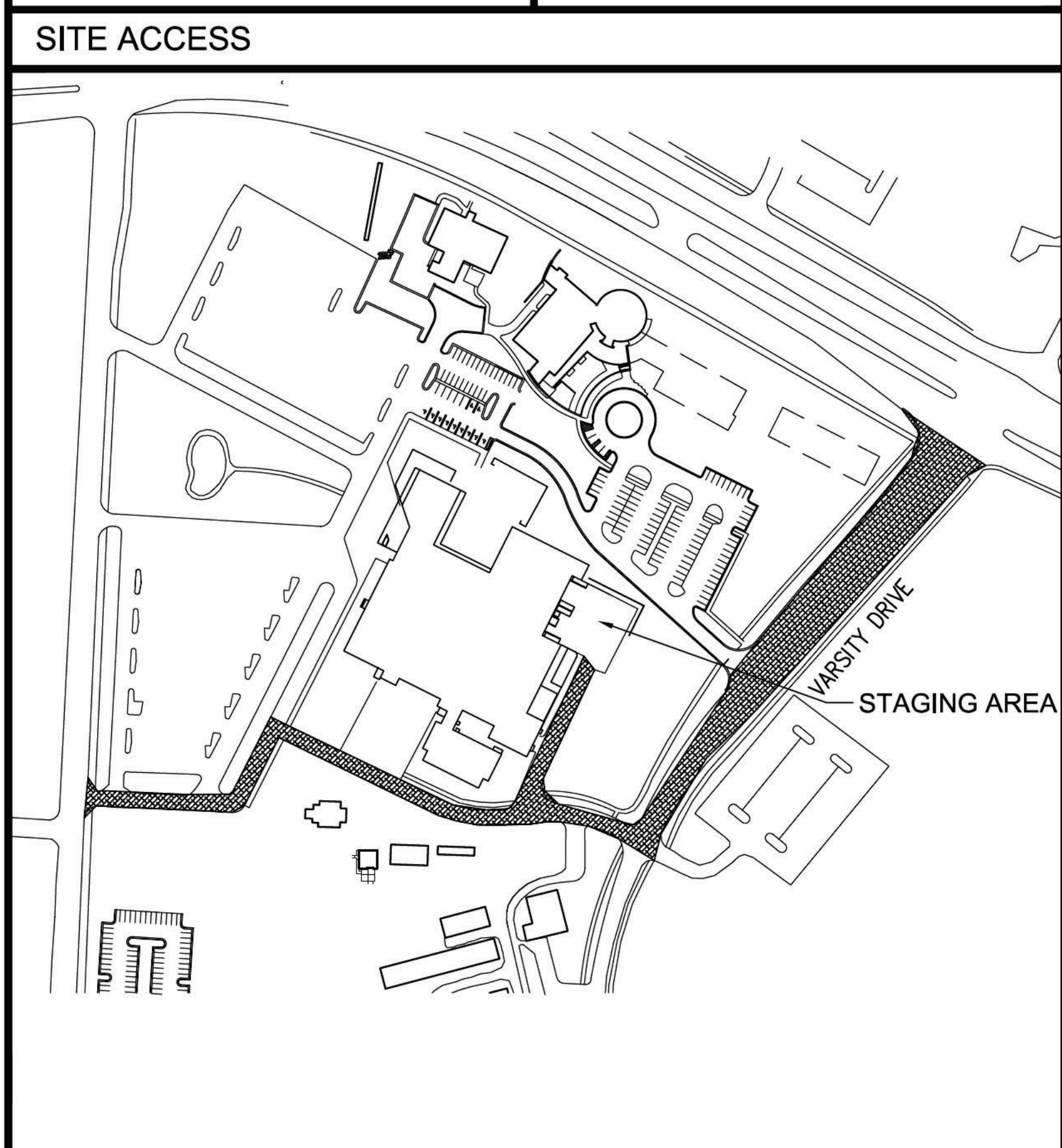
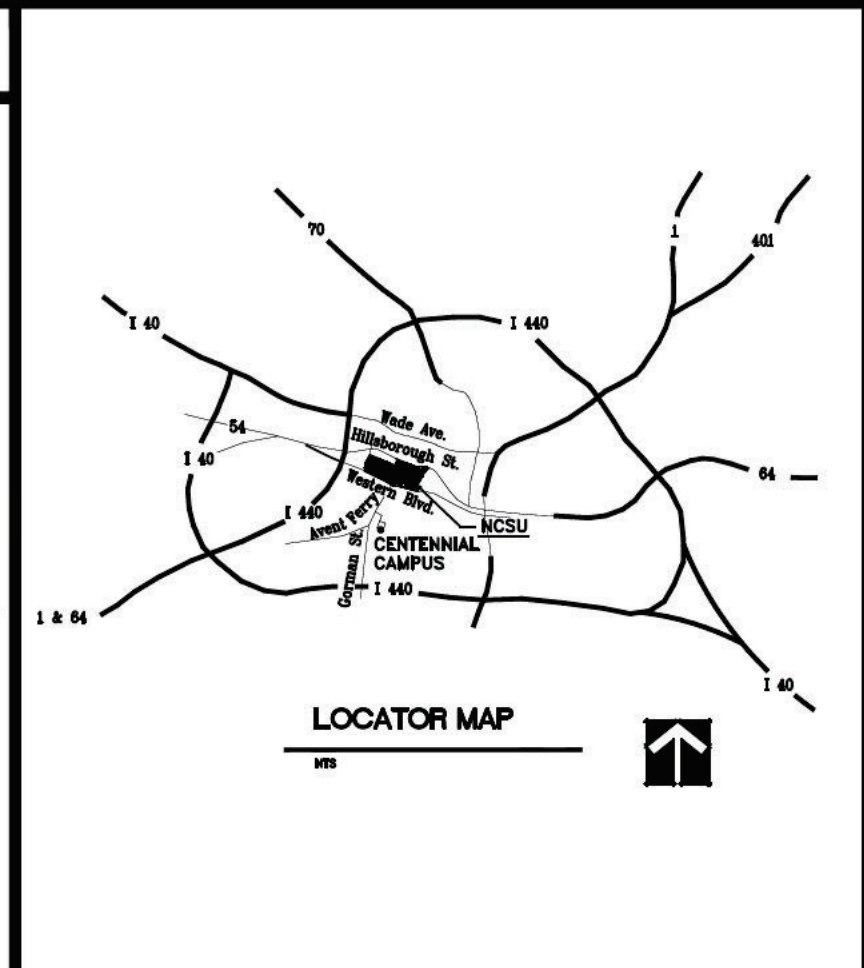
1101 GORMAN STREET, RALEIGH, NC 27695-7401



**PROJECT DESCRIPTION**

ALTERATION TO 2 GANG RESTROOMS TO ACCOMMODATE CURRENT ACCESSIBILITY CODES. . CONVERSION OF STORAGE ROOM SPACE INTO A NEW WOMEN'S RESTROOM. THE PROJECT INCREASES OVERALL PLUMBING FIXTURE COUNTS. REPLACEMENT OF ROOFTOP EXHAUST FANS SERVING AFFECTED RESTROOMS. REPLACEMENT OF FLUORESCENT LIGHT FIXTURES IN AFFECTED SPACES WITH LED FIXTURES. ALL EXISTING FIRE ALARM SYSTEM COMPONENTS WILL REMAIN AS IS, EXCEPT 2 NOTIFICATION DEVICES WILL BE ADDED TO NEW WOMEN'S RESTROOM. THE OVERALL BUILDING COMPLIES WITH CURRENT ACCESSIBILITY CODE REQUIREMENTS FOR PARKING, BUILDING ENTRANCES, AND PATH OF TRAVEL TO AREAS OF PRIMARY FUNCTION BASED ON NORTH CAROLINA STATE UNIVERSITY'S DOCUMENTATION.

NOTE THAT THE MCKIMMON CENTER HAS OTHER RESTROOMS THROUGHOUT THE BUILDING, NONE OF WHICH ARE IN THIS PROJECT SCOPE.



**INDEX OF DRAWINGS**

ARCHITECTURAL	
G000	COVER SHEET
G001	CODE SUMMARY
G002	PHASING and LOGISTICS PLAN
D100	ABATEMENT PLAN
D101	DEMOLITION PLANS
D102	DEMOLITION PLANS - BID ALTERNATES
D111	DEMOLITION RCP PLANS - BID ALTERNATES
A101	RENOVATION ENLARGED FLOOR PLANS
A102	RENOVATION ENLARGED FLOOR PLANS - BID ALTERNATES
A111	RENOVATION ENLARGED RCP PLANS
A401	INTERIOR ELEVATIONS
A402	INTERIOR ELEVATIONS - BID ALTERNATES
A601	DOOR and FINISH SCHEDULES, HJS DETAILS
A701	ENLARGED FLOORING PLANS

**PLUMBING**

PD101	PLUMBING DEMOLITION PLANS
P101	PLUMBING RENOVATION ENLARGED PLANS

**MECHANICAL**

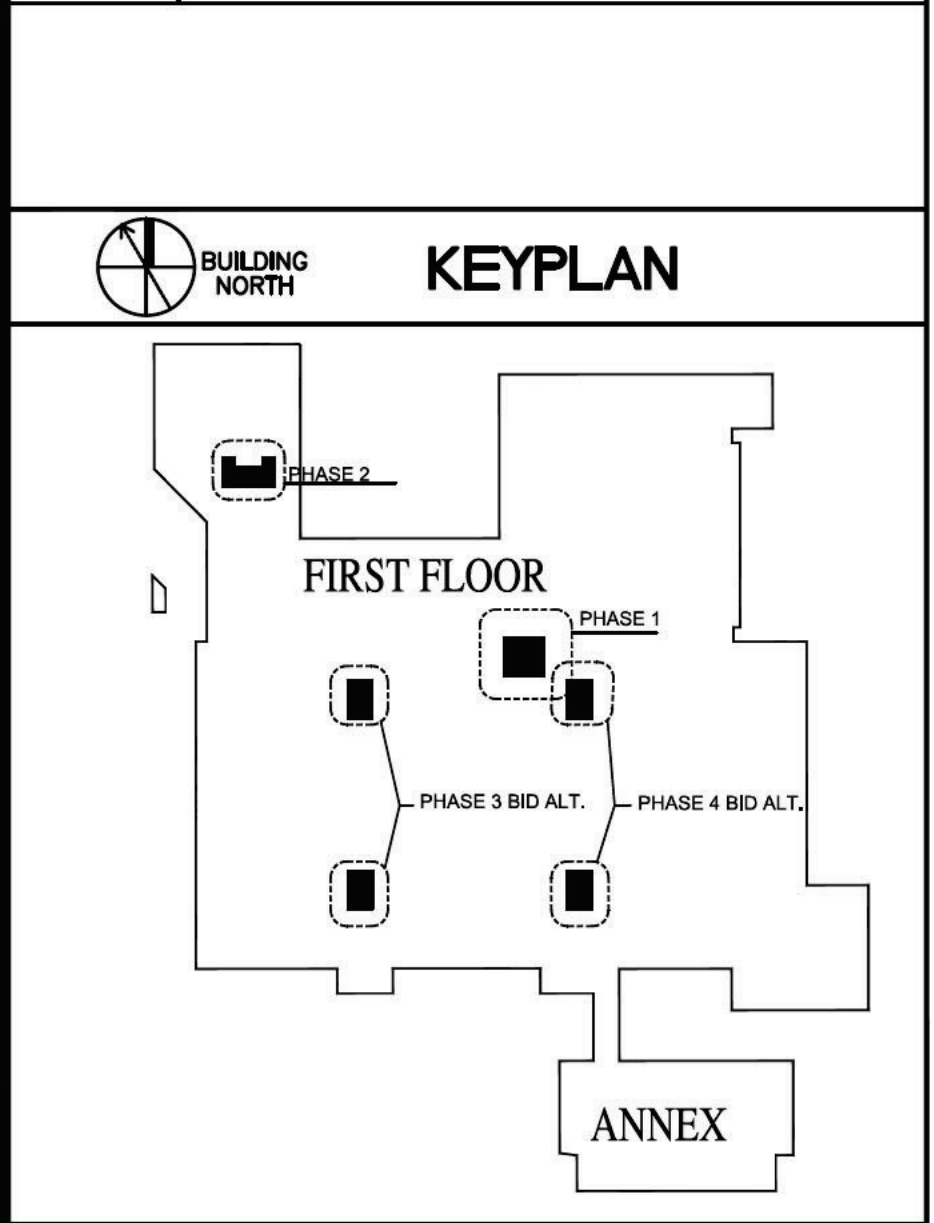
MD111	HVAC DEMOLITION PLANS
M111	MECHANICAL RENOVATION ENLARGED PLANS

**ELECTRICAL**

E002	OVERALL ELECTRICAL PANEL LOCATIONS FIRST FLOOR PLAN
ED101	DEMOLITION ELECTRICAL POWER PLANS
ED111	DEMOLITION ELECTRICAL LIGHTING PLANS
E101	RENOVATION ENLARGED POWER PLANS
E111	RENOVATION ENLARGED LIGHTING PLANS
E601	PANEL SCHEDULES

**FIRE ALARM**

FA101	ENLARGED FIRE ALARM PLANS
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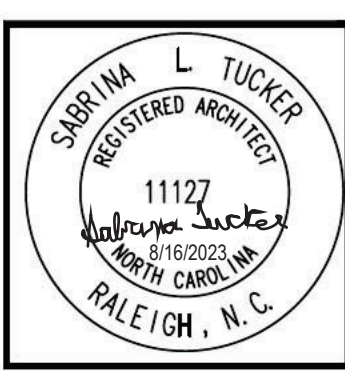
**ARCADIS**

Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership  
421 Fayetteville Street  
Suite 1609  
Raleigh NC 27601 USA  
tel 919 851 4211  
arcadls.com

**CONSTRUCTION DOCUMENT PHASE**

NC STATE UNIVERSITY  
CAPITAL PROJECT MANAGEMENT  
\* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
DESIGNER: S. TUCKER  
DRAWN BY: S. TUCKER  
CHECKED BY: S. TUCKER  
REV: ..



SEAL NOT VALID UNLESS SIGNED AND DATED

NCSU - McKIMMON CENTER  
RESTROOM RENOVATIONS  
SCO ID # 22-25847-01A  
CODE/ITEM # 42124/323

COVER SHEET

SHEET No.  
**G000** of  
Total Sheets: 00

Designer Proj. No.  
142814  
NCSU Proj. No.  
202220029

FAC. NAME  
**McKIMMON CENTER**  
FAC. NO. 129

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Layout File: G000





**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**  
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: **MCKIMMON CENTER RESTROOM RENOVATION**  
 1101 GORMAN ST RALEIGH, NC Zip Code: **27695-7401**  
 Owner/Authorized Agent: **BOB COWIKLA** Phone # (919) 515-6836 E-Mail: **mcovikla@ncsu.edu**  
 Owned By:  City/County  Private  State  State  
 Code Enforcement Jurisdiction:  City  County  State

**CONTACT:** **SABRINA TUCKER**  
 DESIGNER: FIRM: **ARCADIS** NAME: **SABRINA TUCKER** LICENSE # **11127** TELEPHONE: **(919) 851-4210** E-MAIL: **sabrina.tucker@arcadis.com**  
 Architectural: **N/A**  
 Civil: **N/A**  
 Electrical: **ARCADIS** KEVIN SCHAEFER 034828 (919) 851-4211 kevin.schaefer@arcadis.com  
 Fire Alarm: **ARCADIS** KEVIN SCHAEFER 034828 (919) 851-4211 kevin.schaefer@arcadis.com  
 Plumbing: **ARCADIS** DAN IGO 054060 (919) 851-4211 dan.igo@arcadis.com  
 Mechanical: **ARCADIS** DAN IGO 054060 (919) 851-4211 dan.igo@arcadis.com  
 Sprinkler-Standpipe: **N/A**  
 Structural: **N/A**  
 Retaining Walls >5' High: **N/A**  
 Other:  Other should include firms and individuals such as, truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE:  New Building  Shell/Core  1<sup>st</sup> Time Interior Completions  
 Addition  Phased Construction - Shell Core

2018 NC EXISTING BUILDING CODE:  Prescriptive  Alteration Level I  Historic Property  
 Repair  Alteration Level II  Change of Use  
 Chapter 14  Alteration Level III

CONSTRUCTED: (date) **1976** CURRENT OCCUPANCY(S) (Ch. 3): **ASSEMBLY**  
 RENOVATED: (date) **1982** PROPOSED OCCUPANCY(S) (Ch. 3): **ASSEMBLY**  
 OCCUPANCY CATEGORY (Table 1004.5): Current: **ASSEMBLY** Proposed: **ASSEMBLY**

**BASIC BUILDING DATA**  
 Construction Type:  I-A  II-A  III-A  IV  V-A  
 I-B  II-B  III-B  V-B  
 Sprinklers:  No  Partial  NFPA 13  NFPA 13R  NFPA 13D  
 Standpipes:  No  Class I  II  III  Wet  Dry  
 Primary Fire District:  No  Yes  Flood Hazard Area:  No  Yes  
 Special Inspections Required:  No  Yes

**GROSS BUILDING AREA TABLE**

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 <sup>rd</sup> Floor			
2 <sup>nd</sup> Floor	31,012		
Mezzanine			
1 <sup>st</sup> Floor	88,411	RENO AREA: 1,265	
Basement			
TOTAL	119,423		

NCD01-1

**ALLOWABLE AREA**

Primary Occupancy Classification(s):  
 Assembly  A-1  A-2  A-3  A-4  A-5  
 Business  B-1  B-2  B-3  B-4  B-5  
 Educational  E-1  E-2  E-3  E-4  
 Factory  F-1 Moderate  F-2 Low  F-3 High  F-4  
 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  
 1-1 Condition  1  2  3  4  5  
 1-2 Condition  1  2  3  4  5  
 1-3 Condition  1  2  3  4  5  
 Mercantile  M-1  M-2  M-3  
 Residential  R-1  R-2  R-3  R-4 High-piled  
 Storage  S-1 Moderate  S-2 Low  S-3 High-piled  
 Utility and Miscellaneous  U-1  U-2  U-3  U-4  U-5  
 Open  Enclosed  Repair Garage

Accessory Occupancy Classification(s): **EXISTING UNCHANGED**

Incidental Uses (Table 509):  
 This separation is not exempt as a Non-Separated Use (see exceptions).  
 Special Uses (Chapter 4 - List Code Sections):  
 Special Provisions (Chapter 5 - List Code Sections):  
 Mixed Occupancy: Select one Separation: Select one Exception:  
 Select one  

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

STORY NO.	DESCRIPTION AND USE	AREA PER STORY (ACTUAL)	AREA PER STORY (ALLOWABLE)	AREA FOR FRONTAGE INCREASE <sup>1,2</sup>	ALLOWABLE AREA PER STORY OR UNLIMITED <sup>3</sup>

Frontage area increase 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 = (P)  
 c. Ratio (F/P) = (F/P)  
 d. W = Minimum width of public way = (W)  
 \*Unlimited Area applicable under conditions of Section 507.  
 \*Maximum Building Area = total number of stories in the building x D (maximum) stories (506.2).  
 \*The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.  
 \*Frontage increase is based on the un-sprinklered area value in Table 506.2.

NCD01-2

**ALLOWABLE HEIGHT**

BUILDING HEIGHT IN FEET (TABLE 504.3)	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE

Building Height in Stories (Table 504.4)  
 Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

**FIRE PROTECTION REQUIREMENTS**

TYPE OF ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	PROVIDED (W/ DETECTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structure: Frame, including columns, girders, trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Floor Ceiling Assembly							
Columns/Supporting Beams							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly							
Columns/Supporting Beams							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Consider Separation							
Occupancy/Fire Barrier Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
Tenon/Diaphragm/Use/Sheathing/Joint Separation							
Included Use Separation							

**EXISTING UNCHANGED**

NCD01-3

**PERCENTAGE OF WALL OPENING CALCULATIONS**

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENING RESTRICTION (TABLE 705.5)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

**EXISTING UNCHANGED**

**LIFE SAFETY SYSTEM REQUIREMENTS**

Emergency Lighting:  Yes  No  
 Exit Signs:  Yes  No  
 Fire Alarm:  Yes  No  
 Smoke Detection Systems:  Yes  No  
 Carbon Monoxide Detection:  Yes  No

**LIFE SAFETY PLAN REQUIREMENTS**

Life Safety Plan Sheet #: **EXISTING UNCHANGED**

Fire and/or smoke rated wall locations (Chapter 7)  
 Assumed and real property line locations (if not on the site plan)  
 Exterior wall opening area with respect to distance to assumed property lines (705.5)  
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)  
 Occupant loads for each area  
 Exit access travel distances (1017.1)  
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))  
 Dead end lengths (1020.4)  
 Clear exit widths for each exit door  
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)  
 Actual occupant load for each exit door  
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
 Location of doors with panic hardware (1010.1.10)  
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)  
 Location of doors with electromagnetic egress locks (1010.1.9.9)  
 Location of doors equipped with hold-open devices  
 Location of emergency escape windows (1030)  
 The square footage of each fire area (202)  
 The square footage of each smoke compartment for Occupancy Classification 1-2 (407.5)  
 Note any code exceptions or table notes that may have been utilized regarding the items above

NCD01-4

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
MECHANICAL DESIGN  
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)**

**MECHANICAL SUMMARY**

**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

**Thermal Zone**  
 winter dry bulb: \_\_\_\_\_  
 summer dry bulb: \_\_\_\_\_

**Interior design conditions**  
 winter dry bulb: \_\_\_\_\_  
 summer dry bulb: \_\_\_\_\_  
 relative humidity: \_\_\_\_\_

**Building heating load:** \_\_\_\_\_

**Building cooling load:** \_\_\_\_\_

**Mechanical Spacing Conditioning System**  
 Unitary description of unit:  
 heating efficiency: \_\_\_\_\_  
 cooling efficiency: \_\_\_\_\_  
 size category of unit: \_\_\_\_\_  
 Boiler:  
 Size category, if oversized, state reason: \_\_\_\_\_  
 Chiller:  
 Size category, if oversized, state reason: \_\_\_\_\_

**List equipment efficiencies:** \_\_\_\_\_

**EXISTING UNCHANGED**

NCD01-8

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
ELECTRICAL DESIGN  
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)**

**ELECTRICAL SUMMARY**

**ELECTRICAL SYSTEM AND EQUIPMENT**

**Method of Compliance:** Select one  
 Lighting schedule (each fixture type)  
 lamp type required in fixture — LED  
 number of lamps in fixture — N/A  
 ballast type used in the fixture — ELECTRONIC  
 number of ballasts in fixture — 1  
 total wattage per fixture — L1 (16w); L2 (14w); L3 (27w); L4 (27w); L5 (32w); X1 (10w)  
 total interior wattage specified vs. allowed (whole building or space by space) — 1151/1592  
 total exterior wattage specified vs. allowed — N/A

**Additional Prescriptive Compliance**  
 506.2.1 More Efficient Mechanical Equipment  
 506.2.2 Reduced Lighting Power Density  
 506.2.3 Energy Recovery Ventilator 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

NCD01-9

**ACCESSIBLE DWELLING UNITS (SECTION 1107)**

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A							

**ACCESSIBLE PARKING (SECTION 1106)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED	TOTAL # ACCESSIBLE PROVIDED

**EXISTING UNCHANGED**

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**

USE	WATER CLOSETS	URINALS	LAVATORIES	SHOWERS	DRINKING FOUNTAINS				
SPACE	MALE	FEMALE	MALE	FEMALE	REGULAR	ACCESSIBLE			
EXIST'G	13	22	4	19	13	18	4	6	6
NEW	6								
TOTAL	18	27		19	13	18	4	6	6

**SPECIAL APPROVALS**  
 Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)  
 STATE CONSTRUCTION OFFICE

NCD01-5

**ENERGY SUMMARY**

**ENERGY REQUIREMENTS:**  
 The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the proposed design.

**EXISTING UNCHANGED**

Existing building envelope complies with code: Select one  
 Exempt Building: Select one Provide code or statutory reference:  
 Climate Zone: Select one  
 Method of Compliance: Select one  
 (If "Other" specify source here.)

**THERMAL ENVELOPE (Prescriptive method only)**

**Roof/Ceiling Assembly (each assembly)**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_  
 Skylights in each assembly: \_\_\_\_\_  
 U-Value of skylight: \_\_\_\_\_  
 total square footage of skylights in each assembly: \_\_\_\_\_

**Exterior Walls (each assembly)**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_  
 Openings (windows or doors with glazing): \_\_\_\_\_  
 U-Value of assembly: \_\_\_\_\_  
 Solar heat gain coefficient: \_\_\_\_\_  
 projection factor: \_\_\_\_\_  
 Door R-Values: \_\_\_\_\_

**Walls below grade (each assembly)**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_

**Floors over unconditioned space (each assembly)**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_

**Floors slab on grade**  
 Description of assembly: \_\_\_\_\_  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_  
 Horizontal/vertical requirement: \_\_\_\_\_  
 slab heated: \_\_\_\_\_

NCD01-6

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
STRUCTURAL DESIGN  
(PROVIDE ON SHEET 1 OR 2 OF THE STRUCTURAL SHEETS)**

**EXISTING UNCHANGED**

**DESIGN LOADS:**

**Importance Factors:**  
 Wind (Iw) \_\_\_\_\_  
 Snow (Is) \_\_\_\_\_  
 Seismic (Is) \_\_\_\_\_

**Live Loads:**  
 Roof \_\_\_\_\_ psf  
 Mechanic \_\_\_\_\_ psf  
 Floor \_\_\_\_\_ psf

**Ground Snow Load:** \_\_\_\_\_ psf

**Wind Load:** Basic Wind Speed \_\_\_\_\_ mph (ASCE-7)  
 Exposure Category \_\_\_\_\_

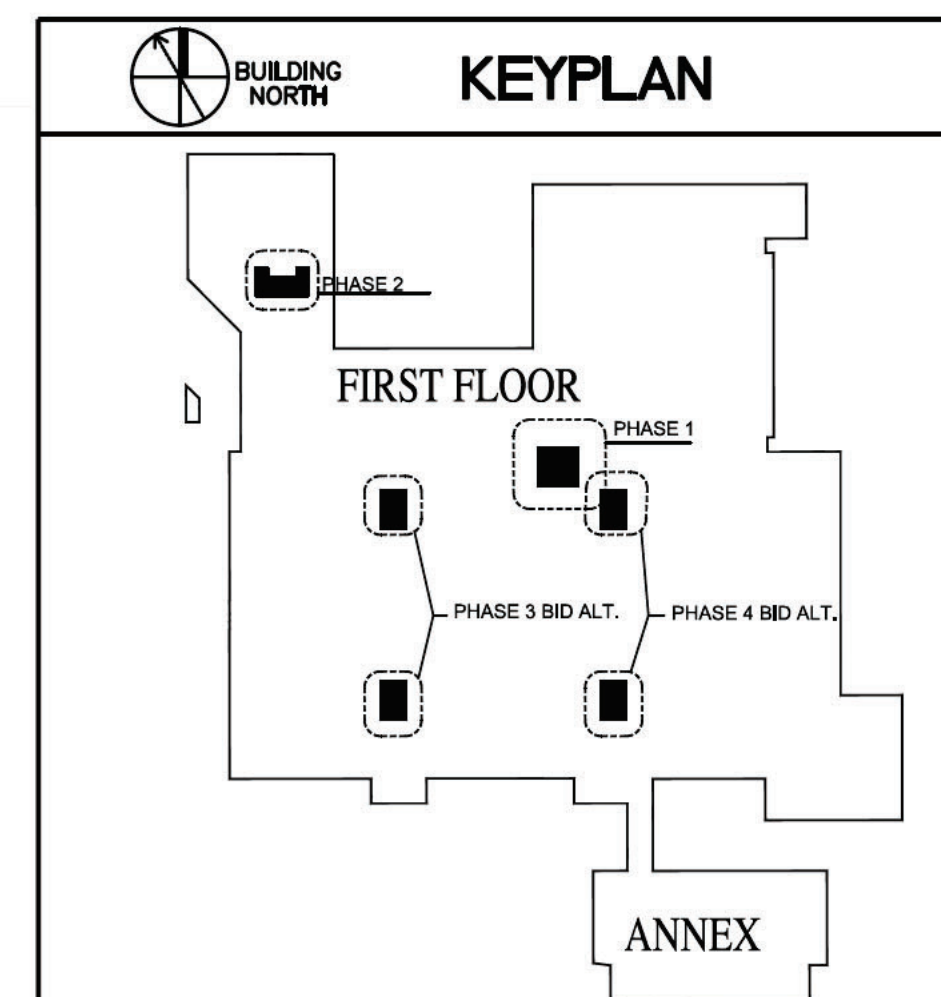
**SEISMIC DESIGN CATEGORY:**  A  B  C  D  
 Provide the following Seismic Design Parameters:  
 Occupancy Category (Table 1604.5)  I  II  III  IV  
 Spectral Response Acceleration  S<sub>s</sub> \_\_\_\_\_ %g  S<sub>1</sub> \_\_\_\_\_ %g  
 Site Classification (ASCE 7)  A  B  C  D  E  F  
 Data Source:  Field Test  Prescriptive  Historical Data

**Basic structural system (check one)**  
 Bearing Wall  Dual w/Special Moment Frame  
 Building Frame  Dual w/intermediate R-C or Special Steel  
 Moment Resisting Frame  Inverted Pendulum  
 Arch/Shell  Simplified  Equivalent Lateral Force  Dynamic  
 Analytical Procedure:  Simplified  Equivalent Lateral Force  Dynamic  
 Architectural/Mechanical Components anchored:  Yes  No

**LATERAL DESIGN CONTROL:** Earthquake  Wind

**SOIL BEARING CAPACITIES:**  
 Field Test (provide copy of test report) \_\_\_\_\_ psf  
 Presumptive Bearing Capacity \_\_\_\_\_ psf  
 Pile size, type, and capacity \_\_\_\_\_

NCD01-7

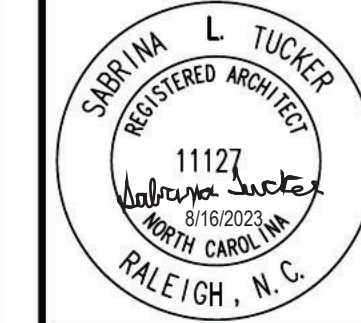


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 Suite 1609  
 Raleigh NC 27601 USA  
 tel 919 851 4211  
 arcadls.com

**CONSTRUCTION DOCUMENT PHASE**

NC STATE UNIVERSITY

DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: S. TUCKER  
 CHECKED BY: \_\_\_\_\_  
 REV. BY: \_\_\_\_\_



SEAL NOT VALID UNLESS SIGNED AND DATED

NCSU - MCKIMMON CENTER  
 RESTROOM RENOVATIONS  
 SCO ID # 22-25847-01A  
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CODE SUMMARY

SHEET No.  
**G001** of  
 Total Sheets: 00

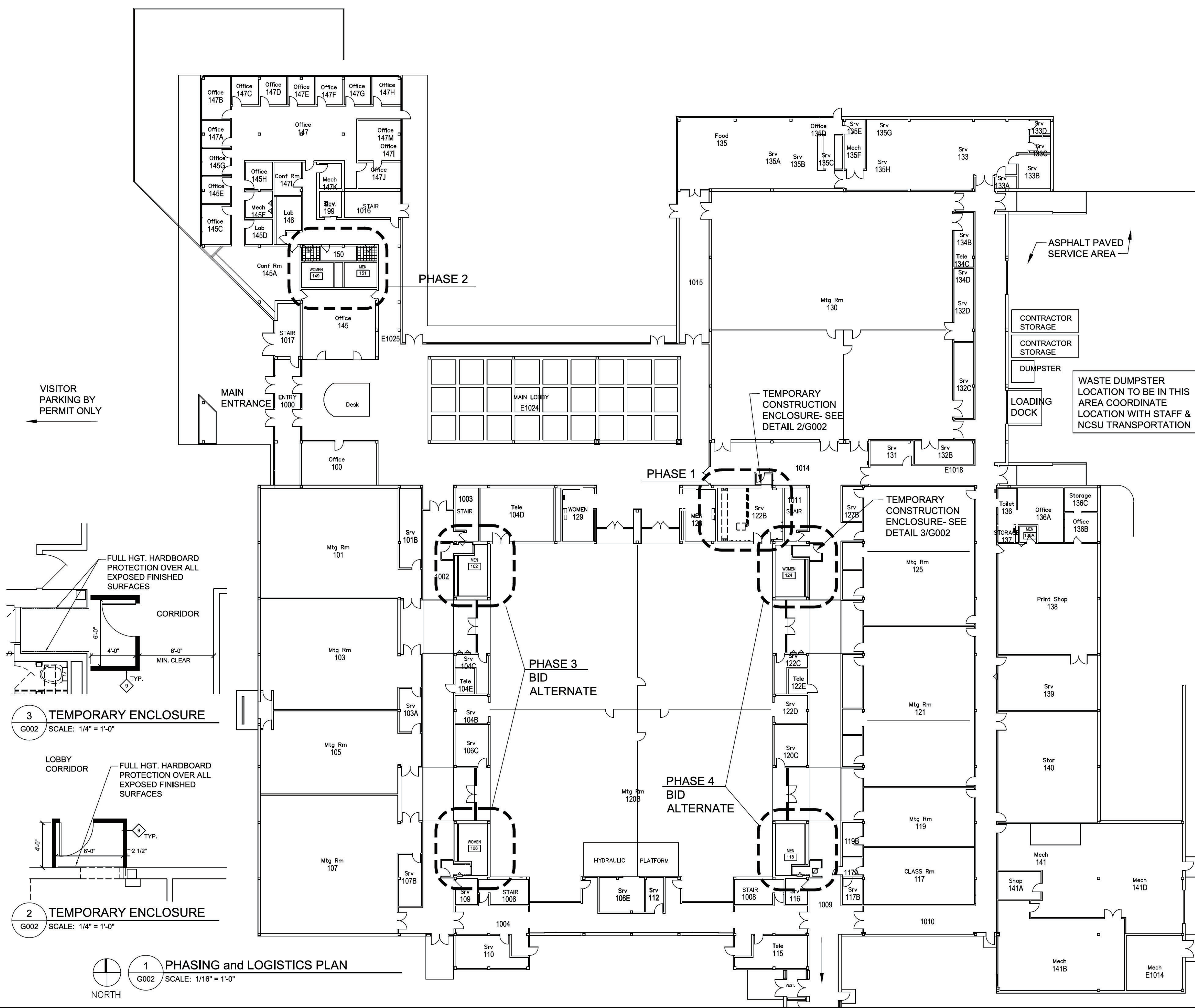
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 142814  
 NCSU Proj. No.  
 202220029

FAC. NAME  
**McKIMMON CENTER**  
 FAC. NO. 129

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**GENERAL PHASING NOTES:**

**PHASE 1**  
 CONVERT EXISTING STORAGE 122B INTO NEW WOMEN RESTROOM. NEW RESTROOM WILL BE 122C WITH ALCOVE 122D. REPLACE ROOFTOP EXHAUST FANS AND TEST AND BALANCE. ABATE ASBESTOS AND PCB CONTAINING MATERIALS.

**PHASE 2**  
 RENOVATE EXISTING WOMEN RESTROOM 149 AND MEN RESTROOM 151. ALL WORK ASSOCIATED WITH ROOMS 149 AND 151, EXCEPT EXHAUST FAN. ABATE ASBESTOS AND PCB CONTAINING MATERIALS.

**PHASE 3- BID ALTERNATE**  
 RENOVATE EXISTING WOMEN RESTROOM 108 and MEN RESTROOM 102.

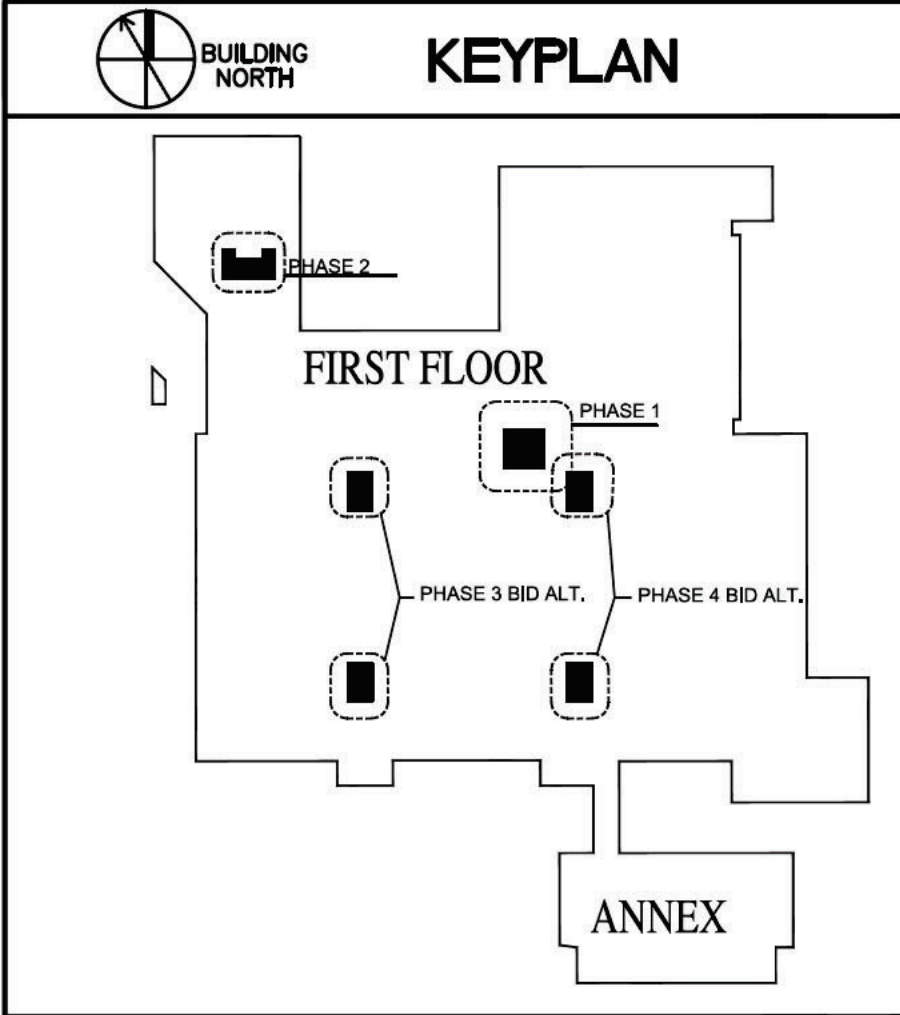
**PHASE 4- BID ALTERNATE**  
 RENOVATE EXISTING WOMEN RESTROOM 149 and MEN RESTROOM 151. ALL WORK ASSOCIATED WITH ROOMS 149 AND 151, EXCEPT EXHAUST FAN, IS INCLUDED IN THIS ALTERNATE. ABATE ASBESTOS AND PCB CONTAINING MATERIALS.

**STORAGE NOTES:**

- CONTRACTOR MAY PLACE UP TO (2) TWO STORAGE CONTAINERS (20'L x 8'W x 8'-6"H MAX) IN REAR LOADING DOCK AREA. COORDINATE SPECIFIC AREA WITH UNIVERSITY STAFF AND FOLLOW DESIGN GUIDELINES.
- NO STORAGE IS ALLOWED WITHIN THE BUILDING, EXCEPT WITHIN THE WORK AREA OF THE PHASE UNDER CONSTRUCTION.

**LOGISTICS NOTES:**

- SEE SPECIFICATION SECTION 01 11 00 SUMMARY OF WORK FOR ADDITIONAL LOGISTICAL REQUIREMENTS.
- CONSTRUCT TEMPORARY PARTITIONS AND DOORS FROM FLOOR TO CEILING TO MITIGATE NOISE AND DUST TRANSMISSION INTO NON-WORK AREAS. MAINTAIN DURING THE WORK OF THAT PHASE, AND REMOVE AFTER COMPLETION OF THAT PHASE. PROTECT ALL EXISTING WALL, FLOOR AND CEILING FINISHES AND RESTORE TO PRE-WORK CONDITION.
- NEW ROOFTOP EXHAUST FANS MAY ONLY BE PLACED ON ROOF FROM REAR OF LOADING DOCK AREA.
- DO NOT STORE MATERIALS/EQUIPMENT ON LANDSCAPED AREAS INCLUDING TURF, PLANT & MULCH BEDS. ALL HARDSCAPES MUST BE PROTECTED BY 3/4" THICK 4x8 PLYWOOD. ANY HARDSCAPE DAMAGED DURING CONSTRUCTION OR DUE TO NEGLIGENCE BY THE CONTRACTOR MUST BE REMOVED AND REPLACED WITH LIKE MATERIAL AT NO ADDITIONAL COST. ALL VEHICULAR TRAFFIC ON HARDSCAPES IS BY PERMIT ONLY AND IS NOT ALLOWED ON SOFT SCAPES. NCSU WILL PROVIDE TREE PROTECTION IN POTENTIALLY IMPACTED AREAS.
- NCSU WILL FURNISH AND SERVICE WASTE DUMPSTER FOR NON-HAZARDOUS MATERIALS.



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**CONSTRUCTION DOCUMENT PHASE**

**NC STATE UNIVERSITY**  
**CAPITAL PROJECT MANAGEMENT**  
 \* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
 DESIGNED: S. TUCKER  
 DRAWN: S. TUCKER  
 CHECKED: S. TUCKER  
 REV: ..



**NCSU - MCKIMMON CENTER RESTROOM RENOVATIONS**  
 PHASING and LOGISTICS PLAN  
 SHEET No. G002 of Total Sheets: 00  
 Designer Proj. No. 142814  
 NCSU Proj. No. 202220029

**FAC. NAME**  
**McKIMMON CENTER**  
**FAC. NO. 129**



Date: 15 Aug 2023 14:31:00  
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 User: Sabrina.Tucker  
 Acad Version: 2023.0 (LUS Tech)  
 Layout Tab: 0002

**ASBESTOS-CONTAINING MATERIALS IN PROJECTED WORK AREA:**  
 Asbestos in amounts greater than one percent (1%) were detected in the following materials:

TYPE OF MATERIAL	GENERAL LOCATION*	TYPE OF ASBESTOS & PERCENTAGE
12" Floor Tile, Mosaic & Associated Black Mastic	149, 151	Floor Tile: Chrysotile 3%, Mastic: Chrysotile 4%
Interior Door Caulking (Inside Frame)	122B, 149 & 151	Chrysotile 2%

**ASBESTOS LOCATION LEGEND:**

①	ASBESTOS 12" MOSAIC FLOOR TILE ASSOCIATED MASTIC.
②	INTERIOR DOOR CAULKING.

**ASBESTOS DESIGNER:**  
 DONNIER MERCER, JR. ACCREDITATION NUMBER 40496

- NOTES:**
- REMOVE ASBESTOS CONTAINING MATERIALS AS SHOWN IN A NON-FRIABLE MANNER AS PER NC-HEALTH HAZARD UNIT (NC-HHCU) AND NC-OSHA REGULATIONS.
  - ALL WASTE SHALL BE DISPOSED OF AS PER NC-HHCU AND NC-SOLID WASTE REGULATIONS.
  - DURING ABATEMENT, THE WORK AREA MUST BE ISOLATED AND PROPER CONSTRUCTION AREA AND ASBESTOS SIGN MUST BE POSTED TO KEEP UNAUTHORIZED PERSONNEL AWAY FROM ENTERING.
  - ABATEMENT WORK MUST BE COORDINATED WITH DESIGNER AND/OR AIR MONITOR.

NC STATE UNIVERSITY  
 CAPITAL PROJECT MANAGEMENT  
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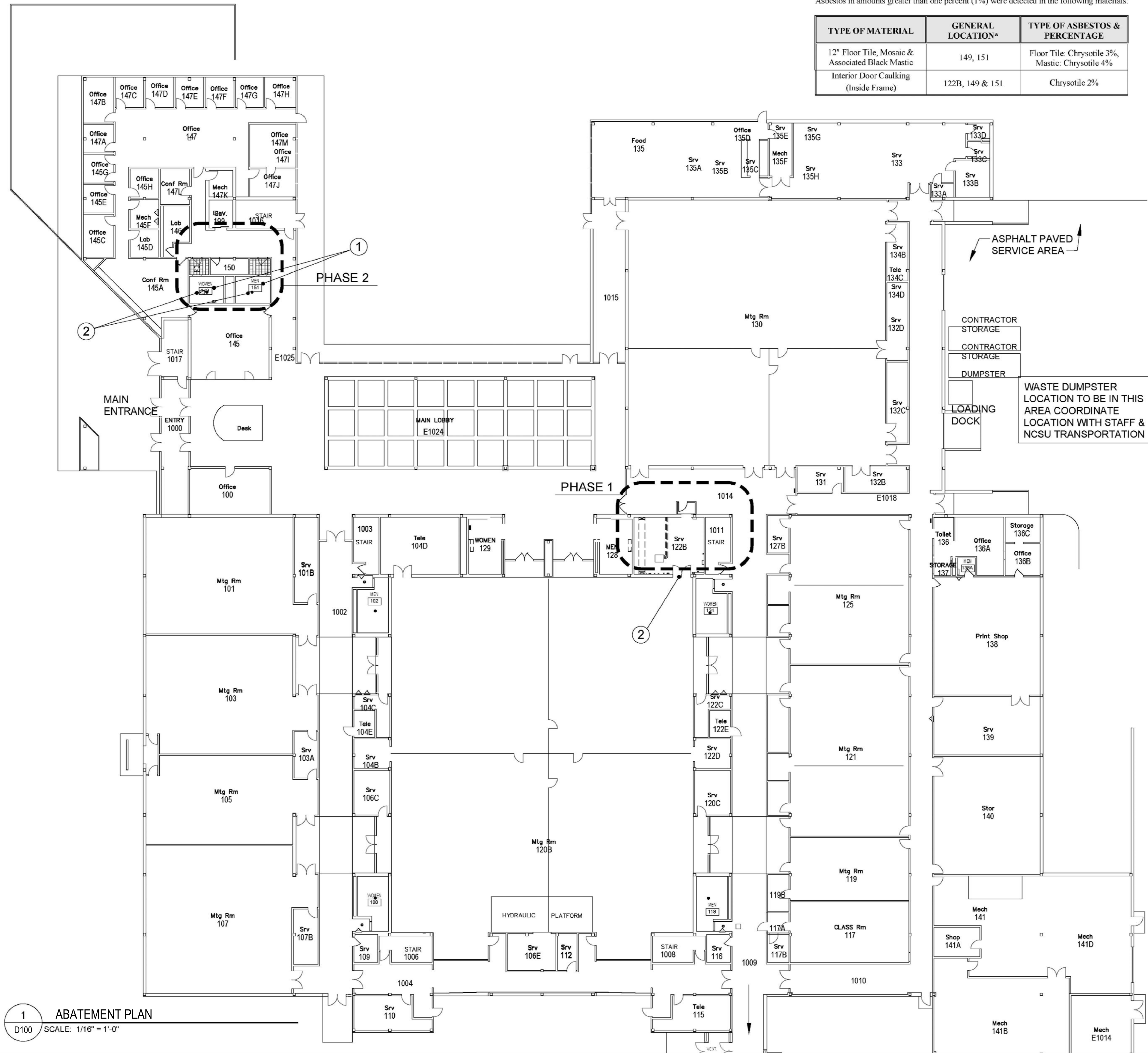
DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: S. TUCKER  
 CHECKED BY: S. TUCKER  
 REV.:

NCSU - McKIMMON CENTER  
 RESTROOM RENOVATIONS  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

ABATEMENT PLAN  
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**D100** of  
 Total Sheets: 00

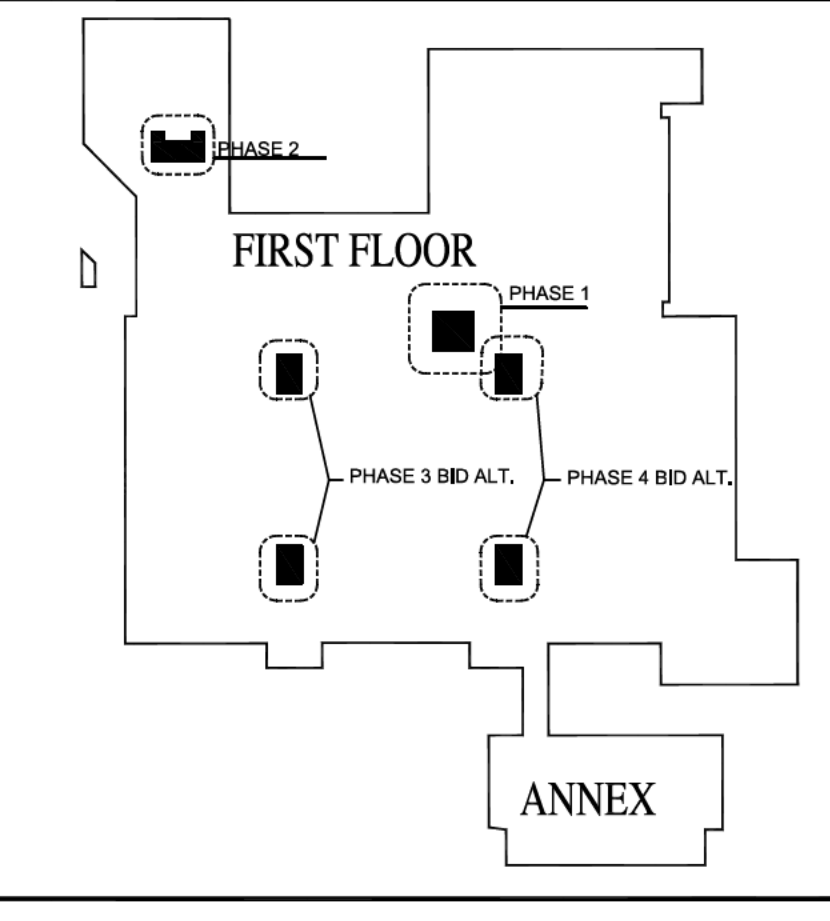
Designer Proj. No.  
 142814  
 NCSU Proj. No.  
 202220029

FAC. NAME  
**McKIMMON CENTER**  
 FAC. NO. 129



VISITOR PARKING BY PERMIT ONLY

ASPHALT PAVED SERVICE AREA  
 CONTRACTOR STORAGE  
 CONTRACTOR STORAGE  
 DUMPSTER  
 LOADING DOCK  
 WASTE DUMPSTER LOCATION TO BE IN THIS AREA COORDINATE LOCATION WITH STAFF & NCSU TRANSPORTATION



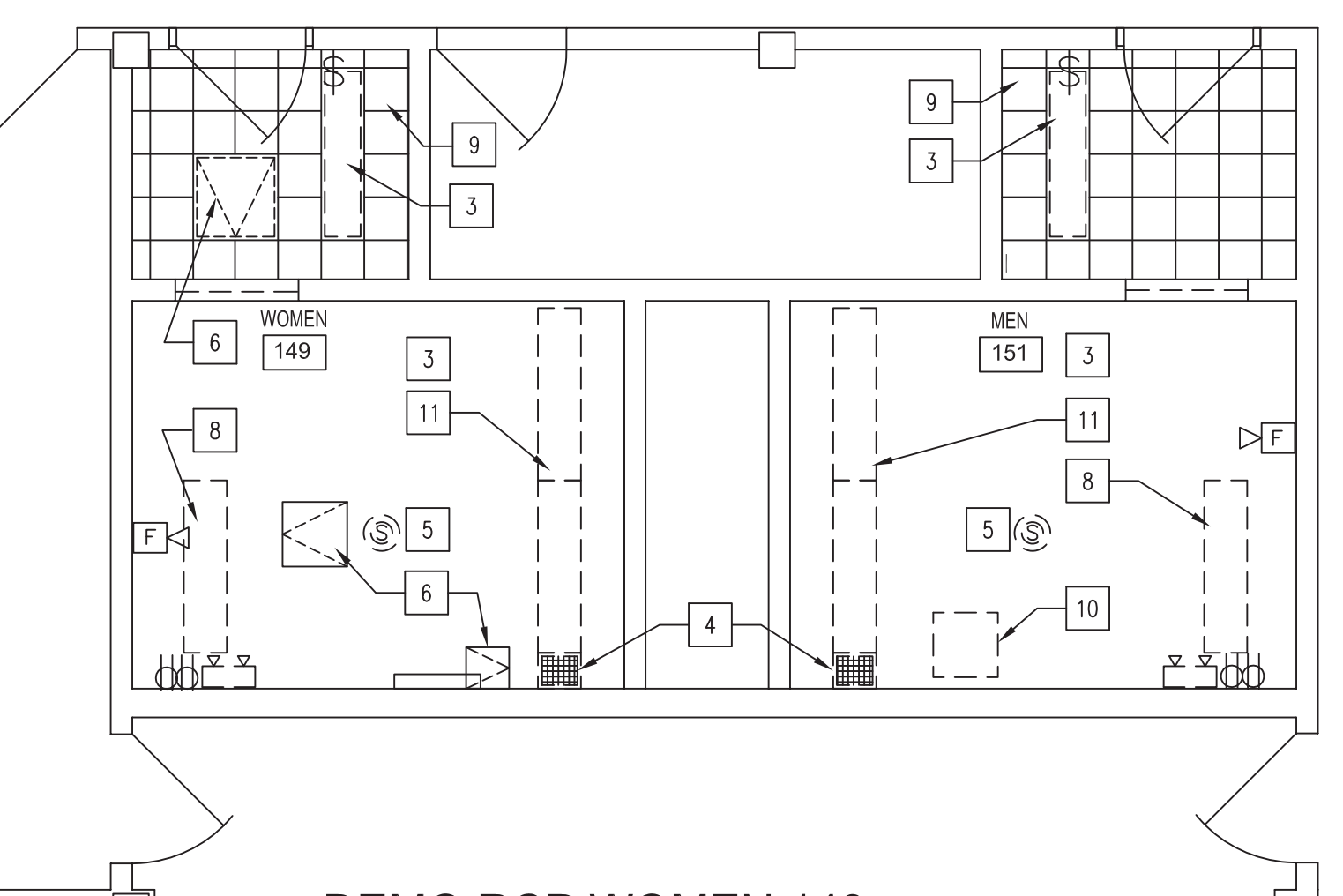
**ARCADIS**  
 Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership  
 421 Fayetteville Street  
 Suite 1609  
 Raleigh NC 27601 USA  
 tel 919 851 4211  
 arcadls.com

**CONSTRUCTION DOCUMENT PHASE**

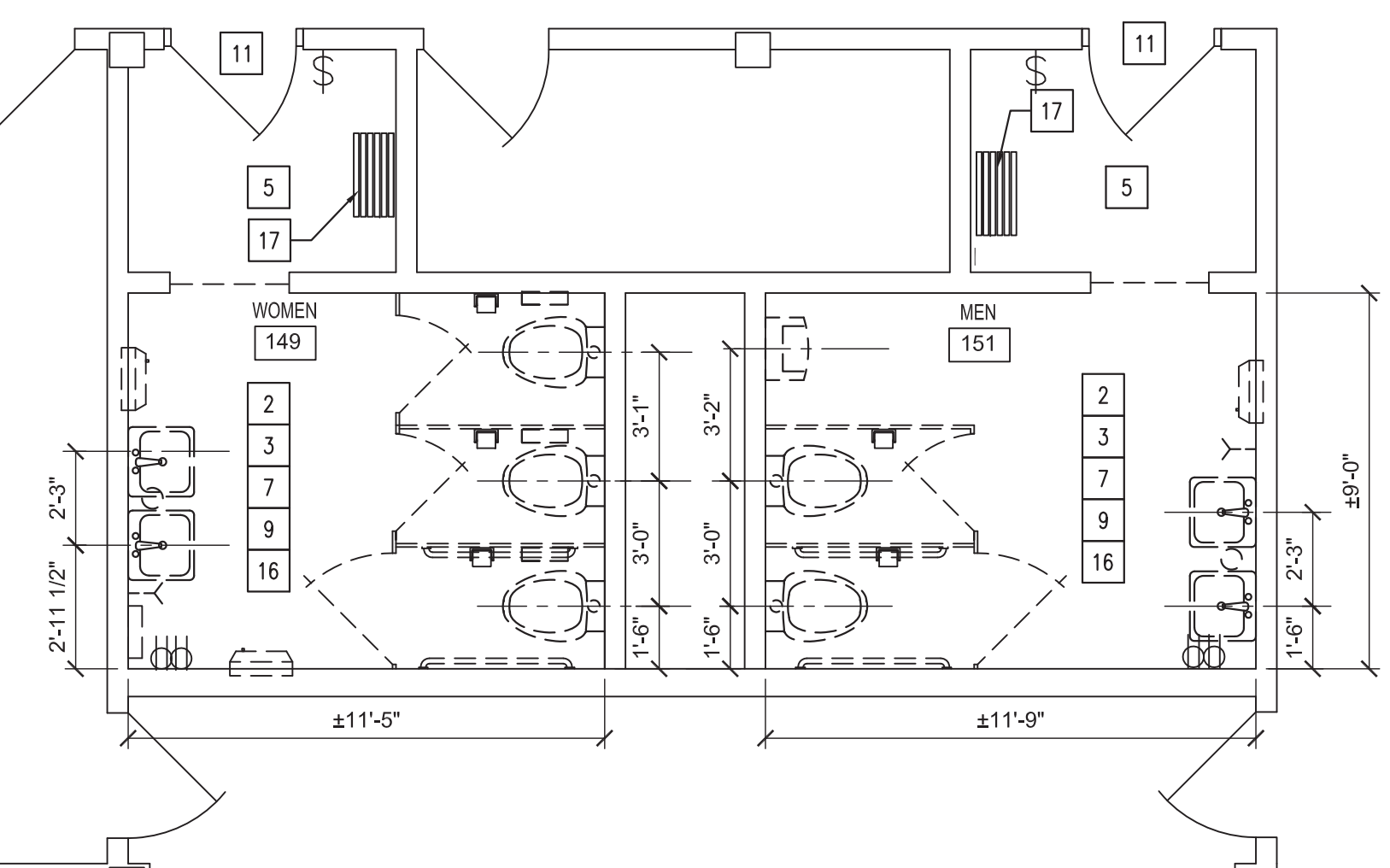
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 NORTH



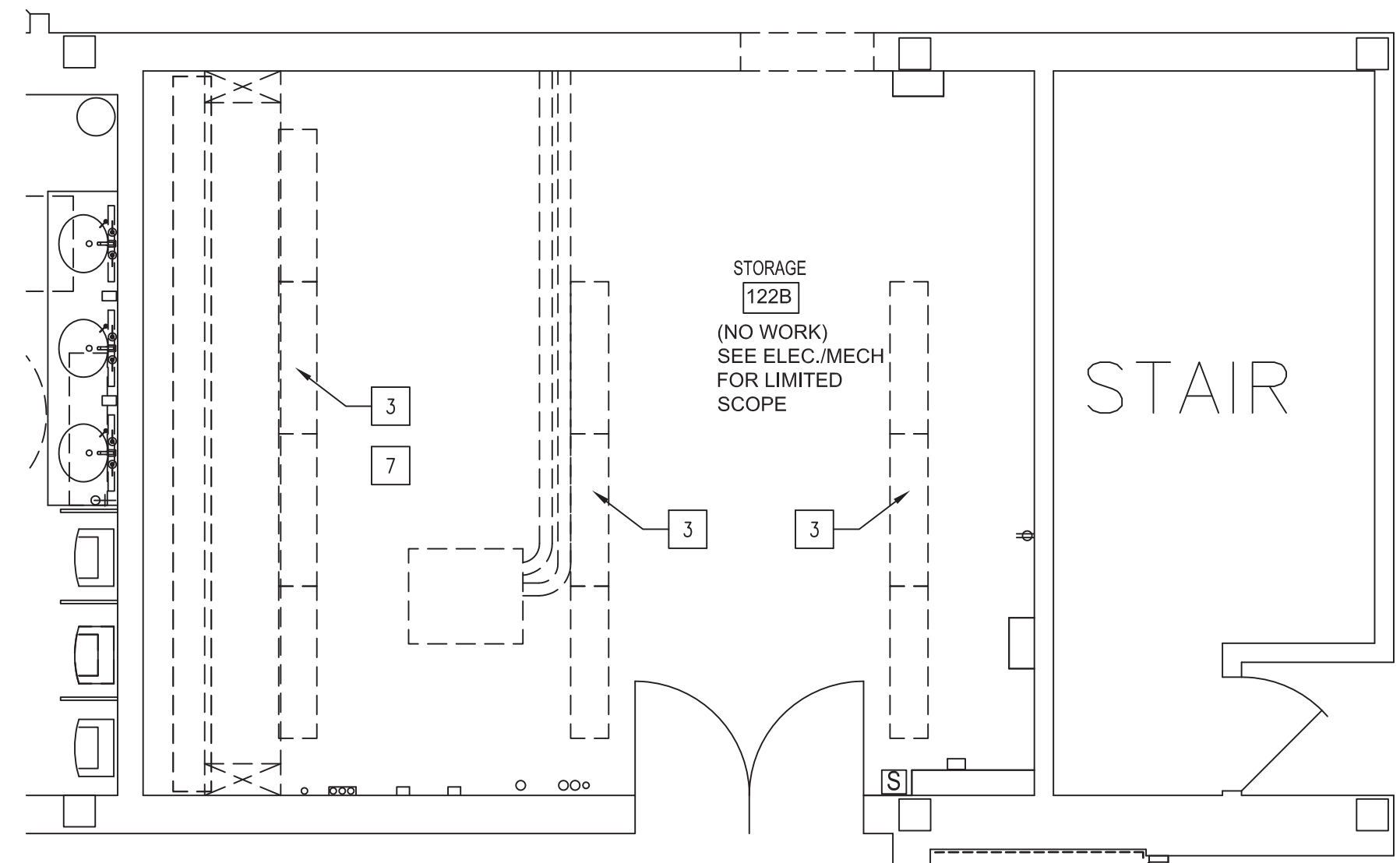
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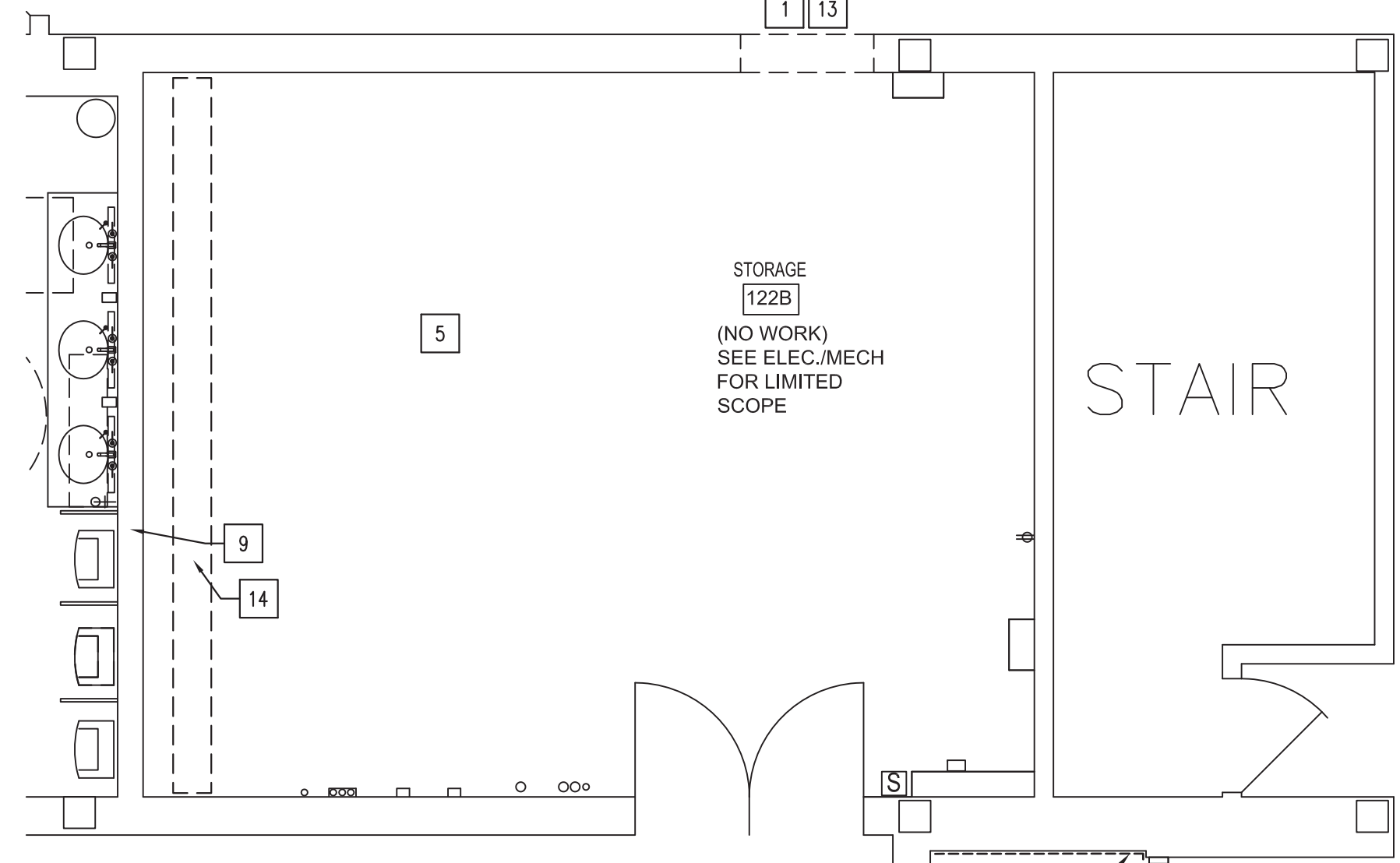
**4 DEMO RCP WOMEN 149  
DEMO RCP MEN 151**  
D111 SCALE: 1/4" = 1'-0"



**2 DEMO PLAN WOMEN 149  
DEMO PLAN MEN 151**  
D101 SCALE: 1/4" = 1'-0"



**3 DEMO RCP STORAGE 122**  
D111 SCALE: 1/4" = 1'-0"



**1 DEMO PLAN STORAGE 122**  
D101 SCALE: 1/4" = 1'-0"



EXISTING SHELVES TO BE RE-INSTALL IN THE EXACT LOCATIONS, MEETS ALL ADA DOOR CLEARANCES

**DEMOLITION KEYNOTES:**

1	EXISTING WALL TO BE DEMOLISHED.
2	ALL EXISTING PLUMBING FIXTURES & TOILET ACCESSORIES and MIRRORS TO BE DEMOLISHED.
3	EXISTING MARBLE PARTITIONS TO BE REMOVED & STORED OR DEMOLISHED AS PER OWNER'S INSTRUCTIONS.
4	REMOVE EXISTING CT FLOORING, LEVEL SURFACE AND PREPARE SUBSTRATE TO RECEIVE NEW FLOORING
5	EXISTING FLOORING TO BE ABATED. SEE ASBESTOS SPEC.
6	REMOVE EXISTING GYPSUM WALL BOARD FROM FLOOR TO 6" ABOVE CEILING.
7	REMOVE EXISTING CT ON WALLS AND FLOOR THRU-OUT AND PREPARE SUBSTRATE TO RECEIVE NEW FINISH.
8	REMOVE EXISTING THIN-SET CERAMIC TILE FLOOR. PREPARE FLOOR TO RECEIVE NEW SUBSTRATE
9	PARTIALLY DEMOLISH CMU WALLS AS NEEDED TO GAIN ACCESS TO EXISTING PLUMBING PIPING AND FIXTURE CARRIERS.
10	REMOVE EXISTING SIGNAGE & GIVE TO OWNER.
11	REMOVE EXISTING DOOR AND HARDWARE LEAVE FRAME AND TRANSOM PANEL.
12	EXISTING CLEAN-OUT TO REMAIN. SEE PLUMBING DRAWINGS.
13	CREATE NEW ROUGH OPENING IN PARTITION WALL TO RECEIVE NEW DOOR AND HM FRAME.
14	CUT-OUT CONCRETE SLAB FOR NEW PLUMBING. VERIFY EXTENT WITH PLUMBING SCOPE.
15	REMOVE DOOR AND FRAME IN ITS ENTIRETY.
16	REMOVE, SALVAGE AND REINSTALL OF EXISTING ACCESSORIES.
17	TEMPORARILY REMOVE WALL MOUNTED SHELF AND RE-INSTALL AFTER NEW FINISHES.
18	REMOVE MUD SET MOSAIC TILE, MUD BED AND LATH BACK TO MASONRY SUBSTRATE.
19	REMOVE METAL CORNER GUARD. REINSTALL AT NEW DOORS.
20	SALVAGE RUBBER BASE TO BE RE-INSTALLED

**GENERAL DEMO RCP NOTES:**

- GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY KNOWN DEVIATION FROM THE PLANS PRIOR TO BEGINNING OF THE WORK.
- ALL EXISTING SURFACES DAMAGED OR AFFECTED BY NEW CONSTRUCTION TO BE REPAIRED TO MATCH ADJACENT SURFACES U.O.N.
- REPAIR FLOOR SUBSTRATE WHERE REQUIRED FOR STABLE & LEVEL CONDITION. PREPARE THE EXISTING SUBFLOOR TO RECEIVE NEW FLOOR COVERING.
- ALL DIMENSIONS ARE TO FACE OF FINISHED SURFACE UNLESS NOTED OTHERWISE.
- OBTAIN APPROVAL OF OWNER BEFORE DEMOLISHING ANY FURNITURE OR EQUIPMENT WITHIN AREA OF WORK THAT IS NOT INDICATED ON THESE PLANS.
- EXISTING PAINTED SURFACES DISTURBED BY THE WORK, ARE TO BE REPAINTED IN THEIR ENTIRETY TO THE NEAREST CHANGE IN MATERIAL OR PLANE, UNLESS OTHERWISE NOTED.
- DURING DEMOLITION, ALL ITEMS TO BE DEMOLISHED SHALL BE REMOVED IN A MANNER CONSISTENT WITH MINIMAL DAMAGE TO EXISTING ITEMS THAT ARE TO REMAIN.
- OWNER HAS RIGHT OF FIRST REFUSAL ON ALL SALVAGEABLE ITEMS.

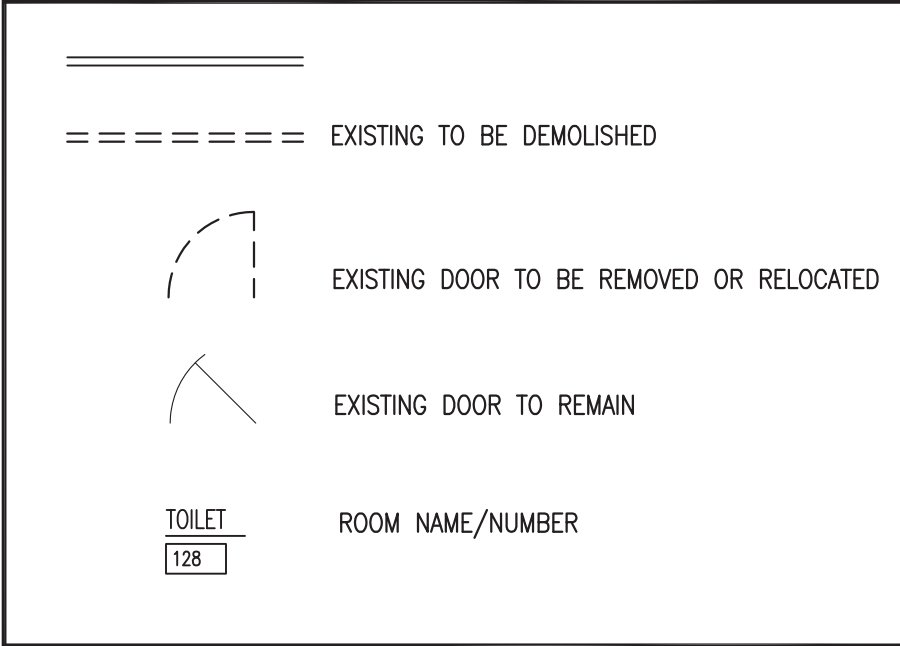
**RCP DEMOLITION KEYNOTES:**

1	EXISTING LAY-IN CEILING GRID SUSPENSION SYSTEM AND TILES TO BE DEMOLISHED.
2	DEMOLISH EXISTING FRAMED PLASTER CEILING IN ITS ENTIRETY.
3	EXISTING LIGHT FIXTURES TO BE REMOVED. SEE ELECTRICAL DRAWINGS.
4	EXISTING MECHANICAL DIFFUSERS/GRILLES TO BE REMOVED. SEE MECHANICAL DRAWINGS.
5	EXISTING CEILING SPEAKER TO REMAIN.
6	METAL ACCESS PANEL TO REMAIN.
7	ELECTRICAL POWER POLE CONDUIT TO BE DEMOLISHED. SEE ELECTRICAL DRAWINGS.
8	WHEN LIGHTING FITURES ARE REMOVED, PATCH AND REPAIR PLASTER CEILING HOLES W/ SIMILAR MATERIAL, PAINT WHOLE ENTIRE CEILING.
9	RESET EXISTING TILE WITHIN EXISTING 12" X 12" CONCEALED SPLINE ACOUSTIC CEILING TILE SYSTEM TO BE REPAIRED OF DAMAGED AND NOT FLUSHED TILES.
10	PARTIAL DEMO OF PLASTER CEILING FOR NEW ACCESS PANELS. VERIFY PANEL LOCATION WITH OTHER TRADES.
11	MODIFY EXISTING OPENINGS IN PLASTER CEILINGS AS REQUIRED TO ACCOMMODATE NEW LIGHT FIXTURES.

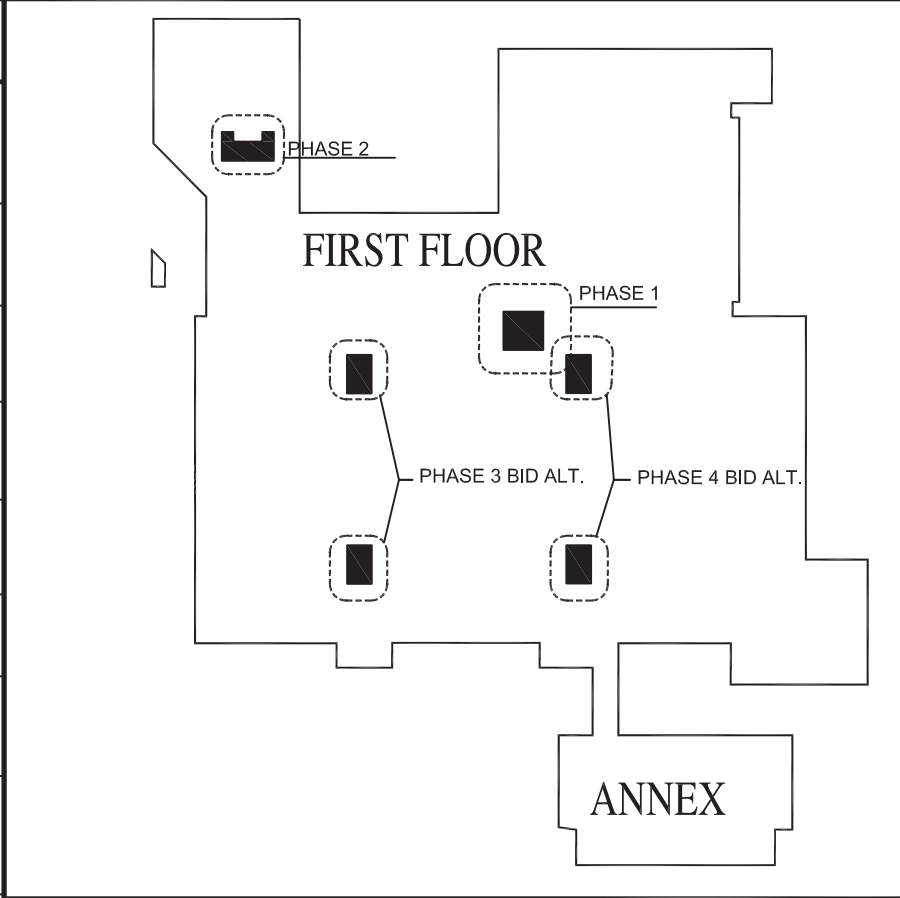
**GENERAL DEMOLITION NOTES:**

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- ALL EXISTING PAINT MAY BE ASSUMED TO CONTAIN LEAD. CONTRACTOR IS TO FOLLOW OSHA 1926.62 AND NIBS 1995 WHEN DISTURBING PAINT.
- PROTECT EXIST. EQUIP. & FINISHES DURING WORK. RESTORE ALL SURFACES TO PREVIOUS CONDITION UPON COMPLETION, UNLESS OTHERWISE NOTED.
- PATCH HOLES IN WALLS PRIOR TO REFINISHING.
- EXISTING PAINTED SURFACES DISTURBED BY THE WORK, ARE TO BE REPAINTED IN THEIR ENTIRETY TO THE NEAREST CHANGE IN MATERIAL OR PLANE, UNLESS OTHERWISE NOTED.
- DURING DEMOLITION, ALL ITEMS TO BE DEMOLISHED SHALL BE REMOVED IN A MANNER CONSISTENT WITH MINIMAL DAMAGE TO EXISTING ITEMS THAT ARE TO REMAIN.
- NON-FIXED FURNITURE AND EQUIPMENT ARE TO BE REMOVED BY NCSU PRIOR TO START OF WORK.
- CONTRACTOR SHALL INSPECT ALL SUBSTRATES FOR COMPLIANCE WITH MFR'S RECOMMENDATIONS PRIOR TO INSTALLING FINISH MATERIALS.
- OWNER HAS RIGHT OF FIRST REFUSAL ON ALL SALVAGEABLE ITEMS.
- EXERCISE EXTREME CARE DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES TO ADJACENT STRUCTURES AND THEIR OCCUPANTS, PROPERTY, PUBLIC THOROUGHFARES, ETC. CONTRACTOR SHALL TAKE PRECAUTIONS AND BE RESPONSIBLE FOR THE SAFETY OF ALL BUILDING OCCUPANTS FROM CONSTRUCTION PROCEDURES.

**LEGEND:**



**KEYPLAN**

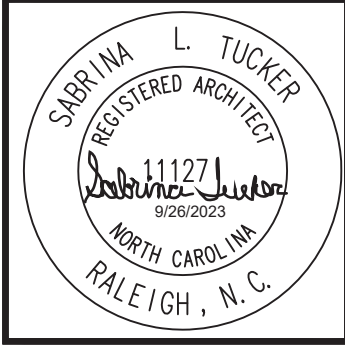


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**CONSTRUCTION DOCUMENT PHASE**

**NC STATE UNIVERSITY**  
**CAPITAL PROJECT MANAGEMENT**  
 \* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
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 CHECKED BY: S. TUCKER  
 REV.:



SEAL NOT VALID UNLESS SIGNED AND DATED

**NCSU - McKIMMON CENTER  
RESTROOM RENOVATIONS**  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

**DEMOLITION PLANS**

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**D101** of  
 Total Sheets: 00

Designer Proj. No.  
 142814  
 NCSU Proj. No.  
 202220029

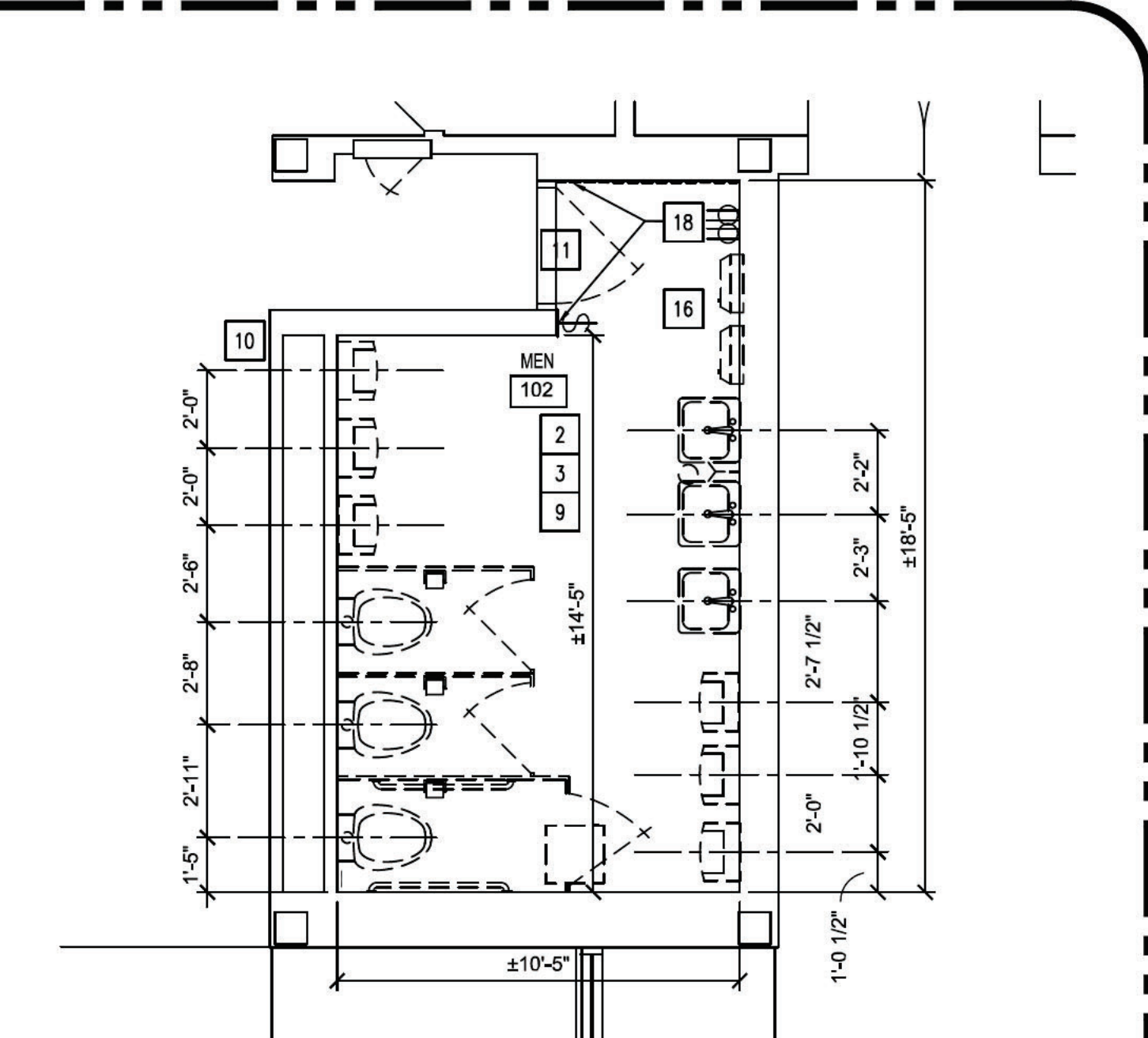
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CENTER**  
 FAC. NO. 129



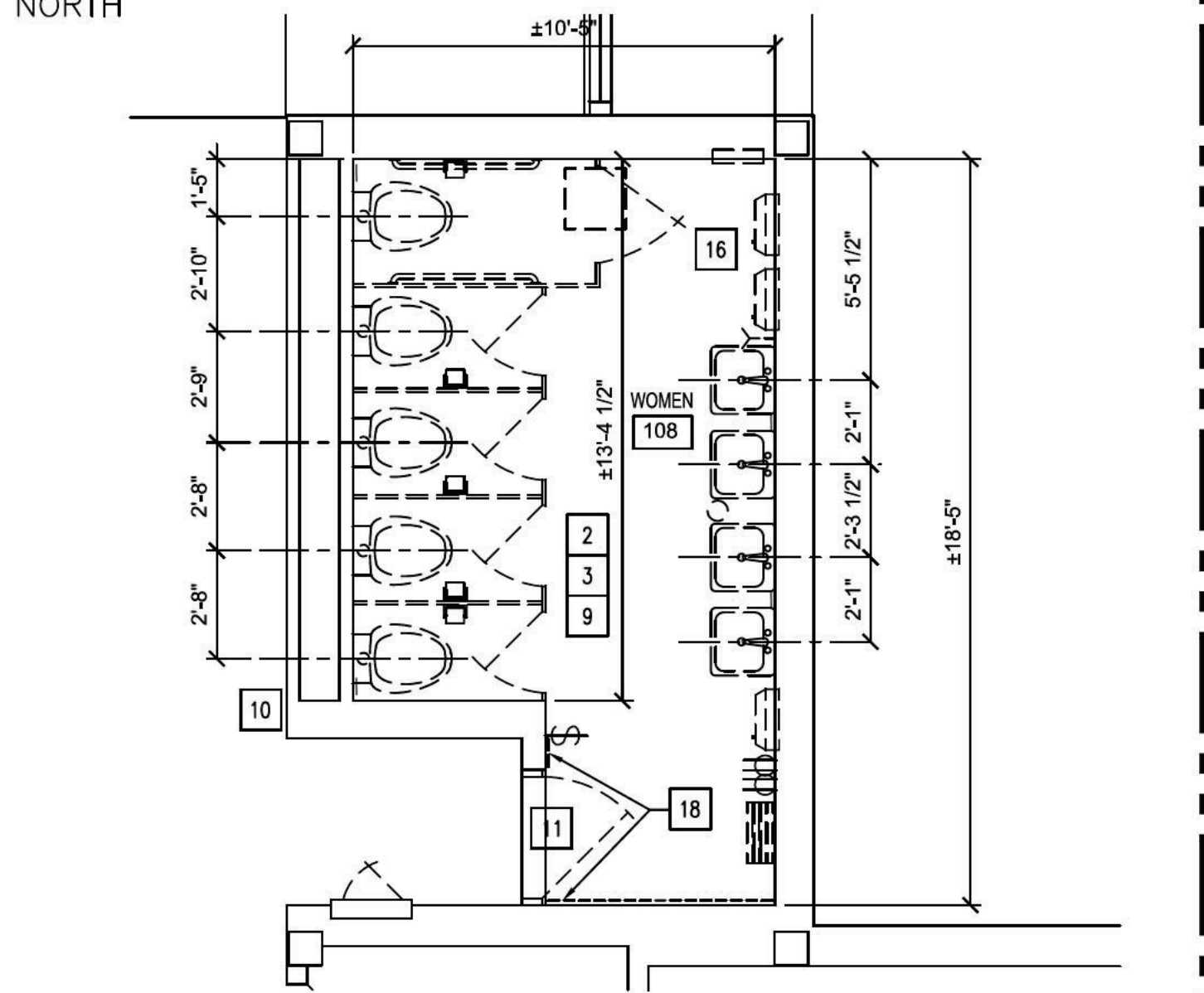
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PHASE 3 BID ALTERNATE

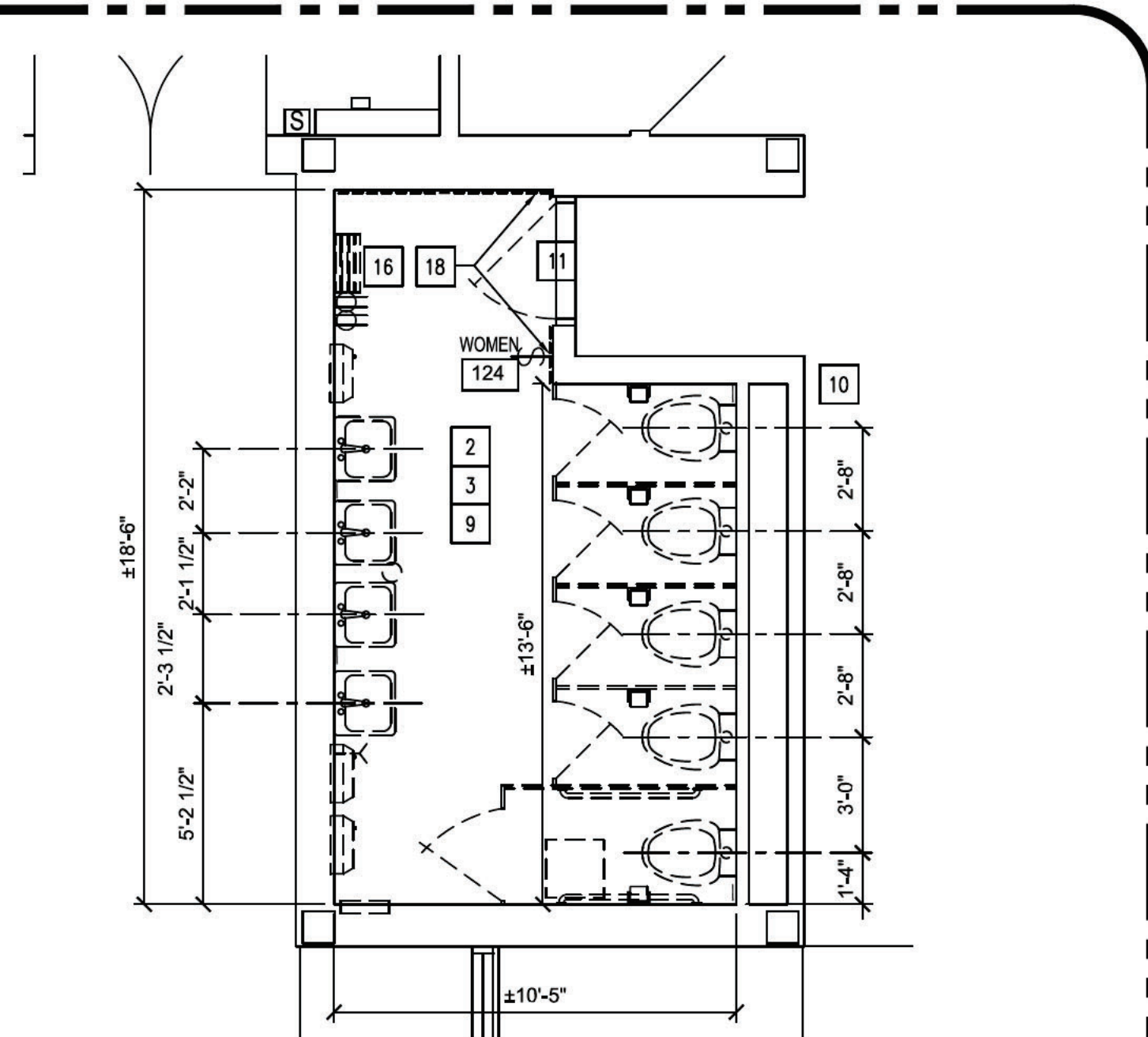
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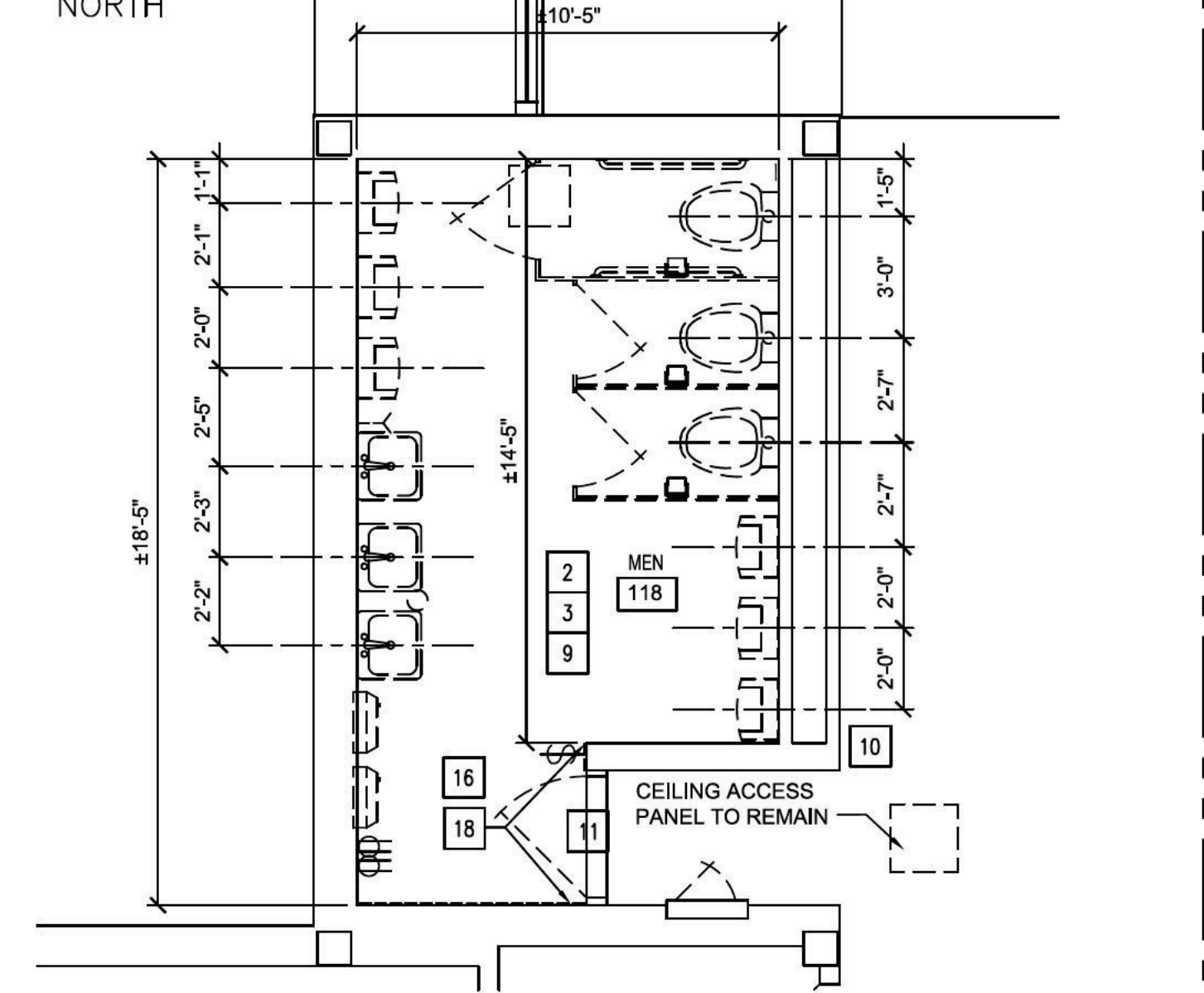
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 D102 SCALE: 1/4" = 1'-0"



2 DEMO PLAN WOMEN 108  
 D102 SCALE: 1/4" = 1'-0"



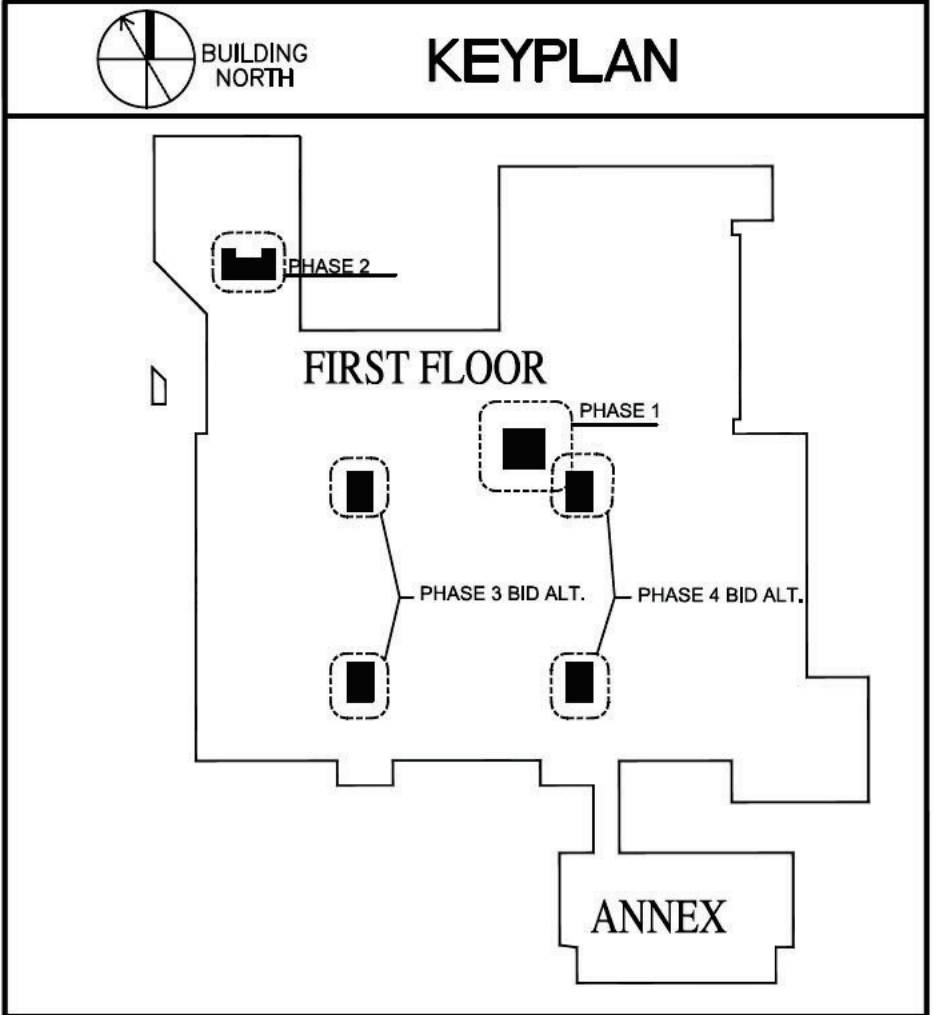
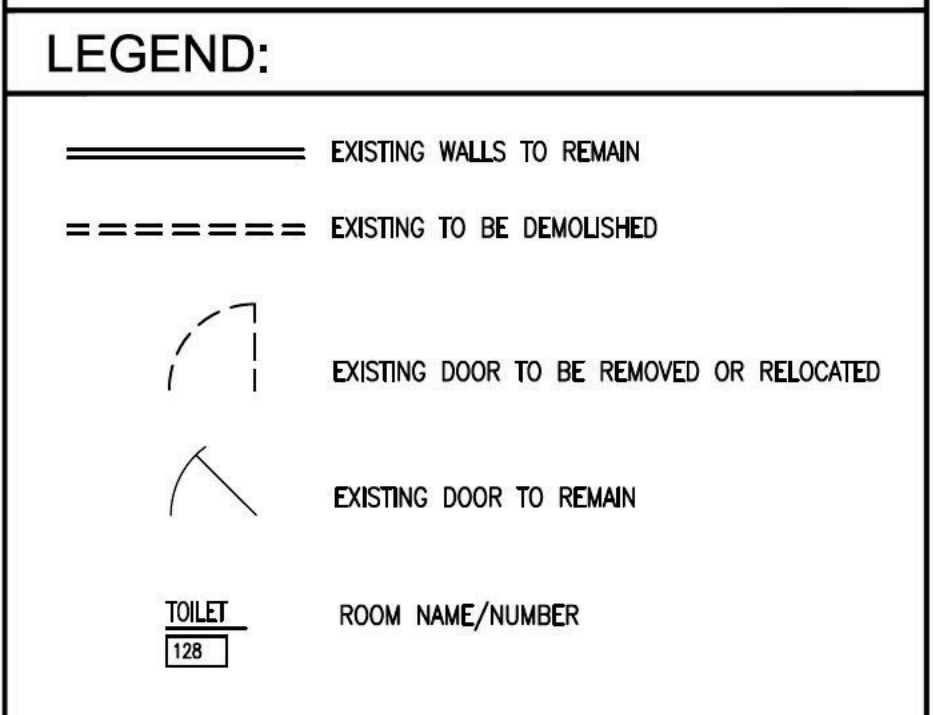
3 DEMO PLAN WOMEN 124  
 D102 SCALE: 1/4" = 1'-0"



1 DEMO PLAN MEN 118  
 D102 SCALE: 1/4" = 1'-0"

DEMOLITION KEYNOTES:	
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12	EXISTING CLEAN-OUT TO REMAIN. SEE PLUMBING DRAWINGS.
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- GENERAL DEMOLITION NOTES:**
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CONSTRUCTION DOCUMENT PHASE

NC STATE UNIVERSITY  
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 \* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7520

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DEMOLITION PLANS  
 BID ALTERNATES

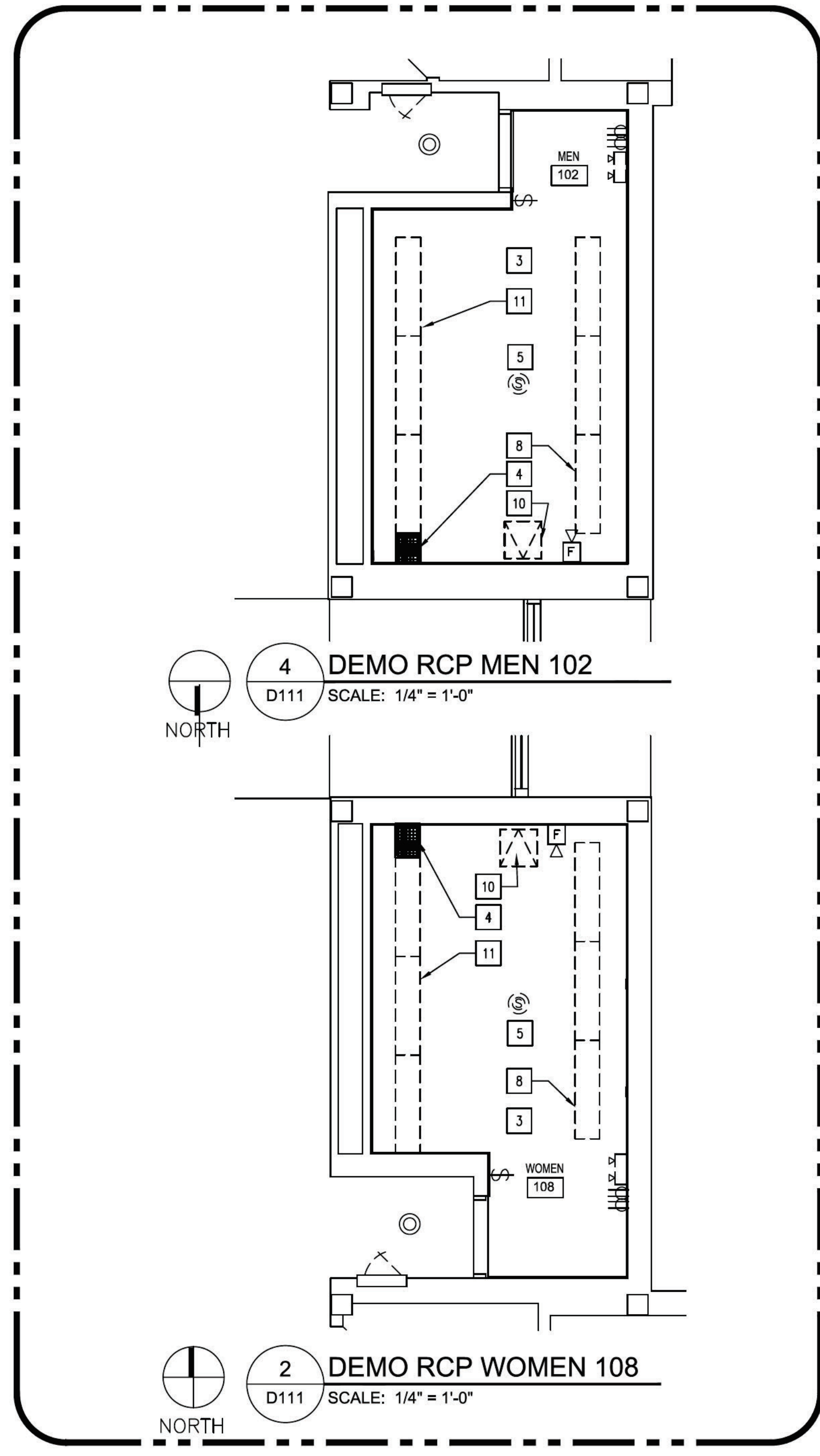
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 Total Sheets: 00  
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FAC. NAME  
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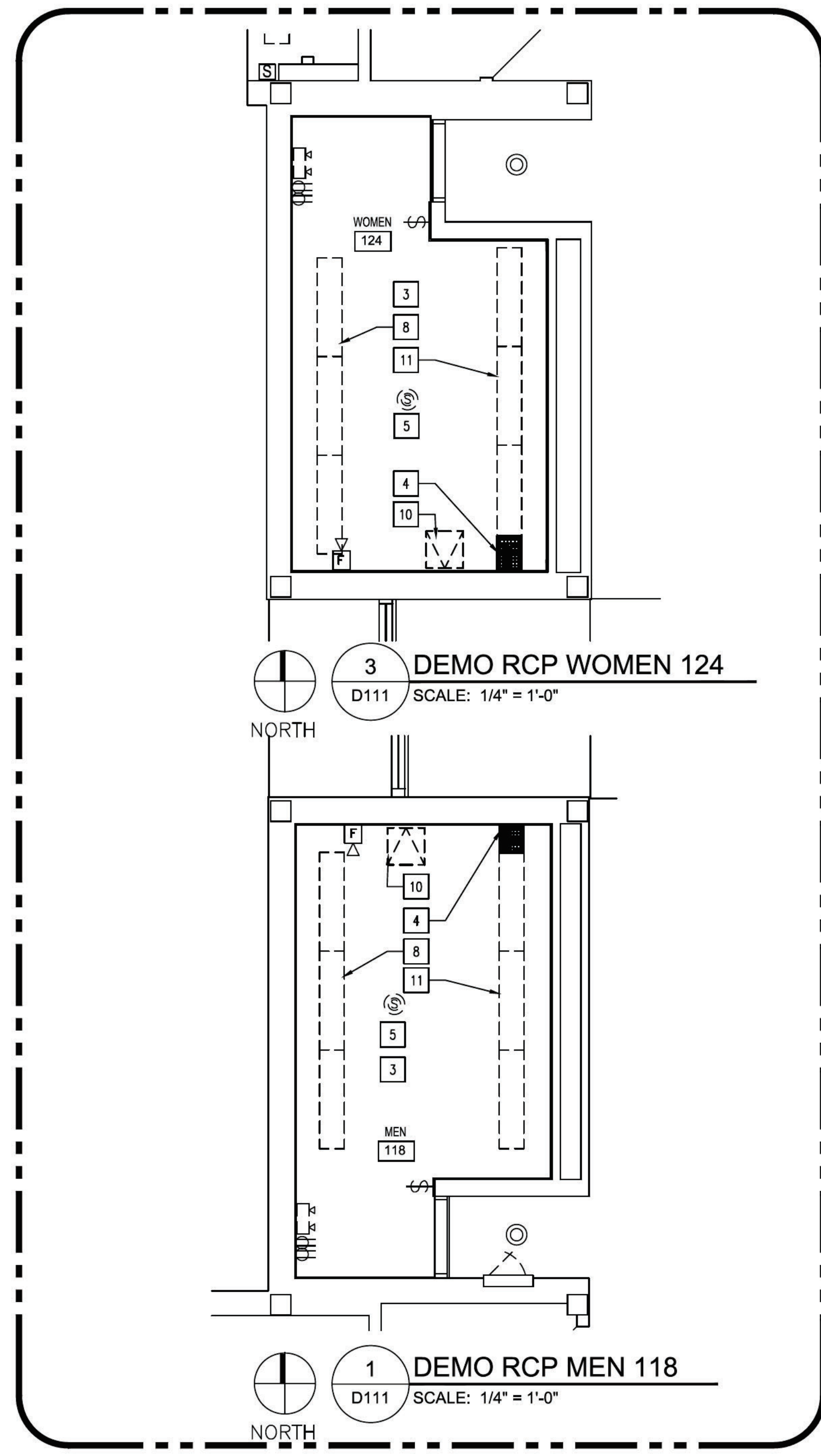


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 Layout Tab: 0111

PHASE 3 BID ALTERNATE



PHASE 4 BID ALTERNATE



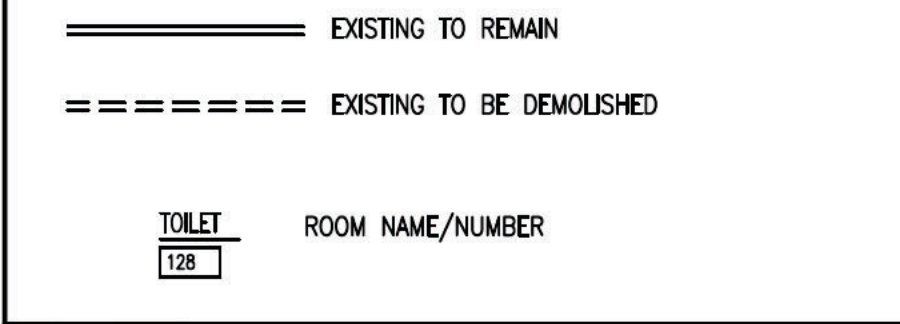
GENERAL DEMO RCP NOTES:

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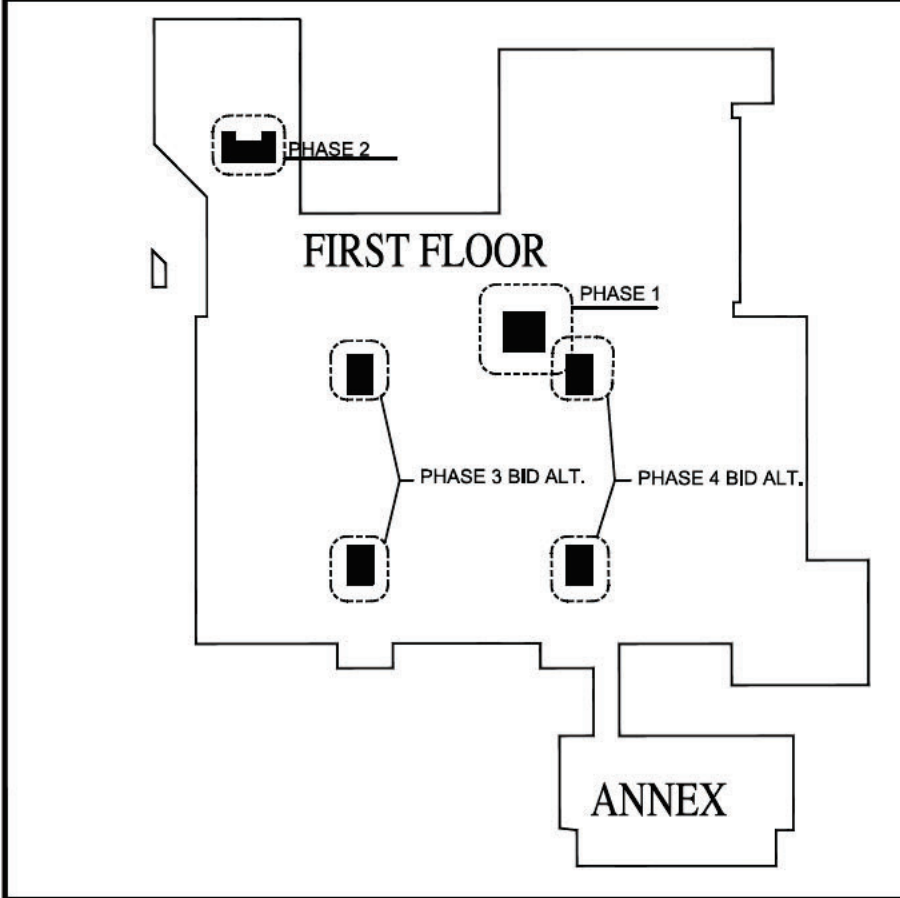
RCP DEMOLITION KEYNOTES:

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5	EXISTING CEILING SPEAKER TO REMAIN.
6	METAL ACCESS PANEL TO REMAIN.
7	ELECTRICAL POWER POLE CONDUIT TO BE DEMOLISHED. SEE ELECTRICAL DRAWINGS.
8	WHEN LIGHTING FITURES ARE REMOVED, PATCH AND REPAIR PLASTER CEILING HOLES W/ SIMILAR MATERIAL, PAINT WHOLE ENTIRE CEILING.
9	RESET EXISTING TILE WITHIN EXISTING 12" X 12" CONCEALED SPLINE ACOUSTIC CEILING TILE SYSTEM TO BE REPAIRED OF DAMAGED AND NOT FLUSHED TILES.
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LEGEND:



KEYPLAN

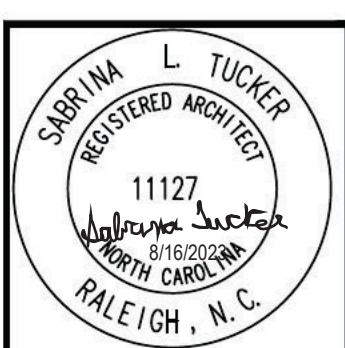


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CONSTRUCTION DOCUMENT PHASE

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 CHECKED BY:  
 REVISED BY:



NCSU - McKIMMON CENTER  
 RESTROOM RENOVATIONS  
 SCO ID # 22-25847-01A  
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DEMOLITION  
 REFLECTED CEILING PLANS  
 BID ALTERNATES

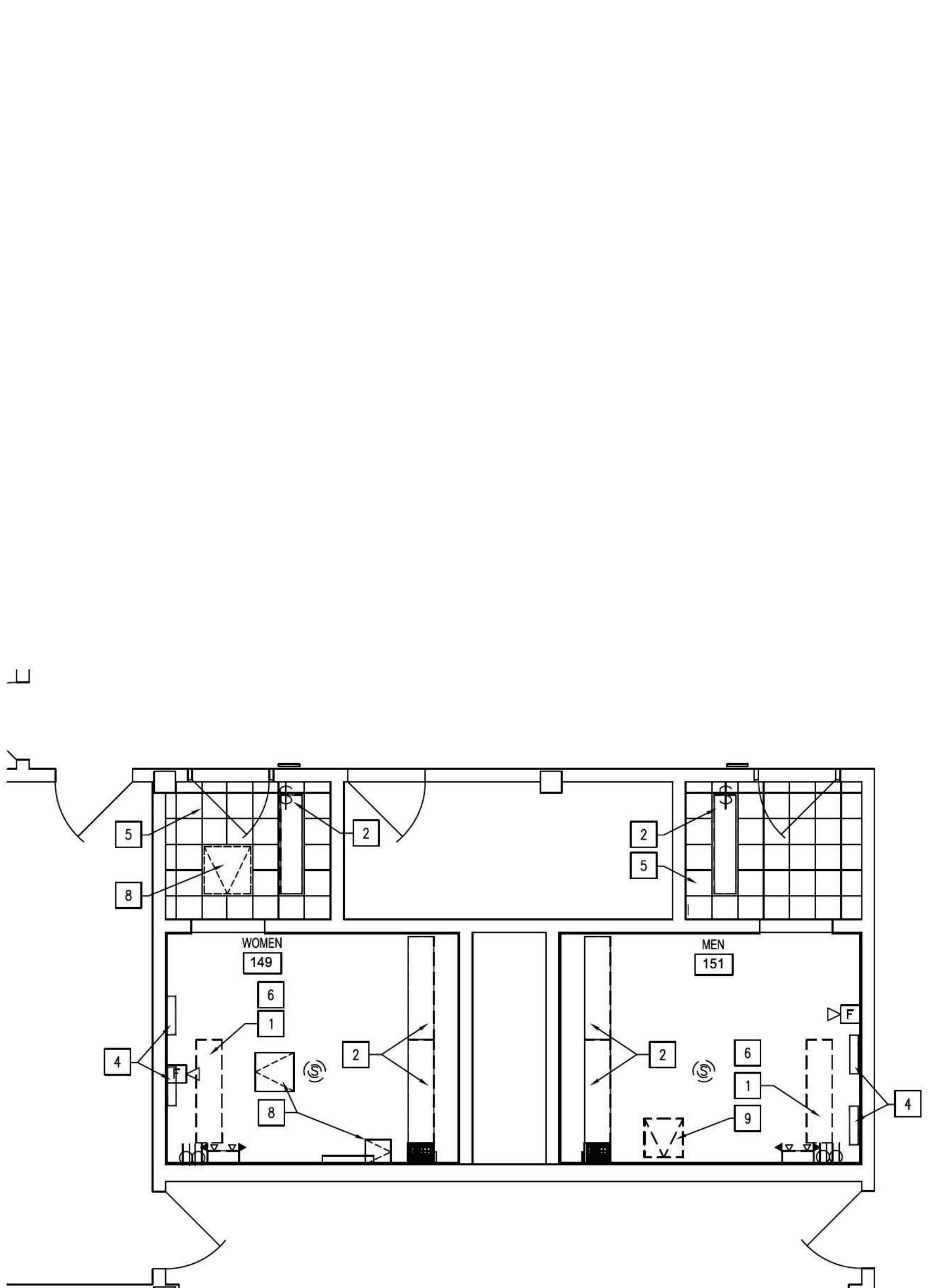
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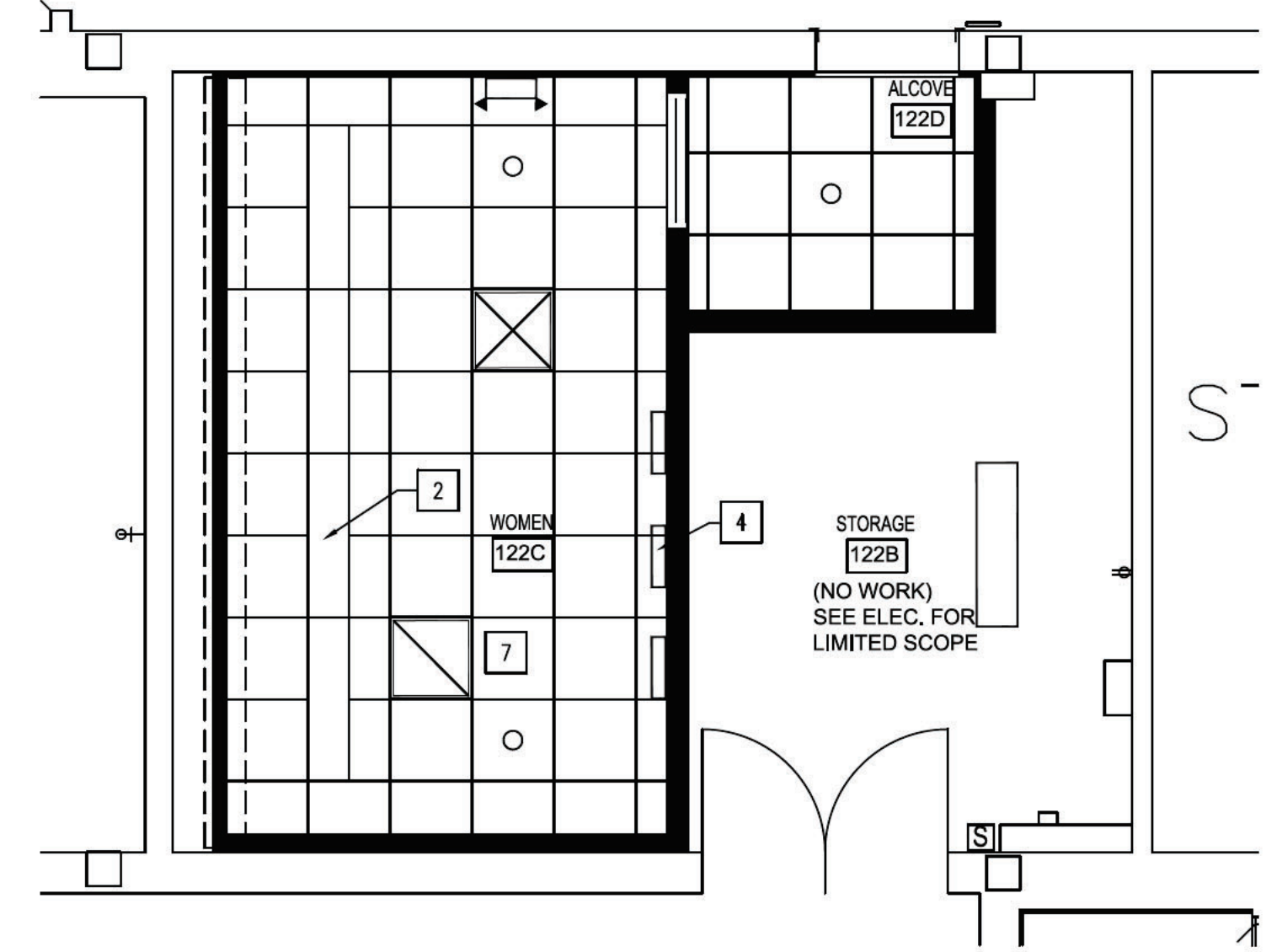
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 McKIMMON  
 CENTER  
 FAC. NO. 129

CAPITAL PROJECT MANAGEMENT  
 \* BOX 7520\* RALEIGH, NORTH CAROLINA 27685 - 7520

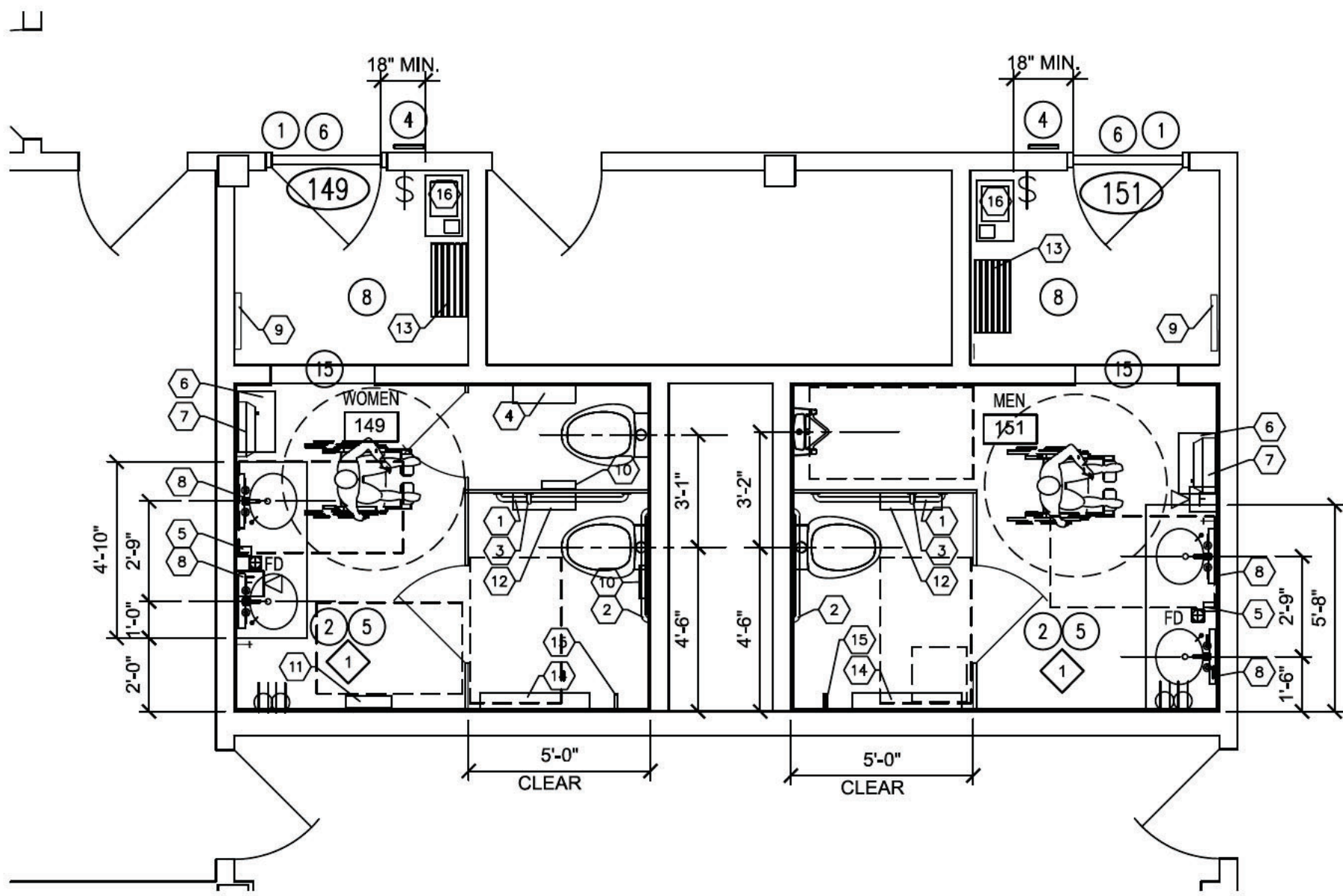




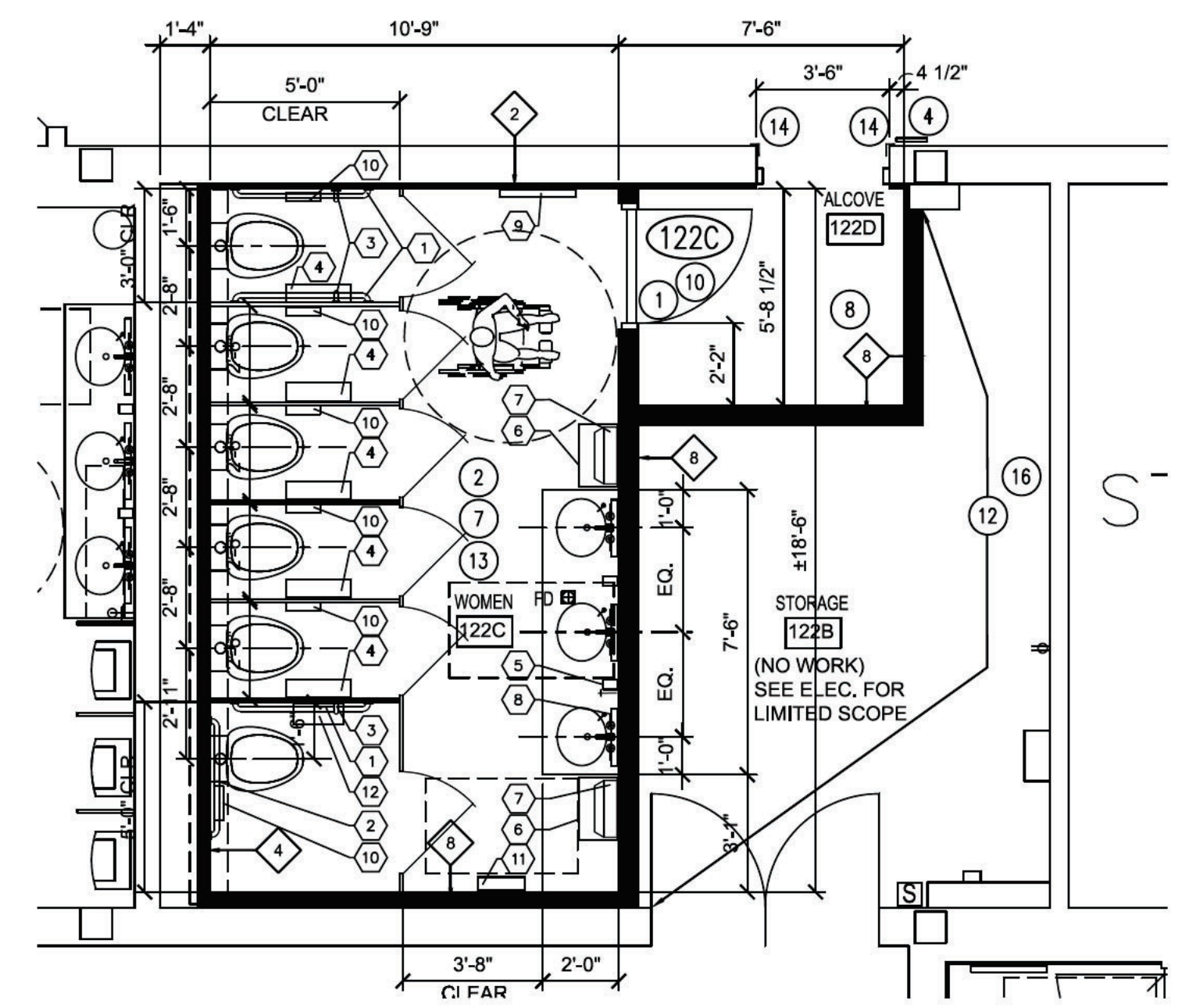
**4 RENO RCP WOMEN 149  
RENO RCP MEN 151**  
A101 SCALE: 1/4" = 1'-0"



**3 RENO RCP WOMEN 122C**  
A101 SCALE: 1/4" = 1'-0"



**2 RENO PLAN WOMEN 149  
RENO PLAN MEN 151**  
A101 SCALE: 1/4" = 1'-0"



**1 RENO PLAN WOMEN 122C**  
A101 SCALE: 1/4" = 1'-0"

- GENERAL CEILING NOTES:**
- GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY KNOWN DEVIATION FROM THE PLANS PRIOR TO BEGINNING OF THE WORK.
  - ALL EXISTING SURFACES DAMAGED OR AFFECTED BY NEW CONSTRUCTION TO BE REPAIRED TO MATCH ADJACENT SURFACES U.O.N.
  - METAL ACCESS PANEL TO REMAIN.
  - ALL LIGHT FIXTURE TRIM RINGS EXPOSED CONDUITS, J-BOXES, SPEAKER GRILLES AND HVAC GRILLES (LAY-IN AND PLASTER BOARD CEILINGS) SHALL BE FINISHED PER FINISH SCHEDULES.
  - SEE ELECTRICAL DRAWINGS FOR ALL EMERGENCY LIGHTS AND FIRE ALARM DEVICES.
  - SEE MECHANICAL DRAWINGS FOR NEW/RELOCATED DIFFUSERS.
  - ALL EXISTING AND NEW CEILINGS ARE 10'-0" A.F.F., UNO.

- CEILING KEYNOTES:**
- PATCH PLASTER CEILING AFTER REMOVAL OF LIGHT FIXTURE AND TRIM. ENSURE SMOOTH TRANSITION FROM PATCH TO EXISTING CEILING.
  - NEW LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.
  - CREATE OPENINGS IN PLASTER CEILING TO RECESS NEW CAN LIGHTS. SEE ELECTRICAL DRAWINGS.
  - NEW WALL MOUNTED VANITY LIGHTS. SEE ELECTRICAL DRAWINGS.
  - REPAIR AND RE-SET EXISTING CONCEALED SPLINE SUSPENDED 12" x 12" ACOUSTIC CEILING TILE SYSTEM.
  - PATCH ANY EXISTING SURFACE CRACKS IN PLASTER CEILING AND REPAINT ENTIRE CEILING.
  - NEW SUSPENDED ACOUSTICAL TILE CEILING.
  - RE-PAINT EXISTING METAL ACCESS PANEL.
  - NEW ACCESS PANEL 16"x16" PAINTED METAL ACCESS PANEL. LOCATION TO BE DETERMINED IN FIELD FOR ACCESS TO VALVES AND/OR J-BOXES. COORDINATE WITH PLUMBING AND ELECTRICAL.

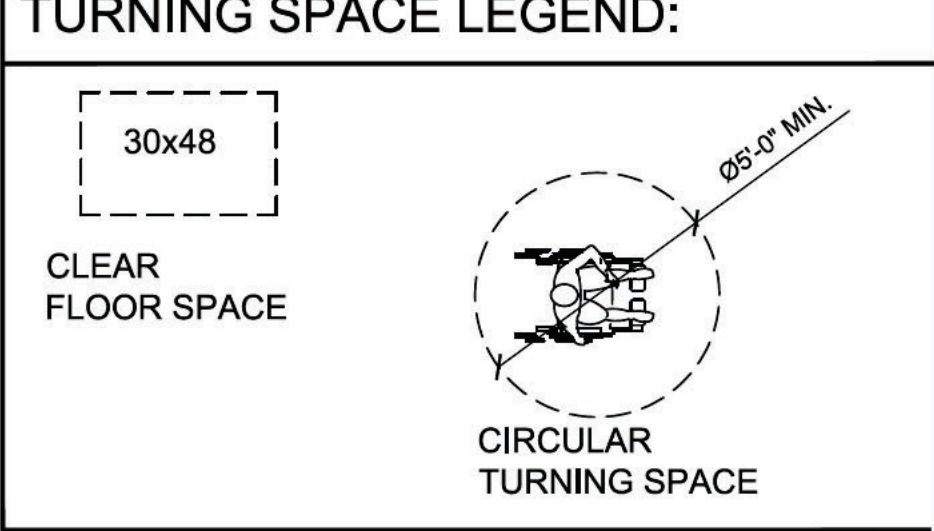
**CEILING LEGEND**

	24" x 24" SUSPENDED ACOUSTIC CEILING TILE
	EXISTING 12" x 12" CONCEALED SPLINE ACOUSTIC CEILING TILE SYSTEM
	DOWNLIGHT FIXTURE
	LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	CEILING HEIGHT DESIGNATION
	EXISTING SPEAKER
	EXISTING CEILING ACCESS PANEL

- RENOVATION KEYNOTES:**
- NEW GRANITE THRESHOLD SET IN GROUT BED. SEE A401.
  - PATCH WALLS AT DEMOLITION and PREPARE FOR NEW WALL FINISHES, ACCORDING TO FINISH MFR RECOMMENDATIONS. THIS INCLUDES REBUILDING 6" CMU AFFECTED BY PLUMBING & TOILET ACCESSORY DEMOLITION.
  - NEW DOOR, FRAME, & HARDWARE IN NEW MASONRY OPENING. CAULK BOTH SIDES OF FRAMES. SEE DETAIL ON A601
  - NEW SIGNAGE FURNISHED & INSTALLED BY NCSU.
  - FLOOR TILE OVER A LEVELING BED ATOP OF THE EXISTING MOSAIC TILE.
  - TEMPORARILY REMOVE EXISTING STAINED WOOD DOORS, PLANE BOTTOM TO ACCOMMODATE NEW THRESHOLDS, SAND, PRIME AND RE-STAIN BOTH TRANSOM PANELS AND DOORS. CAULK BOTH SIDES OF FRAMES.
  - INSTALL NEW PLUMBING PIPING, CARRIERS, DRAIN AND VENT PIPE TO ROUGH-IN NEW FIXTURES. CONNECT NEW PIPING and DRAINS TO EXISTING. SEE PLUMBING.
  - NEW FLOOR TILE OVER EXISTING SLAB, SET LEVEL WITH TILE IN RESTROOM AREA.
  - AUTO DOOR OPERATOR MOUNTED TO EXISTING DOOR TRANSOM W/ ONE (1) ACTUATOR ON EACH SIDE, COORDINATE WITH ELECTRICAL.
  - NEW DOOR FRAME AND HARDWARE
  - NEW DOOR AND HARDWARE SET IN EXISTING FRAME WITH EXISTING TRANSOM PANEL.
  - REPAINT WALL TO MATCH EXISTING FROM INSIDE CORNER TO INSIDE CORNER.
  - NEW FLOOR TILE OVER EXISTING SLAB.
  - REINSTALL SALVAGED METAL CORNER GUARD OR NEW.
  - CAULK BOTH SIDES OF EXISTING HM CASED OPENING FRAME.
  - REINSTALL SALVAGED RUBBER BASE.

**TOILET ACCESSORY SCHEDULE:**

MARK	ITEM DESCRIPTION	NOTES
1	42" L x 1/2" Ø GRAB BAR	
2	36" L x 1/2" Ø GRAB BAR	
3	18" L (MIN.) VERTICAL GRAB BAR	
4	TOILET TISSUE HOLDER	NCSU PROVIDED- CONTRACTOR INSTALLED
5	SOAP DISPENSER, AUTO SENSOR	NCSU PROVIDED- CONTRACTOR INSTALLED
6	FREESTANDING WASTE RECEPTACLE	NCSU PROVIDED- CONTRACTOR INSTALLED
7	PAPER TOWEL DISPENSER	NCSU PROVIDED- CONTRACTOR INSTALLED
8	MIRROR 24 x 48 x 1/4" OVER LAVS, CENTERED, FRAMELESS	SEE MIRROR GLASS SPEC
9	FULL LENGTH MIRROR 24x 60 x 1/4"	
10	SAINTARY NAPKIN DISPOSAL- TOILET PARTITION MOUNTED WHERE OCCURS	
11	SANITARY DISPENSER- WITH 25 CENTS OPERATION	
12	HC TLT TISSUE HOLDER	NCSU PROVIDED- CONTRACTOR INSTALLED
13	RESTROOM SHELF	EXISTING TO BE RE-INSTALLED
14	BABY CHANGING STATION	NEW IN RM 149 & 151
15	COAT HOOK	
16	COMPOST BIN	NCSU PROVIDED- CONTRACTOR INSTALLED
17	EXISTING: FULL LENGTH MIRROR, WALL MTD. WASTE BIN, PAPER TOWEL DISPENSER, HORIZ. GRAB BARS, TOILET PAPER DISPENSER, NAPKIN DISPOSAL, BABY CHANGING STATION	REMOVE, STORE AND RE-INSTALL



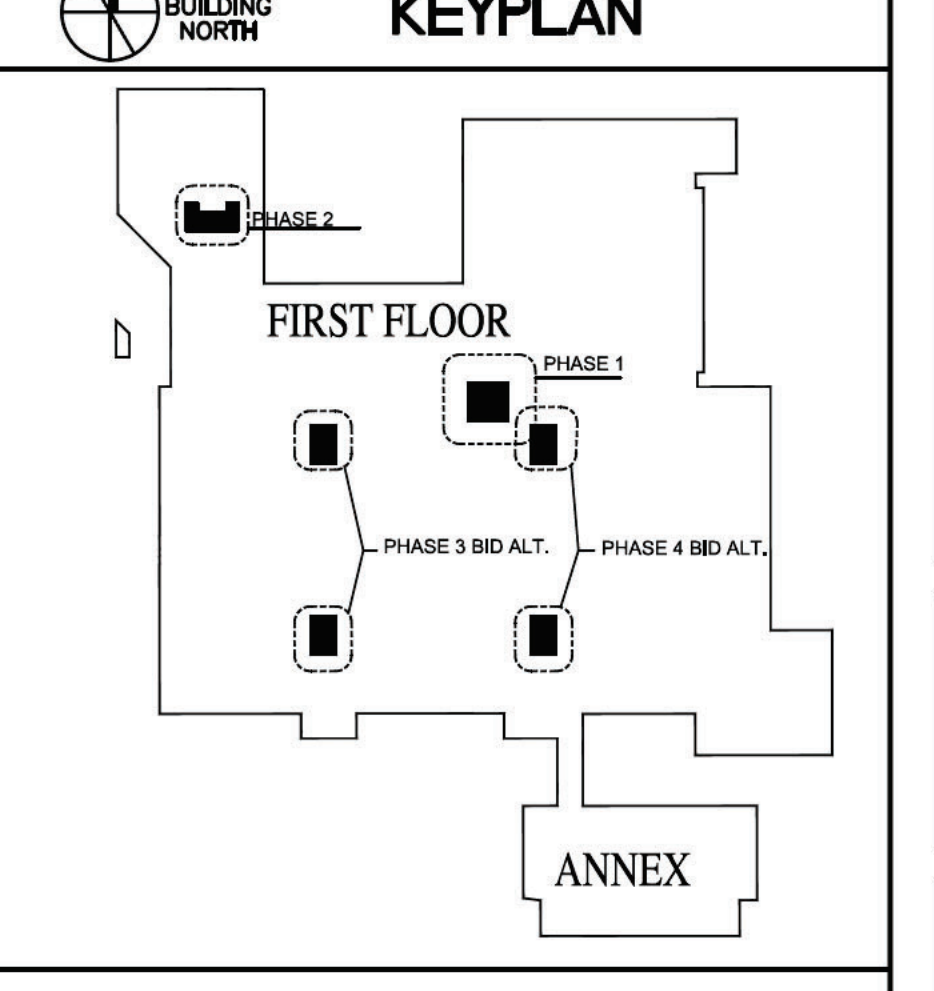
**LEGEND:**

	EXISTING WALLS TO REMAIN
	NEW PARTITIONS
	EXISTING DOOR TO REMAIN
	NEW OR REUSED DOOR
	TOILET
	ROOM NAME/NUMBER

- GENERAL RENOVATION NOTES:**
- ALL DIMENSIONS ARE TO FACE OF FINISHED SURFACE UNLESS NOTED OTHERWISE.
  - OWNER TO SUPPLY AND INSTALL NEW ROOM SIGNAGE AND WAYFINDING SIGNAGE.
  - THE FINISHED WORK SHALL BE FIRM, WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, UNIFORM APPEARANCE, WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS OR DISCOLOR. JOINTS SHALL BE CLOSE FITTING, NEAT AND WELL SCRIBED. THE FINISH WORK SHALL HAVE NO EXPOSED, UNSIGHTLY ANCHORS OR FASTENERS AND SHALL NOT PRESENT HAZARDOUS OR UNSAFE CORNERS. ALL WORK SHALL HAVE THE PROVISIONS FOR EXPANSION, CONTRACTION, AND SHRINKAGE AS NECESSARY TO PREVENT CRACKS, BUCKLING, AND WARPING DUE TO TEMPERATURE AND HUMIDITY CONDITIONS.
  - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DIMENSIONS AT THE SITE. THE CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATIONS OF ALL PARTITIONING, DOORS, ELECTRICAL/TELEPHONE OUTLETS, LIGHT SWITCHES AND THERMOSTATS BEFORE PROCEEDING WITH CONSTRUCTION.
  - COORDINATE AND PROVIDE BLOCKING/BACKING IN PARTITIONS BEHIND ALL WALL-MOUNTED ITEMS. ALL CONCEALED WOOD TO BE FIRE TREATED.
  - EXISTING WALLS IN RESTROOMS 149 AND 151 ARE PLASTER OVER METAL STUDS.
  - EXERCISE EXTREME CARE DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES TO ADJACENT STRUCTURES AND THEIR OCCUPANTS, PROPERTY, PUBLIC THOROUGHFARES, ETC. CONTRACTOR SHALL TAKE PRECAUTIONS AND BE RESPONSIBLE FOR THE SAFETY OF ALL BUILDING OCCUPANTS FROM CONSTRUCTION PROCEDURES.
  - WALLS IN EXISTING STORAGE ROOM 122 ARE CMU.
  - EXISTING TILE FLOORS IN RESTROOMS ARE MUD-SET CERAMIC TILE IN 1/2" DEPRESSED SLAB.
  - FILL ALL VOIDS REMAINING IN EXISTING MASONRY WALLS FROM REMOVAL OF RECESSED ITEMS WITH MATCHING MASONRY.

**WALL APPLIED TYPES**

- LAMINATE 1/2" CEMENT BACKER BOARD OVER EXISTING WALL TILE FROM FLR TO 6'-6" AFF, 1/2" MOISTURE RESISTANCE (M.R.) GWB ABOVE TO UNDERSIDE OF CEILING
- 7/8" 20 GA. METAL FURRING @ 16" O.C. W/ 1/2" CEMENT BACKER BOARD FROM FLR TO 6'-6" AFF, 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING
- 1/2" CEMENT BACKER BOARD OVER EXISTING WALL FROM FLR TO 6'-6" AFF, 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING
- 2 1/2" 20 GA. METAL STUDS @ 16" O.C. FROM FLOOR TO UNDERSIDE OF STRUCTURE (BRACE/BRIDGE TO EXISTING ADJACENT WALL) W/ 1/2" CEMENT BACKER BOARD FROM FLR TO 6'-6" AFF, 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING
- 3 5/8" 20 GA. METAL STUDS @ 16" O.C. W/ 1/2" CEMENT BACKER BOARD FROM FLR TO 6'-6" AFF, 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING, BOTH SIDES
- DOOR/WALL INFILL METAL STUDS W/ 5/8" GWB
- DOOR INFILL WITH 8" CMU
- 3 5/8" 20 GA. METAL STUDS @ 16" O.C. W/ 1/2" M.R. GWB FROM FLR TO 6" ABOVE CEILING (ONE SIDE AT 122C SOUTH WALL)
- 2x4 WOOD STUDS @ 16" O.C. W/ 1/4" PLYWD. ON NON-WORK SIDE. FRICTION FIT TO FLOOR AND CEILING AND TAPE SEAL TO ADJOINING SURFACES
- LAMINATE 1/2" M.R. GWB OVER EXISTING WALL FROM FLR TO 6" ABOVE CEILING (10A- 1/2" M.R. GWB FROM FLR TO 6" ABOVE CEILING)



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**CONSTRUCTION DOCUMENT PHASE**

NC STATE UNIVERSITY  
CAPITAL PROJECT MANAGEMENT  
\* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
DESIGNER: S. TUCKER  
DRAWN BY: S. TUCKER  
CHECKED BY: S. TUCKER  
REV.:



NCSU - McKIMMON CENTER  
RESTROOM RENOVATIONS  
SCO ID # 22-25847-01A  
CODE/ITEM # 42124/323

RENOVATION  
ENLARGED PLANS

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**A101** of  
Total Sheets: 00  
Designer Proj. No.  
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NCSU Proj. No.  
202220029

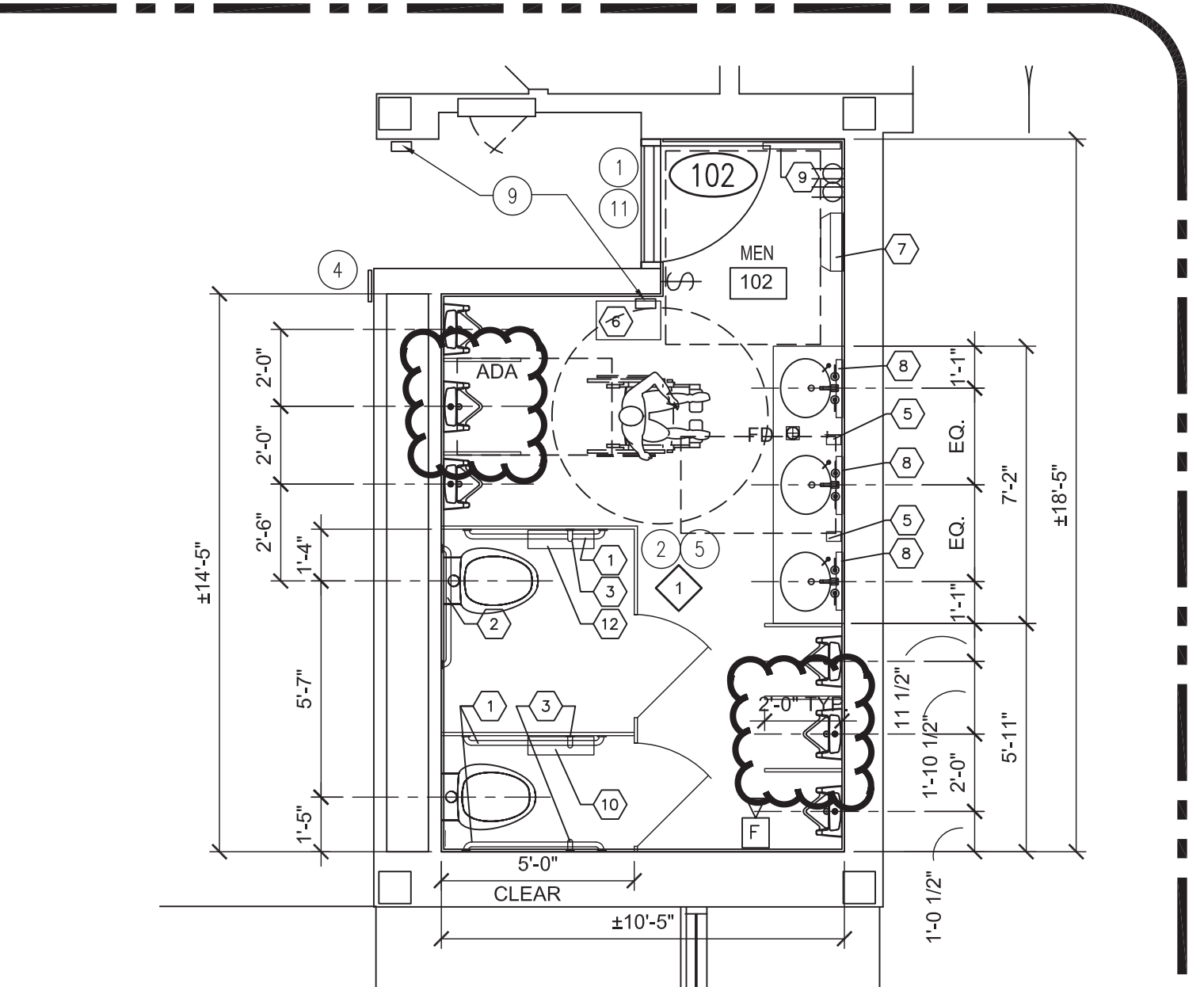
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**McKIMMON CENTER**  
FAC. NO. 129



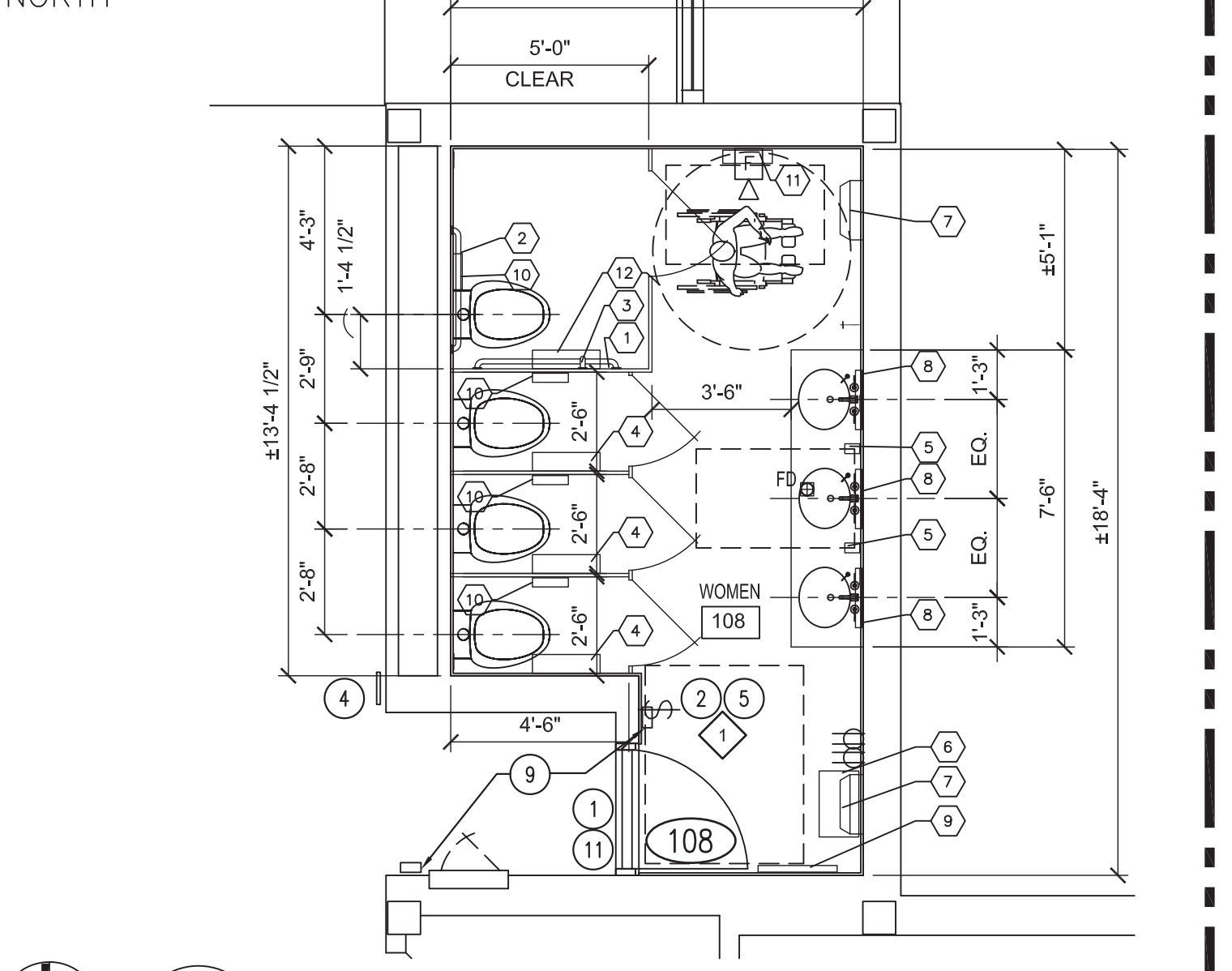
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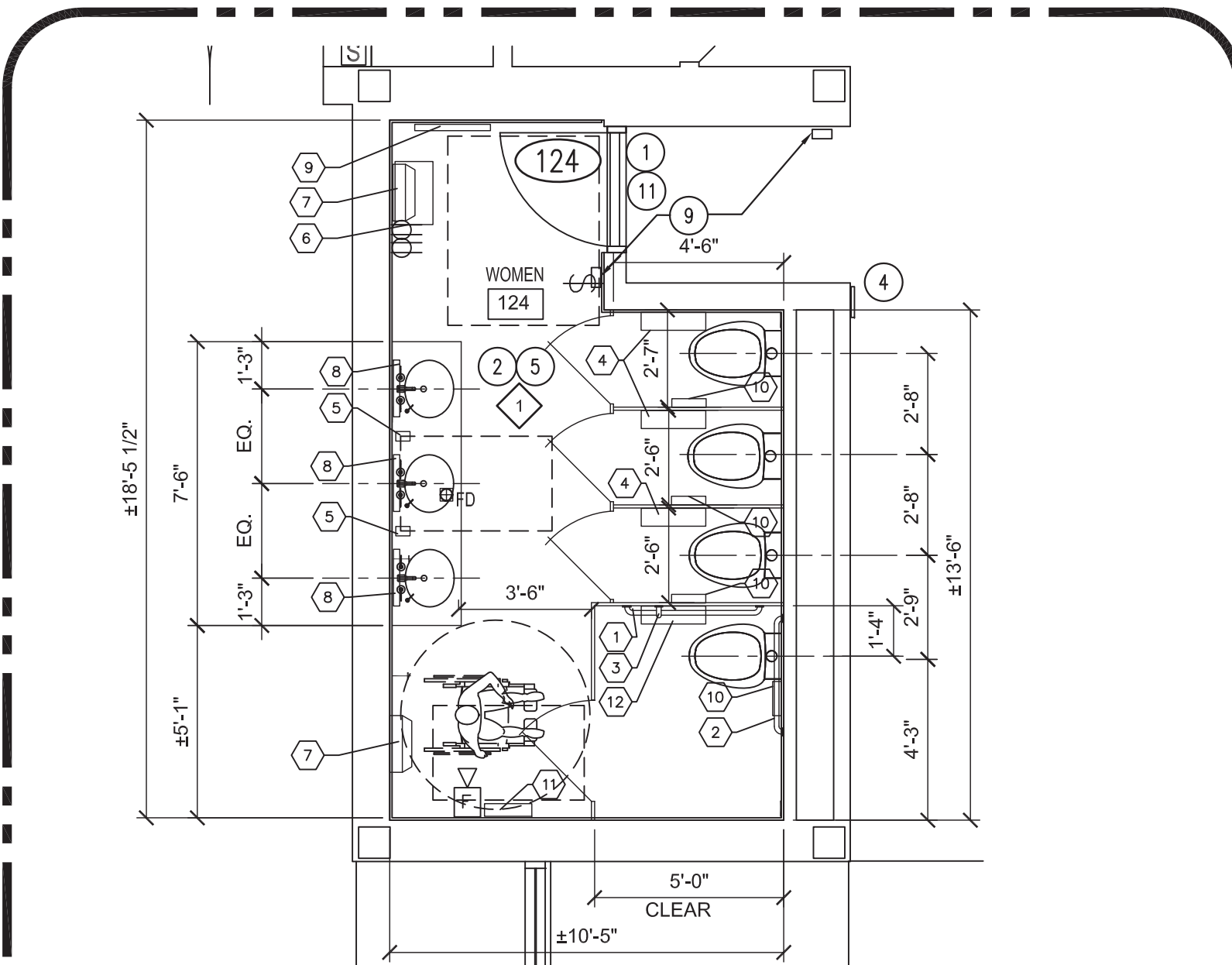
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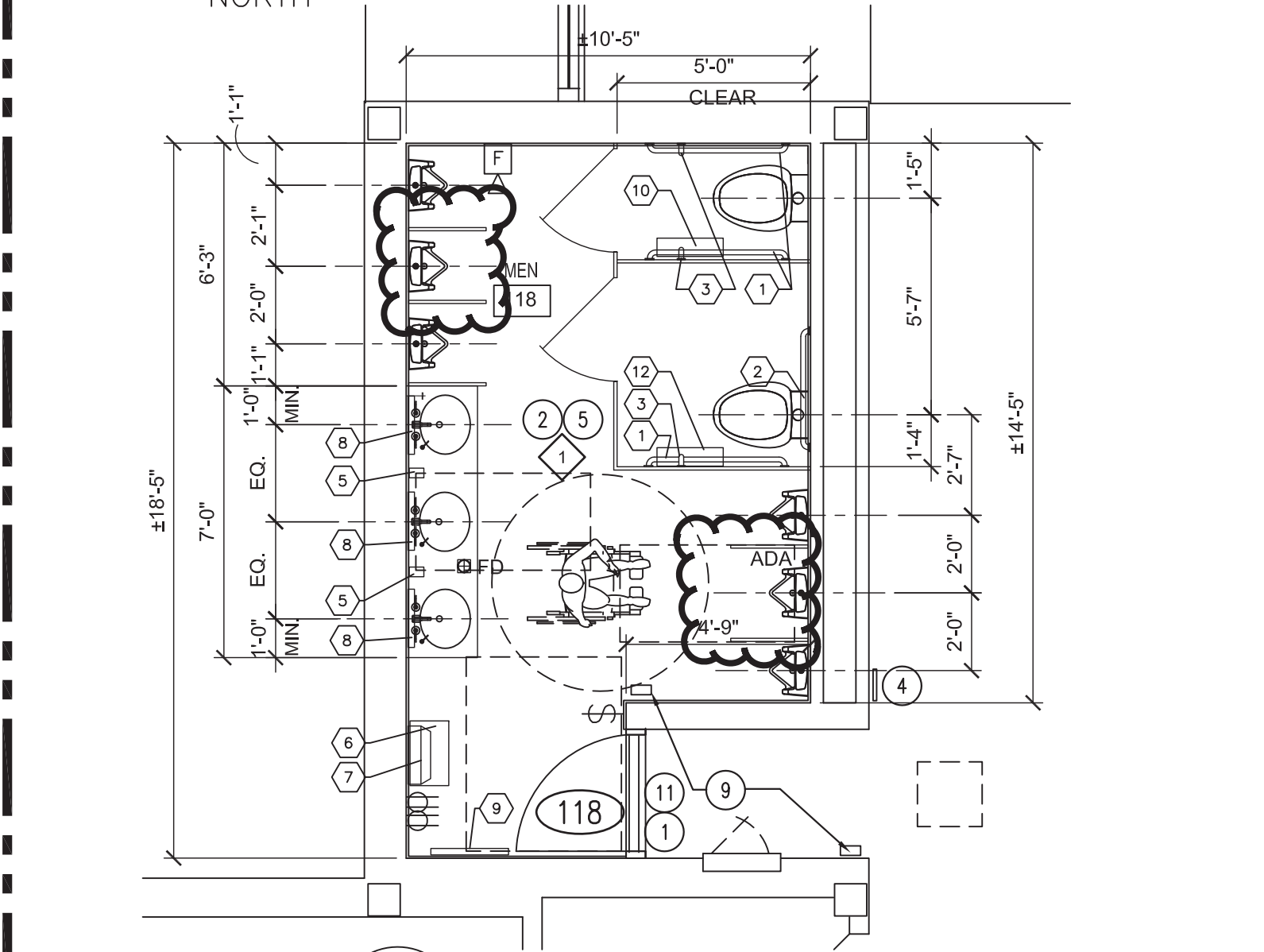
**4 RENO PLAN MEN 102**  
A102 SCALE: 1/4" = 1'-0"



**2 RENO PLAN WOMEN 108**  
A102 SCALE: 1/4" = 1'-0"

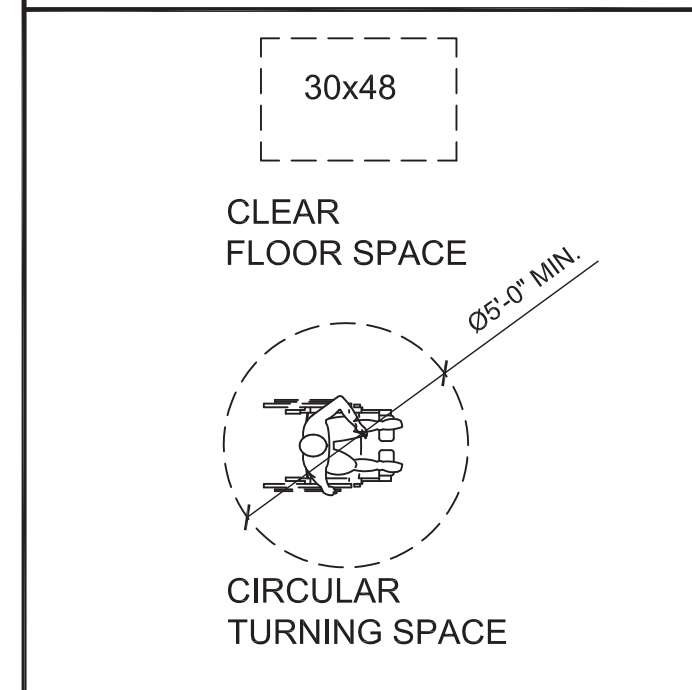


**3 RENO PLAN WOMEN 124**  
A102 SCALE: 1/4" = 1'-0"



**1 RENO PLAN MEN 118**  
A102 SCALE: 1/4" = 1'-0"

**TURNING SPACE LEGEND:**



**RENOVATION KEYNOTES:**

- 1 NEW GRANITE THRESHOLD SET IN GROUT BED. SEE A401.
- 2 PATCH WALLS AT DEMOLITION and PREPARE FOR NEW WALL FINISHES, ACCORDING TO FINISH MFR RECOMMENDATIONS. THIS INCLUDES REBUILDING 6" CMU AFFECTED BY PLUMBING & TOILET ACCESSORY DEMOLITION.
- 3 NEW DOOR, FRAME, & HARDWARE IN NEW MASONRY OPENING. CAULK BOTH SIDES OF FRAMES. SEE DETAIL ON A601
- 4 NEW SIGNAGE FURNISHED & INSTALLED BY NCSU.
- 5 FLOOR TILE OVER A LEVELING BED ATOP OF THE EXISTING MOSAIC TILE.
- 6 TEMPORARILY REMOVE EXISTING STAINED WOOD DOORS, PLANE BOTTOM TO ACCOMMODATE NEW THRESHOLDS. SAND, PRIME AND RE-STAIN BOTH TRANSOM PANELS AND DOORS. CAULK BOTH SIDES OF FRAMES.
- 7 INSTALL NEW PLUMBING PIPING, CARRIERS, DRAIN and VENT PIPE TO ROUGH-IN NEW FIXTURES. CONNECT NEW PIPING and DRAINS TO EXISTING. SEE PLUMBING.
- 8 NEW FLOOR TILE OVER EXISTING SLAB, SET LEVEL WITH TILE IN RESTROOM AREA.
- 9 AUTO DOOR OPERATOR MOUNTED TO EXISTING DOOR TRANSOM W/ ONE (1) ACTUATOR ON EACH SIDE, COORDINATE WITH ELECTRICAL.
- 10 REPAINT MASONRY WALL TO MATCH EXISTING FROM OUTSIDE CORNER AT NORTH TO DOOR INTO PRINT SHOP 138.
- 11 NEW DOOR AND HARDWARE SET IN EXISTING FRAME WITH EXISTING TRANSOM PANEL.
- 12 REPAINT WALL TO MATCH EXISTING FROM INSIDE CORNER TO INSIDE CORNER.
- 13 NEW FLOOR TILE OVER EXISTING SLAB.
- 14 REINSTALL SALVAGED METAL CORNER GUARD.
- 15 CAULK BOTH SIDES OF EXISTING HM CASED OPENING FRAME.
- 16 REINSTALL SALVAGED RUBBER BASE

**TOILET ACCESSORY SCHEDULE:**

MARK	ITEM DESCRIPTION	NOTES
1	42"L x 1/2"Ø GRAB BAR	
2	36"L x 1/2"Ø GRAB BAR	
3	18"(MIN.) VERTICAL GRAB BAR	
4	TOILET TISSUE HOLDER	NCSU PROVIDED- CONTRACTOR INSTALLED
5	SOAP DISPENSER, AUTO SENSOR	NCSU PROVIDED- CONTRACTOR INSTALLED
6	FREESTANDING WASTE RECEPTACLE	NCSU PROVIDED- CONTRACTOR INSTALLED
7	PAPER TOWEL DISPENSER	NCSU PROVIDED- CONTRACTOR INSTALLED
8	MIRROR 24 x 48 x 1/4" OVER LAVS, CENTERED, FRAMELESS	SEE MIRROR GLASS SPEC
9	FULL LENGTH MIRROR 24x 60 x 1/4"	
10	SANITARY NAPKIN DISPOSAL- TOILET PARTITION MOUNTED	
11	SANITARY DISPENSER- WITH 25 CENTS OPERATION	
12	HC TLT TISSUE HOLDER	NCSU PROVIDED- CONTRACTOR INSTALLED
13	RESTROOM SHELF	EXISTING TO BE RE-INSTALLED
14	BABY CHANGING STATION	NEW IN RM 149 & 151
15	COAT HOOK	
16	COMPOST BIN	NCSU PROVIDED- CONTRACTOR INSTALLED
17	EXISTING: FULL LENGTH MIRROR, WALL MTD. WASTE BIN, PAPER TOWEL DISPENSER, HORIZ. GRAB BARS, TOILET PAPER DISPENSER, NAPKIN DISPOSAL, BABY CHANGING STATION	REMOVE, STORE AND RE-INSTALL

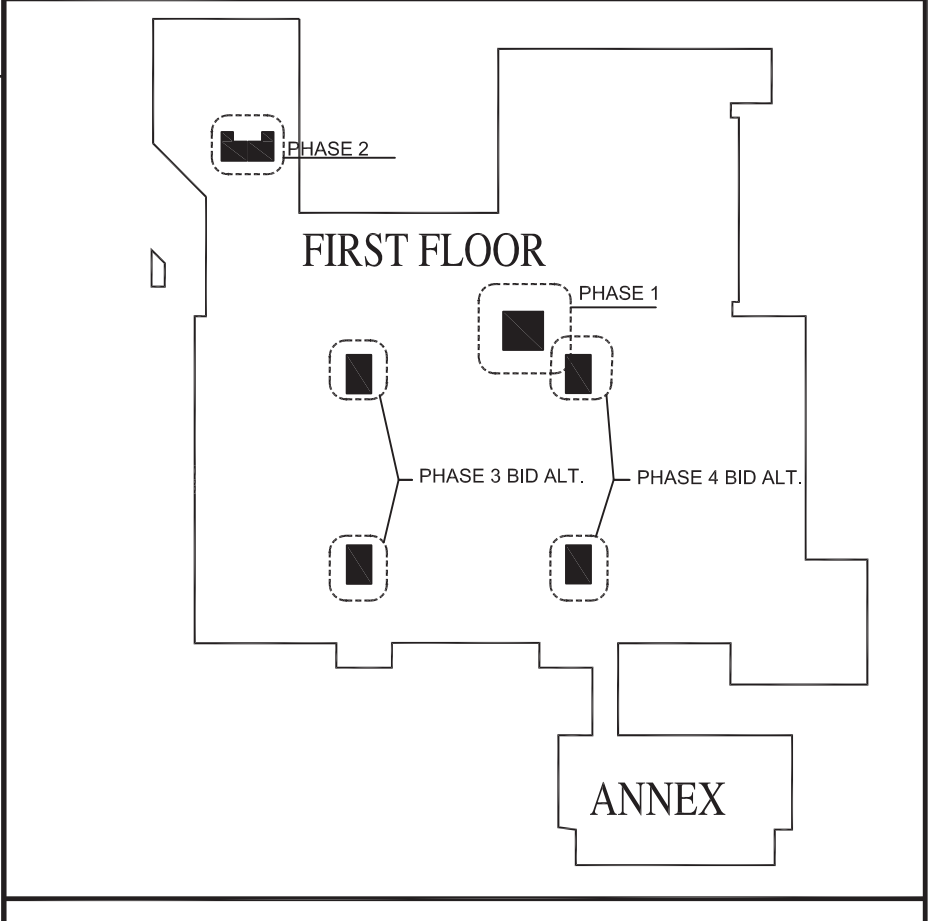
**GENERAL RENOVATION NOTES:**

1. ALL DIMENSIONS ARE TO FACE OF FINISHED SURFACE UNLESS NOTED OTHERWISE.
2. OWNER TO SUPPLY AND INSTALL NEW ROOM SIGNAGE AND WAYFINDING SIGNAGE.
3. THE FINISHED WORK SHALL BE FIRM, WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, UNIFORM APPEARANCE, WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS OR DISCOLOR. JOINTS SHALL BE CLOSE FITTING, NEAT AND WELL SCRIBED. THE FINISH WORK SHALL HAVE NO EXPOSED, UNSIGHTLY ANCHORS OR FASTENERS AND SHALL NOT PRESENT HAZARDOUS OR UNSAFE CORNERS. ALL WORK SHALL HAVE THE PROVISIONS FOR EXPANSION, CONTRACTION, AND SHRINKAGE AS NECESSARY TO PREVENT CRACKS, BUCKLING, AND WARPING DUE TO TEMPERATURE AND HUMIDITY CONDITIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DIMENSIONS AT THE SITE. THE CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATIONS OF ALL PARTITIONING, DOORS, ELECTRICAL/TELEPHONE OUTLETS, LIGHT SWITCHES AND THERMOSTATS BEFORE PROCEEDING WITH CONSTRUCTION.
5. COORDINATE AND PROVIDE BLOCKING/BACKING IN PARTITIONS BEHIND ALL WALL-MOUNTED ITEMS. ALL CONCEALED WORK TO BE FIRE TREATED.
6. EXISTING WALLS IN RESTROOMS 102, 108, 118, 124, 149 AND 151 ARE MUD-SET CERAMIC TILE OVER CMU, EXCEPT WC WALLS IN 149 AND 151 ARE PLASTER OVER METAL STUDS.
7. EXERCISE EXTREME CARE DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES TO ADJACENT STRUCTURES AND THEIR OCCUPANTS, PROPERTY, PUBLIC THOROUGHFARES, ETC. CONTRACTOR SHALL TAKE PRECAUTIONS AND BE RESPONSIBLE FOR THE SAFETY OF ALL BUILDING OCCUPANTS FROM CONSTRUCTION PROCEDURES.
8. WALLS IN EXISTING SINGLE OCCUPANT 136 ARE THIN-SET CERAMIC TILE OVER EITHER PLASTER OR GWB.
9. EXISTING TILE FLOORS IN RESTROOMS ARE MUD-SET CERAMIC TILE IN 1/2" DEPRESSED SLAB, EXCEPT RM 136 WHICH IS THIN-SET OVER FLUSH SLAB.
10. FILL ALL VOIDS REMAINING IN EXISTING MASONRY WALLS FROM REMOVAL OF RECESSED ITEMS WITH MATCHING MASONRY.

**WALL APPLIED TYPES**

- 1 LAMINATE 1/2" CEMENT BACKER BOARD OVER EXISTING WALL TILE FROM FLR TO 6'-6" AFF. 1/2" MOISTURE RESISTANCE (M.R.) GWB ABOVE TO UNDERSIDE OF CEILING
- 2 7/8" 20 GA. METAL FURRING @16" O.C.W/ 1/2" CEMENT BACKER BOARD FROM FLR TO 6'-6" AFF. 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING
- 3 1/2" CEMENT BACKER BOARD OVER EXISTING WALL FROM FLR TO 6'-6" AFF. 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING
- 4 2 1/2" 20 GA. METAL STUDS @ 16" O.C. FROM FLOOR TO UNDERSIDE OF STRUCTURE (BRACE/BRIDGE TO EXISTING ADJACENT WALL) W/ 1/2" CEMENT BACKER BOARD FROM FLR TO 6'-6" AFF. 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING
- 5 3 5/8" 20 GA. METAL STUDS @ 16" O.C. W/ 1/2" CEMENT BACKER BOARD FROM FLR TO 6'-6" AFF. 1/2" M.R. GWB ABOVE TO 6" ABOVE CEILING, BOTH SIDES (ONE SIDE AT LAVS IN 137)
- 6 DOOR/WALL INFILL METAL STUDS W/ 5/8" GWB
- 7 DOOR INFILL WITH 6" CMU
- 8 3 5/8" 20 GA. METAL STUDS @ 16" O.C. W/ 1/2" M.R. GWB FROM FLR TO 6" ABOVE CEILING (ONE SIDE AT 137)
- 9 2x4 WOOD STUDS @ 16" O.C. W/ 1/4" PLYWD. ON NON-WORK SIDE. FRICTION FIT TO FLOOR AND CEILING AND TAPE SEAL TO ADJOINING SURFACES
- 10 LAMINATE 1/2" M.R. GWB OVER EXISTING WALL FROM FLR TO 6" ABOVE CEILING (10A- 1/2" M.R. GWB FROM FLR TO 6" ABOVE CEILING)

**KEYPLAN**



**LEGEND:**

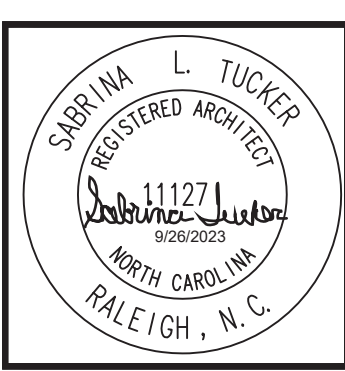
- EXISTING WALLS TO REMAIN
- NEW PARTITIONS
- EXISTING DOOR TO REMAIN
- NEW OR REUSED DOOR
- TOILET 128
- ROOM NAME/NUMBER

Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership  
 421 Fayetteville Street  
 Suite 1609  
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**CONSTRUCTION DOCUMENT PHASE**

**NC STATE UNIVERSITY**  
 CAPITAL PROJECT MANAGEMENT  
 \* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: S. TUCKER  
 CHECKED BY:  
 REV.:



SEAL NOT VALID UNLESS SIGNED AND DATED

**NCSU - MCKIMMON CENTER RESTROOM RENOVATIONS**  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

**RENOVATION ENLARGED PLANS BID ALTERNATES**

SHEET No. **A102** of **00**  
 Total Sheets: 00

Designer Proj. No. 142814  
 NCSU Proj. No. 202220029

FAC. NAME **McKIMMON CENTER**  
 FAC. NO. **129**



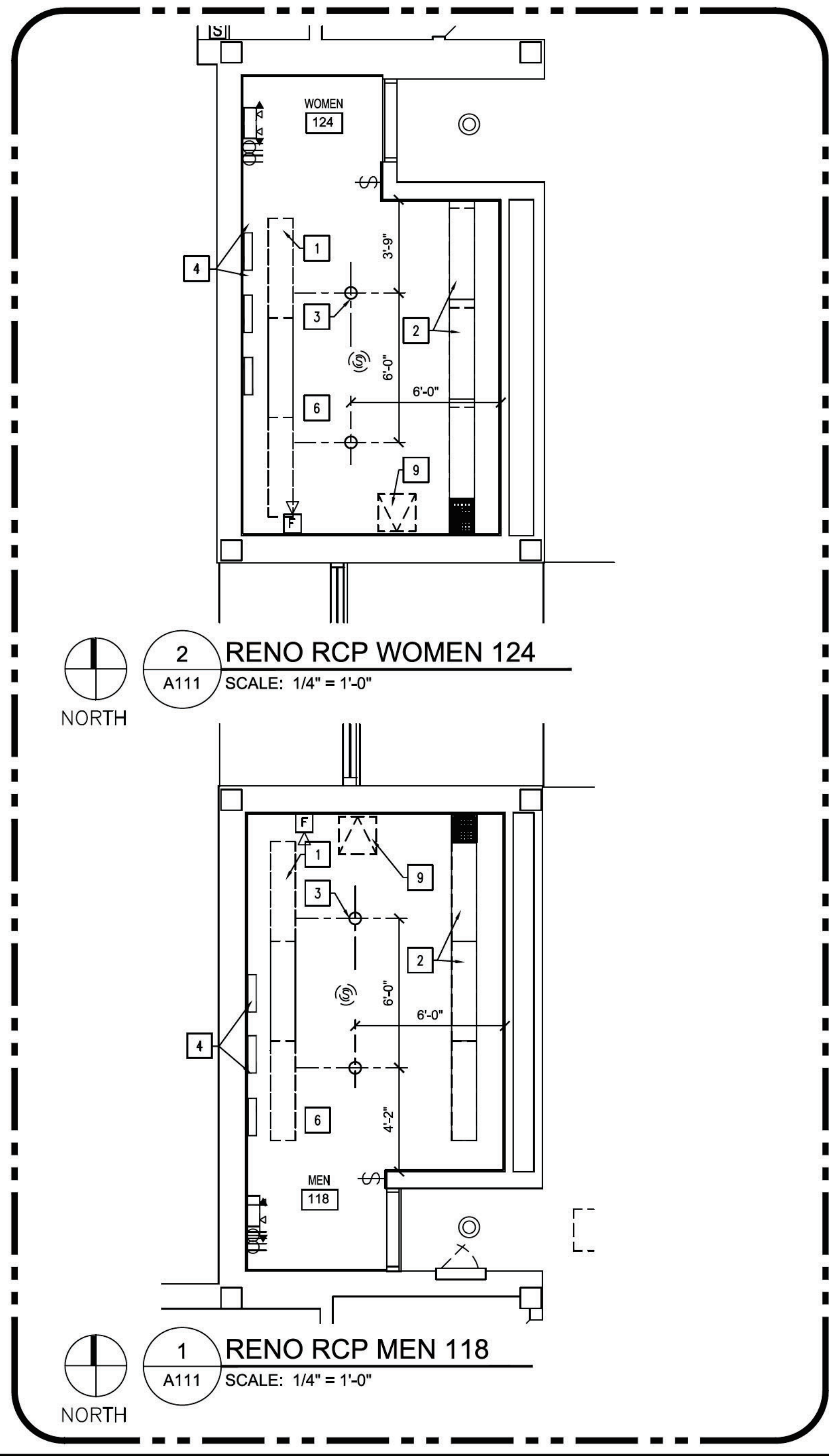
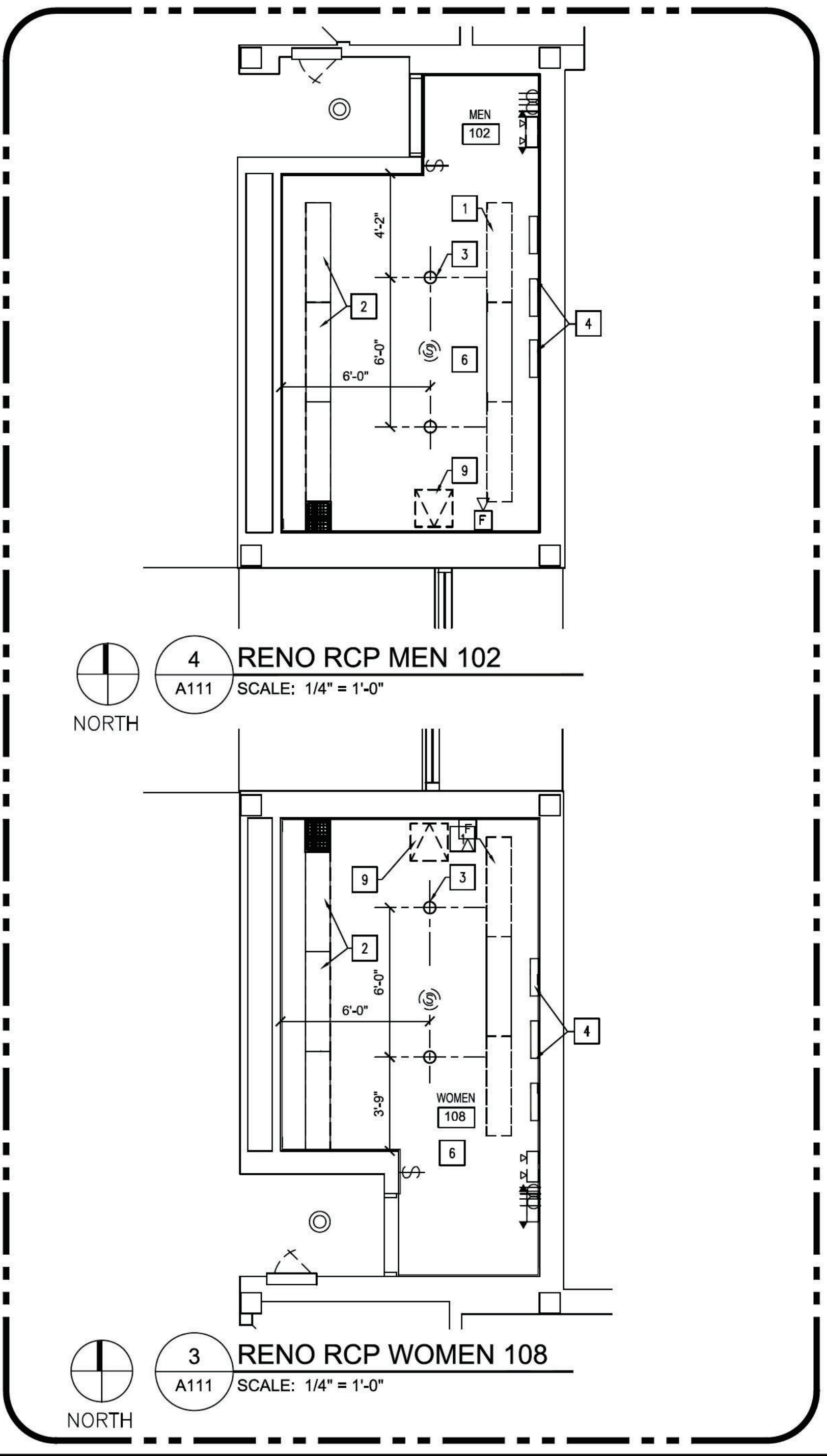
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CEILING KEYNOTES:	
1	PATCH PLASTER CEILING AFTER REMOVAL OF LIGHT FIXTURE AND TRIM. ENSURE SMOOTH TRANSITION FROM PATCH TO EXISTING CEILING.
2	NEW LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.
3	CREATE OPENINGS IN PLASTER CEILING TO RECESS NEW CAN LIGHTS. SEE ELECTRICAL DRAWINGS.
4	NEW WALL MOUNTED VANITY LIGHTS. SEE ELECTRICAL DRAWINGS.
5	REPAIR AND RE-SET EXISTING CONCEALED SPLINE SUSPENDED 12" x 12" ACOUSTIC CEILING TILE SYSTEM.
6	PATCH ANY EXISTING SURFACE CRACKS IN PLASTER CEILING AND REPAINT ENTIRE CEILING.
7	NEW SUSPENDED ACOUSTICAL TILE CEILING.
8	RE-PAINT EXISTING METAL ACCESS PANEL.
9	NEW ACCESS PANEL 16"x16" PAINTED METAL ACCESS PANEL. LOCATION TO BE DETERMINED IN FIELD FOR ACCESS TO VALVES AND/OR J-BOXES. COORDINATE WITH PLUMBING AND ELECTRICAL.

GENERAL CEILING NOTES:	
1.	GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY KNOWN DEVIATION FROM THE PLANS PRIOR TO BEGINNING OF THE WORK.
2.	ALL EXISTING SURFACES DAMAGED OR AFFECTED BY NEW CONSTRUCTION TO BE REPAIRED TO MATCH ADJACENT SURFACES U.O.N.
3.	METAL ACCESS PANEL TO REMAIN.
4.	ALL LIGHT FIXTURE TRIM RINGS EXPOSED CONDUITS, J-BOXES, SPEAKER GRILLES AND HVAC GRILLES (LAY-IN AND PLASTER BOARD CEILINGS) SHALL BE FINISHED PER FINISH SCHEDULES.
5.	SEE ELECTRICAL DRAWINGS FOR ALL EMERGENCY LIGHTS AND FIRE ALARM DEVICES.
6.	SEE MECHANICAL DRAWINGS FOR NEW/RELOCATED DIFFUSERS.
7.	ALL EXISTING AND NEW CEILINGS ARE 10'-0" A.F.F., UNO.

PHASE 3 BID ALTERNATE

PHASE 4 BID ALTERNATE



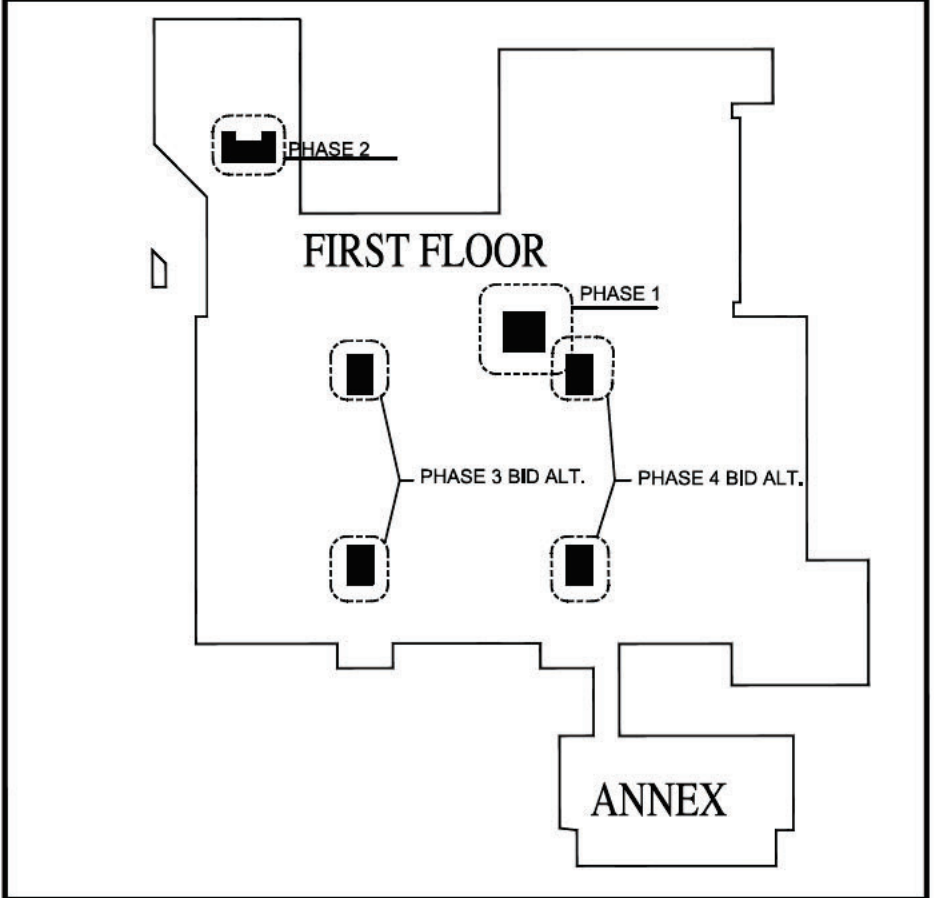
CEILING LEGEND

	24" X 24" SUSPENDED ACOUSTIC CEILING TILE
	EXISTING 12" X 12" CONCEALED SPLINE ACOUSTIC CEILING TILE SYSTEM
	DOWNLIGHT FIXTURE
	LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	CEILING HEIGHT DESIGNATION
	EXISTING SPEAKER
	EXISTING CEILING ACCESS PANEL

LEGEND:

	EXISTING WALLS TO REMAIN
	NEW PARTITIONS
	TOILET
	ROOM NAME/NUMBER

KEYPLAN

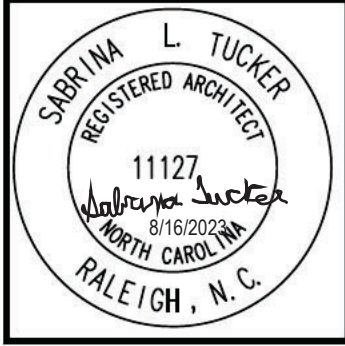


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CONSTRUCTION DOCUMENT PHASE

NC STATE UNIVERSITY  
 CAPITAL PROJECT MANAGEMENT  
 \* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: S. TUCKER  
 CHECKED BY:  
 REV.:



SCALE NOT VALID UNLESS SIGNED AND DATED

NCSU - McKIMMON CENTER  
 RESTROOM RENOVATIONS  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

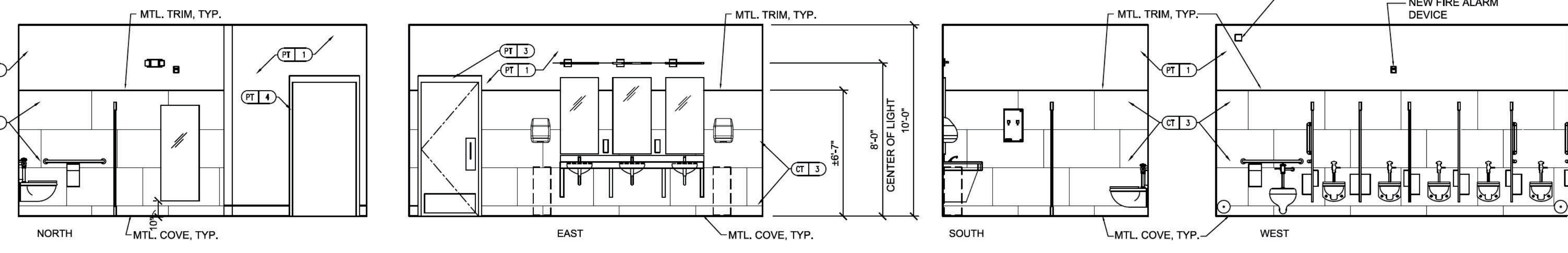
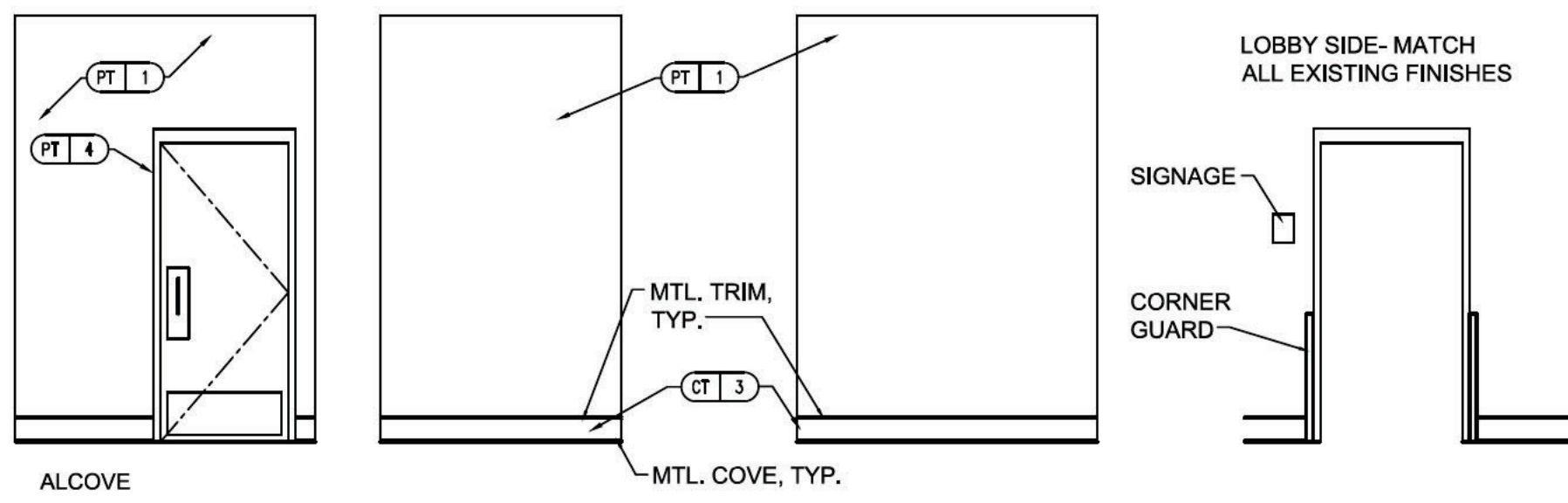
RENOVATION  
 ENLARGED REFLECTED  
 CEILING PLANS  
 BID ALTERNATES

SHEET No.  
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 Total Sheets: 00

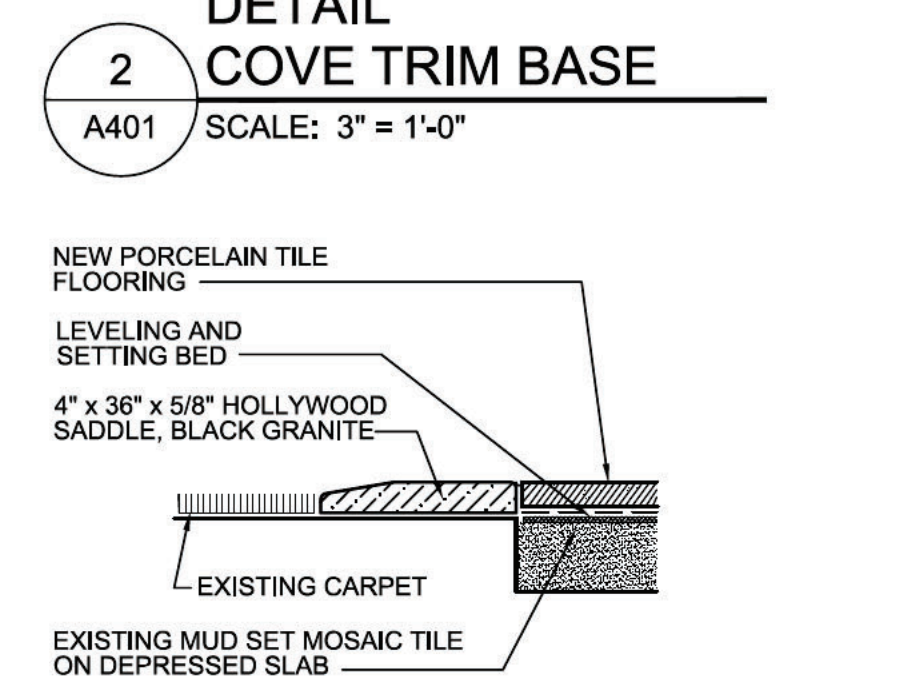
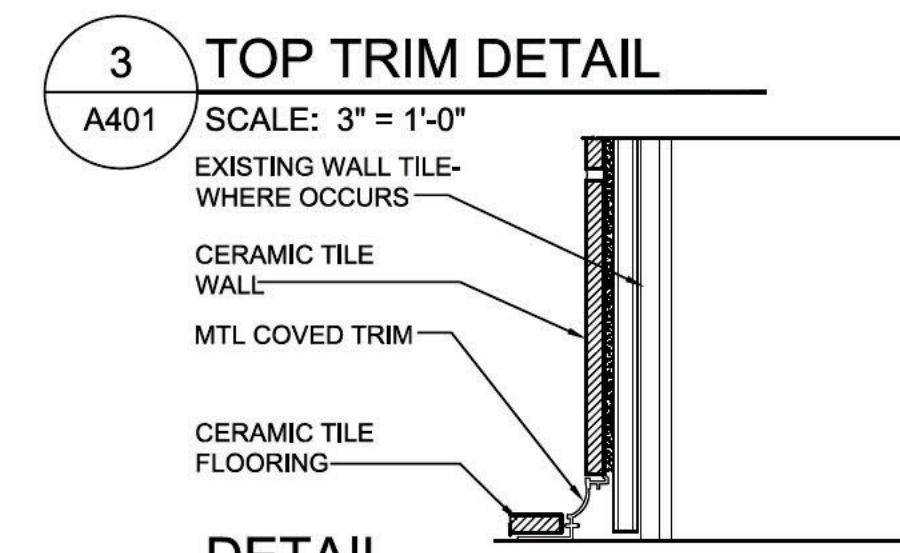
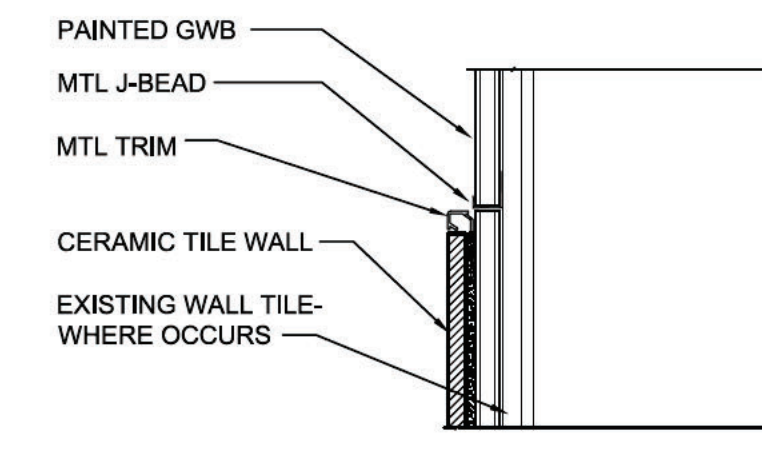
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 142814  
 NCSU Proj. No.  
 202220029

FAC. NAME  
 McKIMMON  
 CENTER  
 FAC. NO. 129

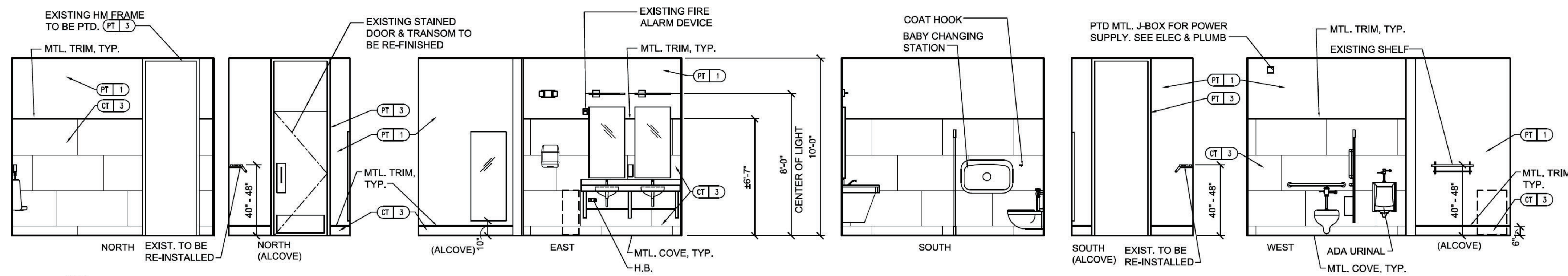




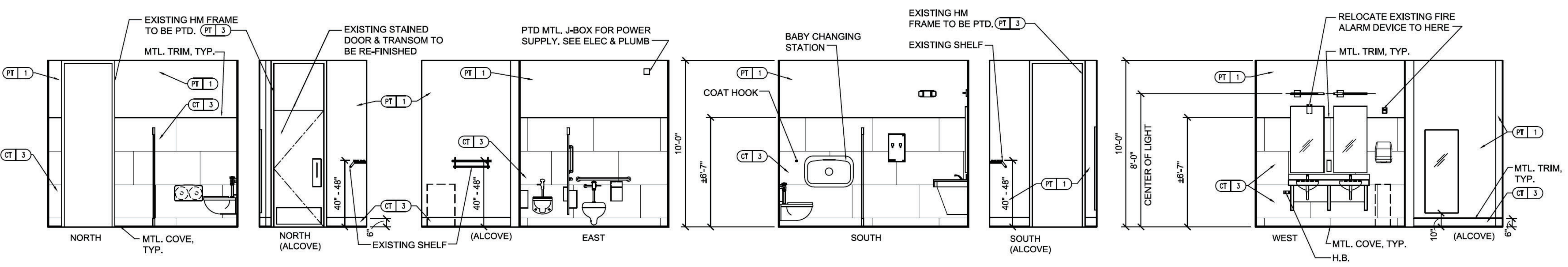
7 INTERIOR ELEVATION WOMEN 122C  
A401 SCALE: 1/4" = 1'-0"



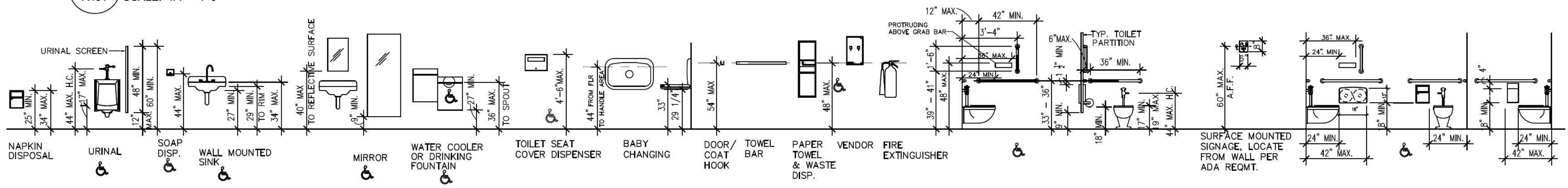
3 TOP TRIM DETAIL  
A401 SCALE: 3" = 1'-0"  
2 COVE TRIM BASE  
A401 SCALE: 3" = 1'-0"  
1 STONE THRESHOLD  
A401 SCALE: 3" = 1'-0"



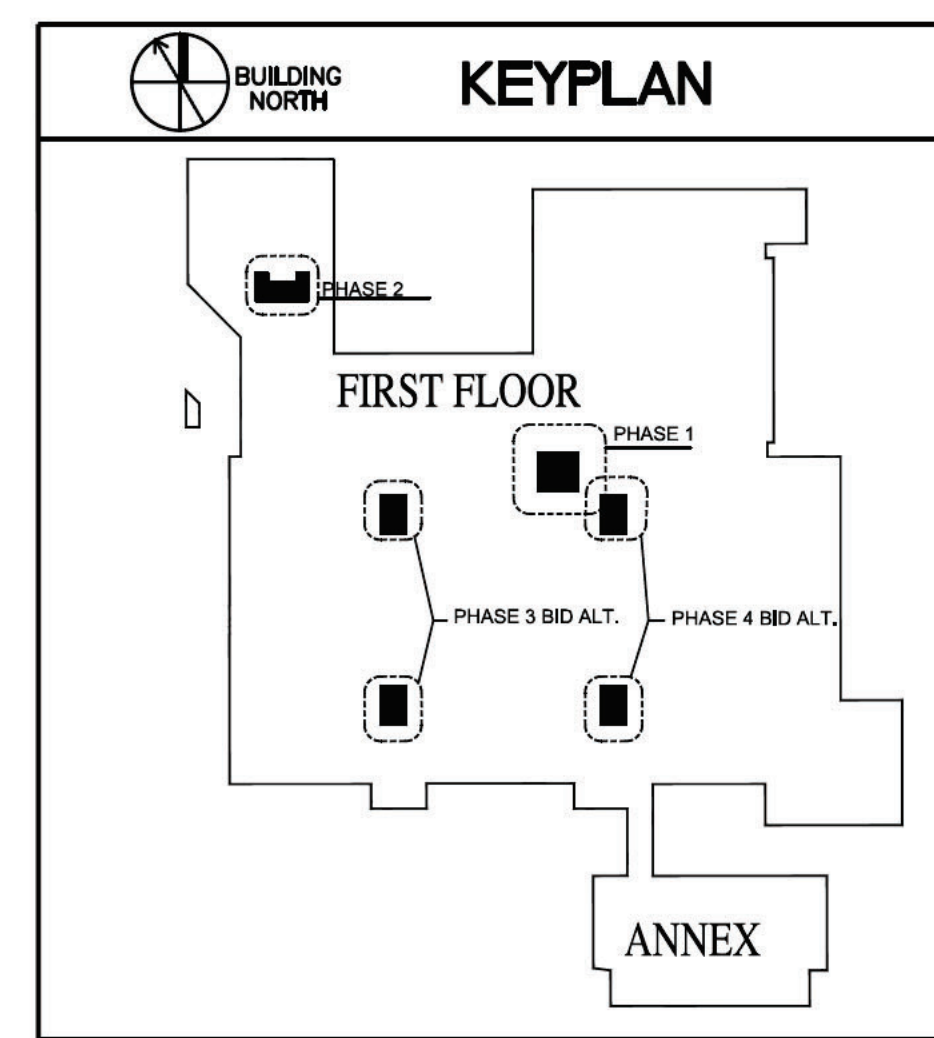
6 INTERIOR ELEVATION MEN 151  
A401 SCALE: 1/4" = 1'-0"



5 INTERIOR ELEVATION WOMEN 149  
A401 SCALE: 1/4" = 1'-0"



4 TYPICAL MOUNTING HEIGHTS  
A401 SCALE: 1/4" = 1'-0"



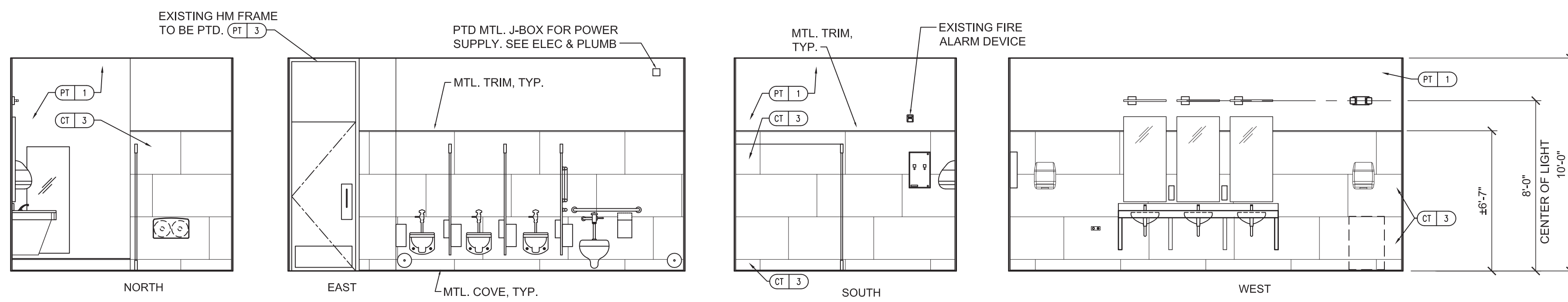
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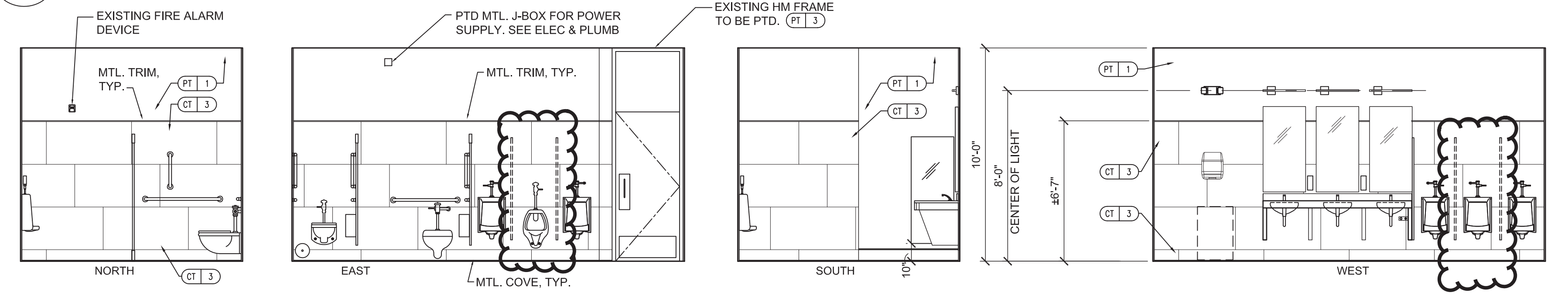


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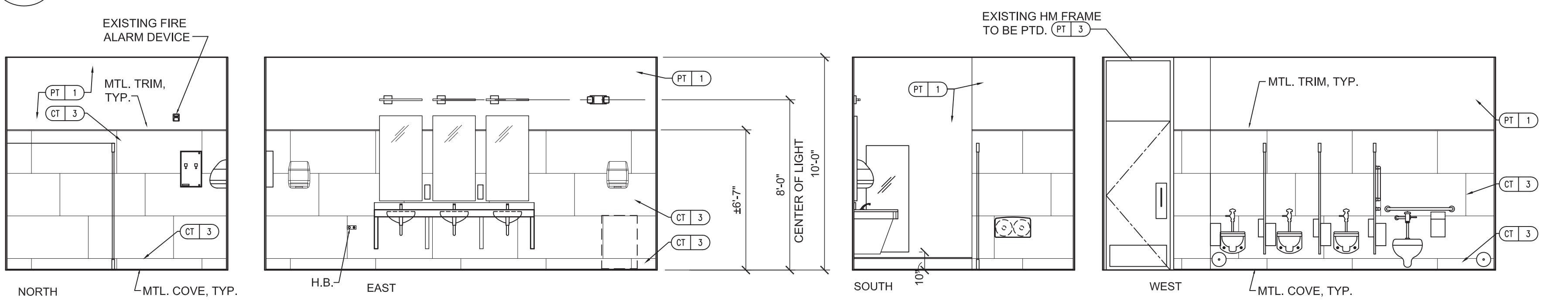
**4 INTERIOR ELEVATION WOMEN 124**

A402 SCALE: 1/4" = 1'-0"



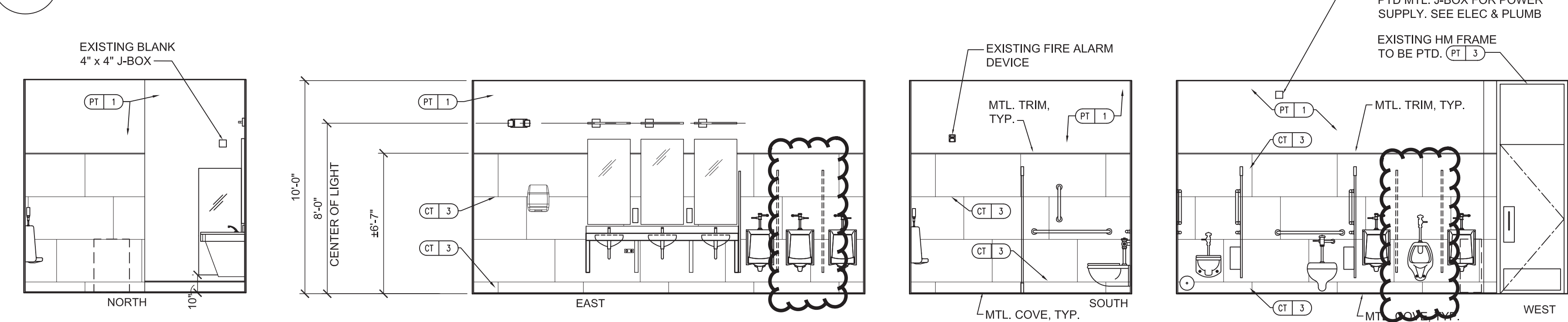
**3 INTERIOR ELEVATION MEN 118**

A402 SCALE: 1/4" = 1'-0"



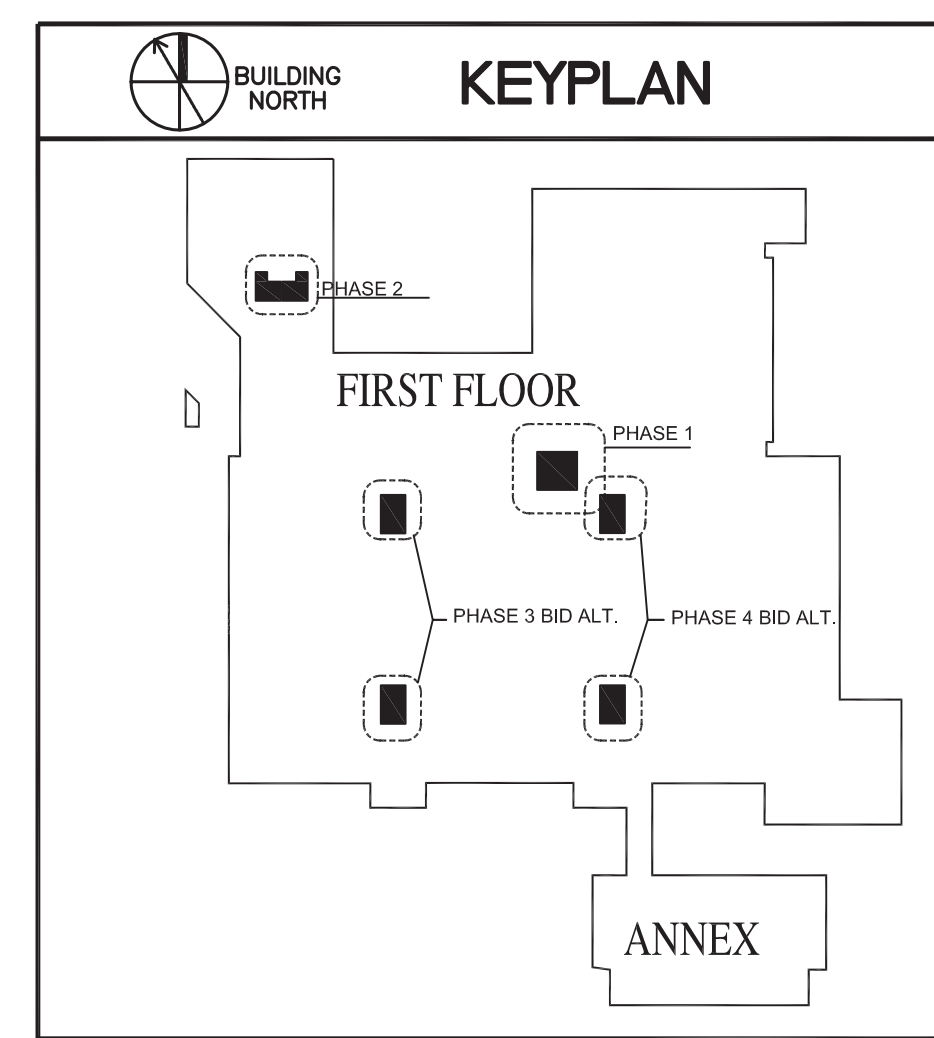
**2 INTERIOR ELEVATION WOMEN 108**

A402 SCALE: 1/4" = 1'-0"



**1 INTERIOR ELEVATION MEN 102**

A402 SCALE: 1/4" = 1'-0"

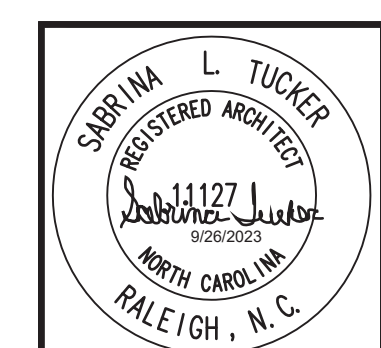


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**CONSTRUCTION DOCUMENT PHASE**

**NC STATE UNIVERSITY**

DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: S. TUCKER  
 CHECKED BY:  
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**NCSU - MCKIMMON CENTER RESTROOM RENOVATIONS**  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

**RENOVATION INTERIOR ELEVATIONS BID ALTERNATES**

SHEET No.

**A402** of

Total Sheets: 00

Designer Proj. No. 142814

NCSU Proj. No. 202220029

FAC. NAME

**MCKIMMON CENTER**

FAC. NO. 129

**CAPITAL PROJECT MANAGEMENT**  
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Date: Tue, 25 Sep 2023 10:15:00 AM  
 User: Sabrina Tucker  
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### FINISH SCHEDULE

NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	SPECIAL NOTES	
				FIN	FIN	NORTH	EAST			SOUTH
102	MEN		CT-1, CT-2	CT-3	PT-1, CT-3	PT-1, CT3	PT-1, CT3	PT-1, CT3	PT-2	PT-3 INTERIOR HM FRAME SIDE PT-4 PUBLIC HM FRAME SIDE
108	WOMEN		CT-1, CT-2	CT-3	PT-1, CT-3	PT-1, CT3	PT-1, CT3	PT-1, CT3	PT-2	
118	MEN		CT-1, CT-2	CT-3	PT-1, CT-3	PT-1, CT3	PT-1, CT3	PT-1, CT3	PT-2	
124	WOMEN		CT-1, CT-2	CT-3	PT-1, CT-3	PT-1, CT3	PT-1, CT3	PT-1, CT3	PT-2	PT-3 INTERIOR HM FRAME SIDE PT-4 PUBLIC HM FRAME SIDE
122D	ALCOVE		CT-1, CT-2	CT-3	PT-1	PT-1	PT-1	PT-1	ACT-1	
122C	WOMEN		CT-1, CT-2	CT-3	PT-1, CT-3	PT-1, CT3	PT-1, CT3	PT-1, CT3	ACT-1	
149	WOMEN		CT-1, CT-2	CT-3	PT-1, CT-3	PT-1, CT3	PT-1, CT3	PT-1, CT3	-	EXISTING 12x12 ACT IN VESTIBULE TO BE REPAIRED
151	MEN		CT-1, CT-2	CT-3	PT-1, CT-3	PT-1, CT3	PT-1, CT3	PT-1, CT3	-	

### DOOR and FRAME SCHEDULE

NO.	DOOR		DOOR SIZE		FRAME		NOTES	HDWR SET	
	TYPE	MATL.	WIDTH	HGT.	TYPE	MATL.			
102	F	WD	±3'-0"	±7'-0"	F1	HM	1, 3, 5	1	
108	F	WD	±3'-0"	±7'-0"	F1	HM	1, 3, 5	1	
118	F	WD	±3'-0"	±7'-0"	F1	HM	1, 3, 5	1	
124	F	WD	±3'-0"	±7'-0"	F1	HM	1, 3, 5	1	
122D	-	-	3'-0"	7'-0"	F2	HM	2, 4, 6	-	
122C	F	WD	3'-0"	7'-0"	F2	HM	3, 6	3	
149	EXISTING TO REMAIN								3
151	EXISTING TO REMAIN								3

#### DOOR TYPE

F

#### FRAME TYPE

F1

F2

#### DOOR NOTES

- ADD AUTO DOOR OPERATOR AND ACTUATOR BUTTONS, MAX 48" A.F.F.. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL. PROVIDE AND INSTALL WIRE-MOLD TO CONCEAL SURFACE MOUNTED WIRES TO ACTUATORS.
- HM FRAME CASSED OPENING.
- ALL NEW DOORS TO BE FLUSH, 1 3/4" THICK.
- ALL NEW HOLLOW METAL FRAMES TO BE 5 3/4" BUTT WITH ANCHORS FOR EXISTING MASONRY. RECESS AND PATCH (BONDO) TO CONCEAL ANCHORS.
- WHERE NEW DOORS ARE SET IN EXISTING FRAMES, CAREFULLY FIELD MEASURE FRAMES TO ENSURE COMPATIBILITY. ALLOW FOR THICKNESS OF NEW FLOORING AND THRESHOLD.
- SEE DOOR DETAILS DH1, DJ1 AND DS1.

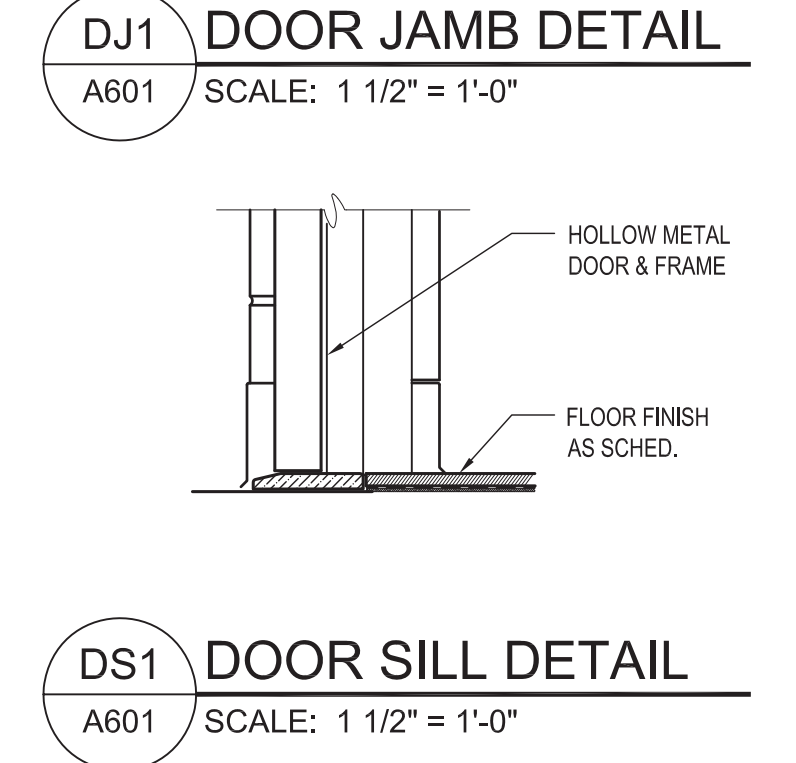
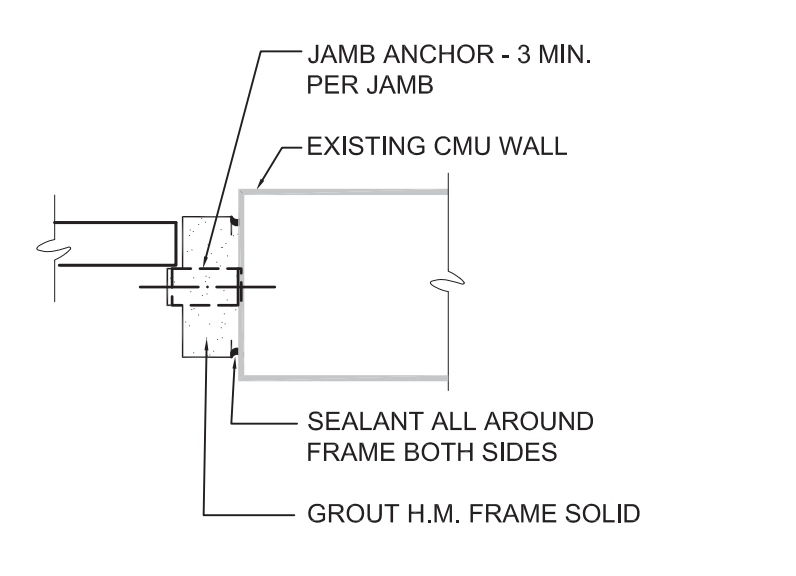
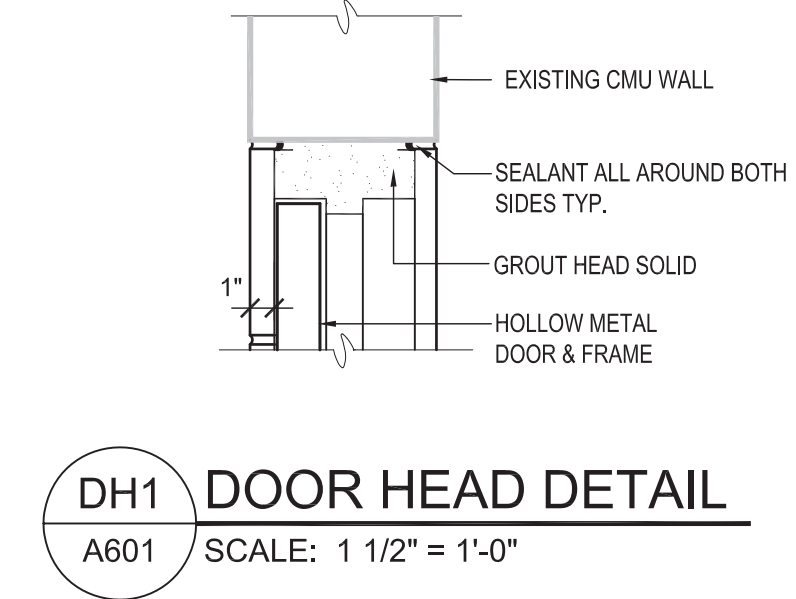
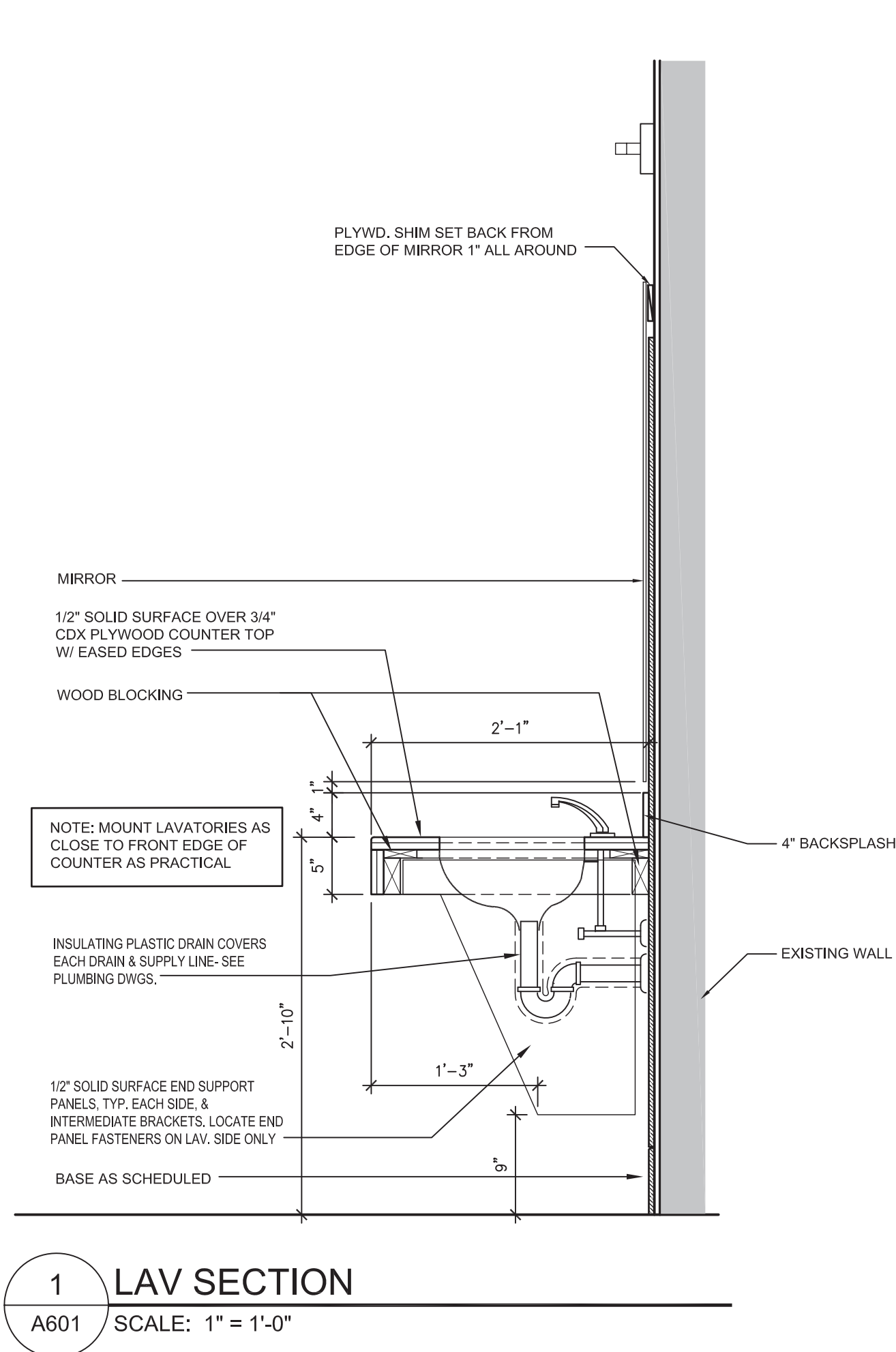
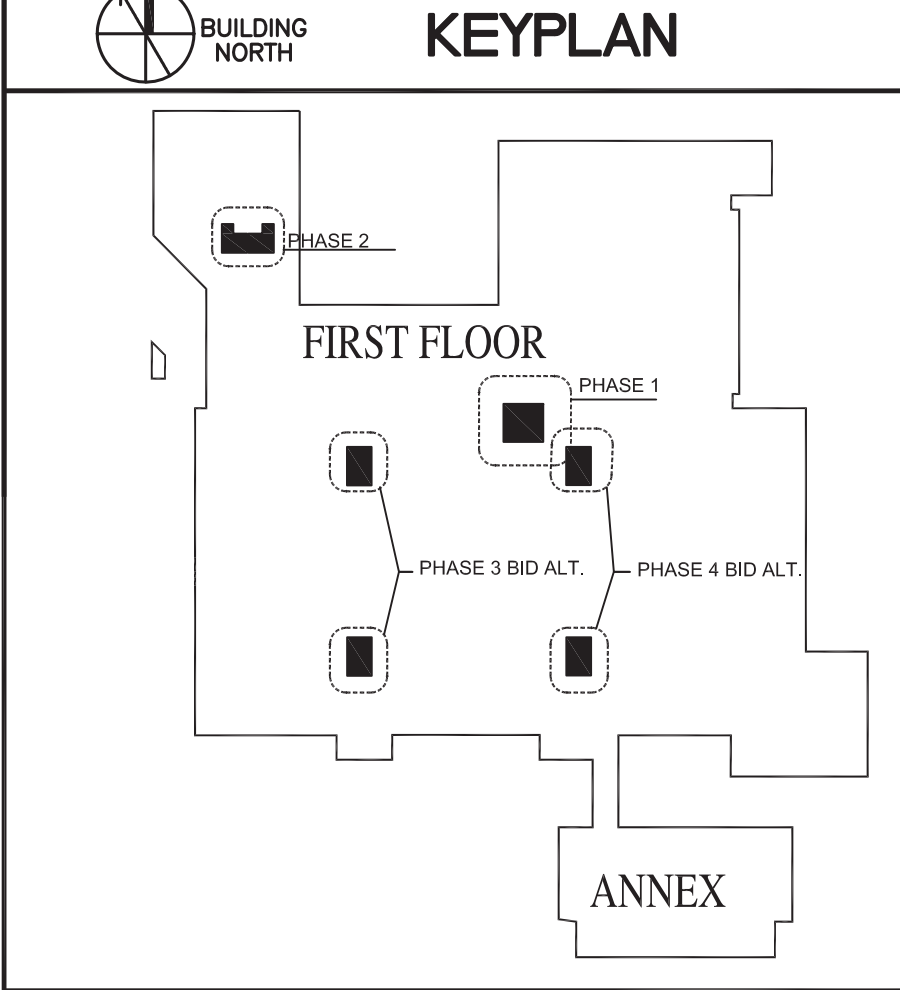
- ### FINISH NOTES
- CAULK BOTH SIDES OF ALL NEW AND EXISTING HM DOOR FRAMES AFFECTED BY THE WORK.
  - REFER TO 09 60 00 SCHEDULE FOR FINISHES IN SPECIFICATIONS.

#### LEGEND:

- EXISTING WALLS TO REMAIN
- NEW PARTITIONS
- EXISTING DOOR TO REMAIN
- NEW OR REUSED DOOR
- TOILET  
128
- ROOM NAME/NUMBER

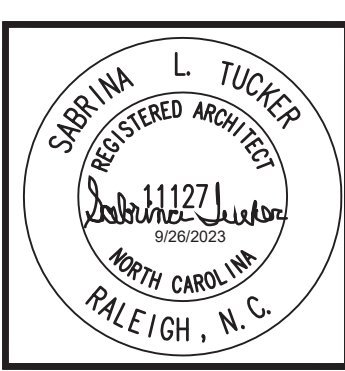
#### ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	PLAM	PLASTIC LAMINATE
ALUM	ALUMINUM	PORC	PORCELAIN TILE
CL	CHAIN LINK	PLYWD	PLYWOOD
CPT	CARPET	RES	RESINOUS FLOORING
CMU	CONCRETE MASONRY UNIT	RB	RUBBER BASE
CONC	CONCRETE	R	RESINOUS BASE
DNS	DENSIFIER	RF	RESILIENT FLOORING
EPX	EPOXY FLOORING	S	SEALED CONCRETE
EXIST	EXISTING	SSM	SOLID SURFACE MATERIAL
EXP	EXPOSED CONSTRUCTION	STN	STONE
FF	FACTORY FINISH	TZT	TERRAZZO TILES
FRP	FIBER-REINFORCED PLASTIC	WD	WOOD
GT	GLASS TILE	WLC	WALLCOVERING
GWB	GYPSPUM WALL BOARD	WMP	WIRE MESH PARTITION
LVT	LUXURY VINYL TILE	WOM	WALK-OFF MAT
MLP	METAL LINER PANEL		
OP	OPERABLE PARTITION		
PT	PAIN		



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 CAPITAL PROJECT MANAGEMENT  
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 DRAWN BY: S. TUCKER  
 CHECKED BY: S. TUCKER  
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**NCSU - McKIMMON CENTER RESTROOM RENOVATIONS**  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

**DOOR and FINISH SCHEDULES HJS DETAILS**

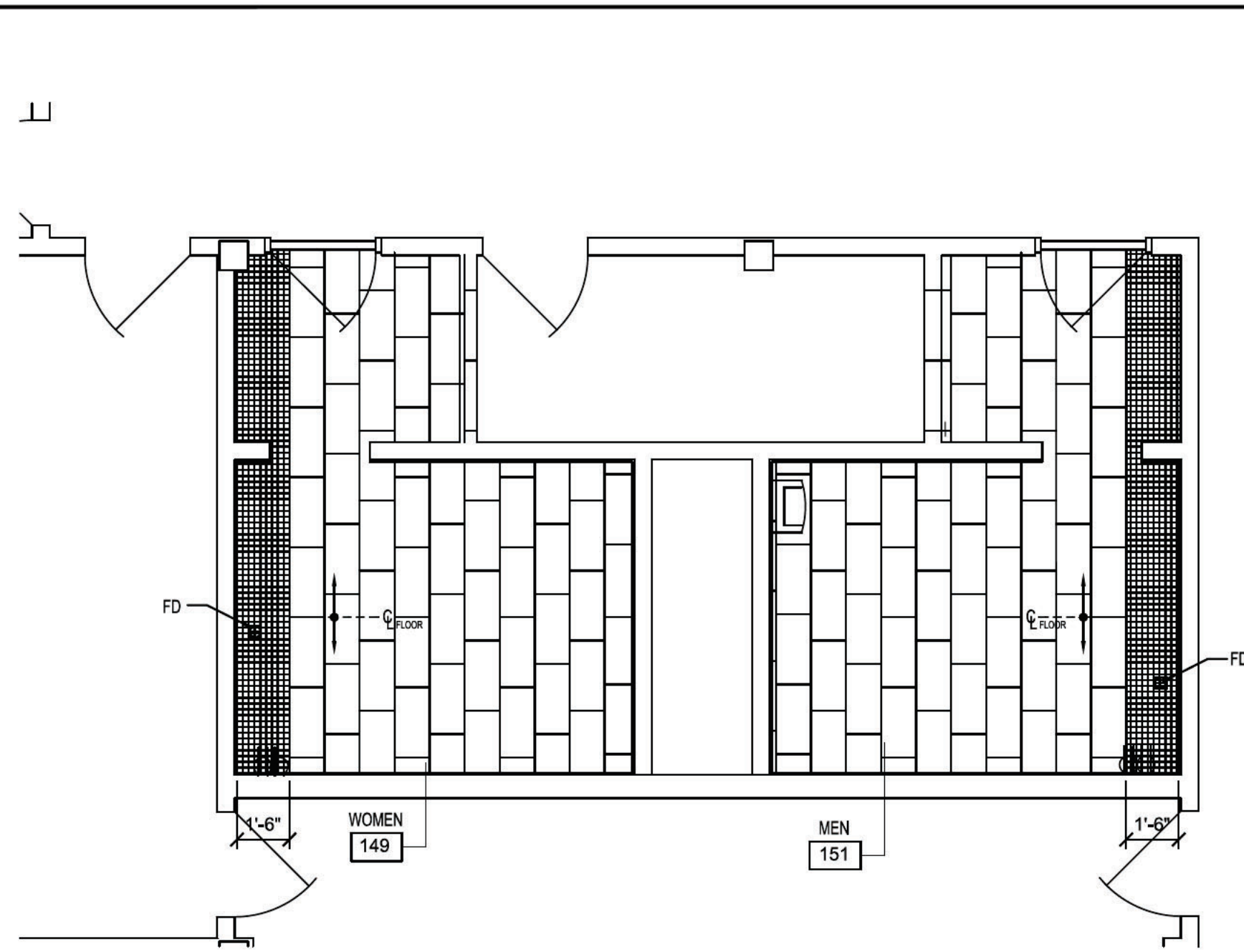
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 NCSU Proj. No. 202220029

FAC. NAME **McKIMMON CENTER**  
 FAC. NO. **129**

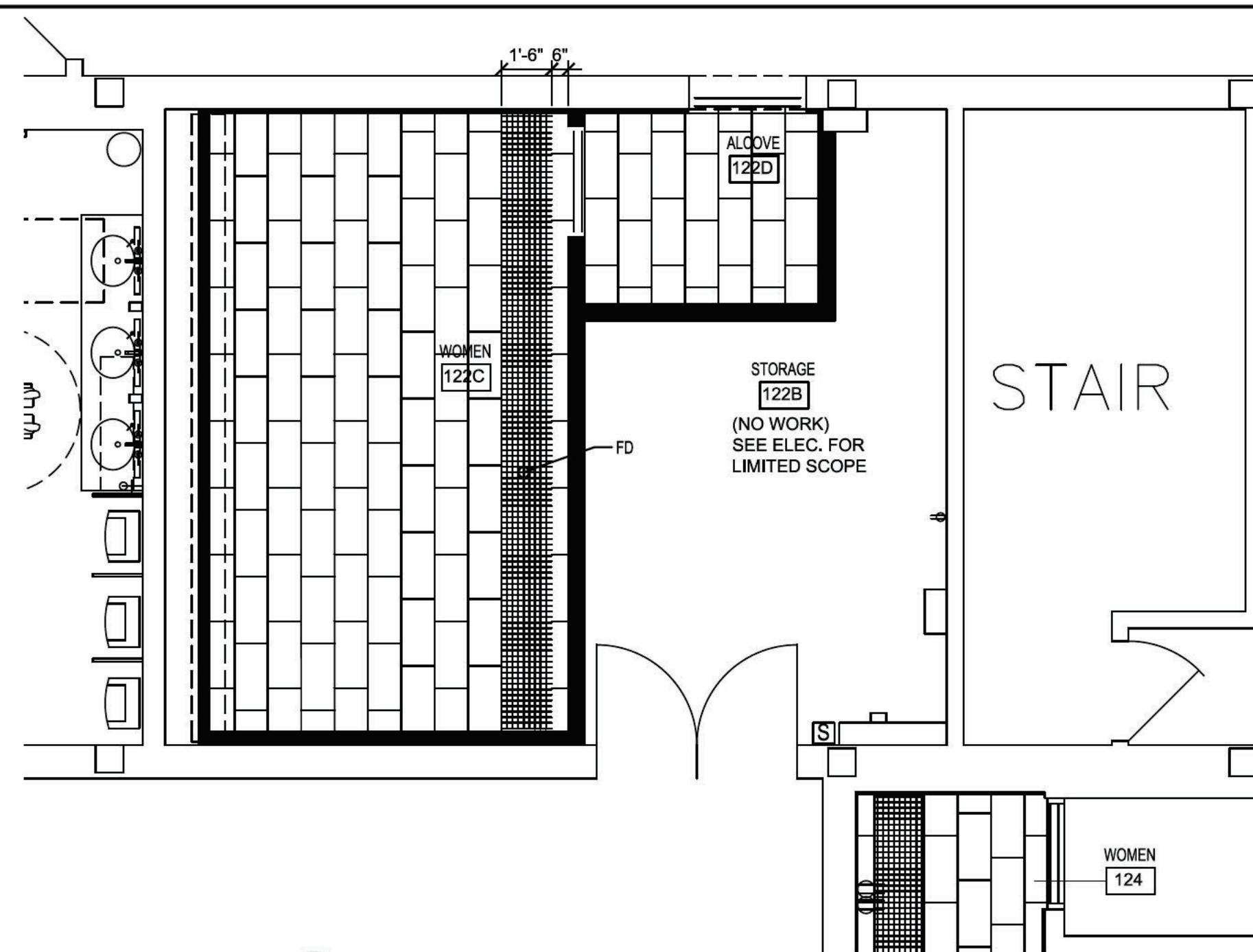
Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership  
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 Raleigh NC 27601 USA  
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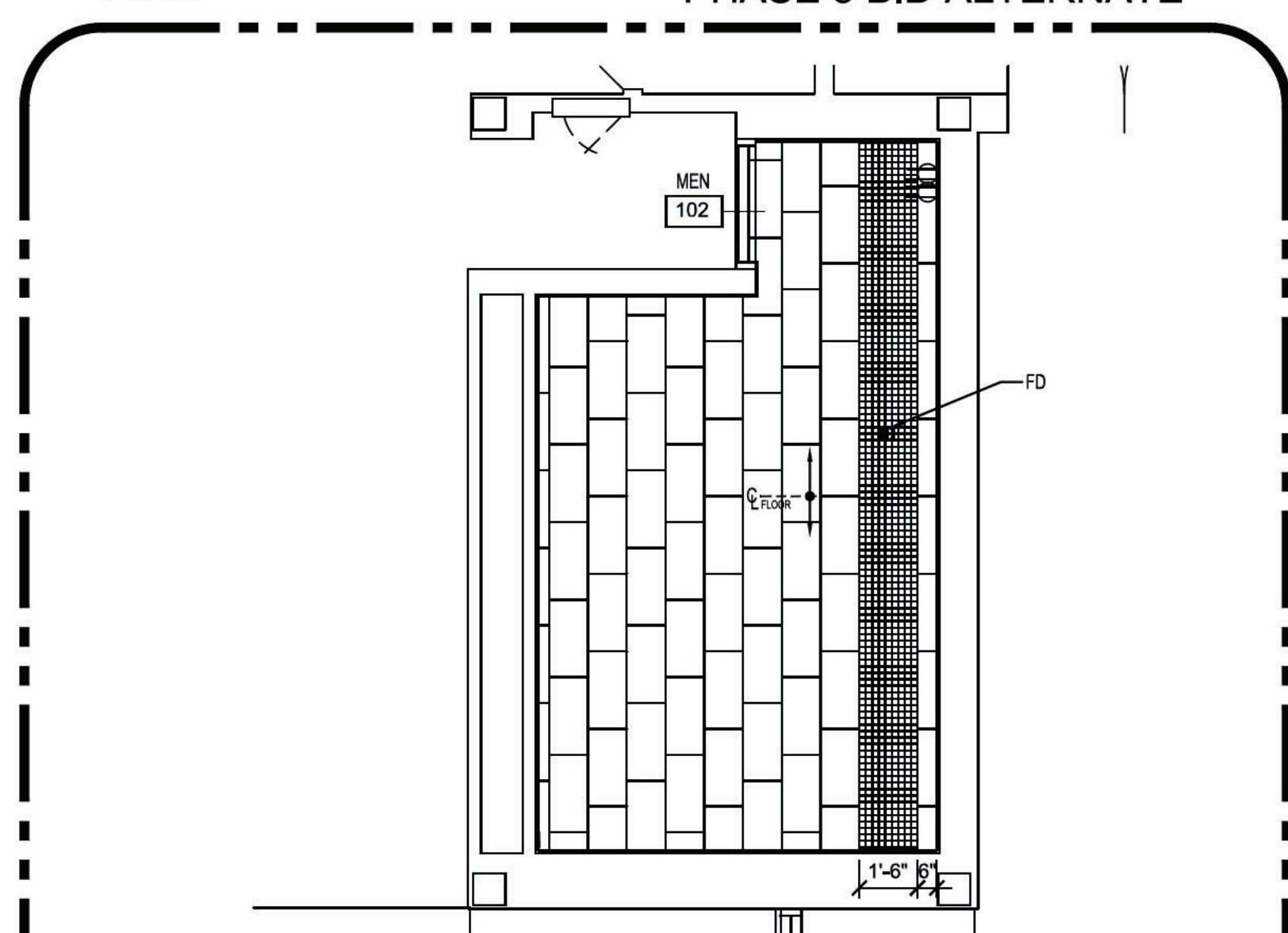




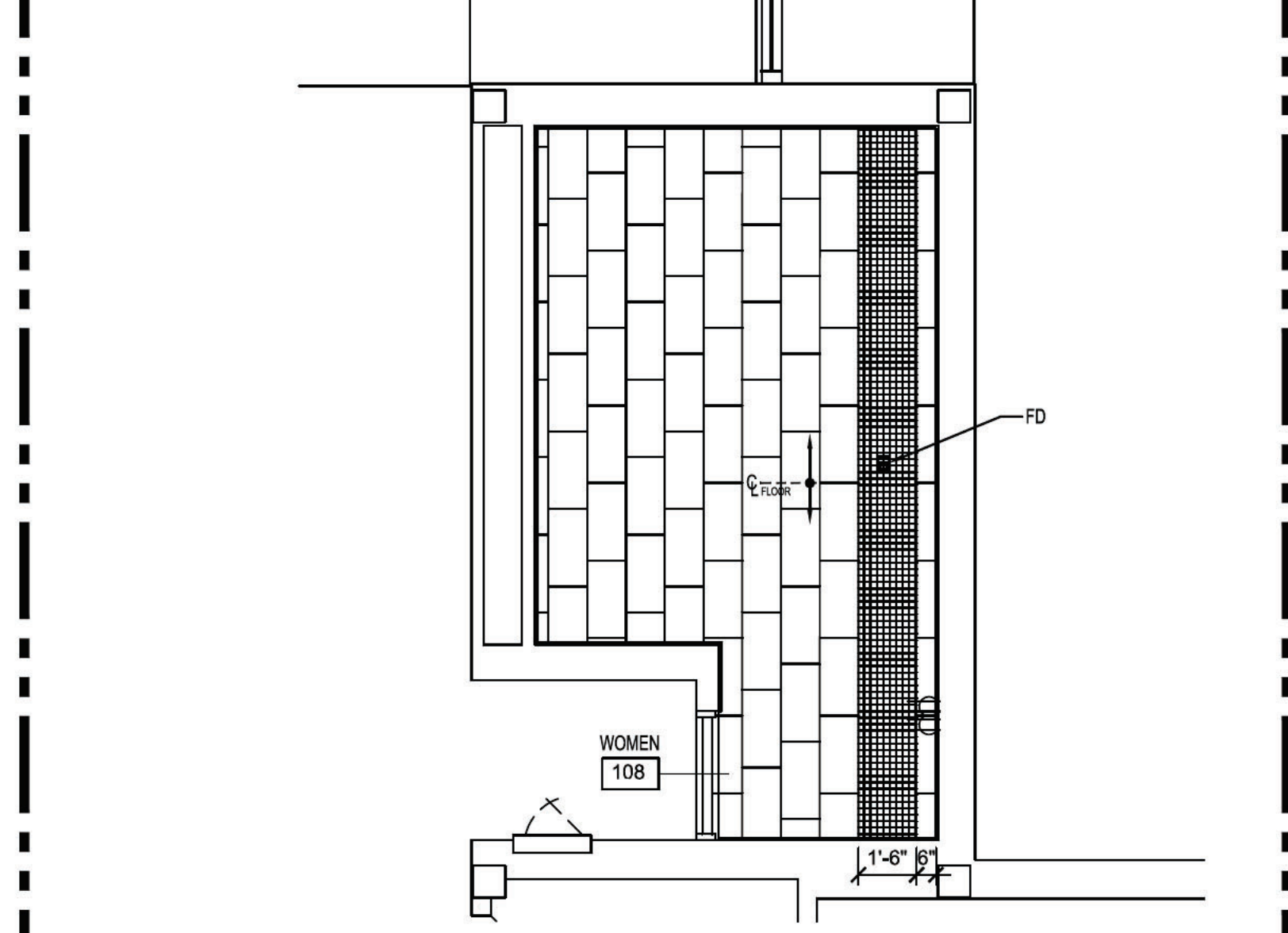
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 1 RENO PLAN MEN 151  
 A701 SCALE: 1/4" = 1'-0"  
 NORTH



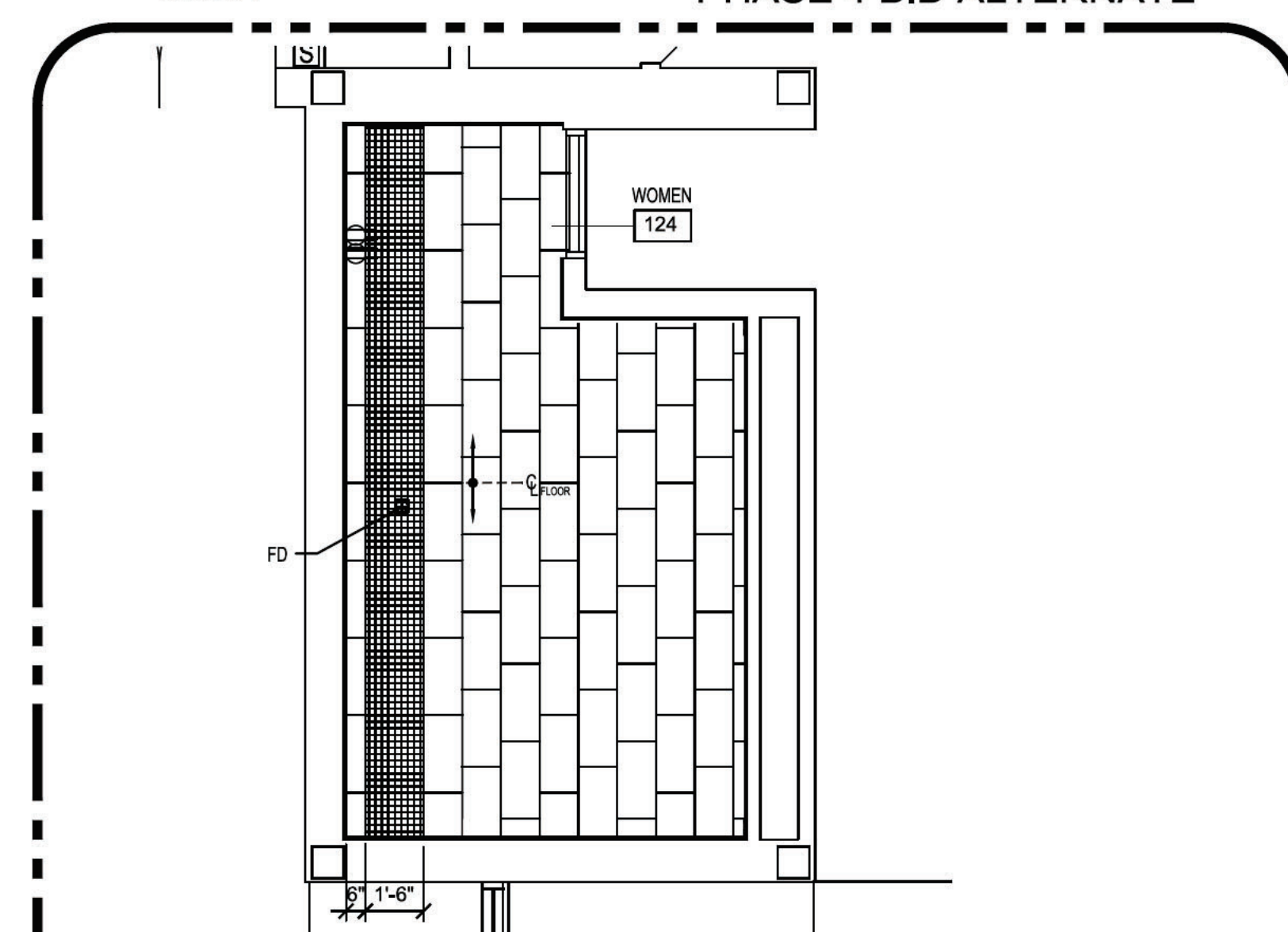
4 RENO PLAN STORAGE 122C  
 A701 SCALE: 1/4" = 1'-0"  
 NORTH



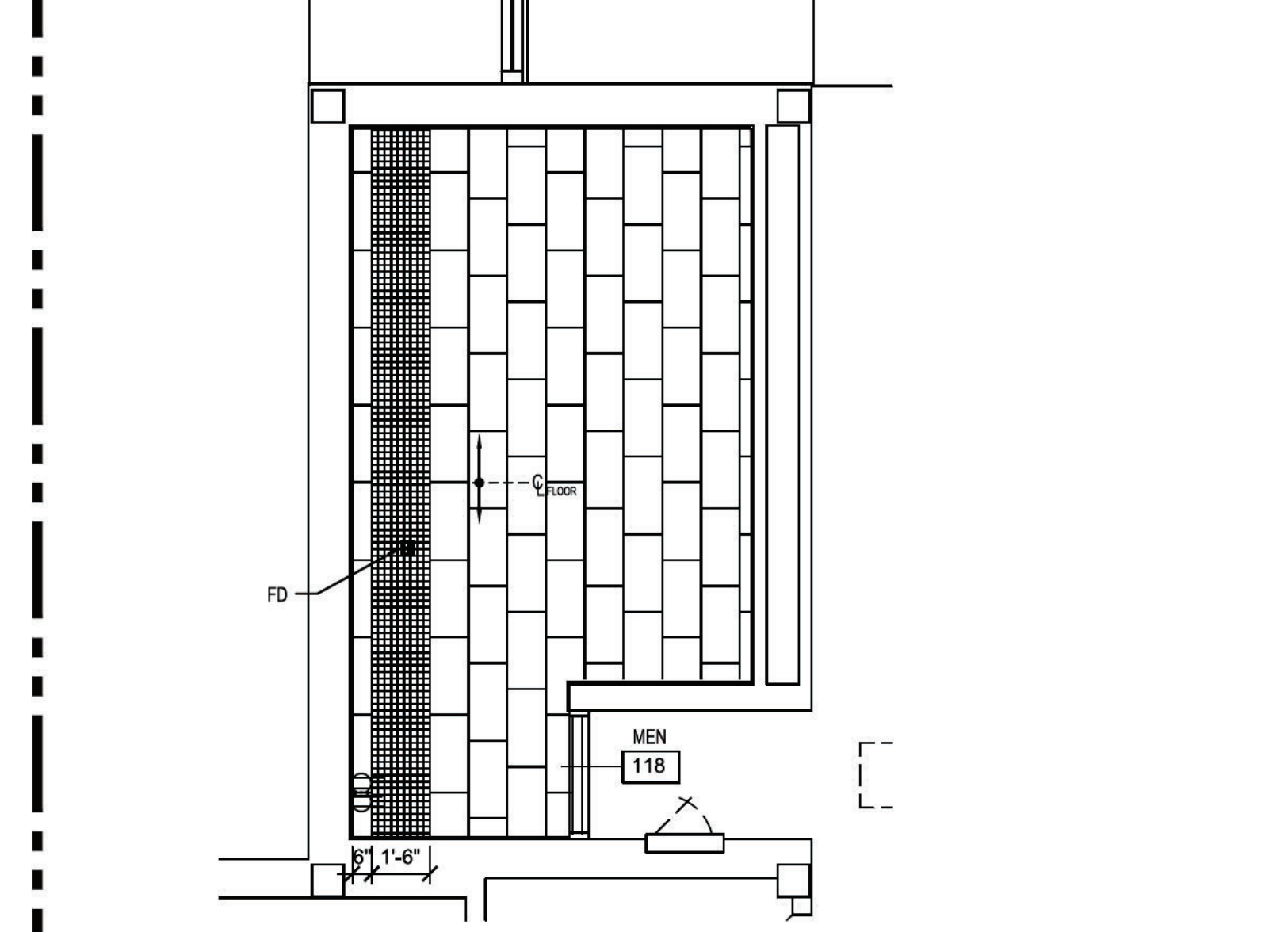
2 RENO PLAN MEN 102  
 A171 SCALE: 1/4" = 1'-0"  
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3 RENO PLAN WOMEN 108  
 A701 SCALE: 1/4" = 1'-0"  
 NORTH



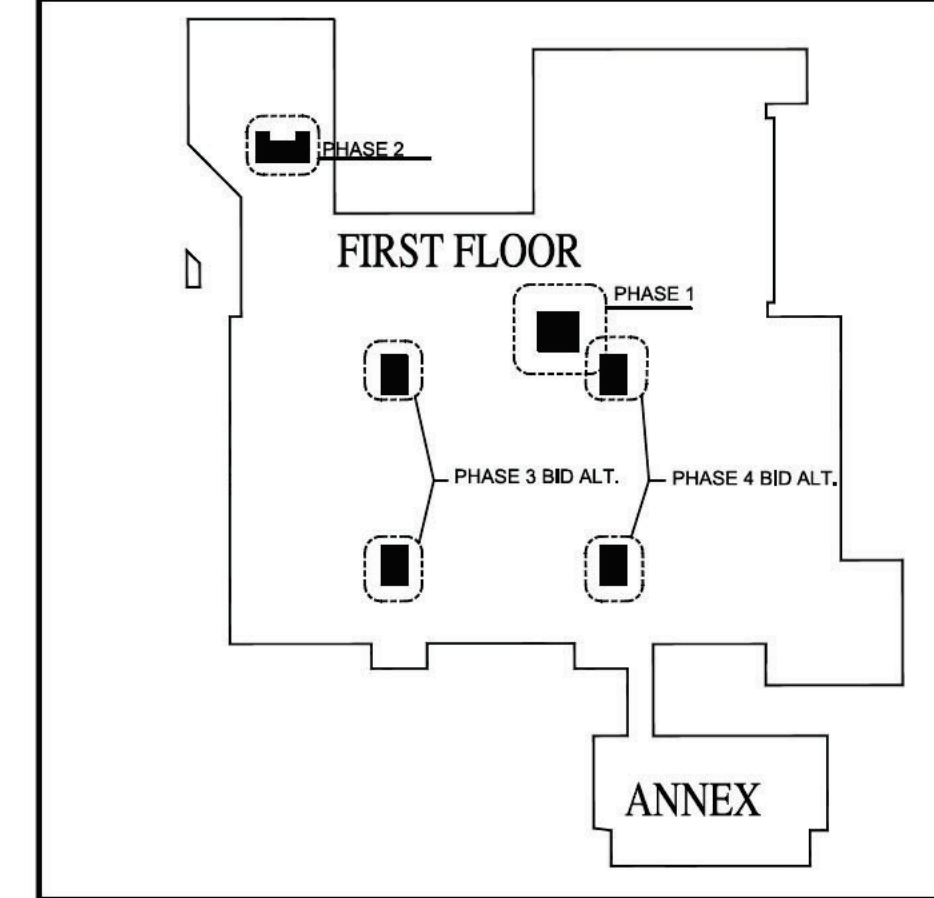
5 RENO PLAN WOMEN 124  
 A701 SCALE: 1/4" = 1'-0"  
 NORTH



6 RENO PLAN MEN 118  
 A701 SCALE: 1/4" = 1'-0"  
 NORTH

**LEGEND:**

- EXISTING WALLS TO REMAIN
- NEW PARTITIONS
- EXISTING DOOR TO REMAIN
- NEW OR REUSED DOOR
- TOILET
- ROOM NAME/NUMBER

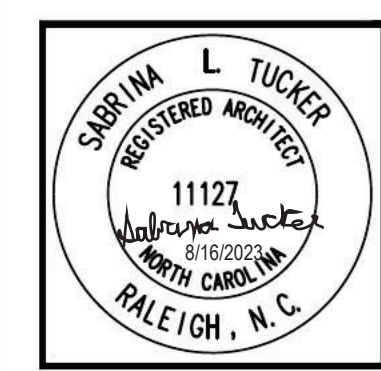


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DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
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**NCSU - McKIMMON CENTER RESTROOM RENOVATIONS**  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

**RENOVATION ENLARGED FLOORING PLANS**

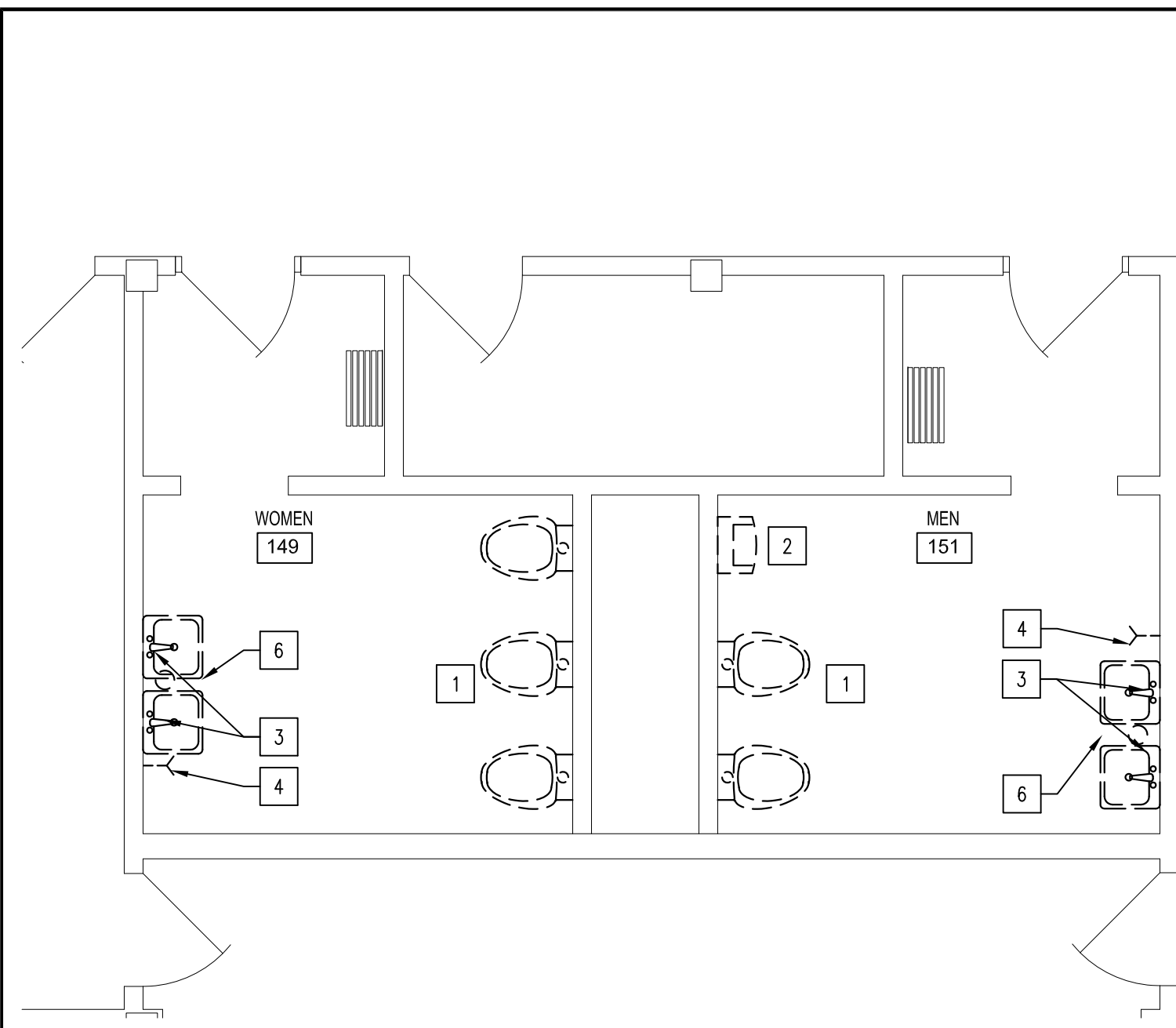
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 Total Sheets: 00

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 NCSU Proj. No. 202220029

FAC. NAME  
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 FAC. NO. 129

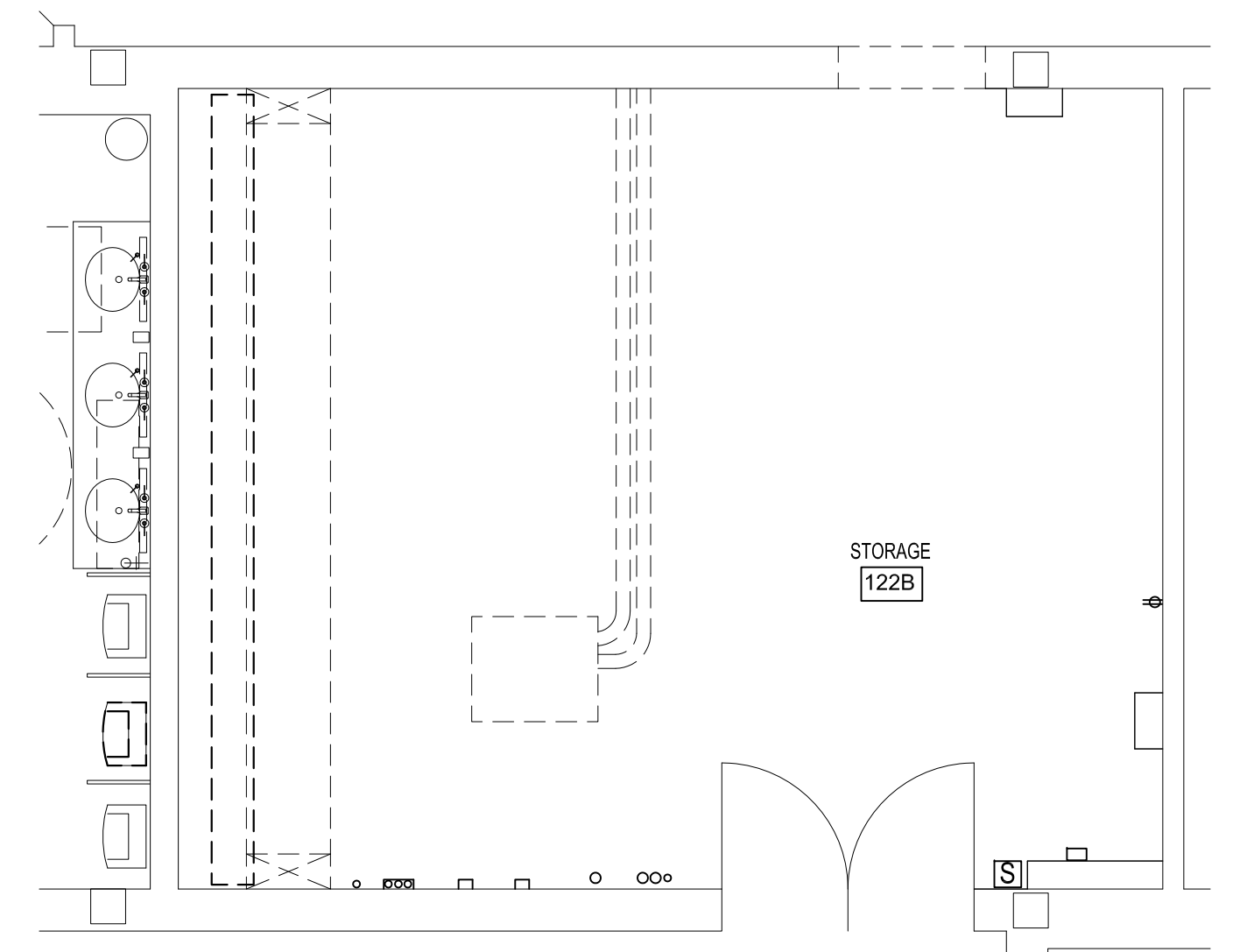
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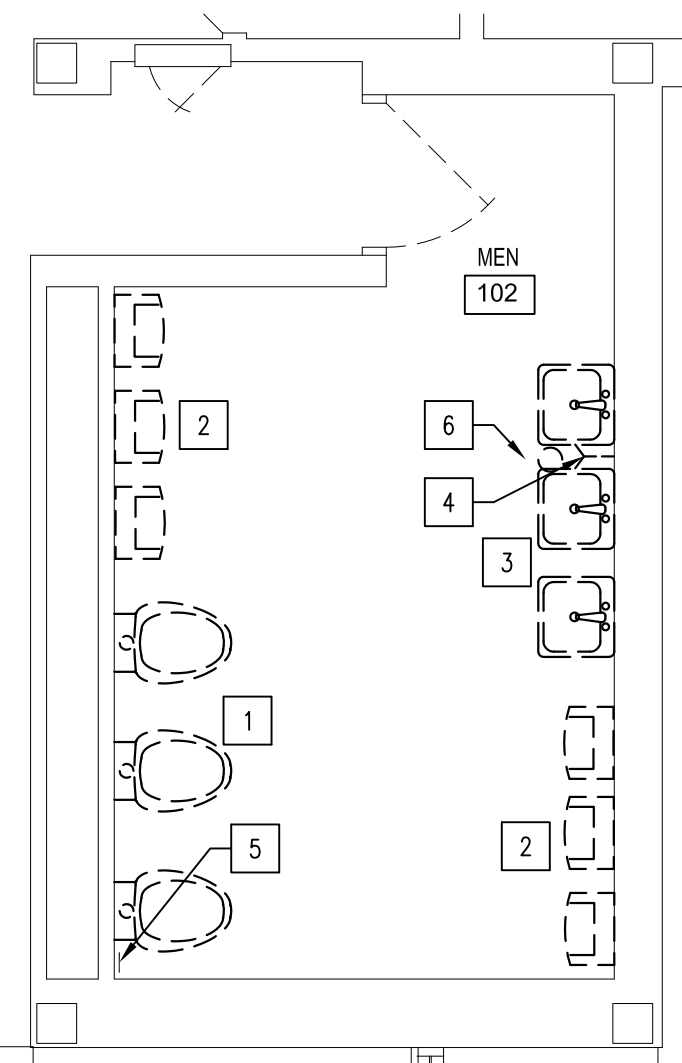
**1 DEMO PLAN WOMEN 149  
DEMO PLAN MEN 151**

PD101 SCALE: 1/4" = 1'-0"



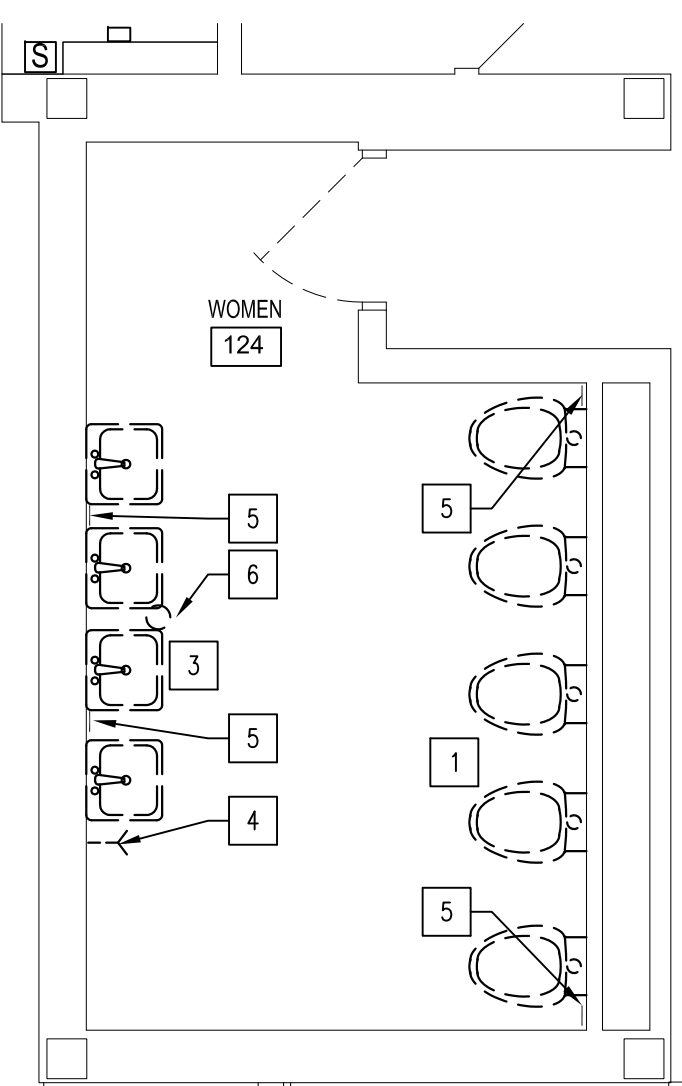
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PD101 SCALE: 1/4" = 1'-0"



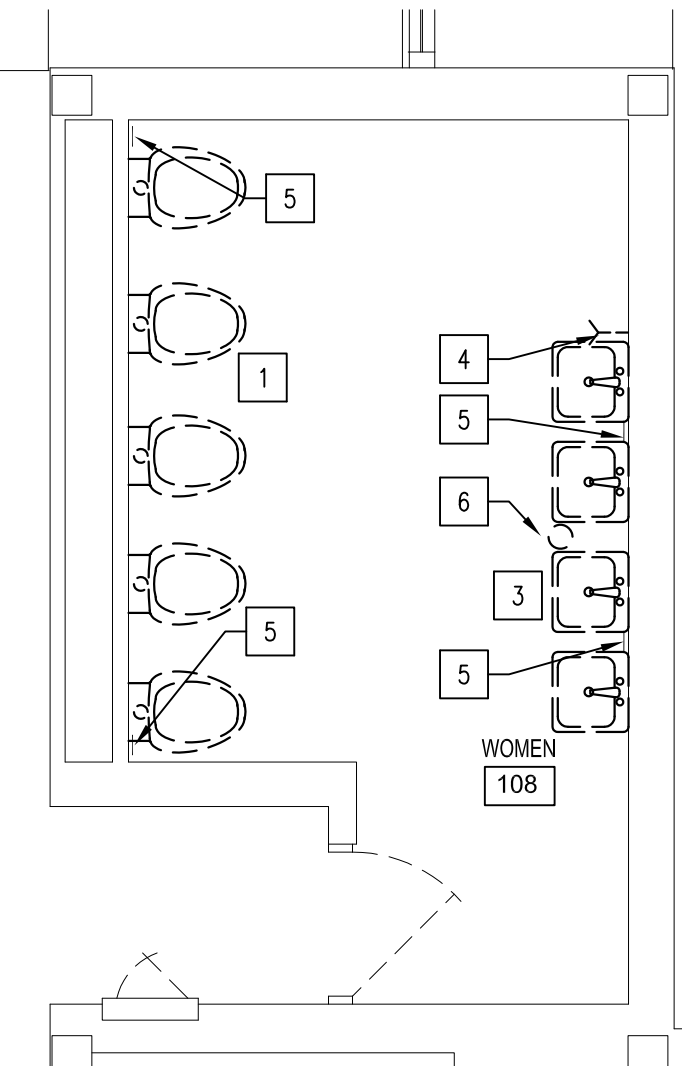
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DEMO PLAN MEN 102**

PD101 SCALE: 1/4" = 1'-0"



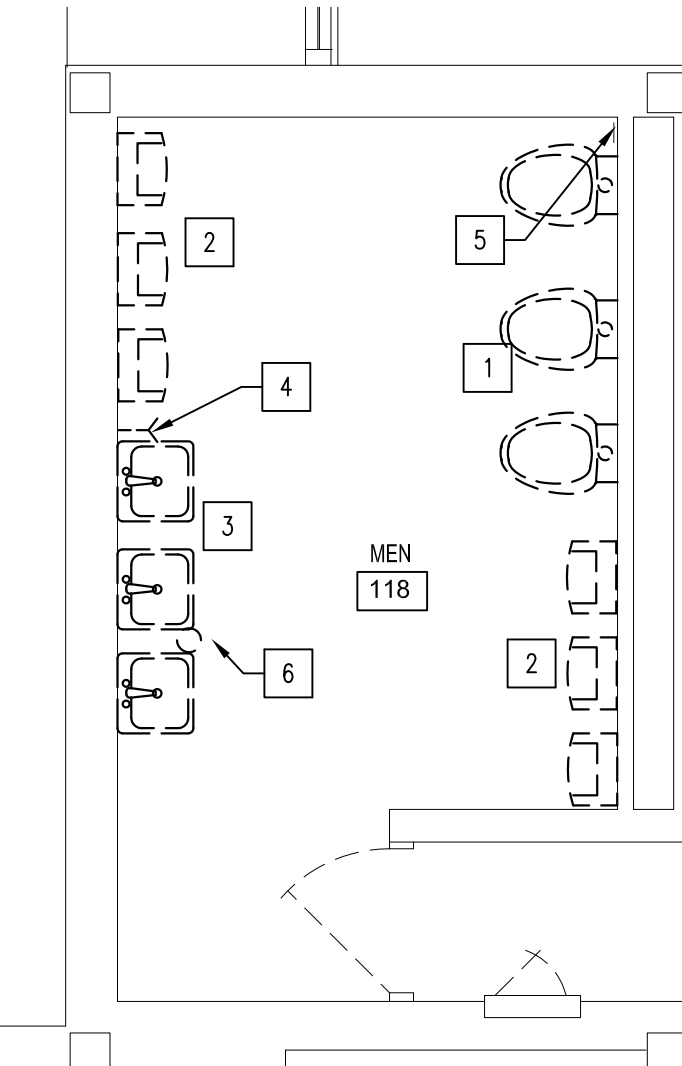
**5 PHASE 4 BID ALTERNATE  
DEMO PLAN WOMEN 124**

PD101 SCALE: 1/4" = 1'-0"



**3 PHASE 3 BID ALTERNATE  
DEMO PLAN WOMEN 108**

PD101 SCALE: 1/4" = 1'-0"



**6 PHASE 4 BID ALTERNATE  
DEMO PLAN MEN 118**

PD101 SCALE: 1/4" = 1'-0"

**PLUMBING GENERAL NOTES**

1. THESE DRAWINGS ARE DONE ACCORDING TO THE BEST AVAILABLE KNOWLEDGE. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DEVIATION FROM THE PLANS PRIOR TO THE BEGINNING OF THE WORK.
2. CONTRACTOR SHALL TAKE THE PROPER CARE IN PROTECTING EXISTING SURFACES OF BUILDING FROM DAMAGE DURING DEMOLITION AND NEW CONSTRUCTION. REPAIR ANY DAMAGE TO MATCH EXISTING.
3. CONTRACTOR SHALL TURN OVER TO THE OWNER ANY DEMOLISHED ITEMS OR EQUIPMENT THAT THE OWNER DESIRES. CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL OTHER MATERIALS AND EQUIPMENT TO BE DEMOLISHED.
4. CONTRACTOR SHALL PROPERLY TERMINATE ALL DEMOLISHED ITEMS, CAP PIPING SYSTEMS THAT REMAIN IN SERVICE OR ARE ABANDONED IN PLACE, AND ENSURE DRAINS THAT WILL NO LONGER BE IN USE ARE SEALED.
5. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL TRADE TO FINISH ALL WALL AND FLOOR OPENINGS CREATED FOR PIPING PENETRATION WORK.
6. ALL NEW PLUMBING IS TO BE CONCEALED WITHIN WALLS AND CEILING.

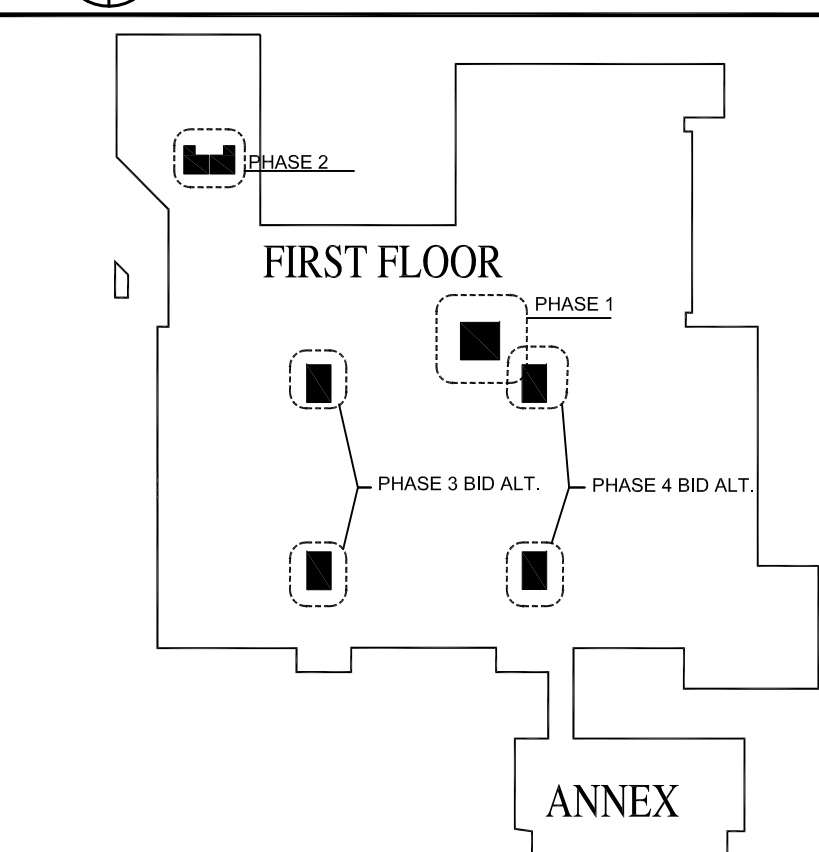
**PLUMBING DEMOLITION NOTES**

- |    |  |
|----|--|
| 1  | DISCONNECT AND REMOVE ALL EXISTING WATER CLOSETS, ASSOCIATED FLUSH VALVES AND WALL CARRIERS.                           |
| 2  | DISCONNECT AND REMOVE ALL EXISTING URINALS AND ASSOCIATED FLUSH VALVES, CUT OFF CARRIER BOLTS FLUSH WITH MASONRY WALL. |
| 3  | DISCONNECT AND REMOVE EXISTING LAVATORIES, ASSOCIATED FAUCETS, DRAINS AND SUPPLY TUBES.                                |
| 4  | REMOVE ALL EXISTING HOSE BIBBS LEAVING PIPING READY TO RECEIVE NEW BIBB.   |
| 5  | REMOVE ALL EXISTING CLEAN OUT COVERS ON WALL.  |
| 6  | REMOVE ALL EXISTING FLOOR DRAIN STRAINERS, LEAVING DRAINS READY TO RECEIVE NEW STRAINERS.                              |
| 7  | ALL EXISTING TO REMAIN.  |
| 8  | EXISTING FLOOR CLEAN OUT TO REMAIN ADJUST HEIGHT OF EXISTING CLEAN OUT AS REQUIRED TO COMPENSATE FOR NEW FLOOR HEIGHT. |
| 9  | COORDINATE W/ GC TO HAVE CONCRETE SLAB CUT OUT FOR NEW PLUMBING.   |
| 10 | REMOVE COLD AND HOT WATER SUPPLY PIPING ABOVE CEILING BACK TO NEAREST BRANCH AND CAP.                                  |

**LEGEND**

- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- POINT BETWEEN EXISTING WORK TO REMAIN AND EXISTING WORK TO BE REMOVED
- EXISTING WORK TO BE REMOVED
- ABG ABOVE GRADE
- EXIST. EXISTING WORK TO REMAIN

**KEYPLAN**

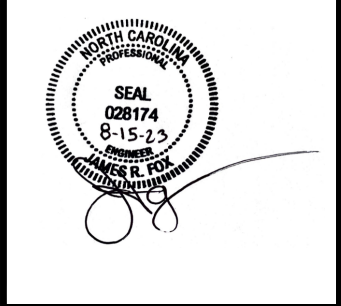


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421 Fayetteville Street  
Suite 1609  
Raleigh NC 27601 USA  
tel 919 851 4211  
arcadis.com

**CONSTRUCTION DOCUMENT PHASE**

**NC STATE UNIVERSITY**  
CAPITAL PROJECT MANAGEMENT  
\* BOX 7520 \* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
DESIGNER: -  
DRAWN BY: -  
CHECKED BY: -  
REVISIONS: -



**NCSU - McKIMMON CENTER  
RESTROOM RENOVATIONS**  
SCO ID # 22-25847  
CODE/ITEM # 42124/323

**PLUMBING  
DEMOLITION PLANS**

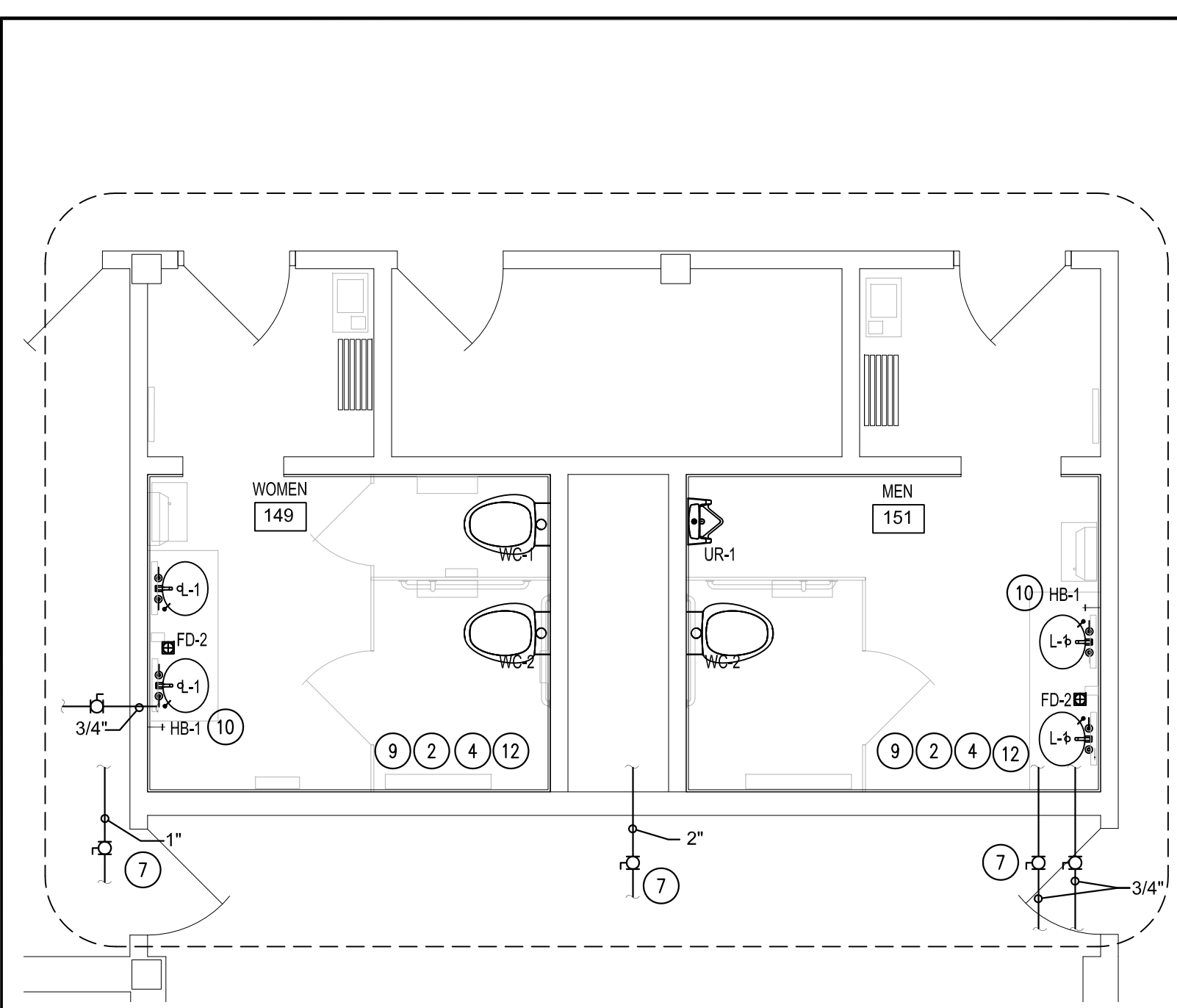
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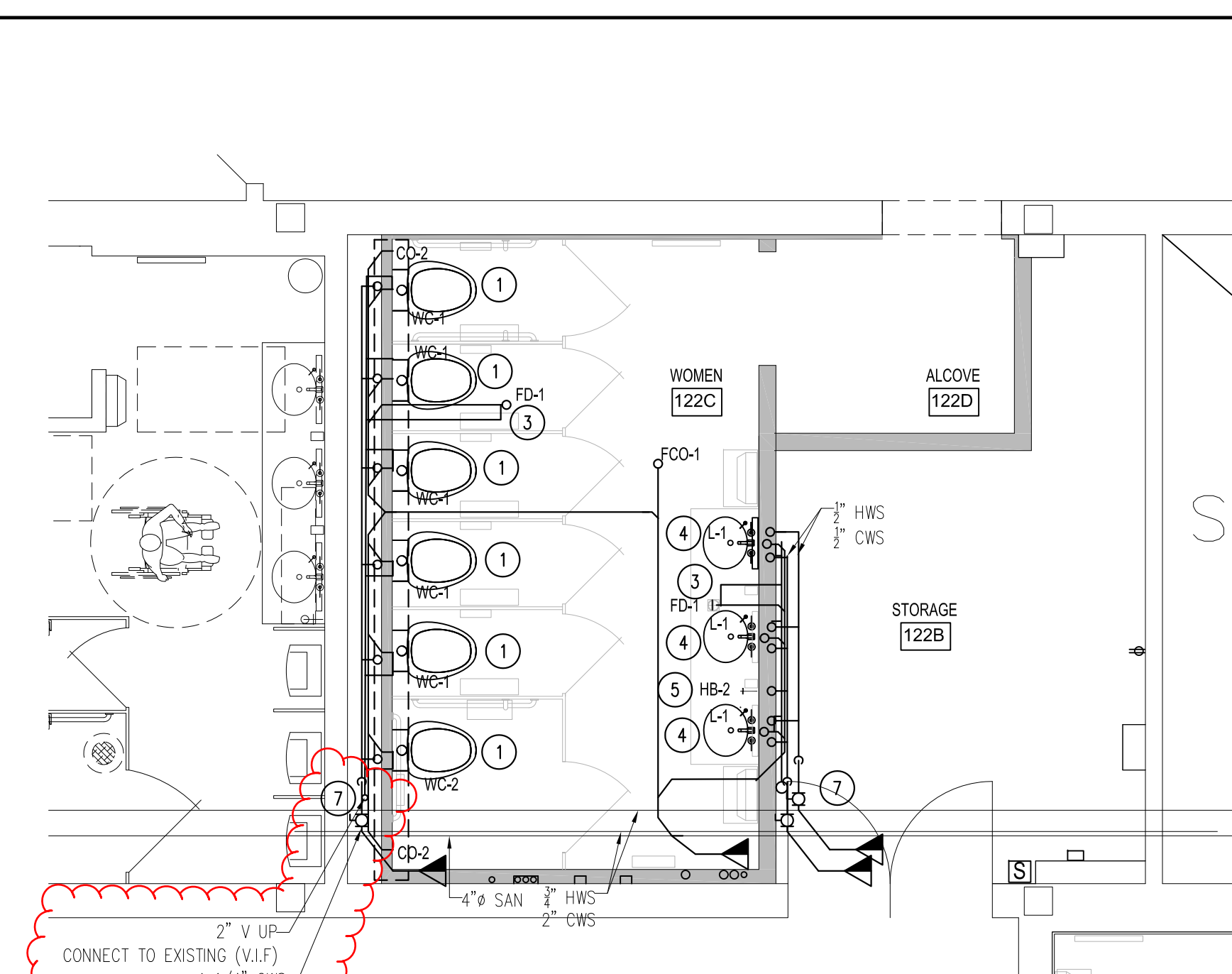
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CENTER**  
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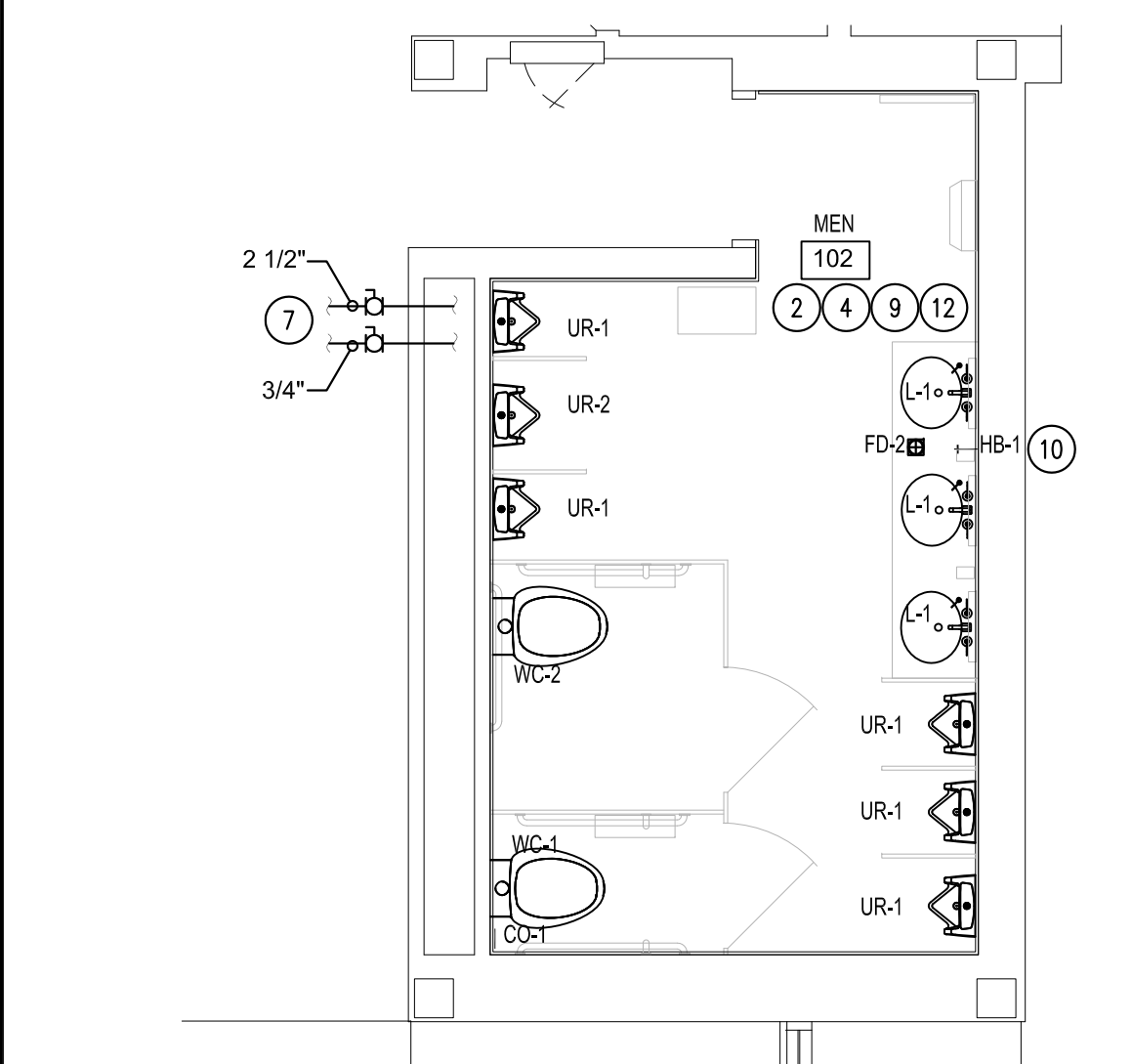




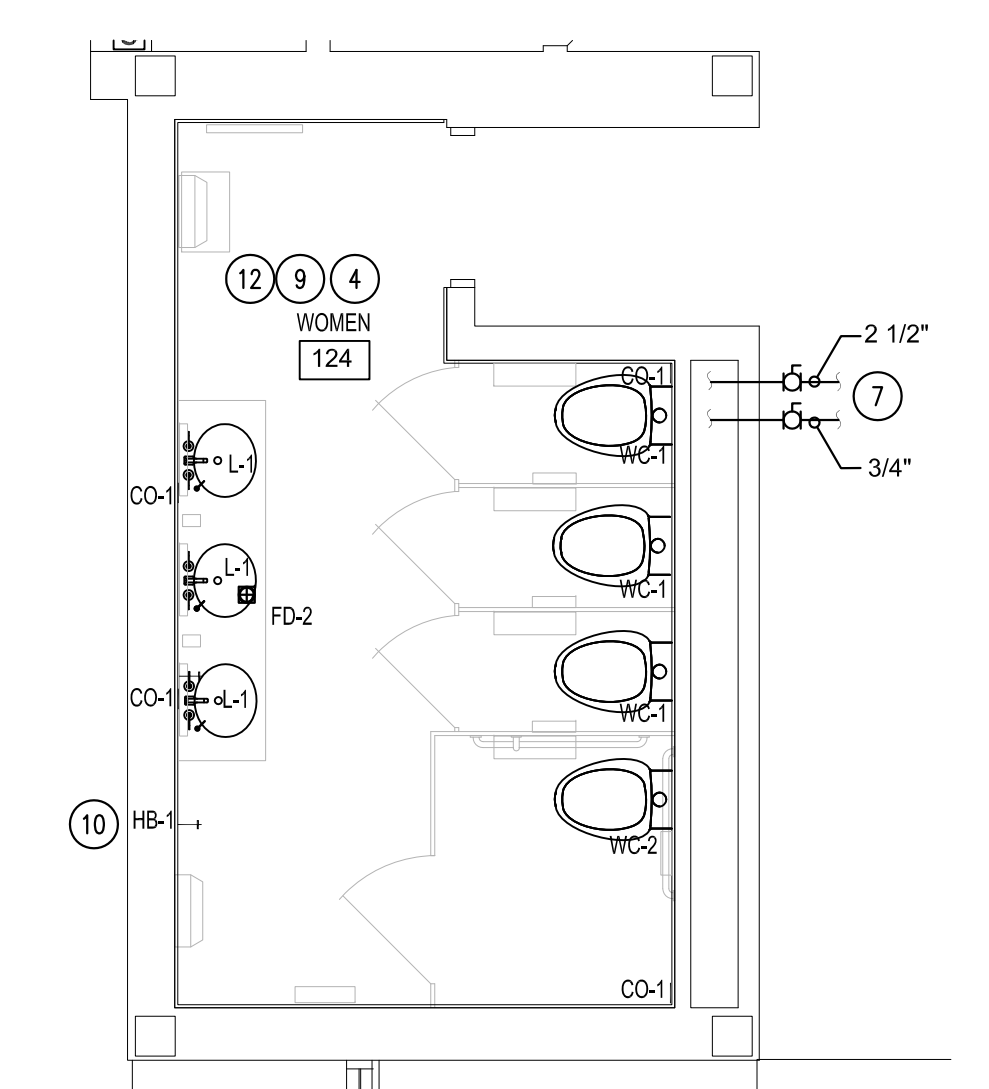
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RENO PLAN MEN 151**  
P101 SCALE: 1/4" = 1'-0"



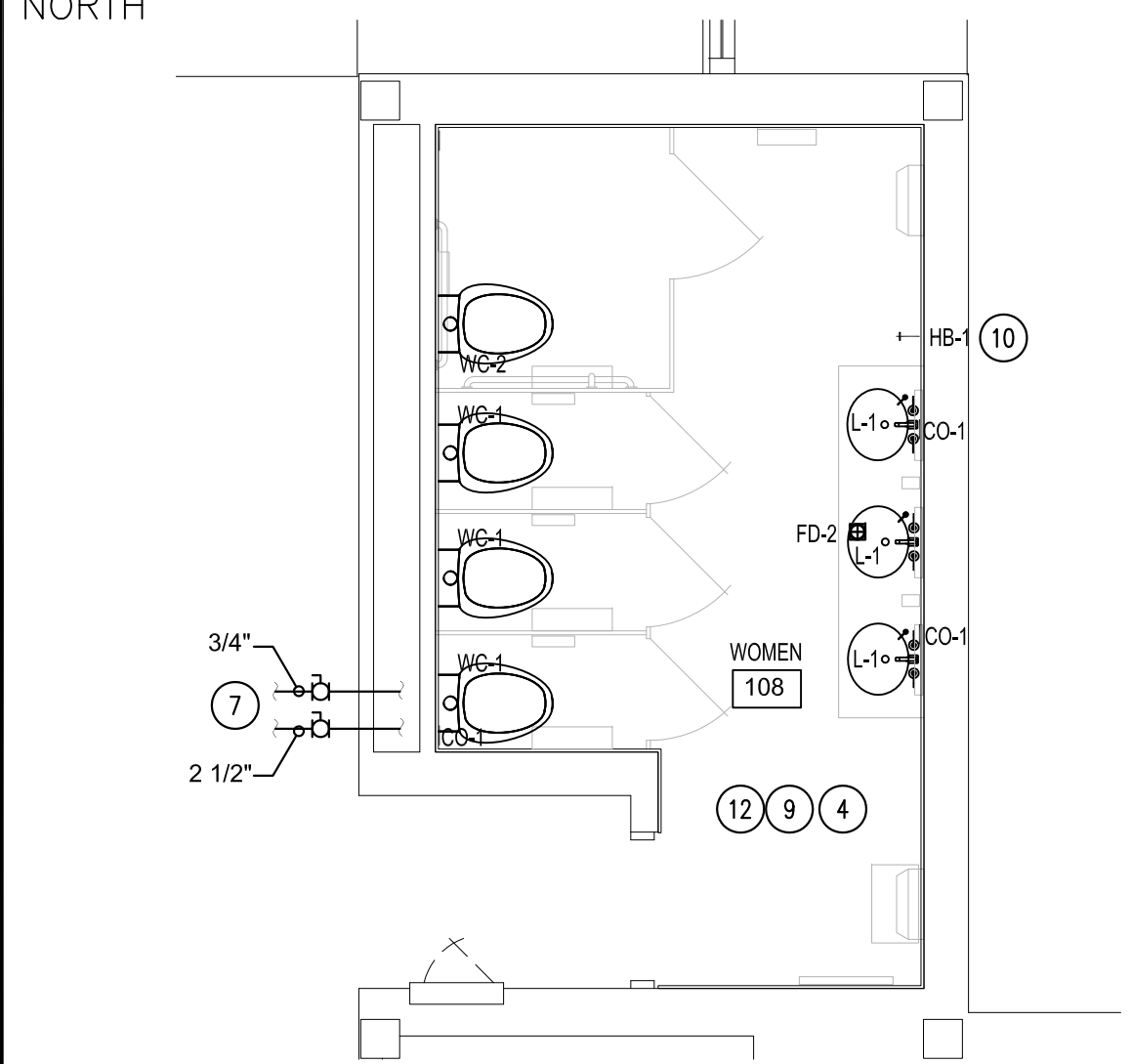
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P101 SCALE: 1/4" = 1'-0"



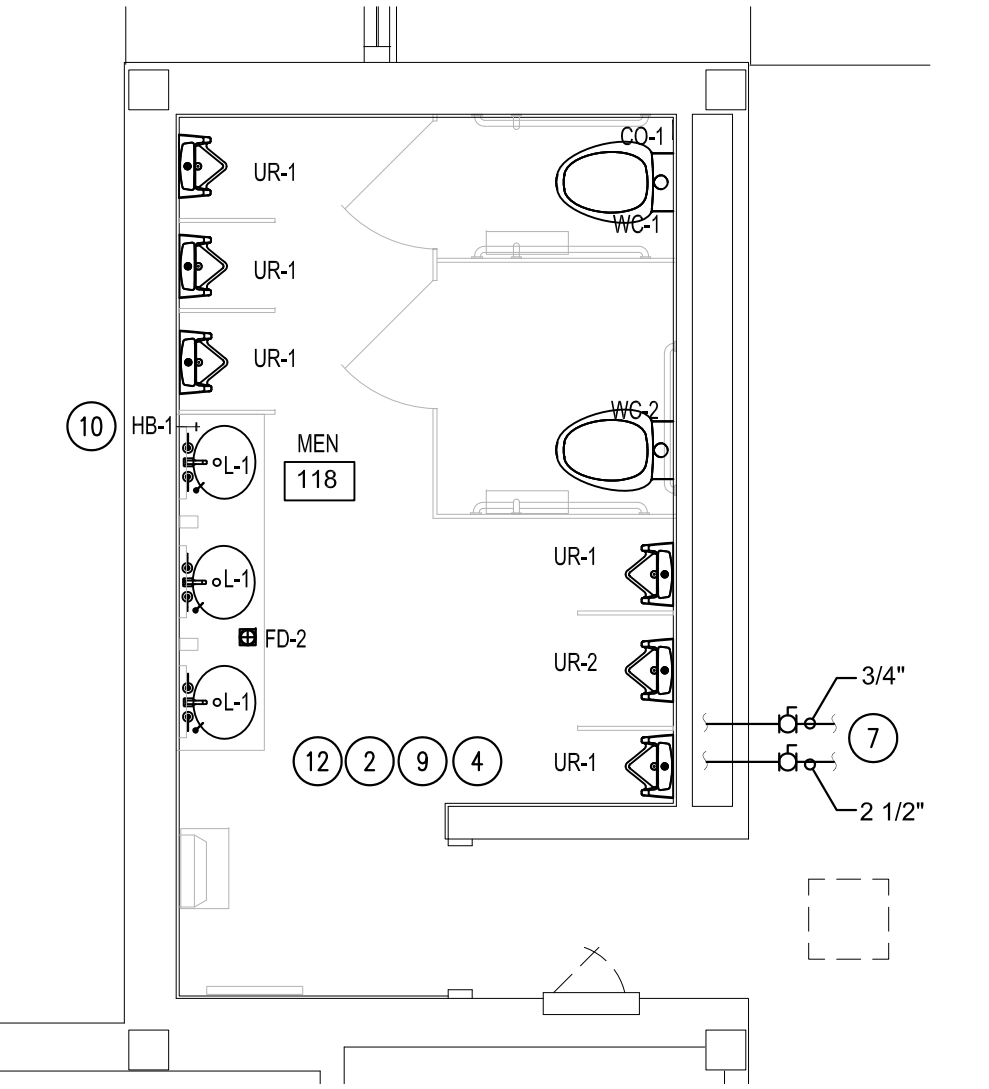
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RENO PLAN MEN 102**  
P101 SCALE: 1/4" = 1'-0"



**5 PHASE 4 BID ALTERNATE  
RENO PLAN WOMEN 124**  
P101 SCALE: 1/4" = 1'-0"



**3 PHASE 3 BID ALTERNATE  
RENO PLAN WOMEN 108**  
P101 SCALE: 1/4" = 1'-0"



**6 PHASE 4 BID ALTERNATE  
RENO PLAN MEN 118**  
P101 SCALE: 1/4" = 1'-0"

**PLUMBING RENOVATION KEY NOTES**

1. CONNECT NEW WALL HUNG WATER CLOSET TO NEW COLD WATER SUPPLY AND NEW 4" SANITARY SEWER. NEW PIPING NEEDED TO CONNECT TO THE EXISTING PIPING IS TO MATCH EXISTING. NEW 4" SANITARY DRAIN PIPE TO BE INSTALLED UNDER FLOOR TO THE NEW WATER CLOSETS.
2. CONNECT NEW WALL HUNG URINAL TO EXISTING COLD WATER SUPPLY AND EXISTING SANITARY SEWER. NEW PIPING NEEDED TO CONNECT TO THE EXISTING PIPING IS TO MATCH EXISTING.
3. NEW FLOOR DRAIN SET IN CONCRETE SLAB AND CONNECTED TO NEW 4" SANITARY SEWER PIPE EXTENSION. ROUTE TO NEAREST EXISTING SANITARY SEWER LINE.
4. NEW COUNTER MOUNT LAVATORY WITH FAUCET. CONNECT TO EXISTING COLD AND HOT WATER SUPPLY AND SANITARY SEWER. NEW PIPING NEEDED TO CONNECT IS TO MATCH EXISTING. ROUTE HORIZONTAL PIPE BEHIND WALL FURRING.
5. NEW HOSE BIBB (HB-2). CONNECT TO NEW COLD WATER SUPPLY PIPING IN NEW CHASE.
6. NEW 4" CLEAN OUT IN NEW CHASE WALL. CONNECT TO NEW 4" SANITARY PIPING IN CHASE.
7. PROVIDE NEW LINE SIZE BALL VALVES AT ALL NEW COLD WATER AND HOT WATER CONNECTIONS TO EXISTING DOMESTIC SUPPLY PIPING.
8. CONNECT NEW VENT PIPING TO EXISTING VTR PIPING ABOVE CEILING LEFT FROM REMOVALS.
9. CONNECT NEW WALL HUNG WATER CLOSET TO EXISTING COLD WATER SUPPLY AND EXISTING 4" SANITARY SEWER. NEW PIPING NEEDED TO CONNECT TO EXISTING PIPING IS TO MATCH EXISTING.
10. NEW HOSE BIBB (HB-1). CONNECT TO EXISTING COLD WATER SUPPLY AT SAME LOCATION AS DEMOLISHED HOSE BIBB.
11. ADJUST HEIGHT OF EXISTING CLEAN OUT FOR NEW FLOORING.
12. PROVIDE BRASS SELF-LUBRICATING RECIRCULATION PUMP AT EACH RESTROOM HOT WATER RECIRCULATION LOOP, LAING THERMOTECH MODEL E1-BCUVN3W-06.

**PLUMBING GENERAL NOTES**

1. THESE DRAWINGS ARE DONE ACCORDING TO THE BEST AVAILABLE KNOWLEDGE. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DEVIATION FROM THE PLANS PRIOR TO THE BEGINNING OF THE WORK.
2. CONTRACTOR SHALL TAKE THE PROPER CARE IN PROTECTING EXISTING SURFACES OF BUILDING FROM DAMAGE DURING DEMOLITION AND NEW CONSTRUCTION. REPAIR ANY DAMAGE TO MATCH EXISTING.
3. CONTRACTOR SHALL TURN OVER TO THE OWNER ANY ITEMS OR EQUIPMENT THAT THE OWNER DESIRES. CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL OTHER MATERIALS AND EQUIPMENT TO BE DEMOLISHED.
4. CONTRACTOR SHALL PROPERLY TERMINATE ALL DEMOLISHED ITEMS, CAP PIPING SYSTEMS THAT REMAIN IN SERVICE OR ARE ABANDONED IN PLACE, AND ENSURE DRAINS THAT WILL NO LONGER BE IN USE ARE SEALED.
5. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL TRADE TO FINISH ALL WALL AND FLOOR OPENINGS CREATED FOR PIPING PENETRATION WORK.
6. IN EXISTING ROOM 122B, NEW WATER CLOSETS AND LAVATORIES ARE INTENDED TO BE MOUNTED.
7. ALL NEW WATER CLOSETS, FLOOR DRAINS AND LAVATORIES ARE TO HAVE NEW WALL CARRIERS AND TRAPS. COORDINATE WITH ARCHITECTURAL TRADE FOR ACCESS TO EXISTING WALLS.
8. PROVIDE CHEMICAL STERILIZATION OF ALL NEW AND AFFECTED PIPING PRIOR TO PLACING IN SERVICE.
9. DOCUMENT PRESSURE TEST RESULTS TO ENGINEER.
10. COORDINATE AUTO SENSOR VALVES WITH ELECTRICAL SCOPE.
11. PROVIDE AND INSTALL NEW BALL VALVES TO ISOLATE ENTIRE RESTROOMS FROM MAIN BUILDING HOT AND COLD DOMESTIC WATER SUPPLY PIPES. IF RESTROOM ALREADY HAS ISOLATION VALVES, REPLACE EXISTING WITH NEW. COORDINATE LOCATION OF VALVES WITH GC'S INSTALLATION OF ACCESS PANELS.
12. WATER HAMMER ARRESTORS SHALL BE INSTALLED AT BRANCH LINES TO EACH RESTROOM.
13. WATER SUPPLY AND DRAINAGE PIPES UNDER ALL ADA LAVATORIES TO BE INSULATED IN ACCORDANCE WITH ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES ICC 117.1.606.6.
14. PROVIDE PIPE SUPPORT IN ACCORDANCE WITH 2018 NC PLUMBING CODE 308.

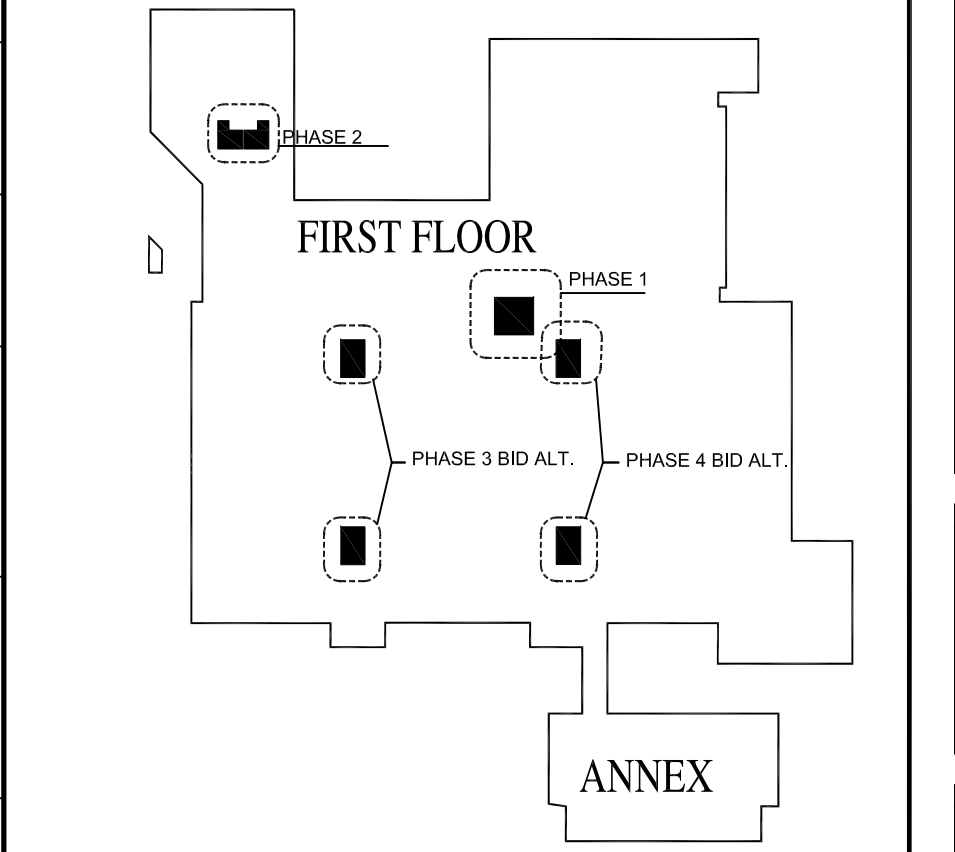
**PLUMBING FIXTURE SCHEDULE**

SYMBOL	FIXTURE TYPE	C.W.	H.W.	VENT	WASTE	BASIS OF DESIGN
WC-1	WATER CLOSET	1"	-	2"	4"	WALL HUNG, WHITE VITREOUS CHINA, FLUSH VALVE, 1.28 GPF, 15" RIM HEIGHT, 1-1/2" TOP SPUD, ELONGATED BOWL, WHITE OPEN FRONT STAINLESS STEEL HINGED SEAT, & WATER-CONSERVING DIAPHRAGM AUTO SENSOR FLUSH VALVE, HARD-WIRED, NEW CARRIER.
WC-2	WATER CLOSET (ADA)	1"	-	2"	4"	WALL HUNG, WHITE VITREOUS CHINA, FLUSH VALVE, 1.28 GPF, 16.5" RIM HEIGHT, 1-1/2" TOP SPUD, ELONGATED BOWL, WHITE OPEN FRONT STAINLESS STEEL HINGED SEAT, & WATER-CONSERVING DIAPHRAGM AUTO SENSOR FLUSH VALVE, HARD-WIRED, NEW CARRIER.
UR-1	URINAL	3/4"	-	2"	2"	WALL HUNG VITREOUS CHINA FLUSH VALVE URINAL, .125 GPF, 3/4" TOP SPUD, 2" I.P.S. OUTLET FLANGE & WATER-CONSERVING DIAPHRAGM TYPE AUTO-SENSOR FLUSH VALVE, HARD-WIRED, NEW CARRIER.
UR-2	URINAL (ADA)	3/4"	-	2"	2"	WALL HUNG VITREOUS CHINA FLUSH VALVE URINAL, .125 GPF, 3/4" TOP SPUD, 2" I.P.S. OUTLET FLANGE, 14" EXTENDED RIM FOR ADA COMPLIANCE, & WATER-CONSERVING DIAPHRAGM TYPE AUTO-SENSOR FLUSH VALVE, HARD-WIRED, NEW CARRIER.
L-1	COUNTER-TOP LAVATORY	1/2"	1/2"	2"	1 1/4"	20-3/8" X 17-3/8" UNDER-MOUNTED, VITREOUS CHINA W/ FRONT OVERFLOW AND FAUCET LEDGE, WHITE, SINGLE CONTROL CENTERSET CAST BRASS BODY FAUCET W/ AUTO SENSOR, HARD-WIRED, PROVIDE DELTA MODEL 591LF-LGHGMHDF LAVATORY FAUCETS.
L-2	WALL HUNG LAVATORY	1/2"	1/2"	2"	1 1/4"	20-3/8" X 17-3/8" SELF-RIMMING, VITREOUS CHINA W/ FRONT OVERFLOW AND FAUCET LEDGE, WHITE, SINGLE CONTROL CENTERSET CAST BRASS BODY FAUCET W/ AUTO SENSOR, HARD-WIRED, PROVIDE DELTA MODEL 591LF-LGHGMHDF LAVATORY FAUCETS.
FD-1	FLOOR DRAIN (NEW)	-	-	2"	3"	COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP, ADJUSTABLE COLLAR WITH SEEPAGE SLOTS, TRAP PRIMER CONNECTION, & 6"X6" POLISHED BRONZE HEEL PROOF LIGHT-DUTY SQUARE STRAINER. (RAISE DRAIN & REPLACE STRAINER).
FD-2	FLOOR DRAIN STRAINER (ON EXISTING FLOOR DRAIN)	-	-	-	3"	ADJUST HEIGHT OF EXISTING FLOOR DRAIN AS REQUIRED TO COMPENSATE FOR NEW FLOOR HEIGHT. PROVIDE AND INSTALL NEW POLISHED BRONZE HEEL PROOF LIGHT DUTY SQUARE STRAINER.
CO - 1	CLEANOUT (EXISTING)	-	-	-	-	REPLACE ± 8" Ø CHROME WALL MOUNTED CLEANOUT COVER.
CO - 2	CLEANOUT (NEW)	-	-	-	-	CLEANOUT, COATED CAST IRON BODY WITH GAS AND WATERTIGHT BRONZE TAPERED THREAD PLUG AND ROUND SQUARE STRAINER. (NEW IN SINGLE OCCUPANT 136 AND WOMEN 136A).
HB - 1	HOSE BIBB	1/2"	-	-	-	ZURN MFR. MODEL # Z1341XL-P34-RC. (ATTACH TO EXISTING ROUGH-IN).
HB - 2	HOSE BIBB	1/2"	-	-	-	ZURN MFR. MODEL # Z1341XL-P34-RC

**LEGEND**

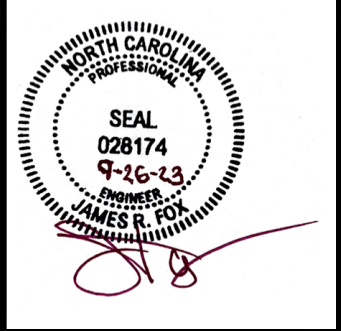
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- POINT BETWEEN EXISTING WORK TO REMAIN AND EXISTING WORK TO BE REMOVED
- EXISTING WORK TO BE REMOVED
- ABOVE GRADE
- EXISTING WORK TO REMAIN
- VENT TO ROOF

**KEYPLAN**



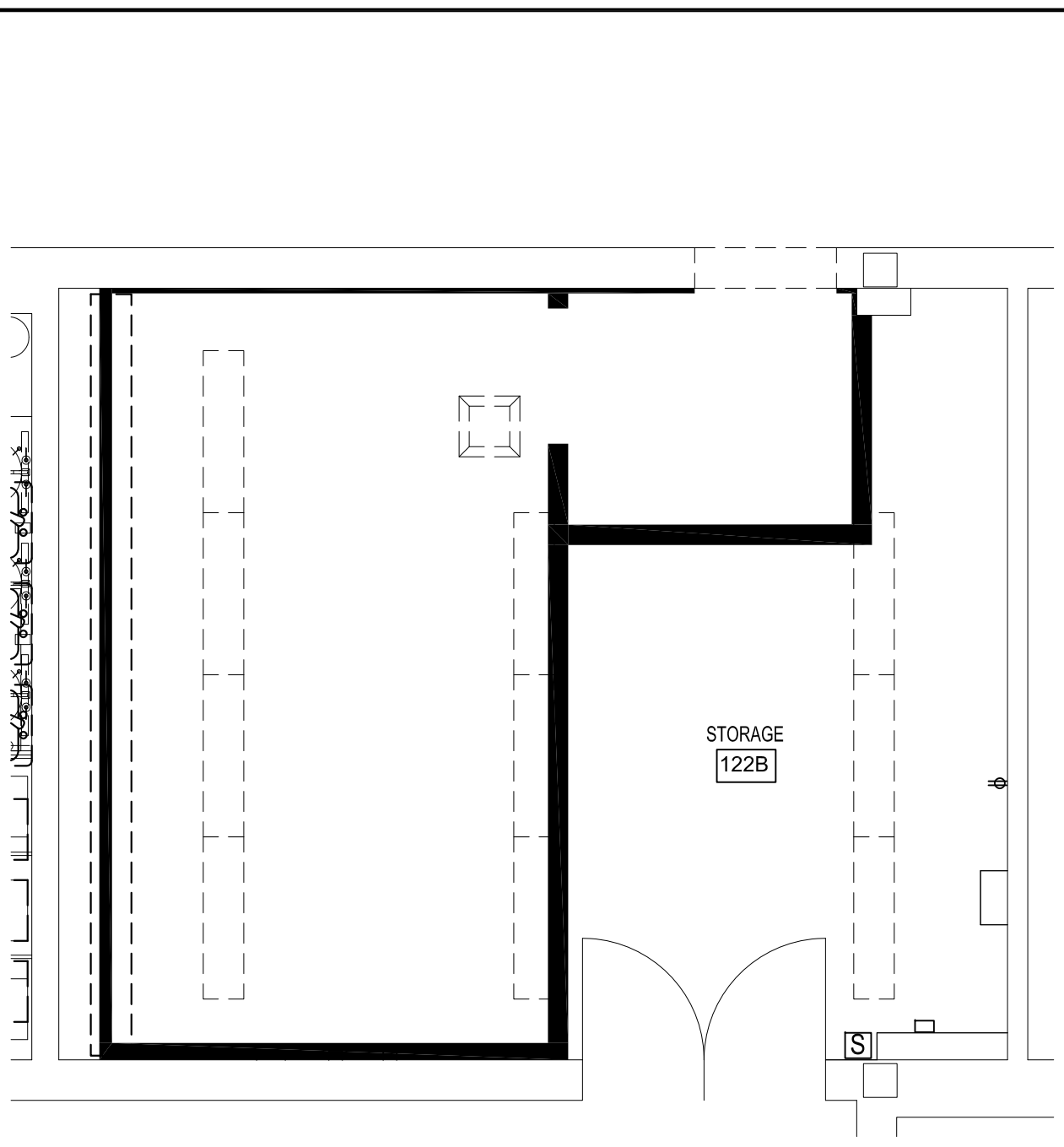
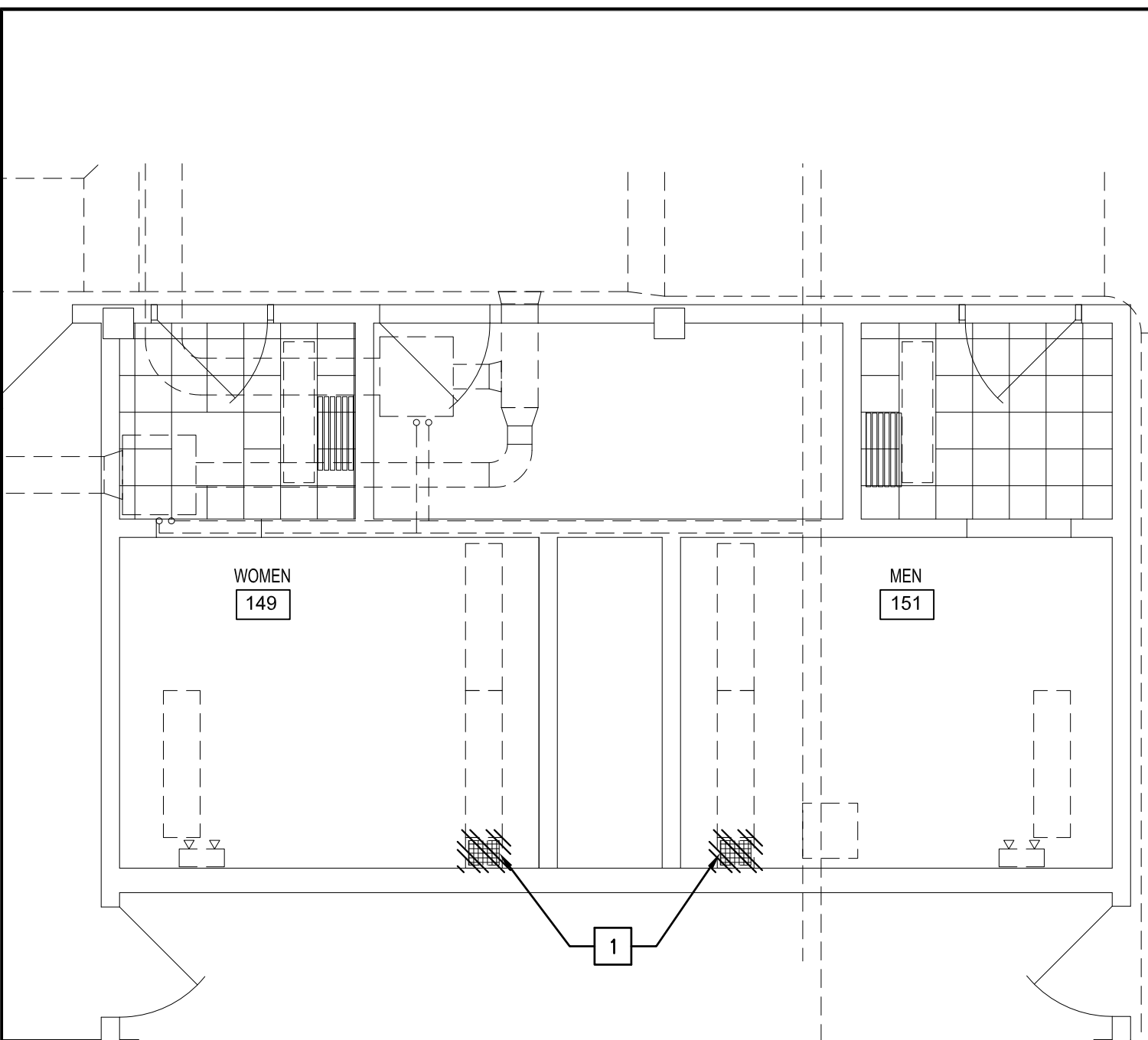
**ARCADIS** Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership  
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**CONSTRUCTION DOCUMENT PHASE**



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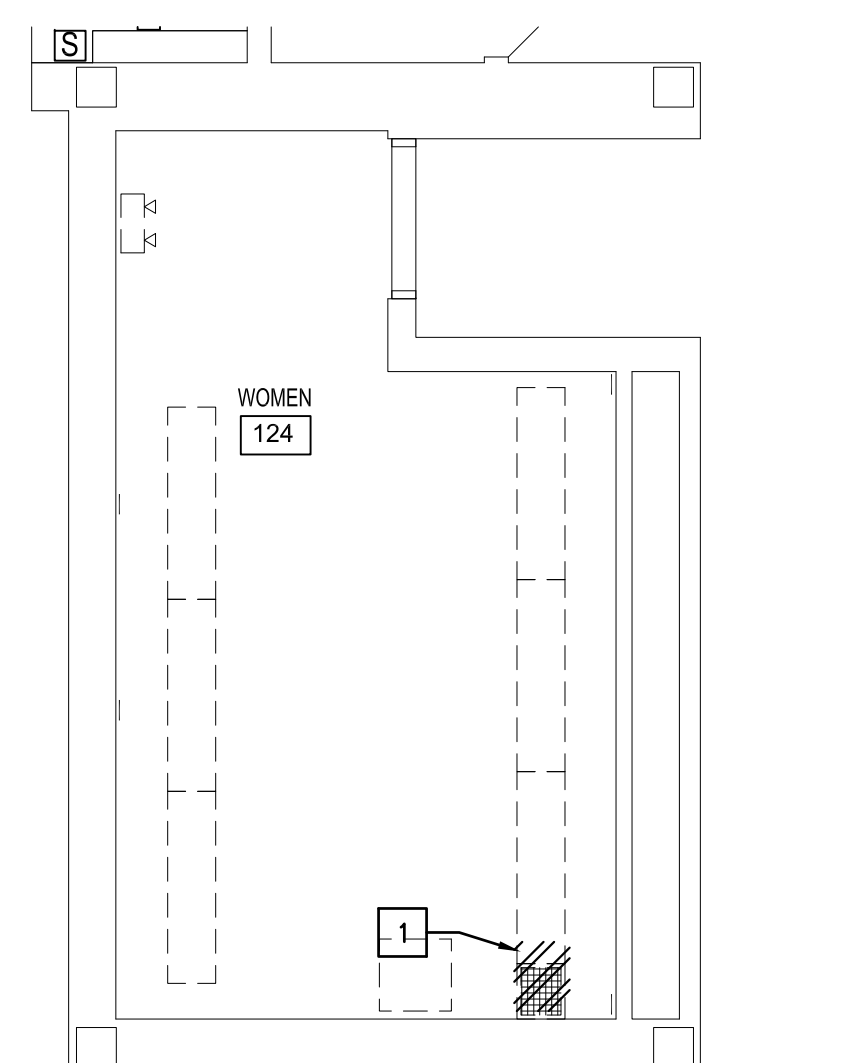
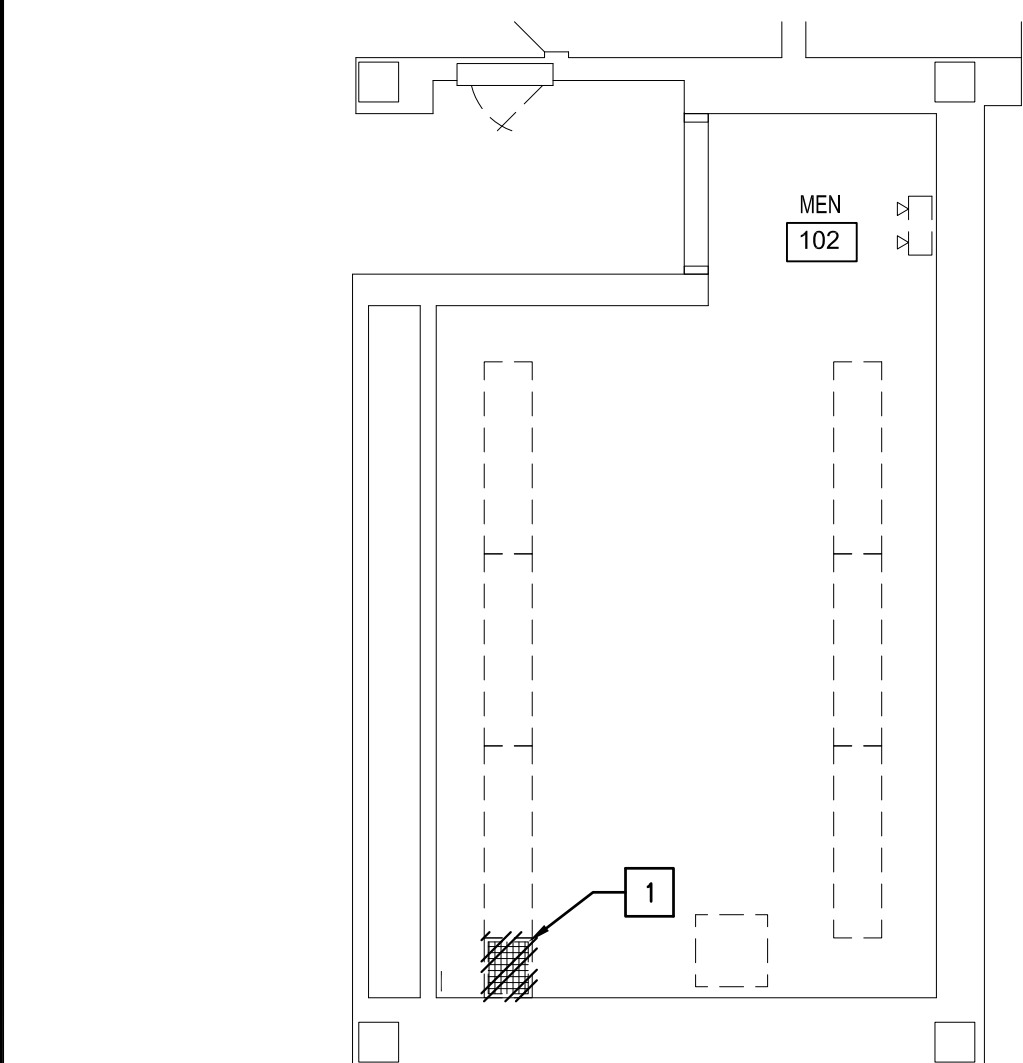


DEMOLITION KEYNOTES	
1	REMOVE EXISTING CEILING MOUNTED EXHAUST EGGRATE GRILLE. SIZE IS APPROX. 12" x 18" IN LARGE RESTROOMS AND APPROX. 12" x 12" IN SMALL RESTROOMS.
2	REMOVE EXISTING THERMOSTAT AND RELOCATE.
3	REMOVE GRILLE AND DUCT BACK TO MAIN AND CAP DUCT
4	EXISTING EXHAUST FAN ON ROOF TO BE REMOVED. MAINTAIN DUCT CONNECTION FOR NEW WORK.
5	REMOVE GRILLE/DIFFUSER. LEAVING DUCT READY TO RECEIVE NEW GRILLE/DIFFUSER.

HVAC DEMOLITION NOTES:	
1.	INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
2.	COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
3.	WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
4.	COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS.
5.	ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND DIVISION 26 OF THE SPECIFICATION.
6.	THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE THE DRAWINGS.
7.	ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
8.	ALL EQUIPMENT, PIPING, DUCTWORK, ETC., SHALL BE SUPPORTED AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
9.	WHEN EQUIPMENT IS SUBSTITUTED AND/OR MODIFIED SUCH THAT CHANGES IN THE ELECTRICAL DESIGN, SUCH AS BREAKER SIZE, WIRE SIZE, ETC., ARE REQUIRED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ELECTRICAL CONTRACTOR TO PROVIDE FOR THE NECESSARY CHANGES. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASSOCIATED COSTS FOR THE CHANGE INCLUDING DESIGN COSTS. ANY SUCH CHANGES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO ORDERING EQUIPMENT. SUBMITTAL AND SUBSEQUENT APPROVAL OF SHOP DRAWING(S) SHALL NOT CONSTITUTE WRITTEN NOTIFICATION AND/OR APPROVAL. SIMILARLY, WHEN EQUIPMENT IS SUBSTITUTED AND/OR MODIFIED SUCH THAT IT CAUSES CHANGES TO ANY OTHER PART OF THE DESIGN, THESE CHANGES SHALL BE COORDINATED WITH THE CONTRACTOR AND/OR PARTIES AFFECTED AND THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSOCIATED COSTS FOR THE CHANGE INCLUDING DESIGN COSTS. ANY SUCH CHANGES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO ORDERING EQUIPMENT. SUBMITTAL AND SUBSEQUENT APPROVAL OF SHOP DRAWING(S) SHALL NOT CONSTITUTE WRITTEN NOTIFICATION AND/OR APPROVAL OF.
10.	THESE DRAWINGS ARE SCHEMATIC IN NATURE AND NOT TO BE SCALED. CONTRACTOR IS RESPONSIBLE FOR FINAL ROUTING, COORDINATION WITH ALL TRADES, AND PROVIDING ALL FITTINGS NECESSARY.
11.	ROOFTOP EXHAUST FAN WORK SHALL BE PERFORMED IN PHASE 1, INCLUDING TEST AND BALANCE.
12.	WORK IN LOCATIONS WHERE THERE IS EXPOSURE TO A FALL HAZARD THAT WILL TAKE MORE 1-2 HOURS REQUIRES THE USE OF A FALL PROTECTION SYSTEM. STANDARD OPTIONS INCLUDE INSTALLING TEMPORARY GUARDRAILS; OR, WHERE APPROPRIATE, THE USE OF A TRAVEL RESTRAINT SYSTEM. A FALL PROTECTION COMPETENT PERSON SHALL OVERSEE THE INSTALLATION OR USE OF THE FALL PROTECTION SYSTEM.
13.	SKYLIGHTS THAT A PERSON COULD STEP ON OR FALL INTO MUST BE GUARDED OR CAPABLE OF SUPPORTING WITHOUT FAILURE, AT LEAST TWICE THE MAXIMUM INTENDED LOAD. (29CFR1910.29(e)).
14.	HOLES IN FLOORS OR WALKING-WORKING OR SIMILAR SURFACES, AT LEAST 2 INCHES IN THE LEAST DIMENSION AND >4 FT ABOVE A LOWER LEVEL MUST BE COVERED OR GUARDED. THIS INCLUDES OPENINGS CREATED WHEN EQUIPMENT IS REMOVED. IT ALSO INCLUDES ANY UNGUARDED ROOF HATCHES.

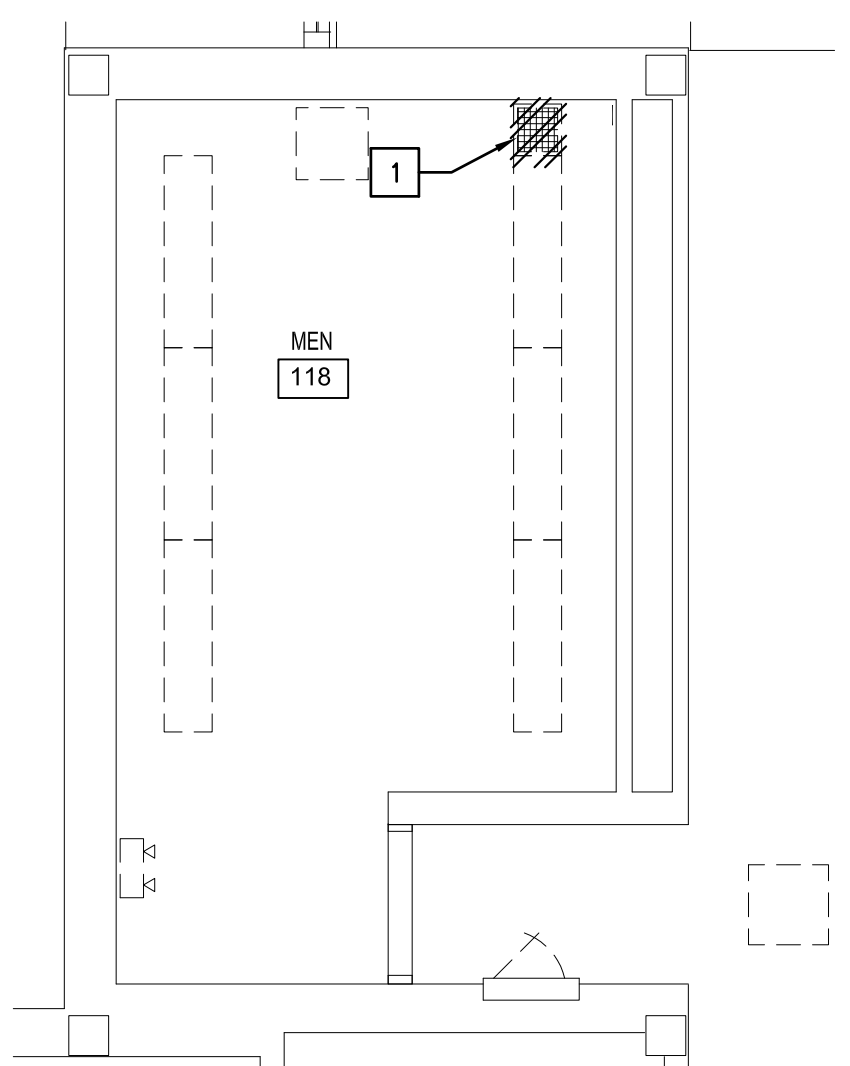
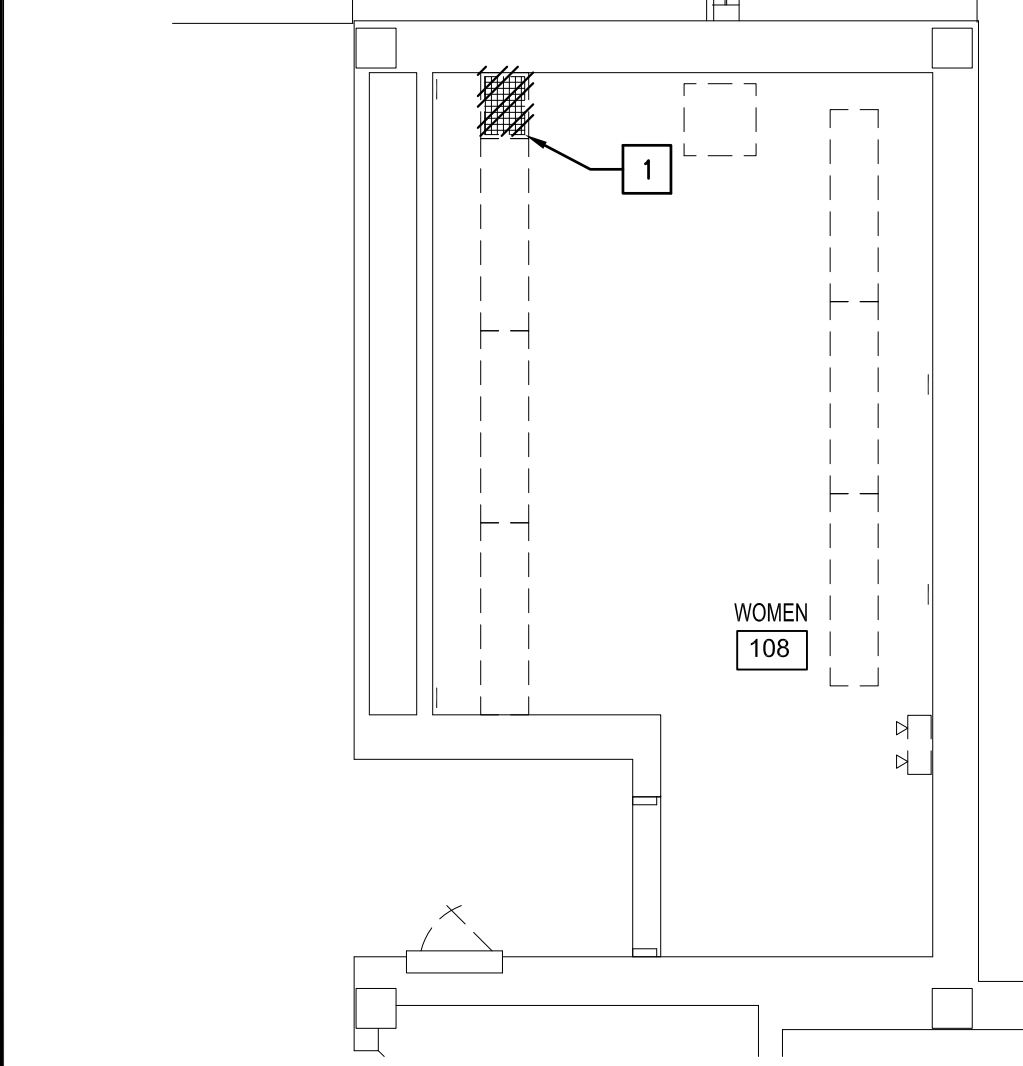
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1 DEMO PLAN MEN 151  
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NORTH

4 DEMO PLAN STORAGE 122B  
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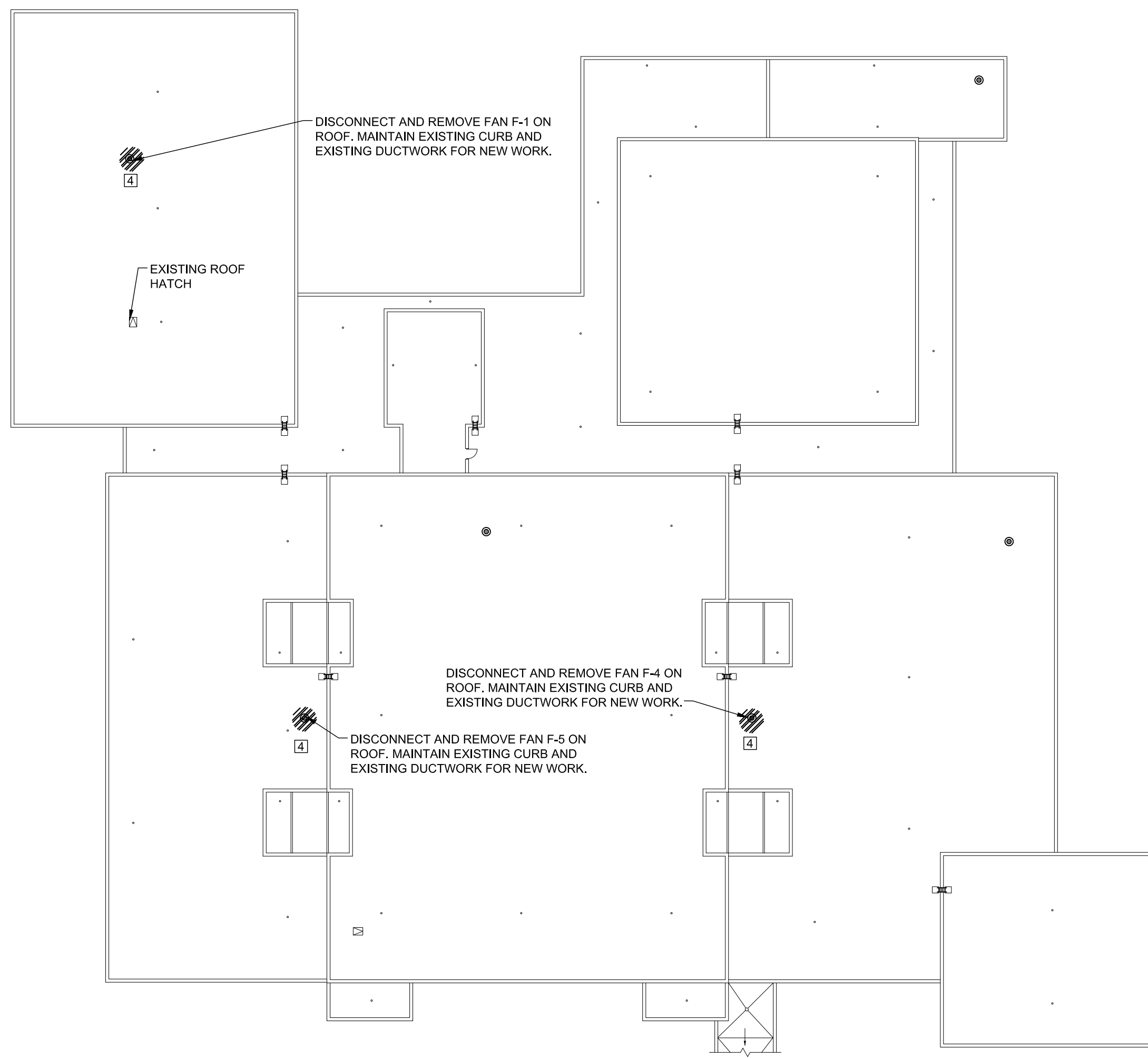
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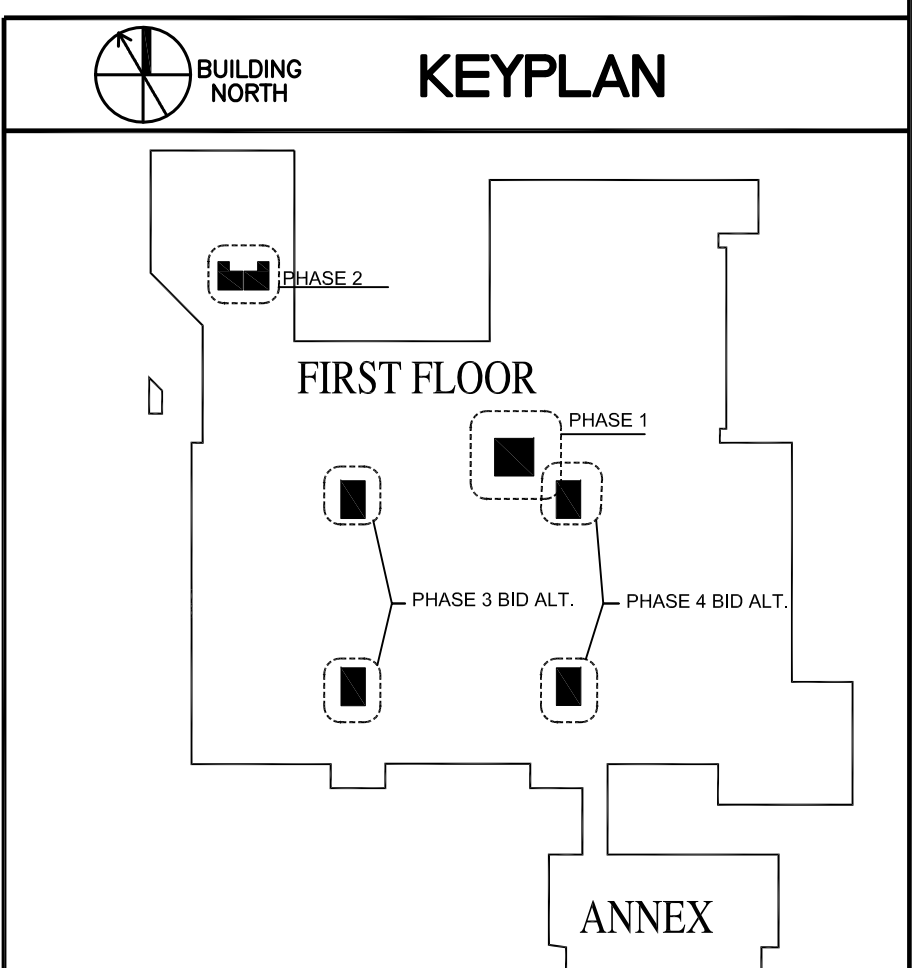


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6 PHASE 4 BID ALTERNATE DEMO PLAN MEN 118  
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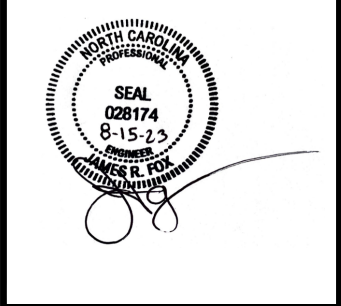


7 DEMO OVERALL ROOF PLAN- MECHANICAL  
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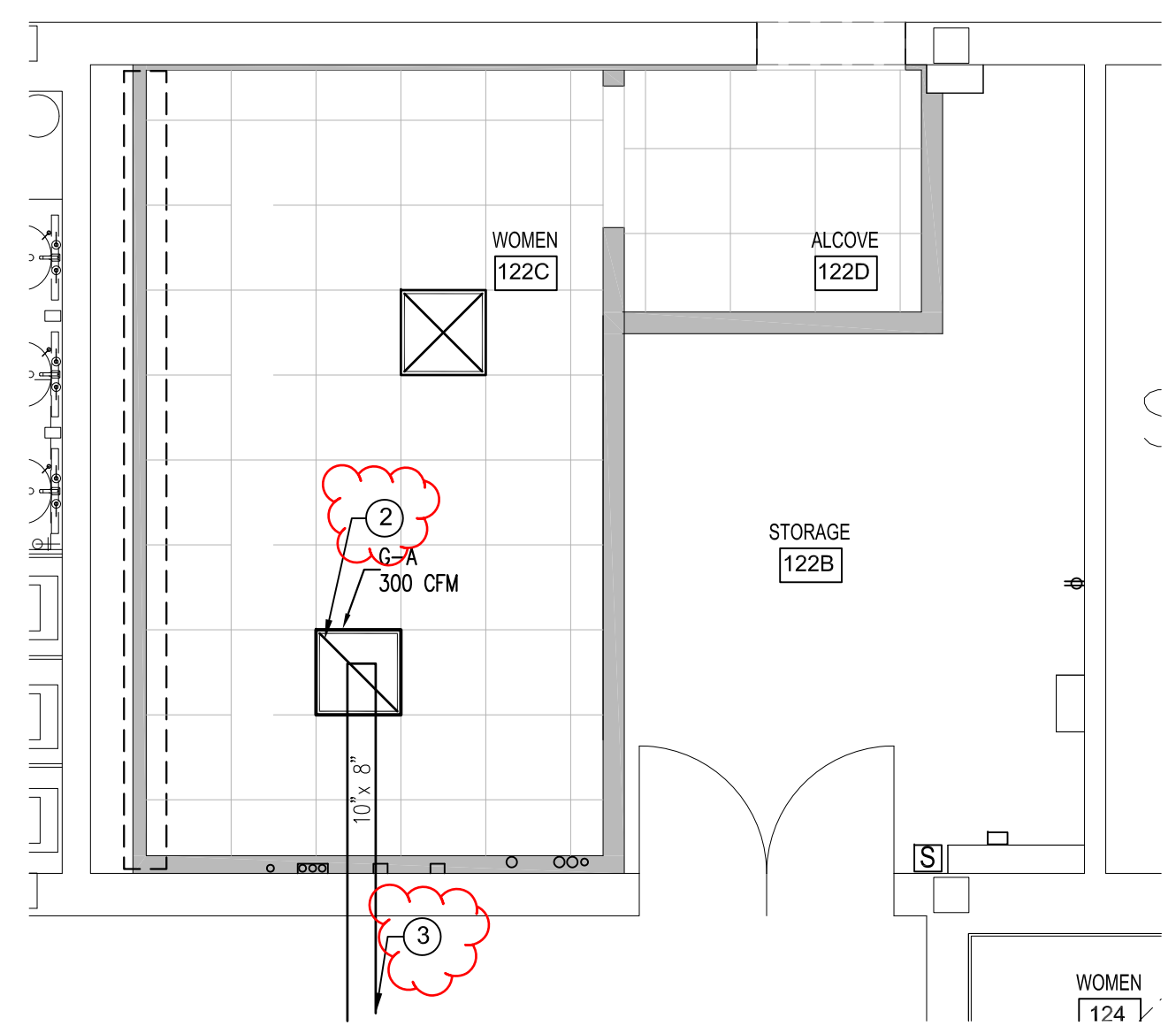
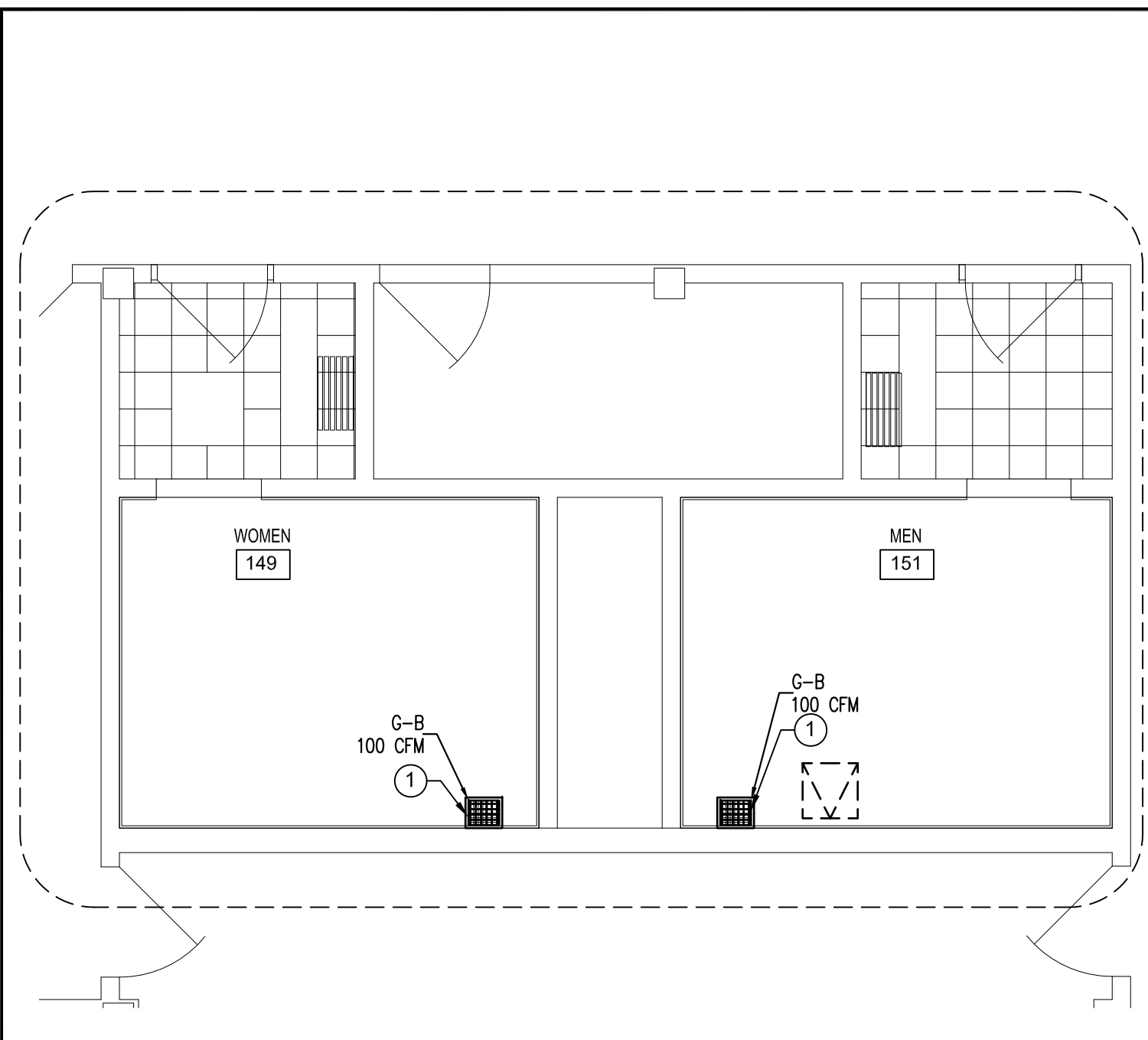
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Suite 1609  
Raleigh NC 27601 USA  
tel 919 851 4211  
arcadis.com

**CONSTRUCTION DOCUMENT PHASE**



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 Layout Tab: MD111





### GRILLE, REGISTER & DIFFUSER SCHEDULE

UNIT	SPEC. TYPE	SERVICE	FACE SIZE	NECK SIZE	MAX. INCH	MAX. S.P. (in. wc.)	ARRANGEMENT	NOTES
D-A	KRUGER 1100	SUPPLY	24"x24"	12"x8"	20	.09	CEILING	1
D-B	KRUGER 1100	SUPPLY	24"x24"	12"x4"	20	.09	CEILING	1
G-A	KRUGER 585H	EXHAUST	24"x24"	10"x6"	20	.09	CEILING	1
G-B	KRUGER 585H	EXHAUST	12"x12"	6"x6"	20	.09	CEILING	1

NOTES: 1. QUANTITY PER DRAWINGS.

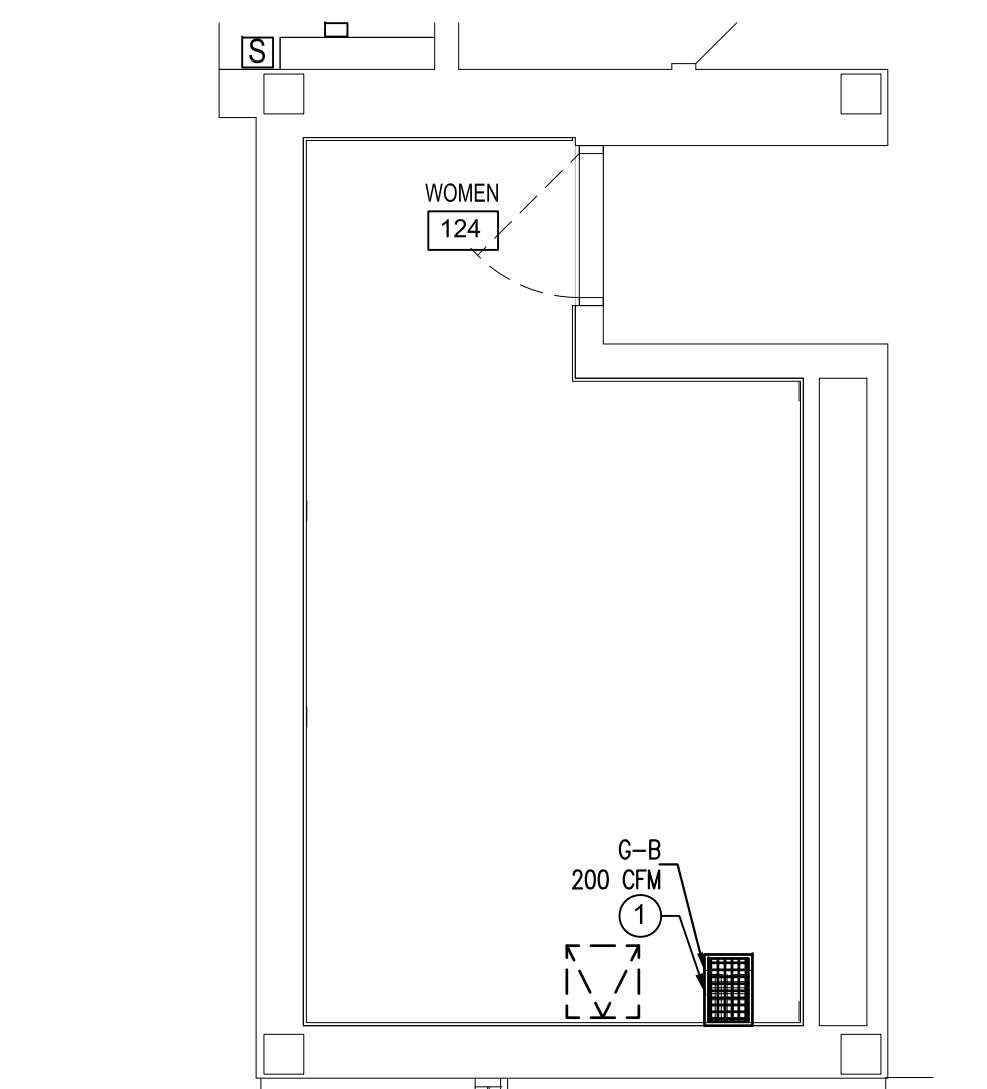
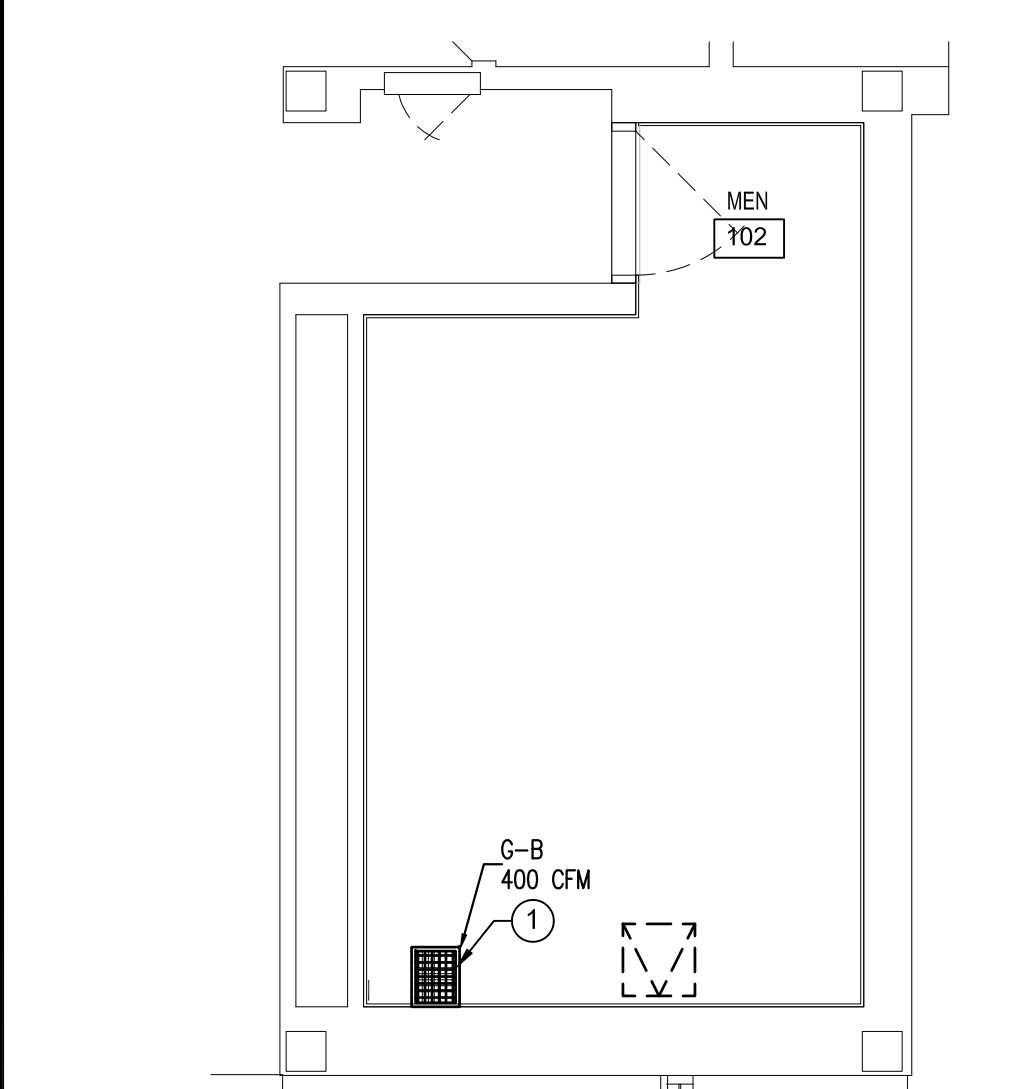
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RENO PLAN MEN 151  
M111 SCALE: 1/4" = 1'-0"  
NORTH

**4** RENO PLAN WOMEN 122C  
M111 SCALE: 1/4" = 1'-0"  
NORTH

### FAN SCHEDULE

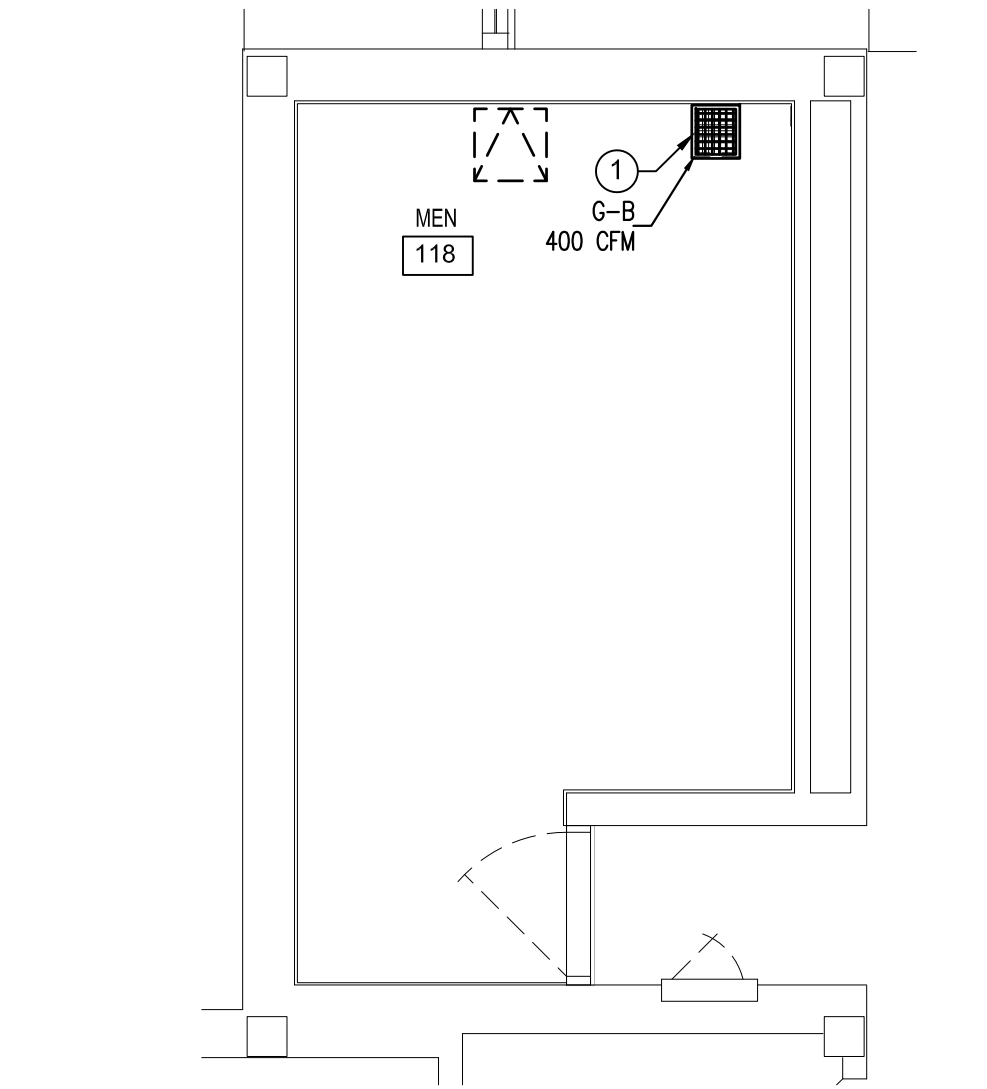
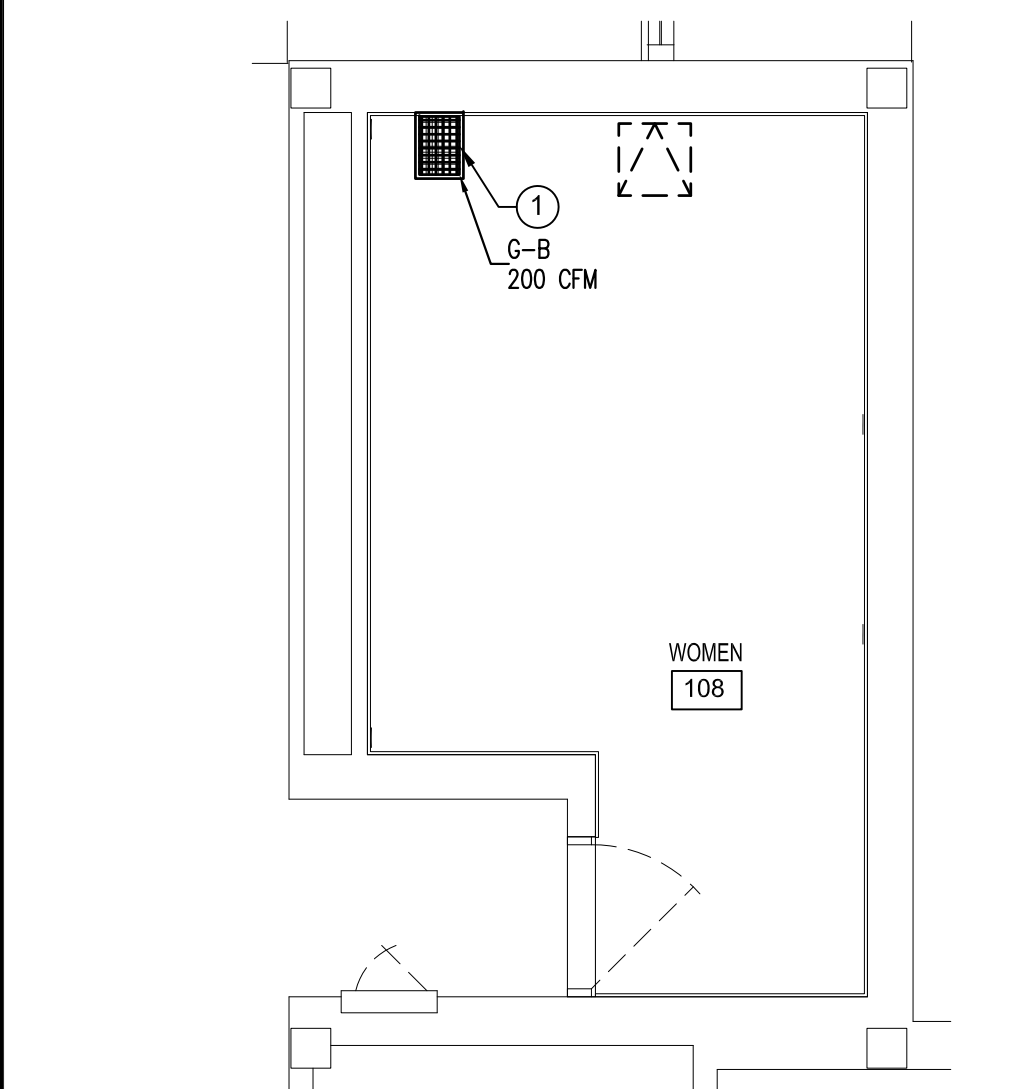
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				C.F.M.	TOTAL S.P.	VOLTS/PHASE	HP
F-1	AREA 1 ROOF	EXHAUST	149, 151	1290	5/8	120/1	1/2
F-4	AREA 4 ROOF	EXHAUST	118, 122B, 124	2210	5/8	460/3	1/2
F-5	AREA 4 ROOF	EXHAUST	102, 108	1510	5/8	120/1	1/2

NOTES: 1. MATCH EXISTING CURB SIZE, APPROXIMATELY 27"x27"x10". FIELD VERIFY.  
2. FANS TO RUN 24/7/365  
3. EXHAUST FANS SHALL BE INTERFACED WITH THE BUILDING CONTROL SYSTEM (SCHNEIDER ELECTRIC) TO ALLOW SCHEDULING OFF AND ALLOW MONITORING OF FAN OPERATION. TAB OF THE NEW EXHAUST FAN AIRFLOW SHALL BE PERFORMED TO ENSURE PROPER OPERATION AND KEEP THE BUILDING TAB FROM BECOMING TOO NEGATIVE.



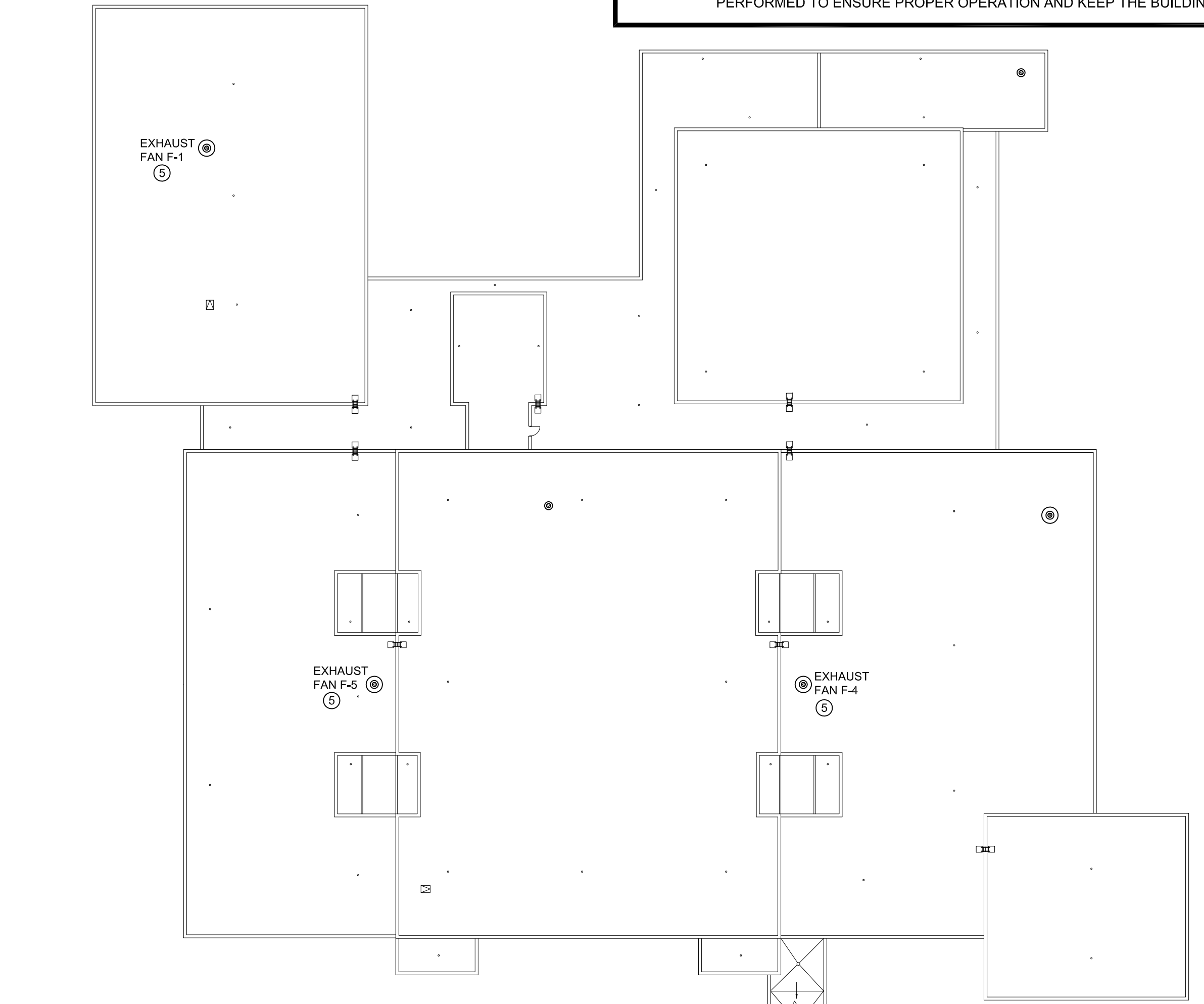
**2** PHASE 3 BID ALTERNATE  
RENO PLAN MEN 102  
M111 SCALE: 1/4" = 1'-0"  
NORTH

**5** PHASE 4 BID ALTERNATE  
RENO PLAN WOMEN 124  
M111 SCALE: 1/4" = 1'-0"  
NORTH



**3** PHASE 3 BID ALTERNATE  
RENO PLAN WOMEN 108  
M111 SCALE: 1/4" = 1'-0"  
NORTH

**6** PHASE 4 BID ALTERNATE  
RENO PLAN MEN 118  
M111 SCALE: 1/4" = 1'-0"  
NORTH



**7** OVERALL ROOF PLAN  
M111 SCALE: 1/32" = 1'-0"  
NORTH

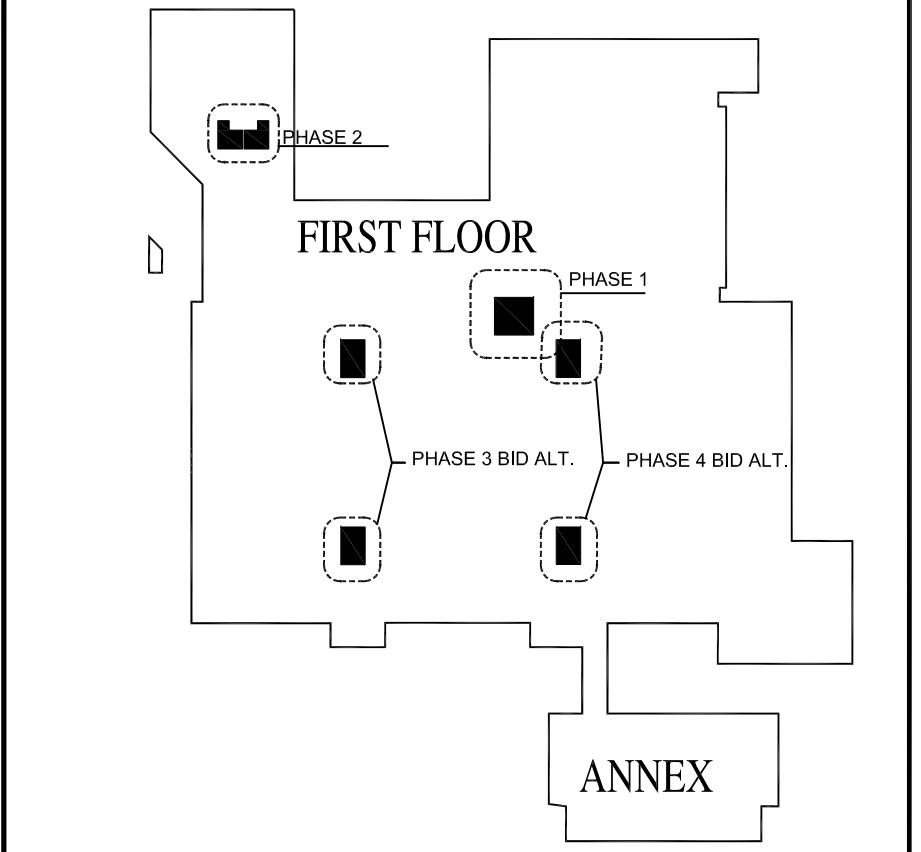
### HVAC GENERAL NOTES

- INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
- COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS.
- ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE THE NATIONAL ELECTRIC CODE AND DIVISION 26 OF THE SPECIFICATION.
- THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE THE DRAWINGS.
- ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- ALL EQUIPMENT, PIPING, DUCTWORK, ETC., SHALL BE SUPPORTED AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- WHEN EQUIPMENT IS SUBSTITUTED AND/OR MODIFIED SUCH THAT CHANGES IN THE ELECTRICAL DESIGN, SUCH AS BREAKER SIZE, WIRE SIZE, ETC., ARE REQUIRED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ELECTRICAL CONTRACTOR TO PROVIDE FOR THE NECESSARY CHANGES. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASSOCIATED COSTS FOR THE CHANGE. ANY SUCH CHANGES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO ORDERING EQUIPMENT. SUBMITTAL AND SUBSEQUENT APPROVAL OF SHOP DRAWING(S) SHALL NOT CONSTITUTE WRITTEN NOTIFICATION AND/OR APPROVAL. SIMILARLY, WHEN EQUIPMENT IS SUBSTITUTED AND/OR MODIFIED SUCH THAT IT CAUSES CHANGES TO ANY OTHER PART OF THE DESIGN, THESE CHANGES SHALL BE COORDINATED WITH THE CONTRACTOR AND/OR PARTIES AFFECTED AND THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSOCIATED COSTS FOR THE CHANGE. ANY SUCH CHANGES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO ORDERING EQUIPMENT. SUBMITTAL AND SUBSEQUENT APPROVAL OF SHOP DRAWING(S) SHALL NOT CONSTITUTE WRITTEN NOTIFICATION AND/OR APPROVAL OF.
- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND NOT TO BE SCALED. CONTRACTOR IS RESPONSIBLE FOR FINAL ROUTING, COORDINATION WITH ALL TRADES, AND PROVIDING ALL FITTINGS NECESSARY.
- ROOFTOP EXHAUST FAN WORK SHALL BE PERFORMED IN PHASE 1, INCLUDING TEST AND BALANCE.

### HVAC RENOVATION NOTES

- NEW PLASTIC EGGRATE GRILLE, 1/2" x 1 1/2" IN EXISTING TRIM. SIZE IS APPROX. 12" x 18" IN LARGE RESTROOMS AND APPROX. 12" x 12" IN SMALL RESTROOMS.
- NEW 2'-0" x 2'-0" SUPPLY DIFFUSERS/ EXHAUST GRILLES. CONNECT TO EXISTING DUCTING. BALANCE TO LISTED VALUES.
- ATTACHED TO NEARBY EXISTING EXHAUST DUCT.
- NOT USED.
- PROVIDE AND INSTALL NEW FAN ON ROOF. CONNECT TO EXISTING CURB AND EXISTING DUCTWORK.

### KEYPLAN

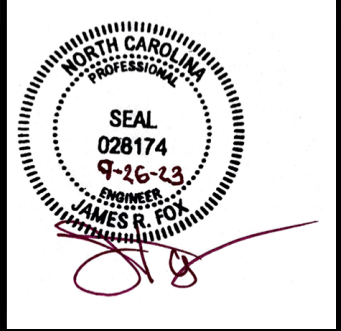


Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership  
421 Fayetteville Street  
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Raleigh NC 27601 USA  
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arcadis.com

### CONSTRUCTION DOCUMENT PHASE

NC STATE UNIVERSITY  
CAPITAL PROJECT MANAGEMENT  
\* BOX 7520 \* RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
DESIGNER: -  
DRAWN BY: -  
CHECKED BY: -  
REVIEW: -



NCSU - McKIMMON CENTER  
RESTROOM RENOVATIONS  
SCO ID # 22-25847-01A  
CODE/ITEM # 42124/323

MECHANICAL  
RENOVATION ENLARGED PLANS

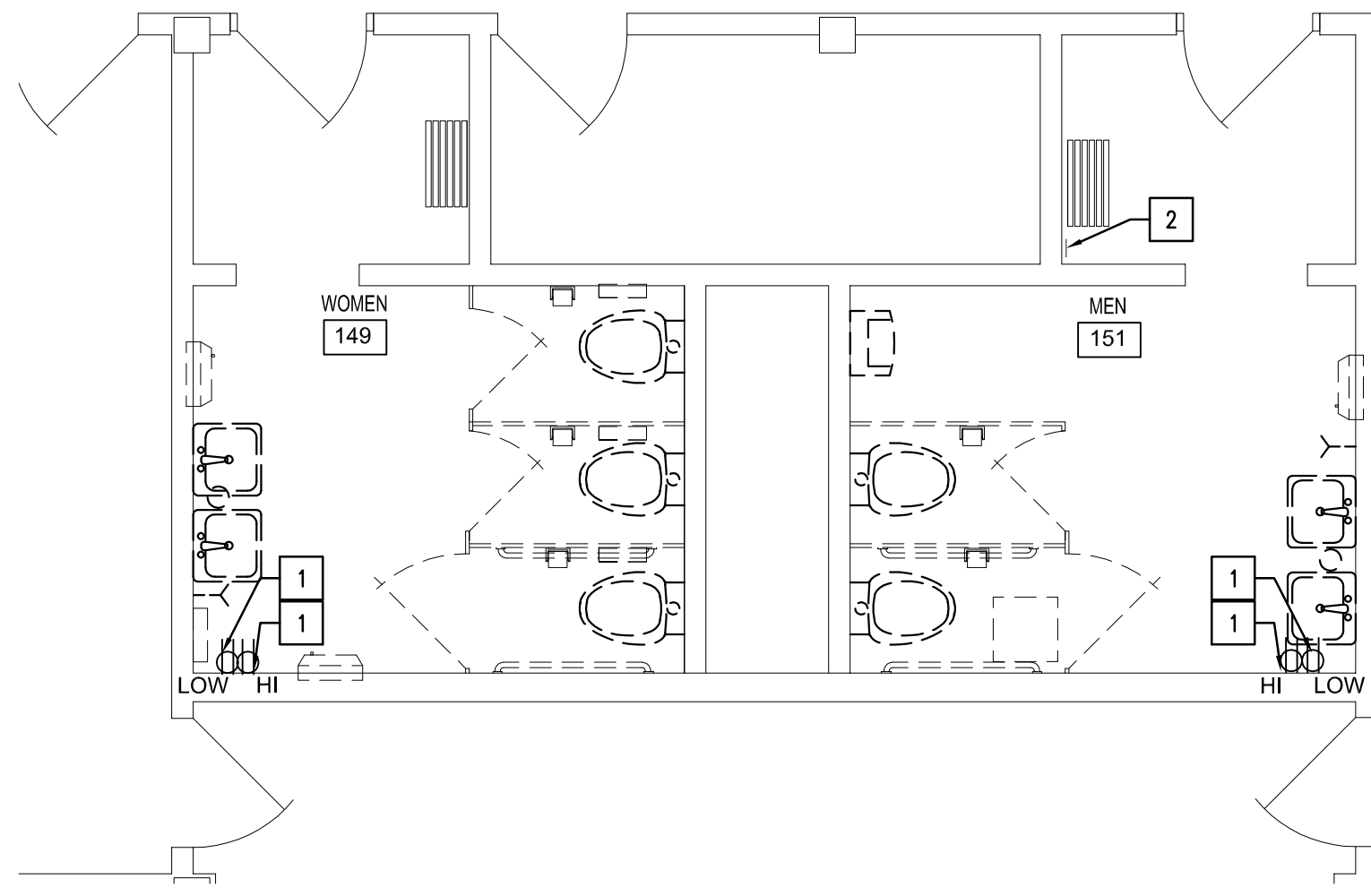
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Total Sheets: 00

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142814  
NCSU Proj. No.  
202220029

FAC. NAME  
McKIMMON  
CENTER  
FAC. NO. 129

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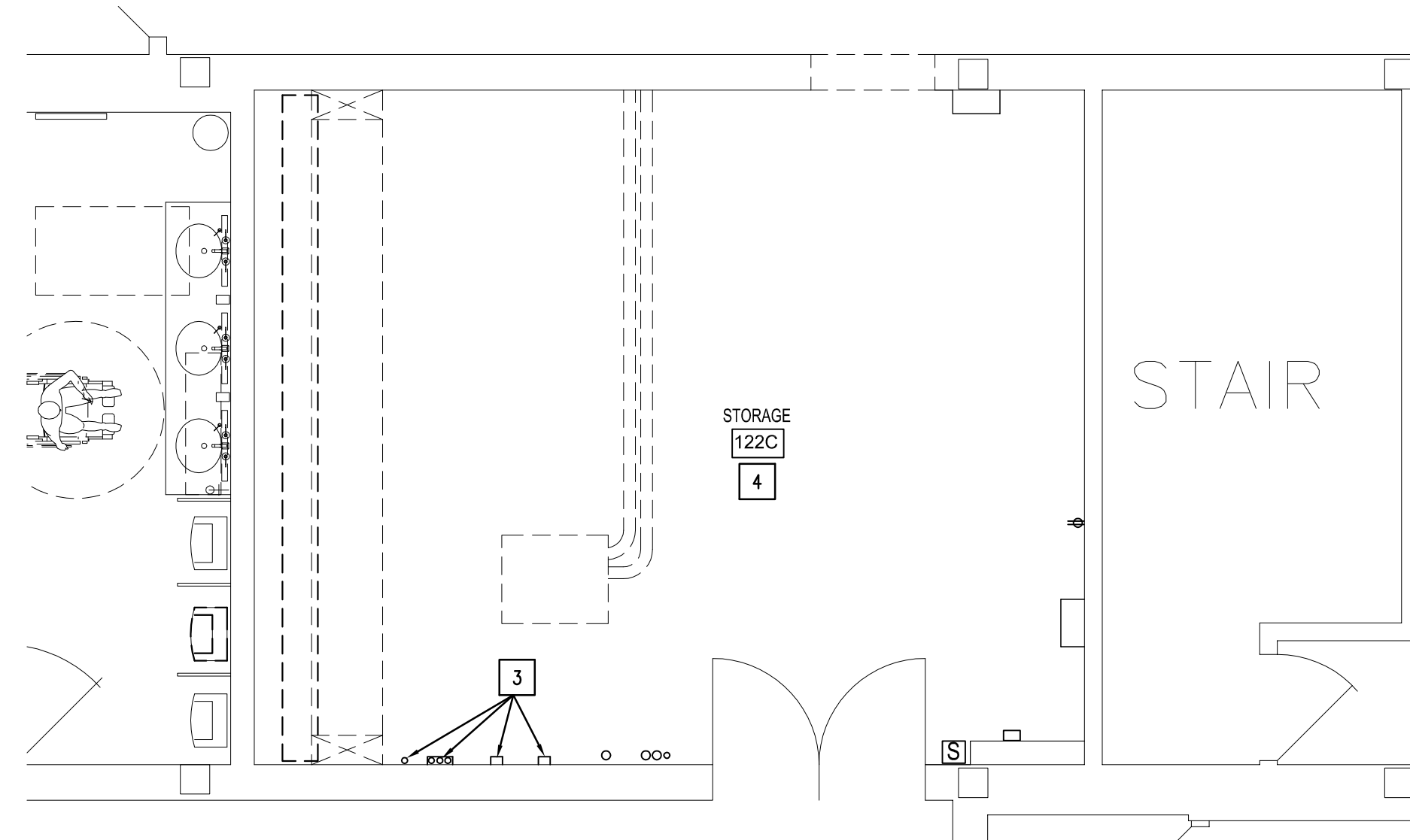




6 DEMO PLAN WOMEN 149  
6 DEMO PLAN MEN 151



ED101 SCALE: 1/4" = 1'-0"



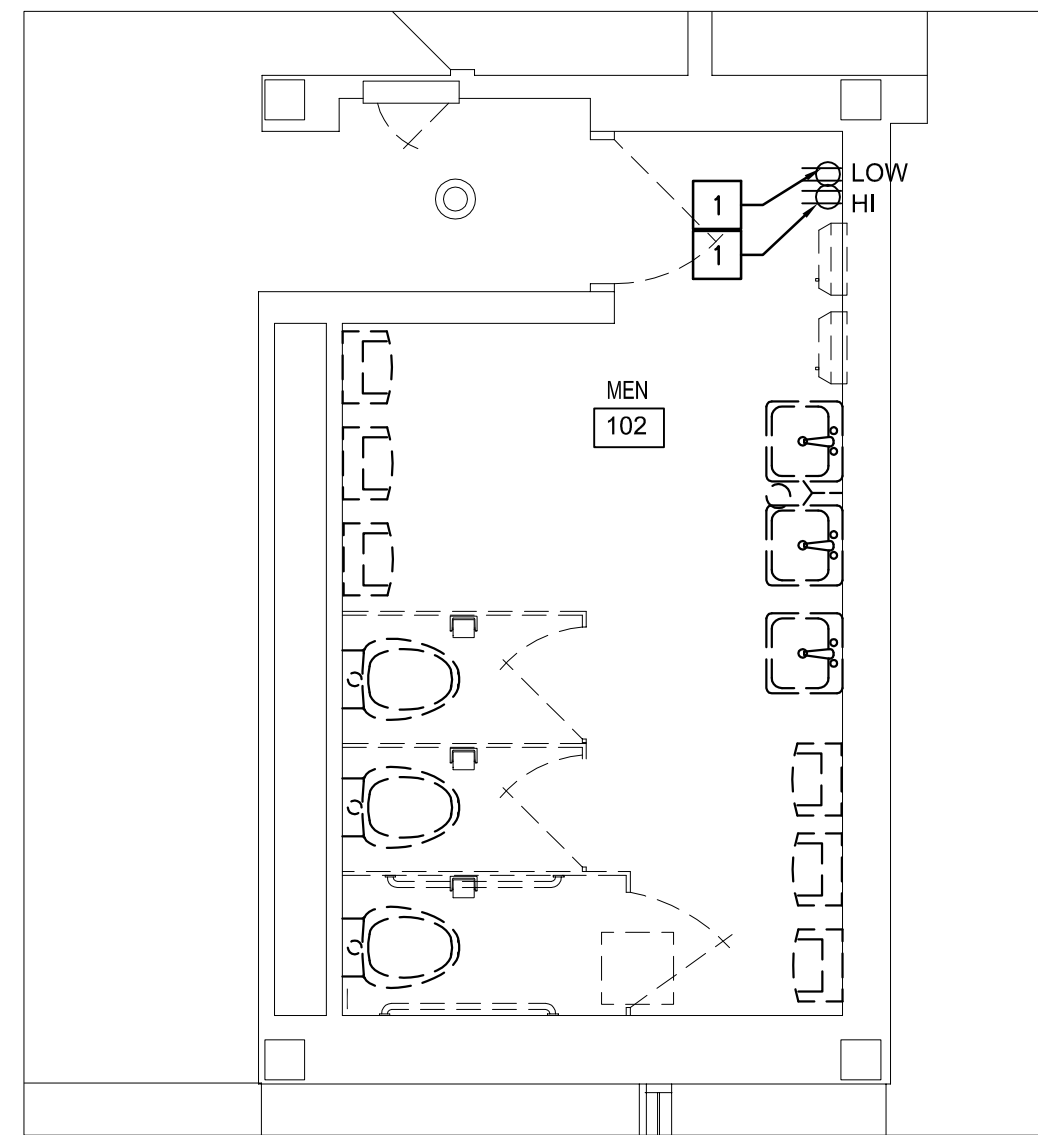
5 DEMO PLAN STORAGE 122C



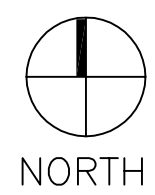
ED101 SCALE: 1/4" = 1'-0"

PHASE 3 BID ALTERNATE

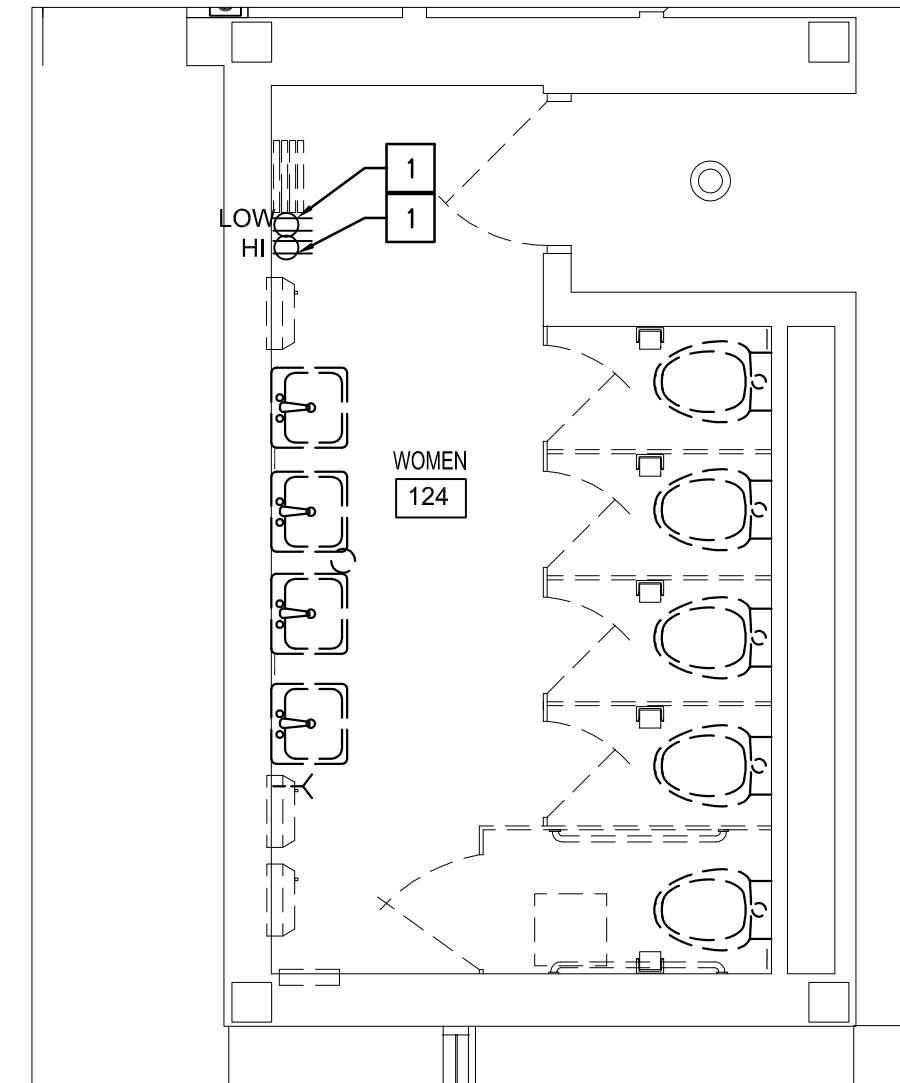
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4 DEMO PLAN MEN 102



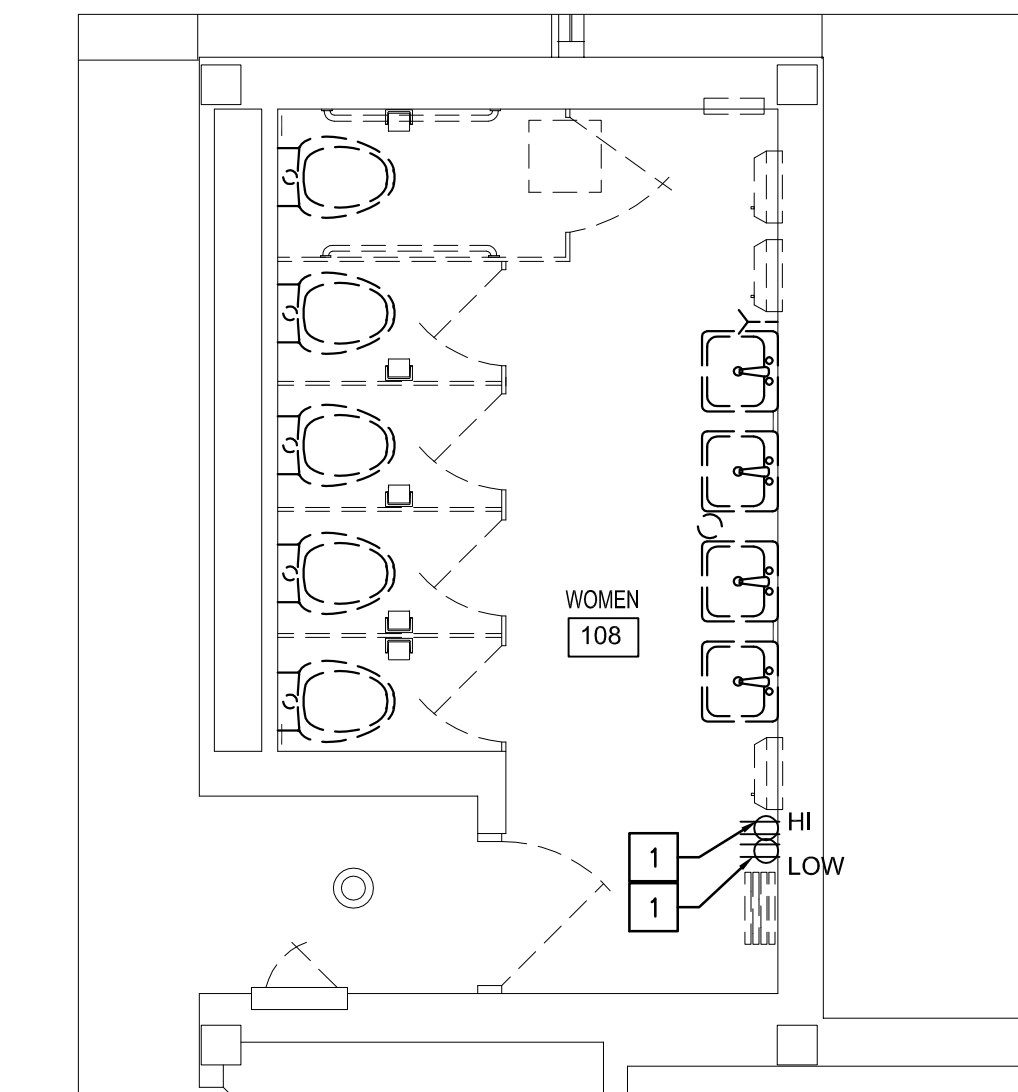
ED101 SCALE: 1/4" = 1'-0"



3 DEMO PLAN WOMEN 124



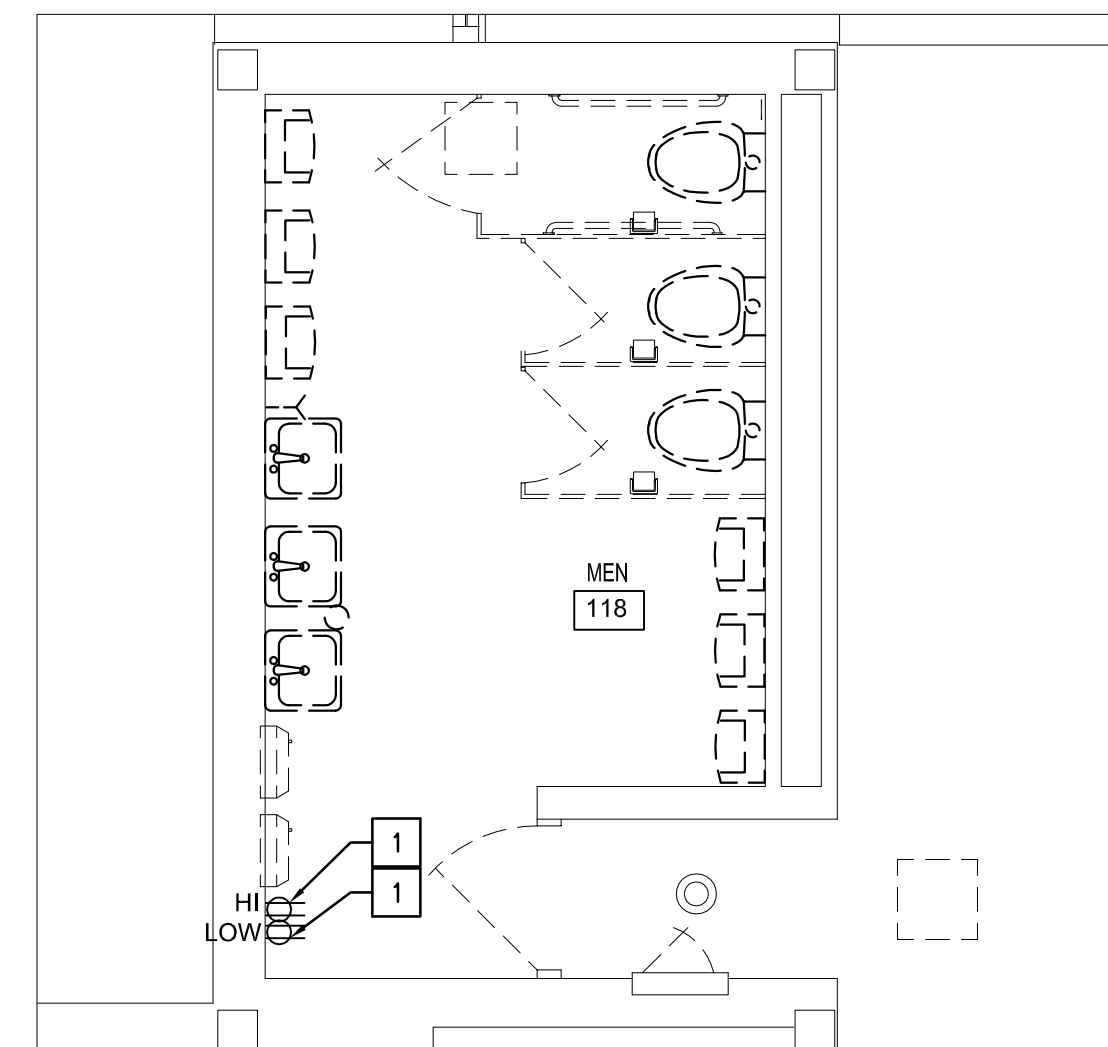
ED101 SCALE: 1/4" = 1'-0"



2 DEMO PLAN WOMEN 108



ED101 SCALE: 1/4" = 1'-0"



1 DEMO PLAN MEN 118



ED101 SCALE: 1/4" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY KNOWN DEVIATION FROM THE PLANS PRIOR TO BEGINNING OF THE WORK.
2. OWNER HAS RIGHT OF FIRST REFUSAL ON ALL SALVAGEABLE ITEMS.
3. DURING DEMOLITION, ALL ITEMS TO BE DEMOLISHED SHALL BE REMOVED IN A MANNER CONSISTENT WITH MINIMAL DAMAGE TO EXISTING ITEMS THAT ARE TO REMAIN.
4. IF ACCEPTABLE TO AHJ, ELECTRICAL CONTRACTOR HAS THE OPTION TO REUSE EXISTING CONDUIT THAT PENETRATES WALLS THAT ARE EXISTING TO REMAIN.
5. ALL ABANDONED DEVICES SHALL HAVE THEIR ROUGH-IN BOXES COVERED WITH MATCHING PLATES.
6. ABANDONED CONDUIT ABOVE ACCESSIBLE CEILINGS IS TO BE REMOVED, CONDUIT ABOVE PLASTER CEILINGS AND BEHIND MASONRY WALLS MAY REMAIN.

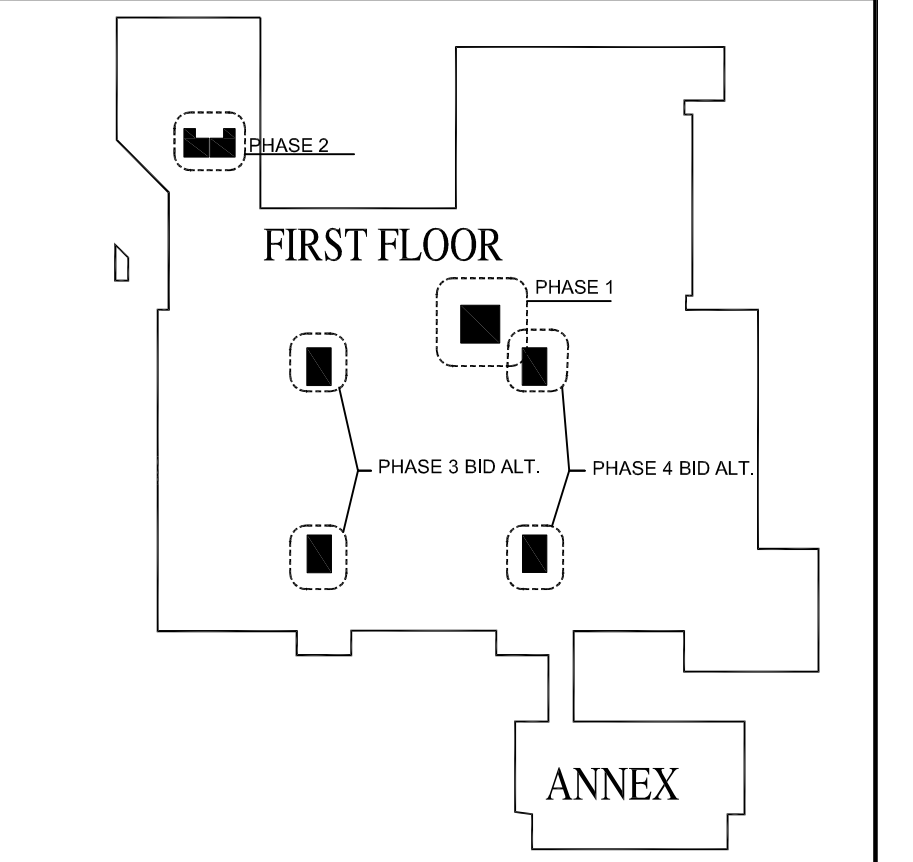
ELECTRICAL DEMO KEYNOTES:

- |   |  |
|---|--|
| 1 | DEMO AND REMOVE EXISTING RECEPTACLE. MAINTAIN CIRCUIT FOR RE-USE WITH NEW RECEPTACLE. SEE DEMO PLAN. |
| 2 | EXISTING ELECTRICAL BOX AND COVER PLATE TO REMAIN. REMOVE WIRING BACK TO PANEL.                      |
| 3 | RELOCATE EXISTING J-BOX(ES) TO ABOVE ACCESSIBLE CEILING. SEE NEW AND ARCH PLAN MORE INFORMATION.     |
| 4 | CONTRACTOR TO MAINTAIN EXISTING RECEPTACLE CIRCUIT FOR RE-USE WITH NEW RECEPTACLE. SEE NEW PLAN.     |

LEGEND:

- EXISTING WALLS TO REMAIN
- - - - - EXISTING TO BE DEMOLISHED
- ⤵ EXISTING DOOR TO BE REMOVED OR RELOCATED
- ⤵ EXISTING DOOR TO REMAIN
- TOILET ROOM NAME/NUMBER

KEYPLAN



ARCADIS  
Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership  
421 Fayetteville Street  
Suite 1609  
Raleigh NC 27601 USA  
tel 919 851 4211  
arcadis.com

CONSTRUCTION DOCUMENT PHASE

NC STATE UNIVERSITY

CAPITAL PROJECT MANAGEMENT  
• BOX 7520 • RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
DESIGN: S. TUCKER  
DN. BY: J. SHERWOOD  
CR. BY: K. SCHAEFER  
REV.:



NCSU - McKIMMON CENTER  
RESTROOM RENOVATIONS  
SCO ID # 22-25847-01A  
CODE/ITEM # 42124/323

DEMOLITION  
ELECTRICAL POWER PLANS

SHEET No.

ED101 of

Total Sheets: 00

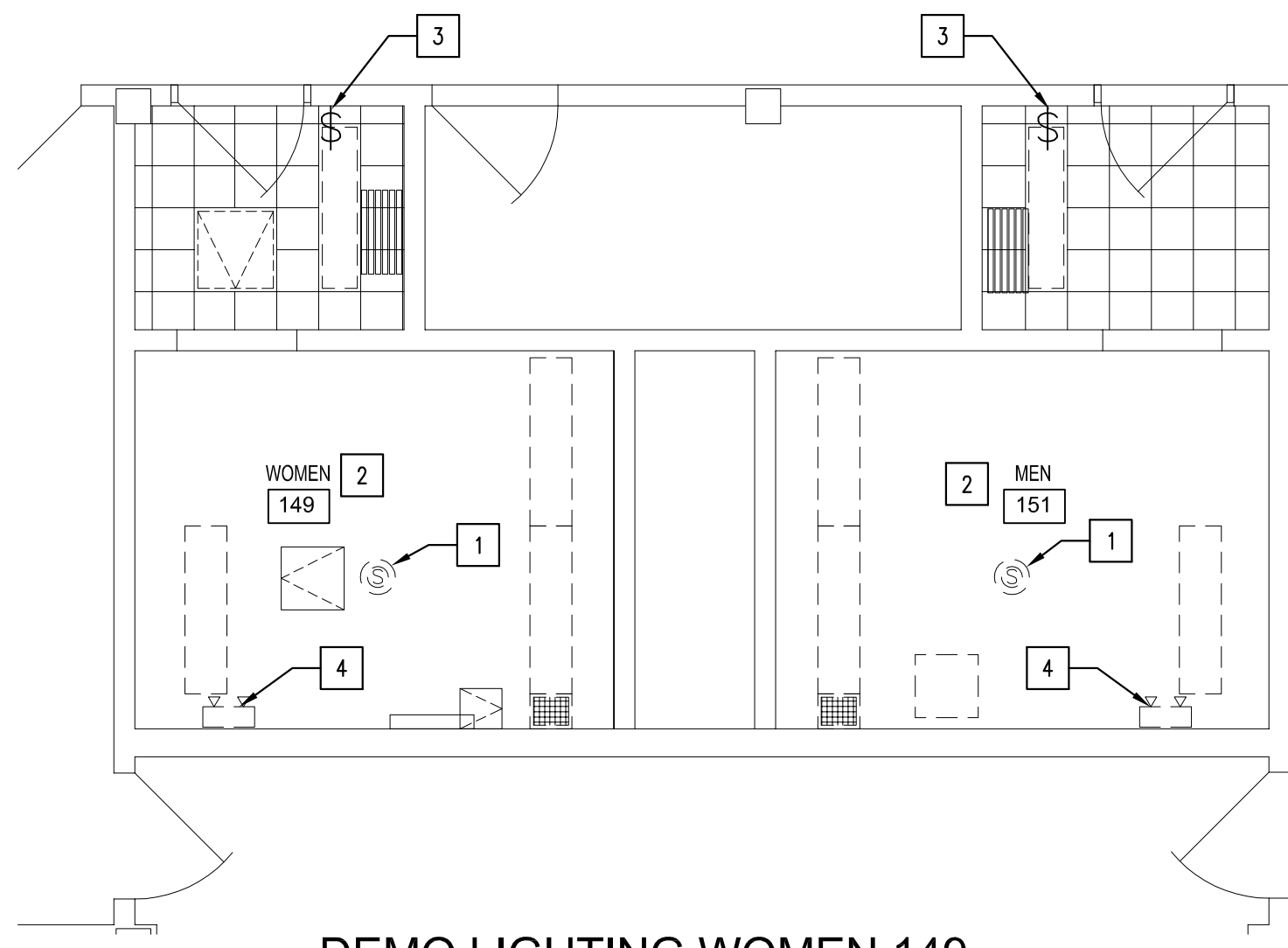
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NCSU Proj. No.  
202220029

FAC. NAME  
McKIMMON  
CENTER  
FAC. NO. 129

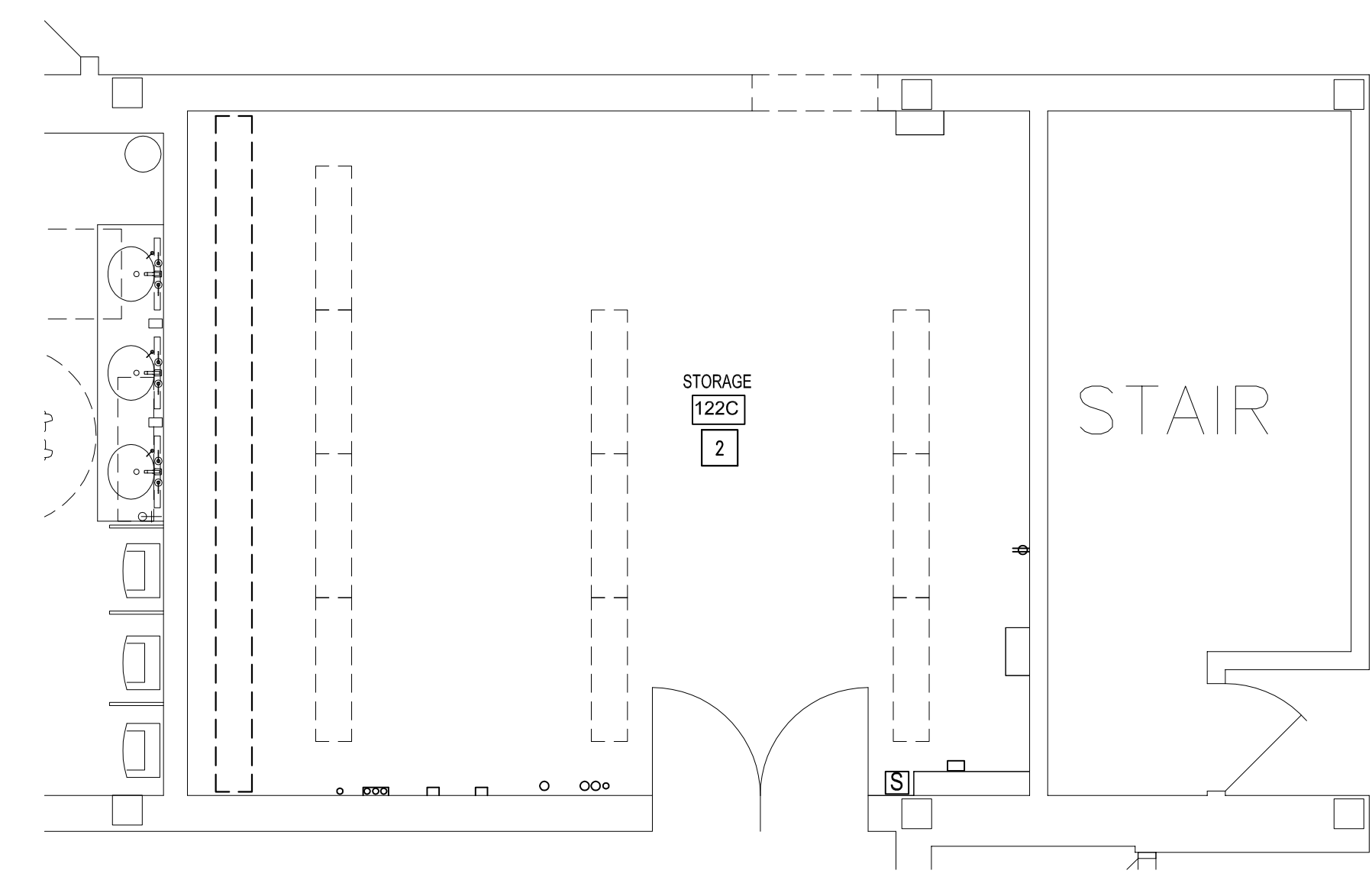
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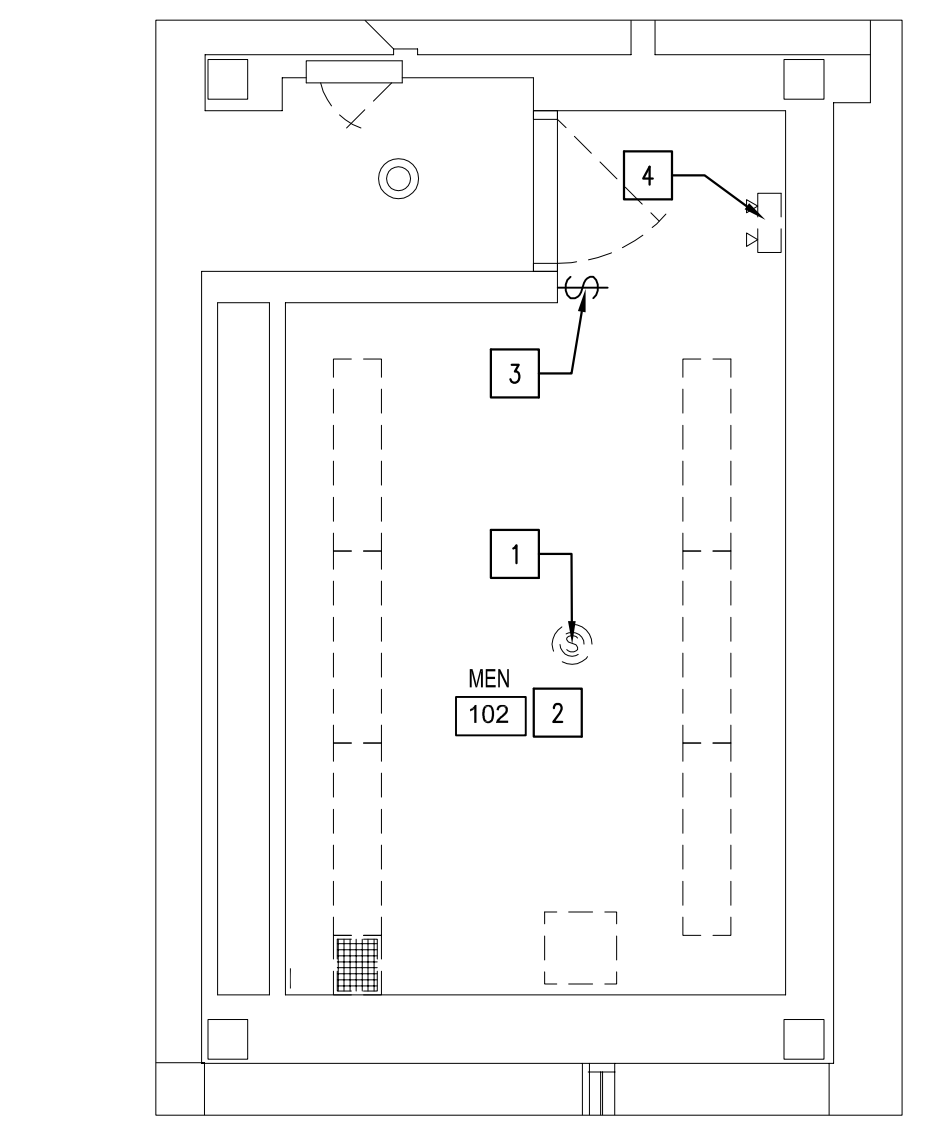
**6 DEMO LIGHTING WOMEN 149**  
**6 DEMO LIGHTING MEN 151**  
 ED111 SCALE: 1/4" = 1'-0"  
 NORTH

**PHASE 3 BID ALTERNATE**

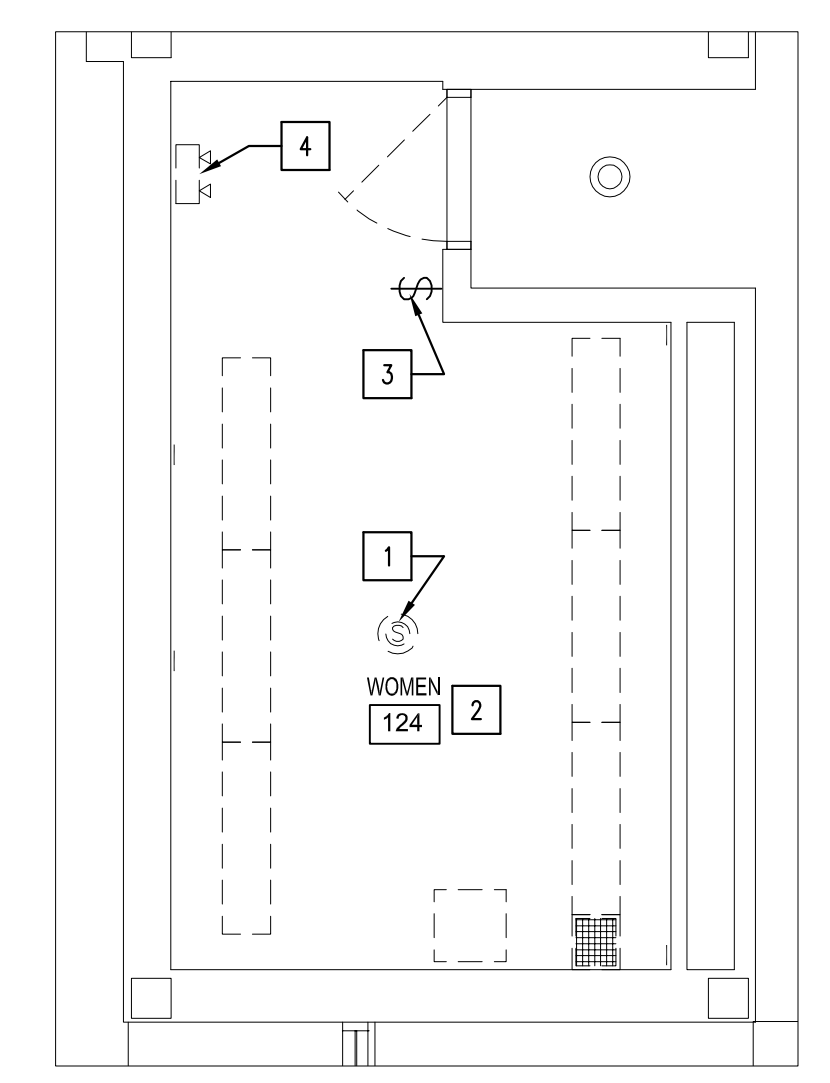


**5 DEMO LIGHTING STORAGE 122C**  
 ED111 SCALE: 1/4" = 1'-0"  
 NORTH

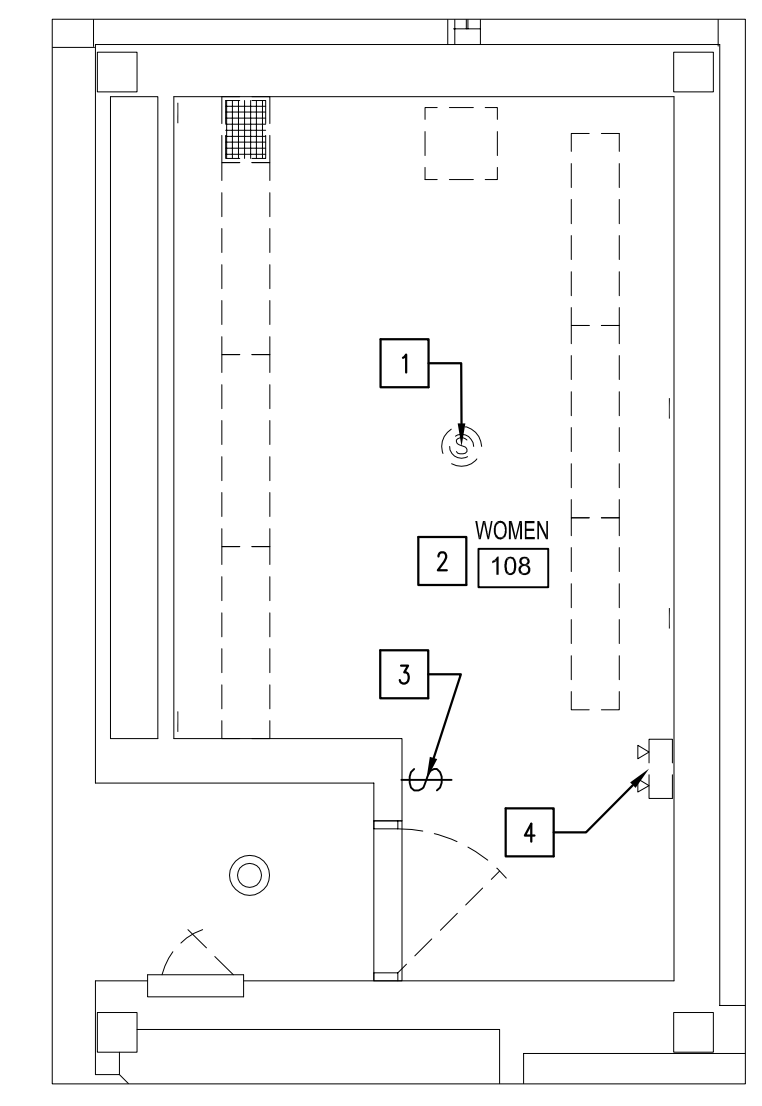
**PHASE 4 BID ALTERNATE**



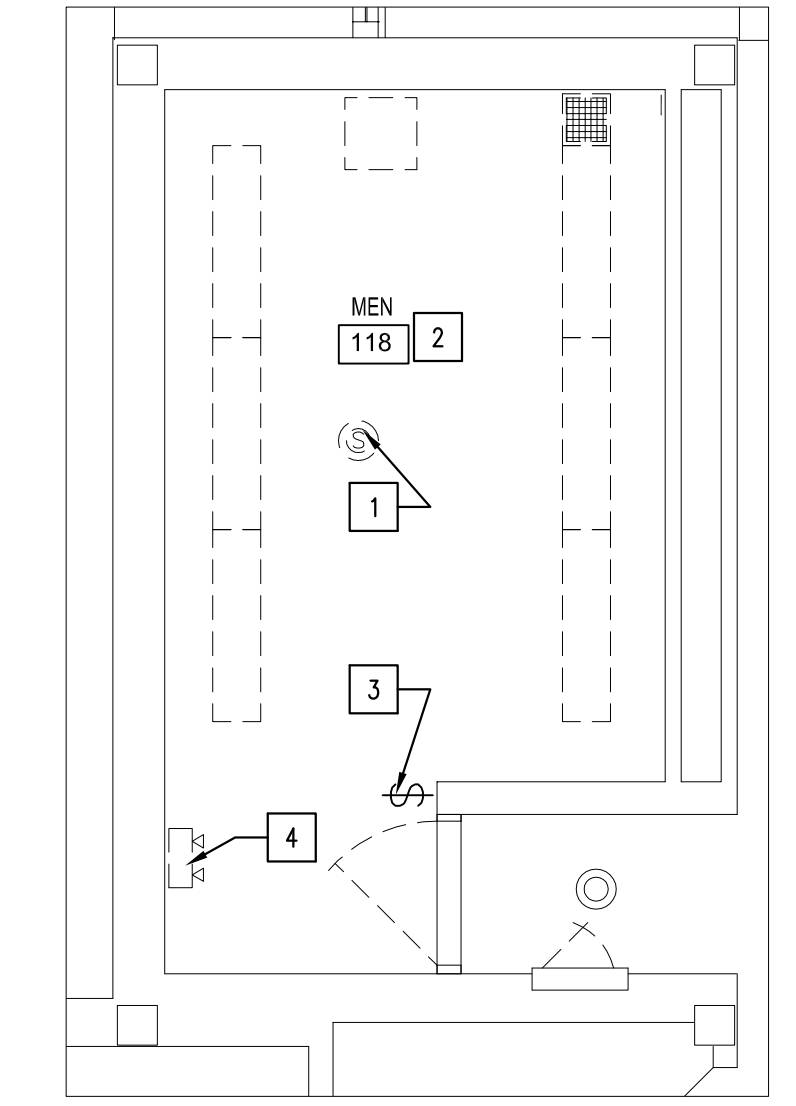
**4 DEMO PLAN MEN 102**  
 ED111 SCALE: 1/4" = 1'-0"  
 NORTH



**1 DEMO PLAN WOMEN 124**  
 ED111 SCALE: 1/4" = 1'-0"  
 NORTH



**1 DEMO PLAN WOMEN 108**  
 ED111 SCALE: 1/4" = 1'-0"  
 NORTH



**1 DEMO PLAN MEN 118**  
 ED111 SCALE: 1/4" = 1'-0"  
 NORTH

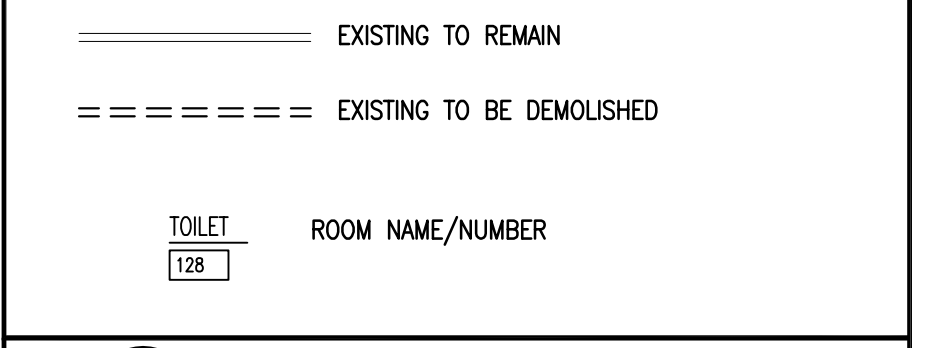
**ELECTRICAL DEMOLITION NOTES:**

1. GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY KNOWN DEVIATION FROM THE PLANS PRIOR TO BEGINNING OF THE WORK.
2. ALL EXISTING SURFACES DAMAGED OR AFFECTED BY NEW CONSTRUCTION TO BE REPAIRED TO MATCH ADJACENT SURFACES U.O.N.
3. EXISTING SPEAKERS TO REMAIN.
4. DEMO ALL EXISTING, AND ABANDONED CONDUITS WITHIN THE AREA OF WORK. CUT AND CAP AT NEAREST WALL.
5. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

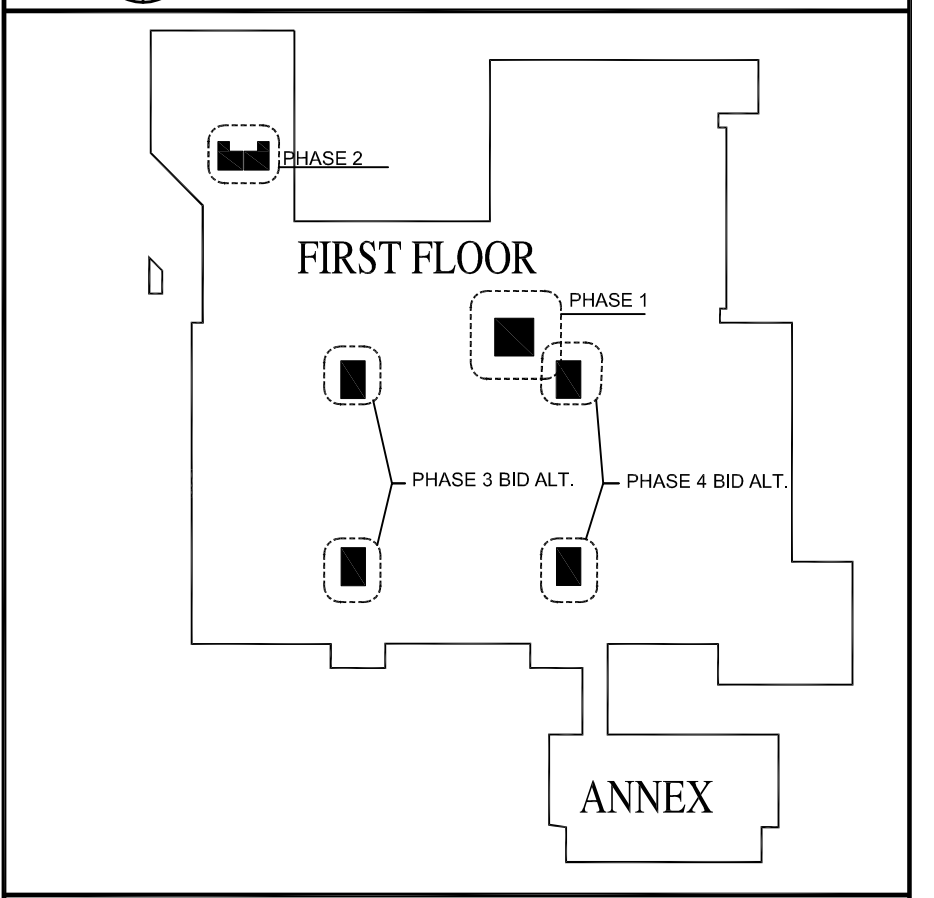
**ELECTRICAL DEMO KEYNOTES:**

- |   |   |
|---|---|
| 1 | EXISTING CEILING MOUNTED SPEAKER TO REMAIN. SPEAKER IS NOT PART OF LIFE SAFETY SYSTEM.  |
| 2 | DEMO AND REMOVE EXISTING LIGHT FIXTURES, CONDUIT AND ASSOCIATED LIGHT SWITCH(ES). MAINTAIN EXISTING CIRCUIT FOR RE-USE WITH NEW LIGHTS. SEE NEW PLAN. |
| 3 | DEMO AND REMOVE EXISTING LIGHT SWITCH.  |
| 4 | DEMO AND REMOVE EXISTING BUGEYE FIXTURE.  |

**LEGEND:**



**KEYPLAN**



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 421 Fayetteville Street  
 Suite 1609  
 Raleigh NC 27601 USA  
 tel 919 851 4211  
 arcadis.com

**CONSTRUCTION DOCUMENT PHASE**

**NC STATE UNIVERSITY**  
 CAPITAL PROJECT MANAGEMENT  
 • BOX 7520 • RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: J. SHERWOOD  
 CHECKED BY: K. SCHAEFER  
 REV:



**NCSU - McKIMMON CENTER**  
 RESTROOM RENOVATIONS  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

**DEMOLITION ELECTRICAL LIGHTING PLANS**

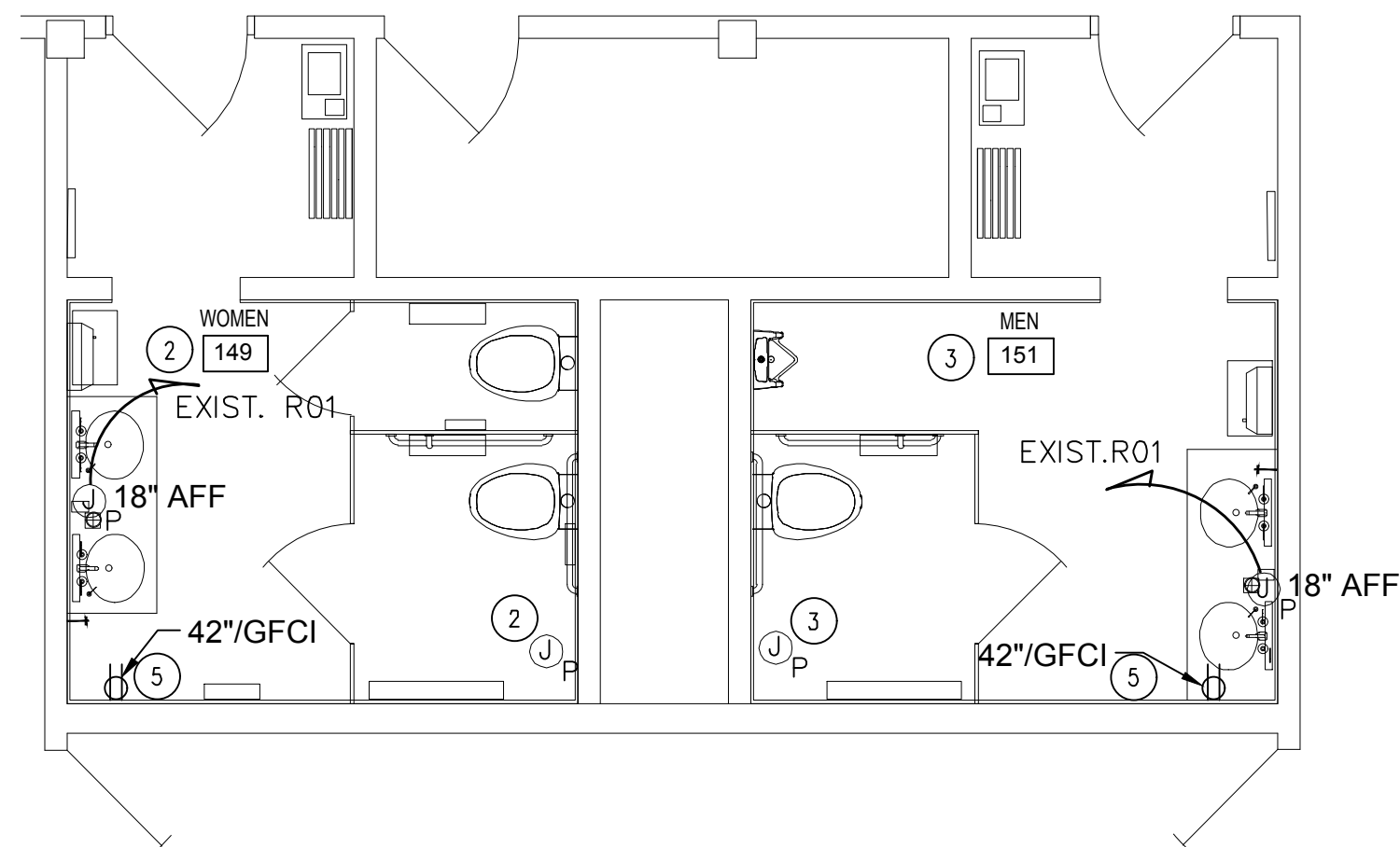
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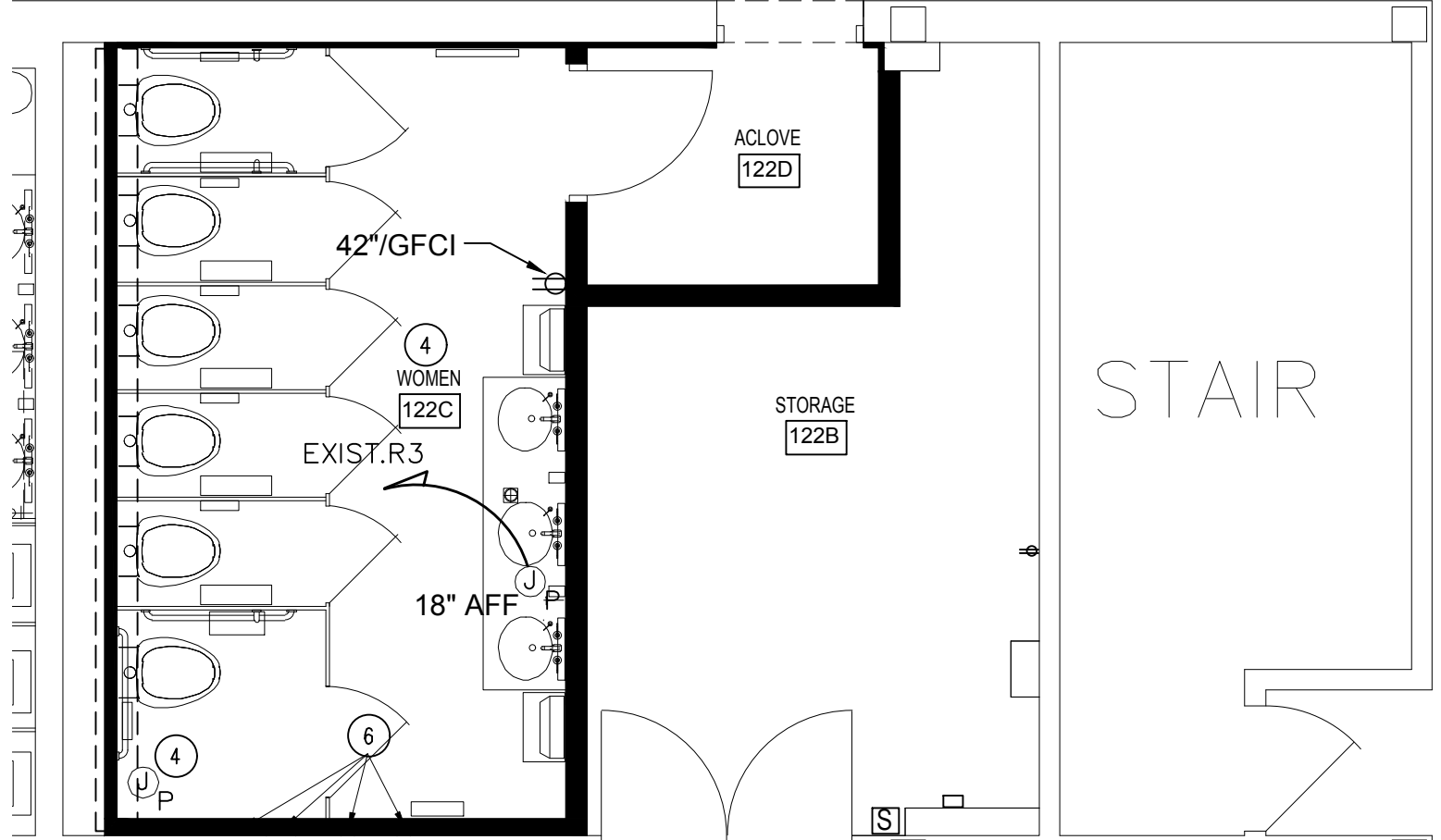
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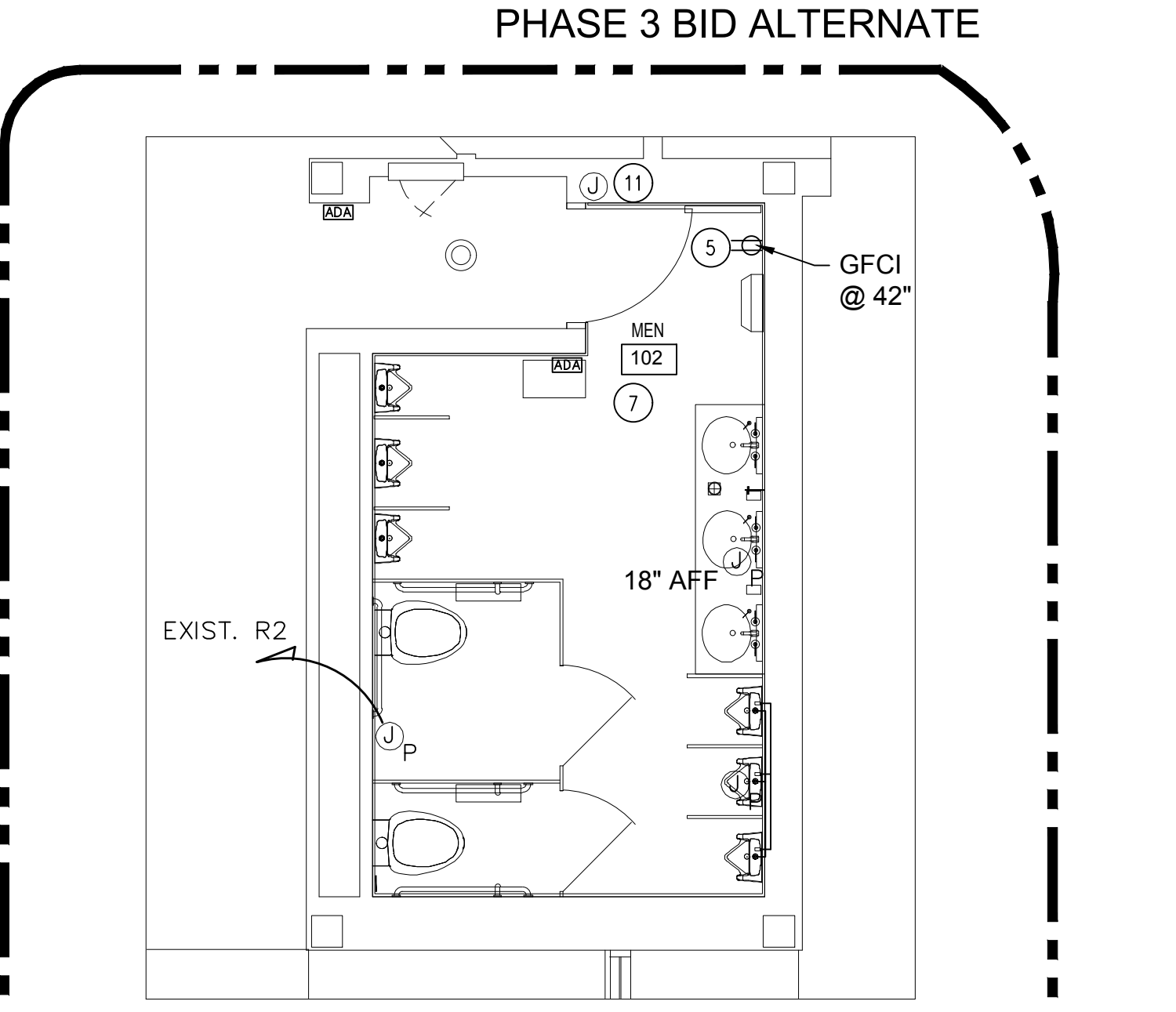




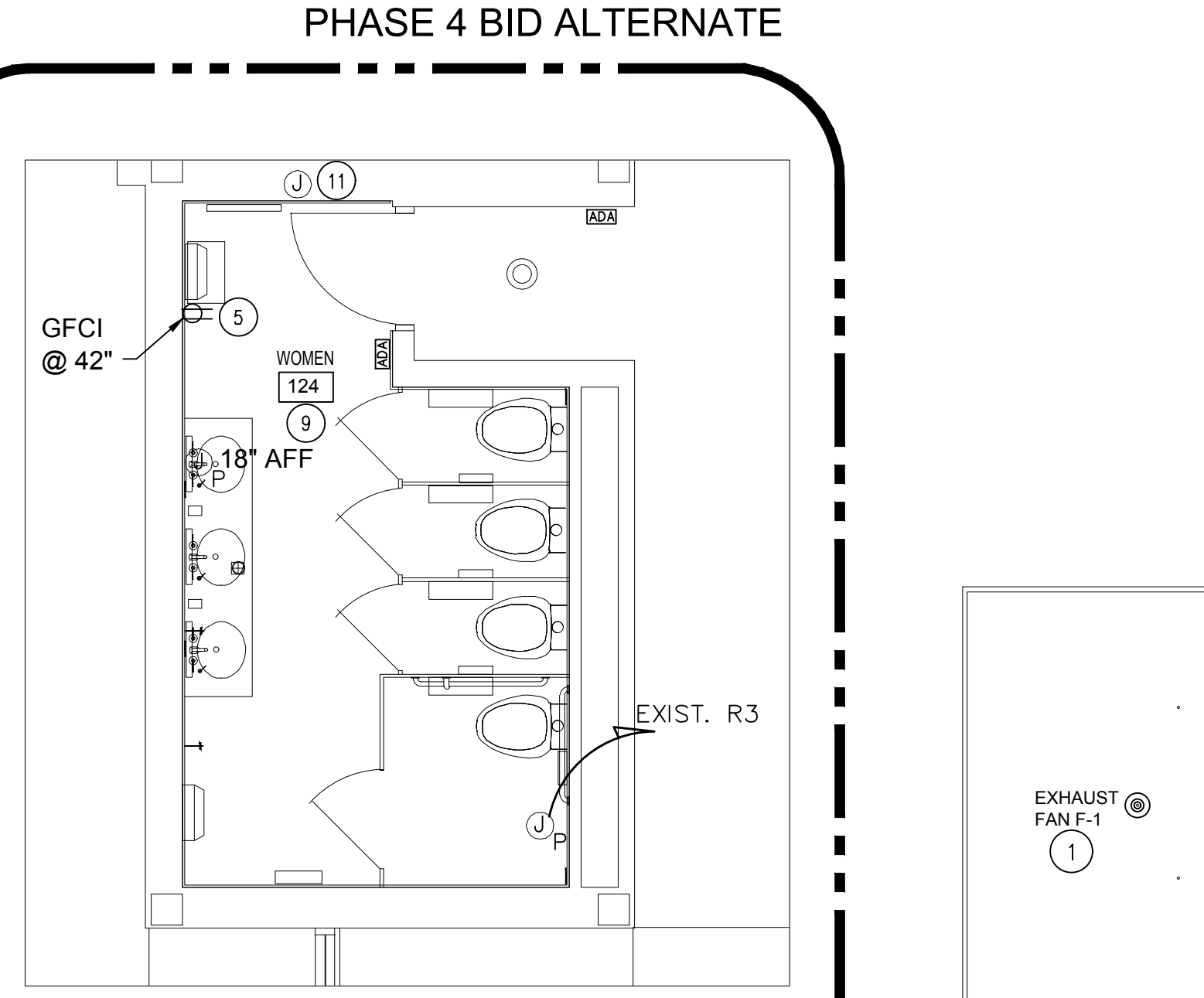
**RENO PLAN WOMEN 149**  
**RENO PLAN MEN 151**  
 E101 SCALE: 1/4" = 1'-0"  
 NORTH



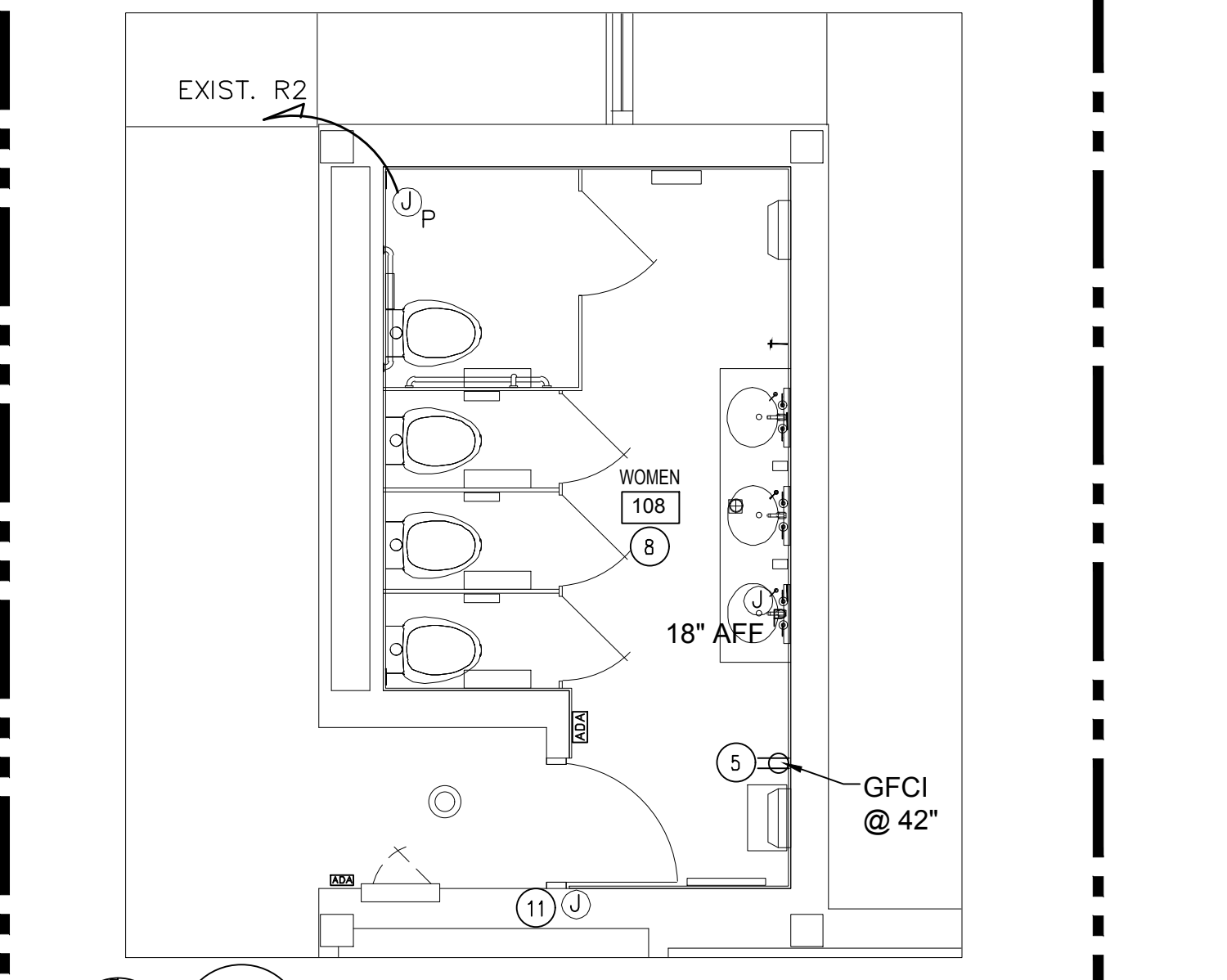
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 E101 SCALE: 1/4" = 1'-0"  
 NORTH



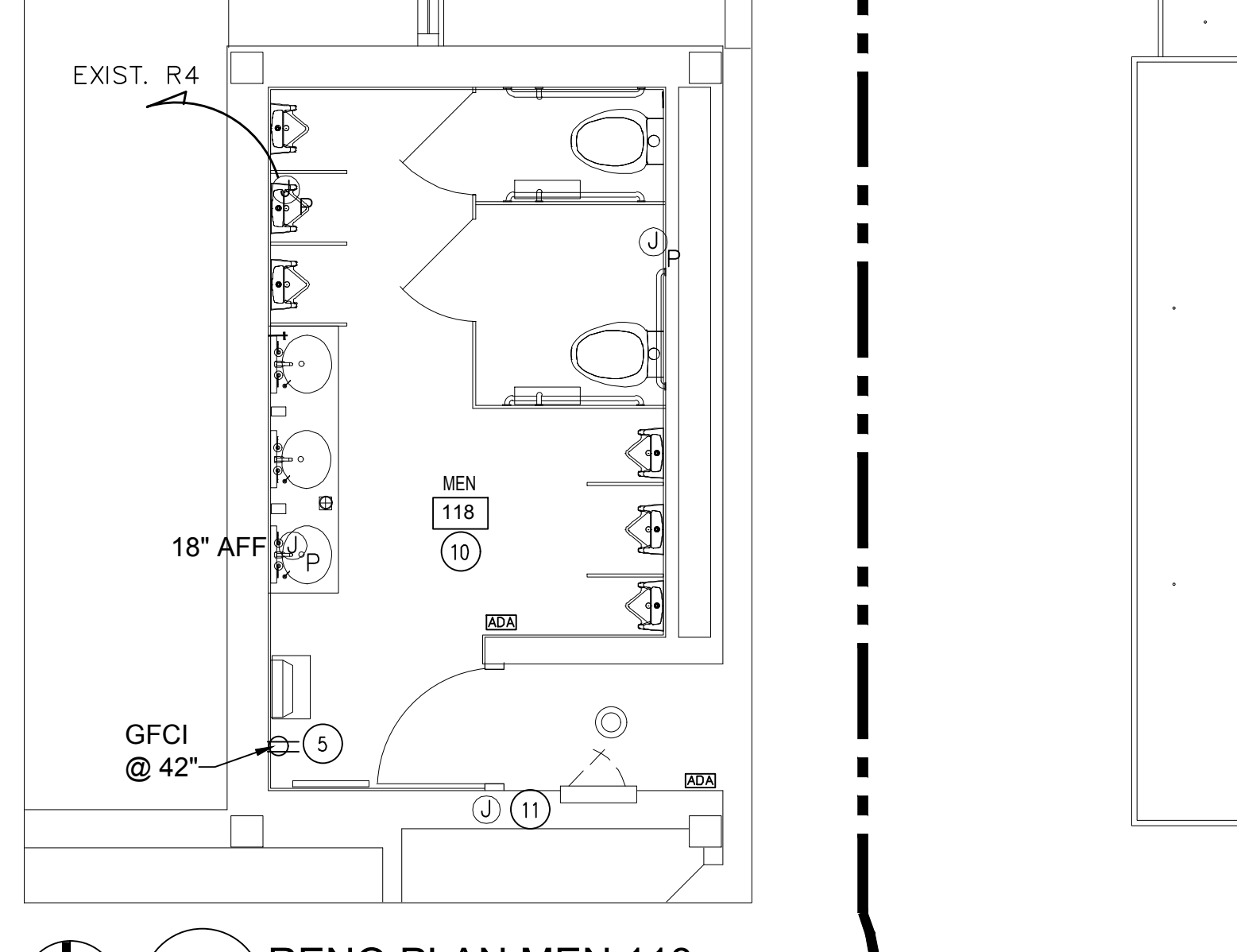
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**RENO PLAN MEN 102**  
 E101 SCALE: 1/4" = 1'-0"  
 NORTH



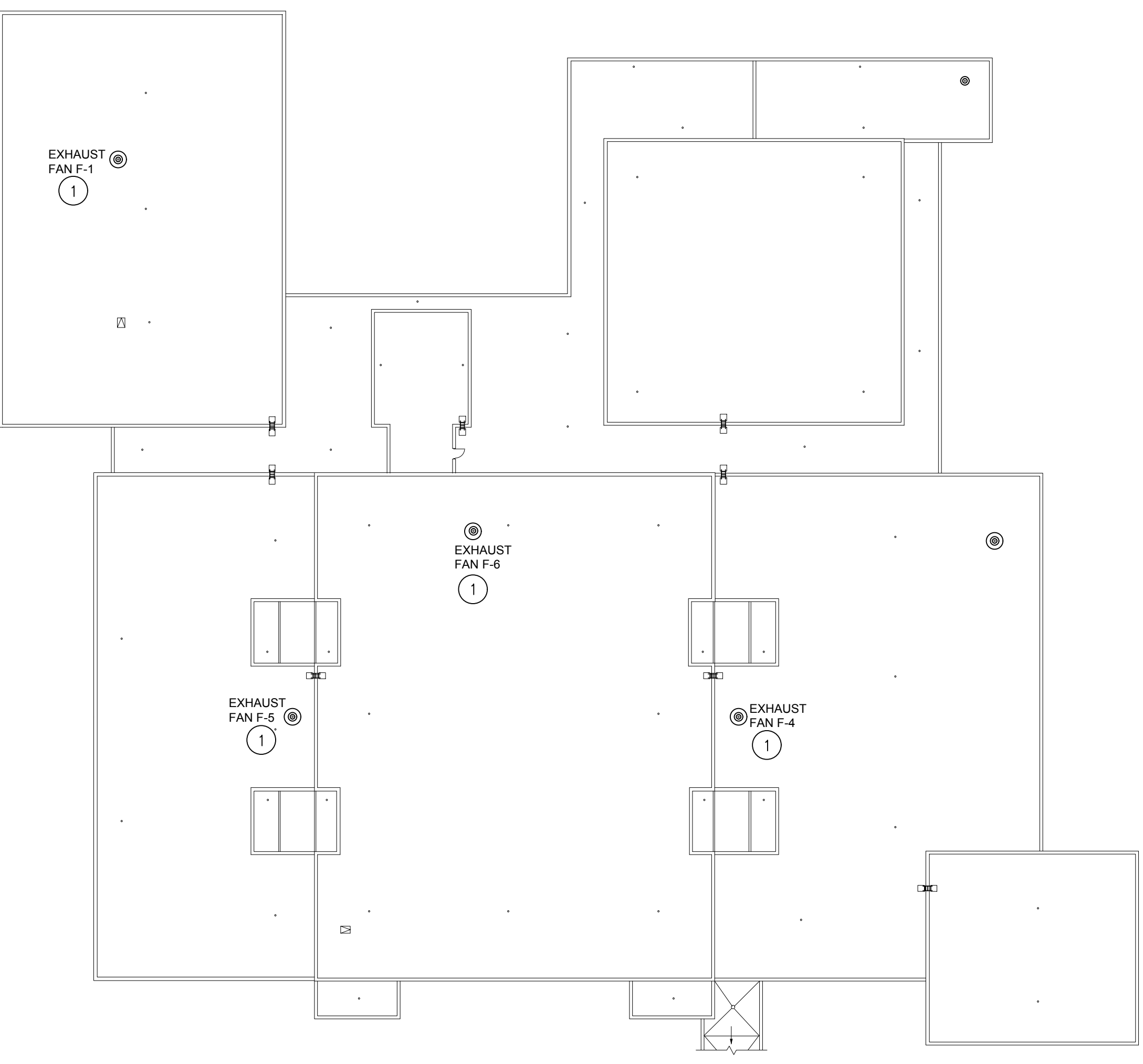
**PHASE 4 BID ALTERNATE**  
**RENO PLAN WOMEN 124**  
 E101 SCALE: 1/4" = 1'-0"  
 NORTH



**RENO PLAN WOMEN 108**  
 E101 SCALE: 1/4" = 1'-0"  
 NORTH



**RENO PLAN MEN 118**  
 E101 SCALE: 1/4" = 1'-0"  
 NORTH



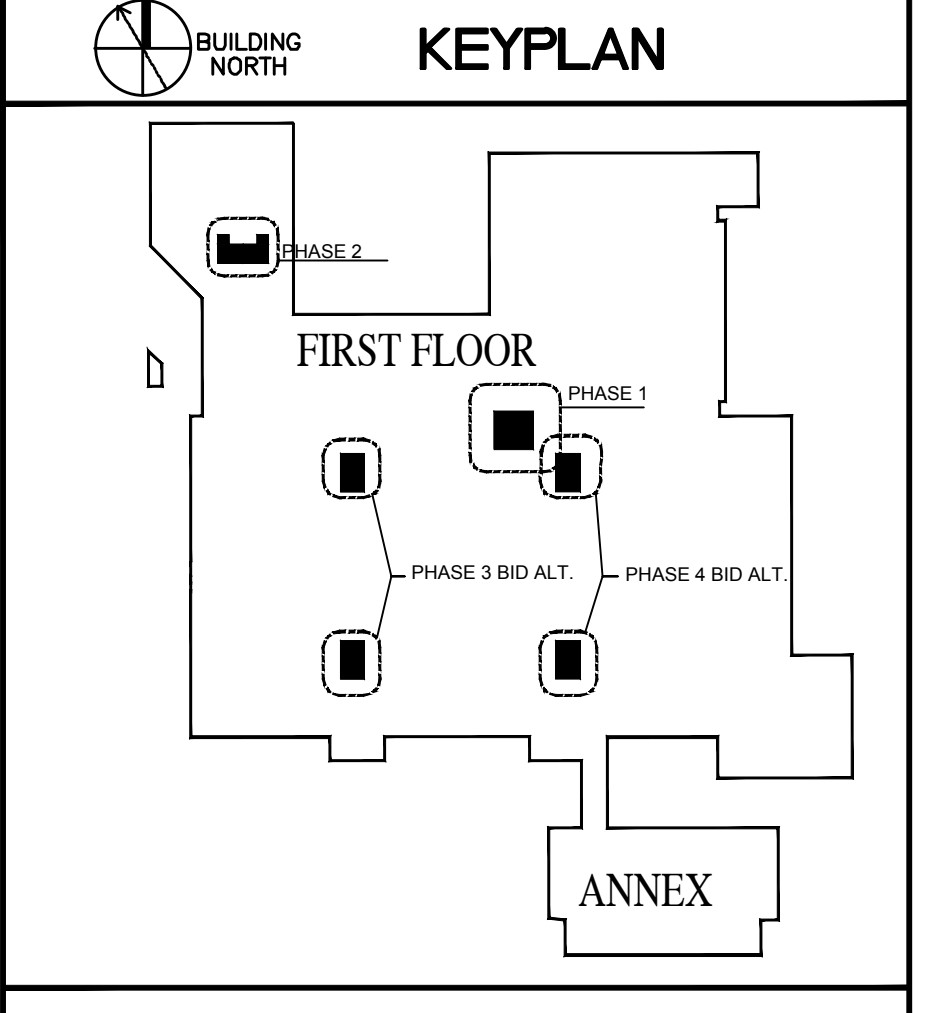
**OVERALL ROOF PLAN - POWER**  
 E101 SCALE: 1/32" = 1'-0"  
 NORTH

POWER LEGEND	
	DUPLEX RECEPTACLE, 20A RATED, SPECIFICATION GRADE, 18" A.F.F., UNLESS NOTED OTHERWISE.
	QUADRUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 42" A.F.F./U.N.O.
	DUPLEX RECEPTACLE WITH WEATHERPROOF COVER, GROUND FAULT CIRCUIT INTERRUPTER TYPE, MOUNT AT 24" A.F.F. U.N.O.
	PANELBOARD, SEE SCHEDULE.
	HOME-RUN POWER CIRCUIT WIRING AND CONDUIT TO THE PANELBOARD NOTED.
	THERMAL MOTOR-RATED SWITCH
	HEAVY DUTY DISCONNECT SWITCH, H.P. RATED, FUSIBLE WHERE NOTED, NEMA RATED FOR CONDITION.
	JUNCTION BOX SIZED PER NEC WITH REMOVABLE COVER.
	4X4 SQUARE JUNCTION BOX SIZED PER NEC WITH REMOVABLE COVER FOR PLUMBING EQUIPMENT.
	CONDUIT INSTALLED IN ALL LOCATIONS WHERE POSSIBLE.
	THREE PHASE MOTOR, NUMBER INDICATES HORSEPOWER
	SINGLE PHASE MOTOR, NUMBER INDICATES HORSEPOWER
	FUSIBLE 1 PHASE MAGNETIC MOTOR STARTER (SIZE AS INDICATED)
	ADA AUTOMATIC DOOR ACTUATOR, WALL MOUNTED 40" AFF, WITHIN 1'-0" TO 5'-0" OF DOOR.
	ABOVE FINISHED FLOOR.
	BELOW FINISHED CEILING.
	SWITCH

ELECTRICAL RENO KEYNOTES	
1	TEMPORARILY DISCONNECT POWER TO EXISTING EXHAUST FANS. MAINTAIN CIRCUIT FOR RE-USE WITH NEW EXHAUST FAN. RECONNECT TO NEW EXHAUST FANS. CONFIRM ADDITIONAL POWER REQUIREMENTS AND EXACT LOCATION WITH MECHANICAL CONTRACTOR.
2	CONNECT ROOM 149 PLUMBING POWER CONVERTERS AND RE-CIRC. PUMP TO EXIST. PANEL R01, SPARE-36. NEW 20A BRANCH CIRCUIT AND WIRE 2-#12.1-#12G. COORDINATE ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
3	CONNECT ROOM 151 PLUMBING POWER CONVERTERS AND RE-CIRC. PUMP TO EXIST. PANEL R01, SPARE-36. NEW 20A BRANCH CIRCUIT AND WIRE 2-#12.1-#12G. COORDINATE ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
4	CONNECT ROOM 122C PLUMBING POWER CONVERTERS AND RE-CIRC. PUMP TO EXIST. PANEL R3, SPARE-26. NEW 20A BRANCH CIRCUIT AND WIRE 2-#12.1-#12G. COORDINATE ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
5	PROVIDE NEW GFCI RECEPTACLE, RE-USE EXISTING CIRCUIT. SEE DEMO PLAN FOR MORE INFORMATION.
6	RELOCATED JUNCTION BOXES ABOVE GRID CEILING. SEE DEMO PLAN FOR MORE INFORMATION.
7	CONNECT ROOM 102 PLUMBING POWER CONVERTERS AND RE-CIRC. PUMP TO EXIST. PANEL R2, SPARE-10. NEW 20A BRANCH CIRCUIT AND WIRE 2-#12.1-#12G. COORDINATE ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
8	CONNECT ROOM 108 PLUMBING POWER CONVERTERS AND RE-CIRC. PUMP TO EXIST. PANEL R3, SPARE-8. NEW 20A BRANCH CIRCUIT AND WIRE 2-#12.1-#12G. COORDINATE ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
9	CONNECT ROOM 124 PLUMBING POWER CONVERTERS AND RE-CIRC. PUMP TO EXIST. PANEL R3, SPARE-15. NEW 20A BRANCH CIRCUIT AND WIRE 2-#12.1-#12G. COORDINATE ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
10	CONNECT ROOM 118 PLUMBING POWER CONVERTERS AND RE-CIRC. PUMP TO EXIST. PANEL R4, SPARE-28. NEW 20A BRANCH CIRCUIT AND WIRE 2-#12.1-#12G. COORDINATE ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
11	PROVIDE JUNCTION BOX FOR HARDWARE DOOR OPERATOR CONTROL BOX. COORDINATE EXACT LOCATION WITH ARCH. PLANS.

ELECTRICAL GENERAL NOTES	
1.	PROVIDE CONDUIT PENETRATIONS THROUGH BOTH EXISTING AND NEW WALLS. WHILE REMOVING WIRING FROM CONDUITS TO BE REUSED, RUN A NEW PULL LINE FOR PULLING NEW WIRING.
2.	ALL MOUNTING HEIGHTS ARE GIVEN TO THE CENTERLINE OF THE DEVICE UNLESS NOTED OTHERWISE.
3.	CONTRACTOR HAS THE OPTION TO REUSE EXISTING CONDUIT THAT PENETRATES WALLS THAT ARE EXISTING TO REMAIN.
4.	ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110-16(A) ARC-FLASH HAZARD, 110.24(B) FAULT CURRENT, AND 110.26 WORKING CLEARANCES.
5.	WHERE A MULTIPLE-GANG BOX HAS CIRCUITS OF DIFFERENT VOLTAGES OR SYSTEMS WHICH ARE REQUIRED TO BE SEPARATED, PROVIDE THE CODE-REQUIRED SEPARATION USING A FULL HEIGHT AND DEPTH BARRIER PLATED.
6.	ALL WIRING, CONDUCTORS AND GROUNDS, SHALL BE MINIMUM 98% COPPER. ALL WIRING IS SIZED BASED ON 75° C. COPPER, UNLESS OTHERWISE NOTED.
7.	CONTROL WIRING FOR MECHANICAL EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT TO LOCAL JUNCTION BOX FOR MECHANICAL CONTRACTOR FINAL CONNECTION.
8.	MECHANICAL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. LOCATIONS SHOWN ARE APPROXIMATE. THE ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE WITH THE MECHANICAL CONTRACTOR TO DETERMINE THE EXACT LOCATION OF EACH EQUIPMENT CONNECTION.
9.	CONTRACTOR SHALL INSTALL COVER PLATES ON EXISTING OPEN ROUGH-INS AND J-BOXES WITHIN THE AREA OF WORK.
10.	PROVIDE NEW IDENTIFICATION FOR NEW CONDUITS BEING ADDED TO EXISTING PANELS.
11.	UNLESS OTHERWISE NOTED, ALL NEW DEVICES AND EQUIPMENT CONNECTED TO EXISTING PANELS.
12.	AUTOMATIC DOOR OPERATORS AND ACTUATOR BUTTONS ARE BY DOOR HARDWARE CONTRACTOR. POWER TO OPERATOR IS BY ELECTRICIAN. LOW-VOLTAGE POWER BETWEEN DOOR AND ACTUATOR BUTTONS IS BY DOOR HARDWARE CONTRACTOR. COORDINATE BETWEEN TRADES.
13.	FLUSH VALVES/SENSORS, FAUCET VALVES/SENSORS, POWER CONVERTERS AND LOW-VOLTAGE WIRE SHALL BE PROVIDED AND INSTALLED BY PC. 120V AC POWER CIRCUITS (CONDUIT, WIRE AND CONNECTION) AND CONVERTER JUNCTION BOXES SHALL BE PROVIDED AND INSTALLED BY EC.
14.	WITHIN AREAS OF WORK, SUPPORT ALL NEW AND EXISTING CONDUIT PER NEC CODE AND WITHIN 12 INCHES OF ENCLOSURES, 90 DEGREE BENDS AND DEVICES. FOR BIDDING, INCLUDE (20) 60" LONG 12 GA WIRE HANGERS PER RESTROOM FOR EXISTING CONDUIT.
15.	WITHIN AREAS OF WORK FASTEN ALL NEW AND EXISTING JUNCTION AND PULL BOXES TO OR SUPPORT THEM FROM THE BUILDING STRUCTURE. DO NOT SUPPORT BOXES BY CONDUIT FOR BIDDING, INCLUDE (5) SUPPORTS PER RESTROOM FOR EXISTING JUNCTION BOXES.

OWNER REQUIREMENTS	
1.	ENSURE THAT ALL ELECTRICAL WORK IS DONE DEENERGIZED. SPECIFICALLY, WHERE ELECTRICAL EQUIPMENT IS OPENED EXPOSING LIVE PARTS OR CONDUCTORS, BREAKERS ARE REMOVED OR INSTALLED, OR WHERE ELECTRICAL CONNECTIONS ARE MODIFIED, ALL POWER AT THE PANEL OR ENCLOSURE SHALL BE DEENERGIZED AT ITS SOURCE, PRIOR TO WORK BEING DONE.
2.	ALL TESTING, TROUBLESHOOTING, AND VERIFICATION OF DEENERGIZATION IS TO BE DONE IN ACCORDANCE WITH NFPA 70E, INCLUDING ESTABLISHING, AND ISOLATING IF NEEDED, SHOCK PROTECTIVE AND ARC FLASH PROTECTIVE APPROACH BOUNDARIES AND DONNING PERSONAL PROTECTIVE EQUIPMENT APPROPRIATE FOR THE HAZARD.

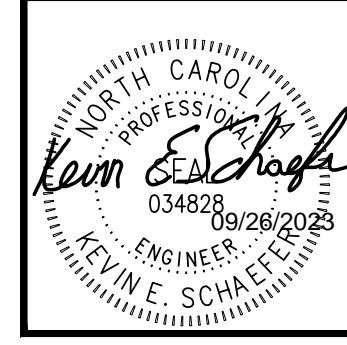


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**CONSTRUCTION DOCUMENT PHASE**

**NC STATE UNIVERSITY**  
 CAPITAL PROJECT MANAGEMENT  
 BOX 7520 RALEIGH, NORTH CAROLINA 27695 - 7520

DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: J. SHERWOOD  
 CHECKED BY: K. SCHAEFER  
 REV.:



**NCSU - MCKIMMON CENTER RESTROOM RENOVATIONS**  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

**RENOVATION ENLARGED POWER PLANS**

SHEET No. **E101** of  
 Total Sheets: 00  
 Designer Proj. No. 142814  
 NCSU Proj. No. 202220029  
 FAC. NAME **McKIMMON CENTER**  
 FAC. NO. 129

Acad Version : R22.0s (LMS Tech) User Name : justin.shernood  
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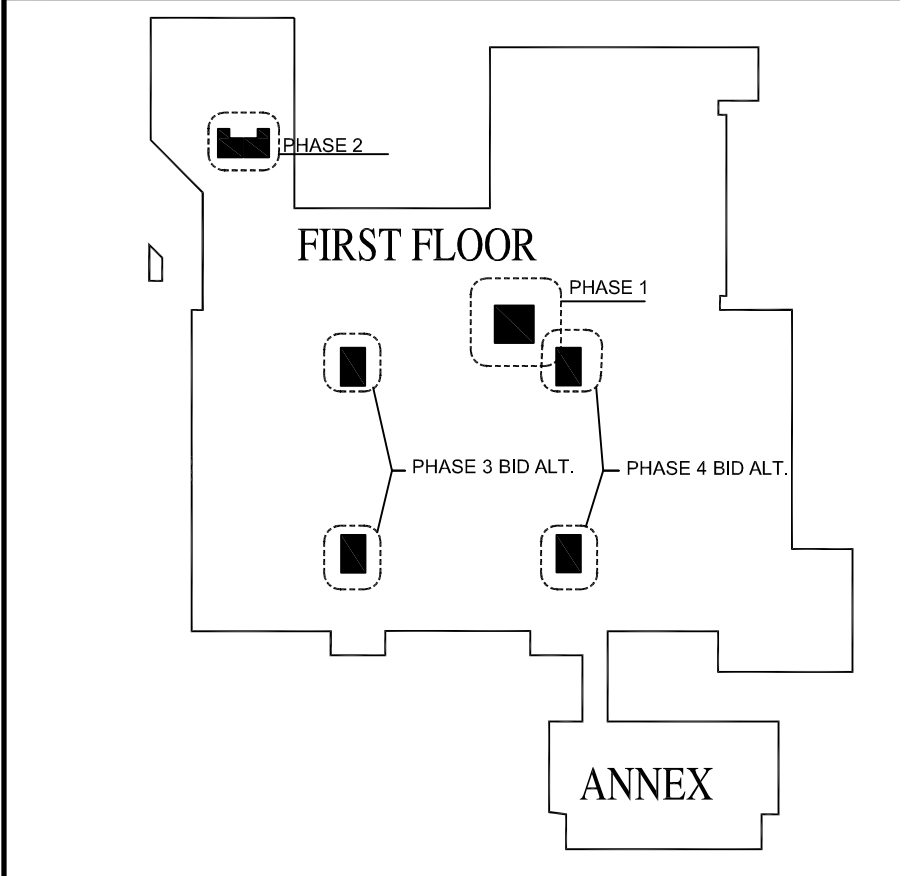
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**1 OVERALL ELECTRICAL PANEL LOCATIONS PLAN**  
 E002 SCALE: 1/16" = 1'-0"

EXIST. FIRE ALARM ANNUNCIATOR PANEL

EXIST. FIRE ALARM CONTROL PANEL

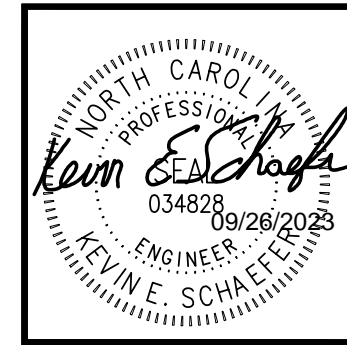
- ELECTRICAL PANEL NOTES:**
- ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY KNOWN DEVIATION FROM THE PLANS PRIOR TO BEGINNING OF THE WORK.
  - ALL ELECTRICAL PANELS SHOWN ARE EXISTING TO REMAIN.
  - ELECTRICAL WORK ASSOCIATED WITH REPLACING ROOFTOP EXHAUST FANS IS TO BE IN PHASE 1.



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**NCSU - McKIMMON CENTER RESTROOM RENOVATIONS**  
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**OVERALL ELECTRICAL PANEL LOCATIONS FIRST FLOOR PLAN**

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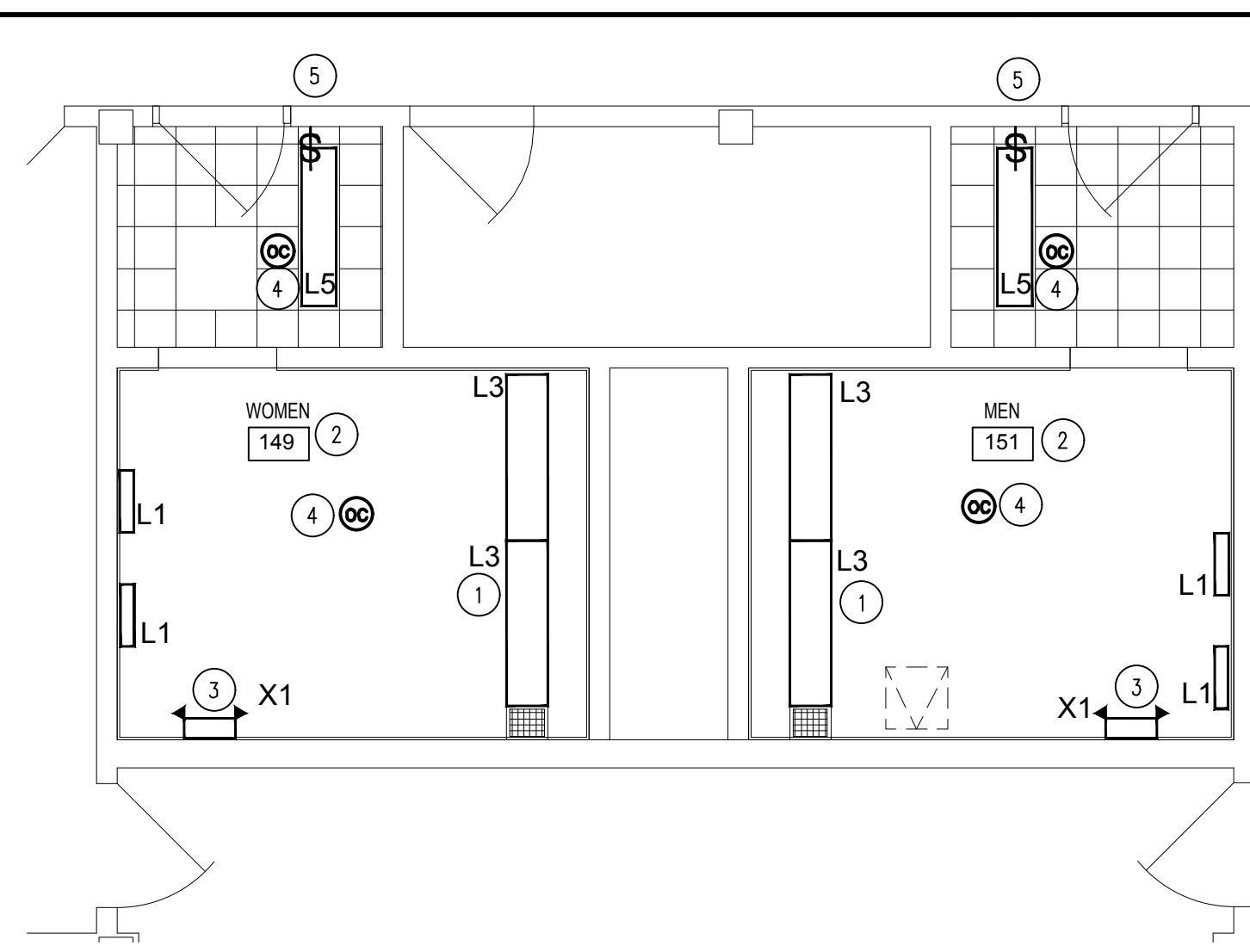
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FAC. NAME **McKIMMON CENTER**  
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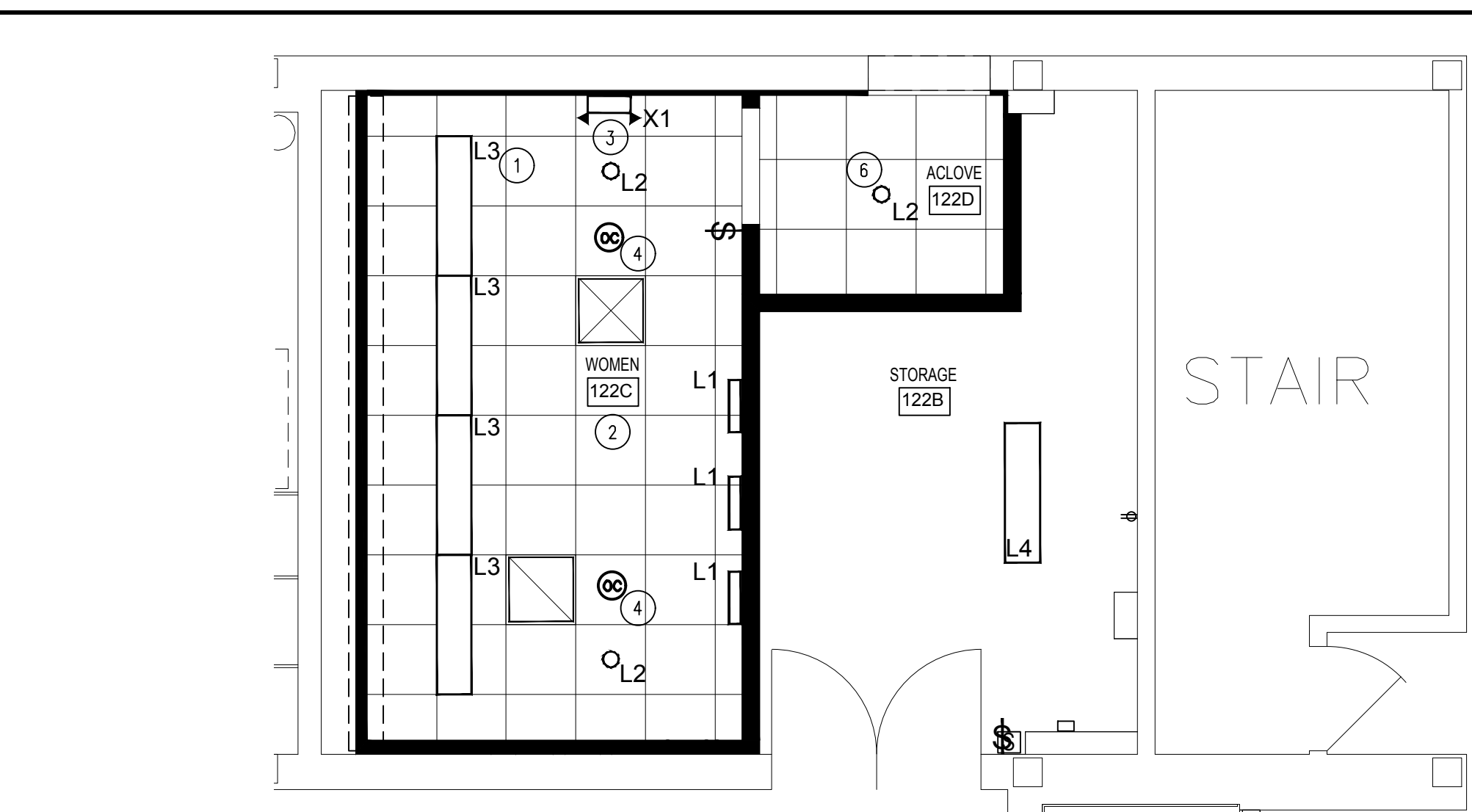
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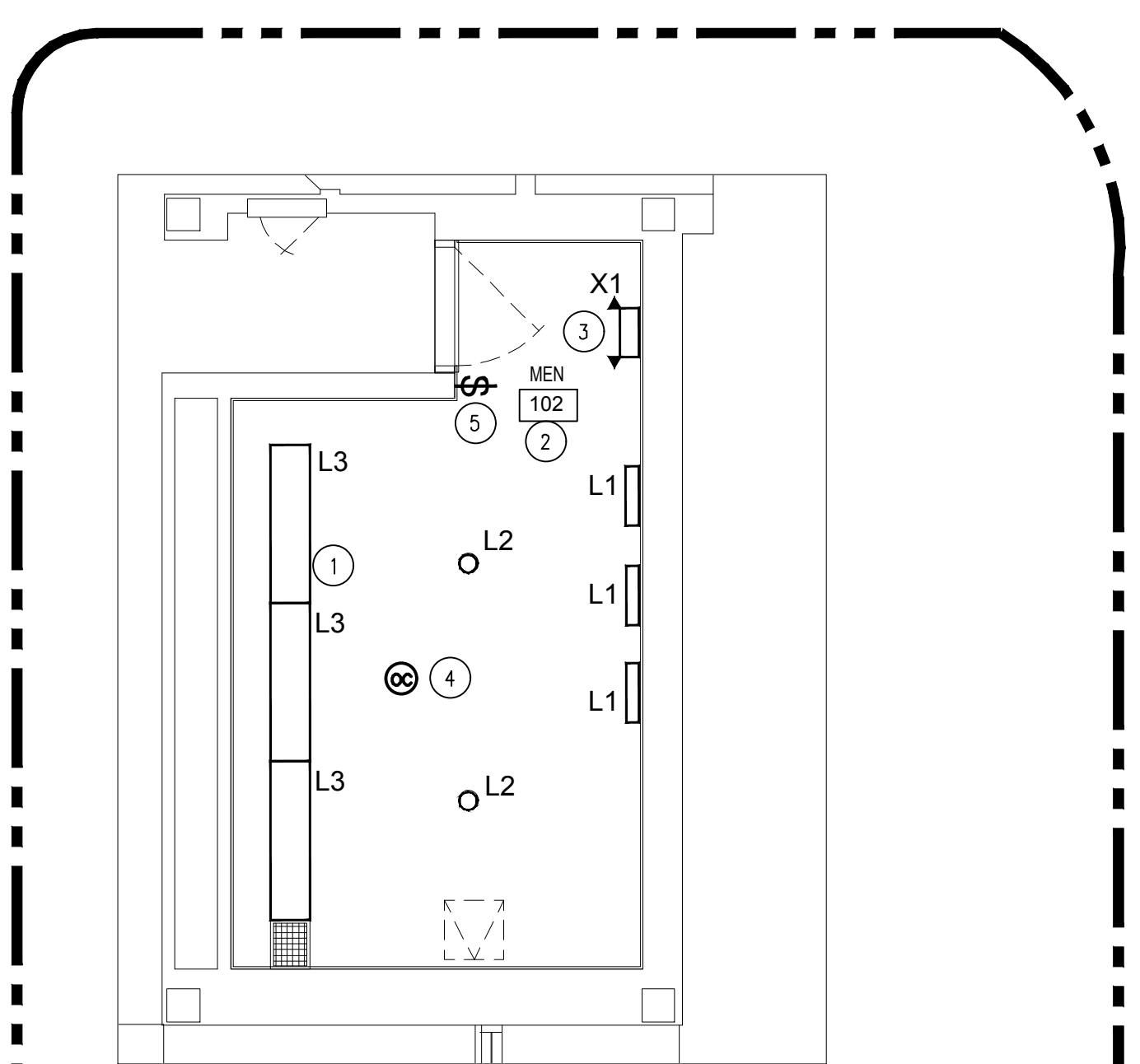




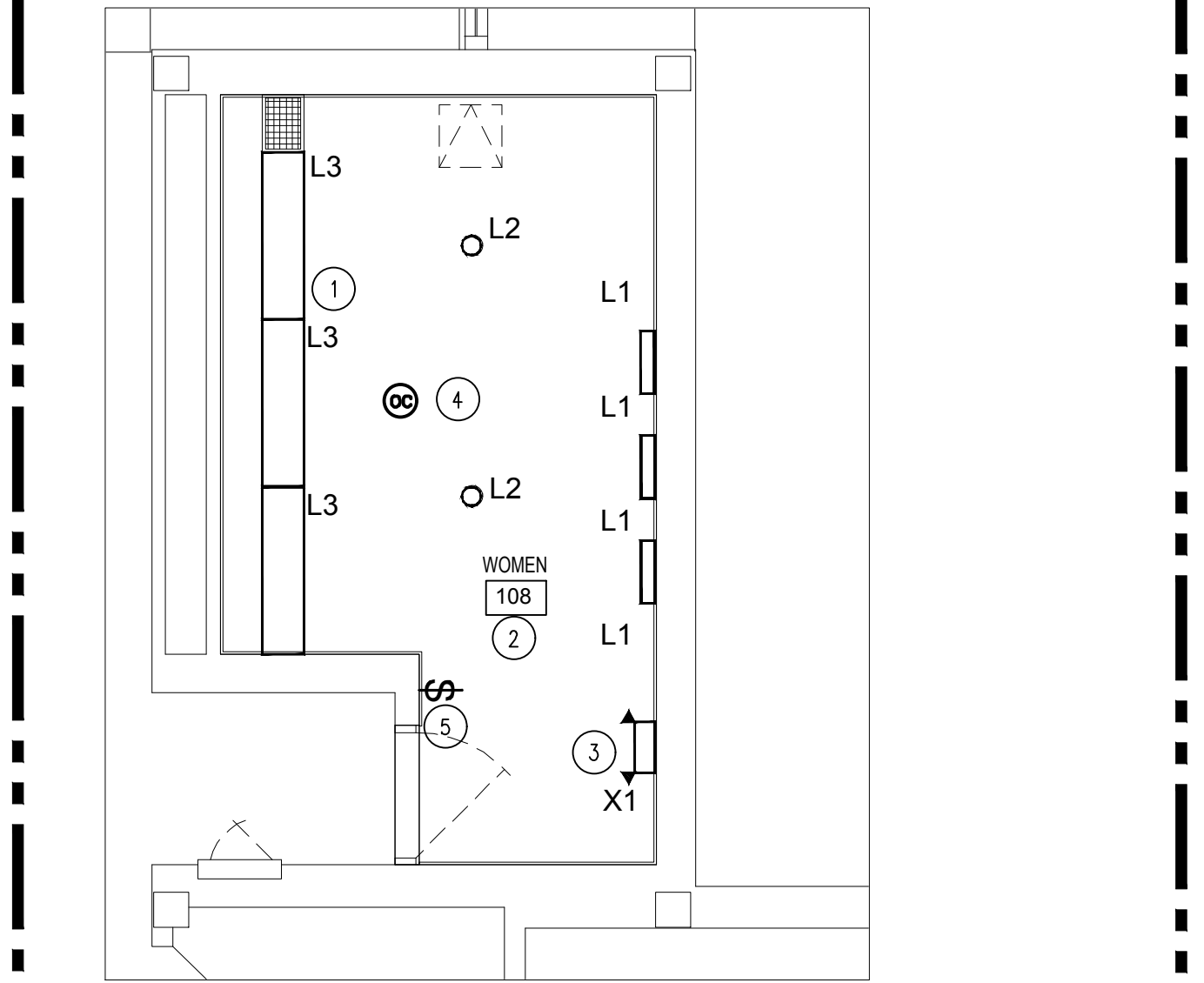
**6** RENO LIGHTING WOMEN 149  
**6** RENO LIGHTING MEN 151  
 E111 SCALE: 1/4" = 1'-0"  
 NORTH



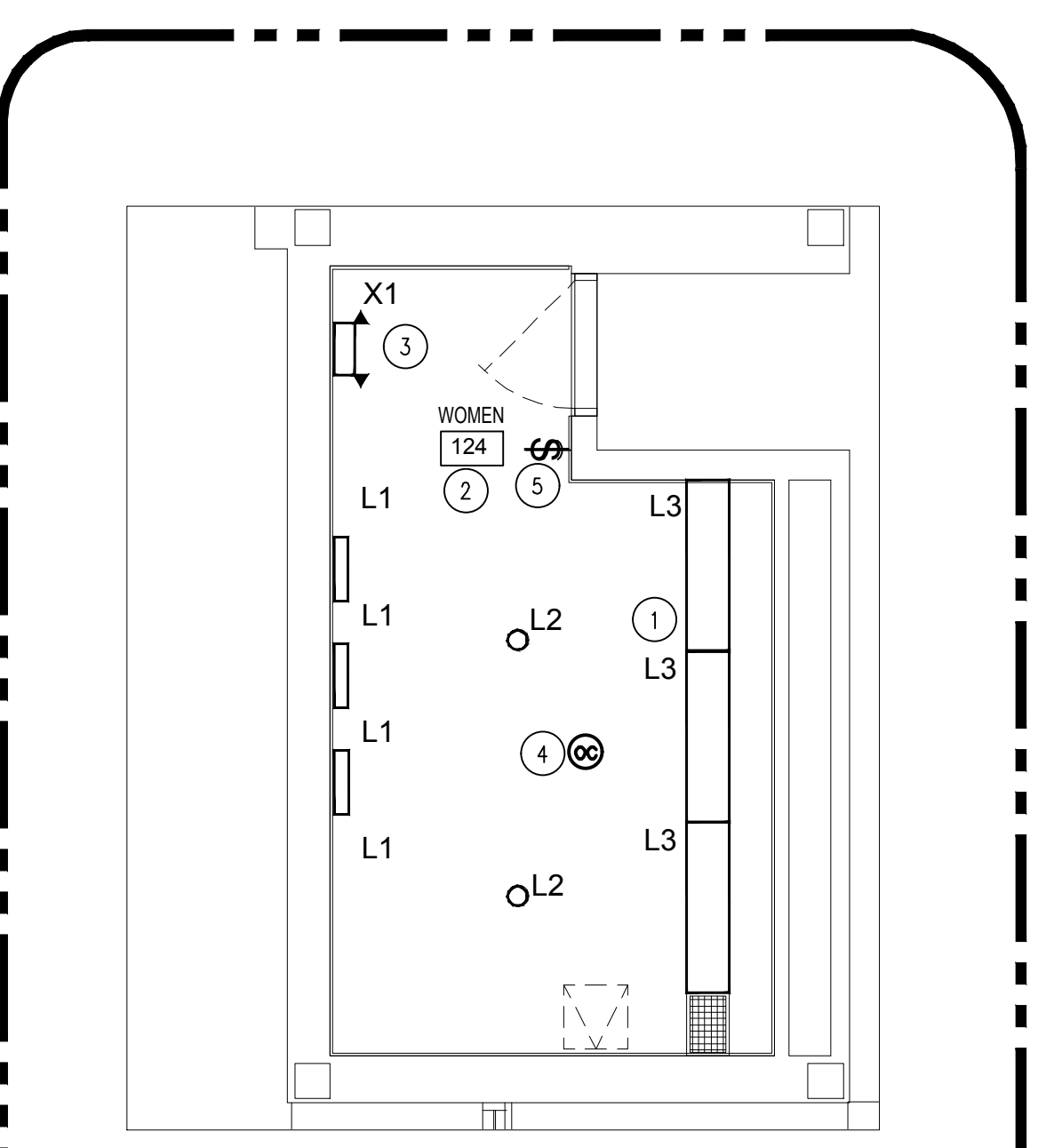
**5** RENO LIGHTING WOMEN 122C  
 E111 SCALE: 1/4" = 1'-0"  
 NORTH



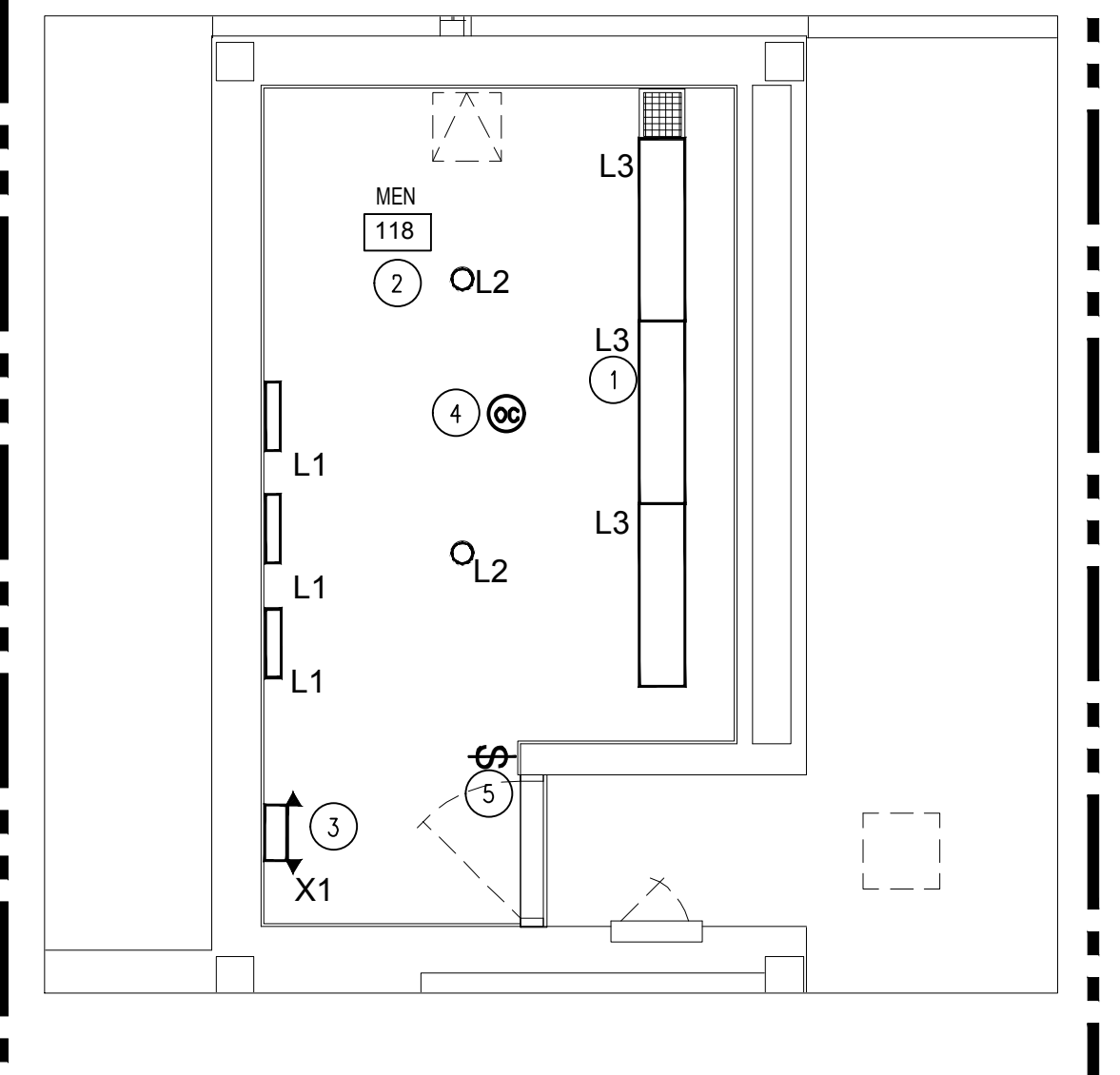
**4** DEMO PLAN MEN 102  
 E111 SCALE: 1/4" = 1'-0"  
 NORTH



**2** DEMO PLAN WOMEN 108  
 E111 SCALE: 1/4" = 1'-0"  
 NORTH



**3** DEMO PLAN WOMEN 124  
 E111 SCALE: 1/4" = 1'-0"  
 NORTH



**1** DEMO PLAN MEN 118  
 E111 SCALE: 1/4" = 1'-0"  
 NORTH

**ELECTRICAL RENOVATION KEYNOTES**

- 1 CEILING MOUNT LIGHT FIXTURES OVER EXISTING TROUGH. MOUNT PANEL TO NEMA "F" FRAME AS PER MANUFACTURER'S INSTALLATION DIRECTIONS.
- 2 CONNECT NEW LIGHTS TO EXISTING LIGHTING CIRCUIT. SWITCH AS SHOWN. SEE DEMO PLAN FOR MORE INFORMATION.
- 3 PROVIDE NEW EMERGENCY BATTERY BUG EYE FIXTURE.
- 4 CEILING MOUNT OCCUPANCY SENSOR (DUAL TECHNOLOGY - P.I.R. & ULTRASONIC). LOCATE AS PER MANUFACTURER'S INSTALLATION DIRECTIONS.
- 5 PROVIDE NEW WALL SWITCH. RE-USE EXISTING ROUGH-IN AND CONNECT TO NEW LIGHTS. SEE DEMO PLAN FOR MORE INFORMATION.
- 6 CONNECT LIGHT FIXTURE TO NEAREST CORRIDOR POWER AND SWITCHING CIRCUIT. E.C. TO FIELD VERIFY.

**MISCELLANEOUS**

- U.N.O. UNLESS NOTED OTHERWISE
- CKT CIRCUITS
- CLG CEILING MOUNTED
- CTRL CONTROLS/CONTROLLER

**LIGHTING LEGEND**

- LIGHT FIXTURE ON NIGHT LIGHT CIRCUIT DO NOT SWITCH.
- LIGHT FIXTURE. LETTER DESIGNATES TYPE.
- RECESSED DOWN LIGHT FIXTURE. LETTER DESIGNATES TYPE.
- SINGLE FACE EXIT LIGHT FIXTURE. LETTER DESIGNATES TYPE.
- DOUBLE FACE EXIT LIGHT FIXTURE. LETTER DESIGNATES TYPE.
- SELF-CONTAINED EMERGENCY LIGHTING FIXTURE WITH BATTERY. LETTER DESIGNATES TYPE.
- SINGLE POLE TOGGLE SWITCH AND COVER. 20A RATED, 48" A.F.F. TO TOP.
- THREE-WAY TOGGLE SWITCH AND COVER. 20A RATED, 48" A.F.F. TO TOP.
- DIMMER SWITCH CONTROLLER, 1200 WATT RATED WITH COVER
- WALL MOUNTED OCCUPANCY SENSOR SWITCH
- WALL MOUNTED OCCUPANCY SENSOR OVERRIDE SWITCH
- CEILING MOUNTED OCCUPANCY SENSOR SWITCH (DUAL SENSORS) USE HUBBELL OMNI 2000 RP WITH UVPP POWER SUPPLY OR SIMILAR

**ELECTRICAL GENERAL NOTES**

1. ALL MOUNTING HEIGHTS ARE GIVEN TO THE CENTERLINE OF THE DEVICE UNLESS NOTED OTHERWISE.
2. CONTRACTOR HAS THE OPTION TO REUSE EXISTING CONDUIT THAT PENETRATES WALLS THAT ARE EXISTING TO REMAIN.
3. ALL ELECTRICAL DEVICES SHALL BE GENERALLY ALIGNED WITH THE ARCHITECTURAL FEATURES. DEVICES FOR VARIOUS SYSTEMS LOCATED IN THE SAME GENERAL AREA SHALL BE INSTALLED TOGETHER (ALIGNED) AT THEIR RESPECTIVE MOUNTING HEIGHTS. BACK BOXES SHALL BE MOUNTED ON THE SAME SIDE OF THE SAME WALL STUD TO PRESENT AN ALIGNED APPEARANCE. ANY DIMENSIONING SHOWN SHALL SUPERSEDE THIS GUIDANCE.
4. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110-16(A) ARC-FLASH HAZARD, 110-24(B) FAULT CURRENT, AND 110-28 WORKING CLEARANCES.
5. COORDINATE LOCATIONS OF EACH LIGHT FIXTURE WITH THE REFLECTED CEILING PLANS. (SEE ARCH. DWGS)
6. WHERE DUAL LEVEL SWITCHING FOR LIGHTING IS DENOTED, CIRCUIT INBOARD AND OUTBOARD LAMPS IN EACH LIGHT FIXTURE ON SEPARATE BALLASTS AND CONNECT TO THE RESPECTIVE SWITCHES SHOWN IN THE ROOM.
7. CONNECT EMERGENCY BATTERY SUPPLIES INSTALLED IN LIGHTING FIXTURES AHEAD OF SWITCHING SO THAT LAMPS CAN BE TURNED OFF WHILE LEAVING THE BATTERY CHARGER AND BATTERIES IN OPERATION AND STANDBY CONDITION AT ALL TIMES.
8. WHERE A MULTIPLE-GANG BOX HAS CIRCUITS OF DIFFERENT VOLTAGES OR SYSTEMS WHICH ARE REQUIRED TO BE SEPARATED, PROVIDE THE CODE-REQUIRED SEPARATION USING A FULL HEIGHT AND DEPTH BARRIER PLATED.
9. WHERE AN INDIVIDUALLY MOUNTED SAFETY SWITCH, STARTER, OR CIRCUIT BREAKER IS SHOWN ADJACENT TO ITS RESPECTIVE LOAD AND NOT MOUNTED ON A WALL, PROVIDE ALL SUPPORTS, BRACKETS, ANCHORING, ETC. NECESSARY TO PROPERLY SUPPORT THE DEVICE.
10. ALL WIRING, CONDUCTORS AND GROUNDS, SHALL BE MINIMUM 98% COPPER. ALL WIRING IS SIZED BASED ON 75° C. COPPER, UNLESS OTHERWISE NOTED.
11. FOR LIGHTING CIRCUITS, PROVIDE 2#12 & #12G, 3/4"C. TO A 20A BREAKER IN DESIGNATED PANEL.
12. TEST BEFORE TOUCH PROCEDURE SHOULD BE FOLLOWED THROUGHOUT THE CONSTRUCTION AND DEMOLITION.
13. CONTRACTOR TO PROVIDE "U" CHANNELS TO MOUNT LUMINARIES BELOW DUCTWORK.
14. PRIOR TO ORDERING LUMINARIES ENSURE COMPATIBILITY WITH THE CEILING SYSTEM.
15. SUPPORT ALL NEW AND EXISTING CONDUIT AS PER NEC CODE. AND WITHIN 12 INCHES OF ENCLOSURES, 90 DEGREE BENDS AND DEVICES. Z E
16. FASTEN ALL NEW AND EXISTING JUNCTION AND PULL BOXES TO OR SUPPORT THEM FROM BUILDING STRUCTURE. DO NOT SUPPORT BOXES BY CONDUITS.
17. RELOCATE ALL POWER, LOW VOLTAGE, AND FIRE ALARM JUNCTION AND PULL BOXES ABOVE HARD CEILING, TO AN ACCESSIBLE LOCATION WITHIN OR OUTSIDE OF THE SPACE. CONDUIT SHALL RUN FROM THE ACCESSIBLE LOCATION TO THE FINAL DEVICE UNINTERRUPTED. DEVICES OR FIXTURES SHALL BE ACCEPTABLE PULL LOCATIONS FOR CIRCUITS CONTINUING TO OTHER DEVICES OR FIXTURES. NO JUNCTION BOX OR CONDUIT BODY SHALL BE MOUNTED IN AN INACCESSIBLE LOCATION. FOR BIDDING INCLUDE RELOCATION OF FIVE BOXES.

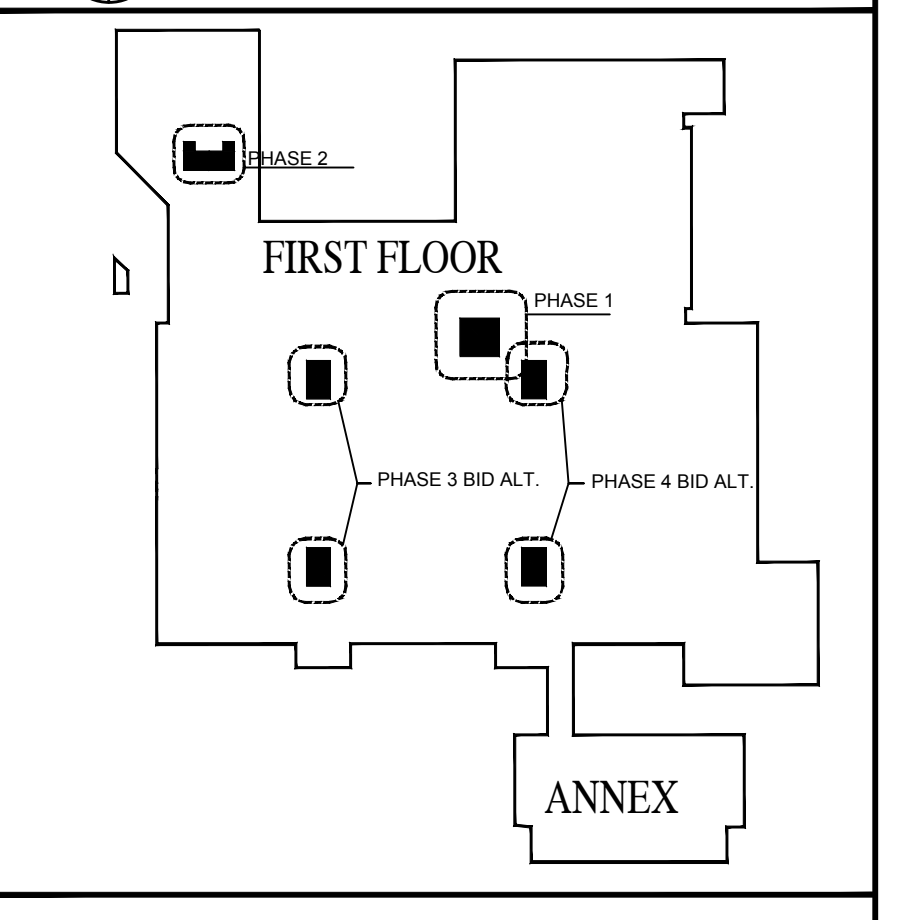
**OWNER REQUIREMENTS**

1. ENSURE THAT ALL ELECTRICAL WORK IS DONE DEENERGIZED. SPECIFICALLY, WHERE ELECTRICAL EQUIPMENT IS OPENED EXPOSING LIVE PARTS OR CONDUCTORS, BREAKERS ARE REMOVED OR INSTALLED, OR WHERE ELECTRICAL CONNECTIONS ARE MODIFIED, ALL POWER AT THE PANEL OR ENCLOSURE SHALL BE DEENERGIZED AT ITS SOURCE, PRIOR TO WORK BEING DONE.
2. ALL TESTING, TROUBLESHOOTING, AND VERIFICATION OF DEENERGIZATION IS TO BE DONE IN ACCORDANCE WITH NFPA 70E, INCLUDING ESTABLISHING, AND ISOLATING IF NEEDED, SHOCK PROTECTIVE AND ARC FLASH PROTECTIVE APPROACH BOUNDARIES AND DONNING PERSONAL PROTECTIVE EQUIPMENT APPROPRIATE FOR THE HAZARD.
3. FOR PROJECT-AFFECTED SYSTEMS GREATER THAN 50 VOLTS: PROVIDE TO THE DESIGNER AND TO NCSU UTILITIES & ENGINEERING THE MODEL ID AND TRIP SETTINGS FOR ALL CIRCUIT BREAKERS USING ELECTRONIC TRIP UNITS, AND ALL OVERCURRENT PROTECTION INFORMATION, SUCH AS BREAKER OR FUSE TYPE/CLASS FOR ALL ELECTRICAL EQUIPMENT INCLUDING DISTRIBUTION PANELS, MOTOR CONTROL CENTERS, AND TRANSFORMERS.

TYPE	MANU.	CATALOG NO.	VOLT.	LAMPS			LUMENS/WATT	WATTS	COLOR TEMP	REMARKS
				NO.	TYPE	LUMENS				
L1	ILEX	LEN24/BK/WB/MA/BA	120/277	1	LED	---	---	16		WALL-MOUNT LINEAR LED VANITY FIXTURE
L2	CALCULITE	C3L07D935M210U	120/277	1	LED	---	---	14		RECESSED ROUND DOWN LIGHT 3" TO BE MOUNTED IN PLASTER OR GRID CEILINGS. EC SHALL COORDINATE CEILING TYPE AND FIXTURE MOUNTING OPTIONS.
L3	CFI	1FXP30L835-4	120/277	1	LED	---	---	27		1X4" RECESSED LED PANEL, W/ NEMA "F" MOUNT OPTION. ORDER ACCESSORY FMA14
L4	LITHONIA	CSS	120/277	1	LED	---	---	27		4" LED STRIP LIGHT, 4000 LUMENS, SUSPENDED.
L5	CFI	2FGG38L835-4	120/277	1	LED	---	---	32		1X4" RECESSED LED PANEL, 3800 LUMENS.
X1	DUAL-LITE	LDA-2RHL-ID	120	1	LED	---	---	10		DUAL EMERGENCY LED BUG EYE, W/90-MIN. BATTERY BACK UP, SURFACE MOUNT.

NOTE: INDICATED FIXTURES REPRESENT THE BASIS OF DESIGN. FIXTURES WITH AN EQUIVALENT APPEARANCE, LUMENS, CRI, COLOR TEMPERATURE AND POWER REQUIREMENTS MAY BE SUBMITTED FOR REVIEW BY ENGINEER FOLLOWING THE SUBSTITUTION REQUIREMENTS IN THE PROJECT MANUAL'S PRODUCT REQUIREMENTS SECTION.

**KEYPLAN**

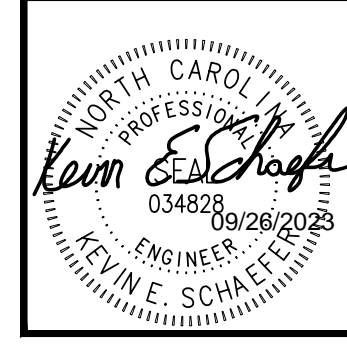


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 \* BOX 7520\* RALEIGH, NORTH CAROLINA 27695 - 7820

DATE: 2023-08-15  
 DESIGNED BY: S. TUCKER  
 DRAWN BY: J. SHERWOOD  
 CHECKED BY: K. SCHAEFER  
 REV.:



NCSU - MCKIMMON CENTER  
 RESTROOM RENOVATIONS  
 SCO ID # 22-25847-01A  
 CODE/ITEM # 42124/323

RENOVATION ENLARGED LIGHTING PLANS

SHEET No.  
**E111** of  
 Total Sheets: 00  
 Designer Proj. No.  
 142814  
 NCSU Proj. No.  
 202220029

FAC. NAME  
 MCKIMMON CENTER  
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### PANEL R01

120/208 V, 3Ø, 4 WIRE, SURFACE MOUNTED, TYPE "NLAB"  
225 AMP MAIN BREAKER, BRANCH, CIRCUIT BREAKERS- 10,000 AMP, 1C, MINIMUM

CIRCUIT NUMBER	FRAME	TRIP	POLE	WIRE	LOAD
1 - 17	THQB	20	1	12	RECEPTACLES
18					ELEC. CONT. CCT
19, 21, 23, 24					RECEPTACLES
20, 22					LIGHTING- ELEV. PIT
25, 26, 28, 30, 32				12	RECEPTACLES
27, 29		20		-	SPACE
31, 33		-		-	SPACE
34,38		20		-	SPACE
35		20		12	LIGHTING
37, 39, 41, 42		20	1	-	SPACE
40	THQB	30	2	10	REP. MACHINE
<b>36</b>	<b>THQB</b>	<b>20</b>	<b>1</b>	<b>12</b>	<b>RE-CIRC PUMP</b>

EXISTING PANEL. NEW CIRCUITS SHOWN IN BOLD.

### PANEL R3

120/208 VOLT, 3Ø, 4 WIRE, FLUSH MTD, TYPE "NLAB"  
225 AMP MAIN- LUGS , BRANCH, CIRCUIT BREAKERS- 10,000 AMP, 1C, MINIMUM

CIRCUIT NUMBER	FRAME	TRIP	POLE	WIRE	LOAD
1 - 6	THQB	20	1	12	RECEPTACLES
7, 9, 11, 13		30		10	DIMMER GROUP #3
8		20		12	RELAY REL 3
10, 12, 14		20		12	RELAY RPA 14
17 - 20		20		-	SPACE
21 - 24		-		-	SPACE
25		20	2	12	MAIN HALL REC.
<b>26</b>	<b>THQB</b>	<b>20</b>	<b>1</b>	<b>12</b>	<b>RE-CIRC PUMP</b>
27, 28	THQB	-	1	-	SPACE
<b>15</b>	<b>THQB</b>	<b>20</b>	<b>1</b>	<b>12</b>	<b>RE-CIRC PUMP</b>

EXISTING PANEL. NEW CIRCUITS SHOWN IN BOLD.

### PANEL R2

120/208 V, 3Ø, 4 WIRE, FLUSH MTD, TYPE "NLAB"  
225 AMP MAIN- LUGS, BRANCH, CIRCUIT BREAKERS- 10,000 AMP, 1C, MINIMUM

CIRCUIT NUMBER	FRAME	TRIP	POLE	WIRE	LOAD
1 - 6	THQB	20	1	12	RECEPTACLES
12					SPARE
7, 9, 11					RECEPTACLES
14, 16					LIGHTING
13, 15, 17		20		12	RECEPTACLES
18, 20, 22, 24		30		10	DIMMER GROUP #2
19, 21, 23		20		12	RELAY RPA 11
25, 27, 29		20		12	RELAY RPA 12
26		20		12	RELAY REL 2
28, 30, 32		-	1	-	SPACE
31, 33, 34		20	2	12	RECEPTACLES
35		20	2	12	3/4 HP DOOR MOTOR
<b>8</b>	<b>THQB</b>	<b>20</b>	<b>1</b>	<b>12</b>	<b>RE-CIRC PUMP</b>
<b>10</b>	<b>THQB</b>	<b>20</b>	<b>1</b>	<b>12</b>	<b>RE-CIRC PUMP</b>

EXISTING PANEL. NEW CIRCUITS SHOWN IN BOLD.

### PANEL R4

120/208 VOLT, 3Ø, 4 WIRE, FLUSH MTD, TYPE "NLAB"  
225 AMP MAIN- LUGS, BRANCH, CIRCUIT BREAKERS- 10,000 AMP, 1C, MINIMUM

CIRCUIT NUMBER	FRAME	TRIP	POLE	WIRE	LOAD
1	THQB	20	1	12	LIGHTING
2, 3					RECEPTACLES
4					PLAT CONTROLS
5					SPARE
6 - 12					RECEPTACLES
13, 15, 17		20		12	RELAY RPA 15
14, 16, 18, 20		30		10	DIMMER GROUP #1
19		20		12	RELAY REL 1
21 - 24		20		-	SPACE
25, 27, 29		-		-	SPACE
26		20		-	SPACE
30, 32			1	12	RECEPTACLES
31			2	-	SPACE
33, 34			2	12	RECEPTACLES
35		20	2	12	3/4 HP DOOR MOTOR
36	THQB	30	3	6	POWER REC.
<b>28</b>	<b>THQB</b>	<b>20</b>	<b>1</b>	<b>12</b>	<b>RE-CIRC PUMP</b>

EXISTING PANEL. NEW CIRCUITS SHOWN IN BOLD.

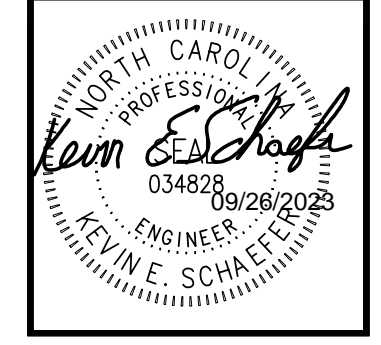
### KEYPLAN

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**ELECTRICAL  
PANEL SCHEDULES**

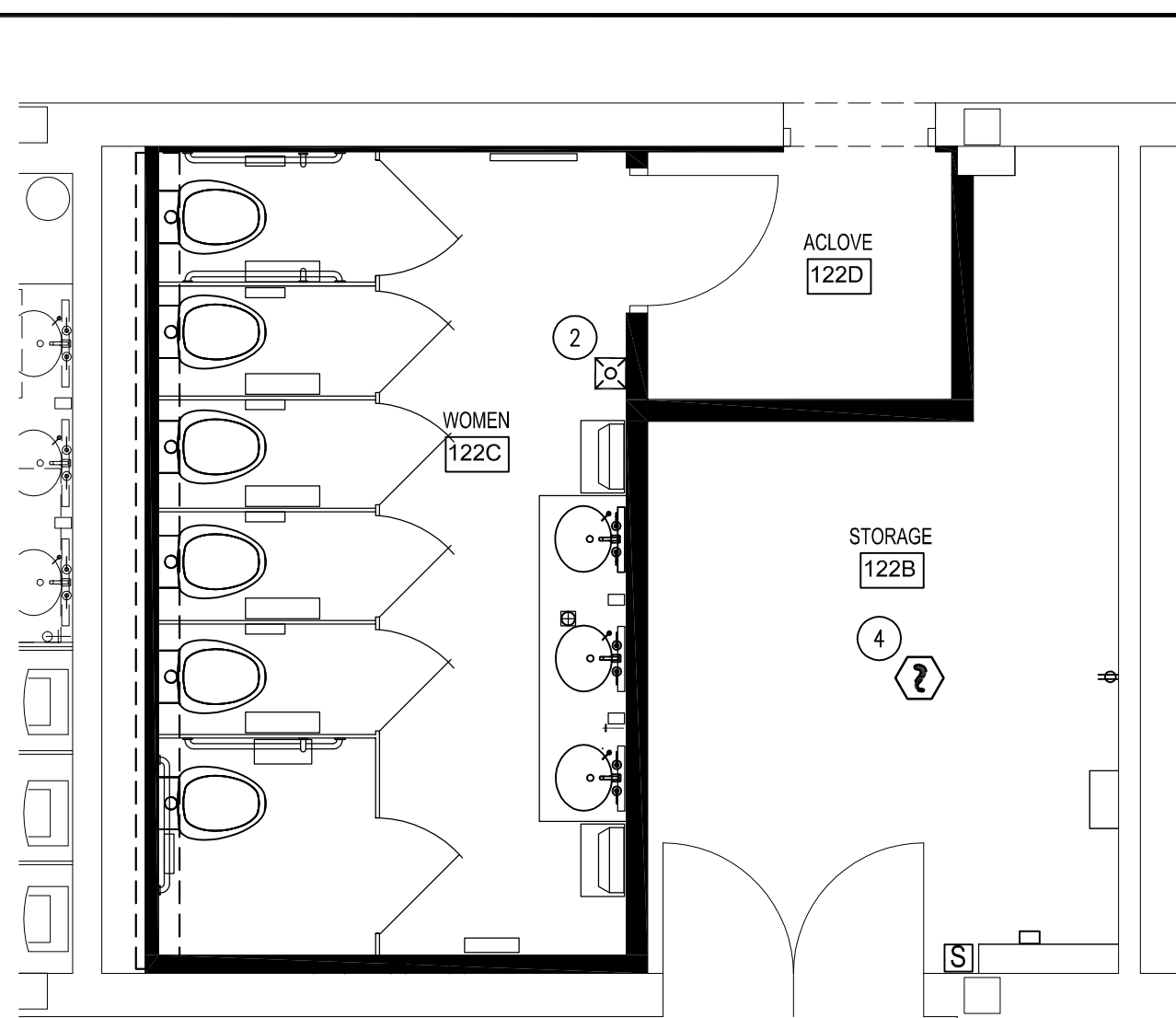
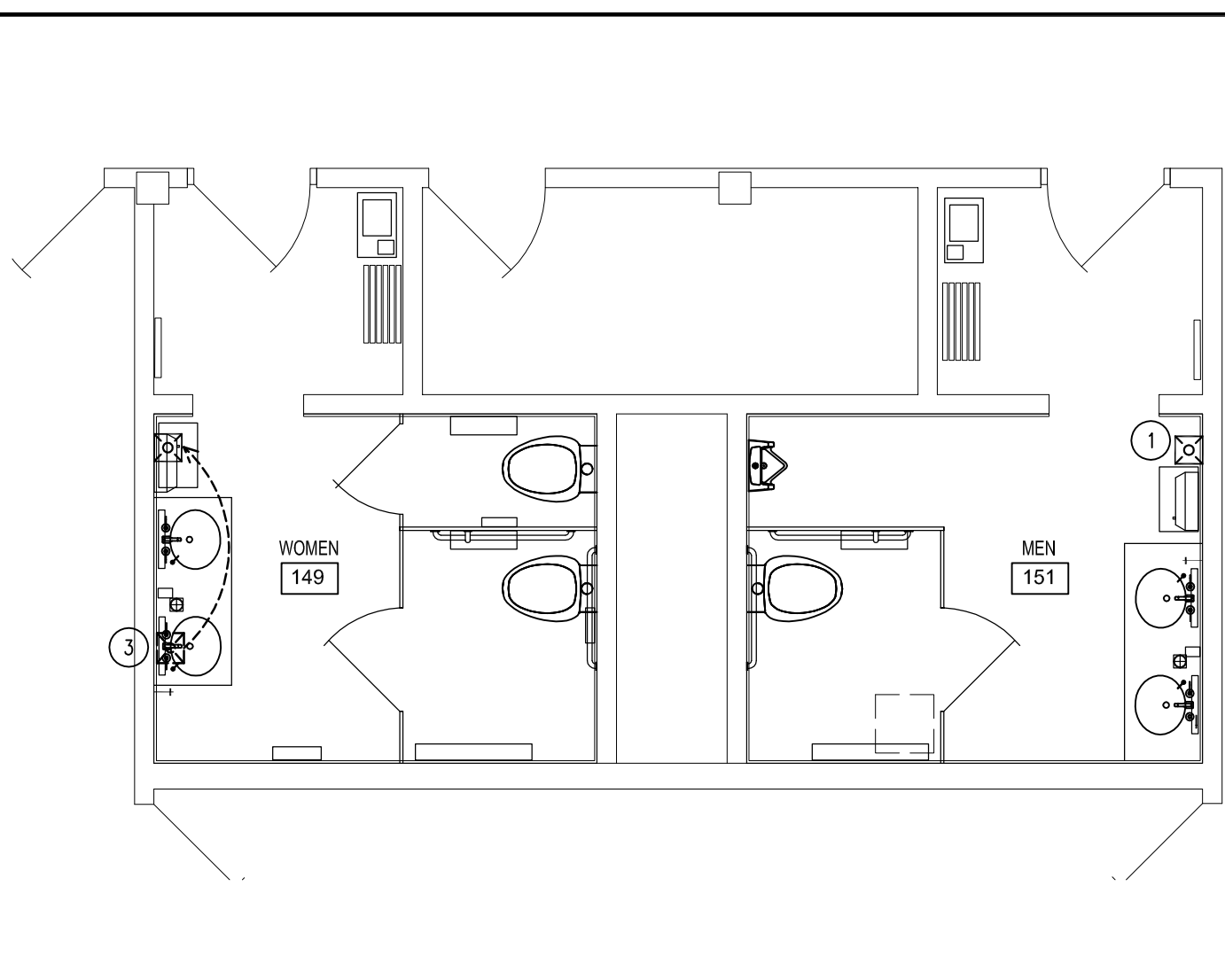
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User Name : jashin.sherwood  
Date/Time : Tue, 26 Sep 2023 - 12:47pm  
Path/Name : \\V\42814\_Restroom\_Ben\0\_Production\703\_Design\14\_Elec-Bld\Sheets\E601\_122.dwg  
Current Plotstyle : Bkplot  
Layout Tab: E002

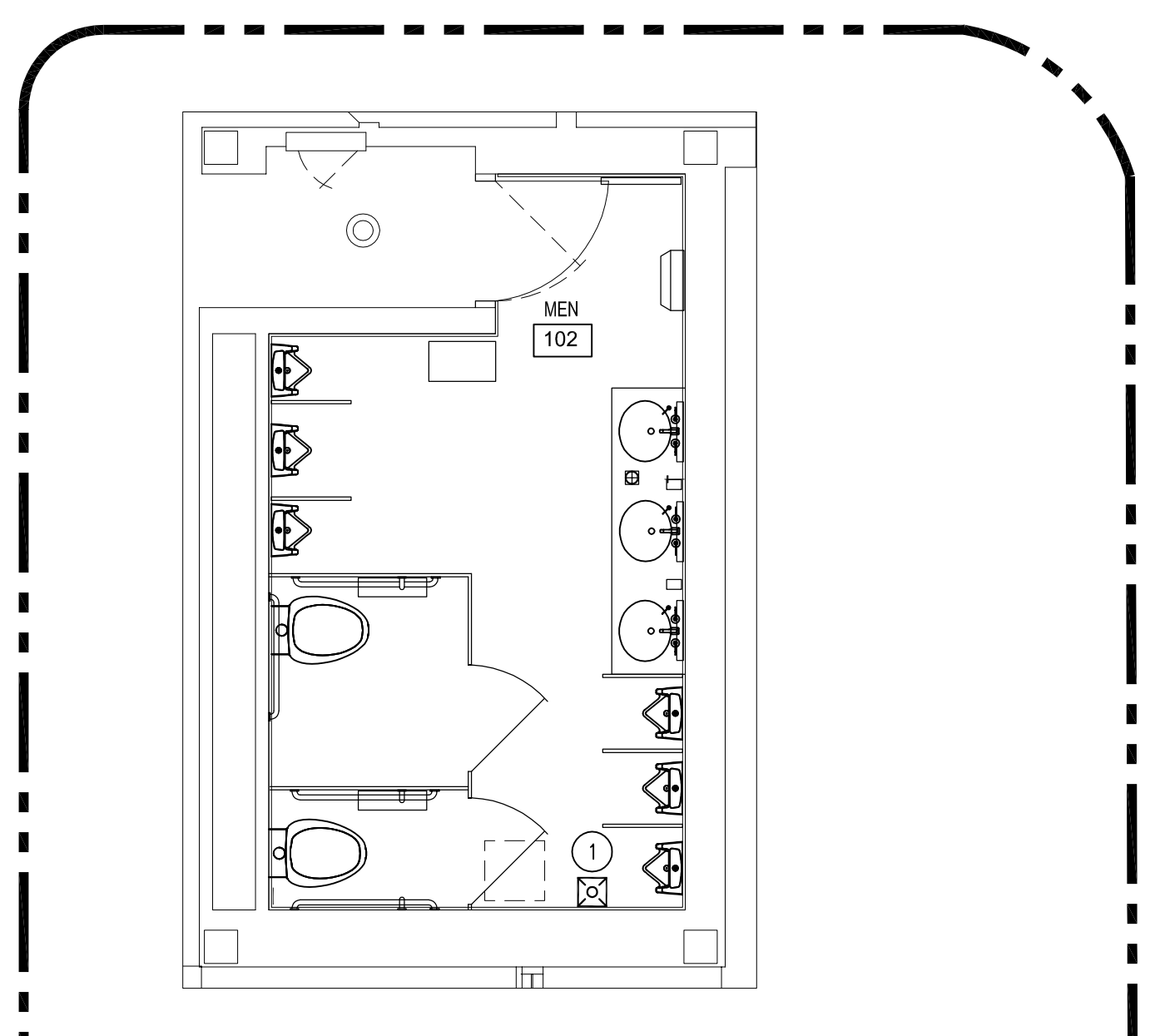




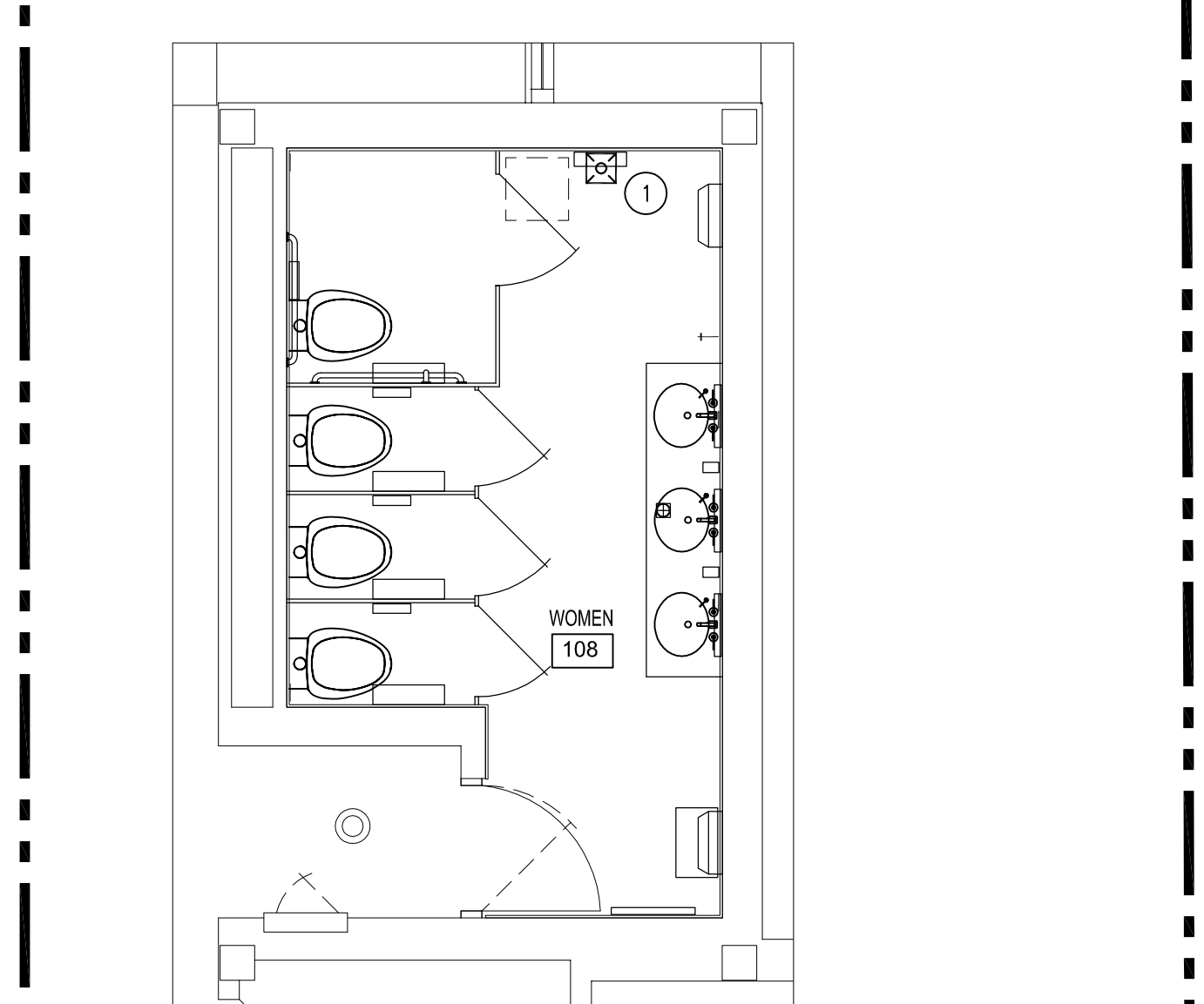
**6** FA PLAN WOMEN 149  
FA PLAN MEN 151  
FA101 SCALE: 1/4" = 1'-0"  
NORTH

**5** FA PLAN WOMEN 122C  
FA101 SCALE: 1/4" = 1'-0"  
NORTH

PHASE 3 BID ALTERNATE

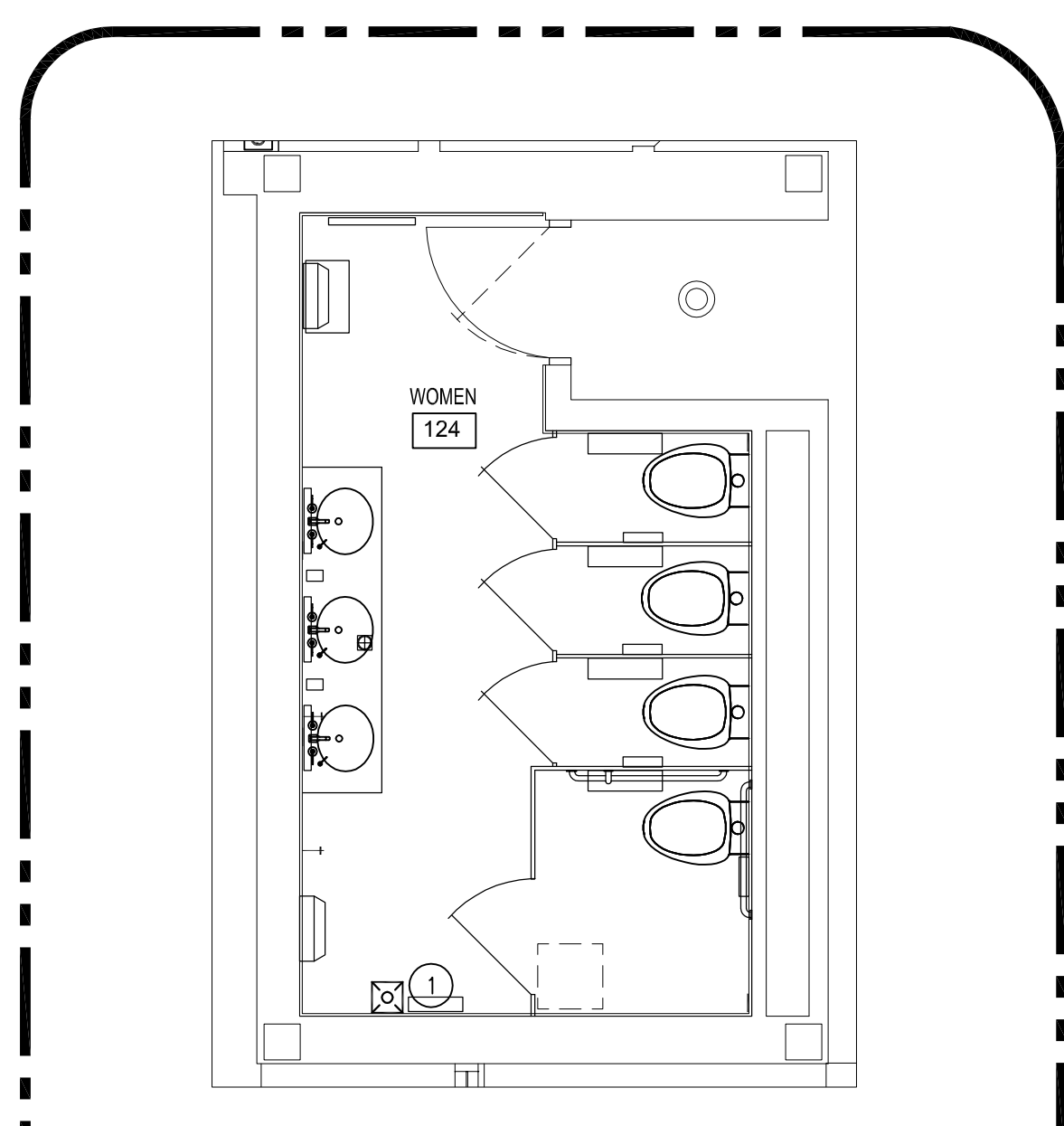


**4** FA PLAN MEN 102  
FA101 SCALE: 1/4" = 1'-0"  
NORTH

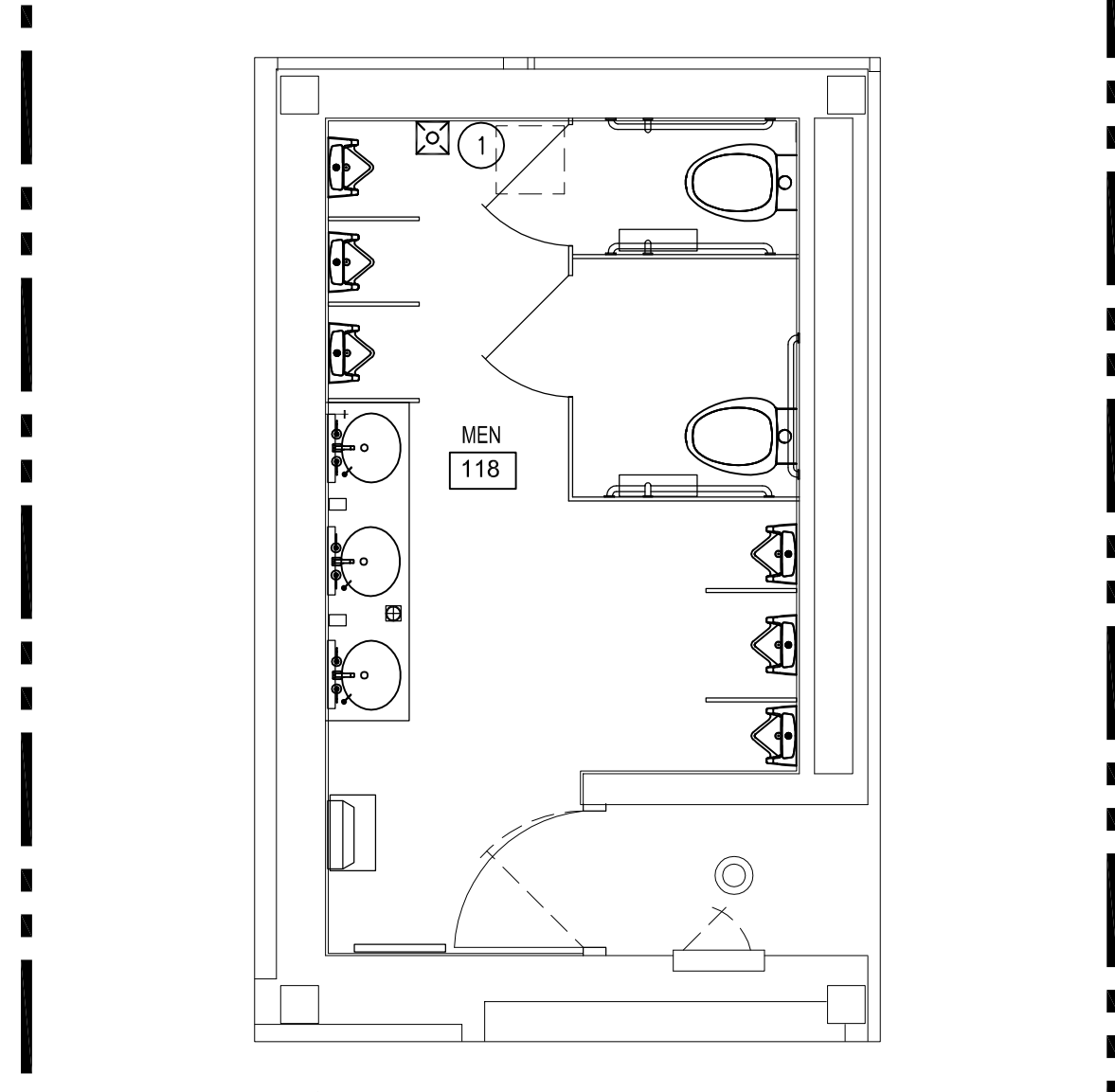


**2** FA PLAN WOMEN 108  
FA101 SCALE: 1/4" = 1'-0"  
NORTH

PHASE 4 BID ALTERNATE



**3** FA PLAN WOMEN 124  
FA101 SCALE: 1/4" = 1'-0"  
NORTH



**1** FA PLAN MEN 118  
FA101 SCALE: 1/4" = 1'-0"  
NORTH

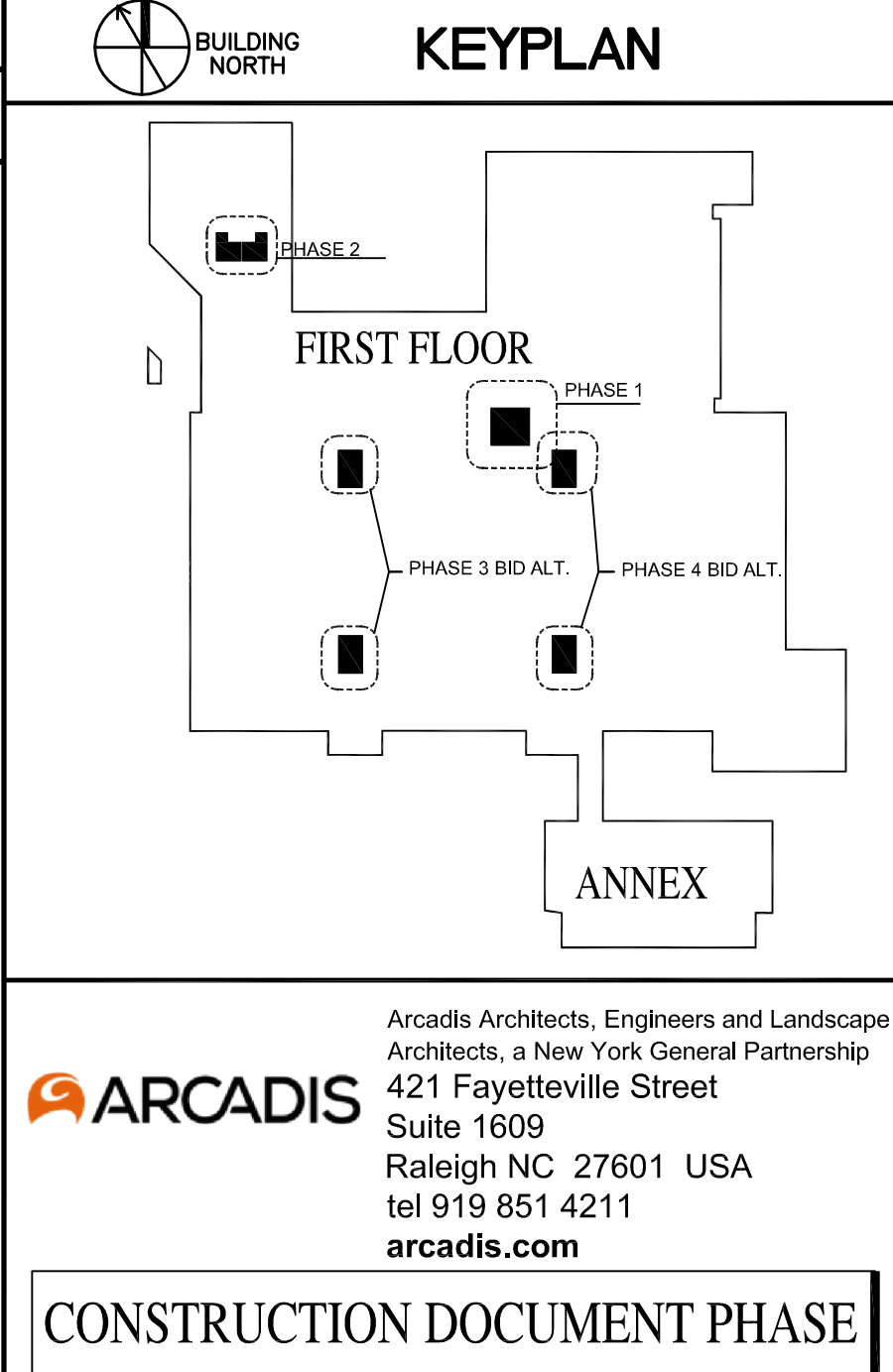
FIRE ALARM SYSTEM MATRIX	BUILDING SYSTEM OUTPUTS									
	ACTIVATE GENERAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE ALARM (HORN/STROBES)	ACTIVATE VISUAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE/GENERAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE/GENERAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE/GENERAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE/GENERAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE/GENERAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE/GENERAL ALARM (HORN/STROBES)	ACTIVATE AUDIBLE/GENERAL ALARM (HORN/STROBES)
MANUAL FIRE ALARM PULL BOXES	X	X		X	X	X	X	X	X	X
SMOKE/HEAT/DUCT DETECTORS	X	X		X	X	X	X	X	X	X
FIRE ALARM A.C. POWER FAILURE			X	X		X	X			
FIRE ALARM SYSTEM LOW BATTERY			X	X		X	X			
OPEN CIRCUIT			X	X		X	X			
GROUND FAULT			X	X		X	X			
NOTIFICATION DEVICE SHORT CIRCUIT			X	X		X	X			
ELEV. LOBBY SMOKE DETECTORS	X	X		X	X	X	X			

ABBREVIATIONS & ACRONYMS		
THIS SCHEDULE IS REPRESENTATIVE OF THOSE TYPICALLY FOUND ON THE PLANS BUT NOT ALL MAY BE UTILIZED		
A AMPERE, AMMETER	FAACP FIRE ALARM CONTROL PANEL	PNL PANEL
AAP ALARM ANNUNCIATOR PANEL	FPN FUSE PER NAMEPLATE	PP POWER POLE
A/C AIR CONDITIONING	FR FIXTURE	PROVIDE FURNISH, INSTALL & CONNECT
ADMIN ADMINISTRATION	FR FULLY RATED	PS PRESSURE SWITCH
AF AMPERE FRAME	GFI GROUND FAULT INTERRUPTER	PVC POLYVINYL CHLORIDE
AFF ABOVE FINISHED FLOOR	GFCI GROUND FAULT CIRCUIT INTERRUPTER	RCP REFLECTED CEILING PLAN
AFG ABOVE FINISHED GRADE	GND GROUND	RECEPT RECEPTACLE
AHJ AUTHORITY HAVING JURISDICTION	HD HAND DRYER	RGS RIGID GALVANIZED STEEL
AHU AIR HANDLING UNIT	HH HANDHOLE	RL EXISTING ITEM TO BE RELOCATED
AIC AMPERES INTERRUPTING CAPACITY	HI HIGH INTENSITY DISCHARGE	RM EXISTING ITEM TO REMAIN
AMP AMPERE	HP HORSEPOWER	RP EXISTING ITEM TO BE REPLACED
AT AMPERE TRIP	HVAC HEATING, VENTILATING & AIR CONDITIONING	RV EXISTING ITEM TO BE REMOVED
ATS AUTOMATIC TRANSFER SWITCH	HERTZ HERTZ	SEC SECURITY CAMERA OUTLET
AWG AMERICAN WIRE GAUGE	IC INTERCOM	SE SERVICE ENTRANCE
C CONDUIT	ICJB INTERCOM JUNCTION BOX	SEC SECURITY
CB CIRCUIT BREAKER	ICTC INTERCOM TERMINAL CABINET	SND SOLID NEUTRAL
CLG CEILING	IG ISOLATED GROUND	SPD SURGE PROTECTION DEVICE
COMM COMMUNICATION	ISC RMS SYMMETRICAL SHORT CIRCUIT	SPEC SPECIFICATION
CONC CONCRETE	JB JUNCTION BOX	SPST SINGLE POLE SINGLE THROW
CP CIRCULATING PUMP	KAC (THOUSAND) AMPERE INTERRUPTING CAPACITY	SS STAINLESS STEEL
CT CURRENT TRANSFORMER	kcmil THOUSAND OF CIRCULAR MILS	SQ SQUARE
CTRL CONTROL	kVA KILOWATT-AMPERES	SW SWITCH
CR CARD READER ACCESS	KW KILOWATTS	SWBD SWITCHBOARD
CU COPPER	LC LIGHTING CONTACTOR	TEL TELEPHONE
DH DOOR HOLDER	LED LIGHT EMITTING DIODE	TTC TELEPHONE TERMINAL CABINET
DISC DISCONNECT	LTG LIGHTING	TV COMBINATION TV & RECEPTACLE OUTLETS
DWG DRAWING	MC MECHANICAL CONTRACTOR	TVC TELEVISION TERMINAL CABINET
EC ELECTRICAL CONTRACTOR	MH METAL HALIDE	TYP TYPICAL
ECB ENCLOSED CIRCUIT BREAKER	MTD MOUNTED	UG UNDER GROUND
EF EXHAUST FAN	N NEUTRAL	UGC UNDERGROUND COMMUNICATIONS
ELEC ELECTRICAL	NA NOT APPLICABLE	UH UNIT HEATER
EM EMERGENCY	NC NORMALLY CLOSED	UNO UNLESS NOTED OTHERWISE
EMCS EMERGENCY MANAGEMENT CONTROL SYSTEM	NEC NATIONAL ELECTRICAL CODE	V VOLT
EMT ELECTRICAL METALLIC TUBING	NEC NOT IN CONTRACT	W WIRE
EXP EXPLOSION PROOF	NL NIGHT LIGHT	WG WIRE GUARD OVER DEVICE
EOP EQUIPMENT	NO NUMBER	WP WEATHERPROOF (WEATHERTIGHT)
ER EXISTING ITEM RELOCATED TO HERE	NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOC.	XFMR TRANSFORMER
EWG ELECTRIC WATER COOLER	NFPA NATIONAL FIRE PROTECTION ASSOC.	Y WYE (CONNECTED)
EWH ELECTRIC WATER HEATER	NO NORMALLY OPEN	1PH SINGLE-PHASE
EXTG EXISTING	OHE OVERHEAD ELECTRIC	1P SINGLE-POLE
FA FIRE ALARM	PC PHOTO CONTROL	3PH THREE-PHASE
FAAP FIRE ALARM ANNUNCIATOR PANEL	PBC PLUMBING CONTRACTOR	

FIRE ALARM SYMBOLS		GENERAL FIRE ALARM NOTES	
[FAACP]	FIRE ALARM CONTROL PANEL	1.	SEE SHEET E002 FOR LOCATION OF EXISTING FAACP.
[FAATC]	FIRE ALARM TERMINAL CABINET	2.	"RM" EQUALS EXISTING TO REMAIN.
[FESCPN]	FIRE SUPPRESSION CONTROL PANEL N DENOTES SUPPRESSION TYPE	3.	"RV" EQUALS EXISTING DEVICE TO BE REMOVED.
[GAPN]	GRAPHIC ANNUNCIATOR PANEL	4.	"RL" EQUALS EXISTING DEVICE TO BE RELOCATED.
[DACT]	DIGITAL ALARM COMMUNICATOR TRANSMITTER	5.	FIRE ALARM RISER PATHWAYS MAY CONTAIN MULTIPLE CIRCUITS. CONTRACTOR TO VERIFY WIRE IN EACH CONDUIT.
[FAAP]	FIRE ALARM ANNUNCIATOR PANEL	6.	AFTER COMPLETION OF WORK, EXISTING FAACP TO BE REPROGRAMMED FOR CHANGES AND TESTED PER NCSU AND SCO REQUIREMENTS.
[DHT]	MAGNETIC DOOR HOLDER	7.	EXISTING FAACP IS BY NOTIFIER. EXISTING COMMUNICATOR IS FIRELITE MS-5210U.
[MVC]	REMOTE VOICE EVACUATION VOICE EVACUATION MICROPHONE	8.	WITHIN AREAS OF WORK, SUPPORT ALL NEW AND EXISTING CONDUIT AS PER NEC CODE, AND WITHIN 12 INCHES OF ENCLOSURES, 90 DEGREE BENDS AND DEVICES.
[E]	FIRE SERVICE OR EMERGENCY PHONE STATION	9.	WITHIN AREAS OF WORK, FASTEN ALL NEW AND EXISTING JUNCTION AND PULL BOXES TO, OR SUPPORT THEM FROM BUILDING STRUCTURE. DO NOT SUPPORT BOXES BY CONDUITS.
[WF]	WATER FLOW SWITCH	10.	RELOCATE ALL POWER, LOW VOLTAGE AND FIRE ALARM JUNCTION AND PULL BOXES ABOVE HARD CEILING, TO AN ACCESSIBLE LOCATION WITHIN OR OUTSIDE OF THE SPACE. CONDUIT SHALL RUN FROM THE ACCESSIBLE LOCATION TO THE FINAL DEVICE UNINTERRUPTED. DEVICES OR FIXTURES SHALL BE ACCEPTABLE PULL LOCATIONS FOR CIRCUITS CONTINUING TO OTHER DEVICES OR FIXTURES. NO JUNCTION BOX OR CONDUIT BODY SHALL BE MOUNTED IN AN INACCESSIBLE LOCATION. FOR BIDDING INCLUDE RELOCATION OF FIVE BOXES.
[TS]	TAMPER SWITCH	11.	WHERE RELOCATING OR ADDING FIRE ALARM DEVICES, DO NOT SPLICE OR "T" TAP FIRE ALARM WIRING. MAKE CONNECTIONS ONLY AT DEVICES OR IN TERMINAL CABINETS. AFTER COMPLETING FIRE ALARM WORK, TEST 100% OF NEW DEVICES AND DEVICES ON SAME LOOP PLUS 10% OF EXISTING DEVICES FIRE ALARM SYSTEM TO VERIFY PROPER OPERATION. FOR PROJECTS MIXING OLD AND NEW NOTIFICATION DEVICES IT IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR, BEFORE BEGINNING WORK, TO ENSURE THAT NEW AND EXISTING DEVICES CAN PRODUCE THE SAME SYNCHRONIZED AUDIBLE TONE/PULSE ALARM, IF THAT IS NOT POSSIBLE, ALL EXISTING AUDIBLE DEVICES MAY NEED TO BE REPLACED. (NFPA 72-2007 6.8.6.5.3)
[IR]	IAM RELAY		
[IS]	ISOLATOR		
[IM]	INDIVIDUAL ADDRESSABLE MODULE		
[DP]	DAMPER SWITCH		
[A]	ABORT SWITCH		
[M]	MANUAL RELEASING STATION		
[GAS]	GAS DETECTOR		
[X=]	X=GAS TYPE (EX. CO FOR CARBON MONOXIDE)		
[H=]	HEAT DETECTOR/SENSOR		
[X=]	X=TYPE		
[P]	PROVIDE BOX, AS SHOWN, TO DENOTE COMBINATION DETECTORS		
[H=]	HEAT DETECTOR LINE TYPE		
[F]	PULL STATION/FIRE ALARM		
[S]	SMOKE DETECTOR/SENSOR (DEFAULT PHOTOELECTRIC TYPE)		
[S]	SMOKE DETECTOR - IONIZATION TYPE (ION)		
[SS]	SMOKE ALARM (SINGLE STATION)		
[MS]	SMOKE ALARM (MULT. STATION)		
[SB]	DETECTOR WITH SOUNDER BASE (SB)		
[MC]	DETECTOR - MULTI CRITERIA TYPE (MC)		
[D]	DUCT SMOKE DETECTOR (NFPA 72, SECTION 17.7.5.5)		
[A]	AUDIBLE ONLY APPLIANCE (WALL MOUNTED)		
[V]	VISUAL ONLY APPLIANCE (WALL MOUNTED)		
[C]	AUDIBLE/VISUAL APPLIANCE (WALL MOUNTED)		
[C]	VISUAL ONLY APPLIANCE (CEILING MOUNTED)		
[C]	AUDIBLE ONLY APPLIANCE (CEILING MOUNTED)		
[C]	AUDIBLE/VISUAL APPLIANCE (CEILING MOUNTED)		
[R]	END OF LINE RESISTOR		

FIRE ALARM KEYNOTES	
1	TEMPORARILY PROTECT AND REMOVE DEVICES FROM WALL SURFACE WITHOUT DISCONNECTING WIRE. REINSTALL DEVICE AT TOP NEW WALL FINISH. TEST TO ENSURE FUNCTION.
2	PROVIDE NEW FA DEVICE. INSTALL 96" TO TOP OF DEVICE. REINSTALL DEVICE AT TOP NEW WALL FINISH IF NEEDED.
3	RELOCATE EXISTING F.A. DEVICE. EXTEND FA NAC CIRCUIT AS NEEDED. PROVIDE NEW CONDUIT.
4	PROVIDE NEW FA DEVICE.

DEVICES AND PATHWAYS	
---	EXISTING WIRING SYSTEM
---	EXISTING WIRING SYSTEM DEMO
---	NEW WIRING SYSTEM EXPOSED
[J]	JUNCTION BOX WITH CONNECTION TO EQUIPMENT SERVED. 4" SQUARE BOX WITH A SINGLE-GANG OPENING AND PLASTER RING.



NC STATE UNIVERSITY

DATE: 2023-08-15  
DESIGN: S. TUCKER  
DRAWN BY: J. SHERWOOD  
CHECKED BY: K. SCHAEFER  
REV:

NCSU - McKIMMON CENTER  
RESTROOM RENOVATIONS  
SCO ID # 22-25847-01A  
CODE/ITEM # 42124\_323

RENOVATION ENLARGED FIRE ALARM PLANS

SHEET No. FA101 of  
Total Sheets: 00  
Designer Proj. No. 142814  
NCSU Proj. No. 202220029  
FAC. NAME McKIMMON CENTER  
FAC. No. 129

Date/Time: Tue, 26 Sep 2023 - 12:52pm  
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 User Name: Justin.Sherwood  
 Acad Version: R22.0s (LMS Tech)  
 Current Plotstyle: ByColor  
 Layout Tab: FA101