

FORM F3 BUILDING CODE ANALYSIS FORM

PROJECT COLLETON MIDDLE SCHOOL LAB RENOVATIONS DISTRICT COLLETON

SUBMITTAL: [] SCHEMATIC [] DESIGN DEVELOPMENT [X] CONSTRUCTION DOCUMENT

DATE 04/30/18 CODE & EDITION IBC EXISTING 2015 GUIDE EDITION 2018

BASIC BUILDING CODE INFORMATION

Table with columns for Designated Areas of Building (Area 1-6) and rows for Construction Classification Type, Occupancy Group, and Fire Protection Systems.

1 of 19

Rev. 2/1/13

BUILDING AREA

Table with columns for Designated Areas of Building (Area 1-6) and rows for Area Limit by Per Story, Maximum Area Modification per Story, and Total Allowed Area of Building.

2 of 19

Rev. 2/1/13

BUILDING HEIGHT

Table with columns for Designated Areas of Building (Area 1-3) and rows for Height (In Feet and In Stories) under various conditions.

3 of 19

Rev. 2/1/13

BUILDING DESIGN OCCUPANT LOAD

Table with columns for Designated Areas of Building (Area 1-6) and rows for Story and Total.

4 of 19

Rev. 2/1/13

GENERAL FIRE PROTECTION REQUIREMENTS

Table with columns for Designated Areas of Building (Area 1-6) and rows for Separations, Alarm & Detection, and Suppression.

5 of 19

Rev. 2/1/13

OTHER FIRE AND LIFE SAFETY FEATURES

Table with columns for Designated Areas of Building (Area 1-6) and rows for Area of Refuge, Exterior Area for Assisted Rescue, and Other.

6 of 19

Rev. 2/1/13

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

Table with columns for Designated Areas of Building (Area 1-6) and rows for Fire Barriers, Shaft Enclosures, and Fire Partitions.

9 of 19

Rev. 2/1/13

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

Table with columns for Designated Areas of Building (Area 1-6) and rows for Others.

10 of 19

Rev. 2/1/13

FLOOD HAZARD INFORMATION and FLOOD LOADS

Table with columns for Designated Areas of Building (Area 1-6) and rows for Flood Hazard Area and Flood Loads.

11 of 19

Rev. 2/1/13

STRUCTURAL DESIGN INFORMATION, AREA

Table with columns for Designated Areas of Building (Area 1-6) and rows for Occupancy Category, Live Load, and Miscellaneous Loads.

12 of 19

Rev. 2/1/13

SOILS & SITE

Table with columns for Designated Areas of Building (Area 1-6) and rows for Soils Investigation, Seismic Classification, and Footings.

STRUCTURAL DESIGN INFORMATION, BUILDING

Table with columns for Designated Areas of Building (Area 1-6) and rows for Wind Loads, Seismic Loads, and Elevations.

13 of 19

Rev. 2/1/13

STATEMENT OF SPECIAL INSPECTIONS

Table with columns for Material, Type of Inspection, Frequency, and Inspection By.

14 of 19

Rev. 2/1/13

PLUMBING INFORMATION

Table with columns for Designated Areas of Building (Area 1-6) and rows for Water System, Sanitary Sewer System, and Plumbing Fixtures.

14 of 19

Rev. 2/1/13

FIRE SERVICE INFORMATION

Table with columns for Designated Areas of Building (Area 1-6) and rows for Service Line Size, Fire Department Connection, and Fire Hydrant Flow Test.

15 of 19

Rev. 2/1/13



600 EAST BOULEVARD CHARLOTTE, NC 28203 704.332.7904 #10 Palmetto Business Park Hilton Head Island, SC 29928 843.1785.2199



Colleton County Middle School Lab Renovations

Small table with columns for Date (4/30/18) and Description (OSF CD SUBMITTAL).

FWA PROJECT NO: 2542.01

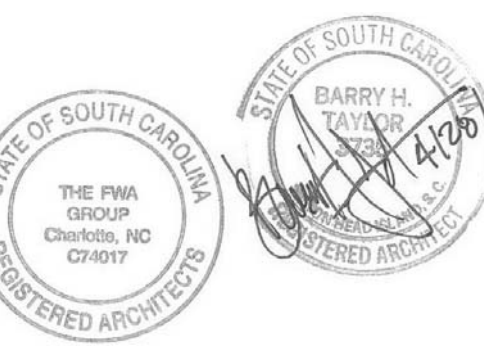
DRAWN BY: myj CHECKED BY: Checker APPROVED BY: BHT

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CODE SUMMARY

SHEET NUMBER

GI-002



Colleton County School District
Colleton County Middle School Lab Renovations

| MAR | DATE | DESCRIPTION |
|-----|--------------|------------------|
| K | (YYYY-MM-DD) | DESCRIPTION |
| 1 | 4/30/18 | OSF CD SUBMITTAL |
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FWA PROJECT NO: 2542.01

DRAWN BY: Author
 CHECKED BY: Checker
 APPROVED BY: Approver

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SHEET TITLE
CODE SUMMARY (con't)

SHEET NUMBER

GI-003

Summary of data from approved ASHRAE 90.1 compliance sheets.

| MECHANICAL INFORMATION | | | |
|--|--------|----------|--|
| GENERAL INFORMATION | | | |
| Building Location | | | |
| Climate Zone | | | |
| Outdoor Design Temperature | Summer | deg F DB | |
| | | deg F WB | |
| | Winter | deg F DB | |
| | | deg F WB | |
| Indoor Design Temperature | Summer | deg F | |
| | | e.g. | |
| | Winter | deg F | |
| | | e.g. | |
| OUTSIDE AIR | | | |
| Occupied Minimum Outside Air | | person | |
| CO2 Demand Management <input type="checkbox"/> yes | | | |
| Supervised Control System <input type="checkbox"/> no <input type="checkbox"/> yes | | | |
| MECHANICAL SYSTEMS, SYSTEMS & EQUIPMENT | | | |
| Briefly describe mech: | | | |

17 of 19

Rev. 2/1/13

Summary of data from approved ASHRAE 90.1 compliance sheets.

| MECHANICAL INFORMATION | | | |
|--|--------|----------|--|
| GENERAL INFORMATION | | | |
| Building Location | | | |
| Climate Zone | | | |
| Outdoor Design Temperature | Summer | deg F DB | |
| | | deg F WB | |
| | Winter | deg F DB | |
| | | deg F WB | |
| Indoor Design Temperature | Summer | deg F | |
| | | e.g. | |
| | Winter | deg F | |
| | | e.g. | |
| OUTSIDE AIR | | | |
| Occupied Minimum Outside Air | | person | |
| CO2 Demand Management <input type="checkbox"/> yes | | | |
| Supervised Control System <input type="checkbox"/> no <input type="checkbox"/> yes | | | |
| MECHANICAL SYSTEMS, SYSTEMS & EQUIPMENT | | | |
| Briefly describe mech: | | | |

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Rev. 2/1/13

Summary of data from approved ASHRAE 90.1 compliance sheets.

| ELECTRICAL INFORMATION | | | |
|---|---|---------------|--|
| GENERAL INFORMATION | | | |
| SERVICE TRANSFORMER | <input type="checkbox"/> By Utility | | |
| | KVA Primary | | |
| | <input type="checkbox"/> By District | | |
| | Voltage/Phase | | |
| ELECTRICALSERVICE INFORMATION | | | |
| Service Voltage/Phase | | Amperes | |
| Service Entrance Conductors Size | | Qty per Phase | |
| Total Connected Load | | KVA | |
| Estimated Maximum Demand | | KVA | |
| Available Fault Current in Symmetrical Amperes | | | |
| Interrupting Capacity of Service Overcurrent Device | | | |
| GROUNDING ELECTRODE SYSTEM COMPONENTS (NEC 250) | | | |
| EMERGENCY SERVICE INFORMATION | | | |
| Emergency Generator | <input type="checkbox"/> no <input type="checkbox"/> y' | | |
| | Voltage/Phase | | |
| Exit/Emergency Lights Base | <input type="checkbox"/> no <input type="checkbox"/> y' | | |
| | Voltage/Phase | | |
| Fire Alarm System | <input type="checkbox"/> Integral Battery | | |
| | <input type="checkbox"/> Generator | | |
| | <input type="checkbox"/> Addressable | | |
| Lightning Protection Provided | <input type="checkbox"/> Class A | | |
| | <input type="checkbox"/> Class B | | |
| LIGNTING PROTECTION PROVIDED <input type="checkbox"/> no <input type="checkbox"/> yes | | | |

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Rev. 2/1/13

Summary of data from approved ASHRAE 90.1 compliance sheets.

| ENERGY INFORMATION | | |
|----------------------|------------|---|
| INSULATION | | |
| Roof | Cavity | R |
| | Continuous | R |
| Walls | Cavity | R |
| | Continuous | R |
| Underlab R | | |
| GLAZING (each type) | | |
| Window to wall ratio | North | % |
| | East | % |
| | South | % |
| | West | % |
| Glass Type | U Factor | |
| | SHG | |

19 of 19

Rev. 2/1/13



Colleton County School District

**Colleton County
Middle School Lab
Renovations**

| MAR | DATE | DESCRIPTION |
|-----|--------------|------------------|
| K | (YYYY-MM-DD) | |
| 1 | 4/30/18 | OSF CD SUBMITTAL |
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FWA PROJECT NO: 2542.01

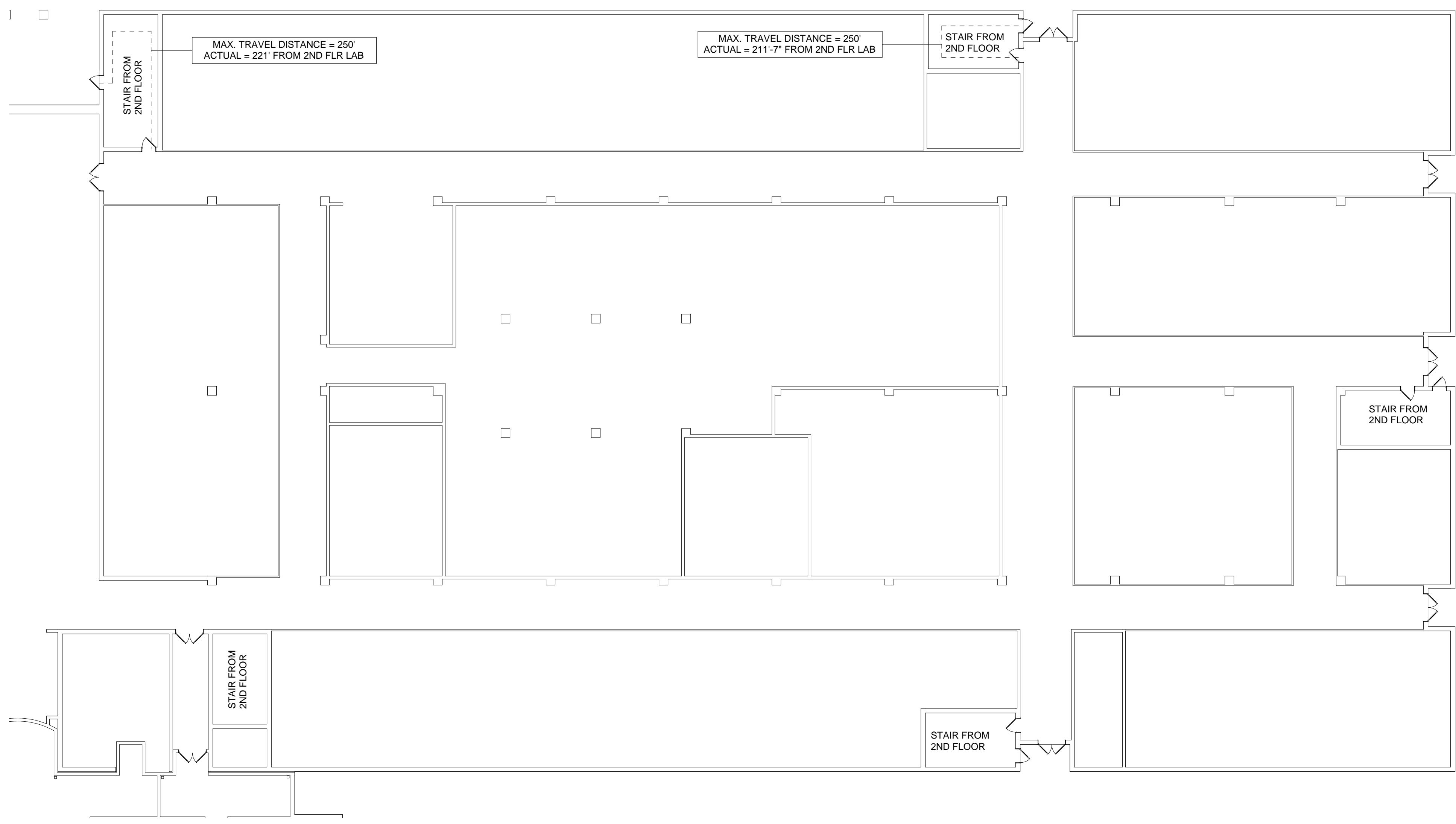
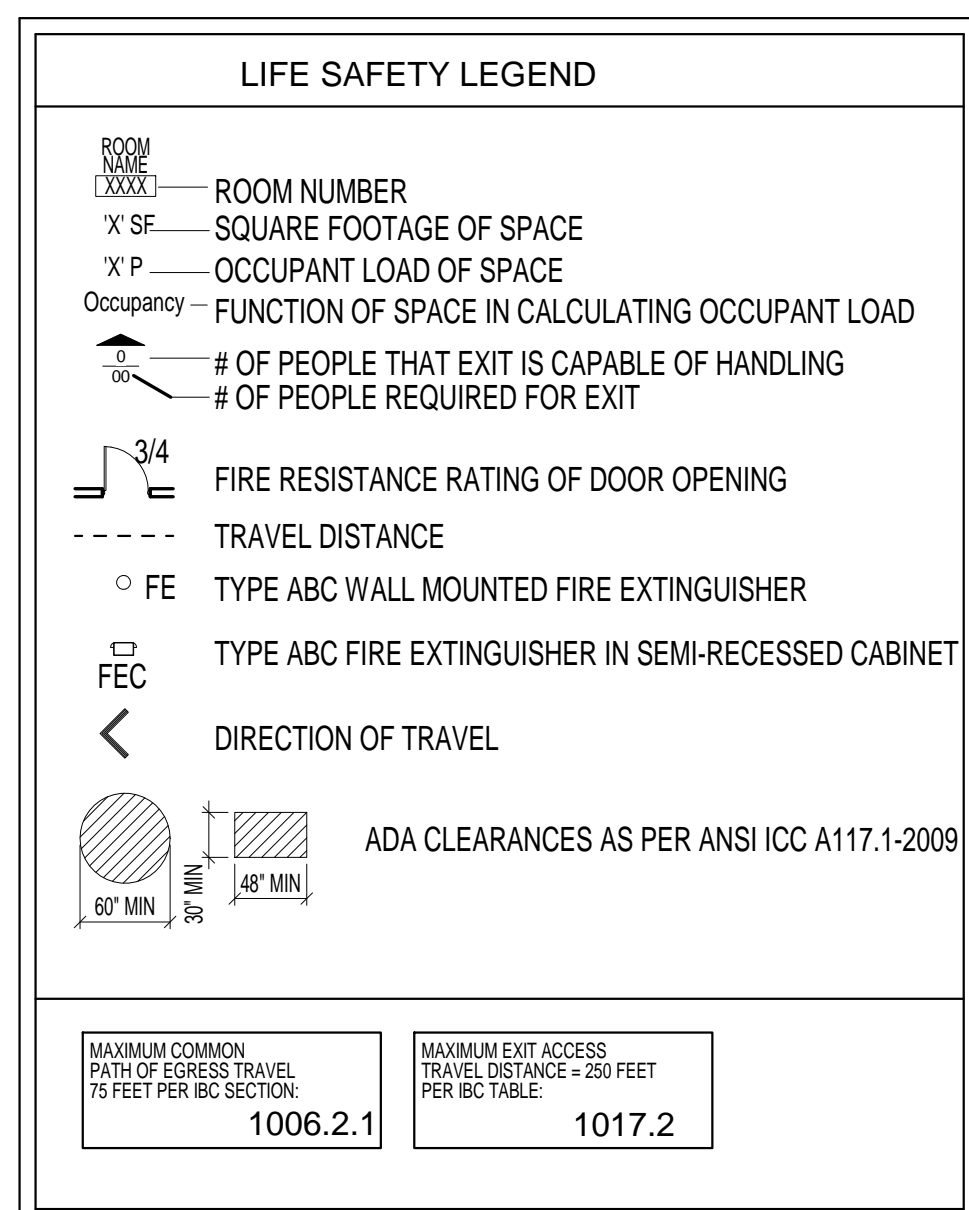
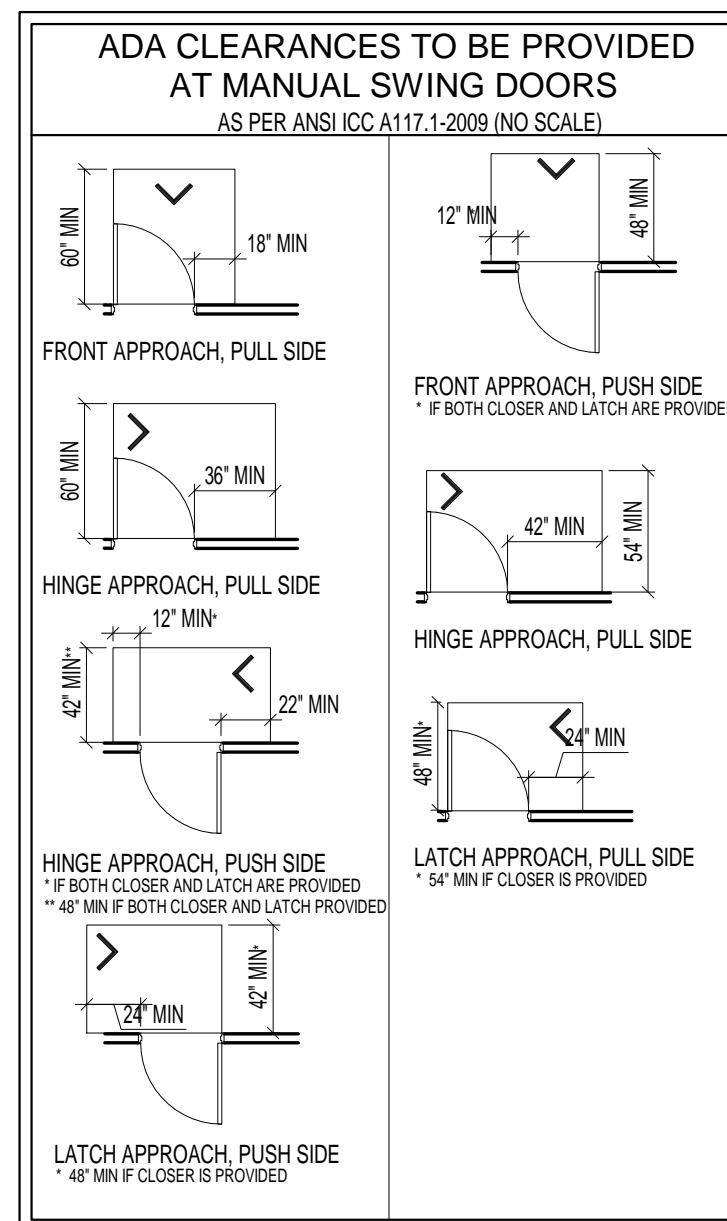
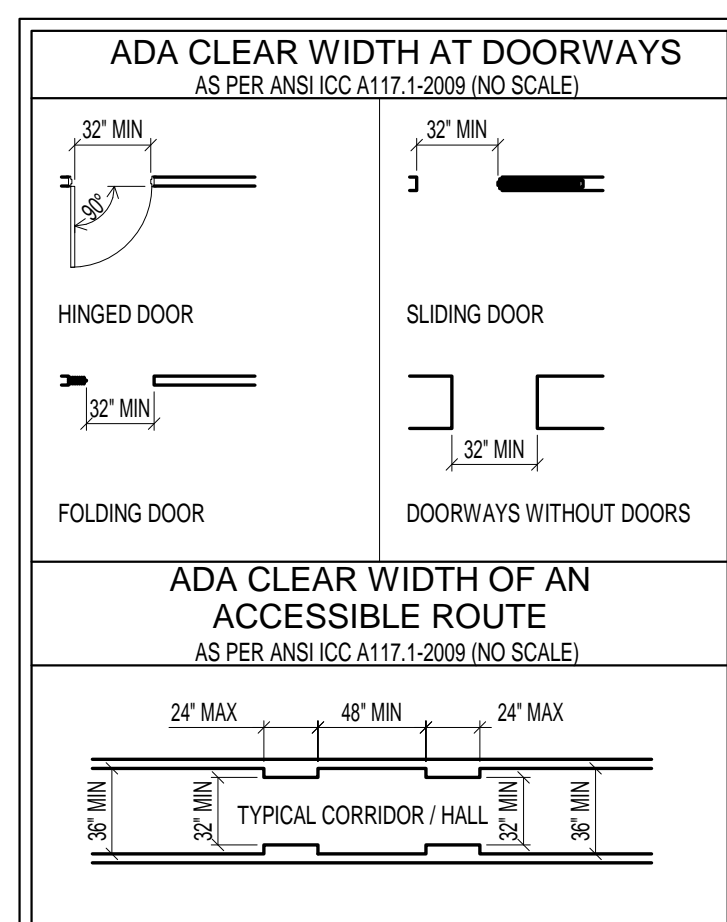
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CHECKED BY: Checker
APPROVED BY: Approver

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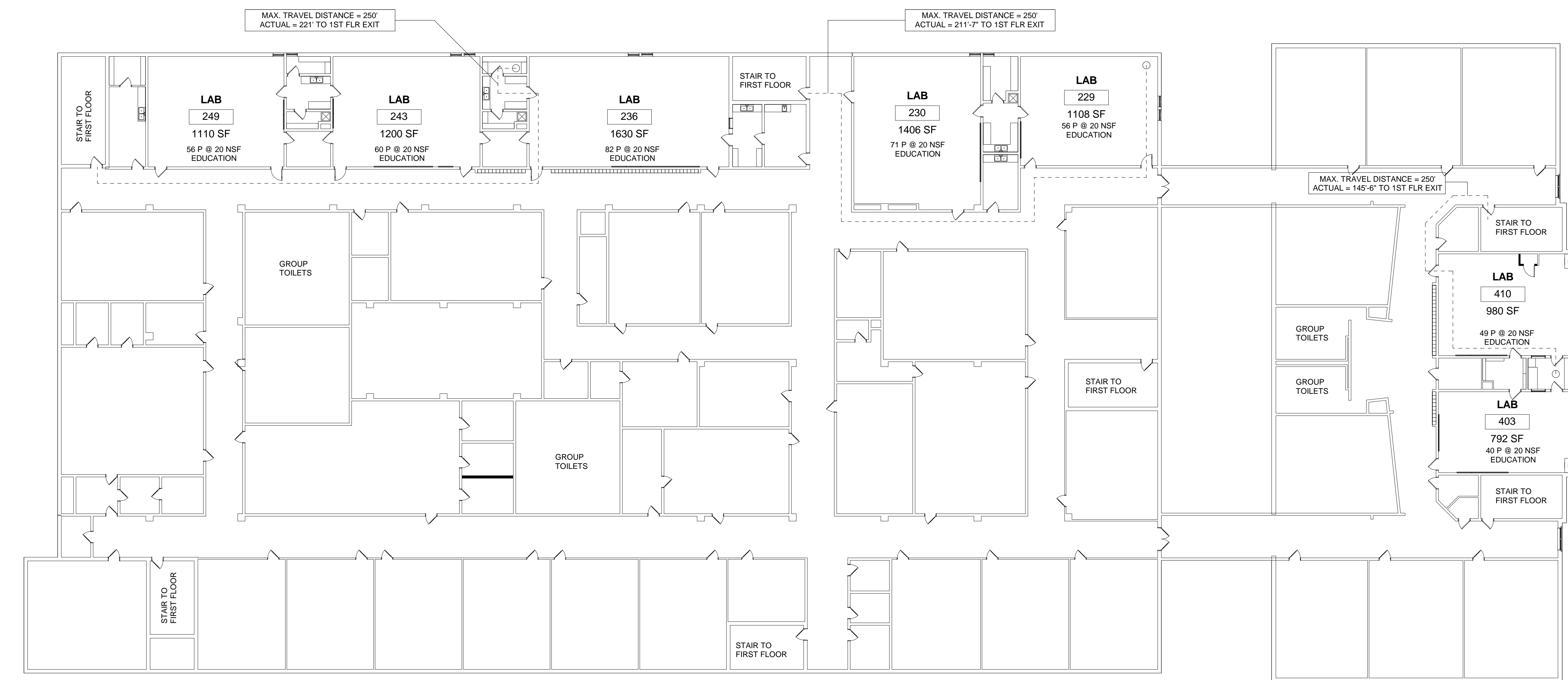
**LIFE SAFETY
PLAN**

SHEET NUMBER

GI-100



C2 1ST FLOOR - LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"



A2 2ND FLOOR - LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"

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C
C
B
A

1 2 3 4 5 6



Colleton County School District
Colleton County Middle School Lab Renovations

| MAR K | DATE (YYYY-MM-DD) | DESCRIPTION |
|----------|----------------------|------------------|
| 1 | 4/30/18 | OSF CD SUBMITTAL |
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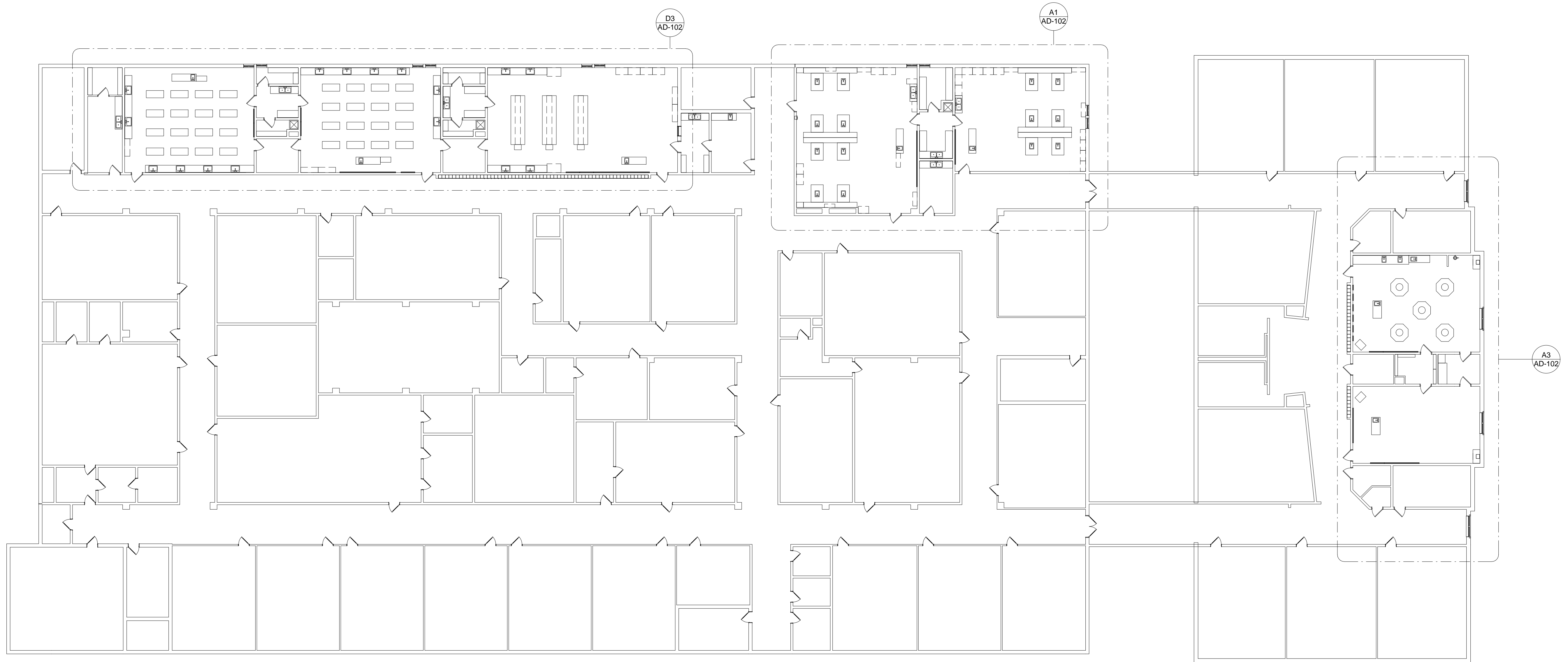
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SHEET TITLE

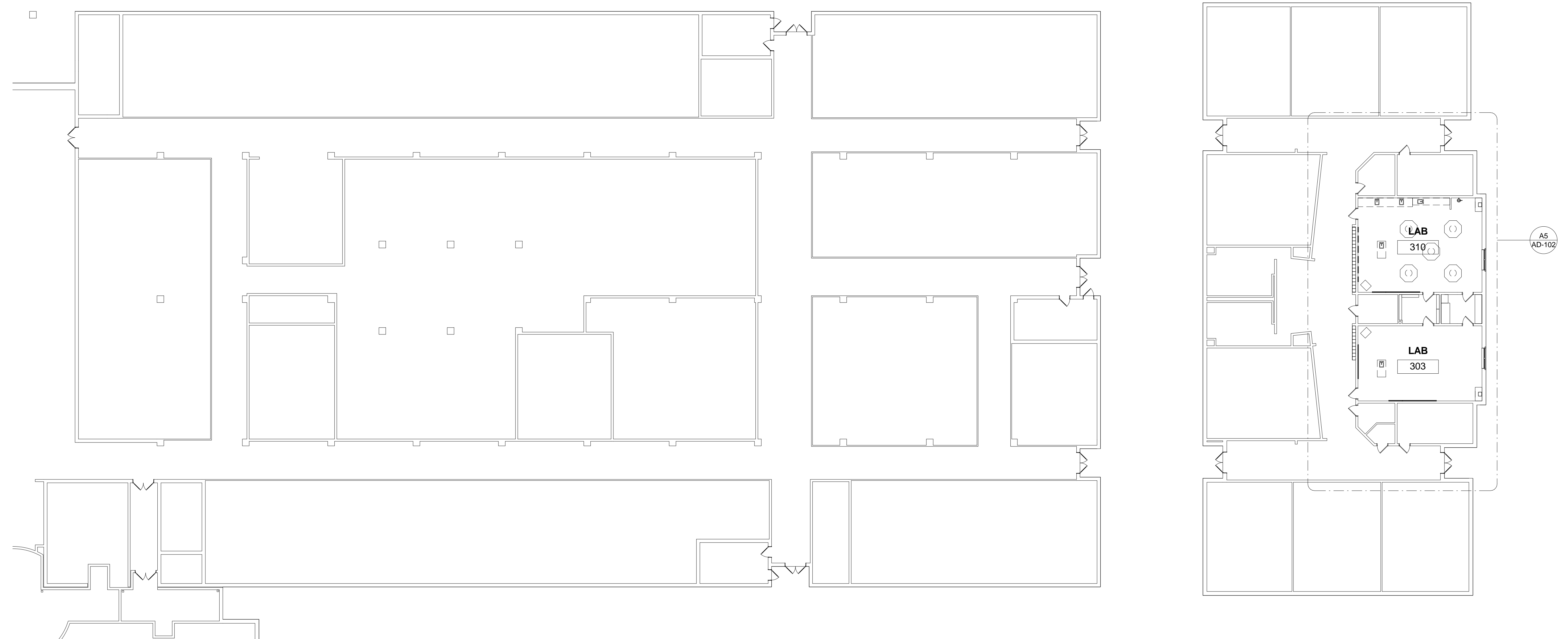
DEMOLITION PLANS

SHEET NUMBER

AD-101

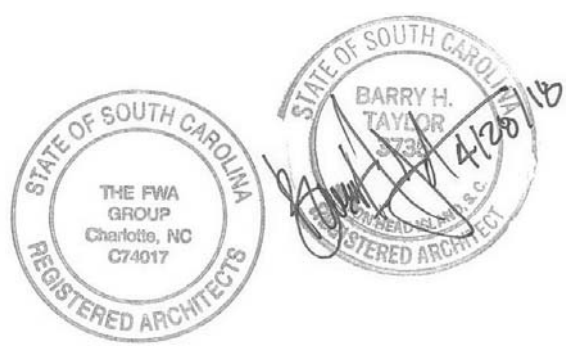


C2 2ND FLOOR - Demolition
 SCALE: 1/16" = 1'-0"

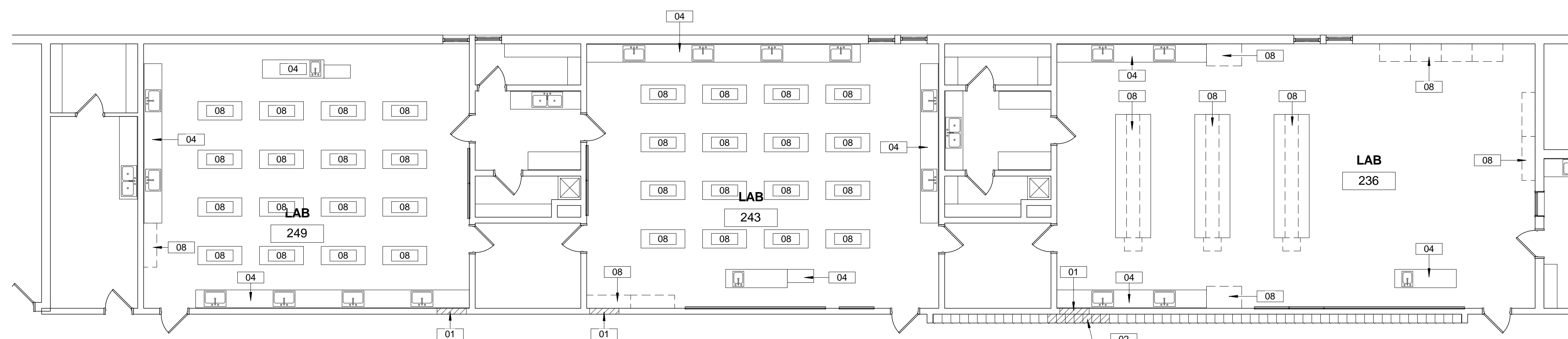


A2 1ST FLOOR - Demolition - Partial Plan
 SCALE: 1/16" = 1'-0"

1 2 3 4 5 6

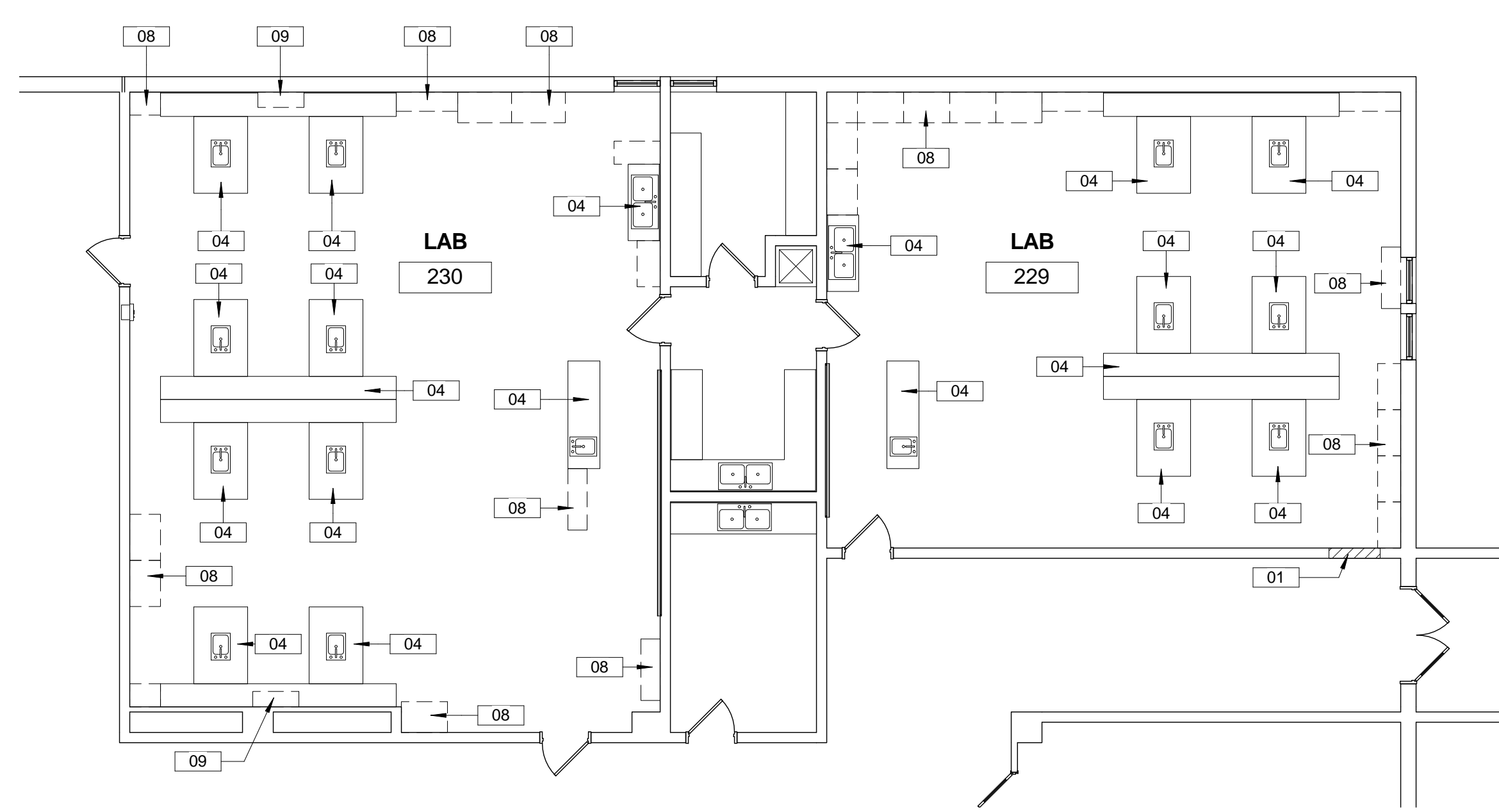


| Keynote Legend | |
|----------------|---|
| Key Value | Keynote Text |
| 01 | Remove portion of existing wall to receive new door and frame. Remove CMU such that new cmu can be toothed in to new opening to create new flush opening. Provide new header. See Door Schedule. |
| 02 | Not used. |
| 03 | Remove plumbing fixture. See Plumbing demolition plans. |
| 04 | Wall and base casework to be removed. See also Plumbing and Electrical demolition plans. |
| 05 | Remove portion of wall to receive new HM frame window. See Window Sched. |
| 06 | Remove television and mounting hardware. |
| 07 | Remove white board and store as directed by Owner. |
| 08 | Remove built-in wall and base casework. |
| 09 | Remove science hood. See also Mechanical demolition plans. |
| 10 | Carry existing wall to 8" above ceiling; brace to deck above. Adjust existing ACT to accommodate new closet. |
| 11 | New flooring and base - see Room Finish Schedule and specifications. |
| 12 | New window in HM frame. See window schedule. |
| 13 | New gypsum wallboard ceiling finish at Closet. See Room Finish Schedule. |
| 14 | Patch, fill and repair concrete to create a new level floor surface where lab casework has been removed. Prepare surface to receive new floor finish material. Coordinate patch, fill and repair work with demolition effort noted on plumbing and electrical drawings. |

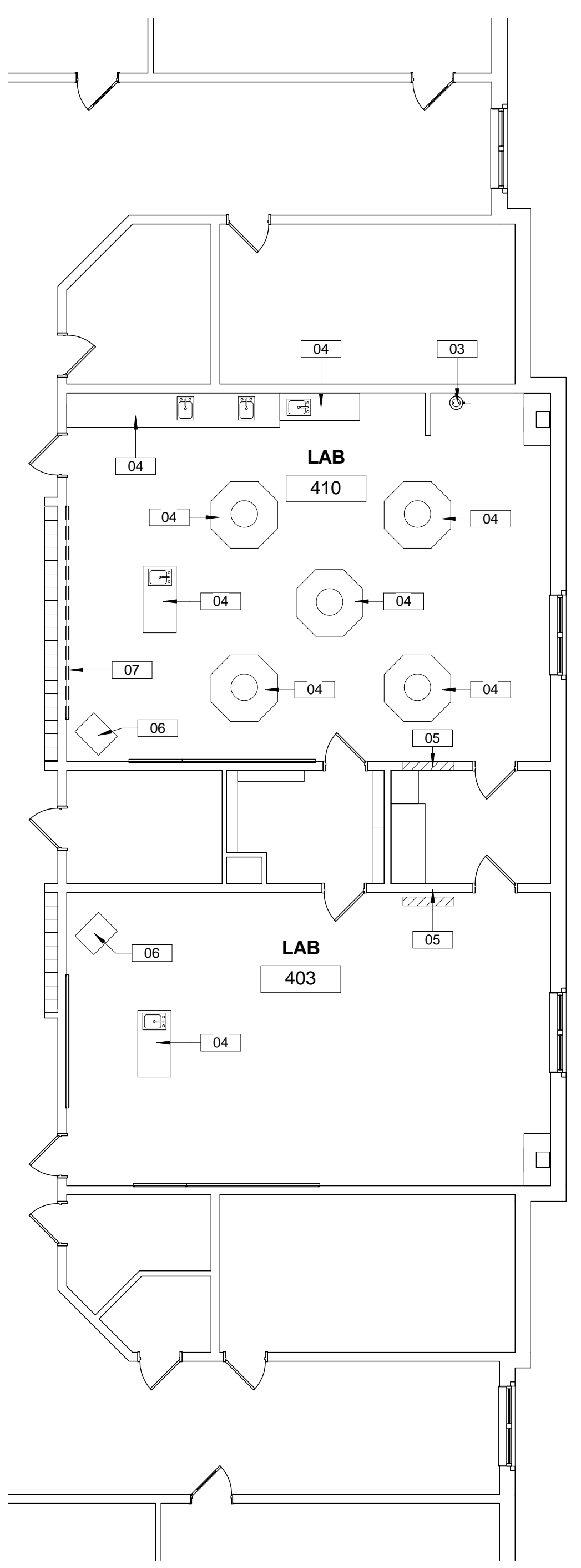


D3 2ND FLOOR - Demo Plan - Labs 236/243/249
 SCALE: 1/8" = 1'-0"

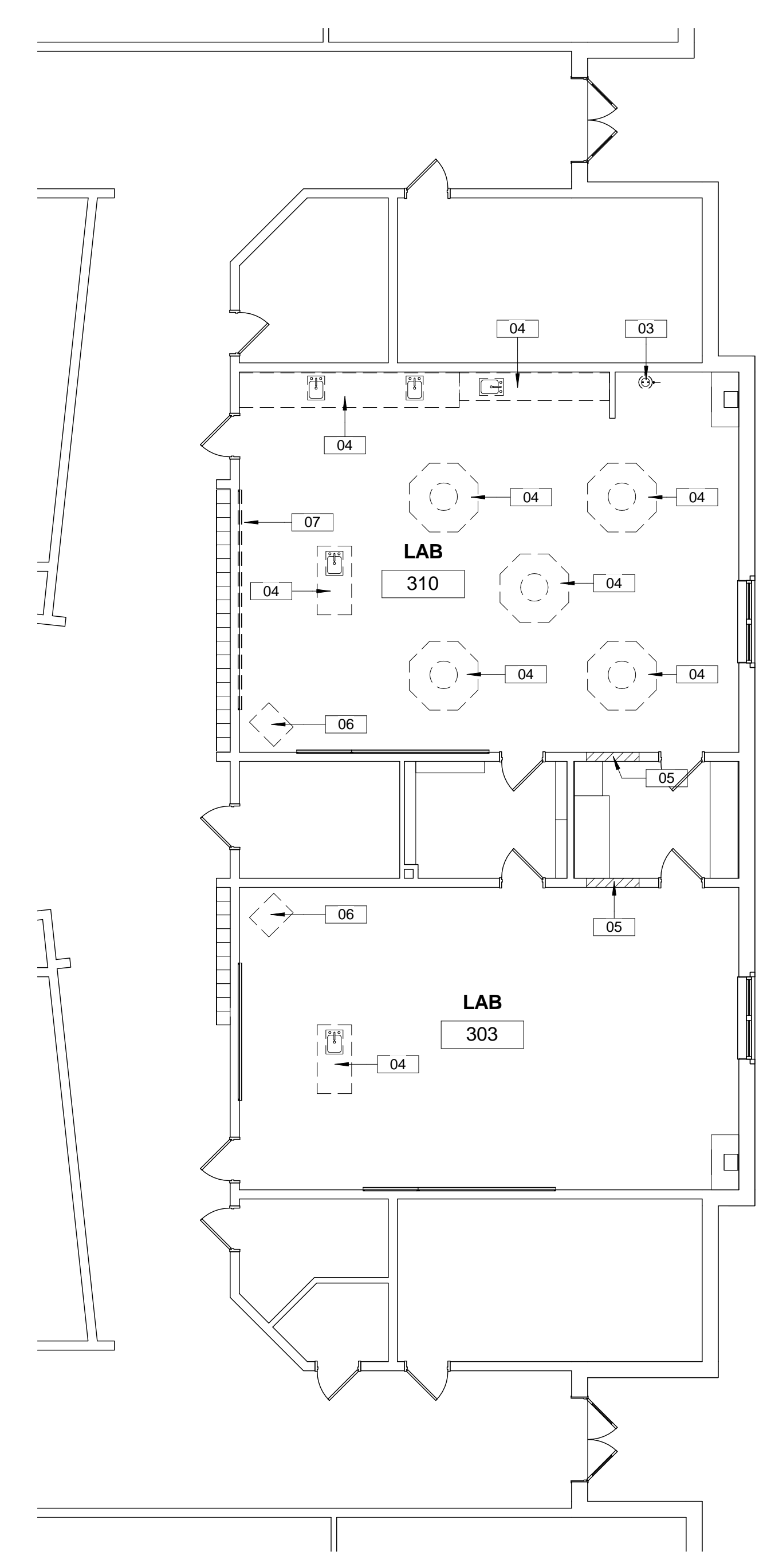
- GENERAL DEMOLITION NOTES:**
1. REMOVE LOOSE PAINT AND DIRT FROM EXISTING WALLS AND TRIM TO REMAIN. PREP WALLS TO RECEIVE NEW PAINT, TYPICAL.
 2. REMOVE EXISTING FLOOR FINISH, BASE AND ALL GLUE RESIDUE UNLESS NOTED OTHERWISE. PREPARE FLOORS TO RECEIVE NEW VCT FINISH MATERIAL AND BASE.
 3. REPAIR WALL AND FLOORS WHERE CASEWORK WAS REMOVED. PREPARE TO RECEIVE NEW FINISHES.
 4. SEE PLUMBING DRAWINGS FOR PLUMBING DEMOLITION.
 5. SEE MECHANICAL DRAWINGS FOR MECHANICAL DEMOLITION.
 6. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL DEMOLITION.



A1 2ND FLOOR - Demo Plan- Labs 229/230
 SCALE: 1/8" = 1'-0"



A3 2ND FLOOR - Demo Plan - Labs 403/410
 SCALE: 1/8" = 1'-0"



A5 1ST FLOOR - Demo Plan - Labs 303/310
 SCALE: 1/8" = 1'-0"



Colleton County School District
Colleton County Middle School Lab Renovations

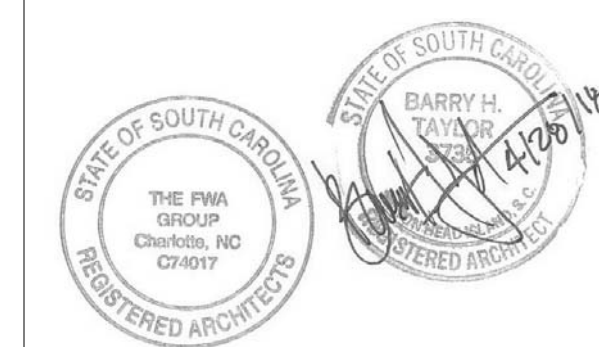
| MAR | DATE | DESCRIPTION |
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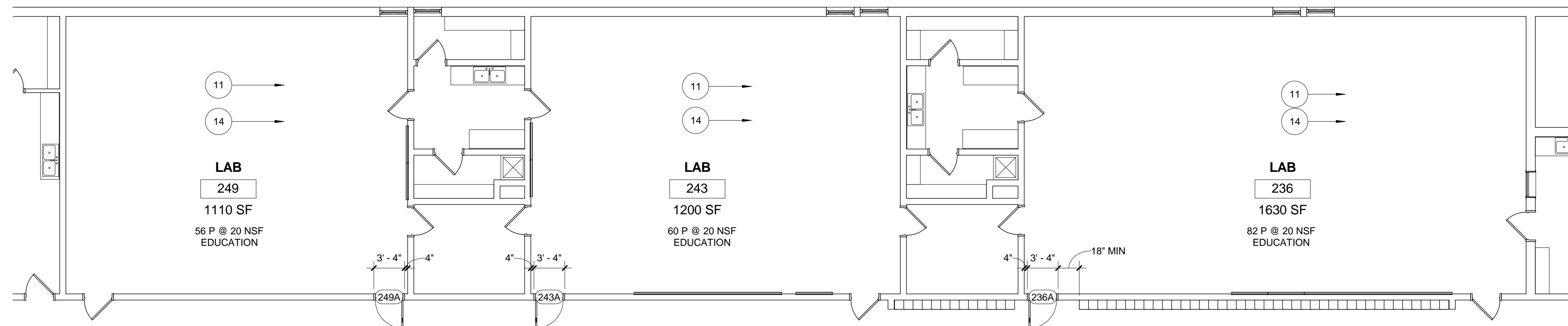
ENLARGED DEMOLITION PLANS



| Keynote Legend | |
|----------------|---|
| Key Value | Keynote Text |
| 01 | Remove portion of existing wall to receive new door and frame. Remove CMU such that new cmu can be tooled in to new opening to create new flush opening. Provide new header. See Door Schedule. |
| 02 | Not used. |
| 03 | Remove plumbing fixture. See Plumbing demolition plans. |
| 04 | Wall and base casework to be removed. See also Plumbing and Electrical demolition plans. |
| 05 | Remove portion of wall to receive new HM frame window. See Window Sched. |
| 06 | Remove television and mounting hardware. |
| 07 | Remove white board and store as directed by Owner. |
| 08 | Remove built-in wall and base casework. |
| 09 | Remove science hood. See also Mechanical demolition plans. |
| 10 | Carry existing wall to 8" above ceiling; brace to deck above. Adjust existing ACT to accommodate new closet. |
| 11 | New flooring and base - see Room Finish Schedule and specifications. |
| 12 | New window in HM frame. See window schedule. |
| 13 | New gypsum wallboard ceiling finish at Closet. See Room Finish Schedule. |
| 14 | Patch, fill and repair concrete to create a new level floor surface where lab casework has been removed. Prepare surface to receive new floor finish material. Coordinate patch, fill and repair work with demolition effort noted on plumbing and electrical drawings. |

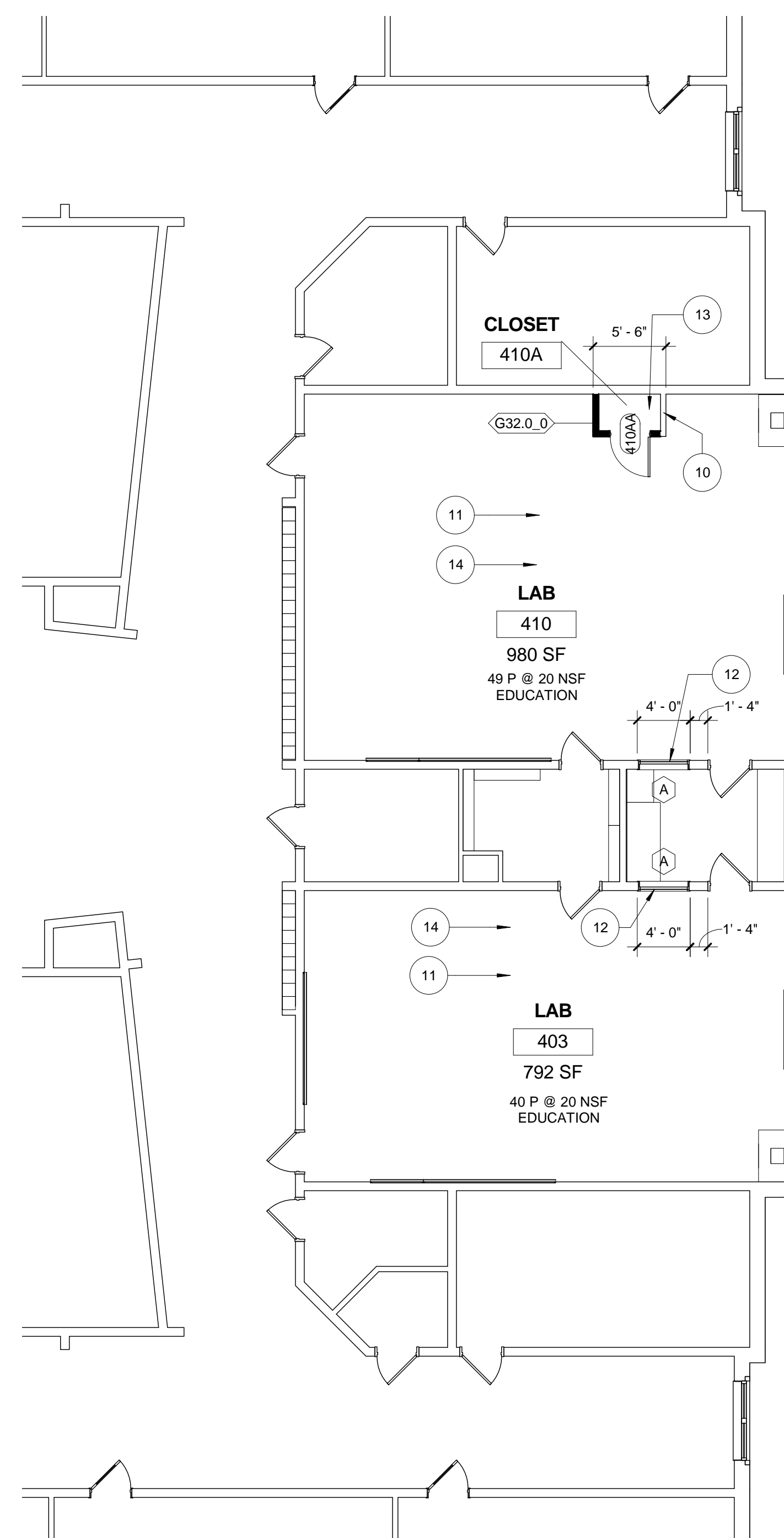
GENERAL NOTES:

- WHERE MATERIAL AND/OR UTILITIES WERE REMOVED, REPAIR WALL TO RECEIVE NEW PAINT FINISH. SEE SPECIFICATIONS.
- WHERE MATERIAL AND/OR UTILITIES WERE REMOVED OR CAPPED, REPAIR FLOORS TO RECEIVE NEW FINISHES. SEE SPECIFICATIONS. SEE ALSO PLUMBING AND ELECTRICAL DRAWINGS.
- SEE PLUMBING DRAWINGS FOR PLUMBING NOTES.
- SEE MECHANICAL DRAWINGS FOR MECHANICAL NOTES.
- SEE ELECTRICAL DRAWINGS FOR ELECTRICAL NOTES.

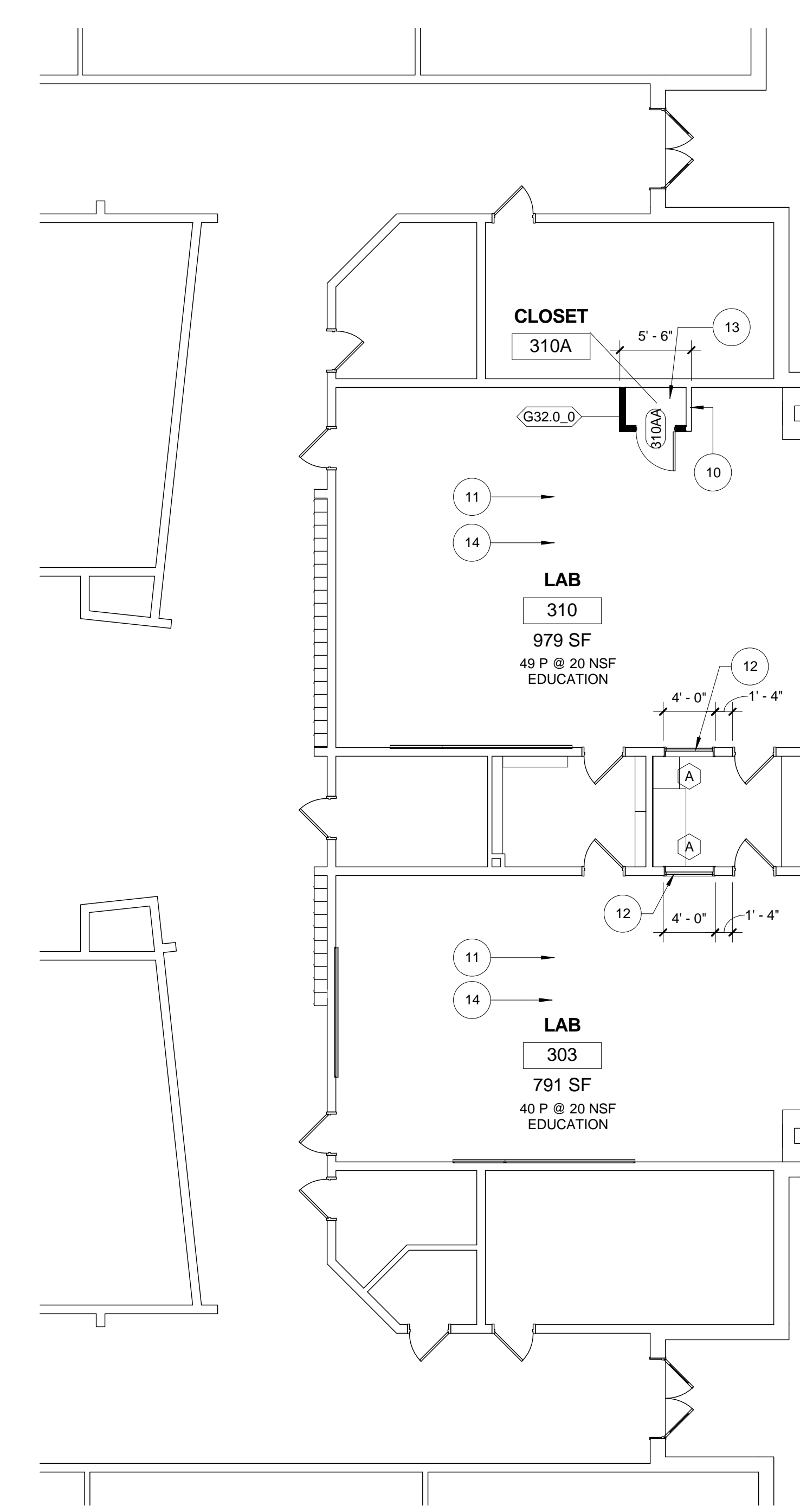


2ND FLOOR - Proposed Plan - Labs

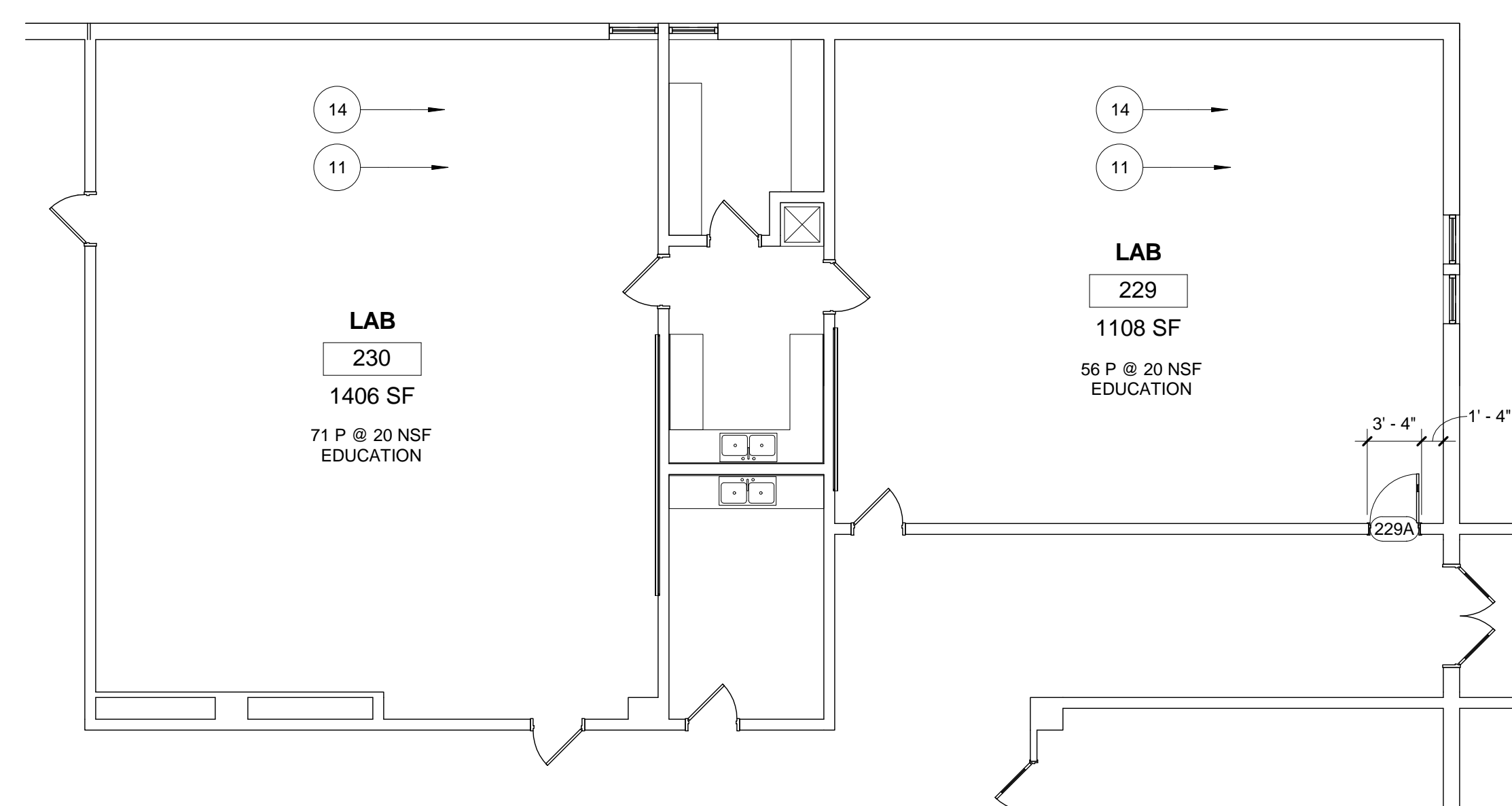
4 236/243/249
SCALE: 1/8" = 1'-0"



2 2ND FLOOR - Proposed Plan - Labs 403/410
SCALE: 1/8" = 1'-0"



1 1ST FLOOR - Proposed Plan - Labs 303/310
SCALE: 1/8" = 1'-0"



3 2ND FLOOR - Proposed Plan - Labs 229/230
SCALE: 1/8" = 1'-0"



Colleton County School District

Colleton County
Middle School Lab
Renovations

| MAR | DATE | DESCRIPTION |
|-----|--------------|------------------|
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SHEET TITLE

**PROPOSED
FLOOR PLANS**

SHEET NUMBER

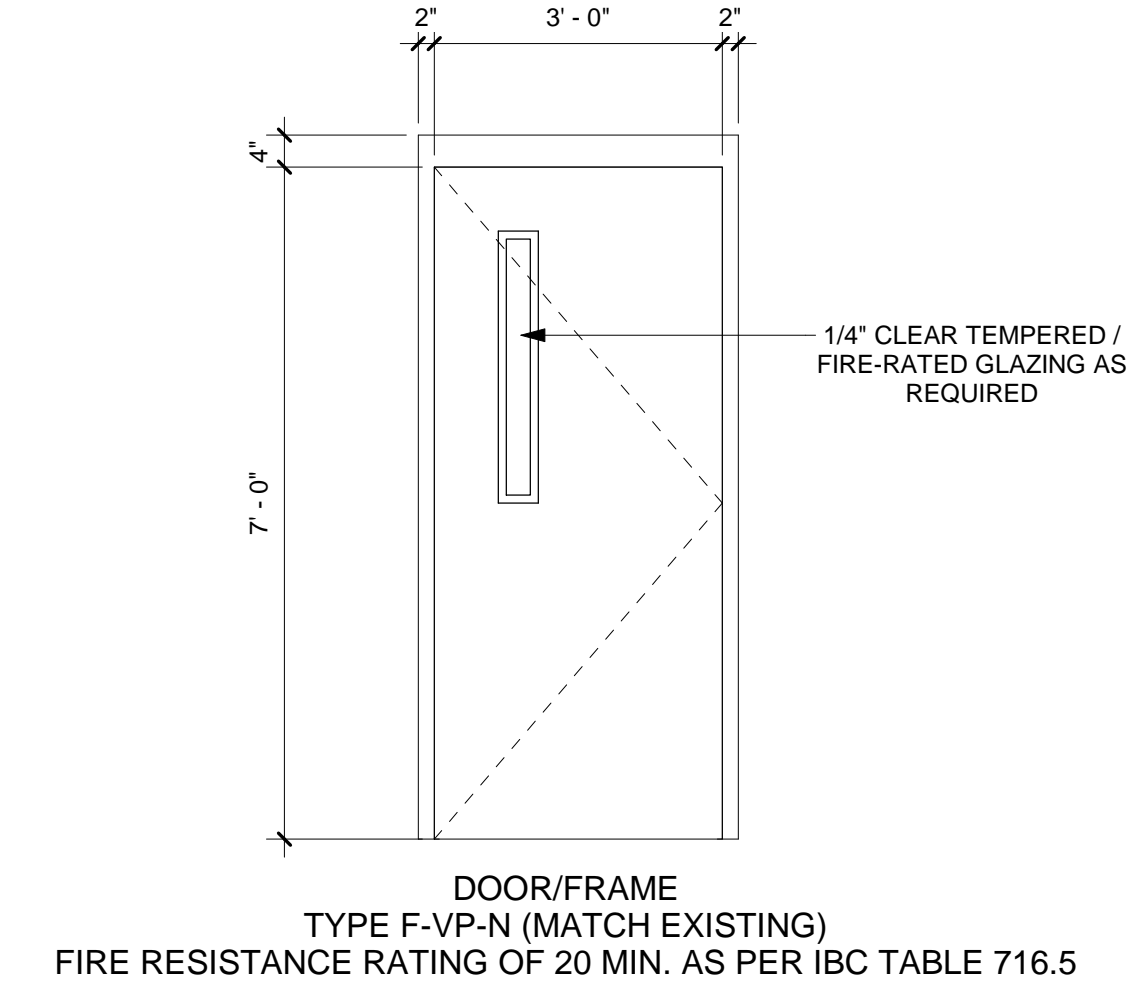
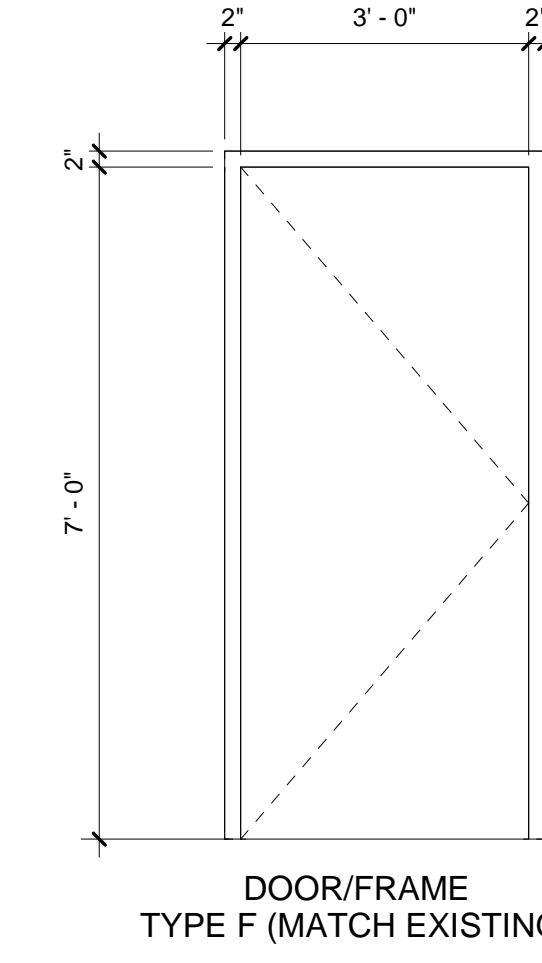
AE-101

| Room Finish Schedule | | | | | | |
|----------------------|--------|--------------|----------------------|-----------|-------------|----------------|
| Number | Name | Floor Finish | Base Finish | Wall Mtl. | Wall Finish | Ceiling Finish |
| 229 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST | PAINT | EXIST. |
| 230 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST | PAINT | EXIST. |
| 236 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST | PAINT | EXIST. |
| 243 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST | PAINT | EXIST. |
| 249 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST | PAINT | EXIST. |
| 303 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST | PAINT | EXIST. |
| 310 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST/GWB | PAINT | EXIST. |
| 310A | CLOSET | VCT | RUBBER (MATCH EXIST) | EXIST/GWB | PAINT | GWB/PAINT |
| 403 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST | PAINT | EXIST. |
| 410 | LAB | VCT | RUBBER (MATCH EXIST) | EXIST/GWB | PAINT | EXIST. |
| 410A | CLOSET | VCT | RUBBER (MATCH EXIST) | EXIST/GWB | PAINT | GWB/PAINT |

NOTE: ALL FINAL MATERIAL AND COLOR SELECTIONS ARE BY OWNER.

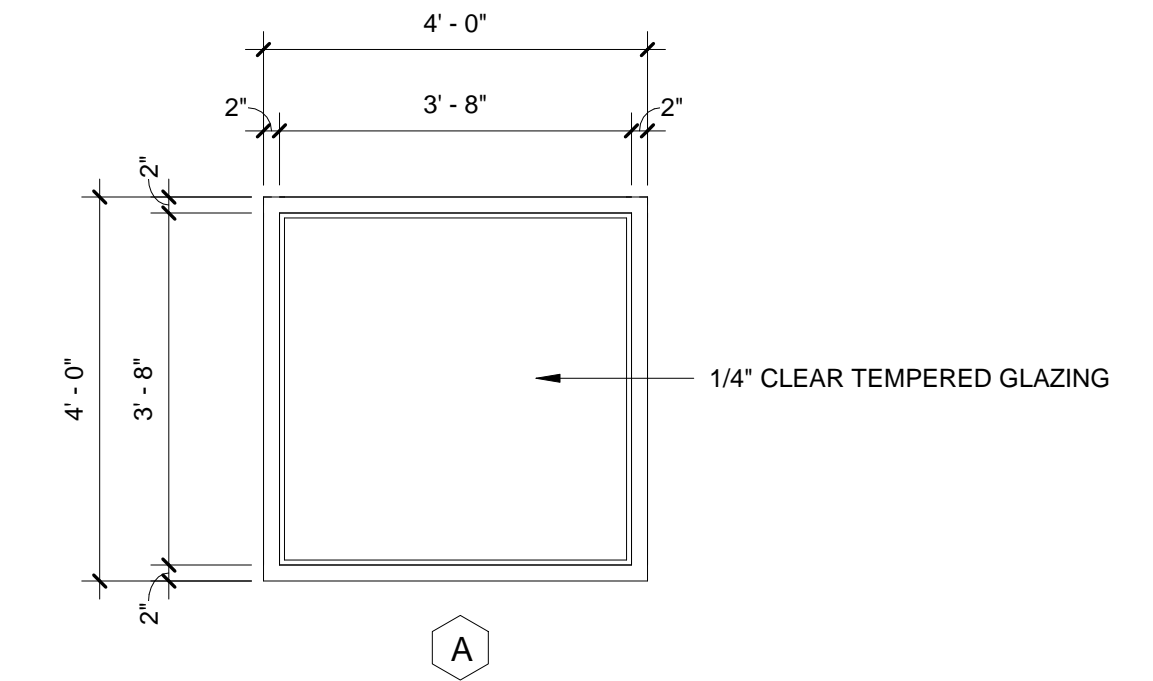
| Door Schedule | | | | | | | | | | | | |
|---------------|-----------|-------|--------|-----------|-----------------|-------------|----------------|--------------|-----------|-----------|-----------|------------------------------|
| Mark | Door Type | Width | Height | Thickness | Door Material | Door Finish | Frame Material | Frame Finish | Head | Jamb | Threshold | Remarks |
| 229A | F-VP-N | 3'-0" | 7'-0" | 0'-1 3/4" | SOLID CORE WOOD | Stain | HM | Paint | A6/AE-601 | A6/AE-601 | | 20 min. rated door and frame |
| 236A | F-VP-N | 3'-0" | 7'-0" | 0'-1 3/4" | SOLID CORE WOOD | Stain | HM | Paint | A6/AE-601 | A6/AE-601 | | 20 min. rated door and frame |
| 243A | F-VP-N | 3'-0" | 7'-0" | 0'-1 3/4" | SOLID CORE WOOD | Stain | HM | Paint | A6/AE-601 | A6/AE-601 | | 20 min. rated door and frame |
| 249A | F-VP-N | 3'-0" | 7'-0" | 0'-1 3/4" | SOLID CORE WOOD | Stain | HM | Paint | A6/AE-601 | A6/AE-601 | | 20 min. rated door and frame |
| 310AA | F | 3'-0" | 7'-0" | 0'-1 3/4" | SOLID CORE WOOD | Stain | HM | Paint | B6/AE-601 | B6/AE-601 | | |
| 410AA | F | 3'-0" | 7'-0" | 0'-1 3/4" | SOLID CORE WOOD | Stain | HM | Paint | B6/AE-601 | B6/AE-601 | | |

NOTE: HARDWARE IS TO MATCH EXISTING CLASSROOM DOORS IN FUNCTION AND STYLE. HARDWARE SELECTIONS BY OWNER.



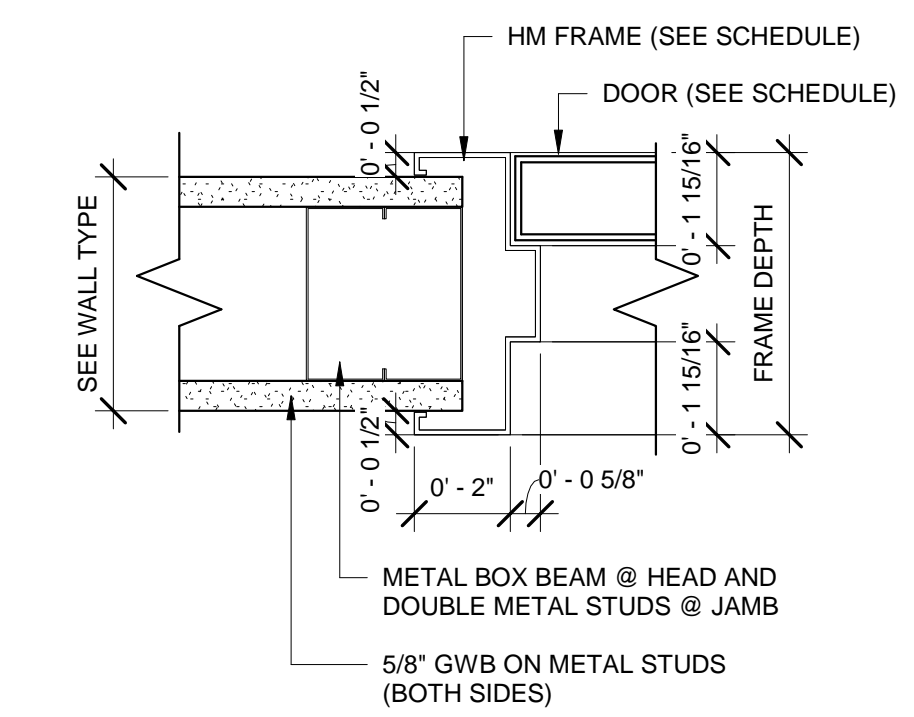
DOOR/FRAME TYPE LEGEND

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



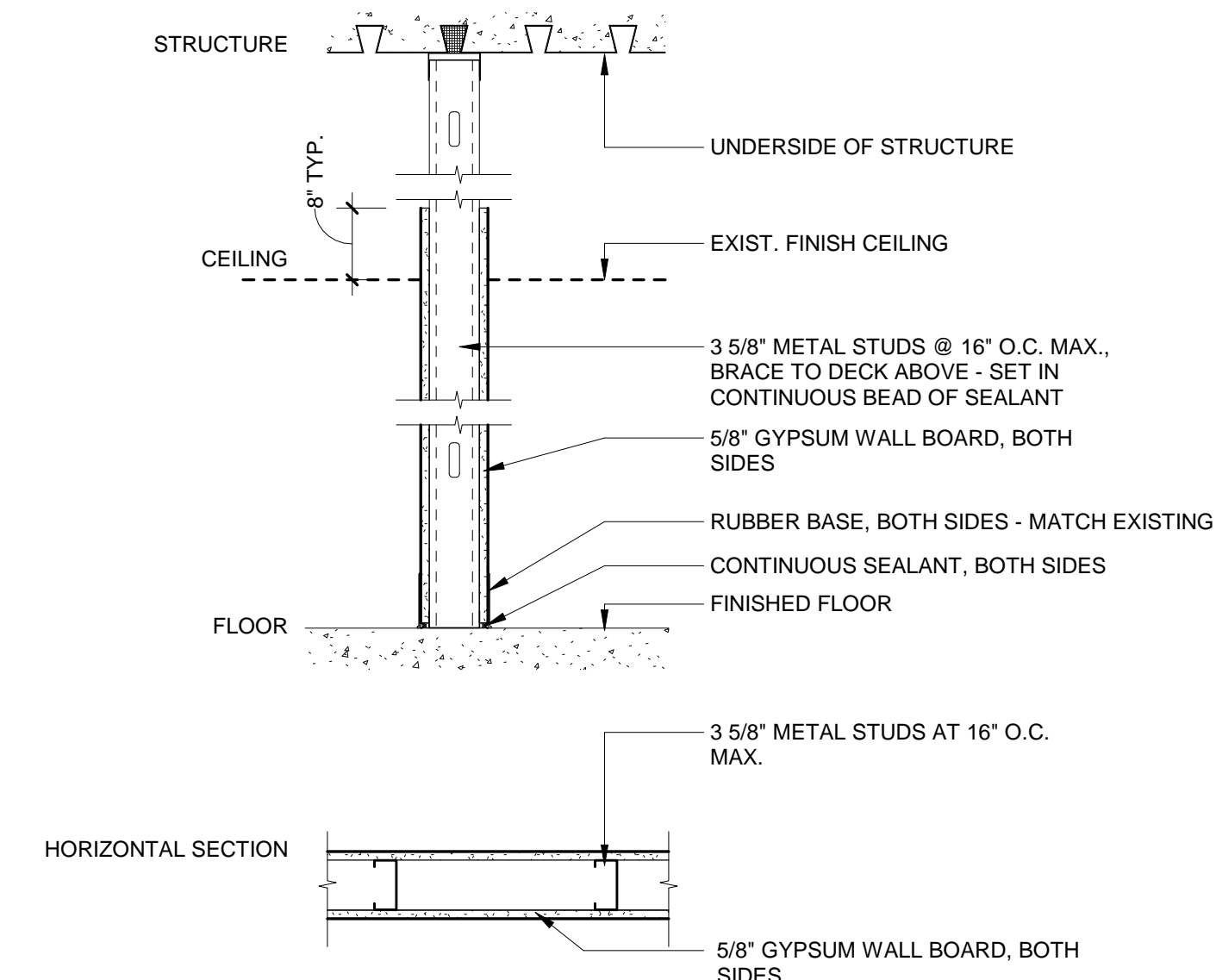
WINDOW TYPE LEGEND

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



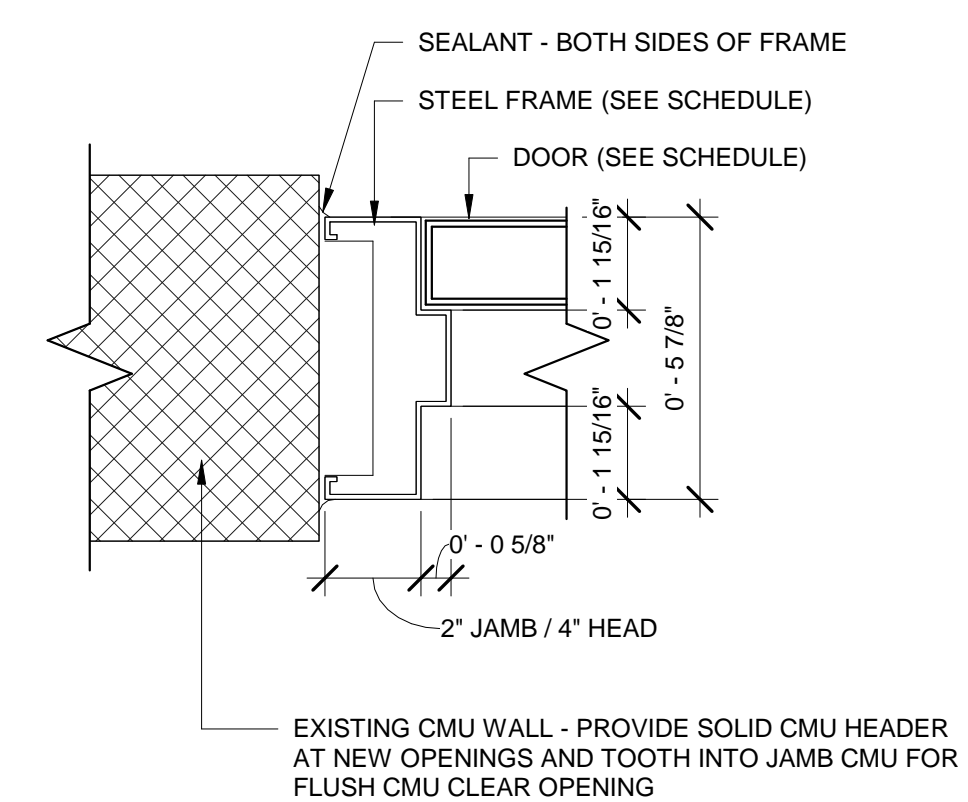
B6 HEAD/JAMB DOOR DETAIL

SCALE: 3" = 1'-0"



A5 PARTITION TYPE G32.0_0

SCALE: 1" = 1'-0"



A6 JAMB/HEAD DOOR DETAIL

SCALE: 3" = 1'-0"

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FWA PROJECT NO: 2542.01

DRAWN BY: Author
CHECKED BY: Checker
APPROVED BY: Approver

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SHEET TITLE

SCHEDULES / DETAILS

SHEET NUMBER

AE-601



PLUMBING DRAWING SPECIFICATION:

SCOPE OF WORK:

WARRANTIES: PROVIDE MINIMUM 1 YEAR WARRANTY MATERIALS AND LABOR ON ALL SYSTEMS.

SUBMITTALS: CONTRACTOR SHALL USE SPECIFIED MANUFACTURER OR APPROVED EQUAL. PROVIDE PRODUCT DATA AND MANUFACTURERS CATALOG INFORMATION FOR ALL SYSTEMS USED. CLEARLY STATE OR IDENTIFY ITEMS USED ON SUBMITTAL. PROVIDE 5 COPIES INCLUDING A SUMMARY PAGE THAT LISTS ITEMS AND MODEL NUMBERS FOR EACH PIECE OF EQUIPMENT.

SOIL, WASTE AND VENT PIPING:
BELOW GROUND CAST IRON PIPE: ASTM A 74 WEIGHT; FITTINGS: CAST IRON; JOINTS: HUB-AND-SPIGOT, CISPI HSN COMPRESSION TYPE WITH ASTM C 564 NEOPRENE GASKETS OR LEAD AND OAKUM. ALL PIPING AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF CISPI AND NSF.

ABOVE GROUND CAST IRON PIPE: CISPI 301, HUBLESS. ALL PIPING AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF CISPI AND NSF.
HUBLESS COUPLINGS: CISPI 310, FACTORY MUTUAL 1680, AND ASTM C1540 COMPLIANT COUPLINGS WITH ASTM C564 GASKET AND STAINLESS STEEL CLAMP/SHIELD ASSEMBLIES.

DOMESTIC HOT AND COLD WATER PIPING
BELOW GRADE COPPER PIPE: ASTM B 42, HARD DRAWN, TYPE K.
FITTINGS: ASME B16.18, CAST COPPER ALLOY OR ASME B16.22 WROUGHT COPPER AND BRONZE.
JOINTS: ASTM B 32, ALLOY SN95/AG5 SOLDER; OR AWS A5.8, BCUP COPPER/SILVER BRAZE.

ABOVE GRADE COPPER TUBE: ASTM B 88 (ASTM B 88M), TYPE K, HARD DRAWN.
FITTINGS: ASME B16.18, CAST COPPER ALLOY OR ASME B16.22, WROUGHT COPPER AND BRONZE.
JOINTS: ASTM B 32, ALLOY SN95/AG5 SOLDER OR GROOVED MECHANICAL COUPLINGS.

GAS PIPING:
ABOVE GROUND STEEL PIPE: ASTM A 53/A 53M SCHEDULE 40 BLACK.
FITTINGS: ASME B16.3, MALLEABLE IRON, OR ASTM A 234/A 234M, WROUGHT STEEL WELDING TYPE.
JOINTS: NFPA 54, THREADED OR WELDED TO ASME B31.10.

BALL VALVES: CONSTRUCTION, 4 INCHES AND SMALLER: MSS SP-110, CLASS 150, 400 PSI CWP, BRONZE, TWO PIECE BODY, CHROME PLATED BRASS BALL, REGULAR PORT, TEFLON SEATS AND STUFFING BOX RING, BLOW-OUT PROOF STEM, LEVER HANDLE WITH BALANCING STOPS; SOLDER OR THREADED ENDS WITH UNION.

PIPING INSULATION:
INSULATED PIPES CONVEYING FLUIDS BELOW AMBIENT TEMPERATURE: INSULATE ENTIRE SYSTEM INCLUDING FITTINGS, VALVES, UNIONS, FLANGES, STRAINERS, FLEXIBLE CONNECTIONS, PUMP BODIES, AND EXPANSION JOINTS.

DOMESTIC HOT, COLD, AND HOT WATER RETURN PIPING:
FOR PIPE SIZES LESS THAN 2": INSULATION SHALL BE 1" THICK.
FOR PIPE SIZE 2" AND GREATER: INSULATION SHALL BE 1-1/2" THICK

FIBER GLASS PIPING INSULATION:
INSULATION: ASTM C 547; SEMI-RIGID, NONCOMBUSTIBLE, END GRAIN ADHERED TO JACKET.
1. 'K' VALUE: ASTM C 177, 0.24 AT 75 DEGREES F.
2. MAXIMUM SERVICE TEMPERATURE: 650 DEGREES F.
3. MAXIMUM MOISTURE ABSORPTION: 0.2 PERCENT BY VOLUME.
VAPOR BARRIER JACKET: WHITE KRAFT PAPER WITH GLASS FIBER YARN, BONDED TO ALUMINIZED FILM; MOISTURE VAPOR TRANSMISSION WHEN TESTED IN ACCORDANCE WITH ASTM E 96/E 96M OF 0.02 PERM-INCHES TIE WIRE: 0.048 INCH STAINLESS STEEL WITH TWISTED ENDS ON MAXIMUM 12 INCH CENTERS.

FLUSHING AND SYSTEM TEST OF WATER SUPPLY AND DRAINAGE SYSTEMS. CONTRACTOR SHALL PERFORM A WATER OR AIR TEST ON ALL CONTRACTOR INSTALLED PIPING. TEST SHALL BE CONDUCTED PER INTERNATIONAL PLUMBING CODE/2015 SECTION 312 AND SECTION 107. ALL NEW POTABLE WATER SYSTEM SHALL BE FLUSHED AND DISINFECTED PER SECTION 610 OF THE INTERNATIONAL PLUMBING CODE/2015.

PLUMBING LEGEND

SYMBOLS

| | |
|----------------------|---|
| ----- | EXISTING PIPING TO REMAIN. |
| ----- | EXISTING PIPING TO BE REMOVED. |
| | EXISTING FIXTURE TO BE REMOVED. |
| | EXISTING FIXTURE TO BE RELOCATED. |
| <u>ABBREVIATIONS</u> | |
| AFF/AFG/ARF | ABOVE FINISHED FLOOR/GRADE/RAISED FLOOR |
| ARCH | ARCHITECT/ARCHITECTURAL |
| BEL | BELOW |
| BF | BELOW FLOOR |
| CLG | CEILING |
| COL | COLUMN |
| CTE | CONNECT TO EXISTING |
| CW | COLD WATER |
| EX | EXISTING |
| FD | FLOOR DRAIN |
| FL | FLOOR |
| GR | GRADE |
| HW | HOT WATER |
| PDI | PLUMBING AND DRAINAGE INSTITUTE |
| REM | REMOVE |
| SPEC | SPECIFICATION |
| UC | UNDERCOUNTER |
| UG | UNDERGROUND |



Colleton County School District
Colleton County Middle School Lab Renovations

| MAR K | DATE (YYYY-MM-DD) | DESCRIPTION |
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FWA PROJECT NO: 2542.01

DRAWN BY: ARH

CHECKED BY: CJC

APPROVED BY:

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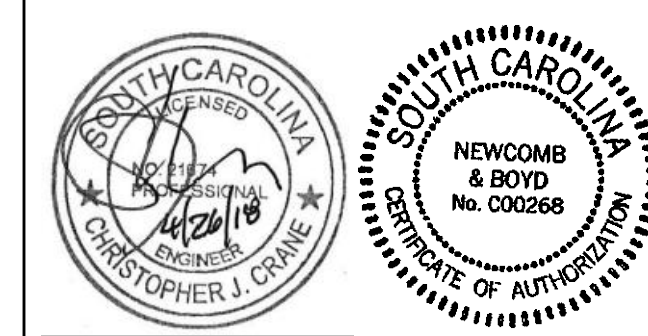
SHEET TITLE

PLUMBING SPECIFICATIONS AND ABBREVIATIONS

SHEET NUMBER

P-001

E
D
C
B
A



PLUMBING GENERAL NOTES:

- GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH PLUMBING DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
- COORDINATE WORK WITH APPROPRIATE AUTHORITIES HAVING JURISDICTION AND OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS. WHEN WORK IS COMPLETE, PROVIDE THE OWNER WITH APPLICABLE CERTIFICATES OF FINAL INSPECTION AND COMPLETION FROM SAID AUTHORITIES.
- PIPING INSULATION SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS AND PARTITIONS UNLESS NOTED OTHERWISE. IF INSULATION IS DAMAGED DURING DEMOLITION, PROVIDE NEW INSULATION TO MATCH EXISTING INSULATION.
- PROTECT BURIED COPPER WATER PIPING WITH MANUFACTURED PIPE SLEEVES DESIGNED FOR THE APPLICATION OR BRUSH APPLIED BITUMASTIC COAL TAR EPOXY PROTECTIVE COATING. FLOOR PENETRATIONS SHALL BE SLEEVED AND SEALED WATERTIGHT.
- ALL FIXTURE INFORMATION IS TAKEN FROM ORIGINAL PLUMBING PLANS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONNECTIONS PRIOR TO BEGINNING ANY WORK. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES AND AWAIT CLARIFICATION BEFORE PROCEEDING.
- THE SCOPE OF WORK IS SPECIFICALLY RELATE TO THE REMOVAL OF THE LAB DESKS AND THE PLUMBING PIPING ASSOCIATED WITH THEM. ALL OTHER PLUMBING IN THE ROOMS SHALL REMAIN 'AS IS' AND CONTINUE TO OPERATE PER THE EXISTING CONDITIONS.
- ALL PIPING SHALL BE REMOVED TO BELOW THE FINISHED FLOOR LEVEL TO ALLOW FOR THE FLOOR TO BE PATCHED AND REPLACED WITH NEW MATERIAL.

PIPING SERVING THE 2ND FLOOR SHALL BE CUT OFF ABOVE THE 1ST FLOOR CEILING, CAPPED, AND ABANDONED IN PLACE.

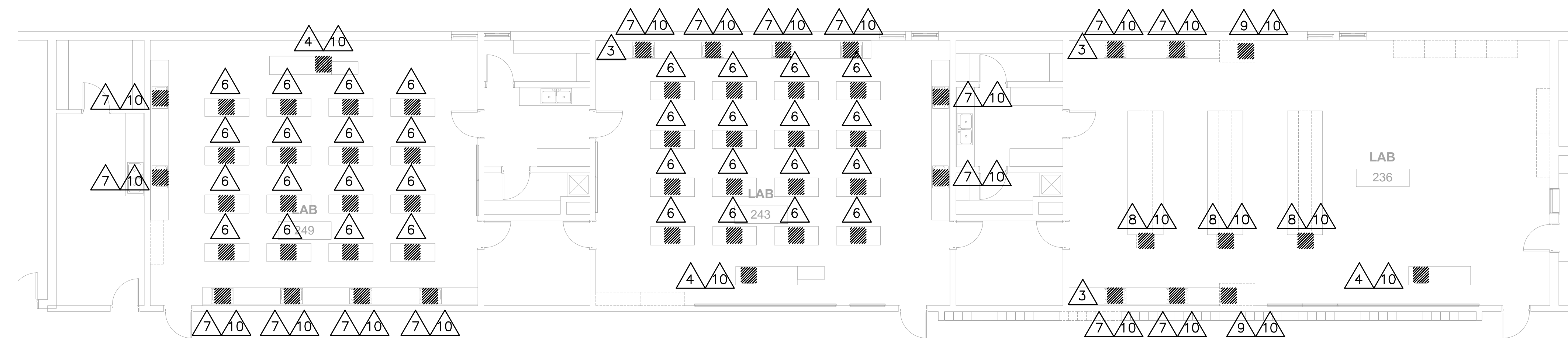
PIPING SERVING THE 1ST FLOOR IS ROUTED BELOW THE SLAB. SLAB SHALL BE SAW CUT AND CHIPPED AROUND, ONLY AS REQUIRED, TO ALLOW FOR NEW FLOORING TO BE INSTALLED OVERTOP OF THE OF THE PIPING SMOOTHLY. PIPING MAY BE CUT DOWN AS MINIMALLY AS POSSIBLE AND CAPPED. FIELD COORDINATE WITH GENERAL CONTRACTOR.

- EXISTING SANITARY PIPING IS CAST IRON. ALL NEW SANITARY PIPING REQUIRED DUE TO DEMOLITION AND CAPPING PURPOSES SHALL BE CAST IRON.
- EXISTING ACID WASTE PIPING IS BY ORION. ALL NEW ACID WASTE PIPING REQUIRED DUE TO DEMOLITION AND CAPPING PURPOSES SHALL BE ORION.
- EXISTING DOMESTIC COLD WATER AND HOT WATER ARE COPPER. TYPE L COPPER IS USED ABOVE GROUND. TYPE K COPPER IS USED BELOW GROUND. ALL NEW DOMESTIC WATER PIPING REQUIRED DUE TO DEMOLITION AND CAPPING PURPOSES SHALL BE COPPER.
- EXISTING GAS LINES ARE SCHEDULE 40 BLACK STEEL. ALL NEW GAS LINES REQUIRED DUE TO DEMOLITION AND CAPPING PURPOSES SHALL BE SCHEDULE 40 BLACK STEEL.

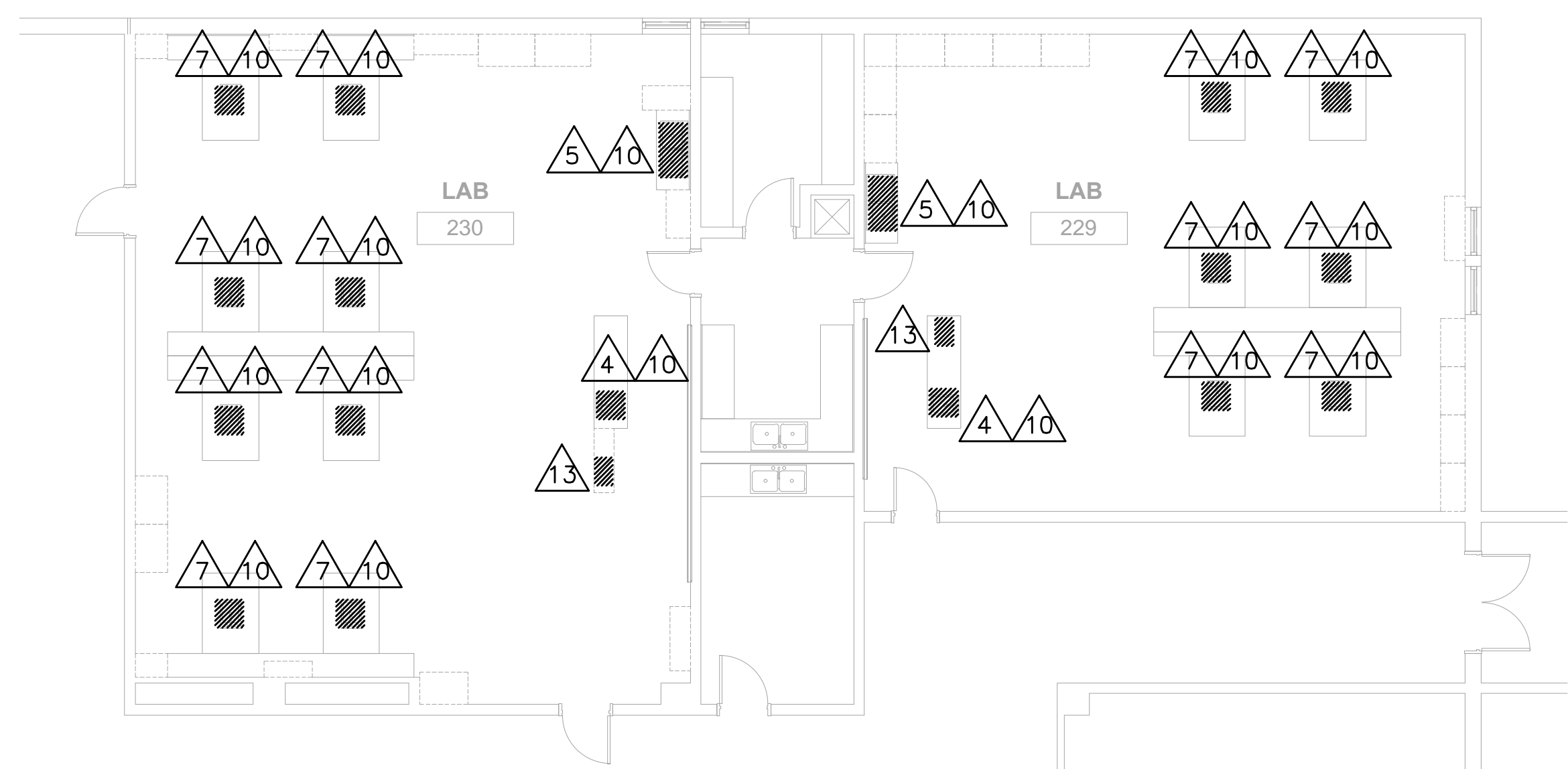
DEMOLITION KEYED NOTES:

THE SYMBOL REPRESENTS THE FOLLOWING KEYED NOTES

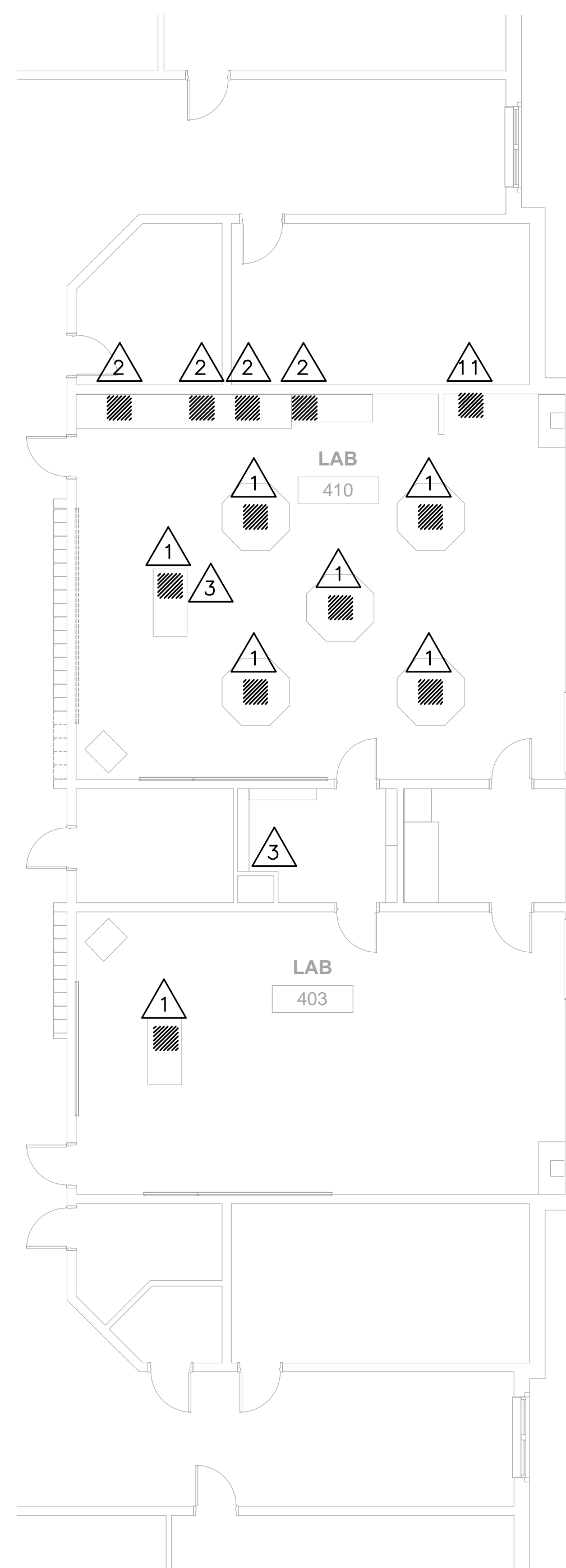
- EXISTING LAB DESK IS TO BE REMOVED. EXISTING 2" SANITARY, 0.75" CW, 0.75" HW, AND 0.5" GAS LINE ARE TO BE DEMOLISHED AND CAPPED BELOW FINAL FINISHED FLOOR. PROVIDE NEW GAS COCK ON MAIN AS NEEDED.
- EXISTING CASEWORK IS TO BE REMOVED. EXISTING 2" SANITARY, 0.75" CW, 0.75" HW, AND 0.5" GAS LINE ARE TO BE DEMOLISHED AND CAPPED WITHIN WALL. PROVIDE NEW GAS COCK ON MAIN AS NECESSARY.
- EXISTING CW ISOLATION VALVE LOCATION.
- EXISTING LAB SINK IS TO BE REMOVED. EXISTING 2" ACID WASTE, 0.5" CW, 0.5" HW, AND 0.5" GAS LINE ARE TO BE DEMOLISHED AND CAPPED BELOW FINISHED FLOOR. PROVIDE NEW GAS COCK ON MAIN AS NECESSARY.
- EXISTING CASEWORK IS TO BE REMOVED. EXISTING 2" ACID WASTE, 0.5" CW, AND 0.5" HW ARE TO BE DEMOLISHED AND CAPPED BELOW FINISHED FLOOR.
- EXISTING LAB DESK IS TO BE REMOVED. EXISTING 0.5" GAS LINE IS TO BE DEMOLISHED AND CAPPED BELOW FINISHED FLOOR. PROVIDE NEW GAS COCK ON MAIN AS NECESSARY.
- EXISTING CASEWORK IS TO BE REMOVED. EXISTING 2" ACID WASTE, 0.5" CW, AND 0.5" GAS LINE ARE TO BE DEMOLISHED AND CAPPED BELOW FINISHED FLOOR/ IN WALL AS APPLICABLE. PROVIDE NEW GAS COCK ON MAIN AS NECESSARY.
- EXISTING CASEWORK IS TO BE REMOVED. EXISTING 2" ACID WASTE, 0.75" CW, AND 1" GAS LINE ARE TO BE DEMOLISHED AND CAPPED BELOW FINISHED FLOOR. PROVIDE NEW GAS COCK ON MAIN AS NECESSARY.
- EXISTING LAB HOOD IS TO BE REMOVED. EXISTING 2" ACID WASTE, 0.5" CW, AND 0.5" GAS LINE ARE TO BE DEMOLISHED AND CAPPED BELOW FINISHED FLOOR. PROVIDE NEW GAS COCK ON MAIN AS NECESSARY.
- DEMOLISH EXISTING LOCAL LEAD DILUTION TANK. REFER TO LOCAL ENVIRONMENTAL GUIDELINES FOR PROPER DISPOSAL. CAP ACID WASTE PIPING AS NEEDED. BASIS OF DESIGN IS ORION.
- DEMOLISH WATER CONNECTION BACK TO WALL FOR EMERGENCY SHOWER.
- DEMOLISH EXISTING FLOOR DRAIN FOR EMERGENCY SHOWER AND CAP LINE BELOW FINISHED FLOOR.
- EXISTING 2" ACID WASTE AND 0.5" CW ARE TO BE DEMOLISHED AND CAPPED BELOW FINAL FINISHED FLOOR.



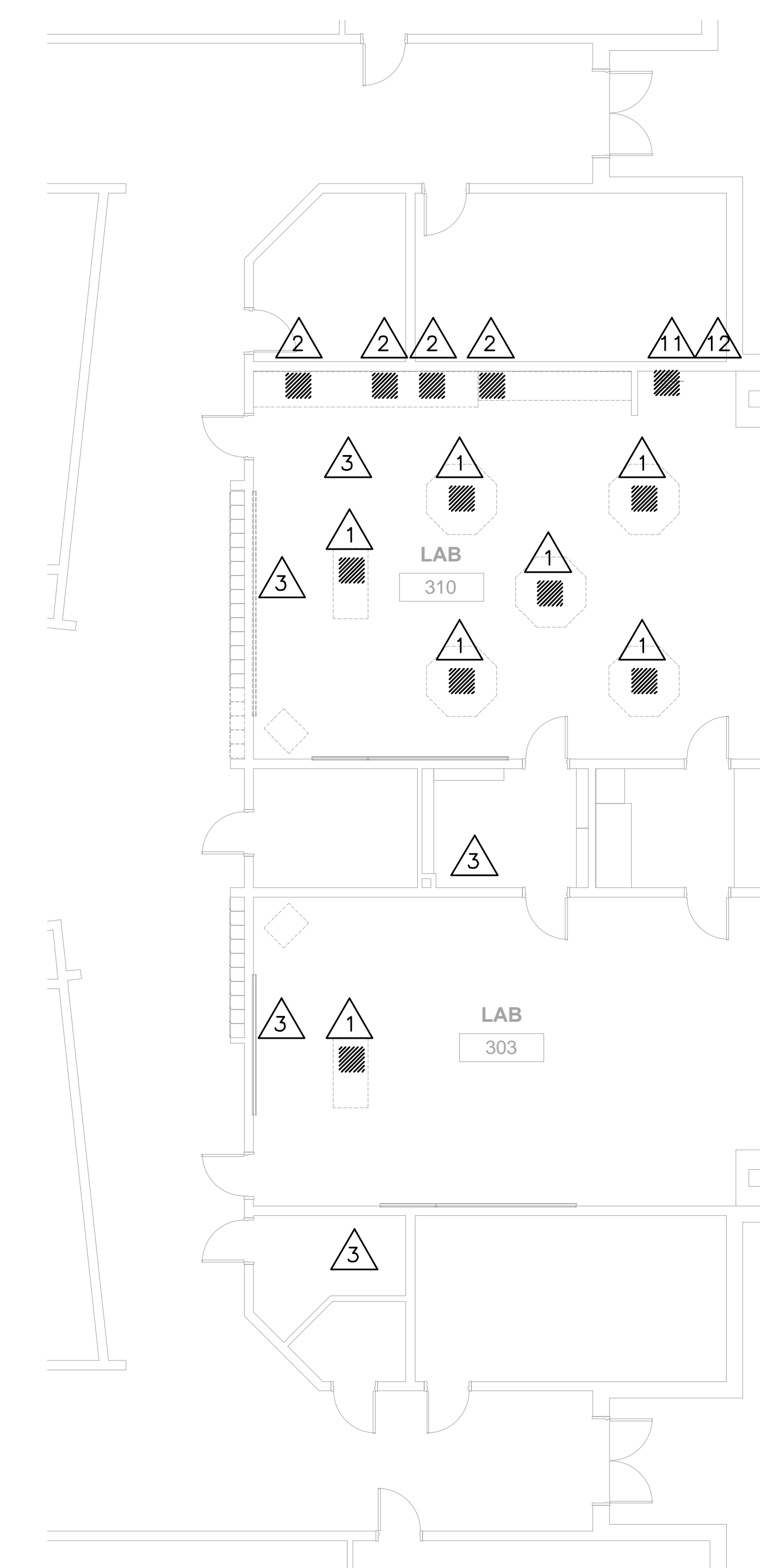
4 2ND FLOOR - Demo Plan - Labs 236/243/249
SCALE: 1/8" = 1'-0"



3 2ND FLOOR - Demo Plan- Labs 229/230
SCALE: 1/8" = 1'-0"



2 2ND FLOOR - Demo Plan - Labs 403/410
SCALE: 1/8" = 1'-0"



1 1ST FLOOR - Demo Plan - Labs 303/310
SCALE: 1/8" = 1'-0"

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FWA PROJECT NO: 2542.01

DRAWN BY: ARH

CHECKED BY: CJC

APPROVED BY:

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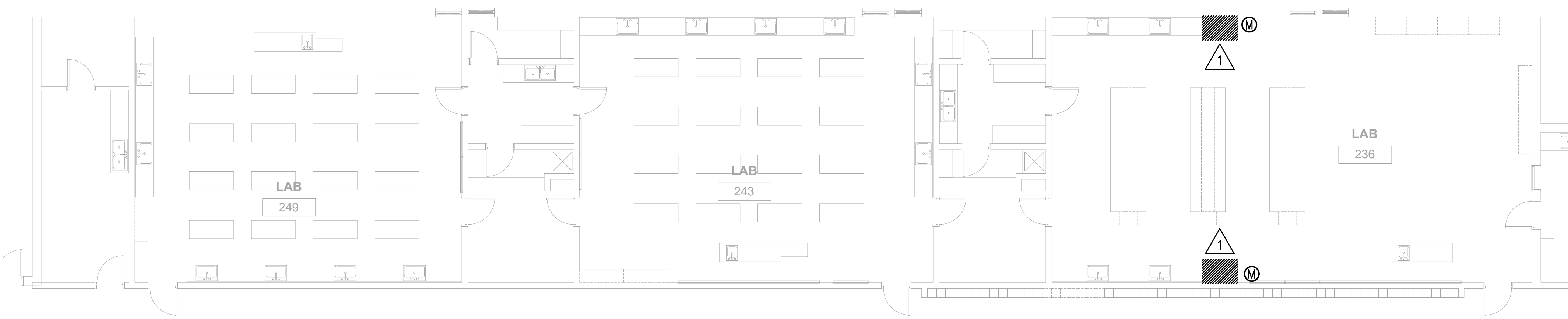
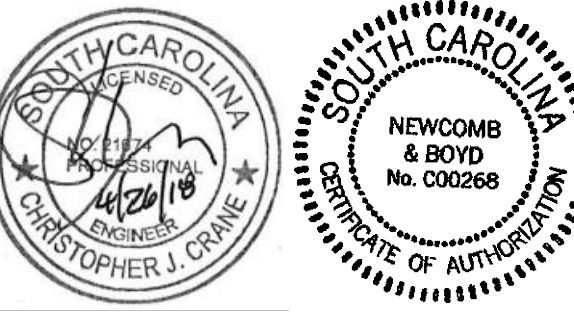
SHEET TITLE

**PLUMBING
DEMOLITION PLAN**

SHEET NUMBER

PD-101

FILE: 01-18-17-24-18-03 ELECTRONIC DRAWING RELEASED PER 01 PLUMBING DEMOLITION PLAN - DWG/ONE
 PLOT BY: ARH
 PLOT DATE: 11/22/2018 AM



1 2ND FLOOR - Demo Plan - Labs 236/243/249
SCALE: 1/8" = 1'-0"

MECHANICAL GENERAL NOTES:

- GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.
- COORDINATE WORK WITH APPROPRIATE AUTHORITIES HAVING JURISDICTION AND OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS. WHEN WORK IS COMPLETE, PROVIDE THE OWNER WITH APPLICABLE CERTIFICATES OF FINAL INSPECTION AND COMPLETION FROM SAID AUTHORITIES.
- DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS AND PARTITIONS UNLESS NOTED OTHERWISE.
- ALL EQUIPMENT INFORMATION IS TAKEN FROM ORIGINAL MECHANICAL PLANS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONNECTIONS PRIOR TO BEGINNING ANY WORK. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES AND AWAIT CLARIFICATION BEFORE PROCEEDING.
- THE SCOPE OF WORK IS SPECIFICALLY RELATED TO THE REMOVAL OF THE FUME HOODS AND THE DUCTWORK AND CONTROLS ASSOCIATED WITH THEM. ALL OTHER MECHANICAL WORK IN THE ROOMS SHALL REMAIN "AS IS" AND CONTINUE TO OPERATE PER THE EXISTING CONDITIONS.
- WHERE DEMOLITION WORK DAMAGES EXISTING INSULATION, NEW INSULATION SHALL BE PROVIDED TO MATCH EXISTING.

SPECIFICATIONS:

IMPOSED REGULATIONS: IN ADDITION TO THE FOLLOWING CODES AND STANDARDS, THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE PROVISIONS OF STATE AND LOCAL CODES.

INTERNATIONAL BUILDING CODE – 2015 EDITION.
INTERNATIONAL MECHANICAL CODE – 2015 EDITION.
NFPA 90A/B – LATEST EDITION.
NFPA 101 – LATEST EDITION.

GALVANIZED STEEL DUCTWORK: GALVANIZED STEEL DUCTWORK SHALL BE USED FOR ALL SUPPLY, RETURN, EXHAUST, AND VENTILATION DUCTS EXCEPT AS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS. DUCT SIZES SHOWN ON THE DRAWINGS ARE CLEAR, INSIDE DIMENSIONS. DUCTS SHALL BE FABRICATED FROM G60 GALVANIZED SHEET STEEL COMPLYING WITH ASTM A653 AND A924, LOCKFORMING QUALITY. CONCEALED ROUND DUCTS SHALL BE THE "SNAP-LOCK" TYPE WITH MATCHING FITTINGS. ROUND SUPPLY DUCTS WHICH ARE EXPOSED SHALL BE THE DOUBLE WALL SPIRAL SEAM TYPE WITH INTERNAL INSULATION WITH MATCHING FITTINGS.

INSTALL DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS. SEAL ALL JOINTS AND SEAMS WITH A WATER-BASED BRUSH APPLIED MASTIC. COORDINATE THE LAYOUT WITH PIPING, LIGHTING LAYOUTS AND SIMILAR FINISHED WORK AND PLUMBING RISERS. DUCT LAYOUTS SHOWN ARE DIAGRAMMATIC AND ACTUAL LOCATION OF DUCT SHALL BE FIELD VERIFIED AND COORDINATED BY THE DUCT FABRICATOR PRIOR TO BEGINNING FABRICATION OF DUCT SYSTEMS. AT ENDS OF DUCTS WHICH ARE NOT CONNECTED TO EQUIPMENT OR AIR DISTRIBUTION DEVICES AT THE TIME OF DUCTWORK INSTALLATION, PROVIDE TEMPORARY CLOSURE OF POLYETHYLENE FILM OR OTHER COVERING WHICH WILL PREVENT THE ENTRANCE OF DUST AND DEBRIS.

FLEXIBLE DUCTS: PREINSULATED FLEXIBLE DUCT SHALL BE USED TO MAKE THE FINAL CONNECTIONS TO DIFFUSERS, REGISTERS, AND GRILLES. LENGTH SHALL NOT EXCEED FIVE FEET. FLEXIBLE DUCTS SHALL BE U.L. LISTED AS CLASS 1 FLEXIBLE AIR DUCT MATERIAL AND SHALL COMPLY WITH NFPA STANDARDS 90A AND 90B. DUCT SHALL BE A FACTORY FABRICATED ASSEMBLY COMPOSED OF A POLYMERIC LINER DUCT BONDED PERMANENTLY TO A COATED SPRING STEEL WIRE HELIX AND SUPPORTING A FIBERGLASS INSULATING BLANKET. LOW PERMEABILITY ALUMINIZED OUTER VAPOR BARRIER OF FIBERGLASS REINFORCED FILM LAMINATE SHALL COMPLETE THE ASSEMBLY.

DUCT WRAP: ALL SUPPLY, RETURN AND OUTDOOR AIR DUCTS SHALL BE INSULATED WITH DUCT WRAP. INSULATE THAT PART OF THE AIR DISTRIBUTION ABOVE THE CEILING SO THAT THERE IS NO UNCOVERED METAL SURFACE SUBJECT TO CONDENSATION. DUCT WRAP SHALL BE 2 INCH THICK, 1.0 LB. PER CU. FT. DENSITY, BLANKET TYPE FIBERGLASS INSULATION WITH VAPOR BARRIER AND MAXIMUM CONDUCTIVITY OF 0.27 BTU/IN.HR.SF. F. PROVIDE MECHANICAL FASTENERS AS RECOMMENDED BY THE INSULATION MANUFACTURER. PROVIDE CEMENT, ADHESIVES, COATINGS, SEALERS, PROTECTIVE FINISHES, AND SIMILAR COMPOUNDS AS RECOMMENDED BY THE INSULATION MANUFACTURER FOR THE APPLICATIONS INDICATED.

DEMOLITION KEYED NOTES:

THE SYMBOL REPRESENTS THE FOLLOWING KEYED NOTES

- EXISTING FUME HOOD TO BE REMOVED. EXISTING 14"Ø EXHAUST DUCT ASSOCIATED WITH ROOF EXHAUST FAN SHALL BE DEMOLISHED ABOVE CEILING AND CAPPED AND INSULATED TO MATCH EXISTING. EXISTING 14X14 SUPPLY DUCT ASSOCIATED WITH ROOF SUPPLY FAN SHALL BE DEMOLISHED ABOVE CEILING AND CAPPED AND INSULATED TO MATCH EXISTING. POWER FOR BOTH FANS SHALL BE REMOVED. ALL ASSOCIATED CONTROLS FOR FANS SHALL BE DEMOLISHED.

HVAC LEGEND

HOOD CONTROLLER

ABBREVIATIONS

AFF/AFG/ARF ABOVE FINISHED FLOOR/GRADE/RAISED FLOOR

CLG CEILING

EX EXISTING

FC FLEXIBLE CONNECTION

REM REMOVE

SPEC SPECIFICATION



Colleton County School District

**Colleton County
Middle School Lab
Renovations**

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FWA PROJECT NO: 2542.01

DRAWN BY: ARH

CHECKED BY: CJC

APPROVED BY:

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SHEET TITLE

**MECHANICAL
NOTES AND
DEMOLITION
PLAN**

SHEET NUMBER

MH-101

FILE: Q:\18N137\2542.01 ELECTRONIC DRAWING RELEASED 05-07-2018 11:26:50 AM
 PLOT BY: ARH
 PLOT DATE: 05/07/2018
 PLOT TIME: 11:26:50 AM

ELECTRICAL NOTES AND SPECIFICATIONS:

1. ELECTRICAL INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THE PRESENTLY EFFECTIVE VERSION OF THE NATIONAL ELECTRIC CODE AND ALL OTHER APPLICABLE STATE OR LOCAL CODES, LAWS, AND ORDINANCES. WHERE ONE CODE DIFFERS FROM ANOTHER, THE MORE STRINGENT SHALL APPLY.
2. THE WORD "CONTRACTOR" AS USED IN THE "ELECTRICAL SCOPE OF WORK" SHALL MEAN THE ELECTRICAL SUBCONTRACTOR.
3. WHEREVER ON THE ELECTRICAL DRAWINGS THE WORD "PROVIDE" IS USED IT SHALL BE INFERRED TO MEAN "FURNISH AND INSTALL", UNLESS NOTED OTHERWISE.
4. THE CONTRACTOR SHALL OBTAIN ALL LICENSES, PERMITS, INSPECTIONS, AND CERTIFICATES OF APPROVAL FROM ALL AUTHORITIES HAVING JURISDICTION AND SHALL PAY ALL FEES REQUIRED FOR THE EXECUTION OF THIS WORK. SATISFACTORY EVIDENCE OF COMPLIANCE WITH THE REQUIREMENTS AND ALL CERTIFICATES OF INSPECTION SHALL BE DELIVERED TO THE OWNER PROMPTLY UPON REQUEST. THE CONTRACTOR SHALL ALSO PAY FOR ANY REQUIRED TEST(S) AND PROVIDE ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO PERFORM THE TEST(S).
5. ALL WORK SHALL BE PERFORMED IN A NEAT, CLEAN, AND ORDERLY MANNER. ALL WIRING AND RACEWAYS SHALL BE CONCEALED TO THE GREATEST EXTENT POSSIBLE.
6. THE CONTRACTOR SHALL SUPPLY ALL MATERIAL, EQUIPMENT, TOOLS, TRANSPORTATION, AND SUPERVISION TO PROVIDE A COMPLETE AND SATISFACTORILY OPERATING ELECTRICAL SYSTEM. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR STORING AND HANDLING ALL MATERIALS; THIS INCLUDES ANY OWNER SUPPLIED MATERIAL, FIXTURES OR EQUIPMENT.
7. ALL MATERIAL, EQUIPMENT, AND FIXTURES SHALL BE SPECIFICATION GRADE, NEW, AND U.L. LISTED FOR THE PURPOSE FOR WHICH IT IS USED.
8. THE ENTIRE ELECTRICAL SYSTEM SHALL BE FREE OF IMPROPER GROUNDS, SHORT OR OPEN CIRCUITS AND BE TESTED PRIOR TO ENERGIZING THE SYSTEM. ANY DEFECTS DISCOVERED DURING TESTING SHALL BE CORRECTED BY THE CONTRACTOR.
9. CONTRACTOR SHALL GUARANTEE ELECTRICAL WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER. CONTRACTOR SHALL FURNISH A WRITTEN COPY OF THE GUARANTEE TO THE OWNER. CONTRACTOR SHALL SUPPLY ALL LABOR AND MATERIALS REQUIRED TO PERFORM ANY WARRANTY WORK AT NO CHARGE TO THE OWNER.
10. ALL CONDUCTORS SHALL BE 75 DEGREE C, 600 VOLT, TYPE THWN/THHN INSULATION COPPER CONDUCTOR UNLESS NOTED OTHERWISE. ALL CONDUCTORS INSTALLED BELOW GRADE SHALL HAVE TYPE THWN INSULATION.
11. ALL BRANCH CIRCUIT WIRING SHALL BE A MINIMUM OF #12 AWG UNLESS NOTED OTHERWISE. ANY CIRCUIT INDICATED TO BE LARGER THAN #12 AWG SHALL BE SIZED AS INDICATED FOR THE ENTIRE LENGTH OF THE CIRCUIT.
12. UNLESS OTHERWISE NOTED ALL 120-VOLT, 20-AMP CIRCUIT WIRING UP TO 90 FEET SHALL BE #12 AWG; CIRCUITS EXCEEDING 90 FEET IN LENGTH FROM THE PANEL TO THE FURTHEST OUTLET OF POWER (RECEPTACLE, LIGHT FIXTURE, ETC.) SHALL UTILIZE #10 AWG CONDUCTORS.
13. ALL CONDUCTORS INSTALLED ABOVE GRADE AND INDOORS SHALL BE IN EMT CONDUIT WITH STEEL COMPRESSION TYPE FITTINGS. TYPE "MC" CABLE SHALL BE PERMITTED FOR "FISHING" BRANCH CIRCUITS WITHIN EXISTING WALLS OR CEILINGS, WHERE CONCEALED, AS PERMITTED BY THE NATIONAL ELECTRIC CODE.
14. ALL RACEWAYS SHALL BE INSTALLED CONCEALED IN WALLS, CEILINGS, FLOORS AND OTHER CAVITIES TO THE GREATEST EXTENT PRACTICAL. ANY EXPOSED RACEWAYS REQUIRED SHALL BE RUN SO AS TO MINIMIZE THE NUMBER OF VERTICAL RUNS. ALL EXPOSED CONDUIT SHALL BE ROUTED TIGHT AGAINST THE STRUCTURE AND BE RUN PARALLEL AND PERPENDICULAR TO THE WALLS, CEILINGS, AND FLOORS, AS APPLICABLE.
15. ALL WORK SHALL BE GROUNDED IN ACCORDANCE WITH NATIONAL ELECTRIC CODE REQUIREMENTS. A COMPLETE EQUIPMENT GROUNDING SYSTEM, CONSISTING OF A GREEN INSULATED COPPER WIRE, SHALL BE INSTALLED IN EVERY CONDUIT REGARDLESS OF USE.
16. ALL AFFECTED PANELBOARDS SHALL HAVE THEIR SCHEDULES UPDATED, TYPED AND INSTALLED INSIDE THE FRONT COVER.
17. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, OR CEILINGS SHALL BE FIRE STOPPED TO INSURE THE FIRE-RATED INTEGRITY OF THE FLOOR, WALL, OR CEILING THAT IS PENETRATED IS MAINTAINED. THE CONTRACTOR SHALL USE A U.L. LISTED AND RATED ASSEMBLY FOR THE SEALING MATERIAL AND METHOD.
18. OUTLET BOXES MOUNTED ON OPPOSITE SIDES OF FIRE RATED FLOORS, WALLS, OR CEILINGS SHALL NOT BE MOUNTED IN THE SAME WALL CAVITY; BOXES SHALL BE SEPERATED BY STUDS OR OTHER STRUCTURAL MEMBER.
19. ALL CONDUIT RUNS AS SHOWN ON THE PLANS ARE DIAGRAMMATIC ONLY; EXACT ROUTING AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD.
20. ALL WORK UNDER THIS SECTION SHALL BE COORDINATED IN THE FIELD WITH THE GENERAL CONTRACTOR AND ALL OTHER TRADES TO ELIMINATE ANY INTERFERENCES WITH DUCTWORK, PIPING, STRUCTURAL MEMBERS, ETC. CONFLICTS BETWEEN EQUIPMENT AND/OR MATERIAL LOCATIONS THAT ARISE SHALL BE CORRECTED BY THE CONTRACTOR AS DIRECTED BY THE ARCHITECT-ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
21. THE WORK OF THIS DIVISION SHALL ALSO INCLUDE THOSE ITEMS NOT SPECIFICALLY MENTIONED OR DESCRIBED BUT WHICH ARE NECESSARY TO PRODUCE A COMPLETE AND OPERABLE ELECTRICAL SYSTEM THAT CONFORMS TO THE DESIGN INTENT. SUCH ITEMS INCLUDE BUT ARE NOT LIMITED TO: FITTINGS, BOXES, CONNECTORS, WIRE NUTS, BLANK COVERS, STRAPPING, FASTENERS, ETC.
22. ALL LIGHT SWITCHES AND RECEPTACLES SHALL BE BY THE SAME MANUFACTURER, CARRY THE APPROPRIATE VOLTAGE RATING AND CURRENT RATING (MINIMUM 20A), AND HAVE A GROUND SCREW. DEVICE COLOR SHALL BE SELECTED BY THE ARCHITECT UNLESS STATED WITH THE DEVICE. RECEPTACLES SHALL BE MOUNTED 18 INCHES ABOVE FINISHED FLOOR AND SWITCHES SHALL BE MOUNTED 48" ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE. DEVICES SHALL BE MANUFACTURED BY PASS AND SEYMOUR, LEVITON, ARROW-HART, OR A SIMILAR MANUFACTURER.
23. THE CONTRACTOR SHALL ADHERE TO EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS WHEN INSTALLING EQUIPMENT. IF A CONFLICT EXISTS BETWEEN THESE DRAWINGS AND THE EQUIPMENT MANUFACTURER'S INSTRUCTIONS THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND AWAIT CLARIFICATION IN WRITING.
24. ALL SPLICES SHALL BE MADE IN APPROPRIATE JUNCTION BOXES. SPLICES IN CONDUCTOR SIZE AWG #10 OR SMALLER MAY BE MADE USING SPRINGLOCK CONNECTORS (WIRE-NUTS). SPLICES IN CONDUCTORS LARGER THAN AWG #10 SHALL BE MADE USING COMPRESSION TYPE CONNECTORS OR INSULATED TERMINAL BLOCKS SUCH AS THOSE MANUFACTURED BY POLARIS.
25. OUTLET BOXES FOR RECEPTACLES, LIGHT FIXTURES, LIGHT SWITCHES AND OTHER SIMILAR DEVICES SHALL BE FIRMLY ATTACHED TO STUDS OR OTHER STRUCTURAL MEMBERS. ALL BOXES SHALL BE LEVEL AND PLUMB. BOXES INTENDED TO SUPPORT CEILING FANS OR LARGE LIGHTING FIXTURES SHALL BE ADEQUATELY BLOCKED FOR SUPPORT AND BE LISTED FOR THE PURPOSE.
26. LIGHTING SWITCHES SHALL BE LOCATED ON THE STRIKE SIDE OF DOORS AND BE LOCATED WITHIN 6" OF THE DOOR TRIM WHERE POSSIBLE. SINGLE POLE SWITCHES SHALL BE SET SO THAT THE SWITCH HANDLE IN THE 'UP' POSITION IS 'ON'.
27. PRODUCTS USED ON THIS PROJECT SHALL BE MANUFACTURED BY COMPANIES REGULARLY ENGAGED IN THE PRODUCTION OF SIMILAR PRODUCTS WITH A MINIMUM HISTORY OF THREE YEARS SUCCESSFUL PRODUCTION.
28. CONTRACTOR SHALL PROVIDE ONE SET OF 'AS-BUILT' DRAWINGS TO THE OWNER UPON COMPLETION OF CONSTRUCTION. THE AS-BUILT DRAWINGS SHALL BE CLEAN, LEGIBLE, NEAT, COMPILED IN AN ORDERLY MANNER, AND CONTAIN ALL WORK PERFORMED BY THE CONTRACTOR THAT DEVIATES FROM THE ORIGINAL CONTRACT DOCUMENTS.
29. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE EXACT EXTENT OF WORK TO BE PERFORMED PRIOR TO SUBMITTING BID.
30. BOXES SHALL BE GALVANIZED STEEL AND SHALL BE SIZED TO ACCOMMODATE WIRING, THE EQUIPMENT, OR APPARATUS TO BE INSTALLED AS REQUIRED BY NATIONAL ELECTRIC CODE.
31. WHERE MATERIAL IS CALLED OUT IN THE LEGEND BY MANUFACTURER, TYPE, OR CATALOG NUMBER, SUCH DESIGNATIONS ARE TO ESTABLISH STANDARDS OF DESIRED QUALITY, ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND ENGINEER.

ELECTRICAL GENERAL DEMOLITION NOTES:

ED1: CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE BEGINNING ANY WORK ASSOCIATED WITH THE DEMOLITION SCOPE OF WORK. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF ANY DISCREPANCIES WITH THE CONTRACT DOCUMENTS OR PROBLEMS DISCOVERED DURING THE CONTRACTOR'S SITE INVESTIGATION AND AWAIT CLARIFICATION IN WRITING BEFORE BEGINNING WORK.

ED2: DISCONNECT AND REMOVE ALL INDICATED BRANCH CIRCUITS BACK TO THEIR SOURCE OR TO THE NEXT EXISTING DEVICE DETERMINED TO REMAIN. IF IT IS DETERMINED THAT THERE ARE EXISTING CIRCUITS TO REMAIN, THOSE CIRCUITS SHALL REMAIN SERVED FROM THE SAME BRANCH CIRCUIT THEY WERE ORIGINALLY FED FROM PRIOR TO BEGINNING ANY WORK.

ED3: DISCONNECT AND REMOVE INDICATED RECEPTACLES. REMOVE OUTLET BOXES, BRANCH CIRCUIT CONDUIT AND WIRING BACK TO ASSOCIATED PANELBOARD OR NEXT DEVICE DETERMINED TO REMAIN. CONDUIT BELOW CONCRETE FLOOR OR IN WALLS TO REMAIN MAY BE ABANDONED IN PLACE. INSTALL BLANK COVERPLATES ON FLUSH OUTLET BOXES. CUT CONDUITS FLUSH WITH FLOOR AND SEAL AFTER CONDUCTOR REMOVAL.

ED4: DO NOT DEMOLISH ANY EXISTING WALLS OR CEILINGS TO REMAIN WITHOUT WRITTEN PERMISSION FROM THE OWNER OR ARCHITECT.

ED5: ALL CONDUITS THAT ARE TO BE DEMOLISHED IN THE EXISTING SLAB SHALL BE CUT OFF BELOW THE EXISTING FLOOR, SEALED OFF, AND PATCHED OVER AFTER THE CONDUCTORS HAVE BEEN REMOVED.

ED6: ALL CONDUITS THAT ARE TO BE DEMOLISHED LOCATED IN EXISTING WALL TO REMAIN THAT CANNOT BE REMOVED WITHOUT DAMAGING THE WALLS SHALL BE CUT OFF FLUSH WITH TOP OF ALL WALLS AND SEALED OFF AFTER REMOVING ALL CONDUCTORS.

ED7: ANY DEVICES LOCATED IN EXISTING WALLS TO REMAIN THAT ARE TO BE DEMOLISHED AND CANNOT BE REMOVED SHALL BE BLANKED OFF WITH A STAINLESS STEEL BLANK PLATE AFTER THE DEVICE AND CONDUCTORS HAVE BEEN REMOVED.

ED8: NO CONDUIT OR WIRING SHALL BE LEFT ABANDONED WITHIN THE BUILDING. ALL CONDUIT OR WIRING NOT EXPLICITLY STATED ON THE DRAWINGS AS BEING RE-USED SHALL BE REMOVED.

ED9: ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL ELECTRICAL COMPONENTS ASSOCIATED WITH THE ELECTRICAL DEMOLITION. THIS INCLUDES BUT IS NOT LIMITED TO: WIRING, CONDUIT, BACK BOXES, DEVICES, ETC. COORDINATE MEANS OF DISPOSAL WITH GENERAL CONTRACTOR.

LEGEND

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| | EXISTING 20A DUPLEX RECEPTACLE |
| | SAME AS ABOVE, 'X' INDICATES DEVICE MOUNTING HEIGHT IN INCHES |
| | EXISTING PANELBOARD |
| | EXISTING 4" SQUARE METAL JUNCTION BOX |
| | EXISTING EQUIPMENT DISCONNECT |
| | EXISTING HOME RUN TO PANELBOARD; CIRCUIT AND PANEL NUMBER INDICATED BY EACH ARROW |
| | EXISTING EXHAUST FAN |
| | "DASHED" LINES REPRESENT EXISTING CIRCUITING, DEVICES, EQUIPMENT, ETC. |
| | HASH MARKS INDICATE ITEMS TO BE DEMOLISHED |
| | EXISTING SINGLE-POLE TOGGLE SWITCH |
| | SINGLE-POLE TOGGLE SWITCH; 20A 277V 2-POLE GROUNDING TYPE W/ COVERPLATE |
| | NEW LIGHTING FIXTURE - 1X4 LINEAR TYPE; METALUX MODEL #4SWLED-36SL-LW-UNV-L840-CD1-U. 33W LED, 4000K, 80CRI |

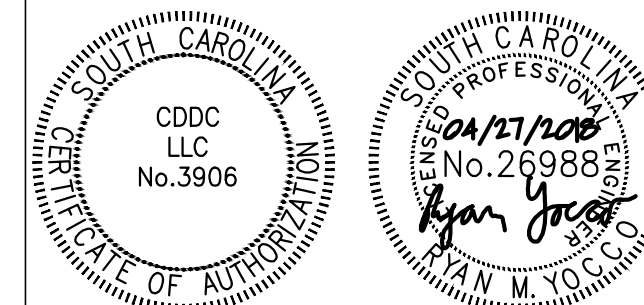


500 EAST BOULEVARD
CHARLOTTE, NC 28203
704.132.7084

#10 Palmetto Business Park
Hilton Head Island, SC 29928
843.785.2199



P.O. BOX 2009 BLUFFTON, SC 29910
PH. 843-384-4731 FX. 843-337-3577



Colleton County School District

Colleton County
Middle School Lab
Renovations

| MARK | DATE (YYYY-MM-DD) | DESCRIPTION |
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FWA PROJECT NO: 2542.01

DRAWN BY: RMY

CHECKED BY: RMY

APPROVED: RMY

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SHEET TITLE

ELECTRICAL
NOTES AND
LEGENDS

SHEET NUMBER

E-001

