

# NEW FIRE ALARM SYSTEM FOR JAMES F. BYRNES BUILDING

USC PROJECT NO: H27-D153-JM

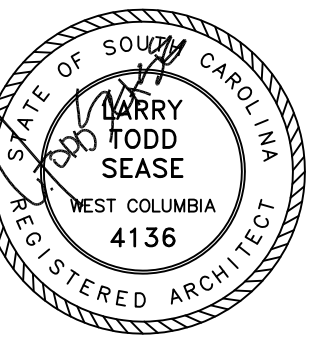
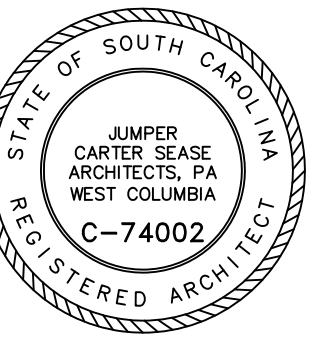
UNIVERSITY OF SOUTH CAROLINA  
COLUMBIA, SOUTH CAROLINA

Jumper

Carter

Sease

Architects  
PA  
412 Meeting Street  
West Columbia  
South Carolina



NEW FIRE ALARM SYSTEM FOR  
JAMES F. BYRNES BUILDING  
UNIVERSITY OF SOUTH CAROLINA

BID DOCUMENTS

REVISIONS:

OSE COMMENTS  
ADDED 4/5/12

DRAWN BY: DFB

CHECKED BY:

COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

TITLE, INDEX, &  
ABBREVIATIONS

SHEET NO:

T101

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| ABBREVIATIONS  | PROJECT CONTACTS          | INDEX OF DRAWINGS       | VICINITY MAP           |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
|--|---------------------------|-------------------------|------------------------|------------|-------|----------|-----|--------------|----|-------|----|--------------|------|----------|------|-----------------|------|---------------|--------|-----------------|------|--------------|------|-----------|-----|-----------------------|------|------------------|-------|----------|------|---------|------|------------|----|-------|-----|--------|-------|----------|----|-----------|----|------|------|--------|----|------------------|------|-----------------|-------|------------|-------|------------|-------|----------|----|-------|-------|----------|--------|----------|------|-------|-----|-----------|------|---------|----|-------------------|----|-----------------|-----|---------------------------|------|-------|----|--------------|-----|-----------------|-----|-------|----|-----------|-----|---------|------|----------|------|------------|------|--------|----|--------------------|------|---------|-----|--------------------|------|---------|----|--------------|-----|------------------------|-------|------------|------|----------|------|-----------------|----|------|-------|------------|--|--|---|---|--|
| <table border="0"> <tr><td>A.C.T.</td><td>ACOUSTICAL CEILING TILE</td><td>MECH</td><td>MECHANICAL</td></tr> <tr><td>ALUM.</td><td>ALUMINUM</td><td>MFR</td><td>MANUFACTURER</td></tr> <tr><td>BD</td><td>BOARD</td><td>MB</td><td>MARKER BOARD</td></tr> <tr><td>BLKG</td><td>BLOCKING</td><td>M.O.</td><td>MASONRY OPENING</td></tr> <tr><td>C.J.</td><td>CONTROL JOINT</td><td>N.I.C.</td><td>NOT IN CONTRACT</td></tr> <tr><td>C.T.</td><td>CERAMIC TILE</td><td>O.C.</td><td>ON CENTER</td></tr> <tr><td>CMU</td><td>CONCRETE MASONRY UNIT</td><td>O.D.</td><td>OUTSIDE DIAMETER</td></tr> <tr><td>CONC.</td><td>CONCRETE</td><td>OPNG</td><td>OPENING</td></tr> <tr><td>CONT</td><td>CONTINUOUS</td><td>PL</td><td>PLATE</td></tr> <tr><td>CPT</td><td>CARPET</td><td>PLUMB</td><td>PLUMBING</td></tr> <tr><td>CR</td><td>CLASSROOM</td><td>FR</td><td>PAIR</td></tr> <tr><td>DTL.</td><td>DETAIL</td><td>PT</td><td>PRESSURE TREATED</td></tr> <tr><td>E.J.</td><td>EXPANSION JOINT</td><td>REINF</td><td>REINFORCED</td></tr> <tr><td>ELEC.</td><td>ELECTRICAL</td><td>REQ'D</td><td>REQUIRED</td></tr> <tr><td>EQ</td><td>EQUAL</td><td>SCHED</td><td>SCHEDULE</td></tr> <tr><td>EXIST.</td><td>EXISTING</td><td>SHT.</td><td>SHEET</td></tr> <tr><td>EXP</td><td>EXPANSION</td><td>SIM.</td><td>SIMILAR</td></tr> <tr><td>FE</td><td>FIRE EXTINGUISHER</td><td>SS</td><td>STAINLESS STEEL</td></tr> <tr><td>FEC</td><td>FIRE EXTINGUISHER CABINET</td><td>STL.</td><td>STEEL</td></tr> <tr><td>FF</td><td>FINISH FLOOR</td><td>SWC</td><td>SOLID WOOD CORE</td></tr> <tr><td>FLR</td><td>FLOOR</td><td>TB</td><td>TACKBOARD</td></tr> <tr><td>FTG</td><td>FOOTING</td><td>TEMP</td><td>TEMPERED</td></tr> <tr><td>GALV</td><td>GALVANIZED</td><td>TOIL</td><td>TOILET</td></tr> <tr><td>GC</td><td>GENERAL CONTRACTOR</td><td>TRTD</td><td>TREATED</td></tr> <tr><td>GWB</td><td>GYP-SUM WALL BOARD</td><td>TYP.</td><td>TYPICAL</td></tr> <tr><td>HM</td><td>HOLLOW METAL</td><td>VCT</td><td>VINYL COMPOSITION TILE</td></tr> <tr><td>HORIZ</td><td>HORIZONTAL</td><td>VERT</td><td>VERTICAL</td></tr> <tr><td>I.D.</td><td>INSIDE DIAMETER</td><td>WD</td><td>WOOD</td></tr> <tr><td>INSUL</td><td>INSULATION</td><td></td><td></td></tr> </table> <p>NOTE: FOR ABBREVIATIONS NOT NOTED ABOVE CONTACT ARCHITECT.</p> | A.C.T.                    | ACOUSTICAL CEILING TILE | MECH                   | MECHANICAL | ALUM. | ALUMINUM | MFR | MANUFACTURER | BD | BOARD | MB | MARKER BOARD | BLKG | BLOCKING | M.O. | MASONRY OPENING | C.J. | CONTROL JOINT | N.I.C. | NOT IN CONTRACT | C.T. | CERAMIC TILE | O.C. | ON CENTER | CMU | CONCRETE MASONRY UNIT | O.D. | OUTSIDE DIAMETER | CONC. | CONCRETE | OPNG | OPENING | CONT | CONTINUOUS | PL | PLATE | CPT | CARPET | PLUMB | PLUMBING | CR | CLASSROOM | FR | PAIR | DTL. | DETAIL | PT | PRESSURE TREATED | E.J. | EXPANSION JOINT | REINF | REINFORCED | ELEC. | ELECTRICAL | REQ'D | REQUIRED | EQ | EQUAL | SCHED | SCHEDULE | EXIST. | EXISTING | SHT. | SHEET | EXP | EXPANSION | SIM. | SIMILAR | FE | FIRE EXTINGUISHER | SS | STAINLESS STEEL | FEC | FIRE EXTINGUISHER CABINET | STL. | STEEL | FF | FINISH FLOOR | SWC | SOLID WOOD CORE | FLR | FLOOR | TB | TACKBOARD | FTG | FOOTING | TEMP | TEMPERED | GALV | GALVANIZED | TOIL | TOILET | GC | GENERAL CONTRACTOR | TRTD | TREATED | GWB | GYP-SUM WALL BOARD | TYP. | TYPICAL | HM | HOLLOW METAL | VCT | VINYL COMPOSITION TILE | HORIZ | HORIZONTAL | VERT | VERTICAL | I.D. | INSIDE DIAMETER | WD | WOOD | INSUL | INSULATION |  |  | <p><b>JOB SITE</b><br/>901 Sumter St., Columbia SC</p> <p><b>CONTRACTOR'S OFFICE</b></p> <p><b>OWNER</b><br/>University of South Carolina<br/>Pete Fisher, Project Manager 803-777-9346</p> <p><b>ARCHITECT</b><br/>Jumper Carter Sease Architects, P.A. 803-791-1020</p> <p><b>ELECTRICAL</b><br/>Sims Group Engineers, Inc. 803-765-1007</p> <hr/> <p><b>FIRE BARRIER LEGEND</b></p> <p>— · — · — · — 1-HOUR RATED FIRE BARRIER (ASSUMED)</p> <p>— · · — · · — 2-HOUR RATED FIRE BARRIER (ASSUMED)</p> <p>NOTE: FLOOR ASSEMBLIES ASSUMED TO BE 2-HOUR RATED</p> | <p>T 101 TITLE, INDEX &amp; ABBREVIATIONS</p> <p>E001 FIRE ALARM SYMBOLS, DETAILS, RISER &amp; NOTES</p> <p>E002 FIRE ALARM BASEMENT LEVEL DEMOLITION</p> <p>E003 FIRE ALARM FIRST FLOOR DEMOLITION</p> <p>E004 FIRE ALARM SECOND FLOOR DEMOLITION</p> <p>E005 FIRE ALARM THIRD FLOOR DEMOLITION</p> <p>E006 FIRE ALARM FOURTH FLOOR DEMOLITION</p> <p>E007 FIRE ALARM FIFTH FLOOR DEMOLITION</p> <p>E008 FIRE ALARM SIXTH FLOOR DEMOLITION</p> <p>E009 FIRE ALARM SEVENTH FLOOR DEMOLITION</p> <p>E010 FIRE ALARM PENTHOUSE LEVEL DEMOLITION</p> <p>E101 FIRE ALARM BASEMENT LEVEL</p> <p>E102 FIRE ALARM FIRST FLOOR</p> <p>E103 FIRE ALARM SECOND FLOOR</p> <p>E104 FIRE ALARM THIRD FLOOR</p> <p>E105 FIRE ALARM FOURTH FLOOR</p> <p>E106 FIRE ALARM FIFTH FLOOR</p> <p>E107 FIRE ALARM SIXTH FLOOR</p> <p>E108 FIRE ALARM SEVENTH FLOOR</p> <p>E109 FIRE ALARM ROOF LEVEL</p> <p>E110 FIRE ALARM PENTHOUSE LEVEL</p> <p>E601 FIRE STOPPING DETAILS</p> |  |
| A.C.T.   | ACOUSTICAL CEILING TILE   | MECH                    | MECHANICAL             |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| ALUM.  | ALUMINUM                  | MFR                     | MANUFACTURER           |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| BD   | BOARD                     | MB                      | MARKER BOARD           |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| BLKG   | BLOCKING                  | M.O.                    | MASONRY OPENING        |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| C.J.   | CONTROL JOINT             | N.I.C.                  | NOT IN CONTRACT        |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| C.T.   | CERAMIC TILE              | O.C.                    | ON CENTER              |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| CMU  | CONCRETE MASONRY UNIT     | O.D.                    | OUTSIDE DIAMETER       |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| CONC.  | CONCRETE                  | OPNG                    | OPENING                |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| CONT   | CONTINUOUS                | PL                      | PLATE                  |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| CPT  | CARPET                    | PLUMB                   | PLUMBING               |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| CR   | CLASSROOM                 | FR                      | PAIR                   |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| DTL.   | DETAIL                    | PT                      | PRESSURE TREATED       |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| E.J.   | EXPANSION JOINT           | REINF                   | REINFORCED             |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| ELEC.  | ELECTRICAL                | REQ'D                   | REQUIRED               |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| EQ   | EQUAL                     | SCHED                   | SCHEDULE               |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| EXIST.   | EXISTING                  | SHT.                    | SHEET                  |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| EXP  | EXPANSION                 | SIM.                    | SIMILAR                |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| FE   | FIRE EXTINGUISHER         | SS                      | STAINLESS STEEL        |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| FEC  | FIRE EXTINGUISHER CABINET | STL.                    | STEEL                  |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| FF   | FINISH FLOOR              | SWC                     | SOLID WOOD CORE        |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| FLR  | FLOOR                     | TB                      | TACKBOARD              |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| FTG  | FOOTING                   | TEMP                    | TEMPERED               |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| GALV   | GALVANIZED                | TOIL                    | TOILET                 |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| GC   | GENERAL CONTRACTOR        | TRTD                    | TREATED                |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| GWB  | GYP-SUM WALL BOARD        | TYP.                    | TYPICAL                |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| HM   | HOLLOW METAL              | VCT                     | VINYL COMPOSITION TILE |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| HORIZ  | HORIZONTAL                | VERT                    | VERTICAL               |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| I.D.   | INSIDE DIAMETER           | WD                      | WOOD                   |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |
| INSUL  | INSULATION                |                         |                        |            |       |          |     |              |    |       |    |              |      |          |      |                 |      |               |        |                 |      |              |      |           |     |                       |      |                  |       |          |      |         |      |            |    |       |     |        |       |          |    |           |    |      |      |        |    |                  |      |                 |       |            |       |            |       |          |    |       |       |          |        |          |      |       |     |           |      |         |    |                   |    |                 |     |                           |      |       |    |              |     |                 |     |       |    |           |     |         |      |          |      |            |      |        |    |                    |      |         |     |                    |      |         |    |              |     |                        |       |            |      |          |      |                 |    |      |       |            |  |  |   |   |  |

**FIRE ALARM SYSTEM NOTES**

- ALL FIRE ALARM SYSTEM WIRING SHALL BE RUN ABOVE GRADE IN WALLS AND ABOVE CEILING IN METAL RACEWAYS. RACEWAYS SHALL BE RUN CONCEALED WHERE PRACTICAL. FIRE ALARM WIRING MAY NOT BE RUN UNDERGROUND OR IN SLAB UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
- VERIFY WIRING REQUIREMENTS WITH EQUIPMENT MFR PRIOR TO ROUGH-IN AND INSTALL ACCORDINGLY. NOTIFICATION APPLIANCE CIRCUITS SHALL BE RUN AS REQ'D TO PROVIDE A 3-PULSE TEMPORAL AUDIBLE SIGNAL WITHOUT COMPROMISING THE OPERATION OF THE STROBES.
- PROVIDE SYNCHRONIZATION OF ALL STROBE LIGHTS.
- FIRE ALARM SYSTEM TO BE CLASS B SUPERVISED SYSTEM (STYLE B INITIATING DEVICE CIRCUITS, STYLE 4 SIGNALING LINE CIRCUITS, CLASS B NOTIFICATION APPLIANCE CIRCUITS). FURNISH & INSTALL END-OF-LINE RESISTORS WHERE REQ'D. ONLY SPLICES ALLOWED ARE TO BE LOCATED IN RISER BOXES ONLY. SPLICES SHALL BE MADE WITH THE USE OF WIRE TERMINALS AND NOT WIRE NUTS.
- EQUIPMENT SUPPLIER SHALL SUBMIT SHOP DRAWINGS INDICATING EXACT ROUTING OF RACEWAYS AND NUMBER AND SIZE OF CONDUCTORS IN RACEWAYS FOR THE FIRE ALARM SYSTEM. THE ELECTRICAL CONTRACTOR SHALL USE THE REVIEWED DRAWING FOR ROUGH-IN OF FIRE ALARM SYSTEM RACEWAYS AND OUTLET BOXES.
- SMOKE DETECTORS SHALL BE LOCATED AS NEAR THE CENTER OF THE ROOM AS PRACTICAL. DO NOT LOCATE ANY DETECTOR WITHIN 3'-FT. OF AN HVAC SUPPLY GRILLE. PROVIDE AUXILIARY CONTACT ON SMOKE DETECTORS LOCATED IN CORRIDORS AT SMOKE DOORS. WIRE MAGNETIC DOOR AUXILIARY CONTACT TO RELEASE DOOR WHEN THOSE DETECTORS ARE ACTIVATED. SMOKE DETECTORS SHALL BE PROGRAMMED FOR A 60 SECOND VERIFICATION BEFORE GOING INTO ALARM.
- DUCT DETECTORS SHALL BE FURNISHED BY THE FIRE ALARM SYSTEM SUPPLIER AND INSTALLED BY A QUALIFIED HVAC TECHNICIAN UNDER DIVISION 28. FIRE ALARM SYSTEM WIRING WILL BE FURNISHED & INSTALLED BY THE FIRE ALARM SYSTEM SUPPLIER UNDER DIVISION 28. HVAC CONTROL WIRING WILL BE FURNISHED & INSTALLED BY THE MECHANICAL CONTRACTOR UNDER DIVISION 28. PROVIDE AUXILIARY CONTACT WITH EACH DUCT DETECTOR FOR USE BY HVAC CONTROLS.

DUCT DETECTORS TO BE LOCATED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE THE LOCATION OF EACH DUCT DETECTOR IN THE FIELD WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN TO INSURE COMPLIANCE WITH THE MANUFACTURER'S REQUIREMENTS.

PROVIDE DOCUMENTATION OF DUCT DETECTOR TESTING PER NFPA 72, 2010 EDITION TABLE 10.4.2.2-14(G)(4). AIR DUCT DETECTORS SHALL BE TESTED/INSPECTED TO ENSURE THAT THE DEVICE WILL SAMPLE THE AIRSTREAM. THE TEST SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.

- LOCATE MANUAL PULL STATIONS WITHIN 5'-0" OF THE EXIT DOOR PER NFPA AND IBC REQUIREMENTS. PROVIDE ANY SPECIAL ADAPTER PLATES OR COVER PLATES REQ'D TO MOUNT PULL STATIONS IN DOOR MULLIONS WHERE APPLICABLE.
- EACH SPEAKER/STROBE LOCATED AT THE END OF A CORRIDOR MUST BE WITHIN 15'-0" OF THE END WALL PER NFPA 72, 2010 EDITION. HORN/STROBES IN CLASSROOMS AND OFFICES MUST BE LOCATED TO COMPLY WITH TABLE 7.5.4.3.1(a) & TABLE 7.5.4.3.1(b) OF NFPA 72. DO NOT ADJUST LOCATIONS OF HORN/STROBES WITHOUT CONSULTING WITH THE ENGINEER AND OBTAINING WRITTEN PERMISSION.
- FIELD VERIFY LOCATION OF FIRE ALARM PANEL "FAC" AND/OR REMOTE FIRE ALARM ANNUNCIATOR "FAA" WITH OWNER AND AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN.
- IN ADDITION TO SMOKE DETECTORS SHOWN, CONTRACTOR WILL BE REQUIRED TO FURNISH & INSTALL SMOKE DETECTORS IN ALL ROOMS WITH FIRE ALARM POWER SUPPLIES AND POWER BOOSTERS. IN ADDITION TO 120V CIRCUITS SHOWN, CONTRACTOR SHALL BE REQUIRED TO FURNISH & INSTALL ANY 120V CIRCUITS NECESSARY TO PROVIDE A COMPLETE AND OPERABLE FIRE ALARM SYSTEM.
- ADDITIONAL FIRE ALARM DEVICES: THE ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM INSTALLER SHALL FURNISH AND INSTALL ADDITIONAL FIRE ALARM DEVICES AT THE DISCRETION OF THE ARCHITECT/ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION IN THE FOLLOWING QUANTITIES:

- (4) SPEAKER/STROBE LIGHTS
- (4) STROBE LIGHTS
- (6) DUCT MOUNTED SMOKE DETECTORS
- (2) MANUAL PULL STATIONS
- (4) CEILING MOUNTED SMOKE OR HEAT DETECTORS
- (6) FIRE/SMOKE DAMPER CONNECTIONS WITH REMOTE INDICATORS.

INCLUDE COMPLETE COSTS TO FURNISH AND INSTALL THE ABOVE ADDITIONAL DEVICES IN BASE BID, INCLUDING ALL CONDUIT, OUTLET BOXES, 120V POWER, WIRING, AND SYSTEM PROGRAMMING. ANY DEVICES NOT USED SHALL BE TURNED OVER TO THE OWNER AS SPARE DEVICES AT THE END OF THE PROJECT.

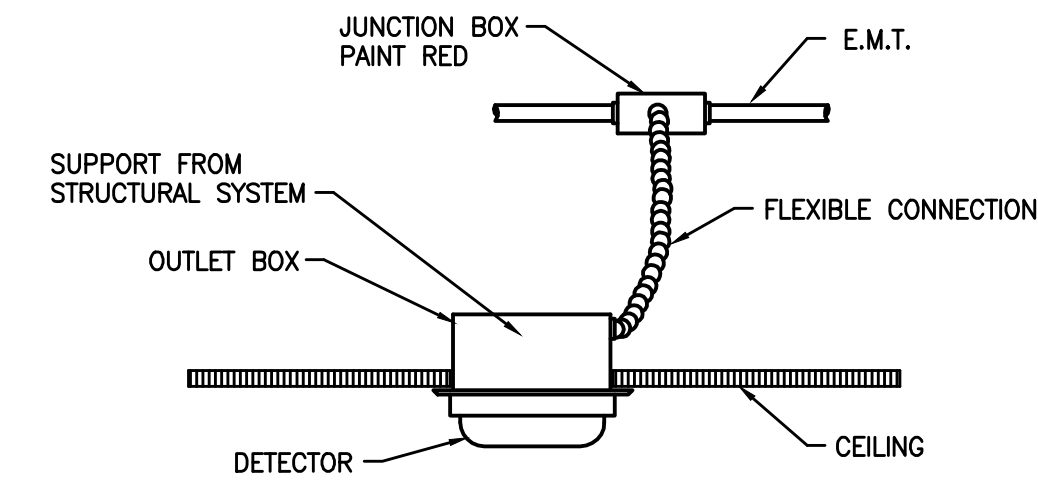
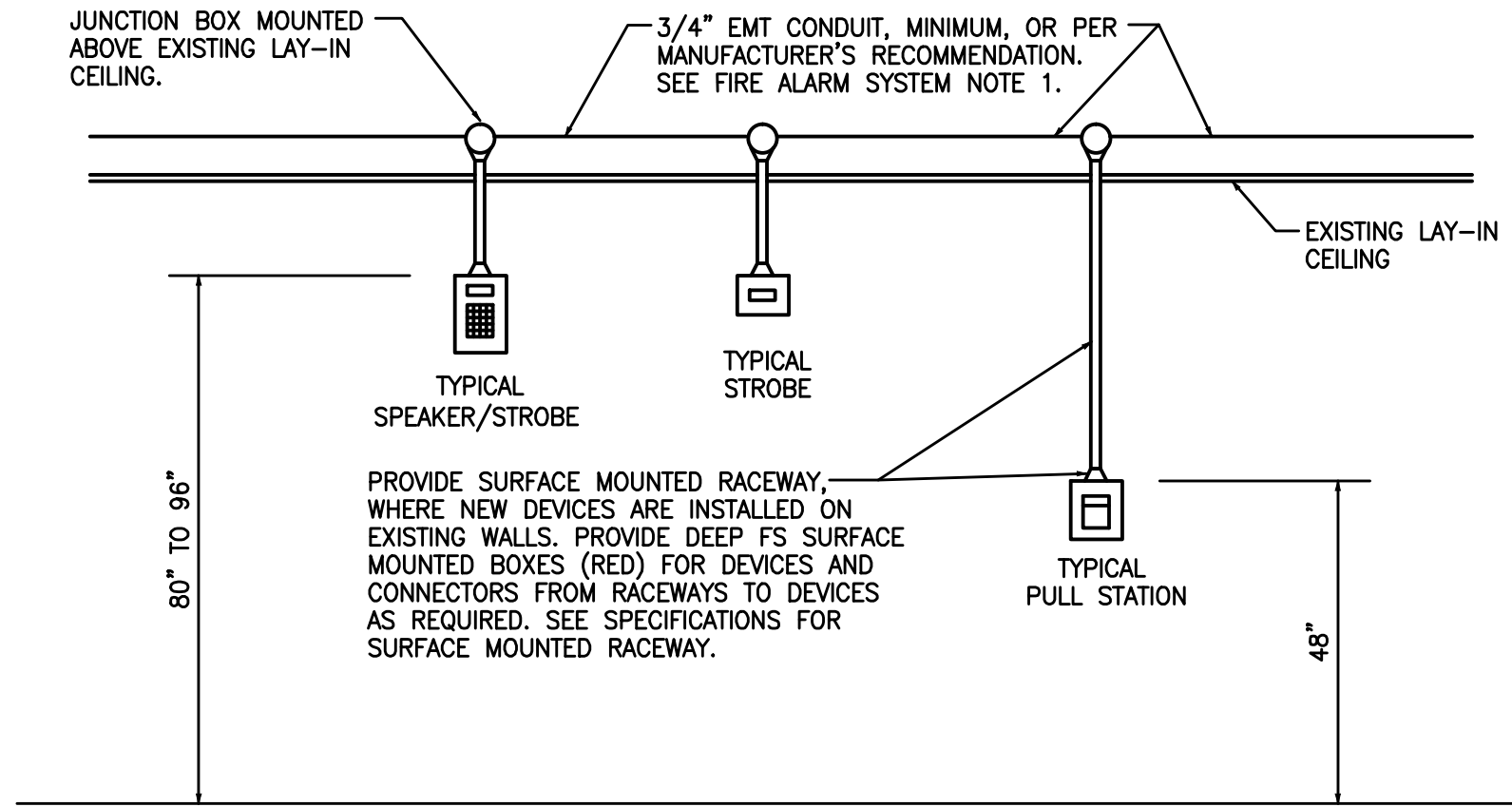
- FACP PANEL AND DIGITAL VOICE COMMAND CENTER SHALL BE CAPABLE OF ADDING ASI MASS NOTIFICATION SYSTEM COMPONENTS TO THE PANEL. SUPPLY ALL NECESSARY COMMUNICATION CARDS AND SYSTEM COMPONENTS FOR ADDITION OF THIS SYSTEM BY THE UNIVERSITY IN THE FUTURE.

**FIRE ALARM SYMBOLS**

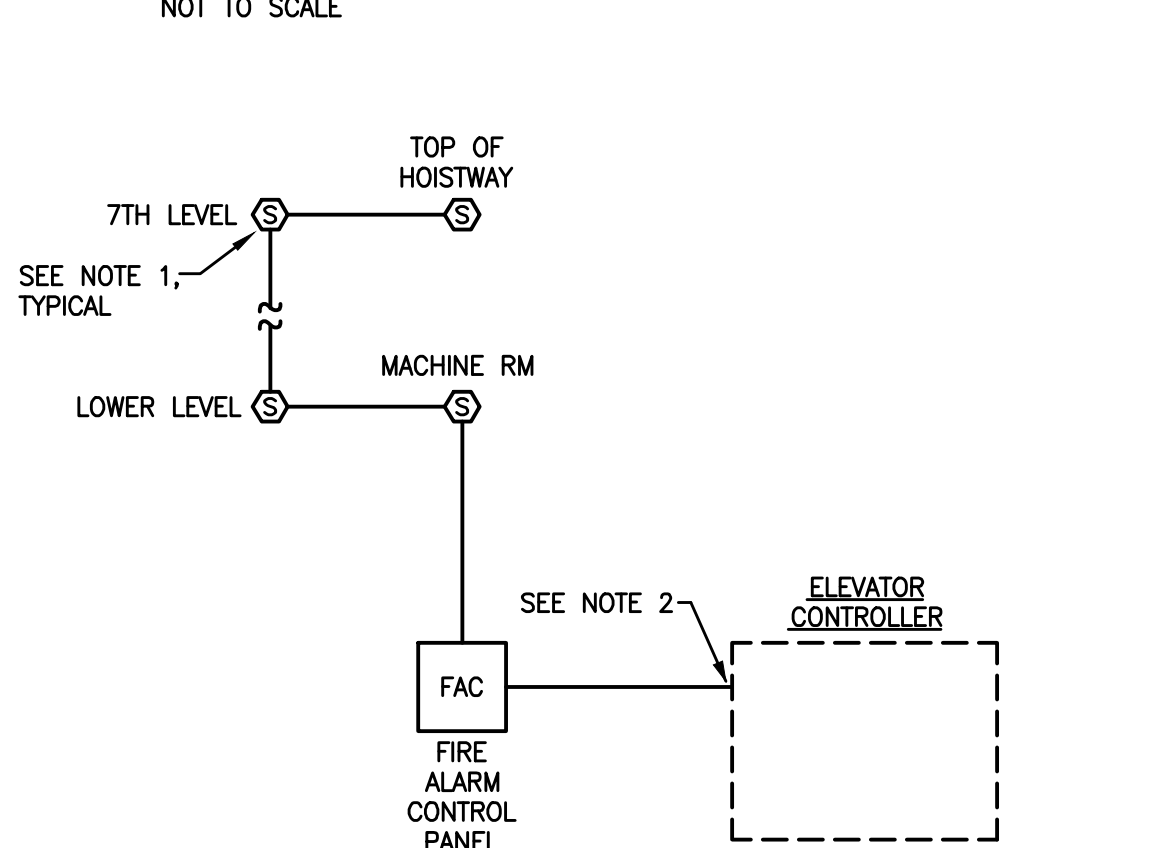
|  |   |
|--|---|
|  | FIRE ALARM CONTROL PANEL OR REMOTE ANNUNCIATOR.   |
|  | FIRE ALARM REMOTE ANNUNCIATOR.  |
|  | FIRE ALARM MANUAL PULL STATION. 48" AFF.  |
|  | FIRE ALARM SPEAKER AND FLASHING LIGHT, CANDELA RATING AS NOTED. MOUNT BETWEEN 80" AND 96" AFF PER NFPA 72 AND ADA REQ'TS.   |
|  | SAME AS ABOVE, EXCEPT CEILING MOUNTED SPEAKER AND FLASHING LIGHT.   |
|  | FIRE ALARM FLASHING LIGHT, CANDELA RATING AS NOTED. MOUNT BETWEEN 80" AND 96" AFF PER NFPA 72 AND ADA REQ'TS.   |
|  | SAME AS ABOVE, EXCEPT CEILING MOUNTED FLASHING LIGHT.   |
|  | SMOKE DETECTOR. CEILING MOUNTED, UNLESS NOTED.  |
|  | HEAT DETECTOR. CEILING MOUNTED, UNLESS NOTED.   |
|  | DUCT MOUNTED SMOKE DETECTOR, FURNISHED & INSTALLED UNDER DIVISION 28. SEE ELECTRICAL SPECIFICATIONS AND DETAIL ON DRAWINGS FOR WIRING.  |
|  | FIRE ALARM MONITORING MODULE.   |
|  | FIRE ALARM CONTROL MODULE.  |
|  | FIRE / SMOKE DAMPER, FURNISHED & INSTALLED BY MECHANICAL CONTRACTOR, POWER WIRED BY ELECTRICAL CONTRACTOR. PROVIDE DUCT DETECTOR AS REQUIRED BY CODE AND AS SHOWN ON DRAWINGS. PROVIDE 120V CONNECTION AS REQUIRED. |
|  | EXISTING WALL OR CEILING MOUNTED HORN/STROBE LIGHT TO BE REMOVED. SEE DEMOLITION PLANS.   |
|  | EXISTING WALL OR CEILING MOUNTED STROBE LIGHT TO BE REMOVED. SEE DEMOLITION PLANS.  |
|  | EXISTING CEILING MOUNTED SMOKE OR HEAT DETECTOR TO BE REMOVED. SEE DEMOLITION PLANS.  |
|  | EXISTING DUCT MOUNTED SMOKE DETECTOR TO BE REPLACED. SEE DEMOLITION PLANS.  |
|  | EXISTING MANUAL PULL STATION TO BE REMOVED/REPLACED. SEE DEMOLITION PLANS.  |

**ELECTRICAL DEMOLITION NOTES**

- THE EXISTING FIRE ALARM SYSTEM SHALL BE DEMOLISHED COMPLETELY AND A NEW SYSTEM INSTALLED. THE EXISTING FIRE ALARM SYSTEM MUST REMAIN COMPLETE AND OPERATIONAL DURING THE INSTALLATION OF THE NEW FIRE ALARM SYSTEM UNLESS SPECIFICALLY PHASED WITH THE OWNER AND OFFICE OF SCHOOL FACILITIES. ONCE NEW SYSTEM HAS BEEN INSTALLED, THE EXISTING SYSTEM CAN BE DEMOLISHED.
- IN ALL AREAS WHERE EXISTING FIRE ALARM DEVICES ARE BEING REMOVED, AND WHERE OTHER DEMOLITION WORK IS OCCURRING, REMOVE ALL EXISTING FIRE ALARM DEVICES AND OTHER RELATED EQUIPMENT NO LONGER IN USE, AND ALL WIRING AND CONDUIT NOT BEING REUSED. EXISTING CONDUIT RUN CONCEALED IN EXISTING WALLS NOT BEING REMOVED AND/OR REPLACED MAY BE ABANDONED. WHERE EXISTING DEVICES ARE SURFACE MOUNTED, THE EXISTING DEVICE, BOX, CONDUIT AND WIRE MUST BE REMOVED TO A POINT ABOVE THE FINISH CEILING AND THEN ABANDONED.



**SMOKE DETECTOR INSTALLATION DETAIL**



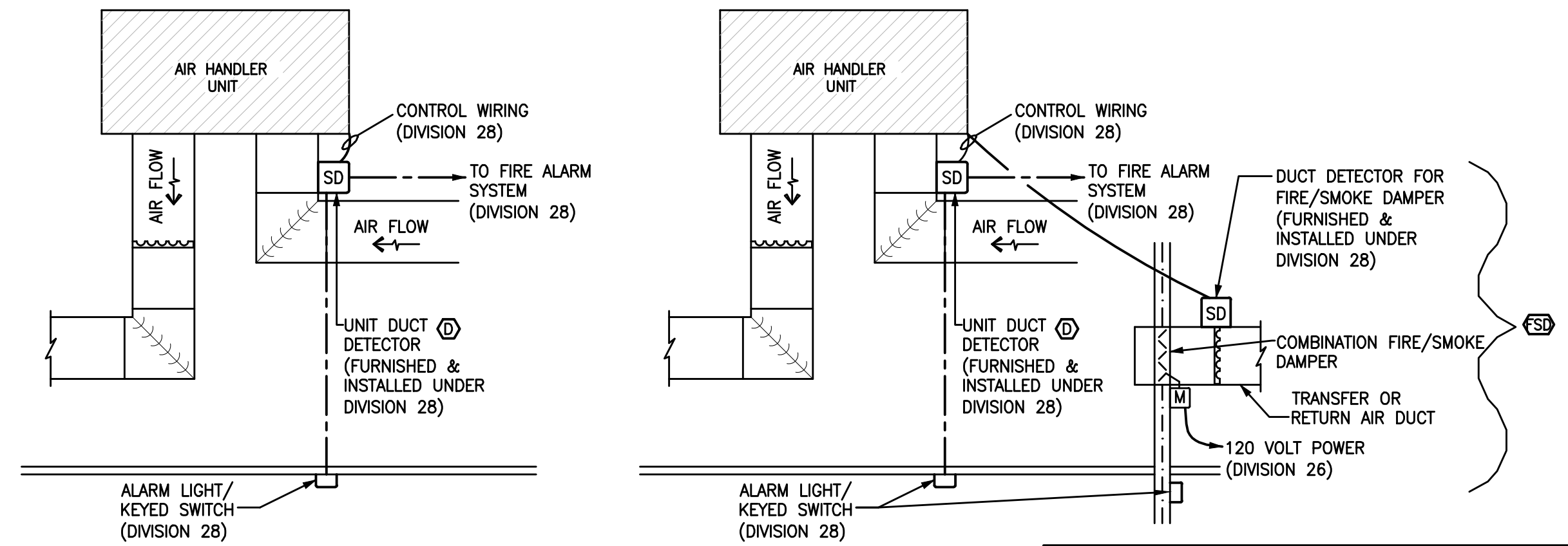
**ELEVATOR RETROFIT NOTES:**

THE EXISTING ELEVATORS (TOTAL OF 3) SHALL BE RETROFITTED TO PROVIDE A FIREMAN SAFETY WARNING SYSTEM (FIRE HELMET/HAT) PER THE USC FIRE MARSHAL PER ANSI/ASME A17.1. THIS SYSTEM AND ASSOCIATED FA CIRCUITS WILL NEED TO BE PROVIDED IN EACH INDIVIDUAL HOISTWAY AND MACHINE ROOM.

OPERATION - FIREFIGHTER'S HELMET (HAT) SHALL:  
1. BURN STEADY ON WHEN ELEVATOR IS PLACED IN BYPASS BY SERVICE KEY.  
2. FLASH IF THE SMOKE DETECTOR IS ACTIVATED IN THAT ELEVATORS PARTICULAR HOISTWAY OR ASSOCIATED MACHINE ROOM.

THE ELEVATOR EQUIPMENT MANUFACTURER AND THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE SAFETY WARNING SYSTEM REQUIREMENTS OF THE ELEVATOR PRIOR TO STARTING WORK, AND SHALL REVISE THE WIRING DIAGRAM TO REFLECT THE ACTUAL EQUIPMENT BEING SUPPLIED, AT NO COST TO THE OWNER OR THE ENGINEER.

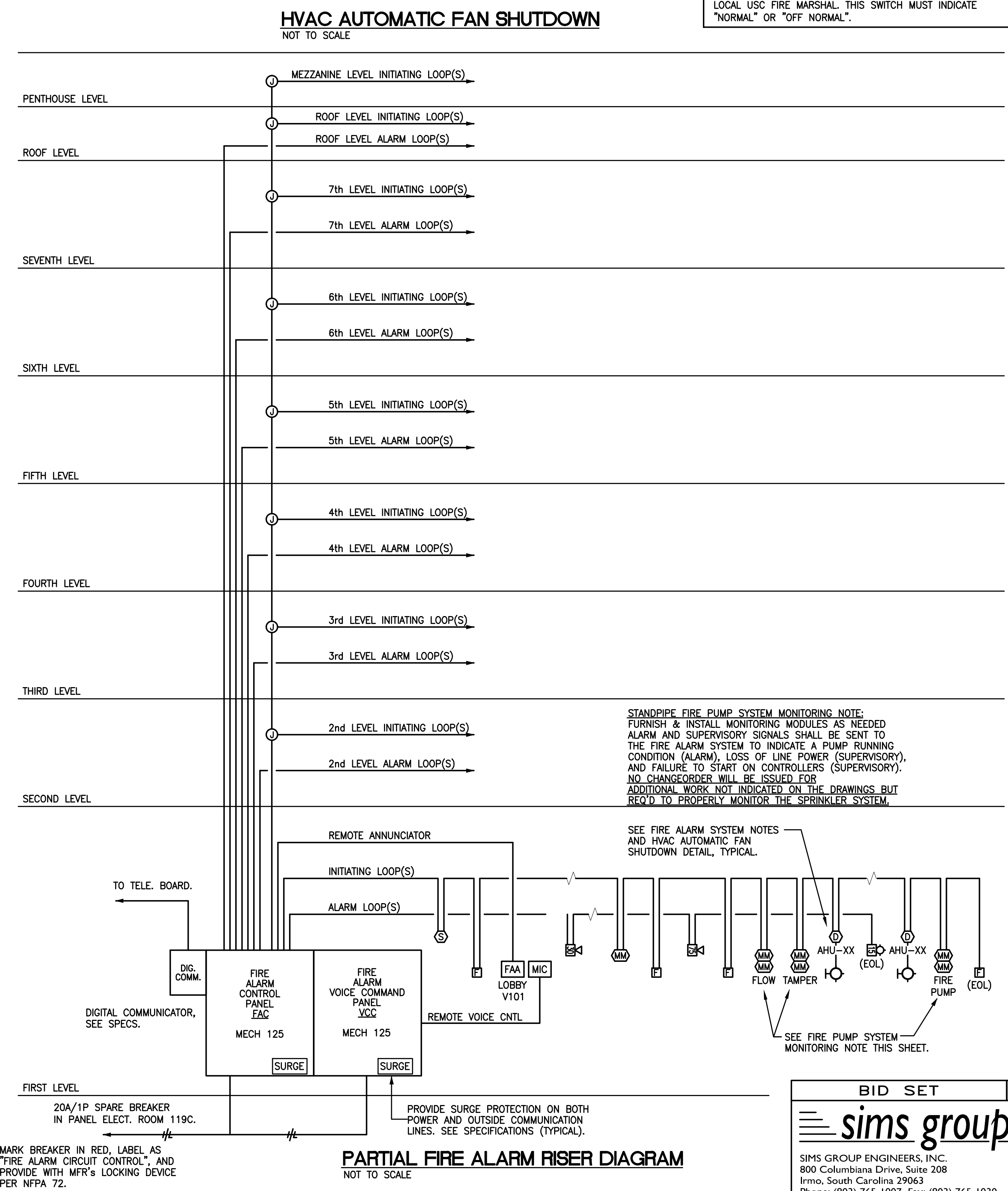
**ELEVATOR RISER DIAGRAM (Non-Sprinkled Building)**



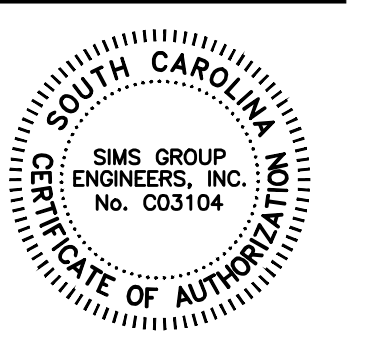
NOTE: UNIT DUCT MOUNTED SMOKE DETECTORS SHALL BE FURNISHED & INSTALLED UNDER DIVISION 28. CONNECTION TO FIRE ALARM SYSTEM SHALL BE FURNISHED & INSTALLED UNDER DIVISION 28. ALARM LIGHT & WIRING SHALL BE FURNISHED & INSTALLED UNDER DIVISION 28. HVAC CONTROL AND INTERLOCK WIRING SHALL BE FURNISHED & INSTALLED UNDER DIVISION 28. ELECTRICAL CONTRACTOR SHALL FURNISH & INSTALL ALL CONDUIT AND BOXES NECESSARY FOR ALARM LIGHT/KEYED SWITCH, LOCATE AS DIRECTED IN FIELD. SEE FIRE ALARM NOTES FOR LOCATION AND TESTING OF DUCT MOUNTED SMOKE DETECTORS.

**AHU SHUT DOWN "HOT-KEY"**

THE FIRE ALARM MANUFACTURER IS TO PROVIDE A "HOT-KEY" TO OPERATED THE SHUT DOWN OF ALL AHU UNITS. A SUPERVISED PROGRAMMABLE "HOT KEY" FOR ALL AHU SHUTDOWN DEFEAT MODULES MUST BE PROVIDED AT THE FACP AND THE REMOTE ANNUNCIATOR AS DICTATED BY THE LOCAL USC FIRE MARSHAL. THIS SWITCH MUST INDICATE "NORMAL" OR "OFF NORMAL".



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South Carolina



**NEW FIRE ALARM SYSTEM FOR**  
JAMES F. BYRNES BUILDING  
UNIVERSITY OF SOUTH CAROLINA

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**FIRE ALARM SYMBOLS, DETAILS, RISER AND NOTES**

BID SET C11039

**sims group**  
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800 Columbiana Drive, Suite 208  
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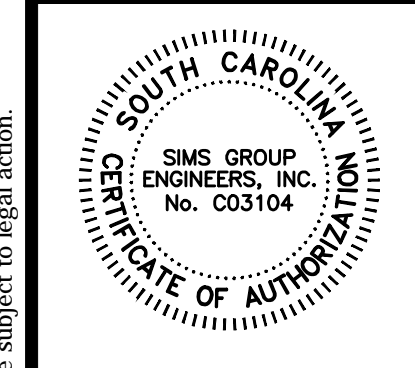
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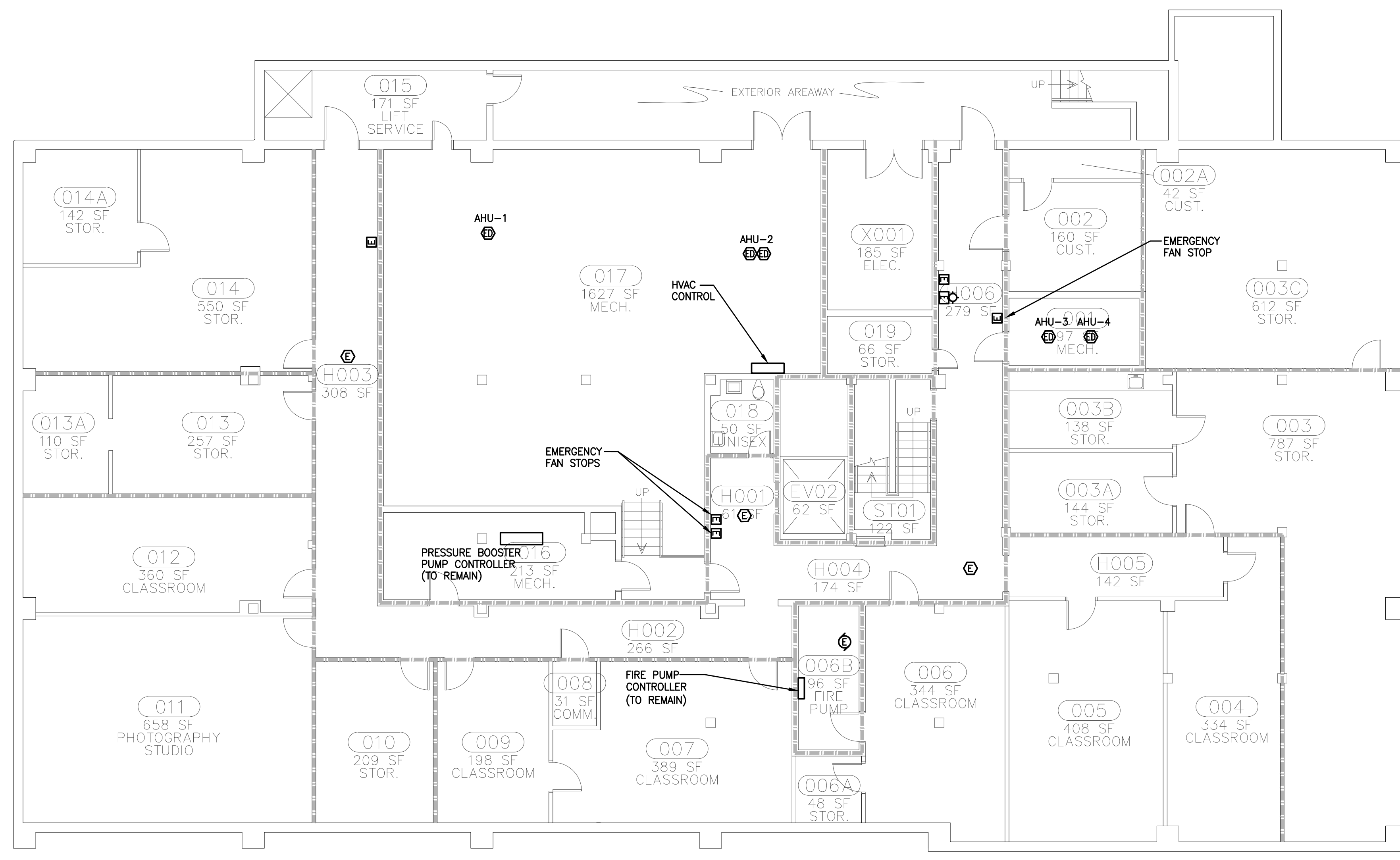
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FIRE ALARM  
BASEMENT LEVEL  
DEMOLITION



**FIRE ALARM - BASEMENT LEVEL DEMOLITION**  
SCALE: 1/8"=1'-0"

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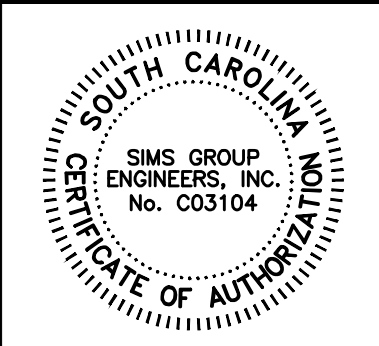
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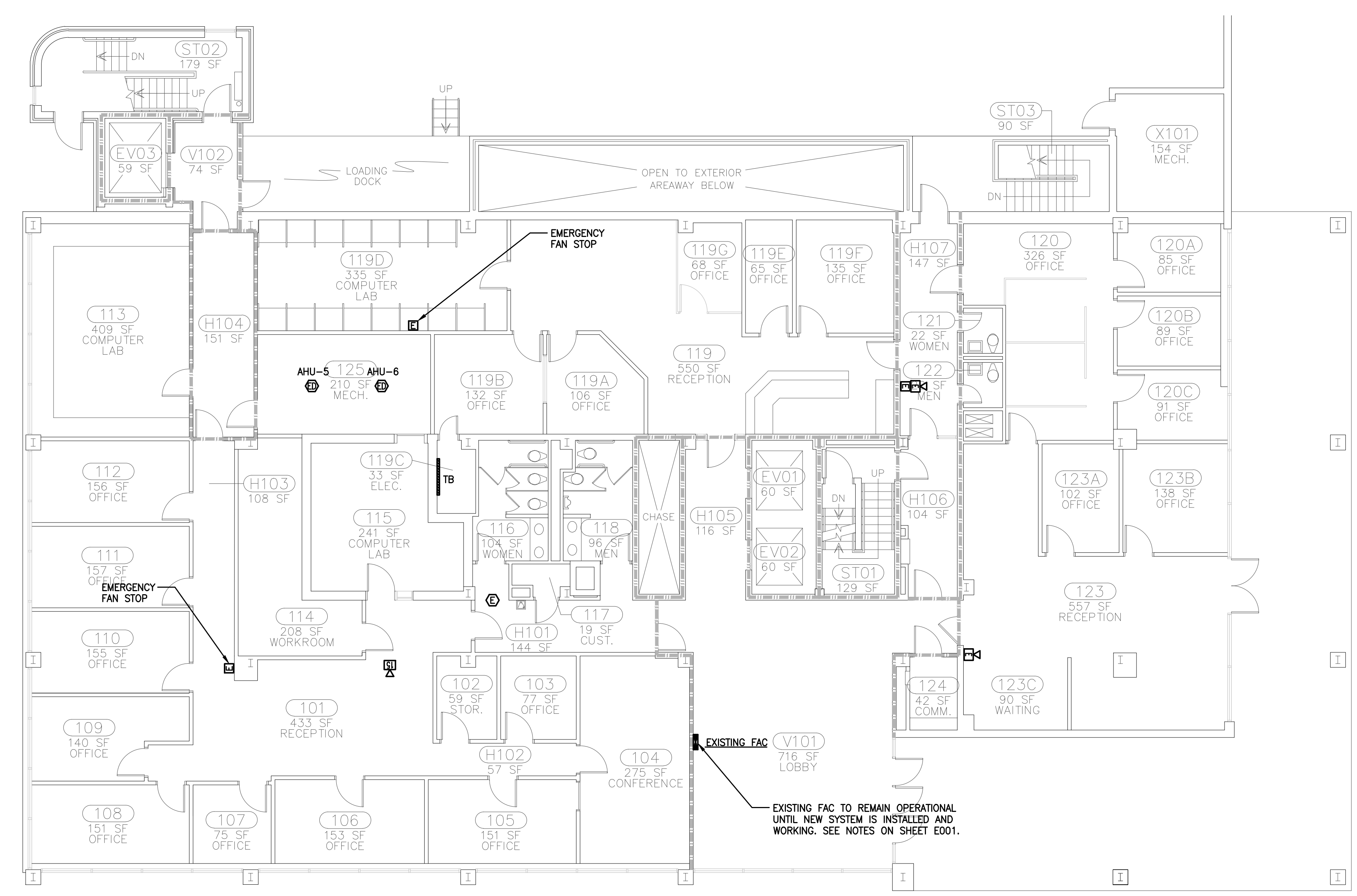
FIRE ALARM  
FIRST FLOOR  
DEMOLITION

BID SET C11039

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**E003**



**FIRE ALARM - FIRST FLOOR DEMOLITION**  
SCALE: 1/8"=1'-0"

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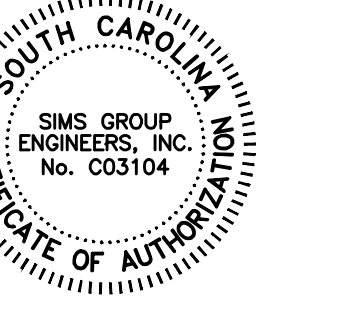
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NEW FIRE ALARM SYSTEM FOR  
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UNIVERSITY OF SOUTH CAROLINA

BID DOCUMENTS

REVISIONS:  
OSE COMMENTS ADDED 4/5/12

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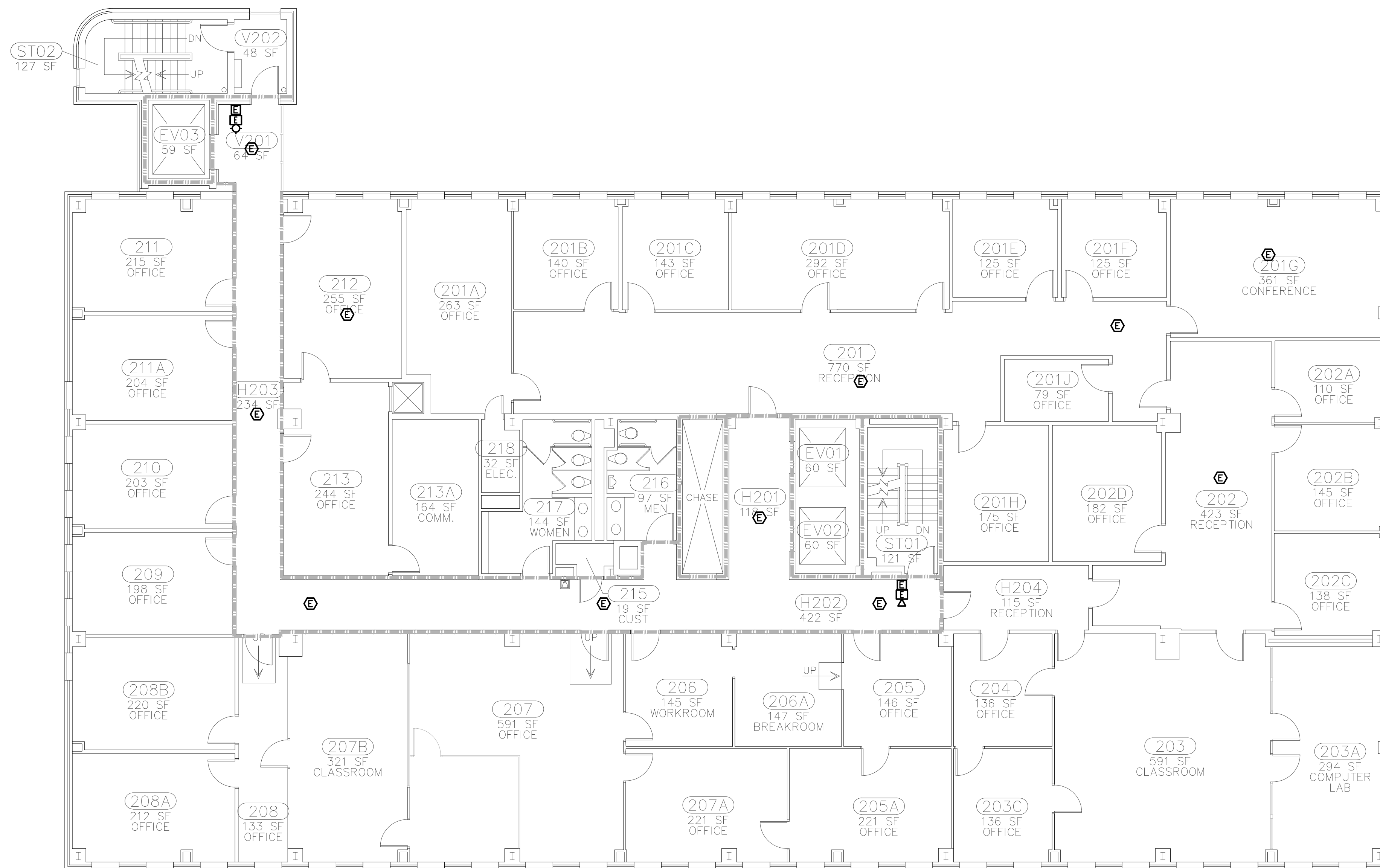
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COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
SECOND FLOOR  
DEMOLITION



FIRE ALARM - SECOND FLOOR DEMOLITION  
SCALE: 1/8"=1'-0"

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E004

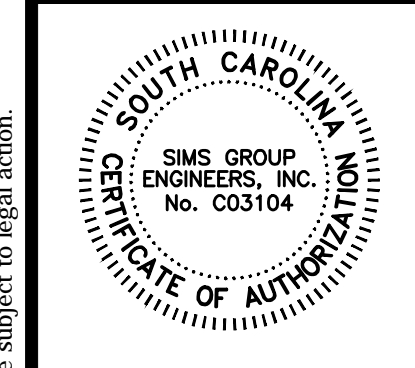
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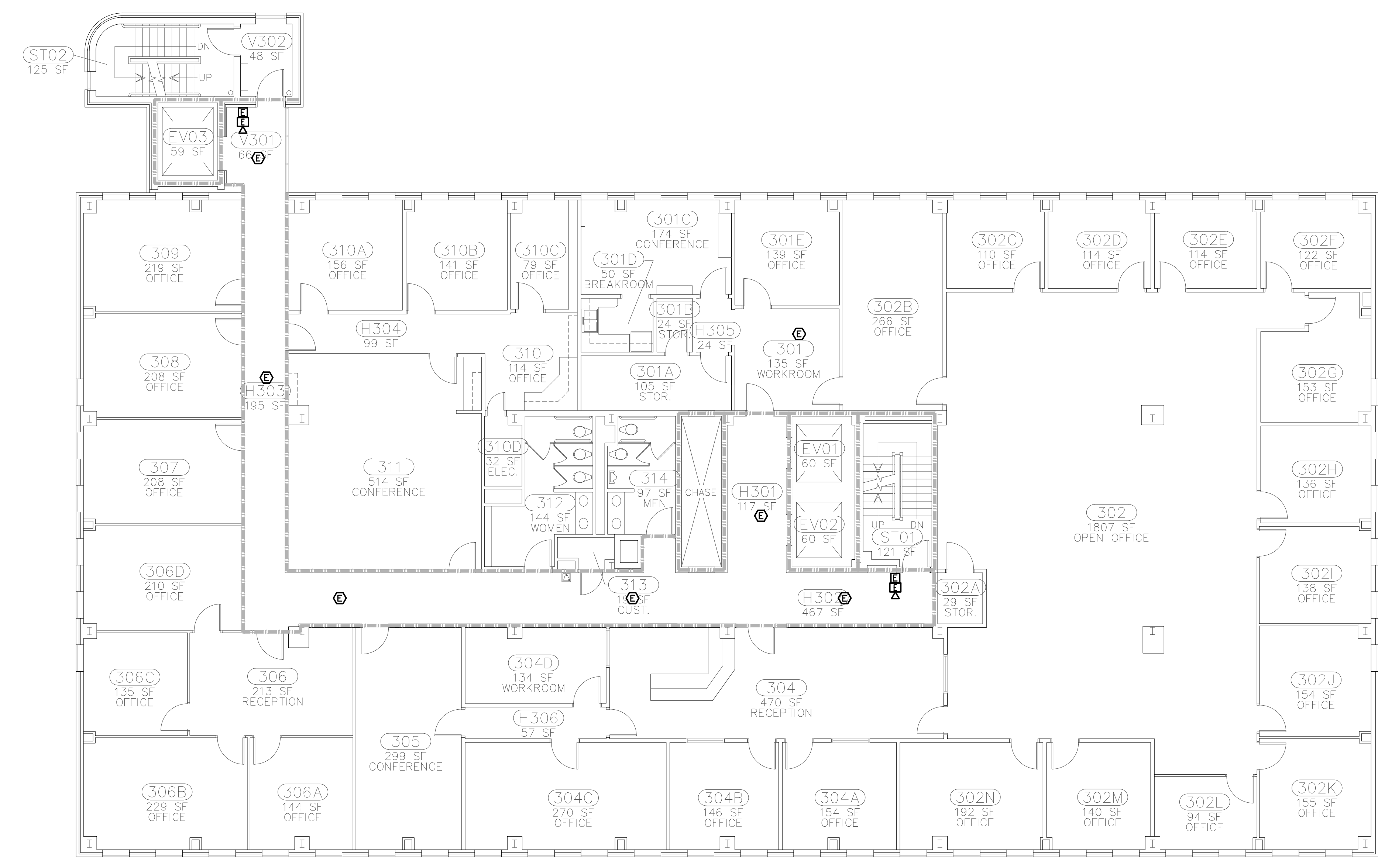
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SHEET TITLE:

FIRE ALARM  
THIRD FLOOR  
DEMOLITION



FIRE ALARM - THIRD FLOOR DEMOLITION  
SCALE: 1/8"=1'-0"

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E005

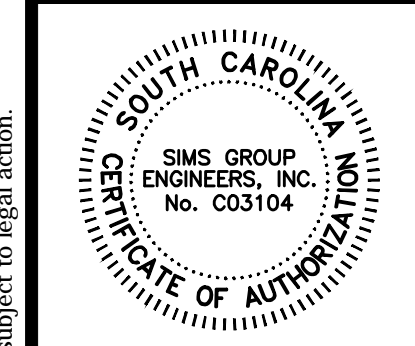
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DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
FOURTH FLOOR  
DEMOLITION

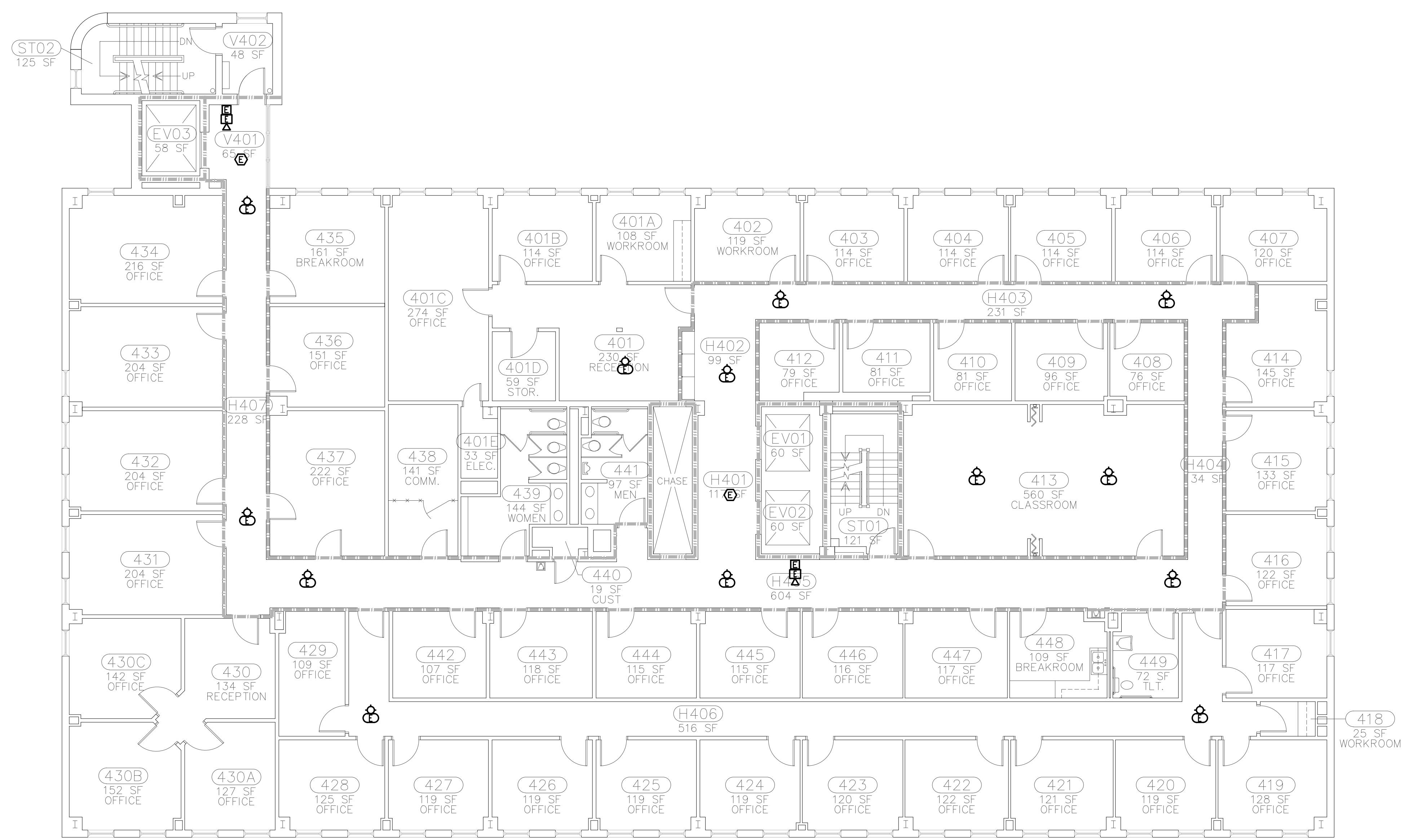
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SHEET NO:

E006



FIRE ALARM - FOURTH FLOOR DEMOLITION  
SCALE: 1/8"=1'-0"

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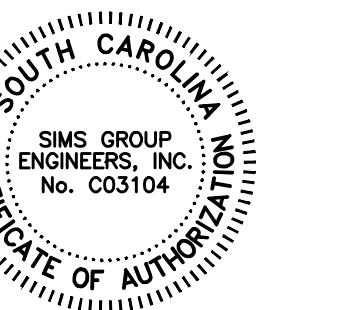
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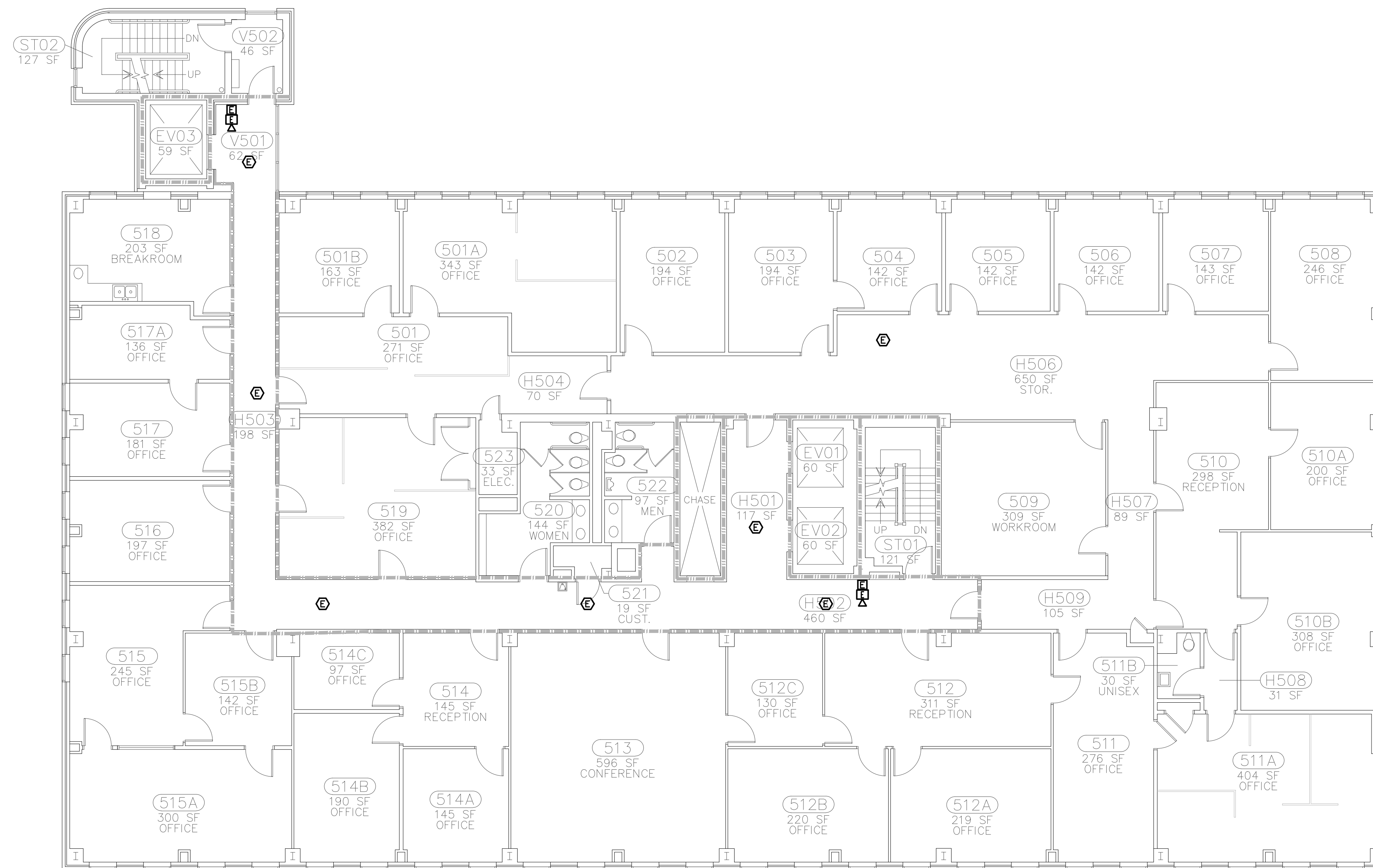
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DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
FIFTH FLOOR  
DEMOLITION



FIRE ALARM - FIFTH FLOOR DEMOLITION  
SCALE: 1/8"=1'-0"

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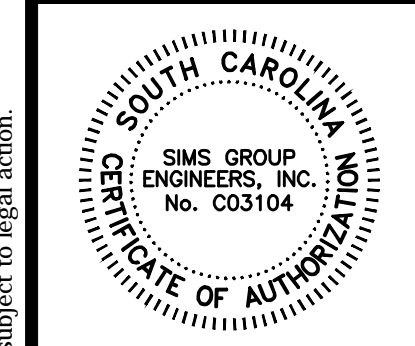


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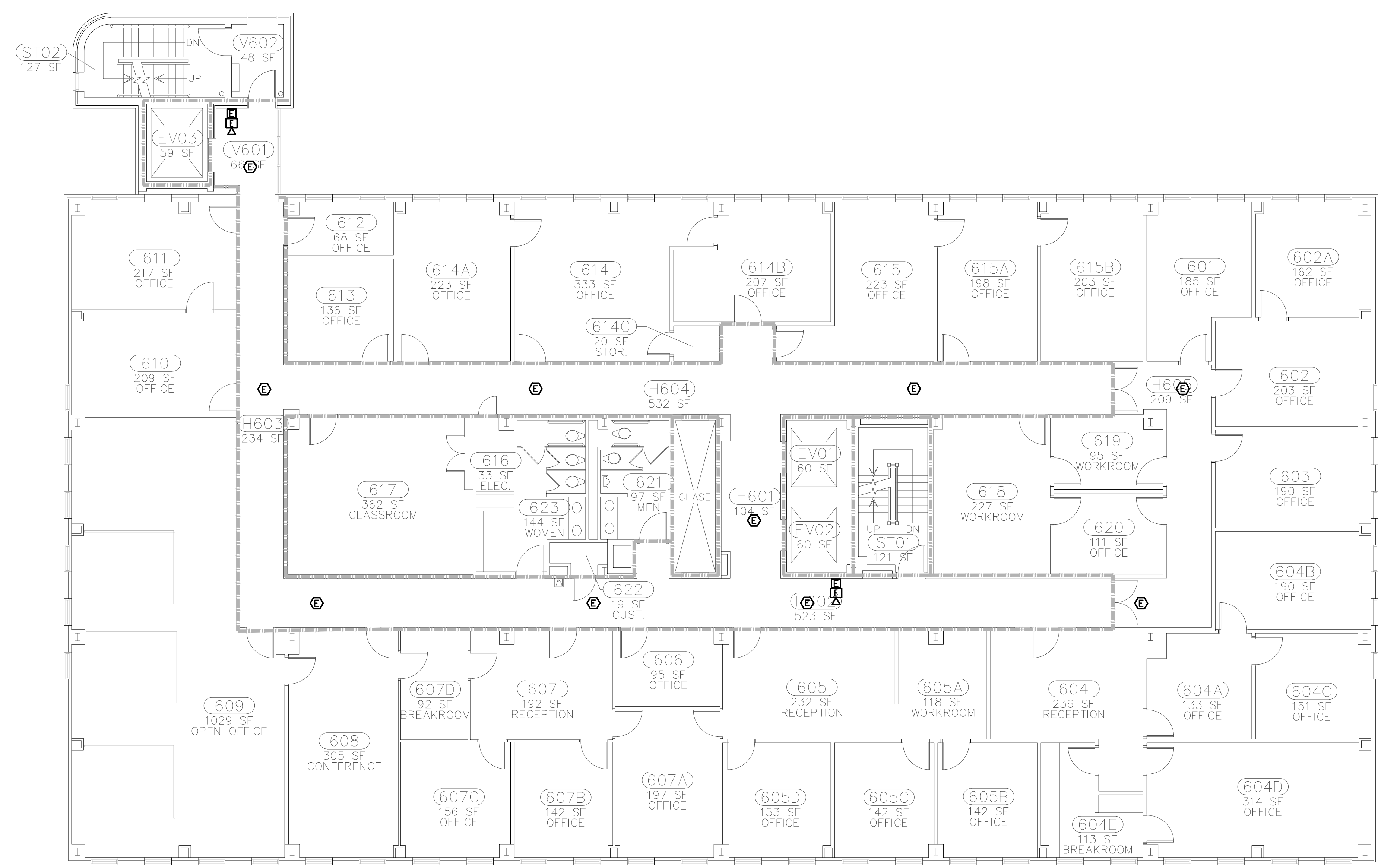
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DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
SIXTH FLOOR  
DEMOLITION



FIRE ALARM - SIXTH FLOOR DEMOLITION  
SCALE: 1/8"=1'-0"

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**E008**

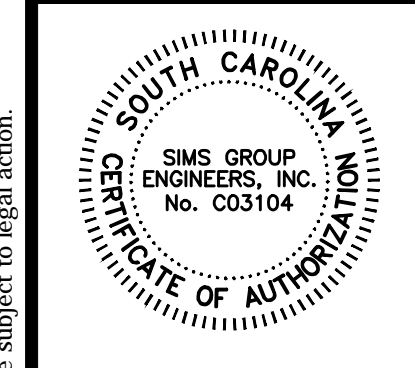
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COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
SEVENTH FLOOR  
DEMOLITION

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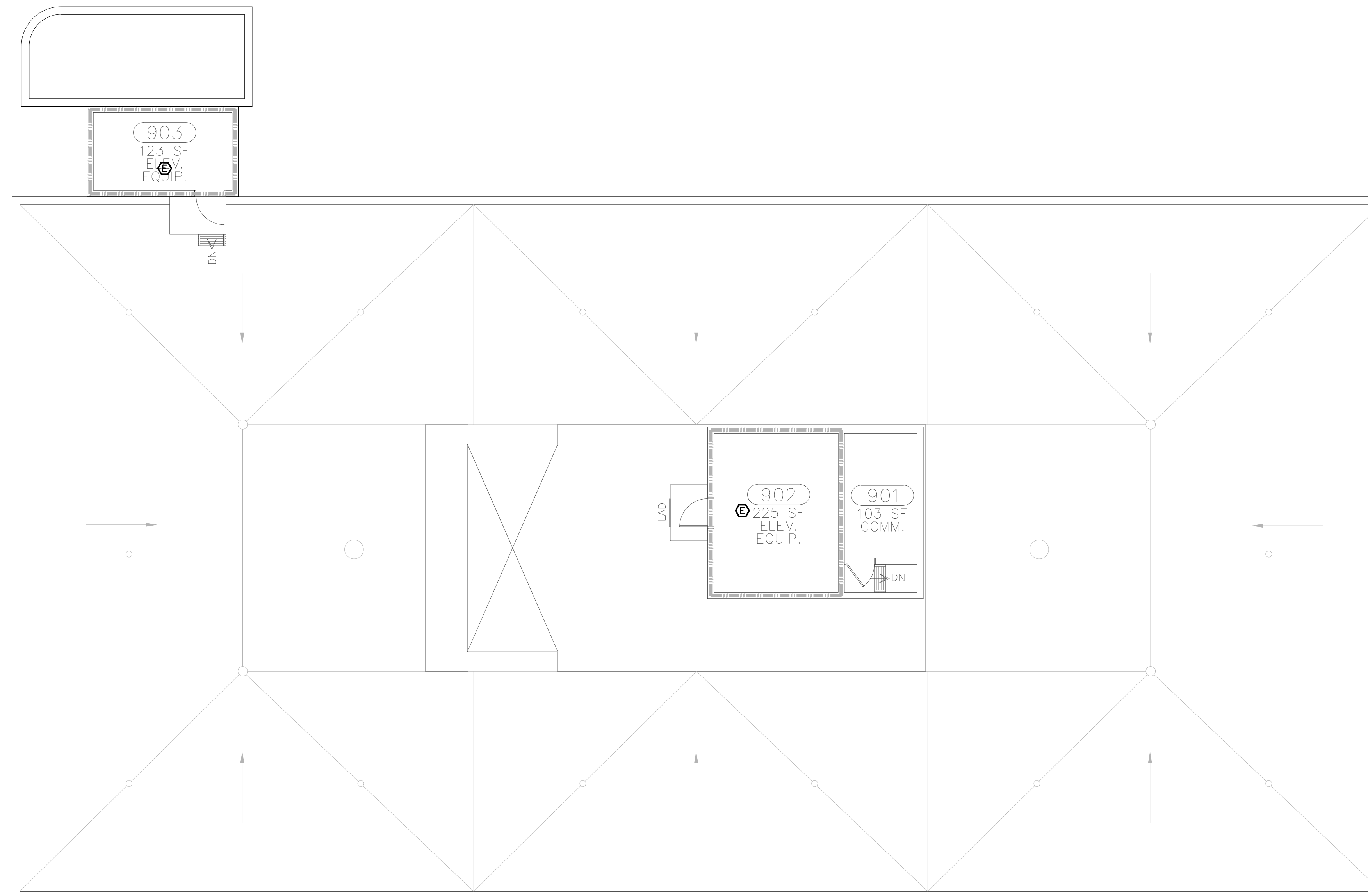
SHEET NO:

E009



FIRE ALARM - SEVENTH FLOOR DEMOLITION  
SCALE: 1/8"=1'-0"

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**FIRE ALARM - PENTHOUSE LEVEL DEMOLITION**  
SCALE: 1/8"=1'-0"

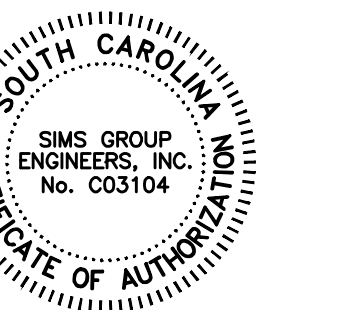
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SHEET TITLE:

**FIRE ALARM  
PENTHOUSE LEVEL  
DEMOLITION**

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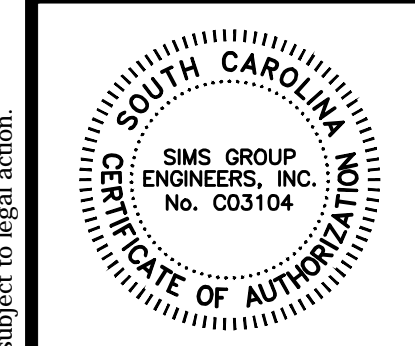
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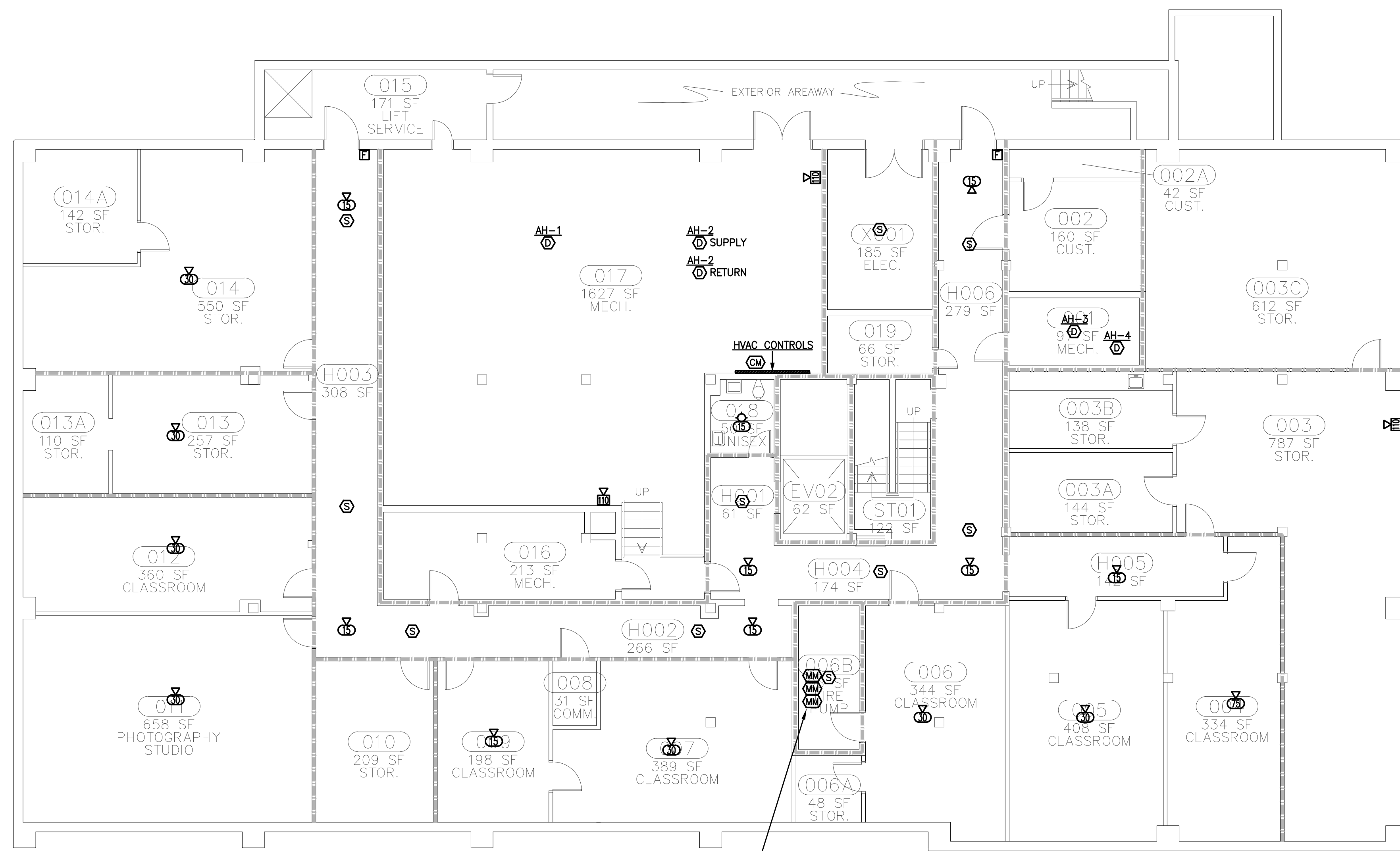
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COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
BASEMENT LEVEL



**FIRE ALARM - BASEMENT LEVEL**  
SCALE: 1/8"=1'-0"

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SHEET NO:  
**E101**

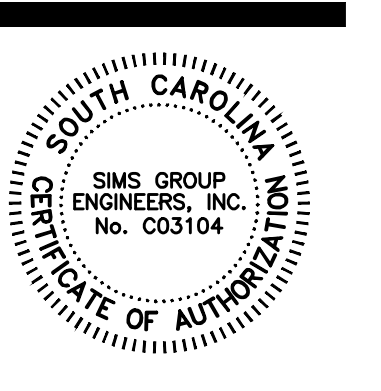
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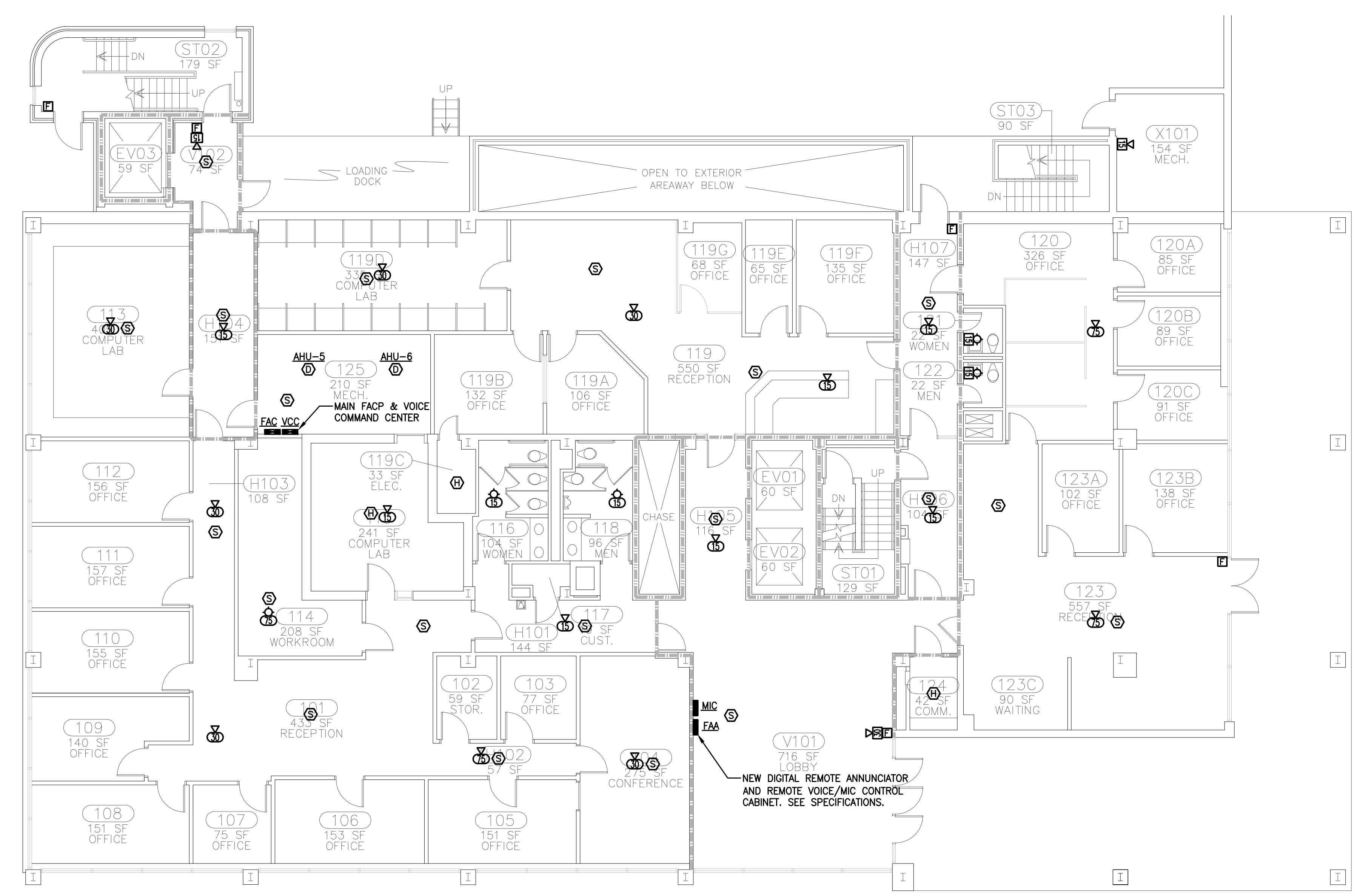
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DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
FIRST FLOOR



FIRE ALARM - FIRST FLOOR  
SCALE: 1/8"=1'-0"

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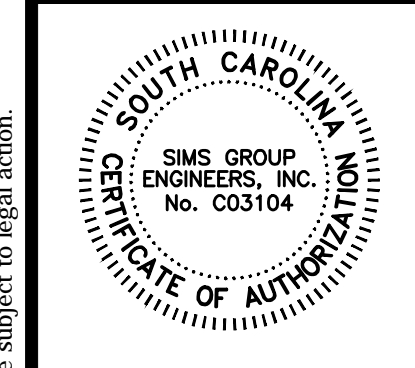
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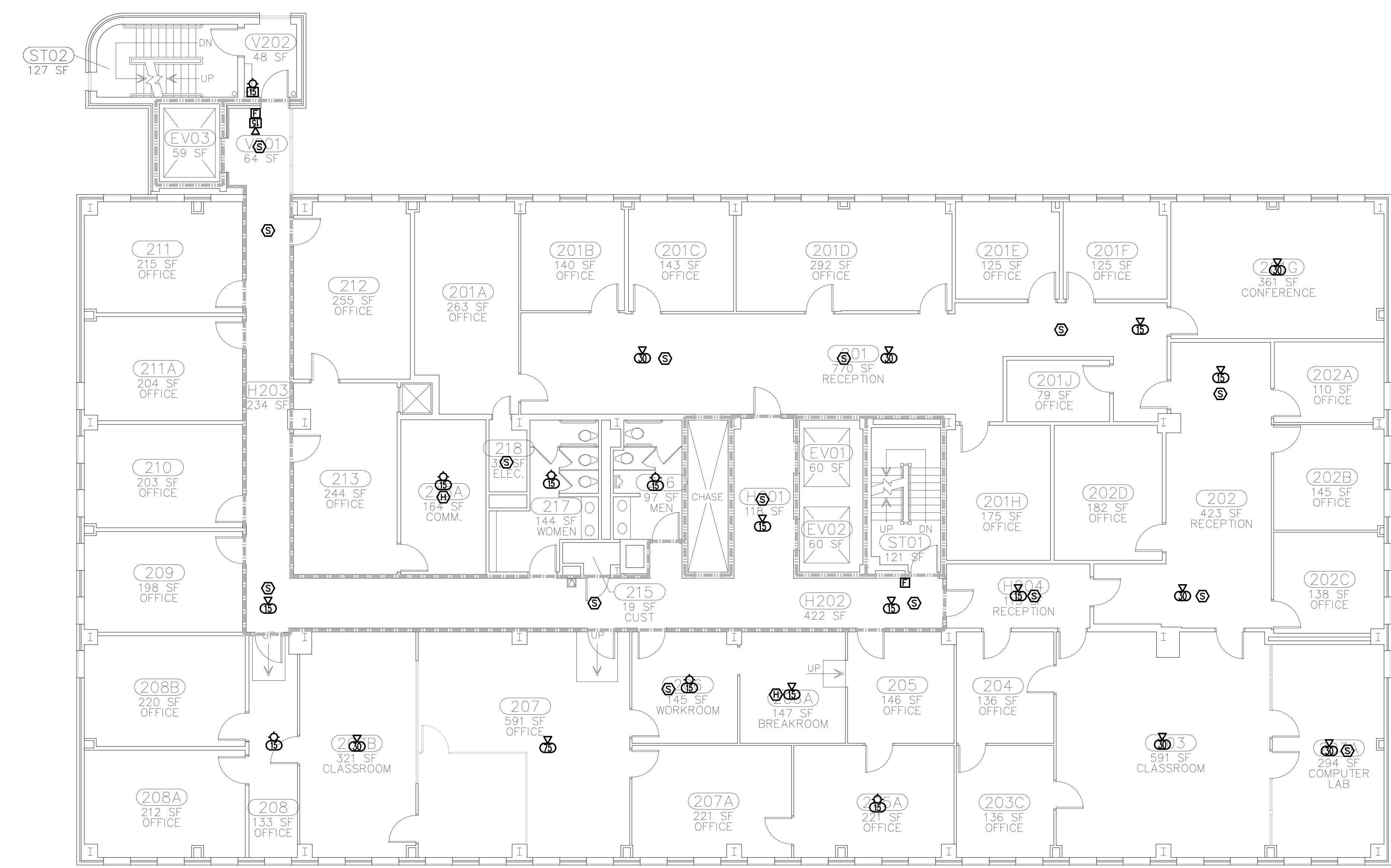
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COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
SECOND FLOOR



FIRE ALARM - SECOND FLOOR  
SCALE: 1/8"=1'-0"

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E103

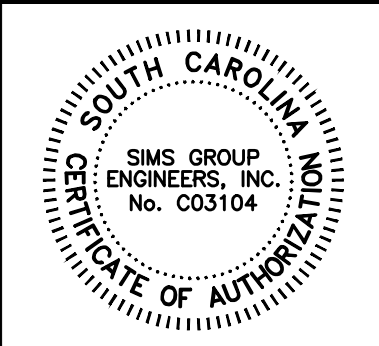
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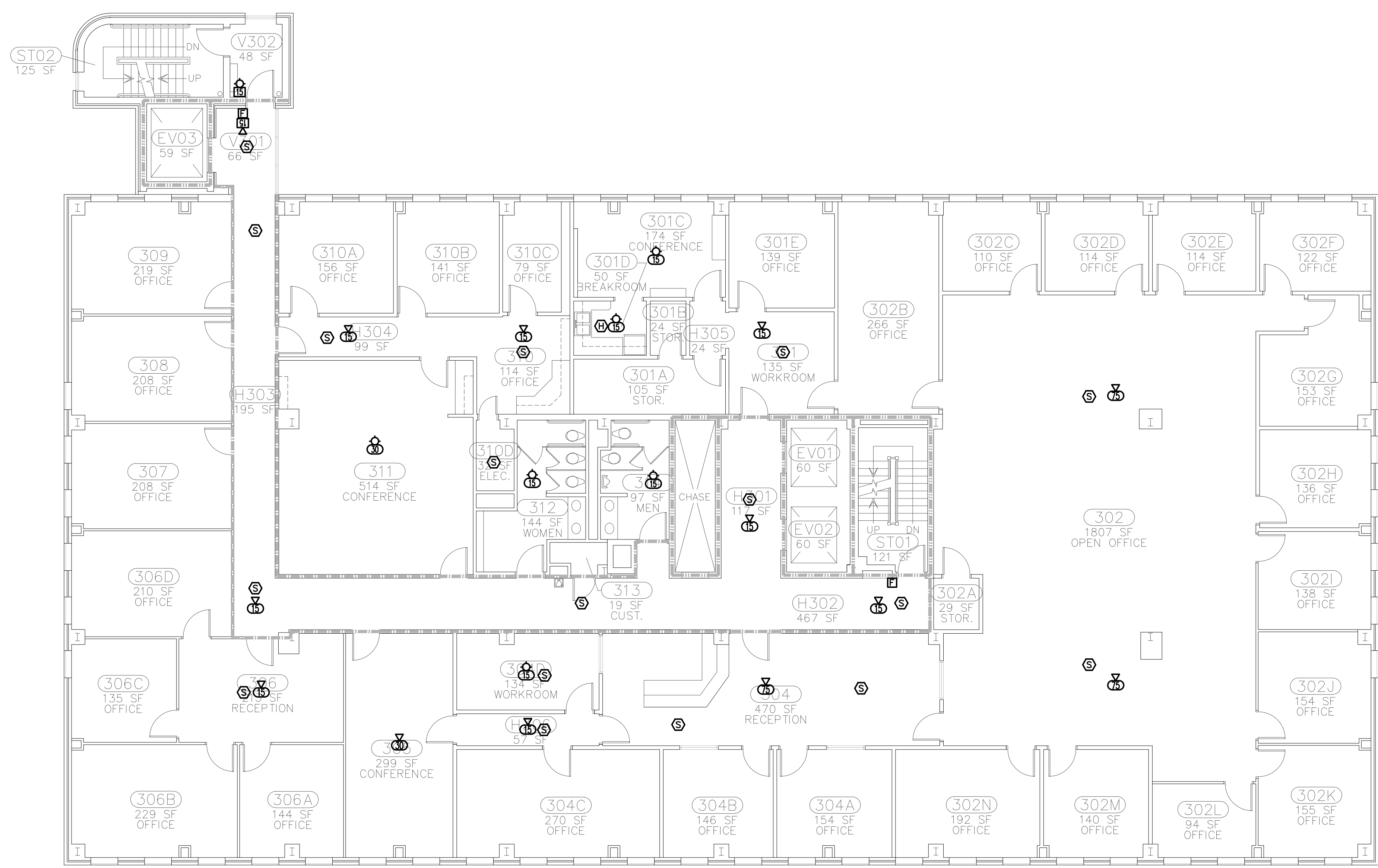
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COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
THIRD FLOOR



FIRE ALARM - THIRD FLOOR  
SCALE: 1/8"=1'-0"

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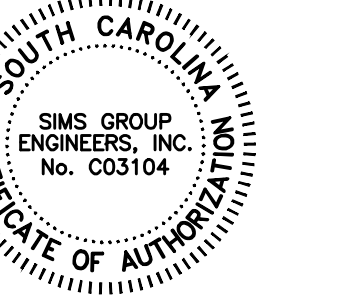
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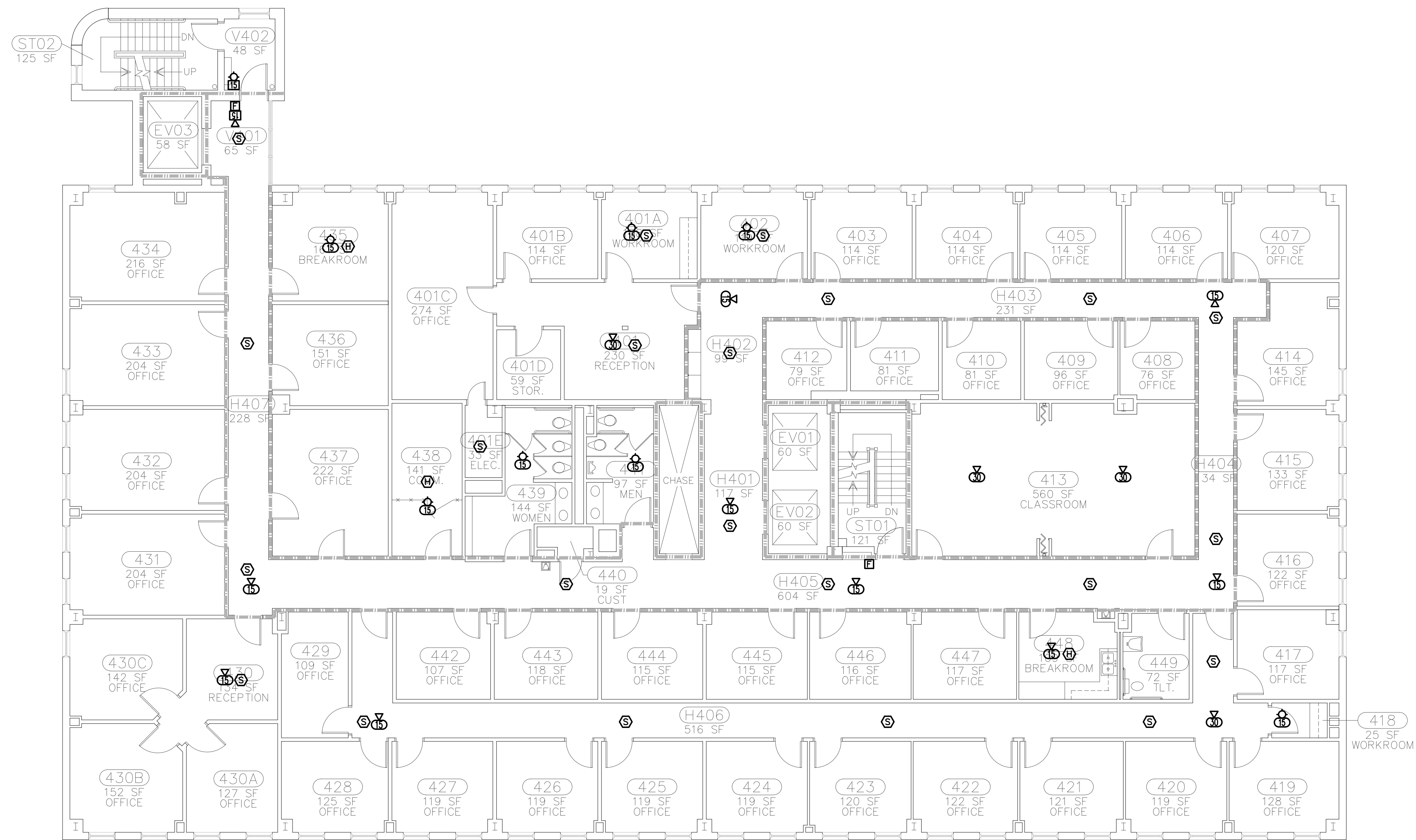
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SHEET TITLE:

FIRE ALARM  
FOURTH FLOOR



FIRE ALARM - FOURTH FLOOR  
SCALE: 1/8"=1'-0"

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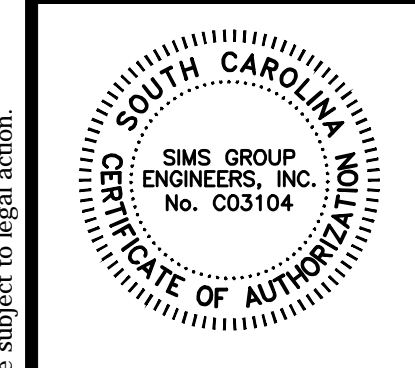


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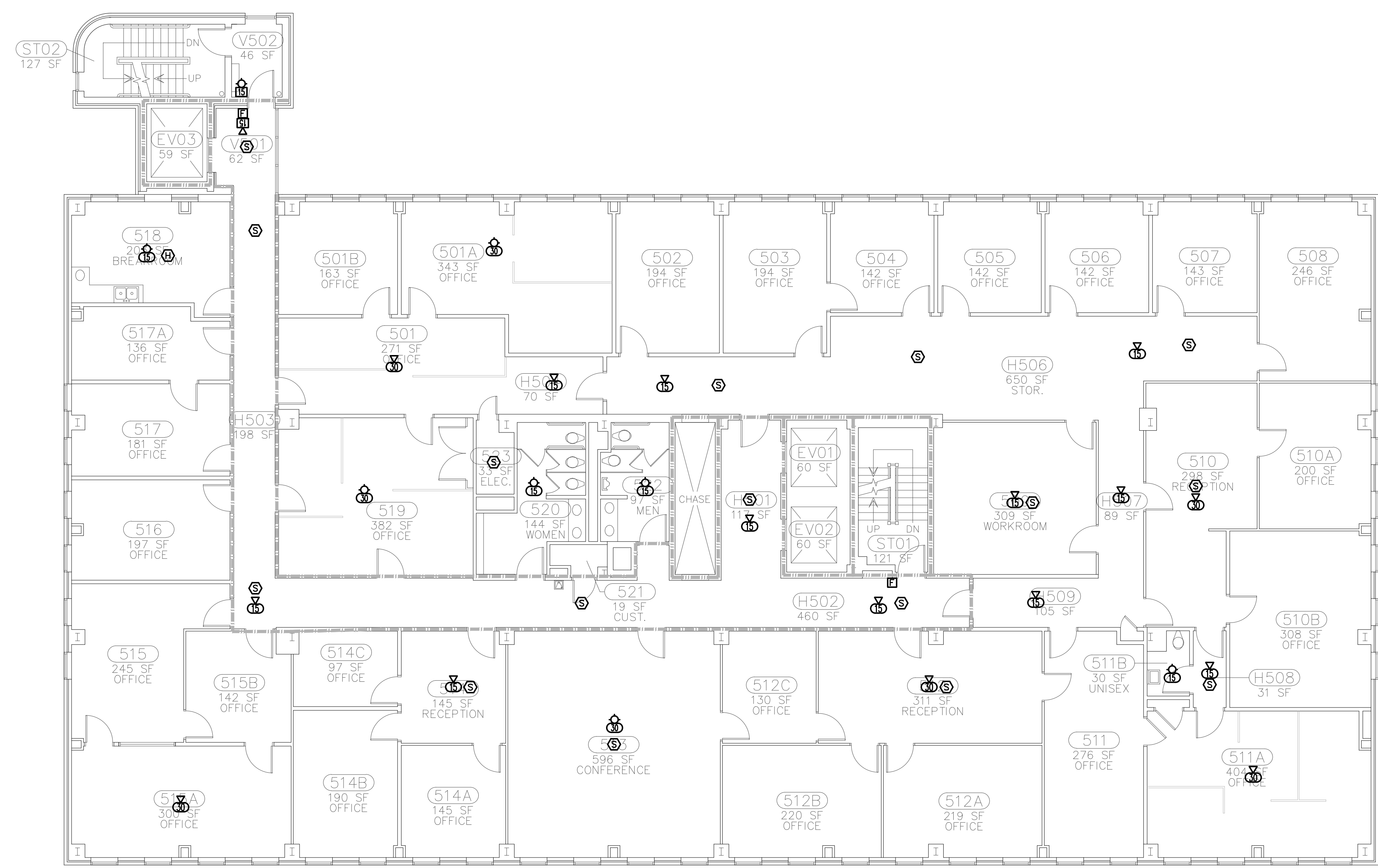
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COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
FIFTH LEVEL



FIRE ALARM - FIFTH FLOOR  
SCALE: 1/8"=1'-0"

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**E106**

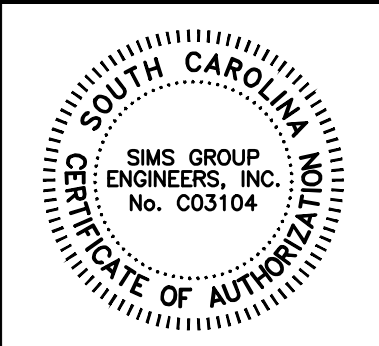
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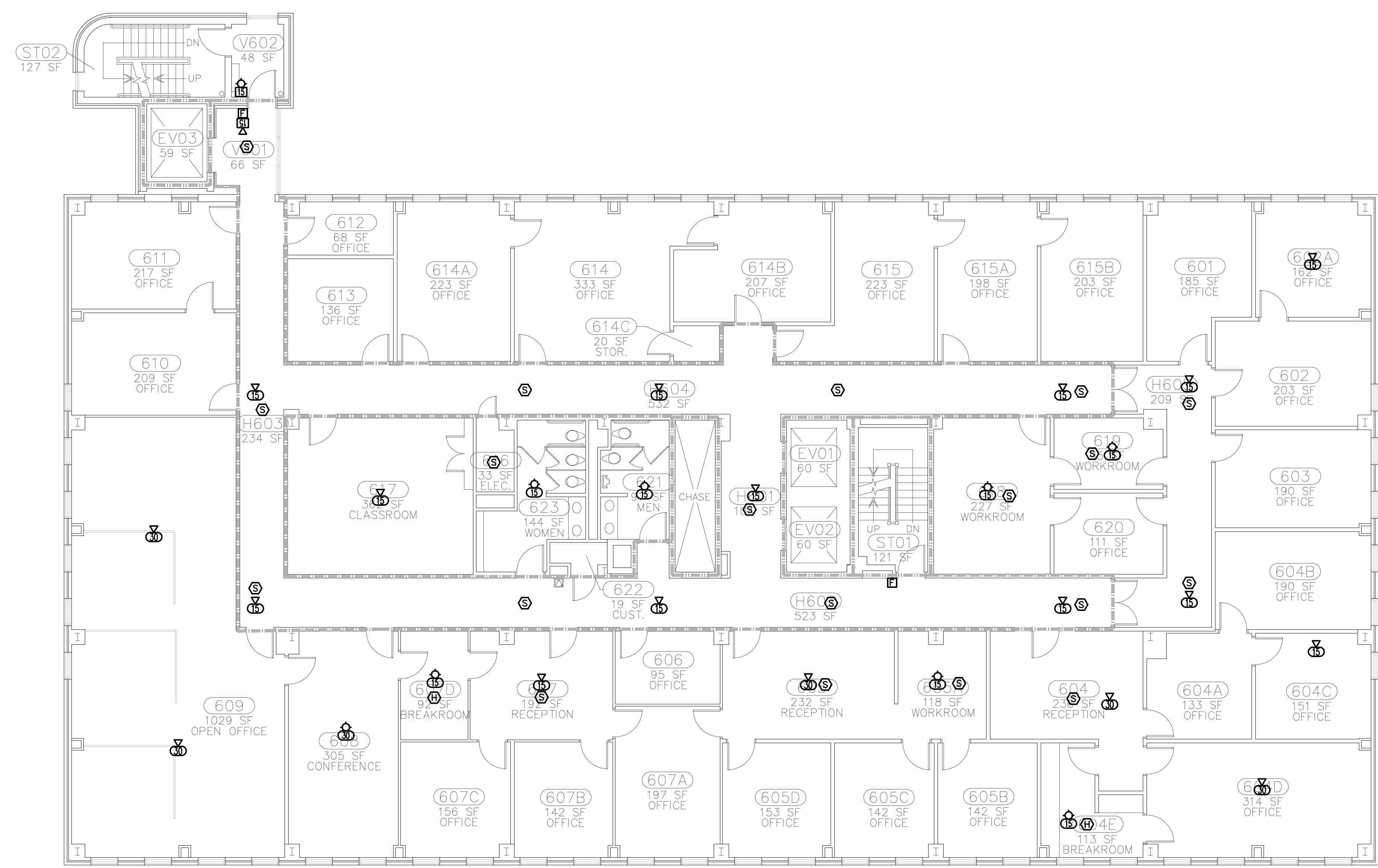
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DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
SIXTH FLOOR



FIRE ALARM - SIXTH FLOOR  
SCALE: 1/8"=1'-0"

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**E107**

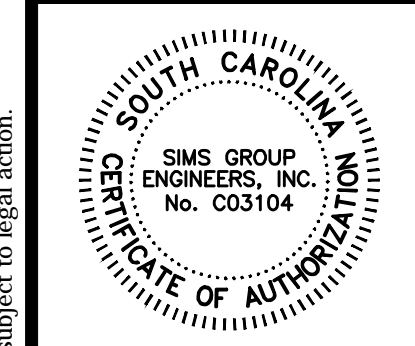
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DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
SEVENTH FLOOR

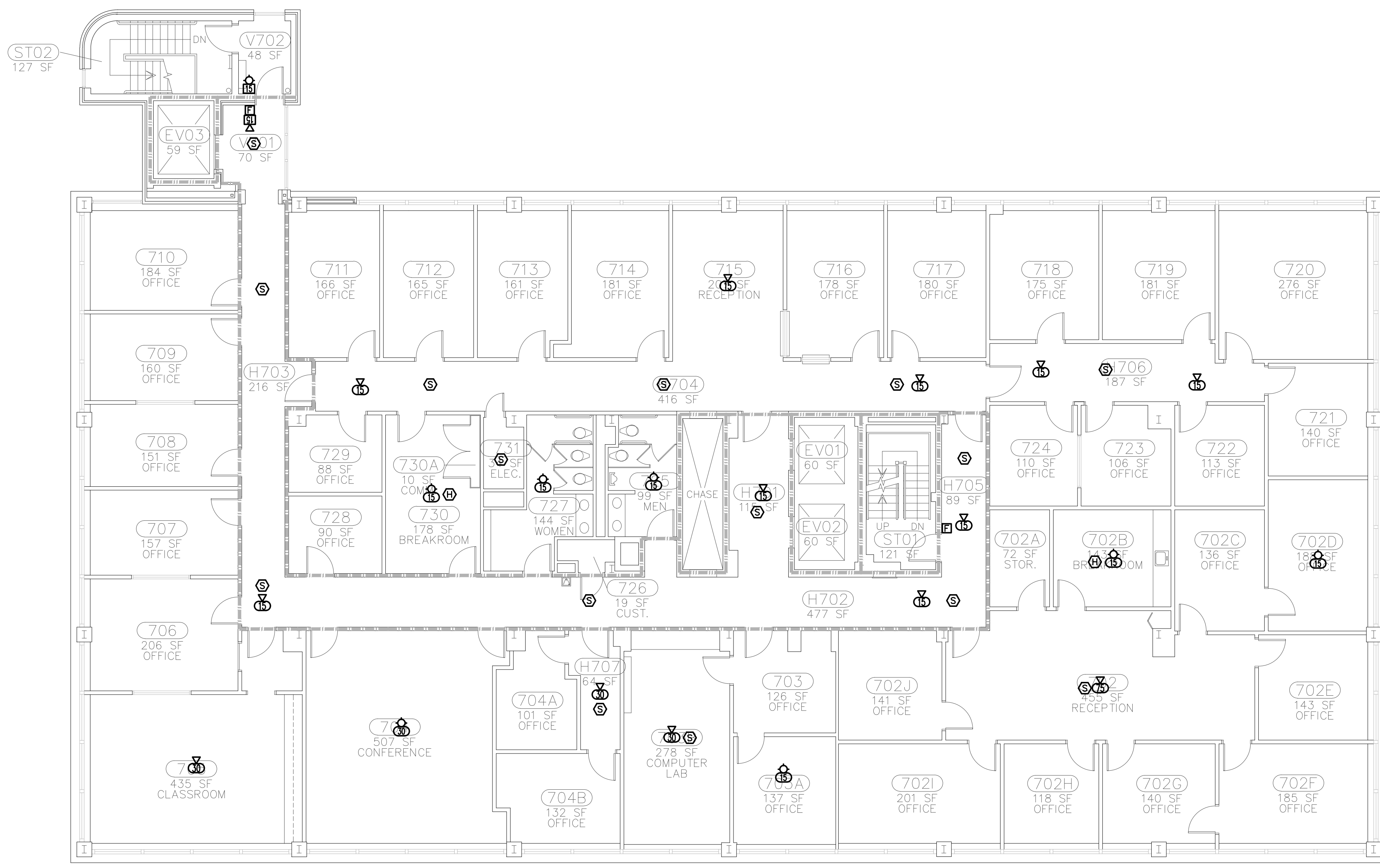
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SHEET NO:

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FIRE ALARM - SEVENTH FLOOR  
SCALE: 1/8"=1'-0"

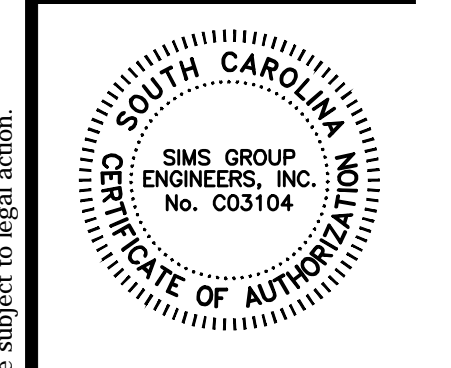
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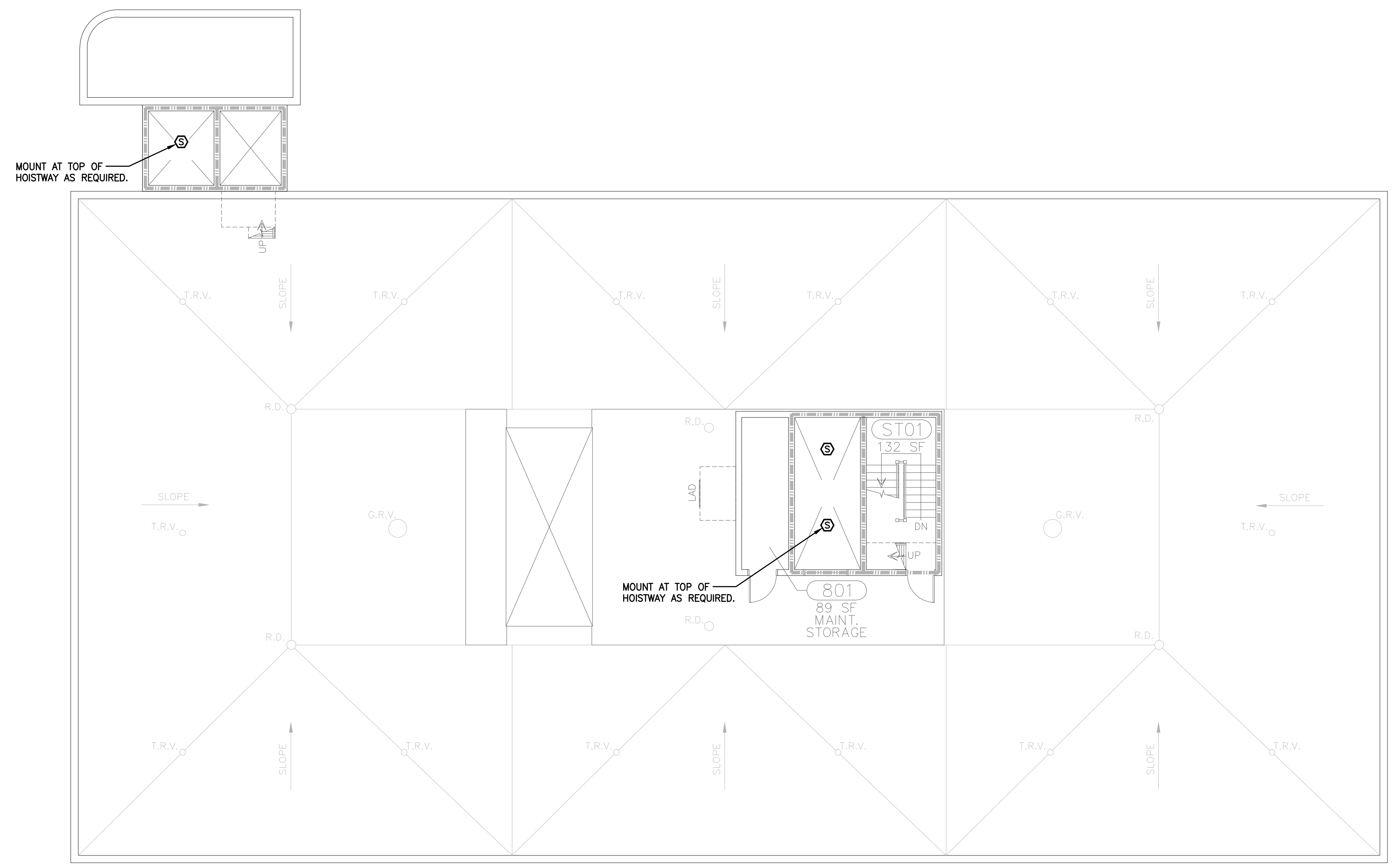
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COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
ROOF LEVEL



**FIRE ALARM - ROOF LEVEL**  
SCALE: 1/8"=1'-0"

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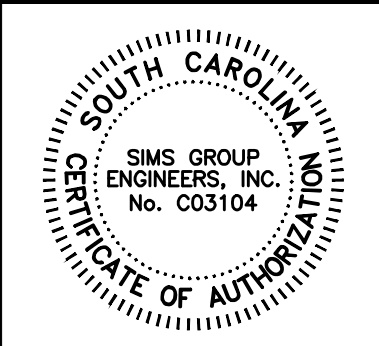
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OSE COMMENTS ADDED 4/5/12

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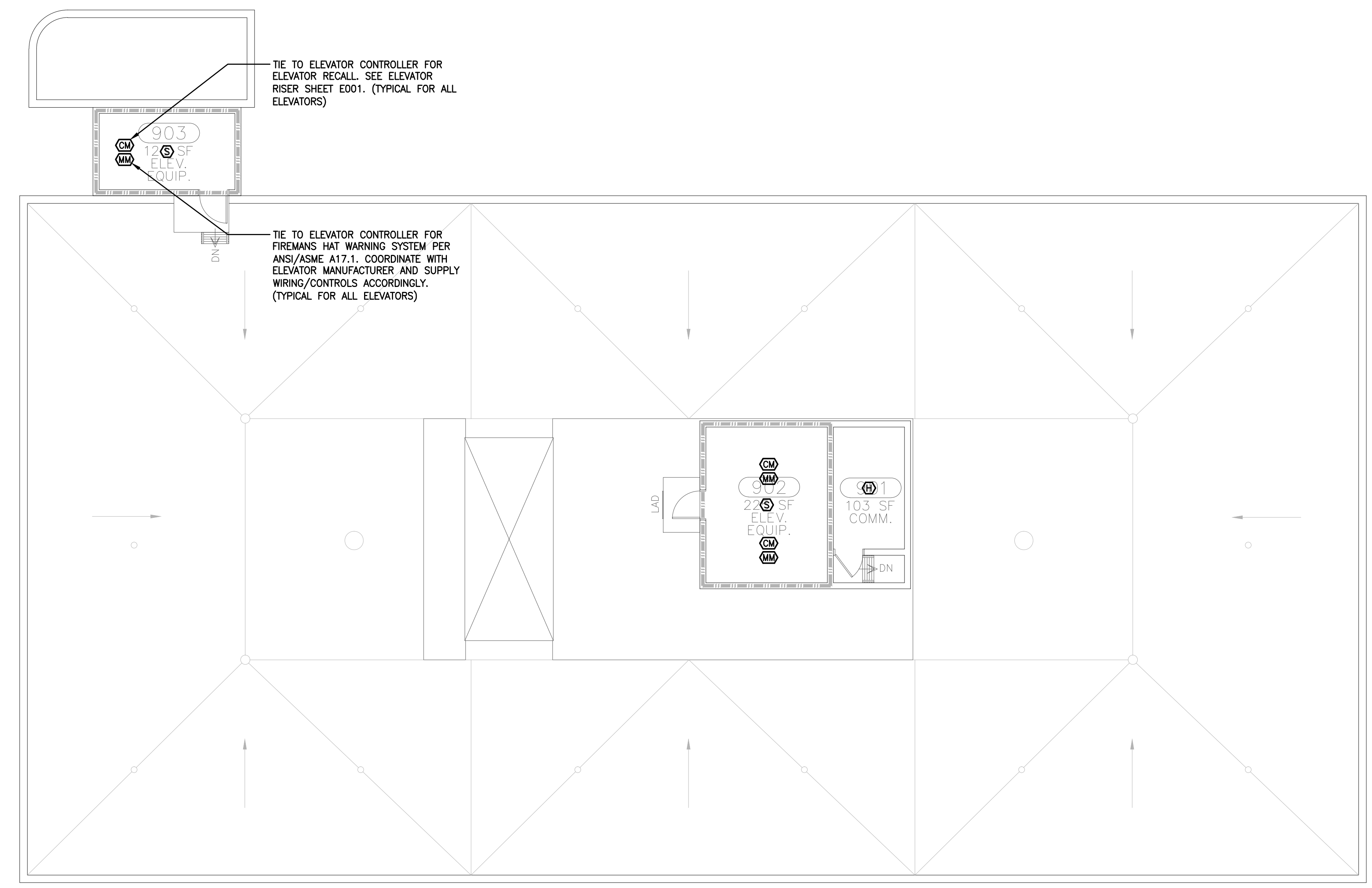
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DATE: 08/24/2011

SHEET TITLE:

FIRE ALARM  
PENTHOUSE LEVEL



**FIRE ALARM - PENTHOUSE LEVEL**  
SCALE: 1/8"=1'-0"

BID SET C11039

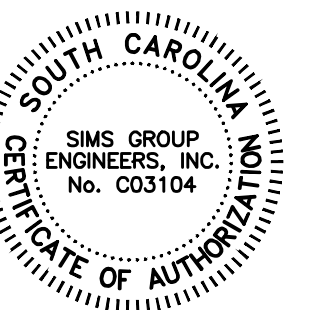


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SHEET NO:

**E110**

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NEW FIRE ALARM SYSTEM FOR  
JAMES F. BYRNES BUILDING  
UNIVERSITY OF SOUTH CAROLINA

BID DOCUMENTS

REVISIONS:  
OSE COMMENTS ADDED 4/5/12

DRAWN BY:

CHECKED BY:

COMM NO: 11104

DATE: 08/24/2011

SHEET TITLE:

FIRE STOPPING  
DETAILS

BID SET C11039

**sims group**

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E601

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**System No. F-A-1029**  
F Rating - 2 Hr  
T Rating - 0 Hr

SECTION A-A

- Floor Assembly Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Max diam of opening is 30-7/8 in.
- 1A. Floor Assembly (Optional -- Not Shown) -- The fire rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - Concrete Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete.
  - Steel Floor and Form Units\* Composite or non-composite max 3 in. deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
- Through-Penetrant One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The annular space between pipe, conduit or tubing and the periphery of the opening shall be min 0 in. (point contact) to max 7/8 in. The following types of pipe, conduit or tubing may be used:
  - Steel Pipe Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - Iron Pipe Nom 30 in. diam (or smaller) cast or ductile iron pipe.
  - Conduit Nom 6 in. diam (or smaller) rigid steel conduit.
  - Conduit Nom 4 in. diam (or smaller) steel electrical metallic tubing (EMT).
  - Copper tubing Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
  - Copper Pipe Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
- Fill, Void or Cavity Material\* -- Sealant Min 1/2 in. thickness of fill material applied within the annulus, flush with top surface of floor. At point contact, a min 1/4 in. diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor.  
HILTI CONSTRUCTION CHEMICALS, DIV OF  
HILTI INC -- FS-ONE Sealant  
\*Bearing the UL Classification Mark

**HILTI**  
FIRESTOP SYSTEMS

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**System No. W-L-1175**  
F Ratings - 1 and 2 Hr (See Item 1)  
T Rating - 0 Hr  
L Rating at Ambient - Less Than 1 CFM/sq ft  
L Rating at 400 F - Less Than 1 CFM/sq ft

SECTION A-A

- Wall Assembly - The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
  - Studs - Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.
  - Gypsum Board\* - Nom 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the Fire Resistance Directory. Max diam of opening is 5-1/2 in. The hourly F and T Ratings of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
- Through Penetrant - One metallic tubing or conduit installed concentrically or eccentrically within the firestop system. Tube or conduit to be rigidly supported on both sides of wall assembly. The annular space between the tube or conduit and periphery of the steel sleeve shall be min 0 in. (point contact) to max 1 in. The following types and sizes of metallic tube or conduit may be used:
  - Conduit - Nom 4 in. diam (or smaller) steel electrical metallic tubing or steel conduit.
- Fill Void or Cavity Material\* - Putty - Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At point contact location between penetrant and wall, a 1/4 in. crown of fill material shall be applied at the conduit/wall interface on both sides of the assembly, lapping 1/4 in. on the conduit and 1/4 in. beyond the periphery of the opening.  
HILTI INC - CP618 Putty Stick  
\*Bearing the UL Classification Mark

**HILTI**  
FIRESTOP SYSTEMS

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**CLASSIFIED**  
UL C US

**System No. W-J-1124**  
F Rating - 2 Hr  
T Rating - 0 Hr

SECTION A-A

- Wall Assembly Min 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. \* Max diameter of opening 5 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
- Through Penetrant One metallic pipe, conduit or tubing installed concentrically or eccentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of wall assembly. The annular space between the pipe, conduit or tube and periphery of the opening shall be min 0 in (point contact) to max 1/2 in. The following types and sizes of metallic pipes, conduit or tube may be used:
  - Steel Pipe Nom 4 in. diam (or smaller) Schedule 40 (or heavier) steel pipe.
  - Iron Pipe Nom 4 in. diam (or smaller) cast or ductile iron pipe.
  - Conduit Nom 4 in. diam (or smaller) steel electrical metallic tubing (EMT) or steel conduit.
  - Copper Tube Nom 4 in. diam (or smaller) Type L (or heavier) copper tube.
  - Copper Pipe Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
- Fill, Void or Cavity Material\* - Sealant Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe and wall, a min 3/8 in diam bead of fill material shall be applied at the pipe/wall interface.  
HILTI CONSTRUCTION CHEMICALS, DIV OF  
HILTI INC -- CP606 Flexible Firestop Sealant  
\*Bearing the UL Classification Mark

**HILTI**  
FIRESTOP SYSTEMS

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