

AFGHAN NATIONAL ARMY

STANDARD BUILDING DESIGN

300 STUDENT CLASSROOM BUILDING (2) 150 STUDENT CLASSROOMS

100% FINAL DESIGN SUBMITTAL



US ARMY CORPS OF ENGINEERS
AFGHANISTAN ENGINEER DISTRICT

Rev.	Date	Description
0		

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AFGHAN NATIONAL ARMY
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STANDARD DESIGN

300 STUDENT CLASSROOM BUILDING
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COVER SHEET

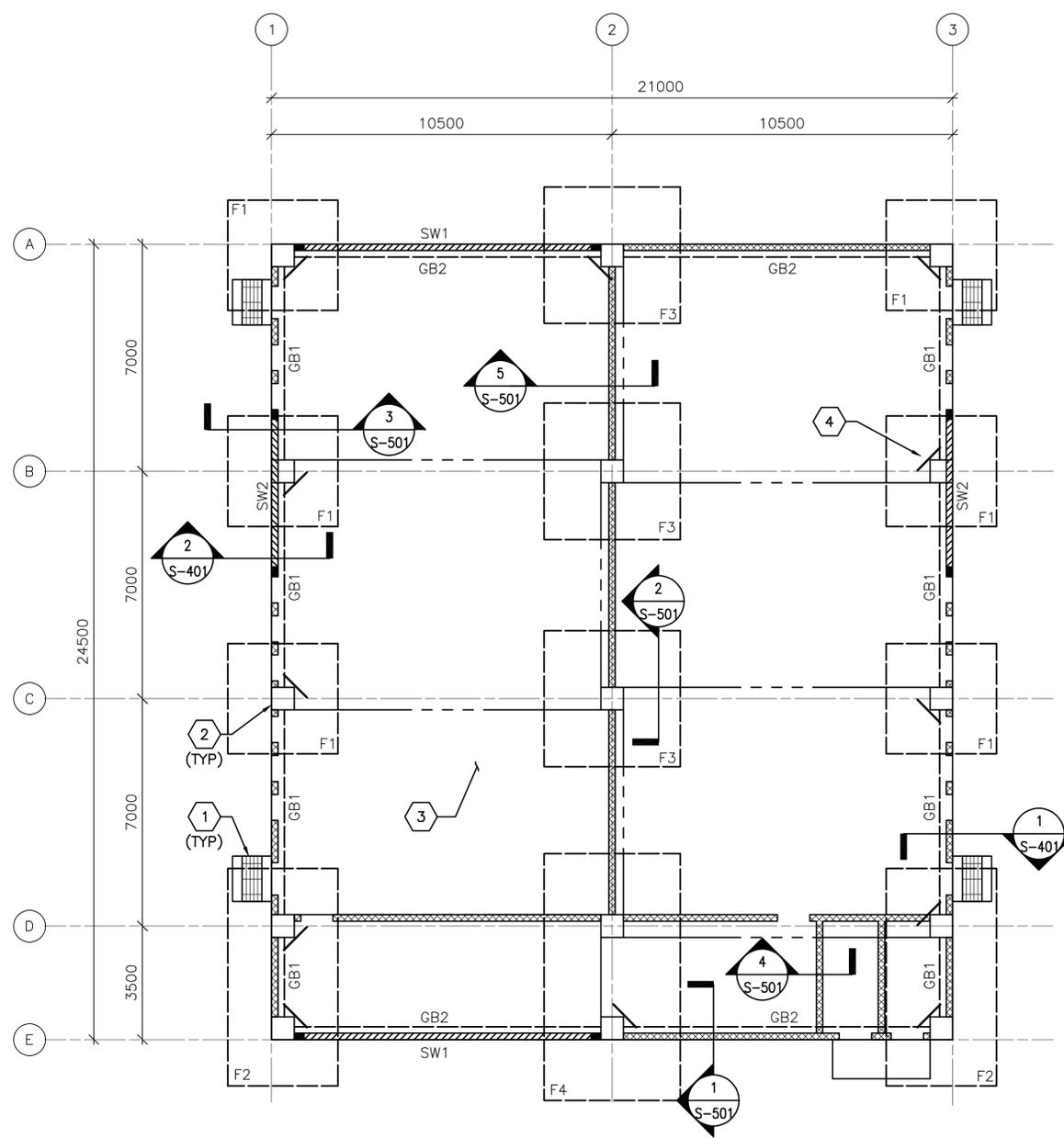
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A



1
FOUNDATION/SLAB PLAN
SCALE: 1:100

FOUNDATION/SLAB PLAN NOTES:

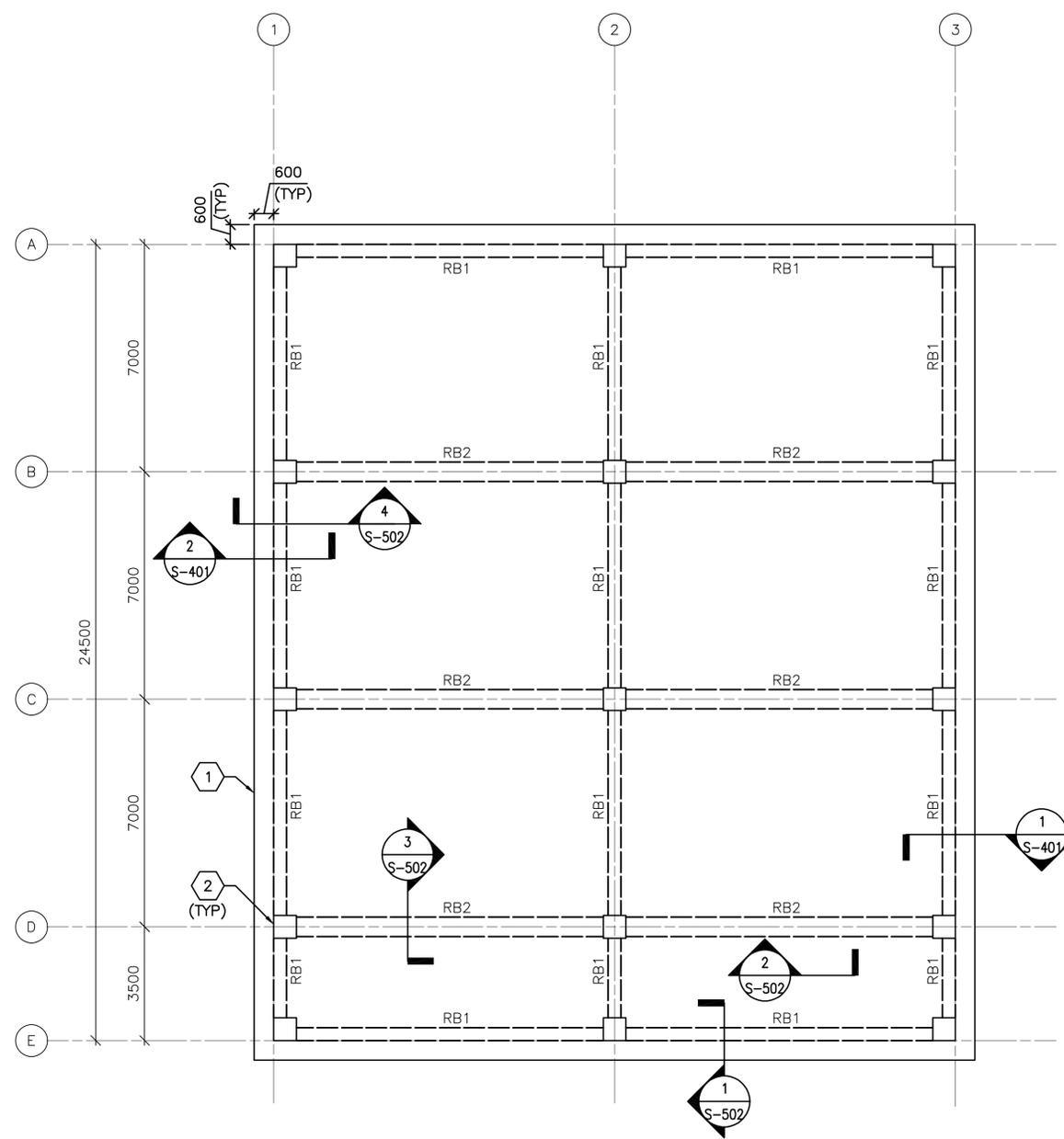
- REFER TO SHEET S-001 FOR STRUCTURAL NOTES AND DESIGN CRITERIA.
- FINISH FIRST FLOOR ELEVATION SHALL BE (DATUM 0.00) ALL PLUS OR MINUS DIMENSIONS INDICATED ON PLAN OR REFERRED TO IN NOTES RELATE TO FINISH FIRST FLOOR ELEVATION.
- SLAB-ON-GRADE IS 150 WITH #13 @ 300 OC EW LOCATED 38 FROM T/SLAB.
- TOP OF EXTERIOR FOOTINGS SHALL BE -950 UNLESS OTHERWISE INDICATED.
- TOP OF INTERIOR FOOTINGS WITHOUT GRADE BEAM ABOVE SHALL BE -600.
- COLUMN FOOTINGS INDICATED BY F# ON PLAN. REFER TO COLUMN FOOTING SCHEDULE ON SHEET S-601.
- REFER TO COLUMN SCHEDULE ON SHEET S-601.
- GRADE BEAM INDICATED BY GB# ON PLAN, REFER TO BEAM SCHEDULE ON SHEET S-601.
- SHEARWALL INDICATED BY SW# ON PLAN, REFER TO SHEARWALL SCHEDULE ON SHEET S-601.
- SEE TYP EXTERIOR & INTERIOR CMU WALL DETAILS ON SHEET S-701.
- SEE MECHANICAL AND ELECTRICAL SHEETS FOR CONCRETE PAD LOCATIONS, SIZES, AND THICKNESS NOT SHOWN. SEE SHEET S-701 FOR DETAILS.
- THICKENED SLAB UNDER CMU PERIMETER/PARTITION WALLS NOT SHOWN FOR CLARITY.

FOUNDATION/SLAB PLAN KEY NOTES: (X)

- CONC SLAB (ENTRANCE)-SEE ARCH DWGS FOR INFORMATION
- REINF CONC COLUMN
- REINF CONC SLAB-ON-GRADE
- (2)-#13 @ RE-ENTRANT CORNERS - SEE S-701 FOR INFORMATION

FOUNDATION/SLAB PLAN LEGEND:

- REINF CONC SHEAR WALL
- REINF CMU WALL
- CONTROL JOINT



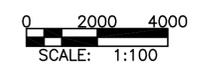
2
ROOF FRAMING PLAN
SCALE: 1:100

ROOF FRAMING PLAN NOTES:

- REFER TO SHEETS S-001 FOR STRUCTURAL NOTES AND DESIGN CRITERIA.
- TOP OF SLAB ELEVATION = 5000 UNLESS NOTED OTHERWISE.
- ROOF SLAB IS 300 WITH #16 @ 300 OC EW T&B.
- ROOF BEAM INDICATED BY RB# ON PLAN. REFER TO BEAM SCHEDULE ON SHEET S-601.
- COORDINATE WITH ARCHITECTURAL SHEETS FOR COLD-FORMED STEEL OVERBUILD FRAMING ABOVE ROOF SLAB.
- COLD-FORMED METAL OVERBUILD ROOF FRAMING NOT SHOWN FOR CLARITY. SEE OVERBUILD ROOF FRAMING DETAILS AND SECTIONS ON SHEET S-702.
- CMU PARTITION WALLS (BELOW ROOF SLAB) NOT SHOWN FOR CLARITY.
- OVERHANG AREAS OF ROOF SLAB CONTAIN ROOF VENT PENETRATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR INFORMATION.

ROOF FRAMING PLAN KEY NOTES: (X)

- CONC ROOF SLAB (BELOW ROOF OVERBUILD)
- REINF CONC COLUMN (BELOW CONC ROOF SLAB)



UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ON DRAWINGS ARE IN MILLIMETERS (mm)

APPROVED:
Chris White
A/E DESIGNER OF RECORD



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300 STUDENT CLASSROOM BUILDING
(2) 150 STUDENT CLASSROOMS
FOUNDATION/SLAB PLAN
ROOF FRAMING PLAN

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S-101



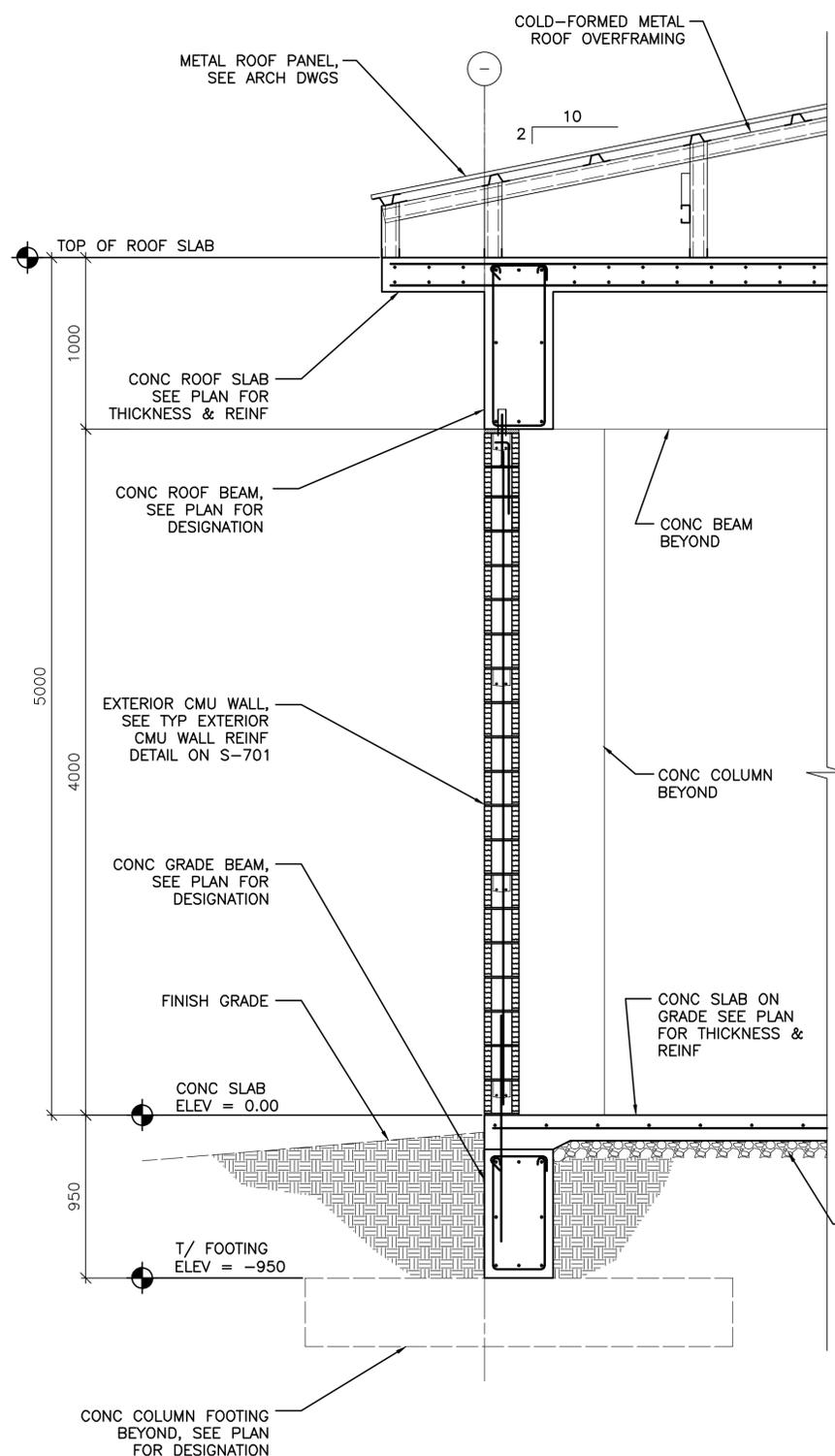
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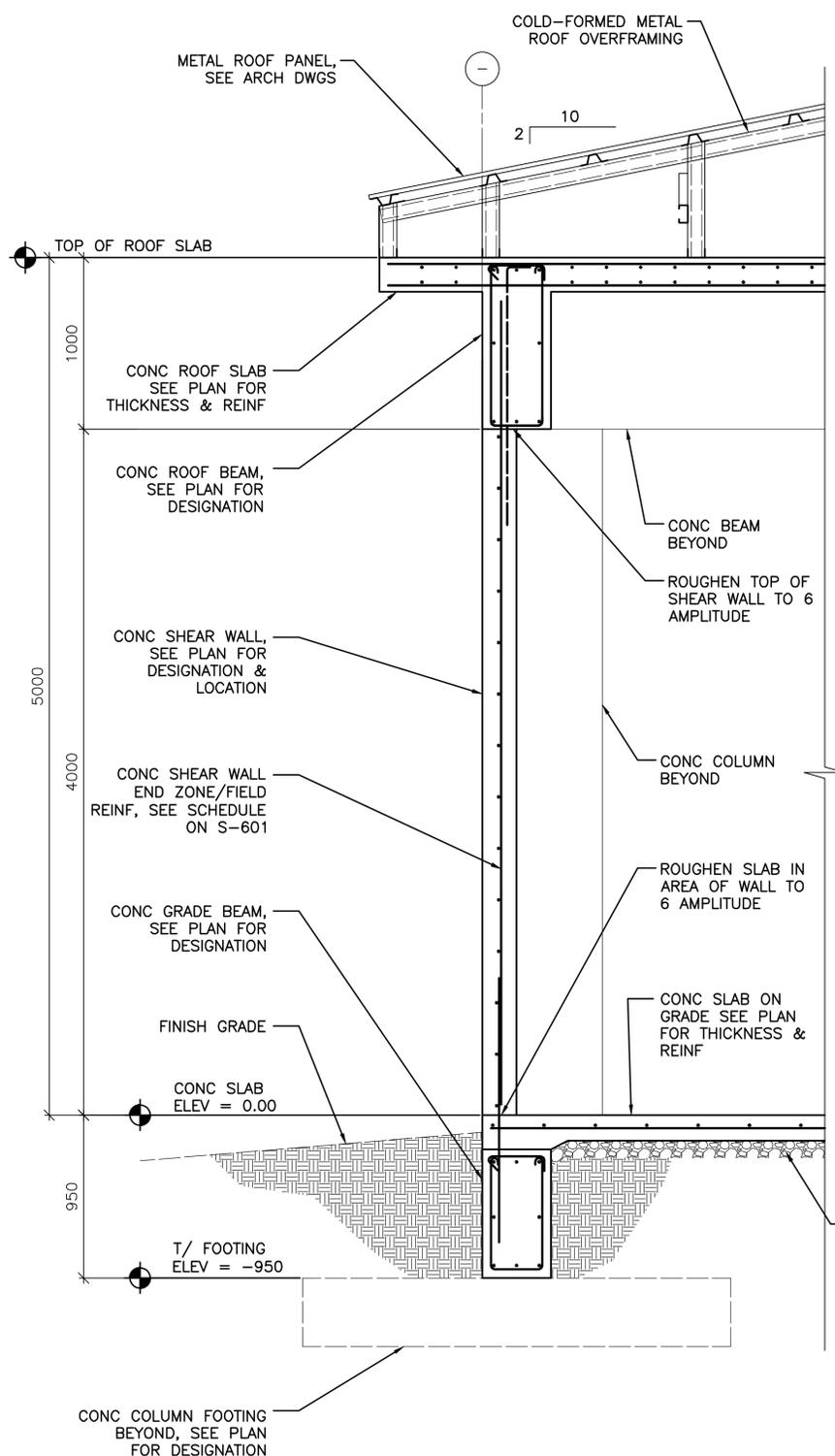
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BUILDING SECTIONS

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S-401



TYPICAL WALL SECTION AT EXTERIOR MASONRY WALL
SCALE: 1:20



TYPICAL WALL SECTION AT CONCRETE SHEAR WALL
SCALE: 1:20



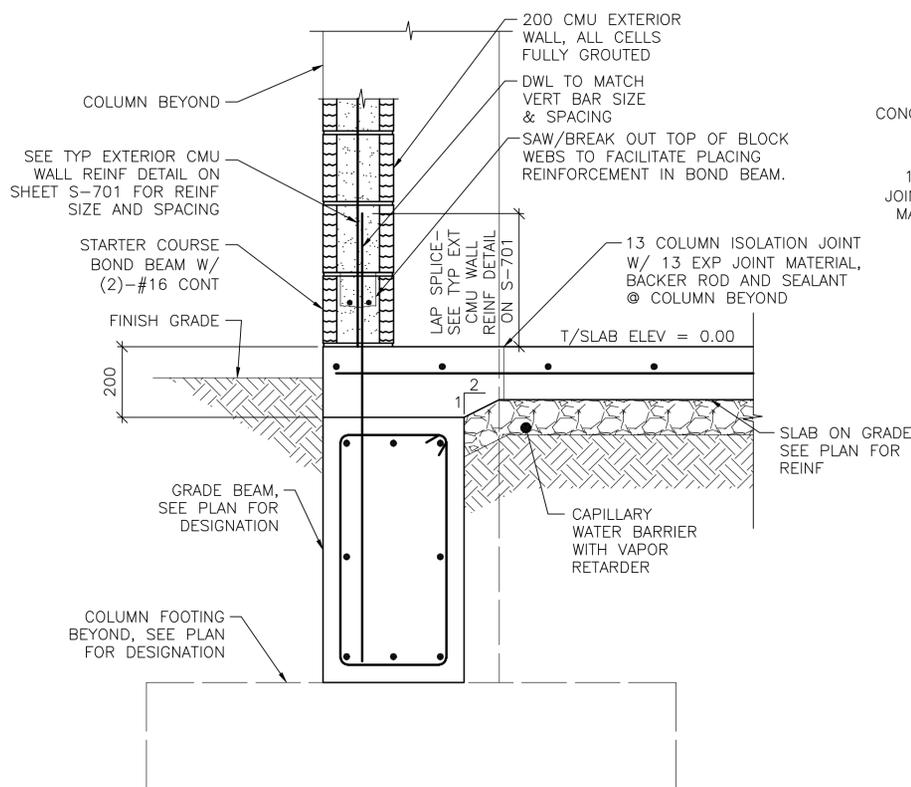
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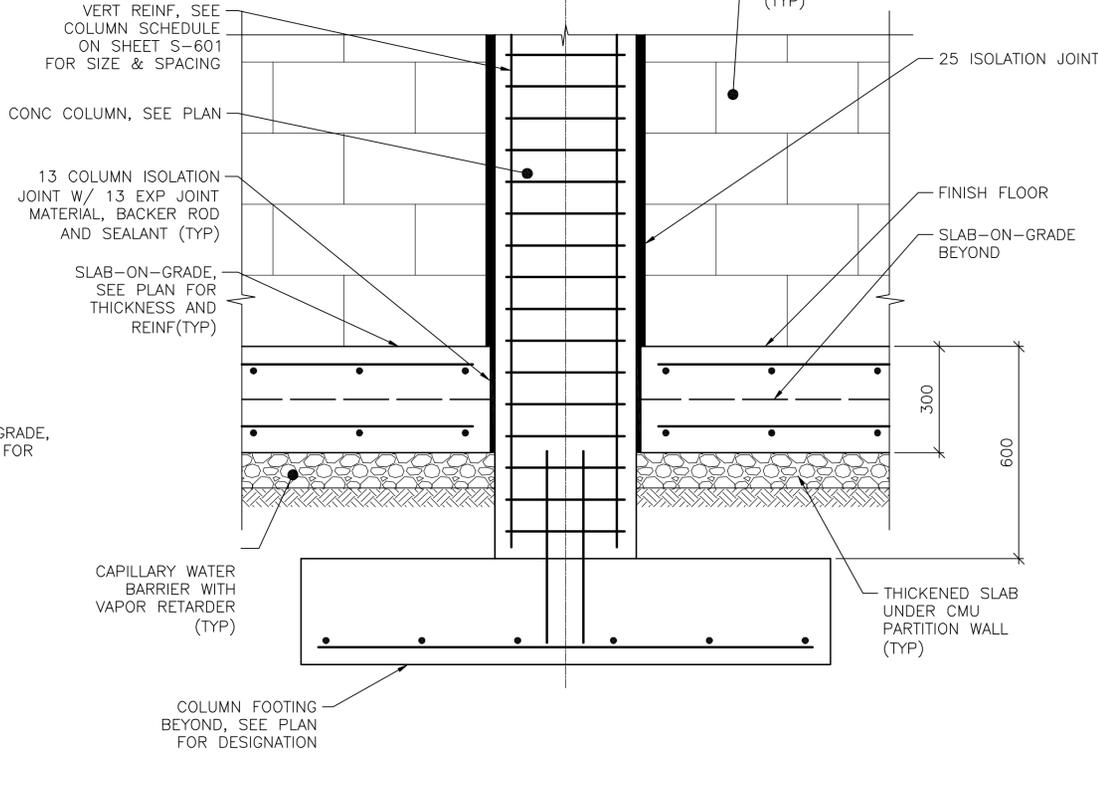




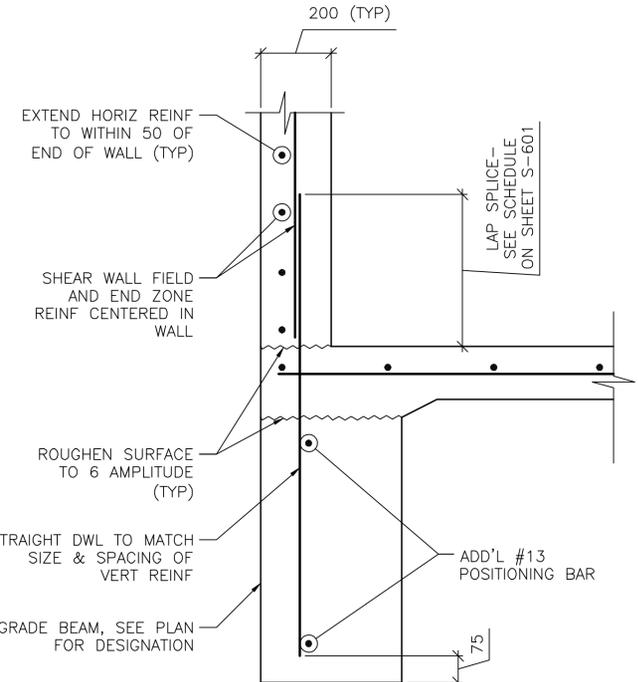
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1 SECTION
S-101 SCALE: 1:10

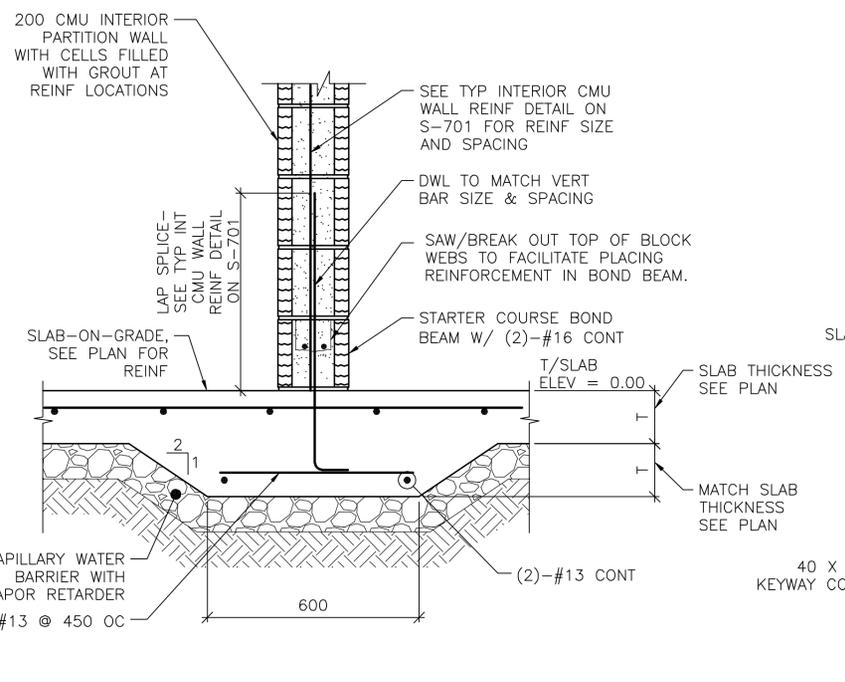


2 SECTION
S-101 SCALE: 1:10

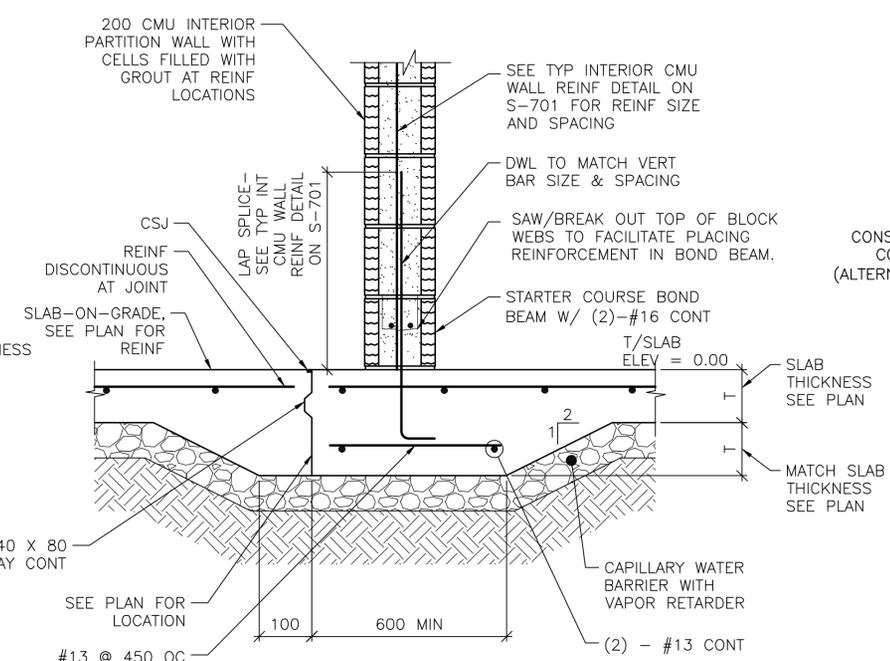


3 SECTION
S-101 SCALE: 1:10

NOTE:
 1. SECTION DEPICTS SHEAR WALL TERMINATION ONLY. GRADE BEAM REINFORCING NOT SHOWN FOR CLARITY.
 2. SEE SHEET S-601 AND SHEET S-702 FOR SCHEDULED FIELD AND END ZONE REINF.

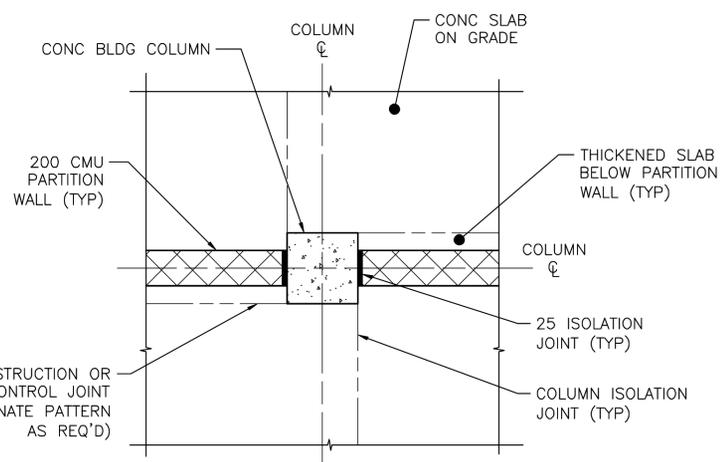


4 SECTION
S-101 SCALE: 1:10



5 SECTION
S-101 SCALE: 1:10

NOTE:
 1. DETAIL IS APPLICABLE AT CONTROL JOINTS RUNNING PARALLEL TO CMU WALLS AND WITHIN 300 OF FACE OF WALL.



A SECTION
S-501 SCALE: NTS

0 200 400
SCALE: 1:10

UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ON DRAWINGS ARE IN MILLIMETERS (mm)

APPROVED:
Chris M... [Signature]
A/E DESIGNER OF RECORD

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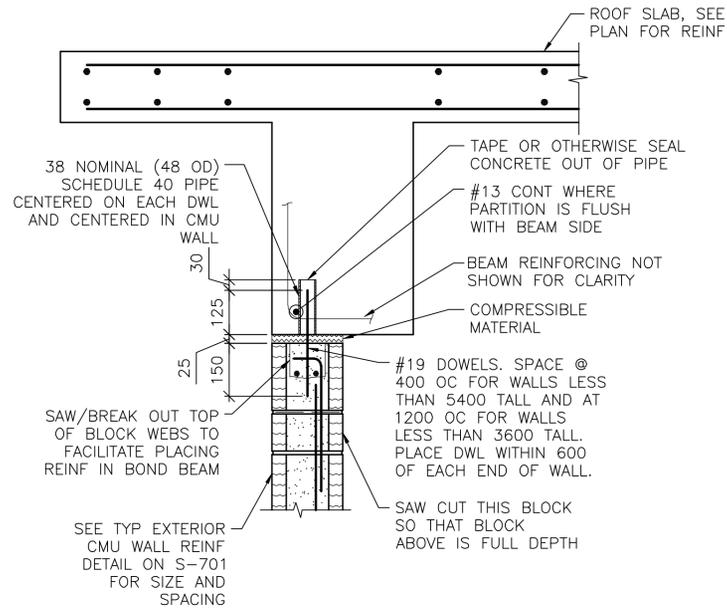
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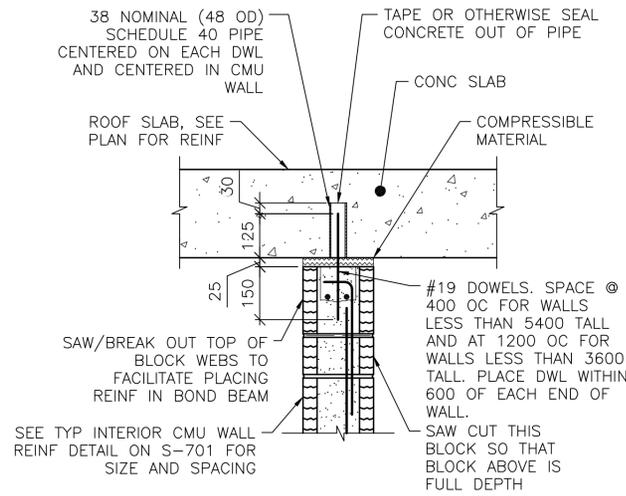
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 STANDARD DESIGN
 300 STUDENT CLASSROOM BUILDING
 (2) 150 STUDENT CLASSROOMS
 FOUNDATION SECTIONS

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S-501



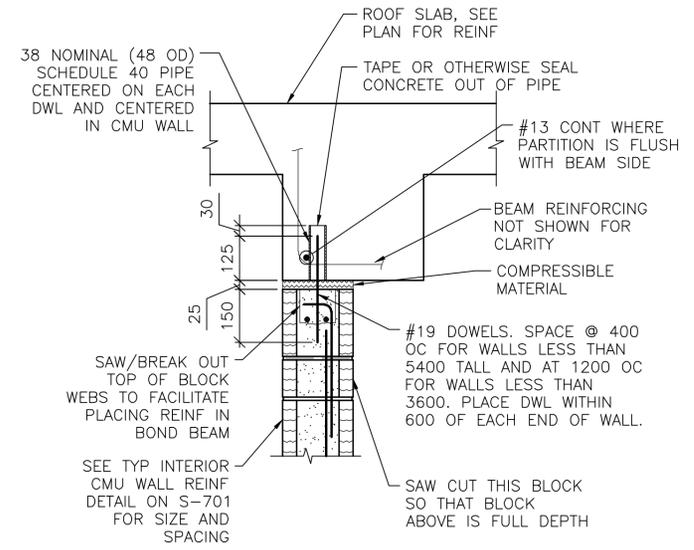
- NOTES:
1. EXTEND DOWEL REINF TO 25 CLEAR FROM TOP OF CMU WALL.

SECTION 1
SCALE: 1:10



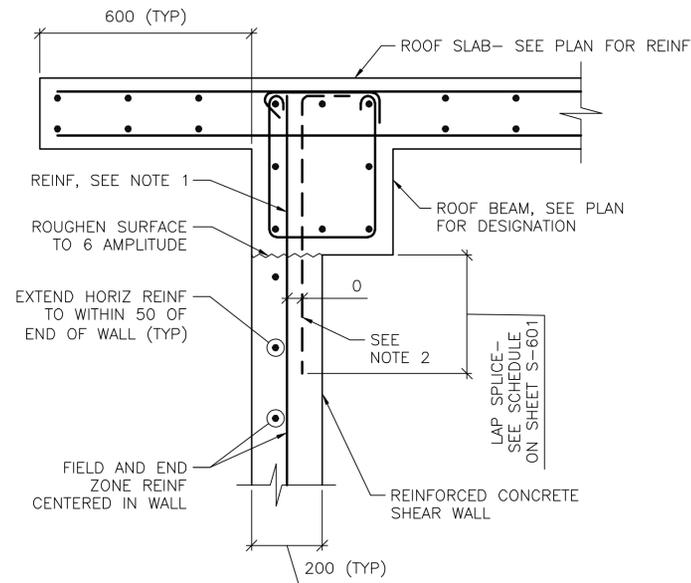
- NOTES:
1. EXTEND DOWEL REINF TO 25 CLEAR FROM TOP OF CMU WALL.
 2. SLAB REINF NOT SHOWN FOR CLARITY.

SECTION 2
SCALE: 1:10



- NOTES:
1. EXTEND DOWEL REINF TO 25 CLEAR FROM TOP OF CMU WALL.
 2. PARTITION WALL MAY BE CENTERED UNDER THE BEAM OR FLUSH AS SHOWN. SEE PLAN FOR LOCATION.
 3. SLAB REINF NOT SHOWN FOR CLARITY.

SECTION 3
SCALE: 1:10



- NOTES:
1. TERMINATE "FIELD" VERT REINF & END ZONE REINF @ 50 CLEAR FROM TOP OF ROOF SLAB.
 2. WHERE END ZONE REINFORCING CANNOT BE DEVELOPED IN BEAM DEPTH, PROVIDE HOOKED DWLS SAME SIZE & SPACING. PROVIDE TENSION LAP BELOW ROOF BEAM.
 3. SEE SHEET S-601 AND SHEET S-702 FOR SCHEDULED FIELD AND END ZONE REINF.

SECTION 4
SCALE: 1:10



UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ON DRAWINGS ARE IN MILLIMETERS (mm)

APPROVED:

Chris M. White

A/E DESIGNER OF RECORD

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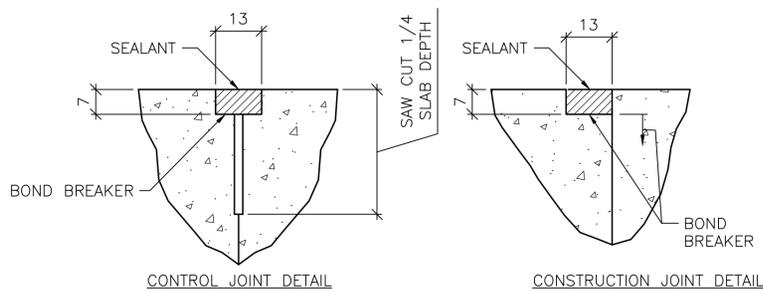
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 Submitted by: BAKER

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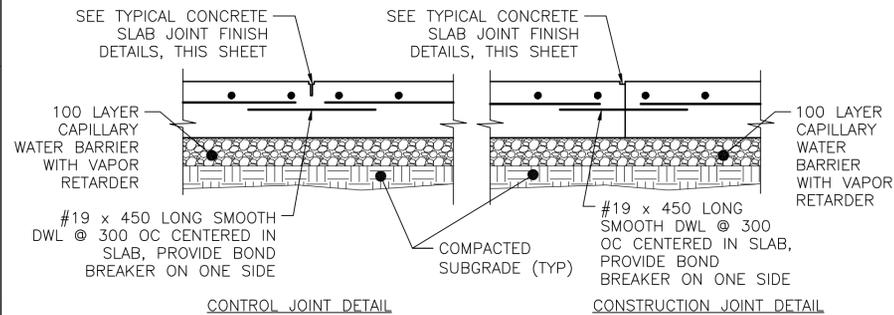
FRAMING SECTIONS

Sheet reference number:
S-502



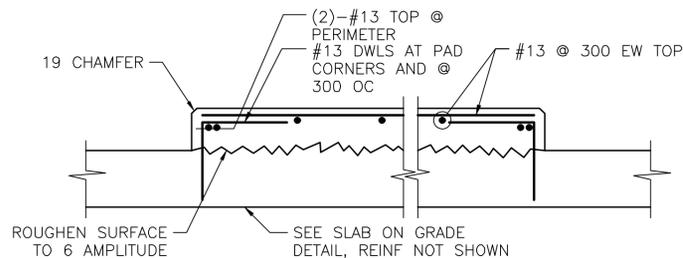
TYPICAL CONCRETE SLAB JOINT FINISH DETAILS

1
S-701
SCALE: NTS



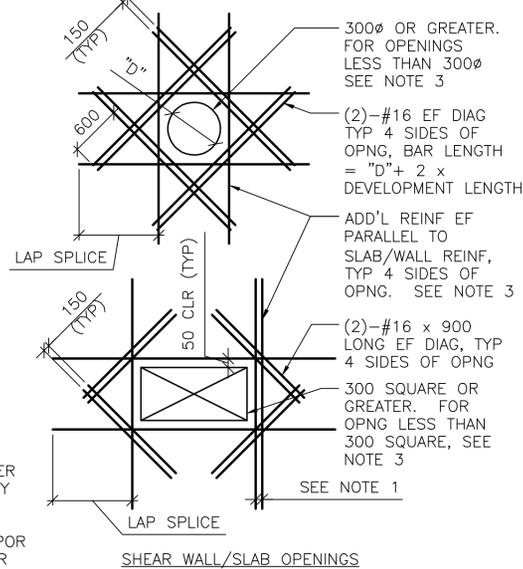
TYPICAL SLAB ON GRADE JOINT DETAIL

2
S-701
SCALE: NTS



INTERIOR EQUIPMENT PAD DETAIL

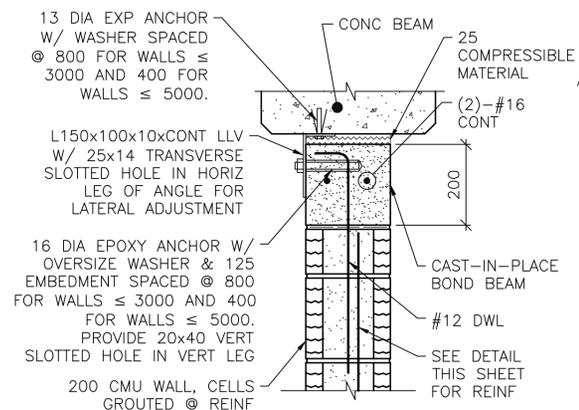
3
S-701
SCALE: NTS



- DETAIL NOTES:**
- WHERE MORE THAN ONE ADDITIONAL BAR IS REQUIRED PARALLEL TO THE EXISTING SLAB/WALL REINFORCING THE ADDITIONAL REINFORCING BARS SHALL BE SPACED AT 100 ON CENTER.
 - ADDITIONAL REINFORCING PARALLEL TO THE SLAB/WALL REINFORCING SHALL BE #16 BARS THAT PROVIDE A STEEL AREA ON EACH SIDE OF THE OPENING EQUAL TO 1/2 THE AREA OF THE REINFORCING CUT BY THE OPENING.
 - FOR OPENINGS WITH SIDES OR DIAMETERS LESS THAN 300 SPREAD THE SLAB/WALL REINFORCING TO CLEAR THE OPENING.

ADD'L CONCRETE REINFORCEMENT DETAILS

4
S-701
SCALE: NTS

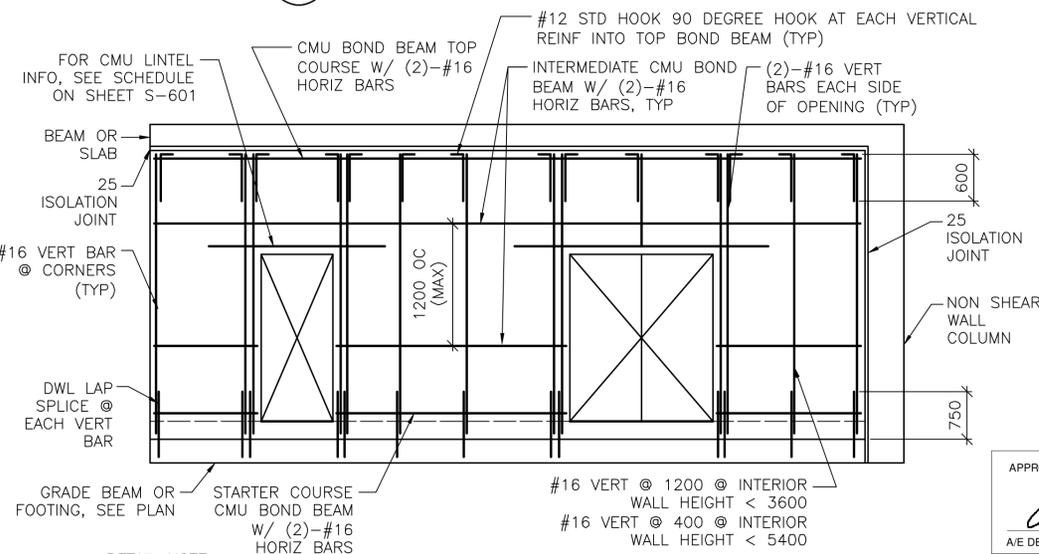


- NOTE:**
- AT ANCHOR BOLTS, ADD AN ADDITIONAL 25 COMPRESSIBLE MATERIAL BELOW EXP ANCHOR HEAD.

- NOTES:**
- THIS DETAIL IS AN ALTERNATE TOP OF WALL ANCHORAGE DETAIL TO BE USED AT THE CONTRACTOR'S OPTION IN LIEU OF DETAILS SHOWN ON S-400 & S-500 DRAWINGS.
 - CAST-IN-PLACE BOND BEAM SHOWN AT TOP OF WALL IS ALSO APPLICABLE FOR INTERMEDIATE AND STARTER COURSE BOND BEAMS WITHIN WALL.

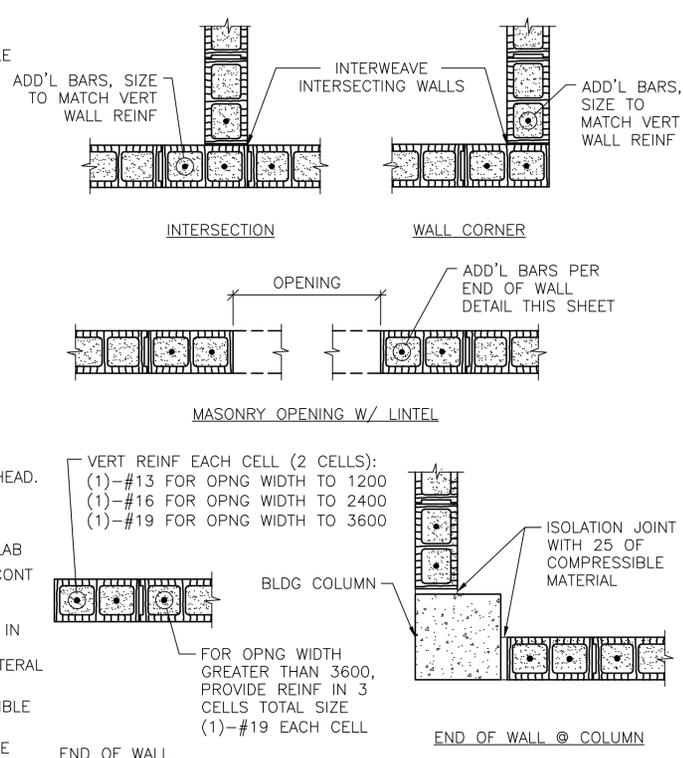
ALTERNATE TOP OF CMU WALL BRACING DETAILS

5
S-701
SCALE: NTS



- DETAIL NOTE:**
- CENTER VERT REINF IN WALL.
 - GROUT ALL CMU CELLS.
 - REFERENCE ARCH DWGS FOR JOINT INFORMATION
 - DOWELS BETWEEN TOP BOND BEAM AND BEAM/SLAB ABOVE (INCLUDING EMBEDDED PIPE SLEEVE) NOT SHOWN FOR CLARITY. SEE SPECIFIC S-500 SERIES DWGS FOR INFO.
 - FOR INFORMATION ON ALTERNATE CAST-IN-PLACE WALL BOND BEAMS, REFERENCE ALTERNATE TOP OF CMU WALL BRACING DETAILS THIS SHEET.

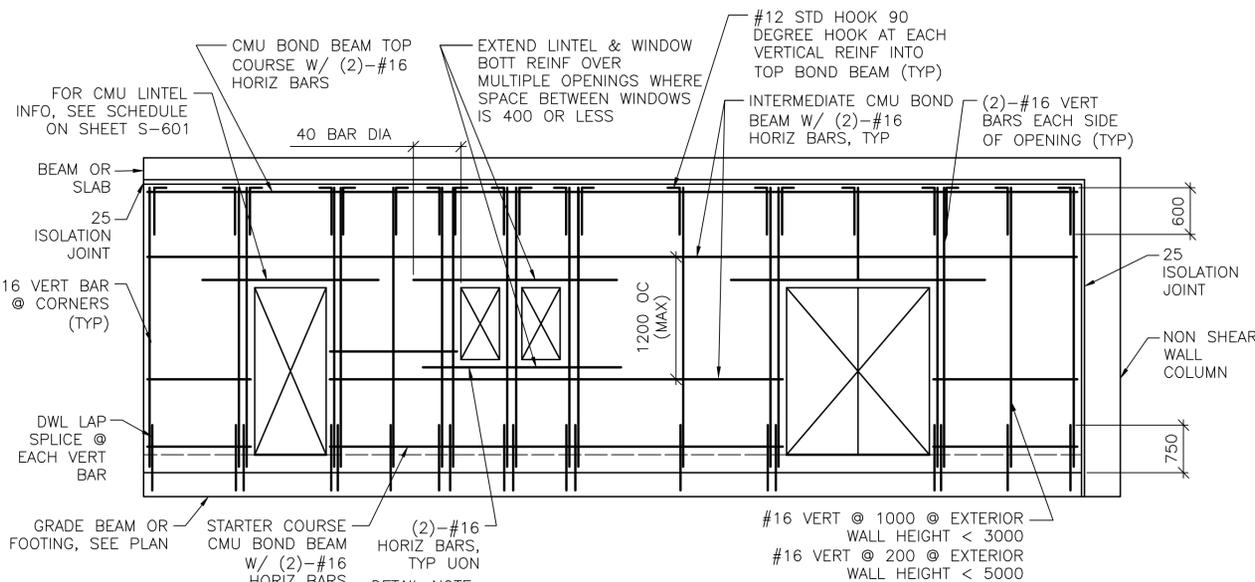
8
S-701
SCALE: NTS



- NOTES:**
- OPENING WIDTH SHALL NOT EXCEED 3600 FOR THIS TYPE OF JAMB.
 - ALL CELLS FULLY GROUTED AT EXTERIOR WALLS. AT INTERIOR WALLS, ONLY GROUT CELLS CONTAINING REINF.

TYP CMU DETAILS

6
S-701
SCALE: NTS



- DETAIL NOTE:**
- CENTER VERT REINF IN WALL.
 - GROUT ALL CMU CELLS.
 - REFERENCE ARCH DWGS FOR JOINT INFORMATION
 - DOWELS BETWEEN TOP BOND BEAM AND BEAM/SLAB ABOVE (INCLUDING EMBEDDED PIPE SLEEVE) NOT SHOWN FOR CLARITY. SEE SPECIFIC S-500 SERIES DWGS FOR INFO.
 - FOR INFORMATION ON ALTERNATE CAST-IN-PLACE WALL BOND BEAMS, REFERENCE ALTERNATE TOP OF CMU WALL BRACING DETAILS THIS SHEET.

7
S-701
SCALE: NTS

TYP EXTERIOR CMU WALL REINF DETAIL

UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS (mm)

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Chin Wada
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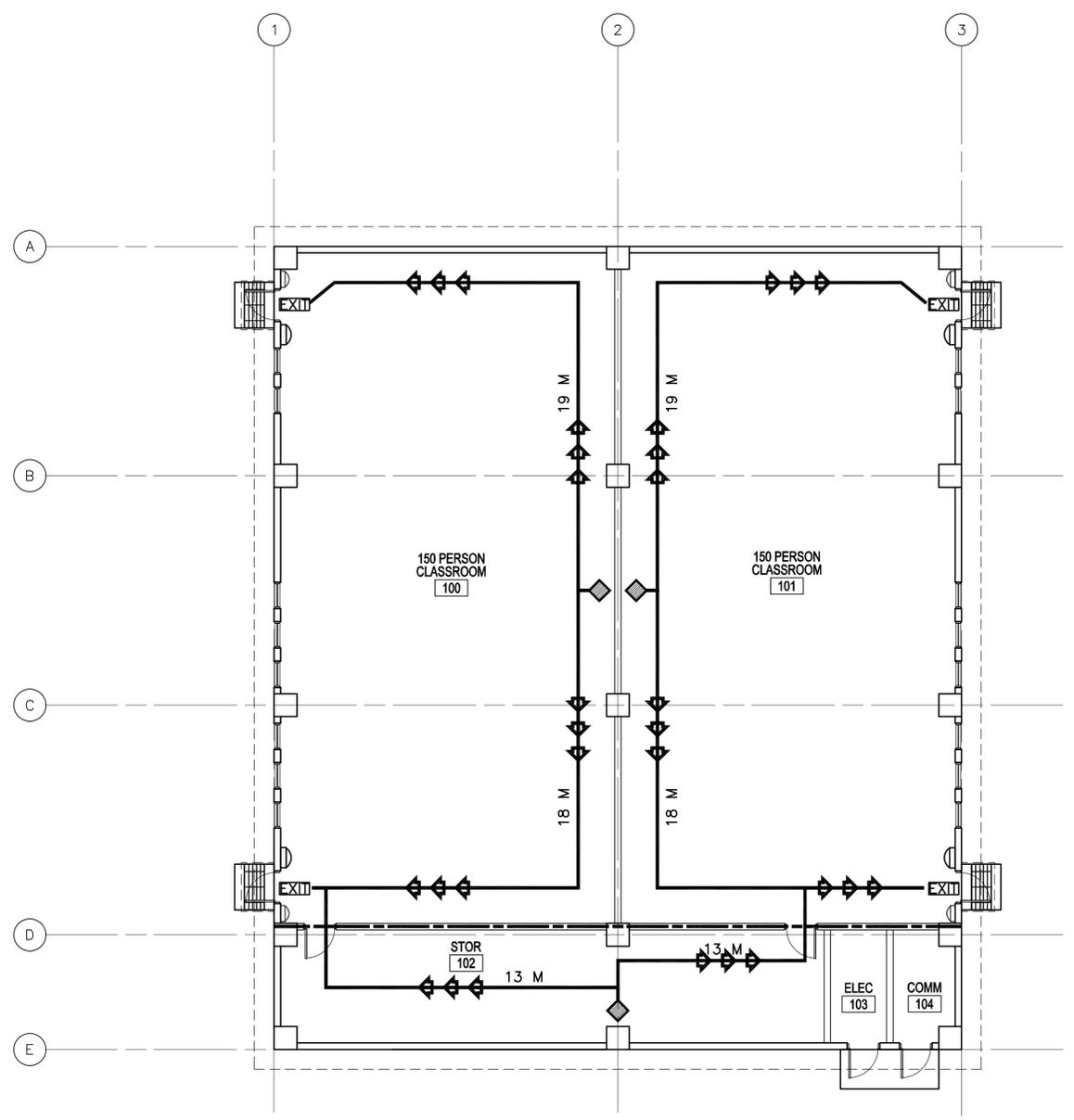
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TYPICAL DETAILS
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S-701



1
A-001
LIFE SAFETY PLAN
SCALE: 1:100

CODE ANALYSIS:

- REFERENCES:**
2006 INTERNATIONAL BUILDING CODE (2006 IBC)
2006 LIFE SAFETY CODE (2006 NFPA 101)
- IBC OCCUPANCY CLASSIFICATION:**
GROUP A-3 (ASSEMBLY ≤300 NFPA 101 6.1.2 AND CHAPTER 12)
- TYPE OF CONSTRUCTION (IBC):** TYPE II-B (UNPROTECTED/NONSPRINKLERED)
- IBC TABLE 503: ALLOWABLE HEIGHT AND BUILDING AREAS:**
GROUP A-3
ALLOWABLE AREA: 883 SM
ALLOWABLE HEIGHT: 2 STORIES (16 M)
GROUP A-3
PROPOSED AREA: 515 SM
PROPOSED HEIGHT: 1 STORY (<16 M)
- IBC TABLE 601 & 602: FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS FOR TYPE II-B**

BUILDING ELEMENT	RATING (HOUR)	REFERENCE
STRUCTURAL FRAME (COLUMNS, GIRDERS & TRUSSES)	0	TABLE 601
BEARING WALLS EXTERIOR	0	TABLE 601
BEARING WALLS INTERIOR	0	TABLE 601
NONBEARING WALLS & PARTITIONS INTERIOR	0	TABLE 601
FLOOR CONSTRUCTION	0	TABLE 601
ROOF CONSTRUCTION	0	TABLE 601
EXTERIOR WALL	0	TABLE 602
- IBC TABLE 803.5 - INTERIOR WALL AND CEILING FINISH REQUIREMENTS FOR A-3 OCCUPANCY/NONSPRINKLERED**

GROUP	EXIT ENCLOSURES AND EXIT PASSAGEWAY	CORRIDORS	ROOMS AND ENCLOSED SPACES
A-3	A	A	C
- NFPA 101 TABLE 7.3.1.2 - OCCUPANT LOAD**
ASSEMBLY ≤ 300 = 1.4 NET SM/PERSON CALCULATED = 367 OCCUPANTS
- NFPA 101 TABLE 7.3.3.1 - EGRESS CAPACITY**
ASSEMBLY = 5 MM PER OCCUPANT
REQUIRED: 1835 MM (367 OCCUPANTS x 5 MM PER OCCUPANT)
PROPOSED EGRESS CAPACITY: 3600 MM: (4) 900 MM DOORS
- NFPA 101 PARAGRAPH 12.2.6 - EXIT ACCESS TRAVEL DISTANCE**
REQUIRED: 60 METERS
PROPOSED: 19 METERS
- NFPA 101 PARAGRAPH 12.3.6 (1) - CORRIDOR FIRE-RESISTANCE RATING (HOUR)**
CORRIDORS ARE NOT REQUIRED AS DOORS EXIT DIRECTLY TO OUTSIDE
- NFPA 101 PARAGRAPH 12.2.4.1 AND 7.4.1.1 - MINIMUM NUMBER OF EXITS**
REQUIRED: 2 MINIMUM
PROPOSED: 4 EXITS
- INCIDENTAL USE AREAS: IBC TABLES 508.2**
1 HOUR SEPARATION FOR STORAGE ROOMS OVER 9.3 SM
DOOR SHALL BE 45 MINUTE (IBC TABLE 715.4 AND NFPA 101 TABLE 8.3.4.2)

LEGEND:

- DENOTES PATHS OF EXIT TRAVEL
- DENOTES DOOR AS AN EMERGENCY EXIT
- DENOTES STARTING POINT FOR TRAVEL DISTANCE
- DENOTES FIRE EXTINGUISHER LOCATIONS
- (1) HOUR RATED WALL
- (2) HOUR RATED WALL
- (3) HOUR RATED WALL

LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE NOTED
SCALE: 1:100

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(2) 150 STUDENT CLASSROOMS

LIFE SAFETY PLAN

Sheet reference number:
A-001

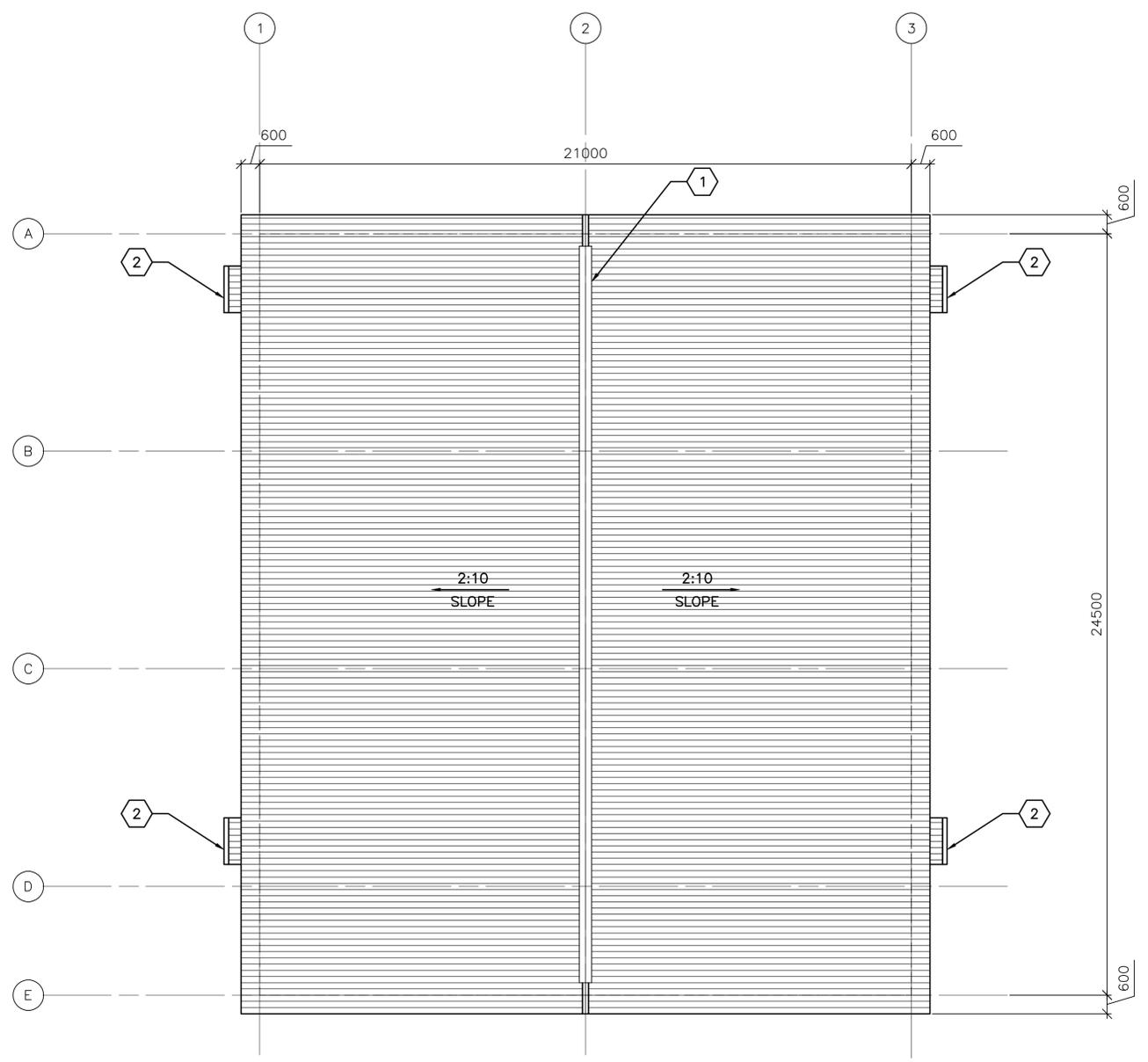
1

2

3

4

5



1
A-102 **ROOF PLAN**
SCALE: 1:100

GENERAL NOTES:

- A. THE APPROXIMATE LOCATION OF ROOF DEVICES AND PENETRATIONS ARE SHOWN ON THE ROOF PLAN FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNDERSTANDING THE ACTUAL LOCATION OF THESE AND ALL OTHER ITEMS PRIOR TO BEGINNING CONSTRUCTION. COORDINATE ALL ROOF PENETRATIONS WITH STRUCTURAL, MECHANICAL AND PLUMBING WORK.
- B. UNLESS OTHERWISE NOTED, NOTES, DETAILS OR FEATURES INDICATED FOR ONE CONDITION SHALL BE APPLICABLE FOR ALL ALIKE AND SIMILAR CONDITIONS.
- C. STOCKPILING OF MATERIALS, EQUIPMENT AND ANY OTHER ITEMS ON THE ROOF IS PROHIBITED.
- D. ROOFS SHALL BE CORRUGATED METAL ROOF PANELS ON COLD-FORMED METAL FRAMING ON CONCRETE SLAB.



Date	Rev.	Description	Mark	Appr.	Date
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KEY NOTES:

- 1. CONTINUOUS METAL RIDGE VENT - SEE DETAIL 4/A-501.
- 2. CANOPY - SEE DETAIL 2/A-504.



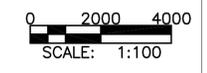
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Submitted by: BAKER	File name:	Design file no.:	
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STANDARD DESIGN
300 STUDENT CLASSROOM BUILDING
(2) 150 STUDENT CLASSROOMS
ROOF PLAN

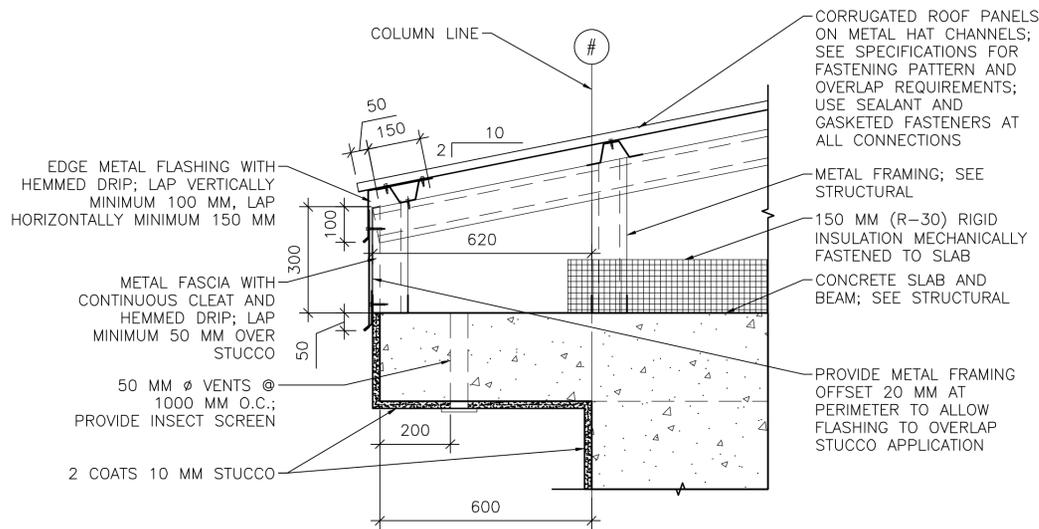
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Kevin R. Chafin
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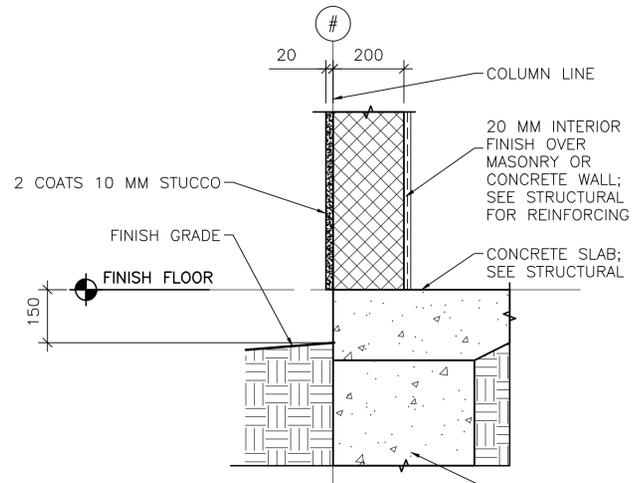
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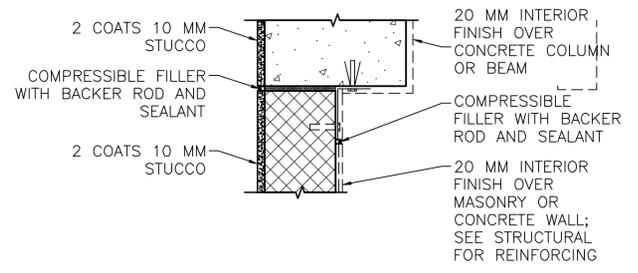
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A-102



1 EAVE DETAIL
A-501 SCALE: 1:10

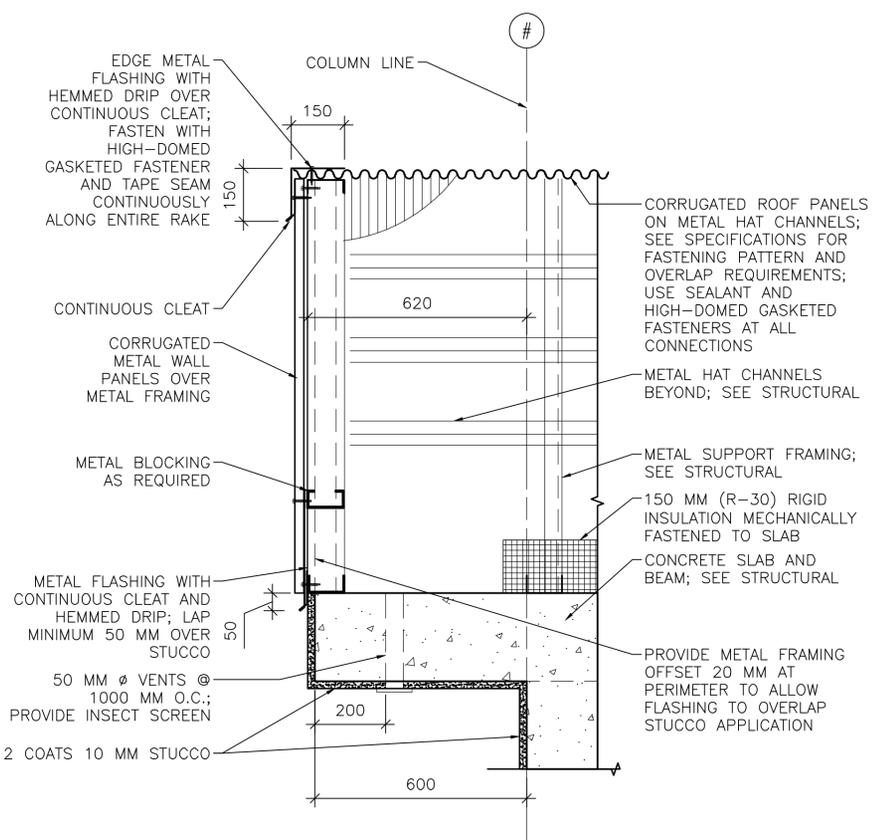


2 STUCCO BASE DETAIL
A-501 SCALE: 1:10

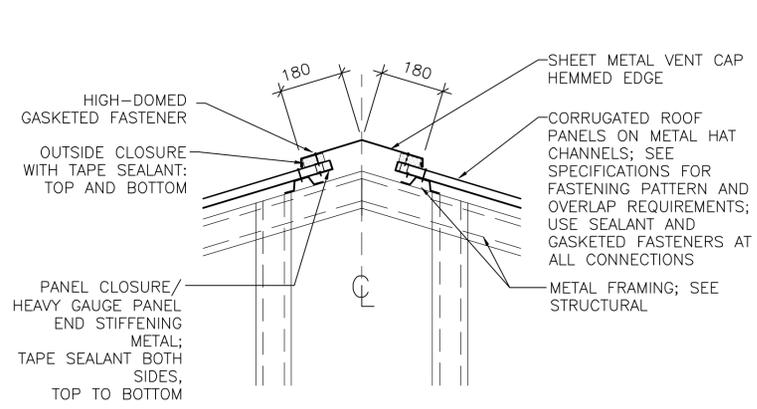


NOTE: DETAIL TYPICAL AT ALL WALL/COLUMN AND WALL/BEAM LOCATIONS. SEE ALTERNATE BRACING DETAIL BELOW 2B/A-501.

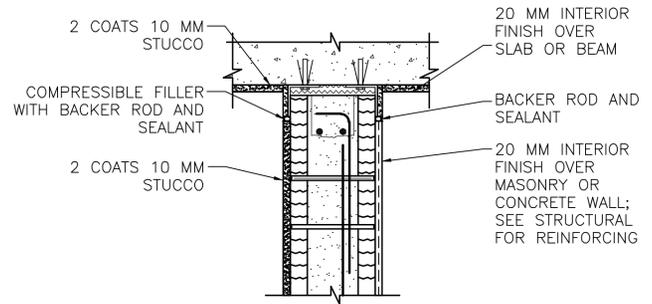
2A STUCCO JOINT DETAIL
A-501 SCALE: 1:10



3 RAKE/EAVE DETAIL
A-501 SCALE: 1:10



4 RIDGE VENT DETAIL
A-501 SCALE: 1:10



2B ALTERNATE BRACING DETAIL
A-501 SCALE: 1:10

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SCALE: 1:10

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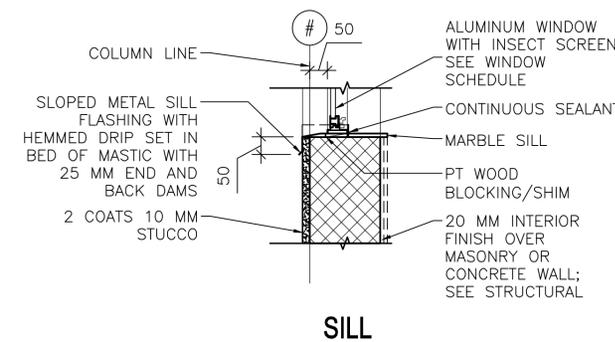
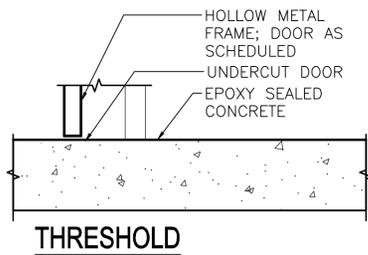
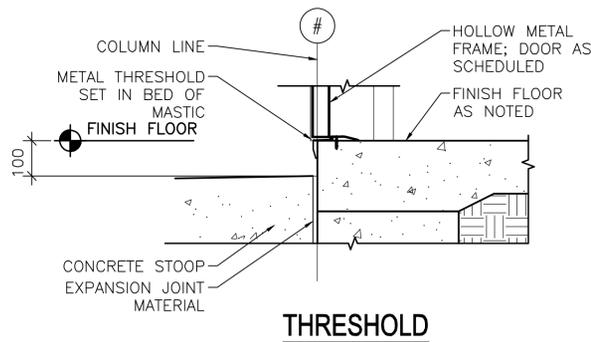
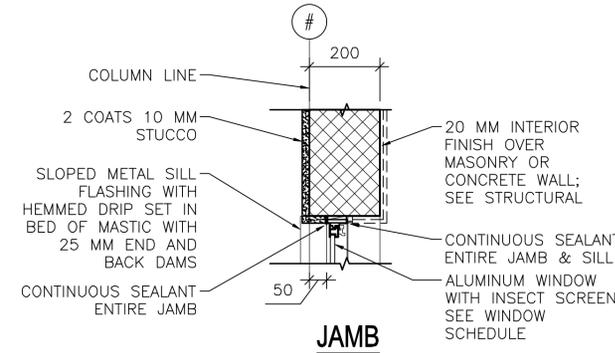
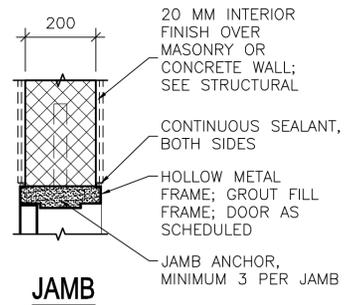
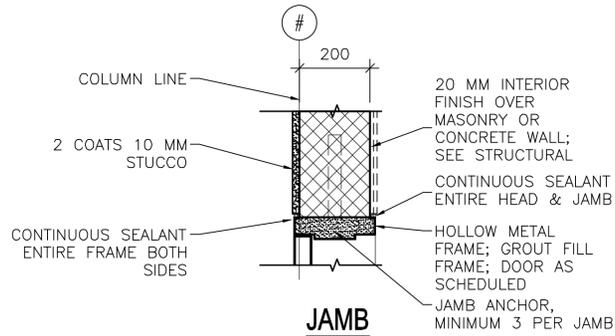
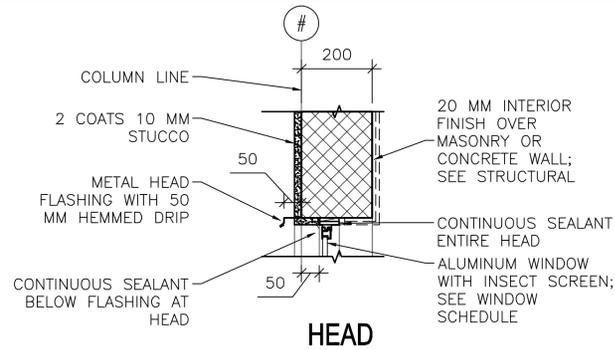
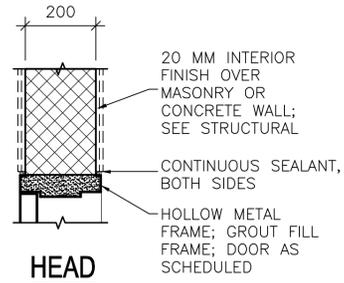
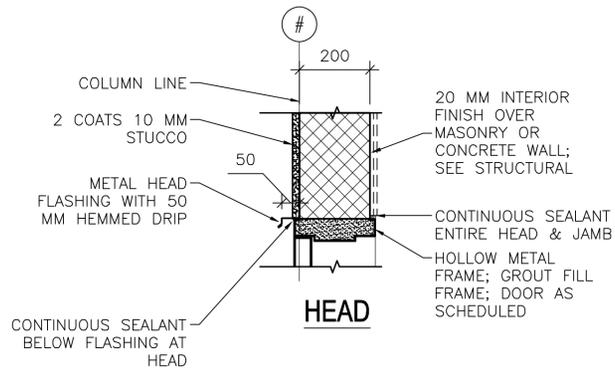
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Cld by: NLJ
Reviewed by: LHM
Submitted by: BAKER

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Plot scale: x:1

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EXTERIOR DETAILS

Sheet reference number:
A-501



1 EXTERIOR DOOR DETAILS
A-502 SCALE: 1:10

2 INTERIOR DOOR DETAILS
A-502 SCALE: 1:10

3 EXTERIOR WINDOW DETAILS
A-502 SCALE: 1:10



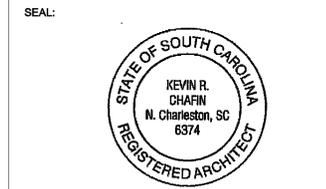
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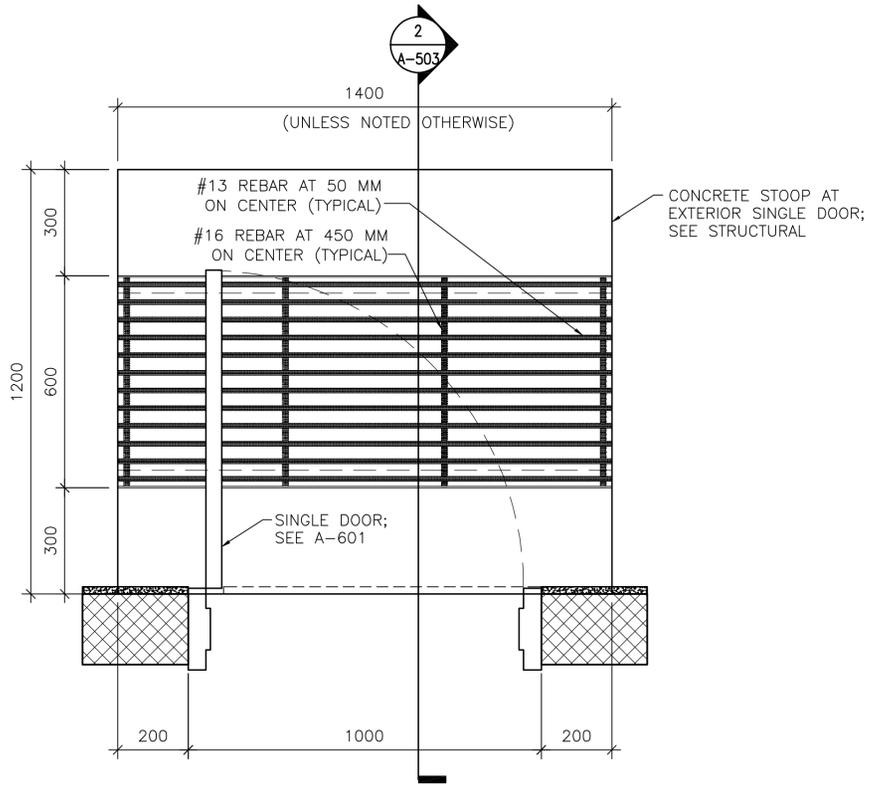
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HEAD, JAMB & SILL
DETAILS

APPROVED:
K. R. Chafin
A/E DESIGNER OF RECORD

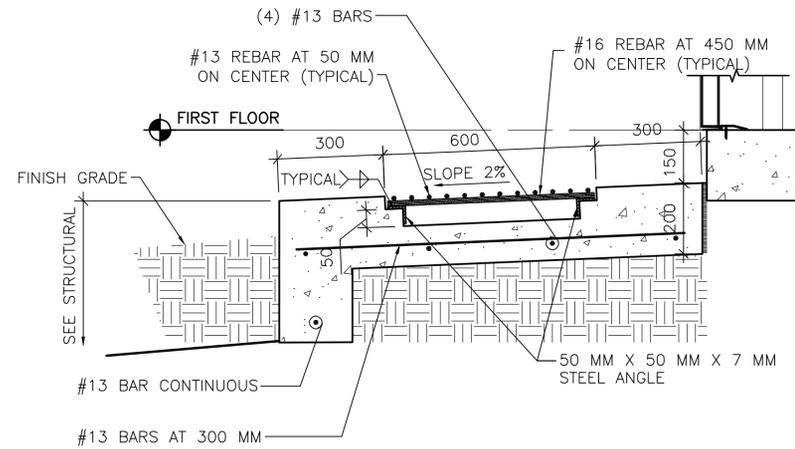


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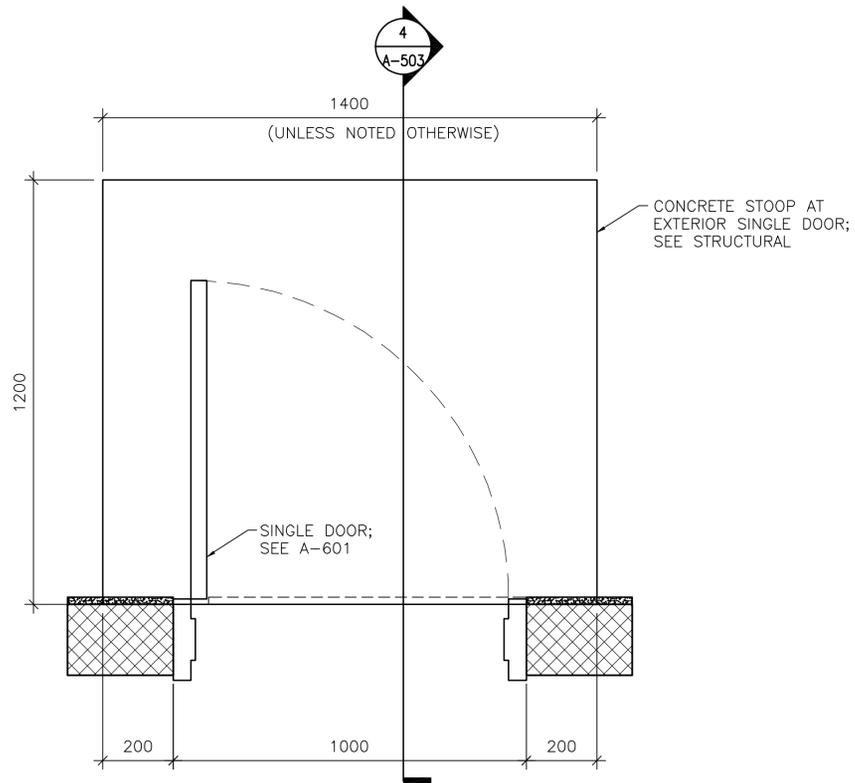
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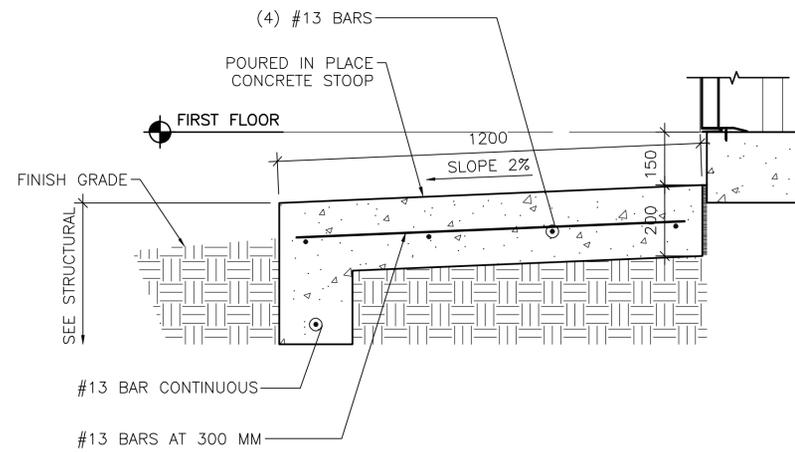
1 DOOR STOOP PLAN (WITH GRATE)
A-503 SCALE: 1:10



2 DOOR STOOP DETAIL
A-503 SCALE: 1:10



3 DOOR STOOP PLAN (WITHOUT GRATE)
A-503 SCALE: 1:10



4 DOOR STOOP DETAIL
A-503 SCALE: 1:10

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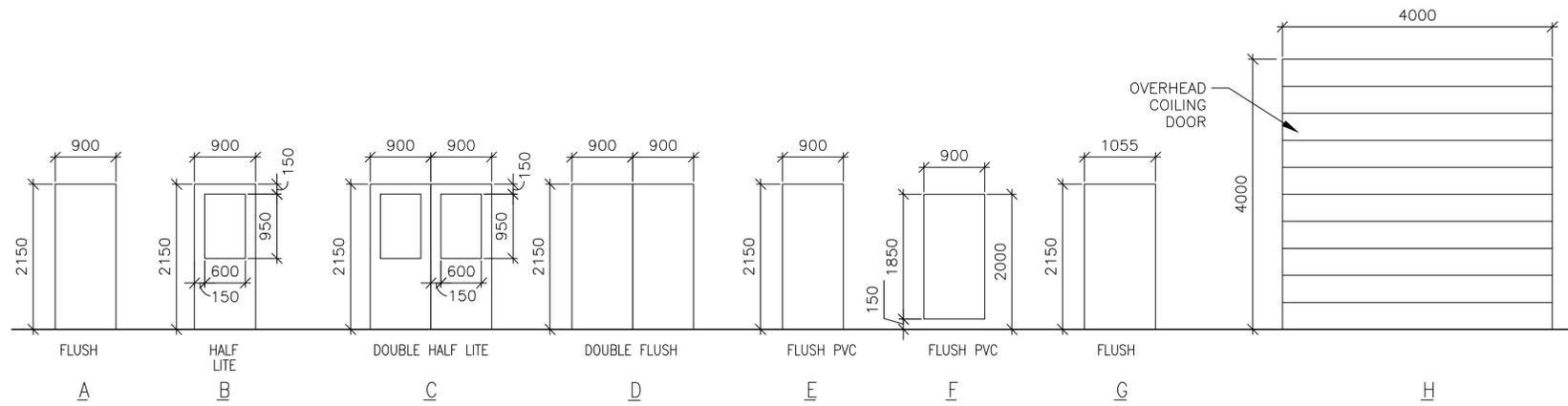
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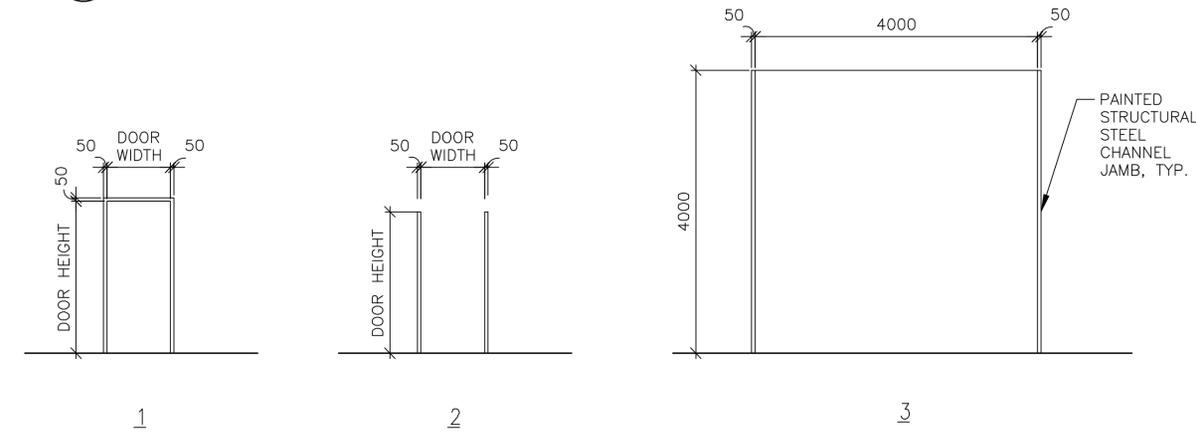
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(2) 150 STUDENT CLASSROOMS
STOOP
DETAILS

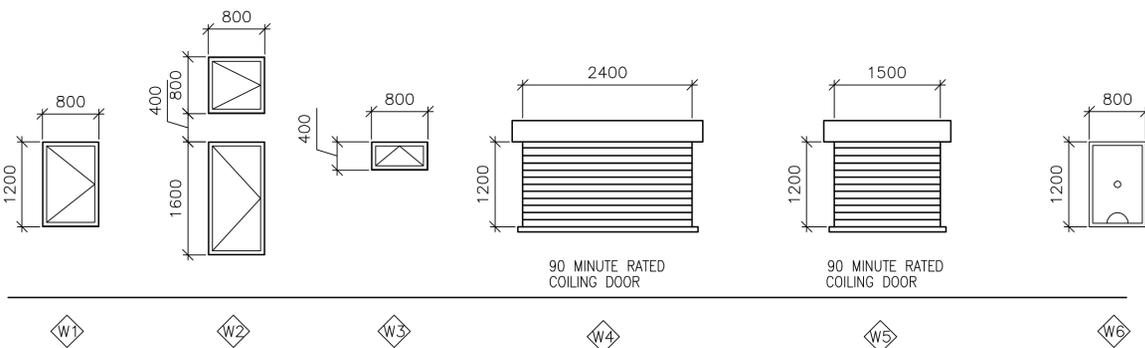
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1 DOOR TYPES
A-601 SCALE: 1:50



2 FRAME TYPES
A-601 SCALE: 1:50



3 WINDOW TYPES
A-601 SCALE: 1:50

WINDOW TYPE NOTES:

1. ALL EXTERIOR WINDOWS SHALL BE ALUMINUM WITH INSECT SCREENS. WINDOWS SHALL BE COMMERCIAL GRADE.
2. ALL EXTERIOR WINDOWS SHALL BE OPERABLE.

EXTERIOR DOOR HARDWARE TYPES:

- HW-1 1-1/2 PR HINGES, A5112 114 X 114
1 EA RIM EXIT DEVICE, TYPE 1
1 EA CYLINDER, E09221A, GRADE 1
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
1 EA THRESHOLD, J32130
3 EA DOOR SILENCERS, L03011
- HW-2 1-1/2 PR HINGES, A5112 114 X 114
1 EA LOCKSET, F13 ENTRY LOCK W/LEVER HANDLES, GRADE 1
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
1 EA THRESHOLD, J32130
3 EA DOOR SILENCERS, L03011
- HW-3 3 PR HINGES, A5112 114 X 114
2 EA RIM EXIT DEVICE, TYPE 1
2 EA CYLINDER, GRADE 1
2 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
1 EA DOOR COORDINATOR, TYPE 21
1 EA ASTRAGAL
1 EA THRESHOLD, J32130
2 EA DOOR SILENCERS, L03011
- HW-4 3 PR HINGES, A5112 114 X 114
1 EA LOCKSET W/LEVER HANDLES, GRADE 1, F13
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
2 EA MAGNETIC HOLDER PIN, ATTACHED TO DOOR LEAF
2 EA MAGNETIC HOLDER RECEIVER, ATTACHED TO STOOP
2 EA LEVER EXTENSION FLUSH BOLTS, L04081
1 EA ASTRAGAL
1 EA THRESHOLD, J32130
2 EA DOOR SILENCERS, L03011

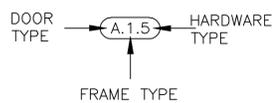
DOOR AND HARDWARE NOTES:

1. INTERIOR AND EXTERIOR METAL DOORS AND FRAME COLORS SHALL MATCH ADJACENT WALL COLORS AS SELECTED BY THE CONTRACTING OFFICER.
2. FRAMES, EXCEPT FIRE-RATED FRAMES, SHALL BE MOUNTED AND ADJUSTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. FRAMES SHALL BE FASTENED WITH MINIMUM OF THREE ANCHORS PER JAMB AT EQUAL INTERVALS.
3. DIMENSIONS SHOWN ON DOOR TYPES DETAIL ARE BASED UPON MODULAR MASONRY (OR ROUGH OPENING), HEIGHT OF 2200 MM FOR STANDARD PERSONNEL DOORS. CONTRACTOR SHALL COORDINATE WITH DOOR SUPPLIER TO ENSURE THAT DIMENSIONS OF DOORS AND FRAMES PROVIDED ARE COMPATIBLE WITH DOOR OPENING DIMENSIONS.
4. HARDWARE SHALL BE HEAVY DUTY, COMMERCIAL GRADE, STAINLESS STEEL WITH A SATIN OR BRUSHED FINISH.
5. HARDWARE TYPES INCLUDE BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BMHA) NUMBER.
6. DOORS IN 2 HOUR RATED PARTITIONS SHALL BE 1.5 HOUR (90 MINUTE) RATED DOORS IN ACCORDANCE WITH NFPA 101, TABLE 8.3.4.2.
7. DOORS AT STAIR ENCLOSURES SHALL BE 1 HOUR (60 MINUTE) RATED AT 1 HOUR WALL IN ACCORDANCE WITH NFPA 101, TABLE 8.3.4.2.
8. DOORS IN 1 HOUR RATED WALLS SHALL BE 3/4 HOUR (45 MINUTE) RATED DOORS IN ACCORDANCE WITH NFPA 101, TABLE 8.3.4.2.
9. DOORS IN 1 HOUR RATED CORRIDOR WALLS SHALL BE 1/3 HOUR (20 MINUTE) IN ACCORDANCE WITH NFPA 101, TABLE 8.3.4.2.
10. PROVIDE DOOR STOPS TO PROTECT WALLS ON LOCATIONS WHERE DOOR SWING WILL STRIKE WALL.

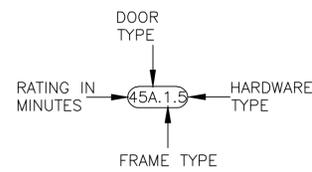
DOOR TAG NOTES:

1. THE DOOR TAG INDICATES THE DOOR TYPE, FRAME TYPE AND HARDWARE SET FOR EACH DOOR.
2. THE DOOR TAG FOR RATED DOORS INCLUDES THE RATING OF THE DOOR IN MINUTES.

4 DOOR TAG
A-601 SCALE: NTS



5 RATED DOOR TAG
A-601 SCALE: NTS



THIS SHEET IS STANDARD AND IS INCLUSIVE OF ALL THE DOOR/WINDOW/HARDWARE TYPES FOR THE ENTIRE RMTc CONTRACT. NOT ALL DOOR/WINDOW/HARDWARE TYPES ARE USED FOR ANY PARTICULAR BUILDING DESIGN. CONTRACTOR SHALL REFER TO THE FLOOR PLAN FOR THE TYPES BEING USED.

INTERIOR DOOR HARDWARE TYPES:

- HW-5 1-1/2 PR HINGES, A8133 114 X 114
1 EA LOCKSET W/LEVER HANDLES, F08, GRADE 1
1 EA WALL STOP, L02101 OR L02161
3 EA DOOR SILENCERS, L03011
- HW-6 1-1/2 PR HINGES, A8112 114 X 114
1 EA LOCKSET W/LEVER HANDLES, F08, GRADE 1
1 EA WALL STOP, L02101 OR L02161
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
3 EA DOOR SILENCERS, L03011
- HW-7 1-1/2 PR HINGES, A8133
1 EA LOCKSET W/LEVER HANDLES, F13 GRADE 1
1 EA WALL STOP, L02101 OR L02161
2 EA MOP PLATE, J103
3 EA DOOR SILENCERS, L03011
- HW-8 1-1/2 PR HINGES, A8112
1 EA LOCKSET W/LEVER HANDLES, F13 GRADE 1
1 EA WALL STOP, L02101 OR L02161
2 EA MOP PLATE, J103
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
3 EA DOOR SILENCERS, L03011
- HW-9 1-1/2 PR HINGES, A5112 114 X 114
1 EA RIM EXIT DEVICE, TYPE 1
1 EA CYLINDER, E09221A, GRADE 1
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
3 EA DOOR SILENCERS, L03011
- HW-10 3 PR HINGES, A5112 114 X 114
1 EA LOCKSET W/LEVER HANDLES, GRADE 1, F13
2 EA LEVER EXTENSION FLUSH BOLTS, L04081
1 EA ASTRAGAL
2 EA DOOR SILENCERS, L03011
- HW-11 1-1/2 PR HINGES, A8112 114 X 114
1 EA LOCKSET W/LEVER HANDLES, F13, GRADE 1
1 EA WALL STOP, L02101 OR L02161
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
3 EA DOOR SILENCERS, L03011
1 EA ROBE HOOK
- HW-12 1-1/2 PR HINGES, A8133
1 EA LATCHSET W/LEVER HANDLES, F76 GRADE 1
1 EA WALL STOP, L02101 OR L02161
2 EA MOP PLATE, J103
3 EA DOOR SILENCERS, L03011
1 EA ROBE HOOK
- HW-13 3 PR HINGES, A5112 114 X 114
1 EA LOCKSET W/LEVER HANDLES, GRADE 1, F13
1 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
2 EA LEVER EXTENSION FLUSH BOLTS, L04081
1 EA ASTRAGAL
2 EA DOOR SILENCERS, L03011
- HW-14 3 PR HINGES, A5112 114 X 114
2 EA RIM EXIT DEVICE, TYPE 1
2 EA CYLINDER, GRADE 1
2 EA OVERHEAD CLOSER, C02061, LOW RESISTANCE
1 EA DOOR COORDINATOR, TYPE 21
1 EA ASTRAGAL
2 EA DOOR SILENCERS, L03011



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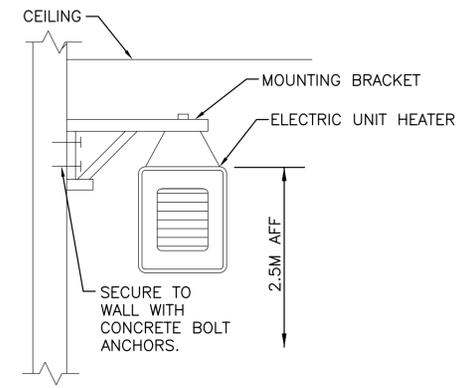
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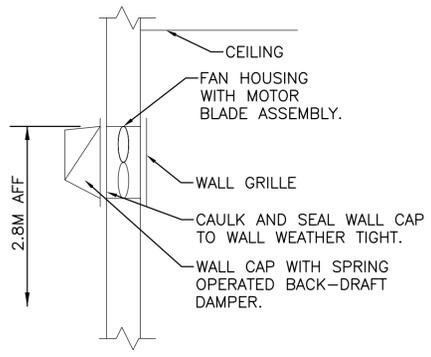


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(2) 150 STUDENT CLASSROOMS
WINDOW AND DOOR SCHEDULES

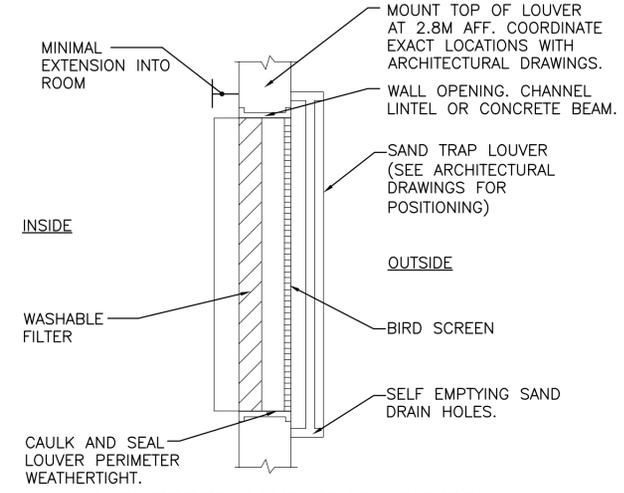
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A-601



2 ELECTRIC UNIT HEATER MOUNTING DETAIL
M-101 N.T.S.



3 THROUGH THE WALL EXHAUST FAN DETAIL
M-101 N.T.S.



4 FILTERED SAND TRAP LOUVER
M-101 N.T.S.

GENERAL NOTES:

- DO NOT SCALE DRAWINGS - ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE.
- ALL WORK PERFORMED ON THIS BUILDING SHALL BE IN COMPLIANCE WITH ALL PERTINENT CODES, RULES, ORDINANCES AND REGULATIONS OF THE GOVERNING AUTHORITIES.
- ALL WORK PERFORMED UNDER AND IN CONNECTION WITH THESE DRAWINGS AND SPECIFICATIONS SHALL BE IN STRICT COMPLIANCE WITH THE LATEST SAFETY AND HEALTH STANDARDS.

SYMBOLS:

- (X) KEY NOTE
- (0.050) AIR VOLUME IN CUBIC METERS PER SECOND (CMS)
- UC DOOR UNDERCUT
- TG 200x400 (8x16) TRANSFER GRILLE

ABBREVIATIONS:

- AFF ABOVE FINISH FLOOR
- CF CEILING FANS
- CMS CUBIC METERS PER SECOND
- STATS THERMOSTATS

KEY NOTE:

- UNIT HEATER SECURED FROM WALL. SEE DETAIL THIS SHEET.
- WALL EXHAUST FAN WITH LOW SPRING OPERATED BACK-DRAFT DAMPER. SEE DETAIL 3 THIS SHEET.
- 400x400 (16x16) INTAKE LOUVER WITH BACK-DRAFT DAMPER PROVIDE WEATHER PROOF LOUVER W/0.05mm (2") WASHABLE FILTER AND SAND TRAP. SEE DETAIL 4 THIS SHEET.
- THERMOSTAT MOUNTED AS HIGH AS POSSIBLE. INTERLOCK STAT WITH CORRESPONDING EXHAUST FAN, SET FAN TO ENERGIZE ON RISE IN TEMPERATURE ABOVE 25°C (77°F).

EXHAUST FAN SCHEDULE

NO.	TYPE	FAN CMS	DRIVE	HP	SP mmH2O	ELECTRICAL DATA	SWITCH
EF-1	WALL	0.035	DIRECT	FRACT	9.5	220/1/50	W/ STAT
EF-2	WALL	0.035	DIRECT	FRACT	9.5	220/1/50	W/ STAT
EF-3	WALL	0.035	DIRECT	FRACT	9.5	220/1/50	W/ STAT

- NOTES:
1. FANS SHALL HAVE SPRING OPERATED BACK-DRAFT DAMPER.

ELECTRIC UNIT HEATER SCHEDULE

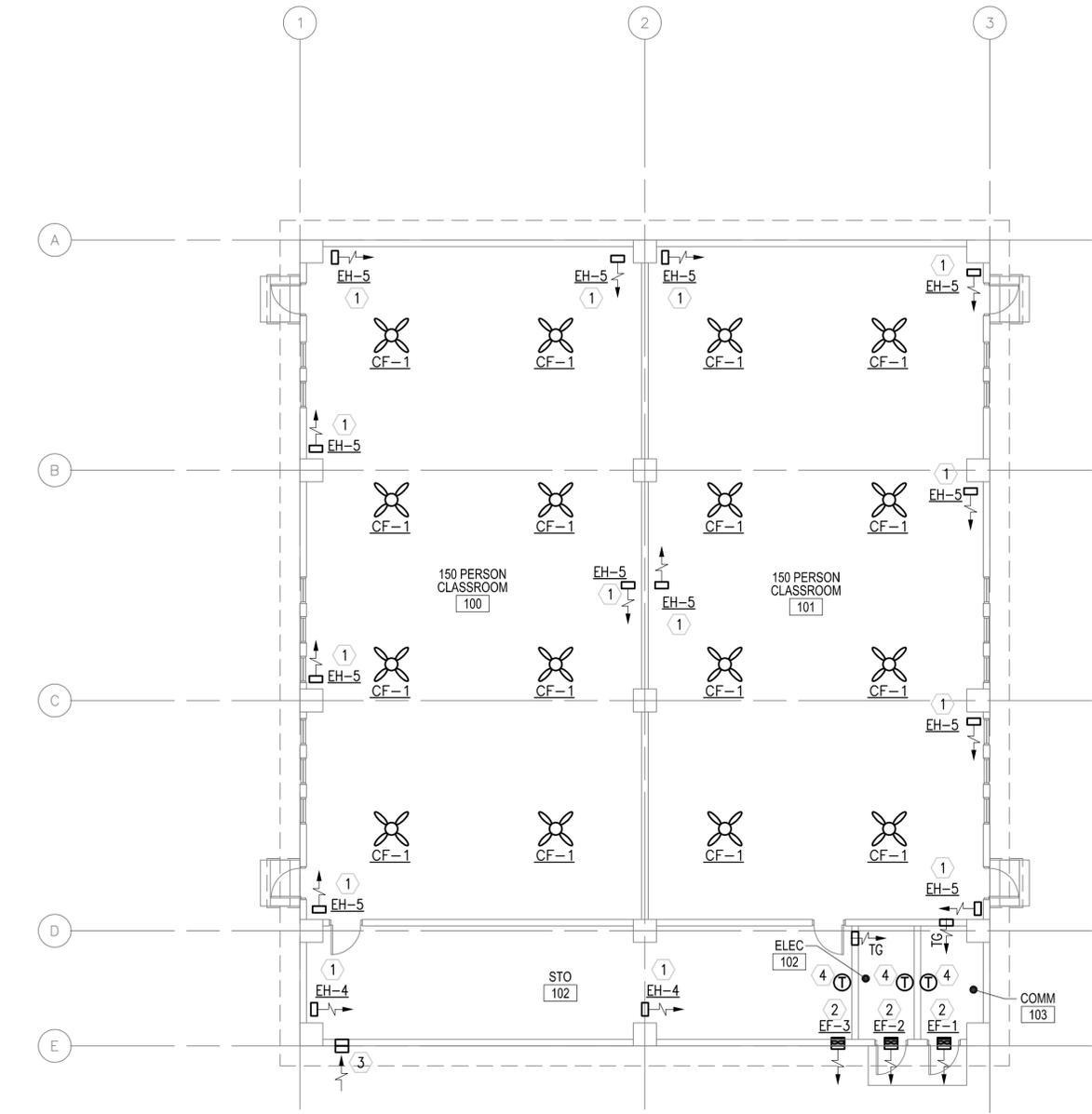
NO.	CMS	KW	F.A.T. °C	ELECT. CHAR.	MOUNTING
EH-4	0.200	4	38	380/1/50	WALL HUNG
EH-5	0.200	5	38	380/1/50	WALL HUNG

- NOTES:
1. UNIT HEATERS SHALL HAVE TAMPER PROOF INTEGRAL STATS.
2. COORDINATE LOCATION AND ORIENTATION IN FIELD.

CEILING FAN

NO.	BLADE SIZE		VOLTAGE	SWITCH	REMARKS
	mm	IN			
CF-1	1320	52	220/1/50	⊙ WALL	3 SPEED REVERSIBLE MOTOR

- NOTES:
1. PROVIDE EXTENSION DOWN RODS, INSTALL FANS 2.5M AFF.
2. PROVIDE WITH OUT LIGHT FIXTURE.
3. PROVIDE WITH REMOTE MOUNTED ON-OFF SWITCH SHOWN ON ELECTRICAL DRAWINGS.



1 FLOOR PLAN - HVAC
SCALE: 1:100

LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE NOTED
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A/E DESIGNER OF RECORD

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Designed by: RML
Dwn by: JJJ
Cld by: CUM
Reviewed by: MRS
Submitted by: BAKER

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(2) 150 STUDENT CLASSROOMS

HVAC PLANS, SCHEDULES AND DETAILS

Sheet reference number:
M-101

POWER

- DISTRIBUTION PANELBOARD
- NEW PANELBOARD - SURFACE
- NEW PANELBOARD - RECESSED
- GENERATOR
- TRANSFORMER (DRAWN TO SIZE)
- JUNCTION BOX
- JUNCTION BOX - CEILING
- FUSIBLE SAFETY SWITCH
- MOTOR
- MOTOR STARTING SWITCH - 220V, 20A RATED UNLESS OTHERWISE NOTED
- ELECTRIC WATER HEATER
- CEILING FAN - REFER TO SPECIFICATION SECTION 26 20 00

RECEPTACLES

- DUPLEX 20A TYPE CEE 7/7 "SCHUKO STYLE" UNSWITCHED RECEPTACLE
- DUPLEX 20A TYPE CEE 7/7 "SCHUKO STYLE" UNSWITCHED RECEPTACLES - 10mA GROUND FAULT INTERRUPTER TYPE
- DUPLEX 20A TYPE CEE 7/7 "SCHUKO STYLE" UNSWITCHED TYPE WITH WEATHERPROOF COVER - 10mA GROUND FAULT INTERRUPTER TYPE
- DUPLEX 20A TYPE CEE 7/7 "SCHUKO STYLE" UNSWITCHED RECEPTACLES - EXPLOSION PROOF
- * INDICATES MOUNT DEVICE ABOVE COUNTERTOP OR AT 1070mm ABOVE FINISHED FLOOR WHERE NO COUNTER IS TO BE INSTALLED.

LIGHTNING PROTECTION

- AIR TERMINAL 20mm O.D. X 450mm SOLID COPPER, NICKEL PLATED ON ADHESIVE BASE
- EQUIPMENT AIR TERMINAL
- TEST WELL WITH GROUND ROD(S)
- GROUND ROD
- GROUND PLATE
- MAIN GROUND CONDUCTOR CONCEALED WITHIN CONSTRUCTION
- MAIN GROUND CONDUCTOR EXPOSED ON EXPOSED ON BUILDING EXTERIOR SURFACE
- GROUND CONDUCTOR CAD WELDED TO GROUND CABLE OR EQUIPMENT
- GROUND ROD TRIPOD, SPACED 3 METERS APART.
- LEVEL TO LEVEL CABLE

LIGHTING

- LIGHTING FIXTURE - SEE FIXTURE SCHEDULE FOR MORE INFORMATION
- EMERGENCY LIGHTING FIXTURE - SEE FIXTURE SCHEDULE FOR MORE INFORMATION
- DOWNLIGHT
- LIGHTING FIXTURE ON NORMAL/EMERGENCY
- WALL MOUNTED LIGHT FIXTURE
- EXIT SIGN - DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS
- REMOTE HEAD FOR BATTERY PACK
- SINGLE POLE SWITCH - 20A RATED
- 3-WAY SWITCH - 20A RATED
- 4-WAY SWITCH - 20A RATED
- LIGHTING CONTACTOR
- POLE MOUNTED SITE LIGHTING FIXTURE- NUMBER OF FIXTURES PER POLE AS INDICATED ON DRAWINGS
- EXTERIOR DIRECTIONAL LIGHTING FIXTURE
- SMALL CASE LETTERS REPRESENTS LAMP(S) / SWITCHES.

TELECOMMUNICATIONS

- TELEPHONE OUTLET(S) @ 45cm AFF. U.N.O. WITH 20mm RACEWAY TERMINATED TO TELEDATA TERMINAL BOARD.
- DATA OUTLET(S) @ 45cm AFF. U.N.O. WITH 20mm RACEWAY TERMINATED TO TELEDATA TERMINAL BOARD.

TELECOMMUNICATIONS (CONTINUED)

- COMBINATION TELEPHONE/DATA OUTLET(S) @ 45cm AFF. U.N.O. WITH 27mm RACEWAY TERMINATED TO TELEDATA TERMINAL AREA.
- WALL MTD. TELEPHONE OUTLET WITH 20mm RACEWAY TO TELEDATA TERMINAL BOARD.
- (x)T INDICATES NUMBER OF TELEPHONE OUTLET(S) AND ASSOCIATED CABLING
- (x)D INDICATES NUMBER OF DATA OUTLET(S) AND ASSOCIATED CABLING
- (x)TF INDICATES NUMBER OF TELEPHONE OUTLETS AND ASSOCIATED CABLING WITH 1 OUTLET AND CABLE DEDICATED FOR FAX

SINGLE LINE SYMBOLS

- SWITCH
- BREAKER
- FUSE
- TRANSFORMER
- GROUND
- CONTACT (NORMALLY OPEN)
- CONTACT (NORMALLY CLOSED)
- TRANSFER SWITCH
- CURRENT TRANSFORMER
- INDICATES NEW ELECTRICAL EQUIPMENT
- INDICATES NEW CONTROL WIRING AND CONDUIT
- EQUIPMENT OUTLINE

MISCELLANEOUS

- BRANCH CIRCUIT WIRING, SURFACE MOUNTED ON WALLS
- BRANCH CIRCUIT WIRING - 6mm²
- BRANCH CIRCUIT WIRING - UNDER FLOOR
- HOME RUN BACK TO PANEL
- CONDUIT TURNED DOWN
- CONDUIT TURNED UP
- LOW VOLTAGE WIRING AND CONDUIT
- INDICATES CONTINUATION OF LINE

FIRE ALARM

- FIRE ALARM CONTROL PANEL WITH BATTERY BACKUP
- FIRE ALARM PULL STATION

FIRE ALARM (CONTINUED)

- FIRE ALARM STROBE - WALL MOUNTED
- FIRE ALARM AUDIBLE/STROBE - WALL MOUNTED
- FIRE ALARM HORN/STROBE - WALL MOUNTED
- SMOKE DETECTOR
- HEAT DETECTOR CEILING MOUNTED
- DUCT DETECTOR - PROVIDED BY EC, INSTALLED BY MC AND CONNECTED BY EC

DENOTATIONS & ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
- C CEILING MOUNTED
- E EMERGENCY
- EC ELECTRICAL CONTRACTOR
- EPO EMERGENCY POWER OFF
- EXP EXPLOSION PROOF
- F FIRE ALARM
- FF FLUSH FLOOR MOUNTED
- FL FLUORESCENT
- FO FIBER OPTIC
- FSS FUSED SAFETY SWITCH
- GF GROUND FAULT INTERRUPTER
- GC GENERAL CONTRACTOR
- IG ISOLATED GROUND
- K KEY
- LV LOW VOLTAGE
- M MOTOR
- MC MECHANICAL CONTRACTOR
- NE NORMAL/EMERGENCY
- NFSS NON-FUSED SAFETY SWITCH
- PA PAGING SYSTEM
- PLC PLUMBING CONTRACTOR
- SL SINGLE LINE
- T TELEPHONE

DENOTATIONS & ABBREVIATIONS (CONT.)

- TP TAMPER PROOF
- UE UNDERGROUND ELECTRIC
- W WALL MOUNTED
- WP WEATHERPROOF WITH GROUND FAULT INTERRUPTION
- WT WATER TIGHT

GENERAL PROJECT NOTES:

- G1. UNLESS OTHERWISE NOTED, PROVIDE ALL EQUIPMENT SHOWN ON THE PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL SYMBOLS SHOWN ON THE PLANS WITH THE SYMBOL LIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE INTENT OF ANY SYMBOL THAT IS SHOWN ON THE PLANS AND NOT INDICATED ON THE SYMBOL LIST WITH THE ENGINEER PRIOR TO BID.
- G2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA THREE (3) WORKING DAYS NOTICE BEFORE COMMENCING DIGGING. NOTIFY THE LOCAL AUTHORITY HAVING JURISDICTION AND WAIT THE REQUIRED TIME BEFORE COMMENCING TO DIG.
- G3. THE CONTRACTOR SHALL COORDINATE CONDUIT RUNS, LIGHTING FIXTURES AND OTHER EQUIPMENT LOCATIONS WITH THE OTHER TRADE CONTRACTORS TO AVOID CONFLICTS.
- G4. WHERE VOLTAGES AND FREQUENCIES ON THE DRAWINGS AND IN THE SPECIFICATIONS DIFFER FROM THE LOCAL ONES, ALL WORK SHALL BE PERFORMED USING THE LOCAL VOLTAGES AND FREQUENCIES.
- G5. THE MINIMUM WIRE SIZE ON THE PROJECT SHALL BE 4mm². THE MINIMUM CONDUIT SIZE SHALL BE 20mm. THE MINIMUM BREAKER SIZE SHALL BE 20 AMPS.
- G6. THE CONTRACTOR SHALL PUT A MAXIMUM OF 6 DUPLEX RECEPTACLES ON A 20A SINGLE POLE CIRCUIT.
- G7. WHERE THE 1010 SCOPE REVIEW, 1015 TECHNICAL REVIEW, DRAWINGS, AND SPECIFICATIONS DIFFER FROM AMERICAN CODES OR STANDARDS THE 1010, 1015, DRAWINGS, AND SPECIFICATIONS SHALL RULE.
- G8. ALL CONDUIT AND DEVICES SHALL BE SURFACE MOUNTED UNLESS OTHERWISE INDICATED.
- G9. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES TO ENSURE ALL WORK IS COMPLETED IN A PROFESSIONAL, WORKMAN-LIKE MANNER.



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		Submitted by: BAKER
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U.S. ARMY ENGINEER DISTRICT, AFGHANISTAN
CORPS OF ENGINEERS
APO AE 96338
Michael Baker, Jr., Inc.
A unit of Michael Baker Corporation
Arlide Business Park
Moon Township, PA 15108
www.mbakercorp.com

AFGHAN NATIONAL ARMY
REGIONAL MILITARY TRAINING CENTER
STANDARD DESIGN
300 STUDENT CLASSROOM BUILDING
(2) 150 STUDENT CLASSROOMS
ELECTRICAL SYMBOLS & ABBREVIATIONS

Sheet reference number:
E-001

APPROVED:

A/E DESIGNER OF RECORD

SEAL:

GENERAL NOTES:

- 1. REFER TO DRAWING #E-001 FOR THE ELECTRICAL SYMBOLS LIST.
- 2. EXIT SIGNS SHALL BE WIRED AHEAD OF ANY LOCAL SWITCHING ON CIRCUITS. SEE WIRING DIAGRAM DETAIL 8, ON DRAWING #E-501
- 3. REFER TO DRAWING #E-601 FOR THE LIGHTING FIXTURE SCHEDULE.
- 4. REFER TO DRAWING #E-501 FOR THE POWER RISER.
- 5. REFER TO DRAWING #E-602 FOR PANEL SCHEDULES.
- 6. LIGHT FIXTURES INDICATED AS EMERGENCY SHALL BE PROVIDED WITH A BATTERY BACKUP BALLAST. SEE WIRING DIAGRAM DETAIL 7, ON DRAWING #E-501.



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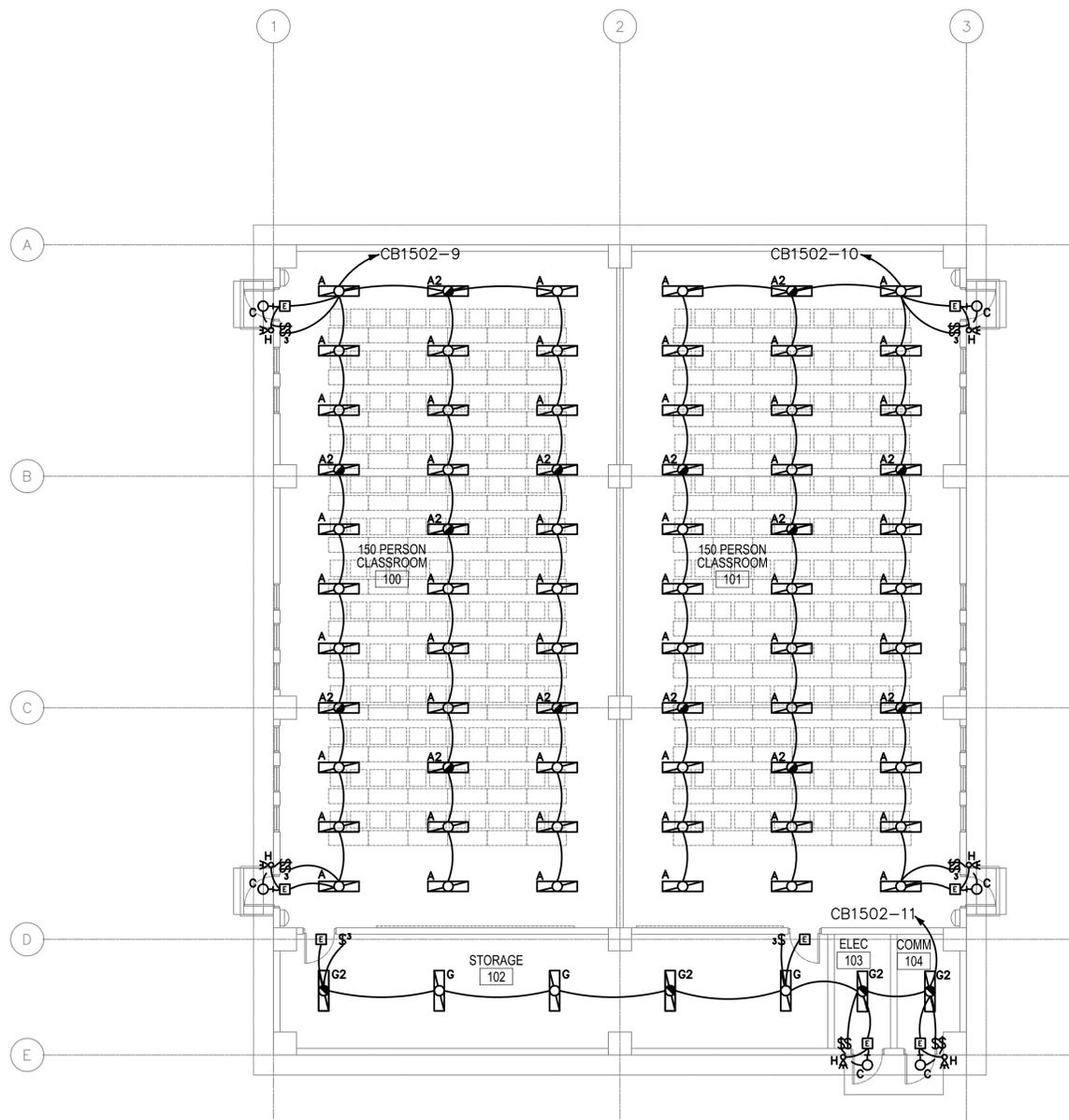
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300 STUDENT CLASSROOM BUILDING
 (2) 150 STUDENT CLASSROOMS
 ELECTRICAL LIGHTING PLAN

Sheet reference number:
E-101



300 STUDENT TOTAL
 (2) 150-STUDENT CLASSROOMS - LIGHTING

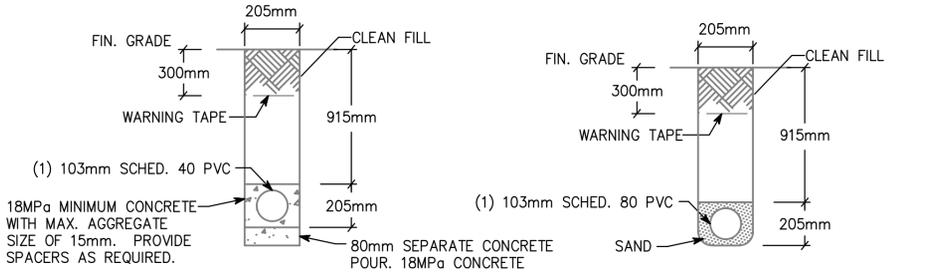
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APPROVED: _____

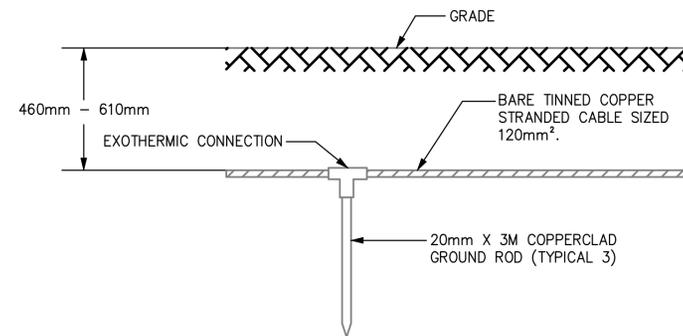
A/E DESIGNER OF RECORD

SEAL:

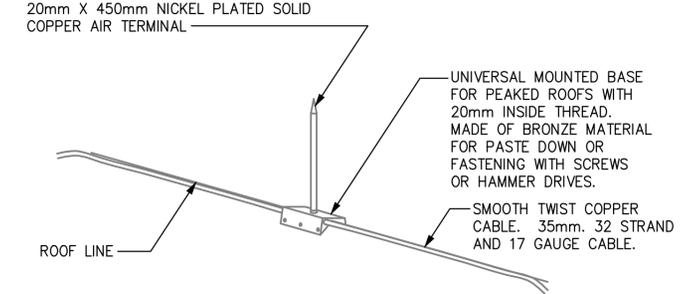


NOTE: PVC CONDUIT SHALL BE DIRECT BURIED SCHEDULE 80 FOR NO TRAFFIC AREAS AND CONCRETE-ENCASED SCHEDULE 40 FOR UNDER ROADWAYS OR TRAFFIC AREAS.

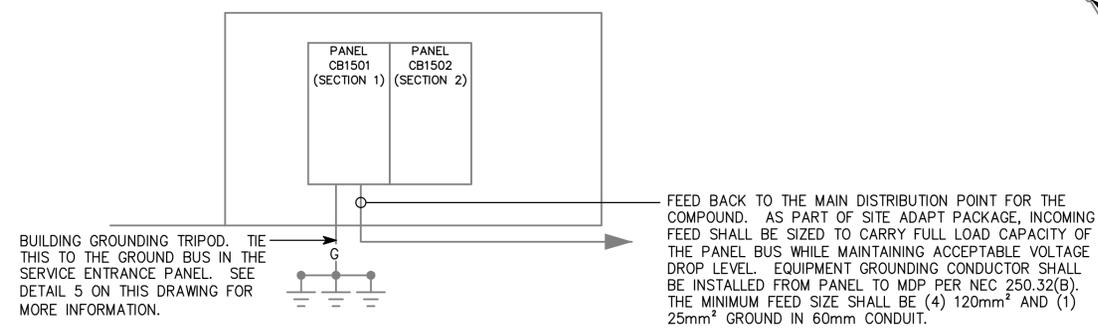
1 TYPICAL DUCT BANK DETAILS FOR CONDUIT IN SAND OR CONCRETE
SCALE: N.T.S.



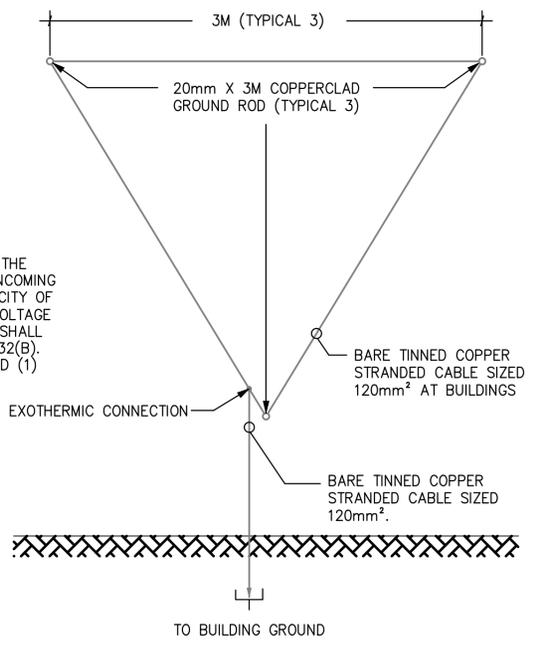
2 GROUND TRIPOD SYSTEM DETAIL - ELEVATION
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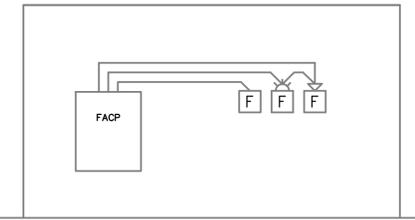
3 LIGHTNING PROTECTION AIR TERMINAL DETAIL
SCALE: N.T.S.



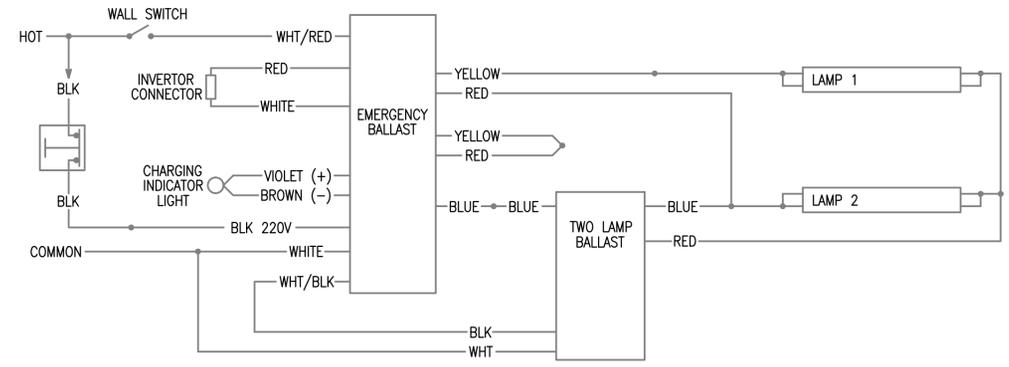
4 CB150 RISER DIAGRAM
SCALE: N.T.S.



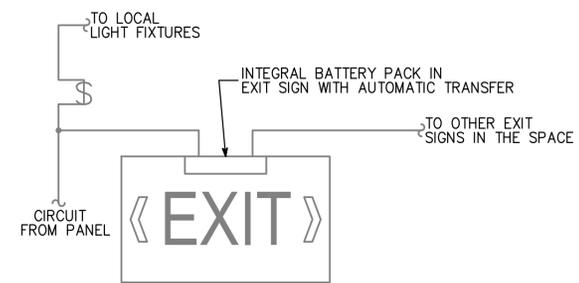
5 GROUND TRIPOD SYSTEM DETAIL - PLAN
SCALE: N.T.S.



6 TYPICAL ONE STORY FIRE ALARM RISER
SCALE: N.T.S.



7 EMERGENCY FIXTURE WIRING DIAGRAM
SCALE: N.T.S.



8 EXIT SIGN WIRING DIAGRAM
SCALE: N.T.S.



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AFGHAN NATIONAL ARMY
REGIONAL MILITARY TRAINING CENTER
STANDARD DESIGN
300 STUDENT CLASSROOM BUILDING
(2) 150 STUDENT CLASSROOMS
ELECTRICAL DETAILS

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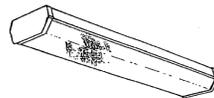
FIXTURE MARK 'A'



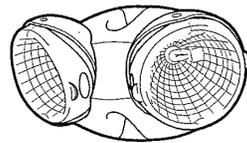
FIXTURE MARK 'C'



FIXTURE MARK 'G'



FIXTURE MARK 'H'



FIXTURE MARK 'E'



LIGHT FIXTURE SCHEDULE

FIXTURE MARK	STYLE NUMBER AND TYPE	NUMBER AND TYPE OF LAMPS	VOLTAGE	MOUNTING	NOTES
A	PARABOLIC SURFACE/PENDANT MOUNTED 300MM X 1200MM FLUORESCENT FIXTURE WITH ELECTRONIC BALLAST	(2) 32W 3500K	220V - 1Ø 50HZ	SURFACE MOUNTED	FURNISHED WITH ELECTRONIC BALLAST. PARABOLIC LOUVER SHALL BE SPECULAR LENS IRADESCENCE TYPE.
A2	SAME AS FIXTURE 'A' WITH EMERGENCY BALLAST	(2) 32W 3500K	220V - 1Ø 50HZ	SURFACE MOUNTED	FURNISHED WITH ELECTRONIC BALLAST. PARABOLIC LOUVER SHALL BE SPECULAR LENS IRADESCENCE TYPE. EMERGENCY BALLAST SELF TEST.
C	INCANDESCENT ONE PIECE W/ APPROVED LENS STABILIZED HIGH IMPACT POLY CARBONATE.	(1) A19 - 100W INCANDESCENT	220V - 1Ø 50HZ	WALL MOUNTED ABOVE EXTERIOR DOORS	
G	WRAP AROUND SURFACE/PENDANT MOUNTED FLUORESCENT FIXTURE WITH PRISMATIC ACRYLIC LENS AND ELECTRONIC BALLAST	(2) 32W 3500K	220V - 1Ø 50HZ	SURFACE MOUNTED	FURNISHED WITH ELECTRONIC BALLAST, VIRGIN ACRYLIC WRAP AROUND LENS.
G2	SAME AS FIXTURE 'G' WITH EMERGENCY BALLAST	(2) 32W 3500K	220V - 1Ø 50HZ	SURFACE MOUNTED	FURNISHED WITH ELECTRONIC BALLAST, VIRGIN ACRYLIC WRAP AROUND LENS. EMERGENCY BALLAST WITH SELF TEST SWITCH.
H	REMOTE HEAD EXTERIOR LIGHT HEAD POWERED FROM EXIT SIGN BATTERY- 12V DOUBLE HEAD CORROSION RESISTANT WITH UL34 WEATHERPROOF CONSTRUCTION	(2) 12W/12V HALOGEN LAMP	12V - 1Ø 50HZ	EXTERIOR WALL MOUNTED AT TOP OF DOOR HEIGHT	
E	UNIVERSAL MOUNT ENGINEER GRADE THERMOPLASTIC HOUSING EXIT SIGN WITH LED LAMPS, RED LETTERS 6" IN HEIGHT WITH ARROWS AS INDICATED, WITH 12V CADMIUM BATTERY WITH REMOTE HEAD CAPABILITY	LED LAMPS	220V - 1Ø 50HZ	UNIVERSAL MOUNTING	



US ARMY CORPS OF ENGINEERS
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Rev.	Date	Description	Mark	Appr.	Date
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Submitted by: BAKER	File name: BAKER	Plot date:	Plot scale:

AFGHAN NATIONAL ARMY
REGIONAL MILITARY TRAINING CENTER
STANDARD DESIGN

300 STUDENT CLASSROOM BUILDING
(2) 150 STUDENT CLASSROOMS
ELECTRICAL LIGHTING FIXTURE SCHEDULE

Sheet reference number:
E-601

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US ARMY CORPS OF ENGINEERS
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ENGINEER DISTRICT

Ckt. No.		TRIP AMPS	WIRE MM ²	GND MM ²	CONDUIT MM	LOAD SERVED	LOAD-KVA			LOAD-KVA			CONDUIT MM	GND MM ²	WIRE MM ²	NO. POLES	TRIP AMPS	Ckt. No.							
							A0	B0	C0	A0	B0	C0													
1	20	1	4.0	4.0	20	RECEPTACLES - RM 100	0.8			0.8			20	4.0	4.0	1	20	2							
3	20	1	4.0	4.0	20	RECEPTACLES - RM 100		0.8			0.8		20	4.0	4.0	1	20	4							
5	20	1	4.0	4.0	20	RECEPTACLES - RM 100			0.6			0.6	20	4.0	4.0	1	20	6							
7	20	1	4.0	4.0	20	RECEPTACLES - RM 100	0.4			0.4			20	4.0	4.0	1	20	8							
9	20	1	4.0	4.0	20	RECEPTACLES - RM 100		0.6			0.6		20	4.0	4.0	1	20	10							
11	20	1	4.0	4.0	20	RECEPTACLES - RM 102			0.8			0.5	20	4.0	4.0	1	20	12							
13	20	1	4.0	4.0	20	RECEPTACLES - RM 104	0.6			0.4			20	4.0	4.0	1	20	14							
15	20	1	4.0	4.0	20	RECEPTACLES - RM 103		0.6			2.4		20	4.0	4.0	1	20	16							
17	20	1	4.0	4.0	20	CEILING FANS - RM 100			2.4			2.4	20	4.0	4.0	1	20	18							
19	20	1	4.0	4.0	20	CEILING FANS - RM 100	2.4			0.4			20	4.0	4.0	1	20	20							
21	20	2	4.0	4.0	20	ELECTRIC HEAT #5 - RM 100		2.5			2.5		20	4.0	4.0	2	20	22							
23	20	1						2.5			2.5		20	4.0	4.0	2	20	24							
25	20	2	4.0	4.0	20	ELECTRIC HEAT #5 - RM 100	2.5			2.5			20	4.0	4.0	2	20	26							
27	20	1						2.5			2.5		20	4.0	4.0	2	20	28							
29	20	2	4.0	4.0	20	ELECTRIC HEAT #5 - RM 100			2.5			2.5	20	4.0	4.0	2	20	30							
31	20	2	4.0	4.0	20	ELECTRIC HEAT #5 - RM 100	2.5			2.5			20	4.0	4.0	2	20	32							
33	20	2	4.0	4.0	20	ELECTRIC HEAT #5 - RM 100		2.5			2.5		20	4.0	4.0	2	20	34							
35	20	1							2.5			2.5	20	4.0	4.0	2	20	36							
37	20	2	4.0	4.0	20	ELECTRIC HEAT #5 - RM 100	2.5			11.5			40	10.0	50.0	3	100	40							
39	20	1						2.5			10.2		40	10.0	50.0	3	100	42							
41	20	1	4.0	4.0	20	RECEPTACLES - EXTERIOR			0.8			7.7	40	10.0	50.0	3	100	42							
							11.7	12.0	14.5	18.5	21.5	18.7	TOTAL CONN. LOAD PER PHASE (KVA): A0 30.2 B0 36.0 C0 30.7												
TOTAL CONN. LOAD							96.9	KVA.		70	% DEMAND = ESTIMATED DEMAND LOAD		67.8												

* MAIN BREAKER SHALL BE 3P EARTH GROUND TYPE

Ckt. No.		TRIP AMPS	WIRE MM ²	GND MM ²	CONDUIT MM	LOAD SERVED	LOAD-KVA			LOAD-KVA			CONDUIT MM	GND MM ²	WIRE MM ²	NO. POLES	TRIP AMPS	Ckt. No.							
							A0	B0	C0	A0	B0	C0													
1	20	2	4.0	4.0	20	ELECTRIC HEAT #5 - RM 100	2.5			2.5			20	4.0	4.0	2	20	2							
3	20	1						2.5			2.5		20	4.0	4.0	2	20	4							
5	20	1							2.0			2.0	20	4.0	4.0	2	20	6							
7	20	2	4.0	4.0	20	ELECTRIC HEAT #4 - RM 102	2.0			2.0			20	4.0	4.0	2	20	8							
9	20	1	4.0	4.0	20	LIGHTING - RM 100		2.6			2.6		20	4.0	4.0	1	20	10							
11	20	1	4.0	4.0	20	LIGHTING - RM 102			1.2			2.5	20	4.0	4.0	2	20	12							
13	20	1				SPARE					2.5		20	4.0	4.0	2	20	14							
15	20	1				SPARE							20	4.0	4.0	1	20	16							
17	20	1				SPARE							20	4.0	4.0	1	20	18							
19	20	1				SPARE							20	4.0	4.0	1	20	20							
21	20	1				SPARE							20	4.0	4.0	1	20	22							
23	20	1				SPARE							20	4.0	4.0	1	20	24							
25	20	1				SPARE							20	4.0	4.0	1	20	26							
27	20	1				SPARE							20	4.0	4.0	1	20	28							
29	20	1				SPARE							20	4.0	4.0	1	20	30							
31	20	1				SPARE							20	4.0	4.0	1	20	32							
33	20	1				SPARE							20	4.0	4.0	1	20	34							
35	20	1				SPARE							20	4.0	4.0	1	20	36							
37	20	1				SPARE							20	4.0	4.0	1	20	38							
39	20	1				SPARE							20	4.0	4.0	1	20	40							
41	20	1				SPARE							20	4.0	4.0	1	20	42							
							4.5	5.1	3.2	7.0	5.1	4.5	TOTAL CONN. LOAD PER PHASE (KVA): A0 11.5 B0 10.2 C0 7.7												
TOTAL CONN. LOAD							29.4	KVA.		70	% DEMAND = ESTIMATED DEMAND LOAD		20.6												

* MAIN BREAKER SHALL BE 3P EARTH GROUND TYPE

Rev.	Date	Description
0	2/23/10	

Designed by: JRG	Checked by: BJB	Reviewed by: JRG	Submitted by: BAKER
U.S. ARMY ENGINEER DISTRICT, AFGHANISTAN CORPS OF ENGINEERS APO AE 96338	Michael Baker Jr., Inc A unit of Michael Baker Corporation Arlside Business Park Moon Township, PA 15108 www.mbakercorp.com	File name: Plot date: Plot scale:	

AFGHAN NATIONAL ARMY
REGIONAL MILITARY TRAINING CENTER
STANDARD DESIGN

300 STUDENT CLASSROOM BUILDING
(2) 150 STUDENT CLASSROOMS
ELECTRICAL PANEL SCHEDULES

Sheet reference number:
E-602

APPROVED:

A/E DESIGNER OF RECORD

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