

# AFGHAN NATIONAL ARMY

## STANDARD BUILDING DESIGN

### 300 STUDENT CLASSROOM BUILDING (1) 300 STUDENT CLASSROOM

### 100% FINAL DESIGN SUBMITTAL



US ARMY CORPS OF ENGINEERS  
AFGHANISTAN ENGINEER DISTRICT

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AFGHAN NATIONAL ARMY  
REGIONAL MILITARY TRAINING CENTER  
STANDARD DESIGN

300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM

COVER SHEET

Sheet reference number:  
**G-001**

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G-001 COVER SHEET

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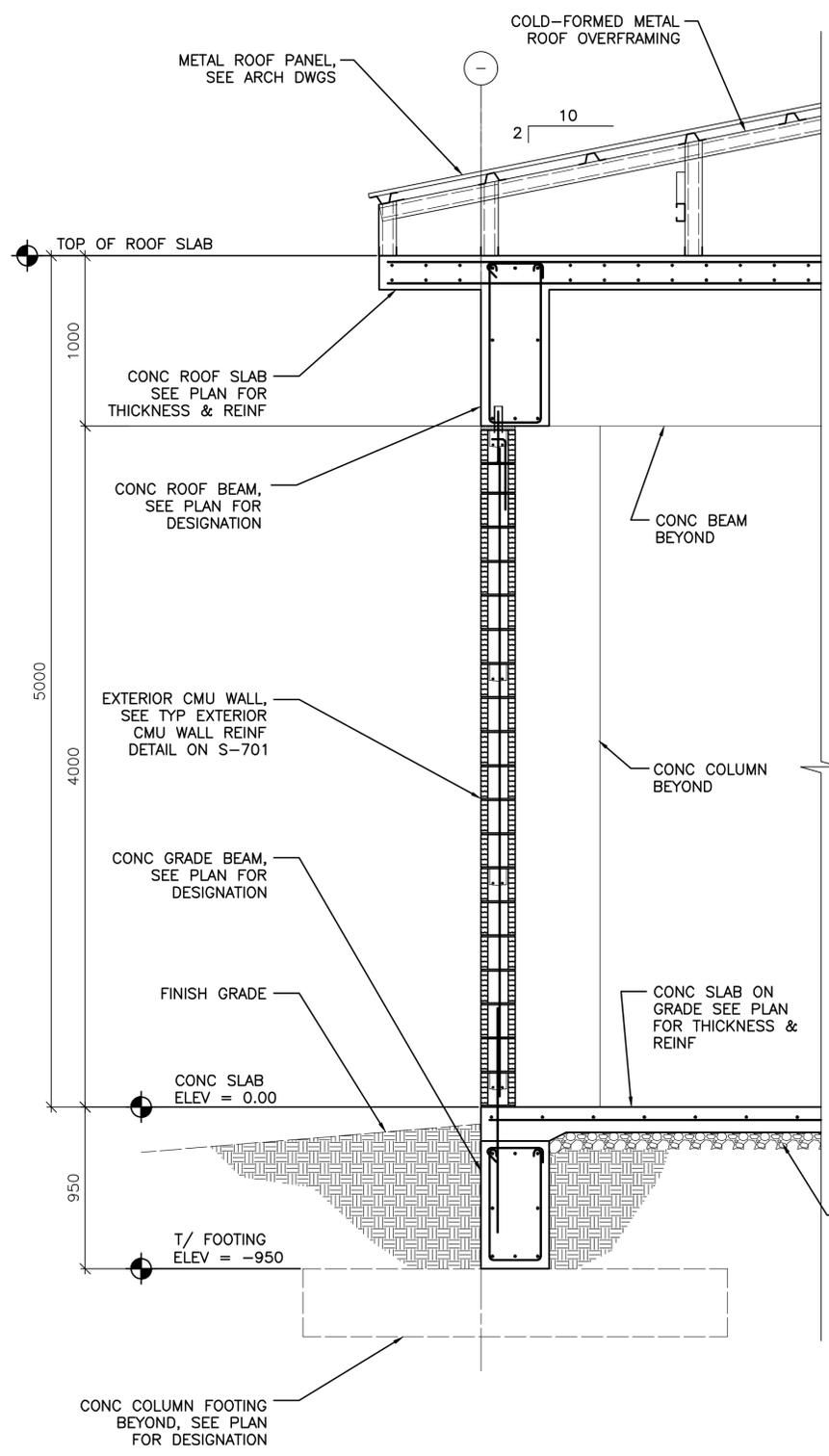
Designed by: KMP/MMY  
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 Submitted by: BAKER

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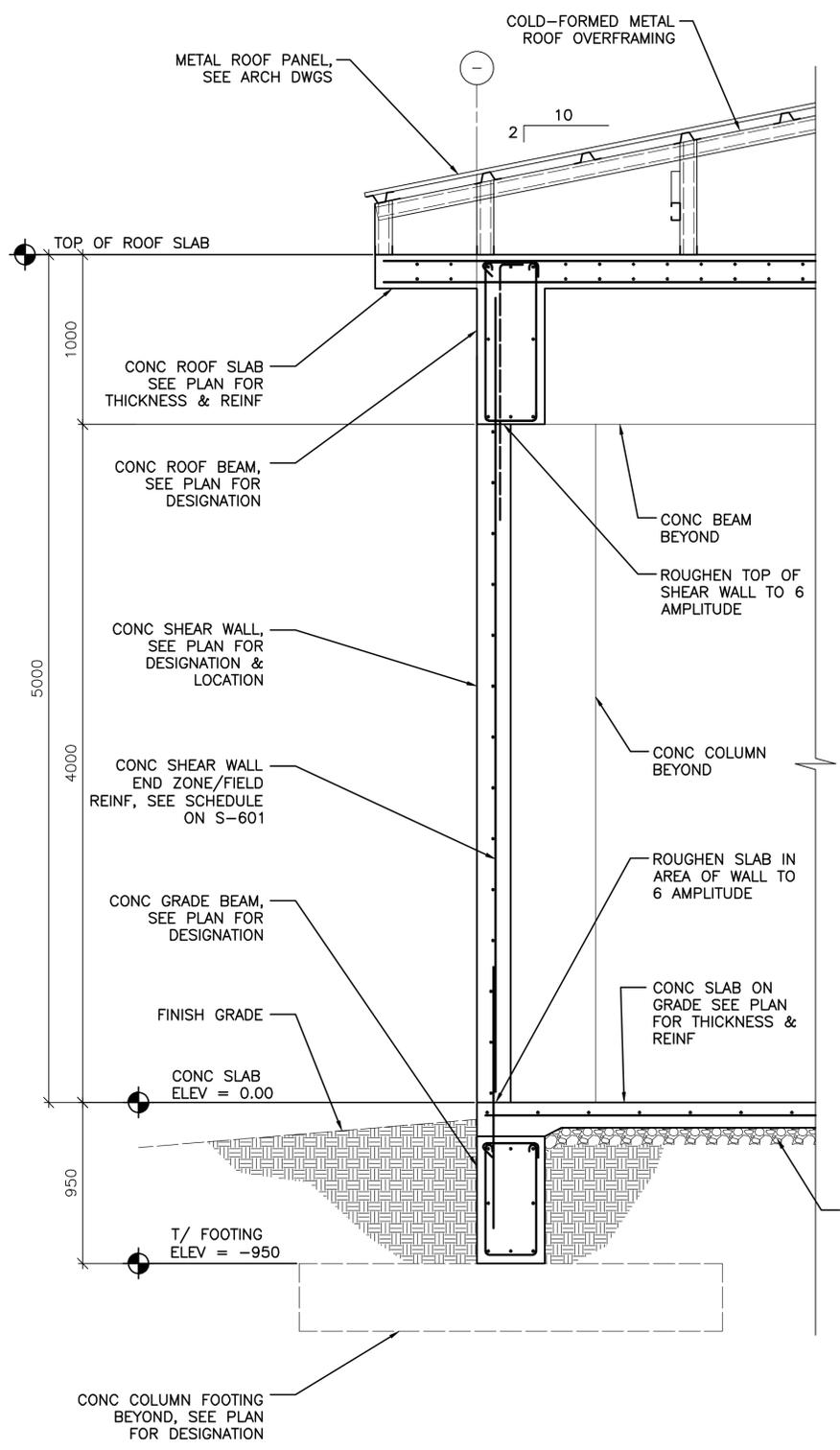
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 BUILDING SECTIONS

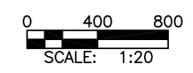
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**S-401**



**1**  
 S-101  
 SCALE: 1:20  
**TYPICAL WALL SECTION AT EXTERIOR MASONRY WALL**



**2**  
 S-101  
 SCALE: 1:20  
**TYPICAL WALL SECTION AT CONCRETE SHEAR WALL**



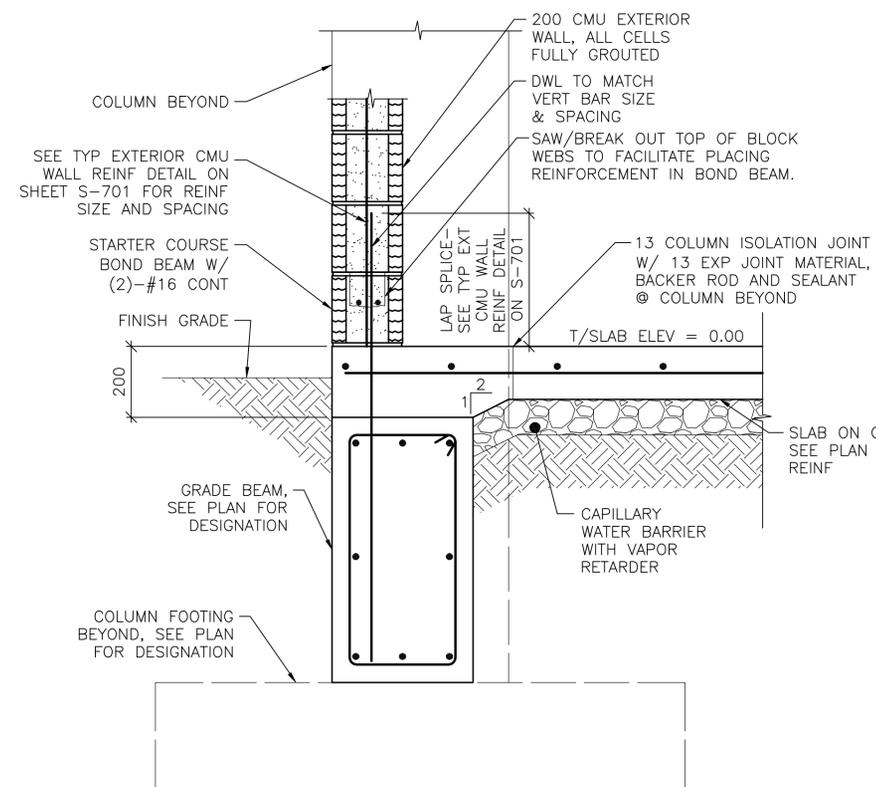
UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ON DRAWINGS ARE IN MILLIMETERS (mm)

APPROVED:  
*Chris White*  
 A/E DESIGNER OF RECORD

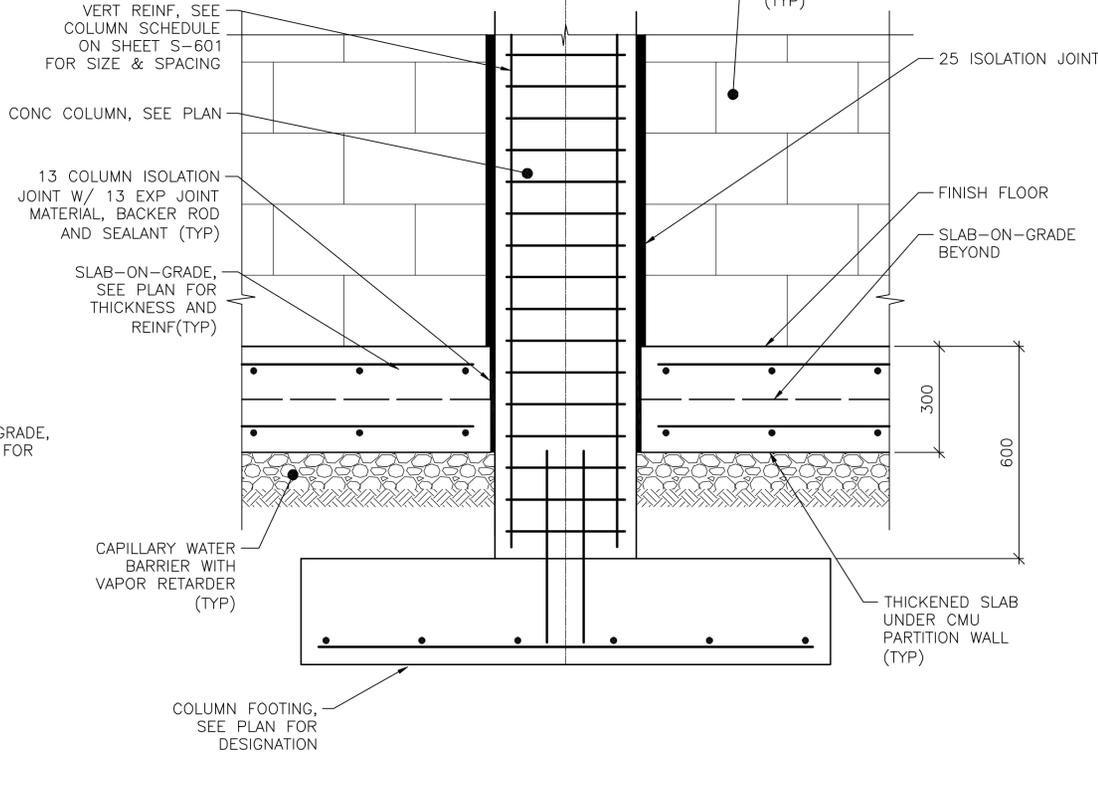




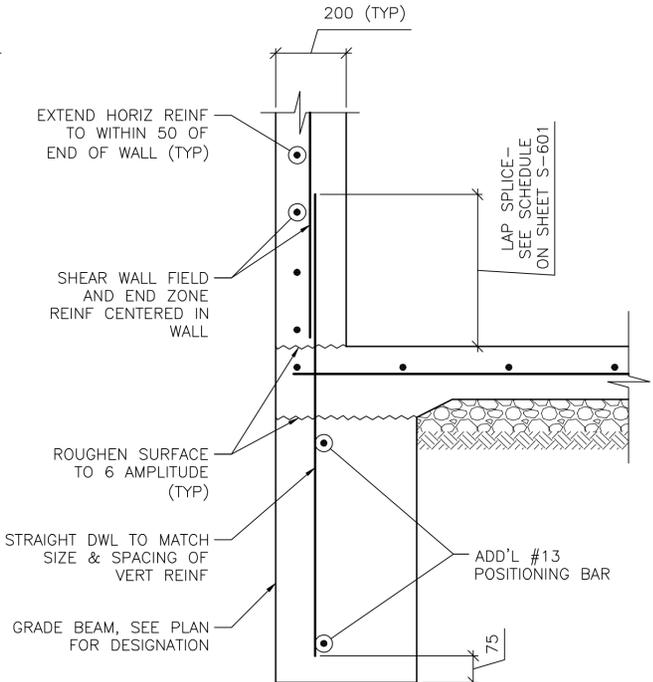
Rev.	Date	Description
1		
2		
3		
4		
5		



**1 SECTION**  
 S-101 SCALE: 1:10

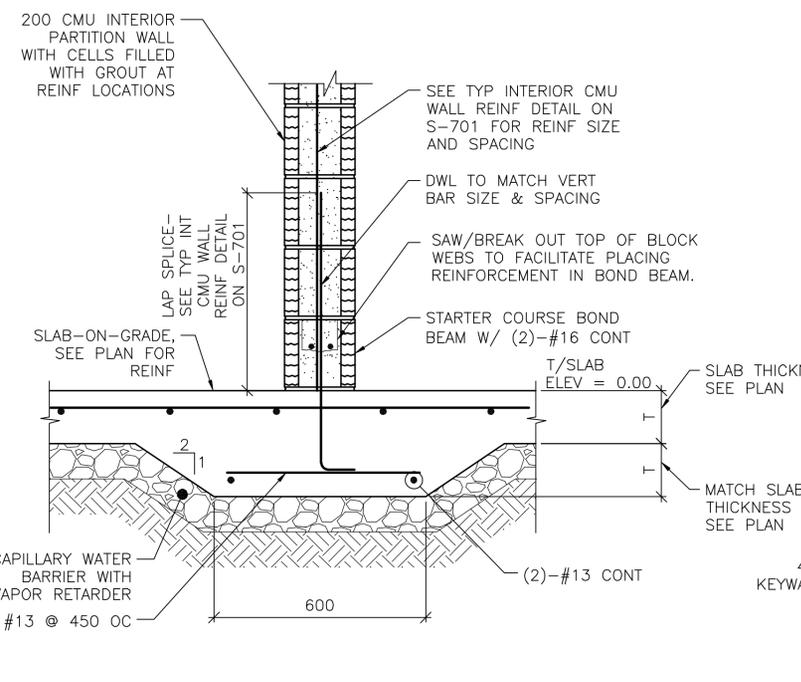


**2 SECTION**  
 S-101 SCALE: 1:10

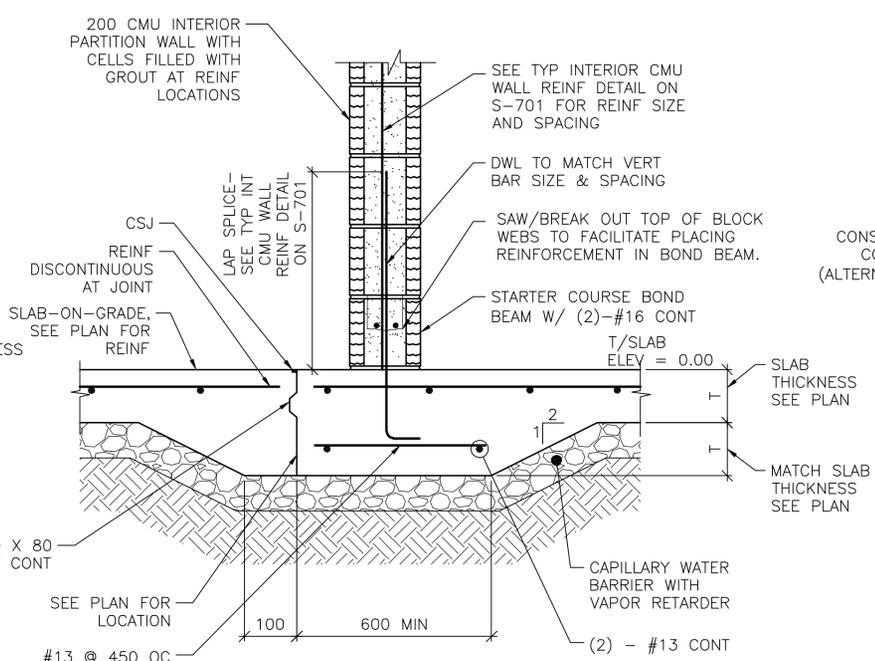


**3 SECTION**  
 S-101 SCALE: 1:10

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.

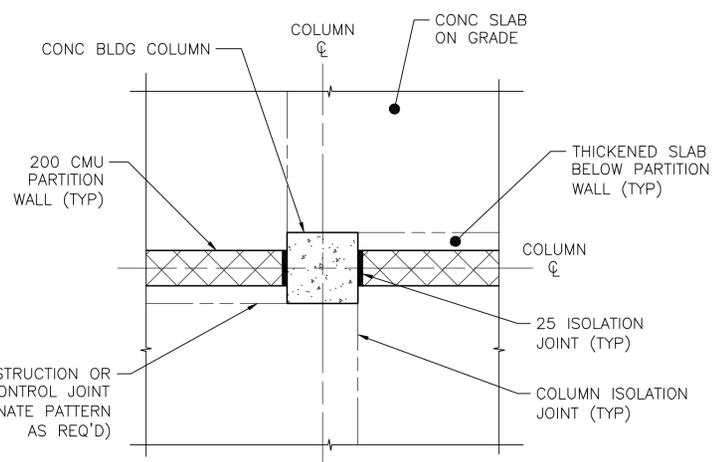


**4 SECTION**  
 S-101 SCALE: 1:10

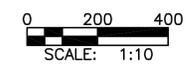


**5 SECTION**  
 S-101 SCALE: 1:10

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



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

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

SEAL:



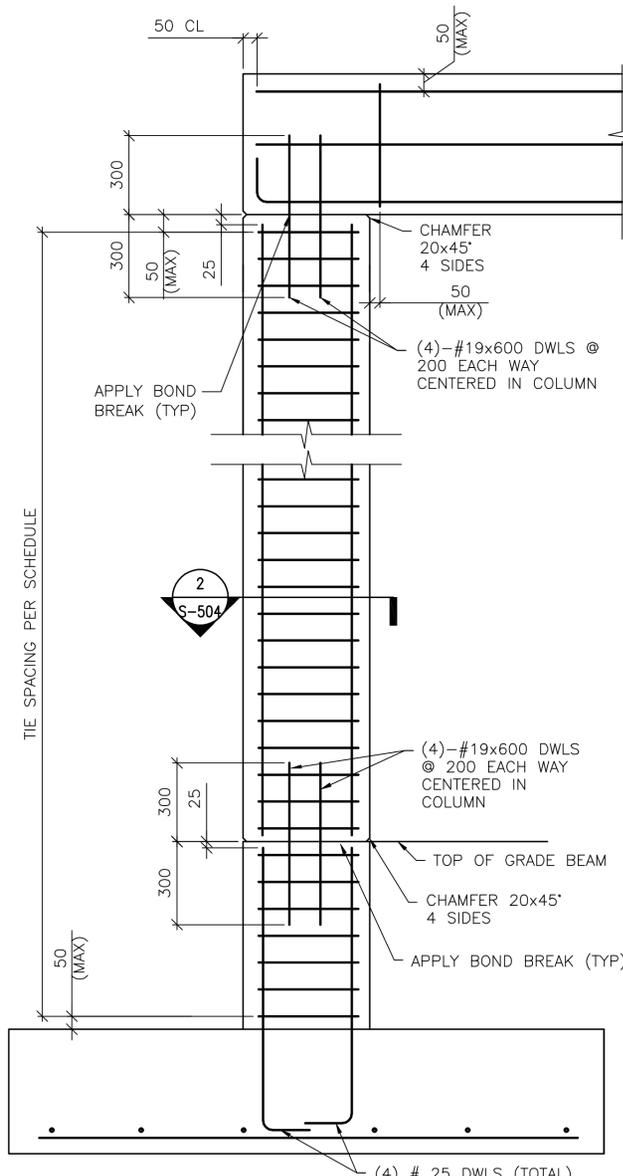
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AFGHAN NATIONAL ARMY REGIONAL STANDARD DESIGN CENTER  
 300 STUDENT CLASSROOM BUILDING (1) 300 STUDENT CLASSROOM  
 FOUNDATION SECTIONS

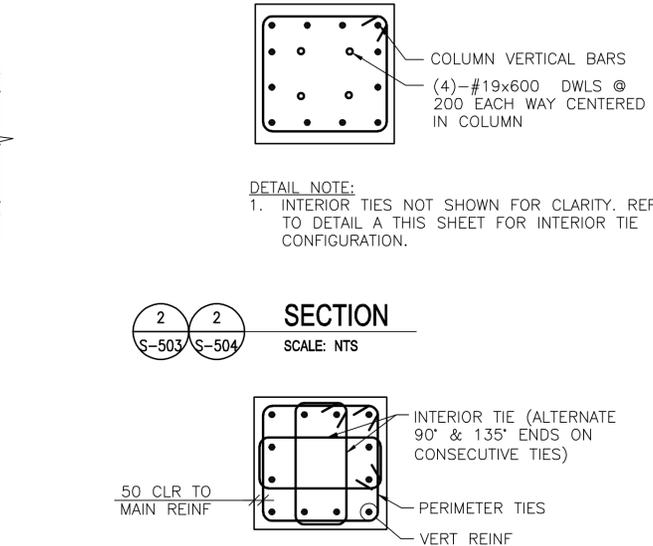
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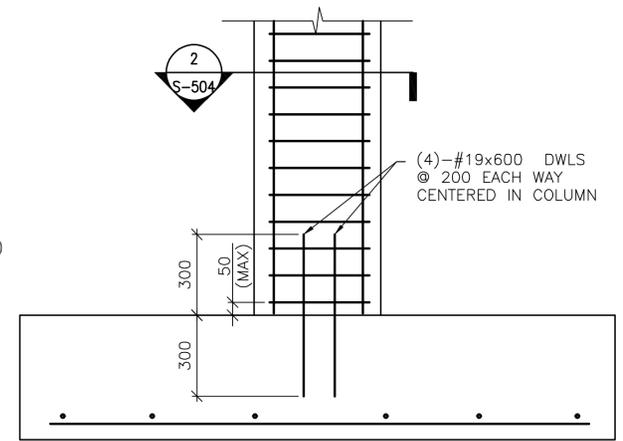




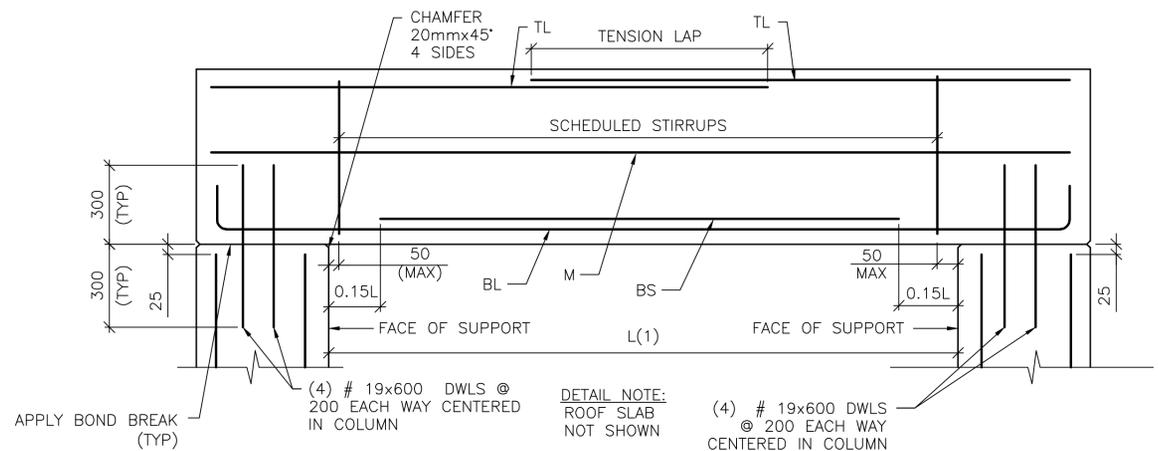
**1**  
S-504  
SCALE: NTS  
**1-STORY COLUMN REINF DETAILS**  
(WITH GRADE BEAM)



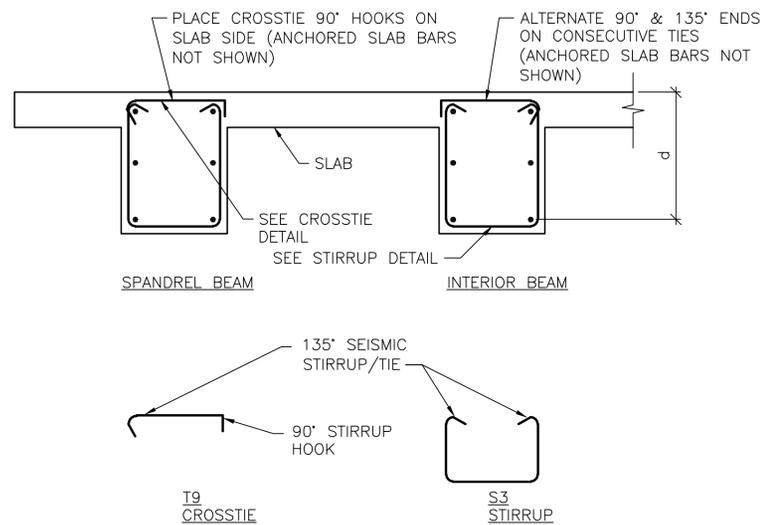
**A**  
S-504  
SCALE: NTS  
**12 BAR COLUMN**



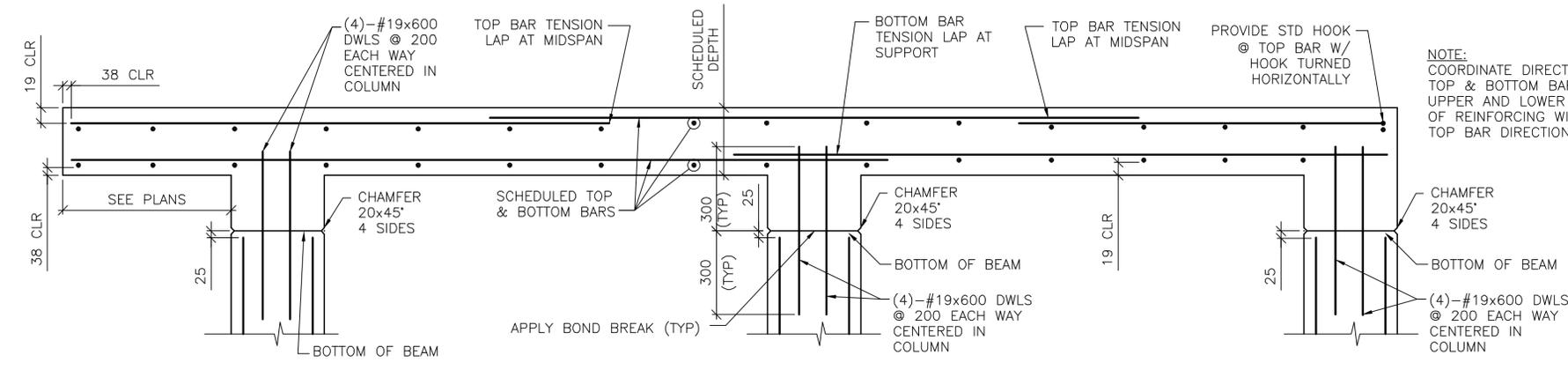
**1**  
S-504  
SCALE: NTS  
**1-STORY COLUMN REINF DETAILS**  
(WITHOUT GRADE BEAM)



**3**  
S-504  
SCALE: NTS  
**SINGLE SPAN ROOF BEAM REINFORCING DETAIL**



**B**  
S-504  
SCALE: NTS  
**BEAM REINFORCEMENT DETAILS**



**4**  
S-504  
SCALE: NTS  
**FRAMED SLAB REINFORCING DETAIL**

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

APPROVED:  
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A/E DESIGNER OF RECORD

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**REGISTERED PROFESSIONAL ENGINEER**  
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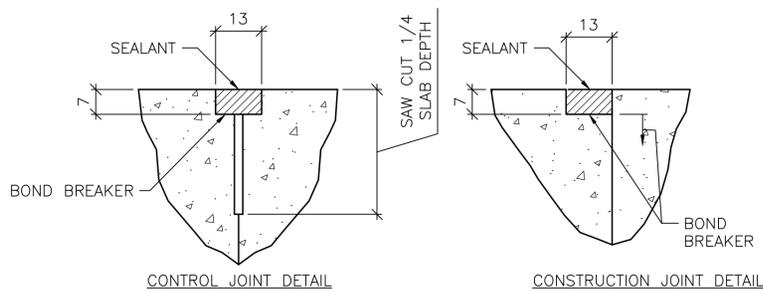
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300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM

BEAM & COLUMN DETAILS

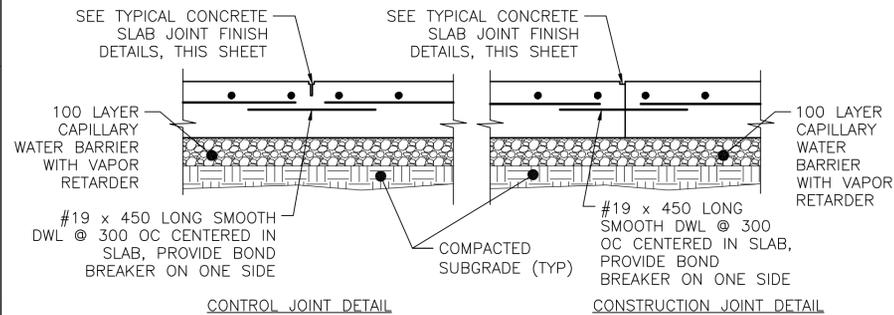
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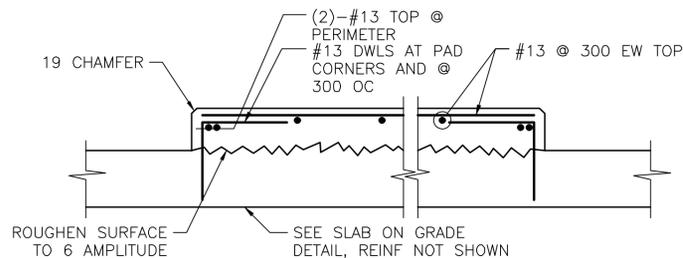
**TYPICAL CONCRETE SLAB JOINT FINISH DETAILS**

1  
S-701  
SCALE: NTS



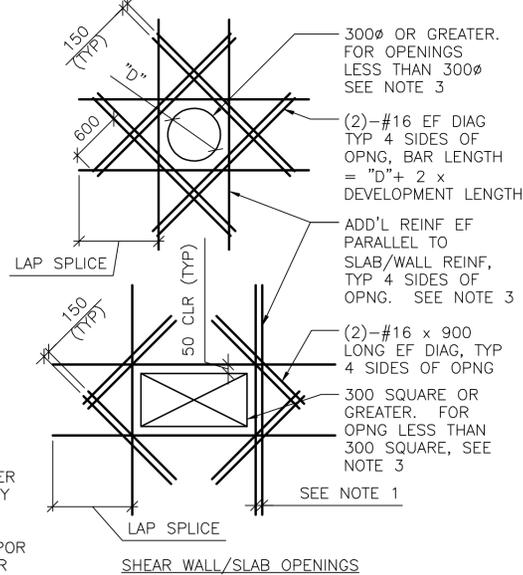
**TYPICAL SLAB ON GRADE JOINT DETAIL**

2  
S-701  
SCALE: NTS



**INTERIOR EQUIPMENT PAD DETAIL**

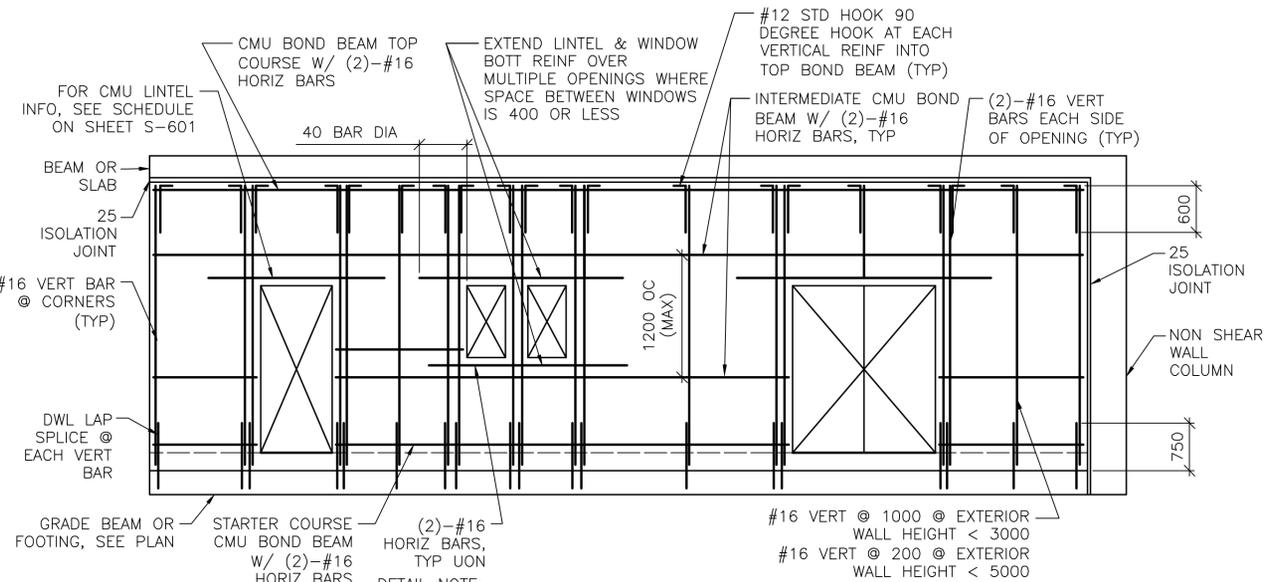
3  
S-701  
SCALE: NTS



- 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**

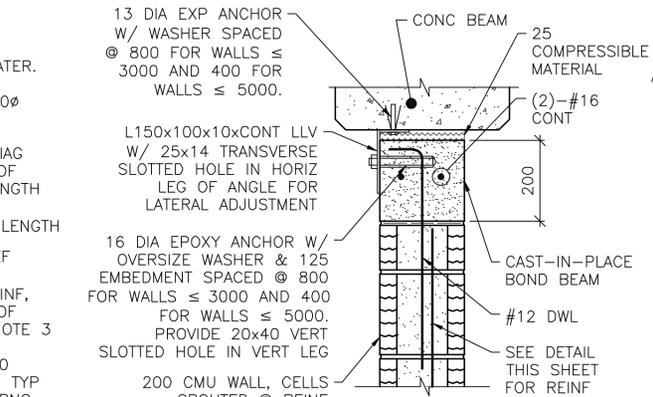
4  
S-701  
SCALE: NTS



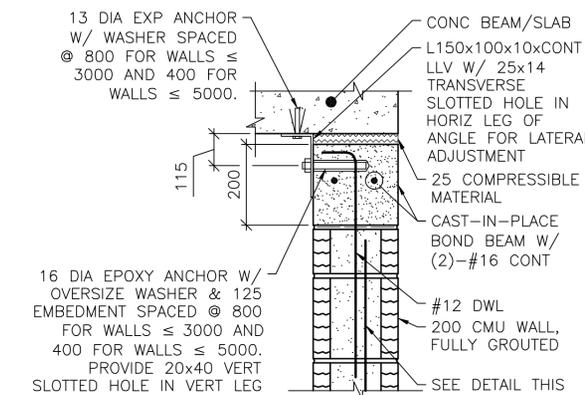
- DETAIL NOTE:**
- CENTER VERT REINF IN WALL.
  - GROUT ALL CMU CELLS.
  - REFERENCE ARCH DWGS FOR JOINT INFORMATION
  - DOWELS BETWEEN TOP BOND BEAM AND BEAM/SLAB ABOVE (INCLUDING EMBEDDED PIPE SLEEVE) NOT SHOWN FOR CLARITY. SEE SPECIFIC S-500 SERIES DWGS FOR INFO.
  - FOR INFORMATION ON ALTERNATE CAST-IN-PLACE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

**TYP EXTERIOR CMU WALL REINF DETAIL**

7  
S-701  
SCALE: NTS



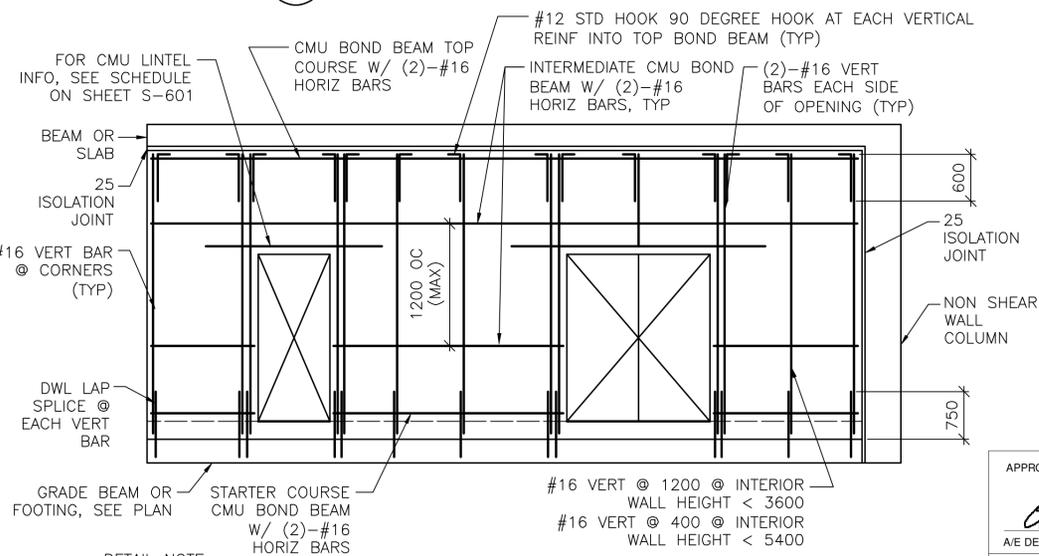
- NOTE:**
- AT ANCHOR BOLTS, ADD AN ADDITIONAL 25 COMPRESSIBLE MATERIAL BELOW EXP ANCHOR HEAD.



- 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**

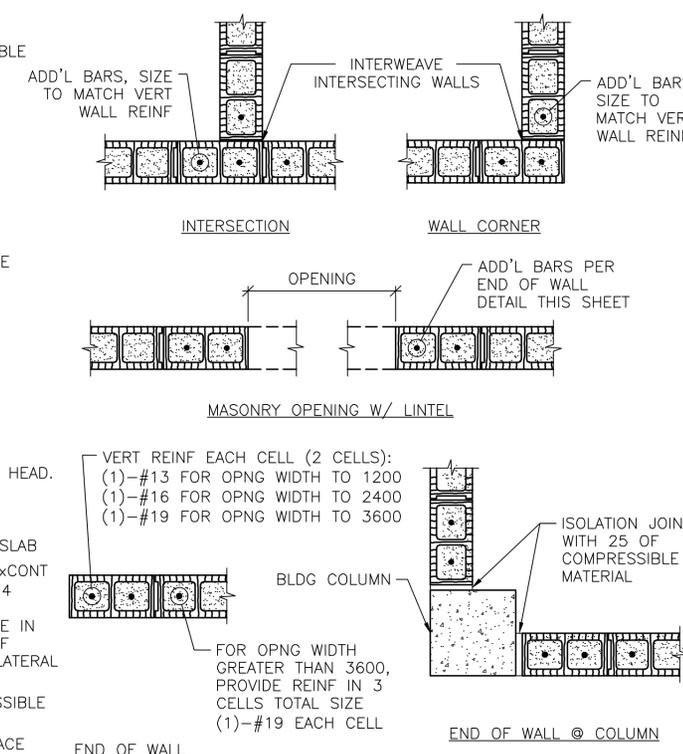
5  
S-701  
SCALE: NTS



- 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.

**TYP INTERIOR CMU WALL REINF DETAIL**

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

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APPROVED:  
*Chris W...*  
A/E DESIGNER OF RECORD

SEAL:  
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AFGHANISTAN ENGINEER DISTRICT

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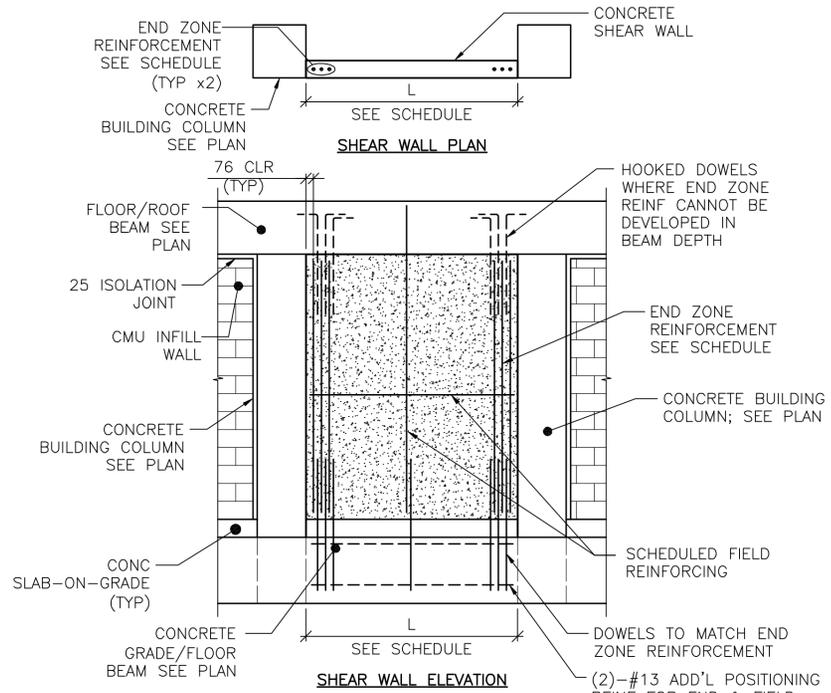
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AFGHAN NATIONAL ARMY  
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STANDARD DESIGN

300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM

TYPICAL DETAILS

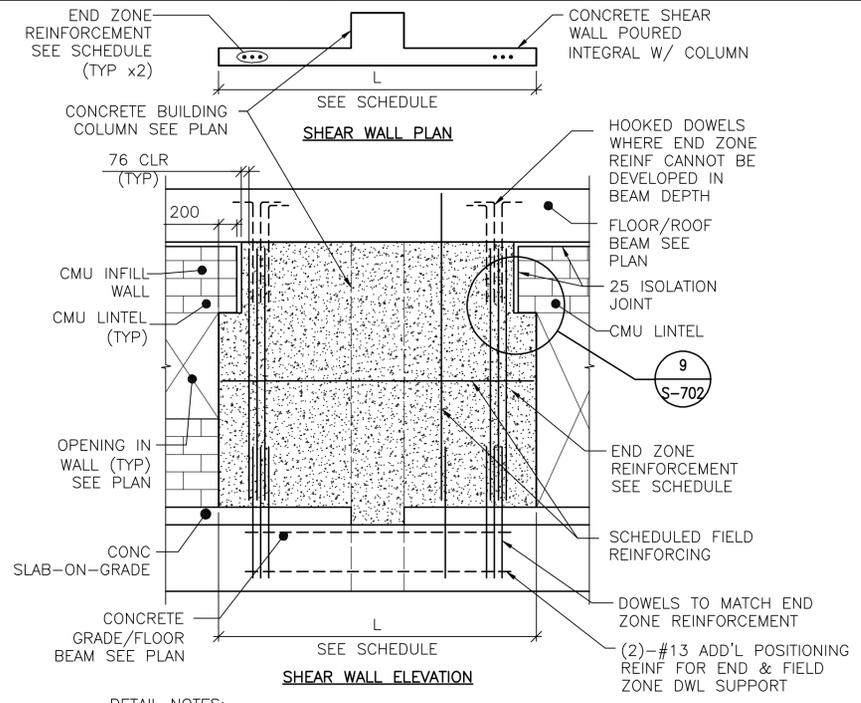
Sheet reference number:  
**S-701**



**DETAIL NOTES:**

1. FIELD REINFORCEMENT IN SHEAR WALL NOT SHOWN COMPLETELY FOR CLARITY.
2. FIELD REINFORCEMENT CENTERED IN WALL.
3. MINIMUM CONC CLEAR DISTANCE FOR END ZONE REINF = 76
4. SEE CONC SHEAR WALL SCHEDULE ON SHEET S-601
5. SEE ARCH DWGS FOR ISOLATION JOINT INFORMATION

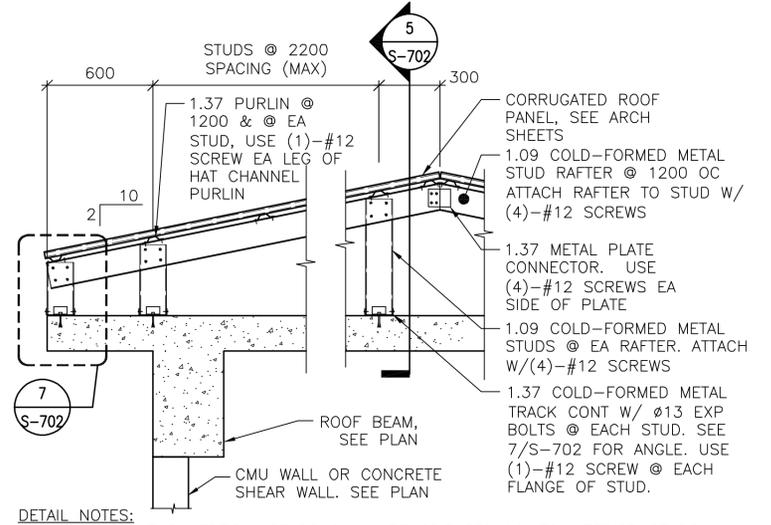
**1 TYPE "C" SHEAR WALL DETAIL**  
SCALE: NTS



**DETAIL NOTES:**

1. FIELD REINFORCEMENT IN SHEAR WALL NOT COMPLETELY SHOWN COMPLETELY FOR CLARITY.
2. FIELD REINFORCEMENT CENTERED IN WALL.
3. MINIMUM CONC CLEAR DISTANCE FOR END ZONE REINF = 76
4. SEE CONC SHEAR WALL SCHEDULE ON SHEET S-601
5. SEE ARCH DWGS FOR ISOLATION JOINT INFORMATION

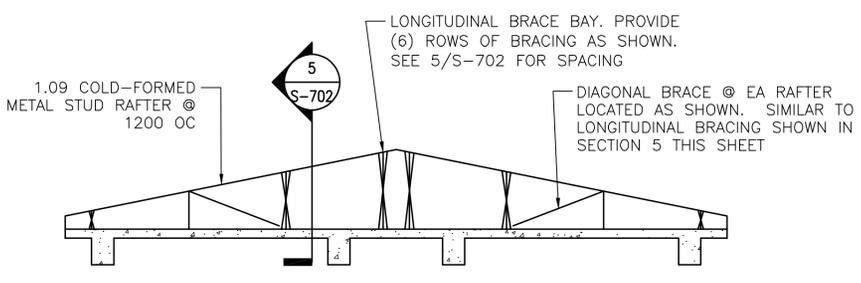
**2 TYPE "D" SHEAR WALL DETAIL**  
SCALE: NTS



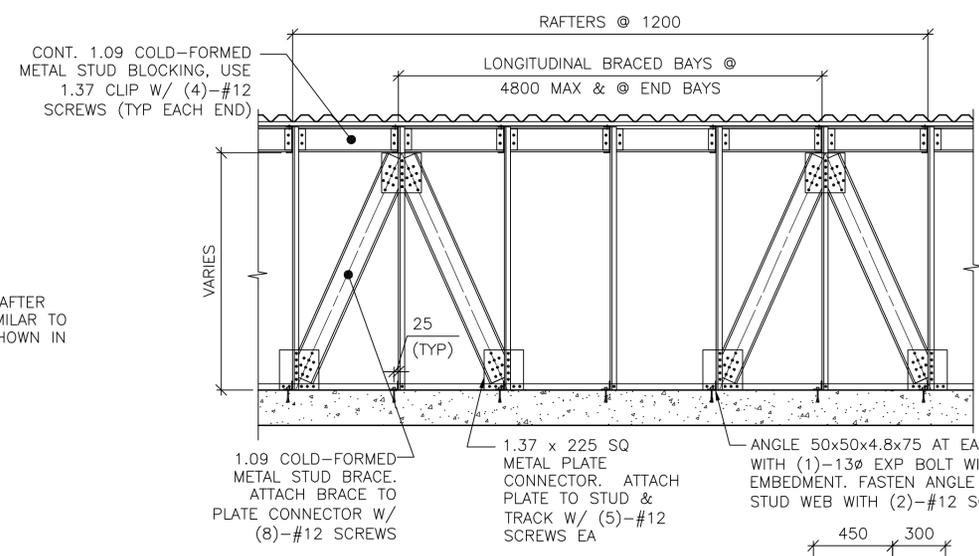
**DETAIL NOTES:**

1. ALL GABLE END VERTICAL STUDS SHALL BE ORIENTED 90° TO INTERIOR STUDS & SPACED @ 600 OC. GABLE END RAFTER SHALL BE 1.37 METAL TRACK SPANNING CONTINUOUSLY OVER GABLE END STUDS. INSET GIRTS AT GABLE END SHALL BE 1.09 COLD-FORMED METAL STUDS @ 1200 OC ATTACHED VIA 1.37 THICKNESS CLIP ANGLE W/ (2) #12 SCREWS EA LEG.
2. ALL INTERIOR, NON-GABLE END VERTICAL STUDS GREATER THAN 2400 IN LENGTH SHALL BE BACK-TO-BACK W/ #12 SCREWS @ 200 OC STAGGERED.

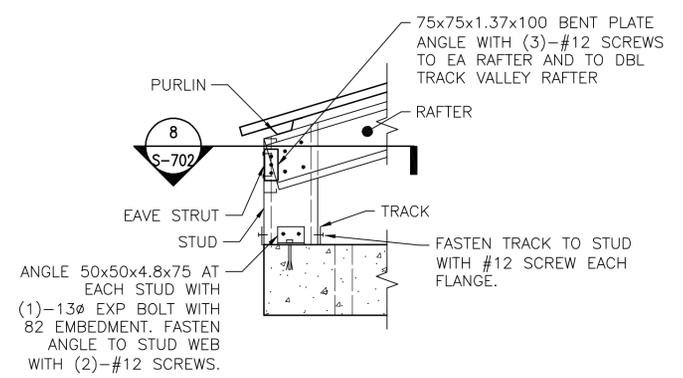
**3 TYPICAL OVERBUILT ROOF FRAMING DETAIL**  
SCALE: NTS



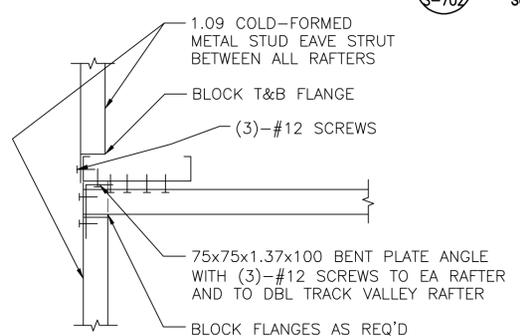
**4 TYPICAL ROOF BRACE LAYOUT**  
SCALE: NTS



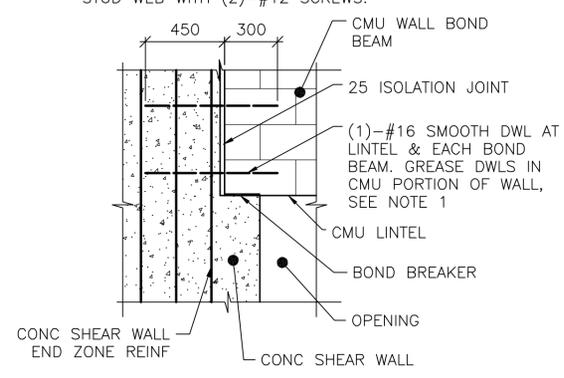
**5 SECTION**  
SCALE: NTS



**7 DETAIL**  
SCALE: NTS



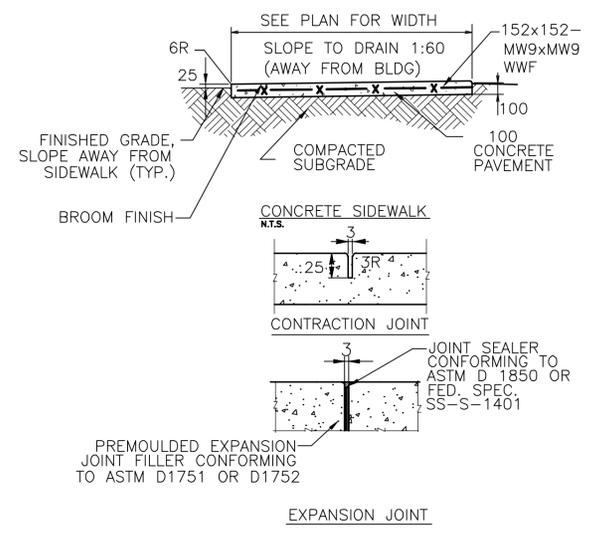
**8 SECTION**  
SCALE: NTS



**9 SECTION**  
SCALE: NTS

**NOTE:**

1. TIE SMOOTH DOWEL ROD TO SHEAR WALL END ZONE REINF FOR EACH BOND BEAM AND LINTEL.



**6 TYPICAL CONCRETE SIDEWALK DETAILS**  
SCALE: NTS

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

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*Chris White*  
A/E DESIGNER OF RECORD

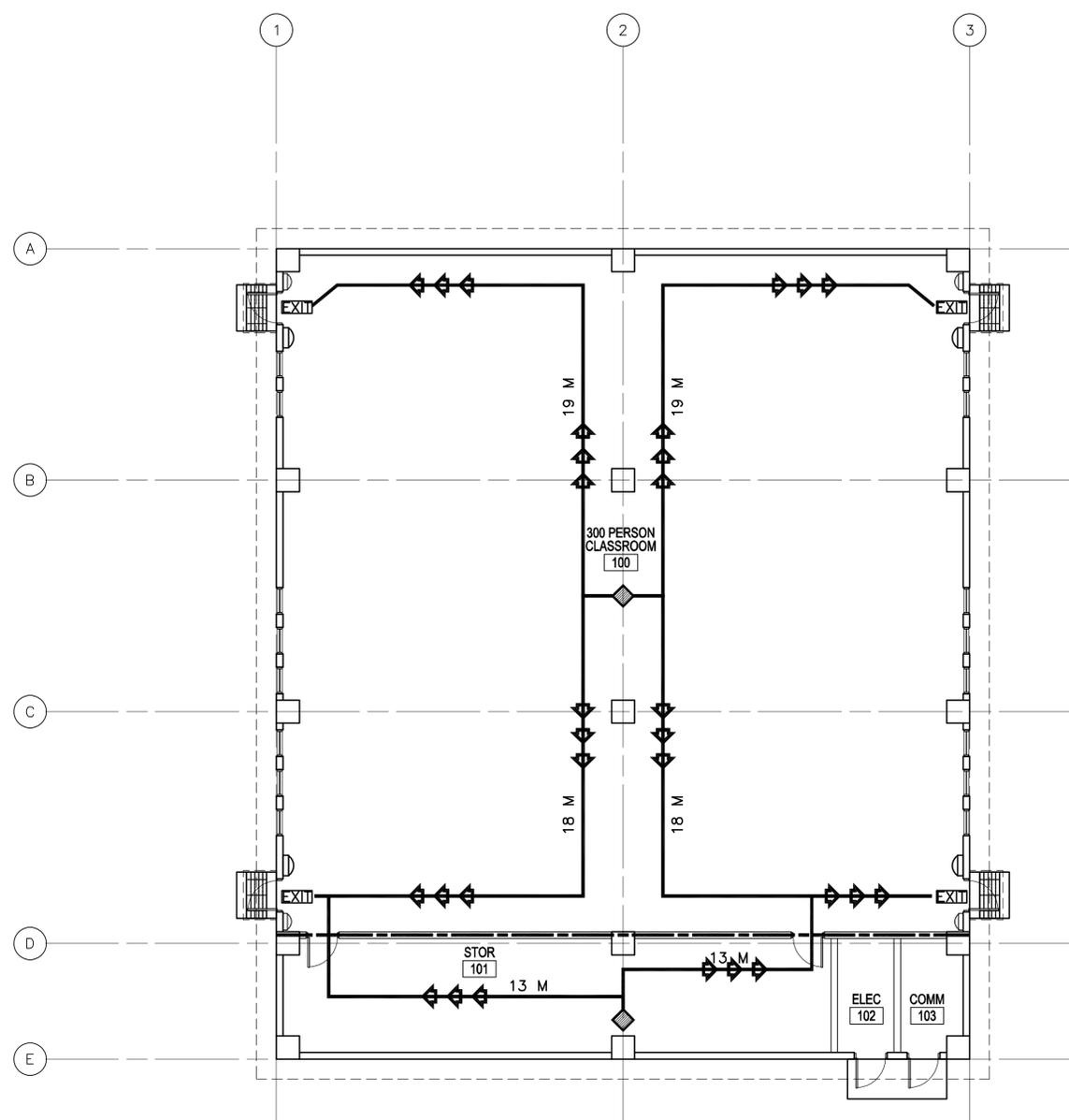


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300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM

Sheet reference number:  
**S-702**



**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



Date	Rev.	Description
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Date: 2/23/10  
 Design file no.:  
 Drawing code:  
 File name: ANACR00A-001SP  
 Plot date: 2/23/2010  
 Plot scale:  
 Designed by: KRC  
 Dwn by: KJG  
 Cld by: NLJ  
 Reviewed by: LHM  
 Submitted by: BAKER

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 CORPS OF ENGINEERS  
 APO AE 96338  
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 Airside Business Park  
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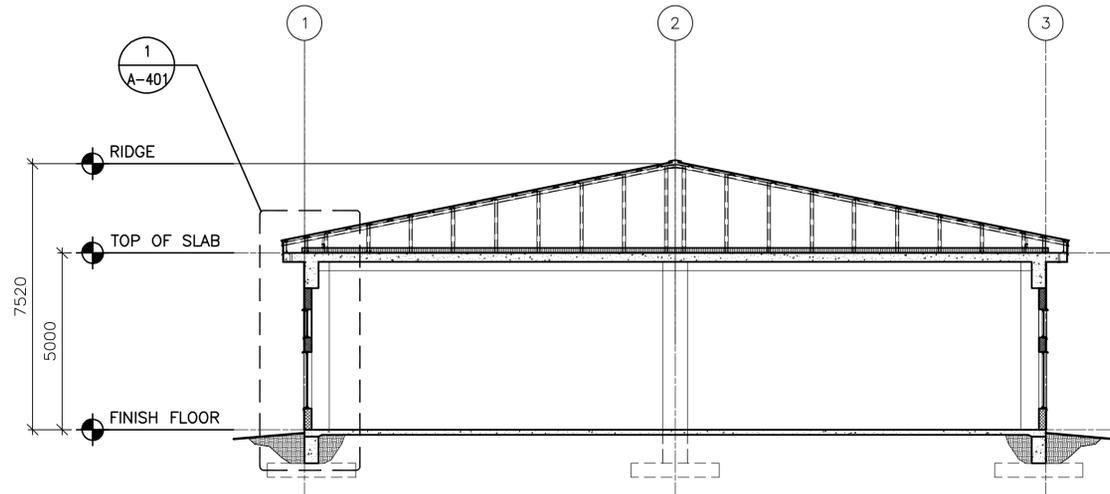


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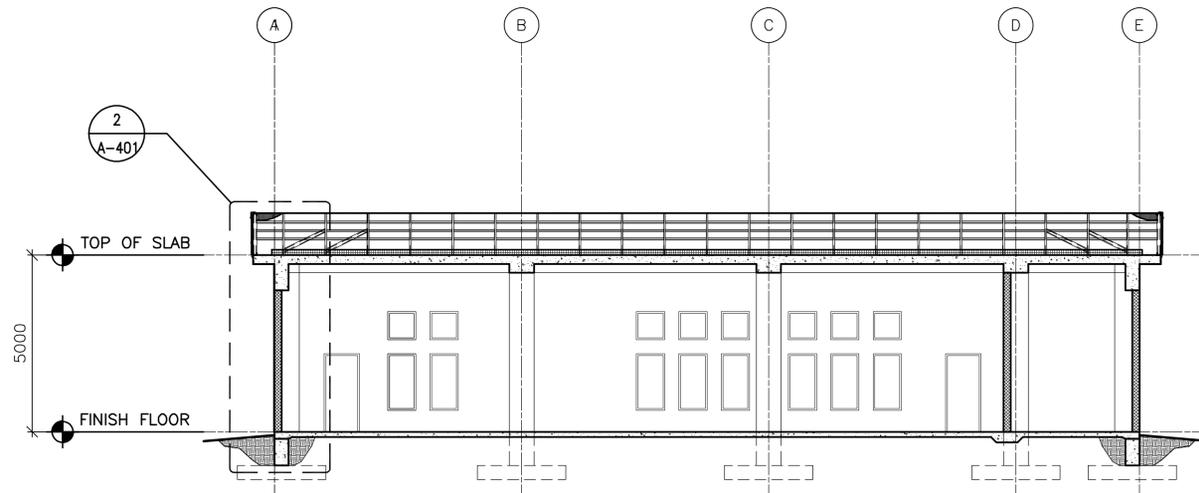








1 BUILDING SECTION  
A-301 SCALE: 1:100



2 BUILDING SECTION  
A-301 SCALE: 1:100

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ARE IN MILLIMETERS (MM),  
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*K. R. Chafin*  
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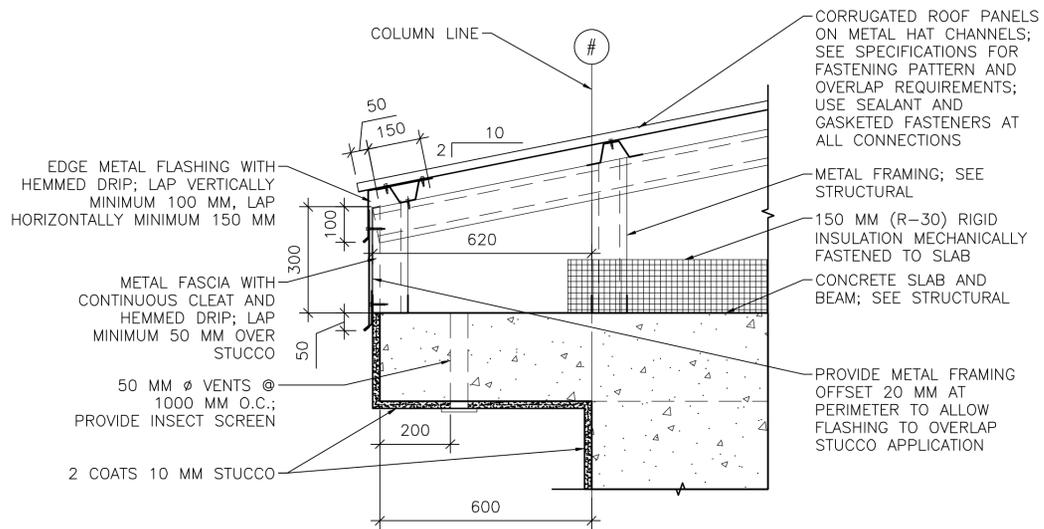
Rev.	Date	Description	Mark	Date	Appr.
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Dwn by:	KJG	Reviewed by:	LHM
Submitted by:	BAKER	Drawing code:	ANACR300A-301B
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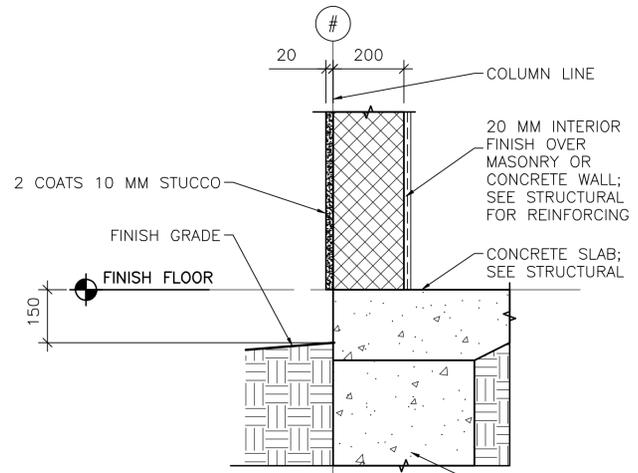
AFGHAN NATIONAL ARMY  
REGIONAL MILITARY TRAINING CENTER  
STANDARD DESIGN  
300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM  
BUILDING SECTIONS

Sheet  
reference  
number:  
**A-301**

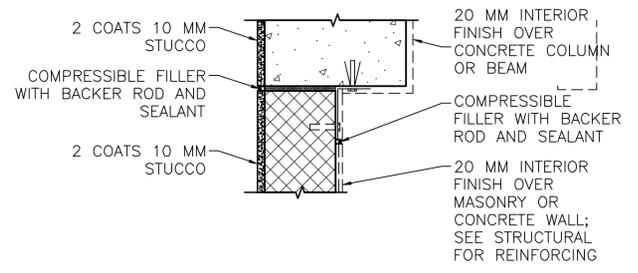




**1 EAVE DETAIL**  
SCALE: 1:10

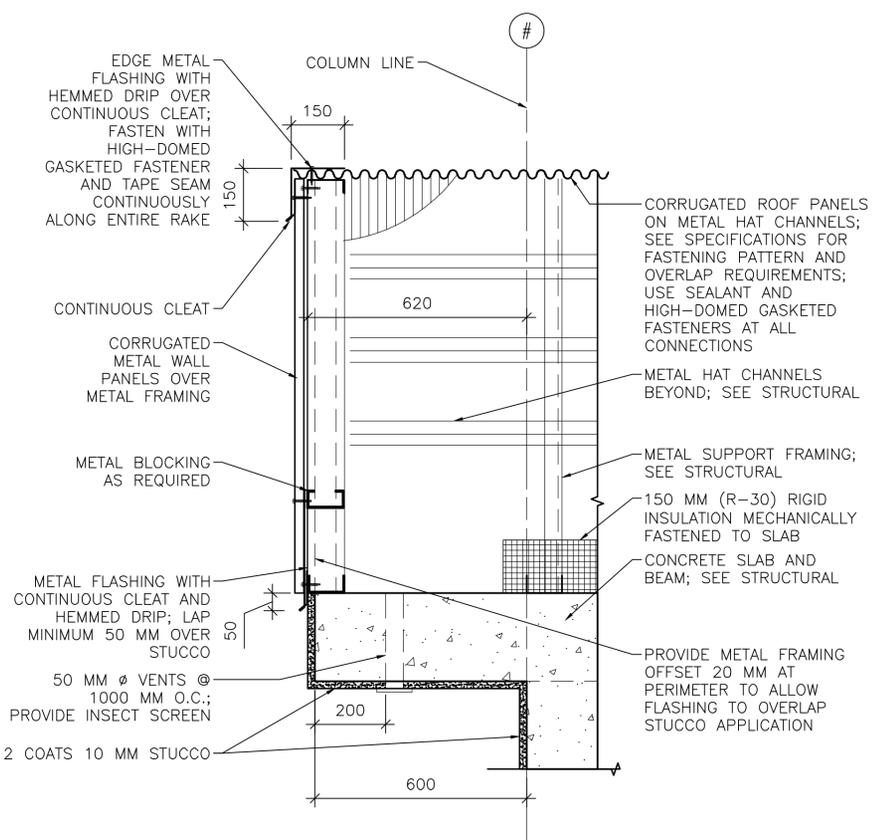


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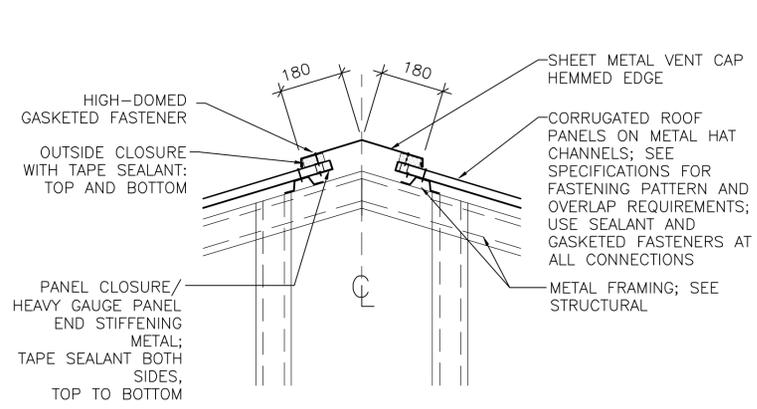


NOTE: DETAIL TYPICAL AT ALL WALL/COLUMN AND WALL/BEAM LOCATIONS. SEE ALTERNATE BRACING DETAIL BELOW 2B/A-501.

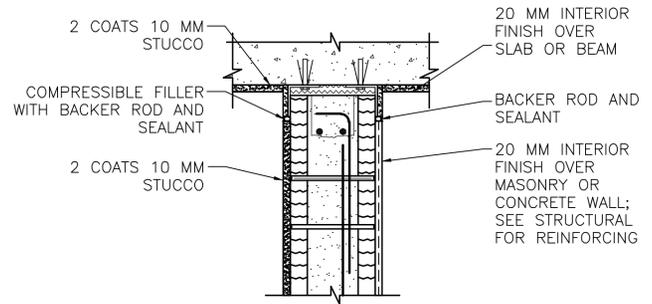
**2A STUCCO JOINT DETAIL**  
SCALE: 1:10



**3 RAKE/EAVE DETAIL**  
SCALE: 1:10



**4 RIDGE VENT DETAIL**  
SCALE: 1:10



**2B ALTERNATE BRACING DETAIL**  
SCALE: 1:10

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SCALE: 1:10



US ARMY CORPS OF ENGINEERS  
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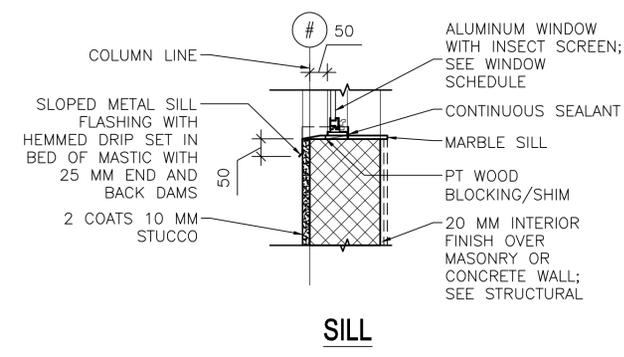
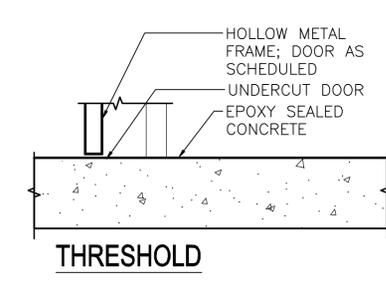
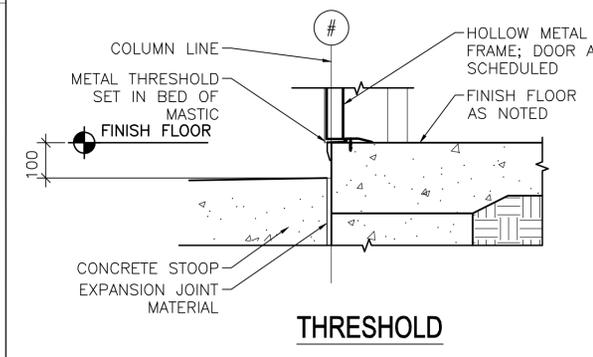
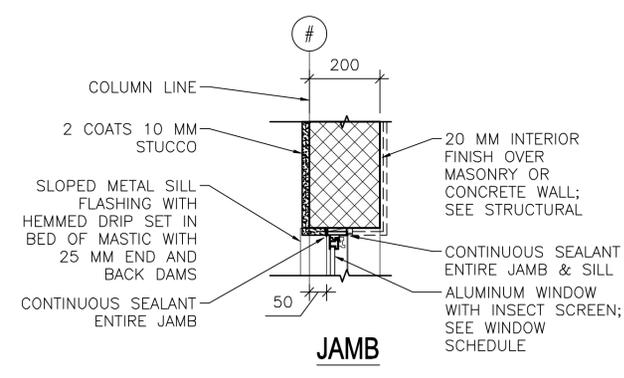
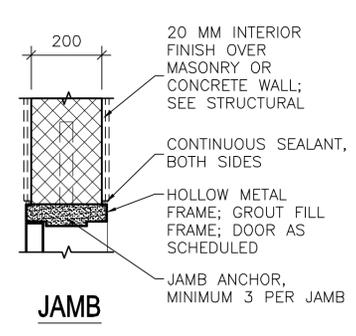
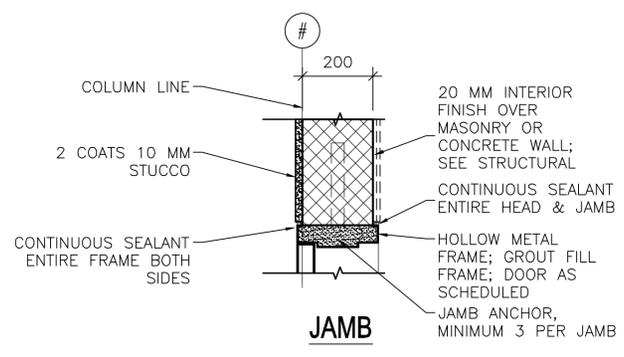
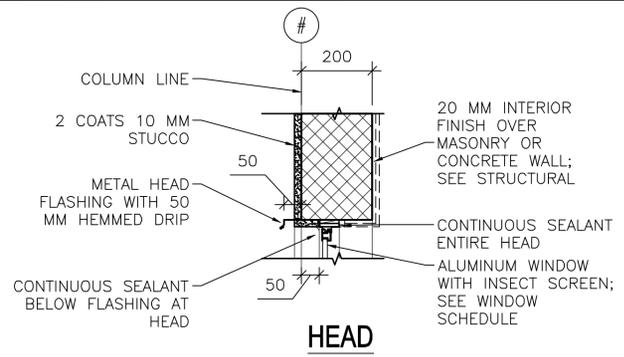
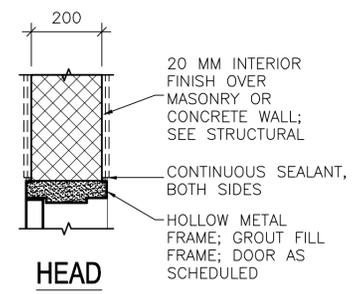
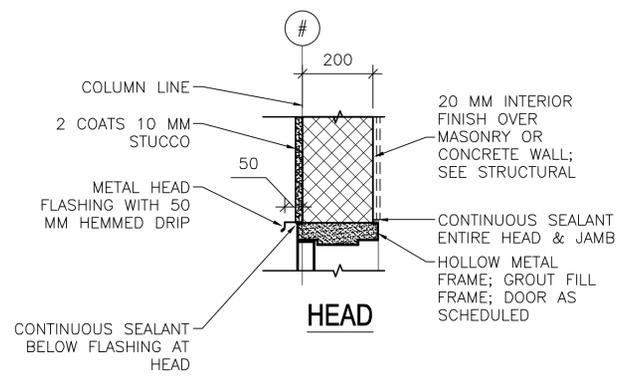
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Dwn by: KJG	Reviewed by: LHM	Drawing code: ANACR00A-501D	File name: ANACR00A-501D
Submitted by: BAKER	Plot date: 2/22/10	Plot scale: x:1	

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REGIONAL MILITARY TRAINING CENTER  
STANDARD DESIGN  
300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM  
EXTERIOR DETAILS

APPROVED: *[Signature]*  
A/E DESIGNER OF RECORD



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



Rev.	Date	Description	Mark	Date	Appr.
0	2/23/10	Design file no.			
		Drawing code:			
		File name: ANACR00A-00048			
		Plot date: 2/22/10			
		Plot scale: xx			

Designed by: KRC  
 Dwn by: KJG  
 Cld by: NLJ  
 Reviewed by: LHM  
 Submitted by: BAKER

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 APO AE 96338  
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 Drawing code:  
 File name: ANACR00A-00048  
 Plot date: 2/22/10  
 Plot scale: xx

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 STANDARD DESIGN  
 300 STUDENT CLASSROOM BUILDING  
 (1) 300 STUDENT CLASSROOM  
 HEAD, JAMB & SILL  
 DETAILS

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



Sheet reference number:  
 A-502

LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE NOTED  
 0 200 400  
 SCALE: 1:10



1

2

3

4

5



US ARMY CORPS OF ENGINEERS  
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Rev.	Date	Description
0		

Designed by:	KRC	Drawn by:	KJG	Reviewed by:	LHM	Submitted by:	BAKER
Date:	2/23/10	Design file no.:		Drawing code:	ANACR300A-0407	File name:	ANACR300A-0407
						Plot date:	2/22/2010
						Plot scale:	1:5

AFGHAN NATIONAL ARMY  
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STANDARD DESIGN  
300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM  
CANOPY  
DETAILS

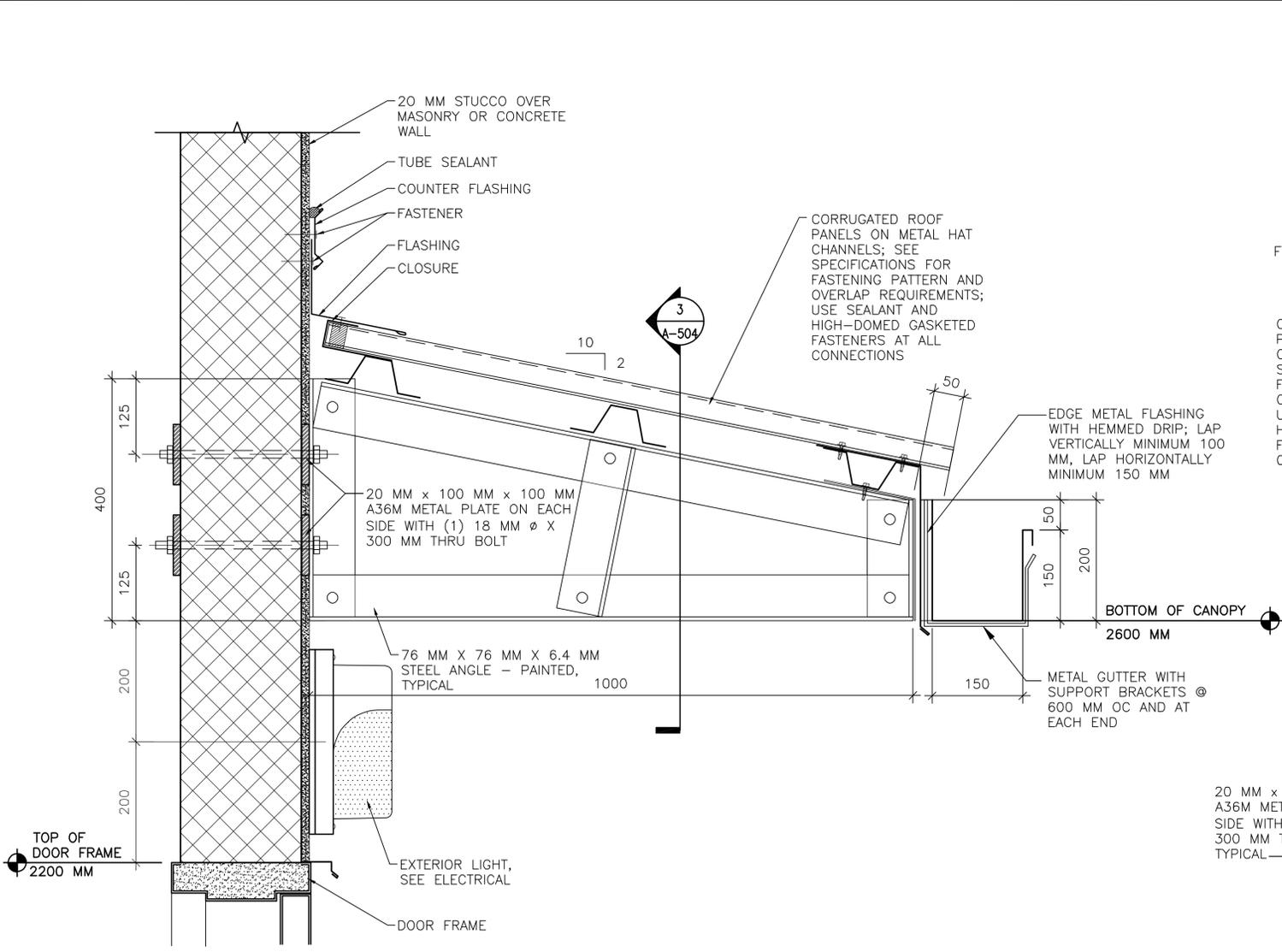
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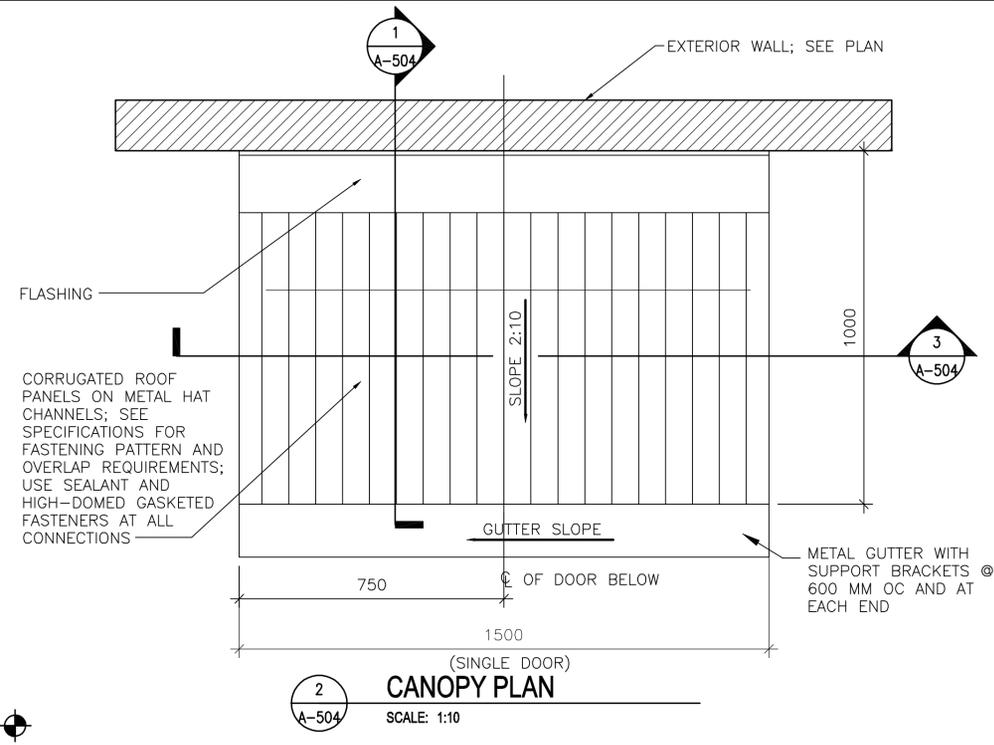
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B

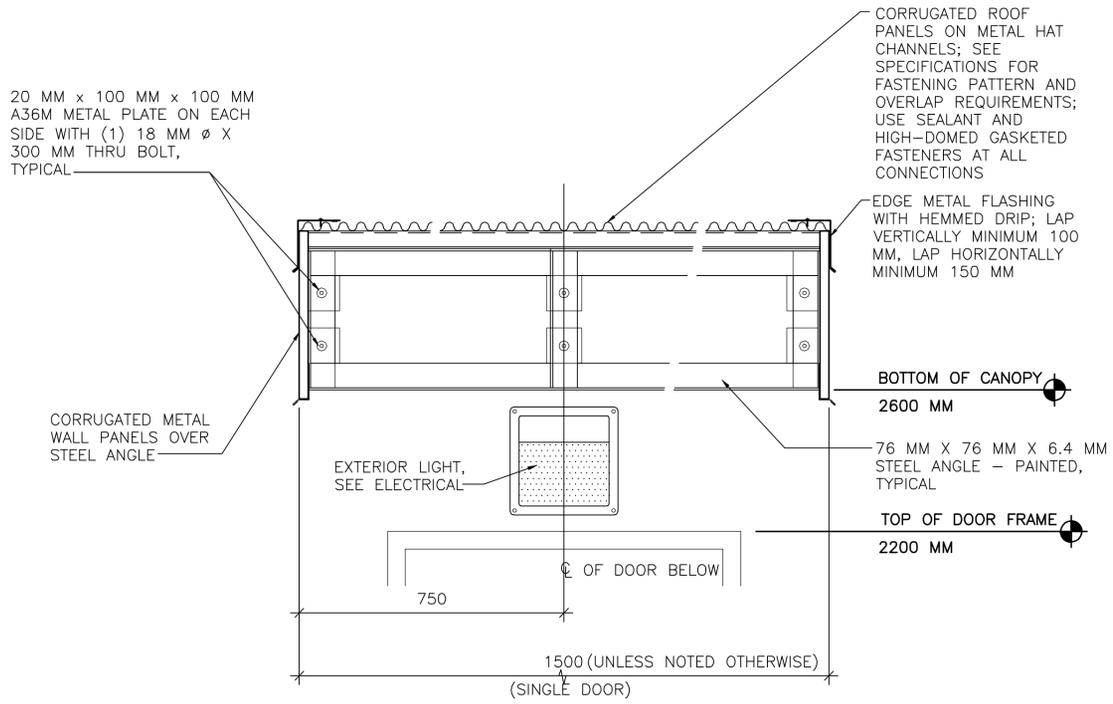
A



**1 CANOPY CONNECTION DETAILS**  
SCALE: 1:5



**2 CANOPY PLAN**  
SCALE: 1:10



**3 CANOPY CONNECTION DETAILS**  
SCALE: 1:10

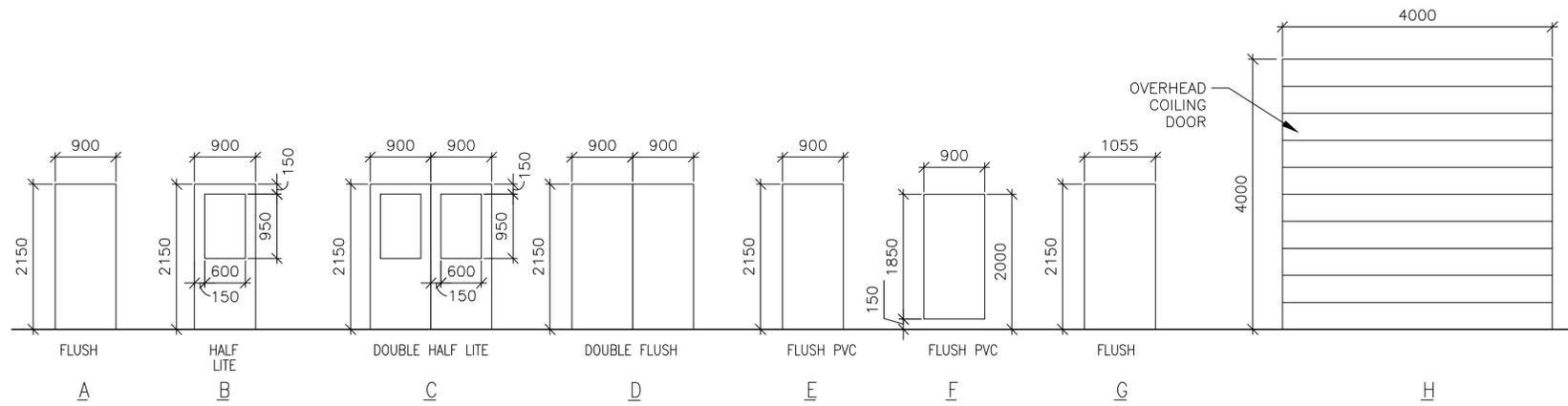
LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS (MM), UNLESS OTHERWISE NOTED

0 100 200  
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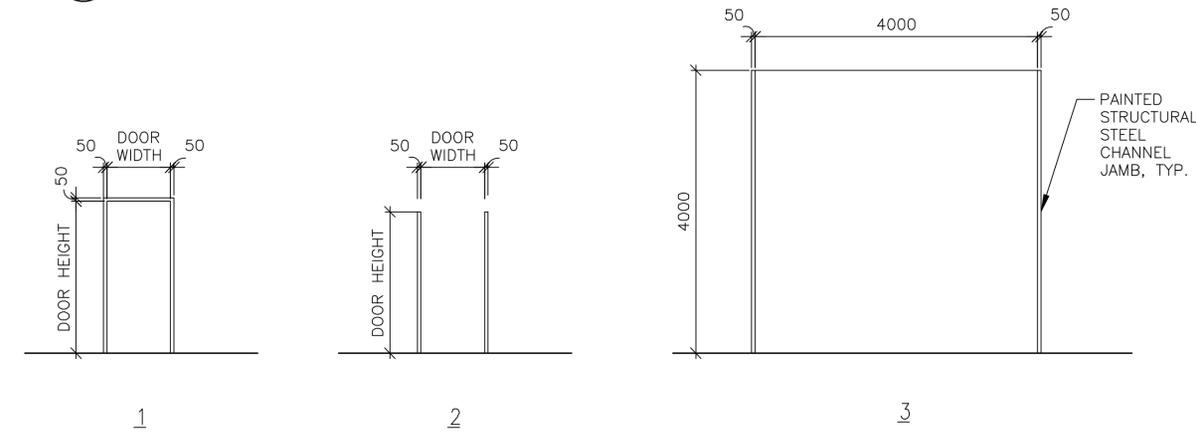
**SHEET NOTES:**  
1. SEE A-101 FOR FLOOR PLANS AND CANOPY LOCATIONS.

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*[Signature]*  
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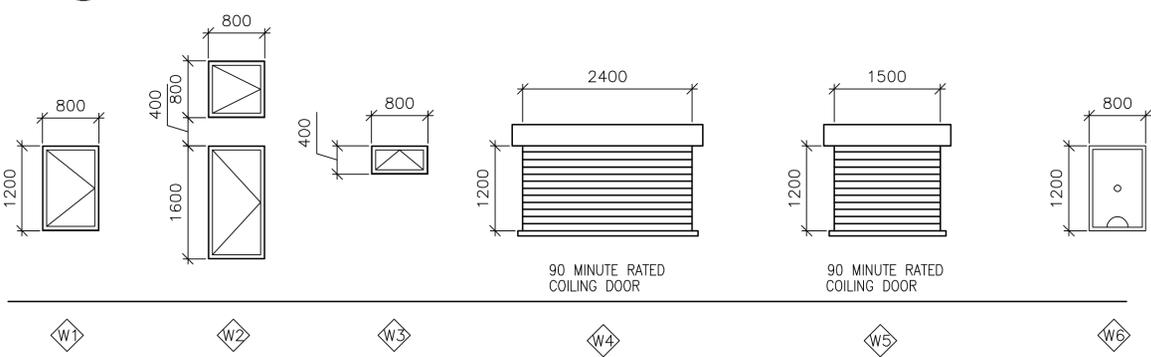
SEAL:



**1 DOOR TYPES**  
SCALE: 1:50



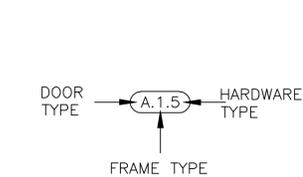
**2 FRAME TYPES**  
SCALE: 1:50



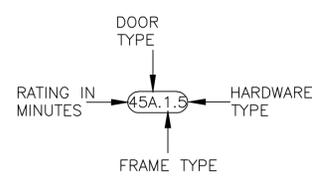
**3 WINDOW TYPES**  
SCALE: 1:50

**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.



**4 DOOR TAG**  
SCALE: NTS



**5 RATED DOOR TAG**  
SCALE: NTS

**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.

**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.

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



US ARMY CORPS OF ENGINEERS  
AFGHANISTAN ENGINEER DISTRICT

Rev.	Date	Description	Mark	Appr.

Designed by: KRC  
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Ckd by: NLJ  
Reviewed by: LHM  
Submitted by: BAKER

Date: 2/23/10  
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File name: ANACR00A-601SCH  
Plot date: 2/23/2010  
Plot scale: xx

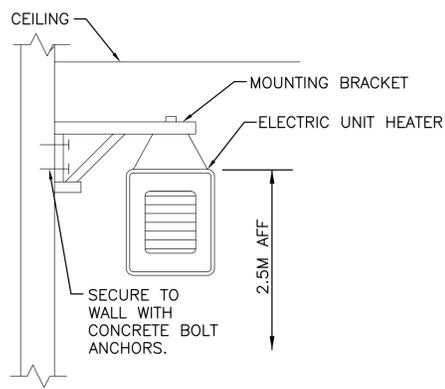
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CORPS OF ENGINEERS  
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Michael Baker Corp., Inc.  
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www.mbakercorp.com

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*X. R. Alf*  
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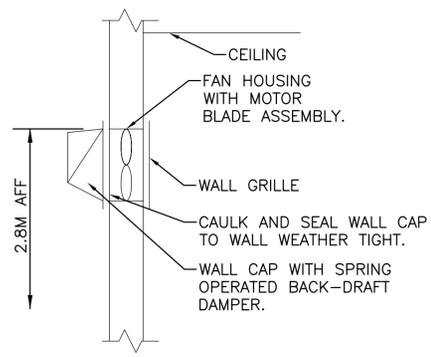


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STANDARD DESIGN  
300 STUDENT CLASSROOM BUILDING  
(1) 300 STUDENT CLASSROOM  
WINDOW AND DOOR SCHEDULES

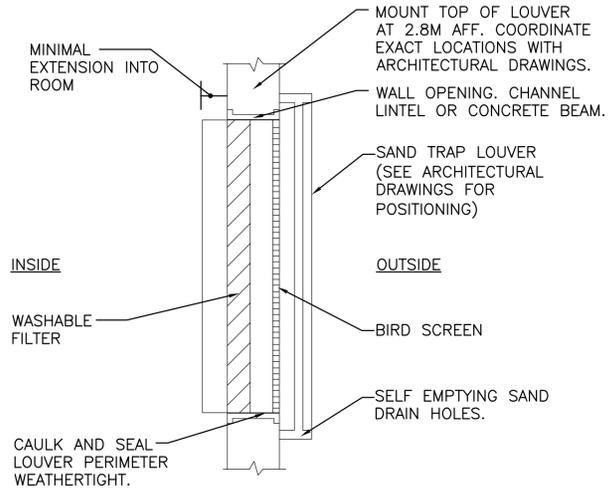
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**A-601**



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. 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).

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

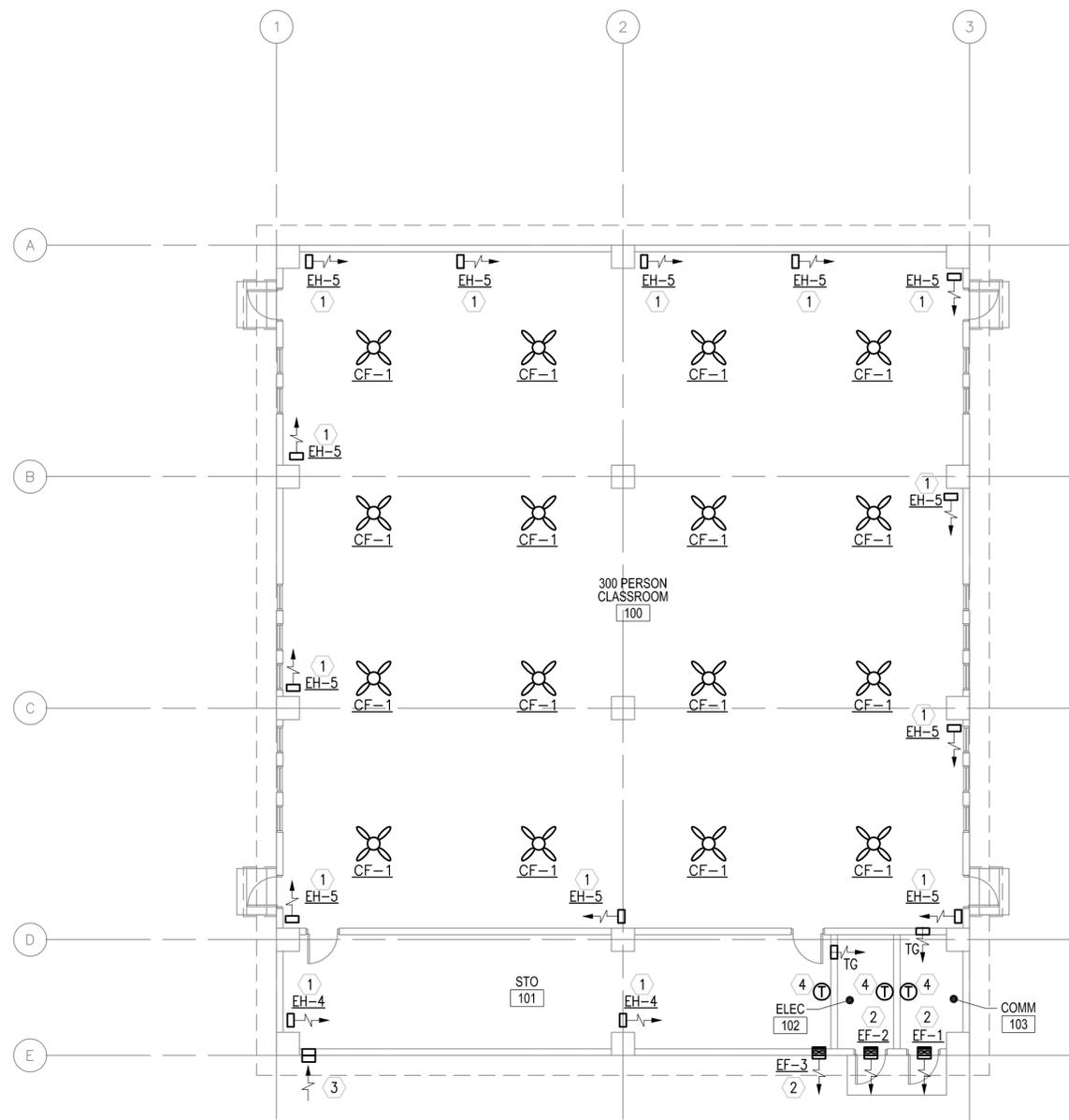
- NOTES:  
1. FANS SHALL HAVE SPRING OPERATED BACK-DRAFT DAMPER.

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.

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  
M-101 SCALE: 1:100

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



Rev.	Date	Description
0		

Designed by: RML	Checked by: CUM
Dwn by: JUN	Reviewed by: MRS
Submitted by: BAKER	

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CORPS OF ENGINEERS  
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Michael Baker Corp., 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  
(1) 300 STUDENT CLASSROOMS  
HVAC PLANS, SCHEDULES AND DETAILS

Sheet reference number:  
M-101

APPROVED:

A/E DESIGNER OF RECORD

SEAL:

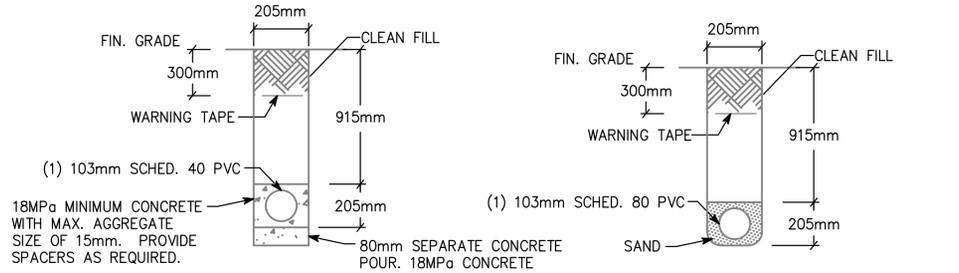
*Matthew R. Sotosky*





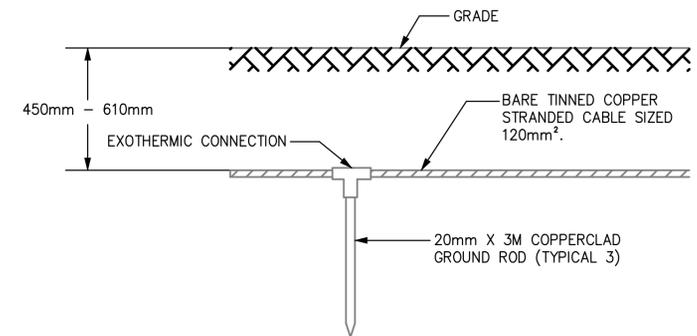




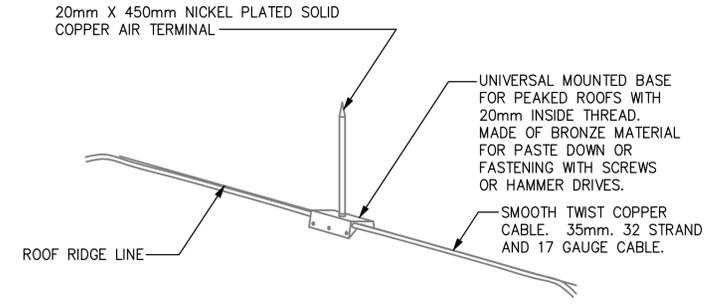


NOTE: PVC CONDUIT SHALL BE DIRECT BURIED SCHEDULE 80 FOR NO TRAFFIC AREAS AND CONCRETE-ENCASED SCHEDULE 40 FOR UNDER ROADWAYS OR TRAFFIC AREAS.

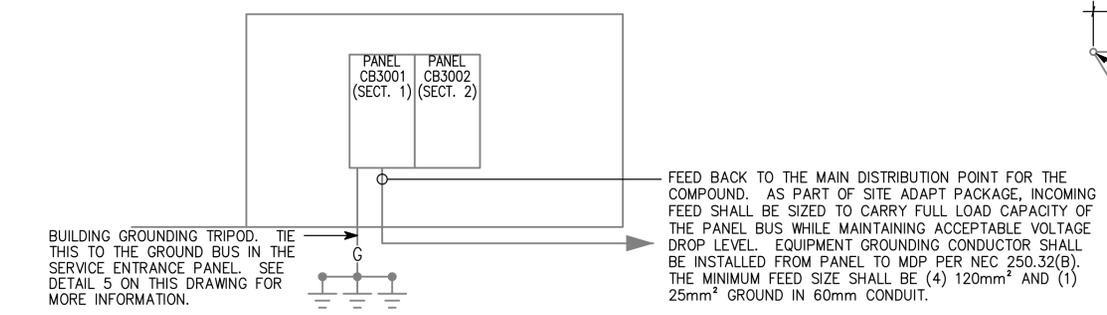
**1 TYPICAL DUCT BANK DETAILS FOR CONDUIT IN SAND OR CONCRETE**  
SCALE: N.T.S.



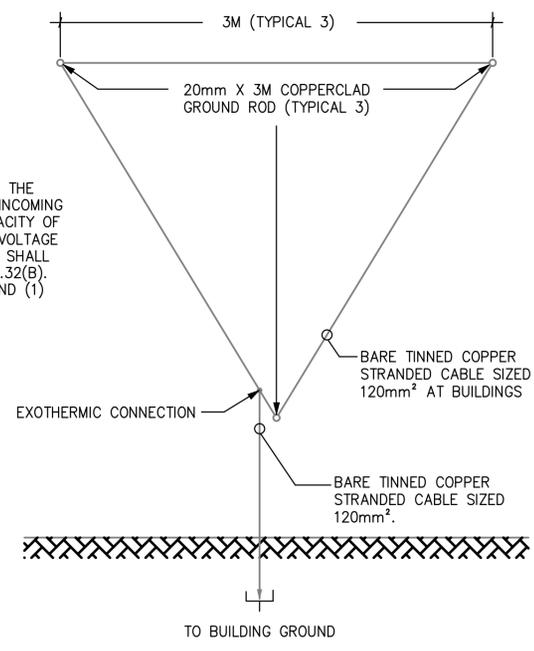
**2 GROUND TRIPOD SYSTEM DETAIL - ELEVATION**  
SCALE: N.T.S.



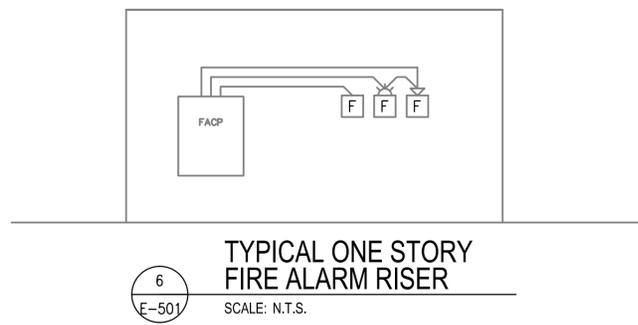
**3 LIGHTNING PROTECTION AIR TERMINAL DETAIL**  
SCALE: N.T.S.



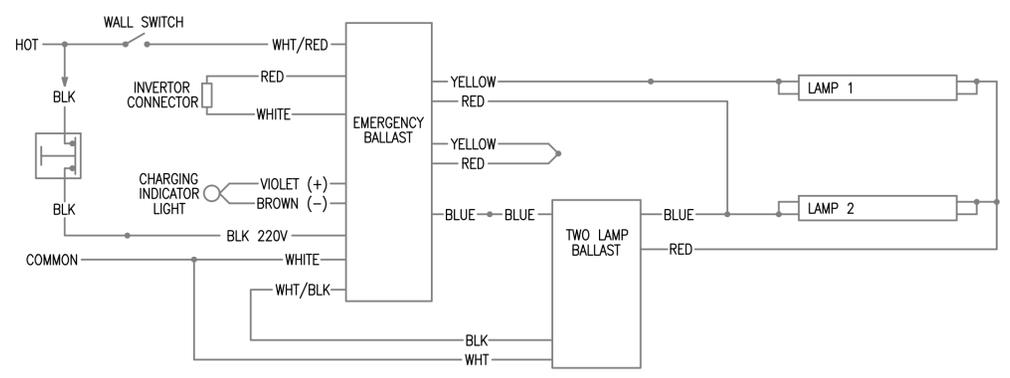
**4 CB300 RISER DIAGRAM**  
SCALE: N.T.S.



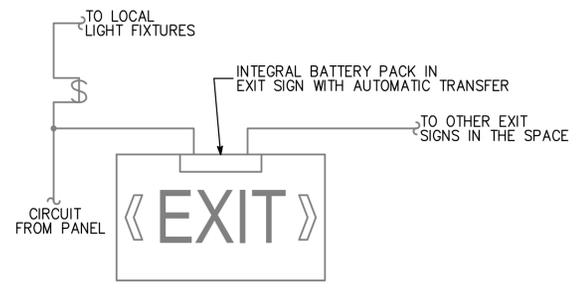
**5 GROUND TRIPOD SYSTEM DETAIL - PLAN**  
SCALE: N.T.S.



**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.

APPROVED: \_\_\_\_\_  
A/E DESIGNER OF RECORD  
SEAL:

US ARMY CORPS OF ENGINEERS  
AFGHANISTAN ENGINEER DISTRICT

Date	Design file no.	Drawing code:	File name:	Plot date:	Plot scale:
0	2/23/10	JRG	Michael Baker Corp		

Designed by: JRG  
 Drawn by: BJB  
 Checked by: JRG  
 Reviewed by: JRG  
 Submitted by: BAKER

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 300 STUDENT CLASSROOM BUILDING  
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 ELECTRICAL DETAILS

Sheet reference number:  
**E-501**





