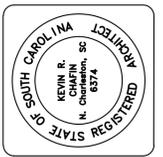
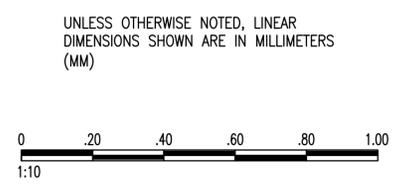


- 1 - PLASTER APPLIED TO UNDERSIDE OF STRUCTURAL SLAB ABOVE
- 1a - SUSPENDED PLASTER CEILING BOTH SIDES
- 1b - SUSPENDED PLASTER CEILING ONE SIDE

**1** PARTITION TYPES  
S-A3 SCALE: 1:10

### ACCESSORY SCHEDULE

ITEM/DESCRIPTION	ABBREV.	REMARKS
PAPER TOWEL DISPENSER/WASTE BASKET	PTDWR	MOUNT @ TOWEL DISPENSER HEIGHT 1220 A.F.F.
SANITARY NAPKIN DISPOSAL	SND	MOUNT TOP 915 A.F.F.
TOILET TISSUE DISPENSER (DOUBLE ROLL)	TTD	MOUNT TOP 432 A.F.F.
SOAP DISPENSER (WALL MOUNTED)	SD	MOUNT BOTTOM 1067 A.F.F.
TOWEL BAR (900 LENGTH)	TD	MOUNT 1220 A.F.F.
MIRROR (1050 HxCOUNTER TOP WIDTH)	MG1	MOUNT TOP 2134 A.F.F.
MIRROR (450x1850")	MG2	MOUNT TOP 2134 A.F.F.
LOCKERS (300x300x1850)		FLOOR MOUNT
BENCH (300x900x400)		FLOOR MOUNT



SYMBOL	DESCRIPTION	DATE	APP.

DESIGNED BY: BAKER	DATE: 04-01-08
DWN BY: K/JG	SUBMITTED BY: BAKER
CHK BY: KRC	FILE NO.:

Alricide Business Park  
 Alricide Drive  
 Moore, SC 29586  
 (412) 269-6300  
**Baker**  
 MICHAEL BAKER, JR., INC.  
 US Army Corps  
 of Engineers  
 Transatlantic Programs  
 Center

AFGHAN NATIONAL BORDER POLICE  
 AFGHANISTAN NATIONAL  
 BORDER POLICE UNIT FACILITY  
 BORDER POLICE COMPANY  
 STANDARD PARTITION TYPES  
 AND ACCESSORY SCHEDULE

SHEET  
 REFERENCE  
 NUMBER:  
**S-A3**

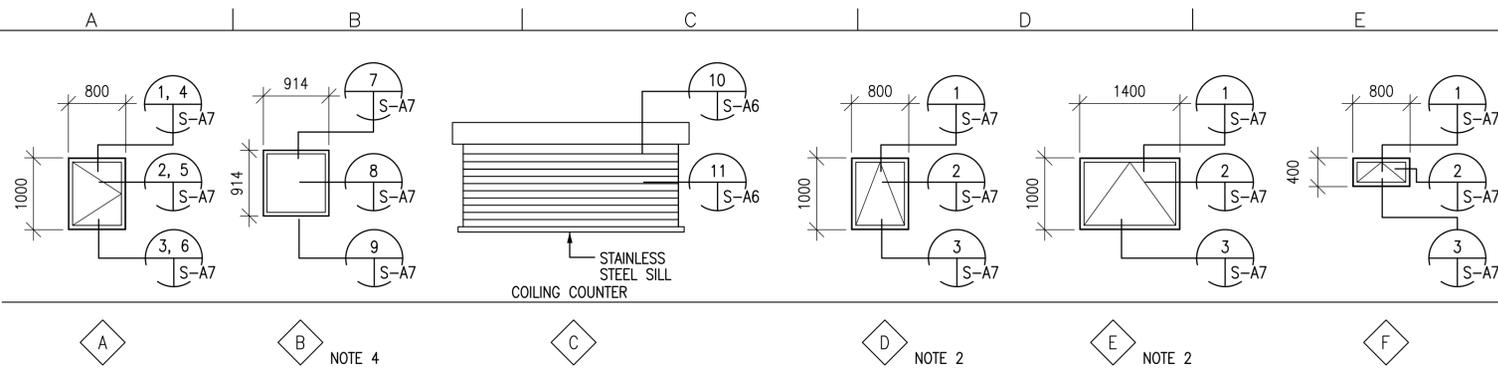
READY TO ADVERTISE SUBMISSION



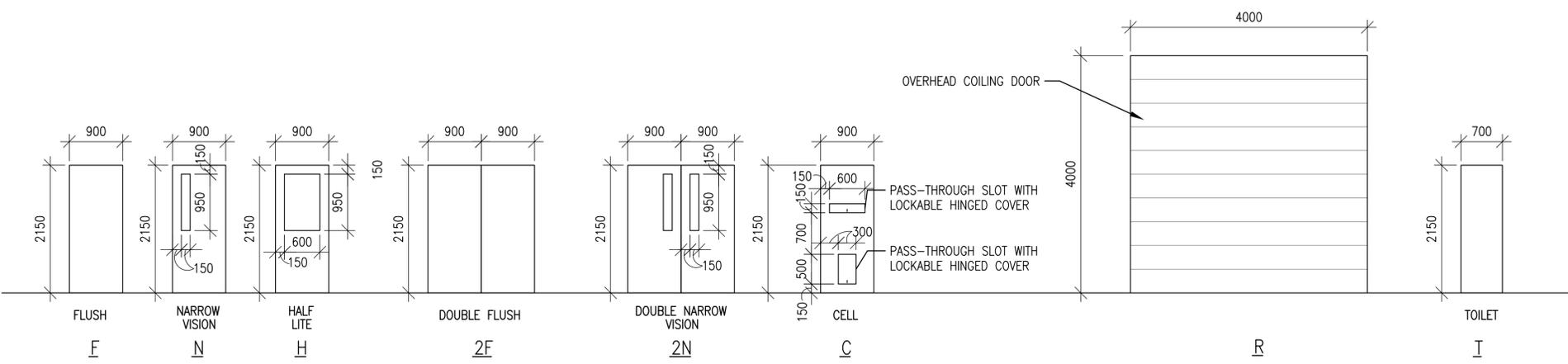






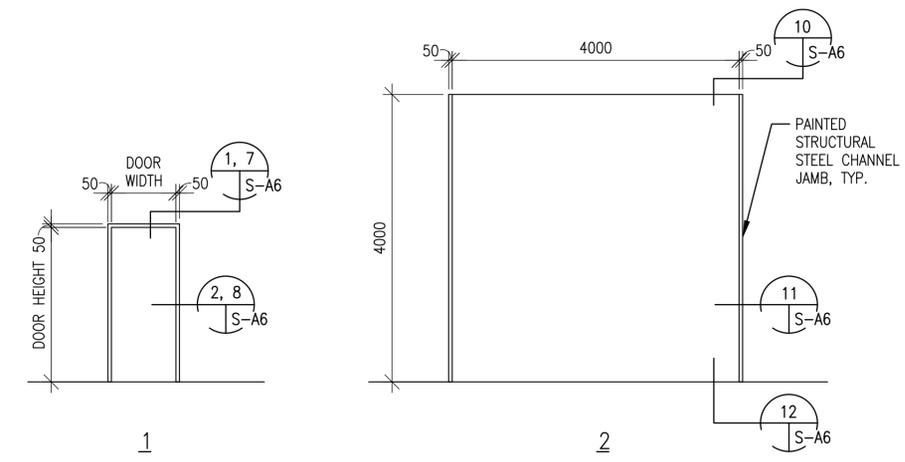


1 WINDOW TYPES  
S-A7 SCALE: 1:50



2 DOOR TYPES  
S-A7 SCALE: 1:50

DOOR TYPE →  
FRAME TYPE → HDW TYPE →



3 FRAME TYPES  
S-A7 SCALE: 1:50

ROOM FINISHES: (X)

- WALLS: PAINTED PLASTER, FLOOR: SEALED CONCRETE, CEILING: PAINTED PLASTER APPLIED TO STRUCTURE
- WALLS: 2.4M HIGH CERAMIC TILE WAINSCOT, PAINTED PLASTER ABOVE WAINSCOT, FLOOR: CERAMIC TILE, CEILING: PAINTED PLASTER
- WALLS: PAINTED PLASTER, SUSPENDED, FLOOR: SEALED CONCRETE, CEILING: PAINTED PLASTER CEILING
- WALLS: METAL LINER PANEL, FLOOR: SEALED CONCRETE, CEILING: METAL LINER PANEL
- WALLS: PAINTED PLASTER, FLOOR: SEALED CONCRETE, CEILING: METAL LINER PANEL

WINDOW TYPES NOTES:

- ALL WINDOWS SHALL BE WOOD. WINDOWS SHALL BE A COMMERCIAL GRADE.
- GLAZING SHALL BE ACRYLIC SHEET.
- SEE SHEETS S-A6 & S-A7 FOR WINDOW HEAD, JAMB AND SILL DETAILS.
- WINDOW TYPE B SHALL BE AN INTERIOR FIXED WOOD FRAME WITH ONE WAY VISION GLAZING.

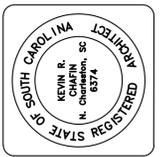
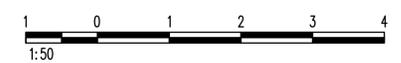
DOOR TYPES NOTES:

- INTERIOR AND EXTERIOR METAL DOORS AND FRAME COLORS SHALL MATCH ADJACENT WALL COLORS AS SELECTED BY THE CONTRACTING OFFICER.
- HARDWARE SHALL BE HEAVY DUTY, COMMERCIAL GRADE, STAINLESS STEEL WITH A MATTE FINISH. THERE SHALL BE THREE HINGES AT EACH DOOR, AT LEAST 200/16/5 MM, WITH BALL BEARINGS, SECURED BY THREADED PINS. FRAMES, EXCEPT FIRE-RATED FRAMES (if applicable), SHALL BE MOUNTED AND ADJUSTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. FRAMES SHALL BE FASTENED WITH MINIMUM OF THREE FASTENING POINTS PER SIDE AT REGULAR INTERVALS.
- KICKPLATES SHALL BE STAINLESS STEEL, FULL-WIDTH OF DOOR WITH SMOOTH SANDED SURFACE, GRAIN 240, ON BOTH SIDES, 300mm HIGH. FASTEN WITH GLUE AND STAINLESS STEEL SCREWS.
- DOOR STOPS SHALL BE HEAVY-DUTY STAINLESS STEEL POST WITH SKID NOSE MADE OF WHITE NYLON. LENGTH OF STOPS SHALL BE SUFFICIENT TO PREVENT DOOR HANDLES FROM STRIKING WALL.
- DIMENSIONS SHOWN ON DOOR SCHEDULE ARE BASED UPON MODULAR MASONRY (OR ROUGH OPENING), HEIGHT OF 2200mm 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.
- DOOR TYPES F, N, H, 2F, 2N & C SHALL BE 20 MINUTE DOORS AS REQUIRED IN 1 HOUR RATED CORRIDORS (IBC TABLE 715.3).
- DOOR TYPE C SHALL BE 1 1/2 HOUR RATED DOORS AS REQUIRED IN 2 HOUR RATED CORRIDORS (IBC TABLE 715.4). THIS SHOULD ONLY APPLY TO DOOR ASSOCIATED WITH CELL ROOMS IN ADMINISTRATION BUILDINGS.

HARDWARE TYPES:

- HW-1 1-1/2 PR HINGES, 1 EA EXIT DEVICE, SURFACE MOUNTED F08, 1 EA DOOR CLOSER, C02061, LOW RESISTANCE, 1 EA THRESHOLD J32130
- HW-2 1-1/2 PR HINGES, 1 EA LOCKSET W/LEVERS, GRADE 1, 1 EA DOOR CLOSER, C02061, LOW RESISTANCE
- HW-3 1-1/2 PR HINGES, A8112, 1 EA LOCKSET W/LEVERS, GRADE 1, 1 EA STOP L02101 OR L02161, 1 EA DOOR CLOSER, C02061, LOW RESISTANCE, 1 EA DOOR STOP, L02101 OR L02161, 1 EA KICKPLATE, J102, 1 EA MOP PLATE, J103
- HW-4 1-1/2 PR HINGES, 1 EA LOCKSET W/LEVERS, GRADE 1, 1 EA STOP L02101 OR L02161
- HW-5 1-1/2 PR HINGES, A8112, 1 EA LOCKSET W/LEVERS, GRADE 1, 1 EA STOP L02101 OR L02161, 1 EA DOOR STOP, L02101 OR L02161, 2 EA MOP PLATE, J103
- HW-6 1-1/2 PR HINGES, 1 EA LOCKSET, F04 ENTRY LOCK W/LEVERS, GRADE 1, 1 EA DOOR CLOSER, C02061, LOW RESISTANCE, 1 EA THRESHOLD J32130
- HW-7 3 PR HINGES, 1 EA LOCKSET, F04 ENTRY LOCK W/LEVERS, GRADE 1, 1 EA DOOR CLOSER, C02061, LOW RESISTANCE, 1 EA THRESHOLD J32130, 1 EA REMOVABLE ASTRAGAL
- HW-8 1-1/2 PR HINGES, A8181, 1 EA LOCKSET, F87 GRADE 1 LOCK W/LEVERS

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



DATE	DESCRIPTION	SYMBOL

DESIGNED BY: DATE: 04-01-08  
BAKER  
DWN BY: KJG  
CHK BY: KRC

Submitted by: BAKER  
File No.:

Arcade Business Park  
Alaska  
Moore  
(412) 269-6300

US Army Corps  
of Engineers  
Transatlantic Programs  
Center

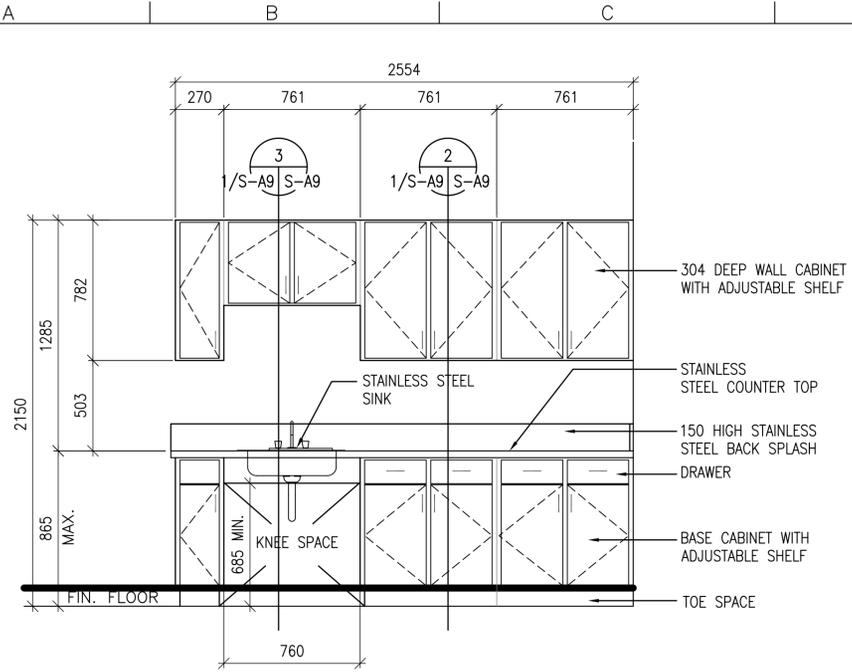
Baker  
MICHAEL BAKER, INC.

AFGHAN NATIONAL BORDER POLICE  
AFGHANISTAN NATIONAL  
BORDER POLICE UNIT FACILITY  
BORDER POLICE COMPANY

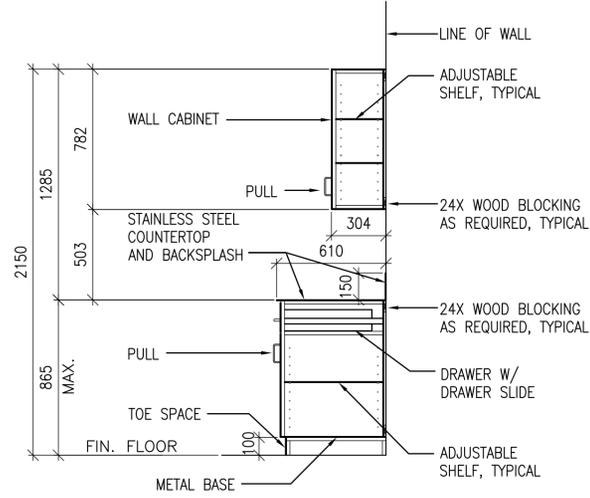
STANDARD DETAILS  
DOOR, WINDOW, AND FINISH TYPES

SHEET  
REFERENCE  
NUMBER:  
**S-A8**

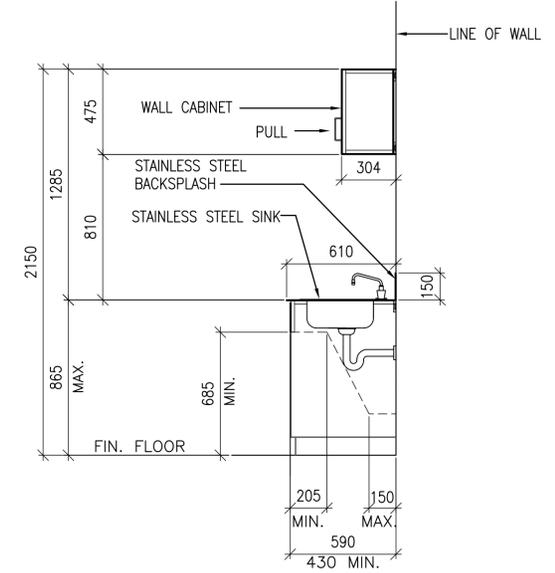
READY TO ADVERTISE SUBMISSION



1  
3/A-A1 S-A9 SCALE: 1:20  
**CABINET ELEVATION**



2  
S-A9 S-A9 SCALE: 1:20  
**CABINET SECTION**



3  
S-A9 S-A9 SCALE: 1:20  
**CABINET SECTION**

**CASEWORK GENERAL NOTES:**

1. VERIFY ALL CLEARANCES BEFORE CABINETS ARE CONSTRUCTED
2. COORDINATE SINK CUT OUT WITH PLUMBING.
3. CASEWORK SHALL BE A HEAVY GAUGE STEEL FULL-FRAME CONSTRUCTION.
4. CASEWORK SHALL BE PRIME GRADE, COLD-ROLLED, STANDARD STEEL SHEET WITH NO RAGGED EDGES.
5. ALL STEEL SHALL BE PAINTED.

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



SYMBOL	DESCRIPTION	DATE	APP.

DESIGNED BY: BAKER	DATE: 04-01-08
DWN BY: K/JG	SUBMITTED BY: BAKER
CHK BY: KRC	FILE NO.:

Altride Business Park  
Altride Development Co.  
Moorefield, Pa. 15108  
(412) 269-6300

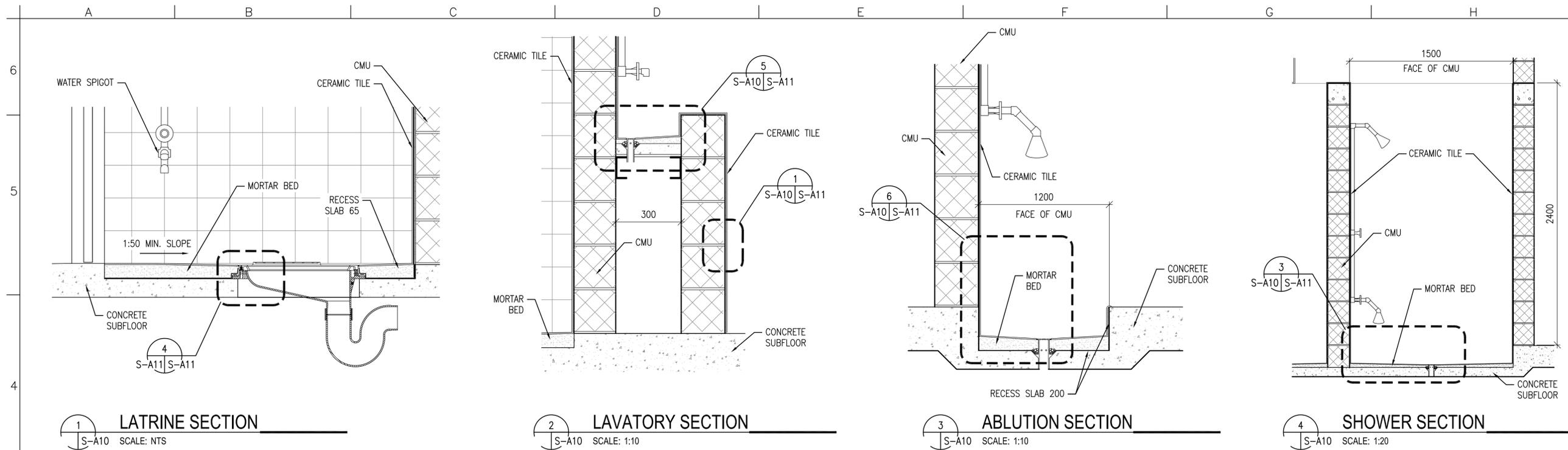
**Baker**  
MICHAEL BAKER, JR., INC.

US Army Corps  
of Engineers  
Transatlantic Programs  
Center

AFGHAN NATIONAL BORDER POLICE  
AFGHANISTAN NATIONAL  
BORDER POLICE UNIT FACILITY  
BORDER POLICE COMPANY

CASEWORK ELEVATIONS, SECTIONS,  
AND PARTITION DETAILS

SHEET  
REFERENCE  
NUMBER:  
**S-A9**

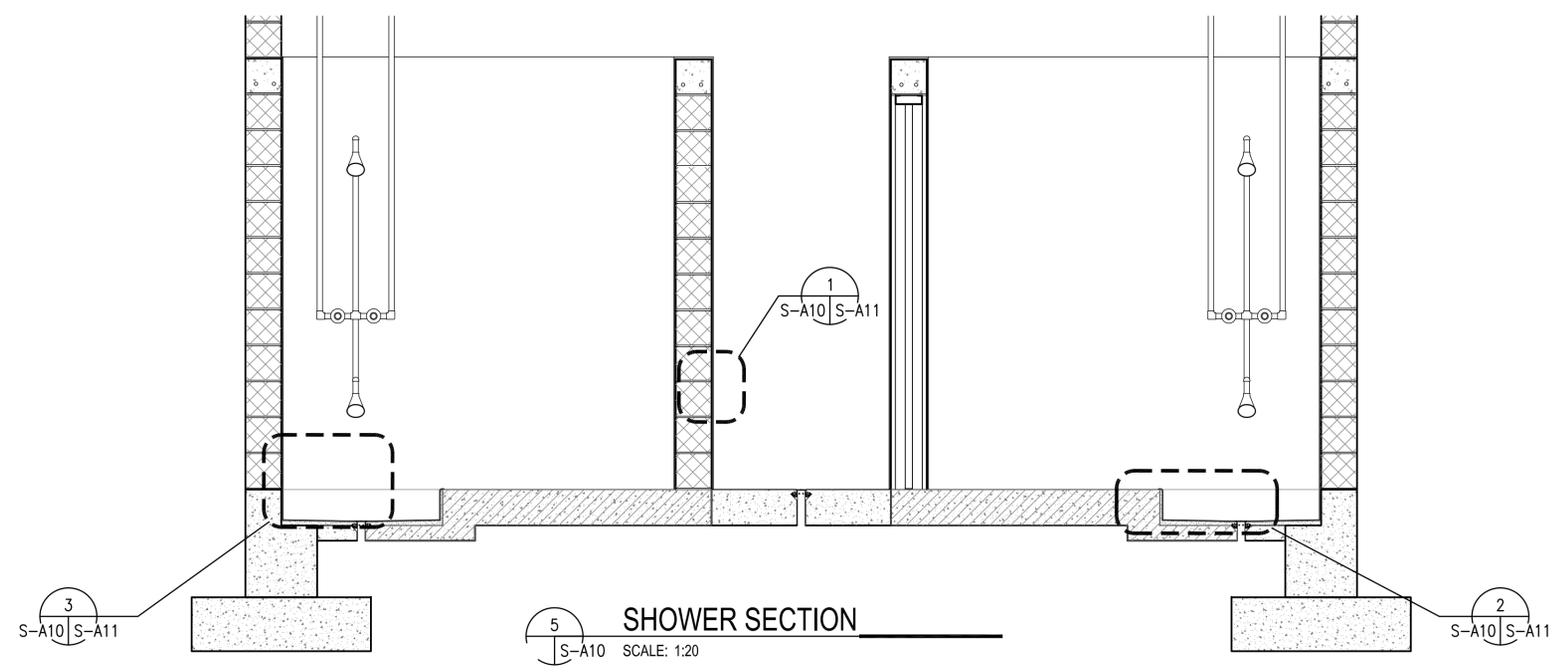


1 LATRINE SECTION  
S-A10 SCALE: NTS

2 LAVATORY SECTION  
S-A10 SCALE: 1:10

3 ABLUTION SECTION  
S-A10 SCALE: 1:10

4 SHOWER SECTION  
S-A10 SCALE: 1:20

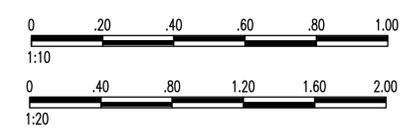


5 SHOWER SECTION  
S-A10 SCALE: 1:20

6 TOILET DETAIL  
S-A10 SCALE: 1:10

ZURM Z1290 EASTERN STYLE WATER CLOSET

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



SYMBOL	DESCRIPTION	DATE	APP.

DESIGNED BY: BAKER	DATE: 04-01-08
DWN BY: K.J.G	SUBMITTED BY: BAKER
CHK BY: KRC	FILE NO.:

Alcide Business Park  
Alcide Business Park  
Moore, Virginia, Co. 15108  
(412) 269-6300

**Baker**  
MICHAEL BAKER, INC.

US Army Corps  
of Engineers  
Transatlantic Programs  
Center

AFGHAN NATIONAL BORDER POLICE  
AFGHANISTAN NATIONAL  
BORDER POLICE UNIT FACILITY  
BORDER POLICE COMPANY

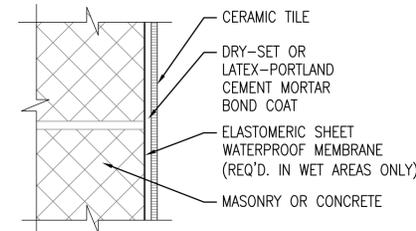
STANDARD LATRINE, SHOWER & ABLUTION  
SECTIONS AND DETAILS

SHEET  
REFERENCE  
NUMBER:  
**S-A10**

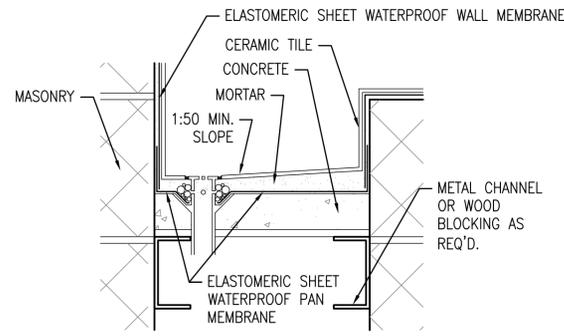
READY TO ADVERTISE SUBMISSION

A B C D E F G H

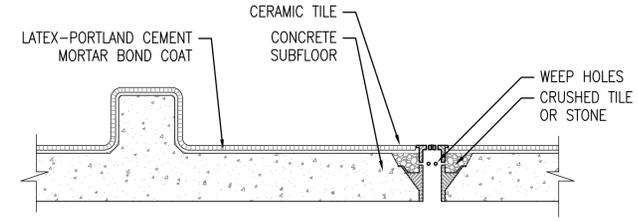
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5  
4  
3  
2  
1



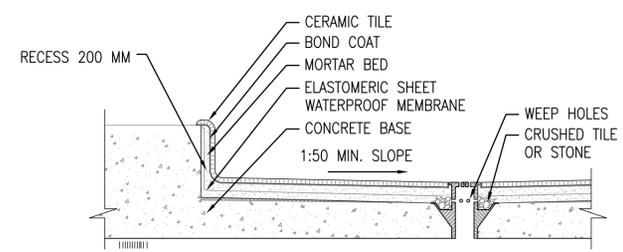
**1 WALL DETAIL**  
S-A11 SCALE: NTS  
TCA: B202-05



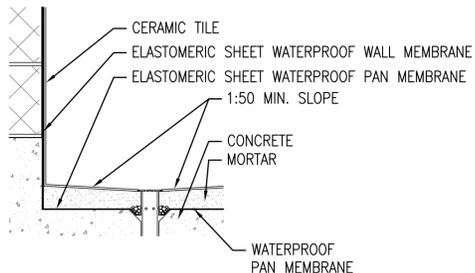
**5 LAVATORY DETAIL**  
S-A11 SCALE: NTS  
NOTE: WALL MEMBRANE LAPS OVER PAN MEMBRANE



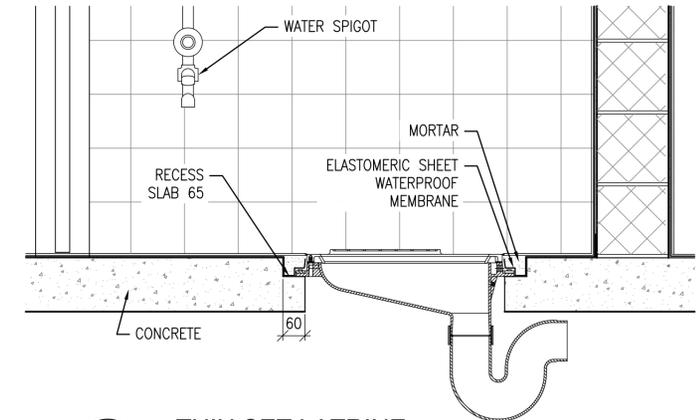
**8 THIN SET CURB**  
S-A11 SCALE: NTS



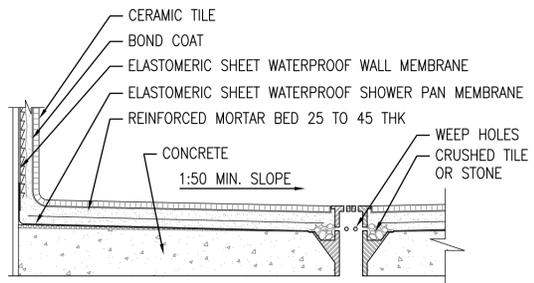
**2 SHOWER AND ABLUTION RECESS**  
S-A11 SCALE: NTS



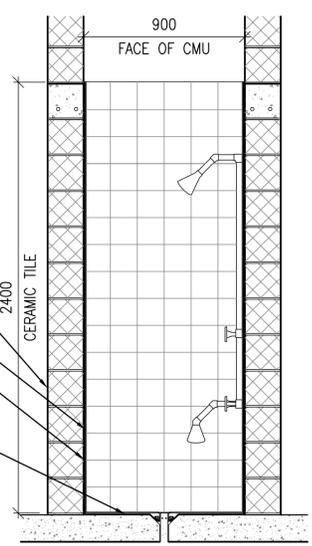
**6 WALL DETAIL**  
S-A11 SCALE: NTS  
NOTE: WALL MEMBRANE LAPS OVER PAN MEMBRANE



**9 THIN SET LATRINE**  
S-A11 SCALE: 1:10

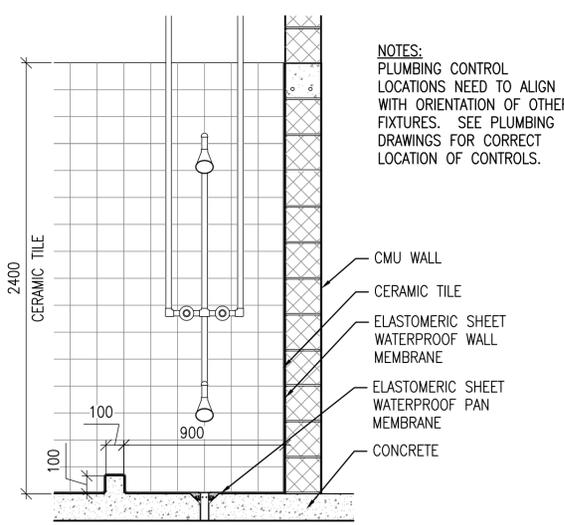


**3 SHOWER WALL DETAIL**  
S-A11 SCALE: NTS



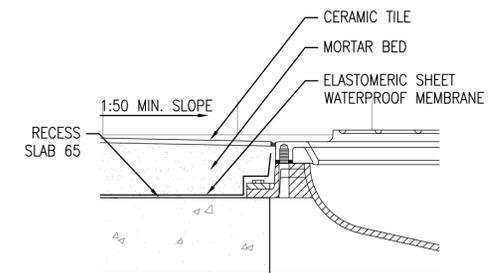
**7 THIN SET SHOWER**  
S-A11 SCALE: 1:20

NOTES:  
PLUMBING CONTROL LOCATIONS NEED TO ALIGN WITH ORIENTATION OF OTHER FIXTURES. SEE PLUMBING DRAWINGS FOR CORRECT LOCATION OF CONTROLS.



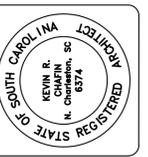
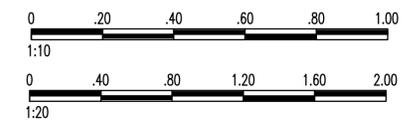
**10 THIN SET SHOWER**  
S-A11 SCALE: 1:20

NOTES:  
PLUMBING CONTROL LOCATIONS NEED TO ALIGN WITH ORIENTATION OF OTHER FIXTURES. SEE PLUMBING DRAWINGS FOR CORRECT LOCATION OF CONTROLS.



**4 LATRINE DETAIL**  
S-A11 SCALE: NTS

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



SYMBOL	DESCRIPTION	DATE	APP.

DESIGNED BY: BAKER	DATE: 04-01-08
DWN BY: K/JG	SUBMITTED BY: BAKER
CHK BY: KRC	FILE NO.:

Altride Business Park  
 Altride Associates, Inc.  
 Moorhead, Mississippi, P.O. 15108  
 (412) 269-6300

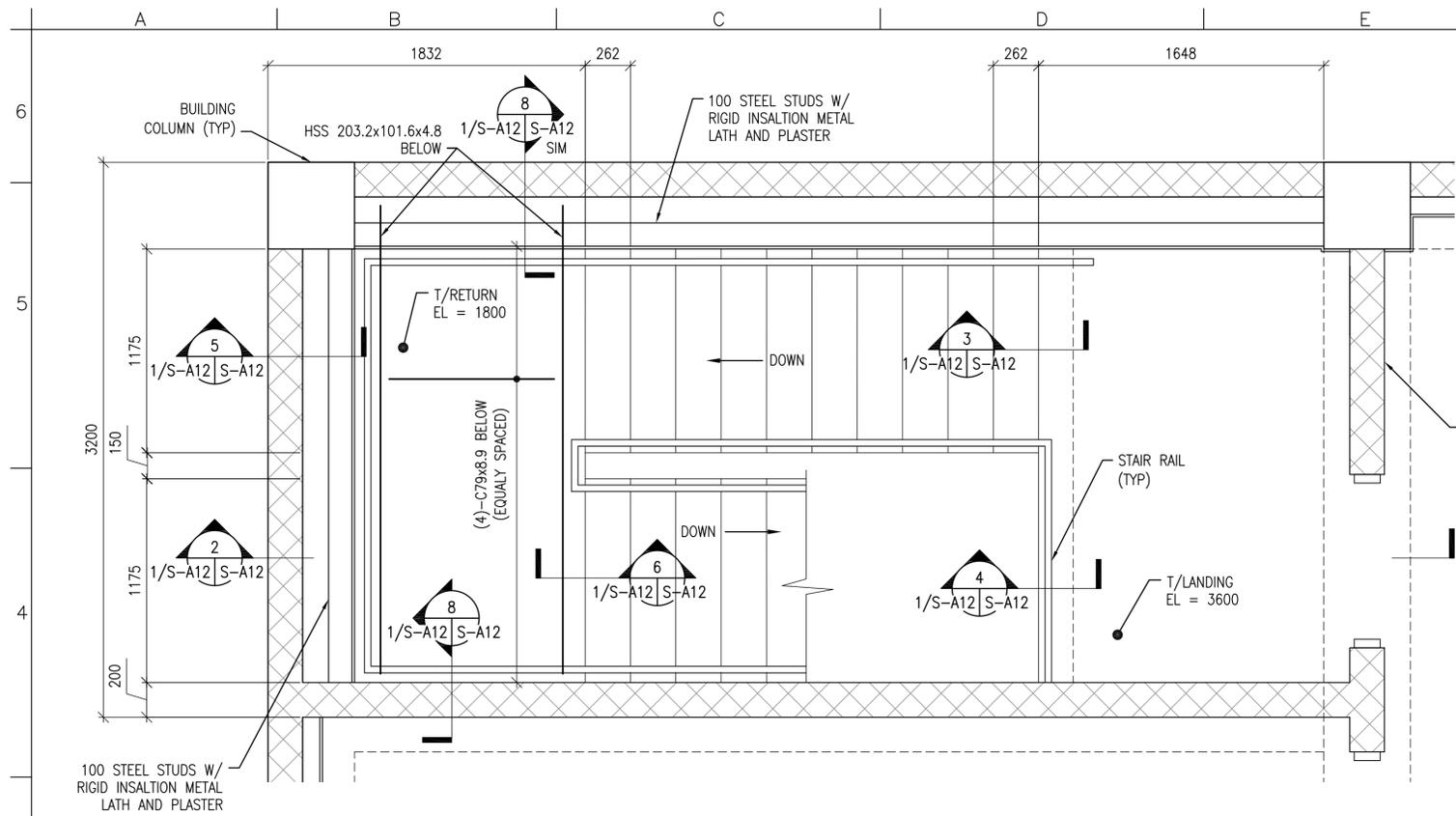
Baker  
 MICHAEL BAKER, JR., INC.

US Army Corps  
 of Engineers  
 Transatlantic Programs  
 Center

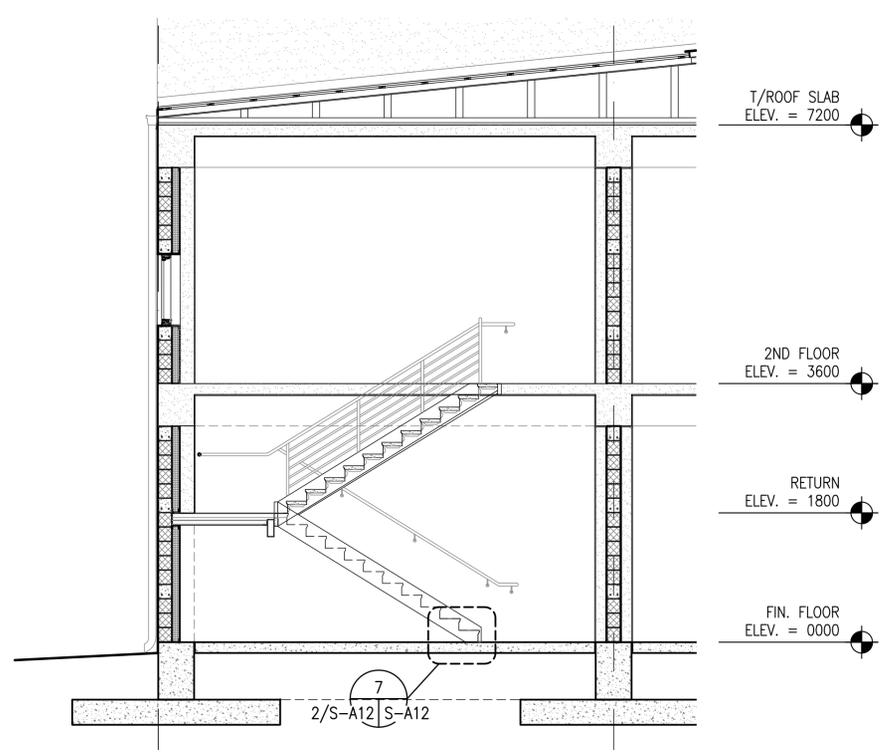
AFGHAN NATIONAL BORDER POLICE  
 AFGHANISTAN NATIONAL  
 BORDER POLICE UNIT FACILITY  
 BORDER POLICE COMPANY  
 STANDARD LATRINE, SHOWER & ABLUTION  
 SECTIONS AND DETAILS

SHEET  
 REFERENCE  
 NUMBER:  
**S-A11**

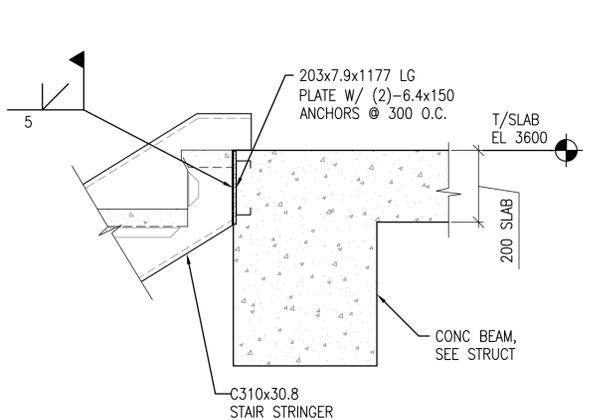
READY TO ADVERTISE SUBMISSION



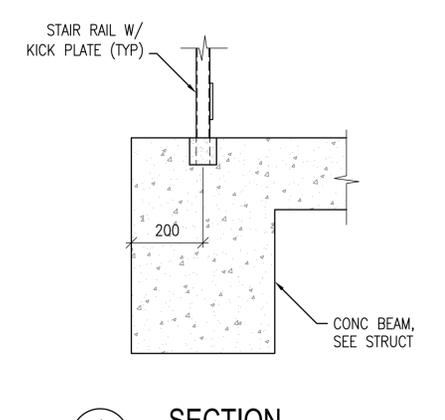
**1 STAIR PLAN**  
S-A1 SCALE: 1:20



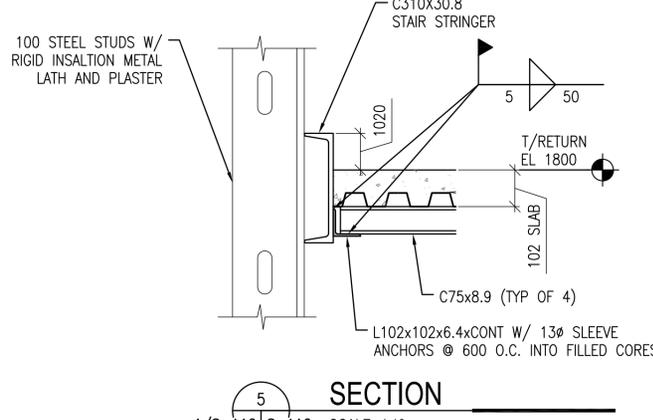
**2 TRANSVERSE STAIR SECTION**  
S-A1 SCALE: 1:50



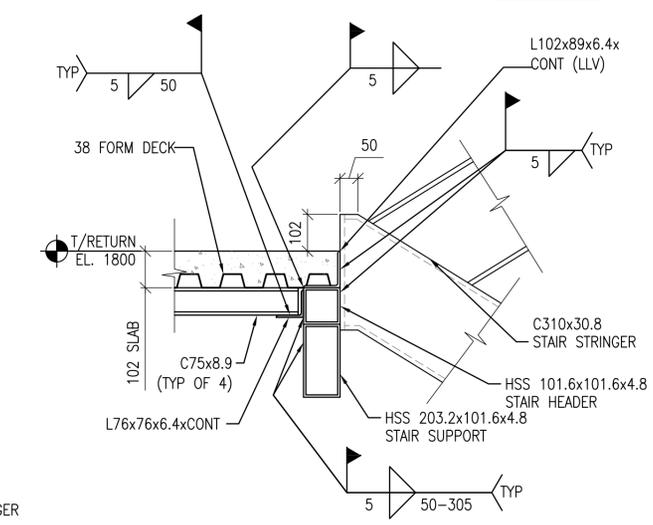
**3 SECTION**  
1/S-A12 S-A12 SCALE: 1:10



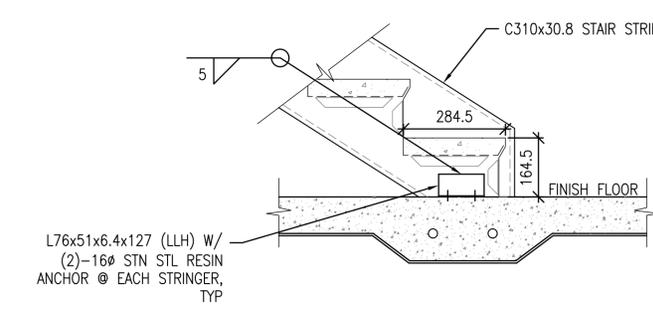
**4 SECTION**  
1/S-A12 S-A12 SCALE: 1:10



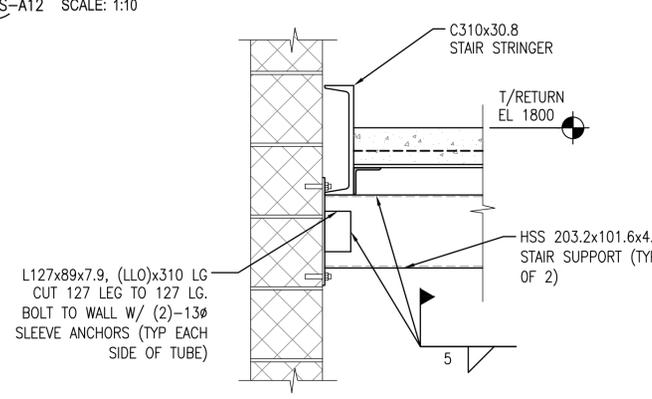
**5 SECTION**  
1/S-A12 S-A12 SCALE: 1:10



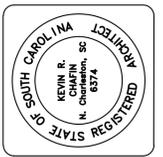
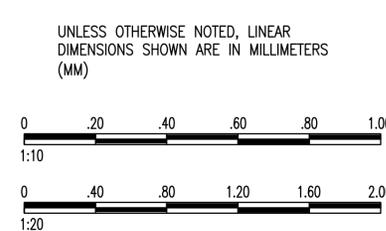
**6 SECTION**  
1/S-A12 S-A12 SCALE: 1:10



**7 DETAIL**  
2/S-A12 S-A12 SCALE: 1:10



**8 SECTION**  
1/S-A12 S-A12 SCALE: 1:10



SYMBOL	DESCRIPTION	DATE	APP.

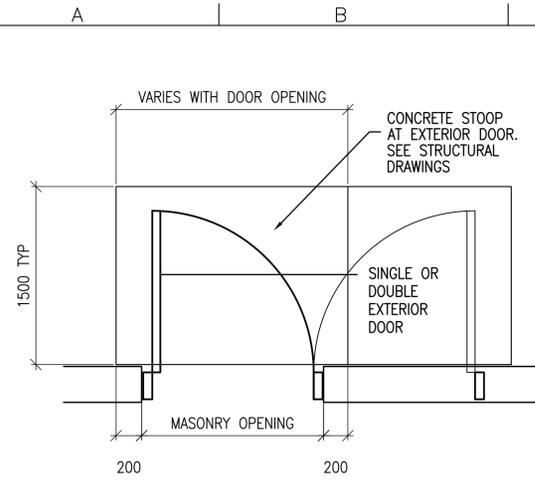
DESIGNED BY:	DATE:	04-01-08
BAKER		
DWN BY:	SUBMITTED BY:	BAKER
K/JG		
CHK BY:	FILE NO.:	
KRC		

Afride Business Park  
 Afghani National  
 Border Police Unit Facility  
 Moorhead, Mississippi, P.O. 15108  
 (412) 269-6300  
**Baker**  
 MICHAEL BAKER, INC.  
 US Army Corps  
 of Engineers  
 Transatlantic Programs  
 Center

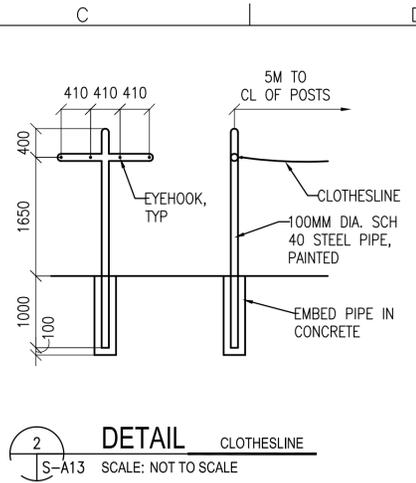
AFGHAN NATIONAL BORDER POLICE  
 AFGHANISTAN NATIONAL  
 BORDER POLICE UNIT FACILITY  
 BORDER POLICE COMPANY  
 STANDARD TRANSVERSE BUILDING SECTIONS  
 AND WALL SECTIONS

SHEET  
 REFERENCE  
 NUMBER:  
**S-A12**

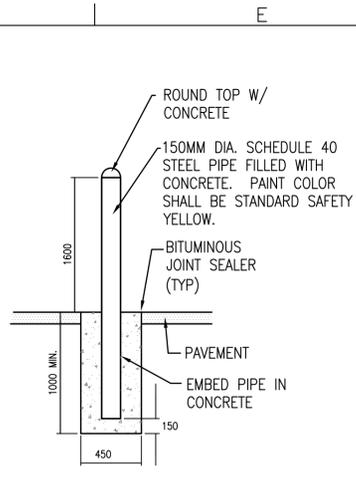
READY TO ADVERTISE SUBMISSION



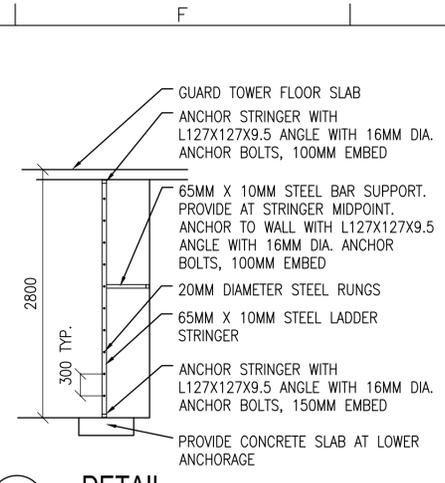
1 ENLARGED PLAN CONCRETE STOOP  
 S-A13 SCALE: NOT TO SCALE



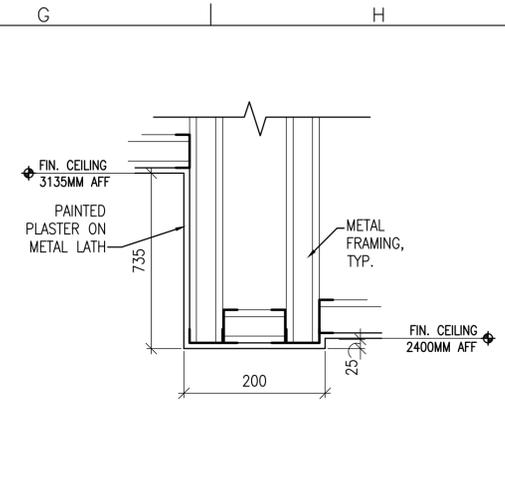
2 DETAIL CLOTHESLINE  
 S-A13 SCALE: NOT TO SCALE



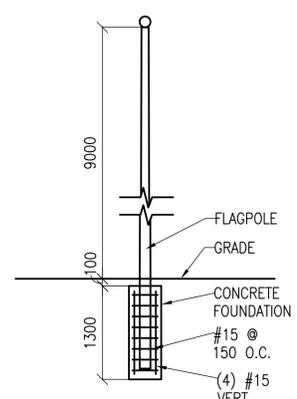
3 DETAIL BOLLARD  
 S-A13 SCALE: NOT TO SCALE



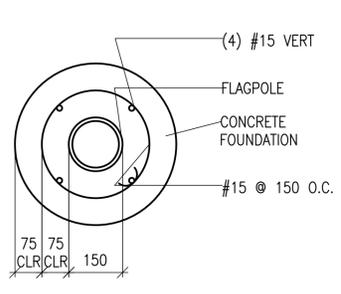
4 DETAIL LADDER  
 S-A13 SCALE: NOT TO SCALE



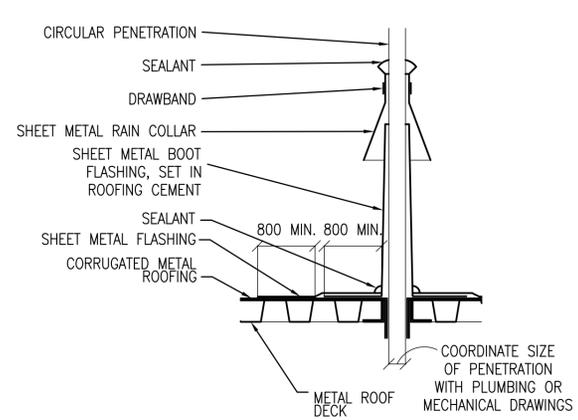
5 DETAIL BULKHEAD  
 S-A13 SCALE: NOT TO SCALE



6 DETAIL FLAGPOLE  
 S-A13 SCALE: NOT TO SCALE



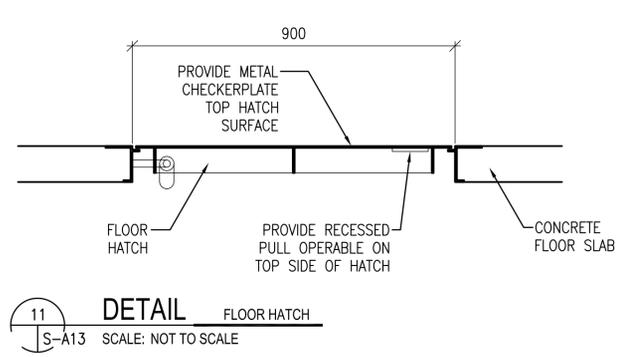
7 DETAIL FLAGPOLE FOUNDATION  
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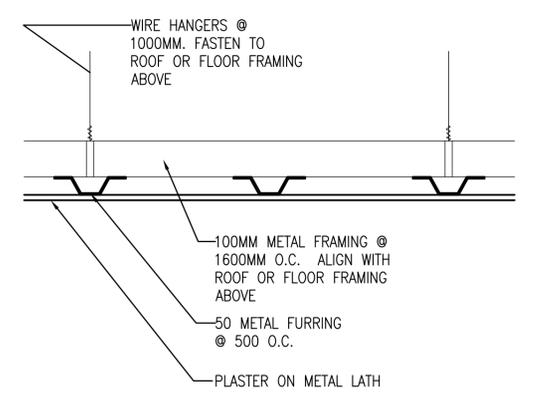
8 DETAIL ROOF PENETRATION  
 S-A13 SCALE: NOT TO SCALE

9 NOT USED  
 S-A13 SCALE: NOT TO SCALE

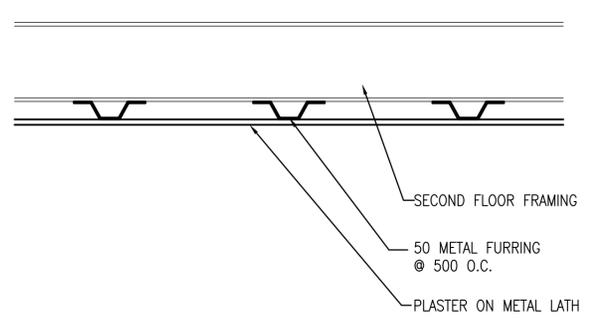
10 NOT USED  
 S-A13 SCALE: NOT TO SCALE



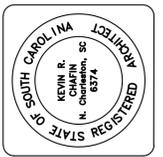
11 DETAIL FLOOR HATCH  
 S-A13 SCALE: NOT TO SCALE



12 DETAIL SUSPENDED PLASTER CEILING  
 S-A13 SCALE: NOT TO SCALE



13 DETAIL SUSPENDED PLASTER CEILING  
 S-A13 SCALE: NOT TO SCALE



SYMBOL	DESCRIPTION	DATE	APP.

DESIGNED BY: BAKER	DATE: 04-01-08
DWN BY: K/JG	SUBMITTED BY: BAKER
CHK BY: KRC	FILE NO.:

Afrade Business Park  
 Afrade, Virginia, Va. 15108  
 Moore Associates, Inc.  
 (412) 269-6300

US Army Corps of Engineers  
 Transatlantic Programs Center

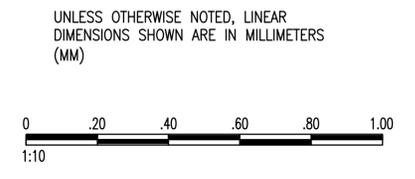
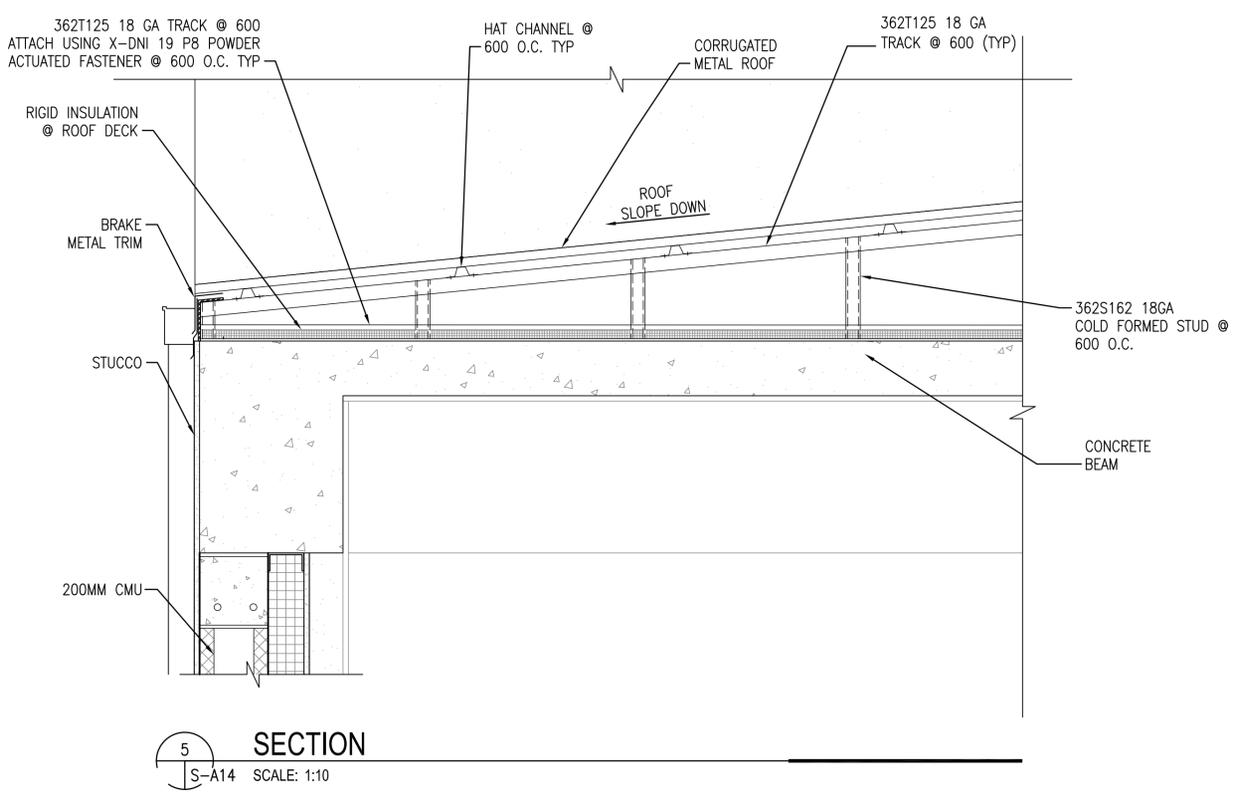
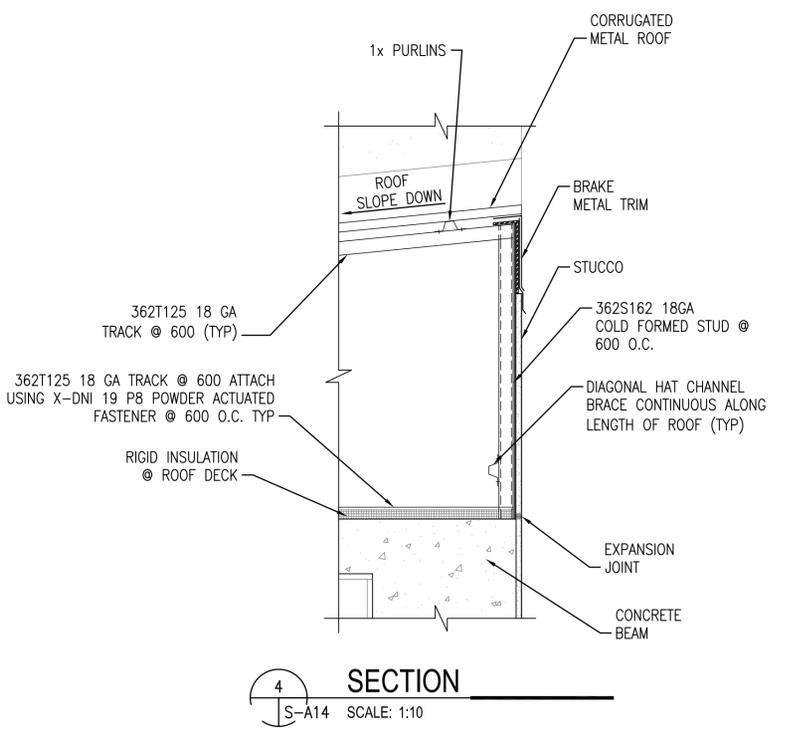
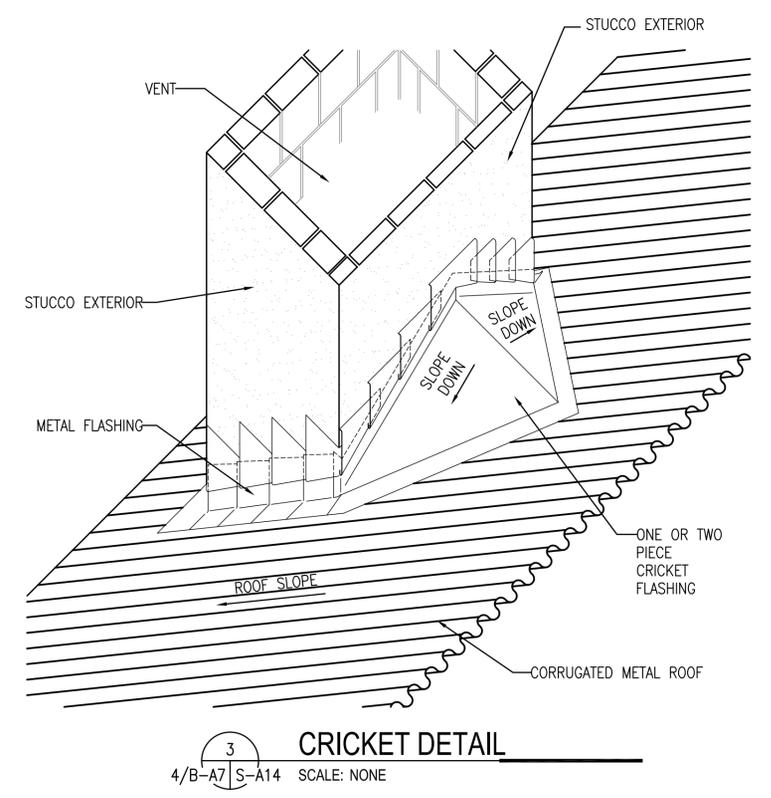
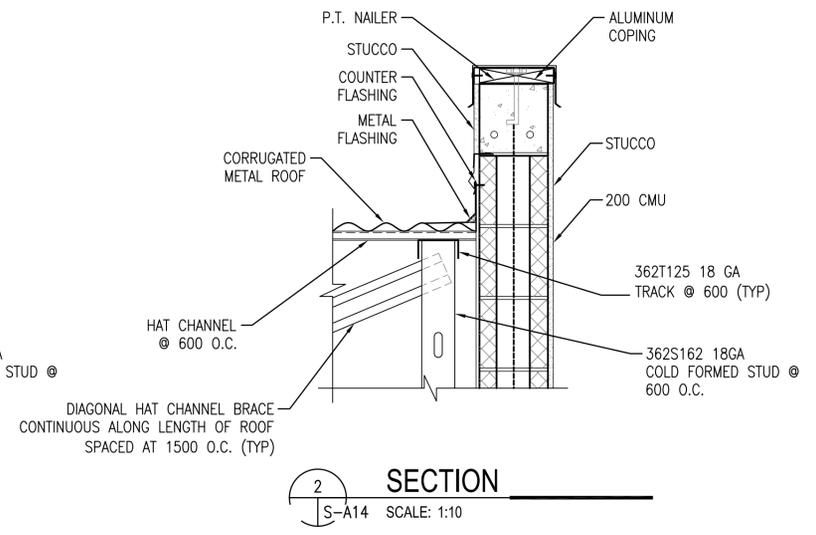
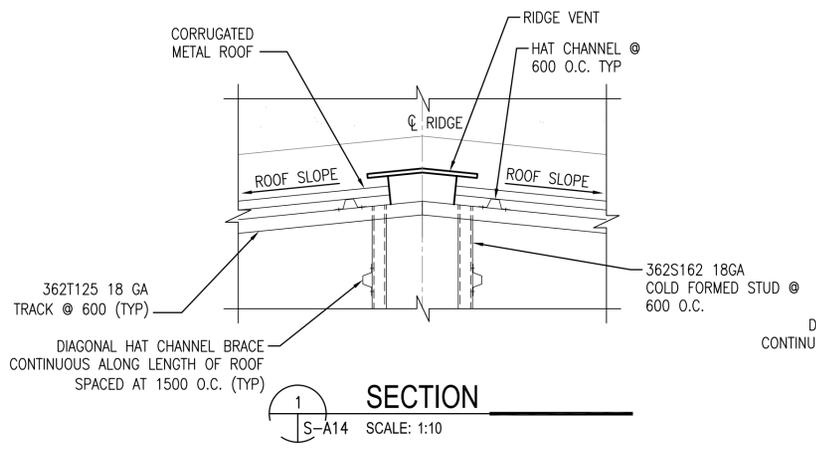
AFGHAN NATIONAL BORDER POLICE  
 AFGHANISTAN NATIONAL BORDER POLICE UNIT FACILITY  
 BORDER POLICE COMPANY  
 STANDARD DETAILS  
 MISC. DETAILS

SHEET REFERENCE NUMBER:  
**S-A13**

READY TO ADVERTISE SUBMISSION

A B C D E F G H

6  
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1



SYMBOL	DESCRIPTION	DATE	APP.

DESIGNED BY: BAKER	DATE: 04-01-08
DWN BY: KJG	SUBMITTED BY: BAKER
CHK BY: KRC	FILE NO.:

Arcade Business Park  
Alachua, FL 32009  
Michael Baker Corp. (412) 269-6300

**Baker**  
MICHAEL BAKER CORP.

US Army Corps  
of Engineers  
Transatlantic Programs  
Center

AFGHAN NATIONAL BORDER POLICE  
AFGHANISTAN NATIONAL  
BORDER POLICE UNIT FACILITY  
BORDER POLICE COMPANY

ROOF DETAILS

SHEET REFERENCE NUMBER:  
**S-A14**

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GENERAL NOTES

- 1.0 THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS AND MATERIALS INDICATED ON THE DRAWINGS AND FOR THE LIVE LOADS INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC.
- 1.1 COORDINATE THESE DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL DRAWINGS. ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE MILLIMETERS UNLESS NOTED OTHERWISE.
- 1.2 THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL FLOOR AND ROOF OPENING SIZES AND LOCATIONS, EQUIPMENT PAD SIZES AND LOCATIONS, ANCHOR BOLT LAYOUTS, ETC WITH EQUIPMENT SELECTED. THE CONTRACTOR SHALL MAKE ANY REQUIRED MODIFICATIONS AT NO ADDITIONAL COST.
- 1.3 THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS OR OPENINGS, ETC. NOT HEREIN INDICATED.
- 1.4 NOT USED
- 1.5 SLAB OPENINGS SMALLER THAN 250mm DIA TO BE CORE DRILLED IN FIELD UNO. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR LOCATIONS OF THESE OPENINGS.
- 1.6 WORK NOT INCLUDED ON THE DRAWINGS BUT IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES ELSEWHERE ON THE DRAWINGS SHALL BE REPEATED.
- 1.7 IN CASE OF CONFLICT BETWEEN THE NOTES, DETAILS AND SPECIFICATIONS THE MOST RIGID REQUIREMENTS SHALL GOVERN.
- 1.8 SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF MASONRY AND DRYWALL NON-LOAD BEARING PARTITIONS. PROVIDE COMPRESSIBLE FIRESAFING AT TOP OF WALL AS REQUIRED BY ARCHITECTURAL DRAWINGS.
- 1.9 COORDINATE FINISHED FLOOR DATUM ELEVATION 0.0m WITH THE CIVIL DRAWINGS.
- 2.0 FOUNDATION NOTES
- 2.1 THE GEOTECHNICAL ANALYSIS FOR THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR AWARDED THE WORK. DESIGN VALUES USED IN THE STRUCTURAL ANALYSIS OF THE BUILDINGS HEREIN INDICATED HAVE BEEN ASSUMED AND SHALL BE CONFIRMED AND VERIFIED AS PART OF THE GEOTECHNICAL INVESTIGATION. VALUES WHICH DO NOT MEET THE REQUIREMENTS INDICATED ON THE BASIS OF DESIGN SHEET SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER-OF-RECORD FOR CONSIDERATION AND DETERMINATION ON THE NEXT APPROPRIATE COURSE OF ACTION.
- 2.2 SEE THE SPECIFICATION FOR ADDITIONAL REQUIREMENTS TO THOSE OUTLINED IN THE GEOTECHNICAL INVESTIGATION FOR EXCAVATION AND PREPARATION OF THE FOUNDATION AND THE SLAB ON GRADE SUBGRADE INCLUDING COMPACTION PROCEDURES.
- 2.3 EXCAVATIONS FOR FOOTINGS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 0.15mm POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HRS OF THE EXCAVATION OF THE FOOTING.
- 2.4 FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT SHALL BE REPORTED TO THE GENERAL CONTRACTOR BEFORE FURTHER CONSTRUCTION IS ATTEMPTED. SEE PROJECT SPECIFICATIONS.
- 2.5 NO FOOTINGS OR SLABS SHALL BE POURED INTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST, ICE OR LOOSE MATERIAL. FROST DEPTH ASSUMED TO BE 950MM
- 2.6 ALL SLAB-ON-GRADE, TRENCH BOTTOMS AND OTHER ON-GRADE INTERIOR HORIZONTAL SURFACES SHALL BE PLACED OVER A 0.15mm VAPOR BARRIER OVER A 100mm #57 STONE WATER BARRIER PLACED ON SUBGRADE PROPERLY PREPARED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. (UNO)
- 2.7 SEE PLUMBING, ELECTRICAL & CIVIL DRAWINGS FOR REQUIRED UNDERSLAB UTILITIES.
- 2.8 SEE ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING DETAILS AND MATERIALS.
- 2.9 IF UNDERMINING OF FOOTINGS OCCURS, FILL VOIDS WITH 15MPa CONCRETE. DO NOT ATTEMPT TO REPLACE AND RECOMPACT SOIL.
- 3.0 CONCRETE
- 3.1 CONCRETE SHALL HAVE THE UNIT WEIGHT AND THE MINIMUM COMPRESSIVE STRENGTHS (f'c) AT 28 DAYS AS SHOWN IN THE CONCRETE MATERIALS SCHEDULE ON THE BASIS OF DESIGN SHEET. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ENTRAIN AIR TO PRODUCE TOTAL AIR CONTENT ACCORDING TO THE SPECIFICATIONS FOR CONCRETE EXPOSED TO FREEZING TEMPERATURES (EXTERIOR FOOTINGS, SLAB TURNDOWNS, EXTERIOR SLABS AND SLABS-ON-GRADE, EXTERIOR RETAINING WALLS, AND EXTERIOR GRADE BEAMS.)
- 3.2 GROUT FOR BASE PLATES SHALL BE NON-SHRINKABLE GROUT AND SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 35MPa, UNLESS NOTED OTHERWISE.
- 3.3 NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.
- 3.4 MIXING, TRANSPORTING AND PLACING OF CONCRETE SHALL CONFORM TO ACI-301-89
- 3.5 ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI) 318M MANUAL (metric), "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND REQUIREMENTS OUTLINED IN THE CONTRACT SPECIFICATIONS. WHEN THERE IS A CONFLICT BETWEEN ACI AND THE SPECIFICATIONS, THE MORE STRINGENT SHALL GOVERN.
- 3.6 CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 20mm x45 DEGREE CHAMFER UNO.
- 3.7 CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615M-96a, GRADE 60, REINFORCING BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT, UNLESS INDICATED ON THE CONTRACT DOCUMENTS. ALL LAP SPLICES SHALL BE CLASS "B" U.N.O.
- 3.8 HORIZONTAL FOOTING AND HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS, OR CORNER BARS OF EQUIVALENT SIZE LAPPED WITH A CLASS B TENSION SPLICE AT CORNERS AND INTERSECTIONS. TOP BAR CRITERIA SHALL APPLY IF 300mm OR MORE OF FRESH CONCRETE IS PLACED BELOW BAR.
- 3.9 SLABS-ON-GRADE SHALL HAVE CONSTRUCTION JOINTS OR CRACK CONTROL JOINTS AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS CAN BE USED AT CONTROL JOINT LOCATIONS AT CONTRACTORS OPTION. SEE SLAB PLANS & JOINT DETAILS FOR ADDITIONAL INFORMATION. FOR AREAS NOT SHOWN ON DWGS, THE MAXIMUM SPACING OF CONSTRUCTION / CRACK CONTROL JOINTS SHALL BE 4800 mm

- 3.10 SEE SPECIFICATIONS FOR ALL WATERPROOFING/DAMP-PROOFING REQUIREMENT.
- 3.11 NOT USED.
- 3.12 ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED, AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI SP-66, LATEST EDITION.
- 3.13 SHOP DRAWINGS SHOWING REINFORCING DETAILS, INCLUDING STEEL SIZES, SPACING AND PLACEMENT, SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.
- 3.14 NOT USED.
- 3.15 ALL DOWELS SHALL MATCH SIZE AND NUMBER OF MAIN REINFORCING, UNLESS NOTED OTHERWISE ON DRAWINGS.
- 3.16 ADDITIONAL BARS SHALL BE PROVIDED AROUND ALL FLOOR AND WALL OPENINGS AS SHOWN ON THE DWGS.
- 3.17 SEE ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF ALL FLOOR FINISHES.
- 3.18 THE CONTRACTOR SHALL COORDINATE ADDITIONAL WALL/SLAB OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS. SEE MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DRAWINGS.
- 3.19 UNLESS NOTED OTHERWISE, ALL CURBS SHALL BE REINFORCED WITH AT LEAST (1) #13 CONTINUOUS AND #13 AT 300mm OC DOWELS TO STRUCTURE BELOW.
- 3.20 THE SUB-CONTRACTOR SHALL VERIFY ALL OPENINGS, PAD SIZES, AND ANCHOR BOLTS WITH EQUIPMENT SELECTED.
- 3.21 FOR ALL WALLS & PIERS, PROVIDE DOWELS INTO FOOTING AT EACH VERT REINF BAR, U.N.O. DOWEL SIZE SHALL BE SAME AS VERT REINF.
- 3.22 ALL DEFORMED BAR ANCHORS SHALL BE TRS NELSON DIVISION OR EQUAL 15mm DIA (UNO) CONFORMING TO ASTM A-496M WITH A MINIMUM TENSILE STRENGTH OF 550 MPa. ANCHOR DIMENSIONS SHALL BE IN ACCORDANCE WITH ASTM D-19. INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS BY AUTOMATIC ND WELDING AS INDICATED ON THE DRAWINGS. NO UNAUTHORIZED OR FIELD WELDING SHALL BE MADE WITHOUT AUTHORIZATION FROM THE MANUFACTURER.
- 3.23 ALL REINFORCING INDICATED TO BE WELDED SHALL BE IN ACCORDANCE WITH ASTM A706M. "LOW ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT". ANY INSTALLATIONS USING MANUFACTURER'S EQUIPMENT SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
- 3.24 PROVIDE CONCRETE POUR STOPS OR FORMED AS REQUIRED FOR INSTALLATION OF ALL CONCRETE WORK.
- 3.25 PROVIDE ADDITIONAL 2-#13 x 600mm REINFORCING BARS IN SLAB-ON GRADE AT ALL RE-ENTRANT CORNERS. PLACE BARS AT MID-DEPTH OF SLAB WITH A CLEARANCE OF 50mm FROM CORNER UNO.
- 4.0 CONCRETE MASONRY
- 4.1 MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF THESE CONTRACT DOCUMENTS AND THE PROJECT SPECIFICATIONS.
- 4.2 THE SPECIFIED ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE MASONRY (f'm) ON THE NET AREA IS A MINIMUM OF 10.4 MPa.
- 4.3 PROVIDE TWO #16 BARS CONTINUOUS IN ALL CAST-IN-PLACE LINTELS (CIPL) UNO ON THE DRAWINGS. CIPL SHALL BE CONTINUOUS AND SPACED AT A MAXIMUM OF 1200mm oc VERTICALLY. ALL CIPL SHALL BE A MINIMUM OF 200mm IN DEPTH WITH REINFORCING BEING CONTINUOUS AND HAVING STANDARD ACI HOOKS AT EACH END. PROVIDE STANDARD BAR SPLICES AS SPECIFIED.
- 4.4 PROVIDE AS A MINIMUM 1-#16 BAR VERTICAL REINFORCEMENT IN ALL WALLS SPACED AT A MAXIMUM 1200mm OC. PROVIDE ADDITIONAL VERTICAL BARS AT EACH END OF ALL WALLS AND ON EACH SIDE OF OPENINGS IN ALL WALLS. PROVIDE STANDARD BAR SPLICES AS SPECIFIED. ALL VERTICAL REINFORCEMENT EXTENDS FULL HEIGHT OF WALL.
- 4.5 CMU CELLS THAT REQUIRE VERTICAL REINFORCING BARS AS INDICATED ON THE CONTRACT DRAWINGS AND/OR SPECS SHALL BE PLACED IN CENTERS OF CMU CELLS AND CONTINUOUSLY GROUTED UNO.
- 4.6 PROVIDE LADDER TYPE JOINT REINFORCEMENT AT (200 EXTERIOR & 400 INTERIOR) ON CENTER MAXIMUM UNO MINIMUM ROD SIZE USED SHALL BE 9 GA. DEFORMED WIRE AND CONFORM TO ASTM A82, UNO.
- 4.7 PROVIDE CONTROL JOINTS AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
- 4.8 GROUT FOR MASONRY SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS. GROUT SHALL CONFORM TO ASTM C476. GROUT LIFTS SHALL NOT EXCEED 1400mm.
- 4.9 USE MORTAR TYPE S CONFORMING TO ASTM C270, SEE SPECIFICATIONS.
- 4.10 CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT AND CONFORM TO ASTM C90.
- 4.11 ALL CMU CELLS, OPEN CAVITIES, AND AIR SPACES SHALL BE GROUTED. TO STOP FRAGMENTS FROM MORTAR BLAST
- 4.12 CAST-IN-PLACE LINTEL REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS (UNO). MAXIMUM CONTROL JOINT SPACING SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
- 4.13 CONTRACTOR SHALL COORDINATE LOCATION OF ALL OPENINGS SEE ARCH., MECH., ELEC., AND PLUMBING DWGS. FOR SIZE AND LOCATION OF OPENINGS.
- 4.14 MASONRY WALLS SHALL NOT BE BACK FILLED PRIOR TO THE MORTAR AND 4.14 GROUT ATTAINING THEIR RESPECTIVE MAXIMUM DESIGN STRENGTHS PER SPECIFICATIONS.

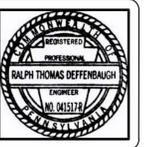
- 5.0 STEEL DECK
- 5.1 STEEL DECK SHALL BE ASTM A446 HAVING A MINIMUM YIELD STRENGTH OF 414 MPa AS PER THE STEEL DECK INSTITUTE DESIGN MANUAL.
- 5.2 STEEL DECK SHALL BE ERECTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND ERECTION LAYOUTS AND CONNECTED TO SUPPORTING MEMBERS AS INDICATED BELOW.
- 5.3 ROOF DECK
- 5.3.1 STEEL ROOF DECK SHALL BE 38mm RIB HEIGHT, 18 GAGE PRIME-PAINTED WIDE RIB (SDI TYPE B-18) UNO.
- 5.3.2 ROOF DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
 

	<u>18 GAGE</u>
MOMENT OF INERTIA, Ip	399mm <sup>4</sup> /mm WIDTH
SECTION MODULUS (TOP OF DECK), Sx	17.58mm <sup>3</sup> /mm WIDTH
SECTION MODULUS (BOT. OF DECK) Sp	17.10mm <sup>3</sup> /mm WIDTH
- IN ADDITION TO MEETING THE MINIMUM REQUIREMENTS ABOVE, THE DECK MANUFACTURER SHALL DESIGN THE ROOF DECK AND ATTACHMENTS TO STEEL FOR THE ROOF LOADS, INCLUDING DECK UPLIFT INDICATED ON THE BASIS OF DESIGN SHEET. ALL ROOF DECK SHALL HAVE A MINIMUM 2-SPAN CONDITION.
- 5.3.3 ROOF DECK SHALL BE FASTENED TO THE MAIN SUPPORTS WITH #12 SELF-TAPING TEK SCREWS IN THE BOTTOM OF THE FLUTES USING A SDI 36/7 PATTERN. DECK SIDELAPS SHALL BE ATTACHED USING #10 SELF-TAPING TEK SCREWS WITH A MINIMUM 8-SIDE LAPS CONNECTIONS PER SPAN. ALL ENDLAPS SHALL BE A MINIMUM OF 50mm UNO AND SHALL OCCUR OVER SUPPORTS.
- 5.3.4 SUSPENDED CEILING, LIGHT FIXTURES, DUCTS, CONDUITS, PIPING OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE STEEL ROOF DECK.
- 5.4 FORM DECK
- 5.4.1 STEEL FORM DECK SHALL BE 38mm RIB HEIGHT, 24 GAGE GALVANIZED WIDE RIB (SDI TYPE C-24) UNO.
- 5.4.2 FORM DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
 

	<u>24 GAGE</u>
MOMENT OF INERTIA, Ip	186mm <sup>4</sup> /mm WIDTH
SECTION MODULUS (TOP OF DECK), Sx	6.45mm <sup>3</sup> /mm WIDTH
SECTION MODULUS (BOT. OF DECK) Sp	7.04mm <sup>3</sup> /mm WIDTH
- IN ADDITION TO MEETING THE MINIMUM REQUIREMENTS ABOVE, THE DECK MANUFACTURER SHALL DESIGN THE FORM DECK AND ATTACHMENTS TO STEEL FOR A MAXIMUM DEFLECTION DUE TO WET CONCRETE OF L/240. ALL FORM DECK SHALL HAVE A MINIMUM 2-SPAN CONDITION.
- 5.4.3 FORM DECK SHALL BE FASTENED TO THE MAIN SUPPORTS WITH #12 SELF-TAPING TEK SCREWS IN THE BOTTOM OF THE FLUTES USING A SDI 36/4 PATTERN. DECK SIDELAPS SHALL BE ATTACHED USING #10 SELF-TAPING TEK SCREWS WITH A MINIMUM 4-SIDE LAPS CONNECTIONS PER SPAN. ALL ENDLAPS SHALL BE A MINIMUM OF 50mm UNO AND SHALL OCCUR OVER SUPPORTS.

- 6.0 STRUCTURAL STEEL
- 6.1 STRUCTURAL STEEL ROLLED SHAPES AND PLATES SHALL CONFORM TO THE MATERIAL INFORMATION SCHEDULE. DIMENSIONS AND PROPERTIES SHALL BE IN ACCORDANCE TO ASTM A6.
- 6.2 ANCHOR BOLTS SHALL CONFORM TO ASTM A36, OR A307, UNLESS NOTED OTHERWISE.
- 6.3 CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 20 DIA A325-N, UNO, AND SHALL CONFORM TO ASTM A325; NUTS SHALL CONFORM TO ASTM A563; WASHERS SHALL CONFORM TO ASTM F436. CONNECTION BOLTS SHALL HAVE A HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED.
- 6.4 DETAILING OF STRUCTURAL STEEL CONNECTIONS MUST BE CONSISTENT WITH RECOGNIZED, PUBLISHED METHODS SUCH AS IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9th EDITION; "ENGINEERING FOR STEEL CONSTRUCTION", OR "VOLUME II CONNECTIONS MANUAL OF STEEL CONSTRUCTION".
- 6.4.1 THE CODE OF STANDARD PRACTICE OF AISC 9TH EDITION ASD IS AMENDED SUCH THAT THE FABRICATOR/DETAILER IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL CONNECTIONS.
- 6.5 STANDARD FRAMING CONNECTIONS SHALL BE DETAILED BY THE FABRICATOR IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION-ALLOWABLE STRESS DESIGN", NINTH EDITION. CONNECTIONS SHALL BE DESIGNED TO DEVELOP A MINIMUM END REACTION OF 12.0 KIPS (54kN).
- 6.5.1 UNLESS NOTED OTHERWISE AS THUS: (##kN), CONNECTIONS SHALL BE DESIGNED AND DETAILED FOR THE END REACTION DETERMINED FROM PART 2 - "ALLOWABLE UNIFORM LOAD TABLES" FROM THE AISC MANUAL OF STEEL CONSTRUCTION - ASD 9TH EDITION OR A MINIMUM OF 12 KIPS (54 kN) WHICH EVER IS GREATER.
- 6.6 ALL MEMBERS AND CONNECTIONS ON THE CONTRACT DRAWINGS AND CONNECTIONS FOR NON SIMPLE CONNECTIONS NOT SHOWN SHALL BE DESIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER, DETAILED AND SUBMITTED FOR APPROVAL AND SHOWN ON THE SHOP DRAWINGS.
- 6.7 ALTERNATIVE CONNECTION DETAILS MAY BE SUBMITTED ON SHOP DRAWINGS BY THE CONTRACTOR ONLY IF ACCOMPANIED BY COMPLETE STRUCTURAL CALCULATIONS PREPARED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER AND SUBMITTED FOR REVIEW.
- 6.8 CALCULATIONS FOR DETAILS MUST SHOW A RATIONAL ANALYSIS OF A COMPLETE LOAD PATH, INCLUDING LOCAL EFFECTS ON WEBS, FLANGES, ETC. OF THE CONNECTED MEMBERS AND THE DEVICES (PLATES, SEATS, BRACKETS, BOLTS, WEBS, ETC) AFFECTING ALL CONNECTIONS. FAILURE TO SUBMIT SUCH CALCULATIONS FOR REVIEW CONCURRENT WITH SHOP DRAWING ERECTION PLANS AND DETAILS WILL BE CAUSE FOR REJECTION OF THAT SUBMITTAL.
- 6.8.1 ALL SHEAR TAB CONNECTIONS SUBMITTED AS AN ALTERNATE FOR APPROVAL SHALL BE DESIGNED USING A FLEXIBLE SUPPORT CONDITION.
- 6.8.2 BEAM AND GIRDER CONNECTIONS SHALL BE DESIGNED SUCH THAT ALL ADDITIONAL STRESSES DUE TO CONNECTION ECCENTRICITY SHALL BE DEVELOPED BY THE CONNECTION AN NOT INDUCE ANY ADDITIONAL STRESSES INTO SUPPORTING MEMBERS.
- 6.9 STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN" AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" - LATEST EDITIONS.
- 6.10 WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1. ELECTRODES FOR SHOP AND FIELD WELDS SHALL BE CLASS E70XX. ALL WELDING SHALL BE DONE BY QUALIFIED, CERTIFIED WELDERS PER THE ABOVE STANDARD.
- 6.11 SHOP AND FIELD TESTING OF WELDS AND BOLTS SHALL BE AS OUTLINED IN THE SPECIFICATIONS.
- 6.12 ALL FILLET WELDS SHALL BE A MINIMUM OF 5mm UNLESS NOTED OTHERWISE
- 6.13 THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.
- 6.14 FOR FLOOR AND ROOF OPENINGS, THE FABRICATOR SHALL VERIFY OPENING LOCATIONS WITH EQUIPMENT SELECTED AND MAKE ANY NECESSARY MODIFICATIONS AT NO ADDITIONAL COST. THE CONTRACTOR SHALL COORDINATE MECHANICAL UNITS AND OPENINGS & ARCHITECTURAL ITEMS REQUIRED FOR COMPLETE INSTALLATION OF WORK. IT IS THE RESPONSIBILITY OF FABRICATOR TO RECEIVE ALL NECESSARY INFORMATION PRIOR TO FABRICATION OF THE STEEL.
- 6.15 ALL STRUCTURAL STEEL SHALL BE PRIMED AS PER THE SPECIFICATIONS.
- 6.16 ALL PLATES NOT INDICATED SHALL BE 12mm MIN THICKNESS. ALL ANGLES NOT INDICATED SHALL BE 76x76x7.9 MIN. ALL WELDS NOT INDICATED SHALL BE 6mm MIN ALL AROUND UNO.
- 6.17 SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL OPENINGS NOT SHOWN. ALL OPENINGS SHALL BE FRAMED 4 SIDES WITH C200x17'S UNO.

NOTE: FOR ADDITIONAL NOTES AND BASIS OF DESIGN CRITERIA, SEE DWG. S-52.



NO.	DESCRIPTION	DATE

DESIGNED BY: DATE: 04-01-08	SUBMITTED BY:	FILE NO.:
BAKER	RCG	CWW
DWN BY: BAKER	RCG	CWW
CHK BY: BAKER	RCG	CWW

Arcade Business Park  
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US Army Corps  
of Engineers  
Transatlantic Programs  
Center

AFGHAN NATIONAL BORDER POLICE  
AFGHANISTAN NATIONAL  
BORDER POLICE UNIT FACILITY  
BORDER POLICE COMPANY  
STRUCTURAL GENERAL NOTES

SHEET  
REFERENCE  
NUMBER:  
**S-51**

READY TO ADVERTISE SUBMISSION





### CAST-IN-PLACE CONCRETE LINTEL SCHEDULE

OPENING TYPE OR SIZE, BEAM LOCATION OR TYPE	MAX SPAN (mm)	BEAM DEPTH (mm)	MAIN REINFORCING			SHEAR REINF STIRRUPS
			TOP	BOTTOM	OTHER	
ADMIN-EXT WINDOW OR DOOR	900	400	(2)-#13	(2)-#13		---
SENIOR BARRACKS-EXT WINDOWS OR DOOR	900	400	(2)-#13	(2)-#13		---
EXT WALL OPENING, 1-STORY BLDG	1800	400	(2)-#13	(2)-#13		---
EXT WALL OPENING, 1-STORY BLDG	900	200		(2)-#13		---
INT WALL OPENING, NON-BEARING	1800	200		(2)-#13		---
INT WALL OPENING, NON-BEARING	900	200		(2)-#13		---
DFAC-INT SERVRY OPENING	4880	600	(2)-#19	(2)-#19		#13 @ 150
INT WALL OPENING, SHEAR WALL	900	200		(2)-#13		---
INT WALL OPENING, SHEAR WALL	1800	200	(2)-#13	(2)-#13		---
INT WALL OPENING, SHEAR WALL	2400	400	(2)-#16	(2)-#16		#13 @ 300
INT WALL OPENING, NON-BEARING	2400	400		(2)-#13		---

- STRUCTURAL DRAWINGS DO NOT INDICATE ALL OPENINGS IN MASONRY WALLS. VERIFY NUMBER, SIZE AND LOCATION OF ALL OPENINGS IN MASONRY WALLS FROM ARCHITECTURAL DRAWINGS AND APPROVED PLUMBING, MECHANICAL, AND ELECTRICAL SHOP DRAWINGS.
- PROVIDE 200 BEARING EA. END FOR 200 DEEP CIB. PROVIDE 400 BEARING EA. END FOR 400 DEEP CIB.
- FOR HEAD DETAILS REFER TO ARCHITECTURAL DRAWINGS.
- REINFORCING SHALL BE ASTM A615M, GRADE 400. CONCRETE FOR CAST-IN-PLACE BEAMS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 21 MPa AT 28 DAYS.
- CONTRACTOR SHALL SUBMIT FOR APPROVAL SHOP DRAWINGS AND SCHEDULES SHOWING SIZE, DETAILS, LOCATIONS, ETC. FOR ALL CAST-IN-PLACE BEAMS IN CMU WALLS.

### SPREAD FOOTING AND PIER SCHEDULE

MARK	FOOTING SIZE			FOOTING REINFORCING	PIER				REMARKS
	LENGTH	WIDTH	THICKNESS		SIZE	T/PIER	VERT. BARS	TIES	
F4	1800	1800	300	(5)-#16 E.W. T & B	915x800 OR 915x765	-200 OR -150	(8)-#19	#13 @ 250 TOP 3 @ 125	HAIRPINS REQ'D. SEE DETAILS
F5	1200	1200	300	(4)-#16 E.W. T & B	-----	-----	-----	-----	-----
F7	4900	3800	350	(14)-#16 E.W., TOP (14)-#22 E.W., BOTT	-----	-----	-----	-----	-----
F8	2900	2400	350	(9)-#16 E.W., TOP (9)-#22 E.W., BOTT	-----	-----	-----	-----	-----
F9	4700	3200	350	(12)-#16 E.W., TOP (12)-#19 E.W., BOTT	-----	-----	-----	-----	-----
F10	2400	1700	300	(7)-#13 E.W., TOP (7)-#19 E.W., BOTT	-----	-----	-----	-----	-----
F11	3900	1700	300	(7)-#19 E.W., TOP (7)-#19 E.W., BOTT	-----	-----	-----	-----	-----

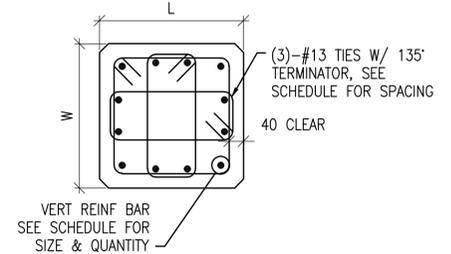
- NOTES:
- DIMENSIONS NOTED ARE MILLIMETERS (mm) U.N.O.
  - T/PIER EL GIVEN IN REFERENCE TO 0.0 mm DATUM OR FINISH FLOOR EL/SLAB EL, DISTANCE ABOVE OR BELOW INDICATED AS NEGATIVE OR POSITIVE.
  - PIER SIZE INDICATED IS SQUARE (DIMENSION SAME IN BOTH DIRECTIONS) U.N.O.

### CONCRETE BEAM SCHEDULE

GRADE BEAM						
MARK	SIZE (BxH)	REINFORCING				REMARKS
		TOP	BOTTOM	STIRRUPS	MIDBAR	
GB1	500x950	(5)-#20	(5)-#20	#13 @ 300	(2) #19 EF	TOP BAR LAP AT CENTER BOT BAR LAP PAST COL
GB2	400x950	(6)-#16	(6)-#16	#13 @ 200	(2) #19 EF	TOP BAR LAP AT CENTER BOT BAR LAP PAST COL
FLOOR BEAM						
MARK	SIZE (BxH)	REINFORCING				REMARKS
		TOP	BOTTOM	STIRRUPS	MIDBAR	
FB1	500x600	(5)-#25	(5)-#25	#13 @ 200	#19 EF	TOP BAR LAP AT CENTER BOT BAR LAP PAST COL
FB2	400x400	(5)-#13	(5)-#13	#13 @ 150	#19 EF	TOP BAR LAP AT CENTER BOT BAR LAP PAST COL
ROOF BEAM						
MARK	SIZE (BxH)	REINFORCING				REMARKS
		TOP	BOTTOM	STIRRUPS	MIDBAR	
RB1	500x600	(5)-#20	(5)-#20	#13 @ 300	#19 EF	TOP BAR LAP AT CENTER BOT BAR LAP PAST COL
RB2	400x600	(6)-#16	(6)-#16	#13 @ 300	#19 EF	TOP BAR LAP AT CENTER BOT BAR LAP PAST COL

### CONCRETE COLUMN SCHEDULE

MARK	SIZE (LxW)	REINFORCING			REMARKS
		1 <sup>ST</sup> FLOOR	2 <sup>ND</sup> FLOOR	STIRRUPS	
C1	500x500	(12)-#32	(12)-#19	#13 @ 200	SPACE TOP 3 TIES @ 125mm
C2	400x400	(12)-#22	-	#13 @ 200	SPACE TOP 3 TIES @ 125mm
C3	400x400	(12)-#19	-	#13 @ 200	SPACE TOP 3 TIES @ 125mm



1 COLUMN DETAIL  
S-S4 | S-S4 SCALE: 1:10

### TYPICAL CMU WALL REINFORCING SCHEDULE

WALL TYPE OR LOCATION	WALL THICKNESS	CONT. VERT. REINF. (CENTERED IN CMU, U.N.O.)	CONT. CAST IN PLACE LINTEL (CIPL)			REMARKS
			DEPTH	REINF. (BOT U.N.O.)	MAX. CIPL VERT. SPACING	
ALL PERIMETER/EXTERIOR WALLS (U.N.O.)	200	1-#16 @ 600	200	2-#16	1200	-----
NON-LOAD BEARING INTERIOR WALLS WITH TOP AND BOTT. SUPPORTS	200	1-#13 @ 1200	200	2-#16	1200	-----

- NOTES:
- REINFORCING SIZES AND SPACING GIVEN IN SECTIONS AND DETAILS SHALL SUPERSEDE THE ABOVE SCHEDULE REQUIREMENTS.
  - PROVIDE CONTINUOUS CAST IN PLACE CONCRETE LINTEL AT ALL WALL LATERAL SUPPORT LOCATIONS.
  - REINFORCING INDICATED SHALL BE CONTINUOUS FOR FULL EXTENT OF SPLICE FOLLOWING THE REQUIREMENTS OF THE LAP SPLICE TABLE SHOWN ON THIS SHEET.
  - WALLS HAVE BEEN DESIGNATED AS VERTICALLY SPANNING U.N.O. AND THEREFORE MUST BE TEMPORARILY SUPPORTED DURING CONSTRUCTION UNTIL THE SUPPORTING DIAPHRAGMS (FLOOR AND ROOF SYSTEMS) HAVE BEEN COMPLETELY INSTALLED. SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - ALL CMU WALLS SHALL BE FULLY GROUTED IN LIFTS NOT EXCEEDING THOSE BY CODE (UNO)
  - SEE TYPICAL CMU WALL DETAILS ON S-S5.

### MAXIMUM CMU WALL UNSUPPORTED HEIGHT OR LENGTH

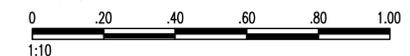
	WALL THICKNESS	EXTERIOR WALL NON-LOAD BEARING	INTERIOR NON-LOAD BEARING WALL
MAX HEIGHT OR LENGTH BETWEEN SUPPORTS	200	4800	7200

NOTE: CMU WALL MAXIMUM LATERAL SUPPORT SPACING GIVEN IN SECTIONS AND DETAILS SHALL SUPERSEDE THE ABOVE SCHEDULE REQUIREMENTS.

### MASONRY REINFORCING MINIMUM LAP SPLICES

BAR SIZE	BASIC LAP SPLICE Ld FOR CMU REINFORCING
#10	450
#13	600
#16	750
#19	900
#22	1050
#25	1200

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



DATE	DESCRIPTION	SYMBOL
APR		

DESIGNED BY: DATE: 04-01-08  
BAKER  
SUBMITTED BY:  
DWN BY: RCG  
CHK BY: CWV  
FILE NO.:

Arcade Business Park  
15108  
Moon Township, Pa. 15108  
(412) 269-6300

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MICHAEL BAKER, INC.

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of Engineers  
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SCHEDULES

SHEET REFERENCE NUMBER:  
**S-S4**

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DATE	DESCRIPTION	SYMBOL

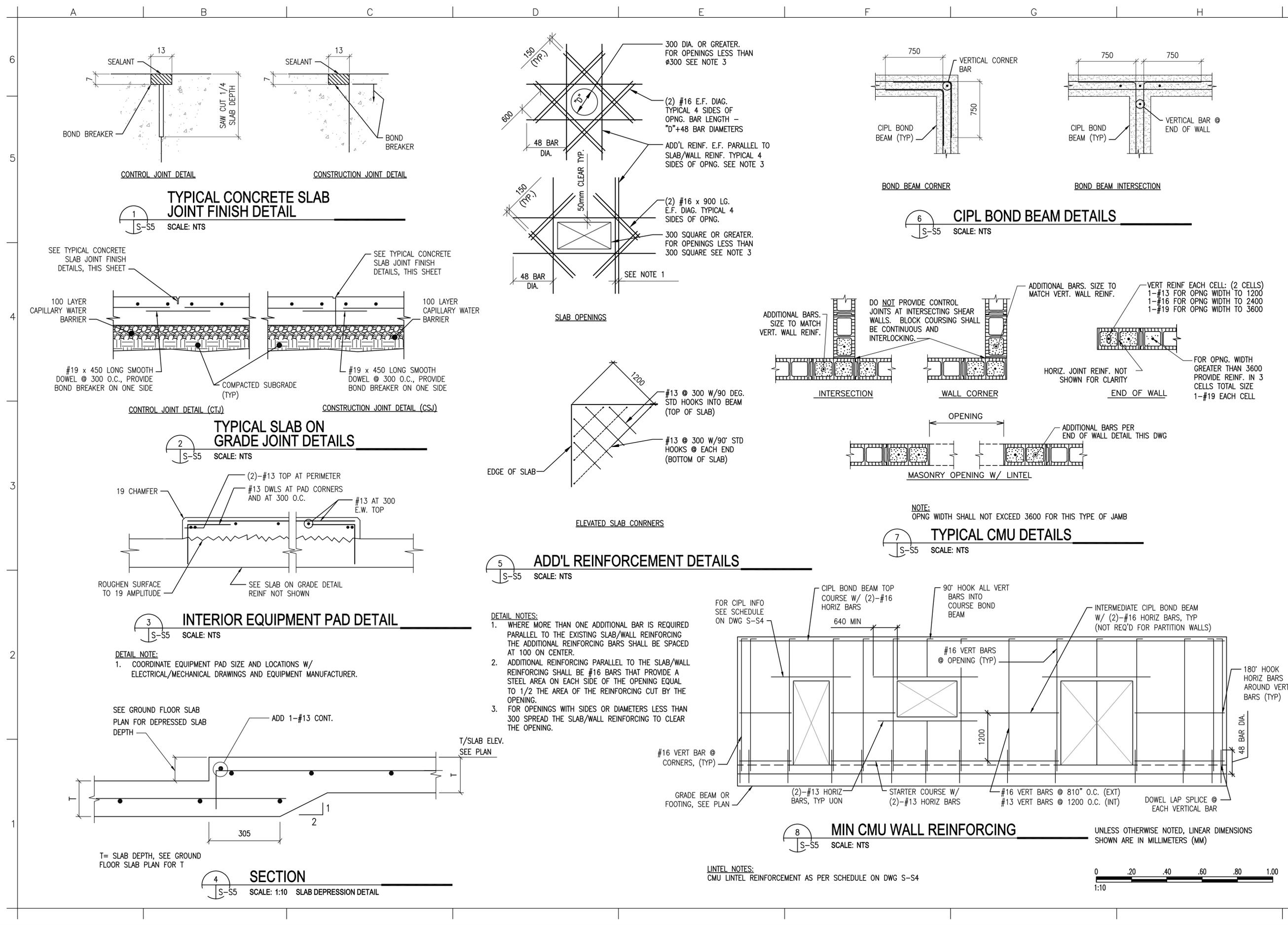
DESIGNED BY: DATE: 04-01-08	SUBMITTED BY:	FILE NO.:
BAKER	RCG	CWW
DWN BY: RCG	CHK BY: CWW	
Alcide Business Park 1900 Moon Township, Pa. 15108 (412) 269-6300	US Army Corps of Engineers Transatlantic Programs Center	

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**SECTIONS AND DETAILS**

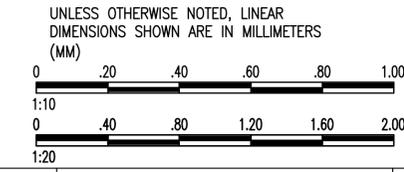
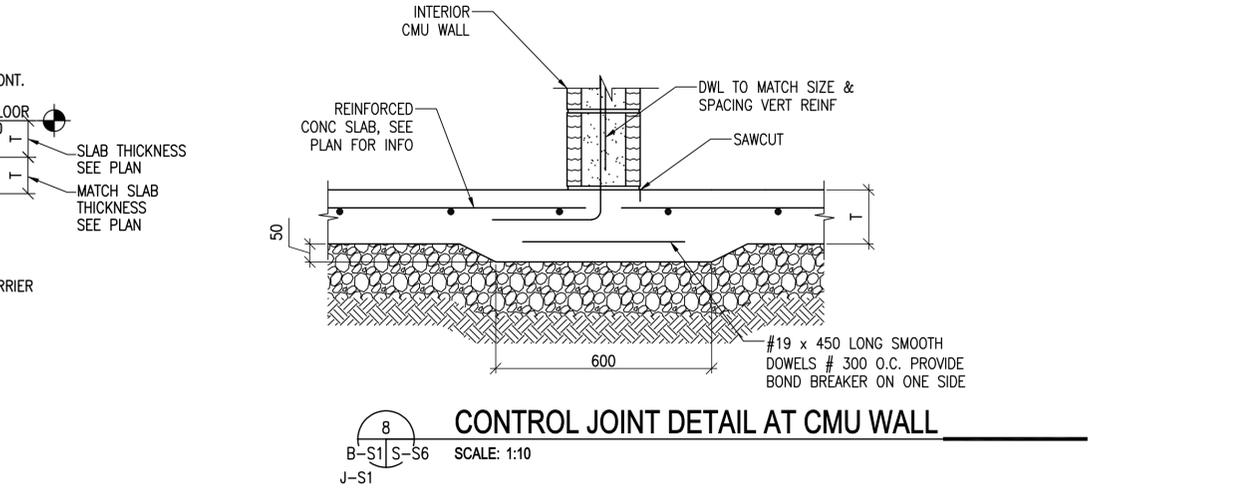
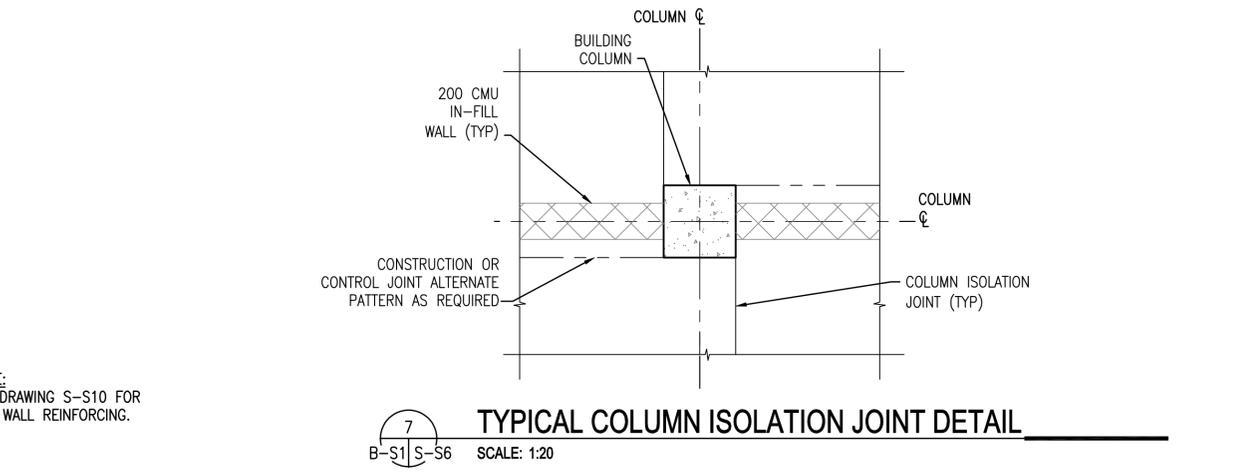
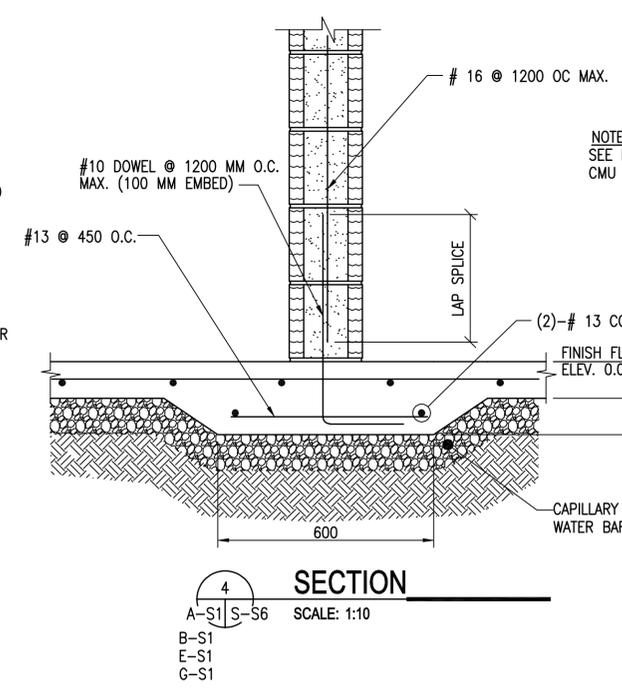
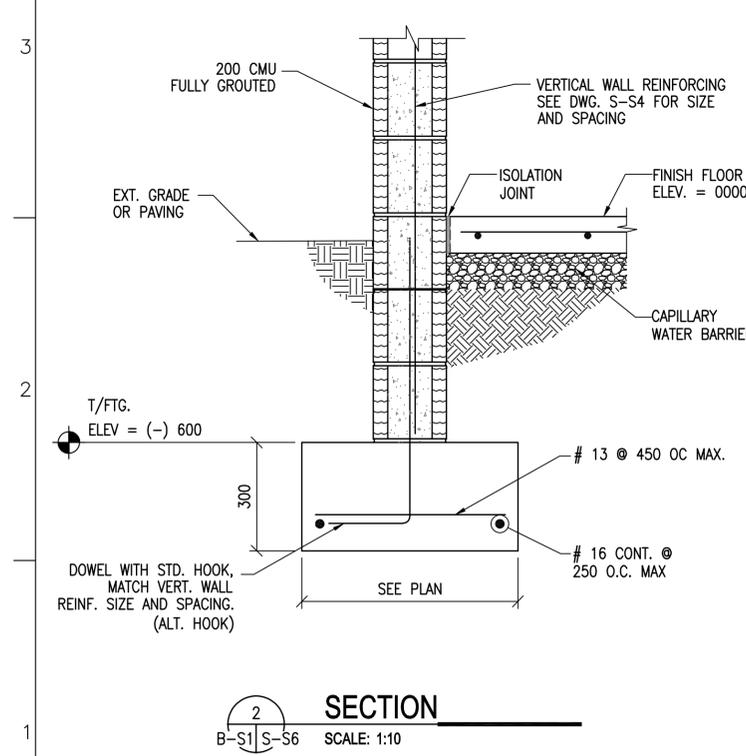
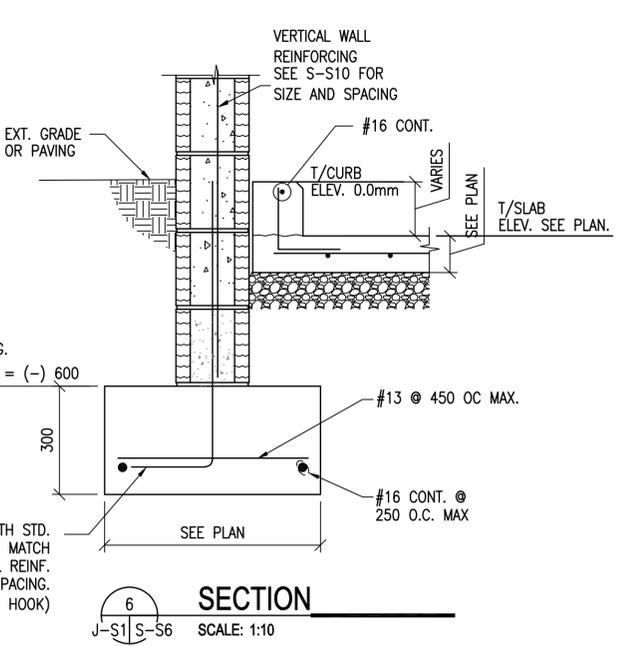
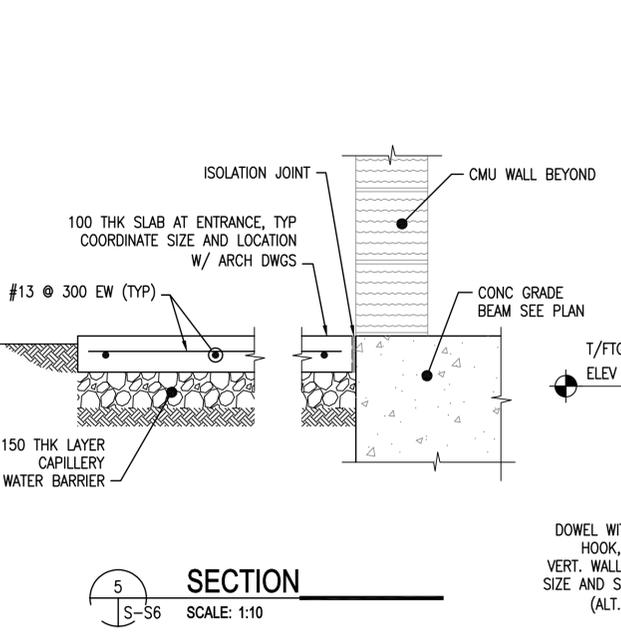
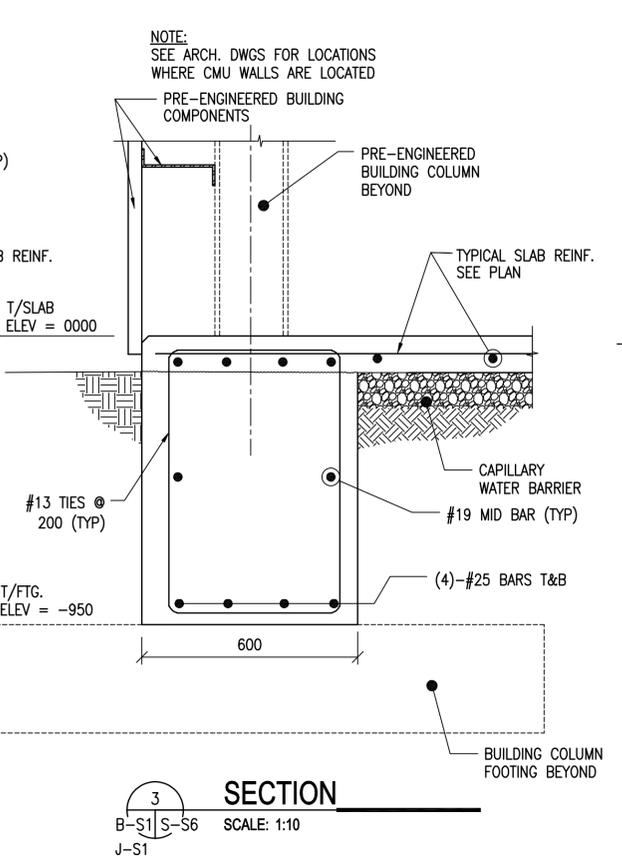
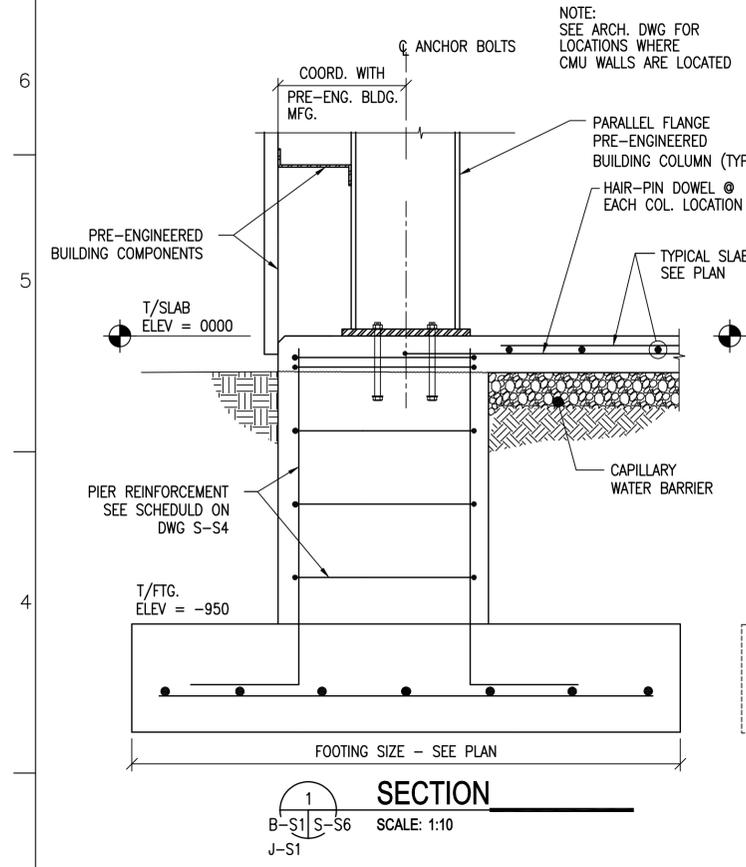
SHEET  
REFERENCE  
NUMBER:  
**S-S5**

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A B C D E F G H



SYMBOL	DESCRIPTION	DATE	APP.

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 DWN BY: RCG  
 SUBMITTED BY: FILE NO.:  
 CWV  
 US Army Corps of Engineers Transatlantic Programs Center  
 Baker MICHAEL BAKER, INC.

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