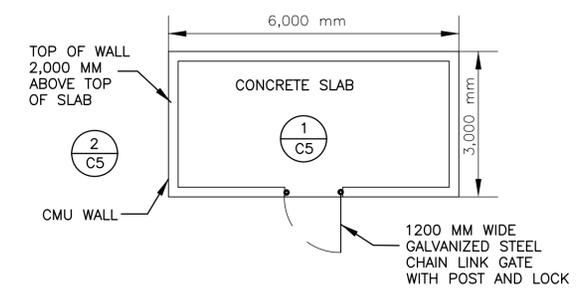
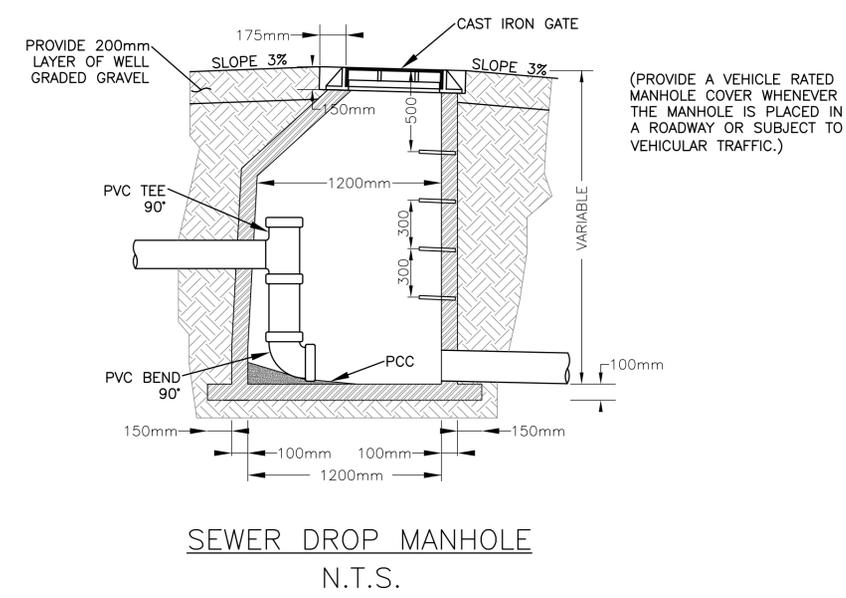
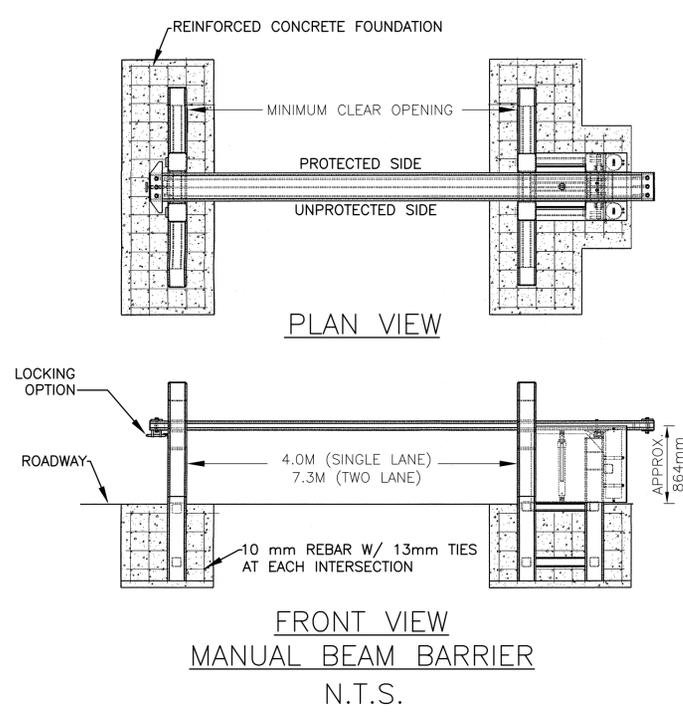
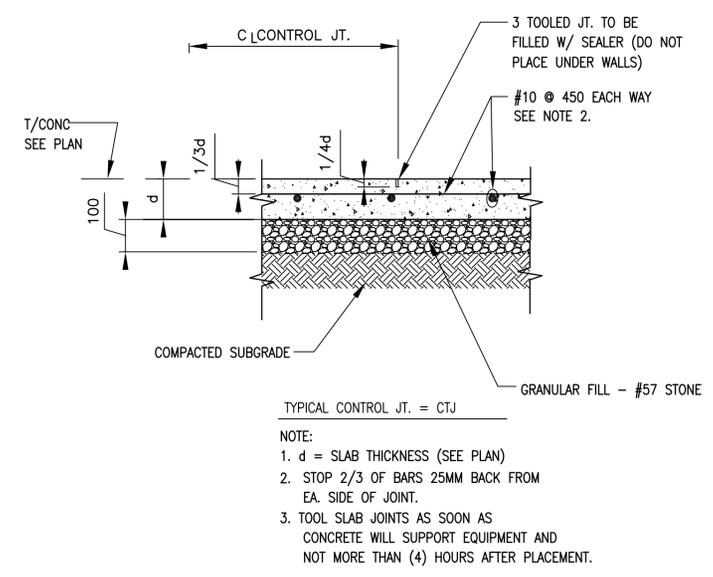


A B C D E F G H

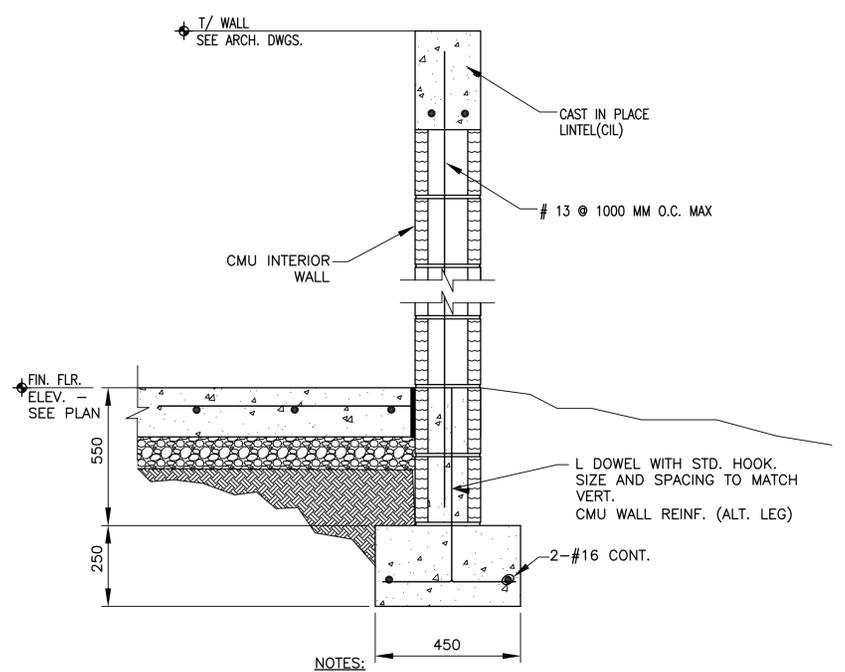
6
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- NOTES:
- 1) THE CMU WALLS SHALL RECEIVE STUCCO ON BOTH SIDES AND TOP.
 - 2) PROPANE STORAGE AREA TO BE LOCATED NO LESS THAN 6.1 METERS FROM ANY STRUCTURE.



- TYPICAL CONTROL JT. = CTJ
- NOTE:
1. d = SLAB THICKNESS (SEE PLAN)
 2. STOP 2/3 OF BARS 25MM BACK FROM EA. SIDE OF JOINT.
 3. TOOL SLAB JOINTS AS SOON AS CONCRETE WILL SUPPORT EQUIPMENT AND NOT MORE THAN (4) HOURS AFTER PLACEMENT.



- NOTES:
1. VERT. CMU WALL REINF. NOT SHOWN FOR CLARITY.
 2. REQUIRED AT INTERIOR CMU WALL LENGTHS THAT EXCEED 3600mm BETWEEN OPPOSING CMU WALLS THAT ARE TIED.

US Army Corps of Engineers
Afghanistan Engineer District

SYMBOL	DESCRIPTION	DATE	APP

DESIGNED BY:	DATE:	09-30-09
BAKER	SUBMITTED BY:	BAKER
DWN BY:	JDS	
CHK BY:	GPH	
FILE NO.:	ANFSDC-505XXX	

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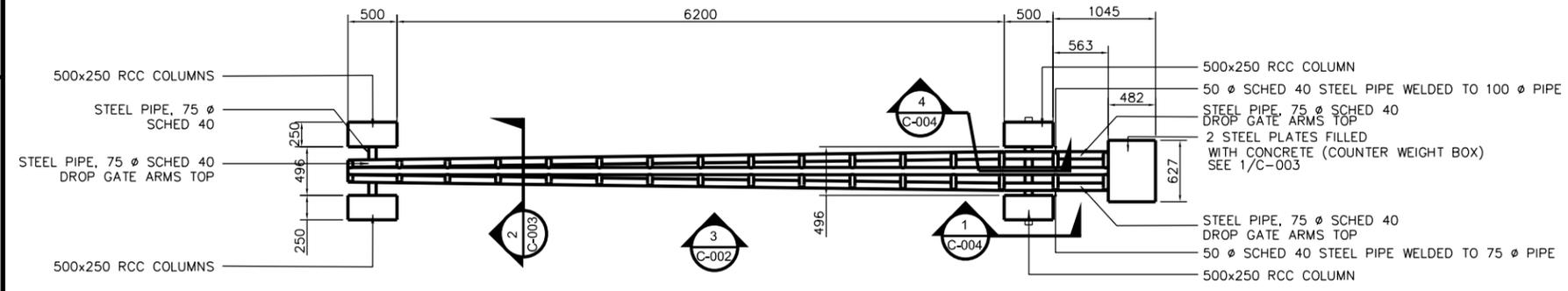
AFGHAN NATIONAL POLICE
STANDARD DESIGN
SITE DETAILS
CIVIL DETAILS

SHEET REFERENCE NUMBER:
C5

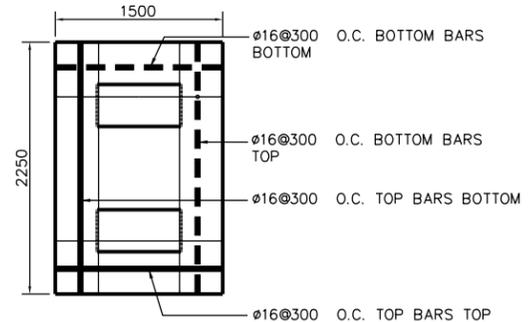
100% SUBMISSION

A B C D E F G H

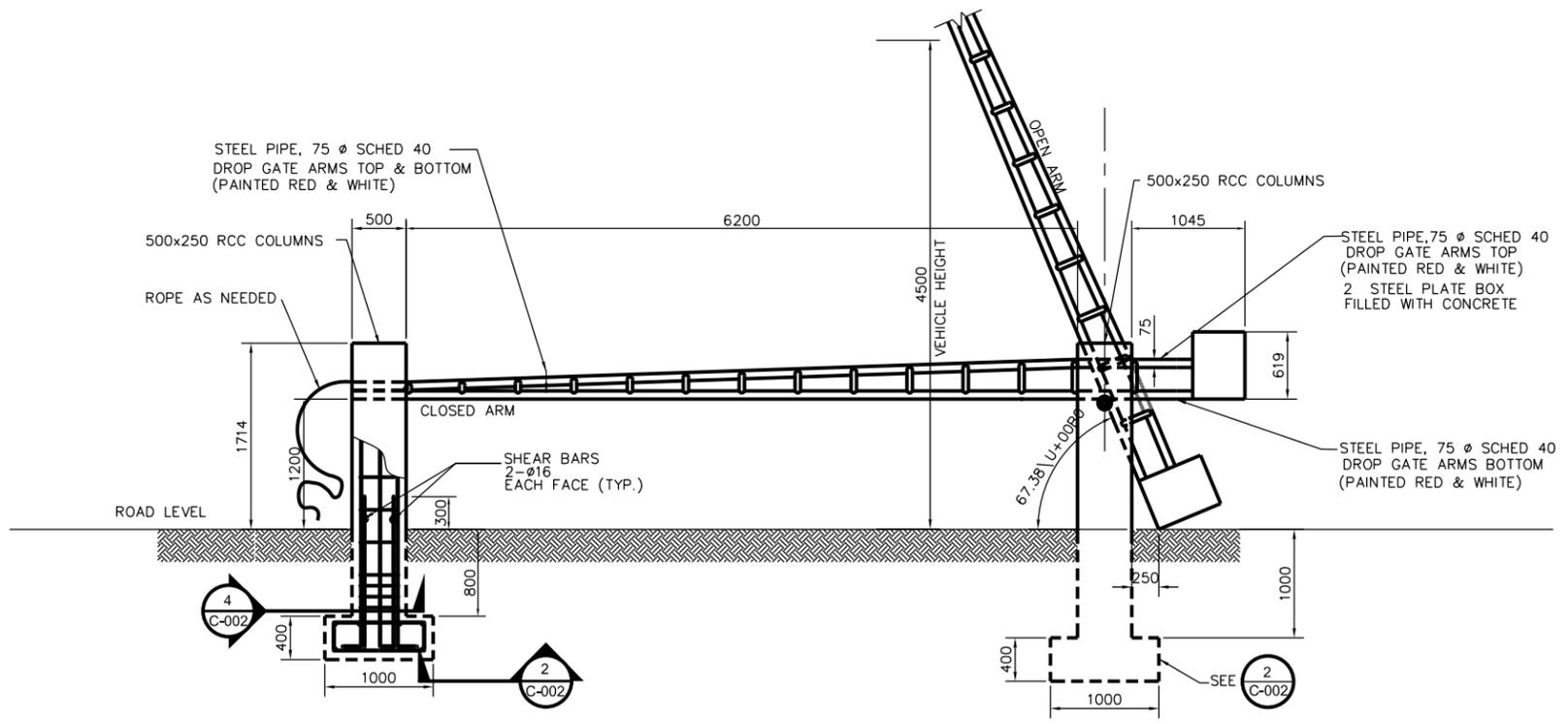
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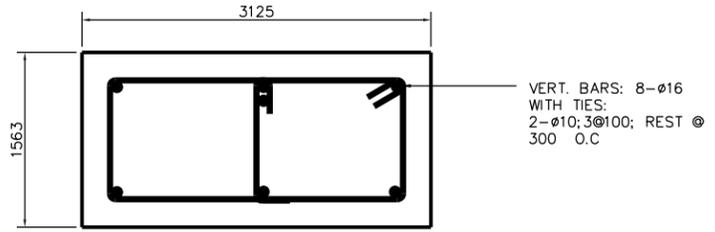
1 PLAN
C-002 1:30



2 DETAIL
C-002 NTS



3 ELEVATION
C-002 1:30



4 DETAIL
C-002 NTS

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (MM) UNLESS NOTED OTHERWISE.



REV.	DATE	DESCRIPTION

DESIGNED BY:	DATE:	REV.:
DRAWN BY:	DESIGN FILE NO.:	
CHECKED BY:	DRAWING CODE:	
REVIEWED BY:	FILE NAME:	
SUBMITTED BY:	PLOT SCALE:	
	PLOT DATE:	

AFGHAN NATIONAL POLICE
 STANDARD DESIGN
 DROP ARM BARRIER

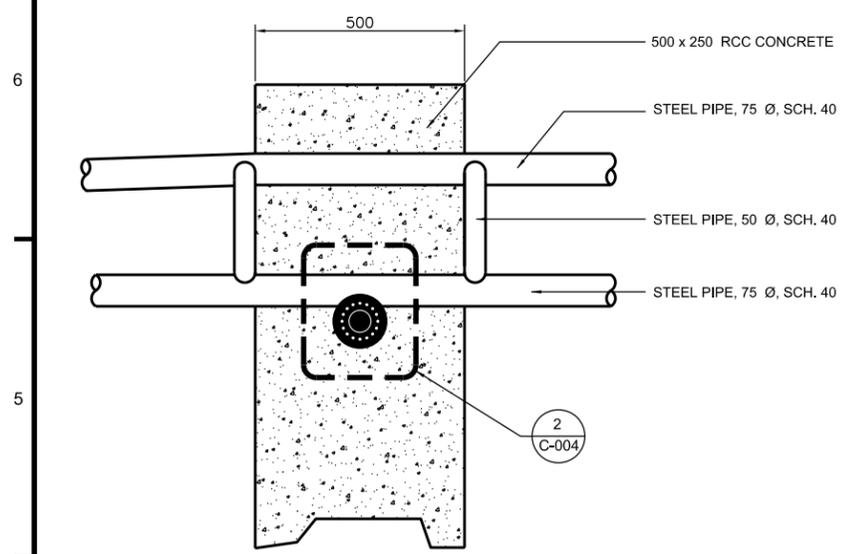
ELEVATION, COLUMN AND FOOTING

SHEET REFERENCE NUMBER:
C2

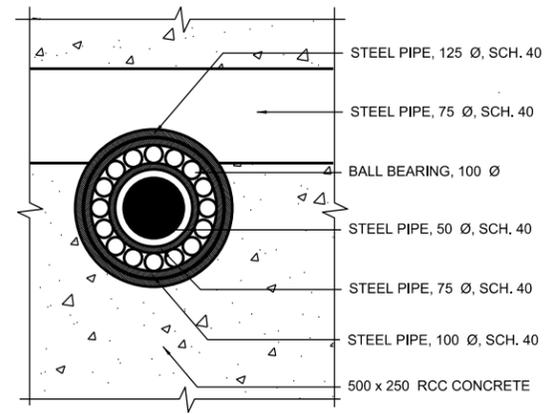
TITLE SHEET
 SCHEDULE OF DRAWINGS

X-XXX

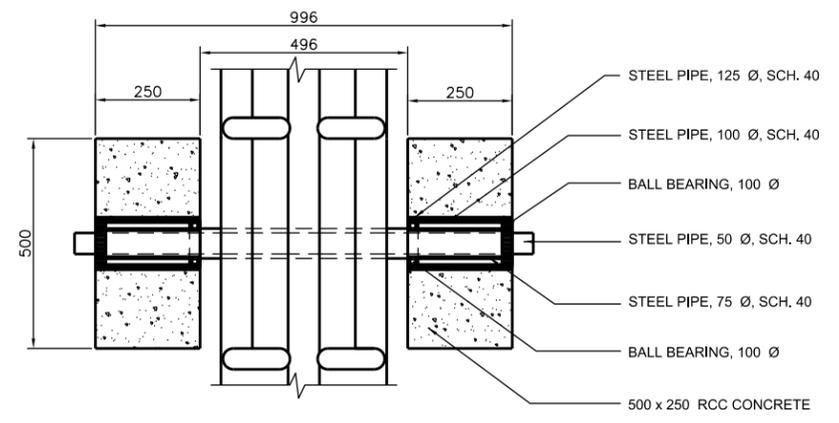
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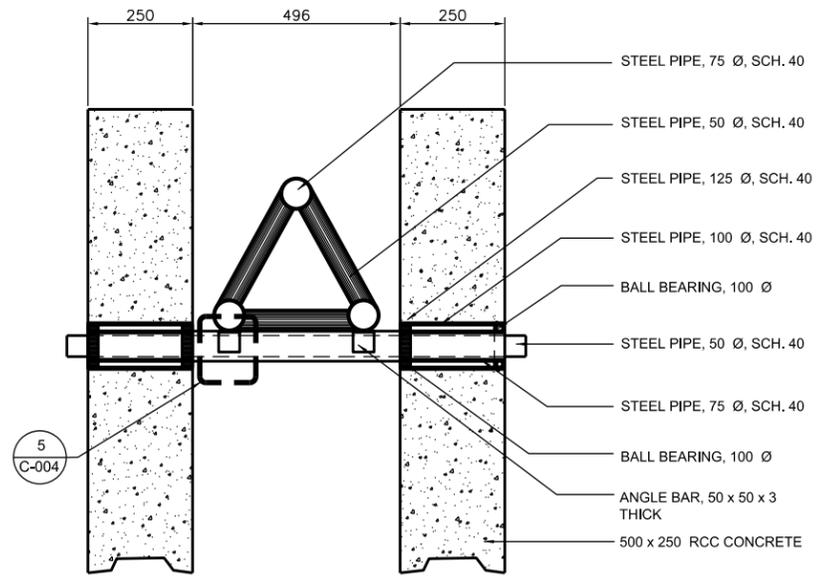
1 DROP ARM SECTION
C-004/NTS



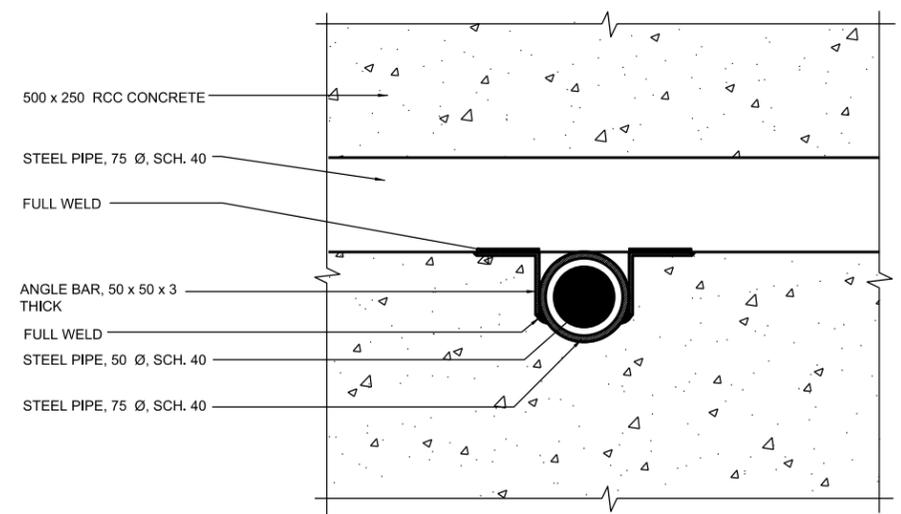
2 DROP ARM DETAIL
C-004/NTS



3 DROP ARM PLAN SECTION
C-004/NTS



4 DROP ARM SECTION
C-004/NTS



5 DROP ARM SECTION
C-004/NTS

NOTE: ALL DIMENSIONS ARE IN MILLIMETER (MM) UNLESS NOTED OTHERWISE.



DATE	APPR.	SYMBOL	DESCRIPTION

DESIGNED BY:	DATE:	REV.
DRAWN BY:	DESIGN FILE NO.	
CHECKED BY:	DRAWING CODE:	
REVIEWED BY:	FILE NAME:	
SUBMITTED BY:	PLOT SCALE:	
	PLOT DATE:	

AFGHAN NATIONAL POLICE
STANDARD DESIGN
DROP ARM BARRIER

DETAILS

SHEET REFERENCE NUMBER:
C4

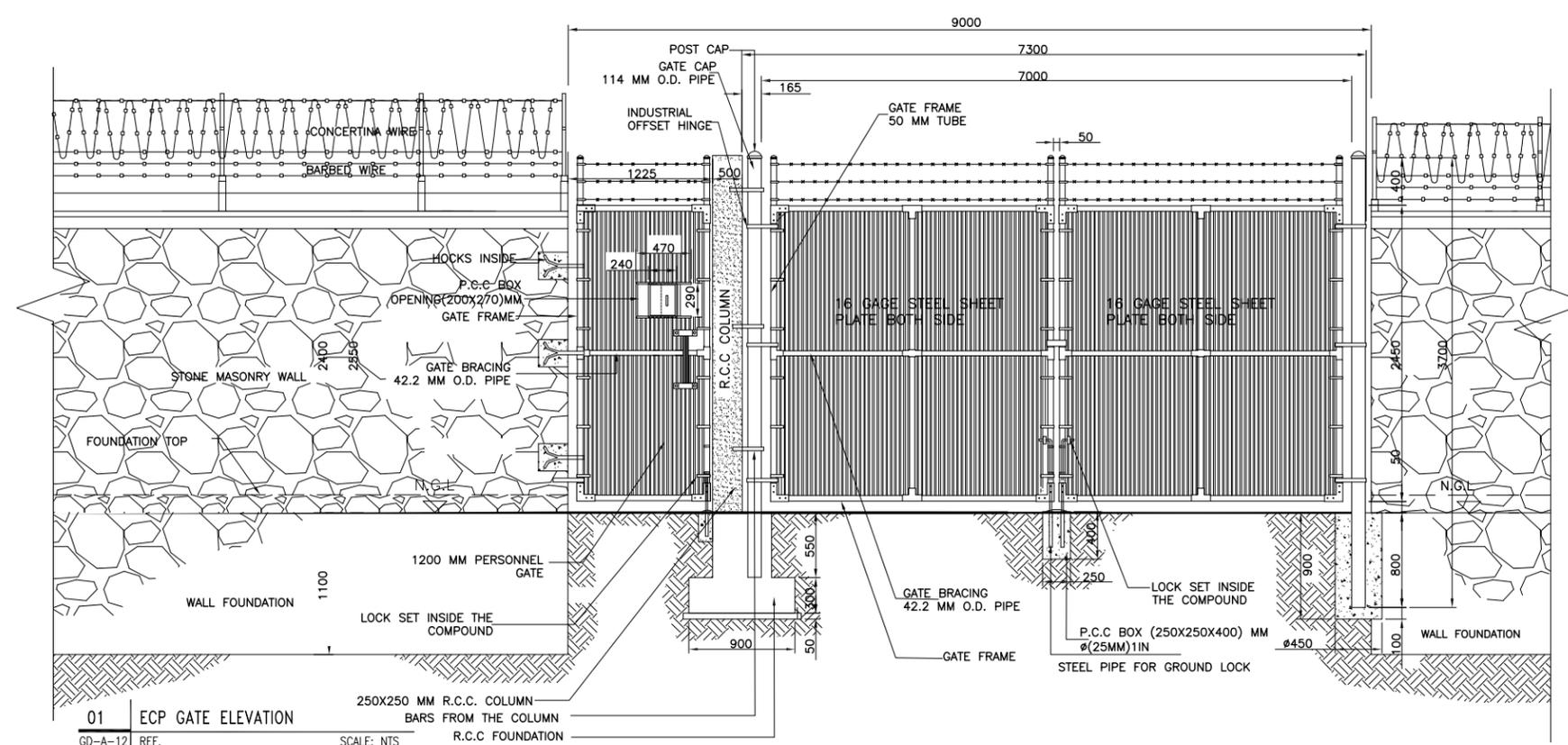
TITLE SHEET
SCHEDULE OF DRAWINGS

X-XXX

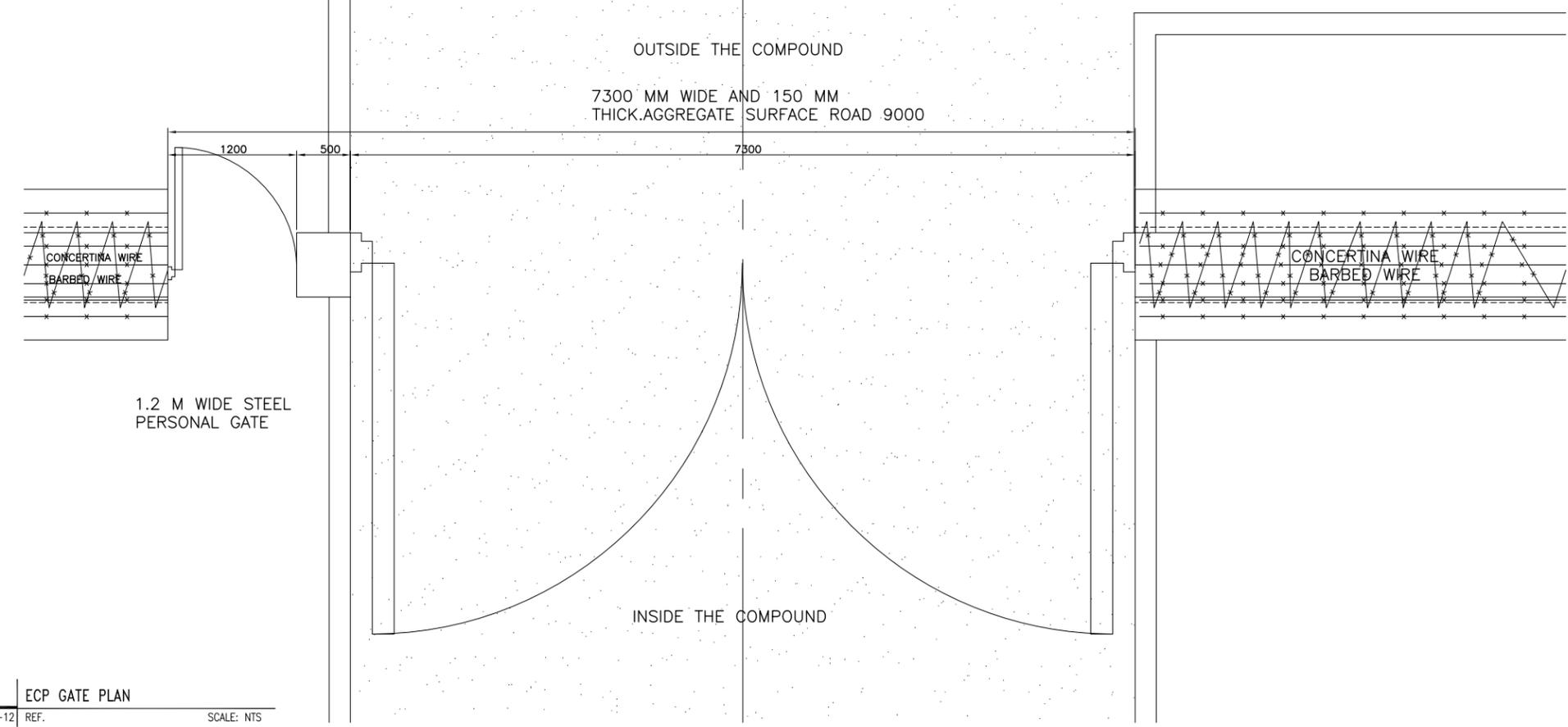
NOTES

GATE POST	115MMX115MM WALL THK.
GATE FRAME	50MMX50MM WALL THK.
GATE BRACING	40MMX50MM WALL THK.
INFILL-FABRIC	30MMX30MM GALVANIZED
BARBED WIRE	STANDARD-GALVANIZED
FITTINGS	GALVANIZED

- 1) FITTINGS: - GALVANIZED
- 2) STEEL TUBE: ALL PIPES ARE GALVANIZED, CONFORMS TO ASTM A 53, SCH-40
- 3) BARBED WIRE: GALVANIZED BARBED WIRE "IOWA" PATTERN, 2PLY, 4 POINT STRAND WIRE 2.5 MM DIA, BARBING WIRE 2.0 MM DIA GALV., SPACING BETWEEN BARBS 101 MM



01 ECP GATE ELEVATION
GD-A-12 REF. SCALE: NTS



02 ECP GATE PLAN
GD-A-12 REF. SCALE: NTS

Contract Date:	Contract No.:
Drawn By:	Draw Code:
Designed By:	Reviewed by:
US ARMY CORPS OF ENGINEERS AFGHANISTAN ENGINEER DISTRICT SOUTH HERAT, AFGHANISTAN	Submitted by:
Contractor:	Substitution No.:
Designer:	Contract No.:
FILE NAME:	Plot Date:
CIVIL	APR-10-2011
	Plot Scale:
	1:150

ANP (AFGHAN NATIONAL POLICE)
STANDARD DESIGN DRAWING
ENTRY CONTROL POINT (ECP) GATE

Sheet reference number:

MINIMUM LAP SPLICES OF REINFORCING BARS IN TENSION (PER ACI 318M-05)

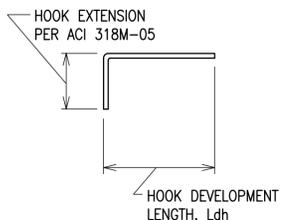
f'c = 28 MPa CONCRETE					
BAR SIZE	CENTER TO CENTER BAR SPACING	(--TOP BARS--)		(--OTHER BARS--)	
		LESS THAN 4db	4db OR MORE	LESS THAN 4db	4db OR MORE
#10		460	460	410	410
#13		660	610	510	480
#16		1020	760	790	580
#19		1450	910	1120	710
#22		1960	1090	1500	840
#25		2590	1450	1980	1120
#29		3280	1830	2510	1420
#32		4140	2340	3200	1780
#36		5080	2840	3910	2180

NOTES:

- LAP SPLICES ABOVE ARE IN MILLIMETERS UON.
- YIELD STRENGTH OF REINFORCEMENT, fy, IS 400MPa (LAP SPLICE LENGTH IS IN MILLIMETERS).
- CONCRETE IS NORMAL WEIGHT (2400kg/m³).
- TOP BAR INDICATES HORIZONTAL REINFORCEMENT WHICH IS PLACED ABOVE 300mm OR MORE OF FRESH CONCRETE.
- SEE COLUMN SCHEDULE FOR COLUMN AND SHEAR WALL VERTICAL LAP SPLICE.
- STRAIGHT DEVELOPMENT LENGTH OF AN UNLAPPED BAR IS EQUAL TO VALUE FROM TABLE DIVIDED BY 1.3. CATEGORY FOR BARS SPACED LESS THAN 4d, OR ON CENTER CORRESPONDS TO CATEGORY 1 IN THE CRSI HANDBOOK WHEREAS FOR BARS SPACED 4d, OR MORE ON CENTER CORRESPOND TO CRSI CATEGORY 5.

STANDARD HOOKS IN TENSION PER (ACI 318M-05)

BAR SIZE	f'c 28 MPa
#10	180
#13	250
#16	300
#19	380
#22	430
#25	480
#29	560
#32	610
#36	690



- NOTES:**
- CONCRETE IS NORMAL WEIGHT CONCRETE.
 - BAR YIELD STRENGTH, fy = 400 MPa
 - SIDE COVER REQUIREMENTS OF ACI SECT. 12.5.3.2 ARE ASSUMED TO NOT BE MET.
 - TIE OR STIRRUP REQUIREMENTS OF ACI SECT. 12.5.3.2 ARE ASSUMED TO NOT BE MET.
 - REDUCTION FOR EXCESS REINFORCEMENT IS NOT TAKEN.
 - HOOK DEVELOPMENT LENGTH IS VALID FOR 180° HOOKS ALSO.

CONCRETE COVER SCHEDULE

MINIMUM CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS: (SEE ACI 318M-05, SECTION 7.7 FOR CONDITIONS NOT NOTED). DIMENSIONS FOR BAR PLACEMENT GIVEN IN SECTIONS AND DETAILS SHALL SUPERSEDE MINIMUM COVER REQUIREMENTS GIVEN HERE. DIMENSIONS ARE IN mm.

FOOTINGS (EARTH FORMED)	70
COLUMNS / PIERS	40
GRADE BEAMS OR SLAB TURNED DOWN EDGES:	
TOP	40
BOTTOM (EARTH FORMED)	70
SIDES (EARTH FORMED)	70
SIDES (BOARD FORMED)	40
#16 BAR & SMALLER	50
#19 THRU #36 BAR	50
SLABS-ON-GRADE (NO EXPOSURE TO WEATHER) FROM TOP	20
SLABS-ON-GRADE (EXPOSURE TO WEATHER) FROM TOP	40
UTILITY TUNNEL WALLS, RETAINING WALLS AND SHEAR WALLS, (NO SURFACES SHALL BE EARTH FORMED)	
EARTH SIDE AND FRONT SIDE (EXPOSED TO WEATHER):	
#16 BAR AND SMALLER	40
#19 THRU #36 BAR	50
PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED.	

CONCRETE MATERIALS SCHEDULE

STRUCTURAL ELEMENT	f'c CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS (MPa)
SLAB-ON-GRADE/TURN-DOWN SLABS	28
FLOOR SLABS	28
ALL FOOTINGS (UON)	28
MISC. CURBS, WALLS AND PADS UON	28
CAST-IN-PLACE LINTEL	28
CONCRETE FRAMING - BEAMS AND COLUMNS	28

NOTES:

- ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE. (2400 Kg/m³ UON)
- ALL CONCRETE SHALL HAVE A MAX WATER-CEMENT RATIO OF 0.45.

SPREAD FOOTING AND PIER SCHEDULE

MARK	FOOTING SIZE			FOOTING REINFORCING	PIER			REMARKS
	LENGTH	WIDTH	THICKNESS		SIZE	T/PIER	VERT. BARS	
F1	2500	2500	300	(7)-#16 EW T&B	450	-100	(4)-#19	2 SETS #13 @ 125

- NOTES:**
- DIMENSIONS NOTED ARE MILLIMETERS (mm) UON
 - PIER SIZE INDICATED IS SQUARE (DIMENSION SAME IN BOTH DIRECTIONS) UON



DATE	DESCRIPTION	SYMBOL

DESIGNED BY: BAKER	DATE: 09-30-09
DWN BY: JAC	SUBMITTED BY: BAKER
CHK BY: RTD	FILE NO: ANPSD-003XXX

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AFGHAN NATIONAL POLICE
STANDARD DESIGN
FUEL GENERATOR CANOPY
STRUCTURAL MATERIAL SCHEDULES

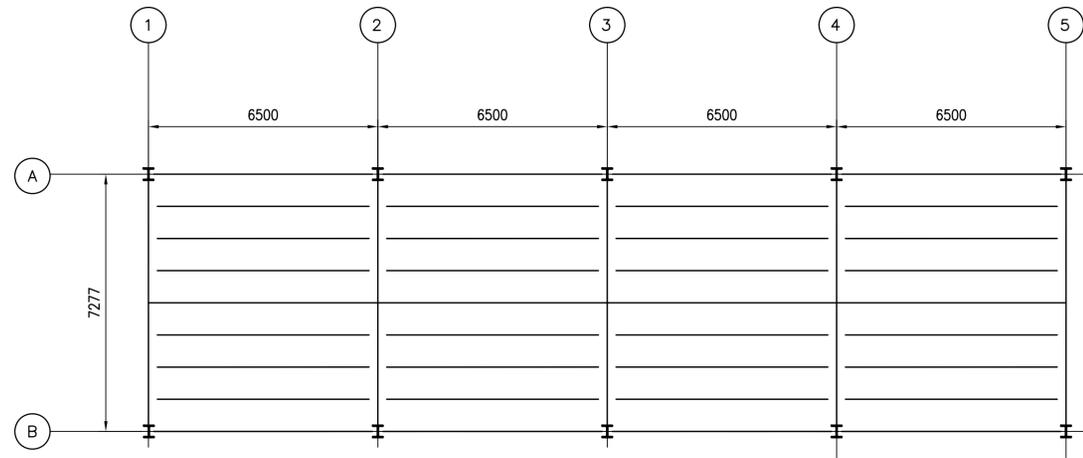
SHEET REFERENCE NUMBER:
S3

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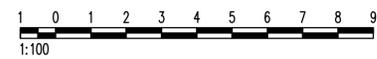
6
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NOTES:

1. REFER TO SHEETS S1 TO S3 FOR STRUCTURAL NOTES, BASIS OF DESIGN SYMBOLS AND ABBREVIATIONS.
2. PRE-ENGINEERED BUILDING MANUFACTURER SHALL COORDINATE ALL LOADING REQUIREMENTS INDICATED ON THE SHEETS AND SPECIFICATIONS WITH OTHER TRADES.
3. PRE-ENGINEERED BUILDING COLUMN BASES SHALL BE DESIGNED AS PINNED ONLY.
4. LOCATIONS OF PORTAL FRAMES HAVE NOT BEEN SHOWN IN PLAN. CONTRACTOR TO BE DETERMINED.
5. PRE-ENGINEERED BUILDING MANUFACTURER SHALL COORDINATE ALL HANGING LOADING FROM EQUIPMENT OR ARCHITECTURAL ELEMENTS AND INCLUDE IN THE DESIGN OF THE FRAMING.
6. SEE SPECIFICATION FOR LATERAL DRIFT REQUIREMENTS.
7. BUILDING DOES NOT NEED PROVISIONS FOR FUTURE EXPANSION AT END WALLS.
8. METAL ROOF DECKING DESIGNED AND PROVIDED BY PRE-ENGINEERED METAL BUILDING MANUFACTURER.



1
S5 | S5
ROOF FRAMING PLAN
SCALE: 1:100



SYMBOL	DESCRIPTION	DATE

DESIGNED BY: BAKER	DATE: 09-30-09
DWN BY: JAC	SUBMITTED BY: BAKER
CHK BY: RTD	FILE NO: ANFSDS-105XXX

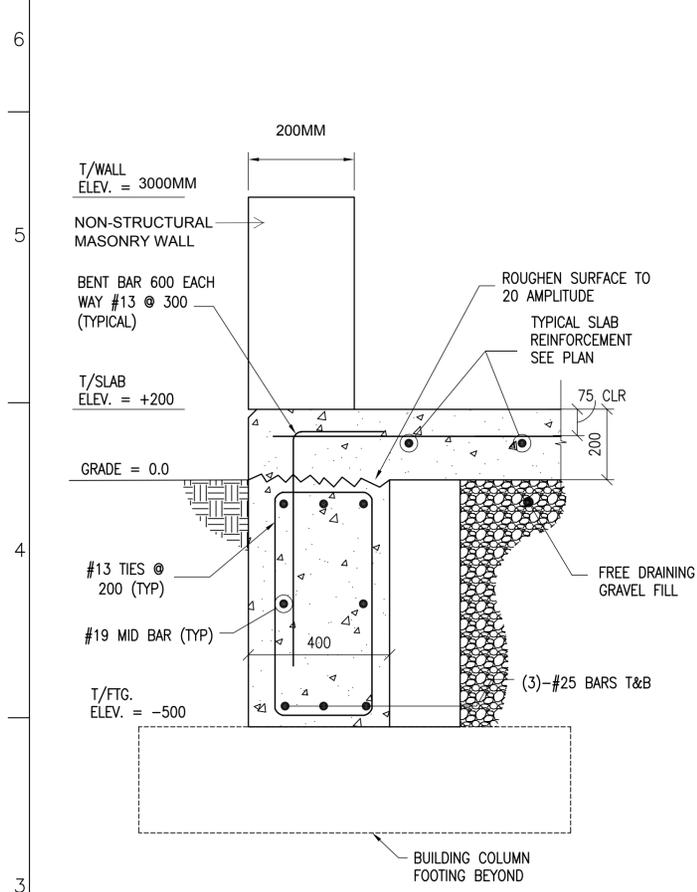
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Moon Township, PA 15108
www.mbakercorp.com

AFGHAN NATIONAL POLICE
STANDARD DESIGN
FUEL GENERATOR CANOPY
CANOPY ROOF FRAMING PLAN

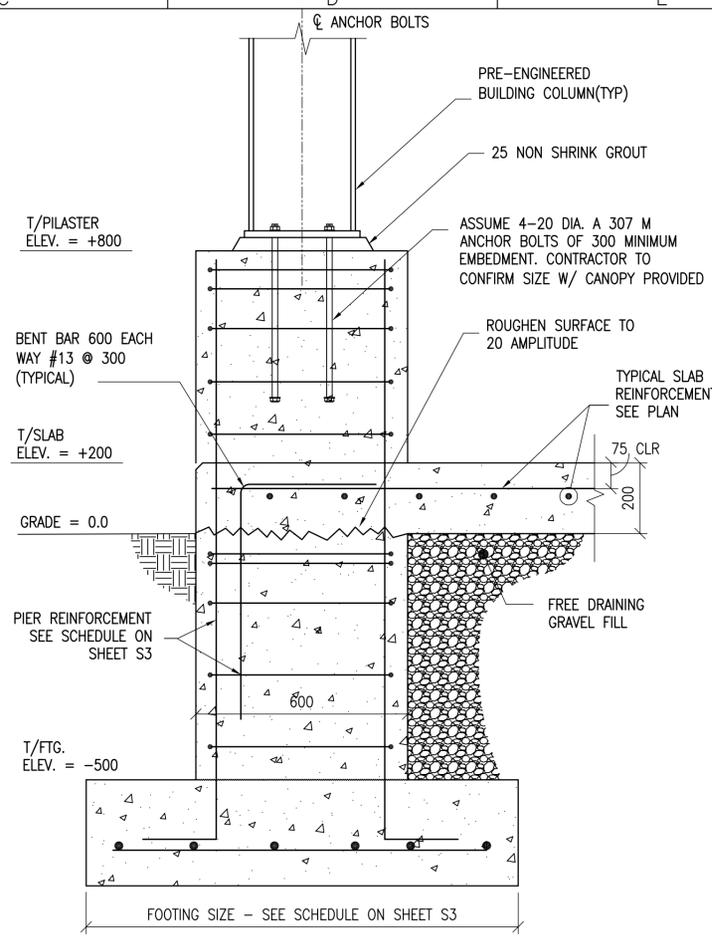
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S5

100% SUBMISSION

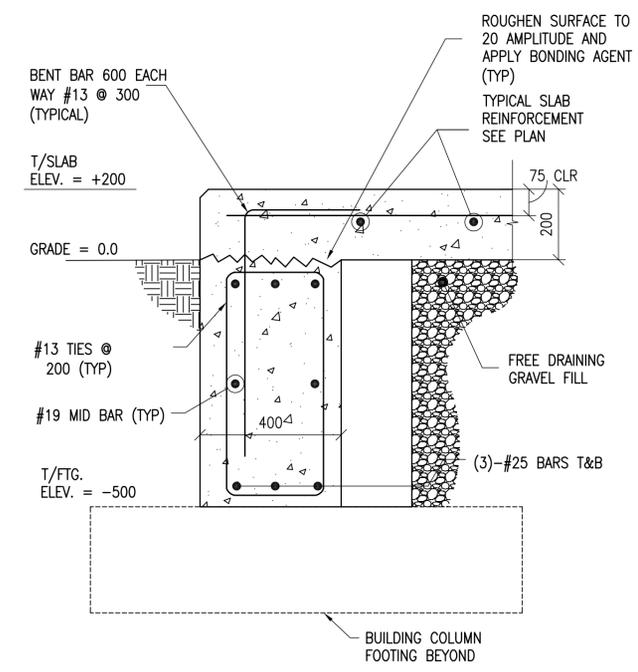
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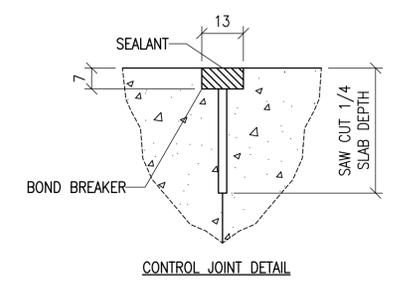
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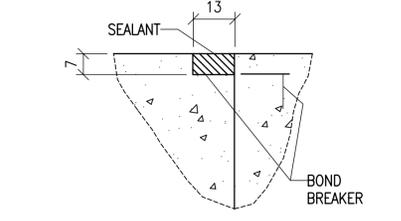
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SCALE: NTS



3 SECTION
SCALE: NTS

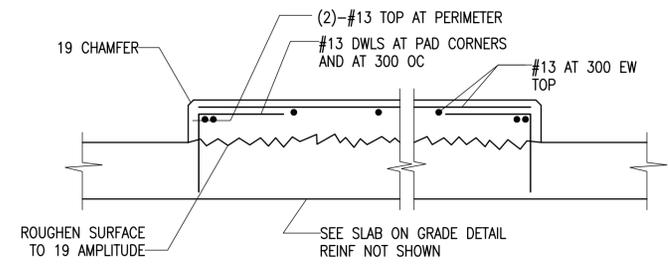


CONTROL JOINT DETAIL



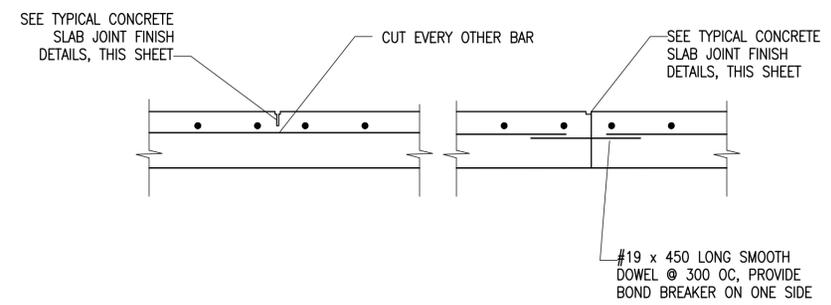
CONSTRUCTION JOINT DETAIL

TYPICAL CONCRETE SLAB JOINT FINISH DETAIL
SCALE: NTS



DETAIL NOTE:
1. COORDINATE EQUIPMENT PAD SIZE AND LOCATIONS W/ ELECTRICAL/MECHANICAL SHEETS AND EQUIPMENT MANUFACTURER.

5 HOUSEKEEPING PAD DETAIL
SCALE: NTS



CONTROL JOINT DETAIL (CJ)

CONSTRUCTION JOINT DETAIL (CS)

7 TYPICAL SLAB ON GRADE JOINT DETAILS
SCALE: NTS

US Army Corps of Engineers
Afghanistan Engineer District

DATE	DESCRIPTION
APR	

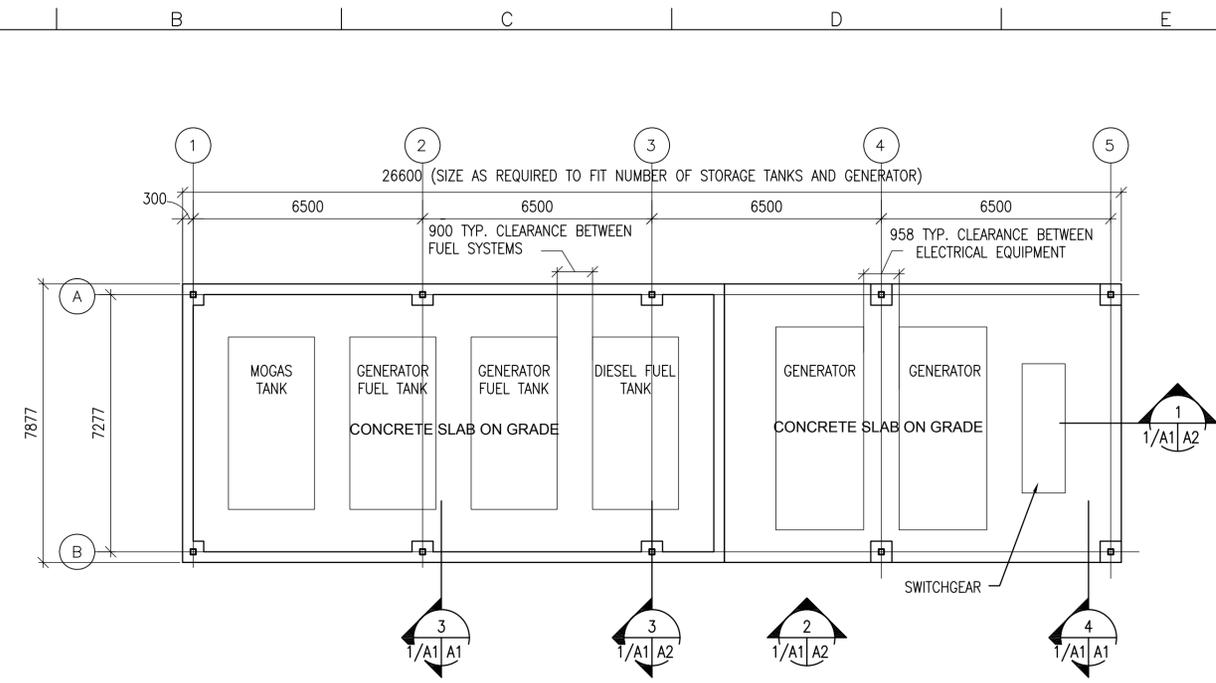
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DWN BY: JAC	SUBMITTED BY: BAKER
CHK BY: RTD	FILE NO: ANPSDS-306XXX

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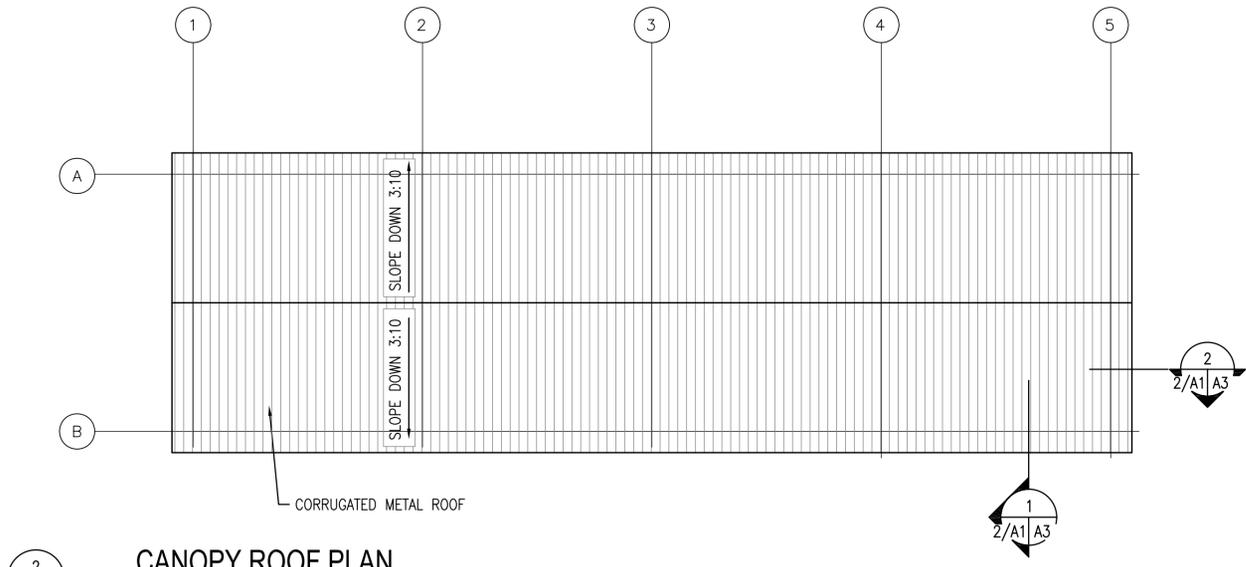
AFGHAN NATIONAL POLICE
STANDARD DESIGN
FUEL GENERATOR CANOPY
SECTIONS AND DETAILS

SHEET REFERENCE NUMBER:
S6

100% SUBMISSION

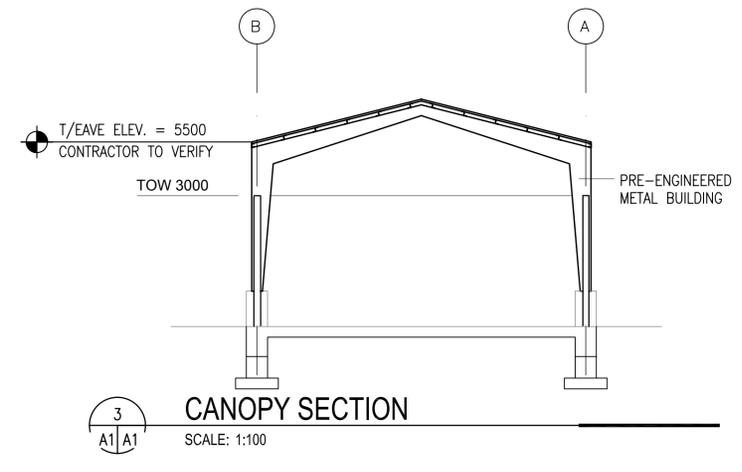


1
CANOPY PLAN
SCALE: 1:100

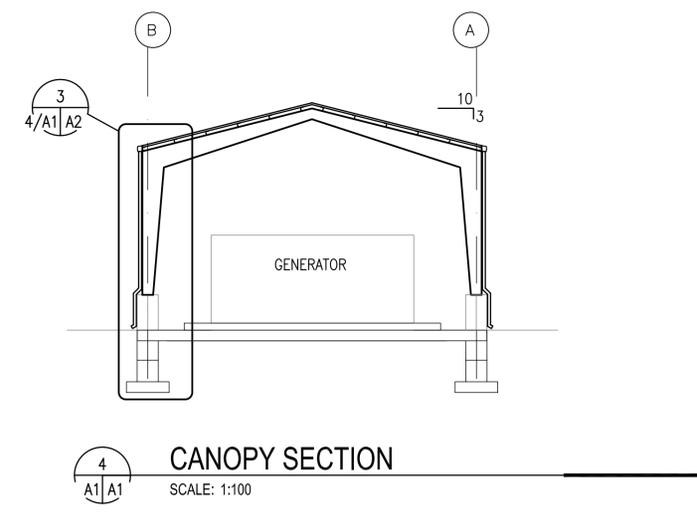


2
CANOPY ROOF PLAN
SCALE: 1:100

- GENERAL NOTES:**
- BUILDING UTILIZES PRE-ENGINEERED METAL SYSTEM W/ STANDARD MANUFACTURER'S ROOF PANEL, AND TRIM.
 - PROJECT BUILDING DIMENSIONS NEED TO BE VERIFIED AND ADJUSTED TO FIT ACTUAL FUEL & GENERATOR REQUIREMENTS FOR ACTUAL SITE.



3
CANOPY SECTION
SCALE: 1:100



4
CANOPY SECTION
SCALE: 1:100



US Army Corps of Engineers
Afghanistan Engineer District

SYMBOL	DESCRIPTION	DATE	APP

DESIGNED BY:	BAKER	DATE:	09-30-09
DWN BY:	BUG	SUBMITTED BY:	BAKER
CHK BY:	RTD	FILE NO.:	ANPSDA-101XXX

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1000 Business Park
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AFGHAN NATIONAL POLICE
STANDARD DESIGN
FUEL GENERATOR CANOPY
CANOPY PLAN, ELEVATIONS, AND SECTIONS

SHEET REFERENCE NUMBER:
A1

100% SUBMISSION

SYMBOL	DESCRIPTION	DATE	APP

DESIGNED BY: BAKER	DATE: 09-30-09
DWN BY: BUG	SUBMITTED BY: BAKER
CHK BY: RTD	FILE NO: ANPSDA-202XXX

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A Unit of Michael Baker Corporation
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Moon Township, PA 15108
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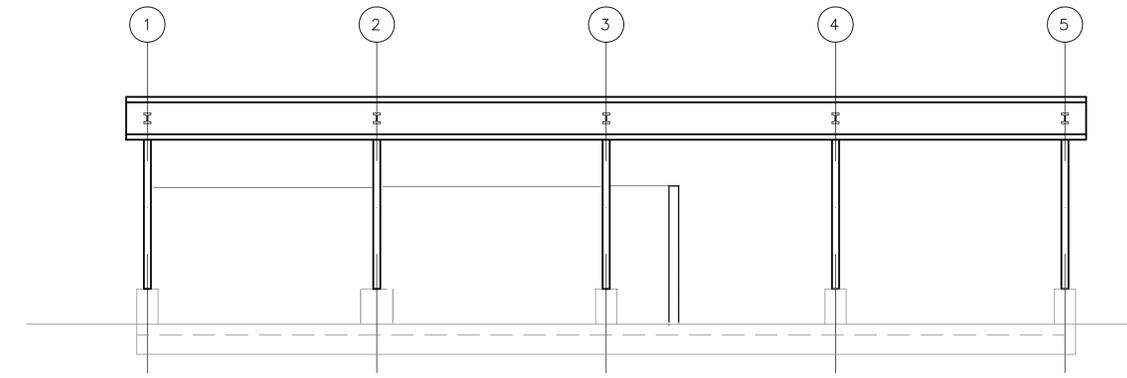
AFGHAN NATIONAL POLICE
STANDARD DESIGN
FUEL GENERATOR CANOPY
CANOPY ELEVATIONS, AND SECTIONS

SHEET REFERENCE NUMBER:
A2

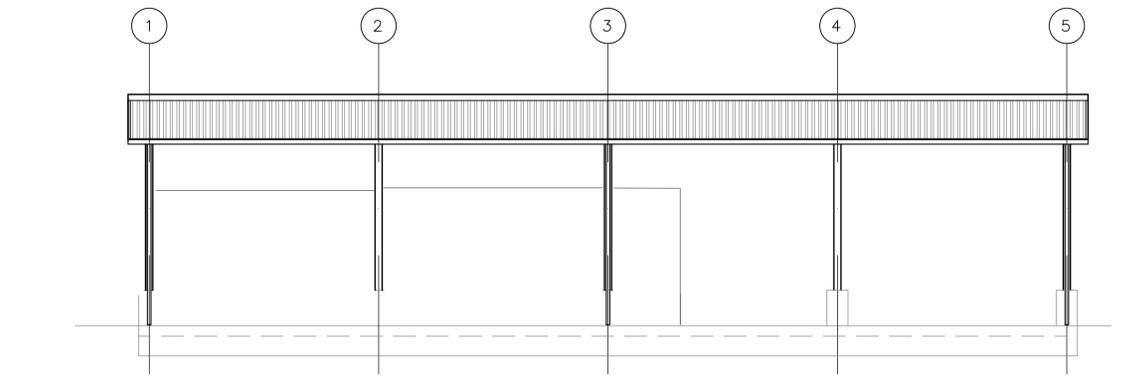
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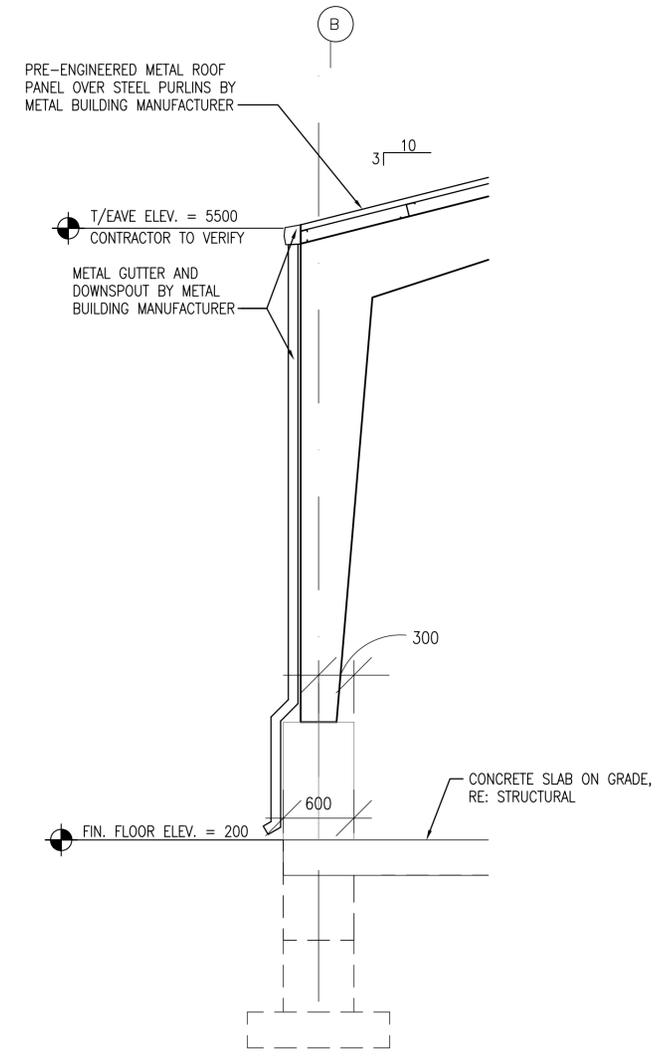
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1
CANOPY SECTION
SCALE: 1:100

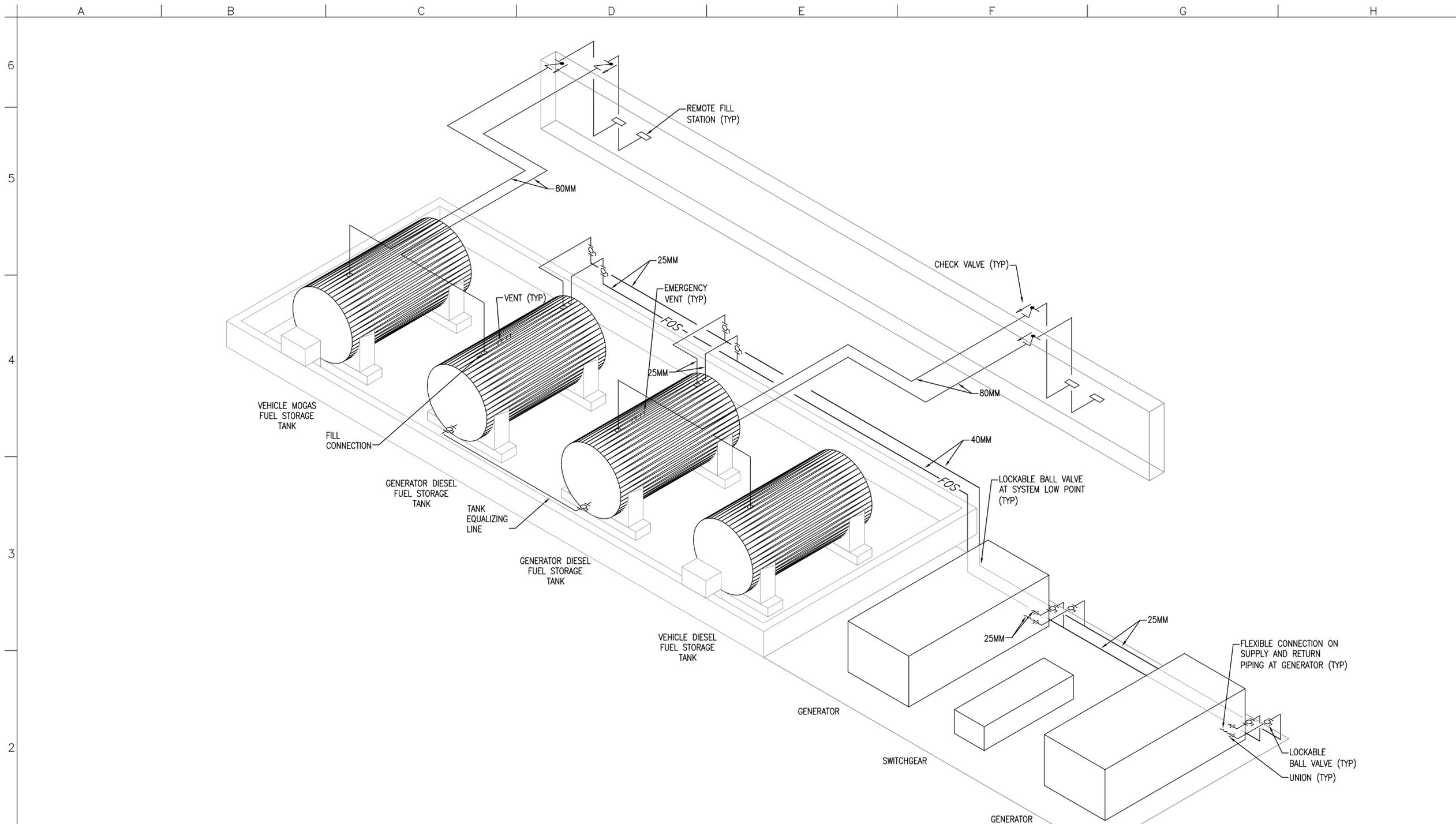


2
CANOPY ELEVATION
SCALE: 1:100



3
CANOPY BUILDING SECTION
SCALE: 1:30





1
M2 | M2 SCALE: NONE

FUELING AREA PIPING DIAGRAM

- NOTES:**
1. PROVIDE LOCKABLE DRAIN CONNECTION FOR REMOTE FILL, DIESEL FUEL SUPPLY, AND DIESEL FUEL RETURN SYSTEM LOW POINTS.
 2. NOT ALL TANK CONNECTIONS/SPECIALTIES SHOWN FOR CLARITY. REFER TO DETAILS ON M2 AND M3.
 3. SWITCHGEAR SHOWN SMALLER THAN ACTUAL FOR CLARITY.
 4. SIZE DIESEL FUEL SUPPLY AND DIESEL FUEL RETURN SHALL BE PER GENERATOR MANUF. RECOMMENDATIONS.
 5. VENT PIPING SHALL BE PER MANUF. RECOMMENDATIONS.


US Army Corps of Engineers
 Afghanistan Engineer District

SYMBOL	DESCRIPTION	DATE	APP

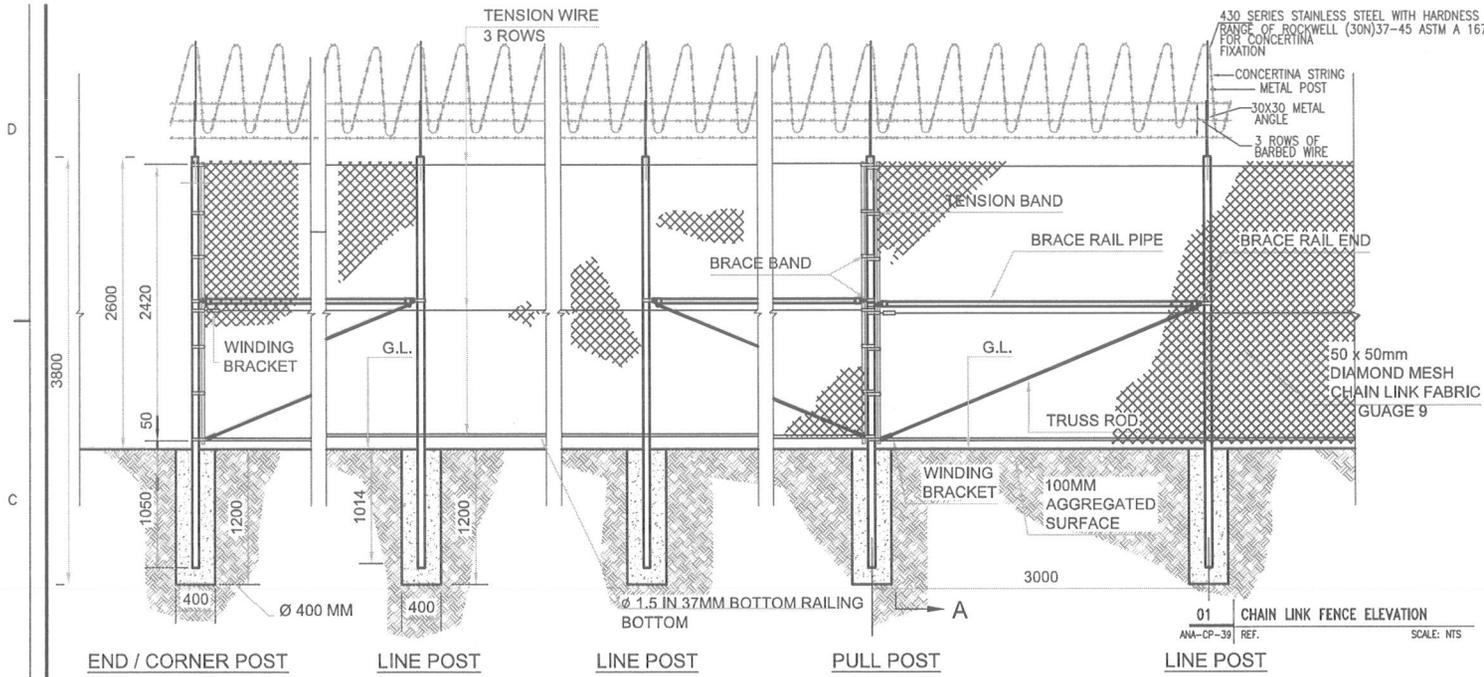
DESIGNED BY:	RCP	DATE:	09-30-09
DWN BY:	JTP	SUBMITTED BY:	BAKER
CHK BY:	RTD	FILE NO.:	ANPSDM-902XXX

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AFGHAN NATIONAL POLICE
 STANDARD DESIGN
 FUEL GENERATOR CANOPY
 FUEL SYSTEM DIAGRAM

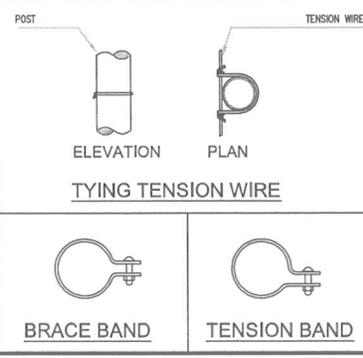
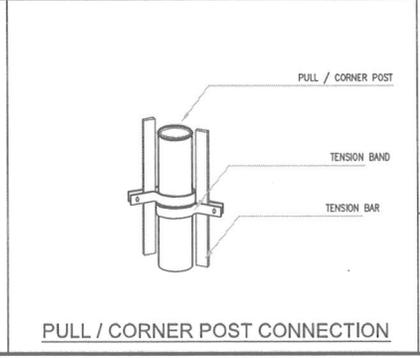
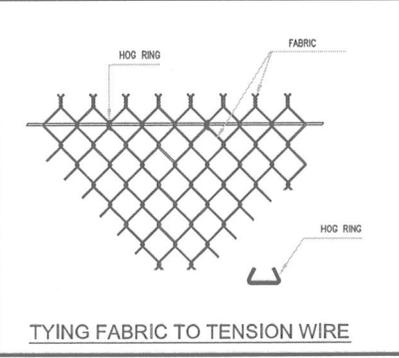
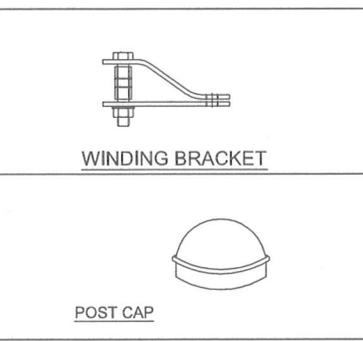
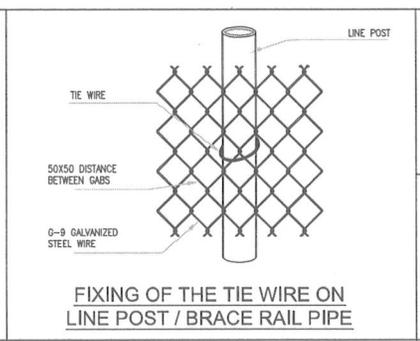
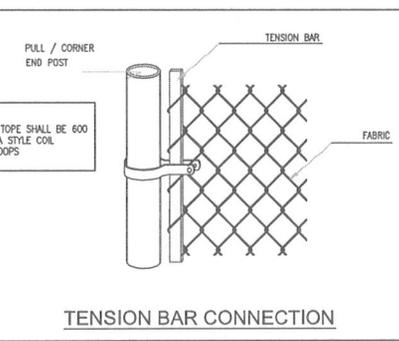
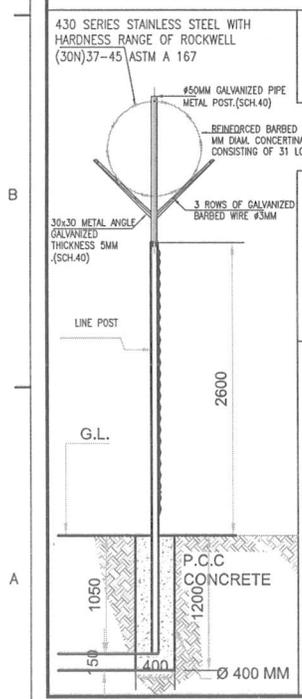
SHEET REFERENCE NUMBER:
M2

100% SUBMISSION



NOTES	
LINE POST	60.3mm O.D. x 3.91mm WALL THICK
PULL / END / CORNER POST	73.0mm O.D. x 5.16mm WALL THICK
BRACE RAIL PIPE	42.2mm O.D. x 3.56mm WALL THICK
FABRIC	3.0mm DIA GALVANISED WIRE
TENSION WIRE	3.76mm DIA GALVANISED WIRE

- 1) FABRIC :- "CLICLINK" GALVANISED CHAIN LINK FABRIC, 50 x 50mm DIAMOND MESH, 3.0mm DIA GALVANISED WIRE, FABRIC HEIGHT 2.42 M, BARBED SELVAGE.
- 2) TENSION WIRE :- "CLICLINK" 3.76mm DIA GALVANISED WIRE.
- 3) FITTINGS :- GALVANISED.
- 4) PIPES :- GALVANISED, CONFORMS TO ASTM A 53 SCH 40.
- 5) LINE POST SPACING @ EVERY 3.0 M.
- 6) ALL DIMENSIONS ARE IN mm U.N.O.
- 7) TENTION BAR: SIZE 30MM X 3MM STEEL GALVANIZED ALONG THE POST
- 8) BOTTOM RAILING Ø 1.5 IN



9) REINFORCED BARBED
 REINFORCED BARBED TAPE SHALL BE 600 MM DIAMETER CONCERTINA STYLE COIL CONSISTING OF 31 LOOPS. EACH LOOP SHALL CONSIST OF 19 BARB CLUSTERS PER LOOP. ADJACENT COILS LOOPS SHALL BE ALTERNATELY CLIPPED TOGETHER AT THREE POINTS ABOUT THE CIRCUMFERENCE TO PRODUCE THE CONCERTINA EFFECT UPON DEPLOYMENT. SPACING BETWEEN ATTACHMENTS POINTS WHEN DEPLOYED SHALL BE 400 MM. THE REINFORCED BARBED TAPE SHALL BE FABRICATED FROM 430 SERIES STAINLESS STEEL WITH HARDNESS RANGE OF ROCKWELL (30N) 37-45 CONFORMING TO THE REQUIREMENTS OF ASTM A 176. EACH BARB SHALL BE A MINIMUM OF 30.5 MM (1.2 INCH) IN LENGTH, IN GROUPS OF 4, SPACED ON 102 MM (4 INCH) CENTERS. THE STAINLESS STEEL CORE WIRE SHALL HAVE A 2.5 MM (0.098 INCH) DIAMETER WITH A MINIMUM TENSILE STRENGTH OF 895 MPA. SIXTEEN GAUGE STAINLESS STEEL TWISTABLE WIRE TIES SHALL BE USED FOR ATTACHING THE BARBED TAPE TO THE BARBED WIRE. THE REINFORCED BARBED TAPE SHALL BE EQUIVALENT TO NSN: 5660-01-457-9852.

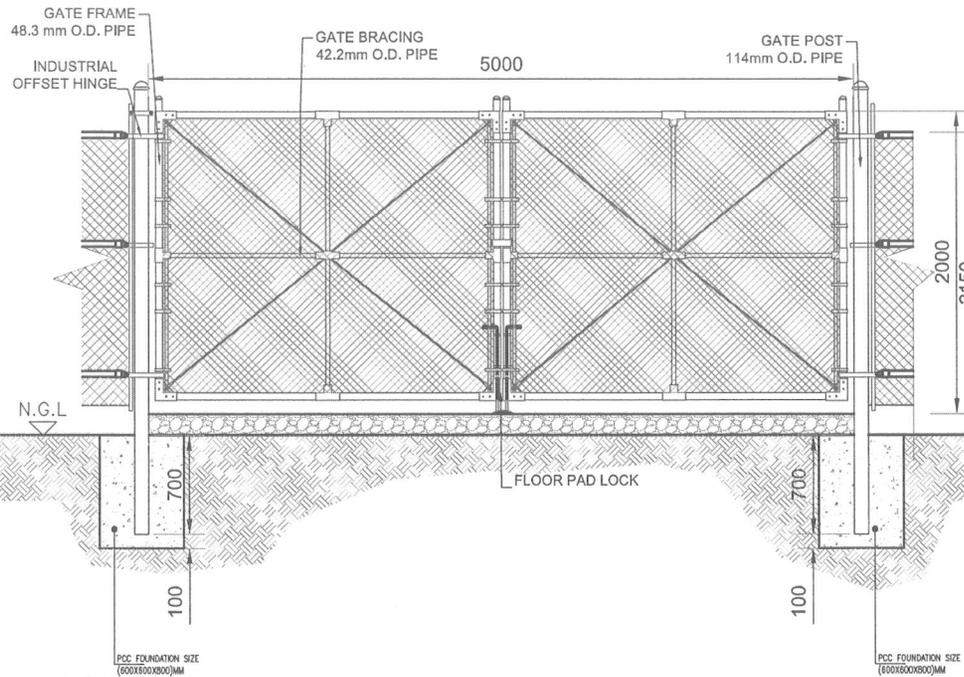
DEPARTMENT OF THE ARMY
 DRAWING BR: []
 DESIGNED BY: []
 CONTRACT DATE: []

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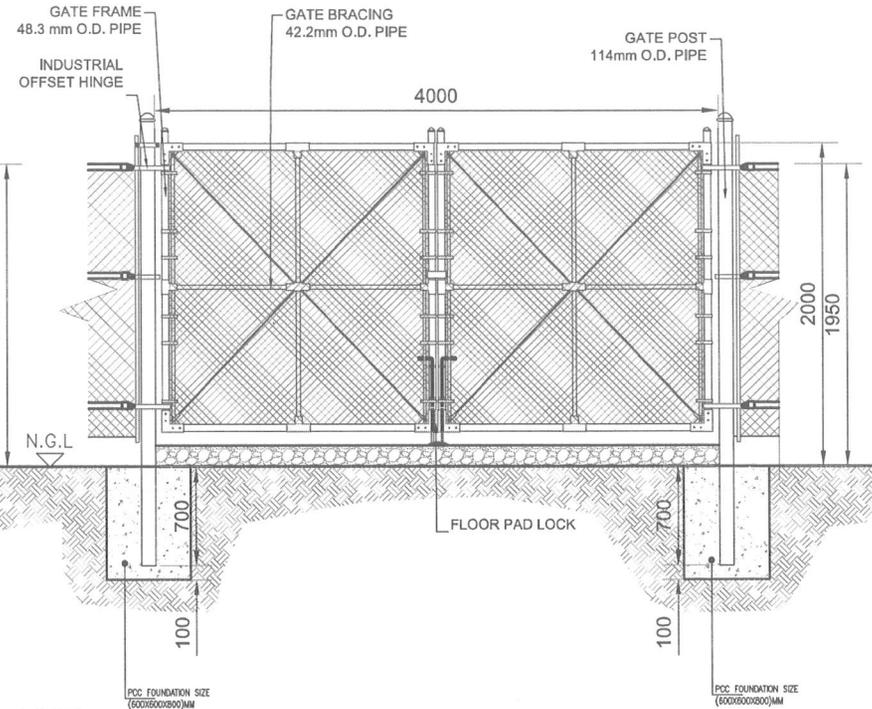
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A



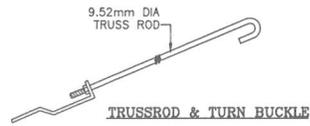
01 5 METER WIDTH
CHAIN LINK GATE ELEVATION

CO-A-05 REF. 116-A-80 SCALE: 1:20



02 4 METER
CHAIN LINK GATE ELEVATION

CO-A-05 REF. 116-A-80 SCALE: 1:20



TRUSSROD & TURN BUCKLE



CARRIAGE BOLT



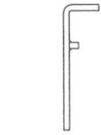
POST CAP



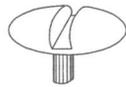
BRACE BAND



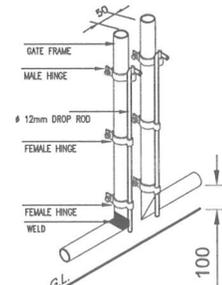
TENSION BAND



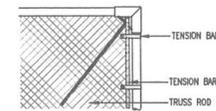
GATE DROP ROD



GATE CENTER STOP



GATE DROP ROD ASSEMBLY



GATE FRAME DETAIL

US

Contract Date:

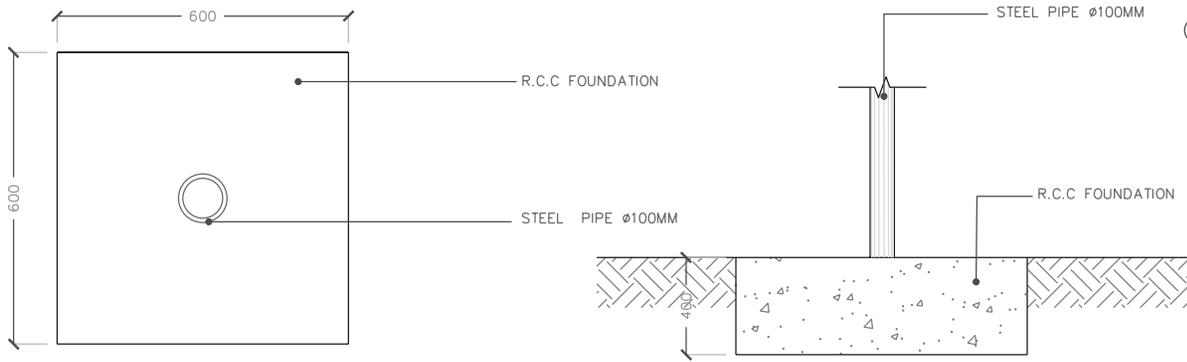
Drawn By:

Designed By:

Department of the Army

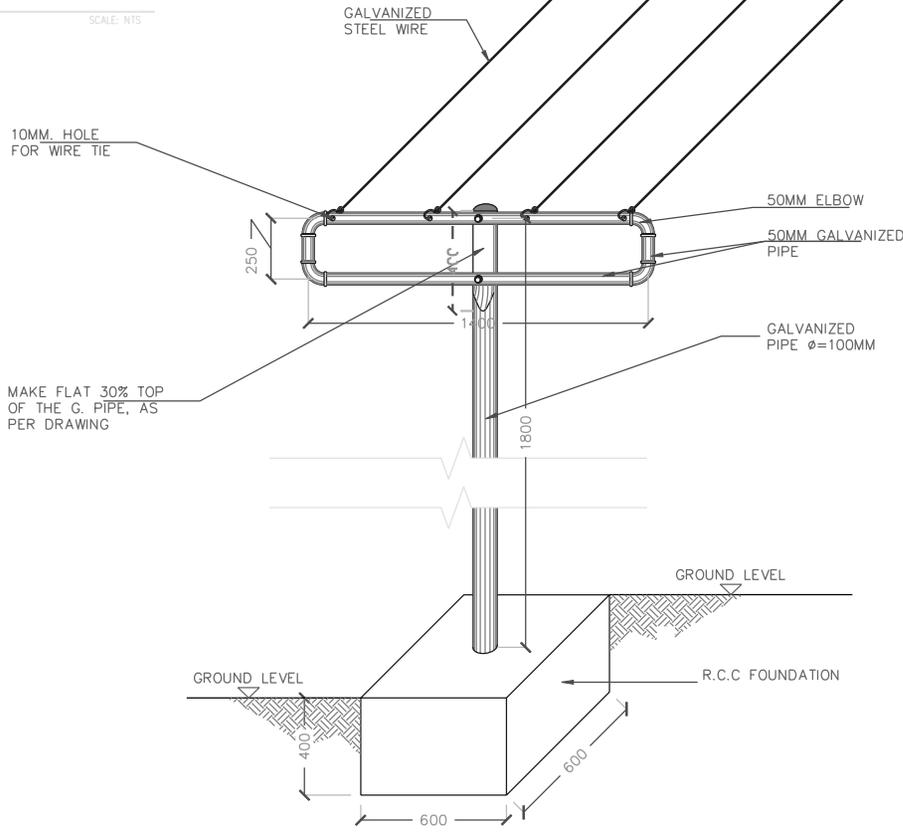
AFPMU WATKINS ARMY /NAVAL ENGINEER

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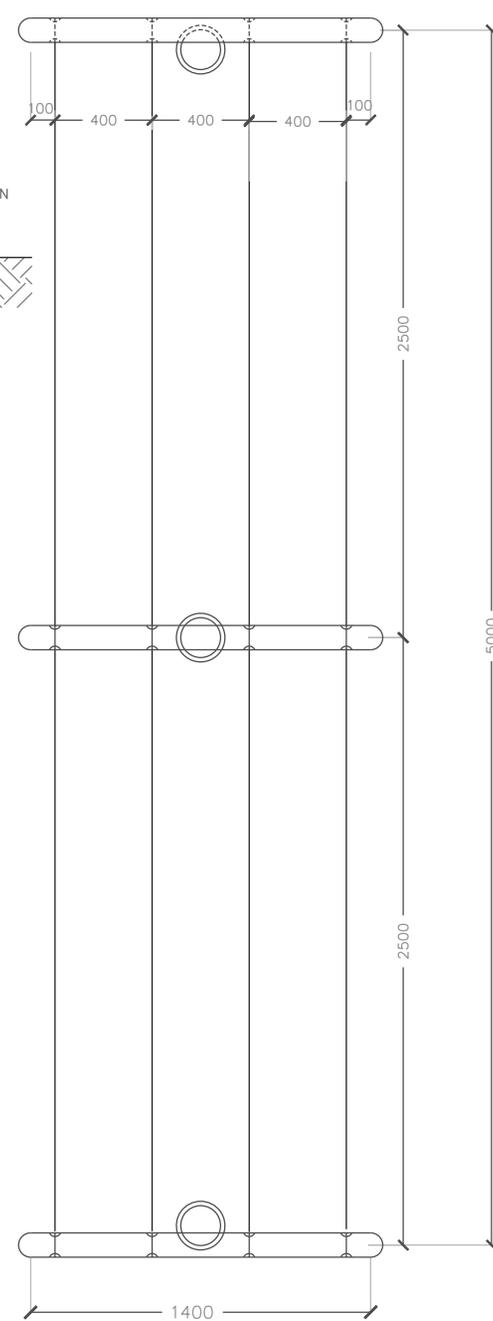


01 PLAN
100-CP-64 REF. 100-CP-01 SCALE: NTS

02 SECTION
100-CP-64 REF. SCALE: NTS



03 ISOMETRIC VIEW
100-CP-64 REF. SCALE: NTS



03 TOP VIEW
100-CP-64 REF. SCALE: NTS

STANDARD DETAIL-CLOTHESLINE



U.S. ARMY CORPS OF ENGINEERS
AFGHANISTAN ENGINEER DISTRICT

Revision	Date	By	Symbol	Description
1	27-08-10	MSB		30% DESIGN SUBMITTAL

Designed By:	A. FAREED	Drawn By:	D. HAD	Contract Date:	20-MAR-2010
Reviewed by:	A. FARVAD	Draw Code:	RMC	FILE NAME:	100-CP-64
Submitted by:	FARVAD OSMAN	Print Date:	26-MAY-2010	Print Scale:	NTS
Author:	CH. E. & C.	Contract Number:	W9179A-09-R-0111	Contract Title:	MSB.E-10-C-0017

AFGHAN NATIONAL ARMY (ANA)
SPHQDAND, AFGHANISTAN
FY: 10
RMC
ANA REGIONAL MILITARY TRAINING CENTER
GENERAL DETAILS
CLOTHES LINES DETAILS

Sheet Reference Number: 0000000064
XXX

STRUCTURAL ABBREVIATIONS:

Table of structural abbreviations including ACI, AISC, ALT, ASTM, AWS, ARCH, B, BLDG, BOT, C, CFMF, CFS, CIP, CIP/L, CJ, CLG, CLR, CMU, COEFF, COL, CONC, CONT, COORD, CSJ, CTJ, DIA, DIAG, DIM, DWG, DWL, EA, ELEC, ELEV, EMBED, EQUIV, ETC, E.W., EXT, FTG, GA, HORIZ, HRS, IBC, INT, K, KIP, KN, kPa, L#, LLV, M, MAX, MBM, MBMA, MECH, MFG, MID, MIN, MISC, MM, MPa, MTL, MWFRS, N, N/A, #, NTS, O.C., OPNG, P or PL, PRE-ENG, REINF, REQ'D, SIM, SPECS, STD, STRUCT, T, T/ELEV, T&B, THK, TM, TYP, UFC, UON, VERT, W, W/.

GENERAL NOTES

- 1.0 THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS AND MATERIALS INDICATED ON THE SHEETS AND FOR THE LIVE LOADS INDICATED IN THE DESIGN CRITERIA. 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 SHEETS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL SHEETS. ALL DIMENSIONS SHOWN ON THE SHEETS 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 SHEETS FOR SLEEVES, CURBS, INSERTS OR OPENINGS, ETC. NOT HEREIN INDICATED.
1.4 SLAB OPENINGS SMALLER THAN 250mm DIA TO BE CORE DRILLED IN FIELD UON. SEE MECHANICAL, ELECTRICAL AND PLUMBING SHEETS FOR LOCATIONS OF THESE OPENINGS.
1.5 WORK NOT INCLUDED ON THE SHEETS BUT IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES ELSEWHERE ON THE SHEETS SHALL BE REPEATED.
1.6 IN CASE OF CONFLICT BETWEEN THE NOTES, DETAILS AND SPECIFICATIONS THE MOST RIGID REQUIREMENTS SHALL GOVERN.
1.7 SEE ARCHITECTURAL SHEETS FOR LOCATIONS OF MASONRY AND DRYWALL NON-LOAD BEARING PARTITIONS. PROVIDE COMPRESSIBLE FIRESAFING AT TOP OF WALL AS REQUIRED BY ARCHITECTURAL SHEETS.
1.8 COORDINATE FINISHED FLOOR DATUM ELEVATION 0.0m WITH THE CIVIL SHEETS.
1.9 DESIGN PRE-ENGINEERED METAL BUILDINGS IN ACCORDANCE W/ MBMA LATEST EDITION PER DESIGN CRITERIA ON SHEET S2.
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 SHEET S2 SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER FOR CONSIDERATION AND DETERMINATION ON THE NEXT APPROPRIATE COURSE OF ACTION. 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.
2.2 EXCAVATIONS FOR FOOTINGS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 0.25mm POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HRS OF THE EXCAVATION OF THE FOOTING.
2.3 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.
2.4 NO FOOTINGS OR SLABS SHALL BE POURED INTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST, ICE OR LOOSE MATERIAL. FROST DEPTH ASSUMED TO BE 800MM
2.5 ALL SLAB-ON-GRADE, TRENCH BOTTOMS AND OTHER ON-GRADE INTERIOR HORIZONTAL SURFACES SHALL BE PLACED OVER A 0.25mm VAPOR RETARDER OVER A 100mm #57 STONE WATER BARRIER PLACED ON SUBGRADE PROPERLY PREPARED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. (UON)
2.6 SEE PLUMBING, ELECTRICAL & CIVIL SHEETS FOR REQUIRED UNDERSLAB UTILITIES.
2.7 SEE ARCHITECTURAL SHEETS FOR ALL WATERPROOFING DETAILS AND MATERIALS.
2.8 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 SHEET S3. 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 301M-05

- 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 UON.
3.7 CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615M-96a, GRADE 420 MPa. REINFORCING BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT, UNLESS INDICATED ON THE CONTRACT DOCUMENTS. ALL LAP SPLICES SHALL BE CLASS "B" UON.
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 SHEETS. 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 SHEETS, THE MAXIMUM SPACING OF CONSTRUCTION/ CRACK CONTROL JOINTS SHALL BE 4800mm
3.10 SEE SPECIFICATIONS FOR ALL WATERPROOFING/DAMP-PROOFING REQUIREMENTS.
3.11 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 318M, AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315M, LATEST EDITION.
3.12 SHOP DRAWINGS SHOWING REINFORCING DETAILS, INCLUDING STEEL SIZES, SPACING AND PLACEMENT, SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.
3.13 ALL DOWELS SHALL MATCH SIZE AND NUMBER OF MAIN REINFORCING, UNLESS NOTED OTHERWISE ON SHEETS.
3.14 ADDITIONAL BARS SHALL BE PROVIDED AROUND ALL FLOOR AND WALL OPENINGS AS SHOWN ON THE SHEETS.
3.15 SEE ARCHITECTURAL SHEETS FOR TYPE AND LOCATION OF ALL FLOOR FINISHES.
3.16 THE CONTRACTOR SHALL COORDINATE ADDITIONAL WALL/SLAB OPENINGS NOT SHOWN ON STRUCTURAL SHEETS. SEE MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL SHEETS.
3.17 UNLESS NOTED OTHERWISE, ALL CURBS SHALL BE REINFORCED WITH AT LEAST (1)-#13 CONTINUOUS AND #13 AT 300mm O.C. DOWELS TO STRUCTURE BELOW.
3.18 THE SUB-CONTRACTOR SHALL VERIFY ALL OPENINGS, PAD SIZES, AND ANCHOR BOLTS WITH EQUIPMENT SELECTED.
3.19 FOR ALL WALLS & PIERS, PROVIDE DOWELS INTO FOOTING AT EACH VERT REINF BAR, UON DOWEL SIZE SHALL BE SAME AS VERT REINF.
3.20 ALL DEFORMED BAR ANCHORS SHALL BE TRS NELSON DIVISION OR EQUAL 15mm DIA (UON) 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 END WELDING AS INDICATED ON THE DRAWINGS. NO UNAUTHORIZED OR FIELD WELDING SHALL BE MADE WITHOUT AUTHORIZATION FROM THE MANUFACTURER.
3.21 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.
3.22 PROVIDE CONCRETE POUR STOPS OR FORMS AS REQUIRED FOR INSTALLATION OF ALL CONCRETE WORK.
3.23 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 UON.
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 CMU AND CAST-IN-PLACE BOND BEAMS UON ON THE SHEETS. INTERMEDIATE BOND BEAMS SHALL BE CONTINUOUS AND SPACED AT A MAXIMUM OF 1200mm OC VERTICALLY. ALL BOND BEAMS 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 FOR MINIMUM WALL REINFORCING, SEE MIN CMU WALL REINFORCING DETAILS ON SHEET S10.
4.5 CMU CELLS THAT REQUIRE VERTICAL REINFORCING BARS AS INDICATED ON THE CONTRACT DRAWINGS AND/OR SPECS SHALL HAVE REINF BAR PLACED IN CENTERS OF CMU CELLS AND CONTINUOUSLY GROUTED UON. PROVIDE LADDER TYPE JOINT REINFORCEMENT AT 200mm FOR EXTERIOR & 400mm FOR INTERIOR ON CENTER MAXIMUM, UON MINIMUM ROD SIZE USED SHALL BE 9 GA. DEFORMED WIRE AND CONFORM TO ASTM A82M, UON.
4.7 PROVIDE CONTROL JOINTS AS INDICATED ON THE ARCHITECTURAL SHEETS. GROUT FOR MASONRY SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS. GROUT SHALL CONFORM TO ASTM C476M. GROUT LIFTS SHALL NOT EXCEED 1400mm.
4.8 USE MORTAR TYPE S CONFORMING TO ASTM C270M, SEE SPECIFICATIONS. CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT AND CONFORM TO ASTM C90M.
4.9 ALL CMU CELLS, OPEN CAVITIES, AND AIR SPACES SHALL BE GROUTED. TO STOP FRAGMENTS FROM MORTAR BLAST
4.10 BOND BEAM REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS (UON). MAXIMUM CONTROL JOINT SPACING SHALL BE AS INDICATED ON THE ARCHITECTURAL SHEETS.
4.11 CONTRACTOR SHALL COORDINATE LOCATION OF ALL OPENINGS SEE ARCH, MECH, ELEC, AND PLUMBING SHEETS. FOR SIZE AND LOCATION OF OPENINGS.
4.12 MASONRY WALLS SHALL NOT BE BACK FILLED PRIOR TO THE MORTAR AND GROUT ATTAINING THEIR RESPECTIVE MAXIMUM DESIGN STRENGTHS PER SPECIFICATIONS.
5.0 STEEL DECK
5.1 STEEL DECK SHALL BE ASTM A611M, GRADES C & D OR A653M STRUCTURAL QUALITY HAVING A MINIMUM YIELD STRENGTH OF 345 MPa AS PER THE STEEL DECK INSTITUTE (SDI) DESIGN MANUAL.
5.2 STEEL DECK SHALL BE ERRECTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND ERECTION LAYOUTS AND CONNECTED TO SUPPORTING MEMBERS AS INDICATED.
5.3 COMPOSITE FLOOR DECK
5.3.1 STEEL FLOOR DECK SHALL BE 51mm RIB HEIGHT, 18 GA HOT-DIP GALVANIZED (SDI TYPE 2VLI-18) UON.
5.3.2 FLOOR DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
MOMENT OF INERTIA, I_p 18 GAUGE 760mm4/mm WIDTH
SECTION MODULUS (TOP OF DECK), S_n 27.5mm3/mm WIDTH
SECTION MODULUS (BOTT OF DECK) S_p 27.8mm3/mm WIDTH
5.3.3 FLOOR DECK SHALL BE FASTENED TO THE SUPPORTS AS INDICATED IN THE BOTTOM OF THE FLUTES USING A SDI 36/77 PATTERN. DECK SIDELAPS SHALL BE ATTACHED USING #10 SELF-TAPPING TEK SCREWS WITH A MINIMUM 3-SIDE LAP CONNECTIONS PER SPAN.
5.3.4 SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS, CONDUITS, PIPING OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE STEEL FLOOR DECK.
5.3.5 IN ADDITION TO MEETING THE MINIMUM REQUIREMENTS ABOVE, THE DECK MANUFACTURER SHALL DESIGN THE FLOOR DECK AND ATTACHMENTS TO STEEL FOR A MAXIMUM DEFLECTION DUE TO WET CONCRETE & 1 KPa CONSTANT LOAD OF L/240. FLOOR DECK SHALL NOT REQUIRE SHORING DURING CONCRETE PLACEMENT.
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 A36M.
6.2 ANCHOR BOLTS SHALL CONFORM TO ASTM A36M HEAVY HEX UNLESS NOTED OTHERWISE.
6.3 CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 20 DIA ASTM A325M-N, UON; NUTS SHALL CONFORM TO ASTM A563M; WASHERS SHALL CONFORM TO ASTM F436M. CONNECTION BOLTS SHALL HAVE A HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED. DETAILING OF STRUCTURAL STEEL CONNECTIONS MUST BE CONSISTENT WITH RECOGNIZED, PUBLISHED METHODS SUCH AS IN THE AISC "STEEL CONSTRUCTION MANUAL", THIRTEENTH EDITION; "ENGINEERING FOR STEEL CONSTRUCTION", OR "VOLUME II CONNECTIONS MANUAL OF STEEL CONSTRUCTION".
6.4 THE CODE OF STANDARD PRACTICE OF AISC THIRTEENTH EDITION 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 "STEEL CONSTRUCTION MANUAL", THIRTEENTH EDITION. CONNECTIONS SHALL BE DESIGNED TO DEVELOP A MINIMUM END REACTION OF 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 STEEL CONSTRUCTION MANUAL 13TH EDITION OR A MINIMUM OF 54 kN WHICH EVER IS GREATER.
6.6 ALL MEMBERS AND CONNECTIONS ON THE CONTRACT DRAWINGS AND 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 AND 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 CONTRACTING OFFICER.
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 13mm MIN THICKNESS. ALL ANGLES NOT INDICATED SHALL BE 76x76x7.9 MIN. ALL WELDS NOT INDICATED SHALL BE 6mm MIN ALL AROUND UON.
6.17 SEE MECHANICAL, ELECTRICAL, AND PLUMBING SHEETS FOR ADDITIONAL OPENINGS NOT SHOWN. ALL OPENINGS SHALL BE FRAMED 4 SIDES WITH C200x17'S UON.

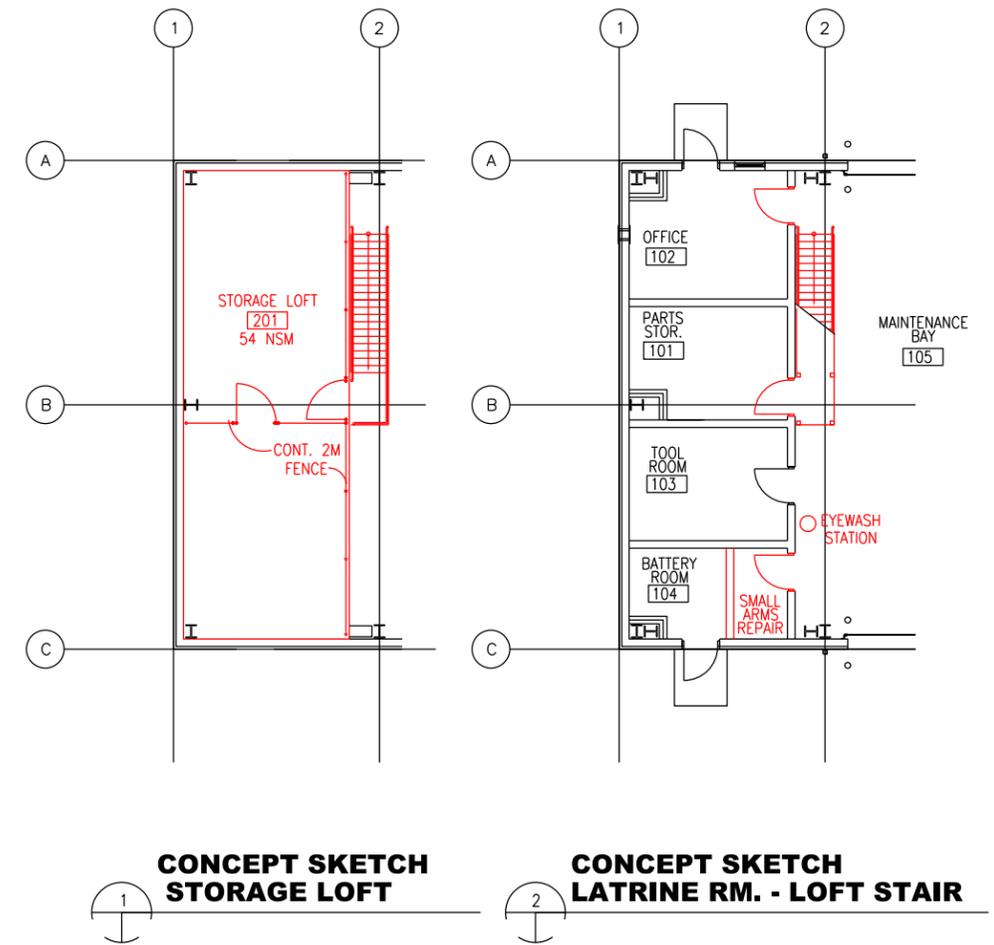


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Table with columns: DESIGNED BY, DATE, SOLICITATION NO., U.S. ARMY CORPS OF ENGINEERS, AFGHANISTAN DISTRICT, AFO AE 09356, DWN BY, CXC BY, CONTRACT NO., SUBMITTED BY, FILE NUMBER, PLOT SCALE, PLOT DATE, 1:1, FILE NAME, 11/22/2011, WMTD_S-001.dgn, ANSID

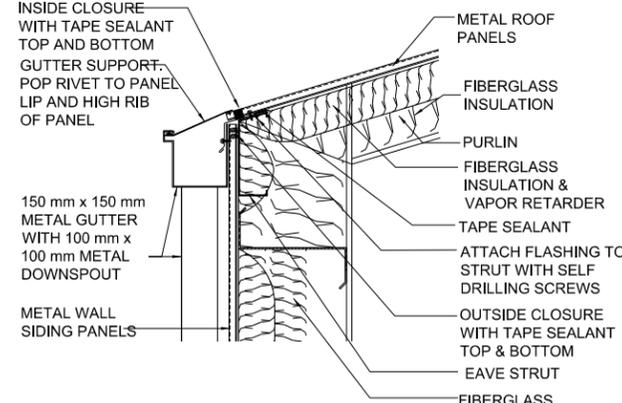
STANDARD DESIGN V10 - VEHICLE MAINTENANCE - 3 BAY GENERAL NOTES

SHEET IDENTIFICATION S1 SHEET 2 OF 26

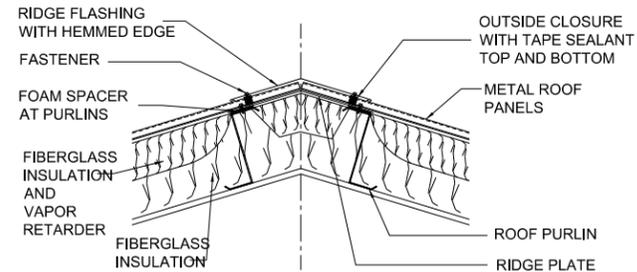


**CONCEPT SKETCH
STORAGE LOFT**

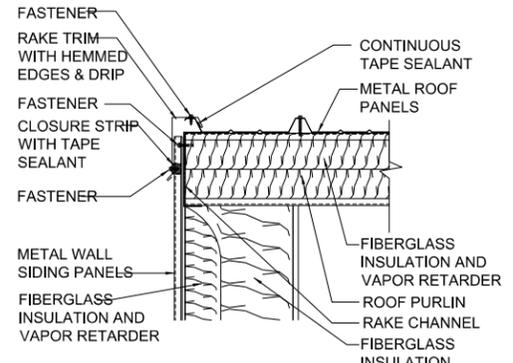
**CONCEPT SKETCH
LATRINE RM. - LOFT STAIR**



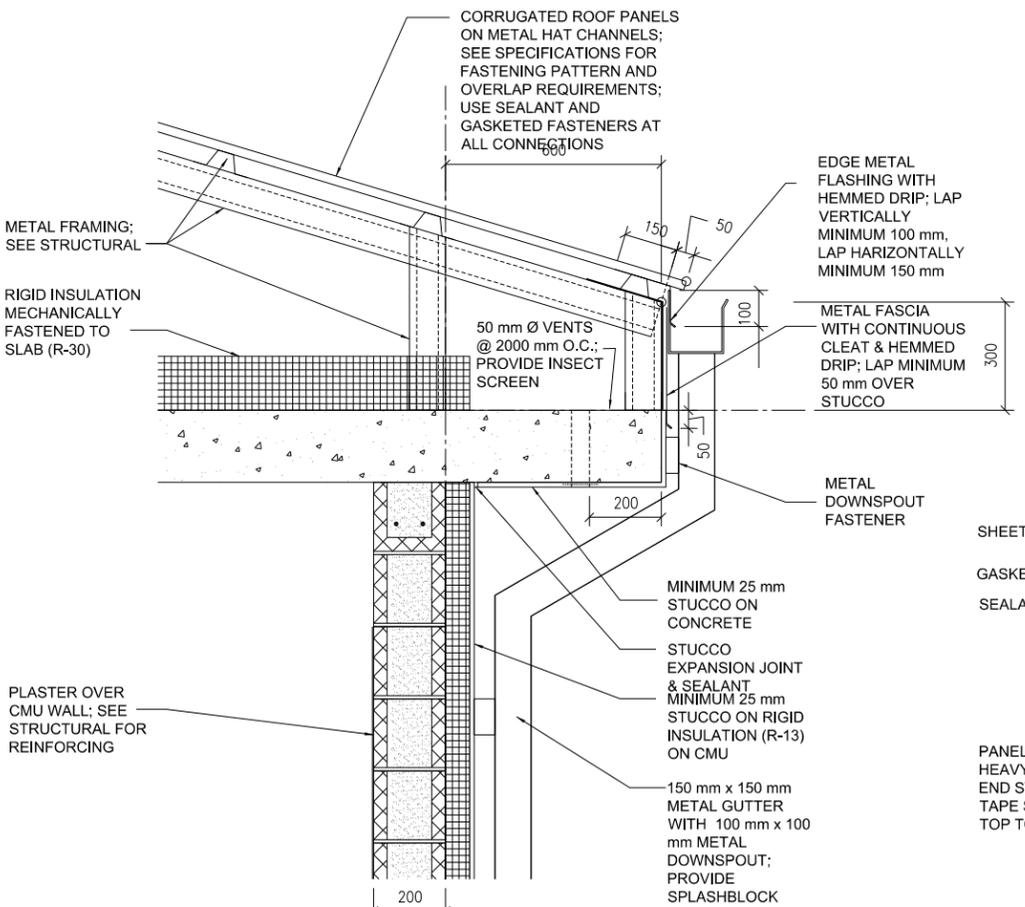
1 EAVE WITH GUTTER DETAIL
SCALE: 1:10



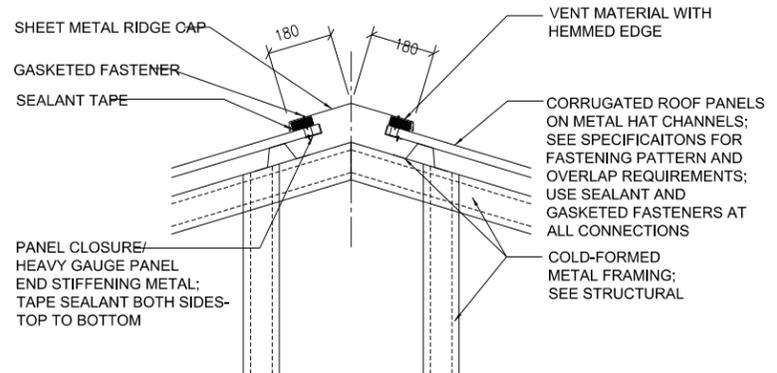
2 RIDGE DETAIL
SCALE: 1:10



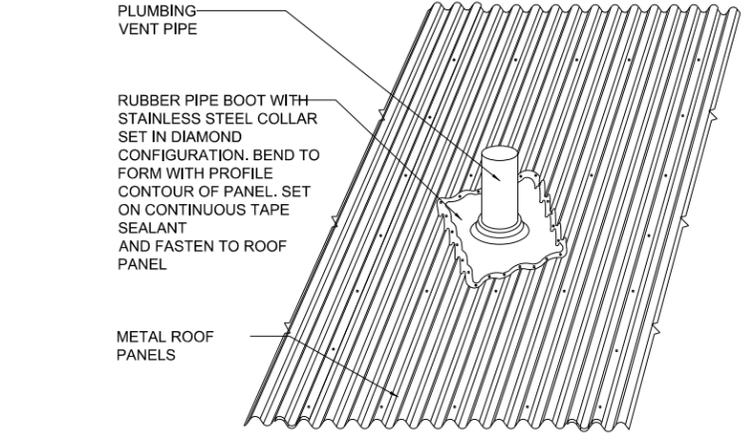
3 RAKE DETAIL
SCALE: 1:10



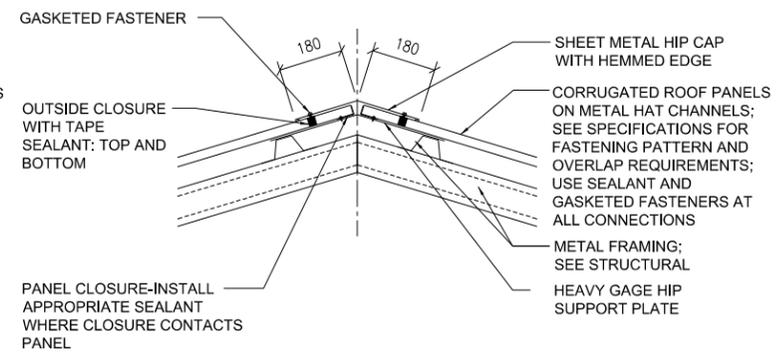
5 POL EAVE DETAIL
SCALE: 1:10



6 POL RIDGE VENT DETAIL
SCALE: 1:10



4 PLUMBING VENT DETAIL
SCALE: NONE



7 POL HIP DETAIL
SCALE: 1:10

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

SCALE: 1: 10

DATE	DESCRIPTION	MARK	DATE	APPR.

DESIGNED BY:	CHK'D BY:	SUBMITTED BY:	DATE:	SOLICITATION NO.:	CONTRACT NO.:	FILE NUMBER:
U.S. ARMY CORPS OF ENGINEERS AFGHANISTAN DISTRICT APO AE 09356						

STANDARD DESIGN
V10 - VEHICLE MAINTENANCE - 3 BAY

ROOF DETAILS

1

2

3

4

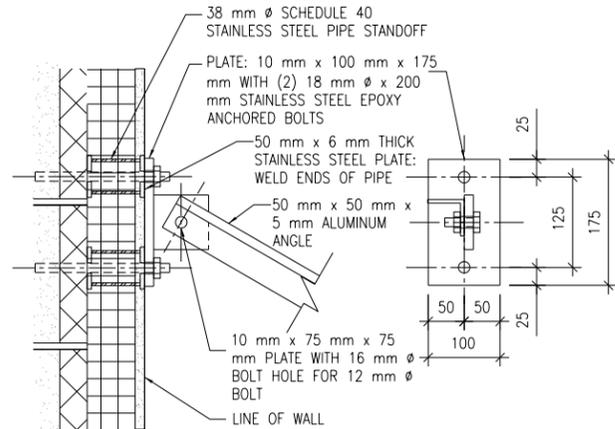
5

D

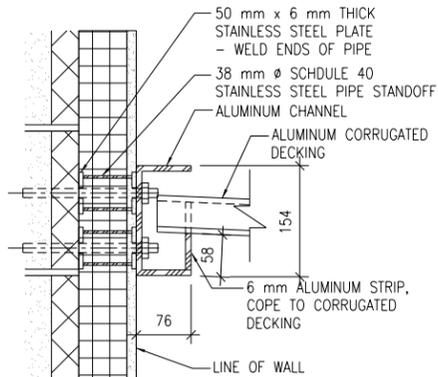
C

B

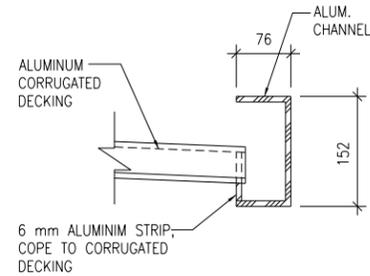
A



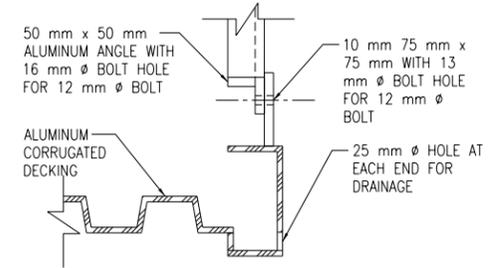
3 TOP CONNECTION DETAIL
SCALE: 1:5



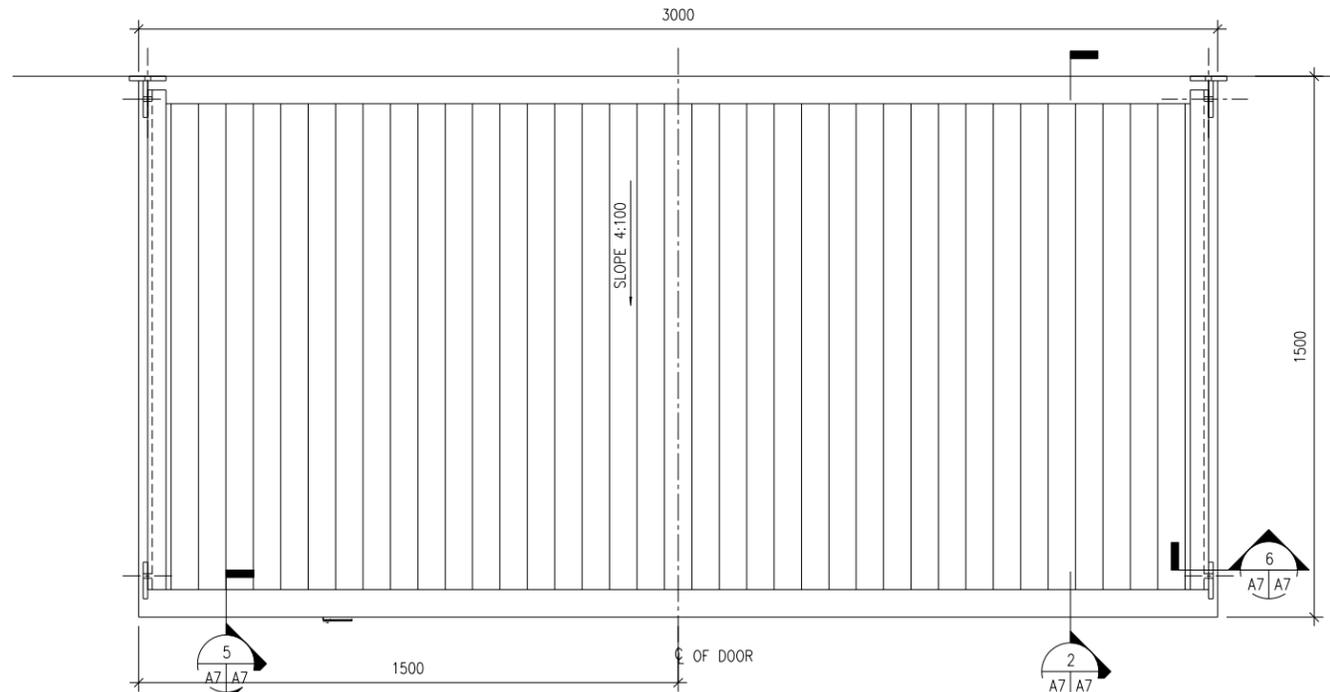
4 BOTTOM CONNECTION DETAIL
SCALE: 1:5



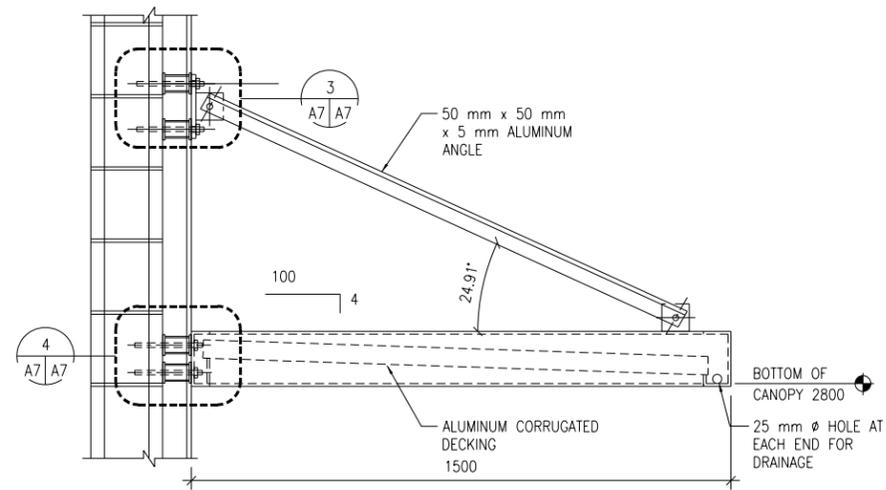
5 FRONT SECTION
SCALE: 1:5



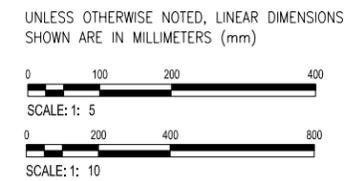
6 SIDE SECTION
SCALE: 1:5 1 AS SHOWN 1 OPP. HAND



1 CANOPY PLAN
SCALE: 1:10



2 CANOPY SECTION
SCALE: 1:10



MARK	DESCRIPTION	DATE	APPR. MARK

DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	CHK BY:	CONTRACT NO.:
SUBMITTED BY:		
PLOT SCALE:	FILE NUMBER:	
1:1		
SIZE:	FILE NAME:	
ANSI	FILELESS	

STANDARD DESIGN
V10 - VEHICLE MAINTENANCE - 3 BAY
MISCELLANEOUS DETAILS

SHEET IDENTIFICATION
A7
SHEET 18 OF 26

SFILES SDATES \$TIMES

