COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP PROTOTYPE 1
CLASS B FUEL

Street Address
City, Virginia, Zip Code

OWNER
LOCALITY/MUNICIPALITY
Street Address
City, Virginia, Zip Code
Phone:
Fax:

BURN BUILDING GRANT
FUNDS PROVIDED BY:

COMMONWEALTH of VIRGINIA
Department of Fire Programs
1005 Technology Park Drive
Glen Allen, VA 23059
Phone: (804) 371-0220

ARCHITECT/ ENGINEER
ARCHITECT OR ENGINEERING FIRM
Street Address
City, State Zip Code
Phone:
Fax:

THIS IS A PROTOTYPICAL DESIGN SET OF DRAWINGS NOT INTENDED FOR CONSTRUCTION. THESE DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE PROJECT MANUAL AND SPECIFICATIONS BY AN ARCHITECT/ENGINEER EMPLOYED BY THE GRANT RECIPIENT IN THE DESIGN OF A NEW BURN BUILDING PROP.

BUILDING CODE DATA

JURISDICTION:
CITY/COUNTY, VIRGINIA

BUILDING CODE:
A. VIRGINIA UNIFORM STATEWIDE BUILDING CODE (VUSBC) 2009 EDITION
B. INTERNATIONAL BUILDING CODE (IBC) 2009 EDITION AS AMENDED BY VUSBC

USE GROUP/OCCUPANCY (IBC SECTIONS 304, 311, 1003):

	FLOOR AREA (SQ. FT.)	DENSITY (SQ. FT./PERSON)	OCCUPANTS
BUILDING, GROSS	1,730	50	34

*NOTE THE STRUCTURE IS DESIGNED AS A TRAINING PROP AND IS NOT HEATED OR AIR CONDITIONED AND DOES NOT INCLUDE RESTROOMS.

CONSTRUCTION TYPE (IBC SECTION 602):
(II B) NON-COMBUSTIBLE/UNPROTECTED

SPRINKLED:
NOT REQUIRED

HEIGHT/AREA LIMITATIONS (IBC SECTION 503):

TOTAL:	ALLOWABLE:	
A) AREA:	1,730 SQ. FT.	8,500 SQ. FT.
B) HEIGHT:	+/- 26'-0" (2 STORY)	40'-0" (2 STORY)

*NOTE: A CODE MODIFICATION REQUEST MUST BE SUBMITTED TO THE BUILDING OFFICIAL FOR CONSTRUCTION OF THIS NON-HABITABLE TRAINING PROP.

INDEX OF DRAWINGS

LOCATION MAP

PRIME PROFESSIONAL FIRM LOGO

Project Title
COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title
BUILDING CODE DATA, & LOCATION MAP

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

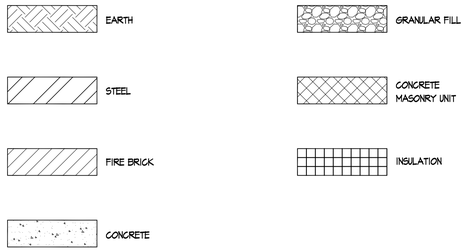
PROFESSIONAL SEAL

Sheet No.
T0.1
1 of 25

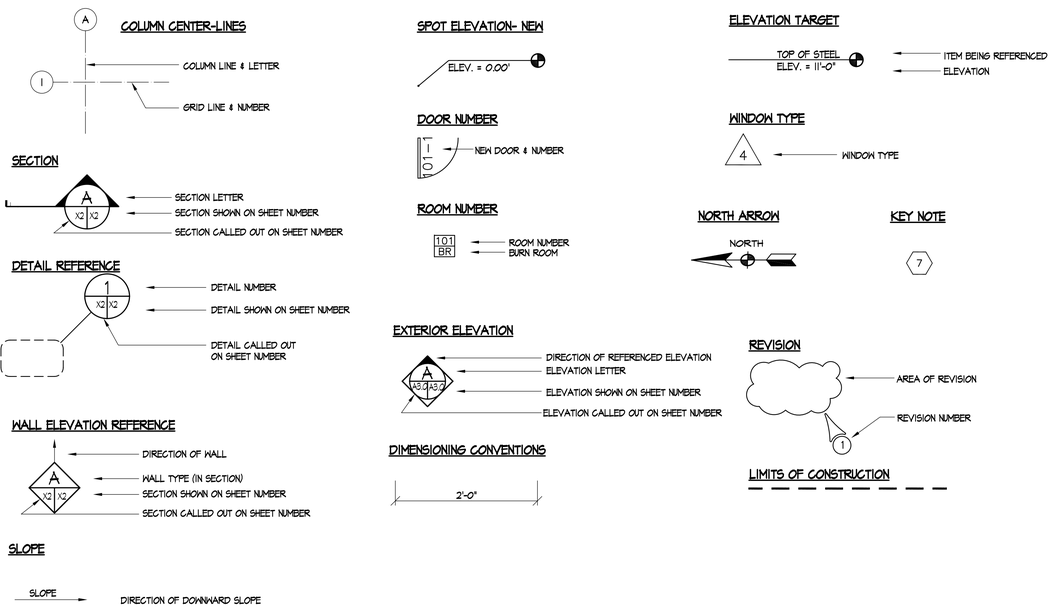
ABBREVIATIONS

@	AT
ADJ	ADJACENT, ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ANCH	ANCHOR, ANCHORAGE
ANOD	ANODIZED
APP'D	APPROVED
ARCH	ARCHITECTURAL
ASSOC	ASSOCIATED
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
BLDG	BUILDING
BLK	BLOCK
BOTT	BOTTOM
BR	BURN ROOM
CEM	CEMENT
CHK'D	CHECKED
CJ	CONTROL JOINT
℄	CENTER LINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CTR	CENTER
D	DEEP (DEPTH)
DBL	DOUBLE
DEP	DEPRESSION, DEPRESS
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DR	DOOR
DWG(S)	DRAWING(S)
DWL	DOWEL
EA	EACH
ELEV	ELEVATION
ELECT	ELECTRICAL
ENCLOS	ENCLOSURE
EQ	EQUAL
EQUIP	EQUIPMENT
EXP	EXPANSION, EXPOSED
EJ	EXPANSION JOINT
EXT	EXTERIOR
FDN	FOUNDATION
FIN	FINISH
FLR	FLOOR
FLEX	FLEXIBLE
FRT	FIRE RETARDANT TREATED
FT(')	FEET (FOOT)
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERAL
H	HIGH
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HT(H)	HEIGHT
IN(")	INCH
INFO	INFORMATION
INSUL	INSULATE, INSULATION
INT	INTERIOR
JT	JOINT
L	LENGTH
LB(S)	POUND, POUNDS
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MANUF	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTG HT	MOUNTING HEIGHT
MTL	METAL
N/A	NOT APPLICABLE
NEC	NECESSARY
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO.#	NUMBER
NOM	NOMINAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPENG	OPENING
OPP	OPPOSITE
PART	PARTITION
PL	PLATE
PLMBG	PLUMBING
PR	PAIR
PREFAB	PREFABRICATED
PROV	PROVIDE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT, POINT
PVC	POLYVINYL CHLORIDE
R	RADIUS, RISER
REF	REFLECTED, REFERENCE, REFER
REINF	REINFORCEMENT
REQ	REQUIRE, REQUIRED
REV	REVISE, REVISION
RH	RIGHT HAND
RO	ROUGH OPENING
RM	ROOM
SCHED	SCHEDULE
SEAL	SEALANT
SHT	SHEET
SIM	SIMILAR
SPEC(S)	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUC	STRUCTURAL (STRUCTURE)
SUSP	SUSPEND, SUSPENDED
T	TOP, THICK
T&B	TOP AND BOTTOM
TEMP	TEMPERED, TEMPORARY, TEMPERATURE
THK	THICK, THICKNESS
THRU	THROUGH
TS	STRUCTURAL STEEL TUBE OR TOP OF STEEL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W	WIDTH, WIDE
W/	WITH
W/I	WITHIN
W/O	WITHOUT
WP	WORKING POINT

MATERIAL INDICATIONS



GRAPHIC SYMBOLS



PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

ABBREVIATIONS, MATERIAL INDICATIONS, & GRAPHIC SYMBOLS

CITY/COUNTY VIRGINIA

Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

A0.1

GENERAL NOTES:

GENERAL:

1. WORK PERFORMED SHALL COMPLY WITH THE FOLLOWING:
   - A. THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (VUSBC); 2009 EDITION.
   - B. THE INTERNATIONAL BUILDING CODE (IBC); 2009 EDITION AS AMENDED BY THE VUSBC.
   - C. ALL APPLICABLE STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS.
2. MAINTAIN UTILITY EQUIPMENT IN SERVICE AND PROTECT AGAINST DAMAGE DURING CONSTRUCTION. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY THE BUILDING MANAGER AND AUTHORITIES HAVING JURISDICTION. IF REQUIRED BY THE OWNER, AT THE CONTRACTOR'S EXPENSE, PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES. PROVIDE NO LESS THAN 72 HOURS PRIOR NOTICE TO THE OWNER AND THE BUILDING MANAGER IF SHUTDOWN OF SERVICE IS REQUIRED.

DESIGN LOADS:

1. BUILDING CLASSIFICATION CATEGORY _____ II
2. GROUND SNOW, Pg _____ 30 PSF*
   - FLAT ROOF SNOW LOAD, Pf _____ 23 PSF*
   - SNOW EXPOSURE FACTOR, Ce _____ 0.9
   - SNOW THERMAL FACTOR, Ct _____ 1.2
   - SNOW IMPORTANCE FACTOR, I _____ 1.0
3. WIND SPEED _____ 110 MPH*
   - EXPOSURE _____ C*
   - IMPORTANCE FACTOR, I _____ 1.0
   - INTERNAL PRESSURE COEFFICIENT _____ ±0.18
4. COMPONENTS AND CLADDING (A = 10 SQFT):
   - ROOF WIND LOADING:
     - ZONE 1 _____ +12.5, -21.8 PSF*
     - ZONE 2 _____ +12.5, -36.5 PSF*
     - ZONE 3 _____ +12.5, -55.0 PSF*
   - WALL WIND LOADING:
     - ZONE 4 _____ +21.8.0, -23.6 PSF*
     - ZONE 5 _____ +21.8, -29.1 PSF*
5. LIVE LOADS:

	UNIFORM
FLAT AND SLOPED ROOFS	100 PSF
FLOORS	100 PSF
STAIRS	100 PSF
* MINIMUM CONCENTRATED LOAD OF 300 POUNDS ON STAIR TREADS (ON AREA OF 4 SQUARE INCHES)	
EXTERIOR APRON	125 PSF

6. SEISMIC DESIGN:
   - SEISMIC IMPORTANCE FACTOR, I _____ 1.0
   - MAPPED SPECTRAL RESPONSE ACCELERATION Ss _____ 0.42*
   - MAPPED SPECTRAL RESPONSE ACCELERATION S1 _____ 0.115*
   - SEISMIC USE GROUP _____ I
   - SITE SOIL CLASS _____ D*
   - SPECTRAL COEFFICIENT, Sds _____ 0.448*
   - SPECTRAL COEFFICIENT, Sd1 _____ 0.184*
   - SEISMIC DESIGN CATEGORY _____ C*
   - BASIC STRUCTURAL SYSTEM _____ MOMENT FRAME
   - SEISMIC FORCE RESISTING SYSTEM _____ C.3 (ASCE 7-05 TABLE 12.2-1)
   - DESIGN BASE SHEAR _____ 53.0 KIPS*
   - SEISMIC RESPONSE COEFFICIENT Cs _____ 0.091*
   - RESPONSE MODIFICATION COEFFICIENT R _____ 5
   - SEISMIC ANALYSIS _____ EQUIV. LATERAL FORCE PROCEDURE

*VERIFY WITH LOCAL JURISDICTION

ARCHITECTURAL:

1. UNLESS NOTED OTHERWISE, ALL PARTITIONS ARE DIMENSIONED TO THE FACE OF CMU.
2. THE DATUM ELEVATION IS TAKEN AT THE TOP OF THE EXTERIOR APRON SLAB WHERE THE APRON INTERSECTS THE PERIMETER OF THE BUILDING (EXCEPT AT GROUND FLOOR DOORS).
3. THE DATUM ELEVATION IS X.XX FEET.
4. ALL BUILDING ELEVATIONS ARE SHOWN IN THE PLANS AS +X.XX OR -X.XX IN FEET RELATIVE TO THE DATUM.

FOUNDATIONS:

1. CONTRACTOR SHALL NOTIFY "MISS UTILITY" PRIOR TO BEGINNING EXCAVATION FOR LOCATION OF UNDERGROUND UTILITIES.
2. EXTERIOR FOOTINGS AND COLUMN FOOTINGS WERE DESIGNED TO BEAR ON UNDISTURBED SOIL BELOW THE FROST LINE A MINIMUM OF 2'-0"* BELOW EXISTING GRADE
3. MINIMUM SOIL BEARING PRESSURE IS ASSUMED TO BE 2000* PSF AND THE OWNER SHALL EMPLOY A GEOTECHNICAL ENGINEER TO VERIFY THAT THIS ALLOWABLE SOIL BEARING PRESSURE IS ATTAINABLE. IF THIS IS NOT ATTAINABLE, THE OWNER/CONTRACTOR SHALL CONTACT THE ENGINEER FOR REDESIGN.
4. ALL COLUMN FOOTINGS SHALL BE CENTERED UNDER COLUMN CENTER LINES UNLESS NOTED OTHERWISE.
5. ALL UTILITIES WHICH CROSS FOOTINGS MUST PASS ABOVE TURNDOWN SLAB THROUGH THE FOUNDATION WALL. SLEEVE, PATCH, AND PARGE STEP FOOTINGS AS REQUIRED. REINFORCING SHALL BE CONTINUOUS AT ALL FOOTING STEPS.
6. CONCRETE SLABS ON GRADE SHALL BEAR ON A MINIMUM OF 6" COMPACTED #57 STONE. WHERE REQUIRED, SOIL UNDER FOOTINGS SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM METHOD D-698 (STANDARD PROCTOR).

CONCRETE:

1. CONCRETE FOR FOOTINGS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS AND A MAXIMM WATER/CEMENT RATIO OF 0.5.
2. CONCRETE FOR SLABS, BEAMS, COLUMNS, AND OTHER ABOVE GROUND CONSTRUCTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000* PSI AT 28 DAYS AND A MAXIMUM WATER/CEMENT RATIO OF 0.40* UNLESS NOTED OTHERWISE.
3. ALL CONCRETE SHALL BE MIXED, PLACED AND TESTED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318.
4. ALL CONCRETE SHALL HAVE A SLUMP OF 4" ± 1" UNLESS NOTED OTHERWISE.
5. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL PRIOR TO USE.
6. ALL CONCRETE TO BE POURED IN COLD WEATHER, AS DEFINED IN SECTION 1.1 OF ACI 306R, COLD WEATHER CONCRETING, SHALL FULLY COMPLY WITH ACI 306.1, STANDARD SPECIFICATIONS FOR COLD WEATHER CONCRETING, AND ACI 306R.
7. ALL CONCRETE TO BE POURED IN HOT WEATHER, AS DEFINED IN SECTION 1.2 OF ACI 305R, HOT WEATHER CONCRETING, SHALL FULLY COMPLY WITH ACI 305.1, STANDARD SPECIFICATIONS FOR HOT WEATHER CONCRETING, AND ACI 305R.
8. REINFORCING BARS SHALL BE ASTM A-615, GRADE 60. EPOXY COATED BARS SHALL BE ASTM A-775 GRADE 60 AS A BID ALTERNATE.
9. ALL CONCRETE REINFORCING SHALL BE DETAILED AND CONSTRUCTED PER ACI 318.
10. CONTRACTOR SHALL SUBMIT REINFORCING SHOP DRAWINGS FOR CONCRETE REINFORCING STEEL FOR APPROVAL.
11. ALL CONCRETE REINFORCING STEEL SHALL HAVE CORNER OR "Z" BARS OF THE SAME DIAMETER AT ALL CORNERS AND CHANGES IN DIRECTION. CORNER AND "Z" BARS SHALL LAP CONTINUOUS BARS A MINIMUM OF 48 TIMES THE NOMINAL BAR DIAMETER ON BOTH ENDS.
12. ALL CONCRETE SLABS ON GRADE SHALL BE REINFORCED WITH WELDED WIRE FABRIC OF THE SIZE INDICATED ON THE PLANS AND SHALL BE PLACED OVER 6 MIL VAPOR BARRIER UNLESS SHOWN OTHERWISE ON DRAWINGS.
13. SAW CUTTING CONTROL JOINTS SHALL BE PERFORMED AS SOON AS THE CONCRETE SLAB ON GRADE IS HARD ENOUGH TO SUPPORT THE CUTTING MACHINE WITHIN FIRST FOUR HOURS OF CURING.
14. SLABS ON GRADE INCLUDING THE EXTERIOR APRON SLAB SHALL BE AIR ENTRAINED CONCRETE AND REINFORCED WITH WELDED WIRE FABRIC OF THE SIZE INDICATED ON THE PLANS PLACED ON CONCRETE BLOCKS. AIR ENTRAINMENT FOR SLABS SHALL BE 6% BY VOLUME ± 1%.
15. ALL CONCRETE EXCEPT FOOTINGS SHALL BE AIR-ENTRAINED 6% BY VOLUME ± 1% UNLESS SHOWN OTHERWISE ON DRAWING.
16. CONCRETE PROTECTION FOR STEEL REINFORCEMENT OF CAST-IN-PLACE CONCRETE SHALL BE AS SPECIFIED BELOW:

TYPE OF STRUCTURE	MINIMUM CLEAR COVER (UNLESS OTHERWISE NOTED IN DRAWINGS)
SLABS AND STAIR SLABS	2"
BEAMS	2"
COLUMNS AND PIERS	2" TO VERTICAL BARS 1-5/8" TO TIES
FOOTINGS AND OTHER EARTH FORMED CONCRETE	3"

17. SPECIAL INSPECTIONS SHALL BE REQUIERD FOR THE CAST IN PLACE CONCRETE MATERIALS AND INSTALLATION, INCLUDING BUT NOT LIMITED TO REINFORCEMENT, BOLTS, FORMWORK, PLACEMENT, CURING AND STRENGTH AS IDENTIFIED IN THE SCHEDULE OF SPECIAL INSPECTIONS.

MASONRY:

1. MASONRY CONSTRUCTION SHAILL CONFORM TO THE REQUIREMENTS OF ACI 530 (LATEST EDITION), "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
2. CONCRETE MASONRY UNITS (CMU) SHALL BE 2 CELL UNITS CONFORMING TO ASTM C-90, TYPE I.
3. MORTAR SHALL CONFORM TO ASTM C-270, TYPE S.
4. GROUT SHALL CONFORM TO ASTM C-476 WITH A MINIMUM STRENGTH OF 3000 PSI.
5. ALL CONCRETE MASONRY CONSTRUCTION SHALL BE CONSTRUCTED TO HAVE A MINIMUM DESIGN COMPRESSIVE STRENGTH (f'm) OF 1,500 PSI.
6. ALL CMU REINFORCING SHALL BE DETAILED AND CONSTRUCTED PER ACI 318.
7. CONTRACTOR SHALL SUBMIT REINFORCING SHOP DRAWINGS FOR CMU REINFORCING STEEL FOR APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
8. FIRE BRICK MASONRY UNITS SHALL BE IN ACCORDANCE WITH ASTM C-125 WITH A MINIMUM DENSITY OF 50 POUNDS PER CUBIC FOOT.
9. WHERE MASONRY INTERSECTS VERTICAL SURFACES OF CONCRETE COLUMNS AND BOTTOM SURFACES OF CONCRETE SLABS AND BEAMS, ANCHOR MASONRY TO CONCRETE WITH GALVANIZED DOVETAIL ANCHORS AT 16" ON CENTER UNLESS OTHERWISE NOTED. MASONRY SHALL NOT BE ANCHORED TO CONCRETE WHERE OPEN JOINTS ARE SHOWN NOR WHERE THERMAL LINING SEPARATES CONCRETE FROM MASONRY. DOVETAIL ANCHORS AND ANCHOR SLOTS SHALL BE NO. 106 CORRUGATED DOVETAIL ANCHOR AND NO. 100 STANDARD DOVETAIL SLOT BY HECKMAN BUILDING PRODUCTS, INC., OR AN APPROVED EQUIVALENT.
10. SPECIAL INSPECTIONS SHALL BE REQUIRED FOR THE MASONRY MATERIALS, AND INSTALLATION, INCLUDING BUT NOT LIMITED TO STRENGTH, MORTAR AND GROUT MIX, INSTALLATION, REINFORCING, PROTECTION, AND ANCHORAGE AS IDENTIFIED IN THE SCHEDULE OF SPECIAL INSPECTIONS.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL FRAMING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AISC "MANUAL OF STEEL CONSTRUCTION." ALL STRUCTURAL STEEL BEAM, COLUMN AND CHANNEL SHAPES SHALL BE ASTM A-992. ALL STEEL ANGLES AND PLATES SHALL BE ASTM A-36. ALL STRUCTURAL STEEL TUBES SHALL BE ASTM A500 GRADE B.
2. CONTRACTOR TO SUBMIT STRUCTURAL STEEL SHOP DRAWINGS FOR APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
3. ALL STRUCTURAL STEEL SHOP WORK TO BE WELDED WITH E70XXX ELECTRODES. FIELD WORK CONNECTIONS TO BE BOLTED WITH 3/4" HIGH STRENGTH A325X BOLTS OR WELDED WITH E70XXX ELECTRODES. PRE-DRILL HOLES IN STEEL MEMBERS AS REQUIRED FOR FASTENING, BLOCKING, ETC.
4. ALL COLUMNS SHALL BE FURNISHED WITH CAP PLATES AND BASE PLATES OF SIZE CALLED FOR AND SHALL BE SHOP WELDED. BASE PLATES SHALL BEAR ON LEVELING NUTS SET IN 1" THICKNESS OF APPROVED SHRINK RESISTANT GROUT EXCEPT WHEN SHOWN OTHERWISE, AND ANCHORED WITH FOUR (4) 3/4" DIAMETER THREADED RODS WITH DOUBLE NUTS & 1/4" PLATE. SHIM UNDER BASE PLATES AS REQUIRED.
5. ALL STRUCTURAL STEEL FRAMING TO HAVE ONE SHOP COAT OF RUST INHIBITIVE PAINT AFTER FABRICATION, AND ONE FINISH COAT OF APPROVED PAINT, UNLESS NOTED OTHERWISE. ALL EXPOSED STEEL TO HAVE TWO (2) COATS OF APPROVED COLOR SELECTED BY OWNER.
6. SPECIAL INSPECTIONS SHALL BE REQUIRED FOR THE STRUCTURAL STEEL MATERIALS, QUALITY CONTROL PROGRAM, BOLTS, NUTS AND WASHERS, WELDING, AND STRUCTURAL DETAILS AS IDENTIFIED IN THE SCHEDULE OF SPECIAL INSPECTIONS.

STEEL GRATING AND TREADS:

1. STEEL GRATING SHALL BE 2" DEEP, 14 GAUGE, GALVANIZED GRIP STRUT 5-DIAMOND SAFETY GRATING OR EQUIVALENT. INSTALL GRATING IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO CREATE A TWO-SPAN CONDITION BY WELDING. WELD SIDES OF ADJACENT PANELS TOGETHER PER MANUFACTURER'S RECOMMENDATIONS.
2. STEEL STAIR TREADS SHALL BE 2" DEEP, 14 GAUGE GALVANIZED GRIP STRUT 5-DIAMOND STAIR TREADS OR EQUIVALENT. INSTALL TREADS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS USING STANDARD ZINC COATED BOLTS.

WOOD: (FOR CHOP OUT OPENING)

1. WOOD FRAMING IS BASED ON DESIGN VALUES NOTED IN THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2005 EDITION
2. RAFTERS FOR CHOP OUT OPENING SHALL BE CONSTRUCTED WITH No. 2 SOUTHERN YELLOW PINE (SYP) WITH MINIMUM Fb = 1050 PSI AND E = 1,600,000 PSI ALLOWABLE STRESSES.
3. ALL PLYWOOD SHALL BE MANUFACTURED AND GRADED IN ACCORDANCE WITH U.S. DEPARTMENT OF COMMERCE (DOC) PRODUCT STANDARD PS1-95 FOR PLYWOOD CONSTRUCTION FROM GROUP 1 SPECIES. EACH PLYWOOD SHEET SHALL BEAR THE "APA" GRADE TRADEMARK.
4. PLYWOOD ROOF SHEATHING SHALL CONFORM TO APA C-D RATED EXTERIOR 3/4" MINIMUM THICKNESS PLYWOOD SHEATHING UNLESS NOTED OTHERWISE.
5. THE FACE GRAIN OF THE PLYWOOD SHALL BE LAID AT RIGHT ANGLES TO THE RAFTERS.
6. FASTENERS SHALL BE PLACED 3/8" MINIMUM FROM THE EDGE OF THE PLYWOOD SHEETS.
7. ALL WOOD USED FOR CHOP OUT FRAMING SHALL NOT BE PRESERVATIVE OR FIRE RETARDANT TREATED.

ANCHORS (GENERAL):

1. ALL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.
2. HOLES FOR ANCHORS TO BE INSTALLED IN MASONRY SHALL BE DRILLED WITH A ROTARY DRILL ONLY, NOT A ROTARY-HAMMER DRILL.

EXPANSION ANCHORS:

3. EXPANSION ANCHORS SHALL BE WEDGE TYPE WITH A SINGLE PIECE THREE SECTION WEDGE. THE ANCHORS SHALL MEET THE DESCRIPTION IN FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS 1 FOR CONCRETE EXPANSION ANCHORS. ANCHORS SHALL BE HILTI KWIK BOLT II, MANUFACTURED BY HILTI FASTENING SYSTEMS, OR EQUIVALENT.
4. ALL EXPANSION ANCHORS SHALL BE ZINC PLATED IN ACCORDANCE WITH ASTM B633, SERVICE CONDITION SC 1, TYPE III UNLESS INDICATED IN THE DRAWINGS AS STAINLESS STEEL.
5. UNLESS OTHERWISE NOTED, THE FOLLOWING MINIMUM REQUIREMENTS SHALL BE MET FOR EXPANSION ANCHORS:

EXPANSION ANCHOR DIAMETER	EMBEDMENT DEPTH	ALLOWABLE LOADS IN CONCRETE	
		TENSION (POUNDS)	SHEAR (POUNDS)
3/8"	2 1/2"	1,370	1,470
1/2"	3 1/2"	2,400	2,450

SLEEVE ANCHORS:

6. SLEEVE ANCHORS SHALL MEET THE FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 3, CLASS 3 FOR EXPANSION SHIELD ANCHORS. ANCHORS SHALL BE HLC SLEEVE ANCHORS, MANUFACTURED BY HILTI FASTENING SYSTEMS, OR EQUIVALENT.
7. ALL SLEEVE ANCHORS SHALL BE ZINC PLATED IN ACCORDANCE WITH ASTM B633, SERVICE CONDITION SC 1, TYPE III UNLESS INDICATED IN THE DRAWINGS AS STAINLESS STEEL.
8. UNLESS OTHERWISE NOTED, THE FOLLOWING MINIMUM REQUIREMENTS SHALL BE MET FOR SLEEVE ANCHORS:

SLEEVE ANCHOR DIAMETER	EMBEDMENT DEPTH	ALLOWABLE LOADS IN HOLLOW CMU	
		TENSION (POUNDS)	SHEAR (POUNDS)
3/8"	1 1/2"	438	800

DROP IN ANCHORS:

9. ANCHORS SHALL BE HOLLOW-SET DROP IN ANCHORS MANUFACTURED BY POWERS FASTENERS OR EQUIVALENT.
10. ALL DROP IN ANCHORS SHALL BE STAINLESS STEEL.
11. UNLESS NOTED OTHERWISE, THE FOLLOWING MINIMUM REQUIREMENTS SHALL BE MET FOR DROP IN ANCHORS:

DROP IN ANCHOR DIAMETER	EMBEDMENT DEPTH	ALLOWABLE LOADS IN HOLLOW CMU	
		TENSION (POUNDS)	SHEAR (POUNDS)
1/2"	1 1/4"	715	730

THERMAL LINING:

1. THE THERMAL LINING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER.
2. THERMAL LINING SYSTEM SHALL BE DESIGNED TO PROVIDE THE REQUIRED LEVEL OF PROTECTION AS INDICATED IN THE SPECIFICATIONS.

TEMPERATURE MONITORING SYSTEM:

1. THE TEMPERATURE MONITORING SYSTEM SHALL CONSIST OF A CENTRAL RECORDER LOCATED IN THE MONITORING EQUIPMENT ROOM AND THERMOCOUPLES AS SHOWN ON ELECTRICAL DRAWINGS, SEE SPECIFICATION FOR REQUIREMENTS.

ELECTRICAL:

1. PROVIDE ALL NECESSARY LABOR, EQUIPMENT, ETC. FOR ALL WORK INDICATED AND REQUIRED FOR A COMPLETE INSTALLATION TO COMPLY WITH THE 2009 EDITION OF THE INTERNATIONAL ELECTRICAL CONSERVATION CODE, (2009 IECC).
2. ELECTRICAL SUB CONTRACTOR TO PROVIDE SYSTEM DESIGN AND PLAN LAYOUT FOR REVIEW AND APPROVAL.
3. THE ELECTRICAL CONTRACTOR SHALL KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL AND RUBBISH DAILY AND AT THE COMPLETION OF WORK, CONTRACTOR SHALL REMOVE FROM TEH PREMISES ALL RUBBISH, IMPLEMENTS, AND SURPLUS MATERIALS AND LEAVE THE BUILDING "BROOM CLEAN".
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A WRITTEN WARRANTY STATING THAT ALL MATERIALS AND WORKMANSHIP ARE FREE FROM DEFECTS FOR A PERIOD OF 12 MONTHS FROM DATE OF FINAL ACCEPTANCE.
5. MATERIALS:
   - A. WIRE AND CABLE SHALL BE COPPER WITH THHN/THWN INSULATION AND BE SIZED AS PER 2008 NEC.
   - B. ALL WIRING SHALL BE CONCEALED WHERE POSSIBLE. WHERE APPROVED BY THE DESIGNER, EXPOSED WIRING SHALL BE RUN PARALLEL AND PERPENDICULAR TO THE BUILDING CONSTRUCTION.
   - C. DISCONNECT SWITCHES SHALL BE SQUARE-D GENERAL DUTY FUSIBLE WITH CLASS "R" FUSE CLIPS OR EQUAL.
   - D. FUSES SHALL BE TIME-DELAY DUAL ELEMENT TYPE AND SHALL BE SIZED AS REQUIRED.
   - E. LIGHTING FIXTURE AND OTHER EQUIPMENT SPECIFIED DENOTES STYLE AND QUANTITY.
   - F. ALL SWITCHES AND RECEPTACLES SHALL BE SPECIFICATION GRADE AND COLOR AS CHOSEN BY OWNER.
6. THE ELECTRICAL CONTRACTOR MUST INSPECT JOB SITE PRIOR TO BIDDING JOB AND WILL INCLUDE COMPLETE RESPONSIBILITY FOR ALL LABOR AND MATERIALS AS SPECIFIED ON PLANS.
7. ELECTRICAL CONTRACTOR SHALL VERIFY THE AIC BEFORE PURCHASE OF SERVICE ENTRANCE EQUIPMENT.
8. ELECTRICAL CONTRACTOR SHALL VERIFY EQUIPMENT CAPACITY BEFORE ROUGH-IN.
9. ALL WIRING SHALL BE IN CONDUIT AND BE 12 AWG UNLESS OTHERWISE SPECIFIED. CONDUIT SHALL BE EMT OR RMC.
10. CONDUIT UNDER SLAB SHALL BE SCHEDULE 40 PVC AND SHALL BE BELOW THE FROST LINE.

1. THESE PROTOTYPE DRAWINGS HAVE BEEN DESIGNED TO PROVIDE ADEQUATE FACILITIES FOR FIRE FIGHTER I & II TRAINING AND TO MEET THE REQUIREMENTS OF NFPA 1403.
2. THE ATTACHED DRAWINGS, PROJECT MANUAL, AND SPECIFICATIONS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT TO BE USED AS CONSTRUCTION DOCUMENTS. GRANT RECIPIANTS SHALL RETAIN A LICENSED PROFESSIONAL TO PROVIDE SITE SPECIFIC CONTRACT DOCUMENTS SUITABLE FOR USE AS THE BASIS OF CONSTRUCTION.
3. THE GRANT RECIPIANT SHALL RETAIN A LICENSED PROFESSIONAL TO CREATE A SITE PLAN, CIVIL DRAWINGS AND CIVIL SPECIFICATIONS TO ACCOMPANY THE ABOVE REFERENCED SITE SPECIFIC CONTRACT DOCUMENTS.
4. THESE PROTOTYPE DRAWINGS HAVE BEEN DESIGNED TO BE COMPARED WITH THE VARIOUS REQUIREMENTS FOR WIND SPEED, FROST DEPTH, SEISMIC VALUES, ETC. WITHIN THE COMMONWEALTH OF VIRGINIA. AS THESE VALUES ARE SITE DEPENDENT, THE DESIGN PROFESSIONAL SHALL VERIFY ALL SITE RELATED VALUES WITH THE LOCAL JURISDICTION & MODIFY THE PROTOTYPE DRAWINGS ACCORDINGLY.
5. DESIGN LOADS WITH ASTERISKS (*) SIGNIFY THOSE THAT ARE SITE DEPENDENT AND SHOULD BE VERIFIED WITH THE LOCAL JURISDICTION.

1. ALL BURN BUILDING PROP CONCRETE AND MASONRY SHALL STAND A MINIMUM OF TWO (2) MONTHS TO CURE BEFORE CONDUCTING THE FIRST LIVE FIRE TRAINING EVOLUTION.
2. NO VEHICLE TRAFFIC SHALL BE PERMITTED ON THE APRON SLAB FOR A MINIMUM OF ONE (1) MONTH AFTER APRON SLAB HAS BEEN PLACED.

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

VIRGINIA DEPARTMENT OF FIRE PROGRAMS

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

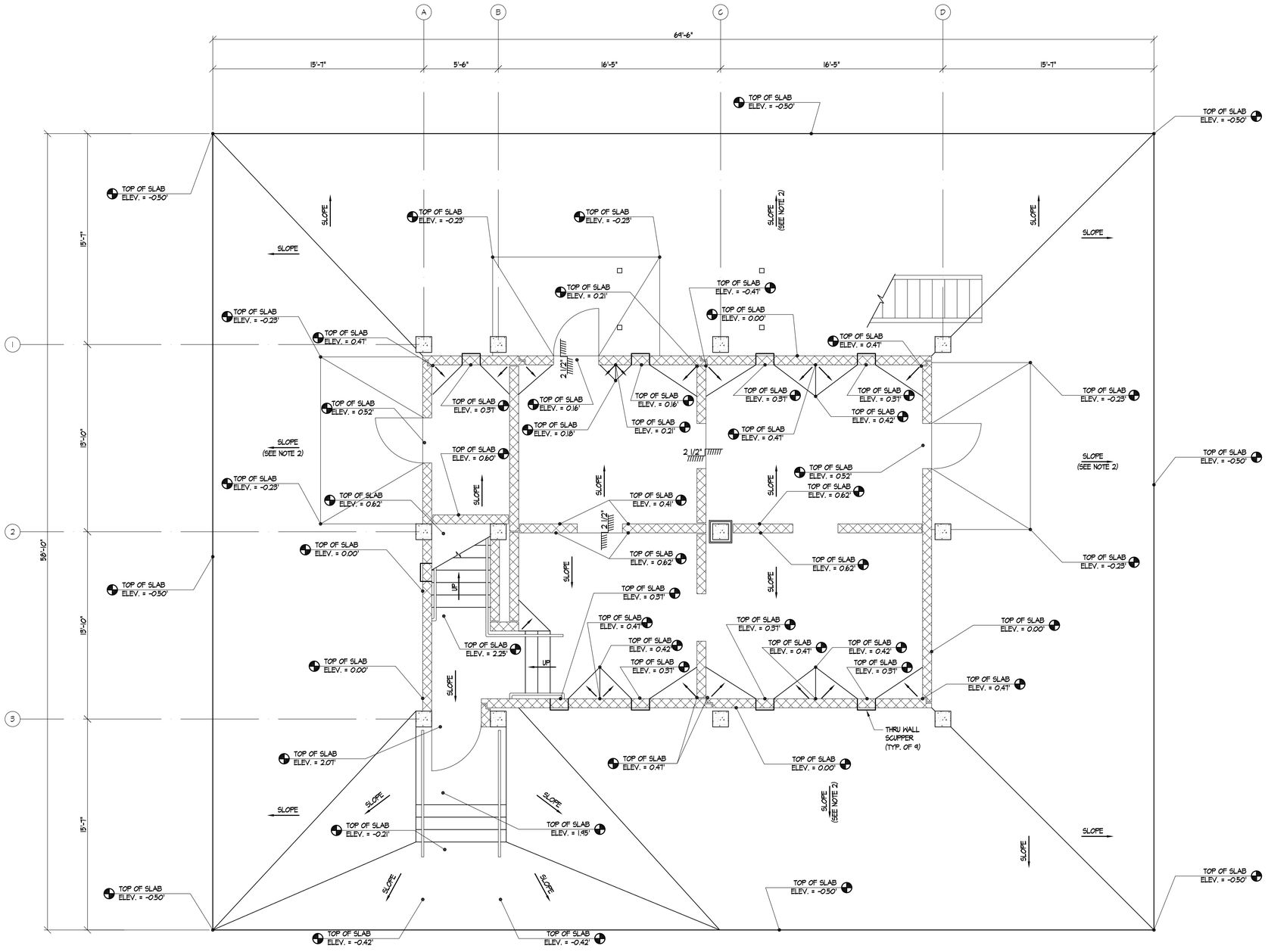
GENERAL NOTES

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

A0.2



SLAB ELEVATION PLAN

SCALE: 1/4" = 1'-0"

NOTES:
1. SLAB TURNDOWNS AND JOINTS ARE NOT SHOWN FOR CLARITY, SEE SHEET S1.0 FOR ADDITIONAL INFORMATION.
2. PROVIDE MINIMUM SLOPE TO DRAIN OF 1/4" PER FT.

PRIME PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

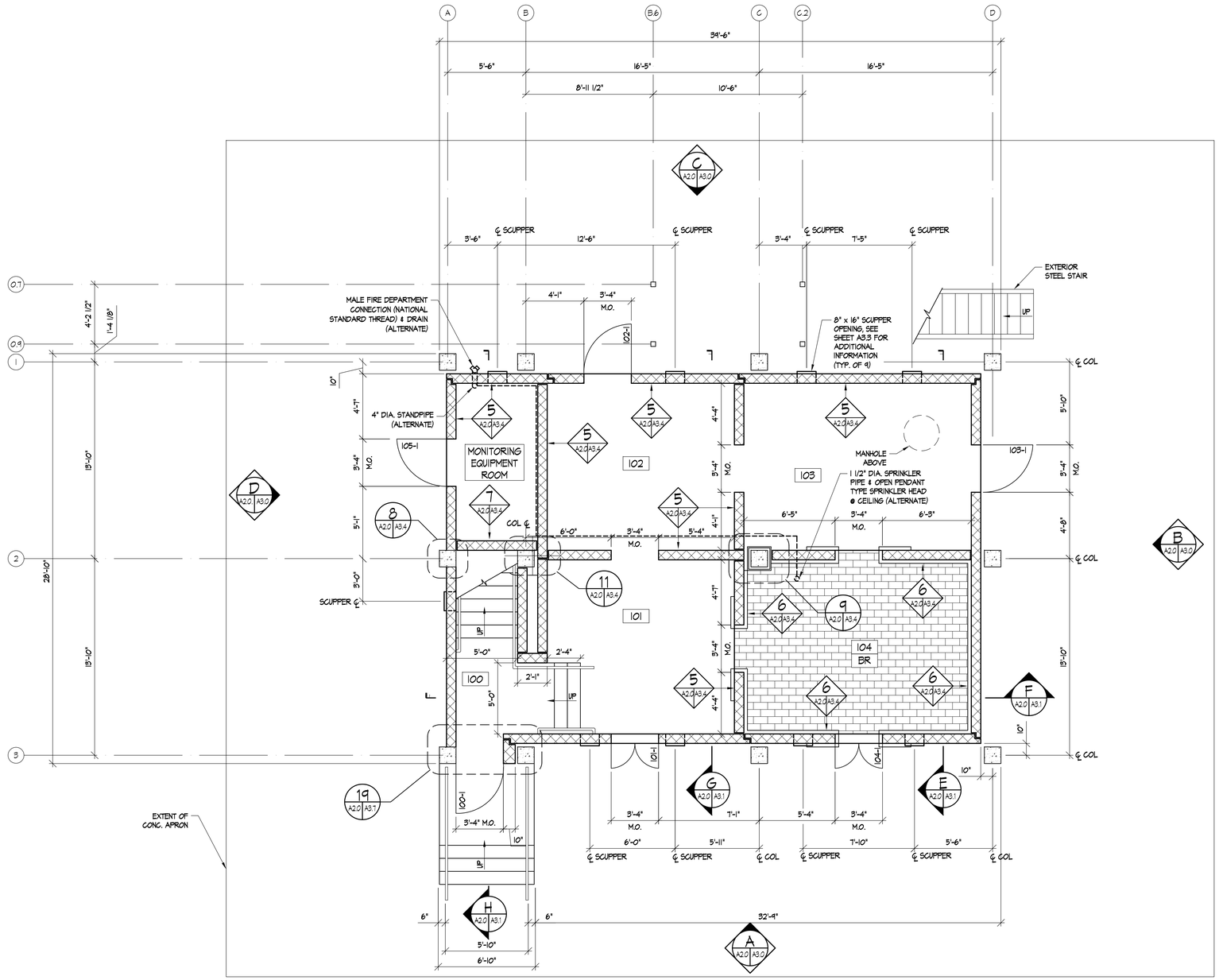
SLAB ELEVATION PLAN

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

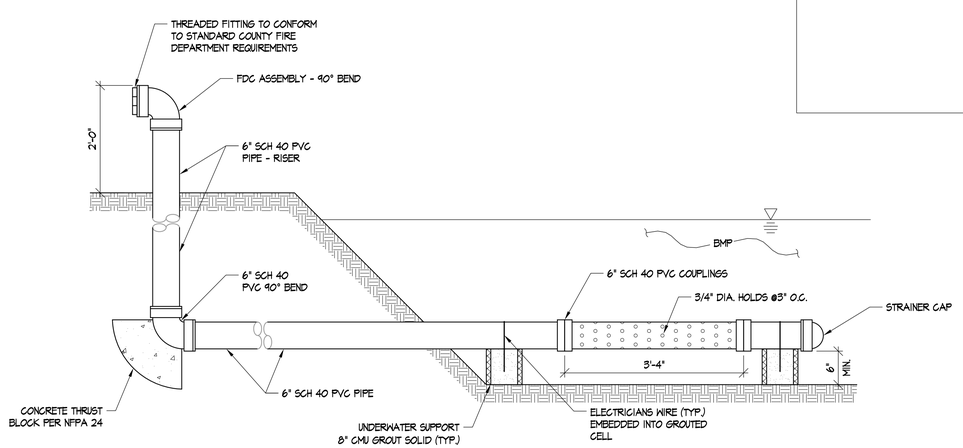
A1.0



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

NOTES:
1. ROOM 104 IS THE BURN ROOM. NO BURNING IS ALLOWED IN ROOMS 101, 102, 103, THE MONITORING EQUIPMENT ROOM OR ON THE STAIRS OR LANDING.
2. SEE SLAB ELEVATION PLAN ON SHEET A1.0 FOR ELEVATIONS OF CONCRETE SLAB ON GRADE.



DETAIL

DRY HYDRANT ALTERNATE

SCALE: NTS

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

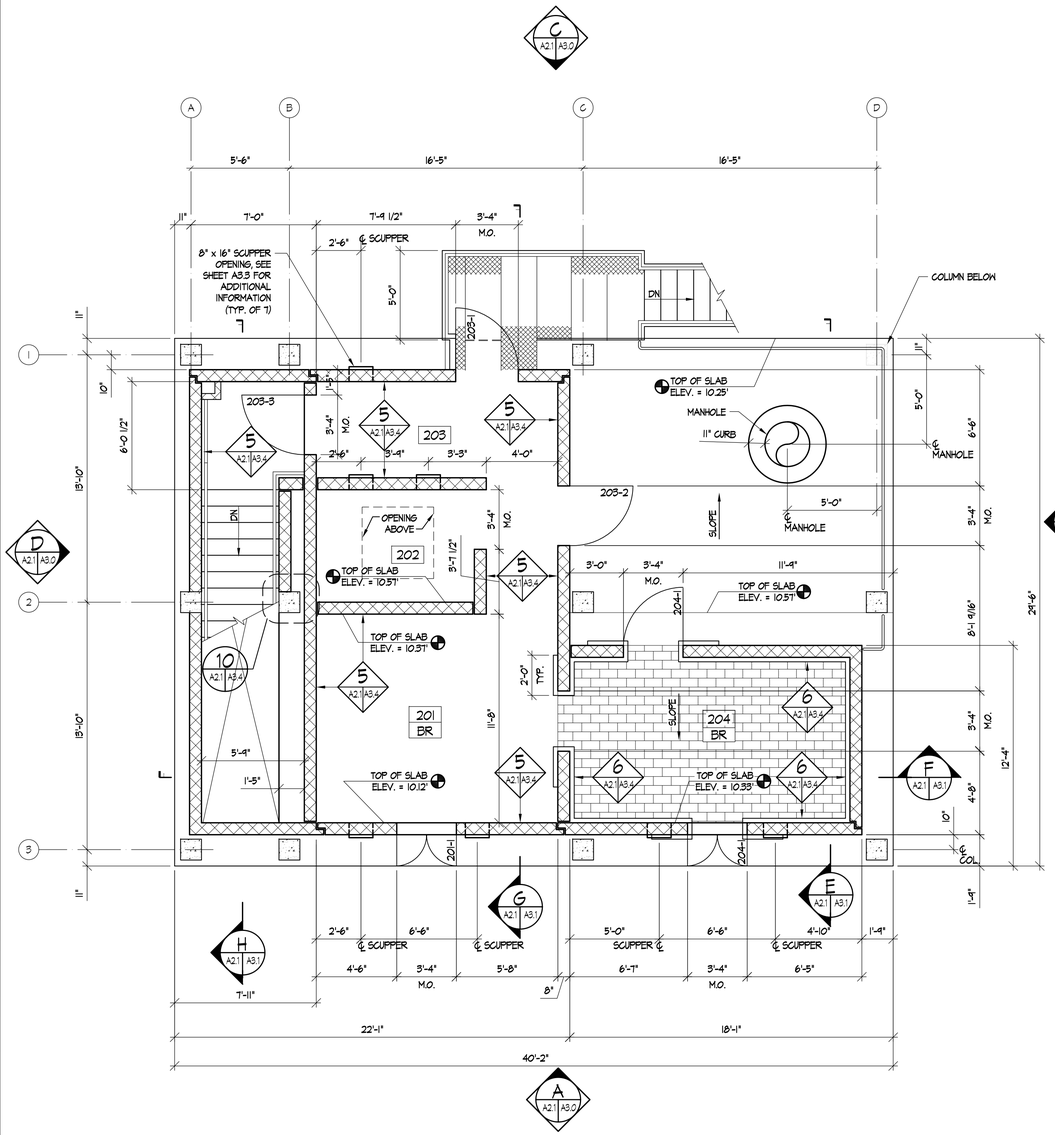
FIRST FLOOR PLAN

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

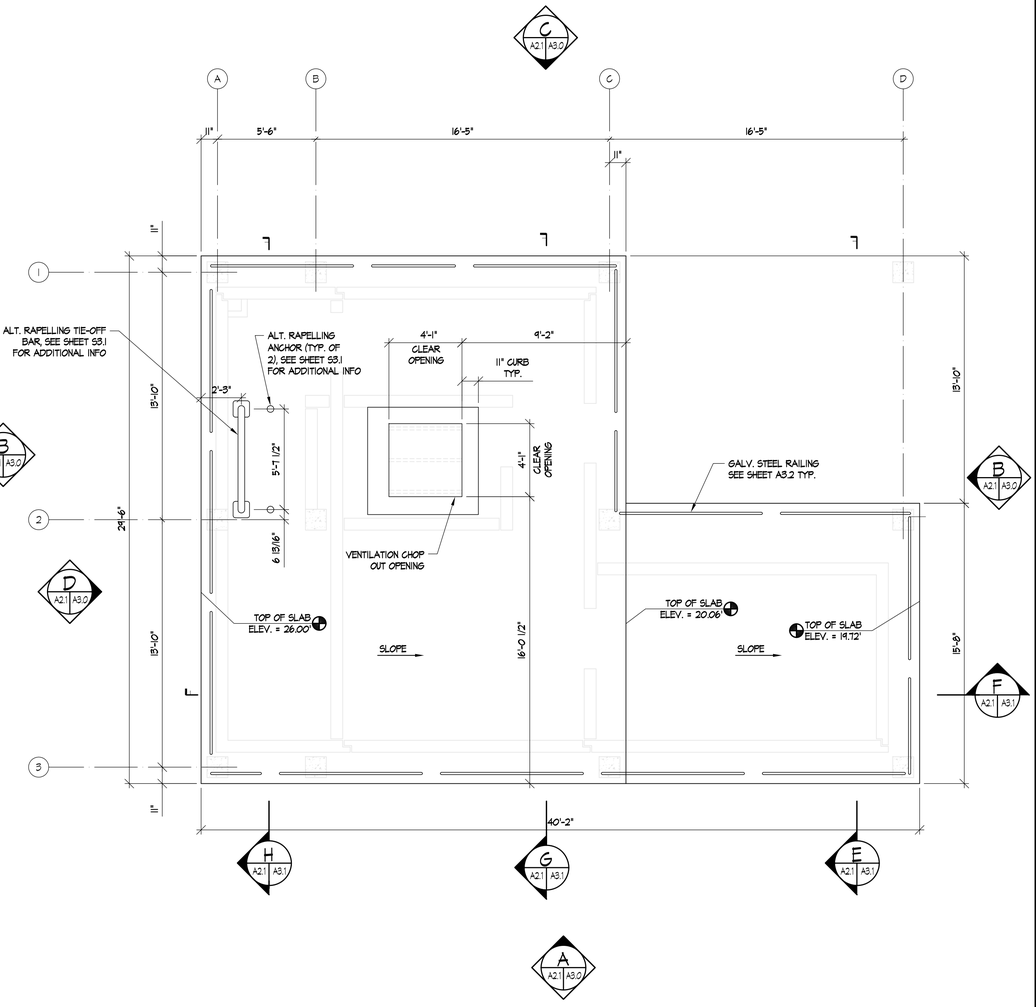
A2.0



SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

NOTES:
1. ROOM 204 IS THE BURN ROOM. NO BURNING IS ALLOWED IN ROOMS 201, 202, 203, ON THE STAIRS OR LANDING.
2. REFER TO SHEET A3.0 FOR INDUSTRIAL POST AND GUARDRAIL ELEVATION LOCATIONS.



ROOF PLAN

SCALE: 1/4" = 1'-0"

PRIME PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

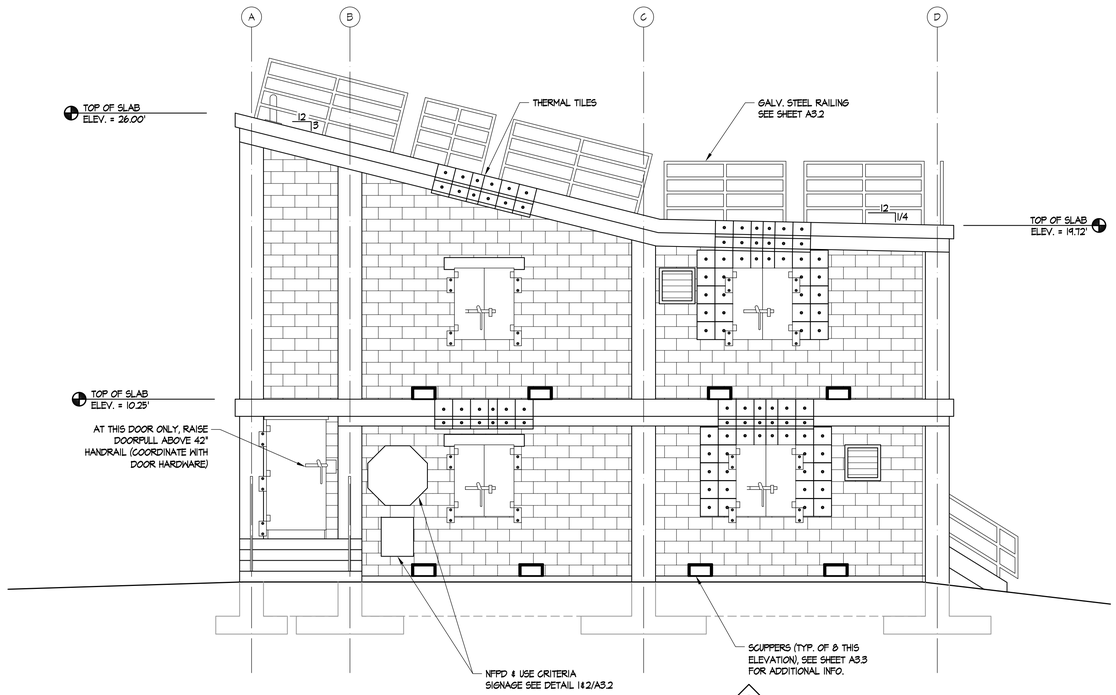
SECOND FLOOR & ROOF PLANS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

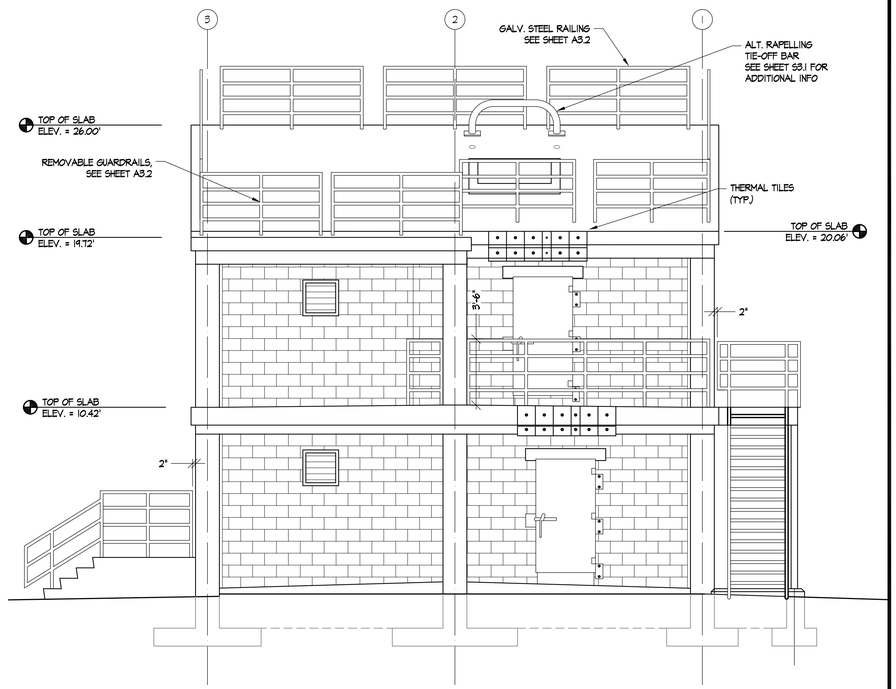
A2.1



ELEVATION

SCALE: 1/4" = 1'-0"

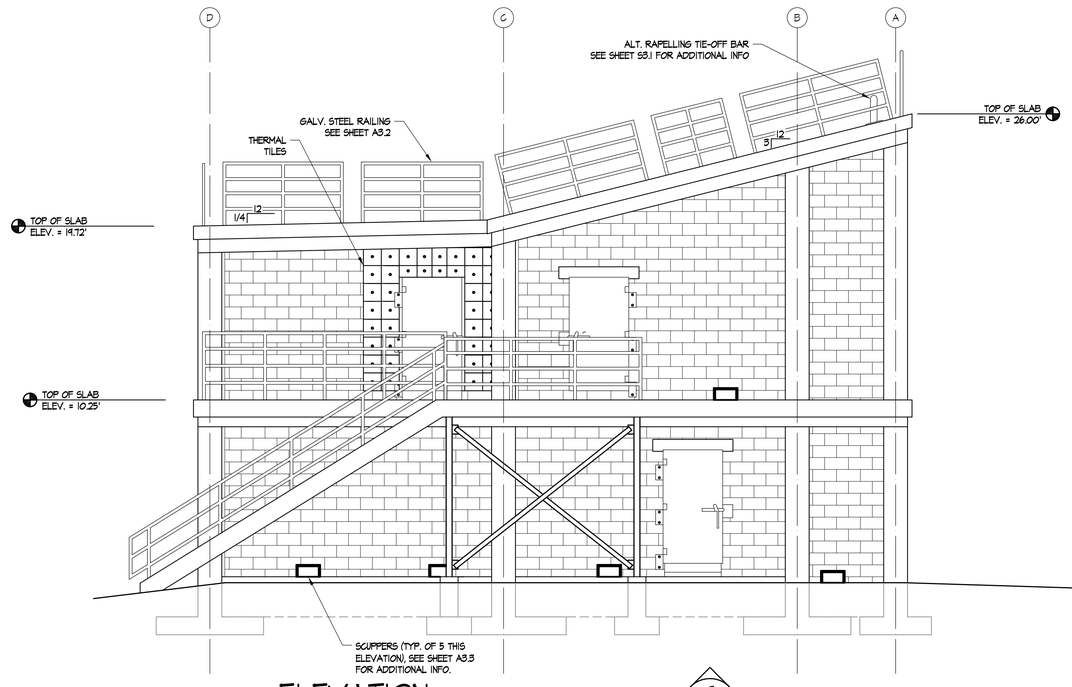
FRONT — A3.0 — A2.0 A2.1



ELEVATION

SCALE: 1/4" = 1'-0"

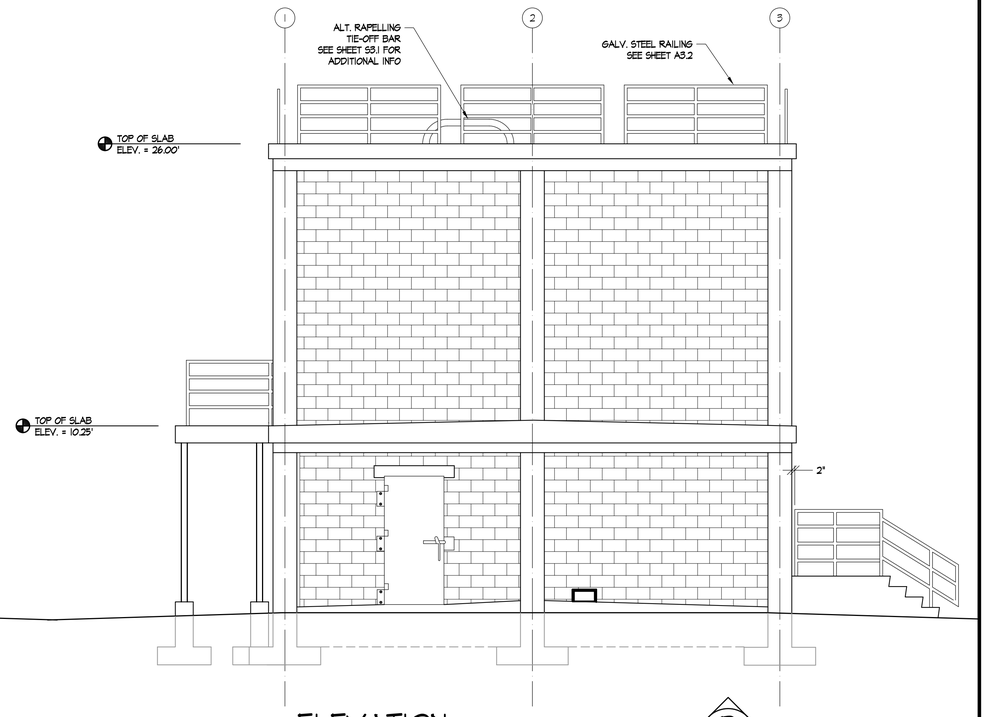
RIGHT — B — A3.0 — A2.0 A2.1



ELEVATION

SCALE: 1/4" = 1'-0"

REAR — C — A3.0 — A2.0 A2.1



ELEVATION

SCALE: 1/4" = 1'-0"

LEFT — D — A3.0 — A2.0 A2.1

PRIME PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

VIRGINIA DEPARTMENT OF FIRE PROGRAMS

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

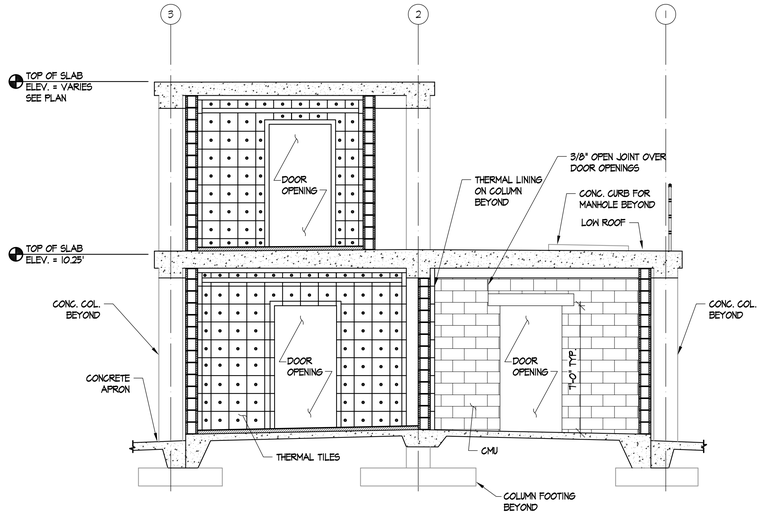
BUILDING ELEVATIONS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

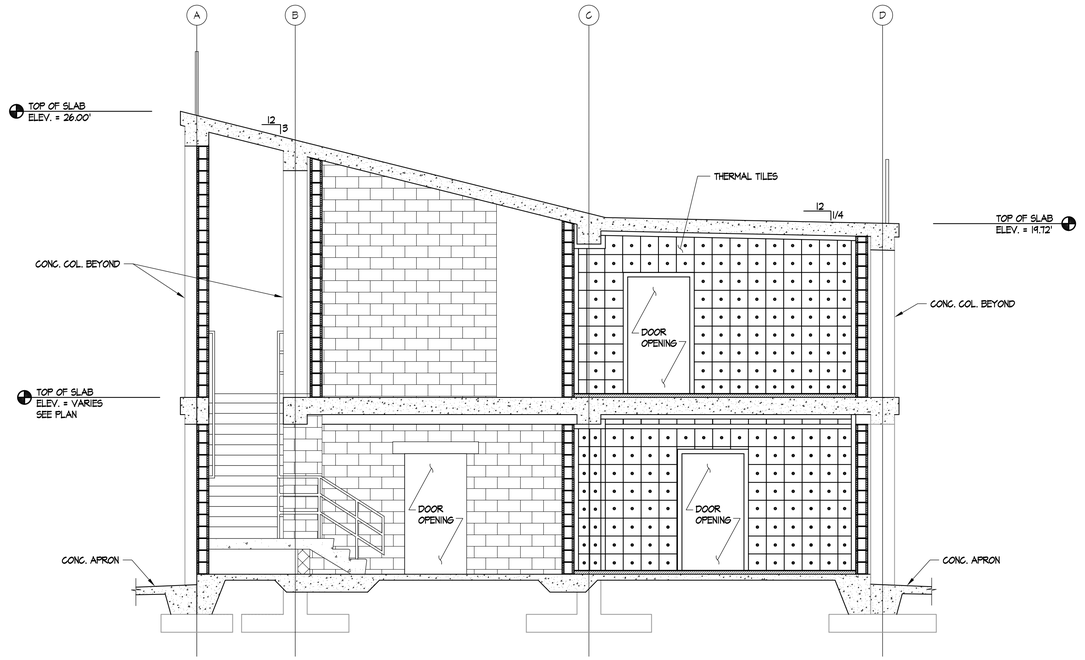
A3.0



SECTION

SCALE: 1/4" = 1'-0"

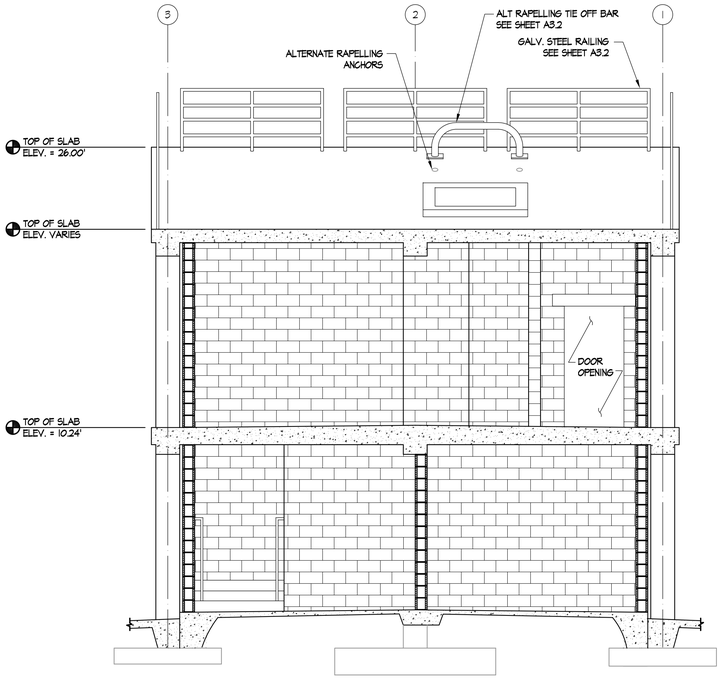
E — A3.1 — A2.0 A2.1



SECTION

SCALE: 1/4" = 1'-0"

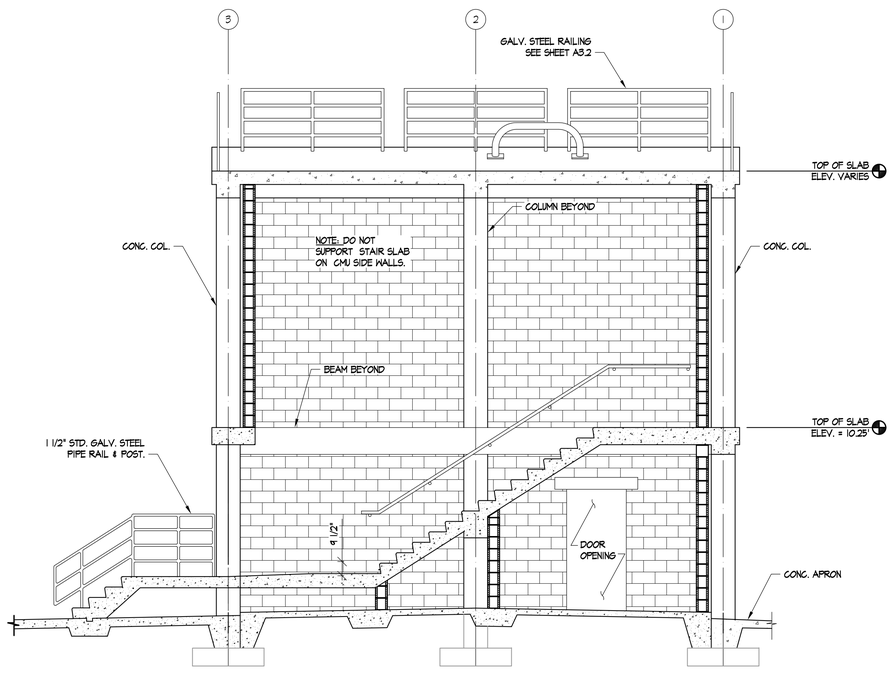
F — A3.1 — A2.0 A2.1



SECTION

SCALE: 1/4" = 1'-0"

G — A3.1 — A2.0 2.1



SECTION

SCALE: 1/4" = 1'-0"

H — A3.1 — A2.0 A2.1

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

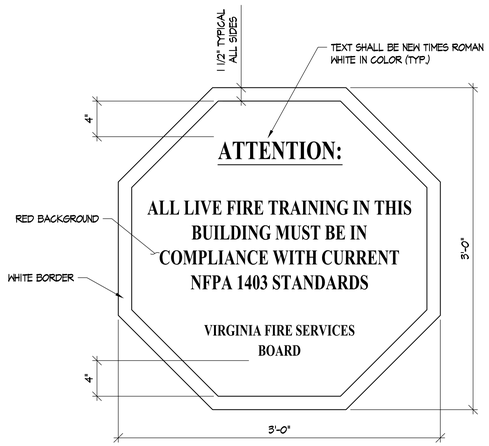
BUILDING SECTIONS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

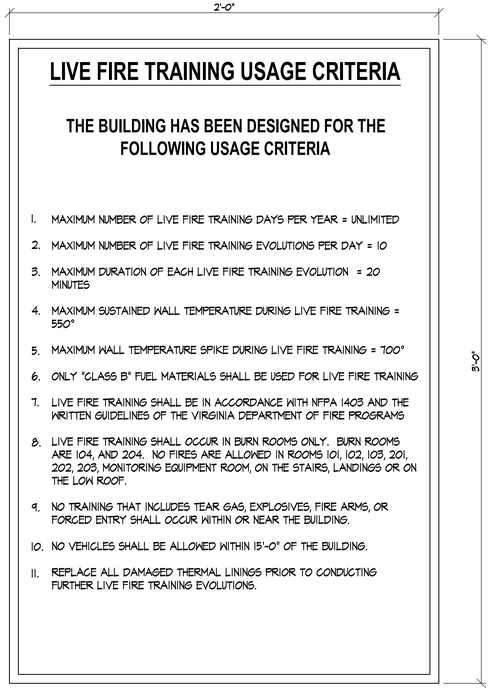
Sheet No.

A3.1



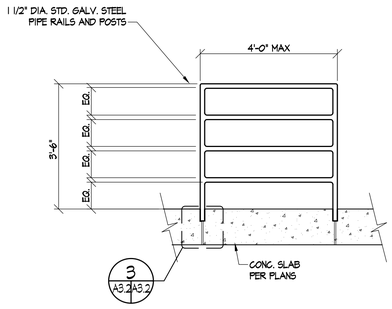
DETAIL — NFPA 1403 SIGNAGE — 1 (A3.0 | A3.2)

SCALE: 1 1/2" = 1'-0"



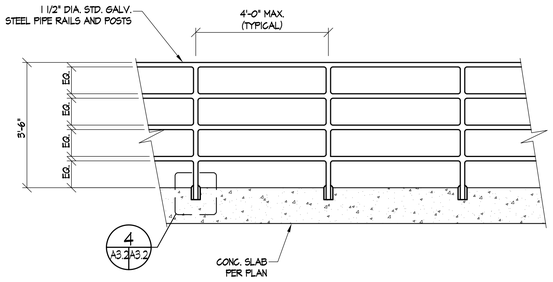
DETAIL — USAGE CRITERIA SIGNAGE — 2 (A3.0 | A3.2)

SCALE: 3" = 1'-0"



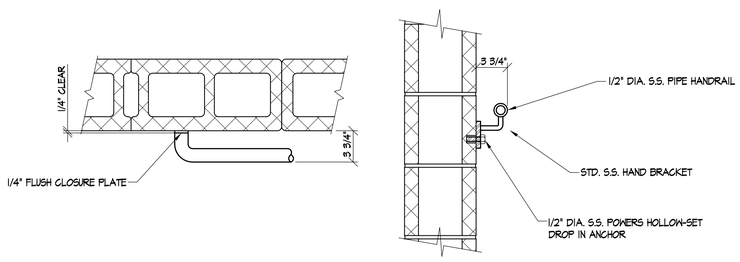
DETAIL — REMOVABLE GUARDRAIL

SCALE: 1/2" = 1'-0"



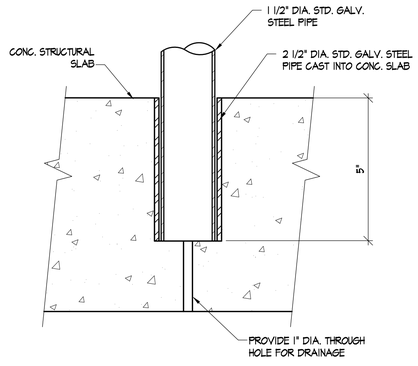
DETAIL — TYPICAL GUARDRAIL

SCALE: 1/2" = 1'-0"



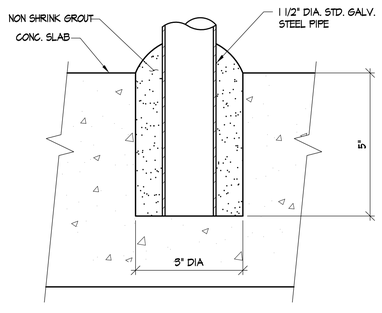
DETAIL — INTERIOR HAND RAIL

SCALE: 1 1/2" = 1'-0"



DETAIL — REMOVABLE GUARDRAIL — 3 (A3.2 | A3.2)

SCALE: 1 1/2" = 1'-0"



DETAIL — REMOVABLE GUARDRAIL — 4 (A3.2 | A3.2)

SCALE: 1 1/2" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

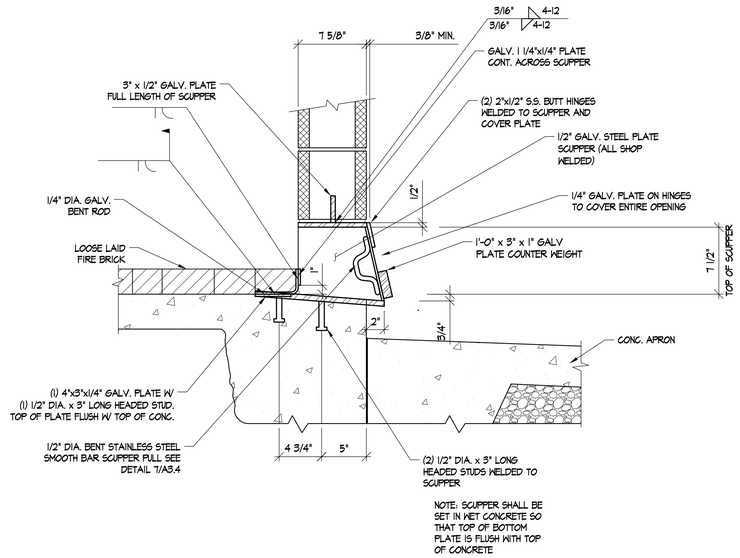
SIGNAGE & RAILING DETAILS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

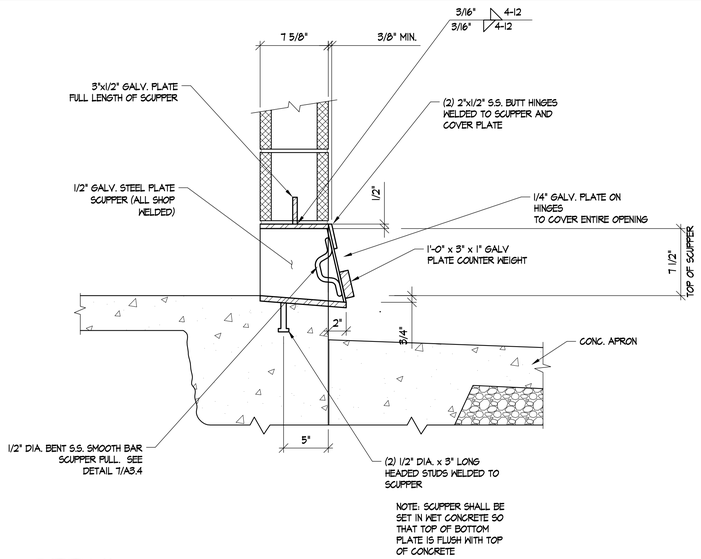
Sheet No.

A3.2



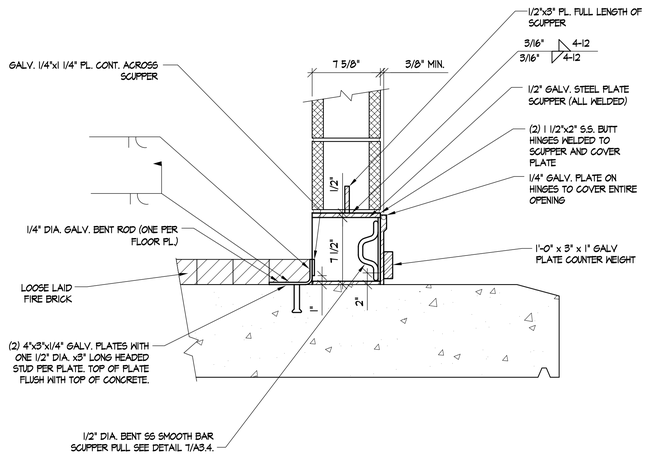
DETAIL — SCUPPER W/ FIRE BRICK

SCALE: 1 1/2" = 1'-0" — FIRST FLOOR



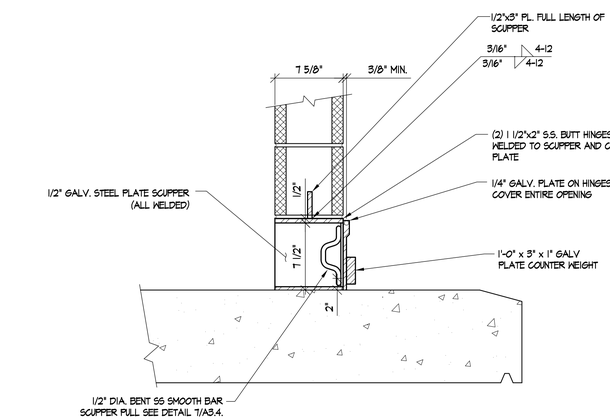
DETAIL — SCUPPER W/O FIRE BRICK

SCALE: 1 1/2" = 1'-0" — FIRST FLOOR



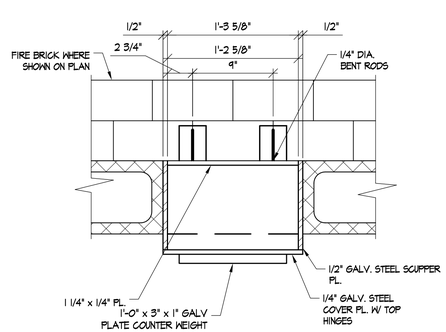
DETAIL — SCUPPER W/ FIRE BRICK

SCALE: 1 1/2" = 1'-0" — SECOND FLOOR



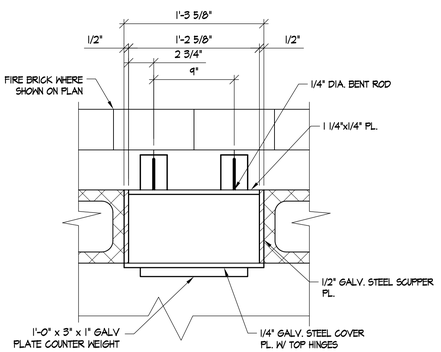
DETAIL — SCUPPER W/O FIRE BRICK

SCALE: 1 1/2" = 1'-0" — SECOND FLOOR



PLAN — SCUPPER W/ FIRE BRICK

SCALE: 1 1/2" = 1'-0" — FIRST FLOOR



PLAN — SCUPPER W/ FIRE BRICK

SCALE: 1 1/2" = 1'-0" — SECOND FLOOR

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

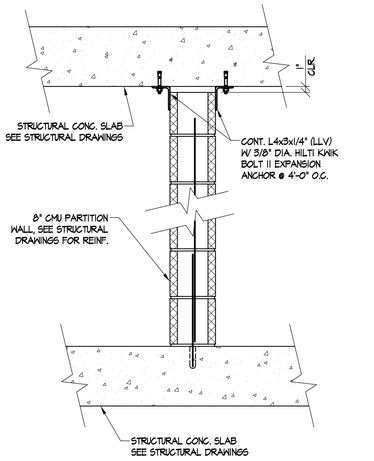
SCUPPER SECTIONS & DETAILS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

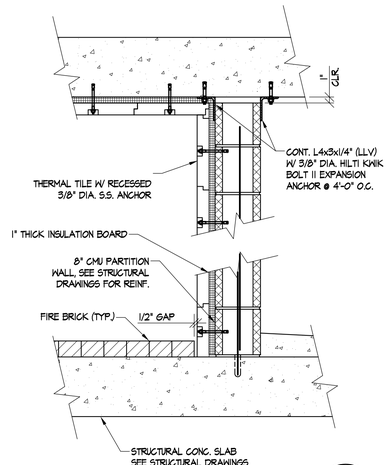
PROFESSIONAL SEAL

Sheet No.

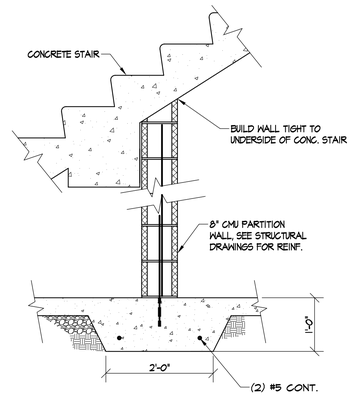
A3.3



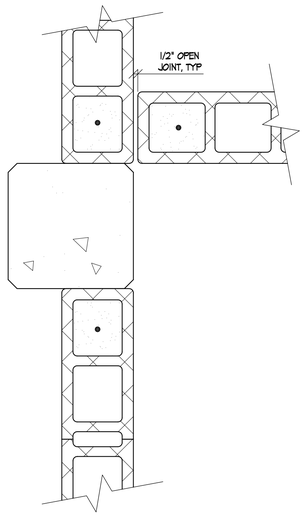
DETAIL 5 — 8" CMU PARTITION WALL
SCALE: 1" = 1'-0"
A2.0, A2.1



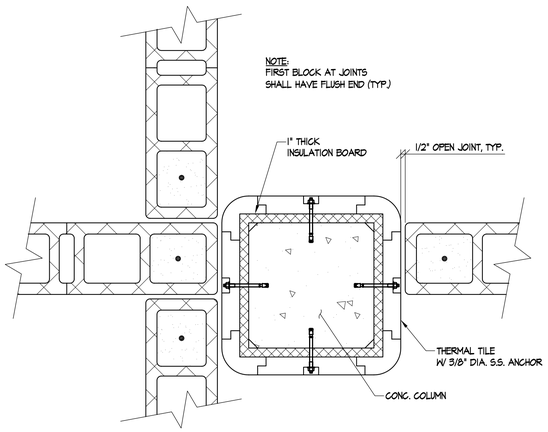
DETAIL 6 — 8" CMU PARTITION WALL W/ THERMAL LINER
SCALE: 1" = 1'-0"
A2.0, A2.1



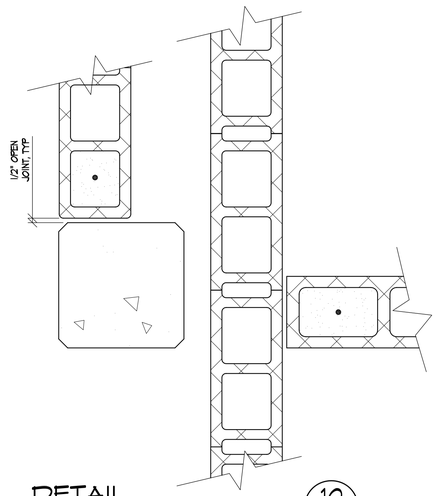
DETAIL 7 — INTERIOR PARTITION DETAIL
SCALE: 3/4" = 1'-0"
A2.0, A3.4



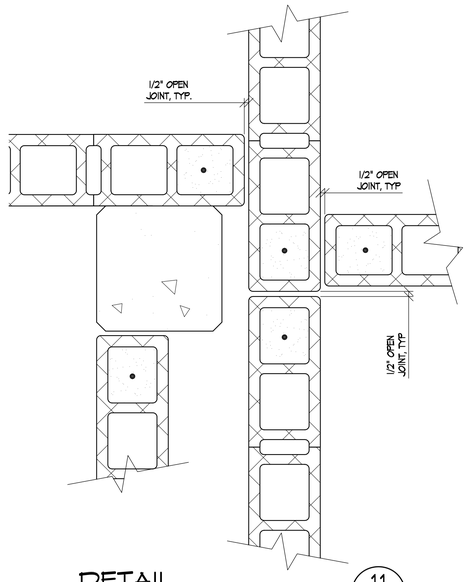
DETAIL 8
SCALE: 1 1/2" = 1'-0"
A2.0, A3.4



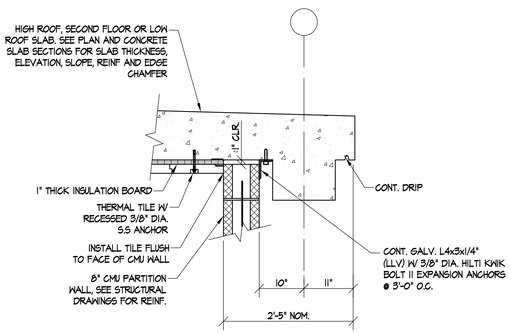
DETAIL 9
SCALE: 1 1/2" = 1'-0"
A2.0, A3.4



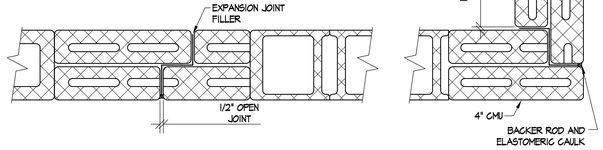
DETAIL 10
SCALE: 1 1/2" = 1'-0"
A2.1, A3.4



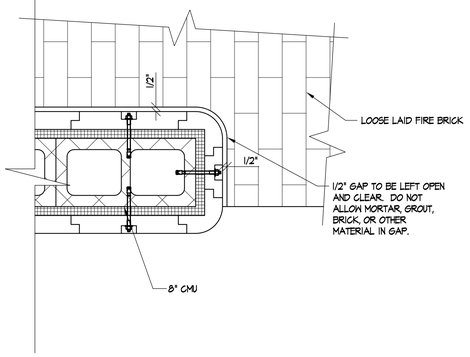
DETAIL 11
SCALE: 1 1/2" = 1'-0"
A2.0, A3.4



SECTION A
SCALE: 3/4" = 1'-0"
A2.0, A3.4



DETAIL — MASONRY OPEN JOINTS DETAIL
SCALE: NOT TO SCALE



DETAIL — BRICK AT WALL
SCALE: 1 1/2" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

WALL SECTION & DETAILS

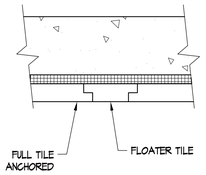
CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

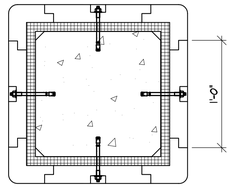
A3.4

11 of 25



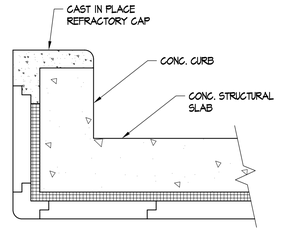
DETAIL — FLOATER

SCALE: 1 1/2" = 1'-0"



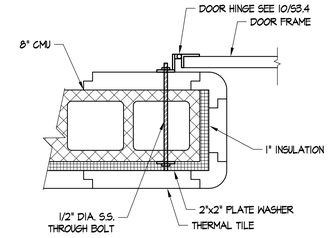
DETAIL — COLUMN PROTECTION

SCALE: 1 1/2" = 1'-0"



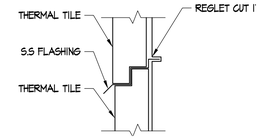
DETAIL — ROOF HATCH PROTECTION

SCALE: 1 1/2" = 1'-0"



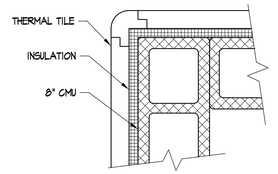
DETAIL — DOOR HINGE

SCALE: 1 1/2" = 1'-0"



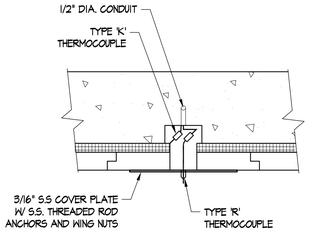
DETAIL — 12 (A3.5 | A3.5)

SCALE: 3" = 1'-0"



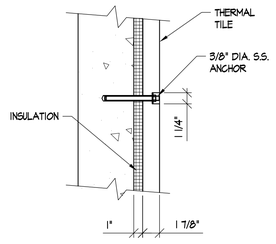
DETAIL — CORNER

SCALE: 1 1/2" = 1'-0"



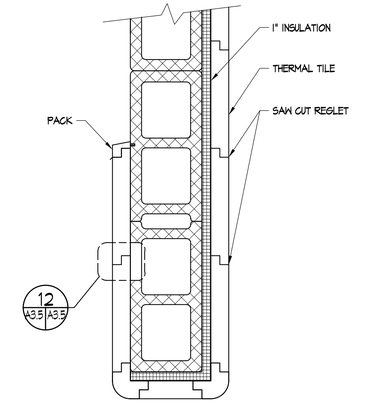
DETAIL — THERMOCOUPLE

SCALE: 1 1/2" = 1'-0"



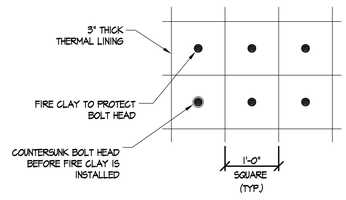
DETAIL — CONCRETE ANCHOR

SCALE: 1 1/2" = 1'-0"

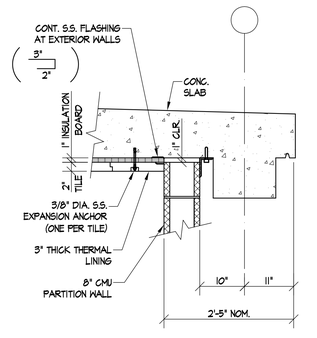


DETAIL — ROLLOVER PROTECTION

SCALE: 1 1/2" = 1'-0"

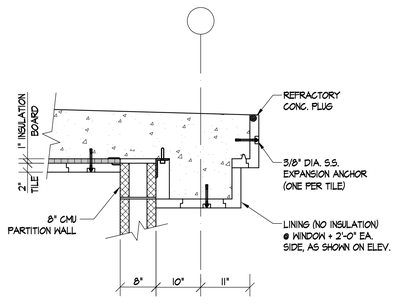


REFLECTED CEILING PLAN



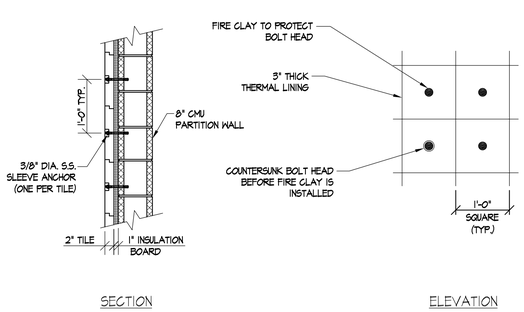
DETAIL — THERMAL LINING AT CEILING

SCALE: 3/4" = 1'-0"



DETAIL — THERMAL LINING AT SLAB EDGE ABOVE WINDOW & DOOR OPENINGS

SCALE: 3/4" = 1'-0"



SECTION ELEVATION

DETAIL — THERMAL LINING AT WALL

SCALE: N.T.S.

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

VIRGINIA DEPARTMENT OF FIRE PROGRAMS

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

THERMAL LINING DETAILS

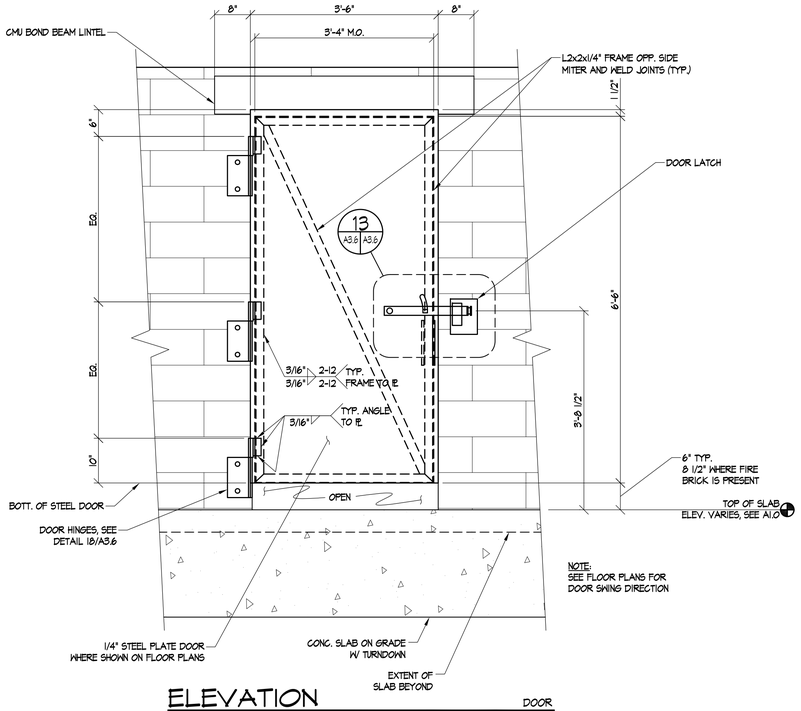
CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

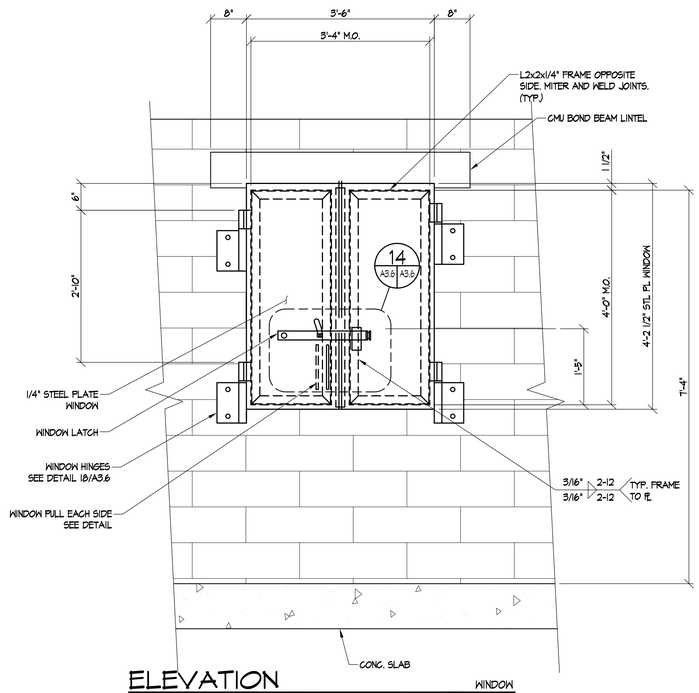
A3.5

12 of 25



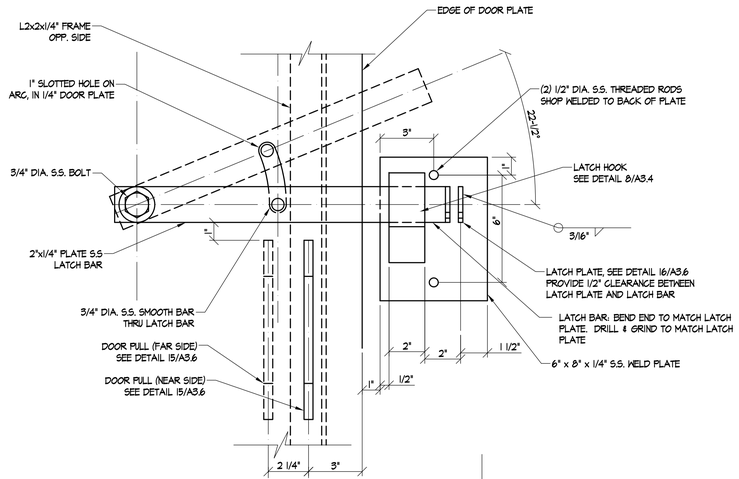
ELEVATION — DOOR

SCALE: 3/4" = 1'-0"



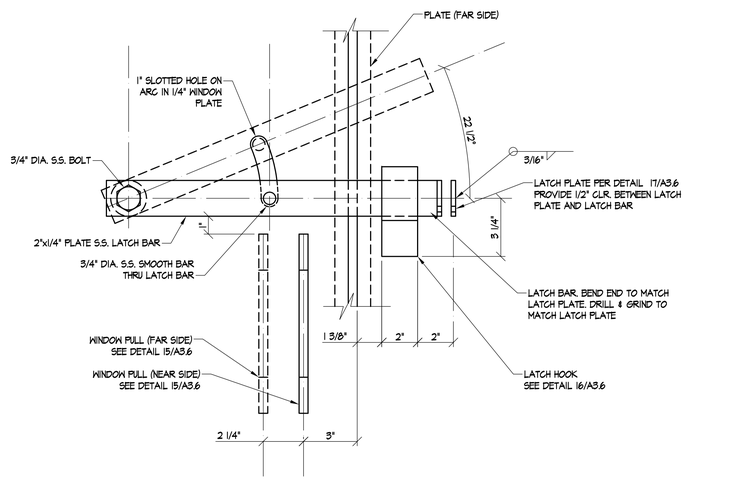
ELEVATION — WINDOW

SCALE: 3/4" = 1'-0"



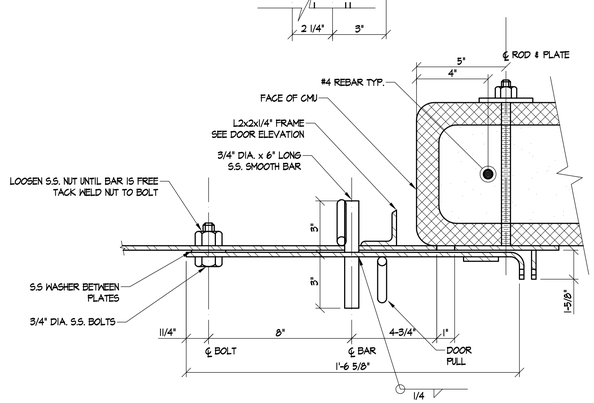
DETAIL — DOOR LATCH 13 (A3.6 A3.6)

SCALE: 3" = 1'-0"



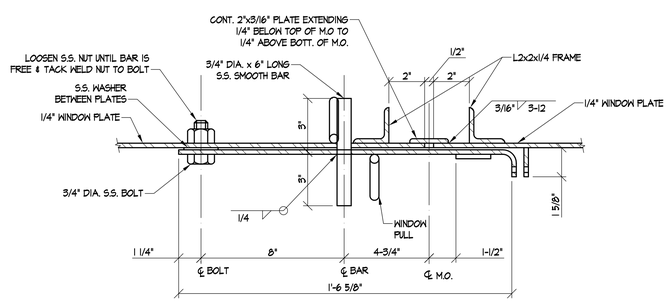
DETAIL — WINDOW LATCH 14 (A3.6 A3.6)

SCALE: 3" = 1'-0"



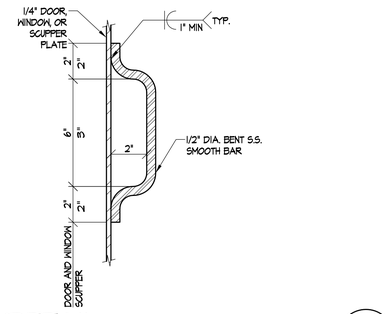
DETAIL — DOOR LATCH 13 (A3.6 A3.6)

SCALE: 3" = 1'-0"



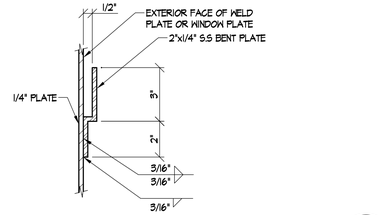
DETAIL — WINDOW LATCH 14 (A3.6 A3.6)

SCALE: 3" = 1'-0"



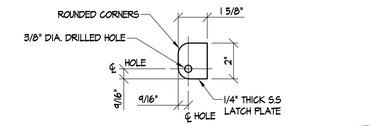
DETAIL — FULL 15 (A3.6 A3.6)

SCALE: 3" = 1'-0"



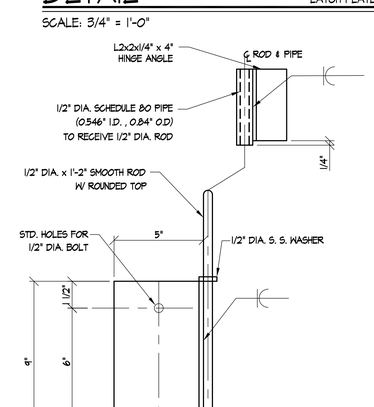
DETAIL — LATCH HOOK 16 (A3.6 A3.6)

SCALE: 3/4" = 1'-0"

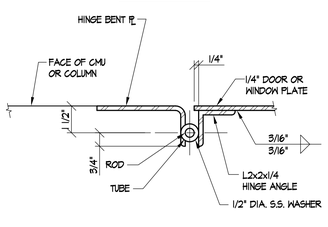


DETAIL — LATCH PLATE 17 (A3.6 A3.6)

SCALE: 3/4" = 1'-0"



ELEVATION



DETAIL — DOOR AND WINDOW HINGE 18 (A3.6 A3.6)

SCALE: 3" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

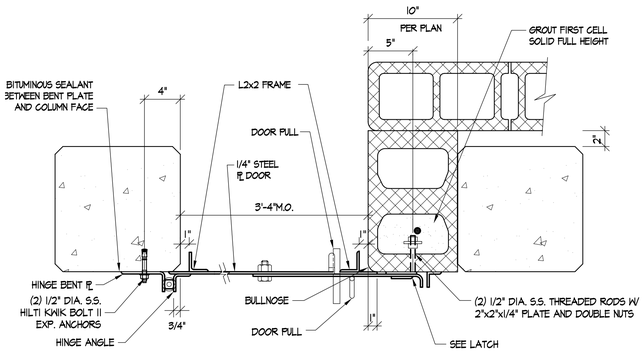
DOOR & WINDOW ELEVATIONS & DETAILS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

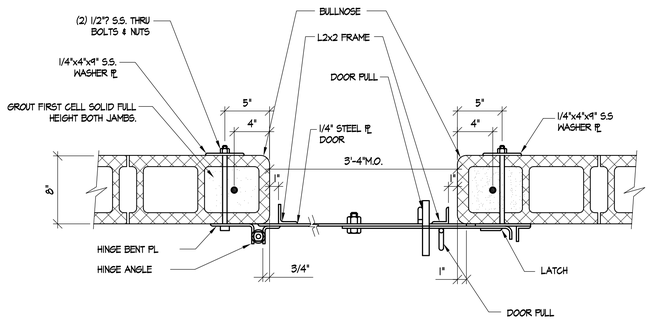
Sheet No.

A3.6



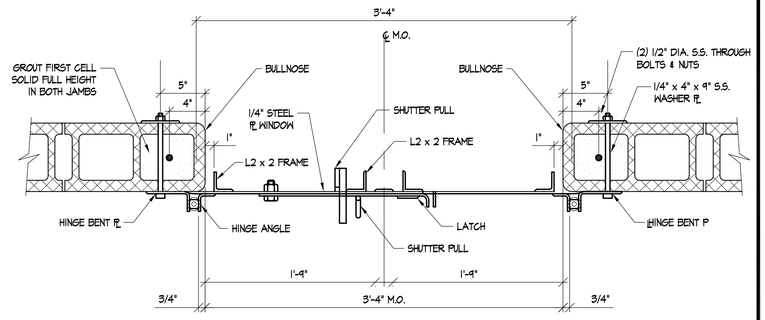
DETAIL — DOOR JAMB — 19 (A2.0 | A3.7)

SCALE: 1 1/2" = 1'-0"



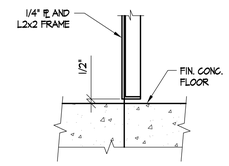
DETAIL — TYPICAL DOOR JAMB — 20 (A3.7 | A3.7)

SCALE: 1 1/2" = 1'-0"



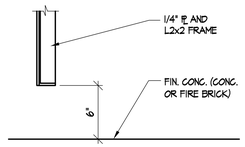
DETAIL — TYPICAL WINDOW JAMB — 21 (A3.7 | A3.7)

SCALE: 1 1/2" = 1'-0"



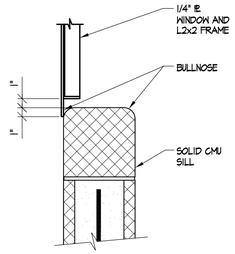
DETAIL — DOOR SILL — @ ROOM 105

SCALE: 1/2" = 1'-0"



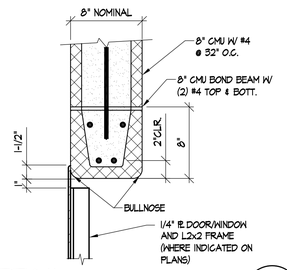
DETAIL — TYPICAL DOOR SILL

SCALE: 1/2" = 1'-0"



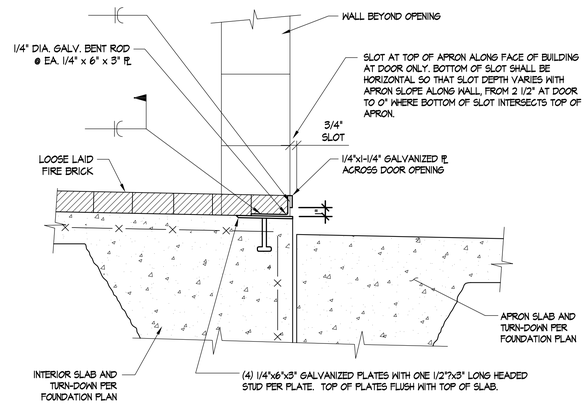
DETAIL — TYPICAL WINDOW SILL — 22 (A3.7 | A3.7)

SCALE: 1 1/2" = 1'-0"



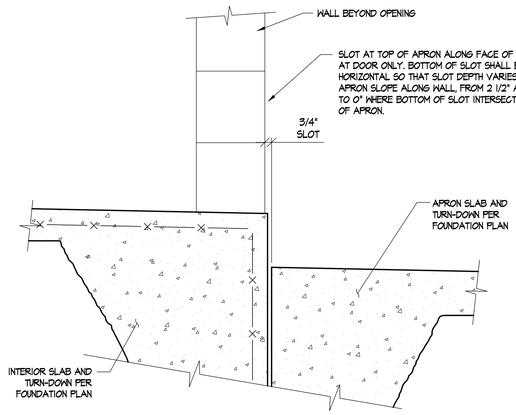
DETAIL — DOOR OR WINDOW HEAD — 23 (A3.7 | A3.7)

SCALE: 1 1/2" = 1'-0"



DETAIL — EXTERIOR DOOR THRESHOLD W/ FIREBRICK — 24 (A3.7 | A3.7)

SCALE: 1 1/2" = 1'-0"



DETAIL — EXTERIOR DOOR THRESHOLD W/O FIREBRICK — 25 (A3.7 | A3.7)

SCALE: 1 1/2" = 1'-0"

WINDOW SCHEDULE

WINDOW NO.	OPENING # OF WINDOW	MASONRY OPENING SIZE WIDTH	MASONRY OPENING SIZE HEIGHT	JAMB	SILL	HEAD	REMARKS
101-1	1	3'-4"	4'-0"	21/A3.7	22/A3.7	23/A3.7	
104-1	1	3'-4"	4'-0"	21/A3.7	22/A3.7	23/A3.7	
104-2	1	3'-4"	4'-0"	21/A3.7	22/A3.7	23/A3.7	
201-1	1	3'-4"	4'-0"	21/A3.7	22/A3.7	23/A3.7	
204-1	1	3'-4"	4'-0"	21/A3.7	22/A3.7	23/A3.7	

DOOR SCHEDULE

DOOR NO.	OPENING # OF DOORS	MASONRY OPENING SIZE WIDTH	MASONRY OPENING SIZE HEIGHT	JAMB	SILL	HEAD	REMARKS
100-1	1	3'-4"	6'-8"	19/A3.7	25/A3.7	23/A3.7	
102-1	1	3'-4"	7'-0"	20/A3.7	24/A3.7	23/A3.7	
103-1	1	3'-4"	7'-0"	20/A3.7	25/A3.7	23/A3.7	
105-1	1	3'-4"	7'-0"	20/A3.7	25/A3.7	23/A3.7	
203-1	1	3'-4"	7'-0"	20/A3.7	25/A3.7	23/A3.7	
203-2	1	3'-4"	7'-0"	20/A3.7	25/A3.7	23/A3.7	
203-3	1	3'-4"	7'-0"	20/A3.7	25/A3.7	23/A3.7	
204-1	1	3'-4"	7'-0"	20/A3.7	25/A3.7	23/A3.7	

NOTE: INTERIOR OPENINGS WITHOUT DOOR SHALL HAVE MASONRY OPENING HEIGHT OF 7'-0" A.F.F

ROOM FINISH SCHEDULE

ROOM NAME/NUMBER	FLOOR FINISH	WALL FINISH	CEILING FINISH	NOTES
101	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
102	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
103	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
104 (BURN ROOM)	LOOSE-LAID FIRE BRICK ON STEEL TROWELED CONCRETE SLAB	THERMAL LINING & CMU	THERMAL LINING	SEE SPECS FOR MEMBRANE ON TOP OF SLAB, BELOW FIRE BRICK
MONITORING EQUIPMENT ROOM	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
201	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
202	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
203	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
204 (BURN ROOM)	LOOSE-LAID FIRE BRICK ON STEEL TROWELED CONCRETE SLAB	THERMAL LINING & CMU	THERMAL LINING	SEE SPECS FOR MEMBRANE ON TOP OF SLAB, BELOW FIRE BRICK
INTERIOR STAIRS AND LANDINGS	CONCRETE W/ BROOM FINISH	CMU	CONCRETE	
EXTERIOR CONCRETE STAIRS AND LANDINGS	CONCRETE W/ BROOM FINISH	N/A	N/A	
EXTERIOR STEEL STAIRS AND LANDINGS	GALVANIZED STEEL SAFETY GRATING	N/A	N/A	
EXTERIOR APRON AROUND BUILDING	CONCRETE W/ PAVEMENT FINISH	N/A	N/A	
HIGH AND LOW ROOFS	CONCRETE W/ BROOM FINISH	N/A	N/A	

FINISH SCHEDULE NOTES:
1. ALL EXPOSED CONCRETE AND CMU SURFACES ARE UNPAINTED.
2. SEE SHEET A3.5 AND SPECIFICATION FOR THERMAL LINING.
3. WHERE WALL FINISH IS "THERMAL LINING AND CMU", SEE FLOOR PLANS FOR WALL LOCATION OF THERMAL LINING.

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

HEAD, SILL & JAMB DETAILS & WINDOW, DOOR, & FINISH SCHEDULES

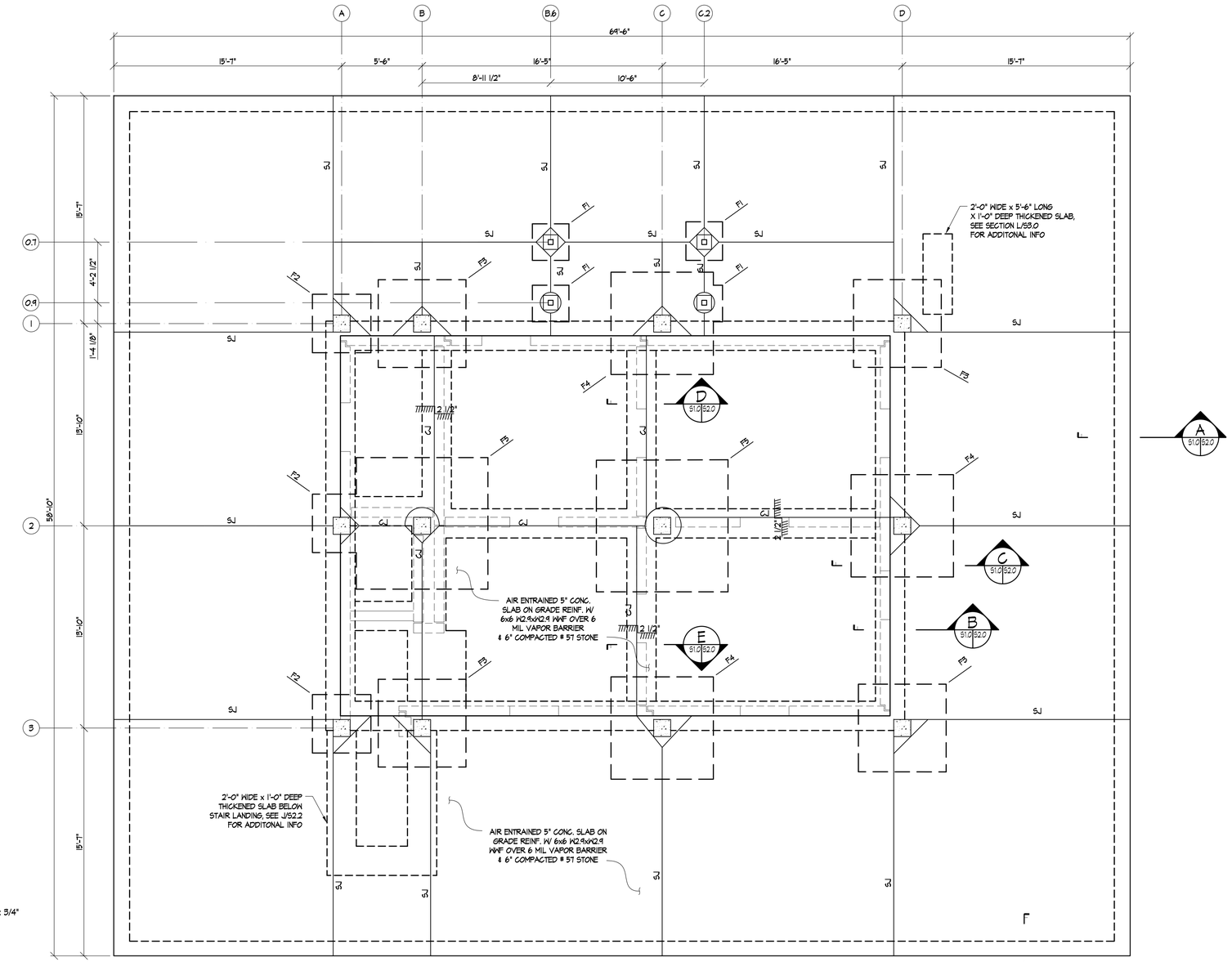
CITY/COUNTY VIRGINIA

Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

A3.7

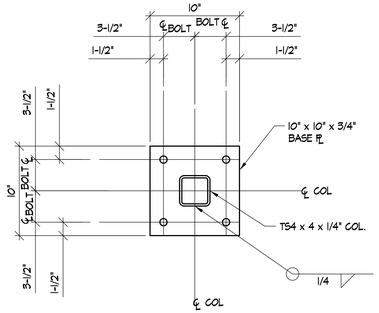


FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

NOTES:

1. CAST SCUPPERS AND DOORWAY WELD PLATES INTO SLAB PER FLOOR PLAN AND DETAILS.
2. SEE SECTIONS & DETAILS FOR INFORMATION ON THICKENED SLABS AND TURN DOWNS.
3. SEE SHEET A1.0 FOR SLAB ELEVATIONS.

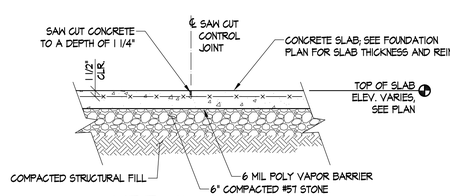


DETAIL — BASE PLATE

SCALE: 1 1/2" = 1'-0"

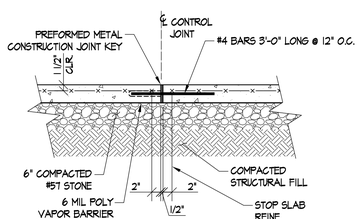
COLUMN FOOTING SCHEDULE

MARK	SIZE	DEPTH	BOTTOM REINFORCING	PEDESTAL			REMARKS
				SIZE	DOWEL	TIES	
F1	2'-6" x 2'-6"	1'-0"	(3) #5 E.W.	12" x 12"	(4) #6	#3 @ 6" O.C.	---
F2	4'-0" x 4'-0"	1'-0"	(5) #5 E.W.	---	---	---	---
F3	6'-0" x 6'-0"	1'-0"	(6) #5 E.W.	---	---	---	---
F4	7'-0" x 7'-0"	1'-2"	(7) #5 E.W.	---	---	---	---
F5	9'-0" x 9'-0"	1'-6"	(12) #5 E.W.	---	---	---	---



DETAIL — TYP. SAW CUT JOINT

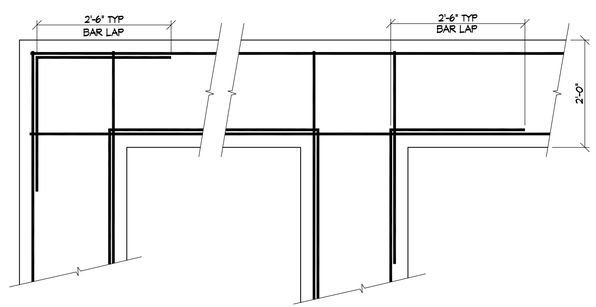
SCALE: 3/4" = 1'-0"



DETAIL — TYP. CONTROL JOINT

SCALE: 3/4" = 1'-0"

A
S1.0 S2.0



DETAIL — TYP. REINF. FOR FOOTING CORNER

SCALE: 3/4" = 1'-0"

PRIME PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

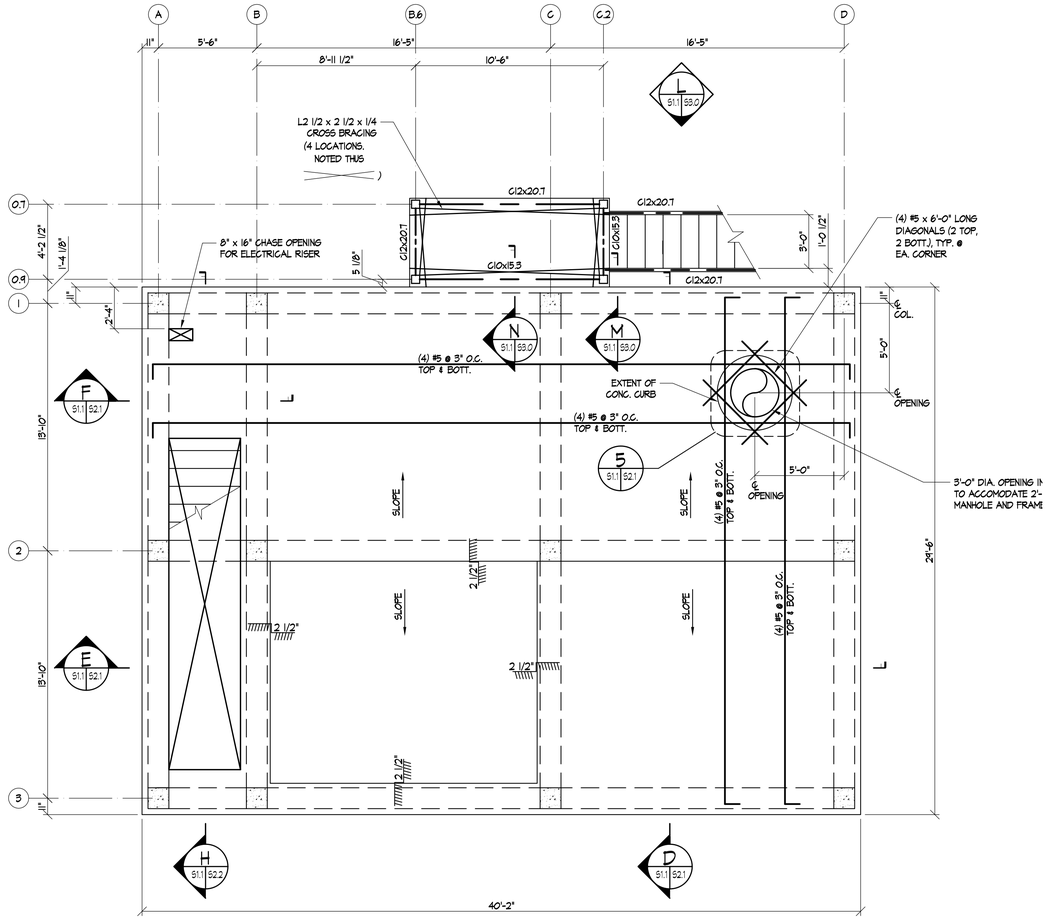
FOUNDATION PLAN, SECTIONS, & DETAILS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

S1.0

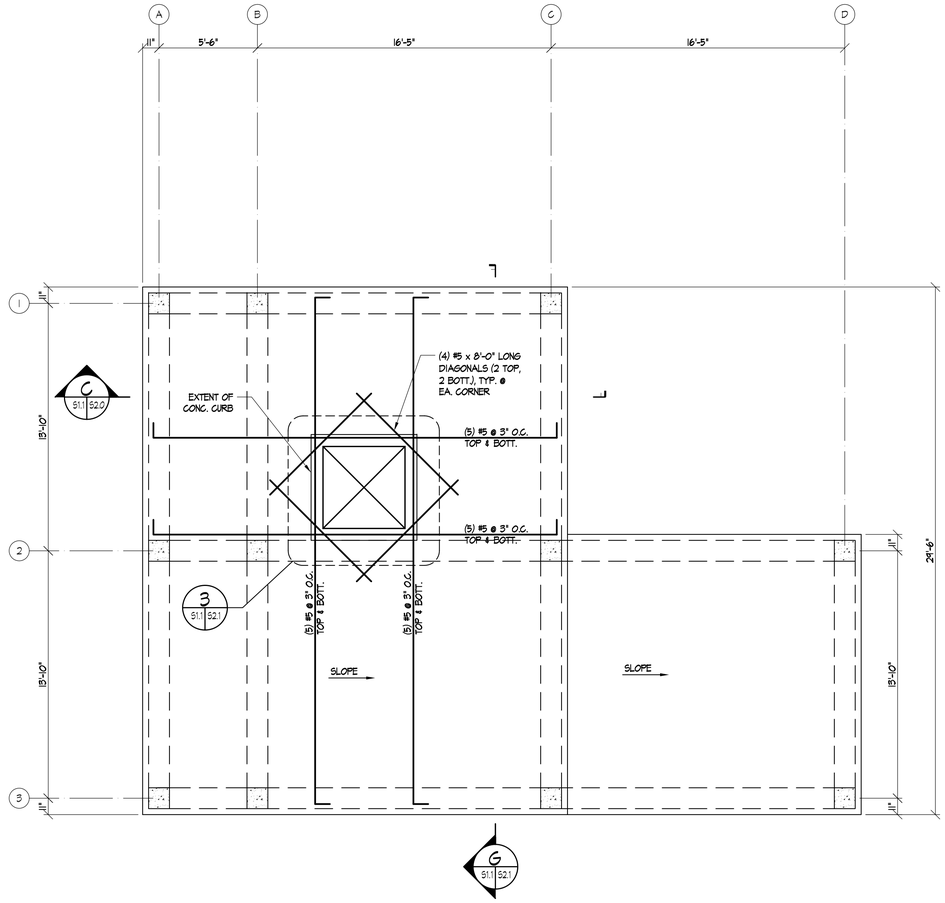


SECOND FLOOR/LOW ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

NOTES:

1. SLAB THICKNESS SHALL BE 9" THICK MINIMM WHERE FIREBRICK IS PRESENT & 11 1/2" THICK MINIMUM WHERE NO FIREBRICK IS TO BE INSTALLED. SLOPE TOP SURFACES ONLY.
2. SLAB REINFORCING SHALL BE #5 AT 10" O.C. CONTINUOS BOTH WAYS TOP AND BOTTOM. INCLUDING INTERIOR STAIR LANDING.
3. OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION IN PLAN: ←——→
4. SEE PLAN FOR ADDITIONAL REINFORCING.
5. SEE SHEET A1.0 FOR CONCRETE SLAB ELEVATIONS, STEPS, AND SLOPE.
6. HOOK ENDS OF ALL TOP AND BOTT. BARS THAT END AT EDGE OF SLAB OR OPENINGS.
7. CAST SCUPPERS AND DOORWAY WELD PLATES INTO SLAB PER FLOOR PLAN DWG 1, SHEET A2.1 AND DETAILS.
8. TOP SURFACE OF EXTERIOR FLAT ROOF SHALL BE SEALED WITH A CEMENTITIOUS COATING SUCH AS SIKATOP SEAL 107.



HIGH ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

NOTES:

1. SLAB THICKNESS SHALL BE 9" SLOPE TOP & BOTTOM SURFACES TO MAINTAIN THICKNESS.
2. SLAB REINFORCING SHALL BE #5 AT 10" O.C. CONTINUOS BOTH WAYS TOP AND BOTT.
3. OUTERMOST REINFORCING LAYERS SHALL BE IN THIS DIRECTION IN PLAN: ←——→
4. SEE PLAN FOR ADDITIONAL REINFORCING.
5. SEE SHEET A2.1 FOR CONCRETE SLAB ELEVATIONS, STEPS, AND SLOPE.
6. HOOK ENDS OF ALL TOP AND BOTTOM BARS THAT END AT EDGES OF SLAB OR OPENINGS.
7. TOP SURFACE OF EXTERIOR FLAT ROOF SHALL BE SEALED WITH A CEMENTITIOUS COATING SUCH AS SIKATOP SEAL 107.

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

SECOND FLOOR/LOW ROOF & HIGH ROOF FRAMING PLANS

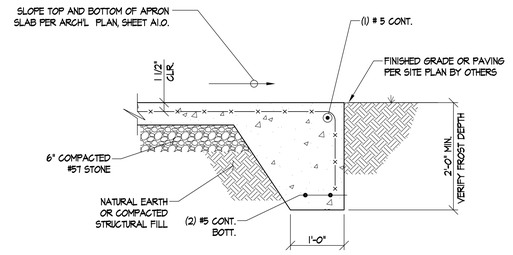
CITY/COUNTY VIRGINIA

Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

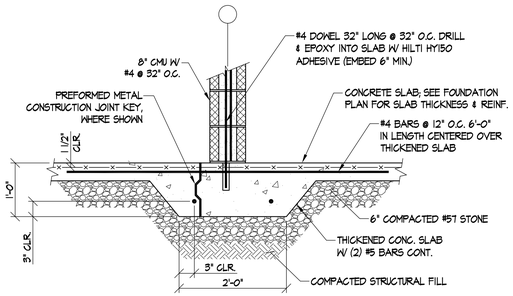
PROFESSIONAL SEAL

Sheet No.

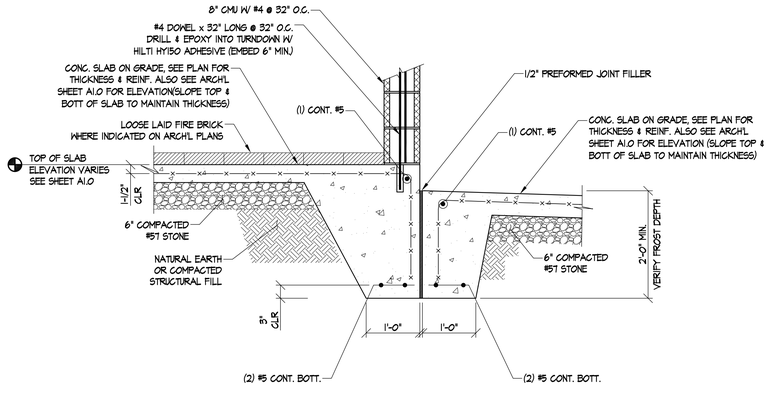
S1.1



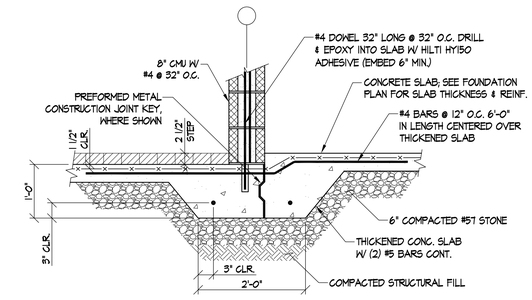
SECTION A
EXTERIOR APRON
SCALE: 3/4" = 1'-0"
S1.0 S2.0



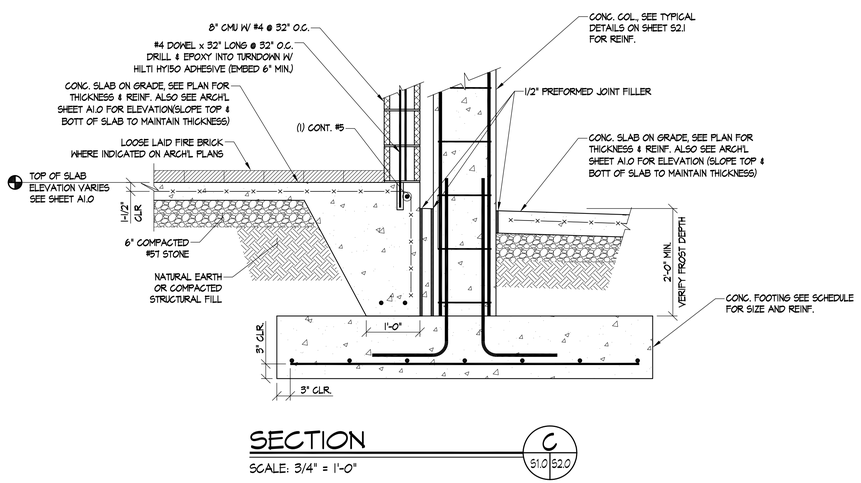
SECTION D
SCALE: 3/4" = 1'-0"
S1.0 S2.0



SECTION B
SCALE: 3/4" = 1'-0"
S1.0 S2.0



SECTION E
SCALE: 3/4" = 1'-0"
S1.0 S2.0



SECTION C
SCALE: 3/4" = 1'-0"
S1.0 S2.0

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

VIRGINIA DEPARTMENT OF FIRE PROGRAMS

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

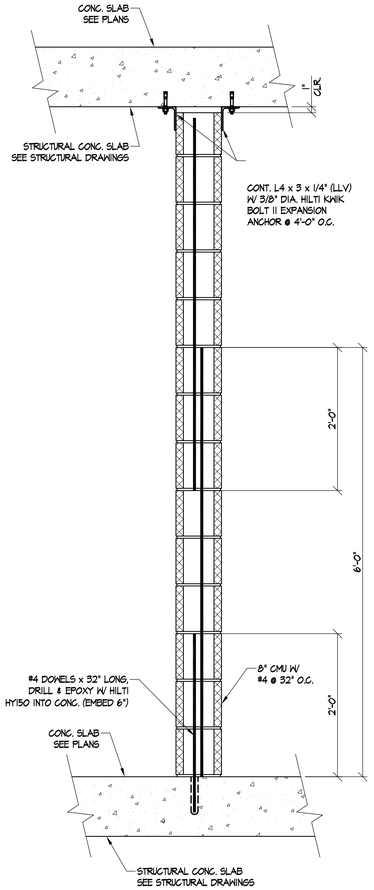
FOUNDATION SECTIONS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

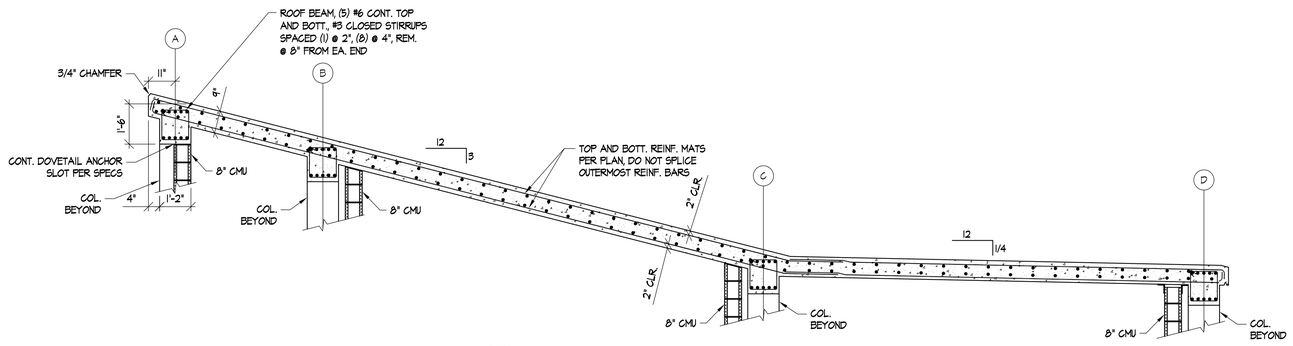
Sheet No.

S2.0



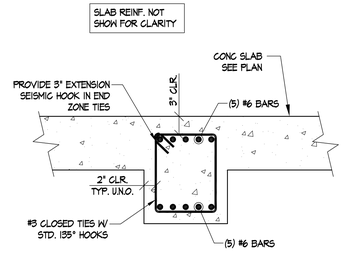
DETAIL — TYP. 8" CMU WALL

SCALE: 1" = 1'-0"



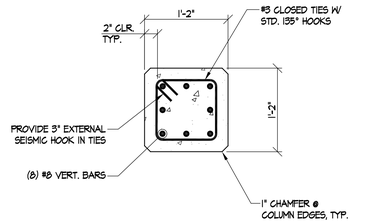
SECTION — HIGH ROOF — F (S1.1 | S2.1)

SCALE: 3/8" = 1'-0"



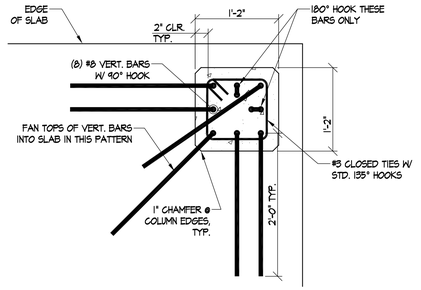
DETAIL — TYP. BEAM REINF. — 2 (S2.1 | S2.1)

SCALE: 1" = 1'-0"



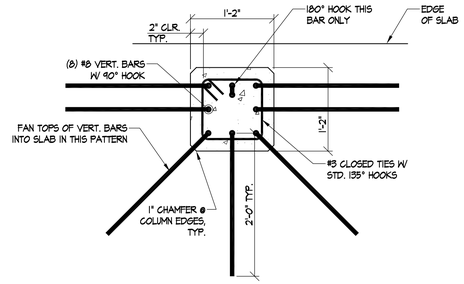
DETAIL — TYP. COLUMN REINFORCING — 1 (S2.1 | S2.1)

SCALE: 1" = 1'-0"



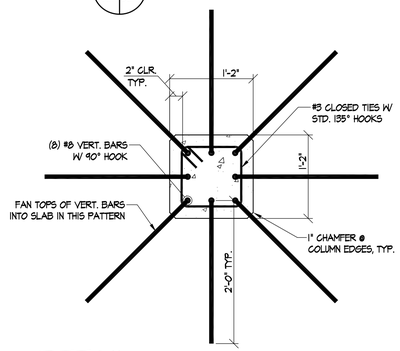
DETAIL — TYP. COLUMN REINFORCING — CORNER COLUMN

SCALE: 1" = 1'-0"



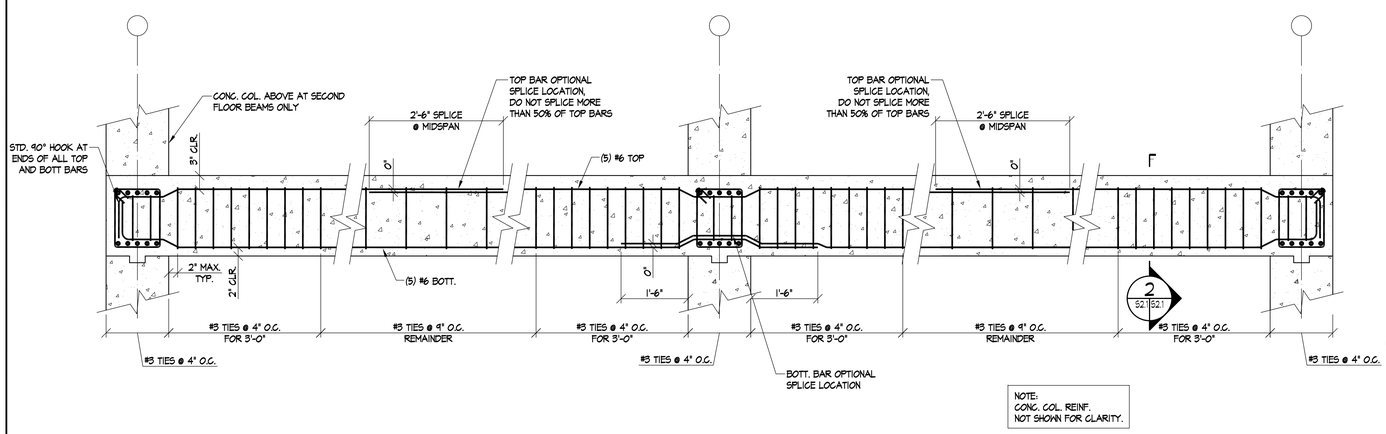
DETAIL — TYP. COLUMN REINFORCING — EDGE COLUMN

SCALE: 1" = 1'-0"



DETAIL — TYP. COLUMN REINFORCING — INTERIOR COLUMN

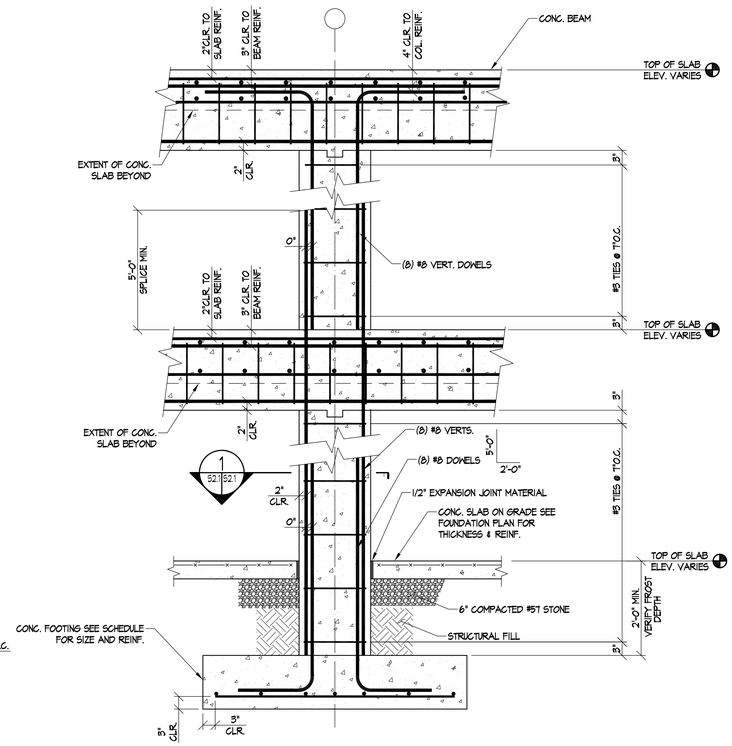
SCALE: 1" = 1'-0"



NOTE:
CONC. COL. REINF. NOT SHOWN FOR CLARITY.

DETAIL — TYPICAL BEAM BAR PLACING DIAGRAM

SCALE: 3/4" = 1'-0"



DETAIL — TYPICAL COLUMN REINFORCING

SCALE: 3/4" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

CONCRETE COLUMN & BEAM SECTIONS & TYPICAL DETAILS

CITY/COUNTY VIRGINIA

Drawn By: SJS | Approved By: MAM

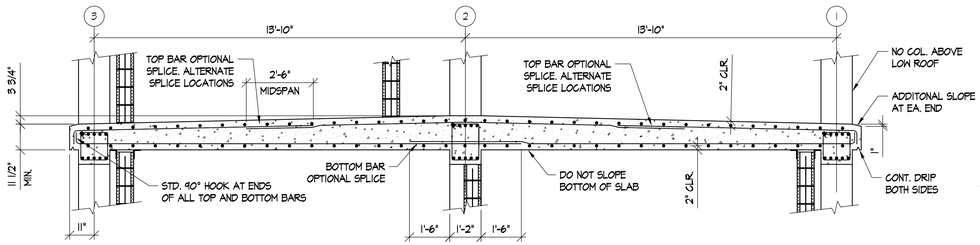
Checked By: SMF | Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

S2.1

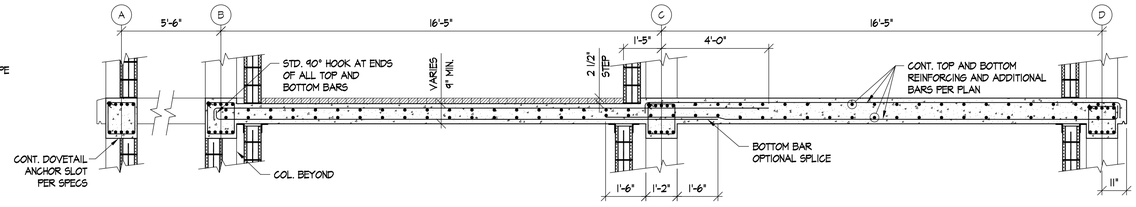
18 of 25



SECTION — SECOND FLOOR SLAB — D

SCALE: 3/8" = 1'-0"

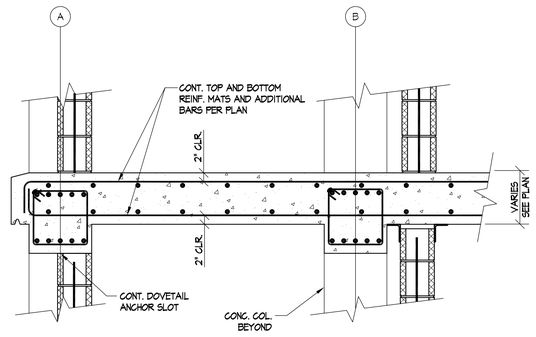
S1.1 | S2.2



SECTION — SECOND FLOOR SLAB — E

SCALE: 3/8" = 1'-0"

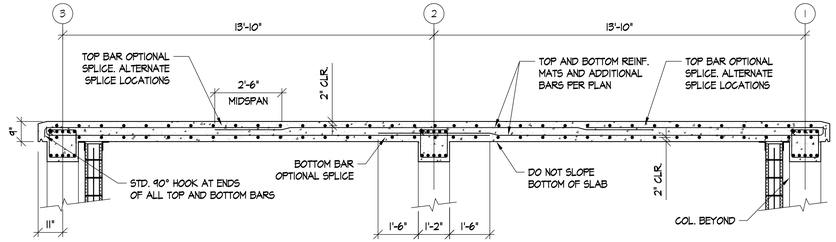
S1.1 | S2.2



SECTION — SECOND FLOOR STAIR LANDING — F

SCALE: 3/4" = 1'-0"

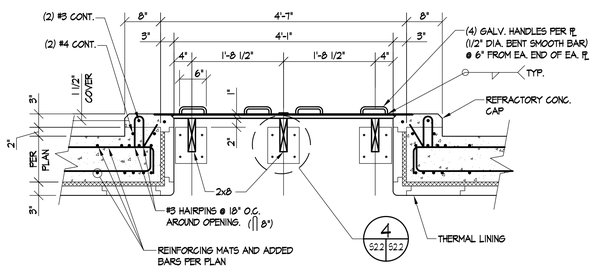
S1.1 | S2.2



SECTION — ROOF SLAB — G

SCALE: 3/8" = 1'-0"

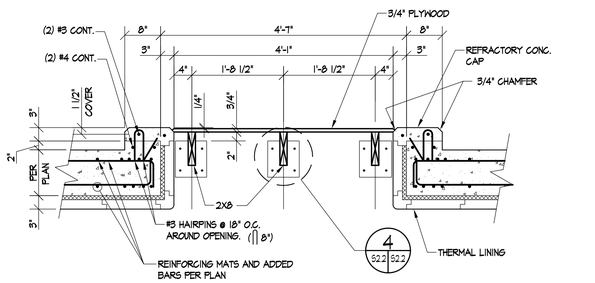
S1.1 | S2.2



DETAIL — CHOP OUT OPENNING — 3

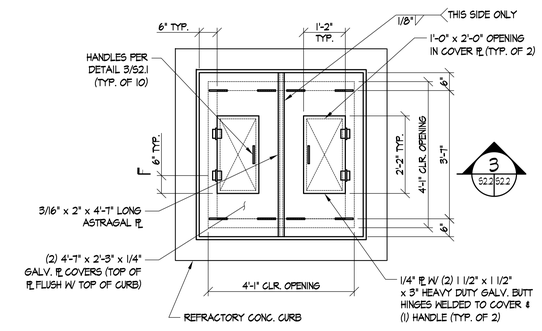
SCALE: 3/4" = 1'-0"

S1.1,S2.2



DETAIL — CHOP OUT OPENING COVER

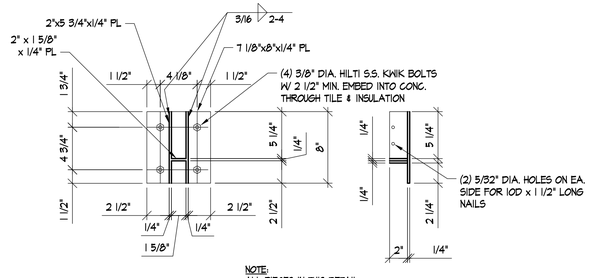
SCALE: 1/2" = 1'-0"



DETAIL — 2x8 HANGER — 4

SCALE: 1 1/2" = 1'-0"

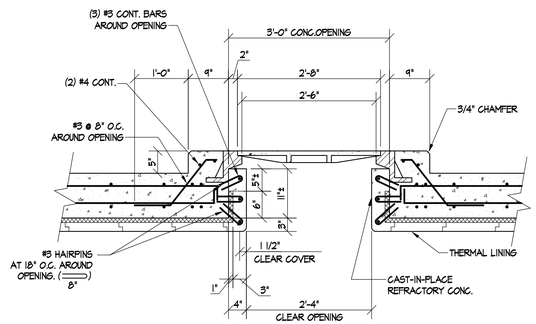
S2.2 | S2.2



NOTE:
ALL PIECES IN THIS DETAIL SHALL BE S.S.

DETAIL — CHOP OUT OPENING COVER

SCALE: 1/2" = 1'-0"



NOTE: MANHOLE COVER SHALL BE NEENAH TYPE R-1140-B WITH TYPE B LID, TYPE C DROP HANDLE, & TYPE E COUNTERSUNK BOLTS WITH HEX NUT, OR AN APPROVED EQUIVALENT MANHOLE COVER.

DETAIL — MANHOLE — 5

SCALE: 3/4" = 1'-0"

S1.1 | S2.2

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

CONCRETE SLAB SECTIONS, MANHOLE & CHOPOUT SECTIONS & DETAILS

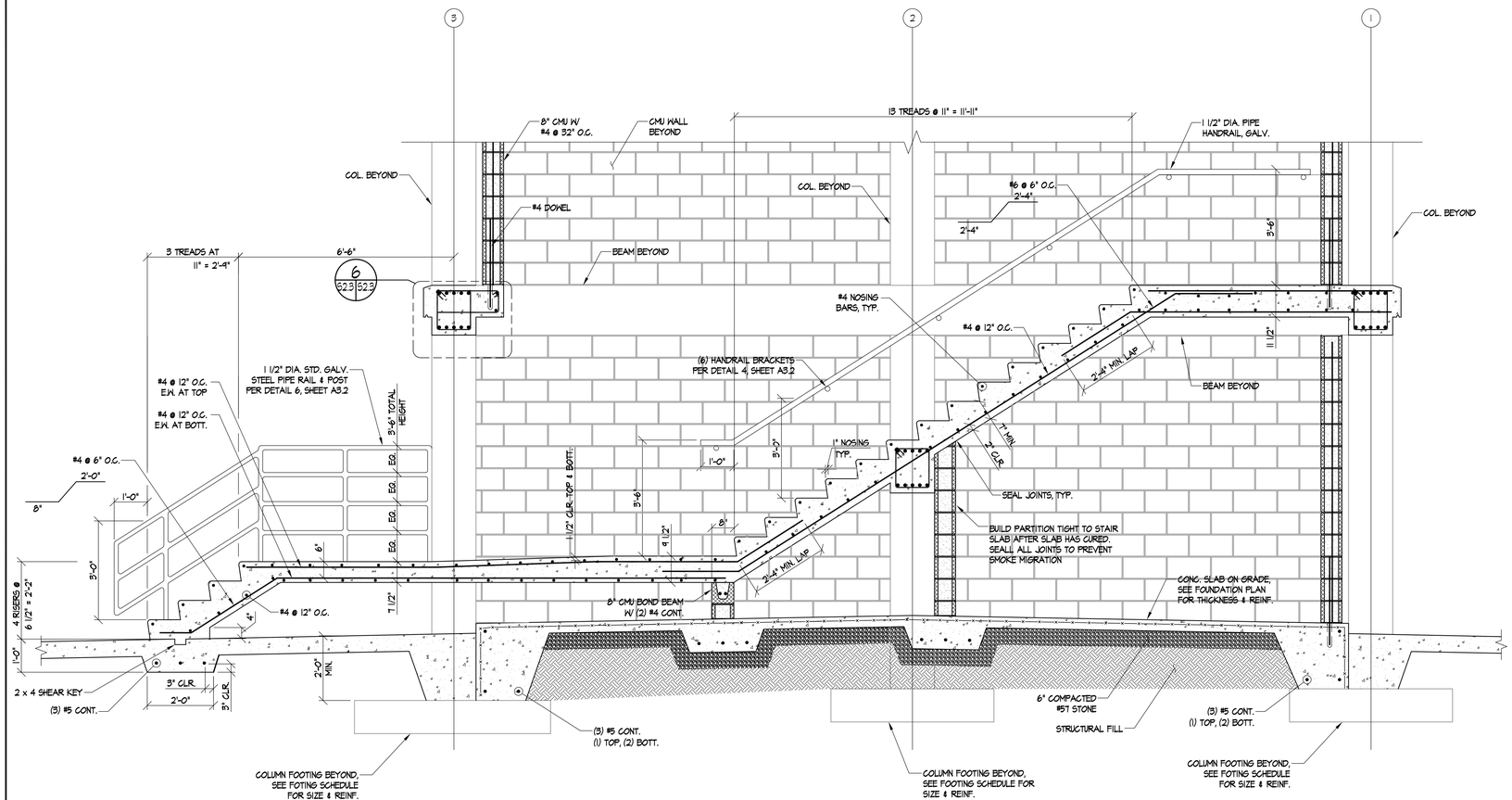
CITY/COUNTY VIRGINIA

Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

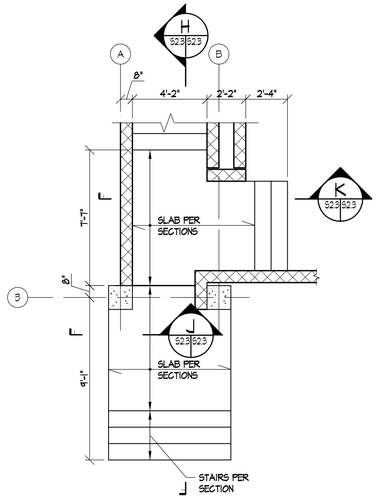
Sheet No.

S2.2



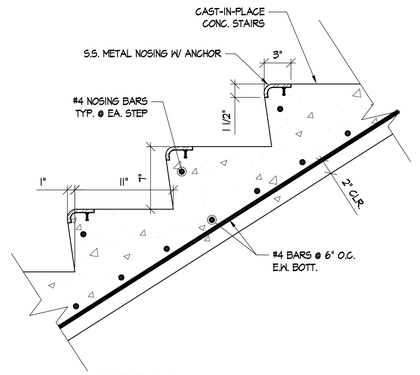
SECTION H

SCALE: 1/2" = 1'-0"



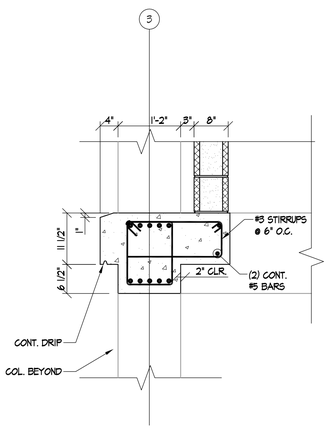
PARTIAL FRAMING PLAN LOWER STAIR LANDING

SCALE: 1/4" = 1'-0"



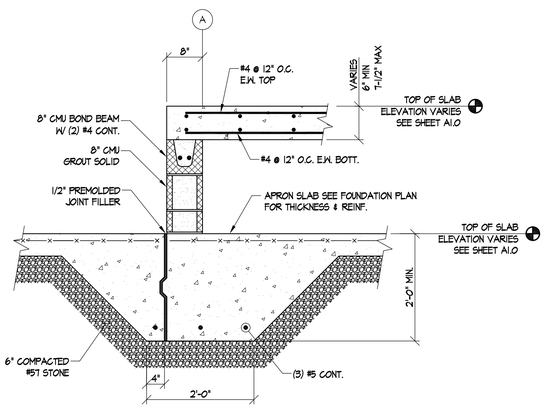
DETAIL STAIR NOSING

SCALE: 1 1/2" = 1'-0"



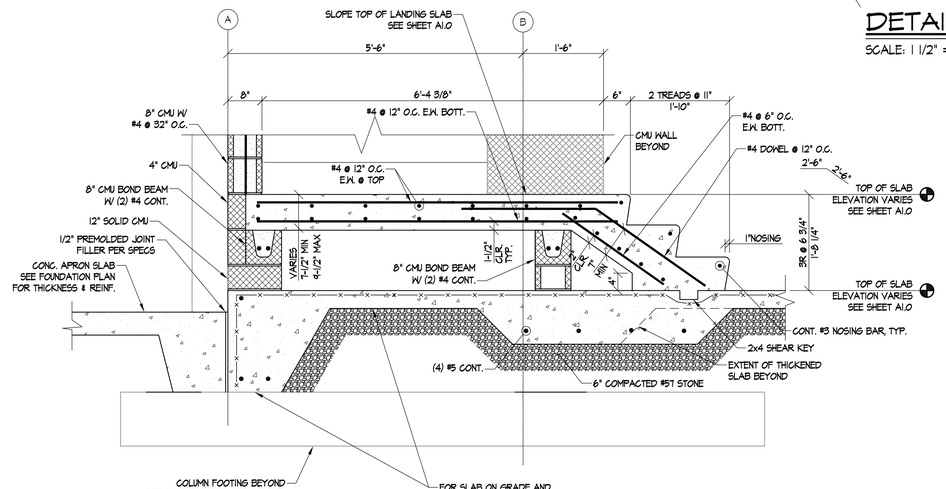
DETAIL BEAM 6

SCALE: 3/4" = 1'-0"



SECTION LOW STAIR LANDING J

SCALE: 3/4" = 1'-0"



SECTION LOW STAIR LANDING K

SCALE: 3/4" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

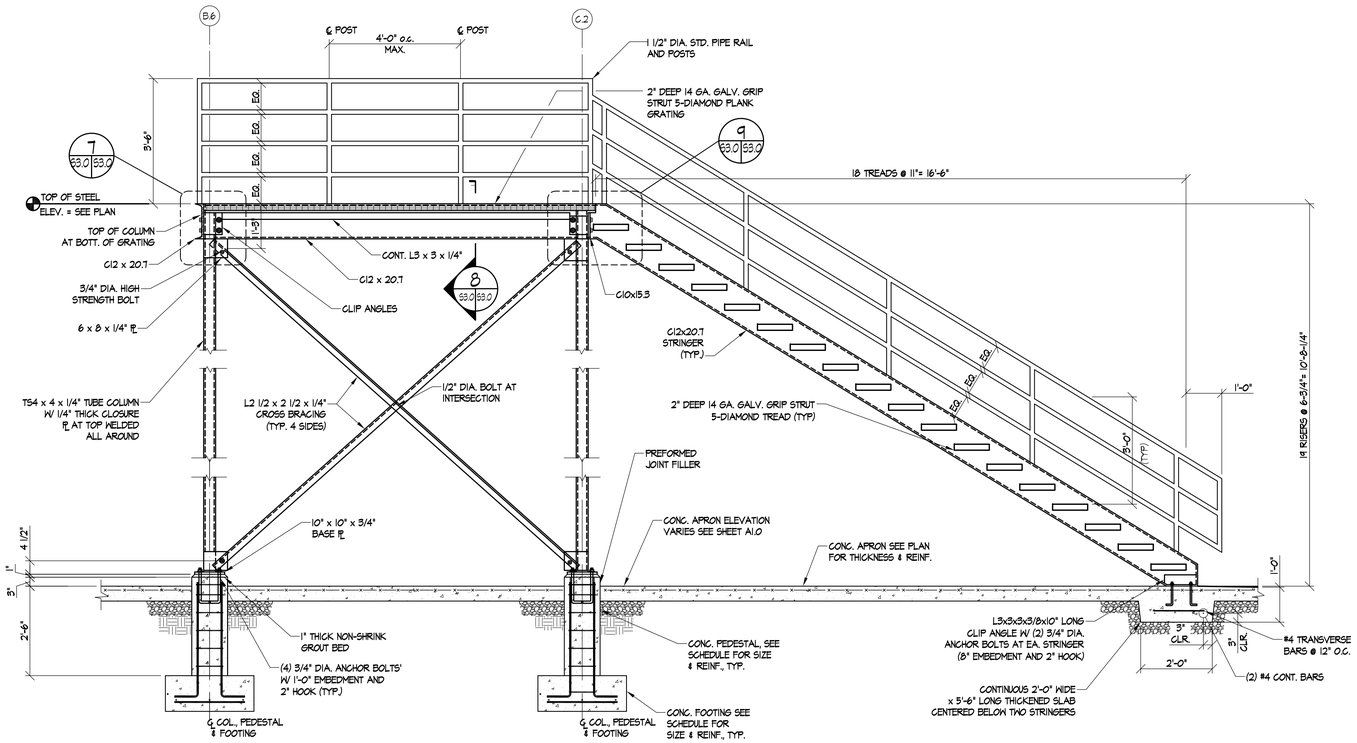
CONCRETE STAIR PLAN, SECTIONS & DETAILS

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

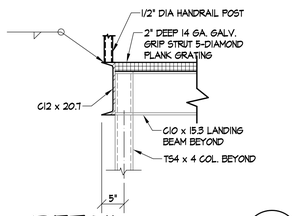
S2.3



NOTE:
ALL STEEL AND GRATING IN THIS SECTION SHALL BE GALVANIZED UNO

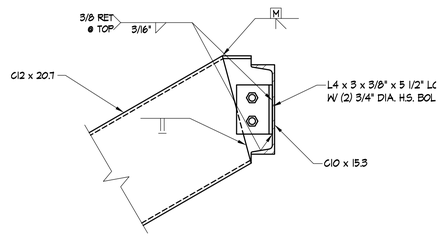
ELEVATION EXTERIOR STAIRS — L (S1.1 | 53.0)

SCALE: 1/2" = 1'-0"



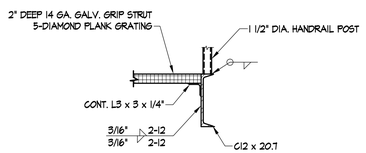
DETAIL — 7 (53.0 | 53.0)

SCALE: 3/4" = 1'-0"



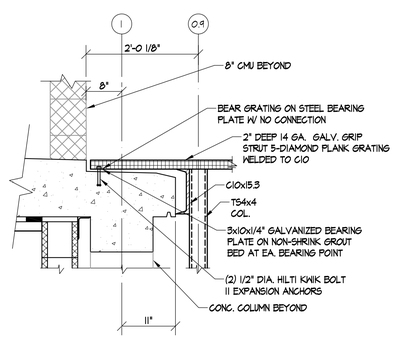
DETAIL — STAIR STRINGER SPLICE & CONNECTION

SCALE: 1 1/2" = 1'-0"



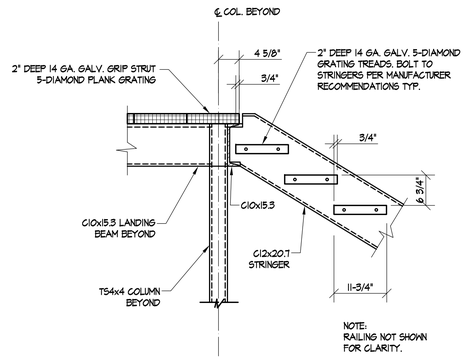
DETAIL — 8 (53.0 | 53.0)

SCALE: 3/4" = 1'-0"



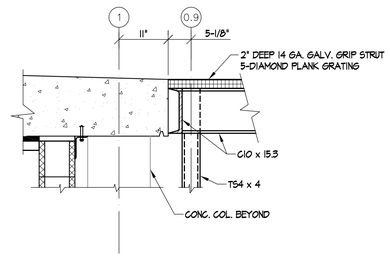
SECTION GRATING PLANK CONNECTION — N (S1.1 | 53.0)

SCALE: 3/4" = 1'-0"



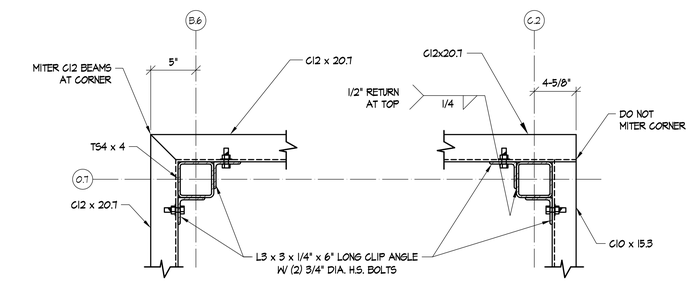
DETAIL — 9 (53.0 | 53.0)

SCALE: 3/4" = 1'-0"



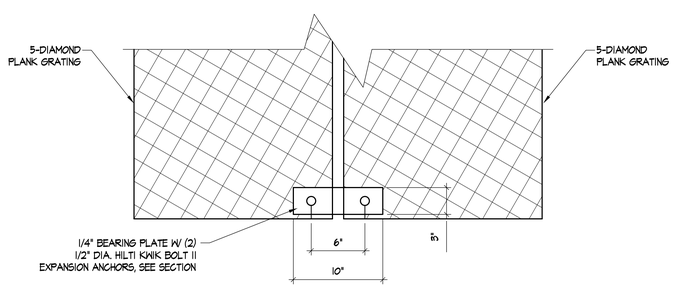
SECTION — M (S1.1 | 53.0)

SCALE: 3/4" = 1'-0"



DETAIL LANDING BEAMS TO COLUMNS

SCALE: 1 1/2" = 1'-0"



DETAIL GRATING PLANK CONNECTION

SCALE: 1 1/2" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

EXTERIOR STEEL STAIR ELEVATION, SECTIONS & DETAILS

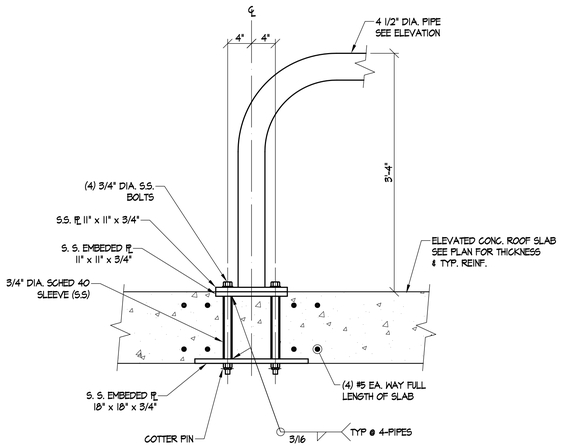
CITY/COUNTY VIRGINIA

Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

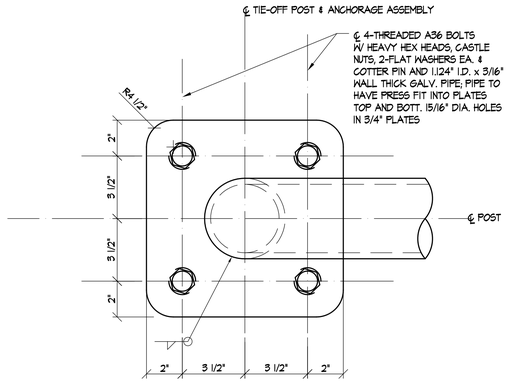
Sheet No.

S3.0



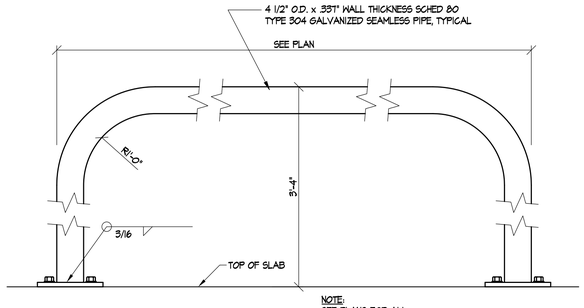
DETAIL
RAPELLING TIE-OFF BAR ALTERNATE

SCALE: 1" = 1'-0"



DETAIL
RAPELLING TIE-OFF BAR ALTERNATE

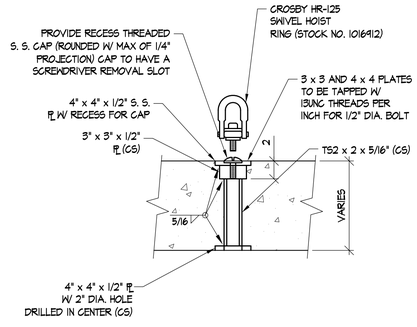
SCALE: 3" = 1'-0"



NOTE:
SEE PLANS FOR ALL LAYOUT DIMENSIONS

ELEVATION
RAPELLING TIE-OFF BAR ALTERNATE

SCALE: 1" = 1'-0"



DETAIL
RAPPEL RING

SCALE: 1 1/2" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

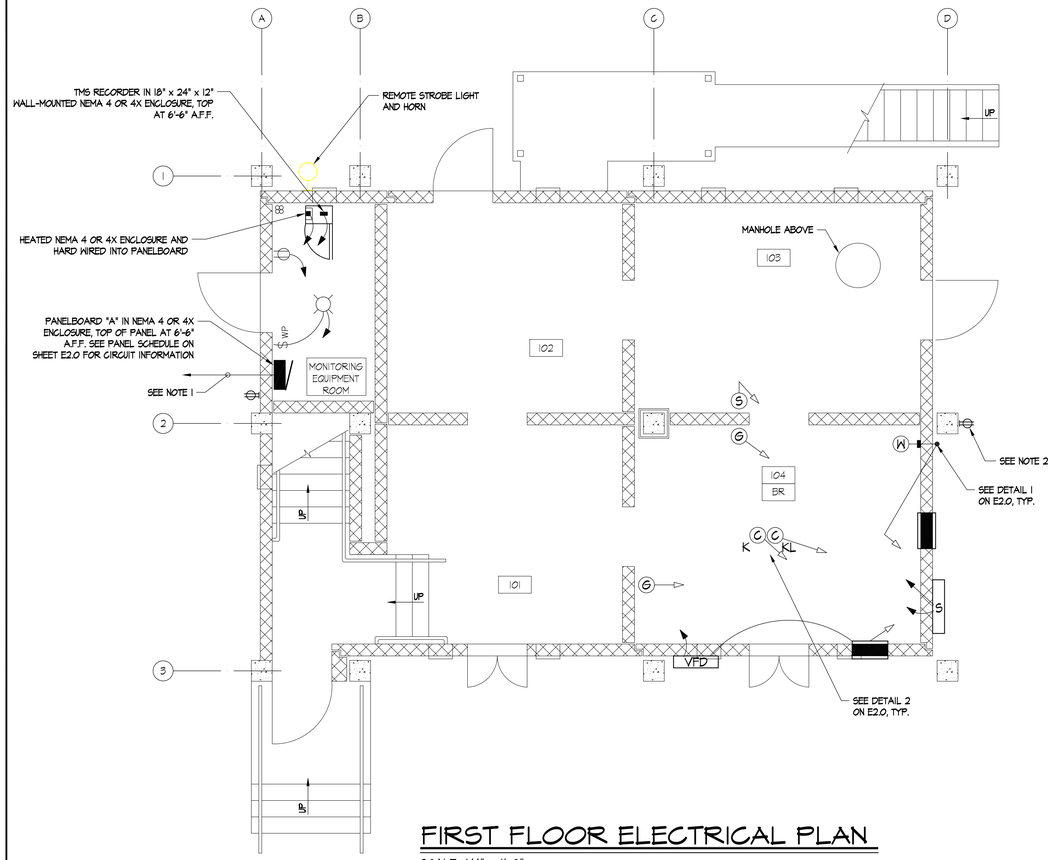
RAPELLING BAR ELEVATION & DETAILS

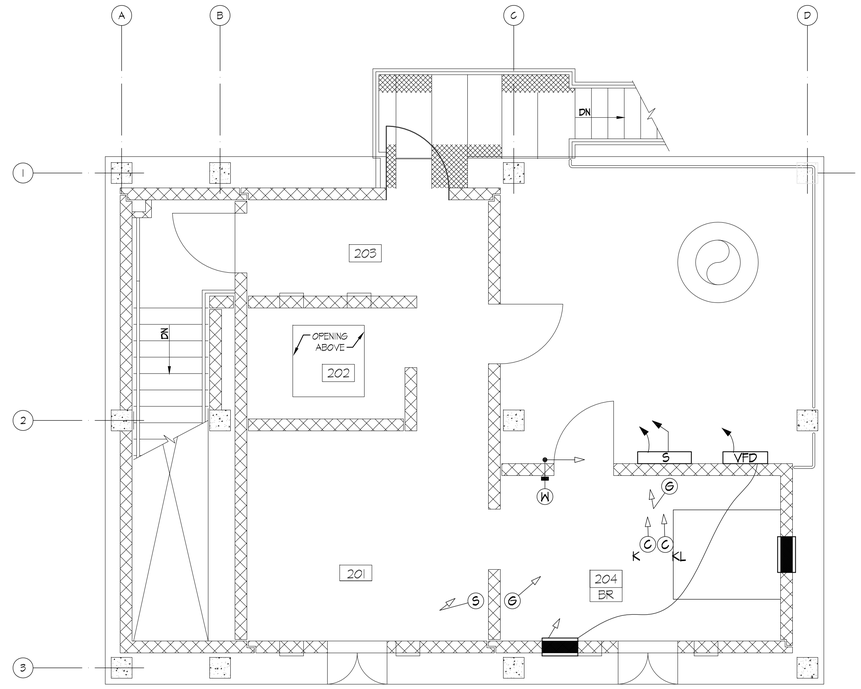
CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

S3.1





FIRST FLOOR ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

NOTES

1. ELECTRICAL PANEL "A" SHALL BE 120/208 VOLT 3 PHASE, 4 WIRE 200AMP MAIN CIRCUIT BREAKER, 30 POLE PANEL. CONTRACTOR SHALL COORDINATE POWER SOURCE TO PANEL AND SIZE FEEDER TO ACCOMMODATE VOLTAGE DROP. CONDUIT SHALL BE RUN AT A MINIMUM OF 36" BELOW GRADE AND SHALL BE PVC COATED RIGID STEEL.
2. CONTRACTOR SHALL PROVIDE AN ALTERNATE PRICE FOR INSTALLATION OF EXTERIOR DUPLEX RECEPTACLES. RECEPTACLES SHALL BE RECESSED MOUNTED. PROVIDE CAST IRON RECEPTACLE WITH DIE CAST ALUMINUM COVERPLATE. DUPLEX RECEPTACLE SHALL BE CERAMIC AND HEAVY DUTY TYPE.
3. ALL ELECTRICAL FIXTURES SHALL BE G.F.C.I.
4. ALL WIRING SHALL COMPLY WITH THE APPLICABLE NATIONAL, STATE, AND LOCAL ELECTRICAL CODES. USE MINIMUM OF #12 AWG IN 1/2 INCH RIGID STEEL CONDUITS, UNLESS OTHERWISE NOTED.
5. ALL HORIZONTAL CONDUIT FOR CEILING MOUNTED AND WALL MOUNTED THERMOCOUPLES SHALL BE LOCATED AT THE CENTER OF THE SECOND FLOOR SLAB.

SECOND FLOOR ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

NOTES

1. ALL HORIZONTAL CONDUIT FOR CEILING MOUNTED AND WALL MOUNTED THERMOCOUPLES SHALL BE LOCATED AT THE CENTER OF THE HIGH ROOF SLAB.

ABBREVIATIONS:

A.	AMPERE (S)
A.F.F.	ABOVE FINISHED FLOOR
A.I.C	AMPERE INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GUAGE
G.F.I	GROUND FAULT INTERRUPT
GND	GROUND
MCB	MAIN CIRCUIT BREAKER
S/WP	WEATHERPROOF SINGLE POLE 20 AMP SWITCH. SURFACE MOUNTED,42" MOUNTING HEIGHT A.F.F
T.L.	THERMAL LINING
T.M.S.	TEMPERATURE MONITORING SYSTEM
V	VOLT (S)
W	WATT
WP	WEATHERPROOF (NEMA 4X)

SYMBOLS:

	WEATHERPROOF CEILING MOUNTED, 100W, 120V, INCANDESCENT FIXTURE.
	WEATHERPROOF DUPLEX RECEPTACLE, 20A, 125V, GROUNDING TYPE,HAVING NEMA TYPE 5-20 R CONFIGURATION, SURFACE MOUNTED, 18" MOUNTING HEIGHT A.F.F.
J	JUNCTION BOX
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	CONDUIT RUN TO RECORDER FOR TEMPERATURE MONITORING SYSTEM U.N.O.
	CONDUIT RUN TO SLAVE PANEL
W	WALL-MOUNTED TYPE K DUPLEX THERMOCOUPLE, 60" A.F.F. SEE DETAIL 1/E2.0
C	RECESSED CEILING-MOUNTED TYPE K DUPLEX THERMOCOUPLE,SEE DETAIL 2/E2.0
C KL	RECESSED CEILING-MOUNTED TYPE K DUPLEX THERMOCOUPLE PLACED BEHIND INSULATION OF THERMAL LINING, SEE DETAIL 2/E2.0
M	EXISTING METER
	BRANCH CIRCUIT CONDUIT WITH 2 #12 AWG + GROUND WIRE, U.N.O., RUN EXPOSED TO PANELBOARD
	CONNECTION POINT
	REMOTE STROBE LIGHT AND HORN
G	GAS SENSOR
S	EMERGENCY STOP
S	FIRE PROP SLAVE PANEL
VFD	FIRE PROP VFD PANEL
	EXHAUST FAN

PRIME PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

ELECTRICAL PLANS, ABBREVIATIONS & SYMBOLS

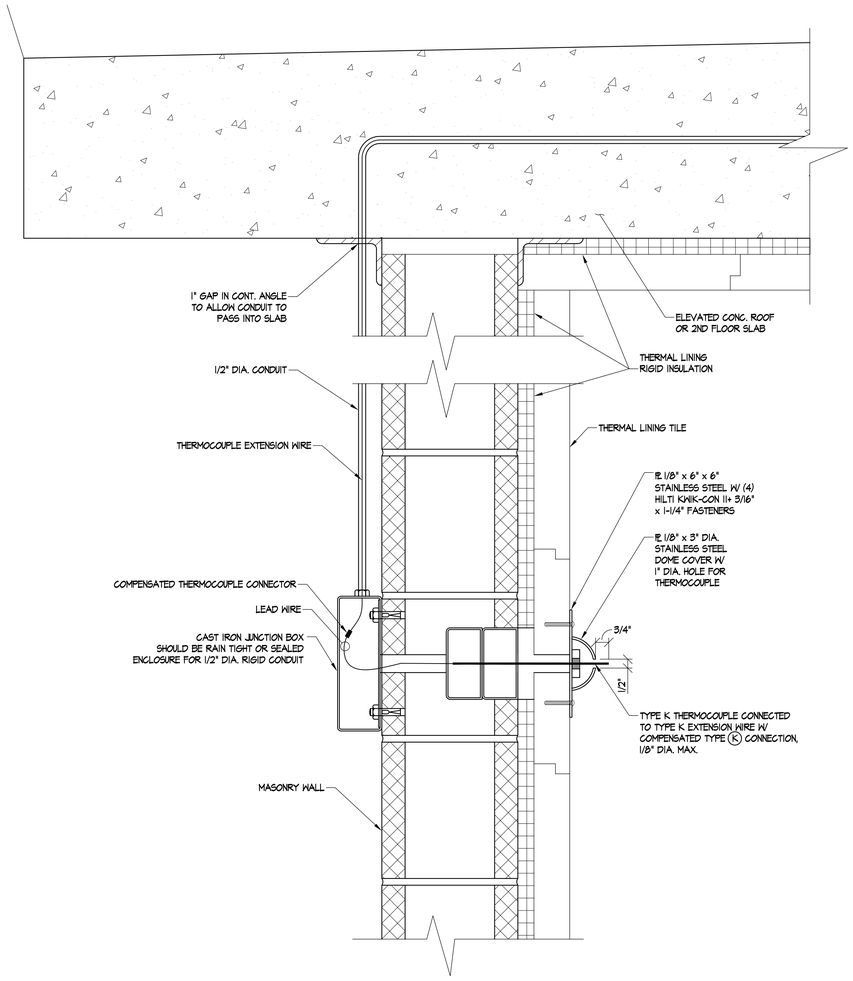
CITY/COUNTY VIRGINIA

Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

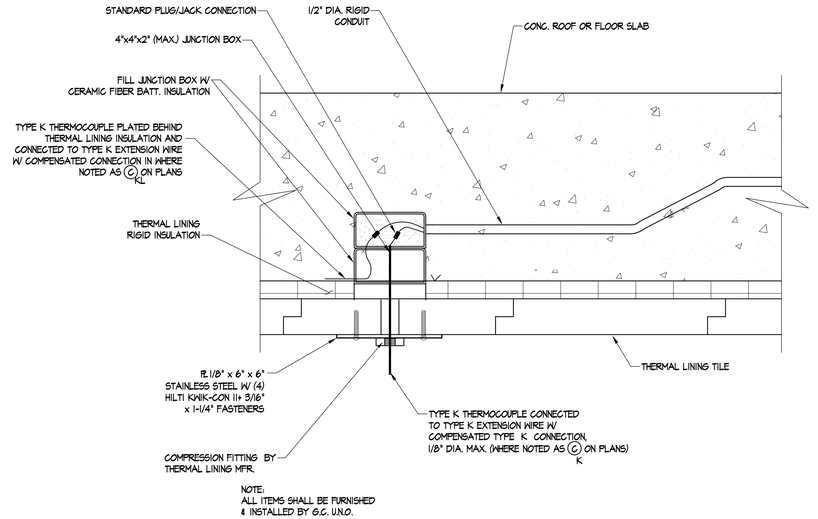
E1.0



NOTE:
ALL ITEMS SHALL BE FURNISHED & INSTALLED BY G.C. U.N.O.

DETAIL 1 (E1.0 | E2.0)

SCALE: 3" = 1'-0"



NOTE:
ALL ITEMS SHALL BE FURNISHED & INSTALLED BY G.C. U.N.O.

DETAIL 2 (E1.0 | E2.0)

SCALE: 3" = 1'-0"

PANELBOARD SCHEDULE — LP-1

LOCATION: 105
SERVICE: 208Y/120V 3-P 4-W
MAIN LUGS: A
MAIN BUS TYPE: -
INTERRUPT RATING: - AIC

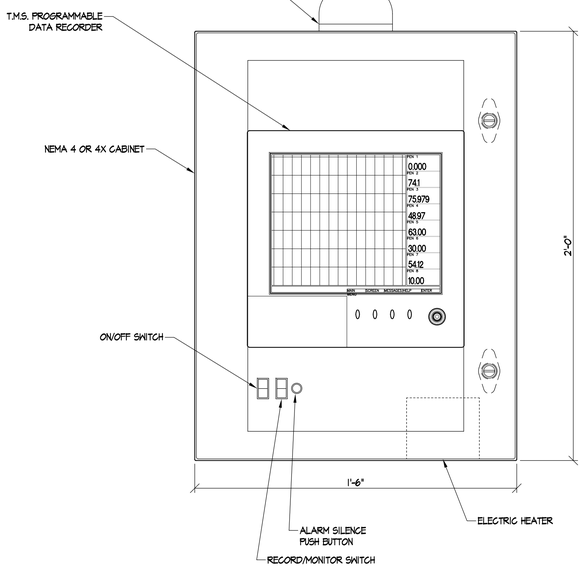
FED FROM: SWBD MSB
NEUTRAL BUS: 100%
GROUND BUS: STANDARD
MOUNTING: SURFACE
ENCLOSURE: NEMA 4X

[1]- GFI
[2]- SHUNT TRIP
[3]- BREAKER LOCK
[4]- HACR

DESCRIPTION	CCT. NO.	CIRCUIT BREAKER	CIRCUIT LOAD	CONNECTED LOAD (VA) A	B	C	CIRCUIT LOAD	CIRCUIT BREAKER	CCT. NO.	DESCRIPTION
T.M.S. PANEL	1	20A-1P	500	680			180	20A-1P	2	LIGHT & RECEPTACLE
SPARE	3	20A-1P						20A-1P	4	
SPARE	5	20A-1P						20A-1P	6	
SPARE	7	20A-1P						20A-1P	8	
FIRE PROP FIRST FLOOR	9	20A-1P		600				20A-1P	10	
	11	20A-1P			600			20A-1P	12	
	13	20A-1P				600		20A-1P	14	
FIRE PROP SECOND FLOOR	15	20A-1P		600				20A-1P	16	
	17	20A-1P			600			20A-1P	18	
	19	20A-1P				600		20A-1P	20	
	21	20A-1P						20A-1P	22	
	23	20A-1P						20A-1P	24	
	25	20A-1P						20A-1P	26	
	27	20A-1P						20A-1P	28	
	29	20A-1P						20A-1P	30	
				1880	1200	1200				

TOTAL VA PER PHASE

LIGHTING DEMAND = 125% PER NEC 220-10(b)
RECEPTACLE DEMAND LOAD PER NEC TABLE 220-12



ELEVATION — T.M.S. INDICATOR PANEL

SCALE: 3" = 1'-0"

PRIME, PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

ELECTRICAL DETAILS, TMS INDICATOR PANEL, & PANELBOARD SCHEDULE

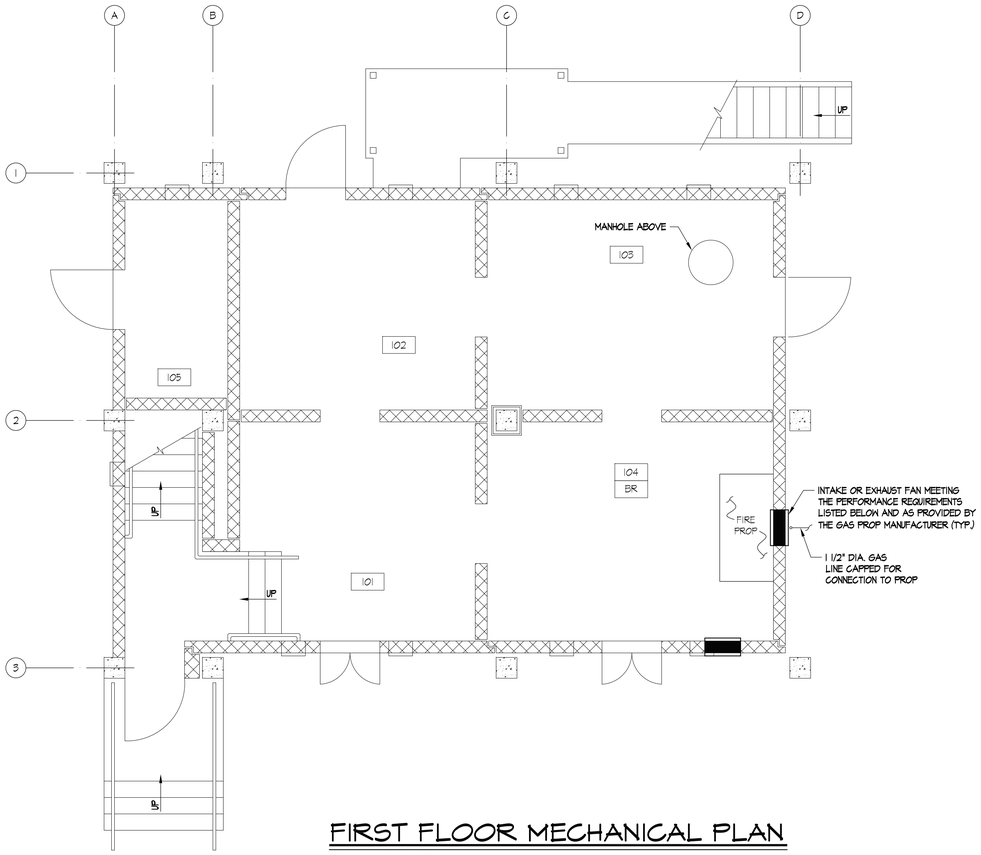
CITY/COUNTY VIRGINIA

Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

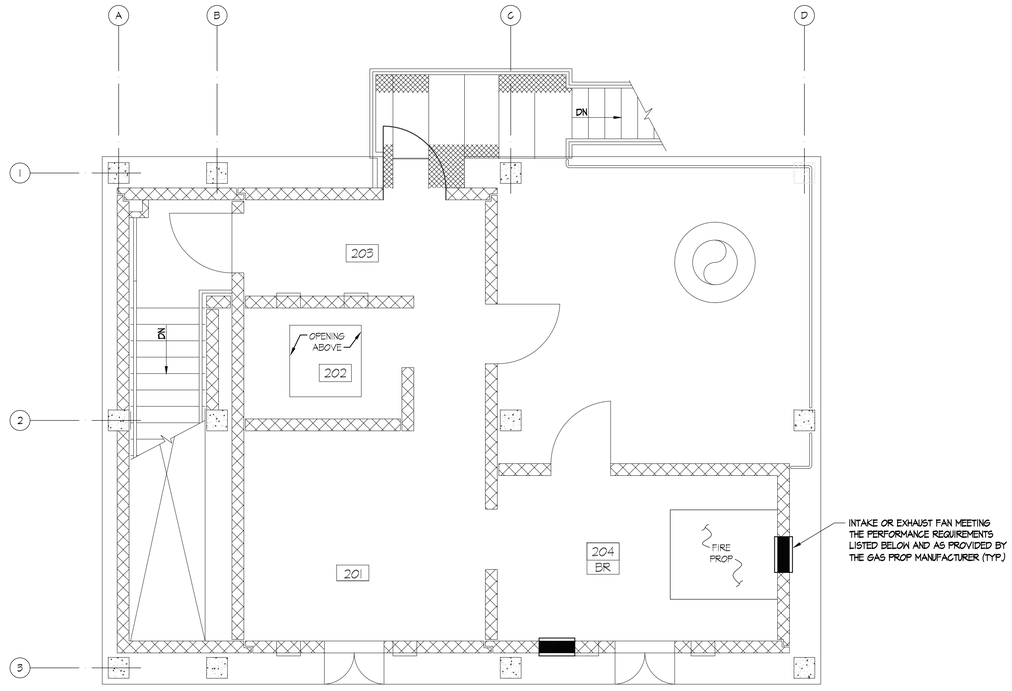
Sheet No.

E2.0



FIRST FLOOR MECHANICAL PLAN

SCALE: 1/4" = 1'-0"



SECOND FLOOR MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

NOTES

1. THE AUTOMATED FIRE TRAINING SYSTEM SHALL BE EQUIPPED WITH A VENTILATION SYSTEM TO REMOVE EXCESS HEAT, COMBUSTION BY-PRODUCTS, AND UNBURNED GAS FROM EACH TRAINING COMPARTMENT WITHIN THE BUILDING AND VENTILATION SYSTEM SHALL BE DESIGNED TO FULLY PURGE EACH TRAINING COMPARTMENT AT THE RATE OF ONE (1) AIR CHANGE PER MINUTE AS PER NFPA 1403. THE LIVE FIRE TRAINING SYSTEM SHALL CONTROL THE OPERATION AND MONITOR THE AIRFLOW OF THE VENTILATION SYSTEM IN THE BURN BUILDING. THE VENTILATION SYSTEM SHALL ONLY BE ACTIVATED DURING THE FOLLOWING CONDITIONS:
   A) TO FULLY PURGE THE TRAINING COMPARTMENTS AT POWER UP.
   B) TO FLUSH THE BURN BUILDING PRIOR TO TRAINING.
   C) TO FULLY PURGE THE TRAINING COMPARTMENTS WHEN EXCESSIVE GAS OR TEMPERATURE LEVELS ARE DETECTED DURING TRAINING.

2. THE FIRE TRAINING SYSTEM SHALL HAVE A COMPARTMENT TEMPERATURE DETECTION SENSOR THAT MONITORS TEMPERATURES AT 5' A.F.F. IF TEMPERATURES IN THE TRAINING COMPARTMENT EXCEED 550° THE VENTILATION SYSTEM SHALL RUN. IF TEMPERATURES AT THE 5' LEVEL EXCEED 700°, THE SYSTEM SHALL SHUTDOWN AND THE VENTILATION SYSTEM SHALL RUN UNTIL TEMPERATURES ARE REDUCED.

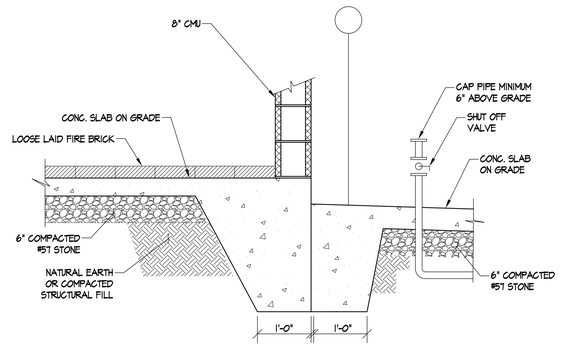
3. THE FIRE TRAINING SYSTEM SHALL HAVE A HARD-WIRED EMERGENCY SHUTDOWN CIRCUIT THROUGHOUT THE FACILITY TO PROVIDE WIDESPREAD ACCESS TO SHUTDOWN (E-STOP) PUSH BUTTONS. E-STOP PUSH BUTTONS SHALL BE LOCATED AT THE ENTRANCE(S) TO EACH TRANING COMPARTMENT, ON THE SCENARIO CONTROL ASSEMBLIES, AND ON EACH CONTROL PENDANT. THE EFFECT OF PUSHING ANY E-STOP BUTTON SHALL CAUSE ALL BURNER CONTROL VALVES TO CLOSE, FACILITY GAS SUPPLY TO BE SECURED AND SMOKE PRODUCTION TO STOP. VENTILATION FANS WILL AUTOMATICALLY RUN AT MAXIMUM ONCE THE E-STOP PUSH BUTTON HAS BEEN ACTIVATED. THE VENTILATION SYSTEM WILL RUN CONTINUOUSLY AT MAXIMUM LEVEL UNTIL THE E-STOP HAS BEEN MANUALLY RESET AND SAFE OPERATING CONDITIONS EXIST.

4. THE FIRE TRAINING SYSTEM SHALL HAVE A GAS DETECTION SYSTEM WHICH CONTINUALLY MONITORS UNBURNED CLASS "B" FUEL LEVELS IN THE TRAINING COMPARTMENTS AND ANY EQUIPMENT ROOMS WHERE CLASS "B" FUEL LINES ARE INSTALLED. A MINIMUM OF TWO (2) GAS SENSORS SHALL BE SUPPLIED PER TRAINING COMPARTMENT. IF GAS LEVELS REACH 10% LEL, THE VENTILATION SYSTEM SHALL RUN. IF GAS LEVELS REACH 25% LEL, THE VENTILATION SYSTEM SHALL RUN AT MAXIMUM SPEED AND ALL GAS VALVES SHALL CLOSE. THE VENTILATION SYSTEM SHALL CONTINUOUSLY RUN UNTIL GAS LEVELS ARE REDUCED BELOW 10% LEL.

5. THE FIRE TRAINING SYSTEM FUEL CONTROL ASSEMBLY SHALL CONNECT TO THE CLASS "B" FUEL SUPPLY LINE. THE FUEL CONTROL ASSEMBLY SHALL CONSIST OF BOTH HIGH AND LOW PRESSURE SWITCHES. THE LINE PRESSURE SHALL BE MONITORED FOR ABNORMAL CONDITIONS AND SHALL SHUT DOWN THE SYSTEM IF THE LINE PRESSURE IS TOO HIGH OR TOO LOW. SHOULD A HIGH-PRESSURE CONDITION EXIST, THE VENTILATION SYSTEM SHALL START AND AN EMERGENCY SHUTDOWN SHALL OCCUR.

6. A MINIMUM OF TWO (2) EXTINGUISHING AGENT SENSORS SHALL BE LOCATED IN EACH BURN ROOM WITH ONE (1) DIRECTLY WITHIN THE BURN PROP. THE OUTPUT OF THESE SENSORS SHALL BE UTILIZED BY THE INSTRUCTOR TO DETERMINE THE EFFECTIVENESS OF AGENT APPLICATION WITH REGARD TO RATE AT WHICH FIRE IS EXTINGUISHED.

7. ALL COMPONENTS IN THIS SYSTEM SHALL PERFORM WITHIN THE FOLLOWING MINIMUM STANDARDS:
   A) CONTROL ROOM EQUIPMENT:
      TEMPERATURE: 65 TO 85° F (OPERATING)
      20 TO 125° F (STORAGE)
      HUMIDITY: 0 TO 95% (NON-CONDENSING)
   B) OUTDOOR EQUIPMENT:
      TEMPERATURE: 20 TO 100° F (OPERATING)
      -20 TO 125° F (STORAGE)
      HUMIDITY: 0 TO 100%
   C) COMPARTMENT EQUIPMENT:
      TEMPERATURE: 32° F TO MAX. (OPERATING)
      -20 TO 125° F (STORAGE)
      HUMIDITY: 0 TO 100%
   D) MECHANICAL: ALL TRANING COMPARTMENT EQUIPMENT SHALL WITHSTAND DIRECT HOSE PRESSURE OF 100 PSI AT 150 GPM FROM A DISTANCE OF THREE (3) FEET.
   E) TOTAL TRANING SYSTEM: MTBF (MEAN TIME BETWEEN FAILURES) > 500 HOURS (OPERATING).
   F) MTTR (MEAN TIME TO REPAIR) < 30 MINUTES (WHEN REPAIRS ARE PERFORMED BY QUALIFIED SERVICE PERSONNEL).



DETAIL

SCALE: 3/4" = 1'-0"

PRIME PROFESSIONAL FIRM LOGO

Project Title

COMMONWEALTH OF VIRGINIA
BURN BUILDING PROP
PROTOTYPE 1
CLASS B FUEL

SUB-CONSULTANT'S LOGO

Department of Fire Programs

NOT FOR CONSTRUCTION

No.	REVISIONS	Date

Sheet Title

MECHANICAL PLANS. NOTES, & DETAIL

CITY/COUNTY	VIRGINIA
Drawn By: SJS	Approved By: MAM
Checked By: SMF	Date: 04/11/13

PROFESSIONAL SEAL

Sheet No.

M1.0

25 of 25