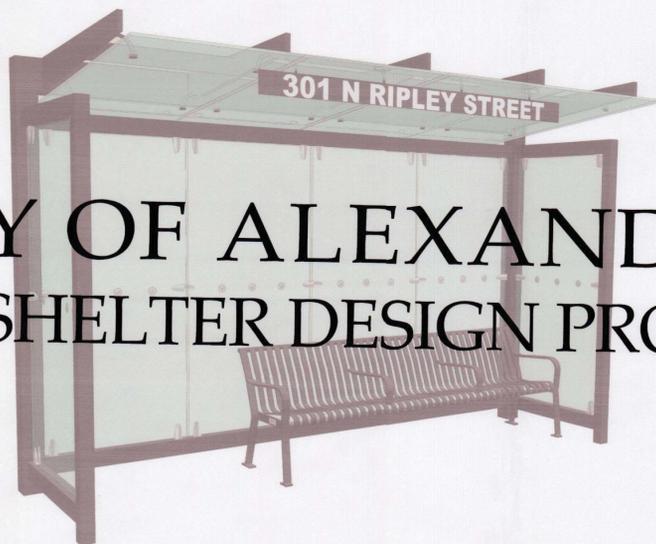




COMMONWEALTH OF VIRGINIA

VDOT PROJECT NUMBER: U000-1-136, P101
UPC NUMBER: UPC 79791
CITY OF ALEXANDRIA PROJECT NUMBER: 11-122



CITY OF ALEXANDRIA BUS SHELTER DESIGN PROJECT

STATE	FEDERAL AID		STATE		SHEET NO.
	PROJECT	ROUTE	PROJECT		
VA.	RSTP-5401(851) & RSTP-5401(893)		0000-100-136, PE-101, M-501		1

GENERAL NOTES:

- COORDINATE ALL WORK TO MAINTAIN NORMAL BUS OPERATIONS AND PEDESTRIAN ACCESS AT ALL SITES, AS DIRECTED BY THE CITY.
- REFER TO THE CITY FOR SCHEDULING, AS WELL AS MAINTENANCE AND OPERATION OF TEMPORARY STOPS AND SIGNAGE, AND RELATED REQUIREMENTS.
- ARCHAEOLOGICAL REMAINS MAY BE PRESENT. DO NOT EXCAVATE BEYOND THE VERTICAL AND HORIZONTAL LIMITS INDICATED.
- ERECT AND MAINTAIN ALL EROSION CONTROL DEVICES IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS, AND AS DIRECTED IN THE FIELD BY THE CITY. DEVICES SHOWN ON THE PLAN ARE PROVIDED FOR INFORMATION ONLY.
- ERECT AND MAINTAIN BARRICADES TO PROTECT THE AREAS OF WORK AND PREVENT UNAUTHORIZED INTRUSION.
- PROTECT EXISTING SHRUBS & TREES AND THEIR ROOTS SYSTEMS FROM DAMAGE, SOIL COMPACTION, AND CONTAMINATION-FINES IMPOSED. REFER TO DIVISION 01 SECTION "TEMPORARY TREE AND PLANT PROTECTION" FOR TREE PROTECTION REQUIREMENTS.
- THE CITY WILL COORDINATE WITH ALL ADJACENT PROPERTY OWNERS TO OBTAIN ANY ESSENTIAL CONSTRUCTION EASEMENTS PRIOR TO CONTRACTOR MOBILIZATION.
- COMPLY WITH THE CITY'S RECYCLING PLAN FOR ALL MATERIAL BEING REMOVED.
- BASE INFORMATION INCLUDING, BUT NOT LIMITED TO, RIGHTS-OF-WAY, EASEMENTS, SIGHT DISTANCES, UTILITY LOCATION, TOPOGRAPHY, AND PROPOSED GRADING PROVIDED BY THE CITY OF ALEXANDRIA.
- VERIFY EXISTING CONDITIONS AND UTILITIES, INCLUDING SUBSURFACE UTILITIES AND STRUCTURES. SOME INFO SHOWN IS APPROXIMATE, BASED ON LIMITED AVAILABLE DATA, PROVIDED FOR INFORMATION ONLY. INSPECT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO CONSTRUCTION. CONTACT 'MISS UTILITY' AT LEAST 48 HOURS PRIOR TO THE START OF ANY EXCAVATION; COMPLY WITH ALL 'MISS UTILITY' REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR BEING FAMILIAR WITH ALL UNDERGROUND UTILITIES, TRANSMISSION LINES/PIPES, AND OTHER EXTANT FACILITIES. CONTRACTOR IS RESPONSIBLE FOR DAMAGES TO SUCH ITEMS CAUSED BY THE ACTION OR INACTION OF HIS/HER FORCES.
- PLANS ARE REPRESENTATIVE OF DESIGN INTENT ONLY AND, AS SUCH, DENOTE VERTICAL AND HORIZONTAL RELATIONSHIPS, MATERIALS, AND FINISHES. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION/CONSTRUCTION.
- DO NOT PROCEED WITH CONSTRUCTION WHEN DISCREPANCIES, OBSTRUCTIONS, AND/OR GRADE CONFLICTS EXIST. NOTIFY CITY AND AWAIT DIRECTION PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR

- IS RESPONSIBLE FOR WORK PERFORMED PRIOR TO DIRECTION AND SHALL BEAR ALL COSTS ASSOCIATED WITH REMEDIAL ACTION, AS DIRECTED BY CITY.
- CITY SHALL APPROVE STAKING IN FIELD OF ALL WORK PRIOR TO CONSTRUCTION. NOTIFY CITY 72 HOURS IN ADVANCE OF STAKEOUT.
- ALL WORK SHALL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS OF THE CITY OF ALEXANDRIA, THE COMMONWEALTH OF VIRGINIA, AND THE FEDERAL GOVERNMENT UNLESS WAIVED AND/OR MODIFIED UNDER SEPARATE APPLICATION.
- CONTRACTOR SHALL OBTAIN ALL PERMITS ASSOCIATED WITH THIS WORK AT HIS/HER OWN COST PRIOR TO CONSTRUCTION.
- ALL DIMENSIONS SHOWN ARE PARALLEL AND PERPENDICULAR UNLESS OTHERWISE NOTED. DO NOT SCALE DIMENSIONS OFF THE DRAWINGS.
- PRIOR TO DEMOLITION, LOCATE & RECORD LOCATION OF EXISTING SHELTER.
- GRADE AREAS ADJACENT TO NEW PAVING AT 2% FOR THE FIRST 2'-0", THEN RETURN TO GRADE AT 3:1. FILL ALL HOLES AND DEPRESSIONS WITHIN THE AREA OF WORK.
- REPAIR ADJACENT GRADE W/ TOPSOIL & TURF SOD TO MATCH ADJACENT CONDITION, UNLESS OTHERWISE INDICATED.
- SAWCUT EXISTING PAVEMENTS TO BE REMOVED AT NEXT NEAREST EXISTING JOINT.
- NEW PAVEMENTS SHALL MEET AND MATCH ADJACENT EXISTING PAVEMENTS. DO NOT DAMAGE AND/OR DESTABILIZE EXISTING PAVEMENT SECTIONS.
- EXISTING S/W SHOWN TO BE REMOVED IS THE MINIMUM EXPECTED TO MEET CURRENT ADA. IT MAY BE NECESSARY TO REMOVE AND RE-SLOPE ADDITIONAL S/W TO MEET CURRENT ADA. VERIFY AT EACH SITE AND REVIEW WITH THE CITY.
- "EXISTING SLOPE," AS NOTED ON THE PLANS, REFERS TO THE EXISTING SLOPE AT THE CURB, UNLESS OTHERWISE INDICATED.
- PRIOR TO POURING SLABS, VERIFY THAT AS-BUILT SLOPES WITHIN SHELTER, BOARDING PAD, AND ACCESSIBLE ROUTE WILL COMPLY W/ CURRENT ADA & OTHER REQUIREMENTS. ADJUST LAYOUT AS DIRECTED BY CITY IN THE FIELD.
- DO NOT RELOCATE EXISTING SIGNAGE OR TRASH RECEPTACLES UNLESS OTHERWISE INDICATED.
- INSTALL NEW AND RELOCATED COMPONENTS PLUMB AND LEVEL. USE RESPECTIVE MFR'S STANDARD METHOD OF SHIMMING OR ADJUSTMENT, AS APPROVED BY THE CITY.
- REMOVE ALL NEWSPAPER BOXES AND OTHER APPURTENANCES FROM WHEELCHAIR SPACES, ACCESSIBLE ROUTES, BOARDING PAD, AND

- ENTRANCES TO SHELTERS.
- ALL METALS EXCEPT FASTENERS ARE ALUMINUM, UNLESS OTHERWISE NOTED. REFER TO STRUCTURAL DETAILS AND DIVISION 05 SECTION "ALUMINUM FRAMING."
- FINISH PER SPECIFICATIONS, DIVISION 5 SECTION "METAL FABRICATIONS" FOR ALUMINUM FINISHES. COLOR: BLACK OR SILVER, AS DIRECTED BY CITY.
- PROVIDE DEDUCT ALTERNATE AS FOLLOWS:
 - GALVANIZED STEEL REPLACES ALUMINUM. REFER TO DIVISION 05 SECTION "STRUCTURAL STEEL FRAMING."
 - PROVIDE STRUCTURAL CALCULATIONS TO DETERMINE WALL THICKNESS AND MEET REQUIRED LOADS.
 - FINISH PER SPECIFICATIONS, DIVISION 5 SECTION "METAL FABRICATIONS" FOR STEEL FINISHES.
- ALL SHOP CONNECTIONS ARE WELDED ALL-AROUND AND GROUND SMOOTH PRIOR TO FINISHING. ALL FIELD CONNECTIONS ARE BY MECHANICAL FASTENER.
- PROVIDE SUBMITTALS AND SAMPLES OF ALL PRODUCTS AND MATERIALS PRIOR TO ORDERING AND/OR CONSTRUCTION.
- PROVIDE SHOP DRAWINGS OF SHELTER STRUCTURE AND CONCRETE REINFORCEMENT, SEALED BY A VIRGINIA-LICENSED STRUCTURAL ENGINEER.
- VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND ENSURE THAT FINAL ASSEMBLY IS FULLY CONSISTENT WITH DESIGN INTENT. DO NOT PROCEED WITH FABRICATION WHEN DISCREPANCIES EXIST. NOTE RECOMMENDED ADJUSTMENTS IN SHOP DRAWINGS, FOR REVIEW AND APPROVAL BY THE ARCHITECT PRIOR TO FABRICATION. CONTRACTOR IS RESPONSIBLE FOR WORK PERFORMED PRIOR TO DIRECTION AND SHALL BEAR ALL COSTS ASSOCIATED WITH REMEDIAL ACTION, AS DIRECTED BY CITY.
- CONTRACTOR SHALL BEAR RESPONSIBILITY FOR WORK UNDERTAKEN AND/OR MATERIALS ORDERED PRIOR TO OBTAINING COMPLETE APPROVAL.
- FACTORY-ASSEMBLE AND FINISH THE FOLLOWING AS MODULAR PANELS (EXCEPT GLAZING) FOR TILT-UP FIELD ASSEMBLY:
 - ROOF ASSEMBLY,
 - BENCH ASSEMBLY,
 - WALL PANEL 1,
 - WALL PANEL 2,
 - WALL PANEL 3
 - WALL PANEL 4.
- THIS PROJECT PROPOSES NO FRONT WIND SCREENS FOR EACH

SHELTER IMPROVEMENT.

INDEX OF SHEETS:

G001	COVER SHEET
C101	SITE 1
C102	SITE 2
C103	SITE 3
C104	SITE 4
C105	SITE 5
C106	SITE 6
C107	SITE 7
C108	SITE 8
C109	SITE 9
C110	SITE 10
C111	SITE 11
C112	SITE 12
C113	SITE 13
C114	SITE 14
C115	SITE 15
C116	SITE 16
C117	SITE 17
C118	SITE 18
C119	SITE 19
C301	CONSTRUCTION DETAILS
C302	CONSTRUCTION DETAILS
C303	CONSTRUCTION DETAILS
C304	CONSTRUCTION DETAILS
C312	CONSTRUCTION DETAILS
C313	CONSTRUCTION DETAILS

S0.1	GENERAL NOTES
S1.1	BUS SHELTER SLAB PLANS
S1.2	BASE FRAMING PLANS
S1.3	INTERMEDIATE FRAMING PLANS
S1.4	ROOF FRAMING PLANS
S1.5	COLUMN SCHEDULE
S2.1	SECTIONS AND DETAILS

TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS

CITY OF ALEXANDRIA
VIRGINIA

NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED)
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

DATE: _____ TITLE OF POSITION: _____

EMILY A. BAKER, PE
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE: _____ CITY ENGINEER

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

DATE: _____ DISTRICT PLANNING AND INVESTMENT MANAGER

DATE: _____ DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR RIGHT OF WAY ACQUISITION

DATE: _____ DISTRICT ADMINISTRATOR

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

8/31/15 *Maria J. Smith*
DATE DISTRICT PLANNING AND INVESTMENT MANAGER

9/28/15 *Nicholas J. Popos*
DATE DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR CONSTRUCTION

5/13/15 *Helen L. Curcio*
DATE DISTRICT ADMINISTRATOR

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

APPROVED *Jon Lambert, AICP*
DATE: 6/3/2015

RECOMMENDED FOR APPROVAL *Jeffrey DuVal*
DATE: 6/2/2015

DEPUTY DIRECTOR OF OPERATIONS

RECOMMENDED FOR APPROVAL *William Skrabak*
DATE: 5/28/2015

DEPUTY DIRECTOR OF INFRASTRUCTURE & ENVIRONMENT

RECOMMENDED FOR APPROVAL *Sandra Marks*
DATE: 5/21/2015

DEPUTY DIRECTOR OF TRANSPORTATION

DEPARTMENT OF PROJECT IMPLEMENTATION

APPROVED *Mitchell Bernstein, PE*
DATE: 5/22/2015

DIRECTOR

RECOMMENDED FOR APPROVAL *Tafesse Gyes, PE*
DATE: 5/21/15

DIVISION CHIEF CONSTRUCTION

DESIGN ENGINEER	RF	MS	DLF	EB	REVISIONS	INITIALS	COMMENTS
CADD ENGINEER							
PROJECT ENGINEER							
DEPUTY DIRECTOR							
DEP. DIRECTOR							
Date:	04/03/14	04/03/14	04/03/14	04/03/14			

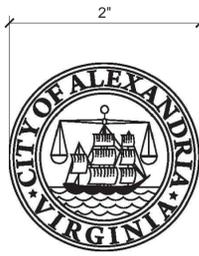
COVER SHEET

CITY OF ALEXANDRIA, VIRGINIA
Department of Project Implementation
P. O. Box 178
Alexandria, Virginia 22313



Scale: N.T.S. Project No. 11-122 Sheet G001

CITY OF ALEXANDRIA BUS SHELTER DESIGN PROJECT

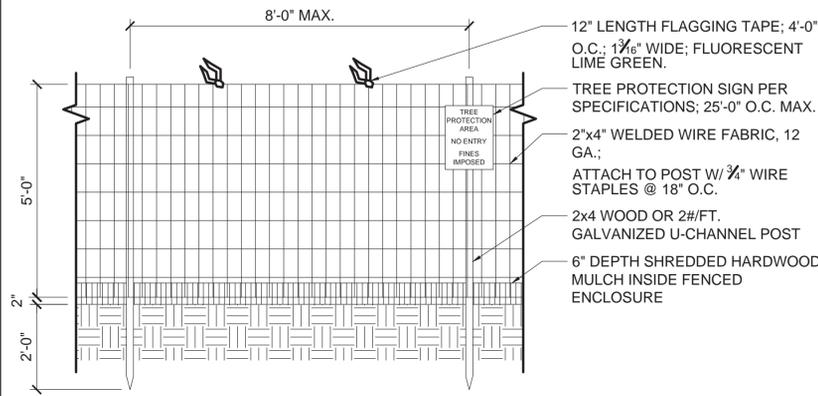


EXTERIOR GRADE, DIE-CUT 3 MIL VINYL DECAL W/ PRESURE-SENSITIVE ADHESIVE BACKING; FROSTED-ETCHED LOGO W/ CLEAR BACKGROUND

- NOTES:
 1. IMAGE ABOVE IS VIEW FROM INSIDE SHELTER. PRINT REVERSE IMAGE; AFFIX TO OUTSIDE OF ENCLOSURE.
 2. GRAPHIC PROVIDED BY CITY.

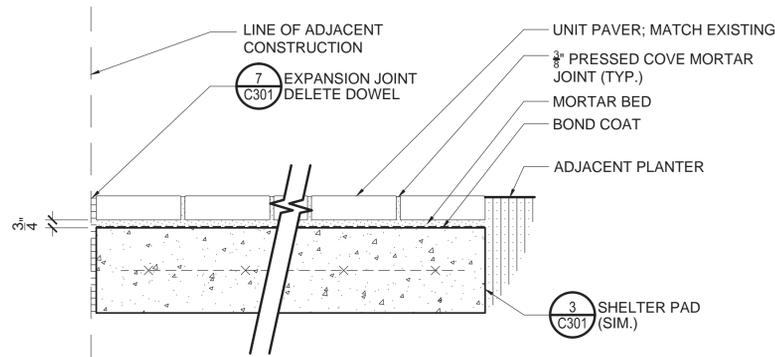
9 GLAZING DECAL

1/2" = 1'-0"



10 TREE PROTECTION FENCE

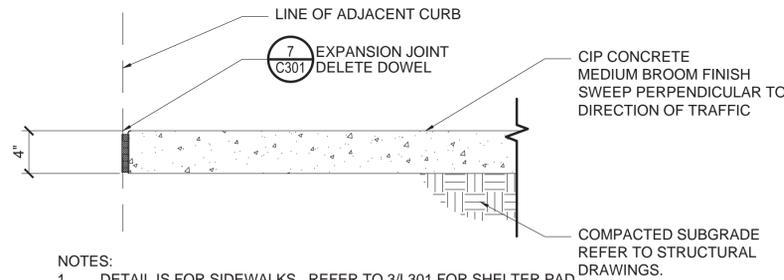
1/2" = 1'-0"



- NOTES:
 1. INSTALL JOINT MORTAR BY MEANS OF A GROUT BAG AND POINTING. FLOATING AND SCREEDING IS PROHIBITED.
 2. INSTALL PAVER COURSES IN STRAIGHT LINES AND TRUE ARCS AND TANGENTS.
 3. FOR ALL CUTS, REPLICATE EDGE CONDITION OF UNCUT UNIT.
 4. CUT UNITS LESS THAN 1/4 PAVEMENT DIMENSION ARE PROHIBITED. REMOVE CUT UNIT AND 2 ADJACENT UNITS; INSTALL 3 EQUAL CUT UNITS.
 5. REFER TO 3/C312 FOR POST BASE IN UNIT PAVING.

11 UNIT PAVING

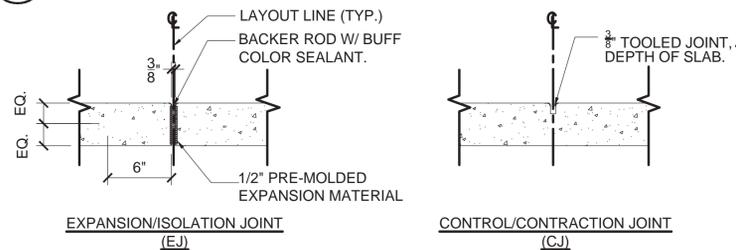
1 1/2" = 1'-0"



- NOTES:
 1. DETAIL IS FOR SIDEWALKS. REFER TO 3/L301 FOR SHELTER PAD.
 2. REFER TO 7/C301 FOR JOINT TYPES.

6 CONCRETE PAVING

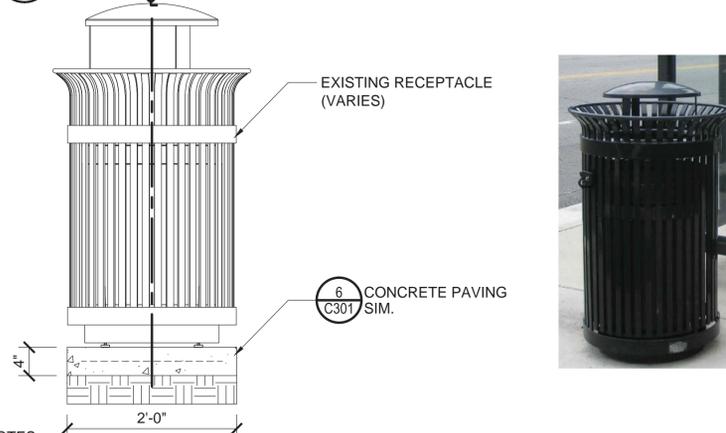
1 1/2" = 1'-0"



- NOTES:
 1. INSTALL CONTROL JOINTS AT EQUAL INTERVALS OF 5'-0" UNLESS OTHERWISE INDICATED.
 2. INSTALL EXPANSION JOINTS @ 30'-0" INTERVALS MAX., UNLESS OTHERWISE INDICATED, AND WHERE SLAB MEETS ANY ADJACENT STRUCTURE.
 3. TOOL ALL EXPOSED EDGES W/ 1/4" RADIUS.
 4. RECESS EXPANSION JOINTS 1/4" BELOW FINISH GRADE.

7 CONCRETE JOINTING

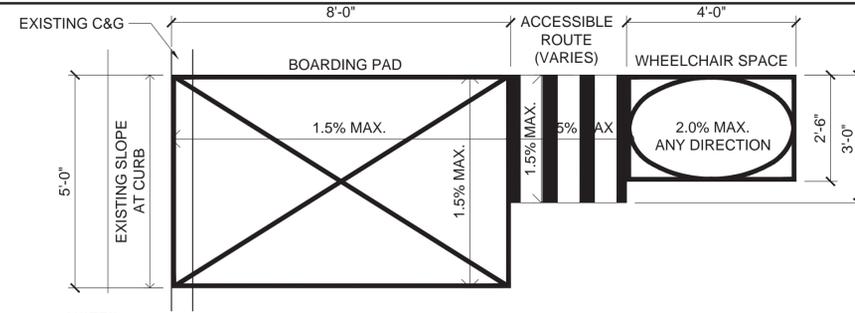
1 1/2" = 1'-0"



- NOTES:
 1. VICTOR STANLEY MODELS & OTHERS MANUFACTURED WITH LEVELING FEET AND ACCOMMODATION FOR ANCHORS:
 1.1. ADJUST LEVELING FEET TO SET RECEPTACLE PLUMB.
 1.2. ANCHOR TO CONCRETE BASE AS INDICATED.
 2. WHERE RECEPTACLES ARE SHOWN INSTALLED ON SIDEWALKS, DELETE PAD & ANCHOR AS INDICATED.
 3. ORIENT RECEPTACLES TOWARD ADJACENT CURB AND VERIFY SIDE DOOR, WHERE PRESENT, HAS FULL RANGE OF UNIMPEDED MOTION.

8 TRASH RECEPTACLE

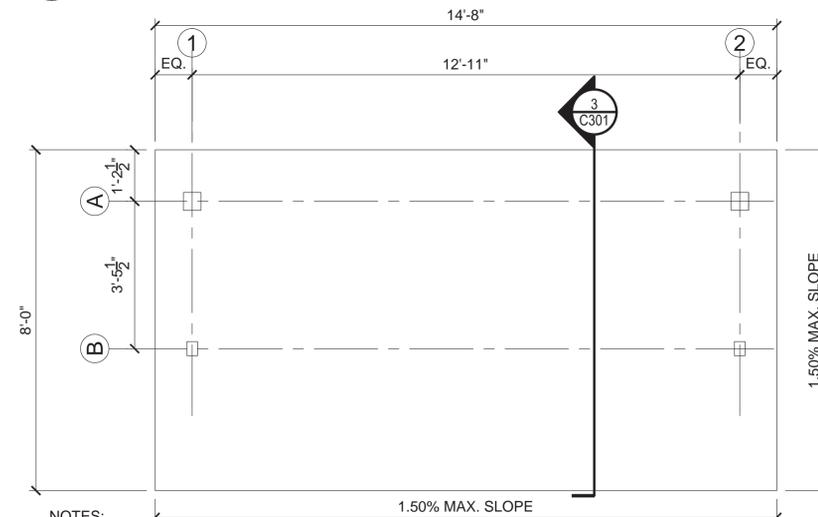
1" = 1'-0"



- NOTES:
 1. ABOVE INDICATES TYPICAL CONDITIONS. ACTUAL CONDITIONS VARY AT EACH SITE. REFER TO SITE PLANS.

1 ACCESSIBLE ROUTE - TYPICAL

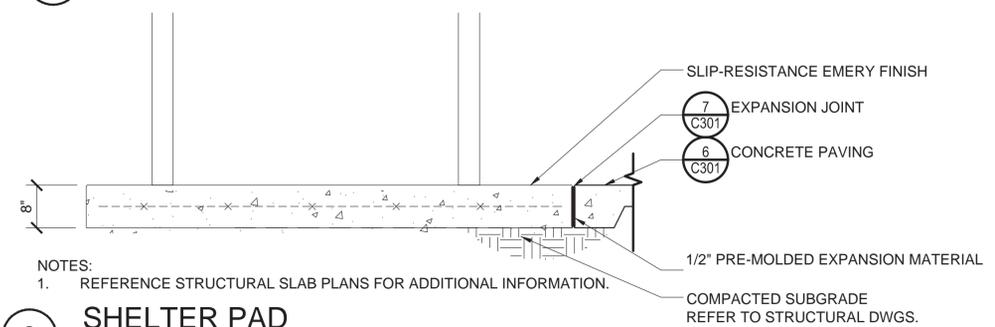
1/2" = 1'-0"



- NOTES:
 1. DIMENSIONS ABOVE ARE TYPICAL. EXTEND OR REDUCE TO MEET OVERALL LENGTH AND/OR WIDTH TO ADJACENT WALLS/ PAVEMENTS AS INDICATED AND AS DIRECTED BY THE ARCHITECT.
 2. PROVIDE EXPANSION JOINT BETWEEN EDGE OF PAD AND ADJACENT WALLS AND/OR PAVEMENTS.
 3. FOOTPRINT FOR SHELTER CONFIGURATION "B" SHOWN ABOVE. OTHERS VARY.

2 SHELTER PAD - PLAN

1/2" = 1'-0"

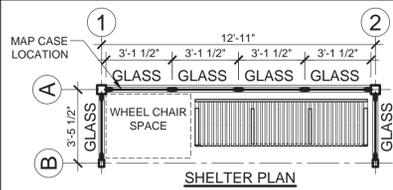


- NOTES:
 1. REFERENCE STRUCTURAL SLAB PLANS FOR ADDITIONAL INFORMATION.

3 SHELTER PAD

3/4" = 1'-0"

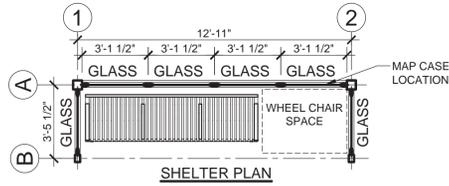
DESIGN ENGINEER	RF	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	Date:
DEP. DIRECTOR	EB	Date: 04/03/14	Scale: AS INDICATED



- NOTES:
1. BENCH LOCATIONS VARY EACH SITE.
 2. OPTIONAL SOLAR ARRAY COMPONENTS, DELEGATED DESIGN, AS APPROVED BY CITY: REMOTE LOCATE BATTERIES, CONTROLLER, DRIVER IN ALUMINUM (FINISHED TO MATCH SHELTER) OR STAINLESS STEEL EXTERIOR CABINET, BASE MOUNT, W/ FOOTING(S). MOUNT JUNCTION BOX INSIDE LOWER BEAM; PROVIDE FLUSH ACCESS PLATE ON INTERIOR SIDE.

1 CONFIGURATION B1

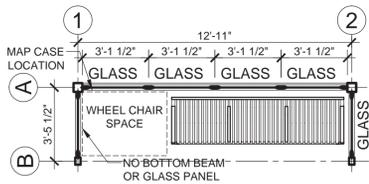
1/4" = 1'-0"



- NOTES:
1. BENCH LOCATIONS VARY EACH SITE.
 2. OPTIONAL SOLAR ARRAY COMPONENTS, DELEGATED DESIGN, AS APPROVED BY CITY: REMOTE LOCATE BATTERIES, CONTROLLER, DRIVER IN ALUMINUM (FINISHED TO MATCH SHELTER) OR STAINLESS STEEL EXTERIOR CABINET, BASE MOUNT, W/ FOOTING(S). MOUNT JUNCTION BOX INSIDE LOWER BEAM; PROVIDE FLUSH ACCESS PLATE ON INTERIOR SIDE.

2 CONFIGURATION B2

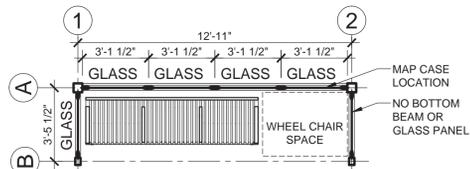
1/4" = 1'-0"



- NOTES:
1. BENCH LOCATIONS VARY EACH SITE.
 2. OPTIONAL SOLAR ARRAY COMPONENTS, DELEGATED DESIGN, AS APPROVED BY CITY: REMOTE LOCATE BATTERIES, CONTROLLER, DRIVER IN ALUMINUM (FINISHED TO MATCH SHELTER) OR STAINLESS STEEL EXTERIOR CABINET, BASE MOUNT, W/ FOOTING(S). MOUNT JUNCTION BOX INSIDE LOWER BEAM; PROVIDE FLUSH ACCESS PLATE ON INTERIOR SIDE.

3 CONFIGURATION B3

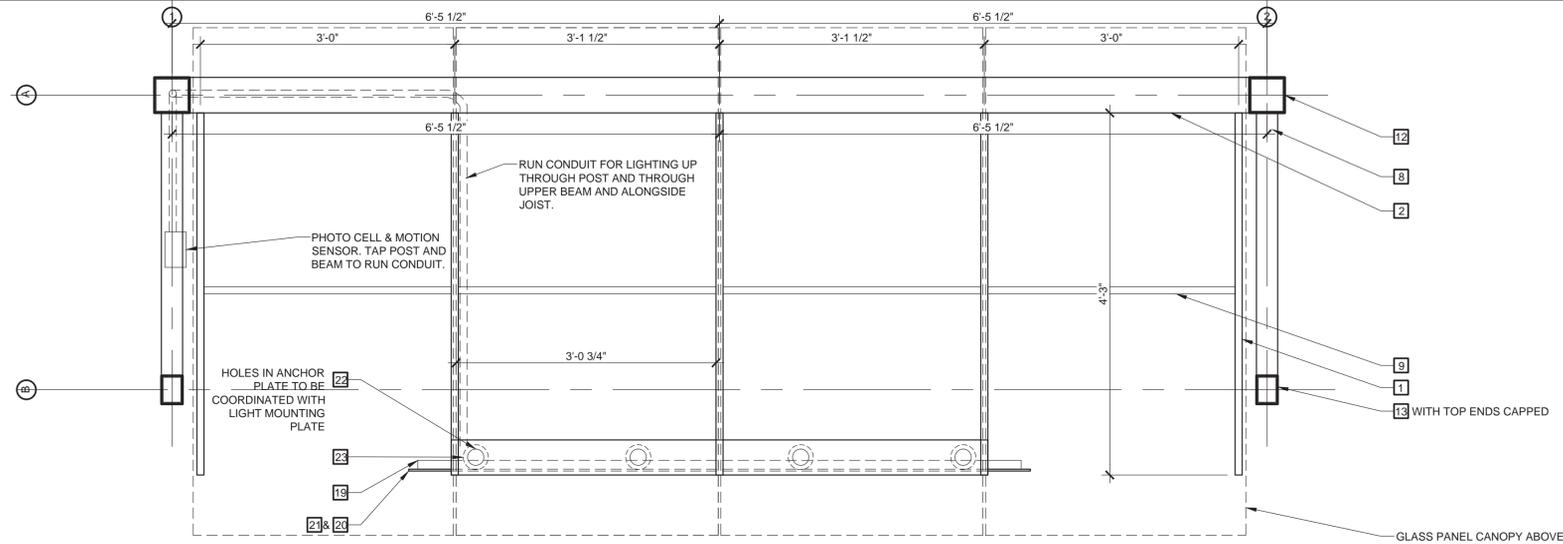
1/4" = 1'-0"



- NOTES:
1. BENCH LOCATIONS VARY EACH SITE.
 2. OPTIONAL SOLAR ARRAY COMPONENTS, DELEGATED DESIGN, AS APPROVED BY CITY: REMOTE LOCATE BATTERIES, CONTROLLER, DRIVER IN ALUMINUM (FINISHED TO MATCH SHELTER) OR STAINLESS STEEL EXTERIOR CABINET, BASE MOUNT, W/ FOOTING(S). MOUNT JUNCTION BOX INSIDE LOWER BEAM; PROVIDE FLUSH ACCESS PLATE ON INTERIOR SIDE.

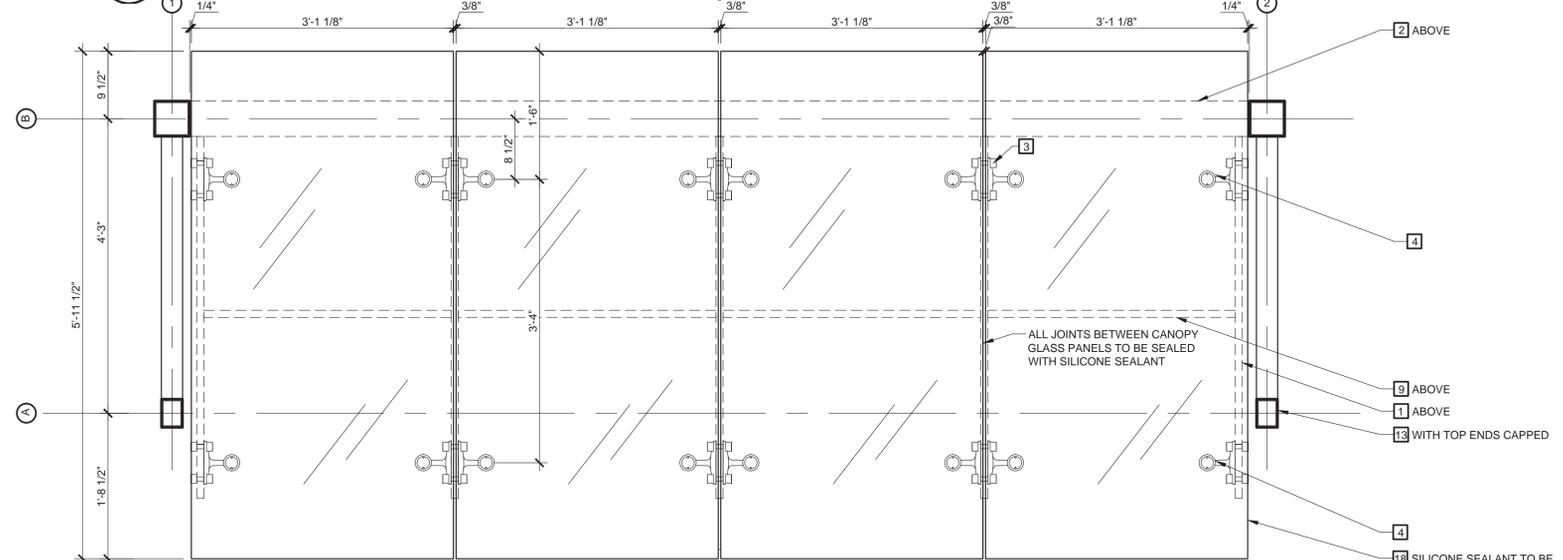
4 CONFIGURATION B4

1/4" = 1'-0"



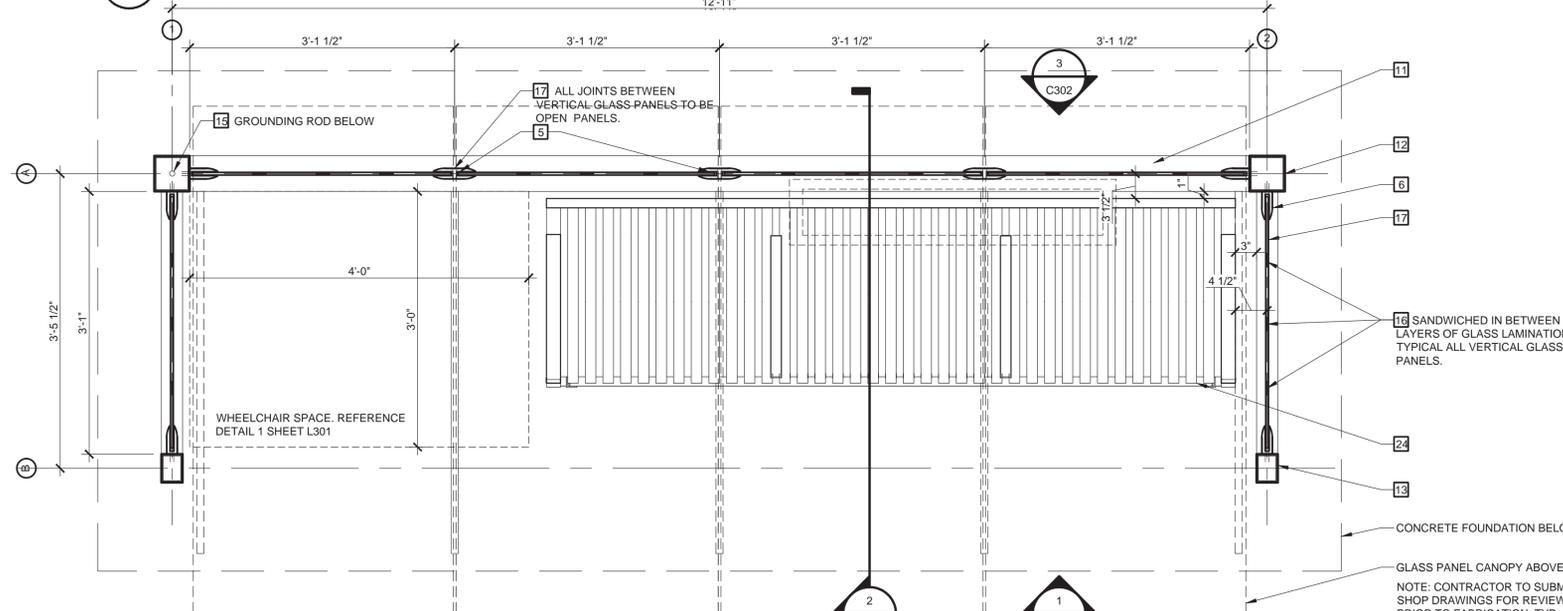
5 SHELTER ROOF PLAN (CONFIGURATIONS B1)

1" = 1'-0"



5 SHELTER CANOPY GLASS PLAN (CONFIGURATIONS B1)

1" = 1'-0"



6 SHELTER PLAN (CONFIGURATIONS B1)

1" = 1'-0"

CITY OF ALEXANDRIA BUS SHELTER DESIGN PROJECT

CITY OF ALEXANDRIA, VIRGINIA
 Department of Project Implementation
 P. O. Box 178
 Alexandria, Virginia 22313

**CONSTRUCTION
 DETAILS**

DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	M/S	Date: 04/03/14	INITIALS
PROJECT ENGINEER	D/LF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	Date:
DEP. DIRECTOR	EB	Date: 04/03/14	Date:

Scale: AS INDICATED/Project No. 11-122 Sheet C302



STRIP OVAL LED 2160

Luminaire system specially designed for longitudinal uplighting and downlighting.
 Very small housing in anodized extruded aluminium.
 Diffuser in tempered glass.
 Adjustable wall mounting bracket with joint for directing the luminaire.
 Accessory available in packs of 2 (to be ordered separately).
 Available as a visor accessory, able to direct the light (to be ordered separately).
 3000 °K (warm) and 6000 °K (cool) white LEDs.
 The LED transformer/driver must be ordered separately.
 Lenses can be mounted on LED models to obtain light beams of 10°, 25° or 40°.
 The lens accessory and lens holder are available in a package containing 3 pieces (to be ordered separately).
 Cover available as an accessory to conceal the terminal connection for the power supply unit cable.

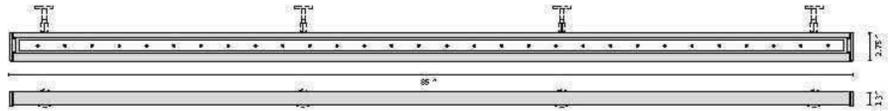
PROVIDE CUSTOM POWDER COAT COLOR PER CITY REQUIREMENTS. COORDINATE CUSTOM SIGN/VISOR PANEL WITH CITY COPY & REQUIREMENTS.



UL LISTED
 WEIGHT 5.68 LBS

code	lamp	current	color	UL	IP
076288	n. 30 LED 36W	24V	Gray Anodized - 3000 K	+	55
076290	n. 30 LED 36W	24V	Gray Anodized - 6000 K	+	55

UL listed for wet location
 LM79 pending



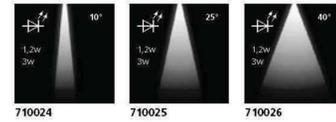
STRIP OVAL LED 2160

Three different adjustable wall brackets are available, one joint and a mini mounting support bracket.

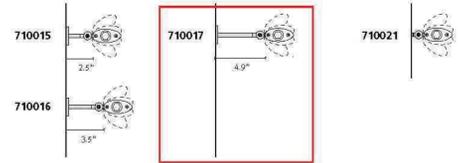
The mini fixed support bracket (710020) is only required for fluorescent models, to mount the remote gear unit to the light fixture.

The terminal plate cover is useful for covering the area where power cables enter the wall (box). Necessary for new constructions.

For the LED models, it is possible to use additional lenses to concentrate the light beam at a width of 10°, 25° or 40°. Every lens location need a support.



code	description	color
710015	Adjustable wall bracket 2.5° (2 pieces)	Gray Anodized
710016	Adjustable wall bracket 3.6° (2 pieces)	Gray Anodized
710017	Adjustable wall bracket 4.9° (2 pieces)	Gray Anodized
710020	Fixed mini-support bracket (2 pieces)	Gray Anodized
710021	Joint	Gray Anodized
07945	Plate cover j-box Strip Oval	Gray Anodized
710022	Lens support for white LEDs (3 pieces)	
710024	Lens for white LED beam at 10° (3 pieces)	
710025	Lens for white LED beam at 25° (3 pieces)	
710026	Lens for white LED beam at 40° (3 pieces)	



code	description	color
710047	Visor L 2142	Gray Anodized

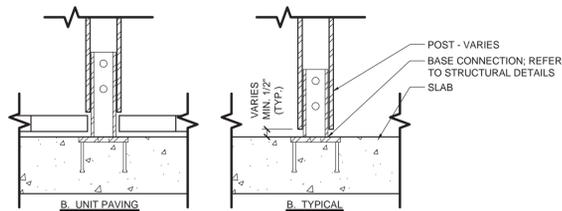
The visor accessory optimizes the direction of the light distribution.

PROVIDE CUSTOM POWDER COAT COLOR PER CITY REQUIREMENTS. COORDINATE CUSTOM SIGN/VISOR PANEL WITH CITY COPY & REQUIREMENTS.



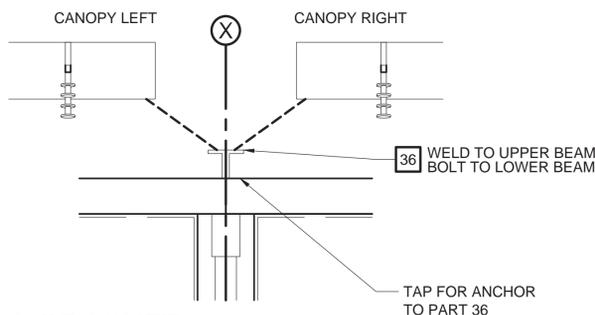
CONSTRUCTION DETAILS

DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	Date:
DEP. DIRECTOR			

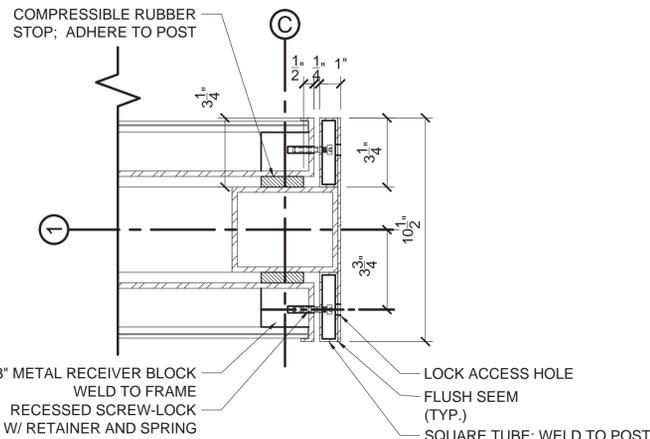


- NOTES:
 1. FACTORY-INSTALL COUNTERSUNK SCREW HOLES IN POSTS.
 2. ORIENT BOLT HOLES AND HARDWARE AS INDICATED.
 3. REFER TO STRUCTURAL DETAILS

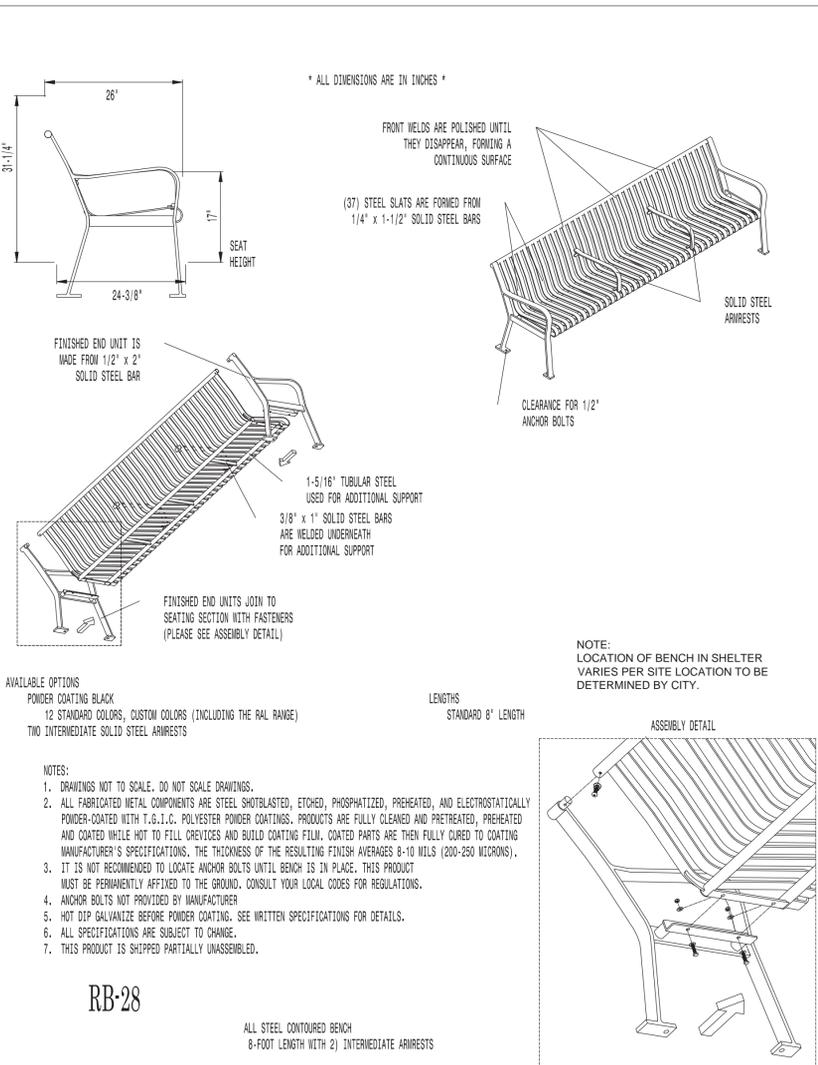
3 POST BASE - TYPICAL
 1" = 1'-0"



4 L-BRACKET
 1" = 1'-0"



5 UPPER FASCIA - PART 63
 3" = 1'-0"



- AVAILABLE OPTIONS
 POWDER COATING BLACK
 12 STANDARD COLORS, CUSTOM COLORS (INCLUDING THE GAL RANGE)
 TWO INTERMEDIATE SOLID STEEL ARMRESTS

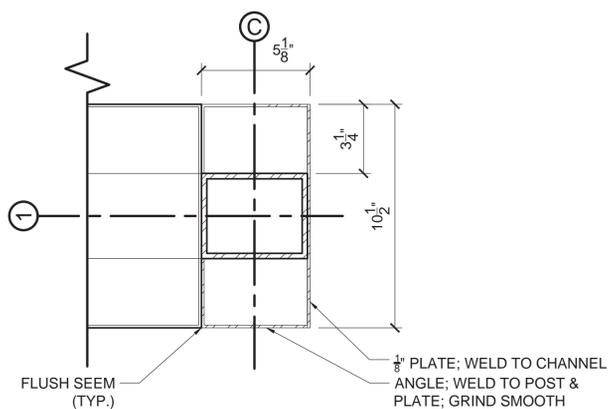
LENGTHS
 STANDARD 8' LENGTH

- NOTES:
 1. DRAWINGS NOT TO SCALE. DO NOT SCALE DRAWINGS.
 2. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FILL CREVICES AND BUILD COATING FILM. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS).
 3. IT IS NOT RECOMMENDED TO LOCATE ANCHOR BOLTS UNTIL BENCH IS IN PLACE. THIS PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
 4. ANCHOR BOLTS NOT PROVIDED BY MANUFACTURER
 5. HOT DIP GALVANIZE BEFORE POWDER COATING. SEE WRITTEN SPECIFICATIONS FOR DETAILS.
 6. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE.
 7. THIS PRODUCT IS SHIPPED PARTIALLY UNASSEMBLED.

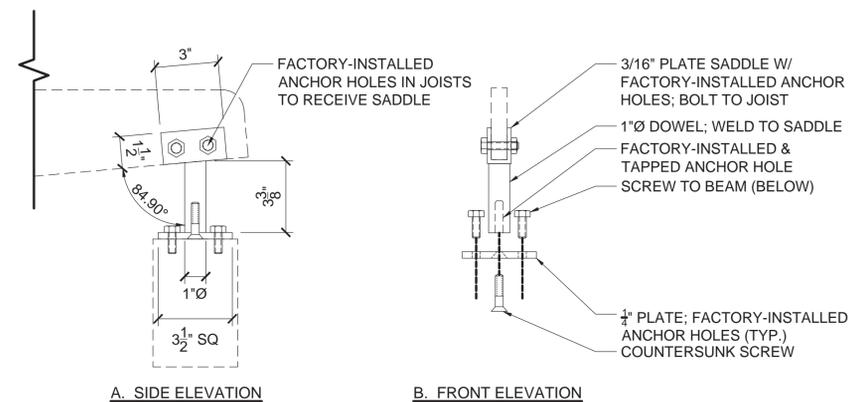
RB-28

ALL STEEL CONTOURED BENCH
 8-FOOT LENGTH WITH 2) INTERMEDIATE ARMRESTS

7 BENCH
 NTS



6 LOWER FASCIA - PART 64
 3" = 1'-0"



- NOTES:
 1. PROVIDE ELASTOMERIC SEALANT WHERE DOWEL PASSES THROUGH CANOPY, AS REVIEWED AND APPROVED BY ARCHITECT.
 2. PREDRILL & TAP SIGN PANEL BEAM PRIOR TO FINISHING.

2 SADDLE BRACKET
 3" = 1'-0"

DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS	INITIALS	COMMENTS
CADD ENGINEER	MS	Date: 04/03/14			
PROJECT ENGINEER	DLF	Date: 04/03/14			
DEPUTY DIRECTOR	EB	Date: 04/03/14			
DEP. DIRECTOR		Date: 04/03/14			



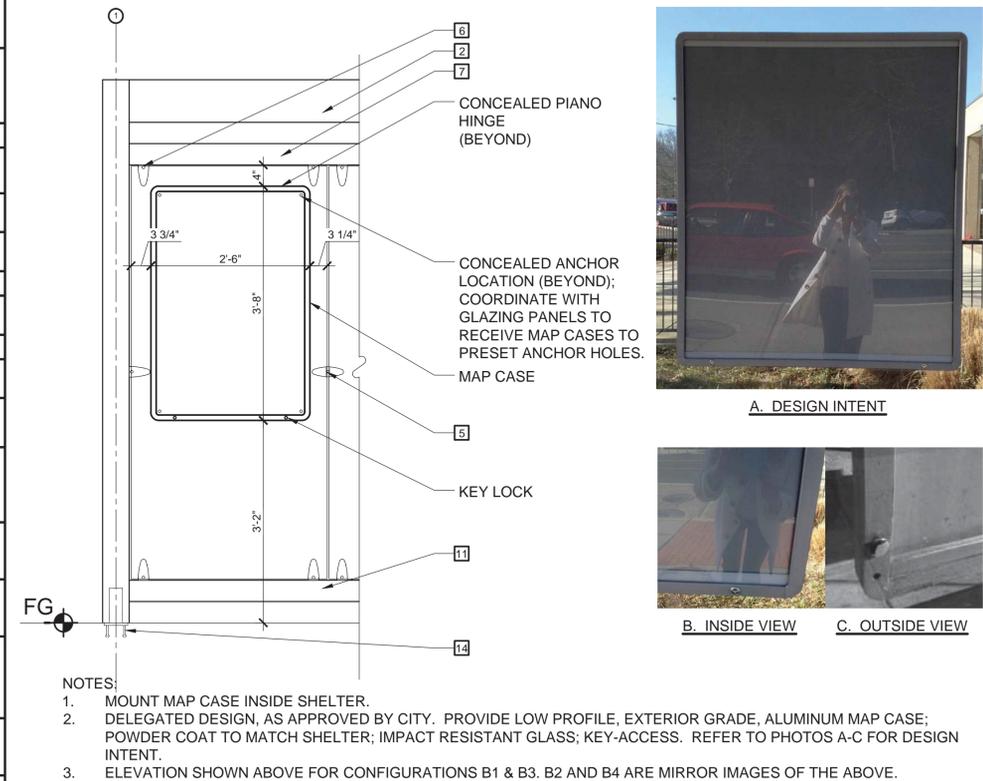
PART NO.	PART	DESCRIPTION	DIMENSION	OTHER	QUANTITY
1	JOIST	ALUMINUM PLATE TAPERED FROM 4" TO 7" AT BACK BEAM	1" THICK- SEE STRUCTURAL	ALL WELDS TO BE GROUND SMOOTH. POWDER COAT COLOR BLACK.	5
2	UPPER BEAM	RECTANGULAR TUBE	8"x5"	PUNCH FOR ELECTRICAL RUNS AT CENTER JOIST LOCATION	1
3	DOUBLE SIDE MOUNTED SPIDER CONNECTOR			TWO HEAVY-DUTY SS201ST SPIDER ASSEMBLIES CONNECTED BACK TO BACK AND COMPLETE WITH 2 HEAVY DUTY ARTICULATING GLASS BOLTS; DOUBLE FIXING BOLT PROVIDES SECURE FASTENING OF SPIDER ONTO STRUCTURE; GLASS BOLT OFFERS UNIQUE ALLEN KEY RECESS FOR QUICK ADJUSTABILITY; GLASS BOLT FEATURES 7.5 DEGREES OF ROTATION TO CREATE FACETTED GLASS WALLS AND CANOPIES OUT OF FLAT GLASS SPIDER FITTING: 2 ARMS (CONNECTED BACK TO BACK) 200MM BETWEEN FEET OF SPIDER APPROXIMATELY 119MM +/- 3MM FROM THE CENTERLINE OF SPIDER FIXING TO THE OUTSIDE FACE OF GLASS WHEN INSTALLED AB601T ARTICULATING BOLT; 60MM DIAMETER BUTTON FACE; M16 THREAD MINIMUM 38.1 MM [1 1/2"] DIAMETER HOLE IN GLASS. PROVIDE PRODUCT DATA & SHOP DRAWINGS FOR REVIEW & APPROVAL. STAINLESS STEEL	6
4	SINGLE SIDE MOUNTED SPIDER CONNECTOR			A HEAVY-DUTY SINGLE ARM SIDE-MOUNTED SPIDER FITTING COMPLETE WITH 1 HEAVY DUTY ARTICULATING GLASS BOLT DOUBLE FIXING BOLT PROVIDES SECURE FASTENING OF SPIDER ONTO STRUCTURE; GLASS BOLT OFFERS UNIQUE ALLEN KEY RECESS FOR QUICK ADJUSTABILITY; GLASS BOLT FEATURES 7.5 DEGREES OF ROTATION TO CREATE FACETTED GLASS WALLS AND CANOPIES OUT OF FLAT GLASS 1 ARM SPIDER FITTING APPROXIMATELY 119MM +/- 3MM FROM THE CENTERLINE OF SPIDER FIXING TO THE OUTSIDE FACE OF GLASS AB601T ARTICULATING BOLT 60MM DIAMETER BUTTON FACE; M16 THREAD MINIMUM 38.1 MM [1 1/2"] DIAMETER HOLE IN GLASS. PROVIDE PRODUCT DATA & SHOP DRAWINGS FOR REVIEW & APPROVAL. STAINLESS STEEL.	4
5	ELLIPTICAL GLASS TO GLASS CONNECTOR		-2" W X 6" LONG		3
6	ELLIPTICAL GLASS TO ALUMINUM CONNECTOR		-2" WIDE X 4" LONG		30
7	INTERMEDIATE BEAM	RECTANGULAR TUBE	4" DEEP X 4" WIDE	ALL WELDS TO BE GROUND SMOOTH. POWDER COAT COLOR BLACK.	1
8	TOP BEAM AT SIDES	RECTANGULAR TUBE	4" DEEP X 3" WIDE X 3'-1 1/2" LONG	ALL WELDS TO BE GROUND SMOOTH. POWDER COAT COLOR BLACK.	2
9	BLOCKING	ALUMINUM PLATE	3/4" THICK X 5" DEEP	POWDER COAT COLOR BLACK.	4
10	BASE BEAM AT SIDES	RECTANGULAR TUBE	4" DEEP X 3" WIDE	POWDER COAT COLOR BLACK.	2
11	BASE BEAM AT BACK	RECTANGULAR TUBE	4" DEEP X 4" WIDE	POWDER COAT COLOR BLACK.	1
12	POST	RECTANGULAR TUBE	5"x5"	PUNCH FOR ELECTRICAL RUNS TO CONNECT THROUGH TOP BEAM WITH WITH TOP ENDS CAPPED. POWDER COAT COLOR BLACK.	2
13	POST	RECTANGULAR TUBE	3"x4"	WITH TOP ENDS CAPPED. POWDER COAT COLOR BLACK.	2
14	SLEEVE	STAINLESS STEEL SLEEVE WITH EMBED PLATE		REFER TO STRUCTURAL DETAILS	
15	GROUNDING ROD	3/8" STEEL ROD.	EXTEND MIN. 1'-0" CONCRETE FOOTING		1
16	DECAL	FROSTED DIE-CUT VINYL	2" DIAMETER	DETAIL 9/L301; GRAPHIC DESIGN FILE PROVIDED BY CITY; APPLIED BY GLAZING VENDOR SANDWICH BETWEEN LAMINATED GLASS SHEETS. COORDINATE PRESET ANCHOR HOLES FOR PANELS THAT WILL RECEIVE SECONDARY MAP CASES. COORDINATE WITH GLAZING ITEM NO. 17.	18
17	GLAZING	SAFETY GLASS	6'-4 1/2" x 3'-1" x MIN 9/16" THICK	LAMINATED TEMPERED; DESIGN FOR MINIMUM INDICATED LOADS. COORDINATE PRESET ANCHOR HOLES FOR PANELS THAT WILL RECEIVE SECONDARY MAP CASES. COORDINATE WITH GLAZING ITEM NO. 16.	6
18	CANOPY GLAZING	FROSTED LAMINATED SAFETY GLASS	3'-1" X 5'-11 1/2" X MIN. 9/16" THICK	DESIGN FOR MINIMUM INDICATED LOADS; PROVIDE CALCULATIONS; PROVIDE 75% INTEGRAL SCREEN; PATTERN & COLOR AS REVIEWED AND APPROVED BY ARCHITECT.	4
19	LIGHT			INSTALL WITH CUSTOM VISOR/SIGN PANEL ITEM NO. 20 AND ADJUSTABLE WALL BRACKET ITEM NO. 23. COLOR: SATIN BLACK. PROVIDE UNDERGROUND CONNECTION TO LOCAL ELECTRICAL GRID. PROVIDE PLANS COMPLYING WITH ALL APPLICABLE CODES, PREPARED AND SEALED BY A STATE-LICENSED ELECTRICAL ENGINEER, AND AS DIRECTED BY THE CITY	1
20	VISOR/SIGN PANEL			COLOR: SATIN BLACK.	1
21	LETTERING	ENGRAVED STREET ADDRESS. COPY PROVIDED BY CITY.	4" HEIGHT	METAL ENGRAVED STREET LETTERING INTO CUSTOM VISOR/ SIGN PANEL BY LIGHTING MANUFACTURER. GEORGIA FONT; COLOR & COPY VARY PER SITE, PROVIDED BY CITY. PROVIDE HALF-SIZE PAPER MOCKUP FOR REVIEW & APPROVAL.	
22	ANCHOR PLATE	ALUMINUM ANCHOR PLATE FOR LIGHT ATTACHMENT	5" x 1/2" x 6'-4"	SHOP WELDED TO CENTER THREE JOISTS. PUNCH HOLES FOR ELECTRICAL RUNS AND LIGHT ANCHOR POINTS.	1
23	ADJUSTABLE LIGHT BRACKET		4.9" LONG	INSTALL WITH CUSTOM VISOR/SIGN PANEL ITEM NO. 20 AND LIGHT ITEM NO. 19. COLOR: SATIN BLACK.	4
24	BENCH	RB-28BENCH. 8'-0" LONG WITH TWO INTERMEDIATE ARM RESTS.		SEE DETAIL 2 SHEET L312	1
25	OPTIONAL MAP CASE			COORDINATE W/ ITEM 17 TO PRESET ANCHOR HOLES; DELETE ITEM 16 ON GLAZING TO RECEIVE MAP CASES. WEATHER TIGHT, SUITABLE FOR POSTER DISPLAY IN EXTERIOR EXPOSURES; SAFETY GLASS; COORDINATE W/ LOCK MECHANISM. SEE L3.13. COORDINATE MAP DIMENSIONS WITH CITY AND WMATA REQUIREMENTS.	1
26	PUSH TO TALK BUTTON	PUSH BUTTON FOR REAL TIME INFORMATION SIGNAGE WITH CUSTOM HOUSING TO MOUNT TO POST. COORDINATE WITH LUMINATOR REQUIREMENTS.	-3" W X 4" H. COORDINATE SIZE WITH LUMINATOR	INFORMATION BASED ON DRAFT OF LUMINATOR CONTROL DRAWING. COORDINATE WITH LUMINATOR AND WMATA REQUIREMENTS. COMPLETED BY OTHERS	1
27	INTERFACE CONTROL PANEL	INTERFACE CONTROL PANEL FOR REAL TIME INFORMATION. COORDINATE WITH LUMINATOR REQUIREMENTS.	-46.25" L x 9.25" H X 6.5" D. COORDINATE SIZE WITH LUMINATOR	INFORMATION BASED ON DRAFT OF LUMINATOR CONTROL DRAWING. COORDINATE WITH LUMINATOR AND WMATA REQUIREMENTS. COMPLETED BY OTHERS	1

*FOR ALL WMATA MAINTAINED SHELTERS SHALL BE PAINTED "METRO BROWN", FEDERAL STANDARD 20040, 595C. COORDINATE SITE SPECIFIC LOCATIONS WITH WMATA.

1 PART SCHEDULE

- PROVIDE ALL NECESSARY WORKMANSHIP AND HARDWARE.
- PROVIDE SHOP DRAWINGS, SAMPLES, SUBMITTALS, AND CALCULATIONS FOR ALL COMPONENTS AND ASSEMBLIES.
- ALL POWDER COATING SHALL BE SATIN BLACK FINISH. FOR ALL WMATA MAINTAINED SHELTERS SHALL BE PAINTED "METRO BROWN", FEDERAL STANDARD 20040, 595C. COORDINATE SITE SPECIFIC LOCATIONS WITH WMATA.
- FACTORY ASSEMBLE AND COMPONENTS FINISH PANELS. FIELD-WELDING ONLY PER STRUCTURAL REQUIREMENTS.
- PROVIDE NON-CORROSIVE HARDWARE AND FASTENERS FULLY COMPATIBLE WITH ADJACENT MATERIALS.
- INSTALL SHELTER PLUMB AND LEVEL. ALL JOINTS SHALL BE SQUARE, TRUE, AND TIGHT.

2 GENERAL NOTES



3 MAP CASE

3/4" = 1'-0"



CITY OF ALEXANDRIA BUS SHELTER DESIGN PROJECT

CITY OF ALEXANDRIA, VIRGINIA
Department of Project Implementation
P. O. Box 178
Alexandria, Virginia 22313



CONSTRUCTION
DETAILS

DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	Date:
DEP. DIRECTOR			

Scale: AS INDICATED Project No. 11-122 Sheet C313

ALEXANDRIA BUS SHELTER MODIFICATIONS

CITY OF ALEXANDRIA, VIRGINIA

1. GENERAL
 A. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE PROVISIONS OF THE 2009 INTERNATIONAL BUILDING CODE & VIRGINIA STATE BUILDING CODE & THE CITY OF ALEXANDRIA REQUIREMENTS

B. DESIGN LOADS (PSF):

DESIGN LOADS			
LOCATION	LIVE LOAD	DEAD LOAD	TOTAL LOAD
ROOF JOIST:	30 PSF	15 PSF	45 PSF
CONCRETE SLAB:	100 PSF		

SNOW LOADS – ASCE 7:

- GROUND SNOW LOAD (P_g) = 25 PSF (FIG. 7-1)
- EXPOSURE FACTOR (C_e) = 0.9 (TABLE 7-2, TERRAIN B)
- THERMAL FACTOR (C_t) = 1.2 (TABLE 7-3)
- IMPORTANCE FACTOR (I) = 1.00 (TABLE 7-4)
- ROOF SLOPE FACTOR (C_s) = 1.0 WITH ROOF PITCH $< 8:12$ (FIG. 7-2)
- FLAT ROOF SNOW LOAD ($P_f=0.7 C_e C_t I P_g$) = 19 PSF
- SLOPED ROOF SNOW LOAD ($P_s=C_s P_f$) = 19 PSF
- DESIGNED SNOW LOAD = 30 PSF

WIND LOADS – IRC 2009 AND ASCE 7-05:

MAIN WIND-FORCE RESISTING SYSTEM AND COMPONENTS AND CLADDING LOADS ARE EVALUATED IN ACCORDANCE WITH PROVISIONS OF SECTION 1609 OF THE 2009.

- BASIC WIND SPEED = 90 MPH (3-SECOND GUST WIND SPEED)
- WIND LOAD IMPORTANCE FACTOR = 1.0
- WIND EXPOSURE CATEGORY = C
- TOPOGRAPHIC EFFECTS FACTOR (K_z) = 1.0
- DESIGN WIND LOAD = 30 PSF

A. THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDENT UPON COMPLETION ACCORDING TO THE PLANS AND SPECIFICATIONS. THE STRUCTURAL ENGINEER OF RECORD ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. THE METHOD OF CONSTRUCTION AND SEQUENCE OF OPERATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY ANY NECESSARY BRACING, GUYS, ETC., TO PROPERLY BRACE THE STRUCTURE AGAINST WIND, DEAD AND LIVE LOADS UNTIL THE BUILDING IS COMPLETED ACCORDING TO THE PLANS AND SPECIFICATIONS. ANY QUESTIONS REGARDING TEMPORARY BRACING REQUIREMENTS SHOULD BE FORWARDED TO A STRUCTURAL ENGINEER FOR REVIEW.

B. CONTRACTOR SHALL REVIEW AND VERIFY ALL FIELD CONDITIONS, DIMENSIONS AND CONTRACT DOCUMENTS PRIOR TO COMMENCING WORK AND SHALL NOTIFY THE S.E.R. OR ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS BEFORE PROCEEDING.

C. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE GENERAL CONTRACTOR AND REVIEWED BY THE S.E.R. SHOULD THE OWNER OR CONTRACTOR FAIL TO OBTAIN THE S.E.R.'S REVIEW OF THE SHOP DRAWINGS, THE S.E.R. WILL NOT ACCEPT RESPONSIBILITY FOR THE DESIGN AND CERTIFICATION OF THIS PROJECT. PRIOR TO SUBMISSION, THE CONTRACTOR SHALL REVIEW SHOP DRAWINGS FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. SHOP DRAWINGS SHALL NOT BE PRODUCED PRIOR TO FINAL CONSTRUCTION SET.

D. DO NOT FABRICATE PRIOR TO SHOP DRAWING REVIEW. REVIEW IS LIMITED TO CONFORMANCE WITH THE DESIGN CONCEPT. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR FOR COMPARABILITY OF ARCHITECTURAL AND STRUCTURAL REQUIREMENTS. NOTIFY ARCHITECT OR ENGINEER OF ANY CONFLICTS PRIOR TO FABRICATION.

2. EARTHWORK

A. THE FOUNDATION HAS BEEN DESIGNED FOR AN ASSUMED ALLOWABLE BEARING PRESSURE OF 1000 PSF FOR ORIGINAL UNDISTURBED SOILS AND COMPACTED FILL. THE FOOTING SUBGRADES SHALL BE VERIFIED FOR BEARING REQUIREMENTS BY A GEOTECHNICAL ENGINEER. JUST PRIOR TO THE PLACEMENT OF CONCRETE, FOOTING EXCAVATIONS SHALL HAVE THE SIDES AND BOTTOMS CLEANED AND HAND TAMPED TO A UNIFORM SURFACE.

B. ALL FOOTINGS SHALL PROJECT AT LEAST 1'-0" INTO UNDISTURBED NATURAL SOIL OR COMPACTED STRUCTURAL FILL. BOTTOMS OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 2'-6" BELOW FINISHED GRADE. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED. NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (TWO HORIZONTAL TO ONE VERTICAL) TO A FOOTING. DO NOT PLACE CONCRETE OVER FROZEN SOIL. FOOTINGS SHALL NOT BE FOUND ON EXISTING FILL, LOOSE OR WET SOIL. STEP FOOTINGS WITH A RATIO OF 2 HORIZONTAL TO 1 VERTICAL.

C. PRIOR TO THE START OF ANY CONSTRUCTION, ALL VEGETATION, TOPSOIL, ORGANIC SOILS, SOIL MIXED WITH EXCESSIVE AMOUNTS OF ROOTS, STUMPS, ASPHALT OR OTHER DELETERIOUS MATERIALS, BUILDING DEBRIS, EXISTING UTILITY LINES AND BACKFILL SHALL BE REMOVED FROM ALL BUILDING AND PAVEMENT AREAS INCLUDING AT LEAST 5 FT OFFSETS OUTSIDE ALL BUILDING AND PAVEMENT LINES. SOFT, VERY WET AND LOOSE SOILS SHALL ALSO BE REMOVED FROM BUILDING AREAS. THE CLEARED AREAS SHALL ALSO BE PROOF ROLLED PRIOR TO THE PLACEMENT OF FILL. PROOF ROLLING SHALL BE CARRIED OUT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER. IF PUMPING OR RUTTING IS OBSERVED, THE SOFT OR WET MATERIAL SHALL BE REMOVED DOWN TO FIRM SUBGRADE AND REPLACED WITH SUITABLE FILL. ALL POTENTIALLY EXPANSIVE CLAY (CL-CH) SOILS BELOW FOOTINGS AND FOR AT LEAST 2 FT BELOW SLABS AND PAVEMENTS SHALL BE REMOVED AND REPLACED WITH SUITABLE FILL MATERIALS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS.

D. CONTRACTOR TO PROVIDE A DE-WATERING SYSTEM (IF REQUIRED) TO PREVENT SOFTENING OF SUBGRADE, FACILITATE CONTROL OF GROUNDWATER AND ALLOW CONSTRUCTION IN DRY CONDITIONS. NO EXCAVATION SHALL EXTEND CLOSER THAN 2 FT TO GROUNDWATER LEVEL. IF THE SOIL AT THE SUBGRADE BECOMES WET, THEN CONSTRUCTION SHOULD BE STOPPED AND DE-WATERING MUST BE PERFORMED TO LOWER THE WATER LEVEL. RESUME EXCAVATION ONLY AFTER THE GEOTECHNICAL ENGINEER HAS EXAMINED THE CONDITION AND HAS APPROVED THE RESTART OF ANY EXCAVATION WORK.

E. HEAVE – DUE TO THE DEPTH OF THE FOUNDATION, THE STRUCTURE (THE SLAB AND ALUMINUM FRAMING) MAY BE SUBJECTED TO HEAVE DURING FREEZING SEASON. ALL ELECTRICAL WIRES AND CONDUIT SHALL BE DESIGNED TO ACCOMMODATE 1" OF HEAVE.

3. CONCRETE

A. CONCRETE MATERIAL, QUALITY CONTROL, DESIGN AND CONSTRUCTION SHALL CONFIRM WITH REQUIREMENTS OF CHAPTER 19, INTERNATIONAL BUILDING CODE (IBC), AND WITH BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI-318).

B. MINIMUM SPECIFIED 28 DAYS CONCRETE DESIGN STRENGTH SHALL BE AS SHOWN ON THE CONCRETE STRENGTH AND DURABILITY REQUIREMENTS TABLE LOCATED ON SHEET S0.2 UNLESS A HIGHER STRENGTH IS SHOWN ON THE CONSTRUCTION DRAWINGS. EXPOSURE CATEGORIES ARE PER ACI-318, CHAPTER 4. CEMENTITIOUS MATERIALS CONTENT SHALL BE LIMITED AS PER ACI-318, TABLE 4.2.2. ALL CEMENTITIOUS MATERIALS SHALL BE INCLUDED IN CALCULATING WATER/CEMENT RATIO.

C. MIXING, TRANSPORTING, AND PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 301.

D. HIGH STRENGTH GROUT SHALL BE NON-SHRINK, NON-METALLIC CONFORMING TO ASTM C 827 AND SHALL HAVE A COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.

E. ALL REINFORCING STEEL SHALL BE HIGH STRENGTH NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60 (60,000 PSI). WELDED WIRE FABRIC (WFF) SHALL CONFORM TO ASTM A-185. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE ACI'S "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES" (ACI-315). DETAILS OF REINFORCEMENT SHALL CONFORM TO ACI 318-LATEST EDITION, ACI 315 AND CRSI STANDARDS.

F. CONCRETE PROTECTION FOR REINFORCEMENT: PROVIDE THE MINIMUM CLEARANCES (COVER) FOR REINFORCEMENT AS FOLLOWS:

FOOTINGS AND OTHER CONCRETE POURED AGAINST EARTH	3"	$F'c = 4000$ PSI
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER		
#5 BAR AND SMALLER	1 1/2"	$F'c = 4000$ PSI
#6 BAR AND LARGER	2"	$F'c = 4000$ PSI

SLABS ON GROUND (EXTERIOR), U.N.O. MID-DEPTH $F'c = 4000$ PSI

G. SLABS ON GRADE SHALL BE 8" THICK – SEE STRUCTURAL SLAB PLAN FOR REQUIRED REINFORCEMENT. PLACE CONCRETE OVER 6 MIL POLYETHYLENE VAPOR BARRIER AND 95% COMPACTED MATERIAL OR AS RECOMMENDED BY GEOTECHNICAL ENGINEER. THE AGGREGATE LAYER SHALL BE PLACED OVER FIRM NATURAL SUBGRADE OR ON COMPACTED AND CONTROLLED FILL. USE AIR-ENTRAIMENT AT ALL EXTERIOR SLABS. PROVIDE CONTROL AND CONSTRUCTION JOINTS AT 15' – 25' MAXIMUM OR AS REQUIRED TO PREVENT UNCONTROLLED CRACKING PER ACI RECOMMENDATIONS.

H. SLAB OPENINGS AND SLEEVES SMALLER THAN 12" (IN LARGER DIMENSION) ARE NOT SHOWN ON PLANS. CONTRACTOR SHALL SUBMIT ALL OPENINGS (SIZE AND LOCATION) AS A SINGLE COORDINATED SLEEVE PLAN FOR REVIEW AND APPROVAL.

I. CHAMFER ALL EXPOSED CONCRETE CORNERS, 3/4"x3/4" UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.

J. MAXIMUM PERMISSIBLE WATER CEMENTITIOUS MATERIALS RATIOS FOR CONCRETE WHEN STRENGTH DATA FROM FIELD EXPERIENCE OR TRIAL MIXTURES ARE NOT AVAILABLE SHALL BE IN ACCORDANCE WITH ACI 318.

K. PROTECT CONCRETE FROM FREEZING DURING PLACING AND FOR A PERIOD OF NOT LESS THAN FIVE DAYS AFTERWARD.

L. CAST IN PLACE ALL SLEEVES AND INSERTS.

3. STEEL

C. STRUCTURAL STEEL: SQUARE AND RECTANGULAR HSS SHAPES TO CONFORM TO ASTM A304 (FY = 30 KSI) ALL STRUCTURAL PLATES SHALL CONFORM TO ASTM A304 (FY = 30 KSI)

D. WELDS SHALL COMPLY WITH AWS D1.1. WELDING ELECTRODE: E70XX

E. PROVIDE STEEL PLATE FOR ALL STRUCTURAL STEEL BEARING ON CONCRETE.

F. ALL ANCHOR BOLTS, BEARING PLATES, AND INSERTS SHALL BE CAST INTO CONNECTING WORK USING PRE-SET TEMPLATES.

G. ALL STEEL EXPOSED TO WEATHER, INCLUDING STEEL LINTELS FOR MASONRY OPENINGS, EXCEPT WHERE FABRICATED OF APPROVED CORROSION-RESISTANT STEEL OR OF STEEL HAVING A CORROSION RESISTANT OR OTHER APPROVED COATING, SHALL BE PROTECTED AGAINST CORROSION WITH AN APPROVED COAT OF PAINT, ENAMEL, OR OTHER APPROVED PROTECTION.

4. ALUMINUM SECTIONS

A. ALUMINUM DESIGN IS BASED ON, AND THE CONSTRUCTION SHALL CONFORM TO THE 2010 EDITION OF THE ALUMINUM DESIGN MANUAL AND STRUCTURAL WELDING CODE – ALUMINUM OF AMERICAN WELDING SOCIETY.

B. ALUMINUM SHALL BE NEW AND SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:		
6061 -T6 ANGLES, ROLLED SECTIONS	ASTM B038	$F_y = 35$ KSI (MIN.)
6061 -T6 TUBES AND PIPES	ASTM B429	$F_y = 35$ KSI (MIN.)
6061 -T6 PLATE	ASTM B209	$F_y = 35$ KSI (MIN.)

C. ALL MECHANICAL CONNECTIONS SHALL BE MADE USING TYPE 304 STAINLESS STEEL HARDWARE (BOLTS, NUTS, WASHERS, SCREWS).

D. ALL WELDS ARE TO BE PERFORMED BY A QUALIFIED CERTIFIED WELDER AND SHALL BE MADE USING 5356 WELD FILLER.

E. SHOP DRAWINGS ARE REQUIRED FOR THE FABRICATION OF THE COMPONENT PARTS OF THE STRUCTURE AND THE CONNECTIONS.

F. COATING – ALUMINUM MEMBERS SHALL BE ANODIZED AND COATED WITH ENCOATE.

G. ROOF JOIST LIVE LOAD DEFLECTION SHALL NOT EXCEED $L/360$ UP TO A MAXIMUM OF 0.8". TOTAL LOAD DEFLECTION SHALL NOT EXCEED $L/240$ UP TO A MAXIMUM OF 1.0".

5. SHOP DRAWINGS

A. CONTRACTOR SHALL SUBMIT A MINIMUM OF THREE (3) COPIES OF SHOP DRAWINGS FOR THE FOLLOWING STRUCTURAL ITEMS:

- CONCRETE
 - FOUNDATION REBAR DRAWINGS
 - CONCRETE MIX DESIGNS (INCLUDING TEST RESULTS & ADMIXTURES)
 - CONCRETE ACCESSORIES (SEALANTS, GROUTS, ANCHOR BOLTS, EPOXIES)
 - FLOOR FLATNESS AND LEVELNESS CERTIFICATION.
- ALUMINUM
 - BEAMS AND JOIST
 - COLUMNS
- STEEL
 - BASE PLATES
 - WELDED STUDS (ANCHORS RODS)

SHEET INDEX	
SHEET	DESCRIPTION
S0.1	GENERAL NOTES
S1.1	BUS SHELTER SLAB PLANS
S1.2	BASE FRAMING PLANS
S1.3	INTERMEDIATE FRAMING PLANS
S1.4	ROOF FRAMING PLANS
S1.5	COLUMN SCHEDULE
S2.1	SECTIONS AND DETAILS

CITY OF ALEXANDRIA BUS SHELTER DESIGN PROJECT

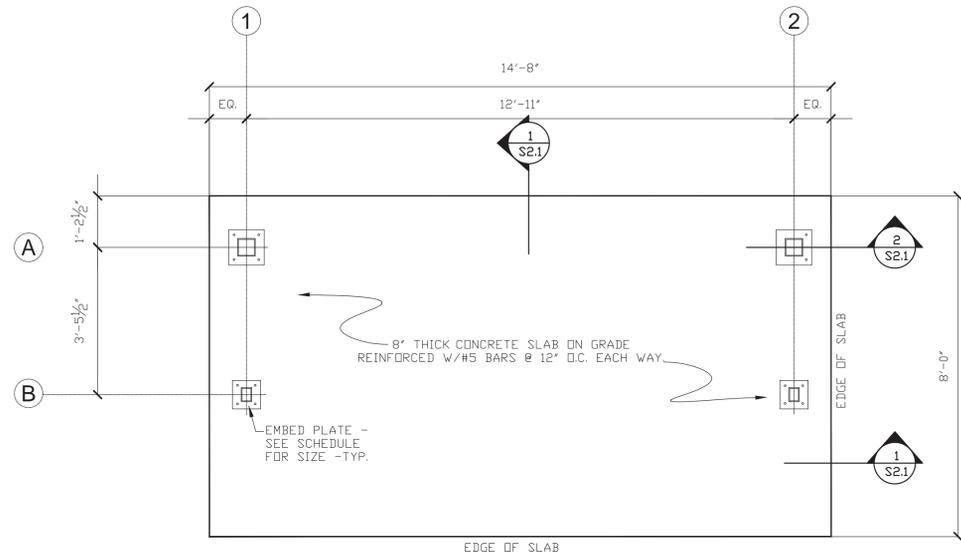


CITY OF ALEXANDRIA, VIRGINIA
 Department of Project Implementation
 P. O. Box 178
 Alexandria, Virginia 22313

GENERAL NOTES

DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	Date:
DEP. DIRECTOR			

Scale: AS INDICATED Project No. 11-122 Sheet S0.1

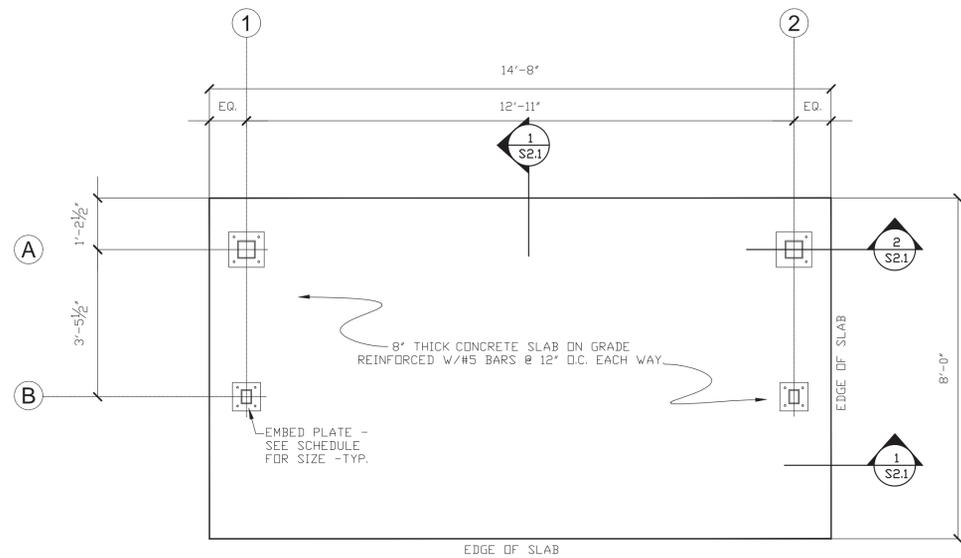


SLAB PLAN (SHELTER CONFIGURATION B-2)

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

NOTES:

1. SLAB ON GRADE SHALL BE **4000** psi NORMAL WEIGHT CONCRETE, **8"** THICK REINFORCED W/#5 BARS @ 12" O.C. EACH WAY PLACED ON 6 MIL. POLYETHYLENE VAPOR BARRIER OVER 95% COMPACTED MATERIAL.
2. TOP OF SLAB ELEVATION **VARIES**. VERIFY WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS.
3. G.C. TO VERIFY ALL DIMENSIONS SHOWN WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. COORDINATE PITCHED AREAS, DEPRESSIONS, AND DRAINS WITH ARCHITECTURAL DRAWINGS.

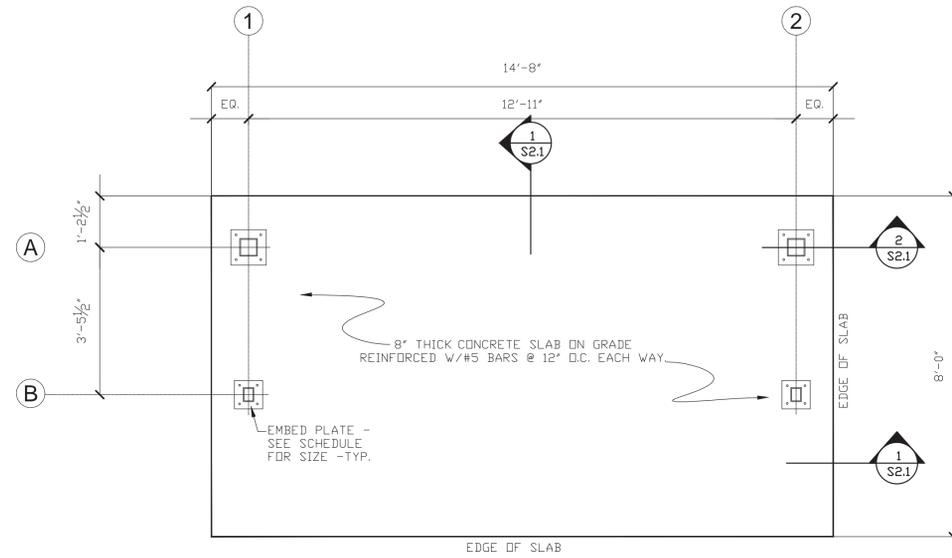


SLAB PLAN (SHELTER CONFIGURATION B-4)

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

NOTES:

1. SLAB ON GRADE SHALL BE **4000** psi NORMAL WEIGHT CONCRETE, **8"** THICK REINFORCED W/#5 BARS @ 12" O.C. EACH WAY PLACED ON 6 MIL. POLYETHYLENE VAPOR BARRIER OVER 95% COMPACTED MATERIAL.
2. TOP OF SLAB ELEVATION **VARIES**. VERIFY WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS.
3. G.C. TO VERIFY ALL DIMENSIONS SHOWN WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. COORDINATE PITCHED AREAS, DEPRESSIONS, AND DRAINS WITH ARCHITECTURAL DRAWINGS.

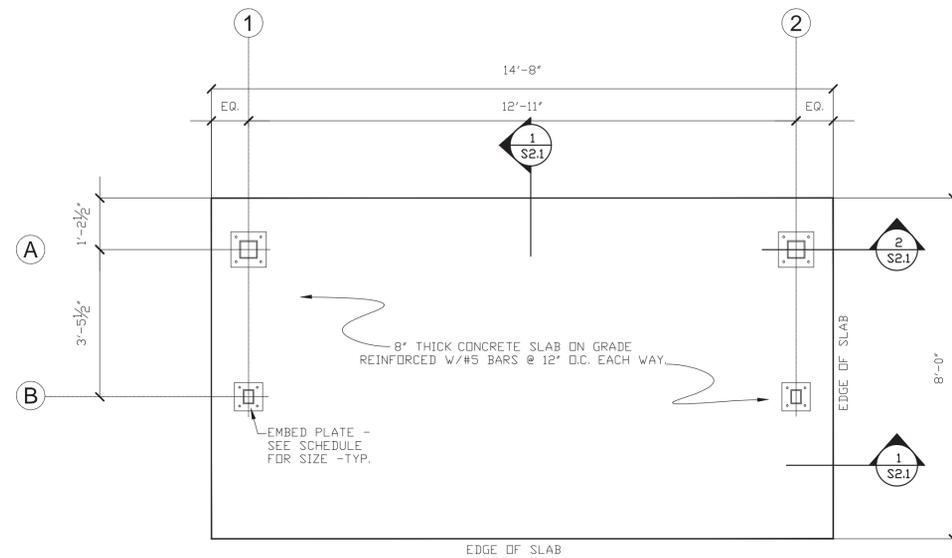


SLAB PLAN (SHELTER CONFIGURATION B-1)

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

NOTES:

1. SLAB ON GRADE SHALL BE **4000** psi NORMAL WEIGHT CONCRETE, **8"** THICK REINFORCED W/#5 BARS @ 12" O.C. EACH WAY PLACED ON 6 MIL. POLYETHYLENE VAPOR BARRIER OVER 95% COMPACTED MATERIAL.
2. TOP OF SLAB ELEVATION **VARIES**. VERIFY WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS.
3. G.C. TO VERIFY ALL DIMENSIONS SHOWN WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. COORDINATE PITCHED AREAS, DEPRESSIONS, AND DRAINS WITH ARCHITECTURAL DRAWINGS.



SLAB PLAN (SHELTER CONFIGURATION B-3)

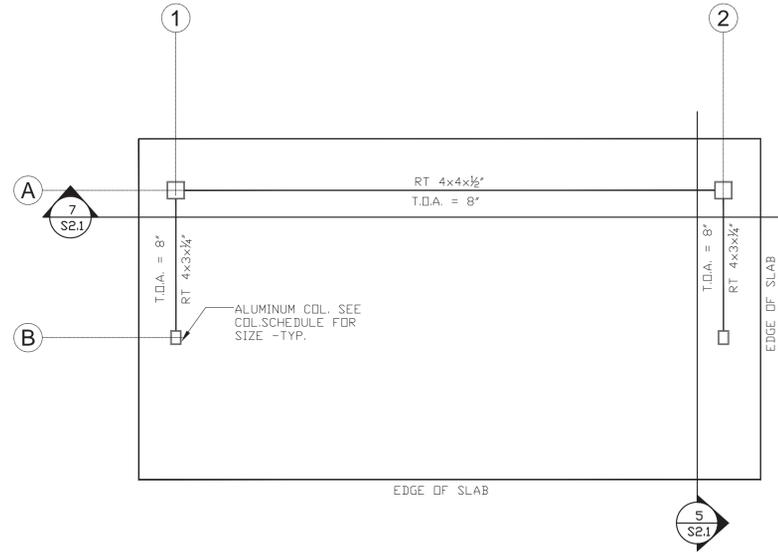
SCALE: 1/2" = 1'-0"

NOTES:

1. SLAB ON GRADE SHALL BE **4000** psi NORMAL WEIGHT CONCRETE, **8"** THICK REINFORCED W/#5 BARS @ 12" O.C. EACH WAY PLACED ON 6 MIL. POLYETHYLENE VAPOR BARRIER OVER 95% COMPACTED MATERIAL.
2. TOP OF SLAB ELEVATION **VARIES**. VERIFY WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS.
3. G.C. TO VERIFY ALL DIMENSIONS SHOWN WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. COORDINATE PITCHED AREAS, DEPRESSIONS, AND DRAINS WITH ARCHITECTURAL DRAWINGS.



DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	Date:
DEP. DIRECTOR	EB	Date: 04/03/14	Date:

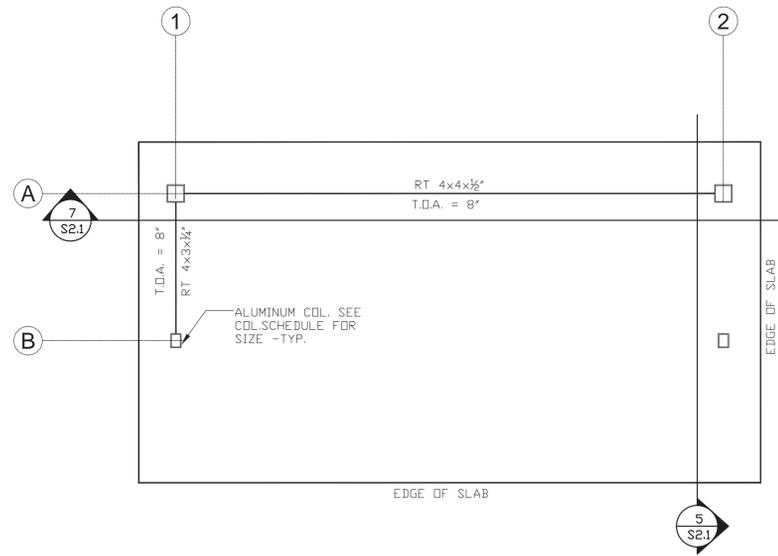


BASE FRAMING PLAN (SHELTER CONFIGURATION B-2)

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

NOTES:

1. T.O.A = (TOP OF ALUMINUM) +8" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.

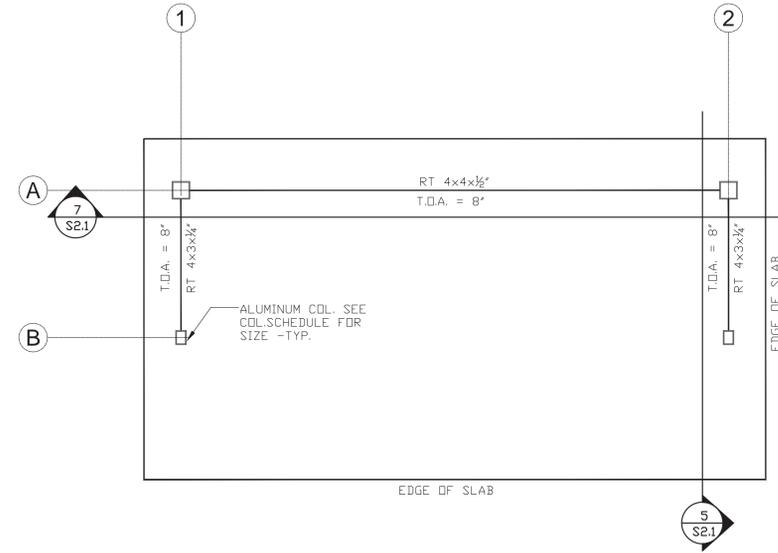


BASE FRAMING PLAN (SHELTER CONFIGURATION B-4)

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

NOTES:

1. T.O.A = (TOP OF ALUMINUM) +8" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.

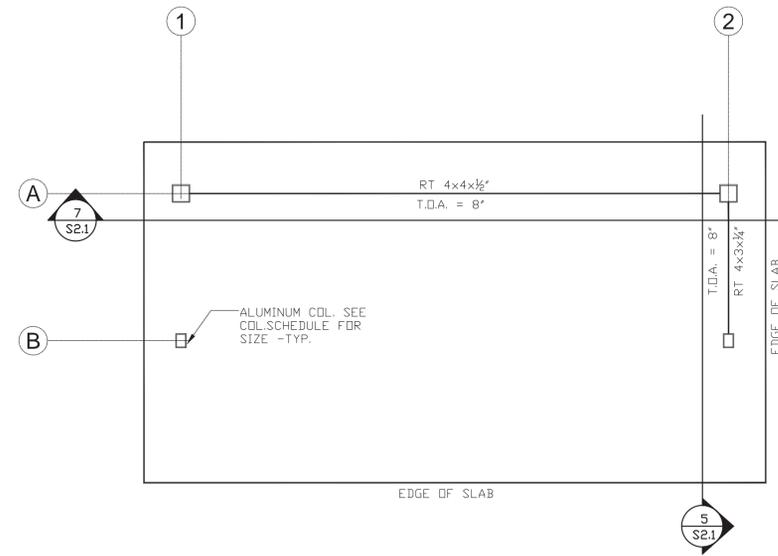


BASE FRAMING PLAN (SHELTER CONFIGURATION B-1)

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

NOTES:

1. T.O.A = (TOP OF ALUMINUM) +8" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.



BASE FRAMING PLAN (SHELTER CONFIGURATION B-3)

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

NOTES:

1. T.O.A = (TOP OF ALUMINUM) +8" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.

CITY OF ALEXANDRIA BUS SHELTER DESIGN PROJECT

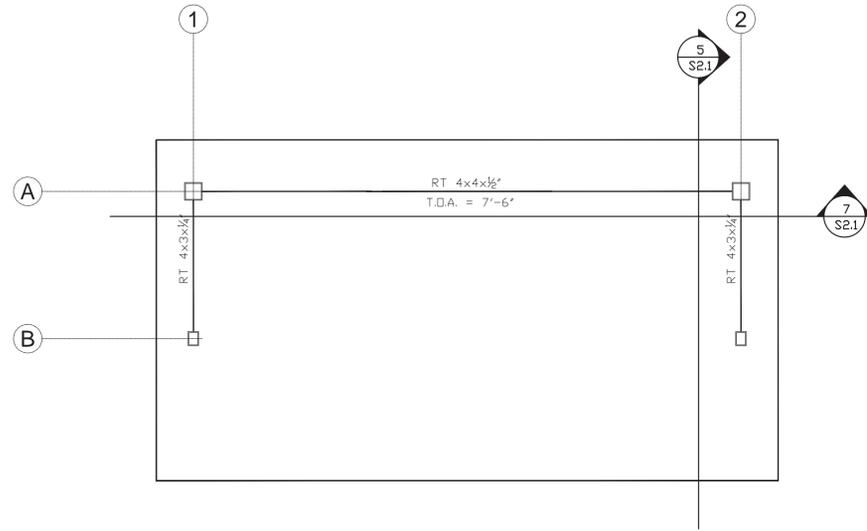
BASE FRAMING PLANS

CITY OF ALEXANDRIA, VIRGINIA
 Department of Project Implementation
 P. O. Box 178
 Alexandria, Virginia 22313



DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	
DEP. DIRECTOR		Date: 04/03/14	

Scale: AS INDICATED Project No. 11-122 Sheet S1.2

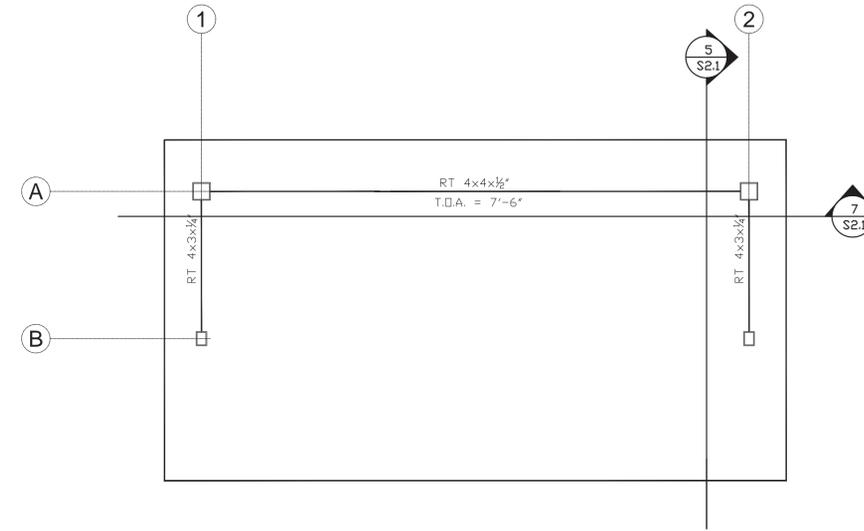


INTERMEDIATE FRAMING PLAN (SHELTER CONFIGURATION B-2)

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

NOTES:

1. T.O.A = (TOP OF ALUMINUM) 7'-6" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.

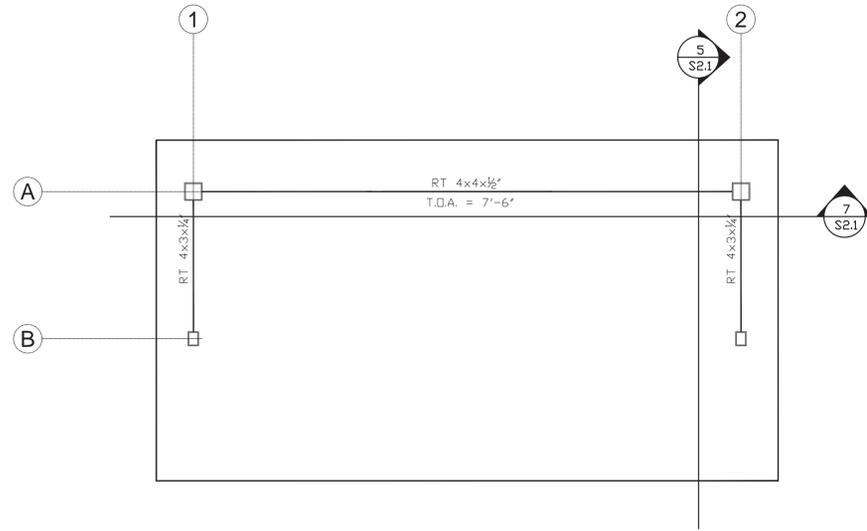


INTERMEDIATE FRAMING PLAN (SHELTER CONFIGURATION B-1)

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

NOTES:

1. T.O.A = (TOP OF ALUMINUM) 7'-6" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.

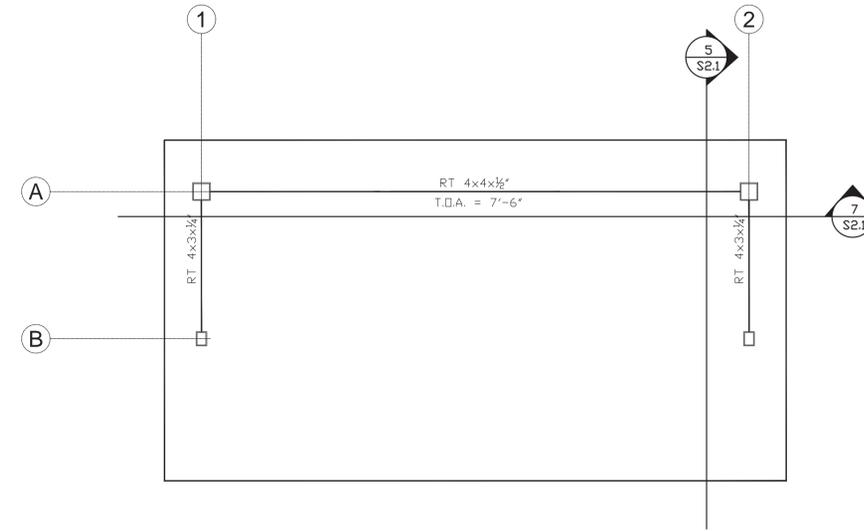


INTERMEDIATE FRAMING PLAN (SHELTER CONFIGURATION B-4)

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

NOTES:

1. T.O.A = (TOP OF ALUMINUM) 7'-6" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.



INTERMEDIATE FRAMING PLAN (SHELTER CONFIGURATION B-3)

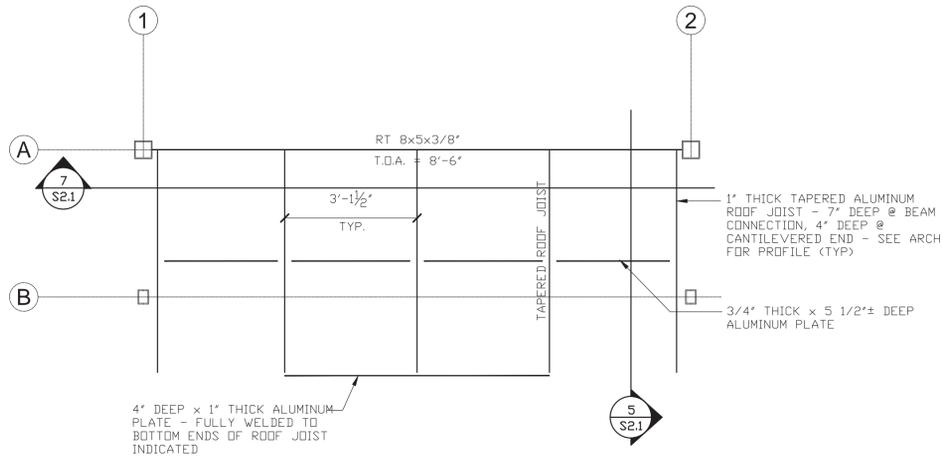
SCALE: 1/2" = 1'-0"

NOTES:

1. T.O.A = (TOP OF ALUMINUM) 7'-6" FROM CONCRETE SLAB (U.N.D.)
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.



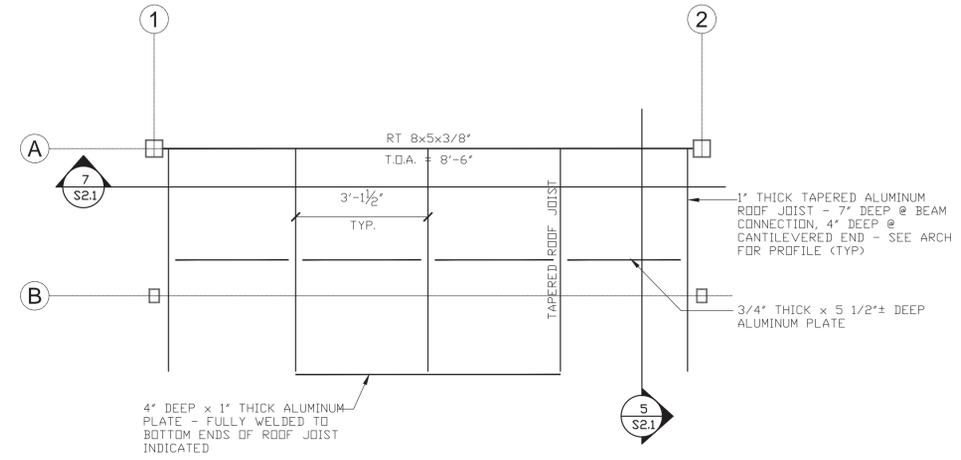
DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	
DEP. DIRECTOR			



ROOF FRAMING PLAN (SHELTER CONFIGURATION B-2)
SCALE: 1/2" = 1'-0"

NOTES:

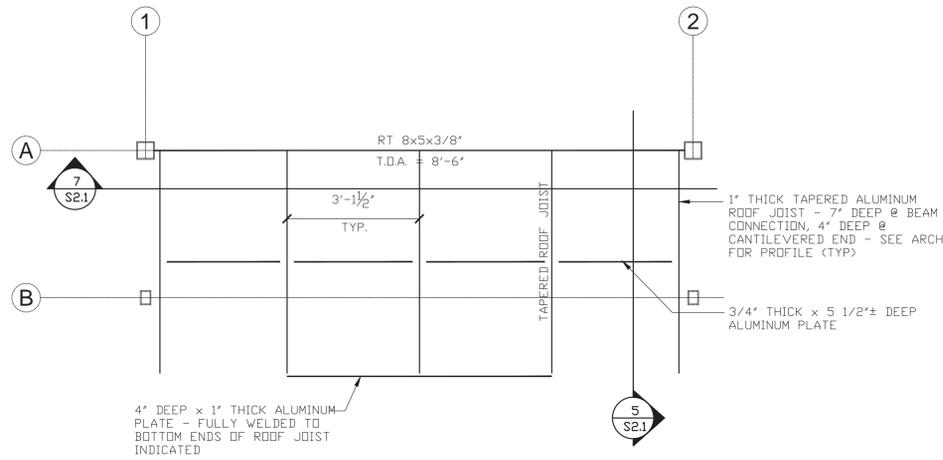
1. T.O.A = (TOP OF ALUMINUM) 8'-6" FROM CONCRETE SLAB.
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.



ROOF FRAMING PLAN (SHELTER CONFIGURATION B-1)
SCALE: 1/2" = 1'-0"

NOTES:

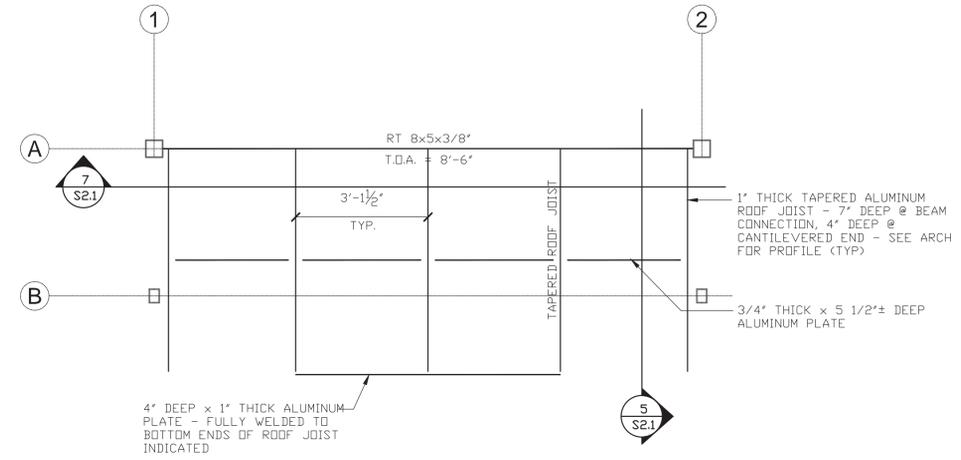
1. T.O.A = (TOP OF ALUMINUM) 8'-6" FROM CONCRETE SLAB.
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.



ROOF FRAMING PLAN (SHELTER CONFIGURATION B-4)
SCALE: 1/2" = 1'-0"

NOTES:

1. T.O.A = (TOP OF ALUMINUM) 8'-6" FROM CONCRETE SLAB.
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.



ROOF FRAMING PLAN (SHELTER CONFIGURATION B-3)
SCALE: 1/2" = 1'-0"

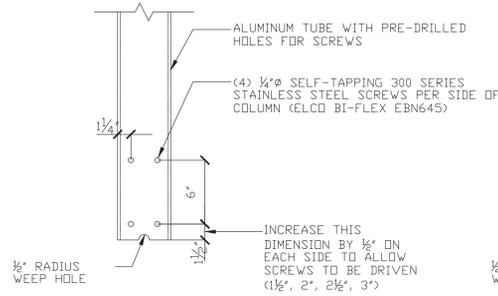
NOTES:

1. T.O.A = (TOP OF ALUMINUM) 8'-6" FROM CONCRETE SLAB.
2. ALL ALUMINUM MEMBERS MUST BE 6061-T6.
3. SEE COLUMN SCHEDULE FOR ALUMINUM COLUMN SIZE.

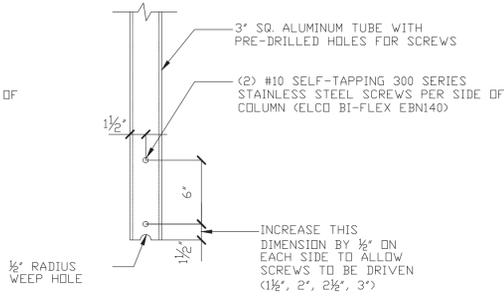


DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	
DEP. DIRECTOR			

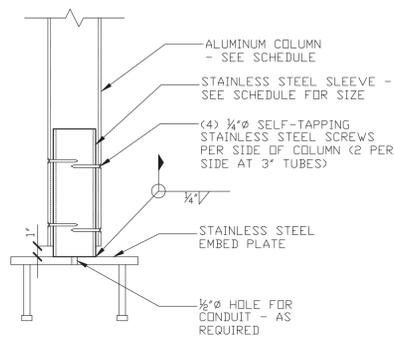
Date: _____



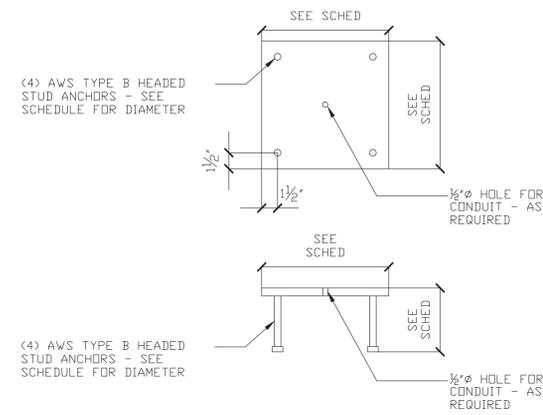
3 SECTION SCREW HOLES @ ALUMINUM TUBES
S1.5 SCALE: 1-1/2" = 1'-0"



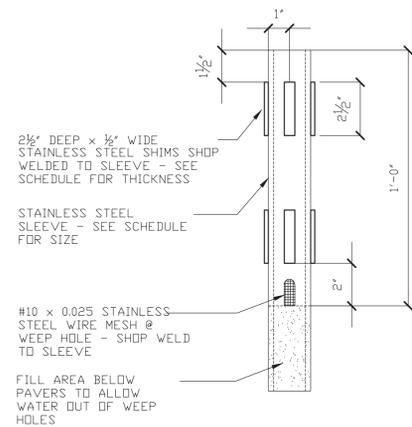
2 SECTION AT STAINLESS STEEL SLEEVE
S1.5 SCALE: 1-1/2" = 1'-0"



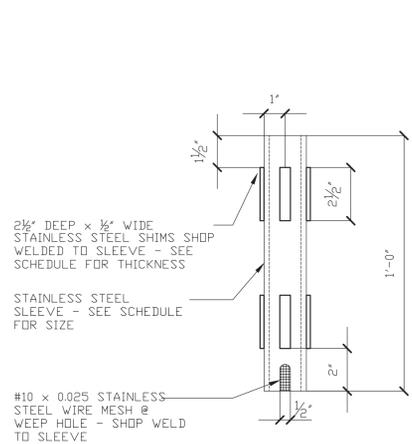
1 DETAIL STAINLESS STEEL EMBED PLATE
S1.5 SCALE: 1-1/2" = 1'-0"



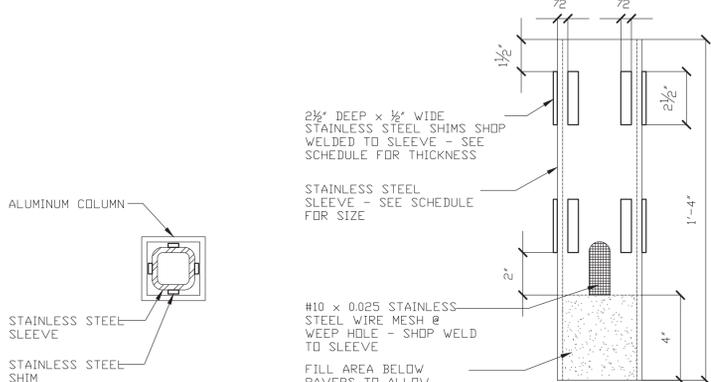
NOTE: ALL STAINLESS STEEL SHALL HAVE A PROTECTIVE COATING APPLIED TO ISOLATE FROM ALUMINUM



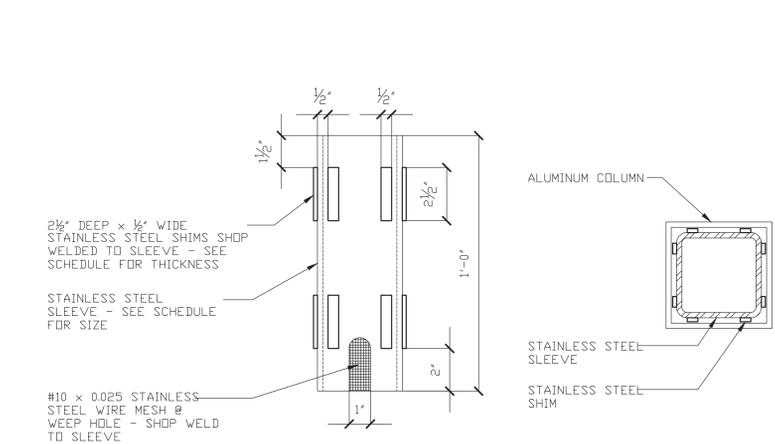
7 DETAIL 3" SQ. COLUMN AT SHELTER W/ PAVERS
S1.5 SCALE: 3" = 1'-0"



6 DETAIL 3" SQ. COLUMN STAINLESS STEEL SHIMS
S1.5 SCALE: 3" = 1'-0"



5 DETAIL AT SHELTER W/ PAVERS
S1.5 SCALE: 3" = 1'-0"

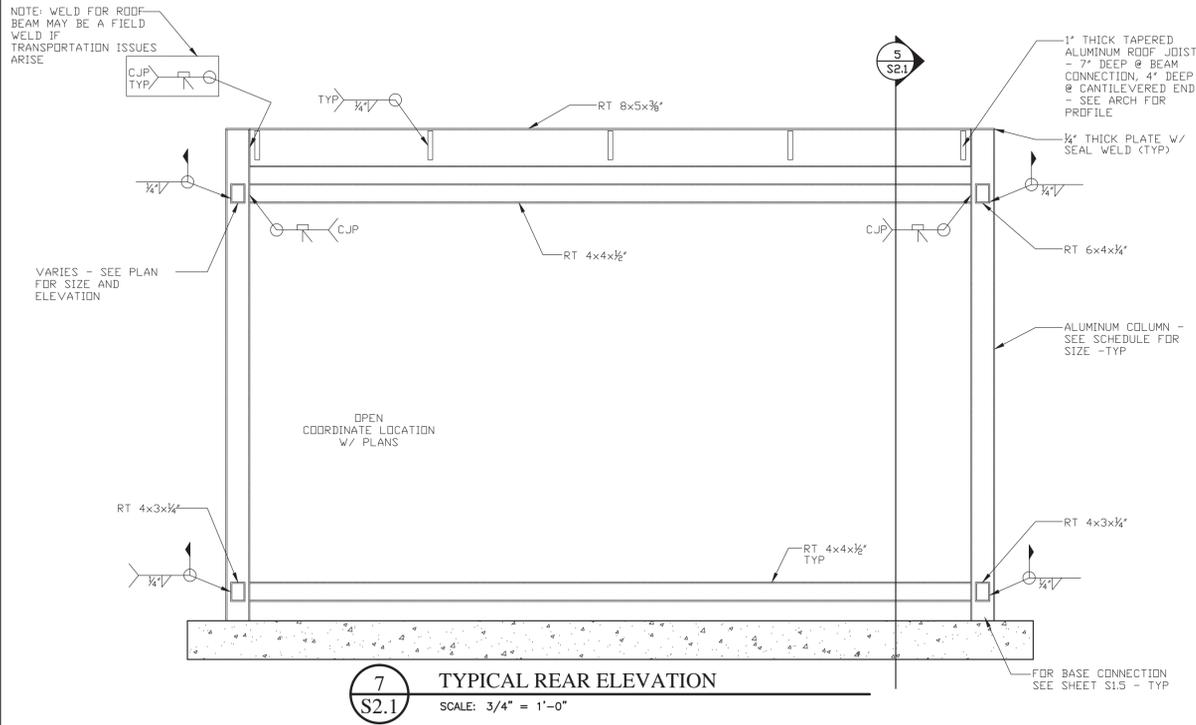


4 DETAIL STAINLESS STEEL SHIMS
S1.5 SCALE: 3" = 1'-0"

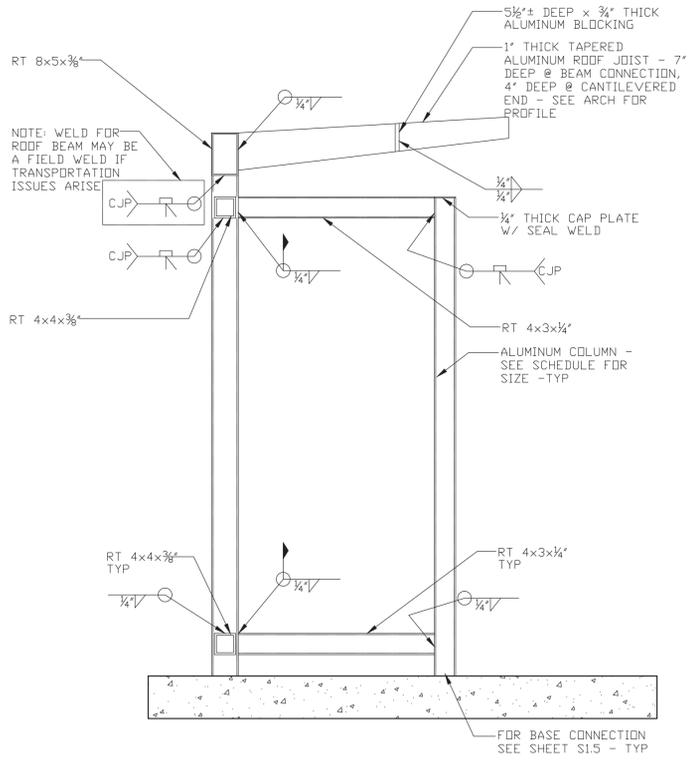
ALUMINUM COLUMN SCHEDULE		
LOCATION:	A-1; A-2;	B-1; B-2;
COLUMN SIZE	RT 5"x5"x1/4"	RT 3"x4"x1/4"
T.O.A. - ROOF FRAMING	8'-8"	
T.O.A. - INTERMEDIATE FRAMING	7'-8"	
T.O.A. - BASE FRAMING	0'-8"	
TOP OF CONC. SLAB	0'-0"	
EMBED PLATES - A304 STAINLESS STEEL	10" x 10" x 3/4" (4) 5/8" AWS TYPE B HEADED STUD ANCHORS W/5" EMBEDMENT	8" x 8" x 3/4" (4) 5/8" AWS TYPE B HEADED STUD ANCHORS W/5" EMBEDMENT
SLEEVES AND SHIMS - A304 STAINLESS STEEL	HSS 4x4x1/4" STAINLESS STEEL SLEEVE W/ 3/8" THICK SHIMS	HSS 3x2x1/4" STAINLESS STEEL SLEEVE W/ 3/8" THICK SHIMS



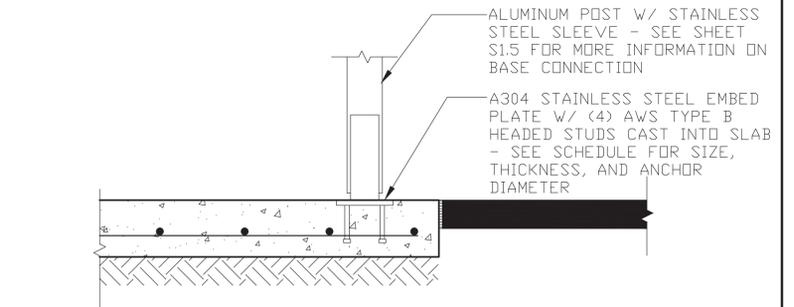
DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER <td>MS <td>Date: 04/03/14 <td>INITIALS</td> </td></td>	MS <td>Date: 04/03/14 <td>INITIALS</td> </td>	Date: 04/03/14 <td>INITIALS</td>	INITIALS
PROJECT ENGINEER <td>DLF <td>Date: 04/03/14 <td>COMMENTS</td> </td></td>	DLF <td>Date: 04/03/14 <td>COMMENTS</td> </td>	Date: 04/03/14 <td>COMMENTS</td>	COMMENTS
DEPUTY DIRECTOR <td>EB <td>Date: 04/03/14 <td></td> </td></td>	EB <td>Date: 04/03/14 <td></td> </td>	Date: 04/03/14 <td></td>	
DEP. DIRECTOR <td> <td></td> <td></td> </td>	<td></td> <td></td>		



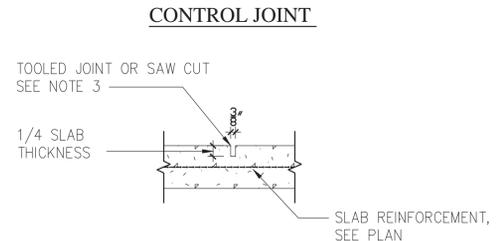
7
S2.1 TYPICAL REAR ELEVATION
SCALE: 3/4" = 1'-0"



5
S2.1 SECTION
SCALE: 3/4" = 1'-0"

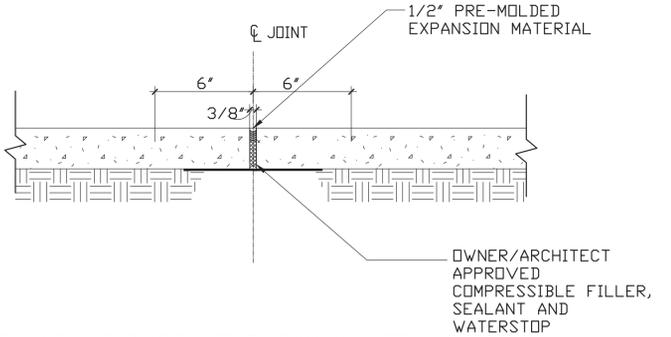


2
S2.1 SECTION
SCALE: 1" = 1'-0"



- NOTES:
1. PROVIDE CONTROL JOINT TO PREVENT UNCONTROLLED CRACKING AS PER ACI RECOMMENDATIONS.
 2. INSTALL CONTROL JOINTS AT EQUAL INTERVALS OF 5'-0" UNLESS OTHERWISE INDICATED.
 3. CUTTING SHOULD BE STARTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM BEING DISLODGED.
 4. SUBMIT PLAN SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS.

3
S2.1 S.O.G. CONTROL JOINTS
SCALE: 1" = 1'-0"



4
S2.1 EXPANSION JOINT
SCALE: 1" = 1'-0"

NOTE: INSTALL EXPANSION JOINTS @ 30'-0" INTERVALS MAX., UNLESS OTHERWISE INDICATED AND WHERE SLAB MEETS ADJACENT STRUCTURE

CITY OF ALEXANDRIA BUS SHELTER DESIGN PROJECT

CITY OF ALEXANDRIA, VIRGINIA
Department of Project Implementation
P. O. Box 178
Alexandria, Virginia 22313



DESIGN ENGINEER	RE	Date: 04/03/14	REVISIONS
CADD ENGINEER	MS	Date: 04/03/14	INITIALS
PROJECT ENGINEER	DLF	Date: 04/03/14	COMMENTS
DEPUTY DIRECTOR	EB	Date: 04/03/14	
DEP. DIRECTOR	EB	Date: 04/03/14	

Scale: AS INDICATED Project No. 11-122 Sheet S2.1