



Rev.	Date	Remarks

East Bradenton Community Center
 1119 13th Street East
 Bradenton, Florida

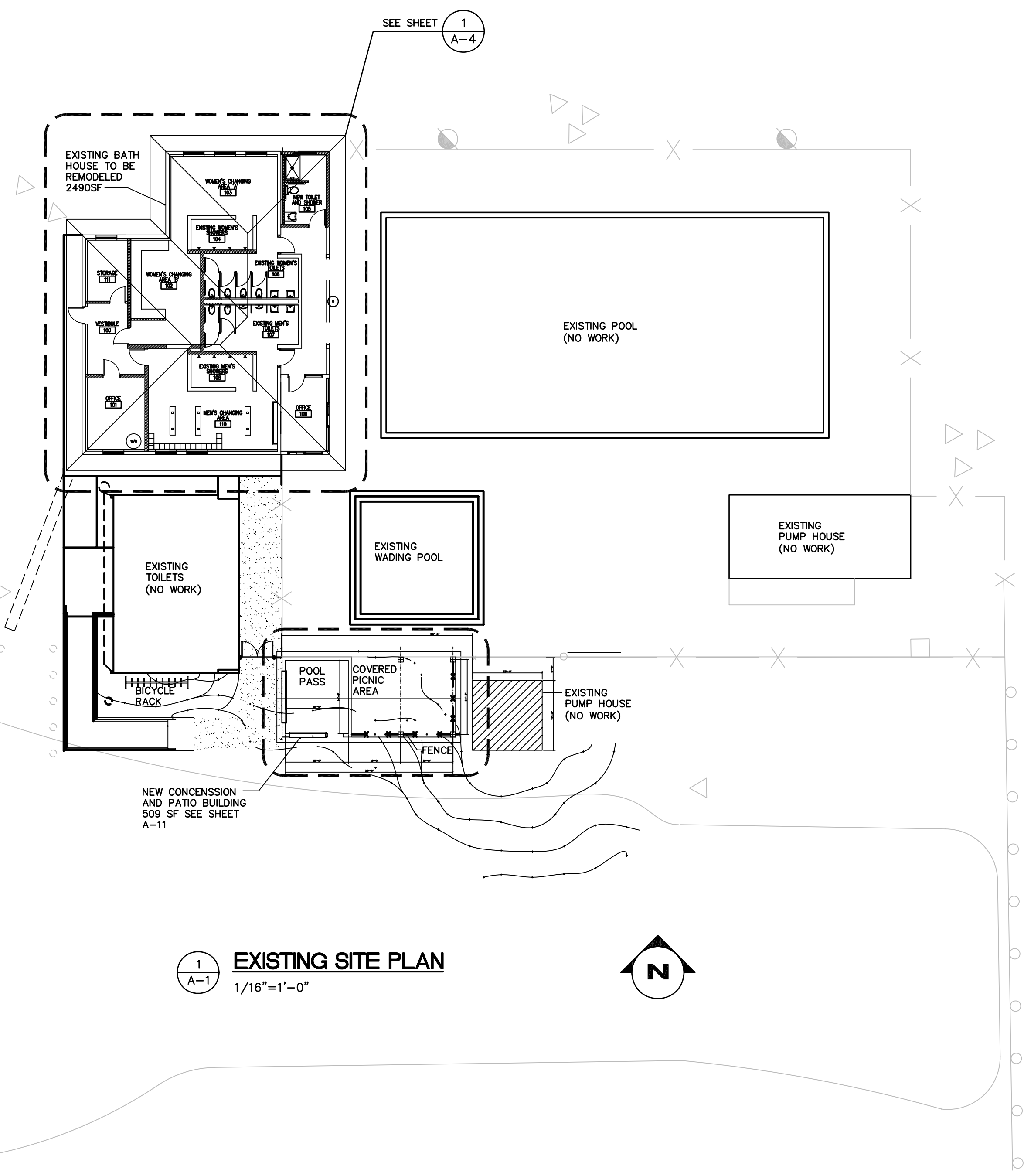
Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09

ALAN J. MERONEK
 AR 91853
 Expires: FEB. 28, 2011
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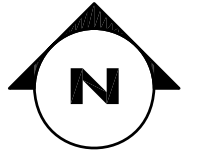
Drawing Number

A-1

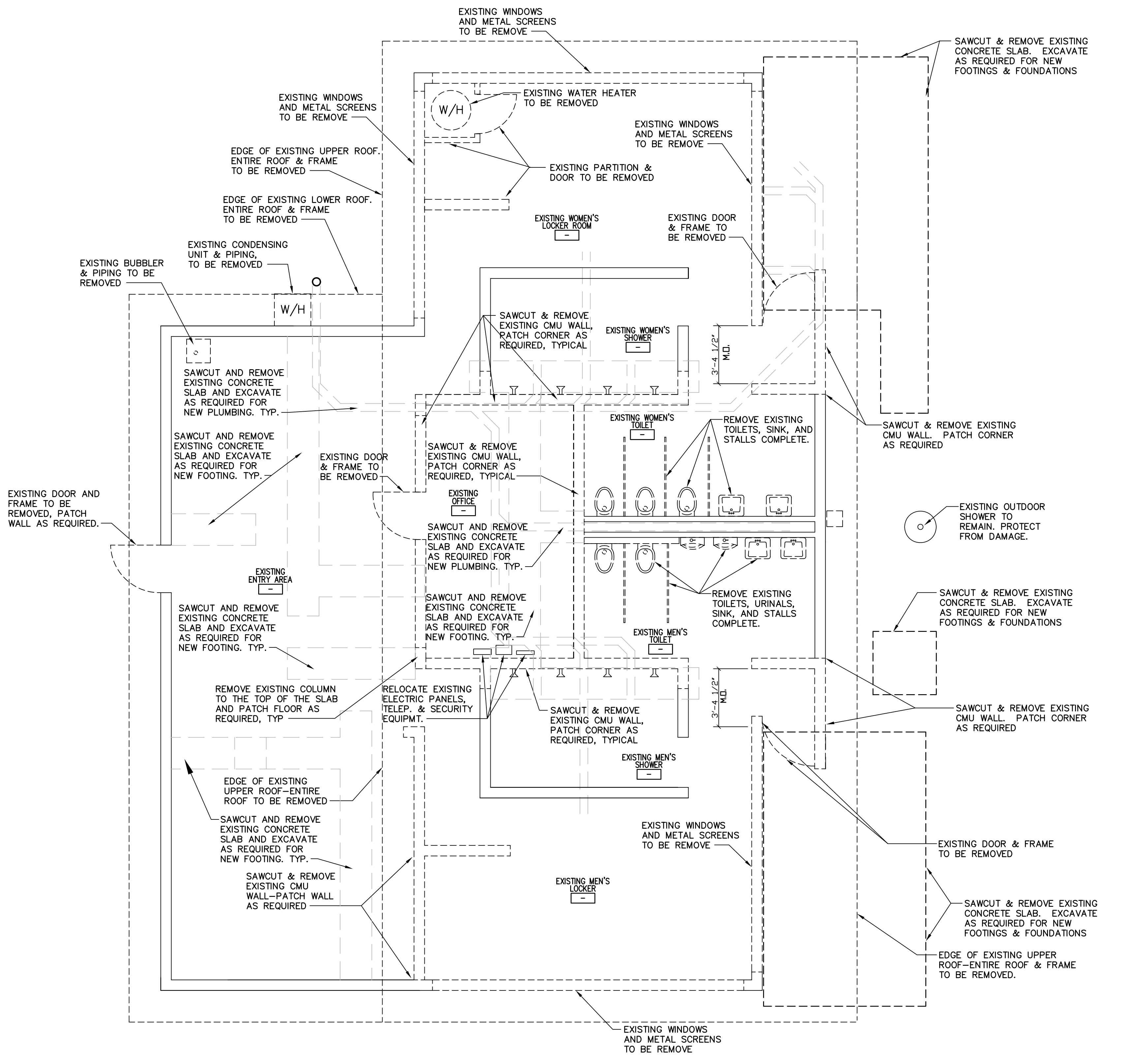
13TH ST EAST



1
 A-1
EXISTING SITE PLAN
 1/16"=1'-0"



LEGEND	
	INDICATES FIRE HYDRANT
	INDICATES POWER POLE
	INDICATES LIGHT POLE
	INDICATES CATCH BASIN
	INDICATES PALM TREE
	INDICATES OAK TREE
	INDICATES PINE TREE
	INDICATES FENCE



GENERAL NOTES:

- ① ALL PLUMBING FIXTURES TO BE REMOVED.
- ② ALL CERAMIC WALL AND FLOOR TILE TO BE REMOVED.
- ③ ALL TOILET ACCESSORIES, FLOOR DRAIN HOSE BIB, AND ELECTRIC WATER COOLER TO BE REMOVED.
- ④ ALL EXISTING PLUMBING PIPING TO BE CUT AND CAPPED BELOW EXISTING SLAB AND ABANDONED.
- ⑤ ALL EXISTING PARTITIONS TO BE REMOVED LEVEL WITH EXISTING SLAB. PATCH SLAB AS REQUIRED.
- ⑥ EXISTING ROOF AND ROOF STRUCTURE TO BE REMOVED.
- ⑦ ALL EXISTING MECHANICAL SYSTEMS AND EQUIPMENT TO BE REMOVED.
- ⑧ ALL EXISTING ELECTRICAL POWER AND LIGHTING TO BE REMOVED. CONDUIT WITHIN EXISTING BLOCK WALLS SHALL REMAIN. LEAVE 6" STUB ABOVE TOP OF WALL, REMOVE ALL WIRING.

LEGEND

- EXISTING TO REMAIN.
- EXISTING TO BE REMOVED.
- NEW CMU PARTITIONS.
- NEW GYP. BO. PARTITIONS.
- SAWCUT FLOOR.

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1
 A-2
EXISTING/DEMO PLAN
 1/4" = 1'-0"

STRUCTURAL NOTES:

GENERAL NOTES:

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE-DOWNS.

DESIGN LOADS:

THE BUILDING STRUCTURE COMPLIES WITH THE 2007 FLORIDA BUILDING CODE 4 2009 SUPPLEMENTS UTILIZING DESIGN LOADS AS FOLLOWS: ROOF: LIVE LOAD - 20 psf TOP CHORD 10 psf BOTTOM CHORD (NON-COINCIDENT) DEAD LOAD - 15 psf (3 psf AVAILABLE TO RESIST UPLIFT). FLOOR: LIVE LOAD - 125 psf (LIGHT STORAGE) DEAD LOAD - 105 psf (85 psf FOR HC SLABS 4 20 psf FOR PARTITIONS) WIND: (PER ASCE 7-02) BASIC WIND SPEED = 130 MPH (3 SECOND GUST) BUILDING CATEGORY II / IMPORTANCE FACTOR = 1.0 EXPOSURE "B" ENCLOSED $G_{p1} = +0.18 / -0.18$

SHOP DRAWING REVIEW:

SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. IN ALL INSTANCES THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO REVIEW BY THE ARCHITECT/ENGINEER. DRAWINGS SUBMITTED WITHOUT CONTRACTORS REVIEW WILL BE RETURNED UNCHECKED.

FOUNDATIONS:

NEW FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF ON COMPACTED FILL. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, AS WELL AS FIELD AND LABORATORY TESTS PERFORMED BY A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS.

FORMWORK AND SHORING:

NO STRUCTURAL CONCRETE SHALL BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28 DAY DESIGN STRENGTH. DESIGN, ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET REQUIREMENTS SET FORTH IN ACI STANDARDS 347 AND 301. DRAWINGS FOR SHORING AND RESHORING SHALL BE PREPARED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

CONCRETE:

SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW:
3000 psi FOR FOUNDATIONS AND SLABS ON GRADE.
4000 psi FOR ALL OTHER STRUCTURAL CONCRETE.
CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI STANDARDS AND SPECIFICATIONS.

SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD TESTS AND STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318-89 FOR REVIEW PRIOR TO USE. EACH MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION AND INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE.

CONCRETE TESTING:

AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:

- ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE." MAXIMUM SLUMP SHALL BE 6 INCHES.
- ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S) QUANTITIES AND TEST AGE AS FOLLOWS:
 - 1 AT 7 DAYS
 - 2 AT 28 DAYS
- ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.

MASONRY WALLS:

MASONRY UNITS SHALL MEET ASTM C-90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH UNIT STRENGTH OF 1900 psi ON THE NET AREA ($f_m = 1500$ psi). MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C-270. GROUT SHALL BE 2000 psi MINIMUM COMPRESSIVE STRENGTH AND MEET ASTM C-476. UNLESS NOTED OTHERWISE, WALLS SHALL BE EIGHT INCH REINFORCED MASONRY WALL CONSTRUCTION TO 15 VERTICAL REINFORCING BARS IN GROUT FILLED CELLS AT 48 INCHES O.C., CORNERS, ENDS OF WALLS, AND EACH SIDE OF ALL OPENINGS. PROVIDE ACI STANDARD HOOKS FOR FOOTING DOWELS AND TERMINATION OF ALL VERTICAL REINFORCING. LAP SPLICES SHALL BE 48 BAR DIAMETERS. PROVIDE 9 GAGE GALVANIZED HORIZONTAL JOINT REINFORCING (DUR-O-WALL OR ENGINEER APPROVED SUBSTITUTION) AT ALTERNATE BLOCK COURSES.

HOLLOW-CORE SLABS:

DOORS SHALL BE PRESTRESSED CONCRETE HOLLOW-CORE SLABS DESIGNED IN ACCORDANCE WITH ACI 318 FOR THE FOLLOWING SUPERIMPOSED LOADS:

- DEAD LOAD - 25 psf
 - LIVE LOAD - 125 psf
- SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED FOR ALL WORK AND SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

TIE BEAMS:

BEAMS WITH THE PREFIX "TB" SHALL BE OF POURED AFTER THE BLOCK WALLS BELOW ARE IN PLACE. REINFORCING SHALL BE CONTINUOUS THROUGH TIE BEAMS WITH MINIMUM LAP SPLICES OF 48 BAR DIAMETERS AND BENT BARS AT CORNERS. USE METAL LATH, MORTAR, OR SPECIAL UNITS TO CONFINE CONCRETE TO AREA REQUIRED. IN ACCORDANCE WITH ACI 530.1, SECTION 4.3.3.3 (SOLID METAL OR FELT CAVITY CAPS ARE PROHIBITED).

LINTELS:

MASONRY OPENINGS LESS THAN 6 FEET SHALL BE SPANNED WITH 8"x8" PRECAST CONCRETE LINTELS WITH (1) 15 REINFORCING BAR. ALL PRECAST LINTELS SHALL BEAR A MINIMUM OF 8" AT EACH END.

REINFORCING STEEL:

SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.

WELDED WIRE FABRIC:

TO CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES. CHEMICAL ANCHORS: SHALL BE AN EQUAL TWO PART STRUCTURAL EPOXY, SUCH AS RAMSET "EPCON", RAWL "POWER-FAST", SIMPSON STRONG-TIE "ET-22", OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

PENETRATIONS:

NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE LOCATED ON THESE DRAWINGS WITHOUT PREVIOUS APPROVAL OF THE ENGINEER.

STRUCTURAL STEEL:

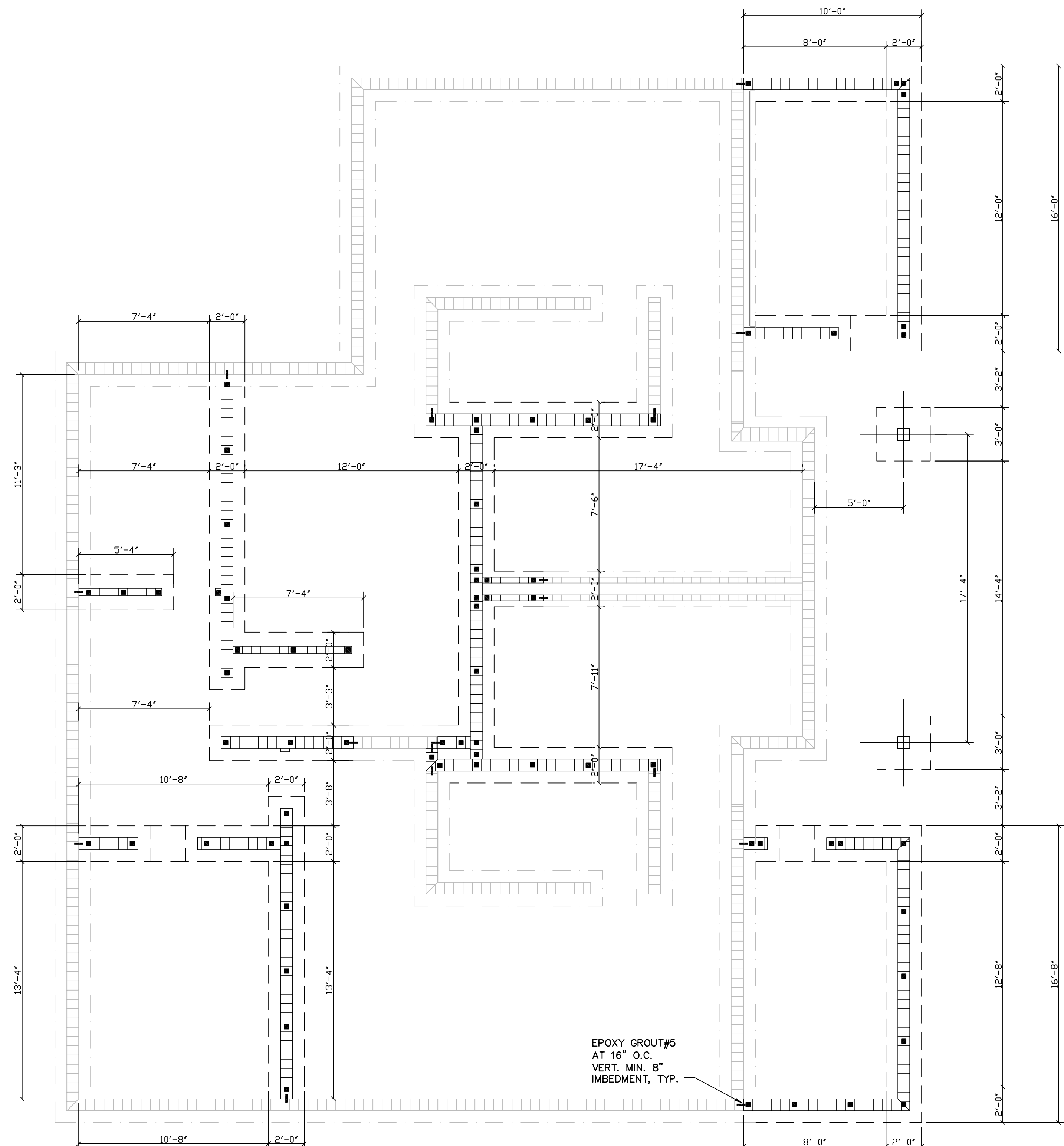
SHALL CONFORM TO ASTM A992 AND THE "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED, UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS. STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZING IS INDICATED ON THE DRAWINGS. STRUCTURAL TUBING SHALL CONFORM TO ASTM A-500, GRADE B. $F_y = 46$ ksi. STRUCTURAL PIPE SHALL CONFORM TO ASTM A-53 GRADE B, TYPE E OR S. $F_y = 35$ ksi. ALL BOLTED CONNECTIONS SHALL CONSIST OF MINIMUM 3/4 INCH DIAMETER ASTM A-325 HIGH STRENGTH BOLTS. BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR FOR THE REACTIONS SHOWN ON THE PLANS. IF NOT SHOWN, THE FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS TO SUPPORT AN END REACTION OF W/2 KIPS FROM THE TABLES IN PART 2 "ALLOWABLE UNIFORM LOADS IN KIPS FOR BEAMS LATERALLY SUPPORTED" OF THE MANUAL OF STEEL CONSTRUCTION (9TH EDITION), BUT CONNECTIONS SHALL NOT HAVE LESS THAN 2 ROWS OF BOLTS. ANCHOR BOLTS SHALL CONFORM TO ASTM A-307 OR A-36 (THREADED ROD). MACHINE AND LAG BOLTS: SHALL BE A-307 HOT DIPPED GALVANIZED WITH GALVANIZED WASHERS.

LIGHT GAUGE METAL FRAMING:

STEEL STUDS, LINTELS, AND RUNNER TRACK MEMBERS SHALL BE OF TYPE SHOWN ON THE DRAWINGS AND SPECIFICATIONS CONFORMING TO ASTM A-446 GRADE C (MINIMUM YIELD POINT 40,000 psi) WITH HOT DIPPED GALVANIZED COATING CONFORMING TO ASTM A525 (CLASS 690). GALVANIZED STEEL RUNNER TRACK SHALL BE FORMED WITH MATERIAL MEETING REQUIREMENTS OF ASTM A-446 GRADE A (MINIMUM YIELD POINT 33,000 psi) WITH HOT DIPPED GALVANIZED COATING CONFORMING ASTM A-525 (CLASS G-90). ASSEMBLY: ALL FRAMING MEMBERS SHALL BE CUT SQUARELY OR AT AN ANGLE AS REQUIRED TO FIT SQUARELY AGAINST ADJUTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN PLACE UNTIL PROPERLY JOINED. JOINING OF STRUCTURAL MEMBERS SHALL BE MADE WITH SELF DRILLING SCREWS OR WELDING. WIRE TYING OF FRAMING MEMBERS IN STRUCTURAL APPLICATIONS SHALL NOT BE PERMITTED. ATTACHMENT OF COLLATERAL MATERIALS TO STEEL MEMBERS SHALL BE MADE WITH SELF DRILLING SCREWS OR HARDENED SCREW SHANK NAILS. METAL LATH MAY ALSO BE CONNECTED TO STEEL BY STAPLES OR OTHER FASTENERS, IF APPROVED BY LOCAL BUILDING CODE. INSTALLATION: STUDS SHALL SIT SQUARELY IN THE TOP AND BOTTOM RUNNER TRACK WITH FIRM ABUTMENT AGAINST TRACK WEBS. STUDS SHALL BE ALIGNED OR PLUMBED AND SECURELY FASTENED TO THE FLANGES OF BOTH TOP AND BOTTOM RUNNER TRACK.

PRE-ENGINEERED TRUSSES:

ENGINEERED TRUSS SYSTEMS SHALL BE DESIGNED BY SUPPLIER'S SPECIALTY ENGINEER TO THE CONFIGURATION AND LOAD-CARRYING CAPACITY SHOWN ON DRAWINGS AND SPECIFICATIONS. ALTERNATE TRUSS LAYOUTS ARE ACCEPTABLE ONLY AS A CHANGE ORDER WHICH WILL INCLUDE ENGINEERING CHARGES FOR REDESIGN OF THE STRUCTURE BY THE ENGINEER OF RECORD. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS SHALL SHOW AND SPECIFY ALL CONNECTOR TYPES UTILIZED WITHIN TRUSSES, AS WELL AS CONNECTORS UTILIZED IN ALL OTHER CONNECTIONS AND ATTACHMENTS BETWEEN TRUSSES OR COMPONENTS SUPPLIED AS PART OF THE ENGINEERED TRUSS SYSTEM. AN ERECTION DRAWING SHALL BE IDENTIFYING ALL TRUSS SYSTEM COMPONENTS AS WELL AS ALL PERMANENT BRACING REQUIRED FOR TRUSS DESIGN. ENGINEERED SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER AS THE SPECIALTY ENGINEER.



1 FOUNDATION PLAN
A-3
1/4"=1'-0"

GENERAL NOTES:

- 1 VERIFY ALL DIMENSIONS AND ELEVATIONS WITH EXISTING CONDITIONS AND ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION PRIOR TO BEGINNING WORK.
 - 2 ALL ELEVATIONS SHOWN ON THE PLANS REFERENCE THE EXISTING GROUND FLOOR SLAB AT EL(+0'-0")
 - 3 REFER TO STRUCTURAL NOTES ON SHEET S--- FOR ADDITIONAL INFORMATION.
 - 4 DIMENSIONS ARE TO FACE OF BLOCK OR TO COLUMN CENTERLINES. ALL COLUMN AND WALLS SHALL BE CENTERED ON FOOTINGS UNLESS NOTED OTHERWISE.
 - 5 PLAN MARKS SHOWN THUS XXX INDICATE FOOTING AS DESCRIBED IN FOOTING SCHEDULE ON SHEET XXX.
 - 6 PLAN MARKS SHOWN THUS XXX INDICATE STEEL COLUMN AS DESCRIBED IN SCHEDULE ON SHEET XXX.
 - 7 SAW CUT CONTROL JOINTS IN CONCRETE SLAB-ON-GRADE @ 15' O.C. EACH WAY
- INDICATES 8" CMU WALLS WITH #5 VERTICAL REINFORCING @ 4'-0" O.C. AND ALL CORNERS, INTERSECTIONS AND AS INDICATED BY FILLED-CELL SYMBOL.
 - INDICATES EXISTING 8" CMU WALL
 - INDICATES 8" CMU INFILL WALLS WITH #5 VERTICAL REINFORCING @ 12'-0" O.C. AND ALL CORNERS, INTERSECTIONS AND AS INDICATED BY FILLED-CELLSYMBOL.
 - INDICATES 8" FORMED AND POURED CONCRETE WALL WITH TWO LAYERS OF #5 BARS @ 12" O.C. EACH WAY PLACED WITH 3/4" CLEAR COVER AT INSIDE FACE AND CLEAR COVER AT OUTSIDE FACE.



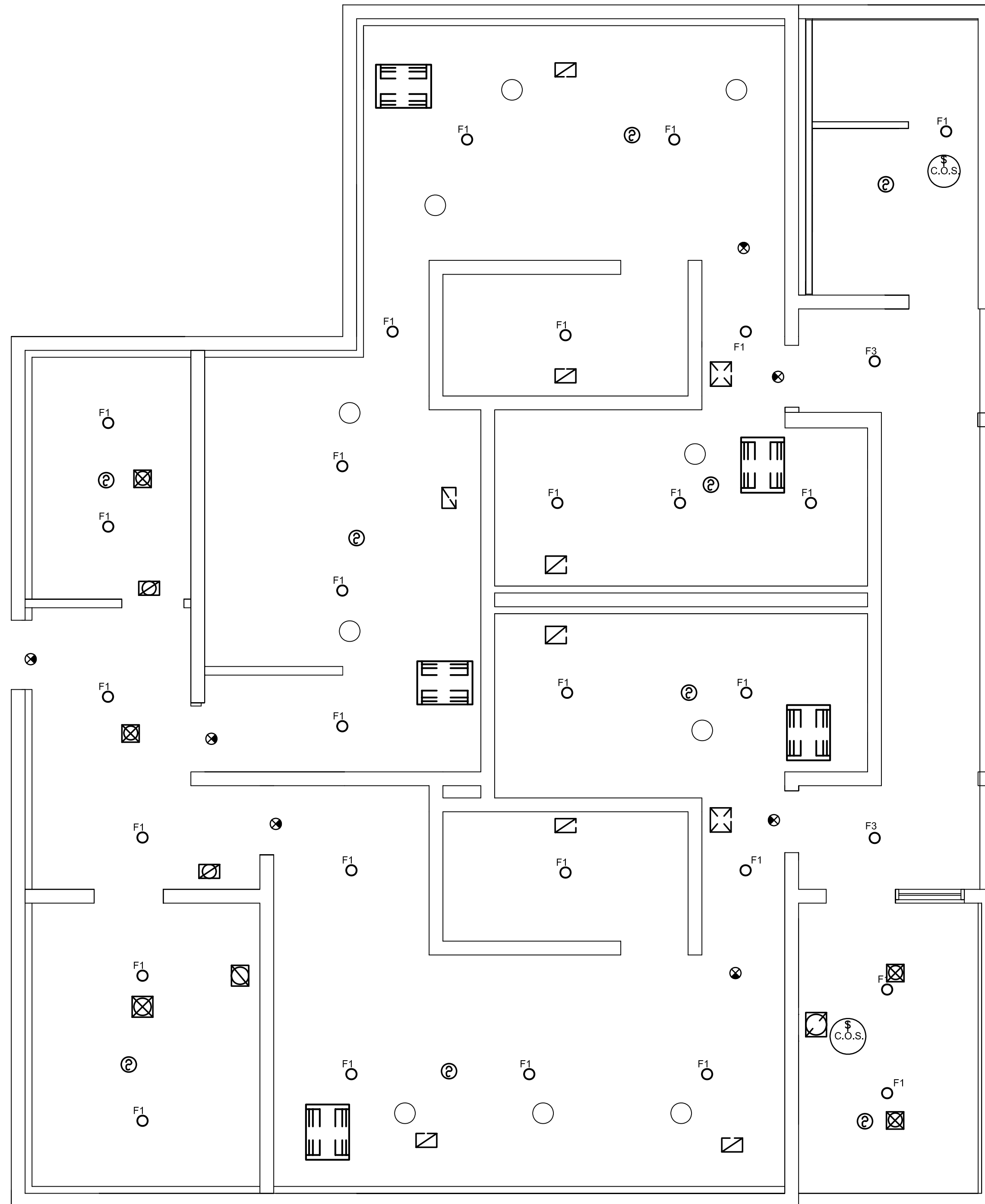
Facilities Management
1112 Manatee Avenue West
Suite 803, P.O. Box 1000
Bradenton, Florida 34206
(941) 748-4501
FAX (941) 742-5880

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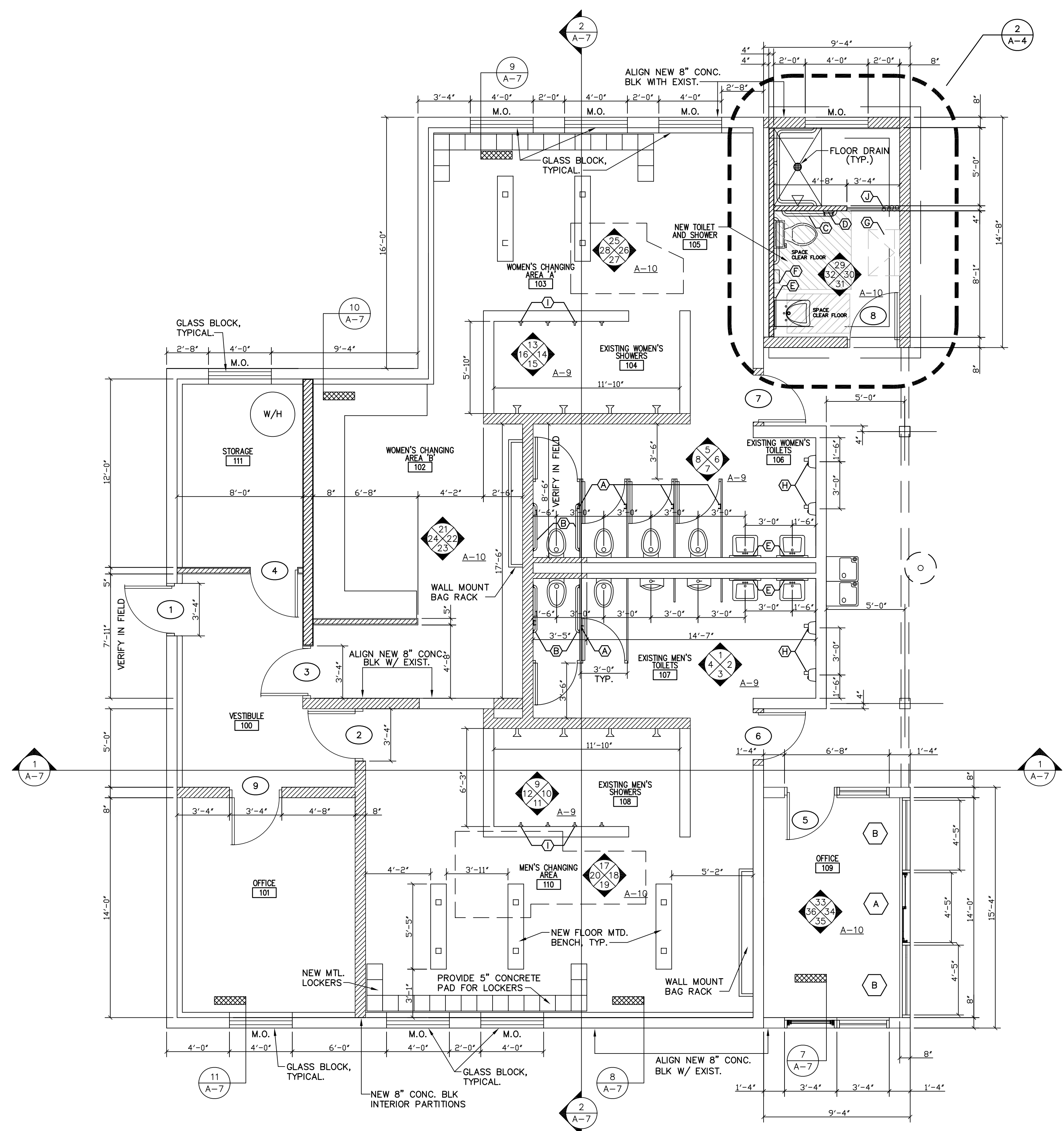
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REFLECTING CEILING PLAN
 1/4" = 1'-0"



BATHHOUSE REMODELING PLAN
 1/4" = 1'-0"

- LEGEND**
- EXISTING CMU WALLS TO REMAIN.
 - - - - EXISTING TO BE REMOVED.
 - ▨ NEW CMU WALLS.
 - M.O. MASONRY OPENING.

REFER TO SHEET A-8 FOR TOILET ACCESSORIES, NORM FINISH, DOOR, AND WINDOW SCHEDULES.

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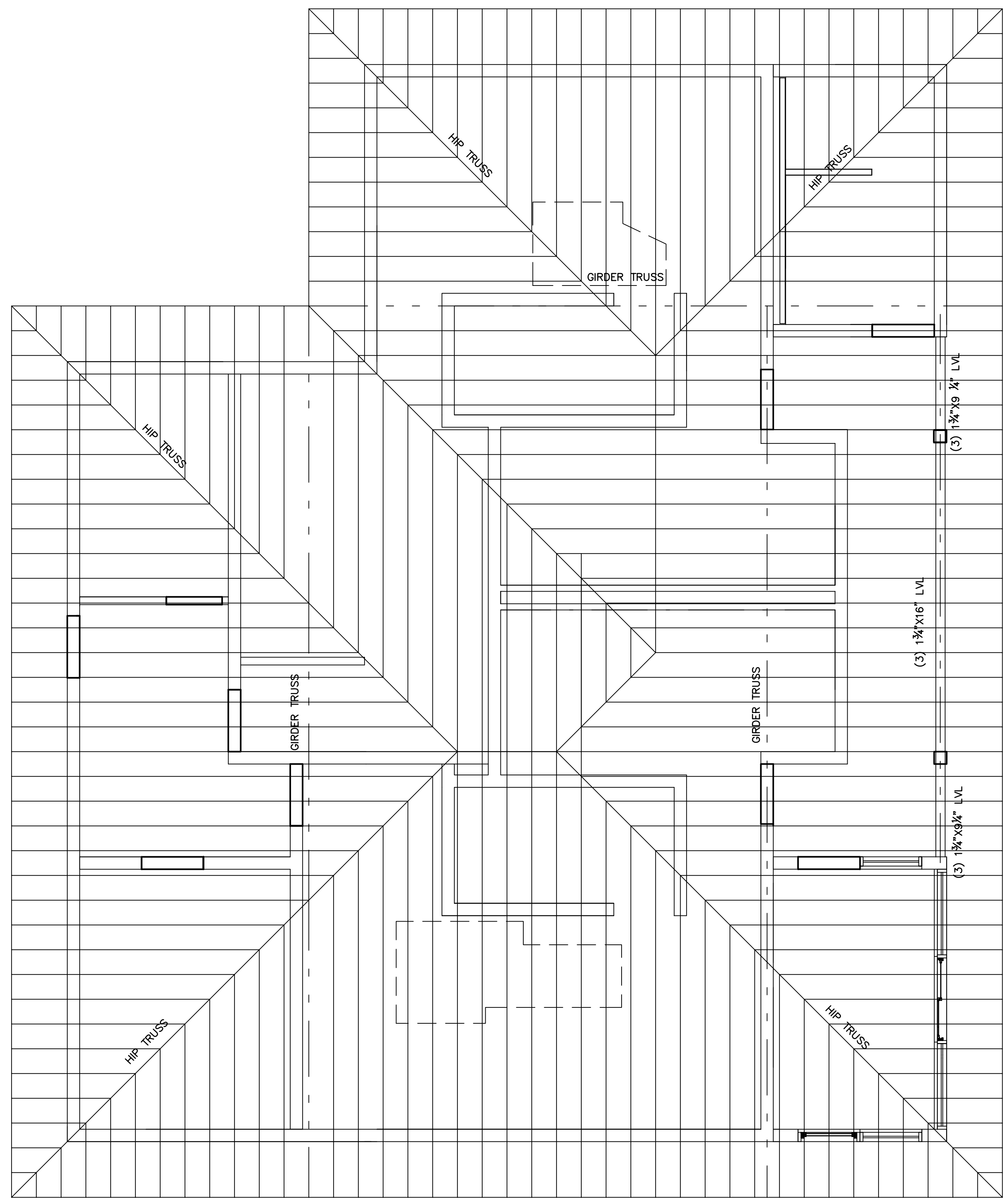
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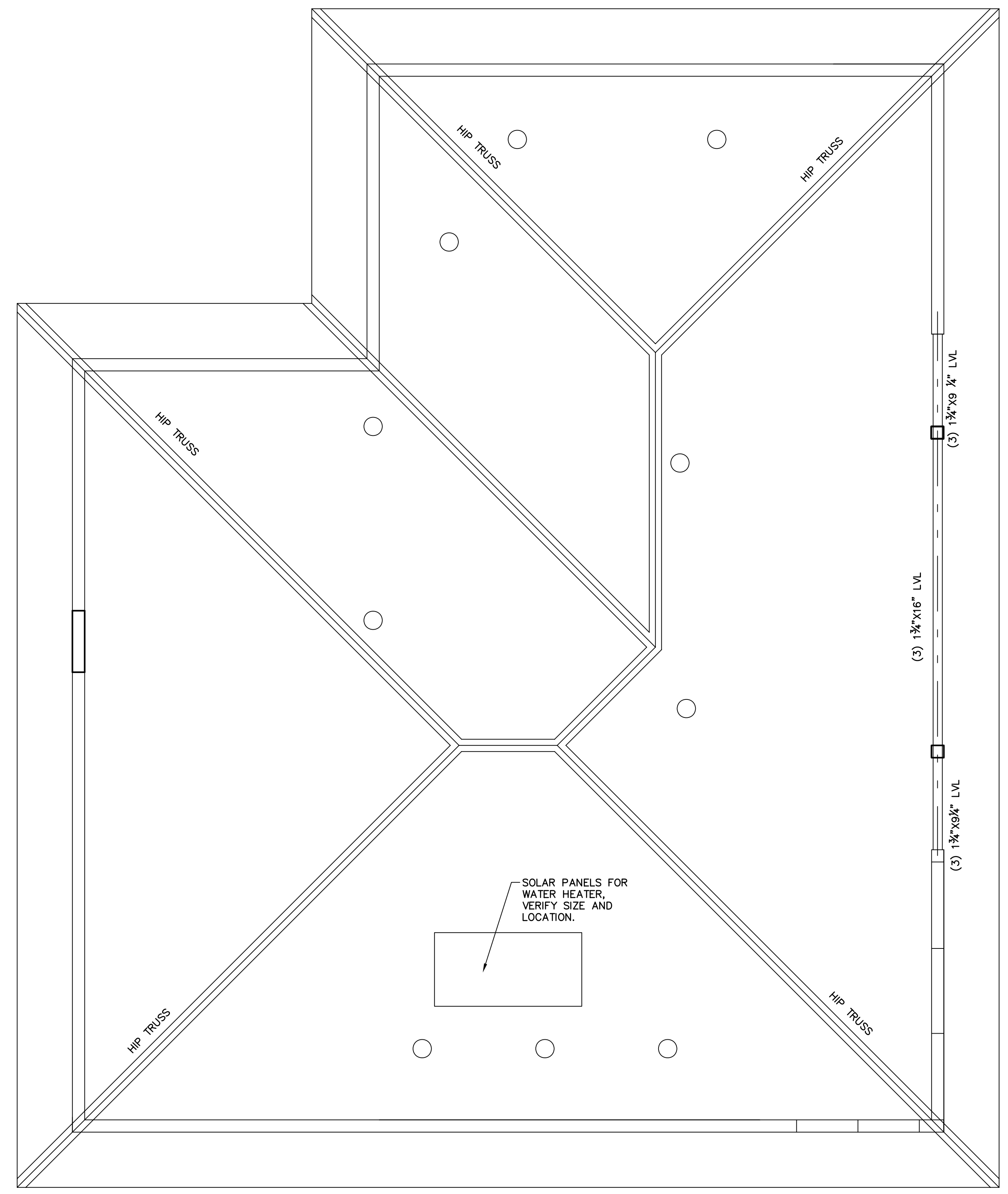
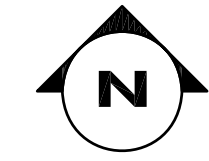


ROOFING SYSTEM:

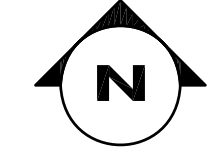
NOTES:

1. GIRDER TRUSSES, ROOF TRUSSES, ROOF FRAMING, OUTRIGGERS & PRULINS SHALL BE DESIGNED BY THE TRUSS SYSTEM MFG.
2. PROVIDE SHOP DRAWINGS FOR REVIEW & APPROVAL.
3. ROOF TRUSS MANUFACTURER SHALL DESIGN, PREPARE AND SUBMIT SIGNED AND SEALED DOCUMENTS AND OBTAIN PERMITS FOR THE ROOF TRUSS SYSTEM.
4. FOR ADDITION ROOF INFORMATION SEE SHEET A-3.

1 BATHHOUSE STRUCTURAL PLAN
 1/4"=1'-0"



2 BATHHOUSE ROOF PLAN
 1/4"=1'-0"



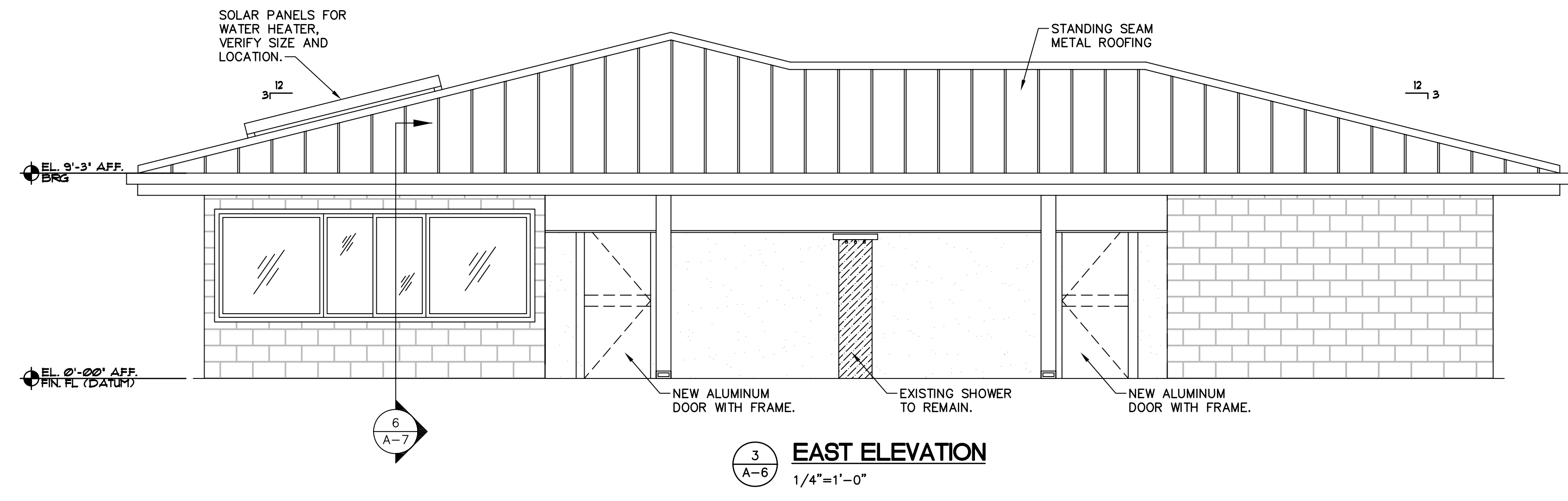
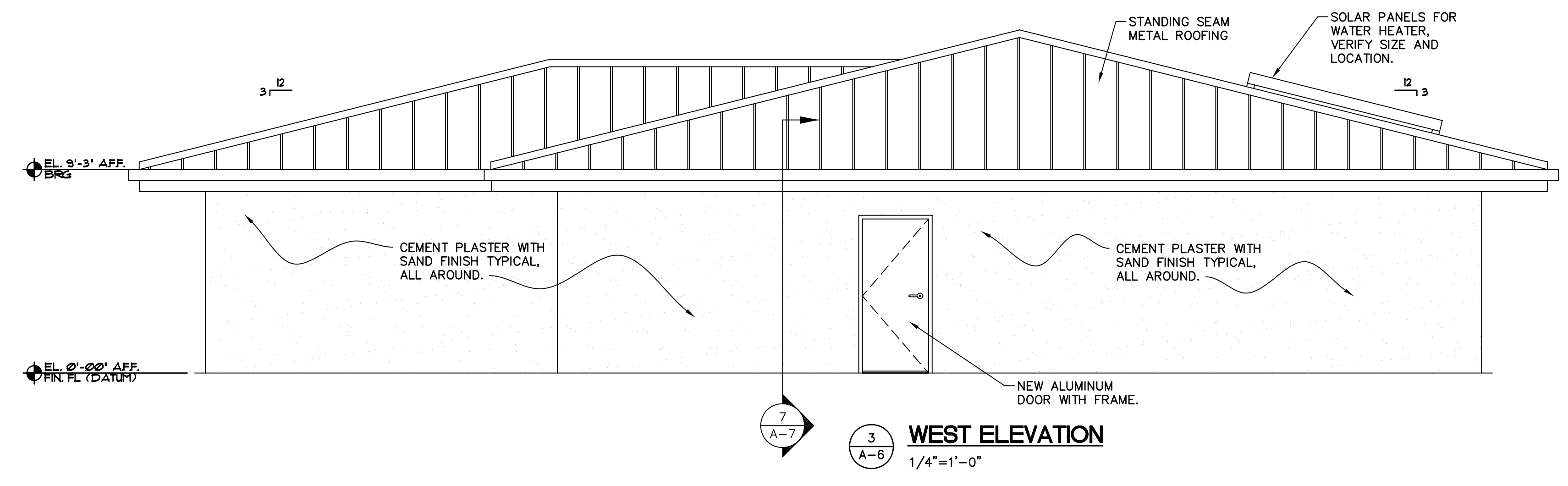
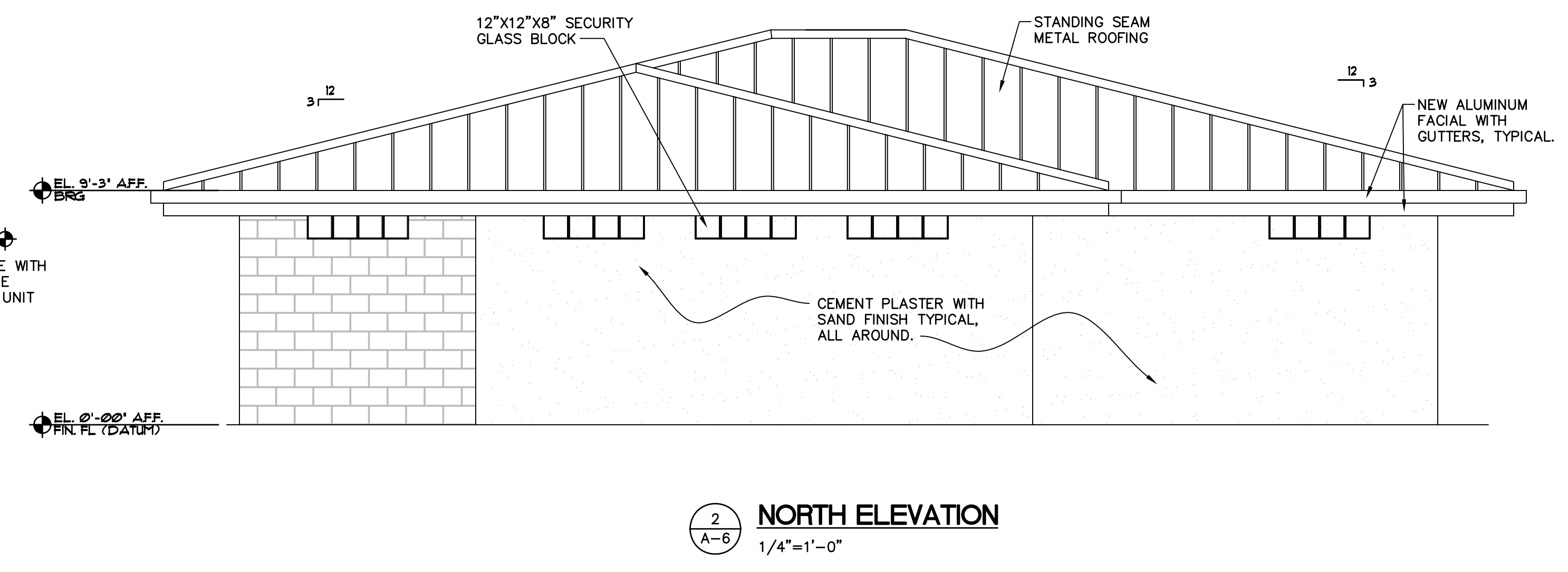
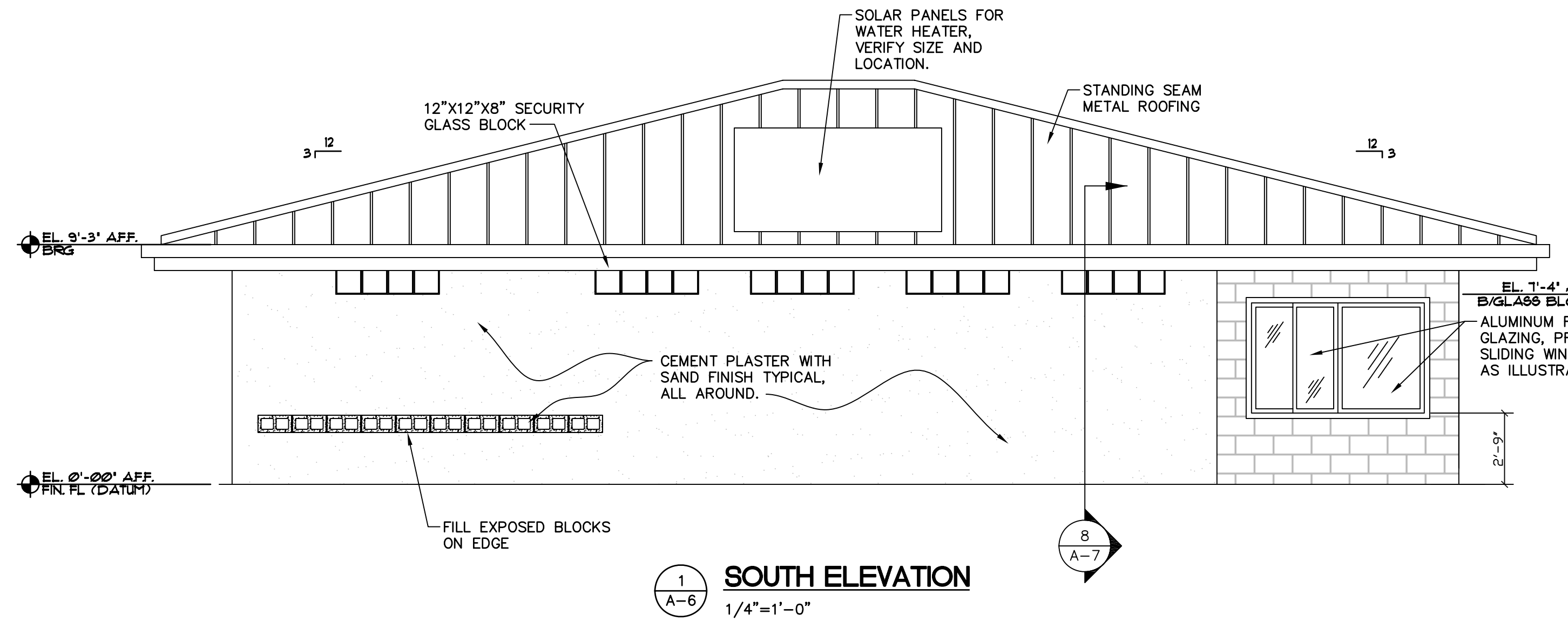
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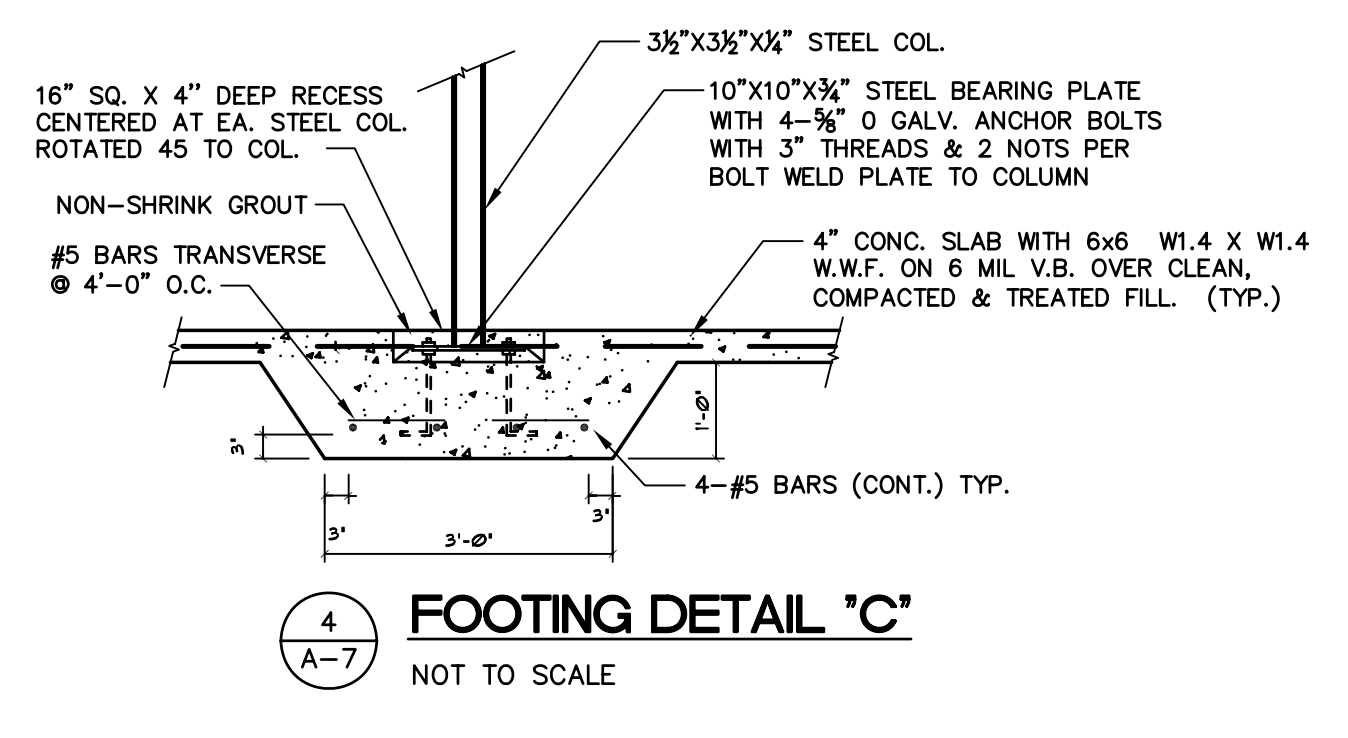
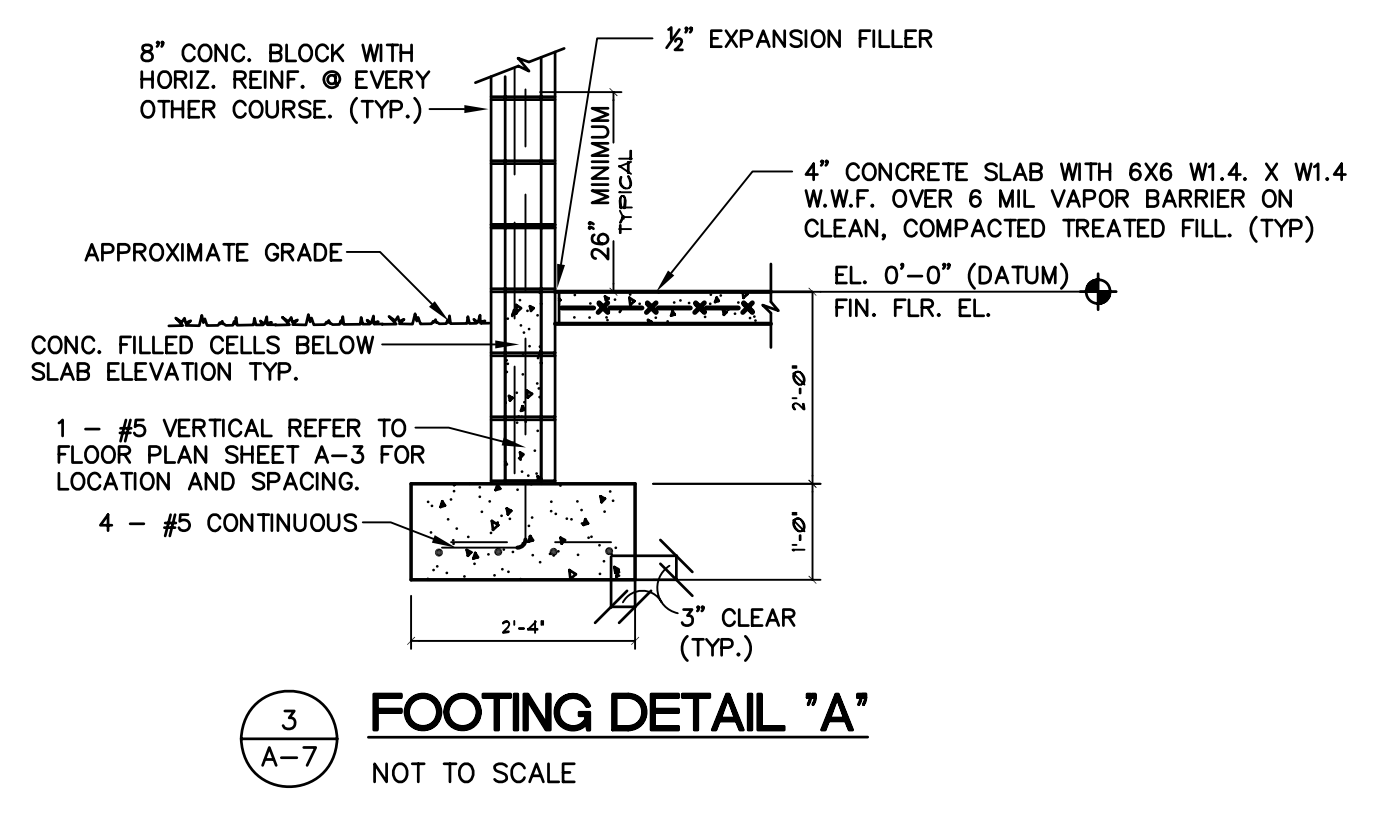
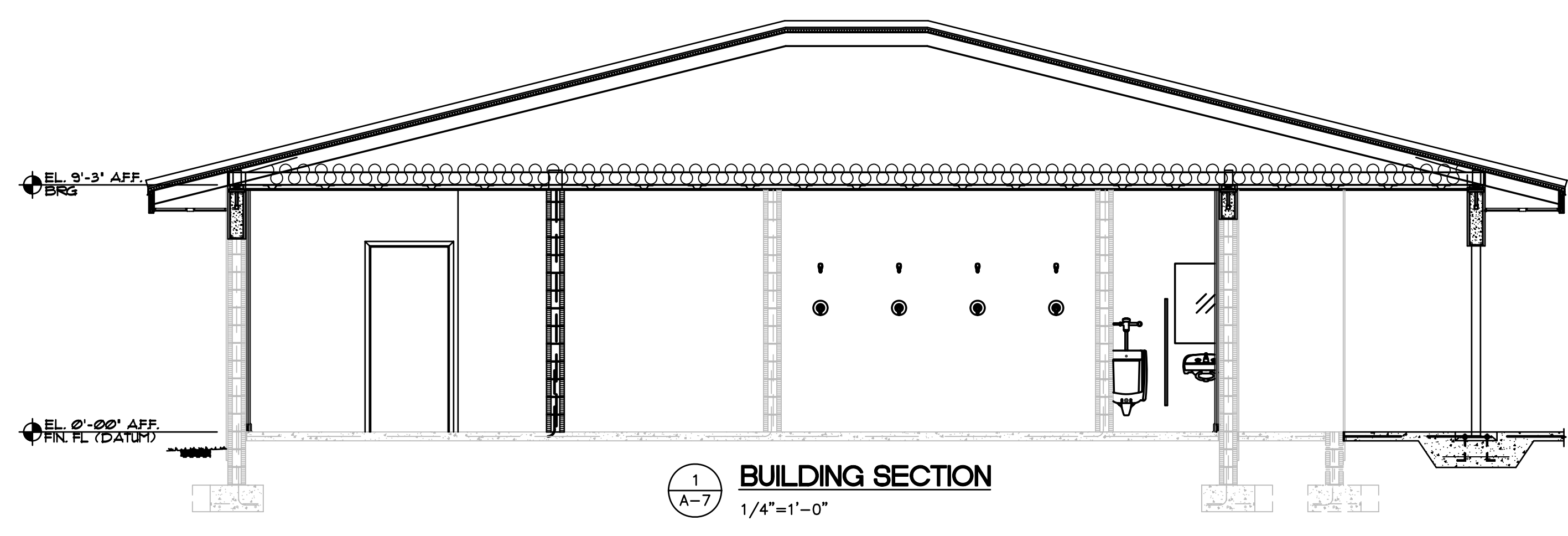


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EXTERIOR FURRING NOTE:

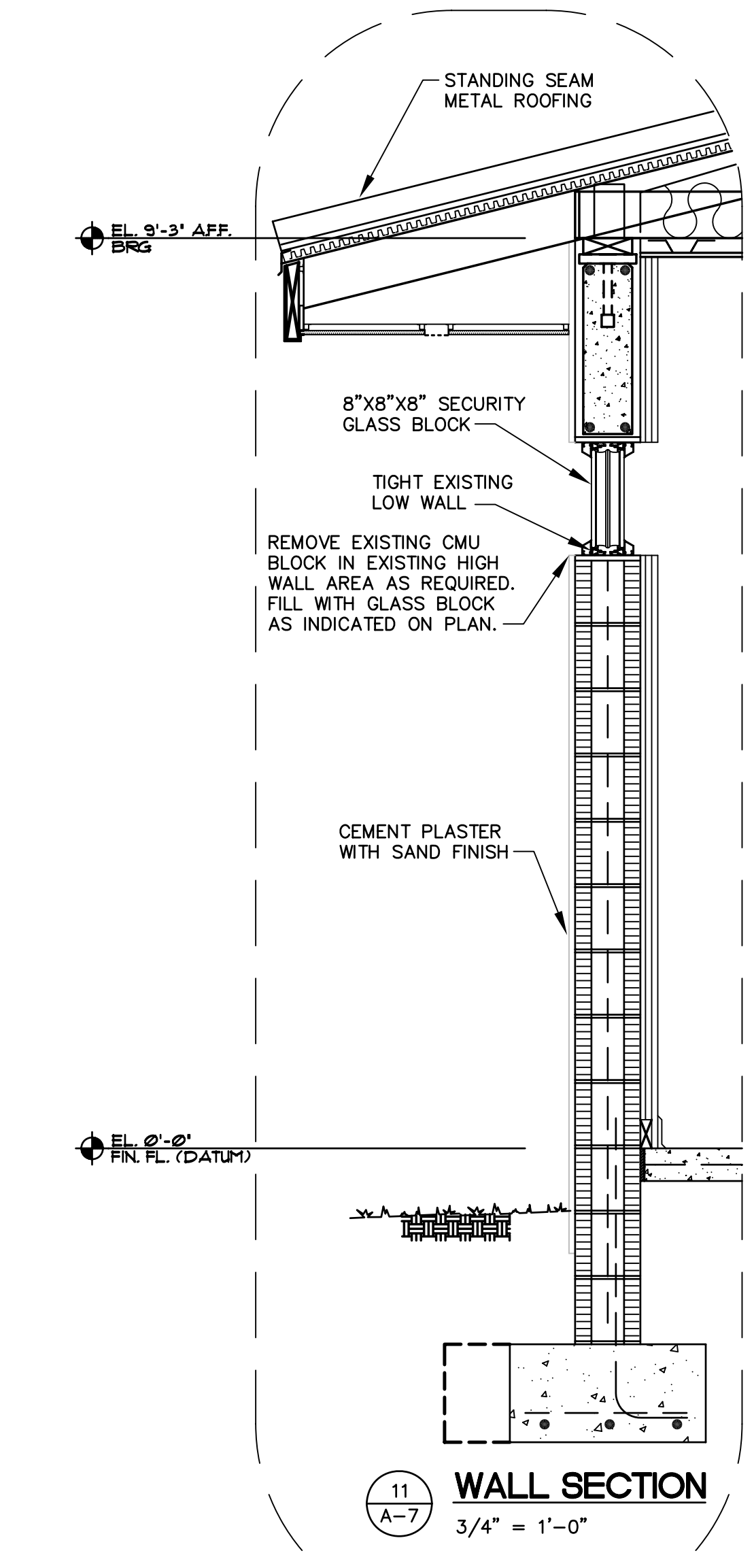
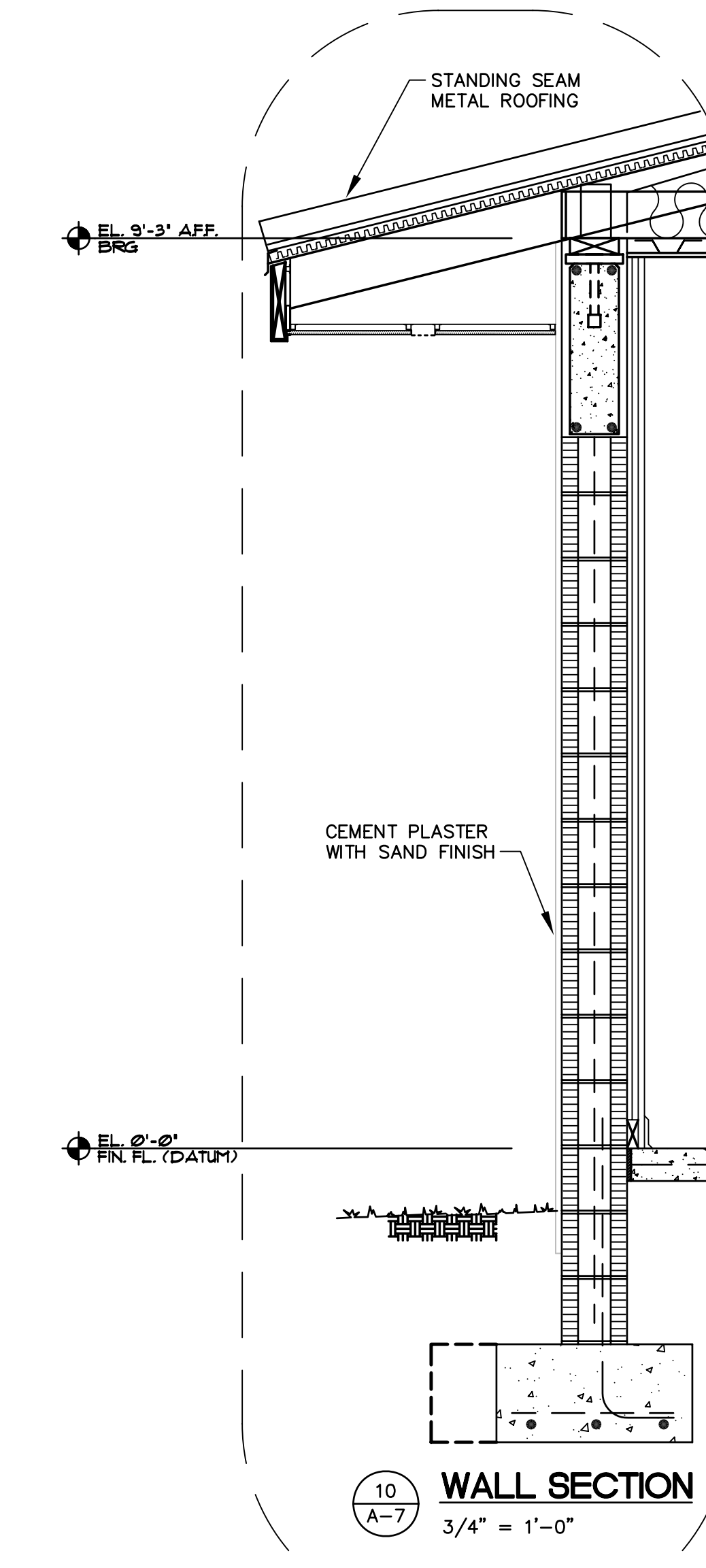
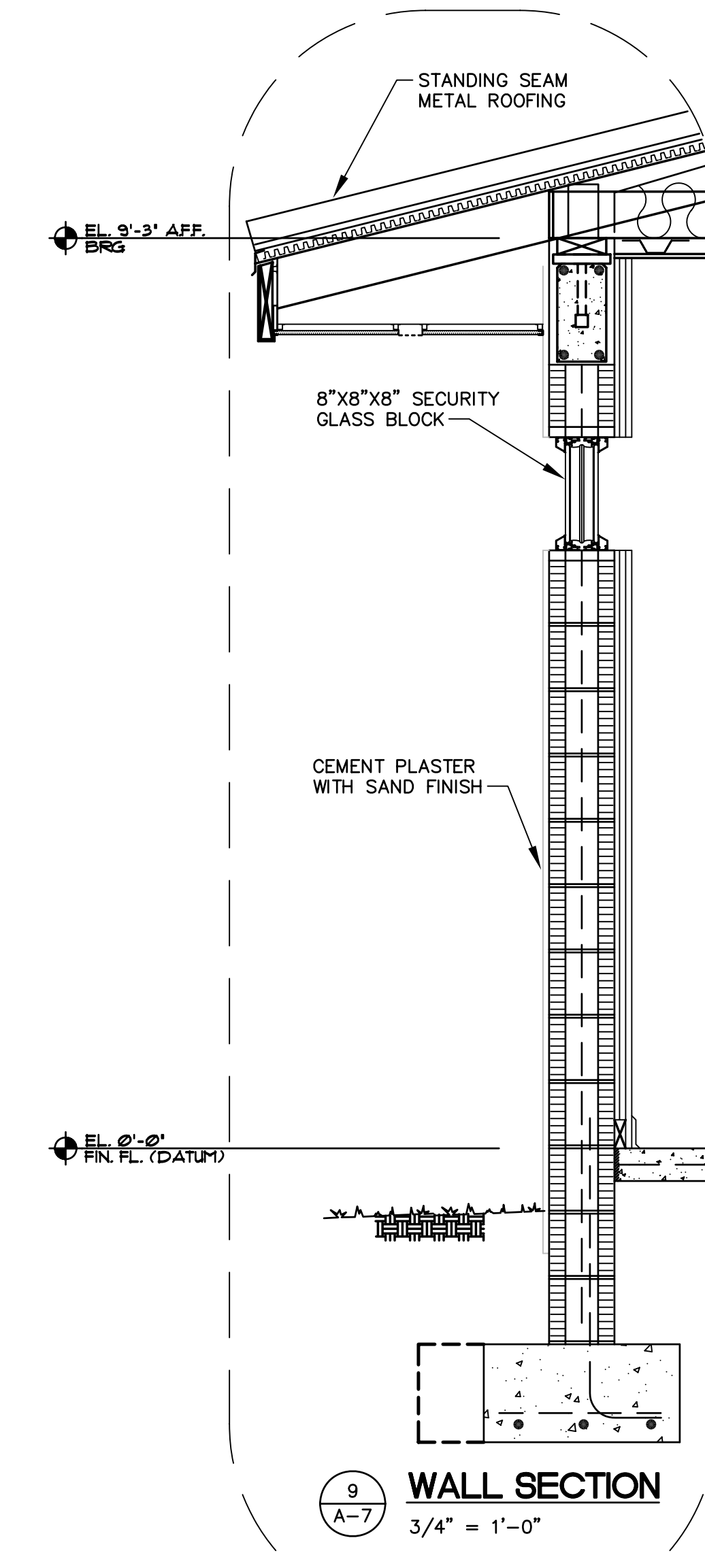
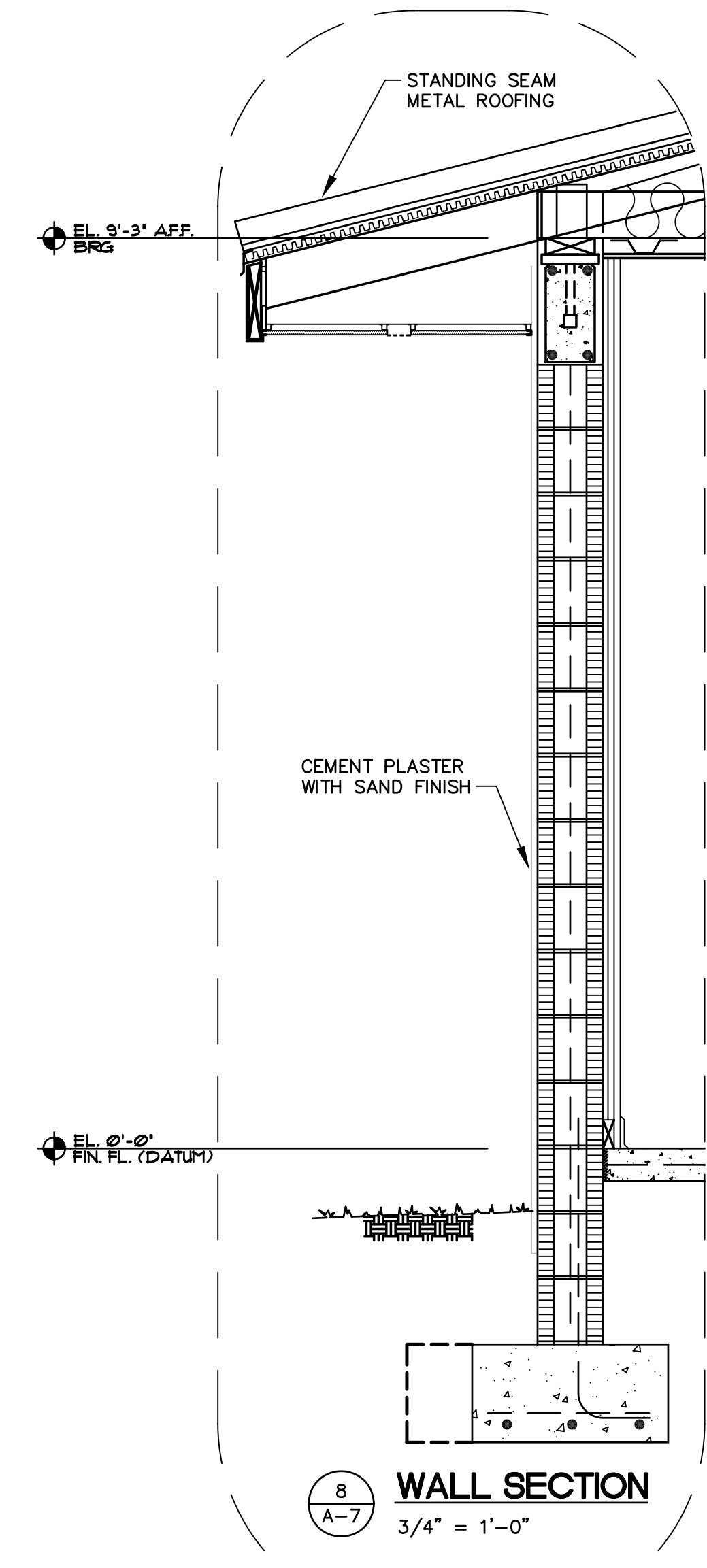
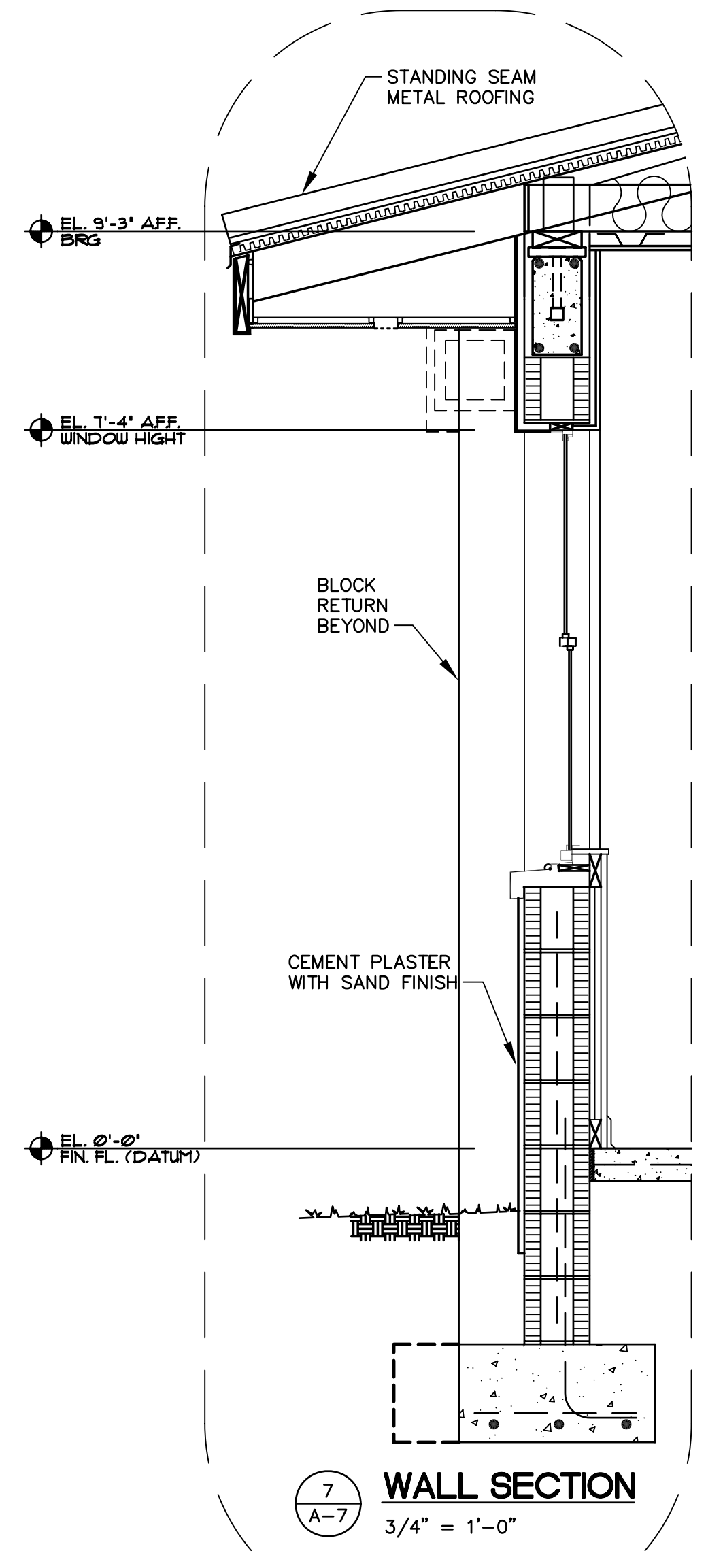
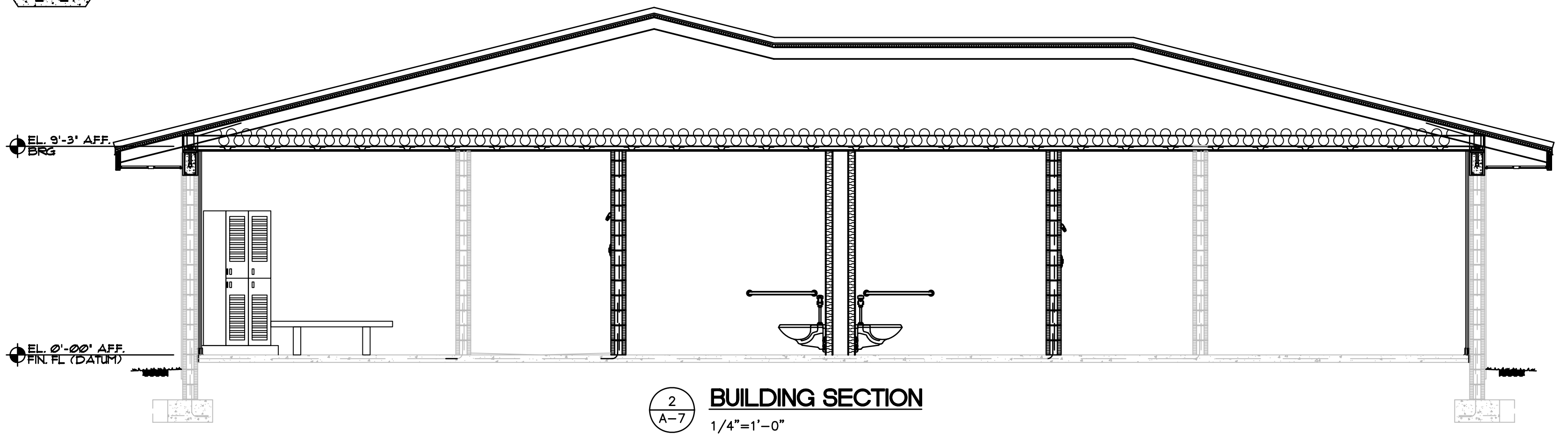
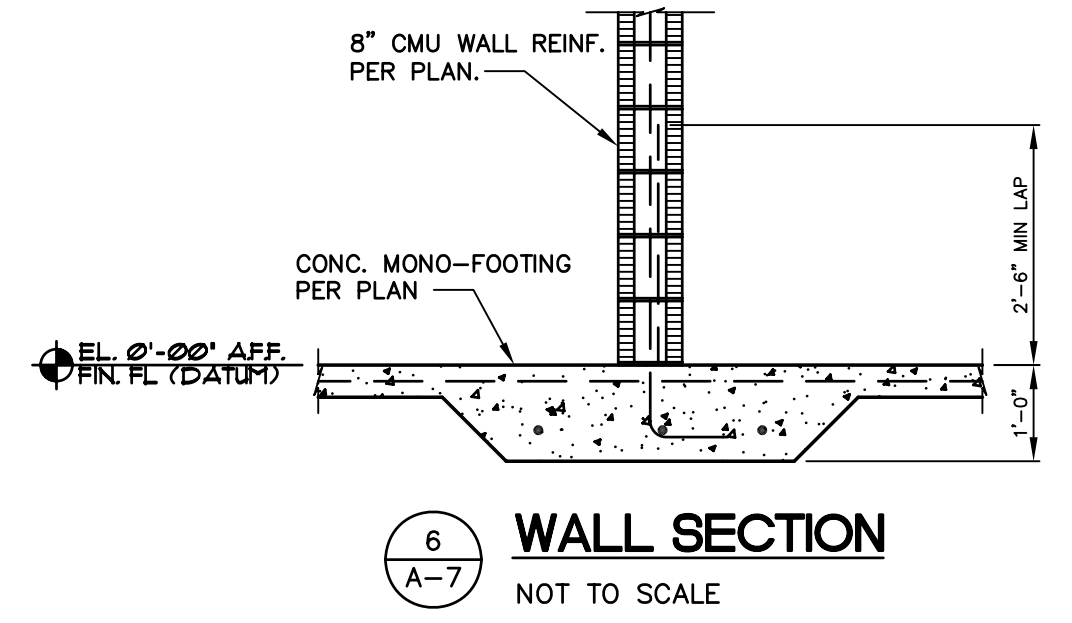
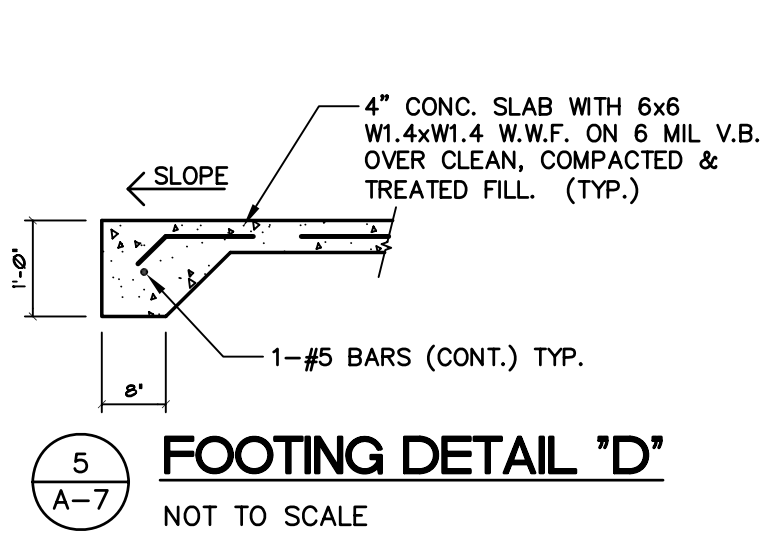
1/2" GYPSUM BOARD ON 25GA 2 1/2" GALVANIZED STEEL STUDS AT 16" O.C. FROM DECK TO BOTTOM OF ROOF FRAMING.

IN TOILETS:

PROVIDE 1/2" CONCRETE BOARD ON 2 1/2" X 20GA GALVANIZED STEEL STUDS AT 16" O.C. EXTEND CONCRETE BOARD FROM FLOOR TO CEILING.

IN LOCKETS ROOMS:

PROVIDE 1/2" CONCRETE BOARD FROM FLOOR TO 8'-0" A.F.F. PROVIDE 1/2" W.R. GYPSUM FROM 8'-0" TO CEILING. ON 2 1/2" GALVANIZED STEEL 20GA STEEL STUDS AT 16" O.C.



Rev.	Date	Remarks

East Bradenton Community Center
 1119 13th Street East
 Bradenton, Florida

Project Number
 Drawn by JC/DC/CD
 Checked by AJM
 Date 06/01/09

ALAN J. MERONEK
 AR 91853
 Expires: FEB. 28, 2011
 Scale 1/4" = 1'-0"
 Set
 Drawing Number



HARDWARE SET 1
DOOR 1,6,&7 (EXTERIOR DOORS)

1. PANIC DEVICE	992L-06-628-EXT	VON DUPRIN
1 1/2 PR BUTTS	BB5151-4 1/2x4 1/2x32D-NRP	LAWREUCE
1 CLOSER	4040-DEL-26D	LCN
1 SET SEALS	303APK	PEMCO
1 THRESHOLD	272A	PEMCO
1 DOOR BOTTOM	309A	PEMCO
3 SILENCERS	GJ64	GLENN-JOHNSON

HARDWARE SET 2
DOOR 8,5 (H.C. TOILET)

1 LOCK SET	AL50PD-SATUEN-626	SCHLAGE
1 1/2 PR BUTTS	BB5151-4 1/2x4 1/2x32D	LAWREUCE
1 CLOSER	4040T-DEL-26D	LCN
1 SET SEALS	303APK	PEMCO
1 THRESHOLD	272A	PEMCO
1 DOOR BOTTOM	309A	PEMCO
3 SILENCERS	GJ64	GLENN-JOHNSON

HARDWARE SET 3
DOOR 4,9

1 LOCK SET	AL70PD-SATURN-626	SCHLAGE
1 1/2 AC BUTTS	BB5151-4 1/2x4 1/2x32D	LAWREUCE
1 WALL STOP	50C-26D	GLENN-JOHNSON
3 SILENCERS	GJ64	GLENN-JOHNSON

HARDWARE SET 4
DOOR 2,3

1 PANIC DEVICE	992L-06-628-EXT	VON DUPRIN
1 1/2 PR BUTTS	BB5151-4 1/2x4 1/2x32D	LAWREUCE
1 CLOSER	4040-DEL-26D	LCN
3 SILENCERS	GJ64	GLENN-JOHNSON

TOILET ACCESSORIES

A	TOILET TISSUE HOLDER	B386	
B	GRAB BARS	B6806 X 36" (2 REQ'D)	-
C	GRAB BARS	B68137	-
D	TOILET TISSUE HOLDER	B663	-
E	MIRROR	B290-24x36	-
F	PAPER TOWER AND WASTE	B38034	-
G	BABY CHANGING TABLE	BB100-00	-
H	ELECTRIC HAND DRYER	-	-
I	TOWER HOOKS	-	-
J	CURTAIN ROD WITH HOOKS AND COURTIN	-	-

NOTE: ALL ACCESSORIES MODEL NUMBERS NOTED ABOVE ARE FROM THE BOBRICK CORPORATION, SUBSTITUTES MUST BE APPROVED BY THE ARCHITECT.

TOILET PARTITIONS

DURLINE SERIES, SOLID PHENOLIC, 1181 SERIES, CLASS "A" FLAME SPREAD, FLOOR MOUNT, AS MANUFACTURES BY THE BOBRICK CORPORATION. COLOR AS SELECTION BY THE OWNER.

ROOM FINISH SCHEDULE																				
MARK	ROOM NAME	FLOOR			BASE	WALLS				CEILING				CLQ. HGT.	REMARKS					
		CONCRETE (SEALED)	VCT	CERAMIC TILE	OMITTED	EXISTING TO REMAIN	CERAMIC TILE - 8"	VINYL	GYPSUM WALLBOARD	CMU WITH SAND STUCCO PAINT	PAINTED CONCRETE/CMU	CERAMIC TILE	4" THICK 18 GAGE ALUMINUM INSULATED PANELS			5/8" GYP. WALLBOARD TAPE/SAND SMOOTH & PAINTED	2X2 ACOUSTICAL SYS.	2X4 ACOUSTICAL SYS.	4" THICK 18 GAGE ALUMINUM INSULATED PANELS	OPEN TO STRUCTURE
101	OFFICE	●					●		●											
102	WOMEN'S CHANGING AREA 'B'		●			●			●		●									
103	WOMEN'S CHANGING AREA 'A'		●			●		●	●		●									
104	EXISTING WOMEN'S SHOWERS		●			●			●		●									
105	NEW TOILET AND SHOWER		●			●			●		●									
106	EXISTING WOMEN'S TOILETS		●			●			●		●									
107	EXISTING MEN'S TOILETS		●			●			●		●									
108	EXISTING MEN'S SHOWERS		●			●			●		●									
109	OFFICE	●					●		●		●									
110	MEN'S CHANGING AREA		●			●			●		●									
111	STORAGE	●					●		●		●									

- FINISH SCHEDULE NOTES:
1. PROVIDE SOLID FIRE BLOCKING AT ALL VERTICAL & HORIZONTAL TRANSITIONS
2. INSULATE ALL INTERIOR WALLS W/SOUND ATTENUATION BATTS (FULL DEPTH OF WALL)
3. SEE REFLECTED CEILING PLAN FOR SOFFITS
4. DRYWALL TO RECEIVE.....FINISH, SAND TEXTURE AND PAINT
5. VERIFY ALL FINISHES WITH OWNER PRIOR TO CONSTRUCTION

DOOR SCHEDULE										
MARK	SIZE			TYPE	DOOR		JAMB		HARDWARE GROUP	REMARKS
	W	H	T		MATERIAL	FINISH	MATERIAL	FINISH		
1	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	1	
2	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	4	
3	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	4	
4	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	3	
5	3'-0"	7'-2"	1 3/4"		ALUMINUM	CLEAR ANODIZED	ALUMINUM	CLEAR ANODIZED	2	PROVIDE DOOR AND FRAME WITH WINDOW SYSTEM
6	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	1	
7	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	1	
8	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	2	
9	3'-0"	7'-2"	1 3/4"		H.M.	PAINT	H.M.	PAINT	3	

WINDOW SCHEDULE									
MARK	SIZE		TYPE	FRAME		GLAZING		SILL	REMARKS
	WIDTH M.O.	HEIGHT M.O.		MATERIAL	FINISH	TINT	THICKNESS		
⊕	6'-8"	5'-2"	SCRN OPNG	ALUM.	CLEAR	---	3/16"	PRE CAST	SCREENED OPNG
			FIXED						

Remarks	
Date	
Rev.	

East Bradenton Community Center
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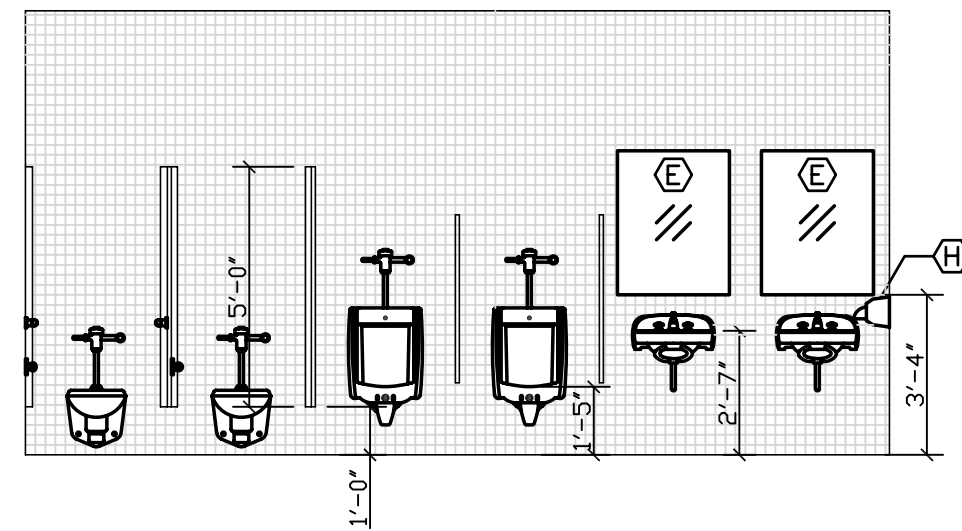
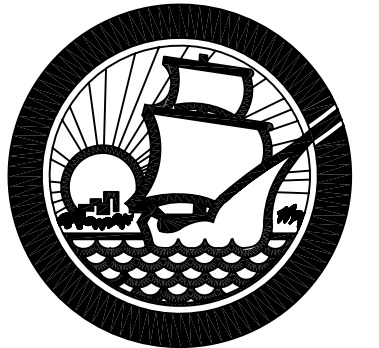
Date 06/01/09

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AR 91853
Expires: FEB. 28, 2011

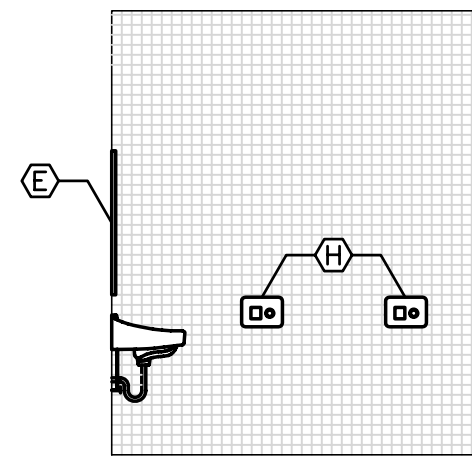
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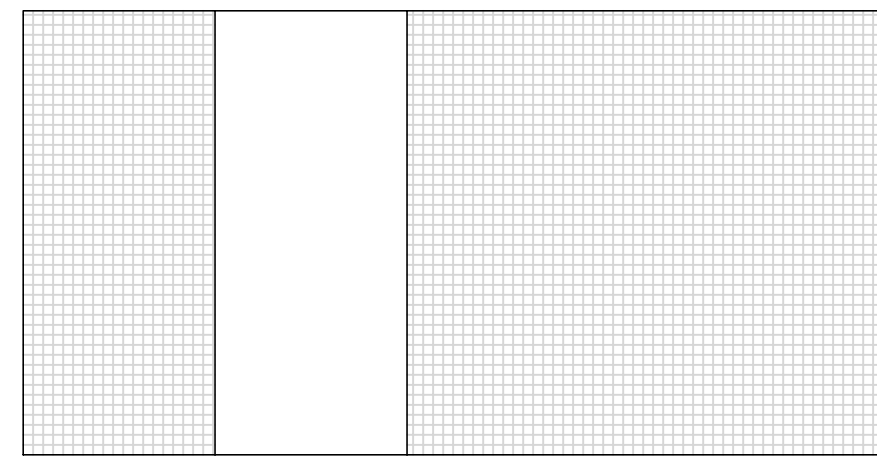
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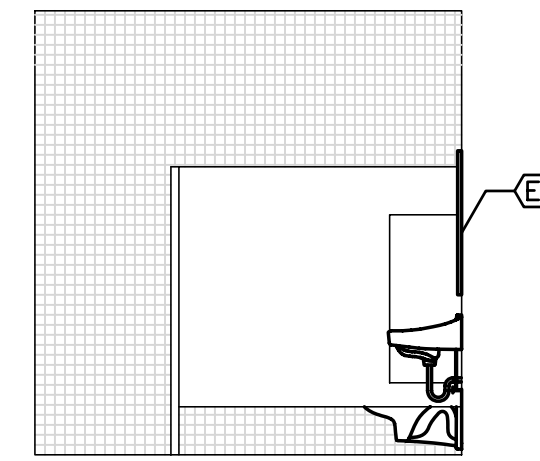
1
A-9
EXISTING MEN'S TOILET
1/4"=1'-0"



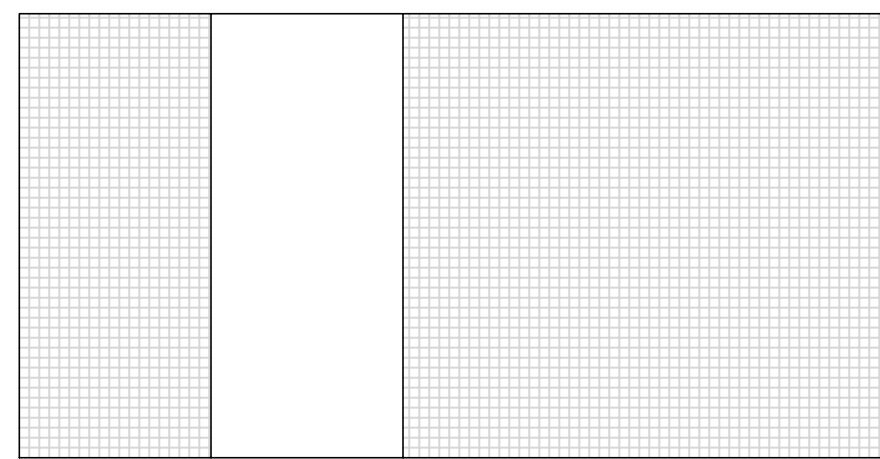
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A-9
EXISTING MEN'S TOILET
1/4"=1'-0"



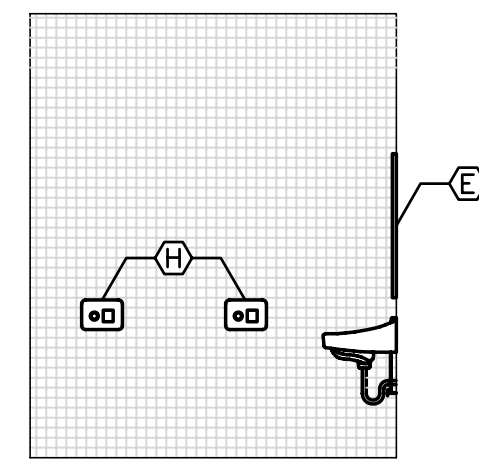
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A-9
EXISTING MEN'S TOILET
1/4"=1'-0"



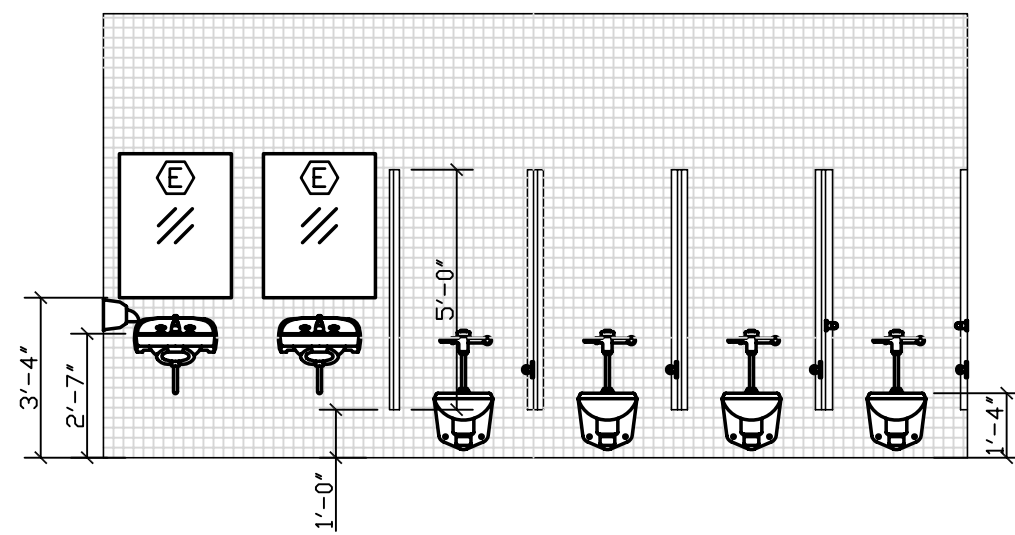
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A-9
EXISTING MEN'S TOILET
1/4"=1'-0"



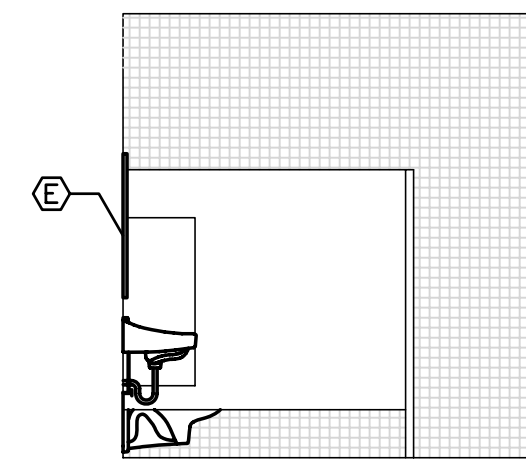
5
A-9
EXISTING WOMEN'S TOILET
1/4"=1'-0"



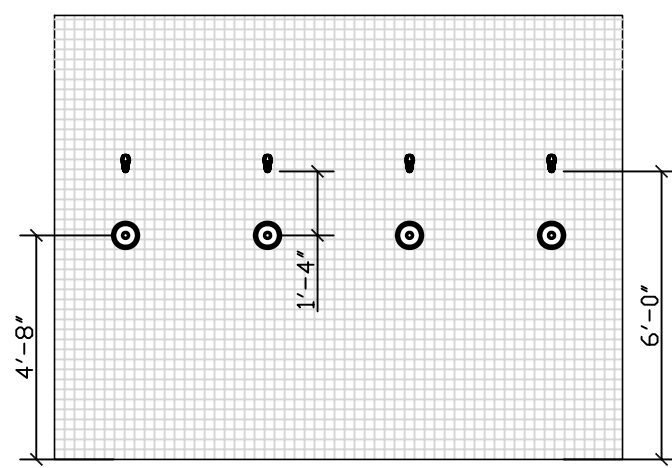
6
A-9
EXISTING WOMEN'S TOILET
1/4"=1'-0"



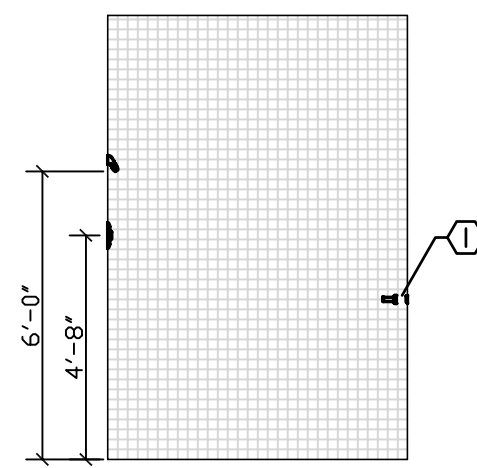
7
A-9
EXISTING WOMEN'S TOILET
1/4"=1'-0"



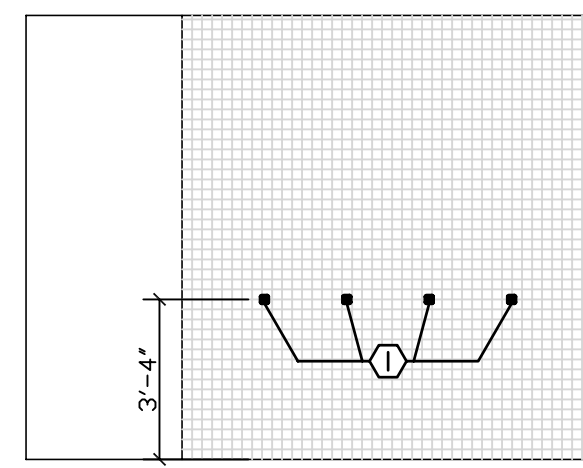
8
A-9
EXISTING WOMEN'S TOILET
1/4"=1'-0"



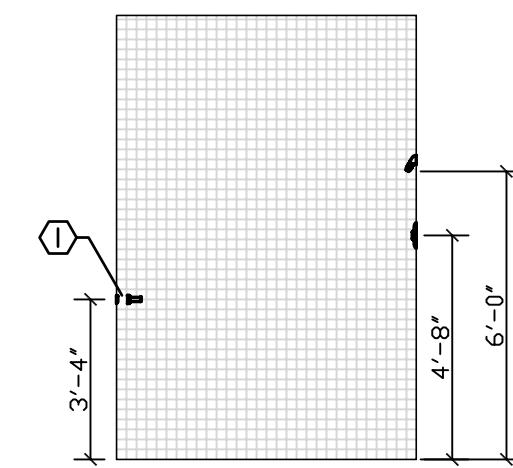
9
A-9
MEN'S SHOWER
1/4"=1'-0"



10
A-9
MEN'S SHOWER
1/4"=1'-0"

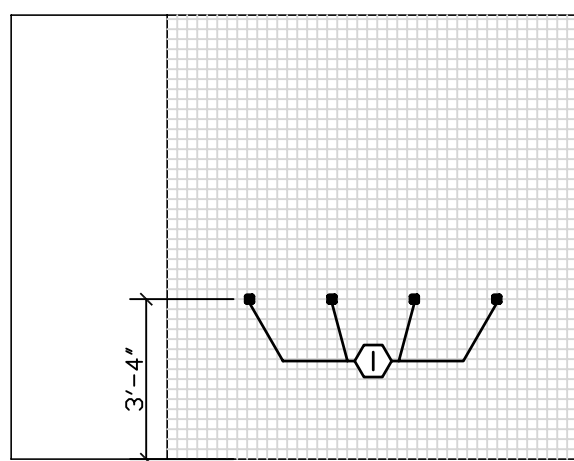


11
A-9
MEN'S SHOWER
1/4"=1'-0"

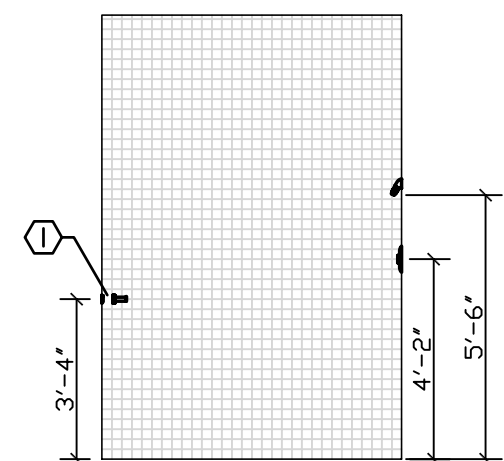


12
A-9
MEN'S SHOWER
1/4"=1'-0"

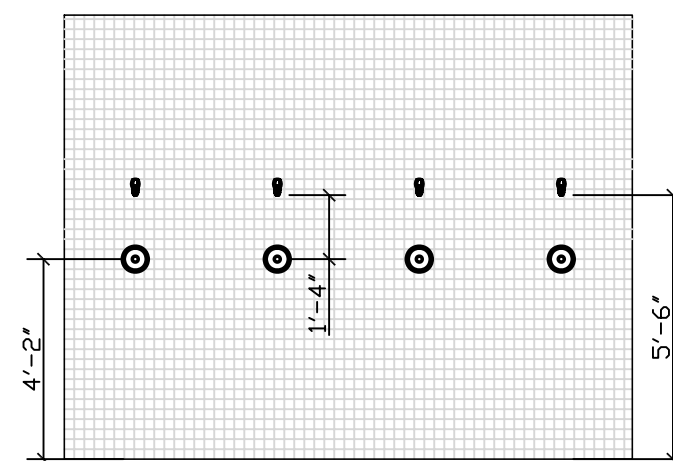
REFER TO SHEET A-8 FOR TOILET ACCESSORIES.



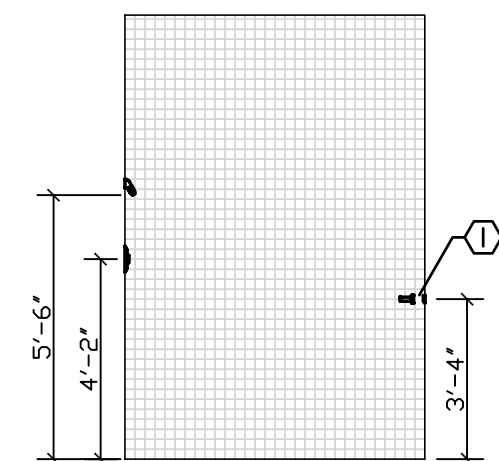
13
A-9
WOMEN'S SHOWER
1/4"=1'-0"



14
A-9
WOMEN'S SHOWER
1/4"=1'-0"



15
A-9
WOMEN'S SHOWER
1/4"=1'-0"



16
A-9
WOMEN'S SHOWER
1/4"=1'-0"

Remarks

Date

Rev.

East Bradenton Community Center
1119 13th Street East
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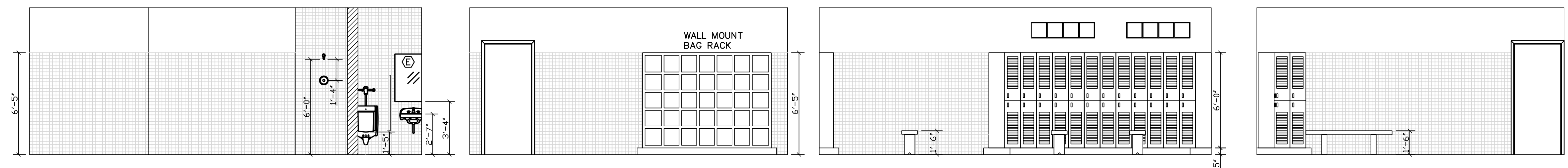
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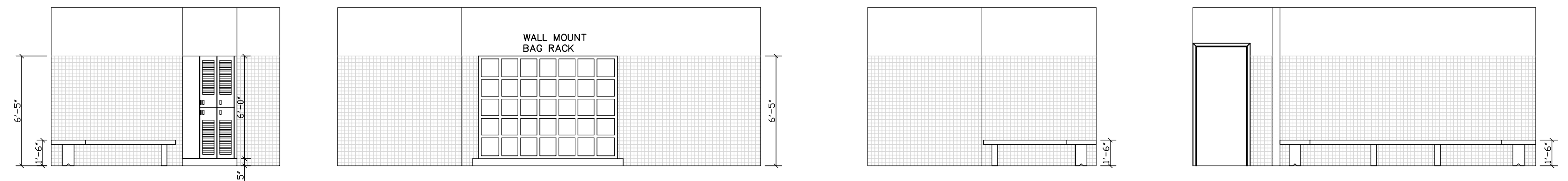
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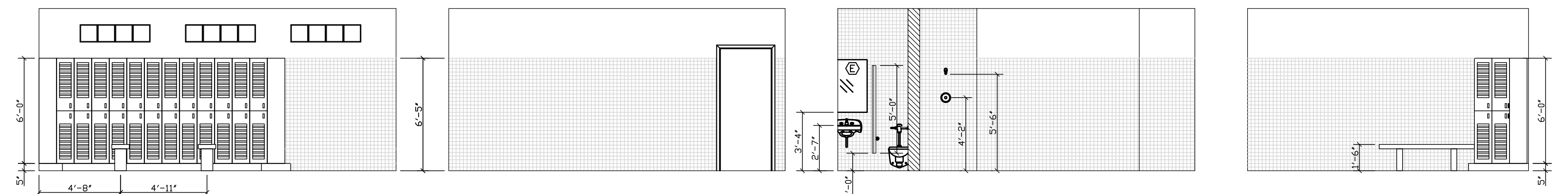
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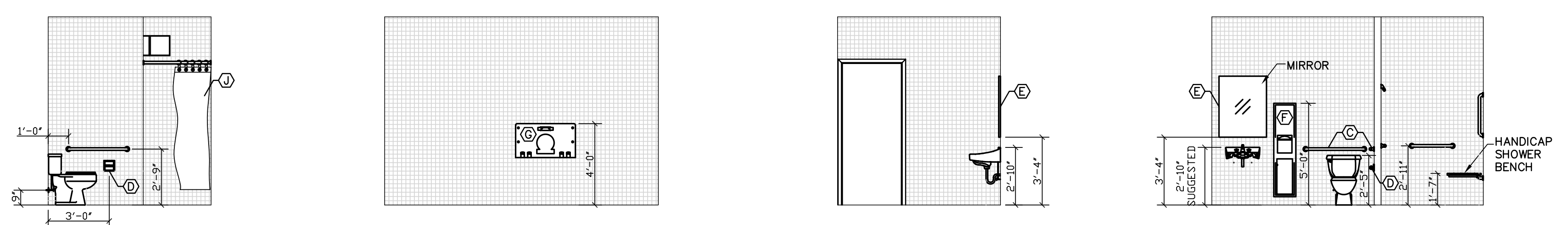
17 MEN'S CHANGING AREA 1/4"=1'-0"
 18 MEN'S CHANGING AREA 1/4"=1'-0"
 19 MEN'S CHANGING AREA 1/4"=1'-0"
 20 MEN'S CHANGING AREA 1/4"=1'-0"



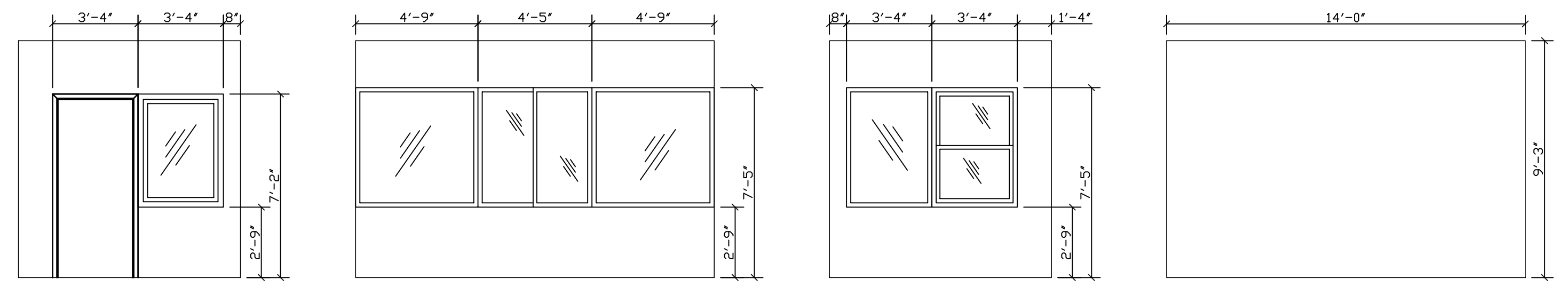
21 WOMEN'S CHANGING AREA 'B' 1/4"=1'-0"
 22 WOMEN'S CHANGING AREA 'B' 1/4"=1'-0"
 23 WOMEN'S CHANGING AREA 'B' 1/4"=1'-0"
 24 WOMEN'S CHANGING AREA 'B' 1/4"=1'-0"



25 WOMEN'S CHANGING AREA 'A' 1/4"=1'-0"
 26 WOMEN'S CHANGING AREA 'A' 1/4"=1'-0"
 27 WOMEN'S CHANGING AREA 'A' 1/4"=1'-0"
 28 WOMEN'S CHANGING AREA 'A' 1/4"=1'-0"



29 NEW TOILET AND SHOWER 1/4"=1'-0"
 30 NEW TOILET AND SHOWER 1/4"=1'-0"
 31 NEW TOILET AND SHOWER 1/4"=1'-0"
 32 NEW TOILET AND SHOWER 1/4"=1'-0"



33 OFFICE 1/4"=1'-0"
 34 OFFICE 1/4"=1'-0"
 35 OFFICE 1/4"=1'-0"
 36 OFFICE 1/4"=1'-0"

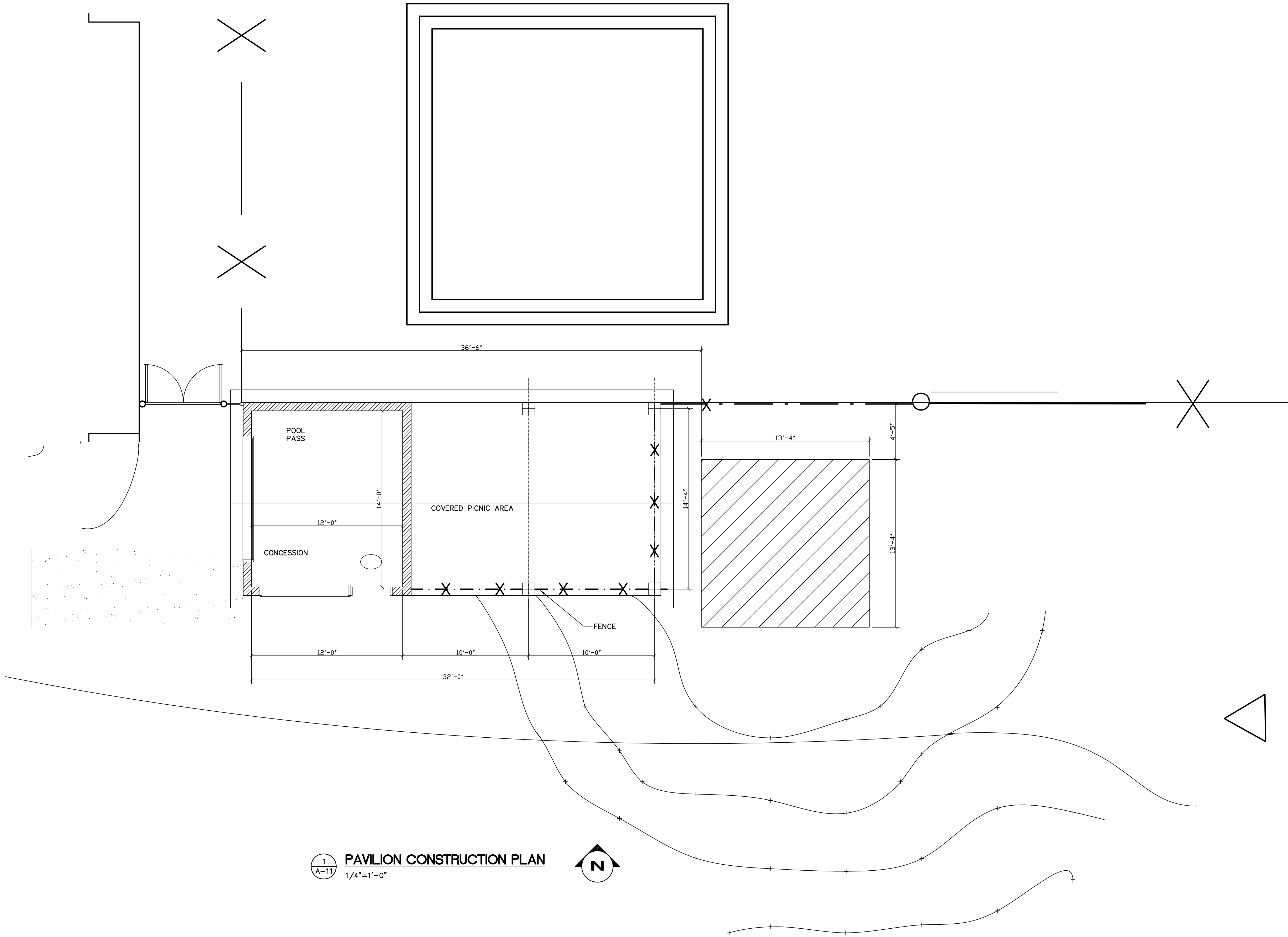
REFER TO SHEET A-8 FOR TOILET ACCESSORIES, DOOR AND WINDOW SCHEDULES.

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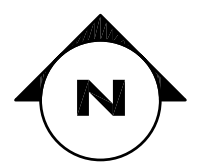
East Bradenton Community Center
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1
A-11
PAVILION CONSTRUCTION PLAN
 1/4" = 1'-0"



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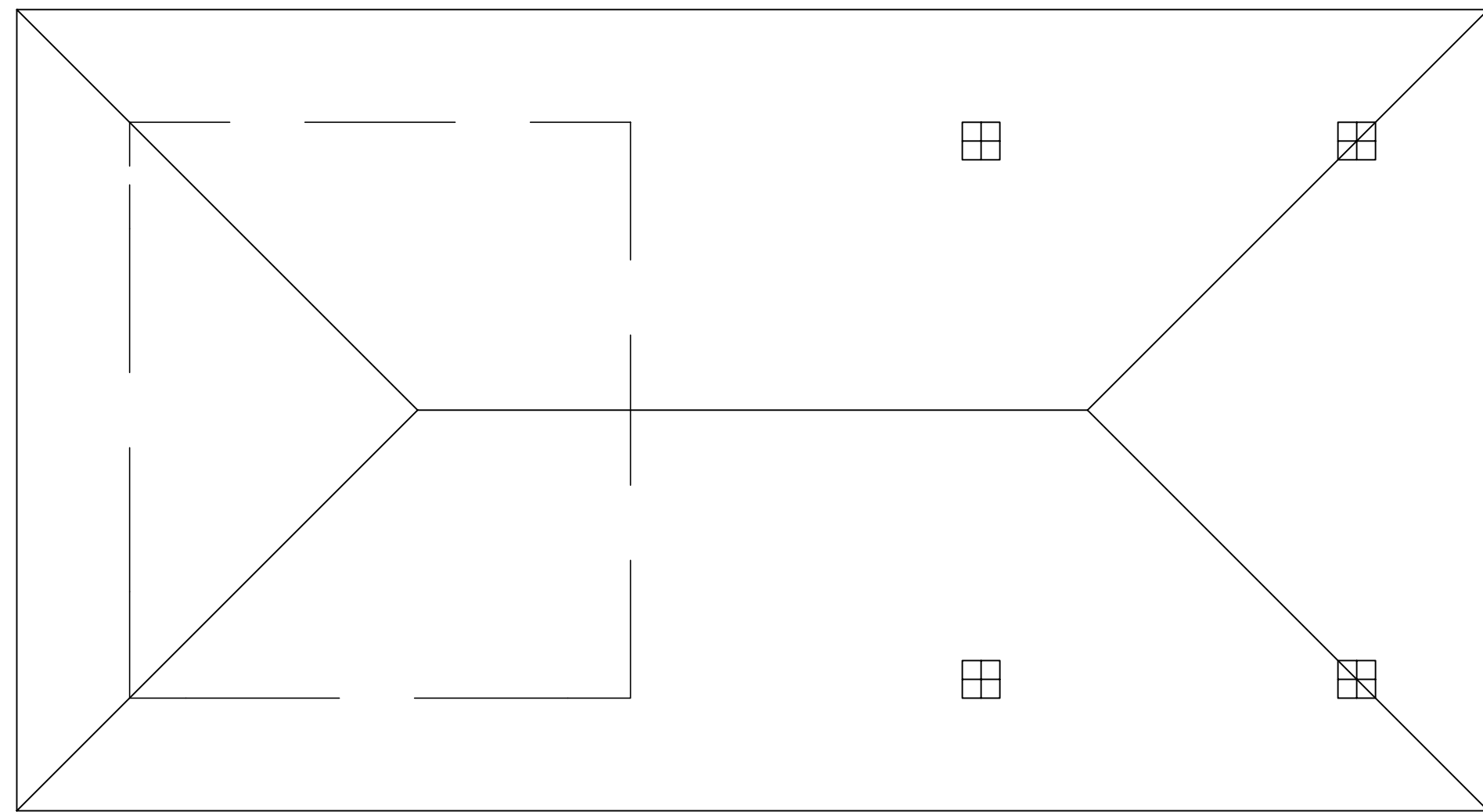
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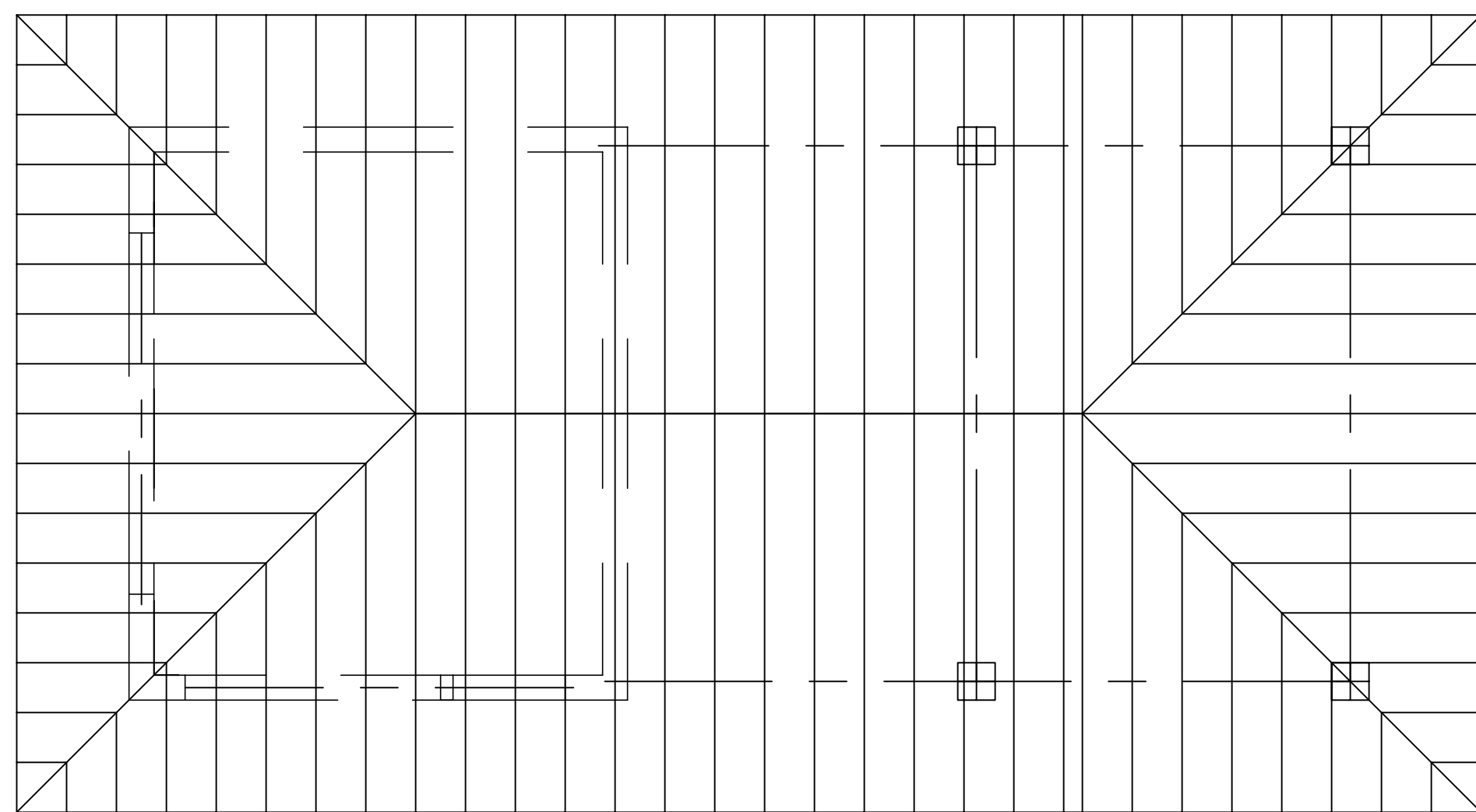
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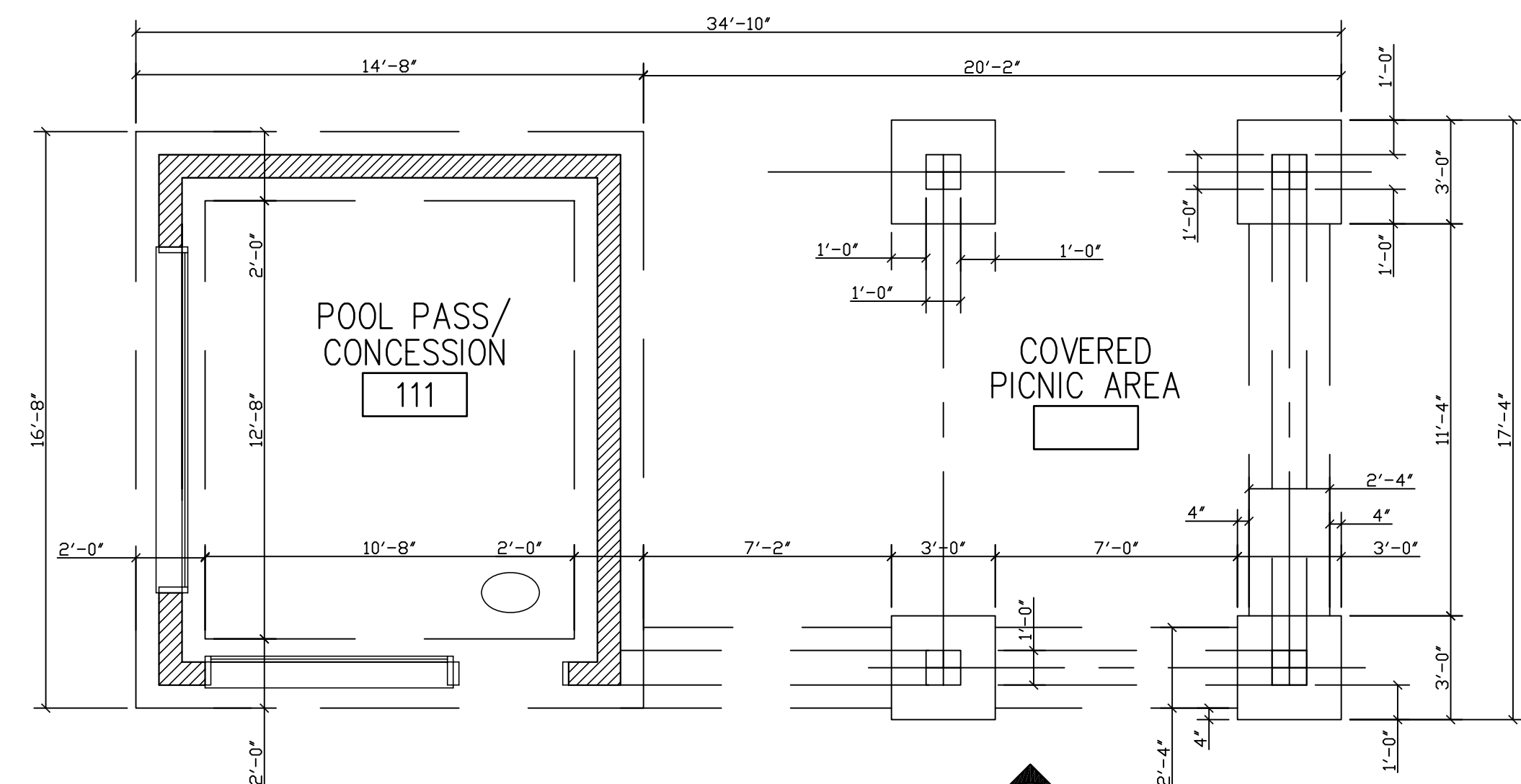
A-11



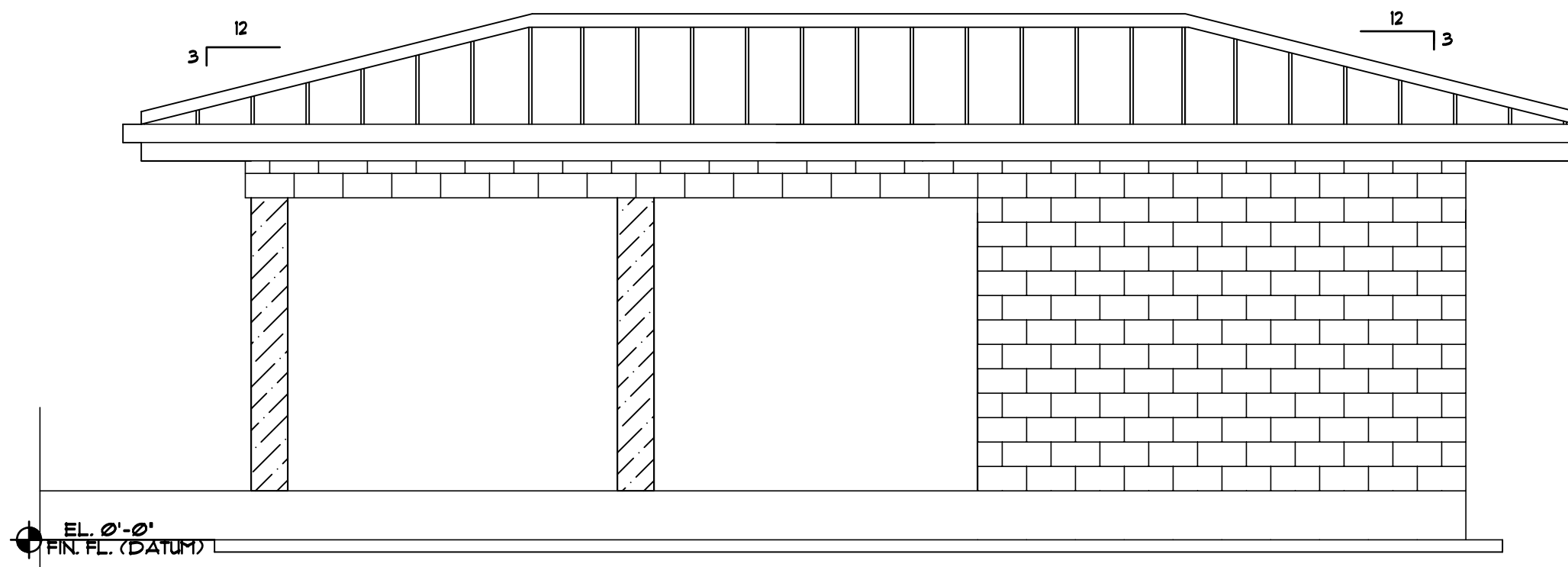
3 PAVILION ROOF PLAN
1/4"=1'-0"



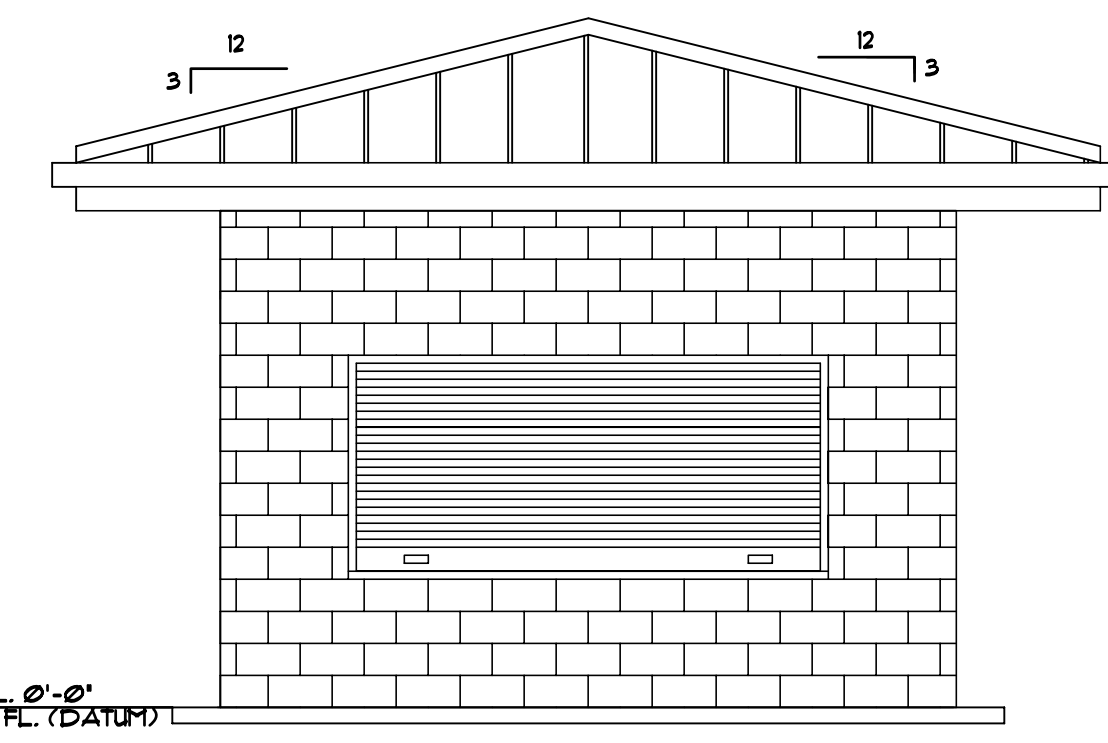
2 PAVILION STRUCTURAL PLAN
1/4"=1'-0"



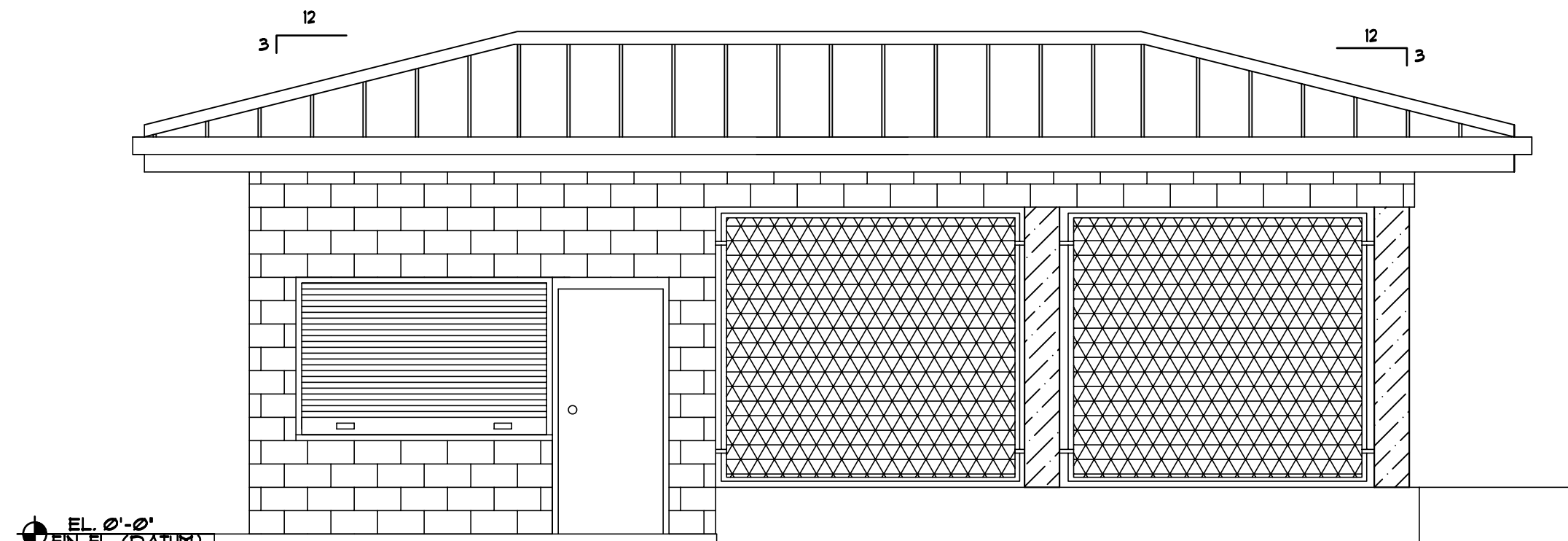
1 PAVILION FOUNDATION PLAN
1/4"=1'-0"



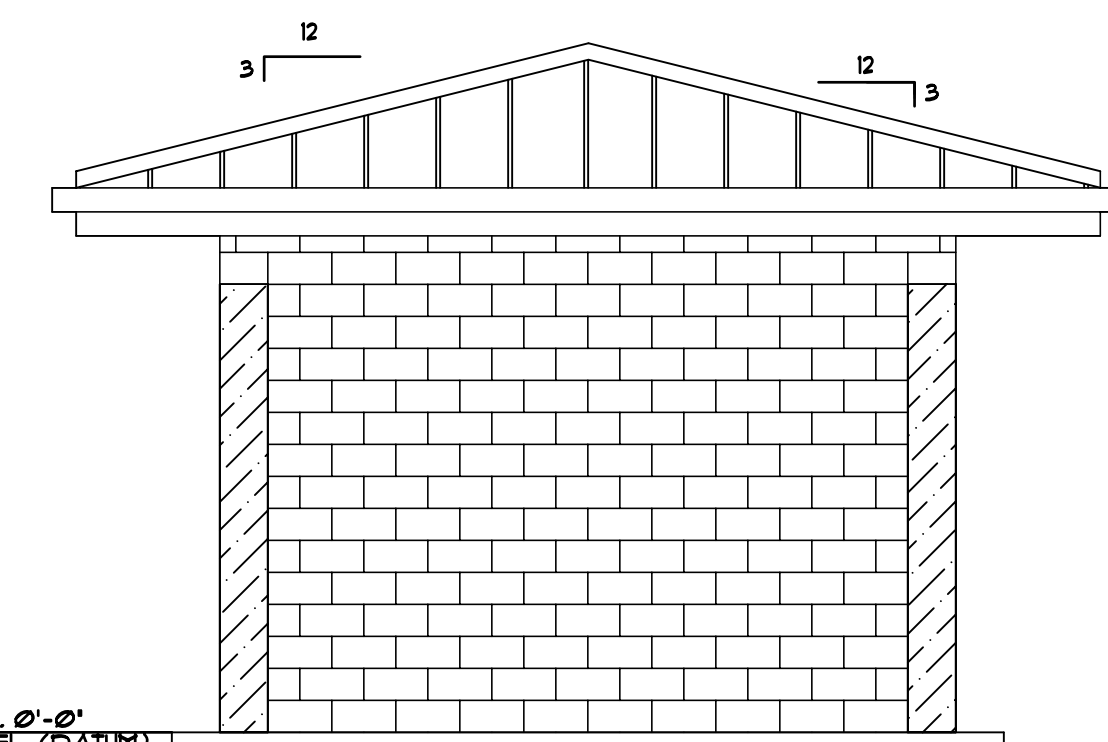
8 PAVILION NORTH ELEVATION
1/4"=1'-0"



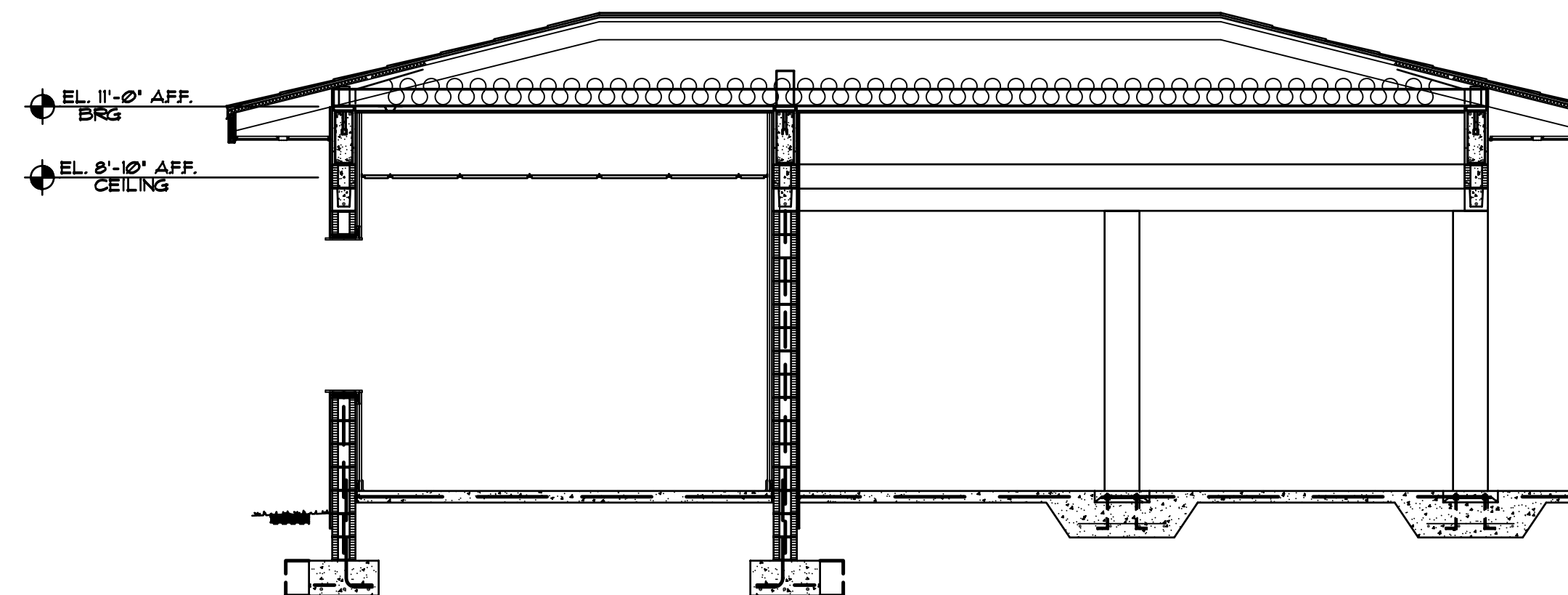
9 PAVILION WEST ELEVATION
1/4"=1'-0"



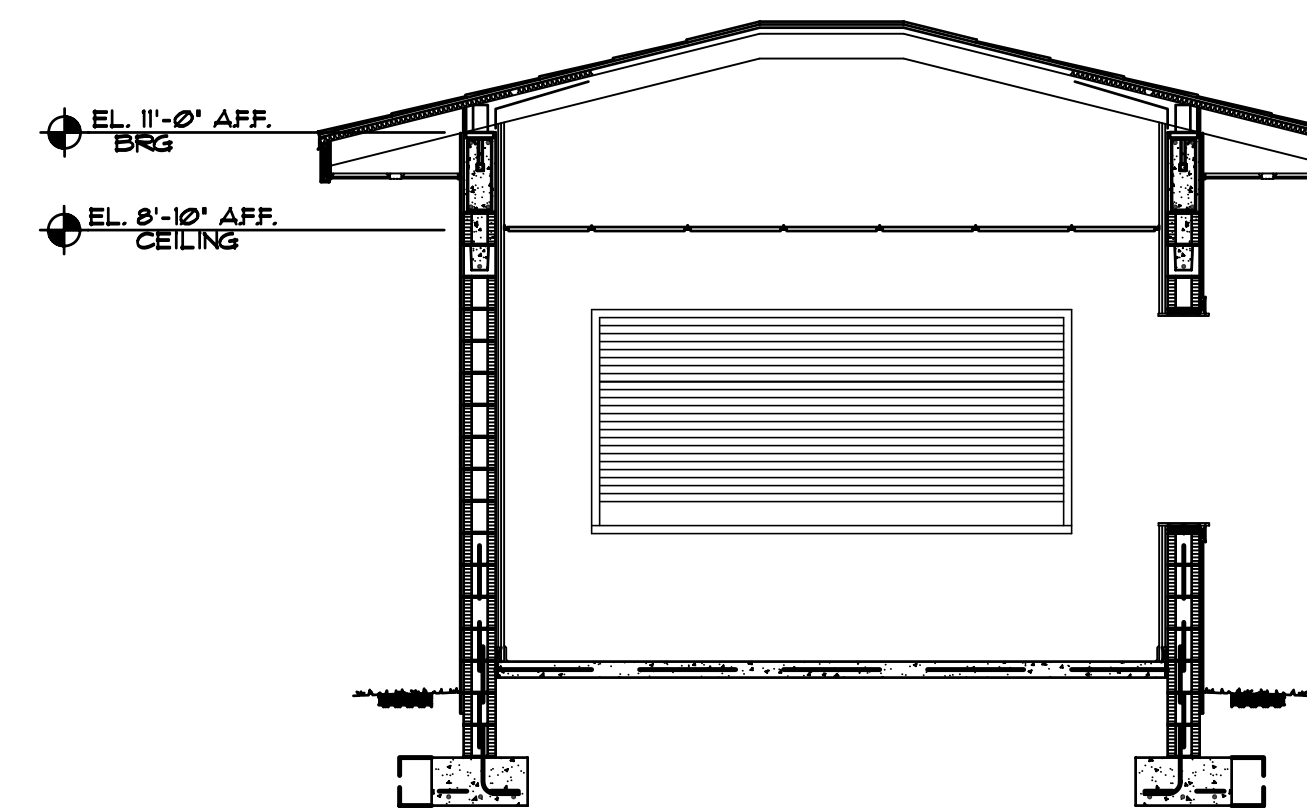
6 PAVILION SOUTH ELEVATION
1/4"=1'-0"



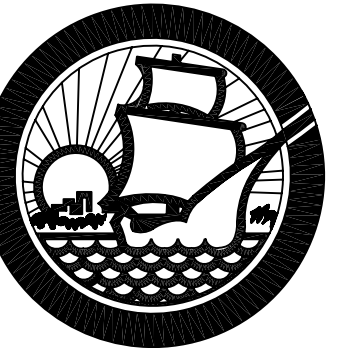
7 PAVILION EAST ELEVATION
1/4"=1'-0"



5 BUILDING SECTION
1/4"=1'-0"



4 BUILDING SECTION
1/4"=1'-0"



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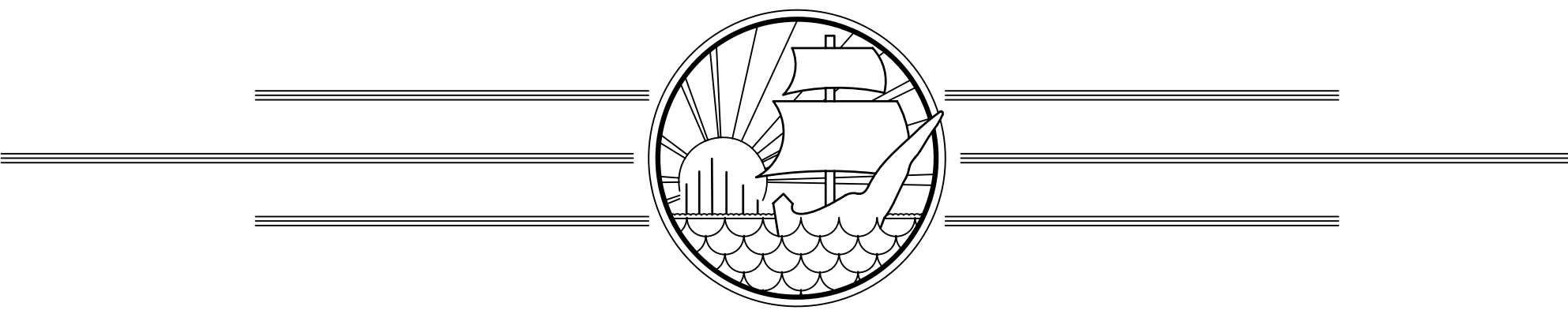
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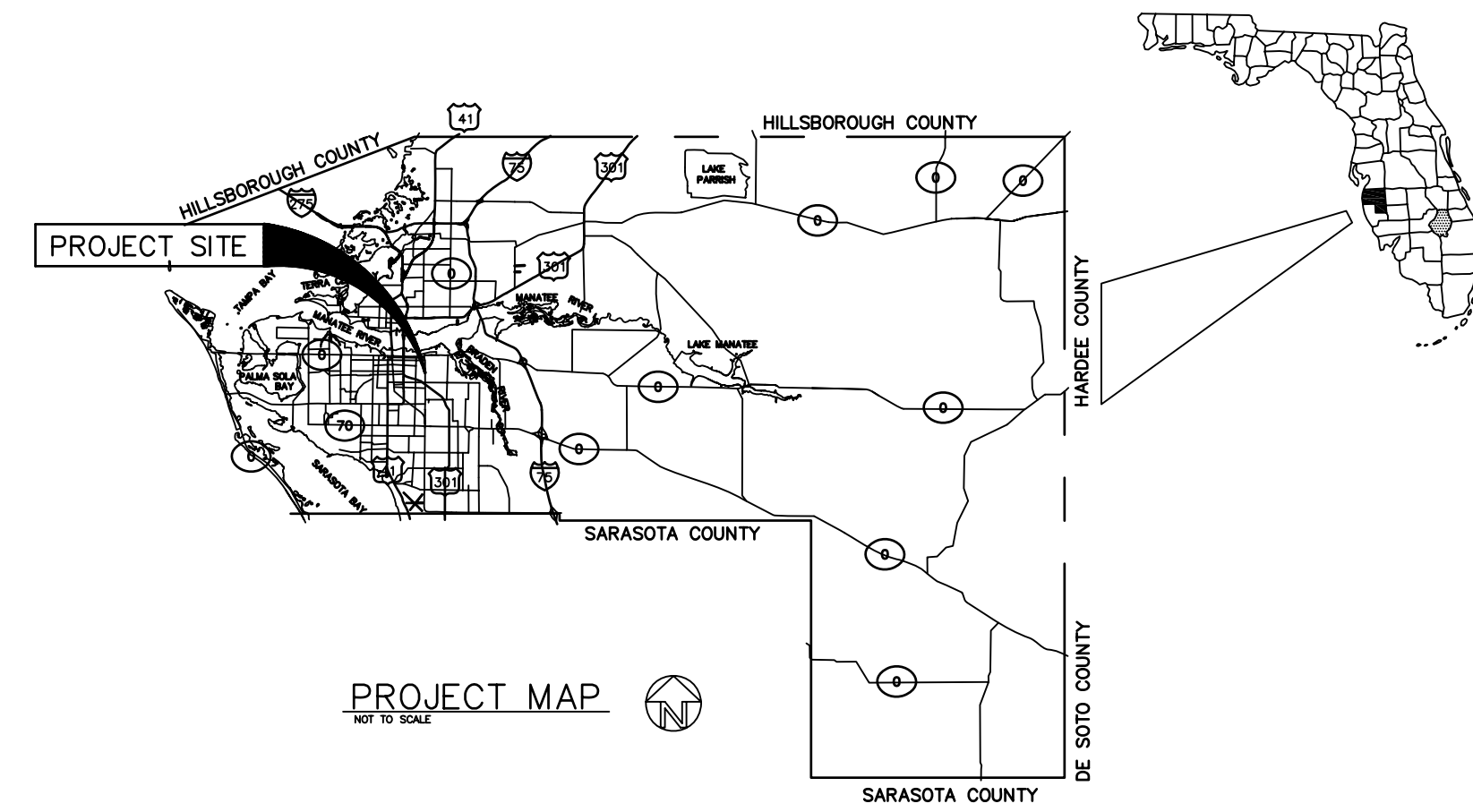
Scale 1/4" = 1'-0"

Set

Drawing Number



MANATEE COUNTY, FLORIDA
 EAST BRADENTON COMMUNITY CENTER
 BATHHOUSE REMODEL
 1119 13th STREET EAST



INDEX TO DRAWINGS	
SHT. NO.	DESCRIPTION
	COVER SHEET
A-1	EXISTING SITE PLAN
A-2	DEMOLITION FLOOR PLAN
A-3	FOUNDATION PLAN
A-4	REMODELING PLAN
A-5	STRUCTURAL & ROOF PLAN
A-6	EXTERIOR ELEVATIONS
A-7	WALL SECTIONS
A-8	SCHEDULES
A-9	INTERIOR ELEVATIONS
A-10	INTERIOR ELEVATIONS
A-11	PAVILION PLAN
A-11	PAVILION PLANS
E-1	ELECTRICAL SYMBOLS AND LEGENDS
E-2	ELECTRICAL SITE PLANS
E-3	ELECTRICAL DEMO PLANS
E-4	ELECTRICAL NEW PLANS
E-5	ELECTRICAL ONE-LINE & SCHEDULES
E-6	ELECTRICAL DETAILS & SPECIFICATIONS
M-1	MECHANICAL LEGEND & GENERAL NOTES
M-2	MECHANICAL DEMO PLANS
M-3	MECHANICAL NEW PLANS
M-4	MECHANICAL SCHEDULES
M-5	MECHANICAL DETAILS
M-6	MECHANICAL SPECIFICATIONS
M-7	MECHANICAL SPECIFICATIONS
P-1	PLUMBING LEGEND & GENERAL NOTES
P-2	PLUMBING DEMO PLANS
P-3	PLUMBING NEW PLANS
P-4	PLUMBING CONCESSION STAND
P-5	PLUMBING SCHEDULES

MANATEE COUNTY GOVERNMENT



Facilities Management
 1112 Manatee Avenue West
 Suite 803, P.O. Box 1000
 Bradenton, Florida 34206
 (941) 748-4501
 FAX (941) 742-5880

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Drawing Number
COVER SHEET

<p>ATP ENGINEERING SOUTH, FL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181</p>	SEAL
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ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTE:
THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

SYMBOL	DESCRIPTION
	DISTRIBUTION PANELBOARD AND CABINET - RECESSED MOUNT
	DISTRIBUTION PANELBOARD AND CABINET - SURFACE MOUNT
	BRANCH PANELBOARD AND CABINET - RECESSED MOUNT
	BRANCH PANELBOARD AND CABINET - SURFACE MOUNT
	LOAD CENTER - SURFACE MOUNT
	LOAD CENTER - RECESSED MOUNT
	DENOTES PANEL/PANELBOARD DESIGNATION
	MOTOR "X" INDICATES HORSEPOWER "Y" INDICATES PHASE
	CAPACITOR "X" INDICATES KVAR
	DISCONNECT SWITCH - FUSED "X" = RATING, "Y" = FUSE SIZE
	DISCONNECT SWITCH - NON-FUSED
	DISCONNECT SWITCH - CIRCUIT BREAKER
	MOTOR STARTER
	COMBINATION MOTOR STARTER
	DRY TYPE TRANSFORMER - "XX" INDICATES KVA
	METER SOCKET
	CURRENT TRANSFORMER METER SOCKET
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	GENERATOR
	AUTOMATIC TRANSFER SWITCH
	WIREWAY
	BUSWAY
	GROUND CONNECTION
	HORSEPOWER RATED MANUAL MOTOR STARTER TOGGLE SWITCH WITH THERMAL OVERLOAD PROTECTION "X" INDICATES AS FOLLOWS NONE - SINGLE POLE 2 - 2 POLE 3 - 3 POLE
	HORSEPOWER RATED MANUAL MOTOR STARTER TOGGLE SWITCH WITH THERMAL OVERLOAD PROTECTION WITH PILOT LIGHT "X" INDICATES AS FOLLOWS "Y" INDICATES AS FOLLOWS NONE - SINGLE POLE Y - YELLOW LENS 2 - 2 POLE G - GREEN LENS 3 - 3 POLE R - RED LENS W - WHITE LENS B - BLUE LENS A - AMBER
	LOW VOLTAGE DRAWOUT TYPE CIRCUIT BREAKER "X" INDICATES AS FOLLOWS A - AIR TYPE S - SF6 TYPE V - VACUUM TYPE
	MOLDED CASE CIRCUIT BREAKER
	DRAW OUT MOTOR STARTER ASSEMBLY

SYMBOL	DESCRIPTION
	CONCEALED CONDUIT
	4" CONDUIT SLEEVE WITH BUSHINGS THRU WALL ABOVE CEILING
	FLOOR BOX TYPE 1. SEE TYPICAL DETAILS FOR CONDUIT REQUIREMENTS
	LETTER DESIGNATION REFERS TO SYSTEM (SEE ABBREVIATIONS)
	PHASE CONDUCTORS QUANTITY OF CONDUCTORS OR CABLES IN CONDUIT "F50" DENOTES THE FEEDER SIZE "A-XX" DENOTES PANEL AND CIRCUIT #
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	JUNCTION OR PULL BOX
	CABLE TRAY
	U/G CONDUIT TURNED UP
	U/G CONDUIT TURNED DOWN

SYMBOL	DESCRIPTION
X-2-C	X = FIXTURE TYPE, 2 = CIRCUIT NUMBER, C = SWITCH LEG F - FLUORESCENT K - INCANDESCENT H - H.I.D.
	FLUORESCENT STRIP TYPE FIXTURE
	FLUORESCENT TYPE FIXTURE
	FLUORESCENT TYPE FIXTURE WITH EMERGENCY BATTERY BALLAST
	CEILING MOUNT LIGHT FIXTURE
	CEILING MOUNT RECESSED LIGHT FIXTURE
	WALL MOUNT FIXTURE
	LIGHT POLE WITH ONE FIXTURE (FIXTURE LOCATION AND SPACING AS SHOWN)
	2 HEAD POLE LIGHT. LOCATION AND SPACING AS SHOWN.
	3 HEAD POLE LIGHT. LOCATION AND SPACING AS SHOWN.
	4 HEAD POLE LIGHT. LOCATION AND SPACING AS SHOWN.
	EXIT LIGHT - CEILING MOUNTED ARROWS DENOTE EGRESS PATH
	EXIT LIGHT - WALL MOUNTED ARROWS DENOTE EGRESS PATH
	EMERGENCY WALL MOUNT W/ BATTERY UNIT
	EXIT / EMERGENCY WALL MOUNT W/ BATTERY UNIT ARROWS DENOTE EGRESS PATH
	EMERGENCY WALL MOUNT REMOTE HEAD

SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE - NORMAL CIRCUIT "X" INDICATES AS FOLLOWS: NONE = 20 AMP, 125VAC GFI = 20 AMP, 125VAC, GROUND FAULT INTERRUPTER TYPE HM = 20 AMP, 125VAC, HORIZONTAL MOUNT TYPE IG = 20 AMP, 125VAC, ISOLATED GROUND TYPE S = 20 AMP, 125VAC, TVSS PROTECTION TYPE WP = 20 AMP, 125VAC, WEATHERPROOF TYPE
	DOUBLE DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE - ABOVE COUNTER. 44" AFF
	DOUBLE DUPLEX RECEPTACLE - ABOVE COUNTER. 44" AFF
	SINGLE RECEPTACLE - SEE DRAWINGS AND SPECIFICATIONS.
	SPECIAL RECEPTACLE - SEE DRAWINGS AND SPECIFICATIONS.
	SINGLE RECEPTACLE - FLOOR SEE DRAWINGS AND SPECIFICATIONS.
	DUPLEX RECEPTACLE - FLOOR
	CLOCK RECEPTACLE - 120VAC
	TOGGLE SWITCH - SINGLE POLE
	TOGGLE SWITCH - DOUBLE POLE
	TOGGLE SWITCH - 3-WAY
	TOGGLE SWITCH - 4-WAY
	TOGGLE SWITCH - 0-1 INDICATES TYPE T: TIMER, K: KEY OPERATED
	SWITCH - DIMMER
	SWITCH - FAN SPEED CONTROL
	W.O.S. WALL MOUNTED OCCUPANCY SENSOR
	CEILING MOUNTED OCCUPANCY SENSOR x = SWITCH LEG
	JUNCTION BOX
	HVAC THERMOSTAT
	HVAC HUMIDISTAT
	FURNITURE POWER POLE
	FURNITURE CABLE MANAGEMENT POLE.
	MUSHROOM HEAD RED PUSH BUTTON

SYMBOL	DESCRIPTION
	DETAIL NUMBER
	DRAWING NUMBER WHERE DRAWN
	SECTION LETTER
	DRAWING NUMBER WHERE DRAWN

SYMBOL	DESCRIPTION
	HORN / STROBE
	CEILING MOUNT
	WALL MOUNT
	HORN
	CEILING MOUNT
	WALL MOUNT
	SPEAKER/STROBE
	CEILING MOUNT
	WALL MOUNT
	STROBE
	CEILING MOUNT
	WALL MOUNT
	BELL
	CEILING MOUNT
	WALL MOUNT
	SMOKE DETECTOR
	HEAT DETECTOR
	PULL STATION
	ELEVATOR WARNING LIGHT
	FIREFIGHTER PHONE JACK
	TAMPER SWITCH
	FLOW SWITCH

SYMBOL	DESCRIPTION
	F.A.A.P. REMOTE ANNUCIATOR
	FIRE ALARM CONTROL PANEL
	DOOR RELEASE DEVICE - FIRE ALARM ACTIVATED
	SPEAKER - FIRE ALARM
	AUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS): NONE = PHOTO ELECTRIC TYPE S = SUPPLY R = RETURN
	EQUIPMENT SHUT DOWN RELAY
	REMOTE DUCT DETECTOR INDICATOR LIGHT X = AIR HANDLER / ROOF TOP UNIT
	FSS FIRE SUPPRESSION SYSTEM

SYMBOL	DESCRIPTION
	INTERCOM SYSTEM ROUGH-IN - SINGLE GANG BACKBOX MOUNTED AT +46"

GENERAL NOTES (APPLY TO ALL DRAWINGS):

- THE WORK INDICATED ON THESE DRAWINGS IS DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT AND DEVICES FOR A COMPLETE SYSTEM IN EVERY RESPECT AND DETAIL, TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO THE NEC (NFPA 70 & 72) AND ALL APPLICABLE CODES, AND BE COMPLETED BY A QUALIFIED, EXPERIENCED, LICENSED ELECTRICAL CONTRACTOR.
- THE ENGINEER HAS MADE AN EFFORT TO COORDINATE WORK WITH OTHER TRADES AND IDENTIFY ANY AND ALL CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE FIELD WORK BETWEEN TRADES AND TO IDENTIFY FIELD CONDITIONS PRIOR TO INSTALLATION AND REPORT ANY CONFLICTS TO THE ENGINEER.
- WHEN A CONFLICT OCCURS BETWEEN THE SPECIFICATIONS AND DRAWINGS, THE ITEMS OF GREATER QUANTITY AND/OR COST SHALL BE PROVIDED.
- CONTRACTOR SHALL VERIFY THE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT FURNISHED BY OTHER TRADES PRIOR TO INSTALLATION. COORDINATE ROUGH-IN INSTALLATION WITH EQUIPMENT DETAILS.
- ALL OPENINGS IN FIRE AND SMOKE PARTITIONS SHALL BE SEALED AS REQUIRED BY THE NEC/ FLORIDA BUILDING CODE. PROVIDE UL LISTED COMPOUND TO MATCH PARTITION RATING.
- DO NOT SCALE DRAWINGS. VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION FOR EXACT DEVICE / EQUIPMENT LOCATION.
- DEMOLITION WORK: PROVIDE DEMOLITION AND REMOVAL WORK AS INDICATED OR NEEDED. EQUIPMENT THAT IS TO BE REMOVED INCLUDES ALL ASSOCIATED WIRING, BOXES AND CONDUIT BACK TO SOURCE. CLOSE ALL UNUSED OPENINGS IN JUNCTION BOXES THAT REMAIN WITH SUITABLE PLUG OR COVER. WHEN REMOVING OR RELOCATING LIGHT FIXTURES OR OTHER DEVICES, FIELD VERIFY REMAINING DEVICES IN THE SAME CIRCUIT AND RECONNECT FOR CONTINUED SERVICE. EXISTING ELECTRICAL WORK INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REROUTED TO SUIT FINAL INSTALLATION. CUTTING AND PATCHING REQUIRED SHALL BE DONE TO RESTORE AREAS TO ORIGINAL CONDITION.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUT SHEETS AT TIME OF APPLICATION IF REQUESTED.

THESE DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE CONSULTANT HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS. NOTIFY THIS ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND.

ABBREVIATIONS	
A	AMPERE
AC	AIR CONDITIONING OR ALTERNATING CURRENT
ACC	ACCESS
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLER UNIT
AM	AMMETER
ARCH	ARCHITECT
AT	AMPERE TRIP
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CAT	CATEGORY
CB	CIRCUIT BREAKER
CH	CHILLER
CKT	CIRCUIT
CL	CENTER LINE
CLF	CURRENT-LIMITING FUSE
CM	CEILING MOUNTED
CNTRL	CONTROL
CJ	COPPER
DWG(S)	DRAWING(S)
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING TO REMAIN
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FACC	FIRE ALARM COMMAND CENTER
FATC	FIRE ALARM TERMINAL CABINET
FLR	FLOOR
FMC	FURNISHED BY MECHANICAL CONTRACTOR
FO	FIBER OPTIC
FOTC	FIBER OPTIC TERMINAL CABINET
FSS	FIRE SUPPRESSION SYSTEM
FWE	FURNISHED WITH EQUIPMENT
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GND.G	GALVANIZED RIGID STEEL CONDUIT
HOA	HAND-OFF-AUTO
HACR	HEATING/AIR CONDITIONING-RATED
HID	HIGH INTENSITY DISCHARGE
HPP	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HZ	HERTZ
HP	HORSEPOWER
IG	ISOLATED GROUND
IMC	INTERMEDIATE METALLIC CONDUIT
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT AMPERE
KW	KILOWATT
LC	LIGHTING CONTACTOR
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
M-G	MOTOR GENERATOR
MDP	MAIN DISTRIBUTION PANEL
MH	METAL HALIDE
MOD	MOTOR OPERATED DAMPER OR DOOR
MTD	MOUNTED
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OCPD	OVER CURRENT PROTECTIVE DEVICE
PNL	PANEL
PH	PHASE
PB	PUSHBUTTON
PE	PHOTOELECTRIC CONTROLLER
PP	PATCH PANEL
PVC	POLYVINYL CHLORIDE CONDUIT
R	RELOCATED
RTU	ROOF TOP UNIT
SCH	SCHEDULE
SEC	SECURITY
SW	SWITCH
SWG	SWITCHGEAR
TEL.T	TELEPHONE
TBB	TELEPHONE BACKBOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TC	TIME CLOCK
TF	TRANSFORMER
XFR	TRANSFER
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL.L.L.	UNDERWRITERS LABORATORIES UNINTERRUPTIBLE POWER SUPPLY
UPS	UNINTERRUPTIBLE POWER SUPPLY
U.O.N.	UNLESS OTHERWISE NOTED
VT	VAPORTIGHT
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
V	VOLT
VM	VOLTMETER
W	WATT
WHM	WATTHOUR METER
WM	WATTMETER
WP	WEATHER PROOF

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

MANATEE COUNTY GOVERNMENT



Facilities Management
1112 Manatee Avenue West
Suite 803, P.O. Box 1000
Bradenton, Florida 34206

(941) 748-4501
FAX (941) 742-5800

Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida

ELECTRICAL SYMBOLS and LEGEND

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09
Scale	NTS
Set	
Drawing Number	E1

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011



13TH ST EAST



SITE PLAN
 1/8" = 1'-0"

	SEAL
	ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181

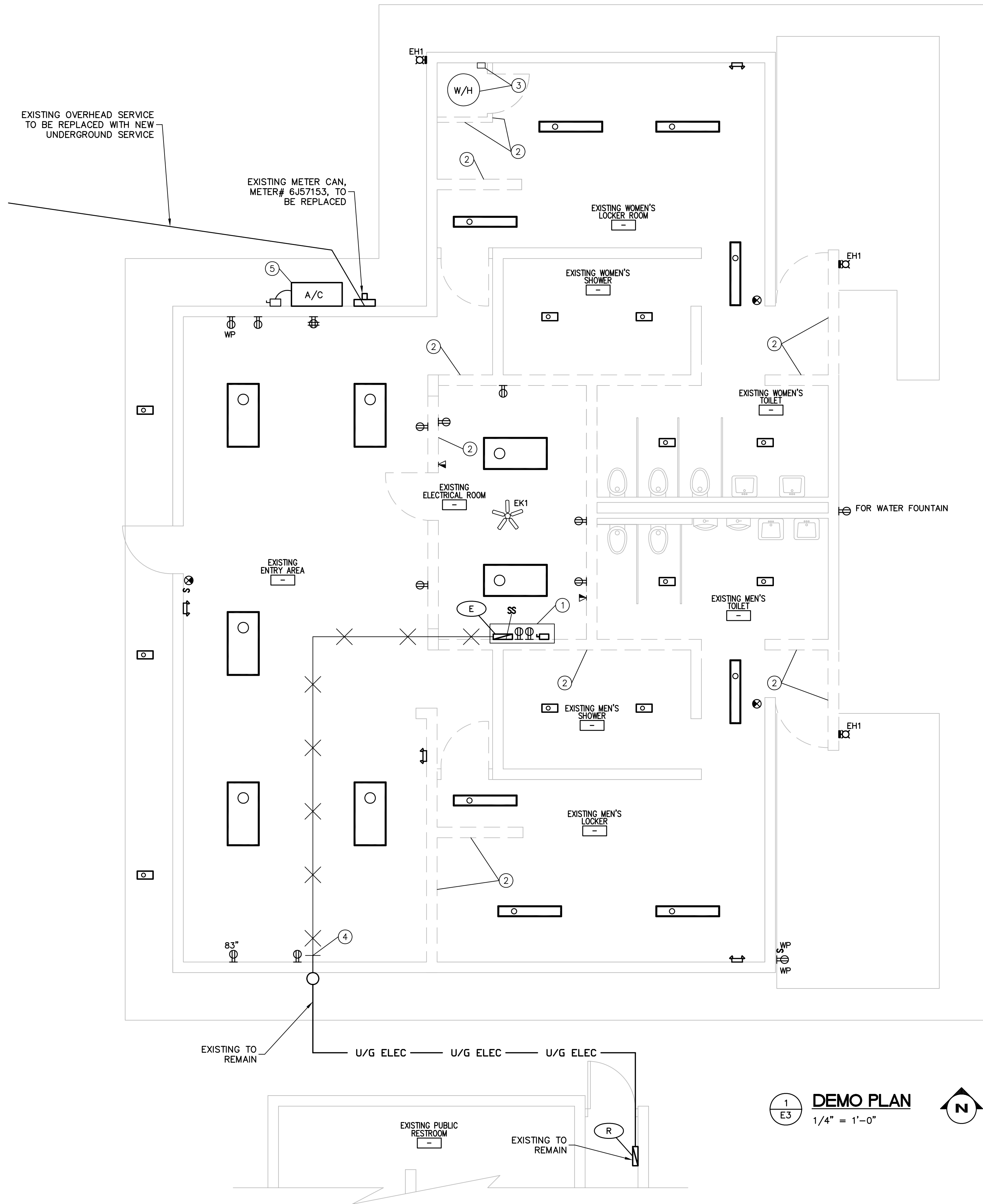
Rev.	Date	Remarks

East Bradenton Community Center
 1119 13th Street East
 Bradenton, Florida
ELECTRICAL SITE PLAN

Project Number
 Drawn by JC/DC/CD
 Checked by AJM
 Date 06/01/09

ALAN J. MERONEK
 AR 91853
 Expires: FEB. 28, 2011
 Scale 1/8" = 1'-0"
 Set

Drawing Number
E2



PLAN NOTES:

- ① EXISTING ELECTRICAL EQUIPMENT, ELECTRICAL DEVICES, PANELBOARDS, MAIN BREAKER, TELEPHONE BACKBOARD, ETC. TO BE REMOVED. REMOVE CONDUITS AND CONDUCTORS BACK TO SOURCE.
- ② WALL TO BE REMOVED.
- ③ WATER HEATER AND TIME CLOCK TO BE REMOVED. DISCONNECT AND REMOVE COMPLETE.
- ④ EXISTING FEEDER TO PANEL R IN PUBLIC RESTROOM. REMOVE CONDUITS FROM PANEL E BACK TO THIS POINT. PRESERVE CONDUITS AND CONDUCTORS FROM THIS POINT TO PANEL R.
- ⑤ EXISTING AIR HANDLING UNIT TO BE REMOVED COMPLETE. REMOVE DISCONNECT SWITCH, CONDUITS AND CONDUCTORS BACK TO SOURCE.

GENERAL NOTES:

CONTRACTOR TO REMOVE ALL EXISTING DEVICES, LIGHT FIXTURES, CONDUIT, CONDUCTORS, THERMOSTATS, TELEPHONE AND DATA, TO INCLUDE ANY NOT SHOWN, UNLESS OTHERWISE NOTED.

IN BLOCK WALLS THAT ARE NOT BEING REMOVED, CONDUITS ARE TO REMAIN. LEAVE 6" STUB UP ABOVE TOP OF WALL. REMOVE CONDUCTORS.

CONTRACTOR TO REMOVE ALL ABANDONED CONDUIT, CONDUCTORS, CABLING, ETC.

LEGEND:

—X—X— - TO BE REMOVED

ITEMS BOLD ARE EXISTING.

Rev.	Date	Remarks

East Bradenton Community Center
 1119 13th Street East
 Bradenton, Florida

ELECTRICAL DEMO PLAN

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09

ALAN J. MERONEK
 AR 91853
 Expires: FEB. 28, 2011
 Scale 1/8" = 1'-0"

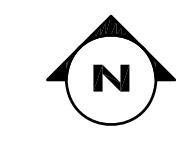
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Drawing Number

E3

	SEAL
ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181	

1
E3
DEMO PLAN
 1/4" = 1'-0"





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Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida

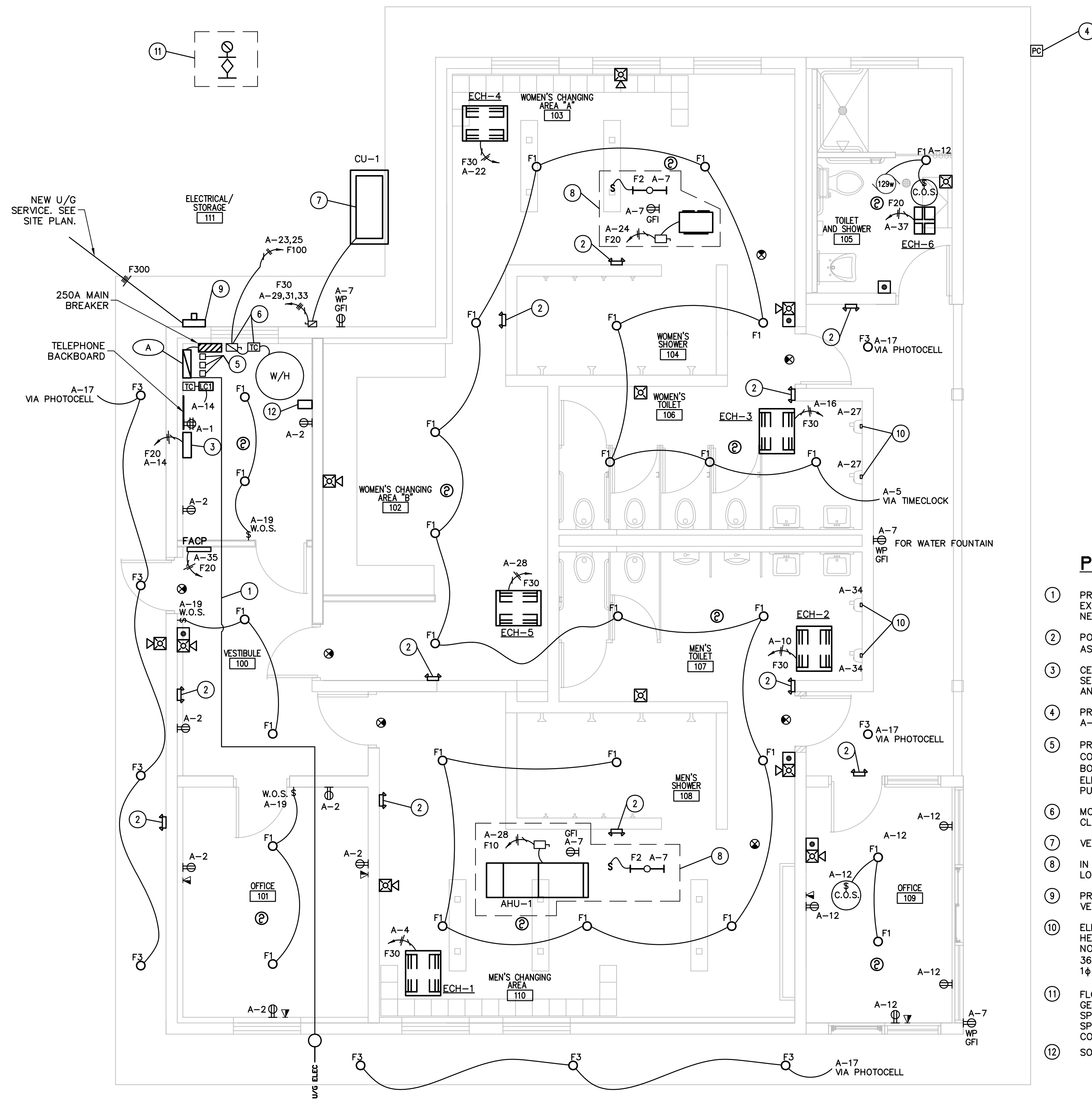
Project Number
Drawn by JC/DC/CD
Checked by AJM
Date 06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale 1/8" = 1'-0"
Set
Drawing Number

E4

LIGHT FIXTURE SCHEDULE								
TYPE	DESCRIPTION	VOLT	LAMP NUMBER AND TYPE	MOUNT	LENS	SERIES	ACCEPTABLE MANUFACTURERS	REMARKS
F1	NOMINAL 8" APERTURE OPEN DOWN LIGHT WITH CLEAR, LOW IRIDESCENT ALZAK WIDE BEAM ALUMINUM REFLECTOR. SHOWER TRIM, WHITE WITH FRESNEL LENS. IC RATED HOUSING. U.L. LISTED WET LOCATION.	120	(2)32W TTT	CEILING RECESSED	CLEAR FRESNEL LENS	C8242 LFB CF78	PORTFOLIO LITHONIA HUBBELL LIGHTOLIER JUNO	ELECTRONIC BALLAST TAMPER RESISTANT
F2	2' FLUORESCENT INDUSTRIAL FIXTURE. DIE FORMED CODE-GAUGE STEEL ON CHANNELS. HIGH GLOSS BAKED ENAMEL FINISH, AND SOLID TOP REFLECTOR AND WIRE GUARDS.	120	(2)14W F14T5	CEILING SUSPENDED		Z5 SMR	LITHONIA METALUX HUBBELL LIGHTOLIER LSI	ELECTRONIC BALLAST PROVIDE WIRE GUARD
F3	NOMINAL 8" APERTURE OPEN DOWN LIGHT WITH CLEAR, LOW IRIDESCENT ALZAK WIDE BEAM ALUMINUM REFLECTOR. SHOWER TRIM, WHITE WITH FRESNEL LENS. U.L. LISTED WET LOCATION.	120	(2)32W TTT	CEILING RECESSED	CLEAR FRESNEL LENS	C8242 LFB CF78	PORTFOLIO LITHONIA HUBBELL LIGHTOLIER JUNO	ELECTRONIC BALLAST TAMPER RESISTANT
EM	LED REMOTE HEAD FIXTURES WITH CENTRAL BATTERY SYSTEM INCLUDING CHARGING INDICATOR LIGHT, TEST PUSH BUTTON, 90 MINUTE ILLUMINATION TIME FOR TWO LAMP WITH A MINIMUM OF 1000 LUMENS.	24	(3) LED LAMPS	SURFACE WALL	POLYCARBONATE	MOE AFFINITY	SIGNTEX LITHONIA LSI	UL LISTED WET LOCATION FIVE YEAR WARRANTY.
EXIT	EXIT LIGHT, SINGLE OR DOUBLE FACE AS INDICATED ON DRAWINGS. UNIVERSAL SURFACE MOUNTING CANOPY. END, BACK OR TOP MOUNT, DIRECTIONAL ARROW PANEL, STROKE STENCIL FACE GREEN LETTERS "EXIT". SECURITY HOUSING.	N/A	TRITIUM GAS	SURFACE/CEILING		EMP TRX D SLX PTE	SIGNTEX SURE-LITES LITHONIA EMERGLITE LSI	WHITE HOUSING

NOTES:
1. ALL LIGHT FIXTURES TO BE SUPPLIED WITH LAMPS. LAMPS SHALL BE GE, PHILIPS, OR OSRAM/SLYVANIA, NO EXCEPTIONS.
2. FLUORESCENT LAMP COLOR SHALL BE 4100 DEGREES K.

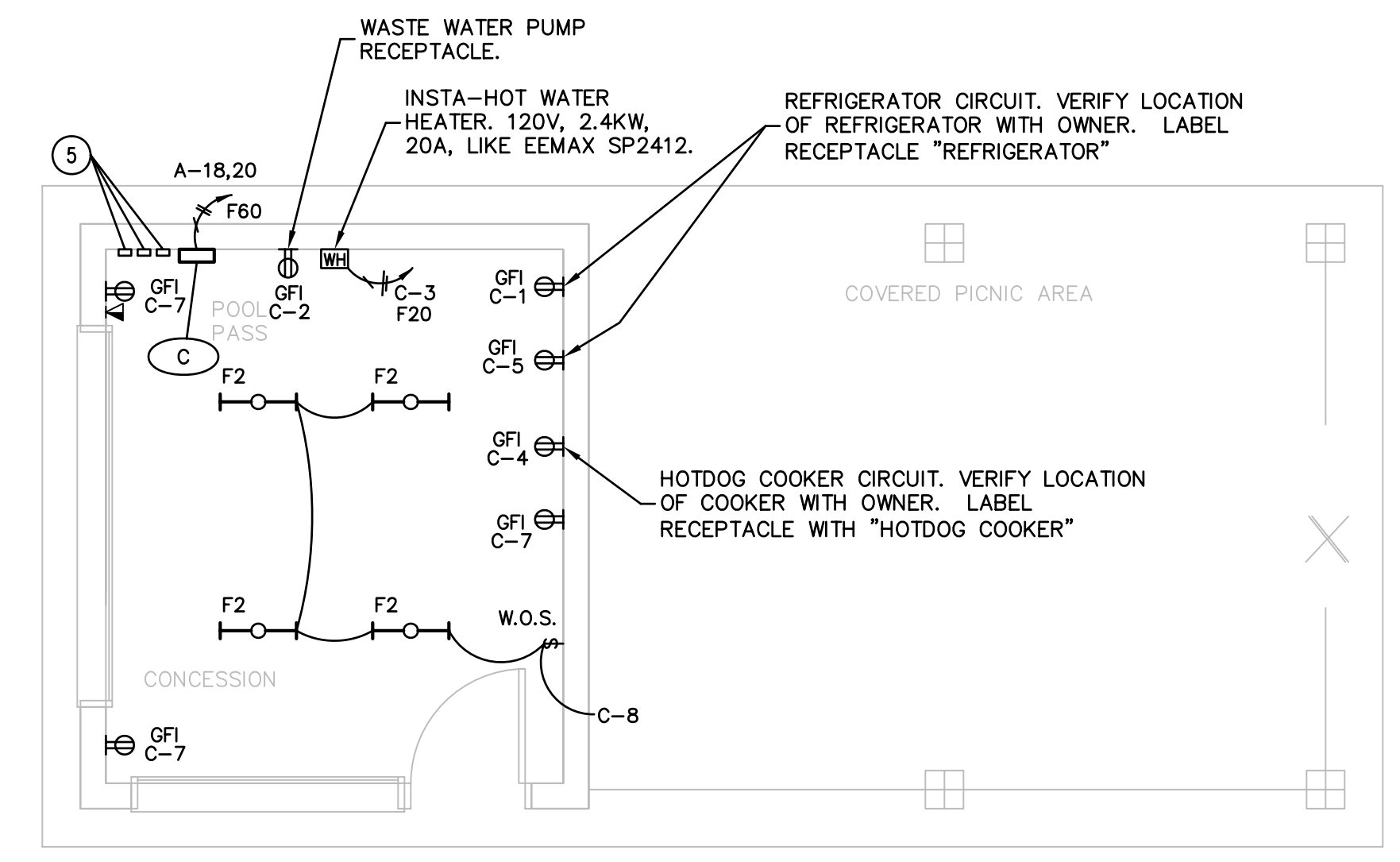


PLAN NOTES:

- PROVIDE AND INSTALL NEW OVERHEAD CONDUIT TO CONNECT TO EXISTING CONDUIT TO PANEL R. MATCH EXISTING CONDUCTORS WITH NEW CONDUCTORS. CONDUIT RUN SHOWN IS DIAGRAMMATICAL.
- POWERED FROM CENTRAL BATTERY SYSTEM. INSTALL AND CONNECT AS PER MANUFACTURER'S SPECIFICATIONS
- CENTRAL BATTERY SYSTEM. MINIMUM 250W OUTPUT, LIKE SIGNTEX SERIES CBS. PANEL SHALL BE U.L. LISTED, 120V INPUT, 24V OUTPUT AND PROVIDE A MINIMUM OF 90 MINUTES OF EMERGENCY POWER.
- PROVIDE AND INSTALL PHOTOCELL AS SHOWN TO CONTROL CIRCUIT A-17. PHOTOCELL TO BE VANDAL RESISTANT.
- PROVIDE AND INSTALL (3) SURFACE MOUNTED 4-GANG BOXES W/ COVERS IN CONCESSION STAND AND (3) SURFACE MOUNTED 4-GANG BOXES W/ COVERS IN SPACE ABOVE THE CEILING IN THE NEW ELECTRICAL ROOM (RM 111). CONNECT WITH (3) 3/4" CONDUITS, W/ PULLSTRING.
- MOUNT ON WALL AT HEIGHT PER ADA. SHOWN OFF WALL FOR CLARITY.
- VERIFY LOCATION OF CONDENSER WITH MECHANICAL PLANS.
- IN ATTIC SPACE ABOVE. VERIFY LOCATION WITH MECHANICAL PLANS. LOCATE SWITCH IN ATTIC AT ATTIC ACCESS LOCATION.
- PROVIDE AND INSTALL NEW 250A RATED NEMA 3, METER CAN. VERIFY NEED FOR NEW METER WITH FP&L.
- ELECTRIC HAND DRYER, PUSH BUTTON, ONE PIECE TAMPER RESISTANT HEAVY DUTY 16 GAUGE STEEL WITH WHITE ENAMEL FINISH COVER. NOZZLE & PUSH BUTTON TO BE CHROME PLATED ZINC DIE CASTINGS, 360° REVOLVING NOZZLE. LIKE AMERICAN DRYER "DR" SERIES. 120V 1φ, 15A.
- FLOW AND TAMPER SWITCHES FOR FIRE RISERS. VERIFY WITH GENERAL CONTRACTOR AND ARCHITECT THAT THE BUILDING WILL BE SPRINKLED PRIOR TO PURCHASED OF SWITCHES. IF BUILDING IS SPRINKLED, VERIFY LOCATION OF FIRE RISER WITH GENERAL CONTRACTOR.
- SOLAR HOT WATER SYSTEM CONTROLLER.

GENERAL NOTES:

- WALL SWITCHES W.O.S. AND CEILING MOUNT C.O.S., SHALL BE OCCUPANCY SENSORS LIKE HUBBELL ATD SERIES WITH HARD LENS, USING ULTRASONIC AND PASSIVE INFRARED DETECTION TECHNOLOGIES. USE ATU SERIES FOR BATHROOMS. PROVIDE CU SERIES CONTROL UNITS FOR CEILING MOUNT UNITS AS NEEDED.
- ALL NEW RECEPTACLES, DATA/TELEPHONE PORTS AND WALL SWITCHES IN BATHHOUSE SHALL BE FLUSH MOUNTED.
- ALL NEW RECEPTACLES, DATA/TELEPHONE PORTS AND WALL SWITCHES IN CONCESSION STAND MAY BE SURFACE MOUNTED.
- REUSE EXISTING WALL CUTOUTS FOR NEW DEVICES IF POSSIBLE.
- COVER ALL UN-USED EXISTING DEVICE LOCATIONS WITH NEW BLANK FACEPLATES.
- REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.



LIGHTING CONTACTOR / TIMECLOCK SCHEDULE										
DESIGNATION	LOCATION	POLES		CONTROL		CONTACT		ENCLOSURE	CIRCUITS CONTROLLED	REMARKS
		N.O.	N.C.	DEVICE	VOLTAGE	VOLTAGE	AMP RATING			
LC1	VERIFY	4	--	TC	120	120	20	NEMA 1	A-5	----
TC	VERIFY	--	--	--	120	--	20	NEMA 1	LC1	----
PC	O/S WALL	1	--	--	120	120		WP	A-17	EXTERIOR LIGHTING

TIME CLOCK (TC) SHALL BE INTERMATIC T101.

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
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FEEDER AND BRANCH CIRCUIT SCHEDULE									
FEEDER BRANCH CIRCUIT DESIGNATION	COPPER CONDUCTOR THHN, THWN, & THWN-2		CONDUIT SIZE AND QUANTITY [QUANTITY IS 1, UNLESS NOTED IN ()]						
	PHASE & NEUTRAL	EQUIPMENT GROUND	1P, 1N, 1G, 2P, 1G	2P, 1N, 1G, 3P, 1G	3P, 1N, 1G	3P, 2N, 1G	3P, 3N, 1G	3P, 1N, 2G	
F20	12	12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
F30	10	10	3/4"	3/4"	3/4"	1"	1"	1"	1"
F40-50	8	10	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
F60	6	10	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
F70-F80	4	8	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
F90-F100	3	8	1 1/4"	1 1/4"	1 1/2"	1 1/2"	2"	1 1/2"	1 1/2"
F110	2	6	1 1/4"	1 1/2"	1 1/2"	2"	2"	2"	2"
F125	1	6	1 1/2"	2"	2"	2"	2 1/2"	2"	2"
F150	1/0	6	1 1/2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
F175	2/0	6	2"	2"	2 1/2"	2 1/2"	3"	2 1/2"	2 1/2"
F200	3/0	6	2"	2 1/2"	2 1/2"	3"	3"	3"	3"
F225	4/0	4	2"	2 1/2"	3"	3"	3"	3"	3"
F250	250	4	2 1/2"	3"	3"	3 1/2"	3 1/2"	3-1/2"	3-1/2"
F300	350	4	3"	3"	3 1/2"	3 1/2"	4"	3 1/2"	3 1/2"
F350	2/0	3	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 2 1/2"	(2) 2 1/2"
F400	3/0	3	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 2 1/2"	(2) 2 1/2"
F450	4/0	2	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"	(2) 3"
F500	250	2	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"	(2) 3 1/2"	(2) 3 1/2"	(2) 3 1/2"
F600	350	1	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"	(2) 3 1/2"	(2) 3"	(2) 3"
F800	300	1/0	(3) 2 1/2"	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 3 1/2"	(3) 3 1/2"
F900	350	2/0	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 4"	(3) 3 1/2"	(3) 3 1/2"
F1000	400	2/0	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 4"	(3) 4"	(3) 4"
F1200	350	3/0	(4) 3"	(4) 3"	(4) 3 1/2"	(4) 3 1/2"	(4) 4"	(4) 4"	(4) 4"
F1600	400	4/0	(5) 3"	(5) 3"	(5) 3 1/2"	(5) 3 1/2"	(5) 4"	(5) 4"	(5) 4"
F2000	400	250	(6) 3"	(6) 3"	(6) 3 1/2"	(6) 3 1/2"	(6) 4"	(6) 4"	(6) 4"
F2500	500	350	(7) 3"	(7) 3 1/2"	(7) 4"	(7) 4"	(7) 4"	(7) 4"	(7) 4"
F3000	500	400	(8) 3"	(8) 3 1/2"	(8) 4"	(8) 4"	(8) 4"	(8) 4"	(8) 4"
F3500	500	500	(10) 3"	(10) 3 1/2"	(10) 4"	(10) 4"	(10) 4"	(10) 4"	(10) 4"

NOTES:
1. DO NOT COMBINE NEUTRAL CONDUCTORS FOR ALL CIRCUITS. USE SEPARATE INDEPENDENT NEUTRAL CONDUCTORS FOR ALL CIRCUITS.

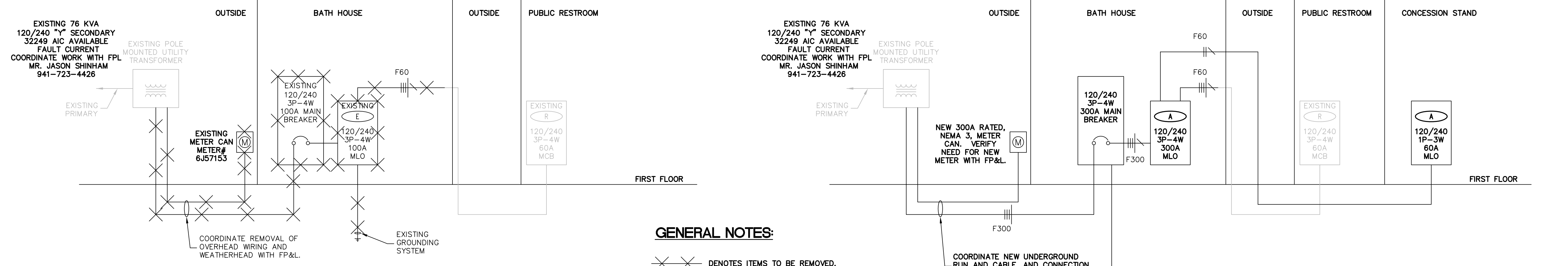
PANELBOARD SCHEDULE		DESIGNATION: A LOCATION: NEW ELECTRICAL RM VOLTAGE: 240/120 PHASE: 3 PHASE, 4 WIRE						MAINS: 300 A MLO BUS SIZE: 300 AMP PANEL MOUNTING: SURFACE ALL BREAKERS: 32 KAIC							
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	POLE	CONNECTED LOAD A B C	BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.			
1	Telephone Backboard	R	0.36	20	1	1.62			1.26	R	Recept. RM100,110,111	2			
3						5.00			5.00	M	HEATER ECH-1	4 *			
5	Lights Via Timeclock	L	1.31	20	1	1.85			2.57	P	EXISTING PANEL R	6			
7	Exterior Recepts / Attic	R	0.85	20	1				1.00	P		8			
9						5.00			30	1	5.00	M	HEATER ECH-2	10 *	
11	Hand Dryer - Mens	R	1.80	20	1				2.85	L	RM109 & 105	12			
13	Hand Dryer - Mens	R	1.80	20	1	2.04			20	1	0.24	L	Emrgy Lgt Battery Sys.	14	
15						5.00			30	1	5.00	M	HEATER ECH-3	16 *	
17	Exterior Lighting	L	0.62	20	1				4.70	P	CONCESSION PANEL	18			
19	LTS. RM100,110,111	L	0.41	20	1	4.39				P		20			
21						5.00			30	1	5.00	M	HEATER ECH-4	22 *	
23	WATER HEATER	M	9.00	100	2				9.98	20	1	0.98	M	Shower Exhaust Fan	24
25		M	9.00			10.80			20	1	1.80	R	Hand Dryer - Womens	26	
27						5.00			30	1	5.00	M	HEATER ECH-5	28 *	
29	Condensing Unit CU-1	M	2.42	30	3				6.18	45	2	3.76	M	AIR HANDLER AHU-1	30
31		M	2.42			6.18						3.76	M		32
33		M	2.42			2.42									34
35	FIRE ALARM CP	P	1.00	20	1				2.80	20	1	1.80	R	Hand Dryer - Womens	36
37	HEATER ECH-6	M	1.50	20	1	1.50									38
39						0.00									40
41						0.00									42
TOTAL CONNECTED AMPS:						242.31	AMPS		236.50	228.50	242.31	AMPS			
TOTAL CONNECTED LOAD:						84.88	KVA								
TOTAL DEMAND AMPS:						191.16	AMPS								
TOTAL DEMAND LOAD:						64.61	KVA								
LOAD CODES: L= LIGHTING R= RECEPTACLES M= MECHANICAL C= COMPUTER K= KITCHEN P= PANELBOARD												* Equipment is 208V single phase and must be installed on High Leg.			

VOLTAGE DROP FOR 20A BRANCH CIRCUITS

FEEDER SIZE TO USE	MAXIMUM DISTANCE ALLOWED	
	120V	277V
F20	100 FEET	200 FEET
F30	150 FEET	360 FEET
F40-50	240 FEET	550 FEET
F60	385 FEET	885 FEET

- NOTES:
1. 20 A BRANCH CIRCUITS SHALL BE SIZED FOR VOLTAGE DROP. WIRE SIZES ARE NOT INDICATED ON THE DRAWINGS TO COMPENSATE FOR VOLTAGE DROP FOR THESE CIRCUITS. CONTRACTOR SHALL UTILIZE WIRE SIZE SHOWN ABOVE FOR DISTANCES LISTED ABOVE.
2. VOLTAGE DROP WIRE SIZES WILL BE STRICTLY ENFORCED. CONTRACTOR SHALL SUBMIT A LIST OF CIRCUITS THAT WILL EXCEED THE DISTANCES ALLOWED AND INDICATE WIRE SIZE TO BE USED PRIOR TO ANY WIRE BEING INSTALLED.

PANELBOARD SCHEDULE		DESIGNATION: C LOCATION: Concession Stand VOLTAGE: 240/120 PHASE: 1 PHASE, 3 WIRE						MAINS: 60 A BUS SIZE: 60 AMP PANEL MOUNTING: EXISTING ALL BREAKERS: 32 KAIC							
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	POLE	CONNECTED LOAD A B	BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.			
1	REFRIGERATOR	K	1.80	20	1	2.18			20	1	0.38	M	WASTE WATER PUMP	2	
3	INSTA-HOT WATER HEATER	M	2.40	20	1				3.40	20	1	1.00	K	HOT DOG COOKER	4
5	REFRIGERATOR	K	1.80	20	1	1.80				20	1				6
7	Concession Recp	R	0.54	20	1				0.68	20	1	0.14	L	Concession Lighting	8
9						0.00									10
11						0.00									12
13						0.00									14
15						0.00									16
17						0.00									18
19						0.00									20
21						0.00									22
23						0.00									24
25						0.00									26
27						0.00									28
29						0.00									30
31						0.00									32
33						0.00									34
35						0.00									36
37						0.00									38
39						0.00									40
41						0.00									42
TOTAL CONNECTED AMPS:						34.00	AMPS		33.17	34.00	AMPS				
TOTAL CONNECTED LOAD:						8.06	KVA								
TOTAL DEMAND AMPS:						21.63	AMPS								
TOTAL DEMAND LOAD:						4.32	KVA								
LOAD CODES: L= LIGHTING R= RECEPTACLES M= MECHANICAL C= COMPUTER K= KITCHEN P= PANELBOARD															

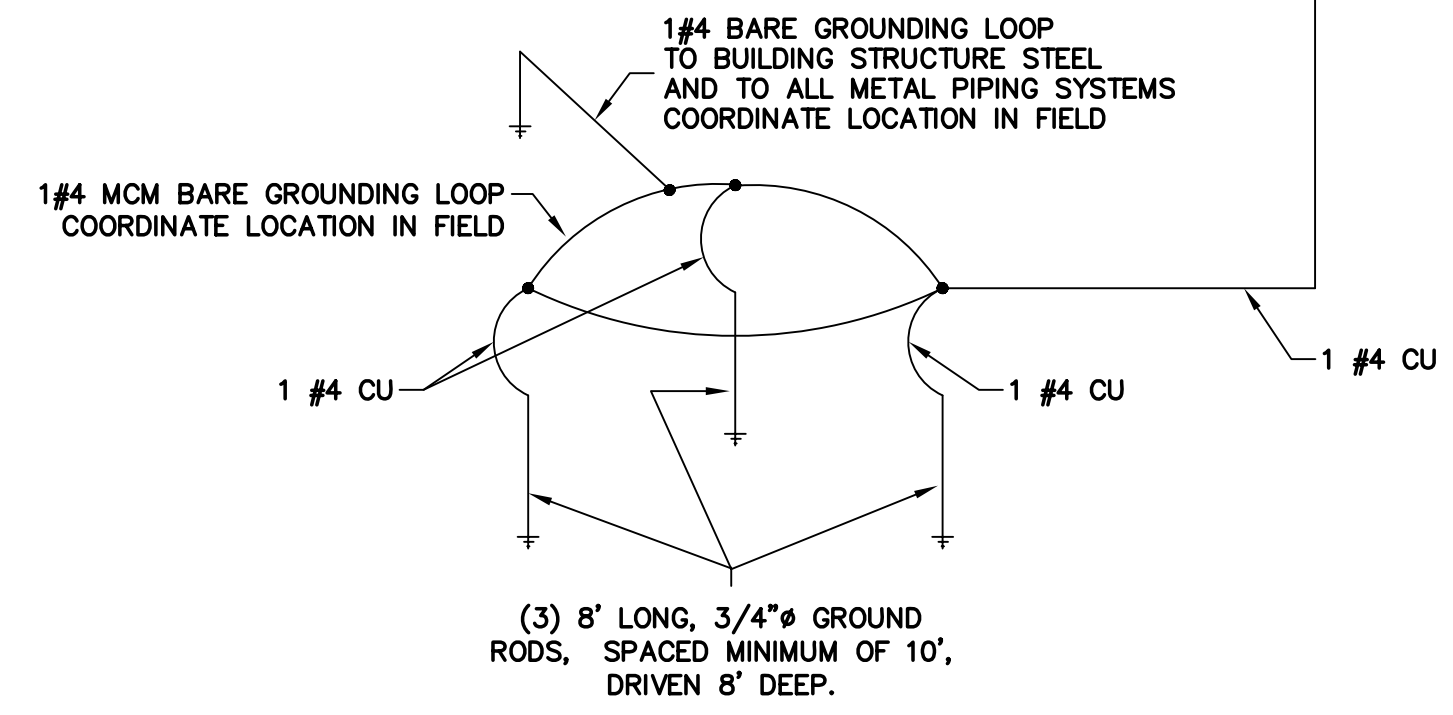


1 E5 EXISTING ONE-LINE RISER DIAGRAM NTS

2 E5 NEW ONE-LINE RISER DIAGRAM NTS

GENERAL NOTES:

- ✕ ✕ DENOTES ITEMS TO BE REMOVED.
- ITEMS IN GRAYSCALE ARE EXISTING.
- ITEMS BOLD ARE NEW.



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Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida
ELECTRICAL ONE LINE and
PANELBOARDS

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09
Scale	NTS
Set	
Drawing Number	

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale NTS
Set
Drawing Number
E5

SPECIFICATIONS:

(APPLY TO ALL ELECTRICAL SHEETS)

- PROVIDE AND INSTALL NEW GREEN INSULATED COPPER GROUNDING CONDUCTORS AS THE EQUIPMENT GROUNDING MEANS FOR ALL ELECTRICAL DEVICES AND EQUIPMENT.
- ALL COVERPLATES FOR WIRING DEVICES SHALL BE WHITE NYLON TYPE. DEVICES SHALL BE WHITE IN COLOR.
- PROVIDE LABELING FOR ALL PANELBOARDS, SWITCHBOARDS, AND DISCONNECT SWITCHES TO INCLUDE AN ENGRAVED PLASTIC LABEL IDENTIFYING THE EQUIPMENT AND WHERE IT IS FED FROM. ALL BRANCH DEVICES IN THE MAIN SWITCHBOARD SHALL HAVE AN ENGRAVED PLASTIC LABEL. ALL PANELBOARDS SHALL INCLUDE A TYPEWRITTEN DIRECTORY. ALL RECEPTACLES SHALL HAVE CIRCUIT NUMBERS WRITTEN ON THE INSIDE OF THE COVERPLATE. ALL JUNCTION BOX COVERS SHALL BE IDENTIFIED TO INDICATE CIRCUITS CONTAINED. WHERE MULTIPLE SWITCHES ARE GANGED TOGETHER THE SWITCHES SHALL BE IDENTIFIED.
- ALL CONDUIT INSIDE THE BUILDING SHALL BE A ELECTRICAL METALLIC TUBING (EMT) AND SHALL BE A MINIMUM 1/2" UNLESS OTHERWISE NOTED. ALL CONDUIT INSTALLED UNDERGROUND SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED. ALL CONDUIT INSTALLED ABOVE GRADE OUTSIDE THE BUILDING SHALL BE GALVANIZED RIGID STEEL. NO PVC CONDUIT SHALL BE USED ABOVE THE FLOOR SLAB.
- SWITCHES SHALL BE 20 AMPERE RATED, 120/277 VOLT, HUBBELL 1121 SERIES OR APPROVED EQUIVALENT, UNLESS OTHERWISE NOTED ON PLANS.
- RECEPTACLES SHALL BE 20A, 120V GROUNDING TYPE LIKE HUBBELL 5342 SERIES. GFI (GFCI) RECEPTACLES SHALL BE 20A, 120V GROUNDING TYPE LIKE HUBBELL GFST20 SERIES.
- ALL ELECTRICAL CONNECTORS, LUGS, BREAKERS, EQUIPMENT, ETC. SHALL BE RATED AT A MINIMUM OF 75 DEG. C.
- WIRING METHODS:
ALL WIRING SHALL BE COPPER. NO ALUMINUM WIRING WILL BE ALLOWED. MC TYPE CABLE SHALL NOT BE USED.
- PROVIDE (1) 3/4" SPARE CONDUIT FOR EACH 3 SPACES OR SPARES IN PANEL FROM PANEL TO ABOVE ACCESSIBLE CEILING FOR FUTURE USE.
- ALL PANELBOARDS AND SWITCHBOARDS SHALL HAVE COPPER BUS AND RATINGS AS SPECIFIED. REFERENCE STANDARDS SHALL BE GENERAL ELECTRIC "A" SERIES BRANCH PANELS AND SPECTRA SERIES DISTRIBUTION PANELS WITH BOLT IN TYPE CIRCUIT BREAKERS.
- ALL EXTERIOR RECEPTACLES SHALL HAVE IN-USE TYPE WEATHERPROOF COVERPLATES.
- FIRE ALARM SYSTEM SHALL BE ADDRESSABLE TYPE. SYSTEM SHALL HAVE CAPACITY FOR QUANTITY OF DEVICES SHOWN PLUS 100% SPARE CAPACITY, FOR FUTURE BUILD-OUT.

SYSTEM AND INSTALLATION SHALL COMPLY WITH NFPA 72.

OPERATION OF ANY DEVICE SHALL AUTOMATICALLY CAUSE ALL ALARMS IN THE BUILDING TO SOUND OR FLASH, AND SIGNAL TO BE SENT VIA DACT. ALL ALARMS SHALL BE VISIBLE ON THE REMOTE ANNUNCIATOR.

INSTALLER SHALL BE A FACTORY AUTHORIZED INSTALLER.

ALL EQUIPMENT, DEVICES AND WIRING SHALL BE NEW.

MAIN FIRE ALARM PANEL SHALL BE NEW AND SIZED THAT ALL COMPONENTS NECESSARY TO MONITOR ALL DEVICES SHOWN AND SUPPORT ALL SIGNAL DEVICES SHOWN. INCLUDE ALL PROGRAMMING NECESSARY FOR SYSTEM OPERATION.

SYSTEM SHALL INCLUDE BATTERY BACKUP FOR 48 HOURS AND INCLUDE SURGE PROTECTION FOR PANEL.

SYSTEM SHALL HAVE LCD DISPLAY ON CONTROL PANEL AND REMOTE ANNUNCIATOR TO DISPLAY ALL ALARMS AND TROUBLES.

HORN TYPE SIGNAL DEVICES SHALL PROVIDE 96dBA SOUND LEVEL MEASURED AT 10 FEET AND INCLUDE VISUAL DEVICE AS SPECIFIED BELOW. SOUNDER SHALL BE FIELD PROGRAMMABLE TO CHANGE ALARM TONES. MOUNT DEVICE AT +80".

VISUAL DEVICES SHALL COMPLY WITH ADA REQUIREMENTS PER UL 1971. MOUNT DEVICE AT +80".

MANUAL PULL STATION SHALL BE ADDRESSABLE TYPE, SINGLE ACTION, FLUSH MOUNTED.

HEAT DETECTORS SHALL BE ADDRESSABLE TYPE, RATE OF RISE TYPE.

ADDRESSABLE RELAYS: PROVIDE ADDRESSABLE RELAYS AS REQUIRED FOR CONTROL OF HVAC EQUIPMENT AND DOOR HOLD/RELEASE DEVICES IF ANY.

LCD ALPHANUMERIC REMOTE ANNUNCIATOR SHALL BE FLUSH MOUNTED AND INCLUDE SYSTEM ACKNOWLEDGE, SILENCE AND RESET.

WIRING MAY BE INSTALLED WITHOUT CONDUIT ABOVE ACCESSIBLE CEILINGS. WIRING SHALL BE INSTALLED IN CONDUIT IN WALLS AND ABOVE HARD CEILINGS, EXPOSED CEILINGS, AND IN ANY INACCESSIBLE AREA. ALL JUNCTION BOX COVERS SHALL BE PAINTED RED.

PROVIDE AND INSTALL FLOW AND TAMPER SWITCHES AS REQUIRED ON THE FIRE SPRINKLER SYSTEM. COORDINATE LOCATION WITH FIRE PROTECTION CONTRACTOR.

ALL FIRE ALARM SYSTEM COMPONENTS SHALL MATCH ORIGINAL MANUFACTURER'S SYSTEM.

GENERAL NOTES:

(APPLY TO ALL ELECTRICAL SHEETS)

- PROVIDE COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM.
- ALL WORK SHALL CONFORM TO OR EXCEED THE MINIMUM REQUIREMENTS OF THE CURRENT ANSI/NFPA 70 WITH STATE OF FLORIDA AMENDMENTS, ANSI/IEEE C2 AND ALL FEDERAL, STATE, LOCAL, AND MUNICIPAL CODES AND ORDINANCES. THE ELECTRICAL SUBCONTRACTOR SHALL COMPLY WITH THE DIRECTIONS OF ALL AUTHORITIES HAVING JURISDICTION.
- INSTALL WORK USING PROCEDURES DEFINED IN NEC STANDARDS OF INSTALLATION. ALL WORK SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR CEILING AND MILLWORK WORK BY THE SEPARATE GENERAL CONTRACT. COORDINATE ALL ELECTRICAL WORK.
- THE ELECTRICAL SUBCONTRACTOR SHALL PROVIDE ALL FLOOR, WALL, AND CEILING PENETRATIONS TO COMPLETE HIS WORK.
- COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES TO ENSURE EFFECTIVE AND EFFICIENT OVERALL INSTALLATION.
- COORDINATE ALL ELECTRICAL SYSTEM DOWNTIME WITH THE OWNER, PERFORMANCE SERVICES, AND OTHER TRADES. DOWNTIME OF THE SYSTEM SHALL BE MINIMIZED. WEEKEND AND AFTER HOUR WORK SHALL BE REQUIRED TO PREVENT OR MINIMIZE INTERFERENCE WITH THE OWNER'S OPERATION.
- THE LOCATIONS OF NEW RECEPTACLES, PHONE/DATA JACKS, AND ROOM EQUIPMENT SHOWN ON THESE DRAWINGS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED DURING THE CONSTRUCTION PHASE.
- ALL NEW EQUIPMENT SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING.
- PHYSICAL SIZES AND LOCATIONS OF ALL MECHANICAL EQUIPMENT SHOWN ON THESE DRAWINGS ARE APPROXIMATE. COORDINATE ELECTRICAL WORK FOR THIS EQUIPMENT WITH THE OTHER TRADES.
- ALL BRANCH CIRCUITS SHALL UTILIZE SEPARATE INDEPENDENT NEUTRAL CONDUCTOR, AND INSULATED GROUNDING CONDUCTOR. DO NOT COMBINE NEUTRAL CONDUCTORS.
- ALL FEEDER NEUTRAL/GROUNDED CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. DE-RATE MULTIPLE CONDUCTORS IN A RACEWAY ACCORDINGLY WITH NEC TABLES.
- INSTALL ALL CONDUITS, RACEWAYS, AND CABLE TRAY FOR MAXIMUM HEAD CLEARANCE IN MECHANICAL AREAS, AND ATTIC. COORDINATE CLEARANCES WITH PERFORMANCE SERVICES AND THE OWNER.
- ALL ELECTRICAL SERVICE WORK SHALL COMPLY WITH THE LOCAL UTILITY. COORDINATE ALL REQUIREMENTS AND MAXIMUM AVAILABLE FAULT CURRENT PRIOR TO BID AND INCLUDE ALL NECESSARY MATERIAL AND LABOR REQUIRED FOR THE ADDITION TO THE ELECTRICAL SERVICE. ADD UTILITY FEES TEXT.

SPECIFICATION - LIGHTNING PROTECTION SYSTEM:

THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO INSTALL A COMPLETE LIGHTNING PROTECTION SYSTEM. THE SYSTEM SHALL BE A GRID TYPE SYSTEM. (NO SINGLE POINT, EMITTER/INITIATOR TYPE SYSTEMS WILL BE ACCEPTED) FOR THE STRUCTURE INCLUDED IN THIS CONTRACT. THE SYSTEM SHALL INCLUDE STRIKE TERMINATION DEVICES, INTERCONNECTING CONDUCTORS, A PROPER GROUNDING SYSTEM, INTERCONNECTION WITH OTHER BUILDING GROUNDED SYSTEMS. THE SYSTEM DESIGN SHALL COMPLY WITH THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARD # 780, THE LIGHTNING PROTECTION INSTITUTE (LPI) STANDARD # 175, AND UNDERWRITERS' LABORATORIES, INC. (UL) STANDARD # 96A. THE MANUFACTURER OF THE MATERIAL COMPONENTS SHALL BE A MANUFACTURER MEMBER OF THE LIGHTNING PROTECTION INSTITUTE, AND ALL MATERIALS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH THE REQUIREMENTS OF UL STANDARD # 96. THE SYSTEM INSTALLATION SHALL BE MADE UNDER THE SUPERVISION OF AN LPI CERTIFIED MASTER INSTALLER. UPON COMPLETION THE CONTRACTOR WILL DELIVER TO THE OWNER AN AS-BUILT DRAWING AND THE APPROPRIATE SYSTEM CERTIFICATION DOCUMENTS UNDER THE UL & LPI PROGRAMS.

LIGHTNING PROTECTION MATERIALS SHALL BE COORDINATED WITH BUILDING CONSTRUCTION MATERIALS TO ASSURE COMPATIBILITY. ALUMINUM LIGHTNING PROTECTION MATERIALS SHALL NOT BE EMBEDDED IN CONCRETE OR MASONRY, INSTALLED ON OR BELOW COPPER SURFACES, OR USED FOR THE IN GROUND SYSTEM. COPPER LIGHTNING PROTECTION MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM SURFACES. COORDINATE DIELECTRIC CONNECTION/ISOLATION AND ATTACHMENT TO ANY METAL SO AS NOT TO CORRODE A METAL ROOF/STRUCTURE.

STRIKE TERMINATION DEVICES SHALL BE PROVIDED TO PLACE THE ENTIRE STRUCTURE UNDER A ZONE OF PROTECTION AS DEFINED BY THE STANDARDS. AIR TERMINALS SHALL PROJECT A MINIMUM OF 10 INCHES ABOVE PROTECTED AREAS OR OBJECTS. AIR TERMINALS SHALL BE LOCATED WITHIN 2 FEET OF EXPOSED CORNERS AND ROOF EDGES.

CABLE CONDUCTORS SHALL PROVIDE A TWO-WAY PATH FROM STRIKE TERMINATION DEVICES HORIZONTALLY AND DOWNWARD TO CONNECTIONS WITH THE GROUND SYSTEM. CABLE CONDUCTORS SHALL BE FREE OF EXCESSIVE SPICES AND SHARP BENDS. NO BEND OF A CONDUCTOR SHALL FORM A FINAL INCLUDED ANGLE OF LESS THAN 90 DEGREES NOR HAVE A RADIUS OF BEND LESS THAT 8 INCHES. STRUCTURAL ELEMENTS AND DESIGN FEATURES SHALL BE USED WHENEVER POSSIBLE TO MINIMIZE THE VISUAL IMPACT OF EXPOSED CONDUCTORS.

CABLE DOWN CONDUCTORS MAY BE CONCEALED WITHIN THE BUILDING CONSTRUCTION OR ENCLOSED WITHIN PVC CONDUIT FROM ROOF TO GRADE LEVEL. DOWN CONDUCTORS SHALL BE SPACED AT INTERVALS AVERAGING NOT MORE THAN 100 FEET AROUND THE PROTECTED PERIMETER OF THE STRUCTURE. IN NO CASE SHALL ANY STRUCTURE HAVE FEWER THAN FOUR DOWN CONDUCTORS, WHERE DOWN CONDUCTORS ARE EXPOSED TO ENVIRONMENTAL HAZARDS AT GRADE LEVEL, GUARDS SHALL BE USED TO PROTECT THE CONDUCTOR TO A POINT 6 FEET ABOVE GRADE.

EXPOSED CABLE CONDUCTORS SHALL BE SECURED TO THE STRUCTURE AT INTERVALS NOT EXCEEDING 3 FEET. FASTENERS, NAILS, SCREWS, BOLTS, ETC., SHALL BE OF SUITABLE CONFIGURATION FOR THE INTENDED APPLICATION AND OF THE SAME MATERIAL AS THE CONDUCTOR OR OF ELECTROLYTICALLY COMPATIBLE MATERIALS. NO FINGER/PRONG TYPE FASTENERS SHALL BE ALLOWED. GALVANIZED OR PLATED STEELS ARE NOT ACCEPTABLE.

CONNECTORS AND SPLICES SHALL BE OF THE BOLTED, BARREL TYPE CRIMP, OR EXOTHERMIC WELDED TYPES AND OF THE SAME MATERIAL AS THE CONDUCTOR OR OF ELECTROLYTICALLY COMPATIBLE MATERIALS. NO FINGER/PRONG TYPE FITTINGS SHALL BE ALLOWED.

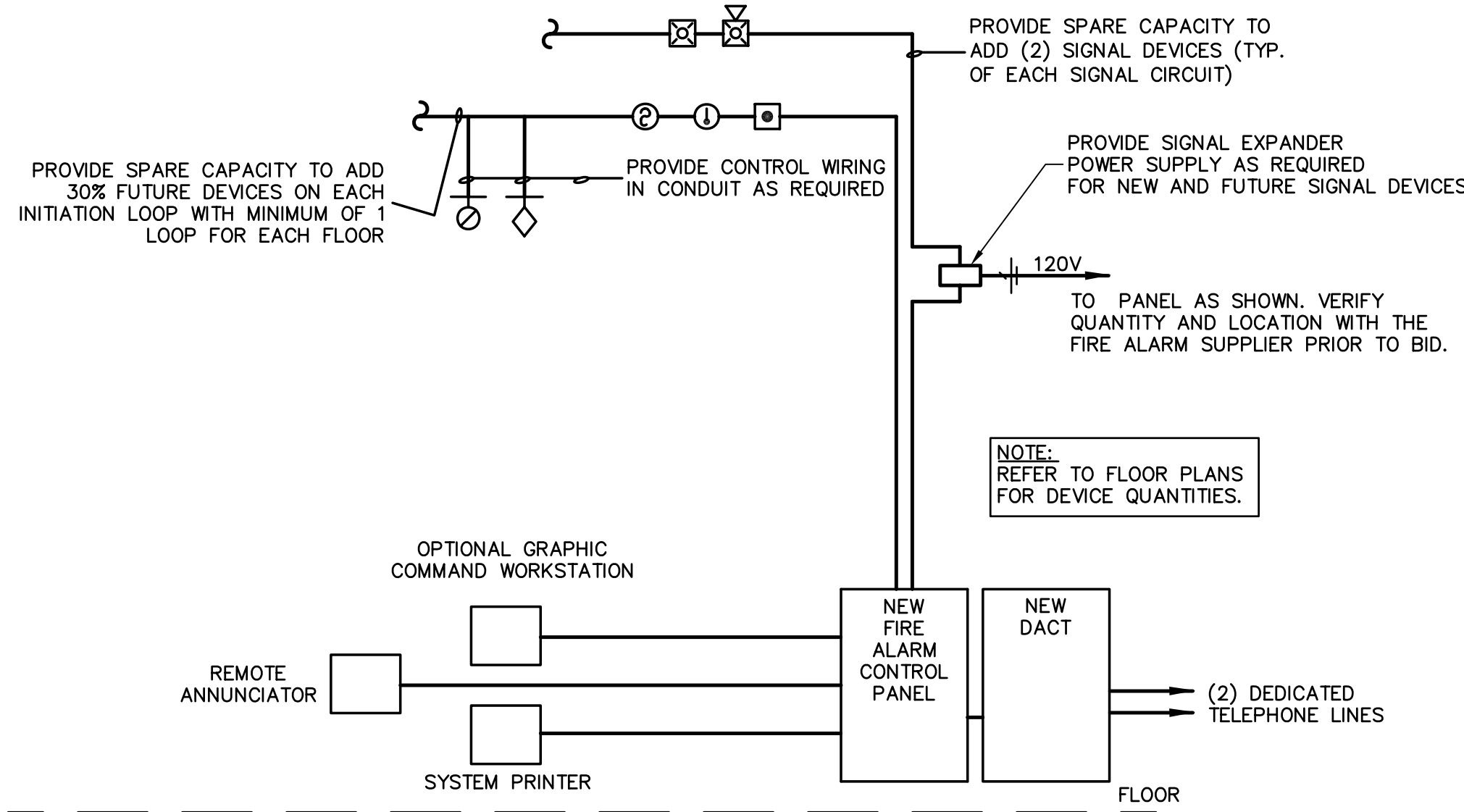
GROUND TERMINATIONS SUITABLE FOR THE SOIL CONDITIONS SHALL BE PROVIDED FOR EACH DOWNLEAD CONDUCTOR. A READILY ACCESSIBLE AND LABELED HAND HOLE SHALL BE PROVIDED AT EACH GROUND TERMINATION POINT FOR FUTURE INSPECTIONS AND GROUND TESTING.

COMMON INTERCONNECTION OF ALL GROUNDED SYSTEMS WITHIN THE BUILDING SHALL BE ACCOMPLISHED USING MAIN SIZE CONDUCTORS AND FITTINGS. GROUNDED METAL BODIES LOCATED WITHIN THE CALCULATED BONDING DISTANCE AS DETERMINED BY THE FORMULAS OF THE STANDARDS SHALL BE BONDED TO THE SYSTEM USING PROPERLY SIZED BONDING CONDUCTORS.

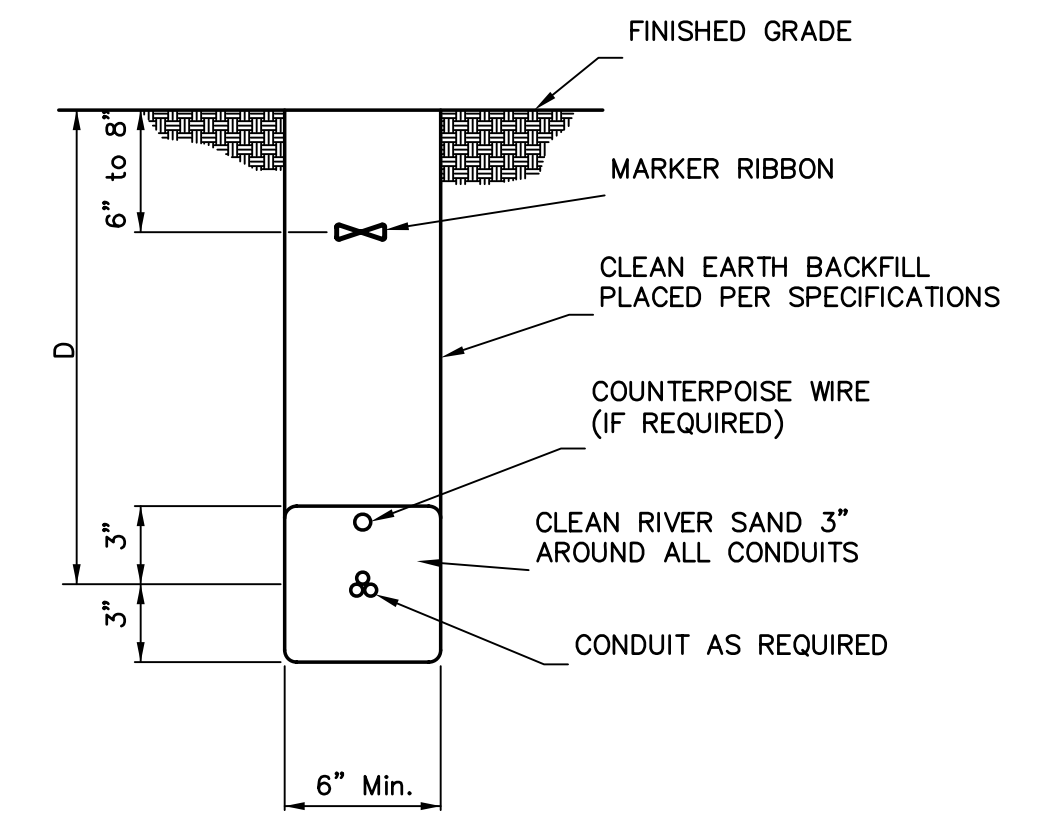
ROOF PENETRATIONS FOR DOWN CONDUCTORS OR FOR CONNECTIONS TO STRUCTURAL FRAMEWORK SHALL BE MADE USING THROUGH-ROOF ASSEMBLIES WITH SOLID BARS AND APPROPRIATE ROOF FLASHINGS.

THE MAIN CONDUCTORS SHALL BE 28 STRAND #14 COPPER SMOOTH WEAVE, AND SECONDARY CONDUCTORS SHALL BE 14 STRAND #14 COPPER SMOOTH WEAVE CONDUCTOR.

A UL INSPECTION CERTIFICATE SHALL BE ACQUIRED FROM A UL FIELD INSPECTION.



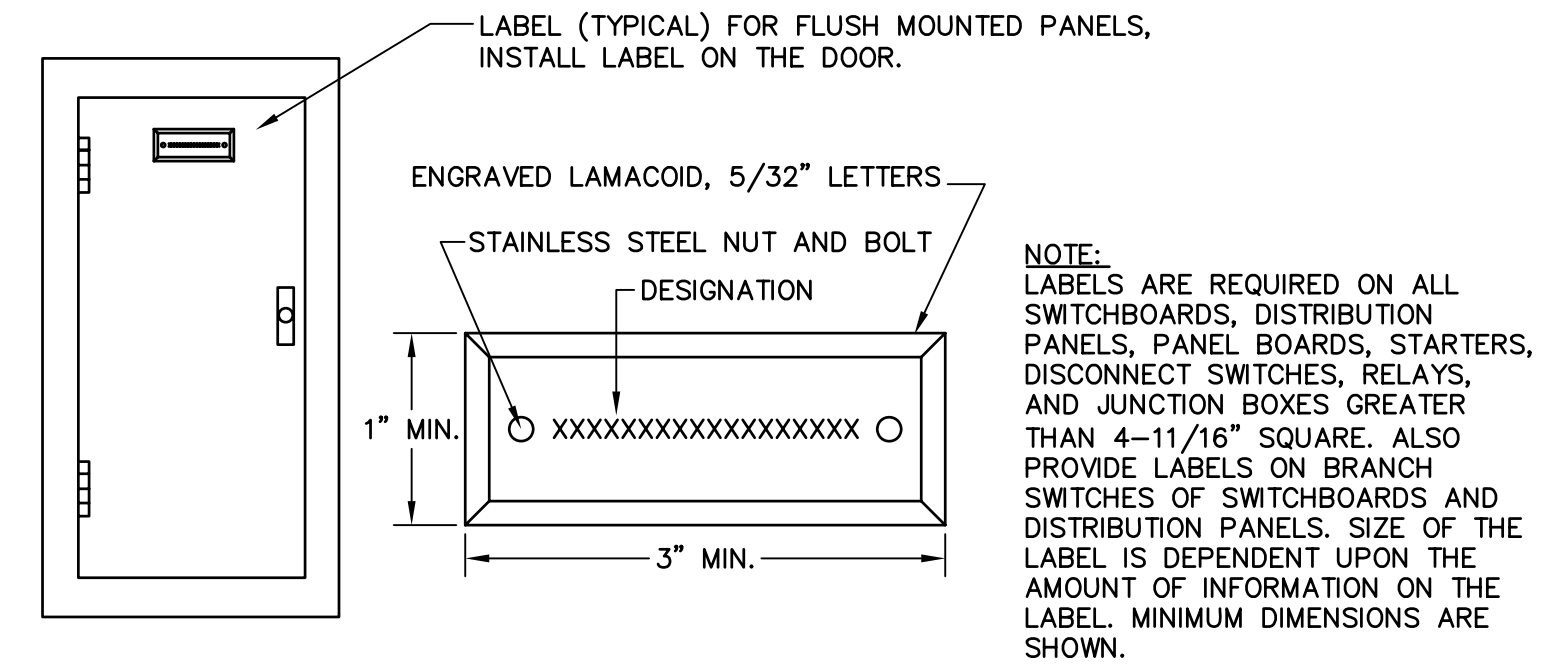
5 ADDRESSABLE FIRE ALARM SYSTEM SCHEMATIC
NOT TO SCALE



BURIAL DEPTH	
SERVICE	"D"
CCTV cable	1'-6"
Telephone	2'-0"
Power under 600V	3'-0"
Medium voltage power	3'-0"

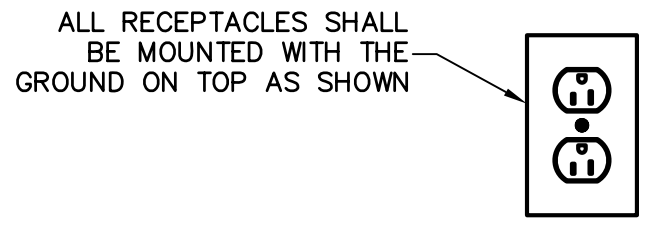
NOTE:
USE BURIAL DEPTHS SHOWN ON TABLE UNLESS NOTED OTHERWISE IN SPECIFICATIONS OR ON DRAWINGS. BURIAL DEPTHS FOR UTILITY COMPANY CABLES SHALL BE AS DIRECTED BY THE UTILITY COMPANY.

6 CONDUIT BURIAL DETAIL
NOT TO SCALE

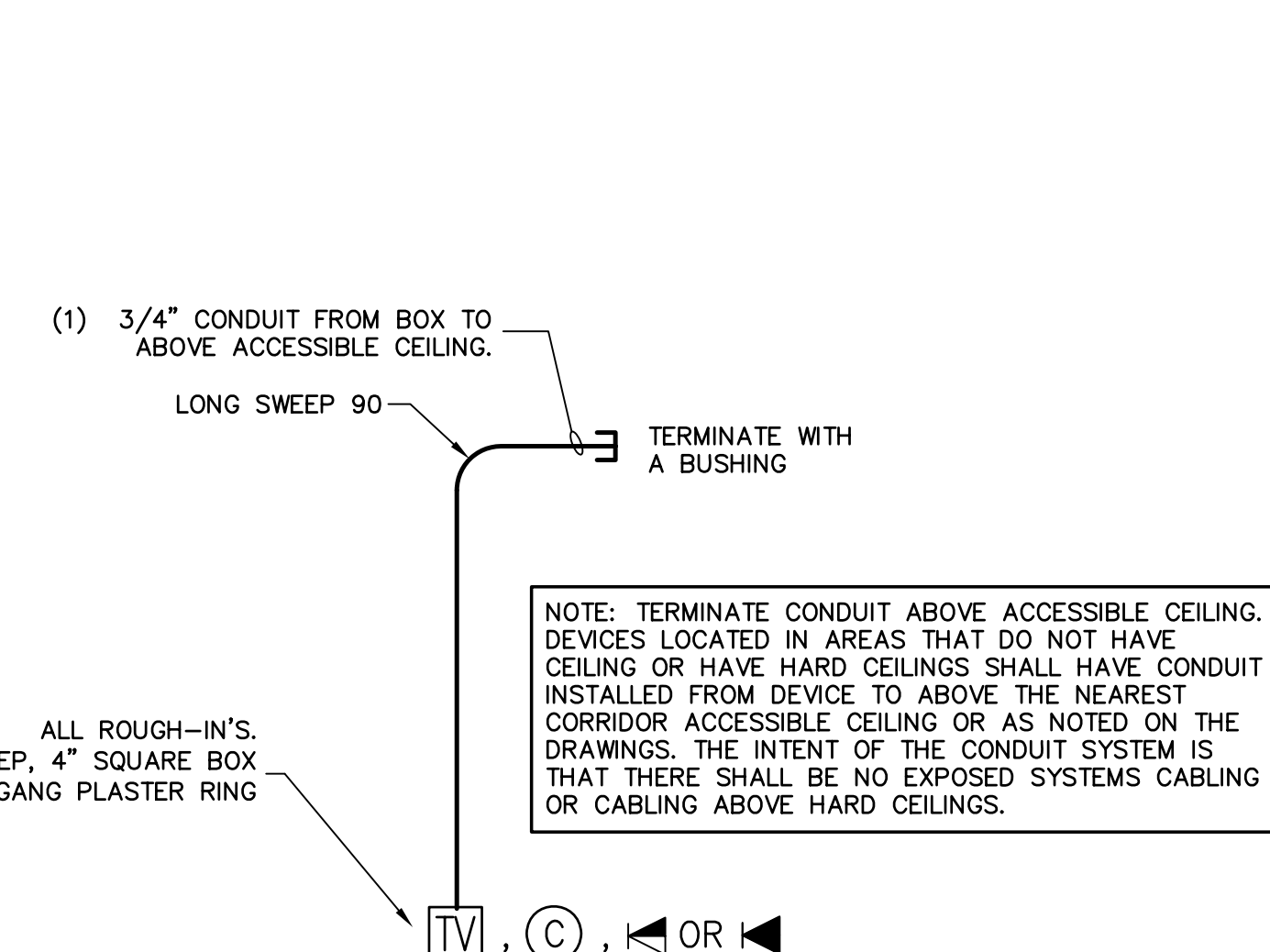


STANDARD COLORS:
1. NORMAL POWER- BLACK BACKGROUND, WHITE LETTERS
2. EMERGENCY POWER- RED BACKGROUND, WHITE LETTERING
3. IN ADDITION TO THE FUNCTION LABELS, PROVIDE LABELS IDENTIFYING ALL "MAIN SERVICE LABEL DISCONNECTS"- RED BACKGROUND, WHITE LETTERING

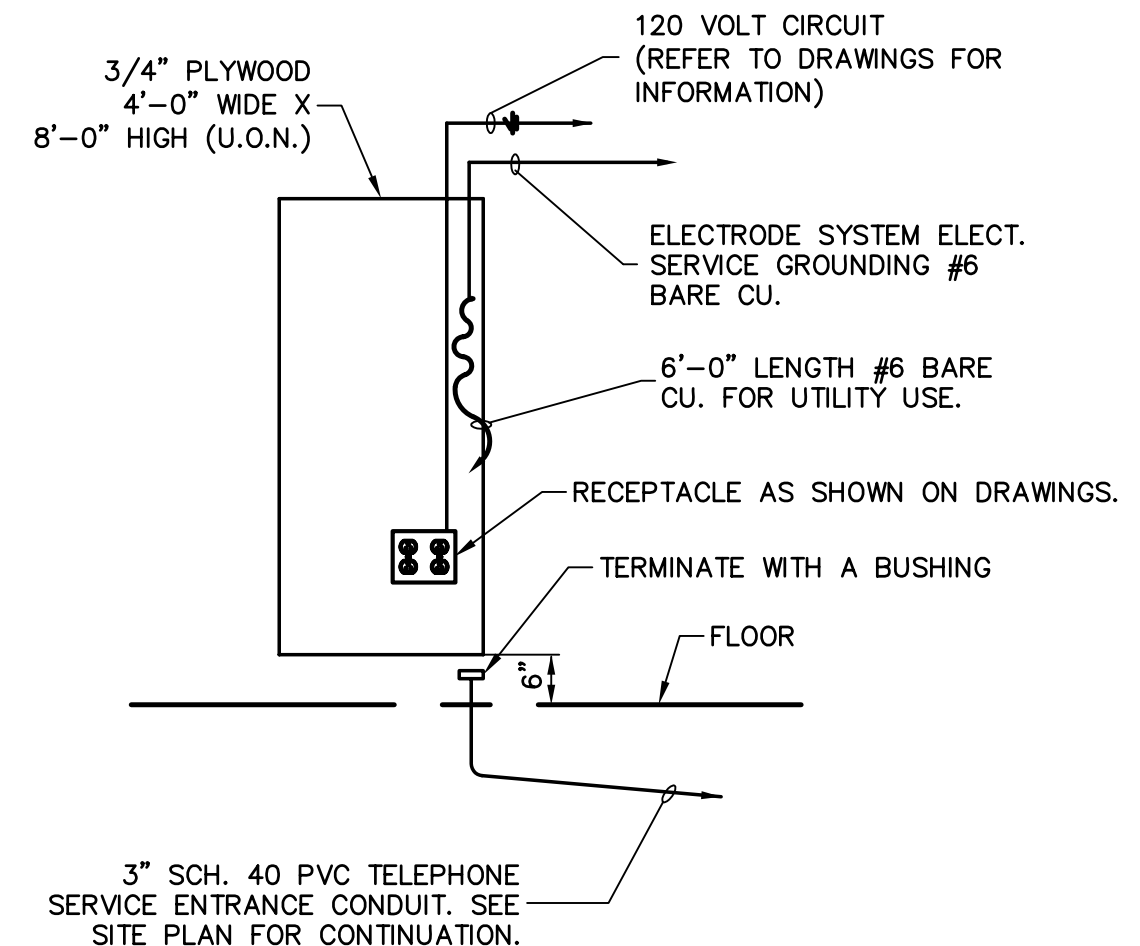
4 EQUIPMENT LABELING DETAIL
NOT TO SCALE



3 RECEPTACLE MOUNTING DETAIL
NOT TO SCALE



1 TYPICAL TELEVISION, TELEPHONE, DATA AND CCTV ROUGH-IN
NOT TO SCALE



2 TELEPHONE EQUIPMENT BACKBOARD DETAIL
NOT TO SCALE

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
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MANATEE COUNTY GOVERNMENT
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East Bradenton Community Center
1119 13th Street East
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Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09
Scale	NTS
Set	
Drawing Number	E6

E6

LEGENDS, GENERAL NOTES AND ABBREVIATIONS

ABBREVIATIONS

AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSE POWER
BOT	BOTTOM
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEANOUT
CT	COOLING TOWER
CU	CONDENSING UNIT
CW	COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DB	DRY BULB
DCC	DIRECT DIGITAL CONTROL
DG	DOOR GRILLE
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ENERGY CONTROL CENTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ET	EXPANSION TANK
EL	ELEVATION
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
FDR	FIRE DAMPER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FL	FLOOR
FPI	FINS PER INCH
FPF	FINS PER FOOT
FFM	FEET PER MINUTE
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDITY
HB	HOSE BIBB
HC	HEATING COIL
HE	HEAT EXCHANGER
HP	HORSE POWER
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MC	MECHANICAL CONTRACTOR
MD	MOTORIZED DAMPER
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
OA	OUTSIDE AIR
OS&Y	OUTSIDE SCREW & YOKE
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PRESS	PRESSURE
RA	RETURN AIR
RD	ROOF DRAIN
RL	RAIN LEADER
RTU	ROOF TOP UNIT
S	SANITARY
SDPR	SMOKE DAMPER
SA	SUPPLY AIR
SP	STATIC PRESSURE
TCC	TEMPERATURE CONTROL CONTRACTOR
T	TEMPERATURE
TW	TEMPERED WATER
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THRU ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEANOUT

DUCTWORK

	UP	SUPPLY DUCT (UP & DOWN)
	DN	EXHAUST DUCT (UP & DOWN)
	UP / DN	RETURN AIR DUCT (UP & DOWN)
		CEILING DIFFUSERS
		SIDE WALL REGISTER OR GRILLE
		RETURN OR EXHAUST CEILING GRILLE
		EXHAUST OR RETURN WALL MTD GRILLE
	NEW DUCT - WIDTH X DEPTH (SINGLE LINE)	
	EXISTING DUCT TO REMAIN (SINGLE LINE)	
	EXISTING DUCT TO BE REMOVED (SINGLE LINE)	
	FLEXIBLE DUCTWORK (INSULATED) (SINGLE LINE)	
	SPIN-IN FITTING (SINGLE LINE)	
	DUCT SIZE TRANSITION (CONCENTRIC) (SINGLE LINE)	
	DUCT SIZE TRANSITION (ECCENTRIC) (SINGLE LINE)	
	DUCT TRANSITION (RECTANGULAR TO ROUND) (SINGLE LINE)	
	ACOUSTICALLY LINED DUCT	
	INCLINED RISE, IN DIRECTION OF AIR FLOW	
	INCLINED DROP, IN DIRECTION OF AIR FLOW	
	FLEXIBLE CONNECTION	
	LOUVER	
	MANUAL VOLUME DAMPER	
	FIRE DAMPER	
	SMOKE DAMPER	
	FIRE / SMOKE DAMPER	
	SMOKE DETECTOR	
	DUCT HEATER	
	VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)	
	VANED ELBOW (SHORT RADIUS)	
	STANDARD RADIUS ELBOW	
	VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF	
	THERMOSTAT / TEMPERATURE SENSOR	
	HUMIDISTAT / HUMIDITY SENSOR	
	UNDERCUT (1" U.O.N.)	
	DOOR GRILLE (18"x12" U.O.N.)	
	AIR DEVICE TYPE AIR FLOW CFM NECK SIZE	
	4-WAY AIR FLOW	
	3-WAY AIR FLOW	
	2-WAY AIR FLOW	
	1-WAY AIR FLOW	

NOTE:

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

PIPING

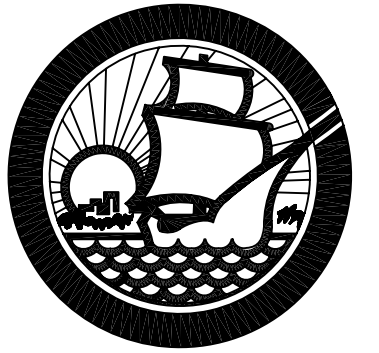
	CWS	CONDENSER WATER SUPPLY
	CWR	CONDENSER WATER RETURN
	CHWS	CHILLED WATER SUPPLY
	CHWR	CHILLED WATER RETURN
	C	CONDENSATE LINE
	RL	REFRIGERANT LIQUID
	RS	REFRIGERANT SUCTION
	RHG	REFRIGERANT HOT GAS
	HWS	HOT WATER SUPPLY
	HWR	HOT WATER RETURN
	DW	DOMESTIC WATER
	G	GATE VALVE
	V	GLOBE VALVE
	C	CHECK VALVE
	B	BALL VALVE
	P	PLUG VALVE
	PR	PRESSURE REDUCING VALVE
	2W	2-WAY CONTROL VALVE
	3W	3-WAY MODULATING CONTROL VALVE
	S	SAFETY OR PRESSURE RELIEF VALVE
	M	MANUAL AIR VENT
	B	BUTTERFLY VALVE
	H	HOSE BIBB
	A	ANGLE GLOBE VALVE
	M	MOTOR OPERATED GATE VALVE
	M	MOTOR OPERATED GLOBE VALVE
	T	TEST PLUG (PRESSURE / TEMPERATURE)
	O S & Y	OUTSIDE SCREW & YOKE (O S & Y)
	→	DIRECTION OF FLOW
	X	ANCHOR
	R	REDUCER OR INCREASER
	E	ECCENTRIC REDUCER
	T	TOP CONNECTION, 45 OR 90 DEG.
	B	BOTTOM CONNECTION, 45 OR 90 DEG.
	S	SIDE CONNECTION
	O	CAPPED OUTLET
	R	RISE OR DROP IN PIPE
	U	UNION
	S	STRAINER
	T	THERMOMETER
	P	PRESSURE GAGE
	W	WATER FLOW MEASURING DEVICE
	D	EXISTING PIPE TO BE REMOVED

DRAWING SYMBOLS

	2	DETAIL NUMBER
	FP5	DRAWING NUMBER WHERE DRAWN
	A	SECTION LETTER
	FP5	DRAWING NUMBER WHERE DRAWN
	X	POINT OF INTERFACE BETWEEN NEW & EXISTING
	X	POINT OF DEMOLITION
	X	POINT OF INTERFACE BETWEEN CONTRACTORS

GENERAL NOTES

- HVAC WORK CONSISTS OF PROVIDING AND INSTALLING AIR CONDITIONING SYSTEMS FOR A COMPLETE OPERATING SYSTEM AND AS INDICATED ON THE DRAWINGS. ALL WORK SHALL COMPLY WITH APPLICABLE CODES IN SPECIFICATIONS. IT IS THE INTENTION OF THE CONTRACT DRAWINGS AND SPECIFICATIONS TO CALL FOR COMPLETE, FINISHED WORK, TESTED, AND READY FOR OPERATION. REFER TO ARCHITECTURAL PLANS FOR DEMOLITION.
- TEST AND BALANCE SHALL BE PROVIDED BY A COMPANY SPECIALIZING IN THE TESTING AND BALANCING OF HVAC SYSTEMS AS SUBCONTRACTOR TO THE HVAC CONTRACTOR OR OWNER. THE TEST AND BALANCE CONTRACTOR SHALL BE A MEMBER OF EITHER AABC OR NEBB.
- DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE AIR PASSAGE DIMENSIONS.
- PROVIDE SPIN-IN FITTINGS AT ALL FLEXIBLE DUCT RUNOUTS TO DIFFUSERS WITH AIR EXTRACTOR AND DAMPER.
- MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 6'-0".
- ALL PIPING SUBJECT TO THERMAL EXPANSION AND/OR CONTRACTION THAT PENETRATES A PARTITION, EXTERIOR WALL, OR FLOOR SLAB SHALL BE SUITABLY SLEEVED AND CAULKED.
- PROVIDE IDENTIFICATION OF THE LOCATION OF ALL BALANCING DAMPERS. IDENTIFICATION TAGS SHALL BE AFFIXED TO THE WALLS OR CEILINGS AND SHALL BE VISIBLE FROM THE OCCUPIED SPACE.
- ALL PIPING SHALL BE SUPPORTED WITH COMMERCIAL MANUFACTURED CLAMPS. PROVIDE ISOLATION SLEEVES TO PREVENT CONTACT OF DISSIMILAR METALS.
- INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS AND RECOMMENDATIONS.
- CONTRACTOR TO PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT AND MATERIALS.
- ALL INSULATION SHALL BE FIRE RATED IN ACCORDANCE WITH ASHRAE 90A 50/25 SMOKE DEVELOPMENT AND FLAME SPREAD REQUIREMENTS. INSULATION "R" VALUES SHALL COMPLY WITH THE FLORIDA ENERGY CODE.
- MOUNT ALL SPACE THERMOSTATS AND/OR SENSORS 4 FEET ABOVE THE FLOOR, UNLESS OTHERWISE NOTED.
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL AIR DEVICES LOCATED IN THE CEILING.
- SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT.
- UNLESS OTHERWISE NOTED, INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO THE BOTTOM OF THE STRUCTURE. COORDINATE ELEVATION AND LOCATION WITH RAIN LEADERS, WATER PIPING, PLUMBING VENTS, AND MAJOR ELECTRICAL CONDUITS OR CABLE TRAY.
- PROVIDE MOTORIZED DAMPERS IN ALL OUTSIDE AIR DUCTS.
- PROVIDE DRAIN P-TRAPS IN THE CONDENSATE LINES AT ALL AIR HANDLING UNITS.
- ROUTE FULL SIZE (MIN. 1") COPPER DRAIN PIPE FROM EACH AHU DRAIN PAN TO RESPECTIVE SITE DRAIN. INSULATE WITH 3/4" ARMSTRONG "ARMAFLEX" INSULATION.
- THE ENGINEER HAS MADE AN EXTENSIVE EFFORT TO IDENTIFY ABOVE CEILING CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO ALSO CHECKING FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- THE WORK INDICATED ON THESE DRAWINGS IS GENERALLY DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF DUCTWORK AND EQUIPMENT, ETC.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE(1) YEAR FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- PROVIDE BALANCING DAMPER IN EACH BRANCH CONNECTION. PROVIDE ACCESS PANEL TO ALL EQUIPMENT IN CEILING SPACE.
- ALL DUCTWORK INSTALLED ON THIS PROJECT SHALL BE OF SHEET METAL CONSTRUCTION. DUCTWORK SHALL BE FABRICATED AND CONSTRUCTED IN ACCORDANCE WITH SMACNA REQUIREMENTS.
- ALL WALL AND GROUND MOUNTED EQUIPMENT AND APPURTENANCES INCLUDED IN THE SCOPE OF THIS PROJECT ARE REQUIRED TO BE SECURED TO THE UNDERLYING BUILDING STRUCTURE. THE FASTENING SYSTEMS SHALL BE DESIGNED TO WITHSTAND A 140 MPH WIND LOAD.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.



Facilities Management
1112 Manatee Avenue West
Suite 803, P.O. Box 1000
Bradenton, Florida 34206

(941) 748-4501
FAX (941) 742-5880

Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida

MECHANICAL LEGENDS and NOTES

Project Number

Drawn by JC/DC/CD

Checked by AJM

Date 06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011

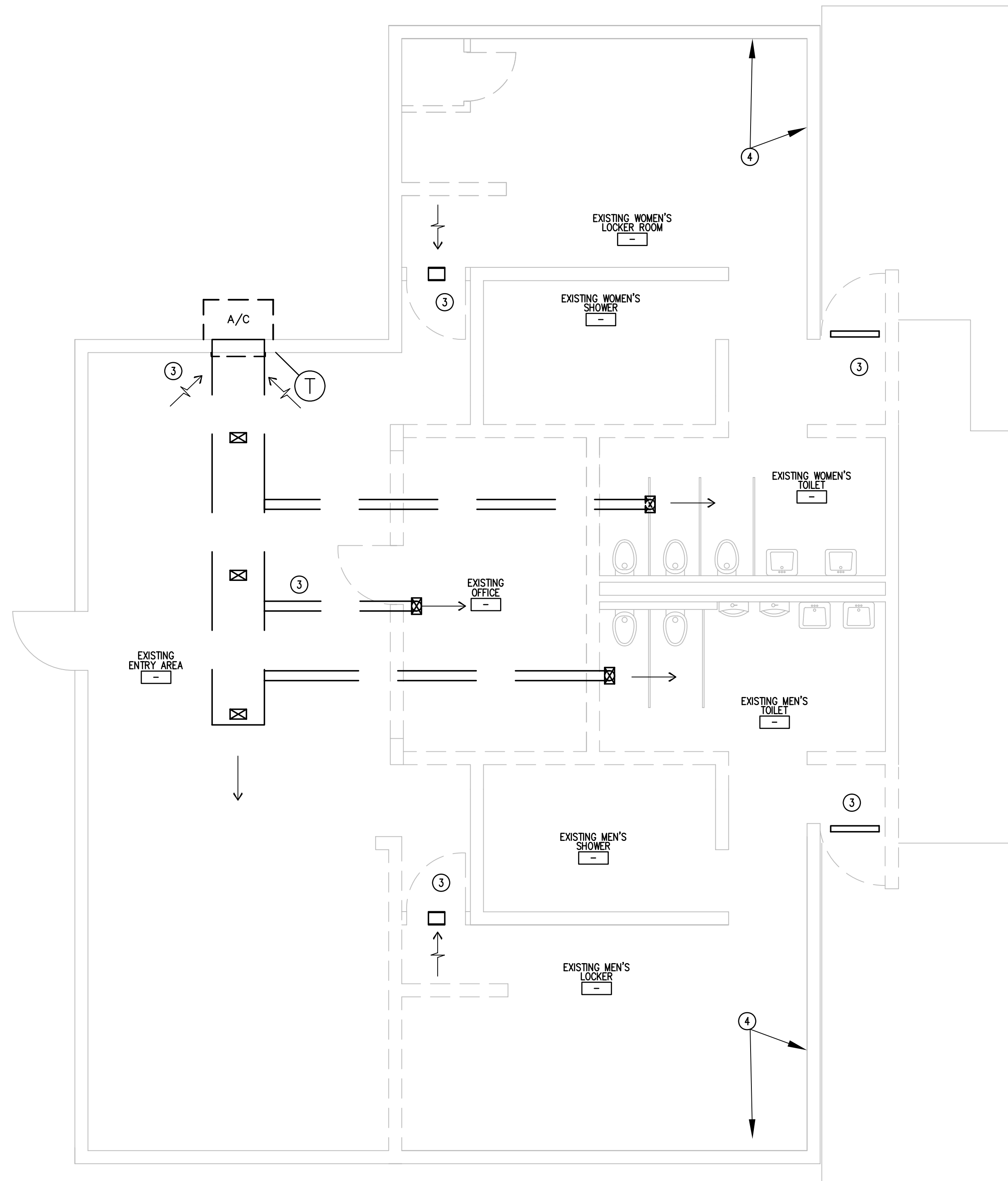
Scale 1/8" = 1'-0"

Set

Drawing Number

	SEAL
ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181	

M1



GENERAL NOTES:

- ① REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ② CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE PROJECT MANAGER AND ARCHITECT PRIOR TO START.
- ③ REMOVE EXISTING DUCTWORK BACK TO EXISTING AHU UNIT, REMOVE ALL TRANSFER GRILLES, ALL RETURN, SUPPLY GRILLES, AND THERMOSTAT ON WALL COMPLETE. REMOVE AHU COMPLETE. TURN OVER AHU TO OWNER IF SO REQUESTED. COORDINATE WITH ARCHITECT AND PROJECT MANAGER. ALL WALL PATCHING SHALL BE BY GENERAL CONTRACTOR.
- ④ ALL VENTILATION OPENINGS TO BE REMOVED BY GC AND PATCHED.

1
M2
MECHANICAL DEMOLITION PLAN
 1/4"=1'-0"

Rev.	Date	Remarks

East Bradenton Community Center
 1119 13th Street East
 Bradenton, Florida
 MECHANICAL DEMO PLAN

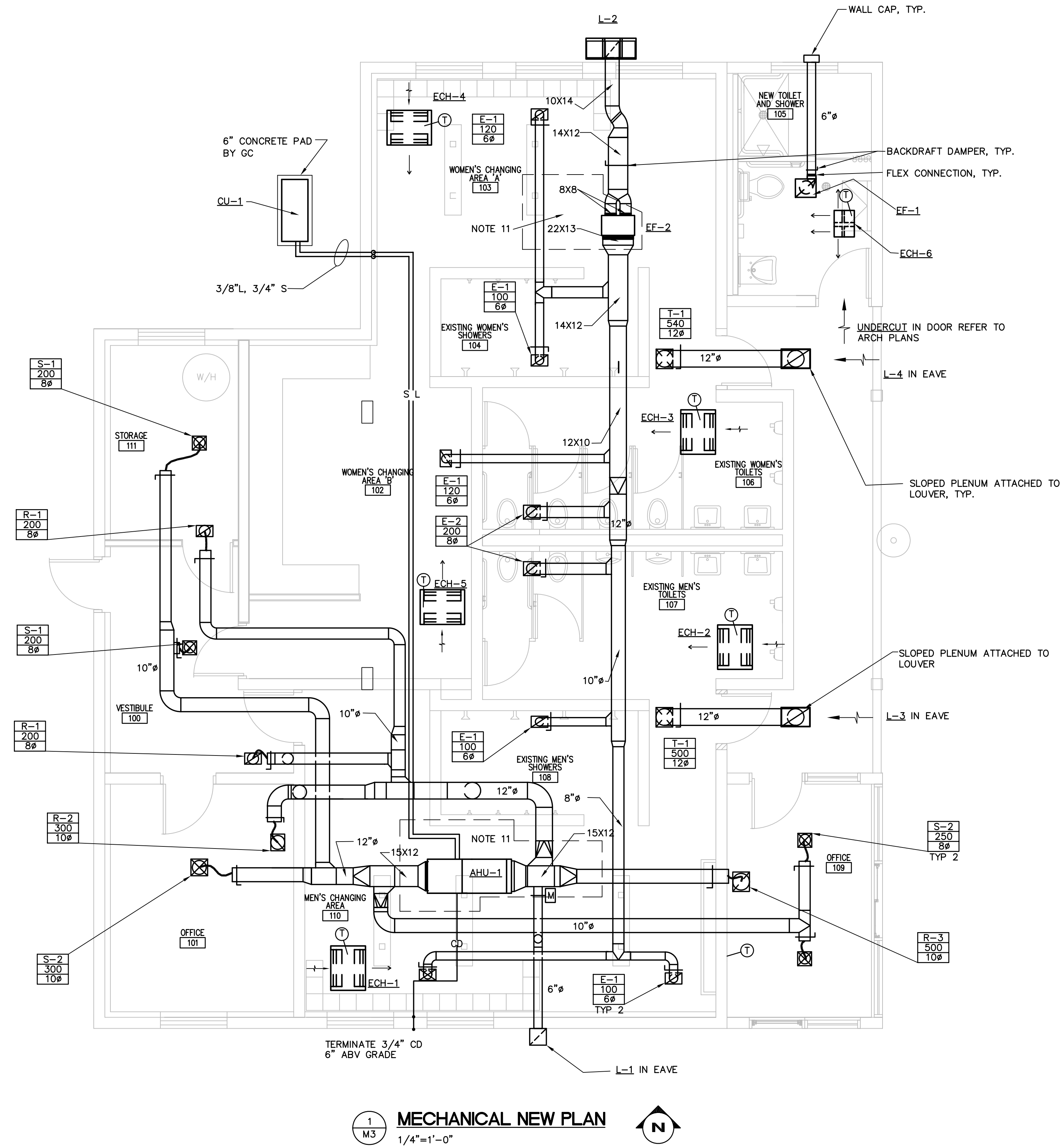
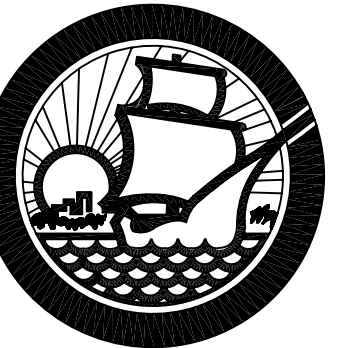
Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09
Scale	1/8" = 1'-0"
Set	
Drawing Number	

ALAN J. MERONEK
 AR 91853
 Expires: FEB. 28, 2011
 Scale 1/8" = 1'-0"

	SEAL
	ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181

M2



GENERAL NOTE:

1. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT AND PROJECT MANAGER PRIOR TO START WORK.
3. ALL SUPPLY AND RETURN DUCTWORK SHALL BE SHEET METAL DUCT WRAPPED WITH 2" FIBERGLASS, FOIL COVERED INSULATION. FLEXIBLE DUCTWORK SHALL NOT BE ANY LONGER THAN 5'-0". FLEXIBLE DUCTWORK SHALL BE INTERNAL SEALED, INSULATED, AND FOIL COVERED WITH INTERNAL PLASTIC LINER.
4. ALL EXHAUST DUCTWORK, EXHAUST, TRANSFER, AND OAI PLENUMS SHALL BE HARD DUCTED. INSULATE ALL DUCTWORK ON THE EXTERIOR TO PREVENT SWEATING.
5. COORDINATE CEILING DIFFUSERS, RETURN GRILLES, EXHAUST, AND OUTDOOR AIR INTAKES WITH ARCHITECTURAL PLANS AND LIGHTING. PROVIDE ACCESS PANELS FOR EQUIPMENT.
6. PROVIDE AND INSTALL FULL SIZE 3/4" COPPER CONDENSATE DRAIN LINES WITH PAN OVERFLOW UNDER AHU. INSULATE LINE WITH 1" THK ARMAFLEX TO PREVENT CONDENSATION. TERMINATE DRAIN TO LOCATION INDICATED ON THE PLANS.
7. INSULATE THE SUCTION REFRIG. LINE WITH 1" THK. ARMAFLEX AND PAINT WITH SUN RESISTANT PAINT. SUPPORT PIPING OFF OF STEEL WITH DIELECTRIC SUPPORTS.
8. PROVIDE DEFLECTION PLATES IN OA PLENUMS AND SPLITTERS FOR TAKE OFFS. INSULATE THE OA PLENUM DUCT EXTERIOR.
9. REFER TO DETAILS FOR AHU SECTION AND CU.
10. PROVIDE INSULATED SLOPED PLENUM FOR INTAKES.
11. PROVIDE ACCESS (30X22 MIN.) AND SUPPORT FOR AHU IN CEILING FOR MAINTENANCE IN ACCORDANCE WITH FMC 306.3

Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida
MECHANICAL NEW PLAN

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale 1/8" = 1'-0"

	ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181	SEAL

Drawing Number
M3



SPLIT SYSTEM A/C SCHEDULE		
CONDENSING UNIT	---	CU-1
CAPACITY	TONS	3.0
NO. OF COMPRESSORS	---	1.0
COMPRESSOR RLA/LRA	AMPS	12.8/95
NO. OF CONDENSER FANS	---	1.0
CONDENSER FAN MOTOR	HP	1/4
ELECTRICAL	V/PH/HZ	240/3/60
MCA/MOCP	AMPS	17.5/30
E.E.R.	---	15.00
WEIGHT	LBS.	225
MANUFACTURER	R410A	YORK
MODEL NO.	---	YCHD36S43S1
AIR HANDLING UNIT	---	AHU-1
COOLING CAPACITY	MBH	34.6
SENSIBLE CAPACITY	MBH	23.85
SUPPLY AIR	CFM	1200
OUTSIDE AIR	CFM	100
ENTERING AIR (DB/WB)	F/F	78/67
LEAVING AIR (DB/WB)	F/F	58/57
FAN MOTOR	HP	X
STATIC PRESS. (EXTERNAL/TOTAL)	---	.5 ESP
ELECTRICAL	V/PH/HZ	240/1/60
MCA/MOCP	AMPS	44.5/45
ELECTRIC HEAT	KW	7.5
FILTER TYPE	1" PLEATED	20x24
WEIGHT	LBS.	153
MANUFACTURER	---	YORK
MODEL NO.	---	MV12D, MC48D,

NOTES: 1. RA PLENUM ON UNIT, FLEXIBLE CONNECTION, 3/4" CD, 3/8" L, 3/4" S, PROGRAMMABLE THERMOSTAT, CONDENSATE CUTOFF SWITCH BY MC., OUTSIDE AIR DAMPER 24V BY MC.
2. OUTSIDE AIR SHALL OPEN WHEN UNIT IS ON, CLOSE WHEN UNIT IS OFF.
3. UNIT MOUNTED HORIZONTAL WITH FILTER BOX, DRAIN FAN REQUIRED UNDER UNIT WITH VIBRATION ISOLATION.

HVAC LOAD CALCULATIONS SUMMARY		
	ZONE #1	ZONE #2 *
SIZING METHOD	CARRIER E20ii	CARRIER E20ii
AREA (SQ. FEET)	489	1429.5
TOTAL COOLING REQUIRED W/ OUTSIDE AIR (MBH)	31.6	HEATING ONLY
OUTDOOR DRY BULB USED	95	36
OUTDOOR WET BULB USED	80	X
RELATIVE HUMIDITY %	54% OUT OF COIL	X
INDOOR DRY BULB	77.3	X
TOTAL HEATING REQUIRED W/ OUTSIDE AIR (MBH)	13.9	55.6
TOTAL SENSIBLE GAIN (MBH)	23.9	X
TOTAL LATENT GAIN (MBH)	7.7	X
LB/LB SPECIFIC HUMIDITY ACROSS COIL	.00144	X

REFERENCE: 13-407.1.ABC.1 SIZING, 2007 FLORIDA BUILDING CODE
* ZONE IS HEATED ONLY.

GRILLE, REGISTER AND DIFFUSER SCHEDULE											
TAG NO.	PATTERN	NECK SIZE	MODULE SIZE	FRAME STYLE	MATERIAL	FINISH	CFM RANGE	ACCESSORIES	MANUFACTURER	MODEL NO.	REMARKS
S-1	4 WAY	10X10	10 3/4X10 3/4	SURF	ALUM	WHITE	0-250	1	PRICE	ACVD	2,3
S-2	4 WAY	12X12	12 3/4X12 3/4	SURF	ALUM	WHITE	65-435	1	PRICE	ACVD	2,3
S-3	4 WAY	14X14	14 3/4X14 3/4	SURF	ALUM	WHITE	125-600	1	PRICE	ACVD	2,3
R-1	45	10X8	11 3/4X9 3/4	SURF	ALUM	WHITE	0-275	1	PRICE	630DAL	2,3
R-2	45	12X10	13 3/4X11 3/4	SURF	ALUM	WHITE	130-410	1	PRICE	630DAL	2,3
R-3	45	14X12	15 3/4X13 3/4	SURF	ALUM	WHITE	210-640	1	PRICE	630DAL	2,3
T-1	45	14X12	15 3/4X13 3/4	SURF	ALUM	WHITE	210-640	1	PRICE	630DAL	2,3
E-1	45	10X8	11 3/4X 9 3/4	SURF	ALUM	WHITE	0-275	1	PRICE	630DAL	2,3
E-2	45	12X10	13 3/4X11 3/4	SURF	ALUM	WHITE	130-410	1	PRICE	630DAL	2,3
R-3	45	14X12	15 3/4X13 3/4	SURF	ALUM	WHITE	210-640	1	PRICE	630DAL	2,3

NOTES:
1. COORDINATE COLOR OF GRILLES WITH ARCHITECT AND OWNER. COORDINATE SURFACE WITH ARCHITECTURAL REFLECTED CEILING PLANS FOR MOUNTING AND ELEVATION.
2. PROVIDE OPPOSED BLADE DAMPER WITH GRILLE/REGISTER/DIFFUSER.
3. PROVIDE DISTRIBUTION BOX TRANSITION FROM RECTANGULAR TO ROUND AS REQUIRED BY PLANS. REFER TO MECHANICAL PLANS.

FAN SCHEDULE			
ITEM NO.		EF-1	EF-2
SERVICE	---	DRESSING, RR	HANDICAP. RR
AIR QUANTITY	CFM	1040	100
EXT. STATIC PRESSURE	IN. WTR.	.5	.375
FAN TYPE	---	FC	FC
DRIVE	---	DIRECT, VS	DIRECT, VS
SONES	---	2.2	2.2
MOTOR	W	822	129
FAN SPEED	RPM	1171	749
ELECTRICAL	V/PH./HZ.	120/1/60	120/1/60
CONTROLS	---	CIRCUIT BREAKER	LIGHT SWITCH
LOCATION	---	CEILING, 59#	CEILING, 10
MANUFACTURER	---	GREENHECK	GREENHECK
MODEL NO.	---	CSP-A1410	SP-B150

NOTES:
1. VARIABLE SPEED WITH DISCONNECT BY MFR.
2. CONTROL SWITCH BY EC. GRILLE BY MFR.
3. BACK DRAFT DAMPER AND WALL CAP BY MFR., SLOPED PLENUM BY SHEETMETAL CONTRACTOR
4. VIBRATION ISOLATION, FLEXIBLE CONNECTION

LOUVER SCHEDULE										
TAG NO.	LOCATION	MAX CFM	S.P.	INTAKE RELIEF EXHAUST	OPENING		NO. OF PANELS	MANUFACTURER	MODEL NO.	REMARKS
					WIDTH IN.	HEIGHT IN.				
L-1	SOUTH EAVE	100	.1	I	12.5	12.5	1	GREENHECK	ESD-435X	1,2
L-2	NORTH EAVE	1040	.1	E	36	15	1	GREENHECK	ESD-435X	1,2,3
L-3	EAST EAVE	500	.1	I	14	21	1	GREENHECK	ESD-435X	1,2,3,4
L-4	EAST EAVE	540	.1	I	14	21	1	GREENHECK	ESD-435X	1,2,3,4

NOTES:
1. COORDINATE FRAME AND COLOR TYPES WITH ARCHITECT. DRIP EDGE REQUIRED.
2. ALL 4 INCH DEEP LOUVERS HALL MEET FBC HURRICANE REQUIREMENTS FOR 130 MPH. FRAME BOLT IN AS RECOMMENDED IN MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PROVIDE AND INSTALL ANGULAR PLENUM MIN 24 GA STEEL BEHIND LOUVER IN ATTIC SPACE. VERIFY FRAMING AREAS PRIOR TO PLENUM CONSTRUCTION.
4. PROVIDE GRAVITY DAMPER AND INSECT SCREEN WITH UNIT.

ELECTRIC CABINET UNIT HEATER SCHEDULE																														
Tag No.	Equipment Location	Heating Data					Fan Description						Electrical Data			Manufacturer	Heater Model no.	Enclosure Model no.	Accessories						Weight					
		KW Setting	KW Range	# of Stages	E.A.T. F	L.A.T. F	Fuel Type	CFM	E.S.P. in. wg.	Fan Type	Fan Size	Drive Type	RPM	H.P.	Speeds				Volts	Phase	Hertz	Access door	Baked enamel finish	Return Air Thermostat		Ceiling isolation support	Summer fan switch	Institutional gauge	Tamper-proof allen-head machine screws	
ECH1-5	CEILING	3	3	1	36	73.7	ELECT	250	.2	CENT	X	DIRECT	X	---	2	208	1	60	CHROMOLOX	CCH	NON-RECESSED	X	X	X	X	X	X	X	X	105
ECH 6	CEILING	1.5	1.5	1	36	63	ELECT	175	.2	CENT	X	DIRECT	X	---	1	120	1	60	BRASCH	BCH1512	RECESSED	X	X	X	X	X	X	X	X	22

NOTES:
1. UNIT ACCESSORIES TO INCLUDE UNIT MOUNTED THERMOSTAT, DISCONNECT SWITCH, AND CEILING TRIM FLANGE, AS SHOWN ON DRAWINGS COLOR AS SELECTED BY ARCHITECT.
2. DISCHARGE GRILLE TO BE INSTALLED IN AN ASYMMETRICAL AIR PATTERN, UNIT SUPPLIED WITH FILTER GRILLES. UNIT THERMOSTAT SHALL ALSO HAVE SUMMER WINTER SWITCH FOR VENTILATION IN SUMMER.
3. NON- RECESSED UNIT RECESSED 8 5/8" ON CEILING. (UNIT NON-RECESSED DUE TO NO STRUCTURAL CLEARANCE FOR BOX IN FRAMING.) UNIT SUPPLIED WITH HEX KEY ACCESS FOR SECURITY.

OUTDOOR AIR LOAD CALCULATIONS

(FMC 2007 TABLE 403.3, ASHRAE 62.1 TABLE 6-1, 6-4)
5 CFM PER PERSON VESTIBULE
17 CFM PER PERSON OFFICE SPACE
.06 CFM PER SF STORAGE
.5 CFM/SQ FT./CHANGING SPACE AND SHOWERS EXHAUST
119 SF VESTIBULE 30/1000= 4 PEOPLE
273 S.F. OFFICE 5/1000= 2 PEOPLE
96 SF. STORAGE X .06 = 6 CFM
RESTROOMS MIN EXHAUST 50 CFM / WC
8 WC & UR X 50 = 400 CFM - 400 CFM INSTALLED
CHANGING AND SHOWERS 982.4 SF X .5 = 491.2 CFM - 640 CFM INSTALLED
OA - VESTIBULE - 4 X 5 = 20 CFM
OA - OFFICE - 2 X 17 = 34 CFM
OA - STORAGE - .06 X 96 = 6 CFM
SPACE OA = 60 CFM TOTAL- 95 CFM INSTALLED

Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida

MECHANICAL SCHEDULES

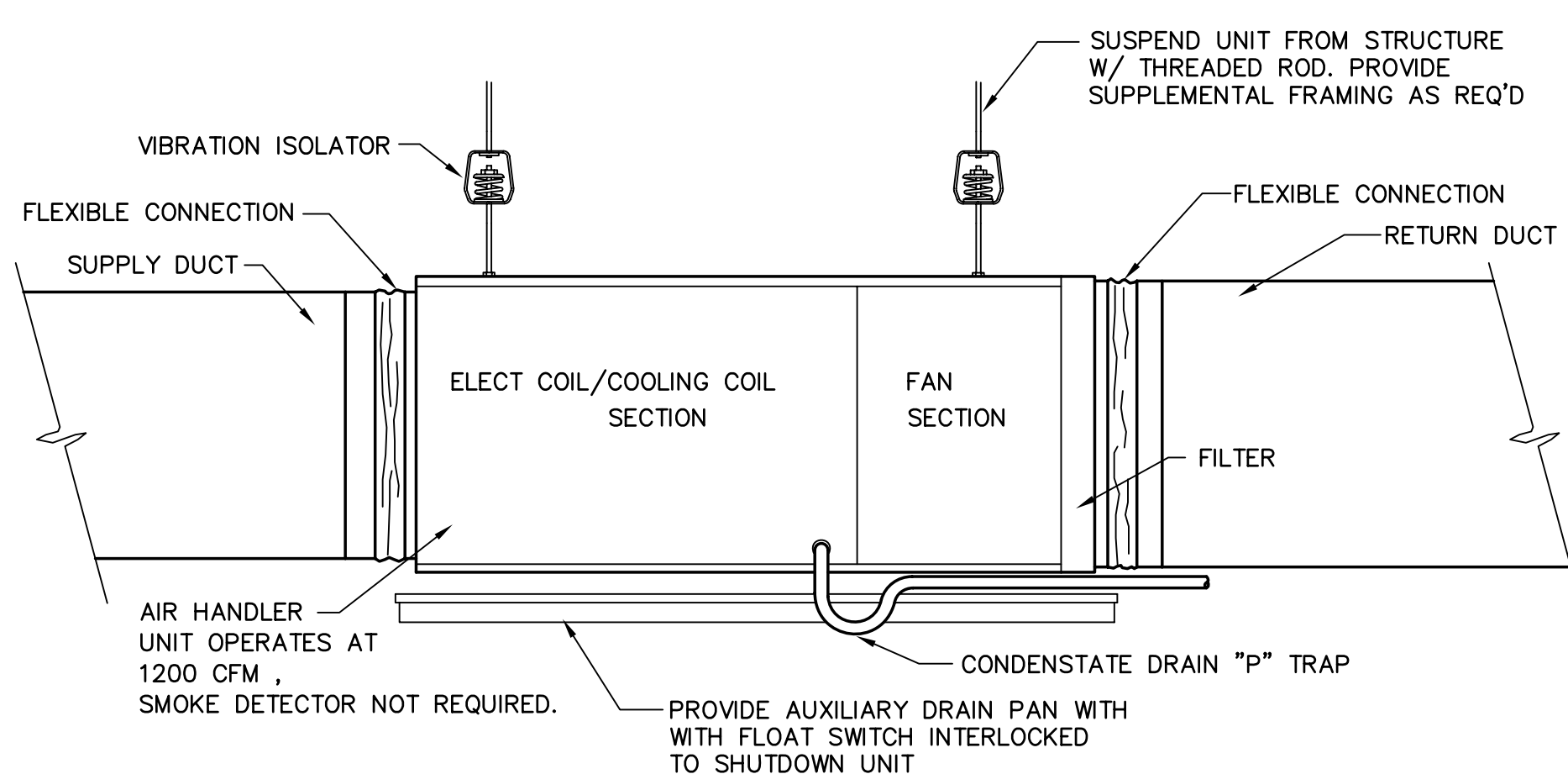
Project Number
Drawn by JC/DC/CD
Checked by AJM
Date 06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale 1/8" = 1'-0"

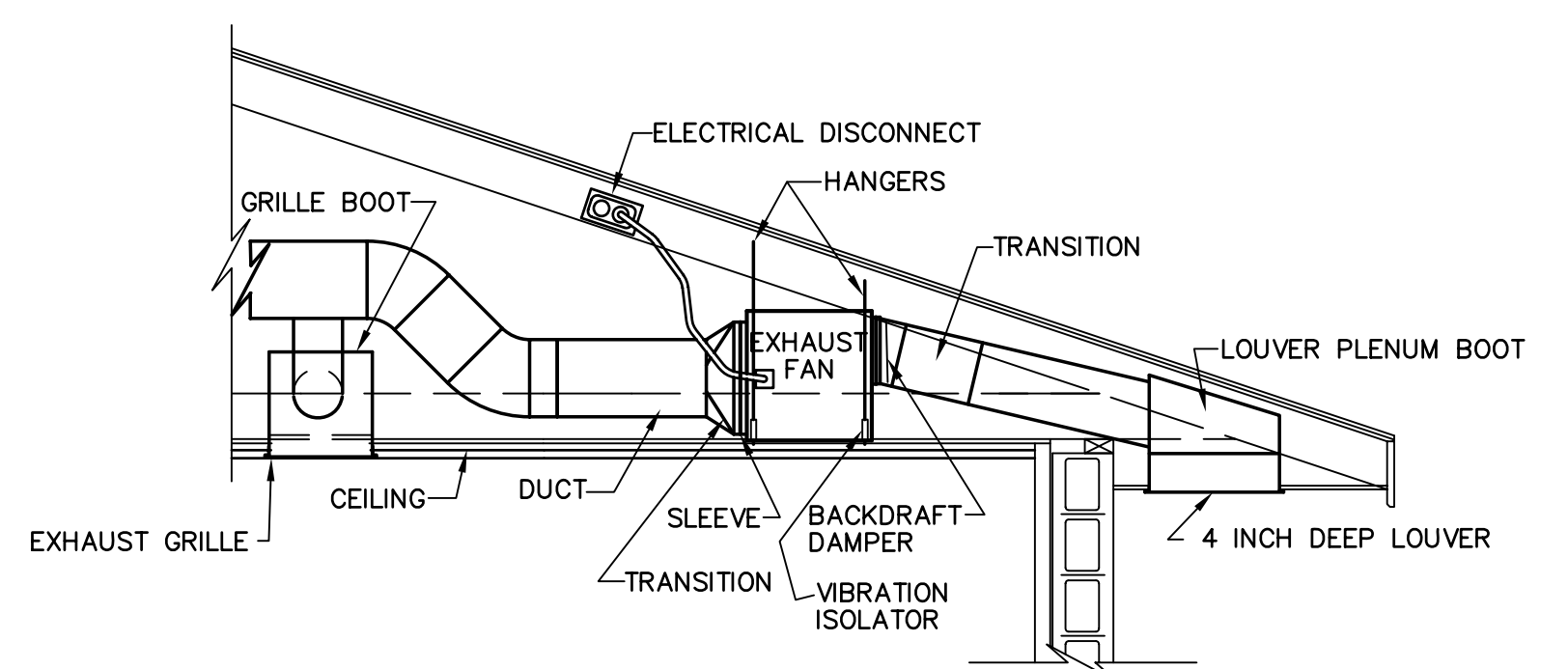
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Drawing Number

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

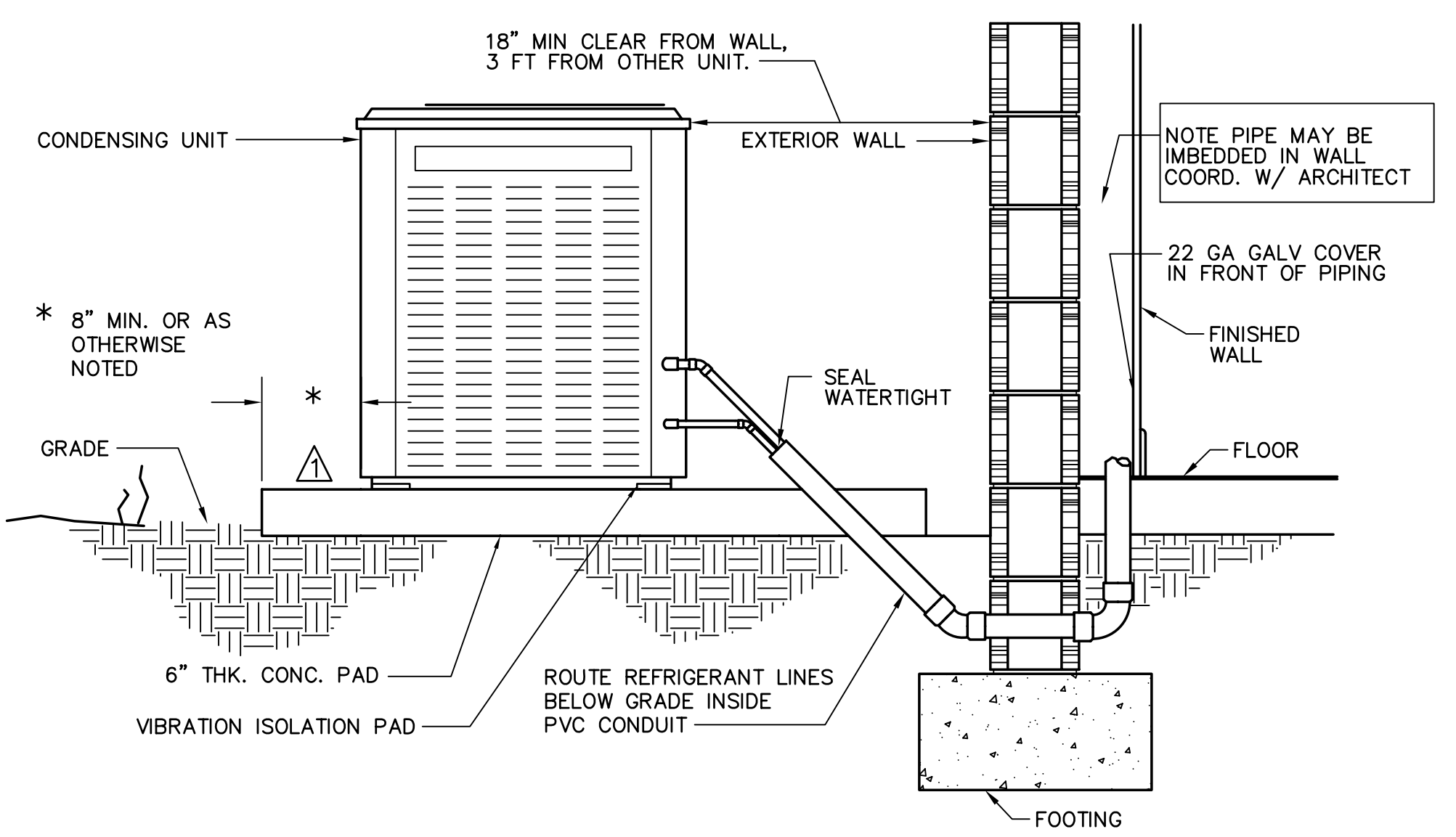
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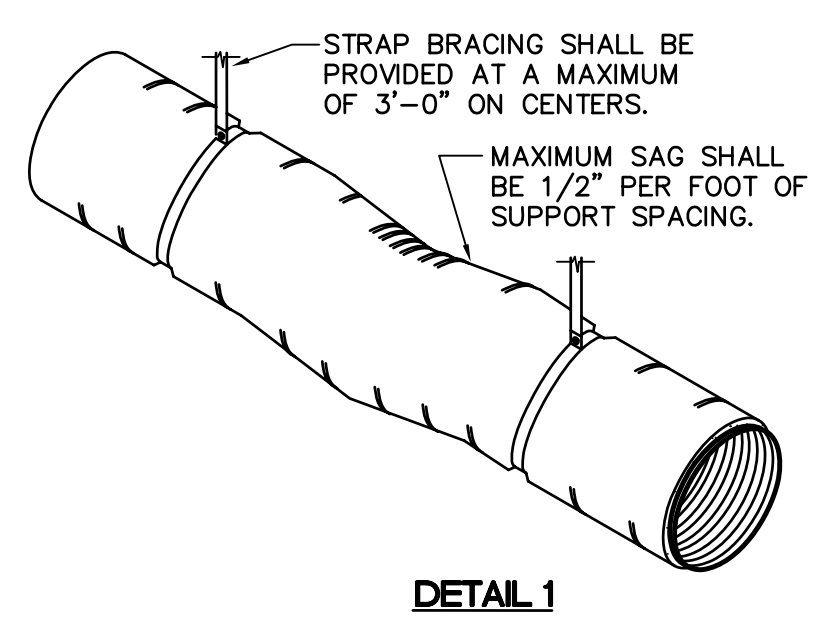
1 M5.0 AIR HANDLING UNIT DETAIL
NOT TO SCALE



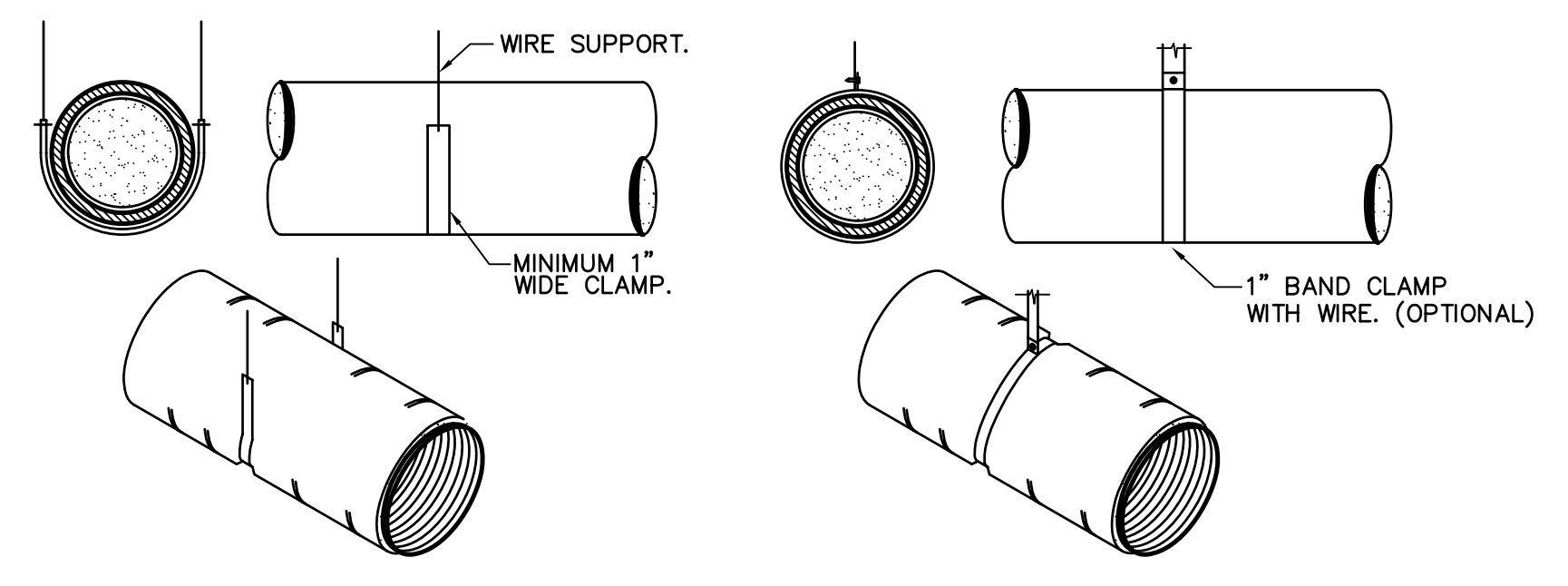
2 M5.0 EXHAUST FAN SECTION DETAIL
NOT TO SCALE



3 M5.0 CONDENSING UNIT DETAIL
NOT TO SCALE



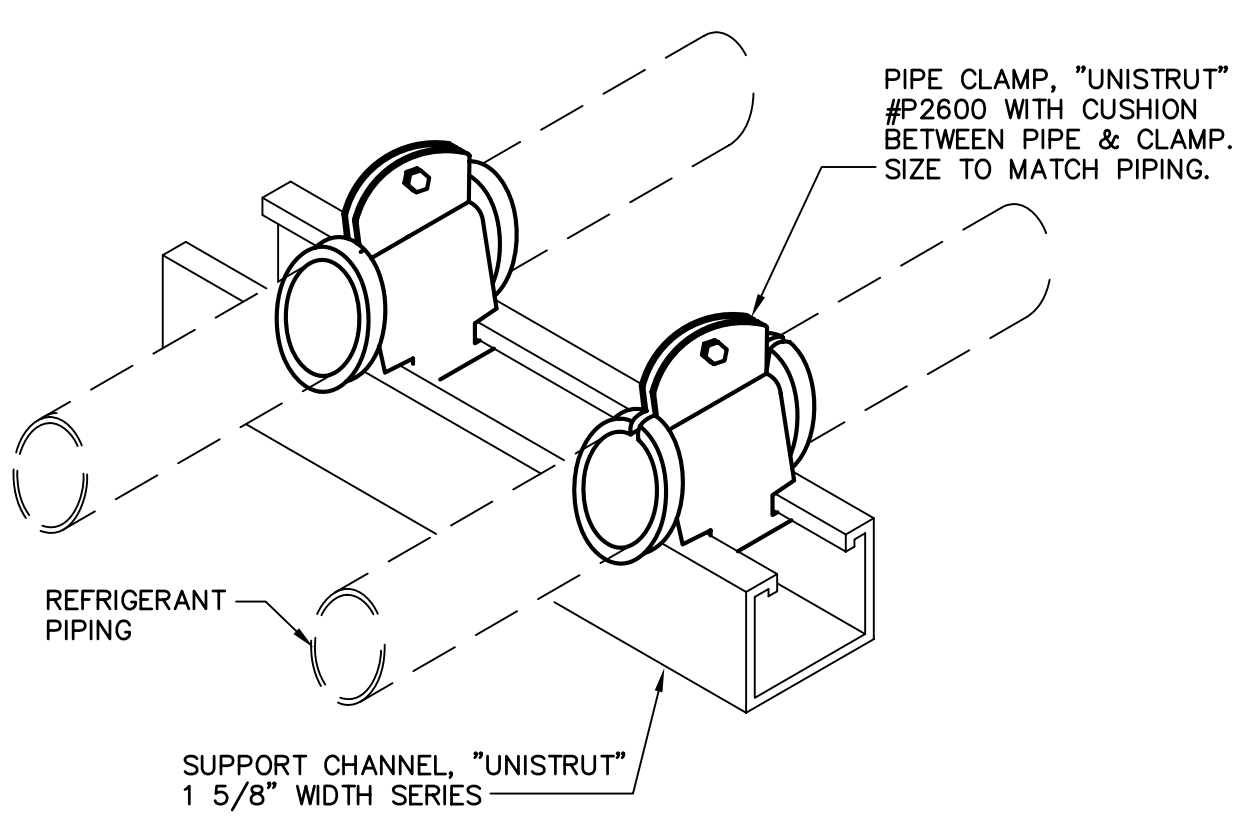
DETAIL 1



DETAIL 2

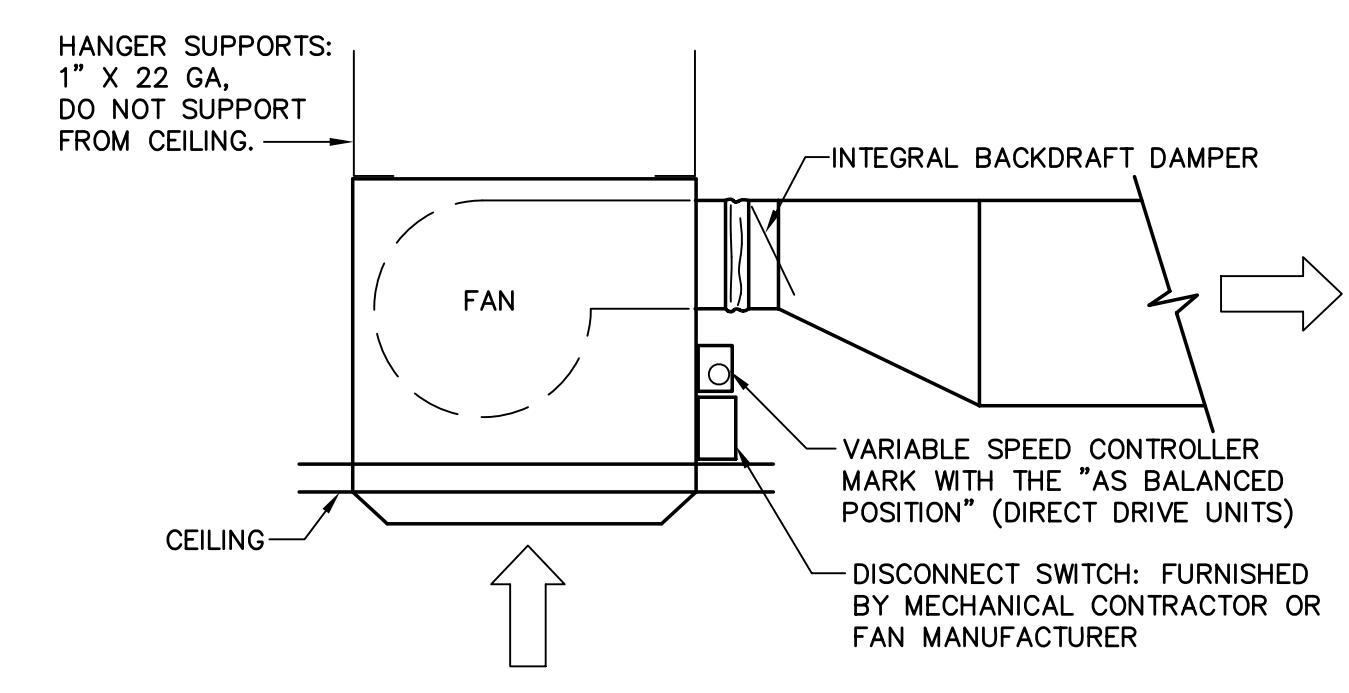
DETAIL 3

4 M5.0 INSULATED FLEXIBLE DUCTWORK DETAIL
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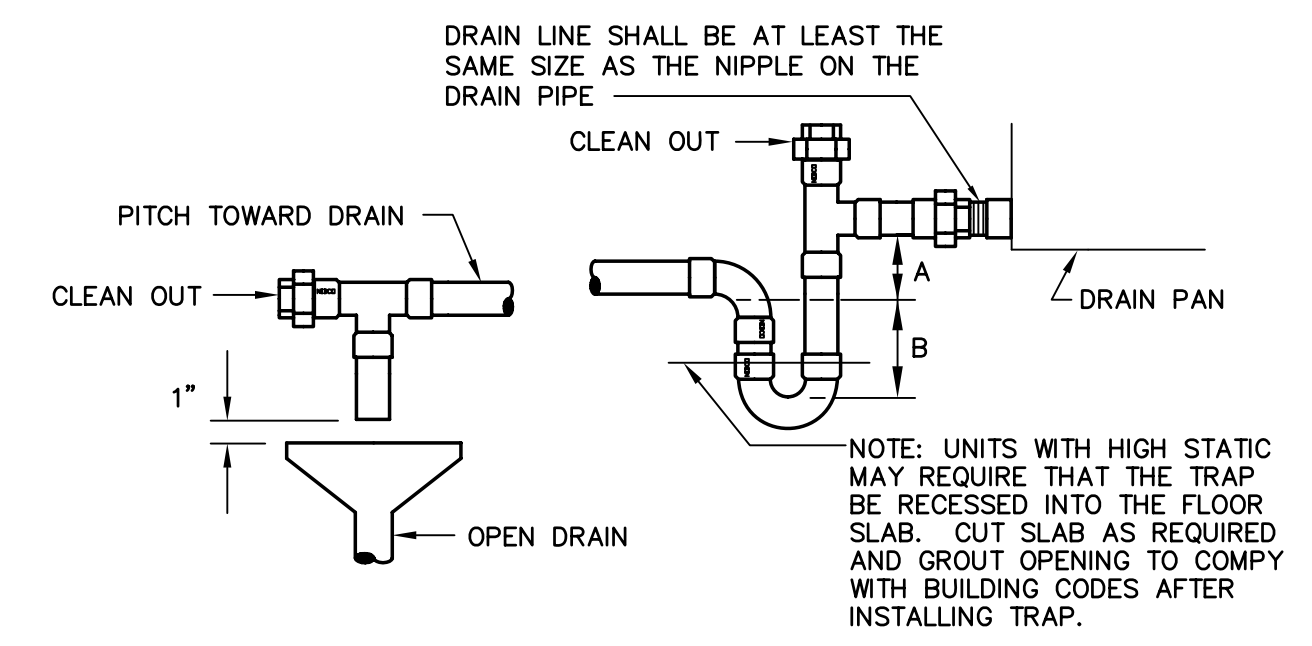


1. ALL REFRIGERANT PIPING SHALL BE HARD COPPER, TYPE "L" WITH LONG RADIUS ELBOWS.
2. TRAPS SHALL BE SINGLE PIECE, WROUGHT COPPER.
3. INSULATE SUCTION LINE WITH 5/8" ARMAFLEX INSULATION FULL LENGTH. DO NOT SPLIT DURING INSULATION BUTT JOINTS WITH ARMAFLEX SEALANT, AND APPLY ARMAFLEX PRESERVATIVE ON ALL INSULATION ABOVE THE ROOF LINE. WHERE REFRIGERANT OR CONDENSATE PIPING RUNS THROUGH RETURN AIR PLENUMS, INSULATION SHALL BE FIRE - RATED ARMAFLEX "AP" 25/50.
4. ROUTING OF ALL REFRIGERANT PIPING SHALL BE PLUMB AND SHALL RUN TRUE WITH THE BUILDING LINES. HORIZONTAL RUNS OF SUCTION LINES OVER 25' SHALL BE PITCHED "ONE - HALF" BUBBLE TOWARD THE COMPRESSOR, FOR OIL RETURN.
5. SUPPORT OF ALL PIPING AT COMPRESSORS, CONDENSERS, AND AIR HANDLING UNITS SHALL BE AS SHOWN ABOVE. SUPPORT OF PIPING IN BETWEEN THE UNITS SHALL BE WITH STRAP MATERIAL, USING ARMAFLEX INSULATION AS SADDLES. NO METAL - TO - METAL CONTACT.
6. BRAZE REFRIGERANT PIPING WITH FLOW OF DRY NITROGEN DURING BRAZING.
7. SOLDER SHALL BE 15% SILVER "SIL - FOS" OR EQUAL.
8. CHANGE FILTER - DRIER CORES AFTER 30 DAYS OF OPERATION.

5 M5.0 REFRIGERANT PIPING DETAIL
NOT TO SCALE



6 M5.0 CEILING FAN DETAIL
NOT TO SCALE



UNIT TYPE	A	B
DRAW THRU	X + 1"	2"
BLOW THRU	1" MIN.	2.0 X

WHERE X = STATIC PRESSURE IN PAN

7 M4.0 AIR HANDLING UNIT CONDENSATE TRAP DETAIL
NOT TO SCALE

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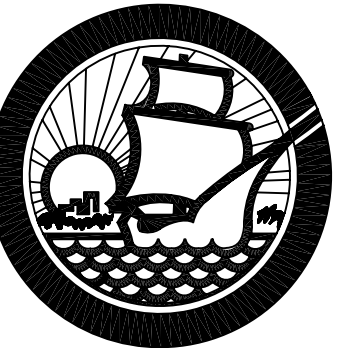
Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida
MECHANICAL DETAILS

Project Number
Drawn by JC/DC/CD
Checked by AJM
Date 06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale 1/8" = 1'-0"
Set
Drawing Number

M5



Facilities Management
1112 Manatee Avenue West
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(941) 748-4501
FAX (941) 742-5880

Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida
MECHANICAL SPECIFICATIONS

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale 1/8" = 1'-0"

Set
Drawing Number

M6

	ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181	SEAL

1. SCOPE

Furnish all necessary labor, materials, and equipment and perform all work called for on the Drawings and specified herein for a complete HVAC ,plumbing, and electrical system with functioning mechanical, general building, and electrical systems and all utility connections as required. Review and consultation with the Project Manager/ Architect is required prior to any work being performed and completed. The demolition scope of work shall be reviewed and consulted with the Project Manager and Architect prior to start of any work.

2. RELATED WORK SPECIFIED ELSEWHERE

All Bidding Documents, including Contract Conditions, Instructions to Bidders, Supplements, and Addendums are part of this specification. Should any questions or conflicts arise, request written clarification from the Engineer of abide the interpretation of the Engineer.

3. CODES AND STANDARDS

The following Codes and Standards are in effect or latest approved by the local jurisdiction for the project:
Florida Mechanical Code
Florida Plumbing Code
Florida Fire Prevention Code
Florida Building Code
National Electrical Code
Florida Energy Code
NFPA Pamphlets
Florida Trench Act
City of Bradenton Local Codes and Ordinances

Should any changes be required to the Drawings or Specifications to comply with these codes, request written clarification from the Architect/ Project Manager or abide by the interpretation of the Architect/ Project Manager. The current edition of each code shall be the one in effect for the project as adopted by the authority having jurisdiction.

4. PERMITS, LICENSES, FEES, AND INSPECTIONS

Obtain, pay for, and maintain all necessary Permits, Licenses, and Certificates of Inspections, pay for all installation charges, plant investment fees that are required by the Local utility company servicing the project.

5. QUALIFICATION OF CONTRACTOR/SUBCONTRACTOR

The Contractor shall be thoroughly experienced in the installation of the HVAC, plumbing, fire protection, electrical, and general building systems shown on the Drawings and specified herein. All work performed by the Contractor shall be of the highest quality. The Contractor shall be responsible for his Subcontractors to see that the systems are installed in accordance with the Drawings and Specifications.

6. WORK METHODS AND CONDITIONS

The Contractor shall be responsible for working conditions on the project, and shall see that no unsafe working conditions or methods are used. The Engineer shall not be responsible for unsafe working conditions or methods used on the project. The Engineer is also not responsible for hazardous materials testing, inspection and remediation of any perceived or actual denoted hazardous material on the job site. It is the responsibility of the Owner to provide proof to the Contractor if any such substance is not on site.

7. ACCESS TO EQUIPMENT

Provide for easy removal of coils, fan shafts, fan wheels, drives, belts, filters, electrical equipment and other parts requiring periodic replacement or maintenance. Arrange for access to all motors, and controls. Provide all access panels in equipment, ducts, walls, ceilings, and floors for same. (ADA) The Americans Disability Act applies to access to all controls, fixtures, and light switches Refer to Florida Building Code for locations of all items.

8. COORDINATION

The Drawings show the general arrangement of the work, piping, equipment, and appurtenances. Follow the Drawings as closely as possible but make necessary offsets, transitions, and fittings that may be required to avoid conflicts. Work shall occur at times beyond the normal Monday-Friday day time schedules; pricing shall include, nights, week-ends, and holiday work to perform change-outs so as not to shutdown the operation of public facilities.

9. GUARANTEE

Guarantee all work against any defects in equipment, material, or workmanship for a period of one year after the final date of acceptance. The guarantee does not include maintenance of equipment.

10. EQUIPMENT SUBMITTALS AND SHOP DRAWINGS

Submit four copies of each of the following submittals to the Engineer for approval:
Piping, valves, insulation, covering.
HVAC Equipment
Solar system, hot water heater, pumps, and specialties
Panel Boards, circuit breakers, receptacles, light switches, wire, conduit, pull boxes
Controls, control valves, wiring, conduit, and panels
Testing and Balancing Booklets
Temperature Controls
Refer to each specification sheet for each discipline's requirements (Electrical, and Mechanical)

11. OPERATION AND MAINTENANCE MANUALS

Provide two minimum copies of the Operations and Maintenance Manuals consisting of three ring binders, plastic pressed base. Provide Manufacturers literature for each piece of equipment including installation instructions, operating instructions, maintenance instructions, replacement parts list, as-built drawings, lubrication schedule, name and address, and phone number of nearest service agency. Verify number of submittals with Project Manager/ Architect.

12. SEISMIC BRACING

All equipment, piping, ductwork, interior and exterior electrical, and appurtenances shall be adequately braced to withstand the lateral forces from the seismic event or weather wind occurrence of a magnitude indicated in the Florida Building Code for the project location. As a minimum this shall include anchoring of all equipment to the walls of floors and double diagonal bracing of every fourth duct, conduit, and pipe hanger.

13. TEMPORARY SERVICES

The Contractor will provide temporary power, water, sewer, utility services and demolition hauling services. If the Contractor interrupts a service, the Owner shall be notified and repairs or temporary service arrangements will commence within an eight-hour period. Scheduling of service outages will be notified to owners. Notification will be at least in written form within 24 hours of the outage, with verbal notification 4 hours prior to the service outage of each affected Owner.

The use of the owner's utilities, heating and cooling system, and restrooms is prohibited unless arrangements have been made, prior to contract signing. An on-site trailer with telephone, and portable restroom, and drinking water, and the demolition container shall be part of the contractor's contract. Waste hauling for excess materials shall be by the contractor. Security of the site will be coordinated with the Owner.

14. MATERIALS AND EQUIPMENT

All materials shall be new and of the highest quality of their respective kinds. The Contractor at no cost to the owner shall replace any material or equipment that is unsound, unfit, or damaged.

15. EXISTING CONDITIONS

The Contractor shall visit the site prior to bidding to verify existing conditions. Resolve any questions prior to bidding. Refer to all documentation provided by the Project Manager / Architect during the pre-bid walk-through for clarifications.

16. WORKMANSHIP AND COMPLETION OF INSTALLATION

The Contractor shall be skilled in the trades performed and shall be responsible for a complete and proper installation of all work required for the project. If the contractor damages a portion of the existing facility, he will correct at no expense to the Owner all damages to the original condition including painting and landscape. The Contractor shall also correct at no expense to the Owner all errors in installation and repair all leaks in piping and equipment. The Contractor shall follow the approved manufacturer's recommendations and instructions where details of specific installation instructions are not provided.

Close all pipe, duct and conduit openings with caps or plugs during installation. Protect and store on-site in a secure area all materials, fixtures, and equipment against dirt, water, chemical, vandalism, theft, and mechanical damage. Thoroughly clean all surfaces in areas of work upon completion, and deliver in perfect, unblemished condition the project. Store all equipment as required by the manufacturer's instructions including the covering and storing in a container if need be.

The Contractor shall receive all materials including the unloading of materials to a mutually agreed location with the Owner on-site.

Install all safety devices, request inspection, and obtain approval of the authority having jurisdiction, before placing systems in operation

Demolition includes the following work: disconnect, demolish and remove the work specified, and as indicated. Where pipe, ductwork, insulation, or equipment to remain is damaged or disturbed, remove damaged portions and install new products of equal capacity and quality. Equipment removed by the contractor shall be the contractor's responsibility for clean up, hauling and salvage.

All backfill shall be screened, clean, and removed of rocks, and waste material. Elevations shall match existing. All new grass/ sod shall be St Augustine sod. The existing PVC sprinkler system shall be rerouted and repaired in the area of work.

The Owner, and Project Manager/ Architect have full power to condemn or reject any work, materials, and equipment not in accordance with the specifications, and drawings or not in compliance with the manufacturer's installation instructions which are approved by the Owner, and Project Manager/ Architect. Work that has been rejected shall be removed and replaced to the satisfaction of the Owner, and Project Manager/ Architect. All decisions made by the Owner, and Project Manager/ Architect shall be stated in writing, and made binding upon the parties thereto.

17. FINAL ADJUSTMENT

Check equipment for proper operation and complete final adjustments prior to final inspection. After the final acceptance make all necessary adjustments to obtain satisfactory operation of the systems in operation.

18. ACCEPTANCE TESTS

Upon completion of final adjustments, demonstrate to Owner, and the Engineer the operation of each system on simulated operation cycles.

19. OWNER OCCUPANCY

The Owner shall occupy the site in adjacent existing buildings during the entire construction period. The contractor and subcontractors shall cooperate and coordinate all work with the Owner, and Project Manager/Architect during construction operations to minimize conflicts and facilitate Owner usage. Perform the work as to not interfere with the Owner's operations.

20. MISCELLANEOUS PROVISIONS

Minor materials and work not specifically mentioned herein but necessary for the Proper completion of the specified work shall be furnished and installed at no additional cost to the owner.

Should deteriorated materials of major nature be uncovered in the course of work, it should be brought to the attention of the Owner and Project Manager/Architect prior to the initiating any repairs. Repairs by the Contractor shall be made as approved in the scope and pricing by the Owner and Project Manager/ Architect.

No allowances for contract completion times shall be made for these repairs. Should the equipment or material be beyond repair, an adjustment will be considered at the convenience to the Owner, and Project Manager/Architect.

21.EXISTING WORK/ CLEAN UP

Where existing work is changed, removed, or where new work adjoins, connects or abuts to existing work, the existing work shall be altered as necessary and connected in a substantial and workmanship like manner. All new work and replacement, reinstalled work, and repairs shall match the adjacent and/or similar work. Protection of existing areas shall be taken. Clean up by the contractor shall be done and reviewed by the Owner, and Project Manager/ Architect for acceptance. The Owner and Project Manager/Architect has full rights to reject any and all work performed including clean up.

22. NO SMOKING / NO INTERACTION

There shall be no smoking by the Contractors and subcontractors allowed on the facility campus at any time unless specifically arranged. There shall be no interaction with the employees of the Owner, and the contractors.

23. OSHA

All work shall comply with the US Department Of Labor – Occupational Safety and Health Administration, entities OSHA Standards. National Consensus Standards, and Established Federal Standards.

24. CONTRACTOR'S BID LIST

The contractor shall provide a list of all subcontractors used with each major trade for the site security used on the project.

25. EXCAVATION AND BACKFILLING

The Contractor shall do all required excavation for underground piping/conduit and shall repair or pay for any damage to streets, alleys, sidewalks, floors, walls and landscaping. Trench grades to slope uniformly. Backfilling and concrete and structural repair shall be completed. Backfilling shall be a minimum of 95% compaction. Asphalt repairs and patches shall be made in paved areas. The contractor shall be responsible for all dewatering processes for the proper excavation of the areas. All dewatering of areas shall be the responsibility of the excavation contractor.

26. PIPE/CONDUIT HANGERS

Type adjustable clevis with threaded rod. Roller type shall be used for expansion of piping or conduit. Shields semi-circular sheet metal, 18 gage under insulation. Materials, steel for all piping except copper, copper plated steel for copper piping. All piping shall be cross-braced for seismic support.

27. PIPE /CONDUIT SLEEVES

Material shall be schedule 40 steel welded. Wall sleeves flush on both sides of wall. Floor Sleeves shall be flush on bottom side of floor, 1/4" above floor on topside. Caulking 3M fire barrier foam or caulk, UL Labeled for rating of penetration. Finish plates, chrome plated for all exposed pipe/ conduit penetrations.

28. VALVES

Gate, Stockham, Model B-107 or B-109, solid wedge, 125 psig, bronze body, rising stem, soldered or threaded ends.
Ball, Apollo, chrome plated ball, screwed or soldered ends, 150 psig, bronze body, swing away design, full port, Teflon seats, lock handle.
Globe, Stockham B-29, 150 psig, bronze body, rising stem, union bonnet, plug disk, removable seat, threaded or soldered ends.
Eccentric Plug, Dezurik, Series 400, semi-steel plug and body, lever operated with adjustable memory stop. Or Miliken.

Check, Stockham, Model B-310 or B-320, 125 psig, bronze body, swing type, compression disk, soldered or threaded ends.
Butterfly, Dezurik or Lunkenheimer, Model 632 semi-steel body and disk, resilient seat, lug type, lever operated, memory stop, 125 psig.
PRV, B&G, Taco, spring operated, adjustable pressure setting, integral strainer.
Control Johnson, Penn, Delta , Belimo, Fischer , Fisher

29. MOTORS

Manufacturers: Reliance, General Electric, Baldor open drip proof or TEFC , suitable for continuous or intermittent operation unless specified. NEMA Design B minimum, Class F insulation for Variable speed drive motors. Nema 3R minimum installations for exterior use.
Service Factor: Minimum of 1.15 at 40 degrees C, full load and at project altitude.
Conformance: NEC, AIEE, NEMA.
Features: Ball bearings, conduit connection boxes, cast iron yoke, intergal supporting feet, grease lubricated bearings, accessible grease inlet and outlet plug and inner bearing dust caps.
Voltage : Motors 1/2 HP and larger shall be the voltage and pahse shown on the plans. Motors smaller than 1/2 HP shall be 120 volts, single phase, 60 cycle.
Speed: 1750 RPM unless noted otherwise.
Efficiency: Meet or exceed ASHRAE Energy Standards, latest edition.
Voltage Motors shall be designed to operate satisfactorily at voltages +/- 10 % of the designated voltage.
Sheave: adjustable slide rails.
Motor Mount: adjustable slide rails.
Belts: matched set rated at 150% of maximum load.
Guards: around belts with holes for Tachometer placement.

30. STARTERS

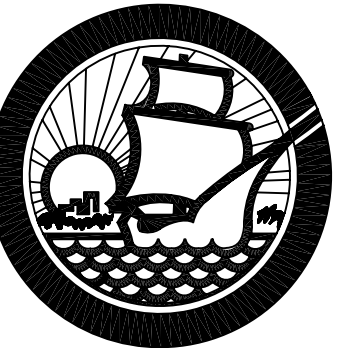
Type Magnetic.
Location: for each three phase motor.
Transformer: 120 volt control power for each starter unless coordinated by Temperature control contractor as low voltage or dc voltage.
Overload Protection, Manual reset type for each leg.
Conformance: NEC, NEMA, AIEE

31. HANGERS AND SUPPORTS

Support the vertical lines and conduit at the base with a suitable hanger or a pedestal. Install inserts in concrete structures for hanging of pipe or conduit. Hang piping or conduit from lower cord of steel beams or joists in steel frame buildings. Drilling into concrete structures for means of hanging pipe or conduit will be allowed only if the structural engineer approves. Install hangers so as not to interfere with expansion and contraction of the piping. Space hanger installations in accordance with MSS SP-69 and the Florida Building Code.

32. INSTALLATION OF PIPING OR CONDUIT

Support all piping from the structure.
Make minor modifications to the Drawings to coordinate with other work.
Install all piping or conduit in a neat, workmanlike manner.
Verify that all piping, conduit, boxes, devices, valves, etc. will fit in the designated space.
Request clarification if pipe size is not apparent.
Run piping or conduit concealed in all finished areas unless noted otherwise.
Run piping or conduit vertically within walls where shown near walls for clarity.
Do not run horizontal pipes and conduit in walls or partitions.
Install exposed risers and runouts as close to the wall or ceiling as practical.
Piping and conduit shall not interfere with other work, door or window.
In general, run piping and conduit parallel or perpendicular with building lines.
Run horizontal lines horizontal or with uniform pitch as indicated.
Run vertical lines exactly plumb.
Cut piping and conduit accurately on the site.
Anchor all piping and conduit securely at the site.
Install piping without strain, forcing or cold springing.
Make all changes in direction with factory-fabricated fittings (except underground).
Install no underground fittings for pressurized systems and other systems.
Replace all defective pipe, and fittings for pressurized systems.
Handle piping, and conduit carefully to prevent bending and damage.
Clean all pieces before installation.
Furnish all temporary connections that are required.
Patch all holes in walls, ceilings, and floors required for installation of work under this Division.



Facilities Management

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33. INSULATION – PIPE

Manufacturers: Armstrong, Johns Manville, Owens Corning, CSG
Insulation Requirements: The following systems shall be insulated as specified:
Domestic Cold water piping interior with ½” fiberglass with aluminum exterior or interior foil and paper jacket to 1 ¼” or ½” flexible armatex elastomeric insulation Domestic Hot Water piping interior with ½” fiberglass with aluminum exterior or interior foil and paper jacket to 1 ¼” or ½” flexible armatex elastomeric insulation
Sanitary Drains with 1” fiberglass with PVC jacket kit if exposed for ADA. Plumbers, Refrigerant or gas piping exposed with 2” fiberglass with PVC Cover Refrigerant suction interior piping with ¼” armatex insulation
Install insulation continuous through walls, floors, ceiling, and roofs.
Seal vapor barriers on all systems carrying fluids below 70 degrees F.
Do not use staples on vapor jackets.
Follow manufacturer’s installation instructions carefully.
Do not exceed the recommended adhesive coverage.
Leave all insulation surfaces clean and ready for painting.
Seal all exposed butt ends of insulation with adhesive.
Seal all transverse and longitudinal joints with pressure sensitive tape.
Use a semicircular shield at all piping hangers and supports.
Cover and insulate all valve extensions.

34. PLUMBING PIPING AND SPECIALTIES

Plumbing piping systems within the building including the following: Potable water distribution, including cold and hot water supply and hot water.
Drainage and vent systems, including sanitary.
Engineered drainage systems including combination waste and vent systems.
Plumbing specialties for water distribution systems; soil, waste, and vent systems.

Compliance: ASME B31.9. and Florida Plumbing Code with amendments

Piping System Working Pressure Ratings:
Water Distribution Systems, Below Ground: 150 psig.
Water Distribution Systems, Above Ground: 125 psig.
Soil, Waste, and Vent Systems: 10 foot head of water.
Sanitary Sewage, Pumped Piping Systems: 75 psig.

Pipes and Tubes:
Hard Copper Tube: ASTM B 88, Types K, L, and M, water tube, drawn temper.
Soft Copper Tube: ASTM B 88, Types K and L, water tube, annealed temper.
Copper Drainage Tube: ASTM B 306, Type DWV, drawn temper.
Steel Pipe: ASTM A 53, Type S, Grade A, Schedule 40, galvanized, plain ends.
Ductile-Iron Pipe: AWWA C151, Classes 50 and 51, mechanical joint and push-on joint, with AWWA C104 cement-mortar lining.
Flanged Ductile-Iron Pipe: AWWA C115, ductile-iron barrel, Class 150 or 300 iron-alloy threaded flanges, with AWWA C104 cement-mortar lining.
Hub and Spigot, Cast-Iron Soil Pipe: ASTM A 74, service class.
Hubless, Cast-Iron Soil Pipe: CISPI 301.
CPVC Plastic Pipe and Tube: ASTM D 2846, SDR 11, plain ends.
CPVC Plastic Pipe: ASTM F 441, Schedules 40 and 80, plain ends.
PVC Plastic Water Pipe: ASTM D 1785, Schedules 40, 80, and 120; plain ends.
PVC Plastic DWV Pipe: ASTM D 2665, Schedule 40, plain ends.

Fittings and Valves:
Pressure and Drainage Fittings for Pipe and Tubes: Suitable for working pressure, pipe, tube, and service.
Joining Materials: Solder, brazing and welding filler metals; couplings.
Valves: Gate, globe, ball, butterfly, and check valves suitable for service.

Plumbing Specialties:

Thermostatic Water-Mixing Valves: ASSE 107, manually adjustable.
Water-Tempering Valves: Manually-adjustable, thermostatically-controlled.
Miscellaneous Piping Specialties: Strainers, hose bibbs, wall hydrants, hose-end drain valves; water hammer arresters, trap seal primer valves, horizontal backwater valves, stack flashing fittings, vent caps, vent terminals, roof flashing assemblies.
Cleanouts: Cast-iron cleanouts, ASME A112.36.2M. Plastic cleanouts.
Floor Drains: Cast-iron floor drains, ASME A112.21.1M; cast-iron deep seal traps; related fittings.
Wastewater removal systems: suitable for service.
Sieve Penetration Systems: UL 1479, through-penetration firestop assembly.

35. WATER EQUIPMENT TANKS

Commercial water heaters for potable water heat systems.

QUALITY ASSURANCE

Compliance, Water Heaters: UL 174, 732, 778, 1261, 1453; NSF 5; ASME Code Compliance.

PRODUCTS

Steel, Precharged Water Storage Tanks: Butyl-rubber diaphragm, Butyl-rubber
Bladder operation, ASTM Code steel construction of suitable size and capacity.

Accessories: Tappings, valves, gages, controls, compression stops.

Water Heaters:

Point-of-Use Tankless Electric Water Heaters: Automatic type, wall-mounted tankless type with integral controls.
Electric Water Heaters: Automatic type, vertical 150 psig rated storage tank, integral controls, drain valve, relief valve.
Accessories: Valves, gages, drain pan, drain valve, concrete base.

36. PLUMBING FIXTURES

Plumbing fixtures and trim, fittings, and related accessories and appliances.

Compliance: ANSI A117.1; Applicable accessibility regulations, SBCCI Building Code and Plumbing Code.

Plumbing Fixtures: Refer to plumbing schedule.

Water Closets: Consumption per flush cycle, material, bowl type, mounting, outlet, rim height, tank type, trim suitable for service required.
Urinals: Consumption per flush cycle, material, floor mounting and wall hanging types, outlet, trim suitable for service required.
Lavatories: Material, mounting, fittings and accessories suitable for service required.
Sinks: Material, type, wall and counter mounting type, fittings and accessories suitable for service required.
Showers: valves, showers, ADA fittings and hoses suitable for service required.
Water Coolers: ARI 100, type, capacity, and fittings suitable for service required.
Wash Fountains: Type, mounting, fittings suitable for service required.
Outlet Boxes: Material, hose bibb shutoff, recessed wall-mounting, fittings suitable for service required.
Toilet Seats: Compatible with water closet.
Flushometers: Water closet and urinal types.
Commercial Faucets: Cast-brass faucets.
Commercial/Residential Faucets: Cast-brass and cast-brass underbody faucets.
Bath/Shower Pressure Balance Faucets: Button type with air hose, diverter valve for ADA units.
Fittings, Except Faucets: Supplies, stops, traps, continuous wastes, and escutcheons.
Supports: ASME A112.6.1M, categories and types as required for fixtures required, including wall reinforcement.
Wastewater removal system: aluminum cast, with epoxy coating, inlet filter.
Single pump, removable, 120 volt plug in type, wall switch, outlet valve, check valve, float switch, vent with unions on above grade connections. removable filter and lid.

37. CONDENSATE DRAIN PIPING

Pipe Type L drawn copper water tube with 95/5 solder, or schedule 40 PVC painted pipe

Fittings Wrought Copper, or solvent welded PVC schedule 40 fittings
Joints sweat soldered copper type, or solvent welded PVC
Wet well, refer to detail for size and location of invert

38. REFRIGERATION

Refrigerant piping for air conditioning applications.
Compliance: ASME Code, ASME B 31.5, ARI 760.

Products, Fittings, and Specialties:
Pipes, Fittings, and Specialties:
Copper Tubing: Type L, ASTM B 280, Type ACR, dehydrated and sealed
Fittings: long radius Wrought-copper, ANSI B16.22 or forged brass
Joining Materials: AWS A5.8, BA9-1 silver brazing filler metals Braze type with silver solder for suction and liquid lines, braxe with copper phosphorus alloy solder on hot gas lines
Specialties: Moisture/liquid indicators, filter-driers, suction line filter-driers, suction line filters, flanged unions, flexible connectors, precharged and preinsulated tubing.
Refrigerant: R-410a PURON, ASHRAE 34.
Valves: Manufacturer: Alco, Sporlan, Henry
General Duty Valves: Globe, and check valves suitable for use.
Special Duty Valves: Solenoid valves, evaporator pressure regulating valves, thermal expansion valves, hot gas bypass valves.

39. TESTING OF REFRIGERATION SYSTEM

Manufacturer shall provide factory start-up service and test all refrigeration systems. Test all refrigeration piping to a pressure of 300 psig with dry nitrogen. Test all joints with a leak detector. After the system has been proven tight. Evacuate the system with a high efficiency vacuum pump three times to .2” Hg absolute. Allow the system to stand under vacuum for 24 hours. If the vacuum of 0.2” Hg absolute can be drawn within 30 minutes, the system may be considered dry. If not repeat the procedure. Break the final vacuum by charging then system with the proper refrigerant.

40. SHEET METAL DUCTWORK

All sheet metal ductwork for the supply, return and exhaust HVAC systems shall be prime, quality, hot dipped galvanized (zinc coated) sheet metal. Ducts will be carrying air at the velocities less than 2000 fpm, and 1.5” ESP. Ducts for the exhaust system shall carry air at less than 1500 fpm velocity and 1” ESP negative. All ductwork shall be installed in accordance with SMACNA Duct Construction Standards.

41. INSULATION – SHEET METAL & EQUIPMENT

Mechanical Insulation Types:
Equipment Insulation: Glass fiber, Flexible elastomeric cellular type.
Duct and Plenum Insulation: Glass fiber, Flexible elastomeric cellular type.

Mechanical Insulation Materials:

Glass Fiber Insulation: Inorganic glass fibers bonded with thermosetting resin; board type, ASTM C 612, Class 2, semi-rigid jacketed board; blanket type, ASTM C 553, Type II, Class F-1, jacketed flexible blankets; preformed pipe insulation, ASTM C 547, Class 1, rigid pipe insulation, jacketed. 2 # per CF density

Flexible Elastomeric Cellular Insulation: Flexible expanded closed-cell structure with smooth skin on both sides; tubular materials, ASTM C 534, Type I; sheet materials, ASTM C 534, Type II.

Insulation Accessories: Insulating cements, adhesives, jackets, glass cloth and tape, bands, wire, and sealing compounds suitable for service and exposure.

Manufacturers: Armstrong, Johns Manville, Owens Corning, CSG or approved equal
Insulation Requirements: The following systems shall be insulated as specified:

All sheet metal and grilles and diffusers shall be insulated with 1” thick foil faced fiberglass insulation min 4.6 R per inch to prevent sweating. Install insulation continuous through walls, floors, ceiling, and roofs. Seal vapor barriers on all systems carrying fluids below 70 degrees F. Do not use staples on vapor jackets.
Follow manufacturer’s installation instructions carefully. Do not exceed the recommended adhesive coverage. Leave all insulation surfaces clean and ready for painting. Seal all exposed butt ends of insulation with adhesive. Seal all transverse and longitudinal joints with pressure sensitive tape.

42. SPIN IN FITTINGS

Manufacturer General Environment Corp., Series SM
Type Sheet metal collar with quadrant damper

43.FLEXIBLE DUCT

UL 181 class 1, insulated, factory fabricated, with an outer Mylar Jacket enclosing 1 ½” glass fiber insulation and inner polyethylene liner Steel helix reinforcement. Maximum lengths of 1foot is allowed for connection to the exhaust fan to prevent vibration.

44. AIR INLETS AND OUTLETS

Except as otherwise indicated, provide Manufacturer’s standard industrial registers where shown; of size, shape, finish, capacity, accessories, and type indicated. Provide the registers which have the noise criteria rating, throw, pressure drop as indicated on the schedule and manufacturer’s current catalog work sheet. Provide and install complete of the following manufacturers:
Metal Industries, Inc; Metaloire
Krueger Mfg., Co.
Titus Products Div., Philips Industries, Inc.
Price Mfg.

45. MANUAL VOLUME DAMPERS

Manufacturers: American Warming and Ventilating, Dowco, Louvers and Dampers, Inc. United Enertech Corp.
Model: United Enertech Model H420
Type: Opposed Blade
Material: Galvanized steel
Bearings: Stainless steel sleeve type
Blade seals: PVC
Jamb seals: Flexible stainless steel

46. EXHAUST FANS

Manufacturer: Greenheck or approved equal
Model: as scheduled
Capacity: as scheduled
Type: direct drive centrifugal exhauster, manual damper, special coating, disconnect and items as scheduled.
Mounting: Isolated with vibration units
Enclosure: baked enamel finish, heavy gauge aluminum.
Controls: as sequence is stated, internal wiring to motor from exterior unit mounted connection box
Motors: totally enclosed fan cooled, ball bearing type

47. COOLING COILS (SPLIT SYSTEMS 5 TONS OR LESS)

Manufacturer Trane, York
Model as scheduled
Capacity as scheduled
Material Aluminum fins on non ferrous tubing with brazed joints
Air seals: Factory installed on all edges of cooling coil
Control: capillary tube on thermal expansion valve
Plenum: double wall Sheet metal with interior insulation and baked enamel finish
Drain pan with condensate fitting Stainless steel, with Ag-ion coating

48. CONDENSING UNITS (SPLIT SYSTEM 5 TONS AND LESS)

Manufacturer Trane, York
Model as scheduled

Capacity as scheduled
Controls as scheduled
Compressor welded or machined hermetic reciprocating or scroll with internal vibration isolation and sound muffling shield
Condenser coil Aluminum fins on aluminum tubing
Condenser fan direct drive fan with multiple speed control, propeller blade, weatherproof motor with accessories as scheduled
Concrete pad
Warranty one year for all parts and labor, four years on all compressor parts

49. TESTING, ADJUSTING, AND BALANCING

All work performed under this section shall be performed by a competent personnel employed by an independent balancing contractor or the Mechanical contractor. In either case, the personnel shall be certified by NEBB or AABC. Inspect the installation of various systems. The inspection of the work shall cover the part of the work relating to the proper arrangement and adequate provisions for the testing and balancing of the systems. Record all pertinent data in a final report and submit three copies to the Engineer for review.

50. IDENTIFICATION

The contractor shall tag each valve, place nameplates riveted to or glued to each piece of equipment. Each tag shall bear it’s identification with the Owner receiving a typewritten copy in the operations and maintenance instructions. All exhaust duct shall be painted / stenciled with an identified with a color black and white flow arrows and with types of systems installed.

51. FAN COIL UNITS

Manufacturer Trane, York
Model as scheduled
Capacity as scheduled
Controls as scheduled
Coating galvanized steel with baked enamel finish, panels removable insulated panels
Drain pan under coils with outlet piped to exterior of unit. pan is ss type with shut off switch, pan material coated with Ag-ion material

Insulation min 1” thick fiberglass
Blowers single blower, direct drive with multispeed control system, permanently lubricated bearings, forward curve
Coil aluminum fins and copper tubes
Filters cleanable with aluminum frame, 1” thick min.
Accessories as scheduled

52. ELECTRIC HEAT PRODUCTS

Manufacturer Chromalox, Singer, Airtherm, Trane, Dell, Warren
Products Heaters
Models as scheduled

53. LOUVERS

Manufacturers Greenheck, Ruskin, Louvers and Dampers
Model as scheduled
Hurricane type as required by the Florida Building Code
Type Stationary, 4” or 6” or 8” with insect screen
Size as indicated on the drawings
Frame as required for the type of construction
Material aluminum or steel with kynar finish color as selected by Architect or from standard finishes
Ratings .10” wc maximum pressure drop at 500 fpm face velocity, max water penetration of 0/01 ounces per square foot at 1000 fpm free area velocity, bird screen required

54.TEMPERATURE/ HUMIDITY CONTROLS
Furnish and install a complete and operational automatic control system in accordance with the equipment shown on the plans and specified herein.
Provide and install all necessary wiring, conduit, low voltage transformation, relays, controls, panels, pull boxes, dampers, and motors for the automatic control systems tied to the manufacturer’s control equipment in the unit. All exterior wiring shall be in conduit. All control wiring shall be a min.18 ga copper.
Approved Manufacturers: Trane, Co., York, Johnson Controls with remote control panels.
AHU shall operate based upon the programmable wall thermostat/ humidistat.
When the AHU fan comes on the outside air damper shall open and close when the unit is off.
The building and ADA restroom exhaust fans shall be on a control switch control by the electrical contractor. The back draft damper is manual in both cases.
Outside air make up for exhaust shall be by louvers and transfer grilles from the outside eave areas through back draft dampers.
The cabinet heaters shall operate from built in thermostats. Summer/ winter fan switches are installed on units for summer ventilation and winter heating and ventilation.

Rev.	Date	Remarks

East Bradenton Community Center
 1119 13th Street East
 Bradenton, Florida
 MECHANICAL SPECIFICATIONS

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09

ALAN J. MERONEK AR 91853 Expires: FEB. 28, 2011	
Scale	1/8" = 1'-0"

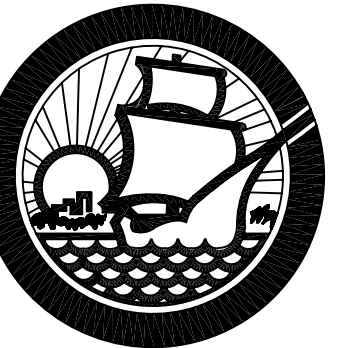
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ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

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ABBREVIATIONS, LEGENDS AND GENERAL NOTES

ABBREVIATIONS

AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSE POWER
BTUH	BRITISH THERMAL UNIT PER HOUR
BOT	BOTTOM
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWS	CHILLED WATER RETURN
CHWR	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEANOUT
CT	COOLING TOWER
CU	CONDENSING UNIT
CW	COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DG	DOOR GRILLE
DI	DIGITAL INPUT
DN	DIGITAL OUTPUT
DO	DOWN
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECC	ENERGY CONTROL CENTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ET	EXPANSION TANK
EL	ELEVATION
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWI	ENTERING WATER TEMPERATURE
EXIST	EXISTING
F DPR	FIRE DAMPER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FL	FLOOR
FPI	FINS PER INCH
FPF	FINS PER FOOT
FPM	FEET PER MINUTE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDITY
HB	HOSE BIBB
HC	HEATING COIL
HE	HEAT EXCHANGER
HP	HORSE POWER
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MD	MOTORIZED DAMPER
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
OA	OUTSIDE AIR
OS&Y	OUTSIDE SCREW & YOKE
PD	PRESSURE DROP
PRESS	PRESSURE
RA	RETURN AIR
RD	ROOF DRAIN
RL	RAIN LEADER
RTU	ROOF TOP UNIT
S	SANITARY
SEER	SEASONAL ENGINEERING EFFICIENCY RATIO
SD	SMOKE DAMPER
SA	SUPPLY AIR
SP	STATIC PRESSURE
T	TEMPERATURE
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THRU ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEANOUT

SYMBOLS

	VALVE -- SEE SPECIFICATIONS FOR TYPE, GATE VALVE WHEN NOT SPECIFIED.
	GATE VALVE
	GLOBE VALVE
	PRESSURE REDUCING VALVE
	OS&Y VALVE
	CHECK VALVE
	BACK WATER VALVE
	BACK FLOW PREVENTER
	UNION
	BUTTERFLY VALVE
	BALL VALVE
	GAS COCK
	STRAINER
	EXPANSION JOINT
	GRADE CLEANOUT IN--LINE
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	PIPE ANCHOR
	FLOW DIRECTION
	PRESSURE GAUGE
	HAMMER ARRESTOR (PDI SIZE INDICATED)
	TEMPERATURE GAUGE
	SAFETY OR PRESSURE RELIEF VALVE
	ANGLE GLOBE VALVE
	MANUAL AIR VENT
	CLEANOUT EXPOSED
	FLOOR CLEANOUT
	GRADE CLEANOUT END--LINE
	CAPPED OUTLET
	VALVE IN RISER
	GATE VALVE W/ ADAPTER TO 3/4" HOSE THREAD
	P--TRAP
	HOSE BIBB W/ VACUUM BREAKER
	WALL HYDRANT W/ VACUUM BREAKER
	FLOOR DRAIN
	ROOF DRAIN

NOTE

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

PIPING AND CONNECTIONS

	NEW SOIL OR WASTE PIPING
	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE REMOVED
	VENT PIPING
	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	CHEMICAL RESISTANT PIPING
	FIRE PROTECTION PIPING
	GAS PIPING
	OXYGEN PIPING
	AIR PIPING
	NITROGEN PIPING
	VACUUM PIPING
	NITROUS OXIDE PIPING
	IN--LINE UP CONNECTION
	END--LINE UP
	IN--LINE DOWN/UP CONNECTION
	END--LINE DOWN CONNECTION
	BOTTOM CONNECTION, 45 OR 90 DEG.
	TOP CONNECTION, 45 OR 90 DEG.
	CROSSING BOTTOM CONNECTION
	SIDE CONNECTION
	Y--1/8 BEND
	TEMPERED WATER

DRAWING SYMBOLS

	DETAIL NUMBER
	DRAWING NUMBER WHERE DRAWN
	SECTION LETTER
	DRAWING NUMBER WHERE DRAWN
	POINT OF INTERFACE BETWEEN NEW & EXISTING
	POINT OF DEMOLITION
	POINT OF INTERFACE BETWEEN CONTRACTORS

GENERAL NOTES

- CONTRACTOR SHALL PROVIDE COMPLETE PLUMBING SYSTEMS AS DETAILED ON THESE DRAWINGS. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
- ALL PLUMBING WORK SHALL BE DESIGNED, INSTALLED, TESTED, AND CLEANED IN ACCORDANCE WITH FLORIDA PLUMBING CODE REQUIREMENTS.
- VERIFY THE EXACT LOCATION OF EXISTING SOIL, WASTE, VENT, HOT AND COLD WATER PIPING MAINS FROM THE ACTUAL JOB SITE. ALL NEW LINES ARE TO BE ROUTED TO AND/OR FROM VERIFIED LOCATIONS. TAPS, WHEN NOT PROVIDED BY PREVIOUS INSTALLER, ARE TO BE PROVIDED BY THIS INSTALLER.
- MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
- WHERE VALVES OCCUR ABOVE DRYWALL OR PLASTER OR ARE CONCEALED BEHIND WALLS, THIS CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS. PANELS SHALL MATCH EXISTING.
- THE INSTALLER SHALL VISIT THE JOB SITE AND INSPECT ALL EXISTING CONDITIONS AFFECTING THE WORK. SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
- THE PLANS AND DIAGRAMS OF PLUMBING PIPING ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. INSTALLER SHALL COORDINATE AT SITE WITH ALL PLUMBING, HVAC, FIRE PROTECTION, AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THIS CONTRACT OR THAT MAY BE EXISTING.
- PROVIDE AND MAINTAIN TEMPORARY CONNECTIONS TO KEEP EXISTING UTILITIES IN SERVICE. ANY SHUT DOWNS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- EXACT LOCATION NUMBER AND TYPE OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS. VERIFY SUCH LOCATIONS BEFORE PROCEEDING ROUGH-IN.
- INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
- PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR PIPING METALS.
- FIELD VERIFY ALL EXISTING PIPE SIZES PRIOR TO INSTALLATION.
- NO VENT THRU ROOF SHALL TERMINATE CLOSER THAN 10 FT. TO ANY OUTSIDE AIR INTAKE.
- ALL SANITARY AND WATER PIPING UNDERGROUND SHALL BE A MINIMUM OF 18" BELOW GRADE OR FINISHED FLOOR UNLESS NOTED OTHERWISE.
- PIPING IN CONCRETE BLOCK WALLS SHALL BE INSTALLED AS BLOCK IS BEING LAID. DO NOT CUT BLOCK WALL.
- PROVIDE ALL SINKS AND LAVATORIES WITH SLIP JOINT TRAP FITTINGS FOR CLEANOUT.
- THE ENGINEER HAS MADE AN EXTENSIVE EFFORT TO IDENTIFY ABOVE CEILING CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO ALSO CHECKING FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE(1) YEAR FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.
- CONTRACTOR SHALL PROVIDE CUT SHEETS OF MAJOR EQUIPMENT AT TIME OF PERMIT APPLICATION TO THE BUILDING DEPARTMENT.

Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida

PLUMBING LEGEND and GENERAL NOTES

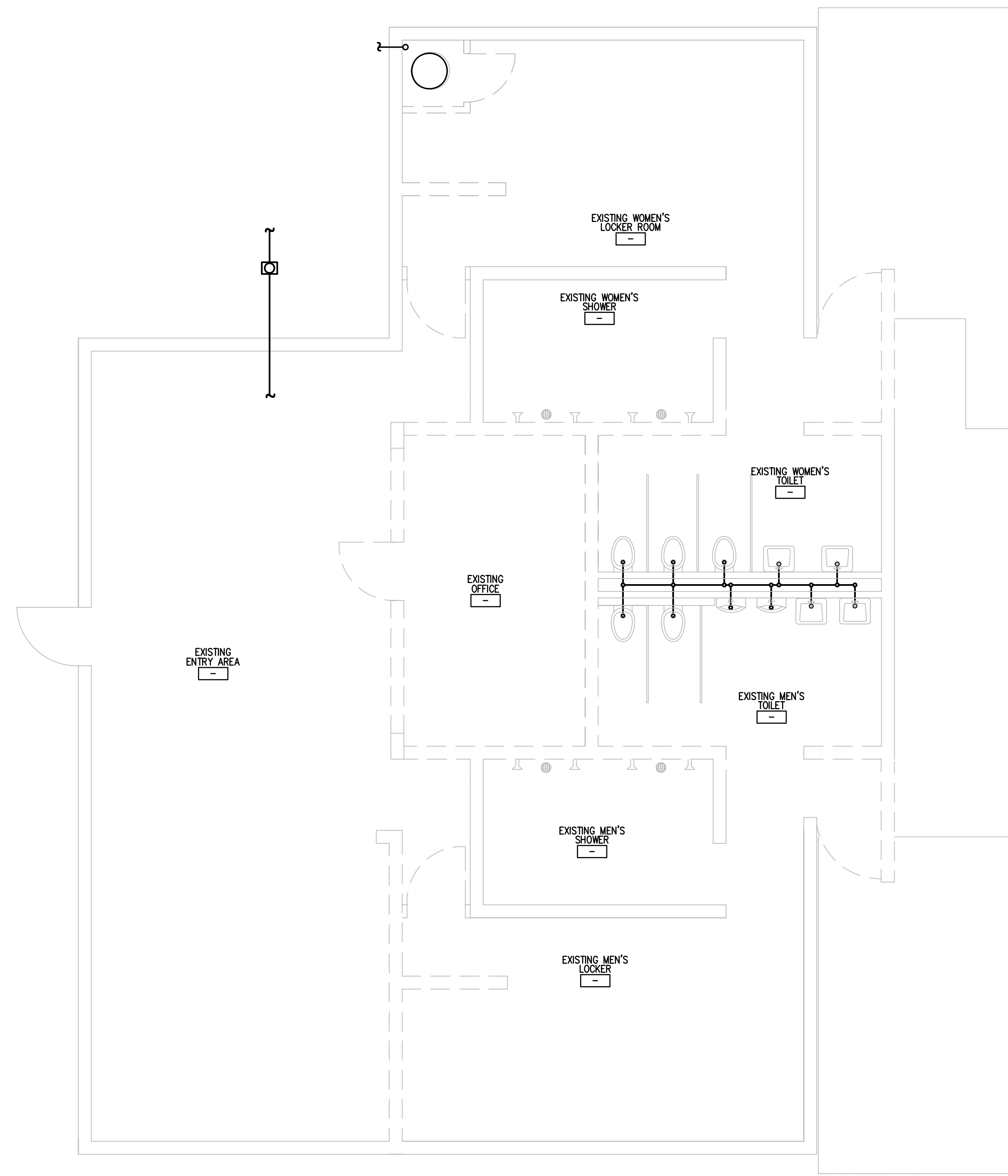
Project Number
Drawn by JC/DC/CD
Checked by AJM
Date 06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale
1/8" = 1'-0"

Set

Drawing Number
P1

	SEAL
	<p>ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181</p>



PLAN NOTES

- ① REFER TO THE PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ② FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK . REFER TO ARCHITECTURAL PLANS FOR DEMOLITION WORK.

1
P2 **PLUMBING DEMOLITION PLAN**
1/4"=1'-0"

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Rev.	Date	Remarks

East Bradenton Community Center
 1119 13th Street East
 Bradenton, Florida
PLUMBING DEMO PLAN

Project Number
 Drawn by **JC/DC/CD**
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 Date **06/01/09**

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East Bradenton Community Center
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PLUMBING NEW PLAN

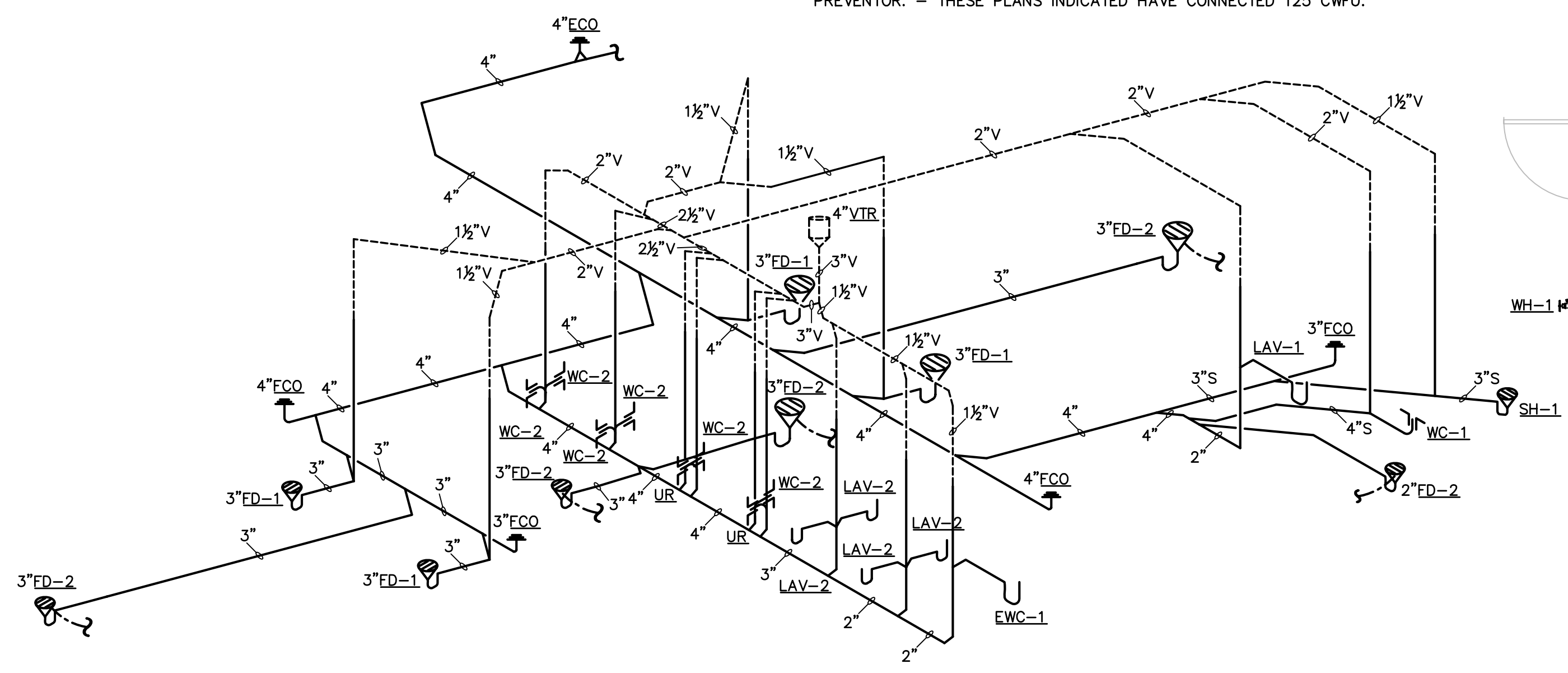
Project Number
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ALAN J. MERONEK
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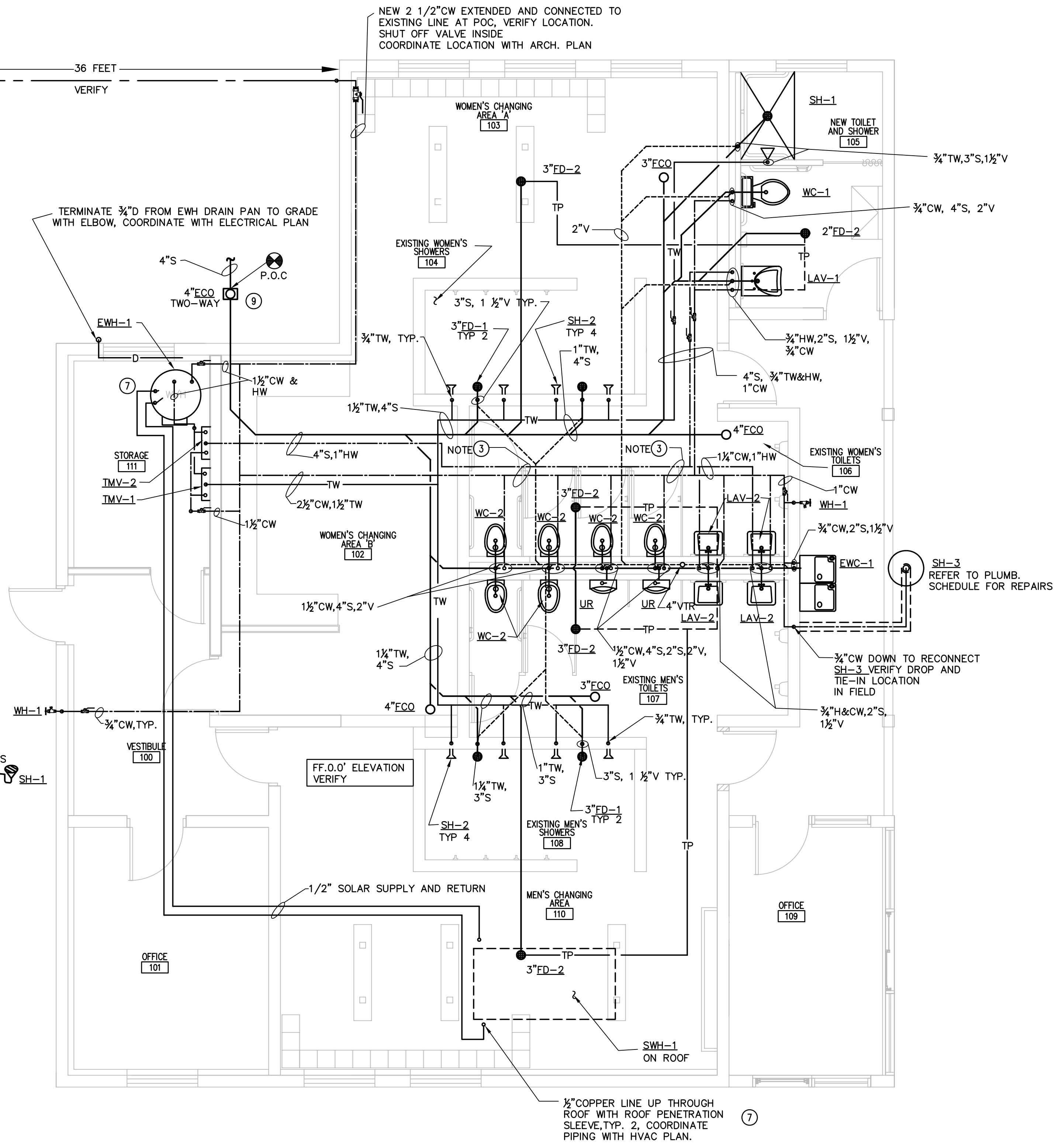
P3

PLAN NOTES

- 1 REFER TO THE PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- 2 FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK . REFER TO ARCHITECTURAL PLANS FOR DEMOLITION WORK.
- 3 2" CW, 1" HW
- 4 WRAP ALL UNDERGROUND IN SLAB COPPER PIPE WITH 1/2" ARMAFLEX TO PREVENT DAMAGE. NO JOINTS ARE ALLOWED IN CW UNDERGROUND PIPING TO FIXTURES.
- 5 INSULATE ALL HOT AND COLD WATER PIPING IN ACCORDANCE WITH SPECIFICATIONS.
- 6 ALL ROOF DRAINAGE SYSTEMS BY OTHERS. REFER TO ARCHITECTURAL PLANS.
- 7 REFER TO SOLAR MANUFACTURER PLANS FOR PIPING OF SOLAR HOT WATER HEATER UNIT.
- 8 SEE SANITARY PIPING ISOMETRIC FOR SEWER MAIN AND VENT PIPING.
- 9 MIN. INVERT -3.6 FT DUE TO WALL FOOTERS . VERIFY PRIOR TO ANY CONSTRUCTION ON EXIST. 4" SANITARY MAIN - SLOPE CALCULATED AT 1/4" PER FOOT FOR 4" MAIN. 159 DFU TOTAL CALCULATED INCLUDING EXISTING RESTROOM FACILITY TO THE SOUTH. REPLACE CLEANOUT WITH 2 WAY CLEANOUT. IF PIPE RUNS THROUGH WALL BELOW FLOOR , ABOVE FOOTER, PROVIDE WALL SLEEVE AT EACH WALL.
- 10 COLD WATER FIXTURE UNITS CALCULATED DEMAND 185 CWFU INCLUDING EXISTING RESTROOM TO SOUTH AT EXISTING 2 1/2" MAIN, 2" METER, AND 2 1/2" BACKFLOW PREVENTOR. - THESE PLANS INDICATED HAVE CONNECTED 125 CWFU.



8
P2.1 **SANITARY PIPING ISOMETRIC**
NOT TO SCALE



1
P3 **PLUMBING NEW PLAN**
1/4" = 1'-0"

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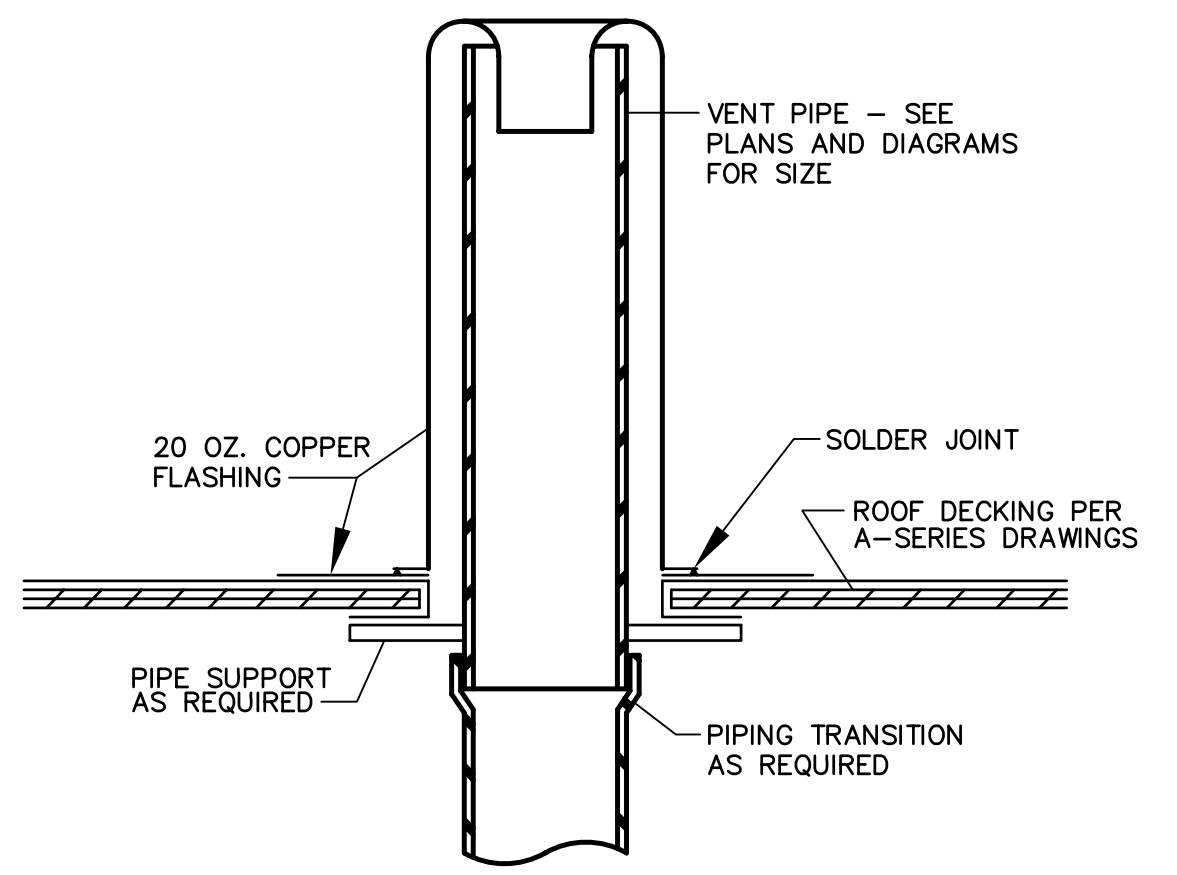


MARK	DESCRIPTION	COMPONENTS PROVIDED BY P.C.	FIXTURE		FIXTURE RUNOUT SIZE					REMARKS
			BASIC FIXTURE	TRIM AND ACCESSORIES	DRAIN WASTE	VENT	C.W.	H.W.	OTHER	
LAV-3	VITREOUS CHINA WALL HUNG LAVATORY, WHITE, 20"X27", 4" CENTER SETS WHEEL CHAIR UNIT	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	ELKAY STAINLESS STEEL 22X19, # ELVW02219 WITH OVERFLOW 4 INCH CENTERSET FAUCET RESTRICTION FLOW DEVICE FROM EWH-2, ELKAY #LK464 DRAIN AND STRAINER.	FAUCET: ELKAY LK2447BH 6" CTR. RIGID SWIVEL GOOSENECK SPOUT, 1.5 GPM, GRID STRAINER DRN. ASSEMBLY, VANDAL RESIST. WRIST BLADES TRAP COVER: PLUMBEREX TRAP AND SUPPLIES COVER WHITE SUPPORT: CONCEALED FLR. MTD. SUPPORT WATTS TCA SERIES KEY CW & HW SHUTOFF VALVES @ WALL WITH SS SUPPLIES .	1 1/2"	---	1/2"	1/2"	1 1/2"	CAULK AT WALL CONTACT WITH WHITE SILICONE SEALANT. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT TO COMPLY WITH ADA REQUIREMENTS. PROVIDE INSULATION COVER ON TRAP, AND WATER PIPING. INDIRECT DRAIN TO SUMP.

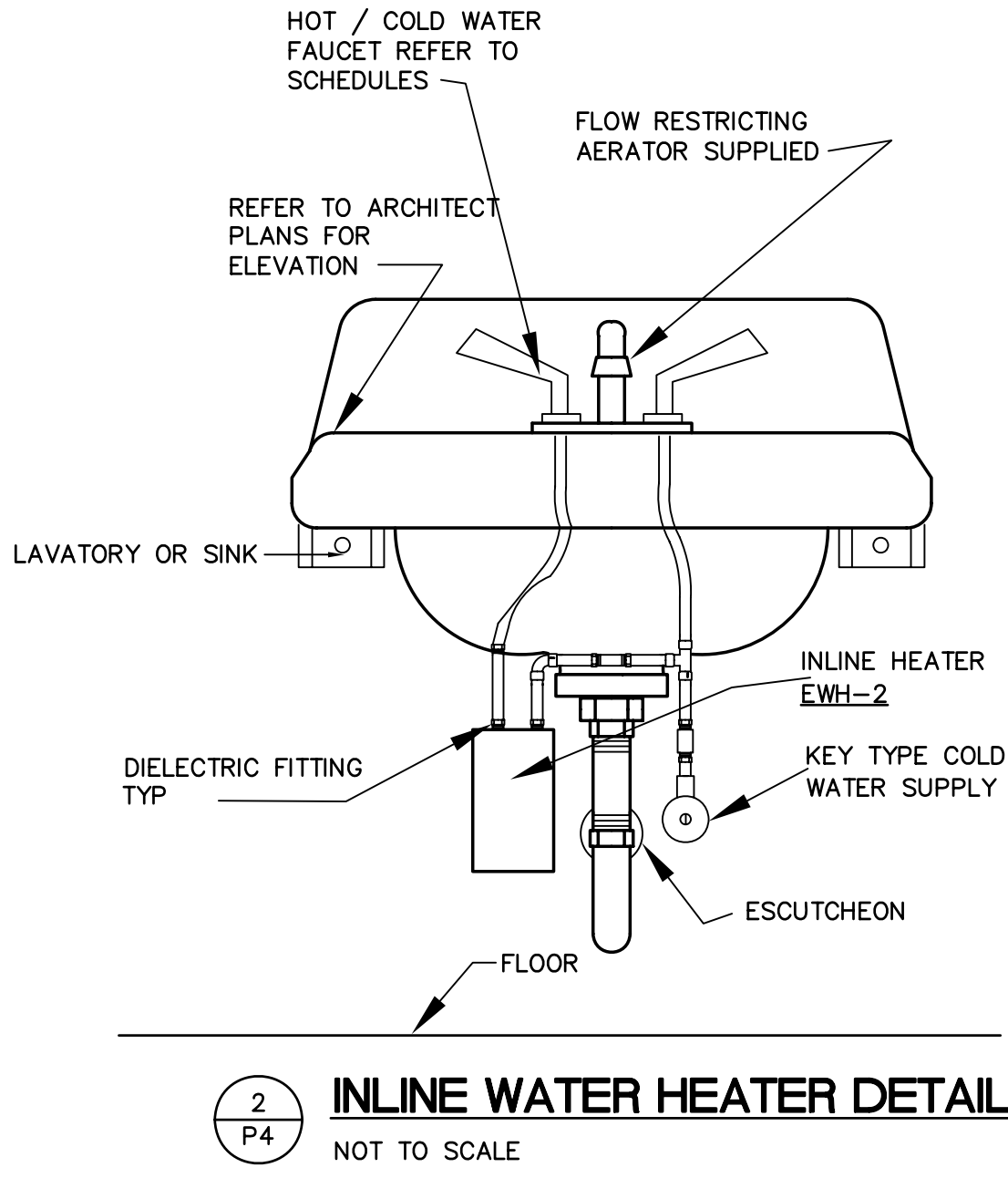
SCHEDULES NOTES:
1. ALL FIXTURES SHALL BE SUPPLIED WITH MCGUIRE SUPPLY KITS WITH KEY TYPE BRASS STEMS, AND CHROME PLATED BRASS STOPS. PROVIDE AND INSTALL BRAIDED FLEXIBLE CONNECTION LINES, AND ESCUTCHEONS.
2. ALL ADA FIXTURES(LAVS) SHALL HAVE PROVIDED PLUMBEREX PTRAP COVERS AND VALVE SUPPLY COVERS.

PUMP SCHEDULE		
ITEM NO.	---	P-1
SERVICE	HAND SINK ONLY	WASTEWATER REMOVAL
TYPE	---	SUMP
WATER FLOW	GPM	11
TOTAL DYNAMIC HEAD	FT. WTR.	10
MOTOR	HP	1/6
SPEED	RPM	3450
EFFICIENCY	%	X
MOTOR TYPE	---	HERMETIC
BASE TYPE	---	FREE STANDING
SUCTION DIA.	IN.	1 1/2"
DISCHARGE DIA.	IN.	1 1/2"
ELECTRICAL	V/PH/HZ	120/1/60
WEIGHT	LBS.	19
LOCATION	---	INTERIOR
MANUFACTURER	"DRAINOSAUR JR"	LITTLE GIANT
MODEL NO.	---	WRS-5

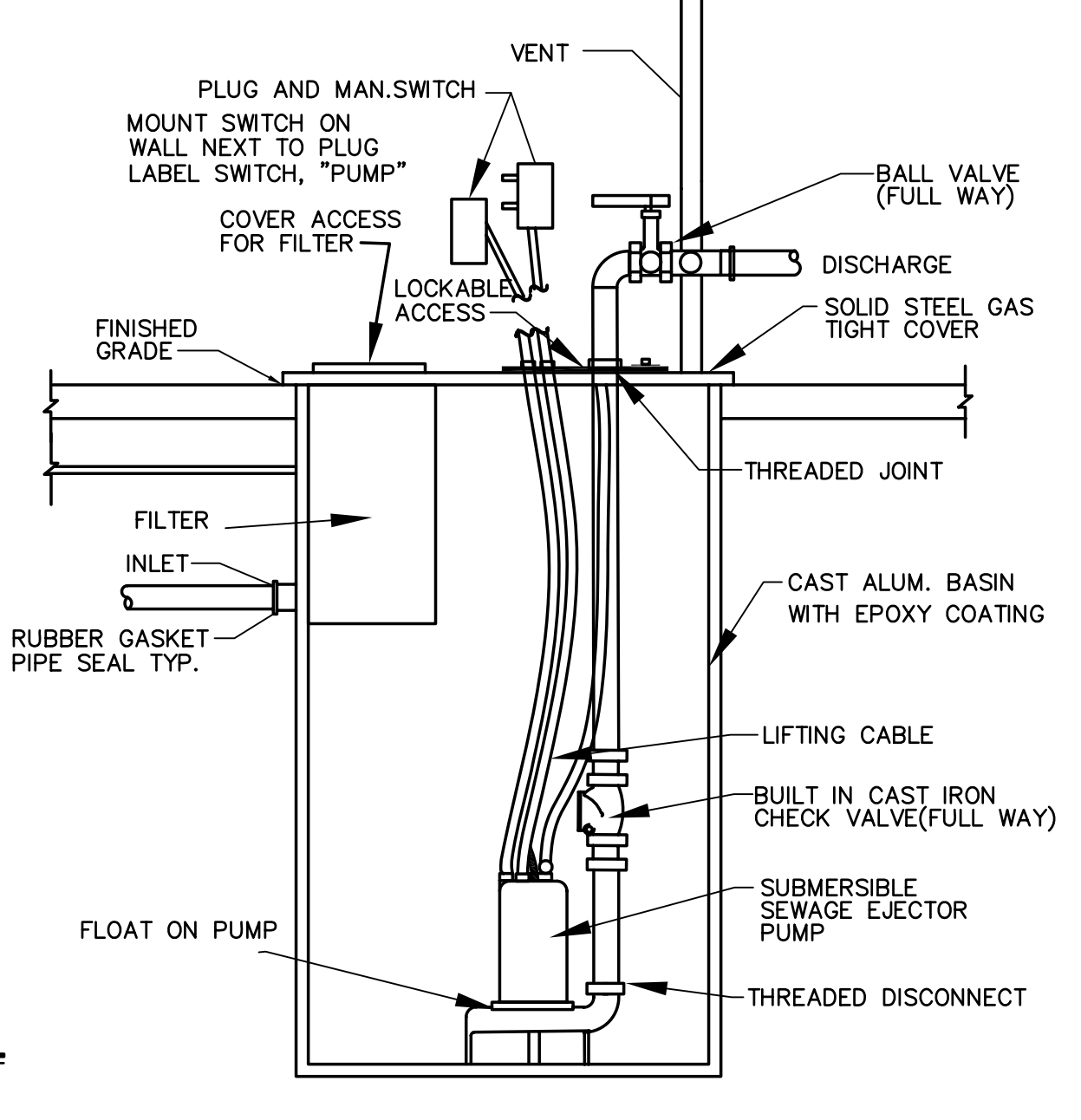
NOTES
(1) COMPLETE SYSTEM ASSY. INCLUDES PUMPS, NEMA 4X DUPLEX WALL SWITCH, 3 PRONG PLUG, SINGLE FLOAT, CHECK VALVE 14 1/2"DIA X 15 5/8" TALL BASIN AND COVER, ONE SS LIFTING CABLE, INLET FILTER WITH ACCESS, 2" VENT



1 VENT THROUGH ROOF (VTR)
NOT TO SCALE



2 INLINE WATER HEATER DETAIL
NOT TO SCALE



3 PUMP DETAIL
NOT TO SCALE

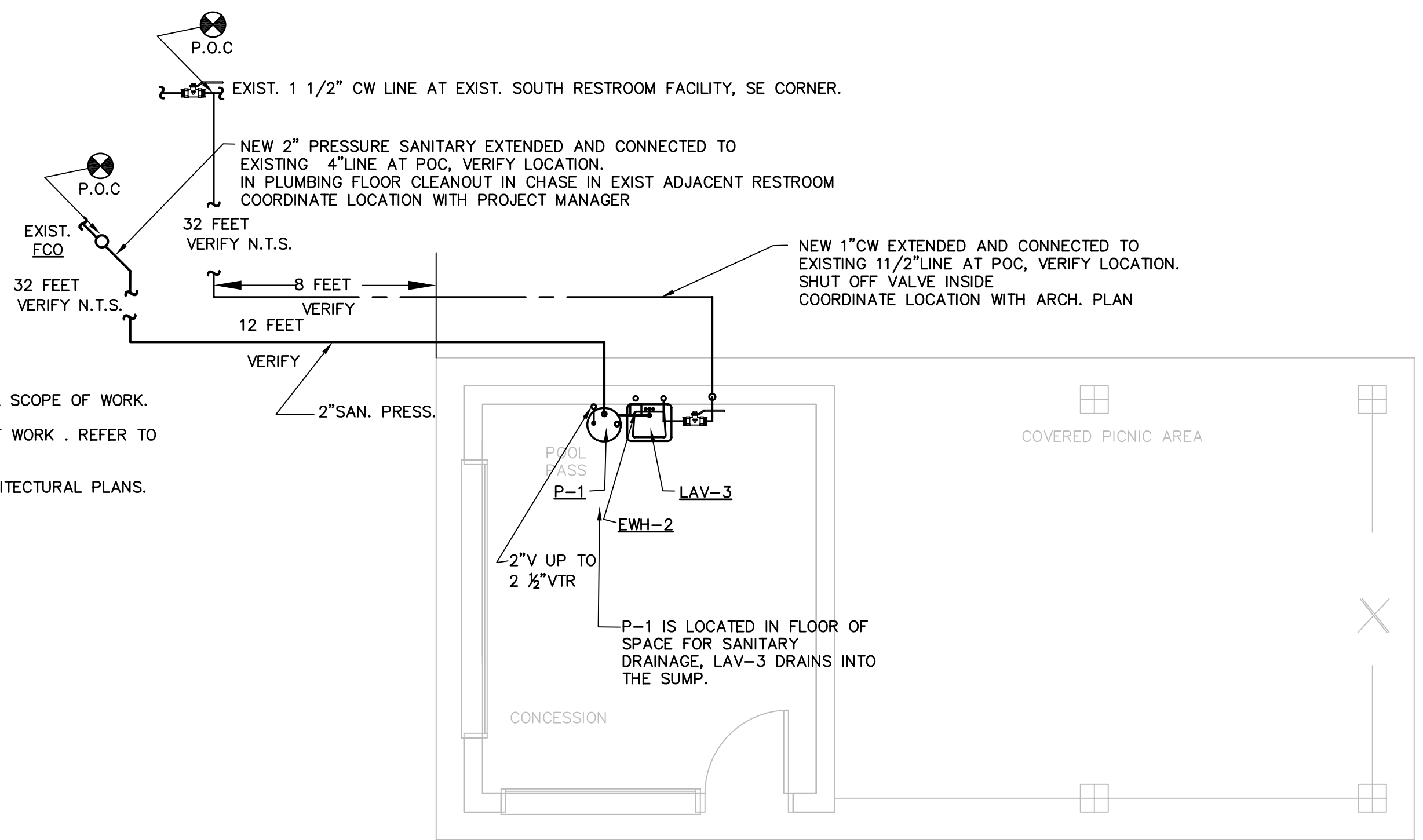
COORDINATE LOCATION OF INLET AND OUTLET INVERTS

ELECTRIC WATER HEATER SCHEDULE												
		RECOVERY GPH	TEMP. RISE °F	KW	ELECTRICAL CHARACTERISTICS			MANUFACTURER	MODEL NO.	WEIGHT	REMARKS	
					VOLTS	PH	HZ					
EWH-2	CONCESSION	.5	.5	45	2.4	120	1	60	EEMAX	SP2412	3	1,2

NOTES:
1. T & P RELIEF VALVE, INLINE WATER HEATER. 2. UNIT SUPPLIED WITH WALL COVER AND FITTINGS, AND FLOW RESTRICTOR. REFER TO DETAILS.

PLAN NOTES

- ① REFER TO THE PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ② FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK . REFER TO ARCHITECTURAL PLANS FOR DEMOLITION WORK.
- ③ ALL ROOF DRAINAGE SYSTEMS BY OTHERS. REFER TO ARCHITECTURAL PLANS.



1 NEW CONCESSION PLAN
1/4"=1'-0"

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

Rev. Date Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida

PLUMBING NEW PLAN

Project Number
Drawn by JC/DC/CD
Checked by AJM
Date 06/01/09

ALAN J. MERONEK
AR 91853
Expires: FEB. 28, 2011
Scale 1/8" = 1'-0"
Set
Drawing Number

P4

PLUMBING FIXTURE SCHEDULE										
MARK	DESCRIPTION	COMPONENTS PROVIDED BY P.C.	FIXTURE		FIXTURE RUNOUT SIZE					REMARKS
			BASIC FIXTURE	TRIM AND ACCESSORIES	DRAIN	WASTE	VENT	C.W.	H.W.	
WC-1	VITREOUS CHINA FL. MTD. WATER CLOSET, WHITE 16 1/2" HIGH, ELONGATED BOWL, SIPHON JET ACTION	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	AMERICAN STANDARD 'CADET 3" MODEL # 2835.128	SEAT: AMER. STD. #5905.100 COMMERCIAL, ELONGATED WHITE OPEN FRONT SEAT W/CHECK HINGE WITH CW KEY SHUTOFF VALVE, SS SUPPLY HOSE @ WALL.	3"	2"	1/2"	---	---	1.28 GALLON PER FLUSH, CAULK AT FLOOR. CONTACT WITH WHITE SILICONE SEALANT. COMPLIES WITH ADA REQ., UNIT MEETS HIGH EFFICIENCY CRITERIA FOR LEED
LAV-1	VITREOUS CHINA WALL HUNG LAVATORY, WHITE, 20"x27", 4" CENTER SETS WHEEL CHAIR UNIT	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	AMERICAN STANDARD 'WHEELCHAIR' MODEL #9141.011, WITH OVERFLOW	FAUCET: AMER. STD. FAUCET MODEL 7502.170, 4" CTR. RIGID SWIVEL GOOSENECK SPOUT, 1.5 GPM, GRID STRAINER DRN. ASSEMBLY, VANDAL RESIST. WRIST BLADES TRAP COVER; PLUMBEREX TRAP AND SUPPLIES COVER WHITE SUPPORT; CONCEALED FLR. MTD. SUPPORT WATTS TCA SERIES KEY CW & HW SHUTOFF VALVES @ WALL WITH SS SUPPLIES.	1 1/4"	1 1/2"	1/2"	1/2"	---	CAULK AT WALL CONTACT WITH WHITE SILICONE SEALANT. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT TO COMPLY WITH ADA REQUIREMENTS. PROVIDE INSULATION COVER ON TRAP, AND WATER PIPING.
WC-2	VITREOUS CHINA WALL MTD. WATER CLOSET, WHITE 17 1/2" HIGH, ELONGATED BOWL, FLUSH TYPE	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	AMERICAN STANDARD 'AFWALL' MODEL #3355.128	SEAT: AMER. STD. #5901.100 COMMERCIAL ELONGATED WHITE OPEN FRONT SEAT W/CHECK HINGE. WITH SLOAN #WES-111 1.1-1.6 GALLON PER FLUSH WITH 1 1/2" SPUD, VAC BREAKER, CHROME ANGLE STOP VALVE AND TAILPIECE, CAPS, AND CLOSET CARRIER WATTS ISCA SERIES BACK TO BACK & SINGLE	3"	2"	1"	---	---	1.2-1.6 GALLON PER FLUSH, CAULK AT WALL CONTACT WITH WHITE SILICONE SEALANT. COMPLIES WITH ADA REQ., UNIT MEETS A HIGH EFFICIENCY CRITERIA FOR LEED
LAV-2	VITREOUS CHINA WALL HUNG LAVATORY, WHITE, 20 1/2"x18", 4" CENTER SETS	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	AMERICAN STANDARD 'LUCERNE' MODEL # 0355.012	FAUCET: AMER. STD. FAUCET MODEL 7385.003, 4" CTR. SET, 1.5 GPM, GRID STRAINER DRN. ASSEMBLY, VANDAL RESIST. SINGLE DIRECTIONAL HANDLE, ANTI SCALD HOT LIMIT STOP TRAP COVER; PLUMBEREX TRAP AND SUPPLIES COVER WHITE SUPPORT; CONCEALED FLR. MTD. SUPPORT WATTS TCA SERIES KEY CW & HW SHUTOFF VALVES @ WALL WITH SS SUPPLIES.	1 1/4"	1 1/2"	1/2"	1/2"	---	CAULK AT WALL CONTACT WITH WHITE SILICONE SEALANT. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT TO COMPLY WITH ADA REQUIREMENTS. PROVIDE INSULATION COVER ON DRN. AND WATER PIPING.
UR	URINAL, 14" ELONGATED RIM, VITREOUS CHINA WALL HANGARS, OUTLET FLG., RUBBER GASKET	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	AMER. STD. #590, TOP SPUD ADA APPROVED .5 GPF	SLOAN MODEL #186HEU, .5 GPF FLUSHMETER SYSTEM VERIFY RH OR LH WITH ANGLE STOP & TAILPIECE WATTS CA321 HANGAR OR EQUAL	2"	1 1/2"	3/4"	---	---	.5 GALLON PER FLUSH, CAULK AT WALL. CONTACT WITH WHITE SILICONE SEALANT. UNIT AND VALVE COMPLIES W/ ADA REQ. UNIT MEETS HIGH EFFICIENCY FOR LEED.
SH-1	SHOWER, PUSH BUTTON VALVE SPRAY HEAD, HOSE, DIVERTER VALVE, AND FLOOR DRAIN.	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	SHOWER FOR ADA AREA BRADLEY#HN300 SERIES, AST PUSHBUTTON, VERIFY LOCATION, SXG SEVERE DUTY SHOWER, HAND HELD SHOWER WITH HOSE, DIVERTER VALVE, AND HAND HELD SHOWER POST SUPPORT, ALLEN ADJUSTMENT VOLUME CONTROL ON SHOWER NOZZLE, SHOWER MOUNTED BACKFLOW PREVENTER	FLOOR DRAIN: WATTS FD-100 WITH ADJUSTABLE STRAINER, COVER TYPE - ROUND OR SQUARE SELECTED BY ARCHITECT IN SUBMITTAL PHASE GRAB BAGS, SEAT, AND SHOWER CURTAIN SPECIFIED BY ARCH. PLANS. COORDINATE ELEVATIONS WITH ARCHITECT	3"	1 1/2"	---	---	1/2"	COORDINATE PLACEMENT OF FLOOR DRAIN WITH G.C. PRIOR TO POURING FLOOR BY GC. COORDINATE MOUNTING HEIGHTS WITH ARCH, PLANS AND ADA GUIDELINES. UNIT SET AT 2.0 GPM MAX 3/8" NIPPLE ON SHOWER. UNIT SET AT 2.0 GPM MAX
SH-2	SHOWER, PUSH BUTTON VALVE SPRAY HEAD FOR GENERAL PUBLIC AREA	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	BRADLEY#IC-AST PUSHBUTTON SHOWER WITH ESCUTCHEON, VERIFY LOCATION, SXG SEVERE DUTY SHOWER, ALLEN ADJUSTMENT VOLUME CONTROL ON SHOWER NOZZLE	PUSH BUTTON RECESSED AT 16" BELOW SHOWER CENTER LINE, MIN SHOWER HEIGHT 6'-0" MEN, 5'-6" WOMEN PER MFR. INSTALL INSTRUCTIONS	---	---	---	---	1/2"	COORDINATE PLACEMENT OF SHOWER AND BUTTON. COORDINATE MOUNTING HEIGHTS WITH ARCH, PLANS AND ADA GUIDELINES. UNIT SET AT 2.0 GPM MAX
FD-1	FLOOR DRAIN	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	WATTS MODEL# FD-100	WATTS DRAIN WITH ADJUSTABLE STRAINER, COORDINATE ON SUBMITTAL SQUARE OR ROUND COVER W/ ARCHITECT	3"	2"	---	---	---	COORDINATE INSTALLATION WITH G.C. PRIOR TO CONCRETE FLOOR AND TILE PLACEMENT.
ECO	EXTERIOR CLEANOUT	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	ZURN MODEL# Z-1454 WATTS MODEL# CO-260	ACCESSORIES: VANDAL PROOF SCREWS, COUNTER SUNK BRASS PLUG.	---	---	---	---	---	VERIFY SIZE REQUIRED AT POINT OF APPLICATION. SET IN CONCRETE PAD PER DRAWINGS.
FCO	INTERIOR CLEANOUT	COMPLETE UNIT WITH ALL TRIM	ZURN MODEL# Z-1400-14-CF WATTS MODEL# CO-200-R/RC/T	ACCESSORIES: ADJUSTABLE TOP, CARPET RETAINER.	---	---	---	---	---	VERIFY SIZE REQUIRED AT POINT OF APPLICATION.
WCO	WALL CLEANOUT	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	ZURN MODEL# 1446-4-Z-VP WATTS MODEL# CO-460-RD	ACCESSORIES: FLUSH OVER WALL FRAME, NICKEL BRONZE WALL ACCESS COVER, COUNTERSUNK BRASS PLUG.	---	---	---	---	---	VERIFY SIZE REQUIRED AT POINT OF APPLICATION.
EWC-1	PACKAGED WATER COOLER BARRIER-FREE, SPLIT LEVEL WALL HUNG	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	ELKAY MODEL# VRCHD18SC, VANDAL RESISTANT DOUBLE	COLOR: STANDARD TWO TONE GRAY ACCESSORIES: STAINLESS STEEL BASINS, STAINLESS STEEL BUBBLERS, WITH CW SHUTOFF VALVE @ WALL.	1 1/2"	1 1/2"	1/2"	---	---	COORDINATE WITH EC FOR POWER REQUIREMENTS. PROVIDE WITH R-134A REFRIGERANT, PROVIDE WITH 5 YEAR WARRANTY FOR COMPRESSOR, 120 VOLT, 1PHASE, 4.0 A ADA COMPLIANT
WH-1	WALL HYDRANT VACUUM BREAKER, 3/4" MALE HOSE CONNECTION.	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	WOODFORD B75 WITH TEE KEY UP 3/4" INLET, POLISHED BRASS WALL COVER, RECESSED IN WALL	COLOR: ROUGH BRONZE.	---	---	3/4"	---	---	COORDINATE WITH GC FOR ROUGH IN AND RECESS IN CONCRETE WALL.
FD-2	FLOOR DRAIN	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	ZURN OR WATTS MODEL# Z-415 ROUND TOP COORDINATE COVER WITH ARCHITECT.	ZURN #Z-1022 TRAP PRIMER TO LAV	2"	---	---	---	1/2"	COORDINATE INSTALLATION WITH G.C. PRIOR TO CONCRETE FLOOR AND TILE PLACEMENT.
TP-1	TRAP PRIMER	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	ZURN MODEL# Z-1022 WITH AIR GAP	PROVIDE ON LAVATORY LINE, PROVIDE ACCESS PANEL AND WALL BOX WITH UNIT	---	---	1/2"	---	---	COORDINATE INSTALLATION WITH G.C. PRIOR TO WALL PLACEMENT.
SH-3	SHOWER, PUSH BUTTON VALVE SPRAY HEAD FOR POOL - REPAIR ONLY	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	VERIFY MAKE AND MODEL #.	REPAIR PUSH BUTTONS, REPLACE TUBE UNIT, REPAIR SHOWERS ON UNIT, CLEAN OUT DRAIN. SHOWER DRAIN RUNS TO DECK DRAINS	3"	---	---	---	3/4"	REPAIR, REPLACE WORN PARTS, CLEAN UNIT, AND REINSTALL AND RECONNECT TO WATER LINE AT GRADE. UNIT SET AT 1.5 GPM
WHA	WATER HAMMER ARRESTER	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	J.R. SMITH "HYDROTROL" MODEL# 5005-5030. JOSAM SERIES-75000. ZURN "SHOKSTOP" MODEL# Z-1700.	P.D.I. SIZE PIPE SIZE FIXTURE UNIT ZURN JOSAM J.R. SMITH A 3/4" 1-11 100 75001 5005 B 1" 12-32 200 75002 5010 C 1" 33-60 300 75003 5020 D 1" 61-113 400 75004 5030	---	---	1"	1"	1"	SIZES TO BRANCHES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. INSTALL ON ALL PUSHBUTTON, AND FLUSH VALVE LINES IN ACCORDANCE WITH MFR. RECOMMENDATIONS. SEE PDI SIZES.
TMV-1	THERMOSTATIC MIXING VALVE	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	BRADLEY #S5930-80 TP-SE SHOWER UNIT 2-36 GPM AT 10PSI DROP 105F SETPOINT	WALL MOUNT UNIT WITH INLET AND OUTLET THERMOMETER, BALL SHUTOFF VALVES, AND UNIONS, WHITE EXPOSED CABINET	---	---	1"	1"	1"	MOUNT UNIT ON WALL OF ROOM NEXT TO WATER HEATER, LINE SIZE GIVEN IN "OTHER COLUMN" IS TEMPERED WATER OUTLET
TMV-2	THERMOSTATIC MIXING VALVE	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	BRADLEY #S5920-25 TP-SE FAUCET UNIT 2-9 GPM AT 10 PSI DROP, 105 F SETPOINT	WALL MOUNT UNIT WITH INLET AND OUTLET THERMOMETER, BALL SHUTOFF VALVES, AND UNIONS, WHITE EXPOSED CABINET	---	---	3/4"	3/4"	3/4"	MOUNT UNIT ON WALL OF ROOM NEXT TO WATER HEATER, LINE SIZE GIVEN IN "OTHER COLUMN" IS TEMPERED WATER OUTLET.

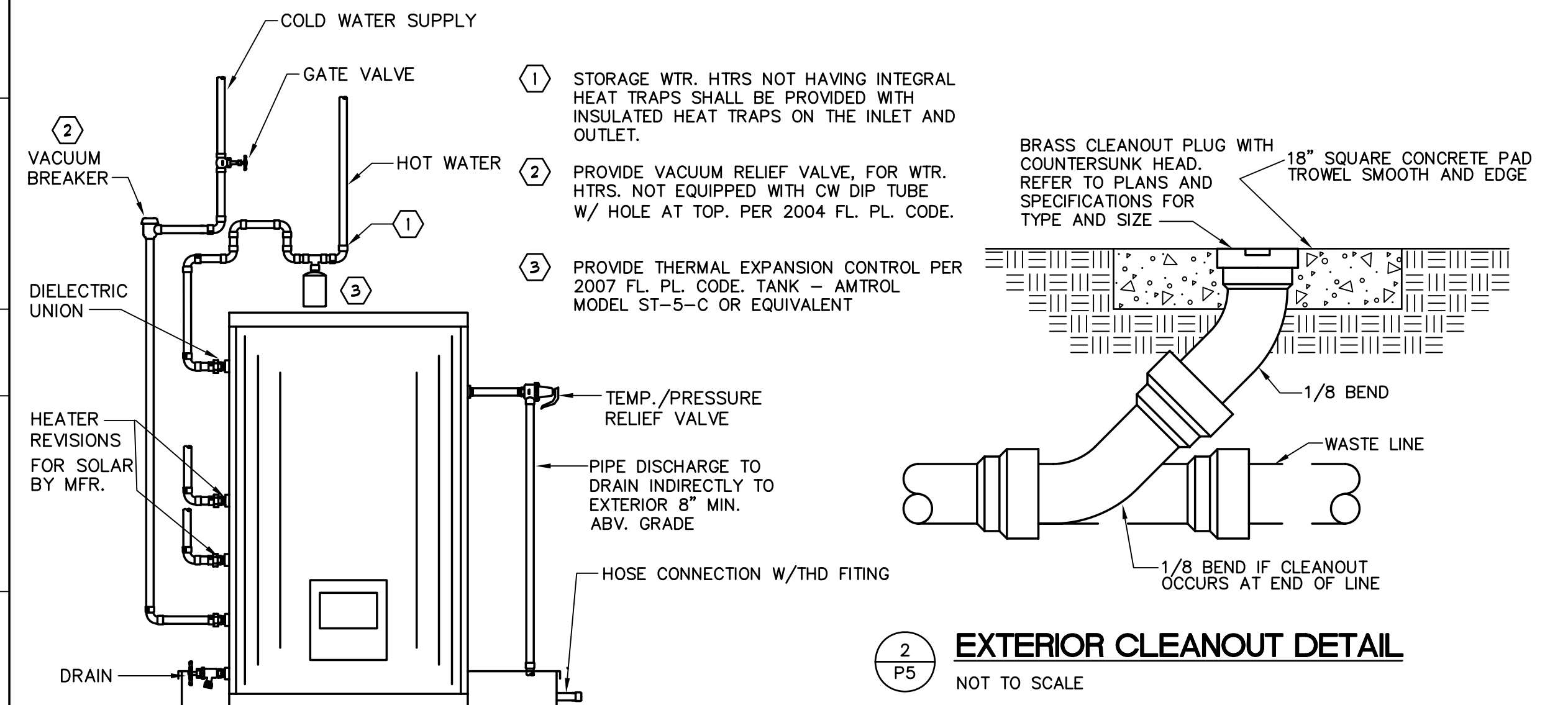
- SCHEDULES NOTES:
- ALL FIXTURES SHALL BE SUPPLIED WITH MCGUIRE SUPPLY KITS WITH KEY TYPE BRASS STEMS, AND CHROME PLATED BRASS STOPS. PROVIDE AND INSTALL BRAIDED FLEXIBLE CONNECTION LINES, AND ESCUTCHEONS.
 - ALL ADA FIXTURES(LAVS) SHALL HAVE PROVIDED PLUMBEREX PTRAP COVERS AND VALVE SUPPLY COVERS.

ELECTRIC WATER HEATER SCHEDULE												
TAG NO.	LOCATION	STORAGE CAPACITY GALLONS	RECOVERY GPH	TEMP. RISE °F	KW	ELECTRICAL CHARACTERISTICS			MANUFACTURER	MODEL NO.	WEIGHT	REMARKS
						VOLTS	PH	HZ				
EWH-1	STORAGE	50	74	100	18	240	1	60	AO SMITH	DVE-52-18	708	1,2,3

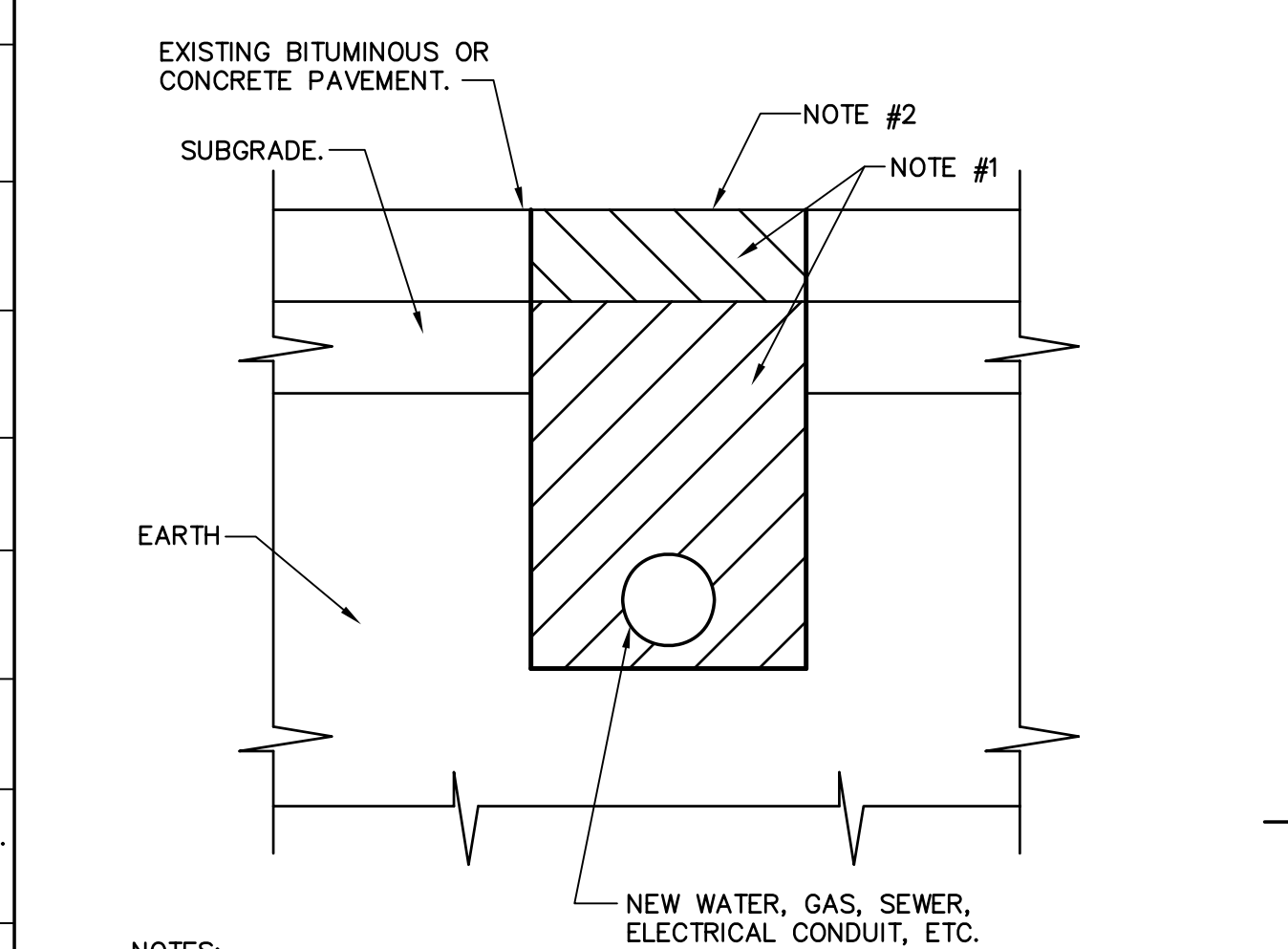
- NOTES:
- T & P RELIEF VALVE, COMMERCIAL WATER HEATER.
 - UNIT SUPPLIED WITH DRAIN PAN, AND EXPANSION TANK. REFER TO DETAILS.
 - UNIT MODIFIED BY MANUFACTURER FOR SOLAR WATER HEATER INPUT AND OUTPUT.

SOLAR WATER HEATER SCHEDULE												
TAG NO.	LOCATION	STORAGE CAPACITY GALLONS	EST. SUN RATE HOURS	TEMP. RISE °F/HR	BTUH	PUMP ELECTRICAL CHARACTERISTICS			MANUFACTURER	MODEL NO.	WEIGHT	REMARKS
						VOLTS	WATTS	HP				
SWH-1	SOUTH ROOF	2	6	15.5	30,700	DC	38	1/80	SOLAR WORLD	AET 32	129#	1

- NOTES:
- UNIT SUPPLIED WITH PHOTOVOLTAIC CIRCULATING PUMP, DIFFERENTIAL CONTROLS, COLD WATER VALVE, AIR VENT, TEMPERATURE AND PRESSURE RELIEF VALVE. HELIOTROPE INDEPENDENT ENERGY CONTROL. 120 VOLT, SINGLE PHASE POWER, FREEZE PROTECTION VALVE, MOTORIZED CHECK VALVE, 1/2" COPPER LINE WITH ROOF PIPE REFER TO MANUFACTURER'S PLANS FOR UNIT INSTALLATION FOR WIND LOAD DESIGN OF 150 MPH. UNIT IS A 4 FOOT TALL BY 8 FOOT WIDE PANEL. LOCAL SUPPLIER; MIRASOL SOLAR 941-484-0130 MR. SCOTT EGGLEFIELD



NOTE: DETAIL CONTAINS HEAT TRAPS, VACUUM & THERMAL EXPANSION INFORMATION



- NOTES:
- THE CONTRACTOR INSTALLING THE NEW UTILITY SERVICE SHALL MAKE THE CUT, EXCAVATE, INSTALL NEW SERVICE, INSTALL AN APPROVED BANK RUN GRAVEL BACKFILL TO TOP OF SUBGRADE, AND HAUL AWAY EXCESS MATERIALS. ALL ENGINEERED MATERIALS SHALL BE COMPACTED TO 95% COMPACTION MIN.
 - THE CONTRACTOR SHALL FURNISH AND INSTALL THE FINAL PAVING AT ALL LOCATIONS NOTED ON THE SITE PLANS. FINAL PAVING FOR CUTS MADE IN LOCATIONS NOT NOTED ON THE SITE PLANS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR MAKING THE CUT.



MANATEE COUNTY GOVERNMENT

Facilities Management
1112 Manatee Avenue West
Suite 803, P.O. Box 1000
Bradenton, Florida 34206
(941) 748-4501
FAX (941) 742-5820

Rev.	Date	Remarks

East Bradenton Community Center
1119 13th Street East
Bradenton, Florida

PLUMBING SCHEDULES

Project Number	
Drawn by	JC/DC/CD
Checked by	AJM
Date	06/01/09
Scale	1/8" = 1'-0"
Set	
Drawing Number	

ATP ENGINEERING SOUTH, PL
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P5