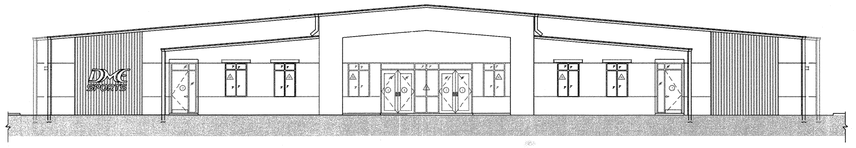
SITE COPY

DME SPORTS HOUSING COMPLEX

PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL, 32114

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924

NEW CONSTRUCTION



CIVIL/SITE ENGINEERING & LANDSCAPE ARCHITECTURE:

THE PERFORMANCE GROUP, INC.
JOE HOPKINS, P.E. & GLENN GREINER, PROJECT MANAGER

641 SOUTH BEACH STREET
DAYTONA BEACH, FL 32114

PH: (386)239-7166 FX: (386)239-7120

STRUCTURAL ENGINEERING:

WCT ASSOCIATES, INC.
W. CARL TAYLOR, PE, RA

LIC. PE # 54548 / 28260

1901 BIG CRANE LOOP
PORT ORANGE, FL 32128

PH: (386)265-4911 FX: (386)265-4912

MECHANICAL, ELECTRICAL, & PLUMBING ENGINEERING:

MOHSEN FARAJI, P.A. CA#8126

FARSHAD ANTIKCHI, PE#72988
MOHSEN FARAJI, PE#43599

1325 SOUTH BUMBY AVENUE
ORLANDO, FL 32806

PH: (407)896-7411 FX: (407)896-7412

BPF
DESIGN INCORPORATED
Building Design and Architecture

#AA 26001108
BRIAN P. FREDLEY, ASSOCIATE AIA, PROJECT MANAGER
DALLAS B. PEACOCK, A1A, ARCHITECT
#AR 0009706
207 FAIRVIEW AVENUE

DAYTONA BEACH, FL 32114 PH: (386) 257-0502 FX: (386) 257-1050

EMAIL: BFREDLEY@BPFDESIGN.COM WEBSITE: BPFDESIGN.COM

GENERAL CONTRACTOR:

COLEMAN GOODEMOTE CONSTRUCTION, INC.
HAROLD GOODEMOTE

CGC 028792

619 NORTH BEACH STREET
DAYTONA BEACH, FL 32114

PH: (386)257-3570 FX: (386)253-6692

DATE: OCTOBER 18, 2019

100 % PROJECT DRAWINGS

MTL. BUILDING MANUFACTURER & ENGINEERING:

NUCOR BUILDING SYSTEMS

ANDREW D. JOHNSTON
LIC. PE # 86824

200 WHETSTONE ROAD
SWANSEA, SC, 29160

PH: (803)568-2100 FX: (803) 568-2121

ELECTRICAL CONTRACTOR:

TO BE DETERMINED

MECHANICAL CONTRACTOR:

TO BE DETERMINED

PLUMBING CONTRACTOR:

TO BE DETERMINED

REVIEWED FOR CODE COMPLIANCE
SITE COPY
CITY OF DAYTONA BEACH

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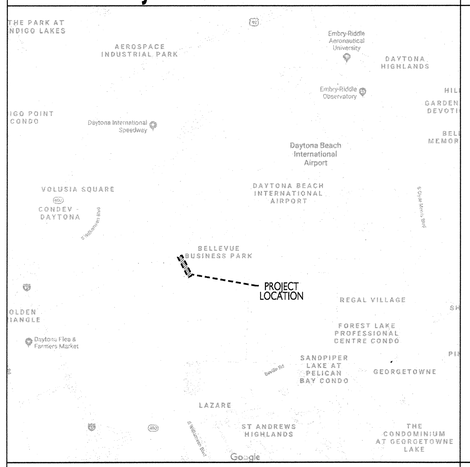
GENERAL NOTES:

ALL GENERAL & SUB-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS, ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION, SIXTH EDITION (EXPOSURE "C") OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE AS SPECIFIED ON SHEET TBL
WIND IMPORTANCE FACTOR IS "1.0" AND THE BUILDING CATEGORY IS "ENCLOSED"
THE BUILDING RISK CATEGORY IS "II".
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON IMPACT RESISTANT OR USE PROTECTIVE HURRICANE SHUTTERS

10/24/19

PROJECT LOCATION MAP



PLAN REVIEW DATA

APPLICABLE CODES:

6th EDITION (2017)	FLORIDA BUILDING CODE - BUILDING
6th EDITION (2017)	FLORIDA BUILDING CODE - ACCESSIBILITY
6th EDITION (2017)	FLORIDA BUILDING CODE - ENERGY CONSERVATION
6th EDITION (2017)	FLORIDA BUILDING CODE - FUEL - GAS
6th EDITION (2017)	FLORIDA BUILDING CODE - MECHANICAL
6th EDITION (2017)	FLORIDA BUILDING CODE - PLUMBING
6th EDITION (2017)	FLORIDA FIRE PREVENTION CODE
2014 EDITION	NATIONAL ELECTRICAL CODE
OCCUPANCY TYPE:	GROUP R-2: (RESIDENTIAL: DORMITORY)
CONSTRUCT. TYPE:	TYPE II-B, SPRINKLED
FIRE PROTECTION:	FIRE RATED WALLS TO BE USED, ALL STRUCTURAL MEMBERS MUST BE OF NON-COMBUSTIBLE CONSTRUCTION
BUILDING AREA:	15,651 SF INTERIOR + 1,062 SF EXTERIOR = 16,713 UNDER ROOF
OCCUPANCY CAPACITY:	GROUP R-2: 1 PERSON PER 50 SF GROSS/ 6,310 SF = 127 PERSONS GROUP A-2: 1 PERSON PER 15 SF GROSS/ 2,575 SF = 172 PERSONS GROUP B: 1 PERSON PER 100 SF GROSS/ 1,118 SF = 12 PERSONS GROUP S-2: 1 PERSON PER 300 SF GROSS/ 714 SF = 3 PERSONS OMISSION: 1 PERSON PER 0 SF GROSS/ 4,934 SF = 0 PERSONS (*REFER TO A1- LIFE SAFETY) TOTAL OCCUPANTS: 314 PEOPLE IF ALL OPEN
REQUIRED EGRESS:	.2 INCHES PER OCCUPANT X 314 = 62.8 INCHES MIN. REQUIRED
PROVIDED EGRESS:	(4) 36" EGRESS DOORS W/ 34" CLEAR = 136 INCHES (4) 72" EGRESS DOORS W/ 68" CLEAR = 272 INCHES PROVIDED EGRESS = 408 INCHES
MAXIMUM ALLOWABLE TRAVEL DISTANCE:	75'-0" (MAX.) FOR SINGLE EXIT 200'-0" FOR TWO EXITS OR MORE

PROJECT NOTES

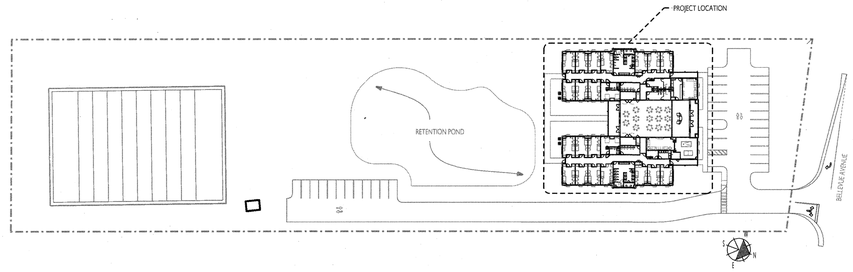
1) PROJECT IS TO BE A 16,713 SF (UNDER ROOF) R-2 OCCUPANCY CLASSIFICATION HOUSING BUILDING W/ (80) STUDENT RESIDENT BEDS & (4) RESIDENT STAFF BEDS

2) BUILDING IS TO BE OF TYPE II-B CONSTRUCTION W/ NON-COMBUSTIBLE STRUCTURAL STEEL FRAME W/ EXTERIOR CMU WALLS

PROPOSED PLUMBING FIXTURE TABLE

FIXTURE	MEN	WOMEN	UNISEX
WATER CLOSET	4	9	2
LAV.	9	9	2
URINAL	5	0	0
SHOWERS	6	6	2
3 BASIN SINK	0	0	1
MOP SINK	0	0	2
WATER FOUNTAIN (HI-LOW)	0	0	3
HAND SINK	0	0	0

CIVIL SITE PLAN



CIVING ENGINEERING PROVIDED BY:

THE PERFORMANCE GROUP, INC.
JOE HOPKINS, P.E. & GLENN GREINER, PROJECT MANAGER

641 SOUTH BEACH STREET
DAYTONA BEACH, FL 32114

PH: (386)239-7166 FX: (386)239-7120

LEGAL DESCRIPTION:

OWNER TO PROVIDE

DRAWING LIST

-	COVER SHEET	
TBL	DWG LIST - LOCATION MAP & CIVIL/SITE PLAN	
ABV	ABBREVIATIONS, GENERAL NOTES, SYMBOLS	
UL	UL DETAILS	
A-C1	ARCHITECTURAL SITE PLAN	
S-0.1	STRUCTURAL NOTES	PROVIDED BY: WCT ASSOCIATES, INC.
S-0.2	STRUCTURAL NOTES	PROVIDED BY: WCT ASSOCIATES, INC.
S-1.1	FOUNDATION PLAN	PROVIDED BY: WCT ASSOCIATES, INC.
S-3.1	ROOF FRAMING PLAN	PROVIDED BY: WCT ASSOCIATES, INC.
S-5.1	STRUCTURAL DETAILS	PROVIDED BY: WCT ASSOCIATES, INC.
S-5.2	STRUCTURAL DETAILS	PROVIDED BY: WCT ASSOCIATES, INC.
A1	LIFE SAFETY PLAN	
A2	PROPOSED FLOOR PLAN	
A3	PROPOSED ELEVATIONS	
A4	PROPOSED ROOF PLAN	
A5	ENLARGED ROOM PLANS	
A6	ENLARGED RESTROOM PLANS & ELEVATIONS	
A7	ENLARGED RESTROOM PLANS & ELEVATIONS	
A8	REFLECTED CEILING PLAN	
A9	BUILDING SECTIONS	
A10	WALL SECTIONS & DETAILS	
A11	HC DETAILS	
A12	ADA DOOR CLEARANCES	
A13	WINDOW, DOOR & FINISH SCHEDULES	
E-1	ELECTRICAL PLAN - POWER	PROVIDED BY: MOHSEN FARAJI, P.A.
E-2	ELECTRICAL PLAN - LIGHTING	PROVIDED BY: MOHSEN FARAJI, P.A.
E-3	ELECTRICAL RISER DIAGRAM & PANEL SCHEDULE	PROVIDED BY: MOHSEN FARAJI, P.A.
E-4	ELECTRICAL SPECIFICATIONS	PROVIDED BY: MOHSEN FARAJI, P.A.
M-1	MECHANICAL PLAN -SUPPLY	PROVIDED BY: MOHSEN FARAJI, P.A.
M-2	MECHANICAL PLAN - EXHAUST	PROVIDED BY: MOHSEN FARAJI, P.A.
M-3	MECHANICAL PIPING	PROVIDED BY: MOHSEN FARAJI, P.A.
M-4	MECHANICAL SCHEDULES	PROVIDED BY: MOHSEN FARAJI, P.A.
M-5	MECHANICAL DETAILS	PROVIDED BY: MOHSEN FARAJI, P.A.
M-6	MECHANICAL SPECIFICATIONS	PROVIDED BY: MOHSEN FARAJI, P.A.
P-1	PLUMBING PLAN- SEWER	PROVIDED BY: MOHSEN FARAJI, P.A.
P-2	PLUMBING PLAN - WATER	PROVIDED BY: MOHSEN FARAJI, P.A.
P-3	RISER DIAGRAM- SEWER	PROVIDED BY: MOHSEN FARAJI, P.A.
P-4	RISER DIAGRAM - SEWER	PROVIDED BY: MOHSEN FARAJI, P.A.
P-5	RISER DIAGRAM - WATER	PROVIDED BY: MOHSEN FARAJI, P.A.
P-6	RISER DIAGRAM - WATER	PROVIDED BY: MOHSEN FARAJI, P.A.
P-7	PLUMBING DETAILS & NOTES	PROVIDED BY: MOHSEN FARAJI, P.A.

PROJECT DESIGN CRITERIA:

BUILDING DESIGN CRITERIA:

BUILDING CATAGORY:	"ENCLOSED"
WIND LOAD:	140 MPH
BUILDING EXPOSURE:	EXPOSURE "C"
WIND IMPORTANCE FACTOR:	"1.0"
INTERNAL PRESSURE COEFFICIENT:	".18"

COMPONENTS & CLADDING DESIGN CRITERIA:

DESIGN PRESSURE FOR DOORS:	REFER TO STRUCT.
DESIGN PRESSURE FOR WINDOWS:	REFER TO STRUCT.
DESIGN PRESSURE FOR GARAGE DOORS:	REFER TO STRUCT.

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
ALL GENERAL & SUB-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS, ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION (EXPOSURE "D") OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE
THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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REVISIONS

1

DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

DWG. LIST, MAP & CIVIL

DRAWN BY: TEM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. TBL
SCALE: NOT TO SCALE	

ARCHITECT'S / ENGINEER'S SEAL

10/22/19

GENERAL NOTES

1. VERIFY THE FOLLOWING WITH THE RESPECTIVE TRADES:
   A. SIZES AND LOCATIONS OF MECH AND/OR ELEC PENETRATIONS.
   B. LOCATIONS FOR BACKING/BLOCKING REQUIRED FOR MOUNTING MECH AND/OR ELEC EQUIPMENT.
   C. CUTTING AND PATCHING FOR WORK REQUIRED BY MECH AND/OR ELEC.
2. FOR TYPICAL MOUNTING HEIGHTS OF TOILETS, BUILDING EQUIPMENT, AND ACCESSORIES, LOCATE PER ADA CODE AND MANUFACTURERS RECOMMENDATIONS.
3. VERIFY DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS. OMISSIONS, DISCREPANCIES AND/OR CONFLICTS SHALL BE REPORTED TO ARCHITECT PRIOR TO START OF CONSTRUCTION.
4. FOR CONSTRUCTION QUESTIONS AND APPROVALS, CONTACT: TO BE DETERMINED

INDICATION OF MATERIALS

- GRADE
- CONCRETE - CAST IN PLACE/PRECAST
- TERRAZZO
- BRICK
- STONE
- CONCRETE MASONRY UNIT
- TILE (CERAMIC OR QUARRY)
- PLASTER, SAND, GYPSUM BOARD, PARTICLE BOARD
- GLASS BLOCK
- WOOD
- WOOD (FINISH)
- WOOD BLOCKING OR FRAMING
- WOOD SHIM
- PLYWOOD
- INSULATION
- METAL
- ACOUSTICAL MATERIAL
- EXPANSION MATERIAL CARPET

LIGHT GAUGE FRAMING

A. LIGHT GAUGE SHALL BE SAME DIMENSION AS CALLED ON ARCHITECTURAL DRAWINGS.
B. UNLESS NOTED OTHERWISE, ALL STUDS SHALL BE EQUAL TO A MINIMUM OF 6-INCH 16GA. WITH 16GA. TRACK.
C. MINIMUM YIELD STRENGTH FOR 16GA. STUDS SHALL BE 50 KSI . ALL TRACK SHALL BE 33 KSI. WIND STRAPS ARE BASED UPON THE USE OF 40,000 PSI FY MIN.
D. ALL STUDS, TRACK BRIDGING AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A G-60 GALVANIZED COATING MEETING THE REQUIREMENTS OF A.S.T.M. A525.
E. BOTH STUD FLANGES MUST BE WELDED TO TRACK AT TOP AND BOTTOM OR ATTACHED W/ #10 TEK SCREWS (MIN. 1 SCREW EACH FLANGE). ALL WELDS SHALL BE TOUCHED UP WITH ZINC RICH PAINT.
F. STUDS SHALL HAVE FULL BEARING AGAINST INSIDE TRACK WEB PRIOR TO ATTACHMENT AT BOTH ENDS.
G. ALL STUD TO STUD CONNECTIONS TO BE (4) #10 TEK SCREWS (MIN.) UNLESS NOTED OTHERWISE.
H. AT TRACK BUTT JOINTS, A BUTTING PIECES OF TRACK SHALL BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, OR THEY SHALL BE BUTT-WELDED OR SPLICED TOGETHER.
I. A MINIMUM OF 10" OF UN-PUNCHED STEEL IS REQUIRED AT BOTH ENDS OF STUDS.
J. BRIDGING SHALL BE 1.5" CRC PLACED THROUGH PUNCHOUTS AND WELDED ON BOTH SIDES. BRIDGING IS TO BE SPACED AT NO MORE THAN 4'-0" VERTICALLY AT APPROXIMATELY THE THIRD POINT. CRC BRIDGING IN 6" STUDS REQUIRES A CLIP ANGLE AT EACH CONNECTION LOCATION. AN ALTERNATE BRIDGING TECHNIQUE SHALL BE 1 5/8"-20GA. STRAPS, SCREW AT ATTACHED TO BOTH FLANGES OF EACH STUD WITH SOLID BLOCKING REQUIRED AT 8'-0" O.C. MAX AND 24" FROM BOTTOM OF PANEL.
K. FASTENING OF COMPONENTS SHALL BE WITH SELF-TAPPING SCREWS OF SUFFICIENT SIZE, NUMBER AND SPACING TO DEVELOP CAPACITY OF CONNECTING MEMBERS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, WIRE TYING OF COMPONENTS SHALL NOT BE PERMITTED.

GYPSUM PRODUCTS SPECIFICATION

US GYPSUM BOARD SHALL BE USED FOR ALL INTERIOR WALL SHEATHING, WITH EXCEPTION OF FIRE RATED PARTITIONS.
FOR FIRE RATED ASSEMBLIES: REFER TO SHEET UL FOR APPROVED PRODUCTS TO BE USED.
IF ALTERNATE MANUFACTURE IS TO BE USED
THEN IT MUST BE APPROVED, IN WRITING, BY THE OWNER AND ARCHITECT WITH THE FOLLOWING INFORMATION, PROVIDED:

1. MANUFACTURE SPECIFICATIONS OF ALTERNATE SYSTEM.
2. MANUFACTURE INSTALLATION DETAILS OF ALTERNATE SYSTEM.
3. MANUFACTURE TEST DATA AND CRITERIA.
4. MANUFACTURE DATA ON SOURCE OF RAW MATERIALS OF PRODUCT.
5. RATED ASSEMBLIES.

** THE OWNER OR ARCHITECT IS NOT RESPONSIBLE FOR GYPSUM PRODUCTS THAT ARE NOT PROPERLY MILLED OR APPROVED.

ABBREVIATIONS

"A"	
AC or A/C	AIR CONDITIONING
ADA	AMERICANS WITH DISABILITIES ACT
A/E	ARCHITECT/ENGINEER
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURE, ARCHITECTURAL
ACOUS PNL	ACOUSTICAL PANEL
"B"	
BITUM	BITUMEN or BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BOT	BOTTOM
BUR	BUILT-UP ROOF
"C"	
CC,C/C	CENTER TO CENTER
CJ	CONSTRUCTION JOINT
CIP	CAST IN PLACE
CJT	CONTROL JOINT
CLG	CEILING
CLG HT	CEILING HEIGHT
CMU	CONCRETE MANSONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CPT	CARPET
"D"	
DET	DETAIL
DF	DRINKING FOUNTAIN
DGN	DESIGN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
"E"	
E	EAST
EACH	EA
ELEC	ELECTRICAL
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRICAL WATER COOLER
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
"F"	
FBC	FLORIDA BUILDING CODE
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDV	FIRE DEPARTMENT VALVE
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FIN	FINISH
FIN FL	FINISH FLOOR
FIN GR	FINISH GRADE
FLR	FLOOR
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOM	FACE OF MANSONRY
FOS	FACE OF STUD
FPRF	FIREPROOFING
FT	FOOT, FEET
FTG	FOOTING
FWC	FABRIC WALL COVERING
"G"	
GA	GAUGE or GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS
GR	GRADE
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER
"H"	
HC	HANDICAP
HGT	HEIGHT
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HMF	HOLLOW METAL FRAME
HVAC	HEATING, VENTILATION, AIR CONDITIONING
"I"	
ID	INSIDE DIAMETER
INSUL	INSULATION
INTR	INTERIOR
"J"	
JAN	JANITOR
JST	JOIST
JT	JOINT
"L"	
LAV	LAVATORY
LT WT	LIGHT WEIGHT
"M"	
MAINT	MAINTENANCE
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFG	MANUFACTURING
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MANSONRY OPENING
MTL	METAL
MULL	MULLION
"N"	
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
"O"	
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER/ OUTSIDE DIMENSION
OFF	OFFICE
OPNG	OPENING
OPH	OPPOSITE HAND
OPP	OPPOSITE
ORIG	ORIGINAL
OVHD	OVERHEAD
or OH	
"P"	
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PRELIM	PRELIMINARY
PREP	PREPARATION
PSF	POUNDS (LBS.) PER SQUARE FOOT (FT.)
PSI	POUNDS (LBS.) PER SQUARE INCH (IN.)
PT	PRESERVATIVE TREATED
PTD	PAINTED
PVMT	PAVEMENT
"Q"	
QT	QUARRY TILE
"R"	
R	RISER/RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFERENCE
REFL	REFLECTED
REG	REGISTERED
REINF	REINFORCED, REINFORCING, REINFORCEMENT
REQD	REQUIRED
REV	REVISION
RM	ROOM
RO	ROUGH OPENING
"S"	
S	SOUTH
SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SQ FT	SQUARE FOOT
SST	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMBOL
SYMM	SYMMETRICAL
"T"	
T	TREAD
T&G	TONGUE AND GROOVE
TEL or PH	TELEPHONE
TF	TOP OF FOOTING
TFF	TOP OF FINISH FLOOR
THK	THICKNESS
TJ	TOP OF JOINT
TS	TUBE STEEL
TSL	TOP OF SLAB
TST	TOP OF STEEL
TW	TOP OF WALL
TYP	TYPICAL
"U"	
UNFIN	UNFINISHED
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
"V"	
VCT	VINYL COMPOSITION TILE OR VITRIFIED CLAY TILE
VERT	VERTICAL
VWC	VINYL WALL COVERING
"W"	
W	WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD, WIDTH
WDW	WINDOW
WF	WIDE FLANGE
WI	WROUGHT IRON
WP	WORKING POINT
WWF	WELDED WIRE FABRIC

SYMBOLS

- DETAIL NUMBER / SHEET WHERE DETAIL IS DRAWN — DETAIL
- WALL/BUILDING SECTION NUMBER / SHEET WHERE SECTION IS DRAWN — SECTION
- ELEVATION NUMBER / INTERIOR ELEVATION KEY / SHEET WHERE ELEVATION IS DRAWN — INTERIOR ELEVATION
- CONFERENCE ROOM [123] — ROOM NUMBER
- DETAIL NUMBER / SHEET WHERE DETAIL IS DRAWN / AREA TO BE DETAILED OR ENLARGED — DETAIL - ENLARGED PLAN
- REVISION NUMBER / REVISED AREA CLOUDED — REVISION CLOUD
- NUMBER — DOOR DESIGNATION
- NUMBER FOR LOUVER / LETTER FOR WINDOW — WINDOW/LOUVER DESIGNATION
- CLG. TYPE / CLG. HEIGHT — CEILING TAG
- ELEVATION DETAIL / SHEET WHERE ELEVATION IS DRAWN — ELEVATION TAG
- NORTH ARROW
- WALL TYPE
- NOTE TAG

GENERAL

A. STRUCTURAL WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 6th EDITION (FBC 2017 AS ADOPTED AND SUPPLEMENTED BY LOCAL REGULATIONS.
B. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ARCHITECT OF DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
C. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETE DESIGN OF THE STRUCTURE. THEY DO NOT INDICATE THE METHODS OF CONSTRUCTION UNLESS SO STATED OR NOTED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKMEN, OR OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO BRACING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES.
D. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.
E. CONSTRUCTION MATERIALS SHALL NOT BE STACKED ON FLOORS OR ROOFS IN EXCESS OF THE DESIGN LIVE LOAD WHICH ARE INDICATED IN THE GENERAL NOTES. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO INSURE THAT THE SUBCONTRACTORS ARE INFORMED AND DO NOT VIOLATE THIS IMPORTANT REQUIREMENT. IMPACT SHALL BE AVOIDED WHEN PLACING MATERIALS ON FLOORS AND ROOFS.
F. PLANS, SECTIONS AND DETAILS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.
G. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION JOINT LOCATIONS TO THE STRUCTURAL ENGINEER FOR APPROVAL. CONSTRUCTION JOINTS EXPOSED TO EARTH OR WEATHER SHALL BE WATERPROOFED PER THE SPECIFICATIONS.
H. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MISCELLANEOUS STEEL ITEMS NOT SHOWN HEREON.
I. COORDINATE SIZES AND LOCATIONS OF OPENINGS IN FLOORS AND ROOF WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL REQUIREMENTS.
J. FOR ACTUAL ELEVATION OF FIRST FLOOR EL. 12'-0", SEE CIVIL ENGINEERS DRAWINGS.
K. SUBMIT WRITTEN REQUEST TO THE ARCHITECT FOR APPROVAL OF ANY PROPOSED CHANGE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. SPLICING, CUTTING, NOTCHING OR OTHER ALTERNATIONS TO STRUCTURAL MEMBERS ARE NOT PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE STRUCTURAL ENGINEER, ANY UNAUTHORIZED DEVIATION FROM THE CONTRACT DOCUMENTS, AND CORRECTION THEREOF, IS THE RESPONSIBILITY OF THE CONTRACTOR.
L. THE MOST STRINGENT REQUIREMENTS APPLY IN CASE OF CONFLICT BETWEEN SPECIFICATIONS, STANDARDS, CODES AND DRAWINGS.
M. DESIGN DATA

1. ROOF LIVE LOADS	REFER TO STRUCTURAL
2. ROOF DEAD LOAD	REFER TO STRUCTURAL
3. COLLATERAL LOAD	REFER TO STRUCTURAL
4. WIND VELOCITY	140 MPH
5. FRAME REACTIONS	REFER TO STRUCTURAL

FOUNDATIONS

A. FOUNDATION DESIGN IS BASED ON AN ALLOWABLE BEARING PRESSURE OF 2000 PSF AS RECOMMENDED IN THE FOUNDATION INVESTIGATION TO BE OBTAINED BY OWNERS TESTING & ENGINEERING FIRM FOR THE SPECIFIC SITE.
B. ALL REQUIREMENTS FOR SITE PREP AND SOIL COMPACTION SPECIFIED IN THE SOILS REPORT SHALL BE FOLLOWED ADDITIONAL MORE STRINGENT REQUIREMENTS ARE SPECIFIED. NOTIFY ARCHITECT IF FOUNDATION CONDITIONS ENCOUNTERED DIFFER FROM SOILS EXPLORATION INFORMATION MADE AVAILABLE TO THE CONTRACTOR.
C. EARTHWORK SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED SOIL TESTING COMPANY TO ASSURE COMPLIANCE WITH REQUIREMENTS OF THE SOILS REPORT AND SPECIFICATIONS.
D. ALL FOOTINGS SHALL BE CENTERED UNDER THE COLUMN OR WALL ABOVE UNLESS NOTED OTHERWISE.
E. BACKFILL AGAINST A WALL SHALL BE PLACED EVENLY ON BOTH SIDES OF THE WALL UNLESS THE WALL IS FULLY BRACED BY THE CONTRACTOR FOR LATERAL PRESSURE. SUCH BRACING INCLUDING ITS DESIGN IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR & SHALL REMAIN IN PLACE UNTIL AFTER THE FLOOR SLAB OR OTHER STRUCTURAL ELEMENT BRACING THE WALL HAS BEEN CONSTRUCTED TO THE SATISFACTION OF THE ARCHITECT.

CAST IN PLACE CONCRETE

A. ALL CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
   SLAB ON GRADE, FOOTINGS, STAIR LANDING 3000 PSI
B. ALL CONCRETE SHALL HAVE A SLUMP OF 4" PLUS OR MINUS 1", AND HAVE 2 TO 4% AIR ENTRAINMENT, AND A MAXIMUM WATER/CEMENT RATIO OF 0.58.
C. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH ACI 318-14.
D. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
E. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. WWF SHALL BE LAPPED AT LEAST 8" AND CONTAIN AT LEAST ONE CROSS WIRE WITHIN THE 8".
F. CONCRETE REINFORCING FIBERS BY FIBERMESH OR GRACE ONLY NO SUBSTITUTION.
G. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318-14.
H. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315 LATEST EDITION, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
I. CONTRACTOR SHALL REVIEW ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, SLOPES, ETC. REQUIRED BY OTHER TRADES. THESE ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF CONCRETE.
J. CONTRACTOR SHALL VERIFY LOCATIONS OF OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.
K. WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, THE LENGTH OF ANY HOOK, IF REQUIRED, IS NOT INCLUDED. HOOKS SHALL BE PROVIDED AT DISCONTINUOUS ENDS OF ALL TOP BARS OF BEAMS AND SLABS EDGES.
L. CONTRACTOR SHALL PROVIDE SPACERS, CHAIRS, BOLSTERS, ETC. NECESSARY TO SUPPORT REINFORCING STEEL. SUPPORT ITEMS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL.
M. CONTRACTOR SHALL PROVIDE 1 INCH CHAMFER ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS, AND WALLS UNLESS OTHERWISE INDICATED ON THE ARCHITECTURAL DRAWINGS.
N. THE FOLLOWING MINIMUM CONCRETE COVER TO BE PROVIDED FOR REINFORCEMENT:
   3" CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.
   2" CONCRETE EXPOSED TO EARTH OR WEATHER, #6 THROUGH #18 BARS.
   1 1/2" CONCRETE EXPOSED TO EARTH OR WEATHER, #5 BAR AND SMALLER.
   1 1/2" CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH FOR THE PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS IN BEAMS AND COLUMNS.
   3/4" CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH EARTH FOR SLABS, WALLS, AND JOISTS, #11 BAR AND SMALLER.
N. HORIZONTAL FOOTING BARS SHALL BE BENT 1'-0" AROUND CORNERS OR CORNER BARS WITH 2'-0" LAP SHALL BE PROVIDED.
O. HORIZONTAL KEYWAYS IN CONSTRUCTION JOINTS SHALL BE PROVIDED IN BEAMS, SUPPORTED SLABS, AND WALL FOOTINGS WITH A DEPTH OF 1-1/2" AND HEIGHT EQUAL TO ONE-THIRD OF THE MEMBERS DEPTH. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON THE DRAWINGS. CONSTRUCTION JOINTS MAY BE USED ONLY AT LOCATIONS SHOWN ON THE DRAWINGS OR AT OTHER LOCATIONS APPROVED BY THE ARCHITECT.
P. CONTRACTOR SHALL KEEP A COPY OF "FIELD REFERENCE MANUAL" (ACI PUBLICATION SP-15, LATEST EDITION) AT THE PROJECT FIELD OFFICE.
Q. MINIMUM LAP SPLICES ON ALL REINFORCING BAR SPLICES SHALL BE 25 BAR DIAMETERS TYP. EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS. FOR BEAMS & ELEVATED SLABS, LAP BOTTOM STEEL AT THE SUPPORT & TOP STEEL OVER THE MIDSPAN UNLESS OTHERWISE NOTED.
R. TESTING LABORATORY SHALL SUBMIT ONE COPY OF ALL CONCRETE TEST REPORTS DIRECTLY TO THE ENGINEER.

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
ALL GENERAL & SUB-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS, ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION (EXPOSURE "D") OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE
THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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REVISIONS

DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-6502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

NOTES & SYM./ABREV.

DRAWN BY:	TEM	CHECKED BY:	DBP & BPF
DATE:	OCTOBER 18, 2019	SHT NO.	ABV
SCALE:	NOT TO SCALE		

ARCHITECT'S / ENGINEER'S SEAL

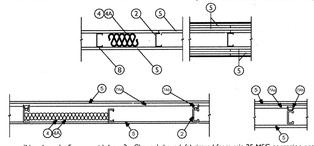
10/18/19

1, 2, 3 OR 4 HOUR RATED WALL

APRIL 24, 2019

DESIGN NO. U419

NON-BEARING WALL RATINGS - 1, 2, 3 or 4 HR (SEE ITEMS 4 & 5 THROUGH 5K)



1. Floor and Ceiling Runners - (Not shown) - For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. Framing Members* - Floor and Ceiling Runner - Not shown - In lieu of Item 1 - For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper25 Track
CRACO MFG INC - SmartTrack25
MARINO/WARE, DIV OF WARE INDUSTRIES INC – Viper25 Track
FUSION BUILDING PRODUCTS – Viper25 Track
IMPERIAL MANUFACTURING GROUP INC – Viper25Track

1B. Framing Members* - Floor and Ceiling Runner - Not shown - In lieu of Item 1 - For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20 Track
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20 Track
FUSION BUILDING PRODUCTS – Viper25 Track
IMPERIAL MANUFACTURING GROUP INC – Viper25Track

1C. Framing Members* - Floor and Ceiling Runners - (Not shown) - In lieu of Item 1 - Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC - Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME Framing System
UNITED METAL PRODUCTS INC - Type SUPREME Framing System

1D. Floor and Ceiling Runners - (Not shown)-For use with Item 2A- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. Framing Members*- Floor and Ceiling Runners - (Not shown, As an alternate to Item 1J - For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.013 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS - CD ProTRAK
DMFCWBS L L C - ProSTRAK
MBA METAL FRAMING - ProTRAK
RAM SALES L L C - Ram ProTRAK
STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProTRAK

1F. Framing Members* - Floor and Ceiling Runner - Not shown - In lieu of Item 1 - For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
SUPER STUD BUILDING PRODUCTS - The Edge

1G. Framing Members* - Floor and Ceiling Runner - Not shown - In lieu of Item 1 - For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.
STUDCO BUILDING SYSTEMS - CROCSTUD Track

1H. Floor and Ceiling Runners - (Not shown) - Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20 Track VT100.
FUSIONBUILDING PRODUCTS -Viper20 Track VT100
IMPERIAL MANUFACTURING GROUP INC –Viper20 Track VT100

1I. Framing Members*- Floor and Ceiling Runners - (Not shown, As an alternate to Item 1) - For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C - TRUE-TRACK

1J. Framing Members*- Floor and Ceiling Runner - Not shown - In lieu of Item 1 - For use with Item 2J, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
TELLING INDUSTRIES L L C - Viper25 Track

1K. Framing Members* - Floor and Ceiling Runner - Not shown - In lieu of Item 1 - For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C - Viper20 Track

1L. FramingMembers* - FloorandCeilingRunner- Not Shown – In lieu of Item 1 – For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
STEEL INVESTMENT GROUP L L C – AlphaSTRAK

1M. Framing Members* - Floor and Ceiling Runners - Not Shown - As an alternate to Item 1 - For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD - Rondo Wall Track

1N. Framing Members* –Floor and Ceiling Runners – Not Shown – As an alternate to Item 1 –For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
OEG BUILDINGMATERIALS – OEG Track

1O. Framing Members* – Floor and Ceiling Runner–Not Shown – In lieu of Item 1 – For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min .25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO – Viper X Track

2. Steel Studs - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. Steel Studs - (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J and 5K) Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. Framing Members* - Steel Studs - (As an alternate to Item 2, For use with Items 5C, 5I or 5K) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper25
CRACO MFG INC - SmartStud25
MARINO/WARE DIV OF WARE INDUSTRIES INC –Viper25
FUSION BUILDING PRODUCTS – Viper25
IMPERIAL MANUFACTURING GROUP INC – Viper25

2C. Framing Members* - Steel Studs - Not shown - In lieu of Item 2 - proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20
FUSIONBUILDING PRODUCTS – Viper20
IMPERIAL MANUFACTURING GROUP INC – Viper20

2D. Framing Members*- Steel Studs - In lieu of Item 2 - Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC - Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME Framing System
UNITED METAL PRODUCTS INC. - Type SUPREME Framing System

2E. Framing Members*- Steel Studs - (Not shown, As an alternate to Item 2) -For use with Items 5F or 5G or 5I or 5K only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS - CD ProSTUD
DMFCWBS L L C - ProSTUD
MBA METAL FRAMING - ProSTUD
RAM SALES L L C - Ram ProSTUD
STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2F. Framing Members* - Steel Studs - Not shown - In lieu of Item 2 - proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly heights.
SUPER STUD BUILDING PRODUCTS - The Edge

2G. Framing Members* - Steel Studs - Not shown - In lieu of Item 2 - proprietary channel shaped steel studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.
STUDCO BUILDING SYSTEMS - CROCSTUD

2H. Framing Members* - Steel Studs - (Not shown, As an alternate to Item 2) - Fabricated from min, 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C – TRUE-STUD

2I. Framing Members* - Steel Studs - (As an alternate to Item 2, For use with Items SC or 5L or 5K) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 3/4 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.
TELLING INDUSTRIES L L C - Viper25

2J. Framing Members* - Steel Studs - Not shown - In lieu of Item 2 - proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights
TELLING INDUSTRIES L L C - Viper20

2K. Framing Members*- Steel Studs - As an alternate to Item 2 - For use with Item 2, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
EB METAL INC - KB Stud

2L. Framing Members* - Steel Studs - As an alternate to Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OLMAR SUPPLY INC - PRIMESTUD

2M. Framing Members* - Steel Studs - As an alternate to Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - StudRite

2N. FramingMembers*- SteelStuds – As an alternate to Item 2 – proprietary channel shaped steel studs, min depth 3-1/2 in. and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height.
STEEL INVESTMENT GROUP L L C – AlphaSTUD

2O. Steel Studs - As an alternate to Item 2 - proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD - Rondo Lipped Wall Stud

2P. FramingMembers* – SteelStuds – As an alternate to Item 2 – proprietary channel shaped steel studs, min width as indicated under Item 5. min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
OEG BUILDING MATERIALS – OEG Stud

2Q. FramingMembers* –SteelStuds –Not Shown – In lieu of Item 2 – For use with Item 1O, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO – Viper X

3. Wood Structural Panel Sheathing - (Optional, For use with Item 5 Only), - (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural I sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, fastener lengths for gypsum panels increased by min. 1/2 in.

4. Batts and Blankets* - (Required as indicated under Item 5) - Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.
See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

4A. Batts and Blankets* - (Optional) - Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

4B. Batts and Blankets* - For use with Item 5K. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber-insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

4C. FiberSprayed* – (Optional) and as an alternate to Batts and Blankets (Item 4B) where insulation is required -Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See FiberSprayed (CCAZ).
AMERICANROCKWOOL MANUFACTURING LLC – Type Rockwool Premium Plus

5. Gypsum Board* - Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2 thru20	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-5/8	1 layer, 5/8 in. thick	Optional
2	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	1 layer, 5/8 in. thick	Optional
3	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC - 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE
UNITED STATES GYPSUM CO - 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR, SCX, SHX or WRC
USG BORAL ZAXAWI DRYWALL L L C SFZ - 1/2 in. Type C; 5/8 in. Type C, SCX
USG MEXICO S A DE C V. - 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, Steel Framing Members*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board, panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. Gypsum Board* - (As an alternate to Item 5) - 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.
CGC INC - Type SHX.
UNITED STATES GYPSUM CO - Type FRX-G, SHX.
USG MEXICO S A DE C V - Type SHX.

5B. Gypsum Board* - (Not Shown) - As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12).
RAY-BAR ENGINEERING CORP - Type RB-LBG

5C. Gypsum Board* - (For Use With Item 2B) Rated Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges. applied vertically or horizontally, (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 4 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC, starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.
CGC INC - Type SGX.
UNITED STATES GYPSUM CO - Type SCX, SGX.
USG BORAL ZAXAWI DRYWALL L L C SFZ - Type SCX
USG MEXICO S A DE C V - Type SCX.

5D. Gypsum Board* - (As an alternate to Item 5) - 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.
CGC INC - Type USGX.
UNITED STATES GYPSUM CO - Type USGX.
USG BORAL DRYWALL SFZ LLC- Type USGX
USG MEXICO S A DE C V - Type USGX.

5E. Gypsum Board* - (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC. DBA NELCO - Nelco

5F. Gypsum Board* - (As an alternate to Item 5) - For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and intermediate studs and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.
CGC INC - Type SGX.
USG BORAL ZAXAWI DRYWALL L L C SFZ - 5/8 in. thick Type SCX.

5G. Gypsum Board* - (As an alternate to Item 5) - For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2E	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC - 1/2 in. thick Type C, IP-X2 or IPC-AR; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE
UNITED STATES GYPSUM CO - 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-AR, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE
USG BORAL ZAXAWI DRYWALL L L C SFZ - 1/2 in. Type C; 5/8 in. Type C, SCX
USG MEXICO S A DE C V - 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. Gypsum Board* - (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, not to be used with Item 3) - Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).
PAC INDUSTRIES INC - Type X-Ray Shielded Gypsum

5I. Gypsum Board* - (As an alternate to Item 5) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.
CGC INC - Type ULX
UNITED STATES GYPSUM CO - Type ULX
USG MEXICO S A DE C V - Type ULX

5J. Gypsum Board* - (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).
RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

5K. Gypsum Board* - (Not Shown) - (As an alternate to Item 5) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) need not be staggered. The number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2 through 20	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4B)
1	3-5/8	1 layers, 5/8 in. thick	3-1/2 in.
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional

UNITED STATES GYPSUM CO - 5/8 in. thick Type ULIX

6. Fasteners - (Not shown) - For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer.Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. Furring Channels - (Optional, not shown, for single or double layer systems) - Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.

7A. Framing Members* - (Optional on one or both sides, not shown, for single or double layer systems) - As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. Furring Channels - Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.
b. Steel Framing Members* - Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL INC - Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

7B. Framing Members* - (Optional, Not Shown) - As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below:
a. Furring Channels - Formed of No. 25 MSG galv steel, Item 2, and Item 2A, on OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets (Item 4) and sound cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A and 5E.
b. Steel Framing Members* - Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC. – Type Isomax

7C. Framing Members* - (Not Shown) - (Optional on one or both sides, not shown, for single or double layer systems) - As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. Furring Channels - Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.
b. Steel Framing Members* - Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC – Type GENIECLIP

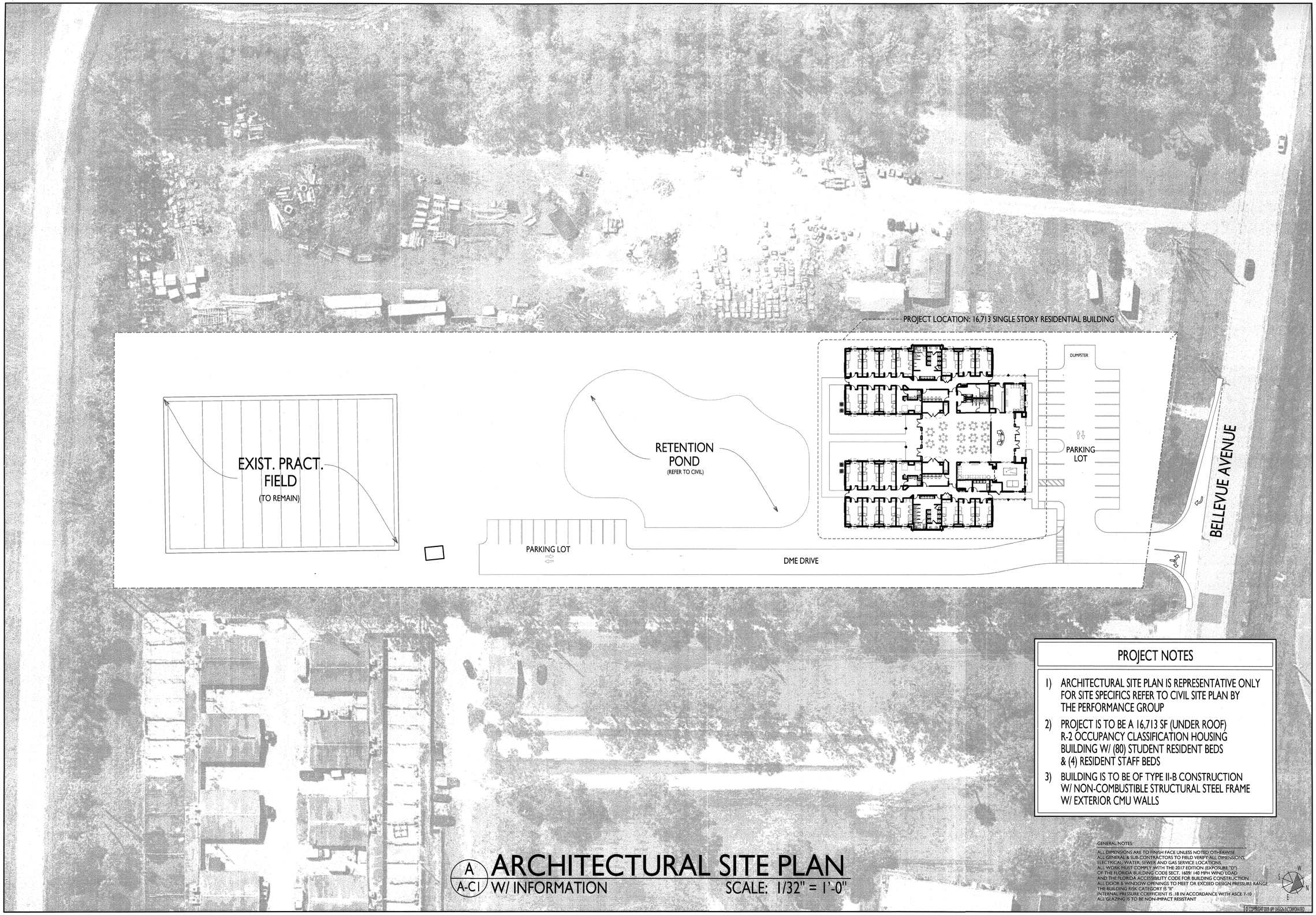
7D. Steel Framing Members - (Optional, Not Shown)* - Furring channels and resilient sound isolation clip as described below:
a. Furring Channels - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 4. Side joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC., approximately 1/2 in. from joint edge. Not for use with Item 5A and 5E.
b. Steel Framing Members* - Resilient sound isolation clip used to attach furring channels (Item 7Da) to studs. Clips spaced 24 in. OC., and secured to studs with No. 10 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS - RESILMOUNT Sound Isolation Clip - Type A237 or A237R.

7E. SteelFramingMembers* – (Optional on one or both sides, not shown, for single or double layer systems) -Furring channels and Steel Framing Members as described below:
a. FurringChannels – Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 7Eb.
Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.
b. SteelFramingMembers* – Used to attach furring channels (Item 7Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA – Type SonusClip

7F. SteelFramingMembers* – (Optional on one or both sides, not shown, for single or double layer systems) – Resilient channels and Steel Framing Members as described below:
a. Resilient Channels – Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b.
b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8-15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5.
c. SteelFramingMembers* – Used to attach resilient channels (Item 7Fa) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC – Type KC+ Assurance Clip

8. Joint Tape and Compound - Paper tape and compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a factory edge.

9. Siding, Brick Veneer or Stucco - (Optional, not shown) - Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, applied over gypsum panels. Br



PROJECT NOTES

1) ARCHITECTURAL SITE PLAN IS REPRESENTATIVE ONLY FOR SITE SPECIFICS REFER TO CIVIL SITE PLAN BY THE PERFORMANCE GROUP
2) PROJECT IS TO BE A 16,713 SF (UNDER ROOF) R-2 OCCUPANCY CLASSIFICATION HOUSING BUILDING W/ (80) STUDENT RESIDENT BEDS & (4) RESIDENT STAFF BEDS
3) BUILDING IS TO BE OF TYPE II-B CONSTRUCTION W/ NON-COMBUSTIBLE STRUCTURAL STEEL FRAME W/ EXTERIOR CMU WALLS

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
ALL GENERAL & SUB CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS, ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION (EXPOSURE "D") OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE
THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

A / A-C1 ARCHITECTURAL SITE PLAN W/ INFORMATION

SCALE: 1/32" = 1'-0"

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REVISIONS
1

DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF
DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

ARCHITECTURAL SITE PLAN

DRAWN BY: TEM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A-C1
SCALE: 1/32"=1'-0"	

0 10' 25' 50' 85'

ARCHITECT'S / ENGINEER'S SEAL

10/24/19

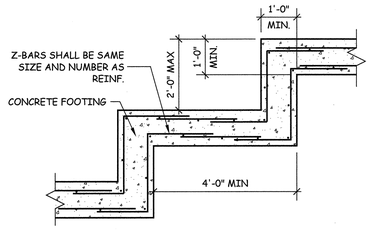
STRUCTURAL NOTES

General Notes:

1. The contractor is responsible for bracing the structure prior to the completion of all roof, floor, and wall diaphragms.
2. The General Contractor shall verify and coordinate all dimensions, details, and conditions. The Architect shall be notified of any discrepancies.
3. Coordinate truss/joist layout with other trades.
4. The contractor is responsible for the means and methods of construction including job site safety.
5. Where live loads for which each floor or portion there of a commercial or industrial building is or has been designed to exceed 50psf, such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs.
6. Submit written request to the Architect for approval of any proposed change to the requirements of the contract documents. Splicing, cutting, notching or other alterations to structural members are not permitted without written authorization of the structural engineer. Any unauthorized deviation from the contract documents, and correction thereof, is the responsibility of the contractor.
7. Refer to the Architectural and other Engineering drawings for additional foundations and structural related work.
8. All elevations are from top of floor slab elevation assumed to be 0'-0".
9. Contractor shall refer to other discipline Drawings and Specifications for embedded items or openings not shown.

Foundation Notes:

1. All foundation excavations should be poured immediately upon preparation and placement of reinforcing to minimize the possibility of water ponding in the trenches and deteriorating the bearing material. Immediately after pouring of foundations, the earth at the trenches should be compacted and placed over the edge of the footings to prevent water infiltration.
2. Design bearing pressure given in the design loads table is an assumed value as no subsurface information was provided. Owner/ Contractor to provide verification of this value or supply appropriate information.
3. Provide minimum 1'-6" from finish grade to the bottom of any exterior footing or turn down building slab. Contractor to provide footing steps as required by finish grade and other trades. Where footing steps are required, the entire unit should be poured monolithically from a point 4'-0" each side of the step. Provide "Z" bars to make reinforcing continuous. See detail below:



Concrete Notes:

1. Concrete 28 Day Strength shall be as follows:.
   a. Footings.....3,000 psi
   b. Slabs on Grade.....3,000 psi (non air entrained)
   c. Beams & Columns.....4,000 psi
2. All concrete and reinforcing steel shall conform to ACI 318-14 and ACI 301-10 latest edition, and ASTM A615-12. Contractor to have copies of the ACI documents at the job site during construction.
3. Fly ash, meeting ASTM C-618-12a Class F may be used to replace up to 25% of the cementitious material by weight. Slag, meeting ASTM C-989-13 may be used to replace up to 40% of the cementitious material by weight. Combined fly ash and slag shall not exceed 50% of cementitious material by weight. Contractor and supplier shall coordinate to ensure that required set times for concrete are not adversely affected by use of fly ash/slag. Contractor and all concrete subcontractors shall have experience with handling, placing and finishing concrete with fly ash/slag.
4. See architectural, electrical, mechanical, fire protection and plumbing drawings for drips, chamfers, reglets, slots, sleeves, rustications, inserts and anchors not noted on structural drawings. Unless shown on structural drawings, no openings larger than 12"x12" shall be placed in slabs or walls without requesting direction from Engineer. For openings not shown on structural drawings, approvals must be obtained from the engineer/architect prior to fabrication of steel and placement of concrete.
5. Reinforcing steel and accessories shall be detailed in accordance with ACI315 (Manual of Standard Practice for Detailing Reinforced Concrete Structures) and CRSI MSP-1 (Manual of Standard Practice), latest editions.
6. All welded reinforcing steel shall conform to ASTM A-706-09b, Grade 60, and be used only with prior permission from the structural engineer.
7. Provide top steel reinforcing in footings and turndown slab, same size and spacing as bottom steel, at any location where the soil changes from residual to engineered fill or from earth to rock. Top steel shall extend 8' minimum each side of the soil transition area. Use #3 stirrups at 18" o.c.
8. Deformed reinforcing steel shall conform to ASTM A615-12, Grade 60.
9. Provide 2'-6" x 2'-6" corner bars at corners of all continuously reinforced elements such as walls, footings, bond beams, etc. Corner bars shall be the same size, spacing, location, and quantity as the continuous reinforcing.
10. All reinforcing steel lap splices shall be Class "B" with 24" minimum, unless otherwise noted.
11. Provide (2) #4 bars x 4'-0" long in slabs on grade at all inside corners.
12. The following minimum concrete cover shall be provided for reinforcing bars (per ACI. 318-14):
    A. Cast against and permanently exposed earth.....3"
    B. Formed and Exposed to Earth or Weather
       I. #6 thru #18 bars.....2"
       II. #5 bars, W31 wire, & smaller.....1½"
    C. Formed and Not exposed to weather or in contact with the ground
       I. Slabs, walls, and joist (#11 bars and smaller).....3/4"
       II. Beams, girders, and columns.....1½"
       (Principle reinf., ties, stirrups, spirals)
13. Contractor shall treat soil under slabs, footings, and crawl spaces with EPA approved chemical vermin control or as required per building code.
14. Welded wire fabric (WWF) shall conform to ASTM A1064-16a. Lap 12" at splices. Use flat sheets.
15. Refer to Mechanical and Electrical drawings for concrete pads and foundations not shown on the structural drawings.
16. See sheet S0.2 for reinforcing lap splices & development.

DESIGN LOADS TABLE - 6th EDITION (2017) FBC

OCCUPANCY CATEGORY.....II

GRAVITY LOADS (ASCE 7-10)
FLOOR LIVE LOAD.....125 PSF
ROOF LIVE LOAD.....20 PSF
PEMB ROOF COLLATERAL LOAD.....5 PSF

WIND DESIGN LOADS (ASCE 7-10):
WIND SPEEDS:
V_{ult}.....139 (3 SECOND GUST)
V_{asd}.....108 MPH (3 SECOND GUST)
WIND IMPORTANCE FACTOR, Iw.....1.0
WIND EXPOSURE.....C
MAIN STRUCTURE:
INTERNAL PRESSURE COEFFICIENT.....+/- 0.18
COMPONENT & CLADDING PRESSURES:.....
SEE PEMB SHOP DRAWING/CALCULATION PACKAGE

SOIL BEARING PRESSURE (ASSUMED).....2,000 PSF
FLOOD ZONE INFO:
FLOOD ZONE CLASSIFICATION.....**
DESIGN FLOOD ELEVATION.....**
FINISHED FLOOR ELEVATION.....**
** SEE CIVIL DRAWINGS

Structural Steel Notes:

1. Structural steel shall be designed, fabricated, erected, etc. as per AISC Manual of Steel Construction, Fourteenth Edition. Unless specific reactions are shown, connections shall develop at least 1/2 of the total uniform load capacity tabulated in the tables of the Thirteenth Edition of the AISC Construction Manual, ASD for the given shape and span.
2. Structural steel shall be a minimum of:
   Channels, Angles, and Plates: ASTM A-36-08
   W-Shapes: ASTM A-992-06a, Grade 50
   Pipes: ASTM A-53-12 Grade B
   HSS: A-500-13 Grade C
3. All splices and attachments to be standard shear connections unless noted otherwise.
4. Connections of steel members shall be made with high strength steel bolts, (A-325-14) 3/4" dia. min. - bearing type connections or welds using E70 electrodes.
5. All beams bearing on masonry or concrete walls are to have a steel bearing plate 6" wide x 12" long x 1/2" thick with (2) 1/2" diameter x 6" long headed studs unless noted otherwise.
6. All non PEMB columns shall be anchored with 3/4" diameter F1554-15 Grade 36 bolts (4 minimum) unless otherwise noted in anchor bolt schedule. Anchor bolts shall be straight and have embedded end nut. Washer shall be tack welded to end nut. Threads to project 5 1/2" above top of footing to receive double nuts and washers for leveling and nominal 2" of non-shrink grout, unless noted otherwise.
7. All welding shall be performed by operators qualified in accordance with AWS tests for the types of welding required for this project.
8. Protect structural steel from earth, gravel, and/or concrete with 1/8" thick hydrocide mastic.
9. Provide minimum of L4 x 4 x 1/4" for deck or forming support at perimeter of all elevated slabs, columns or openings unless otherwise indicated.
10. Refer to the Civil, Architectural, Mechanical and Electrical drawings for structural steel items not shown on the structural plans.
11. Minimum welds, U.N.O.:

Joist girders to supports	1/4" x 2" each side
Bar joist to supports	1/8" x 2" each side
All other not specified	1/8" fillet, 2" long except where noted as "all around"

Pre-Engineered Metal Building Notes:

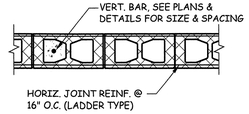
☒ Moment Frames
☒ Cable bracing is allowed in roof plane only
☒ Portal frames
☒ Roof Dead Load = Weight of Steel Building only
☒ Collateral Dead Load 5 psf
☒ Roof Live Load
Primary Framing 20 psf w/ reductions allowed per Code
Secondary Framing 20 psf
☒ Wind Speed 139 MPH Exposure= C
☒ Enclosed Category= II

NOTES:

1. The responsibility of the design of the pre-engineered building structure is hereby delegated to a "Delegated Engineer" employed by the building manufacturer
2. Structural delegated engineering documents shall identify the project and list loading other design criteria. Structural delegated engineering documents shall include fabrication and erection drawings which indicate in detail the construction of the standard structure used or as modified to comply with the requirements of the particular project. They shall indicate all connection details, openings and other special details. They shall show the magnitude and location of building reactions on the foundation under all design conditions. Calculations supporting the design shall be submitted not only for the standard structure but for modifications and for related components requiring structural design.
3. Pre-Engineered metal building frames and components supporting equipment, framing, or other concentrated loads to meet deflection criteria per the indicated building code. Calculations supporting the deflection design shall be submitted as part of the structural design.
4. The footing sizes and reinforcements shown are assumed and may be adjusted when the final reactions are furnished by the metal building manufacturer. Do not proceed with metal building footings until specifically authorized by the architect or structural engineer.
5. All column bases shall be pinned, no moment bases.
6. Anchor bolts shall conform to ASTM F1554. Grade 36. See detail 4/S5.1.

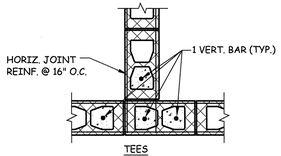
Masonry Notes:

1. CMU to be of lightweight aggregate design per ASTM C90-14. f'm = 1500 psi or greater
2. Mortar shall be: (type S) for block; (type N) for veneer block and brick
3. Minimum masonry reinforcing as follows (U.N.O.):

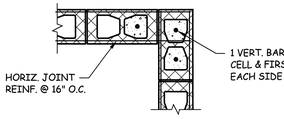


WALLS

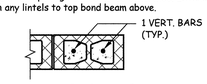
4. Horizontal reinforcing for masonry walls shall be Ladur Type Dur-O-Wall assembly or approved equal and shall have product approval of governing code. Reinforcing shall be manufactured from cold drawn steel wire conforming to ASTM A82-07. Cross rods and side rods shall not be less than No. 9 gage wire (ladder type).
5. Grout hollow masonry units soled as shown on plans. Fine and coarse grouts shall conform to ASTM C476-02 and shall attain a minimum compressive strength of 3000 psi at 28 days. Grout shall attain 80% of design strength prior to application of service loads.
6. The selection of fine and coarse grouts and the maximum grout pour height shall be in conformance with the grout space requirements set forth in the specification for masonry structures (ACI530/ASCE5/TMS502-13).
7. Bond beam lintels should extend a minimum of 8" past the masonry opening. Vertical reinforcing shall extend up into or thru the bond beam. See detail (2/S0.2) for typ. opening reinforcing.
8. Lap reinforcing in CMU 48 bar diameters.
9. Fill all cells below finished floor or grade with concrete. (Whichever is higher)
10. Provide cleanouts in the bottom course when grout/concrete fill pour height exceeds 5'-0". Locate at vertical reinforcing at partially grouted walls and at 32" o.c. at fully grouted walls.
11. Grout shall be consolidated immediately after pouring and reconsolidated.
12. Stop each intermediate grout lift 1 1/2" below the top of the masonry.
13. Anchor into grout block cells only.
14. Provide 3/4" clear space between reinforcing and CMU face shell where bars are indicated to be located near a particular face. Unless noted otherwise locate bars at center of cell.
15. Provide rebar positioners at 4'-0" o.c. min. vertically.
16. Fill (3) cells at all intersections of CMU wall.



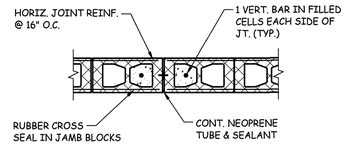
17. Tooth block at intersection or butt intersection wall and provide 1/4" x 1" bar "Z" ties at 48" o. vertical.
18. Fill (3) cells at all corners.



19. Fill (1) cell each side of all openings unless noted otherwise. Extend vertical cmu reinforcing through any lintels to top bond beam above.



20. Provide contraction joints at a maximum spacing of 30'-0" o.c. Discontinue joint reinforcing at control joints. Joints to be free of mortar.



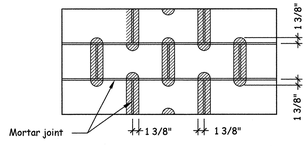
21. Mortar across webs of cmu if they are:
    a) adjacent to cells that are to be grouted for partially reinforced construction,
    b) starting courses at all locations, and
    c) all piers, columns, and pilasters.
22. See plans for masonry lintel type (M*) and schedule on sheet S0.2 for size and reinforcing. For mechanical/equipment openings 4'-0" wide or less where lintel is not shown use "M1". Contact engineer for larger openings where lintel is not specified.

Post Installed Anchor Notes:

The below products are the design basis for this project. Substitution requests for products other than those listed below may be submitted by the contractor to the Engineer-Of-Record (EOR) for review. Substitution will only be considered for products having a code report recognizing the product for the appropriate application provide load tables.

A. For Anchoring Into Concrete:
   I Mechanical anchors shall have been tested and qualified for use in accordance with ACI 355.4-11 and ICC-ES AC 193 & ICC-ES-ESR-2713.
   Pre-approved anchors include:
   (1) Simpson Strong Tie "Titen-HD" (ICC-ES ESR-2713)
   (2) Simpson Strong Tie "Strong Bolt 2" (ICC-ES ESR-3037)
   (3) Simpson Strong Tie "Torq-Cut" (ICC-ES ESR-2705)
   (4) Powers Wedge Bolt + (ICC-ES ESR-2526)
   (5) Powers Power - Stud + SD1 (ICC-ES ESR-2818)
   II Adhesive anchors shall have been tested and qualified for use in accordance with ACI 355.4 and ICC-ES AC 308.
   Pre-Approved anchors include:
   (1) Simpson Strong Tie "Set-XP" (ICC-ES ESR 2508)(ICC-ES AC308)
   (2) Powers Pure 110 + (ICC-ES ESR-3298)

B. For Anchoring into Masonry:
   I Anchorage to solid-grouted concrete masonry
   (1) Mechanical anchors shall have been tested and qualified for use in accordance with ICC-ES AC01 or ICC-ES AC106.
   Pre-Approved anchors include:
   (A) Simpson Strong Tie "Titen-HD" (ICC-ES ESR-1056)
   (B) Simpson Strong Tie "Wedge-All" (ICC-ES ESR-1396)
   (C) Simpson Strong Tie "Strong-Bolt 2" (TAPMO-ES ESR-240)
   (D) Powers Wedge Bolt + (ICC-ES ESR-1678)
   (E) Powers Power Stud + SD1 (ICC-ES ESR-2966)
   (2) Adhesive anchors shall have been tested and qualified for use in accordance with ICC-ES AC58.
   Pre-Approved anchors include:
   (A) Simpson Strong Tie "Set" (ICC-ES ESR-1772)
   II Anchorage to hollow concrete masonry
   (1) Mechanical anchors shall have been tested in accordance with ICC-ES AC106.
   Pre-Approved anchors include:
   (A) Simpson Strong Tie "Titen-HD" (ICC-ES-ESR-1056)
   (2) Adhesive anchors with screen tubes shall have been tested and qualified for use in accordance with ICC-ES AC58. The appropriate screen tube shall be used as recommended by the adhesive manufacturer.
   Pre-Approved anchors with screen tubes include:
   (A) Simpson Strong Tie "Set" (ICC-ES ESR-1772)



Anchor is allowed in all non-hatched areas.

Post Installed Anchor into Grout Filled CMU

WCT Associates Inc
1901 Big Crane Loop
Port Orange, FL 32128
Phone: (386) 265-4911
Fax: (386) 265-4912
www.wctassociates.com
Engineering COA #28260

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- ☐ DESIGN DEVELOPMENT
- ■ CONSTRUCTION DOCUMENTS

Date: 10/29/19

Designed By: W.C.T.
Drawn By: S.S.B.
Reviewed By: W.C.T.

Project No. 180027

Revisions:

Sheet: 1 of 6
Sheet No. S0.1

WALTER CARL TAYLOR, P.E.
54548

10/29/2019

WALTER CARL TAYLOR LICENSE No. 54548 STATE OF FLORIDA PROFESSIONAL ENGINEER

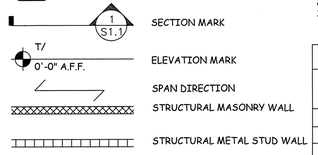
STRUCTURAL ABBREVIATIONS

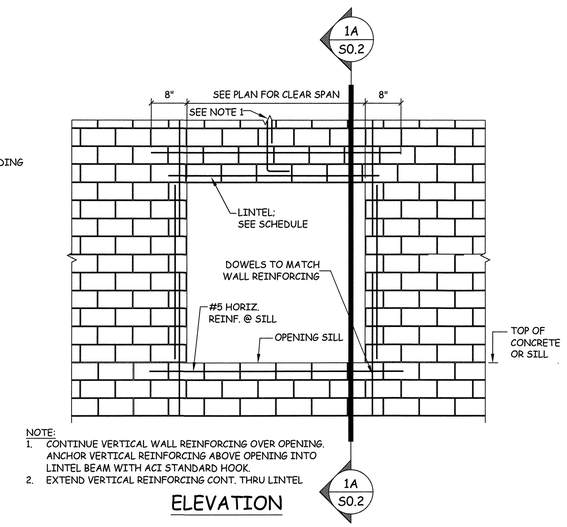
ALT	ALTERNATE
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
AB	ANCHOR BOLTS
ARCH	ARCHITECTURE/ARCHITECTURAL
BP	BASE PLATE/BEARING PLATE
BRG	BEARING
BM	BEAM
BLK	BLOCK
BOT	BOTTOM
BLDG	BUILDING
CANT	CANTILEVER
CL	CENTERLINE
CLR	CLEAR/CLEARANCE
COL	COLUMN
CONC	CONCRETE
CB	CONCRETE BEAM
CC	CONCRETE COLUMN
CMU	CONCRETE MASONRY UNIT
CONT	CONTINUOUS
CONNX	CONNECTION
CONST	CONSTRUCTION
CSJ	CONSTRUCTION JOINT
CJ	CONTRACTION JOINT / CONTROL JOINT
DET	DETAIL
DEPT	DEPARTMENT
DFT	DRY FILM THICKNESS
DIAM	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DR	DRAIN
DWG	DRAWING
EA	EACH
EE	EACH END
EF	EACH FACE
EW	EACH WAY
EL, ELEV	ELEVATION
ELECT	ELECTRICAL
EMB	EMBEDMENT
ENGR	ENGINEER
E.S.	EACH SIDE
EXIST	EXISTING
EXT	EXTERIOR
FV	FIELD VERIFY
FF	FINISHED FLOOR
FLR	FLOOR
FD	FLOOR DRAIN
FTG	FOOTING
GA	GAGE/GAUGE
GALV	GALVANIZED
G C	GENERAL CONTRACTOR
GLU-LAM	GLUE LAMINATED
G.N.	STRUCT. GENERAL NOTES
HAS	HEADED ANCHOR STUD
HT	HEIGHT
HORIZ	HORIZONTAL
HSB	HIGH STRENGTH BOLTS
INT	INTERIOR
IBC	INTERNATIONAL BUILDING CODE
JT	JOINT
JST	JOIST
LGTH	LENGTH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MFRS	MANUFACTURE/MANUFACTURERS
M B	MASONRY BEAM
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
NWT	NORMAL WEIGH TOPPING
O.C.	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
PEMB	PRE-ENGINEERED METAL BUILDING
P.I.A.	POST INSTALLED ANCHORS
PL	PLATE
PLY	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PCC	PRECAST CONCRETE
PRE-ENG	PRE-ENGINEERED
PREFAB	PREFABRICATED
PROJ	PROJECTION
PT	PRESSURE TREATED
PW	PANEL WIDTH
REF	REFERENCE
REINF	REINFORCING
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RS	ROUGH SAWN
RW	RETAINING WALL
RD	ROOF DRAIN
SCHED	SCHEDULE
SIM	SIMILAR
SPC	SPACE/SPACES
SPECS	SPECIFICATIONS
SQ	SQUARE
SA	STUD ANCHOR
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUC	STRUCTURAL
SYM	SYMMETRICAL
SF	STEPPED FOOTING
THK	THICK
THD	THREAD/THREADED
TB	TIE BEAM
TBD	TO BE DETERMINED
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T.O.C.	TOP OF CONCRETE
T.O.S.	TOP OF STEEL
TYP	TYPICAL
TS	TUBE STEEL
U.N.O.	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VOL	VOLUME
WF	WIDE FLANGE
WP	WATERPROOF
WWF	WELDED WIRE FABRIC
WH	WEEP HOLE
WT	WEIGHT
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORKING POINT

MATERIALS LEGEND

- CONCRETE BLOCK
- CONCRETE IN SECTION
- BRICK
- METAL IN SECTION
- GYP. BOARD, PLASTER, OR CONCRETE IN PLAN AS NOTED
- SOIL IN SECTION
- CRUSHED STONE
- BATT INSULATION
- RIGID INSULATION
- PLYWOOD
- FINISH WOOD
- WOOD FRAMING

STRUCTURAL SYMBOLS



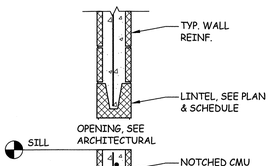


NOTE:
1. CONTINUE VERTICAL WALL REINFORCING OVER OPENING. ANCHOR VERTICAL REINFORCING ABOVE OPENING INTO LINTEL BEAM WITH ACI STANDARD HOOK.
2. EXTEND VERTICAL REINFORCING CONT. THRU LINTEL

ELEVATION

MASONRY OPENING DETAIL 1

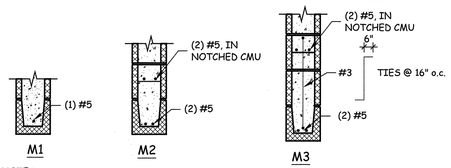
SCALE: N.T.S.



SECTION A-A

MASONRY OPENING DETAIL 1A

SCALE: N.T.S.



NOTES:
1. EXTEND HORIZONTAL REINFORCING 8" PAST OPENING & EXTEND JAMB AND OTHER VERTICAL REINFORCING THRU PRECAST LINTELS.
2. FILL ALL CELLS.
3. TYPICAL WALL REINFORCING NOT SHOWN FOR CLARITY.

MASONRY LINTEL SCHEDULE*

MARK	WIDTH	BOTTOM UNIT	OVERALL LINTEL DESIGNATION (CAST-CRETE)	COMMENTS
M1	**	NOTE 1	8F8 - 1B	SEE LINTEL DETAILS
M2	**	NOTE 1	8F16 - 2B/2T	SEE LINTEL DETAILS
M3	**	NOTE 1	8F24-2B/2T	SEE LINTEL DETAILS

1. BOTTOM UNIT TO BE STANDARD PRECAST/PRESTRESSED CAST-CRETE UNIT FOR ACTUAL SPAN CONDITION w/ 8" BEARING EACH END.
2. * CRITERIA AND DESCRIPTIONS BASED UPON CAST-CRETE™ CORPORATION PRODUCTS. ALTERNATE EQUIVALENT PRODUCTS MAY BE SUBMITTED FOR SUBSTITUTION APPROVAL PER BID/CONTRACT DOCUMENTS.

MASONRY LINTEL SCHEDULE 2

SCALE: N.T.S.

SCHEDULE OF COMPRESSION LAP & DEVELOPMENT LENGTHS

BAR SIZE	DOWEL EMBEDMENT (IN)	LAP (IN)
#3	9	12
#4	11	15
#5	14	19
#6	17	23
#7	19	27
#8	22	30
#9	25	34
#10	28	38
#11	31	43

CONC. LAP SCHEDULE 3

SCALE: N.T.S.

WCT Associates Inc
1901 Big Crane Loop
Port Orange, FL 32128
Phone: (386) 265-4911
Fax: (386) 265-4912
www.wctassociates.com
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Designed By: W.C.T.
Drawn By: S.S.B.
Reviewed By: W.C.T.

Project No. 180027

Revisions:

Sheet: 2 of 6

Sheet No. S0.2

WALTER CARL TAYLOR, P.E.
54548

10/29/2019

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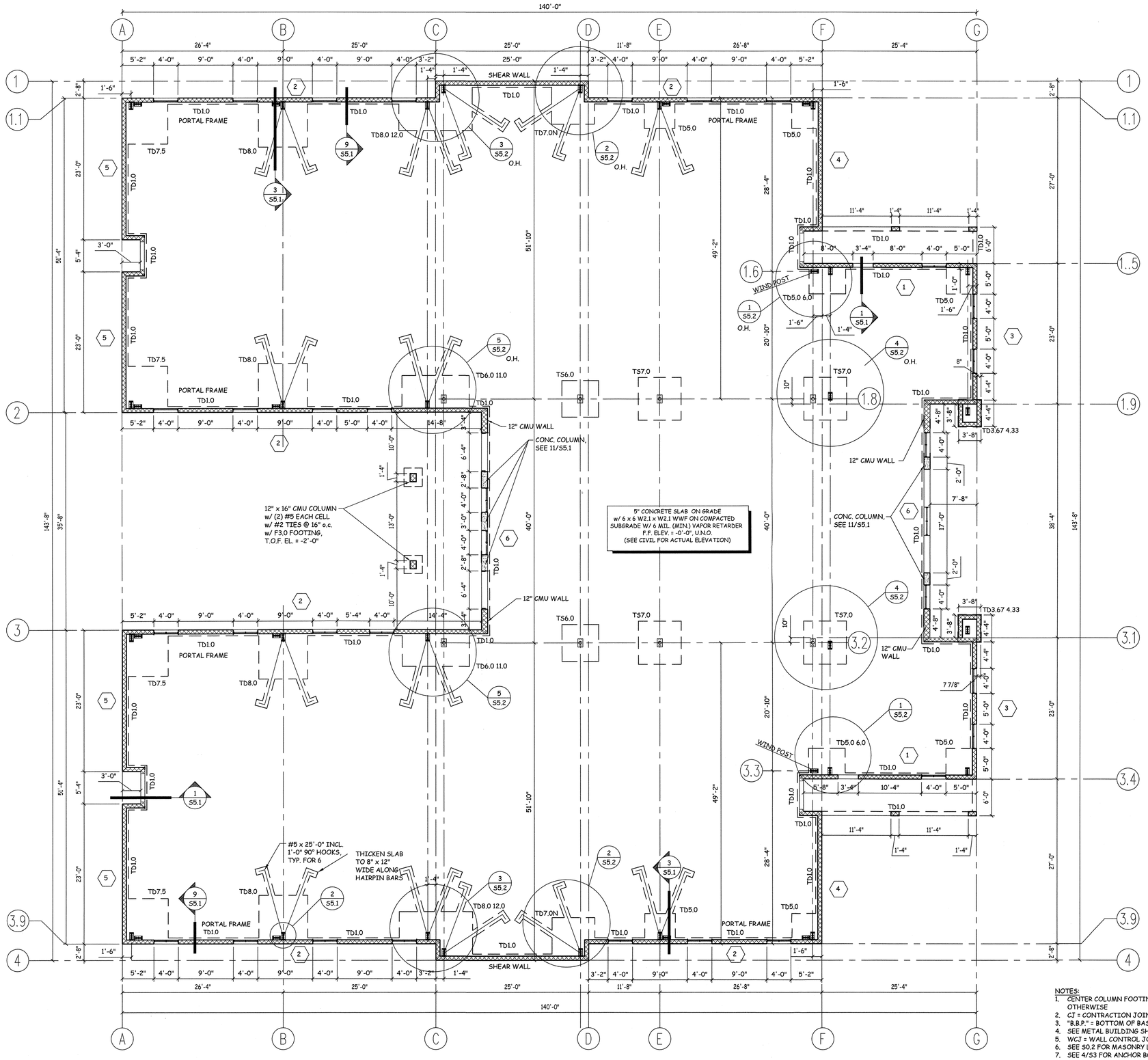

FOUNDATION PLAN 1

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

CMU WALL REINF. SCHED.

MARK	VERTICAL REINFORCING
1	#5 @ 48" o.c.
2	#5 @ 32" o.c.
3	#5 @ 24" o.c.
4	#5 @ 16" o.c. OR #6 @ 24" o.c.
5	#6 @ 16" o.c.
6	(2) #6 (1 EACH FACE) @ 16" o.c.

FOOTING SCHEDULE

MARK	SIZE (W X L X D)	REINFORCING
TD1.0	1'-0" X CONT. X 1'-8" TURNDOWN SLAB	(3) #4 CONT.
TD3.67 4.33	3'-8" X 4'-4" X 2'-8" TURNDOWN SLAB	(5) #5 E.W.
TD5.0	5'-0" X 5'-0" X 2'-0" TURNDOWN SLAB	(6) #5 E.W.
TD7.0	7'-0" X 7'-0" X 2'-0" TURNDOWN SLAB w/ NOTCH	(8) #5 E.W.
TD7.5	7'-6" X 7'-6" X 2'-0" TURNDOWN SLAB	(8) #5 E.W.
TD8.0	8'-0" X 8'-0" X 2'-0" TURNDOWN SLAB	(7) #6 E.W.
TD5.0 6.0	5'-0" X 6'-0" X 2'-0" TURNDOWN SLAB	(6) #5 E.W.
TD6.0 11.0	6'-0" X 11'-0" X 2'-0" TURNDOWN SLAB	(7) #5 x 10'-6" & (11 #5 x 5'-6"
TD8.0 12.0	8'-0" X 12'-0" X 2'-0" TURNDOWN SLAB w/ NOTCH	(8) #6 x 11'-6" & (12) #5 x 7'-6"
TS7.0	7'-0" X 7'-0" X 2'-0" THICKENED SLAB	(8) #5 E.W.
F3.0	3'-0" X 3'-0" X 1'-4"	(4) #5 E.W.

NOTES:
1. CENTER COLUMN FOOTINGS ON MAIN STRUCTURAL FRAME COLUMN UNLESS NOTED OTHERWISE
2. CJ = CONTRACTION JOINT, SEE CONCRETE NOTES SHEET S0.1
3. "B.B.P." = BOTTOM OF BASE PLATE ELEV. = 0'-0" U.N.O.
4. SEE METAL BUILDING SHOP DRAWINGS FOR ANCHOR BOLT SIZE AND LOCATION
5. WCJ = WALL CONTROL JOINT, SEE MASONRY NOTES ON SHEET S0.1
6. SEE S0.2 FOR MASONRY LINTEL SCHEDULE.
7. SEE 4/S3 FOR ANCHOR BOLT DETAILS.
8. ALL CMU WALLS TO BE 8" THICK U.N.O.
9. REINFORCE SHEAR WALLS w/ #5V @ 48" o.c., #4H @ 48" o.c., (2) #6V @ ENDS. GROUT ALL CELLS.

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Date: 10/29/19

Designed By: W.C.T.
Drawn By: S.S.B.
Reviewed By: W.C.T.

Project No. 180027

Revisions:

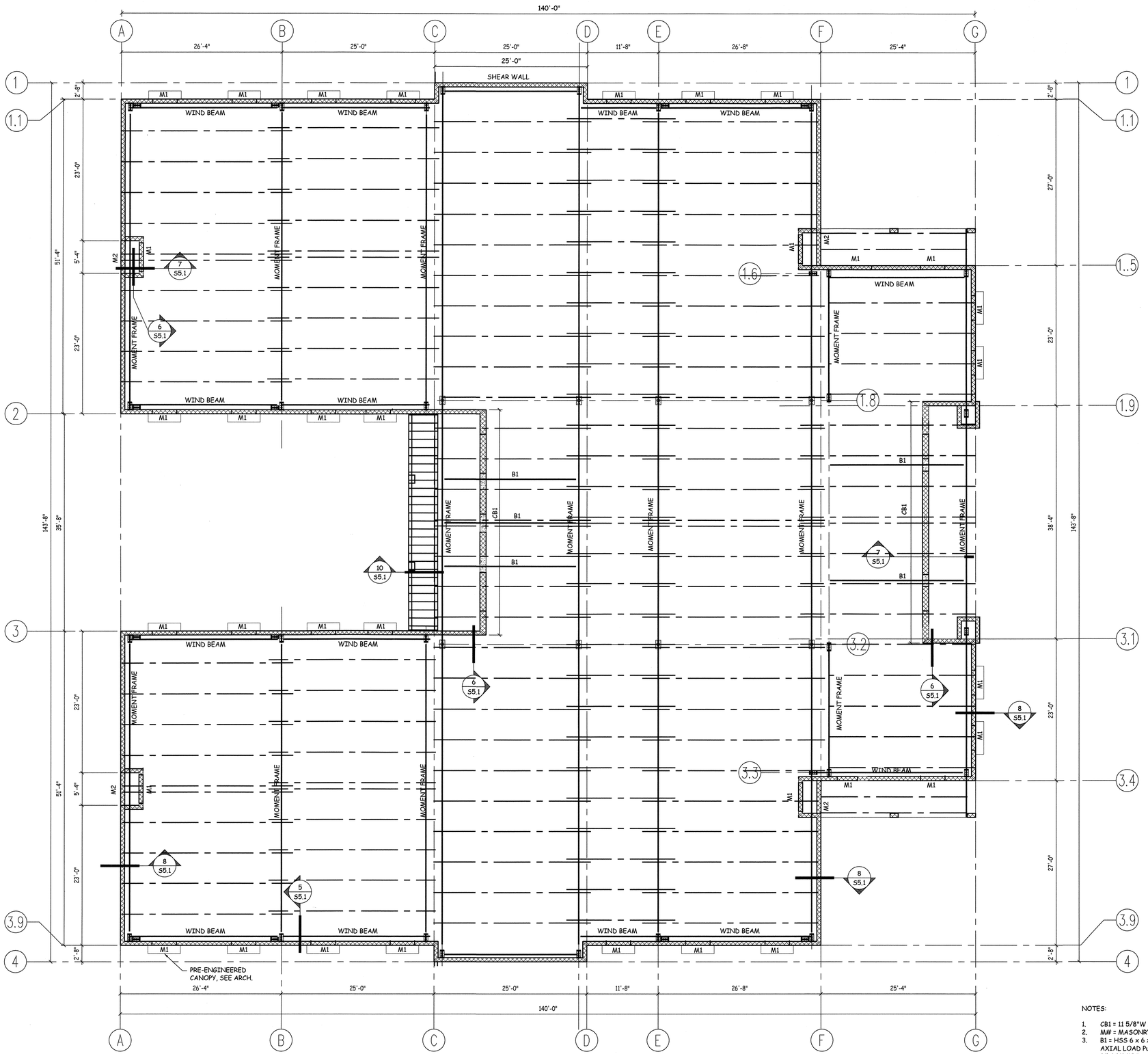
Sheet: 3 of 6

Sheet No. S1.1

WALTER CARL TAYLOR, P.E.
54548

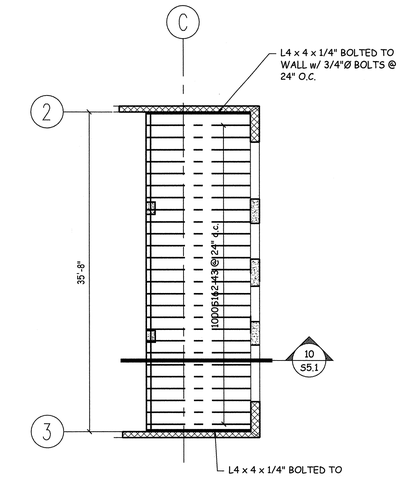
10/29/2019

WALTER CARL TAYLOR LICENSE No. 54548 STATE OF FLORIDA PROFESSIONAL ENGINEER



MAIN ROOF FRAMING PLAN 1

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



SHED ROOF FRAMING PLAN 2

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

NOTES:

1. CB1 = 11 5/8"W x 24" D CONCRETE BEAM w/ (5) #5 EACH FACE & #4 TIES @ 16" o.c.
2. M# = MASONRY LINTEL, SEE SCHEDULE ON SHEET S0.2
3. B1 = HSS 6 x 6 x 3/8" WALL BRACE @ TOP OF CONCRETE COLUMN. AXIAL LOAD Pu = 10.0k. ATTACH TO COLUMN w/ 12" x 12" x 1/2" PL w/ (4) 3/4"Ø P.I.A. ATTACHMENT TO PEMB FRAME BY PEMB SUPPLIER

WCT Associates Inc
1901 Big Crane Loop
Port Orange, FL 32128
Phone: (386) 265-4911
Fax: (386) 265-4912
www.wctassociates.com
Engineering COA #28260

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Drawing Title:
ROOF FRAMING PLAN

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- ■ CONSTRUCTION DOCUMENTS

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Designed By:	W.C.T.
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Revisions:

Sheet:	Sheet No.
4 of 6	S3.1

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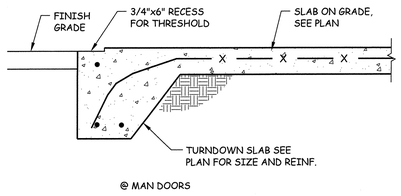
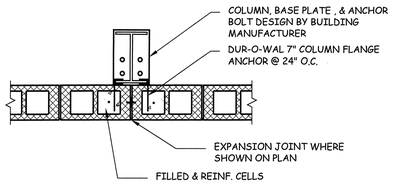


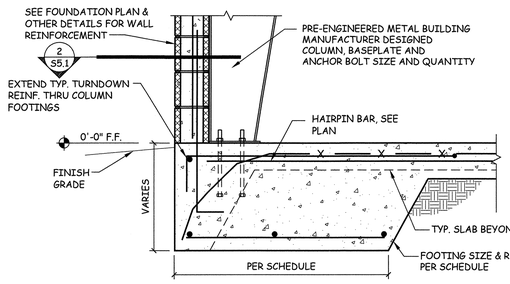
FOUNDATION DETAIL 1

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



CONNECTION DETAIL 2

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



FOUNDATION DETAIL 3

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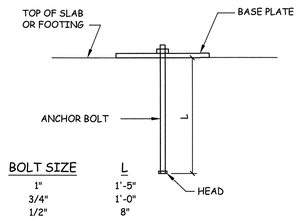
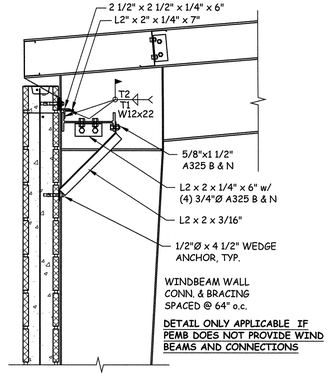


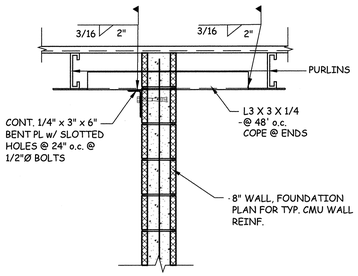
ANCHOR BOLT DETAIL 4

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



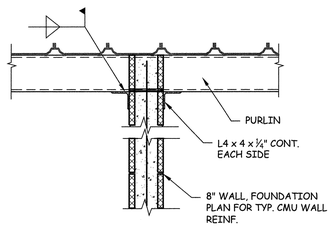
WALL DETAIL 5

SCALE: N.T.S.



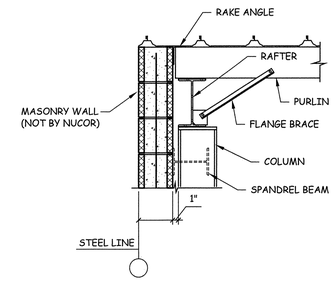
TYP. CMU WALL BRACING DETAIL 6

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



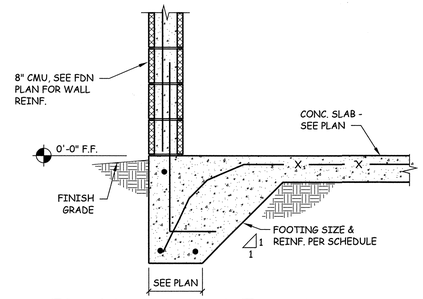
TYP. CMU WALL BRACING DETAIL 7

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



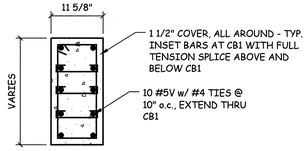
NON-LOAD BEARING MASONRY WALL DETAIL 8

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



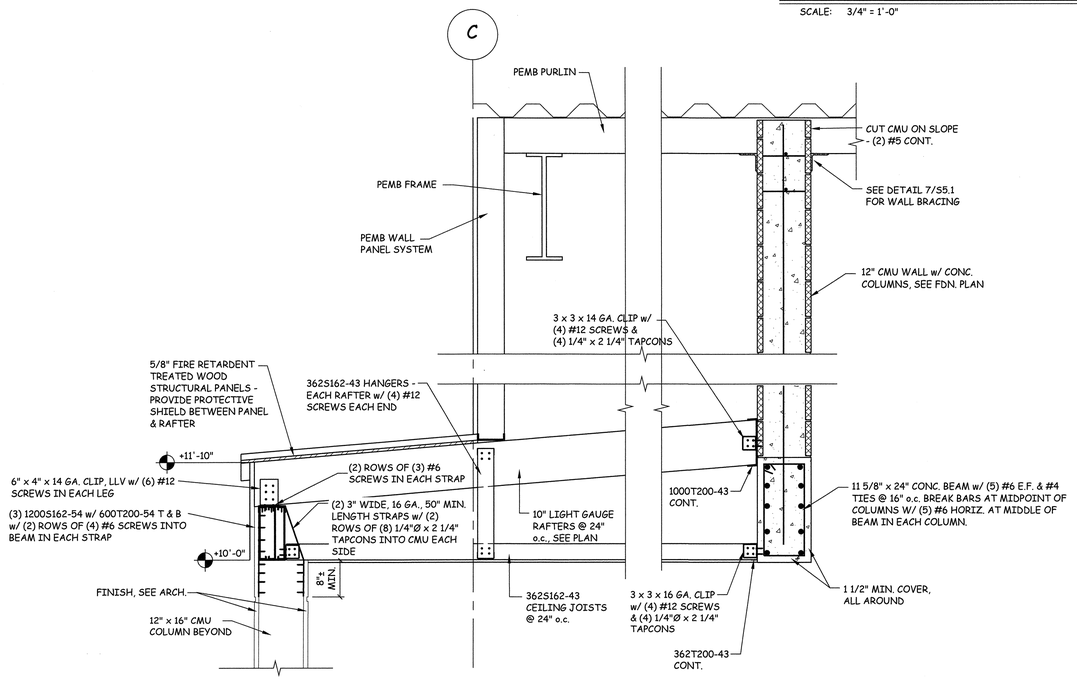
FRONT WALL DETAIL 9

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



CONCRETE COLUMN 11

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



DETAIL 10

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

WCT Associates Inc
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Port Orange, FL 32128
Phone: (386) 265-4911
Fax: (386) 265-4912
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DAYTONA BEACH, FL 32114

Drawing Title:
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Date: 10/29/19

Designed By: W.C.T.
Drawn By: S.S.B.
Reviewed By: W.C.T.

Project No. 180027

Revisions:

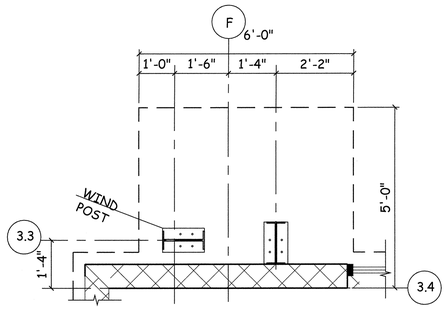
Sheet: 5 of 6

Sheet No. S5.1

WALTER CARL TAYLOR, P.E.
54548

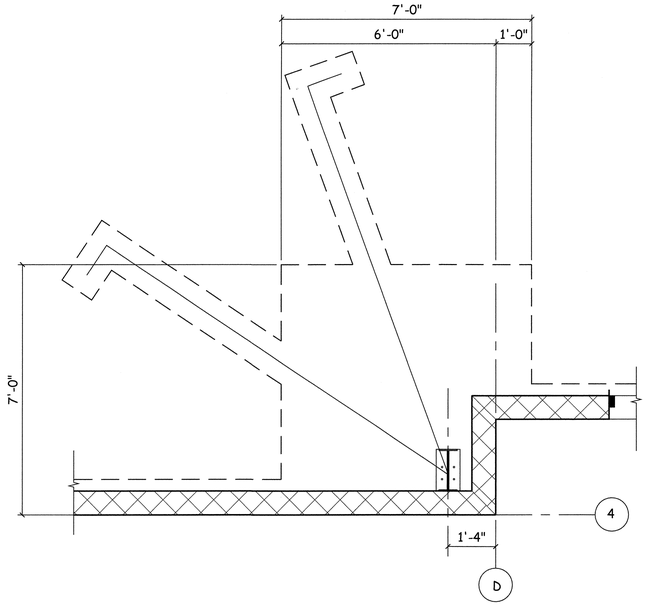
10/29/2019

WALTER CARL TAYLOR LICENSE No. 54548 STATE OF FLORIDA PROFESSIONAL ENGINEER



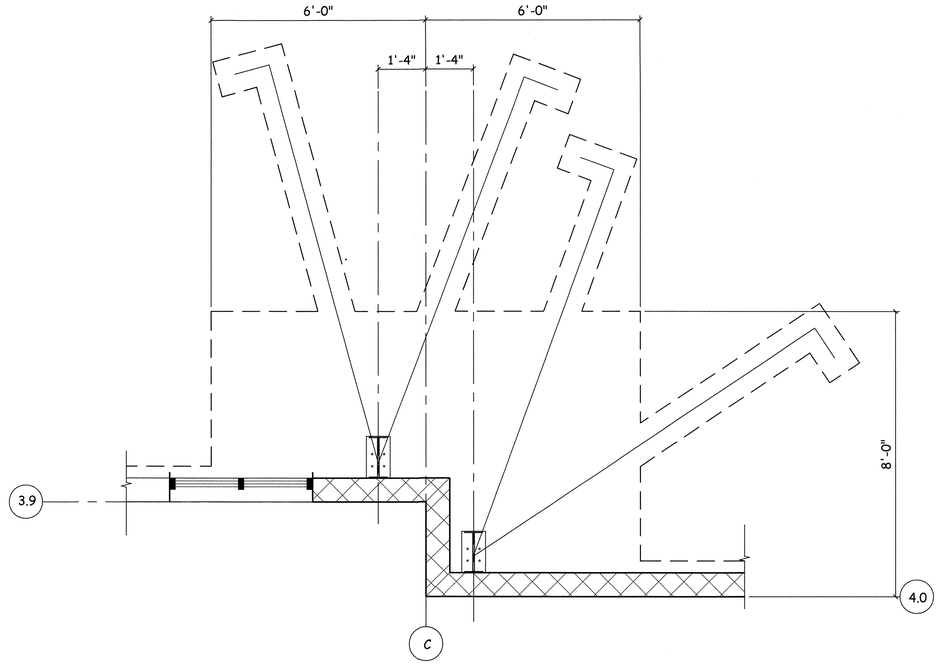
FOUNDATION DETAIL 1

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



FOUNDATION DETAIL 2

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



FOUNDATION DETAIL 3

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

FOUNDATION DETAIL 4

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

FOUNDATION DETAIL 5

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

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DEVELOPMENT
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Date: 10/29/19

Designed By: W.C.T.
Drawn By: S.S.B.
Reviewed By: W.C.T.

Project No. 180027

Revisions:

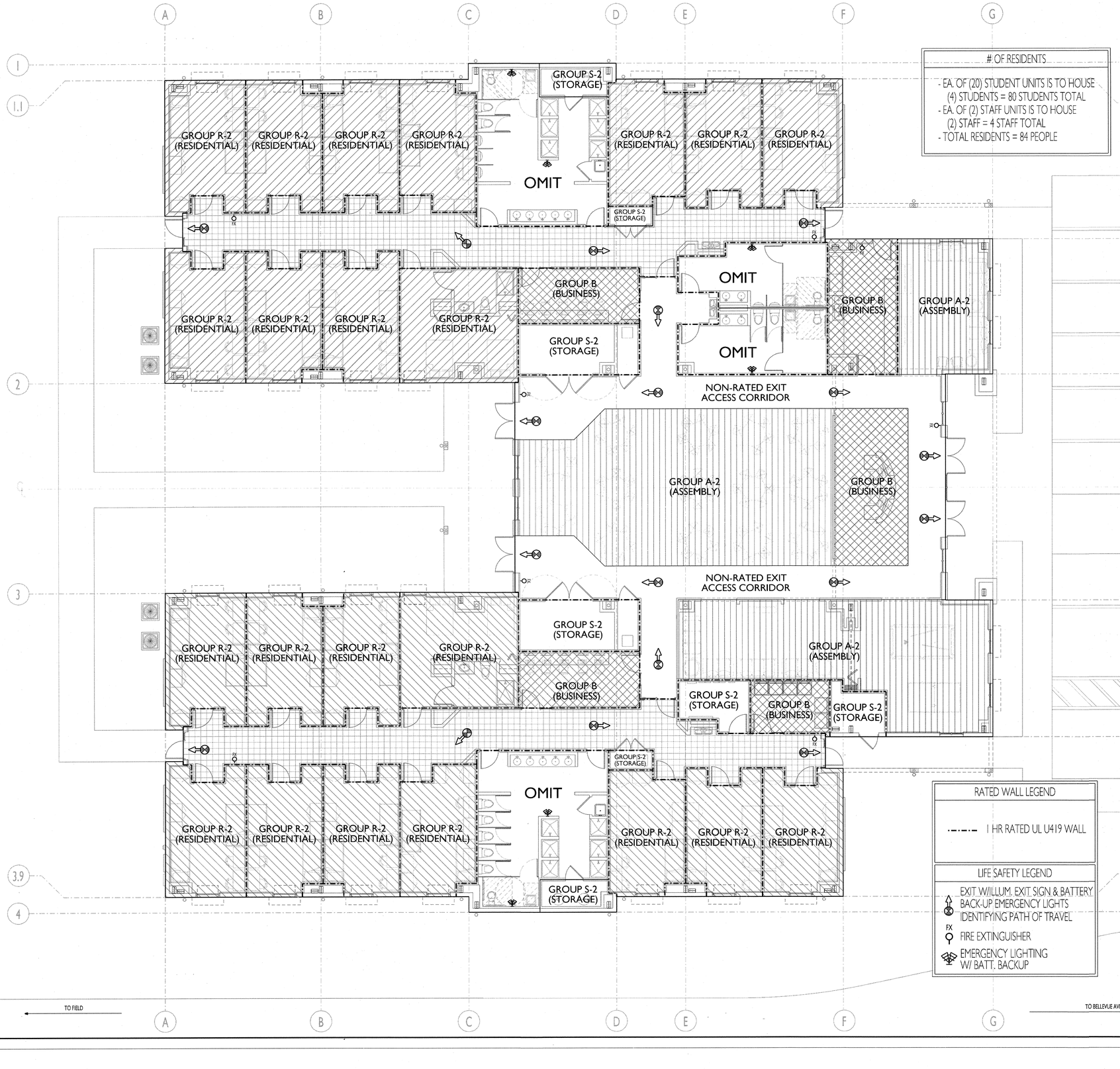
Sheet: 6 of 6

Sheet No. 55.2

WALTER CARL TAYLOR, P.E.
54548

10/29/2019

WALTER CARL TAYLOR LICENSE No. 54548 STATE OF FLORIDA PROFESSIONAL ENGINEER



OF RESIDENTS
- EA. OF (20) STUDENT UNITS IS TO HOUSE (4) STUDENTS = 80 STUDENTS TOTAL - EA. OF (2) STAFF UNITS IS TO HOUSE (2) STAFF = 4 STAFF TOTAL - TOTAL RESIDENTS = 84 PEOPLE

APPLICABLE CODES

2017 (6th) EDITION	FLORIDA BUILDING CODE	- BUILDING
2017 (6th) EDITION	FLORIDA BUILDING CODE	- ACCESSIBILITY
2017 (6th) EDITION	FLORIDA BUILDING CODE	- ENERGY CONSERVATION
2017 (6th) EDITION	FLORIDA BUILDING CODE	- FUEL - GAS
2017 (6th) EDITION	FLORIDA BUILDING CODE	- MECHANICAL
2017 (6th) EDITION	FLORIDA BUILDING CODE	- PLUMBING
2017 (6th) EDITION	FLORIDA FIRE PREVENTION CODE	- FIRE
2014 EDITION	NATIONAL ELECTRICAL CODE	- ELECTRICAL

OCCUPANCY

OCCUPANCY(S)/ GROUP CLASSIFICATION: GROUP R-2 (RESIDENTIAL/DORMITORIES)

GROSS FLOOR AREA : 15,651 SF (NFPA): RESIDENTIAL

GROUP R-2 (RESIDENTIAL/DORMITORIES): 6,310 SF @ 50 SF PER PERSON = 127 OCCUPANTS MAXIMUM

GROUP A-2 (ASSEMBLY): UNCONCENTRATED 2,575 SF @ 15 SF PER PERSON = 172 OCCUPANTS MAXIMUM

GROUP B (BUSINESS): 1,118 SF @ 100 SF PER PERSON = 12 OCCUPANTS MAXIMUM

GROUP S-2 (STORAGE): 714 SF @ 300 SF PER PERSON = 3 OCCUPANTS MAXIMUM

OMISSIONS:
1 HR RATED CORRIDORS 1,901 SF @ 0 SF PER PERSON
NON RATED CORRIDORS 1,401 SF @ 0 SF PER PERSON
RESTROOMS 1,632 SF @ 0 SF PER PERSON
= 0 OCCUPANTS

TOTAL OCCUPANTS (ALL OPEN:15,651 SF GROSS): 314 PEOPLE MAXIMUM

CONSTRUCTION

TYPE OF CONSTRUCTION: TYPE 2B

SPRINKLED OR NON-SPRINKLED: SPRINKLED

MAX HEIGHT: 5 STORIES (75 FT)

ACTUAL BUILDING HEIGHT: 20'-0" (1 STORY)

MAX FLOOR AREA: 64,000
A. AREA MODIFICATION INCREASE . . . . . NA
B. OCCUPANCY AREA MODIFICATION . . . . . NA
TOTAL ALLOWABLE AREA : MAX. FLOOR AREA + THE SMALLER OF A OR B: 64,000

FIRE PROTECTION

	MINIMUM FIRE RESISTANCE	OPENING PROTECTIVE	
FIRE WALLS AND BARRIERS	1-HOUR 2-HOUR 3-HOUR 4-HOUR	1 HOUR 1 ½ HOUR 3 HOUR 3 HOUR	
FIRE PARTITIONS	1 HOUR	45 MIN.	(*)20 MIN. ASSEMBLIES ALLOWED IN RATED CORRIDORS WHERE FIRE PARTITION SERVES NO OTHER PURPOSE SUCH AS OCCUPANCY SEPARATION)

MINIMUM INTERIOR FINISH CLASS

EXITS: C EXIT ACCESS: C OTHER: C

EXITS

MINIMUM NUMBER OF EXITS: 2 PER FLOOR

MAXIMUM TRAVEL DISTANCE: 250'-0" FOR 2 EXITS OR MORE

MAXIMUM DEAD END CORRIDOR: 50'-0" MIN. CORRIDOR/ AISLE WIDTH: 36"
IBC - BUILDING TABLE 1020.2

IS A SEPARATE OR EMERGENCY SOURCE OF LIGHT REQUIRED? YES

IS SPECIAL EGRESS PANIC HARDWARE REQUIRED? NO

IS A MANUAL FIRE ALARM REQUIRED? YES

RATED WALL LEGEND
1 HR RATED UL U419 WALL

LIFE SAFETY LEGEND
EXIT W/ILLUM. EXIT SIGN & BATTERY BACK-UP EMERGENCY LIGHTS IDENTIFYING PATH OF TRAVEL
FX FIRE EXTINGUISHER
EMERGENCY LIGHTING W/ BATT. BACKUP

A1 **LIFE SAFETY PLAN** DORM BLDG. SCALE: 1/8" = 1'-0"

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
ALL GENERAL & SUB-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS, ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION (EXPOSURE "D") OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE
THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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REVISIONS

1

DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-6502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

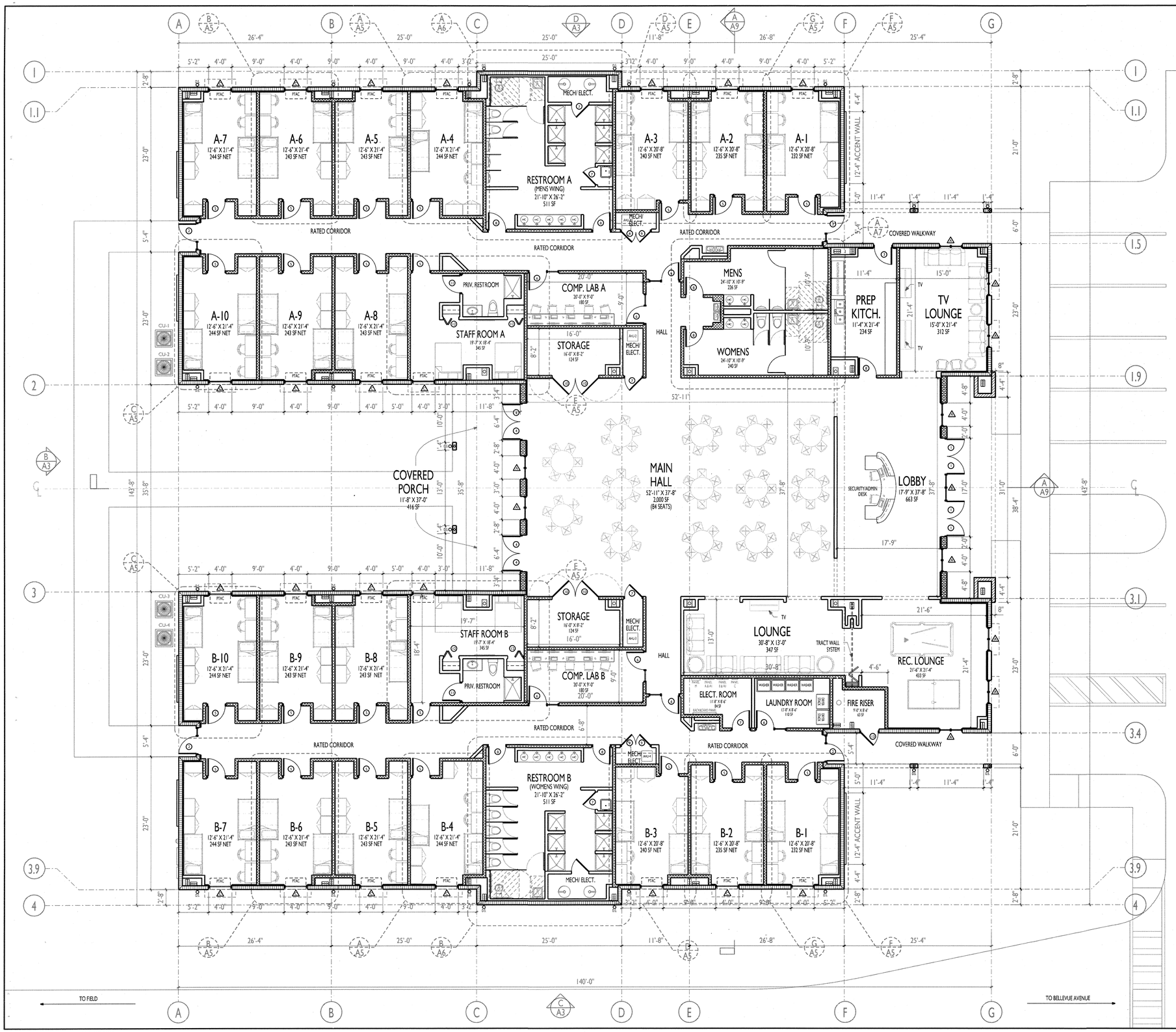
LIFE SAFETY PLAN

DRAWN BY: TEM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A1
SCALE: 1/8"=1'-0"	

0 2' 8' 14' 20'

ARCHITECT'S / ENGINEER'S SEAL

10/23/19



WALL TYPE LEGEND

- 8" CMU EXT WALL W/ 5/8" GYP. BOARD OVER 3/4" P.T. FURRING & SUPER R PLUS RADIANT BARRIER (R-VALUE 5.1)
- 12" CMU EXT WALL W/ 5/8" GYP. BOARD OVER 3/4" P.T. FURRING & SUPER R PLUS RADIANT BARRIER (R-VALUE 5.1)
- UL U419 INTERIOR 1 HR RATED WALL 3 5/8" 25 G MTL STUDS @ 16" O.C. W/ 5/8" GYP BOARD EACH SIDE
- INTERIOR NON-RATED WALL 3 5/8" 20 G MTL STUDS @ 24" O.C. W/ 5/8" GYP BOARD EACH SIDE
- EXTERIOR NON-RATED WALL 3 5/8" 20 G MTL STUDS @ 24" O.C. W/ DENZ GLASS FINISH

SYMBOL LEGEND

- (1) DOOR TAG (REFER TO SCHEDULE SHEET A12)
- (A) WINDOW TAG (REFER TO SCHEDULE SHEET A12)
- METAL BUILDING COLUMNS (REFER TO STRUCT. & MTL BLDG PKG)
- D.S. 6" DIA DOWNSPOUT (TO BE TIED TO CIVIL STORMWATER)

PROPOSED PLUMBING FIXTURE SCHEDULE

FIXTURE	MEN	WOMEN	UNISEX
WATER CLOSET	4	9	2
LAV.	9	9	2
URINAL	5	0	0
SHOWERS	6	6	2
3 BASIN SINK	0	0	1
MOP SINK	0	0	2
WATER FOUNTAIN (HI-LOW)	0	0	3
HAND SINK	0	0	0

GROSS AREA CALCULATION (80 BED UNIT)

A/C SPACE	
STUDENT RESIDENCES (20) @ +/- 240-290 SF EA. =	5,530 SF
STAFF RESIDENCES (2) @ +/- 390 SF EA. =	780 SF
GANG BATHROOMS (2) @ +/- 628 SF EA. =	1,256 SF
MAIN HALL RESTROOMS (2) @ +/- 256 SF EA. =	514 SF
COMPUTER LABS (2) @ +/- 195 SF EA. =	390 SF
RATED CORRIDORS (2) @ +/- 1,079 SF EA. =	2,155 SF
STORAGE, MECH/ELECT., FIRE RISER	576 SF
PREP KITCHEN	274 SF
LAUNDRY	122 SF
MAIN HALL/OFFICES	4,054 SF
	15,651 SF
NON-AC SPACE	
COVERED PORCHES/WALKWAYS	1,062 SF
TOTAL UNDER ROOF =	16,713 SF

A A2 PROPOSED FLOOR PLAN

DORM BLDG. SCALE: 1/8" = 1'-0"

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
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THE BUILDING RISK CATEGORY IS "II"
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ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-3503 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

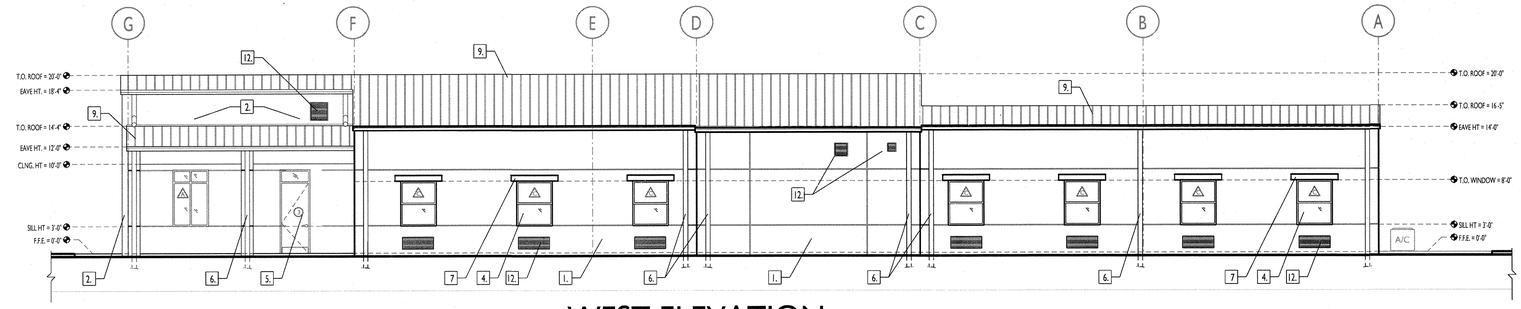
PROPOSED FLOOR PLAN

DRAWN BY: TBM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A2
SCALE: 1/8"=1'-0"	

0 2' 6' 14' 20'

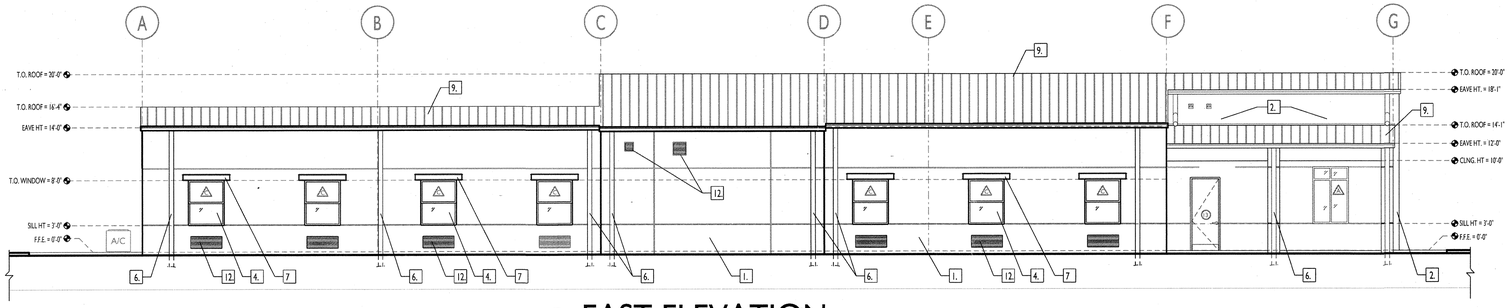
ARCHITECT'S / ENGINEER'S SEAL

10/24/19



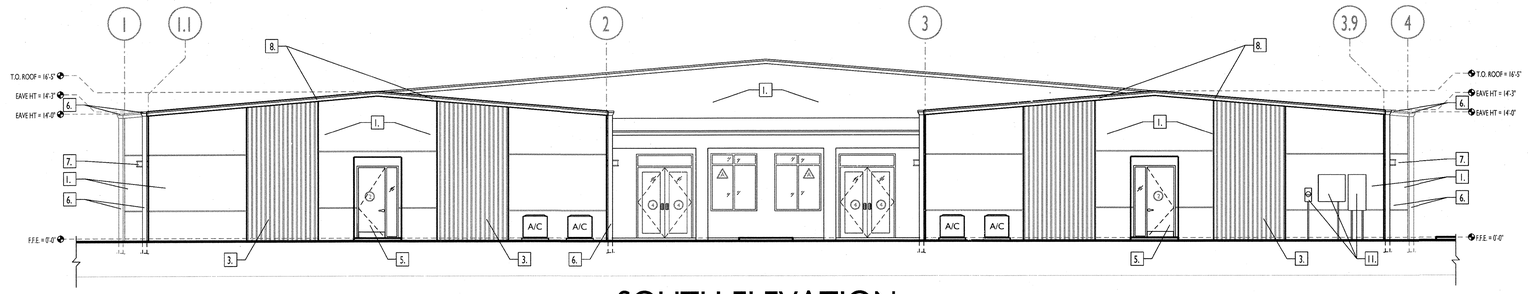
D / A3 WEST ELEVATION

SIDE FACADE — SCALE: 1/8" = 1'-0"



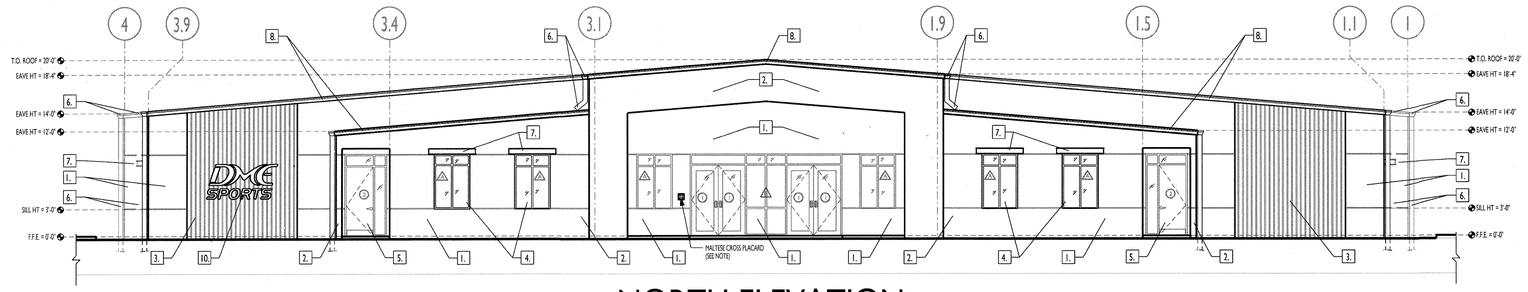
C / A3 EAST ELEVATION

SIDE FACADE — SCALE: 1/8" = 1'-0"



B / A3 SOUTH ELEVATION

REAR FACADE — SCALE: 1/8" = 1'-0"



A / A3 NORTH ELEVATION

FRONT FACADE — SCALE: 1/8" = 1'-0"

MALTESE CROSS PLACARD NOTE:



FLORIDA STATE STATUTE 633.222 REQUIRES THE INSTALLATION OF ONE 8" X 8" LIGHTWEIGHT RED ROOF TRUSS SIGN MALTESE CROSS WITH THE INSET OF "R" MOUNTED APPROXIMATELY 24 INCHES TO THE LEFT OF MAIN ENTRANCE AND 4 - 6 FEET ABOVE GRADE, WALKING SURFACE, OR FINISHED FLOOR.

BUILDING / MATERIAL COLOR SCHEDULE

	BUILDING ELEMENT	MATERIAL	SPECIFIED COLOR
1.	MAIN WALL	CMU BLOCK W/ STUCCO FINISH	SW 7551- GREEK VILLA
2.	ACCENT WALL	CMU BLOCK W/ STUCCO FINISH	SW 6966- BLUEBLOOD
3.	ACCENT WALL	CORRUGATED MTL. SIDING	BERRIDGE- AWARD BLUE
4.	GLAZING (WINDOWS & DOORS)	LOW E, TINTED GLASS	BY MANUF.
5.	MAN DOORS	HOLLOW MTL. EXT. DOOR	SW 7551- GREEK VILLA
6.	GUTTERS & DOWNSPOUTS	PVC.	SW 6966- BLUEBLOOD
7.	WINDOW CANOPIES	PREFAB. MTL. AWNING	SW 6966- BLUEBLOOD
8.	ROOF FLASHING	CONC. TILTWALL W/ TEXTURE FINISH	MANUF. WHITE
9.	ROOF	STANDING SEAM MTL. ROOF	BERRIDGE- SHASTA WHITE
10.	BUILDING SIGNAGE	T.B.D.	WHITE
11.	FPL METER, WALL EQUIP.	MATCH TO WALL	SW 7551- GREEK VILLA
12.	MECH. LOUVERS/GRILLES	MATCH TO WALL	REF. TO ELEVS.

GENERAL NOTES:

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THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR. 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

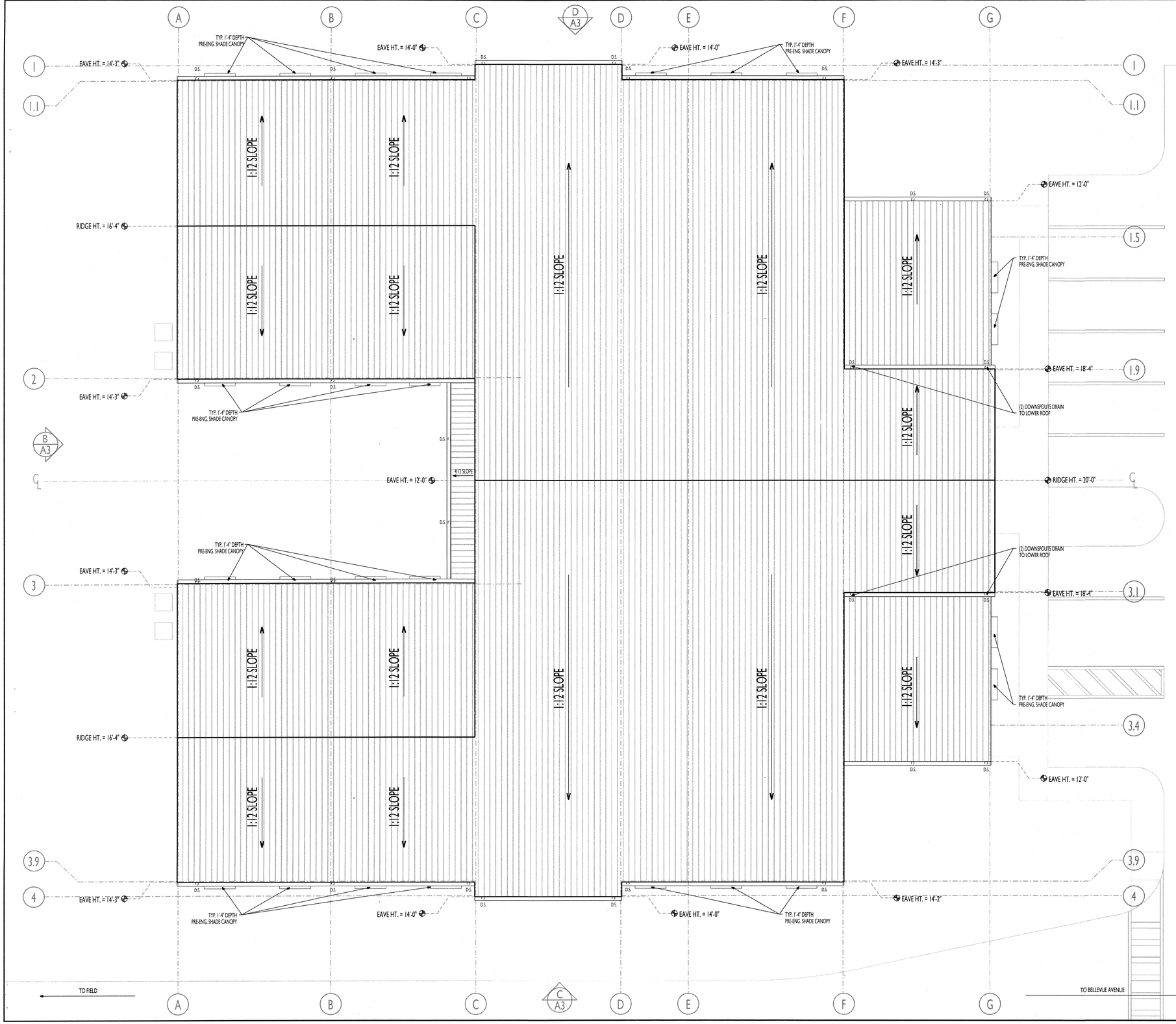
BUILDING ELEVATIONS

DRAWN BY: TBM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A3
SCALE: 3/16"=1'-0"	

0 1" 4" 10" 12"

ARCHITECT'S / ENGINEER'S SEAL

10/28/19



ROOF TYPE NOTE

STANDING SEAM METAL ROOF (SHASTA WHITE)

SYMBOL LEGEND

D.S. 6" DIA DOWNSPOUT (TO BE TIED TO CIVIL STORMWATER)

A/A4 PROPOSED ROOF PLAN

DORM BLDG. SCALE: 1/8" = 1'-0"

GENERAL NOTES:

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AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-5002 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

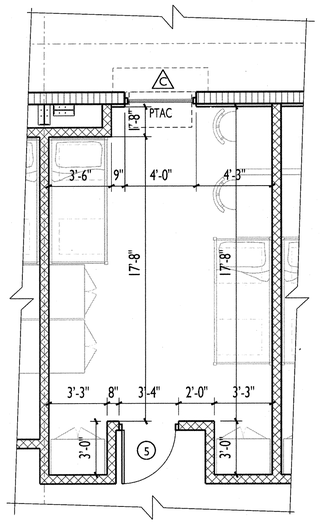
PROPOSED ROOF PLAN

DRAWN BY: TEM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A4
SCALE: 1/8"=1'-0"	

0 2' 6' 14' 20'

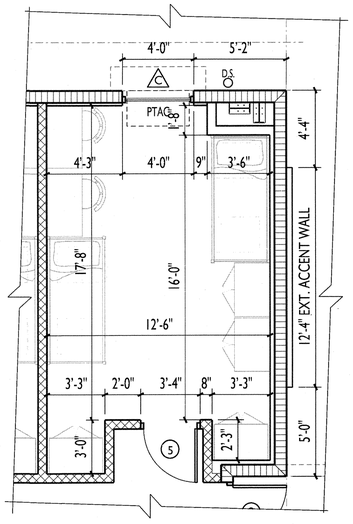
ARCHITECT'S / ENGINEER'S SEAL

10/28/19



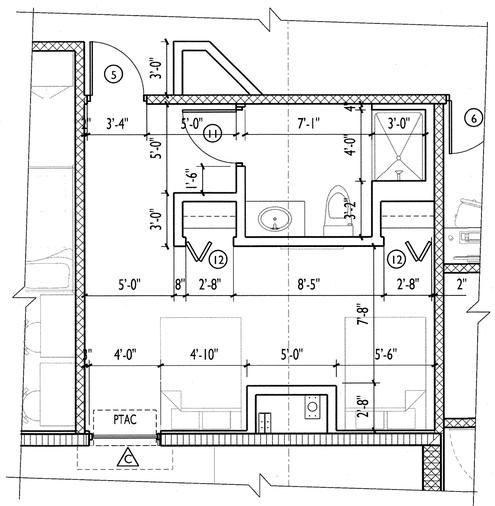
G / A5 DORM ROOM TYPE VI

(2) TOTAL — SCALE: 1/4" = 1'-0"
235 SF NET
ROOMS: A-2, B-2



F / A5 DORM ROOM TYPE V

(2) TOTAL — SCALE: 1/4" = 1'-0"
232 SF NET
ROOMS: A-1, B-1



E / A5 STAFF ROOM

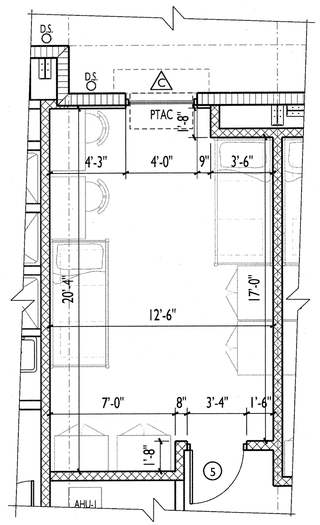
(2) TOTAL — SCALE: 1/4" = 1'-0"
265 SF NET (LIVING AREA) 65 SF NET (RESTROOM)
ROOMS: STAFF ROOM A & B

NOTES

1) EACH ROOM TO BE EQUIPPED WITH WALL MOUNTED PTAC UNIT UNDER WINDOW 5" A.F.F
2) FURNITURE SHOWN IS FOR REFERENCE ONLY OWNER TO SELECT SPECIFIC FURNITURE FOR ROOMS
3) PROVIDE KEY CARD ENTRY HARDWARE FOR EACH ROOM
4) ALL ROOMS TO HAVE 10'-0" A.F.F CEILINGS
5) ALL DIMENSIONS SHOWN ARE TO FINISH FACE UNLESS NOTED OTHERWISE

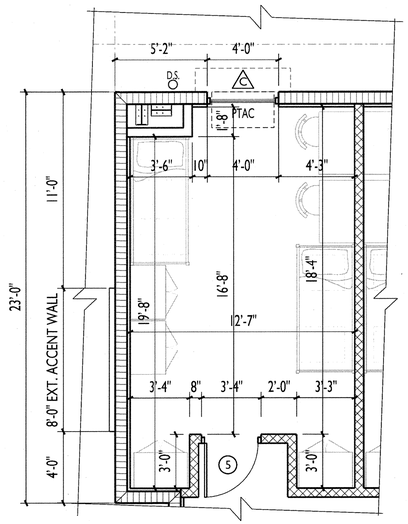
WALL TYPE LEGEND

- 8" CMU EXT WALL W/ 5/8" GYP. BOARD OVER 3/4" P.T. FURRING & SUPER R PLUS RADIANT BARRIER (R-VALUE 5.1)
- UL U419 INTERIOR 1 HR RATED WALL 3 5/8" 25 G MTL STUDS @ 16" O.C. W/ 5/8" GYP BOARD EACH SIDE
- INTERIOR NON-RATED WALL 3 5/8" 20 G MTL STUDS @ 24" O.C. W/ 5/8" GYP BOARD EACH SIDE



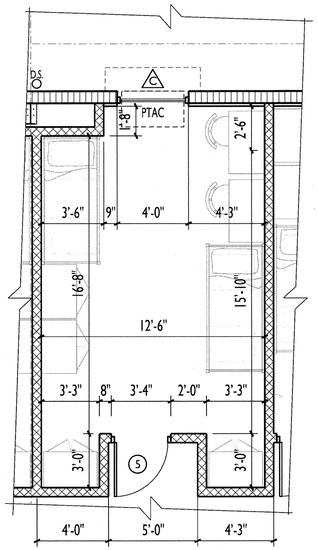
D / A5 DORM ROOM TYPE IV

(2) TOTAL — SCALE: 1/4" = 1'-0"
240 SF NET
ROOMS: A-3, B-3



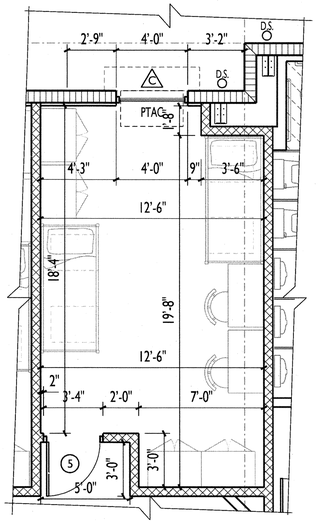
C / A5 DORM ROOM TYPE III

(4) TOTAL — SCALE: 1/4" = 1'-0"
244 SF NET
ROOMS: A-1, A-7, A-10, A-1, B-7, B-10



B / A5 DORM ROOM TYPE II

(8) TOTAL — SCALE: 1/4" = 1'-0"
243 SF NET
ROOMS: A-5, A-6, A-8, A-9, B-5, B-6, B-8, B-9



A / A5 DORM ROOM TYPE I

(2) TOTAL — SCALE: 1/4" = 1'-0"
238 SF NET EA.
ROOMS: A-4 & B-4

GENERAL NOTES:

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DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-3502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

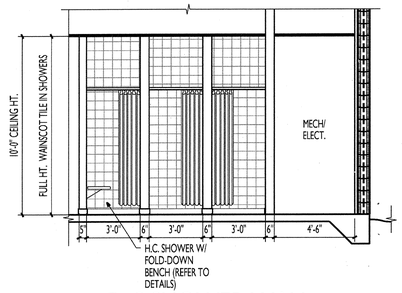
ENLARGED ROOM PLANS

DRAWN BY: TBM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A5
SCALE: 1/4"=1'-0"	

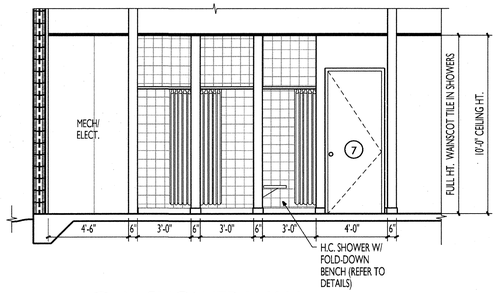
0 1" 3" 7" 10"

ARCHITECT'S / ENGINEER'S SEAL

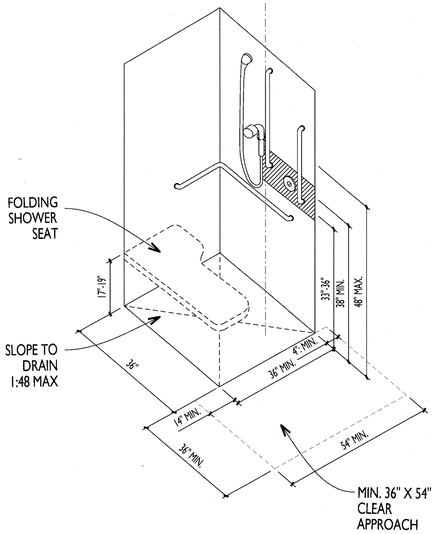
10/24/19



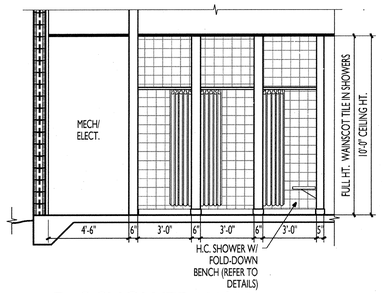
7 S SHOWER WALL
MENS (RESTROOM A)



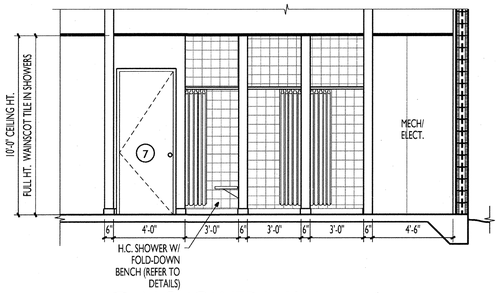
6 N SHOWER WALL
MENS (RESTROOM A)



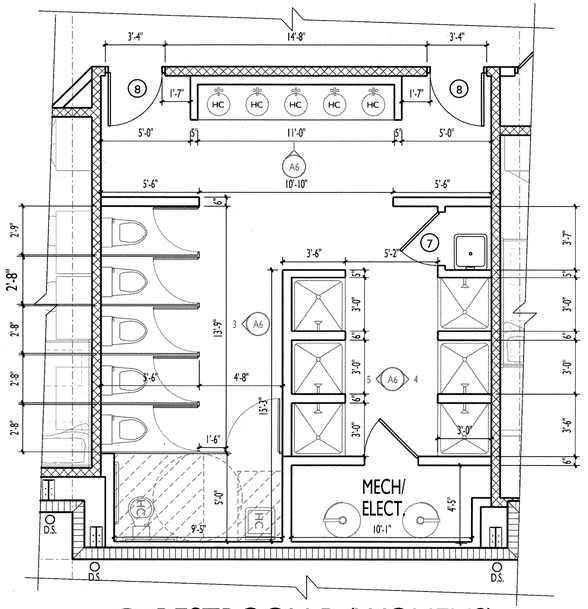
7 HC SHOWER AXONOMETRIC
TYPICAL 3'-0" X 3'-0" SHOWER



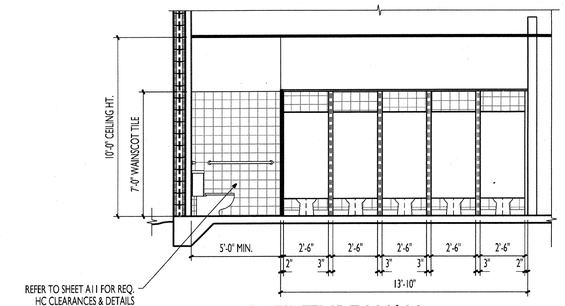
5 S SHOWER WALL
WOMENS (RESTROOM B)



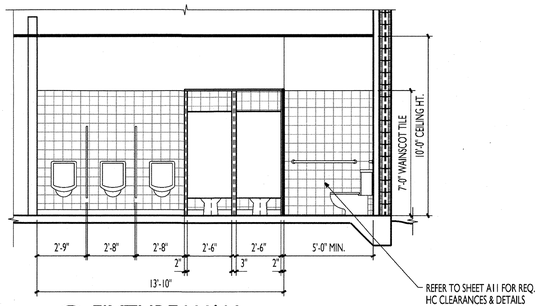
4 N SHOWER WALL
WOMENS (RESTROOM B)



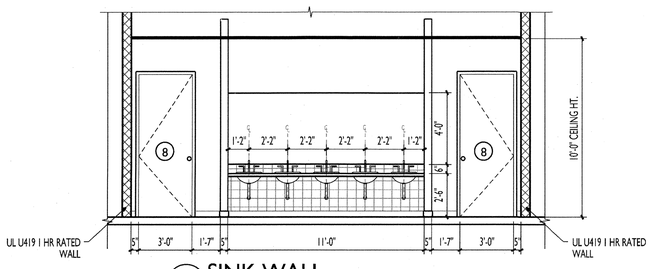
B RESTROOM B (WOMENS)
A6 561 SF NET EA. SCALE: 1/4" = 1'-0"
INC. MECH/ELECT.



3 FIXTURE WALL
S. WALL WOMENS R.R.

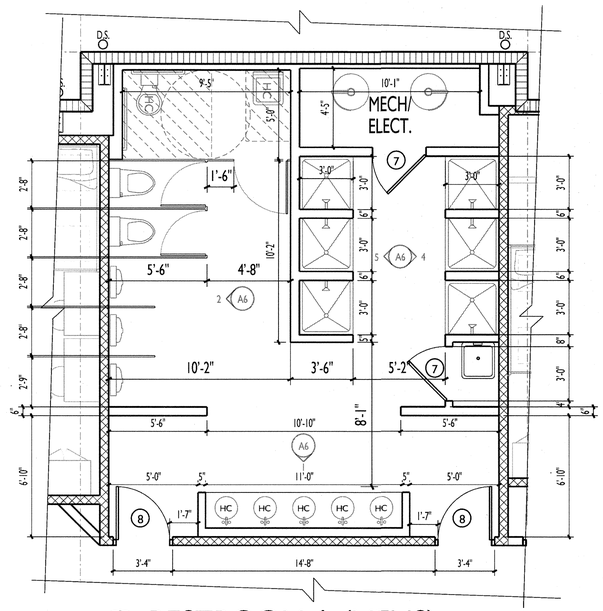


2 FIXTURE WALL
S. WALL MENS R.R.



1 SINK WALL
(TYP. MENS & WOMENS)

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



A RESTROOM A (MENS)
A6 561 SF NET EA. SCALE: 1/4" = 1'-0"
INC. MECH/ELECT.

WALL TYPE LEGEND

- 8" CMU EXT WALL
  W/ 5/8" GYP. BOARD OVER 3/4" P.T. FURRING
  & SUPER R PLUS RADIANT BARRIER (R-VALUE 5.1)
- UL U419 INTERIOR 1 HR RATED WALL
  3 5/8" 25 G MTL STUDS @ 16" O.C.
  W/ 5/8" GYP BOARD EACH SIDE
- INTERIOR NON-RATED WALL
  3 5/8" 20 G MTL STUDS @ 24" O.C.
  W/ 5/8" GYP BOARD EACH SIDE

NOTES

1) ALL STANDARD STALLS TO HAVE 2'-6" WIDE STALL DOORS
2) ALL HC STALLS TO HAVE 3'-0" WIDE STALL DOORS
3) STALL PARTITIONS TO BE 1" THICK (OWNER TO SELECT)

GENERAL NOTES:

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AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
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REVISIONS

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PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

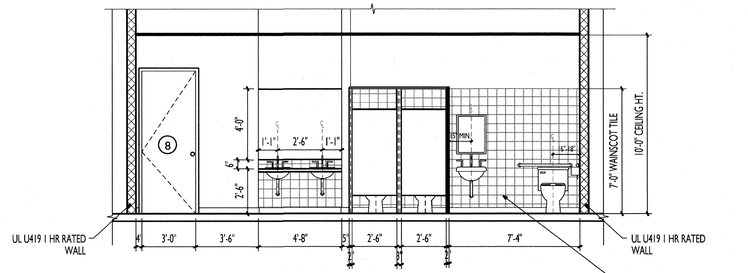
ENLARGED RESTROOM PLANS & ELEVATIONS

DRAWN BY: TBM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A6
SCALE: 1/4"=1'-0"	

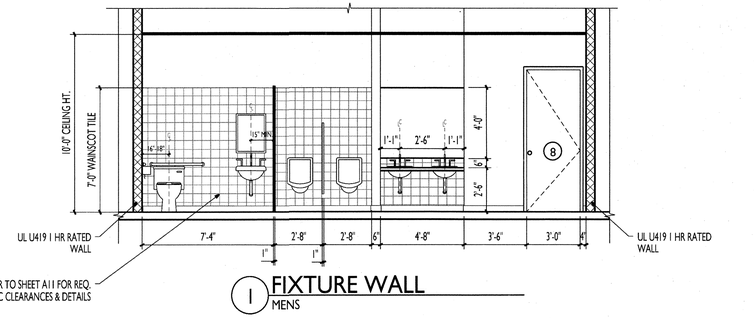
0 1" 3 7 10'

ARCHITECT'S / ENGINEER'S SEAL

10/28/19



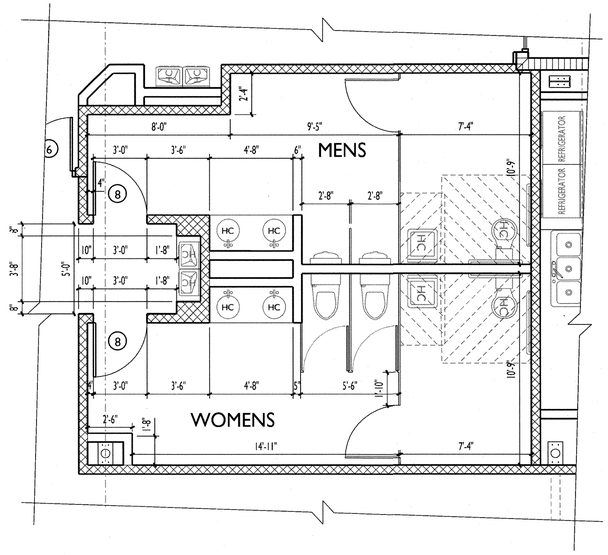
2 FIXTURE WALL
WOMENS



1 FIXTURE WALL
MENS

INTERIOR ELEVATIONS

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



A/A7 GANG RESTROOMS

MENS = 230 SF NET
WOMENS = 240 SF NET

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

WALL TYPE LEGEND

- 8" CMU EXT WALL
  W/ 5/8" GYP. BOARD OVER 3/4" P.T. FURRING
  & SUPER R PLUS RADIANT BARRIER (R-VALUE 5.1)
- UL U419 INTERIOR 1 HR RATED WALL
  3 5/8" 25 G MTL STUDS @ 16" O.C.
  W/ 5/8" GYP BOARD EACH SIDE
- INTERIOR NON-RATED WALL
  3 5/8" 20 G MTL STUDS @ 24" O.C.
  W/ 5/8" GYP BOARD EACH SIDE

NOTES

1) ALL STANDARD STALLS TO HAVE 2'-6" WIDE STALL DOORS
2) ALL HC STALLS TO HAVE 3'-0" WIDE STALL DOORS
3) STALL PARTITIONS TO BE 1" THICK (OWNER TO SELECT)

GENERAL NOTES:

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DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0800 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

ENLARGED RESTROOM PLANS & ELEVATIONS

DRAWN BY: TBM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A7
SCALE: 1/4"=1'-0"	

0 1' 3' 7' 10'

ARCHITECT'S / ENGINEER'S SEAL

10/24/19



WALL TYPE LEGEND

- 8" CMU EXT WALL W/ 5/8" GYP. BOARD OVER 3/4" P.T. FURRING & SUPER R PLUS RADIANT BARRIER (R-VALUE 5.1)
- UL U419 INTERIOR 1 HR RATED WALL 3 5/8" 25 G MTL STUDS @ 16" O.C. W/ 5/8" GYP BOARD EACH SIDE
- INTERIOR NON-RATED WALL 3 5/8" 20 G MTL STUDS @ 24" O.C. W/ 5/8" GYP BOARD EACH SIDE

CEILING TYPE LEGEND

- 5/8" GYP BOARD CEILING KNOCK DOWN FINISH (OWNER TO SELECT PAINT COLOR)
- ACCU. TILE & GRID 2'X2' - (WHITE) USE RAYDAR TEGULAR EDGE
- 5/8" WP DRYWALL

GROSS AREA CALCULATION (80 BED UNIT)

A/C SPACE	
STUDENT RESIDENCES (20) @ +/- 240 SF EA. =	5,526 SF
STAFF RESIDENCES (2) @ +/- 390 SF EA. =	780 SF
GANG BATHROOMS (2) @ +/- 637 SF EA. =	1,274 SF
MAIN HALL RESTROOMS (2) @ +/- 256 SF EA. =	514 SF
COMPUTER LABS (2) @ +/- 195 SF EA. =	390 SF
RATED CORRIDORS (2) @ +/- 1,098 SF EA. =	2,196 SF
STORAGE & MECH/ELECT.	554 SF
PREP KITCHEN	274 SF
MAIN HALL/OFFICES	4,142 SF
	15,651 SF
NON-AC SPACE	
COVERED PORCHES/WALKWAYS	1,097 SF
TOTAL UNDER ROOF =	16,748 SF

A/A8 REF. CEILING PLAN
DORM BLDG. SCALE: 1/8" = 1'-0"

GENERAL NOTES:

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ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION (EXPOSURE "D")
OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD
AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE
THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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REVISIONS

1

DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-5502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

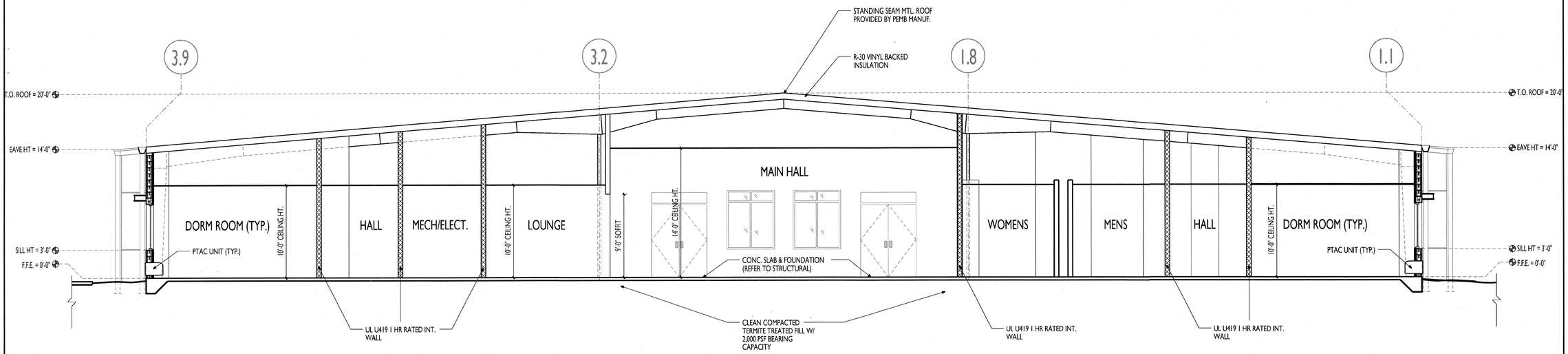
REFLECTED CEILING PLAN

DRAWN BY: TBM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A8
SCALE: 1/8"=1'-0"	

0 2' 6' 14' 20'

ARCHITECT'S / ENGINEER'S SEAL

10/24/19



B / A9 **BUILDING SECTION**
E-W THROUGH MAIN HALL SCALE: 3/16"=1'-0"

TERMITE PROTECTION

TREATMENT SHALL BE BY SOIL CHEMICAL BARRIER METHOD IN CONFORMANCE WITH THE FLORIDA STATE DEPARTMENT OF HEALTH AND REHABILITATION SERVICES, PEST CONTROL RULES PER FLORIDA PEST CONTROL ACT FOR EXECUTION OF TOXICANT APPLICATION AND WITH EPA-FEDERAL INSECTICIDE, FUNGICIDE AND RODENTCIDE ACT.

1. A PERMANENT SIGN WHICH IDENTIFIES THE TERMITE TREATMENT PROVIDER AND NEED FOR RE-INSPECTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRIC PANEL.

2. TO PROVIDE FOR INSPECTION FOR TERMITE INFESTATION, BETWEEN WALL COVERING AND FINAL EARTH GRADE SHALL NOT BE LESS THAN 6 INCHES.

3. INITIAL TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETE.

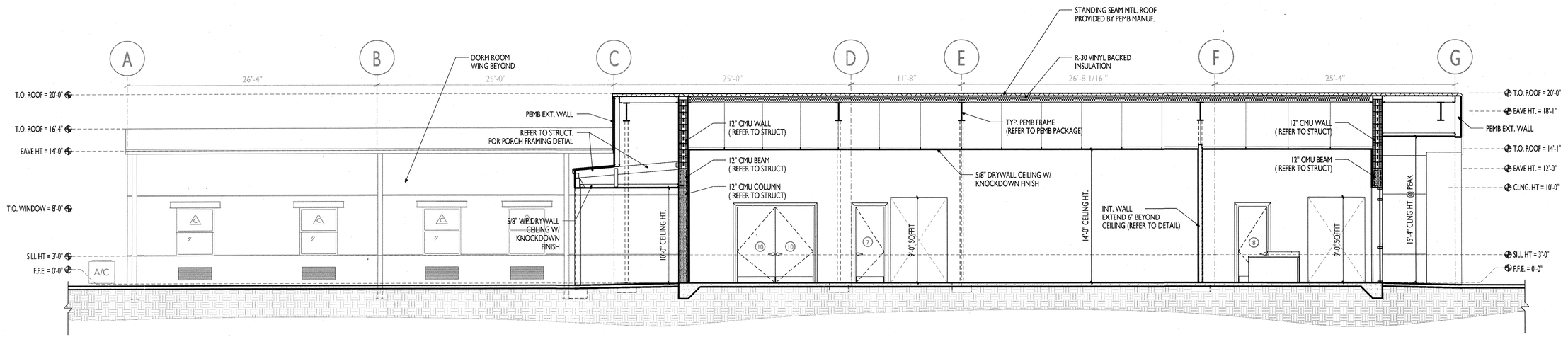
4. SOIL DISTURBED AFTER THE INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED.

5. BOXED AREAS IN CONCRETE FLOORS FOR SUBSEQUENT INSTALLATION OF TRAPS, ETC., SHALL BE MADE WITH PERMANENT METAL OR PLASTIC FORMS. PERMANENT FORMS MUST BE OF A SIZE AND DEPTH THAT WILL ELIMINATE THE DISTURBANCE OF SOIL AFTER THE INITIAL TREATMENT.

6. MINIMUM 6 MIL VAPOR RETARDER MUST BE INSTALLED.

7. A CERTIFICATE OF COMPLIANCE MUST BE ISSUED TO THE BUILDING DEPARTMENT BY A LICENSED PEST CONTROL COMPANY BEFORE A CERTIFICATE OF OCCUPANCY WILL BE ISSUED. THE CERTIFICATE OF COMPLIANCE SHALL STATE: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. THE TREATMENT IS IN ACCORDANCE WITH THE RULES AND LAWS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.

8. AFTER ALL WORK IS COMPLETE, LOOSE WOOD AND FILL MUST BE REMOVED FROM BELOW AND WITHIN UNOCCUPIED SPACE. THIS INCLUDES ALL GRADE STAKES, TUB TRAP BOXES, FORMS, SHORING TRASH OR OTHER CELLULOSE CONTAINING MATERIAL.



A / A9 **BUILDING SECTION**
N-S THROUGH MAIN HALL SCALE: 3/16"=1'-0"

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
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INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
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REVISIONS

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PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0503 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

BUILDING SECTIONS

DRAWN BY: TEM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A9
SCALE: 3/16"=1'-0"	

0 1' 4' 10' 12'

ARCHITECT'S / ENGINEER'S SEAL

10/24/19

TERMITE PROTECTION

TREATMENT SHALL BE BY SOIL CHEMICAL BARRIER METHOD IN CONFORMANCE WITH THE FLORIDA STATE DEPARTMENT OF HEALTH AND REHABILITATION SERVICES, PEST CONTROL RULES PER FLORIDA PEST CONTROL ACT FOR EXECUTION OF TOXICANT APPLICATION AND WITH EPA-FEDERAL INSECTICIDE, FUNGICIDE AND RODENTCIDE ACT.

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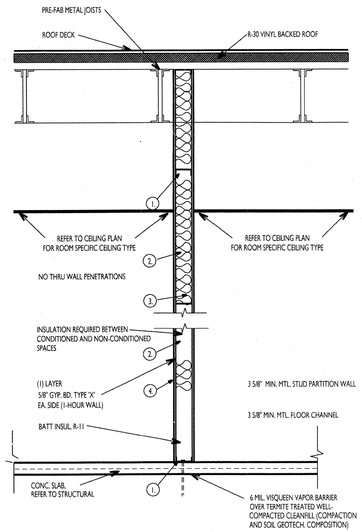
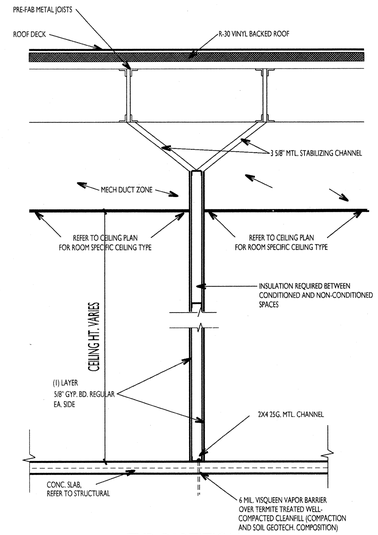
C/A10 TERMITE TREATMENT NOTE

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



I HR RATED WALL



TYP. PARTITION

B/A10 INTERIOR PARTITIONS

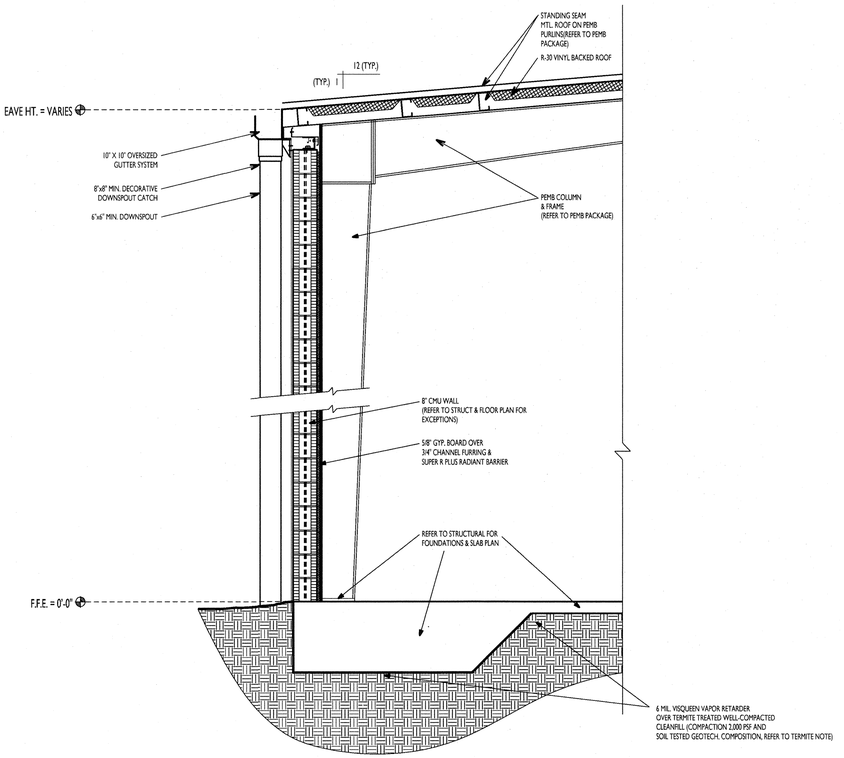
SCALE: 1/2"=1'-0"

REFER TO SHEETS: A8V. & UL

UL DESIGN NO. U419 (1 HOUR NON BEARING WALL RATING)

1. FLOOR & CEILING RUNNERS: CHANNEL SHAPED RUNNERS, 3 5/8" WIDE (MIN.) 1-1/4" LEGS, FORMED FROM MIN. NO. 25 MSG GALV. STEEL, ATTACHED TO FLOOR & CEILING W/FASTENERS SPACED 24" O.C. (MAX.)
2. STEEL STUDS: CHANNEL SHAPED, 3 5/8" WIDE (MIN.), 1-1/4" LEGS, 3/8" FOLD BACK, RETURNS, FORMED W/ MIN. NO. 25 MSG GALV. STEEL SPACED AT 24" O.C.
3. BATTS & BLANKETS: (OPTIONAL) GLASS FIBER COMPLETELY FILLING STUD CAVITY.

GYPSUM BOARD: 5/8" THICK, 4' WIDE, ATTACHED TO STEEL STUDS & FLOOR & CEILING TRACK W/ 1" LONG, TYPE S STEEL SCREWS SPACED 8" O.C. ALONG EDGES OF BOARD & 12" O.C. IN THE FIELD OF BOARDS.



A/A10 ENDWALL SECTION

TYP. CMU WALLS

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

GENERAL NOTES:

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REVISIONS
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AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

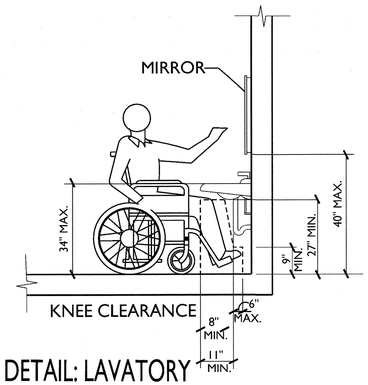
WALL SECTIONS & DETAILS

DRAWN BY: TEM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A10
SCALE: 3/16"=1'-0"	

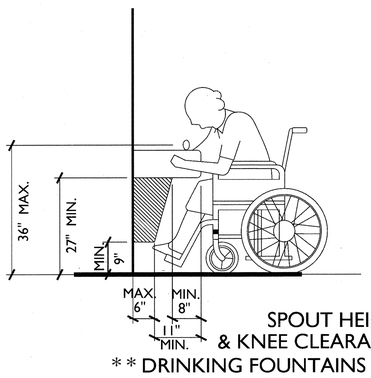
0 1" 4" 10" 12"

ARCHITECT'S / ENGINEER'S SEAL

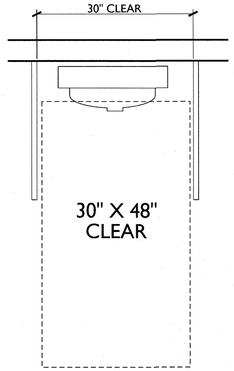
10/24/19



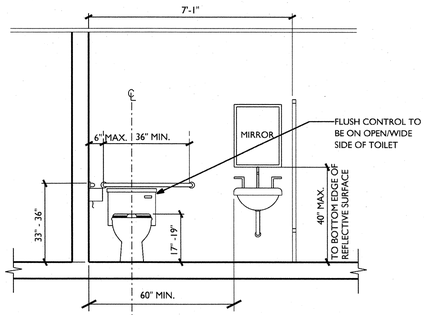
DETAIL: LAVATORY



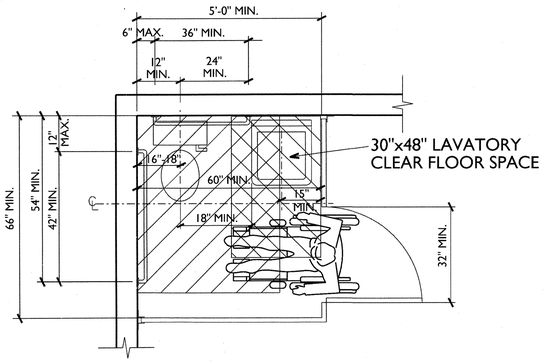
SPOUT HEIGHT
& KNEE CLEARANCE
** DRINKING FOUNTAINS FOR STANDING PERSONS TO BE 38" MIN AND 43" MAX ABOVE FINISHED FLOOR



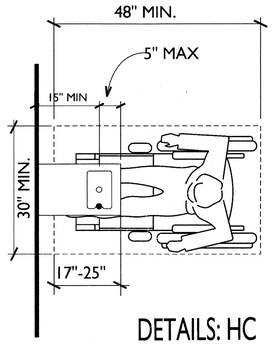
HC URINAL PLAN



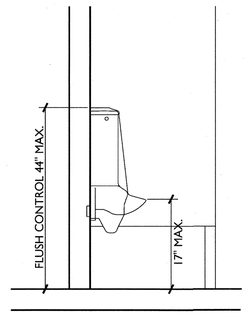
ELEVATION: HC TOILET RM.
COMMERCIAL TYPE



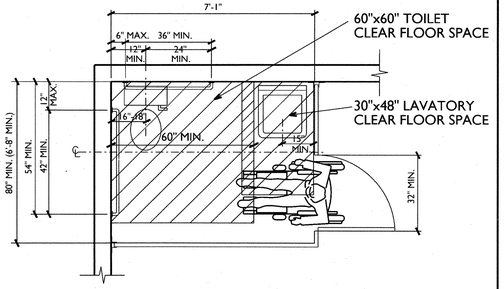
PLAN: TOILET RM.



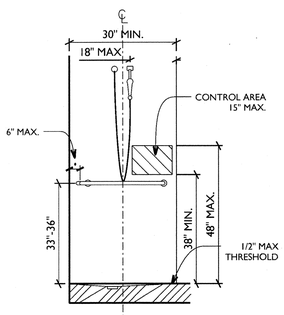
DETAILS: HC
WATER COOLER



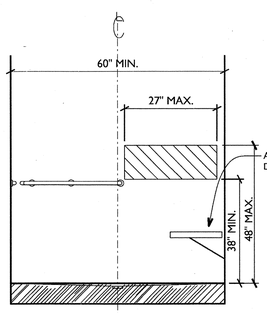
HC URINAL SECTION



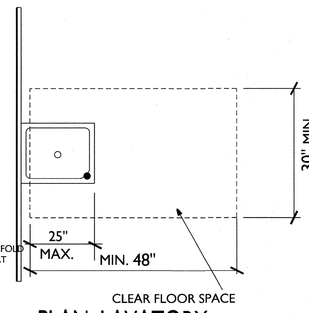
PLAN: TOILET RM.
COMMERCIAL TYPE



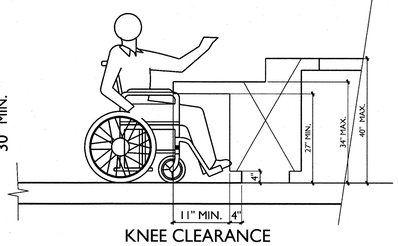
ELEV: HC ROLL-IN
SHOWER (SIDE WALL)
RESIDENTIAL TYPE



ELEV: HC ROLL-IN
SHOWER (BACK WALL)
RESIDENTIAL TYPE



PLAN: LAVATORY
RESIDENTIAL TYPE



KNEE CLEARANCE

DETAIL: HC COUNTER

NOTE:
NON-SLIP SAFETY DEVICES REQUIRED ON SHOWER FLOORS.
USE TEXTURED NON-SKID FLOORING OR APPLY PEEL & STICK NON-SKID TEXTURED STRIPS TO FLOOR.

A
A11

HC FIXTURE REQUIREMENTS

VARIES

GENERAL NOTES:

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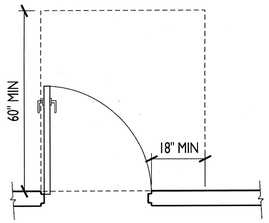
PH: (386) 257-0202 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

HC DETAILS

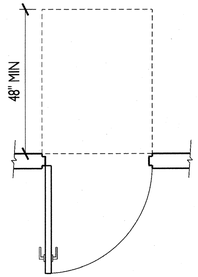
DRAWN BY:	TBM	CHECKED BY:	DBP & BPF
DATE:	OCTOBER 18, 2019	SHT NO.	A11
SCALE:	NOT TO SCALE		

ARCHITECT'S / ENGINEER'S SEAL

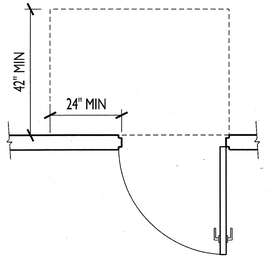
10/24/19



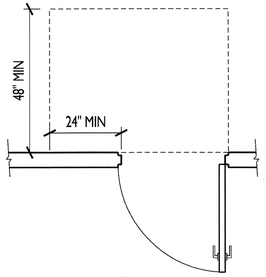
FRONT APPROACH, PULL SIDE



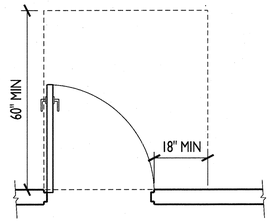
FRONT APPROACH, PUSH SIDE



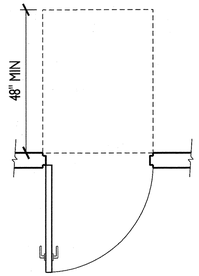
LATCH APPROACH, PUSH SIDE



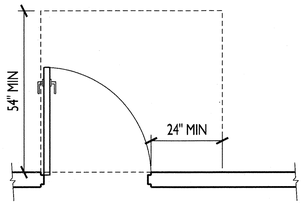
LATCH APPROACH, PUSH SIDE,
DOOR PROVIDED W/ CLOSER



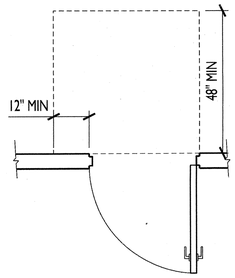
FRONT APPROACH, PULL SIDE



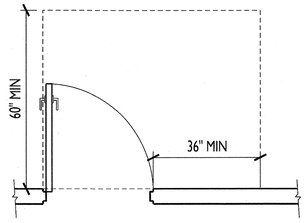
FRONT APPROACH, PUSH SIDE



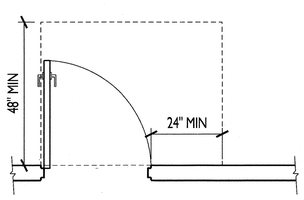
LATCH APPROACH, PULL SIDE
DOOR PROVIDED CLOSER



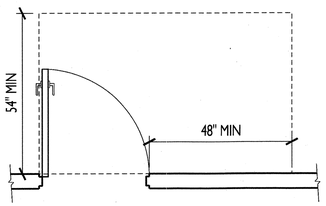
FRONT APPROACH, PUSH SIDE, DOOR
PROVIDED W/ BOTH CLOSER & LATCH



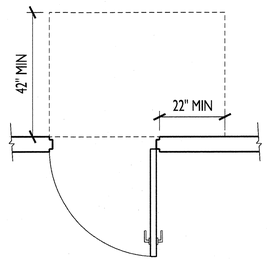
HINGE APPROACH, PULL SIDE



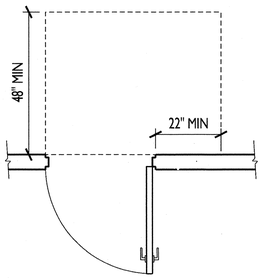
LATCH APPROACH, PULL SIDE



HINGE APPROACH, PULL SIDE



HINGE APPROACH, PUSH SIDE



HINGE APPROACH, PUSH SIDE, DOOR
PROVIDED W/ BOTH CLOSER & LATCH

FBC 6TH EDITION (2017) TABLE 402.2.4.1
MANUEVERING CLEARANCE AT MANUAL SWINGING DOORS & GATES

TYPE OF USE		MINIMUM MANEUVERING CLEARANCE	
APPROACH DIRECTION	DOOR OR GATE SIDE	PERPENDICULAR TO DOORWAY	PARALLEL TO DOORWAY (BEYOND LATCH SIDE UNLESS NOTED)
FROM FRONT	PULL	60 INCHES	18 INCHES
FROM FRONT	PUSH	48 INCHES	0 INCHES [1]
FROM HINGE SIDE	PULL	60 INCHES	36 INCHES
FROM HINGE SIDE	PULL	54 INCHES	42 INCHES
FROM HINGE SIDE	PUSH	42 INCHES [2]	22 INCHES [3]
FROM LATCH SIDE	PULL	48 INCHES [4]	24 INCHES
FROM LATCH SIDE	PUSH	42 INCHES [4]	24 INCHES

[1] ADD 12 INCHES IF CLOSER & LATCH ARE PROVIDED
[2] ADD 6 INCHES IF CLOSER & LATCH ARE PROVIDED
[3] BEYOND HINGE SIDE
[4] ADD 6 INCHES IF CLOSER IS PROVIDED

PLAN:
MANUEVERING CLEARANCES AT MANUAL DOOR SWINGS & GATES

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
ALL GENERAL & SUB-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS.
ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION (EXPOSURE "D")
OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD
AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE
THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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REVISIONS

1	

DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF
DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0500 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

ADA DOOR CLEARANCES

DRAWN BY: TBM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A12
SCALE: 1/8"=1'-0"	

0 2' 8' 14' 20'

ARCHITECT'S / ENGINEER'S SEAL

10/24/19

WINDOW SCHEDULE

SYMB.	Q	SIZE (ROUGH OPENING)	OPERABLE OR FIXED	NOTES	DESCRIPTION
A	10	W4'-0" X H6'-4"	FIXED	SILL HT.=3'-0"; HEAD HT.=9'-4"	NON-IMPACT GLASS ALUM. FRAME
B	1	STOREFRONT REFER TO DETAIL B:A12	FIXED	SILL HT.=0'-0"; HEAD HT.=9'-4"	NON-IMPACT GLASS ALUM. FRAME
C	22	W4'-0" X H5'-0"	OPERABLE	SINGLE HUNG, VERTICAL SLIDE EGRESS TYPE WINDOW SILL HT.=3'-0"; HEAD HT.=8'-0"	NON-IMPACT GLASS SINGLE-HUNG VINYL CLAD (CWS, INC. OR EQUAL)

DOOR & WINDOW ANCHORAGE NOTES:

1/4" TAPCONS W/ 1 1/4" ENBEDMENT IN MASONRY
MAX 6¼" FROM EACH CORNER @ HEAD AND SILL
MAX 6¾" FROM EACH CORNER @ JAMBS WITH 17"
MAX SPACING @ HEAD AND SILLS WITH 13¼"
MAX SPACING @ JAMBS

USE MIAMI-DADE COUNTY APPROVED ELCO OR ITW TAPCONS (TEXT REPORT FTL-1971)

INSTALL ALUM. FRAME OVER 1X PT WOOD BUCK ¼" DIA. TAPPERS BY "RAWL" WITH 1¼" EMBEDMENT INTO MASONRY. TYPICAL EDGE DISTANCE INTO CONCRETE OR MASONRY = 3½" MIN.

ANCHORAGE AT HEAD AND SILL: PROVIDE 3 ANCHORS AT EACH SIDE OF VERTICAL MULLIONS BEGINNING 1" FROM FACE OF MULLION AND 3" THEREAFTER FOR THE TWO REMAINING ANCHORS

DOOR SCHEDULE

SYMB.	Q	SIZE	DOOR SIZES/DESCRIPTION	L	R	KEYCARD Y/N	DESCRIPTION:
1	2	W6'-0" X H8'-0"	EXT. ALUM. STOREFRONT DBL. DOOR W/ HOLLOW MTL. FRAME & CLOSER (20-MIN. RATED)	2	2	YES	MAIN ENTRY STOREFRONT (SEE DETAIL B:A12) HOLLOW MTL. FRAME, NON-IMPACT GLAZING DOORS 1'-0" TRANSOM HOLLOW MTL. FRAME, NON-IMPACT
2	4	W3'-0" X H8'-0"	EXT. ALUM. DOOR W/ HOLLOW MTL. FRAME & CLOSER (20-MIN. RATED)	2	2	YES	AUXILARY ENTRY DOORS (SEE DETAIL C:A12) W/ 1'-2"W SIDELIGHT & 1'-0" TRANSOM HOLLOW MTL. FRAME, NON-IMPACT / PANIC HARDWARE
3	1	W3'-0" X H8'-0"	EXT. ALUM. DOOR W/ HOLLOW MTL. FRAME & CLOSER (20-MIN. RATED)	1	0	YES	PREP KITCHEN EXTERIOR DOOR W/ 1'-0" TRANSOM HOLLOW MTL. FRAME, NON-IMPACT GLAZING
4	2	W6'-0" X H8'-0"	EXT. ALUM. STOREFRONT DBL. DOOR W/ HOLLOW MTL. FRAME & CLOSER (20-MIN. RATED)	2	2	YES	COVERED PORCH TO MAIN HALL ENTRY HOLLOW MTL. FRAME, NON-IMPACT GLAZING DOORS 1'-0" TRANSOM HOLLOW MTL. FRAME, NON-IMPACT
5	22	W3'-0" X H8'-0"	INT. ALUM. DOOR W/ HOLLOW MTL. FRAME (20-MIN. RATED)	11	11	YES	DORM ROOM & STAFF ROOM DOORS HOLLOW MTL FRAME LOCKABLE KEYED ACCESS HARDWARE
6	6	W3'-0" X H8'-0"	INT. ALUM. DOOR W/ HOLLOW MTL. FRAME & CLOSER (20-MIN. RATED)	3	3	YES	COMP LABS & DORM CORRIDOR ACCESS HOLLOW MTL. FRAME, W/ 1'-10" SIDELIGHT
7	7	W3'-0" X H8'-0"	INT. ALUM. DOOR W/ HOLLOW MTL. FRAME	3	3	NO	TYP. ALL MECH/ELECT & JAN. CLOSETS UNLESS NOTED OTHERWISE LOCKABLE KEYED ACCESS HARDWARE
8	6	W3'-0" X H8'-0"	INT. ALUM. DOOR W/ HOLLOW MTL. FRAME & CLOSER (20-MIN. RATED)	3	4	NO	TYP. ALL GANG RESTROOMS
9	2	W5'-0" X H8'-0"	INT. ALUM. DBL DOOR W/ HOLLOW MTL. FRAME (20-MIN. RATED)	2	2	NO	MECH/ELECT ROOMS OFF RATED CORRIDORS LOCKABLE KEYED ACCESS HARDWARE
10	2	W8'-0" X H8'-0"	INT. ALUM. DBL DOOR W/ HOLLOW MTL. FRAME (20-MIN. RATED)	2	2	NO	MAIN HALL STORAGE ROOMS 180 DEGREE DOOR SWING HINGES LOCKABLE KEYED ACCESS HARDWARE
11	2	W3'-0" X H8'-0"	INT. ALUM. DOOR W/ HOLLOW MTL. FRAME	1	1	NO	STAFF RESTROOMS LOCKABLE KEYED ACCESS HARDWARE
12	4	W2'-8" X H8'-0"	INT. ALUM. BIFOLD DOOR W/ HOLLOW MTL. FRAME	2	2	NO	STAFF ROOM CLOSETS
13	1	W3'-0" X H8'-0"	EXT. ALUM. DOOR W/ HOLLOW MTL. FRAME & CLOSER (20-MIN. RATED)	1	0	NO	FIRE RISER EXTERIOR DOOR HOLLOW MTL. FRAME, KEY LOCK HARDWARE

DME SPORTS HOUSING COMPLEX

FLOOR

ROOM	CERAMIC TILE	CARPET TILE DIRECT GLUE DOWN	VINYL TILE (VCT)	WOOD FLOOR	NON-SLIP CONCRETE SEALED - BROOM FINISH	SHAW COMMERCIAL NATIVE ORIGINS / 0116 V LUXURY VINYL PLANK (LVP) W6" X L48"	WOOD 5/4" X 6" P.T. DECKING	LITE WT. CONC. DECK PAVERS	OAK PARQ. FLOORING (MATCH EXIST)	EXPOSED SLAB- NO FINISH		
LOBBY		●										
MAIN HALL		●										
LOUNGE		●										
REC. LOUNGE		●										
TV LOUNGE		●										
PREP KITCHEN			●									
MENS			●									
WOMENS			●									
HALL (TYP.)		●										
STORAGE (TYP.)		●										
MECH./ELECT. (TYP.)			●									
COMP. LAB (TYP. A & B)		●										
LAUNDRY ROOM			●									
RATED CORRIDOR			●									
RESTROOM (TYP. A & B)			●									
DORM ROOM (TYP. ALL A & B)			●									
STAFF ROOM (TYP. A & B)			●									
STAFF RESTROOM (TYP. A & B)			●									
FIRE RISER ROOM										●		

BASE

ROOM	N/A	TILE	6" WOOD PAINT GRADE	4" JONSONITE VINYL COVE BASE	4" VINYL STRAIGHT BASE	
LOBBY					●	
MAIN HALL					●	
LOUNGE					●	
REC. LOUNGE					●	
TV LOUNGE					●	
PREP KITCHEN	●					
MENS	●				●	
WOMENS	●				●	
HALL (TYP.)					●	
STORAGE (TYP.)					●	
MECH./ELECT. (TYP.)					●	
COMP. LAB (TYP. A & B)					●	
LAUNDRY ROOM					●	
RATED CORRIDOR					●	
RESTROOM (TYP. A & B)	●				●	
DORM ROOM (TYP. ALL A & B)					●	
STAFF ROOM (TYP. A & B)					●	
STAFF RESTROOM (TYP. A & B)	●					
FIRE RISER ROOM	●					

WALLS

ROOM	5/8" DRYWALL W/ KNOCKDOWN FINISH	WP 1/2" DRYWALL	5/8" DRYWALL W/ SMOOTH FINISH	CHAIR RAIL (WOOD) PAINTGRADE	WAINSCOT TILE TO 7'-0" A.F.F. (TILE SPEC. T.B.D.)	PAINT (OWNER TO SELECT COLOR)	CEMENT SIDINGS	WALL PAPER	5/8" DRYWALL BACKED W/ 1/16" LEAD UP TO 7'-0" HT.	5/8" STUCCO & PAINTED	BACKSPLASH TILE	EXISTING TO REMAIN
LOBBY	●					●						
MAIN HALL	●					●						
LOUNGE	●					●						
REC. LOUNGE	●					●						
TV LOUNGE	●					●						
PREP KITCHEN		●			●	●						
MENS		●			●	●						
WOMENS		●			●	●						
HALL (TYP.)	●					●						
STORAGE (TYP.)	●					●						
MECH./ELECT. (TYP.)	●					●						
COMP. LAB (TYP. A & B)	●					●						
LAUNDRY ROOM		●			●	●						
RATED CORRIDOR	●					●						
RESTROOM (TYP. A & B)		●			●	●						
DORM ROOM (TYP. ALL A & B)	●					●						
STAFF ROOM (TYP. A & B)	●					●						
STAFF RESTROOM (TYP. A & B)		●			●	●						
FIRE RISER ROOM			●			●						

CEILING

ROOM	5/8" DRYWALL W/ KNOCKDOWN FINISH	5/8" DENZ GLASS W/ STUCCO	ACCU. TILE & GRID 2'X2' - (WHITE) USE RAYDAR TEGULAR EDGE	5/8" WP DRYWALL	1/2" DRYWALL W/ SMOOTH FINISH	OPEN EXPOSED CEILING		
LOBBY	●							
MAIN HALL	●							
LOUNGE	●							
REC. LOUNGE	●							
TV LOUNGE	●							
PREP KITCHEN			●					
MENS			●					
WOMENS			●					
HALL (TYP.)			●					
STORAGE (TYP.)			●					
MECH./ELECT. (TYP.)			●					
COMP. LAB (TYP. A & B)			●					
LAUNDRY ROOM			●					
RATED CORRIDOR			●					
RESTROOM (TYP. A & B)				●				
DORM ROOM (TYP. ALL A & B)	●							
STAFF ROOM (TYP. A & B)	●							
STAFF RESTROOM (TYP. A & B)				●				
FIRE RISER ROOM						●		

CEILING HEIGHT

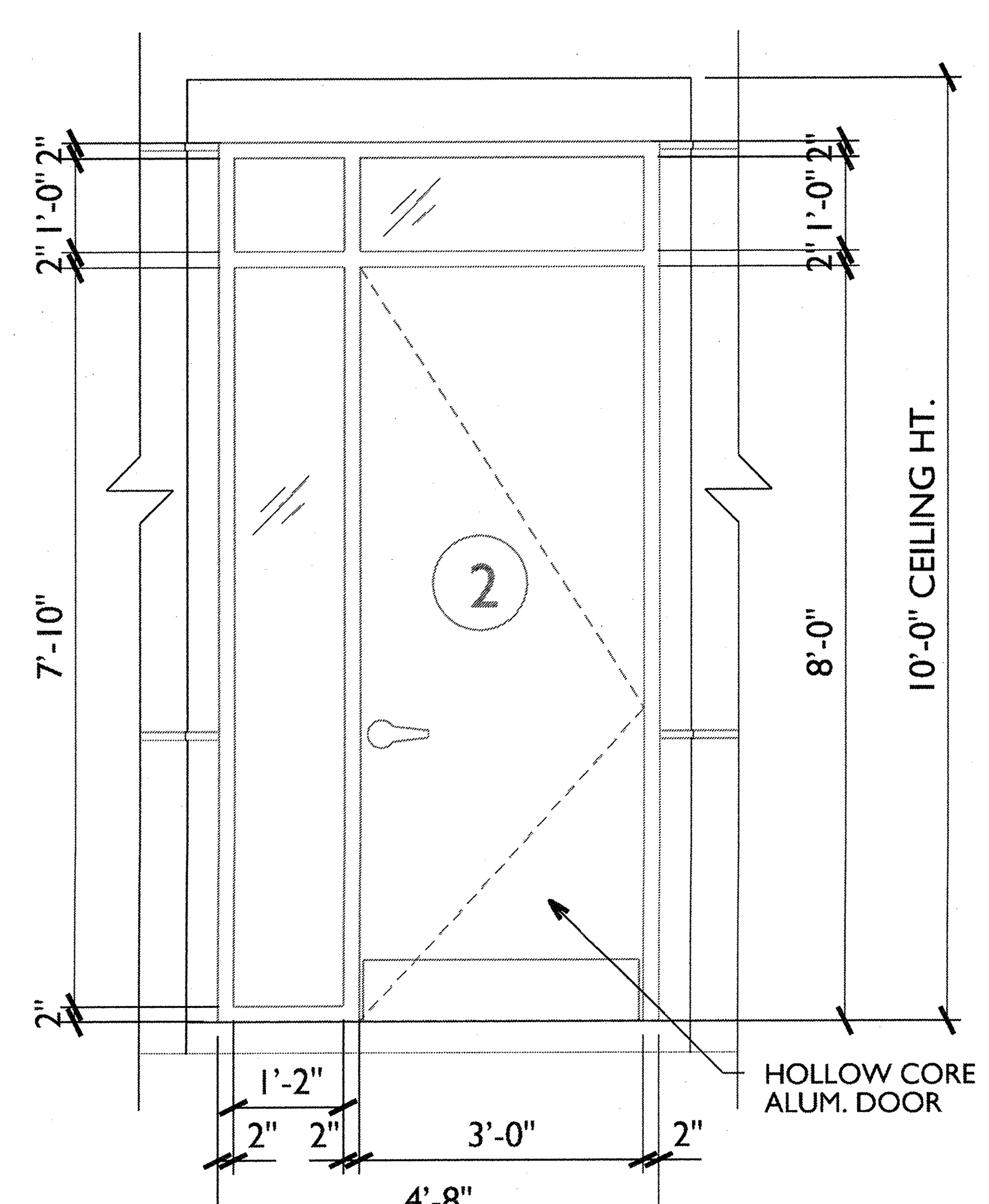
ROOM	7'-6" (1ST & 2ND FLOORS)	8'-0"	8'-11"	9'-0"	9'-4" / 9'-10"	10'-0"	11'-6"	12'-0"	12'-8"	14'-0"	OPEN
LOBBY										●	
MAIN HALL										●	
LOUNGE						●					
REC. LOUNGE						●					
TV LOUNGE						●					
PREP KITCHEN						●					
MENS						●					
WOMENS						●					
HALL (TYP.)						●					
STORAGE (TYP.)						●					
MECH./ELECT. (TYP.)						●					
COMP. LAB (TYP. A & B)						●					
LAUNDRY ROOM						●					
RATED CORRIDOR						●					
RESTROOM (TYP. A & B)						●					
DORM ROOM (TYP. ALL A & B)						●					
STAFF ROOM (TYP. A & B)						●					
STAFF RESTROOM (TYP. A & B)						●					
FIRE RISER ROOM											●

***FLOORING NOTE:

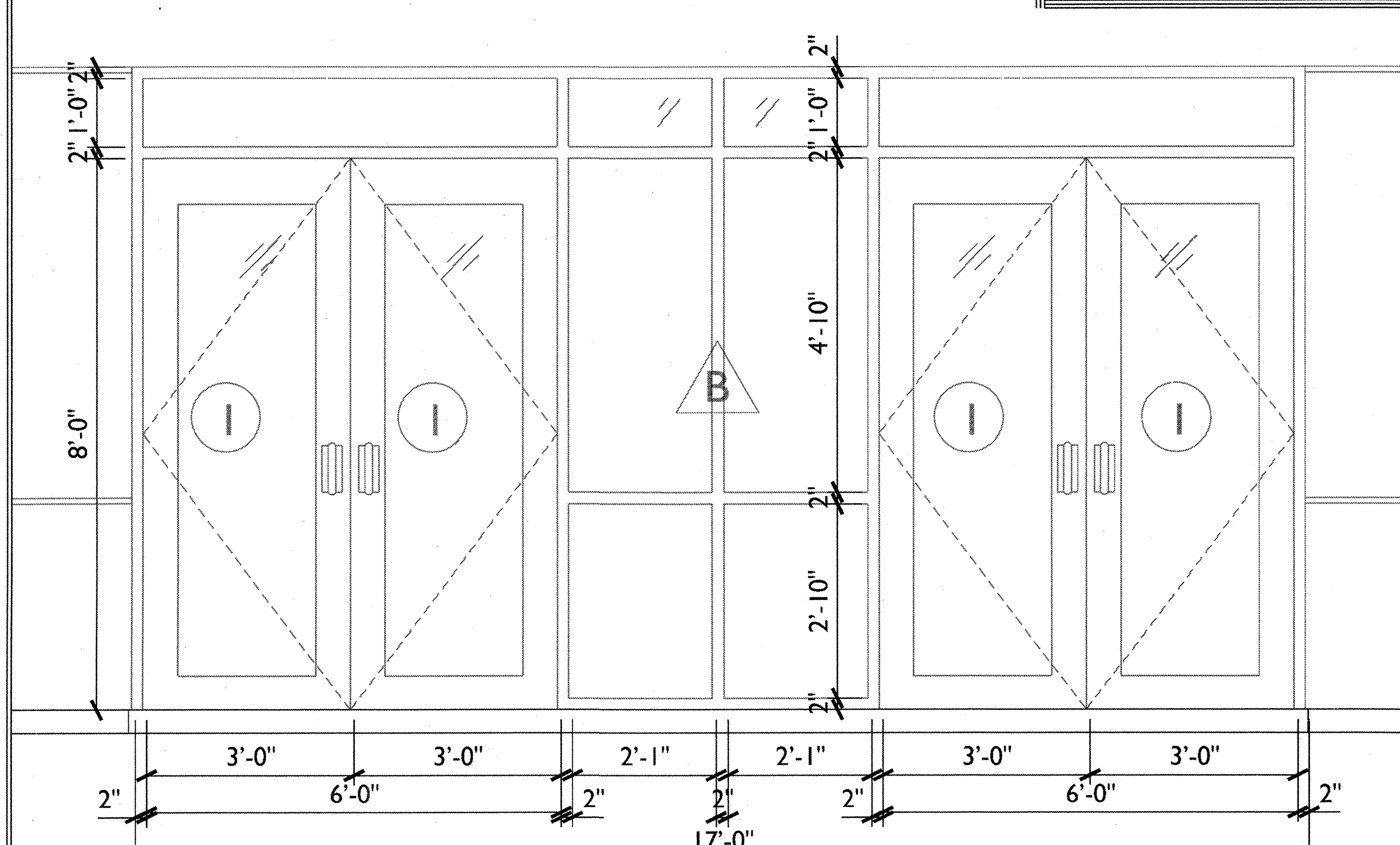
ALL EXISTING OR NEW CONCRETE SLABS OR SURFACES THAT ARE TO RECEIVE FLOORING, COATINGS OR COVERINGS ARE TO BE TESTED FOR MOISTURE CONTENT AND CERTIFIED AS ADEQUATELY DRY, PRIOR TO INSTALLATION OF ANY/ALL FINISHES.
ALL INTERIOR PRODUCTS INCLUDING FLOORING, COATINGS AND COVERINGS ARE TO BE INSTALLED PER THE MANUFACTURE INSTRUCTIONS AND DETAILS, INCLUDING MOISTURE CONTENT OF APPLICATION SURFACE SPECIFICATIONS.
BPF DESIGN IS NOT RESPONSIBLE FOR ANY AND ALL FLOORING, COATINGS AND COVERINGS APPLICATIONS.

SCHEDULE NOTES:

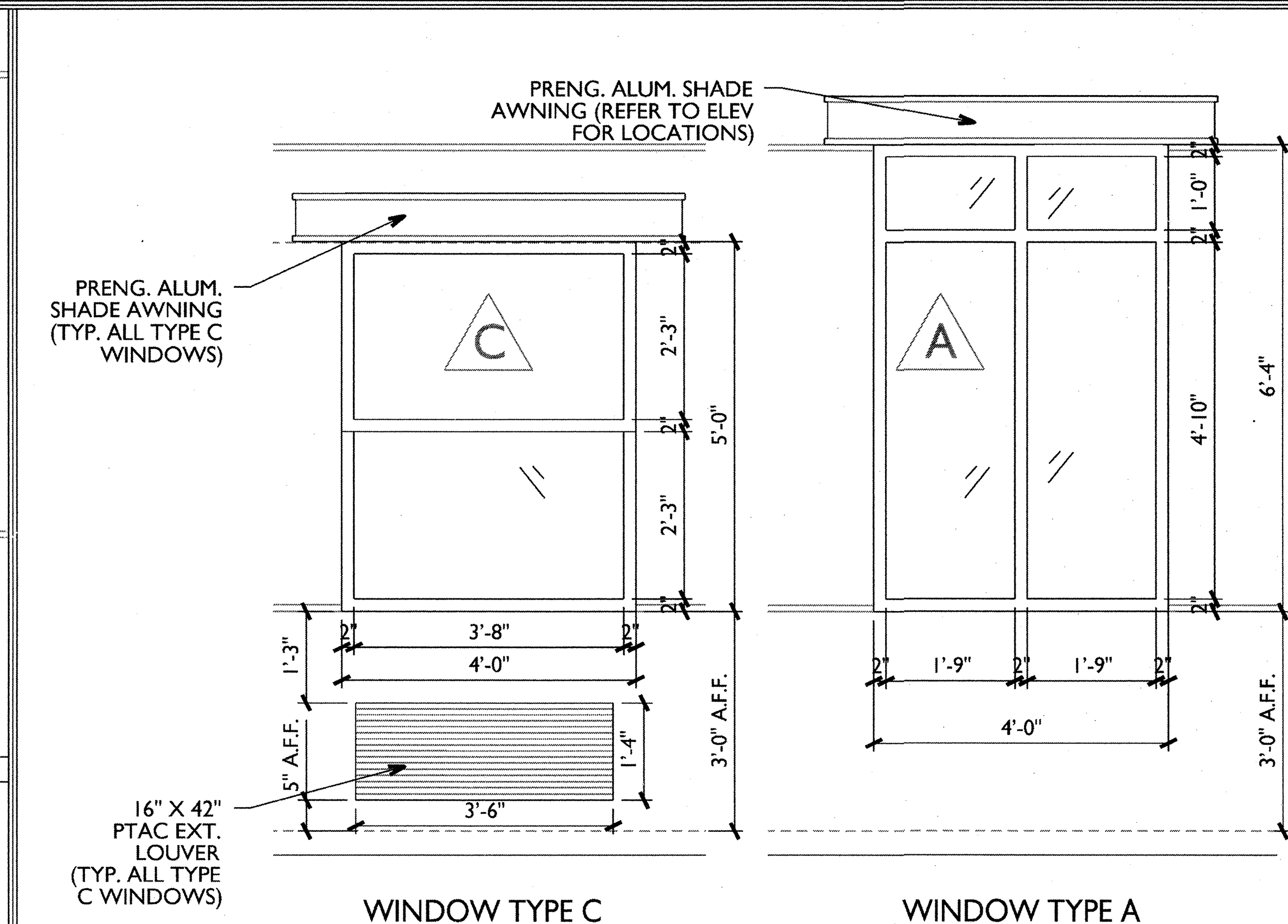
1. ALL EXTERIOR WINDOW & DOOR OPENINGS TO HAVE SELF-ADHERING WATER PROOFING MEMBRANE WRAPPED ON ALL FOUR SIDES AND WRAPPED 8" RETURN ON INSIDE AND OUTSIDE WALLS WITH OVERLAPS.
2. BEDROOM DOORS TO HAVE PASSAGE LEVER ACTION HARDWARE.
3. ALL BATHROOM DOORS TO HAVE LOCKABLE LEVER ACTION HARDWARE FROM INSIDE (NO KEYS).
4. GC TO PROVIDE MINI BLINDS FOR ALL WINDOWS. MANUFACTURER, MODEL, & COLOR TO BE SELECTED BY OWNER.
5. ALL INTERIOR TRIM/CASING TO BE PAINT GRADE STOCK



C/A13 ENTRY DETAIL
AUXILARY ENTRY SCALE: 1/2" = 1'-0"



B/A13 ENTRY DETAIL
MAIN ENTRY STOREFRONT SCALE: 1/2" = 1'-0"



A/A13 WINDOW DETAILS
TYPES A & C SCALE: 1/2" = 1'-0"

GENERAL NOTES:

ALL DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE
ALL GENERAL & SUB-CONTRACTORS TO FIELD VERIFY ALL DIMENSIONS, ELECTRICAL, WATER, SEWER AND GAS SERVICE LOCATIONS.
ALL WORK MUST COMPLY WITH THE 2017 EDITION (EXPOSURE "D") OF THE FLORIDA BUILDING CODE SECT. 1609/ 140 MPH WIND LOAD AND THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
ALL DOOR & WINDOW OPENINGS TO MEET OR EXCEED DESIGN PRESSURE RANGE
THE BUILDING RISK CATEGORY IS "II"
INTERNAL PRESSURE COEFFICIENT IS .18 IN ACCORDANCE WITH ASCE 7-10
ALL GLAZING IS TO BE NON-IMPACT RESISTANT

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REVISIONS

DME SPORTS HOUSING COMPLEX

OWNER/REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: TO BE DETERMINED

BPF DESIGN INCORPORATED
Building Design and Architecture
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bfredley@bpfdesign.com WEBSITE: bpfdesign.com

WINDOW, DOOR, & FINISH SCHEDULE

DRAWN BY: TEM	CHECKED BY: DBP & BPF
DATE: OCTOBER 18, 2019	SHT NO. A13
SCALE: NOT TO SCALE	

ARCHITECT'S / ENGINEER'S SEAL

10/24/19

POWER SYMBOL LEGEND

ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWING(S)

	DUPLEX OUTLET MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. BOX INDICATES FLUSH IN FLOOR OR CEILING AS SPECIFIED.
	QUAD OUTLET MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. BOX INDICATES FLUSH IN FLOOR OR CEILING AS SPECIFIED.
	DUPLEX/QUAD OUTLET MOUNTED HORIZONTALLY ABOVE COUNTERTOP OR BACKSPLASH 44" A.F.F. UNLESS NOTED OTHERWISE
GFCI GFCI	DUPLEX/QUAD OUTLET WITH GROUND FAULT INTERRUPTER, MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. BOX INDICATES FLUSH IN FLOOR OR CEILING AS SPECIFIED.
GFCI GFCI	DUPLEX/QUAD OUTLET WITH GROUND FAULT INTERRUPTER, MOUNTED HORIZONTALLY ABOVE COUNTERTOP OR BACKSPLASH 44" A.F.F. UNLESS NOTED OTHERWISE
GFCI/WD	DUPLEX OUTLET WITH GROUND FAULT INTERRUPTER AND ISOLATED GROUND, MOUNTED HORIZONTALLY ABOVE COUNTERTOP OR BACKSPLASH 44" A.F.F. UNLESS NOTED OTHERWISE
IG IG	DUPLEX OUTLET WITH ISOLATED GROUND MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. BOX INDICATES FLUSH IN FLOOR OR CEILING AS SPECIFIED.
	SPECIAL PURPOSE OUTLET MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. VOLTAGE AND AMPERAGE AS NOTED ON PLANS.
SW	DUPLEX OUTLET MOUNTED DIRECTLY ABOVE SHOW WINDOW.
	SWITCH DUPLEX OUTLET MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE
GFCI/WP	DUPLEX OUTLET WITH WEATHERPROOF COVER AND GROUND FAULT INTERRUPTER MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE
GFCI GFCI GFCI GFCI	CONTROLLED DUPLEX OR QUAD OUTLET MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE
	JUNCTION BOX, FLUSH MOUNTED IN CEILING UNLESS NOTED OTHERWISE. STEM
TC	TIME CLOCK
	LOS. PUSHBUTTON, DOORBELL BUZZER, OR SHUNT TRIP MOUNTED AT 42" A.F.F. UNLES NOTED OTHERWISE.
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	ELECTRICAL PANEL BOARD
	TELEPHONE BOARD (TB)
	DATA OUTLET. INSTALL PULL WIRES.
	COMMUNICATION (VOICE) OUTLET. INSTALL PULL WIRES.
	DATA/VOICE OUTLET. INSTALL PULL WIRES.
	CONDUIT, LINES INDICATES WIRE QUANTITY. LOW VOLTAGE WIRE
A-2,4,6	HOMERUN, A = PANEL DESIGNATION / 2,4,6 = CIRCUITS
S	CEILING SPEAKER.
SC	SECURITY CAMERA CEILING.
S CO	S=SMOKE DETECTOR - ALARM / S+co= DUAL COMBO SMOKE AND CARBON MONOXIDE DETECTOR
HDMI	HDMI OUTLET FOR MONITOR.

ABREVIATIONS

A	-	AMPERES
A/C	-	AIR CONDITIONING
AC	-	ALTERNATING CURRENT
AFF	-	ABOVE FINISHED FLOOR
AFG	-	ABOVE FINISHED GRADE
AHU	-	AIR HANDLING UNIT
AWG	-	AMERICAN WIRE GAUGE
C	-	CONDUIT
CFL	-	COMPACT FLUORESCENT LAMP
CH	-	COUNTER HEIGHT
CONC	-	CONCRETE
COND	-	CONDUIT
CU	-	COPPER
DISC	-	DISCONNECT
ECB	-	ENCLOSED CIRCUIT BREAKER
ELEC	-	ELECTRICAL
EM	-	EMERGENCY
EMS	-	ENERGY MANAGEMENT SYSTEM
EMT	-	ELECTRICAL METALLIC TUBING
EF	-	EXHAUST FAN
EWC	-	ELECTRIC WATER COOLER
ETR	-	EXISTING TO REMAIN
EX	-	EXISTING
FA	-	FIRE ALARM
FACP	-	FIRE ALARM CONTROL PANEL
FPL	-	FLORIDA POWER AND LIGHT
G	-	GROUND
GFI	-	GROUND FAULT INTERRUPTER
GND	-	GROUND
GRC	-	GALVANIZED RIGID CONDUIT
HVAC	-	HEATING, VENTILATING AND AIR CONDITIONING
H.I.D.	-	HIGH INTENSITY DISCHARGE
I.G.	-	ISOLATED GROUND
J	-	JUNCTION
KAIC	-	(THOUSAND) AMPERE INTERRUPTING CAPACITY
KVA	-	KILOVOLT-AMPERES
KW	-	KILOWATT
LED	-	LIGHT EMITTING DIODE
LTG	-	LIGHTING
KCMIL	-	THOUSANDS OF CIRCULAR MILS
MCU	-	MASTER CONTROL UNIT
MCP	-	MOTOR CIRCUIT PROTECTION
MH	-	METAL HALIDE
N	-	NEUTRAL
NA	-	NOT APPLICABLE
NF	-	NON-FUSED
NL	-	NIGHT LIGHT
NEC	-	NATIONAL ELECTRICAL CODE
N/C	-	NOT IN CONTRACT
NL	-	NIGHT LIGHT
NEMA	-	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
NFPA	-	NATIONAL FIRE PROTECTION ASSOC.
O.C.	-	ON CENTER
P	-	POLE
PNL	-	PANELBOARD
PVC	-	POLYVINYL CHLORIDE
RM	-	ROOM
RGS	-	RIGID GALVANIZED STEEL
SPEC	-	SPECIFICATION
SS	-	STAINLESS STEEL
TBD	-	TO BE DETERMINED
TVSS	-	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	-	TYPICAL
UON	-	UNLESS OTHERWISE NOTED
V	-	VOLTS
W	-	WIRE
W	-	WATT
WP	-	WEATHERPROOF

ELECTRICAL NOTES:

1. ALL LIGHTING AND RECEPTACLE CIRCUITS UP TO 74' IN LENGTH SHALL USE #12 WIRES MINIMUM. CIRCUITS FROM 75' UP TO 129' IN LENGTH SHALL USE #10 WIRES MINIMUM AND FROM 130' AND UP SHALL USE #8 WIRES MINIMUM UNLESS OTHERWISE SPECIFIED.
2. THESE DRAWINGS ARE DIAGRAMMATIC - REFER TO ARCHITECTURAL FOR EXACT HEIGHT, DIMENSIONS AND LOCATION.
3. OPERATING AND MAINTENANCE MANUALS WILL BE PROVIDE TO OWNER BY ELECTRICAL CONTRACTOR AS REQUIRED PER SECTION C405.6.4 IN FBC-ENERGY CONSERVATION (6TH EDITION (2017).
4. COORDINATE WITH OWNER FOR EXACT DATA/COMM REQUIREMENTS.
5. INSTALL NEW FIRE ALARM DEVICES IN ACCORDANCE WITH NFPA 72 AND FLORIDA FIRE PREVENTION CODE(6TH EDITIONS).
6. IF PROJECT IS NOT CONNECTED TO A CENTRAL FIRE ALARM SYSTEM, PROVIDE LOCAL AUDIBLE/VISUAL SIGNALS UPON INITIATING TROUBLE.
7. DIVISION 16 CONTRACTOR SHALL COORDINATE EXACT MECHANICAL REQUIREMENTS WITH DIVISION 15 DRAWINGS.
8. THIS PROJECT IS IN COMPLIANCE WITH FBCEC 2017 SECTION C405.6.3, NEC 210.19(A)(1) WITH REGARDS TO VOLTAGE DROP FOR DOWNSTREAM BRANCH CIRCUITS, AND NEC 215.2 FOR FEEDER CONDUCTORS.

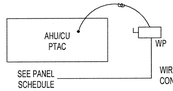
FEEDER & BRANCH CONDUCTOR SCHED

NEC TABLE 5. TABLE & EXAMPLES

DEVICE TYPE	CONDUCTOR	MULTIPLIER	DISTANCE	LOADING (A)	% VOLTAGE DROP
LIGHTS	12		75	10	2.18
RECEPT	12		75	8	1.75
EWH-3	6		120	50	2.67
AHU-1	6		90	60	2.40
CU-1	6		100	50	2.22
SERVICE	600		50	800	0.66

THIS PROJECT IS IN COMPLIANCE WITH FBCEC 2017 SECTION C405.6.3 AND NEC 210.19 WITH REGARDS TO VOLTAGE DROP FOR BOTH DISTRIBUTION PANELS AND DOWNSTREAM BRANCH CIRCUITS.

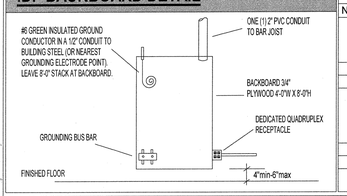
MECH. EQUIPMENT POWER RISER DETAIL



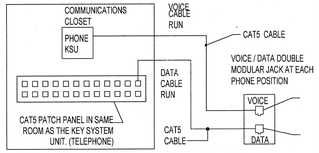
TYPE	TONS	DISC.	WIRE	GROUND	CONDUIT
AHU-1/2/3/4	5.0	60/1/60 D.E	SEE PANEL SCHEDULE		
CU-1/2/3/4	5.0	50/1/60 D.E	SEE PANEL SCHEDULE		
PTAC'S	0.75	20/1/60 D.E	SEE PANEL SCHEDULE		

NOTES:
1. VERIFY NAMEPLATE RATINGS, LOCATIONS, AND POINT OF POWER CONNECTIONS PRIOR TO ROUGH-IN.
2. DO NOT LOCATE DISCONNECT SWITCHES OVER UNIT ACCESS PANELS.
3. PROVIDE A 3/4" EMPTY CONDUIT THROUGH INACCESSIBLE LOCATIONS(I.E. WALLS, UNDER SLAB) FOR CONTROL WIRING. COORDINATE WITH MECHANICAL PLANS.
4. EQUIP. REQUIREMENTS ARE FOR MANUFACTURER AND MODEL NUMBER LISTED ON MECHANICAL PLANS. MECH. CONTRACTOR SHALL BARE ANY ADDITIONAL COST.

IDF BACKBOARD DETAIL



VOICE / DATA WIRING SCHEMATIC



NOTES: 1 - ALL COMPONENTS PROVIDED BY ELECTRICAL CONTRACTOR.
2 - ALL JACKS TO BE LABELED VOICE AND/OR DATA. 3 - ALL JACKS TO BE NUMBERED TO CORRESPOND WITH PATCH PANEL.
4 - PLENUM RATED CABLE TO BE USED AS REQUIRED BY CODE.
5 - INSTALL 3/4" CONDUIT FROM THE BOX TO AREA ABOVE THE CEILING.

ARC FLASH WARNING

WARNING

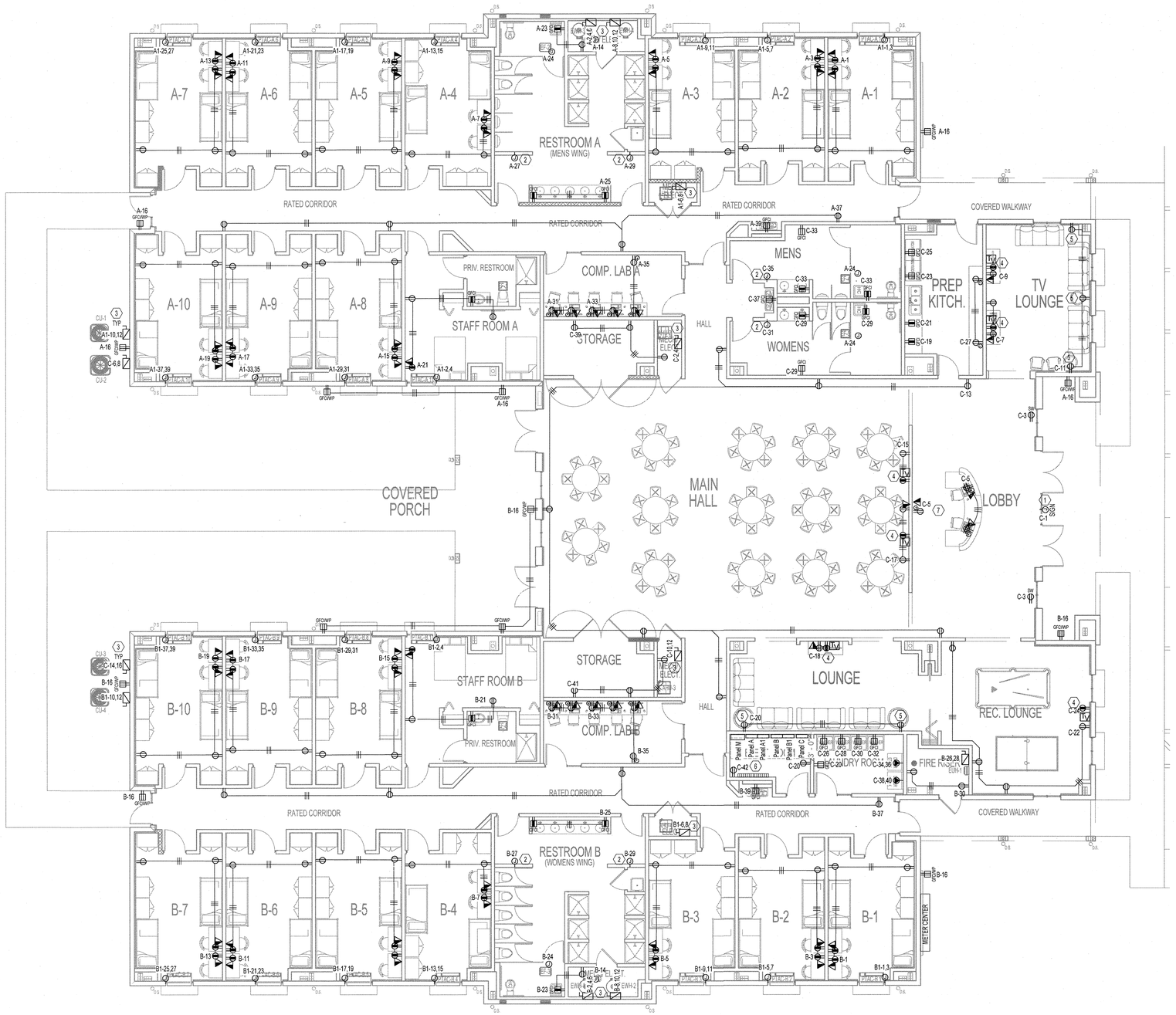
Arc Flash and Shock Hazard
Appropriate PPE Required NEC-110.16, 110.22

CAUTION- SERIES COMBINATION SYSTEM RATED.
XX.XXX AMPERES. IDENTIFIED REPLACEMENT COMPONENT REQUIRED

NOTES:
1. PROVIDE/INSTALL SIGN ON ALL EQUIPMENT PER ANSI, NEC AND OSHA. ANSI Z535.4-1998, PRODUCT SAFETY SIGNS AND LABELS, PROVIDES GUIDELINES FOR THE DESIGN OF SAFETY SIGNS AND LABELS FOR APPLICATION TO PRODUCTS.
2. REFER TO RISER DIAGRAM FOR SHORT CIRCUIT AMPERAGE INFORMATION.

Reference Notes

Number	Description
1	J-BOX FOR FUTURE SIGN MOUNTED ABOVE CEILING. PULL WIRES AS REQUIRED PER TENANT PANEL SCHEDULE INTO J-BOX. COIL WIRES AND STOW IN J-BOX AND COVER FOR FUTURE SIGNAGE CONNECTION. COORDINATE LOCATION AND MOUNTING HEIGHT OF J-BOX WITH ARCHITECTURAL ELEVATION DRAWINGS. CIRCUIT CONNECTED VIA TIME CLOCK CONTACTOR. CIRCUIT CALCULATE AS A CONTINUOUS LOAD
2	PROVIDE J-BOX FOR FUTURE HAND DRYER DESIRED BY OWNER, FIELD VERIFY EXACT LOCATION.
3	PROVIDE DISCONNECT FOR MECHANICAL EQUIPMENT, FIELD VERIFY EXACT LOCATION AND ELEVATION.
4	DUPLEX RECEPTACLE LOCATED AT 7'-0" A.F.F. FOR TV AND DATA CONNECTION. PROVIDE COAXIAL OUTLET WITH FLUSH MOUNTED 4-11/16" SQUARE SINGLE GANG JUNCTION BOX. PROVIDE BLANK BUILDING STANDARD COVER PLATE. EXTEND 3/4" CONCEALED CONDUIT TO ABOVE ACCESIBLE CEILING AND STUB-OUT WITH PLASTIC BUSHING, OR AS NOTED. INSTALL PULL WIRE OR HDMI CABLE FOR TV SIGNAL. SHALL BE COORDINATED BY CONTRACTOR.
5	PROVIDE DUPLEX AC OUTLET WITH USB CHARGING AND FACEPLATE.
6	SEE IDF BACKBOARD DETAIL FOR CONNECTION AND INSTALLATION.
7	PROVIDE OCCUPANCY SENSOR TO AUTOMATIC SHUT-OFF 50% CONTROLLED RECEPTACLES AS NOTED. REFER TO LIGHTING/RECEPTACLE CONTROL AND WIRING DETAIL.



1 / E-1 — 01-Electrical-Power — 1/8" = 1'-0"

REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
MOHSEN FARAJI, P.E. 43599

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER, OWNER REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3024
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLIER, 375 FENTRESS BOULEVARD, DAYTONA BEACH FL, 32114, PH:(386)576-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
#AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
#AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

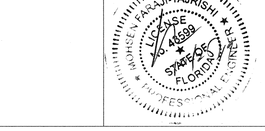
ELECTRICAL PLAN - POWER

DATE: 05/29/19

SCALE: AS SHOWN

SHT NO. E-1

ARCHITECT'S / ENGINEER'S SEAL



LIGHTING SYMBOL LEGEND

ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

	2' x 4' LIGHT FIXTURE.
NL	2' x 4' LIGHT FIXTURE WITH INTEGRAL EMERGENGY TYPE BALLAST. "NL" INDICATES FIXTURES IS ON A NIGHT LIGHT CIRCUIT (NOT SWITCH)
	SQUARE COMPACT CEILING LIGHT FIXTURE.
NL	2' X 2' LIGHT FIXTURE WITH INTEGRAL EMERGENCY TYPE BALLAST. "NL" INDICATES FIXTURES IS ON A NIGHT LIGHT CIRCUIT (NOT SWITCH)
	ROUND COMPACT CEILING LIGHT/DOWN LIGHT.
NL	EMERGENCY OR NIGHTLIGHT (NL) COMPACT CEILING LIGHT/DOWN LIGHT.
	STRIP, OR INDUSTRIAL LIGHT FIXTURE.
	WALL MOUNTED FULL-CUTOFF FIXTURE.
	WALL MOUNTED COMPACT LIGHT FIXTURE
	TRACK LIGHT. LAMPS AND LEGHT AS SHOW ON PLANS.
	EXIT-EMERGENCY COMBO LIGHT. ARROWS INDICATE DIRECTION AND SHADE INDICATE FACE(S) OF FIXTURE.
	EXIT LIGHT. ARROWS INDICATE DIRECTION AND SHADE INDICATE FACE(S) OF FIXTURE.
	EMERGENCY BATTERY OPERATED WALL PACK WITH TWO AIMABLE HEADS
	RECESSED 1' X 4' FIXTURE.
OS	CEILING MOUNTED DUAL TECNOLOGY OCCYPANCY SENSOR.
DLS	CEILING MOUNETD DAYLIGHT PHOTOCEL SENSOR.
DLS OS	CEILING MOUNTED OCCUPANCY/VACANCY SENSOR AND DAYLIGHT PHOTOCELL COMBO.
$	SINGLE POLE SWITCH. OS= OCCUPANCY SENSOR 3= THREE WAY D= DIMMING T= TIMER LV= LOW VOLTAGE 4= FOUR WAY
	DIGITAL KEY PAD LIGHTING CONTROL.

ABREVIATIONS

A	-	AMPERES
A/C	-	AIR CONDITIONING
AC	-	ALTERNATING CURRENT
AFF	-	ABOVE FINISHED FLOOR
AFG	-	ABOVE FINISHED GRADE
AHU	-	AIR HANDLING UNIT
AWG	-	AMERICAN WIRE GAUGE
C	-	CONDUIT
CFL	-	COMPACT FLUORESCENT LAMP
CH	-	COUNTER HEIGHT
CONC	-	CONCRETE
COND	-	CONDUIT
CU	-	COPPER
DISC	-	DISCONNECT
ECB	-	ENCLOSED CIRCUIT BREAKER
ELEC	-	ELECTRICAL
EM	-	EMERGENCY
EMS	-	ENERGY MANAGEMENT SYSTEM
EMT	-	ELECTRICAL METALLIC TUBING
EF	-	EXHAUST FAN
EWC	-	ELECTRIC WATER COOLER
ETR	-	EXISTING TO REMAIN
EX	-	EXISTING
FA	-	FIRE ALARM
FACP	-	FIRE ALARM CONTROL PANEL
FPL	-	FLORIDA POWER AND LIGHT
G	-	GROUND
GFI	-	GROUND FAULT INTERRUPTER
GND	-	GROUND
GRC	-	GALVANIZED RIGID CONDUIT
HVAC	-	HEATING, VENTILATING AND AIR CONDITIONING
H.I.D.	-	HIGH INTENSITY DISCHARGE
I.G.	-	ISOLATED GROUND
J	-	JUNCTION
KAIC	-	(THOUSAND) AMPERE INTERRUPTING CAPACITY
KVA	-	KILOVOLT-AMPERES
KW	-	KILOWATT
LED	-	LIGHT EMITTING DIODE
LTG	-	LIGHTING
KCMIL	-	THOUSANDS OF CIRCULAR MILS
MCU	-	MASTER CONTROL UNIT
MCP	-	MOTOR CIRCUIT PROTECTION
MH	-	METAL HALIDE
N	-	NEUTRAL
NA	-	NOT APPLICABLE
NF	-	NON-FUSED
NL	-	NIGHT LIGHT
NEC	-	NATIONAL ELECTRICAL CODE
NIC	-	NOT IN CONTRACT
NL	-	NIGHT LIGHT
NEMA	-	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
NFPA	-	NATIONAL FIRE PROTECTION ASSOC.
O.C.	-	ON CENTER
P	-	POLE
PNL	-	PANELBOARD
PVC	-	POLYVINYL CHLORIDE
RM	-	ROOM
RGS	-	RIGID GALVANIZED STEEL
SPEC	-	SPECIFICATION
SS	-	STAINLESS STEEL
TBD	-	TO BE DETERMINED
TVSS	-	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	-	TYPICAL
UON	-	UNLESS OTHERWISE NOTED
V	-	VOLTS
W	-	WIRE
W	-	WATT
WP	-	WEATHERPROOF

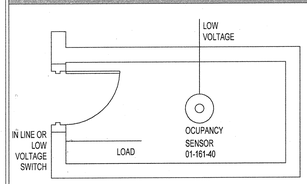
LIGHTING NOTES:

1. ALL LIGHTING SHALL BE CONNECTED TO 120/208V 3Ø, 4W PANEL UNLESS NOTED OTHERWISE.
2. REFER TO ARCHITECTS REFLECTED CEILING PLAN FOR EXACT LIGHTING FIXTURE HEIGHT AND LOCATION.
3. ALL LIGHTING FIXTURES SHALL COMPLY WITH NEC 410.130(G).
4. EACH SPACE ENCLOSED BY CEILING-HEIGHT PARTITIONS SHALL HAVE AT LEAST ONE CONTROL DEVICE TO INDEPENDENTLY CONTROL THE GENERAL LIGHTING WITHIN THE SPACE PER CHAPTER 4 FROM FBC ENERGY CONSERVATION.
5. ALL EMERGENCY AND EXIT LIGHTING SHALL BE CONNECTED AHEAD OF LOCAL SWITCHING.
6. ALL LIGHTS SHALL BE LED AND ALL LIGHTS SWITCHES GUARANTEED TO WORK WITH LED FIXTURES.
7. GENERAL CONTRACTOR SHALL COMPLETE THE FUNCTIONAL TESTING OF THE LIGHTING CONTROL SYSTEMS TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATE, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THIS DOCUMENT AND MANUFACTURER'S INSTRUCTIONS PER FBCEC 6TH EDITION (2017) SECTION C408.3.1
8. CONTRACTOR SHALL PROVIDE DOCUMENTATION CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA OF FBCEC 6TH EDITION (2017) SECTION C405 AND THE DOCUMENTATION TO BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY PER FBCEC 6TH EDITION (2017) SECTION C408.3.2.

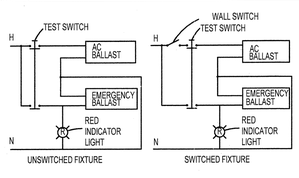
Reference Notes

#	Description
1	SEE LIGHTING CONTROL DETAILS FOR WIRING CONNECTION.

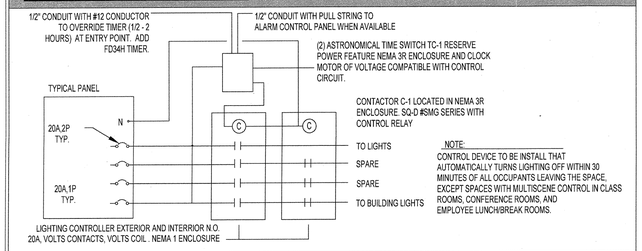
TYP ROOM WITH OCCUPANCY SENSOR



EMERGENCY BALLAST DETAILS

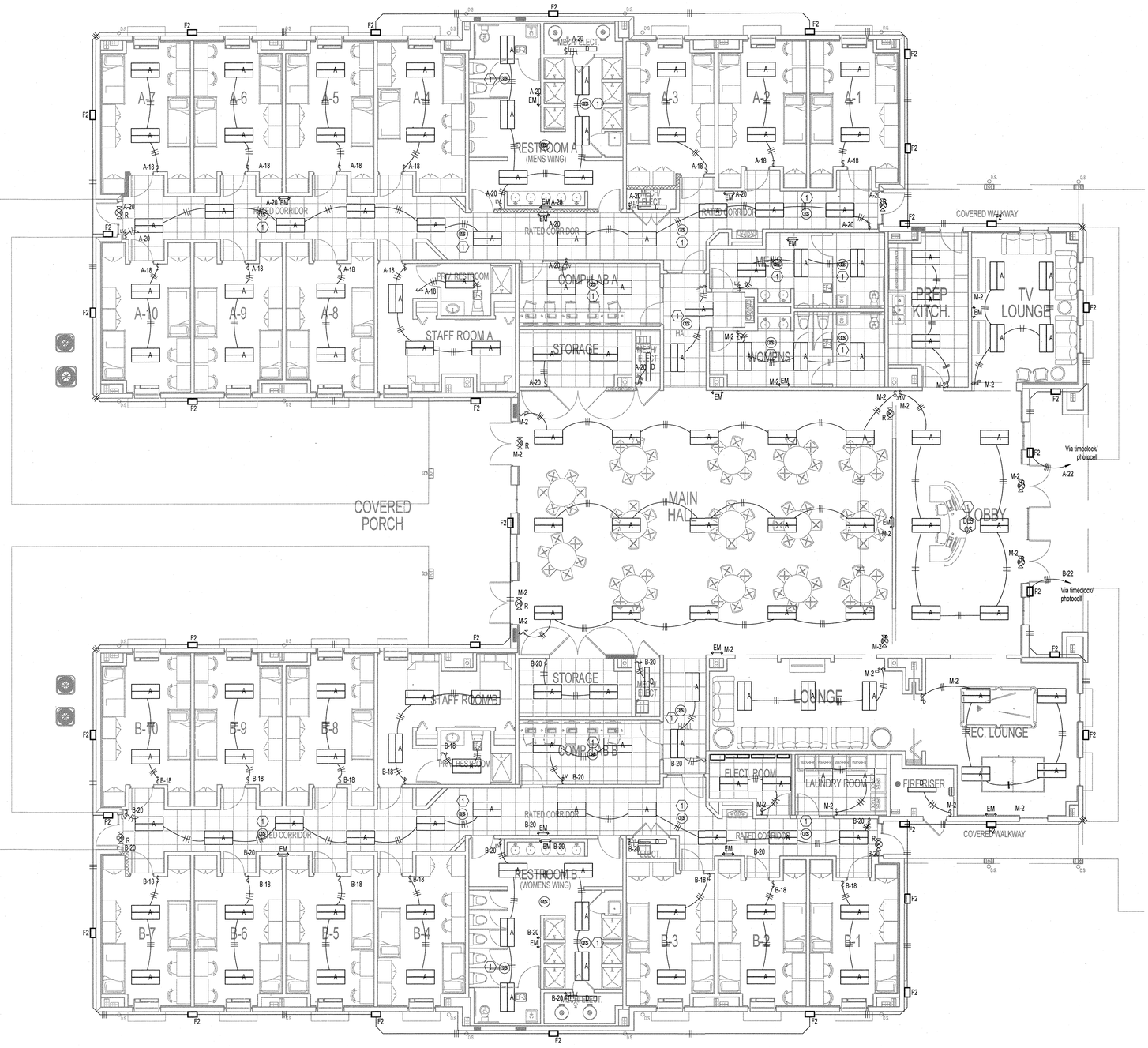


LIGHTING CONTROL DIAGRAM



Lighting Fixture Schedule

Type Mark	Description	Manufacture	Model	Lamp	Apparent Load
A	2'X4' GENERAL LED PANEL, RECESSED/ SURFACE IN INSULATED CEILINGS OR SURFACE MOUNT	WESTERN FLORIDA LIGHTING	CFP SERIES	LED	40 VA
D	WRAP AROUND LOW PROFILE		ORW-LED SERIES	LED	38 VA
EM	EMERGENCY LIGHTS W/ BATTERY BACK-UP	WESTERN FLORIDA LIGHTING	EV SERIES	LED	10 VA
F2	OUTSIDE WALL MOUNT, LED FIXTURE, TBD BY OTHERS	WESTERN FLORIDA LIGHTING	SPECIFIED BY OTHERS	LED	40 VA
R	SELF POWERED COMBINATION EXIT-EMERGENCY LIGHT	WESTERN FLORIDA LIGHTING	EVC SERIES	LED	10 VA



1 / E-2 01-Electrical-Lighting
1/8" = 1'-0"

#	REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
MOHSEN FARAJI, P.E. 43599

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: OWNER REP: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH FL 32114 (386)271-3924
PROJECT LOCATION: 2801 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLIVER, 375 FENTRESS BOULEVARD, DAYTONA BEACH FL, 32114 PH:(386)676-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009708
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL. 32114
PH: (386) 257-2802 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

ELECTRICAL PLAN - LIGHTING

DATE: 05/29/19
SCALE: AS SHOWN
SHT NO. E-2

ARCHITECTS / ENGINEER'S SEAL



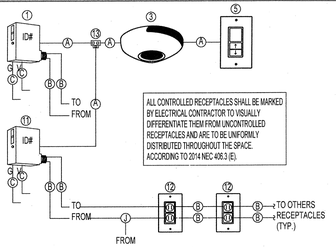
LIGHTING CONTROL DETAILS

EQUIPMENT LEGEND
(1) SWITCHING AND 0-10V DIMMING PACK MODEL #: nPP16 D
(2) OCCPANCY/VACANCY SENSOR MODEL #: nCM PDT 10
(3) OCCUPANCY/VACANCY SENSOR AND PHOTOCELL COMBO MODEL #: nCM PDT 10 ADCX
(4) DIMMER/OCCUPANCY/VACANCY WALL SWITCH COMBINATION UNIT MODEL #: WSX D
(5) ON/OFF RAISE/LOWER DIMMER OVERRIDE SWITCH MODEL #: Npodm DX
(6) OCCUPANCY SENSOR MODEL #: nCM PDT 10
(7) ON/OFF RAISE/LOWE 2 ZONES DIMMER OVERRIDE SWITCH MODEL #: Npodm 2P DX
(8) DIMMER/VACANCY DIMMING PACK MODEL #: NPP16 D SA
(9) ON/OFF RAISE/LOWER 4 ZONES DIMMER OVERRIDE SWITCH MODEL #: NPODM 4P DX
(10) DAYLIGHT HARVESTING PHOTOCELL MODEL #: nCM ADCX RJB
(11) PLUG LOAD CONTROL POWER PACK MODEL #: nPP20 PL
(12) 20 AMP 120V SWITCH DUPLEX RECEPTACLE. PROVIDE LABEL ON THE COVER.
(13) CAT-5e SPLITTER

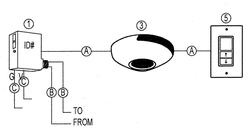
WIRE LEGEND
(A) CAT 5 (LOW VOLTAGE)
(B) CLASS 1 (LINE VOLTAGE)
(C) CLASS 2 (LOW VOLTAGE)

LIGHTING CONTROL NOTES:

- RISERS DIAGRAMS ARE TO SHOW DESIGN INTENT FOR STANDALONE AND NETWORK AREAS.
- DIMMING INCLUDED IN ALL AREAS AND ALL DIMMING IS 0-10V.
- ALL DAYLIGHT SENSORS MUST BE PHOTOCELL AND OCCUPANCY SENSOR COMBINATION UNITS.
- SENSORS AND POWER PACKS MUST OPERATE IN VACANCY MODE OR OCCUPANCY MODE OF OPERATION
- REFER TO FLOOR PLANS FOR QUANTITIES OF CONTROL DEVICES SUCH AS OCCUPANCY SENSORS, PHOTOCELLS, AND DIMMER SWITCHES.
- QUANTITIES OF DIMMING POWER PACKS AND UL924 DIMMING POWER PACKS REQUIRED PER SWITCH LEGS AND ZONES.
- ROOM LOCATIONS LISTED BELOW INDICATE GENERAL DESIGN INTENT BUT ARE NOT LIMITED TO JUST THOSE SPECIFIC ROOMS.



ALL CONTROLLED RECEPTACLES SHALL BE MARKED BY ELECTRICAL CONTRACTOR TO VISUALLY DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES AND ARE TO BE UNIFORMLY DISTRIBUTED THROUGHOUT THE SPACE. ACCORDING TO 2014 NEC 408.3 (E).

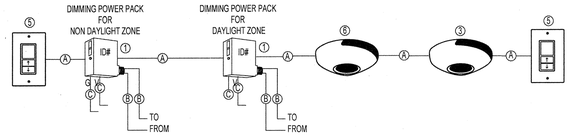


LIGHTING CONTROL AND WIRING DETAIL

SCALE: NONE — OPEN SPACES WITH OCCUPANCY/VACANCY SENSORS AND DIMMING CONTROL

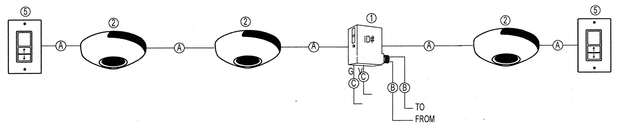
LIGHTING/RECEPTACLE CONTROL AND WIRING DETAIL

SCALE: NONE — SMALL OFFICE WITH VACANCY SENSORS AND DIMMING CONTROL



LIGHTING CONTROL AND WIRING DETAIL

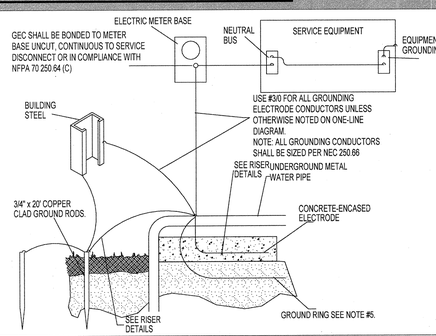
SCALE: NONE — OPEN OFFICE SPACES, LOBBY AND RECEPTION WITH OCCUPANCY/VACANCY SENSORS, DAYLIGHT ZONES AND DIMMING CONTROL.



LIGHTING CONTROL AND WIRING DETAIL

SCALE: NONE — CORRIDORS AND HALLWAYS

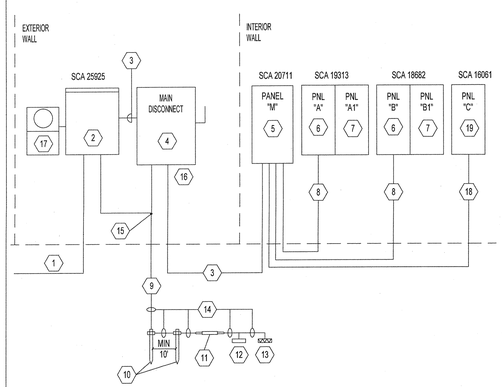
GROUNDING ELECTRODE CONDUCTOR DETAIL



NOTES:

1. FULL SIZE GROUND MEANS THAT GROUND CONDUCTOR SIZE SHALL BE AS SHOWN ON SERVICE EQUIPMENT ON THE POWER RISER DIAGRAM.
2. AFTER GROUNDING SYSTEM IS INSTALLED, GROUND RESISTANCE SHALL BE MEASURED, TO ASSURE THAT GROUND VALUE OF 25 OHM MAXIMUM RESISTANCE IS ACHIEVED. IF NOT, ADDITIONAL GROUNDING SHALL BE PROVIDED TO MEET THE SPECIFIED VALUE.
3. ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD CONNECTIONS. IF CONNECTIONS WILL REMAIN ACCESIBLE, ACORN STYE GROUNDING CLAMPS MAY BE USED.
4. GROUND CONDUCTOR SHALL BE LOCATED WITHIN OR NEAR BOTTOM OF CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH, AND SHALL CONSIST OF AT LEAST 20 FEET OF ONE OR MORE STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2 INCH DIAMETER, OR OF AT LEAST 20 FEET OF BARE COPPER CONDUCTOR.
5. OPTIONAL- IF 25 OHMS OR LESS (PER NEC 250) CANNOT BE ACHIEVED BY THE METHODS ABOVE THEN A GROUND RING ENCIRCLING THE BUILDING OR STRUCTURE, IN DIRECT CONTACT WITH EARTH, CONSISTING OF AT LEAST (20 FT.) OF BARE COPPER CONDUCTOR NOT SMALLER THAN 2 AWG SHALL BE INSTALLED. PER ARTICLE-250.52(A)(4) NEC.
6. GROUND ELECTRODE CONDUCTOR(S) SHALL BE PROTECTED AS REQUIRED BY NFPA 70 250.64

ELECTRICAL RISER DIAGRAM



REFERENCE NOTES:

1. TO UTILITY POINT OF CONNECTION 120/208V , 3Ø, POLE & TRANSFORMER. 2 SETS OF 4#600MCM IN 3.5"C, EACH.
2. CT CABINET IN NEMA 3R.
3. 2 SETS OF, 4#600MCM AND 1#3/0G IN 4"C, EACH.
4. 800 AMP FUSED DISCONNECT. 120/208V, 3Ø.
5. MAIN PANEL "M" 800A MLO, 120/208V, 3Ø. REFER TO PANEL SCHEDULE.
6. PANEL "A" / "B" (SECTION 1 OF 2). 400AMP MLO, 120/208V, 3Ø.
7. PANEL "A1" / "B1" (SECTION 2 OF 2). 400AMP MLO, 120/208V, 3Ø.
8. 2 SETS OF 4#3/0 CU AND 1#3G CU IN 2.5"C EACH.
9. BOND EQUIPMENT RACK TO GROUND.
10. 3/4"Ø X 20'-0" COPPER GROUND ROD.
11. STEEL WATER PIPE, IF AVAILABLE.
12. BUILDING STEEL, IF AVAILABLE.
13. CONCRETE ENCASED ELECTRODE.
14. 1#3/0 COPPER GROUNDING ELECTRODE.
15. BOND EQUIPMENT RACK TO GROUND.
16. A SIGN MUST BE PLACE AT THE SERVICE ENTRANCE EQUIPMENT INDICATING THE MAXIMUM AVAILABLE FAULT CURRENT AND CALCULATION DATE. IN COMPLIANCE WITH N.E.C. 110.24 (A)
17. UTILITY METER IN NEMA 3R.
18. 1 SET OF 4#3/0 CU AND 1#6G CU IN 2.5"C EACH.
19. PANEL "C", 225AMP MLO, 120/208V, 3Ø. REFER TO PNL SCHEDULE.

GENERAL RISER DIAGRAM NOTES:

1. TENANTS NAMES/NUMBERS SHOWN IN LOADCENTER SCHEDULES ARE PER ARCHITECTURAL FLOOR PLANS. CONTRACTOR SHALL PROVIDE FINALIZED LOADCENTER SCHEDULES AT COMPLETION OF PROJECT WITH OWNER PROVIDED TENANTS NAMES/NUMBERS.
2. THE ENTIRE INSTALLATION SHALL MEET ALL REQUIREMENTS OF THE LATEST APPLICABLE EDITION OF THE NEC AND LOCAL CODES. ALL EQUIPMENT SHALL BE LISTED AND BEAR THE LABEL OF AN APPROVED NATIONALLY RECOGNIZED TESTING LABORATORY.
3. ALL EQUIPMENT SHALL BE UNDERWRITERS LABORATORIES INC. (U.L.) LISTED AND LABELED.
4. NO CONDUITS SHALL RUN UNDER ANOTHER UNIT WITHOUT BUILDING OFFICIAL APPROVAL OR OWNER MUST PROVIDE EASEMENT TO ALLOW UTILITIES CROSSING PRIVATE PROPERTIES.
5. COORDINATE EXACT LOCATION OF ELECTRICAL METER BANK, TELEPHONE CABINET & CABLE TV WITH CIVIL ENGINEER AND UTILITY COMPANIES.

PANEL NAME: M

MAIN BREAKER: M.L.O. AMPS — 3 POLE — 3 PHASE
MAIN LUGS: 800 AMPS — 4 WIRE
K.A.I.C. : 22 AMPS — X 208Y/120V
SURFACE MTD: X — 480Y/277V
FLUSH MTD: — 240/120V
Project Name: DME SPORTS HOUSING...
Project Number: MTF18144
Fed From: METER CENTER
Location:

NOTE	CKT	Load Name	Trip	P	Wire and Conduit	A	B	C	Wire and Conduit	P	Trip	Load Name	CKT	NOTE
	1	Panel A/A1	400 A	3	(2)4#3/0,1#3G,2.5"C	30.85 1.84			3#12 IN 3/4"C	1	20 A	Lighting Main	2	
	3	--	--	--	--		29.63 0.60		3#6 IN 1"C	2	20 A	Site Lighting	4	
	5	--	--	--	--			30.25 0.60	--	--	--	--	6	
	7	Panel B/B1	400 A	3	(2)4#3/0,1#3G,2.5"C	32.35 1.20			3#10 IN 1"C	1	20 A	Irrigation Control	8	
	9	--	--	--	--		31.31 1.20		3#10 IN 1"C	1	20 A	Exterior SIGN	10	
	11	--	--	--	--			30.40					12	
	13	Panel C	200 A	3	4#3/0,1#6G,2.5"C	22.74							14	
	15	--	--	--	--		22.02						16	
	17	--	--	--	--			17.96					18	
	19												20	
	21												22	
	23												24	
	25												26	
	27												28	
	29												30	
	31												32	
	33												34	
	35												36	
	37					0.00			5#10 IN 1"C	3	30 A	Surge Protection	38	
	39						0.00		--	--	--	--	40	
	41							0.00	--	--	--	--	42	
		Phase...				89.0	84.8	79.2						

	CONN. LOAD...	DEMAND FACTOR	DEMAND LOAD...
Lighting	9518 VA	1.25	11897 VA
Receptacle	52700 VA	NEC	31350 VA
Heating	106000 VA	1.00*	106000 VA
Cooling	23200 VA	1.00*	2 VA
Kitchen	0 VA	0.65	0 VA
Motor	1000 VA	1.25	1125 VA
Other	60612 VA	1.00	60612 VA

Total Connected Load: 252.9 kVA
Total Demand Load: 210.9 kVA
Demand Amps: 585 A

106000 VA
*Larger A/C LOAD

NOTES: 1)LOCKED CKT BREAKR 2)HACR RATED CKT BREAKR 3)VIA TIMECLOCK 4)GFCI, 5)ISOLATED GRND 6)TYPE D BREAKR, 7)AFCI BREAKR, 8)SHUNT TRIP

GENERAL NOTE: ALL BREAKERS ARE SIZED FOR CONTINUOUS LOAD PER NEC 210.20(A).

PANEL NAME: C

MAIN BREAKER: M.L.O. AMPS — 3 POLE — 3 PHASE
MAIN LUGS: 225 AMPS — 4 WIRE
K.A.I.C. : 22 AMPS — X 208Y/120V
SURFACE MTD: X — 480Y/277V
FLUSH MTD: — 240/120V
Project Name: DME SPORTS HOUSING...
Project Number: MTF18144
Fed From: PANEL M
Location:

NOTE	CKT	Load Name	Trip	P	Wire and Conduit	A	B	C	Wire and Conduit	P	Trip	Load Name	CKT	NOTE
	1	SIGN	20 A	1	3#12 IN 3/4"C	1.20 5.00			3#6 IN 1"C	2	60 A	AHU-2	2	
	3	Show Window	20 A	1	3#12 IN 3/4"C		1.20 5.00		--	--	--	--	4	
	5	Recept Lobby	20 A	1	3#12 IN 3/4"C			0.90 2.90	3#6 IN 1"C	2	50 A	CU-2	6	
	7	Recept TV Lounge	20 A	1	3#12 IN 3/4"C	0.76 2.90			--	--	--	--	8	
	9	Recept TV Lounge	20 A	1	3#12 IN 3/4"C		0.58 5.00		3#6 IN 1"C	2	60 A	AHU-3	10	
	11	Recept TV Lounge	20 A	1	3#12 IN 3/4"C			0.54 5.00	--	--	--	--	12	
	13	Recept Hall	20 A	1	3#12 IN 3/4"C	1.26 2.90			3#6 IN 1"C	2	50 A	CU-3	14	
	15	Recept Hall	20 A	1	3#12 IN 3/4"C		0.58 2.90		--	--	--	--	16	
	17	Recept Hall	20 A	1	3#12 IN 3/4"C			0.76 0.58	3#12 IN 3/4"C	1	20 A	Recept Lounge	18	
	19	Recept Kitchen	20 A	1	3#12 IN 3/4"C	1.00 0.72			3#12 IN 3/4"C	1	20 A	Recept Lounge	20	
	21	Recept Kitchen	20 A	1	3#12 IN 3/4"C		1.00 0.72		3#12 IN 3/4"C	1	20 A	Recept Lounge	22	
4	23	Refrigerator	20 A	1	3#12 IN 3/4"C			1.20 0.40	3#12 IN 3/4"C	1	20 A	Recept Lounge	24	
4	25	Refrigerator	20 A	1	3#12 IN 3/4"C	1.20 1.20			3#12 IN 3/4"C	1	20 A	Washer	26	4
	27	Recept Kitchen	20 A	1	3#12 IN 3/4"C		0.36 1.20		3#12 IN 3/4"C	1	20 A	Washer	28	4
	29	Recept RR Wm	20 A	1	3#12 IN 3/4"C			0.54 1.20	3#12 IN 3/4"C	1	20 A	Washer	30	4
	31	Dryer RR Wm	20 A	1	3#12 IN 3/4"C	1.00 1.20			3#12 IN 3/4"C	1	20 A	Washer	32	4
	33	Recept RR Men	20 A	1	3#12 IN 3/4"C		0.54 1.20		4#10 IN 1"C	2	30 A	Dryer	34	
	35	Dryer RR Men	20 A	1	3#12 IN 3/4"C			1.00 1.20	--	--	--	--	36	
4	37	EWC	20 A	1	3#12 IN 3/4"C	1.20 1.20			4#10 IN 1"C	2	30 A	Dryer	38	
	39	Recept Storage	20 A	1	3#12 IN 3/4"C		0.54 1.20		--	--	--	--	40	
	41	Recept Storage	20 A	1	3#12 IN 3/4"C			0.54 1.20	3#12 IN 3/4"C	1	20 A	Telecomm Board	42	
		Phase...				22.7	22.0	18.0						

	CONN. LOAD...	DEMAND FACTOR	DEMAND LOAD...
Lighting	2400 VA	1.25	3000 VA
Receptacle	26720 VA	NEC	18360 VA
Heating	20000 VA	1.00*	20000 VA
Cooling	11600 VA	1.00*	1 VA
Kitchen	0 VA	0.65	0 VA
Motor	0 VA	1.25	0 VA
Other	2000 VA	1.00	2000 VA

Total Connected Load: 62.7 kVA
Total Demand Load: 43.4 kVA
Demand Amps: 120 A

20000 VA
*Larger A/C LOAD

NOTES: 1)LOCKED CKT BREAKR 2)HACR RATED CKT BREAKR 3)VIA TIMECLOCK 4)GFCI, 5)ISOLATED GRND 6)TYPE D BREAKR, 7)AFCI BREAKR, 8)SHUNT TRIP

GENERAL NOTE: ALL BREAKERS ARE SIZED FOR CONTINUOUS LOAD PER NEC 210.20(A).

PANEL NAME: A

MAIN BREAKER: M.L.O. AMPS — POLE — 3 PHASE
MAIN LUGS: 400 AMPS — 4 WIRE
K.A.I.C. : 22 AMPS — X 208Y/120V
SURFACE MTD: X — 480Y/277V
FLUSH MTD: — 240/120V
Project Name: DME SPORTS HOUSING...
Project Number: MTF18144
Fed From: PANEL M
Location:

NOTE	CKT	Load Name	Trip	P	Wire and Conduit	A	B	C	Wire and Conduit	P	Trip	Load Name	CKT	NOTE
	1	Recept A-1	20 A	1	3#12 IN 3/4"C	0.72 4.00			4#6 IN 1"C	3	50 A	EWH-3	2	
	3	Recept A-2	20 A	1	3#12 IN 3/4"C		0.72 4.00		--	--	--	--	4	
	5	Recept A-3	20 A	1	3#12 IN 3/4"C			0.72 4.00	--	--	--	--	6	
	7	Recept A-4	20 A	1	3#12 IN 3/4"C	0.72 4.00			4#6 IN 1"C	3	50 A	EWH-4	8	
	9	Recept A-5	20 A	1	3#12 IN 3/4"C		0.72 4.00		--	--	--	--	10	
	11	Recept A-6	20 A	1	3#12 IN 3/4"C			0.72 4.00	--	--	--	--	12	
	13	Recept A-7	20 A	1	3#12 IN 3/4"C	0.72 0.50			3#12 IN 3/4"C	1	20 A	P-1	14	
	15	Recept A-8	20 A	1	3#12 IN 3/4"C		0.72 1.08		3#12 IN 3/4"C	1	20 A	Recept Exterior	16	
	17	Recept A-9	20 A	1	3#12 IN 3/4"C			0.72 0.96	3#12 IN 3/4"C	1	20 A	Lighting Rooms	18	
	19	Recept A-10	20 A	1	3#12 IN 3/4"C	0.72 1.03			3#12 IN 3/4"C	1	20 A	Lighting Wing A	20	
	21	Recept Staff	20 A	1	3#12 IN 3/4"C		0.72 0.64		3#12 IN 3/4"C	1	20 A	Lighting Exterior A	22	
	23	Recept RR-A	20 A	1	3#12 IN 3/4"C			0.36 0.31	3#12 IN 3/4"C	1	20 A	Exhaust Fans	24	
	25	Recept RR-A	20 A	1	3#12 IN 3/4"C	0.36							26	
	27	Dryer RR-A	20 A	1	3#12 IN 3/4"C		1.20						28	
	29	Dryer RR-A	20 A	1	3#12 IN 3/4"C			1.20					30	
	31	Recept Comp. Lab A	20 A	1	3#12 IN 3/4"C	0.36							32	
	33	Recept Comp. Lab A	20 A	1	3#12 IN 3/4"C		0.36						34	
	35	Recept Comp. Lab A	20 A	1	3#12 IN 3/4"C			0.36					36	
	37	Recept Corridor A	20 A	1	3#12 IN 3/4"C	0.72 0.00			5#10 IN 1"C	3	30 A	Surge Protection	38	
4	39	EWC-A	20 A	1	3#12 IN 3/4"C		1.20 0.00		--	--	--	--	40	
	41							0.00	--	--	--	--	42	
		Phase...				13.9	14.7	13.3						

	CONN. LOAD...	DEMAND FACTOR	DEMAND LOAD...
Lighting	2094 VA	1.25	2618 VA
Receptacle	12720 VA	NEC	11360 VA
Heating	0 VA	1.00*	0 VA
Cooling	0 VA	1.00*	0 VA
Kitchen	0 VA	0.65	0 VA
Motor	500 VA	1.25	625 VA
Other	26709 VA	1.00	26709 VA

Total Connected Load: 41.9 kVA
Total Demand Load: 41.2 kVA
Demand Amps: 114 A

*Larger A/C LOAD

NOTES: 1)LOCKED CKT BREAKR 2)HACR RATED CKT BREAKR 3)VIA TIMECLOCK 4)GFCI, 5)ISOLATED GRND 6)TYPE D BREAKR, 7)AFCI BREAKR, 8)SHUNT TRIP

GENERAL NOTE: ALL BREAKERS ARE SIZED FOR CONTINUOUS LOAD PER NEC 210.20(A).

PANEL NAME: A1

MAIN BREAKER: M.L.O. AMPS — 3 POLE — 3 PHASE
MAIN LUGS: 400 AMPS — 4 WIRE
K.A.I.C. : 22 AMPS — X 208Y/120V
SURFACE MTD: X — 480Y/277V
FLUSH MTD: — 240/120V
Project Name: DME SPORTS HOUSING...
Project Number: MTF18144
Fed From: FEED THRU PANEL A
Location:

NOTE	CKT	Load Name	Trip	P	Wire and Conduit	A	B	C	Wire and Conduit	P	Trip	Load Name	CKT	NOTE
	1	PTAC-A.1	20 A	2	4#10 IN 1"C	1.50 1.50			4#10 IN 1"C	2	20 A	PTAC-A.11	2	
	3	--	--	--	--		1.50 1.50		--	--	--	--	4	
	5	PTAC-A.2	20 A	2	4#10 IN 1"C			1.50 5.00	3#6 IN 1"C	2	60 A	AHU-1	6	
	7	--	--	--	--	1.50 5.00			--	--	--	--	8	
	9	PTAC-A.3	20 A	2	4#10 IN 1"C		1.50 2.90		3#6 IN 1"C	2	50 A	CU-1	10	
	11	--	--	--	--			1.50 2.90	--	--	--	--	12	
	13	PTAC-A.4	20 A	2	4#10 IN 1"C	1.50							14	
	15	--	--	--	--		1.50						16	
	17	PTAC-A.5	20 A	2	4#10 IN 1"C			1.50					18	
	19	--	--	--	--	1.50							20	
	21	PTAC-A.6	20 A	2	4#10 IN 1"C		1.50						22	
	23	--	--	--	--			1.50					24	
	25	PTAC-A.7	20 A	2	4#10 IN 1"C	1.50							26	
	27	--	--	--	--		1.50						28	
	29	PTAC-A.8	20 A	2	4#10 IN 1"C			1.50					30	
	31	--	--	--	--	1.50							32	
	33	PTAC-A.9	20 A	2	4#10 IN 1"C		1.50						34	
	35	--	--	--	--			1.50					36	
	37	PTAC-A.10	20 A	2	4#10 IN 1"C	1.50 0.00			5#10 IN 1"C	3	30 A	Surge Protection	38	
	39	--	--	--	--		1.50 0.00		--	--	--	--	40	
	41							0.00	--	--	--	--	42	
		Phase...				17.0	14.9	16.9						

	CONN. LOAD...	DEMAND FACTOR	DEMAND LOAD...
Lighting	0 VA	1.25	0 VA
Receptacle	0 VA	NEC	0 VA
Heating	43000 VA	1.00*	43000 VA
Cooling	5800 VA	1.00*	1 VA
Kitchen	0 VA	0.65	0 VA
Motor	0 VA	1.25	0 VA
Other	0 VA	1.00	0 VA

Total Connected Load: 48.8 kVA
Total Demand Load: 43.0 kVA
Demand Amps: 119 A

43000 VA
*Larger A/C LOAD

NOTES: 1)LOCKED CKT BREAKR 2)HACR RATED CKT BREAKR 3)VIA TIMECLOCK 4)GFCI, 5)ISOLATED GRND 6)TYPE D BREAKR, 7)AFCI BREAKR, 8)SHUNT TRIP

GENERAL NOTE: ALL BREAKERS ARE SIZED FOR CONTINUOUS LOAD PER NEC 210.20(A).

PANEL NAME: B

MAIN BREAKER: M.L.O. AMPS — 3 POLE — 3 PHASE
MAIN LUGS: 400 AMPS — 4 WIRE
K.A.I.C. : 22 AMPS — X 208Y/120V
SURFACE MTD: X — 480Y/277V
FLUSH MTD: — 240/120V
Project Name: DME SPORTS HOUSING...
Project Number: MTF18144
Fed From: PANEL M
Location:

NOTE	CKT	Load Name	Trip	P	Wire and Conduit	A	B	C	Wire and Conduit	P	Trip	Load Name	CKT	NOTE
	1	Recept B-1	20 A	1	3#12 IN 3/4"C	0.72 4.00			4#6 IN 1"C	3	50 A	EWH-1	2	
	3	Recept B-2	20 A	1	3#12 IN 3/4"C		0.72 4.00		--	--	--	--	4	
	5	Recept B-3	20 A	1	3#12 IN 3/4"C			0.72 4.00	--	--	--	--	6	
	7	Recept B-4	20 A	1	3#12 IN 3/4"C	0.72 4.00			4#6 IN 1"C	3	50 A	EWH-2	8	
	9	Recept B-5	20 A	1	3#12 IN 3/4"C		0.72 4.00		--	--	--	--	10	
	11	Recept B-6	20 A	1	3#12 IN 3/4"C			0.72 4.00	--	--	--	--	12	
	13	Recept B-7	20 A	1	3#12 IN 3/4"C	0.72 0.50			3#12 IN 3/4"C	1	20 A	P-1	14	
	15	Recept B-8	20 A	1	3#12 IN 3/4"C		0.72 1.26		3#12 IN 3/4"C	1	20 A	Recept Exterior	16	
	17	Recept B-9	20 A	1	3#12 IN 3/4"C			0.72 0.96	3#12 IN 3/4"C	1	20 A	Lighting Rooms	18	
	19	Recept B-10	20 A	1	3#12 IN 3/4"C	0.72 1.03			3#12 IN 3/4"C	1	20 A	Lighting Wing B	20	
	21	Recept Staff B	20 A	1	3#12 IN 3/4"C		0.72 0.68		3#12 IN 3/4"C	1	20 A	Lighting Exterior B	22	
	23	Recept RR-B	20 A	1	3#12 IN 3/4"C			0.36 0.10	3#12 IN 3/4"C	1	20 A	Exhaust Fan	24	
	25	Recept RR-B	20 A	1	3#12 IN 3/4"C	0.36 1.50			4#10 IN 1" C	2	30 A	EUH-1	26	
	27	Dryer RR-B	20 A	1	3#12 IN 3/4"C		1.20 1.50		--	--	--	--	28	
	29	Dryer RR-B	20 A	1	3#12 IN 3/4"C			1.20 0.36	3#12 IN 3/4"C	1	20 A	Recept Fire Riser Rm.	30	
	31	Recept Comp. Lab B	20 A	1	3#12 IN 3/4"C	0.36							32	
	33	Recept Comp. Lab B	20 A	1	3#12 IN 3/4"C		0.36						34	
	35	Recept Comp. Lab B	20 A	1	3#12 IN 3/4"C			0.36					36	
	37	Recept Corridor B	20 A	1	3#12 IN 3/4"C	0.72 0.00			5#10 IN 1"C	3	30 A	Surge Protection	38	
4	39	EWC-B	20 A	1	3#12 IN 3/4"C		1.20 0.00		--	--	--	--	40	
	41							0.00	--	--	--	--	42	
		Phase...				15.4	16.4	13.5						

	CONN. LOAD...	DEMAND FACTOR	DEMAND LOAD...
Lighting	2107 VA	1.25	2633 VA
Receptacle	13260 VA	NEC	11630 VA
Heating	0 VA	1.00*	0 VA
Cooling	0 VA	1.00*	0 VA
Kitchen	0 VA	0.65	0 VA
Motor	500 VA	1.25	625 VA
Other	29503 VA	1.00	29503 VA

Total Connected Load: 45.3 kVA
Total Demand Load: 44.3 kVA
Demand Amps: 123 A

*Larger A/C LOAD

NOTES: 1)LOCKED CKT BREAKR 2)HACR RATED CKT BREAKR 3)VIA TIMECLOCK 4)GFCI, 5)ISOLATED GRND 6)TYPE D BREAKR, 7)AFCI BREAKR, 8)SHUNT TRIP

GENERAL NOTE: ALL BREAKERS ARE SIZED FOR CONTINUOUS LOAD PER NEC 210.20(A).

PANEL NAME: B1

MAIN BREAKER: M.L.O. AMPS — 3 POLE — 3 PHASE
MAIN LUGS: 400 AMPS — 4 WIRE
K.A.I.C. : 22 AMPS — X 208Y/120V
SURFACE MTD: X — 480Y/277V
FLUSH MTD: — 240/120V
Project Name: DME SPORTS HOUSING...
Project Number: MTF18144
Fed From: FEED THRU PANEL B
Location:

NOTE	CKT	Load Name	Trip	P	Wire and Conduit	A	B	C	Wire and Conduit	P	Trip	Load Name	CKT	NOTE
	1	PTAC-B.1	20 A	2	4#10 IN 1"C	1.50 1.50			4#10 IN 1"C	2	20 A	PTAC-B.11	2	
	3	--	--	--	--		1.50 1.50		--	--	--	--	4	
	5	PTAC-B.2	20 A	2	4#10 IN 1"C			1.50 5.00	3#6 IN 1"C	2	60 A	AHU-4	6	
	7	--	--	--	--	1.50 5.00			--	--	--	--	8	
	9	PTAC-B.3	20 A	2	4#10 IN 1"C		1.50 2.90		3#6 IN 1"C	2	50 A	CU-4	10	
	11	--	--	--	--			1.50 2.90	--	--	--	--	12	
	13	PTAC-B.4	20 A	2	4#10 IN

ELECTRICAL GENERAL PROVISION

PART 1 - GENERAL

A. GENERAL CONDITIONS AND REQUIREMENTS:

THIS WORK IS SUBJECT TO THE GENERAL CONDITIONS AND THE GENERAL REQUIREMENTS BOUND THEREIN. THE FOLLOWING CODES AND REGULATIONS (LATEST VERSION) SHALL GOVERN THE EXTENT AND INSTALLATION OF ELECTRICAL WORK UNLESS MORE STRINGENT REQUIREMENTS ARE SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN:

A) 2014 N.E.C., F.B.C. 6TH EDITION 2017.
B) NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS (NFPA 72, 2013 EDITION)
C) UNDERWRITERS LABORATORIES, INC (UL)
D) NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
E) APPLICABLE LOCAL AND STATE BUILDING CODES

B. SCOPE:

1. THE WORK OF THIS DIVISION CONSISTS OF FURNISHING ALL PLANT LABOR, EQUIPMENT, SUPERVISION, APPLIANCE, MATERIALS AND PERFORMING ALL OPERATIONS REQUIRED TO COMPLETE ALL ITEMS OF WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPLICABLE DRAWINGS AND ALL OTHER APPLICABLE PORTIONS OF THE COMPLETE CONTRACT DOCUMENTS.

2. THE WORK PROVIDED UNDER THIS DIVISION SHALL INCLUDE ALL LABOR, MATERIALS, PERMITS, INSPECTIONS AND RE-INSPECTION FEES, TOOLS, EQUIPMENT, TRANSPORTATION, INSURANCE, TEMPORARY PROTECTION, TEMPORARY LIGHTING, SUPERVISION AND INCIDENTAL ITEMS ESSENTIAL FOR PROPER INSTALLATION AND OPERATION, EVEN THOUGH NOT SPECIFICALLY MENTIONED OR INDICATED BUT WHICH ARE USUALLY PROVIDED OR ARE ESSENTIAL FOR PROPER INSTALLATION AND OPERATION OF ALL ELECTRICAL SYSTEMS AS INDICATED IN THE CONTRACT DOCUMENTS.

C. SUBSTITUTIONS/APPROVED EQUAL:

1. PROVIDE ONLY UL LABELED PRODUCTS (WHERE APPLICABLE) OF TYPES INDICATED. ALL MATERIALS SHALL BE NEW AND IN PERFECT CONDITION. NOTWITHSTANDING ANY REFERENCE IN THESE DRAWINGS TO ANY ARTICLE, DEVICE, PRODUCT, MATERIAL, FORM OR TYPE OF CONSTRUCTION BY NAME, MAKE OR CATALOG NUMBER, SUCH REFERENCES SHALL BE INTERPRETED AS ESTABLISHING A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING CONDITION. THE CONTRACTOR IN SUCH CASES MAY AT HIS OPTION USE ANY ARTICLE, DEVICE, PRODUCT, MATERIAL, FORM OR TYPE OF CONSTRUCTION WHICH IN THE JUDGMENT OF THE ARCHITECT/ENGINEER, EXPRESSED IN WRITING, IS EQUAL TO THAT SPECIFIED.

2. COST SAVINGS SHALL BE FORWARDED TO THE OWNER.

D. FEES, PERMITS AND REGULATIONS:

1. CONFORM TO ALL GOVERNING CODES, ORDINANCES OR REGULATIONS OF CITY, COUNTY, AND STATE HAVING JURISDICTION. WHERE LOCAL CODES ARE NOT APPLICABLE, CONFORM TO NATIONAL ELECTRIC CODE, LATEST REVISION.
2. BID WORK TO CONFORM TO CODE AT NO ADDITIONAL EXPENSE TO OWNER.

E. CONTRACTOR'S RESPONSIBILITIES:

1. COORDINATE WORK WITH OTHER TRADES, POWER AND TELEPHONE COMPANIES

2. COORDINATE WORK SCHEDULE AND MATERIAL DELIVERY.

3. PROVIDE A COMPETENT SUPERINTENDENT IN CHARGE OF WORK AT ALL TIME. REPLACE SUPERINTENDENT NOT DEEMED COMPETENT BY ARCHITECT. DO NOT WITHDRAW OR CHANGE SUPERINTENDENT WITHOUT PRIOR APPROVAL OF ARCHITECT.

4. PROVIDE QUALIFIED MECHANICS. INSTALL MATERIALS AND EQUIPMENT IN NEAT, WORKMANLIKE MANNER. REMOVE AND REPLACE ANY MATERIAL OR EQUIPMENT, WHICH IS IMPROPERLY INSTALLED, OR DAMAGED IN THE OPINION OF THE ARCHITECT, AT CONTRACTOR'S EXPENSE.
5. EXAMINE WORK OF OTHERS. NOTIFY ARCHITECT IMMEDIATELY IN WRITING IF ANY CONDITION EXISTS WHICH WILL PREVENT SATISFACTORY INSTALLATION OF MATERIALS OR EQUIPMENT. STARTING OF WORK WITHOUT NOTIFICATION INDICATES ACCEPTANCE AND SUBSEQUENT CHANGES REQUIRED WILL BE AT CONTRACTOR'S EXPENSE.
6. THE INTEGRITY OF FIRE-RATED PARTITIONS SHALL BE MAINTAINED AROUND PENETRATING ELECTRICAL ELEMENTS. FIRE-RATED SEALANT, SLEEVES, ESCUTCHEONS AND SIMILAR UNITS SHALL BE PROVIDED WHERE REQUIRED BY REFERENCED CODES AND AUTHORITIES HAVING JURISDICTION. ALL PENETRATIONS IN RATED ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE TO SECTION 714 OF FBCB.

F. INTERPRETATION OF DRAWINGS

1. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATIONS OF CONDUIT RUNS, OUTLET BOXES, JUNCTION BOXES, PULL BOXES, ETC. THE LOCATIONS OF EQUIPMENT, APPLIANCES, FIXTURES, CONDUIT, OUTLETS, BOXES AND SIMILAR DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE AS ACCEPTED BY THE ENGINEER DURING CONSTRUCTION. OBTAIN IN THE FIELD ALL INFORMATION RELEVANT TO THE PLACING OF ELECTRICAL WORK, AND IN CASE OF INTERFERENCE WITH OTHER WORK, PROCEED AS DIRECTED BY THE ENGINEER AND PROVIDE ALL LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK IN AN ACCEPTABLE MANNER.

2. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES FOUND DURING CONSTRUCTION OF THE PROJECT AND DO NOT PROCEED WITH THAT PORTION OF THE PROJECT, UNTIL A WRITTEN DEFINITIVE STATEMENT IS RECEIVED PROVIDING CLEAR DIRECTION. IF A CONFLICT EXISTS BETWEEN THE CONTRACT DOCUMENTS AND ANY APPLICABLE CODE OR STANDARD, THE MOST STRINGENT REQUIREMENT SHALL BE INCLUDED FOR THIS PROJECT. THE ENGINEER SHALL MAKE THE DECISION REGARDING QUESTIONABLE AREAS OF CONFLICT.

3. COMPARE ALL DRAWINGS AND VERIFY FIGURES BEFORE LAYING OUT WORK AND "BE RESPONSIBLE FOR ANY ERRORS WHICH MIGHT HAVE BEEN AVOIDED THEREBY. SPECIAL NOTICE SHALL BE TAKEN OF CODE REQUIRED ELECTRICAL CLEARANCE AND ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF DISCREPANCIES.

4. WHEN MEASUREMENTS ARE AFFECTED BY CONDITIONS ALREADY ESTABLISHED, CONTRACTOR TO TAKE MEASUREMENTS NOTWITHSTANDING GIVING SCALE OR FIGURE DIMENSIONS ON DRAWINGS.

G. SERVICE AND METERING

1. COMPANY: THE UTILITY COMPANY SERVING THIS PROJECT, WHICH WILL BE REFERRED TO AS THE UTILITY COMPANY HEREIN.

2. SERVICE: MAKE ALL ARRANGEMENTS WITH THE UTILITY COMPANY FOR OBTAINING A COMPLETE SERVICE. PAY ALL CHARGES AND PROVIDE ALL LABOR AND MATERIAL FOR THE SERVICE. SERVICE SHALL BE OBTAINED AT 120/208 OR 277/480 VOLTS FROM THE UTILITY COMPANY. PROVIDE UNDERGROUND CABLES AND CONDUITS FOR INCOMING SERVICES FROM THE UTILITY'S PAD MOUNTED TRANSFORMER TO DISTRIBUTION EQUIPMENT. INSTALL METER SOCKET, AND PROVIDE CT CABINET AND WIRING. CONTRACTOR SHALL ALSO INCLUDE INSTALLATION COST OF UTILITY REQUIRED CONDUITS FROM THE UTILITY POLE TO PAD MOUNTED TRANSFORMER.

3. FEES: CONTACT THE UTILITY COMPANY TO DETERMINE IF ANY FEES, CHARGES OR COSTS WILL BE DUE THE COMPANY, AS REQUIRED FOR TEMPORARY POWER, PERMANENT POWER, INSTALLATIONS, HOOK-UPS, ETC. THIS FEE, CHARGE OR COST SHALL BE INCLUDED IN THE BID PRICE.

4. PAYMENT: PAY FOR ALL REQUIRED LICENSES, FEES AND INSPECTIONS. INCLUDE ALL COSTS IN THE PROPOSED CONSTRUCTION COST SUBMISSION. THESE COSTS SHALL INCLUDE BUT NOT BE LIMITED TO ALL-APPLICABLE TAXES, PERMITS, NECESSARY NOTICES, CERTIFICATES AND ALL COSTS REQUIRED TO OBTAIN IT.

H. CUTTING AND PATCHING

THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL OPENING REQUIREMENTS WITH THE GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE ALL OPENINGS AND CLOSE IT. IF GENERAL CONTRACTOR IS NOT PROPERTY INFORMED THIS DIVISION WILL PROVIDE OPENINGS AT HIS OWN EXPENSE. CUTTING OF STEEL, WOOD OR OTHER MAIN STRUCTURAL PARTS MUST BE APPROVED BY ARCHITECT PRIOR TO CUTTING.

I. HANDLING OF MATERIALS AND EQUIPMENT

1. RECEIVE, HOUSE, HANDLE AND DELIVER TO PROPER LOCATION, MATERIALS AND EQUIPMENT.

2. PROTECT FROM DAMAGE, MOISTURE, DIRT, DEBRIS AND WORK OF OTHER TRADES. USE OF PAPER, CARDBOARD, OTHER FLIMSY MATERIAL WILL NOT BE PERMITTED. REPLACE OR REFINISH MARKED OR DAMAGED SURFACES TO SATISFACTION OF ARCHITECT/ENGINEER.

J. CLEAN UP

1. KEEP PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIAL OR RUBBISH.

A) LEAVE PREMISES AND WORK IN CLEAN, ORDERLY CONDITION ACCEPTABLE TO ARCHITECT/ENGINEER.
B) CLEAN ALL MATERIALS AND EQUIPMENT OF DIRT, DUST, PAINT, SPOTS, STAINS, SOIL MARKS, ETC. ANY MATERIAL IN LESS THAT NEW CONDITION WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

K. LABELS

1. PROVIDE FOR ALL EQUIPMENT, APPARATUS, DISCONNECT AND REMOTE CONTROL SWITCHES, ETC., RIGID, LAMINATED, PHONEMIC LABELS, BLACK WITH WHITE LETTERS SELF ADHESIVE BACK. TAPE LABELS OR ADHESIVE NOT PERMITTED.
2. SPECIFIC EQUIPMENT (I.E, ELECTRICAL PANELS AND EQUIPMENT) SHALL BE IDENTIFIED WITH ONE INCH HIGH, 3-INCHES LONG, 1/16-INCH THICK LABEL WITH 1/4 -INCH LETTERS.

L. AS BUILT DRAWINGS

1. DURING PROGRESS OF WORK, KEEP ONE SET OF PRINTS OR JOB SHOWING ANY CHANGES FROM ORIGINAL PLANS.
2. UPON COMPLETION OF WORK, FURNISH ARCHITECT/ENGINEER WITH CLEAN SET OF LEGIBLE AND ACCURATELY MARKED PRINTS INDICATING ALL CHANGES FROM ORIGINAL PLANS.

M. GUARANTEE AND SERVICE

1. CONTRACTOR AND MANUFACTURER TO GUARANTEE EQUIPMENT FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE

2. CONTRACTOR TO GRANTEE MATERIAL AND WORKMANSHIP FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE AND REPLACE ANY DEFECTS WITHOUT EXPENSE TO OWNER. FURNISH SERVICE FOR ONE (1) YEAR AFTER ACCEPTANCE. SERVICE TO INCLUDE LUBRICATION, CLEANING NECESSARY ADJUSTMENTS AND/OR REPLACEMENTS, PREVENTATIVE MAINTENANCE, ETC.
3. LIGHT BULB REPLACEMENT LIMITED TO 30 DAYS.

N. SUBMITTALS

1. WITHIN FIVE (5) DAYS AFTER AWARD OF CONTRACT THE CONTRACTOR SHALL ORDER AND SCHEDULE DELIVERY OF ALL MATERIALS AND EQUIPMENT CONCERNED WITH THIS PORTION OF THE WORK. WITHIN TEN (10) DAYS AFTER AWARD OF CONTRACT SUBMIT TO ENGINEER, IN QUADRUPLICATE, A STATEMENT OF CONFIRMATION LISTING EQUIPMENT SUPPLIER, DATE ORDERED AND DELIVERY DATE. WHERE CHOICE OF MANUFACTURER IS GIVEN TO THE CONTRACTOR, LIST THE ONE ORDERED. THE FOLLOWING ITEMS MUST BE INCLUDED IN SUBMITTAL LETTER: PANELS, SWITCHBOARD, DISCONNECTS, STARTERS, WIRE, CONDUIT, ELECTRIC METALLIC TUBING, OUTLET BOXES, DEVICES, PLATES, PLASTIC NAME PLATES, SPECIAL PURPOSE EQUIPMENT AND LIGHTING FIXTURES.

2. SHOP DRAWINGS TO BE SUBMITTED NO LATER THAN FORTY-FIVE (45) DAYS AFTER AWARD OF CONTRACT AND PRIOR TO INSTALLATION OF MATERIAL REQUIRING APPROVAL. SHOP DRAWINGS ARE TO BE SUBMITTED COMPLETE THROUGH THE GENERAL CONTRACTOR AT ONE TIME. INTERMITTENT OR INCOMPLETE SUBMITTALS WILL NOT BE CONSIDERED. MATERIAL OR EQUIPMENT REQUIRING SHOPS DRAWINGS APPROVAL IS NOT TO BE INSTALLED ON PROJECT UNTIL APPROVED SHOP DRAWINGS HAVE BEEN RETURNED BY THE ARCHITECT/ENGINEER.

0. INSPECTIONS

1. DURING THE PROGRESS OF THE WORK, THE ENGINEER, OR OWNER'S REPRESENTATIVE, WILL MAKE OBSERVATIONS AT THE SITE TO DETERMINE CONFORMATION OF WORK WITH PLANS, SPECIFICATIONS AND INTENT THEREOF. DEFICIENCIES, VIOLATIONS AND INCORRECT WORKMANSHIP OR MATERIALS AND EQUIPMENT AND CORRECTIVE ACTION THEREFORE WILL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR, FOR HIS IMMEDIATE REMEDIAL ACTION.

P. INTERRUPTION OF EXISTING SERVICE

1. 48 HOURS ADVANCE NOTICE IS REQUIRED FOR OUTAGES ON FEEDER AND BRANCH CIRCUIT CONSIDERED VITAL TO OPERATION BY OWNER, CONTRACTOR SHALL REQUEST SUCH OUTAGE, WITH ANTICIPATED DURATION THEREOF, IN WRITING FROM OWNER AND SHALL OBTAIN OWNER'S PERMISSION THEREFORE.

Q. SAMPLES

1. PHYSICAL SAMPLES OF MATERIAL AND EQUIPMENT PROPOSED FOR INSTALLATION ON THIS PROJECT SHALL BE SUBMITTED TO ARCHITECT/ENGINEER UPON REQUEST.

2. SAMPLES SHALL BE SUBMITTED THROUGH THE GENERAL CONTRACTOR WITH ALL SHIPPING AND HANDLING CHARGES PREPAID. ANY EXPENSE INCURRED IN SECURING, DELIVERY AND RETURN OF SAMPLES IS RESPONSIBILITY OF CONTRACTOR. SAMPLES SHALL BE DELIVERED TO LOCATION DESIGNATED BY ARCHITECT/ENGINEER. IDENTIFY SAMPLE WITH SHIPPING TAG, WIRED IN PLACE, CONTAINING THE FOLLOWING INFORMATION:

A) NAME OF PROJECT.
B) NAME OF CONTRACTOR.
C) SPECIFICATION SECTION NUMBER COVERING SAMPLE.
D) MANUFACTURER'S NAME AND CATALOG NUMBER.
E) DATE SUBMITTED.

3. SAMPLES SHALL REMAIN THE POSSESSION OF CONTRACTOR EXCEPT AS FOLLOWS:

A) APPROVED SAMPLES, WITHOUT PHYSICAL DAMAGE, MAY BE INSTALLED ON THE PROJECT.
B) SAMPLES NOT CALLED FOR WITHIN 14 DAYS AFTER NOTIFICATION WILL BE DISPOSED OF BY THE ARCHITECT/ENGINEER.

R. SPARE PARTS AND TOOLS

1. FURNISH TO THE OWNER, AND OBTAIN RECEIPT FOR IT, THE FOLLOWING:
A) ONE SET OF FUSES FOR EACH SIZE AND TYPES INSTALLED ON PROJECT, INCLUDING RELAYS FOR MAGNETIC STARTERS.
B) TWO KEYS EACH FOR PANEL LOCKS, WEATHERPROOF OUTLETS, PADLOCKS, TERMINAL CABINETS, ETC.
C) SPECIAL TOOLS FOR FIXTURES, PANELS, FIRE ALARM SYSTEM, TAMPERPROOF SCREWS, ETC. ALL ITEMS TO BE IDENTIFIED.

S. FINAL INSPECTION AND TESTS

1. AS PRECEDENT TO FINAL INSPECTION AND ACCEPTANCE THE CONTRACTOR SHALL:

A) HAVE ALL PREVIOUSLY LISTED DEFECTS CORRECTED.
B) COMPLETE ALL WORK
C) TEST ALL SYSTEMS AND HAVE DATA ON SUCH TEST
D) HAVE ALL DIRECTORIES, LABELS AND INSTRUCTIONS.
E) COMPLIED WITH APPLICABLE PARAGRAPHS OF THIS SECTION.

2. FURNISH ADEQUATE MECHANICS AND PERSONNEL TO OPERATE SYSTEMS, MAKE ADJUSTMENTS, AND ASSIST WITH FINAL INSPECTION AS DIRECTED BY ARCHITECT/ENGINEER.

ELECTRICAL WORK

PART 1 - PRODUCTS

A. CONDUIT:

CONDUIT SHALL BE PROVIDED AS FOLLOW, UNLESS OTHERWISE NOTED:

ELECTRICAL METALLIC TUBING (EMT): PROVIDE IN STUD AND HOLLOW MASONRY WALLS, ABOVE SUSPENDED AND FURRED CEILING, AND EXPOSED IN DRY LOCATIONS. MAXIMUM ID SHALL BE 2". ALL FITTING SHALL BE STEEL COMPRESSION TYPE. RIGID CONDUIT AND ELECTRIC METALLIC TUBING AS MANUFACTURED BY ONE OF THE FOLLOWING (OR APPROVED EQUAL): A) ARMCO, B) REPUBLIC STEEL, C) TRIANGLE CONDUIT AND WIRE COMPANY, D) K. PORTER COMPANY, E) STEEL CITY, F) WHEATLAND TUBE.

FLEXIBLE METAL CONDUIT: PROVIDE FOR CONNECTIONS FROM JUNCTION BOX TO LIGHT FIXTURE IN ACCESSIBLE CEILINGS, (MAXIMUM RUN LENGTH OF 6' 0") AND ALL TERMINATION TO EQUIPMENT SUBJECT TO VIBRATION. (MAXIMUM RUN LENGTH OF 4' 0"). ALL FITTINGS SHALL BE APPLETON AST SERIES OR APPROVED EQUAL. LIQUID-TIGHT SHALL BE USED IN DAMP OR WET LOCATIONS AND FOR EQUIPMENT CONTAINING LIQUIDS. ALL FITTINGS SHALL BE O.Z. GEDNEY AKC SERIES OR APPROVED EQUAL.

PLASTIC CONDUIT AS MANUFACTURED BY ONE OF THE FOLLOWING: A. CARLON PLASTIC PRODUCTS CORP. B) CANTEX PLASTIC PRODUCTS C) HATFIELD WIRE AND CABLE COMPANY.

A NYLON PULL WIRE SHALL BE INSTALLED IN ALL EMPTY CONDUITS. IDENTIFY INTENDED USE AT BOTH ENDS.

B. COUPLINGS AND CONNECTORS:

1. COUPLINGS AND CONNECTOR MANUFACTURED BY ONE OF THE FOLLOWING (OR APPROVED EQUAL): A) APPLETON ELECTRIC COMPANY, B) RACO C), STEEL CITY

C. OUTLET BOXES:

1. GALVANIZED, STAMPED STEEL, 4-INCHES SQUARE BY 1-1/2 INCHES DEEP MINIMUM SIZE FOR WALL OUTLETS, MANUFACTURED BY, A) APPLETON ELECTRIC COMPANY, B) RACE ALL STEEL EQUIPMENT, C) STEEL CITY

2. FLOOR BOXES: HUBBELL #B-2536 WITH S-3182 BRASS CARPET FLANGE AND S-3925 FLAP TYPE COVER FOR DUPLEX RECEPTACLE.

D. PANELBOARDS:

1. SQUARE-D, GENERAL ELECTRIC OR SIEMENS.

E. WIRE:

1. WIRE FOR THIS PROJECT AS MANUFACTURED BY ONE OF THE FOLLOWING: A) ANACONDA, B) GENERAL CABLE COMPANY, C) HATFIELD WIRE AND CABLE, D) REYNOLDS METAL COMPANY, E) SIMPLEX WIRE AND CABLE, F) TRIANGLE CONDUIT AND WIRE COMPANY OR APPROVED EQUAL

F. WIRING DEVICES:

1. SINGLE OR THREE WAY DIGITAL SWITCH SHALL BE RAISE/LOWER SWITCHES WITH LOCAL CONTROL OF LIGHTING ZONE. SWITCH MAY BE PROGRAMMED TO CONTROL ANY RELAY, DIMMER OR PANEL.

2. RECEPTACLE, DUPLEX (HUBBELL #5262, ARROW HART #5262).

3. RECEPTACLE GFI (ARROW HART GF5242-I WITH 4501 COVER, HUBBELL GF5262-I WITH WP-26 COVER)

G. SURGE PROTECTION DEVICE:

1. ADVANCED PROTECTION TECH. "TE/XGA SERIES"
2. CURRENT TECHNOLOGY "TG SERIES"
3. INNOVATIVE TECHNOLOGY "PTX SERIES"
4. SQUARE D SURGELOGIC "EMA SERIES" 5. GENERAL ELECTRIC "TRANQUELL SERIES"

PART 2 EXECUTION

A. GROUNDING

1. PROVIDE EQUIPMENT GROUND SYSTEM IN ACCORDANCE WITH NATIONAL ELECTRIC CODE ARTICLE 250.
A) ALL BRANCH CIRCUIT RACEWAY CONTAIN MINIMUM ONE NO. 12 AWG, TYPE TW, GREEN CODED GROUND WIRE.
B) GROUND CONDUCTOR FOR PANEL FEEDER AND BRANCH CIRCUITS WITH OVER CURRENT PROTECTION RATED MORE THEN 20 AMPERES SIZE.
C) ALL FIXTURES, RECEPTACLES, SWITCHES BONDED TO GROUNDING SYSTEM.
D) GREEN CODED GROUND CONTINUOUS FROM SERVICE ENTRANCE AND IN ADDITION TO NEUTRAL (1) NEUTRAL NOT USED AS GROUND FOR EQUIPMENT. EQUIPMENT GROUND BONDED TO NEUTRAL AT MAIN SERVICE ENTRANCE ONLY. (2) GREEN CODED GROUND CONDUCTORS TERMINATED UNDER EQUIPMENT GROUND BAR OF PANELS.

B. RACEWAYS:

1. PROVIDE ALL RACEWAYS FOR ALL SYSTEMS. RACEWAY LOCATIONS SHOWN ARE DIAGRAMMATIC, UNLESS SPECIFICALLY NOTED, AND GOVERN OBSTRUCTIONS. EXPOSED RACEWAYS RUN IN NEAT MANNER ACCEPTABLE TO ARCHITECT. RACEWAYS SUPPORTED USING CONDUIT CLAMPS SUPPORT OR HOLD RACEWAYS IN PLACE.
A) RACEWAYS IMBEDDED IN EARTH, IN CONCRETE, IN DAMP OR WET LOCATIONS HOT DIPPED GALVANIZED RIGID, HEAVY WALL, THREADED NON-METALLIC, HIGH IMPACT DIRECT BURIAL TYPE II, PVC, WHERE PERMITTED BY CODES.
B) RACEWAYS IN WALL OR FURRED CEILING TO BE ELECTRIC METALLIC TUBING
C) RIGID STEEL CONDUIT USED FOR EXPOSED EXTERIOR RACEWAYS.

2. RACEWAYS REAMED SMOOTH AFTER CUTTING AND/OR THREADING.

3. RIGID STEEL, THREADED CONDUITS AND SCHEDULE 40 PVC TO HAVE DOUBLE LOCKNUTS AND 0.Z. TYPE B BUSHING.

4. ELECTRIC METALLIC TUBING COUPLING AND CONNECTORS MACHINED STEEL, SET SCREW TYPE.

5. CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT MADE WITH SUFFICIENT FLEXIBLE CONDUIT SO VIBRATION IS NOT TRANSMITTED TO
A) USE FLEXIBLE, NON-METALLIC, LIQUID-TIGHT CONDUIT, UL APPROVED, FOR MOTOR CONNECTIONS.
B) FLEXIBLE CONDUIT NOT USED FOR FIXTURE CONNECTIONS, EXCEPT RECESSED OR LAY-IN TYPE FIXTURES.
C) MINIMUM SIZE 1/2-INCH.

6. MINIMUM 24" RADIUS ELBOWS AND CONDUITS TO BE USED WHEN RISING FROM BELOW FLOOR ON SURFACE OF WALLS EXCEPT FOR LOW VOLTAGE RACEWAYS

7. LOW VOLTAGE RACEWAYS (SYSTEMS OPERATING AT 70 VOLTS OR BELOW) TYPE 4 POLYVINYL CHLORIDE, UL FORMULA NON-METALLIC
A) LOW VOLTAGE RACEWAYS TO HAVE BUSHING AT ALL TERMINALS.
B) NYLON PULL CORD, 5W POUND TEST MINIMUM, LEFT IN ALL RACEWAYS, IN WHICH CONDUCTORS ARE NOT INSTALLED.

C. OUTLET BOXES:

1. EXCEPT AS NOTED OTHERWISE, ALL OUTLETS LOCATED AS FOLLOWS: (MEASURED FROM FINISHED FLOOR LEVEL TO BOTTOM OF BOX):
A) SWITCHES----------48" TO OPERABLE PART
B) RECEPTACLES----------15"
C) WALL TELEPHONES--------48"

2. PROVIDE REQUIRED OUTLETS, SWITCH, PULL AND JUNCTION BOXES OF SUITABLE TYPE FOR MOUNTING INDICATED. BOXES SHALL BE GALVANIZED STEEL, NOT LESS THEN 4" SQUARE AND 1-1/2" DEEP UNLESS OTHERWISE INDICATED. BOXES SHALL BE SECURE TO STRUCTURE INDEPENDENT OF CONDUIT SUPPORTS. PLASTER RINGS SHALL BE PROVIDED FOR RECESSED UNITS.

3. CONTRACTOR SHALL COORDINATE LOCATIONS OF UNITS INDICATED ON ELECTRICAL DRAWINGS WITH ACTUAL LOCATIONS ESTABLISHED BY ARCHITECT OR MECHANICAL CONTRACTOR FOR CLARIFICATION BEFORE PRECEDING WITH INSTALLATION.

D. PANELBOARDS (SHOP DRAWINGS REQUIRED):

1. BRANCH CIRCUIT PANEL BOARDS CIRCUIT BREAKER TYPE WITH BOLT-ON BREAKERS DEAD FRONT, LOCKING DOOR, FLUSH LOCK MASTER KEYED.

2. BREAKERS CLEARLY NUMBERED. WHERE SPACES ARE CALLED FOR, PROVIDE HARDWARE REQUIRED FOR FUTURE INSTALLATION OF BREAKERS. BUS AND HARD WARE BRACED FOR INTERRUPTING CAPACITY OF LARGEST BREAKER IN PANEL; INTERRUPTING RATING AS SHOWN ON DRAWINGS.

3. PROVIDE TYPE CIRCUIT DIRECTORY UNDER TRANSPARENT SHIELD, ON INSIDE OF COVER OF EACH PANEL BOARD. DIRECTORY TO ACCURATELY LIST CIRCUIT NUMBER, LOCATION, TYPE OF OUTLETS INDICATE CONTROLLED AND CONNECTED LOAD ON CIRCUIT

4. PROVIDE LAMINATED, RIGID PLASTIC LABEL BELOW DIRECTORY WORDED AS FOLLOWS: INSTALLED BY (NAME OF THE CONTRACTOR) (YEAR)

5. PROVIDE EACH PANEL BOARD WITH GREEN CODED GROUND BAR, NOT CONNECTED TO NEUTRAL FOR GREEN EQUIPMENT GROUND WIRES. BACK BAR TO HAVE MINIMUM CAPACITY OF 11 TERMINAL WITH SOLDERLESS BOX LUGS FOR WIRE SIZE #12 MINIMUM TO #4 MAXIMUM. LOCATE BAR ADJACENT TO NEUTRAL BAR, BOLT OR WELD TO PANEL CAN.

6. PROVIDE PLASTIC LABEL LISTING PANEL DESIGNATION, VOLTAGE AND PHASE ON INSIDE OF PANEL COVER ABOVE DIRECTORY.

E. DISCONNECT SWITCHES (SHOP DRAWINGS REQUIRED):

1. PROVIDE DISCONNECT SWITCHES, FUSED AND NON-FUSED AS REQUIRED BY CODES.
A) SWITCHES NENA RATED DUTY, FED. SPEC. W-S-865C
B) RATED 240 VOLTS FOR 208 VOLT SYSTEM, AND 600 VOLTS FOR 480 VOLT SYSTEM.

2. EACH MOTOR, REMOTE FROM PANEL LOCATION, TO HAVE NON-FUSED DISCONNECT SWITCH OR BREAKER WITHIN SIGHT OF MOTOR LOCATION. SAFETY SWITCHES SAME MANUFACTURER AS BRANCH CIRCUIT PANELBOARDS. EXTERIOR SWITCH NEMA 3R.

F. BRANCH CIRCUIT WIRING:

1. CONDUCTORS TO BE COPPER. NO WIRE SMALLER THAN NUMBER # L2 AWG ANY BRANCH CIRCUIT

2. CONDUCTOR INSULATION, UNLESS OTHERWISE NOTED, TYPE THHN, INSULATION CODED AS FOLLOWS:
A) 120/208 VOLT SYSTEM:
(1) PHASE A, BLACK
(2) PHASE B, RED
(3) NEUTRAL, WHITE
(4) TRAVELERS, PURPLE
(5) GROUND, GREEN

B) 277/480 VOLT SYSTEM
(1) PHASE A, YELLOW
(2) PHASE B, ORANGE
(3) PHASE C, BROWN
(4) NEUTRAL, GRAY
(5) TRAVELERS, 3 WAY, PINK
(6) GROUND, GREEN

3. SAME COLOR INSULATION FOR PARTICULAR PHASE OR PART OF CIRCUIT RUN WITH SAME COLOR THROUGHOUT JOB. COLOR CODE INTEGRAL PART OF INSULATION. PAINTED OR TAPED CONDUCTORS NOT ACCEPTED EXCEPT AS FOLLOWS:
A) WIRE SIZED NO. 1 AND LARGER MAY BE COLOR CODED BY WRAPPING WITH 3M TAPE (NO. 35) FOR ENTIRE LENGTH OF EXPOSED AREA IN GUTTERS, PANEL CANS, SWITCHBOARDS, OR WIREWAYS.

4. SPLICES OR JOINTS IN CONDUCTORS MECHANICALLY AND ELECTRICALLY SOUND, MADE IN OUTLET BOXES ONLY, EXCEPT BALLAST CONNECTION. ALL JOINT MADE USING TYPE Y, G, R. B SCOTCH-LOCK CONNECTORS ONLY.
A) AT EACH OUTLET, LOOP OF WIRE 8-INCHES LONG LEFT FOR CONNECTION TO DEVICE.
B) FLUORESCENT FIXTURE WIRING TO CONFIRM TO NATIONAL ELECTRIC CODE, ARTICLE 410-24; USE THHN INSULATION.

5. OUTLETS CONNECTED AS INDICATED ON PLANS, ALTERING CIRCUITS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF ENGINEER.

6. ALL BRANCH CIRCUIT AND FEEDER RACEWAYS CONTAIN GREEN CODED, TW, GROUND WIRE IN ADDITION TO OTHER CONDUCTORS.

G. WIRING DEVICES (SHOP DRAWINGS REQUIRED):

1. PROVIDE ALL WIRING DEVICES INDICATED ON PLANS. COLOR OF DEVICE SELECTED BY ARCHITECT AT TIME OF SUBMITTAL.

H. DEVICE PLATES (SHOP DRAWINGS REQUIRED):

1. WIRING DEVICES TO HAVE PLASTIC TYPE PLATE AS REQUIRED BY DEVICE. COLOR BY ARCHITECT. OUTLET WITHOUT DEVICES, EXCEPT TELEPHONE, TO HAVE BLANK PLATE. PLATES HOLD IN PLACE BY OVAL HEAD, STAINLESS STEEL SCREWS, MATCHING PLATE BY COLOR.

I. FIXTURES (SHOP DRAWINGS REQUIRED):

1. PROVIDE FIXTURES AS LISTED ON FIXTURE SCHEDULE, COMPLETELY WIRED AND LAMPED WHERE DESIGNATED ON DRAWINGS. CORRELATE SUPPORT AND MOUNTING METHOD WITH ALL SUBCONTRACTORS INVOLVED WITH SURROUNDING SURFACE.
A) FIXTURE SUPPORT BOLTED OR WELDED TO SUPPORTING SURFACE.
2. FLORESCENT FIXTURE BALLAST CBM CERTIFIED, SOUND RATING A WITH AUTOMATIC THERMAL RESET. JEFFERSON, ADVANCE, SOLA OR APPROVED EQUAL ENERGY SAVING TYPE.

J. LAMPS:

PROVIDE NEW LAMPS IN ACCORDANCE WITH THE FOLLOWING:
A) FLUORESCENT: 3500K/T8 OT T5/OCTRON
B) INCANDESCENT: INSIDE FROSTED WITH A MINIMUM RATING OF 130 VOLTS UNLESS OTHERWISE INDICATED.
C) LOW VOLTAGE MR-16 MEDIUM SPOT

K. EXIT LIGHTS (SHOP DRAWINGS REQUIRED):

PROVIDE EXIT LIGHT UNITS WHERE INDICATED ON DRAWINGS AND IN ACCORDANCE WITH ALL LOCAL CODE REQUIREMENT, INCLUDING FIRE DEPARTMENT.

L. POWER AND CONTROL WIRING TO EQUIPMENT:

1. PROVIDE ALL ELECTRICAL POWER CONNECTIONS TO EQUIPMENT INDICATED ON PLANS UNLESS OTHERWISE DIRECTED.
A) PROVIDE ALL CONDUITS AND WIRING FROM PANEL TO MOTOR TERMINAL.
B) PROVIDE ALL DISCONNECTS REQUIRED AND MAKE ALL POWER CONNECTIONS IN THESE CIRCUITS

2. CONTROL EQUIPMENT, MOTOR STARTERS, RELAYS, LINE VOLTAGE CONTROLS TRANSFORMER, LOW VOLTAGE CONTROLS AND DEVICES NECESSARY FOR THE OPERATION OF HEATING, AIR CONDITIONING, VENTILATION AND PLUMBING SYSTEM FURNISHED AND SET IN PLACE BY RESPECTIVE SUBCONTRACTOR.

3. ALL CONTROL WIRING UNDER DIVISION 15 OF SPECIFICATIONS.

M. MOTOR STARTER

1. ALL MOTORS SHALL BE FURNISHED AND INSTALLED BY MECHANICAL AND CONNECTED BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MOTORS STARTER NOT FURNISHED WITH EQUIPMENT.

N. TELEPHONE SYSTEM:

1. PROVIDE ALL RACEWAYS, PULL BOXES, OUTLETS AND TERMINAL BOARDS REQUIRED FOR SYSTEM SHOWN.
A) TERMINATE RACEW

Reference Notes

#	Description
1	DUCTWORK SHALL BE FIBROUS GLASS DUCT.

GENERAL NOTE: M-1

A. COORDINATE LOCATIONS OF ALL THERMOSTATS WITH FURNITURE, PARTITIONS AND ANY OBSTRUCTIONS.

B. FIRE DAMPER IS NOT REQUIRED IF A MINIMUM OF 12" LONG BY 0.06 in THICK STEEL SLEEVE PER SECTION 607.5.3-3.6 FSCM 6th EDITION.

BRANCH DUCT SIZE CHART

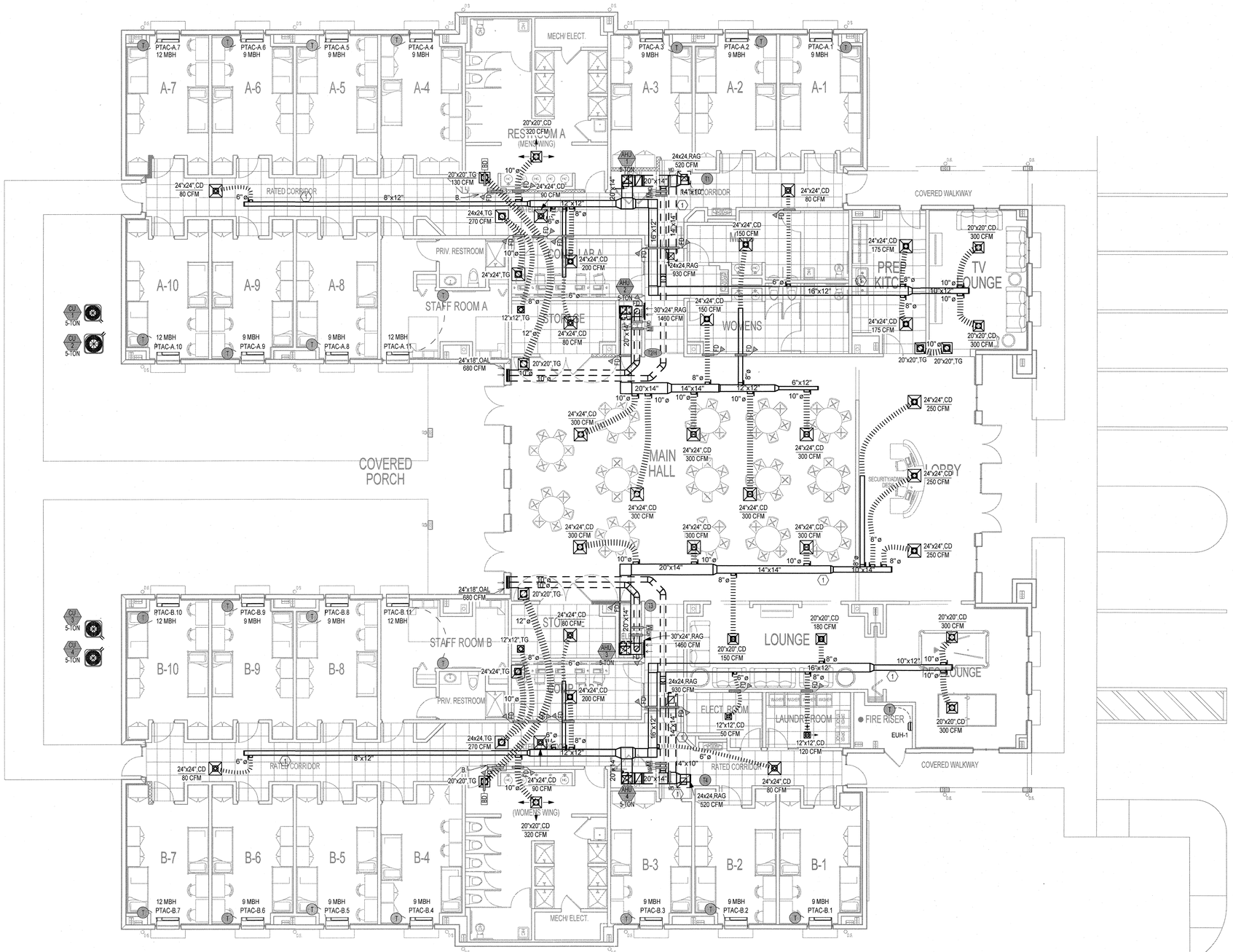
CFM	SUPPLY BRANCH DUCT SIZE(Ø")	RETURN BRANCH DUCT SIZE(Ø")
0-100	6	8
101-150	8	10
151-250	8	10
251-380	10	12
381-550	12	14
551-750	14	16
751-950	14	16

INTERIOR HELIX SHALL BE ALUMINUM.
TYPE FLEX-MASTER NI-35

THERMOSTAT SCHEDULE

MARK	SERVICE & LOCATION	OCCUPIED COOLING	OCCUPIED HEATING	UNOCCUPIED COOLING	UNOCCUPIED HEATING	%RH
T1	CORRIDOR	78	72	80	60	55
T2(H)	MAIN HALL	77	73	80	60	55
T3	MAIN HALL	78	72	80	60	55
T4	CORRIDOR	78	72	80	60	55

NOTES:
1. CONTRACTOR SHALL COORDINATE EXACT OPERATIONAL TIMES WITH OWNER/MANAGER PRIOR TO PROGRAMMING.



1 / M-1 Mechanical Floor Plan- Supply
1/8" = 1'-0"

#	REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
Farshad Antikchi, P.E.#72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: MIKE PANAGOU, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386) 271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLIER, 375 FENTRESS BOULEVARD, DAYTONA BEACH, FL, 32114 PH: (386)676-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 F/X: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

MECHANICAL FLOOR PLAN- SUPPLY

DATE: 05/29/19
SCALE: AS SHOWN

SHT NO.M-1

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKCHI LICENSE NO. 72998 STATE OF FLORIDA PROFESSIONAL ENGINEER

GENERAL NOTE: M-2

A. COORDINATE LOCATIONS OF ALL THERMOSTATS WITH FURNITURE, PARTITIONS AND ANY OBSTRUCTIONS.

B. SECTION OF DUCT PENETRATING FIRE WALL SHALL BE CONSTRUCTED OF STEEL NOT LESS THAN 0.0217 in IN THICKNESS PER SECTION 607.5.3 FBCM 6th EDITION.

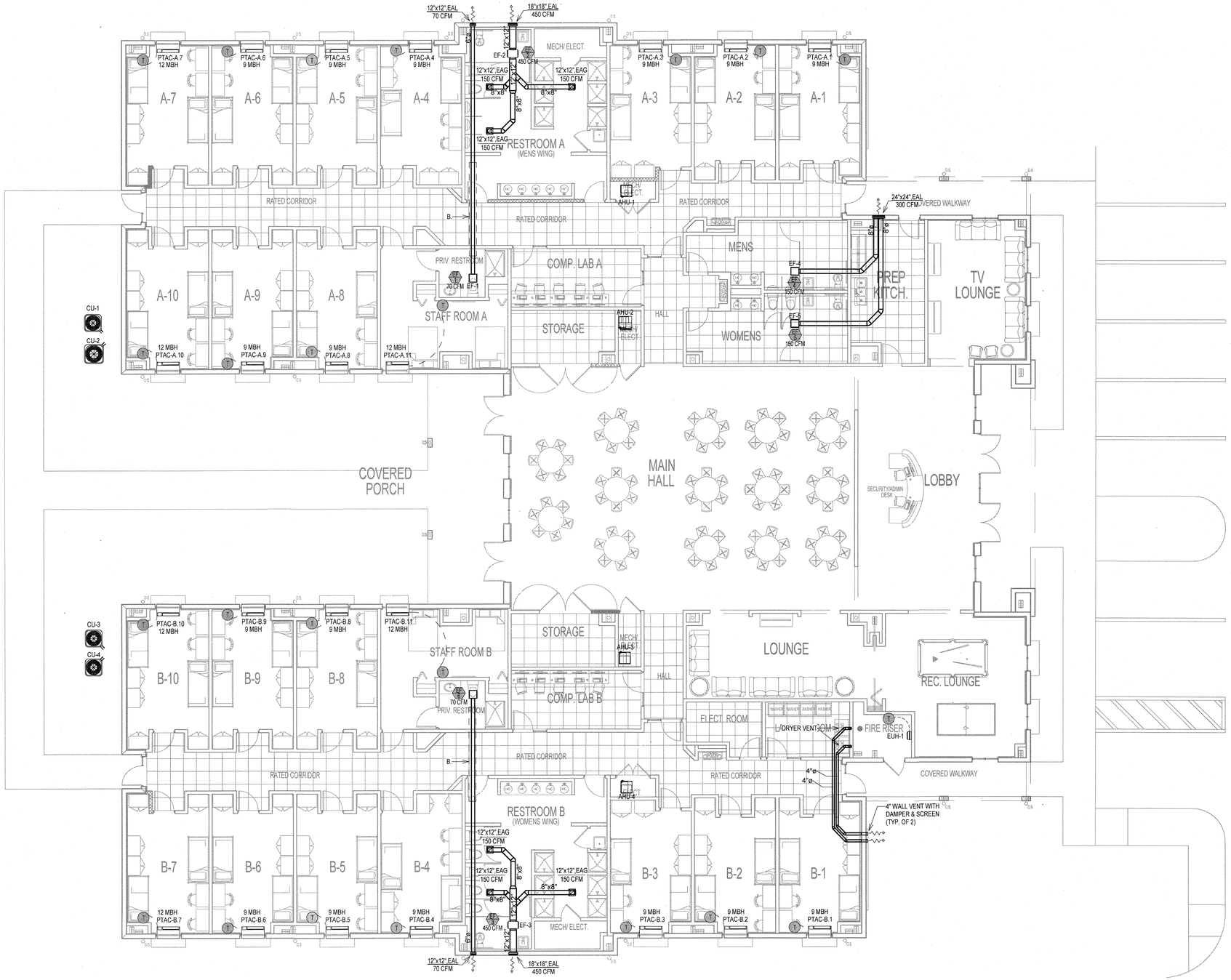
BRANCH DUCT SIZE CHART

CFM	SUPPLY BRANCH DUCT SIZE(Ø")	RETURN BRANCH DUCT SIZE(Ø")
0-100	6	8
101-150	8	10
151-250	8	10
251-380	10	12
381-550	12	14
551-750	14	16
751-950	14	16

INTERIOR HELIX SHALL BE ALUMINUM.
TYPE FLEX-MASTER NI-35

AIR BALANCE CALCULATION

MARK	EXHAUST (CFM)	SUPPLY (CFM)	BALANCE (CFM)
EF-1	- 70 CFM	-	
EF-2	- 450 CFM	-	
EF-3	- 450 CFM	-	
EF-4	- 150 CFM	-	
EF-5	- 150 CFM	-	
EF-6	- 70 CFM		
AHU-1	-	+ 340 CFM	
AHU-2	-	+ 340 CFM	
AHU-3	-	+ 340 CFM	
AHU-4	-	+ 340 CFM	
TOTAL	-1340 CFM	+ 1360 CFM	+ 20 CFM



1 / M-2 Mechanical Floor Plan - Exhaust
1/8" = 1'-0"

REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
Farshad Antikchi, P.E.#72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: MIKE PANAGOS, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386) 271-3024
PROJECT LOCATION: 2301 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLIVER, 375 FENTRESS BOULEVARD, DAYTONA BEACH, FL 32114, PH:(386)676-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL. 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

MECHANICAL FLOOR PLAN- EXHAUST

DATE: 05/29/19
SCALE: AS SHOWN

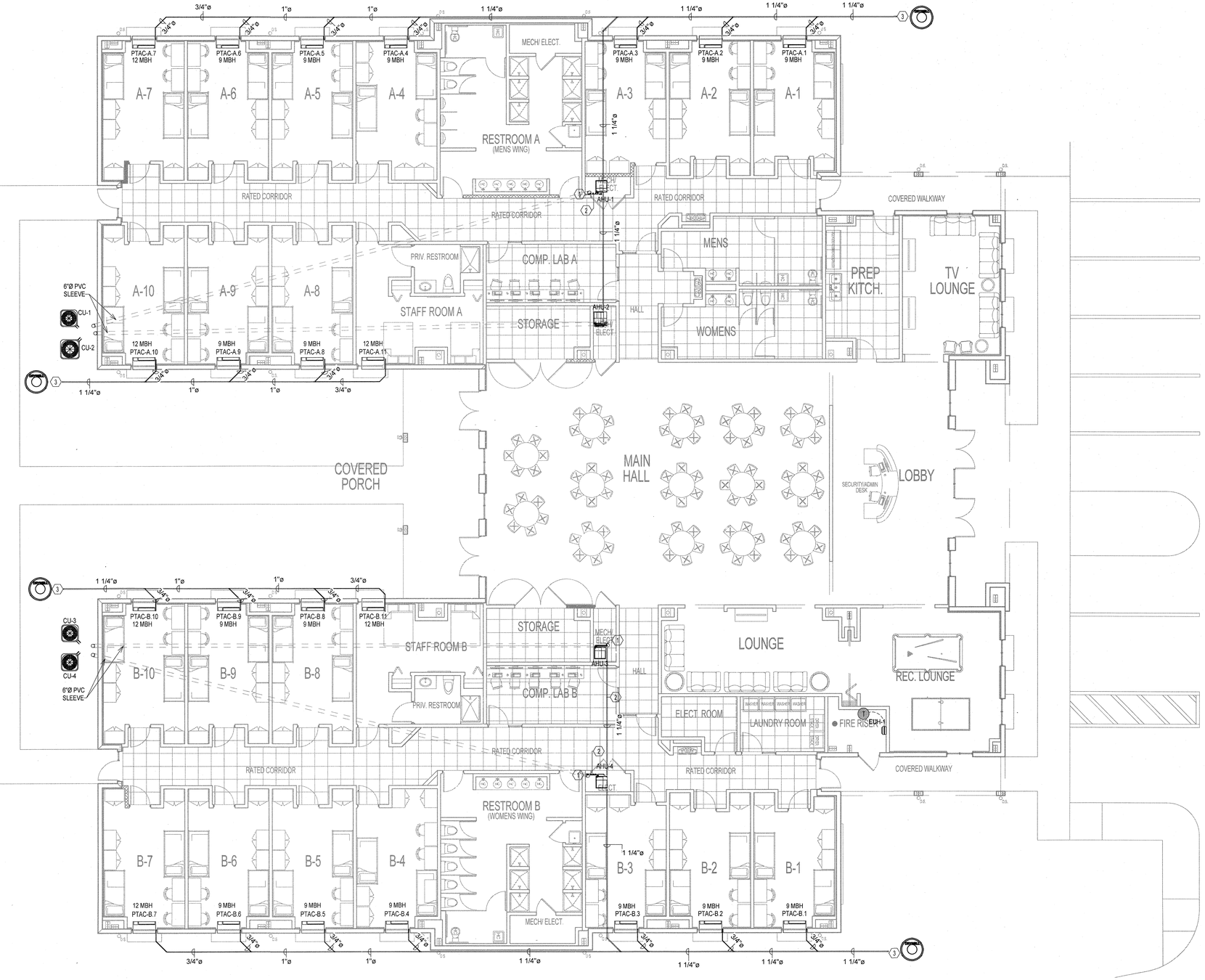
SHT NO.M-2

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKECHI LICENSE No. 72998 STATE OF FLORIDA PROFESSIONAL ENGINEER

Reference Notes

#	Description
1	REFRIGERATION LINES RUN FROM INDOOR TO OUTDOOR UNIT. REFER TO MANUFACTURER REQUIREMENTS FOR SIZES AND QUANTITIES.
2	CONDENSATE LINE RUN UNDER FLOOR SLAB WITH INSULATION.
3	CONDENSATE DRAIN SHALL BE DISPOSED IN DRYWELL OR OTHER PROPER LOCATION PER FBCP 314.2.1. AND 307.2.1



1 M-3 Mechanical Floor Plan-Piping
1/8" = 1'-0"

#	REVISIONS

MFA ENGINEERING
1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
Farshad Antikchi, P.E.#72998

PROJECT NUMBER:
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DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: MIKE PANAGOS, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386) 271-3924
PROJECT LOCATION: 2301 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLYER, 375 FENTRESS BOULEVARD, DAYTONA BEACH, FL, 32114, PH: (386)676-7177

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AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

MECHANICAL PIPING

DATE: 05/29/19
SCALE: AS SHOWN

SHT NO.M-3

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKECHI LICENSE No. 72998 STATE OF FLORIDA PROFESSIONAL ENGINEER

MECHANICAL SYMBOLS
(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

DUCT (DUCTWORK)

- SUPPLY AIR DIFFUSER - ARROWS INDICATE PATTERN. NO PATTERN SHOWN EQUALS 4-WAY.
- RETURN AIR DEVICE
- EXHAUST DEVICE
- SUPPLY AIR SLOT DEVICE / RETURN AIR SLOT DEVICE
- 12" Ø — ROUND DUCT. DIAMETER INDICATED IN INCHES.
- 20"X12" — RECTANGULAR DUCT. SIZE INDICATED IN INCHES, FIRST NUMBER IS SIDE SHOWN.
- RIGID ROUND DUCT TO FLEX
- 24"X8" — SINGLE LINE SUPPLY AIR DUCTWORK
- 24"X8" — SINGLE LINE RETURN AIR DUCTWORK
- SPIN-IN TAKE OFF-FITTING WITH DAMPER AND SCOOP
- SPIN-IN TAKE OFF-FITTING ONLY
- SUPPLY OR OUTSIDE AIR DUCT
- RETURN AIR DUCT.
- RELIEF OR EXHAUST AIR DUCT.
- 24x24,CD / 220 CFM — DIFFUSER/GRILLE LABEL:
  - TYPE/DESIGNATION
  - AIRFLOW (CFM)
  - NECK SIZE (INCHES)
- 90 DEGREE DUCT ELBOW.
- RADIUS DUCT ELBOW - ROUND OR RECTANGULAR.
- RECTANGULAR DUCT BRANCH TAKE-OFF WITH 45 DEGREE BRANCH INLET.
- FLARED SPIN-IN WITH DAMPER AND FLEX DUCT (DIFFUSER CONNECTION).
- ROUND DUCT BRANCH TAKE-OFF FROM RECTANGULAR MAIN WITH CONICAL TAP.
- DUCT SIZE TRANSITION.
- 6" / 220 — REQUIRED NECK SIZE / SA DUCT, SPIN-IN DAMPER, FLEX DUCT TO AIR DEVICE WITH CFM / REQUIRED CFM
- SUPPLY OR OUTSIDE AIR DUCT UP
- SUPPLY OR OUTSIDE AIR DUCT DOWN
- RETURN AIR DUCT UP
- RETURN AIR DUCT DOWN
- RELIEF OR EXHAUST AIR DUCT UP
- RELIEF OR EXHAUST AIR DUCT DOWN
- IN-LINE 90 DEGREE DROP (RISE) IN DUCT
- UP — INCLINED RISE IN DUCT
- DN — INCLINED DROP IN DUCT
- TURNING VANES
- DUCT EXTRACTOR
- 5"N — SPLITTER DAMPER/W NECK SIZE
- DUCT MOUNTED HEATING COIL

DUCT (DUCTWORK) CONT.

- H — DUCT MOUNTED HUMIDIFIER
- M — MOTORIZED DAMPER
- MD — DAMPER TYPE: OPPOSITE BLADE MANUAL DAMPER
- FD/AD — FIRE DAMPER W/ACCES DOOR
- FSD/AD — FIRE SMOKE DAMPER W/ACCES DOOR
- FD — FIRE DAMPER
- BBD / BSD — BAROMETRIC BY-PASS DAMPER (BBD) BACKDRAFT DAMPER (BDD)
- EXISTING TO REMAIN
- EXISTING TO REMOVE
- FUTURE DUCT TO BE INSTALLED
- AIR TRANSFER GRILLE

PIPING TYPES

- CD — CONDENSATE DRAIN (COLD) GRAVITY
- RG — REFRIGERANT HOT GAS
- RL — REFRIGERANT LIQUID LINE

MISCELLANEOUS

- UNDERCUT DOOR 1"
- SD — DUCT SMOKE DETECTOR
- T — SPACE THERMOSTAT
- H — HUMIDISTAT
- MPS — MANUAL PULL STATION
- T — TEMPERATURE SENSOR
- H — HUMIDITY SENSOR
- T — SPACE THERMOSTAT WITH REMOTE SENSOR
- T/H — THERMOSTAT/HUMIDISTAT
- PNEUMATIC TUBING OR CONTROL WIRING
- A — DRAWING NOTE REFERENCE
- ROUND
- OVAL OR FLAT OVAL
- 3 / M-2 — SECTION MARK & PAGE
- OS — OCCUPANCY SENSOR.
- POINT OF NEW CONNECTION
- LIMIT OF DEMOLITION
- EXISTING TO BE REMOVED

DRAWING/DETAIL REFERENCE KEY

REFER TO DRAWING/DETAIL NUMBER — 3 / M4.01 — SHEET NUMBER
RE: 3/M4.01

AIR HANDLING UNIT SCHEDULE

Mark	AIR HANDLER DATA: Manufacturer	Model No.	Cabinet Type	CFM Total	CFM O.A.	E.S.P. ("W.G.)	Fan Motor HP	Weight	ELECTRICAL DATA: Heater KW/MCA	Heater Stages	Heater MOCP	VOLT/PH/60	Remarks
AHU-1	Carrier Corporation	FB4CNP060	VERTICAL	1800	340	0.5	3/4	175 lb	10/50.4	1	60	208/1/60	1/3/6/8/8/9/10/11/12/13/14
AHU-2	Carrier Corporation	FV4CNF006	VERTICAL	1800	340	0.5	3/4	175 lb	10/50.4	1	60	208/1/60	1 TO 14
AHU-3	Carrier Corporation	FB4CNP060	VERTICAL	1800	340	0.5	3/4	175 lb	10/50.4	1	60	208/1/60	1/3/6/8/8/9/10/11/12/13/14
AHU-4	Carrier Corporation	FB4CNP060	VERTICAL	1800	340	0.5	3/4	175 lb	10/50.4	1	60	208/1/60	1/3/6/8/8/9/10/11/12/13/14

CONDENSING UNIT SCHEDULE

Mark	CONDENSER DATA: Manufacturer	Model No.	Total Capacity (MBH)	Sensible Capac. (MBH)	Ent. Air Temp.(F) (DB/WB)	Leav. Air Temp.(F)(DB/MB)	Weight	ELECTRICAL DATA: No. Compressors	Comp. MCA	No. Cond. Fans	SEER	Max. Breaker Amps	VOLT/PH/60	Remarks
CU-1	Carrier Corporation	24ACC460	60	48	78/67	59/58	218 lb	1	34.2	1	14	50	208/1/60	1/3/6/8/9/10/11/12/13/14
CU-2	Carrier Corporation	24ACB760	60	48	78/67	59/58	218 lb	2	34.2	1	17	50	208/1/60	1 TO 14
CU-3	Carrier Corporation	24ACC460	60	48	78/67	59/58	218 lb	1	34.2	1	14	50	208/1/60	1/3/6/8/9/10/11/12/13/14
CU-4	Carrier Corporation	24ACC460	60	48	78/67	59/58	218 lb	1	34.2	1	14	50	208/1/60	1/3/6/8/9/10/11/12/13/14

Remarks:

1. Provide 1" thick 30% throwaway filter. farr 30/30 or equal.
2. N/A.
3. Provide 24 v control for a programmable 24, 7-day time clock t'stat or combination of thermostat/humidistat. control system shall have a 5 °f deadband, set point overlap restriction, capability of setback to 55 °f(heat) and 85 °f(cool), 7 day clock, 2 hour occupant override, 10 hour back up. capability of proportional integral calculation to determine the number of stages required for heating, cooling and humidity to provide accurate temperature and humidity control. equal to 33cs2pp2s-03, systxccitn01-a or tp-prh01-b carrier.
4. N/A.
5. Humidity control for ac units 1.5-5 ton capacity: occupied and unoccupied, if the space humidity rises above %50 rh compressor shall run in first stage, and staged air volume (v/d) air handlers shall operate in low speed during first stage of cooling, allowing dehumidification by extending the run time without overcooling, after the delay time if additional cooling is still required cooling system shall be back on full capacity so that the cooling demand will be satisfied.
6. Provide single phase loss voltage monitoring device equal to p251-0092 totaline to protect from over or under voltage, rapid short-cycling, and power interruptions.
7. N/A.
8. Outside air for ventilation are calculated using florida building code chapter 4 FBCM 6th edition 2017.
9. Install air handling and condensing units per mfg.' recommendations.
10. Refrigeration line size and installations in accordance with mfg.' recommendations.
11. Provide manual and motorized damper for outside air installed on return duct.
12. Provide 5 minute time delay to prevent short cycling of compressor.
13. Provide phase lost protection for three phase units.
14. Model number for ac units are provide to establish standard of quality and necessary specifications. coordinate with manufacture for final model numbers.

PTAC 9-12 MBH SCHEDULE

Mark	AIR HANDLER DATA: Manufacturer	Model	Total Capacity (BTU/h)	CFM Total	SSEER	ELECTRICAL DATA: Heater KW/MCA	Heater MOCP	VOLT/PH/60	AIR HANDLER DATA: Weight
PTAC-A.1	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.2	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.3	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.4	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.5	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.6	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.7	Amana	PTH123G**ACVXX	12000	245-340	13.2	2.9/19.5	20	208/1/60	132 lb
PTAC-A.8	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.9	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-A.10	Amana	PTH123G**ACVXX	12000	245-340	13.2	2.9/19.5	20	208/1/60	132 lb
PTAC-A.11	Amana	PTH123G**ACVXX	12000	245-340	13.2	2.9/19.5	20	208/1/60	132 lb
PTAC-B.1	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.2	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.3	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.4	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.5	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.6	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.7	Amana	PTH123G**ACVXX	12000	245-340	13.2	2.9/19.5	20	208/1/60	132 lb
PTAC-B.8	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.9	Amana	PTH093G**ACVXX	9000	245-330	14.4	2.9/19.5	20	208/1/60	127 lb
PTAC-B.10	Amana	PTH123G**ACVXX	12000	245-340	13.2	2.9/19.5	20	208/1/60	132 lb
PTAC-B.11	Amana	PTH123G**ACVXX	12000	245-340	13.2	2.9/19.5	20	208/1/60	132 lb

NOTE: PER FBCM 402.2 6TH EDITION 2017. MINIMUM OPERABLE AREA TO OUTDOORS SHALL BE 4 % OF THE FLOOR AREA BEING VENTILATED.

ALL ROOMS AREA = 240 SF x 4% = 9.6 SF REQUIRED; (1) 4'x4' WINDOW = 16 SF OPERABLE AREA PROVIDED
STAFF ROOM AREA= 362 SF x 4%= 14.49 SF REQUIRED; (1) 4'x4' WINDOW = 16 SF OPERABLE AREA PROVIDED

PROJECT DESIGN CONDITION

SPACE SERVED	DESIGN LOCATION	INDOOR: SUMMER MINIMUM TEMPERATURE (°F) DB	SUMMER MAXIMUM HUMIDITY (RH%)	WINTER MAXIMUM TEMPERATURE (°F)	REMARK	OUTDOOR: SUMMER MAXIMUM TEMPERATURE (°F) DB	SUMMER MAXIMUM HUMIDITY (RH%)	WINTER MINIMUM TEMPERATURE (°F)
GENERAL COMFORT, APARTMENT, HOUSE, HOTEL, OFFICE, HOSPITAL, SCHOOL, ETC.	DAYTONA BEACH	77	55(+/-2)	74	1,2	93.8/76.5	53	38

NOTES:
1. MINIMUM TEMPERATURE IN BUILDING MUST BE MAINTAINED AT 55 °F EVEN WHEN UNOCCUPIED.
2. DRY BULB AND RELATIVE HUMIDITY ARE TO BE MAINTAINED 6 INCH TO 6 FEET ABOVE THE FLOOR.

ELECTRIC UNIT HEATHER SCHEDULE

Mark	CFM Total	kW	VOLT/PH/60	MCA	Location	Model No.	Manufacturer	Remarks
EUH-1	400 CFM	3	208/1/60	20	FIRE RISER ROOM	UHEC-031A0C0	TRANE	1,2,3,4

Remarks:

1. Provide Unit with Disconnect & Built-in Thermostat.
2. Hanger Bracket.
3. Provide Thermostat.
4. Provide Disconnect and Receptacle.
5. Horizontal Installation.

AIR DISTRIBUTION SCHEDULE

Mark	(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS): Description	Material	Finish	Manufacturer	Model	Remarks
CD	Ceiling Diffuser -Square and Rectangular with opposed blade volume damper.	Aluminium	Baked Off-White Enamel	PRICE	ASCD	2,3,5
EAG	Eggcrate Exhaust Grille	Aluminium	Baked Off-White Enamel	PRICE	85 Series	1,2,3,4,5
EAL	Exhaust Air Louver, Flange Frame with Bird Screen, Wind Driven Rain type Louver	Aluminium	Aluminium	GREENHECK	EHH601D	-
OAL	Outside Air Louver, Flange Frame with Bird Screen, Wind Driven Rain type Louver	Aluminium	Aluminium	GREENHECK	EHH601D	-
RAG	Eggcrate Return	Aluminium	Baked Off-White Enamel	PRICE	85 Series	1,2,3,4,5
TG	Transfer Grille	Aluminium	Baked Off-White Enamel	PRICE	85 Series	1,2,3,4,5

Remarks:

1. Paint flat black inside of ducts behind grilles. provide duct collar with all grilles.
2. See architectural ceiling plan for frame type.
3. Provide surface mount border for hard ceiling.
4. Provide with plenum.
5. Insulated plenum.

FACE SIZE — 12X12,CD — 400 CFM — SCHEDULED DESIGNATOR, IE. — AIR QUANTITY IN CUBIC FEET PER MINUTE

EXHAUST FAN SCHEDULE

Mark	Manufacturer	Model No.	Air Flow Rate	Location	SP, inches of water	RPM	Motor HP/Watts	Voltage	Drive	Type	Weight (lb)	Remarks
EF-1	Greenheck	SP A90	70 CFM	COMP. LAB A	0.20	900	29 W	120 V	Direct	Ceiling	12 lb	2/4/5/6/8/9/10
EF-2	Greenheck	CSP-A510	450 CFM	RESTROOM A	0.25	1050	102.2 W	0 V	Direct	Inline	23 lb	4/5/6/8/9/10/11
EF-3	Greenheck	CSP-A510	450 CFM	RESTROOM B	0.25	1050	102.2 W	0 V	Direct	Inline	23 lb	4/5/6/8/9/10/11
EF-4	Greenheck	SP A190	150 CFM	MENS RR	0.20	1400	54.4 W	120 V	Direct	Ceiling	17 lb	4/5/6/8/9/10/11
EF-5	Greenheck	SP A190	150 CFM	WOMENS RR	0.20	1400	54.4 W	120 V	Direct	Ceiling	17 lb	4/5/6/8/9/10/11
EF-6	Greenheck	SP A90	70 CFM	COMP. LAB B	0.20	900	29 W	120 V	Direct	Ceiling	12 lb	2/4/5/6/8/9/10

Remarks:

1. Operate with wall switch.
2. Operate with Occupancy sensor and Overrides Switch.
3. Operate with timer switch.
4. Provide Speed Controllers.
5. Provide support Rods and Vibration Isolator.
6. Provide Bird Screen Protection.
7. Provide Weather Hood.
8. Provide Backdraft Damper (BDD).
9. Contractor shall coordinate voltage selection with this Project provide transformer if necessary.
10. Provide disconnect switch.
11. Continuous Run with Time Clock.

REQUIRED OUTDOOR VENTILATION AIR CALCULATION (PER FBCM403.3)

AHU-1

AREA CLASSIFICATION	SQ.FT	OCCUPANCY	Rp [CFM/PERSON]	Ra [CFM/SF]	EXHAUST RATE [CFM/SF]	CALCULATION	VENTILATION REQUIRED [CFM]
CORRIDOR	600	-	-	0.06	-	600 SF x 0.06 CFM/SF	36
TV LOUNGE	312	15	5	0.06	-	15 PERSONS x 5 CFM/PERSON + 312 SF x 0.06 CFM/SF	93.72
KITCHEN	-	2	15	-	-	3 PERSONS x 15 CFM/PERSON	45
COMP. LAB. A	180	5	5	0.06	-	5 PERSONS x 5 CFM/PERSON + 180 SF x 0.06 CFM/SF	35.8
STORAGE	180	-	-	0.06	-	180 SF x 0.06 CFM/SF	10.8
						TOTAL OUTSIDE AIR REQUIRED [CFM]	221.32
						TOTAL OUTSIDE AIR PROVIDED [CFM] (AHU-1) (340)	=340

AHU-2/AHU-3

AREA CLASSIFICATION	SQ.FT	OCCUPANCY	Rp [CFM/PERSON]	Ra [CFM/SF]	EXHAUST RATE [CFM/SF]	CALCULATION	VENTILATION REQUIRED [CFM]
MAIN HALL/LOBBY	2663	90	5	0.06	-	90 PERSONS x 5 CFM/PERSON + 2663 SF x 0.06 CFM/SF	609.78
						TOTAL OUTSIDE AIR REQUIRED [CFM]	609.78
						TOTAL OUTSIDE AIR PROVIDED [CFM] (AHU-2)+(AHU-3) (340)+(340)	=680

AHU-4

AREA CLASSIFICATION	SQ.FT	OCCUPANCY	Rp [CFM/PERSON]	Ra [CFM/SF]	EXHAUST RATE [CFM/SF]	CALCULATION	VENTILATION REQUIRED [CFM]
CORRIDOR	600	-	-	0.06	-	600 SF x 0.06 CFM/SF	36
LOUNGE	850	18	5	0.06	-	18 PERSONS x 5 CFM/PERSON + 850 SF x 0.06 CFM/SF	141
LAUNDRY	120	-	-	0.06	-	120 SF x 0.06 CFM/SF	7.2
COMP. LAB. B	180	5	5	0.06	-	5 PERSONS x 5 CFM/PERSON + 180 SF x 0.06 CFM/SF	35.8
STORAGE	180	-	-	0.06	-	180 SF x 0.06 CFM/SF	10.8
MECH. ROOM	100	-	-	0.06	-	100 SF x 0.06 CFM/SF	6
						TOTAL OUTSIDE AIR REQUIRED [CFM]	236.8
						TOTAL OUTSIDE AIR PROVIDED [CFM] (AHU-4) (340)	=340

REVISIONS

MFA ENGINEERING
1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
Farshad Antikchi, P.E.#72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: MIKE PANAGOU, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386) 271-9204
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLYER, 375 TENTRESS BOULEVARD, DAYTONA BEACH, FL 32114

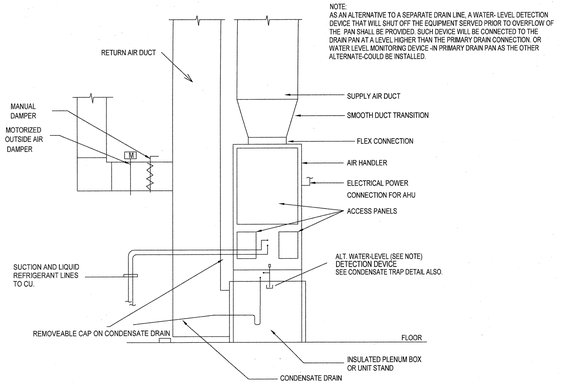
BPF DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

MECHANICAL SCHEDULES

DATE: 05/29/19
SCALE: AS SHOWN
SHT NO.M-4

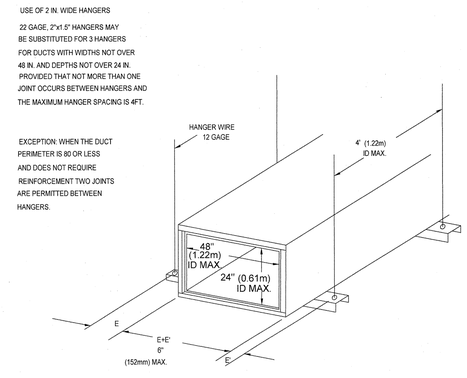
ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKCHI — LICENSE NO. 72998 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

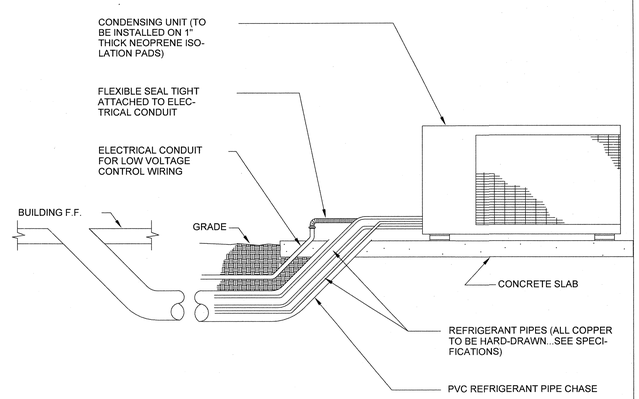


1 M-5 VERTICAL AIR HANDLING UNIT DETAIL

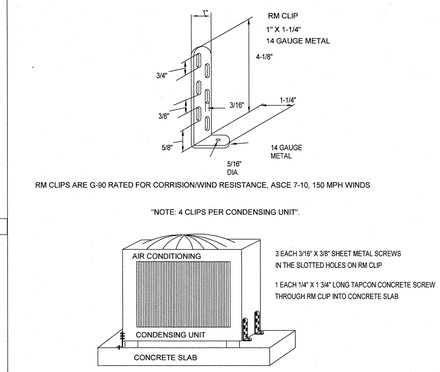
ONLY FOR AHU-1 AND AHU-4



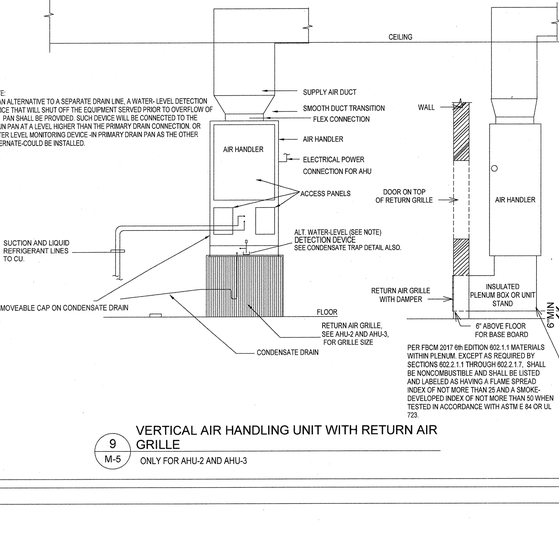
2 M-5 FIBROUS GLASS DUCT SUPPORT DETAIL



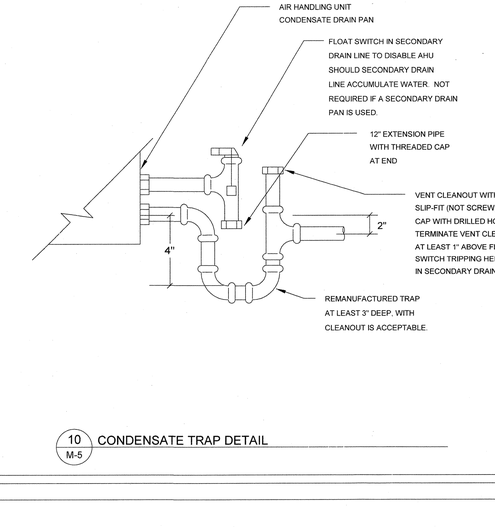
3 M-5 CONDENSING UNIT INSTALLATION DETAIL



4 M-5 CONDENSING UNIT MOUNTING DETAIL

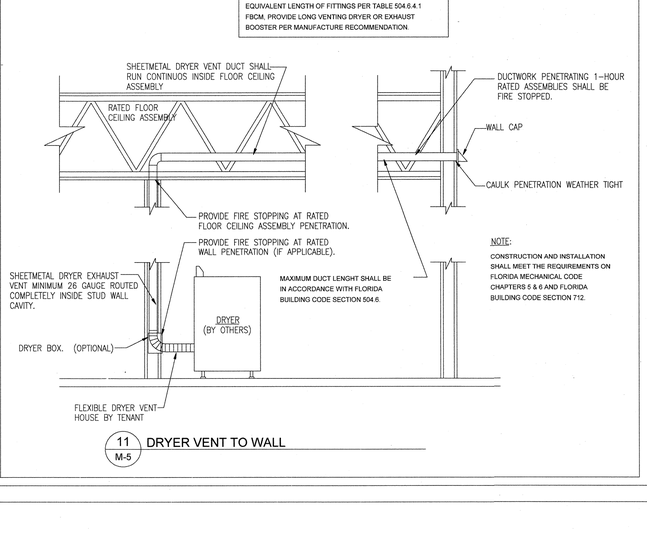


5 M-5 TYPICAL DIFFUSER DETAIL



1	DRYWELL TO BE FLUSH WITH CONCRETE, SLAB, OR GRADE DEPENDING UPON LOCATION. (SEE DRAWINGS FOR EXACT LOCATION)
2	CONDENSATE LINE - FIELD DRILL HOLE IN SIDE OF DRYWELL EQUIVALENT TO TO OUTSIDE DIAMETER OF CONDESATE PIPE.
3	BODY OF DRYWELL - SIZE SHALL BE NO LESS THAN DIMENSIONS SHOWN
4	BOTTOM OF EXTENSION
5	1-1/2" - 3" COARSE GRAVEL
6	BOLT DOWN COVER

6 M-5 DRYWELL DETAIL



7 M-5 FIRE DAMPER DETAIL



8 M-5 EXHAUST FAN DETAIL.

9 M-5 VERTICAL AIR HANDLING UNIT WITH RETURN AIR GRILLE

ONLY FOR AHU-2 AND AHU-3

10 M-5 CONDENSATE TRAP DETAIL

11 M-5 DRYER VENT TO WALL

REVISIONS

#	

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GENERAL CONTRACTOR: BRYAN COULVER, 375 FENTRESS BOULEVARD, DAYTONA BEACH, FL 32114

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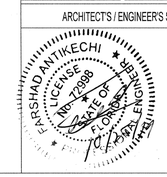
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

MECHANICAL DETAILS

DATE: 05/29/19
SCALE: AS SHOWN
SHT NO.M-5

ARCHITECT'S / ENGINEER'S SEAL



GENERAL

THE GENERAL MECHANICAL SPECIFICATIONS APPLY TO THE WORK SPECIFIED IN THIS SECTION. PROVIDE ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED FOR THE FABRICATION, INSTALLATION, AND/OR RENOVATION OF MECHANICAL SYSTEMS INCLUDING HEATING, VENTILATING, AIR CONDITIONING AND MISCELLANEOUS SYSTEMS AS INDICATED IN DESIGN DRAWINGS AND AS OUTLINED IN THESE SPECIFICATIONS.

SCOPE OF WORK:

FURNISH AND INSTALL COMPLETE AIR CONDITIONING SYSTEMS AS INDICATED ON THE DESIGN DRAWINGS AND AS OUTLINED WITHIN THESE SPECIFICATIONS. WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FABRICATION AND/OR INSTALLATION OF THE SCHEDULED AIR CONDITIONING UNITS, EXHAUST FANS, AIR DISTRIBUTION AND DUCTWORK.

CLEANING, TESTING AND ADJUSTING:
THE MECHANICAL CONTRACTOR, AT HIS EXPENSE, SHALL CLEAN, REPAIR, ADJUST, CHECK, BALANCE, AND PLACE IN SERVICE THE VARIOUS SYSTEMS HEREIN SPECIFIED WITH THEIR RESPECTIVE EQUIPMENT, ACCESSORIES AND PIPING. HE SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND TOOLS REQUIRED TO PERFORM TESTS REQUIRED BY THESE SPECIFICATIONS AND BY THE GOVERNING AUTHORITIES.

NO WORK SHALL BE COVERED OR CONCEALED UNTIL PROPERLY INSPECTED AND TESTED.

ALL STRUCTURAL IMPACT TO EXISTING OR PROPOSED BUILDING SHALL BE REVIEWED AND APPROVED BY STRUCTURAL ENGINEER OF RECORD.

TESTING:

ADJUST THE AIR CONDITIONING SYSTEMS, VENTILATING SYSTEMS, FANS, ETC., TO DELIVER NOT LESS THAN THE REQUIRED AIR QUANTITY WITH QUANTITIES IN EXCESS TO BE SUBJECT TO THE APPROVAL OF THE ENGINEER IF FOUND TO NOT HAVE OBJECTIONABLE EFFECTS SUCH AS NOISE, DRAFTS, OR MOTOR OVERLOAD. TEST AND BALANCE SHALL COMPLY WITH SECTION C408 OF FBCEC (6TH EDITION).

PRIOR APPROVAL BY THE ENGINEER OF TESTING AND BALANCING CONTRACTOR IS REQUIRED. THIS CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A TEST AND BALANCE REPORT TO THE ENGINEER AT TIME OF SUBSTANTIAL COMPLETION INSPECTION. THE REPORT SHALL BE PREPARED BY A CONTRACTOR CERTIFIED BY ASSOCIATED AIR BALANCE COUNCIL OR NATIONAL ENVIRONMENTAL BALANCING BUREAU.

THE TEST AND BALANCE REPORT SHALL BE TYPEWRITTEN AND CONTAIN THE FOLLOWING DATA:

1. DATE, TIME, WEATHER, WHEN TEST TAKEN.
2. AIR CAPACITIES AT EACH UNIT INCLUDING OUTSIDE AIR. (ENTERING AND LEAVING DB/WB)
3. STATIC PRESSURE THROUGH UNITS AND UNIT COMPONENTS.
4. MOTOR OPERATING VOLTAGE AND AMPERAGE.
5. DRIVE TYPES, SIZES AND SPEED RANGE.
6. IDENTIFICATION OF ALL AIR TERMINAL DEVICES WITH DESIGN CFM AND ACTUAL CFM.

ADDITIONALLY, SYSTEMS DRAWING CLEARLY MARKED TO IDENTIFY LOCATION OF EQUIPMENT AND AIR DEVICES TESTED SHALL BE PROVIDED ALONG WITH THE WRITTEN TEST AND BALANCE REPORT.

MAINTENANCE MANUALS

CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE MANUALS TO THE OWNER (3 REQUIRED) ON ALL NEW EQUIPMENT. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA INTO INDIVIDUAL, HEAVY-DUTY, 2-INCH, 3-RING VINYL COVERED BINDERS WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER. INCLUDE THE FOLLOWING TYPES OF INFORMATION. THE INFORMATION WILL BE TURNED OVER TO THE OWNER AT TIME OF SUBSTANTIAL COMPLETION:

- OPERATING AND MAINTENANCE INSTRUCTIONS
- SPARE PARTS LIST
- COPIES OF WARRANTIES
- WIRING DIAGRAMS
- INSPECTION REPORTS AND APPROVALS
- SHOP DRAWINGS AND PRODUCT DATA
- TEST AND BALANCE INFORMATION

TRAINING SERVICES

THOROUGHLY INSTRUCT THE OWNER'S REPRESENTATIVE IN THE OPERATION OF ALL EQUIPMENT FURNISHED AND LOCATION OF ALL VALVES AND CONTROL DEVICES.

TRAIN BUILDING OWNER'S PERSONNEL DURING NORMAL WORKING HOURS ON STARTUP AND SHUTDOWN PROCEDURES, TROUBLESHOOTING PROCEDURES, SERVICING AND PREVENTATIVE MAINTENANCE SCHEDULE AND PROCEDURES. REVIEW WITH THE OWNER'S PERSONNEL, THE DATA CONTAINED IN THE OPERATING AND MAINTENANCE MANUALS. SCHEDULE TRAINING WITH OWNER, PROVIDE AT LEAST 7-DAYS PRIOR NOTICE TO ARCHITECT/ENGINEER.

HANGERS AND SUPPORTS

PROVIDE ALL NECESSARY HANGER RODS, CLAMPS AND ATTACHMENTS TO PROPERLY INSTALL AND SUPPORT DUCTWORK, PIPING AND EQUIPMENT FROM THE BUILDING STRUCTURE.

PROVIDE ANY ANGLE IRON OR UNISTRUT AND SUSPENSION RODS REQUIRED TO INSTALL EQUIPMENT, PIPING AND DUCTWORK.

ALL SUPPORTS EXPOSED TO OUTDOORS SHALL BE CLEANED, PRIMED AND PAINTED TO PREVENT RUSTING. FINISH COLOR AS SELECTED BY OWNER.

THE USE OF BALING WIRE OR PERFORATED METAL STRAPPING IS NOT ACCEPTABLE FOR SUPPORTS.

WARRANTY/GUARANTEE:

THE CONTRACTOR SHALL WARRANTY/GUARANTEE AND MAINTAIN THE STABILITY OF WORK AND MATERIALS AND KEEP SAME IN PERFECT REPAIR AND CONDITION FOR THE PERIOD OF ONE (1) YEAR.

DEFECTS OF ANY KIND DUE TO FAULTY WORK OR MATERIALS APPEARING DURING THE ABOVE MENTIONED PERIOD MUST BE IMMEDIATELY MADE GOOD BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE ENTIRE SATISFACTION OF THE OWNER AND ARCHITECT AND ENGINEER. SUCH RECONSTRUCTION AND REPAIRS SHALL INCLUDE ALL DAMAGE TO THE FINISH OR FURNISHING OF THE BUILDING RESULTING FROM THE ORIGINAL DEFECT OR REPAIRS THERETO.

SUBSTITUTIONS:

EQUIPMENT MODEL NUMBER AND DESIGN OF SYSTEMS INDICATED ON THE DRAWINGS AND WITHIN THESE SPECIFICATIONS SHALL BE CONSIDERED AS "STANDARD QUALITY OF MANUFACTURE". EQUAL PRODUCTS, AS APPROVED BY THE ENGINEER, WILL BE ACCEPTABLE FROM OTHER MANUFACTURERS. SUBSTITUTIONS WITHOUT WRITTEN APPROVAL OF THE ENGINEER IS NOT ACCEPTABLE. ALL EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED, FREE OF DEFECTS, AS SHOWN ON THE DRAWINGS OR INDICATED IN SPECIFICATIONS.

DEVIATIONS FROM SPECIFIED EQUIPMENT AFFECTING ELECTRICAL REQUIREMENTS SHALL BE COORDINATED BETWEEN VENDOR, MECHANICAL CONTRACTOR, AND ELECTRICAL CONTRACTOR PRIOR TO SUBMITTING BIDS. FAILURE TO DO SO WILL NOT BE CAUSE FOR CHANGE OF BID AT A LATER TIME. IN ADDITION, THE MECHANICAL CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR ANY AND ALL CHANGES TO ENGINEERING PLANS REQUIRED BY AUTHORITY HAVING JURISDICTION.

APPLICABLE CODES/STANDARDS:

- FLORIDA BUILDING CODE - BUILDING (6TH EDITION) 2017.
- FLORIDA BUILDING CODE - MECHANICAL (6TH EDITION) 2017.
- FLORIDA BUILDING CODE - PLUMBING (6TH EDITION) 2017.
- FLORIDA BUILDING CODE - ENERGY CONSERVATION (6TH EDITION) 2017.
- FLORIDA FIRE PREVENTION CODE (6TH EDITION) 2017.
- NFPA LATEST EDITION.
- SMACNA DUCT CONSTRUCTION STANDARDS.
- ASHRAE STANDARD 62.1 (2013)
- NATIONAL ELECTRIC CODE (2014)

THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND PAY ALL FEES.

SHOP DRAWINGS AND SUBMITTALS:

SUBMIT SHOP DRAWINGS AND MANUFACTURER'S DATA FOR ALL NEW EQUIPMENT FOR ENGINEER'S APPROVAL PRIOR
TO PURCHASE AND/OR FABRICATION. SHOP DRAWINGS FOR EQUIPMENT REQUIRING ELECTRIC POWER OR CONTROL WIRING SHALL INCLUDE COMPLETE WIRING DIAGF.AMS

HVAC CONTRACTORS SHALL SUBMIT COMPLETE DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. SHOP DRAWINGS SHALL INCLUDE COORDINATION WITH GENERAL CONTRACTOR REGARDING EXACT OPENINGS REQUIRED IN EXTERIOR WALLS. THE DUCTWORK SHOP DRAWINGS WILL ONLY BE REVIEWED FOR COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS. DRAWINGS WILL NOT BE CHECKED FOR COORDINATION WITH OTHER TRADES OR BUILDINGS STRUCTURE. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO COORDINATE AND VERIFY ROUTING AND EXACT LOCATION OF SYSTEM COMPONENTS.

SYSTEM IDENTIFICATION:

PROVIDE IDENTIFICATION LABELS ON OR NEAR EACH PIECE OF MAJOR EQUIPMENT AND EACH OPERATION DEVICE AND DISCONNECT. LABELS SHALL BE CONSTRUCTED OF ENGRAVED PLASTIC LAMINATE SIGN OR PLASTIC EQUIPMENT MARKER PERMANENTLY SECURED TO EQUIPMENT. LETTERING SHALL BE A MINIMUM OF 1/2 INCH HIGH FOR EQUIPMENT NAME AND 3/8 INCH HIGH FOR EQUIPMENT INFORMATION.

VALVES SHALL BE TAGGED USING PLASTIC LAMINATE TAGS SECURED WITH BRASS CHAINS INDICATING THE VALVE SIZE, SERVICE AND FUNCTION.

EXECUTION:

ALL LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC., INDICATED ON THE DRAWINGS IS DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE TO THE PLANS SUBJECT TO BUILDING CONSTRUCTION AND INTERFERENCES WITH OTHER TRADES. CONTRACTOR IS RESPONSIBLE FOR ANY FIELD MEASUREMENTS REQUIRED TO PROVIDE AN APPROVED AND FUNCTIONAL INSTALLATION.

COORDINATE WITH OTHER TRADES AND FIELD-VERIFY EXISTING CONDITIONS FOR EXACT LOCATION AND ROUTING OF SYSTEMS. PROVIDE OFFSETS, TRANSITIONS AND ADAPTORS AS REQUIRED.

NOT ALL COMPONENTS REQUIRED FOR A COMPLETE INSTALLATION ARE SHOWN ON THESE DRAWINGS. REFER TO EQUIPMENT INSTALLATION INSTRUCTION, SCHEDULES AND APPLICABLE CODES FOR ADDITIONAL INFORMATION, INCLUDING REQUIRED CONNECTION LOCATIONS, TYPES AND SIZES.

PERFORM ALL WORK NECESSARY TO PREPARE THE STRUCTURE FOR THE INSTALLATION OF THE WORK. ALL HOLES, OPENINGS AND DAMAGED MATERIALS CREATED DURING CONSTRUCTION SHALL BE REPAIRED. ALL PENETRATIONS SHALL BE SLEEVED AND SEALED SO AS TO BE WATER AND AIR TIGHT.

PIPING:

CONDENSATE DRAINS:
CONDENSATE PIPE TO BE TYPE L COPPER OR SCHEDULE 40 PVC. ROUTE AS INDICATED ON PLANS. UNITS 3 TONS AND SMALLER MAY DRAIN TO GRADE, ELSE COORDINATE WITH PLUMBER TO PROVIDE HUB DRAIN(S) IN MECHANICAL ROOM AND DRYWELL(S). HVAC CONTRACTOR TO PROVIDE P-TRAP AT UNIT SIZED FOR 2" GREATER THAN UNIT STATIC PRESSURE. PROVIDE CLEANOUT AT UNIT FOR SUSPENDED HORIZONTAL AIR HANDLERS. INSULATE CONDENSATE PIPE WITH 1/2" ARMAFLEX (OR EQUAL) INSULATION RATED FOR PLENUM APPLICATION COMPLY WITH SECTION 602 FBCM 6TH EDITION(2017). CONDENSATE DRAIN LINE SHALL BE NOT LESS THAN THE EQUIPMENT DRAIN LINE SIZE AND IN NO CASE LESS THAN 3/4" PIPE SIZE. DRAIN LINE SHALL SLOPE A MINIMUM OF 1/8" PER FOOT TOWARDS DRAIN. TERMINATION POINT SHALL BE COMPLY WITH FBCM 6TH EDITION(2017) SECTION 307.2.1.

REFRIGERANT PIPING:
PIPING SHALL BE SEAMLESS MULLER STREAMLINE TYPE ACR(HARD OR ANNEALED), (STRAIGHT LENGTH OR COIL) COMPLY WITH ASTM B 280. WHERE APPROVED, COPPER TUBE FOR REFRIGERANT PIPING ERECTED ON THE PREMISES SHALL BE SEAMLESS COPPER TUBE OF TYPE K, L, OR M (DRAWN OR ANNEALED), (STRAIGHT LENGTH OR COIL) IN ACCORDANCE WITH ASTM B 88. ANNEALED TEMPERED COPPER TUBE SHALL NOT BE USED IN SIZES LARGER THAN A 2 INCH NOMINAL SIZE. FITTINGS SHALL BE MUELLER OR NIBCO WROUGHT COPPER LONG RADIUS REFRIGERATION TYPE.

WORKMANSHIP ON THESE SYSTEMS MUST BE GOOD, AND CLEANLINESS OF PIPING SYSTEMS IS MANDATORY. WORK THAT DOES NOT MEET THESE CRITERIA SHALL BE REMOVED AND REPLACED AT NO COST TO THE OWNER. THE ENGINEER SHALL DETERMINE WHETHER THE WORK MEETS THESE CRITERIA.

COVER ALL EXPOSED LIQUID LINES AND ALL SUCTION PIPING (INDOORS AND OUTDOORS), FITTINGS, VALVES, ETC., CONTINUOUS THROUGH SLEEVES, HANGERS, ETC., WITH 3/4" FRIARMAFLEX. INSTALLATION SHALL BE CONDENSATION FREE AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PAINT ALL INSULATION EXPOSED TO OUTDOORS WITH UV PROTECTIVE PAINT PER MANUFACTURER'S RECOMMENDATIONS.

REFRIGERANT PIPING BELOW GRADE SHALL BE ROUTED THROUGH MINIMUM 4" DIAMETER PVC PIPE SLEEVES TO EACH CONDENSING UNIT. ALL UNDERGROUND REFRIGERANT PIPING SHALL BE CONTINUOUS SOFT DRAWN TUBING WITH NO UNDERGROUND JOINTS ALLOWED. REFRIGERANT PIPE SIZES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATION BASED ON LENGTH OF RUN BETWEEN CONDENSING UNITS AND AHU'S.

PIPING ROUTED ALONG BUILDING EXTERIOR WALL SHALL BE PROTECTED BY SHEET METAL HOUSING SECURELY ATTACHED TO WALL AT 8'-0" INTERVALS AND PAINTED TO MATCH BUILDING EXTERIOR.

TRAP OIL IN SUCTION LINE AT EVAPORATOR COIL. NO OTHER COIL TRAPS PERMITTED. PROVIDE SUCTION RISERS, CHECK VALVES, SOLENOID VALVES, OR OTHER DEVICES REQUIRED IN PIPING SYSTEM BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.

FURNISH ALL LABOR AND MATERIALS TO REPLACE REFRIGERANT LOST DURING THE ONE YEAR WARRANTY PERIOD.

REFRIGERATION INSULATION SPECIFICATION:

1- INSULATION SHALL BE A FLEXIBLE, CLOSED-CELL ELASTOMERIC PIPE INSULATION:
AP ARMAFLEX, AC ACCOFLEX. ADHESIVE SHALL BE ARMAFLEX 520, 520 BLACK OR 520 BLV ADHESIVE. THE INSULATION MUST CONFORM TO ASTM C534 GRADE 1, TYPE I.
2- INSULATION MATERIALS SHALL HAVE A CLOSED CELL STRUCTURE TO PREVENT MOISTURE FROM WICKING WHICH MAKES IT AN EFFICIENT INSULATION.
3- INSULATION MATERIALS SHALL BE MANUFACTURED WITHOUT THE USE OF CFC'S, HFC'S OR HCFC'S. IT IS ALSO FORMALDEHYDE FREE, LOW VOCS, FIBER FREE, DUST FREE AND RESISTS MOLD AND MILDEW.
4- INSULATION MATERIALS SHALL HAVE A FLAME-SPREAD INDEX OF LESS THAN 25 AND A SMOKE-DEVELOPED INDEX OF LESS THAN 50 AS TESTED IN ACCORDANCE WITH ASTM E 84. IN ADDITION, THE PRODUCTS, WHEN TESTED, SHALL NOT MELT OR DRIP FLAMING PARTICLES, AND THE FLAME SHALL NOT BE PROGRESSIVE.
5- INSULATION MATERIALS SHALL HAVE A MAXIMUM THERMAL CONDUCTIVITY OF 0.27 BTU-IN./H-FT2-°F AT A 75°F MEAN TEMPERATURE AS TESTED IN ACCORDANCE WITH ASTM C 177 OR ASTM C 518.
6- INSULATION MATERIALS SHALL HAVE A MAXIMUM WATER VAPOR TRANSMISSION OF 0.08 PERM-INCHES WHEN TESTED IN ACCORDANCE WITH ASTM E 96, PROCEDURE A.
7- ALL LIQUID AND SUCTION LINES SHALL BE INSULATED CONTINUOUSLY FROM A POINT 6" INSIDE THE DISPLAY CASE TO THE SUCTION SERVICE VALVE AT THE COMPRESSOR.
8- ALL INSULATION MATERIAL AND CONDUCTIVITY AND THICKNESS SHALL COMPLY WITH SECTION C403.2.10 FBCEC(6th EDITION).

PIPE HANGERS AND SUPPORTS:
PIPE HANGERS, WHERE NEEDED, SHALL BE GRINNELL #260 CLEVIS TYPE, 5'-0" ON CENTER, SECURELY ATTACHED TO BUILDING CONSTRUCTION. SPACE AT MIN. 5'-0" INTERVALS.

PIPE SUPPORT:
ATTACH LINES SECURELY ALONG PAD/FLOOR/EQUIPMENT/STRUCTURE TO PREVENT MOVEMENT. SUPPORT IN A MANNER THAT LINES DO NOT HANG FROM EVAPORATOR CONNECTIONS OR BLOCK ACCESS TO FILTERS, CONTROLS, ETC.

PIPE SUPPORTS SHALL BE IN ACCORDANCE TO TABLE 305.4 OF 6TH EDITION FBCM 2017.

VIBRATION ISOLATION:

ALL BLOWER UNITS AND VIBRATING TYPE EQUIPMENT SHALL BE PROPERLY FITTED WITH MASON INDUSTRIES VIBRATION ISOLATION EQUIPMENT SIZED IN ACCORDANCE WITH EQUIPMENT WEIGHT AND DUTY.

PROVIDE FLEXIBLE CONNECTORS AT ALL SUPPLY AND RETURN CONNECTIONS TO AIR HANDLING EQUIPMENT CONSISTING OF HEAVY CANVAS OR NEOPRENE FABRIC WITH AIRTIGHT SEAMS AND CONNECTIONS TO THE EQUIPMENT.

AIR FILTERS:

FILTERS SHALL BE 1" FIBERGLASS MEDIA THROW AWAY TYPE IN A RIGID FRAME WITH A SUPPORTING MAZE ACROSS BOTH ENTERING AND LEAVING SURFACES. SUPPLY ONE COMPLETE SET OF FILTERS AFTER OWNER'S FINAL ACCEPTANCE. FARR 30/30 OR EQUAL

DUCTWORK:

ALL DIMENSIONS ARE INSIDE NET FREE AREA. SEE FLOOR PLAN FOR SPECIFIED MATERIAL,

MATERIALS:
A. LOW PRESSURE SUPPLY AND RETURN DUCTWORK AND DUCTWORK SPECIFIED ON PLANS SHALL BE DUCTBOARD (FIBERGLASS) EQUAL TO MANSVILLE FR-800 (SUPERDUCT). PROVIDE MINIMUM "R" VALUE OF 4.2 FOR DUCTS INSTALLED IN CONDITIONED SPACE AND 6.0 FOR DUCT INSTALLED IN UNCONDITIONED SPACE. DUCTWORK SHALL BE LINED WITH ANTI MICROBIAL COATING. SEAL ALL JOINTS WITH GLASS FABRIC AND MASTIC. TAPE ALONE IS NOT ALLOWED.

B. SUPPLY AND RETURN DUCTWORK, OUTSIDE AIR AND EXHAUST DUCTS OR DUCTWORK SPECIFIED ON PLANS SHALL BE GALVANIZED SHEET METAL PER SMACNA STANDARD AND DETAILS . SEAL ALL JOINTS WITH GLASS FABRIC AND MASTIC. TAPE ALONE IS NOT ALLOWED.

WET EXHAUST DUCTS SHALL BE ALUMINUM OR STAINLESS STEEL SHEET METAL.

ADJUSTABLE SPLITTERS AND DAMPERS SHALL BE INSTALLED IN EVERY SPLIT AND BRANCH DUCT AND SHALL BE PROVIDED WITH LOCKING QUADRANTS ON EXPOSED OR IN ACCESSIBLE AREAS OF THE DUCT FOR EASE OF OPERATION. ACCESS PANELS OR YOUNG REGULATORS SHALL BE PROVIDED WHERE DAMPERS ARE INSTALLED ABOVE HARD CEILINGS OR IN SOFFITS.

ELBOWS OR CHANGES IN DUCT DIRECTION GREATER THAN 45 DEGREES SHALL BE FITTED WITH AIR TURNS CONSISTING OF CURVED AIRFOIL BLADES OR VANES WHICH WILL PERMIT THE AIR TO MAKE ABRUPT TURNS WITHOUT APPRECIABLE TURBULENCE.

FLEXIBLE DUCTWORK SHALL BE ACOUSTICAL LOW PRESSURE TYPE WITH INTERIOR LINER, METAL HELIX, FIBERGLASS INSULATION WITH AN R-VALUE OF 6.0 OR GREATER, AND COPOLYMER SEAMLESS OUTSIDE SLEEVE. THE ENTIRE FLEXIBLE DUCT ASSEMBLY SHALL BE LISTED IN ACCORDANCE WITH UL-181 CLASS 1 AIR DUCT MATERIAL. THE MAXIMUM LENGTH OF ANY FLEX DUCT SHALL BE 8'-0". FLEXIBLE DUCTWORK SHALL MEET THE FLORIDA MODEL ENERGY EFFICIENCY CODE. ALL JOINTS AT CONNECTIONS TO DIFFUSERS AND DUCTWORK SHALL BE SEALED WITH GLASS FABRIC AND MASTIC.

INSTALL DUCTWORK INDICATED ON DRAWINGS, MAKING NECESSARY CHANGES IN CROSS-SECTIONS AND OFFSETS, WHETHER OR NOT SPECIFICALLY INDICATED.

SPIRAL DUCTWORK SHALL BE SIMILAR TO "SEMCO" MODEL SL(85)P LOW PRESSURE.

PROVIDE U.L LISTED FIRE,SMOKE OR COMBINATION FIRE SMOKE DAMPER IN ALL PENETRATIONS OF RATED SURFACES PER PER SECTION 607 FBCM (6TH EDITION 2017) AND IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE U.L. LISTING REQUIREMENTS. INTERLOCK THE UNIT WITH FIRE ALARM SYSTEM.

INSULATION:

SHALL BE AS MANUFACTURED BY CERTAINTEED, OWENS-CORNING, MANVILLE, PITTSBURGH CORNING, ARMSTRONG, OR APPROVED EQUAL. INSULATION SUNDRIES AND ADHESIVES SHALL BE AS MANUFACTURED BY BENJAMIN FOSTER, CHILDERS, VIMASCO, OR APPROVED EQUAL. ALL INSULATION SHALL BE SUITABLE FOR INSTALLATION IN A RETURN AIR PLENUM.

INSULATE ALL SHEETMETAL DUCTWORK EXCEPT EXHAUST DUCTWORK EXTERNALLY WITH MANVILLE R SERIES MICROLITE TYPE 75 OR 100 INSULATION OR APPROVED. INSULATION TO HAVE TYPE II FSK FACING AND UL FIRE HAZARD CLASSIFICATION OF FLAME SPREAD 25/SMOKE DEVELOPED 50/FUEL CONTRIBUTED 50. INSTALL INSULATION PER SMACNA, FLORIDA MODEL ENERGY EFFICIENCY CODE AND MANUFACTURER'S RECOMMENDATIONS. ALL INSULATION JOINTS SHALL BE SEALED WITH GLASS FABRIC AND MASTIC.

MINIMUM INSULATION REQUIREMENTS AS FOLLOWS:
- SUPPLY AND RETURN AIR UNCONDITIONED: 2" (R-4.2 MIN)
- OUTSIDE AIR: 2" (R-6 MIN)

PROVIDE ALL EXTERIOR INSULATION DUCTWORK OR PIPING EXPOSED TO THE OUTDOORS WITH A MINIMUM 6 MIL THICK ALUMINUM OR PVC JACKET.

CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ADEQUATE AND PROPER INSULATION AND MOISTURE-SEAL IN A MANNER THAT WILL PERMANENTLY PREVENT THE ACCUMULATION OF ANY OBJECTIONABLE MOISTURE ON THE EXTERIOR OF AIR CONDITIONING UNITS, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING, AIR DUCTS OR OTHER PARTS OF THE SYSTEM. CONTRACTOR SHALL CORRECT THE CAUSE OF ANY CONDENSATION AND FULLY REPAIR, WITHOUT COST TO THE OWNER, ANY DAMAGES TO BUILDING SURFACES, FURNISHINGS OR EQUIPMENT CAUSED BY CONDENSATION FROM THIS SYSTEM, FOR THE FULL PERIOD OF GUARANTEE.

INSULATION PROTECTION
PER FBCEC SECTION C403.2.9.1.2 6TH EDITION 2017 INSULATION SHALL BE PROTECTED FROM DAMAGE, INCLUDING THAT DUE TO SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE AND WIND, BUT NOT LIMITED TO THE FOLLOWING:
SUITABLE FOR OUTDOOR SERVICE. E.G., PROTECTED BY ALUMINUM, SHEET METAL, PAINTED CANVAS OR PLASTIC COVER. CELLULAR FOAM INSULATION SHALL BE PROTECTED AS ABOVE OR PAINTED WITH A COATING THAT IS WATER RETARDANT AND PROVIDES SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE
COOLING DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE SHALL INCLUDE A VAPOR RETARDANT LOCATED OUTSIDE THE INSULATION (UNLESS THE INSULATION IS INHERENTLY VAPOR RETARDANT), ALL PENETRATIONS AND JOINTS OF WHICH SHALL BE SEALED.
CONTROLS:

FACTORY MOUNTED CONTROL SHALL BE PROVIDED TO ACCOMPLISH THE SEQUENCE OF OPERATION. ALL INTERIOR CONTROLS SHALL BE FACTORY FURNISHED AND INSTALLED.

PROVIDE ALL 24 VOLT WIRING BETWEEN CONTROL DEVICES AS NECESSARY TO MAKE COMPLETE AND OPERATION SYSTEM. PROVIDE 110/24 VAC TRANSFORMERS AS REQUIRED. COORDINATE WITH DIVISION 16 FOR 120V POWER ROUGH-IN, CONTROL, POWER AND WIRING. 24 VOLT WIRING SHALL BE PLENUM RATED CABLE.

AIR CONDITIONING UNITS (DX SPLIT):

UNITS SHALL BE SPLIT SYSTEM AIR-TO-AIR ELECTRIC AIR CONDITIONING UNITS AND HEAT PUMPS AS SCHEDULED ON DRAWINGS. UNITS WITH INTEGRAL ELECTRIC RESISTANCE HEATERS SHALL HAVE A SINGLE-POINT ELECTRIC CONNECTION.

TOTAL COOLING CAPACITY OF THE UNITS SHALL BE AS SCHEDULED ON DRAWINGS. UNIT CABINET SHALL BE CONSTRUCTED OF GALVANIZED STEEL, BONDED AND COATED WITH BAKED ENAMEL. CABINET INSULATION SHALL COMPLY WITH FLORIDA ENERGY CODE. PROVIDE E-COAT PROTECTION FOR COILS OR ANY ALTERNATIVE FOR SEA COAST PROTECTIO FOR CONDENSING UNITS, PACKAGED, PTAC OR ROOM AIR CONDITIONERS LOCATED NEAR SEA COAST.

FANS AND MOTORS - THE INDOOR AIR FANS SHALL BE OF THE FORWARD-CURVED CENTRIFUGAL CLASS 1 TYPE. MOTOR AND DRIVE TO PROVIDE HIGHER FAN OUTPUT WHEN JOB REQUIREMENTS EXCEED STANDARD FAN CAPACITY SHALL BE PROVIDED.

COOLING SYSTEM SHALL BE PROTECTED BY LOSS OF CHARGE PROTECTION, HIGH AND LOW PRESSURE SENSORS, COMPRESSOR MOTOR OVERLOADS, AND A TIMING DEVICE WHICH WILL PROHIBIT THE COMPRESSOR MOTOR FROM BEING SUBJECTED TO A STARTING CURRENT MORE THAN ONCE EVERY FIVE MINUTES.

HEAT PUMP/CONDENSING UNIT INSTALLATION:
PROVIDE CONCRETE PADS FOR GRADE MOUNTED CONDENSING UNITS. PADS SHALL BE A MINIMUM OF 4" THICK, 3,000 PSI CONCRETE, AND SHALL BE 4" LARGER ON EACH SIDE THAN THE FOOTPRINT OF THE CONDENSING UNIT. VERIFY UNIT DIMENSIONS WITH APPROVED SHOP DRAWINGS PRIOR TO FABRICATION OF PADS.

EXHAUST FANS:

FURNISH EXHAUST FANS WITH PERFORMANCE AND CAPACITIES AS LISTED ON THE DESIGN DRAWINGS.

COORDINATE WITH ARCHITECT TO LOCATE EXHAUST FANS, EXHAUST GRILLES, WALL OR ROOF CAPS A MINIMUM DISTANCE OF 10'-0" FROM ANY OPERABLE WINDOW, DOOR OR FRESH AIR INTAKE.

AIR DISTRIBUTION EQUIPMENT:

FURNISH SUPPLY AIR GRILLES AND RETURN AIR REGISTERS WITH OPPOSED BLADE BALANCING DAMPERS AS SCHEDULED ON THE DESIGN DRAWINGS.

GRILLES, REGISTERS, AND CEILING DIFFUSERS SHALL BE FURNISHED AS SCHEDULED ON THE DESIGN DRAWINGS AND SHALL BE ALL ALUMINUM CONSTRUCTION UNLESS NOTED OTHERWISE. AIR DISTRIBUTION SHALL NOT EXCEED NC-30 NOISE CRITERIA AS DEFINED IN THE LATEST ASHRAE GUIDE.

ROOF TOP UNITS EQUIPMENTS:

GUARDS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 304.11 OF FBCM 6TH EDITION 2017 WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS THAT REQUIRE SERVICE AND ROOF HATCH OPENINGS ARE LOCATED WITHIN 10 FEET (3048 MM) OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THAN 30 INCHES (762 MM) ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL EXTEND NOT LESS THAN 30 INCHES (762 MM) BEYOND EACH END OF SUCH APPLIANCES, EQUIPMENT, FANS, COMPONENTS AND ROOF HATCH OPENINGS AND THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THAN 42 INCHES (1067 MM) ABOVE THE ELEVATED SURFACE ADJACENT TO THE GUARD. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21-INCH-DIAMETER (533 MM) SPHERE AND SHALL COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE FLORIDA BUILDING CODE, BUILDING.

#	REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: egroup@att.net
CA#8126
Farshad Antikchi, P.E.#72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: MIKE PANAGOS, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
PROJECT LOCATION: 2611 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLYER, 375 FENTRESS BOULEVARD, DAYTONA BEACH, FL 32114 PH#(386)576-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

MECHANICAL SPECIFICATIONS

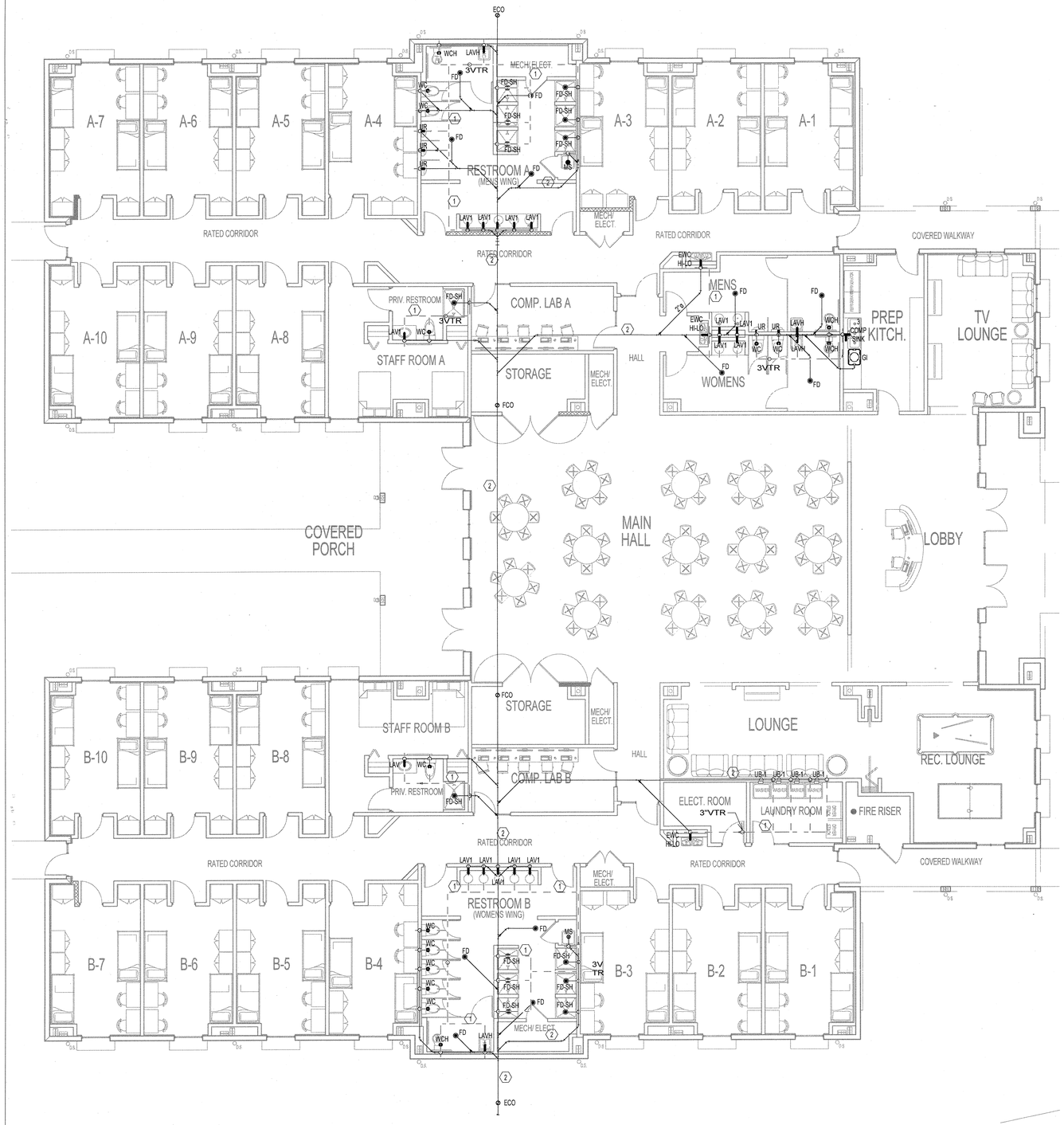
DATE: 05/29/19

SCALE: AS SHOWN

SHT NO.M-6

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKCHI LICENSE NO. 72998 STATE OF FLORIDA PROFESSIONAL ENGINEER



1 / P-1 Plumbing Floor Plan Sewer - Line
1/8" = 1'-0"

Reference Notes

#	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING LOCATED BELOW FLOOR SLAB.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE NAME	MANUFACTURER	MODEL	DESCRIPTION
3 COMP SINK	3 COMPARTMENT SINK	SPECIFIED BY OWNER	SPECIFIED BY OWNER	SPECIFIED BY OWNER
CS	CIRCUIT SOLVER	Therm-Omega-Tech, Inc.	CS-1/2-110	Self-actuating thermostatic recirculation valve for domestic hot water (DHW) system
ECO	EXTERIOR CLEANOUT	WATTS	CO-300-MF	EPOXY HOUSING WITH ANCHOR FLANGES AND EXTRA HEAVY DUTY DUCTILE IRON COVER
EWC HI-LO	ELECTRIC WATER COOLER	ELKAY	LZSTL8WSLK	BOTTLE FILLING STATION & VERSATILE BI-LEVEL ADA COOLER, SHALL DELIVER 8 GPH OF 50F DRINKING WATER AT 90F AMBIENT AND 80F INLET WATER. COOLER UNITS SHALL HAVE PUSHBAR ACTIVATION. BOTTLE FILLING UNIT SHALL INCLUDE AN ELECTRONIC SENSOR FOR TOUCHLESS ACTIVATION WITH AUTO 20 SECOND SHUT-OFF TIMER. SHALL INCLUDE THE WATERSENTRY PLUS 3000 GALLON CAPACITY FILTER, CERTIFIED TO NSF/ANSI 42 AND 53, WITH VISUAL MONITOR TO INDICATE WHEN REPLACEMENT IS NECESSARY. SHALL INCLUDE INTEGRATED SILVER ION ANTI-MICROBIAL PROTECTION IN KEY AREAS.
FCO	FLOOR CLEAN OUT	WATTS	CO-270	EPOXY FLOOR CLEANOUT WITH 7" ROUND GASKETED TOP, REMOVABLE GAS TIGHT CLEANOUT PLUG
FD	FLOOR DRAIN	ZURN	Z415B	WITH P-TRAP, TRAP PRIMER AND RECESSED RIM. DURA BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE "B" POLISHED NICKEL BRONZE, LIGHT DUTY STRAINER. TRAP PRIMER VALVE MODEL: PPP #P-2 OR #P-4 OR EQUAL, FOR DISTRIBUTION TO (1) OR (4) DRAINS.
FD-SH	FLOOR DRAIN SHOWER	JOSAM	30000 A SERIES	FLOOR DRAIN, TWO-PIECE BODY W/ DOUBLE DRAIN FLANGE AND 1/2" PRIME TAP, PER FORAIED SS GRATE.
GI	GREASE INTERCEPTOR	SCHIER PRODUCTS	GB-25	GREASE INTERCEPTOR 25 GPM
LAV	LAVATORY WALL MOUNT	KOHLER	PINOIR K-2035-4	VITREOUS CHINA, WALL-MOUNT, OVAL BASIN WITH OVERFLOW, 22"x18". WITH FAUCET (MODEL: WS84503 MOEN) AND VALVE MODEL: 104451
LAV1	LAVATORY DROP IN OVAL	KOHLER	SERIF K-2075-8	VITREOUS CHINA, DROP-IN, OVAL BASIN WITH OVERFLOW, 22-1/8"x16-1/4"x8-1/4". COLOR BY ARCHITECT. WITH FAUCET (MODEL: 8884 MOEN) WITH MIXING VALVE (MODEL: 104451 MOEN).
LAVH	LAVATORY HANDICAPPED	KOHLER	K-2031-0	WALL MOUNT SINK , 20-3/4"x18-1/4", VITREOUS CHINA, FRONT OVERFLOW FOR CONCEALED ARMS SUPPORT, COLOR SELECTED BY ARCHITECT. MOEN MODEL: 8884 WMIXING FAUCET, VALVE MODEL: 104451. SINGLE HANDLE, 0.25 GPM AERATOR, VANDAL RESISTANT, ALL CHROME FINISH, 4" COVER PLATE LESS POP-UP. McGUIRE 8902 PERFORATED GRID STRAINER 1 1/4" O.D OFFSET TAILPIECE, 17 GAUGE. 1 1/4"x1 1/2" P-TRAP W/CLEANOUT. ALL OF THE ABOVE SHALL BE CHROME PLATED CAST BRASS, INCLUDING ESCUTCHEON PLATE. TAILPIECE OFFSET ADJUSTED TO A HEIGHT AS RECOMMENDED BY THE MANUFACTURER TO MEET ADA. McGUIRE 158-WC SUPPLY/STOP & WALL MOUNTED CHROME PLATED BRASS WITH SOLID RING ESCUTCHEONS. ZURN ZR-1231 CARRIER. HANDI LAV-GUARD MODEL 101 BY TRUEBO OR TRAPWRAP 500 BY BROCAR PRODUCTS, INC. INSULATE WATER AND WASTE WATER LINES, INCLUDING P-TRAP AND SUPPLY STOPS.
MS	MOP SINK	FIAT	MSB-2424	FLOOR MOUNTED, 24"x 24" W/ 830-AA FAUCET & VACUUM BREAKER 1453-BB STRAINER AND 832-AA HOSE BRACKET.
SH	SHOWER	SYMMONS	SAFETYMIX 1-100	PRESSURE-BALANCING MIXING VALVE SHOWER SYSTEM: ADJUSTABLE STOP SCREW, SUPER SHOWER HEAD WITH ARM AND FLANGE, STAINLESS STELL FINISH.
TPV-1	TRAP PRIMER VALVE WITH TRAP PRIMER DISTRIBUTION UNIT	PRECISION PLUMBING PRODUCTS	P-2 OR P-4	TRAP PRIMER VALVE MODEL: PPP #P-2 OR #P-4 OR EQUAL, FOR DISTRIBUTION TO (1) OR (4) DRAINS. PROVIDE WHERE REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION.
UB	UTILITY ICE MAKER	OATEY	38688	HIGH IMPACT METAL UTILITY BOX WITH ANGEL STOP AND 1/4" X 36" LONG COILED COPPER TUBING
UB-1	UTILITY BOX WASHING MACHINE	OATEY	38393	HIGH IMPACT PLASTIC UTILITY BOX 1/4" TURN BRASS HAMMER VALVE COPPER SWEAT. STANDARD PACK.
UR	URINAL	AMERICAN STANDARD	TRIMBROOK 6561.017	WALL HUNG, VITREOUS CHINA, TOP SPUD, SIPHON JET WITH SLOAN1.0 GAL PER FLUSH VALVE. MOUNT WITH LIP AT 24" ABOVE FINISHED FLOOR
WC	WATER CLOSET TANK TYPE	AMERICAN STANDARD	2467.100	CADETE FLOWMISE, RIGHT HEIGHT ELONGATED PRESSURE-ASSISTED TOILET, 1.1 GPF. VITREOUS CHINA, ULTRA LOW CONSUPTION. 12" ROUGH IN. COLOR TO BE DETERMINED BY ARCHITECT. UNIVERSAL BOWL. SEAT AMERICAN STANDARD #5901.100 ELONGATED HEAVY DUTY BOWL OPEN FRONT SEAT LESS COVER.
WCH	WATER CLOSET HANDICAPPED TANK TYPE	AMERICAN STANDARD	2467.100	CADETE FLOWMISE, RIGHT HEIGHT ELONGATED PRESSURE-ASSISTED TOILET 1.1 GPF. VITREOUS CHINA, ULTRA LOW CONSUPTION. 12" ROUGH IN. COLOR TO BE DETERMINED BY ARCHITECT. UNIVERSAL BOWL. SEAT AMERICAN STANDARD #5901.100 ELONGATED HEAVY DUTY BOWL OPEN FRON SEAT LESS COVER. ADA COMPLIANT
WHA	WATER HAMMER ARRESTOR	PRECISION PLUMBING	PRODUCT TYPE SC. OR EQUAL BY SIOUX CHIEF # 660	WATER HAMMER ARRESTOR. INSTALL IN STRIC ACCORDANCE WITH PLUMBING DRAINAGE INSTITUTE (P.D.I) STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. LETTER "A", "B", "C" OR "D" INDICATE SIZE

REVISIONS

1325 S. Bumby Ave, Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#6126
FARSHAD ANTIKCHI, PE 72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: OWNER REP: MIKE PANAGOU, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2611 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLIVER, 935 FENTRESS BOULEVARD, DAYTONA BEACH FL, 32114, PH: (386)676-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

PLUMBING FLOOR PLAN - SEWER

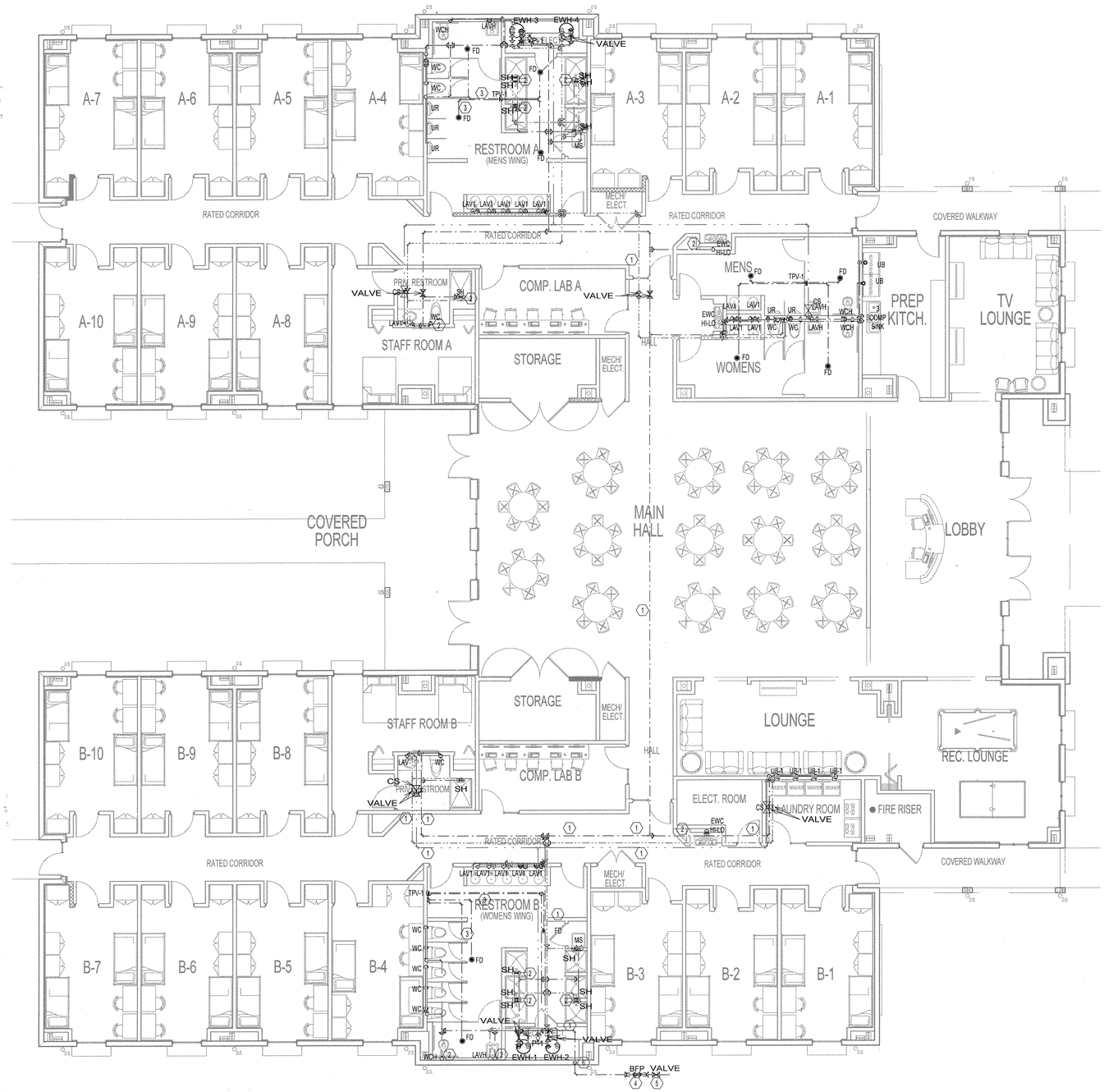
DATE: 05/13/2019

SCALE: AS SHOWN

SHT NO. P-1

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKECHI * LICENSE * No. 72998 * STATE OF FLORIDA * PROFESSIONAL ENGINEER *



1 P-2 Plumbing Floor Plan - Water Line
1/8" = 1'-0"

Reference Notes

# Number	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING DROP AND RUN IN WALL.
3	PIPING LOCATED BELOW FLOOR SLAB.
4	NEW REDUCED PRESSURE PRINCIPAL BACK-FLOW PREVENTION ASSEMBLY(R.P.) SHALL BE INSTALLED ON WATER PIPE PER FBCP SECTION 608. FIELD VERIFY LOCATION. SEE CIVIL DRAWING FOR SPECIFICATIONS.
5	BUILDING SERVICE WATER SHUT-OFF VALVE IN RECESSED VALVE BOX WITH REMOVABLE ACCESS COVER FLUSH WITH GRADE OR PAVEMENT.
6	WATER PIPING RISE FROM BELOW GRADE, OFFSET INTO WALL ABOVE FLOOR SLAB IN WALL, RISE TO ABOVE CEILING.

ELECTRICAL WATER HEATER SCHEDULE

Mark	MANUFACTURER	MODEL	LOCATION	DESCRIPTION	PERFORMANCE	ELECTRIC SPEC.	INPUT [W]	WEIGHT [LB]
EWH-1	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220
EWH-2	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220
EWH-4	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220
EWH-3	RHEEM	ELD80-C	MECH/ELECT	80 Gallon capacity, 0.93 UEF	41 GPH Recovery at 120° rise	208/3/60	12000 W	220

HOT WATER RETURN PUMP

Mark	MANUFACTURER	MODEL	Level	DESCRIPTION	PERFORMANCE	ELECTRIC SPEC.	INPUT [W]	WEIGHT [LB]
P-1	GRUNDFOS	UPS-15-42	Level 1	VersaFlo Multiple Speed In-Line Circulator Pump	10FT Head/5GPM	115/1/60	85 W	6
P-1	GRUNDFOS	UPS-15-42	Level 1	VersaFlo Multiple Speed In-Line Circulator Pump	10FT Head/5GPM	115/1/60	85 W	6

FIXTURE CALCULATION - DME SPORTS HOUSING COMPLEX PER TABLE E103.3(2)

FIXTURE	OCCUPANCY	TYPE OF SUPPLY CONTROL	Quantity	LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (wsfu)			TOTAL LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (wsfu)		
				Cold	Hot	Total	Cold	Hot	Total
Bathroom group	Private	Flush tank		2.7	1.5	3.6	0	0	0
Bathroom group	Private	Flushometer valve		6	3	8	0	0	0
Bathtub	Private	Faucet		1	1	1.4	0	0	0
Bathtub	Public	Faucet		3	3	4	0	0	0
Bidet	Private	Faucet		1.5	1.5	2	0	0	0
Combination fixture	Private	Faucet		2.25	2.25	3	0	0	0
Dishwashing machine	Private	Automatic		—	1.4	1.4		0	0
Drinking fountain	Offices, etc.	3/8" valve	3	0.25	—	0.25	0.75		0.75
Kitchen sink	Private	Faucet		1	1	1.4	0	0	0
3 COMP SINK	Private	Faucet	1	3	3	4	3	3	4
Kitchen sink	Hotel, restaurant	Faucet		3	3	4	0	0	0
Laundry trays (1 to 3)	Private	Faucet		1	1	1.4	0	0	0
Lavatory	Private	Faucet	20	0.5	0.5	0.7	10	10	14
Lavatory	Public	Faucet		1.5	1.5	2	0	0	0
Service sink	Offices, etc.	Faucet	2	2.25	2.25	3	4.5	4.5	6
Shower head	Public	Mixing valve		3	3	4	0	0	0
Shower head	Private	Mixing valve	14	1	1	1.4	14	14	19.6
UTILITY BOX	Private	Automatic	2	0.5	-	0.5	1		1
Urinal	Public	1" flushometer valve		10	—	10	0		0
Urinal	Public	3/4" flushometer valve	5	5	—	5	25		25
Urinal	Public	Flush tank		3	—	3	0		0
Washing machine (8 lb)	Private	Automatic	2	1	1	1.4	4	4	5.6
Washing machine (8 lb)	Public	Automatic		2.25	2.25	3	0	0	0
Washing machine (15 lb)	Public	Automatic		3	3	4	0	0	0
Water closet	Private	Flushometer valve		6	—	6	0		0
Water closet	Private	Flush tank	15	2.2	—	2.2	33		33
			TOTAL				95.25	35.5	108.95
			SIZE						2-1/2"

For SI: 1 inch = 25.4 mm, 1 pound = 0.454 kg.

a. For fixtures not listed , loads should be assumed by comparing the fixture to one listed using water in similar quantities and at similar rates. The assigned loads for fixtures with both hot and cold water supplies are given for separate hot and cold water loads and for total load. The separate hot and cold water loads being three-fourths of the total load for the fixture in each case.

REVISIONS

MFA ENGINEERING
1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
FARSHAD ANTIKCHI, PE 72998

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BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

PLUMBING FLOOR PLAN - WATER

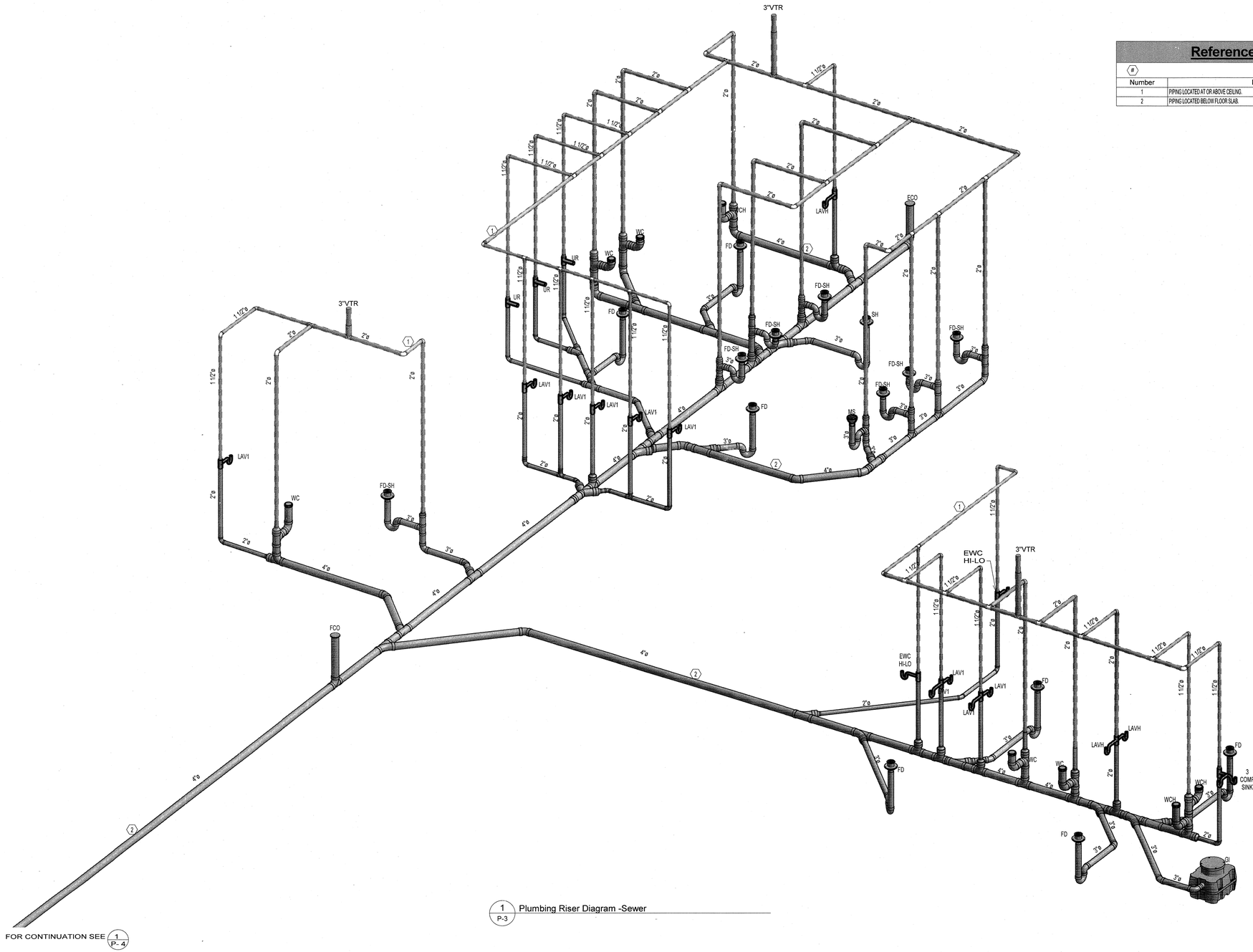
DATE: 05/13/2019

SHT NO. P-2

SCALE: AS SHOWN

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKCHI LICENSE No 72998 STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER



1 P-3 Plumbing Riser Diagram -Sewer

Reference Notes

#	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING LOCATED BELOW FLOOR SLAB.

#	REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
FARSHAD ANTIKCHI, PE 72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: OWNER REP: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)271-3924
PROJECT LOCATION: 2501 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLYER, 375 FENTRESS BOULEVARD, DAYTONA BEACH FL 32114, PH:(386)676-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

PLUMBING RISER DIAGRAM - SEWER

DATE: 05/13/2019
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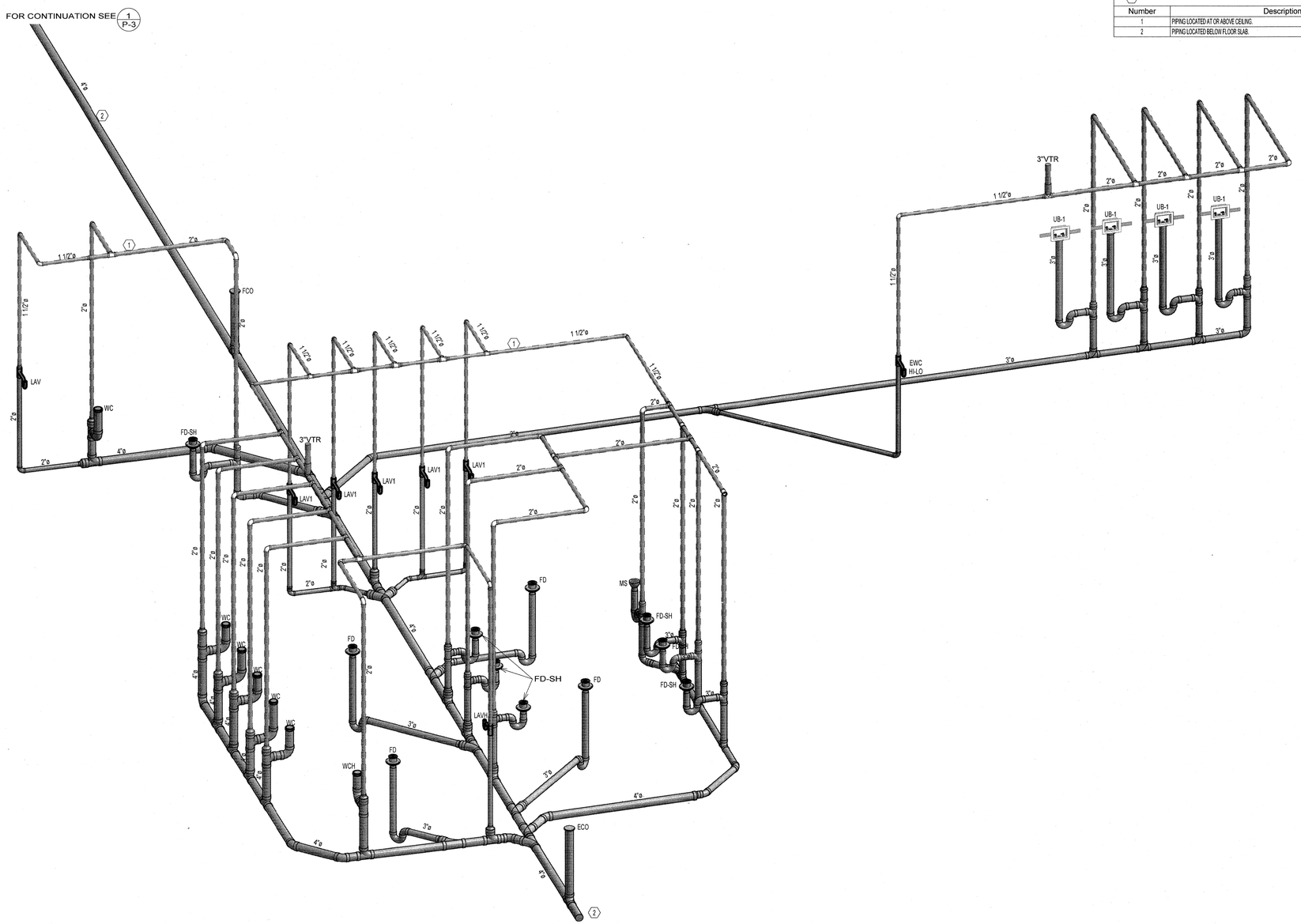
FARSHAD ANTIKCHI LICENSE NO. 72998 STATE OF FLORIDA PROFESSIONAL ENGINEER



Reference Notes

#	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING LOCATED BELOW FLOOR SLAB.

1 P-4 Plumbing Riser Diagram -Sewer.

REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
FARSHAD ANTIKCHI, PE 72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER/ OWNER REP.: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 (386)277-3924
PROJECT LOCATION: 2301 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLYER, 375 FENTRESS BOULEVARD, DAYTONA BEACH FL, 32114, PH (386)676-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL, 32114
PH: (386) 257-0502 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

PLUMBING RISER DIAGRAM - SEWER

DATE: 05/13/2019
SCALE: AS SHOWN

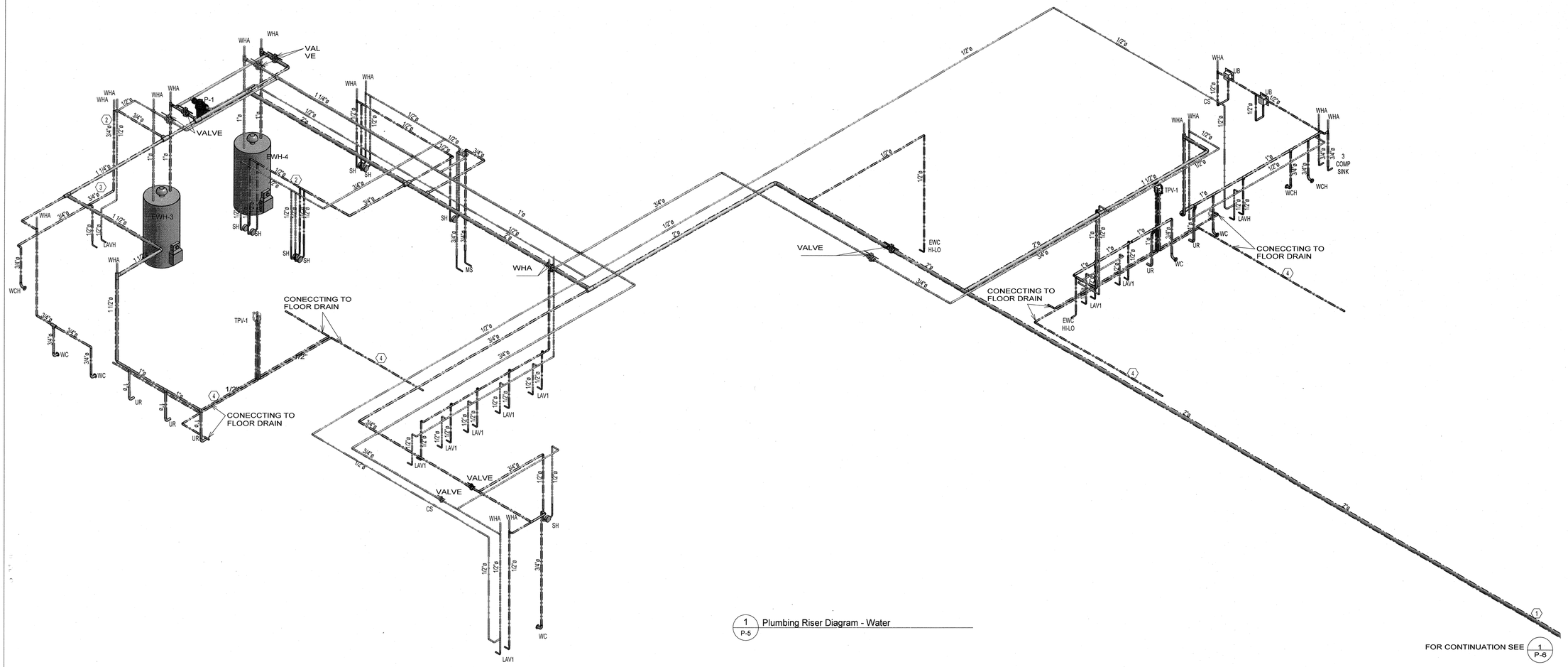
SHT NO. P-4

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKCHI LICENSE No. 72998 STATE OF FLORIDA PROFESSIONAL ENGINEER

Reference Notes

#	Description
Number	
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING DROP AND RUN IN WALL.
3	PIPING LOCATED IN WALL AND RUN TO CONNECT TO FIXTURES.
4	PIPING LOCATED BELOW FLOOR SLAB.



1/P-5 Plumbing Riser Diagram - Water

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
FARSHAD ANTIKCHI, PE 72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: OWNER REP: MIKE PANAGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH FL, 32114 (386)271-3924
PROJECT LOCATION: 2301 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLIVER, 975 FENTRESS BOULEVARD, DAYTONA BEACH FL, 32114, PH: (386)576-1177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL 32114
PH: (386) 257-0602 F/X: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

PLUMBING RISER DIAGRAM - WATER

DATE: 05/13/2019

SCALE: AS SHOWN

SHT NO. P-5

ARCHITECT'S / ENGINEER'S SEAL

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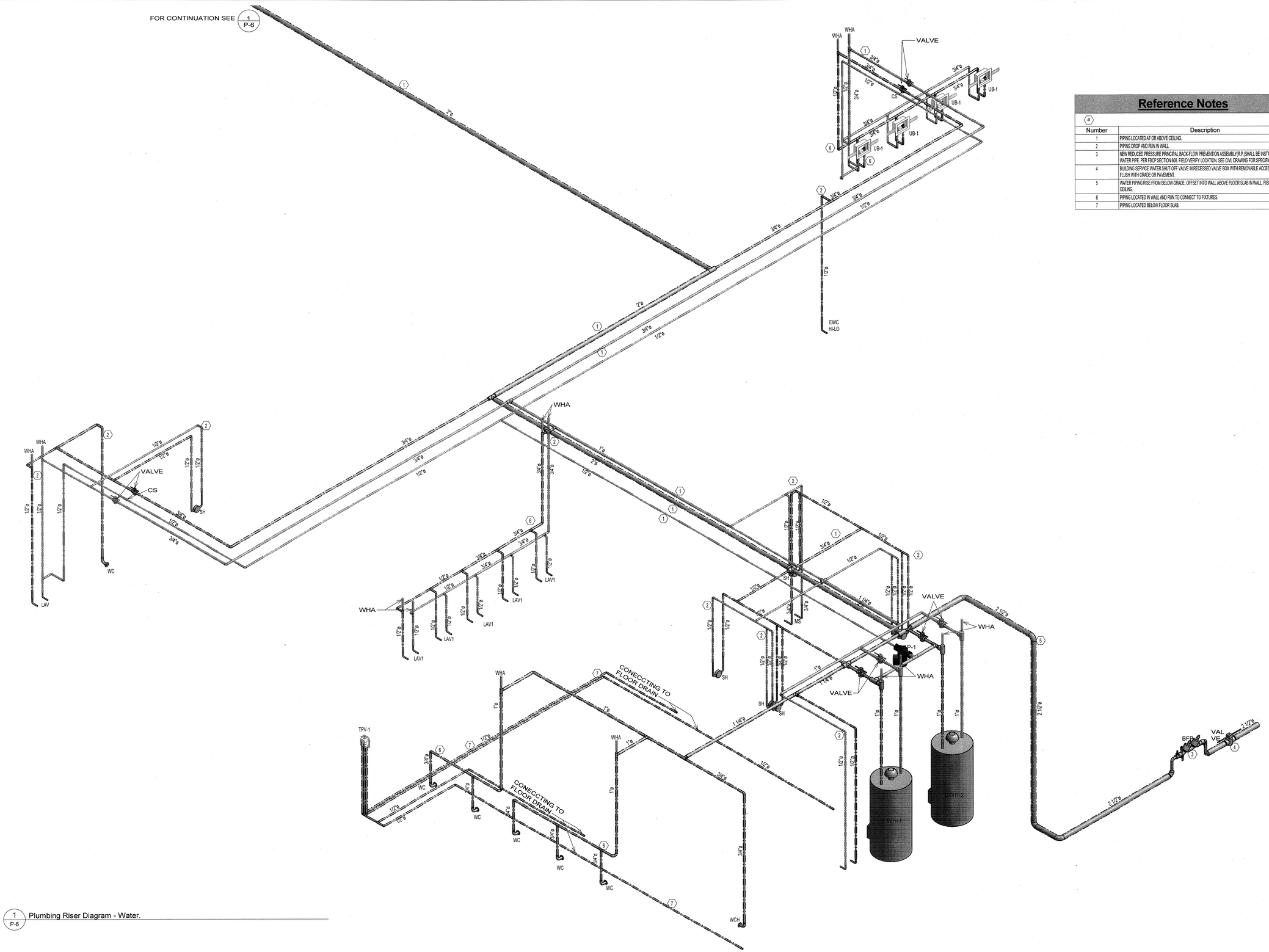
05/13/19

REVISIONS



1 P-6 Plumbing Riser Diagram - Water.

Reference Notes

#	Description
1	PIPING LOCATED AT OR ABOVE CEILING.
2	PIPING DROP AND RUN IN WALL.
3	NEW REDUCED PRESSURE PRINCIPAL BACK-FLOW PREVENTION ASSEMBLY(R.P.)SHALL BE INSTALLED ON WATER PIPE. PER FBCP SECTION 608. FIELD VERIFY LOCATION. SEE CIVIL DRAWING FOR SPECIFICATIONS.
4	BUILDING SERVICE WATER SHUT-OFF VALVE IN RECESSED VALVE BOX WITH REMOVABLE ACCESS COVER FLUSH WITH GRADE OR PAVEMENT.
5	WATER PIPING RISE FROM BELOW GRADE, OFFSET INTO WALL ABOVE FLOOR SLAB IN WALL, RISE TO ABOVE CEILING.
6	PIPING LOCATED IN WALL AND RUN TO CONNECT TO FIXTURES.
7	PIPING LOCATED BELOW FLOOR SLAB.

REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#6126
FARSHAD ANTIKCHI, PE 72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: OWNER REP: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 / (386)271-3924
PROJECT LOCATION: 2801 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLIER, 375 FENTRESS BOULEVARD, DAYTONA BEACH FL 32114, PH: (386)676-7177

BPF
DESIGN INCORPORATED
ARCHITECTURE, DESIGN & DRAWING SERVICES
AA 26001108
BRIAN P. FREDLEY, ASSOC. AIA, PROJECT MANAGER
DALLAS B. PEACOCK, AIA, ARCHITECT
AR 0009706
207 FAIRVIEW AVENUE, DAYTONA BEACH, FL. 32114
PH: (386) 257-6602 FX: (386) 257-1050
E-MAIL: bpfdesign@cfl.rr.com WEBSITE: bpfdesign.net

PLUMBING RISER DIAGRAM - WATER

DATE: 05/13/2019
SCALE: AS SHOWN
SHT NO. P-6

ARCHITECT'S / ENGINEER'S SEAL

FARSHAD ANTIKCHI LICENSE NO. 72998 STATE OF FLORIDA PROFESSIONAL ENGINEER

SECTION 15400 - PLUMBING

1. SCOPE OF WORK

A. FURNISHING OF ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION SERVICES, ETC. NECESSARY TO COMPLETE THE INSTALLATION OF THE PLUMBING SYSTEM AND AS DESCRIBED IN THESE SPECIFICATIONS, AS ILLUSTRATED ON THE ACCOMPANYING DRAWINGS, OR AS DIRECTED BY THE ARCHITECT.
B. ALL HOT AND COLD WATER SYSTEMS WITH COMPLETE CONNECTIONS FROM THE WATER METER TO ALL PLUMBING FIXTURES AND EQUIPMENT REQUIRING WATER CONNECTIONS. THESE SYSTEMS WILL BE COMPLETE WITH CONTROLS, VALVES, EQUIPMENT, DEVICES AND INSULATION.
C. ALL SOIL, WASTE, AND VENT SYSTEMS OUTSIDE AND INSIDE THE BUILDING AND SEWER CONNECTIONS TO MUNICIPAL SYSTEM AS INDICATED ON DRAWINGS.
D. FURNISH AND SET PLUMBING FIXTURES, INCLUDING ALL THE REQUIRED TRIM AND SUPPORTS.
E. TRENCHING, PIPE BEDDING, BACKFILLING, COMPACTION AND SOIL TREATMENT.
F. ALL ROUGH-IN AND FINAL CONNECTION TO EQUIPMENT, FIXTURES AND SERVICE AREAS IF INDICATED ON THE DRAWINGS, INCLUDING NECESSARY TRAPS AND MISCELLANEOUS ITEMS AS REQUIRED. COORDINATE W/OWNER.
G. FURNISH ALL FINAL PLUMBING CONNECTIONS TO HEATING AND AIR CONDITIONING EQUIPMENT INCLUDING CONDENSATE DRAINS, INDIRECT WASTE AND GAS PIPING.
H. METERS AND UTILITY CONNECTIONS:
   a. WATER: COORDINATE WORK WITH THE LOCAL WATER COMPANY. FURNISH ALL LABOR AND/OR MATERIAL (NOT FURNISHED BY THE WATER COMPANY) WHICH IS REQUIRED TO CONNECT TO EXISTING LINE AND/OR SET METER. INSTALL ALL PERMANENT WATER SUPPLY LINES FROM THE POINT OF CONNECTION AND COMPLETE THE WORK AS SHOWN. ALL IN LINES FROM THE POINT OF CONNECTION AND COMPLETE THE WORK AS SHOWN, ALL IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL WATER COMPANY. TAP FEES SHALL BE PAID BY OWNER. (IF REQUIRED) PLUMBING CONTRACTOR SHALL PAY ALL WORK RELATED INSPECTION FEES BY AUTHORITY HAVING JURISDICTION.
   b. SEWER CONNECTIONS: COORDINATE WORK WITH THE LANDLORD AND/OR LOCAL UTILITY COMPANY. ALL WORK AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY. TAP FEES SHALL BE PAID BY OWNER (IF REQUIRED). PLUMBING CONTRACTOR SHALL PAY ALL WORK RELATED INSPECTION FEES BY AUTHORITY HAVING JURISDICTION (IF REQUIRED).
   c. GAS: COORDINATE WORK WITH LOCAL UTILITY AND FURNISH ALL LABOR AND/OR MATERIALS (NOT FURNISHED BY UTILITY WHICH IS REQUIRED TO PROVIDE A WORKING UTILITY FOR OWNER, INCLUSIVE OF METER AND/OR REGULATOR. FURNISH SYSTEM FROM TAPPING POINT TO AND IN THE BUILDING AS REQUIRED AND SHOWN ON DRAWINGS. TAP FEES SHALL BE PAID BY OWNER. PLUMBING CONTRACTOR SHALL PAY ALL WORK RELATED INSPECTION FEES.
I. GAS PIPING TO HEATING, VENTILATING AND AIR CONDITIONING EQUIPMENT, AND WATER HEATER.

2. SHOP DRAWINGS

A. WITHIN 15 DAYS AFTER AWARD OF CONTRACT, AND BEFORE ANY PLUMBING MATERIALS ARE DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER THREE (3) COMPLETE SHOP DRAWINGS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 01300 OF THESE SPECIFICATIONS, INCLUDING ALL PLUMBING FIXTURES, TRIM, DRAINS, CLEANOUTS, PIPING, VALVES, INSULATION, HANGERS, SUPPORTS, EQUIPMENT AND DEVICES PROPOSED TO BE FURNISHED AND INSTALLED. SHOP DRAWINGS SHALL NOT BE REVIEWED UNLESS THEY BEAR THE REVIEW STAMP OF THE GENERAL CONTRACTOR.

3. PRODUCT HANDLING

A. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF, AND AT NO ADDITIONAL COST TO THE OWNER.

4. EXAMINATION OF THE SITE

A. ALL CONTRACTORS SUBMITTING PROPOSALS FOR THIS WORK SHALL FIRST EXAMINE THE SITE AND ALL CONDITIONS, INCLUDING LOCAL RULES & REGULATIONS, THEREON AND/OR THEREIN. ALL PROPOSALS SHALL HAVE TAKEN INTO CONSIDERATION ALL CONDITIONS THAT MAY AFFECT THE WORK UNDER THIS CONTRACT. LACK OF THIS INFORMATION WILL NOT BE CONSIDERED AS JUSTIFICATION FOR EXTRA COST OR ALLOWANCES TO THE CONTRACT PRICE.

5. GUARANTEE

A. ALL WORK PERFORMED UNDER THIS SECTION SHALL BE GUARANTEED TO BE FREE OF DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
B. UPON NOTICE RECEIVED FROM THE OWNER, ARCHITECT OR ENGINEER, OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT DURING THE GUARANTY PERIODS, THE AFFECTED PART OR PARTS SHALL BE PROMPTLY REPLACED WITH NEW PARTS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL LABOR REQUIRED TO PERFORM GUARANTEED SHALL BE INCLUDED AS PART OF THE COMPLETE WARRANTY.

6. PRODUCTS

A. DESCRIPTION
   a. SOIL, WASTE AND VENT PIPING: BELOW FLOOR TO 5'0" OUTSIDE BUILDING AND YARD PIPING SHALL BE A.B.S. OR P.V.C. SCHEDULE 40 PIPE AND FITTINGS IF APPROVED BY LOCAL AUTHORITY, OR STANDARD WEIGHT COATED CAST IRON SOIL PIPE AND CAST IRON/NEOPRENE GASKET FITTINGS CONFORM TO ONE OF THE STANDARDS LISTED IN TABLE 702.2 OF FPCP (6th EDITION). YARD PIPING, WHERE UNDER A SUPERIMPOSED LOAD CONDITION SUCH AS A DRIVEWAY OR PARKING AREA, SHALL BE SERVICE WEIGHT CAST IRON SOIL PIPE AND CAST IRON/NEOPRENE GASKET FITTINGS.
   b. ABOVE FLOOR SHALL BE A.B.S. OR P.V.C. SCHEDULE 40 IF APPROVED BY LOCAL AUTHORITY, OR STANDARD WEIGHT COATED CAST IRON PIPE WITH NEOPRENE RUBBER GASKETS, OR HUBLESS CAST IRON PIPE WITH NEOPRENE RUBBER GASKETS AND STAINLESS STEEL CLAMPS (CLAMPS ALL OR EQUAL) CONFORM TO ONE OF THE STANDARDS LISTED IN TABLE 702.1 OF FPCP (6th EDITION).
   c. HOT AND COLD WATER PIPING: ABOVE THE FLOOR SHALL BE TYPE "L" COPPER WITH 95/5 SWEAT SOLDERED AND WROUGHT COPPER FITTINGS. UNDER BUILDING SLABS SHALL BE TYPE "K" SOFT DRAWN COPPER TUBING WITHOUT JOINTS UNDER FLOOR. LOOP FROM WALL TO WALL OR CPVC MATERIAL PIPING CONFORM TO ONE OF THE STANDARDS LISTED IN TABLE 605.3 AND 605.4 OF FPCP (6th EDITION) BASED ON INTENDED USE OF PIPING. ALL HOT WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE MINIMUM PRESSURE RATING OF 100 PSI AT 180°F.
   d. CONDENSATE DRAIN PIPING:
      - CONDENSATE DRAIN PIPING SHALL BE GALVANIZED SCHEDULE 40 OR P.V.C. FROM HVAC ON ROOF AND OTHER EQUIPMENT UNLESS STATED OTHERWISE.
      - CONTRACTOR SHALL FURNISH AND INSTALL MIN. 1" COPPER CONDENSATE DRAINS ON COOLER/FREEZER EVAPORATOR COILS, WITH TRAP ASSEMBLY AND 2" AIR GAP ABOVE DRAIN AS SHOWN ON THE DRAWINGS. FREEZER CONDENSATE PIPING SHALL BE WRAPPED WITH HEAT TAPE WITH A MINIMUM RATING OF 10 WATTS PER LINEAL FOOT FOR ITS ENTIRE LENGTH WITHIN THE FREEZER COMPARTMENT.
   e. INDIRECT WASTE PIPING: SHALL BE TYPE "L" COPPER WITH 95/5 SWEAT SOLDER AND WROUGHT COPPER FITTINGS (SEE PLUMBING PLAN FOR REQUIREMENTS) UNLESS OTHERWISE INDICATED.
   f. NATURAL GAS PIPING:
      - GAS PIPING INCLUDING TAP AND SERVICE SHALL BE INCLUDED. COORDINATE METER LOCATION WITH LOCAL AUTHORITY.
      - UNDERGROUND GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH LONG RADIUS STEEL WELDING FITTINGS. PROTECT PIPE AND FITTINGS WITH TRANTEX WRAPPING TAPE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. OTHER TYPE OF PIPE PROTECTION OF EQUIVALENT QUALITY WILL BE OPTIONAL WITH THIS CONTRACTOR. INSTALLATION OF GAS SERVICE PIPING AND MATERIAL SHALL MEET WITH LOCAL GAS COMPANY'S APPROVAL.
      - GAS PIPING ABOVE GROUND SHALL BE SCHEDULE 40 BLACK STEEL WITH 125 LB. BLACK MALLEABLE IRON SCREWED FITTINGS AND SUPPORTED AT INTERVALS NOT TO EXCEED 8'-0" AND AT EACH CHANGE IN HORIZONTAL OR VERTICAL DIRECTION. GAS PIPING COMPOUND AT JOINTS SHALL BE IN COMPLIANCE WITH NFPA BULLETIN NO. 54 AND LOCAL APPLICABLE CODES AND SUITABLE FOR NATURAL GAS SERVICE.
      - GAS PIPING SHALL SUPPLY, WATER HEATER AND KITCHEN EQUIPMENT IF INDICATED ON DRAWINGS BY THIS CONTRACTOR.
      - MOISTURE TRAPS SHALL BE INSTALLED ON EACH PIPING DROP FOR WATER HEATER AND KITCHEN EQUIPMENT.
      - ALL SUPPORTS SHALL BE PIPING SHALL BE PROVIDED WITH SUPPORT IN ACCORDANCE WITH SECTION 407 AND 415 FBCFG (6th EDITION).
   g. STORM DRAIN LEADER: SAME AS SOIL, WASTE & VENT PIPING.
   h. INSULATION - ALL WATER PIPES, RAIN LEADERS AND ETC., SHALL BE INSULATED. PIPING SHALL BE INSULATED TO PREVENT EXCESSIVE HEAT LOSS, CONDENSATION AND SWEATING. ALL PIPES RUNNING IN UNCONDITIONED SPACE SHALL BE PROTECTED AGAINST FREEZING. ALL PIPING SHALL BE INSULATED WITH AT LEAST 1" THICK FOAM INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.28 BTU PER INCH/H.XSQ.FT PER FBCEC (6th EDITION) SECTION C404.4 AND FBCP (6th EDITION) SECTION 607.5. AS MANUFACTURED BY ARMSTRONG ARMAFLEX OR APPROVED EQUAL AS INDICATED ON PLANS AND NOTES. AS MUCH OF THE INSULATION AS POSSIBLE SHALL BE SLIPPED ON TO THE PIPING AS THE PIPING IS BEING CONNECTED IN ORDER TO AVOID CUTTING THE INSULATION. ALL BUTT ENDS AND ANY NECESSARY LONGITUDINAL JOINTS SHALL BE SEALED WITH RUBBER BASED ADHESIVE..

7. FIXTURES

A. SEE DRAWINGS FOR SPECIFICATIONS.

8. FLASHINGS

A. ALL PIPING AND VENTS PASSING THROUGH ROOF SHALL BE FLASHED WATERTIGHT WITH SIX POUND TO THE SQUARE FOOT LEAD USING SLEEVE FLASHING WITH BASE EXTENDING AT LEAST 12 INCHES IN EACH DIRECTION BEYOND THE OUTSIDE DIAPHRAGM OF THE PIPE. TURN SLEEVE DOWN A MINIMUM OF 1-1/2" INTO TOP OF VENT PIPE WITH LEAD FITTING SNUGLY INSIDE OF PIPE. ALL GAS VENT CAPS SHALL BE FITTED WITH LEAD FITTING SNUGLY INSIDE OF PIPE. ALL VENT CAPS SHALL BE VANDAL PROOF. VERIFY APPROVED FLASHING MATERIAL AND METHODS WITH ROOFING CONTRACTOR TO ENSURE A COMPLETE JOB. SEE DETAILS ON ARCH. SHEETS.

9. CLEANOUTS

A. SEE DRAWINGS FOR SPECIFICATIONS.

10. EQUIPMENT

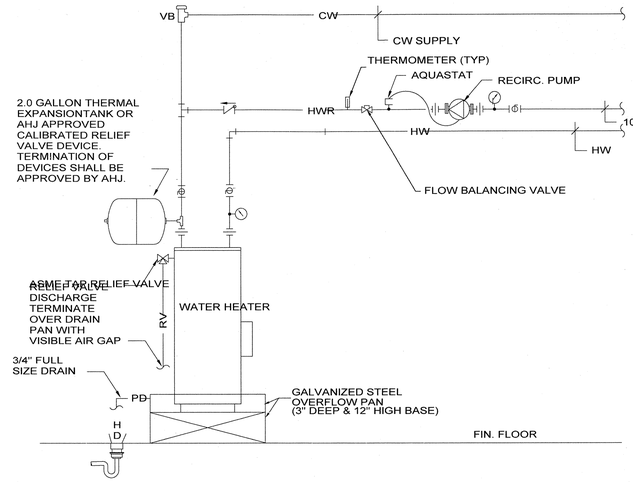
A. WATER HEATER: FURNISHED, INSTALLED BY PLUMBING CONTRACTOR.
   a. SIZE, CAPACITY, TYPE AND MANUFACTURER AS INDICATED BY DRAWINGS.
   b. N/A
   c. THE WATER HEATER, GAS OR ELECTRIC, SHALL BE PROVIDED WITH ALL TEMPERATURE AND SAFETY CONTROLS INCLUDING ASME AND ANSI Z21.22 RATED TEMPERATURE CONFORM TO ASSE1070 AND PRESSURE RELIEF VALVE, GAS PRESSURE REGULATOR (IF REQUIRED), DRAIN VALVE, EXPANSION TANK, ETC.
   d. PLUMBER SHALL MAKE WATER, GAS AND RELIEF LINE CONNECTIONS WITH CUTOFF VALVES AND DIELECTRIC UNIONS IN WATER AND GAS LINES.
B. VALVES, COCKS AND FAUCETS
   a. UNLESS SPECIFICALLY INDICATED ELSEWHERE, THE VALVES SHALL BE DESIGNED FOR NOT LESS THAN 160 LBS. WORKING PRESSURE AND SHALL COMPLY WITH SECTION 606 OF FBCP (6th EDITION) 2017. THE VALVES SHALL HAVE SUITABLE VALVE BODY PATTERNS FOR CONNECTION TO THE PIPE FOR WHICH THEY WILL OPERATE. ALL VALVES WITH RISING STEMS SHALL HAVE BACK SEATS FOR PACKING UNDER PRESSURE. ALL VALVES AND CONNECTIONS SHALL BE CONSTRUCTED WITH MATERIAL COMPLY WITH LEAD CONTENT STANDARD PER SECTION 605.7 OF FBCP (6th EDITION) 2017. APPROVED EQUAL GATE VALVES AND CHECK VALVES AS MANUFACTURED BY STOCKHAM, WALWORTH, LUNKENHEIMER, SCOTT, HAMMOND, CRANE OR WATTS WILL BE ACCEPTABLE.
   b. GATE VALVES SHALL BE OF AN APPROVED TYPE AND COMPATIBLE WITH THE TYPE OF PIPING MATERIAL INSTALLED IN THE SYSTEM. ALL VALVES INTENDED TO SUPPLY DRINKING WATER SHALL MEET THE REQUIREMENTS OF NSF 61.
   c. CUTOFF VALVES UNDERNEATH LAVATORIES, TANK TYPE WATER CLOSETS, SANITARY SINKS AND WATER COOLERS SHALL BE CHROME PLATED ANGLE STOP VALVES WITH SOFT ANNEALED CHROME PLATED COPPER CONNECTION PIPES AND CHROME PLATED ESCUTCHEON PLATES.
   d. GAS COCKS FOR ALL EQUIPMENT: SEE DRAWINGS FOR REQUIREMENTS.
   e. WATER CUTOFF VALVE SHALL BE OF AN APPROVED TYPE AND COMPATIBLE WITH THE TYPE OF PIPING MATERIAL INSTALLED IN SYSTEM. ALL VALVES INTENDED TO SUPPLY DRINKING WATER SHALL MEET THE REQUIREMENTS OF NSF61.
   f. EXTERIOR HOSE COCKS AND VALVE FIXTURES TO BE NON-FREEZE TYPE. SUPPLY SHUT-OFF VALVES IF INDICATED ON PLANS.

11. EXECUTION

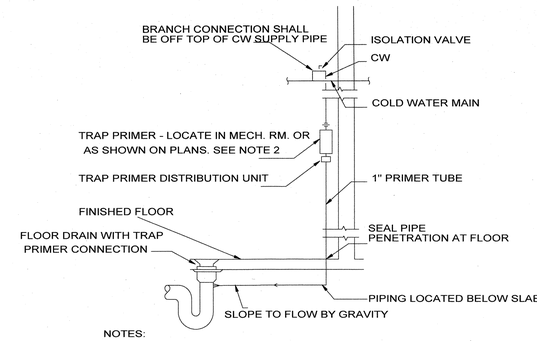
A. PIPING
   a. ALL PIPING SHALL BE RUN CONCEALED EXCEPT WHERE SHOWN OTHERWISE ON DRAWINGS.
   b. VALVES, TRAPS, CLEANOUTS AND OTHER APPARATUS SHALL BE INSTALLED IN AN EASILY ACCESSIBLE LOCATION.
   c. SOIL, WASTE LINES 2-1/2" AND SMALLER SHALL SLOPE 1/4 INCH PER LINEAL FOOT AND 3" to 6" SHALL SLOPE 1/8 INCH PER LINEAL FOOT IN DIRECTION OF FLOW PER FBCP TABLE 704.1, UNLESS OTHERWISE INDICATED OR REQUIRED BY LOCAL CODES.
   d. HOT AND COLD WATER LINES SHALL BE AT LEAST 6" APART WHERE PIPING IS PARALLEL.
   e. ALL WATER LINES SHALL BE RUN OVERHEAD AND DOWN PARTITION WALLS UNLESS NO WALL IS PROVIDED. THEN RUN LINES UNDER SLAB TO POINT OF TERMINATION. ALL LINES SHALL BE CONCEALED UNLESS NOTED OTHERWISE ON PLANS.
B. HANGERS AND SUPPORTS
   a. COPPER PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 7'-0" AND AT EACH CHANGE IN HORIZONTAL OR VERTICAL DIRECTION. HANGERS SHALL BE FEE & MASON PLASTIC COATED HANGER, FIG. 381 OR APPROVED EQUAL BY GRINNELL. HANGER ATTACHMENT TO STRUCTURE SHALL BE AS REQUIRED. HORIZONTAL SUPPORTS FOR PIPING SHALL WILL BE IN ACCORDANCE TO SECTION 308 OF THE FBCP (6TH EDITION).
   b. GAS PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 8'-0" AND AT EACH CHANGE IN HORIZONTAL OR VERTICAL DIRECTION. STEEL PIPE HANGERS SHALL BE GRINNELL FIG. 104 OR FEE & MASON FIG. 199. ATTACHMENT TO STRUCTURE TO BE AS REQUIRED. HORIZONTAL SUPPORT FOR PIPING WILL BE IN ACCORDANCE TO SECTION 407 AND 415 OF FBCFG (6TH EDITION).
   c. HANGER RODS SHALL BE STANDARD BOLT STEEL WITH MACHINE SCREW THREADS, 3/8" DIAMETER MINIMUM.
   d. ALL PIPING UNDERGROUND SHALL BE FIRMLY BEDDED ON THE BODY OF THE PIPE, AND BELL HOLES PROVIDED AT EACH BELL. ALL PIPING SHALL BE INSTALLED IN GRADED TRENCH. EXCAVATE, BACKFILL AND SUPPORT PIPING AS HEREIN BEFORE SPECIFIED.
   e. FINISHED
      - INDOOR FINISHES
      -HANGERS AND CLAMPS FOR SUPPORT OF BARE COPPER PIPING SHALL BE COATED WITH COPPER COLORED EPOXY PAINT, B-LINE DURA-COPPER ®. ADDITIONAL PVC COATING OF THE EPOXY PAINTED HANGER SHALL BE USED WHERE NECESSARY.
      -HANGERS FOR OTHER THAN BARE COPPER PIPE SHALL BE ZINC PLATED IN ACCORDANCE WITH ASTM B633 OR SHALL HAVE AN ELECTRO DEPOSITED GREEN EPOXY FINISH, B-LINE DURA-GREEN ®.
      -STRUT CHANNELS SHALL BE PRE-GALVANIZED IN ACCORDANCE WITH ASTM A653 SS GRADE 33 G90 OR HAVE AN ELECTRO-DEPOSITED GREEN EPOXY FINISH, B-LINE DURA-GREEN ®.
      - OUTDOOR AND CORROSIVE AREA FINISHES.
      -HANGERS AND STRUT LOCATED OUTDOORS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123. ALL HANGER HARDWARE SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. ZINC PLATED HARDWARE IS NOT ACCEPTABLE FOR OUTDOOR OR CORROSIVE USE.
      -HANGERS AND STRUT LOCATED IN CORROSIVE AREAS SHALL BE TYPE 304 [316] STAINLESS STEEL WITH STAINLESS STEEL HARDWARE.
C. PLUMBING FIXTURES
   a. FURNISH AND INSTALL ALL PLUMBING FIXTURES COMPLETE WITH ALL EQUIPMENT FITTINGS, TRIMMINGS AND ACCESSORIES, AS SPECIFIED. OPEN FRONT SEATS WITH NO COVERS AS MANUFACTURED BY CHURCH WILL BE ACCEPTABLE.
   b. ALL FIXTURES SHALL BE GRADE A. THE NAME OR TRADE MARK OF THE MANUFACTURER SHALL BE PRINTED OR PRESSED ON ALL CLOSETS AND LAVATORIES, AND A LABEL, WHICH CANNOT BE REMOVED WITHOUT DESTROYING IT, CONTAINING THE MANUFACTURER'S NAME OR TRADEMARK AND THE QUALITY OR CLASS OF THE FIXTURES, SHALL BE AFFIXED TO ALL FIXTURES AND NOT REMOVED UNTIL AFTER THE WORK HAS BEEN ACCEPTED.
   c. EXPOSED PIPING TO FIXTURES SHALL BE A PRODUCT OF THE FIXTURE MANUFACTURER OR APPROVED EQUAL AND SHALL BE:
      - WATER: CHROMIUM PLATED IRON PIPE SIZE RED BRASS.
      - WASTE: CHROMIUM PLATED TUBING, EXCEPT WASTE CONNECTIONS TO KITCHEN OR SCULLERY SINKS AS NECCESSARY.
   d. STOPS AS MANUFACTURED BY THE FIXTURE MANUFACTURER, WITH METAL-TO-METAL SEAT, SHALL BE PROVIDED FOR ALL FIXTURES AND EQUIPMENT. REFER TO SCHEDULE ON DRAWINGS FOR MANUFACTURER'S AND MODEL NUMBERS USED AS GUIDE SPECIFICATIONS. NUMBERS AS LISTED REPRESENT THE COMPLETE WORKABLE OUTFITS WITH ALL BRASS TRIM AS
   e. FIXTURES SHALL BE WHITE UNLESS OTHERWISE NOTED.
   f. FIXTURES FURNISHED BY THIS CONTRACTOR OR BY THE OWNER SHALL BE FITTED WITH NECESSARY WATER SUPPLIES, STOPS AND TRAPS WITH CLEANOUT PLUGS UNDER THIS SECTION OF THE SPECIFICATIONS.
D. TESTS
   THE PERMIT HOLDER SHALL MAKE THE APPLICABLE TEST PRESCRIBE IN SECTIONS 312.2 THROUGH 312.10 TO DETERMINE COMPLIANCE WITH THE PROVISIONS OF FBCP (6th EDITION). ALL PLUMBING SYSTEM PIPING SHALL BE TESTED WITH EITHER WATER OR, FOR PIPING SYSTEM OTHER THAN PLASTIC, BY AIR.
E. CLEANING AND PROTECTION
   a. THE CONTRACTOR SHALL REMOVE FROM THE JOB SITE ALL DEBRIS AND LEFTOVER MATERIALS FOR WHICH HE IS RESPONSIBLE. CLEAN ALL FIXTURES AND EQUIPMENT AND REPAIR ANY BLEMISHES IN THE FINISH. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REPLACING FIXTURES WHERE DAMAGE RESULTS FROM FAILURE TO PROVIDE PROTECTION DURING INSTALLATION.
   b. FLUSH OUT PIPES: AFTER THE PLUMBING PIPING HAS BEEN INSTALLED, INSPECTED AND APPROVED. THE PIPING SYSTEM SHALL BE FLUSHED TO REMOVE ANY FOREIGN MATTER FROM THE PIPES WITH CHLORINE OR HTH SOLUTION TO SANITIZE THE NEW PIPING OR AS REQUIRED BY THE LOCAL AUTHORITIES PER SECTION 610 FBCP (6th EDITION).
F. MAINTENANCE
   a. ALL PARTS OF THE PLUMBING FIXTURES AND ASSOCIATED EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE GUARANTEE PERIOD. ONE MONTH AFTER FINAL ACCEPTANCE OF THE BUILDING BY THE OWNER, THE CONTRACTOR SHALL GO OVER ALL THE FIXTURES AND TEST ALL WORKING PARTS AND PUT EVERYTHING IN GOOD WORKING ORDER. ALL FIXTURES, INCLUDING TRAPS, SHALL BE THOROUGHLY CLEANED AND ALL PARTS PUT IN GOOD WORKING ORDER.
   b. PLUMBING CONTRACTOR IS REQUIRED TO CLEAN THE DRAIN LINES PRIOR TO TURN OVER.
   c. PLUMBING CONTRACTOR SHALL PROVIDE REDUCED PRESSURE BACK FLOW PREVENTION DEVICE ON THE MAIN DOMESTIC PIPING CONFORM TO SECTION 608 FBCP (6th EDITION).
   d. CONTRACTOR SHALL PROVIDE BACK FLOW PREVENTION DEVICE FOR DISHWASHER, ICE MAKER AND SODA MACHINE PER FBCP (6th EDITION) SECTION 609. FOR D.W. APPROVED BY ASSE 1001, FOR ICE MAKER APPROVED BY ASSE 1024 AND FOR SODA MACHINE SHALL BE APPROVED BY ASSE 1022.

GENERAL NOTES

1. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO REVIEW THE PLUMBING PLANS AND WRITTEN SPECIFICATIONS TO BECOME FAMILIAR WITH THE FULL SCOPE OF WORK. IN ADDITION, THIS CONTRACTOR SHALL COORDINATE WITH AN OWNER PRESENTATIVE TO FULLY UNDERSTAND ANY REQUIREMENTS NOT SPECIFIED HEREIN WHICH MAY CONSIDER PART OF THIS CONTRACT. THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND NOTE ALL EXISTING
2. CONDITIONS, AS WELL AS ALL CONDITIONS TO BE MET. LACK OF THOROUGH UNDERSTANDING SHALL NOT CONSTITUTE AN EXCUSE FOR ERRORS OR OMISSIONS, NOR FOR A REQUEST FOR EXTRA COMPENSATION.
3. THE CONTRACTOR FOR THIS WORK SHALL CAREFULLY INSPECT AND ACQUAINT HIMSELF WITH EXISTING CONDITIONS IN ORDER THAT HE FULLY UNDERSTANDS THE WORK REQUIRED. HE SHALL FIELD MEASURE AND VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH THE WORK.
4. ALL PLUMBING AND GAS INSTALLATIONS SHALL CONFORM WITH THE FOLLOWING CODES AND STANDARDS:
   a. FLORIDA BUILDING CODE - BUILDING (6TH EDITION) 2017.
   b. FLORIDA BUILDING CODE - MECHANICAL (6TH EDITION) 2017.
   c. FLORIDA BUILDING CODE - PLUMBING (6TH EDITION) 2017.
   d. FLORIDA BUILDING CODE - ENERGY CONSERVATION (6TH EDITION) 2017.
   e. FLORIDA BUILDING CODE - FUEL GAS (6TH EDITION) 2017.
   f. FLORIDA FIRE PREVENTION CODE (6TH EDITION).
   g. NFPA LATEST EDITION
   h. ASHRAE STANDARD 62.1 (2013)
   i. NATIONAL ELECTRIC CODE (2014)
5. PIPING LAYOUTS ARE DIAGRAMMATIC AND INTEND TO SHOW GENERAL ARRANGEMENT, SIZE AND CAPACITY. ALL OFFSETS ARE NOT NECESSARILY SHOWN. CONTRACTOR SHALL ARRANGE AND COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VALVES, VENTS AND FITTINGS TO AVOID CONFLICTS WITH OTHER MECHANICAL AND ELECTRICAL SERVICES AND WITH STRUCTURAL AND ARCHITECTURAL ELEMENTS.
6. PLUMBING CONTRACTOR'S WORK SHALL INCLUDE ALL WORK AS INDICATED ON THESE DRAWINGS.
7. ALL TEMPERD WATER PIPING SHALL MAINTAIN A MINIMUM TEMPERATURE OF 110°F. HOT WATER OF 140°F FOR DISHWASHER AND (3) COMP SINKS.
8. COORDINATE ALL PIPING ROUTING WITH WORK OF OTHER TRADES PRIOR TO INSTALLATION.
9. VERIFY INVERT ELEVATIONS AND EXACT LOCATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION.
10. INSTALL ISOLATION VALVES AT EACH DOMESTIC WATER BRANCH TAKEOFF AND INSTALL UNION AT EACH PIECE OF EQUIPMENT, FIXTURE AND APPLIANCE SERVICE POINT CONNECTION. PER FBCP (6th EDITION) SECTION 606.1 AND 606.2.
11. INSTALL PRESSURE REDUCING VALVES ON BRANCH LINES SERVING FIXTURES AND/OR EQUIPMENT, WHEN WATER PRESSURE EXCEEDS 60 PSI.
12. INSTALLATION OF MEDICAL GAS SYSTEMS SHALL BE COVERED BY NFPA 99. MEDICAL GAS PIPING AND SYSTEM DESIGN IS NOT IN SCOPE OF WORK.

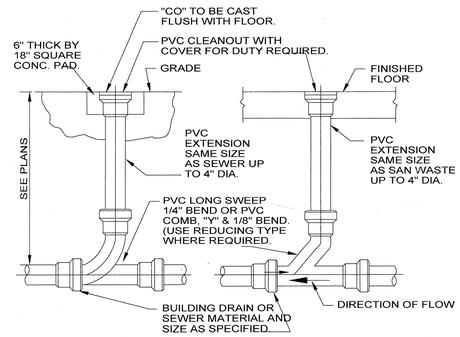


1 P-7 ELECTRICAL WATER HEATER W/RETURN DETAIL
NTS

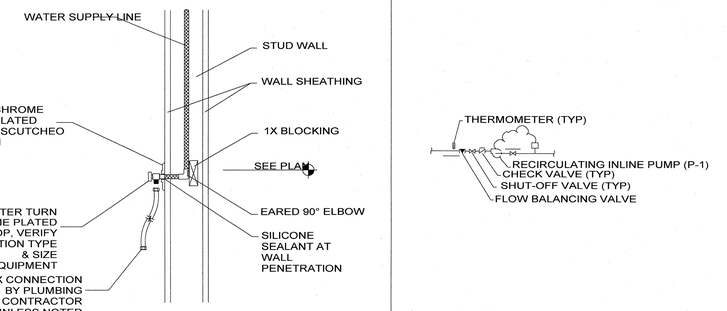


NOTES:
1. TRAP PRIMER SHALL ONLY BE USED TO SERVE SINGLE TRAP. PROVIDE DISTRIBUTION UNIT WHERE MORE THAN ONE TRAP IS SERVED BY TRAP PRIMER.
2. IN FINISHED AREA, ROUTE PIPING WITHIN WALL AND LOCATE TRAP PRIMER ABOVE ACCESSIBLE CEILING.
3. ALL INACCESSIBLE PIPING, SUCH AS PIPING BELOW FLOOR, SHALL BE SOFT COPPER WITHOUT JOINTS.
4. ALL OTHER PIPING SHALL BE HARD COPPER WITH SOLDER JOINTS.

2 P-7 FLOOR DRAIN WITH TRAP PRIMER DETAIL
NTS

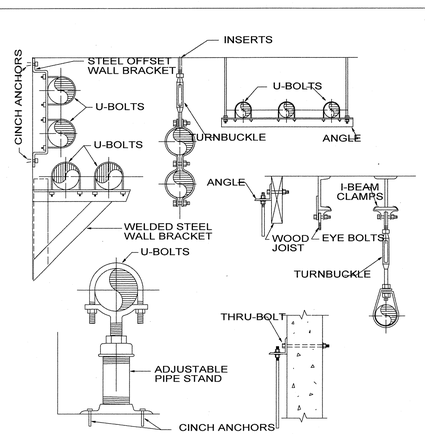


3 P-7 ONE WAY CLEANOUT DETAIL (ECO-FCO)
NTS



4 P-7 TYP. WATER SUPPLY CONNECTION DETAIL
NTS

5 P-7 HWR PUMP DETAIL
NTS



6 P-7 TYPICAL PIPE SUPPORT DETAIL
NTS

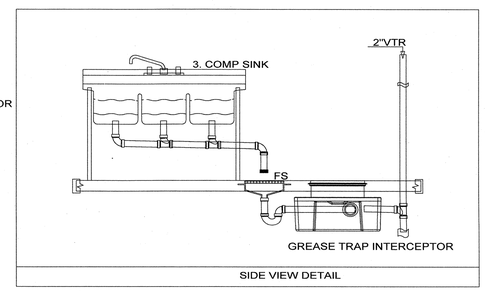
GREASE INTERCEPTOR CALCULATION:

3 COMP SINK: 18"X18"X10"(QTY.=3)=9720 CU.INCH

GALLON: 9720 / 231= 42 GALLON

FOR 2 MINUTE FLOW : 42 / 2= 21 GPM

PROVIDED 25 GALLON WATTS MODEL WD-25 ABOVE FLOOR



SIDE VIEW DETAIL

7 P-7 GREASE TRAP CALCULATION AND DETAILS
NTS

REVISIONS

1325 S. Bumby Ave. Orlando, Florida 32806
PH: (407) 896 7411 / FX: (407) 896 7412
EMAIL: epgroup@att.net
CA#8126
FARSHAD ANTIKCHI, PE 72998

PROJECT NUMBER:
MTF18144

DME SPORTS HOUSING COMPLEX

OWNER/DEVELOPER: OWNER/REP: MIKE PANAGGIO, DIRECT MAIL EXPRESS, 2441 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114 / (386)271-3924
PROJECT LOCATION: 2301 BELLEVUE AVENUE, DAYTONA BEACH, FL 32114
GENERAL CONTRACTOR: BRYAN COLLYER, 375 FENTRESS BOULEVARD, DAYT