

INDEX OF DRAWINGS table with columns: SHEET NO., SHEET NAME, SUBMITTAL DATE. Includes categories: GENERAL, CIVIL, DEMOLITION, STRUCTURAL, ARCHITECTURAL, INTERIORS, EQUIPMENT, FIRE PROTECTION, PLUMBING, MECHANICAL.

INDEX OF DRAWINGS table with columns: SHEET NO., SHEET NAME, SUBMITTAL DATE. Includes categories: MECHANICAL DETAILS, ELECTRICAL, TELECOMMUNICATIONS.

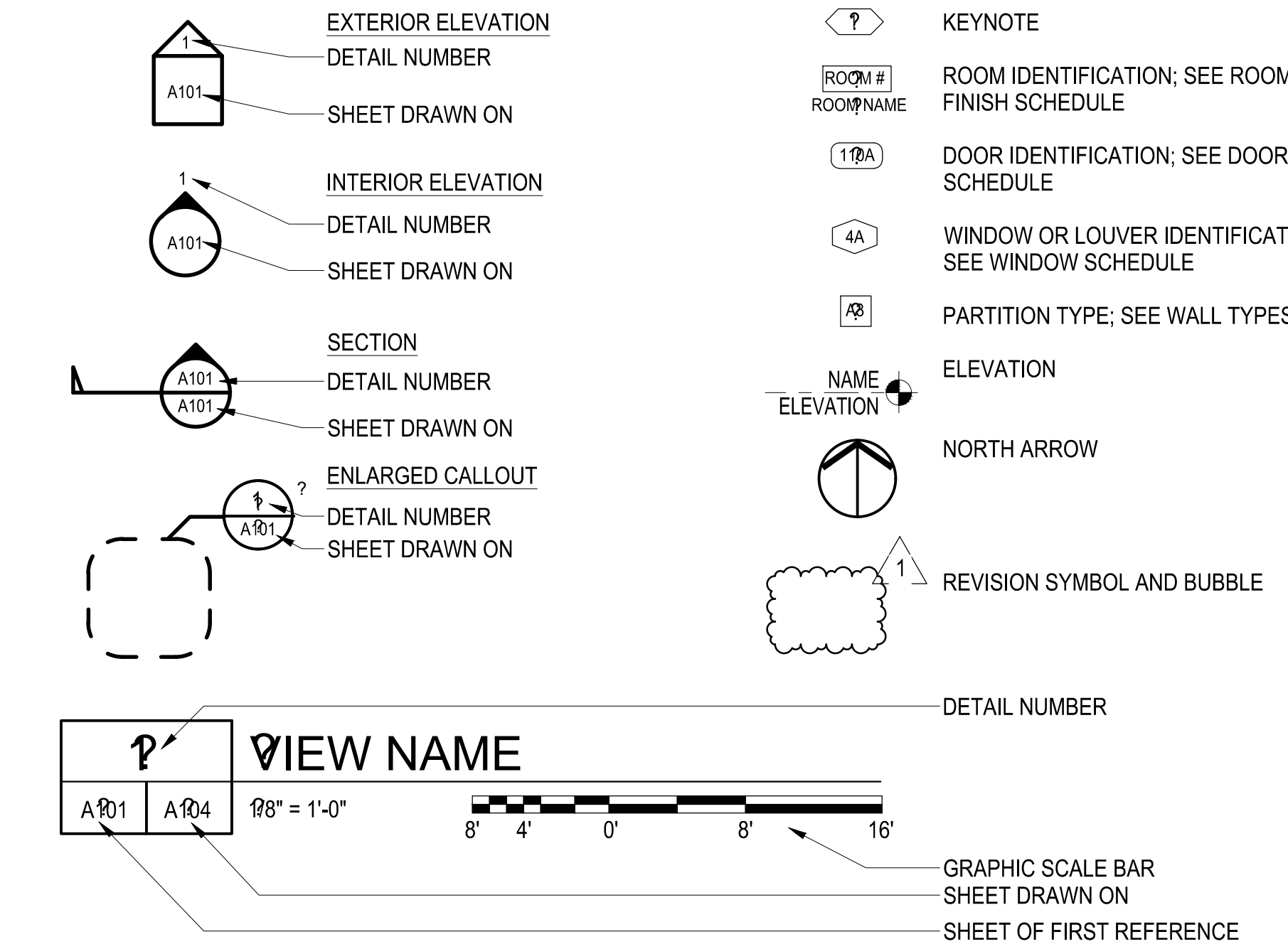
SCOPE OF WORK

SCOPE OF WORK FOR THIS PROJECT IS DIVIDED INTO TWO SEPERATE SUB-PROJECTS: FTEV 12-1164-A SCOPE INCLUDES AN ADDITION OF 1,929 SF FOR THE EXPANSION OF EXISTING KITCHEN AND ADMINISTRATIVE OFFICE SPACES...

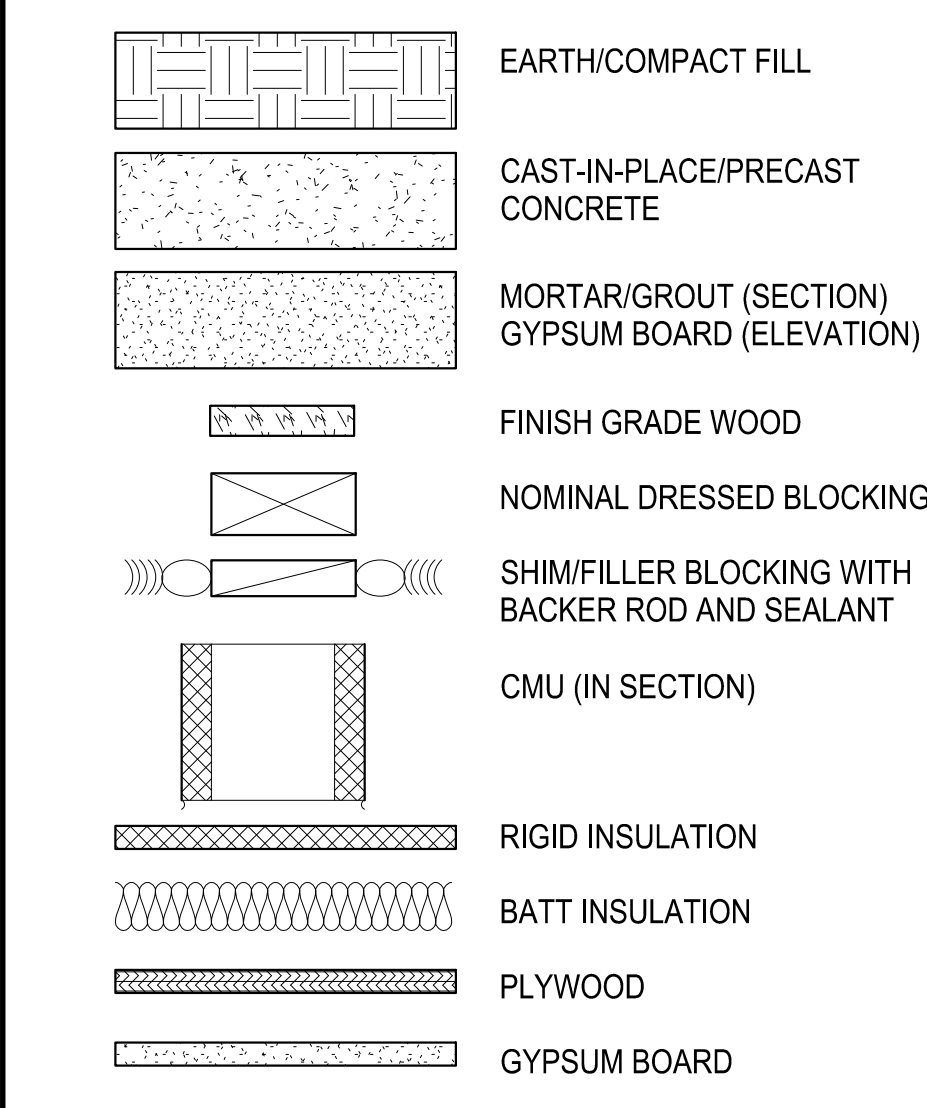
PROJECT TEAM

ARCHITECT CALDWELL ASSOCIATES ARCHITECTS, INC. CIVIL REBOL-BATTLE INC. MECHANICAL/PLUMBING/FIRE PROTECTION SCHMIDT CONSULTING GROUP...

SYMBOLS LEGEND



MATERIAL LEGEND



GENERAL NOTES

- 1. DO NOT SCALE DRAWINGS; REFERENCE DIMENSIONS ON DRAWINGS AND FIELD VERIFY ALL MEASUREMENTS.
2. UNLESS NOTED OTHERWISE, DIMENSIONS ARE TO FACE OF STUD, COLUMN CENTERLINE, OR FACE OF EXISTING FINISH.
3. UNLESS NOTED OTHERWISE, ALL NEW WORK WHICH EXTENDS OR INFILLS EXISTING WORK SHALL ALIGN WITH AND MATCH EXISTING CONDITIONS.

ABBREVIATIONS

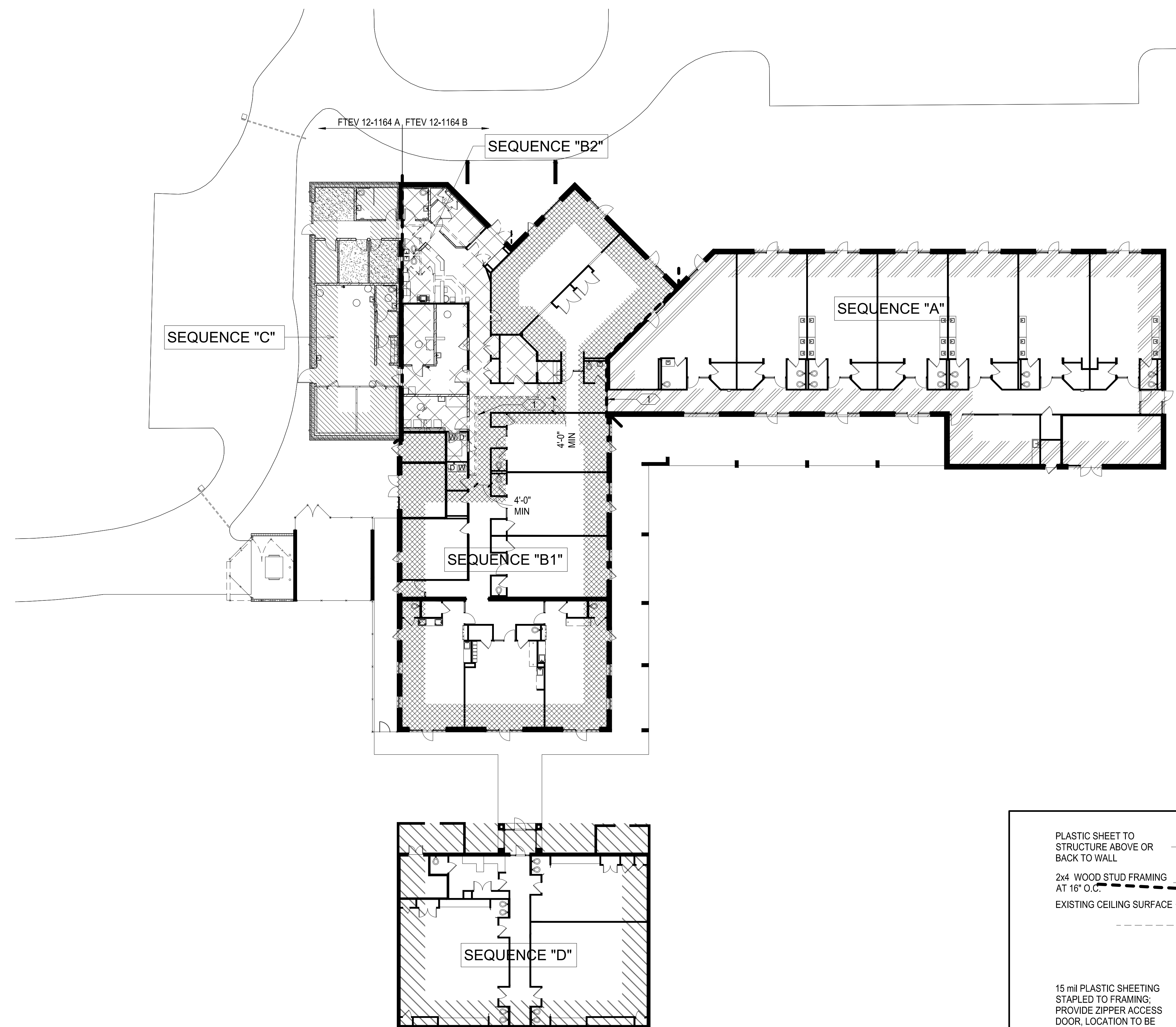
ABBREVIATIONS table with columns: ABBREVIATION, DESCRIPTION. Includes terms like AFF ABOVE FINISHED FLOOR, EXIST EXISTING, OPNG OPENING, etc.

Vertical sidebar containing: APPROVED/CHIEF ENGINEER APPROVED/CIVIL ENGINEER, ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353, AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA, DATE: 16 SEPT 2016, DESIGNED BY: B. KICKLITER, DRAWN BY: M. BURCH, BUILDING NO: 90353, PROJECT NO: FTEV 12-1164, SHEET REF: G2, SHEET NO: 2 of 110.

KEYNOTES

1 PROVIDE TEMPORARY DUST PARTITION WITH ZIPPER ACCESS FLAP; SEE 2/G4

REV #	DATE	DESCRIPTION	APPROVED
1	2021.06.17	PPI RESPONSES	CHIEF ENGINEER APPROVED
			CIVIL ENGINEER



SEQUENCING PLAN

THE SEQUENCING PLAN OUTLINED BELOW IS IN CONSIDERATION OF AFFECTED AREAS OF WORK AND THE NEED TO PROVIDE TEMPORARY COOLING DURING CONSTRUCTION FOR SUCH TIME AS THE SCOPE OF WORK FOR THAT AREA REQUIRES. THE FACILITY WILL REMAIN FULLY OCCUPIED DURING CONSTRUCTION. ADDITIONAL CONSIDERATIONS MAY BE REQUIRED AND SHALL BE DETERMINED BY CONTRACTOR. UNLESS NOTED OTHERWISE, IT IS INTENDED THAT ANY GIVEN SEQUENCE WILL BE STARTED AND COMPLETED BEFORE BEGINNING OF THE NEXT SEQUENCE.

CONTRACTOR SHALL SUBMIT A FINALIZED SEQUENCE OF CONSTRUCTION PLAN TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.

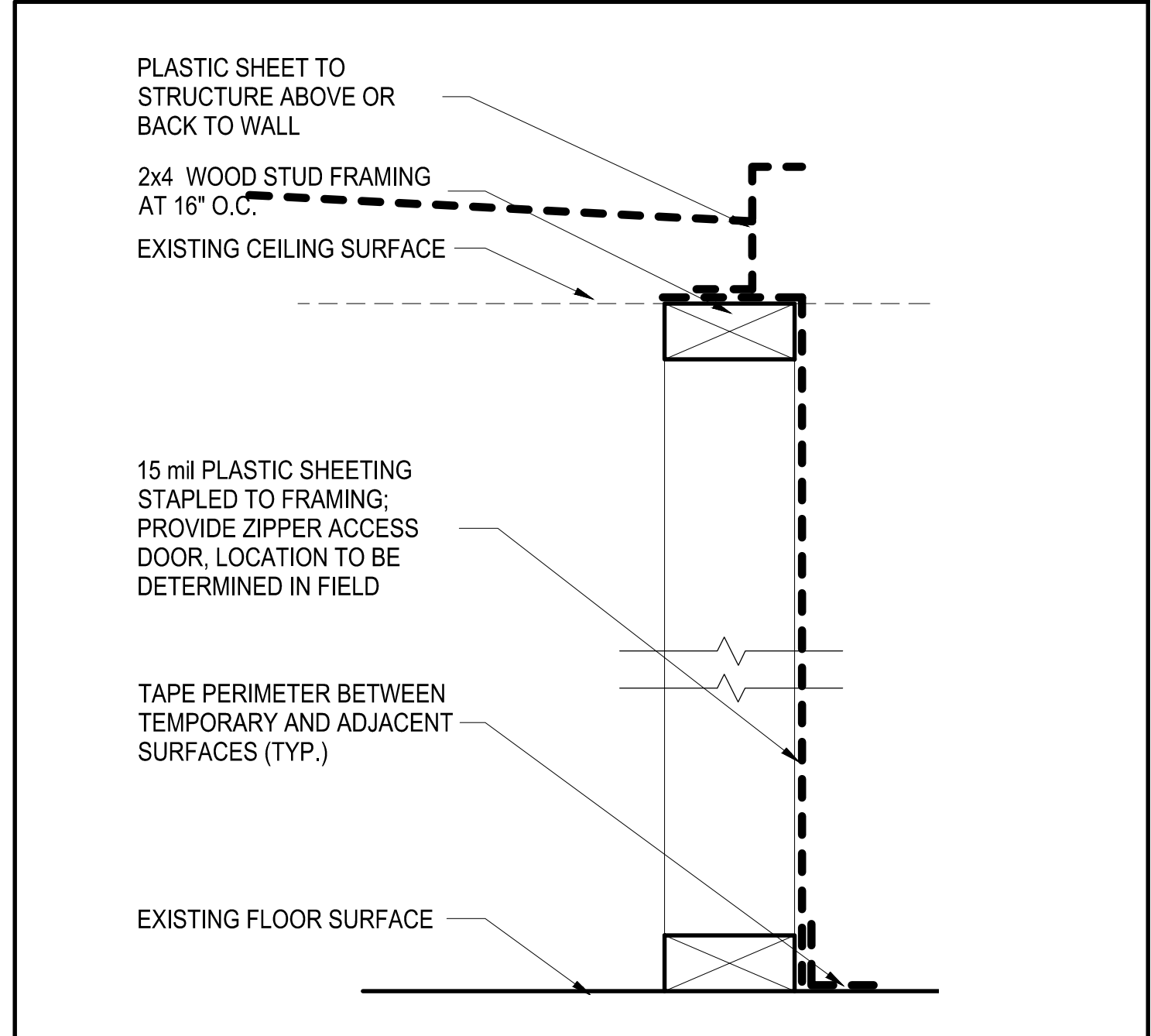
SEQUENCE A:
SCOPE OF WORK WILL BE LIMITED TO REPLACEMENT OF EQUIPMENT IN EXISTING MECHANICAL ROOM, E144, AS SHOWN. TEMPORARY COOLING IN AREA SHOWN WILL BE REQUIRED UNTIL NEW MECHANICAL EQUIPMENT IS INSTALLED AND OPERATIONAL, AS THIS AREA WILL REMAIN FULLY OCCUPIED DURING CONSTRUCTION.

SEQUENCE B1:
SCOPE OF WORK WILL BE LIMITED TO ALL RENOVATION EFFORTS IN AREA "B1" AND ADJACENT EXTERIOR MECHANICAL EQUIPMENT YARD. TEMPORARY COOLING IN THIS AREA WILL BE REQUIRED UNTIL NEW MECHANICAL EQUIPMENT IS INSTALLED AND OPERATIONAL, AS AREA B1 WILL REMAIN FULLY OCCUPIED DURING CONSTRUCTION.

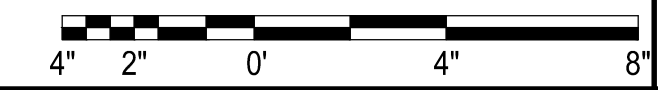
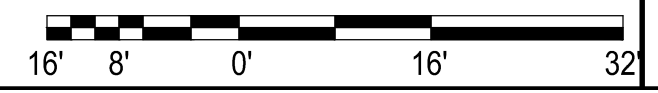
SEQUENCE B2:
RENOVATION EFFORTS WILL BE LIMITED TO ADMINISTRATIVE AREAS, INCLUDING LAUNDRY, KITCHEN, AND ENTRANCE AREAS, AND WILL NOT REQUIRE TEMPORARY COLLING AS THIS AREA WILL BE UNOCCUPIED DURING CONSTRUCTION.

SEQUENCE C:
SCOPE OF WORK WILL BE LIMITED TO CONSTRUCTION ADDITION AND SITEWORK OUTSIDE OF THE EXISTING BUILDING. WORK FOR THIS SEQUENCE CAN BEGIN AT CONTRACTOR'S DISCRETION AS IT WILL HAVE NO IMPACT ON OCCUPANCY OF THIS AREA OR ADJACENT AREAS.

SEQUENCE D:
ALL WORK IN BUILDING 90357 (CDC ANNEX) CAN BE PERFORMED AT ANY STAGE DURING THIS PROJECT AS IT WILL NOT REQUIRE ANY TEMPORARY OCCUPANT RELOCATION EFFORTS.

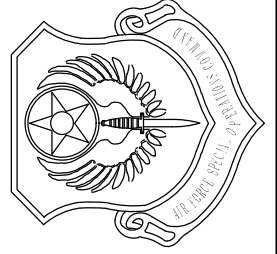


2 TEMPORARY DUST PARTITION



ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353

AIR FORCE SPECIAL
OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: B. KICKLITER
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164

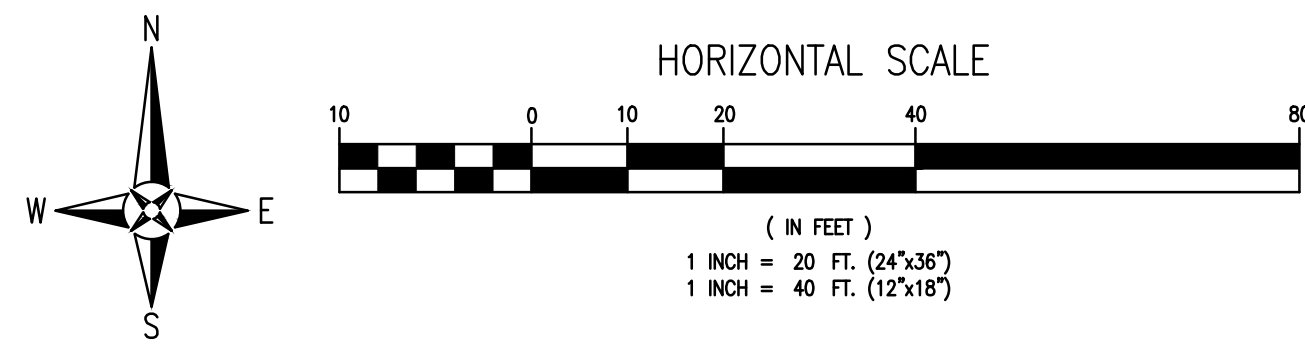
SHEET REF: **G4**
SHEET NO: 4 of 110

STANDARD LAYOUT (24" X 36")

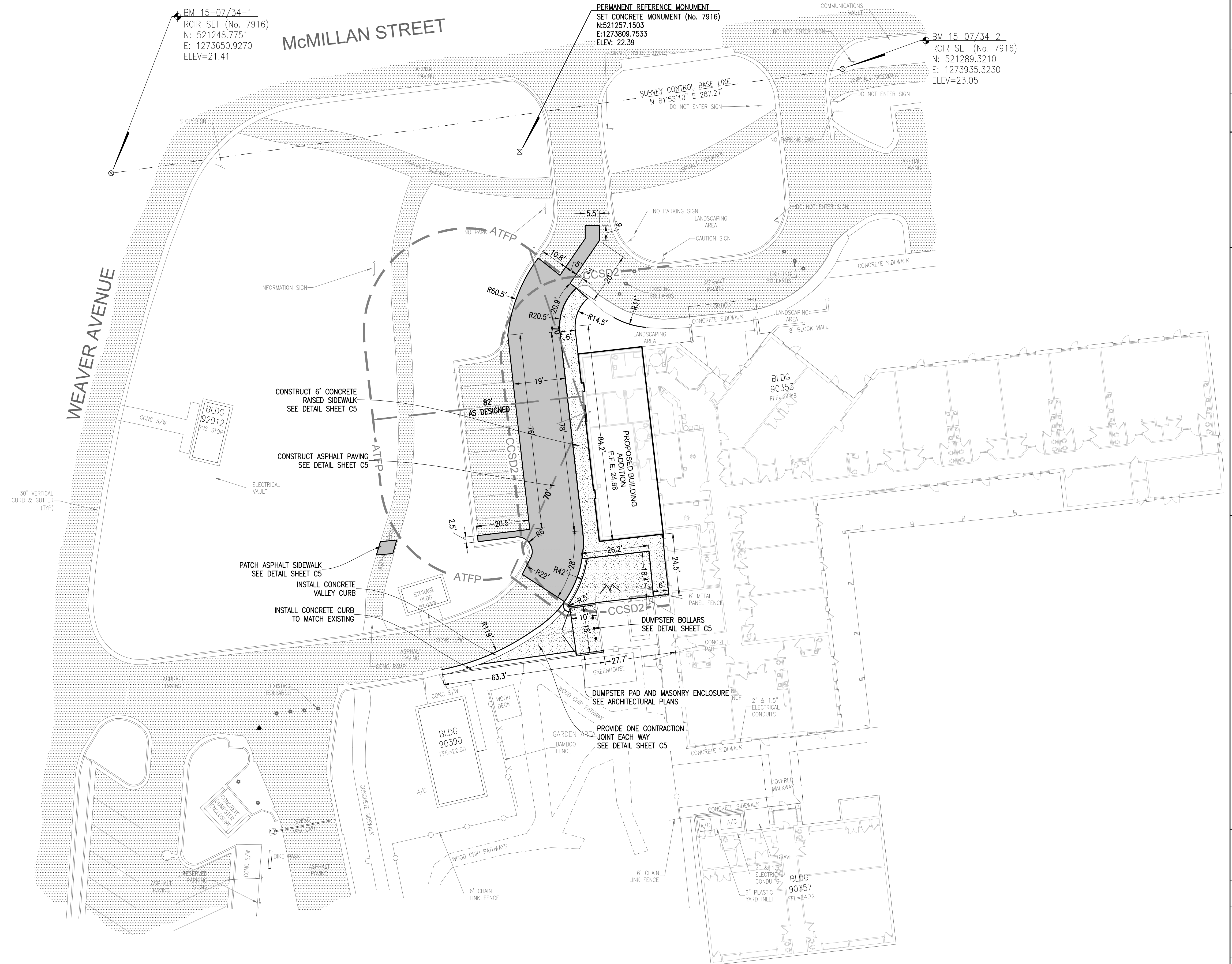
TRUE NORTH PROJECT NORTH
1 OVERALL SEQUENCING PLAN
G4

1 OVERALL SEQUENCING PLAN

1/16" = 1'-0"



LEGEND	
	EXISTING ASPHALT
	EXISTING CONCRETE
	EXISTING GRAVEL
	PROPOSED ASPHALT
	PROPOSED CONCRETE
	EXISTING CHAIN LINK FENCE
	EXISTING WOODEN FENCE
	CONTRACTION JOINT
	UTILITY POLE
	LIGHT POLE
	TELEPHONE BOX
	GAS VALVE
	MAILBOX
	POST
	STREET SIGN
	SIGN
	BENCHMARK
	FIRE HYDRANT
	WATER METER
	WATER VALVE
	CLEANOUT
	SEWER MANHOLE
	STORMWATER MANHOLE
	GUY ANCHOR

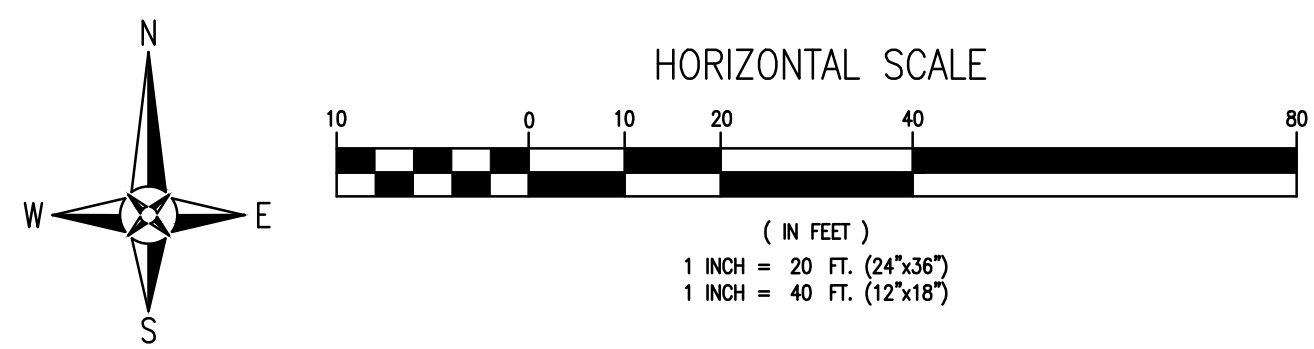


REV#	DATE	DESCRIPTION	APPD

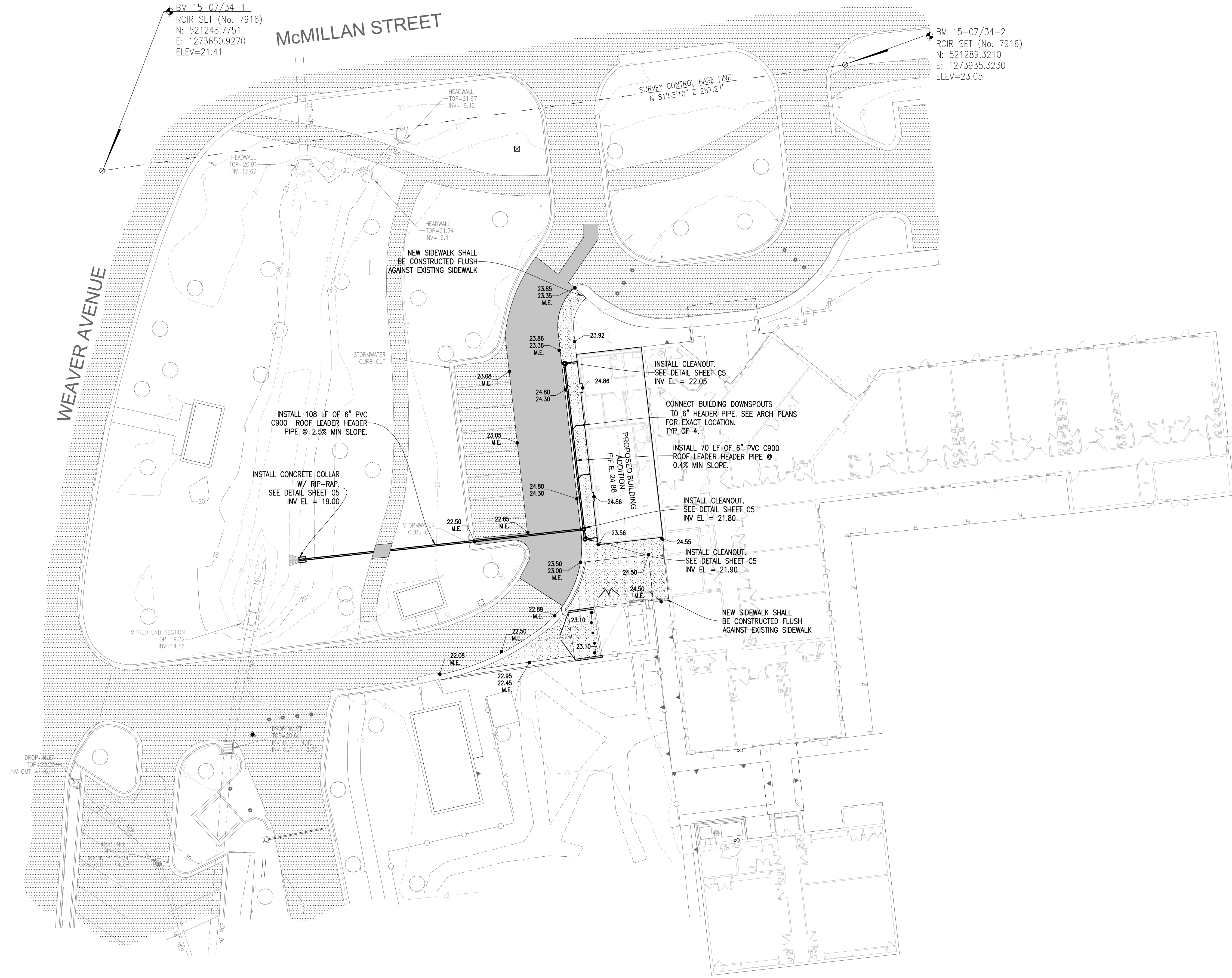
APPROVED	DESCRIPTION
	CHIEF ENGINEER
	CIVIL ENGINEER

AIR FORCE SPECIAL OPERATIONS COMMAND	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
1 SPECIAL OPERATIONS ENGINEER SQUADRON	SITE LAYOUT & DIMENSION PLAN

DATE:	16 SEPT 2016
DESIGNED BY:	Paul B
DRAWN BY:	Gerald P
BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164
SHEET REF.:	C2
SHEET NO.:	6 OF 110



LEGEND	
[Pattern]	EXISTING ASPHALT
[Pattern]	EXISTING CONCRETE
[Pattern]	PROPOSED ASPHALT
[Pattern]	PROPOSED CONCRETE
[Symbol]	EXISTING CHAIN LINK FENCE
[Symbol]	EXISTING WOODEN FENCE
[Symbol]	CONTRACTION JOINT
[Symbol]	EXISTING CONTOUR
[Symbol]	PROPOSED CONTOUR
[Symbol]	BENCHMARK
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	PROPOSED SPOT ELEVATION MEET EXISTING



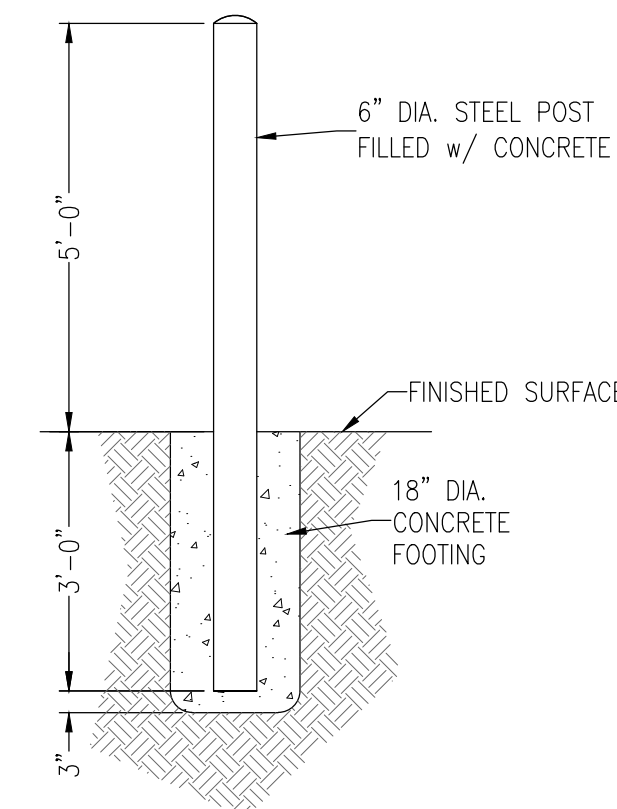
REV.#	DATE	DESCRIPTION	APPD

APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
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ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	GRADING & DRAINAGE PLAN
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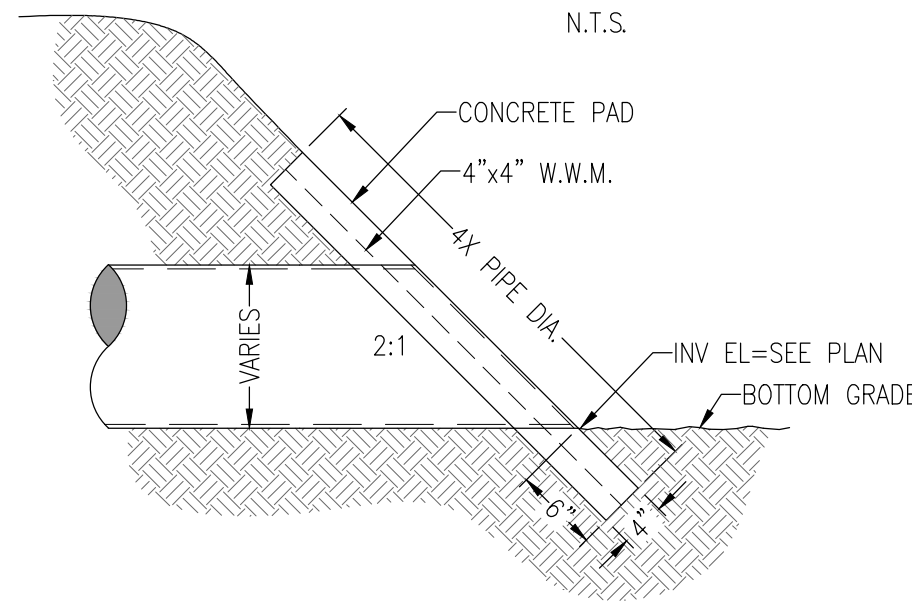
AIR FORCE SPECIAL OPERATIONS COMMAND	1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA	

DATE:	16 SEPT 2016
DESIGNED BY:	Paul B
DRAWN BY:	Gerald P
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	C3
SHEET NO:	7 OF 110

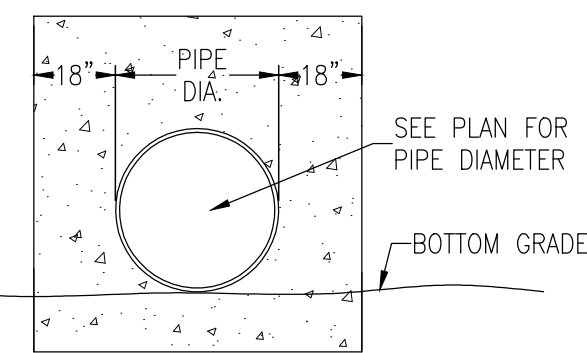


NOTE: SPACING BETWEEN BOLLARDS IS 6' MAX.

BOLLARD DETAIL
N.T.S.

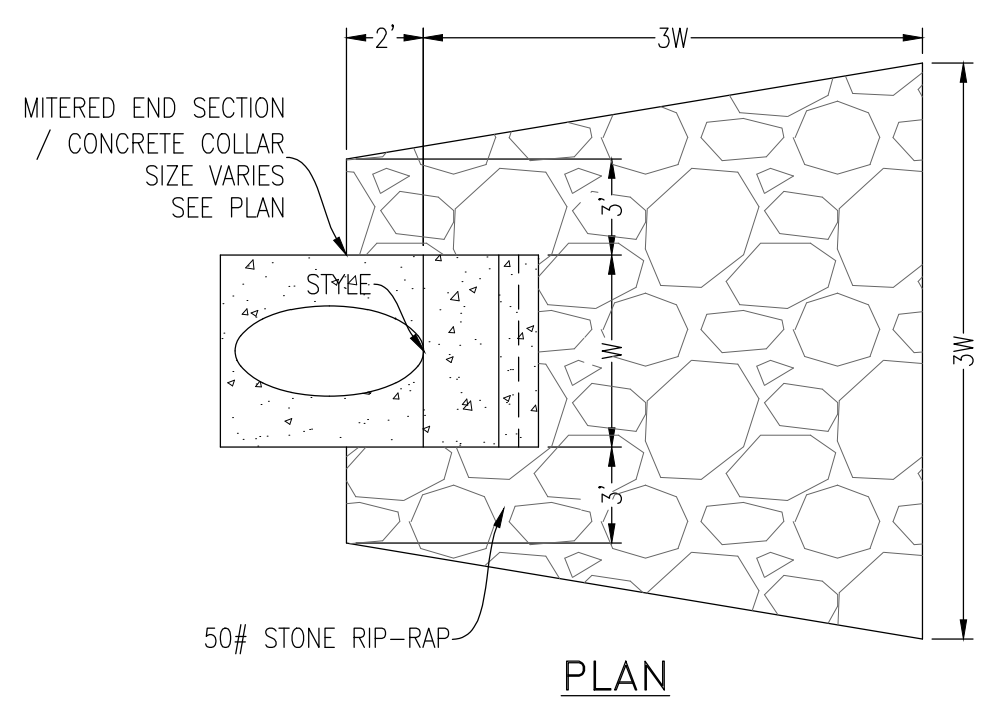


TYPICAL SECTION



NOTE:
CUT DRAIN PIPE ENDS TO MITERED SECTIONS. COMPACT SOIL ADJACENT TO ENDS AND SOD ACCORDINGLY. ALSO, COMPACT SOIL LIFT COVERING DRAIN PIPES AND SOD ACCORDINGLY.

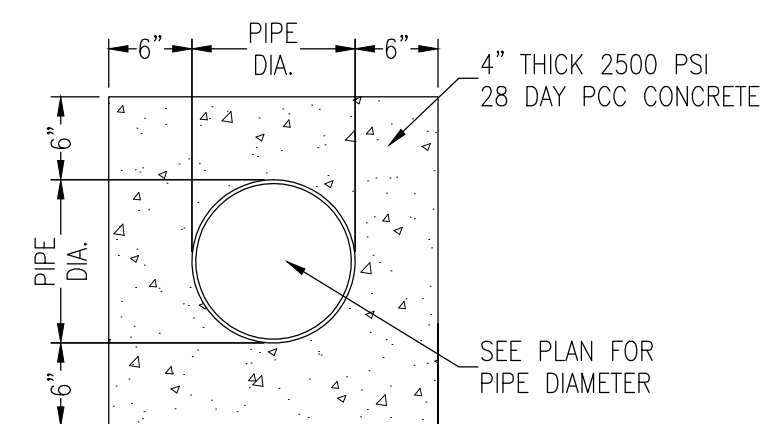
MITERED END SECTION
N.T.S.



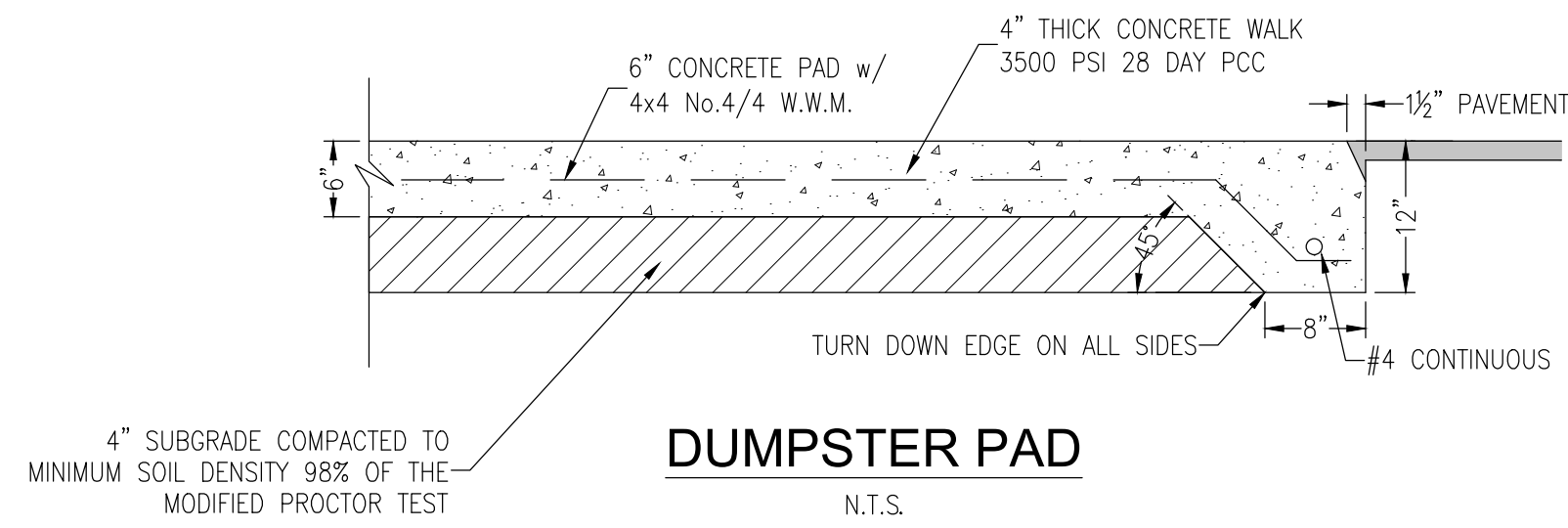
PLAN

SECTION

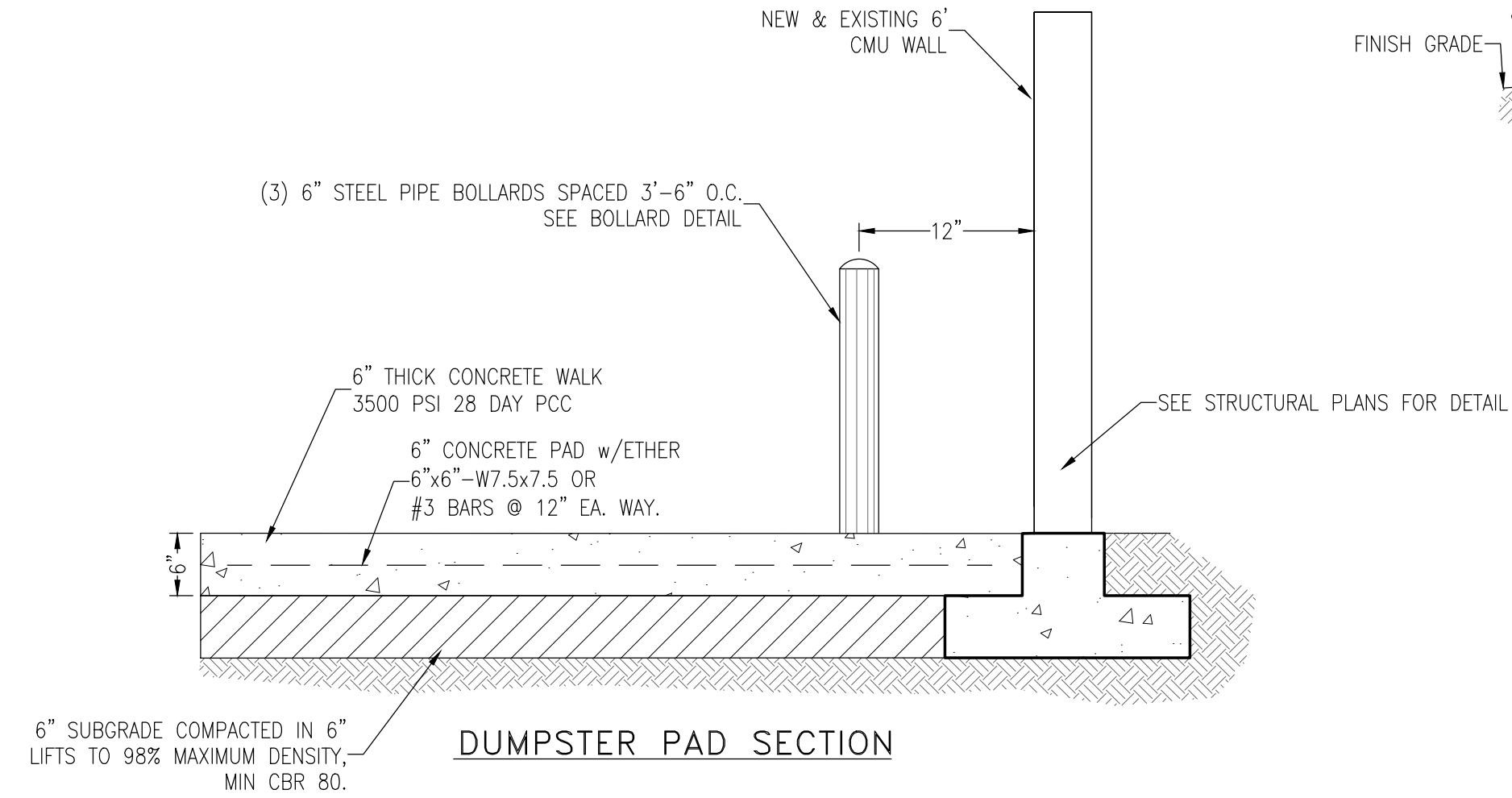
RIP-RAP DETAIL
N.T.S.



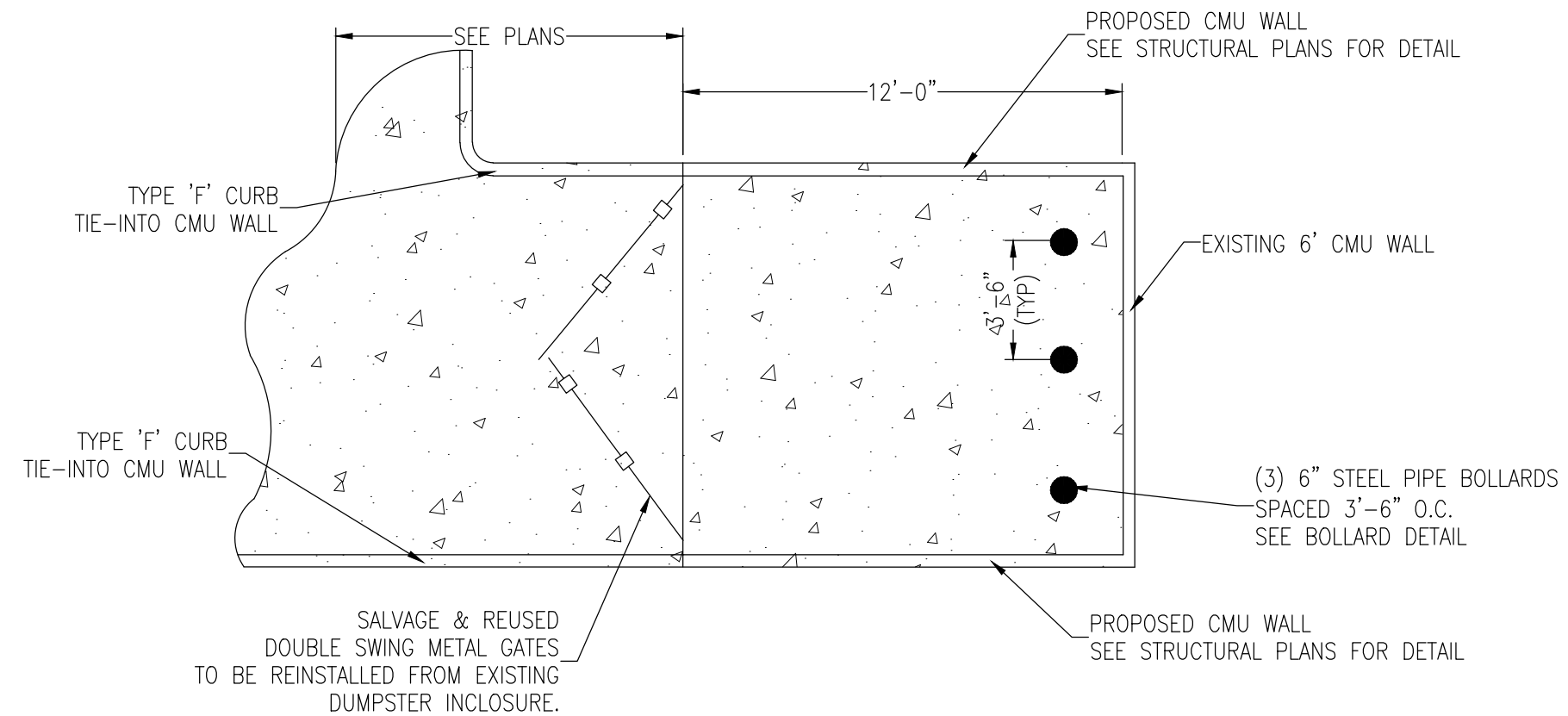
CONCRETE COLLAR DETAIL
N.T.S.



DUMPSTER PAD
N.T.S.

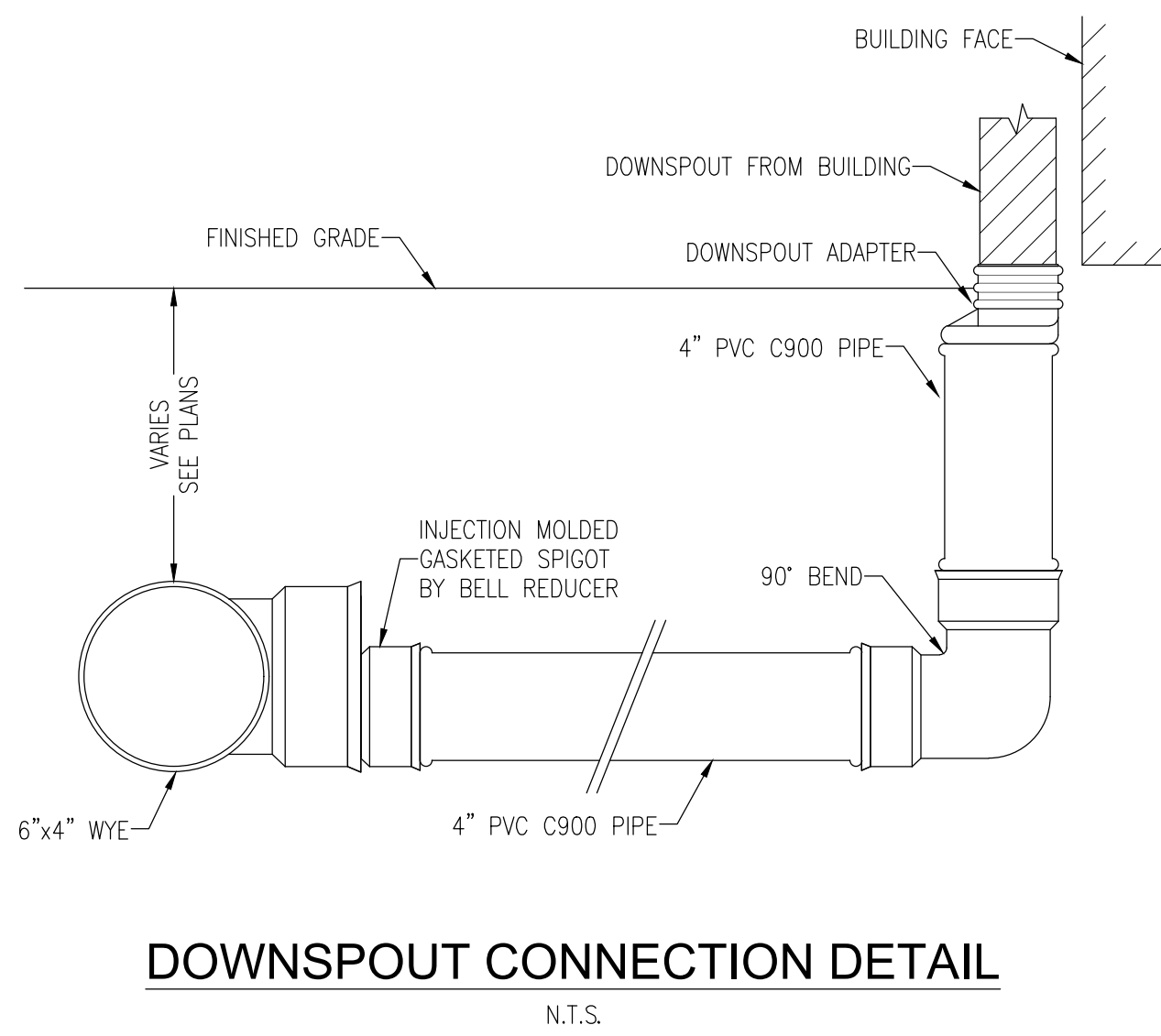


DUMPSTER PAD SECTION

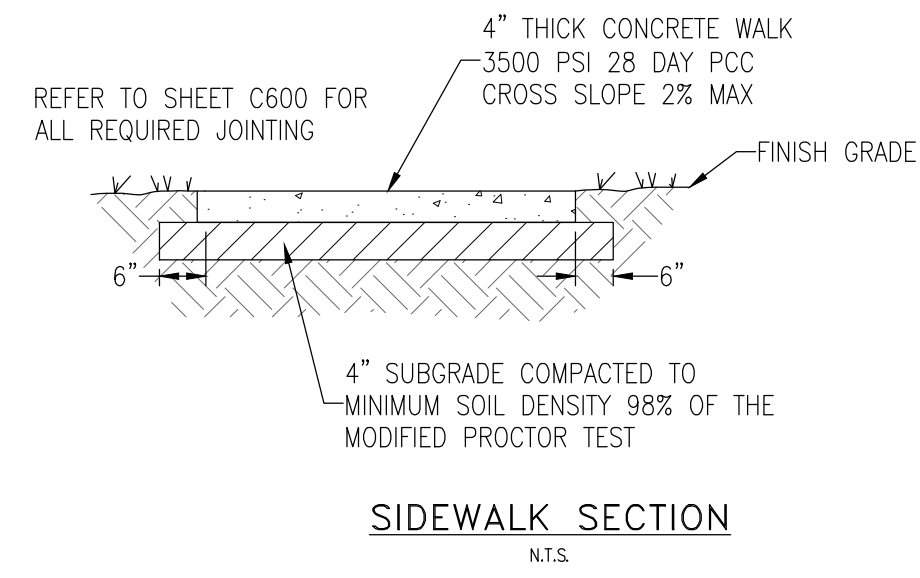


DUMPSTER PAD PLAN VIEW

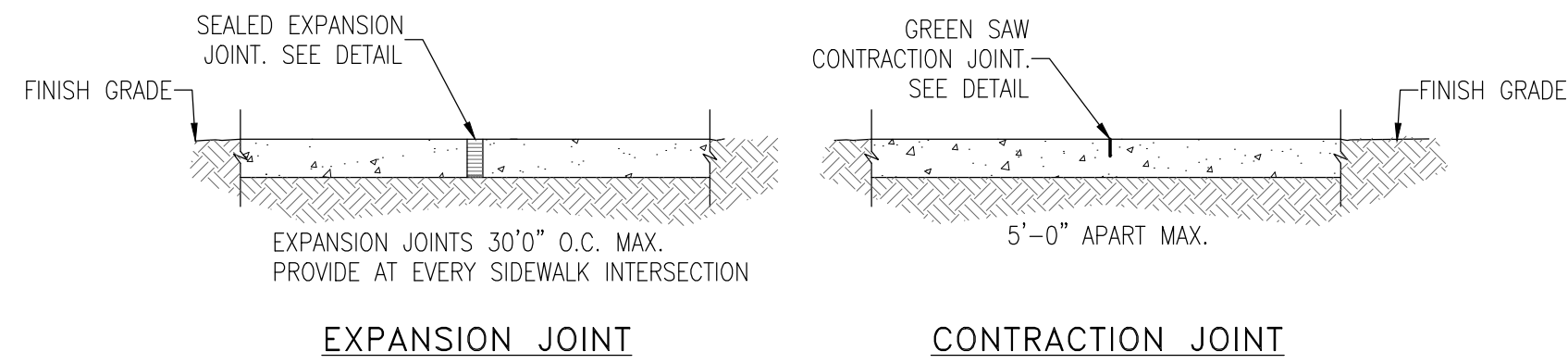
DUMPSTER PAD DETAIL
N.T.S.



DOWNSPOUT CONNECTION DETAIL
N.T.S.

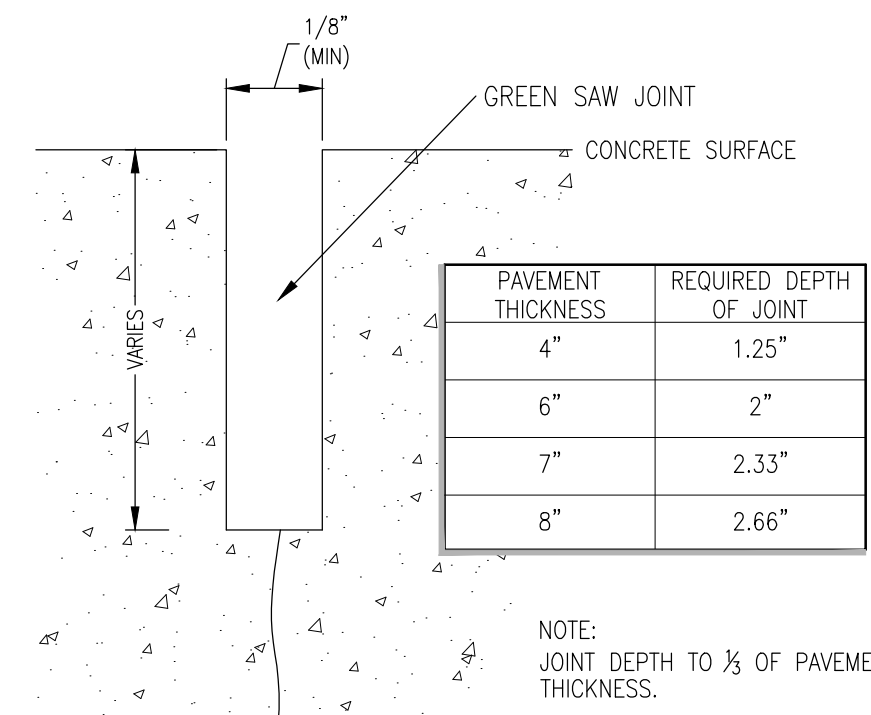


SIDEWALK SECTION
N.T.S.

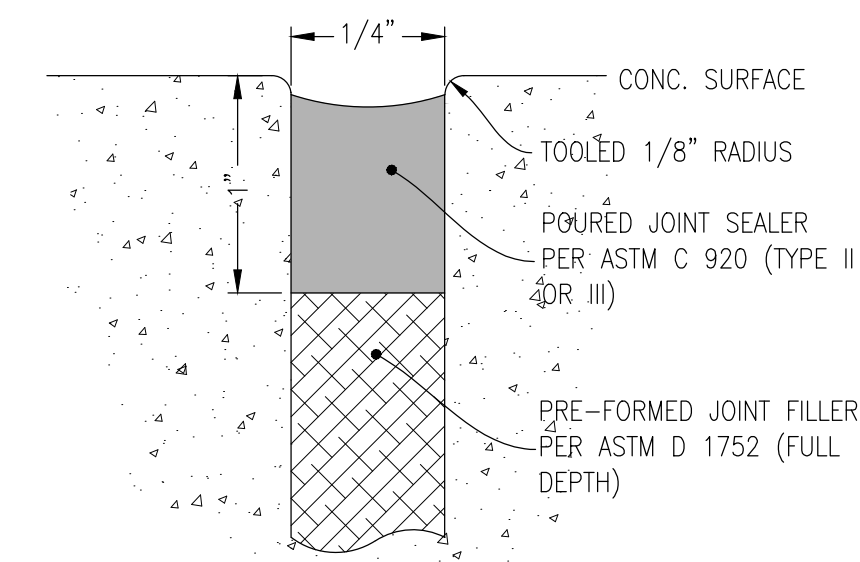


EXPANSION JOINT **CONTRACTION JOINT**

SIDEWALK DETAILS
N.T.S.

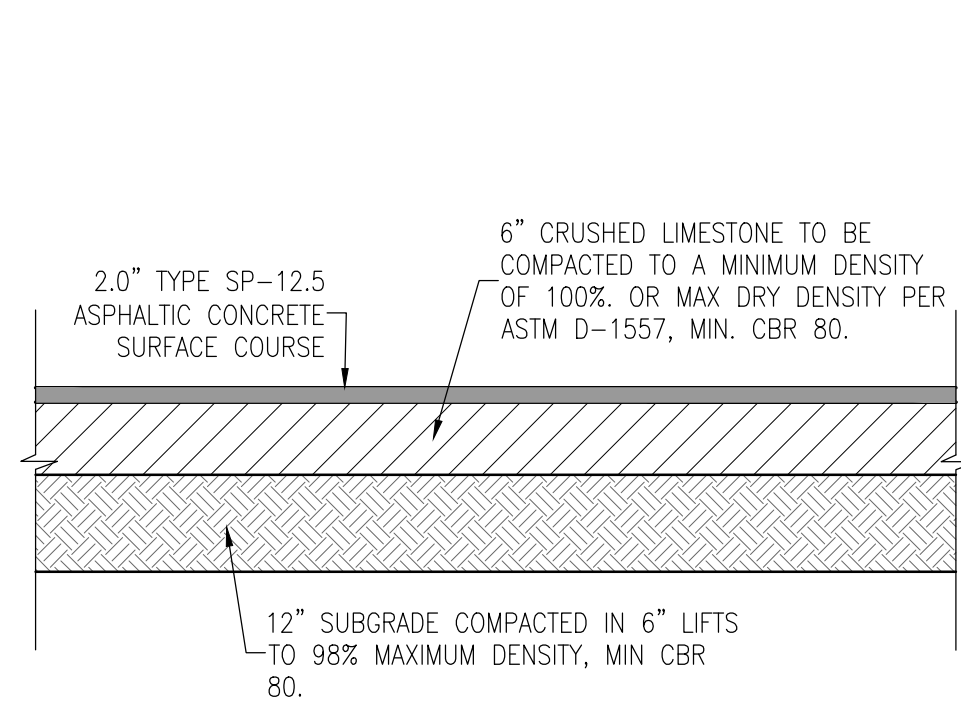


CONTRACTION JOINT DETAIL
N.T.S.

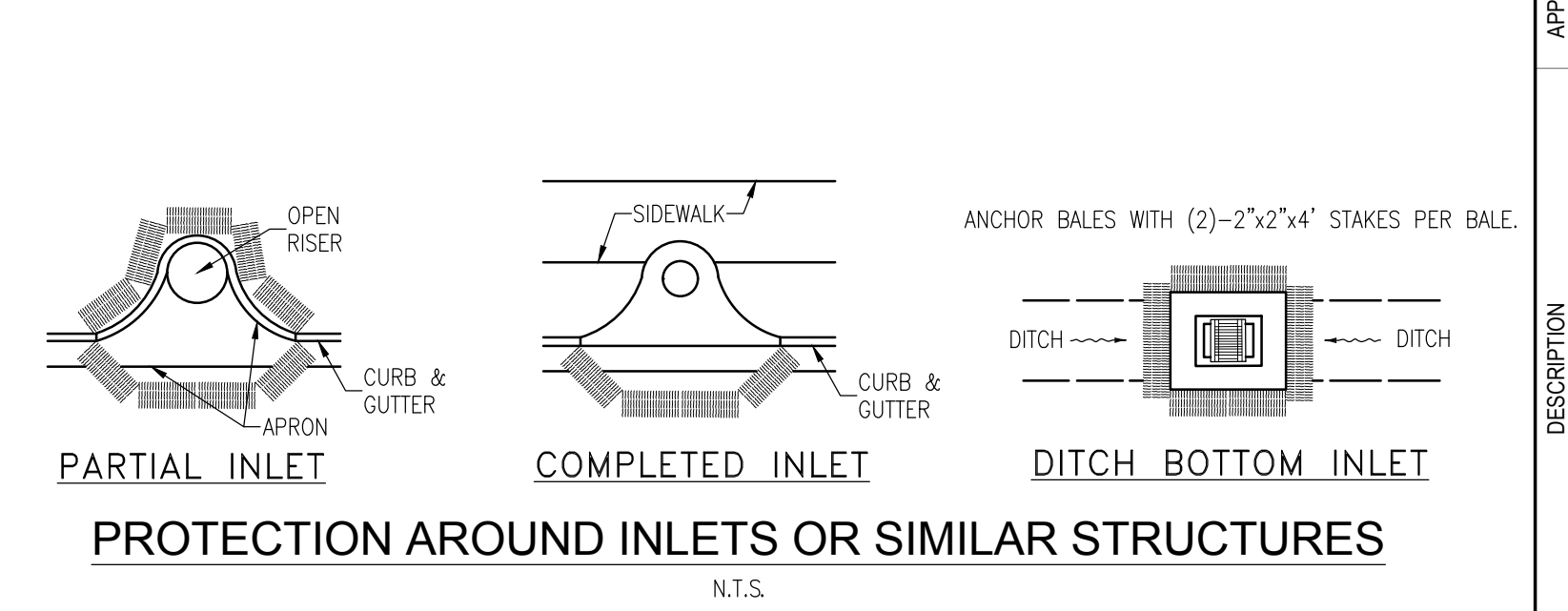


NOTES:
1. TOP OF SEALANT SHALL BE 1/4" BELOW TOP OF CONC.
2. PRIOR TO SEALANT APPLICATION THOROUGHLY CLEAN JOINT.

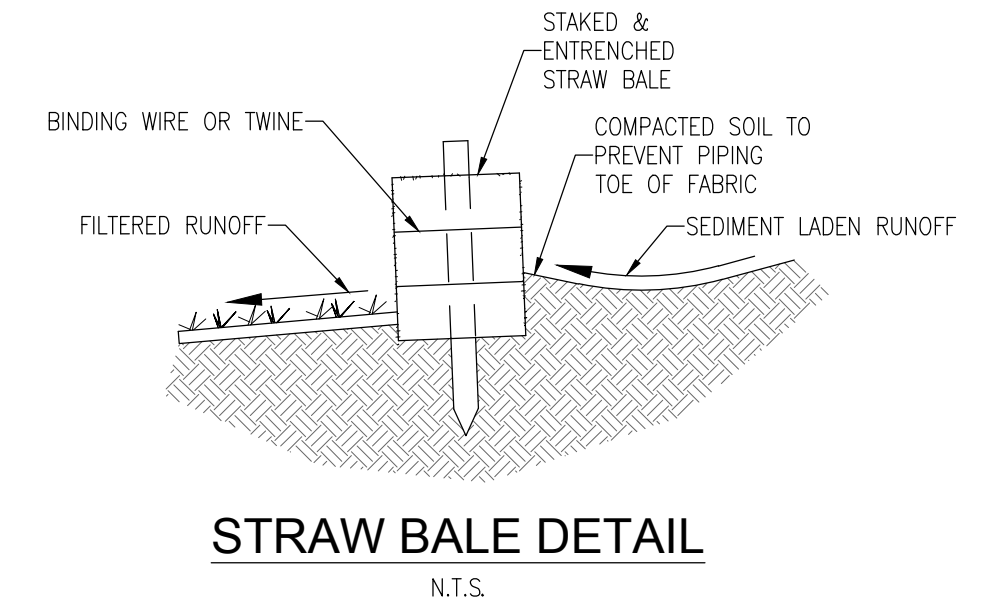
EXPANSION JOINT DETAIL
N.T.S.



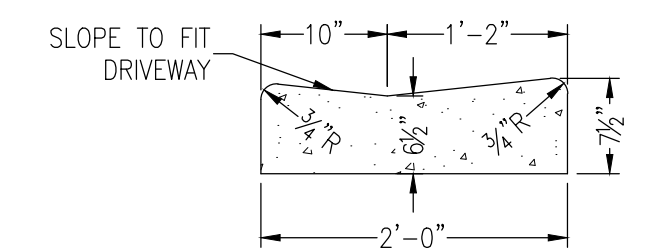
STANDARD DUTY PAVEMENT DETAIL
N.T.S.



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES
N.T.S.

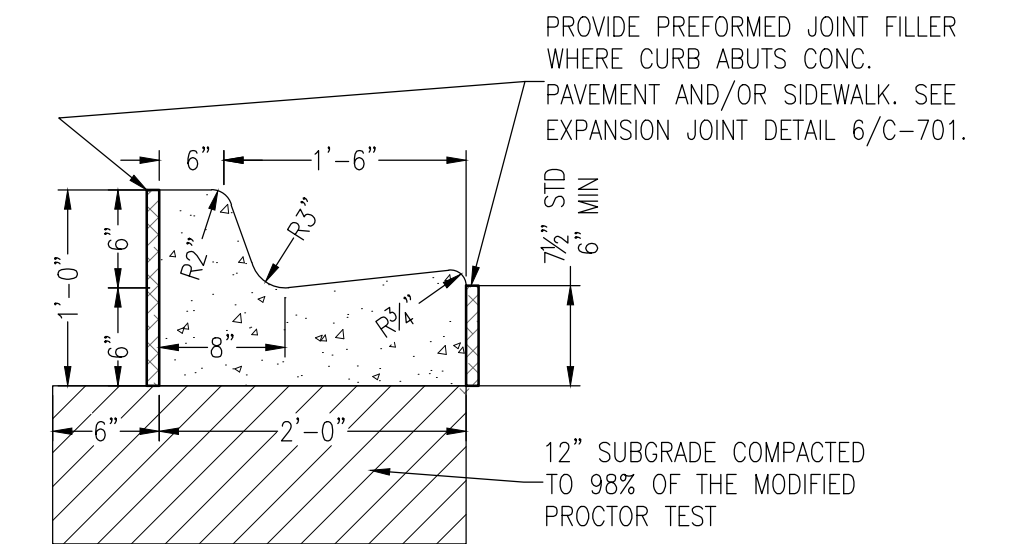


STRAW BALE DETAIL
N.T.S.



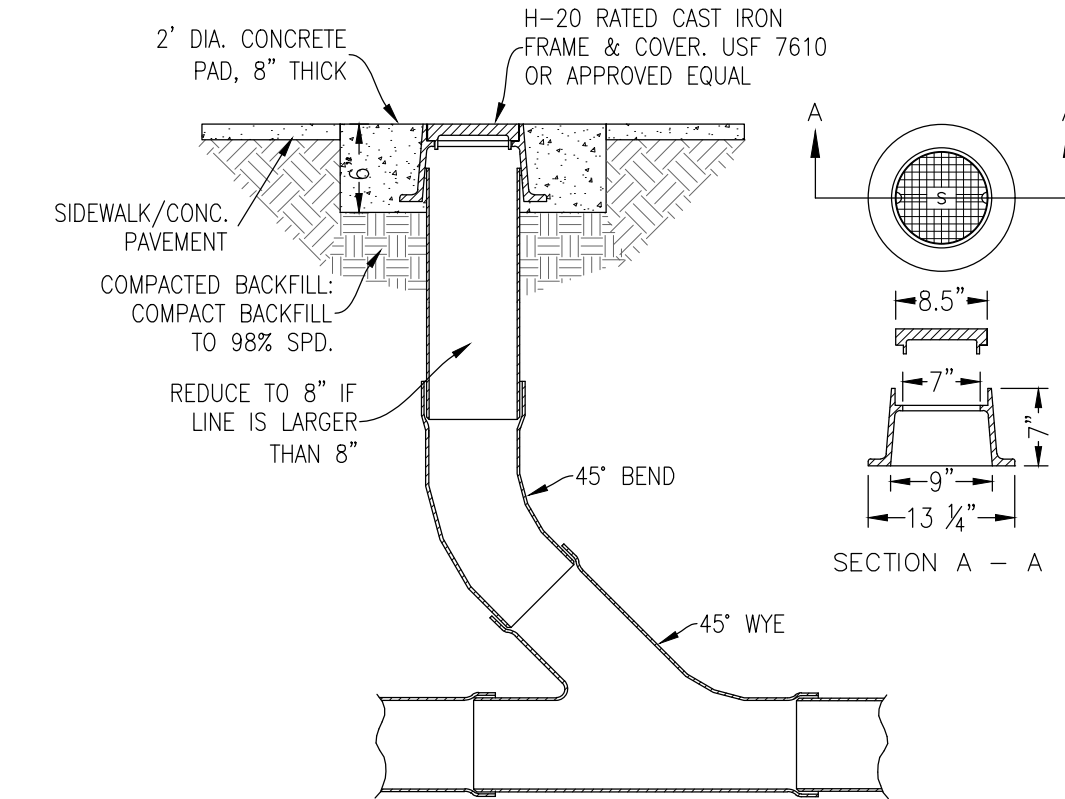
NOTE:
1. ALL CURB TO HAVE DUMMY JOINT AT 10' ON CENTER. MIN. DEPTH OF JOINT TO BE 2".
2. EXPANSION JOINTS ARE TO BE 30' ON CENTER. TYPICAL FOR ALL CURB.

VALLEY CURB
N.T.S.



NOTES:
1. WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.
2. ALL CURB TO HAVE DUMMY JOINT AT 10' ON CENTER. MIN. DEPTH OF JOINT TO BE 2".
3. EXPANSION JOINTS ARE TO BE 30' ON CENTER. TYPICAL FOR ALL CURB.
4. MIN. 3500 PSI, 28 DAY COMPRESSIVE STRENGTH.

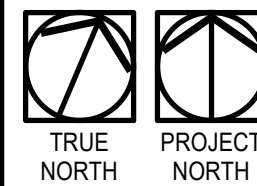
TYPE 'F' CONCRETE CURB & GUTTER
N.T.S.



CLEANOUT DETAIL

APPD	DESCRIPTION	DATE	REV#	APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353							
AIR FORCE SPECIAL OPERATIONS COMMAND							
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA							
DETAILS							
DATE: 16 SEPT 2016							
DESIGNED BY: Paul B							
DRAWN BY: Gerald P							
BUILDING NO: 90353							
PROJECT NO: FTEV 12-1164							
SHEET REF: C5							
SHEET NO: 9 OF 110							

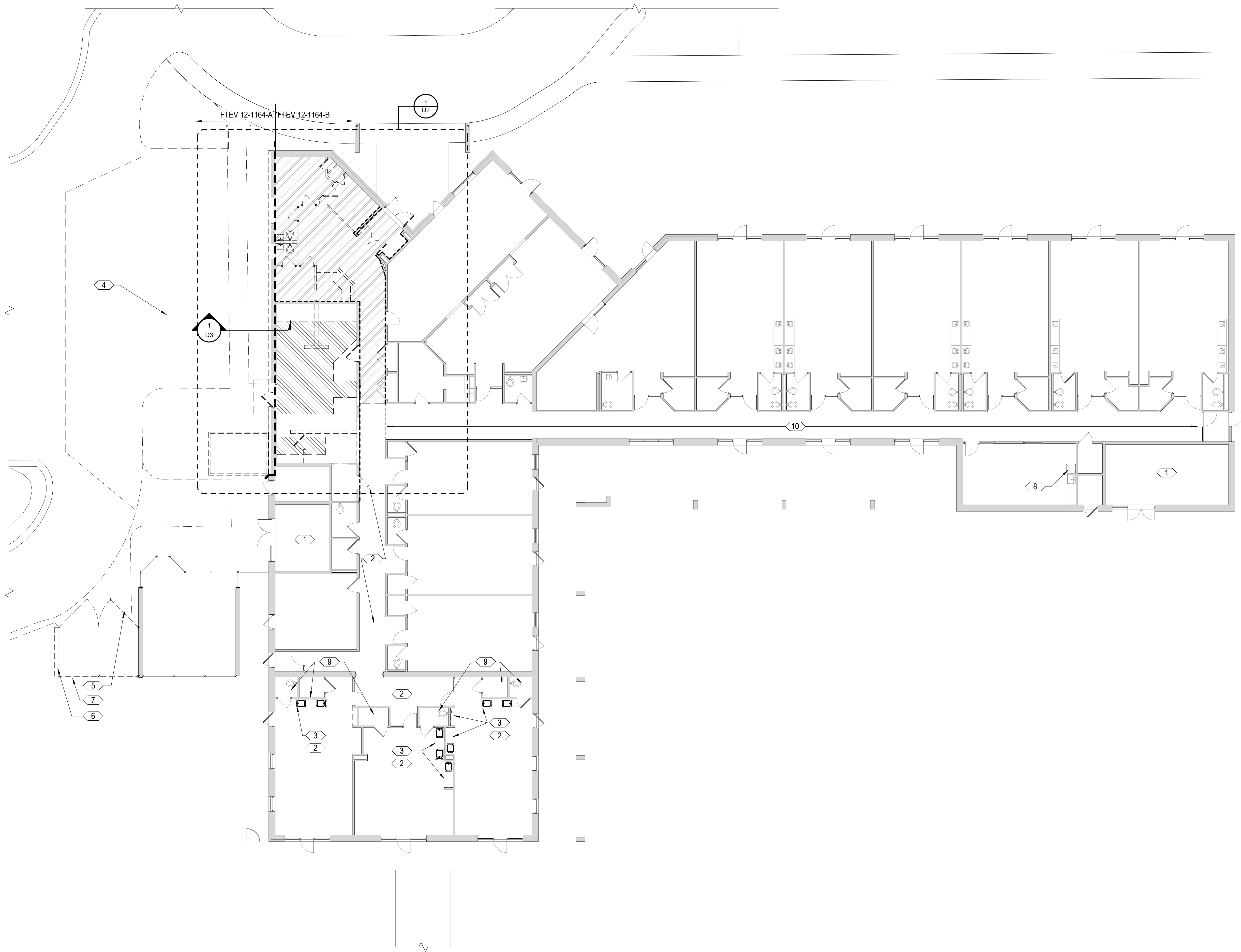
STANDARD LAYOUT (24" X 36")



1
A8 D1

OVERALL DEMOLITION PLAN

3/32" = 1'-0"



KEYNOTES

- 1 SEE MECHANICAL FOR EXTENT OF EQUIPMENT REMOVAL
- 2 REMOVE SUSPENDED ACT SYSTEM; PROVIDE TEMPORARY SUPPORT OF ALL EXISTING CEILING MOUNTED FIXTURES WHICH ARE TO REMAIN (INCLUDING LIGHTING, SMOKE DETECTORS, SPEAKERS, ETC.); ALL FIXTURES ARE TO REMAIN OPERATIONAL DURING CONSTRUCTION. REINSTALL FIXTURES IN SAME LOCATION AS PREVIOUS.
- 3 REMOVE CASEWORK AND FIXTURES; COORDINATE WITH NEW WORK DRAWINGS
- 4 COORDINATE WITH CIVIL FOR REMOVAL OF CONCRETE WALKS, CURBS, ASPHALT, AND LANDSCAPING
- 5 SALVAGE AND REUSE METAL GATE IN NEW DUMPSTER ENCLOSURE; SEE 2/A3
- 6 REMOVE CONCRETE MASONRY DUMPSTER ENCLOSURE WALL AND FOUNDATION; SEE CIVIL
- 7 REMOVE METAL SCREEN WALL
- 8 REMOVE AND SALVAGE ICE MACHINE AND WOOD BASE; CLEAN AND PREPARE FOR NEW INSTALLATION IN CART STORAGE, 122 (SEE NEW WORK PLAN); CAP WATER SUPPLY IN WALL; PAINT WOODEN BASE COLOR: P-2
- 9 COORDINATE REMOVAL AND REPLACEMENT OF CEILING TILE COMPONENTS AS NEEDED TO INSTALL NEW MECHANICAL SYSTEM; SEE MECHANICAL; REPLACE DAMAGED TILES WITH NEW TO MATCH EXISTING
- 10 TEMPORARILY REMOVE CEILING TILES AND GRID COMPONENTS AS NEEDED TO INSTALL ABOVE CEILING FIRE PROTECTION WORK; LIGHTING, MECHANICAL DISTRIBUTION, AND OTHER CEILING MOUNTED DEVICES ARE TO REMAIN UNEFFECTED; REPLACE ALL DAMAGED TILES OR GRID COMPONENTS WITH NEW TO MATCH EXISTING; SEE FIRE PROTECTION

APPD	DESCRIPTION	DATE	REV #

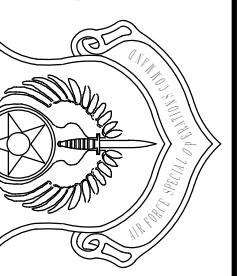
APPROVED
 CHIEF ENGINEER
 APPROVED
 CIVIL ENGINEER

ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 OVERALL DEMOLITION PLAN

LEGEND

- EXISTING CONSTRUCTION
- CONSTRUCTION TO BE DEMOLISHED AS INDICATED
- FENCE TO REMAIN
- REMOVE FLOOR SLAB AS INDICATED; SEE PLUMBING

AIR FORCE SPECIAL
 OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA



GENERAL NOTES

1. REFER TO OTHER DISCIPLINE DRAWINGS (CIVIL, FIRE PROTECTION, PLUMBING, MECHANICAL, ELECTRICAL AND TELECOMM) FOR ADDITIONAL DEMOLITION REQUIREMENTS
2. ALL FURNITURE, FIXTURES AND EQUIPMENT NOT SCHEDULED FOR REUSE WILL BE REMOVED BY GOVERNMENT PRIOR TO START OF WORK.
3. JOINT INSPECTION BY CONTRACTOR AND CONTRACTING OFFICER FOR INSPECTIONS OF REUSED EQUIPMENT PRIOR TO STORAGE.

DATE:
16 SEPT 2016

DESIGNED BY:
B. KICKLITER

DRAWN BY:
M. BURCH

BUILDING NO:
90353

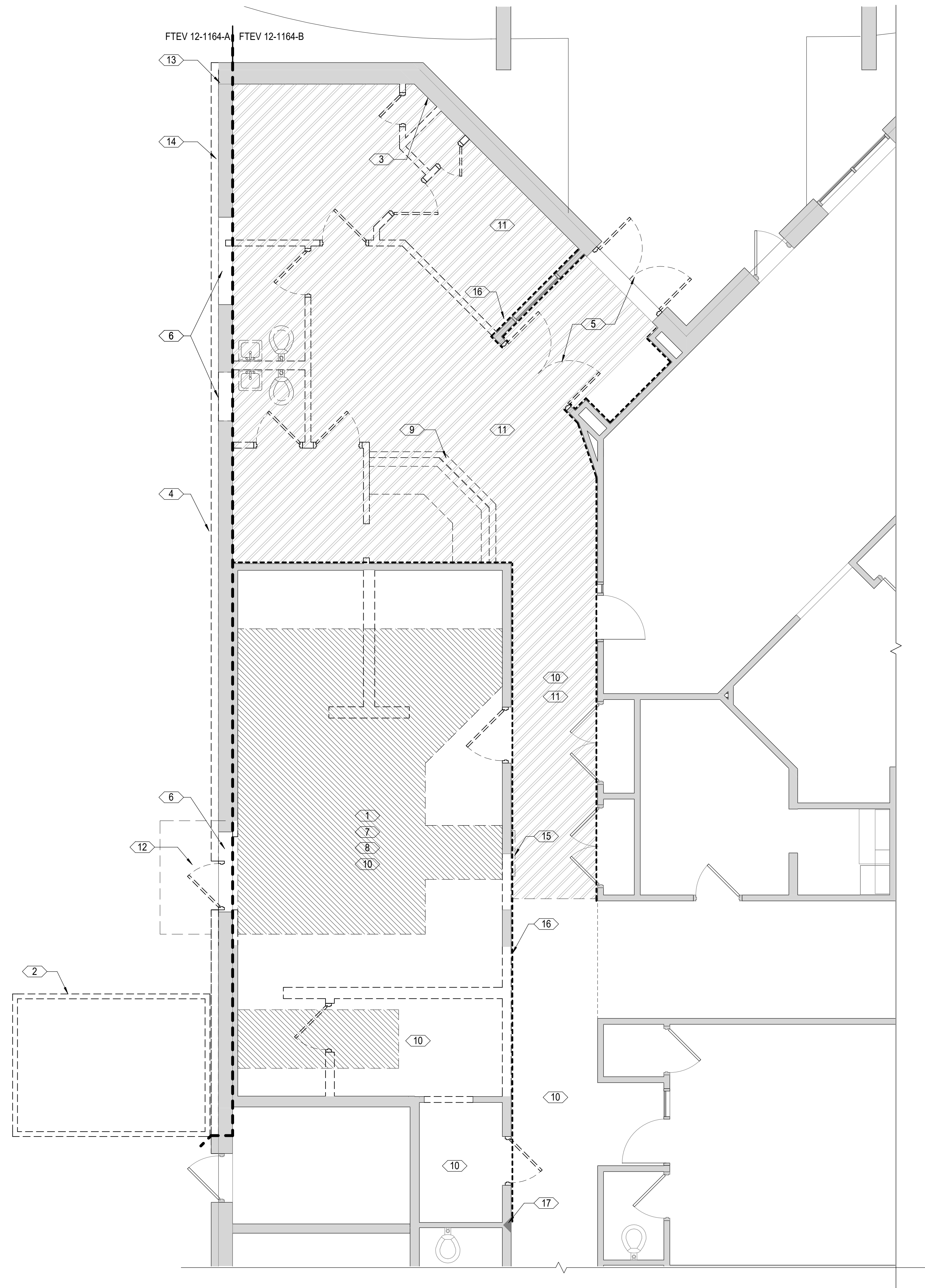
PROJECT NO:
FTEV 12-1164

SHEET REF:
D1

SHEET NO:
10 of 110

STANDARD LAYOUT (24" X 36")

1 OVERALL DEMOLITION PLAN
A8 D2 1/4" = 1'-0"



KEYNOTES

- 1 COORDINATE EQUIPMENT SALVAGE AND REUSE OR TURN OVER TO OWNER WITH EQUIPMENT DRAWINGS
- 2 REMOVE EXTERNAL WALK-IN FREEZER PACKAGE INCLUDING FOUNDATIONS/CONCRETE SLAB OR PAD, ASSOCIATED CONDENSING REFRIGERANT EQUIPMENT AND PIPING; SEE ELECTRICAL AND CIVIL
- 3 EXISTING TELECOMMUNICATIONS ENTRANCE POINT TO BE EXTENDED TO NEW COMMUNICATIONS ROOM. SEE TELECOMMUNICATIONS
- 4 REMOVE EXTERIOR WALL CLADDING INCLUDING CMU VENEER, INSULATION BOARD, METAL FLASHING, PREFINISHED TRIM BAND AND RELATED COMPONENTS
- 5 REMOVE STOREFRONT ENTRANCE DOOR AND FRAME; INCLUDING ALL HARDWARE AND ANY AUTOMATIC OPENING EQUIPMENT; SEE ELECTRICAL
- 6 REMOVE MASONRY WALL CONSTRUCTION FOR NEW OPENING WITH HEADER; COORDINATE WITH STRUCTURAL AND NEW WORK FLOOR PLAN
- 7 REMOVE FLOOR TILE AND THICKSET GROUT BED AND PREPARE SURFACE FOR NEW FINISH
- 8 COORDINATE WITH MECHANICAL AND PLUMBING FOR REMOVAL OF CONCRETE FLOOR SLAB, UNDERSLAB FIXTURES AND PIPING; INSTALL NEW CONCRETE SLAB TO MATCH EXISTING FINISH ELEVATION AND PREPARE FOR NEW FLOOR FINISH; SEE STRUCTURAL
- 9 REMOVE RECEPTION COUNTERTOP AND SUPPORTING CASE GOODS
- 10 REMOVE SUSPENDED AC SYSTEM; PROVIDE TEMPORARY SUPPORT OF ALL EXISTING CEILING MOUNTED FIXTURES WHICH ARE TO REMAIN (INCLUDING LIGHTING, SMOKE DETECTORS, SPEAKERS, ETC.); ALL FIXTURES ARE TO REMAIN OPERATIONAL DURING CONSTRUCTION. REINSTALL FIXTURES IN SAME LOCATION AS PREVIOUS.
- 11 REMOVE ALL FLOOR FINISHES AND CEILING FINISHES WITHIN ZONE AS INDICATED; PREPARE SURFACES FOR NEW FINISHES PER NEW WORK PLAN AND ROOM FINISH SCHEDULE.
- 12 REMOVE WALL-MOUNTED METAL AWNING
- 13 REMOVE, SALVAGE, AND REUSE FASCIA MOUNTED CCTV CAMERA; SEE TELECOM
- 14 COORDINATE WITH MECHANICAL FOR NEW WORK DUCT PENETRATIONS IN CMU WALL; PROVIDE LINTEL ANGLES PER STRUCTURAL
- 15 REMOVE ACCESS PANEL WITH DRAIN LINES; SEE PLUMBING
- 16 REMOVE VINYL WALL COVERING AND PREPARE WALL SURFACE FOR NEW FINISH; SEE NEW WORK PLAN
- 17 EXISTING CONTROL JOINT IN GYPSUM BOARD FINISH

LEGEND

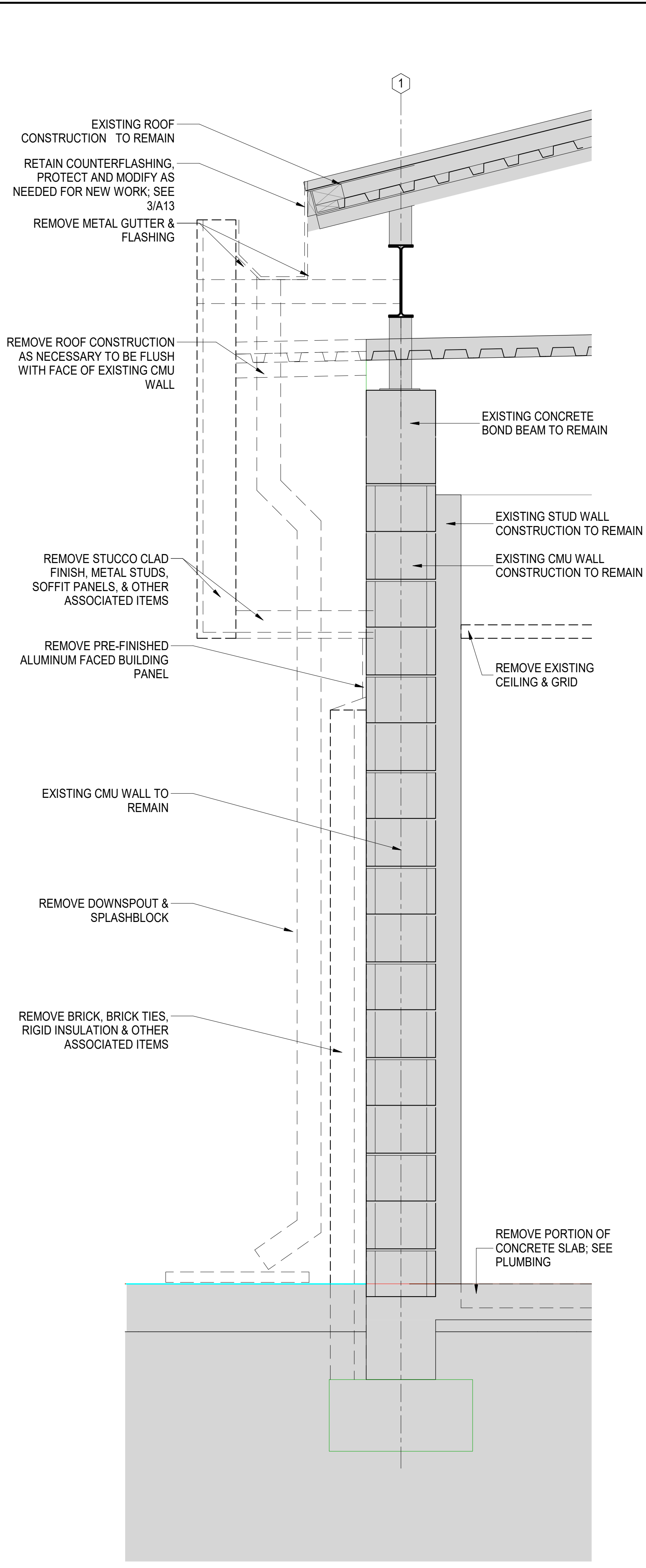
- EXISTING CONSTRUCTION
- CONSTRUCTION TO BE DEMOLISHED AS INDICATED
- FENCE TO REMAIN
- REMOVE FLOOR SLAB AS INDICATED; SEE PLUMBING

GENERAL NOTES

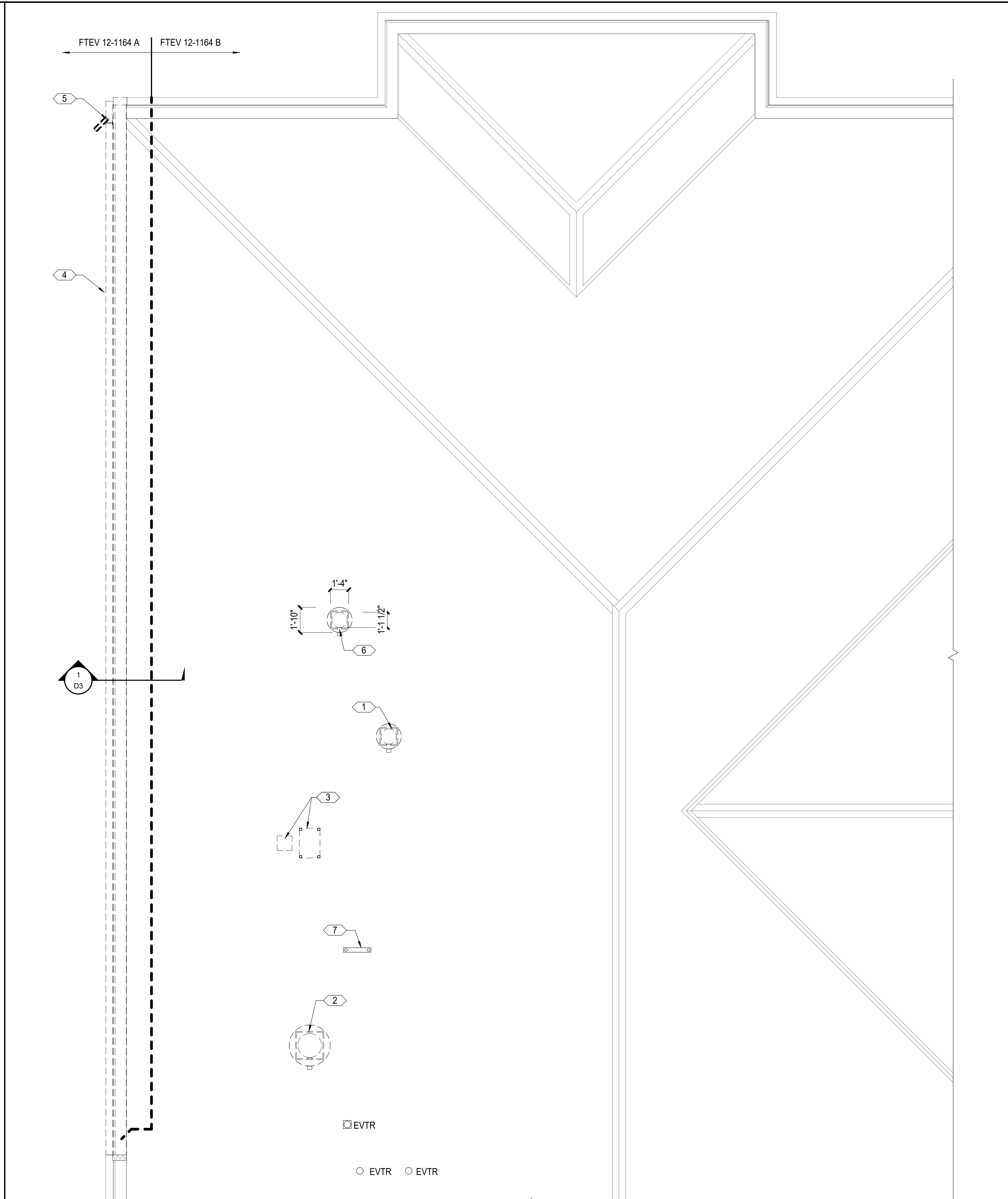
1. REFER TO OTHER DISCIPLINE DRAWINGS (CIVIL, FIRE PROTECTION, PLUMBING, MECHANICAL, ELECTRICAL AND TELECOMM) FOR ADDITIONAL DEMOLITION REQUIREMENTS
2. ALL FURNITURE, FIXTURES AND EQUIPMENT NOT SCHEDULED FOR REUSE WILL BE REMOVED BY GOVERNMENT PRIOR TO START OF WORK.
3. JOINT INSPECTION BY CONTRACTOR AND CONTRACTING OFFICER FOR INSPECTIONS OF REUSED EQUIPMENT PRIOR TO STORAGE.

APPD				
DESCRIPTION				
DATE				
REV #				
APPROVED				
CHIEF ENGINEER				
APPROVED				
CIVIL ENGINEER				
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353				
AIR FORCE SPECIAL OPERATIONS COMMAND				
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA				
DATE:	16 SEPT 2016			
DESIGNED BY:	Designer			
DRAWN BY:	Author			
BUILDING NO.:	90353			
PROJECT NO.:	FTEV 12-1164			
SHEET REF.:	D2			
SHEET NO.:	11 of 110			

STANDARD LAYOUT (24" X 36")



1 DEMO WALL SECTION
 A8 D3 1" = 1'-0"
 1' 6" 0' 1' 2'



2 PARTIAL ROOF DEMOLITION PLAN
 A8 D3 1/4" = 1'-0"
 4' 2' 0' 4' 8'

KEYNOTES

- 1 REMOVE ROOFTOP MOUNTED EXHAUST FAN AND CURB, PREPARE OPENING AS REQUIRED FOR NEW FAN; SEE MECHANICAL AND STRUCTURAL
- 2 REMOVE ROOFTOP MOUNTED EXHAUST FAN; PREPARE CURB FOR NEW WEATHER-TIGHT CAP; SEE 9/A13 AND MECHANICAL
- 3 REMOVE ROOFTOP MOUNTED AIR HANDLING EQUIPMENT; ROOFTOP MOUNTED PEDESTAL AND ROOF CURB AT DUCT PENETRATION TO REMAIN; PREPARE CURB FOR NEW WEATHERTIGHT CAP; SEE 9/A13 AND MECHANICAL
- 4 REMOVE FASCIA/SOFFIT CONSTRUCTION INCLUDING CLADDING, FRAMING, INTEGRAL GUTTERS, AND DOWNSPOUTS; PROTECT AND RETAIN GUTTER COUNTERFLASHING AT EXISTING STANDING SEAM METAL ROOF EDGE FOR RE-USE; COORDINATE WITH NEW WORK SHOWN IN WALL SECTIONS AND DETAILS
- 5 REMOVE, SALVAGE, AND REUSE FASCIA MOUNTED CCTV CAMERA; SEE TELECOM
- 6 REMOVE ROOFTOP MOUNTED EXHAUST FAN; CLEAN AND REPAIR CURB AS NEEDED FOR NEW FAN; SEE MECHANICAL
- 7 ABANDONED DUCT SUPPORT TO REMAIN

REV #	DATE	DESCRIPTION	APPROVED

ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 DEMOLITION ROOF PLAN AND WALL SECTION

AIR FORCE SPECIAL OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

LEGEND

EVTR	EXISTING VENT THRU ROOF
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DATE: 16 SEPT 2016
 DESIGNED BY: B. KICKLITER
 DRAWN BY: M. BURCH
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: **D3**
 SHEET NO: 12 of 110

1.00 GENERAL NOTES

1.01 DRAWINGS SHOW TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. FOR DETAILS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN.

1.02 VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE STARTING WORK. NOTIFY CONTRACTING OFFICER OF ANY DISCREPANCY.

1.03 THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. TAKE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING STRUCTURE AND ITS FOUNDATION AND TO LIMIT, TO THE EXTENT POSSIBLE, THE EFFECTS OF CONSTRUCTION THAT THE NEW STRUCTURE HAS ON THE EXISTING STRUCTURE.

1.04 COORDINATE STRUCTURAL CONTRACT DOCUMENTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL. NOTIFY STRUCTURAL ENGINEER OF ANY CONFLICT AND/OR OMISSION. CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ARCHITECT. FOR ADDITIONAL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS.

1.05 DESIGN CRITERIA:

THE STRUCTURE HAS BEEN DESIGNED UTILIZING THE FOLLOWING REFERENCES:

- A. UFC 1-200-01, GENERAL BUILDING REQUIREMENTS
B. UFC 3-301-01, STRUCTURAL ENGINEERING, WITH CHANGE 1
C. UFC 3-310-04, SEISMIC DESIGN FOR BUILDINGS WITH CHANGE 1
D. UFC 4-010-01, DOD MINIMUM ANTITERRORISM STANDARD FOR BUILDINGS, INCLUDING CHANGE 1
E. INTERNATIONAL BUILDING CODE, 2015
F. ASCE 7-10, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
G. ACI 318-11, BUILDING CODE REQUIREMENTS FOR CONCRETE STRUCTURES
H. ACI 360 R-06, DESIGN OF SLAB ON GRADES
I. AISC STEEL CONSTRUCTION MANUAL, 14TH EDITION
J. ACI 530-05, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES

1.06 DESIGN LOADS

- A. DEAD LOADS:
1. MECHANICAL, ELECTRICAL, PLUMBING: 5 PSF
2. CEILINGS: 5 PSF
3. ROOF FRAMING: 20 PSF
B. LIVE LOADS: (MAY BE REDUCED PER CODE)
1. ROOFS: 20 PSF
2. SLAB-ON-GRADE: 100 PSF
C. WIND LOADS - STRUCTURE HAS BEEN DESIGNED TO CONFORM TO THE WIND PROVISIONS OF ASCE 7-10. SEE WIND PRESSURE DIAGRAM & CHART FOR THE FOLLOWING:
1. BASIC WIND SPEED (3-SEC GUST)
2. BUILDING RISK CATEGORY
3. WIND EXPOSURE CATEGORY
4. INTERNAL PRESSURE COEFFICIENT
5. COMPONENT & CLADDING WIND PRESSURES
D. EARTHQUAKE LOADS:
1. SEISMIC IMPORTANCE FACTOR (Ie): 1.25
2. RISK CATEGORY: III
3. SEISMIC DESIGN CATEGORY: B
4. MAPPED SPECTRAL RESPONSE ACCELERATIONS & PARAMETERS
5. SITE CLASSIFICATION: D
6. BASIC SEISMIC-FORCE-RESISTING SYSTEM: ORDINARY REINFORCED MASONRY SHEARWALLS
7. DESIGN BASE SHEAR: 5.7 KIPS
8. SEISMIC RESPONSE COEFFICIENT, Cs = .029
9. RESPONSE MODIFICATION FACTOR(S): 2.0
10. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

REFER TO MEP DWGS FOR SEISMIC SUPPORT AND ATTACHMENT REQUIREMENTS FOR CERTAIN MEP COMPONENTS AS PER THE IBC.

1.07 SUBMITTALS:

A. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE CONTRACTING OFFICER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE CONTRACTING OFFICER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

2.00 FOUNDATIONS AND SLAB-ON-GRADE

2.01 THE DESIGN OF FOUNDATIONS, RETAINING WALLS AND SLAB ON GRADE IS BASED ON THE CRITERIA ESTABLISHED IN THE GEOTECHNICAL REPORT BY NOVA ENGINEERING AND ENVIRONMENTAL, PENSACOLA, FLORIDA; FILE #8215080, DATED JULY 16, 2015. THE RECOMMENDATIONS OF THAT REPORT SHALL BE CONSIDERED AN INTEGRAL PART OF THE CONTRACT DOCUMENTS.

2.02 SHALLOW FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF.

2.03 A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC. SHOULD THE CONTRACTOR FIND UNDESIRABLE SOILS, HE SHALL STOP WORK AND IMMEDIATELY CONTACT THE CONTRACTING OFFICER. ALL FOOTINGS SHALL REST EITHER ON UNDISTURBED SOIL OR A MANUALLY OPERATED VIBRATORY SLED OR TAMPER SHOULD BE USED TO DENSIFY ANY SOILS IN THE BOTTOM OF THE FOOTING TRENCHES LOOSENED DURING THE EXCAVATION OPERATION.

2.04 SIDES OF FOUNDATIONS SHALL BE FORMED. SLOPE SIDES OF EXCAVATIONS AS APPROVED BY GEOTECHNICAL ENGINEER AND CLEAN UP SLOUGHING BEFORE AND DURING CONCRETE PLACEMENT.

2.05 CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY PROTECTING ALL EXCAVATION SLOPES.

2.06 DEWATER TO AT LEAST TWO FEET BELOW BOTTOM OF LOWEST FOUNDATION IF GROUNDWATER IS ENCOUNTERED.

2.07 SLAB-ON-GRADE REQUIREMENTS:

- A. THE SLAB-ON-GRADE SHALL BE A MINIMUM OF 6 INCHES THICK, PLACED ON COMPACTED SUBGRADE, AND REINFORCED WITH #3@12".
B. SUBGRADE SHALL BE PREPARED AS RECOMMENDED IN THE GEOTECHNICAL REPORT. IN THE ABSENCE OF A GEOTECHNICAL REPORT, PROVIDE TYPE D FILL, 8 INCHES THICK BELOW THE BOTTOM OF THE FLOOR SLABS AND FOOTINGS COMPACTED TO 100% OF THE MAXIMUM MODIFIED PROCTOR DENSITY. DENSITY TESTS SHALL BE TAKEN AT 1000 SF INTERVALS. SEE SPECIFICATIONS AND REPORT (IF AVAILABLE).
C. PROVIDE A CAPILLARY BREAK CONSISTING OF A COMPACTED 4" LAYER OF CLEAN #57 STONE OVER THE COMPACTED SUBGRADE.
D. SEE SPECIFICATIONS FOR VAPOR RETARDER MATERIAL. VAPOR RETARDER SHALL CONFORM TO ASTM E1745, CLASS A, B, OR C AND BE A MINIMUM OF 15 MIL THICKNESS. THE VAPOR RETARDER SHOULD BE PLACED OVER THE PREPARED SUBGRADE. TO REDUCE THE POSSIBILITY OF PUNCTURE WHEN THE VAPOR RETARDER IS TO BE PLACED OVER A ROUGH GRANULAR FILL LAYER, PROVIDE A THIN LAYER OF APPROXIMATELY 1/2 INCH OF FINE-GRADED MATERIAL ROLLED OR COMPACTED OVER THE GRANULAR FILL LAYER PRIOR TO INSTALLATION OF THE VAPOR RETARDER. VAPOR RETARDER SHOULD BE OVERLAPPED 8 IN. AND TAPED AT THE JOINTS AND CAREFULLY FITTED AROUND SERVICE OPENINGS.

3.00 REINFORCED CONCRETE

3.01 ALL CONCRETE WORK SHALL CONFORM TO ACI 301-05, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. DESIGN IS BASED ON ACI 318-05, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH ACI 315, DETAILING MANUAL. DETAIL ALL CONCRETE WALLS AND BEAMS ON THE SHOP DRAWINGS IN ELEVATION UNLESS SPECIFICALLY APPROVED OTHERWISE. SUBMIT SHOP DRAWINGS FOR APPROVAL, SHOWING ALL FABRICATING DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL AND ACCESSORIES. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETED AND REVIEWED.

3.02 PLACE SAWN CONTROL JOINTS IN THE SLAB ON GRADE AT LOCATIONS INDICATED BY "S.C.J." SEE SPECS FOR SAW CUTTING CONTROL JOINTS UNDER THE HEADING "INTERIOR LONGITUDINAL CONTRACTION JOINT".

3.03 UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTHS:

- A. FOUNDATIONS 3000 PSI
B. SLAB-ON-GRADE 3000 PSI

ALL CONCRETE SHALL HAVE ENTRAINED AIR, U.N.O. CONCRETE MAY CONTAIN A PROPERLY DESIGNED SUPERPLASTICIZER FOR WORKABILITY.

3.04 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 UNLESS NOTED OTHERWISE.

3.05 THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNER'S TESTING LABORATORY. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S.

3.06 USE OF CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED.

3.07 CHAMFER OR ROUND ALL EXPOSED CORNERS A MINIMUM OF 3/4".

3.08 TIE ALL REINFORCING STEEL AND EMBEDMENTS SECURELY IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN THE POSITION OF REINFORCEMENT WITHIN SPECIFIED TOLERANCE DURING ALL CONSTRUCTION ACTIVITIES. "STICKING" DOWELS INTO WET CONCRETE IS NOT PERMITTED.

3.09 PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED; STAGGER SPLICE WHERE POSSIBLE; USE FULL TENSION SPLICE (CLASS "B") UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH FULL TENSION SPLICES (CLASS "B") UNLESS NOTED OTHERWISE. TERMINATE BARS WITH STANDARD HOOKS.

3.10 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE (PER ACI 318-05 PAR. 7.7.1):

- A. CONCRETE AGAINST EARTH (NOT FORMED): 3"
B. FORMED CONCRETE EXPOSED TO THE EARTH OR WEATHER:
1. #6 THROUGH #18 BARS: 2"
2. #5 BARS AND SMALLER: 1-1/2"
C. CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
1. SLABS AND WALLS: 1"
2. BEAMS (STIRRUPS) AND COLUMNS (TIES): 1-1/2"

3.11 DO NOT PLACE DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.

3.12 DO NOT WELD OR TACK WELD REINFORCING STEEL UNLESS APPROVED OR DIRECTED BY THE STRUCTURAL ENGINEER.

3.13 ALL REINFORCING STEEL PLACEMENTS SHALL BE REVIEWED BY THE CONTRACTING OFFICER, OR BY A REPRESENTATIVE RESPONSIBLE TO HIM. (RE: ACI 318 PAR. 1.3.1)

3.14 FOR CONCRETE PADS SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

4.00 STRUCTURAL STEEL, STEEL JOIST, STEEL DECK

4.01 STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED ACCORDING TO AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ASD, LATEST EDITION.

4.02 SUBMIT SHOP DRAWINGS PREPARED IN ACCORDANCE WITH AISC MANUAL "DETAILING FOR STEEL CONSTRUCTION", LATEST EDITION. STEEL FABRICATOR SHALL SUPPLY ANCHOR BOLT LOCATION DRAWINGS. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETED AND REVIEWED.

4.03 STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. STRUCTURAL STEEL SHAPES, PLATES, ANGLES, AND CHANNELS SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, FY = 46 KSI, UNLESS NOTED OTHERWISE. STEEL PIPE SHALL CONFORM TO ASTM A501 OR ASTM A53, TYPE E OR S, GRADE B. ANCHOR BOLTS SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE.

4.04 BOLTS SHALL CONFORM TO ASTM A325, 3/4-INCH DIAMETER MINIMUM, UNLESS NOTED OTHERWISE. BOLTS IN BEARING CONNECTIONS SHALL BE DESIGNATED TYPE N, TENSIONED, SNUG-TIGHT AS DEFINED BY AISC. BOLTS IN MOMENT CONNECTIONS AND IN TRUSSES SHALL BE DESIGNATED SLIP-CRITICAL (SC). FULLY TENSION SLIP-CRITICAL CONNECTIONS WITH DIRECT TENSION INDICATOR WASHERS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION.

4.05 USE PRE-QUALIFIED WELDED JOINTS AS PER AISC, AND AWS D1.1 "STRUCTURAL WELDING CODE." USE ONLY CERTIFIED WELDERS; ALL ELECTRODES SHALL CONFORM TO AWS A5 GRADE E70XX. BARE ELECTRODE AND GRANULAR FLUX SHALL CONFORM TO AWS A5, F70 AWS FLUX CLASSIFICATION. MINIMUM WELD SIZE TO BE 3/16" FILLET WELD, U.N.O.

4.06 CUTS, BOLTS, COPING, ETC. REQUIRED FOR WORK OR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP. CUTS OR BURNING HOLES IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED.

4.07 SHOP CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS MAY BE WELDED OR BOLTED. FIELD CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE BOLTED, WHERE POSSIBLE.

4.08 WHEN SPECIFICALLY NOT DETAILED ON THE DESIGN DRAWINGS PROVIDE THE FOLLOWING BEAM CONNECTIONS:

- A. USE TWO-SIDE ANGLE CONNECTIONS PER AISC SPECIFICATIONS, LATEST EDITION.
B. WHERE BEAM REACTIONS ARE SHOWN, CONNECTIONS SHALL DEVELOP THE REACTION GIVEN.
C. WHEN BEAM REACTIONS ARE NOT SHOWN, CONNECTIONS SHALL BE DESIGNED TO SUPPORT ONE HALF THE TOTAL UNIFORM LOAD CAPACITIES SHOWN IN THE ALLOWABLE UNIFORM LOAD TABLES, PARTS 2 OF THE AISC MANUAL, FOR THE GIVEN BEAM, SPAN, AND GRADE OF STEEL SPECIFIED.
D. WHERE REACTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT.

4.09 FIELD SPLICES SHALL BE DESIGNED TO DEVELOP THE FULL CAPACITY OF MEMBER AT THE POINT OF SPLICE IN BENDING, SHEAR AND AXIAL LOAD (COMPRESSION AND TENSION).

4.10 ALTERNATE CONNECTION DETAILS MAY BE USED IF SUCH DETAILS ARE SUBMITTED TO THE ENGINEER FOR REVIEW AND ACCEPTANCE IS GRANTED. HOWEVER, THE ENGINEER SHALL BE THE SOLE JUDGE OF ACCEPTABILITY AND THE CONTRACTOR'S BID SHALL ANTICIPATE THE USE OF THE SPECIFIC DETAILS SHOWN ON THE DRAWINGS. IN ANY EVENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SUCH ALTERNATE DETAILS, WHICH HE PROPOSES.

4.11 PROVIDE STIFFENER PLATES ON EACH SIDE OF WEB OF BEAM OR GIRDER AT POINTS OF CONCENTRATED LOADS. MINIMUM STIFFENER PLATE THICKNESS SHALL BE 1/2" OR FLANGE THICKNESS OF COLUMNS ABOVE OR BELOW, WHICHEVER IS THICKER.

4.12 FILLER BEAMS OR JOISTS SHOULD BE SPACED EQUALLY BETWEEN THE COLUMNS IF NOT SHOWN OTHERWISE ON THE DRAWINGS.

4.13 PROVIDE TEMPORARY BRACING OF STRUCTURAL FRAMING TO PROVIDE LATERAL SUPPORT UNTIL ALL PERMANENT BRACING MOMENT CONNECTIONS AND FLOOR AND ROOF DECKS (DIAPHRAGMS) ARE COMPLETELY INSTALLED.

4.14 STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND DRAWINGS RELATED TO OTHER TRADES. CONTRACTOR SHALL BE RESPONSIBLE TO CHECK AND COORDINATE DIMENSIONS, CLEARANCES, ETC. WITH THE WORK OF OTHER TRADES. THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE FRAMING AROUND OPENINGS IN FLOOR AND ROOF SLAB AS INDICATED IN THE MECHANICAL AND ARCHITECTURAL DRAWINGS.

4.15 THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE WEB REINFORCEMENT AT OPENINGS IN STEEL BEAMS AND GIRDERS FOR MECHANICAL AND ELECTRICAL PENETRATIONS. WEB OPENINGS SHALL BE LOCATED IN THE MIDDLE 1/3 OF BEAM DEPTH. WEB REINFORCEMENT IS NOT REQUIRED FOR WEB OPENINGS LESS THAN 4" DIAMETER OR 3" X 3". A MAXIMUM OF ONE WEB OPENING IS PERMITTED FOR EACH BEAM NOT HAVING WEB REINFORCEMENT.

4.16 STRUCTURAL STEEL CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATION WITH THE TOP OF CONCRETE ELEVATION. IN CASE OF CONFLICT, THE CONTRACTOR SHALL MAKE ALLOWANCE IN HIS BID FOR MORE STRINGENT REQUIREMENTS.

4.17 PAINT STRUCTURAL STEEL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. DO NOT PAINT STEEL SURFACES TO BE ENCASED IN CONCRETE OR RECEIVE SPRAYED ON FIREPROOFING, CONNECTIONS DESIGNATED AS SLIP CRITICAL, OR TO BE WELDED.

Vertical title block containing: APPROVED, CHIEF ENGINEER, APPROVED, CIVIL ENGINEER; ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353; AIR FORCE SPECIAL OPERATIONS COMMAND; 1 SPECIAL OPERATIONS ENGINEER SQUADRON; HURLBURT FIELD, FLORIDA; DATE: 16 SEPT 2016; DESIGNED BY: J. GREENWELL; DRAWN BY: K. MORRIS; BUILDING NO: 90353; PROJECT NO: FTEV 12-1164; SHEET REF: S1; SHEET NO: SHEET 13 OF 110.

STEEL JOISTS

4.18 STEEL JOISTS AND JOIST GIRDERS SHALL BE FABRICATED AND ERECTED IN STRICT CONFORMANCE WITH THE LATEST EDITION OF "STANDARD SPECIFICATIONS AND LOAD TABLES FOR JOIST AND JOIST GIRDERS, OF THE STEEL JOIST INSTITUTE (SJI).

4.19 JOIST SEATS AND THEIR CONNECTIONS SHALL BE CAPABLE OF TRANSFERRING 1500 LBS PER JOIST OF DIAPHRAGM SHEAR FORCE FROM THE TOP OF JOIST SEAT INTO SUPPORT.

4.20 STEEL JOIST CONTRACTOR SHALL FURNISH ALL CROSS BRIDGING AND CONNECTIONS.

4.21 DESIGN STEEL JOISTS AND THEIR CONNECTIONS FOR UPLIFT AS SHOWN ON THE WIND PRESSURE DIAGRAM ON THESE DRAWINGS. A MAXIMUM OF 5 PSF OF GRAVITY LOAD MAY BE ASSUMED WHEN COMPUTING "NET" UPLIFT.

4.22 EXTEND AND FASTEN BOTTOM CHORDS TO ALL STEEL COLUMNS AND ALTERNATE JOISTS TO SUPPORTING BEAMS, U.N.O.

4.23 EXTEND AND FASTEN JOIST BOTTOM CHORD BRIDGING TO BOTTOM FLANGE OF BEAMS. PROVIDE BRIDGING AT A MAXIMUM SPACING OF 10'-0" O.C. WITH A MINIMUM OF ONE BAY X-BRIDGED TO TOP CHORD.

4.24 FABRICATION AND ERECTION OF STEEL DECKING SHALL CONFORM TO THE LATEST EDITION OF THE STEEL DECK INSTITUTE'S (SDI) "SPECIFICATION AND COMMENTARY FOR COMPOSITE STEEL FLOOR DECK, NON-COMPOSITE STEEL DECK, AND STEEL ROOF DECK" AS APPLICABLE TO THIS PROJECT.

STEEL DECKING:

4.25 MATERIAL FOR STEEL DECKING SHALL CONFORM TO ASTM A1008 GRADES 33 AND 40, OR FROM A653. SEE DRAWINGS FOR STEEL DECK TYPE, GAUGE, YIELD STRENGTH AND SECTION PROPERTIES.

4.26 ROOF DECK SHALL BE TYPE B, WIDE RIB.

4.27 UNLESS NOTED OTHERWISE ALL STEEL DECKING SHALL HAVE A GALVANIZED COATING CONFORMING TO ASTM A653, G90

4.28 STEEL ROOF DECK ANCHORAGE (UNLESS NOTED OTHERWISE ON PLANS OR DETAILS):

- A. ANCHOR DECK TO SUPPORTING STRUCTURE AT ALL EDGE RIBS PLUS INTERIOR RIBS AT A MAXIMUM SPACING OF 6 INCHES USING THE FOLLOWING:
 1. WHEN BASE STEEL THICKNESS IS 3/8" OR LESS, USE #12 SELF-TAPPING HEX WASHER HEAD SCREWS BY HILTI (OR APPROVED EQUAL) OR X-EDN19 THQ12 POWDER ACTUATED FASTENERS BY HILTI (OR APPROVED EQUAL).
 2. WHEN BASE STEEL THICKNESS EXCEEDS 3/8", IT IS THE CONTRACTOR'S OPTION TO PRE-DRILL AND USE #12 HEX WASHER HEAD SCREWS BY HILTI (OR APPROVED EQUAL) OR TO USE HILTI X-ENP-19 L15 POWDER ACTUATED FASTENERS (OR APPROVED EQUAL).
- B. FASTEN SIDE LAPS OF ADJACENT UNITS AT A MAXIMUM SPACING OF 12 INCHES WITH #10 SELF-TAPPING SCREWS BY HILTI (OR APPROVED EQUAL).

4.29 PROVIDE DECKING CONTINUOUS OVER 3 SPANS MINIMUM WHERE SUPPORTING STRUCTURE PERMITS.

4.30 STEEL DECKING SHALL BE ERECTED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS

5.00 MASONRY

5.01 CONCRETE MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO ACI 530, BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES AND ACI 530.1, SPECIFICATIONS FOR CONCRETE MASONRY CONSTRUCTION.

5.02 PROVIDE LIGHTWEIGHT, HOLLOW, LOAD-BEARING CONCRETE MASONRY UNITS (CMU) CONFORMING TO ASTM C90, GRADE N, TYPE 1, $f_c' = 1900$ PSI (NET), UNLESS NOTED OTHERWISE.

5.03 PROVIDE MASONRY CONSTRUCTION WITH MINIMUM COMPRESSIVE STRENGTH, $f_m = 1500$ PSI.

5.04 PROVIDE TYPE "S" OR TYPE "M" MORTAR IN ACCORDANCE WITH ASTM C270, UNLESS NOTED OTHERWISE.

5.05 VERTICAL CELLS SHALL BE REINFORCED WITH #5 @24" O.C. MINIMUM, UNLESS NOTED OTHERWISE IN THE CONTRACT DRAWINGS. VERTICAL REINFORCING SHALL BE CONTINUOUS (LAPPED 48 BAR DIAMETERS AT SPLICES) AND HELD IN POSITION AT THE TOP AND BOTTOM OF THE GROUT POUR. UNO, POSITION VERTICAL REINFORCING IN THE CENTER OF THE CELL.

5.06 PROVIDE GROUT FOR REINFORCED MASONRY IN ACCORDANCE WITH ASTM C476. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI UNLESS NOTED OTHERWISE. GROUT SHALL BE FLUID CONSISTENCY. FLUID CONSISTENCY SHALL MEAN THAT CONSISTENCY AS FLUID AS POSSIBLE FOR POURING WITHOUT SEGREGATION OF THE CONSTITUENT PARTS. FILL ALL CELLS BELOW GRADE WITH GROUT. ALL GROUT SHALL BE CONSOLIDATED AT THE TIME OF POURING BY VIBRATING AND THEN RECONSOLIDATED BY AGAIN PUDDLING LATER, BEFORE PLASTICITY IS LOST. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF THE GROUT 1-1/2 INCHES BELOW THE TOP OF THE UPPERMOST UNIT.

5.07 PROVIDE HORIZONTAL JOINT REINFORCEMENT COMPLYING WITH ASTM A82, NO. 9 GAUGE OR HEAVIER, ZINC COATED, PLACED 16 INCHES ON CENTER UNLESS NOTED OTHERWISE.

5.08 PROVIDE RUNNING BONDS WITH VERTICAL JOINTS LOCATED AT CENTER OF MASONRY UNITS IN THE ALTERNATE COURSE BELOW, UNLESS NOTED OTHERWISE.

5.09 ALL MASONRY UNITS SHALL BE FREE OF EXCESSIVE DUST AND DIRT AT THE TIME THEY ARE LAYED BY THE MASON.

5.10 ALL REINFORCED HOLLOW UNIT MASONRY SHALL BE BUILT TO PRESERVE THE UNOBSTRUCTED VERTICAL CONTINUITY OF THE CELLS TO BE FILLED. WALLS AND CROSS WEBS IN ALL REINFORCED MASONRY WALLS SHALL BE FULLY BEDDED IN MORTAR. ALL HEAD (OR END) JOINTS SHALL BE SOLIDLY FILLED WITH MORTAR FOR A DISTANCE IN FROM EACH FACE OF THE UNIT NOT LESS THAN THE THICKNESS OF THE LONGITUDINAL FACE SHELLS. BOND SHALL BE PROVIDED BY LAPPING UNITS IN SUCCESSIVE VERTICAL COURSES.

6.00 COLD FORMED METAL FRAMING

6.01 FINAL DESIGN AND DETAIL FOR EXTERIOR METAL STUD FRAMING SHALL BE BY DELEGATED ENGINEER REGISTERED IN THE STATE OF FLORIDA. DELEGATED ENGINEER SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER OF RECORD. SHOP DRAWINGS SHALL INCLUDE WALL ELEVATIONS FOR EACH WALL, OPENING (JAMB, HEADER AND SILL) DETAILS, CONNECTION DETAILS, ETC.

6.02 COLD FORMED METAL STUDS: GALVANIZED STEEL PER ASTM A525, G60 COATING MEETING THE REQUIREMENTS OF ASTM A446 GRADE A, WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI.

6.03 ALL LOAD-BEARING (IN-PLANE OR OUT-OF-PLANE) STUDS INDICATED SHALL BE 18 GAGE MINIMUM AND HAVE 1-5/8" WIDE MINIMUM FLANGES WITH A 1/2" LIP AND SHALL BE SPACED AT 1'-4" O.C MAX SPACING, UNLESS NOTED OTHERWISE IN THE CONTRACT DRAWINGS. ALL TRACK INDICATED SHALL BE 18 GAGE MINIMUM AND HAVE 1-1/4" WIDE MINIMUM FLANGES, UNLESS NOTED OTHERWISE IN THE CONTRACT DRAWINGS. ALL TRACKS AND CONNECTIONS FRAMING TO 2ND FLOOR SLAB/BEAMS OR ROOF SLAB SHALL BE SLOTTED TO ALLOW FOR 3/4" OF VERTICAL MOVEMENT

6.04 CONNECTION REQUIREMENTS (UNLESS NOTED OTHERWISE IN THE CONTRACT DRAWINGS):

- A. TRACK TO STEEL OPTIONS
 1. 0.145" DIA. MIN. P.A.F.s @ 8" O.C. STAGGERED.
 2. #12 HWH SELF TAPPING TEK SCREWS @ 8" O.C.
- B. TRACK TO INSULATED CONCRETE FORM PLASTIC WEB
 1. #8 x 2" EXTERIOR DECK SCREWS AT 8" O.C. STAGGERED (IN CENTER OF PLASTIC WEBS)
- C. TRACK TO BLOCK - (2) 3/16" TAPCON SCREW ANCHORS AT EACH JOIST/STUD LOCATION EMBED 1 1/2" MINIMUM INTO BLOCK/GROUT.
- D. TRACK TO CONCRETE OPTIONS:
 1. 0.145" DIA. MIN. P.A.F.s @ 8" O.C. STAGGERED EMBED 1" MIN.
 2. 3/16" TAPCON SCREW ANCHORS @ 8" O.C. EMBED 1" MIN.
- E. STUD TO STUD OR JOIST TO JOIST: (4) #8 HWH SELF TAPPING TEK SCREWS, MIN.
- F. STUD TO TRACK - (2) #8 MIN. HWH SELF TAPPING TEK SCREWS.
- G. STUD TO STEEL OPTIONS
 1. (2) 0.145" DIA. P.A.F.'s
 2. (2) #12 HWH SELF TAPPING TEK SCREWS.
- H. HAT CHANNELS TO STUD/JOIST FRAMING
 1. (2) #8 MIN. HWH SELF TAPPING TEK SCREWS AT EACH JOIST.

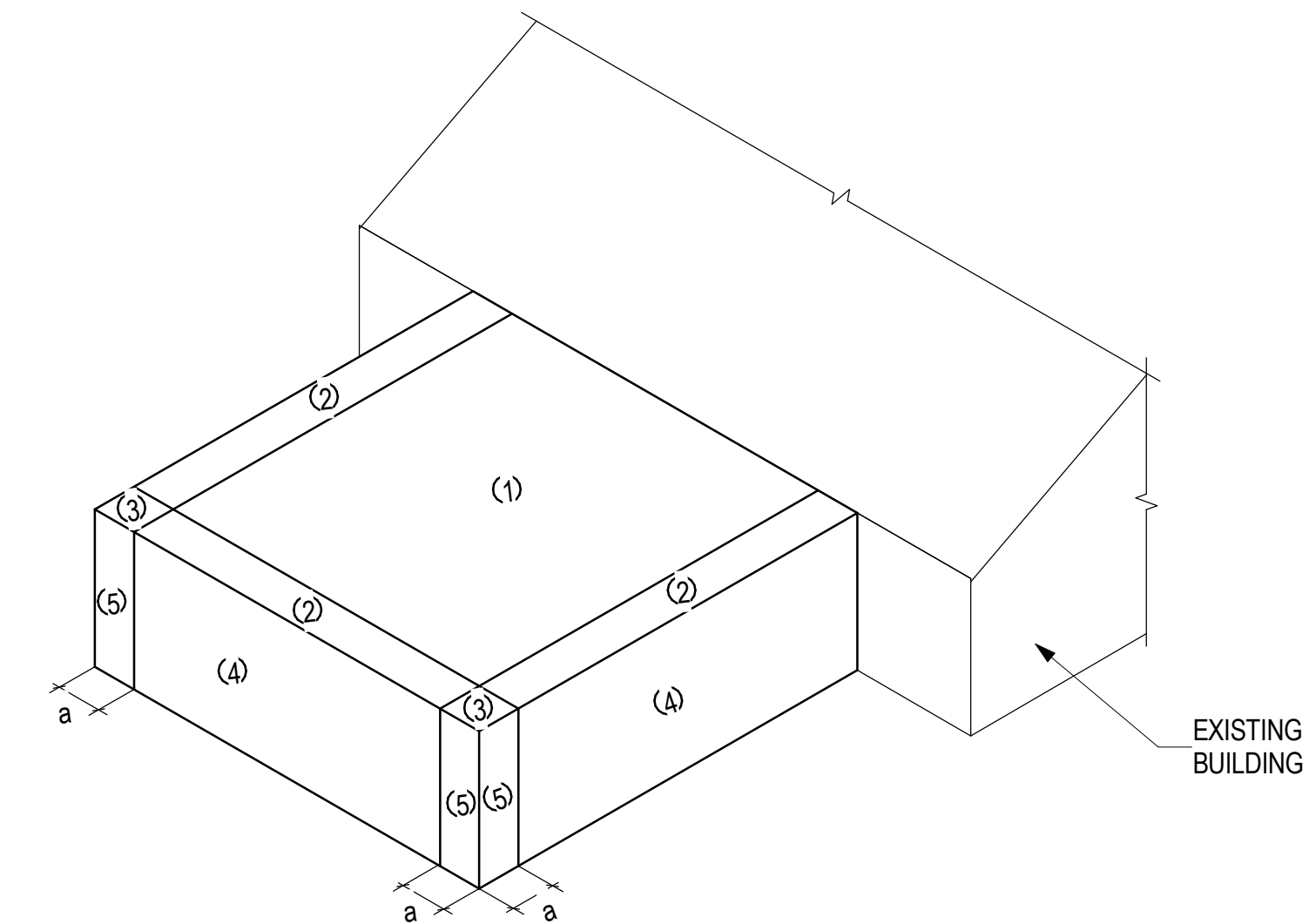
7.00 EPOXY ANCHORAGE: WHERE EPOXY ANCHORAGE IS SPECIFIED, PRODUCT SHALL BE HILTI HY200 OR HILTI HIT-RE 500 SD. FOLLOW STRICTLY THE MANUFACTURER'S SPECIFICATIONS FOR ANCHOR INSTALLATION.

WIND LOAD DETERMINATION ASSUMPTIONS - INTERNATIONAL BUILDING CODE 2012					
WIND VELOCITY (MPH)	EXPOSURE CATEGORY	MEAN ROOF HEIGHT (FT.)	ROOF SLOPE	RISK CATEGORY	ENCLOSURE CATEGORY
156	C	13	0.5 ON 12	III	ENCLOSED

ULTIMATE DESIGN WIND PRESSURES FOR COMPONENTS AND CLADDING (PSF)												
EFF. AREA (SQ. FT)	ROOF ZONE 1		ROOF ZONE 2			ROOF ZONE 3		WALL ZONE 4		WALL ZONE 5		
				O-HANG			O-HANG					
≤ 10	21.6	-53.0	21.6	-89.0	-76.4	21.6	-134.0	-125.9	48.5	-52.6	48.5	-64.7
50	18.4	-49.9	18.4	-67.0	-73.3	18.4	-80.5	-63.0	43.6	-47.6	43.6	-54.7
≥ 100	17.1	-48.5	17.1	-57.5	-71.9	17.1	-57.5	-36.0	41.4	-45.4	41.4	-50.4

NOTES:

1. FOR EFFECTIVE AREAS BETWEEN THOSE GIVEN ABOVE THE LOAD MAY BE INTERPOLATED, OTHERWISE USE THE LOAD ASSOCIATED WITH THE LOWER EFFECTIVE AREA.
2. THE EDGE STRIP, a = 6.6 FT.
3. PRESSURES SHALL BE APPLIED IN ACCORDANCE WITH THE FIGURE SHOWN ON THIS SHEET.
4. PRESSURES GIVEN ARE ULTIMATE LOADS TO BE USED WITH STRENGTH DESIGN. FOR SERVICE LOADS TO BE USED WITH ALLOWABLE STRESS DESIGN, MULTIPLY THE PRESSURES BY 0.60. SEE TABLES 2.3 AND 2.4 IN ASCE 7-10 FOR MORE INFORMATION ON LOAD COMBINATIONS.



REPRESENTATIVE DIAGRAM

ATFP DESIGN CRITERIA PER UFC 4-010-01 DATED 9 FEBRUARY 2012, CHANGE 1, 1 OCTOBER 2013

BUILDING LOCATION: WITHIN CONTROLLED PERIMETER

BUILDING OCCUPANCY CATEGORY: PRIMARY GATHERING

LEVEL OF PROTECTION: LOW

EXPLOSIVE WEIGHT: TYPE II

STANDOFF DISTANCE PROVIDED: VARIES, SEE CIVIL (≥ 30 FT.)

WALL TYPE (EXISTING): LOAD BEARING UNREINFORCED MASONRY WALLS WITH CMU VENEER

WALL TYPE (NEW): LOAD BEARING REINFORCED MASONRY WALLS WITH CMU VENEER

CONVENTIONAL CONSTRUCTION STANDOFF: 30 FT.

MINIMUM REQUIRED STANDOFF BASED ON WALL TYPE: 13 FT.

BLAST DESIGN: METAL DECKING, ROOF JOISTS, WINDOWS, WINDOW FRAMES, STOREFRONT SYSTEMS, CURTAIN WALL SYSTEMS, DOORS AND CONNECTIONS OF COMPONENTS SHALL BE DESIGNED AND DETAILED TO CONFORM TO THE REQUIREMENTS OF THE LATEST UFC 4-010-01 STATED ABOVE.

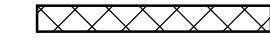







ALL DOORS, SKYLIGHTS, WINDOWS, STOREFRONT SYSTEMS, CURTAIN WALL SYSTEMS AND OTHER SIMILAR COMPONENTS AND THEIR CONNECTIONS SHALL BE DESIGNED TO RESIST LOADS AS OUTLINED IN THE INTERNATIONAL BUILDING CODE 2012 EDITION, ASCE 7-10, UFC 4-010-01, AND PDC TR-10-02 INCLUDING BUT NOT LIMITED TO WIND LOADS, IMPACT RESISTANCE, AND BLAST RESISTANCE. ALL WINDOWS, DOORS, STOREFRONT SYSTEMS, CURTAIN WALL SYSTEMS, ETC SHALL BE DESIGNED BY THEIR SYSTEMS ENGINEER AND PROVIDED AAS A SYSTEM INCLUDING ANY REQUIRED INTERMEDIATE SUPPORT AND THEIR ATTACHMENTS TO THE MAIN STRUCTURAL FRAME. SUBMIT CALCULATIONS TO THE CONTRACTING OFFICER.

STANDARD LAYOUT (24" X 36")

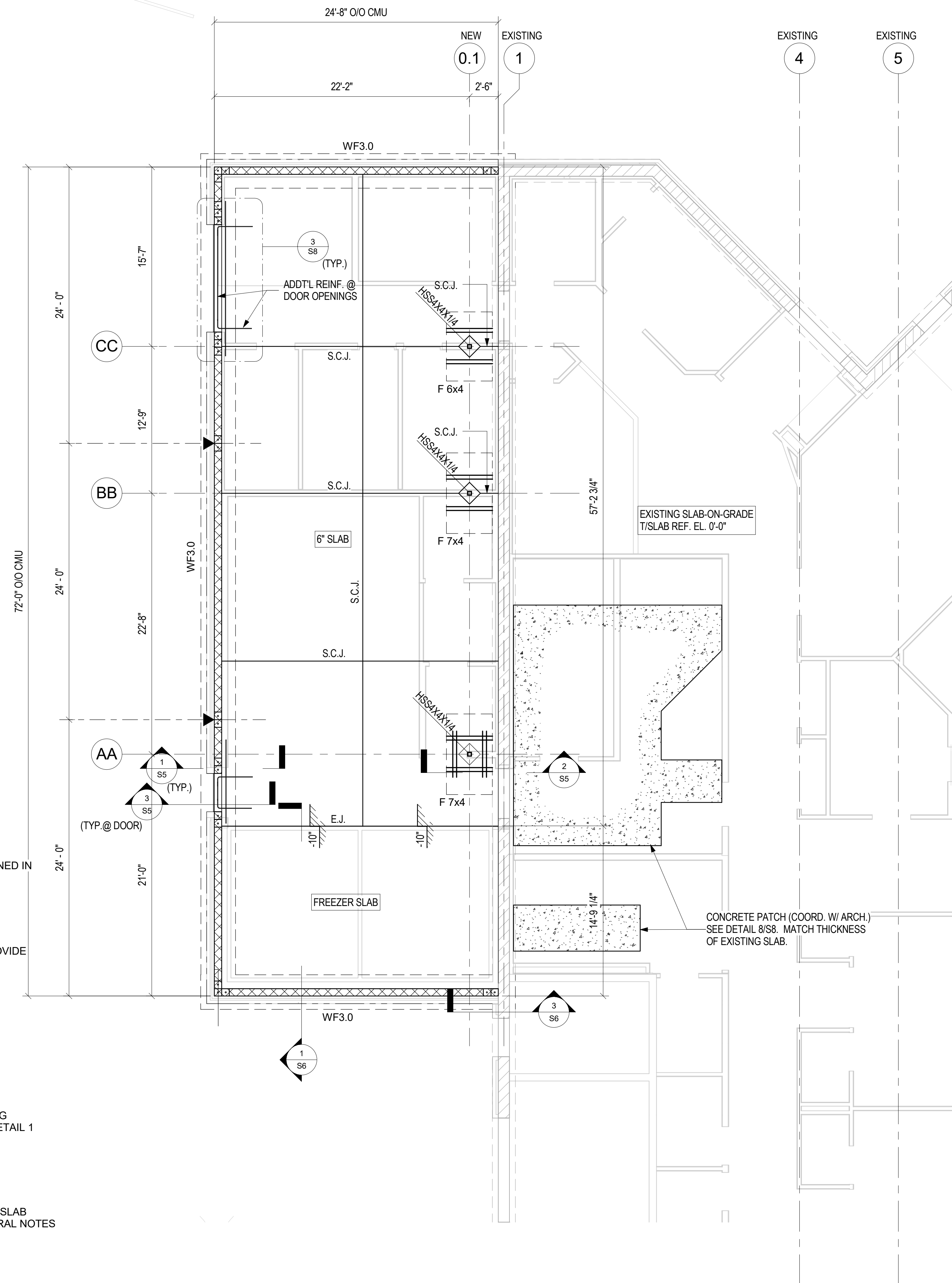
APPD		DESCRIPTION		DATE		REV.#	
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 GENERAL NOTES AND WIND LOAD DIAGRAMS			
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA				DATE: 16 SEPT 2016 DESIGNED BY: J. GREENWELL DRAWN BY: K. MORRIS BUILDING NO: 90353 PROJECT NO: FTEV 12-1164 SHEET REF: S2 SHEET NO: SHEET 14 OF 110			

FOUNDATION SCHEDULE						
MARK	WIDTH	LENGTH	THICKNESS	BOTTOM REINFORCING	TOP REINFORCING	TOP OF FOOTING
F6x4	4'-0"	6'-0"	1'-0"	#5 @ 12" O.C.; E.W.	N/A	-1'-4"
F7x4	4'-0"	7'-0"	1'-0"	#5 @ 12" O.C.; E.W.	N/A	-1'-4"
WF3.0	3'-0"	SEE PLAN	1'-0"	#5 @ 12" O.C.; E.W.	N/A	-1'-4"

LEGEND

-  = NEW 8" NOMINAL CMU WALLS WALL. UNLESS NOTED OTHERWISE (U.N.O.), WALL SHALL BE REINFORCED WITH #5 VERTICAL REINFORCING AT 32" O.C. IN CENTER OF GROUT FILLED CELLS. PROVIDE HORIZONTAL JOINT REINFORCING AND ADDITIONAL VERTICAL REINFORCING AS OUTLINED IN THE GENERAL NOTES, TYPICAL DETAILS AND SECTIONS IN THESE DRAWINGS.
-  = EXISTING 12" NOMINAL CMU WALL
-  = ADDITIONAL GROUT FILLED AND REINFORCED CELL IN ADDITION TO TYPICAL REINFORCING. PROVIDE BAR SIZE TO MATCH WALL REINF.
-  = VERTICAL MASONRY CONTROL JOINT LOCATION; SEE DETAIL 4/S7.
- S.C.J. = SAWN CONTRACTION JOINT OR CONSTRUCTION JOINT; CONTRACTOR'S OPTION U.N.O. SEE DETAIL, SHEET S8.
- E.J. = EXPANSION JOINT - 1/2" P.J.F.
-  = 6" CONCRETE BASE SLAB (REINF. W/ #3 @ 12" O.C. - 1 1/2" CLEAR TO TOP) WITH 1" SAND LEVELING BASE, 4" INSULATED METAL PANEL AND 3" CONCRETE FLOOR WITH EPOXY FINISH. REFER TO DETAIL 1 ON SHEET S6.
-  = SLAB STEP
-  = 6" MINIMUM THICKNESS SLAB-ON-GRADE REINFORCED WITH #3 @ 12" O.C. 1 1/2" CLEAR TO TOP. SLAB SHALL BE PLACED OVER A VAPOR BARRIER AND CAPILLARY BREAK AS INDICATED IN THE GENERAL NOTES SECTION 2.07 ON SHEET S1.
-  = (2) #4x4'-0" RE-ENTRANT CRACK CONTROL REINF. W/ 1" CLR TO TOP OF SLAB

G.C. NOTE: NO FOUNDATION UNDERCUT SHALL OCCUR WITHIN 10.0-FEET OF THE EXISTING BUILDING AS MEASURED FROM THE EXISTING EXTERIOR WALL FACE.



1 FOUNDATION & SLAB-ON-GRADE PLAN
 T.O.SLAB REF. ELEV: 0'-0" U.N.O.; REF. EL: 0'-0" = ELEV: 20.45'

STANDARD LAYOUT (24" X 36")

APPD		DESCRIPTION		DATE	
REV#		APPROVED		DATE	
		CHIEF ENGINEER			
		APPROVED			
		CIVIL ENGINEER			

**ADAL CHILD DEVELOPMENT CENTER BLDG.
& REPAIR CHILD DEVELOPMENT CENTER
BLDG. 90353**

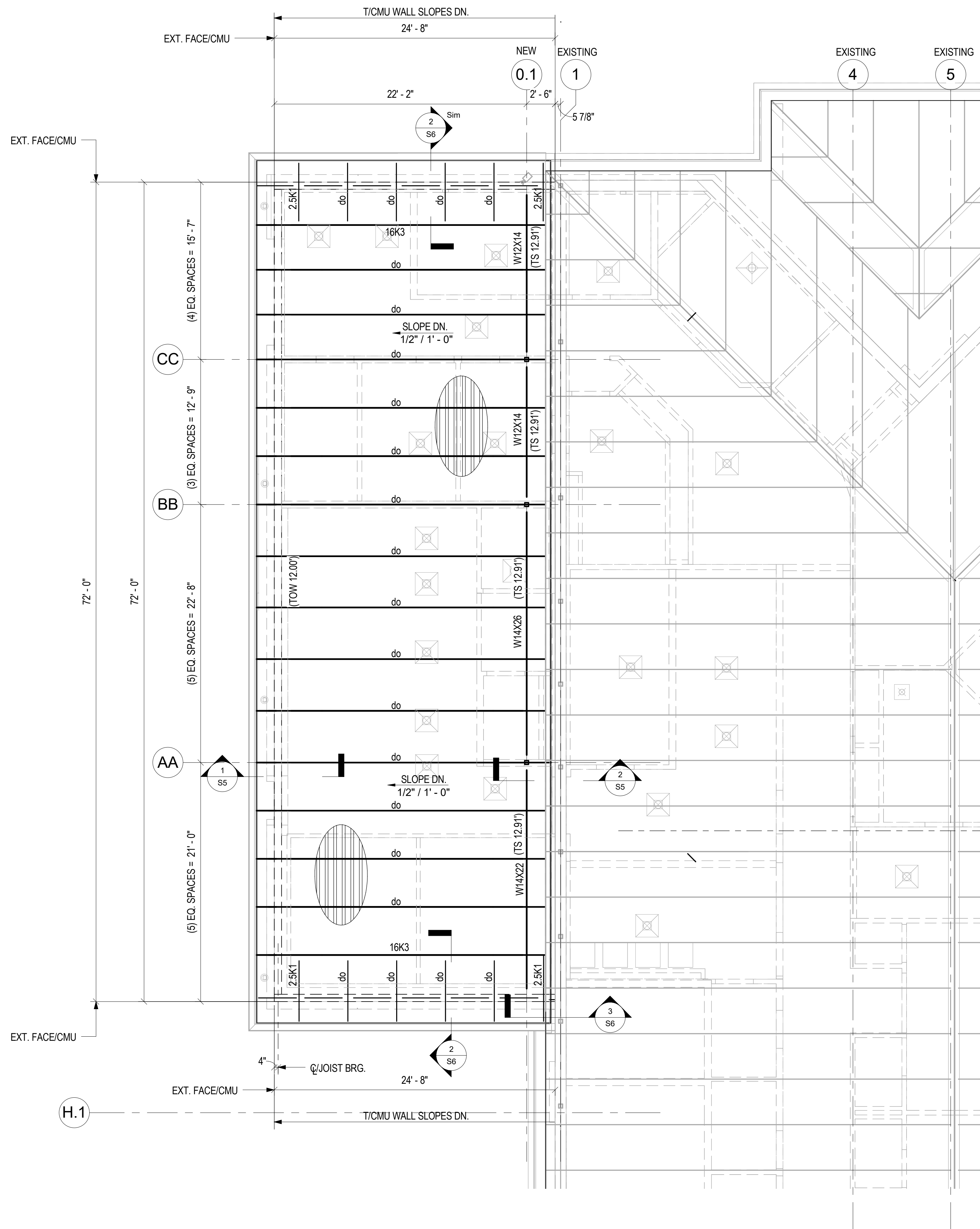
FOUNDATION & SLAB-ON-GRADE PLAN

**AIR FORCE SPECIAL
OPERATIONS COMMAND**

1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 16 SEPT 2016
 DESIGNED BY: J. GREENWELL
 DRAWN BY: K. MORRIS
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: **S3**

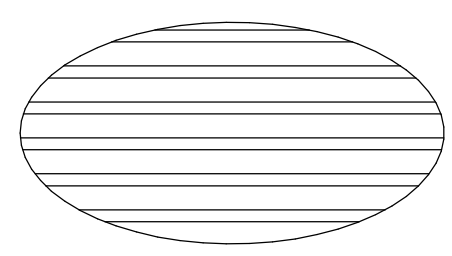
SHEET NO:
SHEET 15 OF 110



ROOF FRAMING NOTES AND LEGEND

LEGEND

(TS XX.XX) = TOP OF STEEL REFERENCE ELEVATION
 (TOW XX.XX) = TOP OF WALL (JOIST BEARING) REF. ELEVATION
 (E) = EXISTING STRUCTURAL MEMBER

 = 1.5" TYPE B 20 GA VULCRAFT OR EQUIVALENT (TH= 0.0358 in, I= 0.201 in⁴/ft) ROOF DECK.
 INSTALLATION/ATTACHMENT:
 SUPPORT FASTENERS: #12 TEK SCREWS
 SIDELAP FASTENERS: #10 TEK SCREWS
 FASTENER LAYOUT:
 ZONES 1, 2 & 3: (1) #12 @ 6" O.C. (36/7 PATTERN)
 NO OF SIDELAP FASTENER PER SPAN: 10

JOIST MFR. NOTES:

1. PROVIDE JOIST BOT. CHORD EXT. AT ALTERNATE JOISTS TO BOT. FLANGE OF W-SHAPE BEAMS; TYP.
2. PROVIDE JOIST UPLIFT BRIDGING AND TYPICAL BRACING AT A SPACING EQUAL TO THE MINIMUM OF 10' OR AS REQUIRED FOR JOIST DESIGN. PROVIDE A MINIMUM OF ONE X-BRIDGED BAY AT EACH BRIDGING RUN.
3. SPACE JOISTS @ A MAXIMUM SPACING OF 5'-0" O.C., U.N.O. ON ROOF FRAMING PLAN.

1 ROOF FRAMING PLAN
 S4 3/16" = 1'-0"

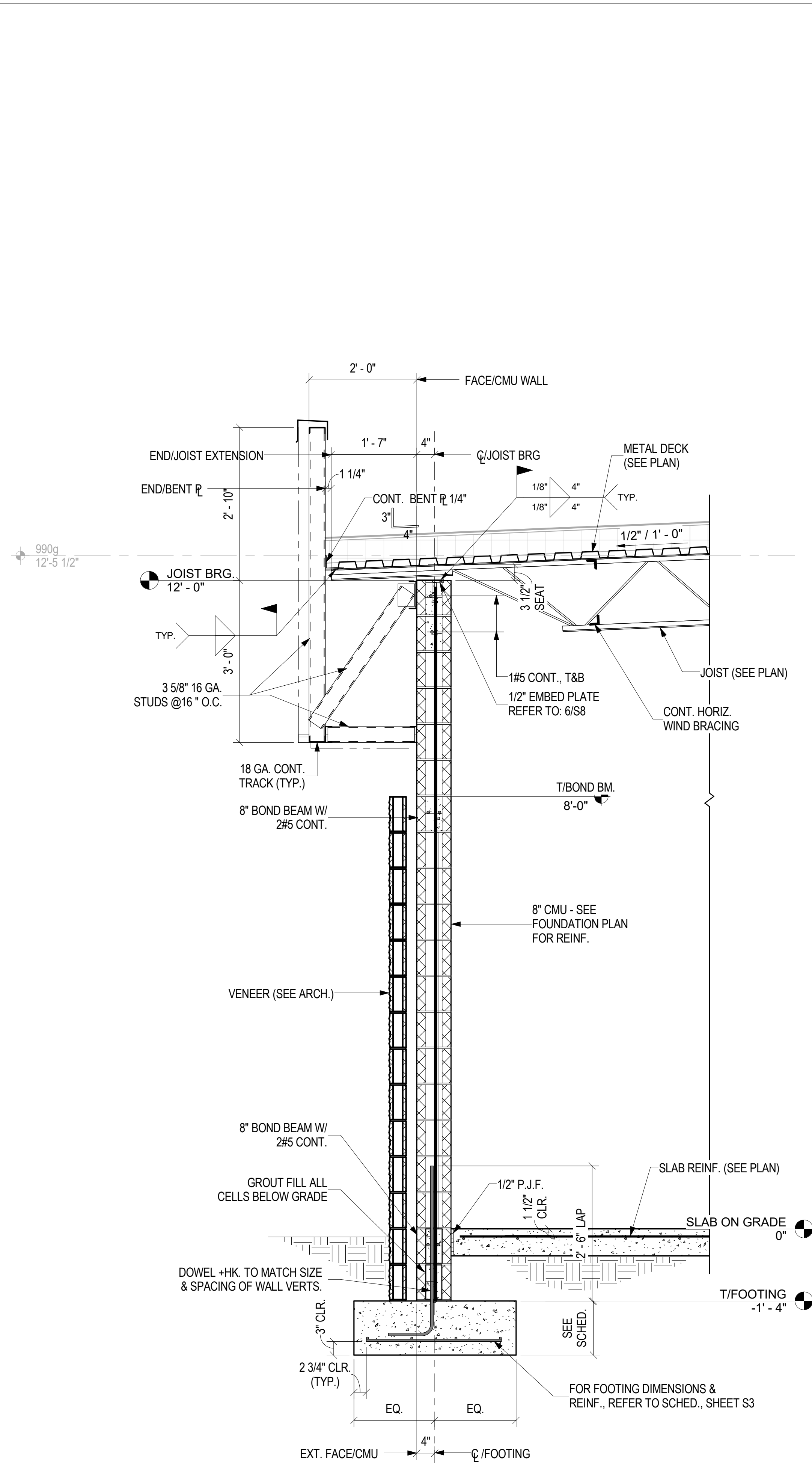
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DESCRIPTION	
DATE	
REV#	
APPROVED	
CHIEF ENGINEER	
APPROVED	
CIVIL ENGINEER	

ADAL CHILD DEVELOPMENT CENTER BLDG.
 & REPAIR CHILD DEVELOPMENT CENTER
 BLDG. 90353

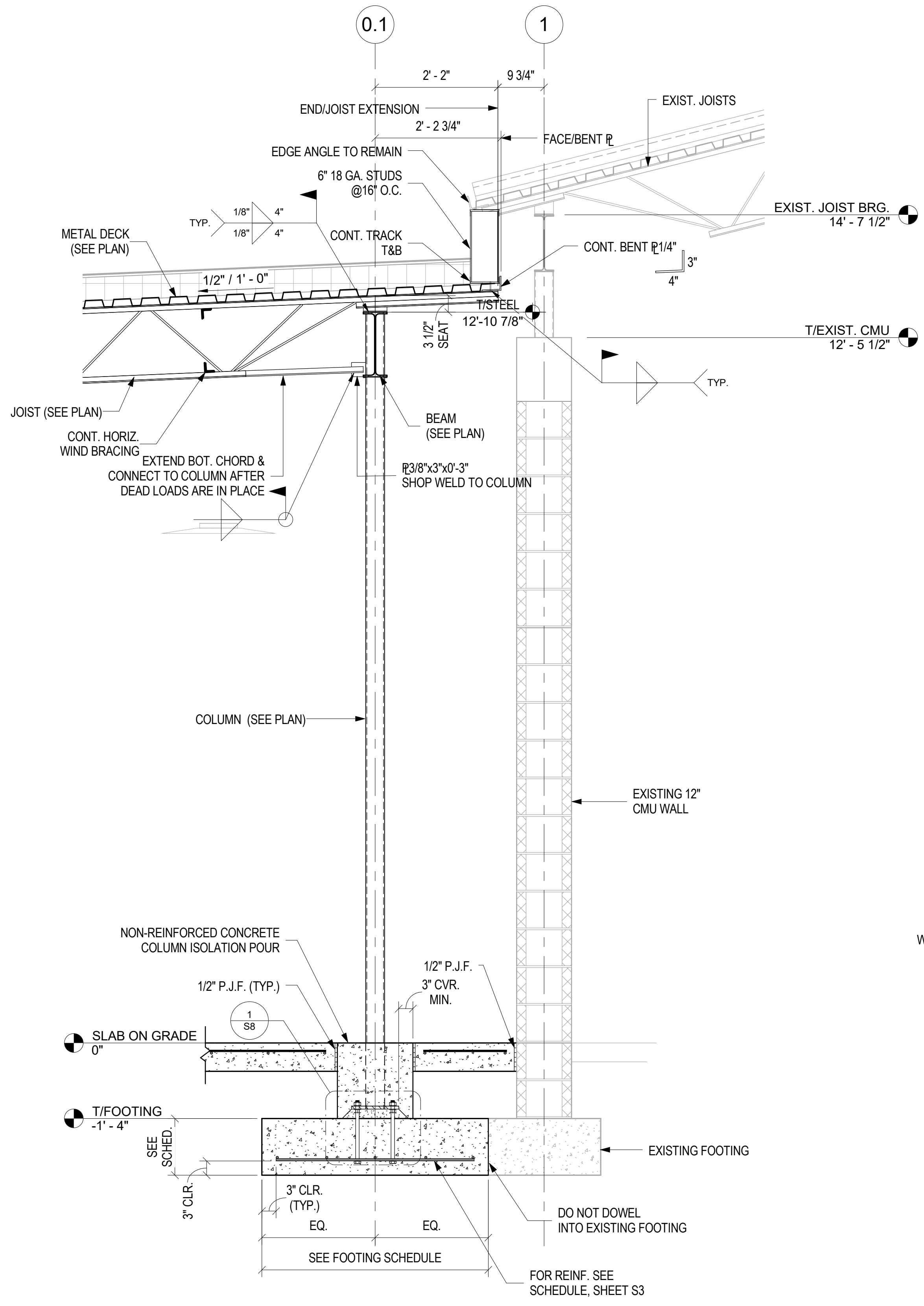
AIR FORCE SPECIAL
 OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

ROOF FRAMING PLAN

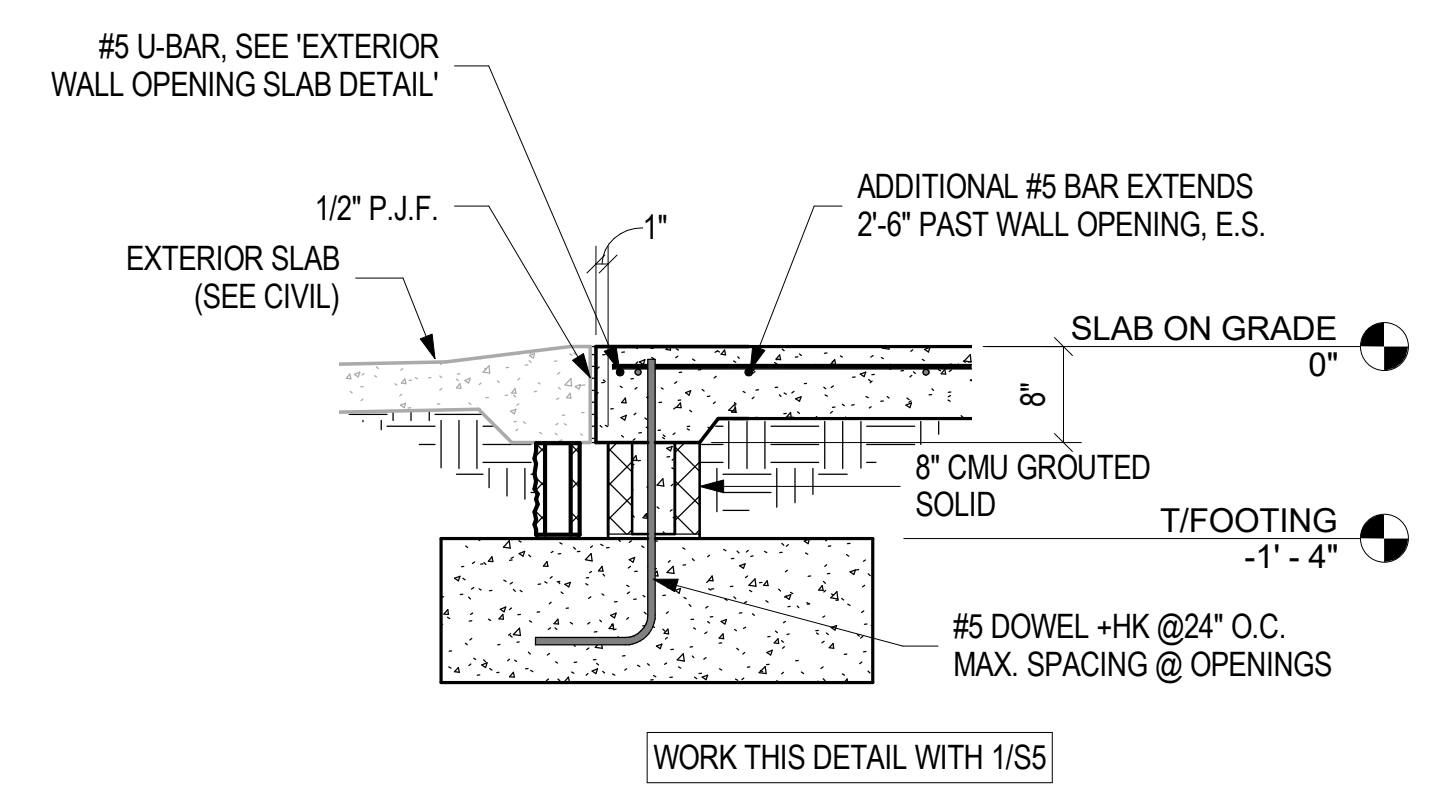
DATE: 16 SEPT 2016
 DESIGNED BY: J. GREENWELL
 DRAWN BY: K. MORRIS
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: S4
 SHEET NO: SHEET 16 OF 110



1 TYPICAL WALL SECTION
S5 3/4" = 1'-0"



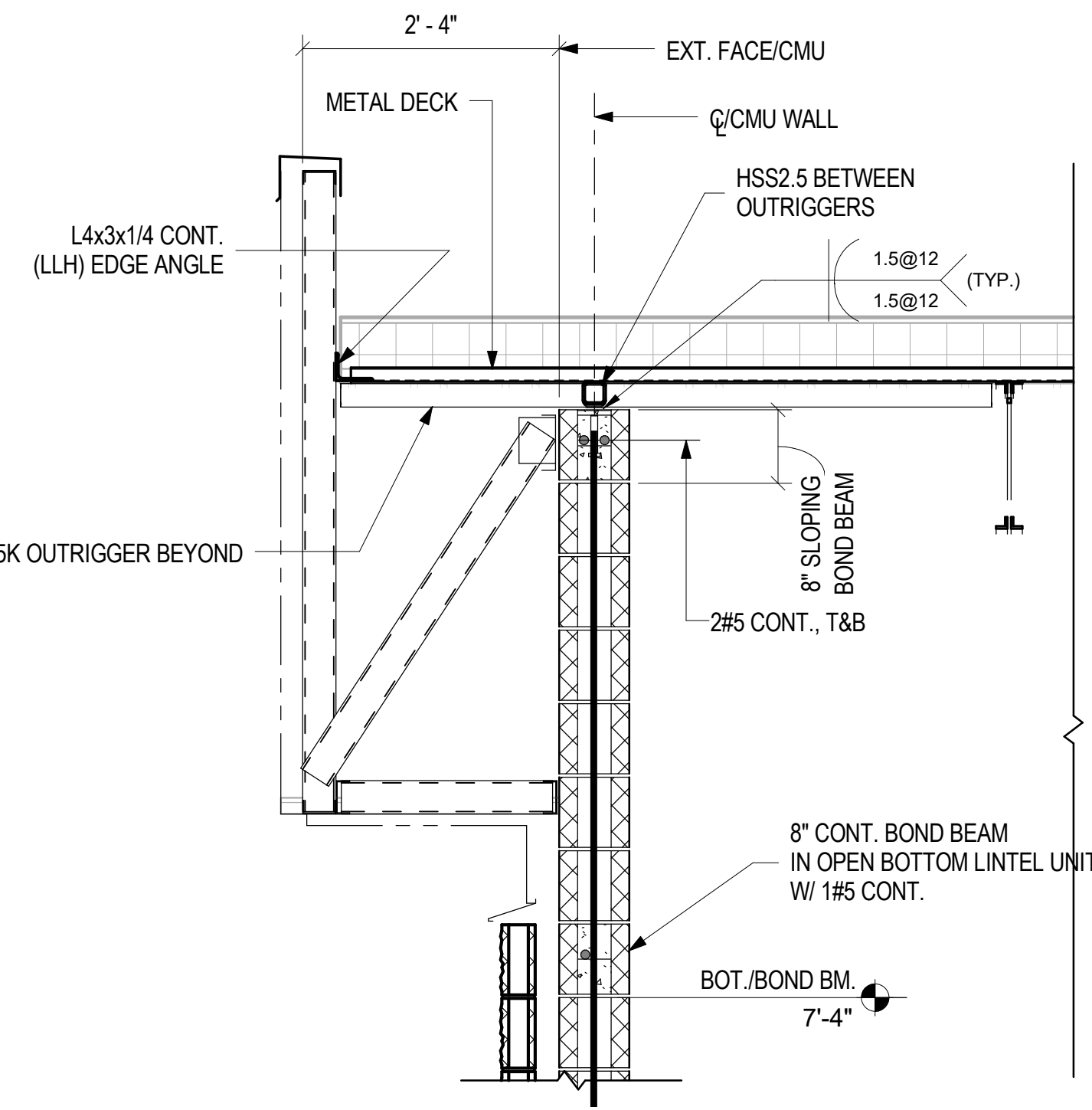
2 SECTION @ GRID LINE 0.1
S5 3/4" = 1'-0"



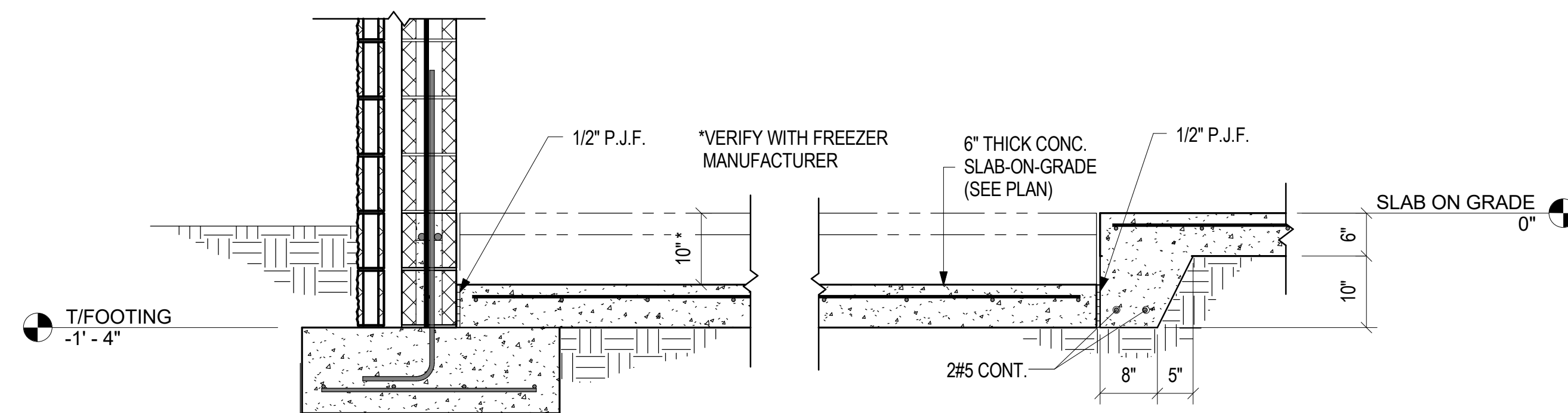
3 TYPICAL SECTION @ DOOR
S5 3/4" = 1'-0"

STANDARD LAYOUT (24" X 36")

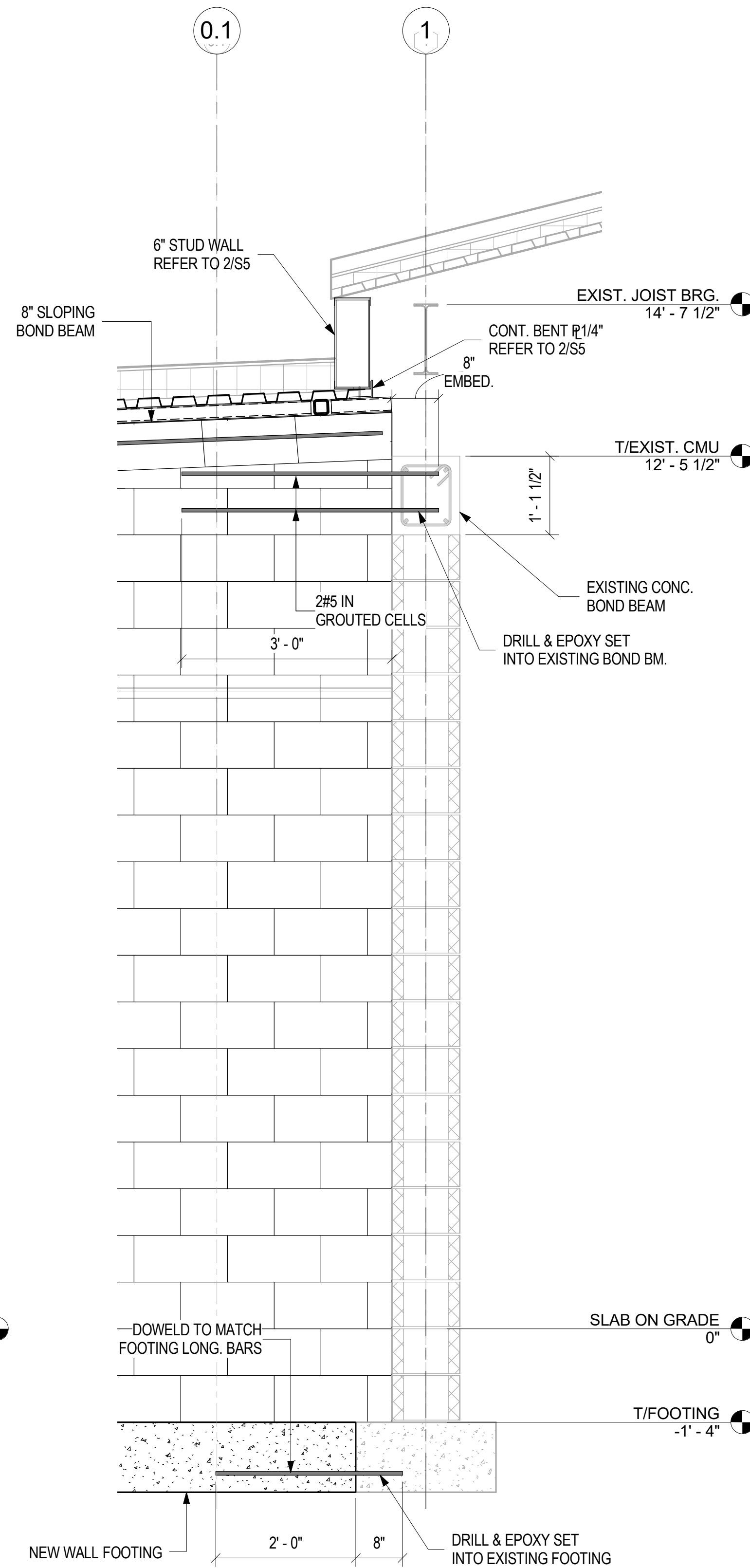
	DESCRIPTION	DATE	APPD
APPROVED	CHIEF ENGINEER		
	APPROVED		
	CIVIL ENGINEER		
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
WALL SECTIONS			
AIR FORCE SPECIAL OPERATIONS COMMAND			
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE: 16 SEPT 2016			
DESIGNED BY: J. GREENWELL			
DRAWN BY: K. MORRIS			
BUILDING NO: 90353			
PROJECT NO: FTEV 12-1164			
SHEET REF: S5			
SHEET NO: SHEET 17 OF 110			



2 SECTION @ RAKE
S6 3/4" = 1'-0"



1 SECTION @ FREEZER SLAB
S6 3/4" = 1'-0"



3 SECTION
S6 3/4" = 1'-0"

STANDARD LAYOUT (24" X 36")

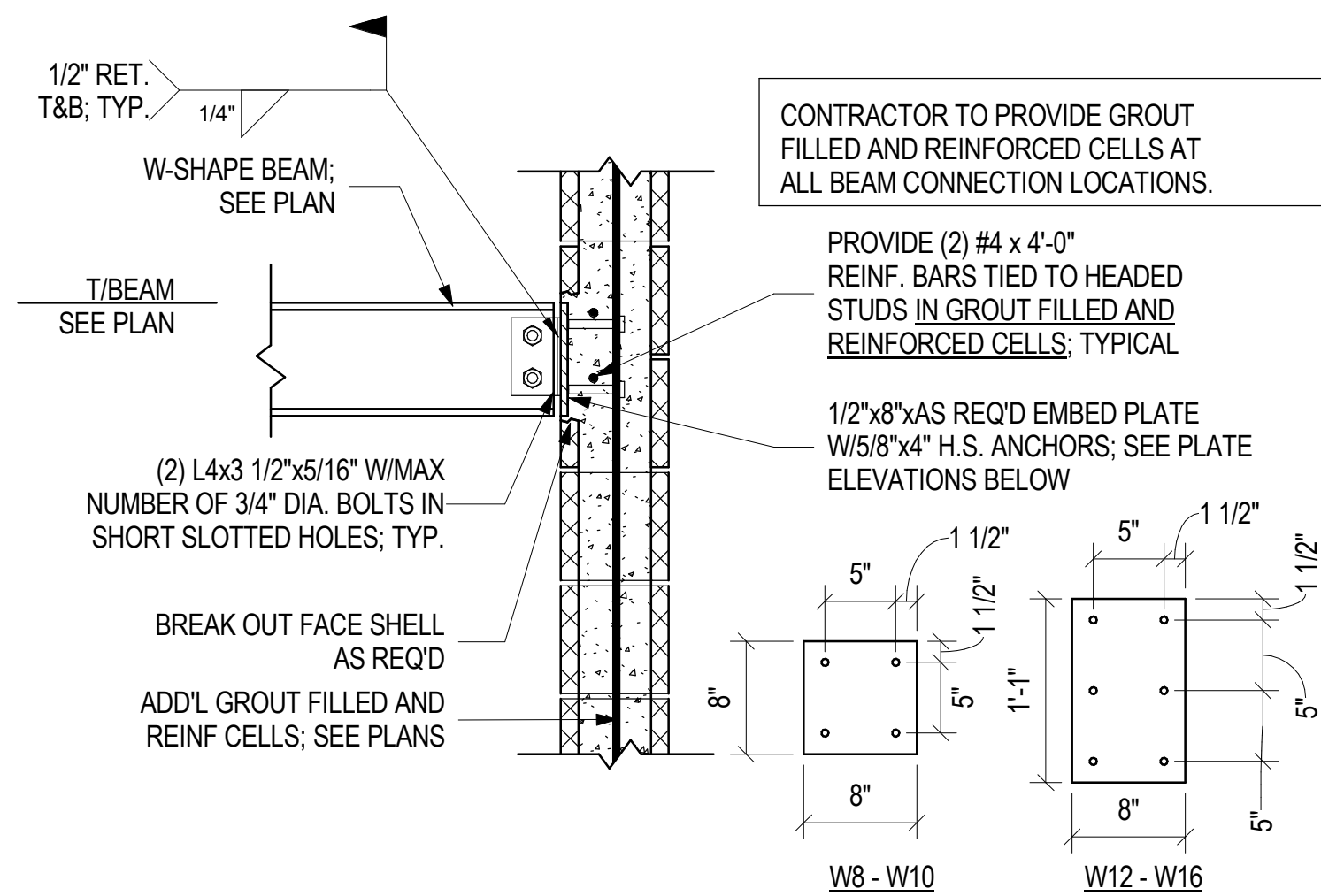
REV.#	DATE	DESCRIPTION	APPD.

APPROVED	CHIEF ENGINEER
APPROVED	CIVIL ENGINEER

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	
WALL SECTIONS	

AIR FORCE SPECIAL OPERATIONS COMMAND	
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	

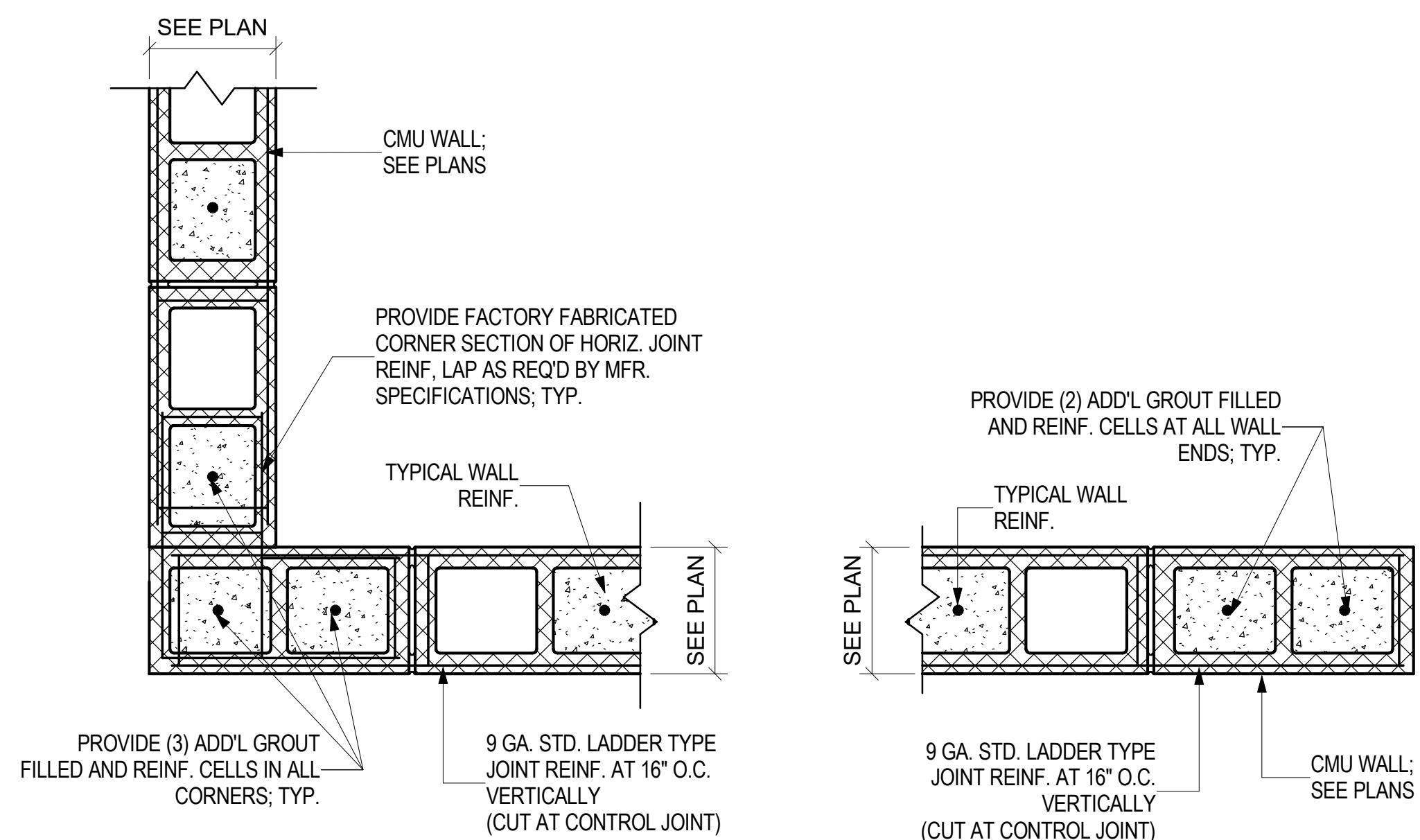
DATE:	16 SEPT 2016
DESIGNED BY:	J. GREENWELL
DRAWN BY:	K. MORRIS
BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164
SHEET REF.:	S6
SHEET NO.:	SHEET 18 OF 110



W-SHAPE BEAM TO MASONRY WALL CONN., U.N.O.

1 CMU - BEAM TO CMU CONNECTION

1" = 1'-0"

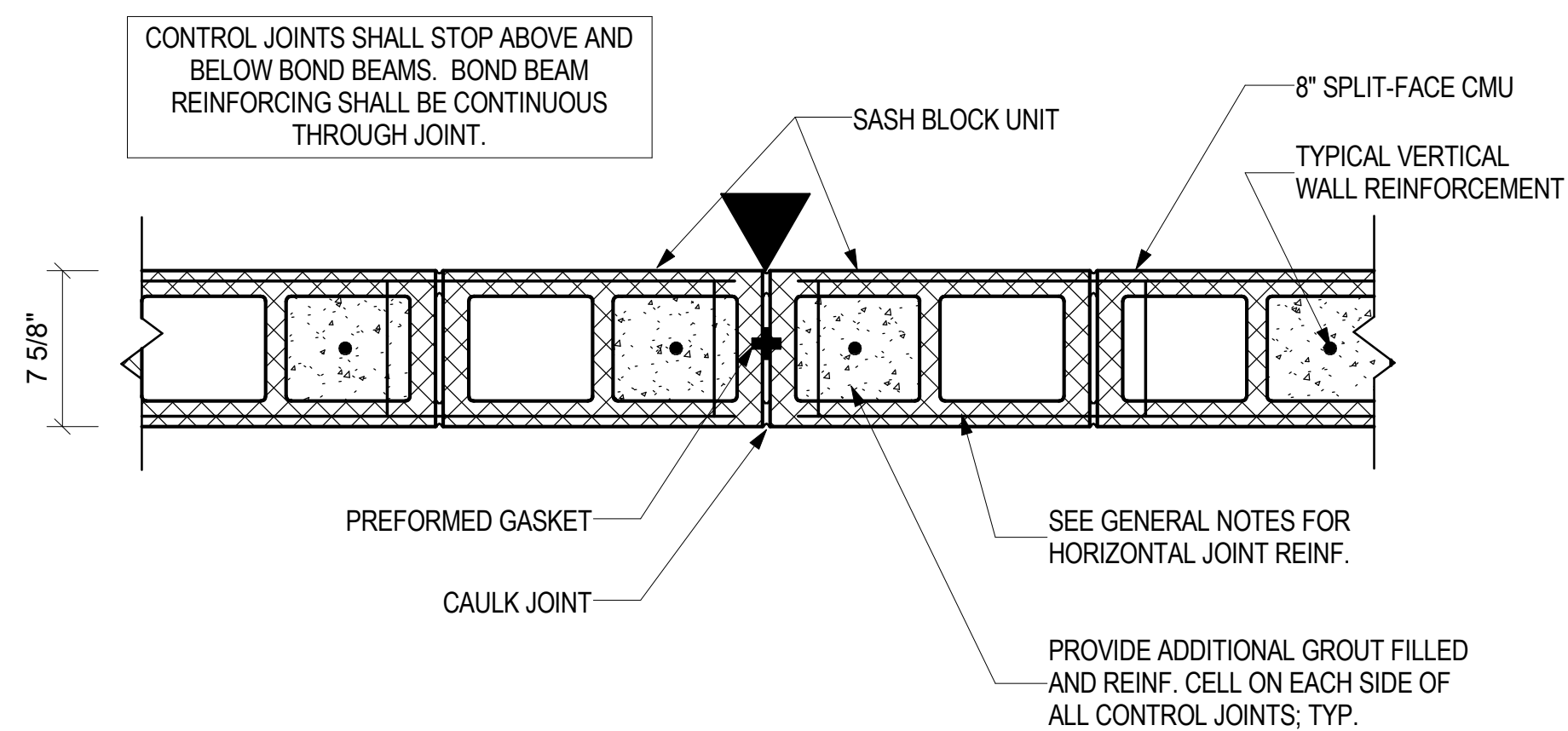


TYPICAL CMU WALL CORNER DETAIL, U.N.O.

TYPICAL CMU WALL END DETAIL, U.N.O.

3 CMU - TYPICAL REINFORCING

1 1/2" = 1'-0"



4 CMU - VMCJ DETAIL

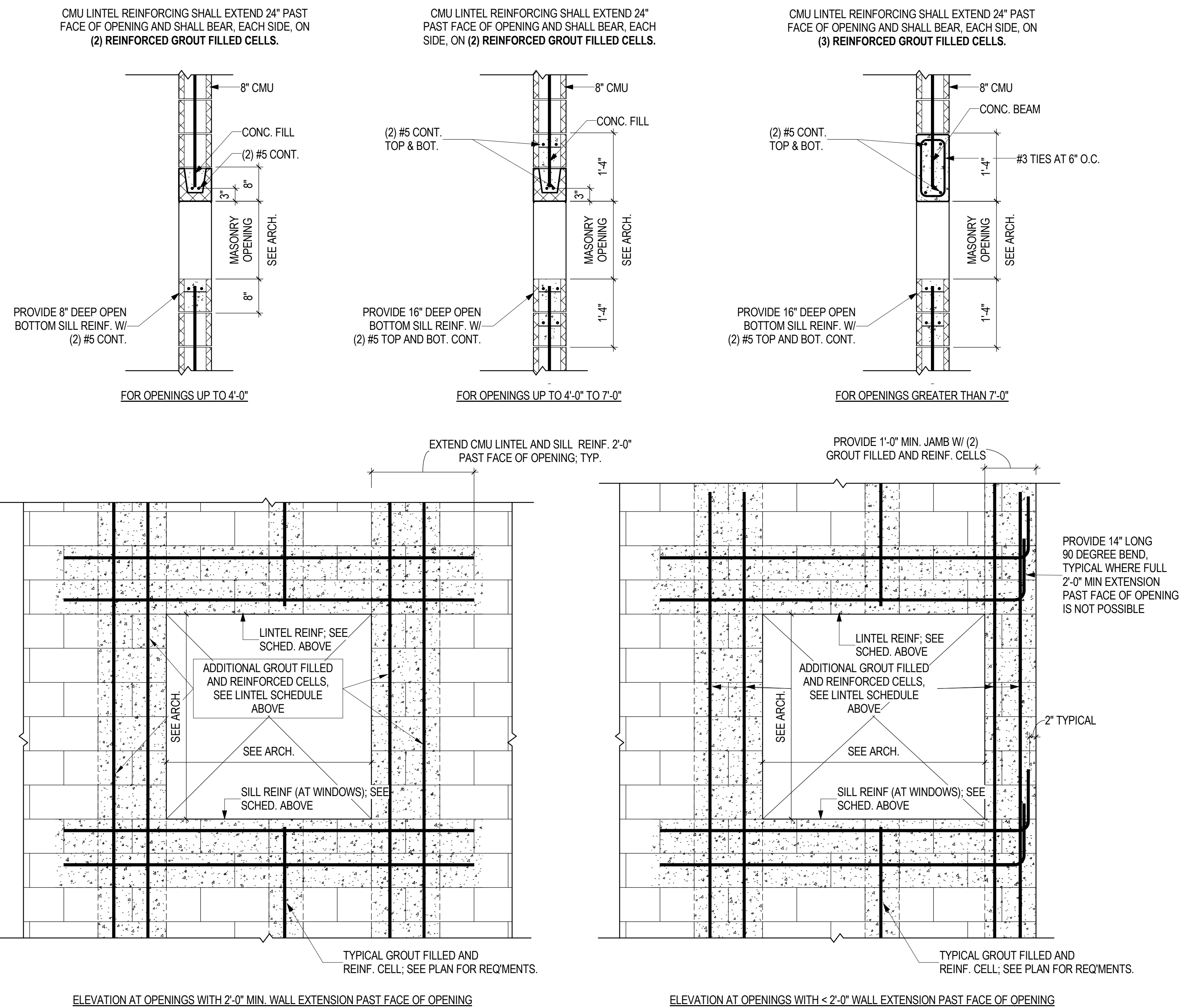
1 1/2" = 1'-0"

CONSTRUCTION NOTE:
SAW CUT FROM ONE SIDE, SLIDE ANGLE INTO PLACE. SAW CUT FROM OPPOSITE SIDE, SLIDE ANGLE INTO PLACE. THRU BOLT BEFORE REMOVING EXISTING CMU.

L6x4x5/16 (LLV) GRIND FACE OF CMU TO LET ANGLES SIT FLUSH W/ FACE OF CMU WHERE GALVANIZED METAL STUD FURRING IS UTILIZED

5 DETAIL - NEW OPENING IN EXISTING CMU WALL

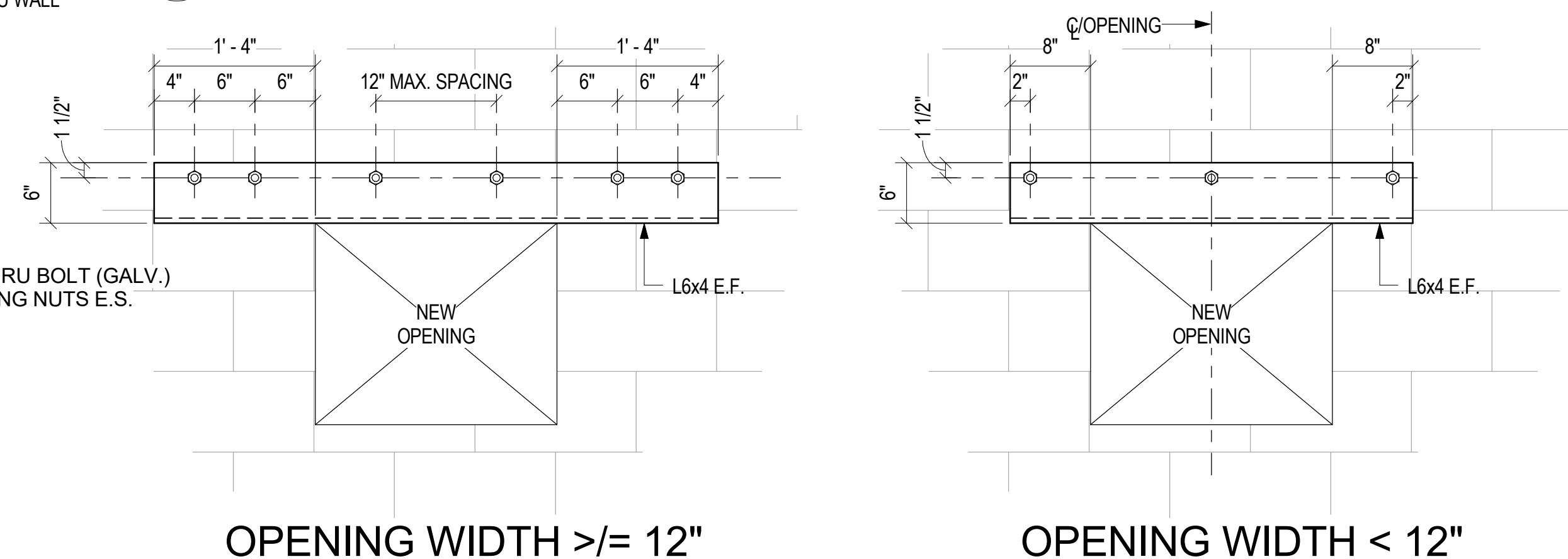
1" = 1'-0"



DETAIL NOTE:
WHERE MASONRY CONTROL JOINTS ARE LOCATED WITHIN 2'-0" OF FACE OF OPENING, EXTEND REINFORCING THROUGH CONTROL JOINT TO PROVIDE 2'-0" MIN. REQ'D EXTENSION OR PROVIDE 90 DEGREE HOOKS AS SHOWN ABOVE (MASONRY CONTRACTOR'S OPTION)

2 CMU - LINTEL (WITH VENEER)

3/4" = 1'-0"

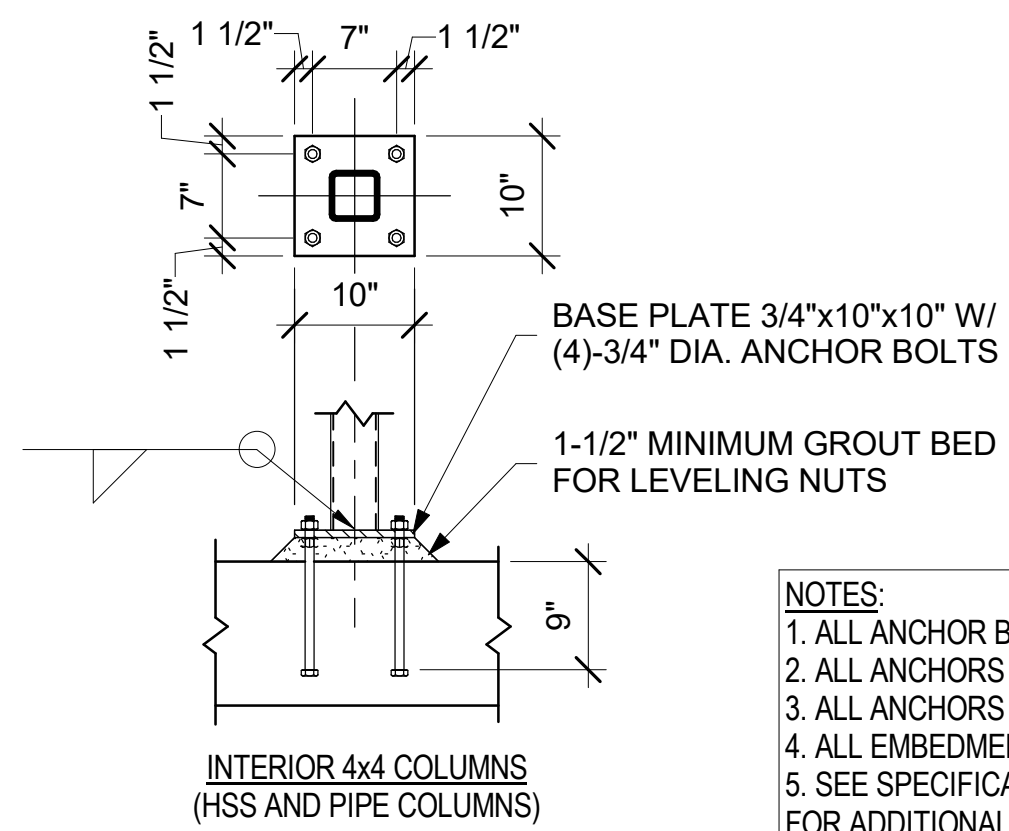


OPENING WIDTH >= 12"

OPENING WIDTH < 12"

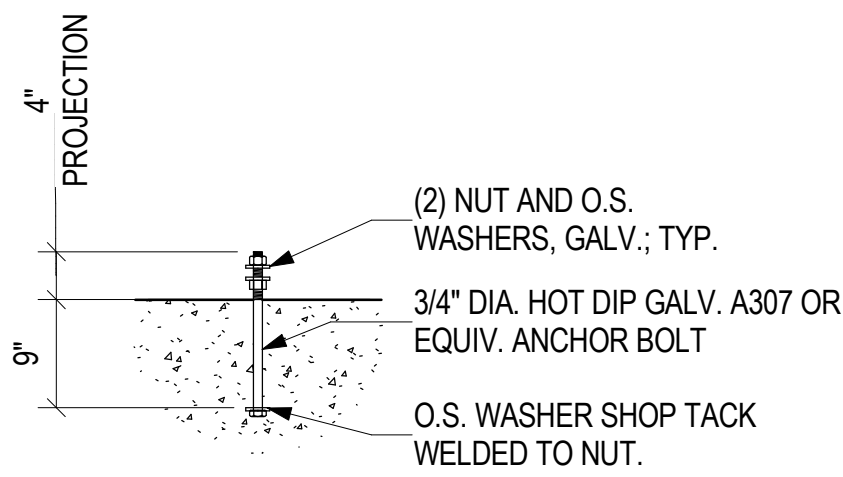
STANDARD LAYOUT (24" X 36")

APPD	
DESCRIPTION	
DATE	
REV#	
APPROVED	
CHIEF ENGINEER	
APPROVED	
CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	
TYPICAL MASONRY DETAILS	
AIR FORCE SPECIAL OPERATIONS COMMAND	
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016
DESIGNED BY:	J. GREENWELL
DRAWN BY:	K. MORRIS
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	S7
SHEET NO:	SHEET 19 OF 110



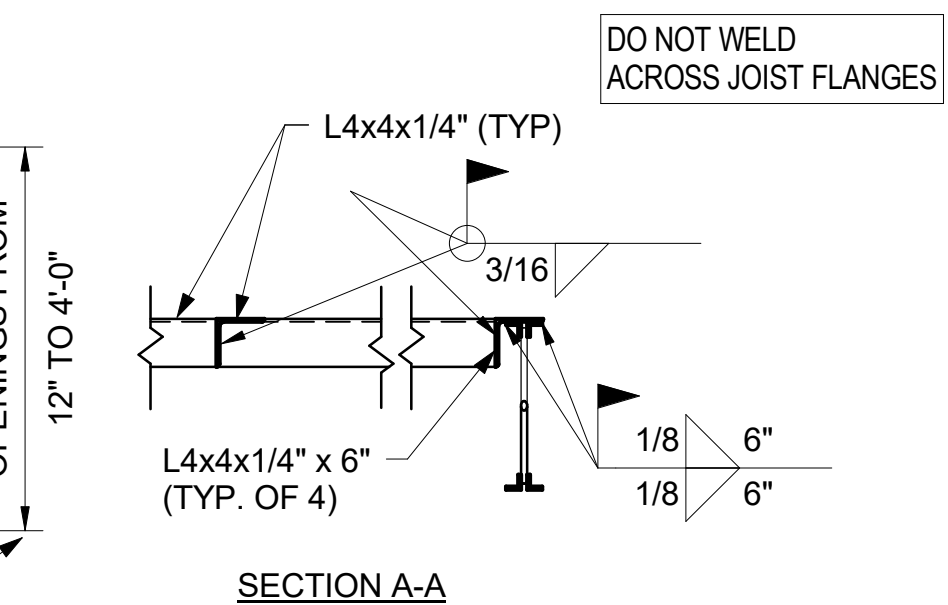
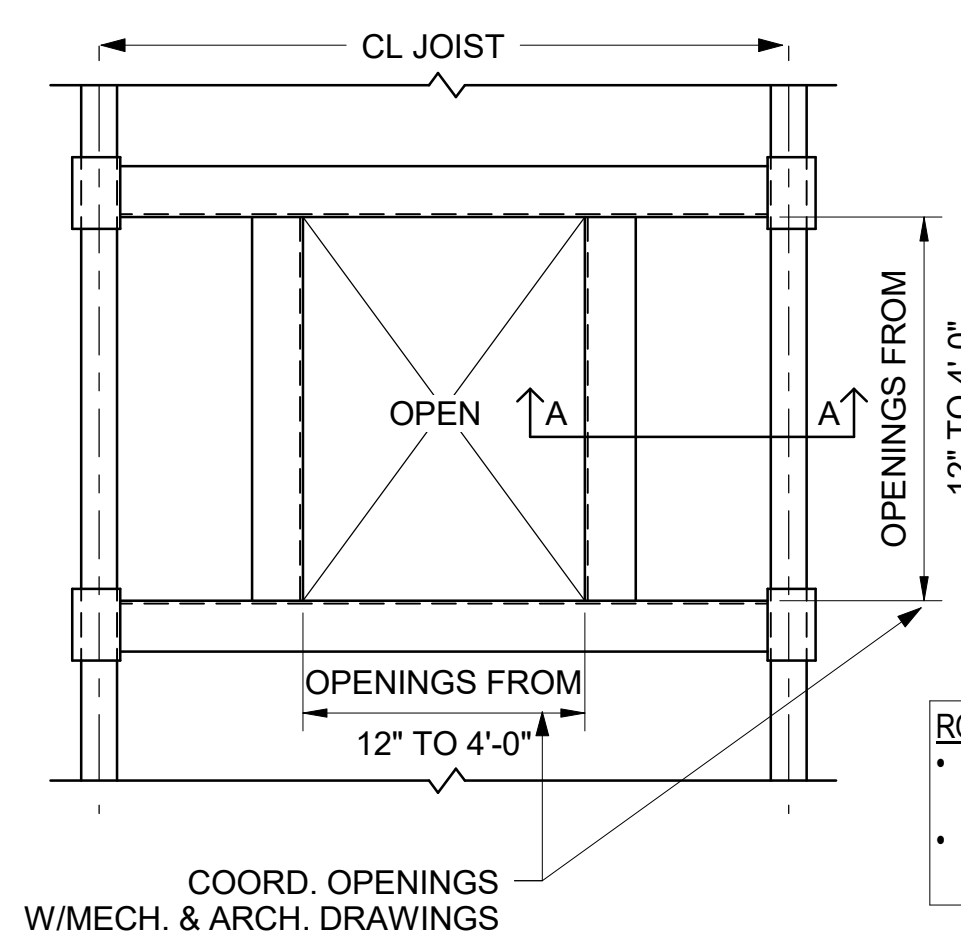
- NOTES:**
1. ALL ANCHOR BOLTS ARE 3/4-INCH DIAMETER
 2. ALL ANCHORS ARE TO BE HOT-DIP ZIC GALVANIZED
 3. ALL ANCHORS ARE ASTM F1554 GRADE 36
 4. ALL EMBEDMENTS ARE 9 INCHES, U.N.O.
 5. SEE SPECIFICATIONS AND GENERAL NOTES FOR ADDITIONAL INFORMATION.

INTERIOR 4x4 COLUMNS
(HSS AND PIPE COLUMNS)

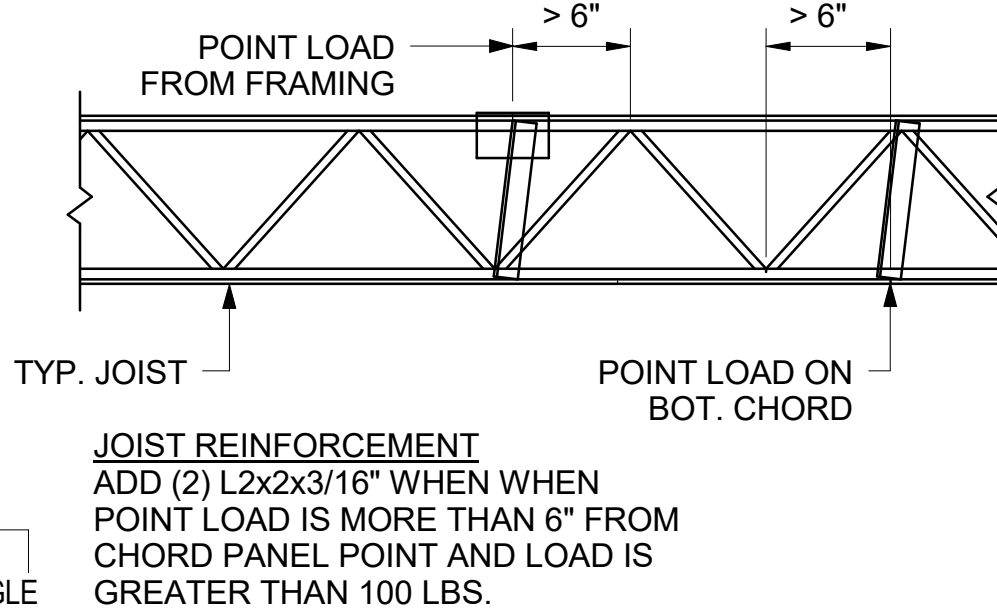


TYPICAL ANCHOR BOLT DETAIL, U.N.O.

1 TYP. BASE PLATE DETAILS
S8 3/4" = 1'-0"



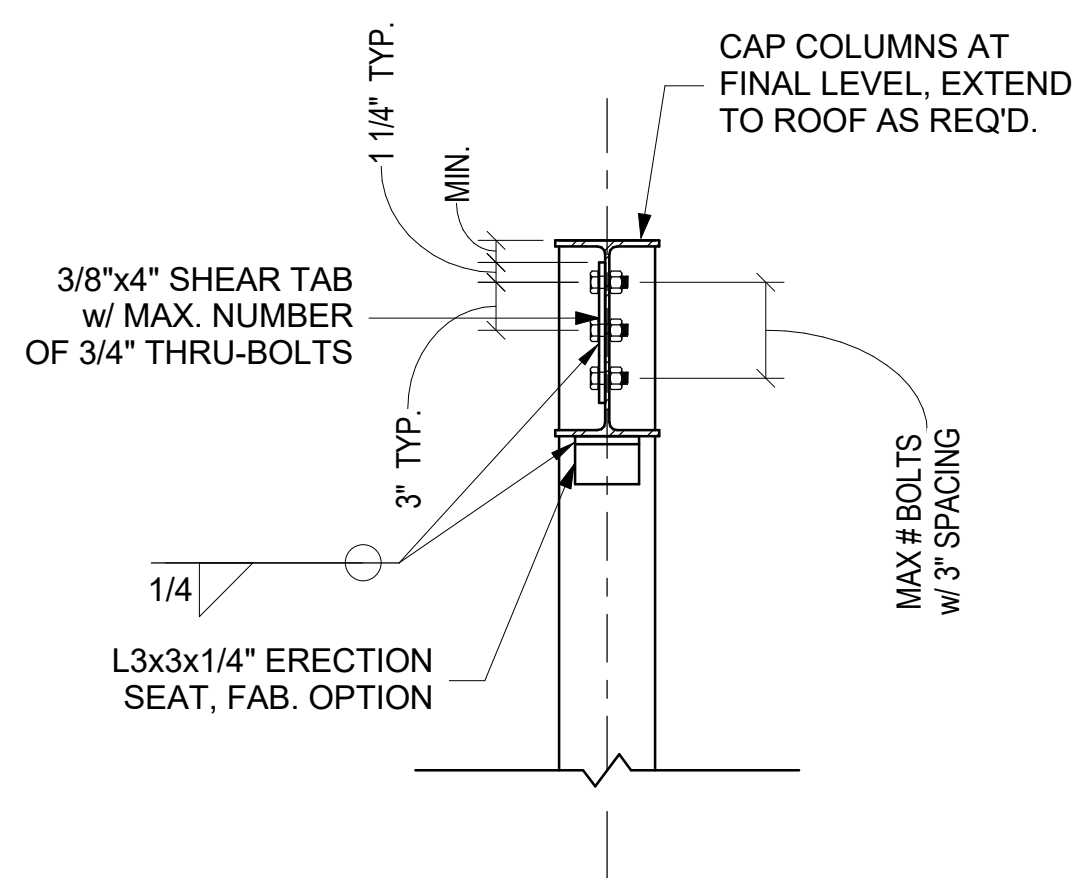
- ROOF OPENING NOTES:**
- ATTACH ALL DECK EDGES PER NOTES ON PLANS TO ALL ANGLE OPENING FRAMING.
 - PROVIDE 1/2" MIN. DIA. THRU-BOLTED CONNECTION OF MFR.'S CURB TO ANGLES AT 2'-0" O.C. MAX SPACING ALONG EACH EDGE.



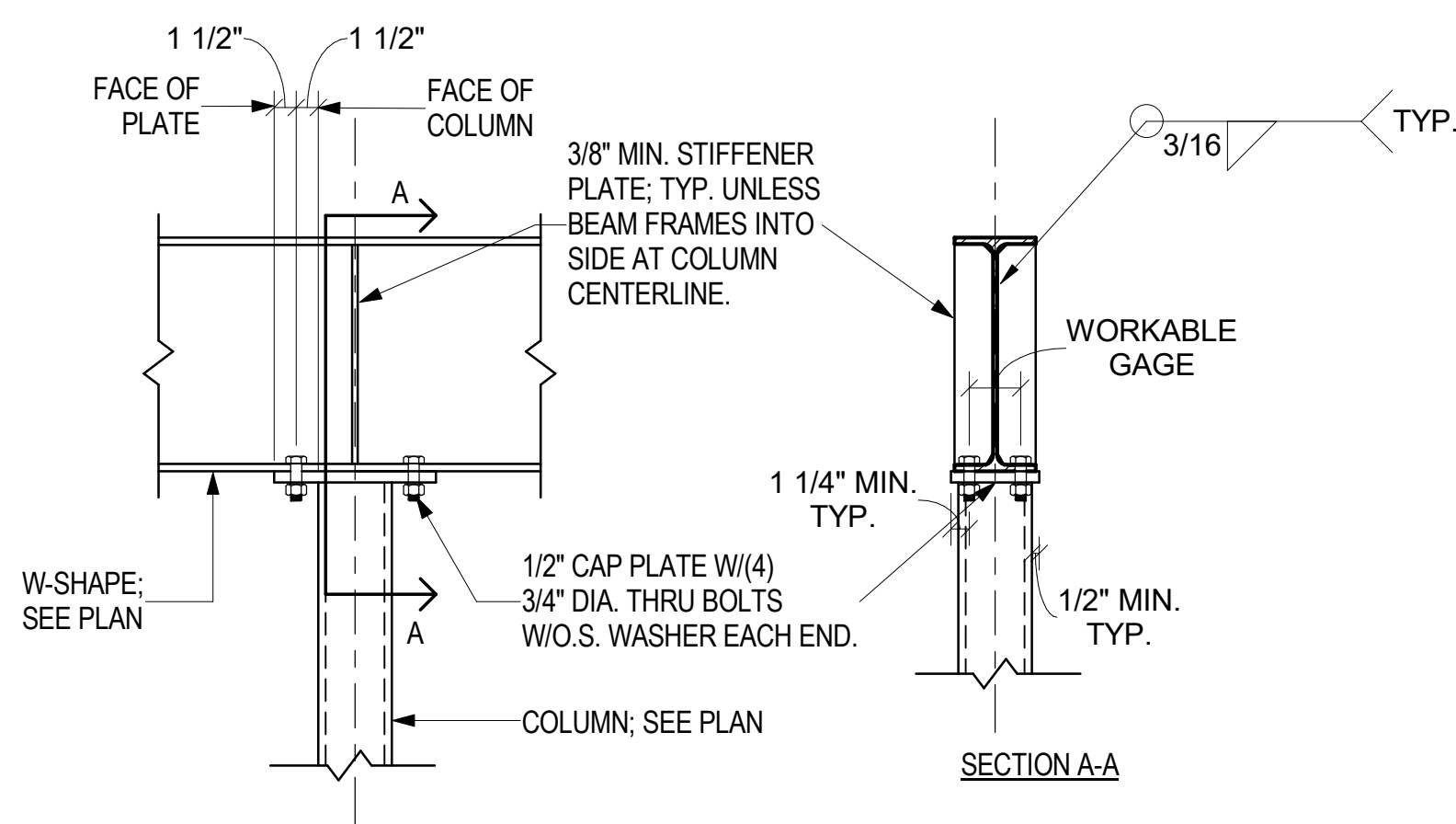
REIN. DETAIL FOR JOIST POINT LOAD

ROOF OPENING DETAIL

4 TYPICAL ROOF OPENING DETAIL
S8 3/4" = 1'-0"

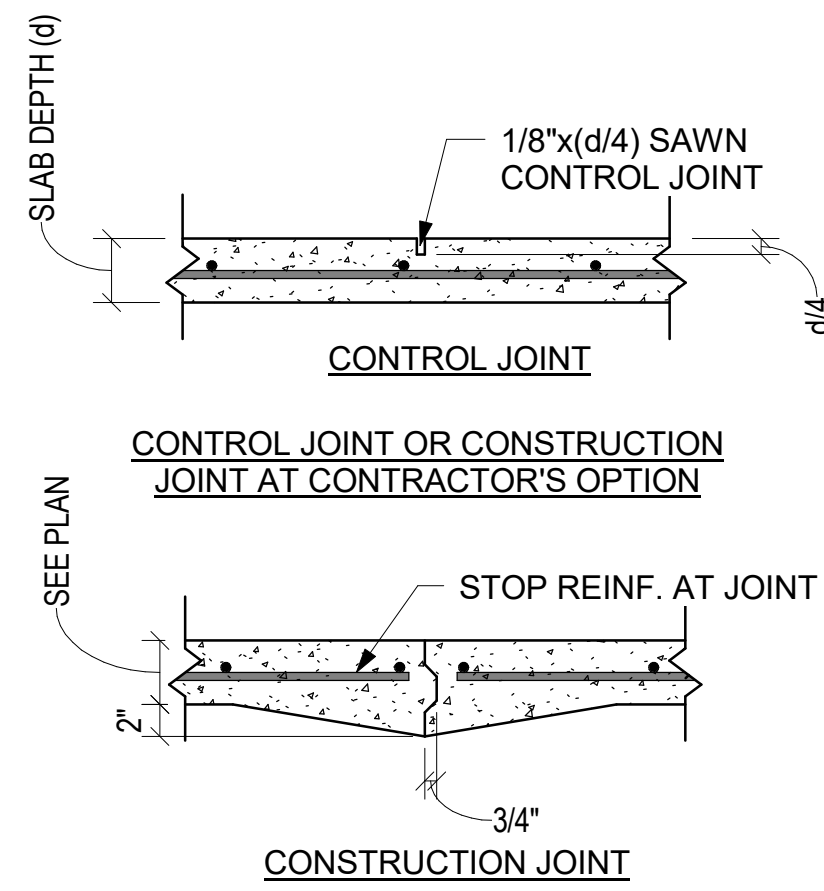


W-SHAPE BEAM TO HSS COLUMN (U.N.O.)

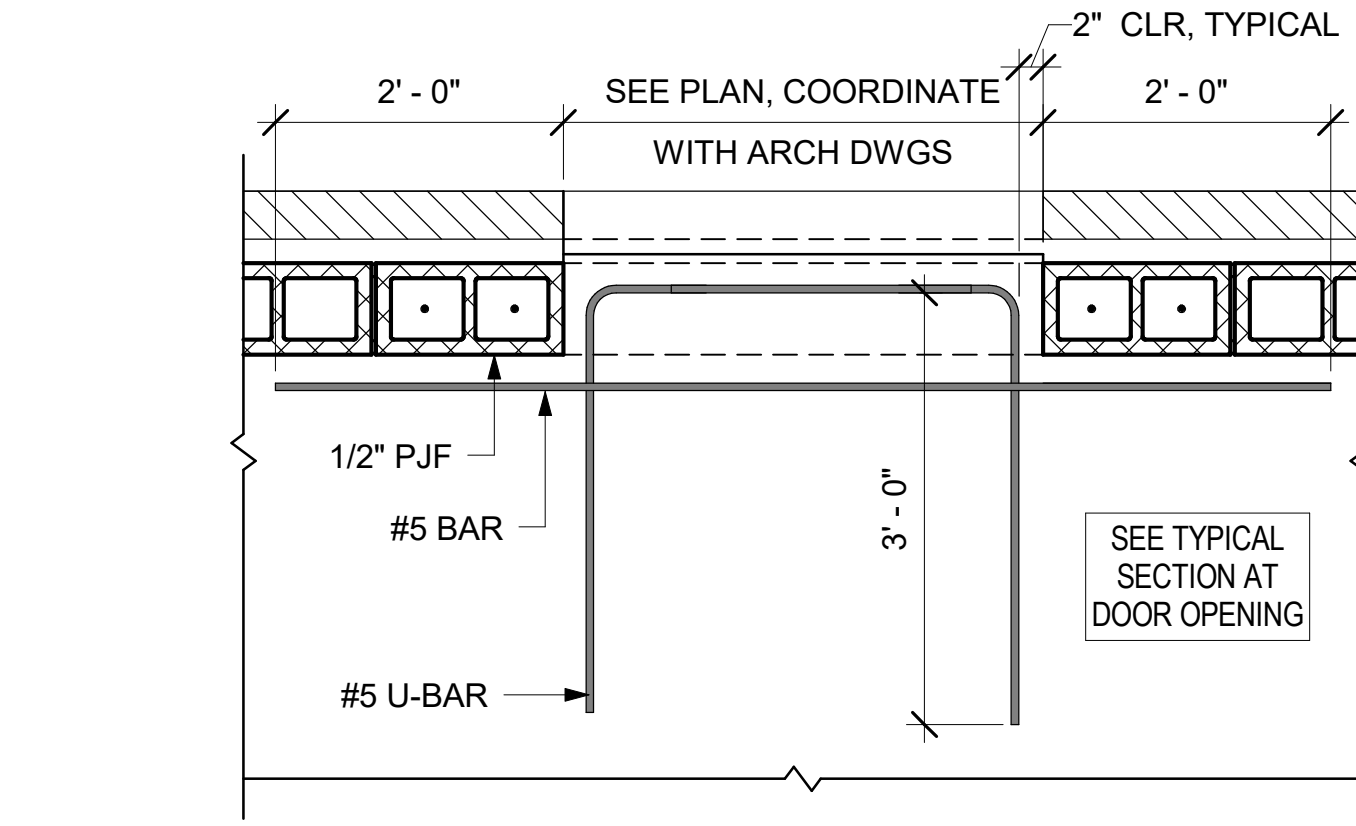


W-SHAPE BEAM OVER COLUMN (U.N.O.)

5 TYPICAL STEEL CONNECTION DETAILS
S8 1" = 1'-0"

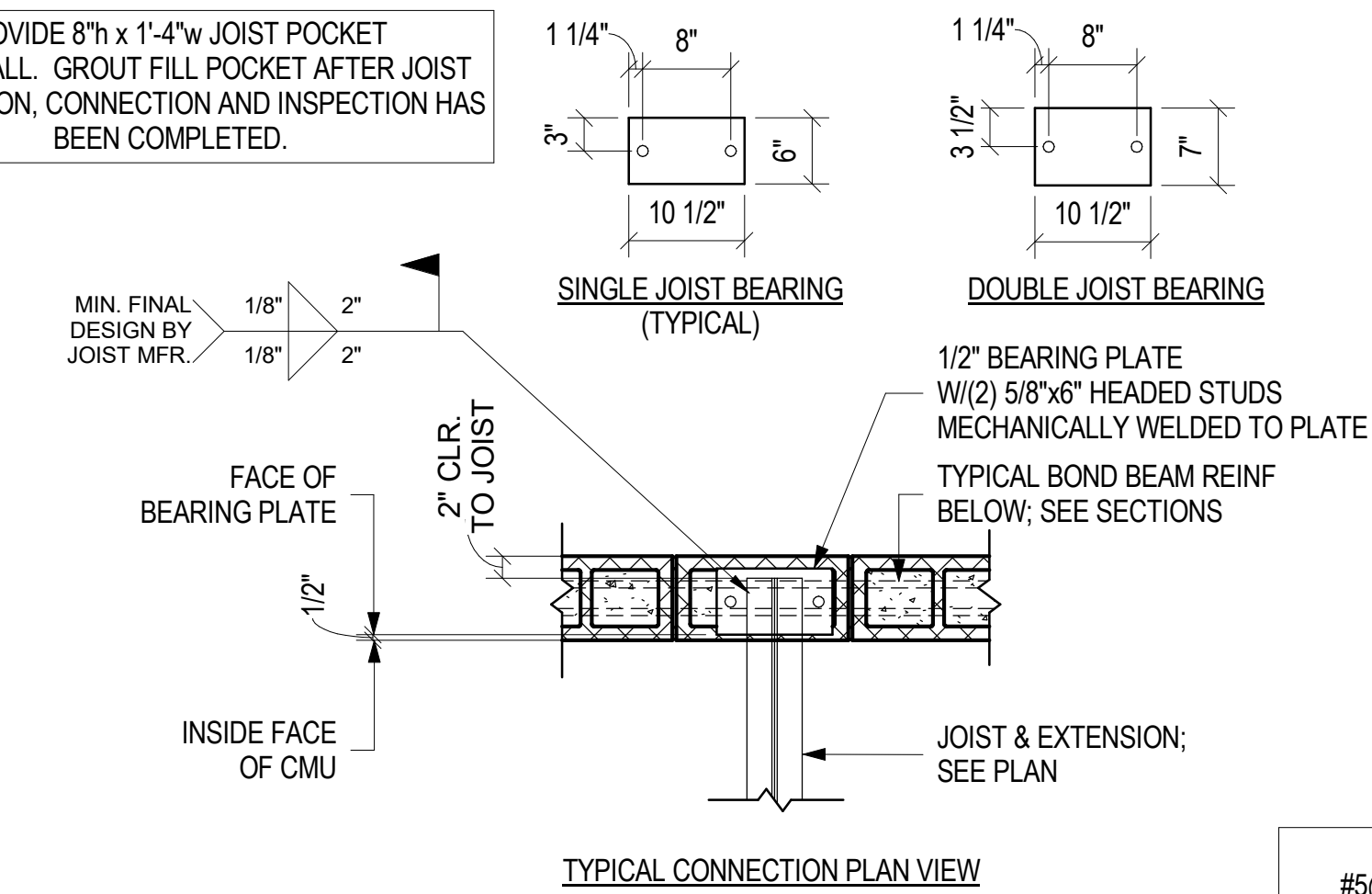


2 S.C.J. DETAILS
S8 1" = 1'-0"

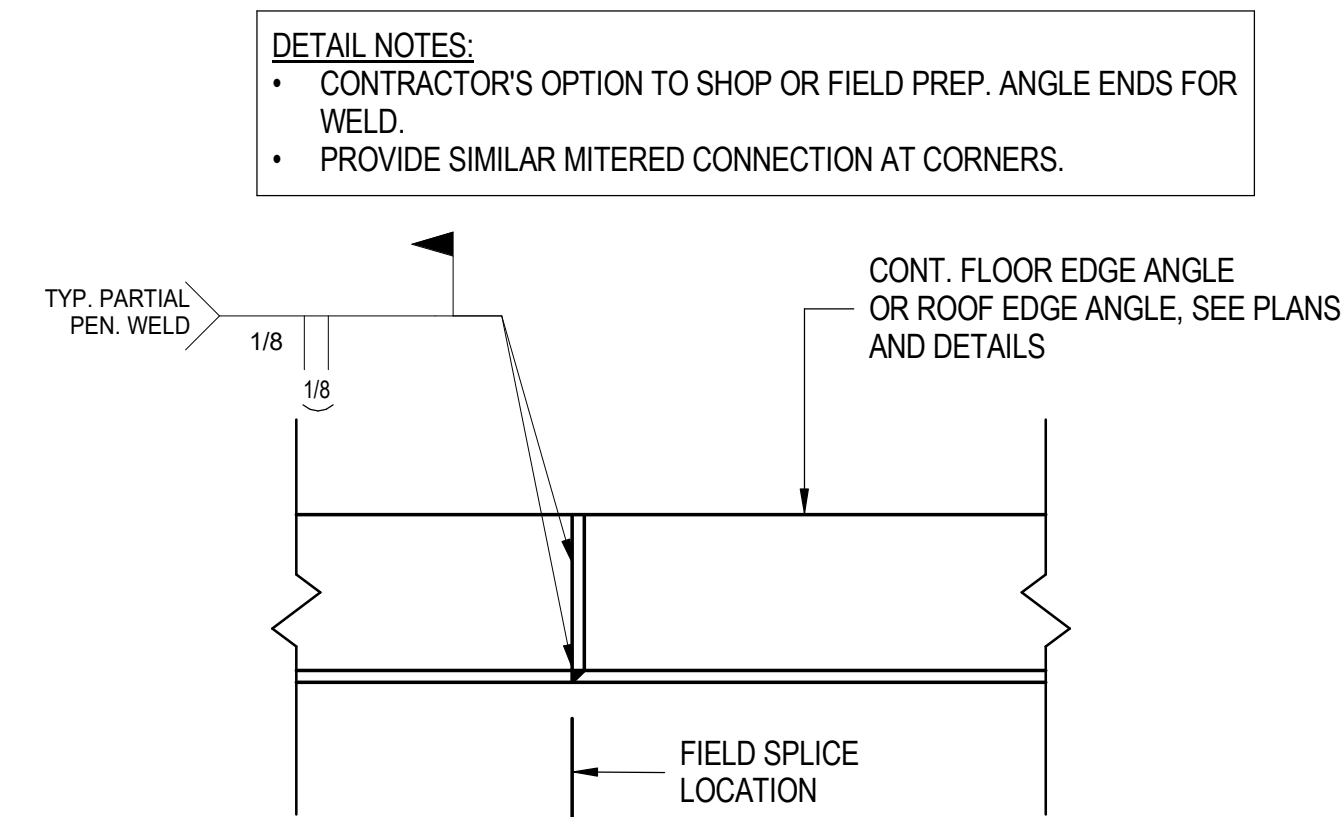


3 TYPICAL ADD. SLAB REINF. @ WALL OPENING
S8 3/4" = 1'-0"

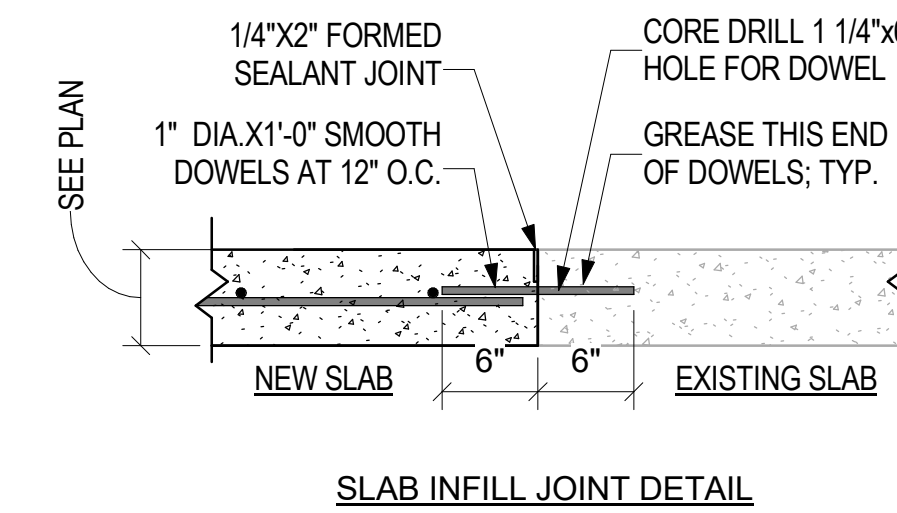
PROVIDE 8" x 1'-4" JOIST POCKET IN CMU WALL. GROUT FILL POCKET AFTER JOIST INSTALLATION. CONNECTION AND INSPECTION HAS BEEN COMPLETED.



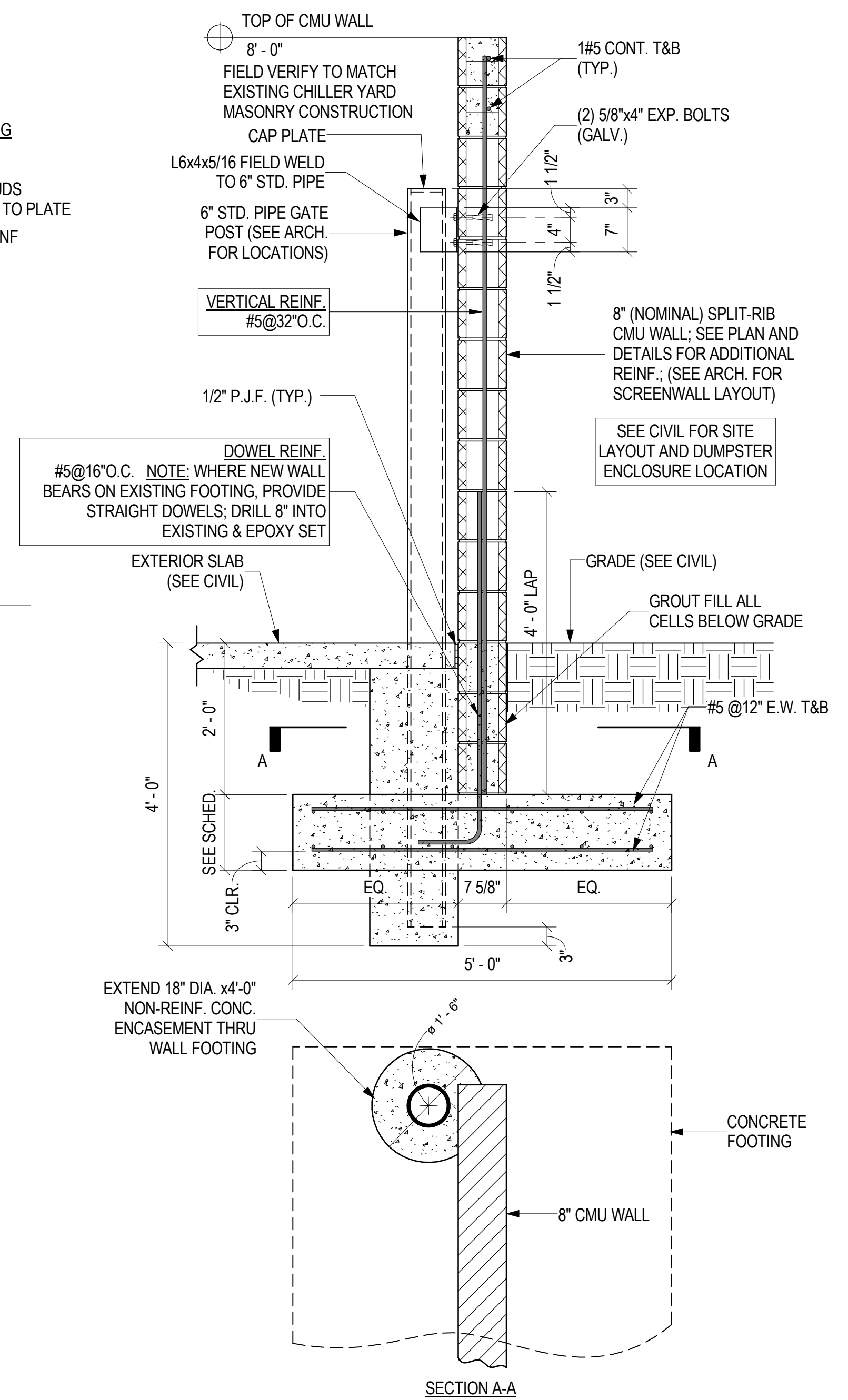
6 JOIST - BEARING PLATE DETAIL
S8 3/4" = 1'-0"



7 ROOF DECK EDGE ANGLE SPLICE DETAIL
S8 1 1/2" = 1'-0"



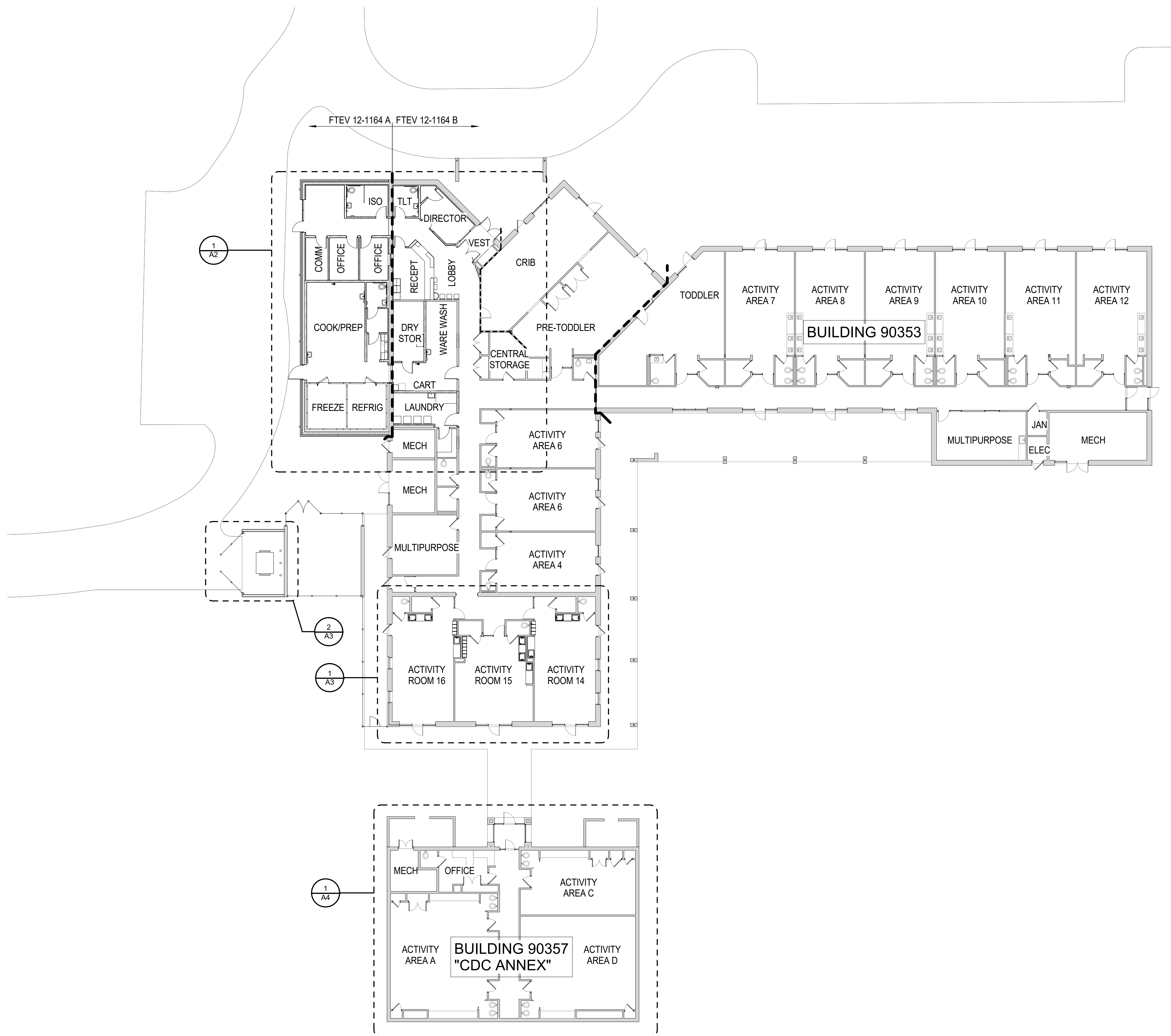
8 TYPICAL SLAB INFILL DETAIL
S8 1" = 1'-0"



9 DUMPSTER ENCLOSURE SCREENWALL
S8 3/4" = 1'-0"

APPD	
DESCRIPTION	
DATE	
REV#	
APPROVED	
CHIEF ENGINEER	
APPROVED	
CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	
TYPICAL SECTIONS & DETAILS	
AIR FORCE SPECIAL OPERATIONS COMMAND	
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016
DESIGNED BY:	J. GREENWELL
DRAWN BY:	K. MORRIS
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	S8
SHEET NO:	SHEET 20 OF 110

STANDARD LAYOUT (24" X 36")



KEYNOTES

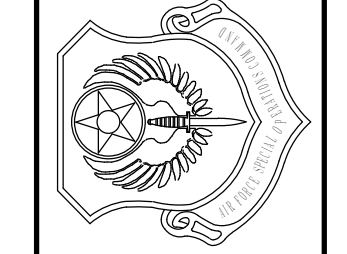
1 NOT USED.

APPD	DESCRIPTION	DATE	REV #

APPROVED
 CHIEF ENGINEER
 APPROVED
 CIVIL ENGINEER

**ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353**
 OVERALL NEW WORK PLAN

**AIR FORCE SPECIAL
 OPERATIONS COMMAND**
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA



DATE:
16 SEPT 2016

DESIGNED BY:
B. KICKLITER

DRAWN BY:
B. KICKLITER

BUILDING NO:
90353

PROJECT NO:
FTEV 12-1164

GENERAL NOTES

1. COORDINATE ALL WORK EFFORTS WITH OVERALL SEQUENCING PLAN.

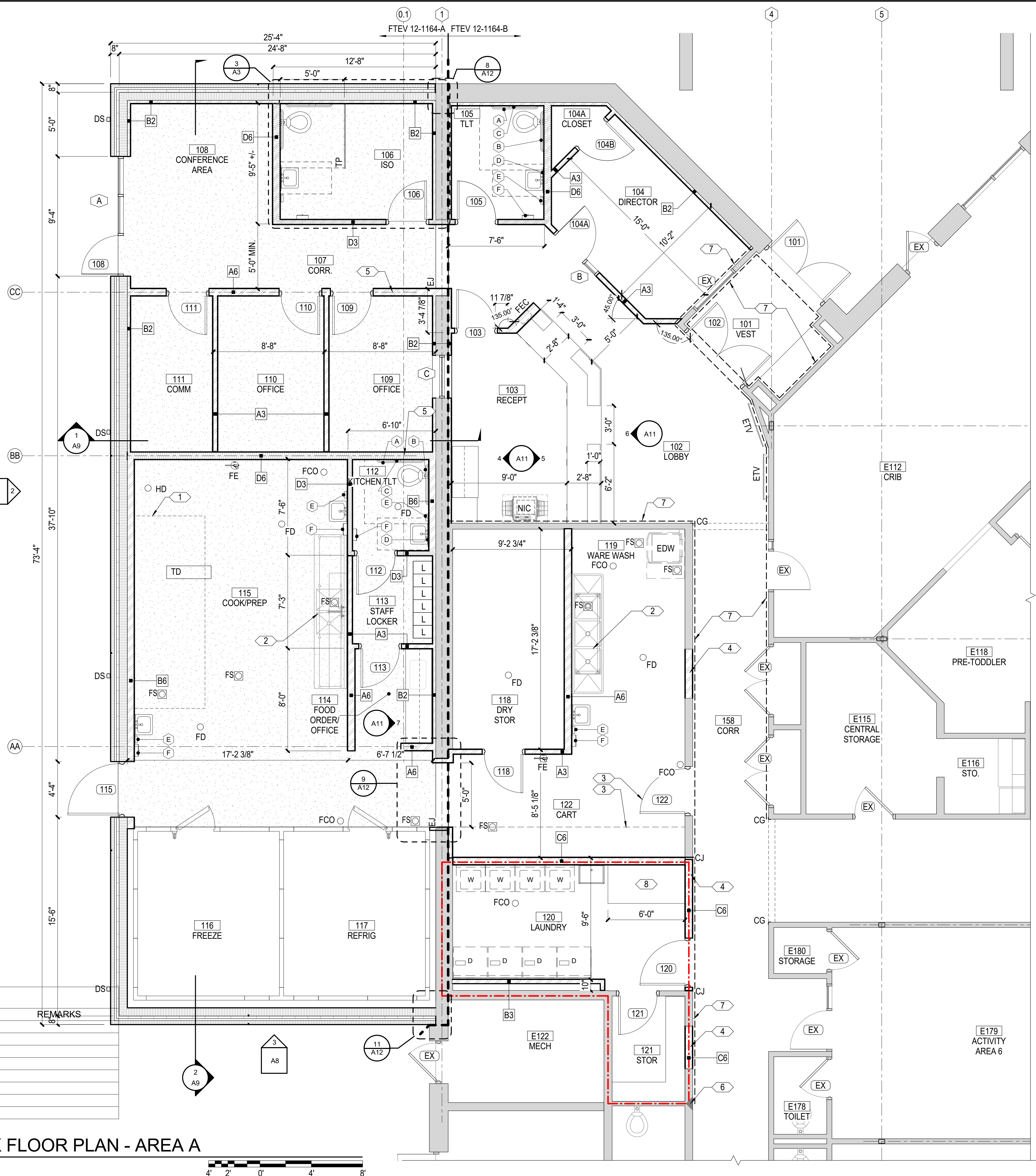
1 OVERALL NEW WORK PLAN

A8 A1 1/16" = 1'-0"



SHEET REF:
A1

SHEET NO:
21 of 110



KEYNOTES

- 1 KITCHEN EXHAUST HOOD; SEE EQUIPMENT PLAN AND MECHANICAL
- 2 PLUMBING FIXTURE; SEE PLUMBING AND EQUIPMENT PLAN
- 3 ALIGN FRAME WITH OPENING AS SHOWN
- 4 INFILL OPENING WITH MATCHING CONSTRUCTION; ALIGN FACE OF FINISH
- 5 CENTER PARTITION ON COLUMN; SEE STRUCTURAL
- 6 EXISTING CONTROL JOINT IN GYPSUM BOARD FINISH
- 7 PAINT WALL SURFACES WHERE WALL COVERING WAS REMOVED; CONTRACTOR TO SELECT A PAINT COLOR TO MATCH THE REMAINING WALL COVERING; SUBMIT COLOR TO ARCHITECT AND CONTRACTING OFFICER FOR APPROVAL
- 8 36" DEEP PLASTIC-LAMINATE COUNTERTOP @ 42" AFF; PROVIDE METAL SUPPORT BRACKETS @ 48" OC MAX SPACING

LEGEND

- PLUMBING FIXTURES; SEE PLUMBING
- WASHER (NIC); SEE ELECTRICAL AND PLUMBING
- DRYER (NIC); SEE MECHANICAL AND ELECTRICAL
- TOILET PARTITION; SEE 10/A13
- EXISTING TELEVISION
- RELOCATE EXISTING ICE MAKER; SEE ELECTRICAL AND PLUMBING
- EXISTING DISH WASHER AND HOOD; SEE EQUIPMENT DRAWINGS
- NEW DOOR; SEE DOOR SCHEDULE
- EXISTING DOOR
- EXISTING WALL
- NEW WALL; SEE WALL TYPES
- 1-HOUR FIRE RATED PARTITION
- DS PREFINISHED 3"x4" DOWNSPOUT; TIE IN TO STORMWATER DRAINAGE BOOT; SEE CIVIL
- L LOCKER (GFGI)
- EJ 1/2" EXPANSION JOINT; SEE STRUCTURAL
- FD FLOOR DRAIN; SEE PLUMBING
- FS FLOOR SINK; SEE PLUMBING
- TD TROUGH DRAIN; SEE PLUMBING AND EQUIPMENT DRAWINGS
- FCO FLOOR CLEANOUT; SEE MECHANICAL
- HD HUB DRAIN; SEE MECHANICAL
- TP TOILET PARTITION
- BATT INSULATION; EXTEND WALL TO UNDERSIDE OF DECK
- FE FIRE EXTINGUISHER ON WALL BRACKET; SEE LIFE SAFETY
- FEC FULLY RECESSED FIRE EXTINGUISHER CABINET; SEE LIFE SAFETY & 7/A14

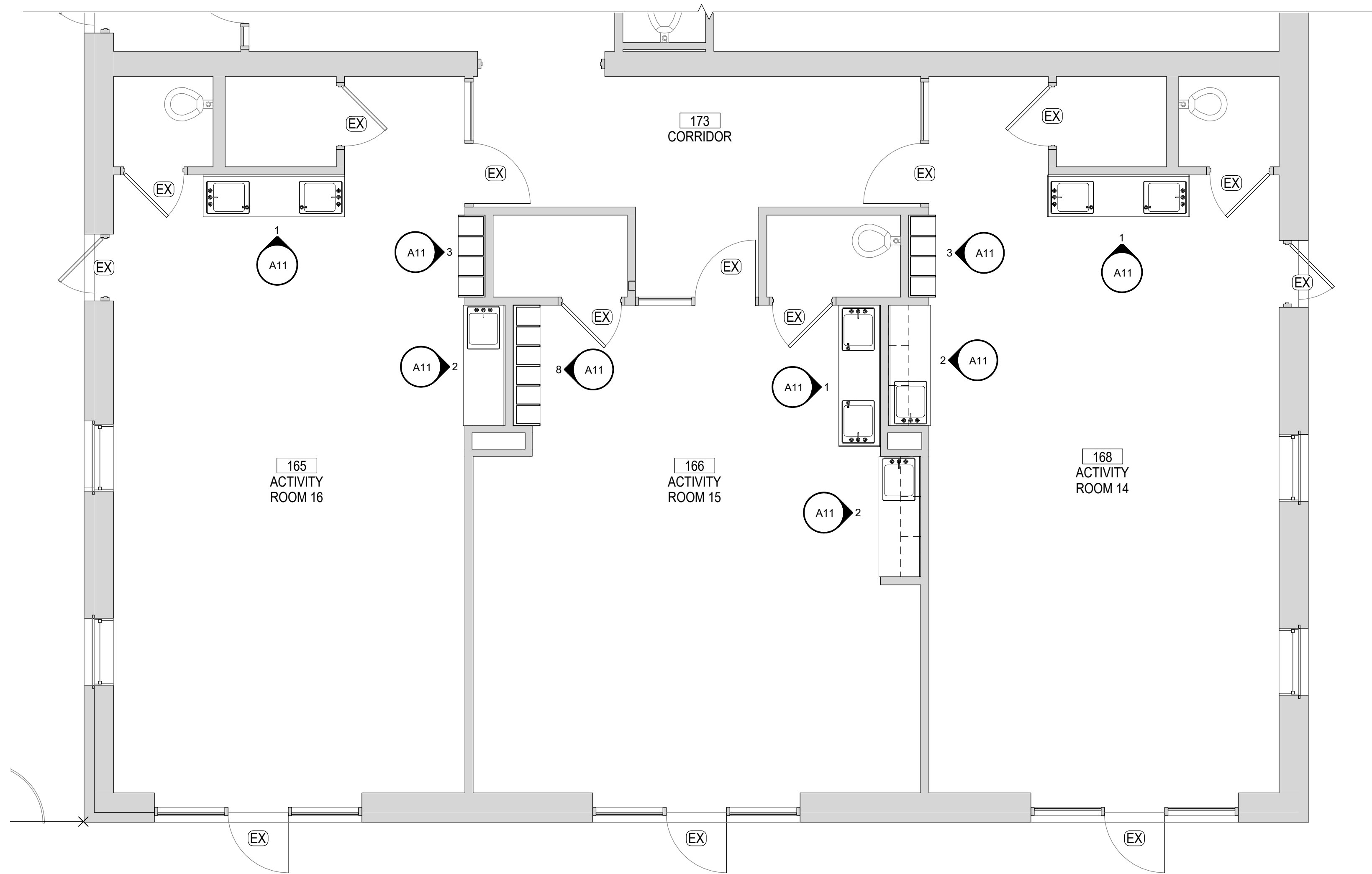
GENERAL NOTES

1. SEE EQUIPMENT PLAN FOR MORE INFORMATION
2. SEE SEQUENTIAL PLAN NOTES ON SHEET G4

ACCESSORY SCHEDULE			
MARK	DESCRIPTION	MOUNTING HEIGHT	REMARKS
A	42" GRAB BAR	33"-36" TO CENTER	
B	36" GRAB BAR	33"-36" TO CENTER	
C	TOILET TISSUE DISPENSER	19" TO CENTER OF ROLL	
D	24" x 36" MIRROR	40" TO BOTTOM	
E	SOAP DISPENSER	40" TO BOTTOM	
F	PAPER TOWEL DISPENSER	40" TO BOTTOM	
G	42" GRAB BAR	25" TO CENTER	
H	36" GRAB BAR	25" TO CENTER	

TRUE NORTH
 PROJECT NORTH
1 PARTIAL NEW WORK FLOOR PLAN - AREA A
 A1 A2 1/4" = 1'-0"
 4' 2' 0' 4' 8'

APPD		DESCRIPTION		DATE		REV #	
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 PARTIAL NEW WORK FLOOR PLAN - PART A			
APPROVED	CIVIL ENGINEER						
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA							
DATE:		16 SEPT 2016		DESIGNED BY:		B. KICKLITER	
DRAWN BY:		M. BURCH		BUILDING NO.:		90353	
PROJECT NO.:		FTEV 12-1164		SHEET REF.:		A2	
SHEET NO.:		22 of 110					



KEYNOTES

- 1 NOT USED.
- 2 RELOCATED DUMPSTER
- 3 6" CONCRETE FILLED STEEL BOLLARDS TO ENSURE DUMPSTER REMAINS OUTSIDE OF STANDOFF DISTANCE AS SHOWN
- 4 30' CONVENTIONAL CONSTRUCTION STANDOFF DISTANCE (CCSD)
- 5 EXISTING CONCRETE MASONRY MECHANICAL CHILLER ENCLOSURE; PRESSURE WASH, CLEAN, AND PAINT; COLOR: P-6
- 6 EXISTING METAL FENCE AND GATE ENCLOSURE
- 7 REINSTALL SALVAGED DUMPSTER GATE TO NEW ORIENTATION AS SHOWN; SEE STRUCTURAL
- 8 8" NOMINAL SPLIT FACE, RIBBED CONCRETE MASONRY DUMPSTER SCREEN WALL; SEE STRUCTURAL AND CIVIL; COLOR: P-6
- 9 CHILD LAVATORY; TOP OF SINK RIM AT 24" O.C.

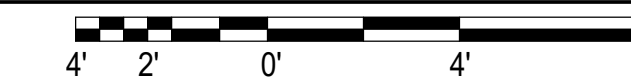
LEGEND

PLUMBING FIXTURES; SEE PLUMBING

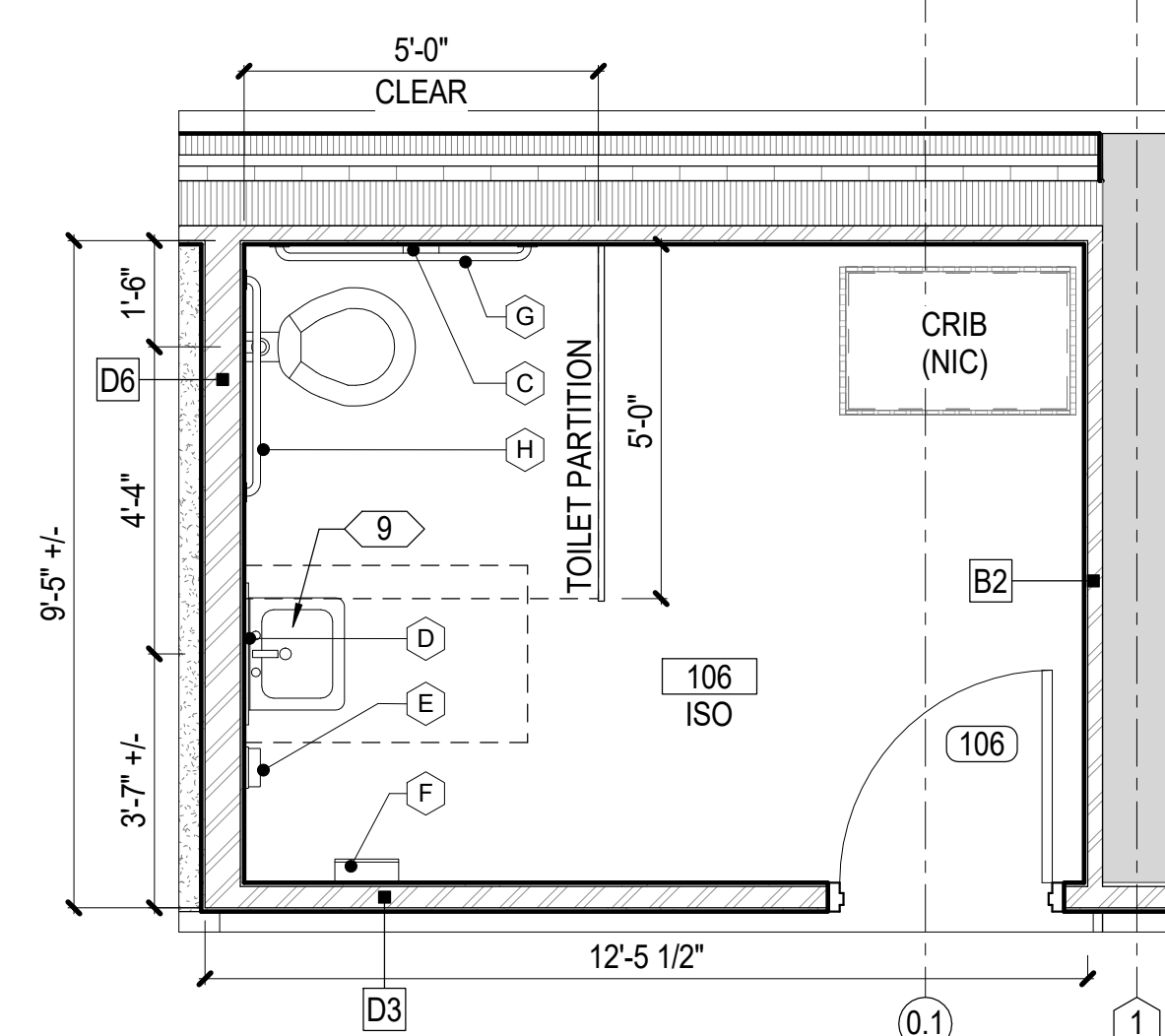
1
TRUE NORTH PROJECT NORTH
A1 A3

PARTIAL NEW WORK FLOOR PLAN - AREA B

1/4" = 1'-0"



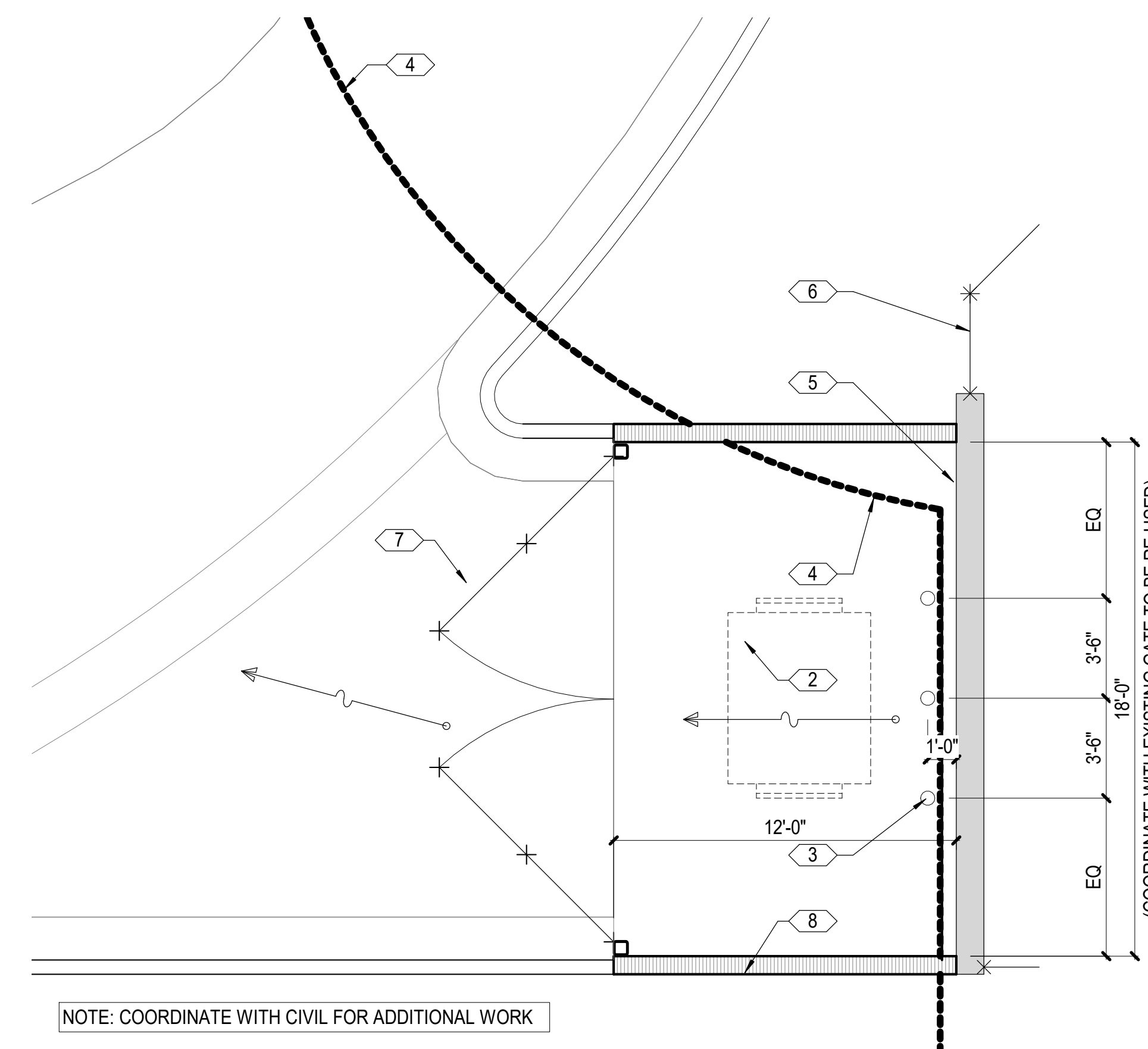
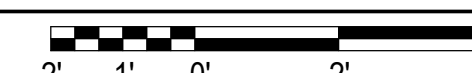
ACCESSORY SCHEDULE			
MARK	DESCRIPTION	MOUNTING HEIGHT	REMARKS
A	42" GRAB BAR	33"-36" TO CENTER	
B	36" GRAB BAR	33"-36" TO CENTER	
C	TOILET TISSUE DISPENSER	19" TO CENTER OF ROLL	
D	24" x 36" MIRROR	40" TO BOTTOM	
E	SOAP DISPENSER	40" TO BOTTOM	
F	PAPER TOWEL DISPENSER	40" TO BOTTOM	
G	42" GRAB BAR	25" TO CENTER	
H	36" GRAB BAR	25" TO CENTER	



3
TRUE NORTH PROJECT NORTH
A2 A3

106 - ISOLATION ROOM ENLARGED PLAN

3/8" = 1'-0"

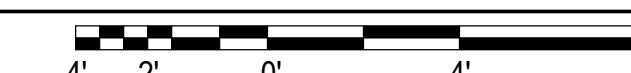


NOTE: COORDINATE WITH CIVIL FOR ADDITIONAL WORK

2
TRUE NORTH PROJECT NORTH
A1 A3

ENLARGED DUMPSTER ENCLOSURE PLAN

1/4" = 1'-0"

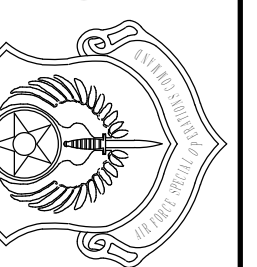


GENERAL NOTES

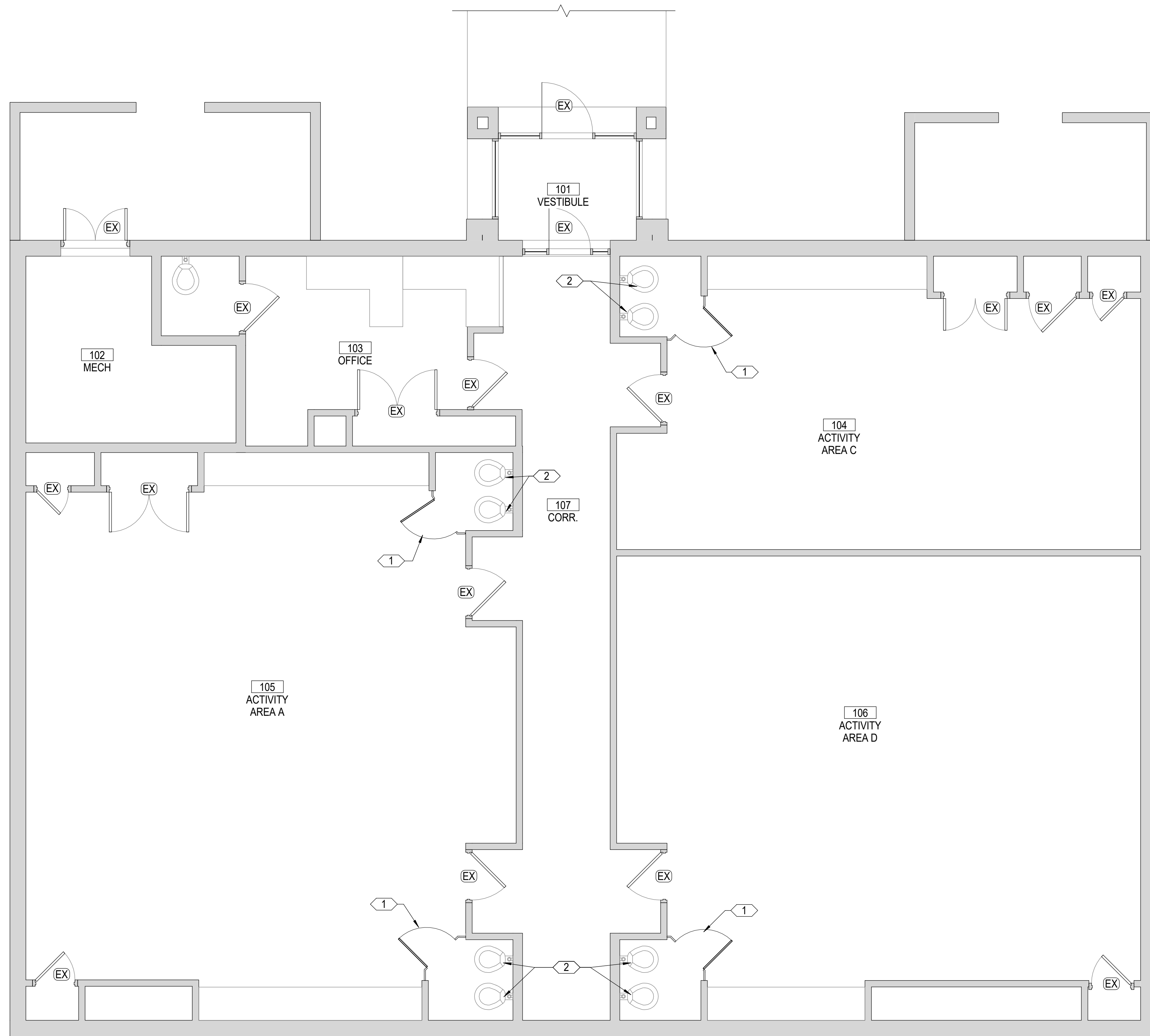
1. SEE OTHER DISCIPLINES FOR ADDITIONAL INFORMATION

ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
PARTIAL NEW WORK FLOOR PLAN - PART B

AIR FORCE SPECIAL
OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



DATE:
16 SEPT 2016
DESIGNED BY:
B. KICKLITER
DRAWN BY:
A. POWELL
BUILDING NO:
90353
PROJECT NO:
FTEV 12-1164
SHEET REF:
A3
SHEET NO:
23 of 110



KEYNOTES

- 1 3'-0" TALL TOILET COMPARTMENT DIVIDER WITH 2'-6" DOOR/GATE; TYPICAL OF (4) LOCATIONS IN BUILDING 90357; CONTRACTOR TO FIELD VERIFY DIMENSIONS AND SUBMIT SHOP DRAWINGS FOR APPROVAL; SEE 6/A16
- 2 EXISTING CHILD-SIZED TOILET FIXTURES TO REMAIN

APPD	DESCRIPTION	DATE	REV #

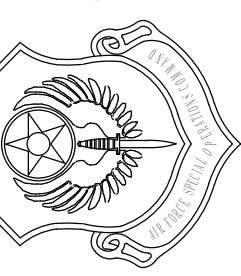
LEGEND

- NEW DOOR; SEE DOOR SCHEDULE
- EXISTING DOOR

APPROVED	APPROVED

**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**
PARTIAL NEW WORK FLOOR PLAN - PART C

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



GENERAL NOTES

- 1. SCOPE OF WORK TO BE PERFORMED IN BUILDING 90357 (CDC ANNEX) IS LIMITED TO PROVIDING TOILET PARTITIONS/PRIVACY PANELS AT (4) CHILDRENS WATER CLOSET LOCATIONS. ALL OTHER WORK IS OUTSIDE THIS BUILDING.

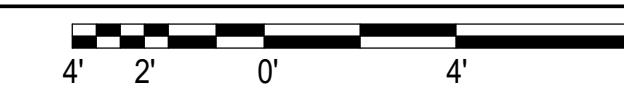
DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: M. BURCH
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF:

A4
SHEET NO:
24 of 110

STANDARD LAYOUT (24" X 36")

	1	PARTIAL NEW WORK FLOOR PLAN - PART C
TRUE NORTH	A1	A4

1/4" = 1'-0"



2
A5



KEYNOTES

- 1 TEMPORARILY REMOVE CEILING TILES AND GRID COMPONENTS AS NEEDED TO INSTALL ABOVE CEILING FIRE PROTECTION WORK; LIGHTING, MECHANICAL DISTRIBUTION, AND OTHER CEILING MOUNTED DEVICES ARE TO REMAIN UNEFFECTED; REPLACE ALL DAMAGED TILES OR GRID COMPONENTS WITH NEW TO MATCH EXISTING; SEE FIRE PROTECTION
- 2 SEE MECHANICAL FOR NEW ABOVE CEILING WORK
- 3 NO WORK IN THIS AREA OR CONNECTING SUB ROOMS
- 4 REINSTALL ALL CEILING APPURTENANCES IN NEW CEILING IN ORIGINAL POSITION
- 5 SEE MECHANICAL FOR NEW WORK
- 6 CEILING IN THIS SPACE SHOULD REQUIRE MINIMAL WORK TO INSTALL NEW MECHANICAL SYSTEMS; CONTRACTOR TO TAKE CARE TO TEMPORARILY REMOVE AND REINSTALL CEILING TILES; REPLACE ALL DAMAGED TILES OR GRID COMPONENTS WITH NEW (MATCH EXISTING); SEE MECHANICAL

APPD	DESCRIPTION	DATE	REV #

AIR FORCE SPECIAL OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
 OVERALL NEW WORK RCP

LEGEND

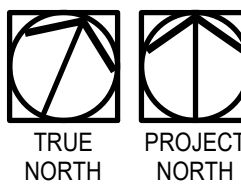
- NEW LIGHTING FIXTURES; SEE ELECTRICAL
- NEW SUSPENDED ACOUSTIC TILE CEILING; SEE FINISH SCHEDULE
- NEW SUSPENDED GYPSUM CEILING; SEE 9/A12
- NEW HVAC REGISTERS; SEE MECHANICAL

GENERAL NOTES

1. UNLESS NOTED OTHERWISE; ALL CEILING HEIGHTS ARE AT 9'-0" AFF.

DATE:	16 SEPT 2016
DESIGNED BY:	B. KICKLITER
DRAWN BY:	M. BURCH
BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164
SHEET REF.:	A5
SHEET NO.:	25 of 110

STANDARD LAYOUT (24" X 36")



1
A5

OVERALL NEW WORK REFLECTED CEILING PLAN

3/32" = 1'-0"





KEYNOTES

- 1 EXISTING GYPSUM BOARD BULKHEAD; PAINT COLOR: P-1
- 2 KITCHEN EXHAUST HOOD; SEE EQUIPMENT PLAN AND MECHANICAL
- 3 EXISTING DISHWASHER EXHAUST HOOD; SEE MECHANICAL FOR NEW EXHAUST FAN & HOOD REQUIREMENTS
- 4 NEW GYPSUM BOARD CLAD SOFFIT CONSTRUCTION; SEE 10/A15
- 5 CONTINUOUS VINLY SOFFIT VENT; MATCH EXISTING PROFILE AND LOCATION
- 6 STUCCO FINISHED SOFFIT TO MATCH EXISTING, SEE WALL SECTIONS AND DETAILS
- 7 REFRIGERATOR/FREEZER CEILING PANEL CONSTRUCTION; SEE EQUIPMENT DRAWINGS
- 8 1 HOUR RATED SUSPENDED GYPSUM CEILING CONSTRUCTION; SEE 2/A14
- 9 SEE MECHANICAL FOR NEW WORK
- 10 EXISTING GAS EXHAUST VENT; SEE MECHANICAL
- 11 REINSTALL ALL CEILING APPURTENANCES IN NEW CEILING IN ORIGINAL POSITION
- 12 PAINT ALL SIDES OF NICHE/RECESS; COLOR P-1

LEGEND

- LIGHTING FIXTURES; SEE ELECTRICAL
- ACT DROP CEILING; SEE FINISH SCHEDULE
- GYPSUM CEILING
- NO CEILING; EXPOSED TO STRUCTURE ABOVE
- PREFINISHED MTL DOWNSPOUT; MATCH EXISTING DOWNSPOUT PROFILE AND COLOR
- 2' X 2' ACCESS DOOR; CONTRACTOR TO VERIFY OPTIMUM LOCATION FOR ACCESS TO ABOVE CEILING CONTROLS
- EXHAUST FAN; SEE MECHANICAL
- RETURN AND SUPPLY REGISTERS; SEE MECHANICAL
- PAGING SPEAKER; SEE TELECOM

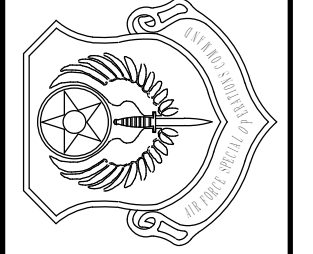
GENERAL NOTES

1. ALL CEILINGS ARE AT 9'-0" A.F.F. UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO COORDINATE LOCATION OF FIRE SPRINKLER HEADS WITH LIGHTING AND MECHANICAL DISTRIBUTION SYSTEMS. SPRINKLER HEADS ARE TO BE LOCATED IN CENTER OF TILE AS MUCH AS POSSIBLE.

APPD	DESCRIPTION	DATE	REV #

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
 PARTIAL NEW WORK REFLECTED CEILING PLAN - PART A

AIR FORCE SPECIAL OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA



DATE:	16 SEPT 2016
DESIGNED BY:	B. KICKLITER
DRAWN BY:	M. BURCH
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	A6
SHEET NO:	26 of 110

STANDARD D LAYOUT (24" X 36")

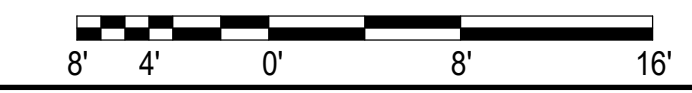
TRUE NORTH PROJECT NORTH

2

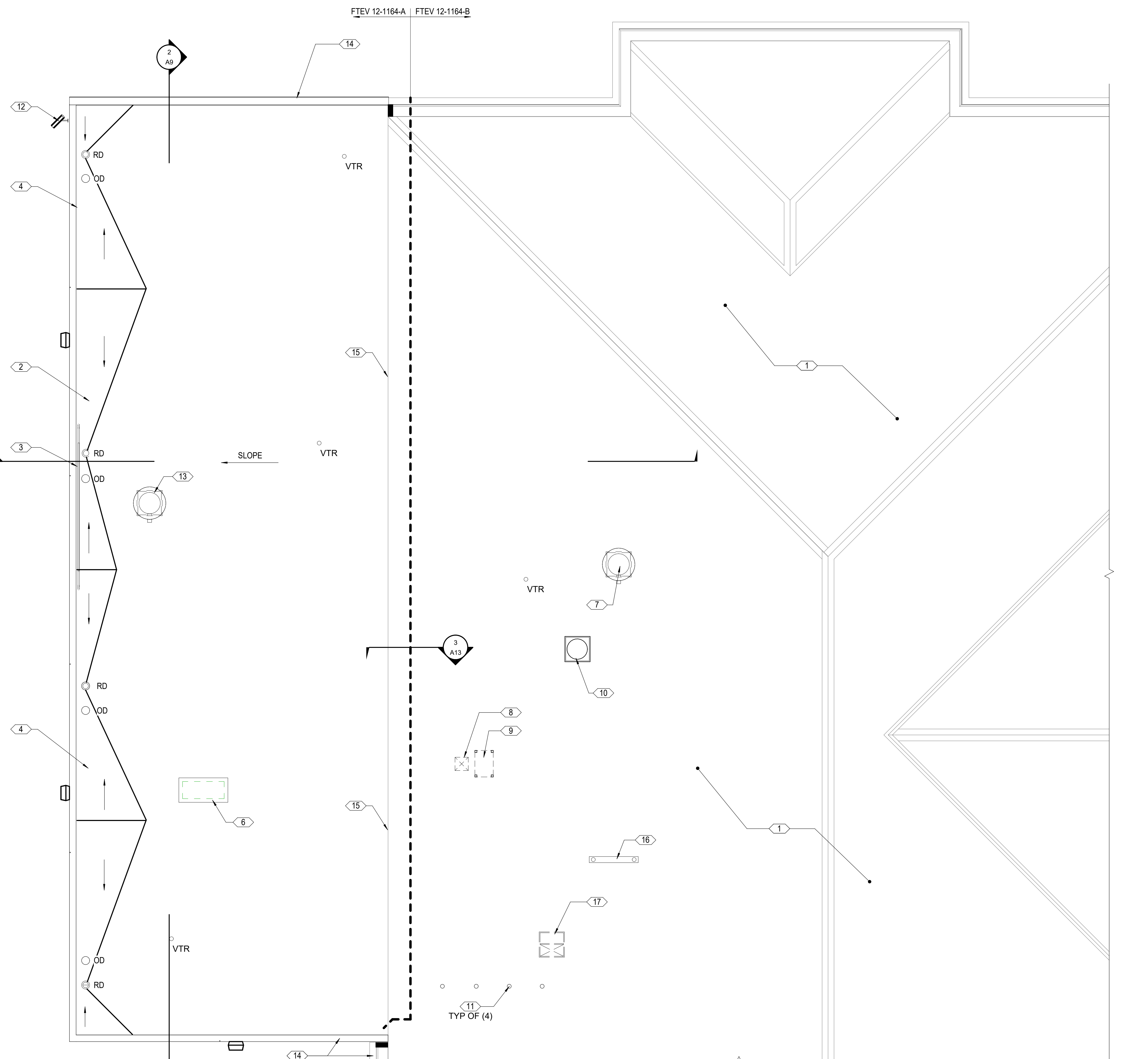
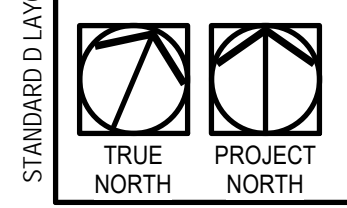
A5	A6
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1/4" = 1'-0"

PARTIAL NEW WORK REFLECTED CEILING PLAN - AREA A



STANDARD LAYOUT (24" X 36")



KEYNOTES		APPD	DESCRIPTION	DATE	REV #
1	EXISTING STANDING SEAM ROOFING TO REMAIN UNALTERED				
2	SINGLE PLY MEMBRANE ROOFING SYSTEM; SEE 1/A13 FOR TYPICAL ROOF COMPOSITION				
3	OSHA - COMPLIANT SAFETY GUARDRAIL; SEE 11/A13				
4	ROOF CRICKET FORMED WITH TAPERED RIGID INSULATION				
5	PROVIDE END DAM TO EXISTING INTEGRAL GUTTER SYSTEM; CONTRACTOR TO COORDINATE WITH EXISTING CONDITIONS TO PROVIDE FLASHING, FASTENERS, SUPPORT, AND SEALANT AS REQUIRED TO PROVIDE WATER TIGHT TERMINATION OF EXISTING INTEGRAL GUTTER SYSTEM. SEE PARTIAL ROOF DEMOLITION PLAN 1/D2				
6	SUPPLY FAN; SEE MECHANICAL				
7	NEW ROOFTOP MOUNTED EXHAUST FAN AT EXISTING ROOF PENETRATION; SEE MECHANICAL				
8	CAP AND SEAL WEATHERTIGHT EXISTING ROOF CURB WHERE EXHAUST FAN WAS REMOVED; SEE MECHANICAL AND 9/A13				
9	EXISTING EQUIPMENT PEDESTAL/PLATFORM TO REMAIN AFTER REMOVAL OF ROOFTOP MOUNTED EQUIPMENT				
10	NEW ROOFTOP MOUNTED EXHAUST FAN AND CURB; SEE MECHANICAL AND STRUCTURAL				
11	DRYER EXHAUST VENT; SEE MECHANICAL AND 5/A14				
12	REINSTALL SALVAGED CCTV CAMERA; SEE TELECOM				
13	EXHAUST FAN; SEE MECHANICAL				
14	TOP OF NEW PARAPET TO BE SET SUCH THAT THE METAL COPING CAP ELVATION IS TO MATCH EXISTING COPING CAP FLASHING AT INTEGRAL GUTTER				
15	EDGE OF EXISTING ROOF; PROTECT AND RETAIN GUTTER COUNTERFLASHING FOR RE-USE; SEE 3/A13				
16	ABANDONED DUCT SUPPORT TO REMAIN				
17					

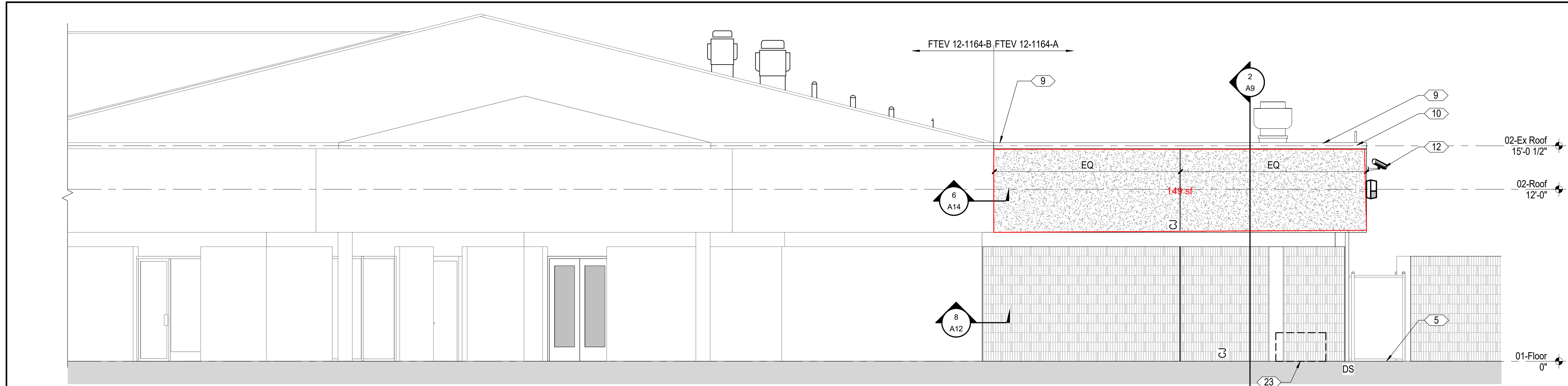
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 NEW WORK ROOF PLAN

LEGEND	
○ RD	ROOF DRAIN; SEE PLUMBING
○ OD	OVERFLOW DRAIN; SET INLET 2" ABOVE ADJACENT ROOF DRAIN; TURN DOWNSPOUT TO DRAIN AT FASCIA; SEE 10/A13; SEE PLUMBING
VTR	VENT THRU ROOF; SEE PLUMBING

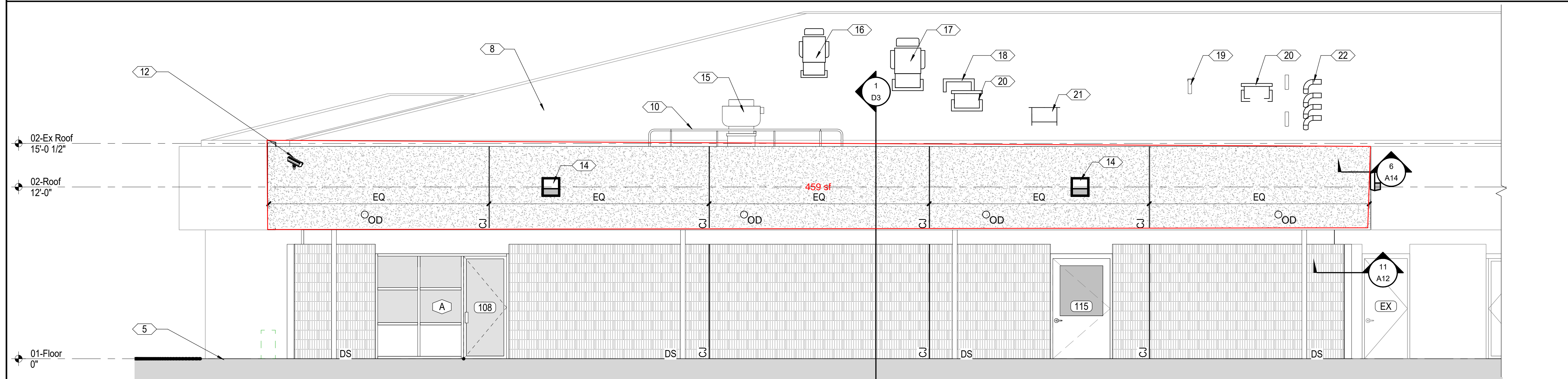
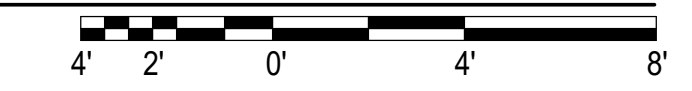
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA
DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: M. BURCH
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: A7
SHEET NO: 27 of 110

1 PARTIAL ROOF PLAN
A7 1/4" = 1'-0"

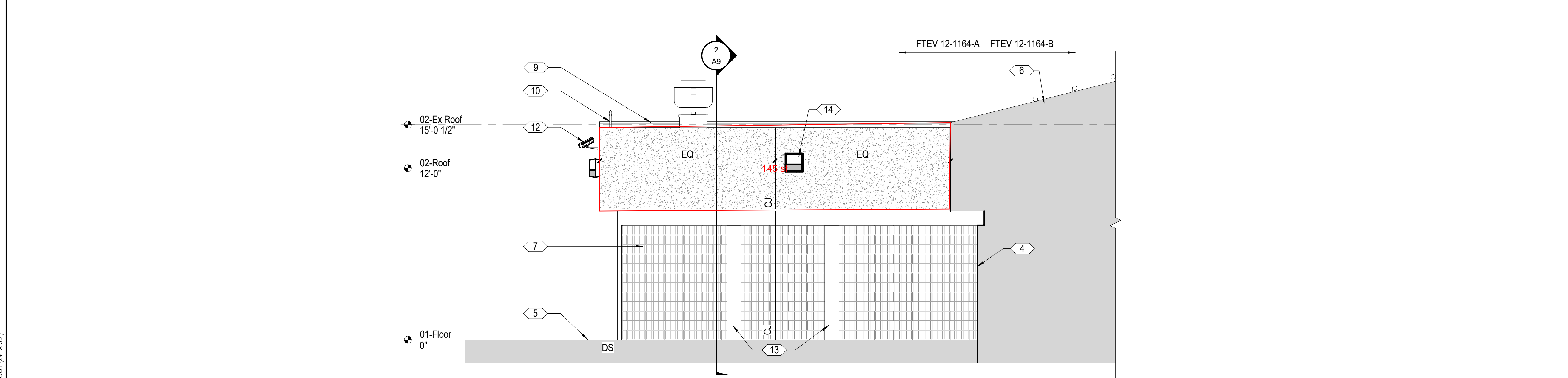




1 EXTERIOR ELEVATION - SOUTH
A8 1/4" = 1'-0"



2 EXTERIOR ELEVATION - WEST
A2 A8 1/4" = 1'-0"



3 EXTERIOR ELEVATION - NORTH
A2 A8 1/4" = 1'-0"



KEYNOTES

- 1 STUCCO FINISH SYSTEM TO MATCH EXISTING; COLOR P-6
- 2 NEW PREFINISHED METAL WALL FLASHING TO MATCH EXISTING
- 3 BUILDING EXPANSION JOINT; PROVIDE 1/2" BACKER ROD AND SEALANT BETWEEN NEW AND EXISTING CONSTRUCTION; PAINT TO MATCH ADJACENT FINISHES
- 4 1/2" MASONRY VENEER CONTROL JOINT; PROVIDE BACKER ROD AND SEALANT IN LIEU OF MORTAR
- 5 APPROXIMATE LEVEL OF GRADE
- 6 EXISTING BUILDING
- 7 4" NOMINAL SPLIT-RIBBED CONCRETE MASONRY UNIT; PAINT TO MATCH EXISTING; COLOR: P-6
- 8 EXISTING ROOF CONSTRUCTION
- 9 PREFINISHED SHEET METAL PARAPET CAP FLASHING; ALIGN WITH EXISTING FLASHING; SEE 4/A13
- 10 OSHA - COMPLIANT SAFETY GUARDRAIL; SEE 11/A13
- 11 NEW DUMPSTER ENCLOSURE; SEE 2/A3
- 12 REINSTALL SALVAGED CCTV CAMERA; SEE TELECOM
- 13 REFRIGERANT LINES CONCEALED UNDER STAINLESS STEEL ENCLOSURE; SEE MECHANICAL
- 14 LIGHT FIXTURES; SEE ELECTRICAL
- 15 EXHAUST FAN; SEE MECHANICAL
- 16 NEW ROOFTOP MOUNTED EXHAUST FAN AT EXISTING ROOF PENETRATION; SEE MECHANICAL
- 17 NEW ROOFTOP MOUNTED EXHAUST FAN AND CURB; SEE MECHANICAL AND STRUCTURAL
- 18 EXISTING EQUIPMENT PEDESTAL/PLATFORM TO REMAIN AFTER REMOVAL OF ROOFTOP MOUNTED EQUIPMENT
- 19 ABANDONED DUCT SUPPORT TO REMAIN
- 20 CAP AND SEAL WEATHERTIGHT EXISTING ROOF CURB WHERE EXHAUST FAN WAS REMOVED; SEE MECHANICAL AND 9/A13
- 21 SUPPLY FAN; SEE MECHANICAL
- 22 DRYER EXHAUST VENT; SEE MECHANICAL AND 5/A14
- 23 COMPRESSOR UNIT ON GROUND PAD; SEE MECHANICAL

LEGEND

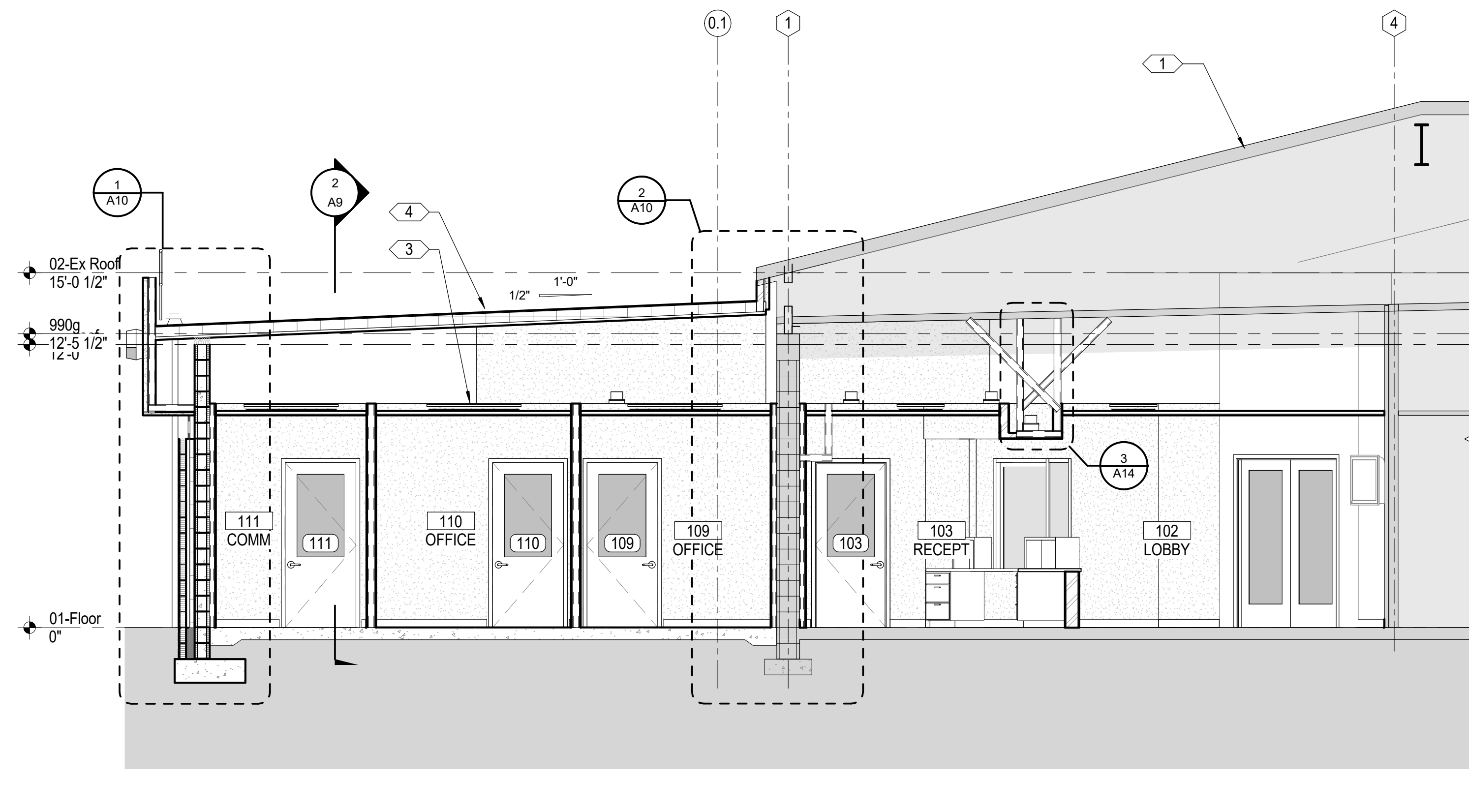
- DS PREFINISHED METAL DOWNSPOUT TO CONNECT TO STORMWATER PIPE AT SIDEWALK; SEE CIVIL; MATCH EXISTING DOWNSPOUT COLOR
- CJ CONTROL JOINT AT 20'-0" SPACING OR LESS PER MANUFACTURERS RECOMMENDATIONS
- OD OVERFLOW DRAIN; SEE 10/A13 AND PLUMBING

APPD	DESCRIPTION	DATE	REV #

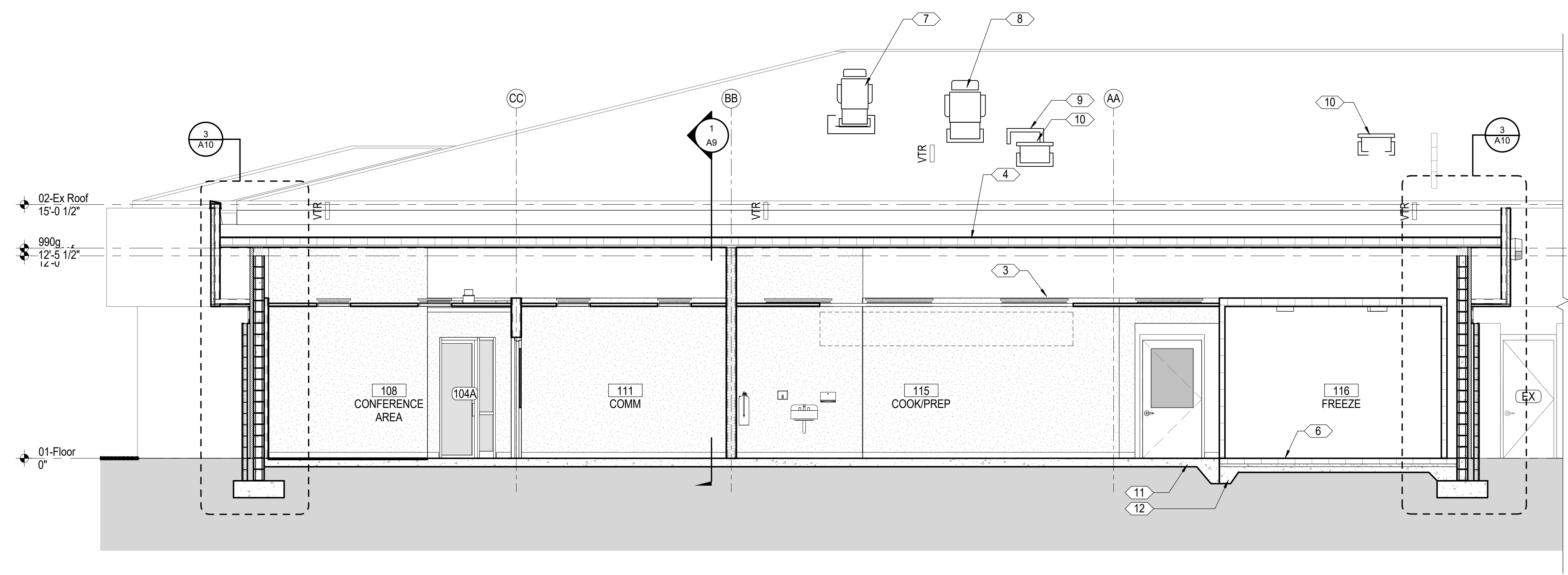
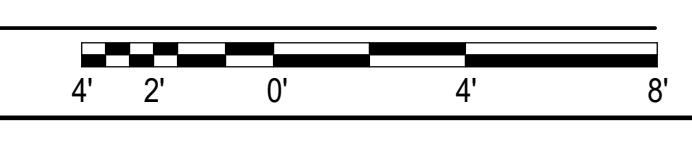
<p>APPROVED</p> <p>CHIEF ENGINEER</p> <p>APPROVED</p>	<p>ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353</p> <p>EXTERIOR ELEVATIONS</p>
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<p>AIR FORCE SPECIAL OPERATIONS COMMAND</p> <p>1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA</p>	<p>DATE: 16 SEPT 2016</p> <p>DESIGNED BY: B. KICKLITER</p> <p>DRAWN BY: A. POWELL</p> <p>BUILDING NO: 90353</p> <p>PROJECT NO: FTEV 12-1164</p> <p>SHEET REF: A8</p> <p>SHEET NO: 28 of 110</p>
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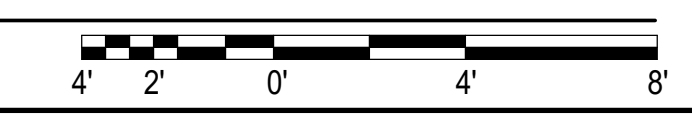
STANDARD LAYOUT (24" X 36")



1 BUILDING CROSS SECTION
 A2 A9 1/4" = 1'-0"



2 BUILDING LONGITUDINAL
 A2 A9 1/4" = 1'-0"



KEYNOTES

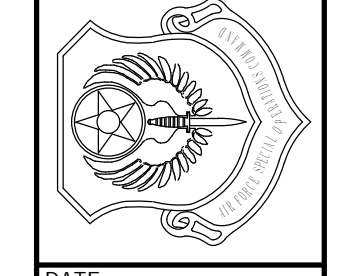
- 1 EXISTING ROOF CONSTRUCTION
- 2 4" NOMINAL SPLIT-RIBBED CONCRETE MASONRY UNIT; PAINT TO MATCH EXISTING; COLOR: P-6
- 3 LIGHT FIXTURES; SEE ELECTRICAL
- 4 SINGLE PLY MEMBRANE ROOFING SYSTEM; SEE 1/A13 FOR TYPICAL ROOF COMPOSITION
- 5 KITCHEN EXHAUST HOOD; SEE EQUIPMENT PLAN AND MECHANICAL
- 6 INSULATED METAL FLOOR PANEL OF WALK-IN FREEZER/REFRIGERATOR; SEE 5/A12
- 7 EXHAUST FAN; SEE MECHANICAL
- 8 NEW ROOFTOP MOUNTED EXHAUST FAN AT EXISTING ROOF PENETRATION; SEE MECHANICAL
- 9 EXISTING EQUIPMENT PEDESTAL/PLATFORM TO REMAIN AFTER REMOVAL OF ROOFTOP MOUNTED EQUIPMENT
- 10 CAP AND SEAL WEATHERTIGHT EXISTING ROOF CURB WHERE EXHAUST FAN WAS REMOVED; SEE MECHANICAL AND 9/A13
- 11 6" CONCRETE FLOOR SLAB-ON-GRADE; SEE STRUCTURAL
- 12 CONCRETE FOOTING; SEE STRUCTURAL

APPD	DESCRIPTION	DATE	REV #

APPROVED: _____
 CHIEF ENGINEER
 APPROVED: _____
 CIVIL ENGINEER

**ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353**
 BUILDING SECTION

**AIR FORCE SPECIAL
 OPERATIONS COMMAND**
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA



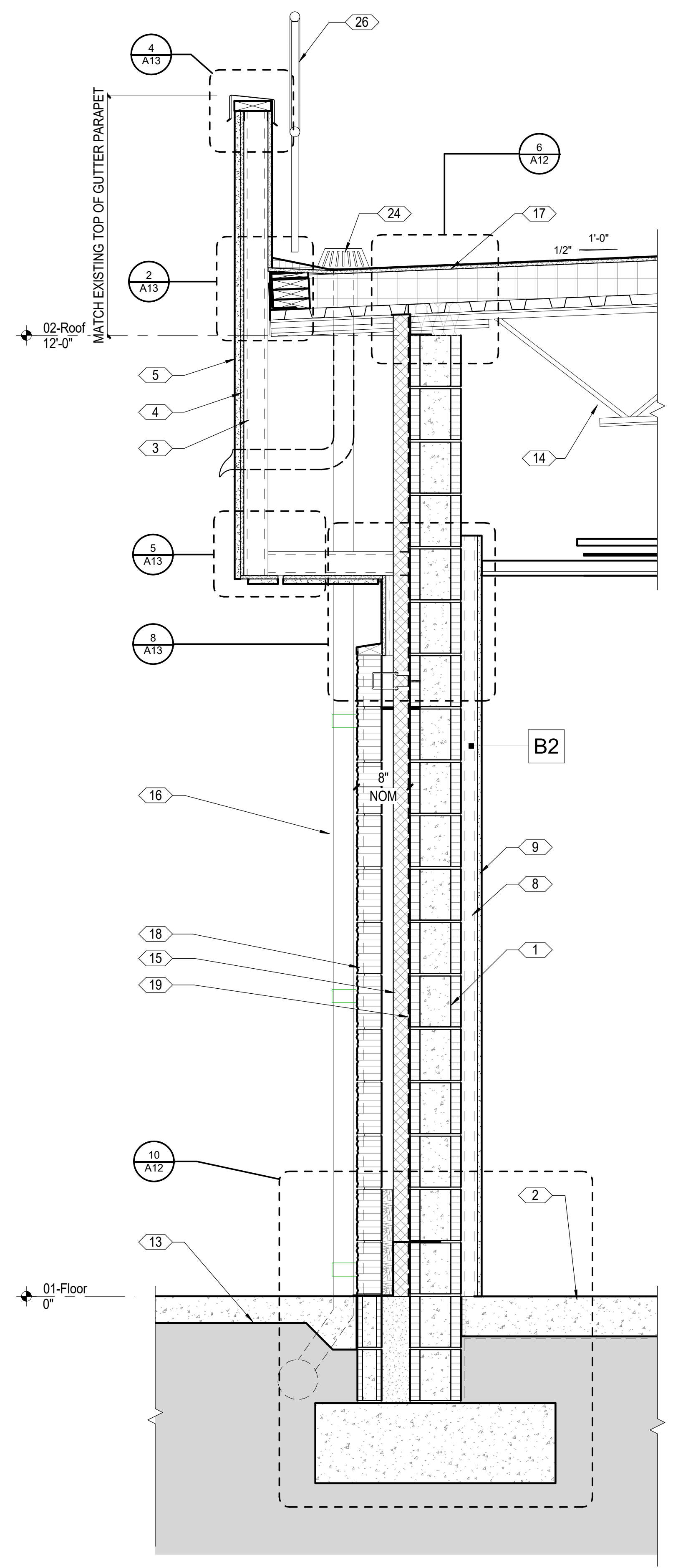
DATE: 16 SEPT 2016
 DESIGNED BY: B. KICKLITER
 DRAWN BY: A. POWELL
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: **A9**
 SHEET NO: 29 of 110

GENERAL NOTES

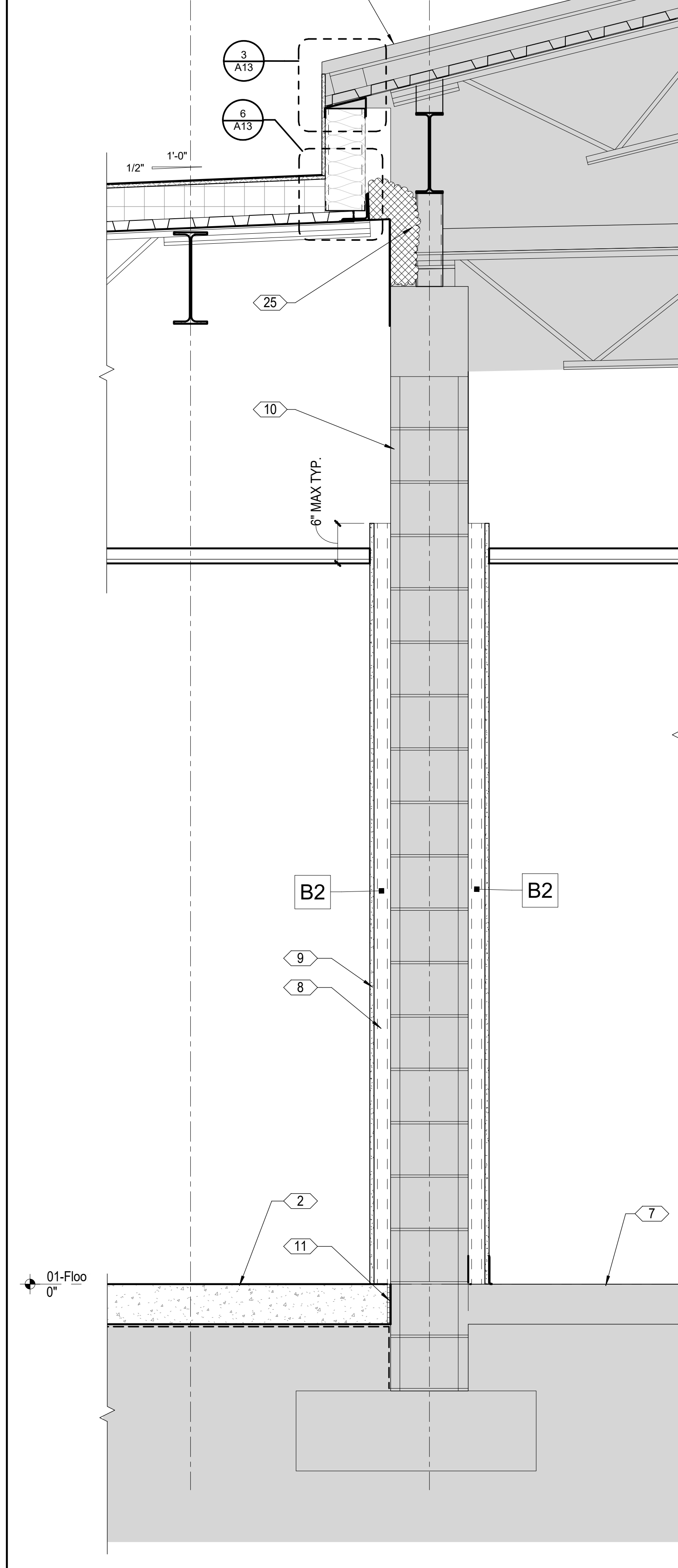
1. STEEL STRUCTURE, INCLUDING BEAMS, TRUSSES, BAR JOISTS, BRACING, COLUMNS AND METAL DECKING SHALL BE PAINTED WHERE EXPOSED.

STANDARD LAYOUT (24" X 36")

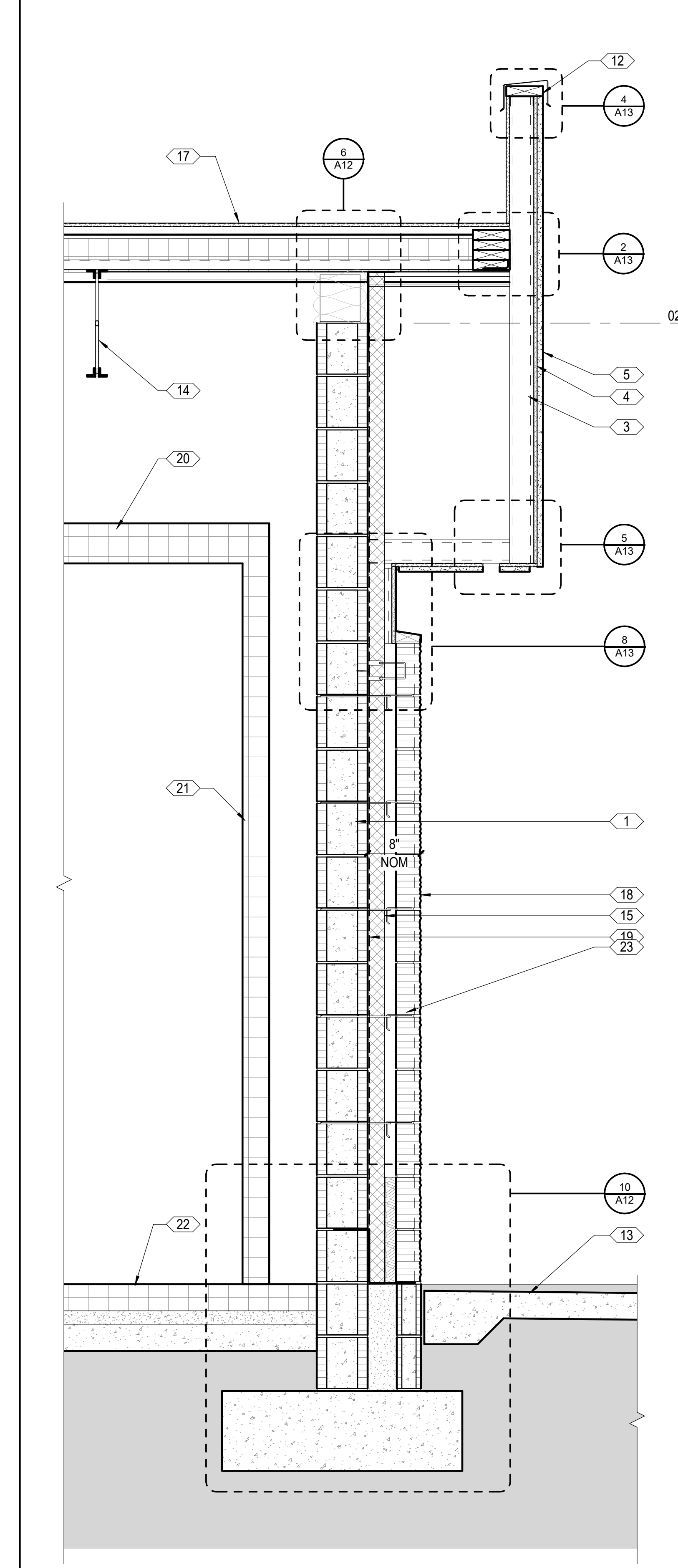
STANDARD LAYOUT (24" X 36")



1 WALL SECTION
A9 A10 1" = 1'-0"
1' 6" 0' 1' 2'



2 WALL SECTION
A9 A10 1" = 1'-0"
1' 6" 0' 1' 2'




3 WALL SECTION
A9 A10 1" = 1'-0"
1' 6" 0' 1' 2'

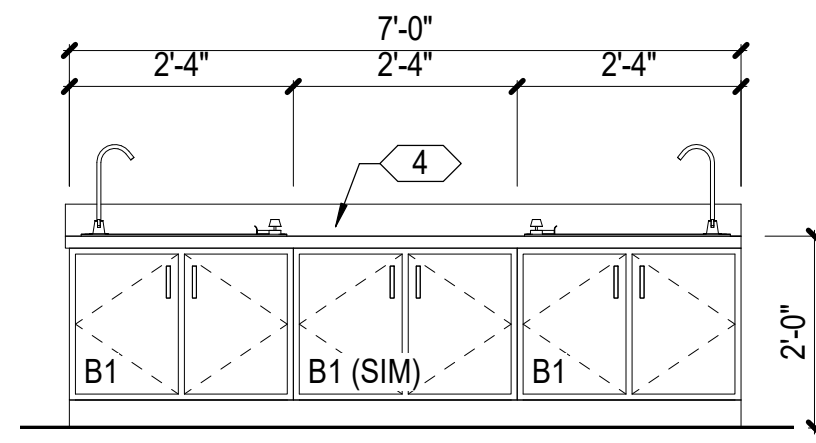
KEYNOTES

- 1 8" NOMINAL REINFORCED CONCRETE MASONRY UNIT BACK-UP WALL CONSTRUCTION; SEE STRUCTURAL
- 2 6" CONCRETE FLOOR SLAB-ON-GRADE; SEE STRUCTURAL
- 3 GALVANIZED METAL STUD FASCIA CONSTRUCTION; SEE STRUCTURAL
- 4 1/2" GLASS MAT GYPSUM SHEATHING
- 5 STUCCO FINISH SYSTEM TO MATCH EXISTING; COLOR P-6
- 6 EXISTING ROOF CONSTRUCTION
- 7 EXISTING FLOOR SLAB
- 8 2 1/2" GALVANIZED METAL STUD FURRING AT 16" O.C.
- 9 5/8" GYPSUM BOARD
- 10 EXISTING WALL CONSTRUCTION
- 11 BUILDING EXPANSION JOINT; PROVIDE 1/2" BACKER ROD AND SEALANT BETWEEN NEW AND EXISTING CONSTRUCTION; PAINT TO MATCH ADJACENT FINISHES
- 12 PREFINISHED SHEET METAL PARAPET CAP FLASHING; ALIGN WITH EXISTING FLASHING; SEE 4/A13
- 13 CONCRETE WALK; SEE CIVIL
- 14 STEEL JOIST FRAMING; SEE STRUCTURAL
- 15 R-13 RIGID INSULATION
- 16 ROOF DRAIN, SEE CIVIL AND DETAIL 7/A13
- 17 SINGLE PLY MEMBRANE ROOFING SYSTEM; SEE 1/A13 FOR TYPICAL ROOF COMPOSITION
- 18 4" NOMINAL SPLIT-RIBBED CONCRETE MASONRY UNIT; PAINT TO MATCH EXISTING; COLOR: P-6
- 19 FLUID APPLIED WATERPROOFING
- 20 INSULATED METAL CEILING PANEL OF WALK-IN FREEZER/REFRIGERATOR
- 21 INSULATED METAL WALL PANEL OF WALK-IN FREEZER/REFRIGERATOR
- 22 INSULATED METAL FLOOR PANEL OF WALK-IN FREEZER/REFRIGERATOR
- 23 HORIZONTAL JOINT REINFORCEMENT WITH ROD AND PINTEL MASONRY ANCHORS; PROVIDE ADJUSTABLE ANCHORS AT 16" O.C. EACH WAY, STAGGERED.
- 24 ROOF DRAIN; SEE 7/A13; PROVIDE OVERFLOW DRAIN WITH INLET SET 2" ABOVE STORM DRAIN IN SIMILAR DETAIL; EXTEND OVERFLOW DRAIN PIPE TO EMPTY AT UNDERSIDE OF SOFFIT
- 25 PROVIDE 16GA GALVANIZED METAL CLOSURE FLASHING AND APPLY MIN. 5" THICK CLOSED CELL SPRAY FOAM INSULATION; FIELD VERIFY CONDITIONS FOR PROPER APPLICATION; FASTEN TO FACE OF EXISTING CMU WALL AND UNDERSIDE OF NEW ROOF DECK EDGE ANGLE
- 26 METAL PIPE GUARDRAIL; SEE 11/A15

GENERAL NOTES

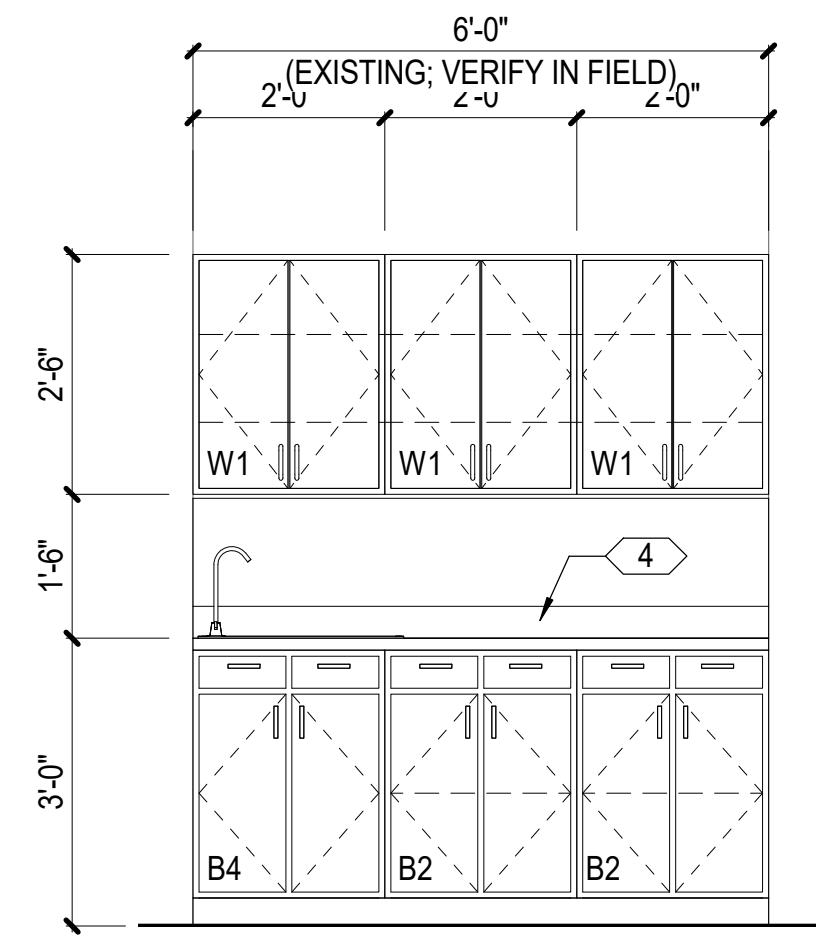
1. STEEL STRUCTURE, INCLUDING BEAMS, TRUSSES, BAR JOISTS, BRACING, COLUMNS AND METAL DECKING SHALL BE PAINTED WHERE EXPOSED.

APPD	
DESCRIPTION	
DATE	
REV #	
APPROVED	
CHEF ENGINEER	
APPROVED	
CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	
AIR FORCE SPECIAL OPERATIONS COMMAND	
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
	
DATE:	16 SEPT 2016
DESIGNED BY:	B. KICKLITER
DRAWN BY:	A. POWELL
BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164
SHEET REF.:	A10
SHEET NO.:	30 of 110



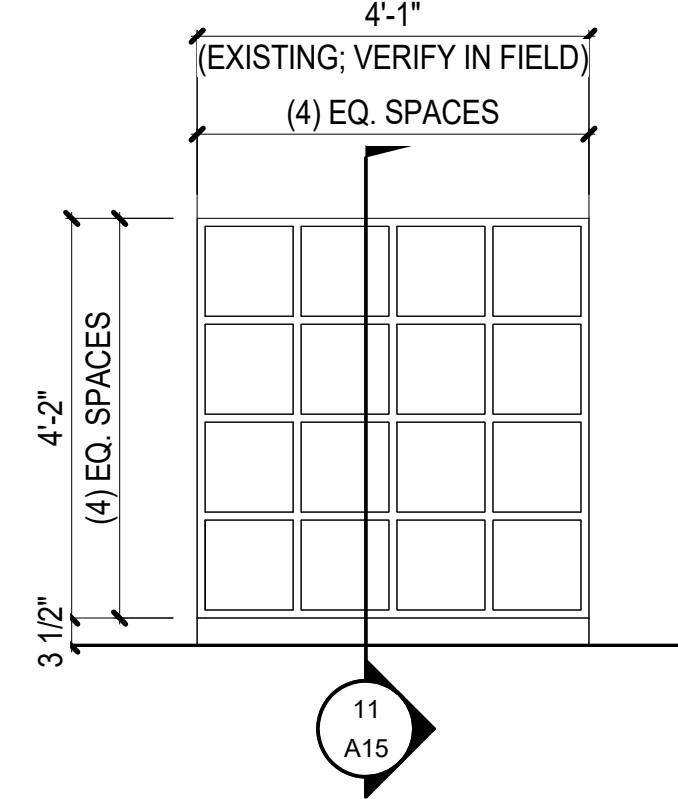
1 CHILD SINK BASE ELEVATION

A3 A11 1/2" = 1'-0"



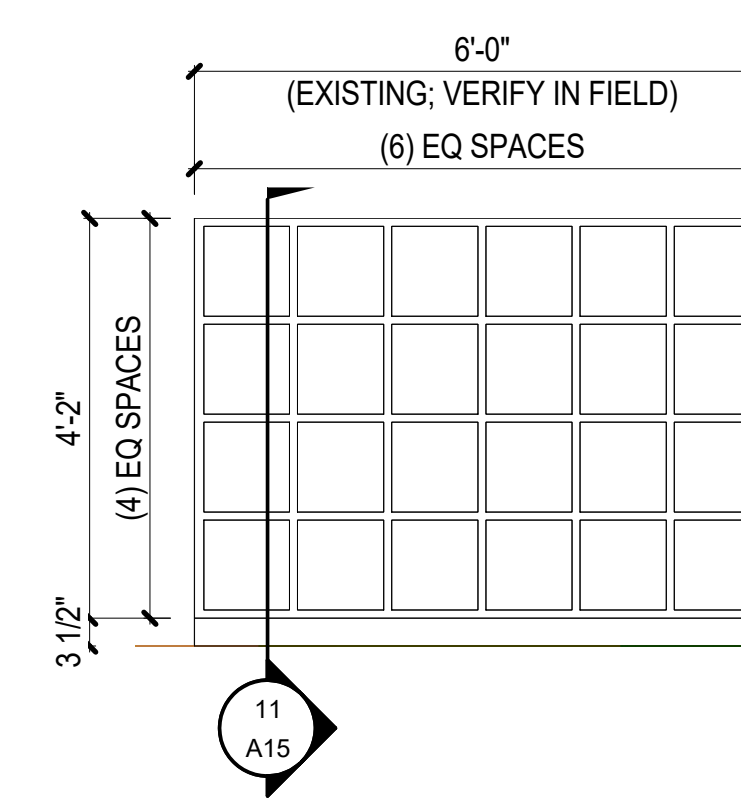
2 ACTIVITY ROOM ELEVATION

A3 A11 1/2" = 1'-0"



3 CUBBY ELEVATION A

A3 A11 1/2" = 1'-0"



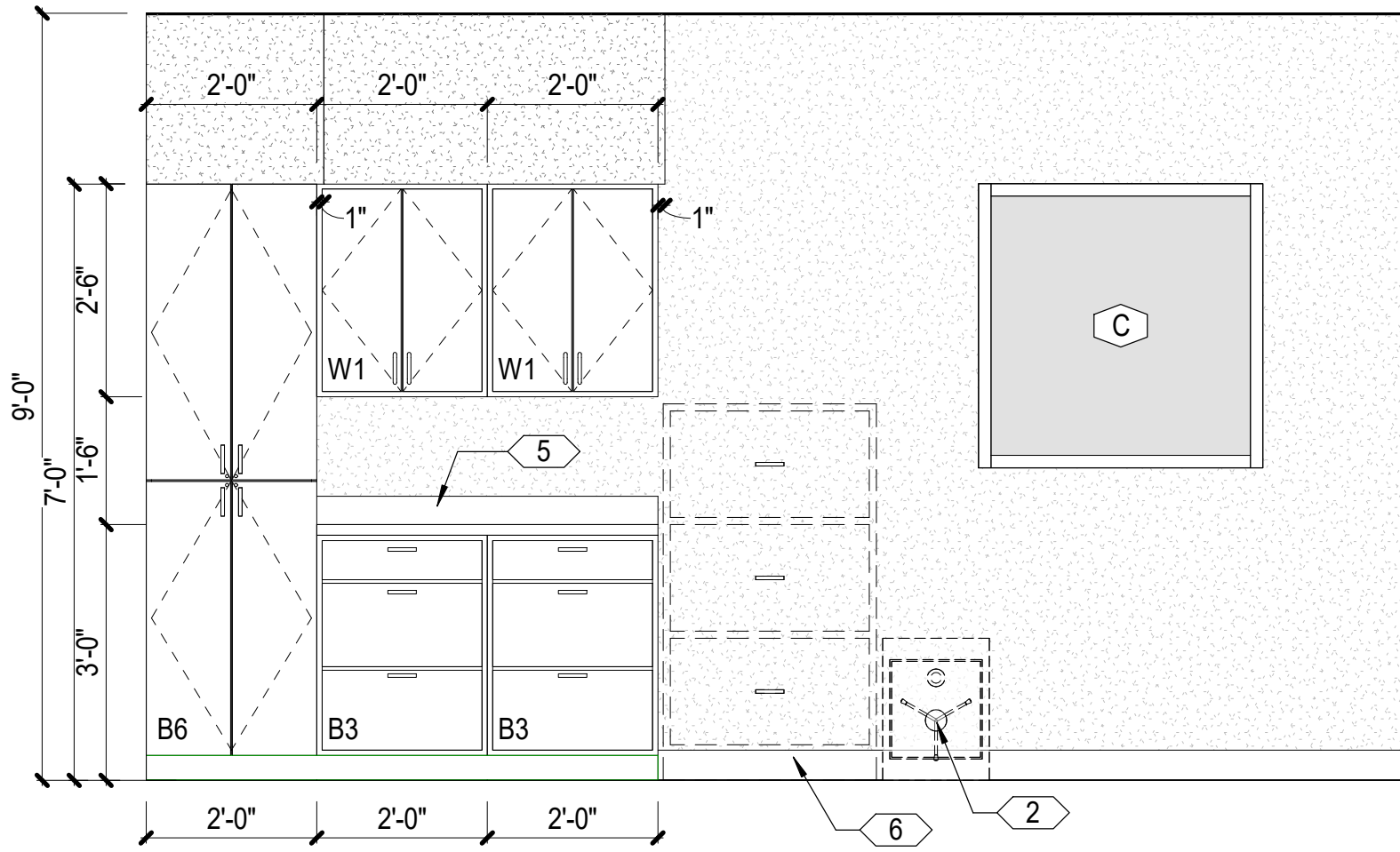
8 CUBBY ELEVATION B

A3 A11 1/2" = 1'-0"

KEYNOTES

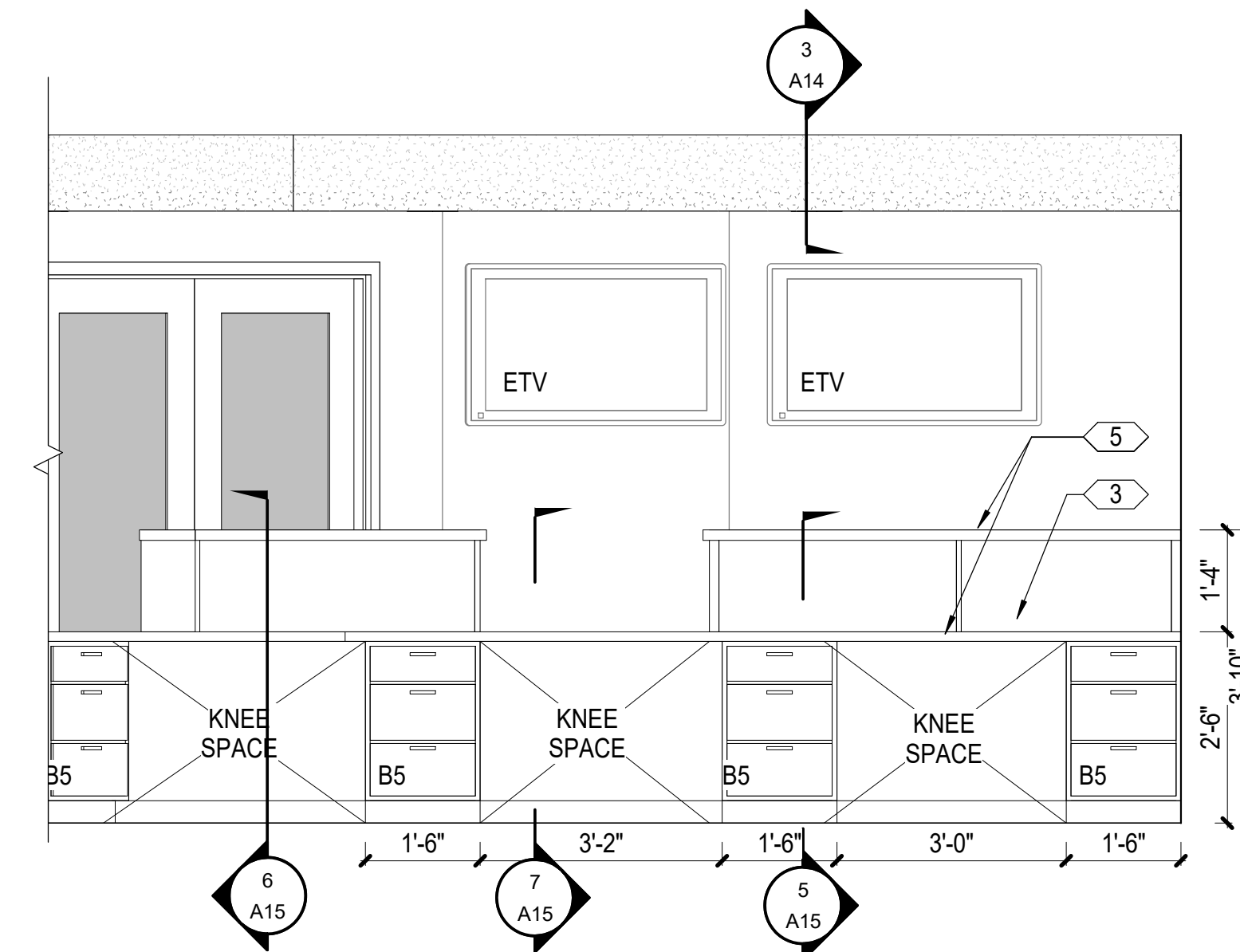
- 1 NEW GYPSUM BOARD CLAD SOFFIT CONSTRUCTION; SEE 10/A15
- 2 SAFE (GFGI)
- 3 PROVIDE 1-1/2" Ø GROMMET HOLES AND PLASTIC GROMMET INSERTS, MINIMUM (1) PER KNEE SPACE; COORDINATE WITH CONTRACTING OFFICER
- 4 SOLID SURFACE COUNTERTOP WITH 4" BACKSPLASH (COLOR: SS-1)
- 5 SOLID SURFACE COUNTERTOP WITH 4" BACKSPLASH (COLOR: SS-2)
- 6 FILE CABINET (GFGI)

APPD	DESCRIPTION	DATE	REV #



4 INTERIOR ELEVATION - RECEPTION WEST

A2 A11 1/2" = 1'-0"



5 INTERIOR ELEVATION - RECEPTION EAST

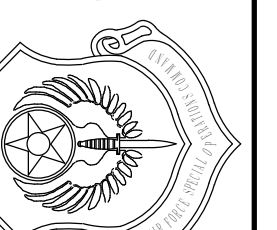
A2 A11 1/2" = 1'-0"

LEGEND

ETV EXISTING WALL MOUNTED TELEVISION

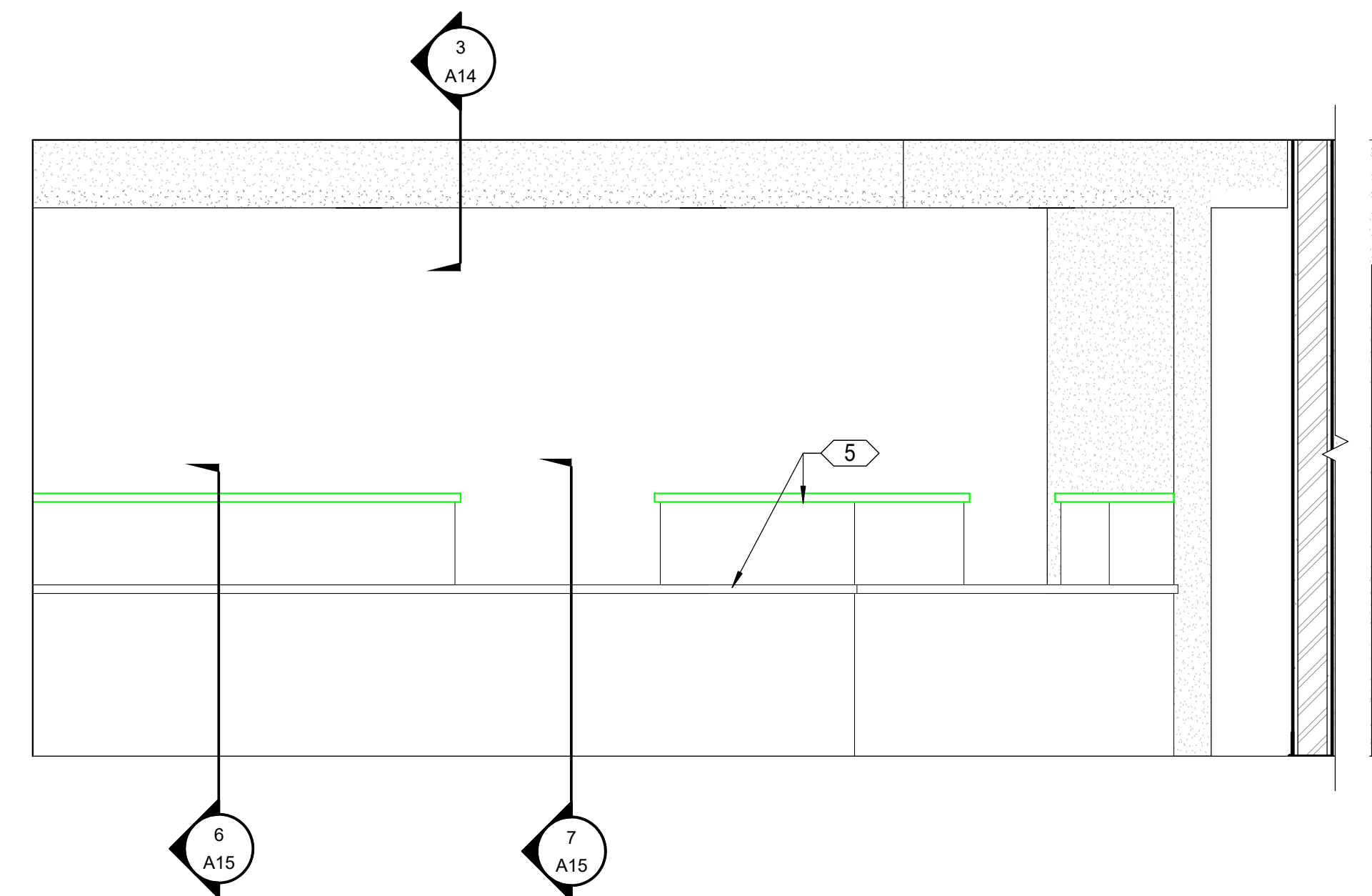
ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
INTERIOR ELEVATIONS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



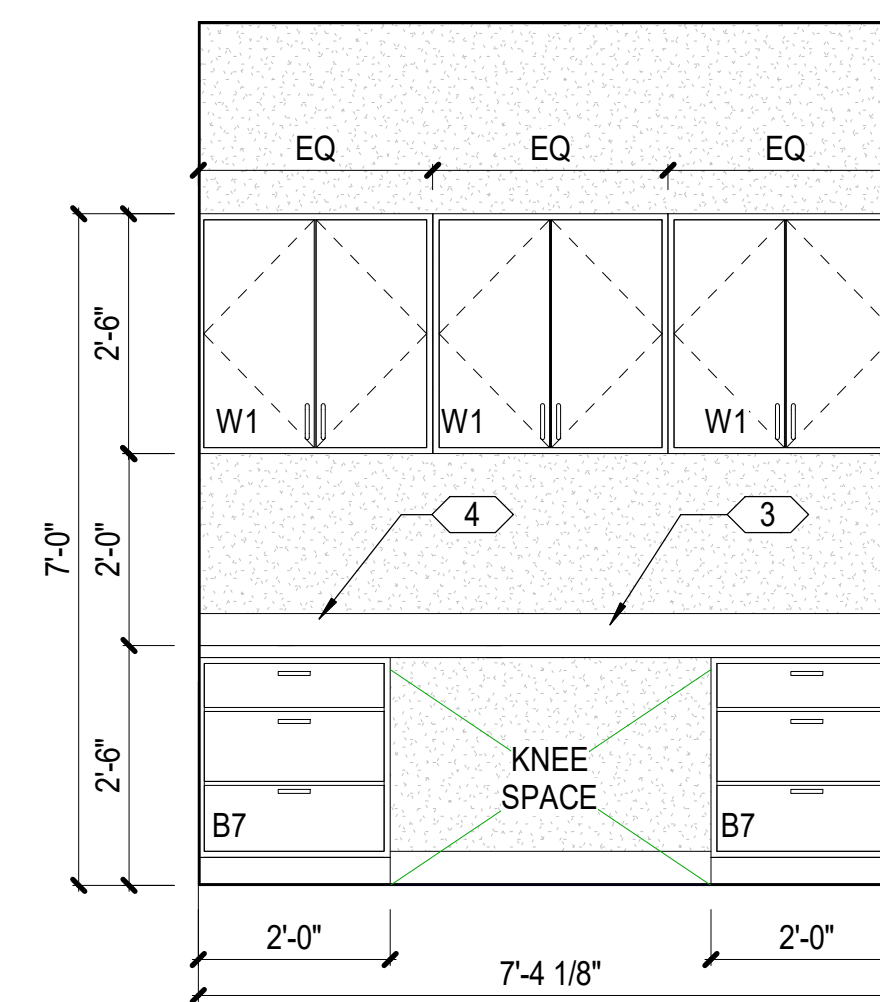
DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: B. KICKLITER
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF:

A11
SHEET NO: 31 of 110



6 INTERIOR ELEVATION - LOBBY WEST

A2 A11 1/2" = 1'-0"



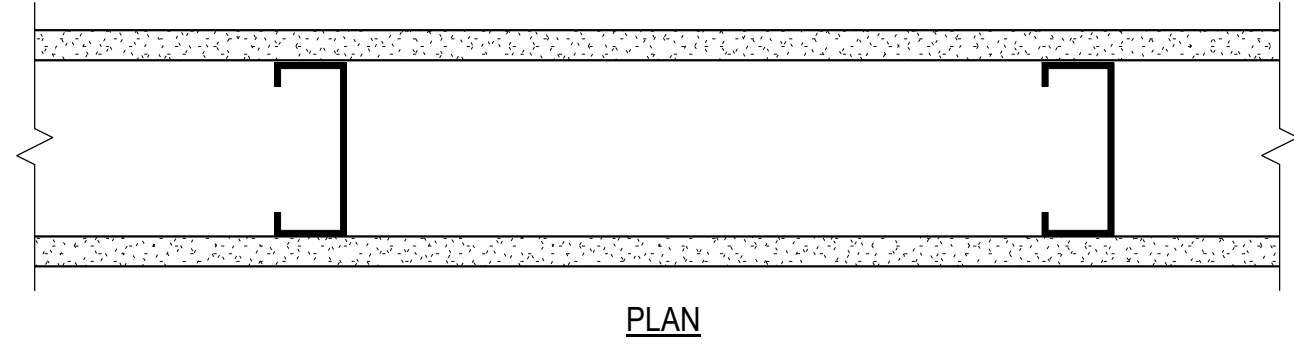
7 INTERIOR ELEVATION - FOOD ORDER

A2 A11 1/2" = 1'-0"

TYPICAL UNRATED PARTITION

- 5/8" TYPE 'X' GYPSUM BOARD
- GALVANIZED METAL STUDS; SEE SIZES BELOW
- 5/8" TYPE 'X' GYPSUM BOARD

NOTE:
1. USE MOISTURE RESISTANT TYPE 'X' GYPSUM BOARD PER ROOM FINISH SCHEDULE.
2. EXTEND TOP OF WALL TO MINIMUM 6" ABOVE CEILING; UNLESS NOTED OTHERWISE



PLAN

1 WALL TYPE 'A'

A12 3" = 1'-0"

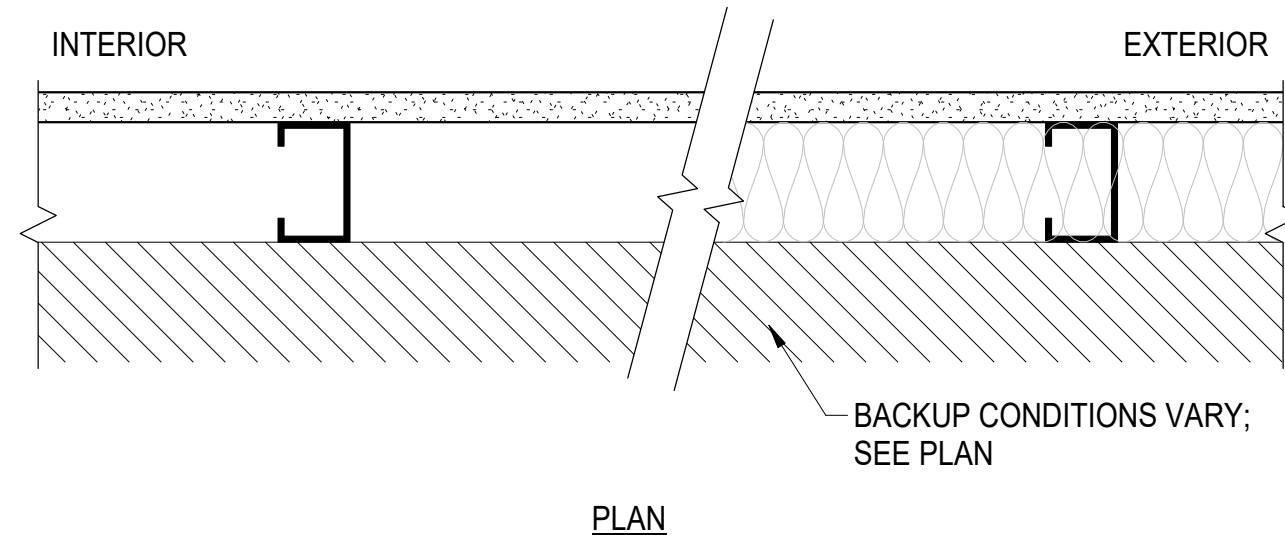


TYPICAL FURRING

- 5/8" TYPE 'X' GYPSUM BOARD
- GALVANIZED METAL STUDS; SEE SIZES BELOW
- BACK-UP CONDITION

NOTE:
1. USE MOISTURE RESISTANT TYPE 'X' GYPSUM BOARD PER ROOM FINISH SCHEDULE.
2. EXTEND TOP OF WALL TO MINIMUM 6" ABOVE CEILING, UNLESS NOTED OTHERWISE.
3. PROVIDE BATT INSULATION BETWEEN STUDS AT EXTERIOR WALLS
4. EXISTING OR NEW CONSTRUCTION; BUTT STUDS UP FLUSH TO FACE OF CONSTRUCTION UNLESS NOTED OTHERWISE.

B2: 20ga - 2 1/2" @ 16" O.C.
B3: 20ga - 3 5/8" @ 16" O.C.
B6: 20ga - 6" @ 16" O.C.



PLAN

2 WALL TYPE 'B'

A12 3" = 1'-0"

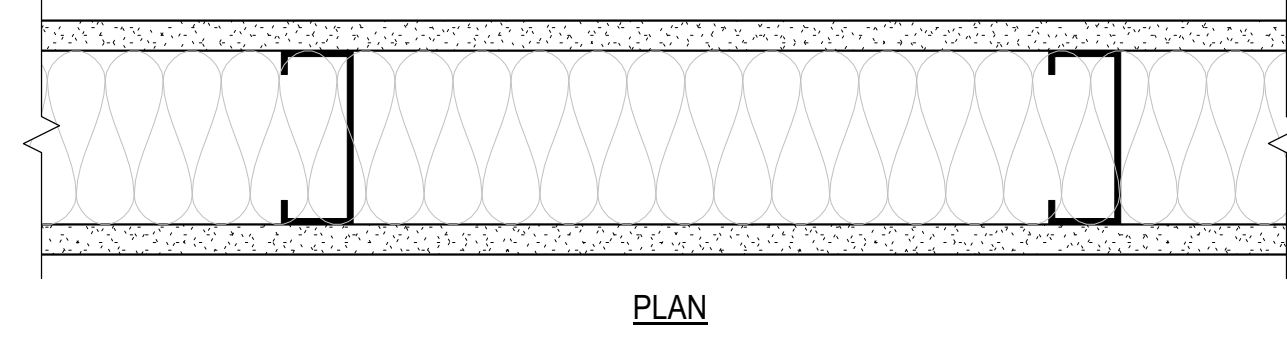


1HR RATED PARTITION
UL DESIGN No. U419

- 5/8" TYPE 'X' GYPSUM BOARD
- GALVANIZED METAL STUDS; SEE SIZES BELOW
- BATT INSULATION BETWEEN STUDS
- 5/8" TYPE 'X' GYPSUM BOARD

NOTE:
1. EXTEND WALL TO UNDERSIDE OF DECK.
2. FIRE CAULK AT ALL THROUGH WALL PENETRATIONS AND CONNECTIONS
3. SEE FINISH SCHEDULE FOR ADDITIONAL FINISH REQUIREMENTS
4. USE MOISTURE RESISTANT GYPSUM BOARD PER ROOM FINISH SCHEDULE

C3: 20ga - 3 5/8" @ 16" O.C.
C6: 20ga - 6" @ 16" O.C.



PLAN

3 WALL TYPE 'C'

A12 3" = 1'-0"

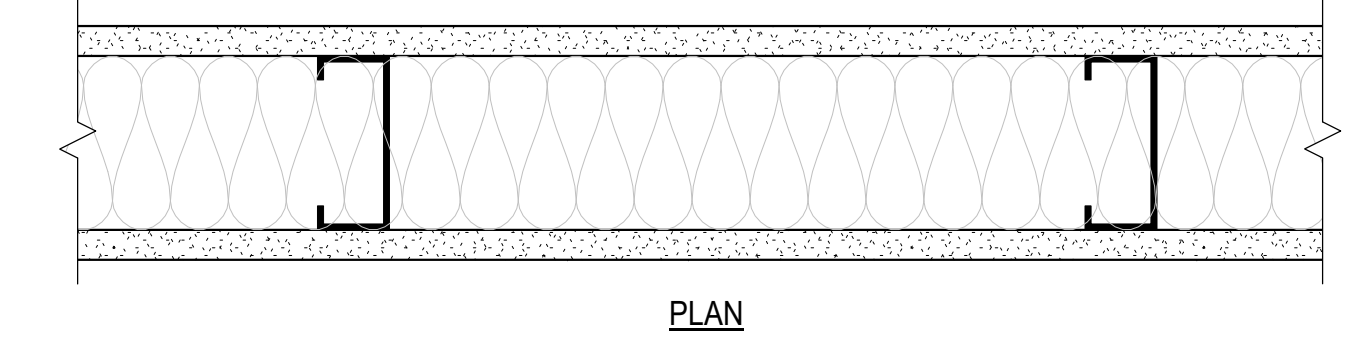


SOUND ATTENUATED PARTITION

- 5/8" TYPE 'X' GYPSUM BOARD
- GALVANIZED METAL STUDS; SEE SIZES BELOW
- BATT INSULATION BETWEEN STUDS
- 5/8" TYPE 'X' GYPSUM BOARD

NOTE:
1. EXTEND WALL TO UNDERSIDE OF DECK.
2. ACOUSTIC CAULK AT ALL THROUGH PENETRATIONS AND TERMINATIONS
3. SEE FINISH SCHEDULE FOR ADDITIONAL FINISH REQUIREMENTS

D3: 20ga - 3 5/8" @ 16" O.C.
D6: 20ga - 6" @ 16" O.C.



PLAN

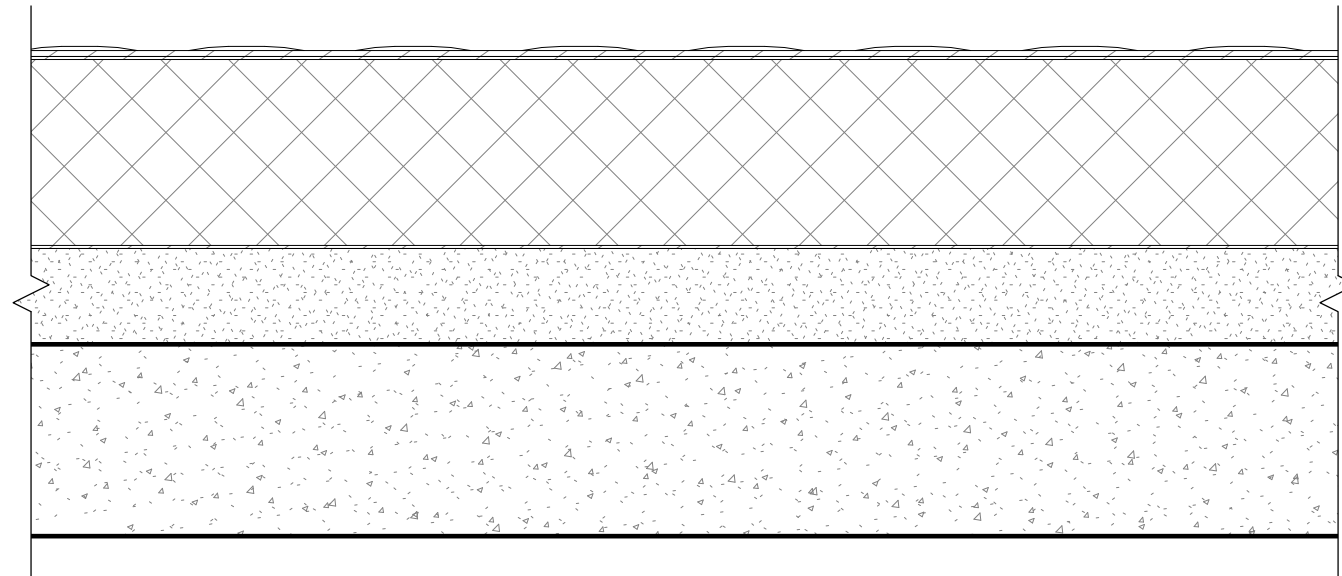
4 WALL TYPE 'D'

A12 3" = 1'-0"



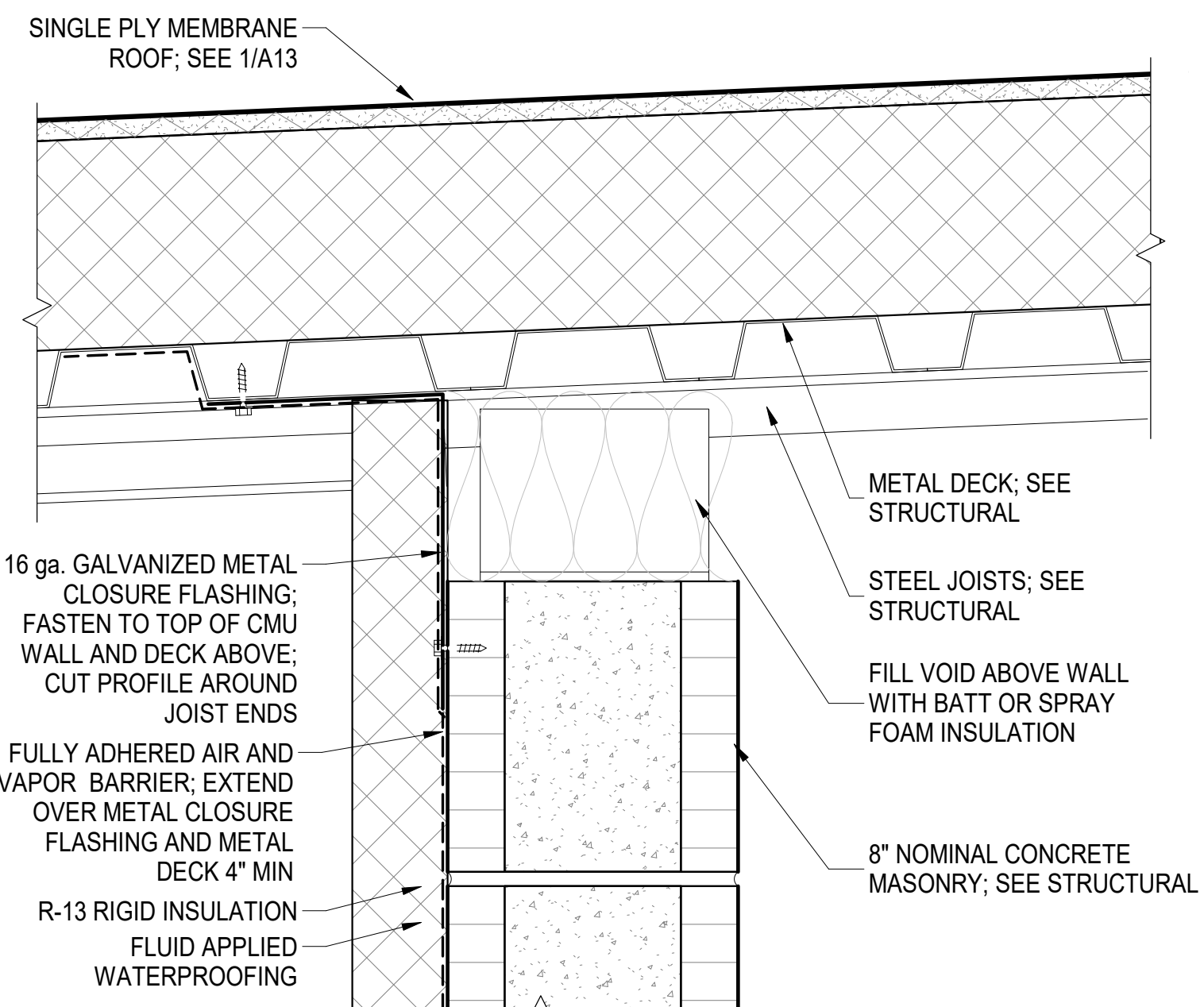
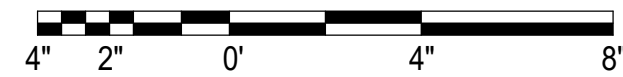
FREEZER/REFRIGERATOR FLOOR

- 1/8" ALUMINUM DIAMOND PLATE TREAD FLOOR FINISH
- 4" INSULATED METAL PANEL
- 2" SAND LEVELING BED
- 4" CONCRETE SLAB; SEE STRUCTURAL



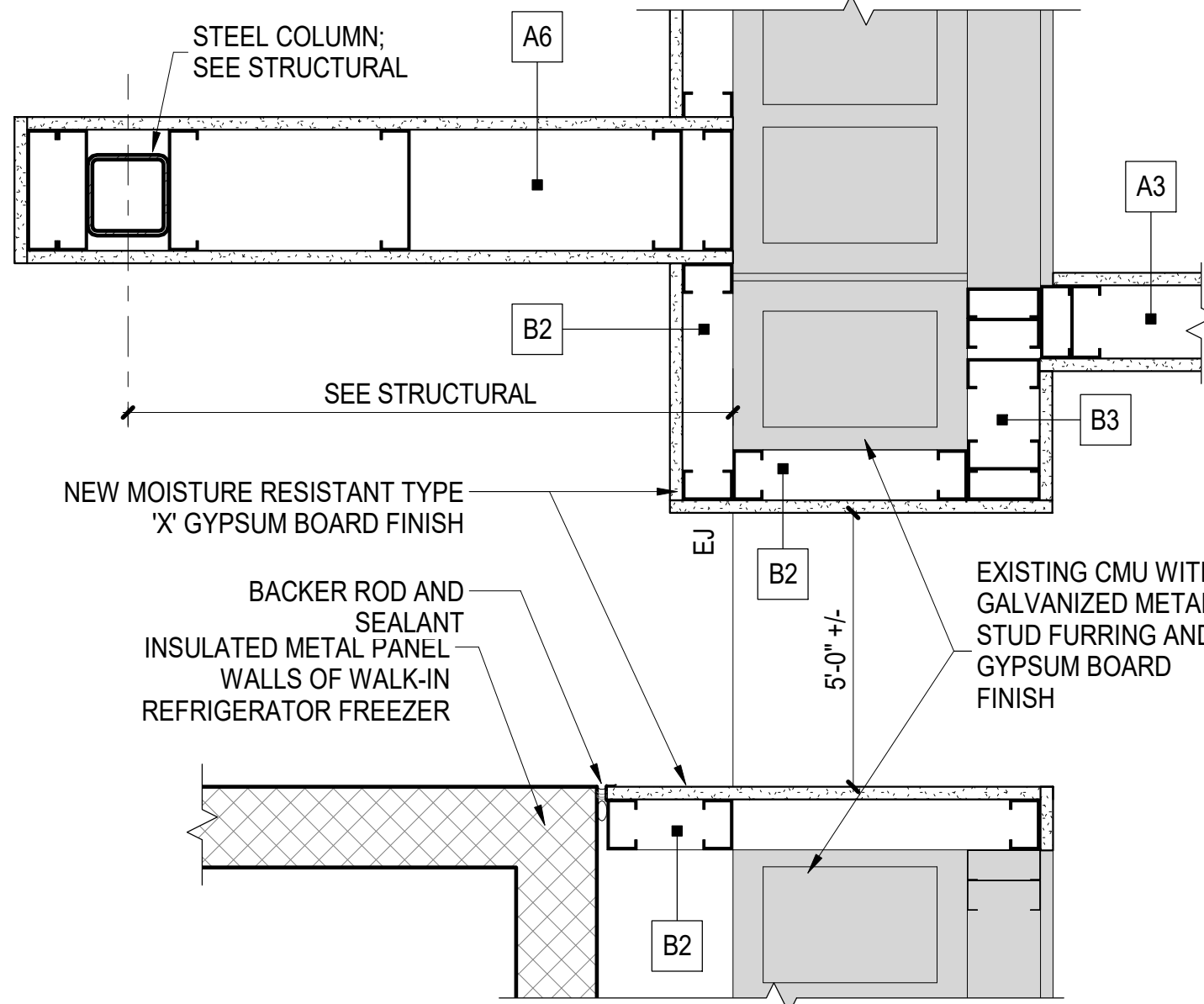
5 INSULATED FLOOR CONSTRUCTION

A12 3" = 1'-0"



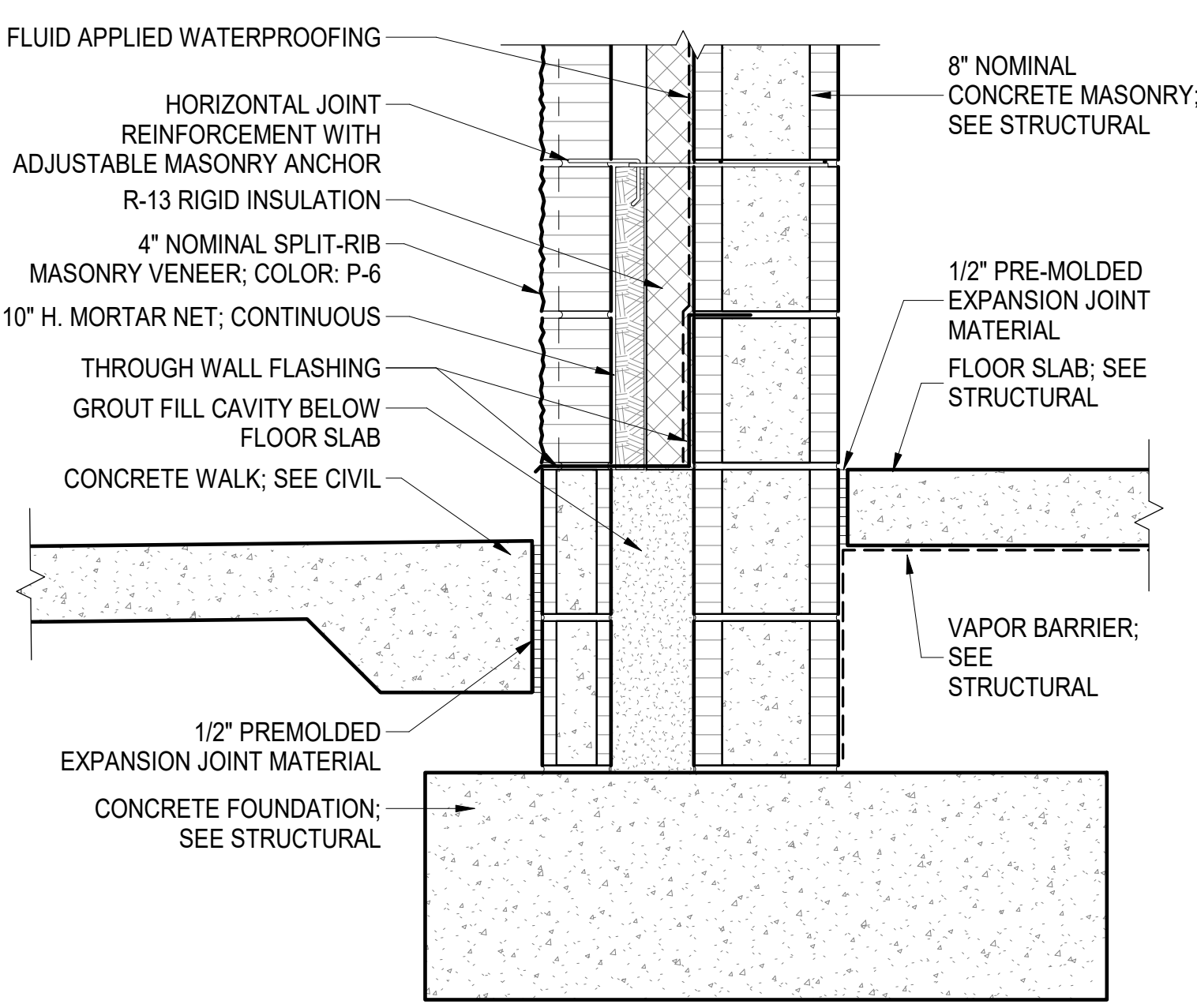
6 TOP OF WALL TO DECK

A10 A12 3" = 1'-0"



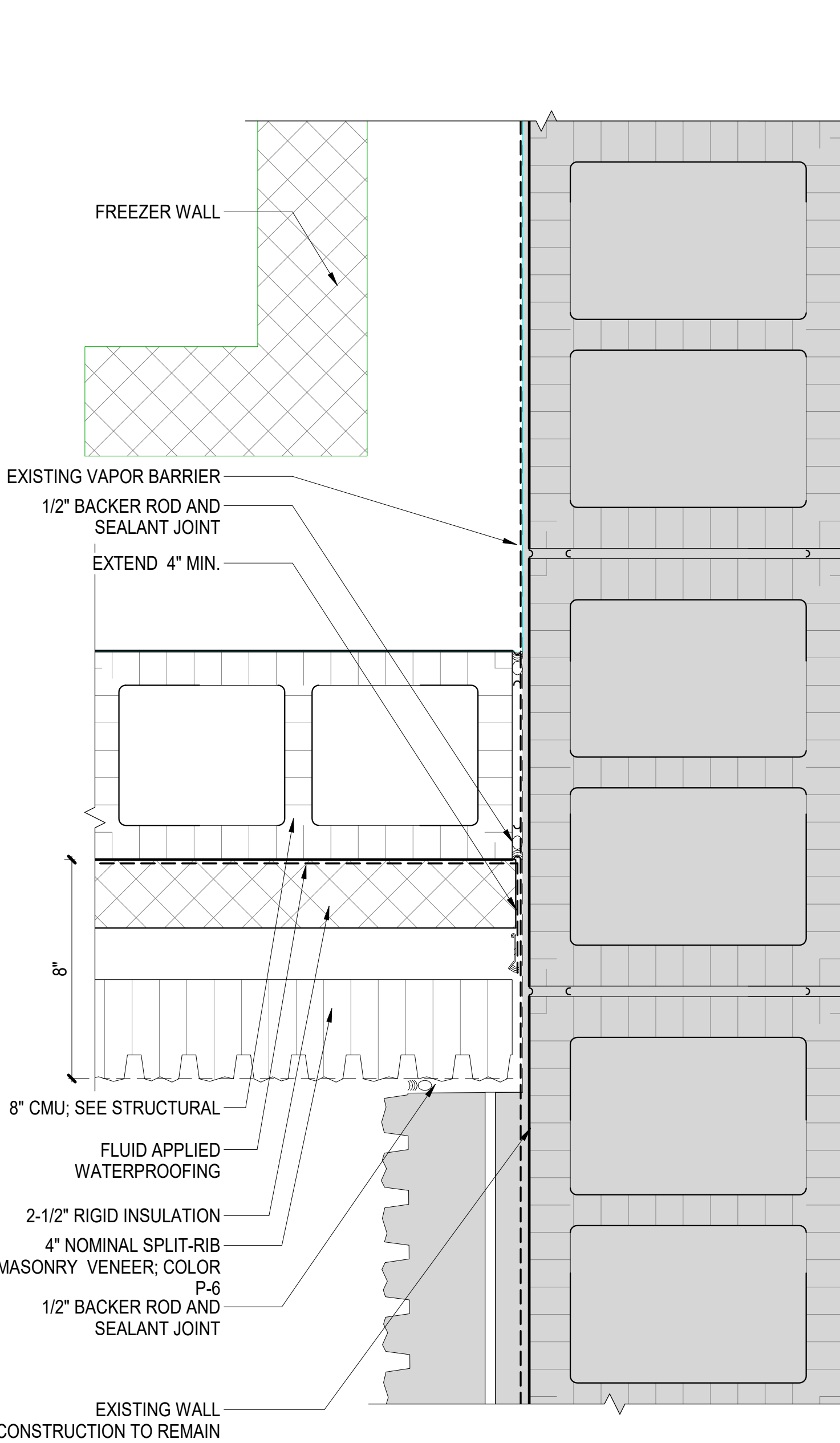
9 GYPSUM WRAPPED PASSAGE

A2 A12 1 1/2" = 1'-0"



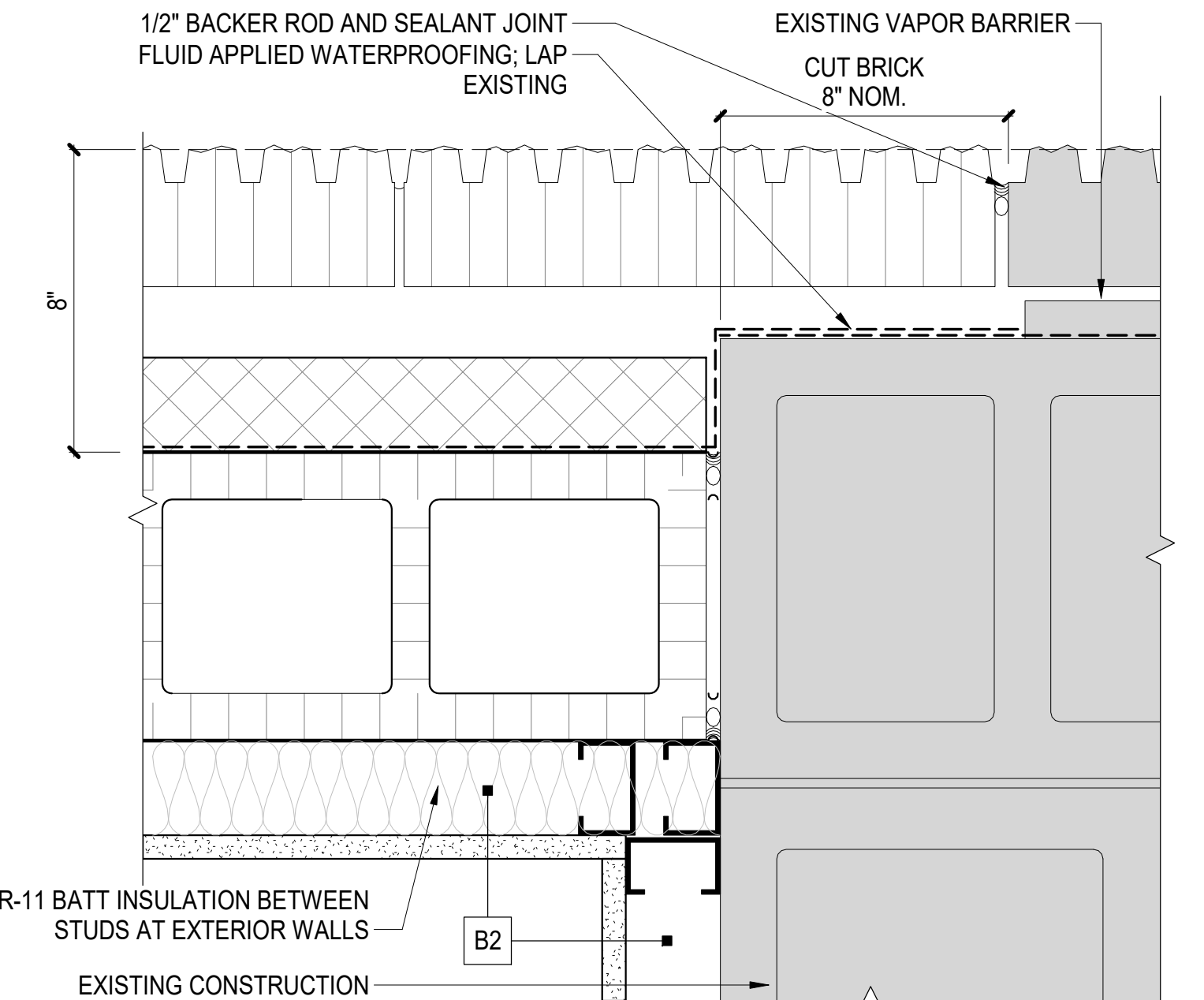
10 BOTTOM OF WALL DETAIL

A10 A12 1 1/2" = 1'-0"



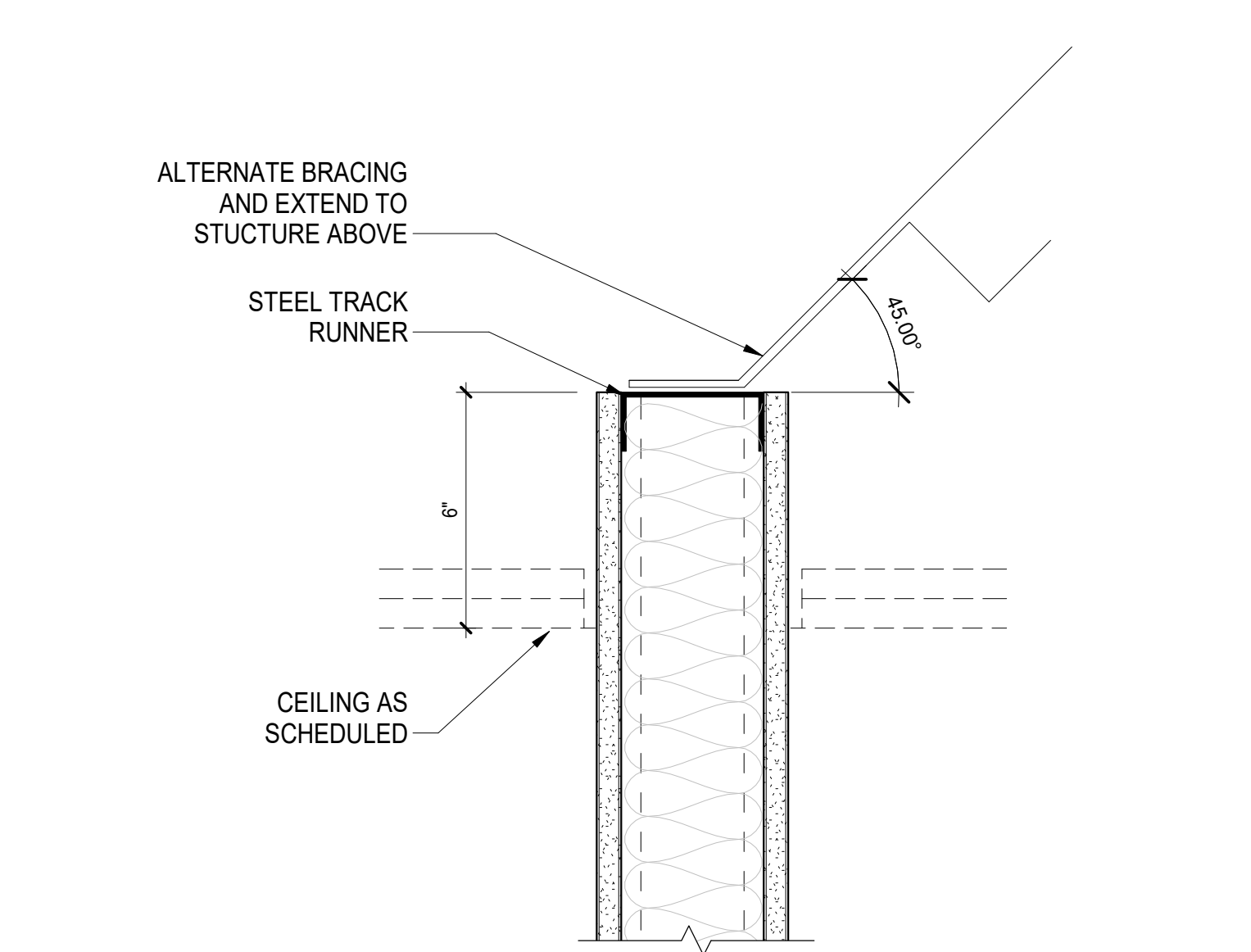
11 BUILDING EXPANSION JOINT

A2 A12 3" = 1'-0"



8 BUILDING EXPANSION JOINT

A2 A12 3" = 1'-0"



12 WALL HEAD DETAIL

A12 3" = 1'-0"



STANDARD LAYOUT (24" X 36")

APPD	DESCRIPTION	DATE	REV #

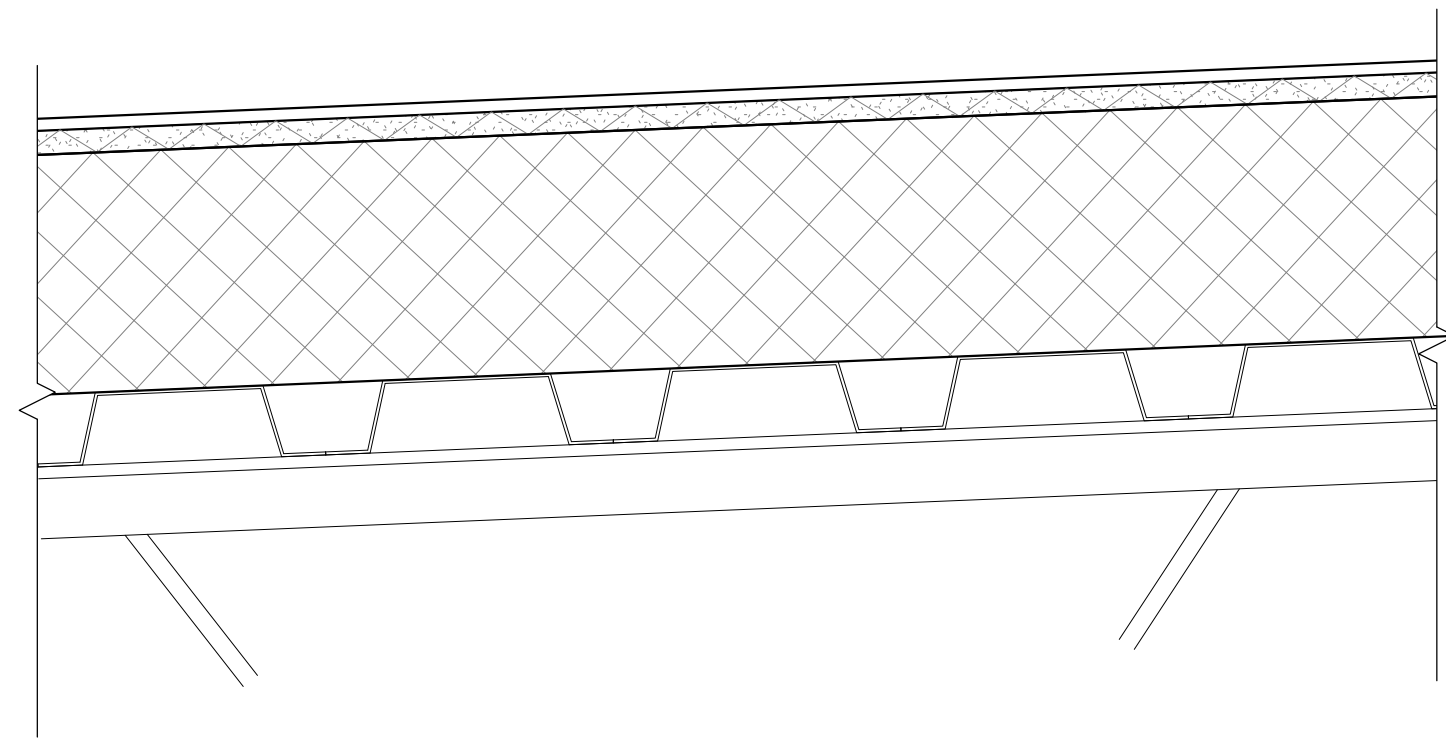
APPROVED:
 CIVIL ENGINEER
 ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 WALL TYPES

AIR FORCE SPECIAL OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

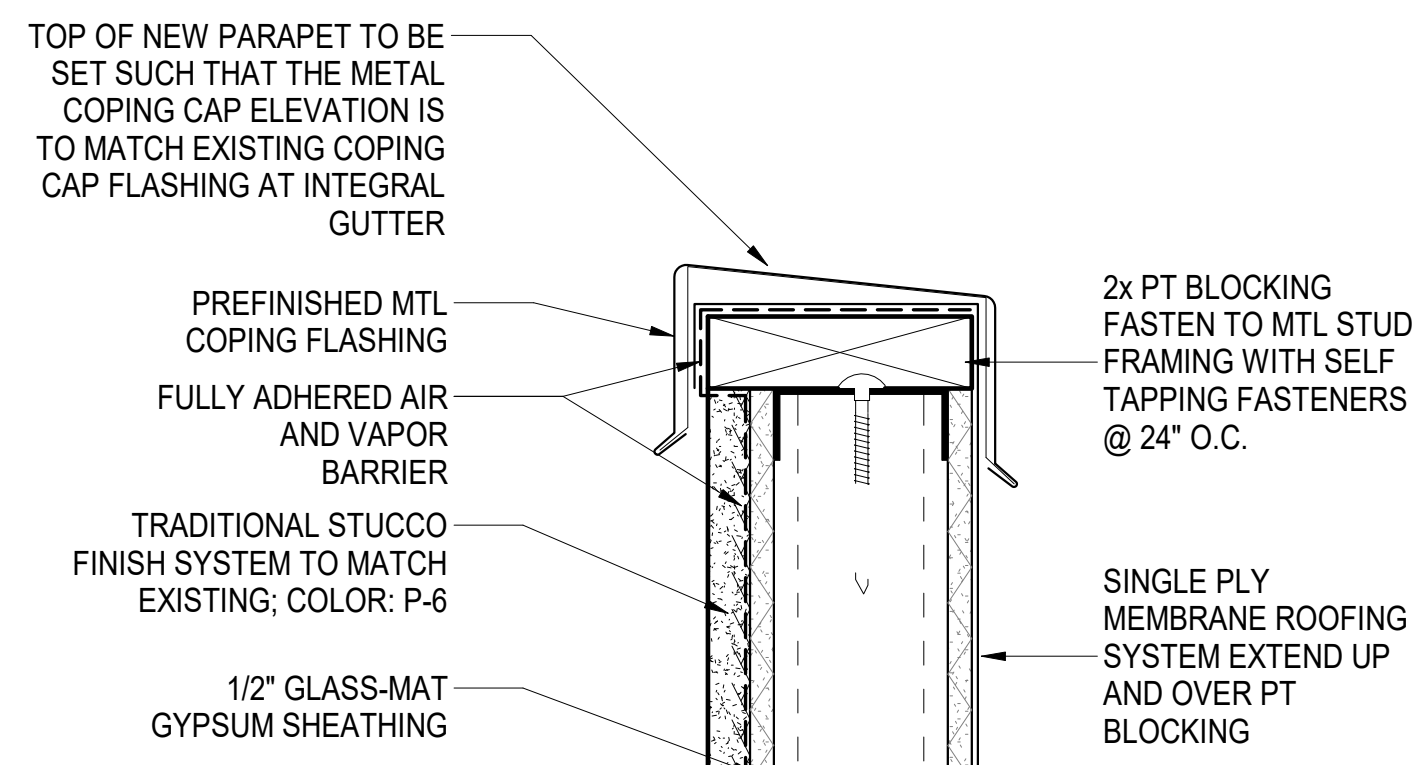
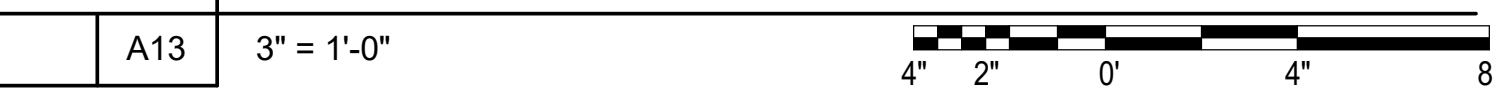
DATE: 16 SEPT 2016
 DESIGNED BY: B. KICKLITER
 DRAWN BY: A. POWELL
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: **A12**
 SHEET NO: 32 of 110

TYPICAL SINGLE-PLY MEMBRANE ROOF

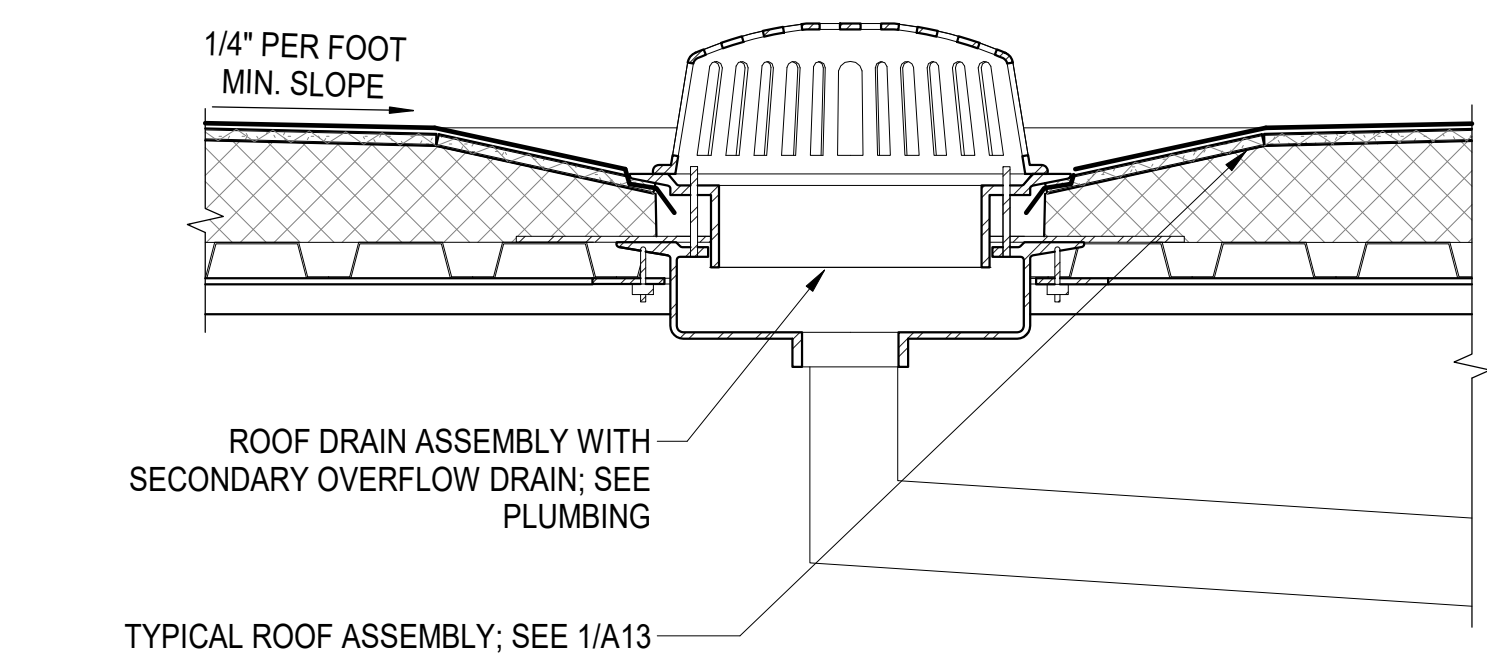
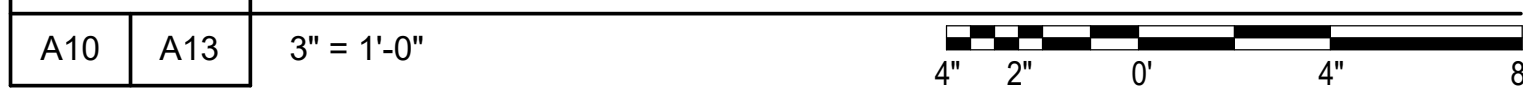
- SINGLE PLY MEMBRANE ROOF SYSTEM; FULLY ADHERED
- 1/2" PROTECTION BOARD
- R-30 RIGID INSULATION
- METAL DECK; SEE STRUCTURAL
- METAL JOIST FRAMING; SEE STRUCTURAL



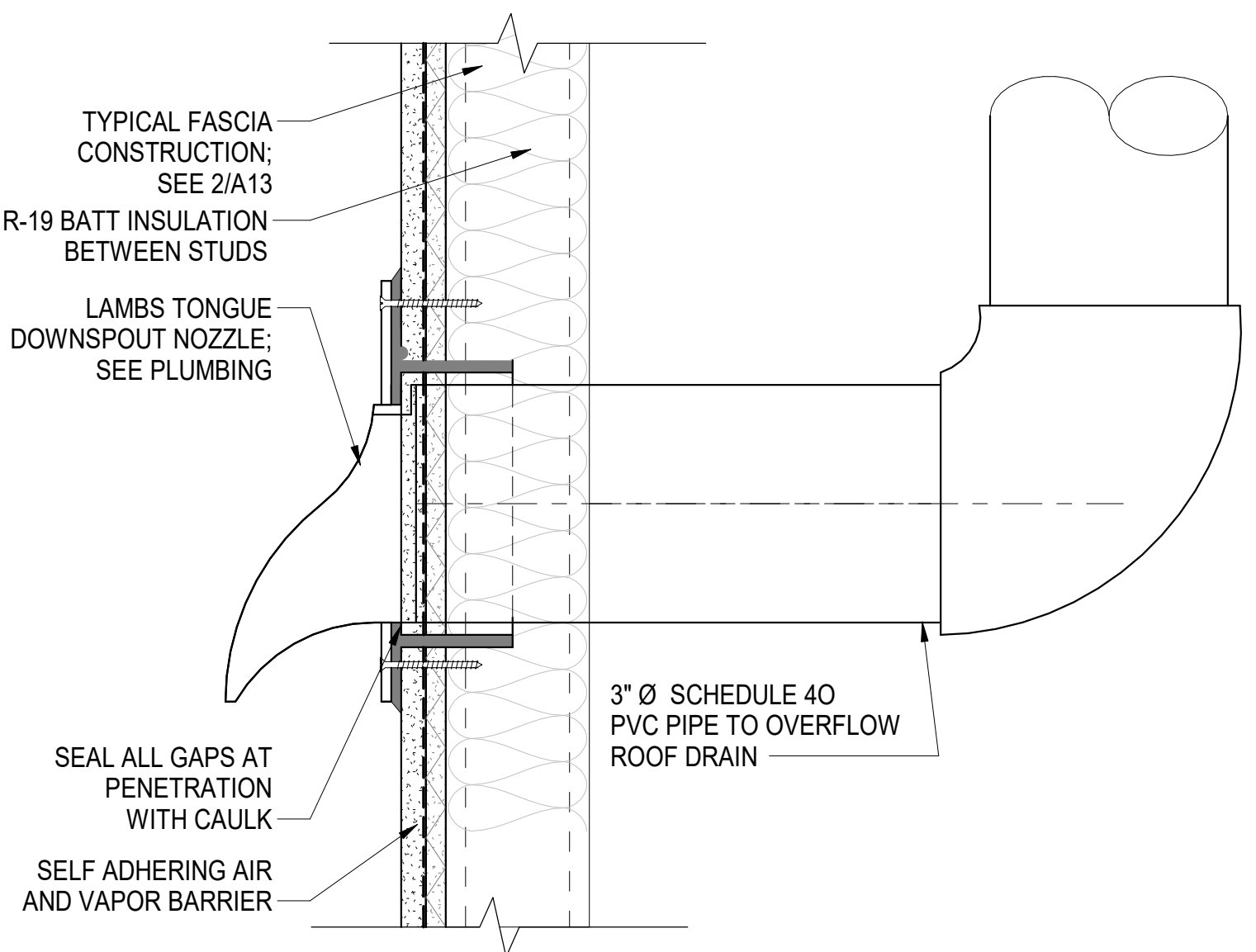
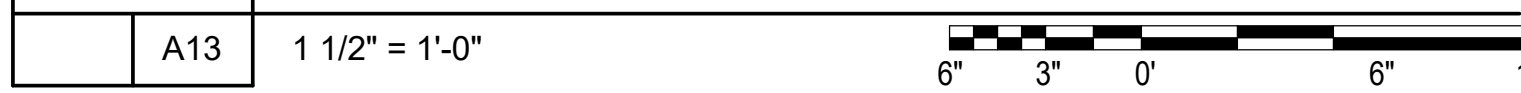
1 TYPICAL ROOF CONSTRUCTION



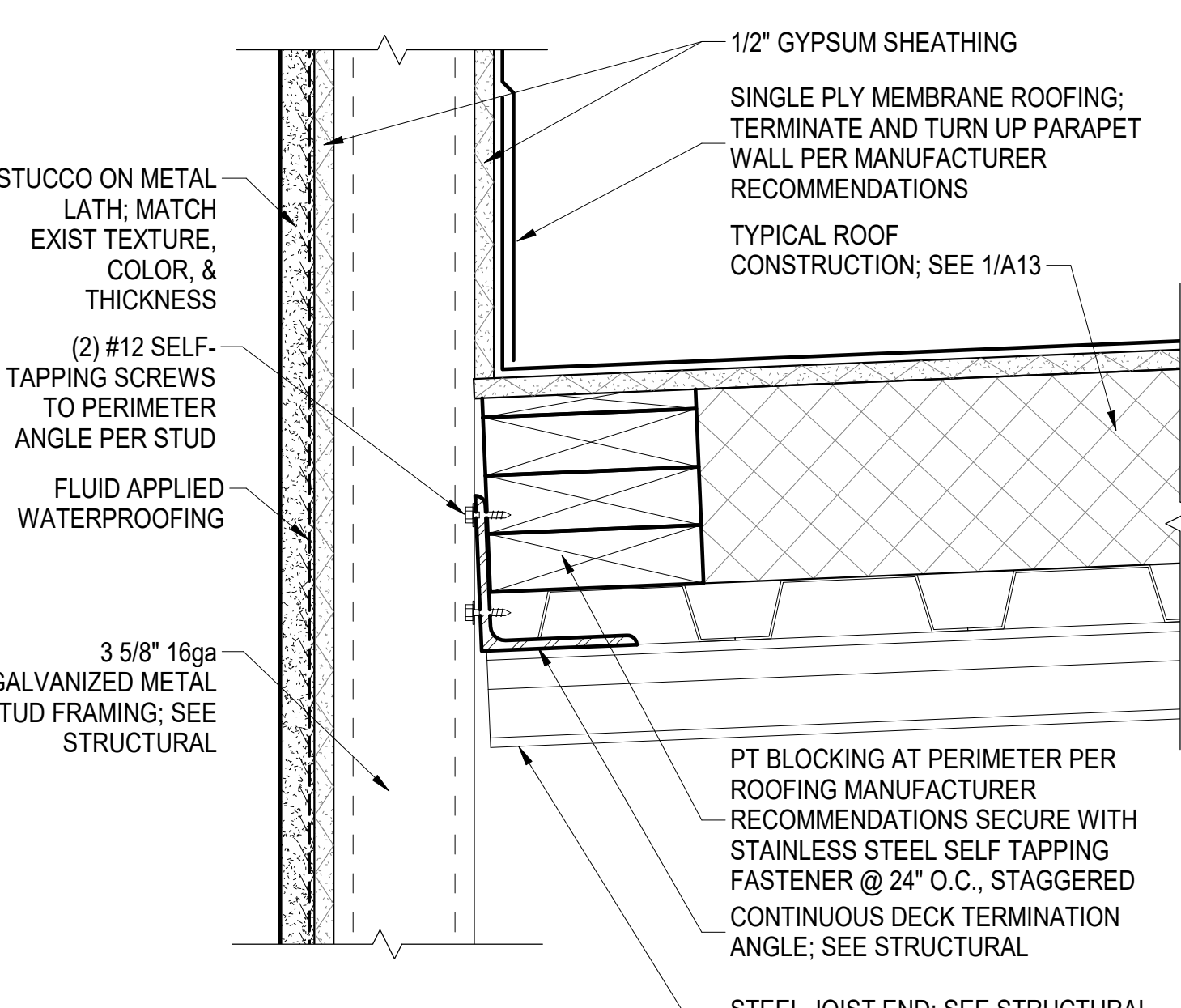
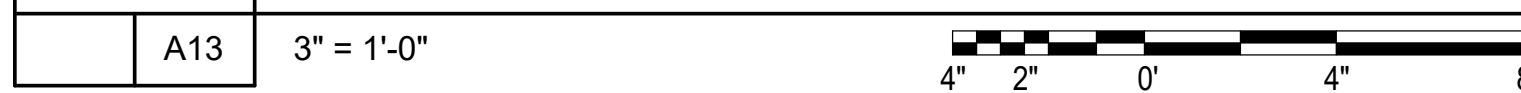
4 TYPICAL PARAPET CAP



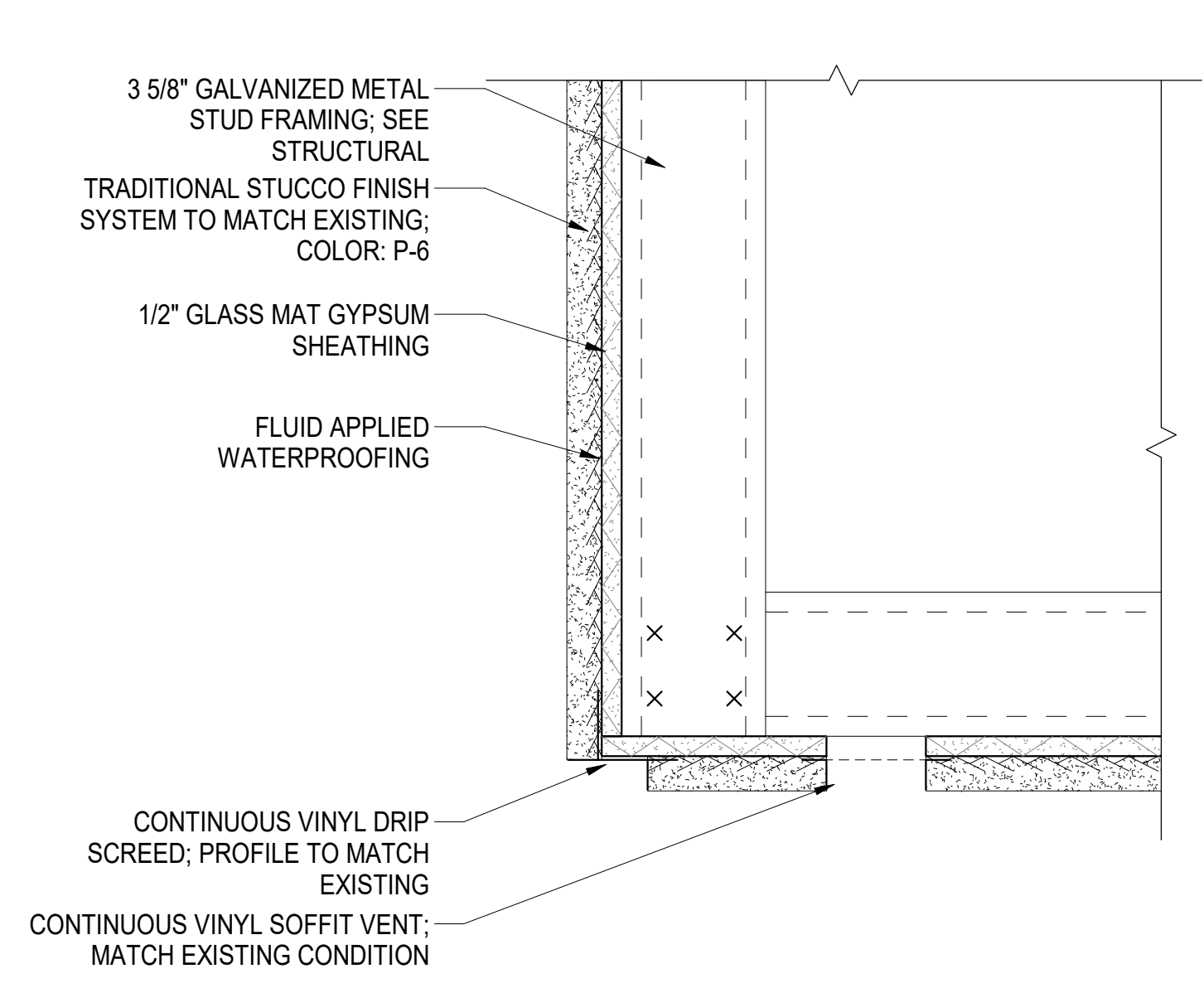
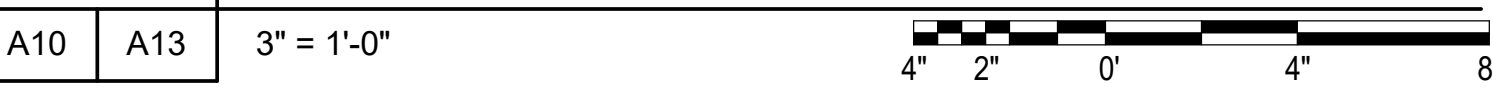
7 ROOF DRAIN



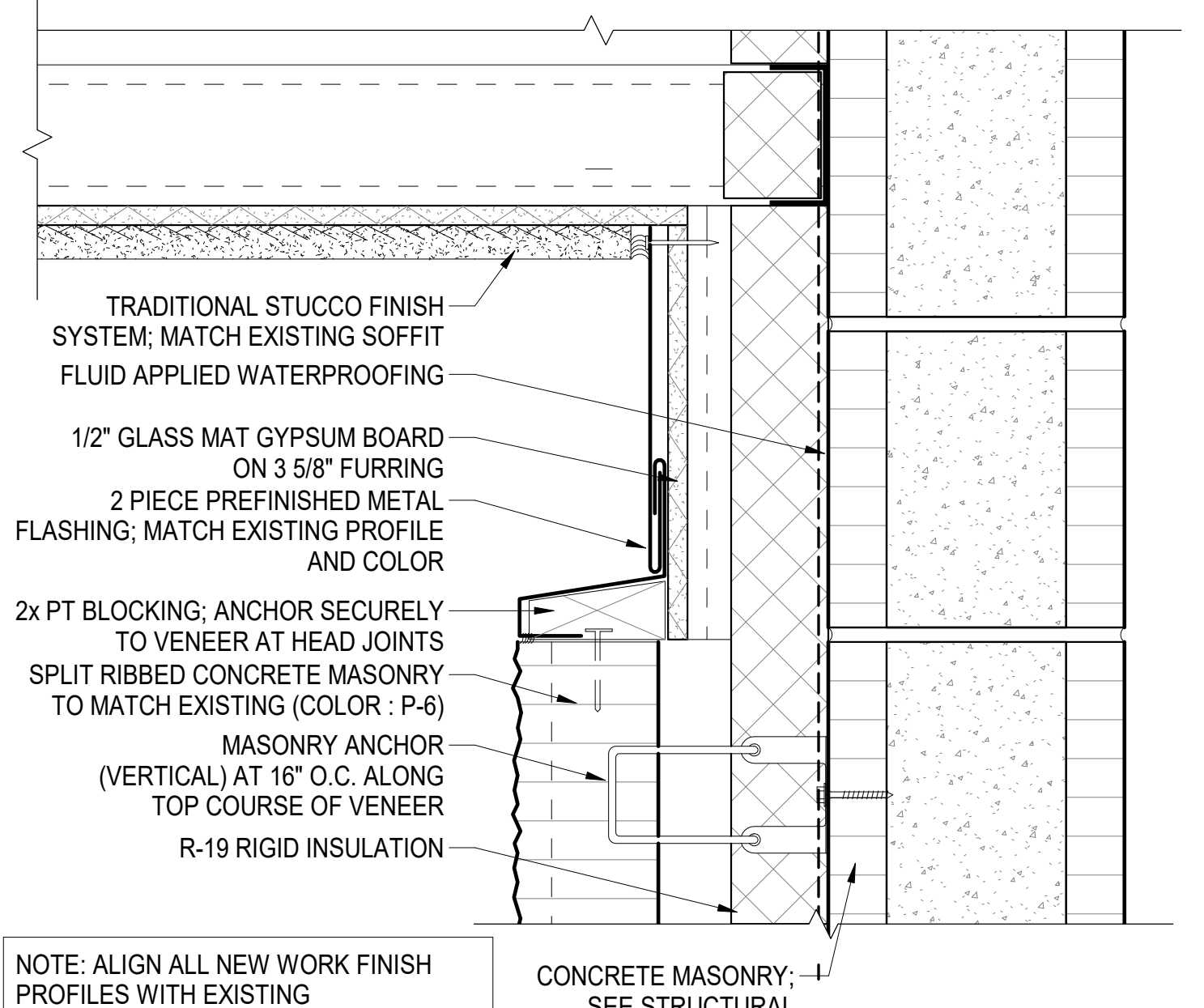
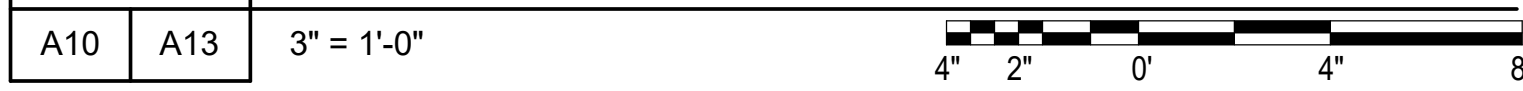
10 OVERFLOW OUTLET



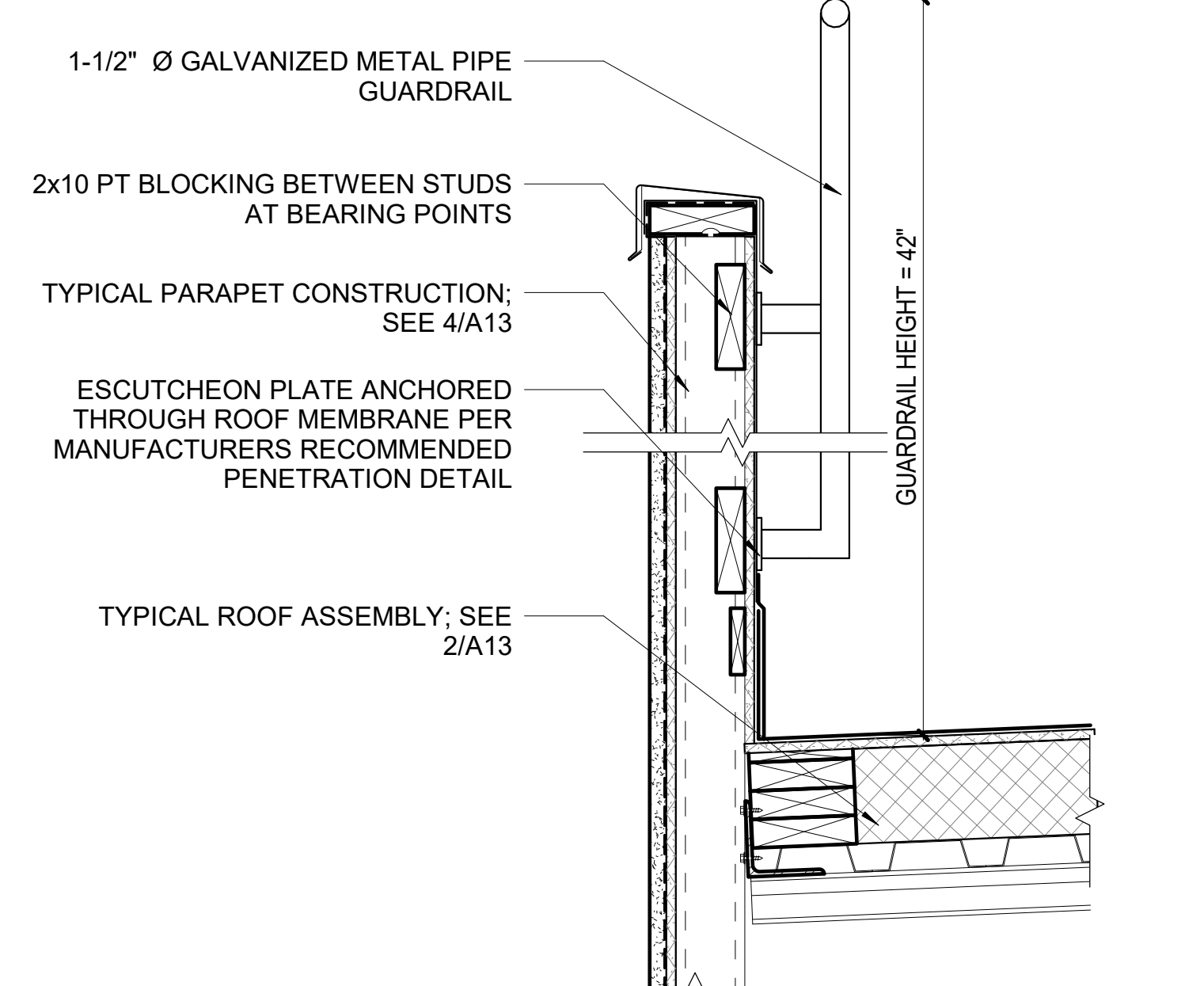
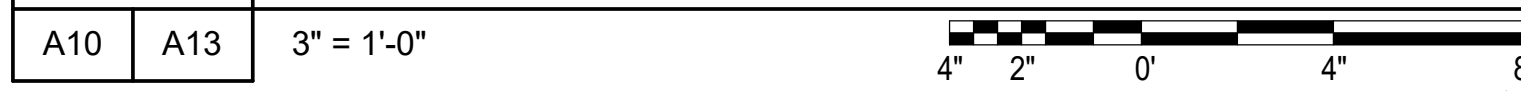
2 FASCIA TO ROOF



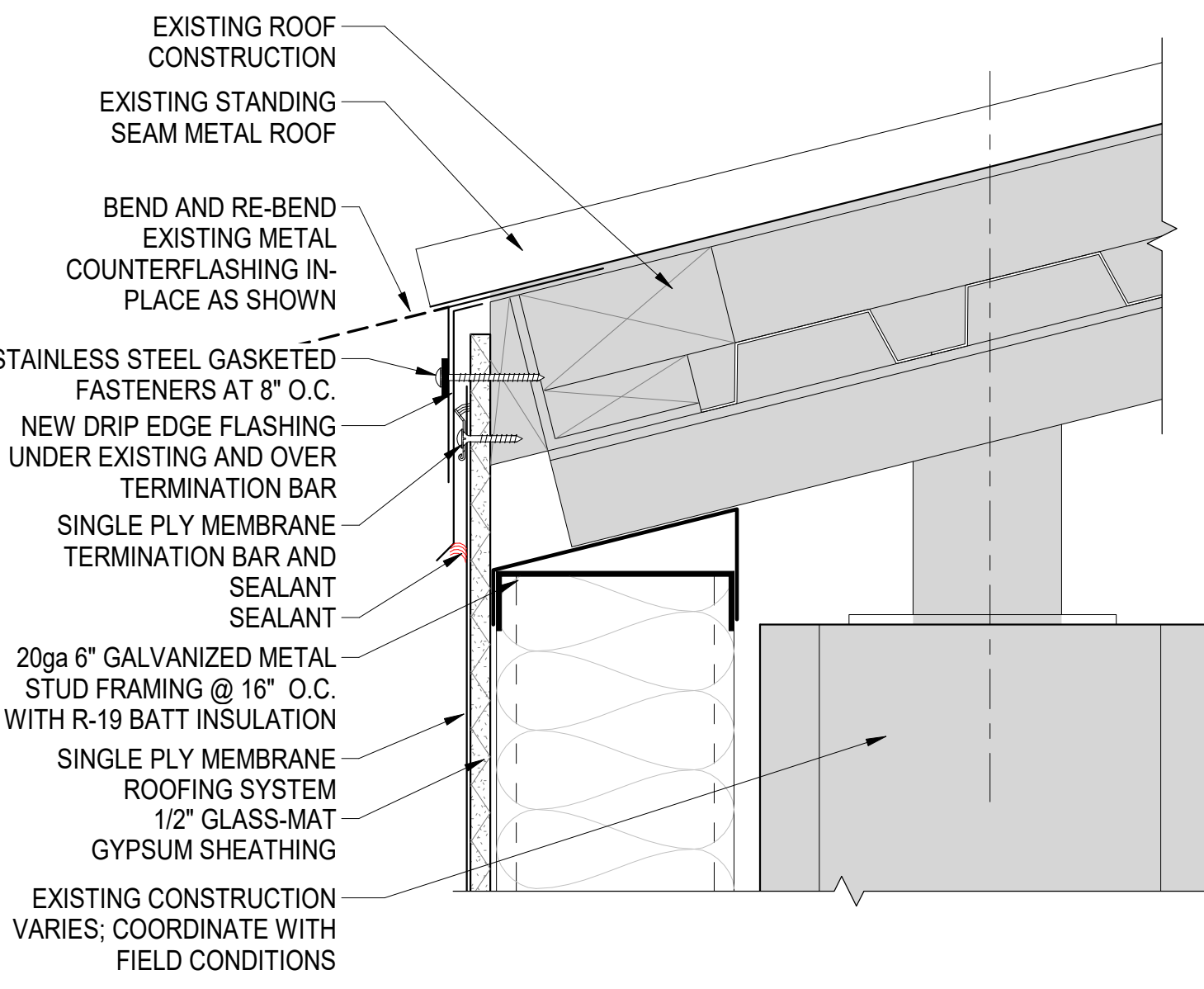
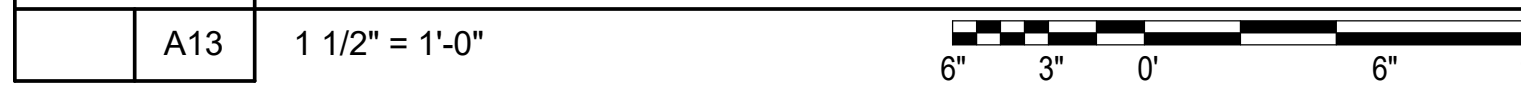
5 FASCIA TO SOFFIT DETAIL



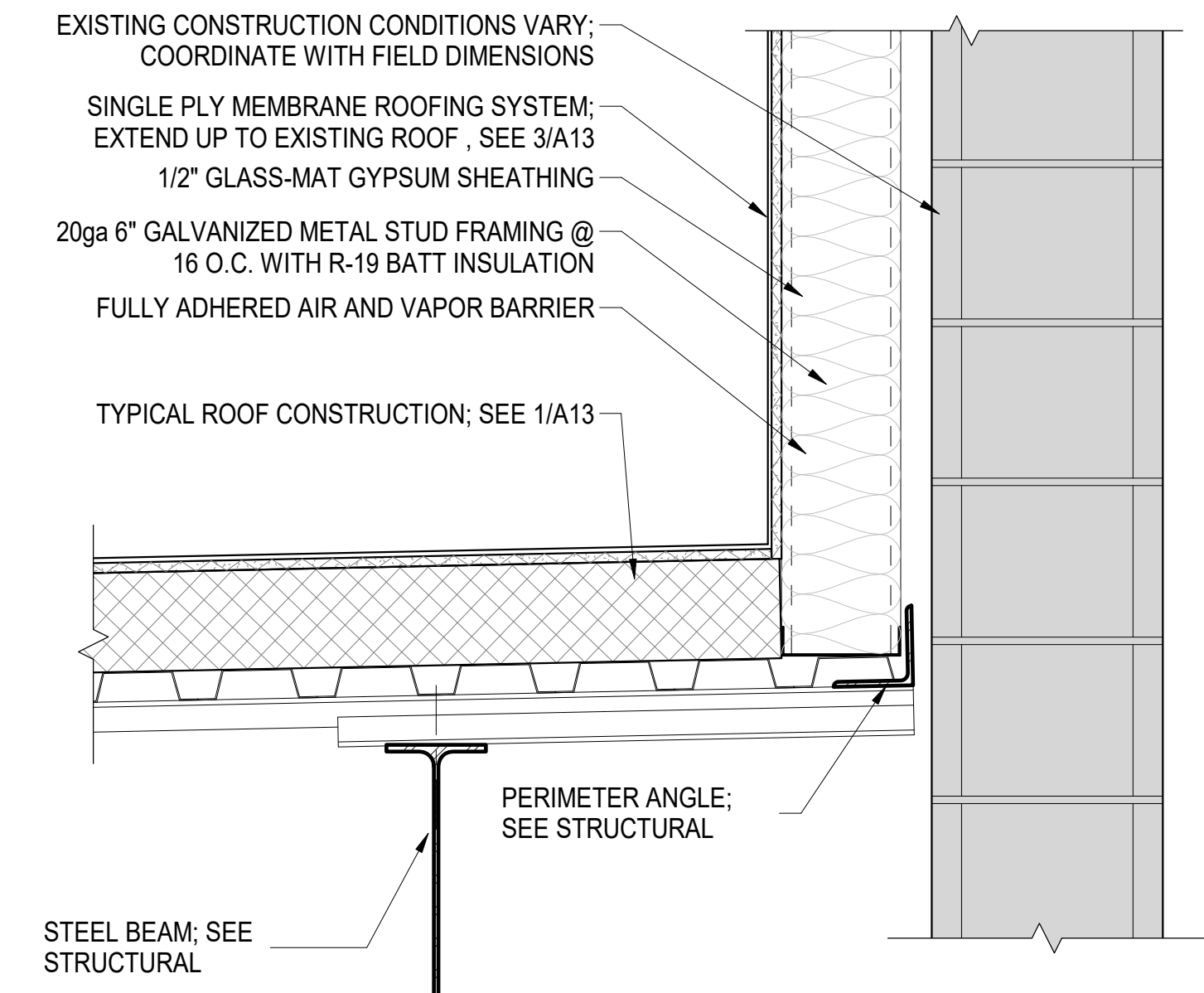
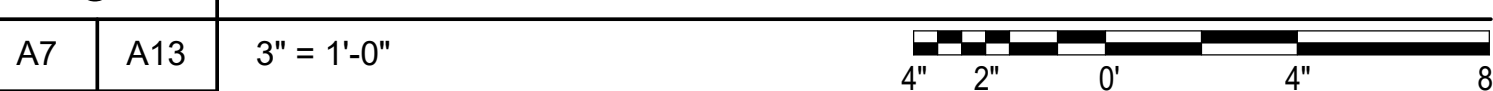
8 SOFFIT TO WALL DETAIL



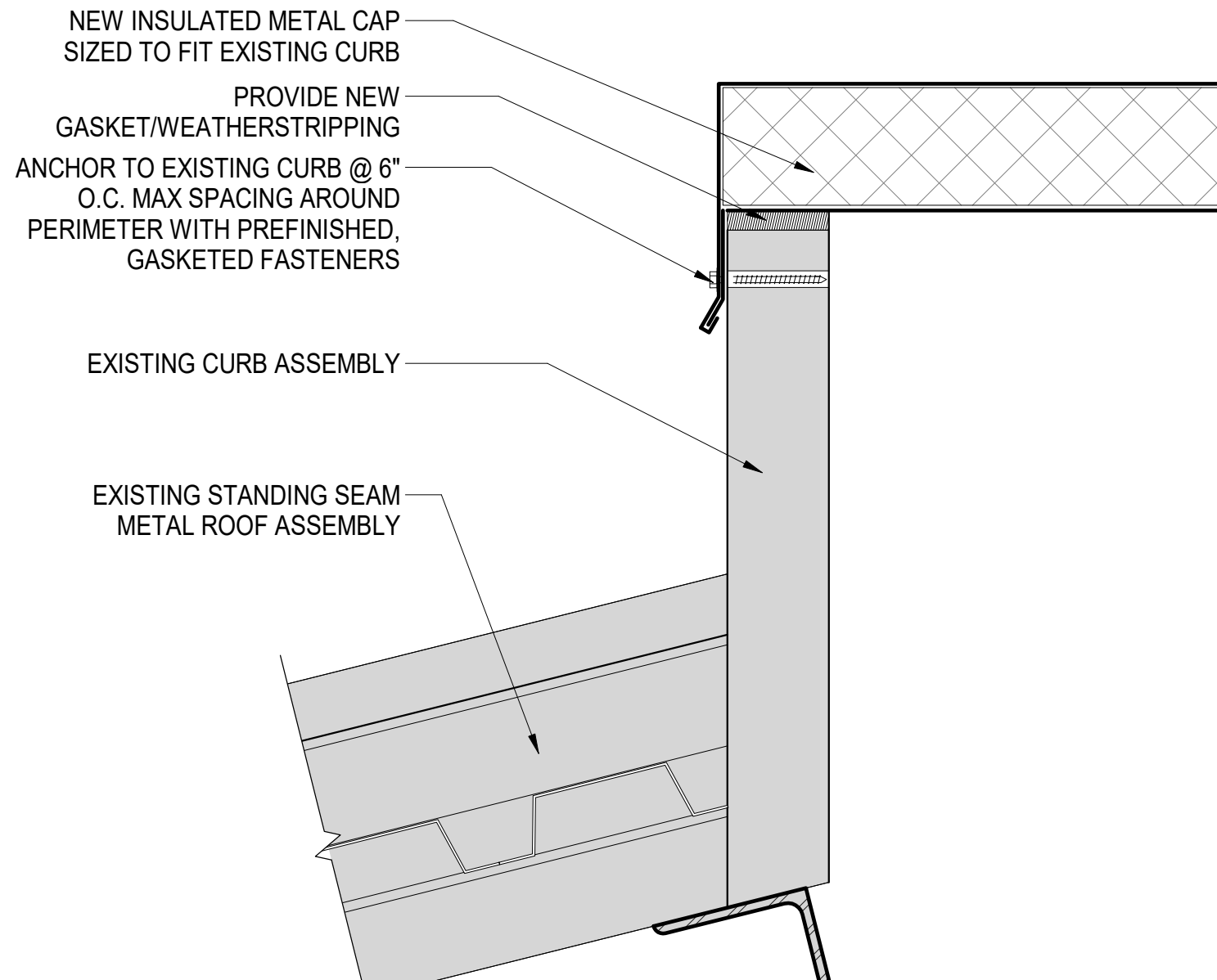
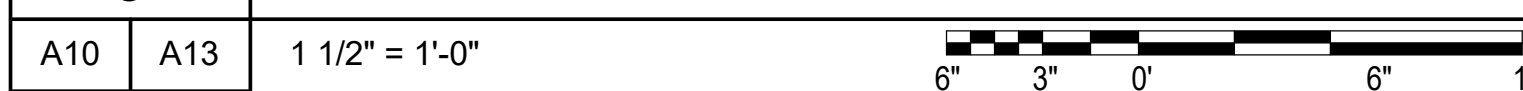
11 OSHA COMPLIANT GUARDRAIL



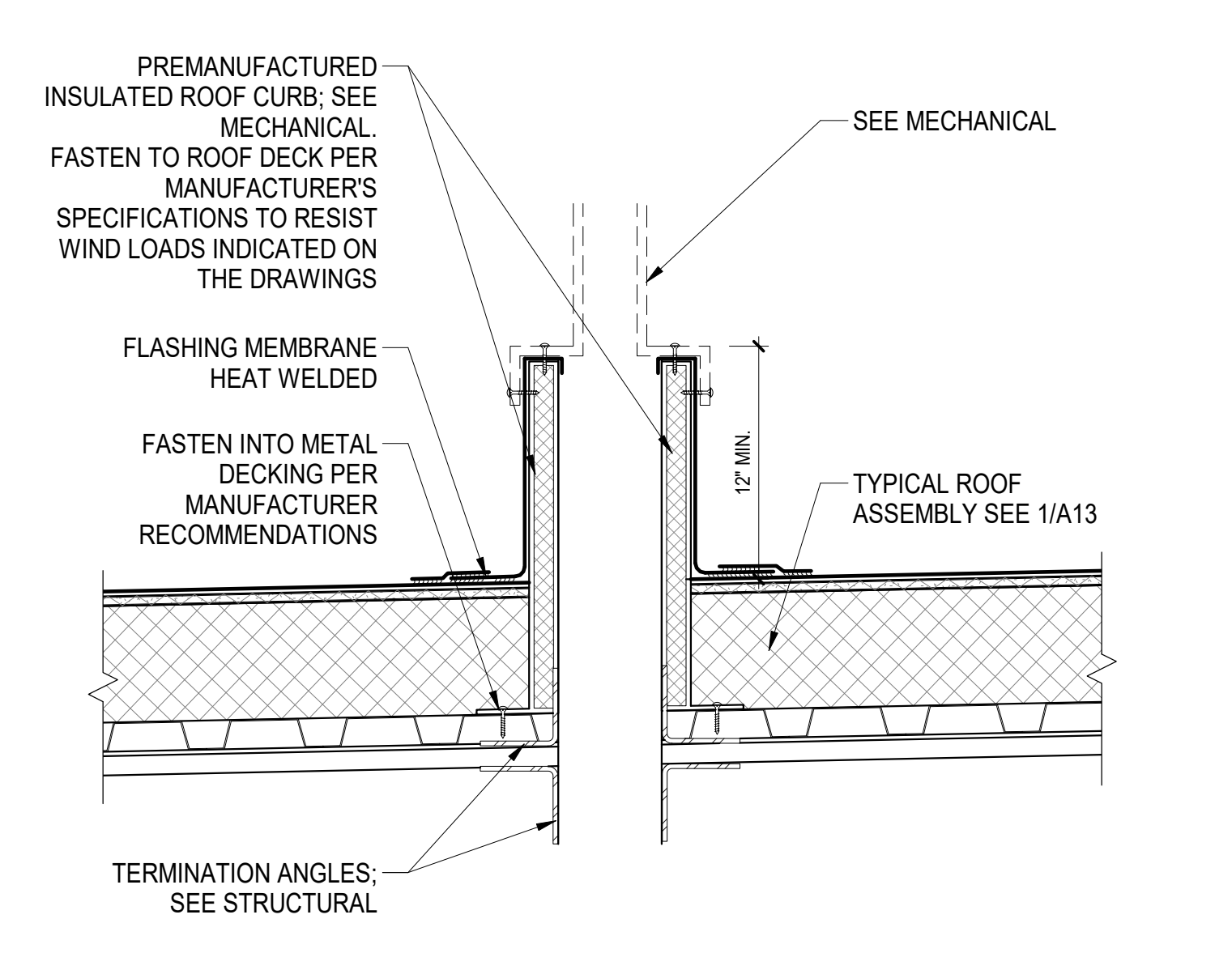
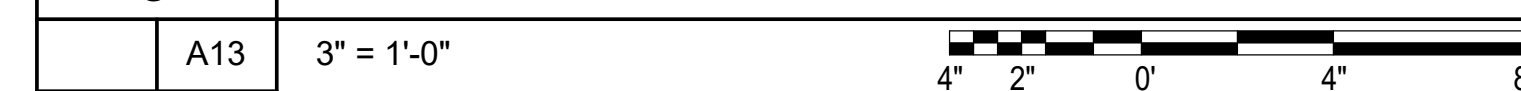
3 TIE-IN TO EXISTING ROOF



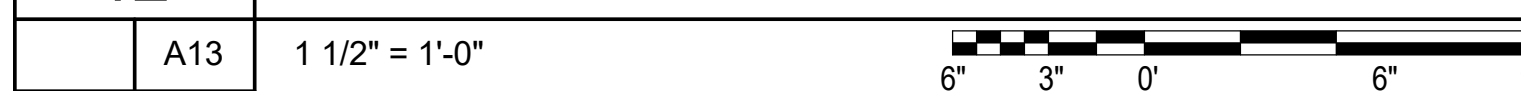
6 NEW ROOF AT EXISTING WALL



9 HVAC CAP



12 ROOF CURB



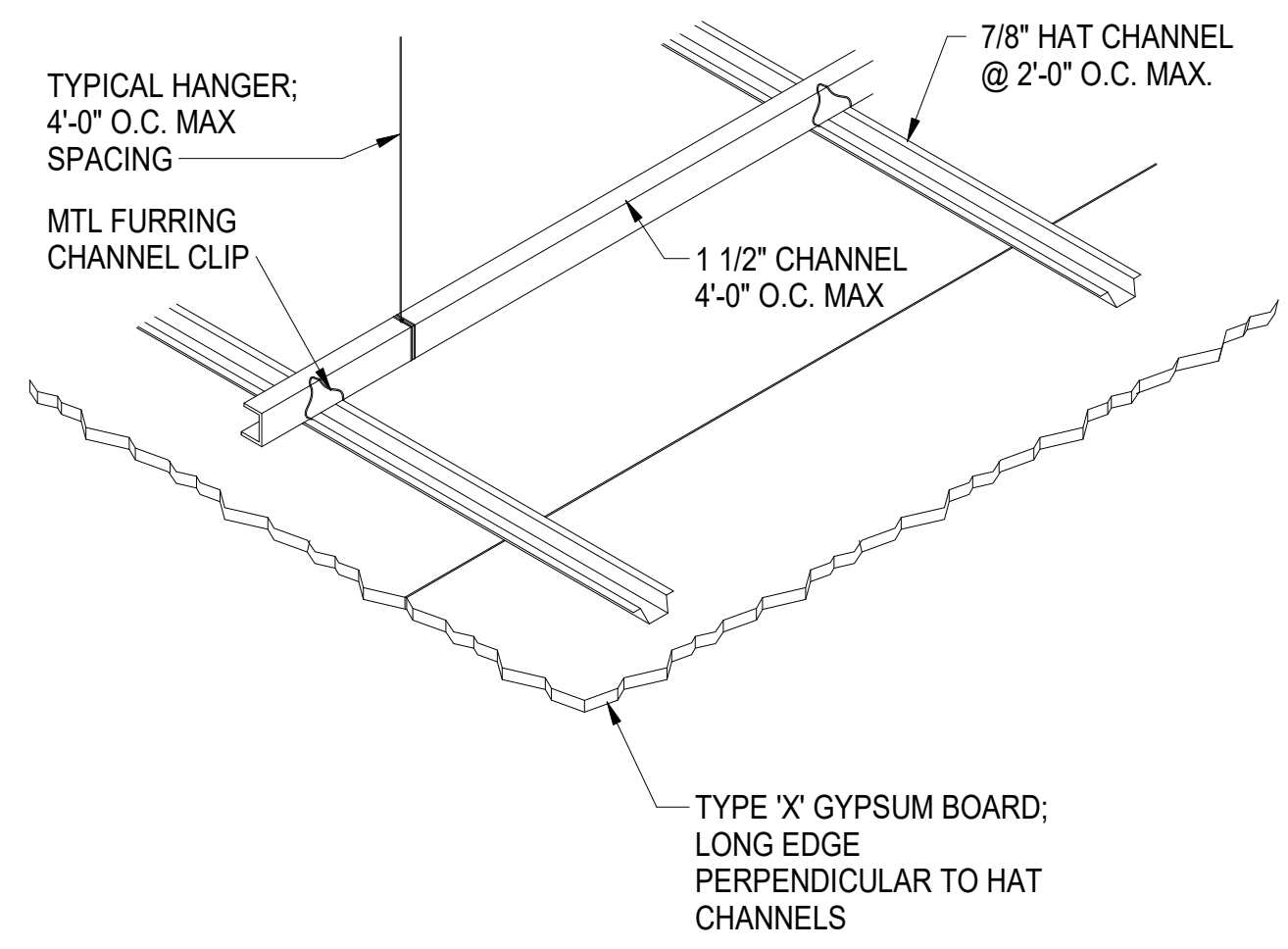
APPD	DESCRIPTION	DATE	REV #

APPROVED: **ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353**

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

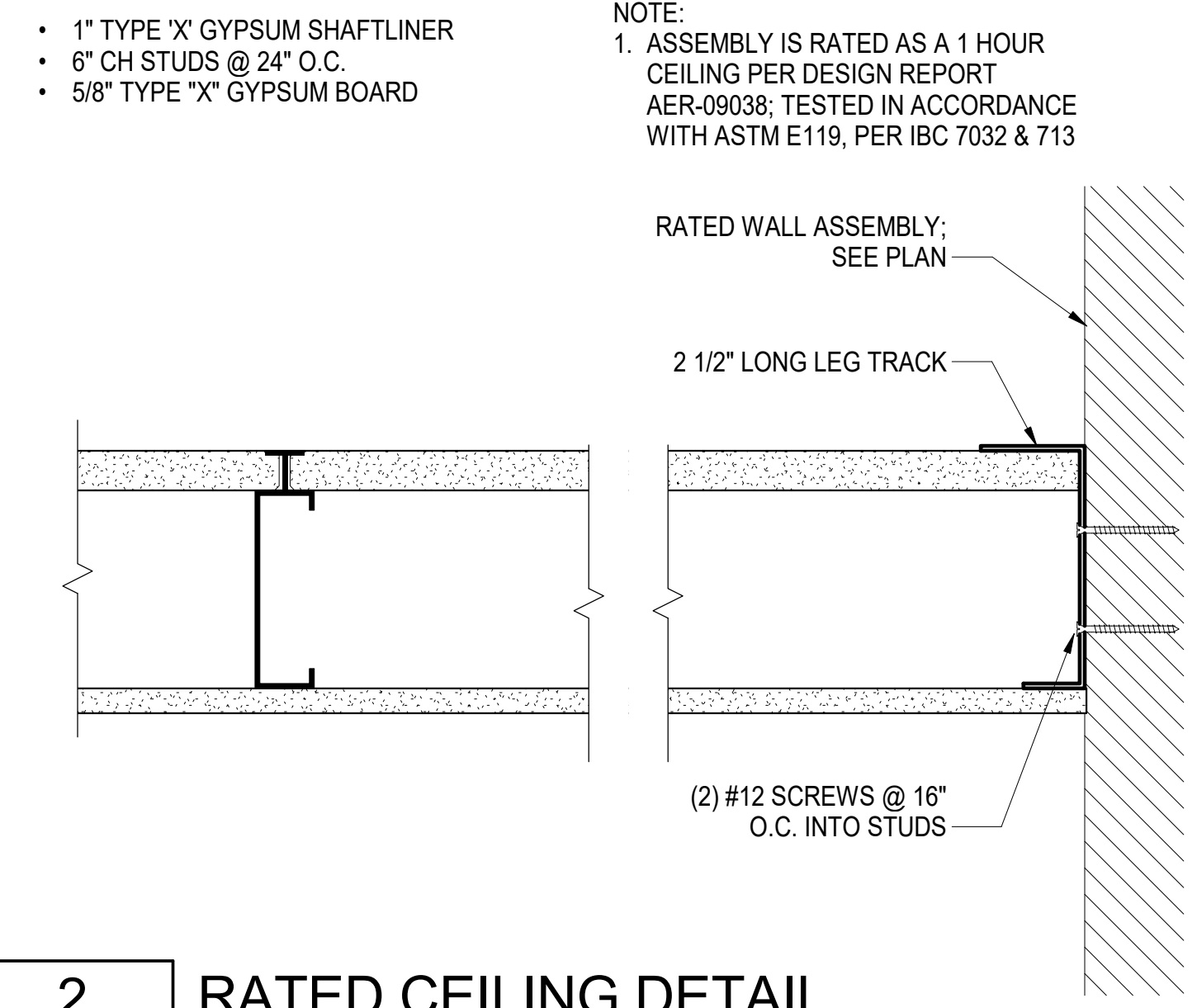
DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: A. POWELL
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: **A13**
SHEET NO: 33 of 110

STANDARD LAYOUT (24" X 36")

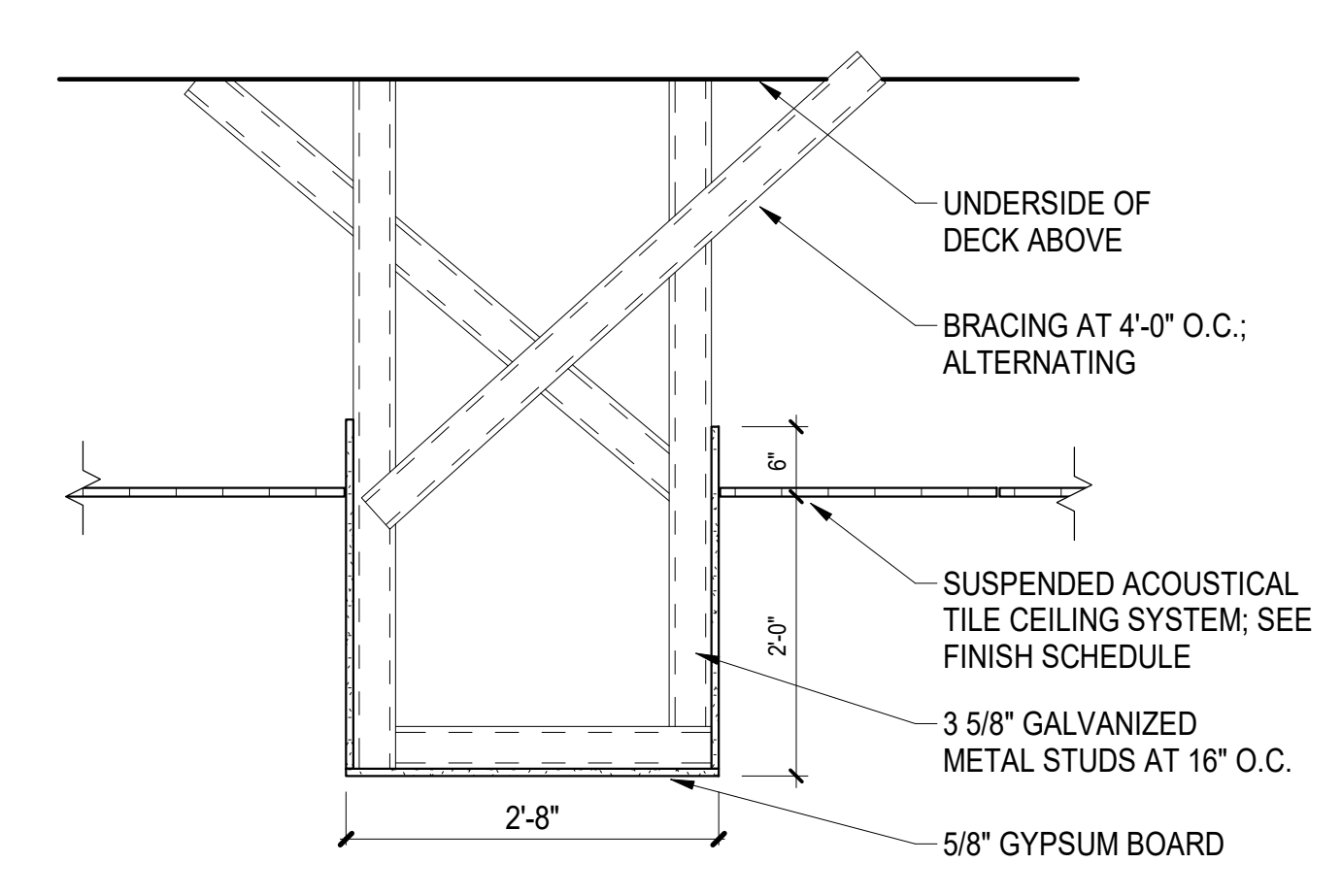


1 SUSPENDED GYPSUM BOARD CEILING
A14 1 1/2" = 1'-0"
6" 3" 0" 6" 1'

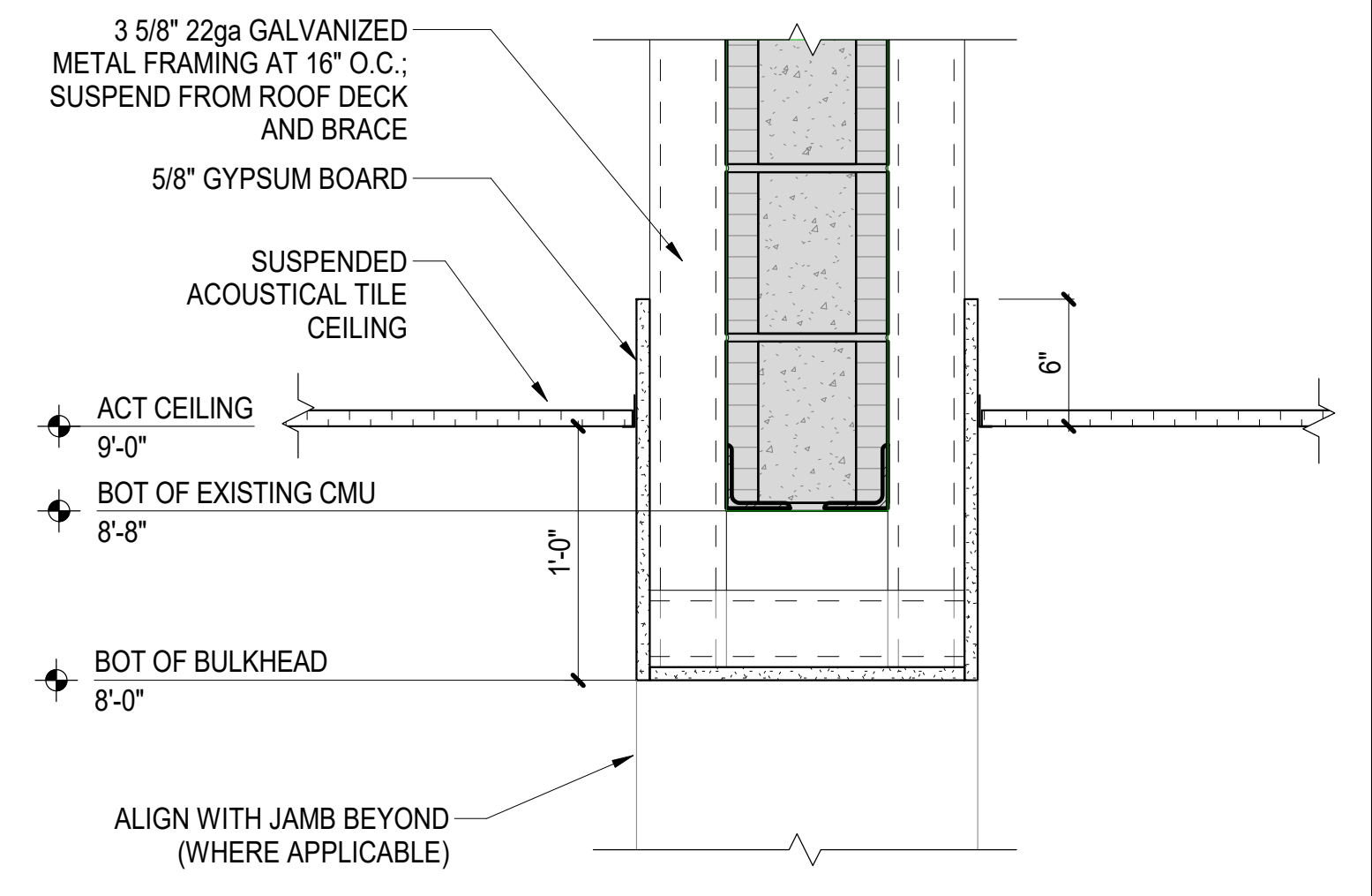
1 HR RATED CEILING



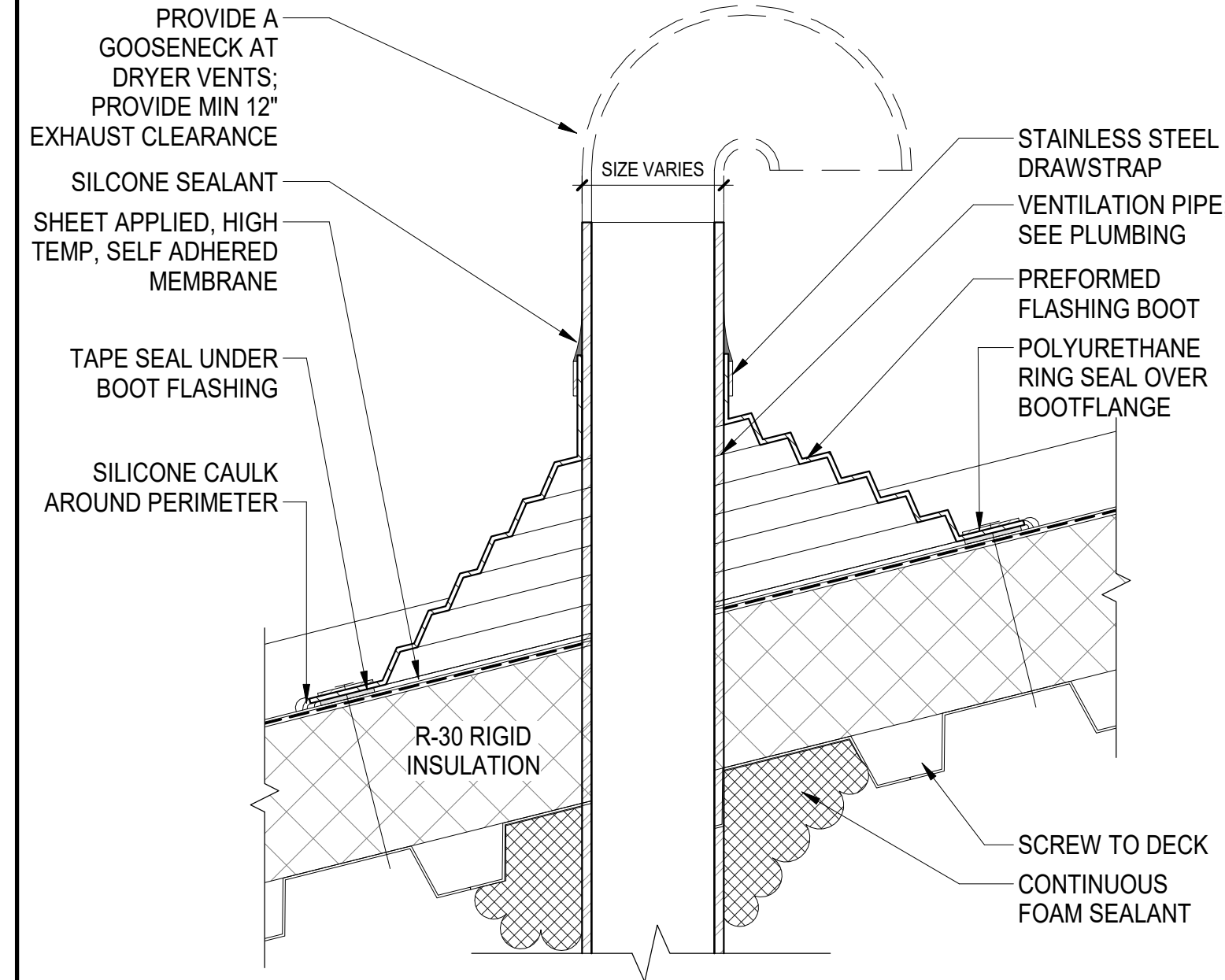
2 RATED CEILING DETAIL
A14 3" = 1'-0"
4" 2" 0" 4" 8"



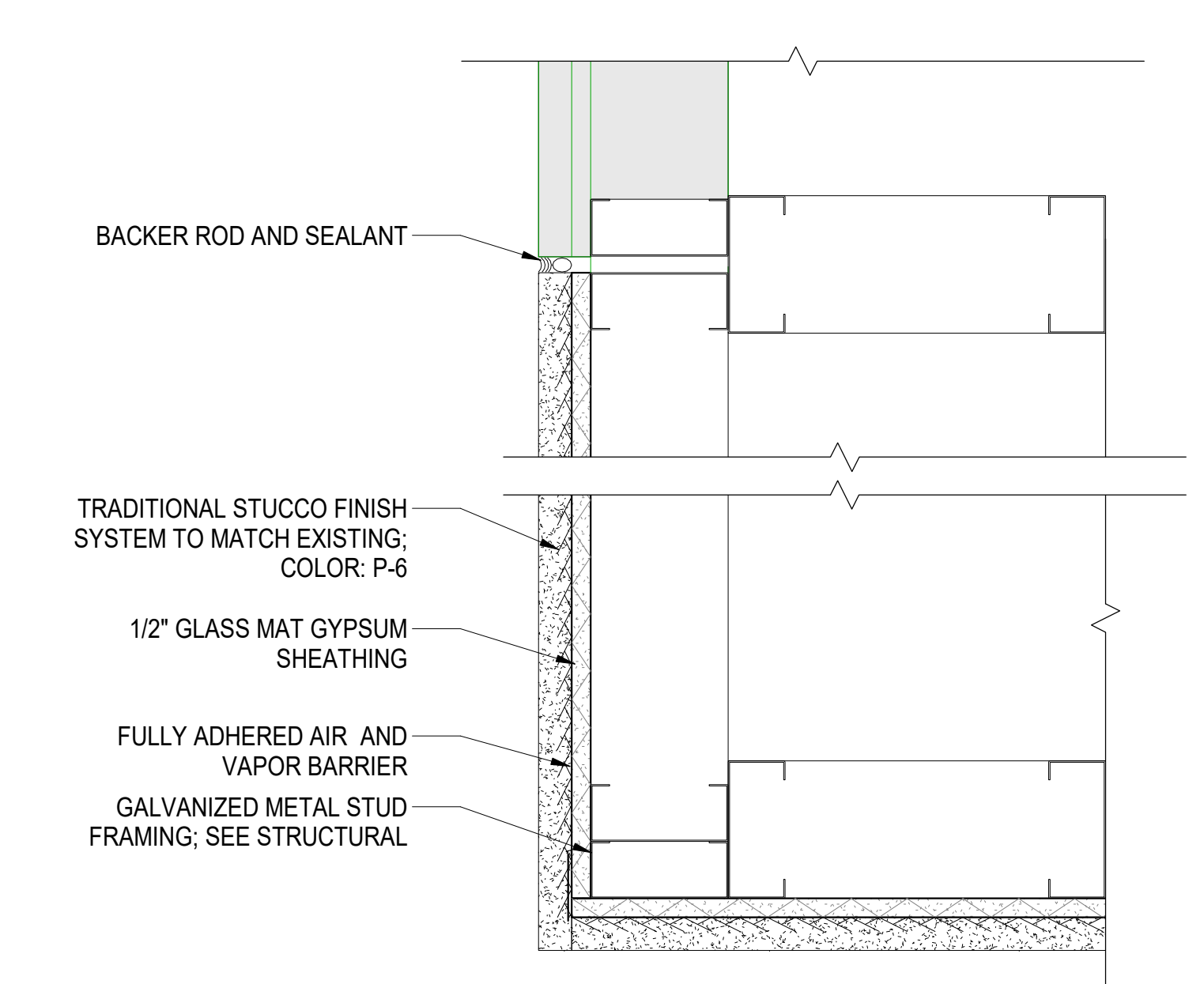
3 RECEPTION DESK BULKHEAD DETAIL
A6 A14 3/4" = 1'-0"
1' 6" 0" 1' 2'



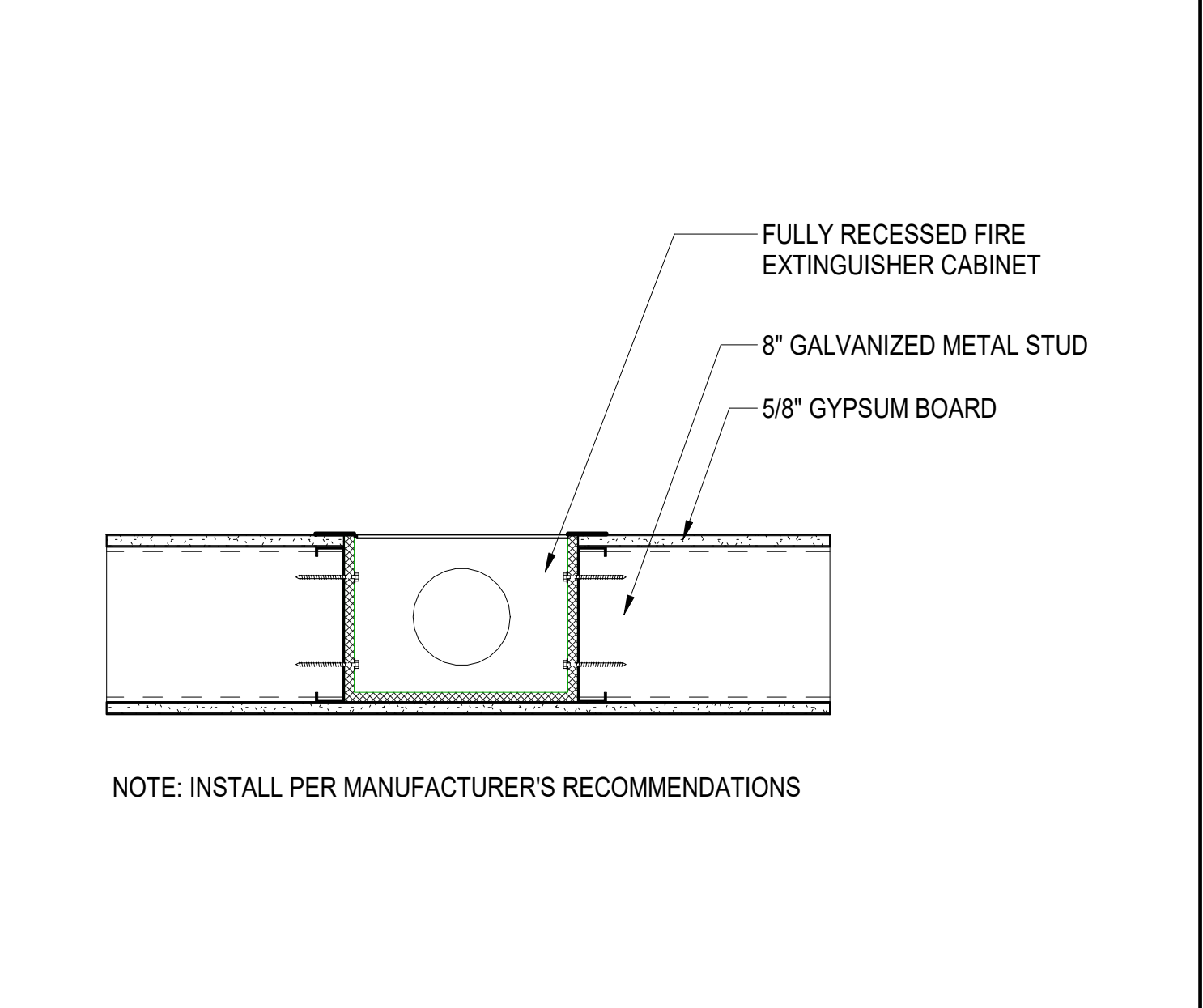
4 GYPSUM BULKHEAD DETAIL
A6 A14 1 1/2" = 1'-0"
6" 3" 0" 6" 1'



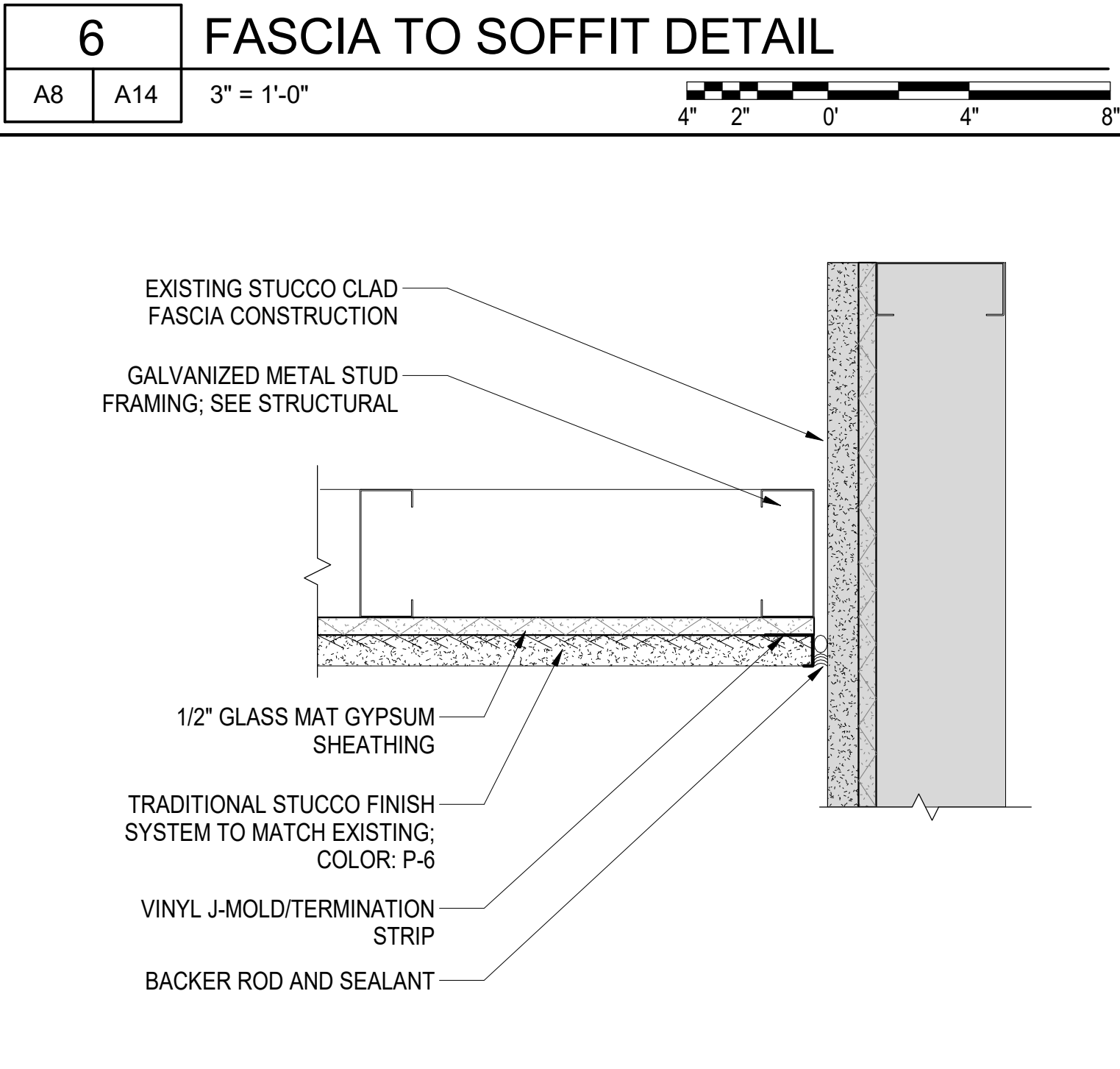
5 TYPICAL ROOF PENETRATION
A14 3" = 1'-0"
4" 2" 0" 4" 8"



6 FASCIA TO SOFFIT DETAIL
A8 A14 3" = 1'-0"
4" 2" 0" 4" 8"



7 FULLY RECESSED FEC
A14 1 1/2" = 1'-0"
6" 3" 0" 6" 1'



8 FASCIA TO SOFFIT DETAIL2
A14 3" = 1'-0"
4" 2" 0" 4" 8"

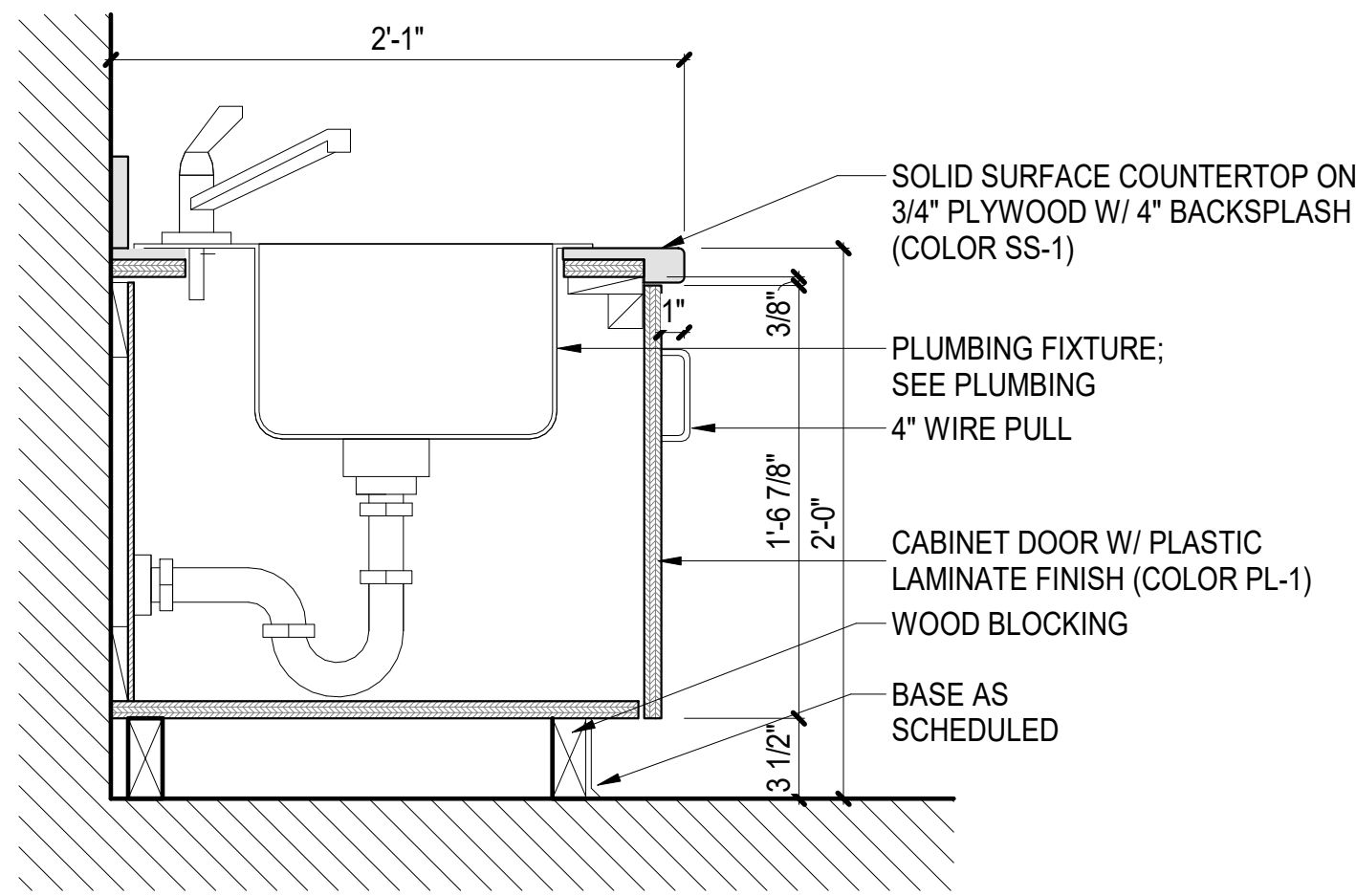
APPD	DESCRIPTION	DATE	REV #

APPROVED
 CIVIL ENGINEER
 APPROVED
 CIVIL ENGINEER

ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 DETAILS

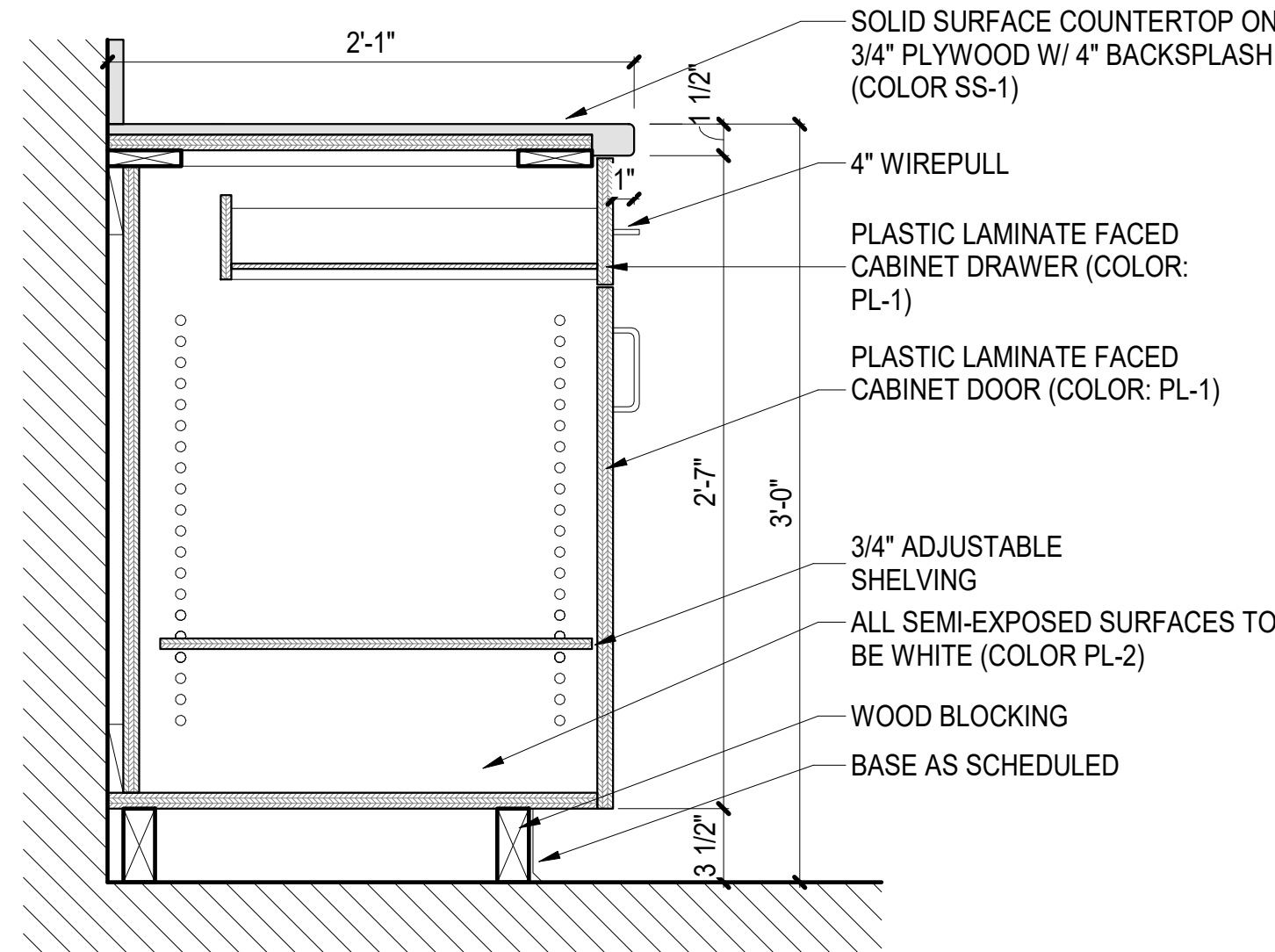
AIR FORCE SPECIAL OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

DATE:
16 SEPT 2016
 DESIGNED BY:
Designer
 DRAWN BY:
Author
 BUILDING NO:
90353
 PROJECT NO:
FTEV 12-1164
 SHEET REF:
A14
 SHEET NO:
34 of 110



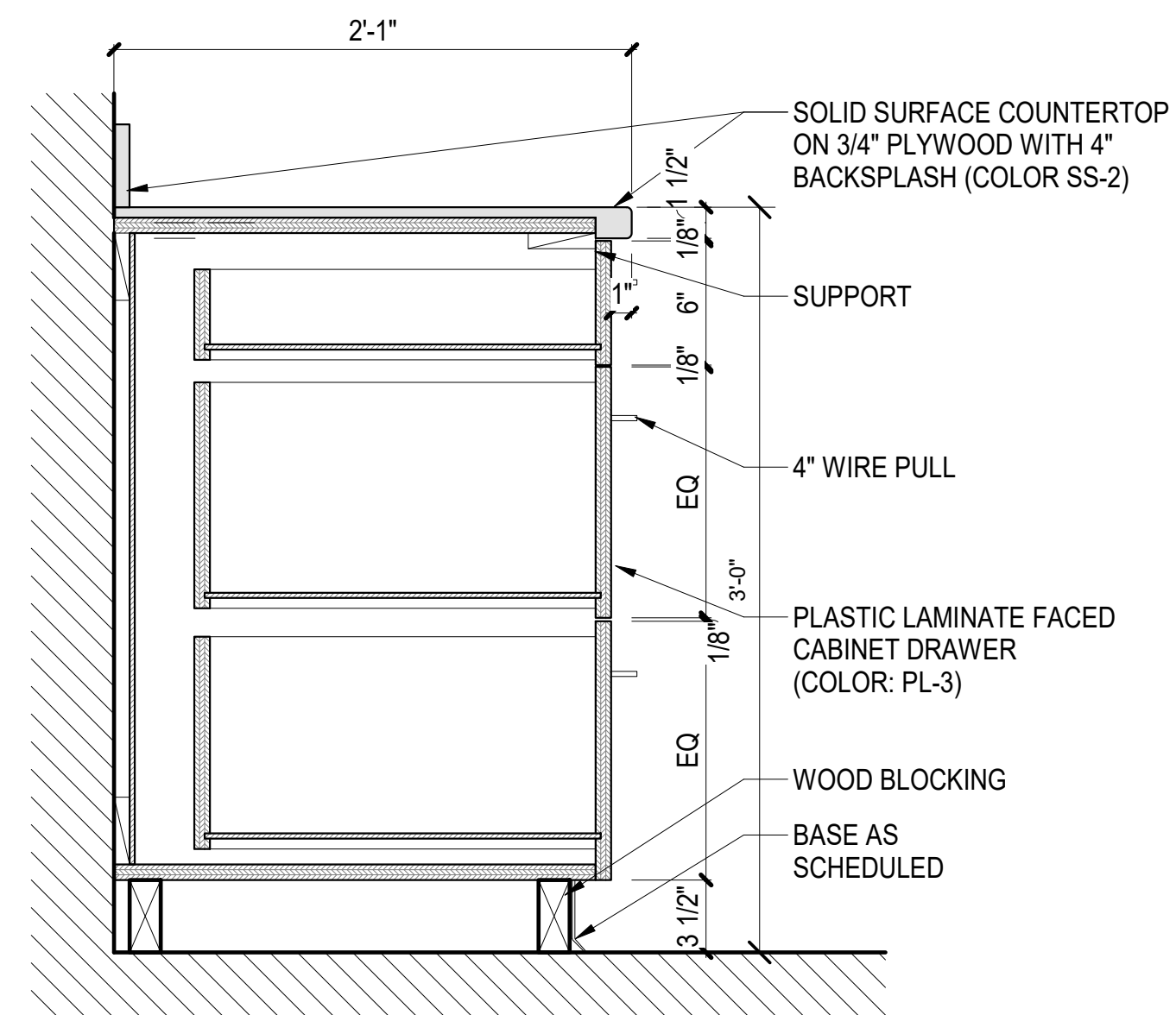
1 CHILD SINK BASE - B1

A15	1 1/2" = 1'-0"
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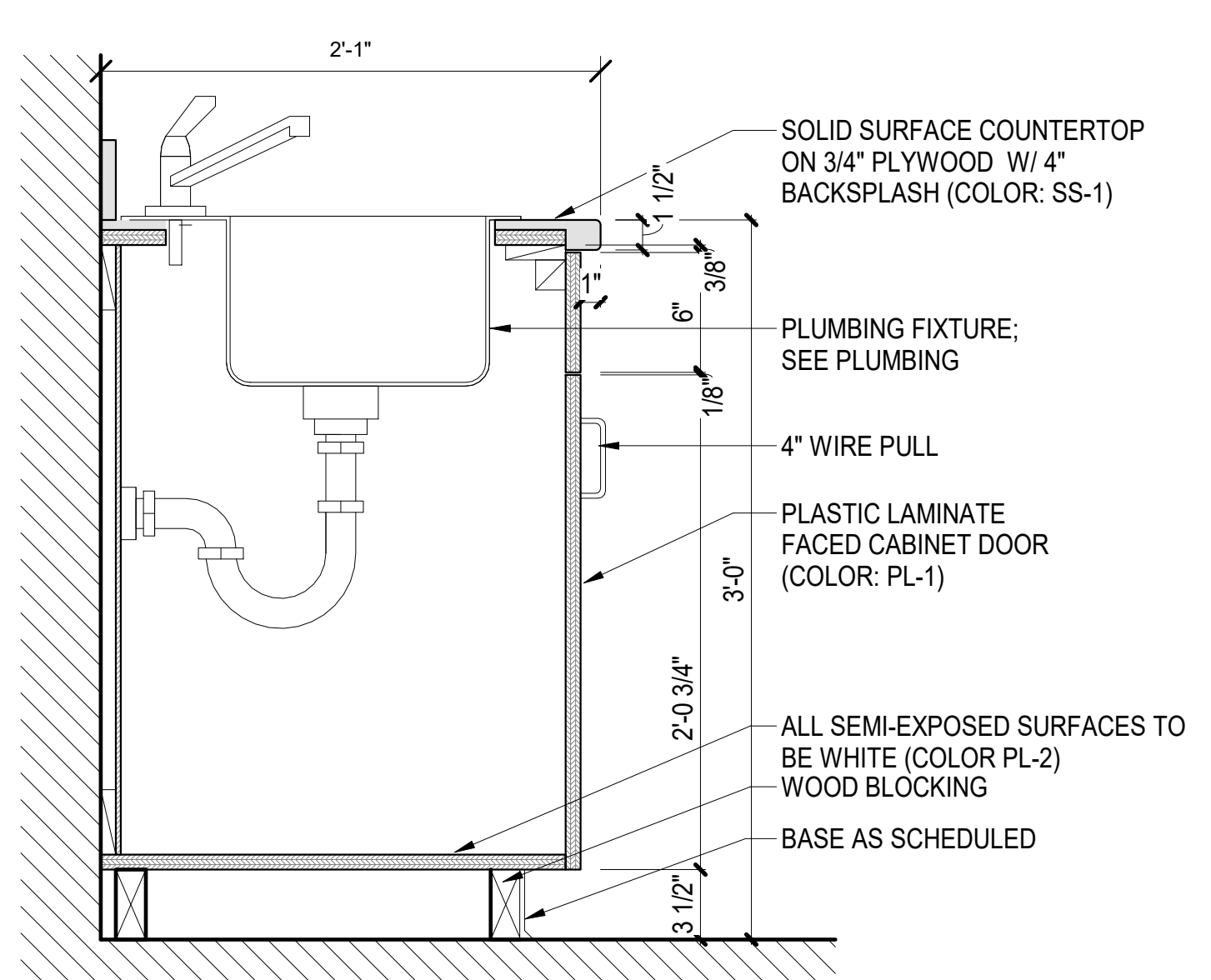
2 DRAWER-DOOR BASE - B2

A15	1 1/2" = 1'-0"
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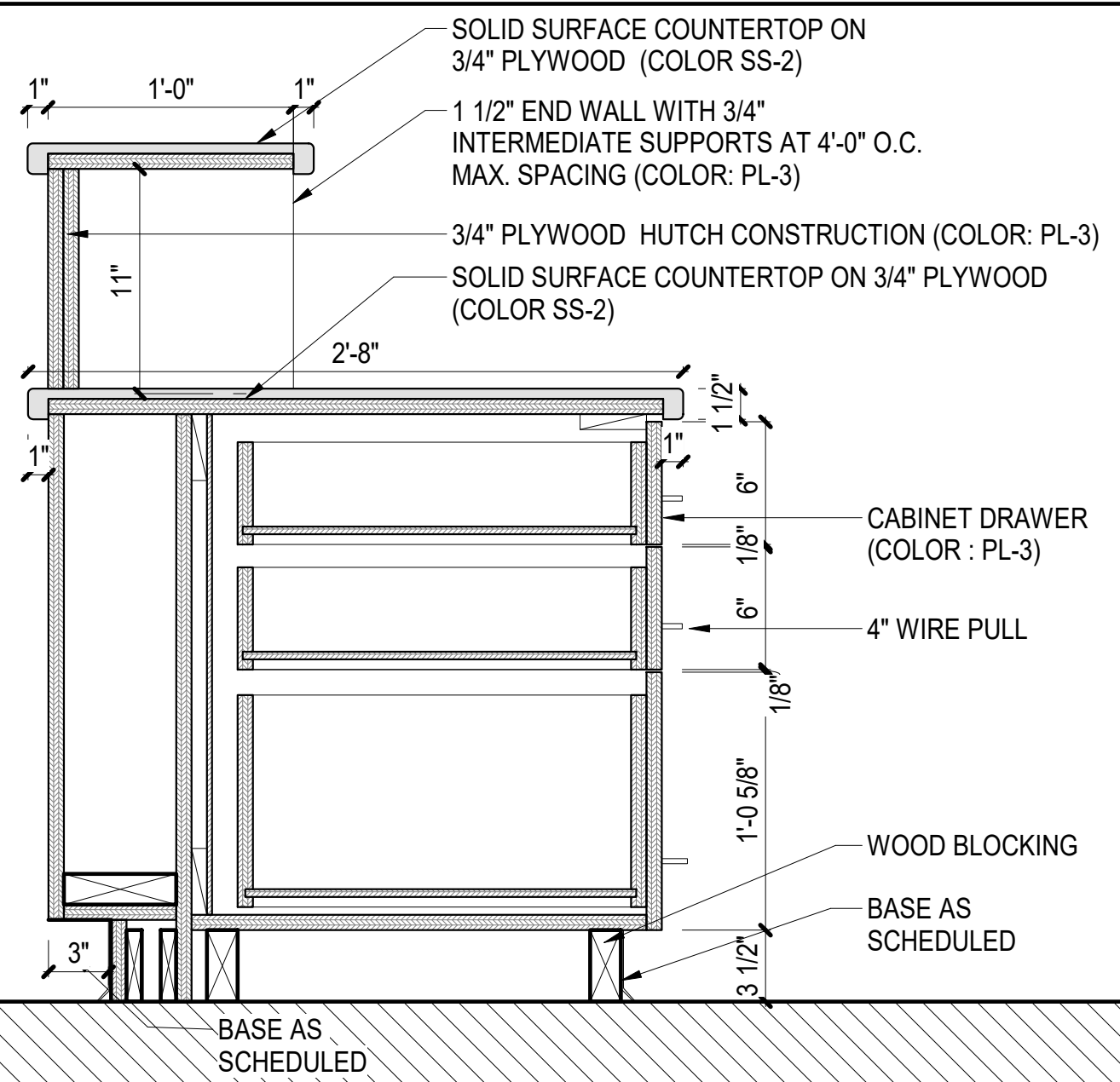
3 (3) DRAWER BASE - B3

A15	1 1/2" = 1'-0"
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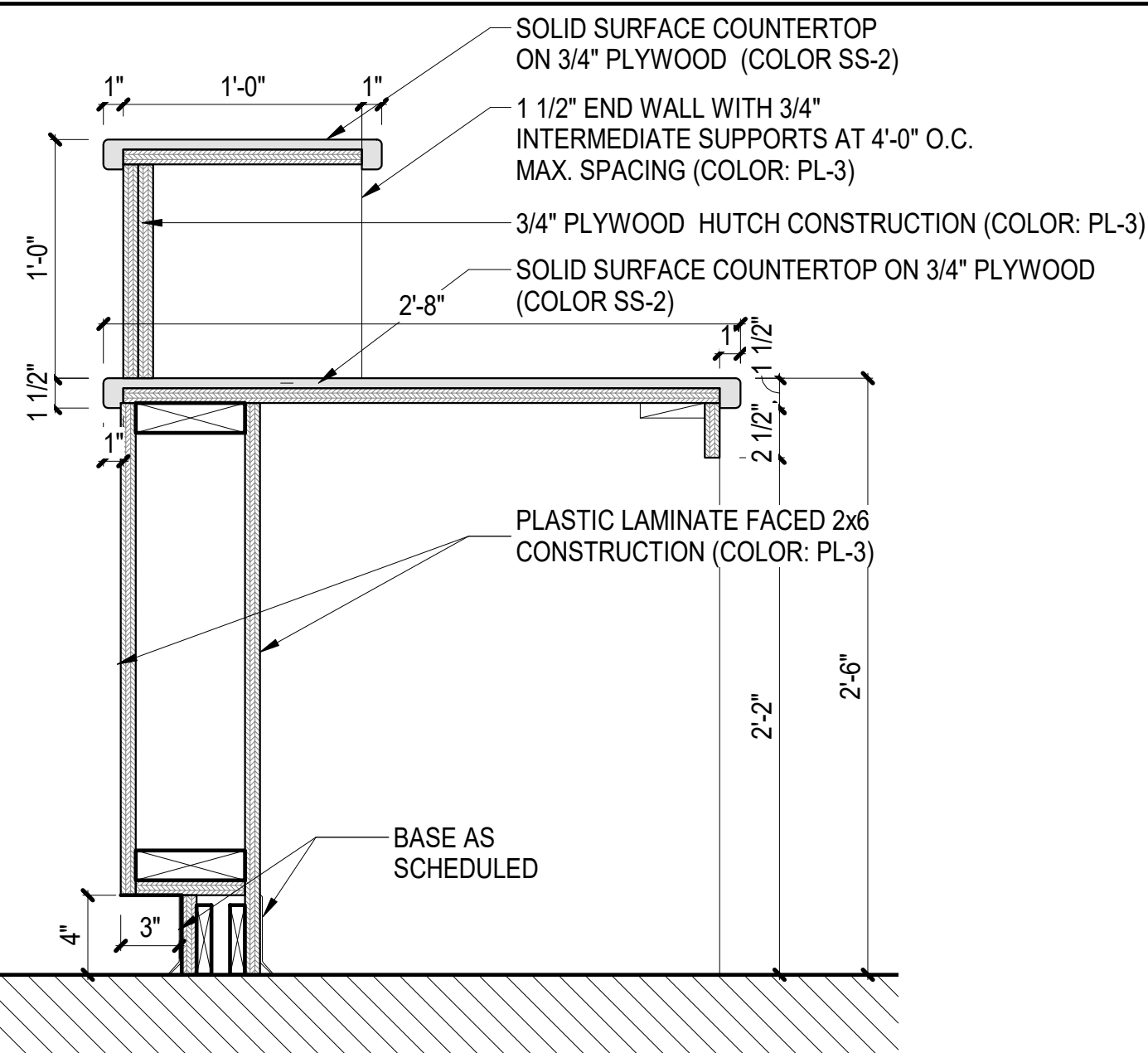
4 SINK BASE - B4

A15	1 1/2" = 1'-0"
-----	----------------



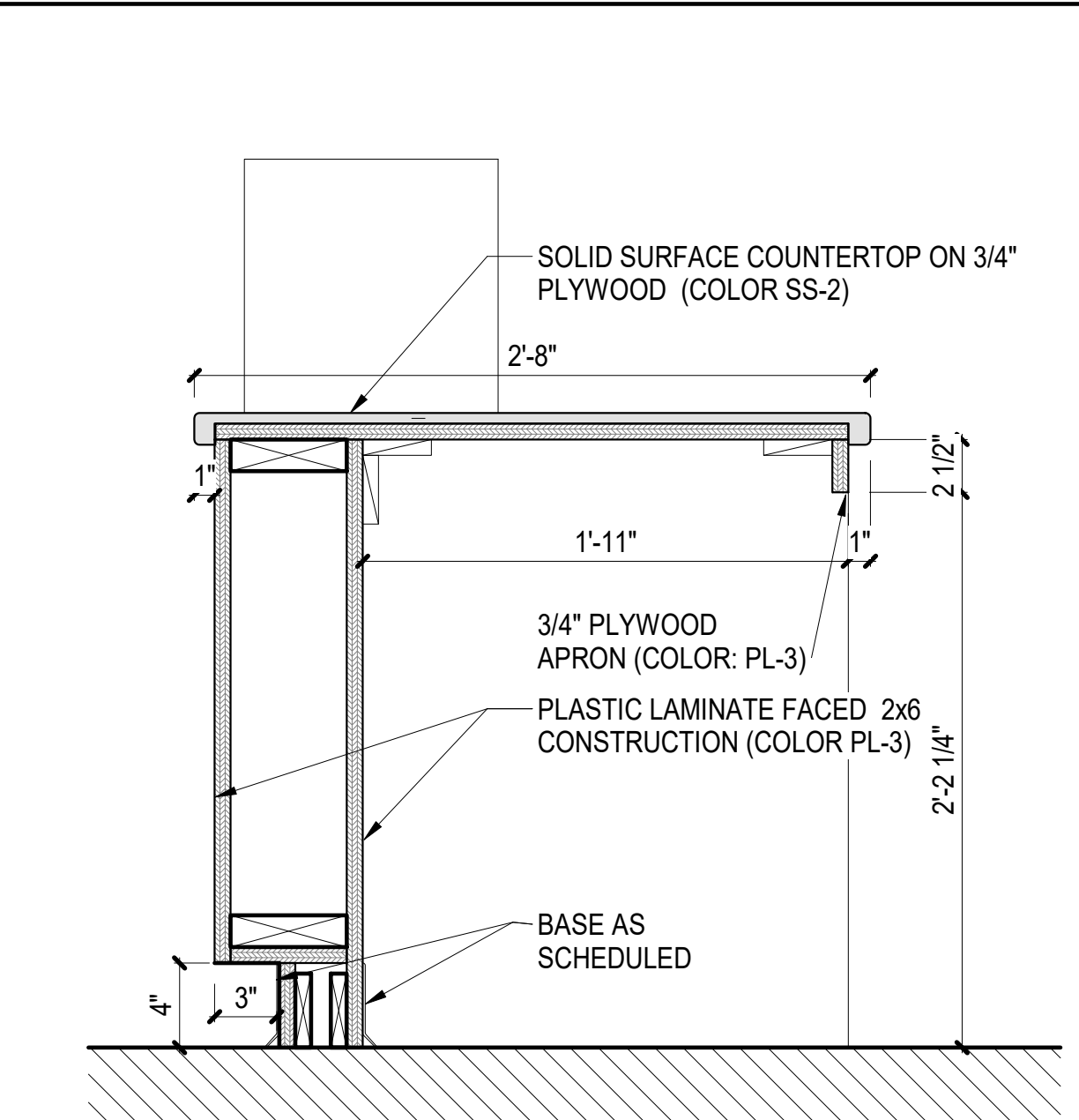
5 RECEPTION BASE - B5

A11	A15	1 1/2" = 1'-0"
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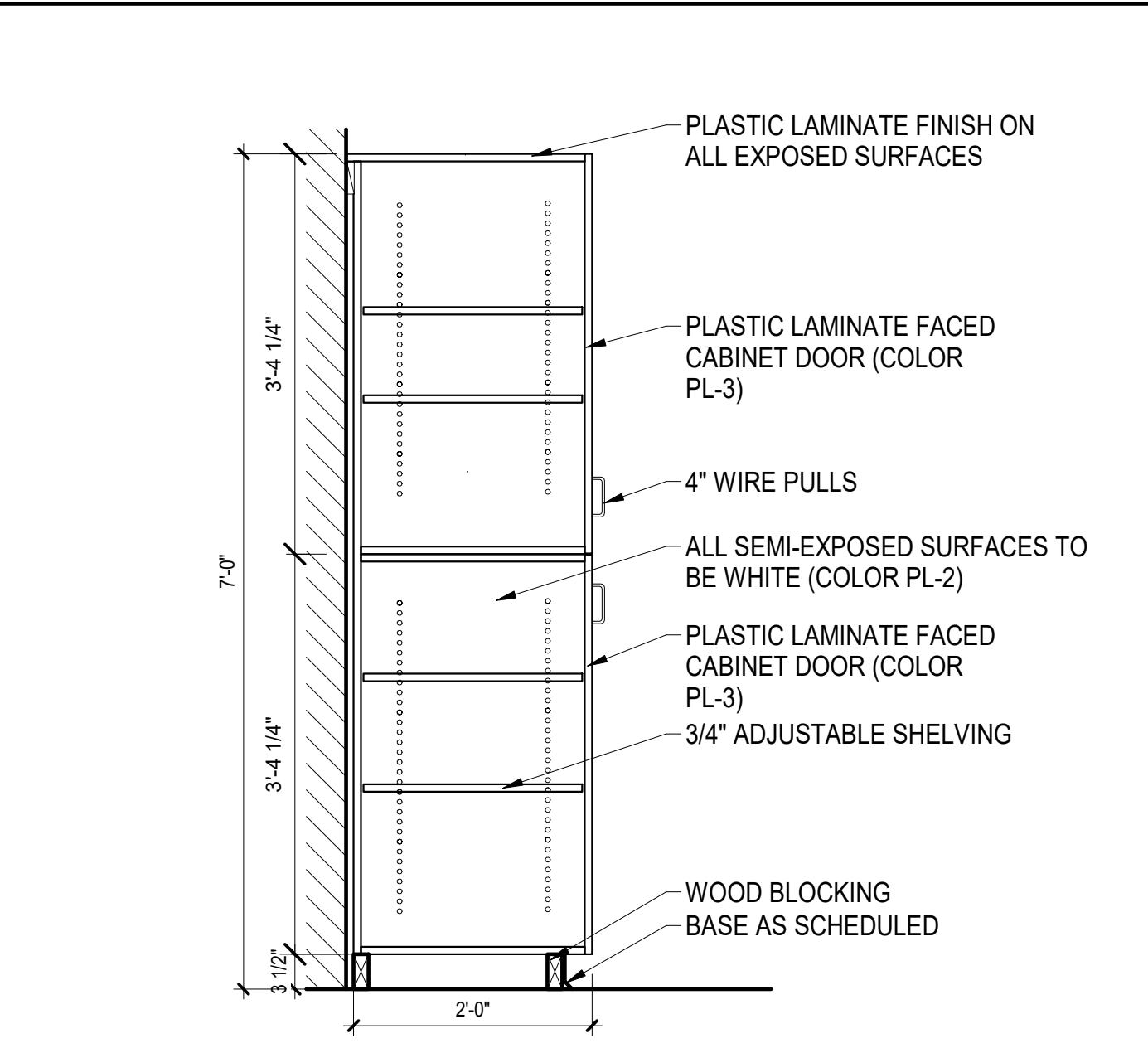
6 RECEPTION KNEE SPACE

A11	A15	1 1/2" = 1'-0"
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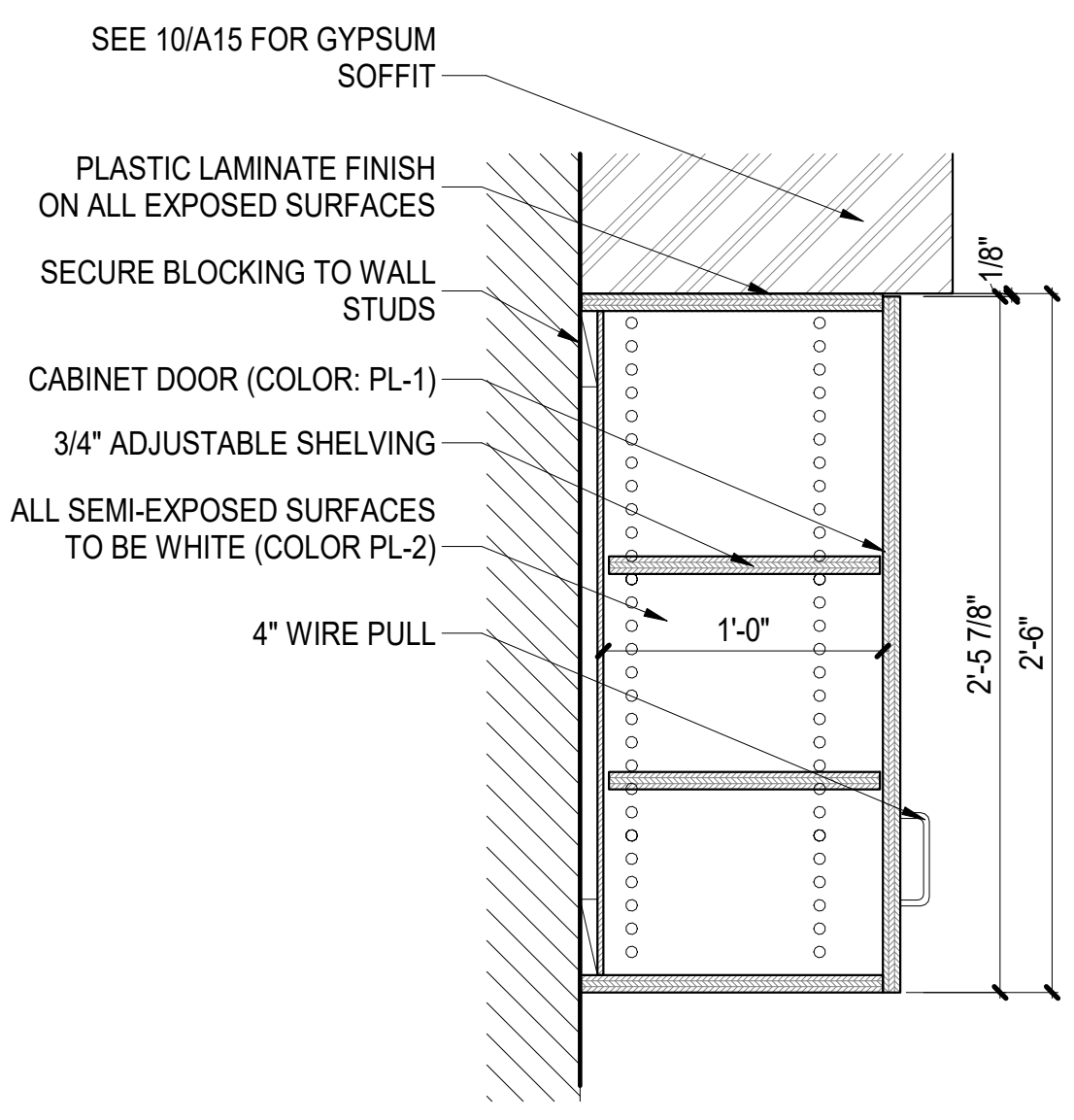
7 RECEPTION TRANSACTION SPACE

A11	A15	1 1/2" = 1'-0"
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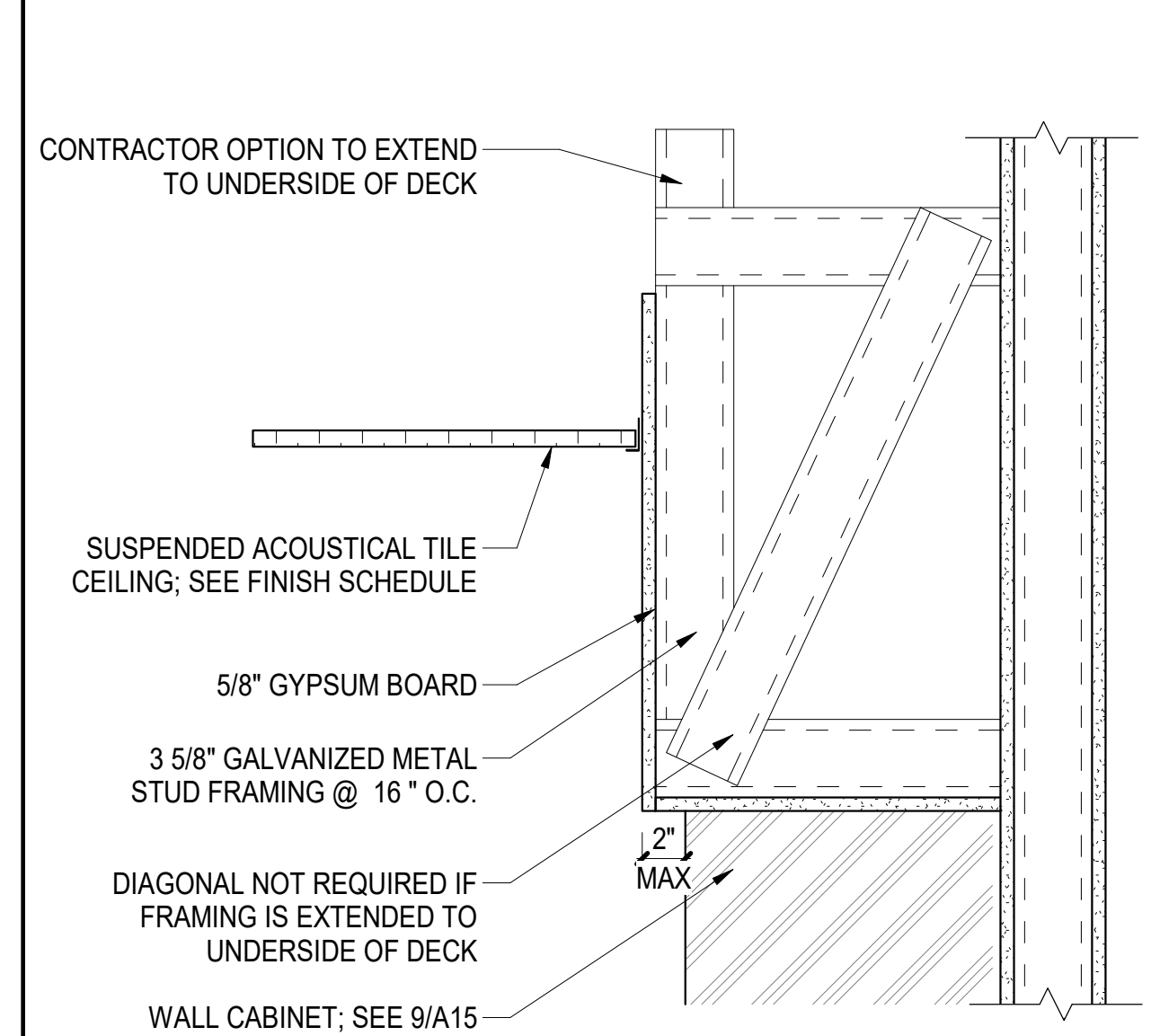
8 FULL HEIGHT WITH DOORS - B6

A15	3/4" = 1'-0"
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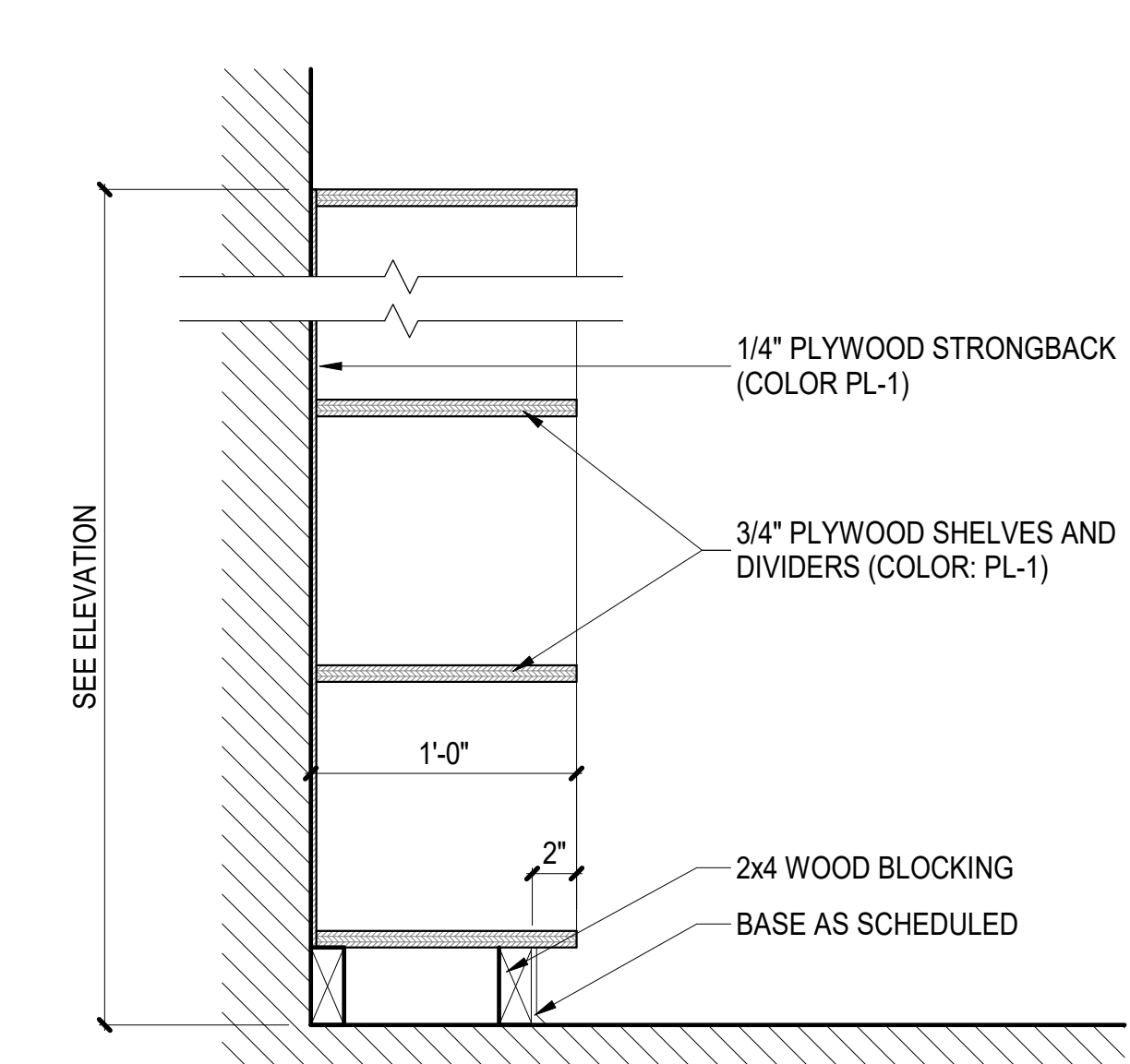
9 WALL CABINET - W1

A15	1 1/2" = 1'-0"
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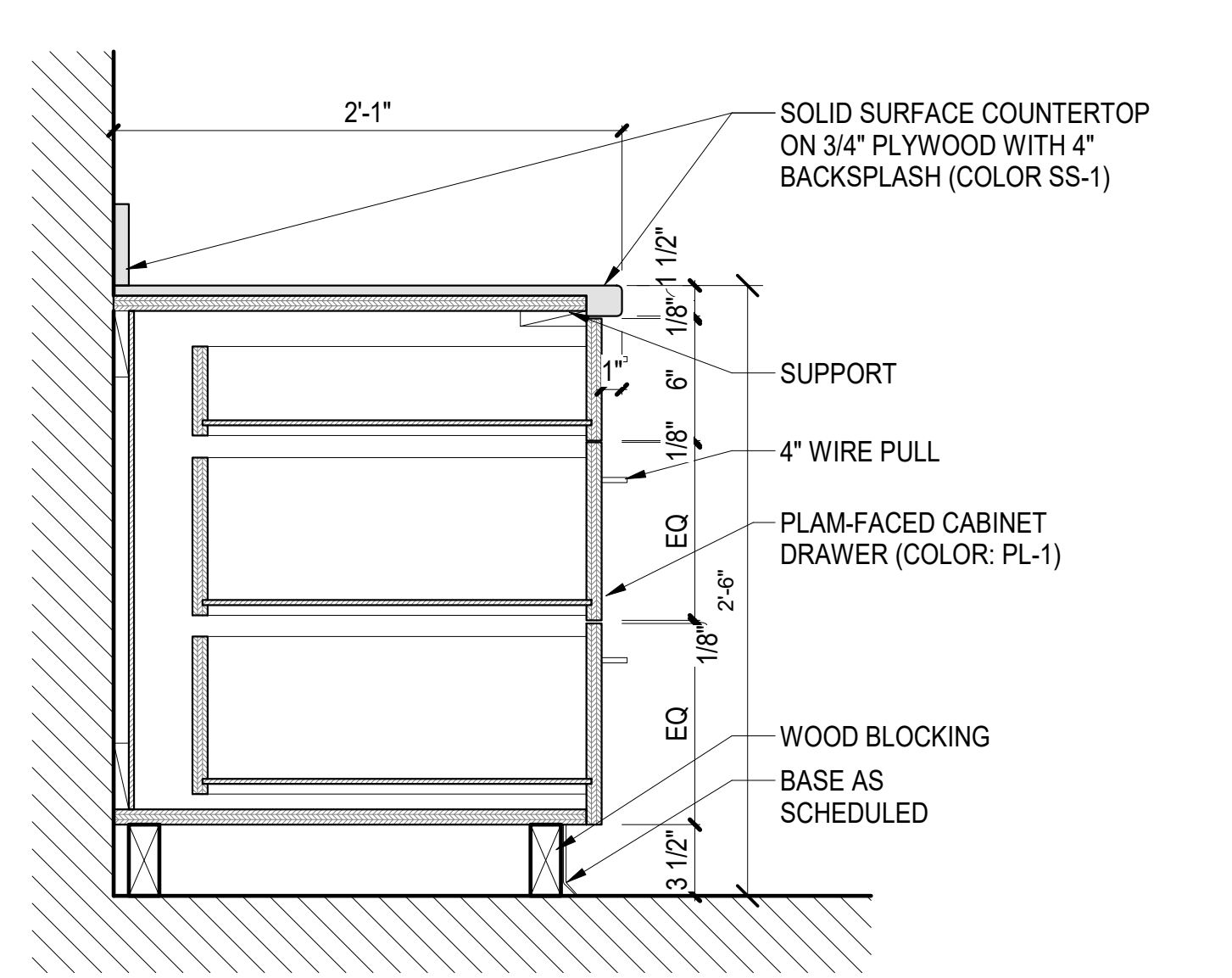
10 GYPSUM BOARD SOFFIT

A15	1 1/2" = 1'-0"
-----	----------------



11 STORAGE CUBBY - B8

A11	A15	1 1/2" = 1'-0"
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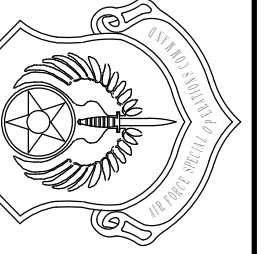
12 (3) DRAWER BASE - B7

A15	1 1/2" = 1'-0"
-----	----------------

APPD	DESCRIPTION	DATE	REV #

APPROVED:
 CHIEF ENGINEER
 APPROVED:
 CIVIL ENGINEER

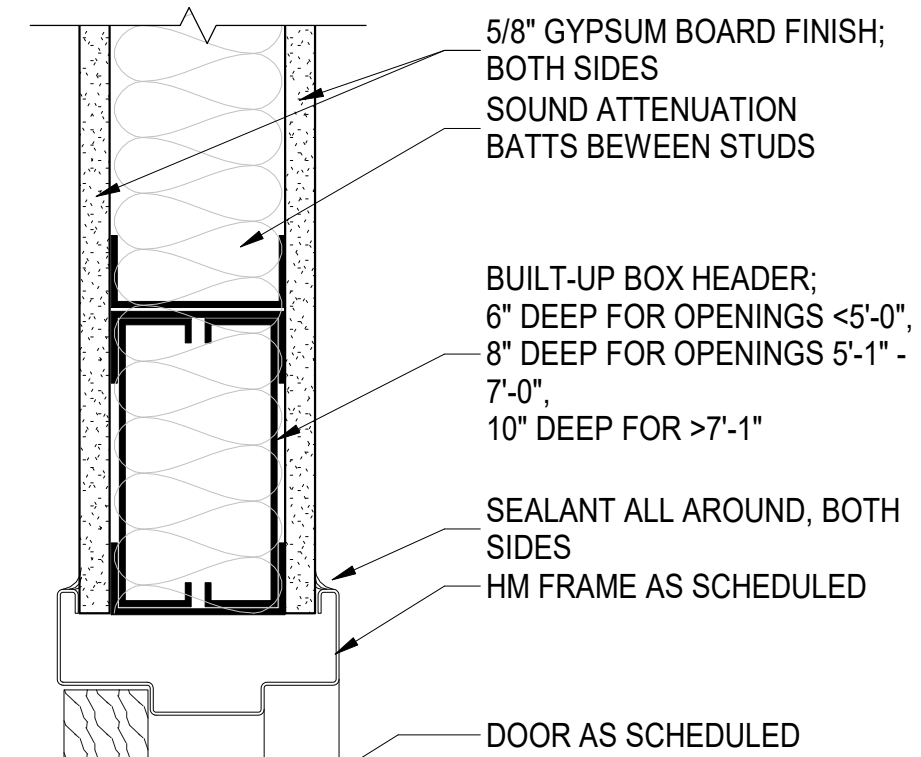
ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 CASEWORK DETAILS



DATE: 16 SEPT 2016
 DESIGNED BY: B. KICKLITER
 DRAWN BY: M. BURCH
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF:

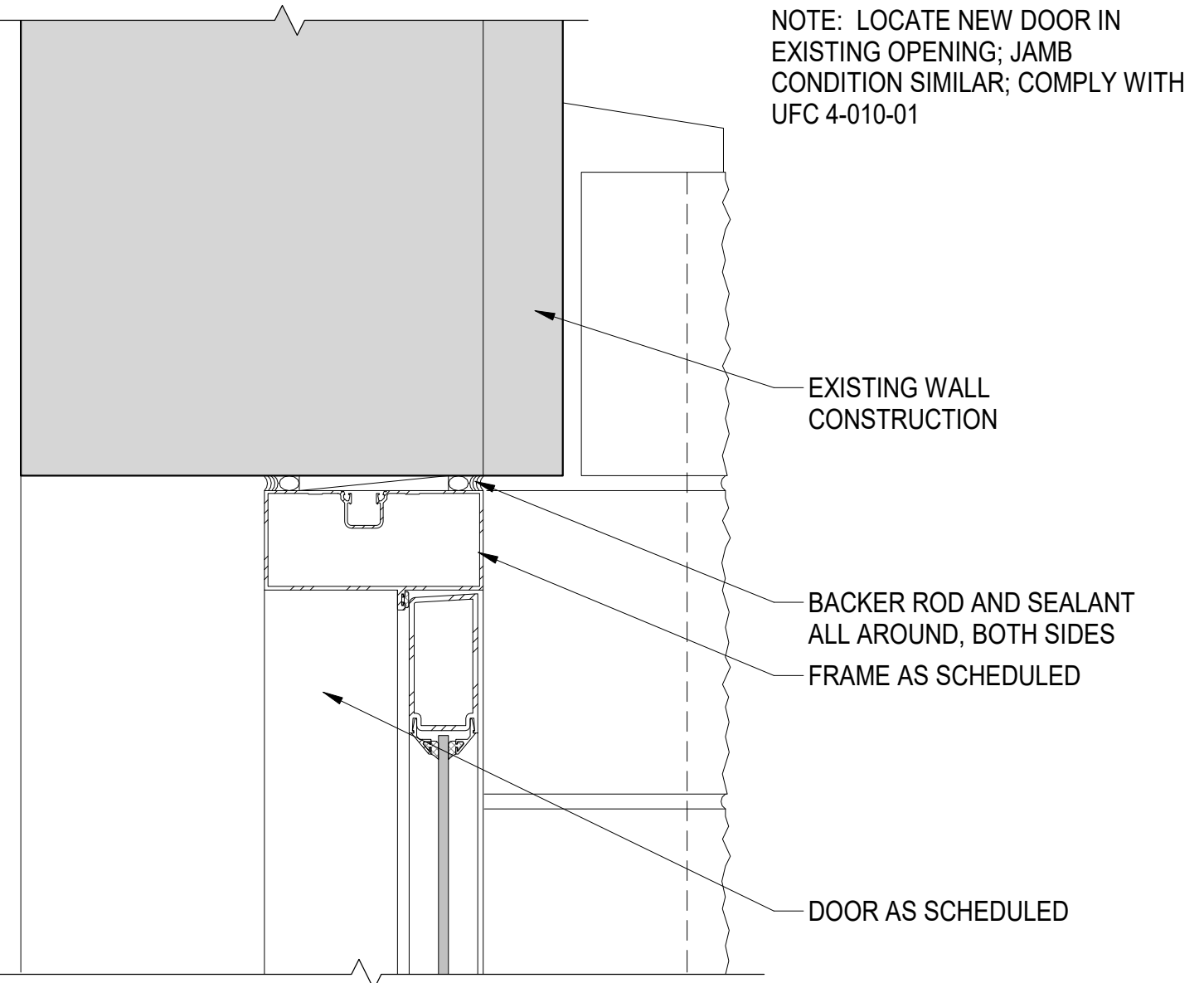
A15
 SHEET NO: 35 of 110

STANDARD LAYOUT (24" X 36")



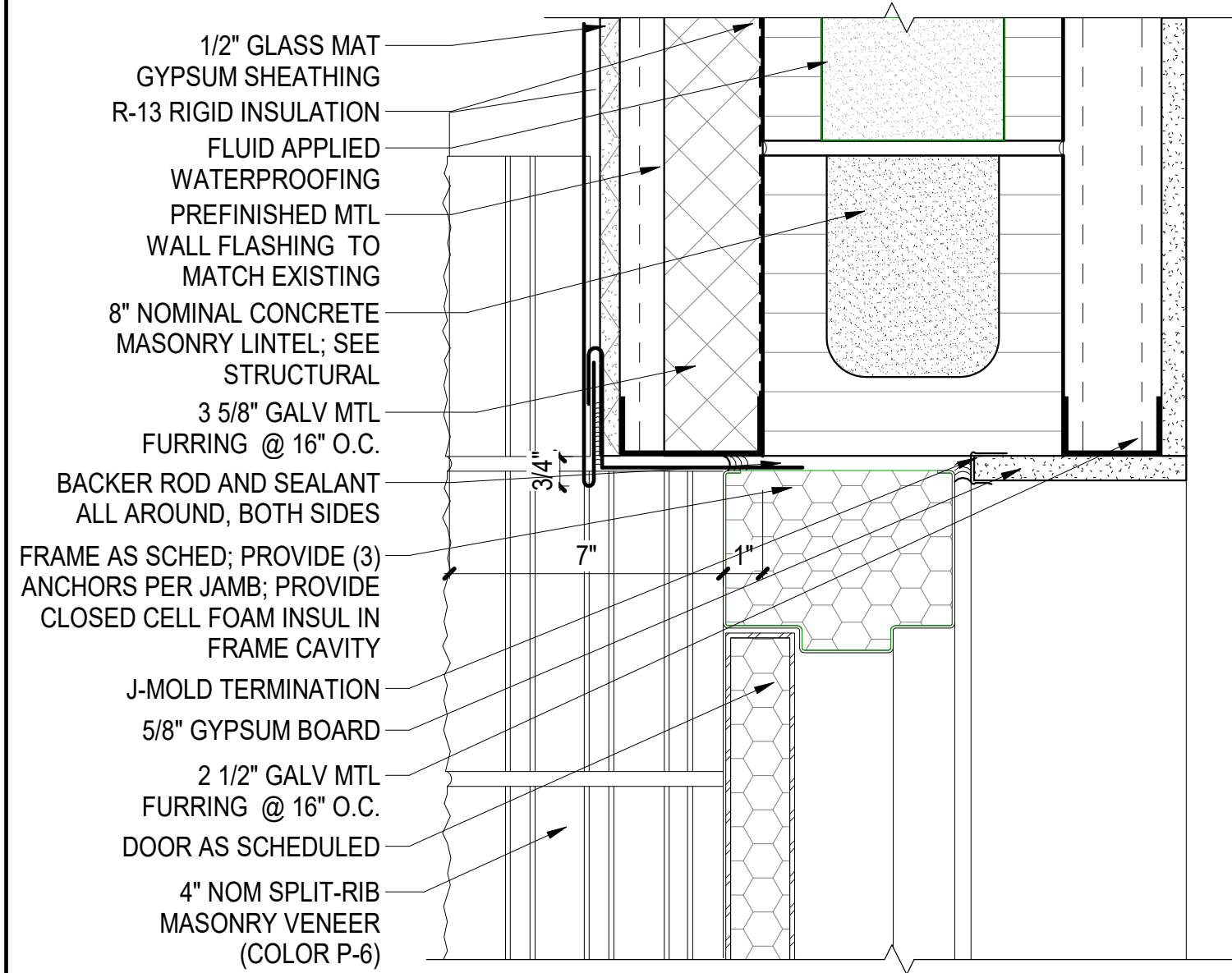
1 TYPICAL HM HEAD

A16 3" = 1'-0"



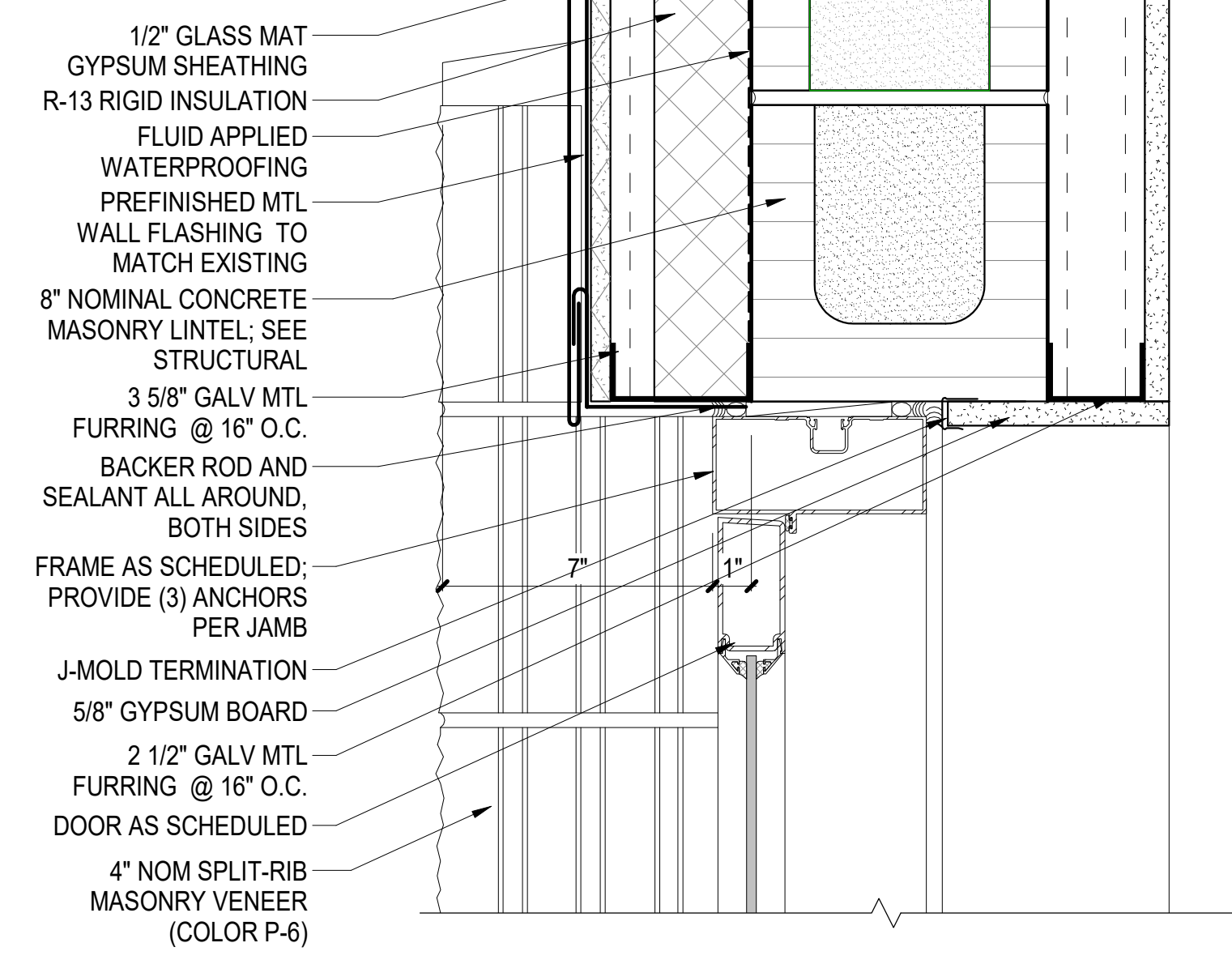
4 SF DOOR HEAD AT EXTERIOR

A16 3" = 1'-0"



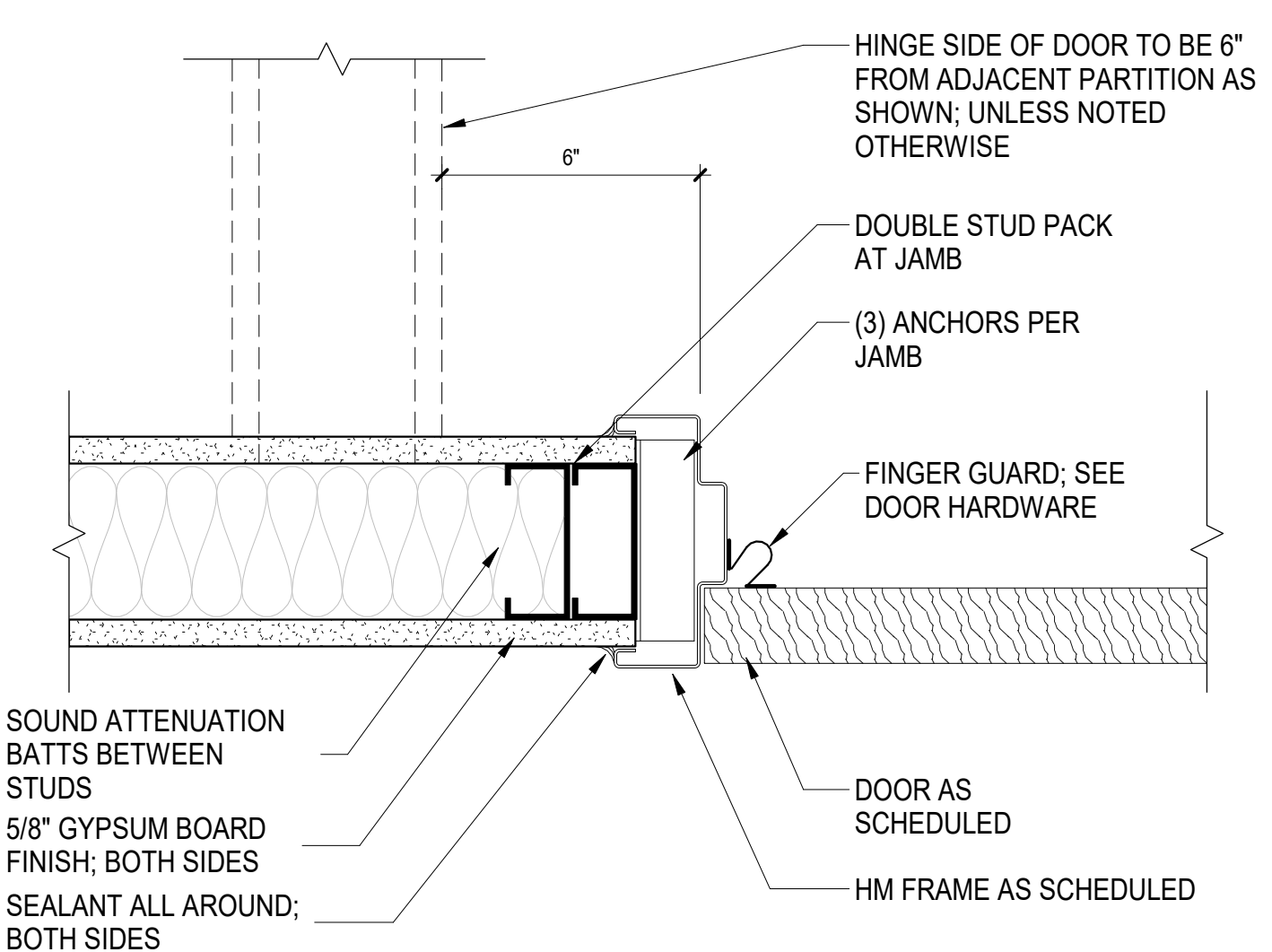
7 TYPICAL HM HEAD @ EXTERIOR

A16 3" = 1'-0"



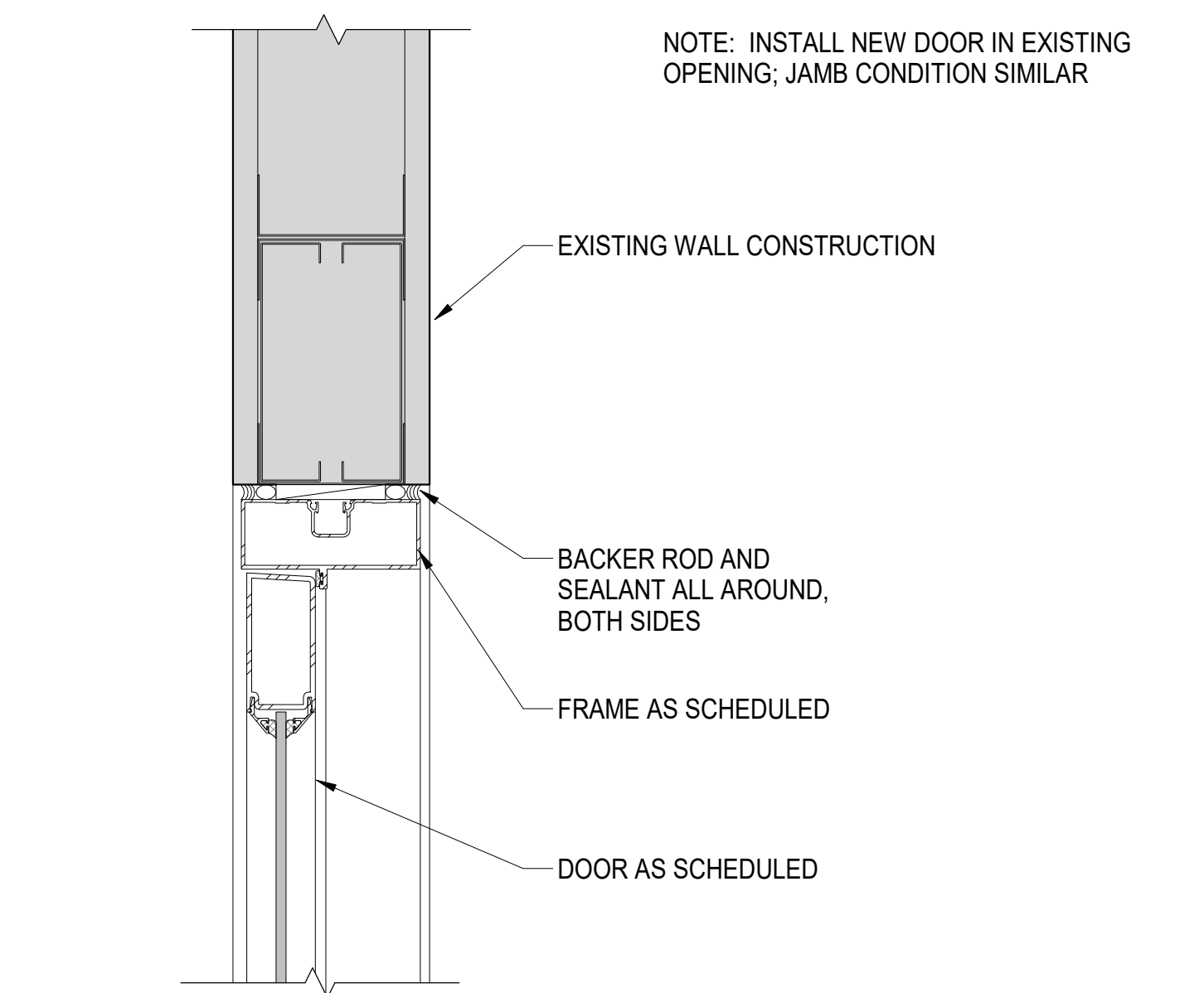
10 TYPICAL SF HEAD @ EXTERIOR

A16 3" = 1'-0"



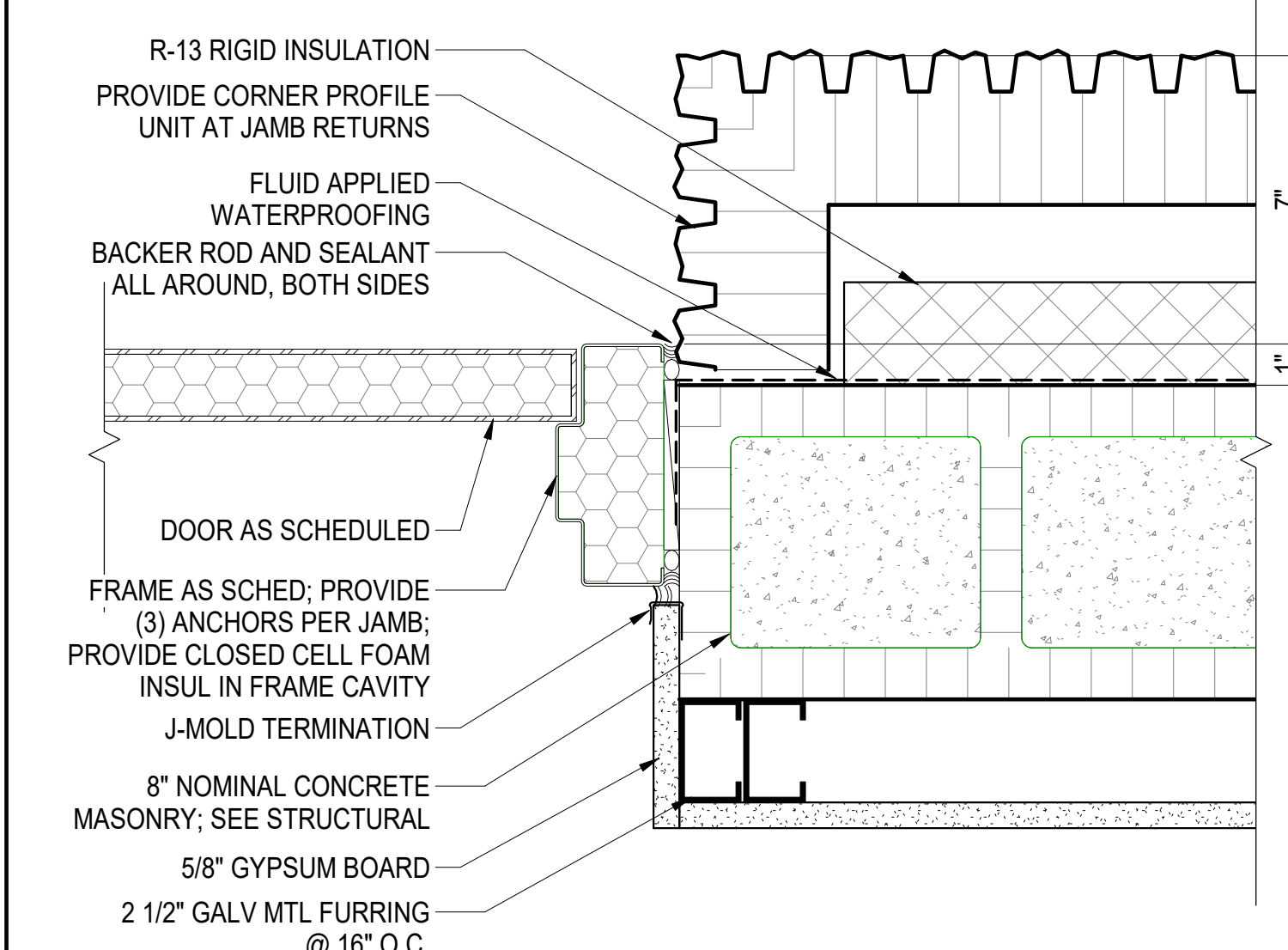
2 TYPICAL HM JAMB

A16 3" = 1'-0"



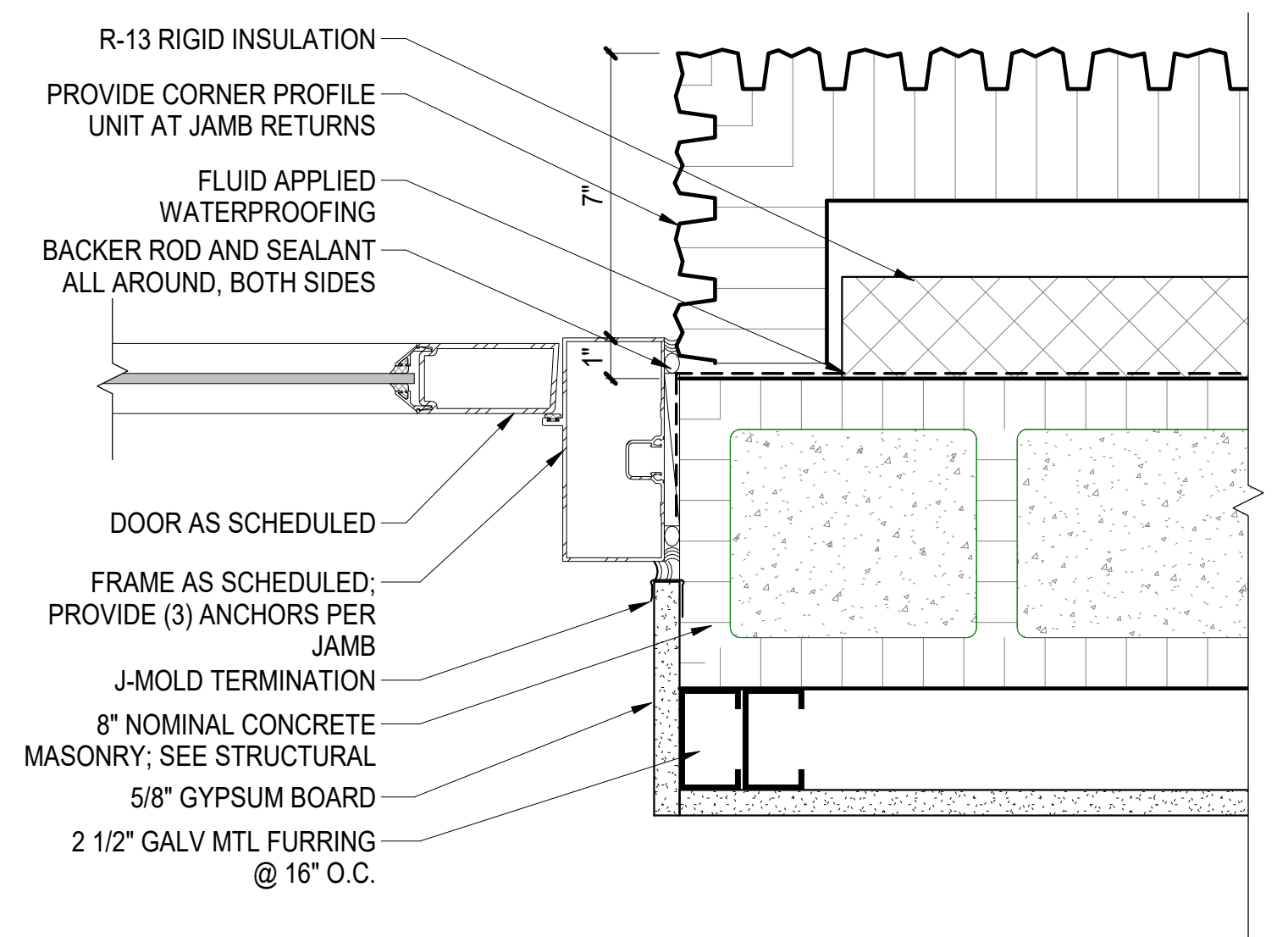
5 SF DOOR HEAD AT INTERIOR

A16 3" = 1'-0"



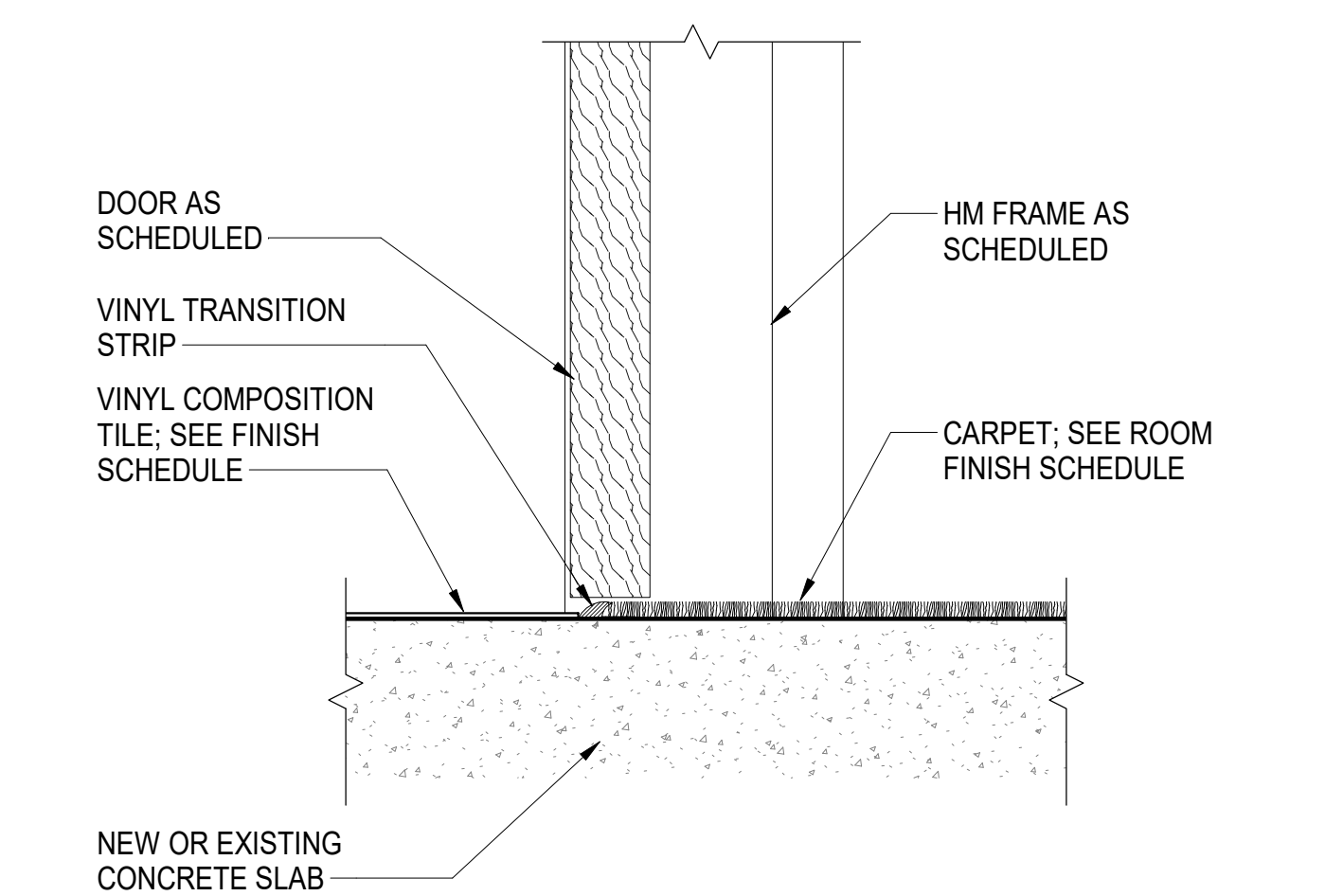
8 TYPICAL SF JAMB @ EXTERIOR

A16 3" = 1'-0"



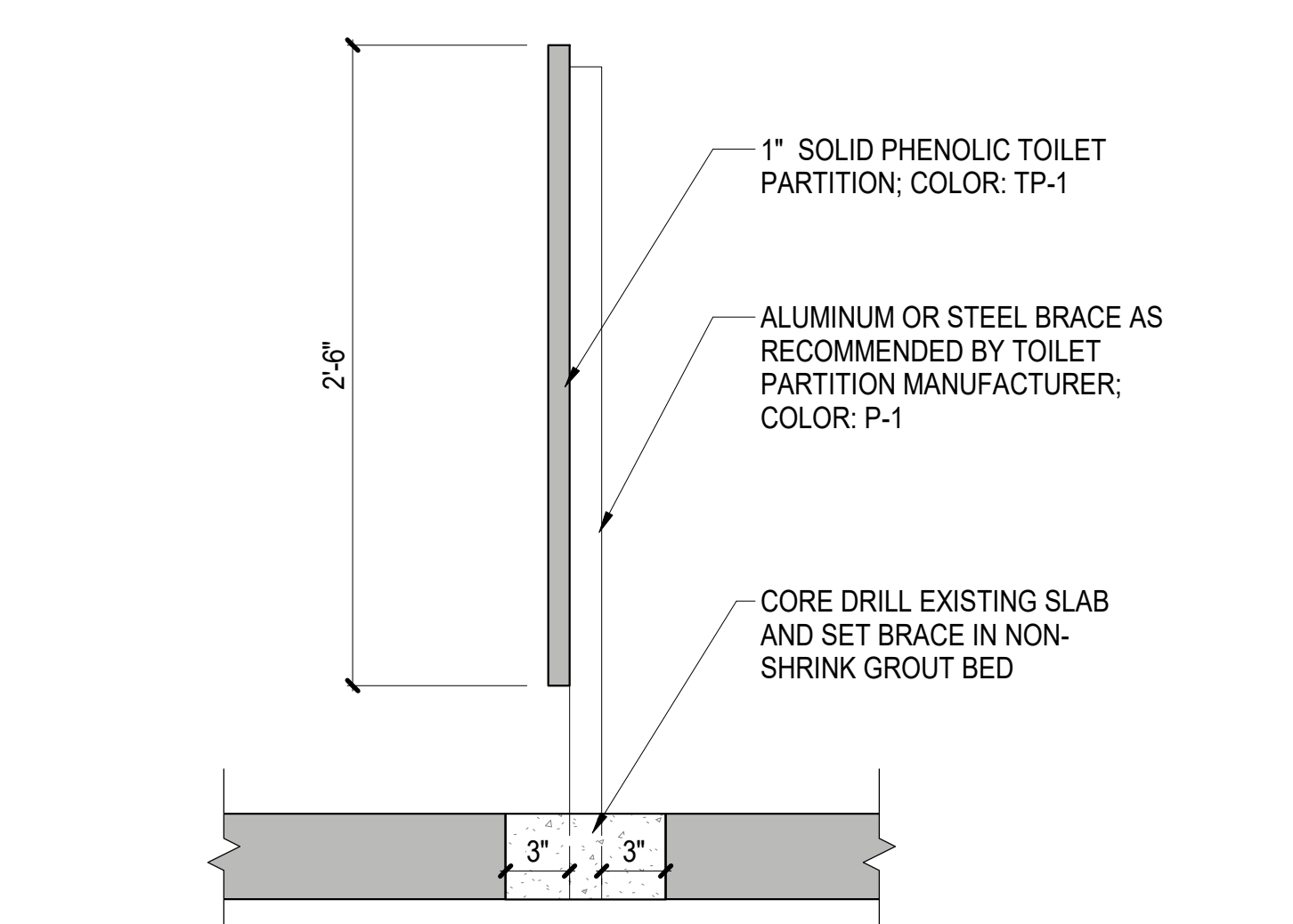
11 TYPICAL SF JAMB @ EXTERIOR

A16 3" = 1'-0"



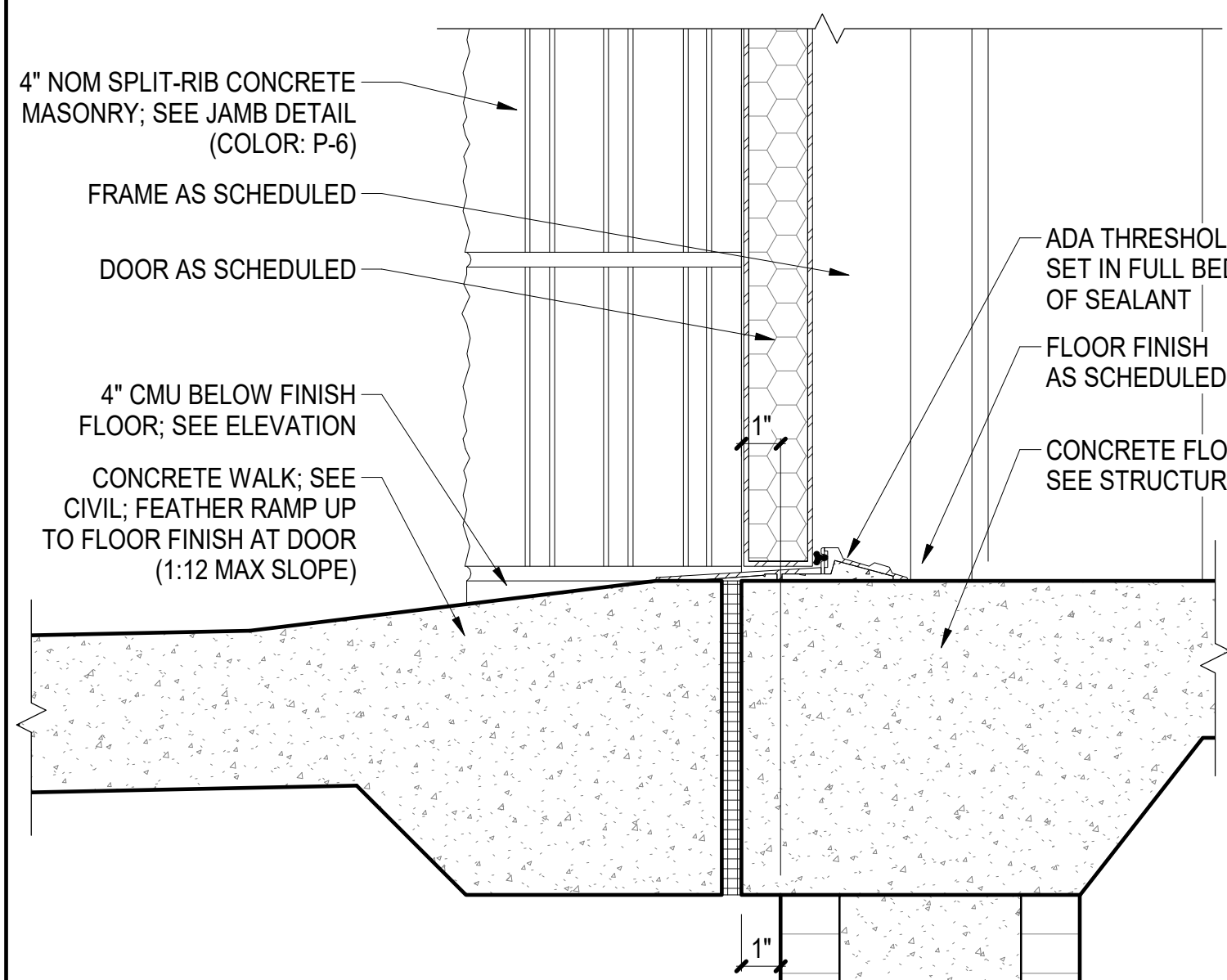
3 THRESHOLD - VCT TO CPT

A16 3" = 1'-0"



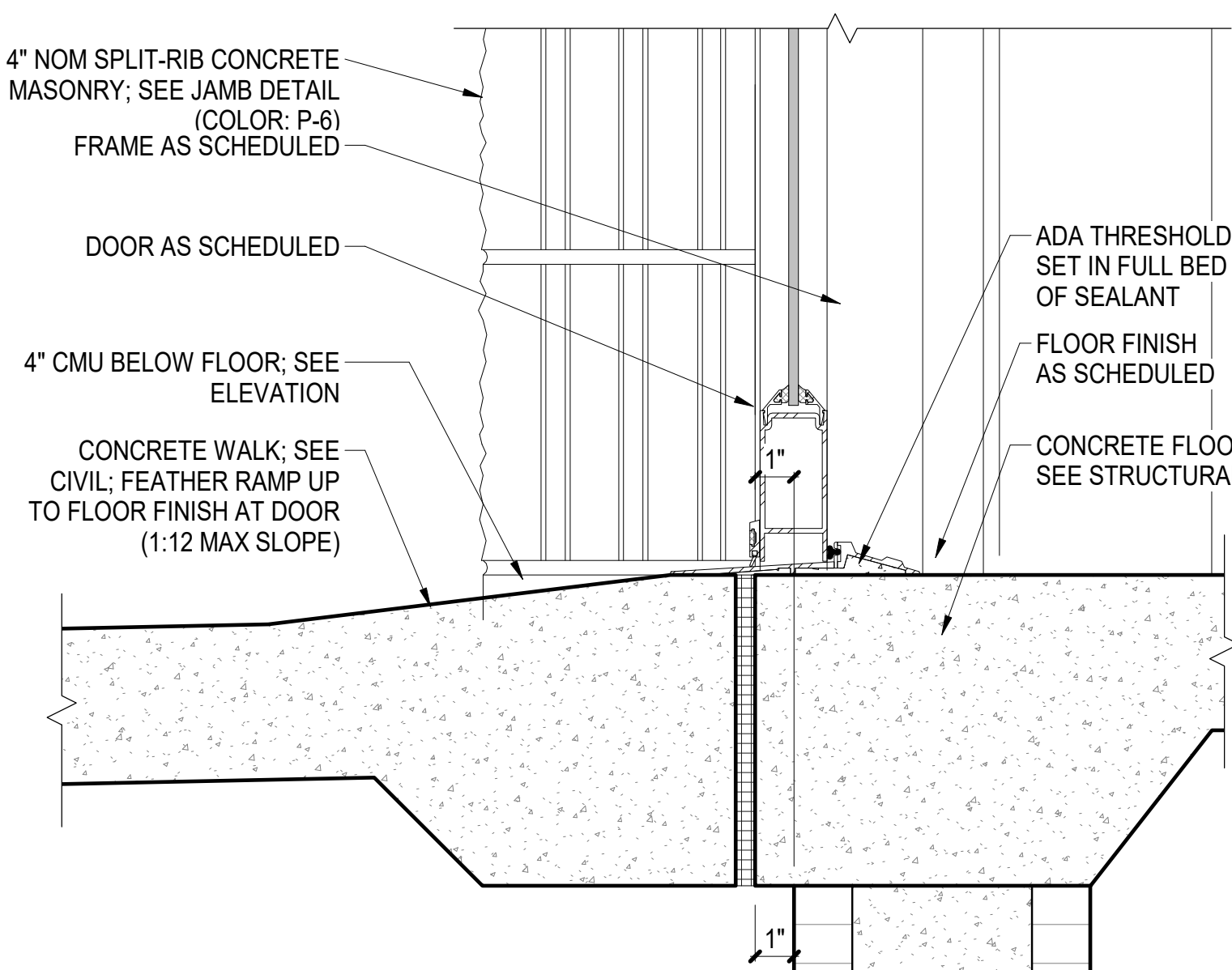
6 TOILET PARTITION DETAIL

A16 1 1/2" = 1'-0"



9 HM THRESHOLD @ EXTERIOR

A16 3" = 1'-0"



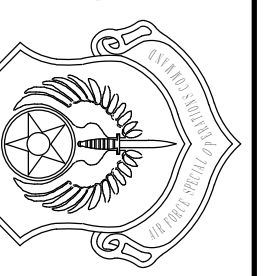
12 SF THRESHOLD @ EXTERIOR

A16 3" = 1'-0"

APPD	DESCRIPTION	DATE	REV #

ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
DOOR DETAILS

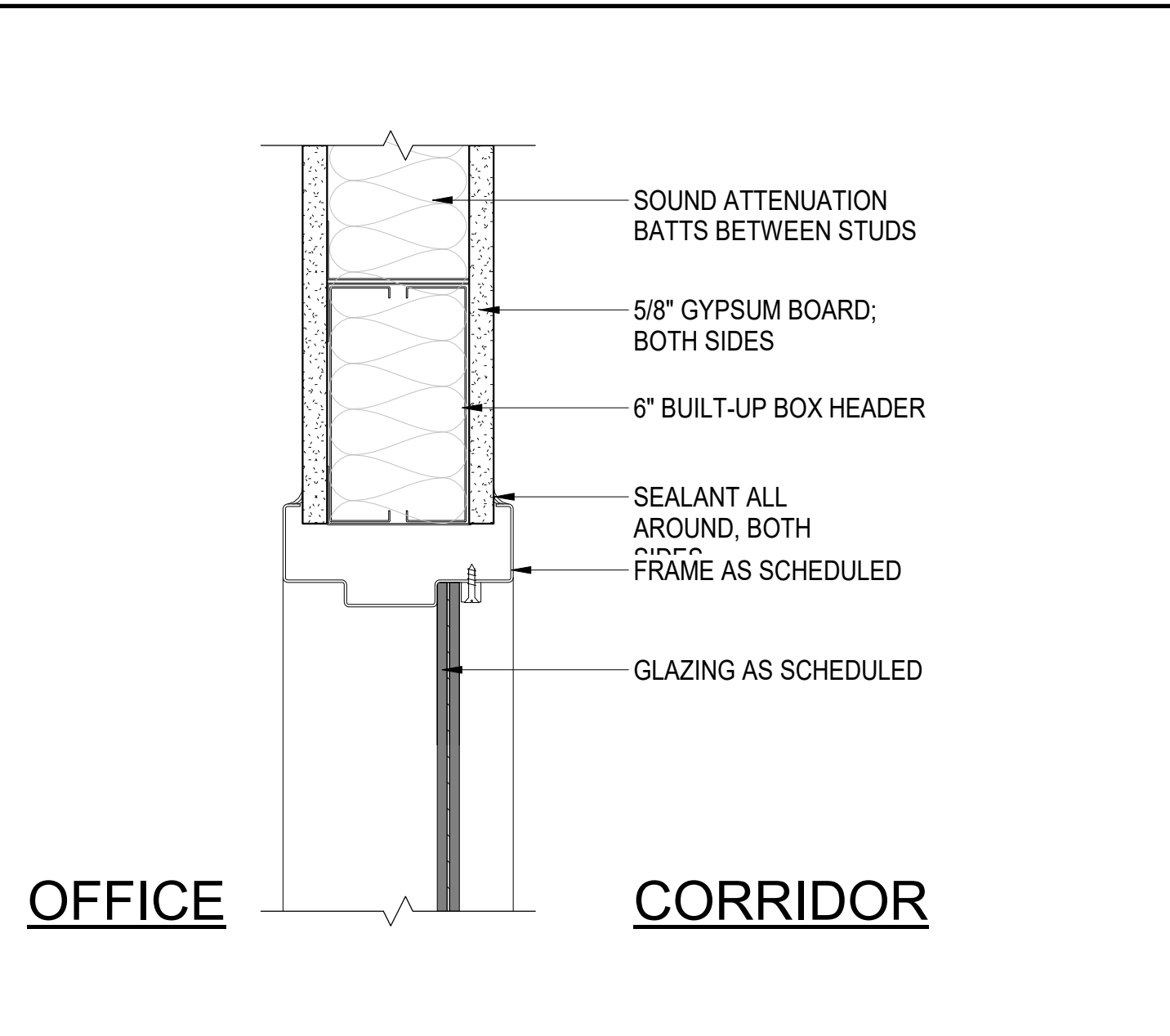
AIR FORCE SPECIAL
OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



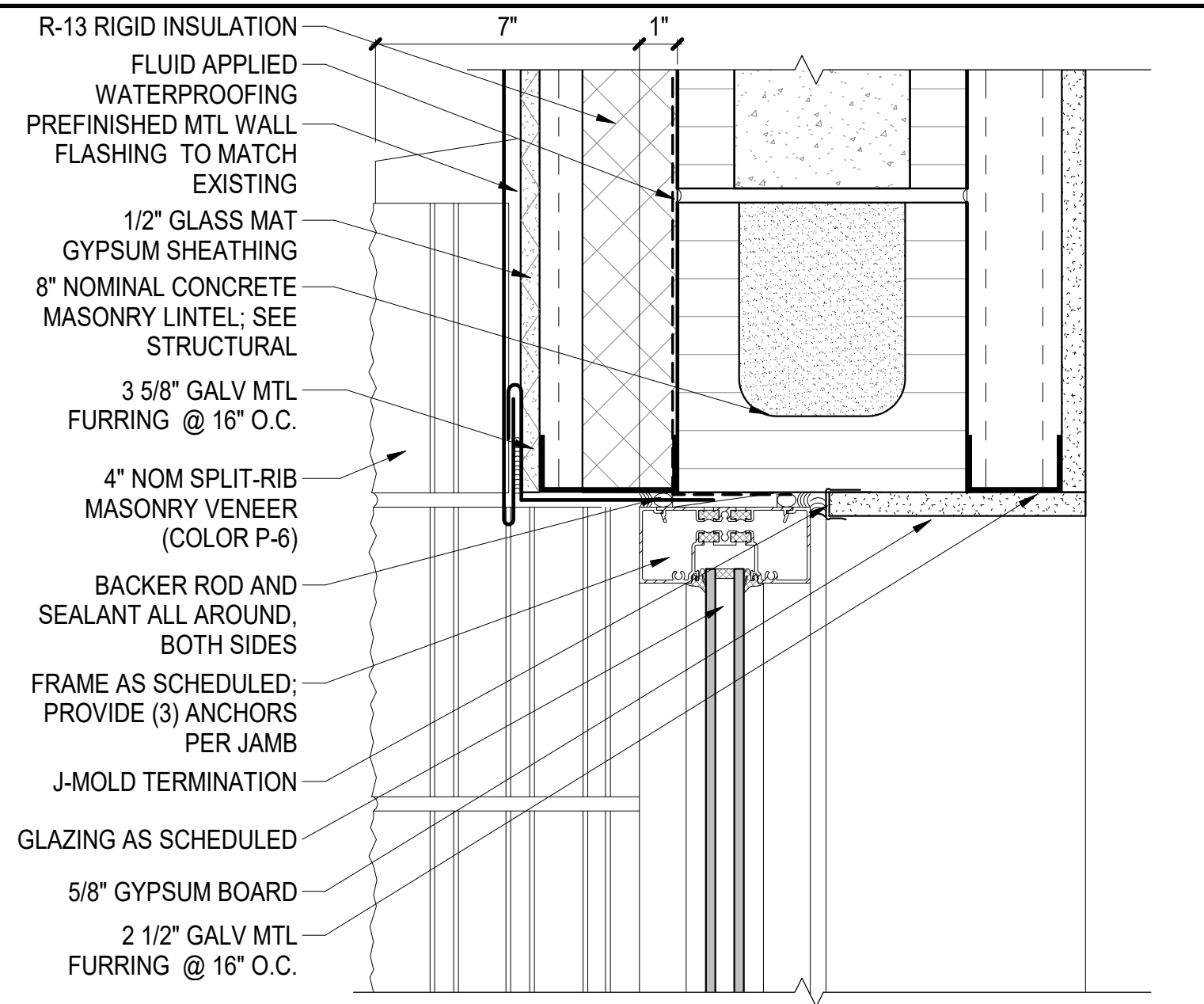
DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: A. POWELL
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF:

A16
SHEET NO: 36 of 110

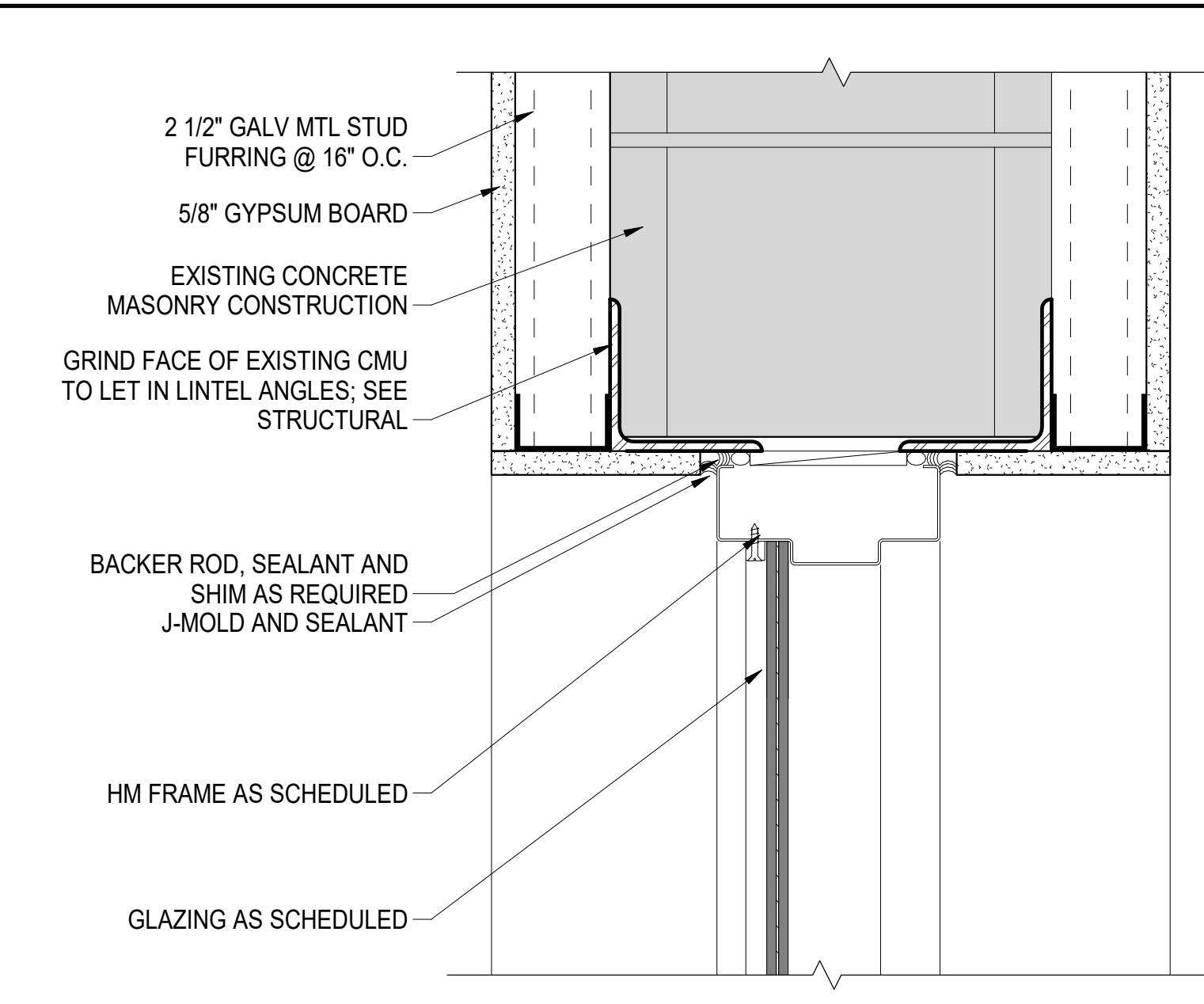
STANDARD LAYOUT (24" X 36")



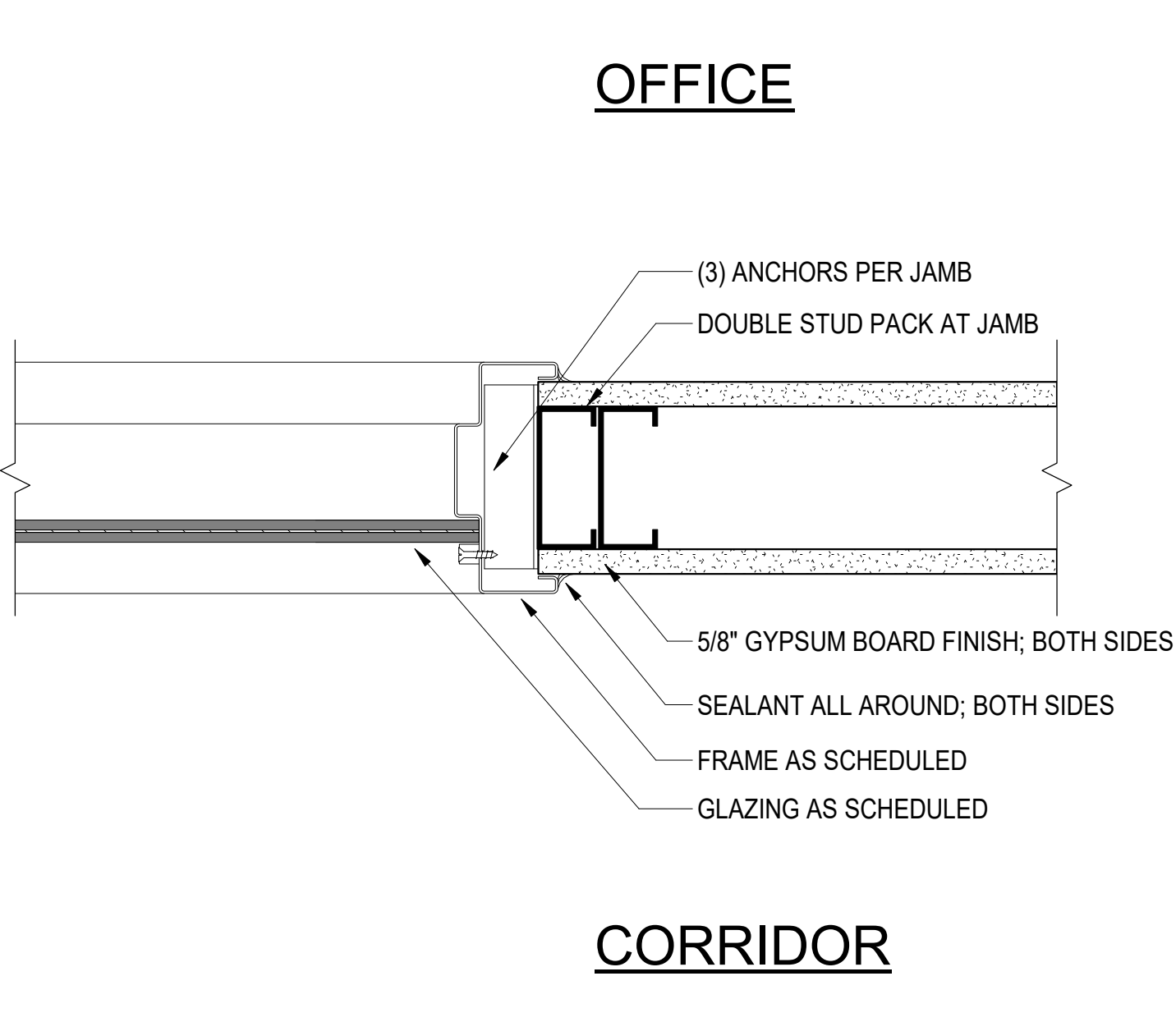
1 HM WINDOW HEAD TO STUD
A17 3" = 1'-0"
4" 2" 0" 4" 8"



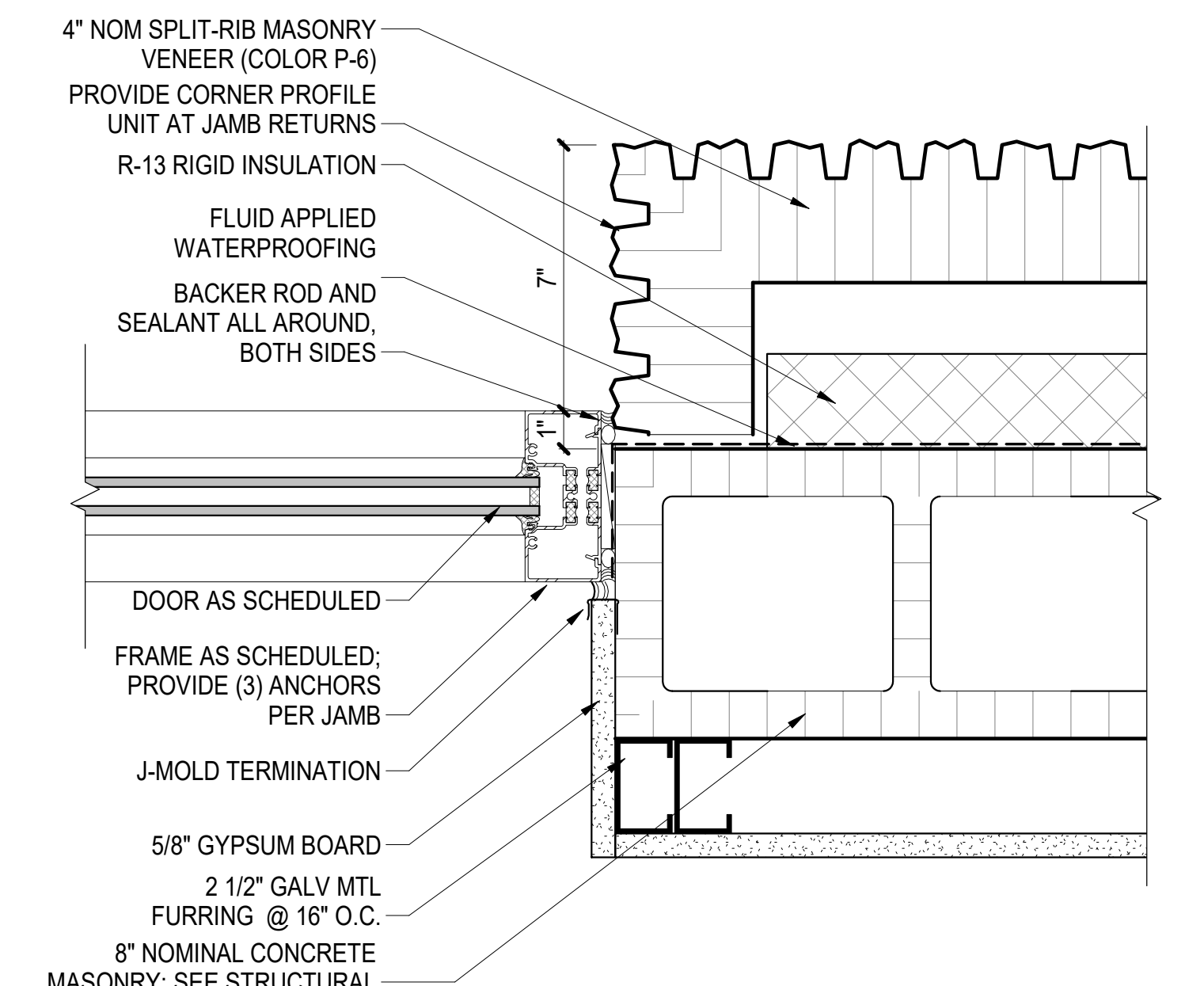
4 TYPICAL SF HEAD @ EXTERIOR
A17 3" = 1'-0"
4" 2" 0" 4" 8"



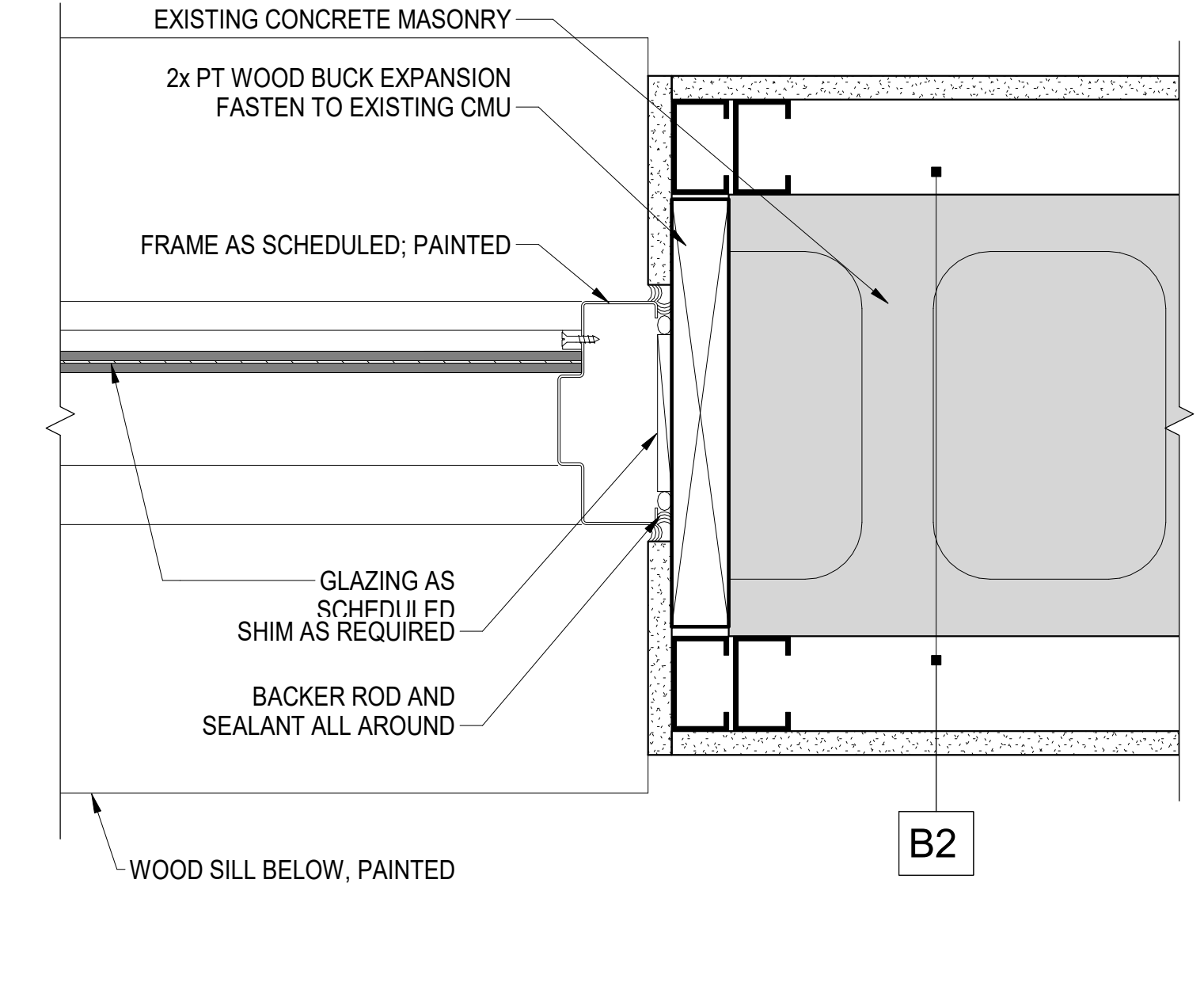
7 HM FRAME AT EXISTING WALL
A17 3" = 1'-0"
4" 2" 0" 4" 8"



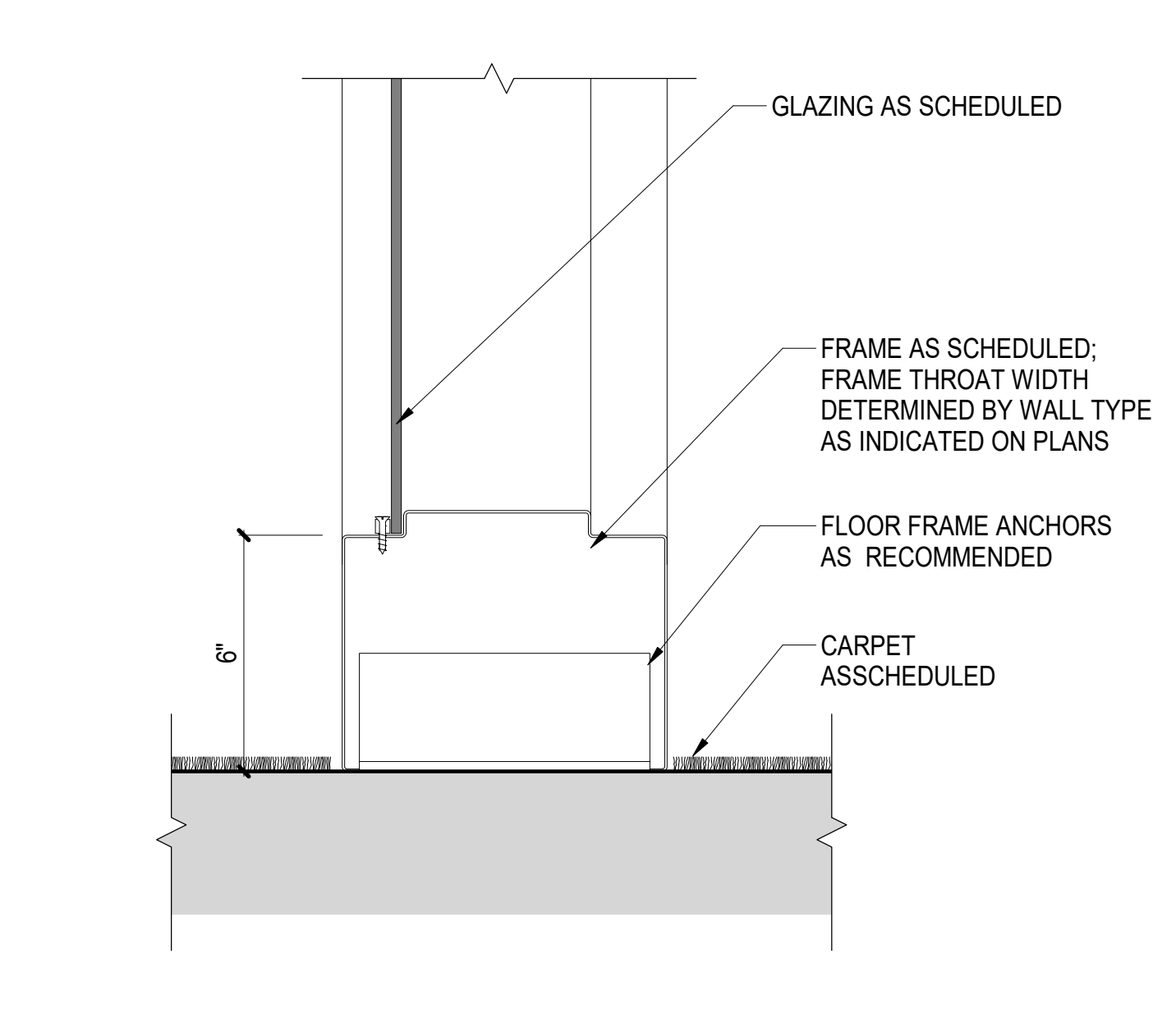
2 HM WINDOW JAMB TO STUD
A17 3" = 1'-0"
4" 2" 0" 4" 8"



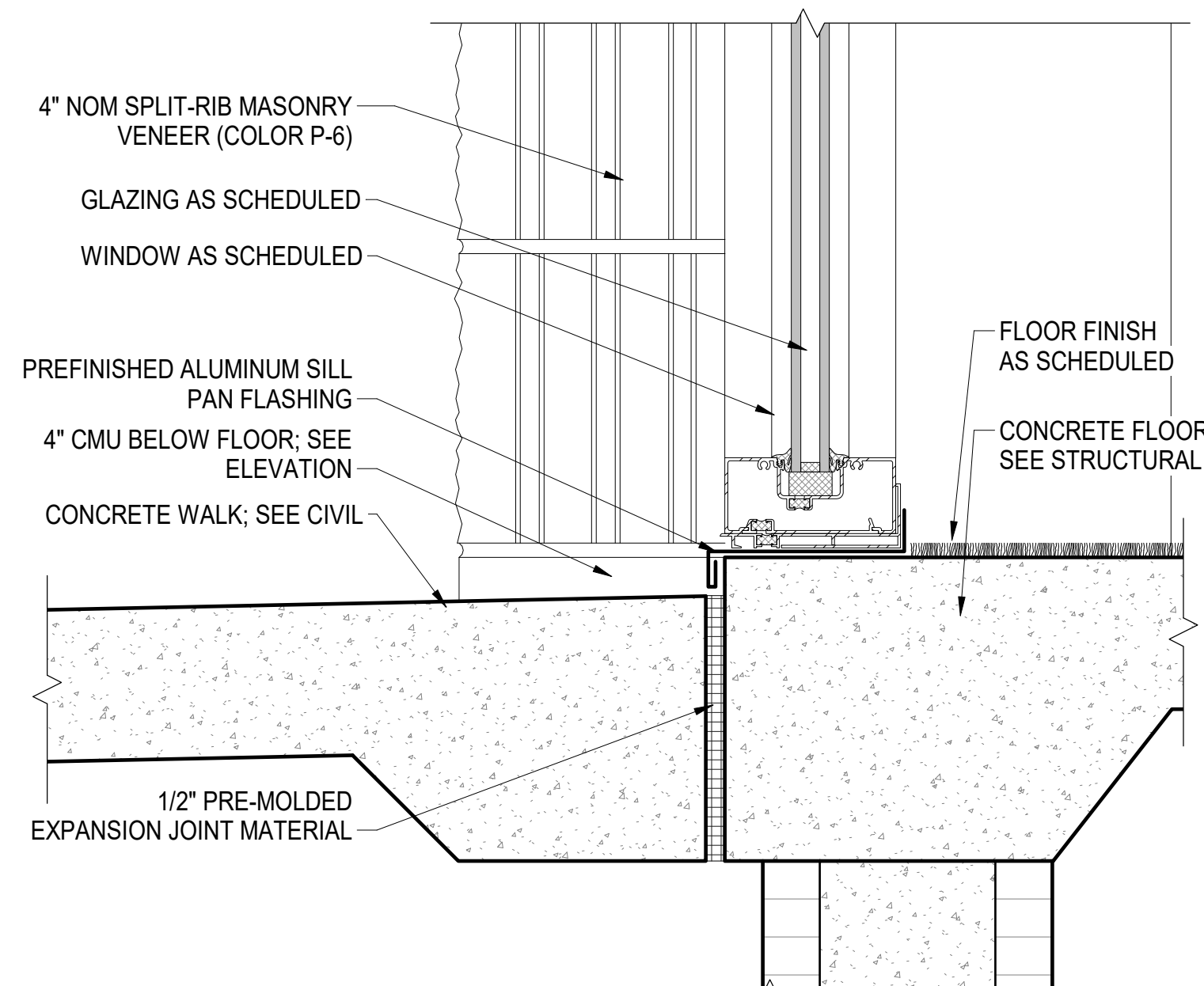
5 TYPICAL SF JAMB @ EXTERIOR
A17 3" = 1'-0"
4" 2" 0" 4" 8"



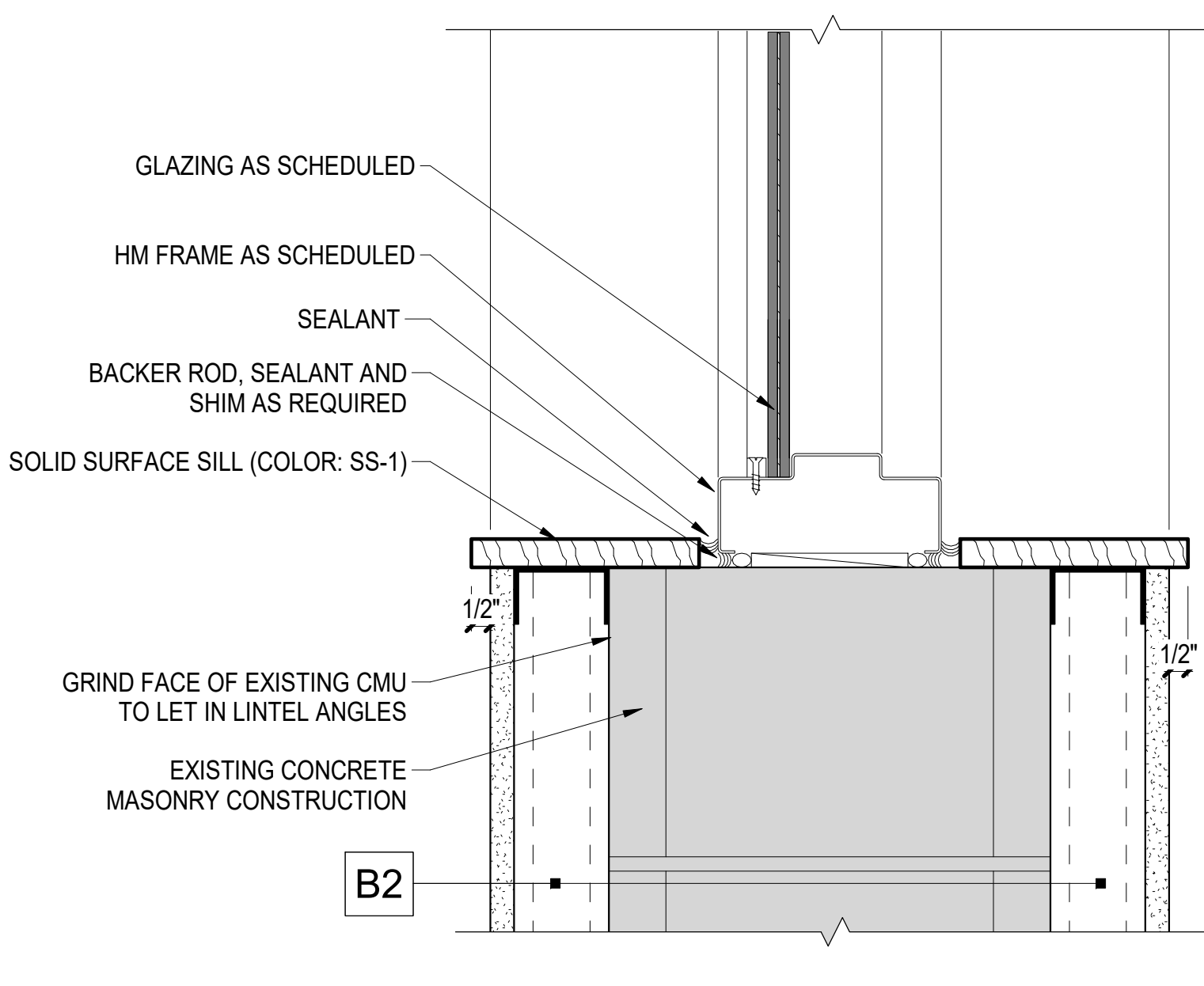
8 HM FRAME AT EXISTING WALL
A17 3" = 1'-0"
4" 2" 0" 4" 8"



3 HM WINDOW SILL AT FLOOR
A17 3" = 1'-0"
4" 2" 0" 4" 8"



6 TYPICAL SF JAMB @ EXTERIOR
A17 3" = 1'-0"
4" 2" 0" 4" 8"



9 HM FRAME AT EXISTING WALL
A17 3" = 1'-0"
4" 2" 0" 4" 8"

STANDARD LAYOUT (24" X 36")

APPD	DESCRIPTION	DATE	REV #

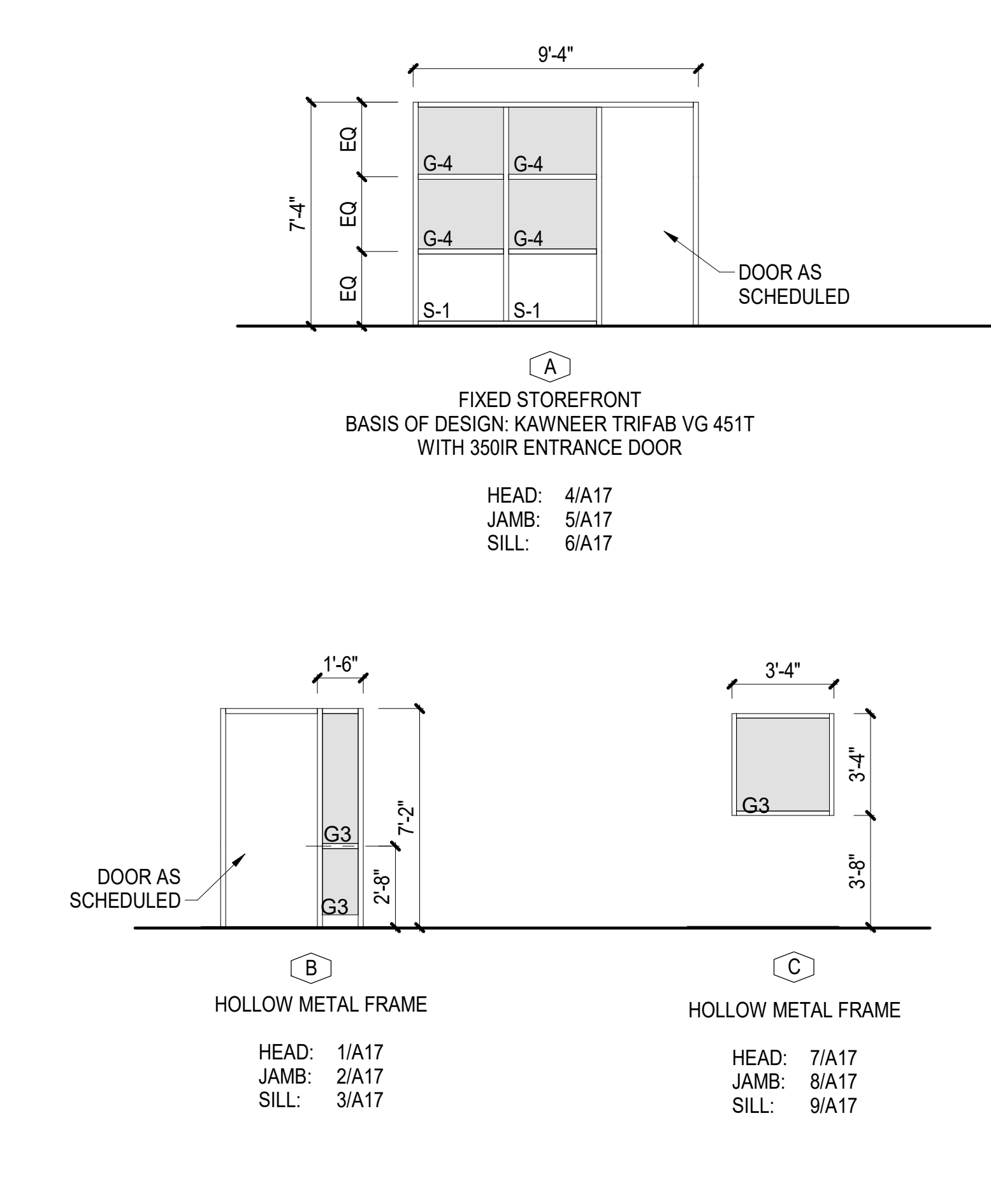
ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
WINDOW DETAILS

AIR FORCE SPECIAL
OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

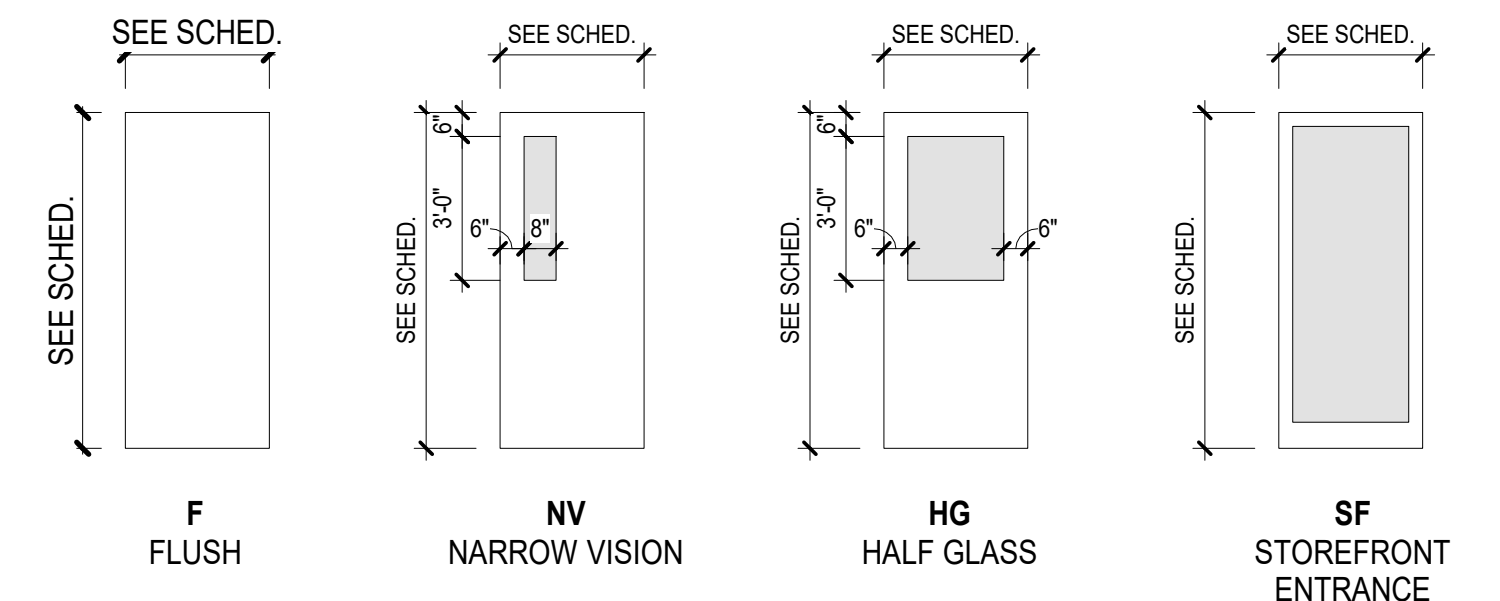
DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: M. BURCH
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: A17
SHEET NO: 37 of 110

DOOR SCHEDULE																			
MARK	DOOR								FRAME						FIRE RATING	HARDWARE		REMARKS	
	SIZE				TYPE	MATERIAL	FINISH	UNDERCUT	GLAZING	TYPE	MATERIAL	FINISH	DETAIL			SET NO.	KEYSIDE SPACE		
	WIDTH	HEIGHT	THICKNESS	HEAD									JAMB	SILL					
101	6'-0"	7'-2"	1 3/4"	SF	ALUM	AL-1	---	G-1	SF-1	ALUM	AL-1	4/A16	5/A16	6/A16	-	1	101	1, 4, 5, 6	
102	6'-0"	7'-2"	1 3/4"	SF	ALUM	AL-1	---	G-1	SF-2	ALUM	AL-2	5/A16	5/A16 (SIM)	---	-	1	102	1, 4, 6	
103	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	---	G-3	HM-1	STEEL	P-5	1/A16	2/A16	3/A16	-	4	102	6	
104A	3'-0"	7'-0"	1 3/4"	SF	SCWD	ST-1	---	G-3	B	STEEL	P-5	1/A16	2/A16	3/A16	-	3	102	3, 6	
104B	3'-0"	7'-0"	1 3/4"	F	SCWD	ST-1	---	---	HM-1	STEEL	P-5	1/A16	2/A16	---	-	5	104	---	
105	3'-0"	7'-0"	1 3/4"	F	SCWD	ST-1	3/4"	---	HM-1	STEEL	P-5	1/A16	2/A16	3/A16 (SIM)	-	11	105	6	
106	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	3/4"	G-3	HM-1	STEEL	P-5	1/A16	2/A16	3/A16 (SIM)	-	11	107	6	
108	3'-0"	7'-2"	1 3/4"	SF	ALUM	AL-1	---	G-1	A	ALUM	AL-1	10/A16	11/A16	12/A16	-	1	108	3, 5, 6	
109	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	---	G-3	HM-1	STEEL	P-5	1/A16	2/A16	3/A16	-	4	107	6	
110	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	---	G-3	HM-1	STEEL	P-5	1/A16	2/A16	3/A16	-	4	110	6	
111	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	---	G-3	HM-1	STEEL	P-5	1/A16	2/A16	3/A16	-	8	111	6	
112	3'-0"	7'-0"	1 3/4"	F	SCWD	ST-1	3/4"	---	HM-1	STEEL	P-5	1/A16	2/A16	---	-	11	112	---	
113	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	3/4"	---	HM-1	STEEL	P-5	1/A16	2/A16	---	-	6	113	---	
115	4'-0"	7'-0"	1 3/4"	HG	IN ST	P-4	---	G-1	HM-2	STEEL	P-4	7/A16	8/A16	9/A16	-	2	115	5	
118	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	---	---	HM-1	STEEL	P-5	1/A16	2/A16	---	-	7	118	---	
120	3'-6"	7'-0"	1 3/4"	NV	SCWD	ST-1	---	G-4	HM-1	STEEL	P-5	1/A16 (SIM)	2/A16 (SIM)	3/A16 (SIM)	20 MIN	9	158	6	
121	3'-0"	7'-0"	1 3/4"	HG	SCWD	ST-1	3/4"	G-3	HM-1	STEEL	P-5	1/A16 (SIM)	2/A16 (SIM)	---	-	7	120	2	
122	3'-6"	7'-0"	1 3/4"	HG	SCWD	ST-1	---	G-3	HM-1	STEEL	P-5	1/A16 (SIM)	2/A16 (SIM)	3/A16 (SIM)	-	10	158	2, 6	

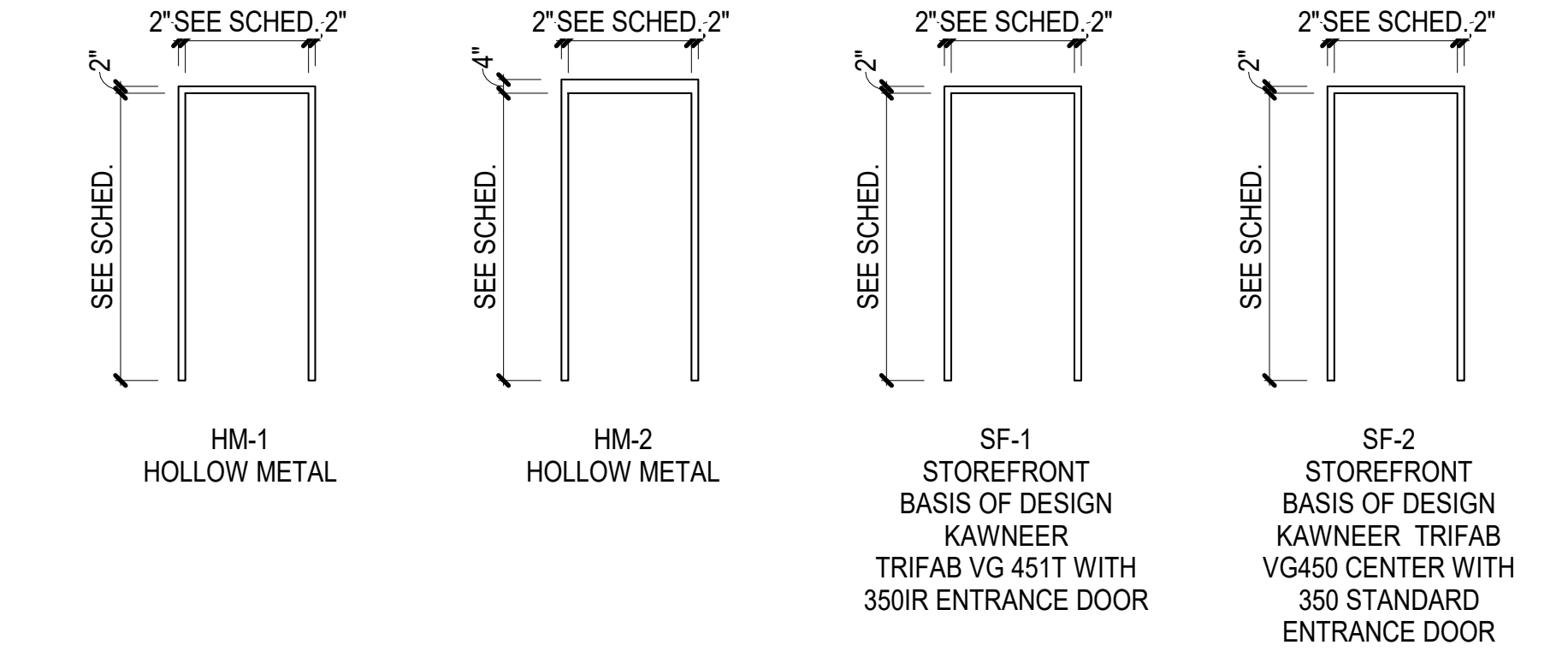
WINDOW TYPES



DOOR TYPES



FRAME TYPES



HARDWARE SET

HARDWARE SET #1 DOOR 101, 102, 108

1 EA. CORE	BRASS CONSTRUCTION		BE
1 EA. CYLINDER	1E-7-6-C181-RP1 x CORMAX	613 US10B	BE

NOTE:
1. CYLINDER ONLY - BALANCE OF HARDWARE BY DOOR SUPPLIER TO MEET ATFP/WINDSTORM/SECURITY REQUIREMENTS OF THE PROJECT

HARDWARE SET #2 DOOR 115

3 EA. HINGE	BB1199 5" x 4-1/2" x NRP	US32D	HA
1 EA. LOCKSET-STOREROOM	9K3-7-D-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION		BE
1 EA. CLOSER	8916 DST SN1	689	DO
1 EA. ARMOR PLATE	194S x 40" x 46"	US32D	HA
1 EA. THRESHOLD	520SV x 48"	MIL	HA
1 EA. DOOR BOTTOM/RAIN DRIP	770SV x 48"	DBA	HA
1 EA. RAIN DRIP CAP	810S x 52"	DBA	HA
1 SET WEATHERSTRIPPING	891SV x 48" x 84"	MIL	HA

NOTE:
1. SUPPLIER MAY NEED TO ADD/MODIFY/CHANGE HARDWARE AS REQUIRED BY DOOR MANUFACTURER IN ORDER TO MEET ATFP/WINDSTORM/SECURITY REQUIREMENTS OF THE PROJECT

HARDWARE SET #3 DOOR 104A

3 EA. HINGE	BB1279 4-1/2" x 4-1/2"	US32D	HA
1 EA. LOCKSET-ENTRY	9K3-7-AB-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION		BE
1 EA. FLOOR STOP	241F	US26D	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

HARDWARE SET #4 DOOR 103, 109, 110

3 EA. HINGE	BB1279 4-1/2" x 4-1/2"	US32D	HA
1 EA. LOCKSET-ENTRY	9K3-7-AB-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION		BE
1 EA. WALL STOP	236W	US32D	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

HARDWARE SET #5 DOOR 104B

3 EA. HINGE	BB1279 4-1/2" x 4-1/2"	US32D	HA
1 EA. LOCKSET-CLASSROOM	9K3-7-R-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION		BE
1 EA. WALL STOP	236W	US32D	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

HARDWARE SET #6 DOOR 113

3 EA. HINGE	BB1168 4-1/2" x 4-1/2"	US26D	HA
1 EA. LOCKSET-CLASSROOM	9K3-7-R-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION CORE		BE
1 EA. CLOSER	8616 DST SN1	689	DO
1 EA. MOP PLATE	194S x 4" x 35"	US32D	HA
1 EA. KICK PLATE	194S x 10" x 34"	US32D	HA
1 EA. WALL STOP	236W	US32D	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

HARDWARE SET #7 DOOR 118, 121

3 EA. HINGE	BB1279 4-1/2" x 4-1/2"	US26D	HA
1 EA. LOCKSET-STOREROOM	9K3-7-D-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION CORE		BE
1 EA. MOP PLATE	194S x 4" x 35"	US32D	HA
1 EA. KICK PLATE	194S x 10" x 34"	US32D	HA
1 EA. WALL STOP	236W	US32D	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

HARDWARE SET #8 DOOR 111

3 EA. HINGE	BB1279 4-1/2" x 4-1/2"	US26D	HA
1 EA. LOCKSET-STOREROOM	9K3-7-D-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION CORE		BE
1 EA. CLOSER	8616 AF86P COV SNB1	689	DO
1 EA. KICK PLATE	194S x 10" x 34"	US32D	HA
1 EA. WALL STOP	236W	US32D	HA
1 EA. GASKETING	726 17" x CHARCOAL	CHARCOAL	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

HARDWARE SET #9 DOOR 120

3 EA. HINGE	BB1168 5" x 4-1/2"	US26D	HA
1 EA. LOCKSET-STOREROOM	9K3-7-D-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION CORE		BE
1 EA. CLOSER	8916 DS SN1	689	DO
1 EA. MOP PLATE	194S x 4" x 41"	US32D	HA
1 EA. ARMOR PLATE	194S x UL LABEL STAMP 40" x 40.5"	US32D	HA
1 EA. GASKETING	720 4" 7" x CHARCOAL	CHARCOAL	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

HARDWARE SET #10 DOOR 122

3 EA. HINGE	BB1168 5" x 4-1/2"	US26D	HA
1 EA. LOCKSET-STOREROOM	9K3-7-D-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION CORE		BE
1 EA. CLOSER	8916 DST SN1	689	DO
1 EA. MOP PLATE	194S x 4" x 41"	US32D	HA
1 EA. ARMOR PLATE	194S x 40" x 40.5"	US32D	HA
1 EA. GASKETING	720 4" 7" x CHARCOAL	CHARCOAL	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

1 EA. MAGNETIC HOLD OPEN EM508-24120
Wall Magnet (Holds Door Open Until Released By Fire Alarm)

HARDWARE SET #11 DOOR 105, 106

3 EA. HINGE	BB1168 4-1/2" x 4-1/2"	US26D	HA
1 EA. LATCHSET-PRIVACY	9K3-0-L-15-D-S3	626	BE
1 EA. CORE	BRASS CONSTRUCTION CORE		BE
1 EA. CLOSER	8616 AF86P COV SNB1	689	DO
1 EA. MOP PLATE	194S x 4" x 35"	US32D	HA
1 EA. KICK PLATE	194S x 10" x 34"	US32D	HA
1 EA. WALL STOP	236W	US32D	HA
1 EA. GASKETING	726 17" x CHARCOAL	CHARCOAL	HA
3 EA. DOOR SILENCER	307 D x GREY	GREY	HA

MANUFACTURERS:

HA	HAGER
BE	BEST
DO	DORMA

FINISHES:

US26D	SATIN CHROMIUM PLATED
US32D	SATIN STAINLESS STEEL
613 US10B	OXIDIZED SATIN BRONZE
626	SATIN CHROMIUM PLATED
689	PAINTED OR POWDER COATED ALUMINUM
DBA	DARK BRONZE ANODIZED
MIL	MILL FINISH ALUMINUM

KEYING:
-ALL LOCKS SHALL BE KEYED AS DIRECTED BY HURLBURT FIELD

REMARKS

- NEW DOOR AND FRAME IN EXISTING OPENING; FIELD VERIFY DIMENSIONS OF OPENING.
- NEW DOOR AND FRAME IN EXISTING WALL CONSTRUCTION.
- FRAME TYPE INDICATES WINDOW TYPE; REFER TO WINDOW TYPE FOR MORE INFORMATION.
- DOOR WIDTH IS FOR DOUBLE DOOR; PROVIDE (2) EQUAL WIDTH DOOR PANELS.
- GLAZING TO BE BLAST RATED PER UFC 4-010-01
- DOOR TO BE EQUIPPED WITH CONTINUOUS FINGER PINCH PROTECTION DEVICES

GLAZING INDEX

G-1	INSULATED LOW-E TINTED, LAMINATED, ATFP/BLAST/HURRICANE IMPACT RESISTANT
G-3	1/4" TEMPERED PER IBC 2406; CLEAR
G-4	RATED FIRE
S-1	SPANDREL PANEL; INSULATED MTL PANEL WITH ALUMINUM FINISH TO MATCH FRAME; SPANDREL PANEL UFC RATED

APPROVED: [Signature] DATE: [] [] []

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353

DOOR SCHEDULE AND WINDOW TYPES

ABBREVIATIONS

ALUM	ALUMINUM
F	FLUSH
HG	HALF GLASS
HM	HOLLOW METAL
IN ST	INSULATED STEEL
MIN	MINUTES
NV	NARROW VISION
P	PAINT; SEE FINISH INDEX
SCWD	SOLID CORE WOOD
SF	STOREFRONT
ST	STAIN; SEE FINISH INDEX

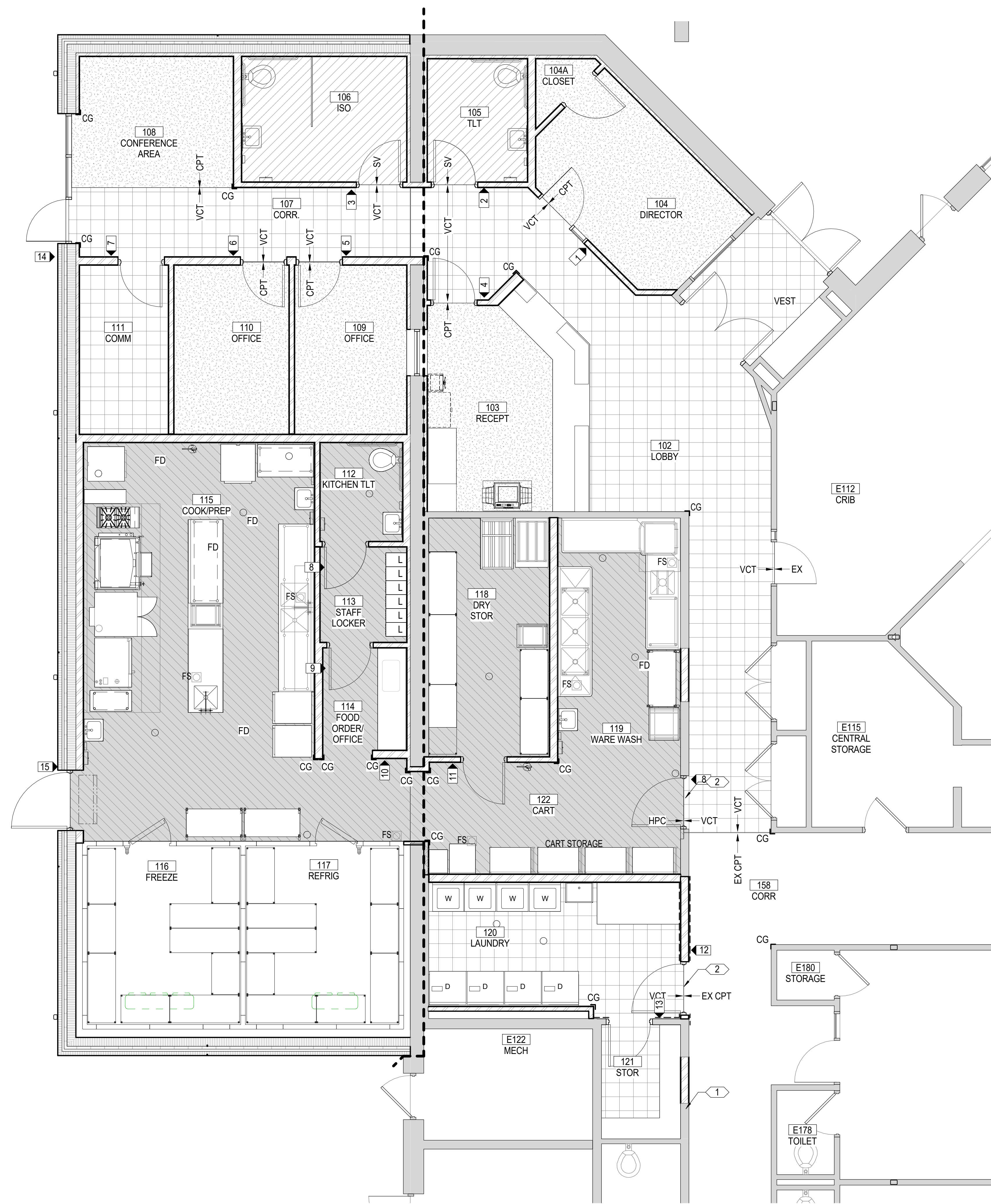
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: A. POWELL
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164

GENERAL NOTES

- REFER TO FINISH INDEX FOR ALL FINISH REQUIREMENTS.

STANDARD LAYOUT (24" x 36")



1 SIGNAGE AND FINISH PLAN
I1 1/4" = 1'-0"



SIGNAGE SCHEDULE

MARK	TYPE	ROOM NUMBER	INSERT
1	A	104	DIRECTOR []
2	B	---	UNISEX
3	A	106	ISOLATION
4	C	---	AUTHORIZED PERSONNEL ONLY
5	A	109	OFFICE []
6	A	110	OFFICE []
7	A	111	COMMUNICATIONS
8	A	112	STAFF TOILET
8	A	119	KITCHEN
9	A	113	STAFF LOCKER
10	A	114	FOOD ORDER
11	A	118	DRY STORAGE
12	A	120	LAUNDRY
13	A	121	STORAGE
14	A	---	OFFICES
15	A	---	KITCHEN

NOTE:
1. MOLDED ROOM NUMBER AND SIGNAGE TEXT ON INSERT TO BE COORDINATED WITH CONTRACTING OFFICER
2. ALL NEW SIGNAGE TYPE, COLOR, AND SIZE SHALL MATCH EXISTING BUILDING SIGNAGE

KEYNOTES

- CONTRACTOR TO MATCH EXISTING ADJACENT WALL TEXTURE AND PAINT COLORS TO ENSURE A SEAMLESS TRANSITION FROM EXISTING TO NEW WORK
- CONTRACTOR TO PATCH CARPET FLOORING AS REQUIRED, WITH MATERIALS SALVAGED FROM OTHER LOCATIONS, TO MATCH EXISTING CONDITIONS. CONTRACTOR TO PROVIDE SMOOTH TRANSITION BETWEEN EXISTING CARPET AND PATCHED AREAS.

LEGEND

10 → SIGNAGE; SEE SIGNAGE SCHEDULE

CG CORNER GUARD; SEE 3/11

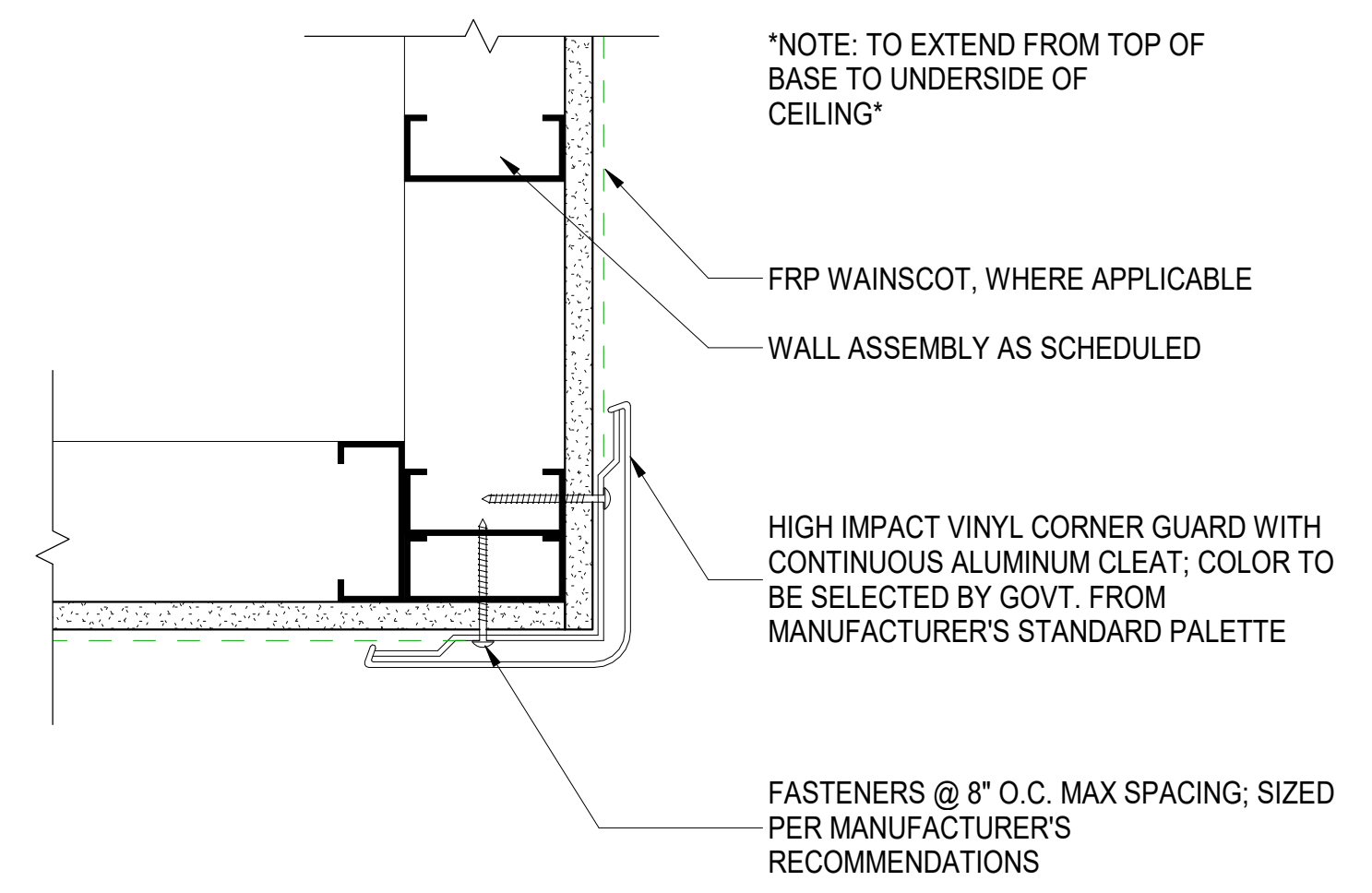
VCT → SV FLOOR MATERIAL TRANSITION; PROVIDE APPROPRIATE VINYL TRANSITION STRIP AS MATERIALS DICTATE

HPC HIGH PERFORMANCE COATING (HPC)

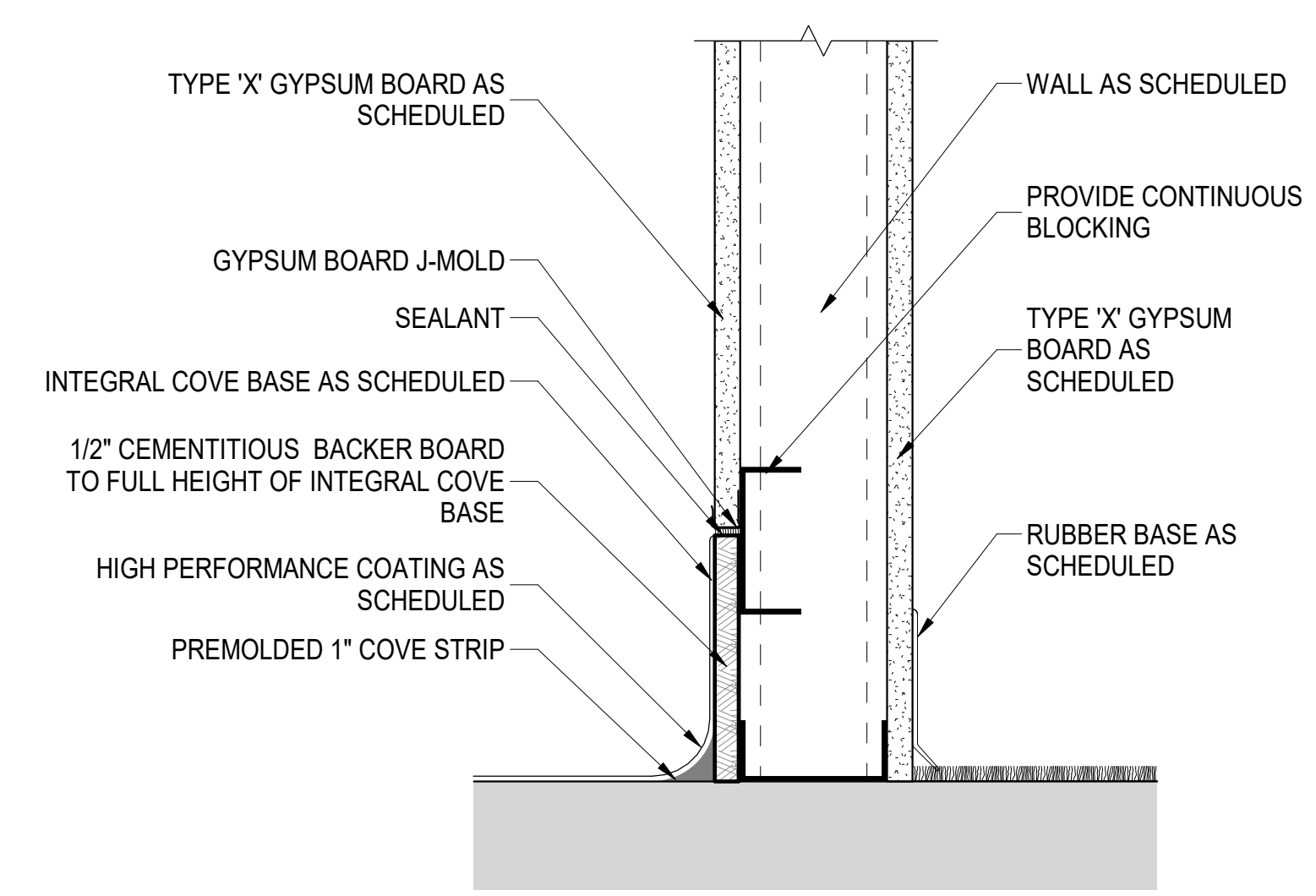
CPT CARPET (CPT)

SV SHEET VINYL (SV)

VCT VINYL COMPOSITION TILE (VCT)



3 CORNER GUARD DETAIL
I1 3" = 1'-0"

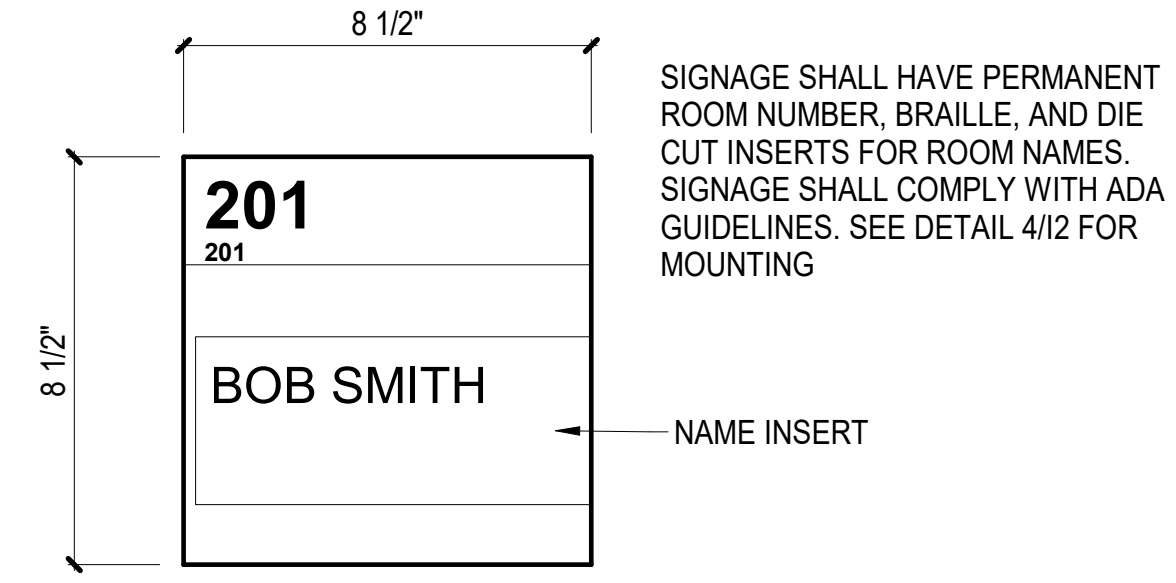


2 TYPICAL BASE DETAILS
I1 3" = 1'-0"

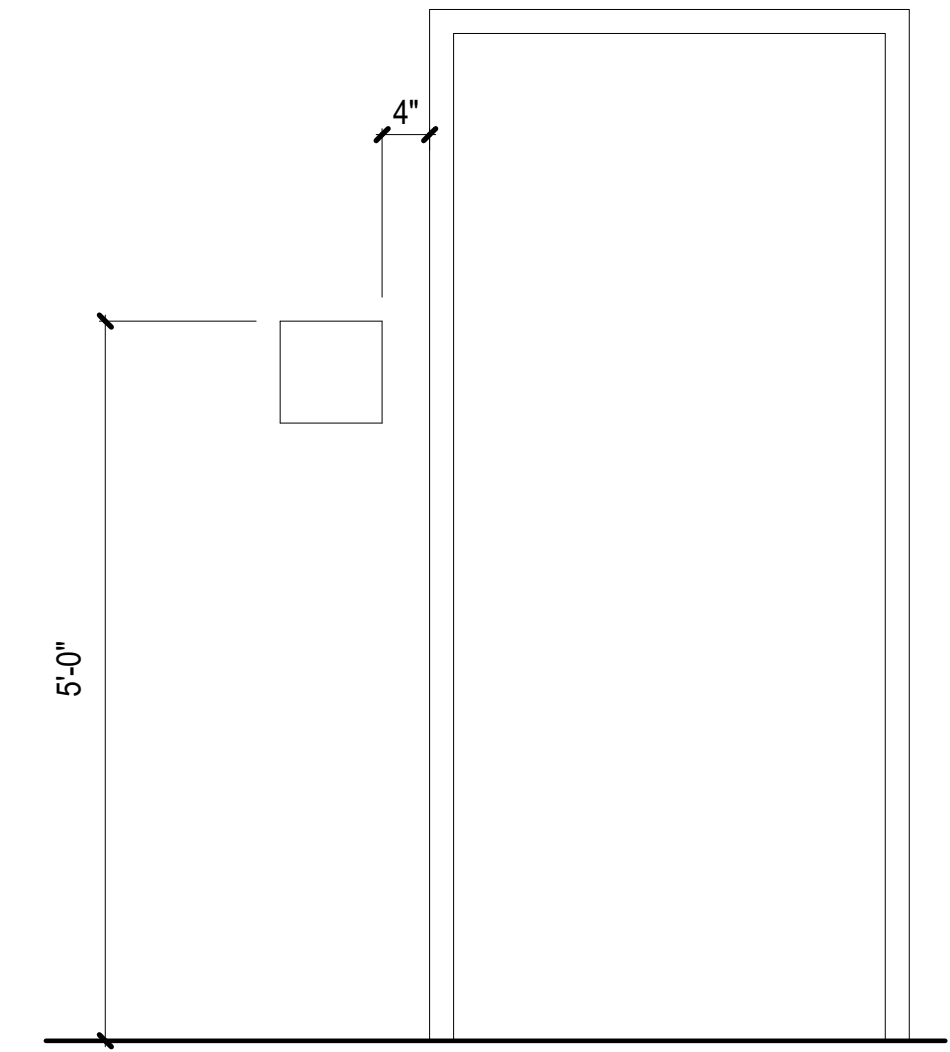


STANDARD LAYOUT (24" X 36")

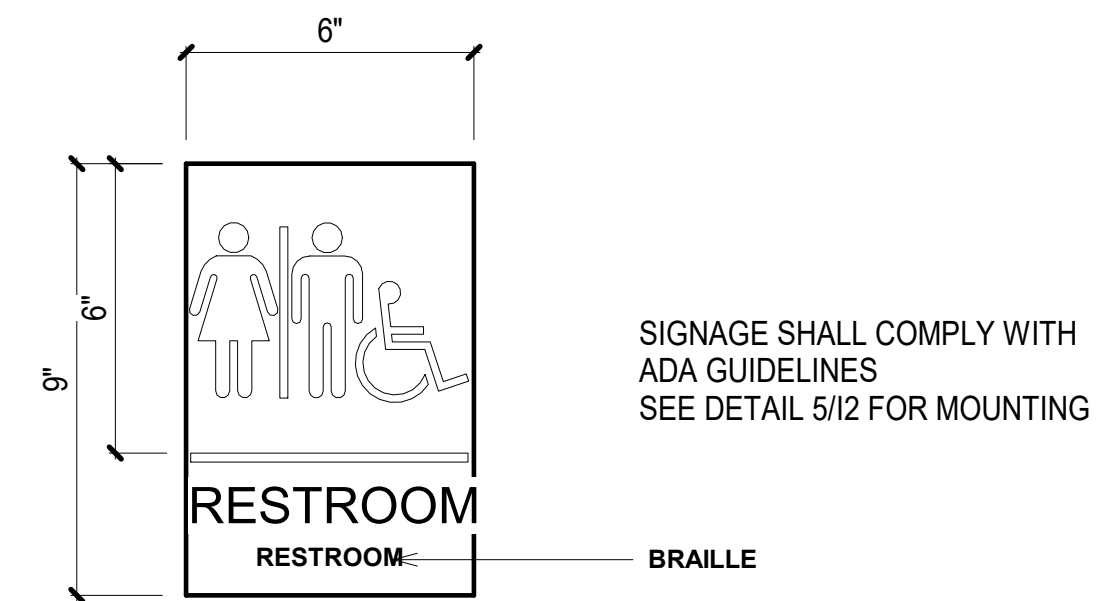
APPD						
DESCRIPTION						
DATE						
REV #						
APPROVED						
CHIEF ENGINEER						
APPROVED						
CIVIL ENGINEER						
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 FINISH PLAN						
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA						
DATE: 16 SEPT 2016						
DESIGNED BY: B. KICKLITER						
DRAWN BY: M. BURCH						
BUILDING NO: 90353						
PROJECT NO: FTEV 12-1164						
SHEET REF: 11						
SHEET NO: 39 of 110						



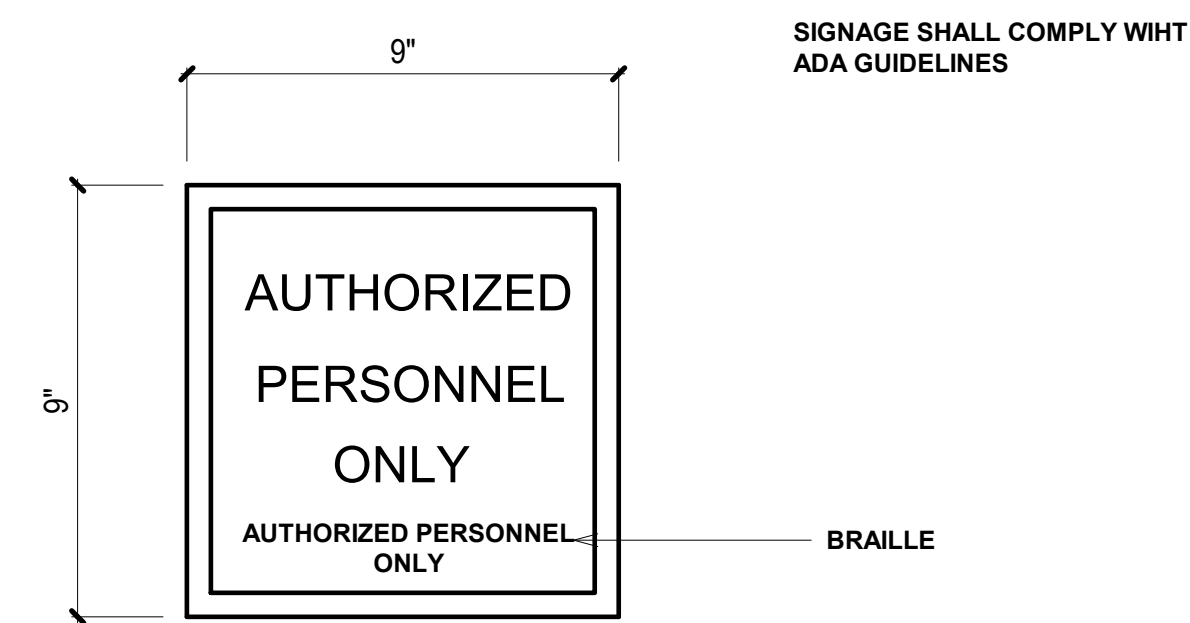
1 SIGN TYPE A
 1/2 3" = 1'-0" 4" 2" 0" 4" 8"



4 SIGNAGE MOUNTING
 1/2 3/4" = 1'-0" 1" 6" 0" 1" 2"



2 SIGN TYPE B
 1/2 3" = 1'-0" 4" 2" 0" 4" 8"



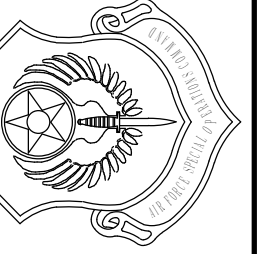
3 SIGN TYPE C
 1/2 3" = 1'-0" 4" 2" 0" 4" 8"

REV #	DATE	DESCRIPTION	APPD

APPROVED: _____
 CHIEF ENGINEER
 APPROVED: _____
 CIVIL ENGINEER

ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 SIGNAGE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA



DATE: 16 SEPT 2016
 DESIGNED BY: B. KICKLITER
 DRAWN BY: M. BURCH
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF:

12
 SHEET NO: 40 of 110

ROOM FINISH SCHEDULE																
ROOM No.	ROOM NAME	FLOOR		BASE		WALLS								CEILING		REMARKS
		MAT'L	FINISH	MAT'L	FINISH	NORTH		EAST		SOUTH		WEST		MAT'L	FINISH	
						MAT'L	FINISH	MAT'L	FINISH	MAT'L	FINISH	MAT'L	FINISH			
101	VESTIBULE	EX CONC	VCT-1	EX GB	RB-1	EX GB	P-1	EX GB	P-1	EX GB	P-1	EX GB	P-1	---	ACT-1	
102	LOBBY	EX CONC	VCT-1	EX GB/GB	RB-1	GB	P-1	EX GB	P-1	EX GB	P-1	GB	P-1	---	ACT-1	8
103	RECEPTION	EX CONC	CPT-1	EX GB/GB	RB-1	GB	P-1	GB	P-1	EX GB	P-1	GB	P-1	---/GB	ACT-1/P-1	8
104	DIRECTOR	EX CONC	CPT-1	EX GB/GB/MRGB	RB-1	MRGB	P-1	GB	P-1	GB	P-1	GB	P-1	---	ACT-1	
104A	CLOSET	EX CONC	CPT-1	GB/MRGB	RB-1	MRGB	P-1	GB	P-1	GB	P-1	GB	P-1	---	ACT-1	
105	TOILET	EX CONC	SV-1	MRGB	RB-1	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-3	5
106	ISOLATION	CONC	SV-1	MRGB	RB-1	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-3	5
107	CORRIDOR	CONC	VCT-1	GB	RB-1	GB	P-1	---	---	GB	P-1	---	---	---	ACT-1	
108	CONFERENCE AREA	CONC	CPT-1/VCT-1	GB/MRGB	RB-1	MRGB	P-1	GB	P-1	GB	P-1	MRGB	P-1	---	ACT-1	1
109	OFFICE	CONC	CPT-1	GB	RB-1	GB	P-1	GB	P-1	GB	P-1	GB	P-1	---	ACT-1	
110	OFFICE	CONC	CPT-1	GB	RB-1	GB	P-1	GB	P-1	GB	P-1	GB	P-1	---	ACT-1	
111	TELECOMMUNICATIONS	CONC	VCT-1	GB/MRGB	RB-1	GB	P-1	GB	P-1	GB	P-1	MRGB	P-1	---	ACT-1	
112	KITCHEN TOILET	CONC	HPC-1	CBB	ICB-1	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-3	4,5
113	STAFF LOCKER ROOM	CONC	HPC-1	CBB	ICB-1	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-2	---	ACT-2	4
114	FOOD ORDER/OFFICE	CONC	HPC-1	CBB	ICB-1	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-2	---	ACT-2	3,4
115	COOK/PREP	CONC	HPC-1	CBB	ICB-1	MRGB	P-2	MRGB	P-2	MFG	---	MRGB	P-2	---	ACT-2	3,4
116	FREEZER	MFG	---	MFG	---	MFG	---	MFG	---	MFG	---	MFG	MFG	MFG	MFG	
117	REFRIGERATOR	MFG	---	MFG	---	MFG	---	MFG	---	MFG	---	MFG	MFG	MFG	MFG	
118	DRY STORAGE	EX CONC	HPC-1	CBB	ICB-1	GB	P-2	GB	P-2	GB	P-2	GB	P-2	---	ACT-1	4
119	WARE WASH	EX CONC	HPC-1	CBB	ICB-1	EX GB	P-2	EX GB	P-2	---	---	MRGB	P-2	---	ACT-2	3,4,7
120	LAUNDRY	EX CONC	VCT-1	GB	RB-1	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-3	6
121	STORAGE	EX CONC	VCT-1	GB	RB-1	MRGB	P-1	EX GB	P-1	EX GB	P-1	EX GB	P-1	MRGB	P-3	6
122	CART STORAGE	EX CONC	HPC-1	CBB	ICB-1	MRGB	P-2	MRGB	P-2	MRGB	P-2	MRGB	P-2	---	ACT-2	3
155	MECHANICAL ROOM	EX CONC	---	EX CMU	---	EX CMU	---	EX CMU	---	EX CMU	---	EX CMU	---	---	---	
158	CORRIDOR	EX CONC	---	EX GB	EX RB	---	---	EX GB	P-1	EX GB	P-1	GB/EX GB	P-1	---	ACT-1	8
165	ACTIVITY ROOM 16	EX CONC	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	---	ACT-1	2
166	ACTIVITY ROOM 15	EX CONC	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	---	ACT-1	2
168	ACTIVITY ROOM 14	EX CONC	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	---	ACT-1	2
173	CORRIDOR	EX CONC	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	EX GB	---	---	ACT-1	2

REMARKS

- SEE SEE FLOOR PLAN, SHEET I2, FOR FLOOR FINISH EXTENTS.
- SCOPE OF WORK IS LIMITED TO NEW CEILING GRID AND TILES ONLY. ALL OTHER FINISHES (FLOOR, CEILING, BASE, ETC.) ARE EXISTING TO REMAIN; ADDITIONAL SCOPE IS REQUIRED FOR OTHER DISCIPLINES., COORDINATE WITH ALL DISCIPLINES.
- EXCEPT AT PORTIONS OF WALLS WHERE PERMANENT FIXTURES ARE UTILIZED (SINKS, SERVICE RACEWAYS, ETC.) ALL WALL SURFACES IN THIS SPACE ARE TO RECEIVE 4'-0" WAINSCOT. COLOR: FRP-1.
- SEE 2/11 FOR INTEGRAL COVE BASE DETAIL.
- SEE 9/A12 FOR CEILING DETAIL.
- SEE 10/A12 FOR CEILING DETAIL.
- SS WALL FLASHING
- REPAIR ALL SURFACES AS REQUIRED WHERE WALL COVERING IS REMOVED TO A "LIKE NEW" CONDITION PRIOR TO PAINTING

ABBREVIATIONS

FLOORS
CPT CARPET
CONC CONCRETE
EX CONC EXISTING CONCRETE
MFG MANUFACTURER MATERIAL OR FINISH
HPC HIGH PERFORMANCE COATING
VCT VINYL COMPOSITION TILE
SV SHEET VINYL

BASE
EX EXISTING
EX CMU EXISTING CONCRETE MASONRY UNIT
EX GB EXISTING GYPSUM BOARD
CBB CEMENTITIOUS BACKER BOARD
GB GYPSUM BOARD
ICB INTEGRAL COVE BASE
MRGB MOISTURE RESISTANT GYPSUM BOARD
RB RUBBER BASE
EX RB EXISTING RUBBER BASE

WALLS
EX GB EXISTING GYPSUM BOARD
GB GYPSUM BOARD
MRGB MOISTURE RESISTANT GYPSUM BOARD
P PAINT
MFG MANUFACTURER

CEILING
ACT ACOUSTIC CEILING TILE
GB GYPSUM BOARD
MRGB MOISTURE RESISTANT GYPSUM BOARD
P PAINT
MFG MANUFACTURER

FINISH INDEX		
FLOORS	COUNTERTOPS AND MILLWORK	EXTERIOR
CPT CARPET CPT-1 TANDUS CENTIVA STYLE: #01957 "CRAYON" COLOR: #48010 "PRECIOUS METAL"	PL PLASTIC LAMINATE CABINETS PL-1 FORMICA COLOR: 5883-58 PECAN WOODLINE - MATTE FINISH (CLASSROOMS/KITCHEN) PL-2 FORMICA COLOR: 933-58 MISSION WHITE - MATTE FINISH (SEMI-EXPOSED SURFACES) PL-3 FORMICA COLOR: 6414-NG BLACK RIFTWOOD - NATURAL GRAIN (RECEPTION)	P PAINT P-6 SHERWIN WILLIAMS A-100 EXTERIOR ACRYLIC LATEX PAINT COLOR: SW 7712 "TOWNHOUSE TAN"
VCT VINYL COMPOSITION TILE VCT-1 (J & J LVT PRODUCTS) STYLE: FRAMEWORK COLOR: #1014 "PARTITION" SIZE: 9" x 48"	SS SOLID SURFACE COUNTERTOP SS-1 CORIAN TERRA COLLECTION COLOR: SAHARA (CLASSROOMS/KITCHEN) SS-2 CORIAN TERRA COLLECTION COLOR: PLATINUM (RECEPTION)	AL PREFINISHED ALUMINUM FLASHING AND TRIM AL-1 DARK BRONZE TO MATCH EXISTING
HPC HIGH PERFORMANCE COATING HPC-1 (DUR-A-FLEX) (DUR-A-GARD COATING SYSTEMS) COLOR: #133 "SANDSTONE"		MISCELLANEOUS FRP FIBERGLASS REINFORCED PANEL FRP-1 MARLITE STANDARD FRP TEXTURE: PEBBLED SURFACE COLOR: P 440N "BUSCUIT"
SV SHEET VINYL SV-1 ARMSTRONG MEDINTECH SHEET FLOORING COLOR: 88486 "CAMPANULA BLUFF"	DOORS: STOREFRONT DOORS: AL-1 DARK BRONZE TO MATCH EXISTING AL-2 POWDER COAT FINISH COLOR: WHITE TO MATCH EXISTING WOOD DOORS: ST-1 CLEAR FINISHED NATURAL BIRCH; STAINED TO MATCH EXISTING SUBMIT SAMPLE FOR APPROVAL STOREFRONT FRAMES: AL-1 DARK BRONZE ANNOXIDIZED TO MATCH EXISTING AL-2 POWDER COAT HOLLOW METAL DOOR FRAMES P-4 SHERWIN WILLIAMS (EXTERIOR) ALKYD INTERIOR ENAMEL SHEEN: SEMI GLOSS COLOR: DARK BRONZE TO MATCH EXISTING P-5 SHERWIN WILLIAMS (INTERIOR) ALKYD INTERIOR ENAMEL SHEEN: SEMI GLOSS COLOR: WHITE TO MATCH EXISTING	TP TOILET PARTITIONS TP-1 TO BE DETERMINED
BASE		
ICB INTEGRAL COVE BASE ICB-1 CENTRIA DURAGUARD COATING SYSTEMS COLOR: #133 "SANDSTONE" 6" INTEGRAL BASE WITH 1" COVE		
RB RUBBER BASE RB-1 JOHNSONITE 4" TRADITIONAL PROFILE COLOR: #32 "PEBBLE"		
WALL		
P PAINT P-1 SHERWIN WILLIAMS INTERIOR ACRYLIC LATEX COLOR: SW7036 "ACCESSIBLE BEIGE" P-2 SHERWIN WILLIAMS PRE-CATALYZED WATER BASED EPOXY COLOR: SW7036 "ACCESSIBLE BEIGE"		
FRP FIBERGLASS REINFORCED PANEL FRP-1 MARLITE STANDARD FRP COLOR: P440N "BUSCUIT"		
CEILING		
ACT ACOUSTICAL CEILING TILE ACT-1 ARMSTRONG FINE FISSURED, SQUARE LAY-IN 24" x 24" - PRELUDE 15/16" GRID COLOR: WHITE ACT-2 ARMSTRONG CERAMAGUARD FINE FISSURED, SQUARE LAY-IN 24" x 24" - PRELUDE 15/16" GRID COLOR: WHITE		
P PAINT P-3 SHERWIN WILLIAMS EMINENCE HIGH PERFORMANCE CEILING PAINT SHEEN: SATIN COLOR: SW7006 "EXTRA WHITE"		

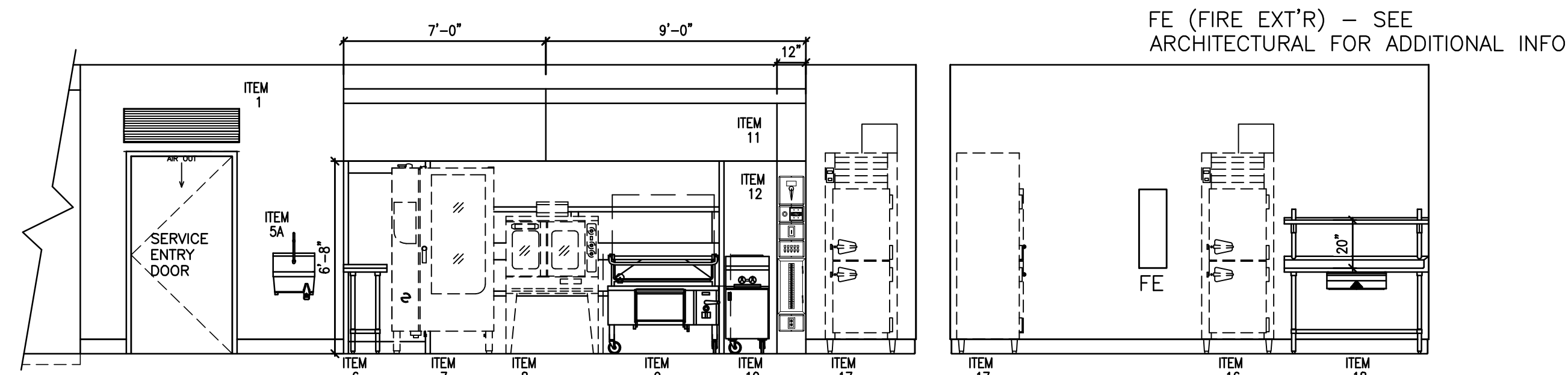
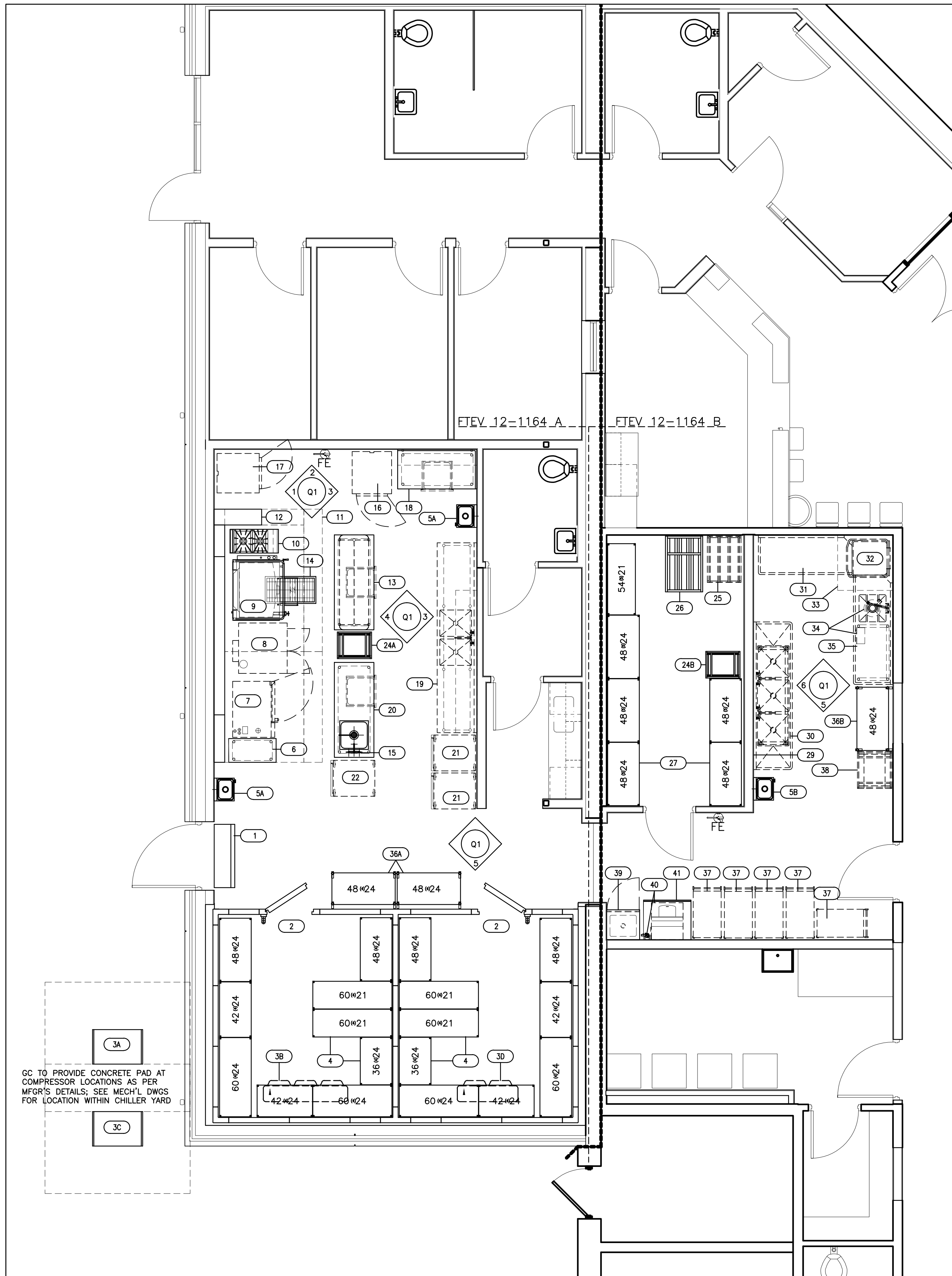
GENERAL NOTES

- CONTRACTOR SHALL VERIFY ALL EXISTING MATERIALS AND COLORS INDICATED TO MATCH THE EXISTING INSTALLATION
- WHERE INDICATED, "MATCH EXISTING," IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE CONTRACTING OFFICER WITH THE APPROPRIATE SELECTION FOR REVIEW AND APPROVAL.
- IF MATERIAL SELECTIONS ARE NO LONGER AVAILABLE, CONTRACTOR SHALL PROVIDE EQUAL VALUE SUBSTITUTIONS FOR REVIEW AND APPROVAL TO THE CONTRACTING OFFICER.
- INTERIOR FACE OF ALL NEW EXTERIOR WALLS SHALL BE MOISTURE RESISTANT GYPSUM BOARD. ADDITIONAL LOCATIONS ARE REQUIRED PER ROOM FINISH SCHEDULE.
- ALL GYPSUM BOARD SHALL BE TYPE 'X' RATED. ADDITIONAL PROPERTIES OF MOISTURE OR IMPACT RESISTANCE WILL ALSO APPLY WHERE INDICATED. UNLESS THE WALL OR CEILING ASSEMBLY IS INDICATED AS RATED, NO ADDITIONAL WORK IS REQUIRED TO MAKE THE WALL OR CEILING A RATED ASSEMBLY DUE TO THE PRESENCE OF TYPE 'X' GYPSUM BOARD (I.E. UNRATED WALLS TO EXTEND TO UNDERSIDE OF DECK AND FIRE DAMPERS ARE NOT REQUIRED, INTUMESCENT PAINT IS NOT REQUIRED, ETC.)
- MANUFACTURERS PRODUCTS LISTED ARE BASIS OF DESIGN AND ARE NOT INTENDED TO LIMIT CONTRACTOR TO ANY SOLE SOURCE PRODUCT OR MANUFACTURER. COORDINATE WITH REQUIREMENTS OF PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE DIRECTION OF PLASTIC LAMINATE GRAIN ON ALL SHOP DRAWINGS FOR FINAL APPROVAL.

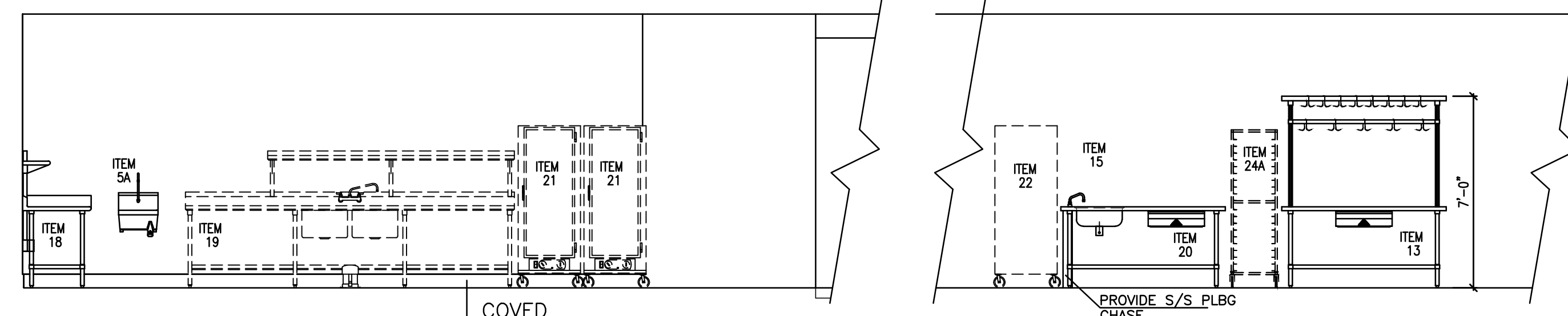
ADAL CHILD DEVELOPMENT CENTER BLDG. & REAR CHILD DEVELOPMENT CENTER BLDG. 90353

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

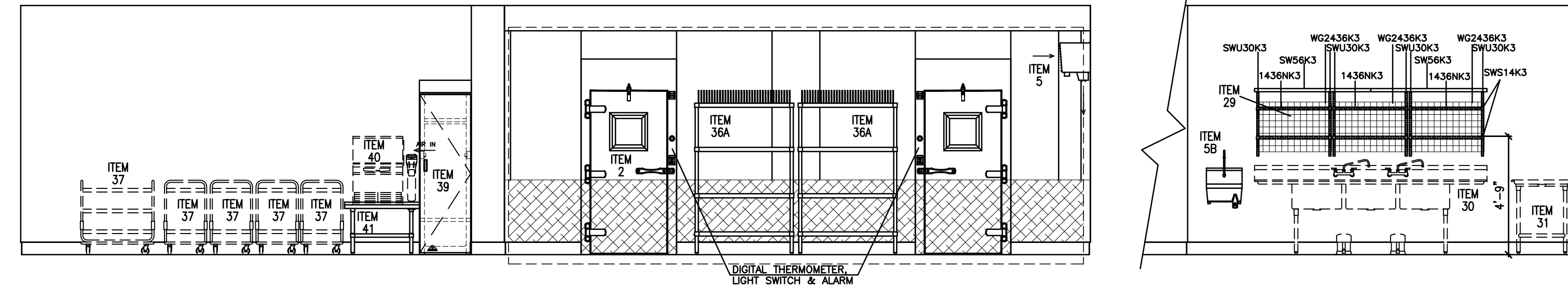
DATE: 16 SEPT 2016
DESIGNED BY: B. KICKLITER
DRAWN BY: M. BURCH
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: 13
SHEET NO: 41 of 110



1 SERVICE ENTRY & COOKING 2 PREP AREA



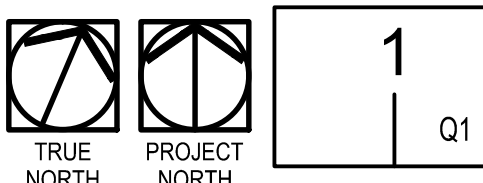
3 PREP AREA 4 WORK TABLES



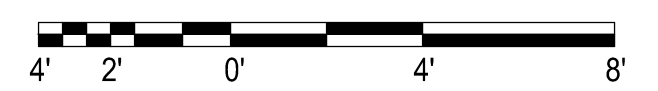
5 MOP/ICE MAKER/WALK-IN COOLER/FREEZER 6 POT & PAN WASH

2 FOODSERVICE ELEVATIONS
1/4" = 1'-0"

STANDARD D LAYOUT (24" X 36")



1 ENLARGED FOODSERVICE PLAN
Q1 1/4" = 1'-0"



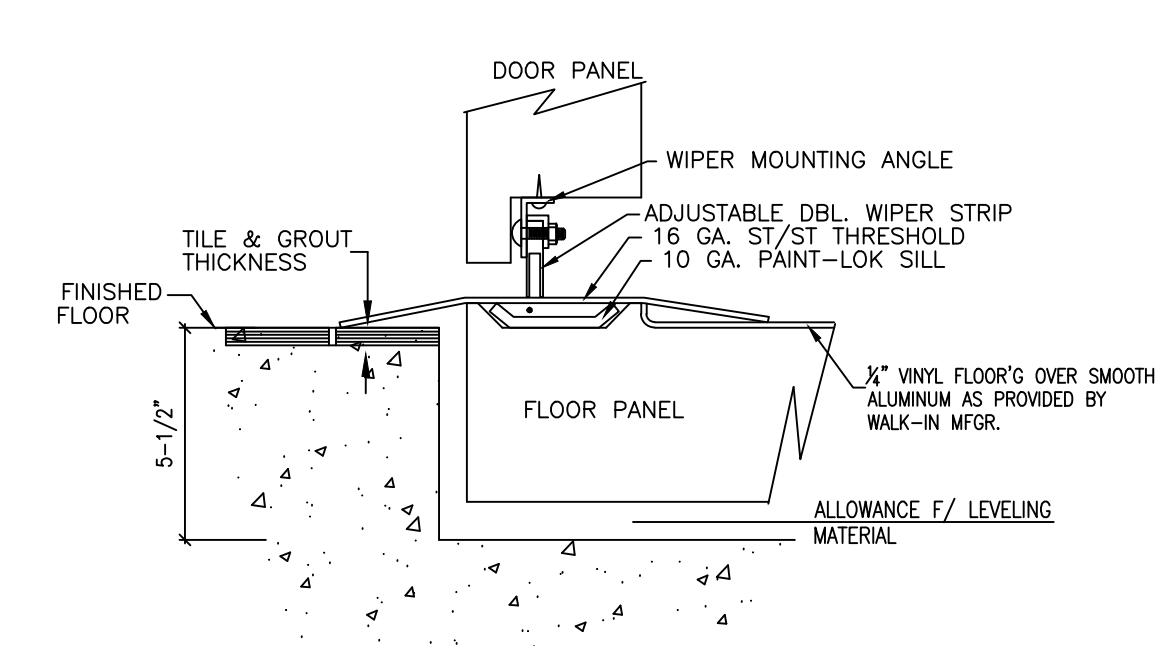
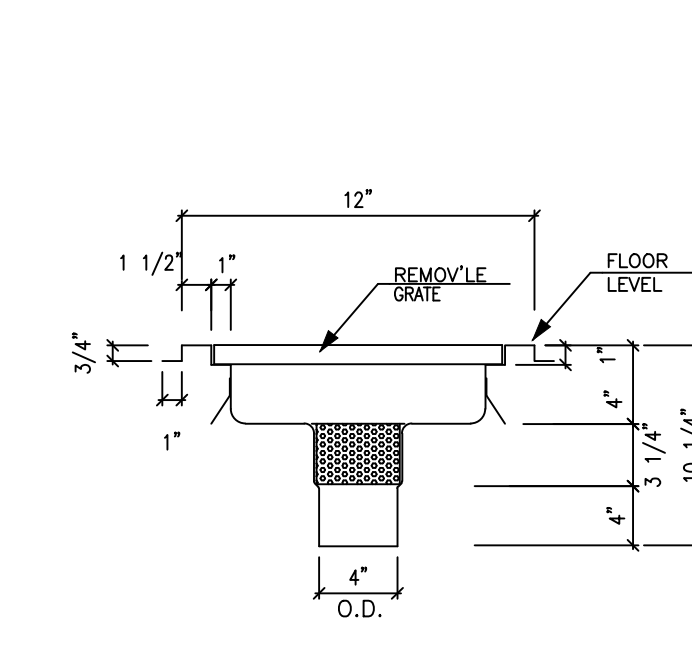
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APPD	
DESCRIPTION	
DATE	
REV #	
APPROVED	
CHIEF ENGINEER APPROVED	
CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	
ENLARGED FOODSERVICE FLOOR PLAN & ELEVATIONS	
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016
DESIGNED BY:	L. HOWARD
DRAWN BY:	L. HOWARD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	
Q1	
SHEET NO:	42 of 110

EQUIPMENT LIST AND SCHEDULE OF CONNECTIONS

DETAILS

Table with columns: ITEM NUMBER, QUANTITY, FT/REV, CONT. INST., RELOCATED, EXIST. REAL PROP., GOVT FURN. CONTRACT INST., DESCRIPTION, ELECTRICAL (VOLTAGE, PHASE, AMPS, KILOWATTS, HORSEPOWER, DIRECT, PLUG, INLET SIZE, B.T.U.), GAS, WATER, WASTE, REMARKS.



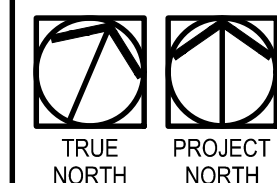
LEGEND

GENERAL NOTES

Legend section containing symbols for electrical supply, junction box, plug-in connection, circuit breaker, volts, phase, amperes, kilowatts, horsepower, cold water, hot water, waste, gas, floor drain, floor sink, funnel drain, hub drain, above finished floor, kitchen equipment contractor, and general contractor. Also includes Equipment Notes and Notes sections.

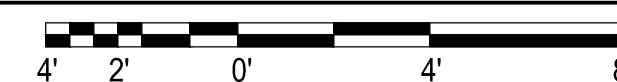
Vertical sidebar containing project information: ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353, AIR FORCE SPECIAL OPERATIONS COMMAND, 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA, and drawing details like DATE (16 SEPT 2016), DESIGNED BY (L. HOWARD), DRAWN BY (L. HOWARD), BUILDING NO (90353), PROJECT NO (FTEV 12-1164), SHEET REF (Q2), SHEET NO (43 of 110), and RESTAURANT DESIGN SERVICE, INC. logo.

STANDARD LAYOUT (24" X 36")



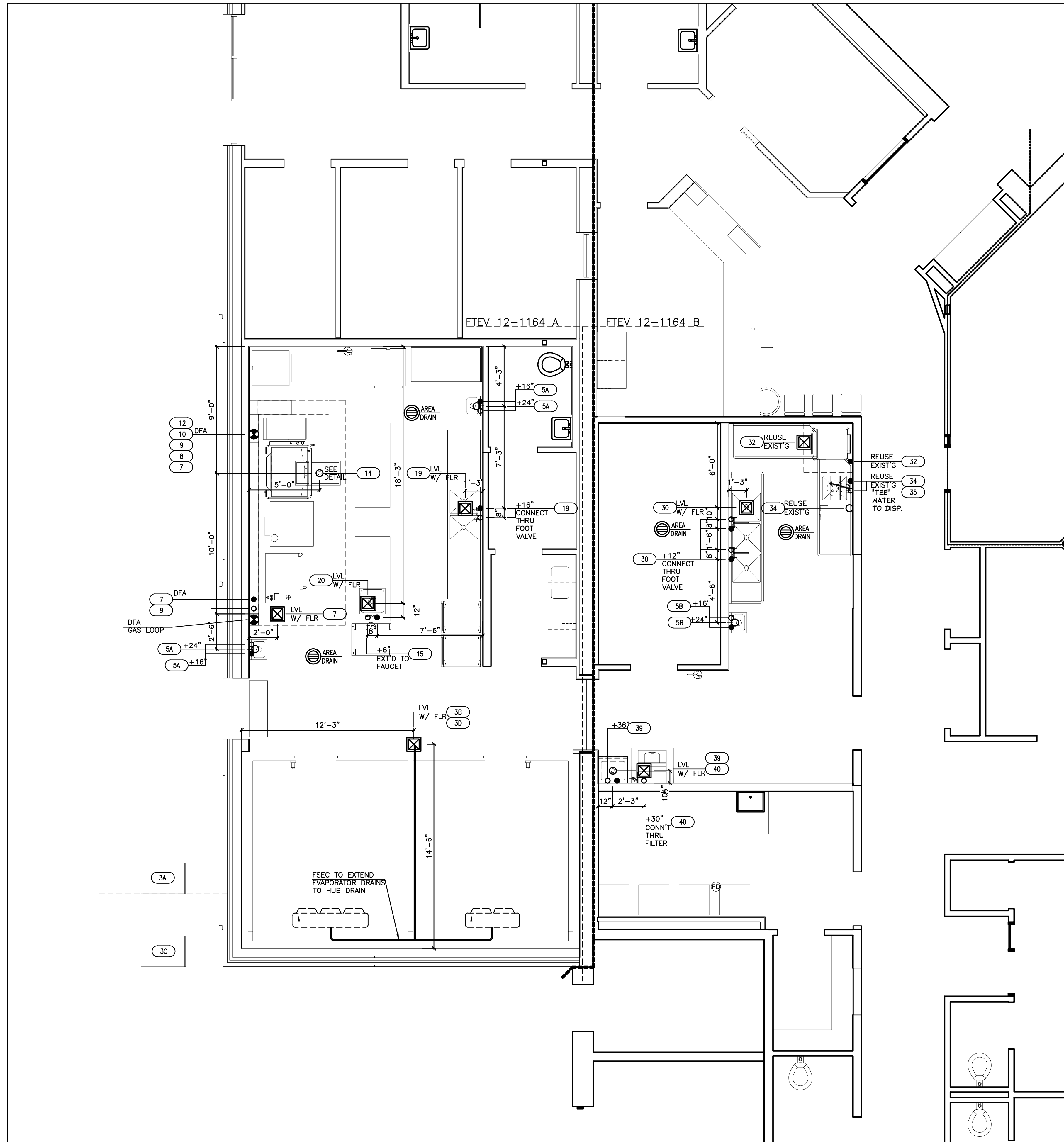
1 PROJECT NORTH Q2

FOODSERVICE EQUIPMENT LIST & SCHEDULE OF CONNECTIONS



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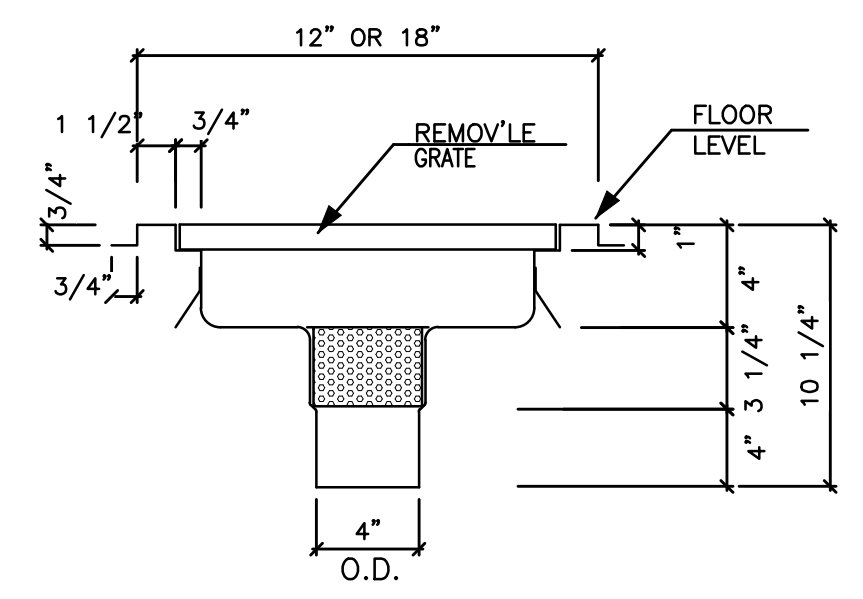
Q2



PLUMBING LEGEND

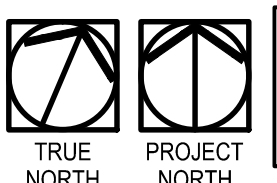
- + DISTANCE ABOVE FINISHED FLOOR
- DFA DOWN FROM ABOVE
- CW COLD WATER
- HW HOT WATER
- W DIRECT WASTE
- ⊕ FD FLOOR DRAIN
- ⊠ FS FLOOR SINK
- ⊙ G GAS

- NOTES:**
- CONNECT WATER AND DRAIN AS PER MANUFACTURERS INSTALLATION INSTRUCTION TO EACH UNIT. PLUMBER TO PROVIDE BACK FLOW CHECK VALVE IN ALL WATER SUPPLY LINES.
 - PLUMBER TO PROVIDE SHUT-OFF VALVES AT ALL GAS LINES AND HOT & COLD WATER LINES AHEAD OF ANY FLEX-CONNECTION ON CONNECTION EQUIPMENT.
 - IT IS THE PLUMBERS RESPONSIBILITY TO REVIEW MANUFACTURERS INSTALLATION INSTRUCTIONS FOR ALL EQUIPMENT REQUIRING WATER, WASTE AND/OR GAS CONNECTIONS. SOME EQUIPMENT MAY REQUIRE MULTIPLE CONNECTIONS.
 - PLUMBER TO PROVIDE PRESSURE REGULATOR IN WATER SUPPLY LINE TO DISHWASHER IF PRESSURE IS HIGHER THAN 25 PSI.
 - REVIEW ALL GENERAL NOTES ON SHEET Q2.
 - SEE ARCHITECTURAL/PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.



FLOOR TROUGH DETAIL ITEM 14
NO SCALE

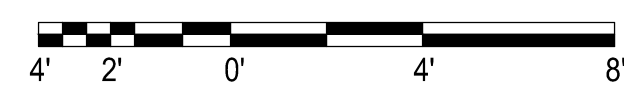
STANDARD D LAYOUT (24" X 36")



1
Q3

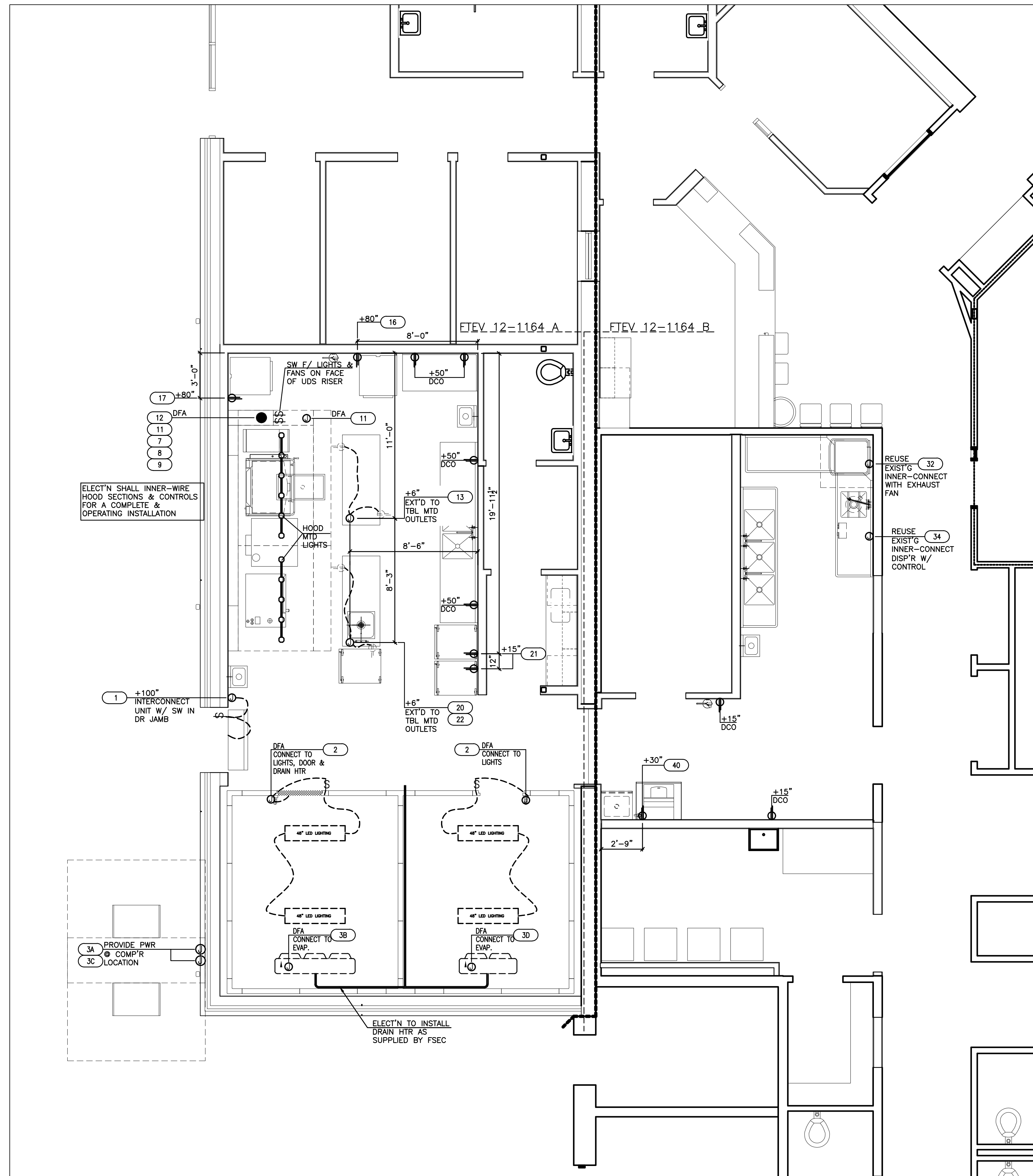
FOODSERVICE PLUMBING ROUGH-IN PLAN

1/4" = 1'-0"



APPD	
DESCRIPTION	
DATE	
REV #	
APPROVED	
CHIEF ENGINEER	
APPROVED	
CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	
ENLARGED FOODSERVICE PLUMBING ROUGH-IN PLAN	
AIR FORCE SPECIAL OPERATIONS COMMAND	
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016
DESIGNED BY:	L. HOWARD
DRAWN BY:	L. HOWARD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	Q3
SHEET NO:	44 of 110

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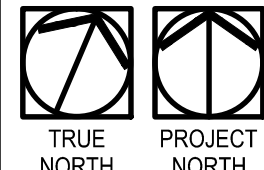
ELECTRICAL SYMBOL LEGEND

+	DISTANCE ABOVE FINISHED FLOOR
DN+	DISTANCE DOWN TO A. F. F.
JB	JUNCTION BOX CONNECTION
DR	DUPLEX RECEPTACLE
SR	SINGLE RECEPTACLE
○	FIXTURE MOUNTED LIGHT
●	MAIN POWER SUPPLY - CONNECT TO SERVICE BOXES WITHIN CABINET
SW	SWITCH
⊕	PHONE JACK

NOTES:

- ELECTRICIAN TO PROVIDE BRUSHED S/S COVER PLATES AT ALL SERVICE AND CONVENIENCE OUTLETS.
- IT IS THE ELECTRICIAN'S RESPONSIBILITY TO REVIEW MANUFACTURERS INSTALLATION INSTRUCTIONS FOR ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS. SOME EQUIPMENT MAY REQUIRE MULTIPLE CONNECTIONS.
- REVIEW GENERAL NOTES, SHEET Q2.
- IT IS THE RESPONSIBILITY OF FSEC TO INSTALL THE FIRE SUPPRESSION SYSTEM.
- PROVIDE J-BOX FOR THE FIRE SYSTEM PULL STATION. SCREW HOLES AT 1 & 7 O'CLOCK. CONDUIT SHALL BE WITHIN STRUCTURAL WALL AND EXTEND 6" ABOVE FINISHED CEILING. LOCATION MUST BE NEAR AN EXIT AND MEET LOCAL FIRE CODE.
- ELECTRICIAN IS RESPONSIBLE TO INNER-WIRE ALL HOOD SECTIONS AS REQUIRED FOR A COMPLETE INSTALLATION.
- SEE ARCHITECTURAL/ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

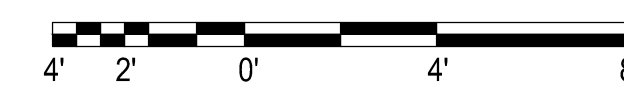
STANDARD D LAYOUT (24" X 36")



1
Q4

FOODSERVICE ELECTRICAL ROUGH-IN PLAN

1/4" = 1'-0"

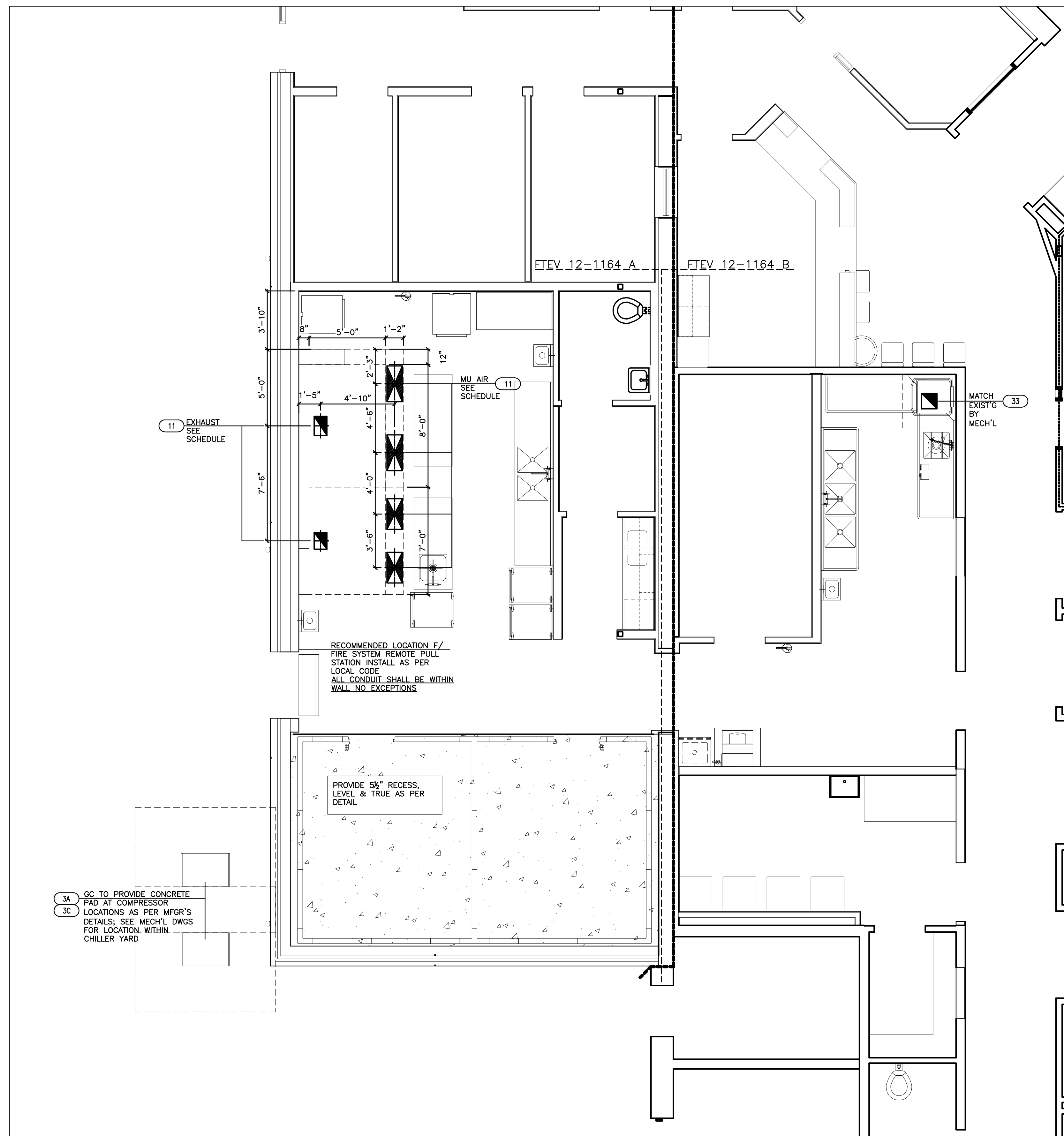


APPROVED	DESCRIPTION	DATE	REV #	APPD
CHIEF ENGINEER APPROVED				
CIVIL ENGINEER				
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353				
ENLARGED FOODSERVICE ELECTRICAL ROUGH-IN PLAN				
AIR FORCE SPECIAL OPERATIONS COMMAND				
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA				
DATE:	16 SEPT 2016			
DESIGNED BY:	L. HOWARD			
DRAWN BY:	L. HOWARD			
BUILDING NO:	90353			
PROJECT NO:	FTEV 12-1164			
SHEET REF:	Q4			
SHEET NO:	45 of 110			

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HOOD INFORMATION

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S)				TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG.		
						WIDTH	LENG.	HEIGHT	CFM			S.P.	END TO END	ROW
1	Item 11	6030 ND-2-PSP-F	8' 0.00"	600 Deg.	1600	10"	15"	4"	1600	-0.566"	1449	430 SS Where Exposed	LEFT	ALONE
2	Item 11	6030 ND-2-PSP-F	7' 0.00"	600 Deg.	1400	10"	13"	4"	1400	-0.537"	1260	430 SS Where Exposed	RIGHT	ALONE

HOOD INFORMATION

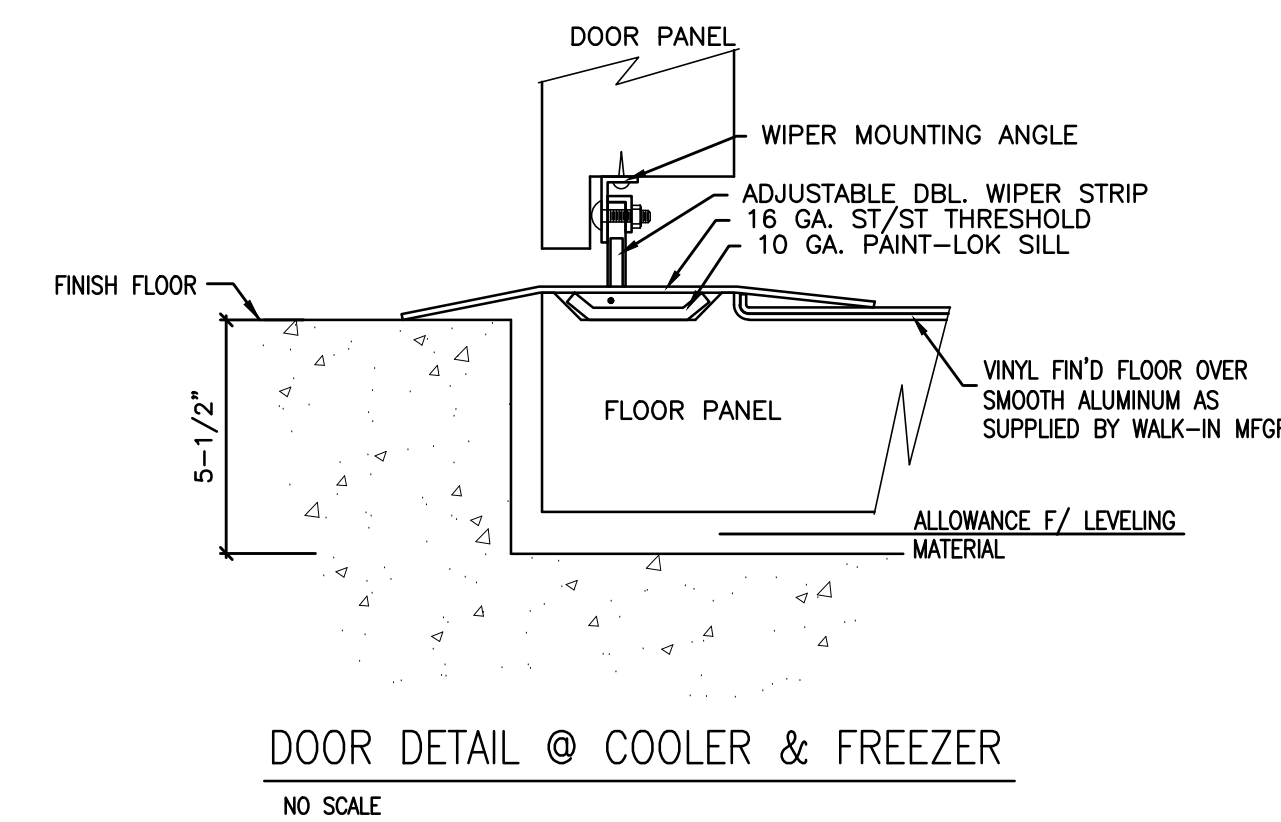
HOOD NO.	TAG	TYPE	FILTER(S)			EFFICIENCY @ 9 MICRONS	QTY.	LIGHT(S)			WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S)			FIRE SYSTEM PIPING	HOOD HANGING WGT
			QTY.	HEIGHT	LENGTH			TYPE	TYPE	TYPE				SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY		
1	Item 11	Captrate Solo Filter	6	20"	16"	93% See Filter Spec.	6	Screw In Compact	NO	NO						YES	581 LBS	
2	Item 11	Captrate Solo Filter	5	20"	16"	93% See Filter Spec.	5	Screw In Compact	NO	Right	12"x60"x30"	Ansul R102	3.0/1.5	SC-311110FP-VFDE	1 Light 1 Fan	YES	681 LBS	

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG.	DIA.	CFM	S.P.
1	Item 11	Front	108"	14"	6"	MUA	12"	28"		752	0.183"
2	Item 11	Front	84"	14"	6"	MUA	12"	24"		602	0.163"
						MUA	12"	24"		602	0.163"

MECHANICAL LEGEND

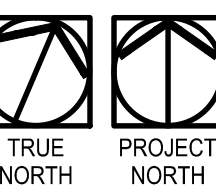
- CFM CUBIC FEET PER MINUTE
- SUPPLY DUCT CONNECTION
- EXHAUST DUCT CONNECTION



3A GC TO PROVIDE CONCRETE PAD AT COMPRESSOR LOCATIONS AS PER MFGOR'S DETAILS; SEE MECH'L DWGS FOR LOCATION WITHIN CHILLER YARD

RECOMMENDED LOCATION F/ FIRE SYSTEM REMOTE PULL STATION INSTALL AS PER LOCAL CODE ALL CONDUIT SHALL BE WITHIN WALL NO EXCEPTIONS

PROVIDE 5/8" RECESS, LEVEL & TRUE AS PER DETAIL



1

FOODSERVICE SPECIAL CONDITIONS PLAN

1/4" = 1'-0"



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Q5

SHEET NO. 46 of 110

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA

ENLARGED FOODSERVICE SPECIAL CONDITIONS PLAN

APPROVED: CHIEF ENGINEER APPROVED: CIVIL ENGINEER

DATE: 16 SEPT 2016

DESIGNED BY: L. HOWARD

DRAWN BY: L. HOWARD

BUILDING NO: 90353

PROJECT NO: FTEV 12-1164

SHEET REF: Q5

SHEET NO. 46 of 110

FIRE SPRINKLER CONTRACTOR CALCULATIONS REQUIREMENTS

1. THESE DRAWINGS REPRESENT THE DESIGN INTENT FOR THE FIRE SPRINKLER SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A FIRE SPRINKLER SYSTEM FOR THIS PROJECT, APPROVED BY NFPA AND THE AUTHORITY HAVING JURISDICTION. PROVIDE FIRE SPRINKLER SHOP DRAWINGS SUBMITTED THROUGH THE ENGINEER.
2. CONTRACTOR SHALL PROVIDE TO THE ENGINEER AND AUTHORITY HAVING JURISDICTION (AHJ), THE FOLLOWING AS APPLICABLE, BUT NOT LIMITED TO:
 - 2.1. SPRINKLER SYSTEM SHOP DRAWINGS, INCLUDING SPRINKLER SYSTEM LAYOUT, NODE IDENTIFICATION AND NODE SPOT ELEVATIONS.
 - 2.2. WATER SUPPLY INFORMATION.
 - 2.3. SPRINKLER SYSTEM DESIGN.
 - 2.4. SPRINKLER HEAD DATA/CUT SHEETS WITH SPECIFIC SYSTEM COMPONENTS IDENTIFIED, AND
 - 2.5. ADDITIONAL SPRINKLER SYSTEM SPECIFICATIONS AS REQUIRED IN COMPLIANCE WITH NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS CHAPTER 8, PLANS AND CALCULATIONS, PRIOR TO AUTOMATIC SPRINKLER SYSTEMS INSTALLATION.

3. THE SYSTEM SHALL BE HYDRAULICALLY DESIGNED WITH A HOSE STREAM ALLOWANCE OF 250 GPM FOR HAZARD CLASSIFICATION AND DENSITY VALUES AS FOLLOWS:

- HAZARD CLASSIFICATION #1 = 0.10 GPM/SF OVER THE MOST DEMANDING 1500 SQ. FT. WITH 225 SQ. FT. MAX SPACING BETWEEN SPRINKLERS.

4. THE DESIGN OF THE SPRINKLER SYSTEM SHALL BE BASED UPON WATER SUPPLY INFORMATION OBTAINED BY THE SPRINKLER CONTRACTOR AND WITNESSED BY THE AUTHORITY HAVING JURISDICTION (AHJ). WATER SUPPLY SHALL BE PRESUMED AVAILABLE AT THE POINT OF CONNECTION OF THE FIRE MAIN TO CITY WATER SUPPLY.

APPLICABLE CODES

UFC 3-600-01	FIRE PROTECTION ENGINEERING FOR FACILITIES
NFPA 1	UNIFORM FIRE CODE
NFPA 13	INSTALLATION OF SPRINKLER SYSTEMS
NFPA 14	INSTALLATION OF STANDPIPE AND HOSE SYSTEMS
NFPA 25	STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS
NFPA 70	NATIONAL ELECTRICAL CODE
NFPA 72	NATIONAL FIRE ALARM CODE
NFPA 101	LIFE SAFETY CODE
NFPA 1963	SCREW THREADS AND CASSETS FOR FIRE HOSE CONNECTIONS
IBC 2012	INTERNATIONAL BUILDING CODE 2012
IFC 2012	INTERNATIONAL FIRE PREVENTION CODE 2012

BASELINE HYDRAULIC CRITERIA

PRELIMINARY FLOW DATA
OBTAINED BY: SCHMIDT CONSULTING GROUP, INC.
DATE: NOV. 16 2015
STATIC: 64 PSI
RESIDUAL: 42 PSI
FLOW RATE: 978 GPM
SEE MAP FOR TEST HYDRANT LOCATION.

BASELINE HYDRAULIC CRITERIA

NFPA/ UFC 03-600-01 CRITERIA	HC-1
REMOTE AREA	1,500 FT2
DESIGN DENSITY	0.15 GPM/FT2
	225 GPM

ADDITIONAL 30% FOR SLOPED CEILINGS
(PITCH > 1 in 6) OR DRY PIPE SYSTEM IF
APPLICABLE

MULTIPLIER	VALUE
CEILING MULTIPLIER	100.0% (130% for sloped ceilings)
DRY PIPE MULTIPLIER	100.0% (130% for dry pipe/preaction)
ADJUSTED FLOW REQUIREMENT	225 GPM
HOSE STREAM ALLOWANCE	250 GPM
TOTAL WATER DEMAND	475 GPM
STANDPIPE DEMAND	0 GPM

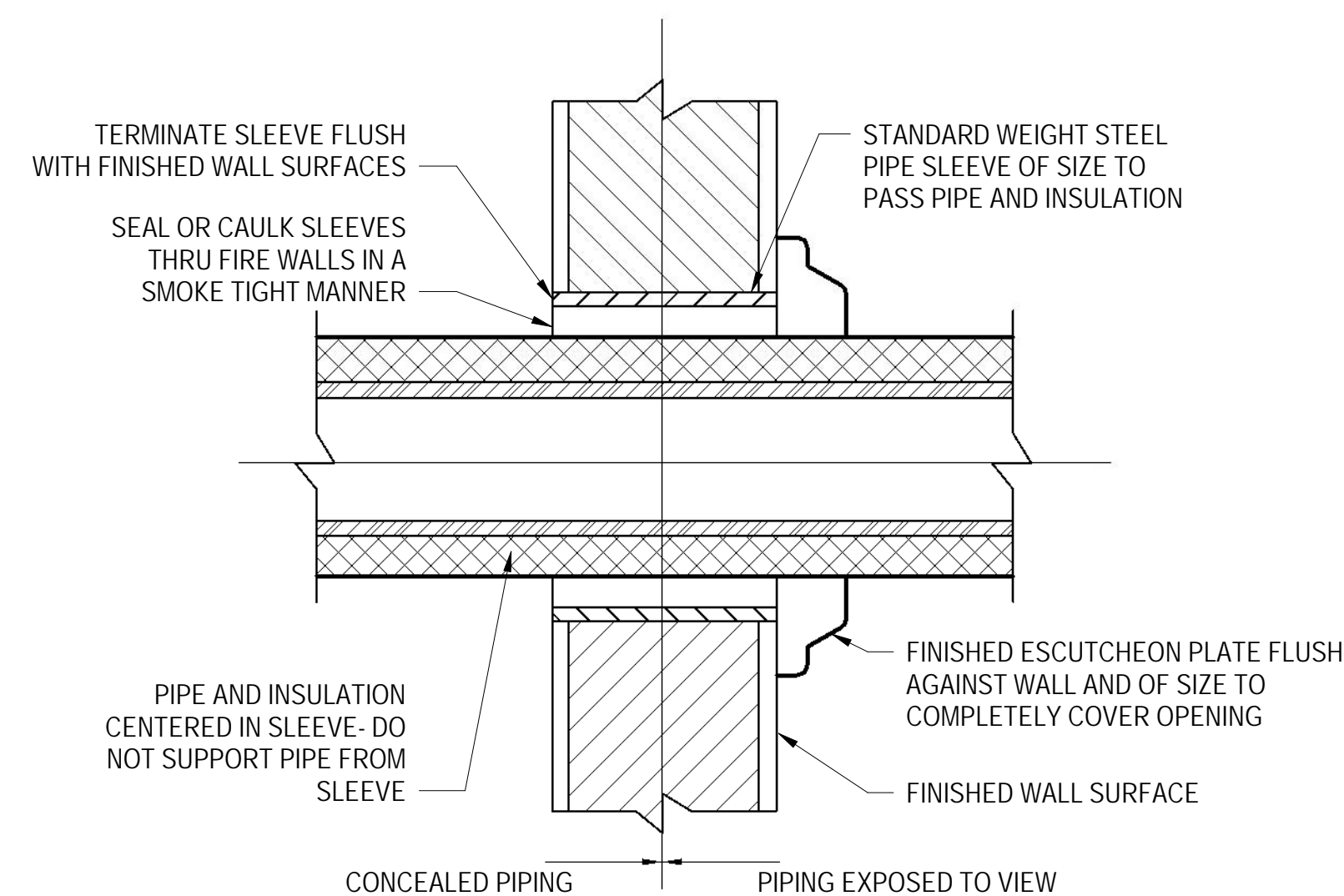
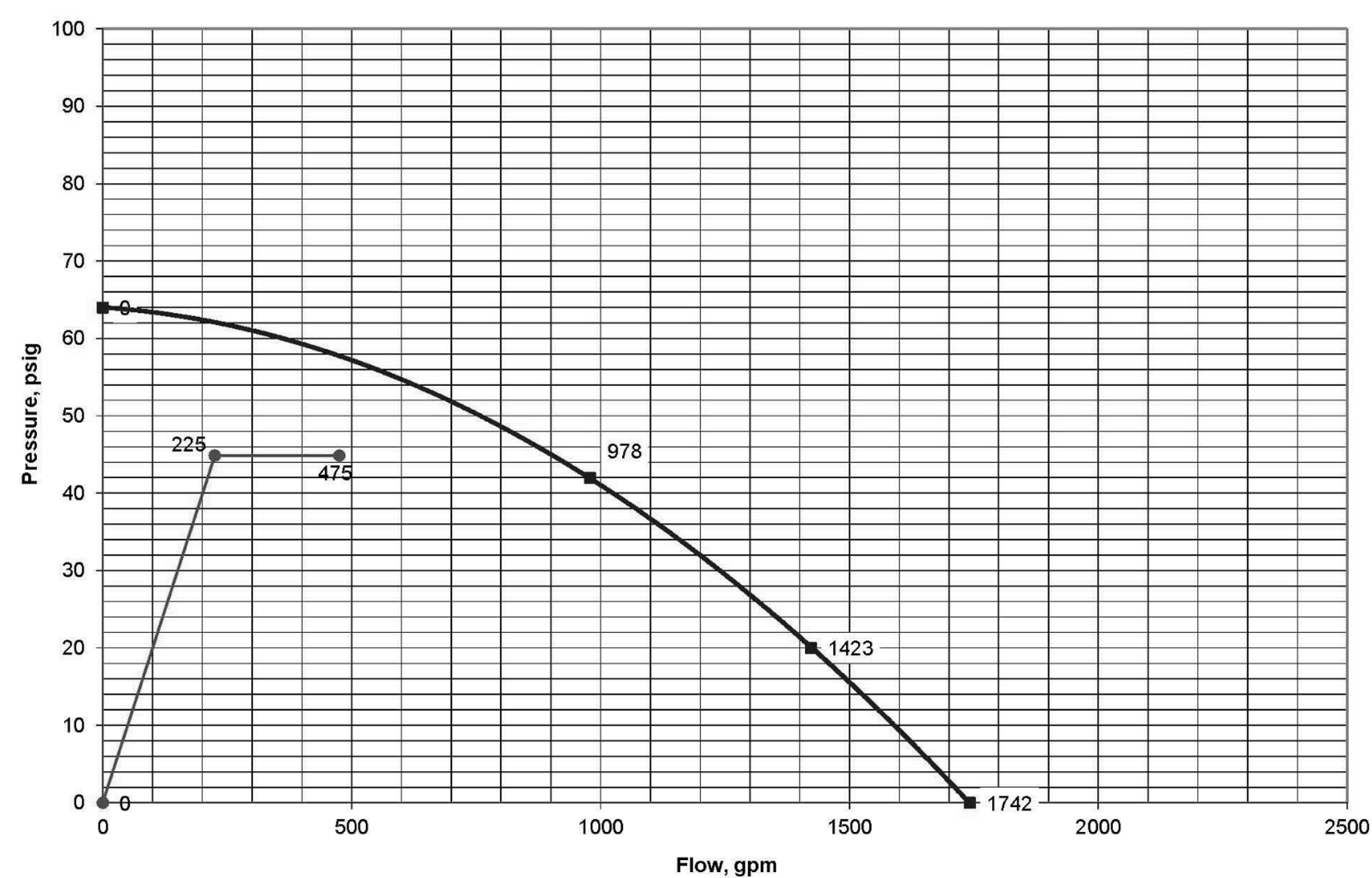
WATER PRESSURE CALCULATIONS

SPRINKLER HEAD COVERAGE	130.0 FT2
END-HEAD PRESSURE	7.0 PSI
PIPING ELEVATION RISE	15.0 FT2
ELEVATION LOSS	6.5 PSI
INSIDE FRICTION LOSS	15.0 PSI
BFP LOSS	10.0 PSI
OUTSIDE FRICTION LOSS	2.3 PSI
TOTAL LOSS	40.8 PSI
+10% SAFETY	4.1 PSI
	44.8 PSI

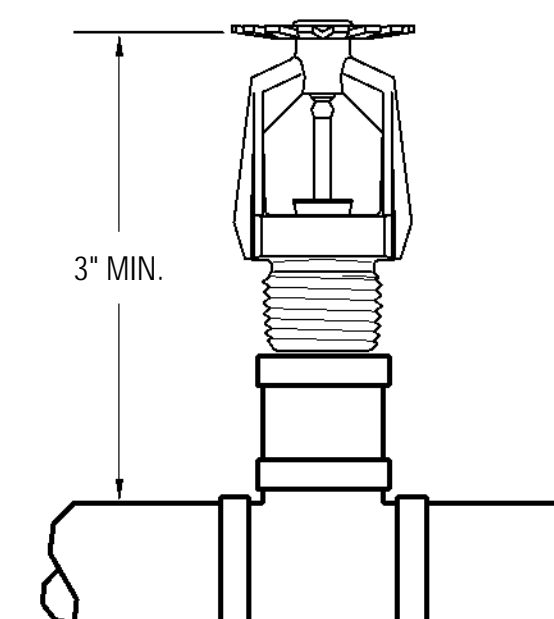
GENERAL NOTES

1. INSTALL ALL WORK IN ACCORDANCE WITH LATEST APPROVED EDITION NFPA FIRE CODES, UFC 3-600-01, ETL 01-18, AND APPLICABLE OSHA AND EPA REGULATIONS AND GUIDELINES. WHERE CONFLICTS BETWEEN CODE AND CONSTRUCTION DOCUMENTS OCCUR, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
2. COORDINATE EXACT LOCATION OF ALL SPRINKLERS WITH THE CEILING AND LIGHTING LAYOUT.
3. LIGHT FIXTURES AND HVAC DIFFUSERS TAKE PRECEDENCE. ADD ADDITIONAL SPRINKLERS AS REQUIRED TO MEET "COVERAGE REQUIREMENTS".
4. PLACE SPRINKLERS IN CENTER OF CEILING TILES. PROVIDE RETURN BENDS AT ALL SPRINKLER LOCATIONS TO ALLOW FIELD ADJUSTMENT. PREFABRICATION OF PIPING TO LOCATE SPRINKLER IN CENTER OR TILE IS PROHIBITED.
5. THE CONTRACTOR SHALL SUBMIT FIRE SPRINKLER PLANS FOR REVIEW PER UFC 3-600-01.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN CURRENT WATER FLOW DATA AND DESIGN SPRINKLER SYSTEMS ACCORDINGLY.
7. THE BUILDING SHALL BE FULLY SPRINKLER IN ACCORDANCE WITH THE MOST RECENT EDITION OF UFC 3-600-01, ETL 01-18, NFPA 13, AND LOCAL CODES.
8. MAINTAIN THE INTEGRITY OF ALL FIRE RATED ASSEMBLIES AND ACOUSTICAL ASSEMBLIES.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING SYSTEM DESIGN WITH ALL APPLICABLE TRADES.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING INSPECTOR'S TEST LOCATION IN ACCORDANCE WITH UFC 3-600-01 AND THE AUTHORITY HAVING JURISDICTION.
11. SPRINKLER HEADS SHALL BE OF THE ORDINARY TEMPERATURE RATINGS FOR ALL LIGHT HAZARD AREAS AND OF THE INTERMEDIATE TEMPERATURE RATINGS FOR ALL ORDINARY HAZARD AREAS. PROVIDE RECESSED TYPE SPRINKLER HEADS IN ALL NEW CEILINGS.
12. ALL PIPING SHALL OBSERVE PROPER PITCH. LOW POINTS SHALL HAVE DRAINS AS REQUIRED.
13. THE SPRINKLER SYSTEM SHALL BE ARRANGED FOR FLUSHING. READILY REMOVABLE FITTINGS SHALL BE PROVIDED AT THE END OF ALL CROSS MAINS.
14. MICROBIAL INDUCED CORROSION IS NOT ANTICIPATED ON THIS PROJECT.
15. ALL SPRINKLER HEADS INSTALLED IN LAY-IN CEILINGS SHALL BE INSTALLED CENTER OF TILE. THE LOCATION OF SPRINKLER HEADS INSTALLED IN GYPSUM BOARD CEILINGS SHALL BE GUIDED BY ARCHITECTURAL ELEMENTS.
16. PIPE HANGERS SHALL BE INSTALLED AS REQUIRED BY NFPA FOR SUPPORTING SPRINKLER PIPING. NO OTHER PIPING AND/OR DEVICES ARE TO BE ATTACHED TO THE SPRINKLER PIPE HANGER SYSTEM UNLESS THE HANGER HAS BEEN SPECIFICALLY DESIGNED FOR THE ADDITIONAL LOADING.
17. ALL PIPE TO BE BLACK STEEL, WITH BLACK CAST/MALEABLE IRON FITTINGS WITH JOINTS AS PER NFPA. PIPE SHALL BE SCHEDULE 40. SCHEDULE 40 PIPE SHALL BE ROLL GROOVED WITH ROLLED GROOVED FITTINGS.
18. THE CONSTRUCTION OF THE SYSTEM SHALL CONFORM TO: UFC 3-600-01, NFPA 14, 20 AND 72, INTERNATIONAL BUILDING CODE.
19. CONTRACTOR SHALL PAINT ALL SPRINKLER PIPING, COORDINATE COLOR WITH OWNER PRIOR TO WORK.
20. PIPE HANGERS SHALL BE INSTALLED AS REQUIRED BY NFPA FOR SUPPORTING FIRE PROTECTION PIPING. NO OTHER PIPING AND/OR DEVICES ARE TO BE ATTACHED TO THE SPRINKLER PIPE HANGER SYSTEM.
21. COORDINATE EXACT LOCATION OF ALL SPRINKLERS WITH THE CEILING AND LIGHTING LAYOUT.
22. LIGHT FIXTURES AND HVAC DIFFUSERS TAKE PRECEDENCE. ADD ADDITIONAL SPRINKLERS AS REQUIRED TO MEET "COVERAGE REQUIREMENTS".
23. PLACE SPRINKLERS IN CENTER OF CEILING TILES. PROVIDE RETURN BENDS AT ALL SPRINKLER LOCATIONS TO ALLOW FIELD ADJUSTMENT. PREFABRICATION OF PIPING TO LOCATE SPRINKLER IN CENTER OR TILE IS PROHIBITED.
24. IN MECHANICAL ROOMS FINAL LOCATION OF SPRINKLERS SHALL BE DETERMINED AFTER EQUIPMENT AND DUCTWORK ARE IN PLACE. CONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLERS, IF NECESSARY, TO PROVIDE ADEQUATE COVERAGE IN ACCORDANCE WITH NFPA 13.
25. PROVIDE A LISTED GUARD FOR SPRINKLERS IN LOCATIONS SUBJECT TO MECHANICAL INJURY. THESE AREAS SHALL INCLUDE MECHANICAL ROOMS, ELECTRICAL ROOMS, UNDER STAIRWELL LANDING, AND IN ELEVATOR SHAFTS.
26. THE CONTRACTOR SHALL SUBMIT PLANS FOR REVIEW PER UFC 3-600-01, NFPA 1, 1.14.2, IBC 2012 EDITION.
27. ABBREVIATIONS: AHJ - AUTHORITY HAVING JURISDICTION, (E) - EXISTING, (N) - NEW, FP - FIRE PROTECTION

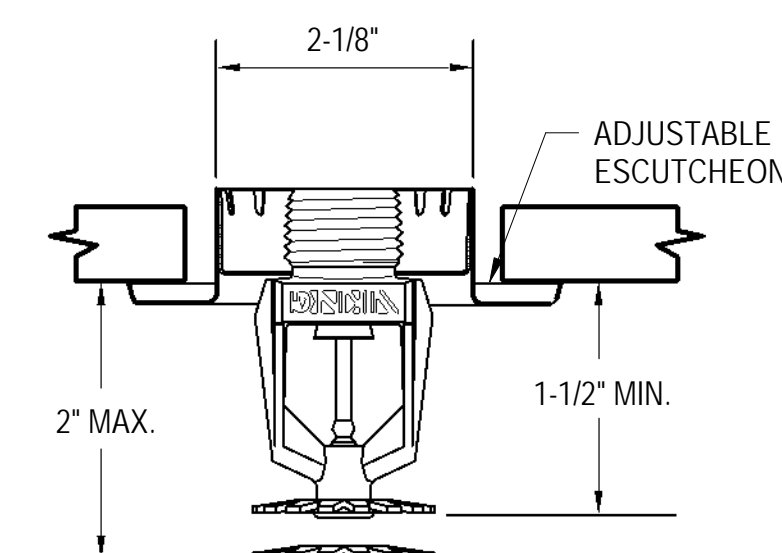
WATER FLOW TEST CHART



1 INTERIOR WALL SLEEVE DETAIL
NOT TO SCALE



2 UPRIGHT SPRINKLER HEAD DETAIL
NOT TO SCALE



3 SEMI-RECESSED SPRINKLER HEAD DETAIL
NOT TO SCALE

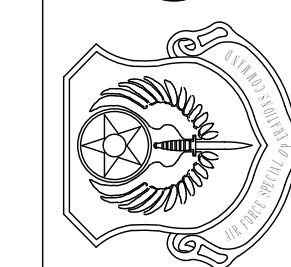
SCHMIDT
CONSULTING GROUP, INC.
MECHANICAL ELECTRICAL STRUCTURAL
COMMUNICATIONS INDUSTRIAL
FLORIDA LICENSE NUMBER 05371
901 W. Garden St. Ft. Lauderdale, FL 33302
P. 954-488-0050 F. 954-432-8631
WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080
SCG PROJECT: 2015-138

APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353

FIRE PROTECTION LEGEND

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



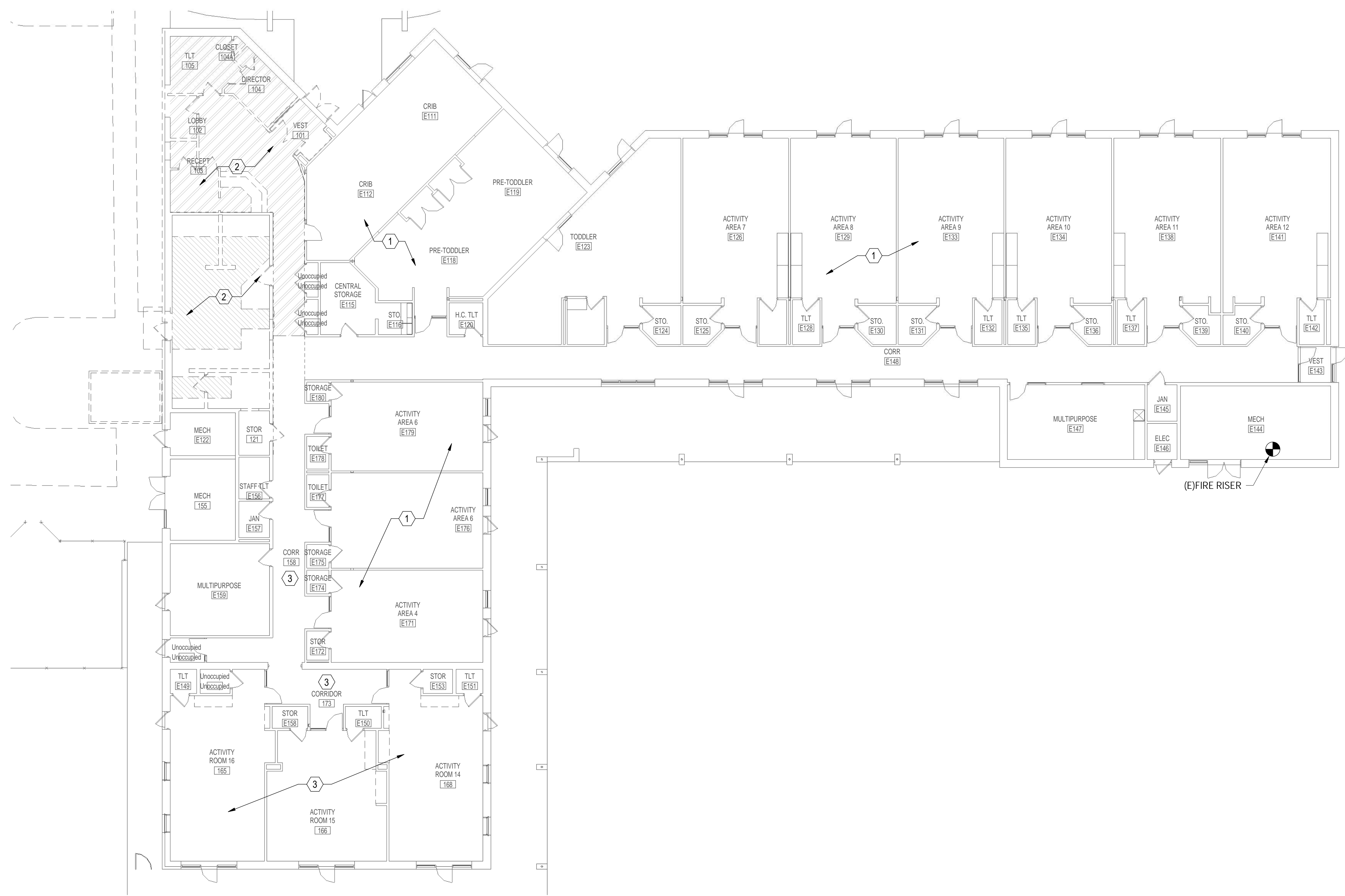
DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	F0
SHEET NO:	47 of 110

SHEET NOTES

- ① EXISTING FIRE SUPPRESSION SYSTEM TO REMAIN AS IS. PROTECT EXISTING PIPE DURING CONSTRUCTION.
- ② FIRE SUPPRESSION SYSTEM TO BE MODIFIED AS NECESSARY FOR THE NEW FLOOR PLAN. SEE NEW WORK PLAN. WORK TO BE PERFORMED UNDER SEQUENCE B2 AND BID AS PART OF FTEV 12-1164-B.
- ③ EXISTING FIRE SUPPRESSION SYSTEM TO REMAIN AS IS WITH THE EXCEPTION OF RELOCATION OF EXISTING SPRINKLER HEADS IN NEW CEILING GRID SYSTEM. SEE ARCHITECTURAL PLANS FOR EXTENT OF NEW CEILING GRID.

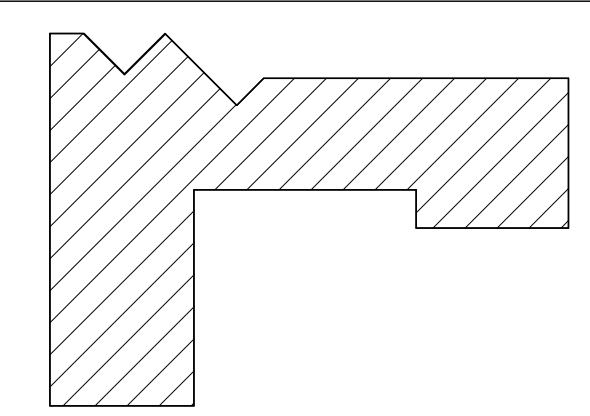
GENERAL NOTES

- 1. CONTRACTOR SHALL VERIFY EXISTING LINE SIZE AND EXISTING RISER LOCATION.
- 2. CONTRACTOR SHALL VERIFY EXISTING SPRINKLER HEAD LOCATIONS AND EXISTING SPRINKLER PIPE ROUTING PRIOR TO DEMOLITION WORK BEING PERFORMED.
- 3. EXISTING FIRE PROTECTION INFORMATION IS BASED ON AS BUILT DRAWINGS DATED JULY 1992.



SEE OVERALL SEQUENCING
PLAN SHEET G4 FOR MORE
INFORMATION.

KEYPLAN



PLAN NORTH
1 FIRE PROTECTION DEMO PLAN
3/32" = 1'-0"

STANDARD D LAYOUT (24" X 36")

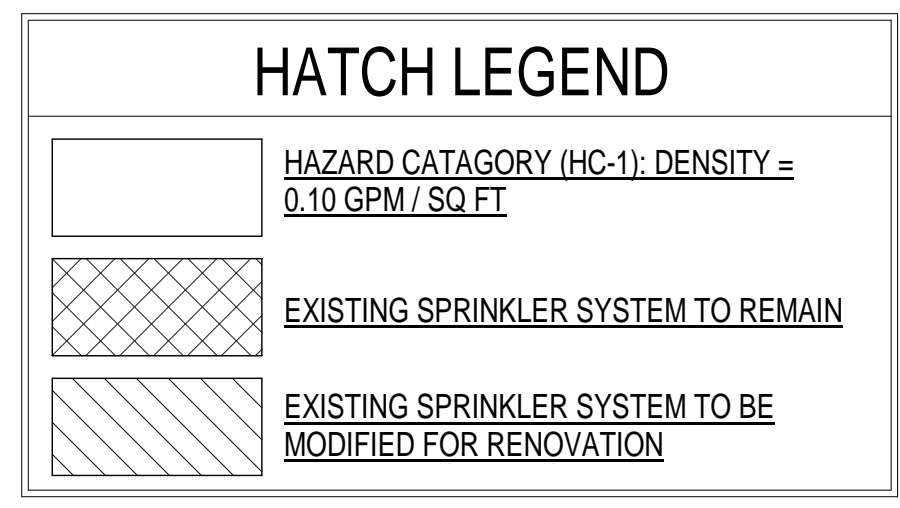
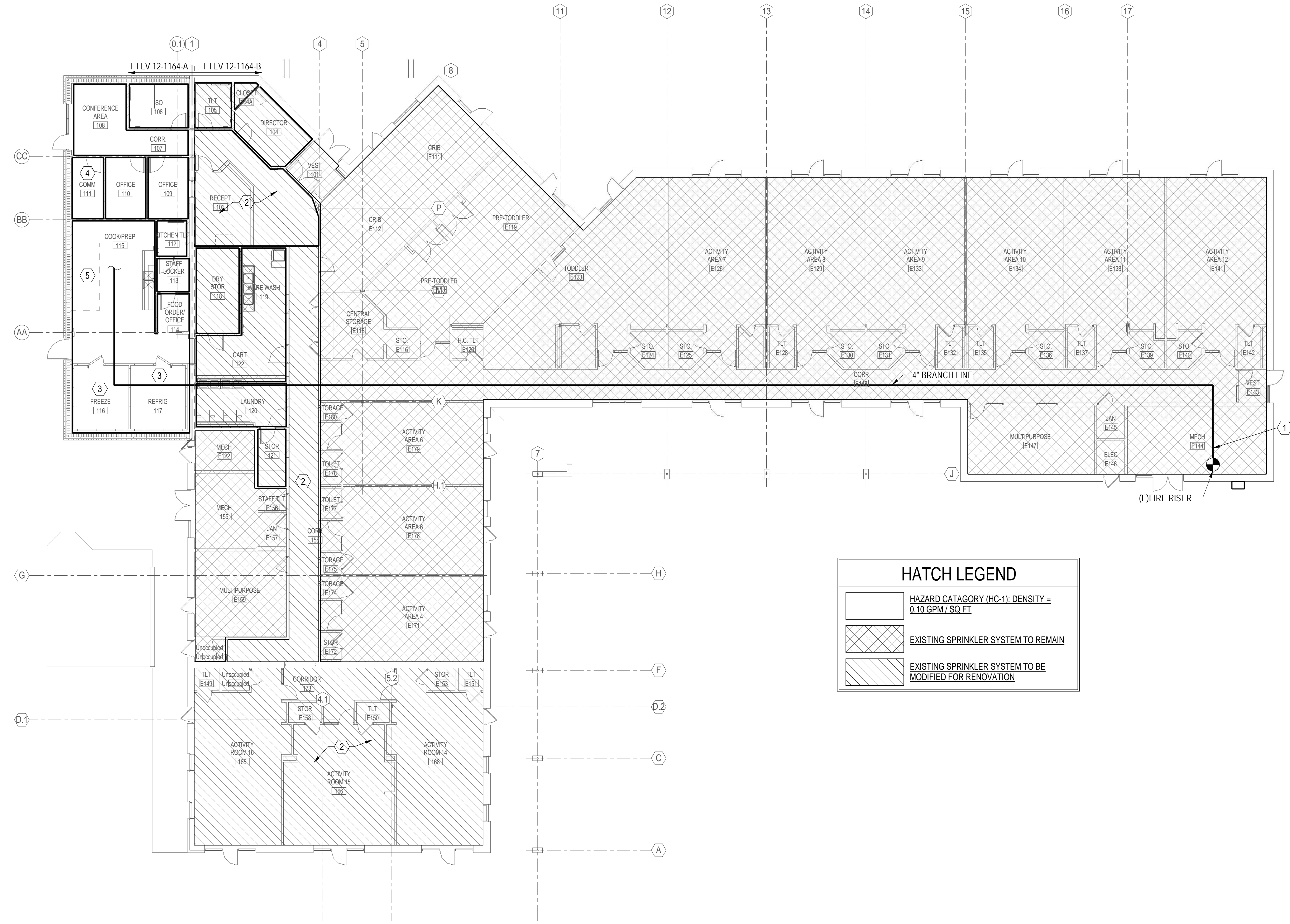
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353		FIRE PROTECTION DEMO PLAN	
AIR FORCE SPECIAL OPERATIONS COMMAND		1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016	DESIGNED BY:	CAD
DRAWN BY:	CAD	BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164	SHEET REF.:	F1
SHEET NO.:	48 of 110		

SHEET NOTES

- 1 ROUTE NEW SPRINKLER SYSTEM BRANCH PIPING FROM EXISTING RISER TO SERVE NEW ADDITION. CONNECT DOWNSTREAM OF EXISTING FLOW SWITCH. PROVIDE ALL WORK FOR NEW BRANCH AS PART OF FTEV 12-1164-A.
- 2 EXISTING FIRE SUPPRESSION SYSTEM TO REMAIN AS IS WITH THE EXCEPTION OF RELOCATION OF EXISTING SPRINKLER HEADS IN NEW CEILING GRID SYSTEM. PROVIDE ALL WORK AS PART OF FTEV 12-1164-B.
- 3 AS PART OF FTEV 12-1164-A PROVIDE DRY TYPE SPRINKLER HEADS IN COOLER AND FREEZER. PROTECT AREA ABOVE EQUIPMENT WITH UPRIGHT SPRINKLER HEADS. SEAL COOLER/FREEZER PENETRATIONS AIR TIGHT. INSULATE PIPING FROM EACH PENETRATION TO A POINT 5'-0" ABOVE COOLER/FREEZER.
- 4 PROVIDE UPRIGHT TYPE SPRINKLER HEADS.
- 5 NEW HOOD TO BE PROVIDED WITH PACKAGED FIRE SUPPRESSION SYSTEM. HOOD SUPPRESSION SYSTEM SHALL BE INTEGRATED TO BUILDING FIRE ALARM SYSTEM PER NFPA 96.

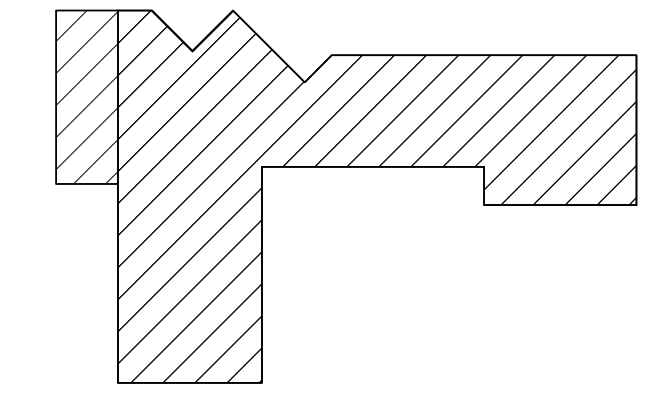
GENERAL NOTES

1. EXISTING FIRE PROTECTION INFORMATION IS BASED ON AS BUILT DRAWINGS DATED JULY 1992.
2. UNLESS OTHERWISE SPECIFIED (SEE SHEET NOTES) PROVIDE SEMI-RECESSED TYPE SPRINKLER HEADS TO MATCH EXISTING.



SEE OVERALL SEQUENCING PLAN SHEET G4 FOR MORE INFORMATION.

KEYPLAN



PLAN NORTH

1 FIRE PROTECTION NEW WORK PLAN

3/32" = 1'-0"

APPROVED	CHIEF ENGINEER	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
APPROVED	CIVIL ENGINEER	FIRE PROTECTION NEW WORK PLAN
<p>AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA</p>		
DATE:	16 SEPT 2016	
DESIGNED BY:	CAD	
DRAWN BY:	CAD	
BUILDING NO.:	90353	
PROJECT NO.:	FTEV 12-1164	
SHEET REF.:	F2	
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LEGEND

	SANITARY PIPING		ELBOW TURN UP
	VENT PIPING		ELBOW TURN DOWN
	COLD WATER SUPPLY PIPING		CONNECTION, BOTTOM
	HOT WATER SUPPLY PIPING		CONNECTION, TOP
	HOT WATER RETURN PIPING		PIPE SIZE TRANSITION
	GAS PIPING		GATE VALVE
	GREASE WASTE PIPING		BALL VALVE
	HOSE BIBB (HB) OR WALL HYDRANT (WH)		BUTTERFLY VALVE
	FLOOR CLEANOUT		SWING CHECK VALVE
	FLOOR DRAIN		SPRING CHECK VALVE
	CLEANOUT TO GRADE		PRESSURE REDUCING VALVE
	UNION		PRESSURE RELIEF VALVE, PIPE FULL SIZE DISCHARGE TO FLOOR DRAIN.
	VENT THRU ROOF		UNION
	WATER HAMMER ARRESTOR		GLOBE VALVE
	SHEET NOTE		THERMAL EXPANSION VALVE
	POINT OF CONNECTION		ANGLE VALVE
	FLOOR SLAB REMOVAL		SOLENOID VALVE
	EQUIPMENT TAG		FLEXIBLE PIPE CONNECTOR
	DETAIL NOT TO SCALE		STRAINER WITH BLOW DOWN GATE VALVE FULL SIZE OF STRAINER AND 3/4" HOSE END CONNECTION WITH CAP
	DRAWING DESCRIPTION	(E)	EXISTING
		(N)	NEW

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE
ADA	AMERICANS WITH DISABILITIES ACT ABOVE FINISH FLOOR
AFF	
BFP	BACKFLOW PREVENTER
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFU	COLD WATER FIXTURE UNITS
CO	CLEANOUT
COTG	CLEANOUT TO GRADE
CP	HOT WATER RECIRCULATION PUMP
CW	COLD WATER
DFU	DRAINAGE FIXTURE UNITS
DIA	DIAMETER
DN	DOWN
EL OR ELEV	ELEVATION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FT	FOOT OR FEET
FV	FLUSH VALVE
GALV	GALVANIZED
GI	GREASE INTERCEPTOR
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
GWH	GAS WATER HEATER
HB	HOSE BIBB
HD	HUB DRAIN
HFU	HOT WATER FIXTURE UNITS
HW	HOT WATER
HWR	HOT WATER RETURN
INV	INVERT
MECH	MECHANICAL
MV	MIXING VALVE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NO	NORMALLY OPEN
S	SANITARY
SK	SINK
SS	STAINLESS STEEL
TLT	TOILET
TYP	TYPICAL
URINAL	URINAL
U	VENT
V	VENT THROUGH ROOF
VTR	VENT THRU ROOF
W	WASTE
WC	WATER CLOSET (TOILET)
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR

GENERAL NOTES

- PLUMBING CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, SIZES, AND CONNECTION LOCATIONS BEFORE ANY PIPE CUTTING IS COMMENCED.
- THE PIPING SHOWN ON THESE DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL ARRANGE WORK IN A NEAT AND ORDERLY MANNER. THE PLUMBING CONTRACTOR SHALL MAKE ANY OFFSETS, TRANSITIONS, AND OTHER MINOR ADJUSTMENTS AS REQUIRED FOR A COMPLETE AND WORKING SYSTEM INSTALLATION. COORDINATE ALL PIPING WITH DUCTWORK SHOP DRAWINGS. ROUTE PIPING AS REQUIRED TO AVOID CONFLICTS.
- PRIOR TO START OF ANY WORK, COORDINATE SANITARY SEWER AND POTABLE WATER PIPING WITH CIVIL DRAWINGS. FIELD VERIFY PIPE INVERTS PRIOR TO LAYING OUT SANITARY SEWER PIPING.
- CONTRACTOR SHALL PROVIDE ALL TEMPORARY OR PERMANENT CAPS FOR PIPING. CONTRACTOR SHALL NOT LEAVE PIPING OPEN ENDED.
- DRAWINGS SHOW GENERAL SIZE AND APPROXIMATE LOCATIONS. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT OF THE UTILITY SYSTEM. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONNECTIONS SIZE, LOCATION, DEPTH. THE CONTRACTOR SHALL INSTALL ALL SYSTEMS ACCORDING TO THE ACTUAL FIELD CONDITIONS FOUND. ANY PLUMBING SYSTEM COMPONENT INSTALLED INCORRECTLY DUE TO FIELD CONDITIONS SHALL BE REMOVED AND INSTALLED CORRECTLY AT THE EXPENSE OF THE CONTRACTOR.
- REFER TO RISERS FOR SIZES NOT INDICATED ON PLAN VIEWS. RISERS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL OFFSETS, BENDS, FITTINGS, ETC.
- CONTRACTOR SHALL PROVIDE ALL CONNECTIONS, FITTINGS, APPURTENANCES, ETC. AS NECESSARY FOR INSTALLATION AND OPERATION OF OWNER FURNISHED EQUIPMENT.
- INSTALL ALL EQUIPMENT AND PIPING PER MANUFACTURERS REQUIREMENTS AND TO MANUFACTURERS RECOMMENDED CLEARANCES.
- ALL TRAP PRIMERS AND DOMESTIC WATER ISOLATION VALVES SHALL BE ACCESSIBLE. ISOLATION VALVES SHALL BE OF THE QUARTER TURN BALL TYPE.
- PROVIDE ACCESS DOOR/PANELS IN NON ACCESSIBLE WALLS AND CEILINGS FOR ALL VALVES, SHOCK ABSORBERS, AND ALL OTHER ITEMS THAT REQUIRE ACCESS FOR PROPER MAINTENANCE. COORDINATE COLOR AND INSTALLATION OF ACCESS DOORS WITH ARCHITECTURAL.
- BALL VALVES SHALL BE PROVIDED ON ALL WATER BRANCH LINES TO ALL EQUIPMENT, HOSE BIBBS, AND RISER TAKE-OFFS. THE CONTRACTOR SHALL NOT CUT ANY STRUCTURAL MEMBERS OF BUILDING WITHOUT PRIOR CONSENT OF ARCHITECT AND STRUCTURAL ENGINEER.
- PLUMBING CONTRACTOR TO COORDINATE WITH OTHER TRADES AS REQUIRED FOR INSTALLATION OF EQUIPMENT AND ANY OTHER PLUMBING ITEMS.
- ALL PENETRATIONS OF FIREWALLS, CEILINGS, FLOORS, ETC. FOR PIPING SHALL BE UL LISTED FIRESTOPS AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION. CONTRACTOR TO OBTAIN MANUFACTURER SHOP DRAWINGS AT JOBSITE FOR ALL PENETRATIONS.
- ALL (VTR'S) VENT THRU ROOF PENETRATIONS INDICATED ON PLANS ARE PRELIMINARY. FINAL LOCATIONS SHALL BE COORDINATED WITH ALL TRADES. ALL VTR'S SHALL BE A MINIMUM OF 10'-0" FROM ALL FRESH AIR INTAKE OPENINGS
- CONTRACTOR SHALL PROVIDE GENERAL WARRANTY FOR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL COMPLETION.
- PROVIDE ESCUTCHEON PLATES FOR ALL WALL PIPING PENETRATIONS.
- CONTRACTOR SHALL PROVIDE ALL CONNECTIONS, FITTINGS, APPURTENANCES, ETC. AS NECESSARY FOR INSTALLATION AND OPERATION OF OWNER FURNISHED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- COMPLY WITH SPECIFICATIONS FOR PIPE SLEEVES, HANGER SELECTIONS, AND APPLICATIONS.
- ALL ITEMS PROJECTING THROUGH ROOF SHALL BE FLASHED AND COUNTER-FLASHED A MINIMUM OF 12" AND SHALL BE PAINTED TO MATCH ROOF COLOR. PROVIDE APPROVED SEALS AT ALL ROOF PENETRATIONS.
- PROVIDE PREFABRICATED WATER HAMMER ARRESTOR AT EACH NEW BATHROOM GROUP ON HOT AND COLD WATER PIPING.
- PROVIDE VACUUM BREAKERS AT FIXTURES WITH HOSE THREAD CONNECTIONS.
- PROVIDE DIELECTRIC UNIONS AT ALL DISSIMILAR METAL PIPE CONNECTIONS.
- UNDER SLAB SOIL, WASTE AND VENT PIPING PASSING TO UNDERSIDE OR THROUGH FOUNDATION FOOTING, WALL OR GRADE BEAM SHALL BE PROVIDED WITH A RELIEVING ARCH OR PIPE SLEEVE 2 (TWO) PIPE SIZES GREATER THAN PIPE SIZE INDICATED ON PLANS. COORDINATE FINAL PIPE ROUTING AND LAYOUT WITH STRUCTURAL DRAWINGS.
- SEE TOILET ROOM ELEVATIONS ON ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING HEIGHT.
- COORDINATE EXACT LOCATION OF ALL EXTERIOR WALL HYDRANTS WITH ARCHITECT DRAWINGS.
- COORDINATE FLOOR DRAIN LOCATIONS IN TOILET ROOMS WITH ARCHITECTURAL PLANS.
- ALL COMPONENTS OF PLUMBING SYSTEMS ARE TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
- WATER LINES FOR ICE MAKERS AND REFRIGERATORS SHALL BE BRAIDED STAINLESS STEEL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OR RELOCATION OF ANY EXISTING MATERIALS OR SYSTEMS ABOVE EXISTING CEILINGS WHICH MAY INTERFERE WITH THE INSTALLATION OF NEW SYSTEMS OR UTILITIES.
- CONTRACTOR SHALL DEVELOP AND SUBMIT COORDINATION DRAWINGS WHICH IDENTIFY AND RESOLVE POTENTIAL CONFLICTS BETWEEN PLUMBING WORK, STRUCTURAL, FIRE SPRINKLER, HVAC DUCTWORK, AND ELECTRICAL SYSTEMS.
- PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS. CONTRACTOR SHALL CONNECT TO NEAREST POTABLE WATER SUPPLY WITHIN VICINITY.
- ALL WORK SHALL COMPLY WITH THE FOLLOWING AGENCIES:
- 2012 INTERNATIONAL BUILDING CODE
- 2012 INTERNATIONAL PLUMBING CODE
- NATIONAL FIRE PROTECTION AGENCY (NFPA)
- AMERICAN SOCIETY OF HEATING AND REFRIGERATION ENGINEERS (ASHRAE)
- ALL APPLICABLE LOCAL CODES, ORDINANCES, AND THE AUTHORITY HAVING JURISDICTION



APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
PLUMBING LEGEND AND NOTES			
AIR FORCE SPECIAL OPERATIONS COMMAND			
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016		
DESIGNED BY:	CAD		
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BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
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ABOVE GROUND GAS PIPING NOTES

FABRICATE AND INSTALL GAS SYSTEMS IN ACCORDANCE WITH NFPA 54 "NATIONAL FUEL GAS CODE" AND WITH LOCAL GAS UTILITY COMPANY REQUIREMENTS AND STANDARDS.

SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR GAS SYSTEMS PRODUCTS.

SUBMIT MAINTENANCE DATA AND PARTS LISTS FOR GAS SYSTEMS MATERIALS AND PRODUCTS. INCLUDE THIS DATA, PRODUCT DATA, SHOP DRAWINGS, AND RECORD DRAWINGS IN MAINTENANCE MANUAL.

PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, AND CAPACITIES AS INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE MATERIALS AND PRODUCTS COMPLYING WITH NFPA 54 WHERE APPLICABLE. BASE PRESSURE RATING ON GAS PIPING SYSTEM MAXIMUM DESIGN PRESSURES. PROVIDE SIZES AND TYPES MATCHING PIPING AND EQUIPMENT CONNECTIONS. PROVIDE FITTINGS OF MATERIALS WHICH MATCH PIPE MATERIALS USED IN NATURAL GAS SYSTEMS. WHERE MORE THAN ONE TYPE OF MATERIALS OR PRODUCTS ARE INDICATED, SELECTION IS INSTALLER'S OPTION. PROVIDE IDENTIFICATION AND PAINT GAS PIPING YELLOW. PROVIDE ROOF MOUNTED SUPPORT.

ALL GAS PIPING UNDER THIS CONTRACT SHALL BE BLACK STEEL PIPE; SCHEDULE 40; MALLEABLE IRON THREADED FITTINGS.

PROVIDE AND INSTALL PIPING SPECIALTIES IN ACCORDANCE WITH THE PIPE ESCUTCHEONS, DIELECTRIC UNIONS, PIPE SLEEVES, AND SLEEVE SEALS. PROVIDE AND INSTALL SUPPORTS AND ANCHORS.

PROVIDE AGA APPROVED SPECIAL VALVES REQUIRED FOR GAS SYSTEMS INCLUDING THE FOLLOWING TYPES:

1. GAS COCKS 2" AND SMALLER: 150 PSI NON-SHOCK WOG, BRONZE STRAIGHTWAY COCK, FLAT OR SQUARE HEAD, THREADED ENDS.
2. WRENCHES: PROVIDE OPERATING WRENCHES FOR ALL GAS COCKS SERVING BOILERS AND FOR USE AS MASTER SHUTOFF AT LABS.
3. BALL VALVES: AGA APPROVED, UL-LISTED BALL VALVES MAY BE USED FOR LAB MASTER SHUTOFF VALVES AT CONTRACTOR'S OPTION.
4. ACCEPTABLE PRODUCERS FOR GAS COCKS: DEZURIK, JENKINS BROS., LUNKEN-HEIMER, NIBCO, POWELL, STOCKHAM, WALWORTH, ROCKWELL.
5. MASTER GAS CONTROL VALVE: BRONZE OR ALUMINUM BODY, PACKLESS, SINGLE SEAT, SUITABLE FOR FUEL GAS, SOLENOID OPERATED, NORMALLY OPEN, UL-APPROVED, MANUAL RESET, 24 VOLT DC. THE VALVE TO CLOSE WHEN DE-ENERGIZED BY THE FACT. ACCEPTABLE PRODUCER: AUTOMATIC SWITCH CO., BULLETIN 8044, OR APPROVED EQUAL.

GAS REGULATORS

1. FIRST STAGE REGULATORS: PROVIDE UL LISTED FIRST STAGE (HIGH PRESSURE) REGULATORS SET FOR 15 PSI.
2. SECOND STAGE REGULATORS: PROVIDE UL LISTED SECOND STAGE (1-5 PSI) ADJUSTABLE REGULATORS WITH INTEGRAL RELIEF VALVES.
3. ACCEPTABLE PRODUCERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE REGULATORS BY REGO, OR APPROVED EQUAL.
4. GAS METER AND REGULATOR: PROVIDED BY LOCAL UTILITY COMPANY
5. EXAMINE AREAS AND CONDITIONS UNDER WHICH GAS SYSTEMS, MATERIALS, AND PRODUCTS ARE TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER. COORDINATE WITH GAS SUPPLIER PRIOR TO STARTING WORK.

INSTALL GAS PIPING IN ACCORDANCE WITH DIVISION-23 BASIC MECHANICAL MATERIALS AND METHODS.

1. USE SEALANTS ON METAL GAS PIPING THREADS WHICH ARE CHEMICALLY RESISTANT TO GAS. USE SEALANTS SPARINGLY, AND APPLY TO ONLY MALE THREADS OF METAL JOINTS.
2. REMOVE CUTTING AND THREADING BURRS BEFORE ASSEMBLING PIPING.
3. DO NOT INSTALL DEFECTIVE PIPING OR FITTINGS. DO NOT USE PIPE WITH THREADS WHICH ARE CHIPPED, STRIPPED OR DAMAGED. DO NOT USE BUSHINGS IN THE GAS SYSTEM.
4. PLUG EACH GAS OUTLET, INCLUDING VALVES, WITH THREADED PLUG OR CAP IMMEDIATELY AFTER INSTALLATION AND RETAIN UNTIL CONTINUING PIPING, OR EQUIPMENT CONNECTIONS ARE COMPLETED.
5. GROUND GAS PIPING ELECTRICALLY AND CONTINUOUSLY WITHIN PROJECT, AND BOND TIGHTLY TO GROUNDING CONNECTION.
6. INSTALL DRIPLEGS IN GAS PIPING WHERE INDICATED, AND WHERE REQUIRED BY CODE OR REGULATION.
7. INSTALL "TEE" FITTING WITH BOTTOM OUTLET PLUGGED OR CAPPED, AT BOTTOM OF PIPE RISERS.
8. USE DIELECTRIC UNIONS WHERE DISSIMILAR METALS ARE JOINED TOGETHER.
9. INSTALL PIPING WITH 1/64" PER FOOT (1/8%) DOWNWARD SLOPE IN DIRECTION OF FLOW.
10. INSTALL PIPING PARALLEL TO OTHER PIPING, BUT MAINTAIN MINIMUM OF 12" CLEARANCE BETWEEN GAS PIPING AND STEAM OR HYDRONIC PIPING ABOVE 200°F.
11. FOR PIPING UNDERGROUND BENEATH BUILDINGS, INSTALL IN WELDED CONDUIT. EXTEND CONDUIT INSIDE AND TERMINATE IN ACCESSIBLE PORTION OF BUILDING AND SEAL. EXTEND CONDUIT OUTSIDE MINIMUM OF 4" FROM BUILDING, AND VENT ABOVE GRADE.

VALVES INSTALLATION:

- GAS COCKS: PROVIDE AT CONNECTION TO GAS TRAIN FOR EACH GAS-FIRED EQUIPMENT ITEM; AND ON RISERS AND BRANCHES WHERE INDICATED.
- LOCATE GAS COCKS WHERE EASILY ACCESSIBLE, AND WHERE THEY WILL BE PROTECTED FROM POSSIBLE INJURY.
- CONTROL VALVES: INSTALL AS INDICATED. REFER TO ELECTRICAL FOR WIRING; NOT WORK OF THIS SECTION.
- CONNECT GAS PIPING TO EACH GAS-FIRED EQUIPMENT ITEM, WITH DRIP LEG AND SHUTOFF GAS COCK. COMPLY WITH EQUIPMENT MANUFACTURER'S INSTRUCTIONS.

GAS VENT INSTALLATION:

- INSTALL GAS VENTS FOR ALL DRAFT GAS-FIRED APPLIANCES IN ACCORDANCE WITH NFPA 54 AND THE MANUFACTURER'S INSTRUCTIONS.
- GAS VENTS SHALL TERMINATE AT LEAST 3 FEET ABOVE THE ROOF AND 2 FEET HIGHER THAN ANY PORTION OF A BUILDING WITHIN A HORIZONTAL DISTANCE OF 10 FEET.
- MINIMUM VERTICAL GAS VENT LENGTH IS 5 FEET.
- SLOPE HORIZONTAL GAS VENT CONNECTORS UPWARD AT LEAST 1/4 INCH PER FOOT.
- INSPECT, TEST, AND PURGE GAS SYSTEMS IN ACCORDANCE WITH NFPA 54, LOCAL UTILITY REQUIREMENTS, AND AS PER SPECIFICATION SECTION "TESTING, CLEANING AND STERILIZATION OF PIPING SYSTEMS".

BELOW GROUND GAS PIPING NOTES

FABRICATE AND INSTALL GAS SYSTEMS IN ACCORDANCE WITH NFPA 54 "NATIONAL FUEL GAS CODE" AND WITH LOCAL GAS UTILITY COMPANY REQUIREMENTS AND STANDARDS.

SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR GAS SYSTEMS PRODUCTS.

SUBMIT MAINTENANCE DATA AND PARTS LISTS FOR GAS SYSTEMS MATERIALS AND PRODUCTS. INCLUDE THIS DATA, PRODUCT DATA, SHOP DRAWINGS, AND RECORD DRAWINGS IN MAINTENANCE MANUAL.

PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, AND CAPACITIES AS INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE MATERIALS AND PRODUCTS COMPLYING WITH NFPA 54 WHERE APPLICABLE. BASE PRESSURE RATING ON GAS PIPING SYSTEM MAXIMUM DESIGN PRESSURES. PROVIDE SIZES AND TYPES MATCHING PIPING AND EQUIPMENT CONNECTIONS. PROVIDE FITTINGS OF MATERIALS WHICH MATCH PIPE MATERIALS USED IN NATURAL GAS SYSTEMS. WHERE MORE THAN ONE TYPE OF MATERIALS OR PRODUCTS ARE INDICATED, SELECTION IS INSTALLER'S OPTION. PROVIDE IDENTIFICATION AND PAINT GAS PIPING YELLOW. PROVIDE ROOF MOUNTED SUPPORT.

UNDERGROUND NATURAL GAS PIPING - POLYETHYLENE, SDR-11, ASTM D2513 PIPE AND FITTINGS WITH HEAT FUSION SOCKET JOINTS. POLYETHYLENE PIPE AND FITTING MATERIALS SHALL BE COMPATIBLE AND BY SAME MANUFACTURER TO ENSURE UNIFORM MELTING AND A PROPER BOND. FABRICATED FITTINGS SHALL NOT BE USED. PROVIDE CONNECTION BETWEEN BURIED PLASTIC GAS SERVICE PIPING AND METALLIC RISER IN ACCORDANCE WITH THE GAS CODE. PROVIDE METALLIC RISER CONSISTING OF HDPE FUSED COATING ON STEEL PIPE FOR CONNECTION TO ABOVE GROUND BUILDING DISTRIBUTION PIPING. UNDERGROUND HORIZONTAL METALLIC PORTION OF RISER SHALL BE AT LEAST TWENTY FOUR INCHES IN LENGTH BEFORE CONNECTING TO THE PLASTIC SERVICE PIPE. AN APPROVED TRANSITION FITTING OR ADAPTOR MEETING DESIGN PRESSURE RATING AND PLASTIC PIPE MANUFACTURERS RECOMMENDATIONS SHALL BE USED WHERE THE PLASTIC JOINS THE METALLIC RISER.

UNDERGROUND WARNING TAPE - PROVIDE A MINIMUM 3 INCH WIDE POLYETHYLENE DETECTABLE TYPE MARKING TAPE. THE TAPE SHALL BE RESISTANT TO ALKALIS, ACIDS AND OTHER DESTRUCTIVE AGENTS FOUND IN SOIL AND IMPREGNATED WITH METAL SO THAT IT CAN BE READILY RECOGNIZED AFTER BURIAL BY STANDARD LOCATING EQUIPMENT. PROVIDE CONTINUOUS YELLOW WITH BLACK LETTER PRINTED MESSAGE REPEATED EVERY 16 TO 36 INCHES WARNING OF PIPE BURIED BELOW (E.G.: "CAUTION GAS LINE BURIED BELOW"). INSTALLATION SHALL MEET OR EXCEED ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, REFERENCED STANDARDS AND CONFORM TO CODES AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION.

DISTRIBUTION PIPING SHALL BE AS SHORT AND AS DIRECT AS PRACTICABLE BETWEEN THE POINT OF DELIVERY AND THE OUTLETS. ALL EXCAVATION REQUIRED FOR PLUMBING WORK IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR AND SHALL BE DONE IN ACCORDANCE WITH PROJECT SPECIFICATIONS. COORDINATE UNDERGROUND NATURAL GAS PIPING INSTALLATION WITH SITE CONTRACTOR.

DO NOT INSTALL UNDERGROUND PIPING WHEN BEDDING IS WET. BURY ALL UNDERGROUND PIPING AT LEAST 3 FEET BELOW FINISHED GRADE. PROVIDE A CONTINUOUS DETECTABLE WARNING TAPE ON TAMPED BACKFILL, 12 INCHES ABOVE ALL BURIED NON-METALLIC GAS LINES.

DO NOT INSTALL GAS PIPING IN THE SAME TRENCH WITH OTHER UTILITIES. THE MINIMUM HORIZONTAL CLEARANCE BETWEEN GAS PIPE AND PARALLEL UTILITY PIPE SHALL BE 2 FEET. DO NOT INSTALL GAS PIPE THROUGH CATCH BASINS, VAULTS, MANHOLES OR SIMILAR UNDERGROUND STRUCTURES.

INSTALL AND SUPPORT ALL POLYETHYLENE PIPING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL HEAT FUSION WELDS SHALL BE PERFORMED BY WELDERS QUALIFIED TO THE MANUFACTURER'S PROCEDURES.

PROVIDE CONNECTION BETWEEN BURIED PLASTIC GAS PIPING AND METALLIC RISER IN ACCORDANCE WITH THE GAS CODE.

PLUMBING FIXTURE SCHEDULE							
MARK	FIXTURE NAME	TYPE	FIXTURE DESCRIPTION	CONNECTIONS			REMARKS
				WASTE	CW	HW	
				IN	IN	IN	
P-1	WATER CLOSET	(ADA) FLOOR MOUNT	FLOOR MOUNT, ELONGATED FRONT RIM, VITREOUS CHINA, TOP SPUD, ADA RIM HEIGHT, WHITE ELONGATED OPEN FRONT SEAT COVER WITH STAINLESS STEEL CHECK HINGE. MEETS ANSIA/SME A112.19.2 AND ANSIA117.1 REQUIREMENTS. 1.28 GPF, MANUAL EXPOSED FLUSH VALVE, NON LEAK AND NOT HOLD OPEN HANDLE, CHROME PLATED. PROVIDE WITH ALL APPURTENANCES FOR A COMPLETE AND FUNCTIONING INSTALLATION. ADA COMPLIANT.	3	1	-	1, 2, 3, 5
P-1C	WATER CLOSET	FLOOR MOUNT	CHILDRENS FLOOR MOUNT, 10" HEIGHT, ELONGATED FRONT RIM, VITREOUS CHINA, TOP SPUD, WHITE ELONGATED OPEN FRONT SEAT COVER, MEETS ANSIA117.1 REQUIREMENTS. 1.28 GPF, MANUAL EXPOSED FLUSH VALVE, NON LEAK AND NOT HOLD OPEN HANDLE, CHROME PLATED. PROVIDE WITH ALL APPURTENANCES FOR A COMPLETE AND FUNCTIONING INSTALLATION. ADA COMPLIANT.	3	1	-	1, 2, 3, 5
P-2	LAVATORY	(ADA) WALL MOUNT	20"x18", VITREOUS CHINA, REAR OVERFLOW, PROVIDE WITH CONCEALED ARM CARRIER. PROVIDE WITH ADA TRAP, STOP, AND SUPPLY PROTECTORS. PROVIDE WITH GRID STRAINER. MEETS ANSIA/SME A112.19.2 AND ANSIA117.1 REQUIREMENTS. MOUNTING HEIGHT OF FIXTURE TO BE AS PER IPC AND ADA REQUIREMENTS. COORDINATE WITH ARCHITECTURAL. 0.5 GPM AERATOR, CHROME PLATED, FAUCET WITH INTEGRAL 5" SPOUT, QUARTER TURN DISC CARTRIDGES, VANDAL RESISTANT, SINGLE METAL LEVER HANDLE. PROVIDE WITH ALL APPURTENANCES FOR A COMPLETE AND FUNCTIONING INSTALLATION.	2	1/2	1/2	1, 2, 3, 4, 5, 6
P-3	SINK	FLOOR MOUNT	24"x20" SINGLE BOWL, 15" BOWL DEPTH, POLYPROPYLENE, WHITE FINISH, DECK TYPE 4" CENTERSET FAUCET KNOCKOUTS, ANGLE LEGS. 1.5 GPM, TOP MOUNT, CONVERTIBLE RIGID/SWIVEL GOOSENECK SPOUT, 4" CENTERS, VANDAL RESISTANT WRIST BLADE HANDLES, CHROME PLATED, LESS SPRAY. ANSIA117.1 AND ASME A112.18.1 COMPLIANT.	2	1/2	1/2	1, 2, 4, 5
P-4	SINK	COUNTERMOUNT	22"x19", 18 GA. STAINLESS STEEL, 4" BOWL DEPTH, TOP MOUNT, SATIN FINISH, ADA AND ANSIA117.1 COMPLIANT. PROVIDE WITH STRAINER. CHROME FINISH BUBBLER, 0.5 GPM, GOOSENECK FAUCET WITH 5" CENTERLINE, RIGID/SWIVEL SPOUT, COLOR CODED METAL DOME LEVER HANDLES.	2	1/2	1/2	1, 2, 4, 5
P-5	WASHER MACHINE BOX	-	STEEL BOX AND FACE PLATE, QUARTER TURN BALL VALVES, COPPER SWEAT	2	1/2	1/2	1, 2, 4, 5, 6
P-6	TRENCH DRAIN	-	12" WIDE, 5' LONG, 9" WIDE THROAT, STAINLESS STEEL TRENCH DRAIN, BAR GRATE. MODULAR CHANNEL SECTIONS SHALL BE MADE OF 12 GA. TYPE 304 STAINLESS STEEL. PROVIDE GASKET FOR FLANGED CONNECTIONS. CHANNEL SHALL BE PROVIDED WITH 1.04% PRE-SLOPE MECHANICAL LOCKDOWN DEVICES. PROVIDE WITH NO-HUB BOTTOM OUTLET AND BOTTOM DOME STRAINER.	4	-	-	5
FD	FLOOR DRAIN	-	CASIT IRON BODY, BOTTOM OUTLET, INVERTIBLE MEMBRANE CLAMP, ADJUSTABLE COLLAR, NICKEL BRONZE STRAINER, TRAP PRIMER CONNECTION.	3	1/2	-	1, 5
FS	FLOOR SINK	-	12"x12"x6" CAST IRON BODY, BOTTOM OUTLET, SQUARE GRATE WITH 3/4" SLOTTED OPENINGS, WHITE ACID RESISTING PROCELAIN ENAMEL INTERIOR AND TOP, WHITE ANTI SPLASH DOME STRAINER, TRAP PRIMER CONNECTION.	3	1/2	-	1, 5
RD	ROOF DRAIN	-	12" DIAMETER, CAST IRON BODY, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, LOW SILHOUETTE POLY DOME.	3	-	-	5
SD	OVERFLOW DRAIN	-	12" DIAMETER, CAST IRON BODY, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, LOW SILHOUETTE POLY DOME, 2" HIGH EXTERNAL WATER DAM.	3	-	-	5
HB	HOSE BIBB	-	ANTI SIPHON, VACUUM BREAKER, CHROME FINISH. MOUNTING HEIGHT SHALL BE +/- 24" A.F.F., COORDINATE WITH ARCHITECTURAL.	-	3/4	-	1, 5, 6
WH	WALL HYDRANT	-	AUTOMATIC DRAINING, FREEZELESS, WITH HOSE CONNECTION, ANTI SIPHON VACUUM BREAKER, FLUSH MOUNTED BOX AND DOOR, LOOSE KEY OPERATED, CHROME FINISH. MOUNTING HEIGHT SHALL BE +/- 24" ABOVE GRADE, COORDINATE WITH ARCHITECTURAL.	-	3/4	-	1, 5, 6

NOTES:

1. WATER SUPPLY TAPPING TO EACH FIXTURE SHALL BE FULL SIZE.
2. PROVIDE WATER HAMMER ARRESTORS ON HOT & COLD WATER SUPPLY BRANCHES SERVING SINGULAR, MULTIPLE OR GROUPS OF PLUMBING FIXTURES. ADHERENCE TO THE PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I.-WH201 (PER SPECIFICATIONS) SHALL BE EMPLOYED IN DETERMINING PROPER SIZE, SELECTION, PLACEMENT, LOCATION AND INSTALLATION OF ARRESTORS.
3. MOUNT PLUMBING FIXTURES LABELED "ADA" IN ACCORDANCE WITH ADA REQUIREMENTS. COORDINATE WITH ARCHITECTURAL DRAWINGS.
4. PROVIDE HOT WATER TO FIXTURES WHERE INDICATED.
5. PROVIDE FIXTURES WITH ALL APPURTENANCES AS NECESSARY FOR A COMPLETE INSTALLATION.
6. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.



REV #	DATE	DESCRIPTION	APPROVED

APPROVED	CHIEF ENGINEER	CIVIL ENGINEER

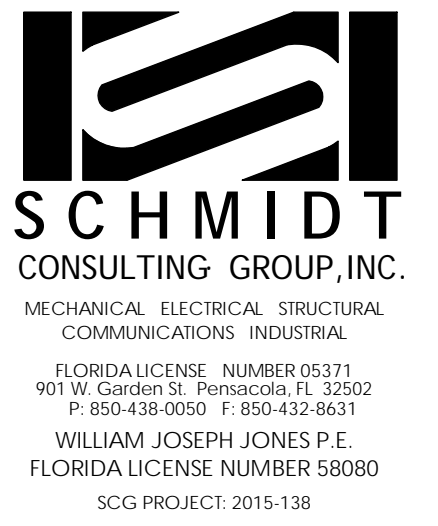
ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
PLUMBING SCHEDULES



DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	P1
SHEET NO:	51 of 110

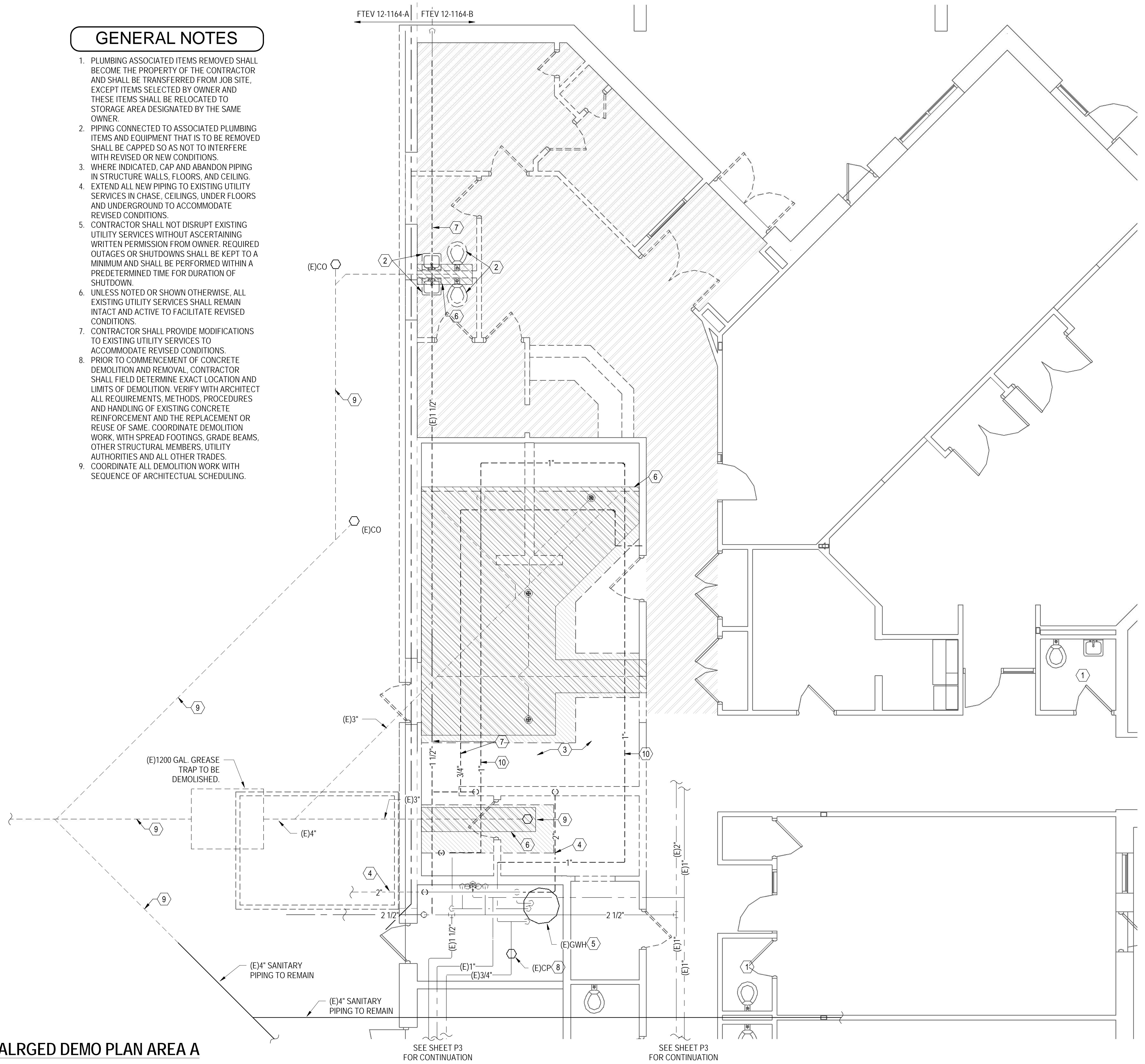
GENERAL NOTES

1. PLUMBING ASSOCIATED ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE TRANSFERRED FROM JOB SITE, EXCEPT ITEMS SELECTED BY OWNER AND THESE ITEMS SHALL BE RELOCATED TO STORAGE AREA DESIGNATED BY THE SAME OWNER.
2. PIPING CONNECTED TO ASSOCIATED PLUMBING ITEMS AND EQUIPMENT THAT IS TO BE REMOVED SHALL BE CAPPED SO AS NOT TO INTERFERE WITH REVISED OR NEW CONDITIONS.
3. WHERE INDICATED, CAP AND ABANDON PIPING IN STRUCTURE WALLS, FLOORS, AND CEILING.
4. EXTEND ALL NEW PIPING TO EXISTING UTILITY SERVICES IN CHASE, CEILINGS, UNDER FLOORS AND UNDERGROUND TO ACCOMMODATE REVISED CONDITIONS.
5. CONTRACTOR SHALL NOT DISRUPT EXISTING UTILITY SERVICES WITHOUT ASCERTAINING WRITTEN PERMISSION FROM OWNER. REQUIRED OUTAGES OR SHUTDOWNS SHALL BE KEPT TO A MINIMUM AND SHALL BE PERFORMED WITHIN A PREDETERMINED TIME FOR DURATION OF SHUTDOWN.
6. UNLESS NOTED OR SHOWN OTHERWISE, ALL EXISTING UTILITY SERVICES SHALL REMAIN INTACT AND ACTIVE TO FACILITATE REVISED CONDITIONS.
7. CONTRACTOR SHALL PROVIDE MODIFICATIONS TO EXISTING UTILITY SERVICES TO ACCOMMODATE REVISED CONDITIONS.
8. PRIOR TO COMMENCEMENT OF CONCRETE DEMOLITION AND REMOVAL, CONTRACTOR SHALL FIELD DETERMINE EXACT LOCATION AND LIMITS OF DEMOLITION. VERIFY WITH ARCHITECT ALL REQUIREMENTS, METHODS, PROCEDURES AND HANDLING OF EXISTING CONCRETE REINFORCEMENT AND THE REPLACEMENT OR REUSE OF SAME. COORDINATE DEMOLITION WORK, WITH SPREAD FOOTINGS, GRADE BEAMS, OTHER STRUCTURAL MEMBERS, UTILITY AUTHORITIES AND ALL OTHER TRADES.
9. COORDINATE ALL DEMOLITION WORK WITH SEQUENCE OF ARCHITECTURAL SCHEDULING.



SHEET NOTES

1. EXISTING FIXTURES TO REMAIN.
2. EXISTING FIXTURES TO BE REMOVED.
3. ALL EXISTING FIXTURES LOCATED IN KITCHEN TO BE REMOVED. ASSOCIATED SANITARY PIPING TO BE REMOVED. ASSOCIATED CW & HW PIPING TO BE REMOVED BACK TO MAIN AND CAPPED. COORDINATE WITH GOVERNMENT.
4. (E) GAS PIPING TO BE REMOVED AS INDICATED. GAS METER AND REGULATOR TO BE RELOCATED AS INDICATED ON NEW WORK PLANS. PROVIDE NEW GAS PIPING AS INDICATED ON NEW WORK PLANS. COORDINATE RELOCATION OF EXISTING GAS LINE, METER, AND REGULATOR WITH OKALOOSA GAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHARGES/COSTS ASSOCIATED WITH RELOCATION OF GAS PIPING. SEE CIVIL FOR ADDITIONAL INFORMATION.
5. (E)GWH, ASSOCIATED MIXING VALVE, AND PIPING TO REMAIN AS IS. PROTECT DURING CONSTRUCTION.
6. APPROXIMATE LOCATION OF FLOOR SLAB REMOVAL. COORDINATE WITH ARCHITECT.
7. DEMOLISH EXISTING DOMESTIC WATER PIPING BACK TO MECHANICAL ROOM AS INDICATED.
8. EXISTING RECIRC PUMP TO REMAIN. PROTECT DURING CONSTRUCTION.
9. EXISTING SANITARY PIPING TO BE REMOVED AS INDICATED.
10. EXISTING 1" HOT WATER PIPING TO BE REMOVED AS INDICATED.



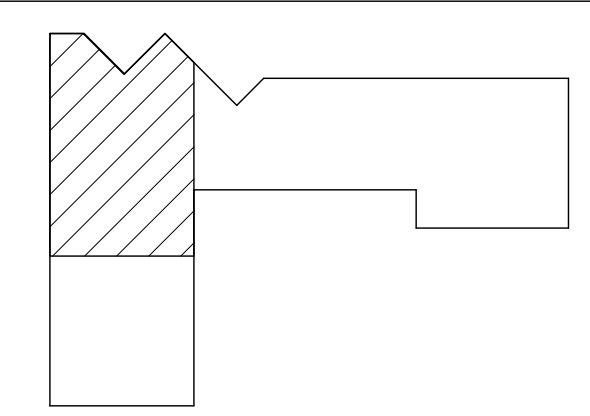
REV #	DATE	DESCRIPTION	APPROVED

**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**
ENLARGED DEMO PLAN AREA A

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	P2
SHEET NO:	52 of 110

KEYPLAN



PLAN NORTH

1 ENLARGED DEMO PLAN AREA A

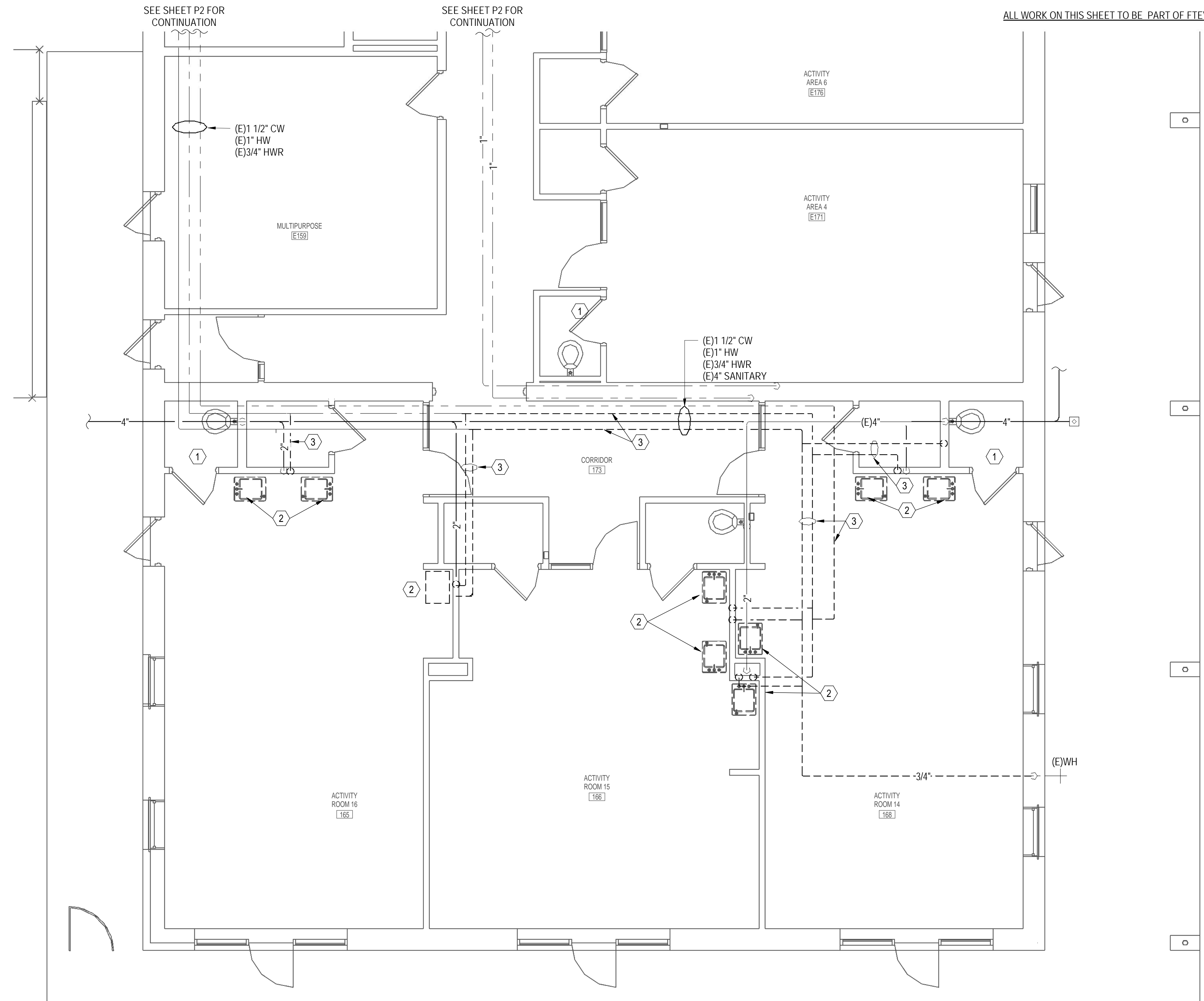
1/4" = 1'-0"

SEE SHEET P3 FOR CONTINUATION

STANDARD D LAYOUT (24" X 36")

SHEET NOTES

- 1 EXISTING FIXTURES TO REMAIN. PROTECT DURING CONSTRUCTION.
- 2 EXISTING FIXTURES TO BE REPLACED IN KIND. ASSOCIATED CW, HW AND SAN PIPING TO REMAIN AND BE MODIFIED AS NECESSARY FOR NEW FIXTURES.
- 3 EXISTING CVPVC WATER SUPPLY PIPING TO BE REMOVED AND REPLACED WITH COPPER PIPING OF THE SAME SIZE.



ALL WORK ON THIS SHEET TO BE PART OF FTEV 12-1164-B

SEE SHEET P2 FOR CONTINUATION

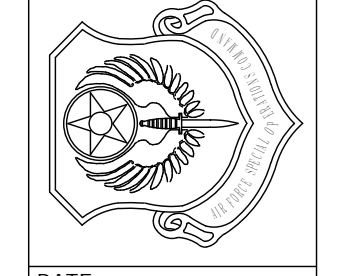
SEE SHEET P2 FOR CONTINUATION

REV #	DATE	DESCRIPTION	APP'D

APPROVED
CHIEF ENGINEER
APPROVED
CIVIL ENGINEER

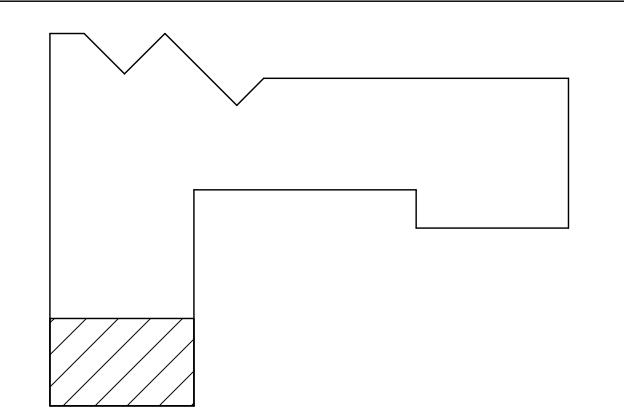
**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**
ENLARGED DEMO PLAN AREA B

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



DATE: 16 SEPT 2016
DESIGNED BY: CAD
DRAWN BY: CAD
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: P3
SHEET NO: 53 of 110

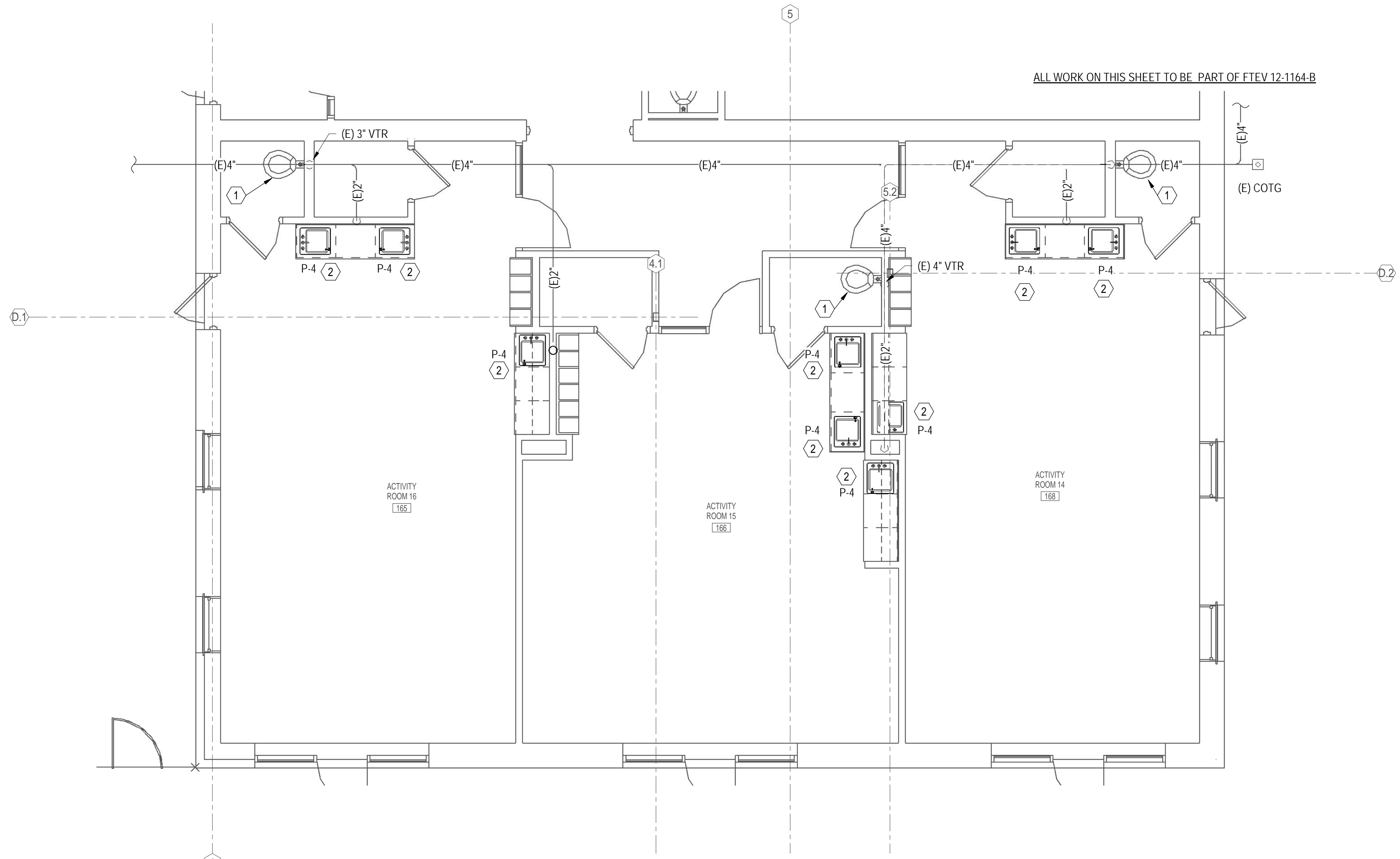
KEYPLAN



PLAN NORTH
1 ENLARGED DEMO PLAN AREA B
1/4" = 1'-0"

SHEET NOTES

- 1 EXISTING FIXTURES TO REMAIN.
- 2 MODIFY EXISTING SANITARY AS NECESSARY FOR CONNECTION TO NEW SINK.



ALL WORK ON THIS SHEET TO BE PART OF FTEV 12-1164-B

FLOOR SLAB ELEVATION = 0'-0"

PLAN NORTH

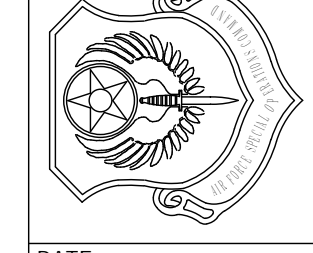
1 ENLARGED SANITARY PLAN AREA B
1/4" = 1'-0"

STANDARD D LAYOUT (24" X 36")

REV #	DATE	DESCRIPTION	APPROVED

ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
ENLARGED SANITARY PLAN AREA B

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



DATE: 16 SEPT 2016

DESIGNED BY: CAD

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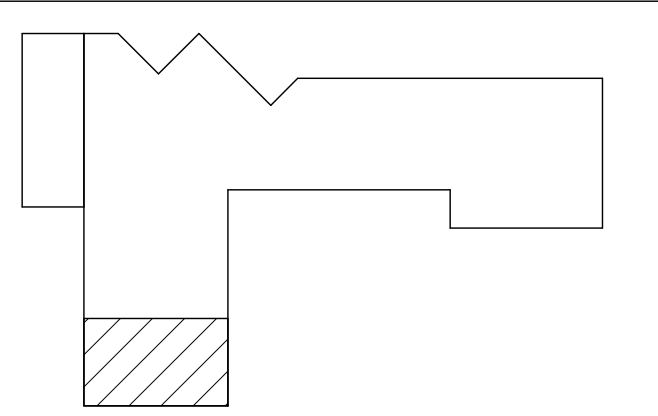
BUILDING NO: 90353

PROJECT NO: FTEV 12-1164

SHEET REF: P5

SHEET NO: 55 of 110

KEYPLAN



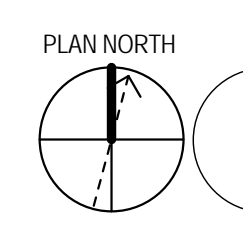
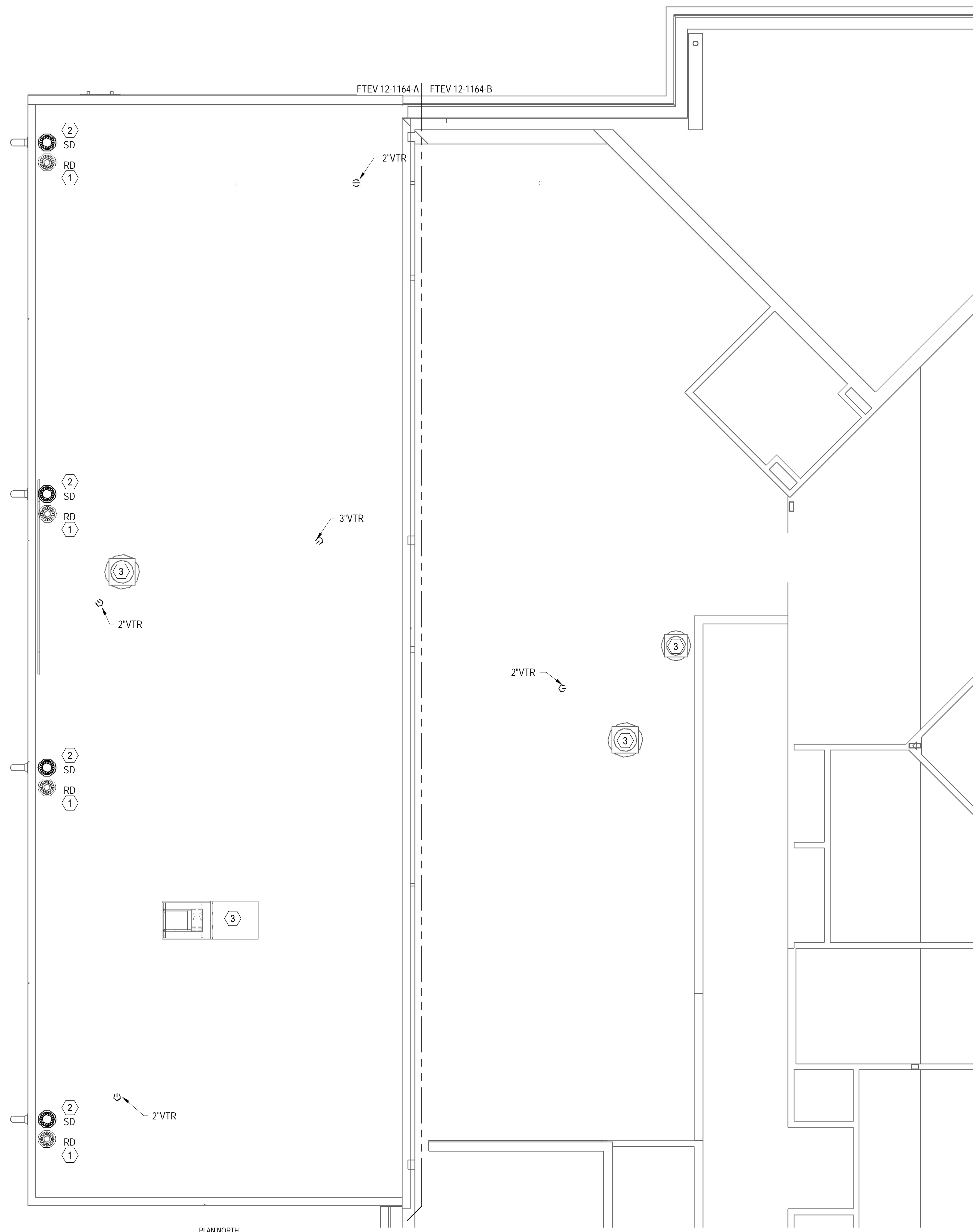
SEE OVERALL SEQUENCING PLAN SHEET
G4 FOR MORE INFORMATION.

SHEET NOTES

- ① ROUTE ROOF DRAIN (RD) OULET TO DOWNSPOUT BELOW SOFFIT. SEE ARCHITECTURAL FOR FURTHER INFORMATION. SEE CIVIL FOR CONTINUATION.
- ② ROUTE OVERFLOW DRAIN (SD) OUTLET TO DOWNSPOUT NOZZLE. NOZZLE TO BE SIMILAR TO JAY R SMITH. REFER TO ARCHITECTURAL FOR FURTHER INFORMATION ON MOUTING LOCATIONS AND COORDINATION OF NOZZLE FINISH.
- ③ MECHANICAL EQUIPMENT SHOWN FOR COORDINATION.

GENERAL NOTE

- 1. ALL (VTR'S) VENT THRU ROOF PENETRATIONS INDICATED ON PLANS ARE PRELIMINARY. FINAL LOCATIONS SHALL BE COORDINATED WITH ALL TRADES. ALL VTR'S SHALL BE A MINIMUM OF 10'-0" FROM ALL FRESH AIR INTAKE OPENINGS

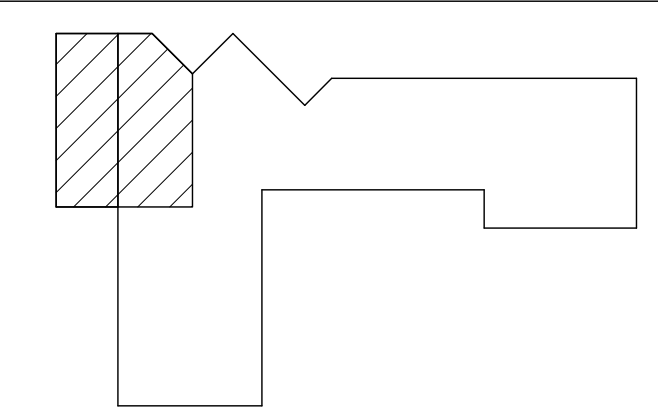


1 ENLARGED ROOF PLAN AREA A
 1/4" = 1'-0"

STANDARD D LAYOUT (24" X 36")

SEE OVERALL SEQUENCING PLAN
 SHEET G4 FOR MORE
 INFORMATION.

KEYPLAN



REV #	DATE	DESCRIPTION	APPROVED

APPROVED	APPROVED
CHIEF ENGINEER	CIVIL ENGINEER
APPROVED	APPROVED

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	ENLARGED ROOF PLAN AREA A
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AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA

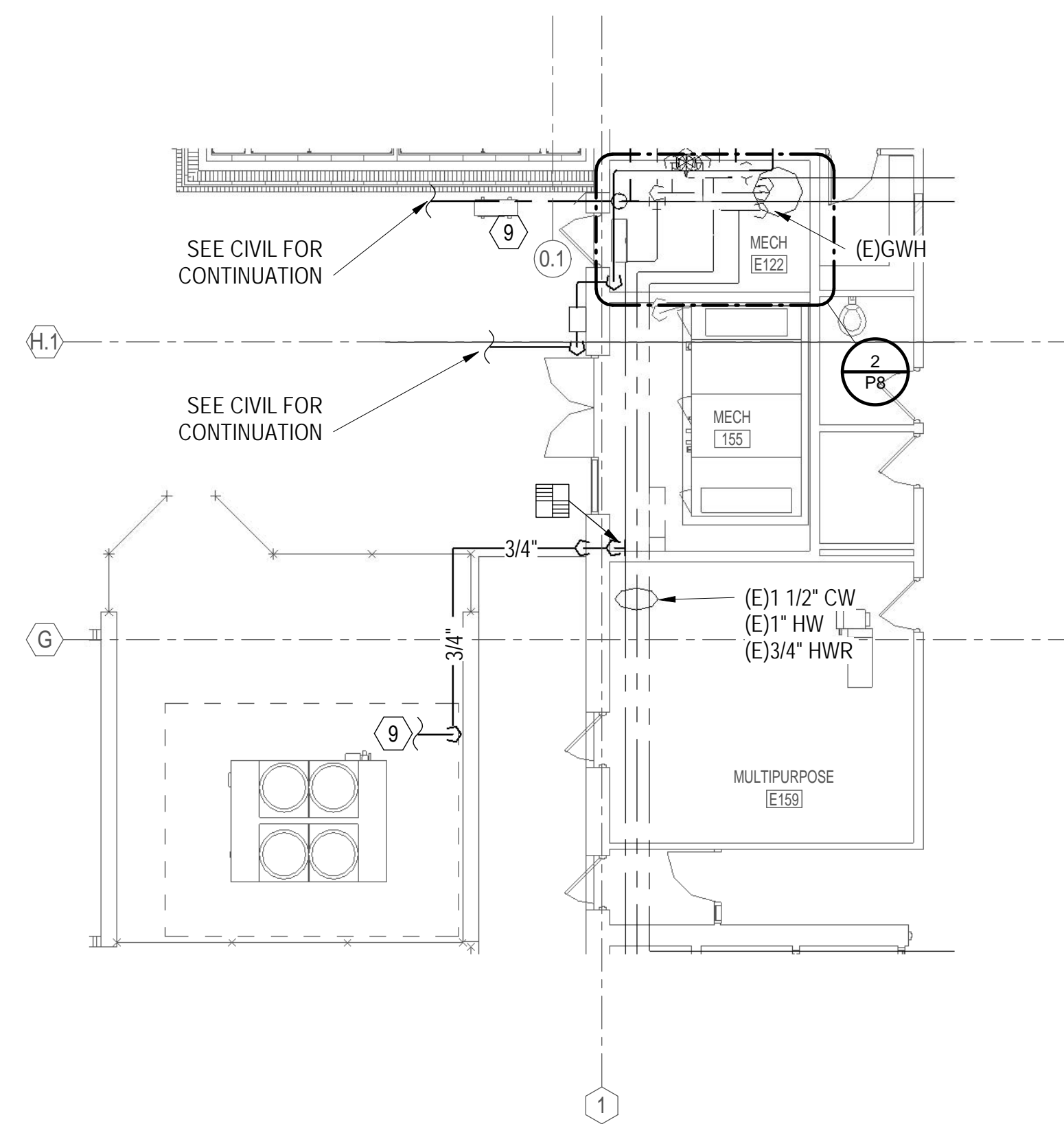
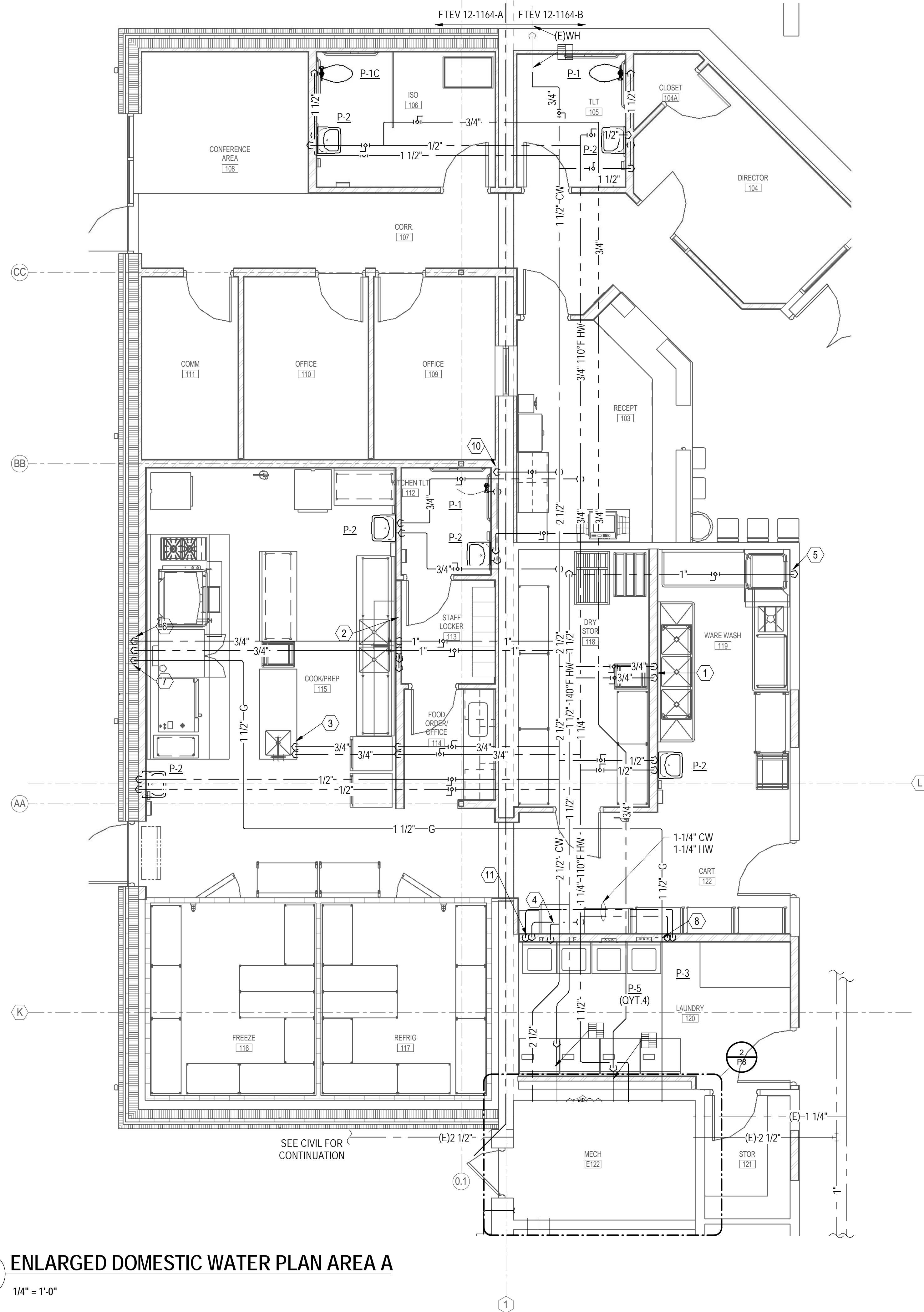
DATE: 16 SEPT 2016
DESIGNED BY: CAD
DRAWN BY: CAD
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: P6
SHEET NO: 56 of 110

GENERAL NOTES

1. INFORMATION INDICATING THE LOCATION OF EXISTING PIPING, FIXTURES, AND EQUIPMENT WAS OBTAINED FROM EXISTING AS BUILT DRAWINGS DATED 1982, 1991, AND 1999, AND ARE INFORMATION OF THE BEST EXISTING SOURCE TO DATE.
2. CONTRACTOR SHALL NOT DISRUPT EXISTING UTILITY SERVICES WITHOUT ASCERTAINING WRITTEN PERMISSION FROM OWNER. REQUIRED OUTAGES OR SHUT DOWNS SHALL BE KEPT TO A MINIMUM AND SHALL BE PERFORMED WITHIN A PREDETERMINED TIME FOR DURATION OF SHUTDOWN.
3. CONTRACTOR SHALL PROVIDE MODIFICATIONS TO EXISTING UTILITY SERVICES TO ACCOMODATE REVISED CONDITIONS.
4. THE ABOVE CEILING SPACE HAS VARIOUS EXISTING CONDUIT AND PIPING WHICH MAY REQUIRE THE OFFSETTING OF NEW PIPING. NEW PIPING SHALL BE FIELD FITTED AS REQUIRED.
5. THE CONTRACTOR SHALL OFFSET NEW PIPING AS REQUIRED TO CLEAR EXISTING AND NEW CONDUIT, DUCTWORK, AND BEAMS.

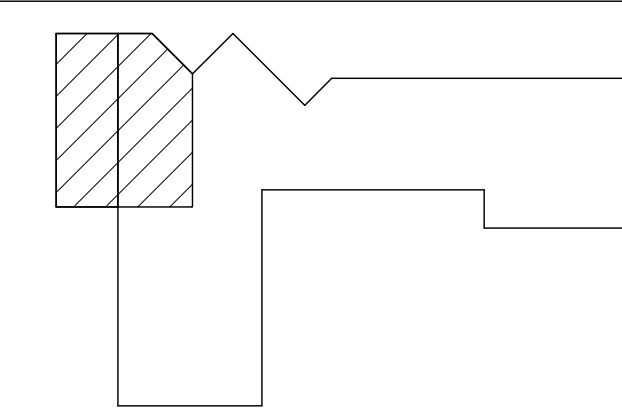
SHEET NOTES

- 1) ROUTE 3/4" CW AND 3/4" 140°F HW DOWN IN STUD WALL TO THREE COMPARTMENT SINK (EXISTING/RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS. PROVIDED BY KITCHEN DESIGN CONSULTANT.
- 2) ROUTE 3/4" CW AND 3/4" 140°F HW DOWN IN STUD WALL TO TWO COMPARTMENT SINK (EXISTING/RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS. PROVIDED BY KITCHEN DESIGN CONSULTANT.
- 3) ROUTE 3/4" CW AND 3/4" 110°F HW DOWN IN STUD WALL AND LOOP 3/4" CW AND 3/4" HW SOFT COPPER TUBING UNDER SLAB TO NEW ISLAND SINK. NO JOINTS ALLOWED BELOW SLAB. PROVIDE SHUTOFF VALVES AT FLOOR. ROUTE BRAIDED S.S. PIPE FROM SHUTOFF VALVES TO SINK CONNECTION. PROVIDED BY KITCHEN DESIGN CONSULTANT.
- 4) ROUTE 3/4" CW PIPE DOWN IN STUD WALL TO ICE MAKER (EXISTING/RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS.
- 5) ROUTE 1" 140°F HW DOWN IN STUD WALL TO DISHWASHER (EXISTING) AND INSTALL PER MFR. INSTRUCTIONS.
- 6) ROUTE 3/4" CW AND 3/4" 110°F HW DOWN WITHIN WALL TO UTILITY DISTRIBUTION STATION (RELOCATED). PROVIDE BRAIDED S.S. FLEXIBLE PIPE CONNECTION FROM UTILITY DISTRIBUTION STATION TO TILTING SKILLET (PROVIDED BY KITCHEN VENDOR) AND COMBINATION OVEN (RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS.
- 7) ROUTE 1-1/2" GAS PIPING TO UTILITY DISTRIBUTION SYSTEM (RELOCATED), THEN ROUTE GAS PIPING FROM UTILITY DISTRIBUTION TO COMBI OVEN (RELOCATED), CONVECTION OVEN (RELOCATED), TILTING SKILLET (PROVIDED BY KITCHEN VENDOR), AND BURNERS (PROVIDED BY KITCHEN VENDOR) AND SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER.
- 8) ROUTE 1 1/2" CW AND 1 1/2" 110°F HW DOWN WITHIN WALL TO SERVE EACH WASHING MACHINE BOX AND SERVICE SINK. INSTALL PER MFR. INSTRUCTIONS.
- 9) ROUTE 3/4" MAKE UP WATER LINE FROM MECHANICAL ROOM OUT LOW THROUGH EXTERIOR WALL, UNDER GROUND AND STUB UP IN NEW MECHANICAL YARD FOR CONNECTION TO CHILLED WATER SYSTEM. COORDINATE WITH MECHANICAL. PROVIDE HEAT TRACE FOR ALL EXPOSED WATER PIPING AT 4 W/LF. COORDINATE WITH ELECTRICAL.
- 10) ROUTE 1-1/4" CW DOWN WITHING WALL TO SERVE FIXTURES.
- 11) CONNECT 3/4" COLD AND HOT WATER TO MOP SINK CLOSET FURNISHED BY KITCHEN CONTRACTOR AND INSTALLED BY PLUMBING CONTRACTOR. COORDINATE SIZE WITH FURNISHED FIXTURE.



SEE OVERALL SEQUENCING PLAN SHEET G4 FOR MORE INFORMATION.

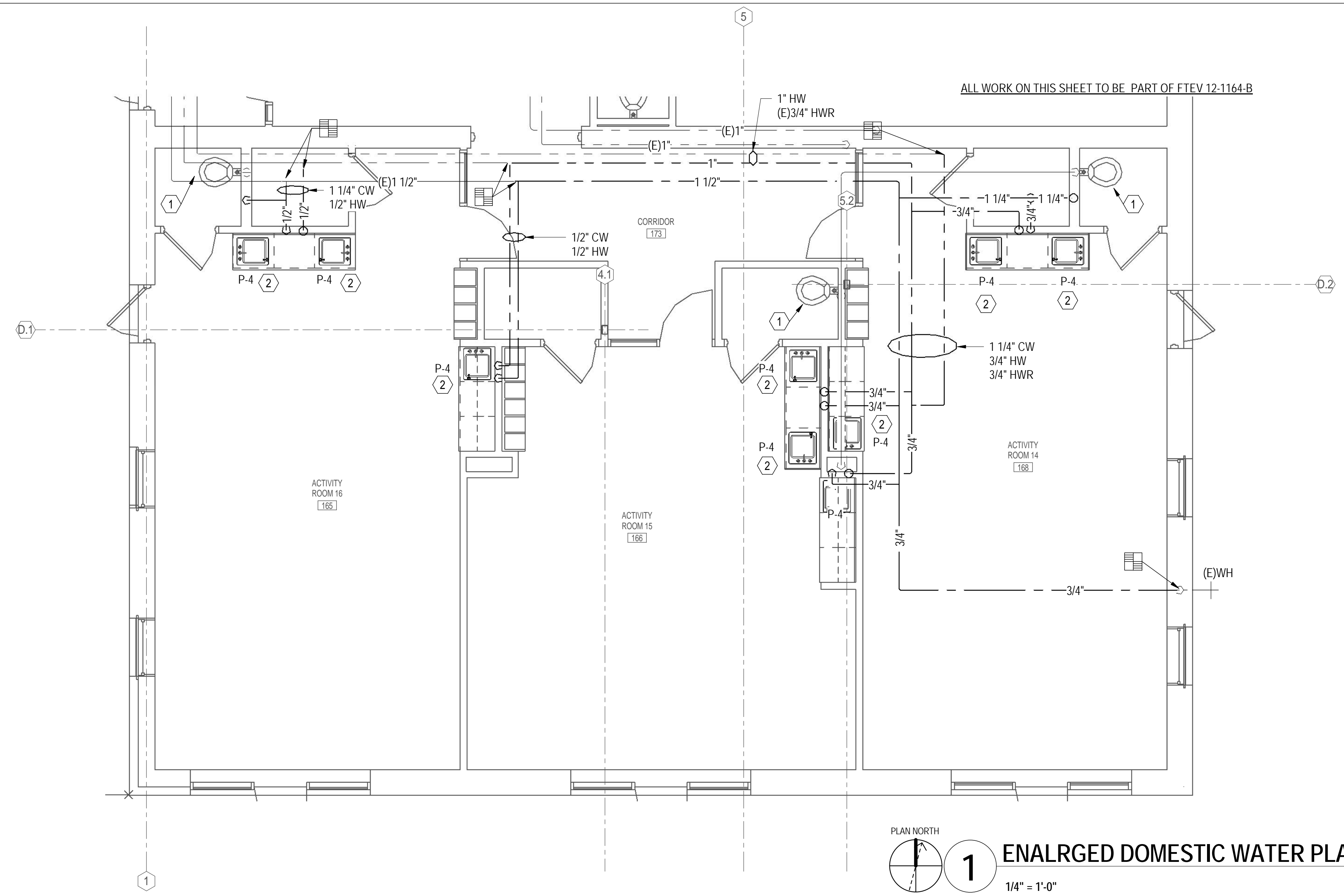
KEYPLAN



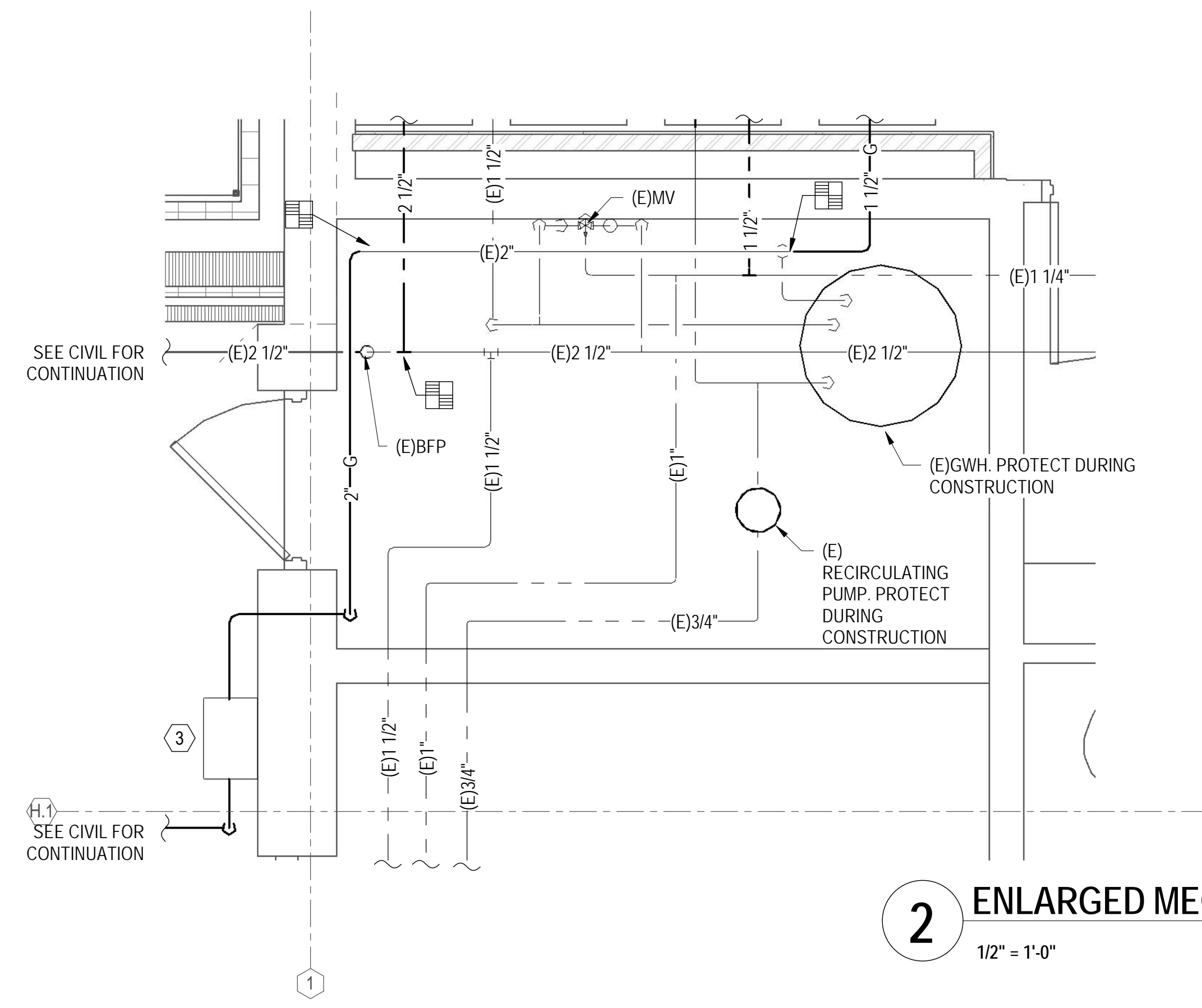
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016		
DESIGNED BY:	CAD		
DRAWN BY:	CAD		
BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
SHEET REF:	P7		
SHEET NO:	57 of 110		

SHEET NOTES

- ① EXISTING FIXTURES TO REMAIN.
- ② MODIFY EXISTING CW AND HW AS NECESSARY FOR CONNECTION TO NEW SINK.
- ③ RELOCATED GAS METER AND REGULATOR. COORDINATE RELOCATON OF EXISTING GAS LINE, METER, AND REGULATOR WITH OKALOOSA GAS.

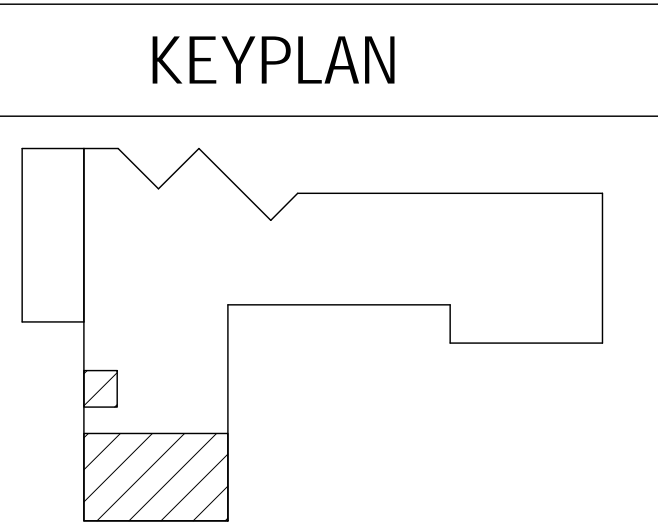


1 ENLARGED DOMESTIC WATER PLAN AREA B
1/4" = 1'-0"



2 ENLARGED MECH RM DOMESTIC WATER AND GAS PLAN
1/2" = 1'-0"

SEE OVERALL SEQUENCING PLAN
SHEET G4 FOR MORE
INFORMATION.



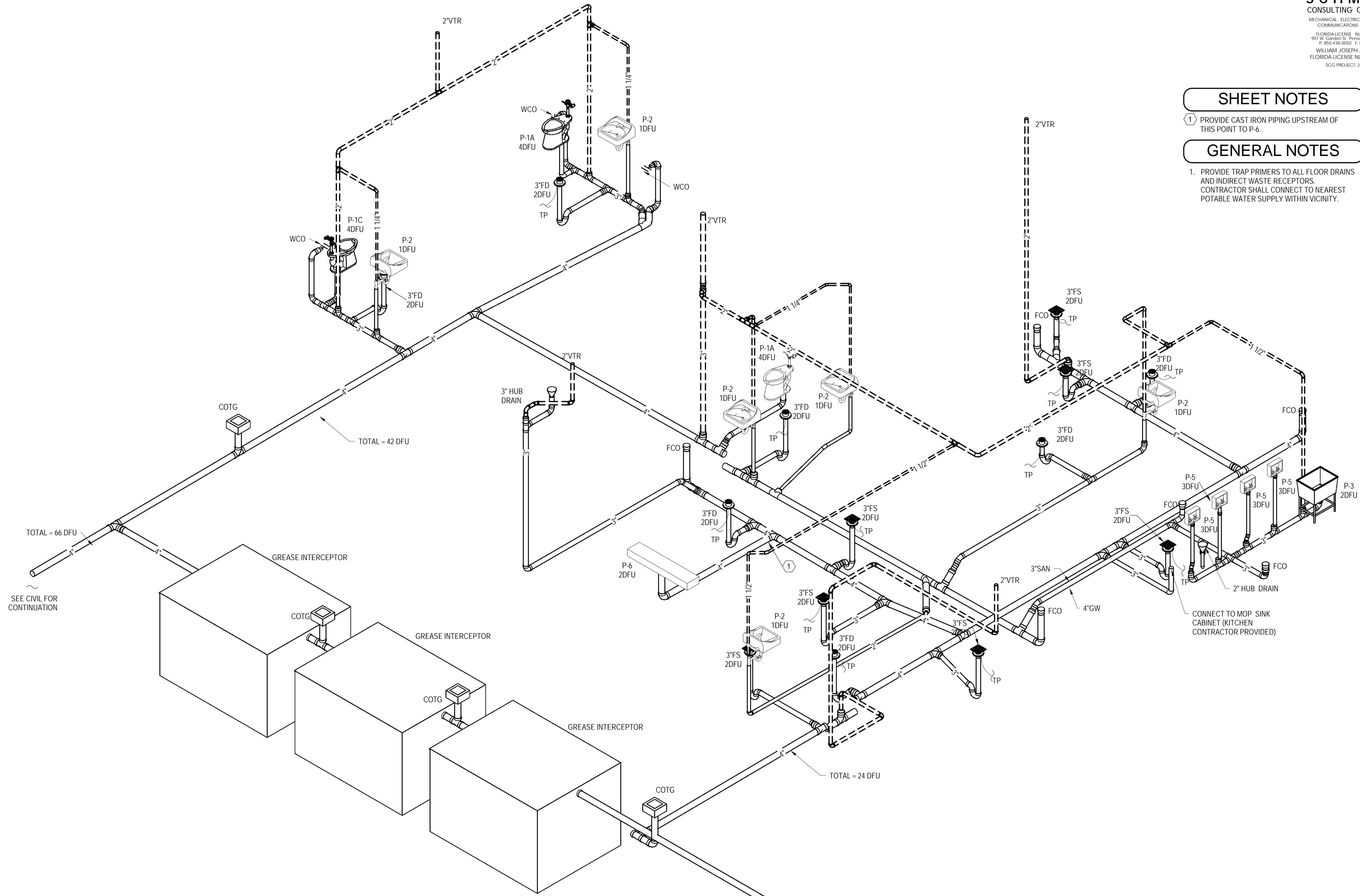
APPROVED	CHIEF ENGINEER APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	ENLARGED DOMESTIC WATER PLAN AREA B	
AIR FORCE SPECIAL OPERATIONS COMMAND	1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE: 16 SEPT 2016	DESIGNED BY: CAD	DRAWN BY: CAD
BUILDING NO: 90353	PROJECT NO: FTEV 12-1164	SHEET REF: P8
SHEET NO: 58 of 110		

SHEET NOTES

1. PROVIDE CAST IRON PIPING UPSTREAM OF THIS POINT TO P-6.

GENERAL NOTES

1. PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS AND INDIRECT WASTE RECEPTORS. CONTRACTOR SHALL CONNECT TO NEAREST POTABLE WATER SUPPLY WITHIN VICINITY.



1 SANITARY RISER DIAGRAM
NOT TO SCALE

SEE FLOOR PLAN FOR ALLOCATION OF WORK TO PROJECTS FTEV 12-1164-A AND FTEV 12-1164-B.

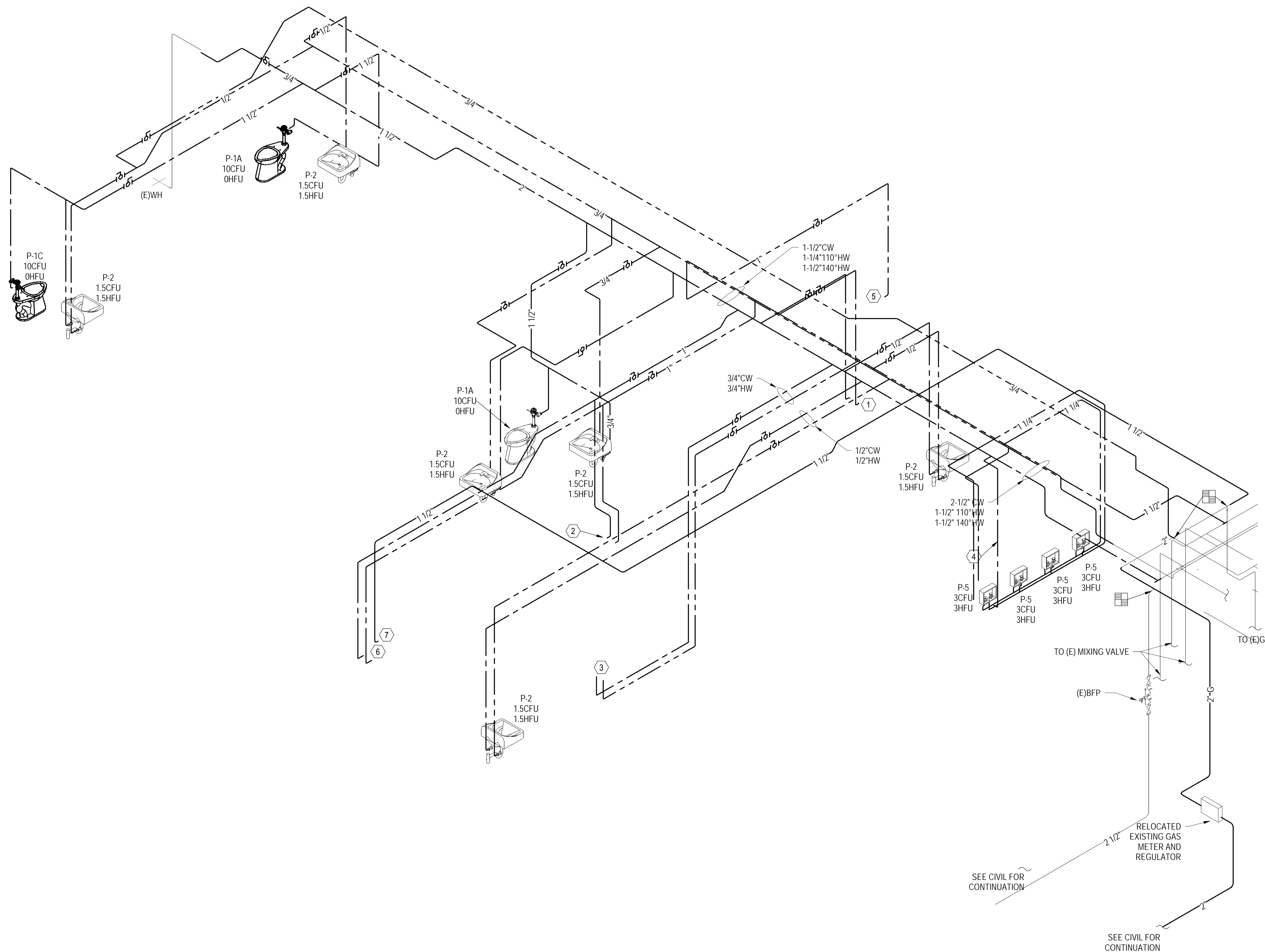
APP'D	
DESCRIPTION	
DATE	
REV #	
APPROVED	
CHIEF ENGINEER	
APPROVED	
CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 SANITARY RISER DIAGRAMS	
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	P9
SHEET NO:	59 of 110

GENERAL NOTES

1. PROVIDE WATER HAMMER ARRESTERS ON HOT & COLD WATER SUPPLY BRANCHES SERVING SINGULAR, MULTIPLE OR GROUPS OF PLUMBING FIXTURES. ADHERENCE TO THE PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I.-WH201 (PER SPECIFICATIONS) SHALL BE EMPLOYED IN DETERMINING PROPER SIZE, SELECTION, PLACEMENT, LOCATION AND INSTALLATION OF ARRESTERS.
2. RISER DIGRAMS ARE DIAGRAMMATIC. JOGS IN PIPING ARE REPRESENTATIVE OF WHERE PIPING MAY NEED TO BE ROUTED TO AVOID DUCTWORK. ACTUAL ROUTING OF PIPING MAY DIFFER.

SHEET NOTES

1. ROUTE TO THREE COMPARTMENT SINK (EXISTING/RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS. PROVIDED BY KITCHEN DESIGN CONSULTANT.
2. ROUTE TO TWO COMPARTMENT SINK (EXISTING/RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS. PROVIDED BY KITCHEN DESIGN CONSULTANT.
3. ROUTE SOFT COPPER TUBING UNDER SLAB TO NEW ISLAND SINK. NO JOINTS ALLOWED BELOW SLAB. PROVIDE SHUTOFF VALVES AT FLOOR. ROUTE BRAIDED S.S. PIPE FROM SHUTOFF VALVES TO SINK CONNECTION. PROVIDED BY KITCHEN DESIGN CONSULTANT.
4. ROUTE TO ICE MAKER (EXISTING/RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS.
5. ROUTE TO DISHWASHER (EXISTING) AND INSTALL PER MFR. INSTRUCTIONS.
6. ROUTE 3/4" HW AND 3/4" CW TO UTILITY DISTRIBUTION SYSTEM (RELOCATED) AND INSTALL PER MFR. INSTRUCTIONS.
7. ROUTE GAS TO UTILITY DISTRIBUTION SYSTEM (RELOCATED).



1 DOMESTIC WATER RISER DIAGRAM
NOT TO SCALE

SEE FLOOR PLAN FOR ALLOCATION OF WORK TO PROJECTS FTEV 12-1164-A AND FTEV 12-1164-B.

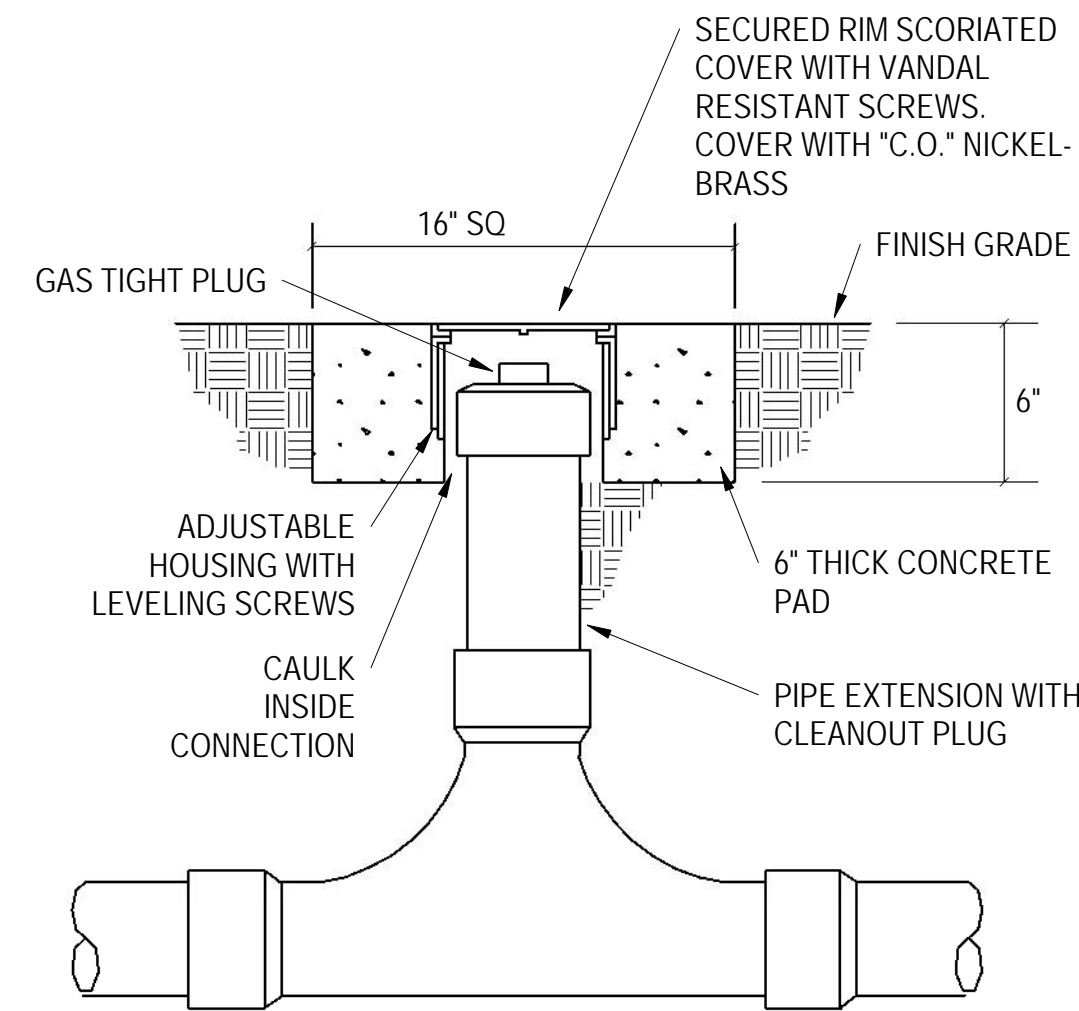
REV #	DATE	DESCRIPTION

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CHIEF ENGINEER	
APPROVED	
CIVIL ENGINEER	

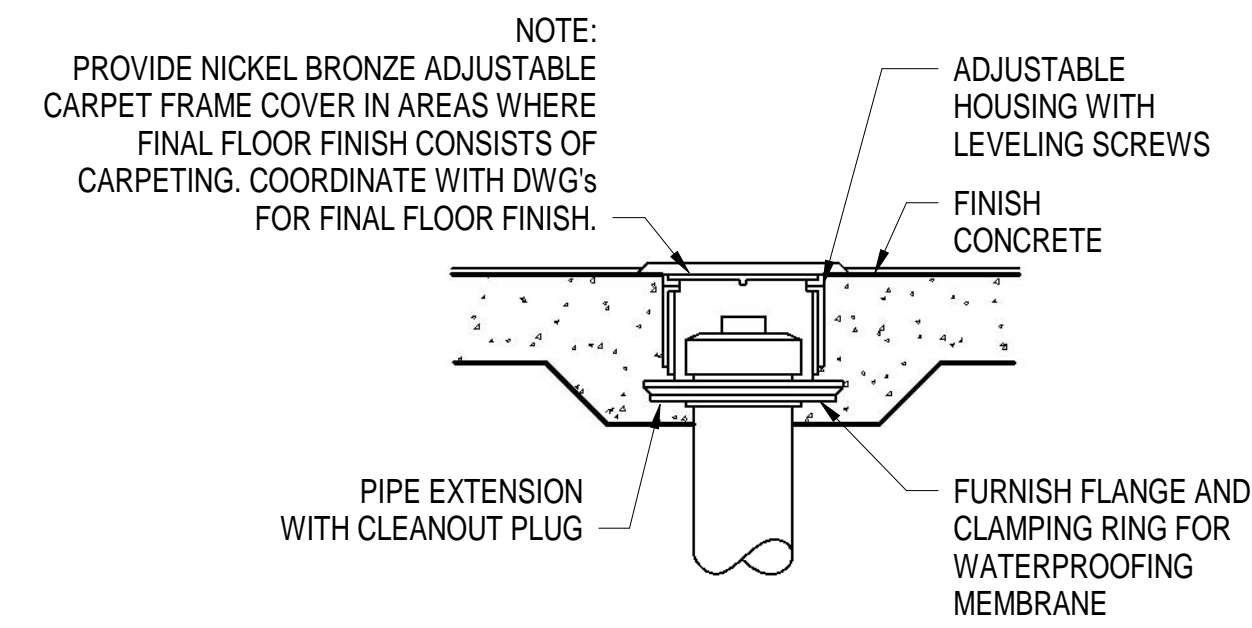
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	WATER AND GAS RISER DIAGRAM
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	

DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164
SHEET REF.:	P10
SHEET NO.:	60 of 110

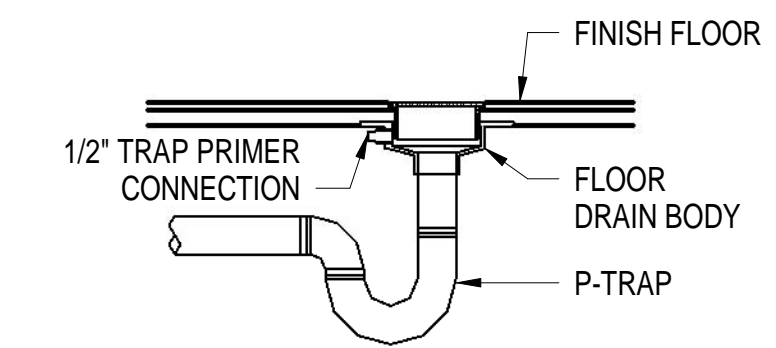
STANDARD LAYOUT (24" x 36")



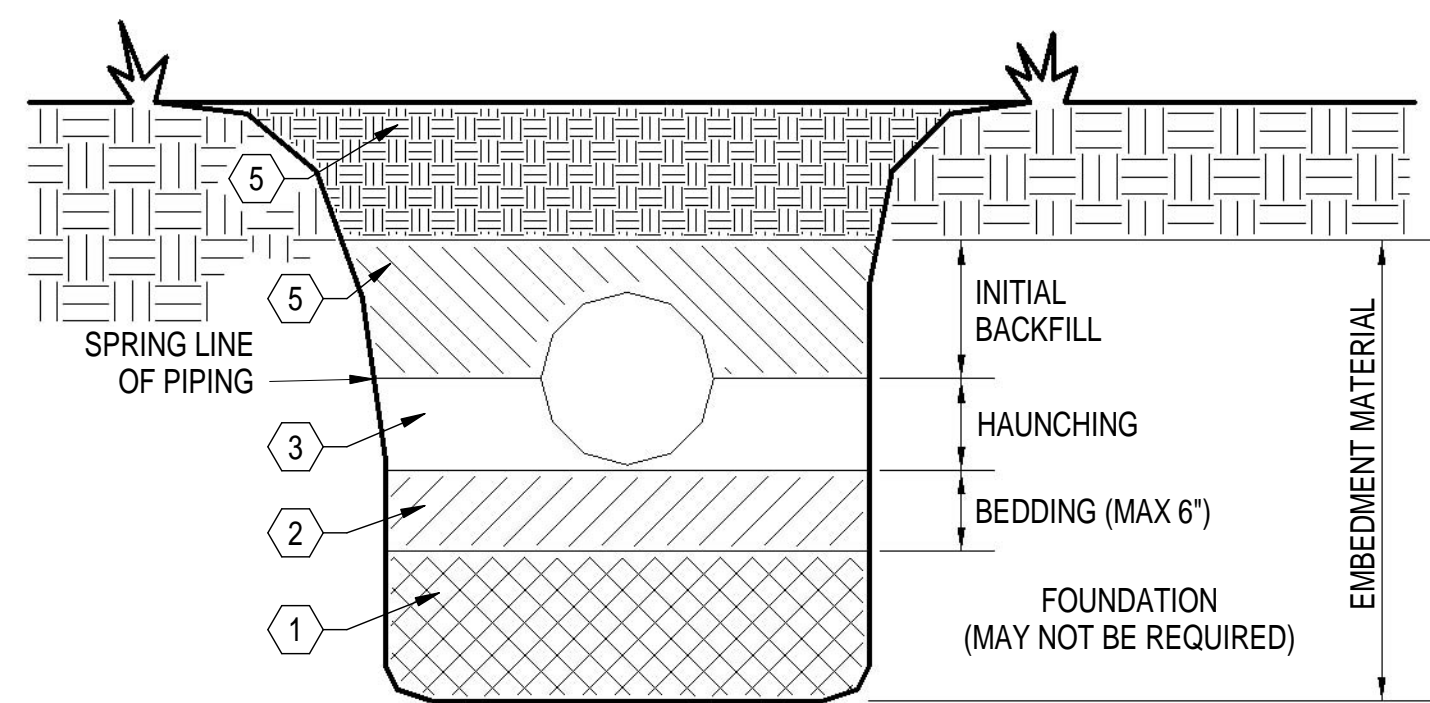
1 CLEANOUT TO GRADE (COTG)
NOT TO SCALE



2 FLOOR CLEANOUT (FCO)
NOT TO SCALE



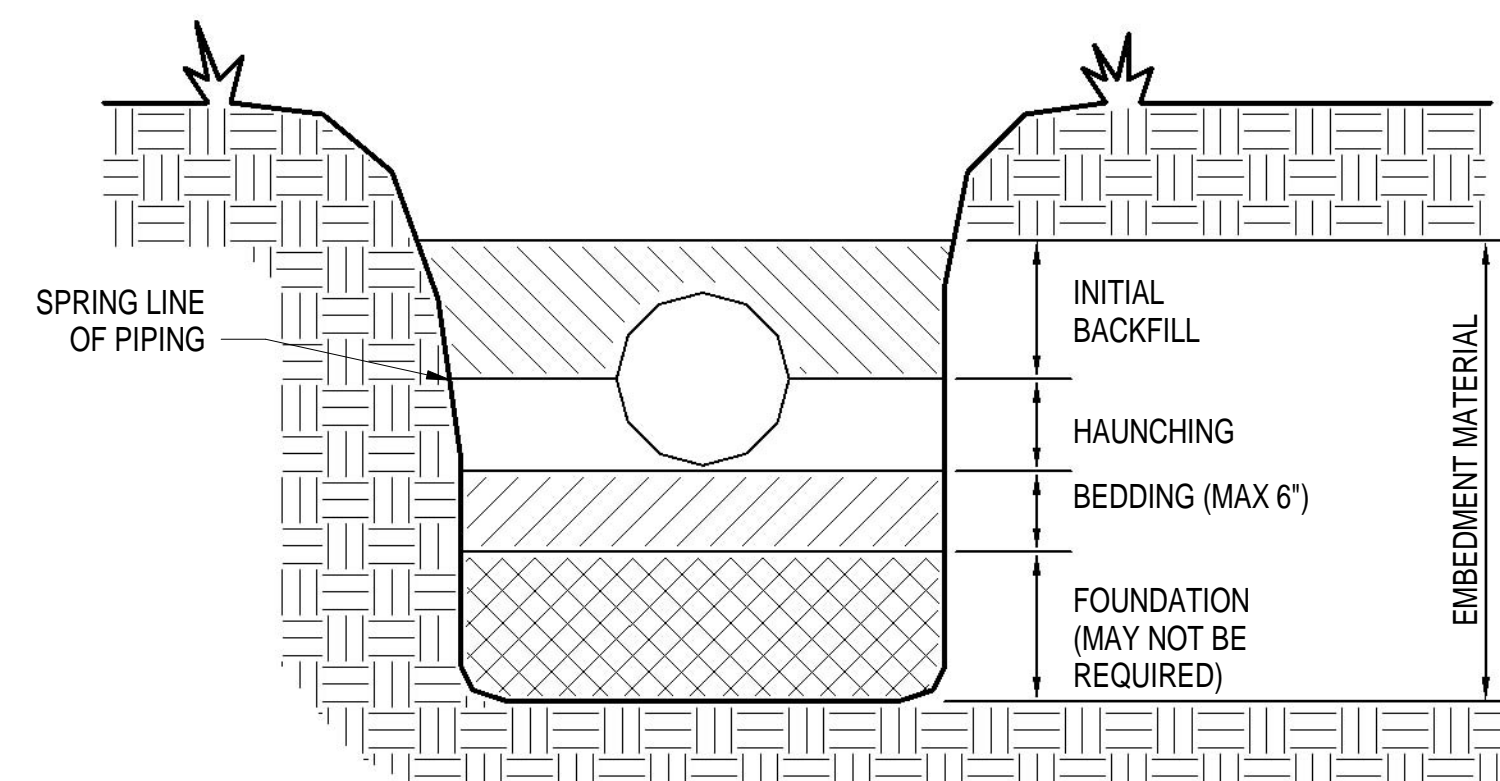
3 FLOOR DRAIN WITH TRAP PRIMER DETAIL
NOT TO SCALE



- ① A FOUNDATION MAY BE REQUIRED IN VERY POOR SOIL CONDITIONS.
- ② BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE. IN DRY SOIL CONDITIONS, CLASS II OR III MATERIAL SHALL BE HAND PLACED IN 4-6", LIGHTLY COMPACTED UNIFORM AND NOT FINER THAN THE FOUNDATION MATERIAL. IN WET CONDITIONS, CLASS I, II OR III MATERIAL SHALL BE HAND PLACED, 4-6", UNIFORM AND NOT FINER THAN THE FOUNDATION MATERIAL. WHEN UTILIZING CLASS I MATERIAL, SUFFICIENT AMOUNTS OF CLASS II OR III MATERIAL SHALL BE ADDED TO FILL ALL VOIDS CREATED BY THE USE OF CLASS I MATERIAL.
- ③ HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. CLASS II OR III MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.
- ④ INITIAL BACKFILL MATERIAL SHALL BE CLASS II OR III. IT SHALL BE PLACED WITHIN 24-30" ABOVE THE TOP OF THE PIPE AND TAMPED BY A PORTABLE VIBRATOR.
- ⑤ FINAL BACKFILL MATERIAL MAY BE MACHINE PLACED. THE MATERIAL SHALL BE CLASS II OR III MATERIAL. CLASS IV MATERIAL MAY BE INSTALLED OUTSIDE OF ROADWAY. FINAL BACKFILL UNDER ROADWAYS MAY REQUIRE SPECIAL COMPACTION AND DENSITY TESTS. A MINIMUM OF 30" OF COVER OVER THE TOP OF THE PIPE SHALL BE PROVIDED BEFORE THE TRENCH IS WHEEL-LOADED.

NOTE:
ALL EMBEDMENT MATERIALS SHALL BE NO LESS THAN 95% OF MAXIMUM DENSITY. LABORATORY TESTING OF THE SOIL WILL BE REQUIRED. THIS PROCEDURE SHALL BE REQUIRED ON ALL INSTALLATIONS.

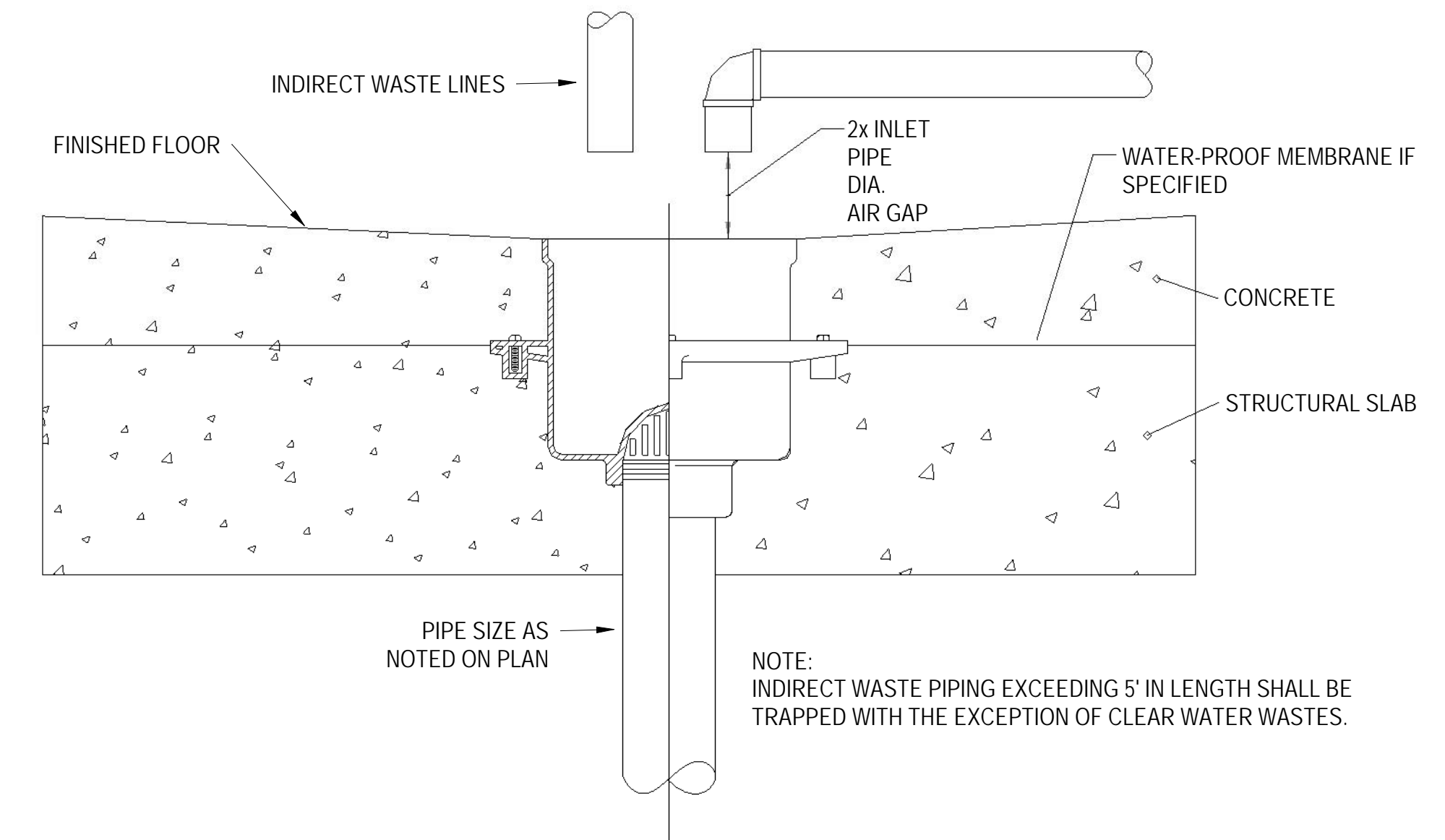
4 GENERAL DATA BACKFILLING REQ. DETAIL
NOT TO SCALE



EMBEDMENT MATERIALS

- CLASS I: ANGULAR, 1/4"-1-1/2", GRADED STONE, INCLUDING A NUMBER OF FILL MATERIALS THAT HAVE REGIONAL SIGNIFICANCE SUCH AS CORAL, SLAG, CINDERS, CRUSHED STONE AND CRUSHED SHELLS.
- CLASS II: COARSE SANDS AND GRAVELS WITH MAXIMUM PARTICLE SIZE OF 1-1/2" INCLUDING: VARIOUS GRADED SANDS AND GRAVELS CONTAINING SMALL PERCENTAGES OF FINES, GENERALLY GRANULAR AND NON-COHESIVE, EITHER WET OR DRY. SOIL TYPES GW, GP, SW, AND SP ARE INCLUDED IN THIS CLASS.
- CLASS III: FINE SAND AND CLAY GRAVELS, INCLUDING FINE SANDS, SANDCLAY MIXTURES AND GRAVEL-CLAY MIXTURES. SOIL TYPES GM, GC, SM, AND SC ARE INCLUDED IN THIS CLASS.
- CLASS IV: SILT, SILTY CLAYS, AND CLAYS, INCLUDING INORGANIC CLAYS AND SILT OF MEDIUM TO HIGH PLASTICITY AND LIQUID LIMITS. SOIL TYPES MH, ML, CH, AND CL ARE INCLUDED IN THIS CLASS. THESE MATERIALS ARE NOT TO BE USED FOR BEDDING, HAUNCHING, OR INITIAL BACKFILL.
- CLASS V: THIS CLASS INCLUDES THE ORGANIC SOILS, AS WELL AS SOILS CONTAINING FROZEN EARTH, DEBRIS, ROCKS LARGER THAN 1-1/2" IN DIAMETER AND OTHER FOREIGN MATERIALS. THESE MATERIALS ARE NOT TO BE USED FOR TO BE USED FOR BEDDING, HAUNCHING, OR INITIAL BACKFILL.

5 GENERAL DATA SOIL CLASSIFICATION DETAIL
NOT TO SCALE

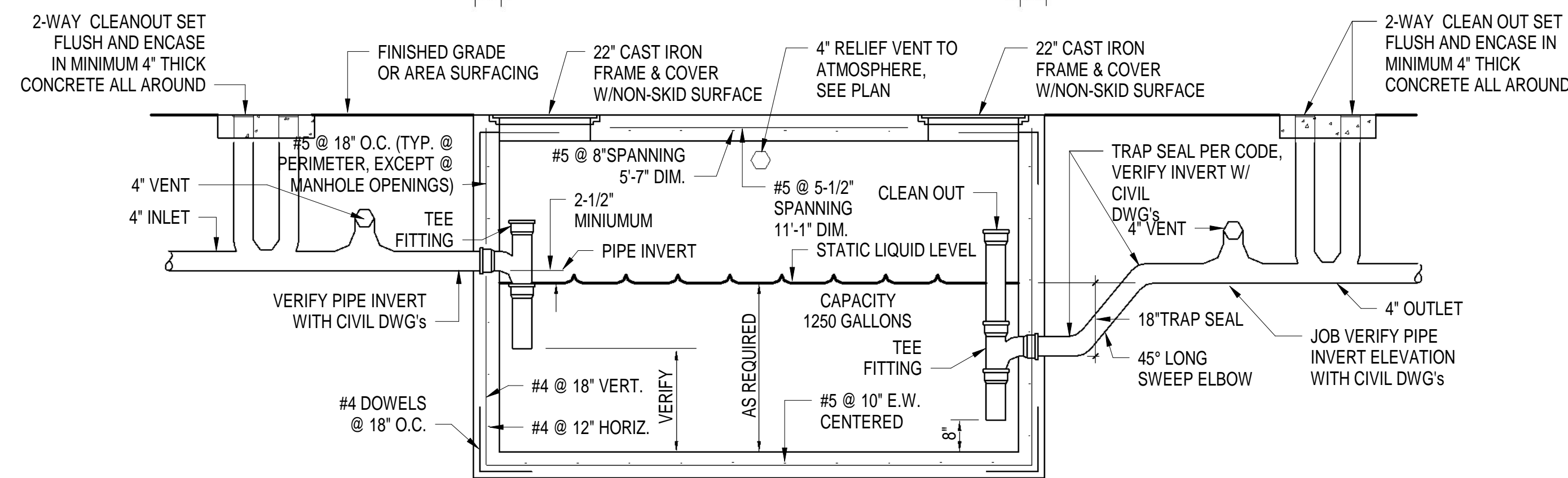
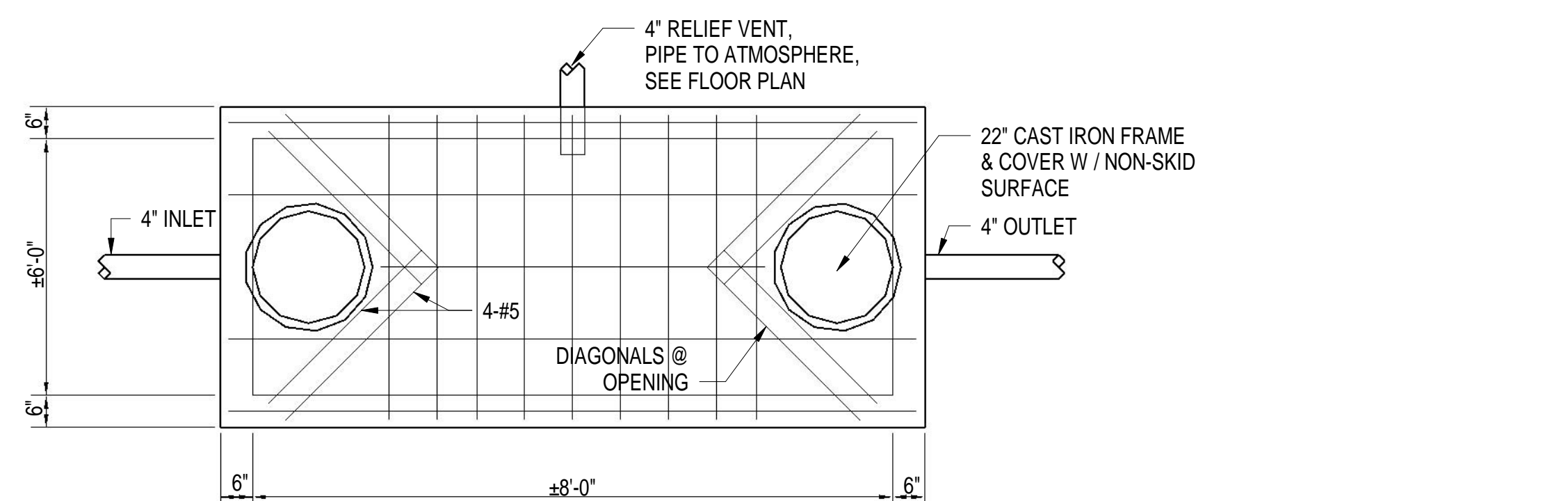


6 TYPICAL FLOOR SINK
NOT TO SCALE

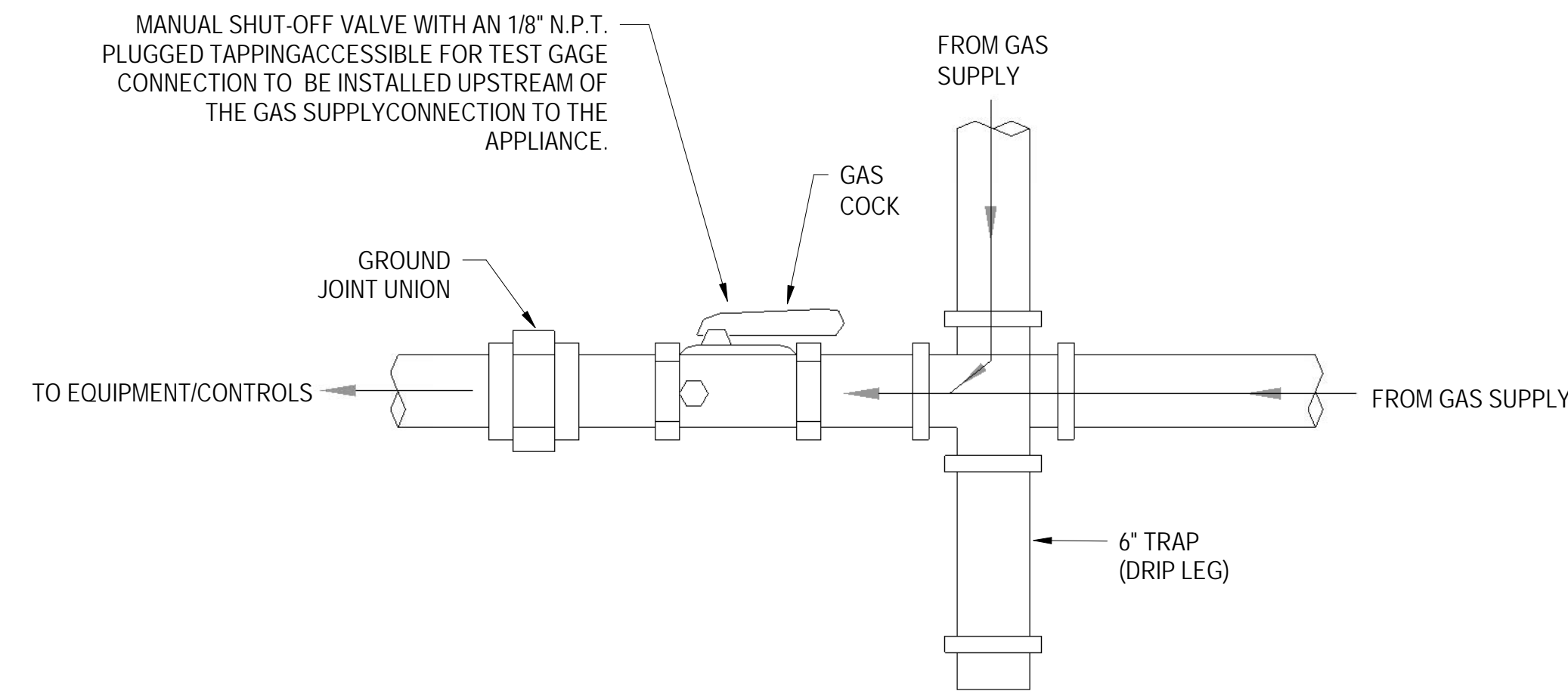
ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
PLUMBING DETAILS

AIR FORCE SPECIAL
OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

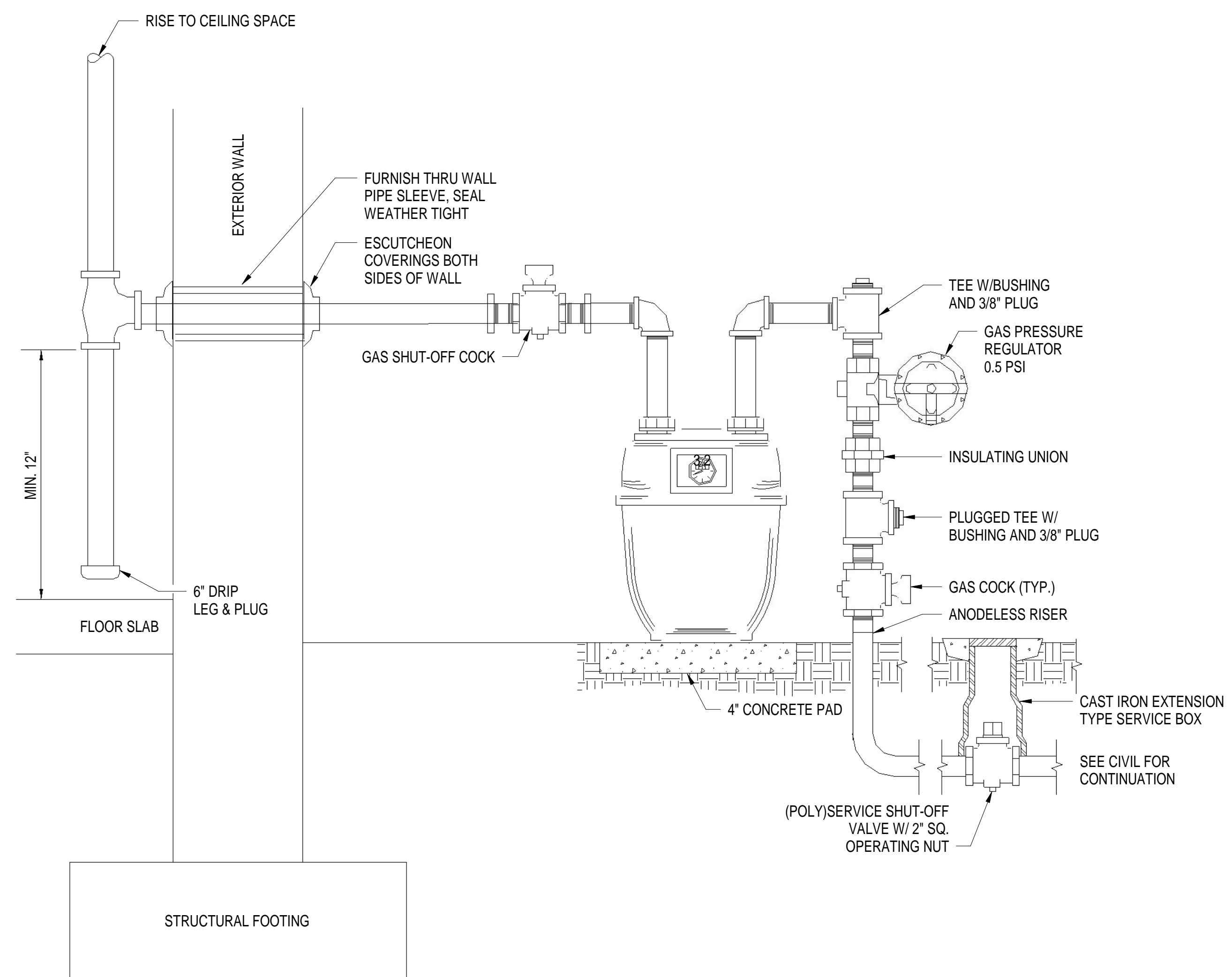
DATE: 16 SEPT 2016
DESIGNED BY: CAD
DRAWN BY: CAD
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: P11
SHEET NO: 61 of 110



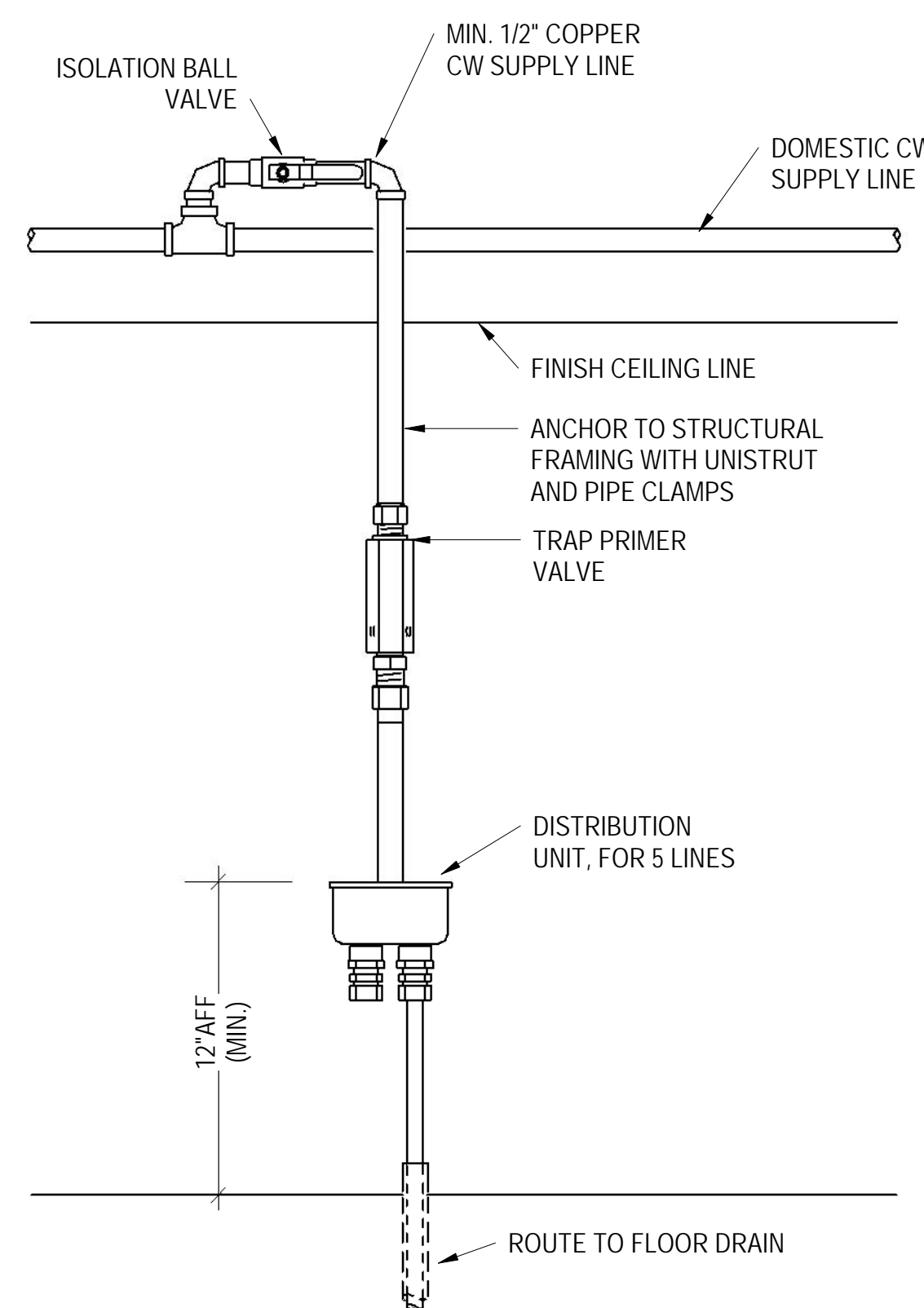
1 GREASE INTERCEPTOR DETAIL
NOT TO SCALE



2 GAS CONNECTION TO EQUIPMENT
NOT TO SCALE

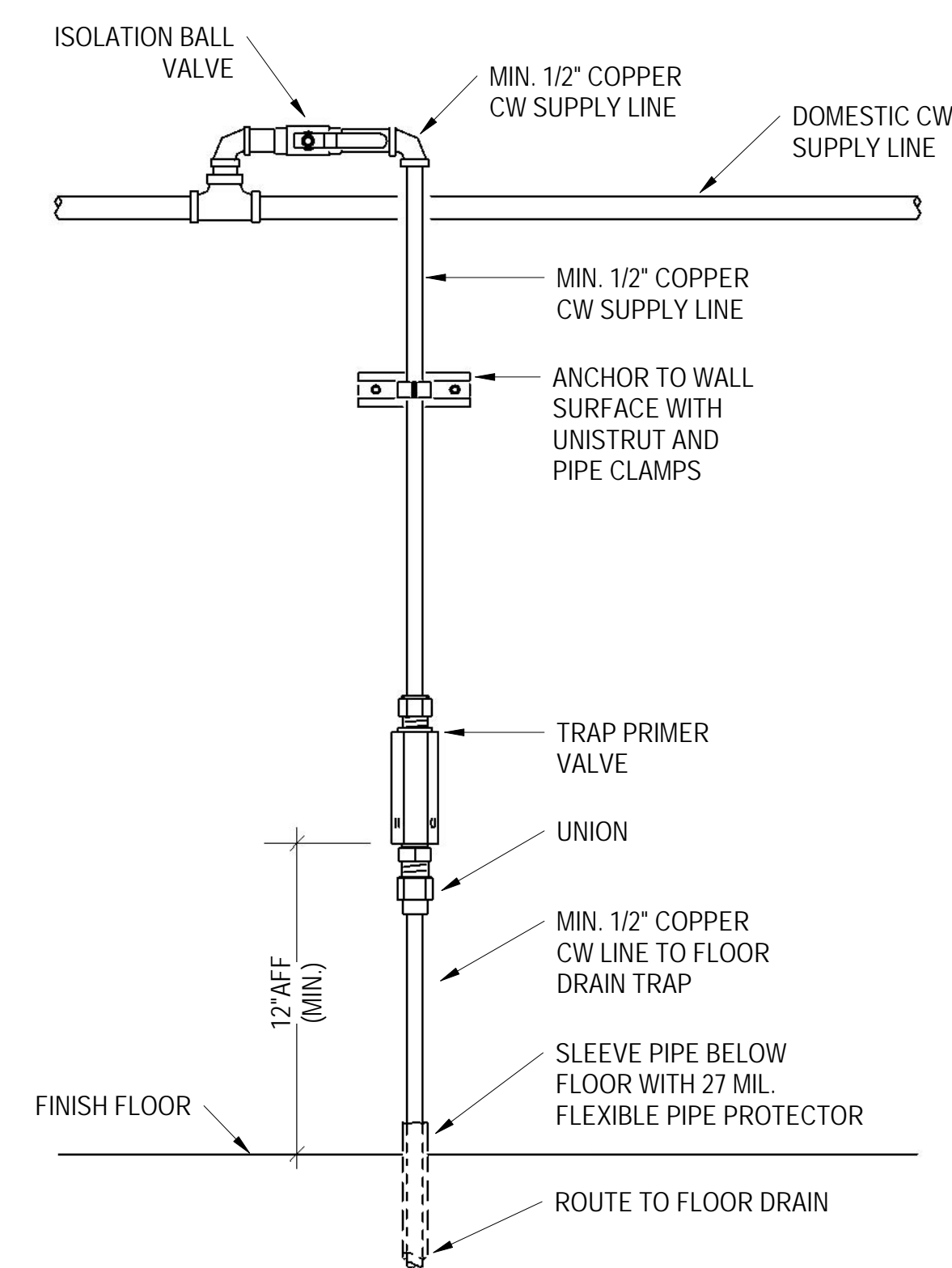


3 GAS SERVICE CONNECTION DETAIL
NOT TO SCALE



- NOTES:**
1. PIPING SHOWN IN CONCEALED WALL CONSTRUCTION.
 2. COORDINATE CEILING AND WALL ACCESS PANEL WITH ARCHITECTURAL.
 3. INSULATE ABOVE CEILING CW PIPING AND INSIDE WALL CW PIPING PER SPECIFICATIONS.

4 TRAP PRIMER (CONCEALED)
NOT TO SCALE



- NOTES:**
1. INSULATE EXPOSED CW PIPING PER SPECIFICATIONS AND PROVIDE ALUMINUM JACKET.
 2. THIS IS INTENDED FOR MECHANICAL/EQUIPMENT APPLICATION ONLY. SEE FLOORPLAN.

5 TRAP PRIMER (EXPOSED)
NOT TO SCALE

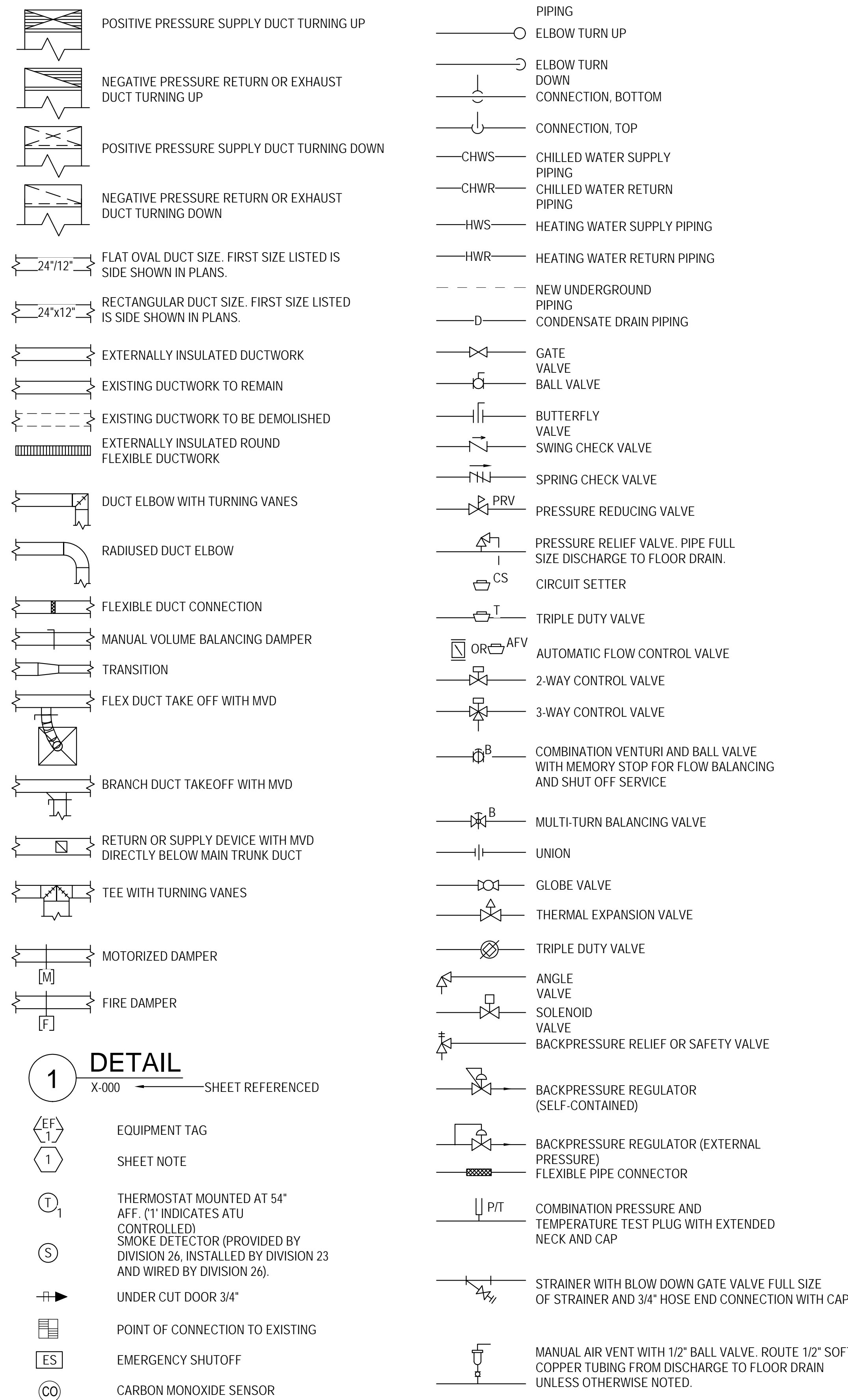
REV #	DATE	DESCRIPTION	APP'D

**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**
PLUMBING DETAILS

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 16 SEPT 2016
 DESIGNED BY: CAD
 DRAWN BY: CAD
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: **P12**
 SHEET NO: 62 of 110

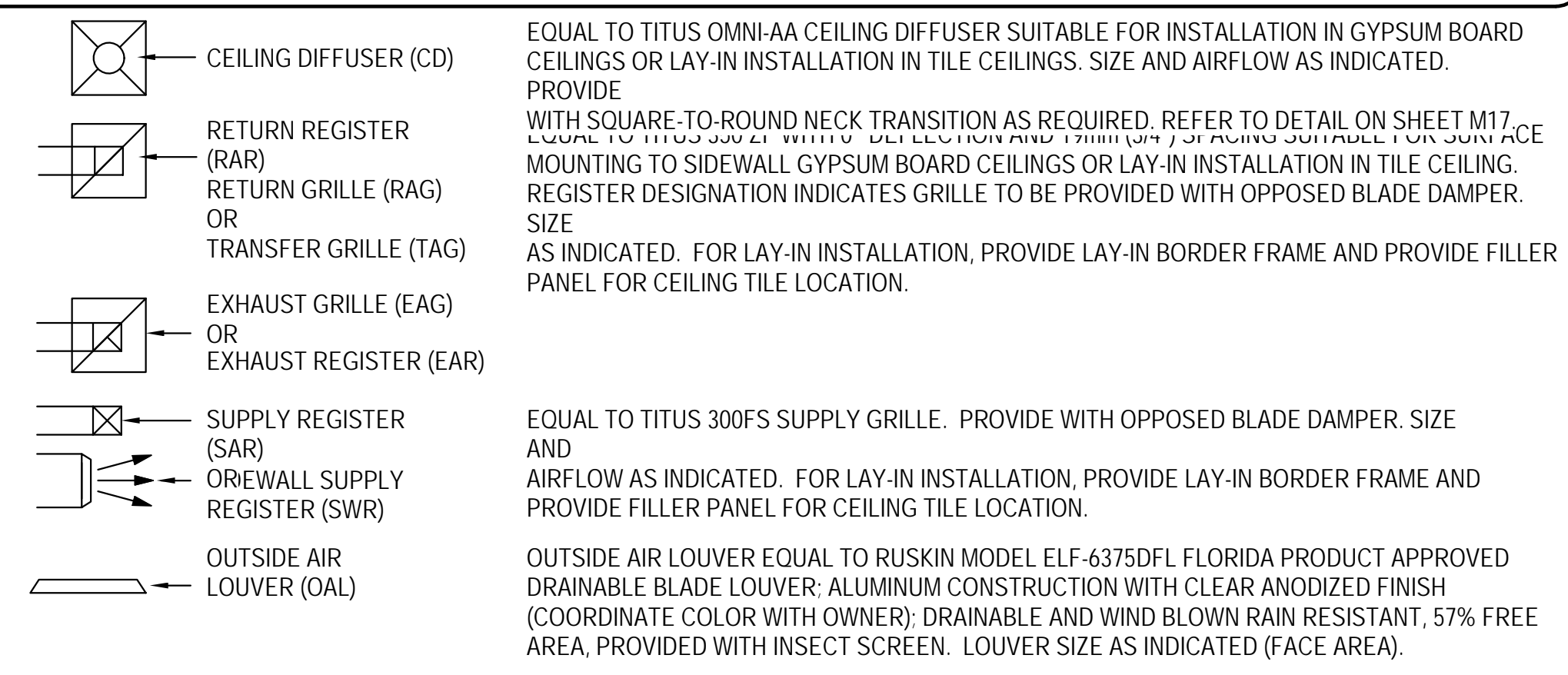
LEGEND



MECHANICAL NOTES

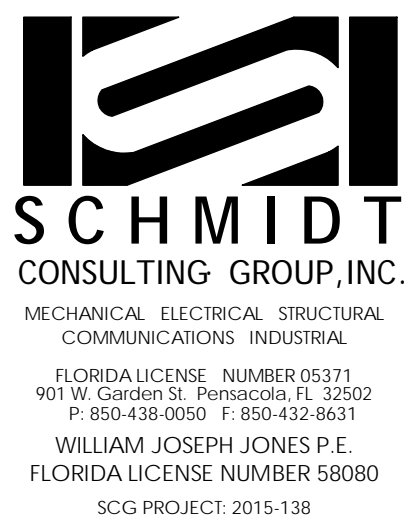
1. COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES REQUIRED OPENINGS IN WALLS, FOUNDATIONS, FLOORS, AND ROOFS.
2. FIELD VERIFY ALL DIMENSIONS, SIZES, AND CONNECTION LOCATIONS BEFORE ANY DUCTWORK FABRICATION OR PIPE CUTTING IS COMMENCED.
3. PROVIDE ANY OFFSETS, TRANSITIONS, AND OTHER MINOR ADJUSTMENTS AS REQUIRED FOR A COMPLETE AND WORKING SYSTEM INSTALLATION.
4. COORDINATE FLOOR DRAIN LOCATIONS IN MECHANICAL ROOMS WITH ANY EQUIPMENT LOCATED IN THE MECHANICAL ROOM. ROUTE CONDENSATE DRAIN PIPING OUT OF WALKWAY PATHS. CONDENSATE DRAIN PIPING SHALL BE COPPER TYPE L WITH A MIN. OF 1" FLEXIBLE ELASTOMERIC CELLULAR INSULATION AND VAPOR BARRIER.
5. VERIFY MECHANICAL EQUIPMENT LOCATIONS AND PROVIDE ADEQUATE MAINTENANCE CLEARANCE AROUND EACH PIECE OF EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE CLEARANCE IN FRONT OF ELECTRICAL PANELS AND OTHER ELECTRICAL EQUIPMENT PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS. COORDINATE WITH OTHER TRADES.
6. HVAC REGISTERS, GRILLES, DIFFUSERS, PIPING, ETC. ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FIELD, FULLY COORDINATED AND IN COMPLIANCE WITH CONTRACT DOCUMENTS. IN NO INSTANCE SHALL THE LOCATION VIOLATE STANDARDS, CODES, GOOD HVAC PRINCIPLES, AND THE INTENT OF THE HVAC DESIGN. CONSULT ENGINEER PRIOR TO RELOCATION. MECHANICAL DRAWINGS, IN SOME RESPECTS, ARE DIAGRAMMATIC. COORDINATION, LAYOUT OF SECTIONS, OR FIELD MEASUREMENTS MAY BE REQUIRED PRIOR TO FABRICATION OF DUCTWORK OR PIPING. MODIFY SIZES, AS DIRECTED BY ENGINEER, FOR FIT. ARRANGE ALL DUCTWORK AND PIPING IN A NEAT AND ORDERLY MANNER. COORDINATE WITH OTHER TRADES.
7. MECHANICAL CONTRACTOR SHALL NOT CUT ANY STRUCTURAL MEMBERS OF BUILDING WITHOUT PRIOR CONSENT OF ARCHITECT AND STRUCTURAL ENGINEER.
8. PROVIDE WATER PROOF SEALING OF PIPE AND DUCT PENETRATIONS OF EXTERIOR WALLS, FLOORS, AND/OR ROOF.
9. ALL PIPING SYSTEM SHALL BE FLUSHED UNTIL CLEAN BEFORE EQUIPMENT CONNECTION.
10. PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS ARE TO BE FIRE SEALED SO AS TO MAINTAIN FLOOR OR WALL INTEGRITY IN THE EVENT OF A FIRE. ALL PENETRATIONS OF FIREWALLS, CEILING, FLOORS, ETC. FOR PIPING SHALL BE UL LISTED FIRESTOPS AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION. CONTRACTOR SHALL OBTAIN MANUFACTURER'S SHOP DRAWINGS FOR ALL JOBSITE PENETRATIONS.
11. SUPPLY AIR DUCTWORK UPSTREAM OF AIR TERMINAL TO BE SINGLE-WALLED MEDIUM PRESSURE ROUND OR FLAT OVAL. PROVIDE SMACNA STATIC PRESSURE CLASS AS REQUIRED FOR SCHEDULE EXTERNAL STATIC PRESSURE. SEAL CLASS A, INTERNALLY INSULATED, DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS. PROVIDE FIRST 25 FEET OF SUPPLY DUCTWORK IMMEDIATELY DOWNSTREAM OF AIR HANDLING UNIT WITH PERFORATED INNER LINER FOR SOUND CONTROL.
12. SUPPLY AIR DUCTWORK DOWNSTREAM OF AIR TERMINAL UNITS (EXCEPT TAKEOFFS TO SUPPLY AIR DIFFUSERS) TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS DUCT WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
13. RETURN AIR DUCTWORK TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS. PROVIDE 2" THICK EXTERNAL FIBERGLASS WRAP.
14. OUTSIDE AIR INTAKE DUCTWORK TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
15. EXHAUST AIR DUCTWORK TO BE LOW PRESSURE SINGLE WALL RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A.
16. FABRICATE KITCHEN EXHAUST DUCTS AND SUPPORTS USED FOR SMOKE AND VAPOR REMOVAL FROM COOKING EQUIPMENT OF 18 GA. STAINLESS STEEL. FOR DUCT CONSTRUCTION, COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS", AND NFPA 96 "REMOVAL OF SMOKE AND GREASE-LADEN VAPORS FROM COMMERCIAL COOKING EQUIPMENT". CONTINUOUSLY WELD ALL SEAMS AND JOINTS TO BE GREASE TIGHT.
17. FABRICATE DISHWASHER EXHAUST DUCTS AND SUPPORTS USED FOR SMOKE AND VAPOR REMOVAL FROM COOKING EQUIPMENT OF WELDED 16-GAUGE MINIMUM ALUMINUM WHERE CONCEALED AND OF 18-GAUGE MINIMUM STAINLESS STEEL WHERE EXPOSED.
18. ALL ROUND FLEXIBLE DUCT SHALL BE FACTORY PRE-INSULATED WITH CORRUGATED ALUMINUM LINER. MAXIMUM LENGTH OF ANY FLEXIBLE DUCT RUNOUT SHALL BE 6'. WHERE LENGTH REQUIRED EXCEEDS 6', INSTALL EXTERNALLY INSULATED ROUND SNAPLOCK DUCT FOR BALANCE OF DISTANCE TO SPIN-IN TAP AT MAIN DUCT TRUNK.
19. PROVIDE SPIN-IN WITH EXTENDED SPIN-IN DAMPER OPERATOR HANDLE FOR ALL DIFFUSER RUNOUTS.
20. COMPLY ALL DUCTWORK CONSTRUCTION, DUCT HANGERS AND SUPPORTS WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE" FOR METAL THICKNESS', REINFORCING TYPES AND INTERVALS, TIE-ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS. SUPPORT HORIZONTAL DUCTS WITHIN 24" OF EACH ELBOW AND WITHIN 48" OF EACH BRANCH. SEE DUCT HANGER DETAILS.
21. ALL DUCT ELBOWS SHALL BE LONG RADIUS TYPE OR, WHERE INDICATED, SQUARE ELBOW WITH TURNING VANES. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS IN TRUNK DUCTWORK AND DIFFUSER CONNECTIONS.
22. TRANSFER DUCTS TO BE INTERNALLY INSULATED WITH 1" THICK ACOUSTICAL DUCT LINER. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
23. VERIFY COLLAR SIZES ON ALL AIR TERMINALS, EQUIPMENT INLETS AND OUTLETS. TRANSITION DUCTWORK AS NECESSARY. EXTERNALLY INSULATE ALL TRANSITIONS AT EQUIPMENT CONNECTIONS.
24. PROVIDE FLEXIBLE DUCT, PIPE CONNECTIONS, AND VIBRATION ISOLATORS FOR INTERNALLY ISOLATED UNITS. PROVIDE FLEXIBLE DUCT CONNECTORS AT ALL HVAC EQUIPMENT CONNECTIONS COMPLYING WITH UL-181, NFPA 90A, AND NFPA 90B.
25. DO NOT MOUNT DISCONNECT SWITCHES ON HVAC EQUIPMENT EXCEPT AS RECOMMENDED BY MANUFACTURER.
26. MOUNT ALL DUCTWORK AS HIGH AS POSSIBLE, BETWEEN FRAMING IF NECESSARY. AVOID ROUTING DUCTWORK OVER LIGHTS WHEREVER POSSIBLE. WHERE DUCTWORK MUST RUN OVER LIGHTS MAINTAIN MINIMUM 4" CLEARANCE BETWEEN DUCT INSULATION AND TOP OF LIGHTS. COORDINATE WITH STRUCTURAL.
27. ABOVE CEILING MECHANICAL EQUIPMENT TO BE INSTALLED NO MORE THAN 2'-6" ABOVE SUSPENDED CEILINGS. AVOID INSTALLATION ABOVE LIGHTS AND MAINTAIN ACCESS TO AND CLEARANCE AROUND MECHANICAL EQUIPMENT AS REQUIRED FOR MAINTENANCE OF UNIT AND CONTROLS. IF A MECHANICAL EQUIPMENT MUST BE INSTALLED ABOVE A LIGHT, MAINTAIN MINIMUM 6" CLEAR BETWEEN BOTTOM OF UNIT AND TOP OF LIGHT.
28. PROVIDE ALL EQUIPMENT, VALVES, ETC. WITH MARKERS AS SPECIFIED FOR IDENTIFICATION PURPOSES. SEE SPECIFICATION.
29. COMPLY WITH MSS SP-58 (PIPE HANGERS AND SUPPORTS-MATERIALS, DESIGN, AND MANUFACTURE), MSS SP-69 (PIPE HANGERS AND SUPPORTS-SELECTION AND APPLICATION), MSS SP-89 (PIPE HANGERS AND SUPPORTS-FABRICATION AND INSTALLATION) FOR PIPE HANGER SELECTIONS AND APPLICATIONS.
30. ENGAGE A FACTORY AUTHORIZED SERVICE REPRESENTATIVE TO PERFORM START-UP SERVICES AND TO TRAIN OWNER'S MAINTENANCE PERSONNEL TO ADJUST, OPERATE AND MAINTAIN EQUIPMENT. SEE SPECIFICATION.
31. PROVIDE OPERATION AND MAINTENANCE MANUALS TO OWNER FOR ALL INSTALLED EQUIPMENT. SEE SPECIFICATION.
32. THERMOSTATS SHALL BE GENERALLY LOCATED AS SHOWN. THE EXACT LOCATION SHALL BE FIELD COORDINATED TO AVOID INTERFERENCE WITH WALL MOUNTED WORK.
33. SEE FIRE ALARM DRAWINGS FOR DUCT SMOKE DETECTORS AND OTHER EQUIPMENT RELATED TO THE BUILDING FIRE ALARM SYSTEM.
34. WORK SHALL COMPLY WITH THE FOLLOWING AGENCIES
35. 2012 INTERNATIONAL BUILDING CODE
36. 2012 INTERNATIONAL MECHANICAL CODE
37. 2012 INTERNATIONAL PLUMBING CODE
38. 2012 INTERNATIONAL FUEL GAS CODE
39. NATIONAL FIRE PROTECTION AGENCY (NFPA)
40. AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

DIFFUSER/REGISTER/GRILLE LEGEND



ABBREVIATIONS

@	AT
AAV	AUTOMATIC AIR VENT
ACC	AUTOMATIC CONTROL CHILLER
ACD	AUTOMATIC CONTROL DAMPER
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMS	AIRFLOW MEASURING STATION
AHRI	AIR-CONDITIONING, HEATING AND REFRIGERATION INSTITUTE
AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
BD	BELT DRIVE
CD	CEILING DIFFUSER
CF	CHEMICAL FEEDER
CFM	CUBIC FEET PER MINUTE
CONT.	CONTINUOUS
COP	COEFFICIENT OF PERFORMANCE
CT	COOLING TOWER
DD	DIRECT DRIVE
DDC	DIRECT DIGITAL CONTROL
DPS	DIFFERENTIAL PRESSURE SENSOR
DWGS.	DRAWINGS
(E)	EXISTING
EA	EXHAUST AIR
EAL	EXHAUST AIR LOUVER
EAR	EXHAUST AIR REGISTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EH	ELECTRIC HEATER
EL	ELEVATION
EMCS	ENERGY MANAGEMENT AND CONTROL SYSTEM
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
FD	FIRE DAMPER
FPM	FEET PER MINUTE
GPM	GALLONS PER MINUTE
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
IPLV	INTEGRATED PART LOAD VALUE
KH	KITCHEN HOOD
MAX.	MAXIMUM
MIN.	MINIMUM
MVD	MANUAL VOLUME DAMPER
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
NPLV	NON-STANDARD PART LOAD VALUE
OA	OUTSIDE AIR
OAL	OUTSIDE AIR LOUVER
OAU	OUTSIDE AIR UNIT
O.C.	ON CENTER
PRV	PRESSURE REDUCING VALVE
P/T	PRESSURE/TEMPERATURE
RA	RETURN AIR
RAG	RETURN AIR GRILLE
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SF	SUPPLY FAN
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
SPT	STATIC PRESSURE TRANSMITTER
SWR	SIDEWALL REGISTER
TAG	TRANSFER AIR GRILLE
T'STAT	THERMOSTAT
TT	TEMPERATURE TRANSMITTER
TSP	TOTAL STATIC PRESSURE
TYP.	TYPICAL
W/	WITH
W.G.	WATER GAUGE



APPROVED	CHIEF ENGINEER	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
APPROVED	CIVIL ENGINEER	
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA		
DATE:	16 SEPT 2016	
DESIGNED BY:	CAD	
DRAWN BY:	CAD	
BUILDING NO:	90353	
PROJECT NO:	FTEV 12-1164	
SHEET REF:	MO	
SHEET NO:	63 of 110	

STANDARD LAYOUT (24" x 36")



AIR COOLED CHILLER SCHEDULE table with columns for MARK, MIN CAPACITY, CHILLER TYPE, REFRIG. TYPE, LIQUID TYPE, MIN. EER, IPLV, EVAPORATOR DATA, CONDENSER DATA, COMPRESSOR DATA, and ELECTRICAL DATA.

NOTES:

- 1. EER - ENERGY EFFICIENCY RATIO. POWER INPUTS SHALL INCLUDE ALL COMPRESSORS, CONDENSER FANS, AND CONTROL POWER AT FULL LOAD CONDITIONS.
2. IPLV - INTEGRATED PART LOAD VALUE OF EER'S AT ARI CONDITIONS.
3. PROVIDE CHILLER WITH LOW AMBIENT CONTROLS AND FLANGE KIT.
4. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH AND POWER SUPPLY MONITOR.
5. PROVIDE COMPLETE COAT - FACTORY DIP AND BAKE COATING FOR CONDENSER COIL.
6. PROVIDE VANDAL-PROOF LOUVERS AROUND BOTTOM OF CHILLER PERIMETER OPENING TO PROTECT PIPING, INSULATION, ETC.
7. PROVIDE WITH SINGLE POINT POWER CONNECTION WITH CONVENIENCE OUTLET. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
8. PROVIDE LOW SOUND PACKAGE: LOW NOISE FANS, COMPRESSOR SOUND ATTENUATION PACKAGE.
9. PROVIDE EVAPORATOR WITH FREEZE PROTECTION. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
10. PROVIDE FACTORY WEATHERPROOF CONTROL PANEL WITH MICROPROCESSOR BASED OPERATING AND SAFETY CONTROLS, STARTERS AND CONTROL VOLTAGE TRANSFORMER.
11. BASIS OF DESIGN IS TRANE.
12. PROVIDE WITH GATEWAY INTERFACE CARD FOR INTEGRATION INTO DDC CONTROL SYSTEM.
13. USE DIRECT BURIAL CAT 5 CABLE FOR COMM WIRING WITH SURGE PROTECTION AT ENC.
14. PROVIDE WITH PACKAGED PUMP SYSTEM, MINIMUM 140 GAL. BUFFER TANK WITH AUTOMATIC AIR VENT, EXPANSION TANK WITH MIN. 5 GALLON ACCEPTANCE. PUMP PACKAGE SHALL INCLUDE FLOW SWITCH, STRAINERS, AND FACTORY POWER AND CONTROL WIRING AS NECESSARY.

DESIGN CONDITIONS table with columns for OUTSIDE, INSIDE (OCCUPIED), and INSIDE (UNOCCUPIED) conditions including DB (DEG. F), WB (DEG. F), RH, and Hz.

NOTES:

- 1. INSIDE SUMMER DESIGN TEMPERATURE IS +0/-2 DEG. F.
2. INSIDE SUMMER DESIGN RELATIVE HUMIDITY IS +10%.
3. INSIDE WINTER DESIGN TEMPERATURE IS +2/-0 DEG. F.
4. HOURS OF OPERATION ARE 7:00 TO 17:30.

VARIABLE VOLUME AIR HANDLING UNIT SCHEDULE table with columns for MARK, TYPE, FAN DATA, PREHEAT COIL HOT WATER DATA, and CHILLED WATER COIL DATA.

NOTES:

- 1. MANUFACTURER SHALL ALLOW A MINIMUM OF 0.5" EXTRA STATIC FOR DIRTY INITIAL FILTERS. EXTERNAL STATIC DOES NOT INCLUDE PRESSURE DROP THROUGH CASING COILS, INITIAL FILTERS, AND FILTER HOUSINGS. EXTERNAL PRESSURE DROP DOES INCLUDE PRESSURE DROP THROUGH PRE-FILTER, FINAL FILTER, AND HOT WATER COIL LOCATED DOWNSTREAM OF AHU.
2. PROVIDE DIRECT DRIVE FAN/MOTOR COMBINATIONS.
3. ADJUST LOCATION OF UNITS IN MECHANICAL ROOMS AS REQUIRED FOR SERVICE AS RECOMMENDED BY MANUFACTURER. COORDINATE ACCESS DOOR LOCATION FOR UNIT ACCESS.
4. PIPE ALL CONDENSATE FROM UNITS TO DRAIN WITH TRAP. PROVIDE PADS AND BASE RAILS OF SUFFICIENT HEIGHT TO ENABLE CORRECT TRAP DEPTH. TRAP CONDENSATE PIPING AT UNIT AND ROUTE TO POINT INDICATED.
5. NEW UNITS MAY REQUIRE DISASSEMBLY AND REASSEMBLY IN THE MECHANICAL ROOM. CONTRACTOR SHALL COORDINATE WITH SPECIFIC EQUIPMENT PROVIDER AND INCLUDE REQUIREMENTS IN BID ACCORDINGLY.
6. PROVIDE MERV 8 PRE FILTERS, AND MERV 13 FINAL FILTERS. PROVIDE DIFFERENTIAL PRESSURE GAUGE FOR FILTER.
7. INTERLOCK AHUS TO ENABLE FAN SHUTDOWN UPON AN INDICATION OF ALARM CONDITION BY THE BLDG. FIRE ALARM SYSTEM. SEE CONTROLS SEQUENCE OF OPERATION.
8. PROVIDE UNIT WITH MULTI FAN ARRAY WITH INDIVIDUAL BACKDRAFT DAMPER ON EACH CELL.
9. HDT - HORIZONTAL DRAW THRU
10. PROVIDE WITH UVC (ULTRA VIOLET C-BAND) DISINFECTION SYSTEM ON DISCHARGE SIDE OF CHILLED WATER COIL. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL. SEE NOTES ON SHEET M2.
11. PROVIDE MINIMUM 8-ROW COOLING COILS AND 1-ROW HEATING COILS.
12. CONTROL VALVE Cv TO BE CALCULATED AT THE SCHEDULED WATER FLOW WITH A VALVE AUTHORITY OF 0.5 BY CONTROLS SUB-CONTRACTOR.
13. PROVIDE SINGLE POINT POWER CONNECTION WITH VFD. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
14. VAV - VARIABLE AIR VOLUME UNIT (MULTIPLE ZONES) - PROVIDE WITH VFD WITH INTEGRAL BYPASS AND DISCONNECT. ALL VFD'S ARE TO BE PROVIDED BY DIV. 23 IN ACCORDANCE WITH THE SPECIFICATIONS OF DIV. 26.
15. BASIS OF DESIGN IS TEMTRON.
16. PROVIDE AIR HANDLING UNITS WITH MOTORIZED OUTSIDE AIR AND RETURN AIR DAMPERS. COORDINATE WITH CONTROLS CONTRACTOR.
17. PROVIDE UNIT WITH WINDOW IN ACCESS DOOR TO VERIFY FUNCTIONALITY OF UV LIGHT WITHOUT OPENING DOOR.
18. PROVIDE UNIT WITH BASE RAILS OF SUFFICIENT HEIGHT TO ALLOW SPACE FOR CONDENSATE TRAP.

AIR TERMINAL UNIT SCHEDULE (AHU 2) table with columns for MARK, MAXIMUM AIRFLOW, MINIMUM AIRFLOW, ROUND INLET SIZE, HEATING COIL REQUIREMENTS, and ELECTRICAL data.

NOTES:

- 1. ALL AIR TERMINAL UNITS SHALL BE PROVIDED WITH MINIMUM 1/2" MATT-FACED INSULATION.
2. ROUND INLET DUCT CONNECTION SHALL NOT BE SMALLER THAN SIZE INDICATED.
3. PROVIDE ALL AIR TERMINAL UNITS WITH FACTORY MOUNTED DISCONNECTS AS PER NEC.
4. PROVIDE ALL AIR TERMINAL UNITS WITH CONTROL TRANSFORMER FOR TERMINAL CONTROL.
5. MAXIMUM INTERNAL RESISTANCE OF AIR TERMINAL UNIT (INLET TO DISCHARGE STATIC PRESSURE DIFFERENTIAL) WITH PRIMARY AIR DAMPER FULL OPEN AT MAXIMUM PRIMARY AIR FLOW INDICATED SHALL BE MINIMIZED, BUT AT NO CONDITION GREATER THAN 0.5 INCHES H2O.
6. ACOUSTIC PERFORMANCE OF AIR TERMINAL UNITS SHALL BE BASED UPON TESTS CONDUCTED IN ACCORDANCE WITH ARI STANDARD 880.

CONDENSING BOILER SCHEDULE table with columns for MARK, BOILER RATINGS, HYDRONIC DATA, and ELECTRICAL DATA.

NOTES:

- 1. MIN. EFF. TO BE THE STEADY STATE THERMAL EFF. AT HIGH FIRE RATE.
2. NATURAL GAS TRAIN TO BE CSD-1 BY BOILER MANUFACTURER.
3. WATER TUBE DESIGN
4. MOUNT BOILER CONTROL PANEL TO SIDE OF BOILER (NOT ON BURNER)
5. INTERLOCK BP-1 (BOILER PUMP) WITH BOILER INTERNAL CONTROLS.
6. PROVIDE BMS GATEWAY INTERFACE AND CONNECT TO DDC SYSTEM.
7. PROVIDE WITH MODULATING BURNER WITH A MIN. 5:1 TURNDOWN.
8. PROVIDE BOILER WITH CONDENSATE NEUTRALIZATION KIT.
9. ROUTE CONDENSATE TO THE NEAREST FLOOR DRAIN.
10. FAC - FAN ASSISTED COMBUSTION
11. PROVIDE OUTDOOR RESET CONTROL WITH OUTDOOR AIR SENSOR.
12. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
13. SEE SEQUENCE OF OPERATION ON SHEET M21.
14. BASIS OF DESIGN IS RAYPAK.

PUMP SCHEDULE table with columns for MARK, SERVICE, TYPE, PERFORMANCE DATA, ELECTRICAL DATA, and REMARKS.

NOTES:

- 1. CS - CLOSED COUPLED END SUCTION: IL - IN-LINE
2. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL.
3. BASIS OF DESIGN IS TACO.
4. BOILER PUMP TO BE SIZED PER MANUFACTURER.
5. FOR CHWP-1 AND HWP-1 REFER TO BASE MOUNTED PUMP DETAIL ON SHEET M18.

Vertical sidebar containing project information: ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353, MECHANICAL SCHEDULES, AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA, and revision history table.

ULTRAVIOLET DISINFECTION SYSTEM NOTES

UV-C FIXTURING - FIXTURING SHALL CONSIST OF A POWER SUPPLY, POWER SUPPLY HOUSING, 'PLENUM RATED' WIRING LOOM, LAMP PLUG, LAMP-PLUG PROTECTOR AND ENCAPSULATED LAMP WITH ADJUSTABLE LAMP RETAINING DEVICE.
 POWER SUPPLY - POWER SUPPLY SHALL BE CSA AND UL LISTED AS A VARIABLE INPUT TYPE (120-277 VAC +/- 10%), 50-60 HZ WITH A PROGRAMMED RAPID START. SUPPLY SHALL BE DESIGNED AS HIGH POWER FACTOR, CLASS P, SOUND RATED 'A', TYPE 1 OUTDOOR AND WITH INHERENT THERMAL PROTECTION AND NO PCB'S. SUPPLY SHALL BE CAPABLE OF PRODUCING THE SPECIFIED OUTPUT AND ORGANISM DESTRUCTION AT NOT MORE THAN 15 WATTS OF POWER CONSUMPTION FOR EACH SQUARE FOOT OF TREATED, CROSS SECTIONAL AREA. THE POWER SUPPLY SHALL BE CAPABLE OF PROPERLY POWERING 1-145W UV-C LAMP OR 1- OR 2- 75W UVC LAMPS WHILE ENSURING AT LEAST 9000 HOURS OF LAMP LIFE, AND WITH GREATER THAN 85% OF ITS INITIAL OUTPUT, AT THE LAMPS 'END OF LAMP LIFE' PHASE. POWER SUPPLY SHALL BE PROTECTED AGAINST 'END OF LAMP LIFE' CONDITIONS, WARRANTED FOR 5 YEARS, AND BE LABELED FOR FIELD WIRING.

POWER SUPPLY HOUSING - SHALL BE CONSTRUCTED OF 20GA GALVANIZED, POWDER COATED STEEL AND DESIGNED TO FACILITATE NEC REGULATED POWER SUPPLY INSTALLATION OUTSIDE PLENUMS. EACH HOUSING SHALL BE CAPABLE OF PROPERLY HOLDING, GROUNDING AND WIRING EITHER FOUR OR EIGHT BALLASTS WITHIN TO PROTECT AGAINST ELECTRICAL SHOCK AND MOISTURE, AS WELL AS RF AND EMI LEAKS.

PLENUM RATED WIRING LOOM - SHALL BE OF SUFFICIENT LENGTH TO FACILITATE LAMP CONNECTION TO A REMOTELY LOCATED POWER SUPPLY. THE LAMP AND LOOM SHALL BE CAPABLE OF BEING MOUNTED ANYWHERE IN THE SYSTEM AND/OR AS SHOWN ON THE DRAWINGS. THE LOOM SHALL MEET UL SUBJECT 13 AND UL 1581, AND ARTICLE 725 OF THE NEC. THE LOOM JACKET SHALL BE CONSTRUCTION OF UV-C RESISTANT MATERIALS AND SHALL HAVE AN INTERNAL ALUMINUM/MYLAR SHIELD.

LAMP PLUG - SHALL BE OF THE 4-PIN TYPE CAPABLE OF ACCOMMODATING A SINGLE-ENDED HO LAMP.

LAMP-PLUG PROTECTOR - SHALL BE OF UV RESISTANT MATERIALS AND DESIGNED TO SHRINK 3-1 OVER THE LAMP PLUG AND WIRING LOOM FOR PROTECTION AGAINST ELECTRICAL SHOCK, MOISTURE AND SEPARATION.

EACH LAMP PLUG AND PLENUM RATED WIRING LOOM CONNECTION SHALL HAVE A UVC RESISTANT, ELASTIC PLUGLUV TO ENSURE A WATER TIGHT CONNECTION AND SEAL BETWEEN ANY SINGLE-ENDED LAMP AND WIRING LOOM LAMP PLUG TO PREVENT ELECTRICAL SHOCK, CONNECTION SHORTS AND/OR LAMP OR BALLAST FAILURE FROM LAMP PIN OXIDATION OR PIN ARCING.

LAMP RETAINING DEVICE - MAY BE SINGLE OR DUAL TYPES, MAGNETICALLY OR PERMANENTLY AFFIXED WITHIN THE IRRADIATED CAVITY AND CONSTRUCTED OF UVC RESISTANT MATERIALS AND PROVIDE FOR MAXIMUM FLEXIBILITY IN QUICK LAMP POSITIONING, REMOVAL AND HOLDING POWER.

LAMPS - EACH LAMP SHALL CONTAIN LESS THAN 8 MILLIGRAMS OF MERCURY AND SHALL BE HERMETICALLY LAMINATED WITH A THIN LAYER OF UV-C TRANSMISSIBLE MATERIAL TO PROVIDE PROTECTION AGAINST LAMP BREAKAGE AND TO ENSURE LAMP CONTENTS FROM A BROKEN LAMP ARE CONTAINED. LAMP LIFE SHALL BE 9000 HOURS WITH NO MORE THAN A 15% OUTPUT LOSS AT THE END OF THE LAMPS LIFE. LAMPS SHALL BE CONSTRUCTED WITH UV-C PROOF MATERIAL BASES AND SHALL NOT PRODUCE OZONE.

IRRADIATION - FIXTURELESS LAMPS ARE TO BE INSTALLED IN SUFFICIENT QUANTITY AND IN SUCH A MANNER SO AS TO PROVIDE AN EQUAL DISTRIBUTION OF THE AVAILABLE UV-C ENERGY. WHEN INSTALLED, THE UV-C ENERGY PROVIDED SHALL BE OF THE LOWEST POSSIBLE REFLECTED AND SHADOWED LOSSES AND SHALL BE DISTRIBUTED IN A 360 DEGREE PATTERN WITHIN THE CAVITY TO PROVIDE THE HIGHEST UV-C ENERGY ABSORPTION BY MICROBIAL PRODUCTS IN THE AIR.

INTENSITY - THE MINIMAL UV-C ENERGY STRIKING A SURFACE SHALL BE SUFFICIENT TO CONTINUOUSLY DESTROY A MONO-LAYER OF MOLD AND/OR BACTERIA IN LESS THAN ONE HOUR WHILE OPERATING IN AIR TEMPERATURES OF 1-70°C.

INSTALLATION - THE BALLAST HOUSING SHALL BE CAPABLE OF INSTALLATION WITHIN THE AIR STREAM AND/OR WITHIN A POWER SUPPLY HOUSING. LAMPS SHALL BE MOUNTED TO IRRADIATE THE INTENDED SURFACE(S) AS WELL AS ALL OF THE AVAILABLE LINE OF SIGHT AIR STREAM THROUGH PROPER LAMP PLACEMENT AND INCIDENT ANGLE REFLECTION.

SAFETY - TO PROTECT PERSONNEL, ALL ACCESS PANELS AND DOORS TO ANY UV-C ASSEMBLY AND/OR WITHIN VIEW OF ANY UV-C ASSEMBLY SHALL INCLUDE MECHANICAL INTERLOCK SWITCH TO INSURE THAT ALL UV-C ASSEMBLIES WILL BE DE-ENERGIZED WHEN ANY OF THESE ACCESSES ARE OPENED. THIS SHALL BE IN ADDITION TO THE MANUAL DISCONNECT SWITCH MOUNTED OUTSIDE THE AIR HANDLING UNIT CASING.



AIR SEPARATOR SCHEDULE						
MARK	SERVICE	FLOW RATE (GPM)	MAX. WATER PD (FT. W.C.)	WORKING PRESS. (PSI)	MIN. INLET SIZE (IN.)	MIN. OUTLET SIZE (IN.)
AS-1	HW	35.9	3.0	125	2	2

- NOTES:
- SEE DETAIL 1 ON SHEET M18.
 - BASIS OF DESIGN IS TACO.

EXPANSION TANK SCHEDULE				
MARK	SERVICE	TANK MIN. VOLUME (GAL)	MIN. ACCEPTANCE VOLUME (GAL)	PRE-CHARGE PRESS. (PSI)
ET-1	HW	22.0	12.0	20

- NOTES:
- SEAMLESS BLADDER-TYPE EXPANSION TANK.
 - SEE DETAIL 4 ON SHEET M18.
 - ASME RATED PRESSURE 125 PSI.
 - BASIS OF DESIGN IS TACO.

FAN SCHEDULE												
MARK	SERVING	TYPE	DRIVE	PERFORMANCE DATA					ELECTRICAL DATA			NOTES
				CFM	E.S.P. (IN. W.C.)	MAX. RPM	MAX. SONES	MIN. HP	VOLTS	PHASE	Hz	
EF-1	KH-1	UB	BD	3,000	1.00	1725	24.0	1.5	208	3	60	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13
EF-2	DWH-1	UB	DD	615	1.00	1725	18.4	1/2	115	1	60	1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 14
EF-3	RESTROOMS	REF	DD	750	0.50	1725	9.4	1/4	115	1	60	1, 2, 3, 4, 5, 6, 10, 12, 13, 14
SF-1	KH-1	SF	BD	2,700	1.00	1725	15.6	1.0	208	3	60	1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 14

- NOTES:
- CEF - CEILING EXHAUST FAN; ICF - IN-LINE CABINET FAN; SF - FILTERED KITCHEN SUPPLY FAN; UB - UPBLAST CENTRIFUGAL EXHAUST FAN; REF - ROOF MOUNTED CENTRIFUGAL EXHAUST FAN
 - DD - DIRECT DRIVE; BD - BELT DRIVE
 - PROVIDE FANS WITH SPEED CONTROLLER FOR AIR FLOW BALANCING. MOUNT CONTROLLER WITHIN FAN HOUSING.
 - PROVIDE FAN WITH AN INTEGRAL DISCONNECT.
 - PROVIDE WITH CURB AND GRAVITY BACKDRAFT DAMPER.
 - REFER TO FIRE ALARM DRAWINGS FOR FIRE ALARM SHUTDOWN RELAYS.
 - INTERLOCK WITH HOOD EXHAUST FAN.
 - OPERATE WITH HOOD CONTROL SWITCH.
 - SEE DETAIL 2 ON SHEET M16.
 - SEE ELECTRICAL FOR COMBINATION MOTOR STARTER/DISCONNECT.
 - COORDINATE FINAL FAN REQUIREMENTS WITH FURNISHED HOOD.
 - REFER TO DETAIL 3 ON SHEET M16.
 - FAN AND CURB TO BE MIAMI DADE CERTIFIED FOR HIGH WIND.
 - PROVIDE WITH LOW LEAKAGE MOTORIZED DAMPERS.

DX COOLING ONLY DUCTLESS SPLIT UNIT SCHEDULE																								
MARK	SEE NOTE 1		INDOOR UNIT										OUTDOOR UNIT											
	ARI COOLING CAPACITY (MBH)	MIN. SEER	AIRFLOW (CFM)	COOLING PERFORMANCE				TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ELECTRICAL DATA				MARK	AMBIENT TEMP.		COMPRESSOR	CONDENSER FAN		ELECTRICAL DATA				
				DB (DEG F)	WB (DEG F)	DB (DEG F)	WB (DEG F)			VOLTS	PHASE	Hz	FLA		SUMMER	WINTER		QTY	MCA	QTY	MAX. FLA	VOLTS	PHASE	Hz
	DB (DEG F)	WB (DEG F)	DB (DEG F)	WB (DEG F)	DB (DEG F)	QTY	MCA	QTY	MAX. FLA					VOLTS	PHASE	Hz								
DAC-1	9.0	21	330	70.0	55.6	55.0	49.2	5.5	5.5	208	1	60	0.76	DCU-1	93	81	30	1	12.0	1	0.5	208	1	60

- NOTES:
- MANUFACTURER RATED CAPACITY AT ARI STANDARD CONDITIONS.
 - PROVIDE UNIT WITH LOW AMBIENT CONTROLS FOR OPERATION DOWN TO 0 DEG F.
 - REFRIGERANT PIPING SIZE, ROUTING, AND CONFIGURATION SHALL BE AS RECOMMENDED BY MANUFACTURER OF AIR CONDITIONING UNIT.
INSULATE ENTIRE SUCTION LINE WITH MINIMUM 3/4" THICK UNICELLULAR INSULATION.
 - PROVIDE COMPRESSOR WITH ANTI-SHORT CYCLE CONTROLS AND TIME DELAY ON COMPRESSOR RESTART.
 - PROVIDE OUTDOOR UNIT WITH CORROSION PROTECTION FOR COILS AND CASINGS.
 - BASIS OF DESIGN IS MR. SLIM.
 - REFER TO DETAIL 1 ON SHEET M17.
 - PROVIDE WITH CONDENSATE PUMP.

APPROVED	DESCRIPTION	DATE	REV #
CHIEF ENGINEER			
APPROVED			
CIVIL ENGINEER			

**ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353**

**AIR FORCE SPECIAL
 OPERATIONS COMMAND**
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

DATE:
16 SEPT 2016

DESIGNED BY:
Designer

DRAWN BY:
Author

BUILDING NO:
90353

PROJECT NO:
FTEV 12-1164

SHEET REF:
M2

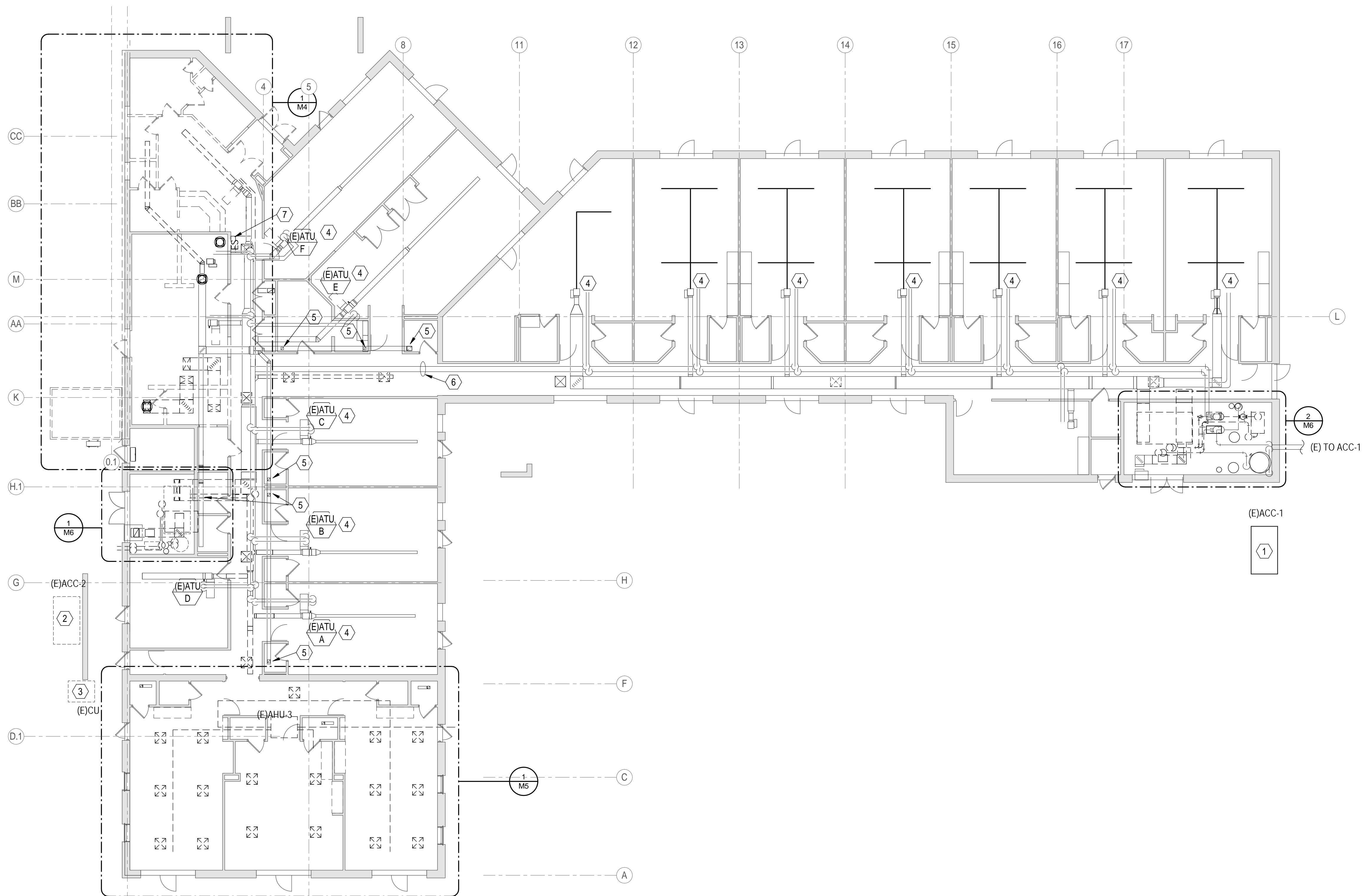
SHEET NO:
65 of 110

SHEET NOTES

- ① (E) ACC-1, ASSOCIATED PUMP, AND PIPING TO REMAIN WITH THE EXCEPTION OF PIPING MODIFICATIONS AS NECESSARY FOR THE AHU-1 REPLACEMENT.
- ② (E) ACC-2, ASSOCIATED PUMP, AND PIPING TO BE REMOVED.
- ③ (E) CU, ASSOCIATED AHU-3, DUCTWORK, AND REFRIGERANT PIPING TO BE REMOVED.
- ④ (E) ATU UNITS TO REMAIN.
- ⑤ REBALANCE EXISTING EXHAUST REGISTERS (EAR) TO AIRFLOW INDICATED ON NEW WORK PLANS.
- ⑥ (E) HWS/HWR PIPING TO REMAIN.
- ⑦ EXISTING HVAC SYSTEM SHUTOFF. REFER TO SHEET M22.

GENERAL NOTES

1. INFORMATION INDICATING LOCATION AND SIZES OF EQUIPMENT, DUCTWORK, PIPING, ETC. WERE OBTAINED FROM AS BUILT DRAWINGS BY CALDWELL ASSOCIATES DATED NOV. 1991 AND SITE VISITS AND ARE REPRESENTATIVE OF THE BEST AVAILABLE SOURCE TO DATE.
2. CONTRACTOR SHALL CUT AND PATCH ANY AREAS NECESSARY TO PERFORM WORK. COORDINATE WALL OR FLOOR FINISH WITH ARCHITECTURAL.
3. PRIOR TO SUBSTANTIAL, CONTRACTOR SHALL PATCH OR REPLACE ALL DAMAGED WALL, CEILING, AND FLOOR DURING CONSTRUCTION TO MATCH NEW WORK. COORDINATE WITH ARCHITECTURAL.
4. ALL MECHANICAL ASSOCIATED ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE TRANSFERRED FROM JOB SITE, EXCEPT THE AIR COOLED CHILLER INDICATED TO BE REMOVED AND OTHER ITEMS SELECTED BY THE GOVERNMENT. THESE ITEMS SHALL BE RELOCATED TO STORAGE AREA DESIGNATED BY THE GOVERNMENT.
5. PIPING CONNECTED TO ASSOCIATED HVAC ITEMS AND EQUIPMENT THAT IS TO BE REMOVED SHALL BE CAPPED SO AS NOT TO INTERFERE WITH REVISED OR NEW CONDITIONS.
6. CONTRACTOR SHALL NOT DISRUPT EXISTING UTILITY SERVICES WITHOUT ASCERTAINING WRITTEN PERMISSION FROM OWNER. REQUIRED OUTAGES OR SHUTDOWNS SHALL BE KEPT TO A MINIMUM AND SHALL BE PERFORMED WITHIN A PREDETERMINED TIME FOR DURATION OF SHUT-DOWN.
7. UNLESS NOTED OR SHOWN OTHERWISE, ALL EXISTING UTILITY SERVICES SHALL REMAIN INTACT AND ACTIVE TO FACILITATE REVISED CONDITIONS.
8. CONTRACTOR SHALL PROVIDE MODIFICATIONS TO EXISTING UTILITY SERVICES TO ACCOMMODATE REVISED CONDITIONS.
9. CONTRACTOR SHALL CUT AND PATCH ALL EXISTING DUCTWORK AS NECESSARY TO PERFORM WORK. COORDINATE WITH EXISTING DUCTWORK MATERIAL.

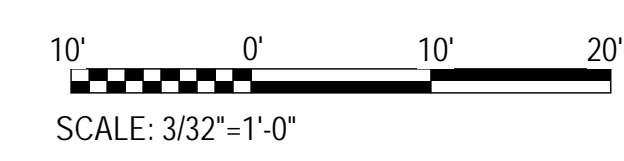


STANDARD D LAYOUT (24" X 36")

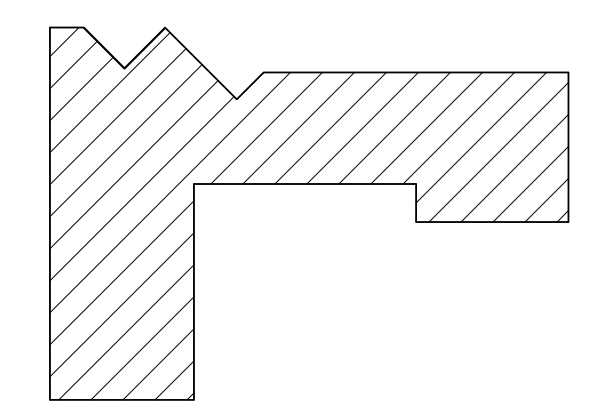
PLAN NORTH

1 OVERALL MECHANICAL DEMO PLAN

3/32" = 1'-0"



KEYPLAN

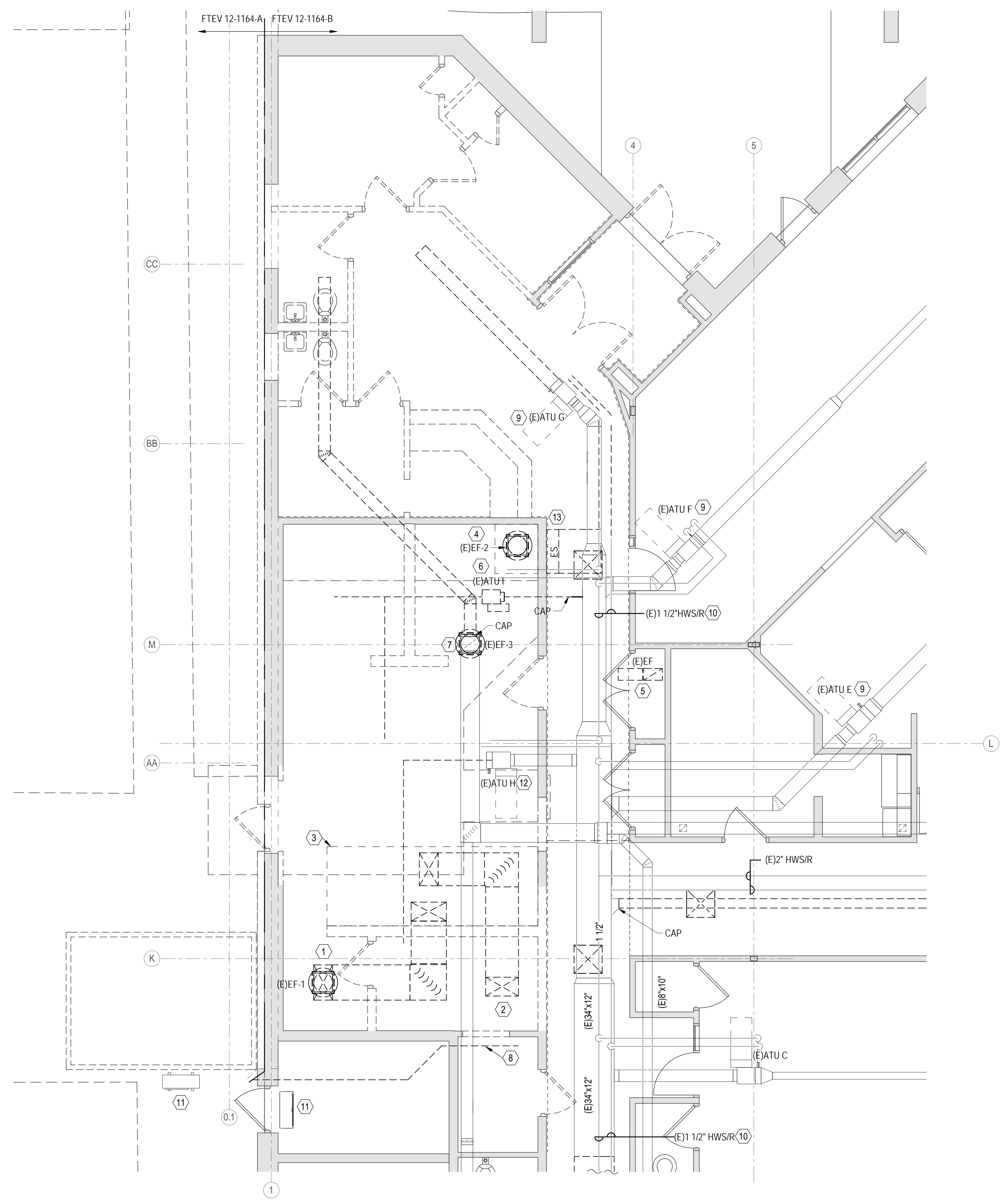


REV #	DATE	DESCRIPTION	APPROVED

APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
MECHANICAL OVERALL DEMO PLAN			
AIR FORCE SPECIAL OPERATIONS COMMAND			
1 SPECIAL OPERATIONS ENGINEER SQUADRON			
HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016	DESIGNED BY:	CAD
DRAWN BY:	CAD	BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164	SHEET REF.:	M3
SHEET NO.:	66 of 110		

SHEET NOTES

- 1 EXISTING ROOF MOUNTED EF (EF-1), AND DUCTWORK SERVING KITCHEN HOOD TO BE REMOVED. ASSOCIATED ROOF CURB TO REMAIN. CAP AND SECURE WEATHERTIGHT. SEE ARCHITECTURAL SHEET A18.
- 2 EXISTING ROOF MOUNTED MAU (MAU-1) AND ASSOCIATED DUCTWORK SERVING KITCHEN HOOD TO BE REMOVED. PATCH ROOF TO MATCH EXISTING.
- 3 EXISTING KITCHEN HOOD TO BE REMOVED
- 4 EXISTING ROOF MOUNTED EF (EF-2) AND ASSOCIATED DUCTWORK SERVING DISHWASHER CONDENSATE HOOD TO BE REMOVED. EXISTING CONDENSATE HOOD TO BE REUSED IN NEW KITCHEN LAYOUT. SEE NEW WORK.
- 5 EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK TO BE REMOVED. PATCH ROOF TO MATCH EXISTING.
- 6 (E) VAV UNIT, ASSOCIATED DUCT, AND CONTROLS TO BE REPLACED. ASSOCIATED PIPING TO BE CAPPED BACK TO MAIN.
- 7 (E) EF-3 AND CURB LOCATED ON THE ROOF TO BE REMOVED. MODIFY ROOF OPENING AS NECESSARY FOR NEW FAN AND CURB, AND SEAL WEATHERTIGHT. SEE NEW WORK.
- 8 (E) DRYER EXHAUST TO BE REMOVED.
- 9 (E) ATU UNIT, AND ASSOCIATED DUCT TO REMAIN. ASSOCIATED CONTROLS TO BE REMOVED. ASSOCIATED PIPING TO REMAIN.
- 10 (E) HWS/R PIPING SHALL REMAIN AND BE MODIFIED AS NECESSARY TO CONFORM TO LAYOUT OF NEW WORK.
- 11 (E) DUCTLESS SPLIT SYSTEM TO REMAIN.
- 12 (E) AIR TERMINAL UNIT TO REMAIN. DOWNSTREAM DUCT TO BE REMOVED. ASSOCIATED CONTROLS TO BE REMOVED.
- 13 EXISTING HVAC SYSTEM SHUTOFF. REFER TO SHEET M22. EXISTING HVAC SYSTEM SHUTOFF. REFER TO SHEET M22.



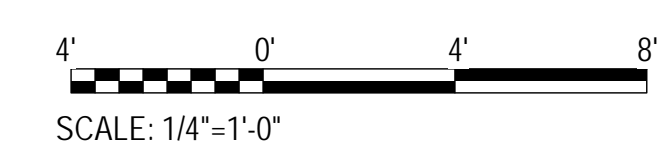
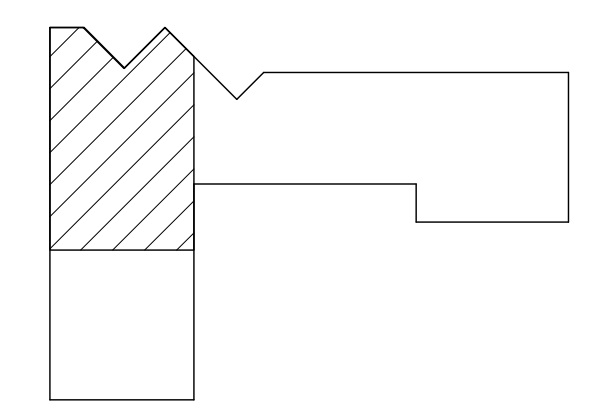
REV #	DESCRIPTION	DATE	APPROVED

ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 ENLARGED MECHANICAL DEMO PLAN A

AIR FORCE SPECIAL
 OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

DATE: 16 SEPT 2016
 DESIGNED BY: CAD
 DRAWN BY: CAD
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: M4
 SHEET NO: 67 of 110

KEYPLAN



STANDARD D LAYOUT (24" X 36")

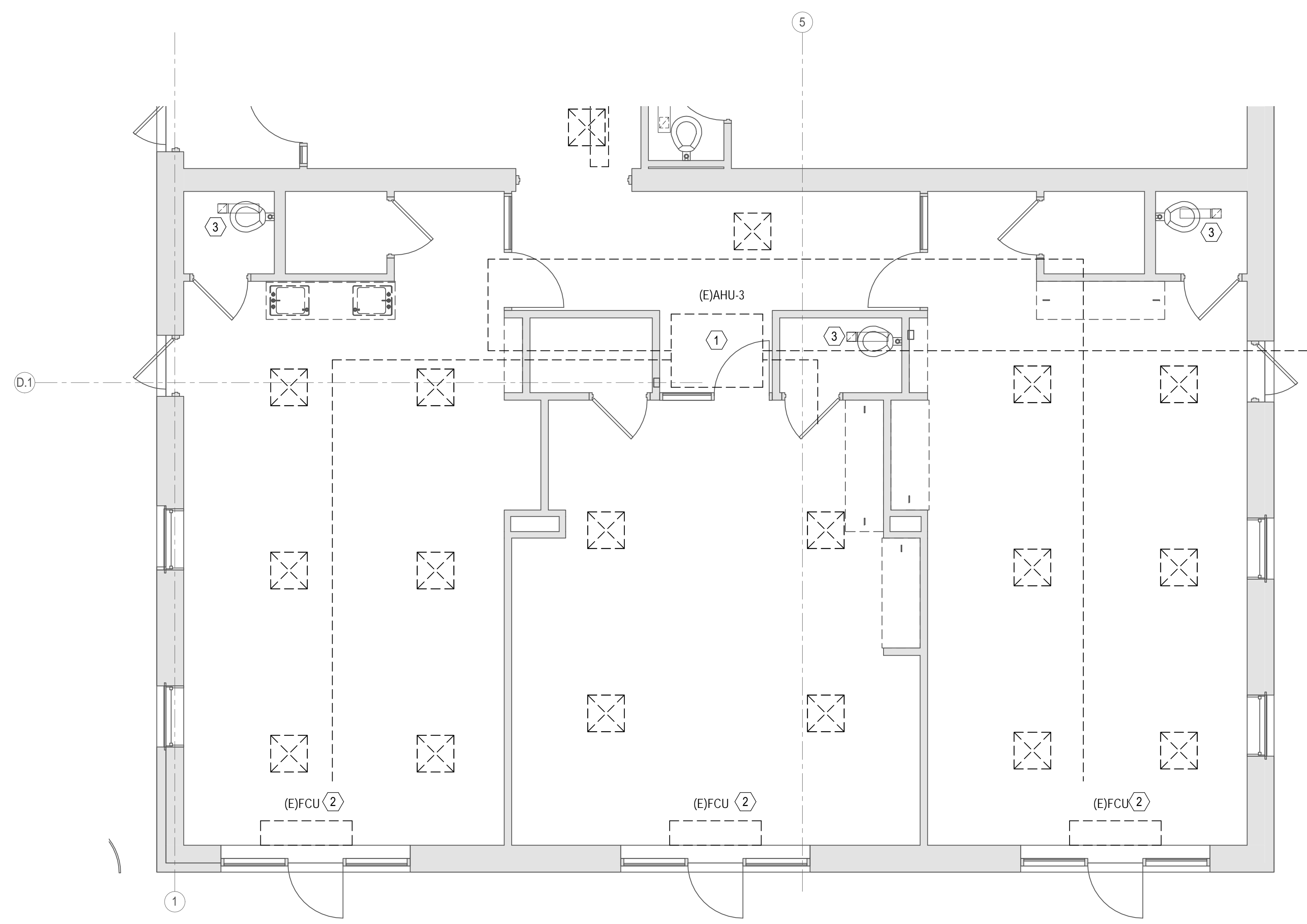
PLAN NORTH
1 ENLARGED MECHANICAL DEMO PLAN A
 1/4" = 1'-0"

SHEET NOTES

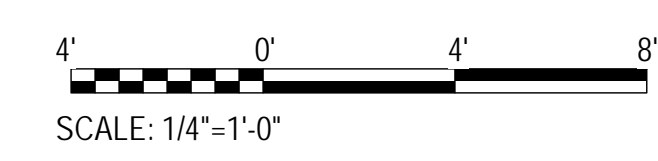
- ① EXISTING DX AHU (AHU-3), ASSOCIATED CONDENSING UNIT (CU), ASSOCIATED DUCTWORK, REGISTERS & GRILLES, AND REFRIGERANT PIPING TO BE REMOVED.
- ② (E) FCUs, ASSOCIATED OUTDOOR UNIT, AND PIPING TO BE REMOVED.
- ③ EXISTING EXHAUST FAN (TEF) AND ASSOCIATED DUCTWORK TO REMAIN.

GENERAL NOTES

- 1. EXISTING OUTSIDE AIR UNIT AND ASSOCIATED PIPING (NOT DEPICTED ON THIS DRAWING) TO BE REMOVED. EXISTING DRAWINGS INDICATING THE LOCATION OF EXISTING OAU WHERE NOT PROVIDED. CONTRACTOR SHALL FIELD VERIFY LOCATION.

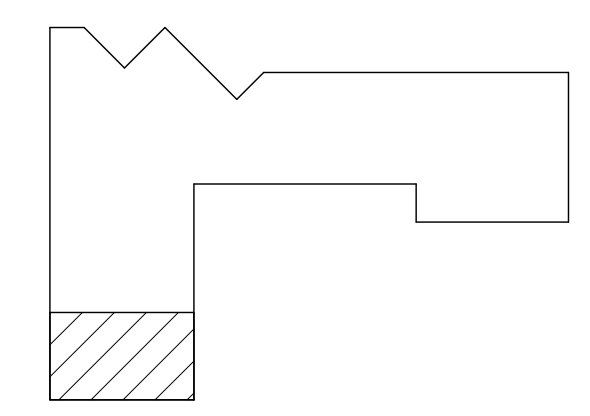


PLAN NORTH
1 ENLARGED MECHANICAL DEMO PLAN B
1/4" = 1'-0"



ALL WORK ON THIS SHET TO BE PART OF FTEV 12-1164-B.

KEYPLAN



REV #	DATE	DESCRIPTION	APPROVED

APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353		ENLARGED MECHANICAL DEMO PLAN B	
AIR FORCE SPECIAL OPERATIONS COMMAND		1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	

DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164
SHEET REF.:	M5
SHEET NO.:	68 of 110

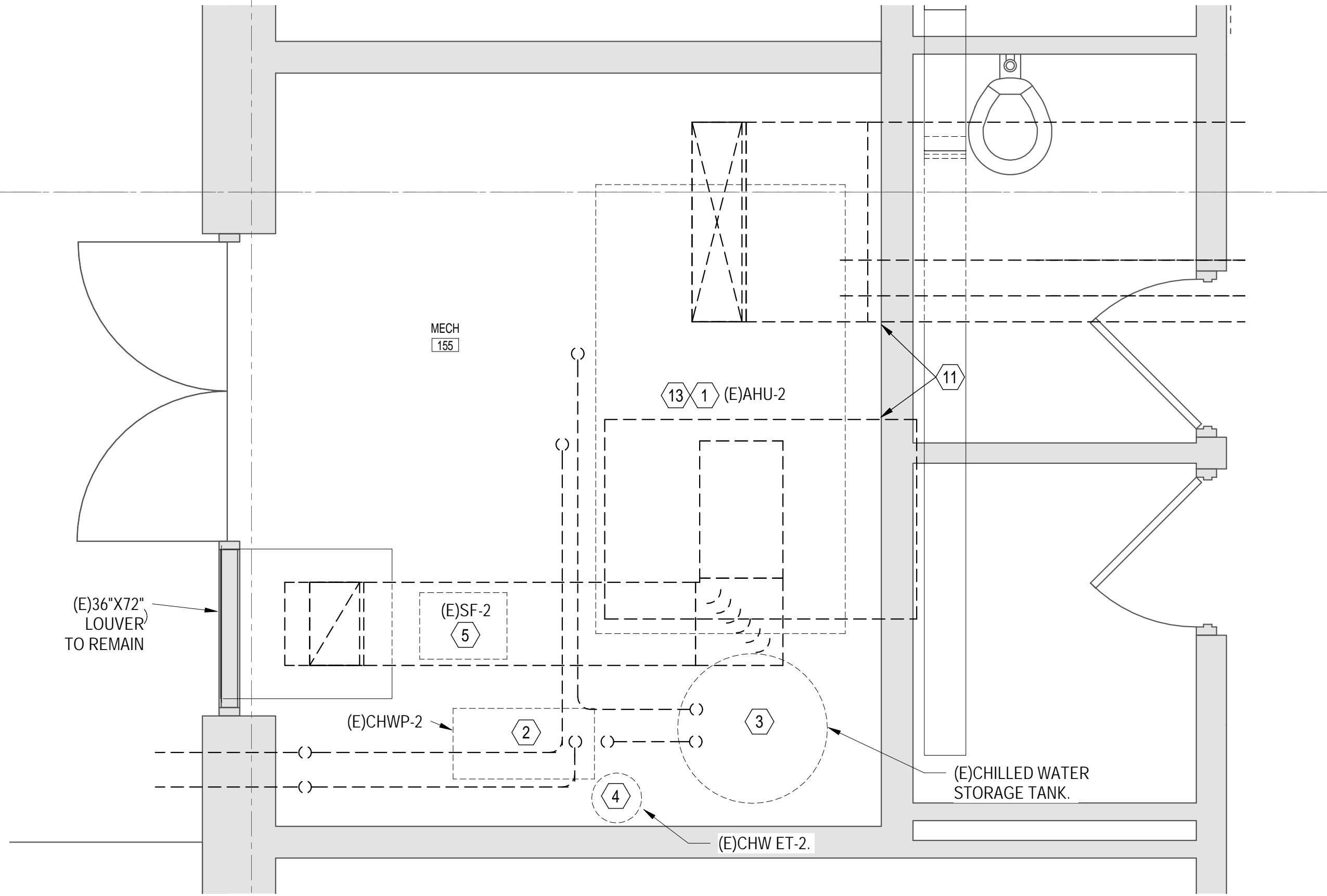
SHEET NOTES

- 1 (E) AHU-2 AND ASSOCIATED PIPING TO BE REMOVED.
- 2 (E) CHWP-2 AND ASSOCIATED PIPING TO BE REMOVED.
- 3 (E) STORAGE TANK TO BE REMOVED.
- 4 (E) CHW ET-2 AND (E) CHW AIR SEPERATOR TO BE REMOVED.
- 5 (E) SUPPLY FAN TO BE REMOVED.
- 6 EXISTING BOILER TO BE REMOVED. ASSOCIATED 9" FLUE TO BE DEMOLISHED. REUSE ROOF OPENING FOR NEW FLUE.
- 7 EXISTING HOT WATER PUMP TO BE REMOVED.
- 8 EXISTING AHU TO BE REMOVED. EXISTING DUCT WORK AND PIPING SHALL BE MODIFIED AS NECESSARY FOR CONFIGURARTION OF NEW EQUIPMENT. SEE NEW WORK PLAN ON SHEET M13.
- 9 (E) CHW ET-1 TO REMAIN. (E) HW ET-1 TO BE REMOVED. MODIFY EXISTING CONCRETE EQUIPMENT PAD AS NECESSARY FOR NEW WORK.
- 10 EXISTING ROOF MOUNTED EXHAUST FAN AND ASSOCIATED DUCTWORK TO REMAIN.
- 11 EXISTING WALL OPENING TO BE MODIFIED AS NECESSARY FOR THE NEW DUCTWORK. SEE NEW WORK PLAN ON SHEET M14. PATCH WALL AS NECESSARY FOR TIGHT CONSTRUCTION TO MATCH EXISTING.
- 12 (E) AIR SEPARATOR AS-1 TO BE REMOVED.
- 13 MODIFY (E) CONCRETE EQUIPMENT PAD AS NECESSARY FOR NEW EQUIPMENT.

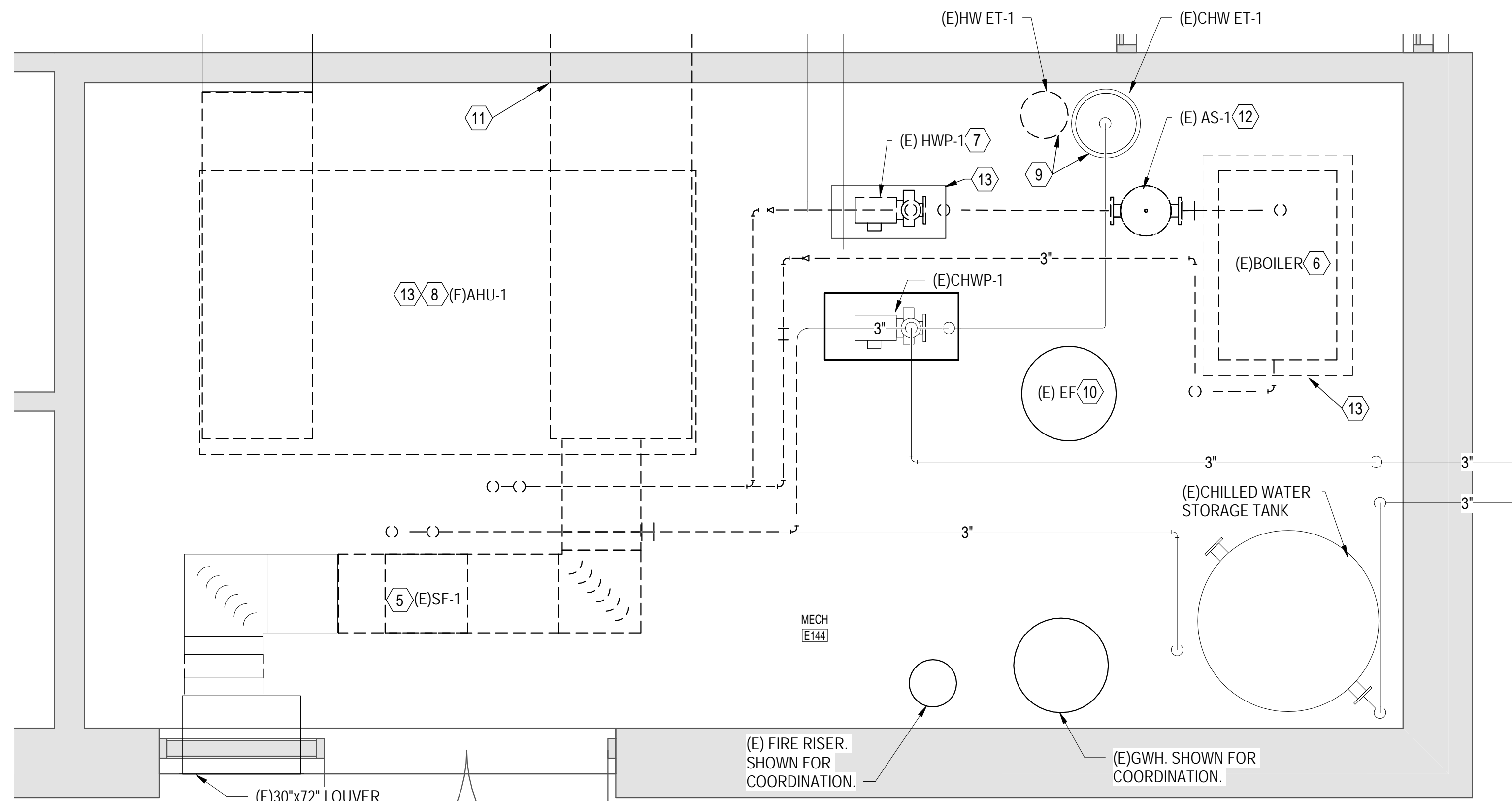
GENERAL NOTES

1. REPLACE EXISTING CHILLED WATER SYSTEM MAKE-UP WATER ASSEMBLY INCLUDING PRV AND BACKFLOW PREVENTER WITH NEW AND MOUNT 5' A.F.F. SEE DETAIL 2 ON SHEET M20.

H.1 H.1

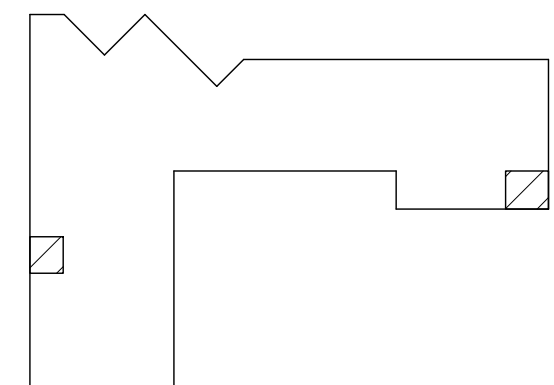


1 ENLARGED DEMO MECHANICAL ROOM
 1/2" = 1'-0"



2 ENLARGED DEMO MECHANICAL ROOM
 1/2" = 1'-0"

KEYPLAN



**ALL WORK ON THIS SHET TO
 BE PART OF FTEV 12-1164-B**

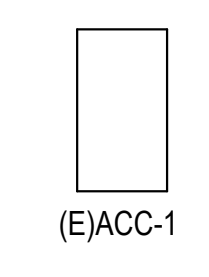
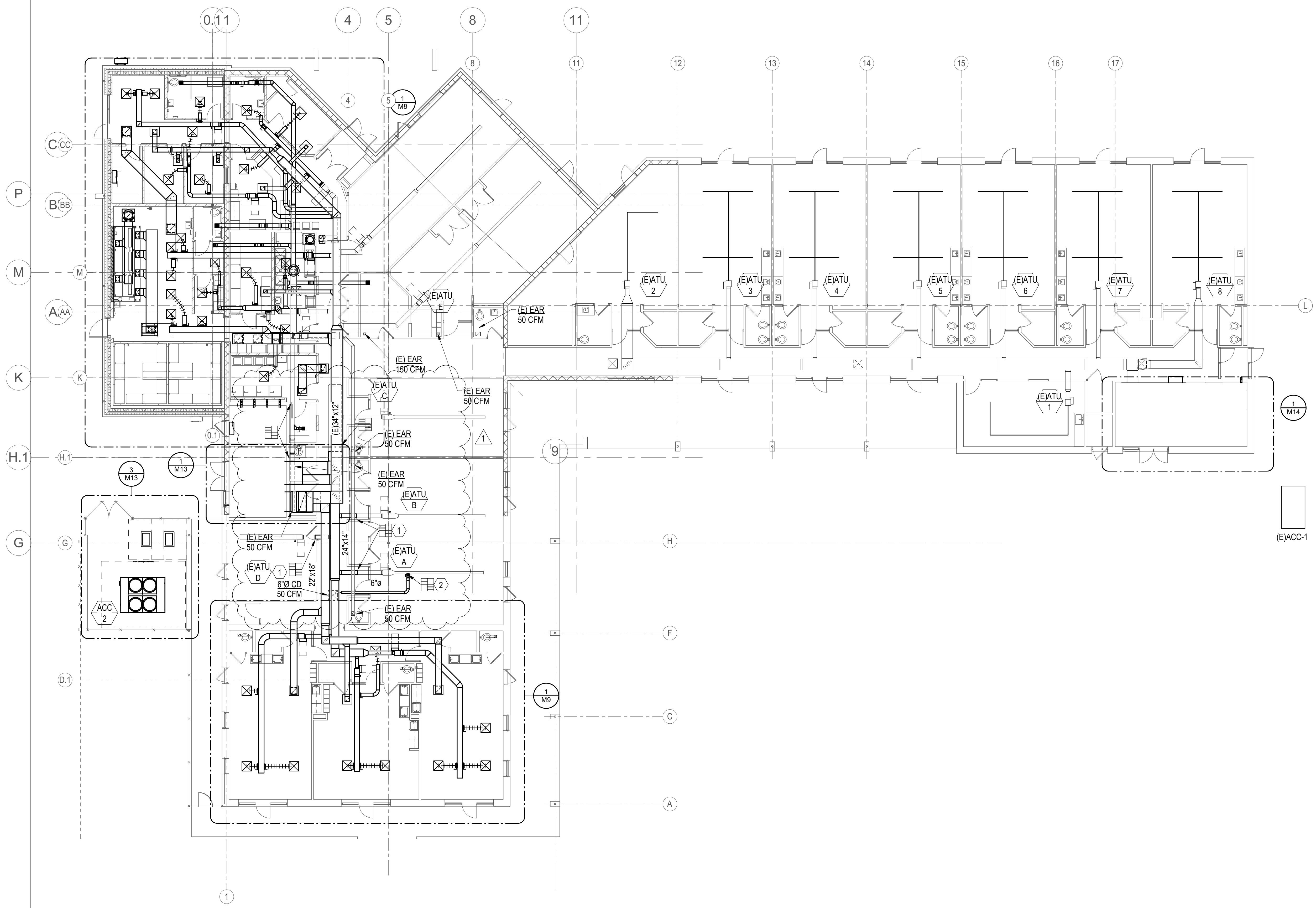
APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED
CHIEF ENGINEER	CHIEF ENGINEER	MECHANICAL ENGINEER	ELECTRICAL ENGINEER	STRUCTURAL ENGINEER	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	AIR FORCE SPECIAL OPERATIONS COMMAND				1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA
ENLARGED DEMO MECHANICAL ROOMS					
DATE: 16 SEPT 2016	DESIGNED BY: CAD	DRAWN BY: CAD	BUILDING NO: 90353	PROJECT NO: FTEV 12-1164	SHEET REF: M6
SHEET NO: 69 of 110					

SHEET NOTES

- 1 RECONNECT EXISTING ATU TO NEW MEDIUM PRESSURE DUCTWORK.
- 2 CONNECT NEW DIFFUSER TO EXISTING DUCTWORK AS SHOWN. REBALANCE EXISTING DIFFUSERS ASSOCIATED WITH ATU.

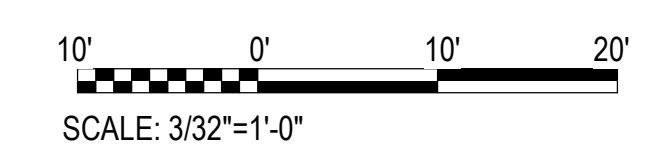
GENERAL NOTES

- 1. THE ABOVE CEILING SPACE HAS VARIOUS EXISTING CONDUIT AND PIPING WHICH WILL REQUIRE THE OFFSETTING OF NEW PIPING. THE PIPES ARE TO BE FIELD FITTED AS REQUIRED. THE CONTRACTOR SHALL OFFSET THE PIPE AS REQUIRED TO CLEAR THE CONDUIT, DUCTWORK, AND BEAMS.



STANDARD D LAYOUT (24" X 36")

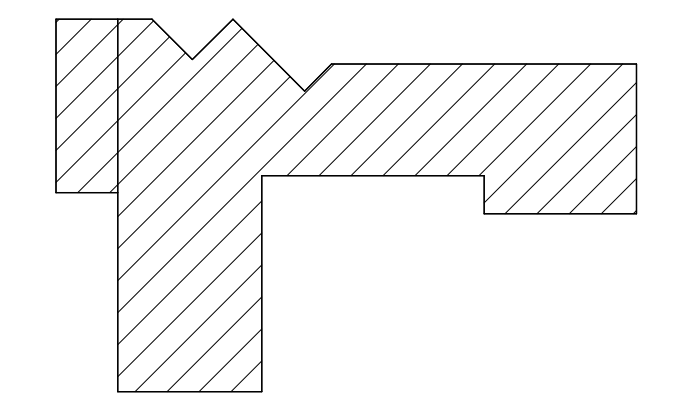
PLAN NORTH
1 OVERALL MECHANICAL NEW WORK PLAN
3/32" = 1'-0"



APPD	
DESCRIPTION	PP RESPONSES
DATE	2021.06.17
REV#	1
APPROVED	CHIEF ENGINEER APPROVED CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	
OVERALL MECHANICAL NEW WORK PLAN	
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	M7
SHEET NO:	70 of 110

SEE OVERALL SEQUENCING PLAN SHEET G4 FOR MORE INFORMATION.

KEYPLAN



SHEET NOTES

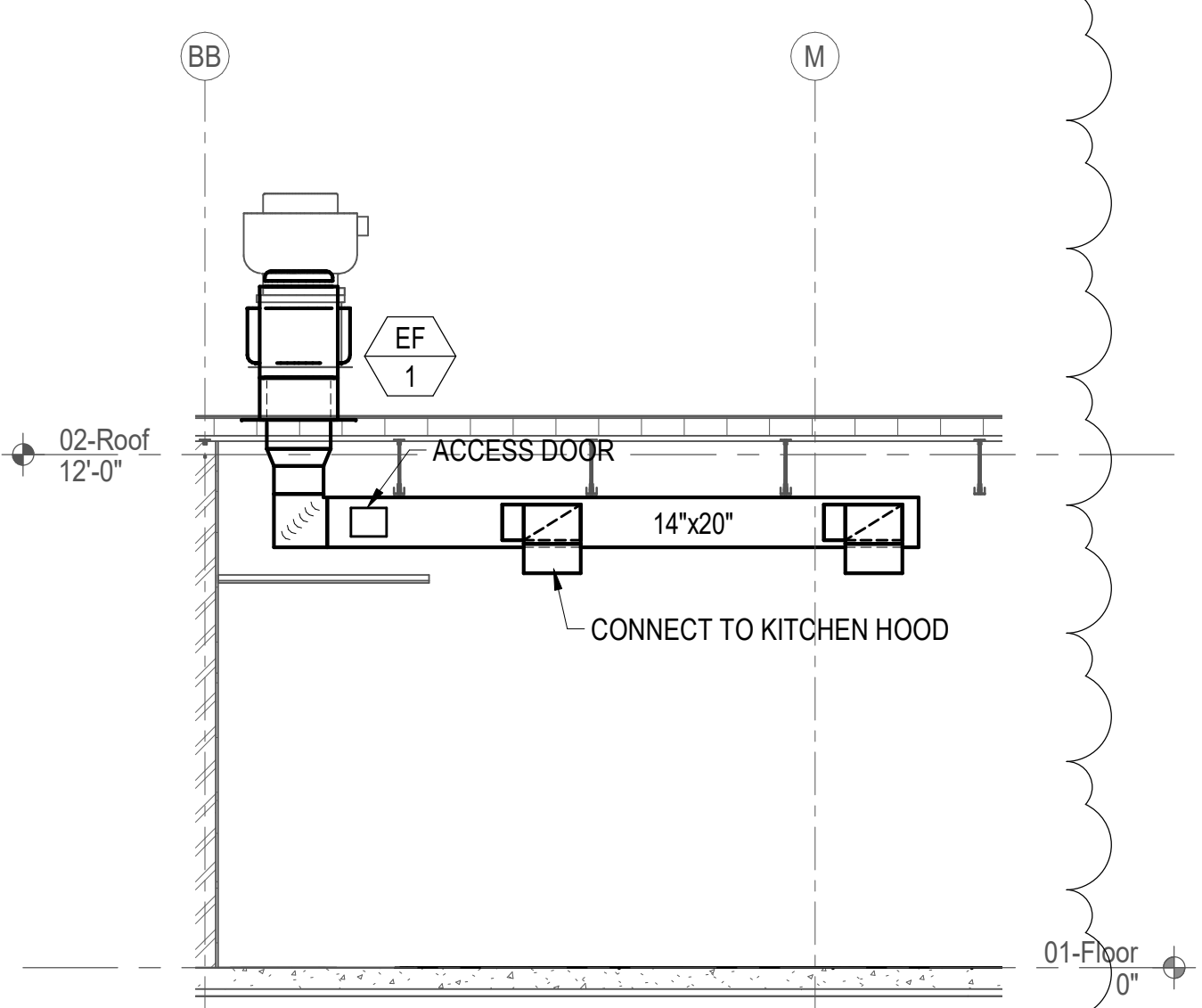
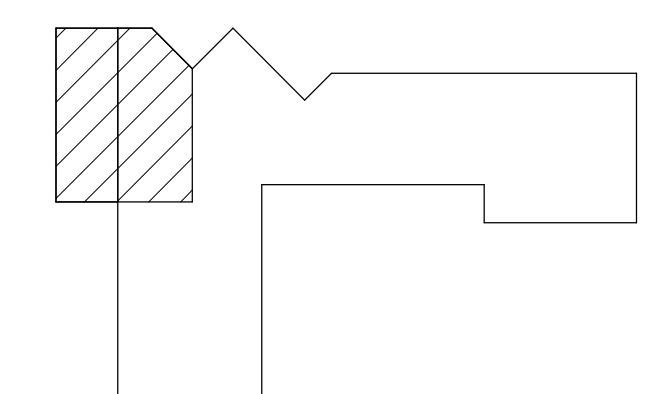
- 1 PROVIDE DRYER VENT BOX. ROUTE 4"Ø DRYER EXHAUST UP TO ROOF TO GOOSENECK. COORDINATE DRYER VENT SIZE WITH MANUFACTURER. SEE ARCHITECTURAL.
- 2 NEW TYPE 1 KITCHEN HOOD, SEE EQUIPMENT PLAN ON SHEET I1. MECHANICAL CONTRACTOR TO PROVIDE FANS, CURBS, AND DUCTWORK FOR A COMPLETE FUNCTIONING SYSTEM.
- 3 EXISTING TYPE 2 KITCHEN HOOD TO REMAIN. SEE EQUIPMENT PLAN ON SHEET I1. CONTRACTOR TO FURNISH NEW EXHAUST FAN AND APPURTANCES AS INDICATED.
- 4 AIR CURTAIN TO BE GOVT FURNISHED. CONTRACTOR INSTALLED. SEE EQUIPMENT PLAN ON SHEET I1.
- 5 FREEZER/COOLER EVAPORATOR COIL TO BE FURNISHED WITH FREEZER/COOLER EQUIPMENT. SEE EQUIPMENT PLAN ON SHEET I1. ROUTE CONDENSATE TO FLOOR SINK, SEE PLUMBING PLANS. PROVIDE P-TRAP ABOVE FLOOR OUTSIDE OF REFRIGERATED SPACE TO AVOID ENTRANCE OF WARM AIR. LOCATION SHOWN FOR REFERENCE ONLY. COORDINATE WITH FURNISHED EQUIPMENT.
- 6 COORDINATE WITH ARCHITECT TO PROVIDE GUARDRAILS AND OTHER SAFETY DEVICES AS REQUIRED BY CODE.
- 7 ROUTE RETURN DUCT BETWEEN EXISTING LOW ROOF AND NEW HIGH ROOF. EXISTING SUPPLY DUCT ROUTED BELOW EXISTING LOW ROOF.
- 8 MOUNT MVD IN VERTICAL DUCT BELOW EXISTING LOW ROOF.
- 9 REFER TO DUCT SUPPORT DETAIL ON SHEET M17.
- 10 (E) DUCTLESS SPLIT TO REMAIN.

GENERAL NOTES

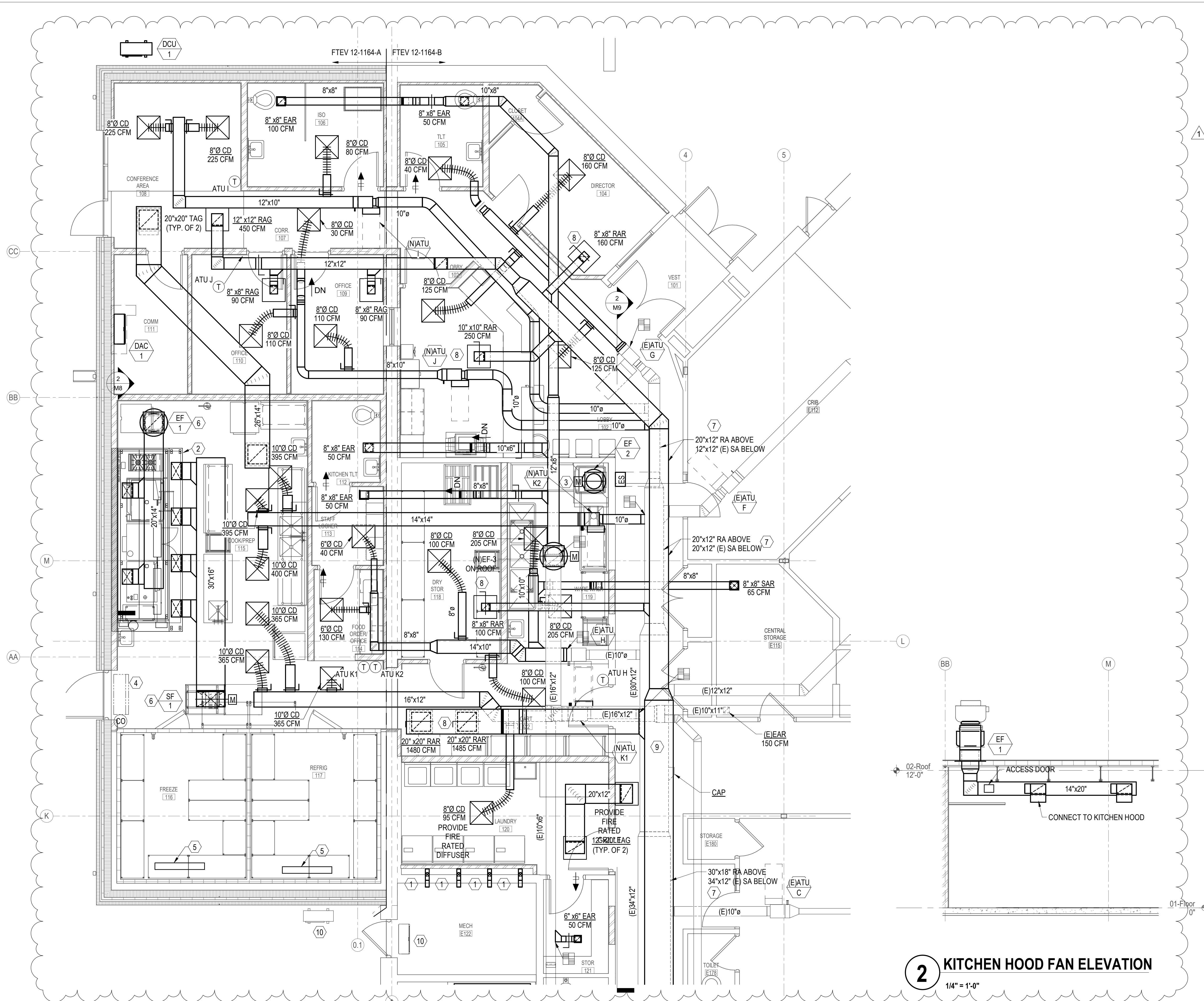
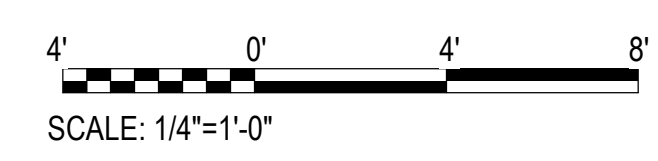
1. PROVIDE NEW CARBON MONOXIDE SENSORS WHERE INDICATED. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL. PROVIDE PROVISIONS TO INITIATE VOICE NOTIFICATION AND CONSTANT SIGNAL TRANSMISSION, REFER TO FIRE ALARM DRAWINGS FOR FURTHER INFORMATION.

SEE OVERALL SEQUENCING PLAN SHEET G4 FOR MORE INFORMATION.

KEYPLAN



2 KITCHEN HOOD FAN ELEVATION
1/4" = 1'-0"



1 ENLARGED MECHANICAL NEW WORK PLAN A
1/4" = 1'-0"

STANDARD LAYOUT (24" x 36")
PLAN NORTH

APPD			
DESCRIPTION			
PP RESPONSES			
DATE	2021.06.17		
REV #	1		
APPROVED	CHIEF ENGINEER APPROVED		CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
ENLARGED MECHANICAL NEW WORK PLAN A			
AIR FORCE SPECIAL OPERATIONS COMMAND			
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016		
DESIGNED BY:	CAD		
DRAWN BY:	CAD		
BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
SHEET REF:			
M8			
SHEET NO:	71 of 110		

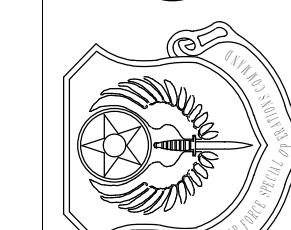
SHEET NOTES

- 1 EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK TO REMAIN.
- 2 MOUNT MVD IN VERTICAL DUCT BELOW EXISTING LOW ROOF.
- 3 ROUTE RETURN DUCT BETWEEN EXISTING LOW ROOF AND NEW HIGH ROOF.
- 4 ROUTE SUPPLY DUCT AND ATU'S BELOW EXISTING LOW ROOF.
- 5 REFER TO FLEX DUCT TAKE OFF DETAIL ON SHEET M17.

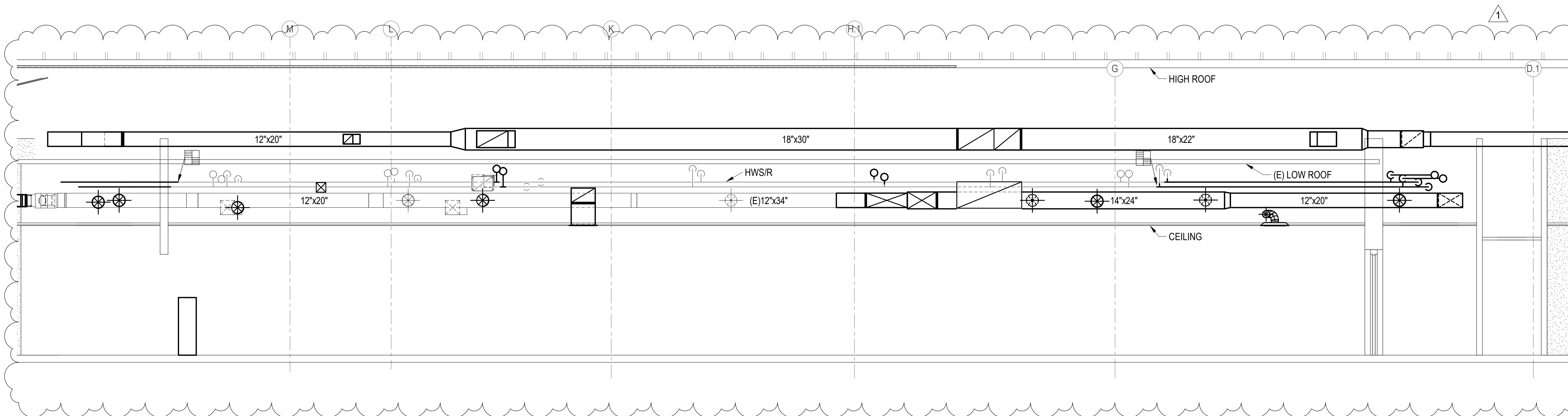
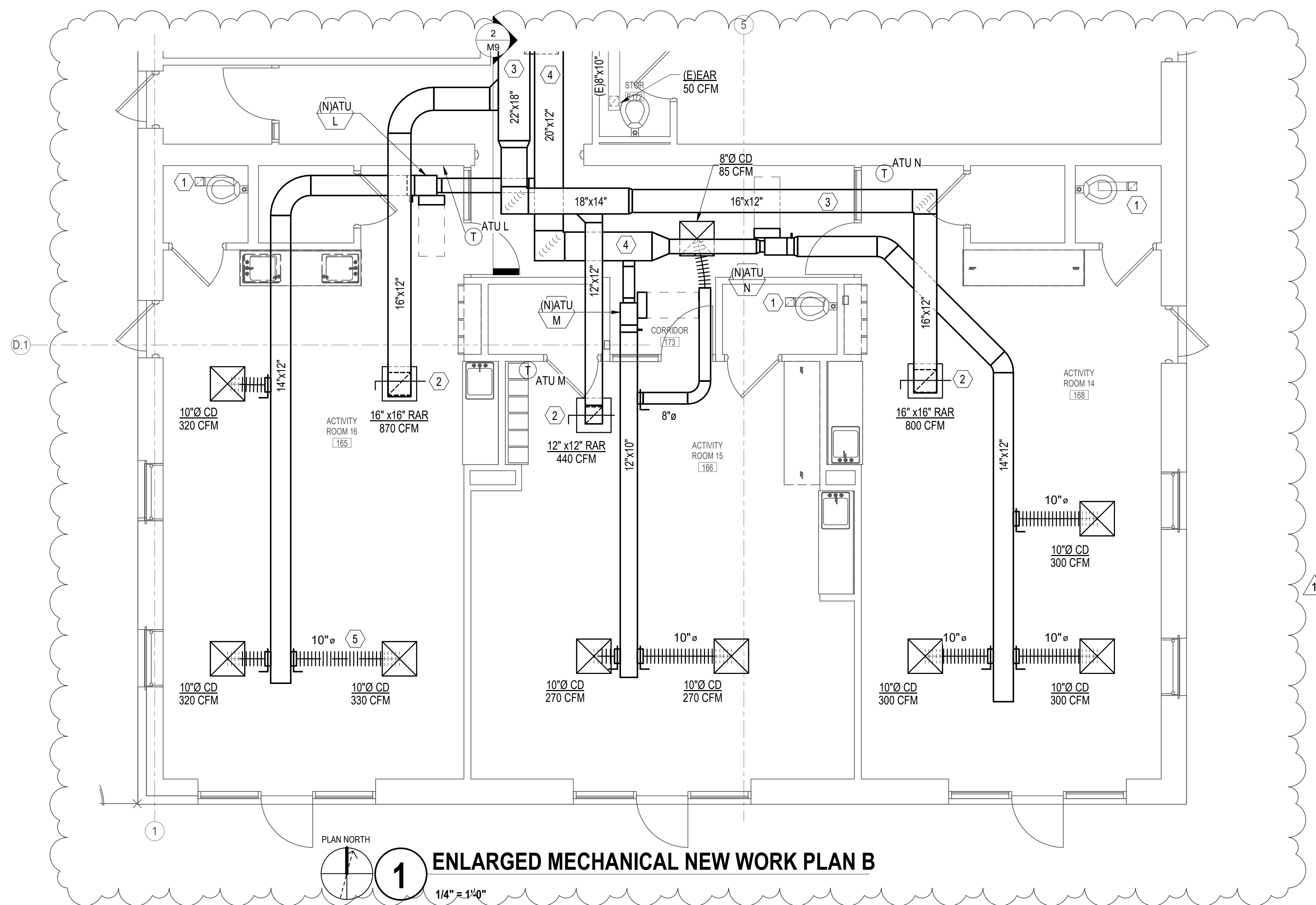
APPD	DESCRIPTION	DATE	REV#	PP RESPONSES
		2021.06.17	1	

ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353
 ENLARGED MECHANICAL NEW WORK PLAN B

AIR FORCE SPECIAL
 OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

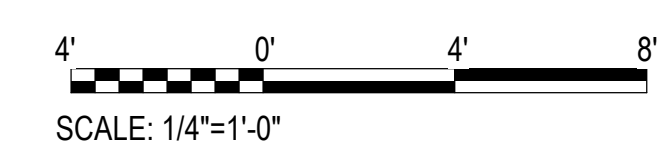
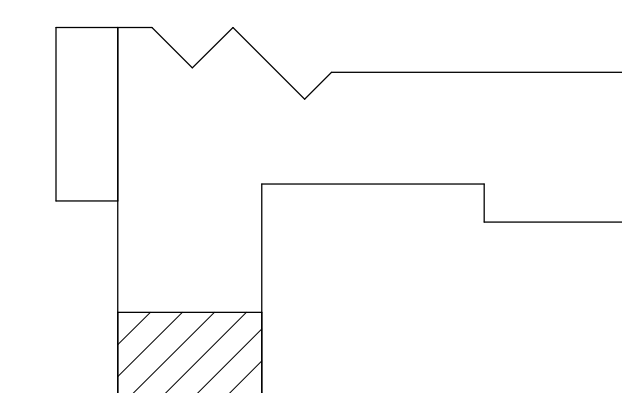


DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	M9
SHEET NO:	72 of 110



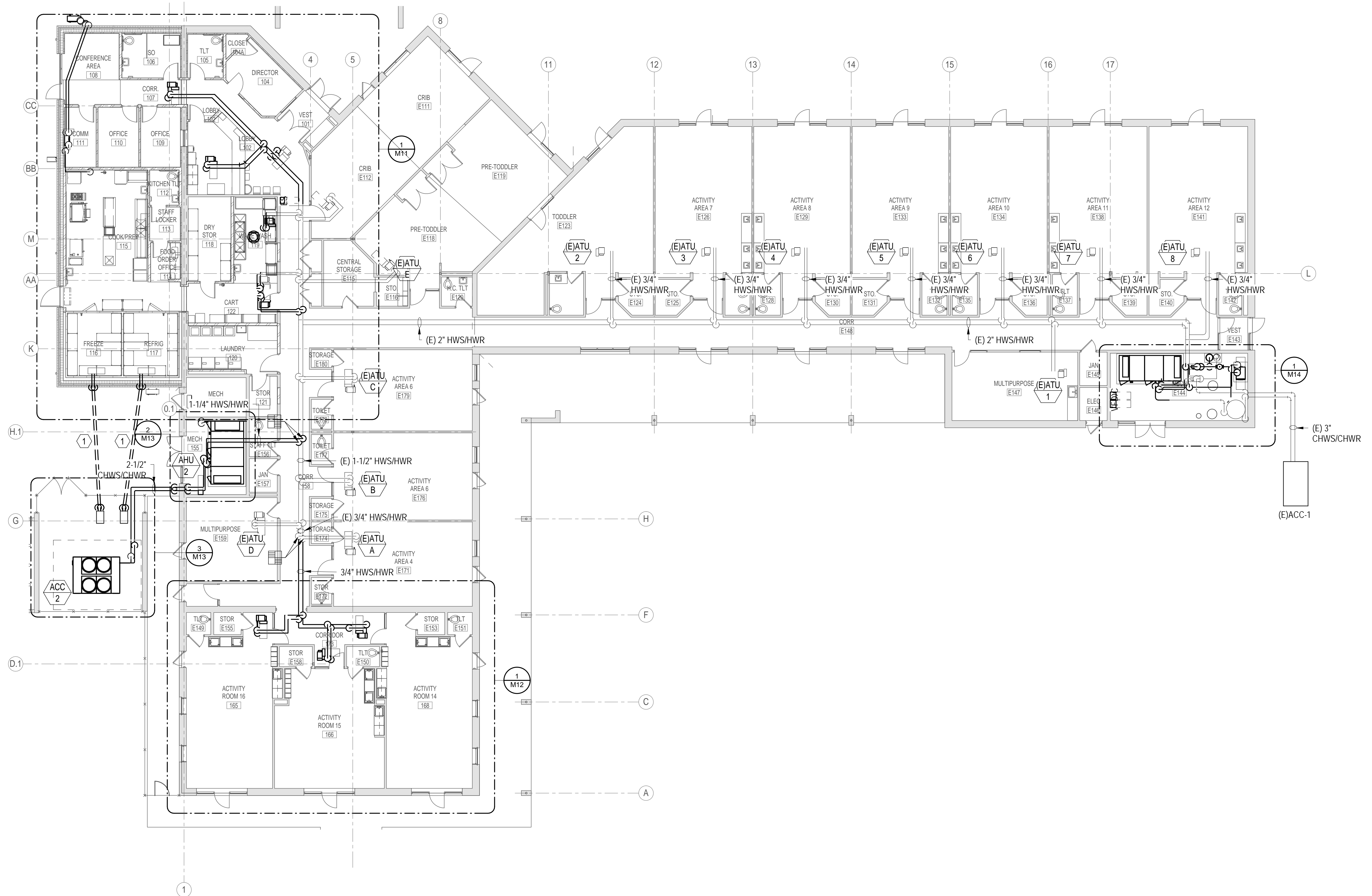
ALL WORK ON THIS SHET TO BE PART OF FTEV 12-1164-B.

KEYPLAN



SHEET NOTE

- 1 ROUTE REFRIGERANT PIPING FROM FREEZER/COOLER CONDENSING UNIT UNDERGROUND TO EVAPORATOR. SEE SHEET M11 FOR CONTINUATION. SEE UNDERGROUND REFRIGERANT PIPING DETAIL ON SHEET M17.



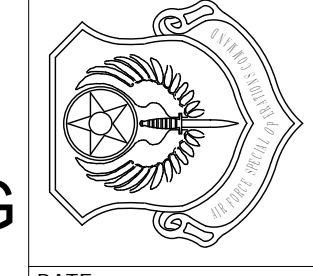
REV #	DATE	DESCRIPTION	APP'D

APPROVED: CHIEF ENGINEER
 APPROVED: CIVIL ENGINEER

**ADAL CHILD DEVELOPMENT CENTER
 BLDG. & REPAIR CHILD DEVELOPMENT
 CENTER BLDG. 90353**

OVERALL PIPING PLAN

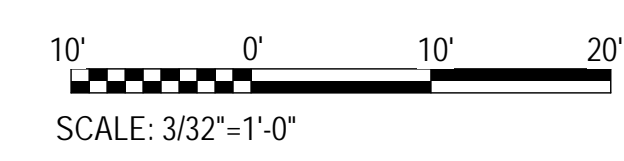
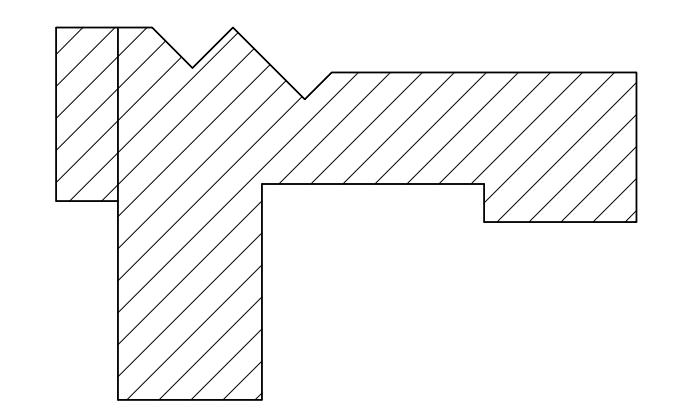
**AIR FORCE SPECIAL
 OPERATIONS COMMAND**
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA



DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	M10
SHEET NO:	73 of 110

SEE OVERALL SEQUENCING
 PLAN SHEET G4 FOR MORE
 INFORMATION.

KEYPLAN



PLAN NORTH

1 OVERALL PIPING NEW WORK PLAN

3/32" = 1'-0"

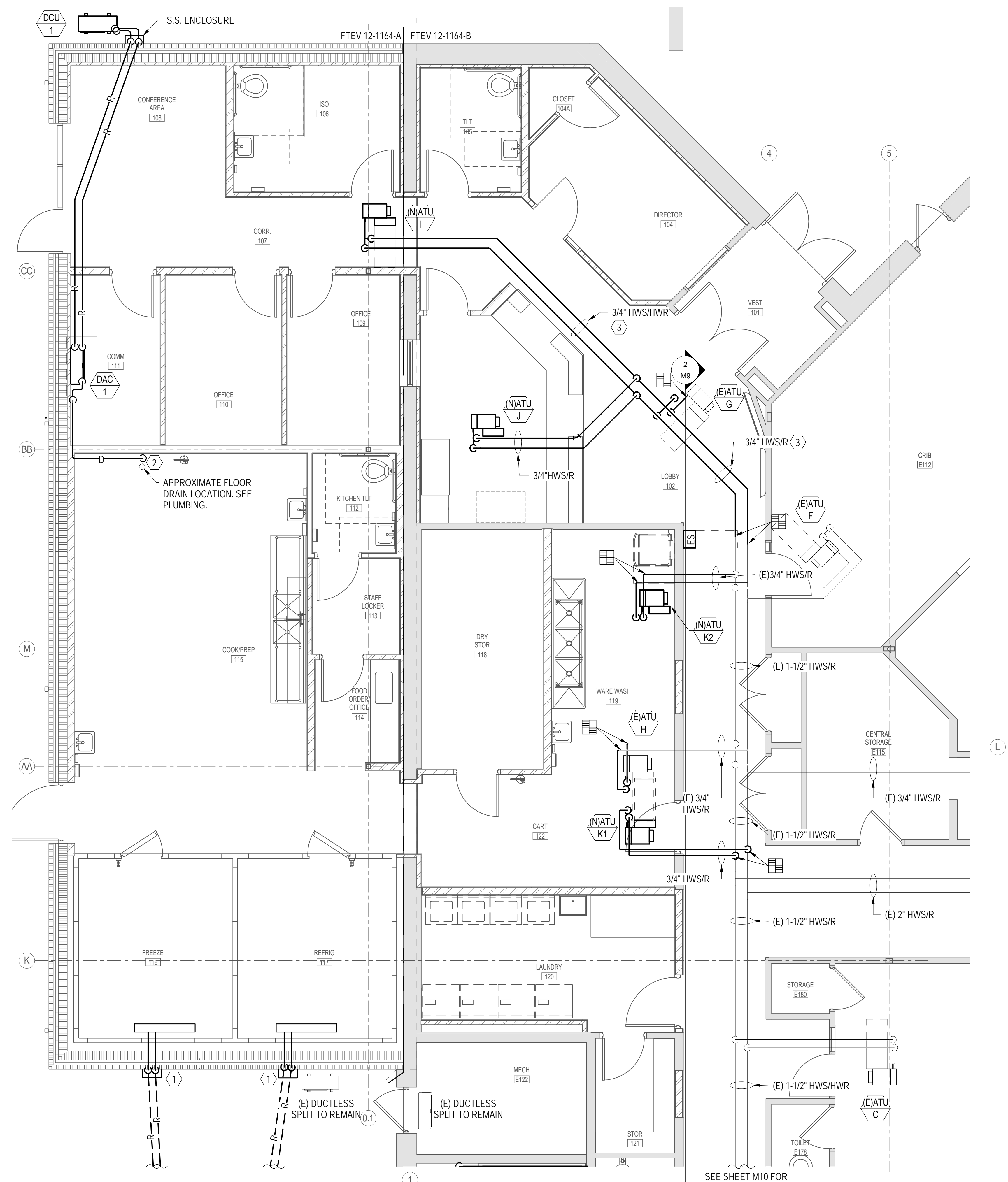
STANDARD D LAYOUT (24" X 36")

SHEET NOTES

- ① ROUTE PIPING UP EXTERIOR WALL TO FREEZER/COOLER EVAPORATOR COIL (FURNISHED WITH FREEZER/COOLER EQUIPMENT). PROVIDE STAINLESS STEEL ENCLOSURE FOR VERTICAL REFRIGERANT PIPE. REFER TO DETAIL 1 ON SHEET M16.
- ② ROUTE CONDENSATE LINE FROM DAC-1 ABOVE CEILING, DOWN WALL, AND OVER TO NEAREST FLOOR DRAIN IN KITCHEN AREA. COORDINATE WITH PLUMBING DRAWINGS.
- ③ REFER TO DETAIL 3 ON SHEET M18 FOR OVERHEAD PIPE SUPPORT DETAIL.

GENERAL NOTE

1. UNLESS OTHERWISE NOTED PROVIDE 3/4" HWS/HWR PIPING TO AIR TERMINAL UNITS.

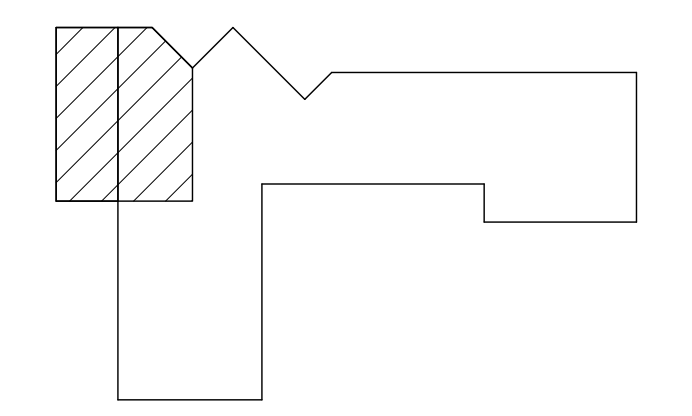


PLAN NORTH
1 ENLARGED NEW WORK PIPING PLAN A
1/4" = 1'-0"



SEE OVERALL SEQUENCING
PLAN SHEET G4 FOR MORE
INFORMATION.

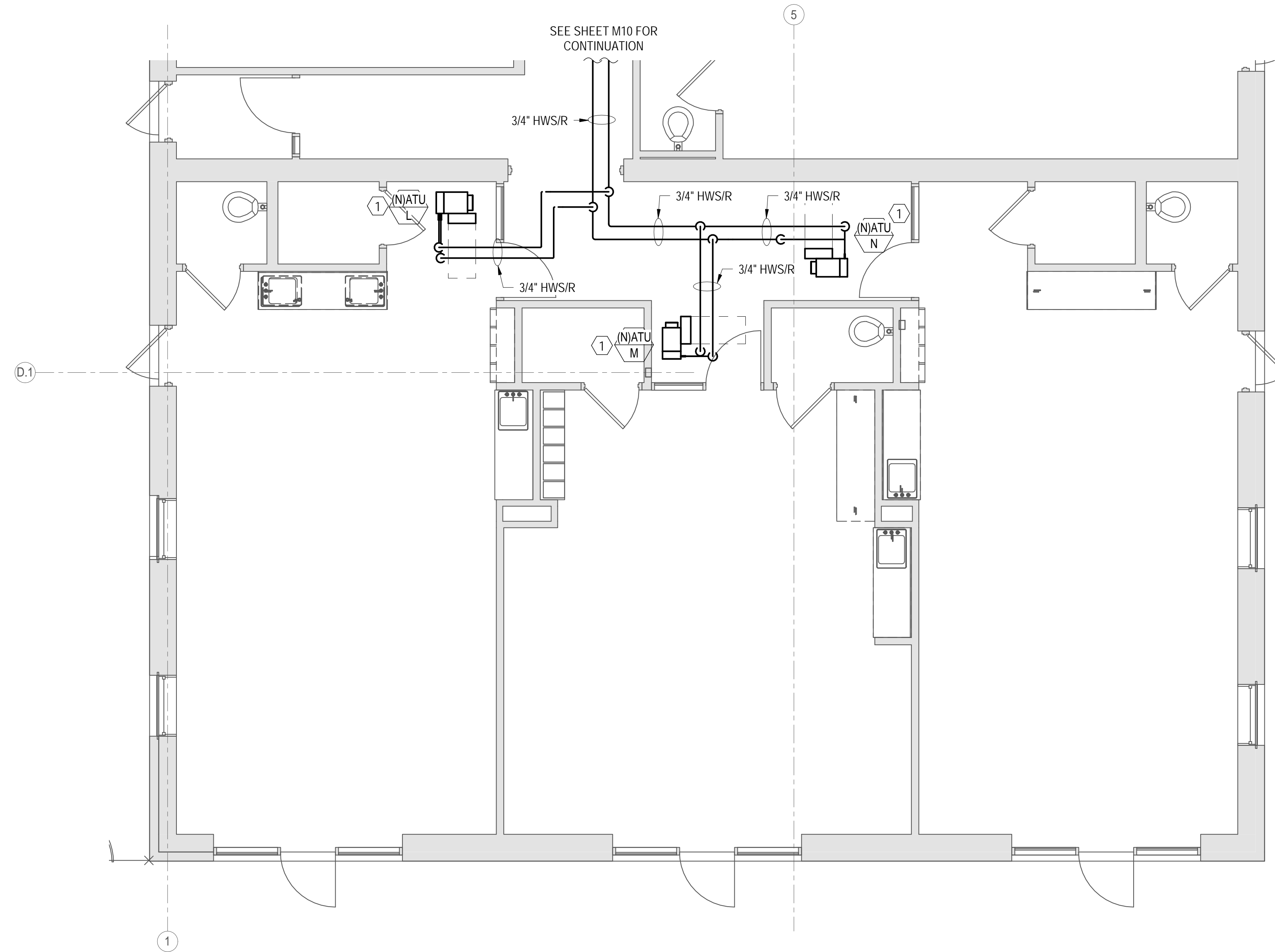
KEYPLAN



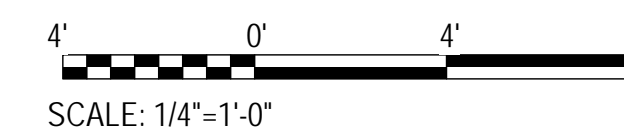
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 ENLARGED NEW WORK PIPING PLAN A			
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016	DESIGNED BY:	CAD
DRAWN BY:	CAD	BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164	SHEET REF:	M11
SHEET NO:	74 of 110		

SHEET NOTES

1 REFER TO TYPICAL VAV HOT WATER COIL CONNECTION DETAIL (VAV) ON SHEET M19.

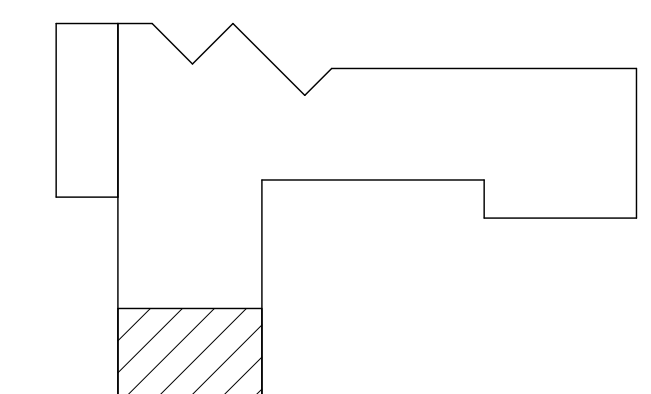


PLAN NORTH
1 ENLARGED NEW WORK PIPING PLAN B
1/4" = 1'-0"



ALL WORK ON THIS SHET TO BE PART OF FTEV 12-1164-B.

KEYPLAN



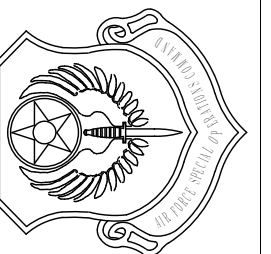
APPROVED	REVISION	DATE	DESCRIPTION
CHIEF ENGINEER APPROVED			
CIVIL ENGINEER			

**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**

ENLARGED NEW WORK PIPING PLAN B

**AIR FORCE SPECIAL
OPERATIONS COMMAND**

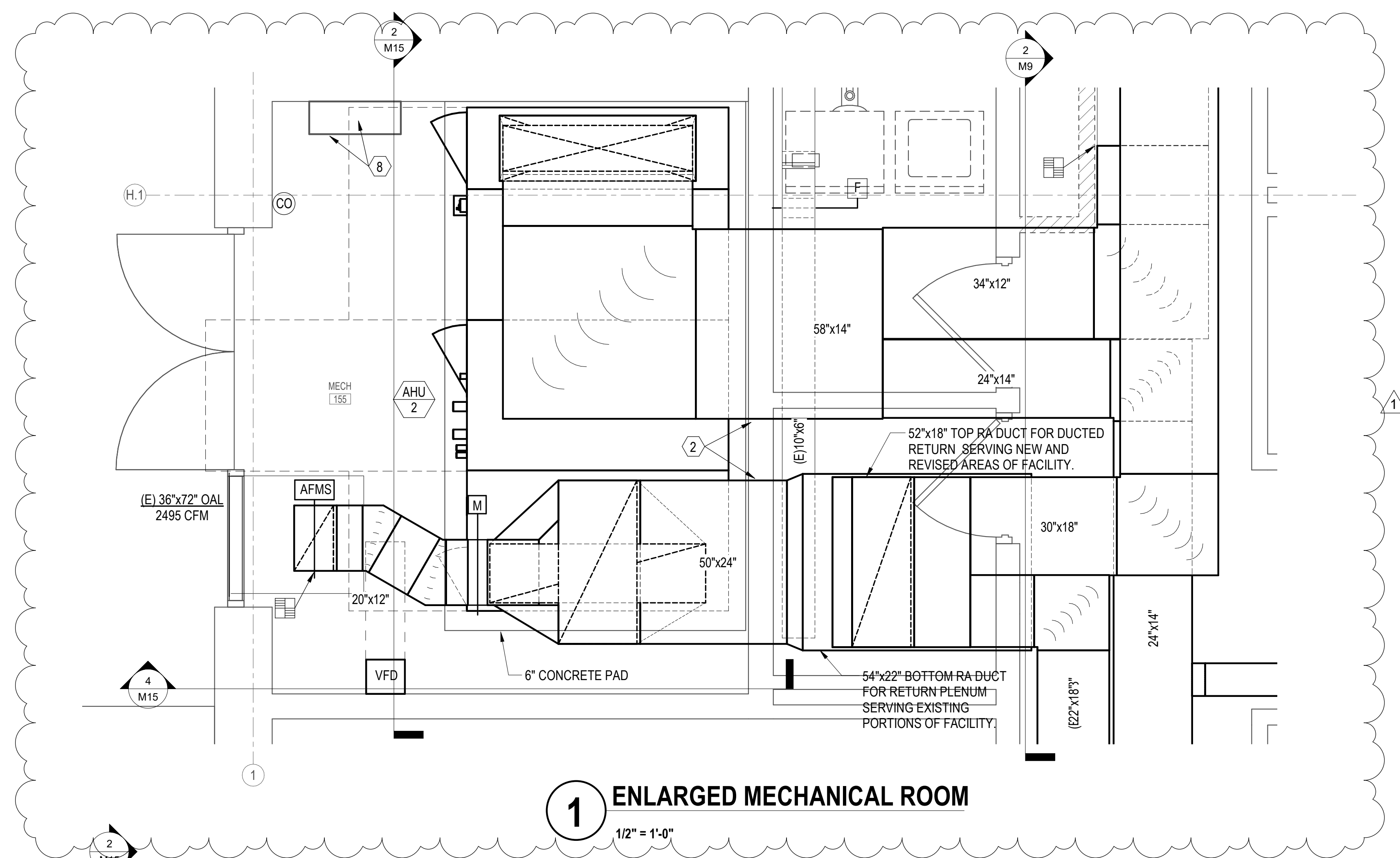
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



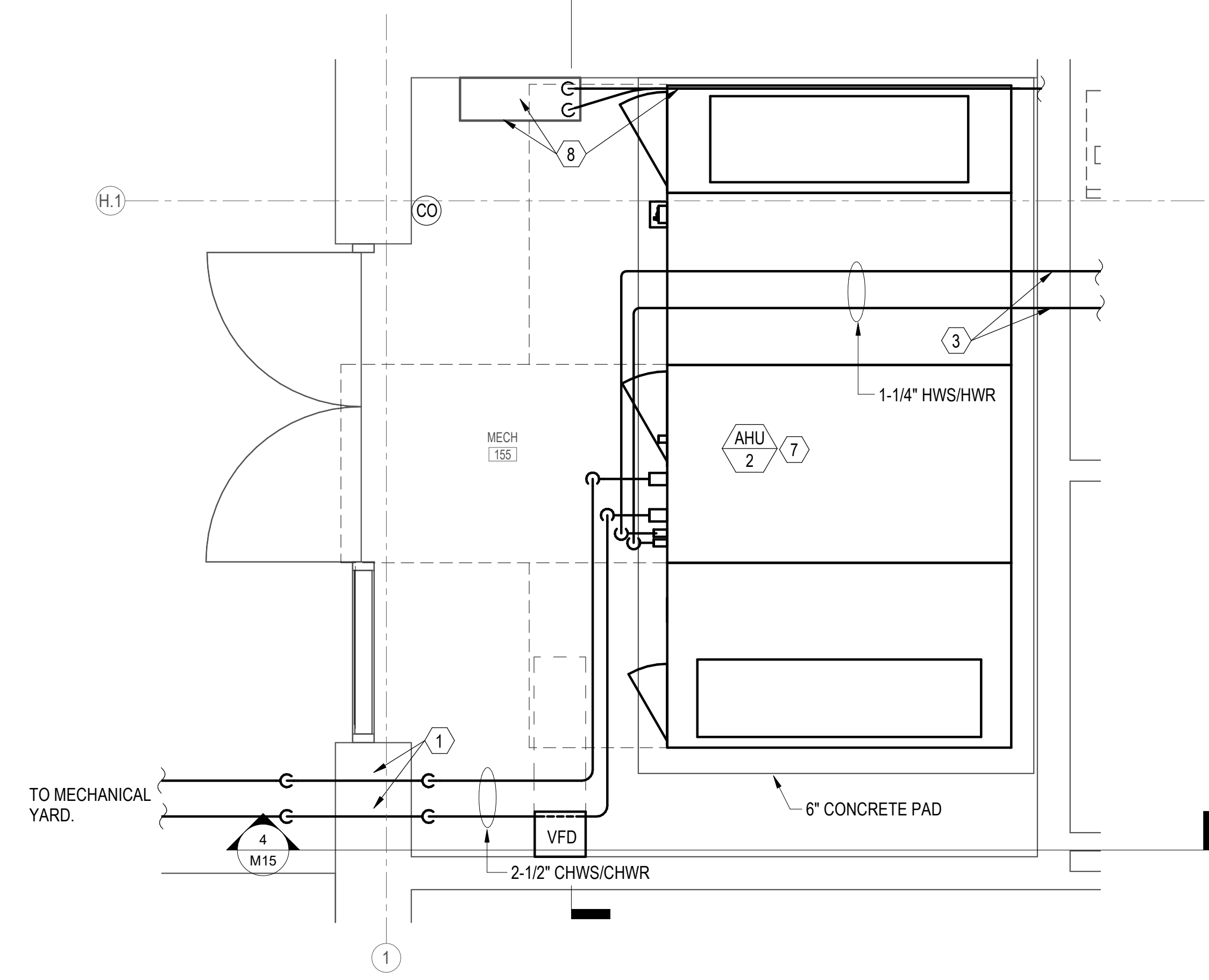
DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	M12
SHEET NO:	75 of 110

SHEET NOTES

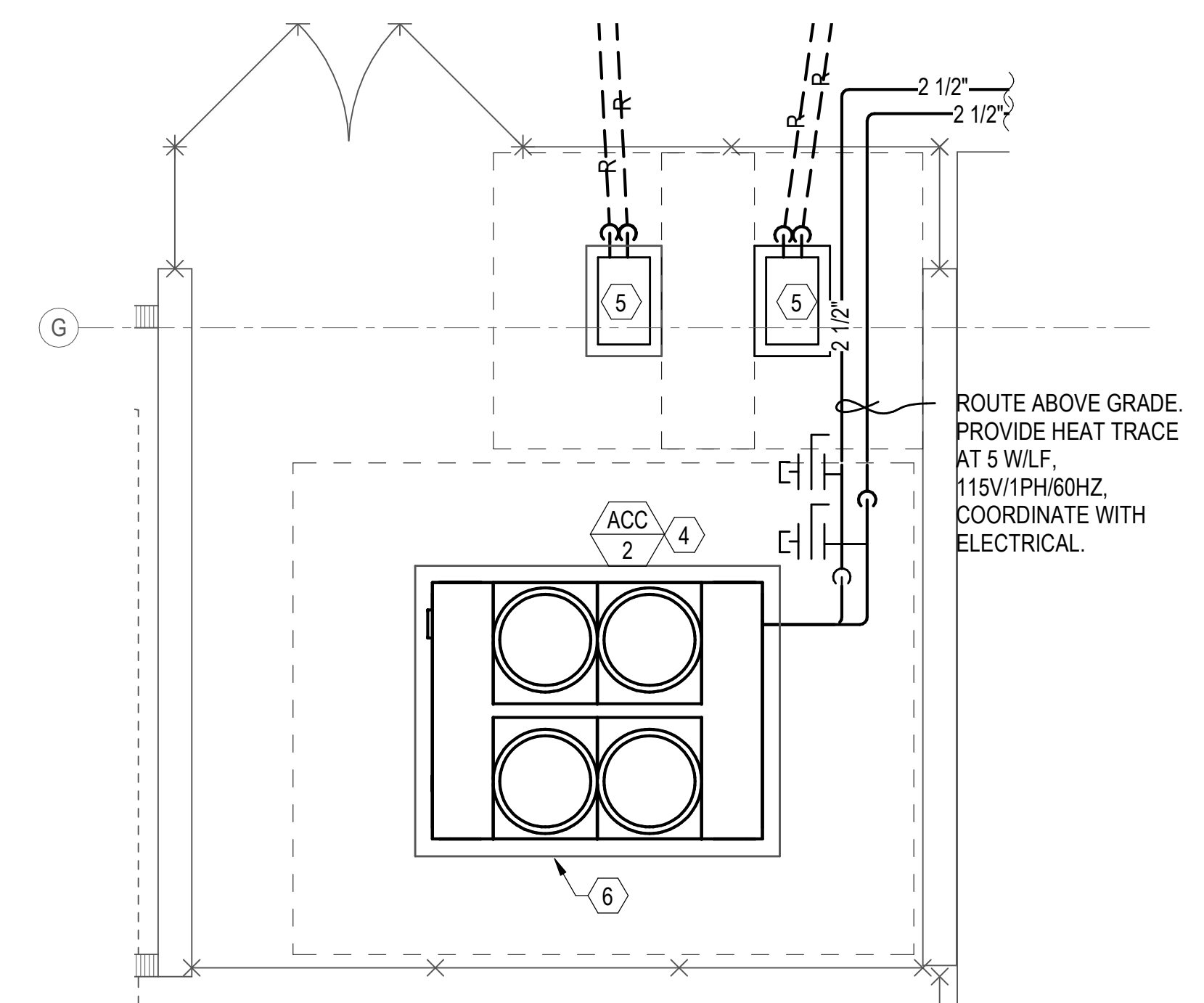
- 1 REUSE EXISTING WALL PENETRATIONS FOR NEW PIPE. PROVIDE PIPE SLEEVE AND SEAL WEATHERTIGHT. REFER TO EXTERIOR WALL PIPE PENETRATION DETAIL ON SHEET M20.
- 2 MODIFY EXISTING WALL OPENINGS AS NECESSARY FOR NEW DUCTWORK. PATCH TO MATCH EXISTING AS NECESSARY FOR A SEALED PENETRATION.
- 3 REUSE EXISTING WALL PENETRATION FOR NEW PIPE AND MODIFY AS NECESSARY.
- 4 CHWP-1 PROVIDED PACKAGED WITH CHILLER.
- 5 LOCATION OF CONDENSING UNIT FURNISHED WITH FREEZER/COOLER. MAINTAIN EQUIPMENT CLEARANCE REQUIREMENTS. MOUNT CONDENSING UNITS TO 4" CONCRETE PAD. DIMENSIONS OF CONCRETE PAD TO BE 4" GREATER IN WIDTH AND LENGTH OF UNIT AND 4" HEIGHT. PROVIDE THIS WORK AS PART OF FTEV 12-1164-A.
- 6 MOUNT CHILLER ON 6" CONCRETE PAD.
- 7 ROUTE CONDENSATE TO FLOOR DRAIN. FIELD VERIFY FLOOR DRAIN LOCATION. IF FLOOR DRAIN IS NOT ACCESSIBLE FROM NEW AIR HANDLING UNIT ROUTE CONDENSATE TO SPILL ON GRADE AND PROVIDE SPLASH BLOCK. SEE CONDENSATE DRAIN TRAP DETAIL ON SHEET M19.
- 8 EXISTING ELECTRICAL EQUIPMENT SHOWN FOR COORDINATION.



1 ENLARGED MECHANICAL ROOM
 1/2" = 1'-0"

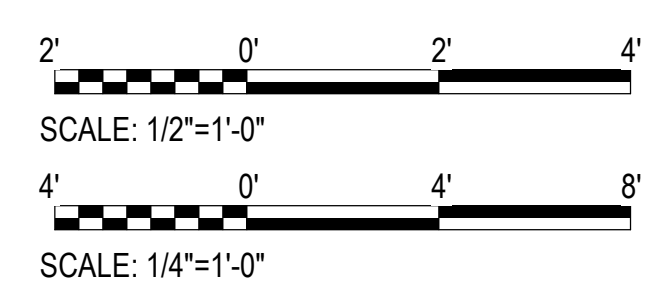
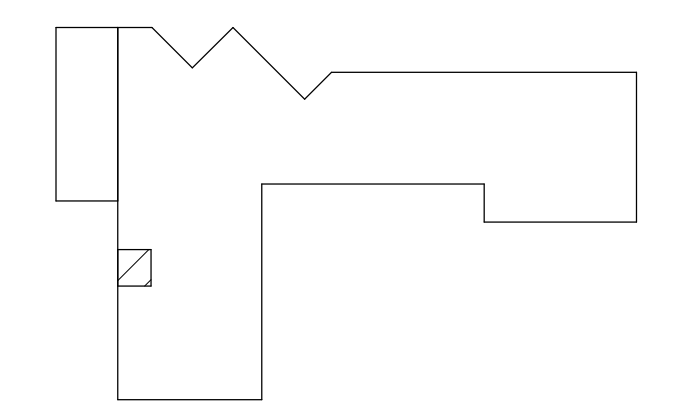


2 ENLARGED MECHANICAL ROOM PIPING PLAN
 1/2" = 1'-0"



3 ENLARGED MECHANICAL YARD
 1/4" = 1'-0"

KEYPLAN

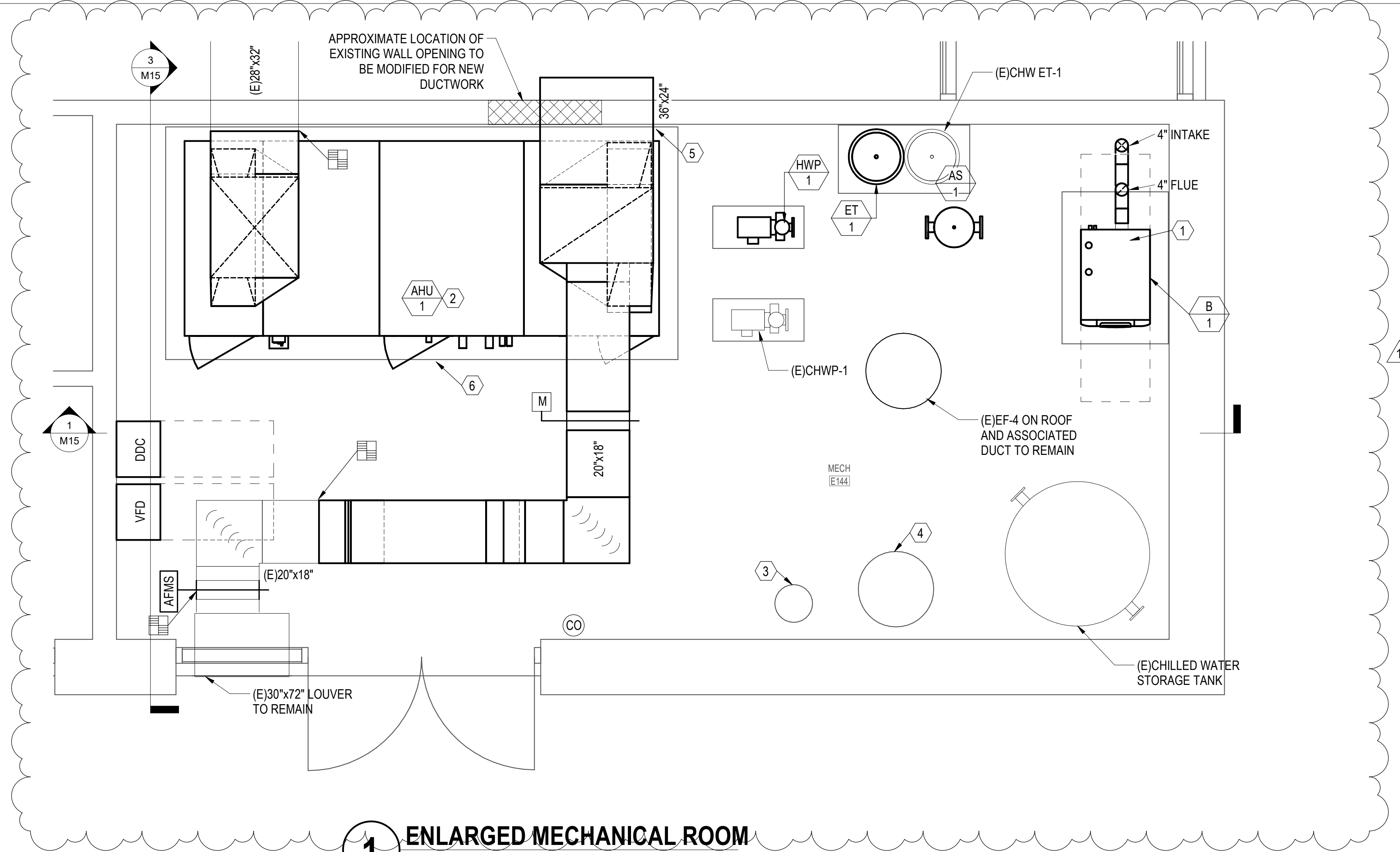


UNLESS OTHERWISE NOTED,
 ALL WORK ON THIS SHET TO
 BE PART OF FTEV 12-1164-B.

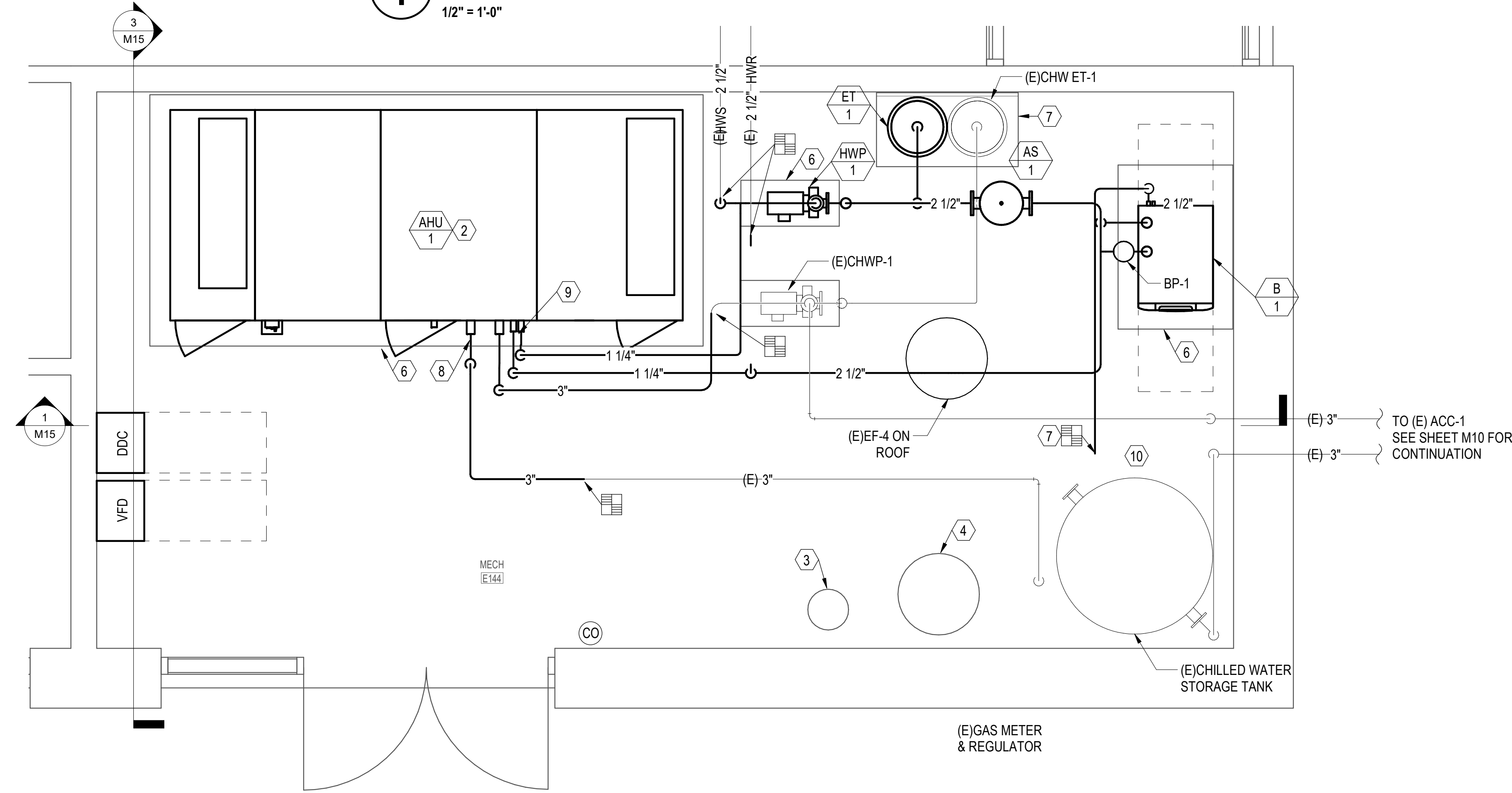
APPD			
DESCRIPTION			
PP RESPONSES			
DATE	2021.06.17		
REV #	1		
APPROVED			
CHIEF ENGINEER			
APPROVED			
CIVIL ENGINEER			
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
ENLARGED MECHANICAL ROOMS			
AIR FORCE SPECIAL OPERATIONS COMMAND			
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016		
DESIGNED BY:	CAD		
DRAWN BY:	CAD		
BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
SHEET REF:			
M13			
SHEET NO:	76 of 110		

SHEET NOTES

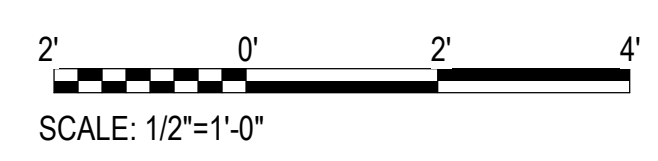
- 1 CONNECT NEW 4" FLUE TO EXISTING 9" FLUE AT ROOF. ROUTE NEW 4" COMBUSTION AIR OUT THROUGH ROOF. REFER TO BOILER STACK DETAIL ON SHEET M18.
 - 2 ROUTE CONDENSATE TO EXISTING FLOOR DRAIN.
 - 3 EXISTING FIRE RISER LOCATION SHOWN FOR COORDINATION ONLY.
 - 4 EXISTING GAS WATER HEATER (GWH) SHOWN FOR COORDINATION ONLY.
 - 5 MODIFY EXISTING WALL PENETRATION AS NECESSARY FOR NEW DUCTWORK. SEAL PENETRATION.
 - 6 MODIFY EXISTING EQUIPMENT PAD AS NECESSARY FOR NEW EQUIPMENT LAYOUT.
 - 7 MODIFY EXISTING 1-1/2" GAS PIPING AS NECESSARY FOR NEW BOILER.
 - 8 REFER TO CHW COIL CONNECTION DETAIL ON SHEET M18.
 - 9 REFER TO HW COIL CONNECTION DETAIL (AHU) ON SHEET M19.
- REPLACE EXISTING CHILLED WATER SYSTEM MAKE-UP WATER ASSEMBLY INCLUDING PRV AND BACKFLOW PREVENTER WITH NEW AND MOUNT 5' A.F.F. SEE DETAIL 2 ON SHEET M20.



1 ENLARGED MECHANICAL ROOM
1/2" = 1'-0"

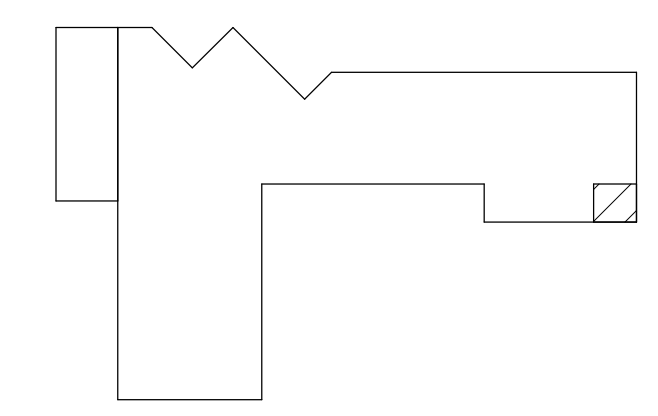


2 ENLARGED MECHANICAL ROOM PIPING PLAN
1/2" = 1'-0"

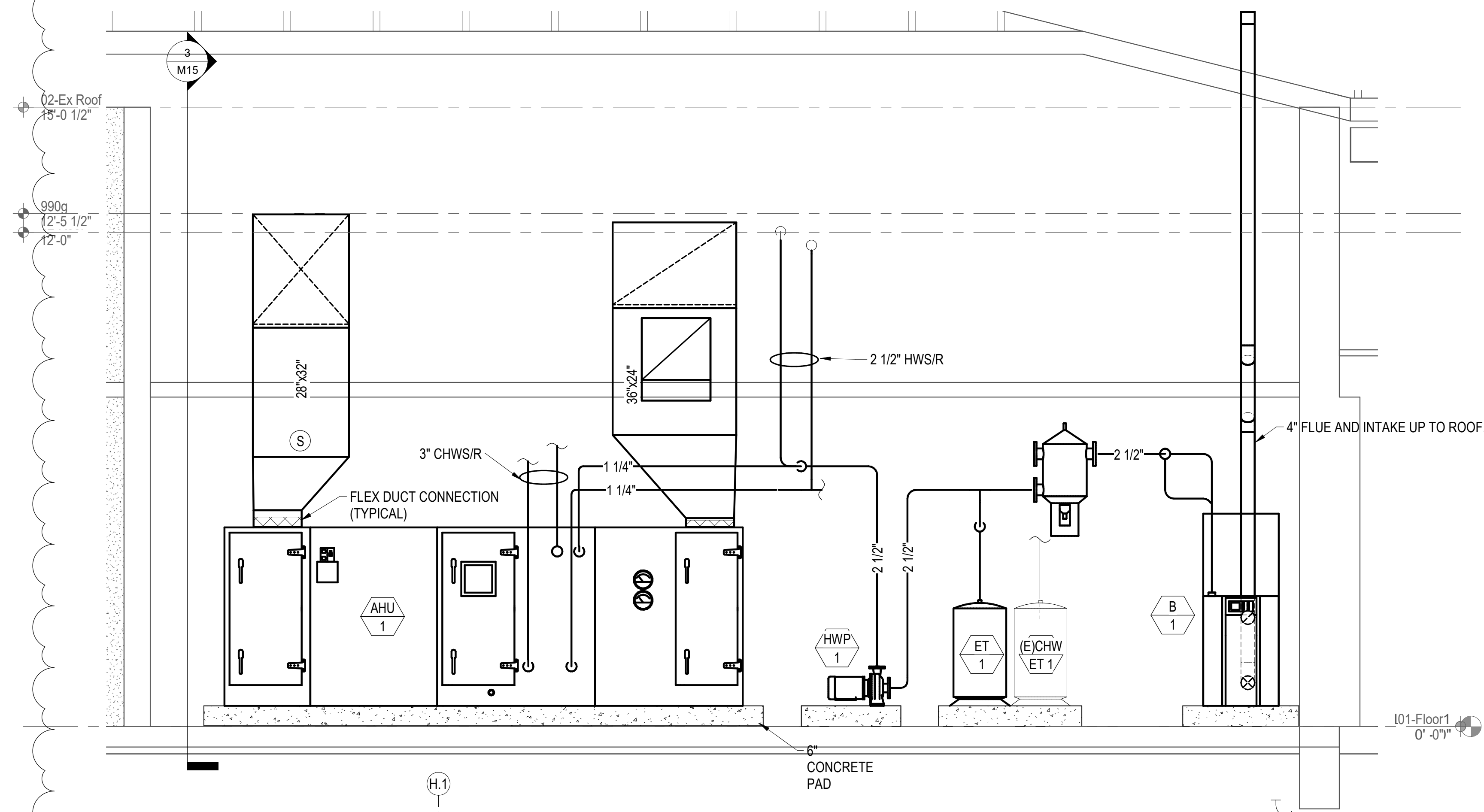


ALL WORK ON THIS SHET TO BE PART OF FTEV 12-1164-B.

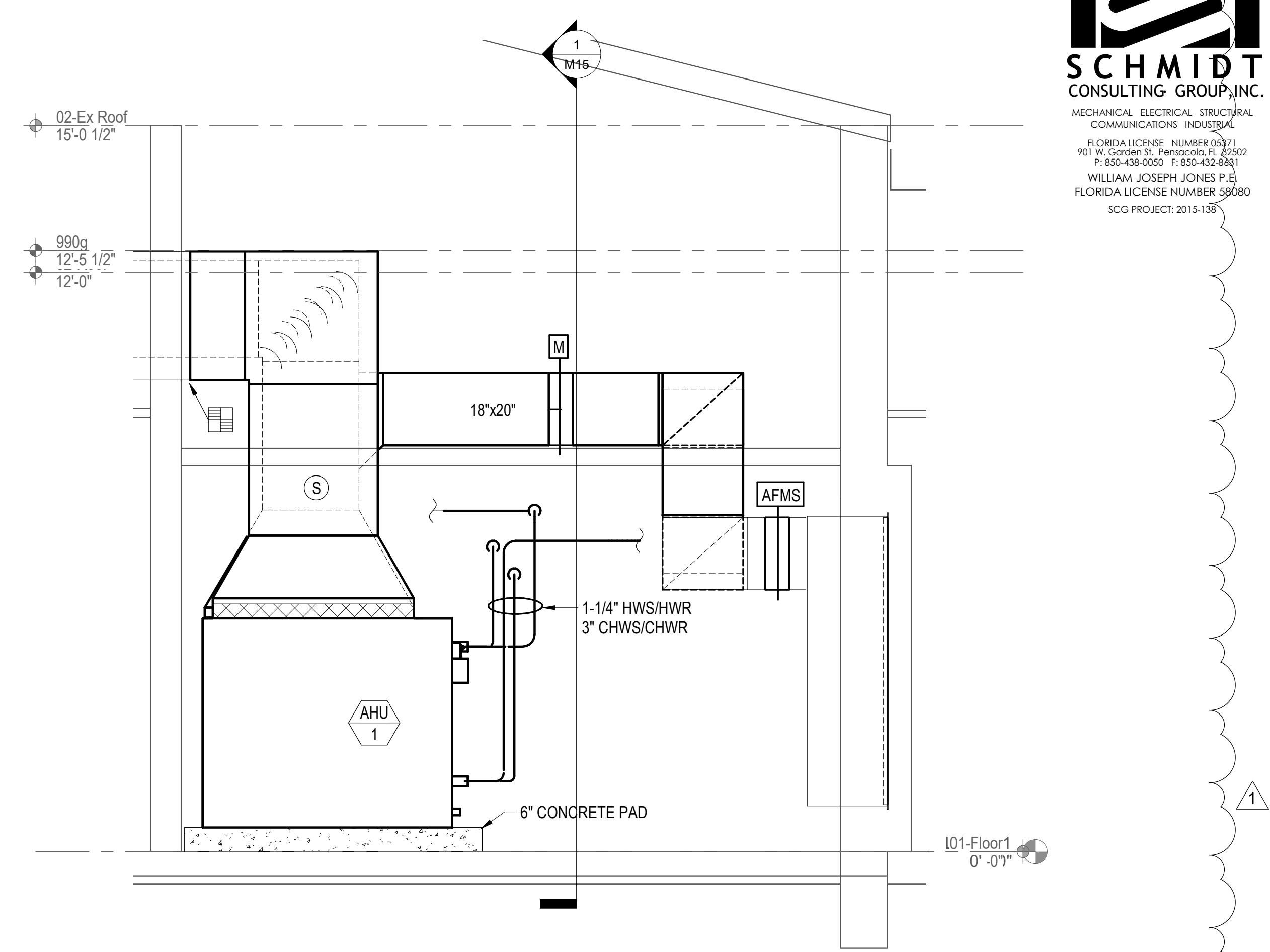
KEYPLAN



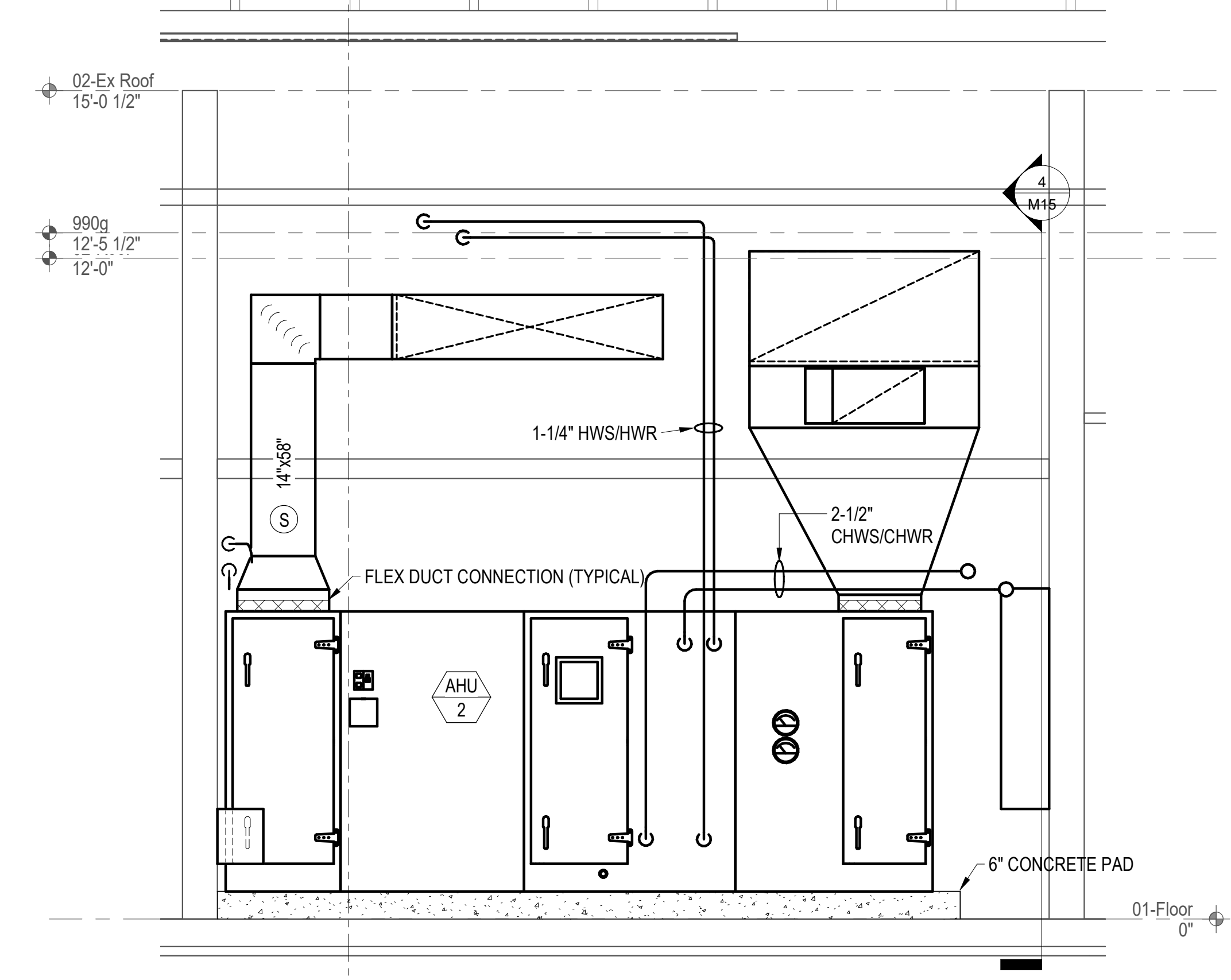
APPD			
DESCRIPTION			
PP RESPONSES			
DATE	2021.06.17		
REV#	1		
APPROVED	CHIEF ENGINEER APPROVED		CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353		ENLARGED MECHANICAL ROOMS	
AIR FORCE SPECIAL OPERATIONS COMMAND		1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016	DESIGNED BY:	CAD
DRAWN BY:	CAD	BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164	SHEET REF:	M14
SHEET NO:	77 of 110		



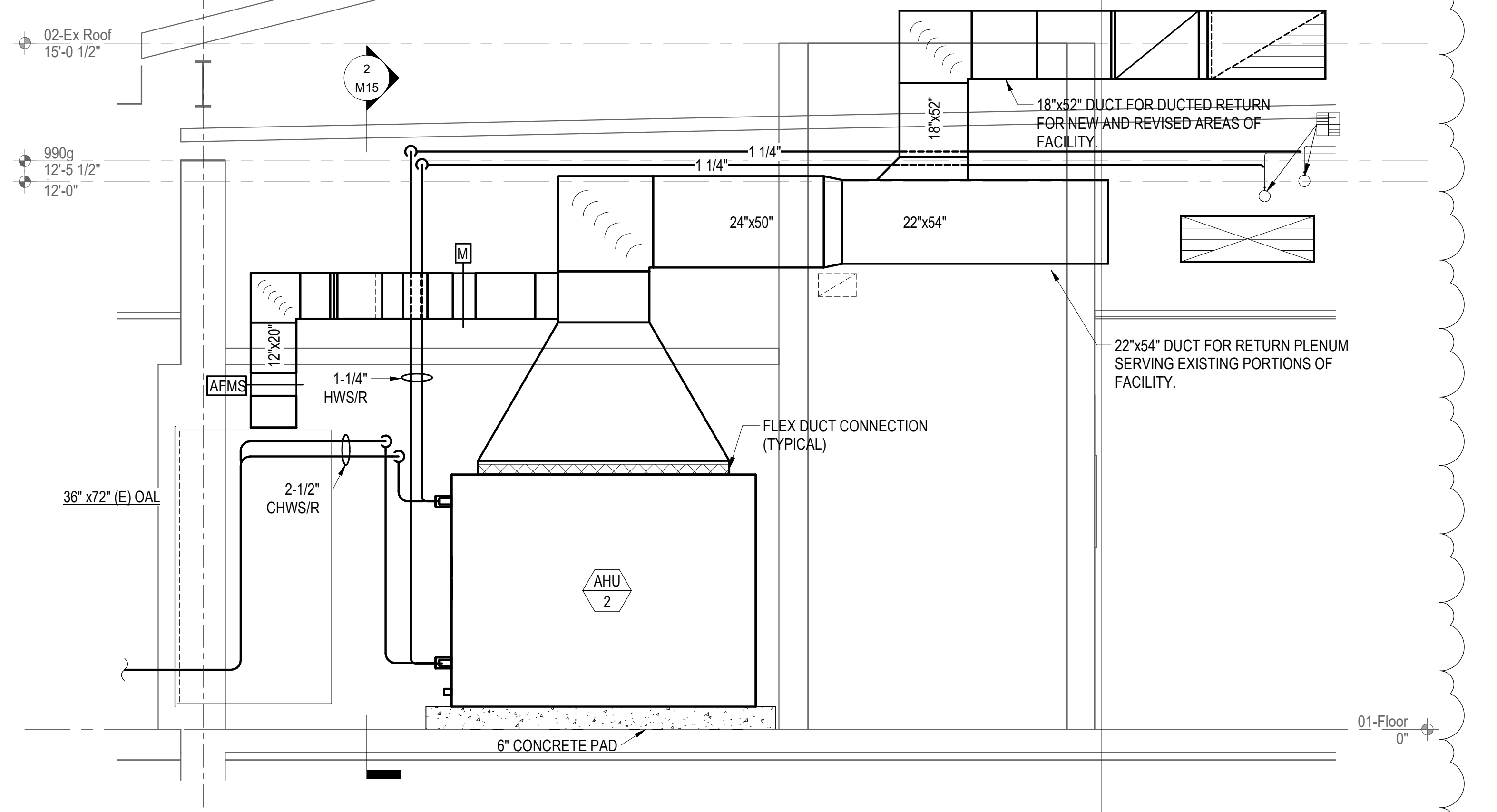
1 MECHANICAL ROOM SECTION
 1/2" = 1'-0"



3 MECHANICAL ROOM SECTION
 1/2" = 1'-0"



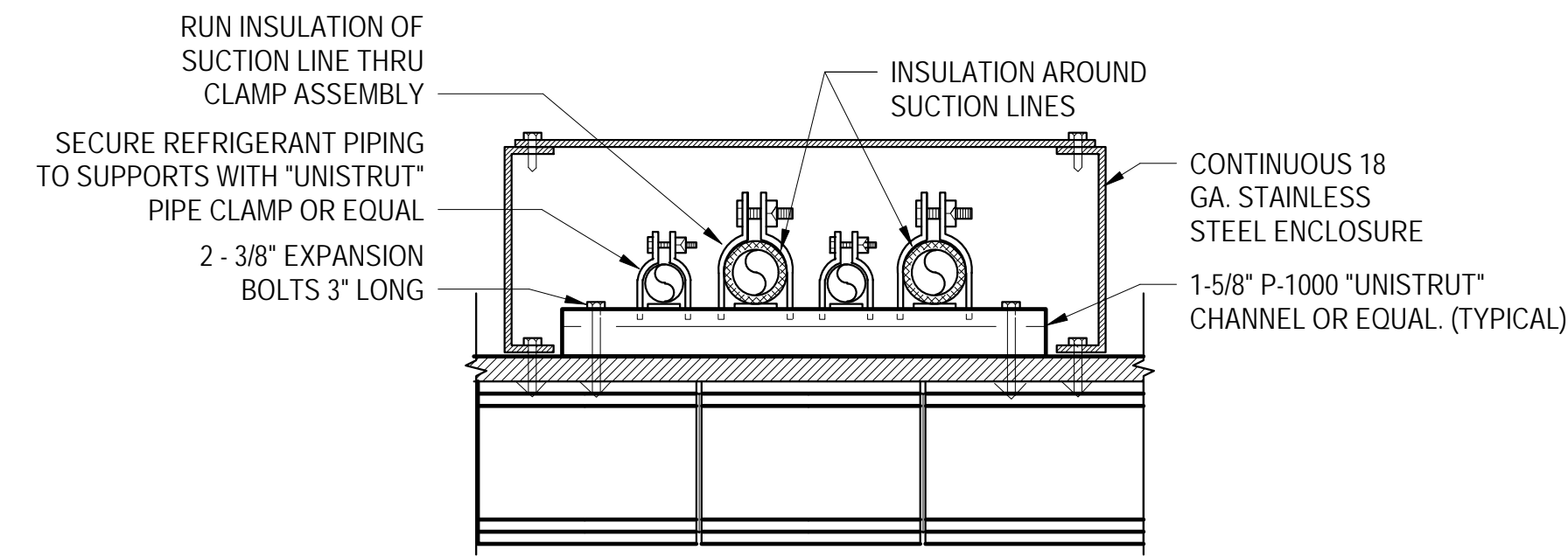
2 MECHANICAL ROOM SECTION
 1/2" = 1'-0"



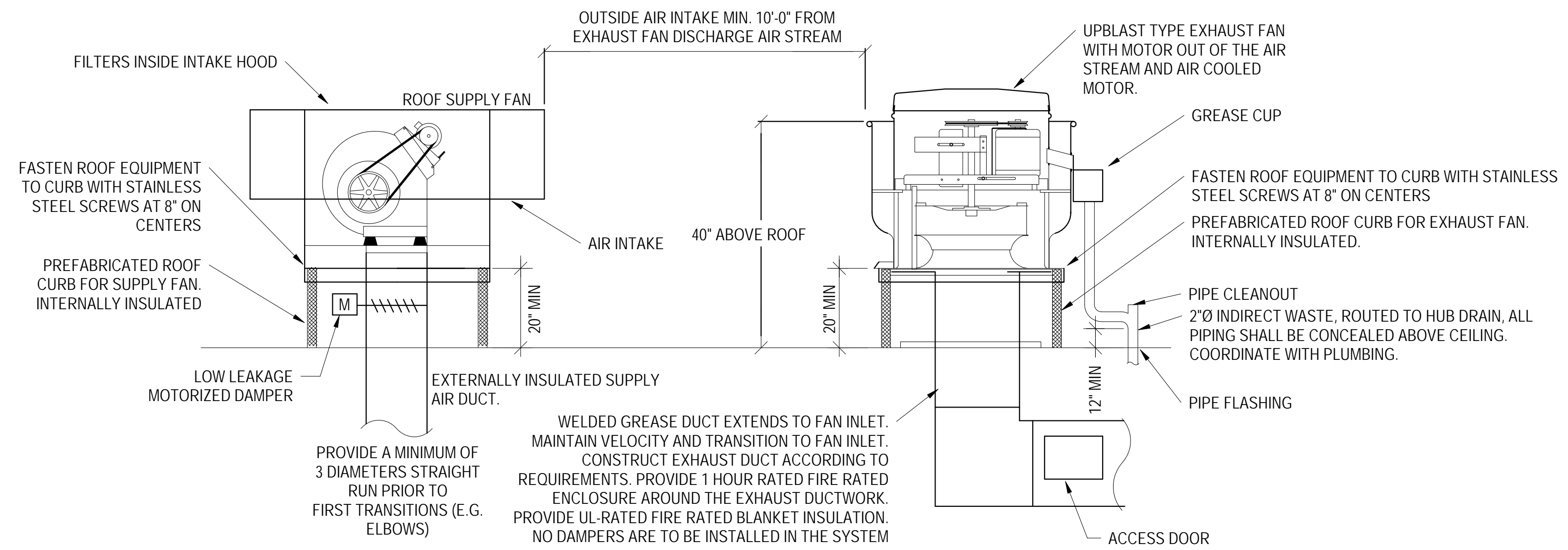
4 MECHANICAL ROOM SECTION
 1/2" = 1'-0"

APPD		DESCRIPTION	
REV#	1	PP RESPONSES	
DATE	2021.06.17		
APPROVED	CHIEF ENGINEER APPROVED		
	CIVIL ENGINEER		
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353		MECHANICAL SECTIONS	
AIR FORCE SPECIAL OPERATIONS COMMAND		1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	
DATE:	16 SEPT 2016		
DESIGNED BY:	CAD		
DRAWN BY:	CAD		
BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
SHEET REF:	M15		
SHEET NO:	78 of 110		

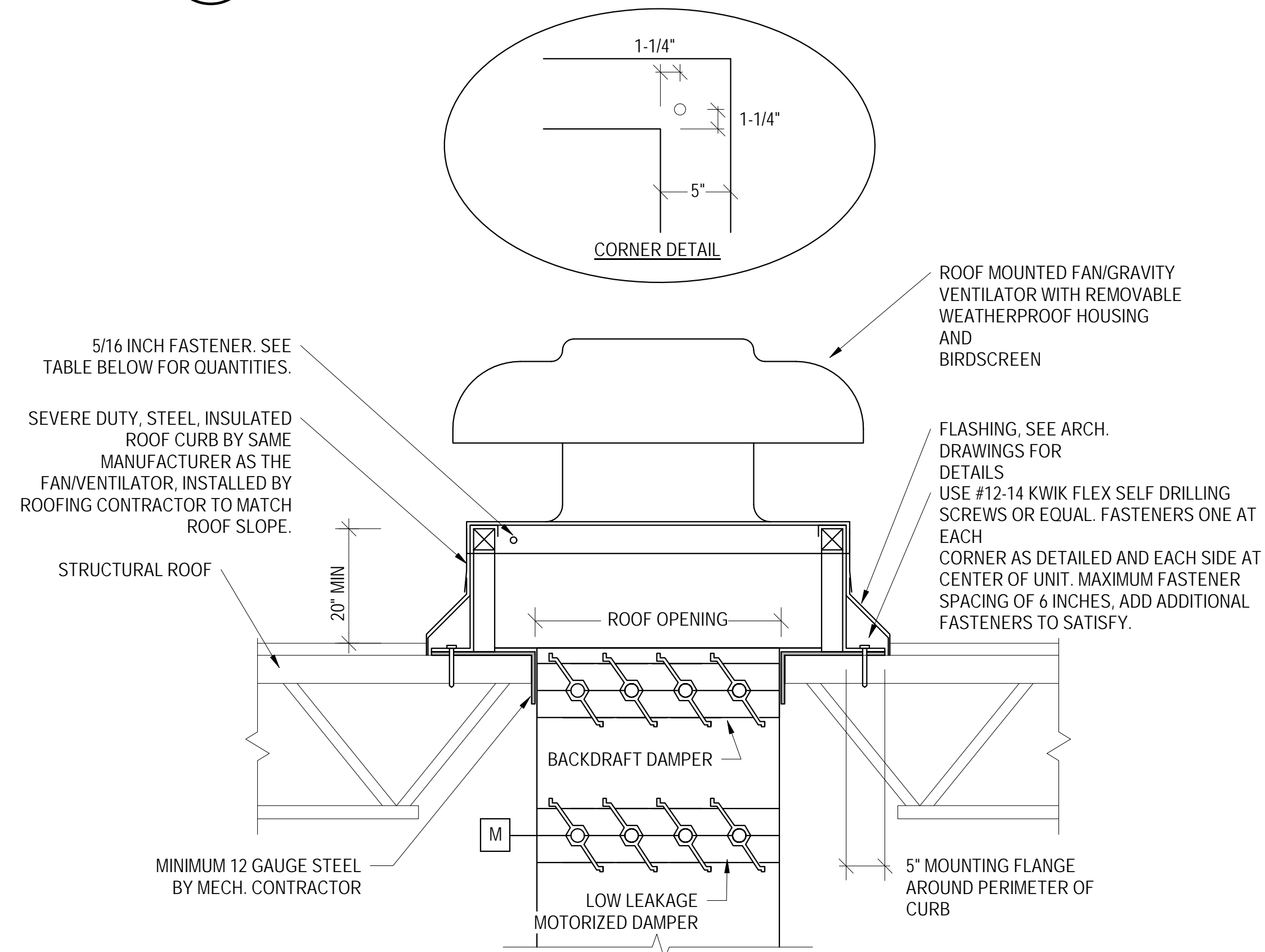
STANDARD D LAYOUT (24" X 36")



1 VERTICAL REFRIGERANT PIPE ROUTING DETAIL
NOT TO SCALE



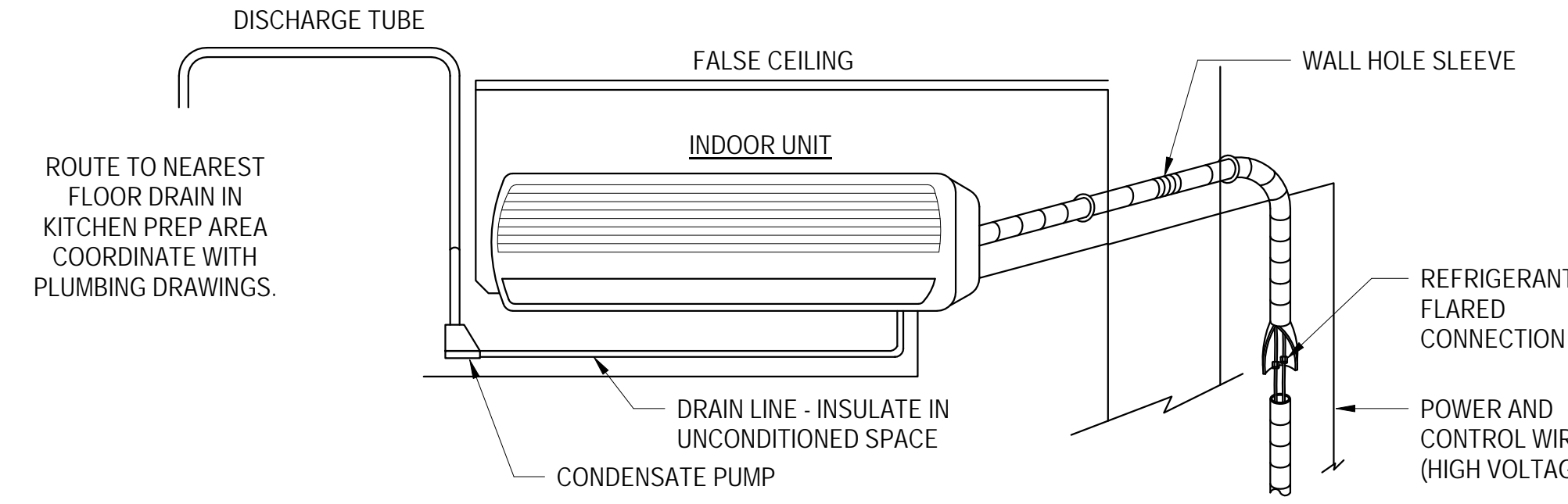
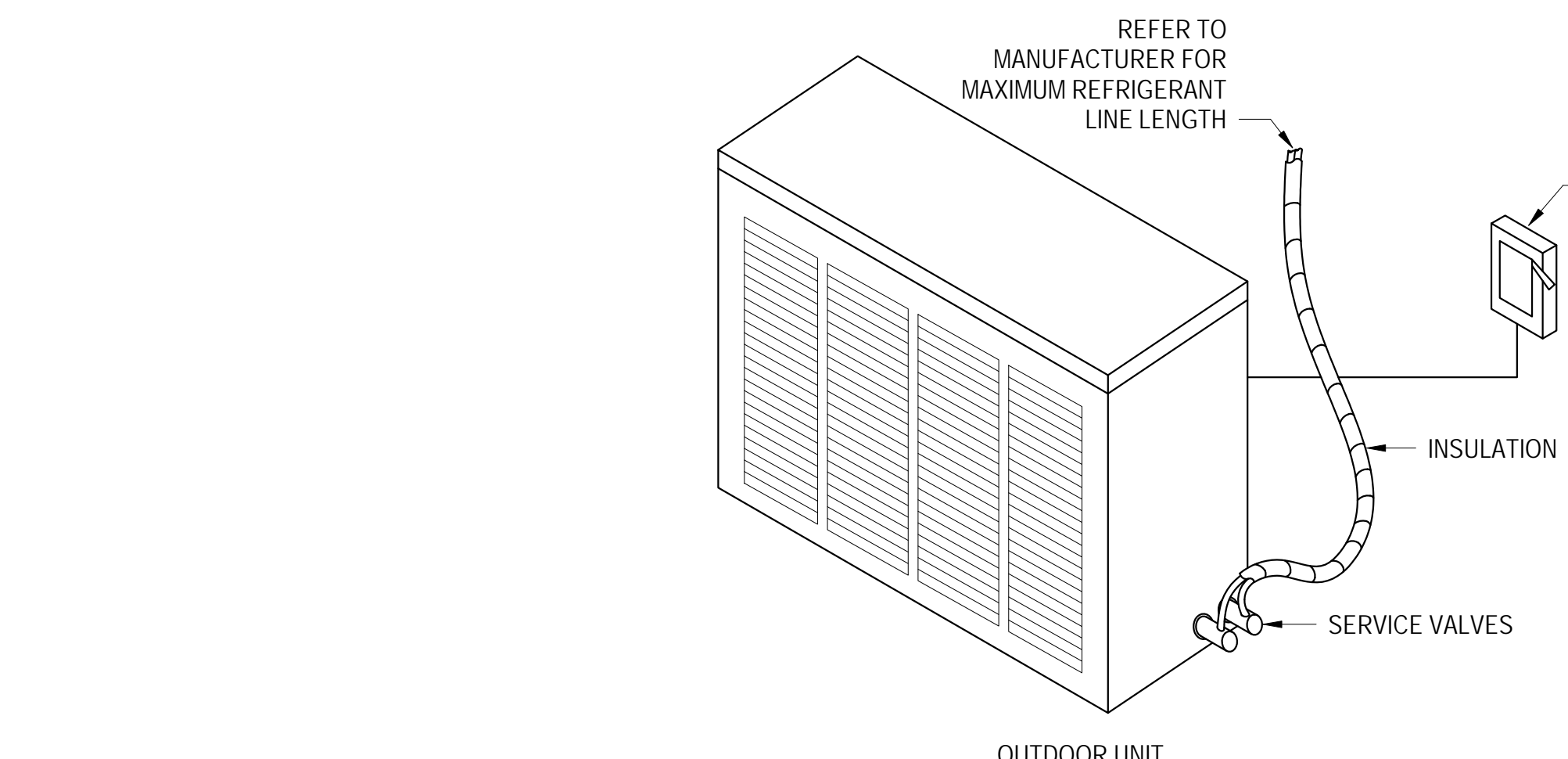
2 KITCHEN HOOD SUPPLY AND EXHAUST FAN DETAIL
NOT TO SCALE



VENTILATOR SIZE	MAXIMUM ROOF OPENING	MAXIMUM WEIGHT FAN/VENTILATOR	NUMBER OF FASTENERS PER SIDE	TOTAL NUMBER OF FASTENERS
80 - 120	14.5" x 14.5"	60 LBS	3	12
150 - 160	18.5" x 18.5"	85 LBS	3	12
180-200	20.5" x 20.5"	140 LBS	5	20
240	26.5" x 26.5"	160 LBS	5	20
300	32.5" x 32.5"	325 LBS	5	20

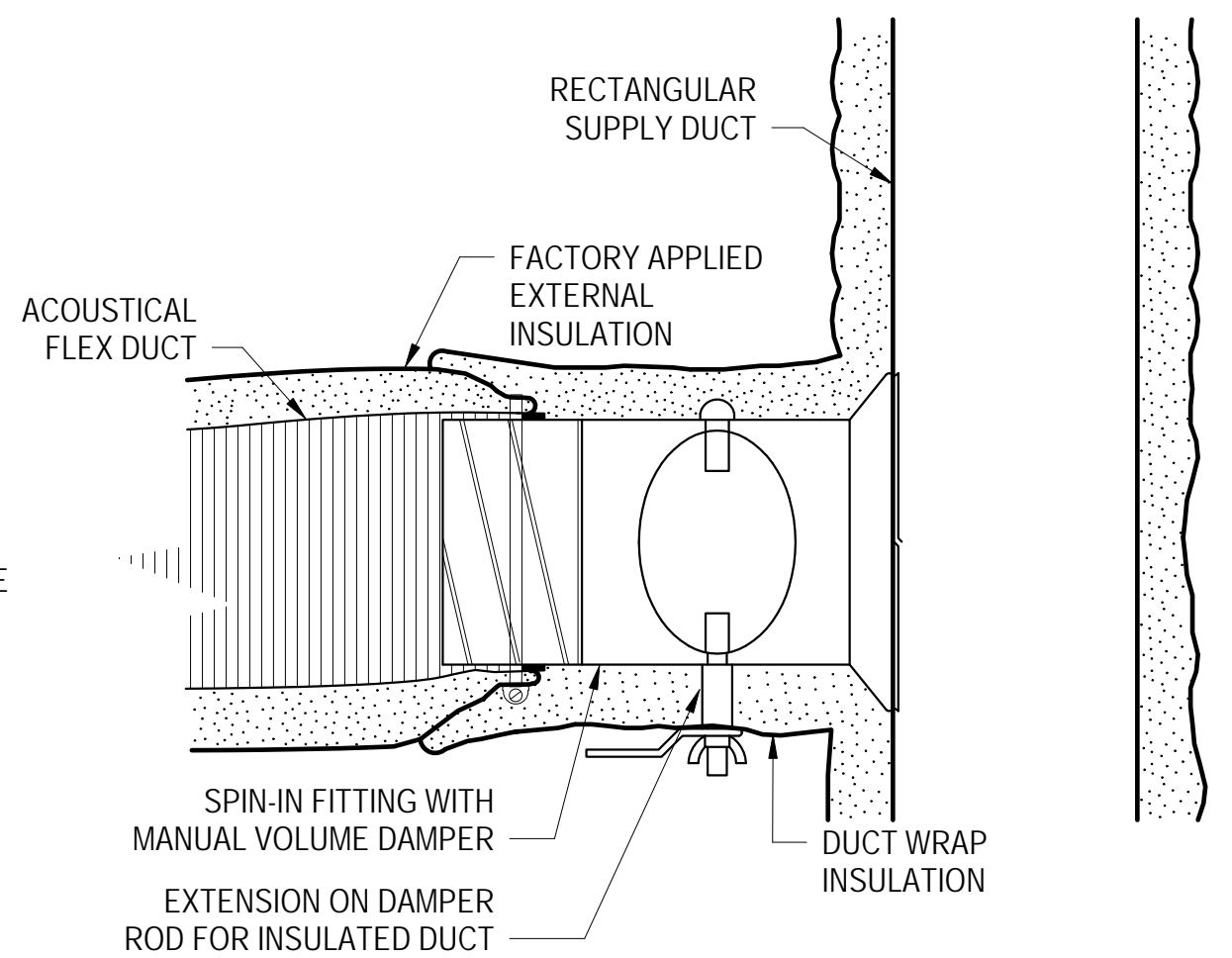
- NOTES:
- FASTENERS ON EACH SIDE OF VENTILATOR ARE TO BE INSTALLED WITH ONE FASTENER 4 INCHES FROM EACH EDGE AND ONE FASTENER CENTERED. THE REMAINING FASTENERS SHALL BE EQUALLY SPACED.
 - ROOF CURBS SHALL BE FURNISHED BY DIVISION 23 AND INSTALLED BY MECHANICAL CONTRACTOR. FIELD COORDINATE ROOF CURB LOCATIONS THE CURB AND ROOF-MOUNTED EQUIPMENT FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.
 - SECURE ALL ROOF MOUNTED FANS, VENTS, AND THEIR ROOF CURBS DIRECTLY TO THE BUILDING STRUCTURE WITH ADEQUATE ATTACHMENTS AS DETAILED TO RESIST WIND PRESSURE IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 301.13 COORDINATE ROOF CURB INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE ALL REQUIREMENTS FOR FLASHING ARE MET.
 - BACKDRAFT DAMPER AND MOTORIZED DAMPER SHALL NOT BE INSTALLED IN KITCHEN HOOD EXHAUST FAN SYSTEM.

3 TYPICAL ROOF MOUNTED FAN
NOT TO SCALE



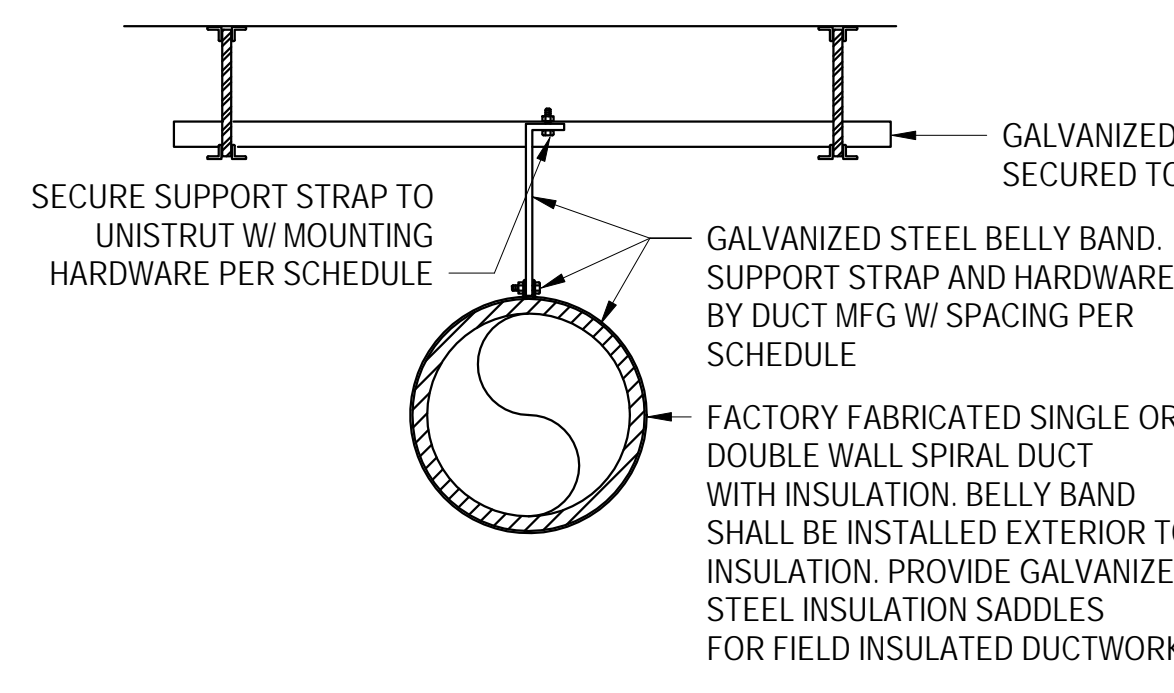
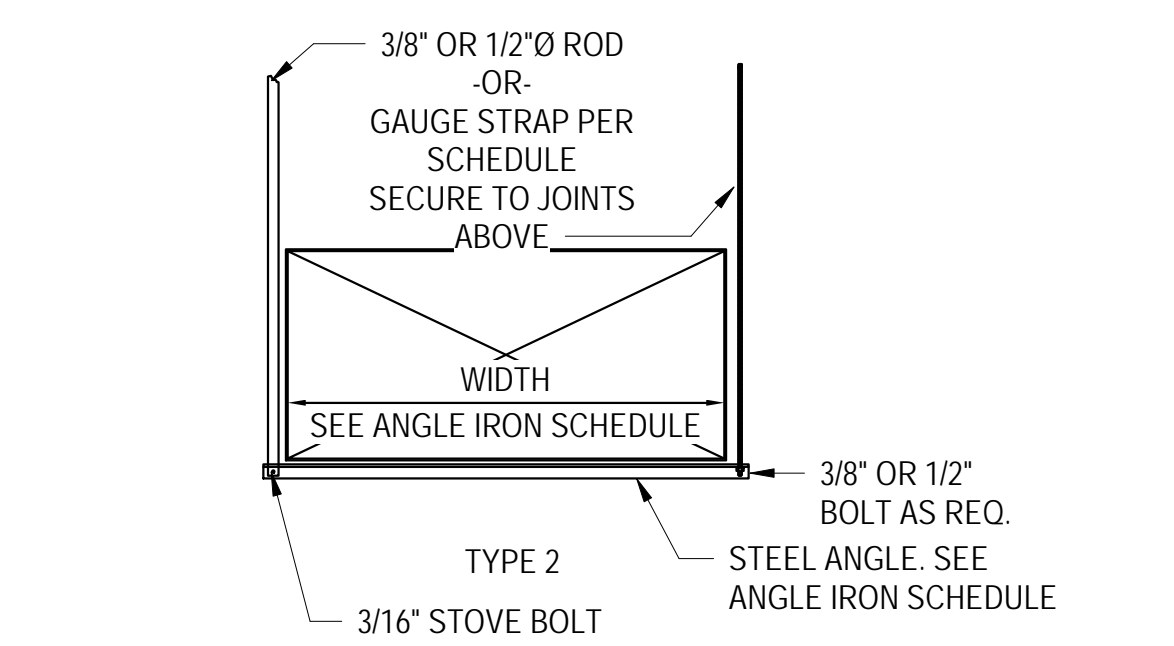
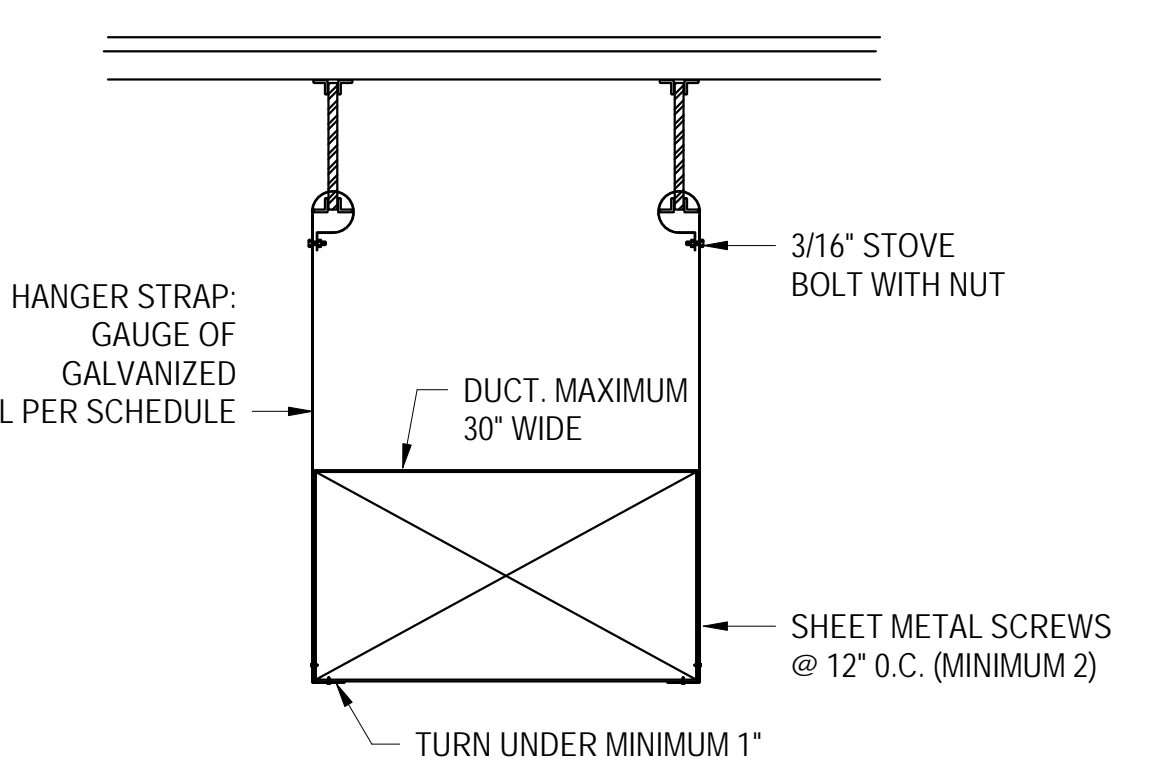
- NOTES:
1. CONTRACTOR SHALL MOUNT UNIT PER MANUFACTURER SPECIFICATIONS.
 2. REFER TO MANUFACTURER SPECIFICATIONS FOR MINIMUM INSTALLATION CLEARANCES.
 3. UNIT TO BE INSTALLED ACCORDING TO ALL APPLICABLE NATIONAL AND LOCAL ELECTRICAL, MECHANICAL AND BUILDING CODES.
 4. PROVIDE LINE SET COVER ON ALL EXTERIOR REFRIGERANT PIPING. SEE DETAIL 1 ON SHEET M16.

1 DUCTLESS SPLIT WITH CONDENSATE PUMP
NOT TO SCALE



- NOTES:
1. CONNECT FLEXIBLE DUCT TO FITTING WITH PANDUIT STRAP AND SEAL.
 2. HARD DUCT RUNOUTS SHOULD START WITH SPIN-IN FITTINGS SIMILAR TO THIS DETAIL.

2 FLEX DUCT TAKEOFF DETAIL
NOT TO SCALE

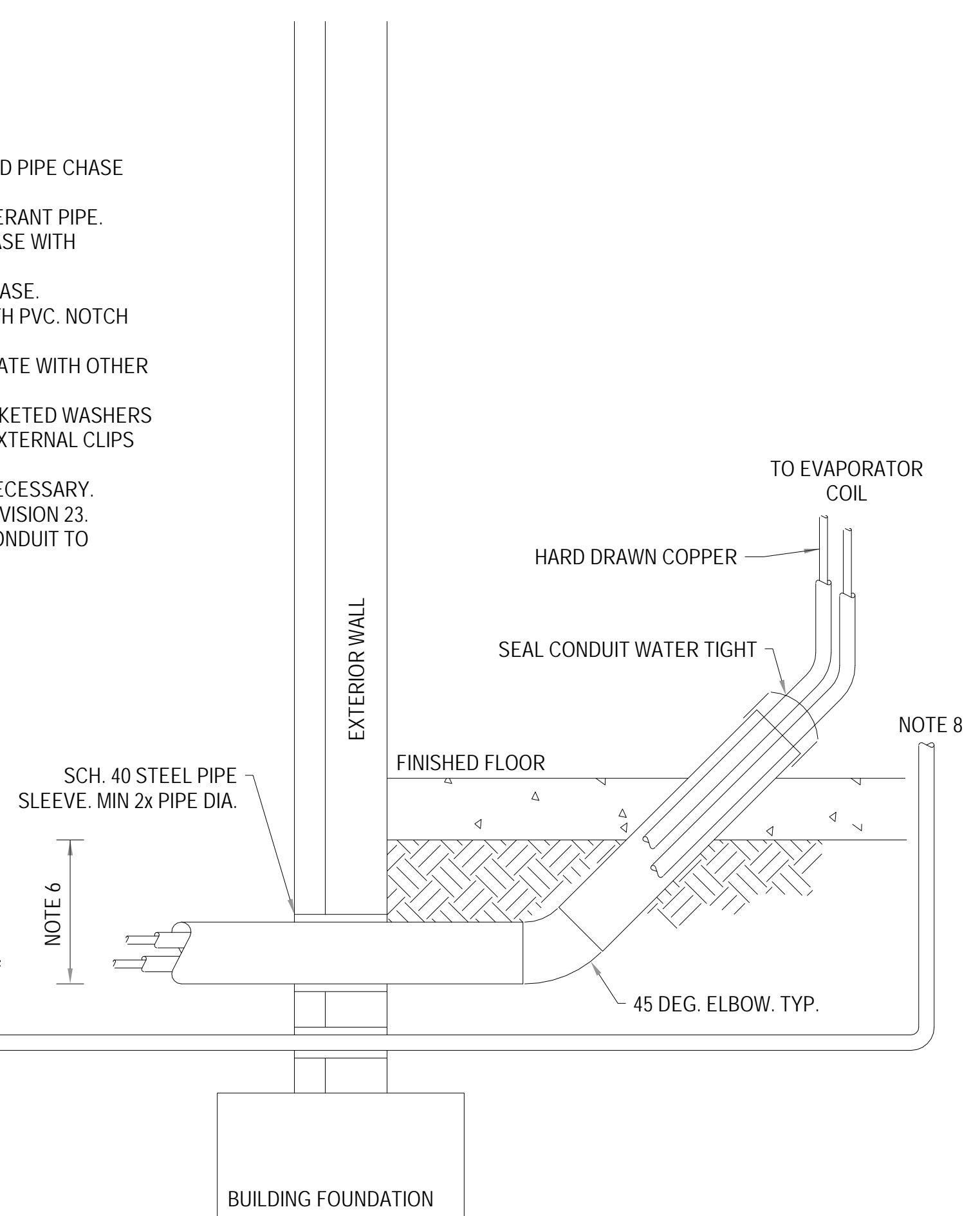
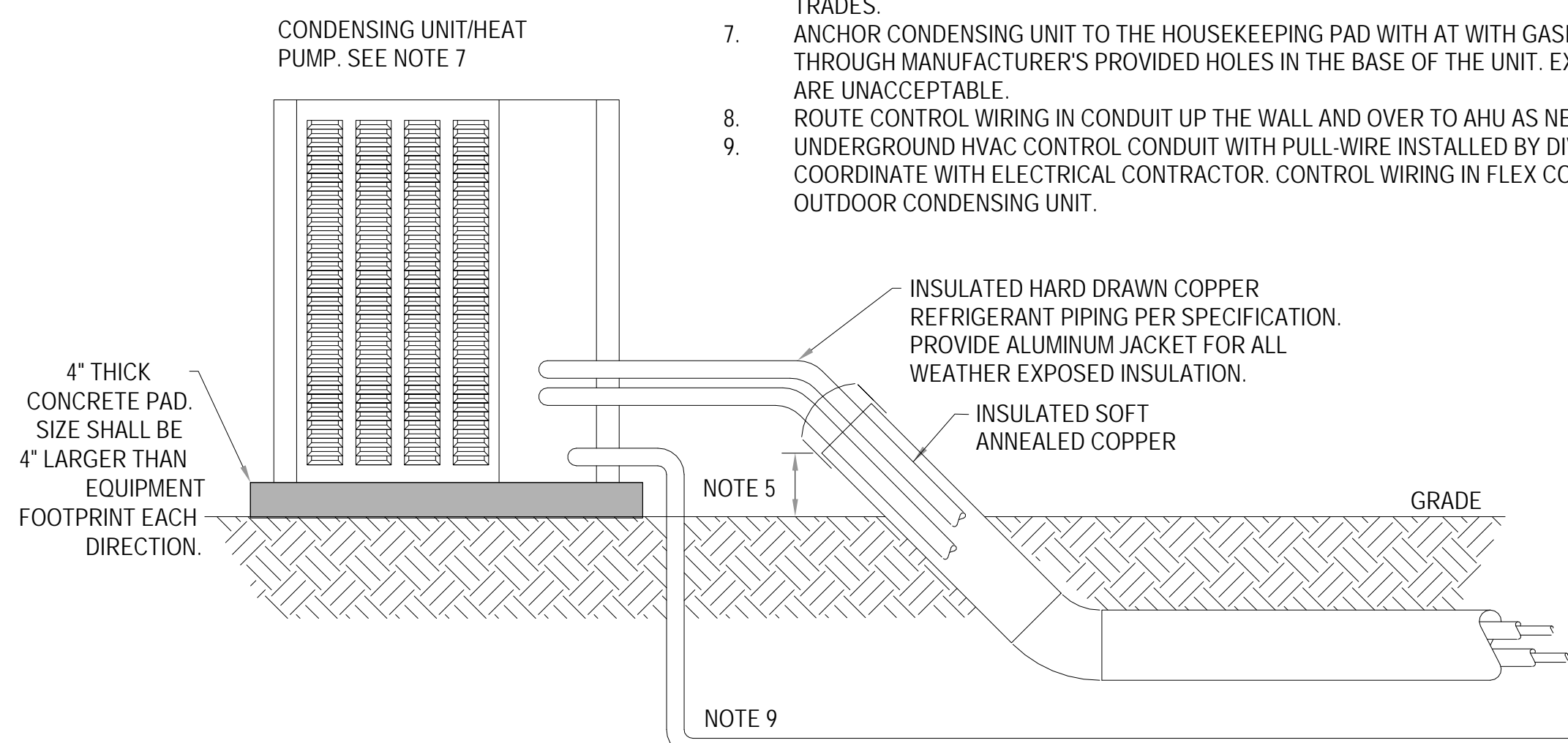


ANGLE IRON SCHEDULE	
WIDTH	ANGLE SIZE
31" THRU 42"	1-1/2" x 1-1/2" x 1/8"
43" THRU 60"	1-1/2" x 1-1/2" x 1/8"
61" THRU 84"	2" x 2" x 1/4"
85" & OVER	2" x 2" x 1/4"

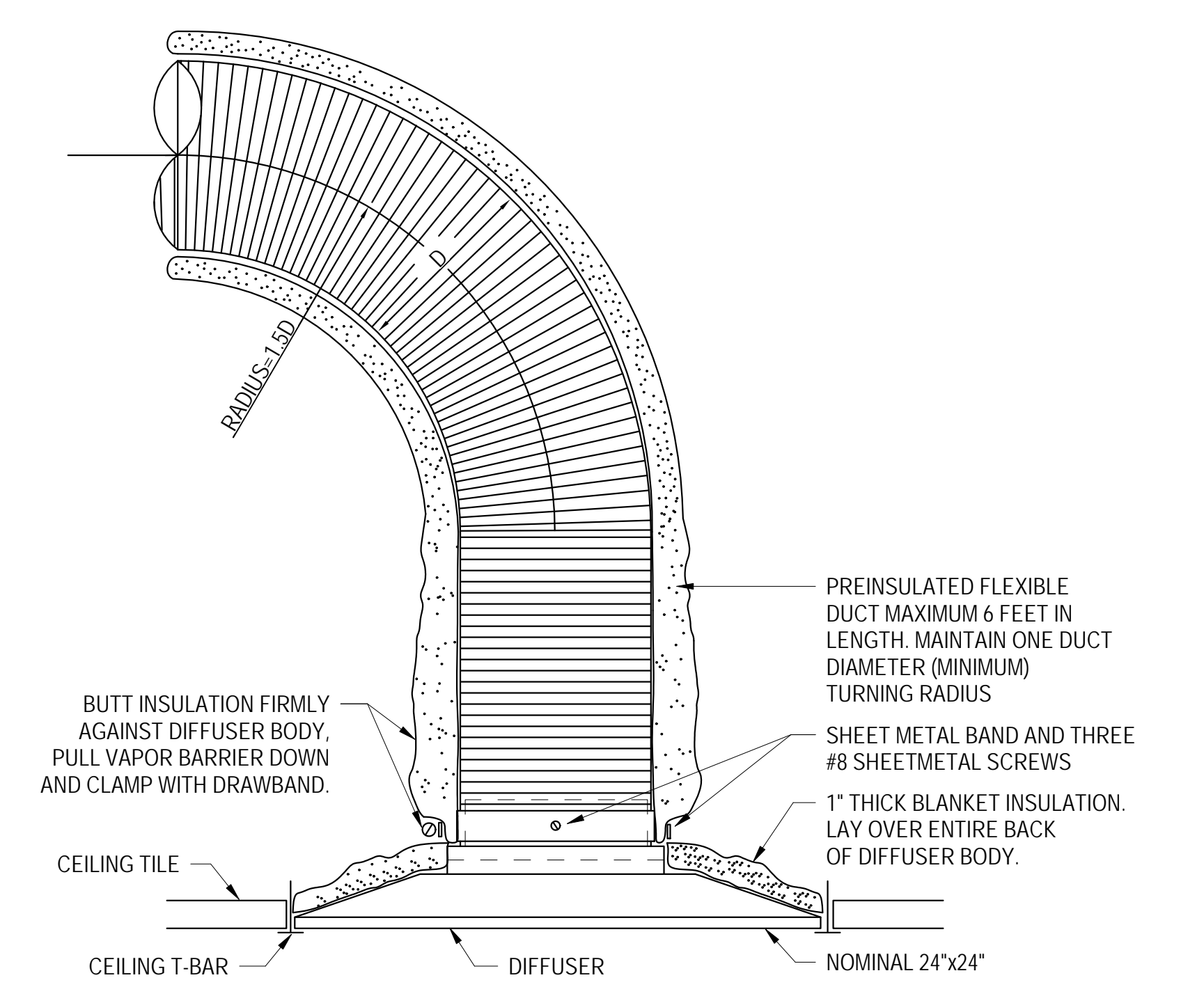
DUCT SCHEDULE				
1/2" DUCT PERIMETER (P/2)	GAUGE	HANGERS	MAXIMUM HANGER SPACING	JOINTS
30"	26	1"-22 GAUGE	10'-0" (TYPE 1)	FLAT "S" & DRIVE SLIP
72"	24	1"-18 GAUGE	10'-0" (TYPE 1)	STANDING "S"
96"	22	1"-16 GAUGE OR 1/2" ROD	10'-0" (TYPE 2)	STANDING "S"
120"	20	1.5"-18 GAUGE OR 1/2" ROD	10'-0" (TYPE 2)	STANDING "SR"
168"	18	1.5"-16 GAUGE OR 1/2" ROD	10'-0" (TYPE 2)	STANDING "SR"

- NOTES:
1. WHERE SCHEDULE CONFLICTS WITH MORE STRINGENT SMACNA DUCT CONSTRUCTION STANDARD, SMACNA SHALL BE USED.
 2. UTILIZE RECTANGULAR DUCT INSTALLATION INSTRUCTIONS FOR FLAT OVAL DUCTWORK.

- UNDERGROUND REFRIGERANT PIPING NOTES:
1. ONCE CHASE IS INSTALLED TEMPORARILY COVER WITH CAPS UNDERGROUND PIPE CHASE MUST REMAIN CLEAR OF DIRT, WATER AND CONSTRUCTION DEBRIS.
 2. PULL SWAB THROUGH CHASE TO CLEAN AND DRY BEFORE PULLING REFRIGERANT PIPE.
 3. CONVERT TO HARD DRAWN COPPER UPON EXITING CHASE. FILL END OF CHASE WITH EXPANDED FOAM AND COVER WITH CAP.
 4. SEAL PENETRATIONS TO PREVENT DIRT AND MOISTURE FROM ENTERING CHASE.
 5. SEAL CONDUIT WEATHER TIGHT RISE WITHIN 6 INCHES OF UNIT AND CAP WITH PVC. NOTCH CAP TO FIT AROUND REFRIGERANT PIPE.
 6. CONDUIT MAY VARY DEPTH AS REQUIRED TO PREVENT CONFLICT. COORDINATE WITH OTHER TRADES.
 7. ANCHOR CONDENSING UNIT TO THE HOUSEKEEPING PAD WITH AT WITH GASKETED WASHERS THROUGH MANUFACTURER'S PROVIDED HOLES IN THE BASE OF THE UNIT. EXTERNAL CLIPS ARE UNACCEPTABLE.
 8. ROUTE CONTROL WIRING IN CONDUIT UP THE WALL AND OVER TO AHU AS NECESSARY.
 9. UNDERGROUND HVAC CONTROL CONDUIT WITH PULL-WIRE INSTALLED BY DIVISION 23. COORDINATE WITH ELECTRICAL CONTRACTOR. CONTROL WIRING IN FLEX CONDUIT TO OUTDOOR CONDENSING UNIT.

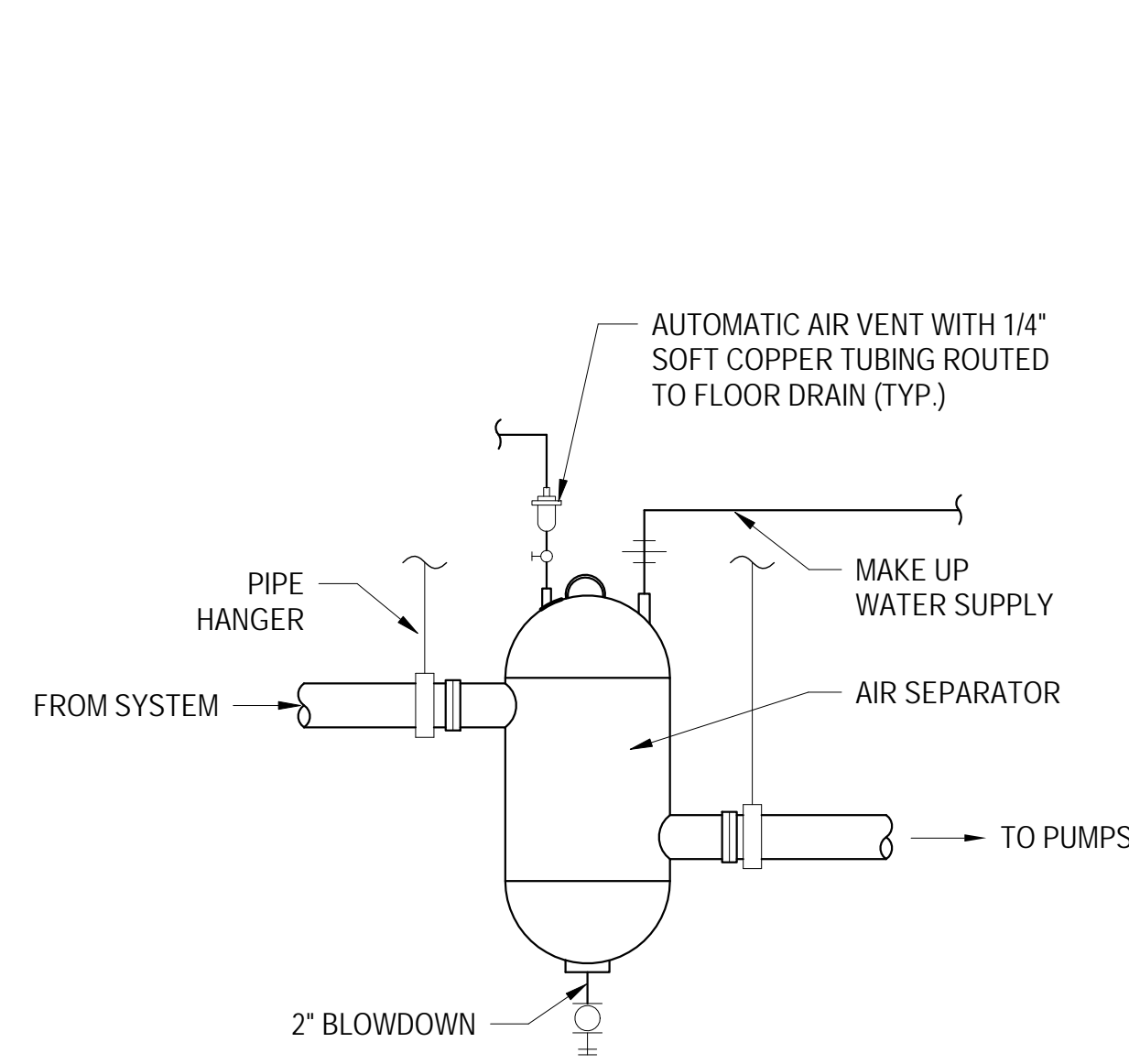


3 DUCT SUPPORT DETAIL
NOT TO SCALE

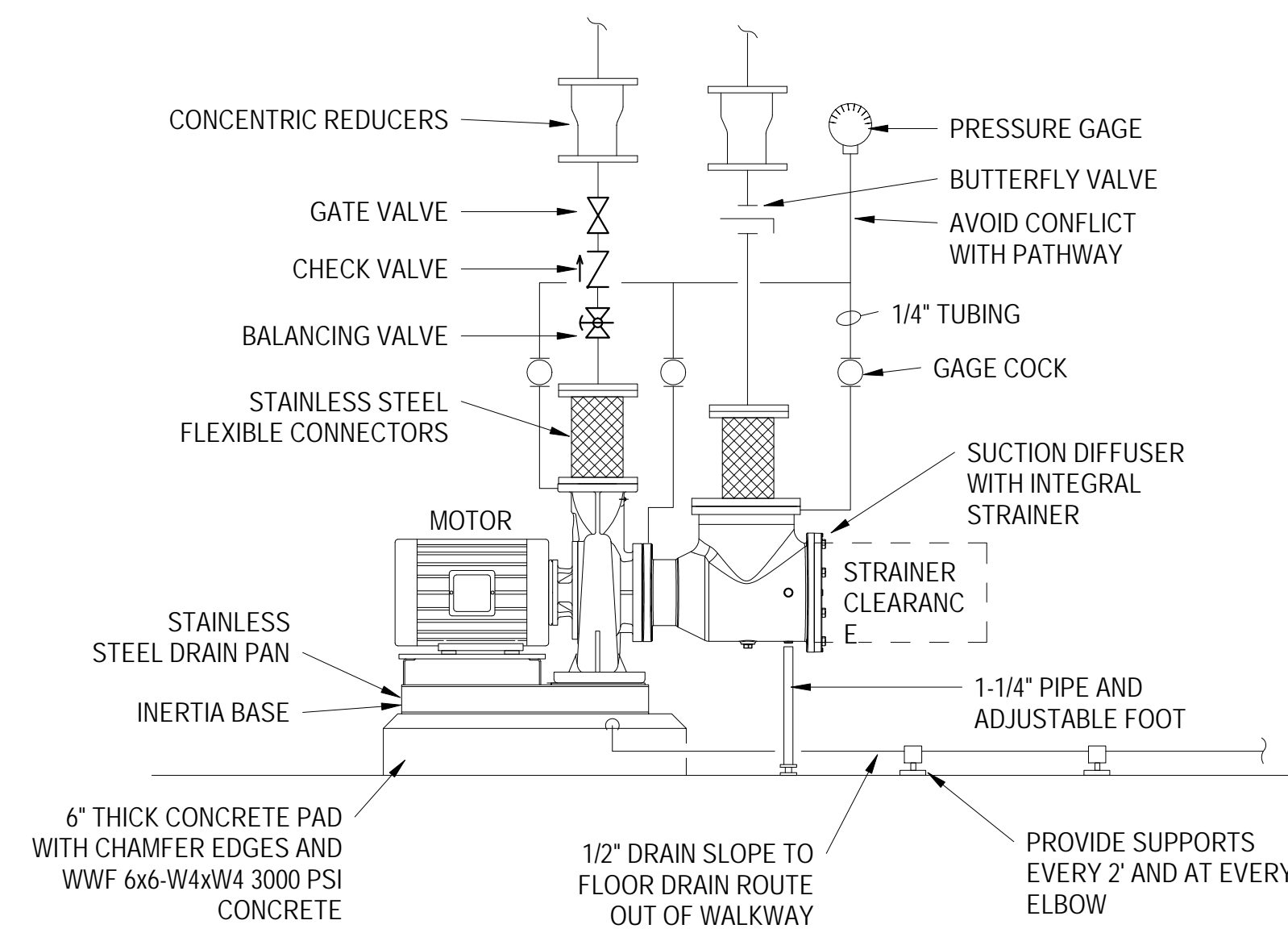


5 CEILING DIFFUSER INSTALLATION DETAIL
NOT TO SCALE

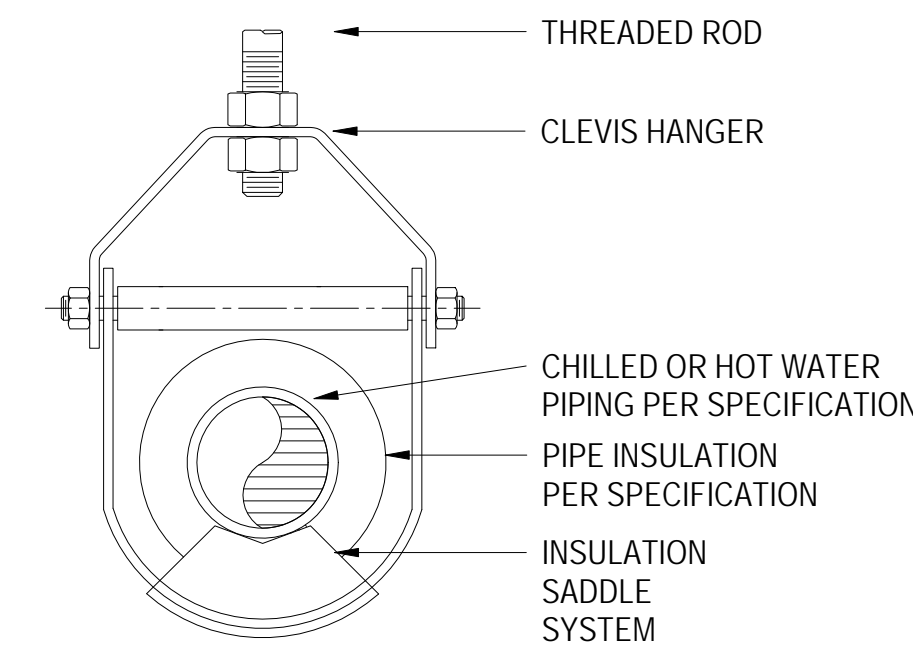
4 UNDERGROUND REFRIGERANT PIPING DETAIL
NOT TO SCALE



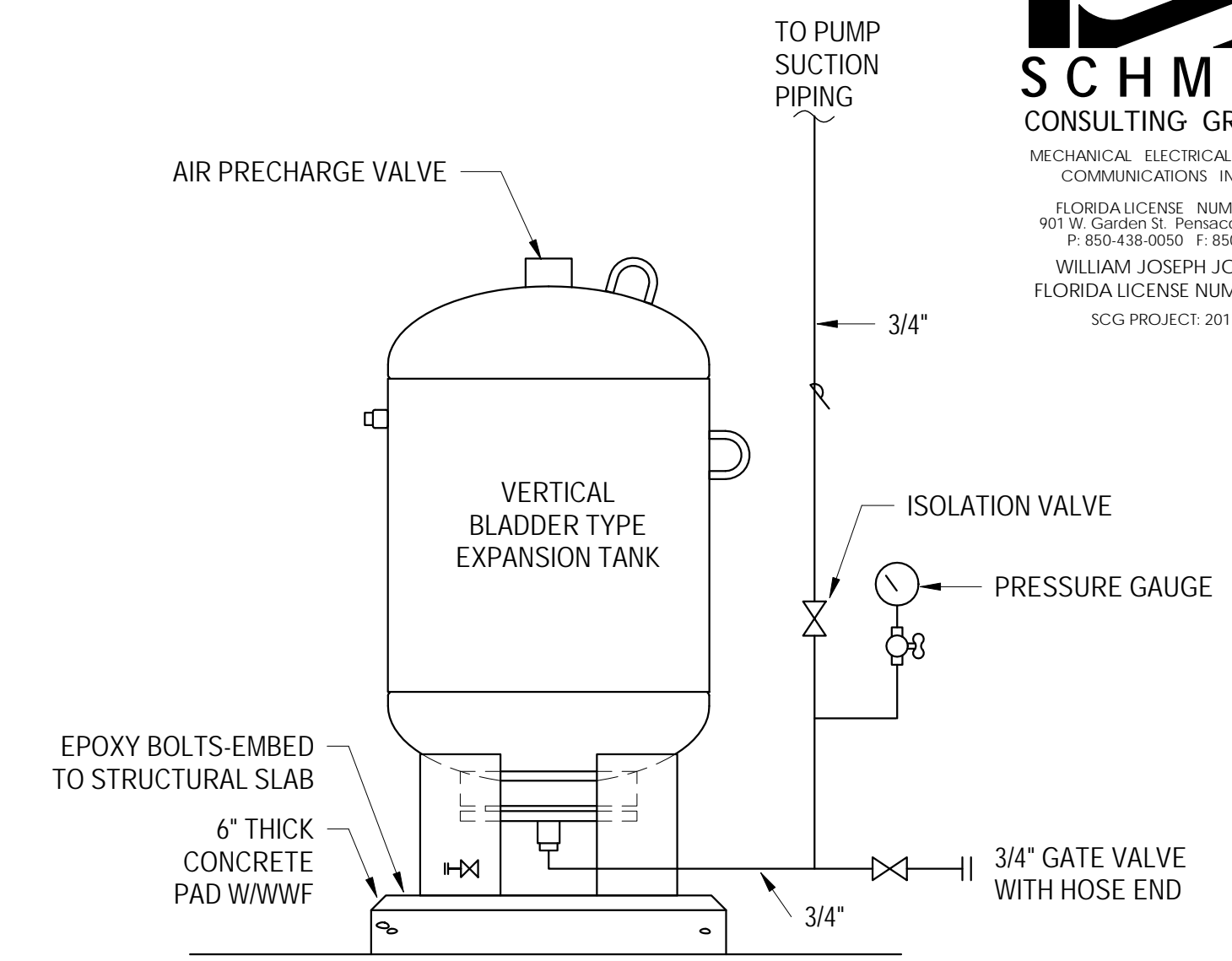
1 AIR SEPARATOR DETAIL
NOT TO SCALE



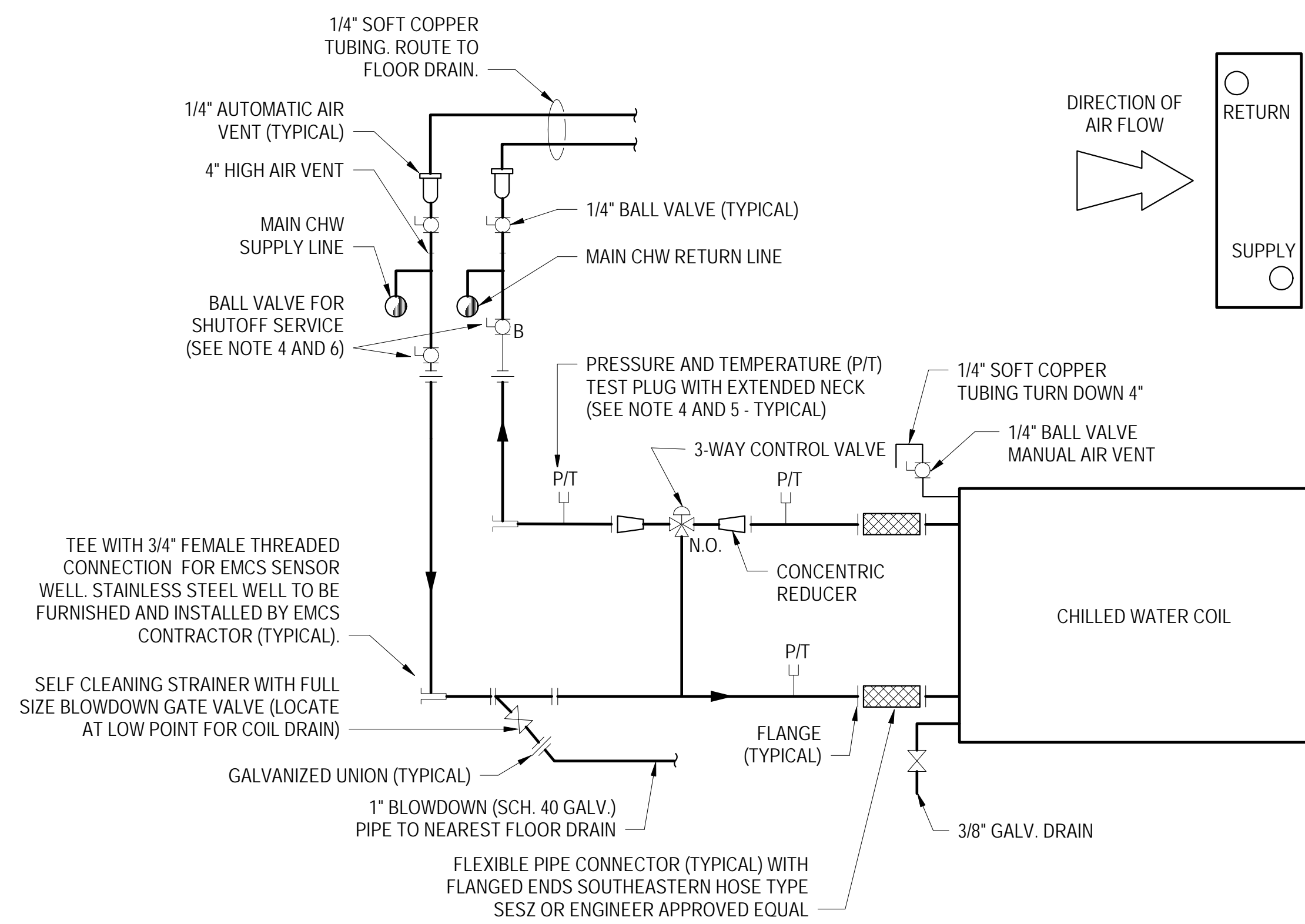
2 BASE MOUNT PUMP DETAIL
NOT TO SCALE



3 OVERHEAD PIPE SUPPORT DETAIL
NOT TO SCALE

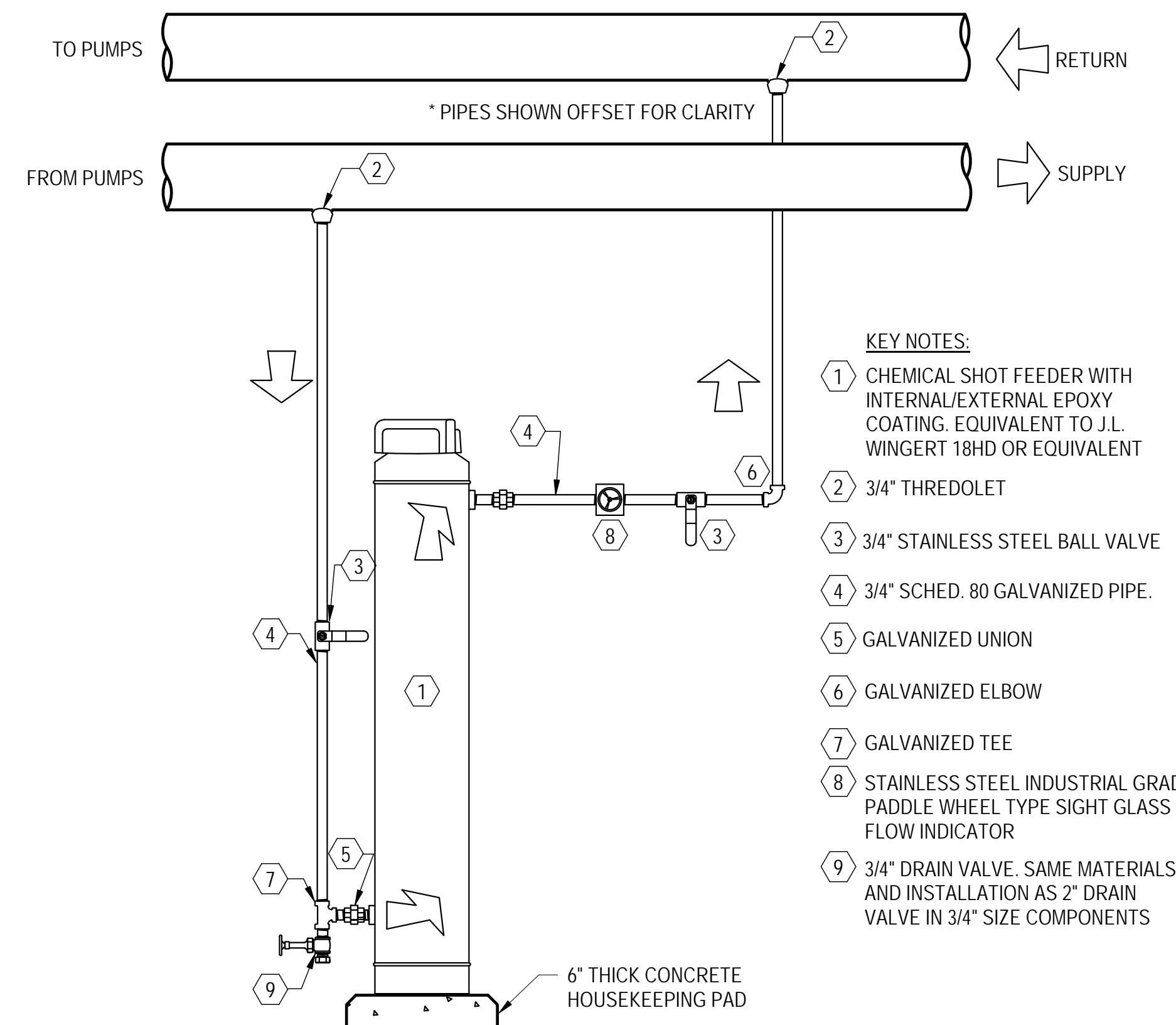


4 EXPANSION TANK DETAIL
NOT TO SCALE



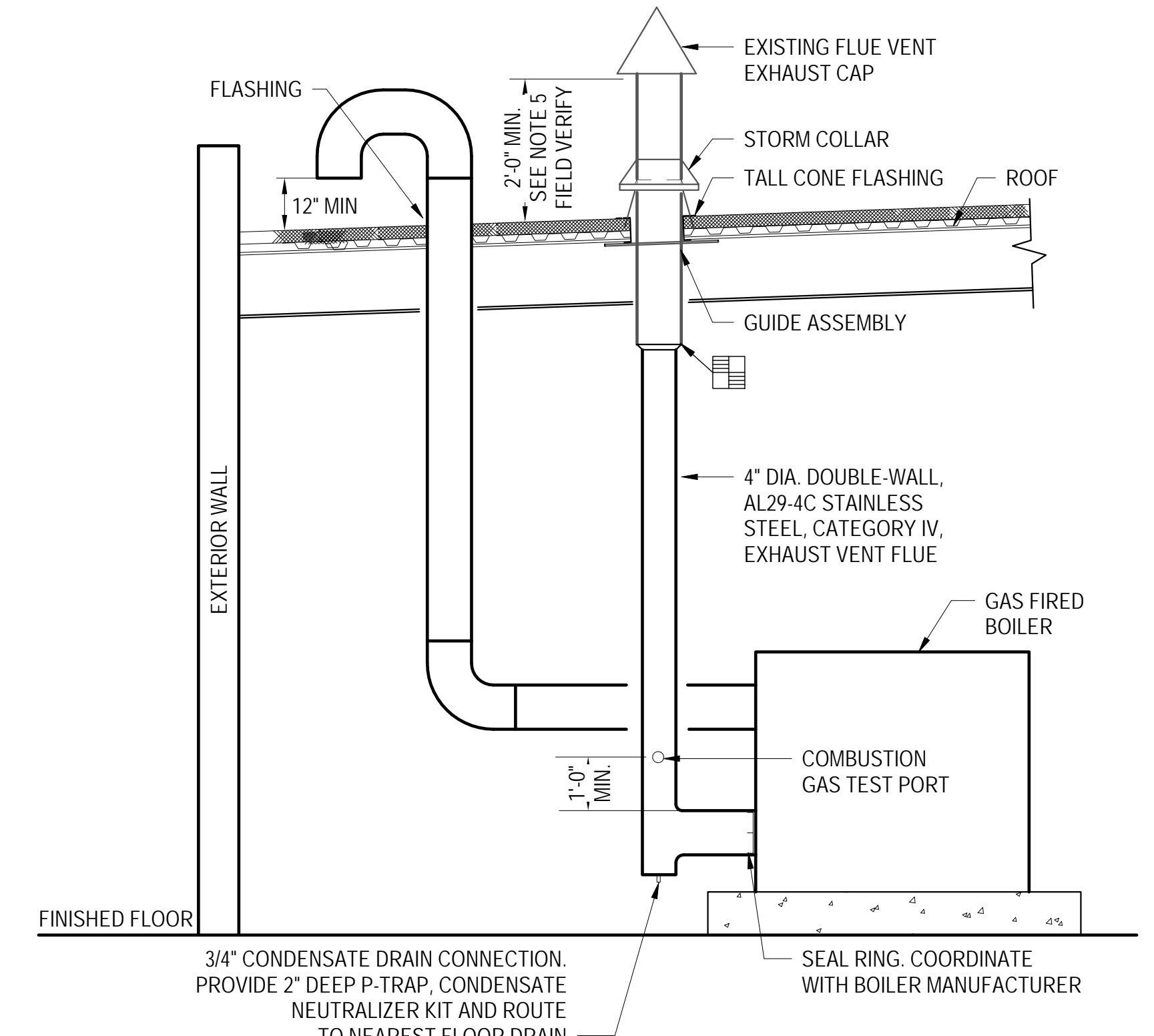
- NOTES:**
1. CHILLED WATER SUPPLY AND RETURN PIPING WILL BE AS PER SPECIFICATIONS. INSTALL BOLTED FLANGES IN ALL LOCATIONS INDICATED AND ELSEWHERE WHERE REQUIRED FOR EASE OF SERVICE. RUNOUT VALVES SHALL BE COMBINATION TIGHT SHUTOFF VALVE AND BALANCING VALVE WITH MEMORY POSITIONING DEVICE AND SHALL BE FLANGED ENDS WITHOUT DRAIN AND P/T PLUGS, OR ENGINEER APPROVED EQUAL. AFTER THE HYDRONIC TEST AND BALANCE HAS BEEN COMPLETED THE CONTRACTOR SHALL POSITION THE MEMORY STOP ON EACH VALVE TO PREVENT OPENING OF THE VALVE BEYOND THE FINAL BALANCE SETTINGS. PROVIDE WITH ENGRAVED PHENOLIC TAG ON BRASS CHAIN INDICATING "BALANCE VALVE. DO NOT MOVE MEMORY STOP. RETURN TO BALANCE SETTINGS.
 2. VALVES INDICATED FOR SHUTOFF SERVICE SHALL BE PROVIDED WITH ENGRAVED PHENOLIC TAG ON BRASS CHAIN INDICATING "NORMALLY OPEN SERVICE VALVE".
 3. INSTALL P/T PLUGS IN WELDED "THREAD-O-LET" FITTING.
 4. PROVIDE ALL VALVES, P/T PLUGS AND VENTURI MEASURING PORTS WITH EXTENDED STEMS TO ACCOMMODATE INSULATION THICKNESS.
 5. INSTALL COIL CONNECTION PIPING AND COMPONENTS IN EXACT PHYSICAL CONFIGURATION AND ROUTING INDICATED UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER AND THE OWNER.

5 CHW COIL CONNECTION DETAIL
NOT TO SCALE



- KEY NOTES:**
- 1 CHEMICAL SHOT FEEDER WITH INTERNAL/EXTERNAL EPOXY COATING. EQUIVALENT TO J.L. WINGERT 18HD OR EQUIVALENT
 - 2 3/4" THREDOLET
 - 3 3/4" STAINLESS STEEL BALL VALVE
 - 4 3/4" SCHED. 80 GALVANIZED PIPE.
 - 5 GALVANIZED UNION
 - 6 GALVANIZED ELBOW
 - 7 GALVANIZED TEE
 - 8 STAINLESS STEEL INDUSTRIAL GRADE PADDLE WHEEL TYPE SIGHT GLASS FLOW INDICATOR
 - 9 3/4" DRAIN VALVE. SAME MATERIALS AND INSTALLATION AS 2" DRAIN VALVE IN 3/4" SIZE COMPONENTS

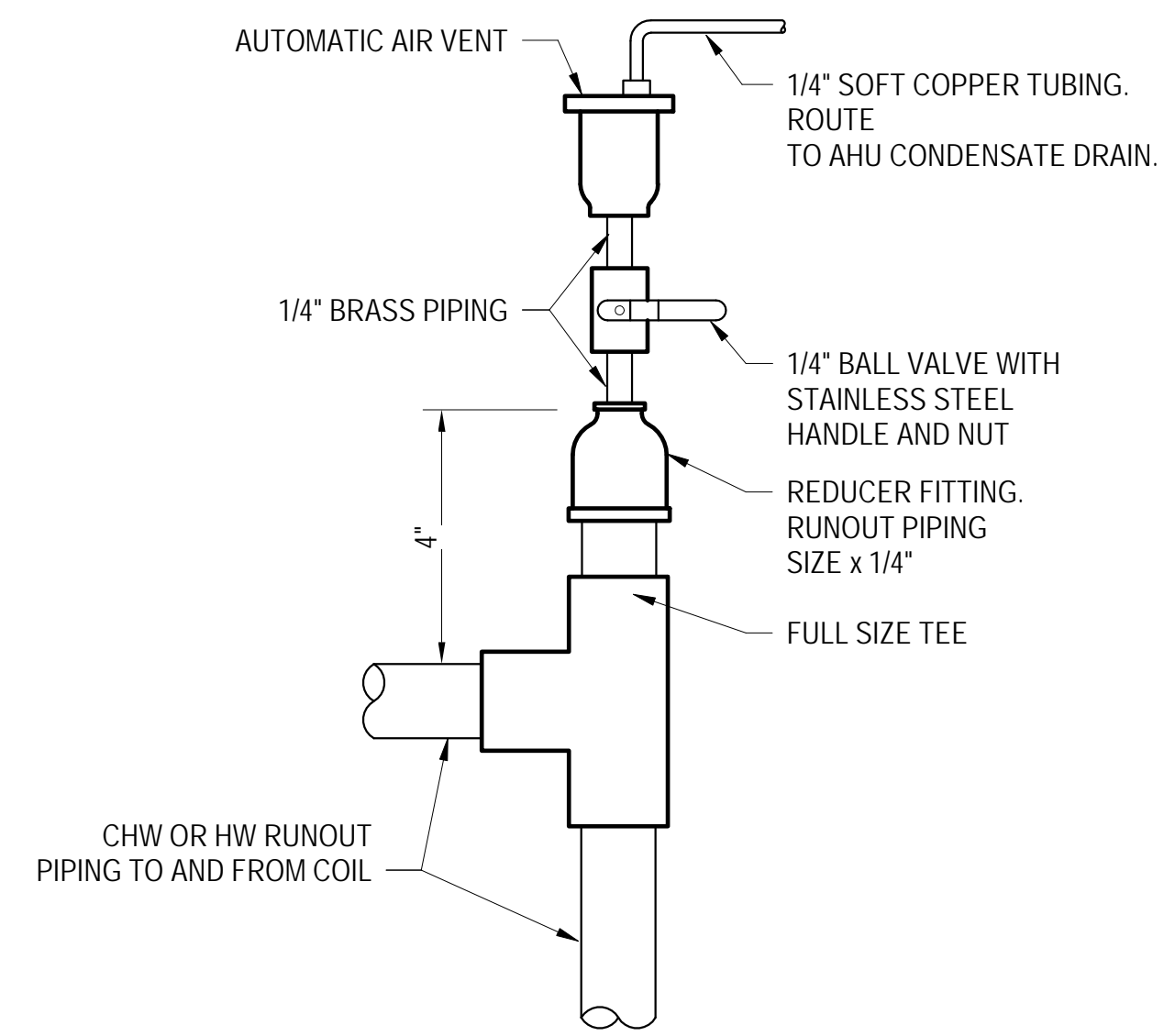
6 CHEMICAL SHOT FEEDER DETAIL
NOT TO SCALE



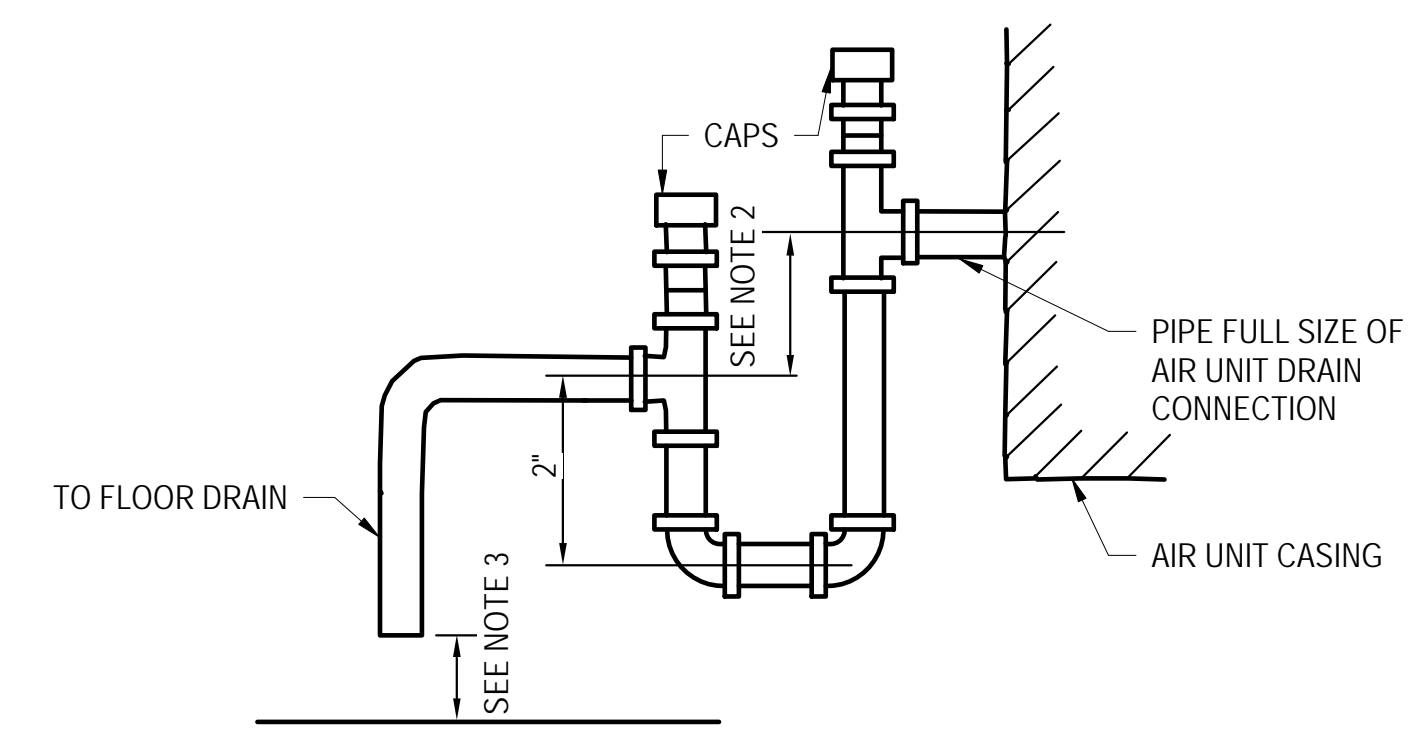
- NOTES:**
1. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BEFORE ANY FABRICATION.
 2. ALL CONNECTIONS SHALL BE COORDINATED WITH THE BOILER MANUFACTURER.
 3. COORDINATE ROOF PENETRATIONS WITH ARCHITECTURAL DETAILS AND PLANS.
 4. COMBUSTION AIR INTAKE SHALL BE KEPT A MINIMUM OF 4 FT FROM ANY BUILDING OPENING AND 10 FT FROM EXHAUST FLUE.
 5. BOILER FLUE VENT SHALL EXTEND A MINIMUM OF 2 FT ABOVE THE HIGHEST POINT ON THE SLOPING ROOF WITHIN 10 FT OF FLUE.

7 BOILER STACK DETAIL
NOT TO SCALE

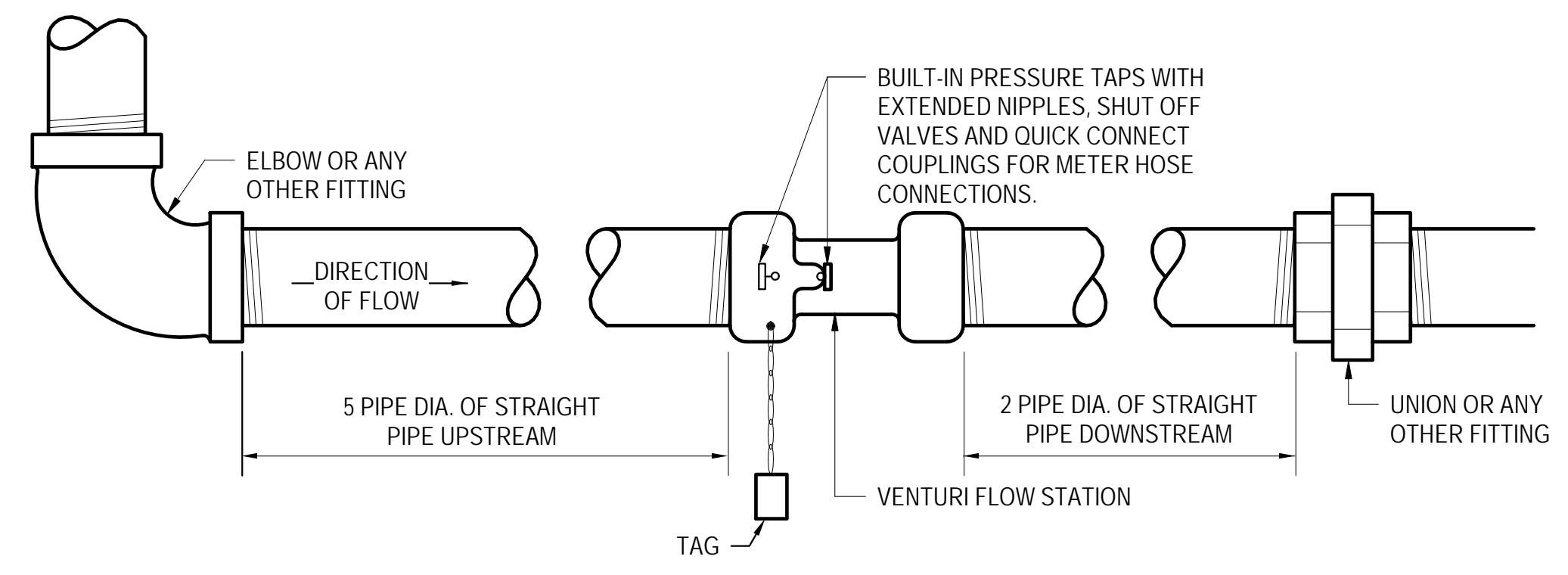
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
MECHANICAL DETAILS			
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016		
DESIGNED BY:	CAD		
DRAWN BY:	CAD		
BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
SHEET REF:	M18		
SHEET NO:	81 of 110		



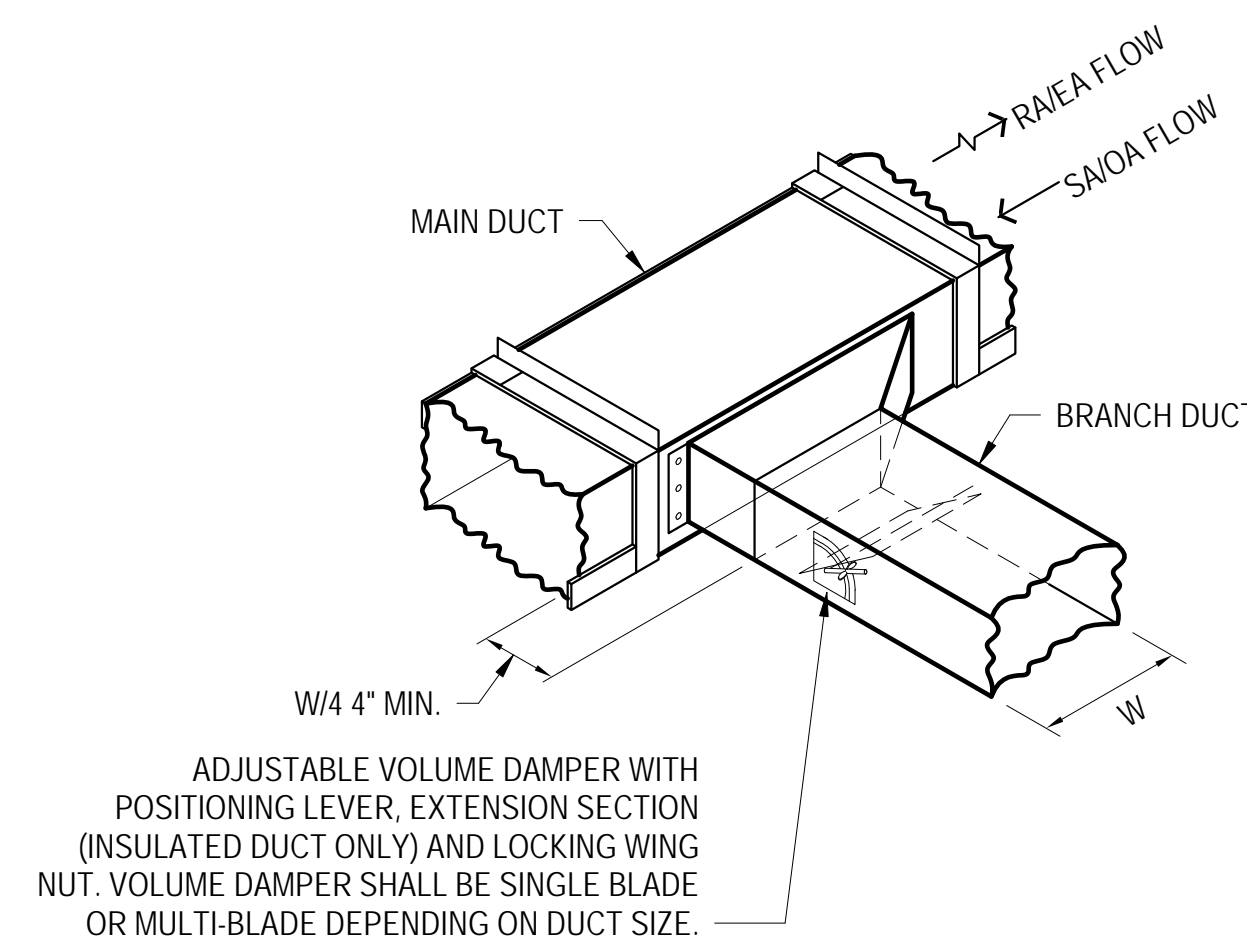
1 AUTOMATIC AIR VENT DETAIL
NOT TO SCALE



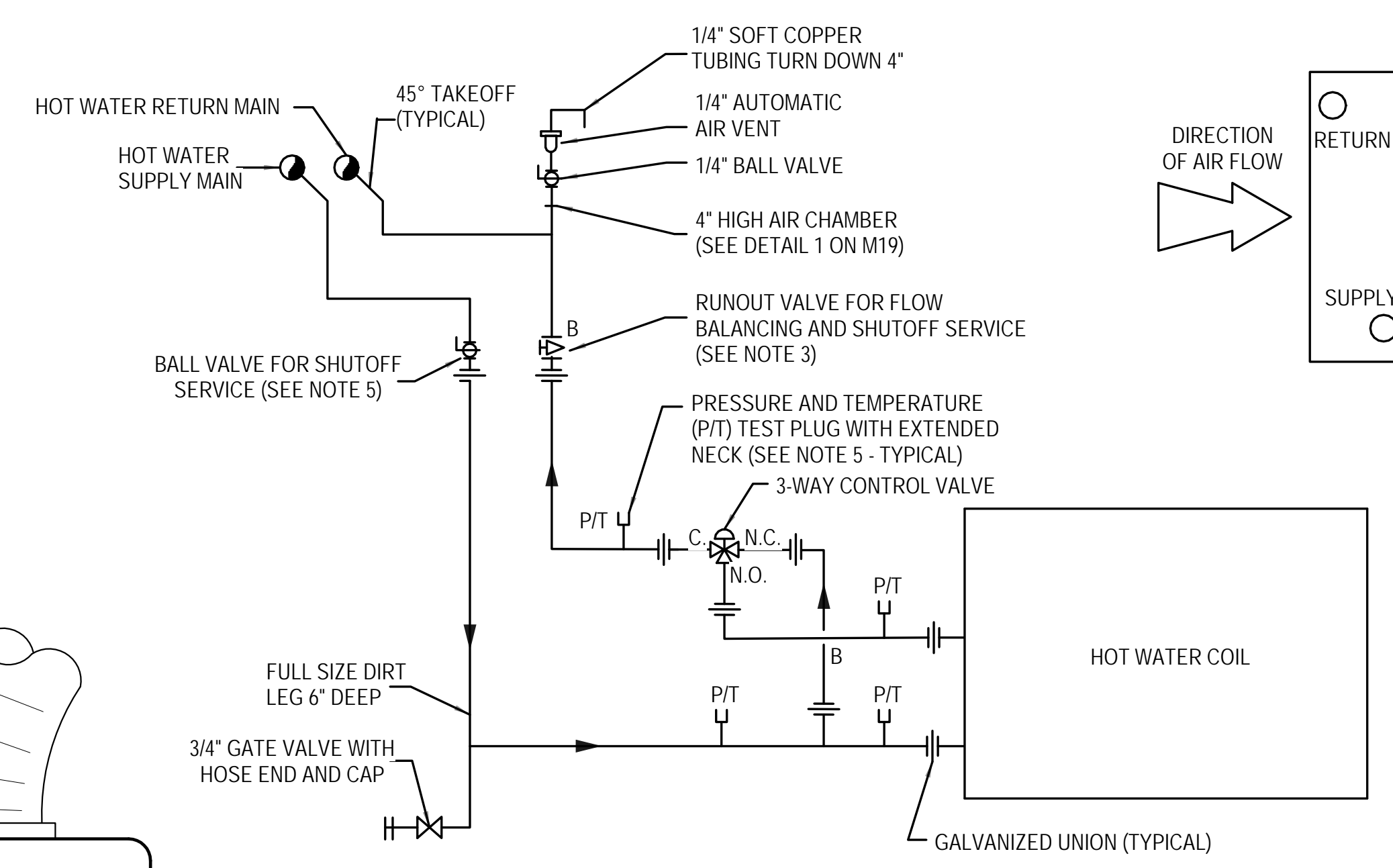
2 CONDENSATE DRAIN TRAP
NOT TO SCALE



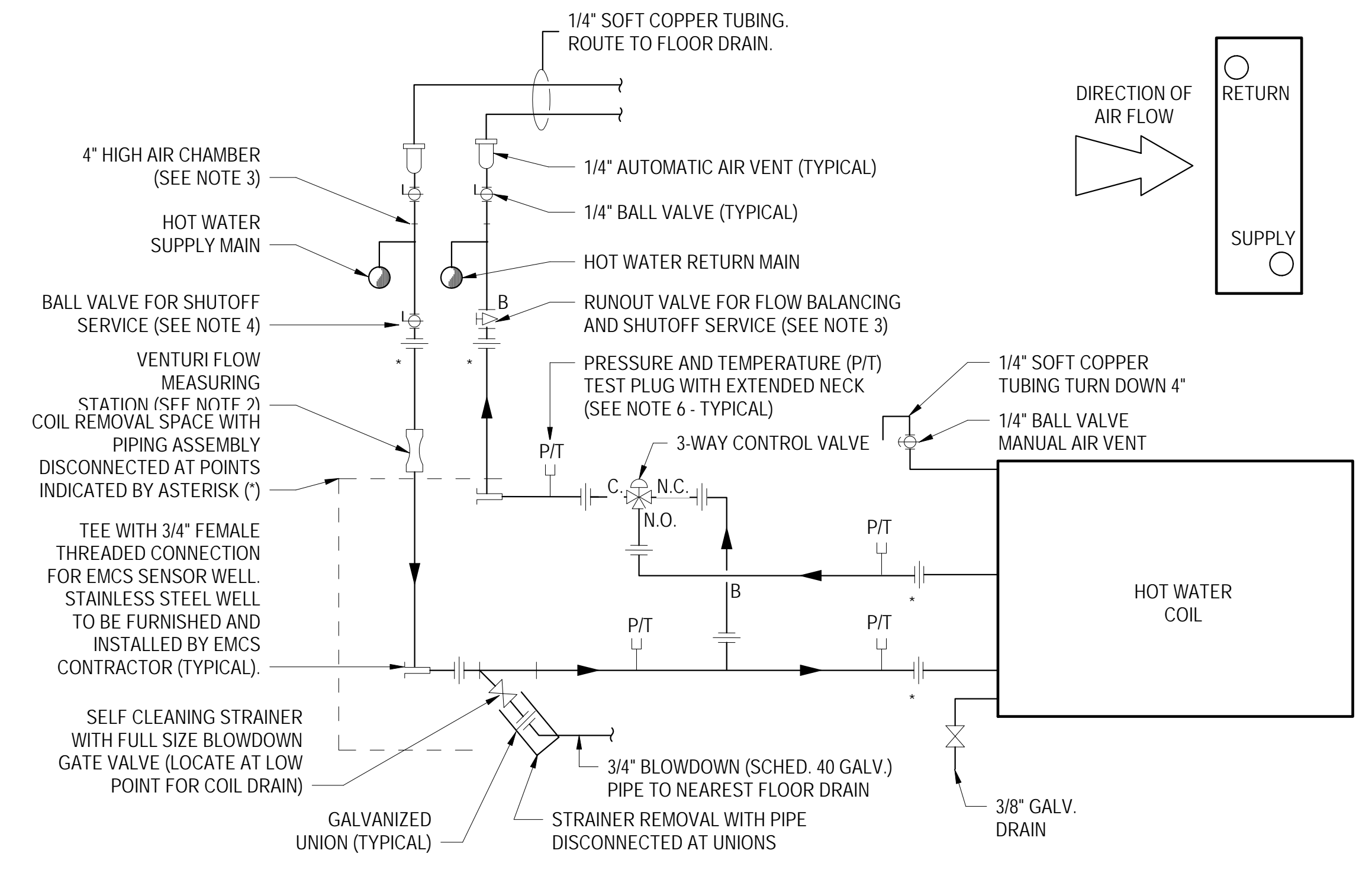
7 VENTURI METER - FLOW MEASURING STATION DETAIL
NOT TO SCALE



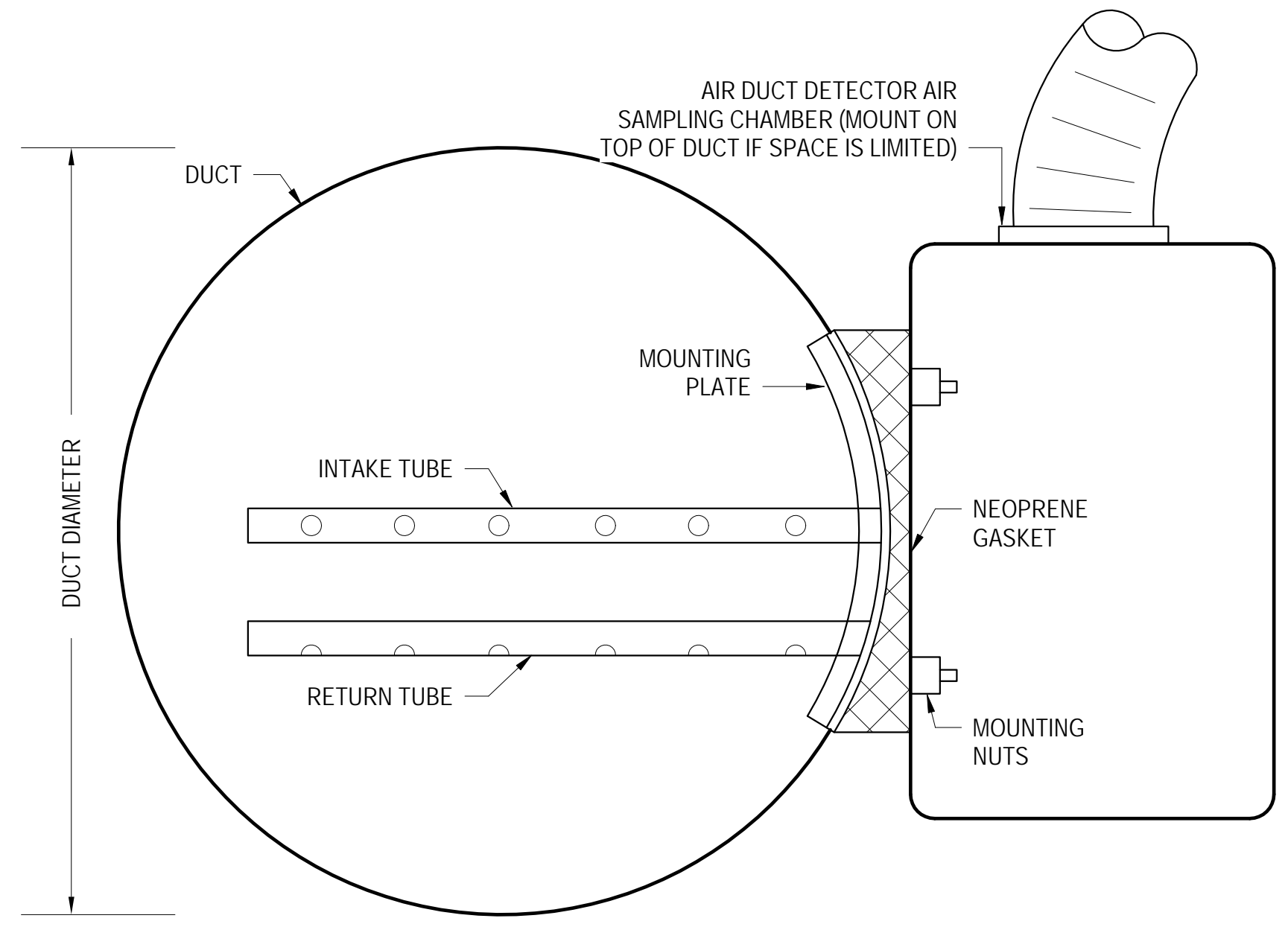
3 BRANCH DUCT TAKEOFF DETAIL
NOT TO SCALE



5 TYPICAL HOT WATER COIL CONNECTION (VAV)
NOT TO SCALE

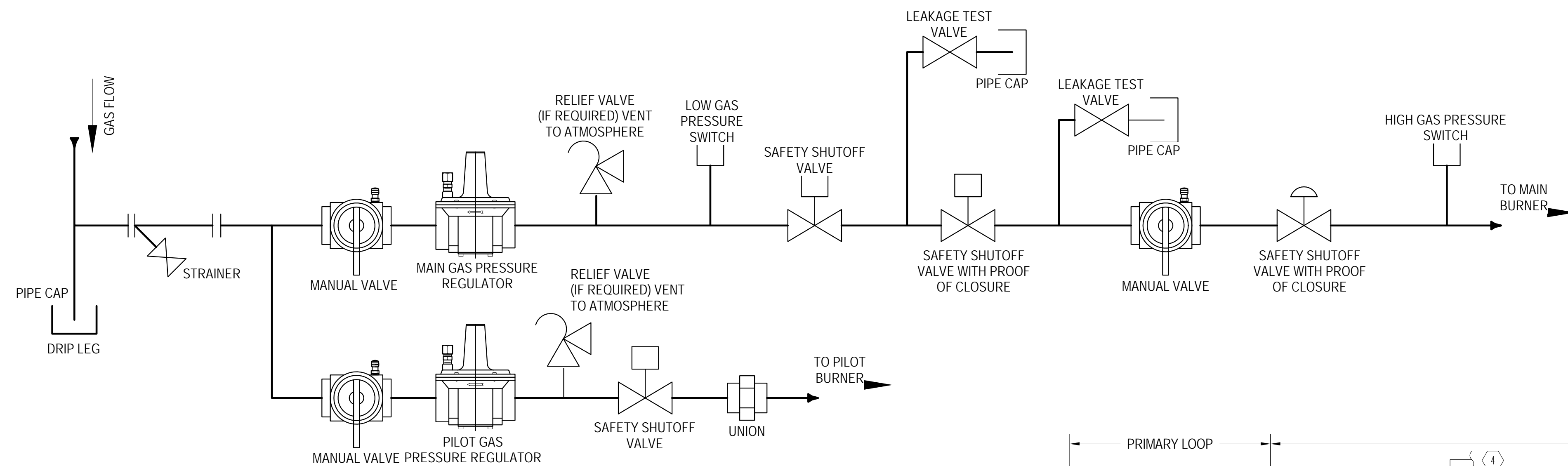


6 TYPICAL HOT WATER COIL CONNECTION DIAGRAM (AHU)
NOT TO SCALE

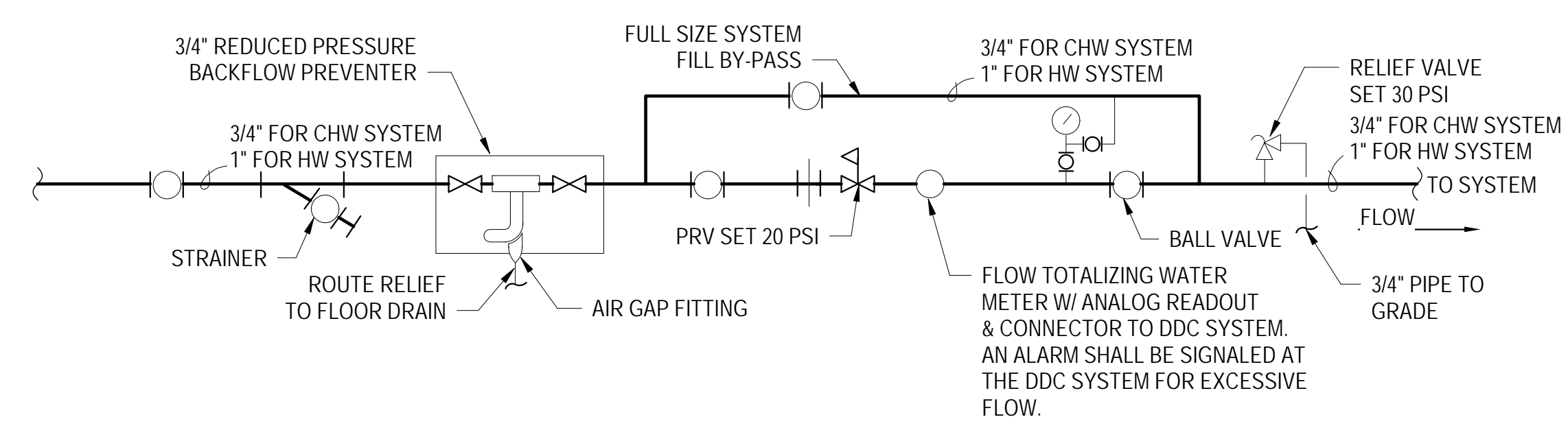


4 SMOKE DETECTOR INSTALLATION DETAIL
NOT TO SCALE

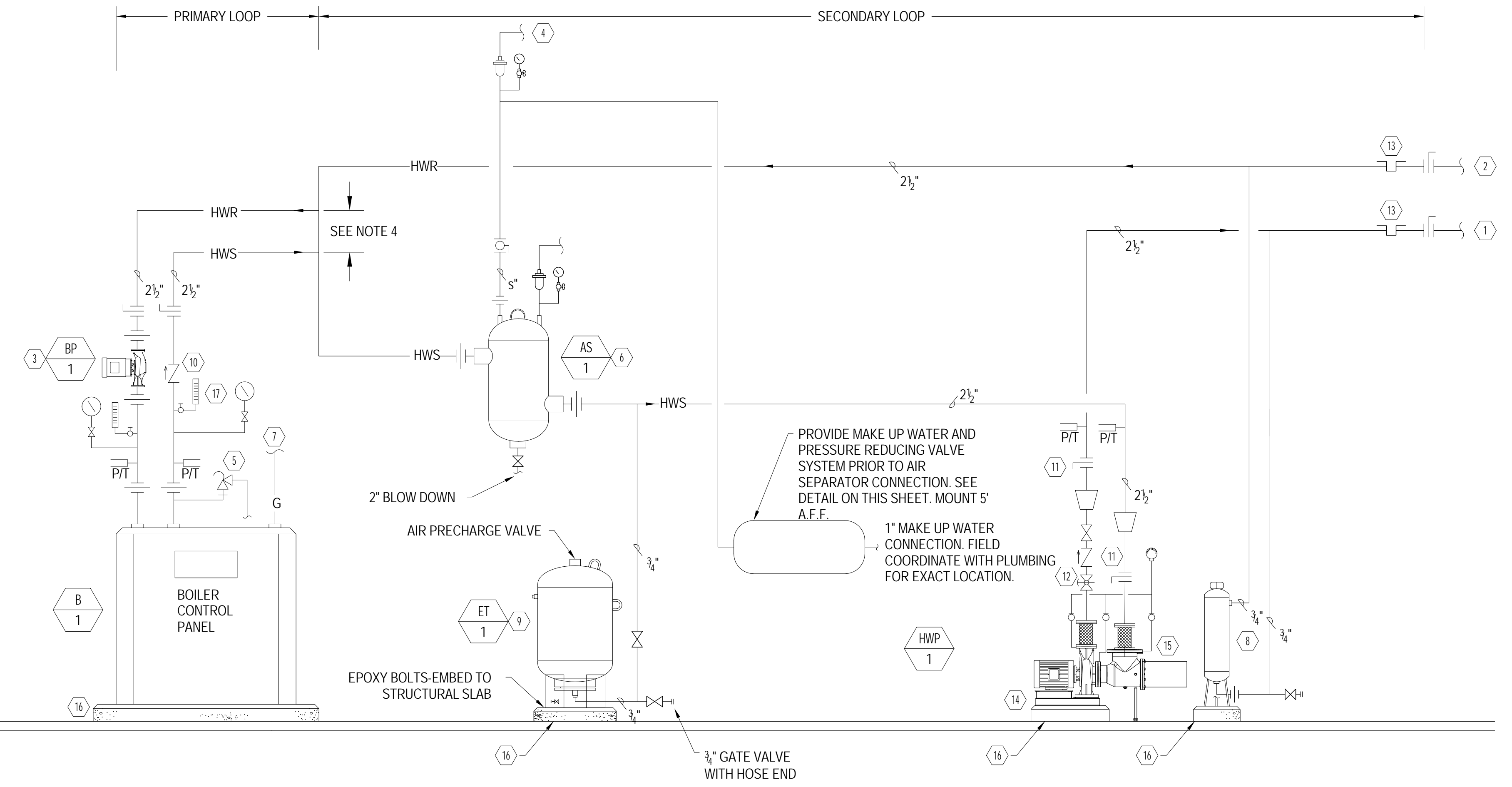
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
REV #	DATE	DESCRIPTION	APPROVED
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
MECHANICAL DETAILS			
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1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016	DESIGNED BY:	CAD
DRAWN BY:	CAD	BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164	SHEET REF:	M19
SHEET NO:	82 of 110		



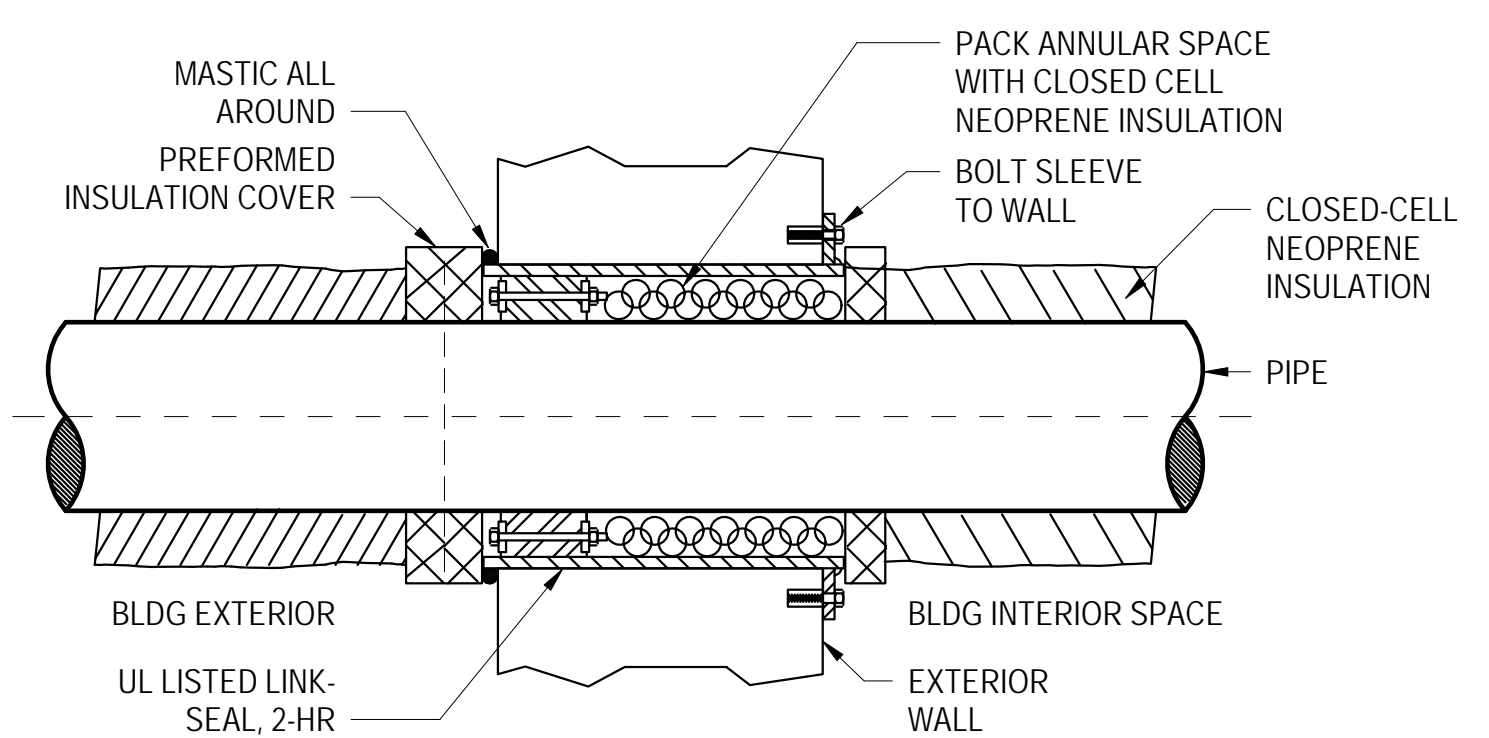
1 NATURAL GAS TRAIN DETAIL



2 MAKE-UP WATER & PRV DETAIL
NOTE: MOUNT MAKE-UP WATER ASSEMBLY INCLUDING PRV AND BACKFLOW PREVENTER NO HIGHER THAN 5' A.F.F.
NOT TO SCALE



4 HOT WATER PIPING SCHEMATIC
NOT TO SCALE



3 EXTERIOR WALL PIPE PENETRATION DETAIL
NOT TO SCALE

COORDINATION NOTES

1. PROVIDE AUTOMATIC AIR VENTS AT ALL HIGH POINTS IN THE CHW/HW WATER SYSTEMS. ROUTE 1/4" SOFT COPPER TUBING FROM THE DISCHARGE OF EACH AUTOMATIC AIR VENT TO THE NEAREST FLOOR DRAIN.
2. ALL DIMENSIONS SHALL BE FIELD VERIFIED BEFORE ANY FABRICATION.
3. ALL CONNECTIONS AND PIPING/VENT DIAGRAM SHALL BE COORDINATED WITH THE BOILER MANUFACTURER PRIOR TO FABRICATION.
4. PROVIDE MAXIMUM 4 TIMES THE PIPE DIAMETER OR 12" WHICHEVER IS LESS. COORDINATE WITH BOILER MANUFACTURER.
5. CONTRACTOR TO PROVIDE MAKE UP WATER TEST RESULT AND VERIFY WATER HARDNESS WITH EQUIPMENT MFR RECOMMENDED HIGH LIMIT CONCENTRATION.
6. SEE ARCH. DWGS FOR ROOF PENETRATION DETAIL.

DETAIL SHEET NOTES

- 1 HOT WATER SUPPLY TO BLDG.
- 2 HOT WATER RETURN FROM BLDG.
- 3 BOILER PUMP. INTERLOCK WITH BOILER INTERNAL CONTROLS. PROVIDE SUPPORT PER MFR RECOMMENDATIONS. PUMP TO BE MOUNTED VERTICALLY.
- 4 AUTOMATIC AIR VENT AT ALL HIGH POINTS IN SYSTEM, PIPE TO FLOOR DRAIN WITH 1/4" COPPER TUBING. TYP. SEE DETAIL ON SHEET M19.
- 5 ASME RELIEF VALVE SET AT 30 PSI. PIPE DISCHARGE TO FLOOR DRAIN.
- 6 AIR SEPARATOR, PIPE DRAIN TO FLOOR DRAIN. SEE DETAIL ON SHEET M18.
- 7 GAS PIPING CONNECTION. PROVIDE NATURAL GAS TRAIN CSD-1 PER DETAIL ON THIS SHEET. PROVIDE TRAP, PLUG, SHUT OFF AND ALL OTHER APPURTENANCES TO ACHIEVE ACCEPTABLE GAS PRESSURE LIMIT PER BOILER MFR.
- 8 CHEMICAL SHOT FEEDER. FILL FOR SHOT FEEDER SHALL BE A MAX. OF 36" AFF. LOCATE CHEMICAL FEEDER ISOLATION VALVES BELOW 60" AFF. SEE DETAIL ON SHEETS M18.
- 9 EXPANSION TANK. SEE SCHEDULE ON SHEET M2 AND DETAIL ON SHEET M18.
- 10 CHECK VALVE, TYP.
- 11 ISOLATION VALVE, TYP.
- 12 BALANCING VALVE, TYP.
- 13 STAINLESS STEEL WELL WITH EXTENDED NECK FOR TEMPERATURE CONTROL SYSTEM. INSTALL IN PIPE TEE. COORDINATE WITH EMCS CONTRACTOR, TYPICAL.
- 14 PUMP SUPPORT AND VIBRATION ISOLATION PER SPECIFICATIONS.
- 15 STAINLESS STEEL FLEXIBLE PIPE CONNECTOR
- 16 6" THICK HOUSEKEEPING CONCRETE PAD WITH WELDED WIRE FABRIC. TYP. SIZE SHALL BE 6" LARGER THAN EQUIPMENT FOOTPRINT.
- 17 THERMOMETER
- 18 PRESSURE GAUGE

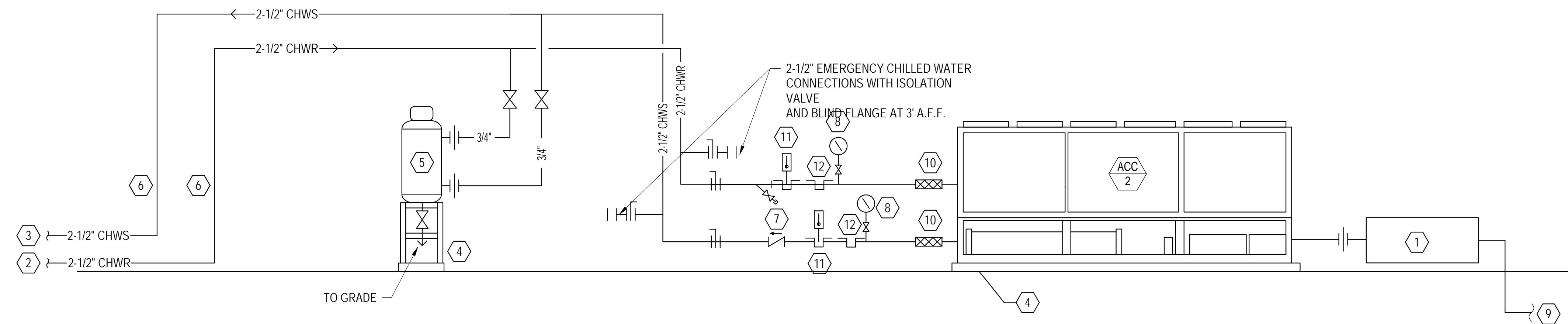
APPROVED	CHIEF ENGINEER	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
APPROVED	CIVIL ENGINEER	MECHANICAL DETAILS
AIR FORCE SPECIAL OPERATIONS COMMAND		
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA		
DATE:	16 SEPT 2016	
DESIGNED BY:	CAD	
DRAWN BY:	CAD	
BUILDING NO:	90353	
PROJECT NO:	FTEV 12-1164	
SHEET REF:	M20	
SHEET NO:	83 of 110	

CHILLED WATER PIPING SCHEMATIC KEY NOTES

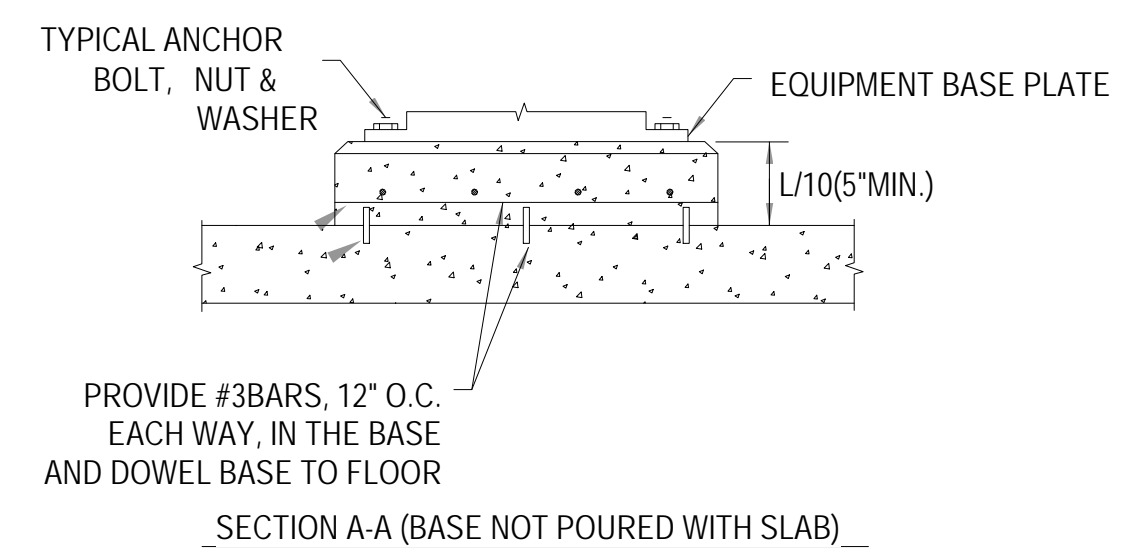
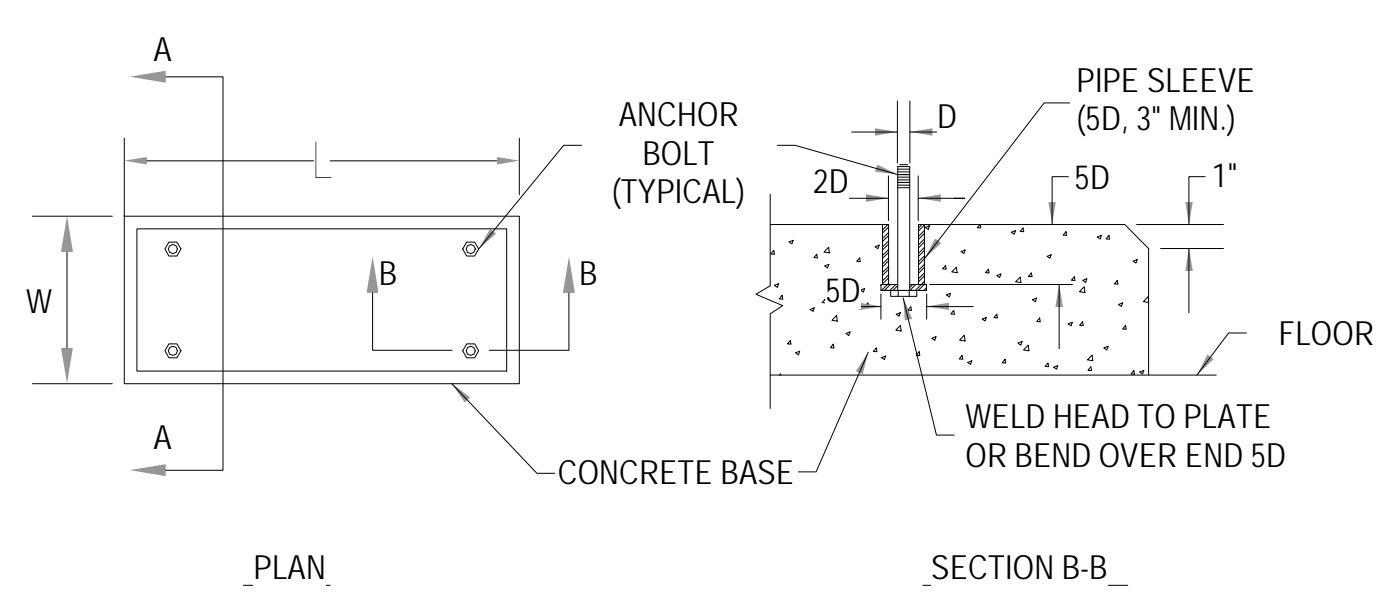
- 1 PROVIDE 3/4" MAKE UP WATER AND PRV SYSTEM IN THIS LOCATION. SEE DETAIL 2 ON SHEET M20.
- 2 CHILLED WATER RETURN PIPING FROM BLDG.
- 3 CHILLED WATER SUPPLY PIPING TO BLDG. SEE SHEET M10 FOR PIPE ROUTING.
- 4 CHILLER PAD, SEE DETAIL ON THIS SHEET.
- 5 CHEMICAL SHOT FEEDER. FILL FOR SHOT FEEDER SHALL BE A MAX. 36" A.F.F.
- 6 INSULATED CHWS AND CHWR PIPING LOCATED ABOVE GRADE SHALL BE WRAPPED WITH SELF REGULATING HEAT TRACE WITH 5 WATTS/LINEAR FOOT, 120 VOLT HEATER TAPE. COORDINATE WITH ELECTRICAL.
- 7 CHECK VALVE
- 8 PRESSURE GAUGE
- 9 UNDERGROUND MAKE UP WATER PIPING FROM BLDG.
- 10 FLEXIBLE CONNECTOR
- 11 THERMOMETER
- 12 STAINLESS STEEL WELL FOR EMCS SENSOR

GENERAL NOTES

- 1. PROVIDE STAINLESS STEEL HARDWARE ON ALL EXTERIOR VALVES.
- 2. MOUNT MAKE-UP WATER ASSEMBLY INCLUDING PRV AND BACKFLOW PREVENTER AT 5' A.F.F.
- 3. CHILLER SHALL BE PROVIDED WITH PUMP PACKAGE INCLUDING CHILLED WATER PUMP, BUFFER TANK, AND EXPANSION TANK.
- 4. PROVIDE AUTOMATIC AIR VENT AT BUFFER TANK.
- 5. PROVIDE AUTOMATIC AIR VENT AT ALL HIGH POINTS. PIPE TO GRADE WITH 1/4" COPPER TUBING.

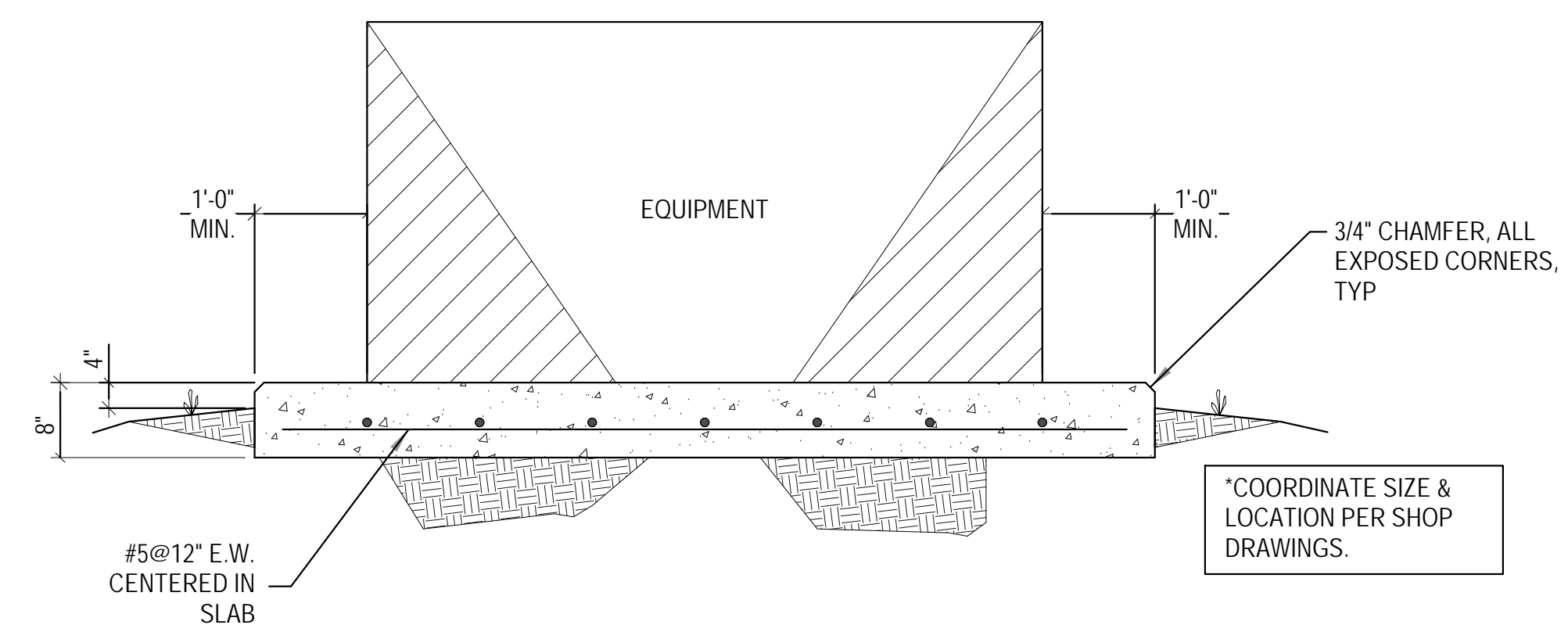


PIPING SCHEMATIC FOR NEW CHILLED WATER SYSTEM ASSOCIATED WITH ACC-2.
1 CHILLED WATER PIPING SCHEMATIC
NOT TO SCALE



NOTE:
1. L AND W DIMENSIONS SHALL BE 12 INCHES GREATER THAN THE EQUIPMENT BASE PLATE.

2 CONCRETE EQUIPMENT BASE DETAIL
NOT TO SCALE



3 CHILLER PAD DETAIL

REV #	DATE	DESCRIPTION	APPROVED

APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
MECHANICAL DETAILS			
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	16 SEPT 2016	DESIGNED BY:	CAD
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PROJECT NO:	FTEV 12-1164	SHEET REF:	M21
SHEET NO:	84 of 110		

VAV AHU SEQUENCE OF OPERATION

STARTING AND STOPPING OF EQUIPMENT SHALL BE ACCOMPLISHED THROUGH A "HAND-OFF-AUTO" SWITCH. AN ALARM SHALL BE POSTED TO THE DDC SYSTEM ANY TIME THE HOA SWITCH IS INDEXED TO THE "HAND" OR "OFF" POSITIONS. WITH THE HOA SWITCH IN THE "AUTO" POSITION, THE UNIT SHALL BE STARTED AUTOMATICALLY BY THE DDC SYSTEM AND ALL CONTROLS ACTIVATED SUBJECT TO FIRE ALARM RELAY, SAFETIES AND OVERLOADS.

OCCUPIED MODE:
THE OA AND RA MOTORIZED DAMPERS SHALL OPEN TO THE BALANCED POSITION. THE AHU FAN SHALL OPERATE CONTINUOUSLY WITHIN THE SPECIFIED SETPOINTS. SEE AHU SCHEDULE.

UNOCCUPIED MODE:
THE OA MOTORIZED DAMPER SHALL BE CLOSED. THE AHU RA MOTORIZED DAMPER SHALL OPEN. THE AHU SHALL OPERATE ONLY AS NECESSARY TO SATISFY SPACE TEMPERATURE OR HUMIDITY SETPOINTS.

COOLING COIL FREEZE PROTECTION:
THE DDC SYSTEM SHALL CLOSE THE OUTSIDE AIR DAMPER ANYTIME THE AHU COOLING COIL ENTERING AIR TEMPERATURE FALLS BELOW 40°F FOR LONGER THAN 5 MINUTES. THE LOW LIMIT FREEZE STAT SHALL STOP THE AHU FAN MOTOR ANYTIME THE COOLING COIL ENTERING AIR TEMPERATURE FALLS BELOW 35°F.

DISCHARGE TEMPERATURE CONTROL:
THE DDC SYSTEM SHALL MODULATE THE AHU THREE-WAY CHILLED WATER VALVE AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE AT SET POINT (SEE SCHEDULE).

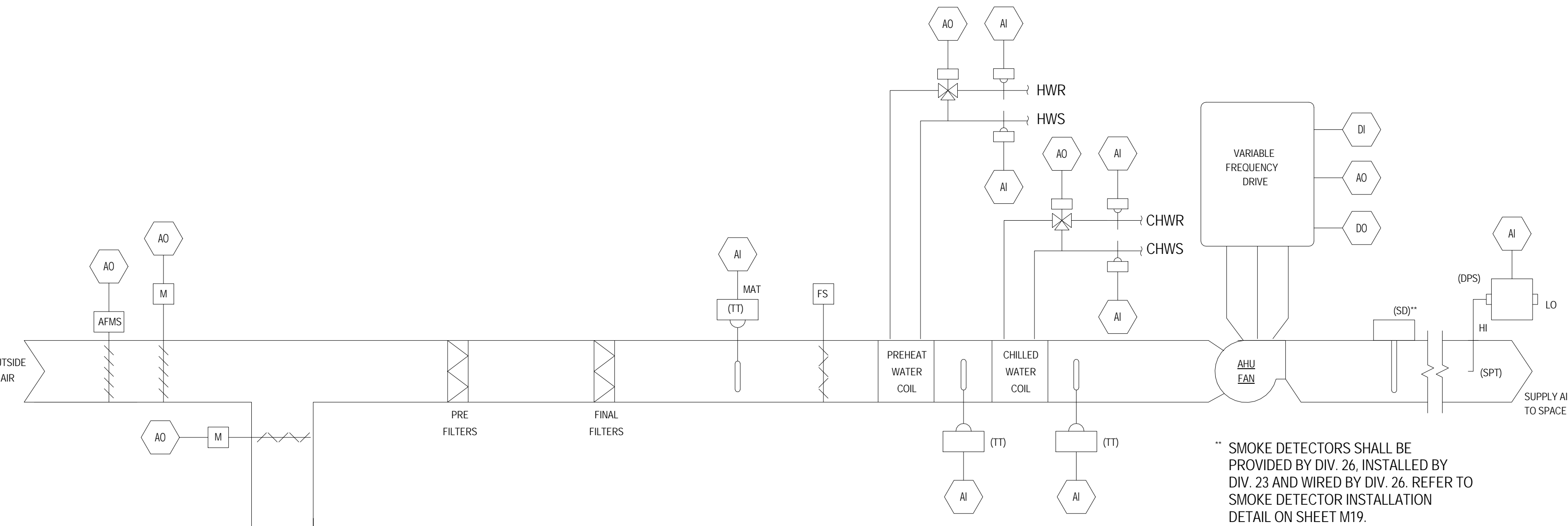
AHU FAN SPEED CONTROL:
THE ADJUSTABLE VARIABLE FREQUENCY DRIVE SHALL MODULATE FAN SPEED AS REQUIRED TO MAINTAIN A CONSTANT STATIC PRESSURE AT THE DUCT MOUNTED STATIC PRESSURE SENSOR. THE DUCT STATIC PRESSURE SET POINT SHALL BE SET AT THE MINIMUM REQUIRED FOR TEST AND BALANCE. WHEN NONE OF THE ATU'S ASSOCIATED WITH THE AHU HAVE BEEN IN FULL COOLING MODE FOR FIVE MINUTES, THE DDC SHALL RESET THE DUCT STATIC PRESSURE DOWN 0.15". AHU AIRFLOW SHALL BE LIMITED TO SCHEDULED MAXIMUM AND MINIMUM VALUES. AHU FAN SHALL RUN CONTINUOUSLY.

OUTSIDE AIR CONTROL:
THE DDC SYSTEM, WITH OA DUCT MOUNTED FLOW MEASURING STATION, SHALL MODULATE RA DAMPER AS REQUIRED TO MAINTAIN OUTSIDE AIR QUANTITY AT SET POINT REGARDLESS OF THE TOTAL AIR FLOW OF THE AIR HANDLING UNIT DURING OCCUPIED TIMES. READOUT OF OUTSIDE AIR QUANTITY SHALL BE IN CFM. UPON FAILURE, THE OA DAMPER SHALL BE NORMALLY CLOSED. WHENEVER THE AHU OPERATES DURING UNOCCUPIED MODE, THE OA DAMPER SHALL REMAIN CLOSED.

ALARMS:
THE FOLLOWING SOFTWARE ALARMS SHALL BE GENERATED AND DISPLAYED AT THE OPERATOR'S WORKSTATION:

- 1. HIGH SUPPLY AIR TEMP (5°F GREATER THAN CURRENT SETPOINT)
- 2. LOW SUPPLY AIR TEMP (5°F LESS THAN CURRENT SETPOINT)
- 3. LOW MIXED AIR TEMP (BELOW 40°F) - FREEZE PROTECTION
- 4. BAD SUPPLY TEMP SENSOR (GREATER THAN 180°F OR LESS THAN -20°F)
- 5. BAD MIXED AIR TEMP SENSOR (GREATER THAN 180°F OR LESS THAN -20°F)
- 6. AHU SUPPLY FAN ALARM (COMMAND AND STATUS DO NOT MATCH)
- 7. VFD FAULT (STATUS INPUT FROM VFD)
- 8. AIR FILTER DIFFERENTIAL PRESSURE SENSOR (DIRTY FILTER)

SPACE DEHUMIDIFICATION:
WHEN THE HOA SWITCH IS IN THE "AUTO" POSITION AND THE DDC SYSTEM HAS THE BUILDING EITHER "OCCUPIED" OR "UNOCCUPIED", AND THE RELATIVE HUMIDITY IN ANY ZONE RISES ABOVE SETPOINT (60% RH, ADJUSTABLE), THEN THE CONTROLS SHALL BE OVERRIDDEN AND THE SUPPLY AIR FAN AND ALL AIR TERMINAL UNITS SHALL BE ENERGIZED. THE CHILLED WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN A CONSTANT LEAVING AIR TEMPERATURE AS INDICATED IN THE AHU SCHEDULE AND THE AIR TERMINAL UNITS SHALL MODULATE THEIR SUPPLY AIR AND THEIR HEATING WATER CONTROL VALVES TO MAINTAIN THE ZONE TEMPERATURE SET POINT UNTIL THE ZONE RELATIVE HUMIDITY IS SATISFIED (50%RH, ADJUSTABLE).



2 VAV AHU CONTROL DIAGRAM

ATU SEQUENCE OF OPERATION

CONTROL SEQUENCE FOR EXISTING ATU'S TO REMAIN AS IS PER ORIGINAL DESIGN.

THE FOLLOWING SEQUENCE APPLIES TO ALL NEW ATU'S.

EACH AIR TERMINAL UNIT SHALL BE PROVIDED WITH A UNIT CONTROL MODULE (UCM). THE UCM SHALL BE FACTORY OR FIELD MOUNTED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER TO EACH AIR TERMINAL UNIT. EACH ATU SHALL BE PROVIDED WITH A FACTORY MOUNTED CONTROLS TRANSFORMER.

UNIT AIRFLOW SHALL BE MONITORED BY AN INTEGRAL, MULTIPLE POINT, AVERAGING FLOW SENSING DEVICE AND A TRANSDUCER TO MAINTAIN AIRFLOW WITHIN 5% OF RATED CFM DOWN TO A MINIMUM CFM AS SCHEDULED, INDEPENDENT OF CHANGES IN SYSTEM STATIC PRESSURE.

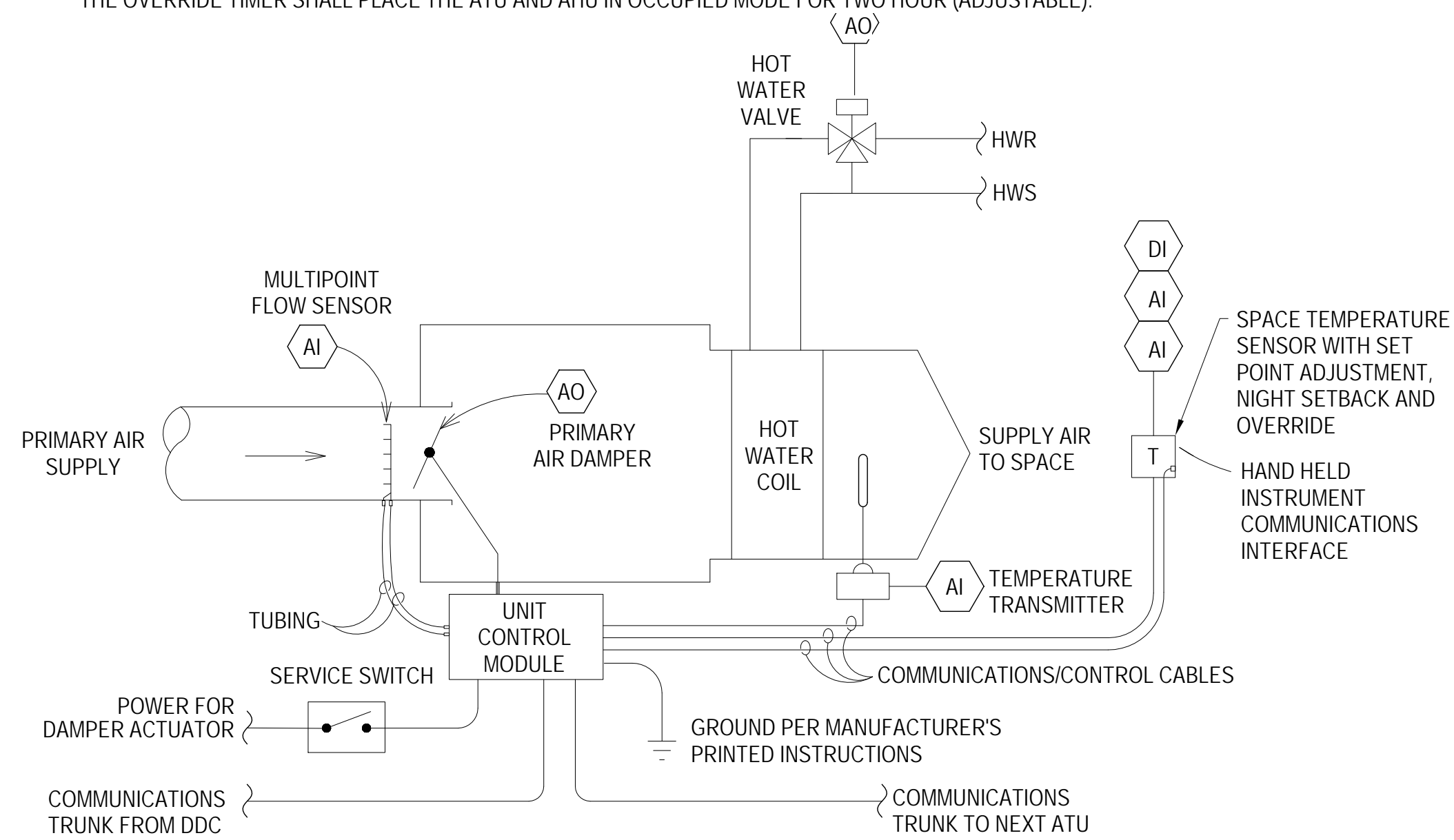
COOLING MODE:
THE UCM SHALL MONITOR THE ZONE TEMPERATURE AGAINST ITS SET POINT AND MODULATE THE DAMPER TO MEET THE ZONE SETPOINT. IF THE ATU CALLS FOR FULL COOLING AND CANNOT REACH MAXIMUM AIRFLOW FOR FIVE MINUTES, THE DDC SYSTEM SHALL RESET THE AHU STATIC PRESSURE UP 0.15".

HEATING MODE:
IF THE DAMPER IS AT MINIMUM AND THE TEMPERATURE IN THE SPACE CONTINUES TO FALL, THE DAMPER SHALL MODULATE TO THE HEATING AIRFLOW (SEE ATU SCHEDULE) AND THE ELECTRIC HEAT SHALL MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE.

THE ZONE TEMPERATURE SENSOR WITH SET POINT ADJUSTMENT SHALL BE PROVIDED WITH NIGHT SETBACK OVERRIDE, AND A COMMUNICATIONS JACK. ZONE TEMPERATURE SET POINT ADJUSTMENTS SHALL BE LIMITED BY THE DDC TO +/- 3°F OF THE PROGRAMMED VALUE.

OCCUPIED/UNOCCUPIED MODE:
CONTROLS CONTRACTOR SHALL CONSULT WITH CONTRACTING OFFICER FOR EXACT SPACE TEMPERATURE SETPOINTS.

OVERRIDE MODE:
THE OVERRIDE TIMER SHALL PLACE THE ATU AND AHU IN OCCUPIED MODE FOR TWO HOUR (ADJUSTABLE).



1 SINGLE DUCT ATU BOX CONTROL SCHEMATIC
NOT TO SCALE (FOR NEW AND EXISTING)

DDC SYSTEM GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE A COMPLETE NEW DDC SYSTEM TO PERFORM THE INDICATED SEQUENCES, ALL OTHER FUNCTIONS REQUIRED BY THE CONTRACT DOCUMENTS, AND ALL OTHER FUNCTIONS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. THE EXISTING DDC SYSTEM SHALL REMAIN IN SERVICE TO PROVIDE OPERATION OF THE OCCUPIED FACILITY AND SEQUENCES UNTIL THE NEW SYSTEM IS INSTALLED AND OPERATIONAL. ONCE THE NEW SYSTEM IS OPERATIONAL, THE EXISTING SYSTEM SHALL BE REMOVED COMPLETE.
2. ALL SEQUENCES ARE SUBJECT TO SAFETIES. DDC CONTRACTOR SHALL PROVIDE ALL NECESSARY AND CUSTOMARY SAFETIES.
3. ALL WIRING SHALL BE IN CONDUIT. ALL CONDUIT SHALL BE INSTALLED BY DIV. 26 IN ACCORDANCE WITH ELECTRICAL SPECIFICATIONS, REQUIREMENTS FOR 120 VAC CIRCUITS. THE DDC CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THIS WORK WITH DIV. 26.
4. ALL WELLS SHALL BE 316 STAINLESS STEEL AND SHALL BE INSTALLED IN NEW THREDOLETS. IN CHILLED WATER PIPING PROVIDE NEW WELLS WITH EXTENDED NECK TO SUIT INSULATION THICKNESS.
5. THE DDC CONTRACTOR IS CO-RESPONSIBLE, ALONG WITH THE TAB CONTRACTOR FOR COORDINATING THE PROPER INSTALLATION OF WELLS, PRESSURE TAPS, AND PIT TAPS IN ALL LOCATIONS INDICATED AND OTHERWISE AS REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
6. THE DDC CONTRACTOR AND THE TAB CONTRACTOR SHALL UTILIZE P/T'S TO CALIBRATE INSTRUMENTS TO CERTIFIED PRESSURE GAGES, PRESSURE METERS AND THERMOMETERS.
7. CONDUIT SHALL BE RUN PERPENDICULAR AND PARALLEL TO BUILDING LINES IN A FIRST CLASS WORKMANSHIP LIKE MANNER.
8. THE CONTROLS CONTRACTOR SHALL PROVIDE ALL POWER REQUIREMENTS AND CONTROL VOLTAGE TRANSFORMERS AS REQUIRED FOR FULLY FUNCTIONAL SYSTEM. COORDINATE WITH ELECTRICAL CONTRACTOR FOR TRANSFORMER LOCATIONS AND REQUIREMENTS.
9. ALL MOTORIZED DAMPERS INDICATED IN CONTROLS SHALL BE 24V. COORDINATE DAMPER INSTALLATION WITH MECHANICAL SUB-CONTRACTOR.
10. PROVIDE DETAILED CONTROL SUBMITTALS FOR EACH PIECE OF EQUIPMENT VERIFYING THE SEQUENCE OF OPERATION AND INCLUDING WIRING DIAGRAMS, CONTROL PANEL LAYOUT AND WIRING AND SUBMITTALS FOR ALL CONTROL EQUIPMENT (I.E., TEMPERATURE SENSORS, MOTORIZED DAMPERS, ETC.)
11. COORDINATE INTEGRATION OF BMS INTO DDC INTERFACE VIA BACNET. PROVIDE ALL BMS ALARMS, SAFETIES, SETPOINTS, ETC.
12. REFER TO SHEET M1 FOR DESIGN TEMPERATURE SETPOINTS.
13. ALARM FOR HEAT TRACE TO BE CONNECTED TO THE DDC SYSTEM.

EMERGENCY AIR DISTRIBUTION SHUTOFF

EXISTING HVAC SHUTOFF SHALL BE MAINTAINED UNTIL NEW SYSTEM IS INSTALLED AND FUNCTIONAL.

AN EMERGENCY SHUTOFF SWITCH SHALL BE PROVIDED AS INDICATED ON SHEET M8 THAT SHALL SHUTDOWN THE ALL AIR DISTRIBUTION (SUPPLY, RETURN, OUTSIDE AIR, EXHAUST) THROUGHOUT THE ENTIRE BUILDING. A PLASTIC LAMINATE SIGN SHALL BE PROVIDED ADJACENT TO THE SWITCH WHICH READS "BUILDING VENTILATION SYSTEM EMERGENCY SHUTOFF SWITCH".

SUPERVISE THE EMERGENCY SHUTOFF SWITCH BY ROUTING WIRE THROUGH THE FIRE ALARM CONTROL/MNS PANEL USING MONITOR MODULE AND CONTROL MODULE(S) TO ACTUATE TOTAL HVAC SHUTDOWN. COORDINATE CONTROLS INTERFACE WITH FIRE ALARM, AS REQUIRED, TO FACILITATE HVAC SHUTDOWN.

EXHAUST FANS AND SUPPLY FANS

FAN WITH INTERLOCKS
FANS SHALL BE INTERLOCKED WITH THE INDICATED SUPPLY FAN WITH UL LISTED INTERLOCKS SUCH THAT WHENEVER THE SUPPLY FAN IS OPERATING, THE INDICATED EXHAUST FAN IS ALSO OPERATING. SEE FAN SCHEDULE.

ALL FANS AND AIR HANDLING UNITS SHALL SHUTDOWN ON A SIGNAL FROM THE FIRE ALARM CONTROL PANEL.

LOW LEAKAGE MOTORIZED DAMPERS

1. THE CONTROLS CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MOTORIZED DAMPERS AND DAMPER ACTUATORS TO THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING DAMPERS. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR POWER TO DAMPERS AND CONTROLS CONTRACTOR IS RESPONSIBLE FOR CONTROL WIRING.
2. PROVIDE LOW LEAKAGE MOTORIZED DAMPER AT ALL OUTDOOR AIR INTAKE, AND RETURN AIR LOCATIONS.
3. DAMPERS SHALL HAVE A MAXIMUM LEAKAGE RATE OF 3 CFM/SF WITH A DIFFERENTIAL PRESSURE OF 1" IN W.G. ACROSS THE DAMPER.
4. THE OUTSIDE AIR DAMPER SHALL BE NORMALLY CLOSED.
5. THE DAMPER ACTUATOR SHALL BE LOCATED OUTSIDE THE DUCTWORK. COORDINATE WITH ELECTRICAL AND CONTROLS CONTRACTOR.
6. PROVIDE FACTORY INSTALLED DAMPER POSITION INDICATION SWITCH PACKAGE AND FACTORY MOUNTED DAMPER ACTUATORS. THE SWITCH PACKAGE SHALL INCLUDE TWO POSITION INDICATION SWITCHES LINKED DIRECTLY TO THE DAMPER BLADE TO PROVIDE FULL OPEN AND FULL CLOSED DAMPER BLADE POSITIONS. THE SWITCH PACKAGE SHALL BE CAPABLE OF INTERFACING WITH THE DDC CONTROL SYSTEM FOR DETERMINATION OF DAMPER STATUS.

SCHMIDT
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MECHANICAL ELECTRICAL STRUCTURAL
COMMUNICATIONS INDUSTRIAL
FLORIDA LICENSE NUMBER 05371
901 W. Gordon St. Ft. Lauderdale, FL 33302
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WILLIAM JOSEPH JONES P.E.
FLORIDA LICENSE NUMBER 58080
SCG PROJECT: 2015-138

REV #	DATE	DESCRIPTION	APPROVED
			CHIEF ENGINEER APPROVED CIVIL ENGINEER

ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353
CONTROLS

AIR FORCE SPECIAL
OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE:
16 SEPT 2016

DESIGNED BY:
CAD

DRAWN BY:
CAD

BUILDING NO:
90353

PROJECT NO:
FTEV 12-1164

SHEET REF:
M22

SHEET NO:
85 of 110

SEQUENCE OF OPERATIONS CHILLED WATER SYSTEM

SYSTEM DESCRIPTION

- THE CHILLED WATER SYSTEM CONSISTS OF THE FOLLOWING:
- ONE (1) AIR COOLED CHILLER (ACC-2)
 - ONE (1) PRIMARY CHILLED WATER PUMP AS PART OF CHILLER PACKAGE

STARTING AND STOPPING OF EQUIPMENT SHALL BE ACCOMPLISHED THRU A "HAND-OFF-AUTO" SWITCH. AN ALARM SHALL BE POSTED TO THE DDC SYSTEM ANYTIME THE CHW SYSTEM HOA SWITCH IS INDEXED TO THE "HAND" OR "OFF" POSITIONS. WITH THE CHW SYSTEM HOA SWITCH IN THE "AUTO" POSITION, THE CHILLED WATER SYSTEM SHALL BE STARTED AUTOMATICALLY BY THE DDC SYSTEM AND ALL CONTROLS ACTIVATED SUBJECT TO SAFETIES AND OVERLOADS.

THE CHILLED WATER SYSTEM SHALL BE STARTED AUTOMATICALLY WHENEVER ANY OF THE FOLLOWING CONDITIONS OCCUR:

- A. THE OUTSIDE TEMPERATURE IS ABOVE 60 DEGREES F (ADJ.) OR ABOVE DURING THE OCCUPIED PERIOD.
- B. ANY SPACE TEMPERATURE IS ABOVE 75 DEGREES F DURING THE OCCUPIED PERIOD OR ABOVE 85 DEGREES F DURING THE UNOCCUPIED PERIOD (ADJ.).
- C. THE OUTSIDE AIR TEMPERATURE IS LESS THAN A 35 DEGREES F (ADJ.). COORDINATE CONTROLS REQUIREMENT WITH CHILLER MFR.

CHILLER CONTROL SUMMARY

UPON CHILLED WATER SYSTEM STARTUP, THE DDC SYSTEM SHALL ENABLE CHILLER ACC-2 BASED ON BUILDING LOAD AND THE CHILLER SHALL OPERATE THROUGH ITS INTERNAL CONTROLS TO MAINTAIN CHILLED WATER SUPPLY TEMPERATURE AT SETPOINT OF 44°F (ADJ.). UPON A CALL FOR COOLING, THE DDC SHALL START THE CHILLED WATER PUMP. UPON PROOF OF FLOW AS SENSED BY THE FLOW SWITCH, THE CHILLER SHALL OPERATE TO MAINTAIN LEAVING WATER AT SETPOINT. THE DDC SYSTEM SHALL MONITOR ALARM STATUS OF THE CHILLER AND POST AN ALARM IN THE EVENT A CHILLER IS ENABLED AND NOT OPERATING. THE DDC SHALL MONITOR ALL POINTS AVAILABLE THROUGH THE FACTORY CHILLER MICROPROCESSOR CONTROL.

GENERAL:

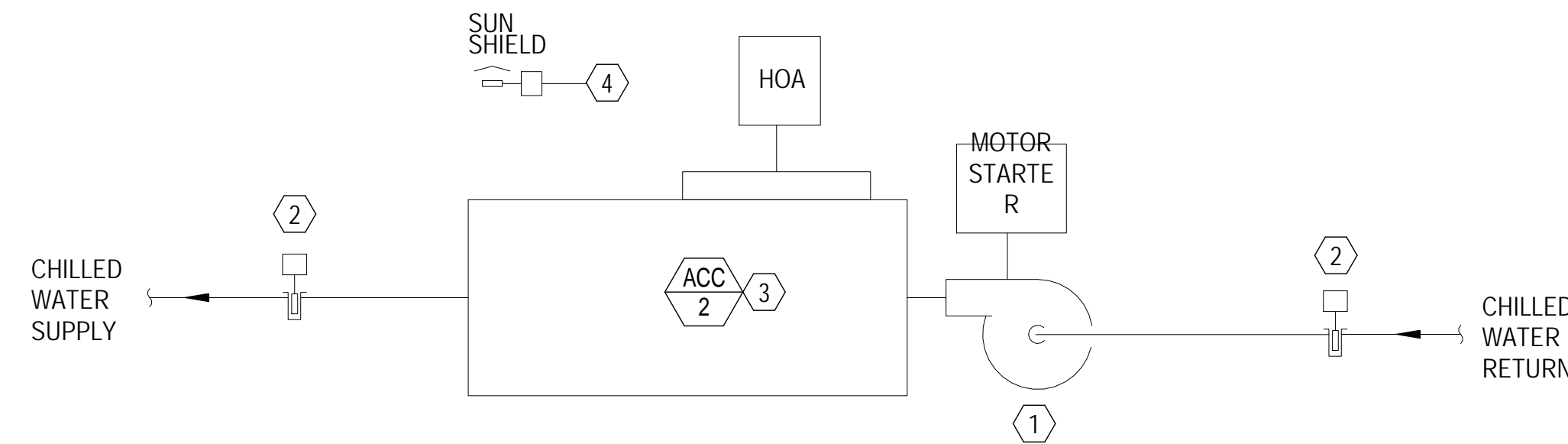
THE DDC PROGRAM SHALL BE FULLY EDITABLE AND SET-UP VIA POINT AND CLICK ON A STANDARD WINDOWS SCREEN. IT SHALL NOT REQUIRE SPECIAL SOFTWARE TOOLS OR A BAS TECHNICIAN TO OPERATE AND MODIFY CHILLER SEQUENCING CONTROL.

THE DDC SHALL PERFORM THE FOLLOWING CONTROL STRATEGIES:

1. CHILLER PLANT SYSTEM SCHEDULING
2. COLOR GRAPHIC BASED CHILLER PLANT STATUS SCREENS
3. COLOR GRAPHIC BASED CHILLER STATUS SCREENS
4. SYSTEM AND CHILLER DIAGNOSTIC MESSAGES
5. SYSTEM AND CHILLER REPORTS

CHILLER SYSTEM OPERATOR INTERFACE - DDC APPLICATION OPERATIONAL STATUS SCREEN TO INCLUDE:

- A. CHILLER SYSTEM STATUS (OFF/SOFT START/NORMAL/AMBIENT LOCKOUT/SHUTDOWN IN PROGRESS)
- B. CHILLER PLANT SUPPLY WATER SETPOINT
- C. CHILLED WATER SYSTEM SUPPLY WATER TEMPERATURE
- D. CHILLED WATER SYSTEM RETURN WATER TEMPERATURE
- E. CHILLER FAILURE RESET
- F. SYSTEM PUMP FAILURE RESET



SHEET NOTES

- ① INTERNAL DEDICATED CHILLER PUMP. FURNISHED AND FABRICATED BY CHILLER MANUFACTURER. VFD FOR SOFT START.
- ② TEMPERATURE TRANSMITTER WITH STAINLESS STEEL RTD IMMERSION SENSOR.
- ③ CHILLER CONTROL PANEL.
- ④ OUTSIDE AIR TRANSMITTER. LOCATE ON OUTSIDE WALL UNDER SUN SHIELD.

1 CHILLED WATER SYSTEM CONTROL SCHEMATIC

NOT TO SCALE

SEQUENCE OF OPERATIONS HEATING WATER SYSTEM

SYSTEM DESCRIPTION

THE HOT WATER SYSTEM CONSISTS OF THE FOLLOWING:

- ONE (1) CONDENSING BOILER (B-1)
- ONE (1) SECONDARY HOT WATER PUMP (HWP-1)
- ONE (1) PRIMARY DEDICATED CONSTANT VOLUME PUMP (BP-1)

GENERAL:

THE CONDENSING BOILER SYSTEM SHALL BE CONNECTED TO THE DDC FOR ENABLE/DISABLE COMMANDS. THE SYSTEM SHALL BE ENABLED UNDER THE FOLLOWING CONDITIONS, ELSE THE SYSTEM SHALL BE DISABLED:

- SCHEDULED OCCUPIED PERIOD WITH OUTSIDE AIR TEMPERATURE LESS THAN 60 DEG. F.
- WHENEVER ANY ZONE DEMANDS HOT WATER DURING OCCUPIED OR UNOCCUPIED PERIODS (REGARDLESS OF OUTSIDE AIR TEMPERATURE) FOR BUILDING TEMPERATURE OR HUMIDITY CONTROL.

WHEN ENABLED, THE SECONDARY HW PUMP SHALL OPERATE TO PROVIDE CONSTANT FLOW THROUGH THE BUILDING HOT WATER LOOP. WHEN DISABLED, THE HW PUMP SHALL NOT RUN. STARTING AND STOPPING OF THE BOILER AND THE ASSOCIATED BOILER CIRCULATING PRIMARY PUMP SHALL BE ACCOMPLISHED AUTOMATICALLY THROUGH THE BOILER ON-BOARD CONTROLS.

WHEN THE BUILDING LOOP SUPPLY HOT WATER TEMPERATURE DROPS BELOW SETPOINT, THE DDC SHALL SEND A SIGNAL TO THE BOILER REQUESTING A START COMMAND AND THE BOILER SHALL START THE CIRCULATION PUMP AND OPERATE SUBJECT TO ITS' ON-BOARD CONTROLS AND ALARMS TO MAINTAIN A CONSTANT HOT WATER LOOP SUPPLY TEMPERATURE.

SECONDARY HOT WATER LOOP SHUTDOWN

WHEN THE HOT WATER SYSTEM IS DISABLED, THE HOT WATER PUMP SHALL BE OFF.

SECONDARY HOT WATER PUMP START/STOP

THE DDC CONTROLLER SHALL START THE HOT WATER PUMP THROUGH A THRU A "HAND-OFF-AUTO" SWITCH.

SECONDARY HOT WATER PUMP STATUS

THE DDC CONTROLLER SHALL DETECT HOT WATER PUMP RUN STATUS BY A CURRENT SWITCH AT THE STARTER.

SECONDARY HOT WATER PUMP FAILURE

IF THE PUMP START/STOP RELAY IS ENABLED AND THE CURRENT SWITCH STATUS IS OFF FOR MORE THAN 30 SECONDS (ADJ.), THE DDC CONTROLLER SHALL ANNUNCIATE A HOT WATER PUMP FAILURE ALARM TO THE DDC WORKSTATION. ONCE THE PROBLEM HAS BEEN CORRECTED AND THE OPERATOR IS ABLE TO CLEAR THE ALARM FAILURE FROM THE BAS CONTROLLER, THE BAS SHALL RE-ENABLE THE PUMP.

BOILER CONTROL

THE BOILER SHALL, THROUGH ITS MANUFACTURER PROVIDED INTERNAL CONTROLS, CYCLE AS REQUIRED TO MAINTAIN THE OUTLET TEMPERATURE OF THE HOT WATER PLANT WHILE MAINTAINING THE HIGHEST COMBUSTION EFFICIENCY. THE BOILER CONTROLS SHALL BE CAPABLE OF INTERFACE TO DDC FOR SYSTEM START/STOP AND ALARMS.

PRIMARY BOILER PUMP

PUMP SHALL OPERATE WHEN BOILER IS ENABLED AND SHALL MAINTAIN CONSTANT FLOW THROUGH BOILER. THE DDC SYSTEM SHALL DISABLE BOILER IF THE BOILER PUMP IS NOT ENERGIZE OR IF THE PUMP IS ENERGIZED AND NOT OPERATING AND AN ALARM SHALL BE POSTED AT THE OPERATOR WORKSTATION. BOILER PUMP SHALL BE CONTROLLED VIA BOILER ON-BOARD CONTROLS.

HOT WATER RESET CONTROL

THE BOILER SYSTEM THROUGH ITS INTERNAL CONTROL SHALL RESET THE TEMPERATURE OF THE HOT WATER SUPPLY TO THE BUILDING BASED ON OUTSIDE TEMPERATURE (SEE RESET SCHEDULE).

THE RESET SCHEDULE FOR THE HOT WATER SUPPLY TEMPERATURE WILL BE AS FOLLOWS:

OAT	HOT WATER SUPPLY SETPOINT
40°F (ADJ.)	180°F (ADJ.)
60°F (ADJ.)	130°F (ADJ.)

TYPICAL BOILER CONTROLS POINTS LIST BY THE BOILER MFR TO BE INTERFACED WITH DDC SYSTEM

- ENABLE/DISABLE
- OA RESET SETPOINT
- REMOTE MONITORING HW SETPOINT
- ALARM/FAILURE STATUS

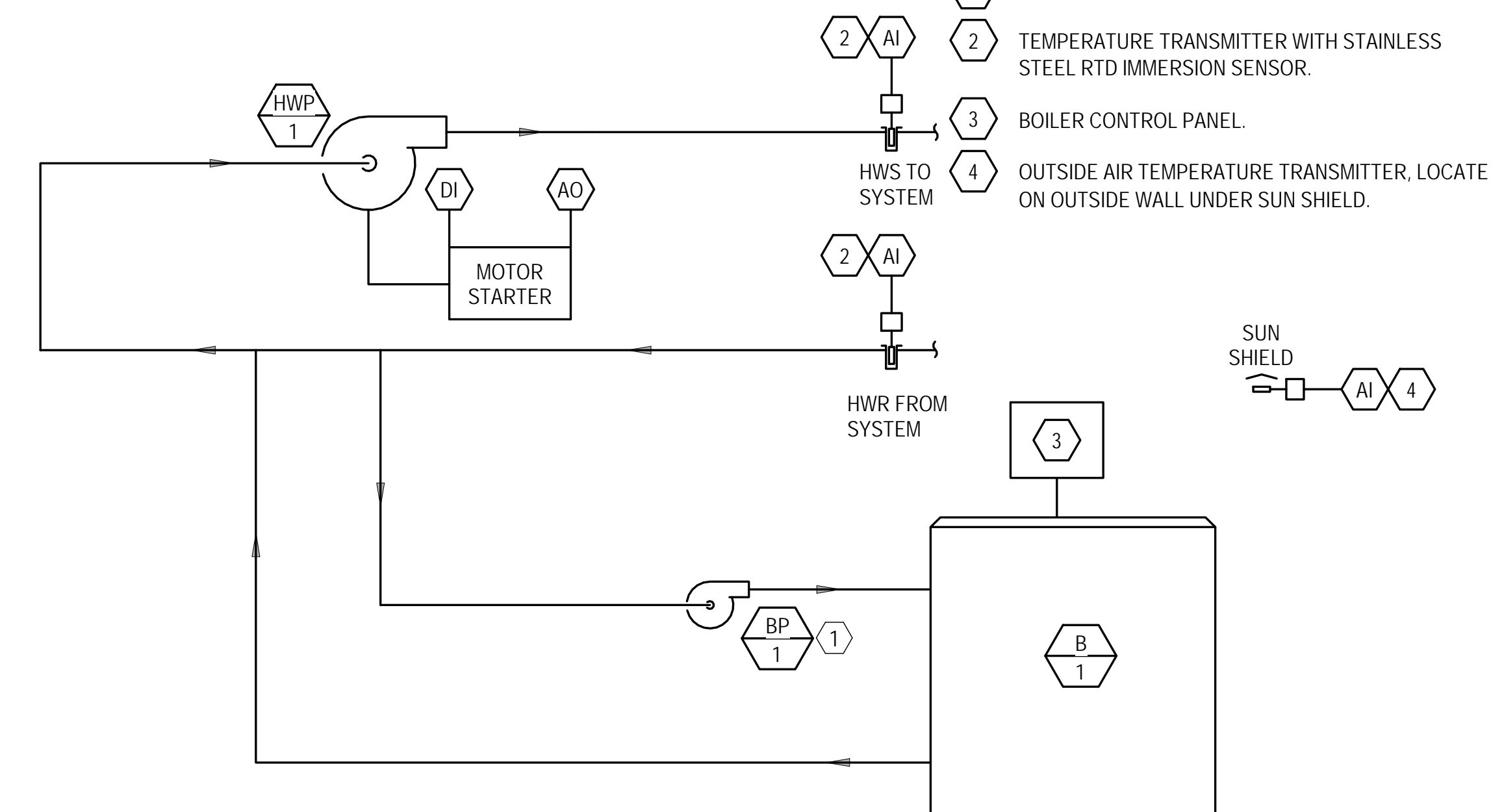
ALARMS:

THE FOLLOWING SOFTWARE ALARMS SHALL BE GENERATED AND DISPLAYED AT THE OPERATOR'S WORKSTATION:

1. HOT WATER PUMP ALARM (COMMAND AND PUMP STATUS DO NOT MATCH)
2. LOW HW SUPPLY TEMPERATURE (10 DEG F BELOW CURRENT HW TEMP SET POINT FOR 10 MINS.)
3. HIGH HW SUPPLY TEMPERATURE (10 DEG F ABOVE CURRENT HW TEMP SET POINT FOR 10 MINS.)
4. GENERAL BOILER ALARM (STATUS INPUT FROM BOILER CONTROL BOARD)

KEY NOTES:

- ① INTEGRAL PACKAGED BOILER PUMP
- ② TEMPERATURE TRANSMITTER WITH STAINLESS STEEL RTD IMMERSION SENSOR.
- ③ BOILER CONTROL PANEL.
- ④ OUTSIDE AIR TEMPERATURE TRANSMITTER, LOCATE ON OUTSIDE WALL UNDER SUN SHIELD.



2 HOT WATER SYSTEM CONTROL SCHEMATIC

NOT TO SCALE



REV #	DATE	DESCRIPTION	APPROVED	APPROVED	APPROVED	APPROVED

**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**

**1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA**

CONTROLS

**AIR FORCE SPECIAL
OPERATIONS COMMAND**

M23

DATE:	16 SEPT 2016
DESIGNED BY:	CAD
DRAWN BY:	CAD
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	M23
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ELECTRICAL LEGEND

GENERAL ELECTRICAL DEVICES:

§ SINGLE POLE LIGHTING SWITCH. MOUNT 48" AFF UNLESS NOTED OTHERWISE. SUBSCRIPT INDICATES AS FOLLOWS:

- 3 - THREE-WAY LIGHTING SWITCH.
- 4 - FOUR-WAY LIGHTING SWITCH.
- P - PASSIVE INFARED MOTION SENSOR WALL SWITCH.
- LV - LOW VOLTAGE LIGHT SWITCH.
- D - INCANDESCENT SLIDE DIMMER SWITCH WITH PRESET (LUTRON NT-1503P-CLA).
- DF - FLOURESCENT SLIDE DIMMER SWITCH WITH PRESET (LUTRON NTF-103P-277-CLA).
- DLV - LOW VOLTAGE SLIDE DIMMER SWITCH WITH PRESET (LUTRON NTLV-600-CLA).
- M - MANUAL MOTOR STARTER. MOUNT 80" AFF. PROVIDE PHENOLIC LABEL.
- a,b - LETTER INDICATES ZONE OF CONTROL.
- TD - TIME DELAY LIGHT SWITCH FOR DELAYED OFF TO EXHAUST FAN.

⊖ DUPLEX RECEPTACLE NEMA 5-20R. MOUNT 18" AFF UNLESS NOTED OTHERWISE. VERIFY DUPLEX MOUNTING REQUIREMENTS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN. SUBSCRIPT INDICATES AS FOLLOWS:

- G - GROUND FAULT CIRCUIT INTERRUPTER TYPE
- WP - DIECAST WEATHERPROOF COVERPLATE. IN EXTERIOR LOCATIONS MOUNT 54" AFF
- EWC - CONCEAL RECEPTACLE BEHIND EWC (COORDINATE WITH DIVISION 23)
- D - COORDINATE RECEPTACLE LOCATION WITH DATA OUTLET.
- TV - COORDINATE RECEPTACLE LOCATION WITH AV OUTLET.
- 54" - NEMA 5-20R TAMPER RESISTANT RECEPTACLE MOUNTED @ 54" AFF.

⊖ DUPLEX RECEPTACLE MOUNTED 42" AFF. OR MOUNT 7" ABOVE COUNTER. VERIFY COUNTER HEIGHT PRIOR TO ROUGH-IN. ORIENT WITH LONG AXIS HORIZONTAL ABOVE COUNTERS.

⊖ SPECIAL NEMA TYPE RECEPTACLE. VERIFY WITH EQUIPMENT BEING SUPPLIED. MOUNTED 10" A.F.F., UNLESS NOTED OTHERWISE.

⊖ QUADRUPLEX RECEPTACLE (TWO NEMA 5-20R) MOUNTED 18" AFF. UNLESS NOTED OTHERWISE.

LIGHTING CONTROL EQUIPMENT:

- PP POWER PACK. SEE DETAILS.
- DT LINE VOLTAGE CEILING MOUNTED 360° DUAL TECHNOLOGY SENSOR. SEE DETAILS.
- DT CORNER MOUNTED DUAL TECHNOLOGY SENSOR. SEE DETAILS.

DISTRIBUTION & POWER EQUIPMENT:

- PANELBOARD. MOUNT AS INDICATED. SEE PANELBOARD SCHEDULES.
- VFD VARIABLE FREQUENCY DRIVE W/INTEGRAL DISCONNECT. PROVIDED BY DIVISION 15, INSTALLED BY DIVISION 16.
- MAGNETIC MOTOR STARTER. SIZE AS REQUIRED. MOUNT IN SERVING ELECTRICAL ROOM UNLESS SPECIFICALLY NOTED OTHERWISE.
- COMBINATION MAGNETIC MOTOR STARTER DISCONNECT. SIZE AS REQUIRED.
- NON-FUSED HEAVY DUTY SAFETY SWITCH. SIZE FOR LOAD BEING SERVED.
- POWER RELAY. PROVIDE WITH NEMA 1 ENCLOSURE. MOUNT IN LOCAL SERVING ELECTRICAL ROOM.

MISCELLANEOUS EQUIPMENT:

- MOTOR FURNISHED BY OTHERS.
- JUNCTION BOX.
- UNLESS INDICATED OTHERWISE PROVIDE GROUNDING BUSBAR (HARGER GBI SERIES) WITH #6AWG IN CONDUIT FROM BUSBAR TO MAIN ELECTRICAL GROUND AT MAIN PANEL. MOUNT BUSBAR 12" AFF.

FIRE ALARM SYSTEM:

- F FIRE ALARM SYSTEM ADDRESSABLE DUAL ACTION MANUAL PULL STATION. MOUNT 48" TO CENTER OF DEVICE.
- FIRE ALARM SYSTEM AUDIO-VISUAL ALARM (75 CANDELA STROBE). MOUNT 80" AFF TO BOTTOM OF DEVICE OR 6" FROM THE BOTTOM OF CEILING, WHICHEVER IS LOWER. 110 SUBSCRIPT INDICATES 110 CANDELA STROBE. ALL STROBES IN COMMON AREAS OR CORRIDORS SHALL BE SYNCHRONIZED. IN CORRIDORS, 1575 CANDELA STROBE SHALL BE ACCEPTABLE.
- A MASS NOTIFICATION SYSTEM STROBE APPLIANCE (30 CANDELA STROBE UNO) STROBE SHALL BE MOUNTED ADJACENT TO FIRE ALARM SYSTEM AUDIO-VISUAL ALARM. MOUNT 80" AFF TO BOTTOM OF DEVICE OR 6" FROM THE BOTTOM OF CEILING, WHICHEVER IS LOWER.
- D FIRE ALARM SYSTEM ADDRESSABLE PHOTOELECTRIC DUCT MOUNTED SAMPLE TUBE TYPE SMOKE DETECTOR. PROVIDED BY DIV. 26. INSTALLED BY DIV. 23 AND CONNECTED BY DIV. 26.
- R FIRE ALARM SYSTEM ADDRESSABLE AIR HANDLING UNIT SHUT-DOWN RELAY. (UNLESS NOTED OTHERWISE) PROVIDE WITH POWER RELAY WHERE REQUIRED.
- FAC MULTIPLEXED ADDRESSABLE FACP. BATTERY SUPPLIES TO BE MOUNTED WITH FACP. REMOTE BOOSTER TYPE BATTERY POWER SUPPLIES WILL NOT BE ALLOWED. FIELD VERIFY EXACT MOUNTING LOCATION.
- HA ADDRESSABLE MONITOR MODULE CONNECTED TO HOOD ALARM SYSTEM.
- SURGE SUPPRESSOR.

OTHER:

- CIRCUIT RUN CONCEALED ABOVE CEILING OR IN WALL.
- CIRCUIT RUN CONCEALED IN OR BELOW FLOOR SLAB OR UNDERGROUND.
- HOMERUN TO PANELBOARD ANY CIRCUIT WITHOUT FURTHER DESIGNATION 2#12, 1#12 GRD, 1/2"C. 3#12, 1#12 GRD, 1/2"C., ETC., PER NEC. MINIMUM SIZE ON HOMERUNS GREATER THAN 100 FEET SHALL BE #10 AWG.
- EMERGENCY CIRCUIT RUN CONCEALED ABOVE CEILING OR IN WALL.
- AHU 1 MECHANICAL EQUIPMENT IDENTIFICATION TAG. SEE MECHANICAL EQUIPMENT ELECTRICAL SCHEDULE.
- F2A LIGHT FIXTURE IDENTIFICATION TAG. SEE LIGHT FIXTURE SCHEDULE FOR SYMBOLS & DETAILS.
- 3 SHEET NOTE TAG.
- 1084 ROOM NUMBER TAG.
- LEADER.

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR.	FMC	FLEXIBLE METAL CONDUIT
C	CONDUIT.	LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
EWC	ELECTRIC WATER COOLER	IMC	INTERMEDIATE METAL CONDUIT
FACP	FIRE ALARM CONTROL PANEL.	RGS	RIGID GALVANIZED STEEL CONDUIT
WP	WEATHERPROOF.	RNC	RIGID NON-METALLIC CONDUIT
C/L	CENTERLINE	SCA	SHORT CIRCUIT AMPS
JB	JUNCTION BOX.	KAIC	KILO-AMPERE INTERRUPTING CAPABILITY
MNT	MOUNTING HEIGHT AFF	WSR	WITHSTAND RATING
EMT	ELECTRICAL METALLIC TUBING		



GENERAL NOTES

- ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE.
- CONDUIT ROUTINGS AND DEVICE/EQUIPMENT LOCATIONS SHOWN ARE DIAGRAMMATIC ONLY. CONTRACTOR SHALL FIELD ROUTE AND LOCATE AS REQUIRED. CONDUIT ROUTINGS SHALL BE NORTH/SOUTH OR EAST/WEST.
- ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE PROVIDED WITH SUITABLE PHENOLIC NAMEPLATES.
- FOR OTHER THAN LIGHTING FIXTURES, CATALOG NUMBERS AND MANUFACTURERS SHOWN ARE TO INDICATE DEVICE, QUALITY, AND TYPE OF ITEM DESIRED ONLY. ANY OTHER SUBSTITUTION ON THE LIGHTING FIXTURES MUST BE PREAPPROVED TWO WEEKS PRIOR TO BID.
- THE CONDUIT MATERIAL SHALL BE AS FOLLOWS (SEE SPECIFICATION SECTIONS FOR EXCEPTIONS AND ADDITIONAL INFORMATION):
 - A) BELOW GRADE - RIGID NON-METALLIC (POWER & SITE LIGHTING ONLY).
 - B) RISER FROM 36" BELOW GRADE - RIGID GALVANIZED STEEL
 - C) CONCEALED RISER FROM 36" BELOW GRADE - RIGID NON-METALLIC (POWER ONLY).
 - D) ABOVE GRADE SUBJECT TO PHYSICAL ABUSE - RIGID GALVANIZED STEEL OR INTERMEDIATE.
 - E) ABOVE GRADE NOT SUBJECT TO PHYSICAL ABUSE OR WEATHER - ELECTRICAL METALLIC TUBING.
 - F) INDOORS NOT SUBJECT TO PHYSICAL ABUSE - ELECTRICAL METALLIC TUBING.
- THE LOADS SHOWN FOR APPLIANCES AND EQUIPMENT ARE BASED ON DESIGN INFORMATION. THE CONTRACTOR SHALL VERIFY ALL APPLIANCE LOADS PRIOR TO RUNNING THE CIRCUIT. THE MINIMUM CIRCUIT REQUIREMENTS SHALL BE BASED ON THE APPLIANCE NAMEPLATE VALUE OR CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ADDITIONAL COMPENSATION SHALL NOT BE ALLOWED FOR APPLIANCE MODIFICATIONS BY THE CONTRACTOR.
- COORDINATE LOCATIONS OF ELECTRICAL EQUIPMENT, DEVICES, OUTLETS, FIXTURES, ETC., WITH ARCHITECTURAL PLANS, ELEVATIONS AND REFLECTED CEILING PLANS PRIOR TO ROUGH-IN WORK.
- WALL OUTLETS SHALL NOT BE INSTALLED BACK TO BACK.
- CONTRACTOR SHALL SUPPLY ALL NECESSARY ELECTRICAL DEVICES IN THE CABINETS, INCLUDING BUT NOT LIMITED TO: RECEPTACLES; CONDUIT; JUNCTION BOXES; CONDUCTORS; DEVICE PLATES.
- PROVIDE A 6'-0" MAXIMUM FLEXIBLE CONNECTION FROM EACH RECESSED LIGHTING FIXTURE TO JUNCTION BOX ABOVE CEILING.
- VERIFY FLOOR RECEPTACLE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL FIRE ALARM CIRCUITS SHALL BE TERMINATED ON TERMINAL STRIPS. WIRE NUTS ARE PROHIBITED. ALL ANNUNCIATING AND INITIATING CIRCUITS ENTERING THE BUILDING AND AT THE FIRE ALARM PANEL SHALL BE PROVIDED WITH SUITABLE SURGE SUPPRESSORS (SEE SPECIFICATIONS).
- VERIFY ALL POWER/DATA/PHONE RECEPTACLE ELEVATIONS LOCATED 7" CENTER LINE OVER COUNTERTOP WITH ARCHITECTURAL DETAILS PRIOR TO ROUGH-IN. LOCATE LONG AXIS HORIZONTALLY.
- ALL CONDUITS NOT LOCATED UNDER SLAB SHALL HAVE A MINIMUM BURIAL DEPTH OF 36" UNLESS NOTED OTHERWISE.
- ALL SAFETY SWITCH DISCONNECTS LOCATIONS IN MECHANICAL ROOMS SHALL HAVE 3'-0" MIN. OF WORKING SPACE IN FRONT OF DISCONNECT; COORDINATE WITH MECHANICAL CONTRACTOR AND EQUIPMENT LOCATIONS.
- FINAL CONDUIT CONNECTIONS TO HEAT PUMPS, AIR HANDLERS, EXHAUST FANS, AND WATER HEATERS SHALL BE FLEXIBLE METAL (LIQUID TIGHT IN FLAMMABLE, OUTSIDE AND OTHER DAMP AND WET LOCATIONS).
- CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATION AND SIZE OF EQUIPMENT WHICH ARE PROVIDED BY OTHERS AND CONNECTED BY ELECTRICAL.
- RECEPTACLES, SWITCHES COLOR SHALL BE SELECTED BY THE ARCHITECT FROM STANDARD COLORS. ALL COVER PLATES SHALL BE 302 STAINLESS STEEL.
- VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGHING IN FOR SWITCHES.
- CONDUITS LEAVING OR ENTERING BUILDING SHALL BE SEALED PER N.E.C. TO PREVENT ENTRANCE OF MOISTURE.
- ALL EXHAUST FAN DISCONNECTS AND OVERLOADS ARE SCHEDULED TO BE PROVIDED UNDER DIVISION 15.
- ALL DIMENSIONS TO DEVICES AFF SHALL BE TO CENTERLINE UNLESS NOTED OTHERWISE.
- WORKING SPACE OF 36" FOR 120/208 SYSTEMS AND 42" FOR 277/480 SYSTEMS SHALL BE MAINTAINED IN FRONT OF ALL ELECTRICAL PANELS AND DEVICES.
- ALL SIDEWALKS AND PARKING LOT ASPHALT AREAS THAT ARE CUT DUE TO NEW ELECTRICAL SERVICES SHALL BE REPAIRED TO MATCH EXISTING.
- FINAL CONNECTION TO ALL EQUIPMENT IS SHOWN DIAGRAMMATIC. PROVIDE FINAL CONNECTION AS REQUIRED PER MANUFACTURER OF EQUIPMENT.

LIGHT FIXTURE SCHEDULE										
TYPE	CATALOG NO.		LAMPS			TOTAL WATTS	VOLTAGE	MOUNTING		NOTES
	MANUFACTURER	MODEL	TYPE	#	WATTS					
L2A	LITHONIA LIGHTING	2TL4 30L FW A19 E21 LP835 OR APPROVED EQUAL	LED 35K	N/A	25 W	25 W	120 V	RECESSED		PROVIDE SOLID STATE ELECTRONIC DRIVER. A19 LENS 0.156" THICK. MITRED DOOR FRAMES WITH SPRING LOADED LATCHES AND PAINTED AFTER FAB
L3A	LITHONIA LIGHTING	2TL4 48L FW A19 E21 LP835 OR APPROVED EQUAL	LED 35K	N/A	40 W	40 W	120 V	RECESSED		PROVIDE SOLID STATE ELECTRONIC DRIVER. A19 LENS 0.156" THICK. MITRED DOOR FRAMES WITH SPRING LOADED LATCHES AND PAINTED AFTER FAB
L2A2	LITHONIA LIGHTING	2TL2 20L FW A19 E21 LP835 OR APPROVED EQUAL	LED 35K	N/A	18 W	18 W	120 V	RECESSED		PROVIDE SOLID STATE ELECTRONIC DRIVER. A19 LENS 0.156" THICK. MITRED DOOR FRAMES WITH SPRING LOADED LATCHES AND PAINTED AFTER FAB.
L2I	LITHONIA LIGHTING	ZL1D L48 5000LM FST MVOLT 35K 80CRI WH OR APPROVED EQUAL	LED 35K	N/A	32 W	61 W	120 V	SUSPENDED		PROVIDE WITH DIFFUSE SNAPON DROP LENS
LD1	GOTHAM LIGHTING	EVO 35/10 6AR MWD LSS MVOLT E21 OR APPROVED EQUAL	LED 35K	N/A	18 W	36 W	120 V	RECESSED		PROVIDE SOLID STATE ELECTRONIC DRIVER. SPECULAR SPUN ALUMINUM REFLECTOR. SHALLOW DEPTH WHITE FLANGE. INTEGRAL MOUNTING CHANNELS
EX1	LITHONIA LIGHTING	LES-R-120/277-ELNSD OR APPROVED EQUAL	LED	N/A	8 W	8 W	120 V	WALL OR CEILING INDICATED		PROVIDE EMERGENCY NICAD BATTERY BACKUP. ARROWS AS PER PLANS. DIE CAST ALUMINUM HOUSING WITH BRUSHED ALUMINUM FACEPLATE. SELF DIAGNOSTICS WITH LEADS. DOUBLE FACE AS INDICATED ON PLANS.
LB	LITHONIA LIGHTING	WST LED 1 10A70040K SR3 120 PE SF ELCW DDBXD OR APPROVED EQUAL	LED 40K	N/A	24 W	24 W	120 V	FASCIA @ 12'-0" AFG		UL LISTED FOR WET LOCATION. PROVIDE WITH 1100 LUMEN MINIMUM EMERGENCY BATTERY DRIVER.

NOTE: LIGHTING FIXTURES WITH HALF FILLED CENTERS SHALL BE PROVIDED WITH 1100 LUMEN MINIMUM EMERGENCY BATTERY DRIVER.

APPD		DESCRIPTION		DATE	2021.06.17
REV #	1	PP RESPONSES			
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER		
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353					
AIR FORCE SPECIAL OPERATIONS COMMAND					
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA					
DATE: 03 MAY 2016					
DESIGNED BY: JTH					
DRAWN BY: JTH					
BUILDING NO: 90353					
PROJECT NO: FTEV 12-1164					
SHEET REF: EO					
SHEET NO: 87 of 110					

SHEET NOTES

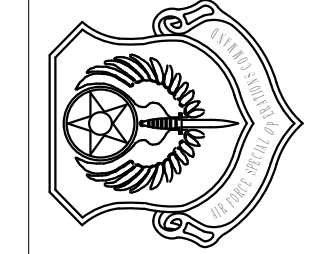
- ① EXISTING MECHANICAL EQUIPMENT SHALL BE DEMOLISHED IN ITS ENTIRETY, INCLUDING WIRING, CONDUIT, AND ACCESSORIES BACK TO SERVING PANEL.

REV #	DATE	DESCRIPTION	APP'D

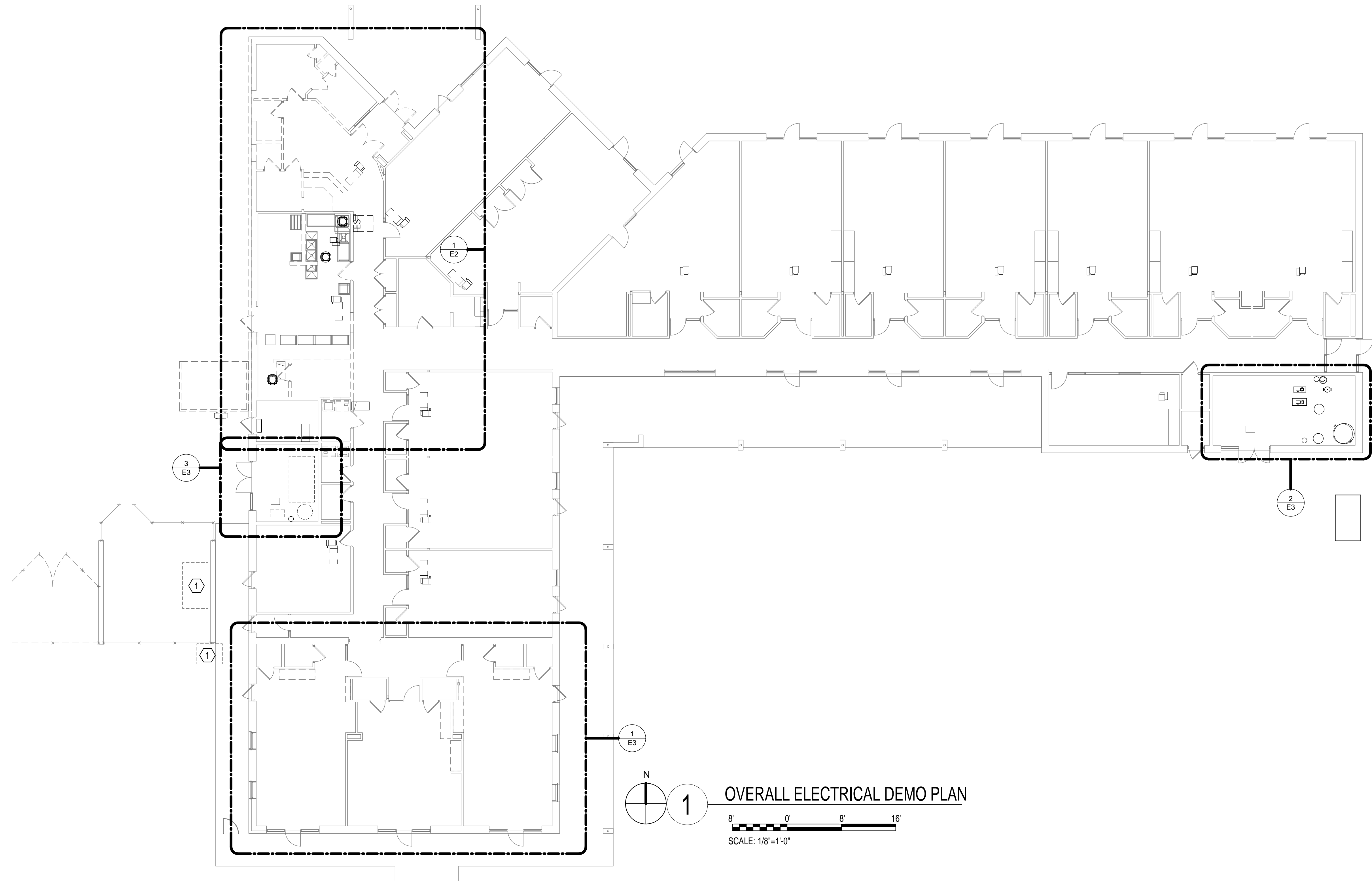
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CHIEF ENGINEER
APPROVED: _____
CIVIL ENGINEER

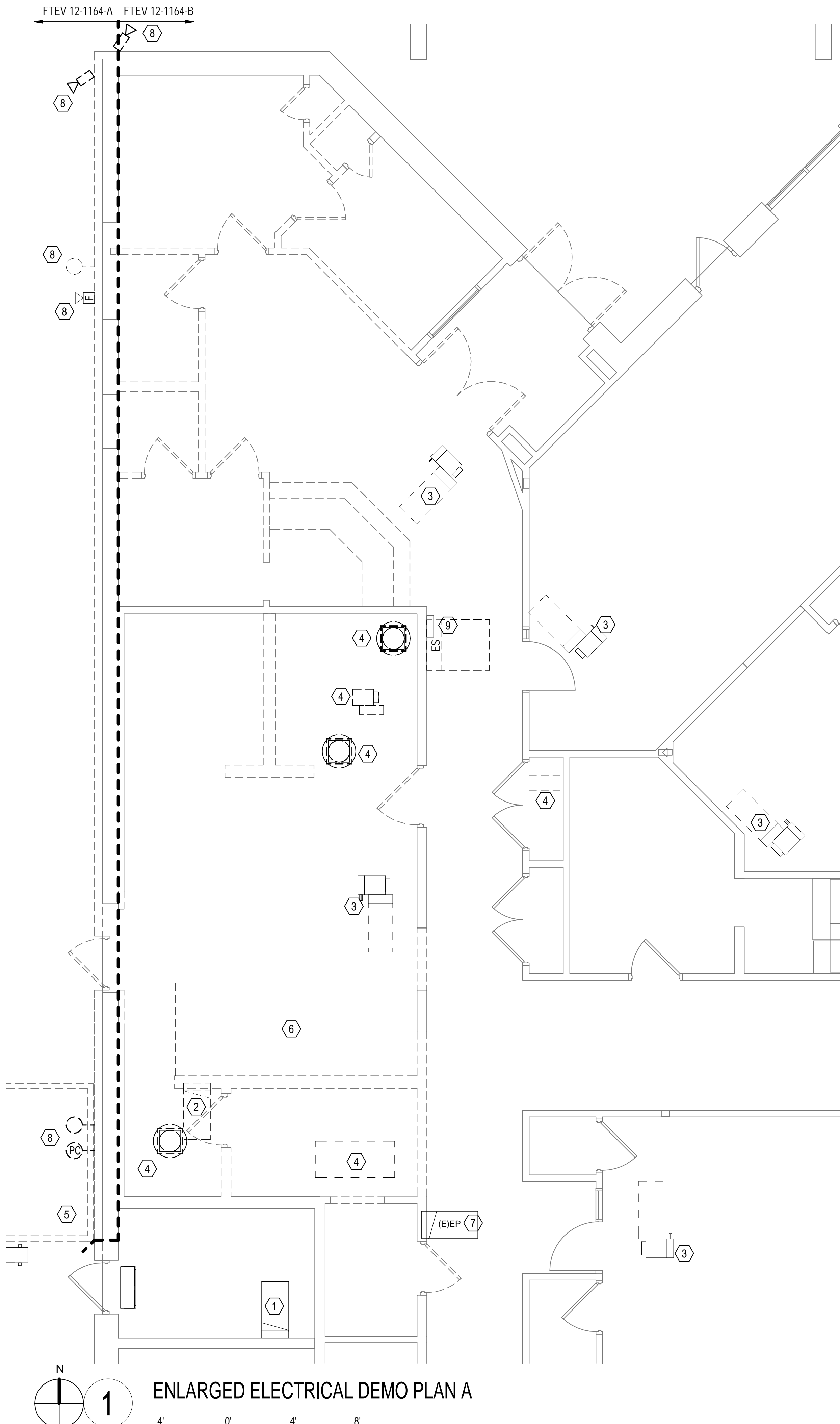
**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**
OVERALL ELECTRICAL DEMO PLAN

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



DATE: 03 MAY 2016
DESIGNED BY: JTH
DRAWN BY: JTH
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: **E1**
SHEET NO: 88 of 110



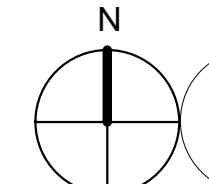


SHEET NOTES

- ① EXISTING MAIN PANEL "A". 800A. 3 P. MAIN BREAKER. 208Y/120V 3Ø/4W WESTINGHOUSE PRL4B PANEL.
- ② EXISTING 225A PANEL "KP" TO BE DEMOLISHED IN ITS ENTIRETY.
- ③ EXISTING MECHANICAL EQUIPMENT TO REMAIN AS-IS.
- ④ EXISTING MECHANICAL EQUIPMENT TO BE DEMOLISHED IN ITS ENTIRETY INCLUDING ALL DISCONNECTS, WIRE, AND CONDUIT BACK TO SERVING ELECTRICAL PANEL.
- ⑤ DISCONNECT EXTERIOR FREEZER. REMOVE WIRING BACK TO SERVING PANEL, CAP CONDUIT INSIDE AND SEAL WALL PER NEC REQUIREMENTS AND ABANDON CONDUIT AT WALL.
- ⑥ EXISTING KITCHEN HOOD SHALL BE DISCONNECTED AND DEMOLISHED IN ITS ENTIRETY. REMOVE ALL WIRING AND CONDUIT BACK TO SERVING PANEL.
- ⑦ EXISTING ELECTRICAL PANEL TO REMAIN AS-IS. PROTECT AT ALL TIMES DURING CONSTRUCTION.
- ⑧ EXISTING ELECTRICAL DEVICE TO BE DEMOLISHED IN ITS ENTIRETY.
- ⑨ EXISTING FIRE ALARM REMOTE ANNUNCIATOR PANEL TO REMAIN AS-IS.

GENERAL DEMOLITION NOTES

- 1. THE ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH THE EXTENT OF WORK REQUIRED TO COMPLETE THE JOB PRIOR TO COMMENCING WORK.
- 2. ALL DEVICES SHOWN SHALL BE REMOVED IN THEIR ENTIRETY UNLESS NOTED OTHERWISE. DEMOLITION SHALL INCLUDE DEVICES, WIRING, AND CONDUITS UNLESS BRANCH CIRCUIT SERVES EQUIPMENT BEYOND DEVICES BEING DELETED. (EXCEPTION: CONDUIT THAT IS CONCEALED ABOVE HARD CEILING, CONCEALED BELOW GRADE OR CONCEALED IN WALLS NEED NOT BE REMOVED. WIRING SHALL ALWAYS BE REMOVED. EXISTING CONDUIT MAY BE RE-USED IF PRACTICAL AND CONDUIT IS IN GOOD CONDITION.)
- 3. ALL ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS NOTED OTHERWISE. REMOVE DEMOLISHED DEVICES FROM CONSTRUCTION SITE.
- 4. ALL BRANCH CIRCUITS SERVING AREAS OUTSIDE OF CONTRACT SHALL BE MAINTAINED DURING CONSTRUCTION PHASE.
- 5. ALL DEMOLITION WORK THAT INVOLVES MECHANICAL EQUIPMENT SHALL BE COORDINATED BETWEEN THE ELECTRICAL AND MECHANICAL CONTRACTORS.
- 6. CONTRACTOR SHALL REPAIR ANY DAMAGED WALLS DUE TO DEMOLITION OR RELOCATION OF ANY ELECTRICAL DEVICES. WALLS SHALL BE PATCHED, REPAIRED, AND PAINTED TO MATCH EXISTING.

 ① **ENLARGED ELECTRICAL DEMO PLAN A**

4' 0' 4' 8'

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

REV #	DATE	DESCRIPTION	APPROVED

**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**

ENLARGED ELECTRICAL DEMO PLAN A

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE:
03 MAY 2016

DESIGNED BY:
JTH

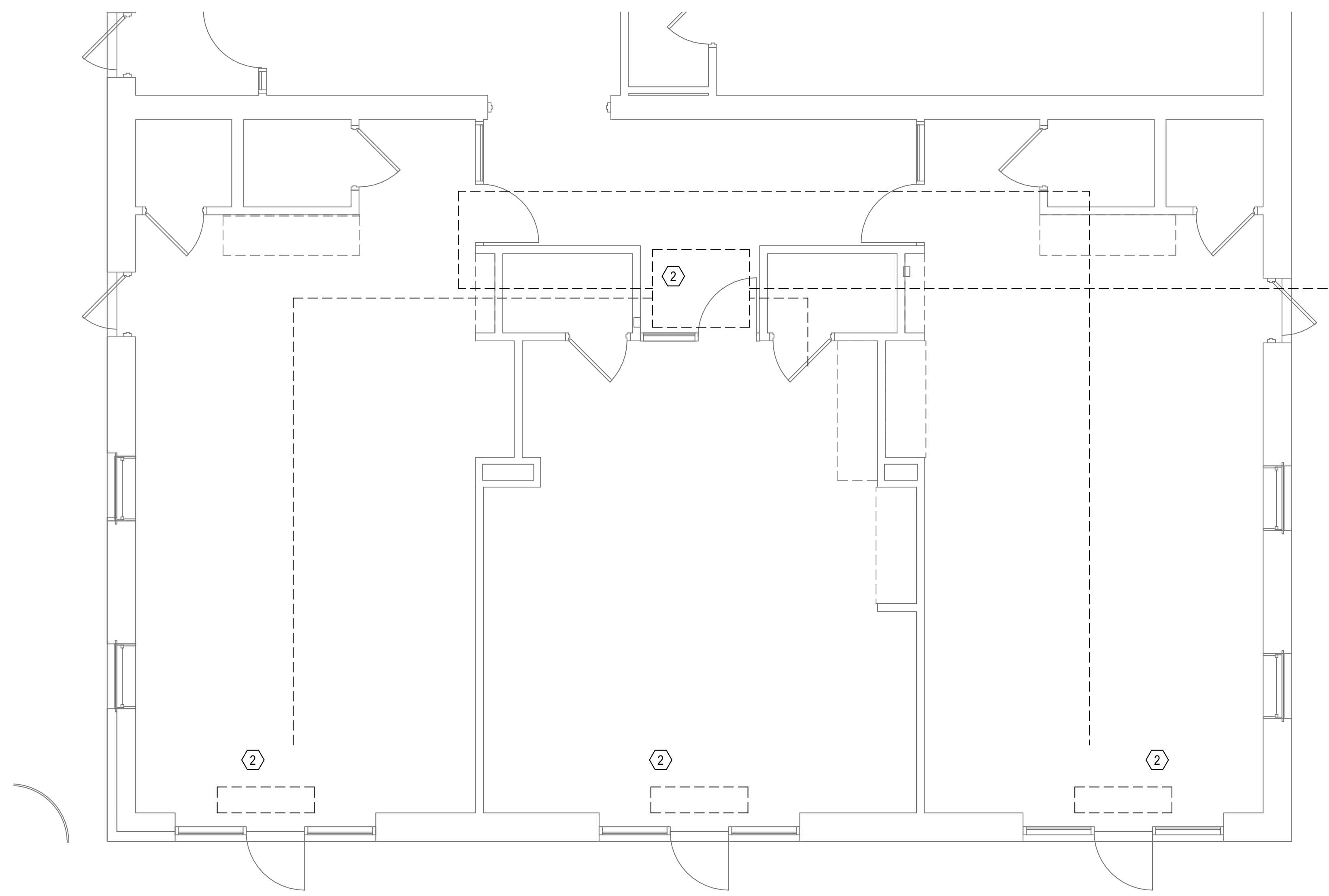
DRAWN BY:
JTH

BUILDING NO:
90353

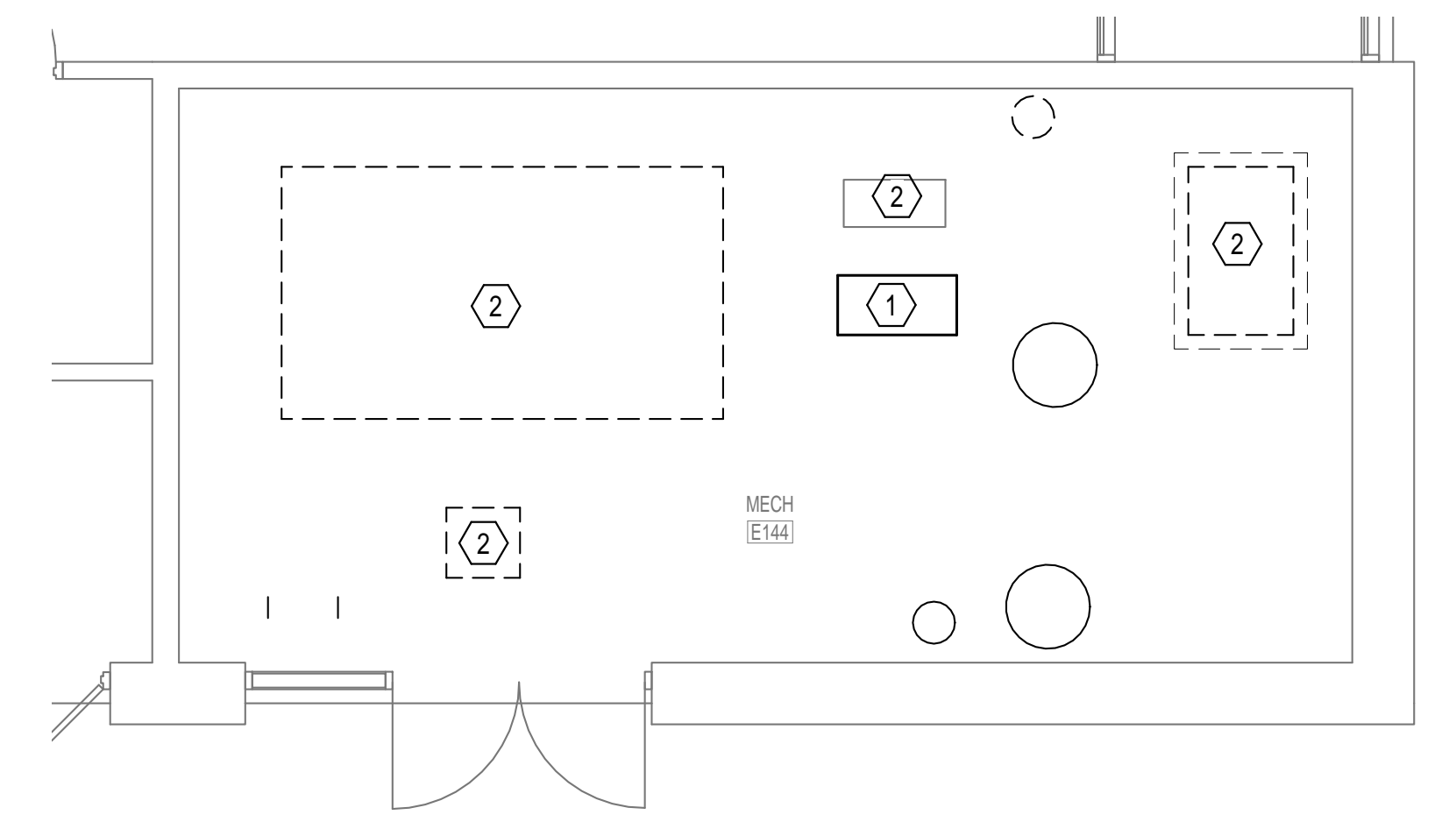
PROJECT NO:
FTEV 12-1164

SHEET REF:
E2

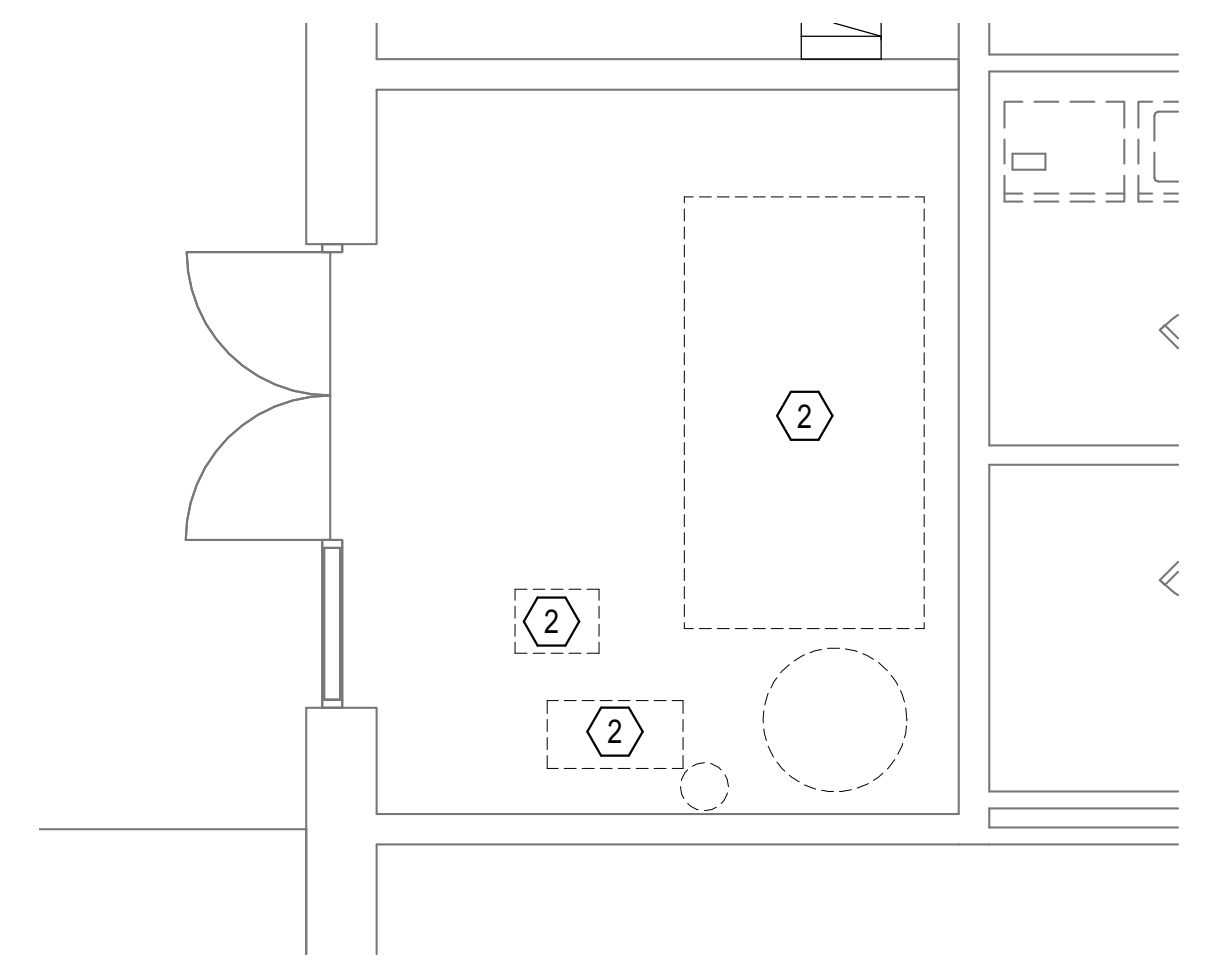
SHEET NO:
89 of 110



1 ENLARGED ELECTRICAL DEMO PLAN B
 SCALE: 1/4"=1'-0"



2 ENLARGED ELECTRICAL MECH RM 144 DEMO PLAN
 SCALE: 1/4"=1'-0"



3 ENLARGED ELECTRICAL MECH RM 155 DEMO PLAN
 SCALE: 1/4"=1'-0"

- SHEET NOTES**
- 1 EXISTING MECHANICAL EQUIPMENT TO REMAIN AS-IS.
 - 2 EXISTING MECHANICAL EQUIPMENT TO BE DEMOLISHED IN ITS ENTIRETY INCLUDING ALL DISCONNECTS, WIRE, AND CONDUIT BACK TO SERVING ELECTRICAL PANEL.

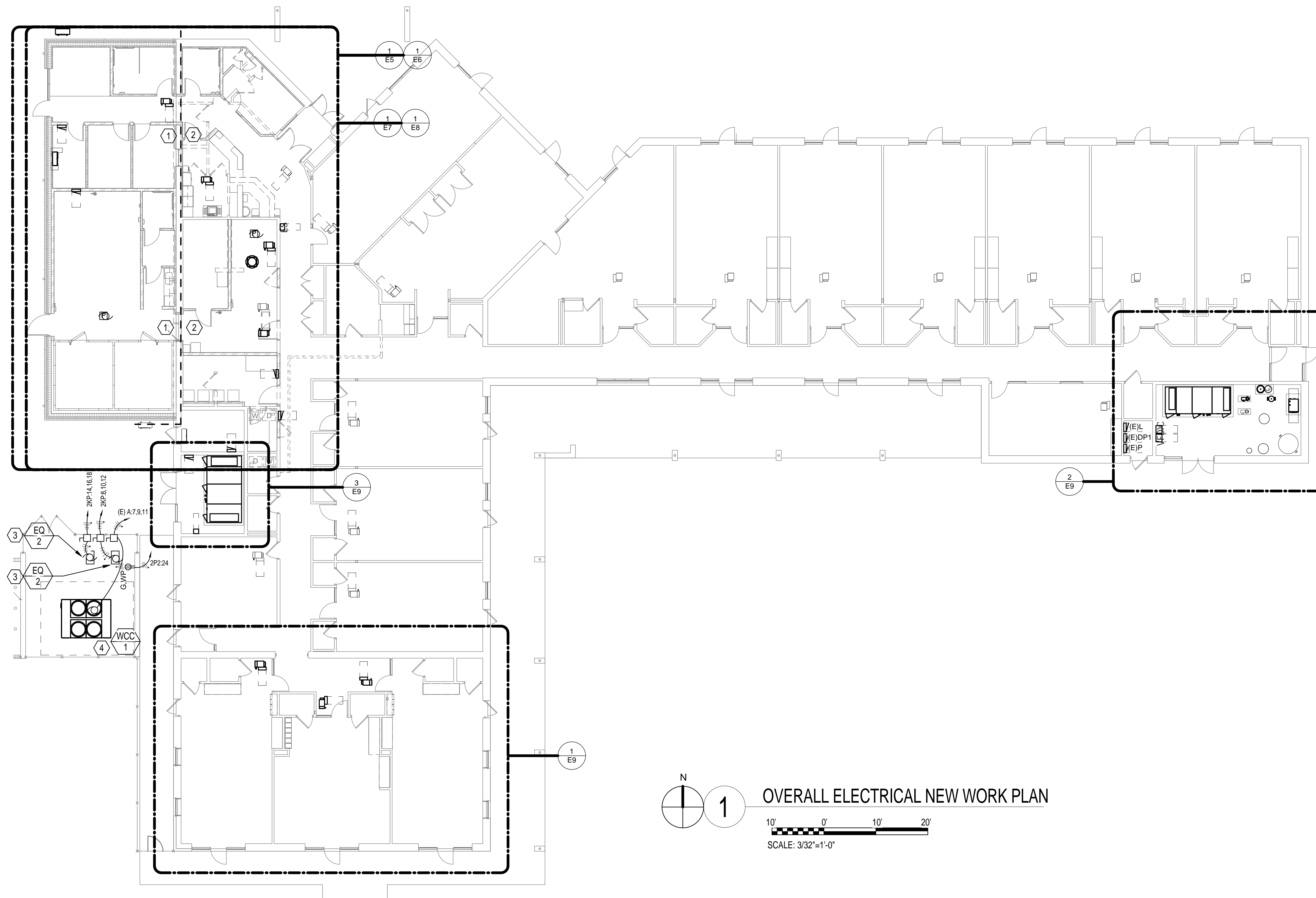
- GENERAL DEMOLITION NOTES**
1. THE ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH THE EXTENT OF WORK REQUIRED TO COMPLETE THE JOB PRIOR TO COMMENCING WORK.
 2. ALL DEVICES SHOWN SHALL BE REMOVED IN THEIR ENTIRETY UNLESS NOTED OTHERWISE. DEMOLITION SHALL INCLUDE DEVICES, WIRING, AND CONDUITS UNLESS BRANCH CIRCUIT SERVES EQUIPMENT BEYOND DEVICES BEING DELETED. (EXCEPTION: CONDUIT THAT IS CONCEALED ABOVE HARD CEILING, CONCEALED BELOW GRADE OR CONCEALED IN WALLS NEED NOT BE REMOVED. WIRING SHALL ALWAYS BE REMOVED. EXISTING CONDUIT MAY BE RE-USED IF PRACTICAL AND CONDUIT IS IN GOOD CONDITION.)
 3. ALL ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS NOTED OTHERWISE. REMOVE DEMOLISHED DEVICES FROM CONSTRUCTION SITE.
 4. ALL BRANCH CIRCUITS SERVING AREAS OUTSIDE OF CONTRACT SHALL BE MAINTAINED DURING CONSTRUCTION PHASE.
 5. ALL DEMOLITION WORK THAT INVOLVES MECHANICAL EQUIPMENT SHALL BE COORDINATED BETWEEN THE ELECTRICAL AND MECHANICAL CONTRACTORS.
 6. CONTRACTOR SHALL REPAIR ANY DAMAGED WALLS DUE TO DEMOLITION OR RELOCATION OF ANY ELECTRICAL DEVICES. WALLS SHALL BE PATCHED, REPAIRED, AND PAINTED TO MATCH EXISTING.

REV #	DATE	DESCRIPTION	APPROVED

APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353		ENLARGED ELECTRICAL MECH RM 155 DEMO PLAN	
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	03 MAY 2016	DESIGNED BY:	JTH
DRAWN BY:	JTH	BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164	SHEET REF:	E3
SHEET NO:	90 of 110	ALL WORK ON THIS SHEET TO BE PART OF FTEV 12-1164-B	

SHEET NOTES

- ① ALL WORK ASSOCIATED WITH THE ADDITION (TO LEFT OF THIS LINE) SHALL BE PERFORMED UNDER PROJECT FTEV-12-1164-A.
- ② ALL WORK ASSOCIATED WITH THE RENOVATION AREA (TO THE RIGHT OF THIS LINE), SHALL BE PERFORMED UNDER PROJECT FTEV-12-1164-B.
- ③ WORK ASSOCIATED WITH WALK IN FREEZER AND REFRIGERATOR CONDENSORS TO BE PERFORMED UNDER FTEV 12-1164-A
- ④ WORK ASSOCIATED WITH WCC-1 TO BE PERFORMED UNDER FTEV 12-1164-B



1
 OVERALL ELECTRICAL NEW WORK PLAN
 SCALE: 3/32"=1'-0"

REV #	DATE	DESCRIPTION	APPROVED	APP'D

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
 OVERALL ELECTRICAL NEW WORK PLAN

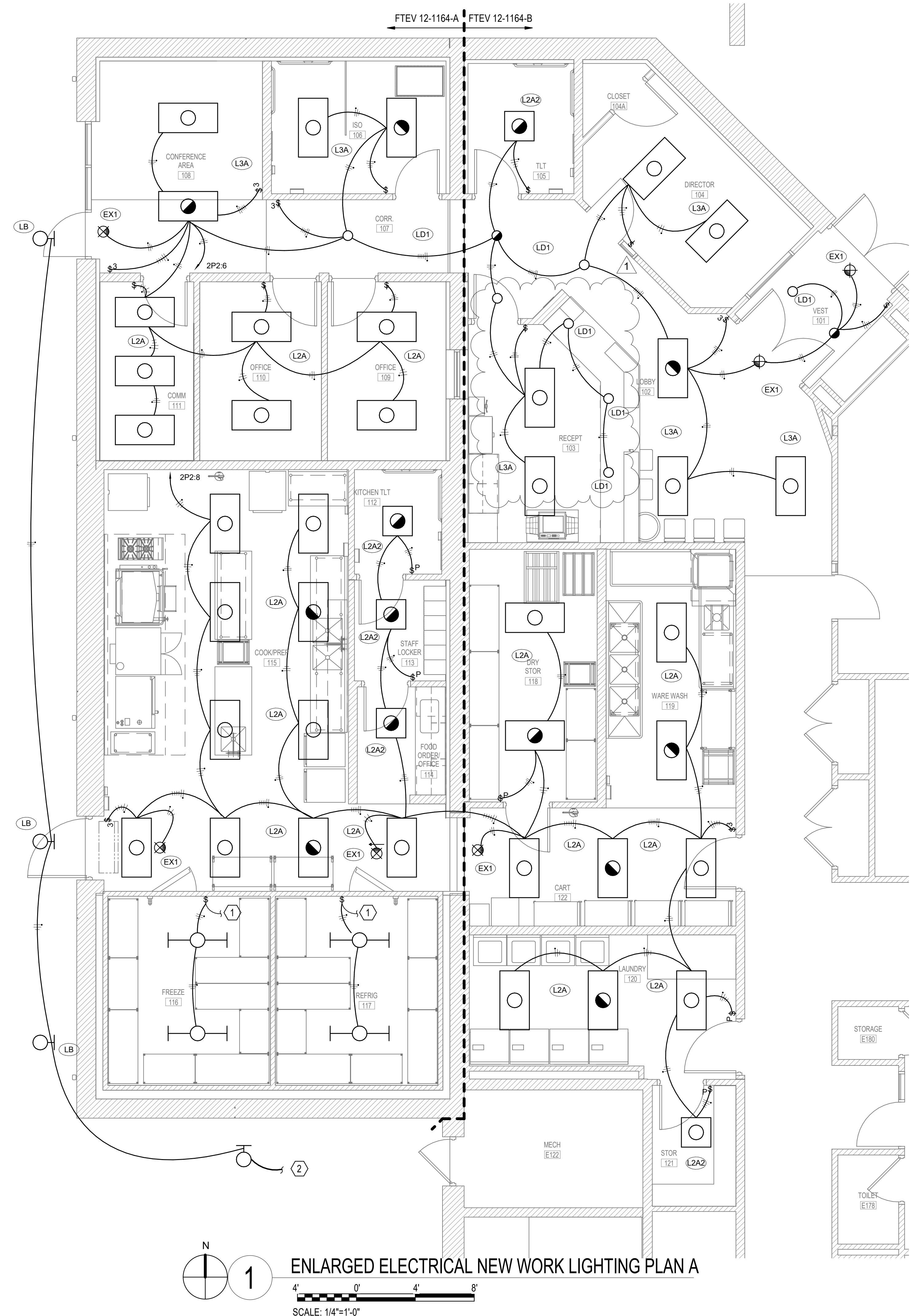
AIR FORCE SPECIAL OPERATIONS COMMAND
 1 SPECIAL OPERATIONS ENGINEER SQUADRON
 HURLBURT FIELD, FLORIDA

DATE: 03 MAY 2016
 DESIGNED BY: JTH
 DRAWN BY: JTH
 BUILDING NO: 90353
 PROJECT NO: FTEV 12-1164
 SHEET REF: **E4**
 SHEET NO: 91 of 110

STANDARD D LAYOUT (24" x 36")

SHEET NOTES

- 1 REFER TO ENLARGED ELECTRICAL NEW WORK POWER PLAN A FOR CIRCUIT CONTINUATION.
- 2 CONNECT TO EXISTING CONTROLLED EXTERIOR LIGHTING CIRCUIT. EXTERIOR LIGHTING FIXTURE TO BE MOUNTED @ CENTER OF FASCIA @ 12'-0" AFG.



1 ENLARGED ELECTRICAL NEW WORK LIGHTING PLAN A
SCALE: 1/4"=1'-0"

STANDARD D LAYOUT (24" X 36")

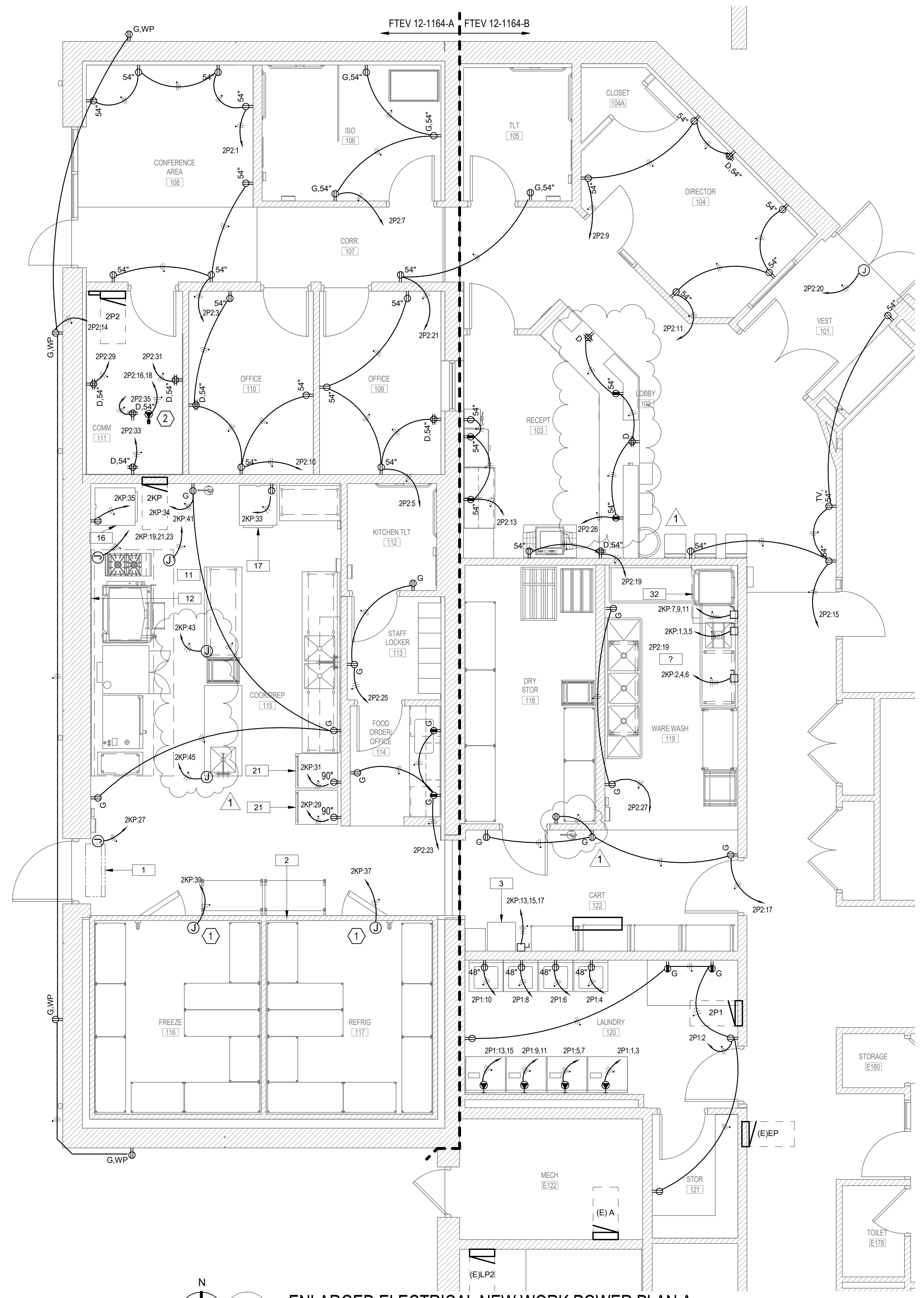
APPROVED	CHIEF ENGINEER APPROVED	CIVIL ENGINEER
REV #	1	
DATE	2021.06.17	
DESCRIPTION	PP1 RESPONSES	
APPD		
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353		
ENLARGED ELECTRICAL NEW WORK LIGHTING PLAN A		
AIR FORCE SPECIAL OPERATIONS COMMAND		
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA		
DATE:	03 MAY 2016	
DESIGNED BY:	JTH	
DRAWN BY:	JTH	
BUILDING NO:	90353	
PROJECT NO:	FTEV 12-1164	
SHEET REF:	E5	
SHEET NO:	92 of 110	

SHEET NOTES

- 1 PROVIDE JUNCTION BOX FOR CONNECTION TO COOLER/FREEZER DOOR HEATER AND LIGHTING. REFER TO NEW WORK LIGHTING PLAN FOR LOCATION OF LIGHTING FIXTURES AND SWITCH. COORDINATE EXACT LOCATION OF ELECTRICAL CONNECTION AND REQUIREMENTS WITH COOLER/FREEZER MANUFACTURER PRIOR TO ROUGH-IN.
- 2 PROVIDE ONE NEMA L 6-20R RECEPTACLE AND ONE 5-20R RECEPTACLE MOUNTED AT TOP OF COMMUNICATION RACK. COORDINATE EXACT LOCATION OF RECEPTACLES WITH RACK PROVIDER PRIOR TO ROUGH-IN.
- 3 PROVIDE JUNCTION BOX ABOVE CEILING FOR CONNECTION TO AUTOMATIC DOOR HARDWARE. COORDINATE EXACT REQUIREMENTS AND DETAIL WITH ARCHITECTURAL.

GENERAL NOTES

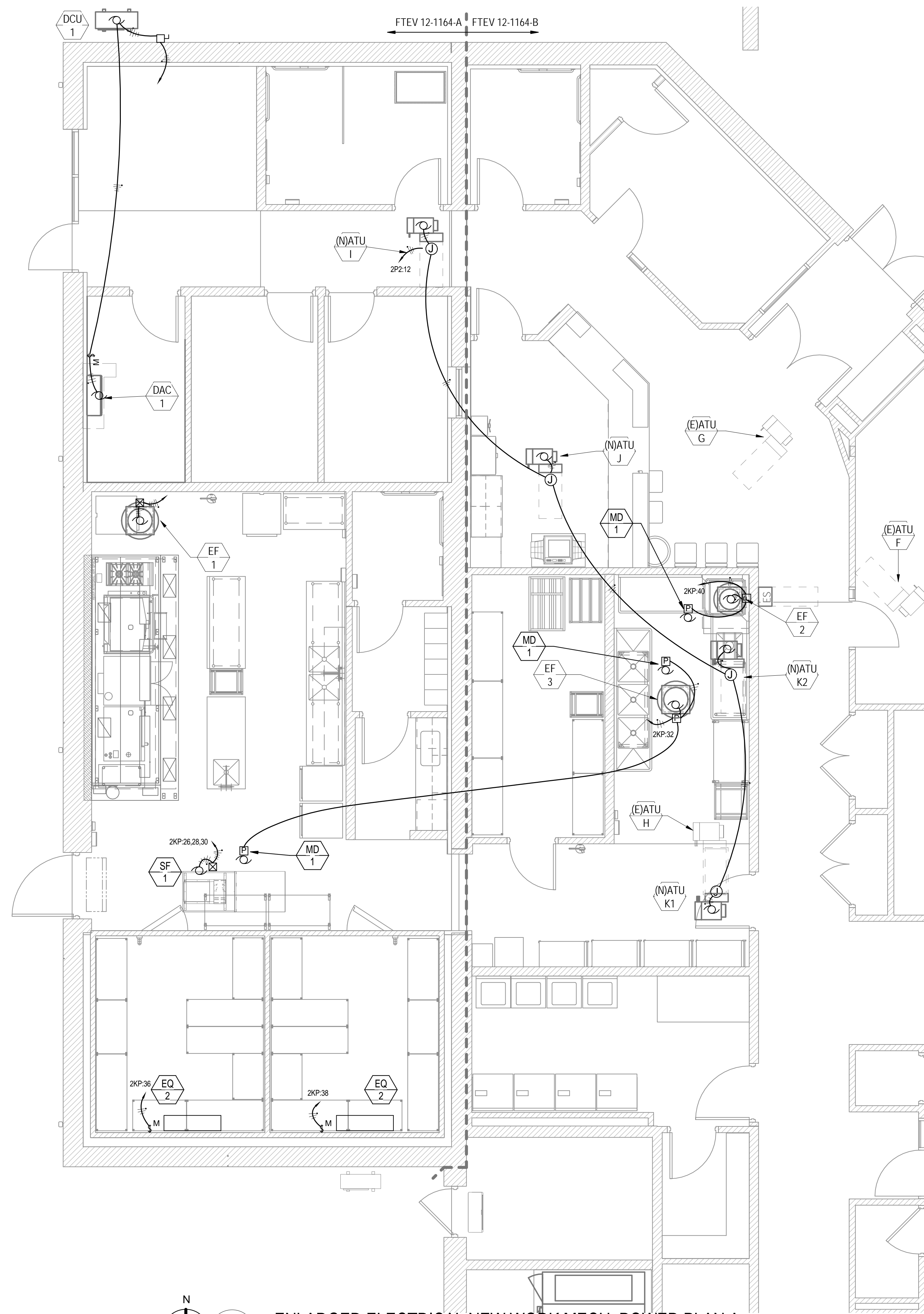
REFER TO KITCHEN EQUIPMENT DRAWINGS TO COORDINATE ADDITIONAL POWER REQUIREMENTS FOR EQUIPMENT.



ENLARGED ELECTRICAL NEW WORK POWER PLAN A
SCALE: 1/4"=1'-0"

STANDARD D LAYOUT (24" X 36")

APPD		DESCRIPTION	
DATE	2021.06.17	PP1 RESPONSES	
REV#	1		
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353		ENLARGED ELECTRICAL NEW WORK POWER PLAN A	
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	03 MAY 2016		
DESIGNED BY:	JTH		
DRAWN BY:	JTH		
BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
SHEET REF:	E6		
SHEET NO:	93 of 110		



N

 1

ENLARGED ELECTRICAL NEW WORK MECH. POWER PLAN A

 4' 0' 4' 8'

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

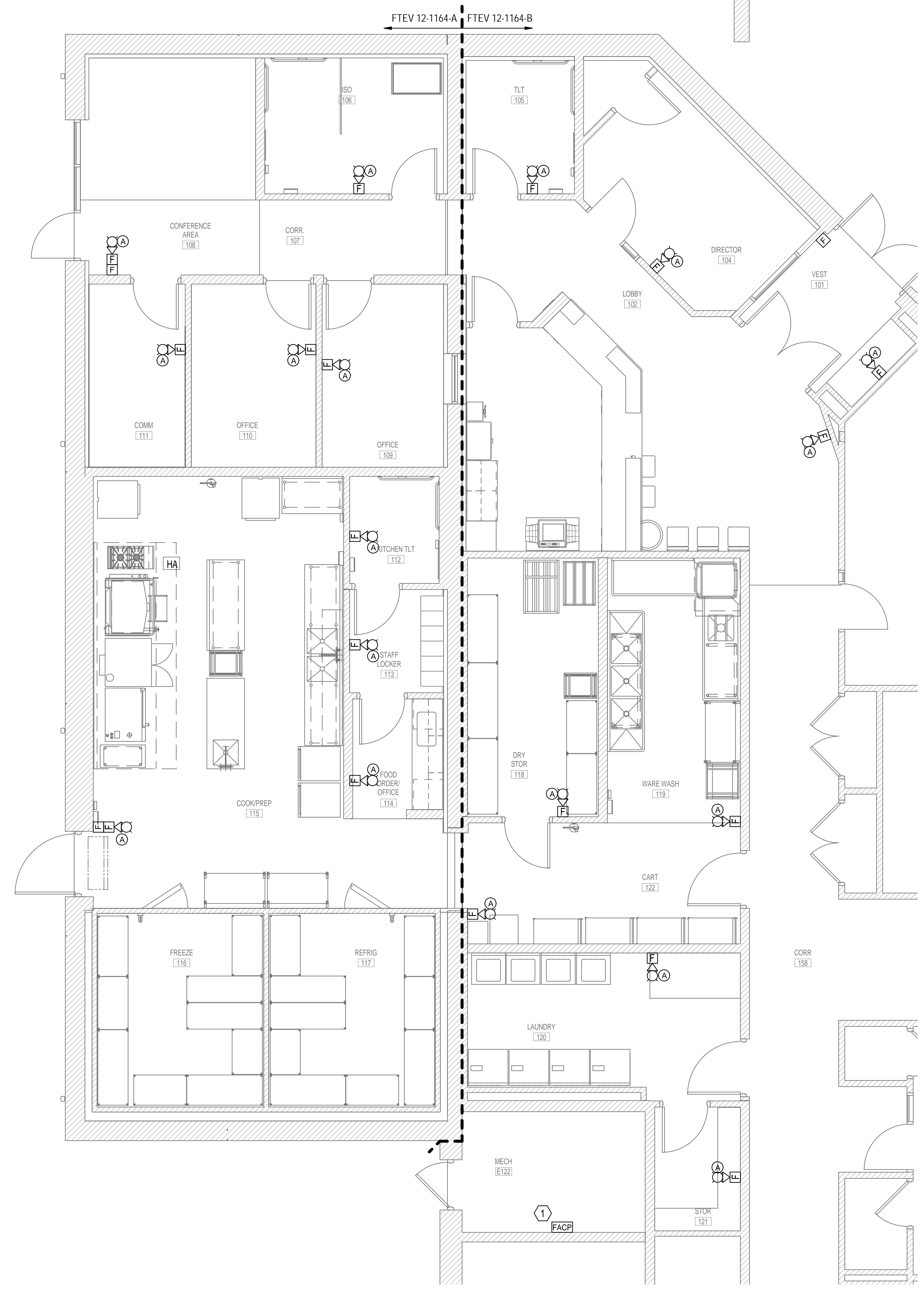
STANDARD D LAYOUT (24" X 36")

APPROVED	CHIEF ENGINEER APPROVED	CIVIL ENGINEER
DESCRIPTION	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	ENLARGED ELECTRICAL NEW WORK MECH. POWER PLAN A
DATE		
REV #		
APPROVED		
DESCRIPTION	AIR FORCE SPECIAL OPERATIONS COMMAND	1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA
DATE	03 MAY 2016	
DESIGNED BY:	JTH	
DRAWN BY:	JTH	
BUILDING NO.:	90353	
PROJECT NO.:	FTEV 12-1164	
SHEET REF.:	E7	
SHEET NO.:	94 of 110	



SHEET NOTES

- 1 EXISTING FIRE ALARM AND MASS NOTIFICATION PANEL. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF CARBON MONOXIDE DETECTORS (CO). ACTIVATION OF A CO DETECTION DEVICE SHALL INITIATE A VOICE NOTIFICATION MESSAGE DISTINCTLY DIFFERENT FROM A FIRE ALARM NOTIFICATION AND TRANSMIT AN UNIQUE SIGNAL MESSAGE TO THE CONSTANTLY ATTENDED LOCATION.



ENLARGED ELECTRICAL NEW WORK SYSTEMS PLAN

STANDARD D LAYOUT (24" X 36")

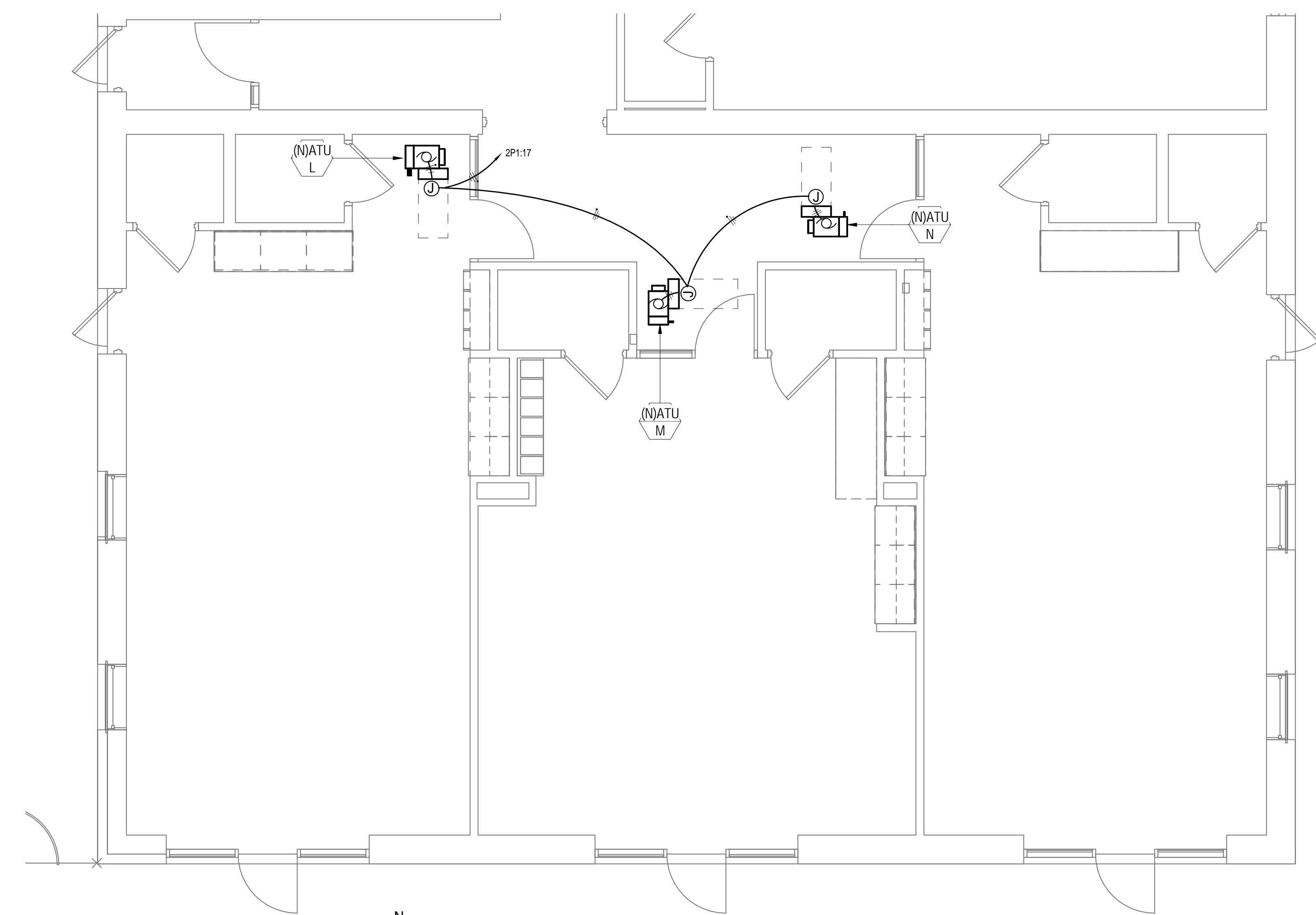
REV #	DATE	DESCRIPTION	APP'D

AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 ENLARGED ELECTRICAL NEW WORK SYSTEMS PLAN
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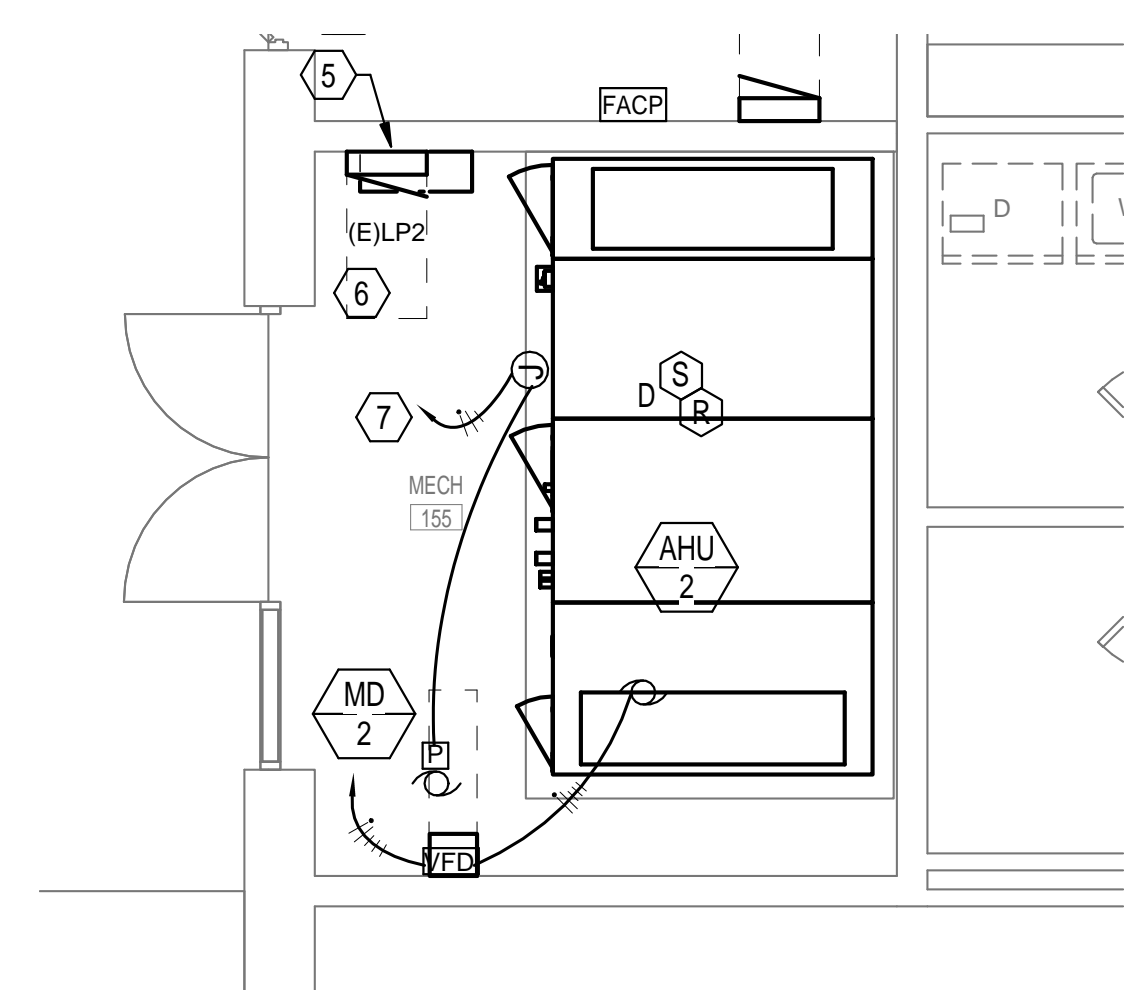
DATE:	03 MAY 2016
DESIGNED BY:	JTH
DRAWN BY:	JTH
BUILDING NO.:	90353
PROJECT NO.:	FTEV 12-1164
SHEET REF.:	E8
SHEET NO.:	95 of 110

SHEET NOTES

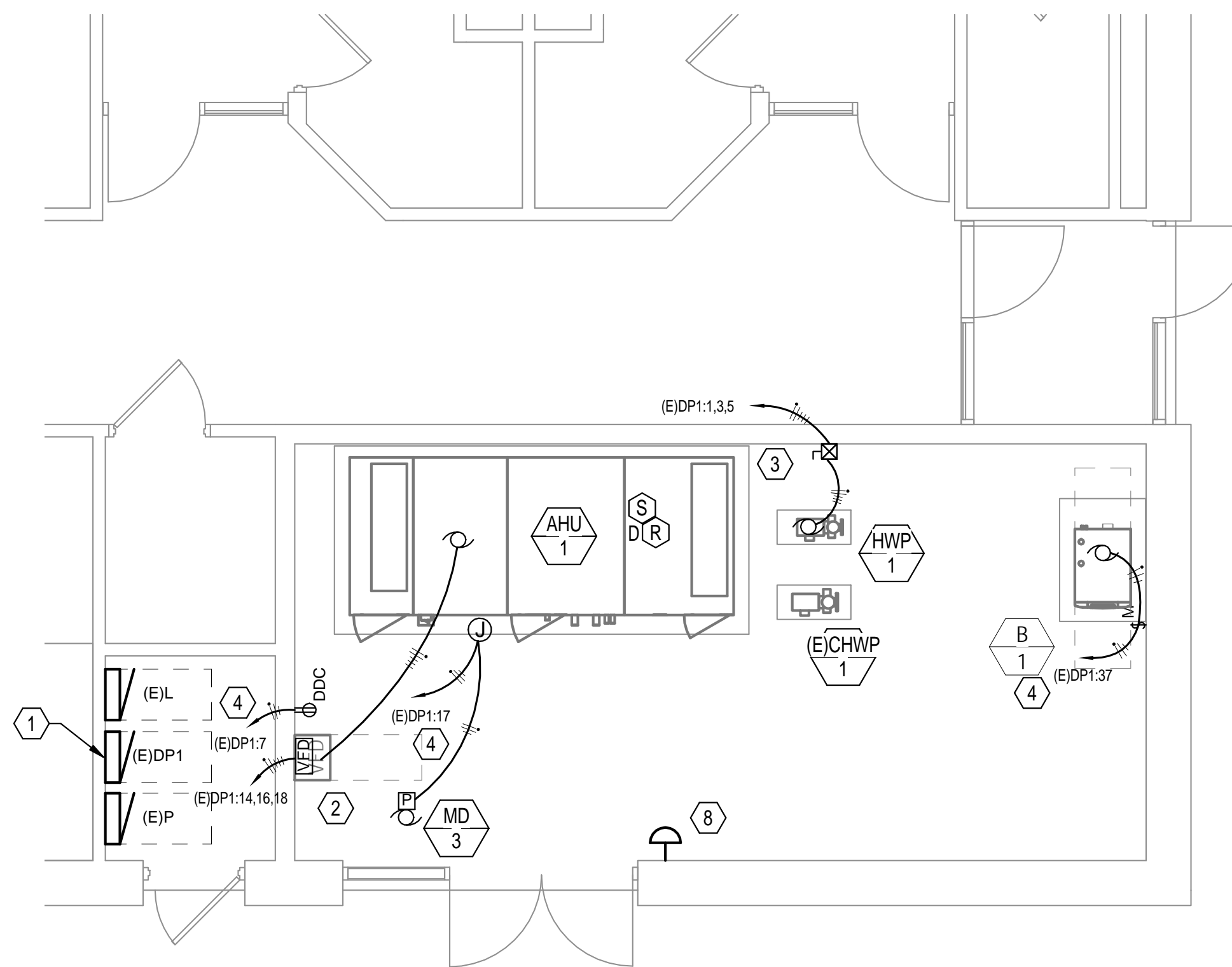
- 1 EXISTING WESTINGHOUSE PRL3 400A 3Ø/4W 208Y/120V PANEL. PROVIDE UPDATED TYPED CIRCUIT SCHEDULE AT END OF PROJECT.
- 2 PROVIDE NEW 35A/3 POLE CIRCUIT BREAKER IN EXISTING PANEL DP1 FOR CONNECTION TO AHU-1
- 3 CONNECT NEW HWP-1 TO EXISTING 20A/3 POLE CIRCUIT BREAKER IN EXISTING PANEL DP1.
- 4 PROVIDE NEW 20A/1 POLE BREAKER IN EXISTING PANEL DP1 FOR CONNECTION OF NEW MECHANICAL EQUIPMENT.
- 5 EXISTING WESTINGHOUSE PRL1 100A 3Ø/4W 208Y/120V PANEL "LP2". PROVIDE UPDATED TYPED CIRCUIT SCHEDULE AT END OF PROJECT.
- 6 PROVIDE NEW 50A/3 POLE CIRCUIT BREAKER IN EXISTING PANEL LP2.
- 7 PROVIDE NEW 20A/1 POLE CIRCUIT BREAKER IN EXISTING PANEL LP2.
- 8 PROVIDE NEW MUSHROOM PUSH ON/PULL OFF STYLE EMERGENCY SHUT OFF BUTTON FOR EMERGENCY SHUT-OFF OF GAS FIRED BOILER. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.



1 ENLARGED ELECTRICAL NEW WORK POWER PLAN B
SCALE: 1/4"=1'-0"



3 ENLARGED ELECTRICAL MECH ROOM 155 PLAN
SCALE: 1/4"=1'-0"



2 ENLARGED ELECTRICAL MECH ROOM 144 PLAN
SCALE: 1/4"=1'-0"

REV #	DATE	DESCRIPTION	APPROVED

APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353			
ENLARGED ELECTRICAL NEW WORK POWER PLAN B & C			
AIR FORCE SPECIAL OPERATIONS COMMAND			
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE: 03 MAY 2016			
DESIGNED BY: JTH			
DRAWN BY: JTH			
BUILDING NO: 90353			
PROJECT NO: FTEV 12-1164			
SHEET REF: E9			
SHEET NO: 96 of 110			

ALL WORK ON THIS SHEET TO BE PART OF FTEV 12-1164-B

STANDARD LAYOUT (24" X 36")

PANEL NAME	ENCLOSURE		VOLTAGE	# OF PHASES	WIRE	MCB RATING	SERVICE ENTRANCE	FAULT RATING (KAIC)	BUS RATING	NEUTRAL BUS RATING	CB TYPE	FEEDERS				TVSS
	TYPE	MOUNTING										CONDUCTOR MATERIAL	CONDUCTORS	GROUND	CONDUIT	
2KP	NEMA 1	SURFACE	208Y/120	3	4	225A	NO	10	225 A	225 A	BOLT-ON	CU	4#4/0	#4	2-1/2"C	No
2P1	NEMA 1	SURFACE	208Y/120	3	4	100A	NO	10	100 A	100 A	BOLT-ON	CU	4#1	#6	2"C	No
2P2	NEMA 1	SURFACE	208Y/120	3	4	100A	NO	10	100 A	100 A	BOLT-ON	CU	4#1	#6	2"C	Yes

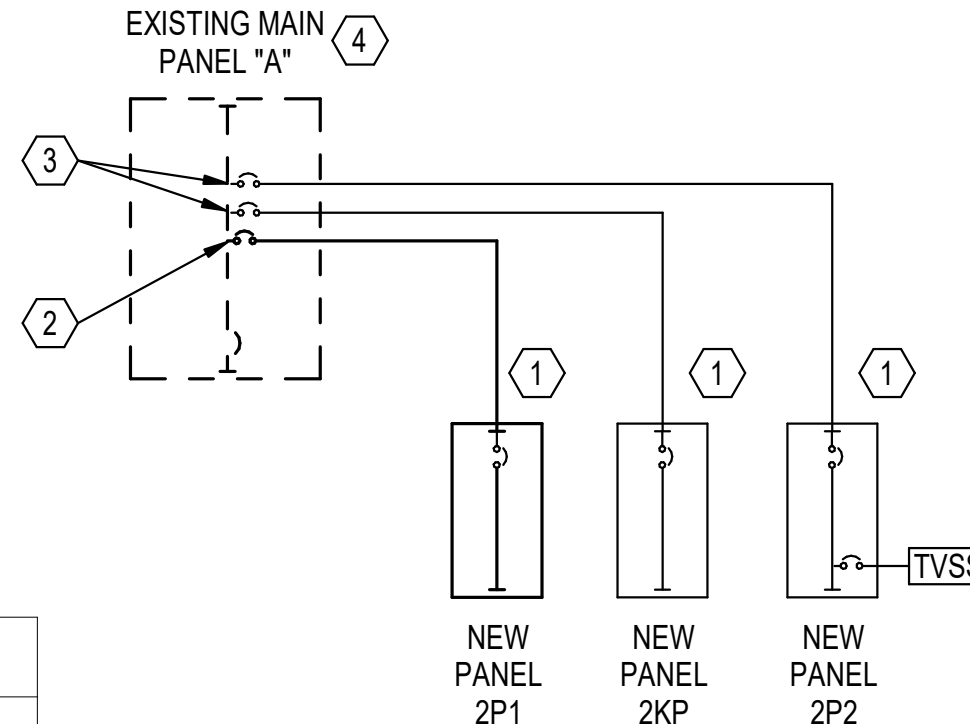
- NOTES:
1. ALL BUSSING SHALL BE COPPER, INCLUDING NEUTRAL AND GROUND.
2. ALL PANEL LUGS 100 AMPS AND GREATER SHALL BE COPPER.
3. ALL LUGS ON CIRCUIT BREAKERS GREATER THAN 400 AMPS SHALL BE COPPER.
4. ALL EQUIPMENT SHALL BE FULLY RATED FOR THE LISTED FAULT RATING. SERIES RATINGS SHALL NOT BE ALLOWED.

KITCHEN EQUIPMENT ELECTRICAL SCHEDULE

Equipment Type	Equipment Number	COMMENTS	ELECTRICAL INFORMATION				DISC SIZE		WIRE SIZE			SERVING PANEL	DISC NOTES
			VOLTAGE	Ø	MCA	LOAD	DISC TYPE	CB SIZE	Ø	GROUND	CONDUIT		
EQ	1	AIR CURTAIN	120 V	1	11 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	CIRCUIT BREAKER SERVES AS DISCONNECT. PROVIDE AND CONNECT ALL REQUIRED DOOR CONTACTS FOR A COMPLETE AND USABLE SYSTEM
EQ	2	COOLER CONDENSOR	120 V	1	13 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF FREEZER CONDENSOR PRIOR TO ROUGH-IN. PROVIDE MOTOR RATED TOGGLE CONTROLLER WITH OVERLOAD ELEMENTS FOR CONTROL OF EQUIPMENT
EQ	2	FREEZER CONDENSOR	120 V	1	13 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF FREEZER CONDENSOR PRIOR TO ROUGH-IN. PROVIDE MOTOR RATED TOGGLE CONTROLLER WITH OVERLOAD ELEMENTS FOR CONTROL OF EQUIPMENT
EQ	2	WALK IN COOLER LIGHTS/DOOR HEATER	120 V	1	13 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	COORDINATE WITH WALK IN INSTALLED FOR EXACT LOCATION OF JUNCTION BOX AND ELECTRICAL CONNECTION PRIOR TO ROUGH-IN
EQ	2	WALK IN FREEZER LIGHTS/DOOR HEATER	120 V	1	13 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	COORDINATE WITH WALK IN INSTALLED FOR EXACT LOCATION OF JUNCTION BOX AND ELECTRICAL CONNECTION PRIOR TO ROUGH-IN
EQ	2C	WALK IN COOLER COMPRESSOR	208 V	3	17 A	5 kVA	30/3 N3RSS	20 A	3#12	#12	1/2"C	2KP	COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF REFRIGERATOR COMPRESSOR PRIOR TO ROUGH-IN.
EQ	2F	WALK IN FREEZER COMPRESSOR	208 V	3	25 A	7 kVA	30/3 N3RSS	30 A	3#10	#10	1/2"C	2KP	COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF FREEZER COMPRESSOR PRIOR TO ROUGH-IN.
EQ	3	ICE MACHINE	208 V	3	18 A	5 kVA	30/3 N1SS	20 A	3#12	#12	1/2"C	2KP	
EQ	11	KITCHEN HOOD	120 V	1	10 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	COORDINATE EXACT LOCATION OF FACTORY PROVIDED CONTROLLER AND ELECTRICAL REQUIREMENTS WITH KITCHEN HOOD PROVIDER PRIOR TO ROUGH-IN.
EQ	12	UTILITY DISTRIBUTION SYSTEM	208 V	3	20 A	6 kVA	SEE NOTES	30 A	4#12	#10	1/2"C	2KP	PROVIDE JUNCTION BOX FOR CONNECTION DISTRIBUTION SYSTEM. CIRCUIT BREAKER WILL ACT AS DISCONNECT. COORDINATE HEIGHT OF JUNCTION BOX WITH EXISTING EQUIPMENT.
EQ	13	WORK TABLE	120 V	1	25 A	2 kVA	SEE NOTES	30 A	2#10	#10	1/2"C	2KP	
EQ	16	REACH IN FREEZER	120 V	1	14 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	PROVIDE NEMA 5-20R RECEPTACLE MOUNTED AT 90° AFF
EQ	17	REACH IN REFRIGERATOR	120 V	1	10 A	1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	PROVIDE NEMA 5-20R RECEPTACLE MOUNTED AT 90° AFF
EQ	20	WORK COUNTER W/ SINKS	120 V	1	25 A	2 kVA	SEE NOTES	30 A	2#10	#10	1/2"C	2KP	
EQ	21	HEATED HOLDING CABINET	120 V	1	21 A	2 kVA	SEE NOTES	20 A	2#10	#12	1/2"C	2KP	PROVIDE NEMA 5-20R RECEPTACLE MOUNTED AT 90° AFF
EQ	21	HEATED HOLDING CABINET	120 V	1	21 A	2 kVA	SEE NOTES	20 A	2#10	#12	1/2"C	2KP	PROVIDE NEMA 5-20R RECEPTACLE MOUNTED AT 90° AFF
EQ	32	BOOSTER HEATER	208 V	3	45 A	13 kVA	60/3 N1SS	50 A	3#6	#10	1"C	2KP	
EQ	32	DISHWASHER	208 V	3	31 A	9 kVA	30/3 N1SS	35 A	3#8	#10	3/4"C	2KP	
EQ	34	DISPOSER	208 V	3	8 A	2 kVA	30/3 N1SS	20 A	3#12	#12	1/2"C	2KP	

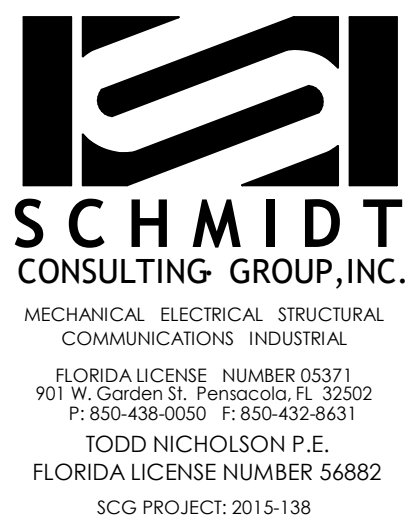
MECHANICAL EQUIPMENT ELECTRICAL SCHEDULE

Equipment Type	Equipment Number	COMMENTS	ELECTRICAL INFORMATION				DISC SIZE		WIRE SIZE			SERVING PANEL	DISC NOTES
			VOLTAGE	Ø	MCA	LOAD	DISC TYPE	CB SIZE	Ø	GROUND	CONDUIT		
AHU	1	AHU LIGHTING SYSTEM	120 V	1	3 A	0.3 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	(E)DP1	PROVIDE CONNECTION TO FACTORY PROVIDED SWITCH FOR AIR HANDLER LIGHTING SYSTEM
AHU	1	AIR HANDLER	208 V	3	25 A	7.2 kVA	SEE NOTES	30 A	3#10	#10	1/2"C	(E)DP1	VFD WITH INTEGRAL DISCONNECT PROVIDED BY DIVISION 23, CONNECTED BY DIVISION 26
AHU	2	AIR HANDLER	208 V	3	42 A	12.1 kVA	SEE NOTES	45 A	3#6	#10	1"C	(E)LP2	VFD WITH INTEGRAL DISCONNECT PROVIDED BY DIVISION 23, CONNECTED BY DIVISION 26
AHU	2	AIR HANDLER LIGHTING	120 V	1	3 A	0.3 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	(E)LP2	PROVIDE CONNECTION TO FACTORY PROVIDED SWITCH FOR AIR HANDLER LIGHTING SYSTEM
ATU	I	AIR TERMINAL UNIT	120 V	1	1 A	0.1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2P2	DISCONNECT INTEGRAL TO EQUIPMENT BY DIVISION 23
ATU	J	AIR TERMINAL UNIT	120 V	1	1 A	0.1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2P2	DISCONNECT INTEGRAL TO EQUIPMENT BY DIVISION 23
ATU	K1	AIR TERMINAL UNIT	120 V	1	1 A	0.1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2P2	DISCONNECT INTEGRAL TO EQUIPMENT BY DIVISION 23
ATU	K2	AIR TERMINAL UNIT	120 V	1	1 A	0.1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2P2	DISCONNECT INTEGRAL TO EQUIPMENT BY DIVISION 23
ATU	L	AIR TERMINAL UNIT	120 V	1	1 A	0.1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2P1	DISCONNECT INTEGRAL TO EQUIPMENT BY DIVISION 23
ATU	M	AIR TERMINAL UNIT	120 V	1	1 A	0.1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2P1	DISCONNECT INTEGRAL TO EQUIPMENT BY DIVISION 23
ATU	N	AIR TERMINAL UNIT	120 V	1	1 A	0.1 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2P1	DISCONNECT INTEGRAL TO EQUIPMENT BY DIVISION 23
B	1	BOILER	120 V	1	13 A	1.2 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	(E)DP1	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT.
CWP	1	EXISTING	208 V	3	5 A	1.4 kVA	SEE NOTES	20 A	3#12	#12	1/2"C	(E)DP1	EXISTING TO REMAIN AS-IS.
DAC	1	DUCTLESS SPLIT	208 V	1	1 A	0.1 kVA	SEE NOTES	15 A	2#12	#12	1/2"C	2P2	DUCTLESS SPLIT INDOOR SUPPLIED FROM EXTERIOR UNIT. PROVIDE 2#12, #12G, 1/2"C FROM DCU-1 TO MOTOR RATED TOGGLE SWITCH WITH OVERLOAD ELEMENT.
DCU	1	DUCTLESS SPLIT	208 V	1	12 A	2.0 kVA	30/3 N3RSS	15 A	2#12	#12	1/2"C	2P2	
EF	1	KITCHEN HOOD EXHAUST FAN	208 V	3	7 A	2.1 kVA	SEE NOTES	20 A	3#12	#12	1/2"C	2KP	PROVIDE FVNR ENCLOSED MAGNETIC MOTOR STARTER NEMA SIZED AS REQUIRED. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH KITCHEN HOOD PRIOR TO ROUGH-IN.
EF	2	KITCHEN HOOD EXHAUST FAN	120 V	1	14 A	1.4 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH KITCHEN HOOD PRIOR TO ROUGH-IN.
EF	3	EXHAUST FAN	120 V	1	8 A	0.8 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT.
HWP	1	HOT WATER PUMP	208 V	3	5 A	1.4 kVA	SEE NOTES	20 A	3#12	#12	1/2"C	(E)DP1	PROVIDE COMBINATION FVNR ENCLOSED MAGNETIC MOTOR STARTER NEMA SIZED AS REQUIRED.
MD	1	MOTORIZED DAMPER	120 V	1	8 A	0.8 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT.
MD	1	MOTORIZED DAMPER	120 V	1	8 A	0.8 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT.
MD	1	MOTORIZED DAMPER	120 V	1	8 A	0.8 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	2KP	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT.
MD	2	MOTORIZED DAMPER	120 V	1	3 A	0.3 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	(E)LP2	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT.
MD	3	MOTORIZED DAMPER	120 V	1	3 A	0.3 kVA	SEE NOTES	20 A	2#12	#12	1/2"C	(E)DP1	PROVIDE MOTOR RATED POWER RELAY IN NEMA 1 ENCLOSURE FOR CONTROL OF EQUIPMENT.
SF	1	KITCHEN HOOD SUPPLY FAN	208 V	3	5 A	1.5 kVA	SEE NOTES	20 A	3#12	#12	1/2"C	2KP	PROVIDE FVNR ENCLOSED MAGNETIC MOTOR STARTER NEMA SIZED AS REQUIRED. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH KITCHEN HOOD PRIOR TO ROUGH-IN.
WCC	1	WATER COOLED CHILLER	208 V	3	214 A	61.6 kVA	400/3 N3RSS	250 A	3#4/0	#4	2 1/2"C	(E) A	

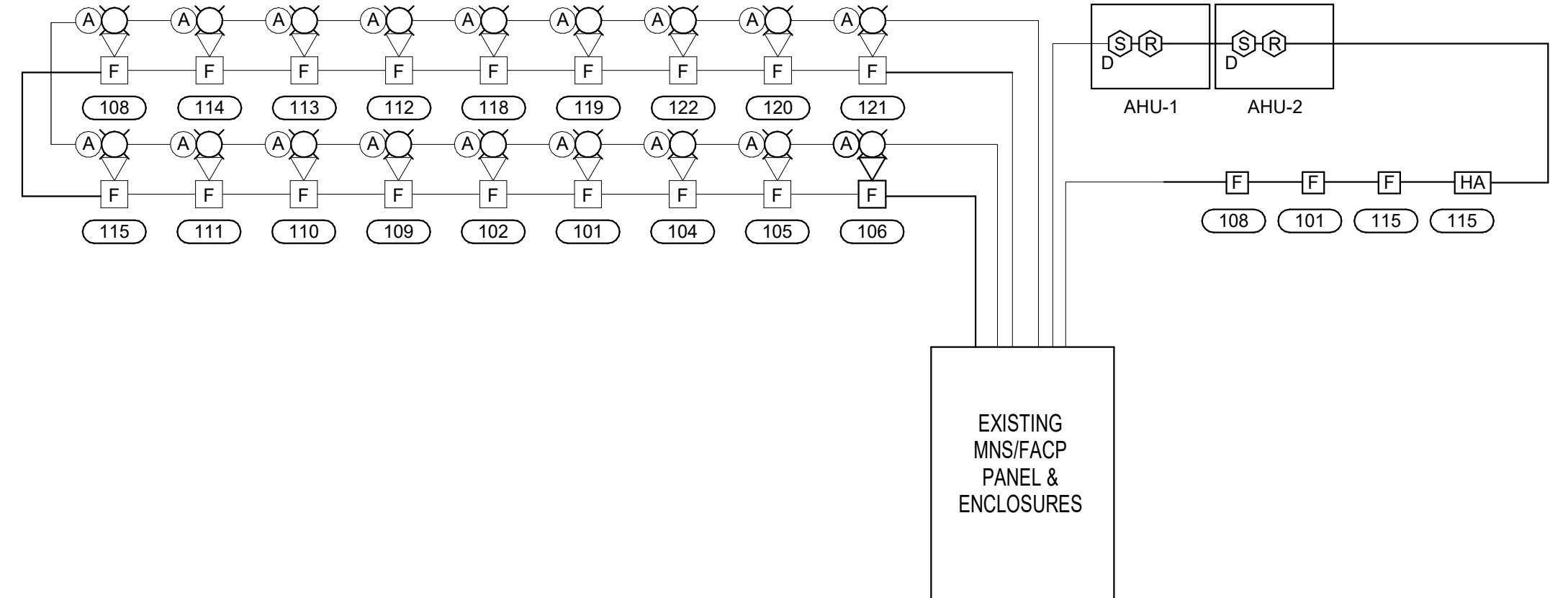


SHEET NOTES

- 1 REFER TO PANELBOARD INFORMATION SCHEDULE FOR FEEDER AND CONDUIT REQUIREMENTS
- 2 EXISTING 225A/3 POLE BREAKER.
- 3 PROVIDE NEW 100A/3 POLE BREAKER.
- 4 DISCONNECT EXISTING CIRCUIT BREAKER #38 AND RELOCATED TO SLOT #2 TO PROVIDE SPACE FOR NEW 100A/3 POLE BREAKER. RECONNECT EXISTING CIRCUIT.



1 ELECTRICAL SINGLE DIAGRAM



2 FIRE ALARM/MNS RISER DIAGRAM

STANDARD D LAYOUT (24" X 36")

APPD	DESCRIPTION	DATE	REV#	APPROVED CHIEF ENGINEER APPROVED CIVIL ENGINEER
	PP1 RESPONSES	2021.06.17	1	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 ELECTRICAL SINGLE LINE DIAGRAM				
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA				
DATE: 03 MAY 2016				
DESIGNED BY: JTH				
DRAWN BY: JTH				
BUILDING NO: 90353				
PROJECT NO: FTEV 12-1164				
SHEET REF: E10				
SHEET NO: 97 of 110				



Branch Panel: 2KP

Location: COOK/PREP 115
Supply From: (E) A
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	EQ-32 BOOSTER HEATER WARE WASH E118	50 A	3	4333...	745 VA			20 A	EQ-34 WARE WASH E118	2	
3	--	--	--		4333... 745 VA			--	--	4	
5	--	--	--			4333... 745 VA		--	--	6	
7	EQ-32 DISHWASHER WARE WASH E118	35 A	3	3000...	1620...			3	20 A EQ-2 WALK-IN COOLER COMPRESSOR	8	
9	--	--	--		3000... 1620...			--	--	10	
11	--	--	--			3000... 1620...		--	--	12	
13	EQ-3 ICE MACHINE Room 190	20 A	3	1767...	2352...			3	30 A EQ-2 WALK IN FREEZER COMPRESSOR	14	
15	--	--	--		1767... 2352...			--	--	16	
17	--	--	--			1767... 2352...		--	--	18	
19	EQ-12 UTILITY DIST. SYSTEM COOK/PREP...	30 A	3	1900...	683 VA			3	20 A EF-1	20	
21	--	--	--		1900... 683 VA			--	--	22	
23	--	--	--			1900... 683 VA		--	--	24	
25	EQ-12 SHUNT TRIP BREAKER	--	--	0 VA	497 VA			3	20 A SF-1	26	
27	EQ-1 AIR CURTAIN COOK/PREP E117	20 A	1		1080... 497 VA			--	--	28	
29	EQ-21 HEATED CABINET COOK/PREP E117	20 A	1			2000... 497 VA		--	--	30	
31	EQ-21 HEATED CABINET COOK/PREP E117	20 A	1	2000...	1600...			1	20 A EF-3	32	
33	EQ-17 REACH-IN REFRIDGERATOR...	20 A	1		960 VA	540 VA		1	20 A Receptacle COOK/PREP 115	34	
35	EQ-16 REACH-IN FREEZER COOK/PREP E117	20 A	1			1380... 1200...		1	20 A HVAC FREEZER 116 CONDENSOR	36	
37	EQ-2 WALK IN LIGHTING REFRIGERATOR E157	20 A	1	1305...	1200...			1	20 A HVAC REFRIGERATOR 117 CONDENSOR	38	
39	EQ-2 FREEZER LIGHTS/DOOR HEATER...	20 A	1		1305... 2190...			1	20 A HVAC Room 119	40	
41	KITCHEN HOOD	20 A	1		1000... 0 VA			1	20 A Spare	42	
43	EQ #13 WORK TABLE	30 A	1	2400...	0 VA			1	20 A Spare	44	
45	EQ #20 WORK COUNTER W/ SINKS	30 A	1		2400... 0 VA			1	20 A Spare	46	
47	Spare	20 A	1			0 VA	0 VA	1	20 A Spare	48	
49	Spare	20 A	1	0 VA	0 VA			1	20 A Spare	50	
51	Spare	--	--		0 VA	0 VA		--	--	52	
53	Spare	--	--			0 VA	0 VA	--	--	54	
55	Spare	--	--	0 VA	0 VA			--	--	56	
57	Spare	--	--		0 VA	0 VA		--	--	58	
59	Spare	--	--			0 VA	0 VA	--	--	60	
Total Load:				25400 VA	25292 VA			22477 VA			
Total Amps:				215 A	214 A			187 A			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	9730 VA	100.00%	9730 VA	Total Conn. Load: 73168 VA Total Est. Demand: 51199 VA
Kitchen Equipment - Non-Dwelling Unit	62770 VA	85.00%	40801 VA	
Lighting	0 VA	0.00%	0 VA	Total Conn.: 203 A Total Est. Demand: 142 A
Other	244 VA	100.00%	244 VA	
Receptacle	540 VA	100.00%	540 VA	

Notes:

Branch Panel: (E)DP1

Location: ELEC E146
Supply From: (E) A
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	NEW HWP-1 (EXISTING 20A/3 POLE BREAKER)	20 A	3	480 VA	480 VA			20 A	EXISTING CHWP	2	
3	--	--	--		480 VA	480 VA		--	--	4	
5	--	--	--			480 VA	480 VA	--	--	6	
7	Receptacle MECH E144	20 A	1	180 VA	0 VA			3	50 A EXISTING SPARE	8	
9	EXISTING SPARE	20 A	1		0 VA	0 VA		--	--	10	
11	EXISTING SPARE	20 A	1			0 VA	0 VA	--	--	12	
13	EXISTING SPARE	20 A	1	0 VA	2387...			3	35 A NEW AHU-1 (NEW 35A/3 POLE BREAKER)	14	
15	EXISTING SPARE	20 A	1		0 VA	2387...		--	--	16	
17	NEW BOILER	20 A	1			640 VA	2387...	--	--	18	
19	--	--	--					--	--	20	
21	--	--	--					--	--	22	
23	--	--	--					--	--	24	
25	--	--	--					--	--	26	
27	--	--	--					--	--	28	
29	--	--	--					--	--	30	
31	--	--	--					--	--	32	
33	--	--	--					--	--	34	
35	--	--	--					--	--	36	
37	NEW BOILER	20 A	1	1200...				--	--	38	
39	--	--	--					--	--	40	
41	--	--	--					--	--	42	
Total Load:				4701 VA	3347 VA	3987 VA					
Total Amps:				40 A	28 A	34 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	11882 VA	100.00%	11882 VA	Total Conn. Load: 12035 VA Total Est. Demand: 33 A
Receptacle	180 VA	100.00%	180 VA	

Notes:

Branch Panel: 2P1

Location: LAUNDRY 120
Supply From: (E) A
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	Electric Clothes Dryer LAUNDRY E145	30 A	2	2500...	1440...			1	20 A Receptacle LAUNDRY E145	2	
3	--	--	--		2500... 1000...			1	20 A WASHER LAUNDRY E145	4	
5	Electric Clothes Dryer LAUNDRY E145	30 A	2			2500... 1000...		1	20 A WASHER LAUNDRY E145	6	
7	--	--	--	2500...	1000...			1	20 A WASHER LAUNDRY E145	8	
9	Electric Clothes Dryer LAUNDRY E145	30 A	2		2500... 1000...			1	20 A WASHER LAUNDRY E145	10	
11	--	--	--			2500... 0 VA		1	20 A Spare	12	
13	Electric Clothes Dryer LAUNDRY E145	30 A	2	2500...	0 VA			1	20 A Spare	14	
15	--	--	--		2500... 0 VA			1	20 A Spare	16	
17	ATU L,M,N	20 A	1			300 VA	0 VA	1	20 A Spare	18	
19	Spare	20 A	1	0 VA	0 VA			--	--	20	
21	Spare	20 A	1		0 VA	0 VA		--	--	22	
23	Spare	20 A	1			0 VA	0 VA	--	--	24	
25	Spare	20 A	1	0 VA	0 VA			--	--	26	
27	Space	--	--		0 VA	0 VA		--	--	28	
29	Space	--	--			0 VA	0 VA	--	--	30	
31	Space	--	--	0 VA	0 VA			--	--	32	
33	Space	--	--		0 VA	0 VA		--	--	34	
35	Space	--	--			0 VA	0 VA	--	--	36	
37	Space	--	--	0 VA	0 VA			--	--	38	
39	Space	--	--		0 VA	0 VA		--	--	40	
41	Space	--	--			0 VA	0 VA	--	--	42	
Total Load:				9940 VA	9500 VA	6257 VA					
Total Amps:				87 A	83 A	52 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Electric Clothes Dryer	20000 VA	100.00%	20000 VA	Total Conn. Load: 25695 VA Total Est. Demand: 25695 VA
HVAC	300 VA	100.00%	300 VA	
Receptacle	5440 VA	100.00%	5440 VA	Total Conn.: 71 A Total Est. Demand: 71 A

Notes:

Branch Panel: 2P2

Location: COMM 111
Supply From: (E) A
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	Receptacle CONFERENCE AREA E136	20 A	1	1440...	1048...			2	20 A DCU/DAC-1	2	
3	Receptacle CONFERENCE AREA E136	20 A	1		1080... 1048...			--	--	4	
5	Receptacle OFFICE E149	20 A	1		1440... 987 VA			1	20 A LIGHTING	6	
7	Receptacle ISO E139	20 A	1	540 VA	602 VA			1	20 A LIGHTING	8	
9	Receptacle DIRECTOR E140	20 A	1		1080... 1440...			1	20 A Receptacle OFFICE E106	10	
11	Receptacle DIRECTOR E140	20 A	1			1080... 400 VA		1	20 A ATU K1,K2,J,J	12	
13	Receptacle RECEPT E108	20 A	1	720 VA	540 VA			1	20 A Receptacle EXTERIOR	14	
15	Receptacle Room E108, 102	20 A	1		1440... 2500...			2	20 A Electric Clothes Dryer COMM 111	16	
17	Receptacle Room 190	20 A	1		900 VA	2500...		--	--	18	
19	Receptacle RECEPT E108	20 A	1	720 VA	360 VA			1	20 A AUTOMATIC DOOR OPENER	20	
21	Receptacle Room E107, E152	20 A	1		540 VA	1800...		20 A	ACCESS CONTROL BARRIER	22	
23	Receptacle FOOD ORDER/ OFFICE E155	20 A	1		540 VA	180 VA		1	20 A Receptacle	24	
25	Receptacle Room E154, E153	20 A	1	360 VA	1080...			1	20 A RECEPT 103	26	
27	Receptacle WARE WASH E118	20 A	1		360 VA	0 VA		1	20 A Spare	28	
29	Receptacle COMM 111	20 A	1		1920...	0 VA		1	20 A Spare	30	
31	Receptacle COMM 111	20 A	1	1920...	0 VA			1	20 A Spare	32	
33	Receptacle COMM 111	20 A	1		1920... 0 VA			1	20 A Spare	34	
35	Receptacle COMM 111	20 A	1			1920... 0 VA		1	20 A Spare	36	
37	Space	--	--	0 VA	0 VA			3	30 A TVSS	38	
39	Space	--	--		0 VA	0 VA		--	--	40	
41	Space	--	--			0 VA	0 VA	--	--	42	
Total Load:				9189 VA	13062 VA	11809 VA					
Total Amps:				77 A	112 A	102 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Electric Clothes Dryer	5000 VA	100.00%	5000 VA	Total Conn. Load: 33912 VA Total Est. Demand: 27338 VA
HVAC	2496 VA	100.00%	2496 VA	
Lighting	0 VA	0.00%	0 VA	Total Conn.: 94 A Total Est. Demand: 76 A
Power	1445 VA	100.00%	1445 VA	
Receptacle	360 VA	100.00%	360 VA	
Spare	23160 VA	71.59%	16580 VA	
Notes:	1800 VA	100.00%	1800 VA	

Notes:



SHEET NOTES

- 1 EXISTING ONEWAY 4" DUCTBANK WITH 3#2 (15KV), 1#2 (600V). DUCTBANK TO BE DEMOLISHED IN ITS ENTIRETY ONCE NEW DUCTBANK HAS BEEN COMPLETED AND NEW FEEDERS HAVE BEEN PULLED. CONTRACTOR SHALL FILL AND PATCH TO MATCH EXISTING CONDITIONS. EXISTING DUCTBANK TO BE ABANDONED IN AREAS LOCATED UNDER EXISTING DRIVEWAY.
- 2 NEW TWO WAY DUCTBANK WITH TWO (2) 5" CONCRETE ENCASED SCHED. 40 PVC CONDUITS. PROVIDE 3#2 (15KV), 1#2 (600V) FROM EXISTING PAD MOUNT JUNCTION CABINET AND TERMINATE AT EXISTING TRANSFORMER. REFER TO DETAIL ON THIS SHEET FOR DUCTBANK REQUIREMENTS.
- 3 EXISTING PAD MOUNT JUNCTION CABINET TO REMAIN AS-IS.
- 4 EXISTING TRANSFORMER TO REMAIN AS-IS. EXISTING PRIMARY TO BE DISCONNECTED ONCE NEW DUCTBANK AND PRIMARY HAS BEEN INSTALLED.

REV.#	DATE	DESCRIPTION
1	2021.06.17	PP1 RESPONSES

APPROVED: CHIEF ENGINEER APPROVED: CIVIL ENGINEER

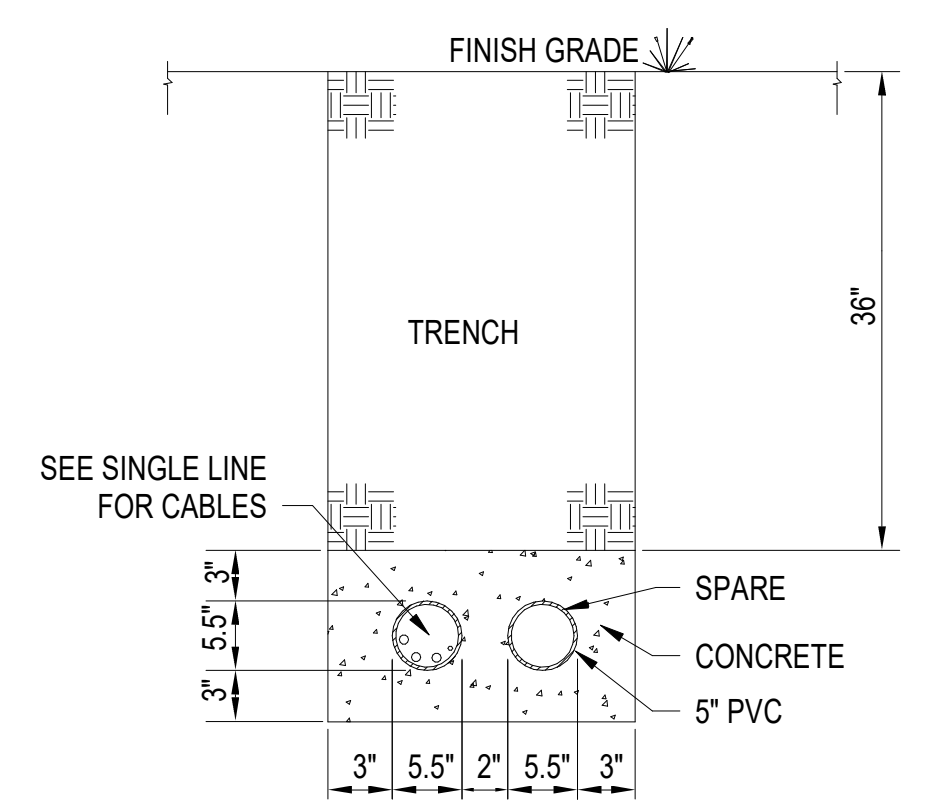
**ADAL CHILD DEVELOPMENT CENTER
BLDG. & REPAIR CHILD DEVELOPMENT
CENTER BLDG. 90353**
ELECTRICAL SITE PLAN

**AIR FORCE SPECIAL
OPERATIONS COMMAND**
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA



DATE: 03 MAY 2016
DESIGNED BY: Designer
DRAWN BY: Author
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: **E12**
SHEET NO: 99 of 110

1 ELECTRICAL SITE PLAN
SCALE: 1/16"=1'-0"



2 PRIMARY DUCT DETAIL
NOT TO SCALE

TELECOMMUNICATIONS LEGEND

- TELECOMMUNICATIONS LEGEND**
- AC** COMMUNICATIONS OUTLET (CO). MOUNT ON WALL AT 18" AFF UNLESS SUBSCRIPTED OTHERWISE. SUBSCRIPTS INDICATE AS FOLLOWS:
(D3V1) AC - MOUNT ABOVE COUNTER. COORDINATE WITH CASEWORK PRIOR TO ROUGH-IN.
 84" - MOUNTING HEIGHT AFF.
 DDC - DIRECT DIGITAL CONTROL, ROUTE CONDUIT TO CABLE TRAY. COORDINATE WITH MECHANICAL CONTRACTOR FOR MOUNTING HEIGHT REQUIREMENTS.
- (D4)** CO TYPE IDENTIFICATION TAG. THE NUMBER AFTER THE D INDICATES THE QUANTITY OF DATA/VOICE JACKS. EACH JACK SHALL HAVE A DEDICATED HORIZONTAL CABLE HOMERUN. SEE TELECOMMUNICATIONS DETAILS AND NOTES FOR COLOR CODING AND OTHER OUTLET REQUIREMENTS.
- WALL PHONE COMMUNICATIONS OUTLET (CO). MOUNT ON WALL AT 48" AFF SUBSCRIPTED OTHERWISE. SUBSCRIPTS INDICATE AS FOLLOWS:**
W - MOUNT AT 48" AFF. PROVIDE (1) DEDICATED HORIZONTAL CABLE HOMERUN. SEE TELECOMMUNICATION DETAILS AND NOTES FOR COLOR CODING AND OTHER OUTLET REQUIREMENTS.
- (U)** CATV OUTLET CONDUIT, BACK BOXES AND PULL STRINGS ONLY. CABLING, TAPS, SPLITTERS, ETC. PROVIDED BY OTHERS.
- (U)** UTILITY FLOOR BOX. SEE DETAILS.
- (PDAV)**
- (J)** JUNCTION BOX REFER TO KEY NOTES
- (S)** CEILING MOUNTED PAGING SPEAKER, REFER TO DETAILS AND SINGLE LINE DIAGRAM.
- (V)** WALL MOUNTED VOLUME CONTROL SWITCH. MOUNT AT 48" AFF. REFER TO DETAILS AND SINGLE LINE DIAGRAM.
- (D)** IDS DOOR CONTACT ROUGH-IN. HOMERUN CONDUIT TO SERVING IDS PANEL. REFER TO DETAIL.
- CABLE TRAY.**
- CONDUIT TERMINATION TO INSULATED BUSHING.**
- (1)** SHEET NOTE TAG.
- LEADERS.**

DIVISION 27 CONTRACTOR RESPONSIBILITIES AND COORDINATION NOTE

THIS LIST IS NOT COMPREHENSIVE. THE STRUCTURED CABLING SYSTEM CONTRACTOR (SCSC) SHALL BE RESPONSIBLE FOR ANY ADDITIONAL REQUIREMENTS SHOWN ON THE TELECOMMUNICATIONS DRAWINGS AND/OR REQUIRED TO PROVIDE A COMPLETE SYSTEM.

1. **GROUNDING:**
 THE ELECTRICAL CONTRACTOR (EC) SHALL BE RESPONSIBLE FOR INSTALLING THE GROUNDING BUSBARS AS SHOWN ON THE DRAWINGS AND CONNECTING THEM TO THE BUILDINGS MAIN ELECTRICAL SERVICE GROUND. THE EC SHALL ALSO BE RESPONSIBLE FOR ALL BONDING BACKBONES AND GROUNDING ALL BACKBONE CONDUIT AND CABLE TRAY. THE STRUCTURED CABLING SYSTEM CONTRACTOR (SCSC) SHALL BE RESPONSIBLE FOR GROUNDING ALL RACKS, VOICE BLOCKS, PROTECTOR BLOCKS, CABLE LADDER TRAY IN COMMUNICATION ROOMS TO THE LOCAL TGB IN THE TR.

2. **FIRESTOPPING:**
 THE EC SHALL BE RESPONSIBLE FOR FIRESTOPPING SLEEVE ASSEMBLIES TO OBTAIN A UL RATING. THE SCSC SHALL BE RESPONSIBLE FOR FIRESTOPPING INSIDE THE RACEWAYS AFTER INSTALLATION OF CABLING IS COMPLETE.

3. **RACEWAYS:**
 THE EC SHALL BE RESPONSIBLE FOR ALL BACKBONE CONDUIT, HORIZONTAL CONDUIT, CABLE TRAYS (EXCEPT PERIMETER CABLE TRAYS AND LADDER TRAYS IN TRs) AND CABLING PATHWAYS. THIS IS TO INCLUDE ALL INTERIOR AND EXTERIOR CONDUIT, ALL WALL PENETRATIONS AND CONDUIT SLEEVES WHETHER SHOWN ON THE DRAWINGS OR AS REQUIRED TO PENETRATE FULL HEIGHT PARTITIONS AS SHOWN ON THE ARCHITECTURAL DRAWINGS. CONDUIT PATHWAYS SHALL INCLUDE ALL DEVICE BOXES, PULLBOXES, PULLTAPE, PULLSTRINGS, CONDUIT MARKINGS, ETC. PROVIDE END BUSHINGS ON ALL CONDUIT. THE SCSC SHALL BE RESPONSIBLE FOR THE FOLLOWING ITEMS IN TELECOMMUNICATIONS ROOMS ONLY: RUNWAYS, PERIMETER CABLE TRAY, D-RINGS, CABLE TIES AND/OR ANY OTHER REQUIREMENTS FOR ROUTING AND SECURING CABLE IN THE TELECOMMUNICATIONS ROOMS. THE SCSC SHALL PROVIDE ANY INNERDUCT IN BACKBONE CONDUITS AS REQUIRED IN THE SPECIFICATIONS AND DRAWINGS.

4. **COMMUNICATIONS CABLING:**
 THE SCSC SHALL BE RESPONSIBLE FOR PROVIDING, INSTALLING, TERMINATING, TESTING AND LABELING ALL COMMUNICATIONS CABLES.

5. **COMMUNICATIONS WORK AREA OUTLETS:**
 THE EC SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL CONDUIT AND BACKBOXES ASSOCIATED WITH THE WAOs. SCSC SHALL PROVIDE ALL CABLING, OUTLET DEVICES AND FACEPLATES.

6. **BACKBOARDS:**
 THE SCSC SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL BACKBOARDS AS SHOWN ON THE DRAWINGS AND AS REQUIRED TO PROVIDE A COMPLETE SYSTEM. THE EC SHALL BE RESPONSIBLE FOR ROUGH-IN OF ELECTRICAL CONDUIT PRIOR TO INSTALLATION OF BACKBOARDS. ALL POWER CONDUIT SHALL BE CONCEALED IN WALL BEHIND ALL BACKBOARDS. BACKBONE CONDUIT SHALL BE EXPOSED.

7. **INTERBUILDING & EXTERIOR WORK:**
 7.1. COORDINATE ALL WORK WITH THE APPROPRIATE PROVIDERS.

ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
 AFG ABOVE FINISHED GRADE
 BLDG BUILDING
 C CONDUIT
 CFGI CONTRACTOR FURNISHED GOVERNMENT INSTALLED
 CL CENTERLINE
 CLG CEILING
 CO COMMUNICATIONS OUTLET
 EC ELECTRICAL CONTRACTOR
 EF ENTRANCE FACILITY
 EX EXISTING TO REMAIN
 EMT ELECTRICAL METALLIC TUBING
 FACP FIRE ALARM SYSTEM CONTROL PANEL
 FLR FLOOR
 GND GROUND
 GEC GROUNDING ELECTRODE CONDUCTOR
 JB JUNCTION BOX
 MCE MAIN COMMUNICATIONS EQUIPMENT ROOM
 M/M MULTIMODE
 MNT MOUNTING HEIGHT
 NEC NATIONAL ELECTRICAL CODE
 NIC NOT IN CONTRACT
 GFOI GOVERNMENT FURNISHED GOVERNMENT INSTALLED
 GFCI GOVERNMENT FURNISHED CONTRACTOR INSTALLED
 RM ROOM
 RGS RIGID GALVANIZED STEEL CONDUIT
 RNC RIGID NON-METALLIC CONDUIT
 SCSC STRUCTURED CABLING SYSTEM CONTRACTOR
 S/M SINGLEMODE
 TR TELECOMMUNICATIONS ROOM
 TMGB TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
 TYP TYPICAL
 UL UNDERWRITERS' LABORATORIES
 UNO UNLESS NOTED OTHERWISE
 WAO WORK AREA OUTLET

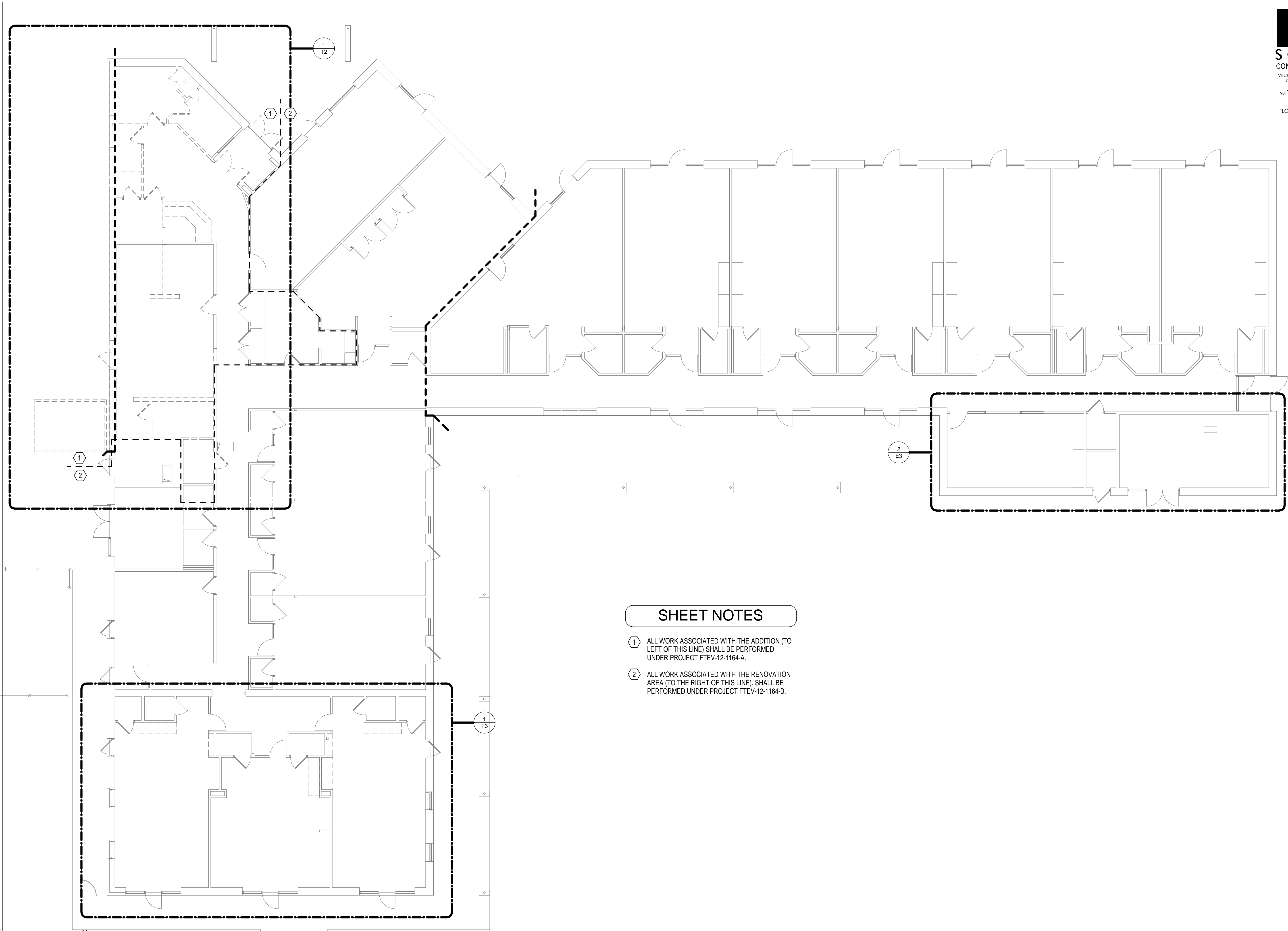
CABLE TRAY NOTE

- ANY CABLES INSTALLED IN CABLE TRAY SYSTEMS NOT SPECIFICALLY SHOWN ON THESE DRAWINGS SHALL BE APPROVED BY THE OWNER/ENGINEER PRIOR TO INSTALLATION.
- COMPONENTS AND INSTALLATION SHALL COMPLY WITH NFPA 70 "NATIONAL ELECTRICAL CODE".
- COORDINATE CABLE TRAY INSTALLATION WITH MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, DUCTWORK, CONDUITS, PIPING AND ALL OTHER TRADES PRIOR TO ORDERING AND INSTALLING.
- ALL CABLE TRAY COMPONENTS SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER.
- INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- REMOVE BURRS AND SHARP EDGES.
- MAKE CHANGES IN HEIGHT AND DIRECTION WITH STANDARD CABLE TRAY FITTINGS.
- FIRESTOP AT PENETRATIONS OF FIRE AND SMOKE BARRIERS.
- INSTALL TRAYS WITH AS MUCH AS POSSIBLE WORKING SPACE TOP AND BOTH SIDES FOR CABLE INSTALLATION.
- ELECTRICALLY GROUND CABLE TRAYS AND ENSURE CONTINUOUS ELECTRICAL CONDUCTIVITY OF CABLE TRAY SYSTEM. PROVIDE BONDING JUMPERS BETWEEN CABLE TRAY SECTIONS. PROVIDE A #4 AWG GROUNDING CONDUCTOR FOR EACH RUN OF CABLE TRAY - ATTACH TO TRAY WITH COMPRESSION GROUND LUG - RUN CONTINUOUS IN EMT CONDUIT AND BOND TO BUILDING MAIN ELECTRICAL SERVICE GROUND.
- SUBMIT CUT SHEETS OF ALL CABLE TRAY COMPONENTS TO ENGINEER PRIOR TO ORDERING MATERIALS.

FIRESTOPPING NOTE

THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF ALL FLOORS AND ALL WALLS WHICH EXTEND TO THE UNDERSIDE OF THE FLOOR OR ROOF DECK ABOVE. FIRESTOPPING SHALL BE ACCOMPLISHED AFTER ALL CABLES ARE PULLED (ALL SYSTEMS) USING UL CLASSIFIED SYSTEMS WITH FIRE RATING EQUAL TO OR GREATER THAN THE FIRE RATING OF THE FLOOR OR WALL ASSEMBLY PENETRATED. FIRESTOP SYSTEMS SHALL BE 3M, NELSON OR ENGINEER APPROVED EQUAL. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. THE CONTRACTOR SHALL SUBMIT A MANUFACTURER'S STANDARD DETAIL FOR EACH TYPE OF FLOOR AND WALL PENETRATION REQUIRED FOR THIS PROJECT. ALL OTHER PENETRATIONS OR OPENINGS IN NON-FIRE RATED WALLS SHALL BE REPAIRED AND SEALED WITH MATERIALS TO MATCH THE EXISTING CONSTRUCTION.

APPD	DESCRIPTION	DATE	REV #	APPROVED	TELECOMMUNICATIONS LEGEND AND NOTES
	PPR RESPONSES	2021.06.17	1	CHIEF ENGINEER APPROVED CIVIL ENGINEER	ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353
					AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA
					DATE: 03 MAY 2016
					DESIGNED BY: CEC
					DRAWN BY: CEC
					BUILDING NO: 90353
					PROJECT NO: FTEV 12-1164
					SHEET REF: TO
					SHEET NO: 100 of 110



SHEET NOTES

- ① ALL WORK ASSOCIATED WITH THE ADDITION (TO LEFT OF THIS LINE) SHALL BE PERFORMED UNDER PROJECT FTEV-12-1164-A.
- ② ALL WORK ASSOCIATED WITH THE RENOVATION AREA (TO THE RIGHT OF THIS LINE), SHALL BE PERFORMED UNDER PROJECT FTEV-12-1164-B.

1 OVERALL TELECOMMUNICATIONS DEMO PLAN

8' 0' 8' 16'

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

STANDARD D LAYOUT (24" X 36")

APPROVED	REV #	DATE	DESCRIPTION	APP'D
CHIEF ENGINEER APPROVED				
CIVIL ENGINEER				

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353

OVERALL TELECOMMUNICATIONS DEMO PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 03 MAY 2016

DESIGNED BY: CEC

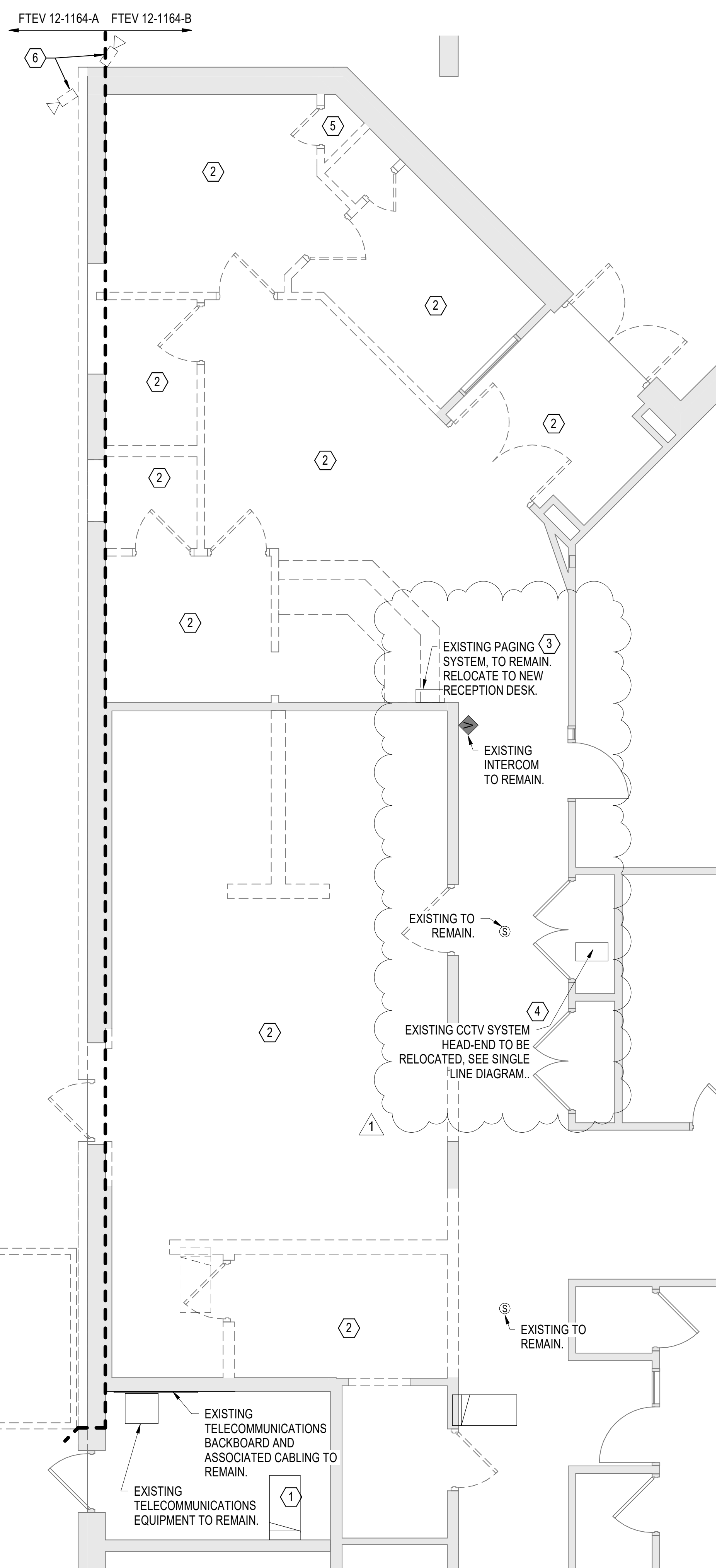
DRAWN BY: CEC

BUILDING NO: 90353

PROJECT NO: FTEV 12-1164

SHEET REF: **T1**

SHEET NO: 101 of 110



DEMOLITION SHEET NOTES

- 1 EXISTING TELECOMMUNICATIONS ROOM SHALL REMAIN OPERATIONAL. REFER TO TELECOMMUNICATIONS PLANS FOR EXISTING LAYOUT AND NEW WORK. COORDINATE WITH GOVERNMENT 4 WEEKS PRIOR TO ANY WORK WITHIN THIS AREA. GOVERNMENT TO INSTALL NEW FIBER AND COPPER TO NEW TELECOMMUNICATIONS ROOM 111. REFER TO SINGLE LINE DIAGRAM.
- 2 DEMOLISH ALL EXISTING TELECOMMUNICATIONS HORIZONTAL AND SPEAKER CABLING. CONDUIT, DEVICES, ETC SERVING SPACES UNLESS OTHERWISE NOTED.
- 3 EXISTING PAGING SYSTEM TO REMAIN AND BE PROTECTED. REFER TO NEW WORK PLAN FOR RELOCATION.
- 4 EXISTING CCTV SYSTEM TO REMAIN AND BE PROTECTED. REFER TO NEW WORK PLAN AND SINGLE LINE DIAGRAM FOR RELOCATION INFORMATION.
- 5 EXISTING TELECOMMUNICATIONS ROOM. GOVERNMENT SHALL BE CONTACTED 4 WEEKS PRIOR TO DEMOLITION. GOVERNMENT SHALL MOVE AND RELOCATE EXISTING TELECOMMUNICATIONS ROOM INFRASTRUCTURE TO NEW COMMUNICATIONS ROOM.
- 6 CONTRACTOR SHALL SALVAGE EXISTING CAMERA TO L TO ALLOW FOR DEMOLITION OF WEST WALL. SEE NEW WORK PLAN FOR RE-INSTALLATION LOCATION.

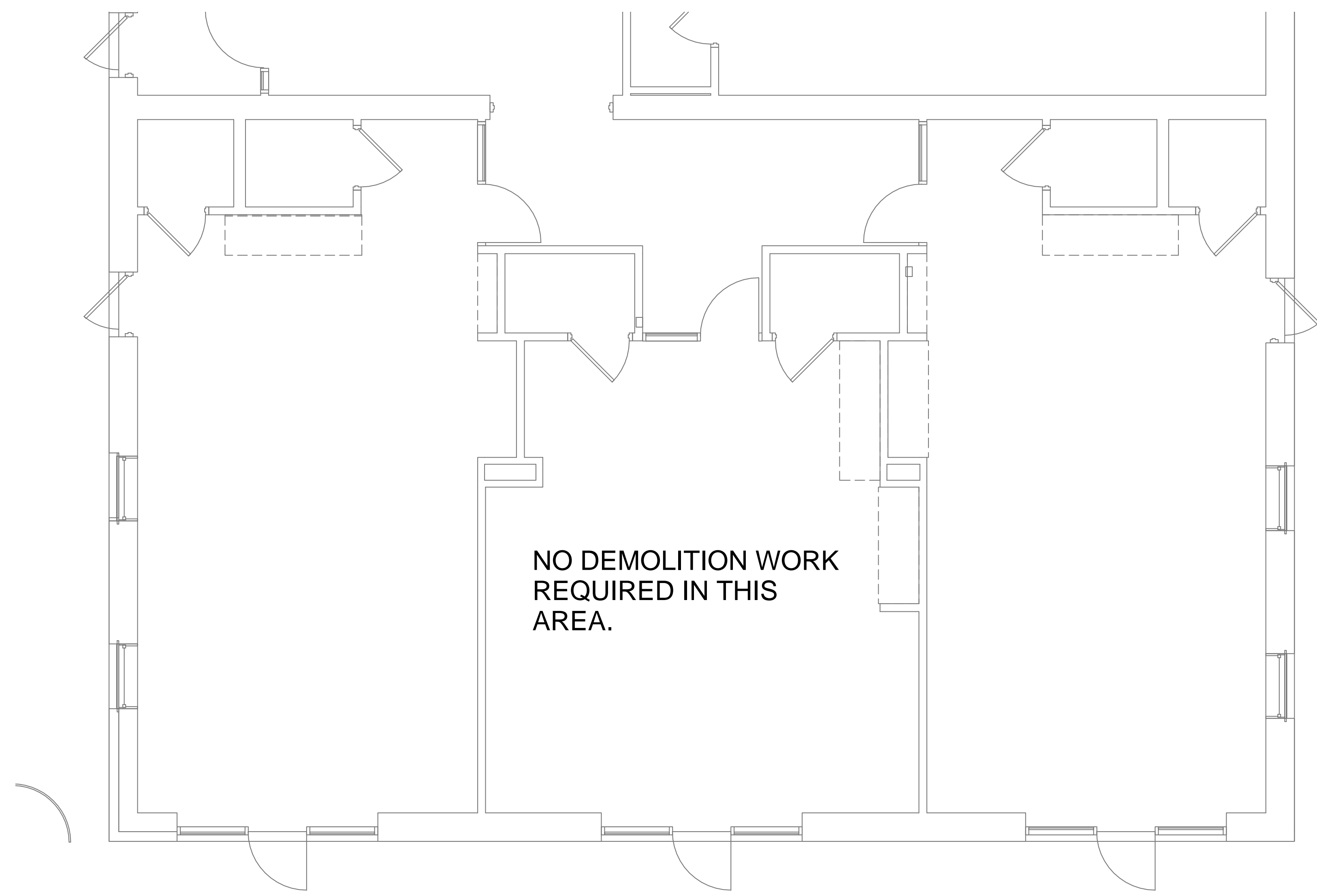
DEMOLITION GENERAL NOTES

NOTIFY BASE COMM ONCE 4" CONDUIT HAS BEEN INSTALLED (SEE SHEET T5) SO BASE COMM CAN START CROSSING OVER OUTSIDE PLANT INFRASTRUCTURE. DO NOT CUT CABLES. BASE COMM WILL PERFORM THE REMOVAL OF CABLING WITHIN THE DEMOLISHED AREA TO FACILITATE THE REMOVAL OF THE OLD 4" CONDUIT INTO THE BUILDING.

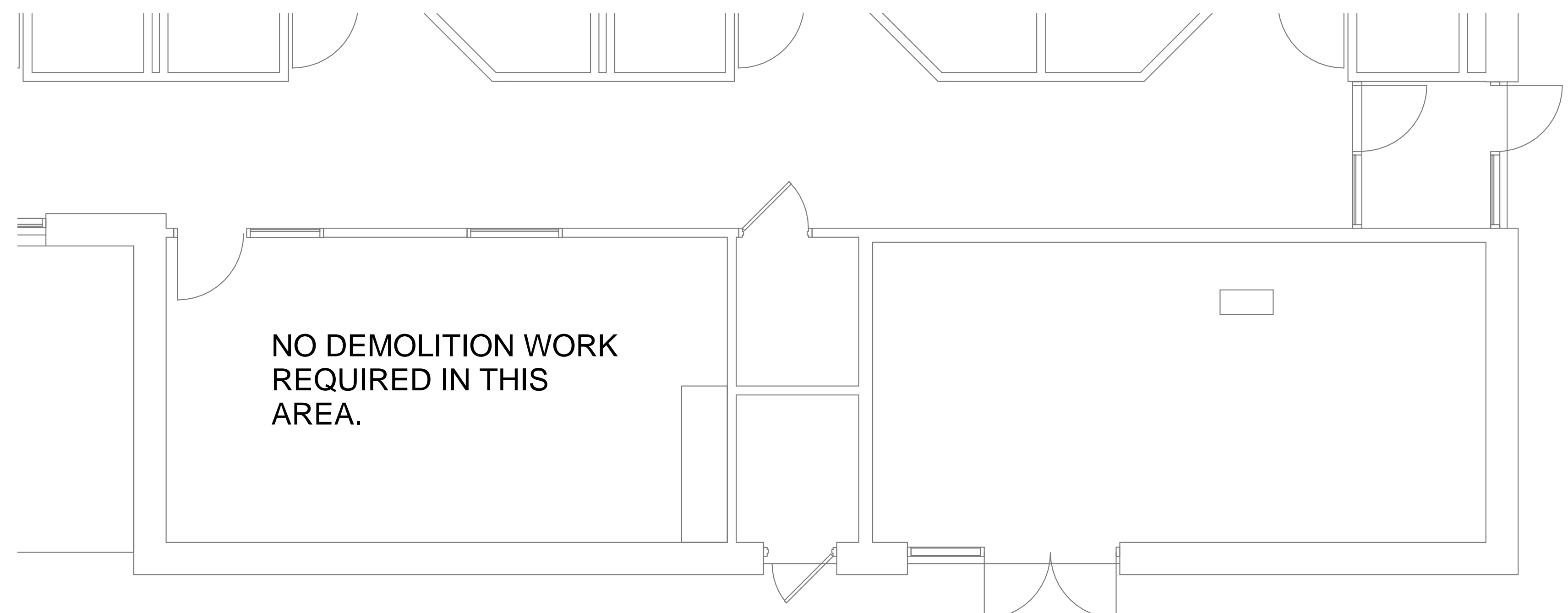
1 ENLARGED TELECOMMUNICATIONS DEMO PLAN A
SCALE: 1/8"=1'-0"

STANDARD D LAYOUT (24" X 36")

APPROVED	DESCRIPTION	DATE	REV #	APPD
CHIEF ENGINEER	PP1 RESPONSES	2021.06.17	1	
APPROVED				
CIVIL ENGINEER				
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353				
ENLARGED TELECOMMUNICATIONS DEMO PLAN A				
AIR FORCE SPECIAL OPERATIONS COMMAND				
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA				
DATE: 03 MAY 2016				
DESIGNED BY: CEC				
DRAWN BY: CEC				
BUILDING NO: 90353				
PROJECT NO: FTEV 12-1164				
SHEET REF: T2				
SHEET NO: 102 of 110				



1 ENLARGED TELECOMMUNICATIONS DEMO PLAN B
 SCALE: 1/4"=1'-0"



2 ENLARGED TELECOMMUNICATIONS DEMO PLAN C
 SCALE: 1/4"=1'-0"

STANDARD LAYOUT (24" X 36")

DESCRIPTION	DATE	REV #	APPROVED	APPROVED
			CHIEF ENGINEER	APPROVED
			CIVIL ENGINEER	

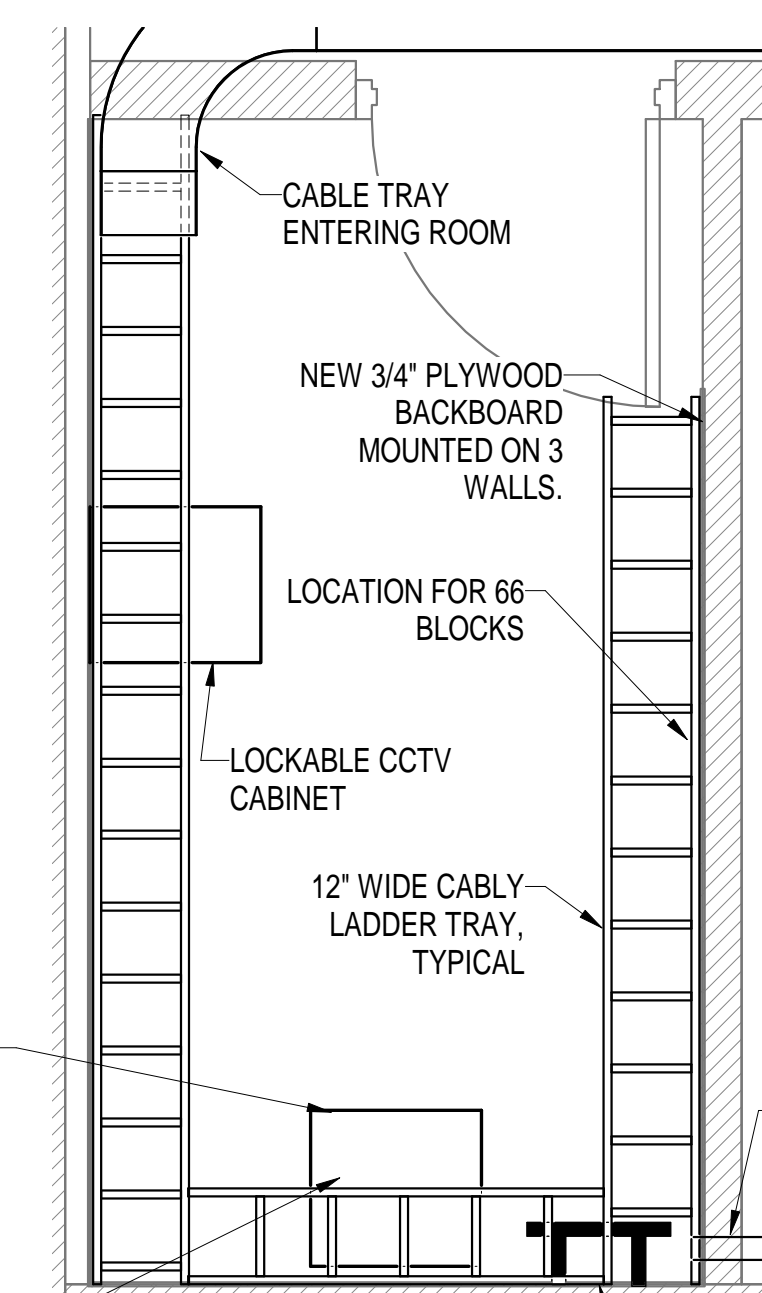
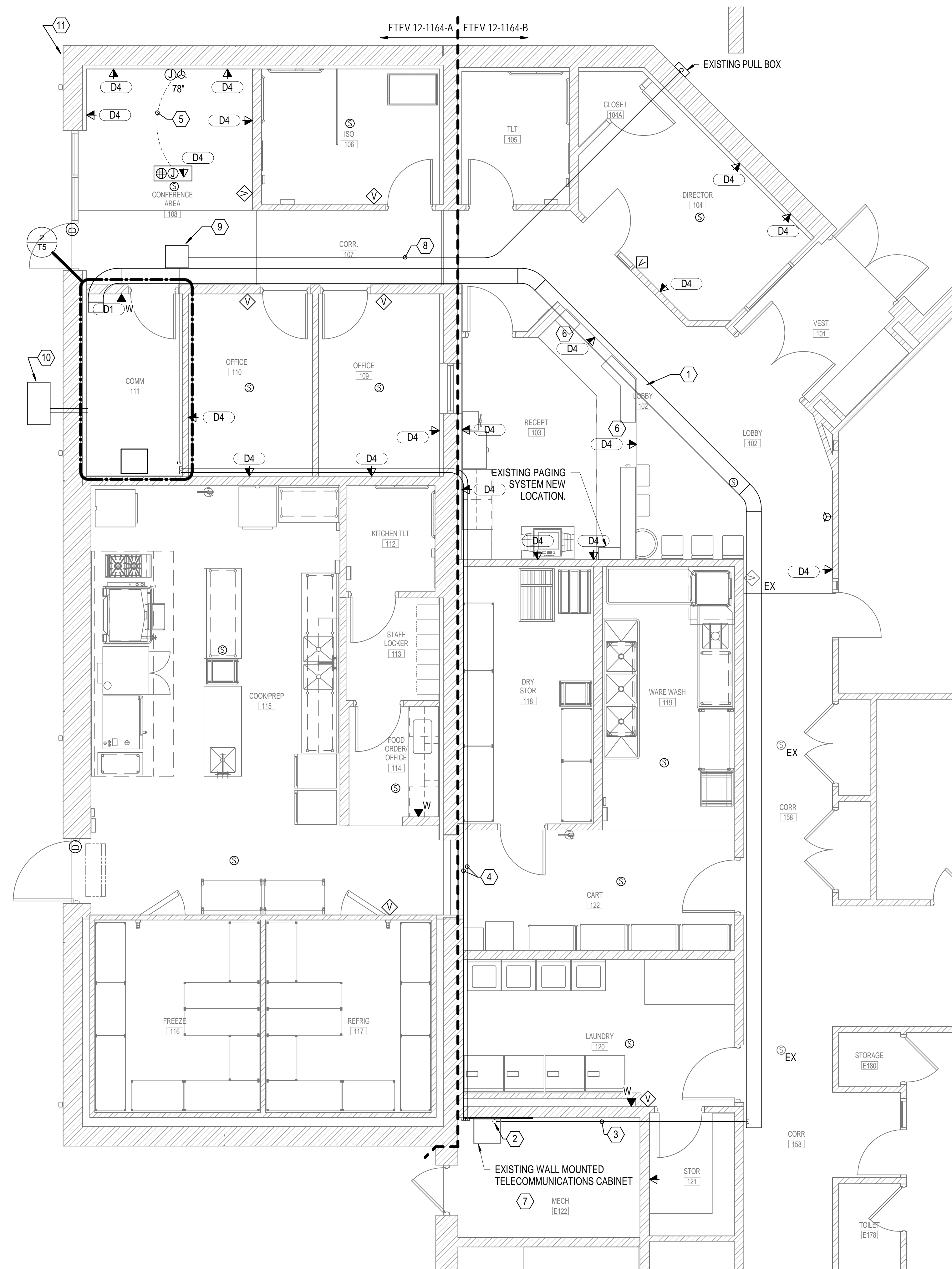
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353	ENLARGED TELECOMMUNICATIONS DEMO PLAN B & C
---	---

AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA
--

DATE: 03 MAY 2016
DESIGNED BY: CEC
DRAWN BY: CEC
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: T3
SHEET NO: 103 of 110

SHEET NOTES

- 1 12" CABLE TRAY, WIRE MESH TYPE, 4" SIDE RAIL. MOUNT ABOVE LAY-IN CEILING IN APPROXIMATE LOCATIONS INDICATED. SUPPORT FROM STRUCTURE AT A MINIMUM OF 8'-0" ON CENTER AND WITHIN 1'-0" OF EACH END WITH TWO 1/2" DIAMETER ALL THREAD RODS AND HANGER KITS. USE TRAPEZE HANGER FOR CABLE TRAY. DO NOT CENTER MOUNT HANGER. HANGER SHALL SUPPORT FULL WIDTH OF CABLE TRAY AND BE HUNG FROM CEILING WITH ALL THREAD RODS. FOR HORIZONTAL TEES AND 90 DEGREE TURNS FOR CABLE TRAY, FIELD CUT AND FABRICATED. PROVIDE RADIAL SWEEPING TURNS. SEE CABLE TRAY NOTES.
- 2 (1) 3" CONDUITS STUBBED DOWN 4" BELOW ACCESSIBLE CEILING. PROVIDE END BELL PUSHING.
- 3 (1) 3" CONDUITS ROUTED ABOVE ACCESSIBLE CEILING FOR COMMUNICATIONS CABLING. COORDINATE WITH ALL RESPECTIVE DISCIPLINES. FIRESTOP/SEAL PENETRATIONS AS REQUIRED. REFER TO FIRESTOPPING NOTES ON PLANS AND SPECIFICATIONS.
- 4 (2) 3" CONDUITS ROUTED ABOVE ACCESSIBLE CEILING FOR GFGI COMMUNICATIONS CABLING. PROVIDE A 1-1/2" INNERDUCT WITHIN (1) OF THE (2) CONDUITS. COORDINATE WITH ALL RESPECTIVE DISCIPLINES. FIRESTOP/SEAL PENETRATIONS AS REQUIRED. REFER TO FIRESTOPPING NOTES ON PLANS AND SPECIFICATIONS.
- 5 PROVIDE (1) 1-1/2" CONDUIT BELOW FLOOR BETWEEN FLOORBOX AND WALL MOUNTED JUNCTION BOX (4x4) MOUNTED AT 78" AFF AND CONTINUE TO ABOVE ACCESSIBLE CEILING TURN CONDUIT WITH INSULATED BUSHING AND PROVIDE PULL STRING. PROVIDE BLANK PLATE ON JUNCTION BOX. REFER TO FLOOR BOX DETAILS.
- 6 INSTALL COMMUNICATIONS OUTLET IN CASEWORK BELOW COUNTER AS DIRECTED IN FIELD. RUN CABLES CONCEALED IN CASEWORK. HOMERUN (1) 1" SCHEDULE 40 PVC CONDUIT FROM UNDERFLOOR TO NEAREST WALL. TURN UP CONCEALED IN WALL TO 4" ABOVE FLOOR. CONVERT TO EMT, THEN RUN CONCEALED UP IN WALL AND OVERHEAD ABOVE ACCESSIBLE CEILING. SEE UNDERGROUND CABLING TRANSITION DETAIL.
- 7 TELECOMMUNICATIONS CABLING AND EQUIPMENT SHALL REMAIN AND PROTECTED THROUGHOUT CONSTRUCTION.
- 8 (1) 4" CONDUIT ROUTED ABOVE ACCESSIBLE CEILING FOR GFGI COMMUNICATIONS CABLING. ROUTE CONDUIT FROM EXISTING EXTERIOR MOUNTED PULL BOX, AND ROUTE UP WALL AND PUNCH THROUGH ABOVE ACCESSIBLE CEILING. ROUTE TO NEW TELECOMMUNICATIONS ROOM AND TURN DOWN 1" ABOVE CABLE LADDER TRAY. PROVIDE (1) 3" 3-CELL MAXCELL MESH INNERDUCT WITHIN THE 4" CONDUIT. COORDINATE WITH ALL RESPECTIVE DISCIPLINES. FIRESTOP/SEAL PENETRATIONS AS REQUIRED. REFER TO FIRESTOPPING NOTES ON PLANS AND SPECIFICATIONS.
- 9 PROVIDE A 18"x18"x12" PULL BOX WITH COVER.
- 10 PROVIDE A 30"W X 17"L X 24"D HANDHOLE WITH (2) 4" CONDUITS AT 36" BELOW GARDPROVIDE. PROVIDE WARNING PROTECTION TAPE 12" BELOW GRADE. TURN CONDUITS UP 4" ABOVE FINISHED FLOOR.
- 11 RE-INSTALL SALVAGED CAMERA ON NEW FASCA. RE-CONNECT CAMERA TO CCTV SYSTEM AND ENSURE PROPER OPERATION.



PROVIDE 7' ENCLOSED LOCKABLE CABINET W/ INTERNAL VERT. WIRE MANAGEMENT ON BOTH SIDES. PROVIDE MIN OF 250 CFM FAN.

PROVIDE DEDICATED 20 AMP CIRCUIT WITHIN GFCI RACK..

(2) 3" BACKBONE CONDUITS ENTERING ROOM ABOVE ACCESSIBLE CEILING.

TELECOMMUNICATIONS GROUNDING BUSBAR MOUNTED AT 18"



1 ENLARGED TELECOMMUNICATIONS NEW WORK PLAN A
SCALE: 1/8"=1'-0"

APPROVED	REV #	DATE	DESCRIPTION	APP'D
APPROVED				
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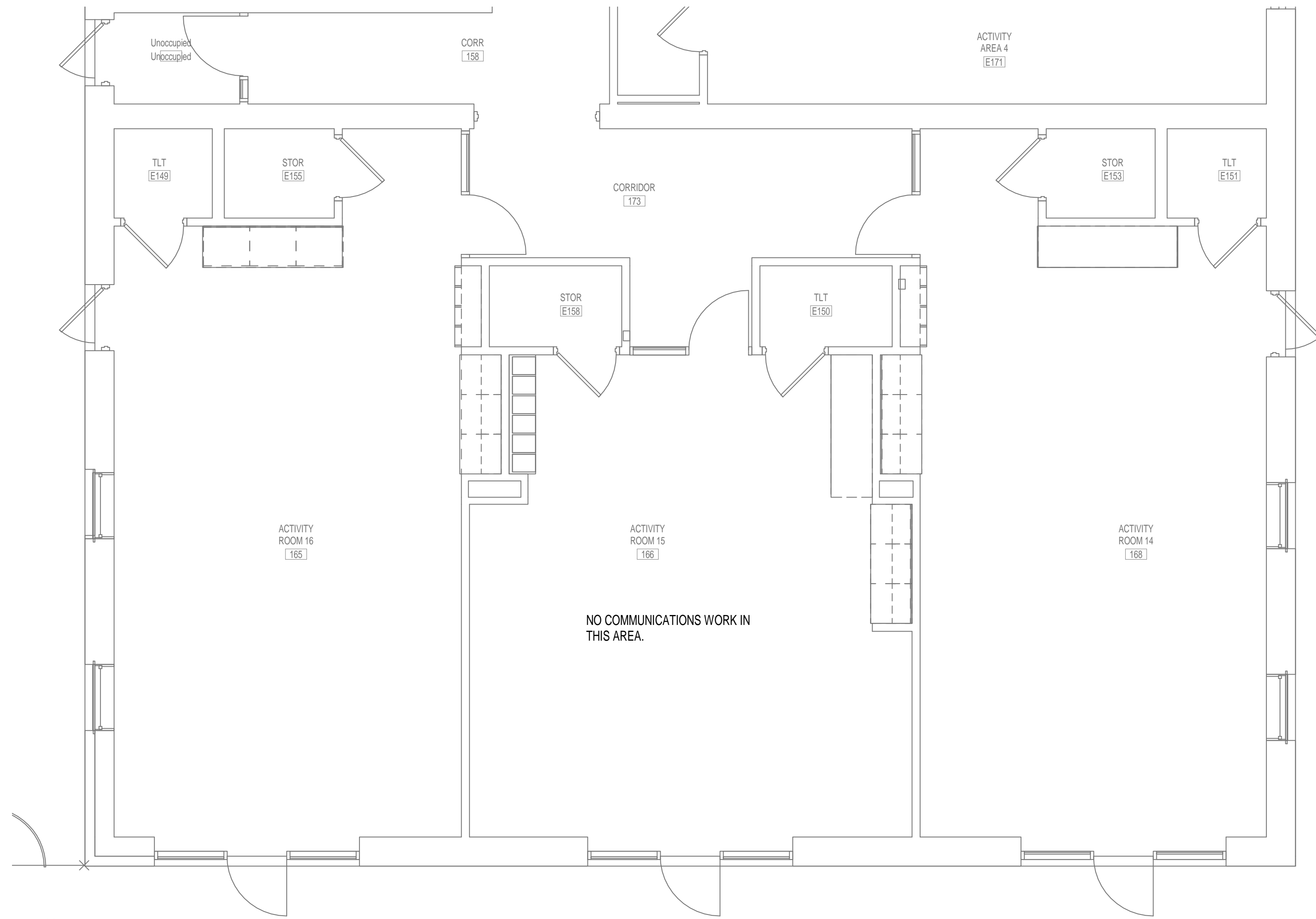
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

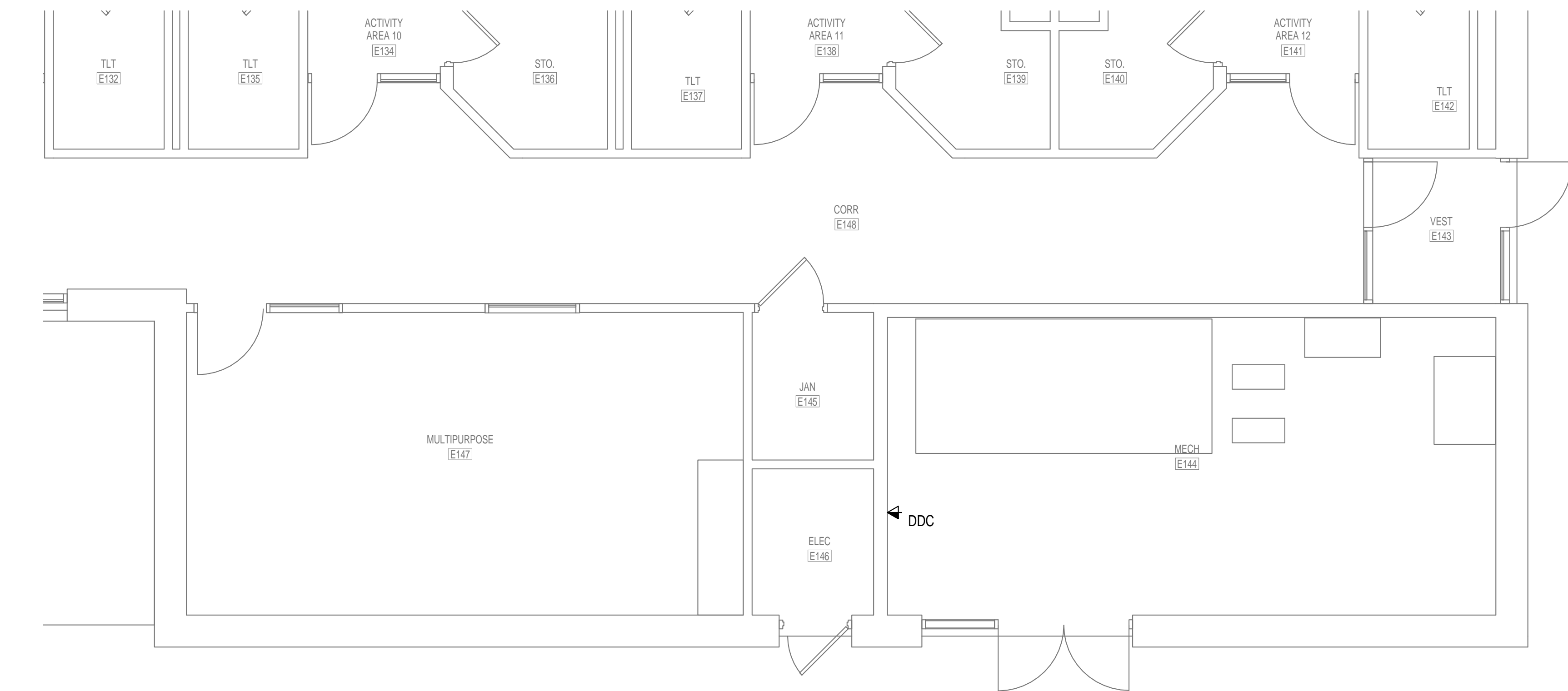
ENLARGED TELECOMMUNICATIONS NEW WORK PLAN A

DATE: 03 MAY 2016
DESIGNED BY: CEC
DRAWN BY: CEC
BUILDING NO: 90353
PROJECT NO: FTEV 12-1164
SHEET REF: **T5**
SHEET NO: 105 of 110

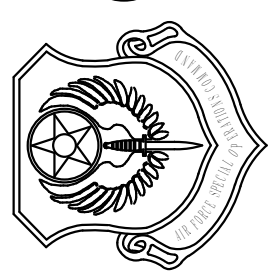
STANDARD LAYOUT (24" X 36")



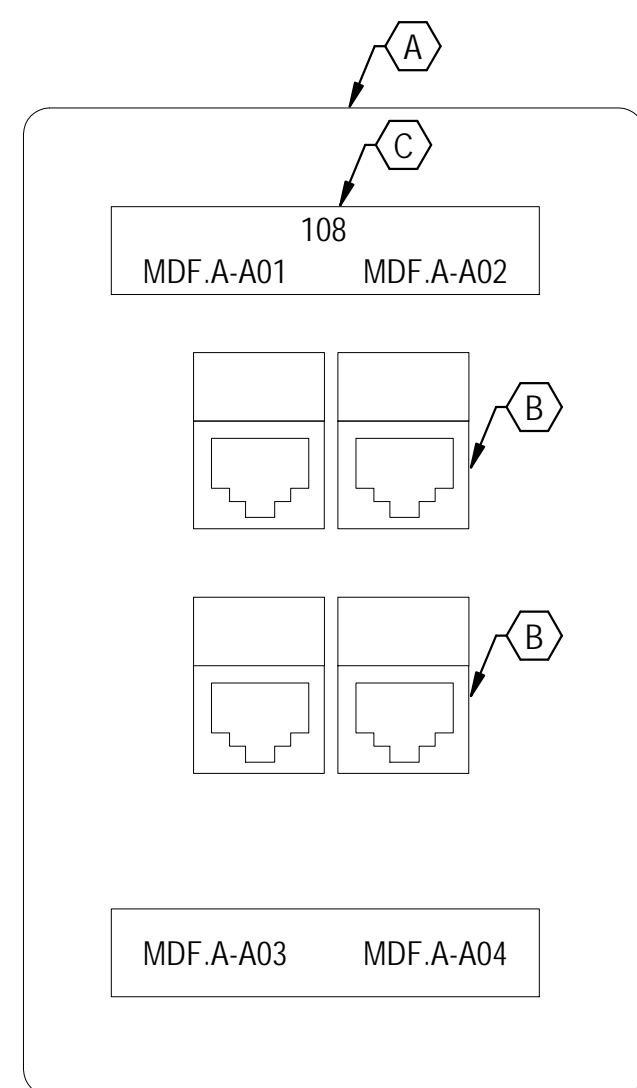
N
1
ENLARGED TELECOMMUNICATIONS NEW WORK PLAN B
8' 0' 8' 16'
SCALE: 1/8"=1'-0"



N
2
ENLARGED TELECOMMUNICATIONS NEW WORK PLAN C
8' 0' 8' 16'
SCALE: 1/8"=1'-0"

APPROVED	DESCRIPTION	DATE	REV #	APPROVED	DESCRIPTION
CHIEF ENGINEER APPROVED				CHIEF ENGINEER APPROVED	
CIVIL ENGINEER				CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353					
ENLARGED TELECOMMUNICATIONS NEW WORK PLAN B & C					
AIR FORCE SPECIAL OPERATIONS COMMAND					
1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA					
					
DATE: 03 MAY 2016					
DESIGNED BY: CEC					
DRAWN BY: CEC					
BUILDING NO: 90353					
PROJECT NO: FTEV 12-1164					
SHEET REF: T6					
SHEET NO: 106 of 110					

ALL WORK ON THIS SHEET
TO BE PART OF FTEV 12-
1164-B



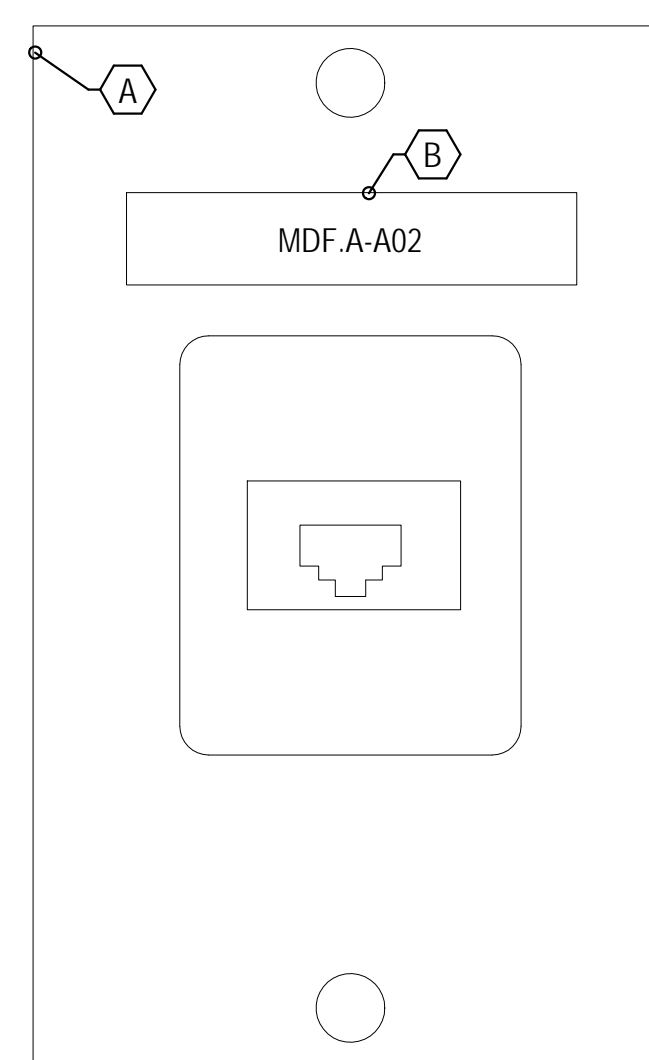
TYPE "D4" CO KEY NOTES:

- A COMMUNICATIONS OUTLET FACEPLATE, (COORDINATE COLOR WITH CONTRACTING OFFICER).
- B SNAP-IN COUPLER WITH 8-PIN MODULAR JACK ASSEMBLY. PROVIDE TWO PER COMMUNICATIONS OUTLET. COUPLERS COLOR TO BE BLACK IN COLOR.
- C COMMUNICATIONS OUTLET IDENTIFIER (SEE "CO IDENTIFICATION NOMENCLATURE") ON LASER PRINTED INSERT UNDER FACTORY PLASTIC COVER.

TYPE "D4" CO GENERAL NOTES:

- 1) SECURE CAT 6 CABLES TO JACK ASSEMBLIES USING FACTORY FURNISHED CABLE-TIE EYELETS AND CABLE TIES FOR CABLE MANAGEMENT AND STRAIN RELIEF. CONFORM TO MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
- 2) SEE TYPICAL CO MOUNTING DETAILS FOR INSTALLATION OF COMMUNICATIONS OUTLETS.
- 3) CABLING SHALL BE HOMERUN TO HORIZONTAL PATCH PANELS

1 TYPE "D4" COMMUNICATIONS OUTLET (CO) FACEPLATE DETAIL



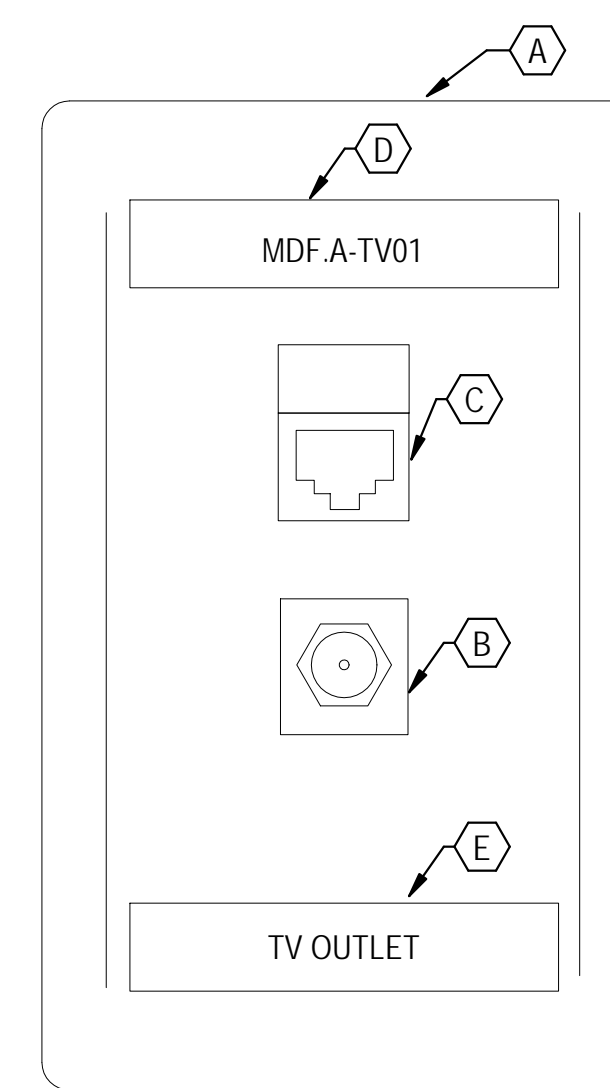
WALL MOUNT PHONE KEY NOTES:

- A STAINLESS STEEL WALL PLATE, SINGLE GANG, SINGLE JACK, WITH LUGS FOR WALL PHONE MOUNTING. PROVIDE WITH 8-PIN (RJ45) MODULAR JACK ASSEMBLY.
- B PROVIDE COMPONENT LABELING AND SECURE TO JACK.

WALL PHONE GENERAL NOTES:

- 1) CABLING SHALL BE HOMERUN TO 66 BLOCKS.

2 WALL MOUNT PHONE OUTLET DETAIL



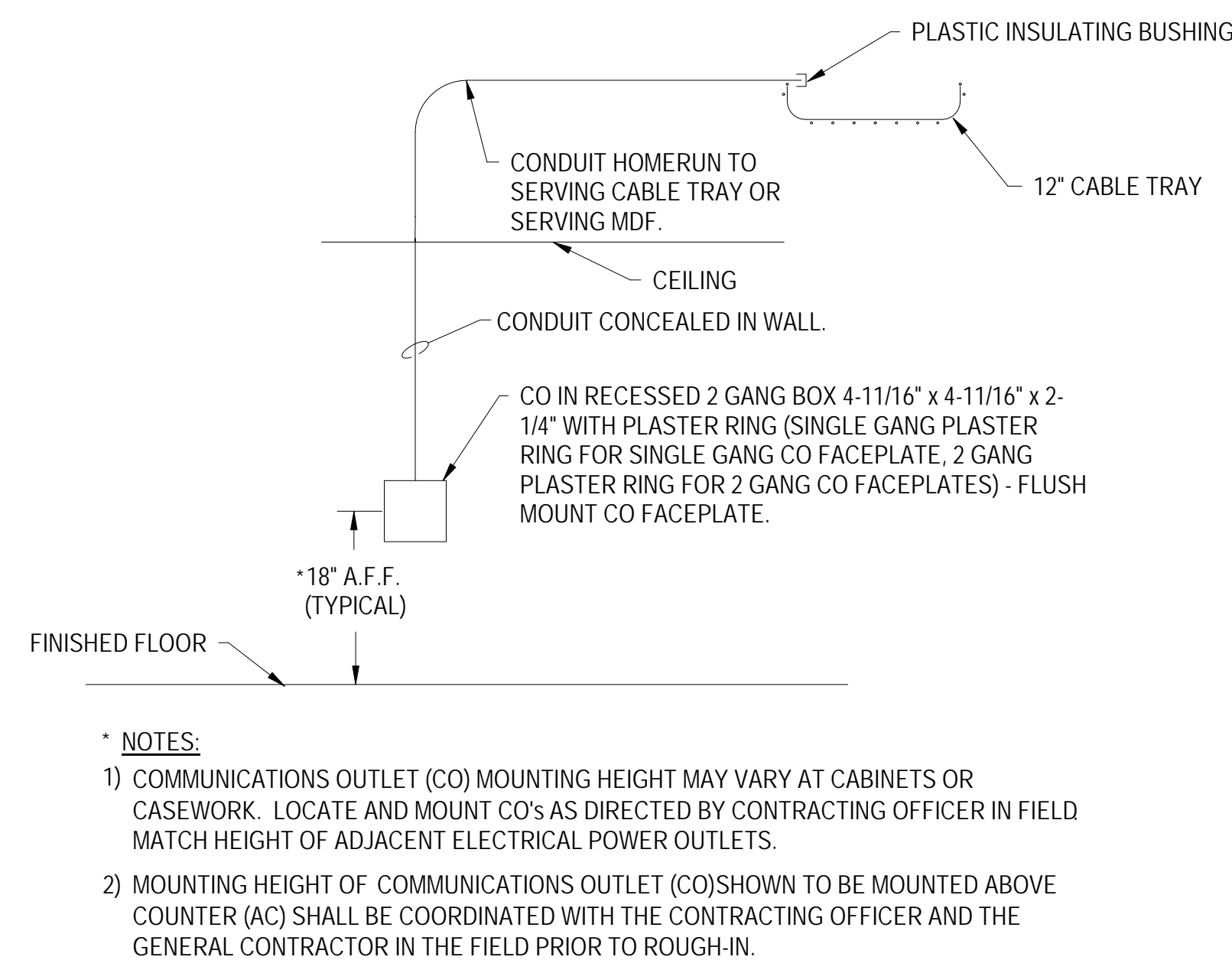
TYPE "TV" CO KEY NOTES:

- A COMMUNICATIONS OUTLET FACEPLATE, (COORDINATE COLOR WITH CONTRACTING OFFICER).
- B SNAP-IN MODULE WITH ONE "F"-TYPE VIDEO CONNECTOR ASSEMBLY - (COORDINATE COLOR WITH CONTRACTOR OFFICER).
- C SNAP-IN COUPLER WITH 8-PIN MODULAR JACK ASSEMBLY. PROVIDE ONE PER OUTLET. COUPLER COLOR TO BE BLACK IN COLOR.
- D TV OUTLET IDENTIFIER ON LASER PRINTED INSERT UNDER FACTORY PLASTIC COVER. PRINT LABELS USING FACTORY SOFTWARE. TEXT SHALL BE 12 POINT ARIAL.
- E TV OUTLET DESIGNATION ON LASER PRINTED INSERT UNDER FACTORY PLASTIC COVER. PRINT LABELS USING FACTORY SOFTWARE. TEXT SHALL BE 12 POINT ARIAL.

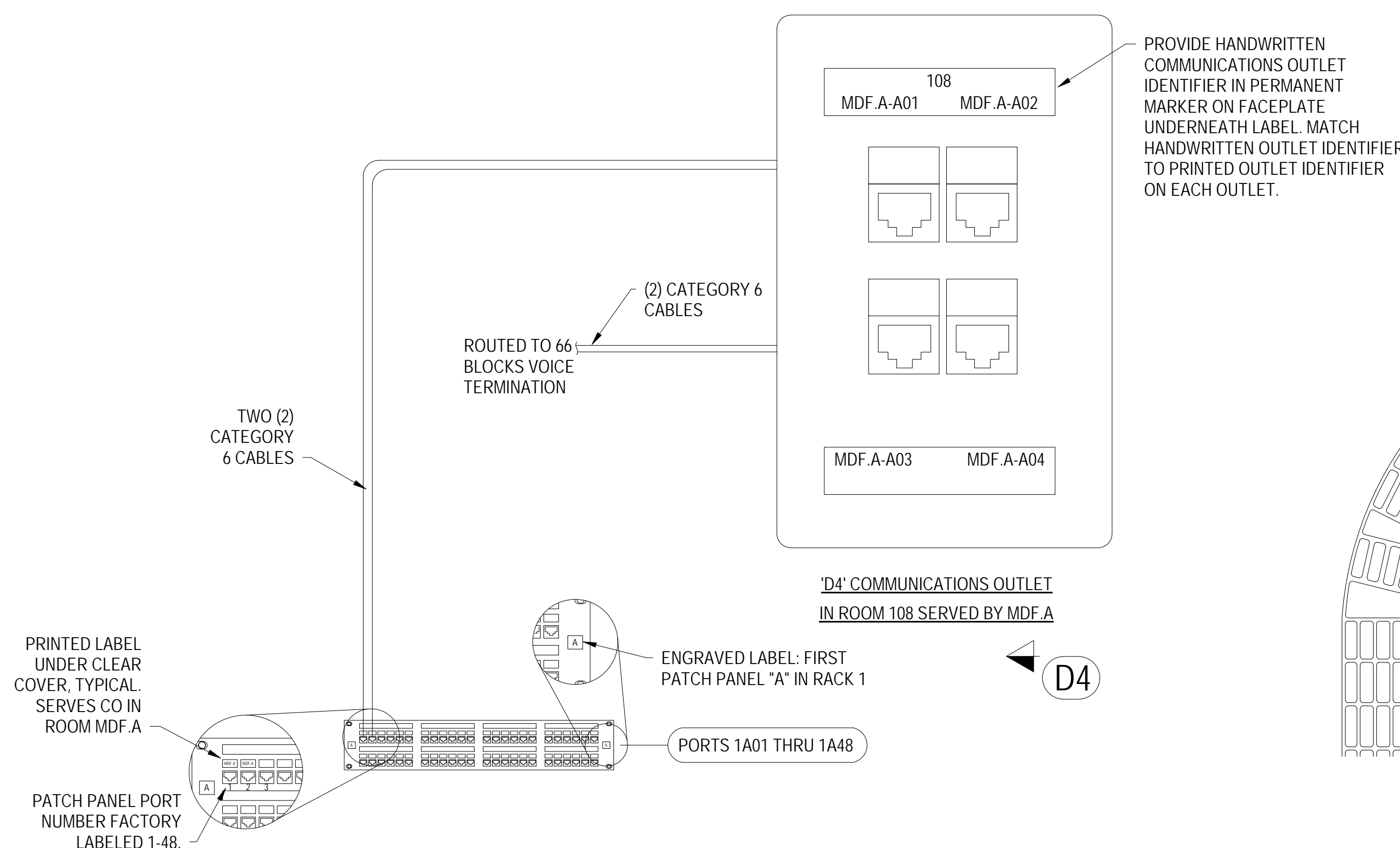
TYPE "TV" GENERAL NOTES:

- 1) LOCATE ADJACENT TO POWER RECEPTACLE
- 2) CABLING SHALL BE HOMERUN TO HORIZONTAL PATCH PANELS.

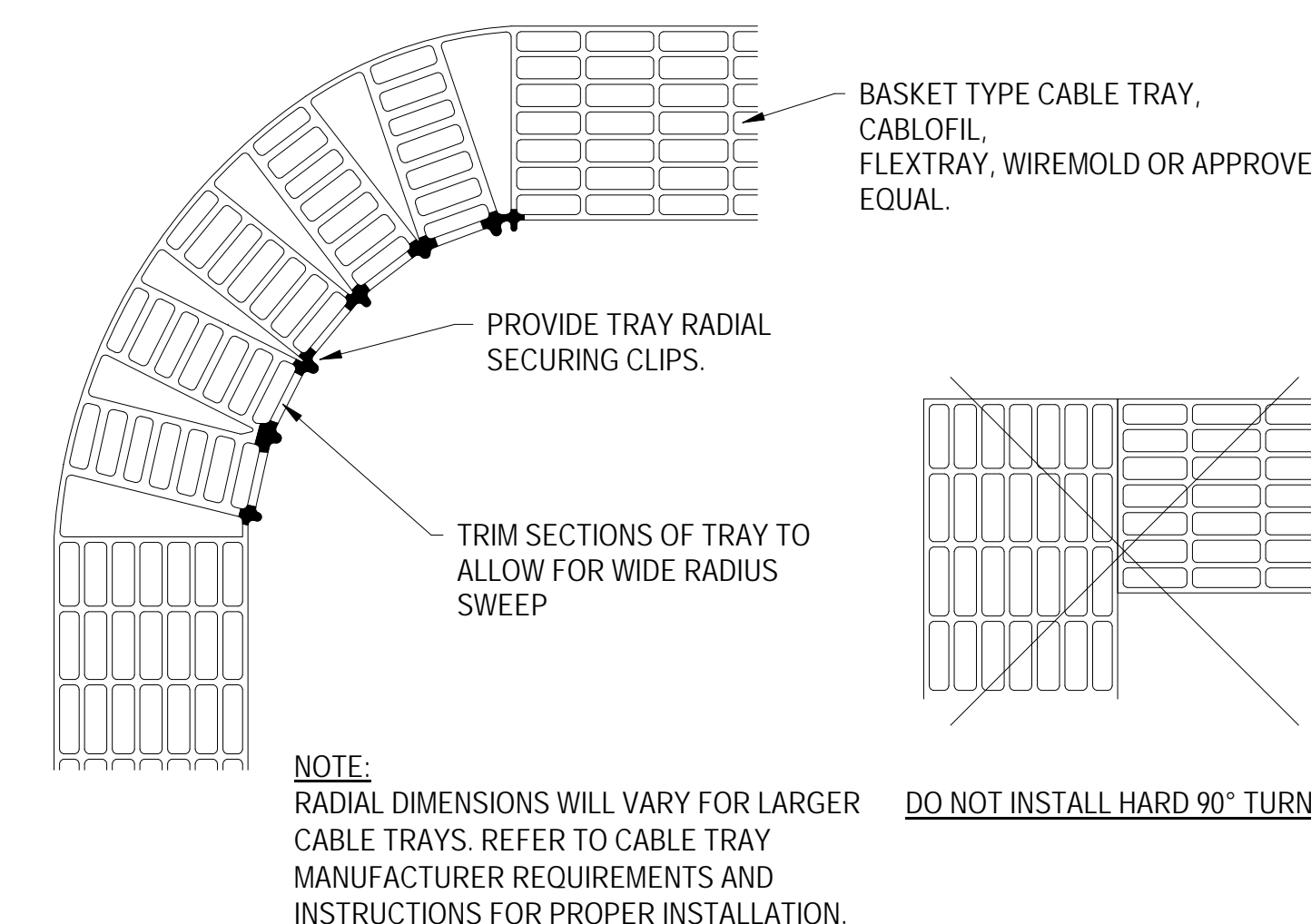
3 TYPE "TV" TELEVISION OUTLET



4 TYPICAL COMMUNICATIONS OUTLET (CO) MOUNTING

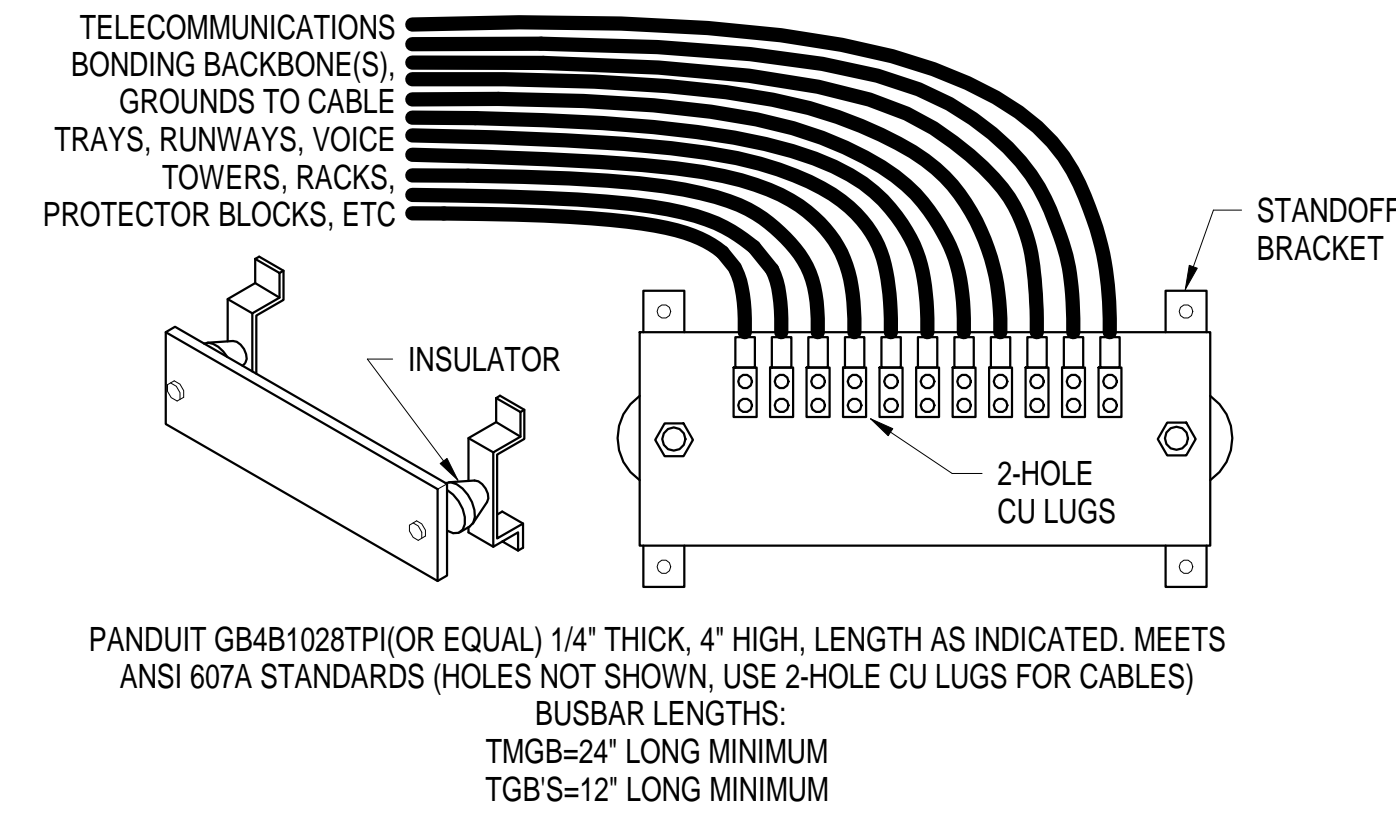


5 TYPICAL TIA/EIA 606B LABELING FROM MDF TO COMMUNICATIONS OUTLET

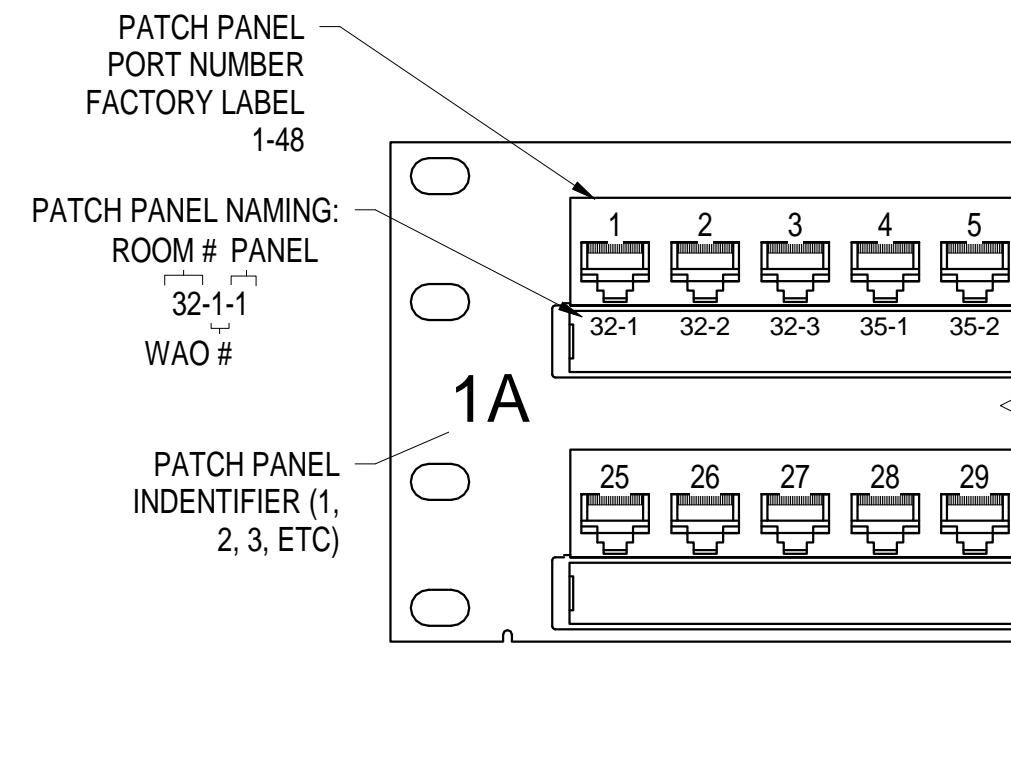


6 CABLE TRAY SWEEPING BEND

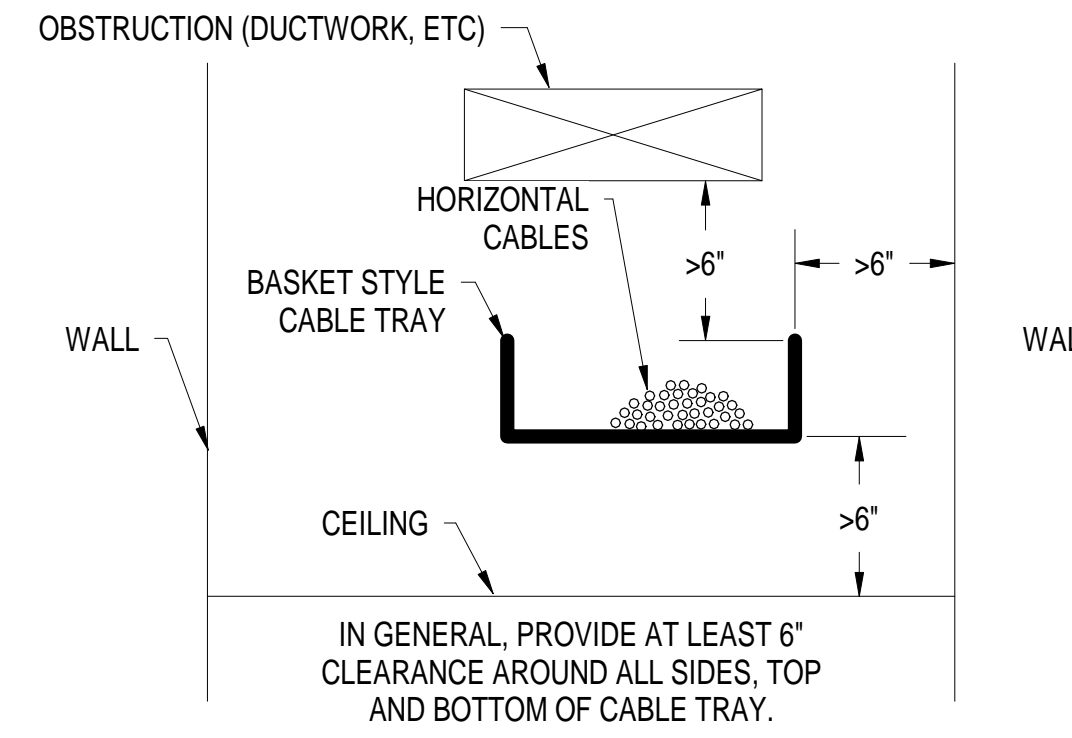
APPROVED	CHIEF ENGINEER	APPROVED	CIVIL ENGINEER
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353 TELECOMMUNICATIONS DETAILS			
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA			
DATE:	03 MAY 2016		
DESIGNED BY:	CEC		
DRAWN BY:	CEC		
BUILDING NO:	90353		
PROJECT NO:	FTEV 12-1164		
SHEET REF:	T7		
SHEET NO:	107 of 110		



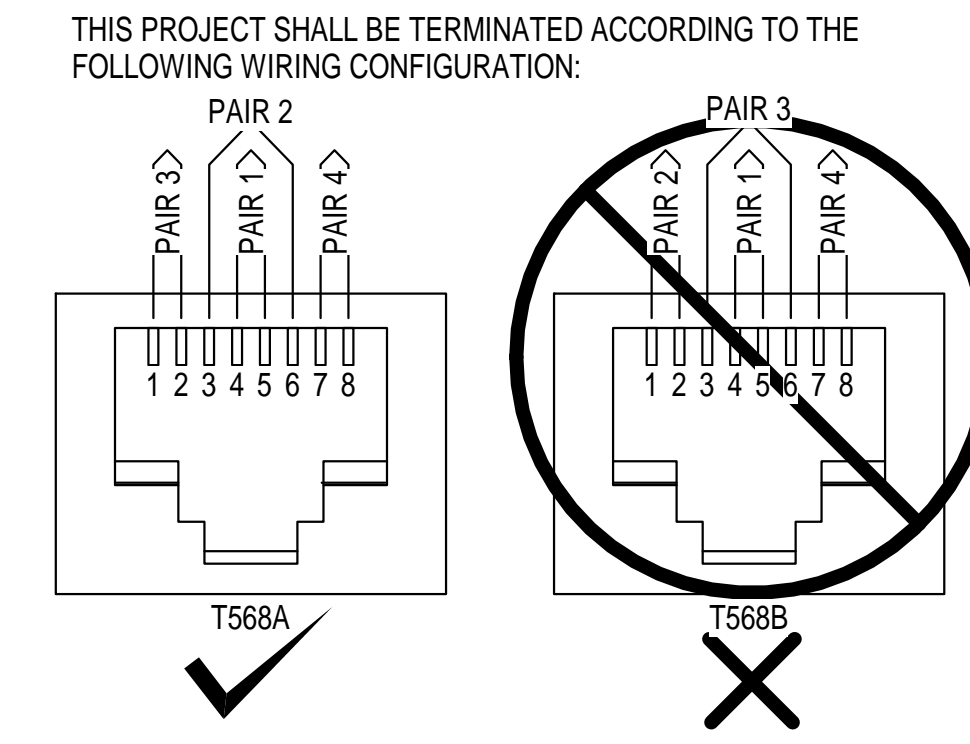
1 TMGB/TGB DETAIL



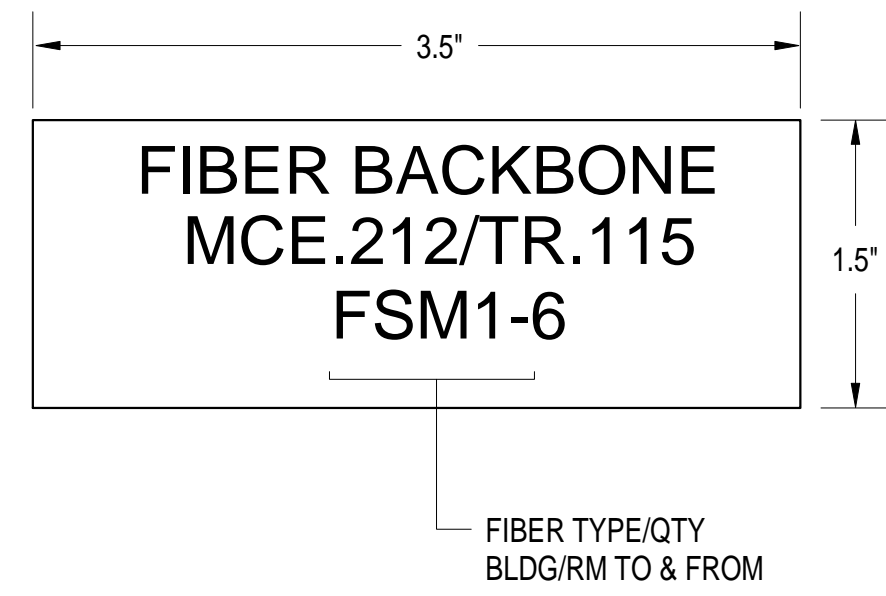
2 PATCH PANEL LABELING DETAIL



3 CABLE TRAY CLEARANCE DETAIL

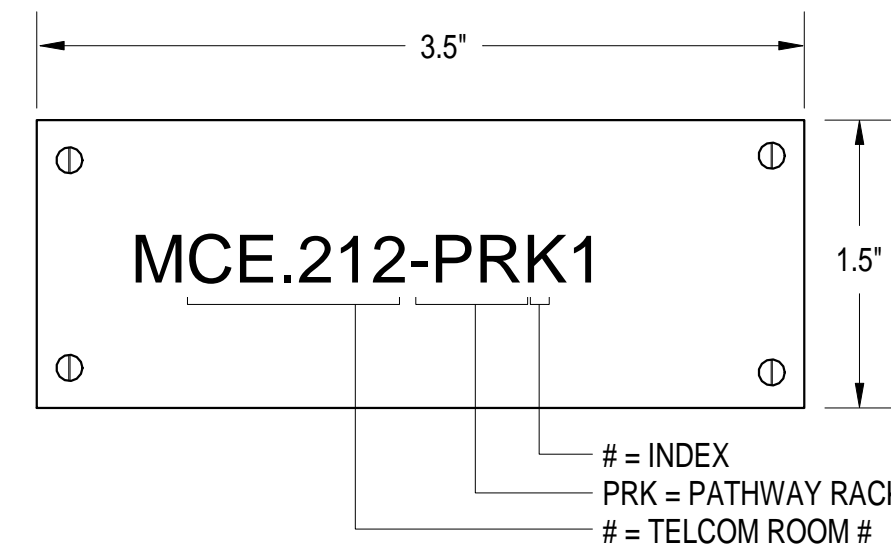


4 WIRING TERMINATION STYLE DETAIL



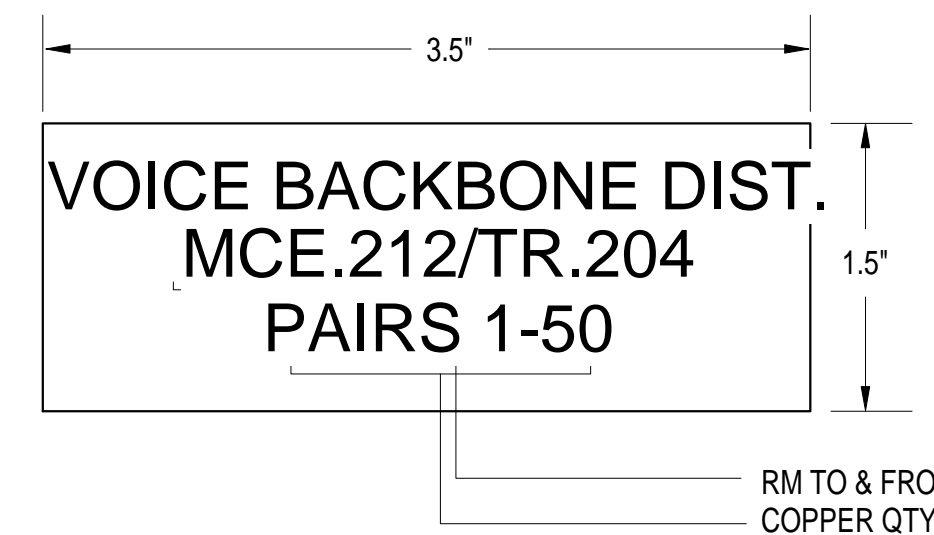
ENGRAVED PLASTIC TAG WITH 1/4\"/>

5 TYPICAL FIBER DRAWER LABEL DETAIL



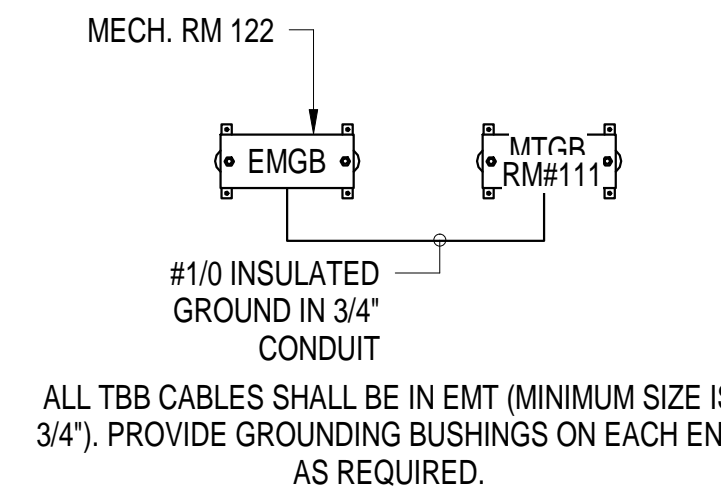
ENGRAVED PLASTIC TAG WITH 1/4\"/>

6 TYPICAL RACK LABEL DETAIL

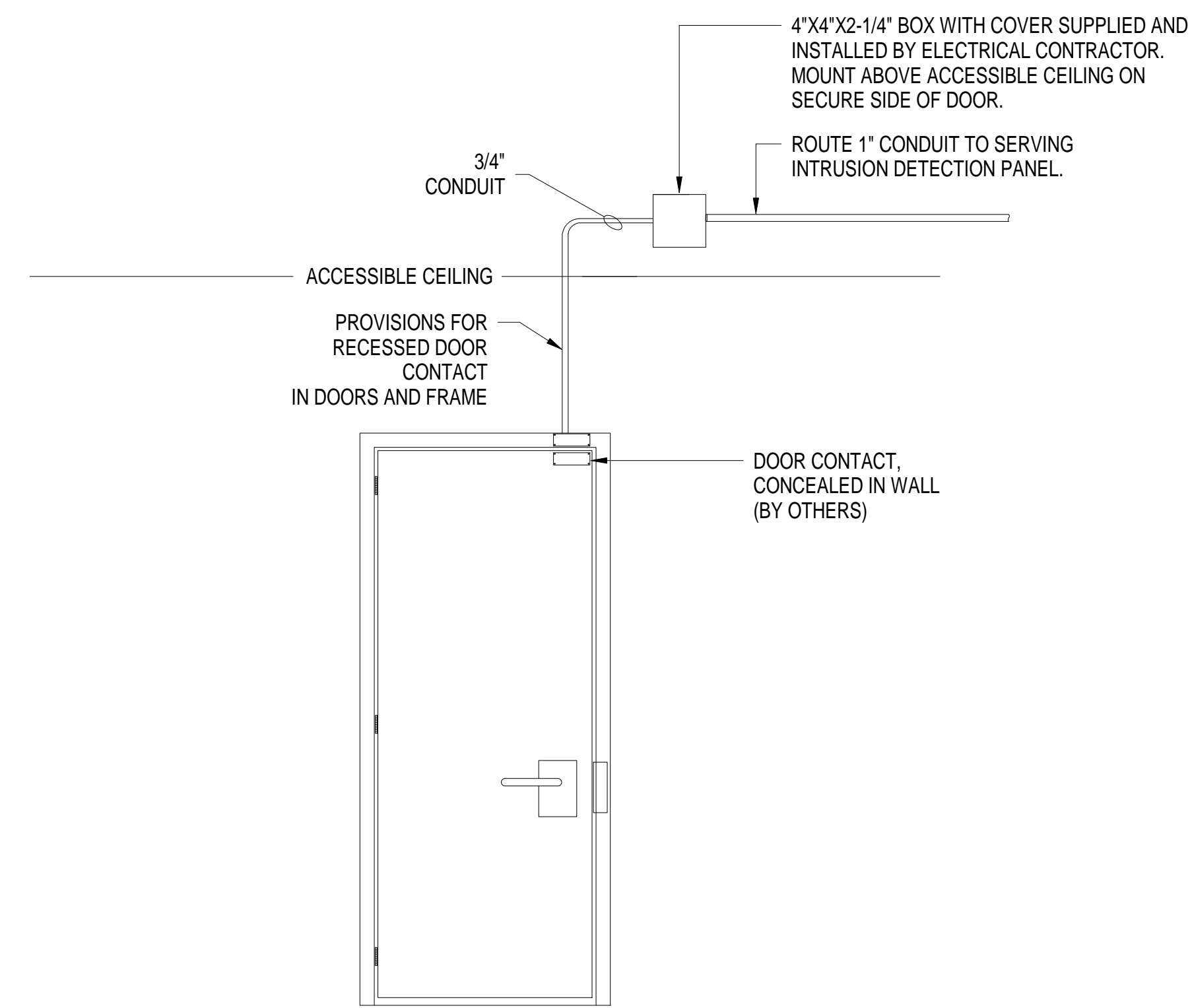


ENGRAVED PLASTIC TAG WITH 1/4\"/>

7 TYPICAL VOICE WIRING BLOCK ENGRAVED TAG DETAIL



8 TELCOM GROUNDING SYSTEM RISER



NOTE:
ALL CONDUIT AND CABLING IS CONCEALED.

9 TYPICAL SINGLE DOOR CONTACT ROUGH-IN DETAIL

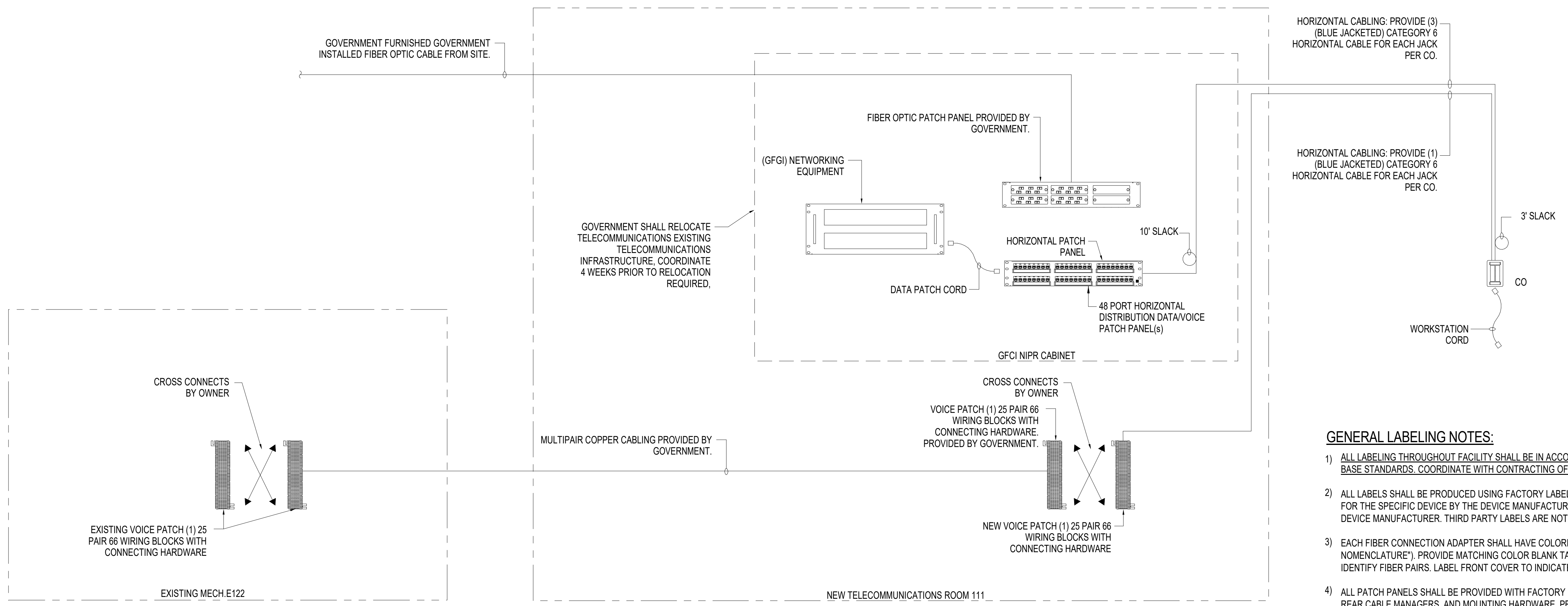
REV #	DATE	DESCRIPTION	APPROVED

ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353

TELECOMMUNICATIONS DETAILS

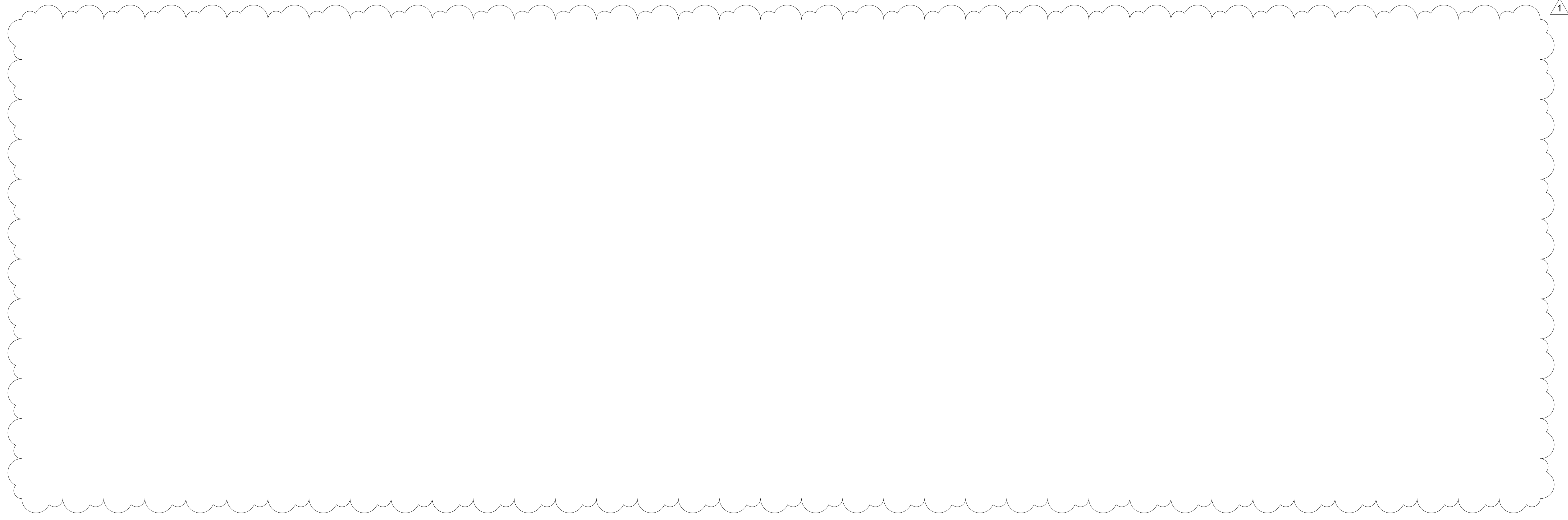
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE:	03 MAY 2016
DESIGNED BY:	CEC
DRAWN BY:	CEC
BUILDING NO:	90353
PROJECT NO:	FTEV 12-1164
SHEET REF:	T8
SHEET NO:	108 of 110



- GENERAL LABELING NOTES:**
- 1) ALL LABELING THROUGHOUT FACILITY SHALL BE IN ACCORDANCE WITH EIA/TIA-606-A STANDARD AND BASE STANDARDS. COORDINATE WITH CONTRACTING OFFICER BEFORE LABELING.
 - 2) ALL LABELS SHALL BE PRODUCED USING FACTORY LABEL SHEETS FOR LASER PRINTERS PROVIDED FOR THE SPECIFIC DEVICE BY THE DEVICE MANUFACTURER, AND USING SOFTWARE PROVIDED BY THE DEVICE MANUFACTURER. THIRD PARTY LABELS ARE NOT ACCEPTABLE.
 - 3) EACH FIBER CONNECTION ADAPTER SHALL HAVE COLORED BLANK TABS (SEE "FIBER OPTIC BACKBONE NOMENCLATURE"). PROVIDE MATCHING COLOR BLANK TABS AT OPPOSITE END TERMINATIONS TO IDENTIFY FIBER PAIRS. LABEL FRONT COVER TO INDICATE SOURCE AND EACH DESTINATION(S).
 - 4) ALL PATCH PANELS SHALL BE PROVIDED WITH FACTORY ICON/LABEL HOLDERS, DESIGNATION LABELS, REAR CABLE MANAGERS, AND MOUNTING HARDWARE. PROVIDE SNAP-IN BLANK TAB OR LABEL STRIP FOR PORT LABELING OF JACKS.
 - 5) ALL COMMUNICATIONS OUTLETS AND HORIZONTAL PATCH PANELS SHALL BE LABELED USING ROOM NUMBERS. OBTAIN FINAL ROOM NUMBERS FROM GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF LABELING.

1 DATA/VOICE SINGLE LINE DIAGRAM



REV#	1	DATE	2021.06.17	DESCRIPTION	PPF RESPONSES	APPROVED	CHIEF ENGINEER APPROVED
APPROVED		CHIEF ENGINEER		APPROVED		CIVIL ENGINEER	
ADAL CHILD DEVELOPMENT CENTER BLDG. & REPAIR CHILD DEVELOPMENT CENTER BLDG. 90353							
TELECOMMUNICATIONS SINGLE LINE DIAGRAMS							
AIR FORCE SPECIAL OPERATIONS COMMAND 1 SPECIAL OPERATIONS ENGINEER SQUADRON HURLBURT FIELD, FLORIDA							
DATE: 03 MAY 2016							
DESIGNED BY: CEC							
DRAWN BY: CEC							
BUILDING NO: 90353							
PROJECT NO: FTEV 12-1164							
SHEET REF: T9							
SHEET NO: 109 of 110							

STANDARD D LAYOUT (24" x 36")

