CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16

4111 Kings Highway, Dayton, Ohio, 45406

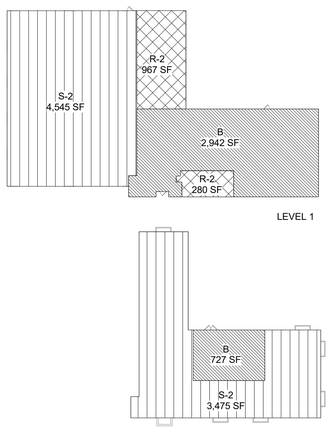
ARCHITECT

App Architecture
615 Woodside Drive
Englewood, Ohio 45322
(937) 836-8898

MECHANICAL & ELECTRICAL ENGINEERS

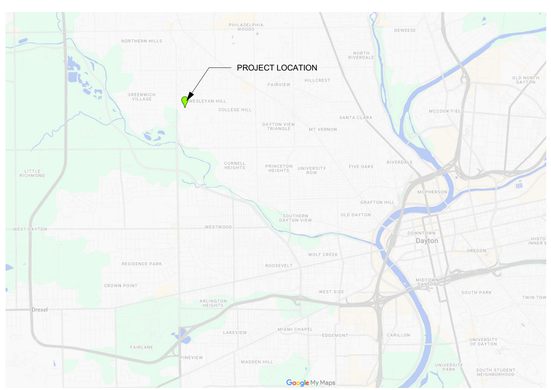
Nauman & Zelinski, LLC
204 South Ludlow Street, Suite 400
Dayton, Ohio 45402
(937) 223-3821

USE GROUP PLAN



B:	3,669 SF
R-2:	1,247 SF
S-2:	8,020 SF
TOTAL:	12,936 SF

VICINITY MAP



CODE INFORMATION

(OBC 2024, OEBC 2024)

PROJECT DESCRIPTION

PROJECT CONSISTS OF INTERIOR RENOVATION OF AN EXISTING FIRE STATION FOR THE CITY OF DAYTON.

USE GROUP CLASSIFICATION (REFER TO USE GROUP PLAN THIS SHEET)

OBC (302) USE GROUP: MIXED USE - UNSEPARATED
B: STATION OFFICES AND LIVING AREAS
R-2: CREW SLEEPING QUARTERS
S-2: APPARATUS BAYS AND STORAGE AREAS

OBC (508.3) MIXED OCCUPANCIES:
UNSEPARATED MIXED USE
EXCEPTION 2: R-2 DWELLING AND SLEEPING UNITS SHALL BE SEPARATED FROM OTHER OCCUPANCIES CONTIGUOUS TO THEM IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 420.

OBC (708.3) FIRE RESISTANCE RATING:
EXCEPTION 2: DWELLING UNIT AND SLEEPING UNIT SEPARATIONS IN BUILDINGS OF TYPE IIB, IIIB, AND VB CONSTRUCTION SHALL HAVE FIRE-RESISTANT RATINGS OF NOT LESS THAN 1/2-HOUR IN BUILDING EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM.

SLEEPING UNITS TO HAVE 20 MIN. RATED DOORS AND FRAMES IN ACCORDANCE WITH OBC TABLE 716.1.

CONSTRUCTION TYPE CLASSIFICATION

OBC (602) CONSTRUCTION TYPE = IIB

HEIGHT AND AREA LIMITATIONS

OBC (503) ALLOWABLE AREA = 16,000 SF (BASED ON R-2, MOST RESTRICTIVE)
ACTUAL AREA = 12,936 SF

OBC ALLOWABLE HEIGHT = 55' - 0" (3 STORIES)
ACTUAL HEIGHT = 25' - 0"

HEIGHT AND AREA REMAIN UNCHANGED.

OCCUPANT LOAD

OBC (1004) ALLOWABLE= SF / SF PER OCCUPANT

FIRE STATION:
B: 3,669 SF / 150 = 24
R-2: 1,247 SF / 200 = 6
S-2: 8,020 SF / 300 = 26
TOTAL = 56 OCCUPANTS

FIRE PROTECTION

BUILDING DESCRIPTION : LIMITED AREA FIRE SUPPRESSION FOR R-2 USES.

PLUMBING FIXTURES REQUIRED

USE GROUP	WC	LAVS	SHOWERS	D.F.	SERVICE SINK
B	1	1	0	1	1
R-2	1	1	1	1	1
S-2	1	1	0	1	1
TOTAL	3	3	1	1	1

PLUMBING FIXTURES PROPOSED

USE GROUP	WC	LAVS	SHOWERS	D.F.	SERVICE SINK
TOTAL	5	7	4	1	1

STORM SHELTER PROVISIONS

STORM SHELTER IS NOT REQUIRED FOR EXISTING EMERGENCY FACILITY PER OEBC 2024 SECTION 503.19.

DRAWING INDEX

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO TIMOTHY J. BENENT REGISTERED ARCHITECT 12305

Timothy J. Benent License #12305
Expiration Date 12/31/25

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

NO.	DATE	DESCRIPTION
	08/01/25	FOR CONSTRUCTION

DATE	08/01/25
JOB NO.	4284.01
DRAWN	AEE
CHECKED	CMS/TJB

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TITLE
COVER SHEET

SHEET NO.
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GENERAL NOTES

1. THE CITY OF DAYTON / MONTGOMERY COUNTY, AND THE CURRENT EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOT CMS), INCLUDING ALL SUPPLEMENTS, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THIS PLAN. IGNORE REFERENCES TO MEASUREMENT AND PAYMENT IN THE ODOT CMS UNLESS NOTED OTHERWISE. IN THE CASE OF CONFLICTS BETWEEN THE ODOT CMS AND THE CITY OF DAYTON / MONTGOMERY COUNTY REQUIREMENTS, THE CITY OF DAYTON /MONTGOMERY COUNTY REQUIREMENTS SHALL PREVAIL.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (8-1-1 OR 1-800-362-2764) 48 HOURS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES WHO ARE NON-MEMBERS OF THE OHIO UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.
3. CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
4. THE CONTRACTOR IS TO PERFORM ALL INSPECTIONS AS REQUIRED BY THE OHIO EPA FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND FURNISH OWNERS REPRESENTATIVE WITH WRITTEN REPORTS.
5. THE CONTRACTOR IS REQUIRED TO VISIT THE SITE AND FULLY INFORM THEMSELVES CONCERNING ALL CONDITIONS AFFFECTING THE SCOPE OF THE WORK. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE THEM FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THE CONTRACT.

UTILITY NOTES

1. ALL DRAIN TILE AND STORM SEWERS DAMAGED, DISTURBED OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR BETTER, MAINTAINING THE SAME GRADIENT AS EXISTING. THE DRAIN TILE AND/OR STORM SEWER SHALL BE CONNECTED TO THE CURB SUBDRAIN, STORM SEWER SYSTEM OR OUTLETTED INTO THE ROADWAY DITCH AS APPLICABLE. REPLACED DRAIN TILE/STORM SEWER SHALL BE LAID ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM, REPLACEMENT SHALL BE DONE AT THE TIME OF THE BACKFILL OPERATION. COST OF THIS WORK TO BE INCLUDED IN THE PRICE BID FOR THE PROJECT.
2. ALL EXISTING UTILITIES KNOWN TO EXIST HAVE BEEN SHOWN ON THESE PLANS IN THEIR APPROXIMATE LOCATION. PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE UTILITIES SHOWN. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE PROTECTION AND/OR RELOCATION OF ANY UTILITIES THAT MAY EXIST AND ARE NOT SHOWN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR PROTECTION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY.
4. UTILITY POLES WITHIN INFLUENCE OF THE UTILITY OPERATIONS SHALL BE REINFORCED BY THE UTILITY COMPANY PRIOR TO THESE CONSTRUCTION ACTIVITIES. NOTIFICATION OF THE UTILITY COMPANY PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. CONTRACTOR TO REPLACE ANY PAVEMENT OR UTILITIES DAMAGED WHICH ARE NOT SPECIFIED TO BE REMOVED ON THESE PLANS.
6. ANY FIELD TILE CUT IN EXCAVATION WHICH DRAINS IN AN OFFSITE AREA MUST BE TIED INTO THE STORM DRAINAGE SYSTEM.
7. THE FLOW IN ALL SEWERS, DRAINS, FIELD TILES AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND WHENEVER SUCH WATERCOURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE PROSECUTION OF THE WORK, THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE TO A CONDITION SATISFACTORY TO THE ENGINEER.
8. ALL WATERLINE CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED A MINIMUM OF 18" BELOW WATERLINE AT ALL CROSSINGS. WATERLINE SHALL BE LOCATED A MINIMUM OF 10' HORIZONTALLY FROM ANY SANITARY SEWER. ALL MEASUREMENTS SHALL BE TAKEN FROM OUTSIDE OF SEWER PIPE TO THE OUTSIDE OF WATERLINE PIPE. ONE FULL LENGTH OF WATERLINE PIPE SHALL BE LOCATED AT ALL CROSSINGS TO ENABLE BOTH JOINTS TO BE LOCATED AS FAR FROM SEWER AS POSSIBLE. ALL WATER SHALL HAVE A MINIMUM OF 4.5' OF COVER.
9. WATERLINE 4 INCHES AND LARGER SHALL BE DUCTILE IRON PIPE CLASS 52, MINIMUM 250 PSI, AWWA C151 OR PVC AWWA C900, DR 14, PRESSURE CLASS 305 PSI. FIRE SERVICE PIPING SHALL MEET THE REQUIREMENTS OF NFPA 24. WATERLINE 2 INCHES AND UNDER TO BE TYPE "K" SOFT COPPER TUBING, ASTM B 88, OR APPROVED POLYTUBING.
10. STORM SEWER PIPE LABELED "STM" SHALL BE ONE OF THE FOLLOWING: PVC SDR-35 PER ODOT ITEM 707.45, PVC PROFILE PIPE PER ODOT ITEM 707.43, HIGH DENSITY POLYETHYLENE PER ODOT ITEM 707.33, ALUMINIZED CORRUGATED METAL, ODOT ITEM 707.01, 707.02, OR REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. STORM SEWER PIPE LABELED "RCP" SHALL BE REINFORCED CONCRETE PIPE, ODOT ITEM 706.02 CLASS IV. ALL STORM IS TO BE INSTALLED PER ODOT ITEM 611, ALL STORM PIPE USED MUST HAVE A MANUFACTURER SPECIFIED FRICTION FACTOR OF 0.013 (N=0.013) OR LESS.
11. ALL EXISTING INVERTS ALONG PROPOSED PIPE ALIGNMENTS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE SEWER.
12. ROOF DRAINS, FOUNDATION DRAINS AND ALL OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEMS ARE PROHIBITED.
13. FOR EXACT LOCATION OF DOWN SPOUTS & ROOF DRAINS, COORDINATE WITH CONSTRUCTION MANAGER.

GENERAL NOTES

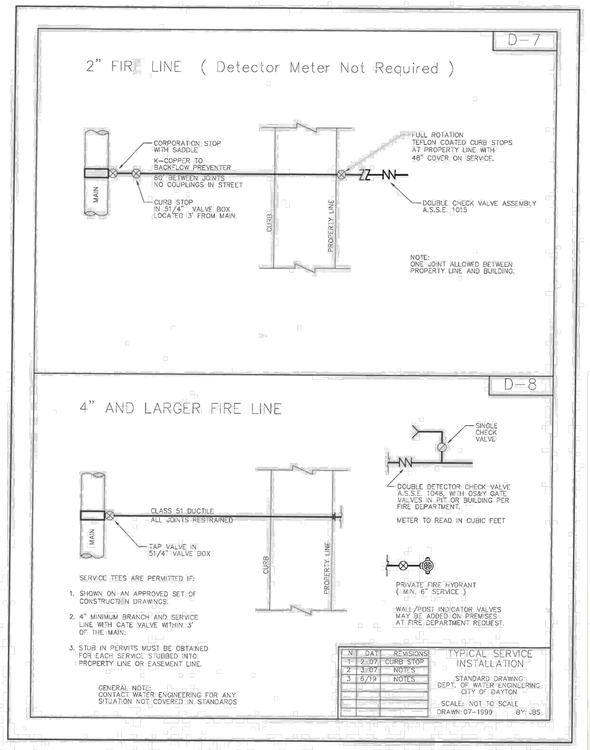
ALL INFORMATION SHOWN IS FROM A COMPILATION OF GIS AND RECORD INFORMATION. CONTRACTOR SHALL VERIFY ALL INFORMATION IN THE FIELD.

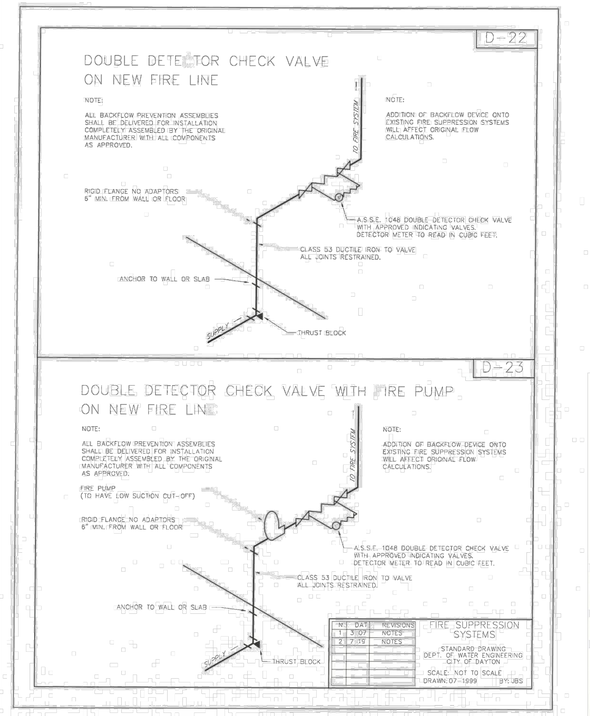
ALL VERTICAL AND HORIZONTAL BENDS IN THE PROPOSED FIRE SERVICE SHALL HAVE RESTRAINED JOINTS AND THRUST BLOCKS PER CITY STANDARDS.

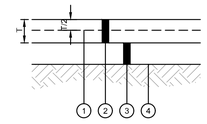
CONTRACTOR TO REMOVE OR ABANDON EXISTING DOWNSPOUT COLLECTOR LINES

CODED NOTES

1. PROPOSED 6" FIRE SERVICE PER CITY OF DAYTON WATER DEPT. STANDARDS D-8, D-22
2. CITY INSTALLS FIRE SERVICE TAP AND WATER SERVICE TO THE PROPERTY LINE, ROAD AND CURB RESTORATION. SITE CONTRACTOR IS RESPONSIBLE FOR REMAINDER OF FIRE SERVICE AND RESTORATION.
3. REMOVE AND REPLACE PAVEMENT AS NECESSARY TO INSTALL UTILITIES. NEW PAVEMENT TO MATCH EXISTING PAVEMENT PER DETAIL 1/C100. SAWCUT CONCRETE AT NEAREST JOINT.
4. REMOVE ABOVE GRADE PVC
5. ABOVE GRADE PVC TO REMAIN
6. CONNECT TO EXISTING MANHOLE AT INVERT APPROXIMATELY = 817.49. CONTRACTOR TO FIELD VERIFY INVERT PRIOR TO STARTING CONSTRUCTION.
7. NEW SECONDARY ELECTRIC SERVICE. FOR REFERENCE ONLY. SEE SHEET E3.1 FOR MORE DETAIL. ALL WORK TO BE COORDINATED WITH UTILITY PROVIDER

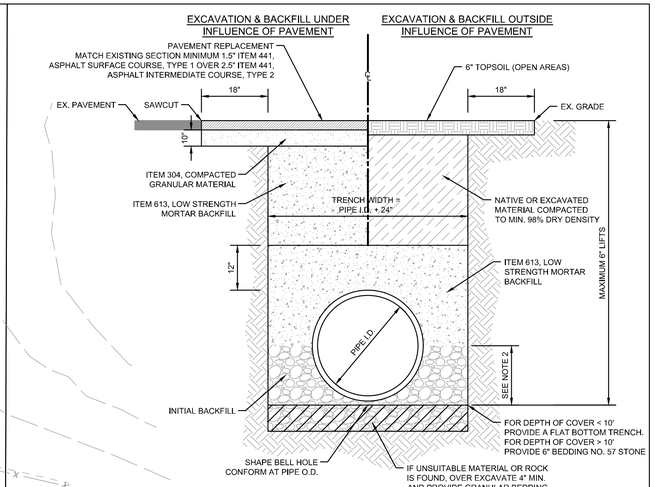






1. RIGID REPLACEMENT REPAIR PER ODOT SCD BP-2.5
2. ODOT ITEM 452 PORTLAND CEMENT CONCRETE PAVEMENT. MATCH EXISITNG PAVEMENT THICKNESS AND REINFORCEMENT
3. 6" ODOT ITEM 304 AGGREGATE BASE
4. SUBGRADE COMPACTION, REFERENCE ODOT ITEM 204, EARTHWORK SPECIFICATION 312000 AND SOILS REPORT

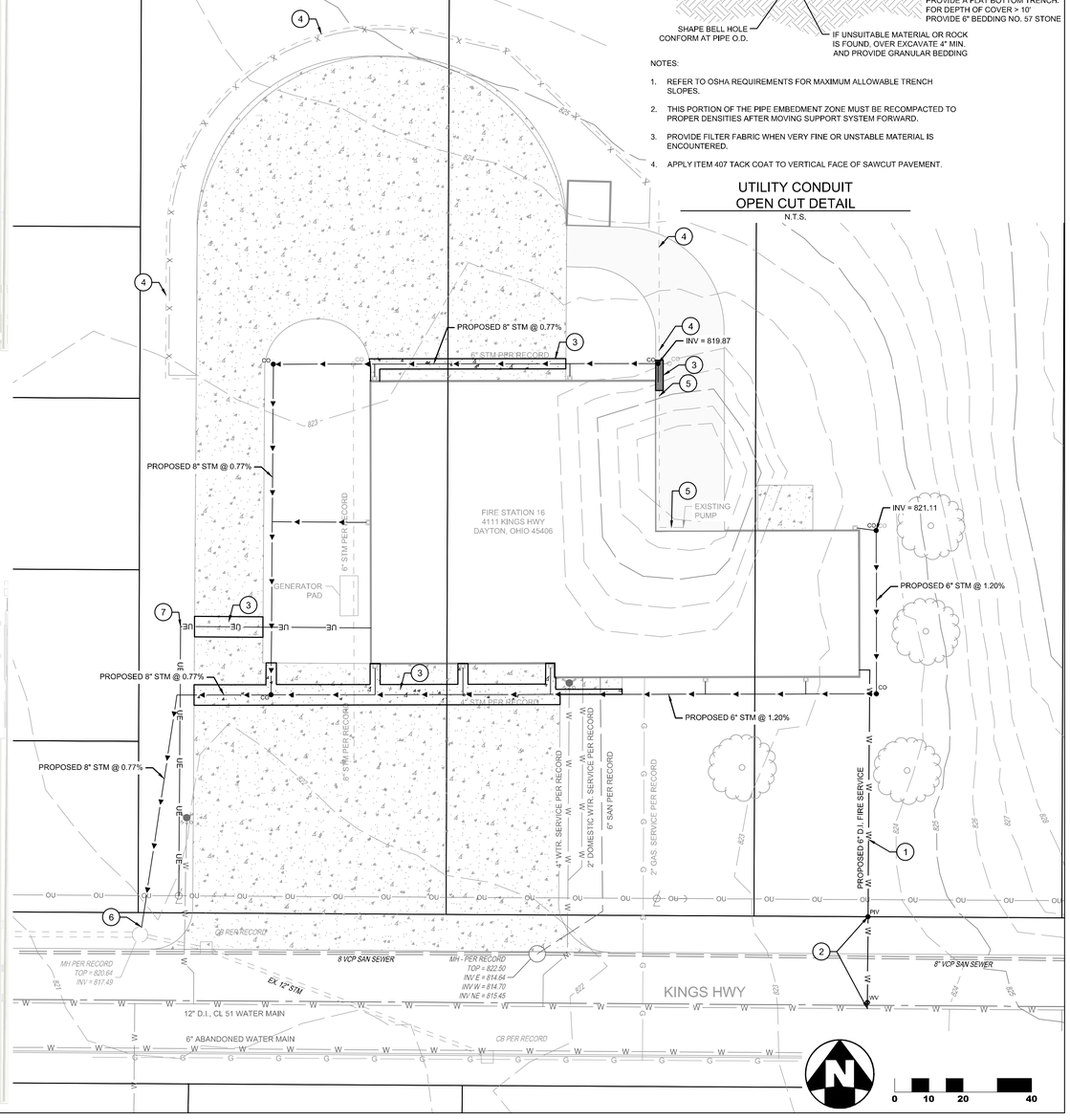
HEAVY DUTY CONCRETE PAVEMENT DETAIL
N.T.S.



NOTES:

1. REFER TO OSHA REQUIREMENTS FOR MAXIMUM ALLOWABLE TRENCH SLOPES.
2. THIS PORTION OF THE PIPE EMBEDMENT ZONE MUST BE RECOMPACTED TO PROPER DENSITIES AFTER MOVING SUPPORT SYSTEM FORWARD.
3. PROVIDE FILTER FABRIC WHEN VERY FINE OR UNSTABLE MATERIAL IS ENCOUNTERED.
4. APPLY ITEM 407 TACK COAT TO VERTICAL FACE OF SAWCUT PAVEMENT.

UTILITY CONDUIT OPEN CUT DETAIL
N.T.S.



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CIVIL ENGINEERING
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LANDSCAPE ARCHITECTURE
www.kleingers.com
6219 Centre Park Dr.
West Chester, OH 45069
513.779.7851

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App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
DOUGLAS WOESTE
80113
REGISTERED
PROFESSIONAL ENGINEER

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

NO.	DATE	DESCRIPTION
	07/17/25	QC SUBMITTAL
	07/25/25	100% QC SUBMITTAL
	08/01/25	FOR CONSTRUCTION

DATE	08/01/25
JOB NO.	4284.01
DRAWN	MK
CHECKED	DW

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TITLE
UTILITY PLAN

SHEET NO.
C100

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ABBREVIATIONS

SYMBOL	
@	AT
&	AND
L	ANGLE
Ø	DIAMETER
℄	CENTER LINE
℞	PLATE
A	
ABV	ABOVE
A/C	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLER UNIT
AL	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
ANCH	ANCHOR
APPROX	APPROXIMATELY
ARCH	ARCHITECT OR ARCHITECTURAL
ATTEN	ATTENUATED
AUTO	AUTOMATIC
AVG	AVERAGE
B	
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
C	
CAB	CABINET
CB	CATCH BASIN
C/C	CENTER TO CENTER
CF	CUBIC FOOT
CFCI	CONTRACTOR FURNISH, CONTRACTOR INSTALL
CFOI	CONTRACTOR FURNISH, OWNER INSTALL
CG	CORNER GUARD
CJ	CONTROL JOINT
CLG	CEILING
CL	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUE
CPU	CENTRAL PROCESSING UNIT (COMPUTER)
CY	CUBIC YARD
D	
DBL	DOUBLE
DEMO	DEMOLISH, DEMOLITION
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DS	DOWNSPOUT
DWG	DRAWING
DTL	DETAIL
E	
EA	EACH
EC	ELECTRICAL CONTRACTOR
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATION OR ELEVATOR
EMERG	EMERGENCY
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXIST OR EX	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FIN	FINISH OR FINISHED
FLR	FLOOR
FND	FOUNDATION
FRT	FIRE RETARDANT TREATED WOOD
FT	FOOT OR FEET OR FULLY TEMPERED
FTG	FOOTING
FUR	FURRING
FV	FIELD VERIFY
FOW	FACE OF WALL
FS	FILLER STRIP

G	
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GD	GRADE OR GRADING
GEN	GENERAL
GL	GLASS OR GLAZING
GND	GROUND
GYP	GYPSUM
GWB	GYPSUM BOARD
GWT	GLAZED WALL TILE
H	
HB	HOSE BIBB
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HWD	HARDWARE
I	
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDE (D) (ING)
INT	INTERIOR
INV	INVERT
J	
JB	JUNCTION BOX
JC	JANITOR CLOSET
L	
L	LONG
LAV	LAVATORY
LBS	POUNDS
LH	LEFT HAND
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LTL	LINTEL
LVR	LOUVER
M	
M	MEN OR METER
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MOUNTING HEIGHT, MANHOLE
MIL	THOUSANDTHS OF AN INCH
MM	MILLIMETER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTL	METAL
N	
N	NORTH OR NITROGEN
NC	NURSE CALL
NIC	NOT IN CONTRACT
NO	NUMBER OR NITROUS OXIDE
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
O	
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISH, CONTRACTOR INSTALL
OFOI	OWNER FURNISH, OWNER INSTALL
OFVI	OWNER FURNISH, VENDOR INSTALL
OH	OVERHEAD
OHD	OVERHEAD DOOR
OPNG	OPENING
OPP	OPPOSITE
O_2	OXYGEN
P	
PAR	PARALLEL
PC	PLUMBING CONTRACTOR
PCF	POUNDS PER CUBIC FOOT
PL	PLATE OR PROPERTY LINE
PLBG	PLUMBING
PLWD	PLYWOOD
PME	PLUMBING, MECHANICAL & ELECTRICAL
PNL	PANEL
PR	PAIR
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE

Q	
QTY	QUANTITY
R	
R	RADIUS
RA	RETURN AIR
RB	RUBBER BASE
RD	ROOF DRAIN
RECEPT	RECEPTACLE
REF	REFERENCE
REINF	REINFORCE
REQD	REQUIRED
RET	RETURN
REV	REVISION
RH	RIGHT HAND
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	
S	SOUTH
SAN	SANITARY
SB	SINK BASE
SCHED	SCHEDULE
SEAL	SEALANT
SECT	SECTION
SF	SQUARE FEET
SG	SAFETY GLASS
SH	SPRINKLER HEAD OR SHOWER HEAD
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SPEC	SPECIFICATION(S)
SPK	SPEAKER
SQ	SQUARE
ST	STREET
STC	SOUND TRANSMISSION CLASSIFICATION
STD	STANDARD
STL	STEEL
STR	STRUCTURAL
SUSP	SUSPENDED
SV	SHEET VINYL
SYS	SYSTEM
T	
T & G	TONGUE & GROOVE
TB	TOWEL BAR
TAB	TOP AND BOTTOM
TEL	TELEPHONE
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOM	TOP OF MASONRY
TOW	TOP OF WALL
TRANS	TRANSFORMER
TV	TELEVISION
TYP	TYPICAL
U	
UC	UNDER CABINET OR COUNTER
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
V	
V	VACUUM
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VS	VACUUM SLIDE
W	
W	WIDE OR WEST OR WOMEN
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET OR WALL CABINET
WD	WOOD
WIN	WINDOW
WP	WORK POINT
WPT	WOOD PRESERVATIVE TREATMENT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

REFERENCE SYMBOLS

DRAWING TITLE

INTERIOR ELEVATIONS

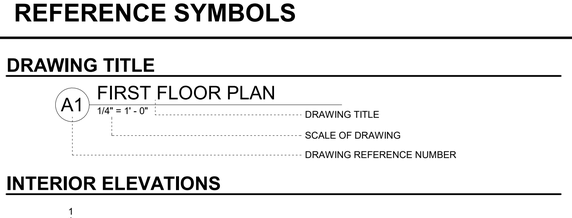
BUILDING/DETAIL SECTION

ENLARGED DETAIL

EXTERIOR ELEVATIONS

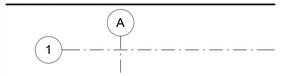
MATCH LINE

MATERIAL SYMBOLS IN SECTION

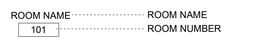


DRAWING SYMBOLS

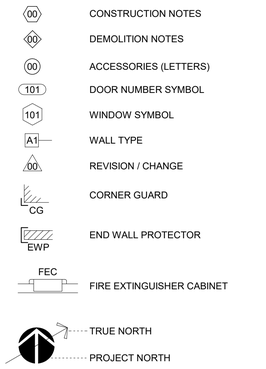
COLUMN CENTER LINES



ROOM SYMBOL

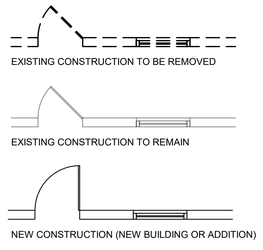


PLAN SYMBOLS

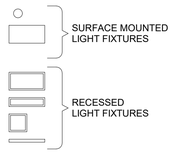


ELEVATION SYMBOLS

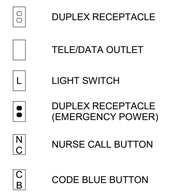
TYPICAL WALL CONVENTIONS



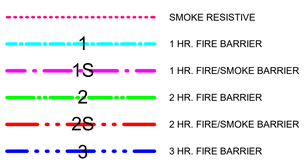
REFLECTED CEILING SYMBOLS



INTERIOR ELEVATION SYMBOLS



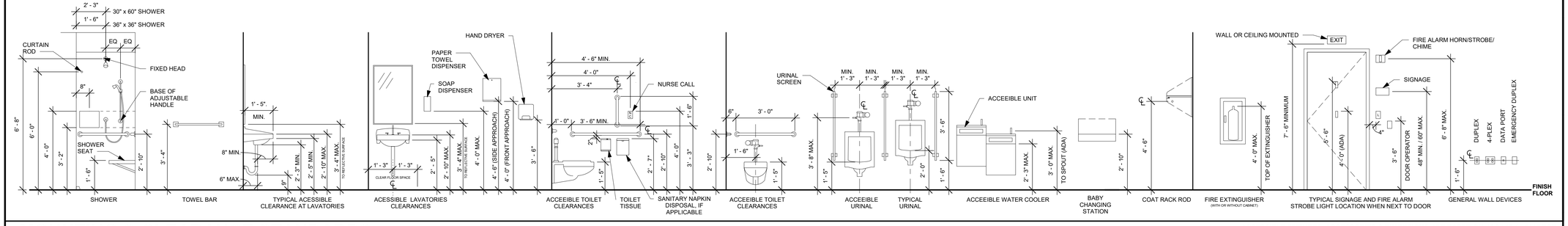
FIRE BARRIER LEGEND



ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.
ADDITIONAL SYMBOLS OR ABBREVIATIONS MAY APPEAR ON SUBSEQUENT SHEETS.

MOUNTING & CLEARANCE STANDARDS N.T.S.

(FOLLOW THESE UNLESS NOTED OTHERWISE)



ACCESSIBLE FIXTURES, ACCESSORIES & DIMENSIONS ARE BASED ON: ICC 117.1 - 2017 FOR NEW CONSTRUCTION AND ICC 117.1 - 2009 FOR EXISTING BUILDINGS.

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO TIMOTHY J BENNETT 12305 REGISTERED ARCHITECT

Timothy J Bennett License #12305
Expiration Date 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

NO.	DATE	DESCRIPTION
	08/01/25	FOR CONSTRUCTION

DATE	08/01/25
JOB NO.	4284.01
DRAWN	AEE
CHECKED	CMS/TJB

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TITLE
ABBREVIATIONS AND SYMBOLS

SHEET NO.
A0.01

8/1/2025 8:38:44 PM

ROOM FINISH SCHEDULE

ROOM No.	ROOM NAME	FLOOR	BASE	WAINSCOT		WALLS				CEILING	REMARKS
				MAT.	HT.	N	S	E	W	MAT.	
001	STORAGE	EX	EX			EX	EX	EX	EX	EX	
002	STORAGE	EX	EX			EX	EX	EX	EX	EX	
003	STORAGE	EX	EX			EX	EX	EX	EX	EX	
004	FITNESS EQUIPMENT	RTF-1	RB-1			EP-1	EP-1	EP-1	EP-3	EXPS-1	
005	DECON	EX	EX			EP-1	EP-1	EP-1	EP-1	EXPS-1	
006	MECHANICAL	EX	EX			EX	EX	EX	EX	EX	
007	TOG STORAGE	EX	EX			EP-1	EP-1	EP-1	EP-1	EXPS-1	
101	REPORT	LVT-1/LVT-2	RB-2			P-3	EP-1	EP-1	EP-1	APC-1	4
102	TLT	PT-1	PTWB-1			EP-1	EP-1	PWT-1/PWT-2	EP-1	APC-1	6
107	DAYROOM	LVT-1/LVT-2/LVT-3	RB-2			EP-3	EP-1	EP-1	EP-1	APC-1	1,2,3
108	KITCHEN	LVT-1/LVT-2	RB-1/RB-2			EP-1	EP-1	EP-1	EP-1	APC-1	1,2,4,5,7
109	DINING	LVT-1/LVT-2/LVT-3	RB-2			EP-1	EP-1	EP-1	EP-1	APC-1	1,2,3
110	TLT/SHWR	PT-1	PTWB-1			EP-2	EP-2	PWT-1/PWT-2	EP-2	APC-1	6
111	CREW LAUNDRY	LVT-1/LVT-2	RB-2			EP-1	EP-1	EP-1	EP-1	APC-1	
112	TLT/SHWR	PT-1	RB-1			EP-2	EP-2	EP-2	PWT-1/PWT-2	APC-1	6
113	TLT/SHWR	PT-1	RB-1			EP-2	EP-2	PWT-1/PWT-2	EP-2	APC-1	6
114	DORM	CPT-1	RB-1	VWP-1	52"	VWP-1 / P-2	P-1	VWP-1 / P-2	P-1	APC-1	8
115	DORM	CPT-1	RB-1	VWP-1	52"	VWP-1 / P-2	P-1	VWP-1 / P-2	P-1	APC-1	8
116	ADA DORM	CPT-1	RB-1	VWP-1	52"	VWP-1 / P-2	P-1	VWP-1 / P-2	P-1	APC-1	8
117	DORM	CPT-1	RB-1	VWP-1	52"	VWP-1 / P-2	P-1	P-1	VWP-1 / P-2	APC-1	8
118	DORM	CPT-1	RB-1	VWP-1	52"	VWP-1 / P-2	P-1	P-1	VWP-1 / P-2	APC-1	8
119	DORM	CPT-1	RB-1	VWP-1	52"	VWP-1 / P-2	P-1	P-1	VWP-1 / P-2	APC-1	8
121	JAN.	LVT-1/LVT-2	RB-2			EP-1	EP-1	EP-1	EP-1	APC-1	4
122	DORM/ OFFICE	CPT-1	RB-2			EP-2	EP-1	EP-1	EP-2	APC-1	1,2
123	TLT/SHWR	PT-1	PTWB-1			EP-2	EP-2	EP-2	EP-2	APC-1	1,2,5
124	STAIRS	EX	-			EX	EX	EX	EX	EX	
125	BAY 1	EX	-			EX	EX	EP-5	EX	EX	9
126	BAY 2	EX	-			EX	EX	EX	EX	EX	
C-01	ENTRY	MAT-1	RB-2			EP-1	EP-1	EP-1	EP-1	APC-1	1,2
C-02	CORRIDOR	LVT-1/LVT-2	RB-2			EP-1	EP-1	EP-1	EP-1	APC-1	1,2,4
C-03	LOCKERS	LVT-1 / LVT-2	RB-1			P-1	P-1	P-2	P-1	APC-1	4
C-04	CORRIDOR	CPT-1 / MAT-1	RB-1			P-1	P-1	P-1	P-1	APC-1	
C-05	CORRIDOR	MAT-1	RB-2			EP-1	EP-1	P-1	P-1	APC-1	1,2

ROOM FINISH SCHEDULE REMARKS

No.	REMARK
1	ONLY PAINT UPPER PORTION OF CMU BLOCK WALL. (NON GLAZED BLOCK)
2	CLEAN GLAZED CMU BLOCK.
3	40% LVT-1 / 40% LVT-2 / 20% LVT-3 RANDOM MIX
4	50% LVT-1 / 50% LVT-2 RANDOM MIX
5	RB-2 BASE ON WALLS.
6	CAP PTWB-1 WITH SCHLUTER STRIP ON WALLS NOT TO RECEICE WALL TILE.
7	RB-1 BASE ON NEW CASEWORK.
8	VYNYL WALL PROTECTION THIS AREA. PANELS TO BE BUTT SEAMED WITH COLOR MATCHED CAULK AND CAPPED AND EDGED WITH INPRO COLOR MATCHED CAP STRIP.
9	PAINT ONLY NEW WORK.

MATERIAL LEGEND

ITEM	MATERIAL	MANUFACTURER	MATERIAL MODEL NO.	CONTACT INFO	COLOR	FLAME / SMOKE	REMARKS
BASE							
PTWB-1	PORCELAIN TILE WALL BASE	DALTILE	CALGARY	VICKI MARCH, 513.5541330	FAWN CG41 MATTE		CUT 12" X 24" FIELD TILE DOWN TO A 6" X 24" TILE.
RB-1	RUBBER BASE 4"	JOHNSONITE / TARKETT	TSB 469 4 X 120 1/8 TOE	TRISHA ROE-KEEL, 513.207.5309	TA8 WELSH CASTLE CB		
RB-2	RUBBER BASE 6"	JOHNSONITE / TARKETT	TSB 469 4 X 120 1/8 TOE	TRISHA ROE-KEEL, 513.207.5309	TA8 WELSH CASTLE CB		
CABINETS							
PL-1	PLASTIC LAMINATE	FORMICA	9283	JENNIFER SULLIVAN, 614.264.7768	WALNUT RIFTWOOD		CASEWORK
PL-2	PLASTIC LAMINATE	WILSONART	4942-38	KATIE MASON, 614.971.9636	CRISP LINEN		WORK SURFACES
SSM-1	SOLID SURFACE	LG HAUSYS HI-MAC	G118	MICHELLE ALLEN, 513.214.9939	MOON HAZE		COUNTERTOPS
SSM-2	SOLID SURFACE	INPRO	CUSTOM SHOWER BASE	KRISTI ASHFORD, 513.646.2163	P9009 BONE		SHOWER BASE
SSM-3	SOLID SURFACE	INPRO	PRISM SOLID SURFACE SHOWER WALLS	KRISTI ASHFORD, 513.646.2163	ANGORA P9041		SHOWER WALLS
SSM-4	SOLID SURFACE	LG HAUSYS HI-MAC	HM-BLS-1612	MICHELLE ALLEN, 513.214.9939	ARTIC WHITE		SINK BOWLS
CEILING							
APC-1	ACOUSTIC PANEL CEILING	ARMSTRONG	686 ANGLED TEGULAR	JEN McCOY 513.919.7429	WHITE	CLASS A	
EX	EXISTING						
EXPS-1	EXPOSED STRUCTURE						PAINT P-1 U.N.O.
GYP / P	GYPSUM BOARD PAINTED						PAINT P-1 U.N.O.
FLOOR							
CPT-1	CARPET TILE	PATCRAFT	INFRASTRUCTURE	KATIE FINGERS, 513.805.107	ASPHALT 00590, SCAFFOLD 10519	CLASS 1 < 450'	ASHLAR INSTALL
EX	EXISTING						
LVT-1	LUXURY VINYL TILE	INTERFACE	BRUSHED LINES	MAGGIE HERMS, 513.500.9523	MOUSSE A01611	CLASS 1 < 450'	
LVT-2	LUXURY VINYL TILE	INTERFACE	BRUSHED LINES	MAGGIE HERMS, 513.500.9523	SOFT SHADOW A01612	CLASS 1 < 450'	
LVT-3	LUXURY VINYL TILE	INTERFACE	BRUSHED LINES	MAGGIE HERMS, 513.500.9523	ROUGE A01616	CLASS 1 < 450'	
MAT-1	WALK OFF MAT	PATCRAFT	WALK-RIGHT IN ii i0304	MAGGIE HERMS, 513.500.9523	EBONY 00595	CLASS 1 < 450'	QUARTER TURN INSTALL
PT-1	PORCELAIN TILE	DALTILE	CALGARY	VICKI MARCH, 513.5541330	FAWN CG41		12" X 24" FIELD TILE
RTF-1	RUBBER TILE FLOOR	ROPPE	RECOIL		#186 RED	CLASS 1 < 450'	FITNESS ROOM
SPECIALTY							
CG-1	CORNER GUARD	INPRO CORP.	REFER TO B4/A0.06 FOR DETAILS	LESLIE FREDRIC, 513.646.2163	STAINLESS STEEL		4' - 0" INSTALL AT TOP OF BASE
WALL							
EP-1	EPOXY PAINT	SHERWIN WILLIAMS	SW 7008	ANGIE JULIAN, 317.714.5610	ALABASTER		FIELD PAINT - CMU WALLS
EP-2	EPOXY PAINT	SHERWIN WILLIAMS	SW 7642	ANGIE JULIAN, 317.714.5610	PAVESTONE		ACCENT COLOR
EP-3	EPOXY PAINT	SHERWIN WILLIAMS	SW 6321	ANGIE JULIAN, 317.714.5610	RED BAY		ACCENT COLOR
EP-4	EPOXY PAINT	SHERWIN WILLIAMS	SW 7025	ANGIE JULIAN, 317.714.5610	BACKDROP		HW DOORS AND FRAMES
EP-5	EPOXY PAINT	SHERWIN WILLIAMS	TBD	ANGIE JULIAN, 317.714.5610	MATCH EXISTING PAINT IN BAYS		CMU INFILL
EX	EXISTING						
P-1	PAINT	SHERWIN WILLIAMS	SW 7008	ANGIE JULIAN, 317.714.5610	ALABASTER		FIELD PAINT
P-2	PAINT	SHERWIN WILLIAMS	SW 7642	ANGIE JULIAN, 317.714.5610	PAVESTONE		ACCENT COLOR
P-3	PAINT	SHERWIN WILLIAMS	SW 6321	ANGIE JULIAN, 317.714.5610	RED BAY		ACCENT COLOR
PWT-1	PORCELAIN WALL TILE	DALTILE	MEDIAN	VICKI MARCH, 513.5541330	WHITE MN40 MATTE		12" X 24" FIELD TILE
PWT-2	PORCELAIN WALL TILE	DALTILE	BEE HIVE MEDLEY	VICKI MARCH, 513.5541330	BLACK P011 MATTE		8 1/2" x 10" HEXAGON
VWP-1	VINYL WALL PROTECTION	INPRO	LEGACY 2402	LESLIE FREDRICK, 513.646.2163	PEBBLE GRAY 0387		

GENERAL NOTES

A. ALL PRODUCTS, AND OVER STOCK, SHALL COME FROM THE SAME DYE-LOT / PRODUCTION RUN TO ENSURE UNIFORMITY.

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
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STATE OF OHIO TIMOTHY J. BENNETT 12305 REGISTERED ARCHITECT

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ISSUE

NO.	DATE	DESCRIPTION
	08/01/25	FOR CONSTRUCTION

DATE	08/01/25
JOB NO.	4284.01
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TITLE
FINISH SCHEDULES

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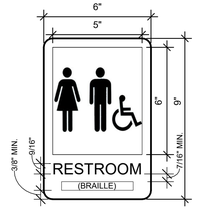
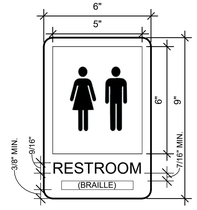
SIGNAGE LEGEND



UNISEX RESTROOM - TYPE 1

3" = 1'-0"



UNISEX RESTROOM - TYPE 2

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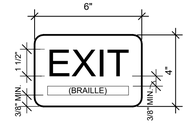


EXIT SIGN - TYPE 3

3" = 1'-0"

SIGN NOTES

A. ALL SIGNS SHALL HAVE BRAILLE LETTERING BENEATH TEXT, TYPICAL.

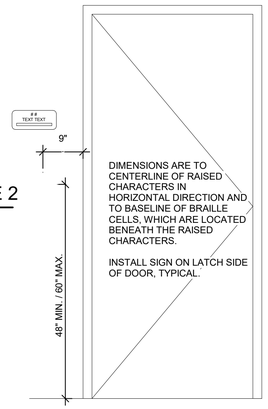
B. SIGNS MOUNTED ON GLASS AT DOOR NEED TO BE MOUNTED WITH ADHESIVE AND MATCHING BACKER PLATE FOR OTHER SIDE OF GLASS.

C. TEXT AND GRAPHICS TO BE NON-GLARE COLOR IN HIGH CONTRAST WITH BACKGROUND. SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

D. BACKGROUND TO BE NON-GLARE COLOR IN HIGH CONTRAST WITH TEXT AND GRAPHICS. SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

E. 1/2" RADIUS CORNERS.

F. ALL TEXT ON SIGNS LOCATED NEXT TO INTERIOR DOORS WILL BE 1/32" RAISED CHARACTERS, UPPERCASE, AND VIEWABLE AT LESS THAN 6 FEET.



SIGNAGE LOCATION

3/4" = 1'-0"

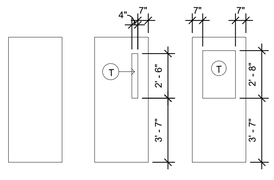
DOOR AND FRAME SCHEDULE

			DOOR								FRAME							
			SIZE											DETAILS				
DOOR No.	ROOM NAME	HDW. SET	W	H	T	MAT.	TYPE	FIN.	U/C	MAT.	TYPE	FIN.	HEAD	JAMB	SILL	FIRE RTG.	REMARKS
004A	FITNESS EQUIPMENT	19A	3' - 0"	7' - 0"	1 3/4"	HM	HG1	EP-4		HM	1	EP-4	E3/A0.05 SIM	E5/A0.05 SIM	B5/A0.05	-	
004B	FITNESS EQUIPMENT	-	6' - 0"	7' - 0"	1 3/4"	EX	EX	EP-4		HM	1	EP-4	-	-	-	-	7
005	DECON	19A	3' - 0"	6' - 8"	1 3/4"	WD	EX	EP-4		WD	EX	EP-4	-	-	-	-	1, 8
007	TOG STORAGE	19	3' - 0"	6' - 8"	1 3/4"	WD	EX	EP-4		WD	EX	EP-4	-	-	-	-	1, 8
101	REPORT	-	2' - 8"	7' - 0"	1 3/4"	-	-	-		HM	EX	EP-4	-	-	-	-	
102	TLT	13	2' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN	3/4"	HM	EX	EP-4	-	-	-	-	3, 5
107	DAYROOM	-	2' - 8"	7' - 0"	1 3/4"	-	-	-		HM	EX	EP-4	-	-	-	-	
108	KITCHEN	22	2' - 8"	7' - 0"	1 3/4"	WD	NL1	STAIN		HM	EX	EP-4	-	-	-		10
109	DINING	23	2' - 8"	7' - 0"	1 3/4"	HM	EX	EP-4		HM	EX	EP-4	-	-	-	-	2, 6, 11
110	TLT/SHWR	13	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN	3/4"	HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	4
111	CREW LAUNDRY	17	3' - 0"	7' - 0"	1 3/4"	WD	NL1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	
112	TLT/SHWR	13	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN	3/4"	HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	4
113	TLT/SHWR	13	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN	3/4"	HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	5
114	DORM	18	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	20 MIN.	
115	DORM	18	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	20 MIN.	
116	ADA DORM	18	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	20 MIN.	
117	DORM	18	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	20 MIN.	
118	DORM	18	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	20 MIN.	
119	DORM	18	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	20 MIN.	
121	JAN.	17	2' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN	3/4"	HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	
122	DORM/ OFFICE	18	2' - 8"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	EX	EP-4	-	-	-	-	3
123	TLT/SHWR	14	2' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	EX	EP-4	-	-	-	-	3, 5
124	STAIRS	15	2' - 8"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	EX	EP-4	-	-	-	-	1
125	BAY 1	-	2' - 8"	7' - 0"	1 3/4"	HM	EX	-		HM	EX	-	-	-	-	-	9, 12
125C	BAY 1	-	5' - 0"	7' - 0"	1 3/4"	HM	EX	-		HM	EX	EP-4	-	-	-	-	9, 12
C-01A	ENTRY	-	2' - 8"	7' - 0"	1 3/4"	HM	HG1	EP-4		HM	EX	EP-4	-	-	-	-	6, 11, 13
C-01B	ENTRY	17A	3' - 0"	7' - 0"	1 3/4"	WD	NL1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	
C-02A	CORRIDOR	16	4' - 7"	7' - 0"	2"	WD	EX	STAIN		HM	EX	EP-4	-	-	-	-	1
C-02B	CORRIDOR	19	3' - 0"	7' - 0"	1 3/4"	HM	NL1	EP-4		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	
C-03	LOCKERS	19	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	-	
C-04A	CORRIDOR	20	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	EP-4	C1/A0.05	C3/A0.05	B5/A0.05	20 MIN.	
C-04B	CORRIDOR	21	3' - 0"	7' - 0"	1 3/4"	HM	NL1	EP-4		HM	1	EP-4	B1/A0.05	B3/A0.05	B5/A0.05	20 MIN.	
C-04C	CORRIDOR	21A	3' - 0"	7' - 0"	1 3/4"	HM	NL1	EP-4		HM	2	EP-4	E1/A0.05	F1/A0.05	B5/A0.05	20 MIN.	

DOOR REMARKS

No.	REMARK
1	EXISTING WOOD DOOR. REMOVE DOOR, REFINISH TO MATCH NEW DOORS, REHANG DOOR WITH NEW HARDWARE.
2	NEW INTERIOR SCREEN DOOR TO MATCH EXISTING.
3	PROVIDE NEW WOOD DOOR SLAB AND HARDWARE. EXISTING DOOR FRAME TO REMAIN.
4	SIGN TYPE 1 AT THIS DOOR.
5	SIGN TYPE 2 AT THIS DOOR.
6	SIGN TYPE 3 AT THIS DOOR.
7	EXISTING DOOR TO REMAIN. PAINT PER SCHEDULE. NO OTHER NEW WORK THIS DOOR.
8	ADD COVERPLATES ON DOOR AND FRAME TO COVER WHERE OLD LATCHES WERE PRIOR TO NEW WORK.
9	EXISTING DOOR FRAME TO REMAIN.
10	PROVIDE NEW WOOD DOOR SLAB TO MOUNT ON EXISTING DOUBLE-ACTION HARDWARE. EXISTING FRAME TO REMAIN.
11	EXISTING DOOR TO REMAIN. PREP AND PAINT ACCORDING TO SCHEDULE.
12	NO NEW WORK THIS DOOR.
13	REMOVE EXISTING BLINDS. APPLY WINDOW FILM TO HALF GLASS. BASIS OF DESIGN: DECORATIVEFILMS, ULTRAGREEN SX-1254-UG REEDED GLASS FILM.

DOOR ELEVATIONS



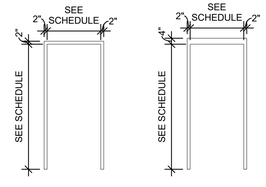
TYPE F1
FLUSH

TYPE NL1

TYPE HG1
HALF GLASS

(T) INDICATES TEMPERED SAFETY GLAZING

FRAME ELEVATIONS



TYPE 1
SINGLE / PAIR
STANDARD

TYPE 2
SINGLE / PAIR
STANDARD

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TITLE
DOOR SCHEDULES

SHEET NO.
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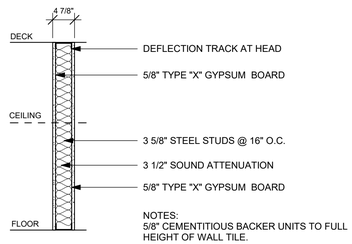
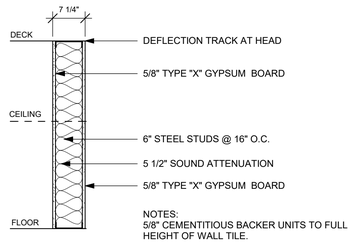
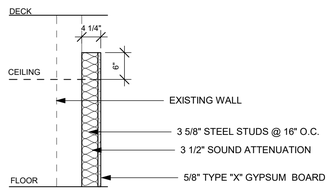
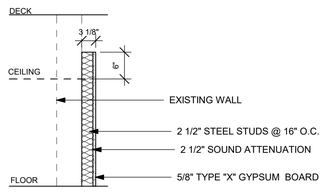
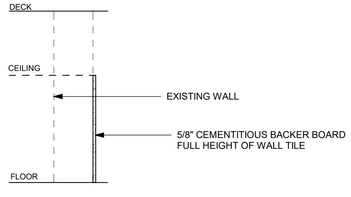
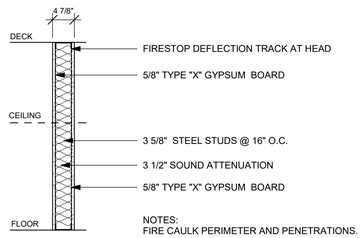
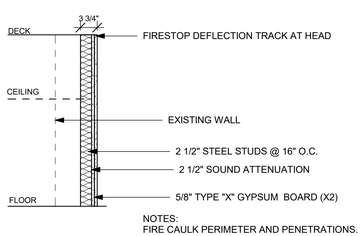
INTERIOR WALL TYPES SCHEDULE

TYPE	BASE WALL WIDTH	FIRE RATING — TESTING AGENCY, ASSEMBLY NO.	DETAILS & NOTES
A1	3 5/8"	- -	 NOTES: 5/8" CEMENTITIOUS BACKER UNITS TO FULL HEIGHT OF WALL TILE.
A2	6"	- -	 NOTES: 5/8" CEMENTITIOUS BACKER UNITS TO FULL HEIGHT OF WALL TILE.
B1	3 5/8"		
B2	2 1/2"		
C3	5/8"		

TYPE	BASE WALL WIDTH	FIRE RATING — TESTING AGENCY, ASSEMBLY NO.	DETAILS & NOTES
F1	3 5/8"	1 HR. UL. NO U407	 NOTES: FIRE CAULK PERIMETER AND PENETRATIONS.
F2	3 5/8"	1 HR. UL. NO V497	 NOTES: FIRE CAULK PERIMETER AND PENETRATIONS.

GENERAL NOTES

A. MOISTURE/MOLD RESISTANT GYPSUM BOARD SHALL BE USED BEHIND ALL SINKS, SERVICE SINKS AND SHOWER AREAS. EXTEND MINIMUM 24" BEYOND PLUMBING FIXTURES.

B. PROVIDE & INSTALL DEFLECTION TRACK AT ALL INTERIOR WALLS THAT EXTEND TO DECK.

C. UL TEST NUMBERS FOR INTERIOR PARTITIONS WILL VARY DEPENDING ON THE MANUFACTURER OF COMPONENTS ACTUALLY USED. MAINTAIN RATING AND ADVISE IF WALL THICKNESS WILL CHANGE.

D. DRYWALL CONTRACTOR TO PAINT WALL RATINGS LABELS AT MAXIMUM 12 FEET O.C. ON ALL FIRE RATED PARTITIONS. LABEL TO BE PAINTED ABOVE CEILING WITH A STENCIL MIN. OF 4 INCHES IN HEIGHT, BLACK COLOR.

E. FIRE RATED WALLS AND SMOKE PARTITIONS ARE TO BE CONSTRUCTED TIGHT TO STRUCTURE, PIPING AND OTHER PENETRATIONS. ALL PENETRATIONS AND PERIMETER OF WALLS TO BE FIRE CAULKED.

F. STEEL STUD PARTITIONS SHALL BE BRACED TO STRUCTURE ABOVE.

G. REFER TO FLOOR PLANS FOR LOCATIONS OF INTERIOR PARTITION TYPES.

H. REFER TO SHEET A0.05 FOR TYPICAL INTERIOR PARTITIONS DETAILS.

I. ALL PARTITIONS SCHEDULED RECEIVE WALL TILE SHALL HAVE CEMENTITIOUS BACKER UNIT TO FULL HEIGHT OF WALL TILE.

J. ALL PENETRATIONS IN FIRE RATED PARTITIONS SHALL BE FIRESTOPPED, WHETHER THEY ARE NEW OR EXISTING. INCLUDING THOSE CREATED BY THE REMOVAL OF AN EXISTING PENETRATING ITEM. FIRESTOPPING SYSTEMS SHALL BE FM OR U.L. LABORATORY APPROVED PRODUCTS.

K. APPLY ACOUSTICAL SEALANT AT ENTIRE PERIMETER OF ALL GYPSUM BOARD PARTITIONS.

L. EXISTING BUILDING FLOOR TO FLOOR HEIGHTS FOR AREAS OF WORK:

- BASEMENT TO FIRST FLOOR: 8'-9"
- FIRST FLOOR TO ROOF: 9'-11"

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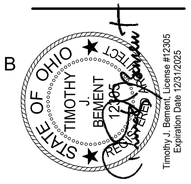

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TITLE
WALL TYPES

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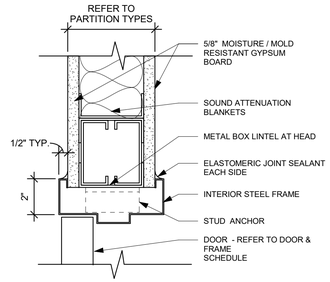
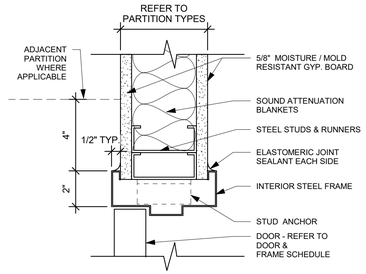
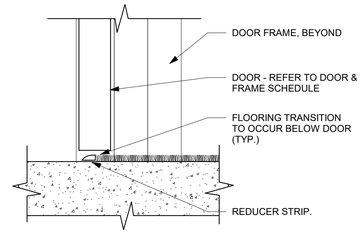


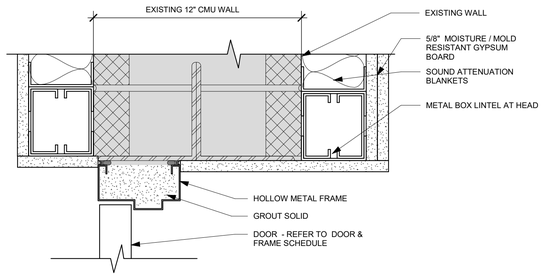
B1 TYP. INTERIOR DOOR HEAD DETAIL
3" = 1'-0"



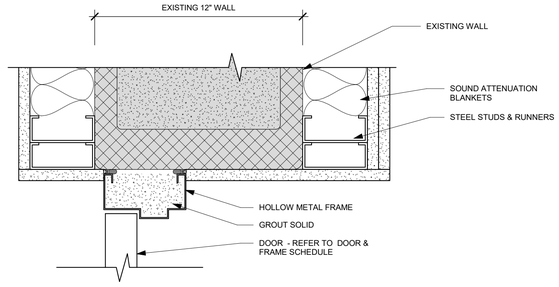
B3 TYP. INTERIOR DOOR JAMB DETAIL
3" = 1'-0"



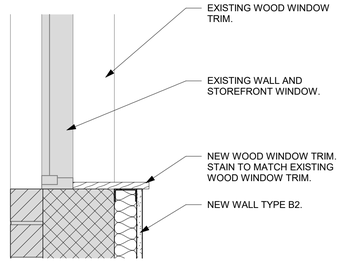
B5 TYP. INTERIOR DOOR SILL DETAIL
3" = 1'-0"



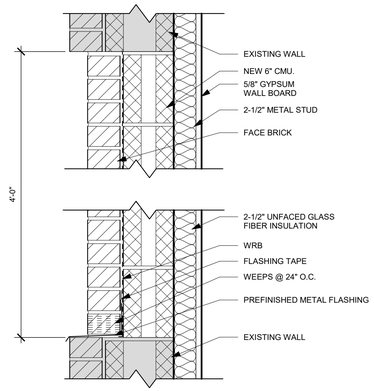
C1 INTERIOR DOOR HEAD DETAIL - FURRING WALL
3" = 1'-0"



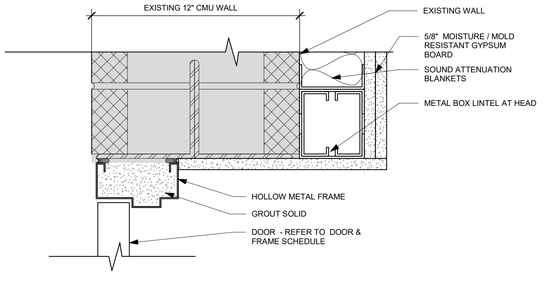
C3 INTERIOR DOOR JAMB DETAIL - FURRING WALL
3" = 1'-0"



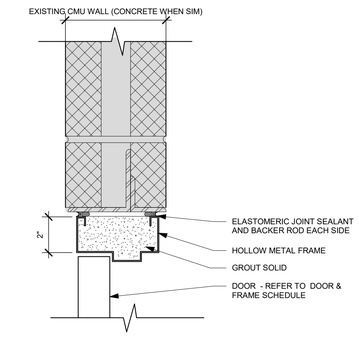
C5 WINDOW SILL DETAIL
1 1/2" = 1'-0"



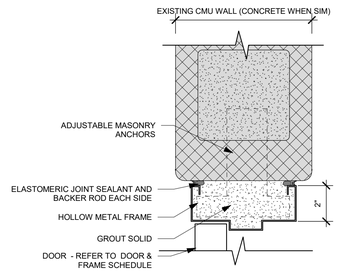
C6 WINDOW INFILL SECTION
1 1/2" = 1'-0"



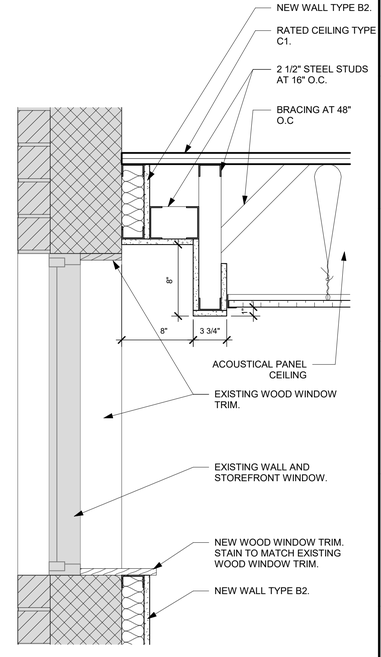
E1 INTERIOR DOOR HEAD DETAIL - APP BAY CMU WALL
3" = 1'-0"



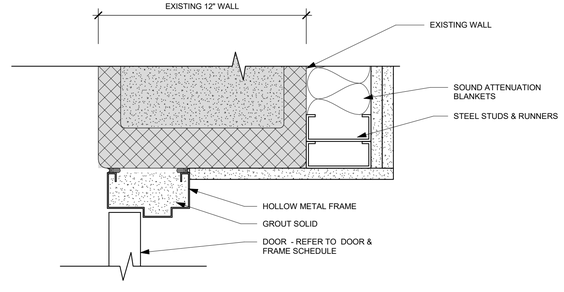
E3 TYP. EXISTING WALL HEAD DETAIL - CMU
3" = 1'-0"



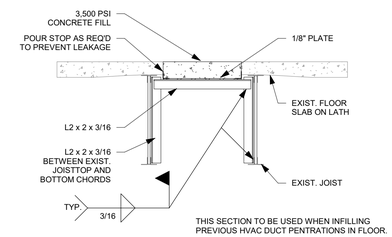
E5 TYP EXISTING WALL DOOR JAMB DETAIL - CMU
3" = 1'-0"



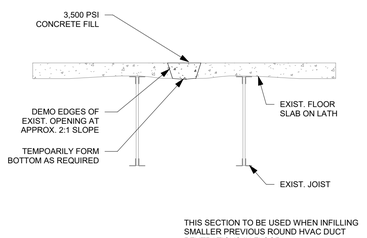
F6 WINDOW HEAD AND SILL DETAIL
1 1/2" = 1'-0"



F1 INTERIOR DOOR JAMB DETAIL - APP BAY CMU WALL
3" = 1'-0"



F3 FLOOR INFILL SECTION A
3/4" = 1'-0"



F5 FLOOR INFILL SECTION B
3/4" = 1'-0"

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TITLE
DOOR & INTERIOR DETAILS

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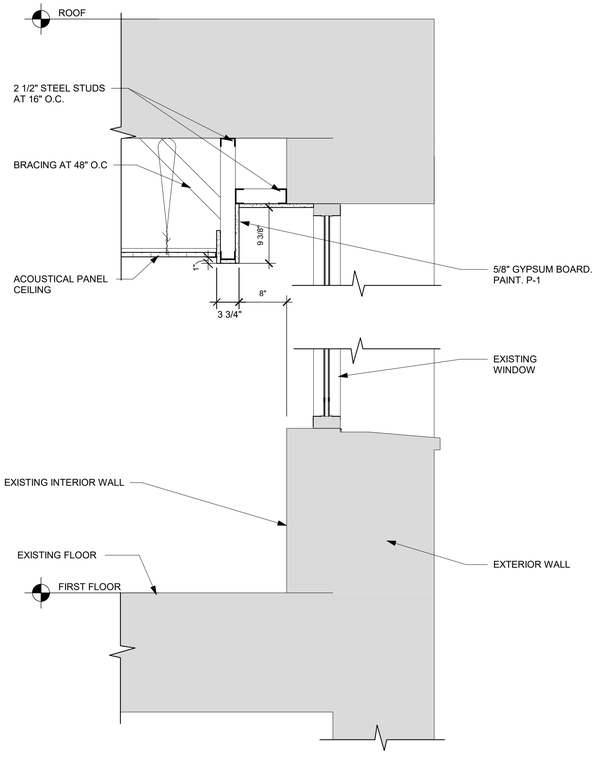
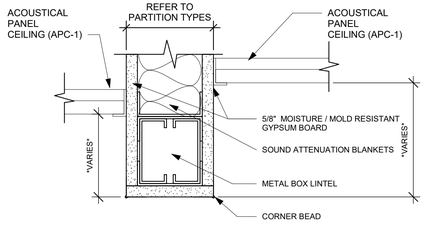
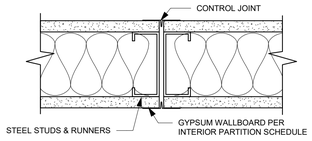


D1 SOFFIT DETAIL AT WINDOW
1" = 1'-0"

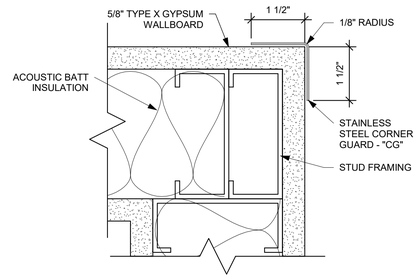


A3 TYP. BULKHEAD DETAIL
3" = 1'-0"

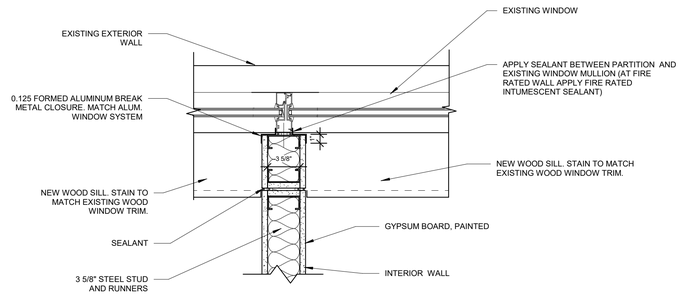


NOTE; EXPANSION JOINTS TO OCCUR EVERY 20'-0" OF UNINTERRUPTED WALL LENGTH.

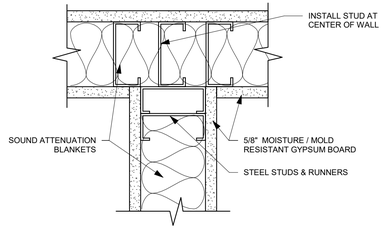
B3 TYP. GWB EXPANSION DETAIL
3" = 1'-0"



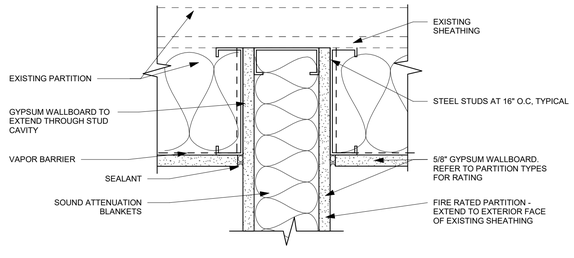
B4 CG-1 CORNER GUARD
6" = 1'-0"



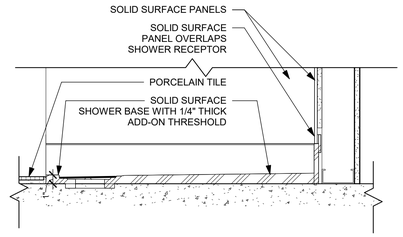
D3 WALL TO WINDOW DETAIL - FIRE RATED
1 1/2" = 1'-0"



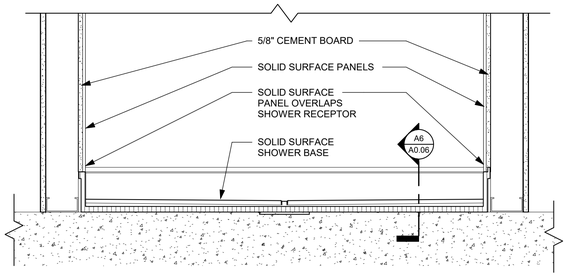
F1 TYP. GWB WALL INTERSECTION
3" = 1'-0"



F3 TYP. INT. PARTITION INTERSECTION WITH EXISTING WALL - FIRE RTD.
3" = 1'-0"

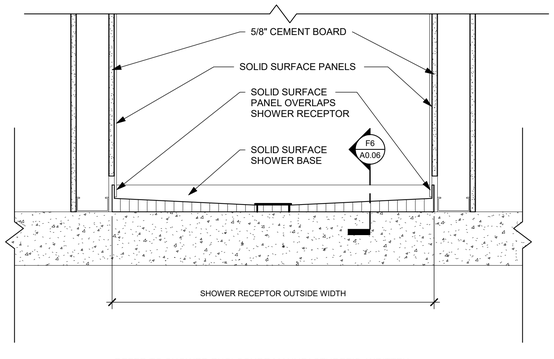


A6 ADA TRENCH DRAIN SHOWER RECEPTOR SECTION
1 1/2" = 1'-0"



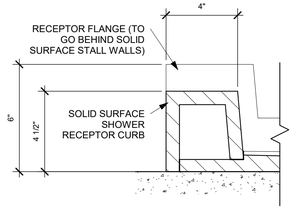
REFER TO SHOWER ENCLOSURE MANUFACTURER'S WRITTEN INSTRUCTIONS FOR WALL FRAMING DIMENSIONS AROUND SHOWER ENCLOSURE.

C6 ADA TRENCH DRAIN STYLE SHOWER RECEPTOR DETAIL
1 1/2" = 1'-0"



REFER TO SHOWER ENCLOSURE MANUFACTURER'S WRITTEN INSTRUCTIONS FOR WALL FRAMING DIMENSIONS AROUND SHOWER ENCLOSURE.

E6 CURB STYLE SHOWER RECEPTOR DETAIL
1 1/2" = 1'-0"



F6 CURB STYLE SHOWER CURB SECTION
3" = 1'-0"

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TITLE
INTERIOR DETAILS

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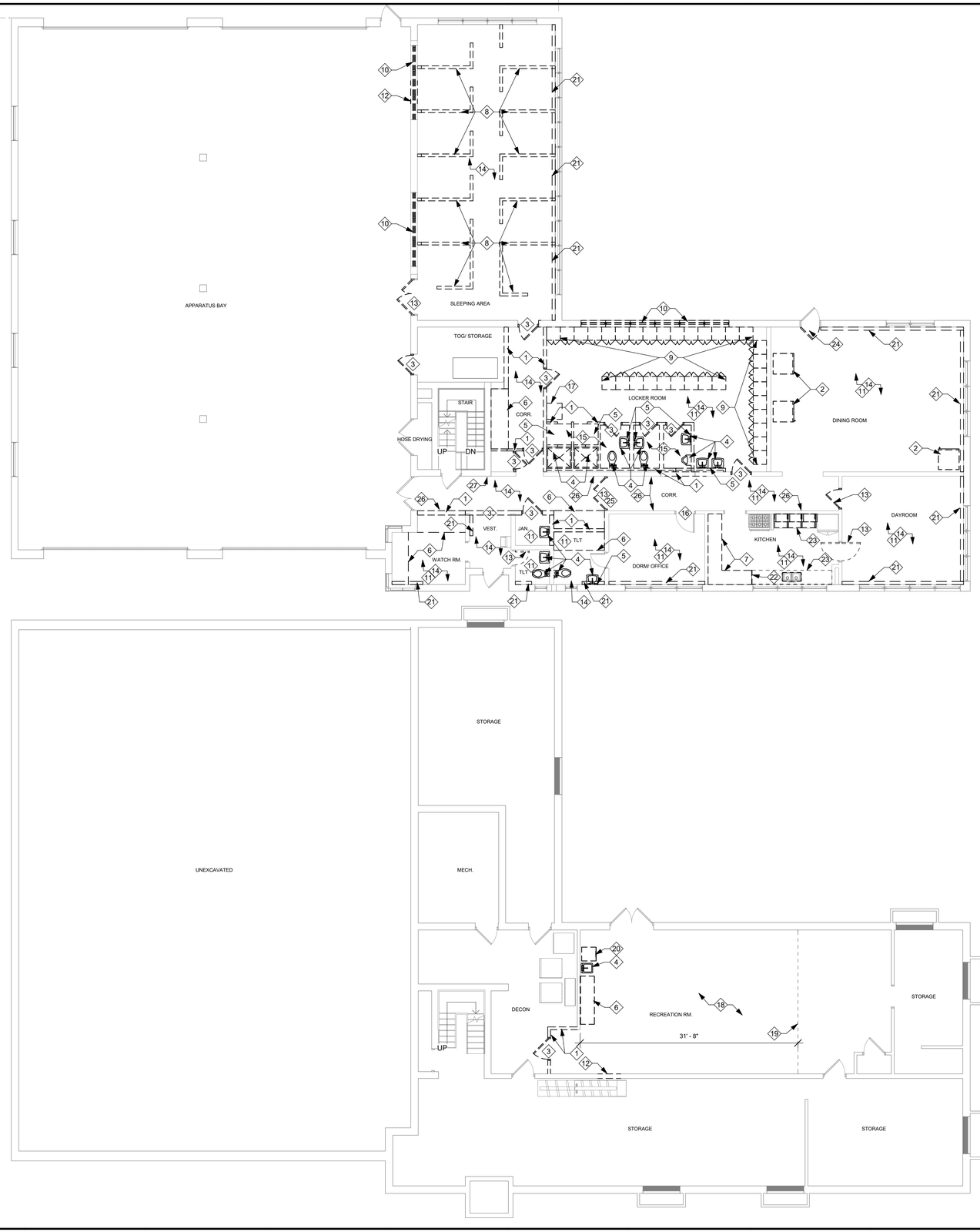

C1 DEMOLITION FLOOR PLAN - LEVEL 1
1/8" = 1'-0"

F1 DEMOLITION FLOOR PLAN - BASEMENT
1/8" = 1'-0"

DEMOLITION NOTES

(00) INDICATES DEMOLITION NOTE.

1 REMOVE PORTION OF EXISTING WALL IN PREPARATION FOR NEW CONSTRUCTION.

2 REMOVE EXISTING APPLIANCE . RETAIN FOR OWNER.

3 REMOVE EXISTING DOOR AND FRAME.

4 REMOVE EXISTING PLUMBING FIXTURE. REFER TO PLUMBING DRAWINGS.

5 REMOVE EXISTING TOILET ACCESSORIES.

6 REMOVE EXISTING CASEWORK.

7 REMOVE EXISTING CASEWORK. RETAIN NUMBER PLAQUES FOR REUSE. RETAIN PANTRY DOORS AND HARDWARE, STORE IN BASEMENT FOR OWNER.

8 REMOVE EXISTING SLEEPING ROOM 2"X6"X6' STUD PARTITIONS.

9 REMOVE EXISTING LOCKERS.

10 REMOVE EXISTING WINDOWS. RETAIN EXISTING STEEL LINTEL. PREPARE OPENING FOR INFILL.

11 REMOVE AIR DEVICES IN FLOOR. REFER TO HVAC DRAWINGS.

12 REMOVE PORTION OF EXISTING WALL IN PREPARATION FOR NEW DOOR.

13 REMOVE EXISTING DOOR. DOOR FRAME TO REMAIN.

14 NEW FLOORING TO BE OVERLAYED ON EXISTING VCT FLOORING. PREP. AND LEVEL VCT FLOOR FOR NEW FLOORING. EXISTING VCT FLOORING ELEMENTS MAY CONTAIN ASPESOTOS.

15 REMOVE EXISTING TILE FLOORING. PREP. AND LEVEL CONCRETE SLAB FOR NEW FLOORING.

16 REMOVE EXISTING DOOR SLAB. DOOR FRAME TO BE REUSED.

17 REMOVE EXISTING WALL MOUNTED HEATER.

18 PREP AND LEVEL CONCRETE FLOOR FOR NEW FLOORING.

19 EXTENTS OF NEW FLOORING.

20 REMOVE EXISTING STACKED WASHER/ DRYER. RETAIN FOR OWNER.

21 REMOVE EXISTING RAIDIATOR. REFER TO MECH. DRAWINGS.

22 REMOVE EXISTING STAINLESS STEEL COUNTER AND RETAIN FOR REUSE. CUT STAINLESS STEEL SIDESPLASH AND PREPARE SURFACE TO BE JOINED WITH PORTION OF NEW STAINLESS STEEL COUNTER.

23 REMOVE EXISTING CASEWORK. RETAIN EXISTING CABINET HARDWARE AND STORE IN BASEMENT FOR OWNER.

24 REMOVE EXISTING SCREEN DOOR. RETAIN EXISTING HOLLOW METAL DOOR.

25 RETAIN PORTION OF CMU WALL ABOVE DOOR.

26 REMOVE AND RETAIN TACK BOARD.

27 REMOVE AND RETAIN STATION PLAQUE FOR REINSTALLATION.

GENERAL NOTES

A. DASHED LINES INDICATE BUILDING ELEMENTS, MATERIALS AND EQUIPMENT TO BE REMOVED.

B. DURING DEMOLITION AND RECONSTRUCTION, ATTENTION MUST BE GIVEN TO MAINTAINING AND PRESERVING THE STRUCTURAL INTEGRITY OF THE BUILDING. IF ANY UNFORESEEN SITUATION DEVELOPS, NOTIFY THE OWNER AND ARCHITECT IMMEDIATELY.

C. PRIOR TO CONSTRUCTION, FIELD INVESTIGATE EXISTING CONDITIONS AND NOTIFY THE OWNER AND ARCHITECT OF AND DISCREPANCIES.

D. RENOVATION WORK IS EXTENSIVE THROUGHOUT AREA OF WORK. ACCESSORIES IN MULTIPLE INSTANCES ARE TO BE REMOVED. CONTACT ARCHITECT IF ANY QUESTIONS.

E. REPAIR, LEVEL, AND PREPARE EXISTING CONCRETE FLOOR SLABS TO RECEIVE NEW FLOOR FINISH INCLUDING AREAS WHERE OLD WALLS ARE REMOVED.

F. REFER TO PLUMBING, HVAC & ELECTRICAL DRAWINGS FOR OTHER ITEMS THAT NEED TO BE REMOVED.

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creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
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DAYTON FIRE DEPARTMENT
STATION 16
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DATE	08/01/25
JOB NO.	4284.01
DRAWN	AEE
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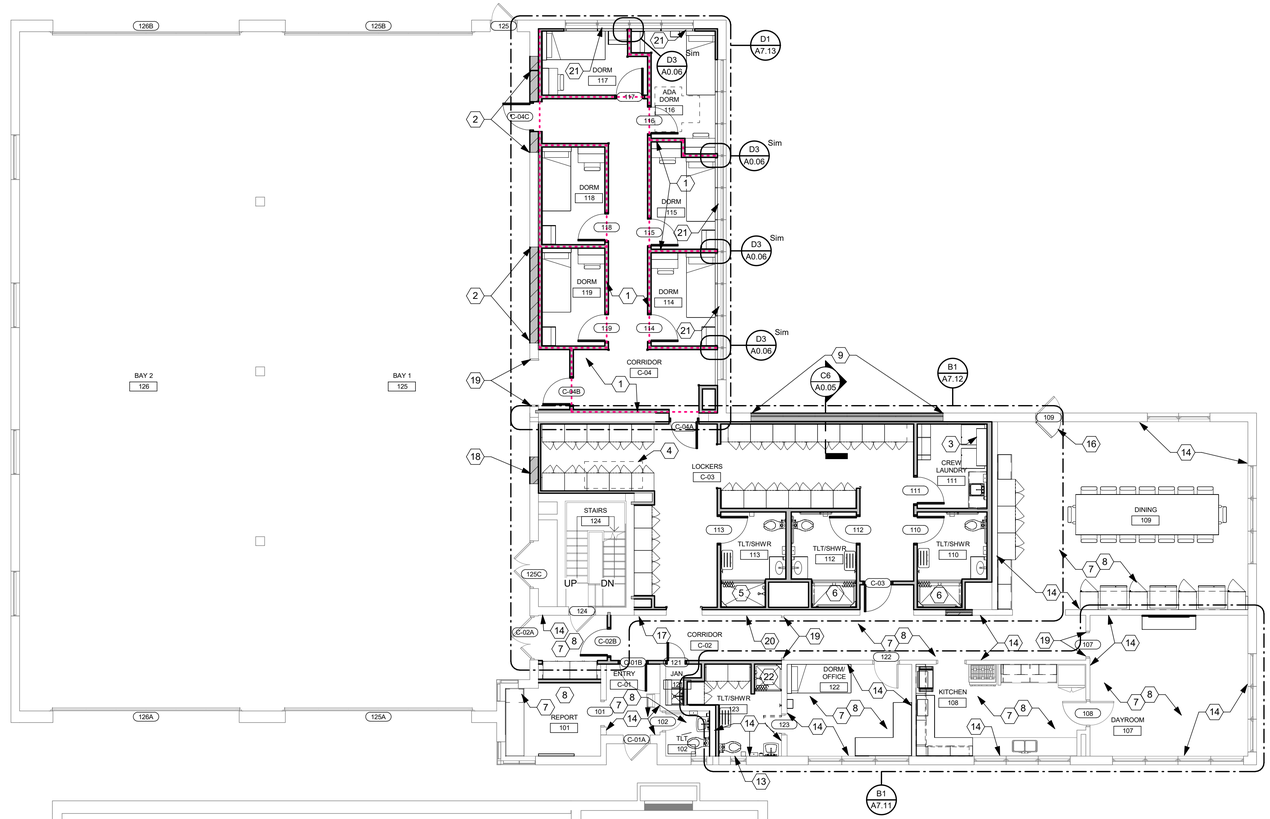
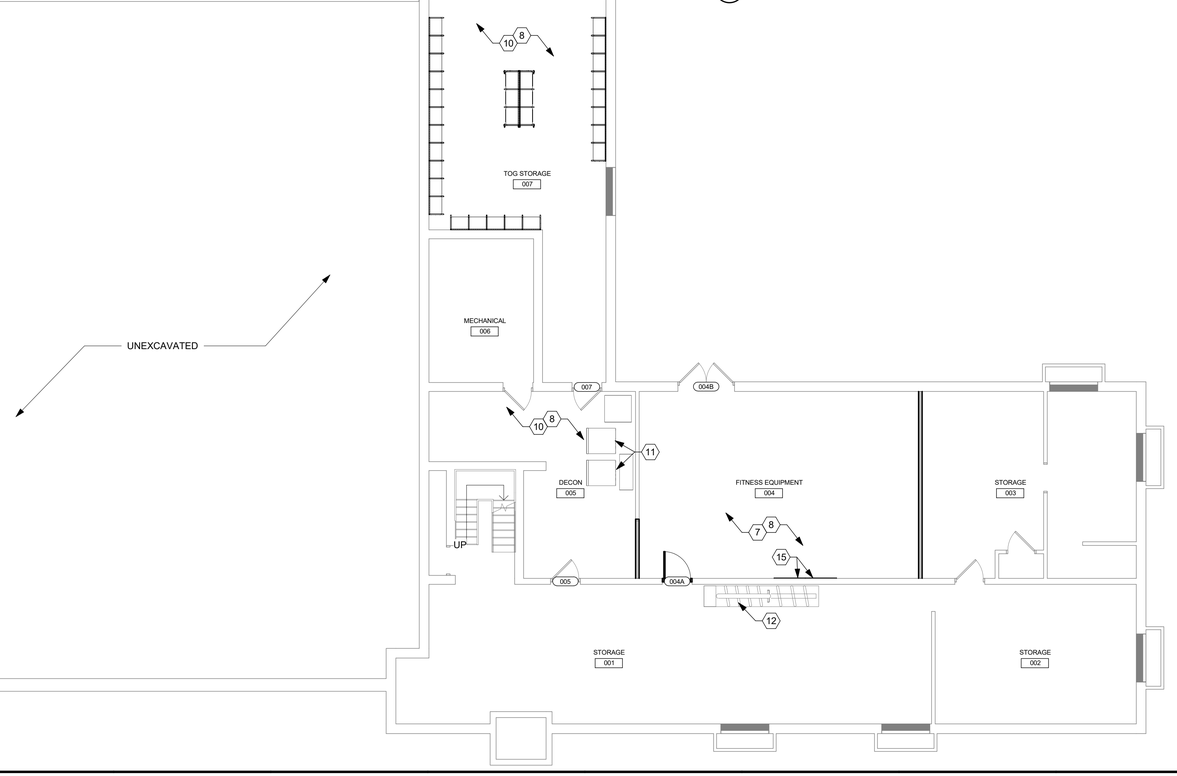
TITLE
DEMOLITION PLAN

SHEET NO.
A1.11

8/1/2025 4:36:48 PM



C1 NEW WORK FLOOR PLAN - LEVEL 1
1/8" = 1'-0"



F1 NEW WORK FLOOR PLAN - BASEMENT
1/8" = 1'-0"

CONSTRUCTION NOTES

00 INDICATES CONSTRUCTION NOTE.

1 1/2 HOUR RATED PARTITION AROUND R-2 USE AS INDICATED. PROVIDE 1 HR. RATED CEILING ASSEMBLY (C1). REFER TO SHEET A0.04 & A0.06 FOR RATED ASSEMBLY DETAILS.

2 INFILL WINDOWS WITH 12" CMU.

3 ADJUSTABLE SHELVES. REFER TO CASEWORK DETAILS.

4 ABRADE EXISTING STEEL TRAP DOOR AND FRAME. PREP TO RECEIVE LVT FLOORING.

5 36" X 60" CURB STYLE SHOWER BASE.

6 36" X 60" ADA SHOWER BASE.

7 ROOM TO RECEIVE NEW FLOORING. REFER TO ROOM FINISH SCHEDULE.

8 ROOM TO RECEIVE NEW PAINT. REFER TO ROOM FINISH SCHEDULE.

9 INFILL WINDOWS WITH 6" METAL STUDS AND FIBER CEMENT PANEL. REFER TO DETAIL C6/A0.05.

10 CLEAN CONCRETE FLOOR.

11 EXISTING GEAR EXTRACTORS TO REMAIN.

12 EXISTING GEAR DRYING HANGER MOVED FROM 001 STORAGE.

13 REPLACE AND REPAIR GROUT IN CMU WALL. PREP FOR PAINT.

14 CLEAN GLAZED CMU AND GROUT.

15 42" X 84" FRAMELESS MIRROR. MOUNT TO WALL @ 6" A.F.F.

16 REPLACE SCREEN DOOR.

17 REINSTALL STATION PLAQUE @ 4' - 4" A.F.F.

18 INFILL DOOR WITH 12" CMU.

19 ADD STEEL HINGE PLATES. PAINT EP-3

20 STATION CREST VINYL WALL GRAPHIC LOCATION. 48" X 48". ART TO BE SUPPLIED BY OWNER.

21 NEW WOOD WINDOW SILL. STAIN TO MATCH EXISTING WOOD WINDOW TRIM. REFER TO DETAIL C5/A0.05.

22 36" X 36" CURB STYLE SHOWER BASE.

GENERAL NOTES

A. ALL INTERIOR PARTITIONS ARE TYPE A1 U.N.O.

B. ALL PARTITIONS TO BE CONSTRUCTED TO DECK ABOVE U.N.O.

C. PROVIDE FIRE RETARDANT WOOD BLOCKING BEHIND ALL WALL HUNG ACCESSORIES, CABINETS, FURNISHINGS, HANDRAILS U.N.O.

D. REFER TO EQUIPMENT PLAN AND ELEVATIONS FOR TOILET ROOM ACCESSORY CALLOUTS.

E. FOR SIDEWALKS AND EXTERIOR PADS REFER TO CIVIL SITE PLAN AND LANDSCAPE PLAN.

F. ALL EXPOSED STRUCTURAL STEEL TO BE EPOXY PAINTED.

G. HINGE SIDE OF DOORS ARE 6" FROM ADJACENT WALL U.N.O.

H. DIMENSIONS ARE FROM FINISHED FACE TO FINISHED FACE U.N.O.

I. FURNITURE SHOWN FOR REFERENCE ONLY.

J. REFER TO ENLARGED PLANS FOR ADDITIONAL DETAILS.

K. INFILL ALL FLOOR OPENINGS CREATED FROM REMOVAL OF HVAC DUCTWORK PENETRATIONS. REFER TO SHEET A0.05 FOR INFILL DETAILS.

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TITLE
REFERENCE PLANS

SHEET NO.
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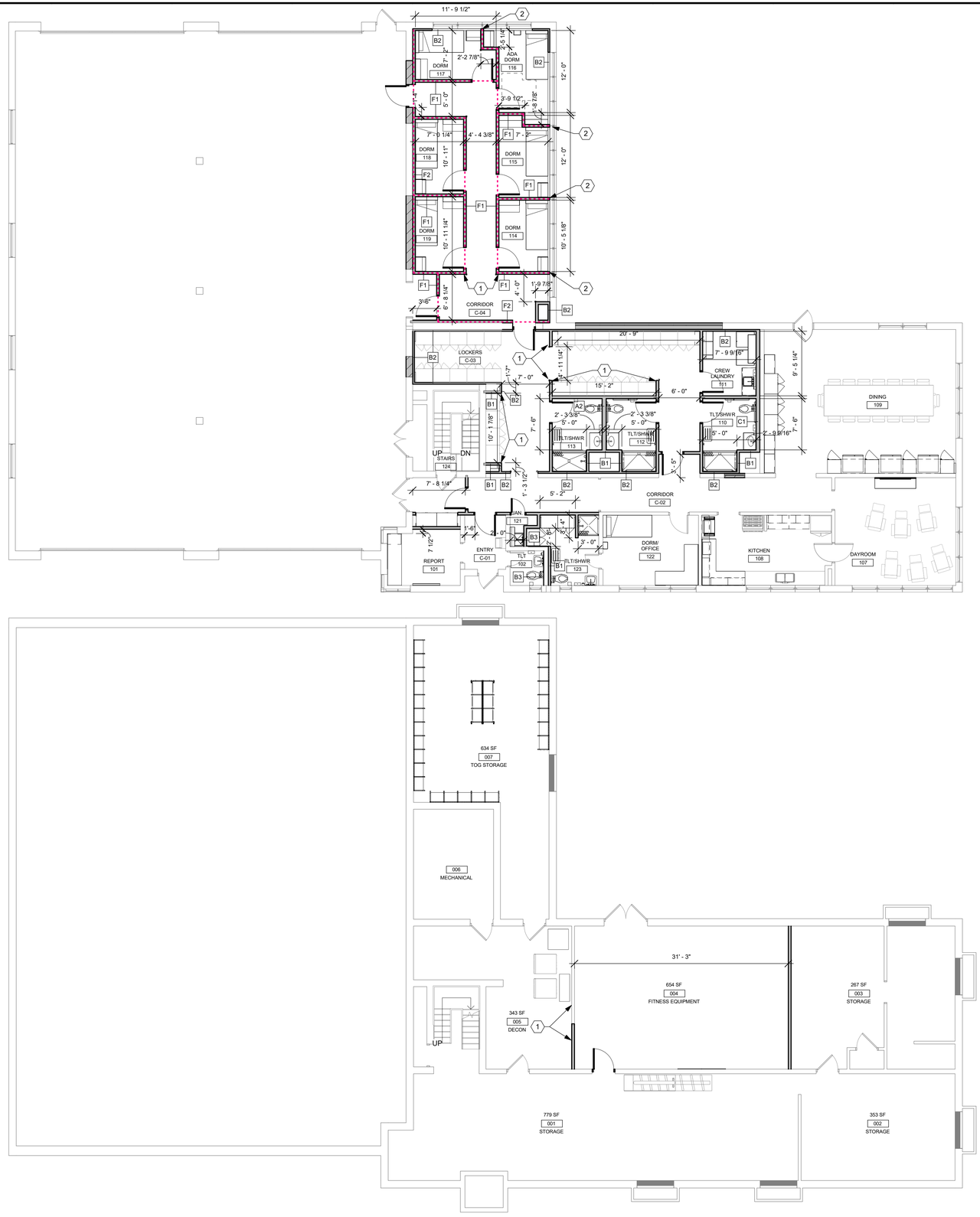

C1 DIMENSION FLOOR PLAN - LEVEL 1
1/8" = 1'-0"

F1 DIMENSION FLOOR PLAN - BASEMENT
1/8" = 1'-0"

CONSTRUCTION NOTES

00 INDICATES CONSTRUCTION NOTE.

1 ALIGN

2 INTENTION IS FOR NEW PARTITIONS TO INTERSECT WINDOW MULLIONS TO ACHIEVE 30 MINUTE FIRE RATING BETWEEN NEW DORM ROOMS. REVIEW ANY DISCREPANCIES WITH ARCHITECT DURING FRAMING LAYOUT.

GENERAL NOTES

A. ALL INTERIOR PARTITIONS ARE TYPE A1 U.N.O.

B. ALL PARTITIONS TO BE CONSTRUCTED TO DECK ABOVE U.N.O.

C. PROVIDE FIRE RETARDANT WOOD BLOCKING BEHIND ALL WALL HUNG ACCESSORIES, CABINETS, FURNISHINGS, HANDRAILS U.N.O.

D. REFER TO EQUIPMENT PLAN AND ELEVATIONS FOR TOILET ROOM ACCESSORY CALLOUTS.

E. FOR SIDEWALKS AND EXTERIOR PADS REFER TO CIVIL SITE PLAN AND LANDSCAPE PLAN.

F. ALL EXPOSED STRUCTURAL STEEL TO BE EPOXY PAINTED.

G. HINGE SIDE OF DOORS ARE 6" FROM ADJACENT WALL U.N.O.

H. DIMENSIONS ARE FROM FINISHED FACE TO FINISHED FACE U.N.O.

I. FURNITURE SHOWN FOR REFERENCE ONLY.

J. REFER TO ENLARGED PLANS FOR ADDITIONAL DETAILS.

K. INFILL ALL FLOOR OPENINGS CREATED FROM REMOVAL OF HVAC DUCTWORK PENETRATIONS. REFER TO SHEET A0.05 FOR INFILL DETAILS.

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TITLE
DIMENSION PLANS

SHEET NO.
A1.13

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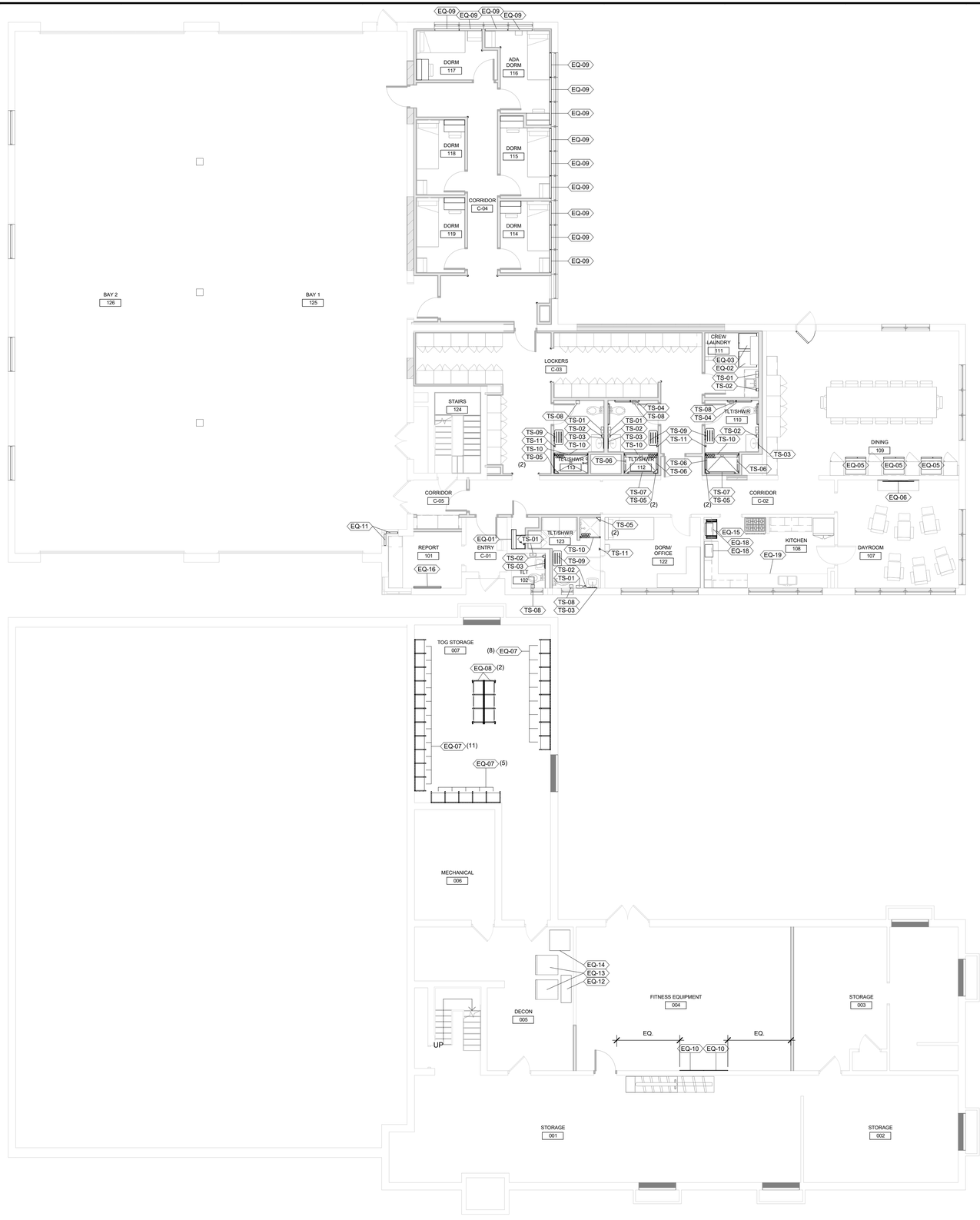
EQUIPMENT SCHEDULE CFCI		
TYPE	DESCRIPTION	COMMENTS
EQ-01	MOP HANGER WITH OVERSHELF	REFER TO SPECIFICATIONS
EQ-09	BLACKOUT ROLL SHADE	REFER TO SPECIFICATIONS
EQ-10	3' - 6" X 7' - 0" MIRROR	REFER TO SPECIFICATIONS
EQ-11	ROOM DARKENING ROLL SHADE	REFER TO SPECIFICATIONS
EQ-16	DRY ERASE BOARD - 4' X 3'	REFER TO SPECIFICATIONS
TS-03	MIRROR, WALL - 18" X 36"	REFER TO SPECIFICATIONS
TS-04	GRAB BAR, STAINLESS STEEL (3) PIECE ASSEMBLY, 18" x 1.5" DIA. 36" X 1.5" DIA. 42" X 1.5" DIA	REFER TO SPECIFICATIONS
TS-05	SOAP DISH, CORNER	REFER TO SPECIFICATIONS
TS-06	GRAB BAR, STAINLESS STEEL 30" x 1.5" DIA.	REFER TO SPECIFICATIONS
TS-07	GRAB BAR, STAINLESS STEEL 48" x 1.5" DIA.	REFER TO SPECIFICATIONS
TS-08	TOILET TISSUE DISPENSER	REFER TO SPECIFICATIONS
TS-09	SEAT, FOLDING	REFER TO SPECIFICATIONS
TS-10	SHOWER ROD AND CURTAIN	REFER TO SPECIFICATIONS
TS-11	ROBE HOOK	REFER TO SPECIFICATIONS

EQUIPMENT SCHEDULE OFCI		
TYPE	DESCRIPTION	COMMENTS
EQ-02	RESIDENTIAL CLOTHES DRYER	
EQ-03	RESIDENTIAL CLOTHES WASHER	
EQ-04	36" RANGE	
EQ-05	REFRIGERATOR 36" x 30"	
EQ-06	80" SMART TV	
EQ-07	TURN OUT GEAR LOCKER	24" X 20" X 72"
EQ-08	MOBILE TURN OUT GEAR LOCKER	24" X 20" X 72"
EQ-18	MICROWAVE	
EQ-19	DISHWASHER	
TS-01	PAPER TOWEL DISPENSER	
TS-02	SOAP DISPENSER	

C1 EQUIPMENT PLAN - LEVEL 1
1/8" = 1'-0"

EQUIPMENT SCHEDULE OFOI		
TYPE	DESCRIPTION	COMMENTS
EQ-12	EXISTING LINT TRAP	REFER TO PLUMBING DRAWINGS
EQ-13	EXISTING DECON GEAR WASHER	EXISTING TO REMAIN
EQ-14	EXISTING DECON GEAR DRYER	EXISTING TO REMAIN
EQ-15	UTILITY CART	

F1 EQUIPMENT PLAN - BASEMENT
1/8" = 1'-0"



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TITLE
EQUIPMENT PLAN

SHEET NO.
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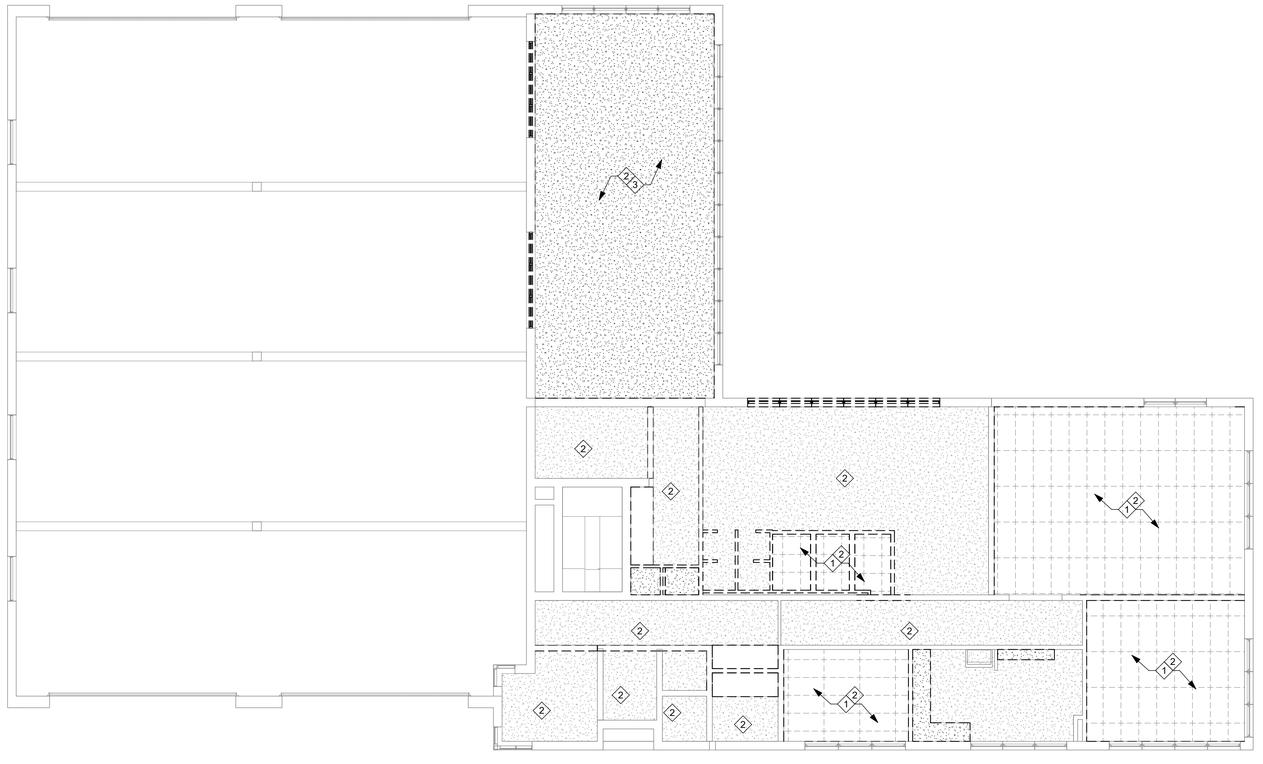
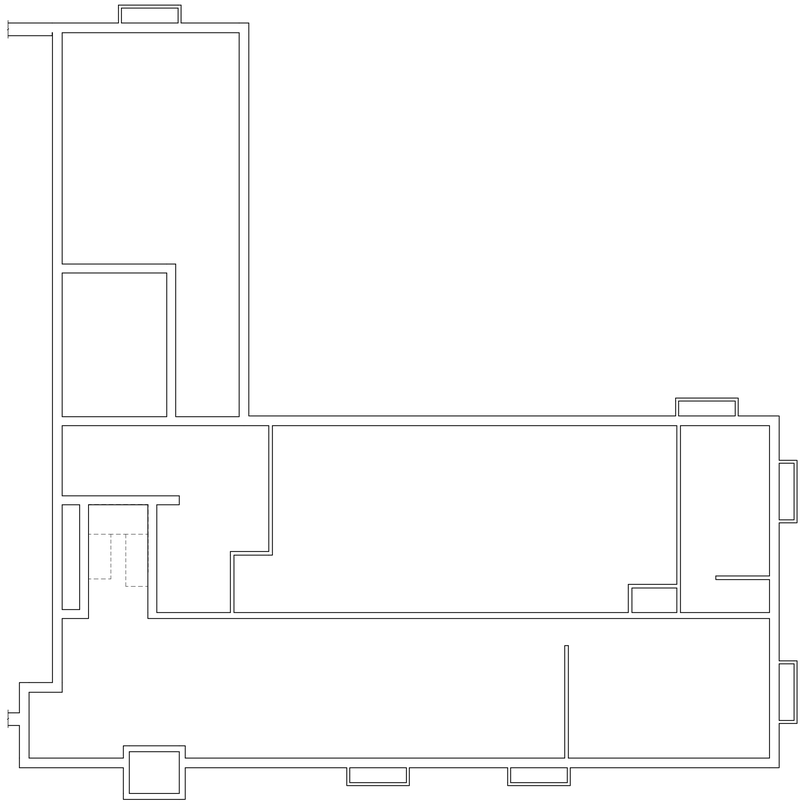


C1 DEMOLITION CEILING PLAN - LEVEL 1
1/8" = 1'-0"



F1 DEMOLITION CEILING PLAN - BASEMENT
1/8" = 1'-0"

DEMOLITION NOTES

◇00◇ INDICATES DEMOLITION NOTE.

1 REMOVE EXISTING ACOUSTIC PANELED CEILING ASSEMBLY (PADS, GRID, AND WIRES)

2 REMOVE EXISTING LIGHT FIXTURES, MECHANICAL DIFFUSERS, AND OTHER CEILING MOUNTED DEVICES. REFER TO P.M.E. DRAWINGS FOR MORE INFO. TYP. (NOT ALL DEVICES SHOWN).

3 REMOVE EXISTING PLASTER CEILING.

GENERAL NOTES

A. DASHED LINES INDICATE BUILDING ELEMENTS, MATERIALS AND EQUIPMENT TO BE REMOVED.

B. DURING DEMOLITION AND RECONSTRUCTION, ATTENTION MUST BE GIVEN TO MAINTAINING AND PRESERVING THE STRUCTURAL INTEGRITY OF THE BUILDING. IF ANY UNFORESEEN SITUATION DEVELOPS, NOTIFY THE OWNER AND ARCHITECT IMMEDIATELY.

C. PRIOR TO CONSTRUCTION, FIELD INVESTIGATE EXISTING CONDITIONS AND NOTIFY THE OWNER AND ARCHITECT OF AND DISCREPANCIES.

D. RENOVATION WORK IS EXTENSIVE THROUGHOUT AREA OF WORK. ACCESSORIES IN MULTIPLE INSTANCES ARE TO BE REMOVED. CONTACT ARCHITECT IF ANY QUESTIONS.

E. REPAIR, LEVEL, AND PREPARE EXISTING CONCRETE FLOOR SLABS TO RECEIVE NEW FLOOR FINISH INCLUDING AREAS WHERE OLD WALLS ARE REMOVED.

F. REFER TO PLUMBING, HVAC & ELECTRICAL DRAWINGS FOR OTHER ITEMS THAT NEED TO BE REMOVED.

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TITLE
DEMOLITION REFLECTED CEILING PLAN

SHEET NO.
A2.11

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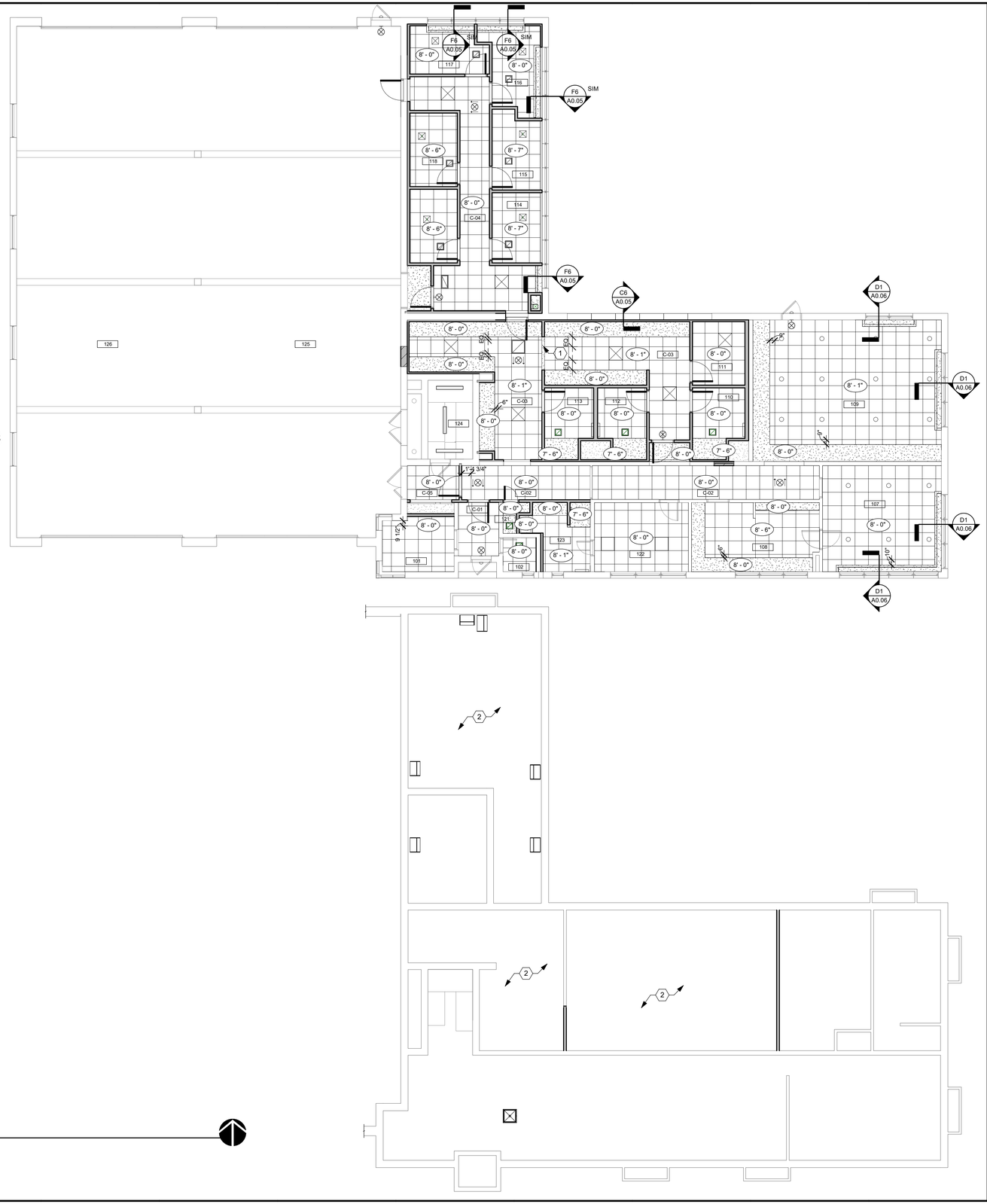

C1 REFLECTED CEILING PLAN - NEW WORK - LEVEL 1
1/8" = 1'-0"

F1 REFLECTED CEILING PLAN - NEW WORK - BASEMENT
1/8" = 1'-0"

CONSTRUCTION NOTES

00 INDICATES CONSTRUCTION NOTE.

1 GYP. BD. BULK HEAD @ 8' - 0"

2 CEILING TO REMAIN OPEN TO STRUCTURE.

GYP. BD. SOFFIT

2X2 APC-1 CEILING

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TITLE
REFLECTED CEILING PLANS

SHEET NO.
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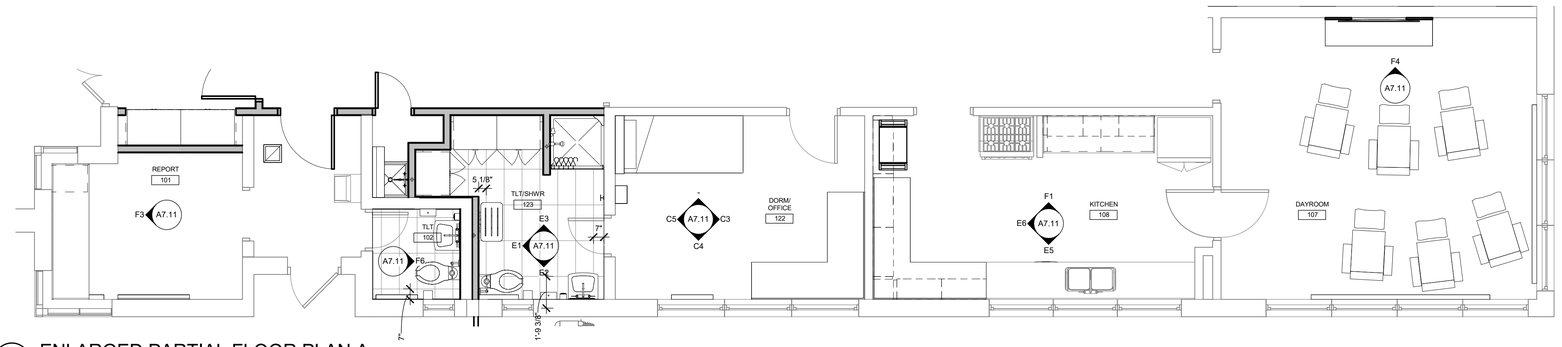
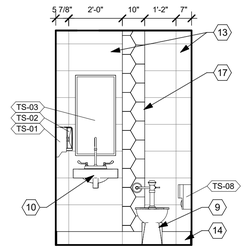
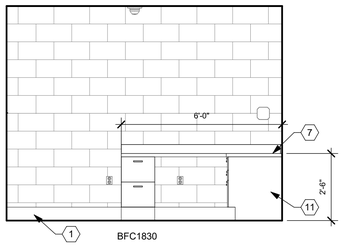


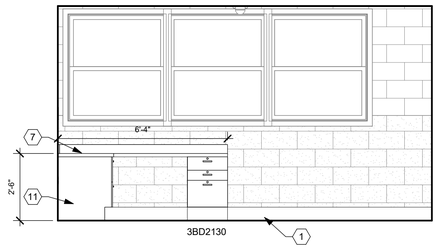
B1 ENLARGED PARTIAL FLOOR PLAN A
1/4" = 1'-0"



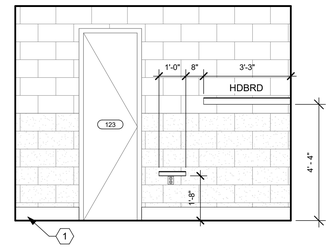
F6 102 TLT EAST
3/8" = 1'-0"



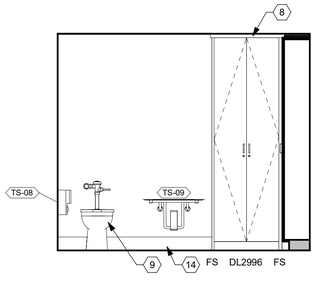
C3 122 DORM/ OFFICE EAST
3/8" = 1'-0"



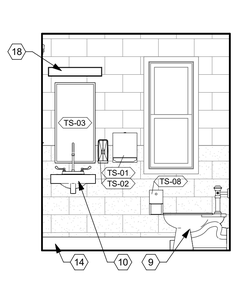
C4 122 DORM/ OFFICE SOUTH
3/8" = 1'-0"



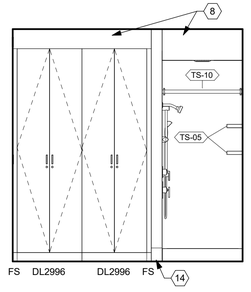
C5 122 DORM/ OFFICE WEST
3/8" = 1'-0"



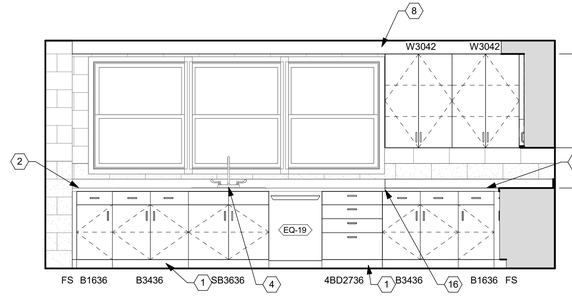
E1 123 TLT/SHWR WEST
3/8" = 1'-0"



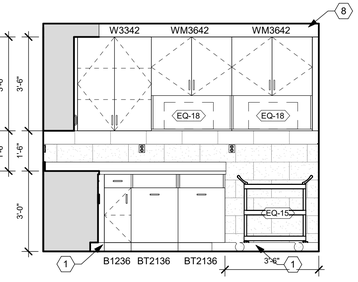
E2 123 TLT/SHWR SOUTH
3/8" = 1'-0"



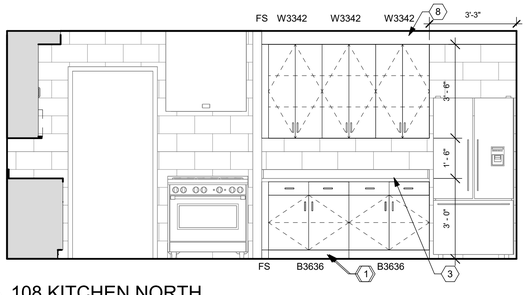
E3 123 TLT/SHWR NORTH
3/8" = 1'-0"



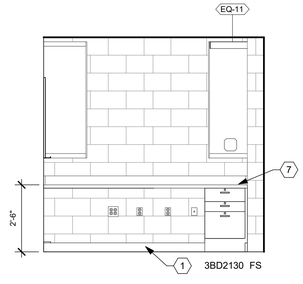
E5 108 KITCHEN SOUTH
3/8" = 1'-0"



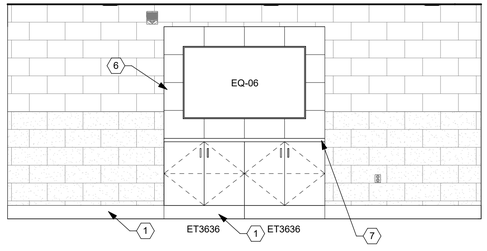
E6 108 KITCHEN WEST
3/8" = 1'-0"



F1 108 KITCHEN NORTH
3/8" = 1'-0"



F3 101 REPORT WEST
3/8" = 1'-0"



F4 107 DAYROOM NORTH
3/8" = 1'-0"

CONSTRUCTION NOTES

00 INDICATES CONSTRUCTION NOTE.
NOT ALL NOTES USED THIS SHEET.

1 WALL BASE. REFER TO FINISH SCHEDULE FOR TYPE.

2 EXISTING STAINLESS STEEL COUNTERTOP AND BACKSPLASH.

3 STAINLESS STEEL COUNTERTOP AND BACKSPLASH. MATCH EXISTING COUNTER.

4 EXISTING SINK. REFER TO PLUMBING DRAWINGS.

5 VINYL WALL PROTECTION. REFER TO FINISH SCHEDULE FOR HEIGHT AND TYPE.

6 WALL-HUNG TV CASEWORK. REFER TO SHEET A8.03 FOR DETAILS.

7 PLASTIC LAMINATE COUNTERTOP. (PL-2)

8 GYPSUM BOARD SOFFIT.

9 TOILET. REFER TO PLUMBING DRAWINGS.

10 SINK. REFER TO PLUMBING DRAWINGS.

11 PLASTIC LAMINATE FINISHED END. (PL-1)

12 ADJUSTABLE SHELVING (ADJS). REFER TO A8.01 FOR DETAILS.

13 PORCELAIN WALL TILE. (PTW-1) ALIGN GROUT LINES WITH FLOOR TILE GROUT LINES.

14 PORCELAIN TILE WALL BASE. (PTWB-1) ALIGN GROUT LINES WITH FLOOR TILE GROUT LINES.

15 3" RADIUS DESK (DSK) CORNER.

16 WELD EXISTING STAINLESS STEEL COUNTER TO NEW STAINLESS STEEL COUNTER. SMOOTH AND POLISH WELDED SURFACE.

17 PORCELAIN WALL TILE. (PTW-2)

18 LIGHT, REFER TO ELECTRICAL DRAWINGS.

GENERAL NOTES

THESE NOTES APPLY TO ALL INTERIOR ELEVATION SHEETS.

EXAMPLE OF CASEWORK DIMENSIONS (2436) INDICATES 24" WIDTH X 36" HEIGHT. FOR DEPTH REFER TO TYPICAL CASEWORK DETAILS U.N.O.

ALL PLASTIC LAMINATE BASE, WALL & TALL CABINETS TO BE (PL-1) U.N.O.

ALL CASEWORK COUNTERTOPS TO BE SOLID SURFACE (SS-1) UNLESS NOTED OTHERWISE.

PROVIDE MIN. 3/4" PLASTIC LAMINATE SCRIBE AGAINST FINISHED WALLS AT BASE, WALL AND TALL CABINETS.

INSTALL SOLID WOOD (FIRE-TREATED) (CONTRACTOR OPTION SHEET STEEL) BLOCKING IN WALLS BEHIND WALLMOUNTED
ITEMS INCLUDING CASEWORK, RAILINGS, TOILET ACCESSORIES, ETC.

REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL RECEPTACLE LOCATIONS. NOT ALL ELECTRICAL DEVICES ARE SHOWN ON ELEVATIONS.

SEE SHEETS A8.0 SERIES FOR TYPICAL CABINET SECTIONS AND DETAILS.

ALL OUTSIDE CORNERS OF SOLID SURFACE COUNTERTOPS SHALL PROJECT 1" PAST CABINET/SUPPORT AND SHALL HAVE 1 1/2" RADIUS CORNER EXCEPT AT REFRIGERATORS AND EQUIPMENT, WHERE SQUARE CORNERS AND 1/4" PROJECTION SHALL BE USED.

SEE SHEET A7.1 FOR ACCESSORY SCHEDULE. NOT EVERY ITEM SHOWN IS LABELED. LABEL IS "TYPICAL" OF OTHERS SHOWN. COORDINATE FINAL POSITION WITH OWNER.

DESIGNATION (XX-X) REFERS TO FINISHES. REFER TO SPECIFICATIONS DIVISION 09 AND SHEET A0.2 & A0.3FOR FINISH DESCRIPTIONS AND ABBREVIATIONS.

ALL COUNTERTOPS 25" DEEP U.N.O.

ALL EXPOSED END PANELS IN CASEWORK TO RECEIVE SAME PLASTIC LAMINATE FINISH AS FRONT SURFACES.

ALL INTERIOR WALLS TO HAVE A WALL BASE. REFER TO FINISH SCHEDULE FOR TYPE.

REFER TO SHEET A0.1 FOR TYPICAL MOUNTING HEIGHT DIMENSIONS.

CASEWORK TYPES (PREFIX) ABBREVIATIONS:

SADA - "ADA" SINK BASE
B - BASE CABINET
4DB - 4 DOOR BASE CABINET
BFC - BASE FILE CABINET
SB - SINK BASE
OB - OPEN SHELF CABINET
W - WALL CABINET
WM - WALL MICROWAVE CABINET
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TITLE
INTERIOR ELEVATIONS

SHEET NO.
A7.11

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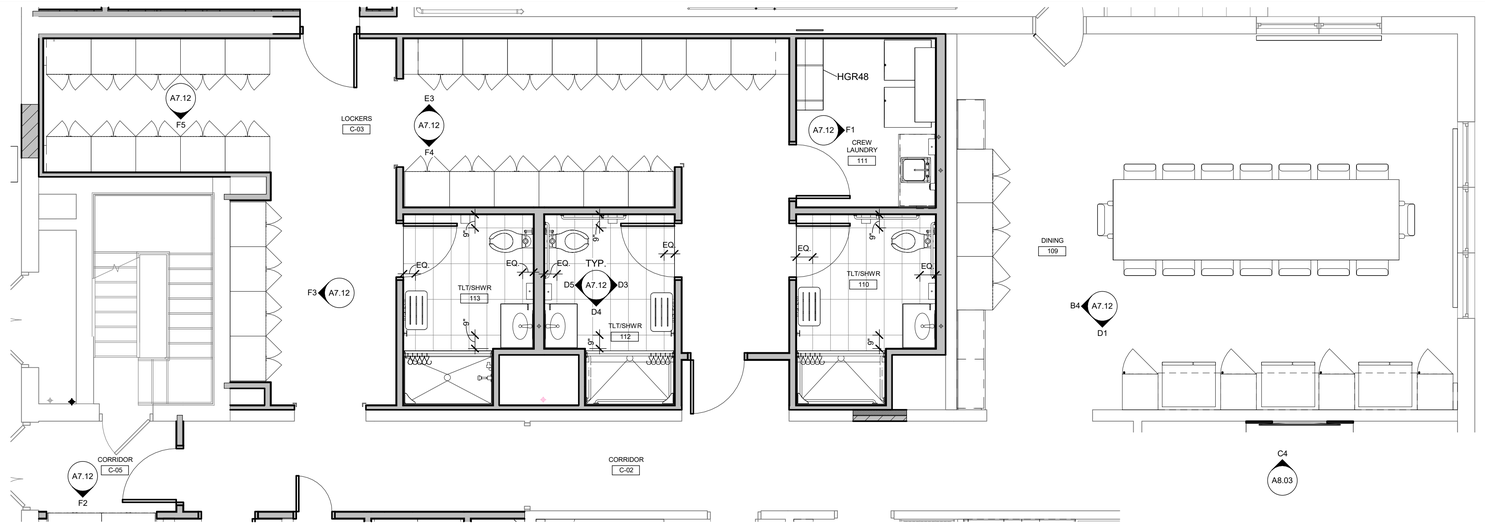
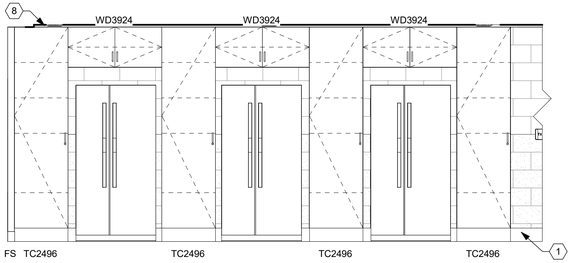
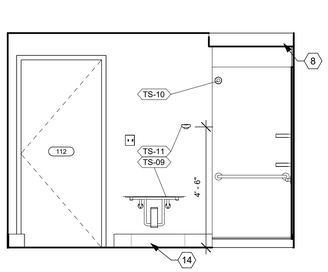


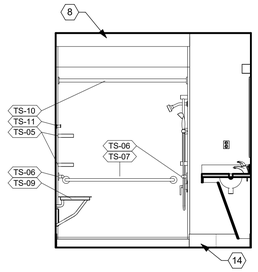
B1 ENLARGED PARTIAL FLOOR PLAN B
1/4" = 1'-0"



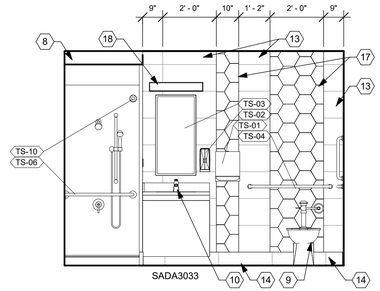
D1 109 DINING SOUTH
3/8" = 1'-0"



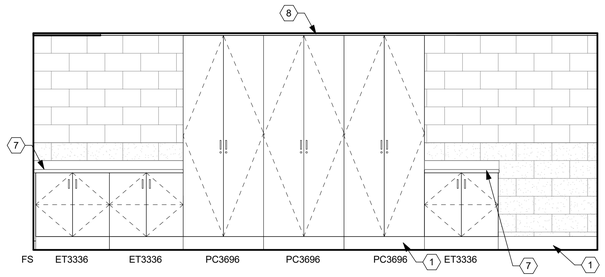
D3 112 TLT/SHWR EAST
3/8" = 1'-0"



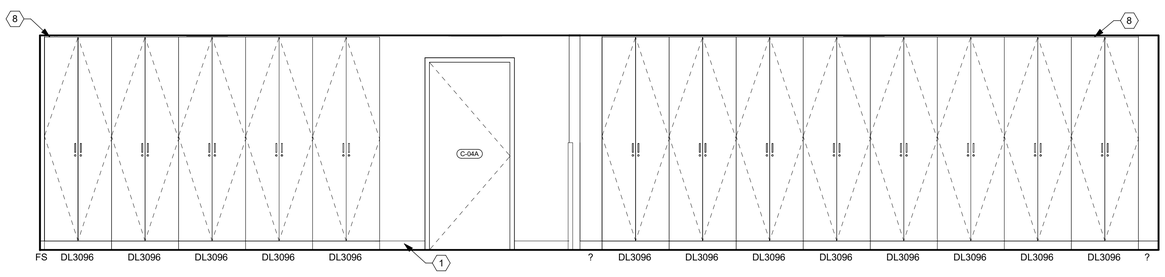
D4 112 TLT/SHWR SOUTH
3/8" = 1'-0"



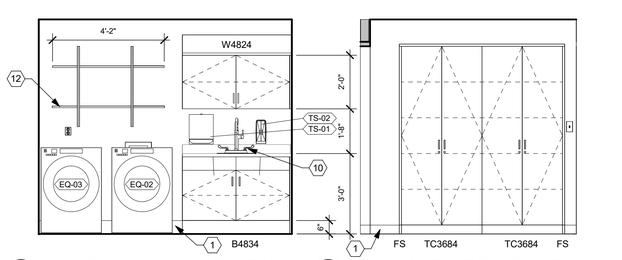
D5 112 TLT/SHWR WEST
3/8" = 1'-0"



B4 109 DINING WEST
3/8" = 1'-0"

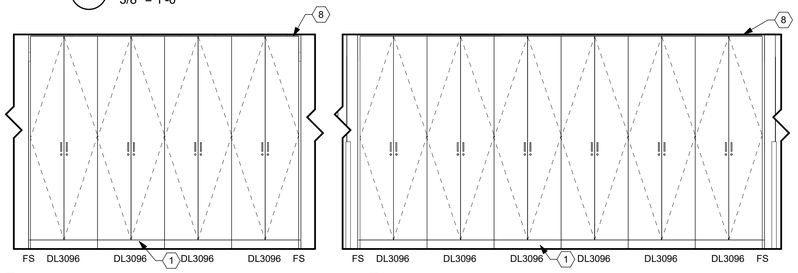


E3 C-03 LOCKERS NORTH
3/8" = 1'-0"



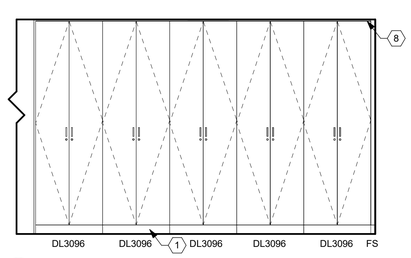
F1 111 CREW LAUNDRY EAST
3/8" = 1'-0"

F2 C-05 DORRIDOR SOUTH
3/8" = 1'-0"



F3 C-03 LOCKERS WEST
3/8" = 1'-0"

F4 C-03 LOCKERS SOUTH A
3/8" = 1'-0"



F5 C-03 LOCKERS SOUTH B
3/8" = 1'-0"

CONSTRUCTION NOTES

00 INDICATES CONSTRUCTION NOTE.
NOT ALL NOTES USED THIS SHEET.

1 WALL BASE. REFER TO FINISH SCHEDULE FOR TYPE.

2 EXISTING STAINLESS STEEL COUNTERTOP AND BACKSPLASH.

3 STAINLESS STEEL COUNTERTOP AND BACKSPLASH. MATCH EXISTING COUNTER.

4 EXISTING SINK. REFER TO PLUMBING DRAWINGS.

5 VINYL WALL PROTECTION. REFER TO FINISH SCHEDULE FOR HEIGHT AND TYPE.

6 WALL-HUNG TV CASEWORK. REFER TO SHEET A8.03 FOR DETAILS.

7 PLASTIC LAMINATE COUNTERTOP. (PL-2)

8 GYPSUM BOARD SOFFIT.

9 TOILET. REFER TO PLUMBING DRAWINGS.

10 SINK. REFER TO PLUMBING DRAWINGS.

11 PLASTIC LAMINATE FINISHED END. (PL-1)

12 ADJUSTABLE SHELVING (ADJS). REFER TO A8.01 FOR DETAILS.

13 PORCELAIN WALL TILE. (PTW-1) ALIGN GROUT LINES WITH FLOOR TILE GROUT LINES.

14 PORCELAIN TILE WALL BASE. (PTWB-1) ALIGN GROUT LINES WITH FLOOR TILE GROUT LINES.

15 3" RADIUS DESK (DSK) CORNER.

16 WELD EXISTING STAINLESS STEEL COUNTER TO NEW STAINLESS STEEL COUNTER. SMOOTH AND POLISH WELDED SURFACE.

17 PORCELAIN WALL TILE. (PTW-2)

18 LIGHT, REFER TO ELECTRICAL DRAWINGS.

GENERAL NOTES

THESE NOTES APPLY TO ALL INTERIOR ELEVATION SHEETS.

EXAMPLE OF CASEWORK DIMENSIONS (2436) INDICATES 24" WIDTH X 36" HEIGHT. FOR DEPTH REFER TO TYPICAL CASEWORK DETAILS U.N.O.

ALL PLASTIC LAMINATE BASE, WALL & TALL CABINETS TO BE (PL-1) U.N.O.

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TITLE
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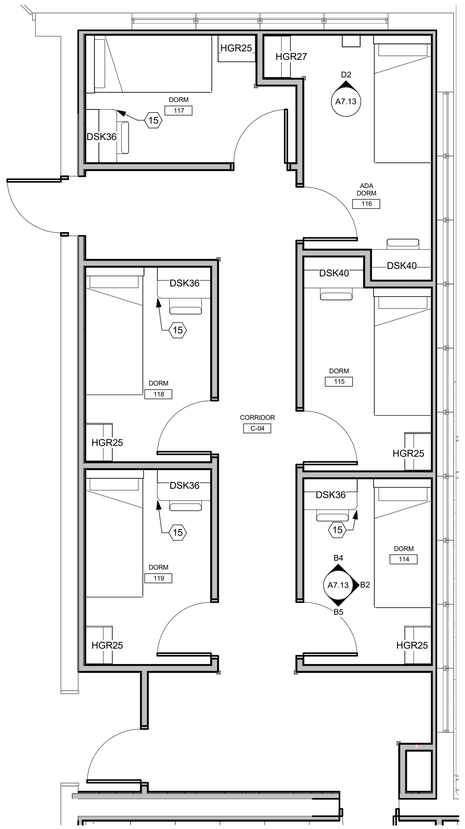
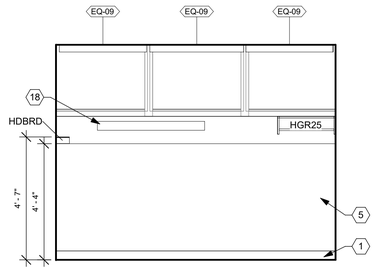
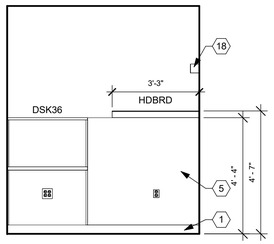


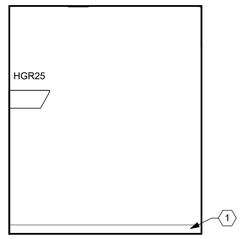
D1 ENLARGED PARTIAL FLOOR PLAN C
1/4" = 1'-0"



B2 114 DORM EAST
3/8" = 1'-0"



B4 114 DORM NORTH
3/8" = 1'-0"



B5 114 DORM SOUTH
3/8" = 1'-0"

D2 116 ADA DORM NORTH
3/8" = 1'-0"

CONSTRUCTION NOTES

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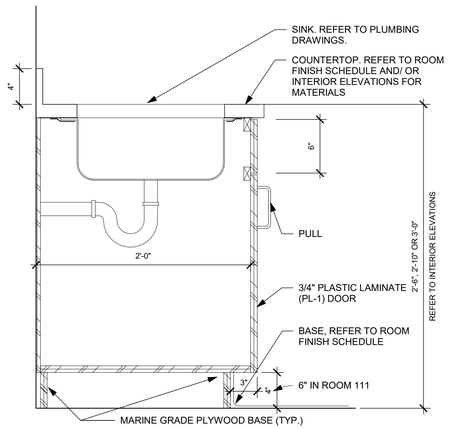
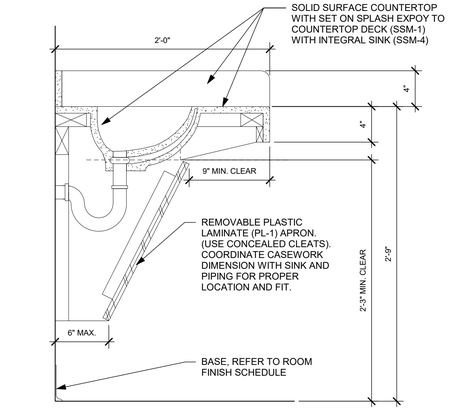
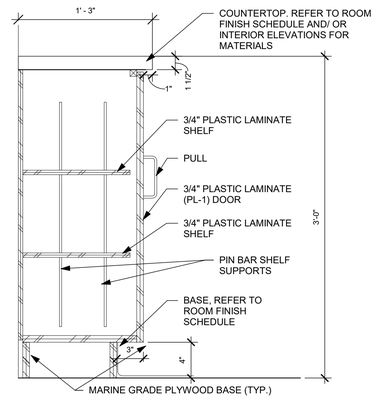


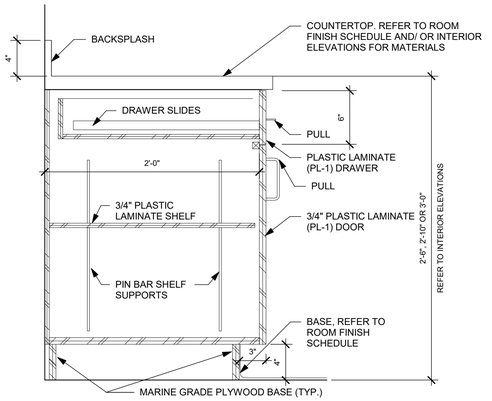
B1 TYP. SINK BASE CABINET (SB) DETAIL
1 1/2" = 1'-0"



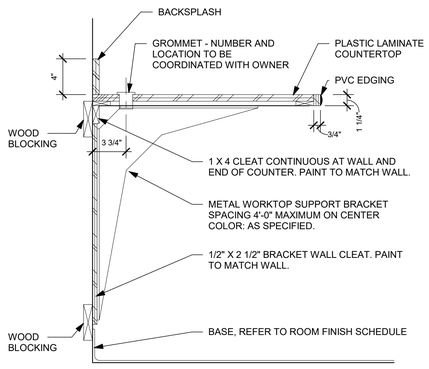
B3 "ADA" SINK (SADA) DETAIL
1 1/2" = 1'-0"



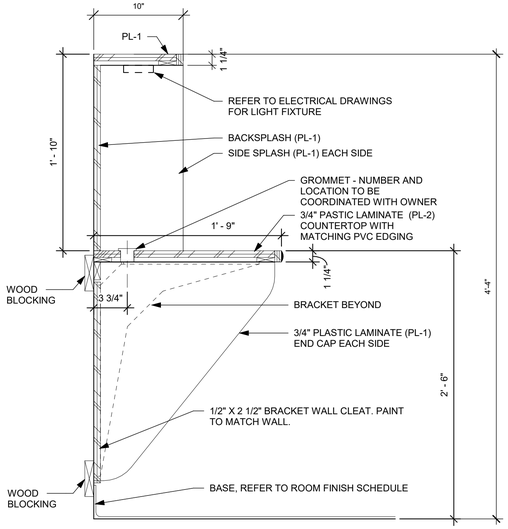
B4 ENTERTAINMENT CABINET (ET)
1 1/2" = 1'-0"



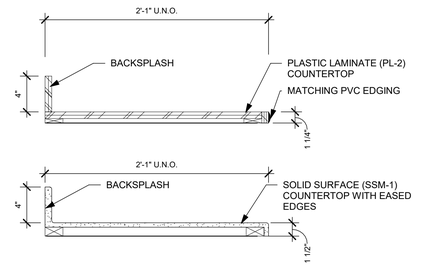
B6 DRAWER BASE CABINET (B) DETAIL
1 1/2" = 1'-0"



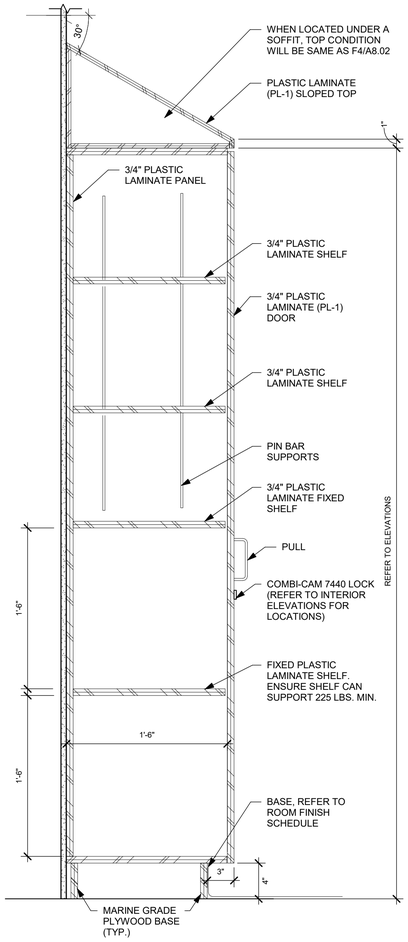
D1 TYP. WORK SURFACE DETAIL
1 1/2" = 1'-0"



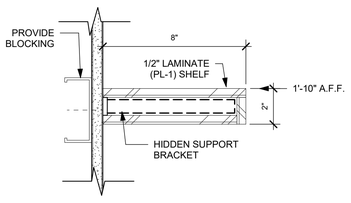
D3 TYP. DORM WORK SURFACE (DSK) DETAIL
1 1/2" = 1'-0"



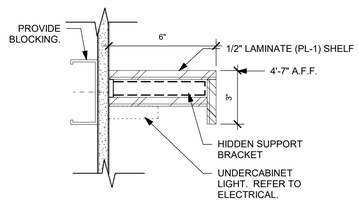
D4 TYP. COUNTER DETAILS1
1 1/2" = 1'-0"



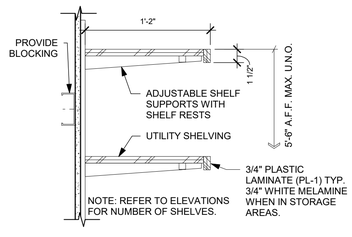
B6 TALL CABINET (TC) DETAIL
1 1/2" = 1'-0"



F1 DORM NIGHT STAND SHELF (NSTND) DETAIL
3" = 1'-0"



F3 DORM HEADBOARD SHELF (HDBRD)
3" = 1'-0"



F4 ADJUSTABLE SHELVING (ADJS)
1 1/2" = 1'-0"

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TITLE
CASEWORK DETAILS

SHEET NO.
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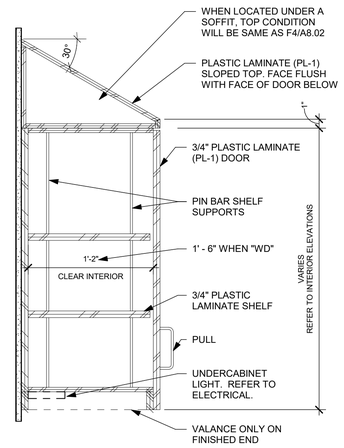
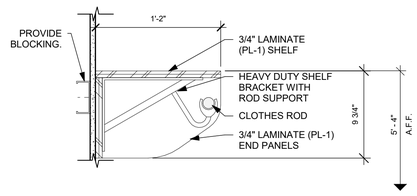
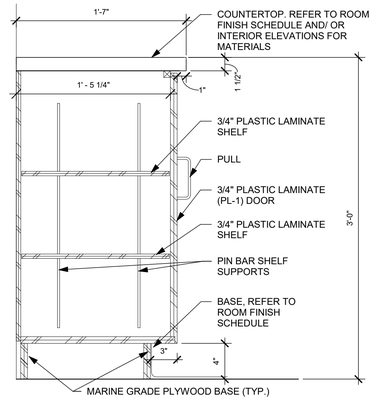


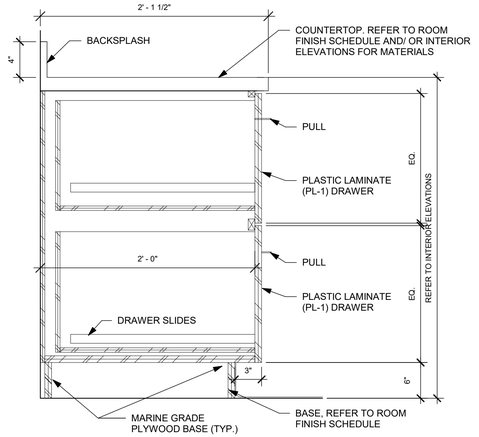
B1 WALL CABINET (W) DETAIL
1 1/2" = 1'-0"



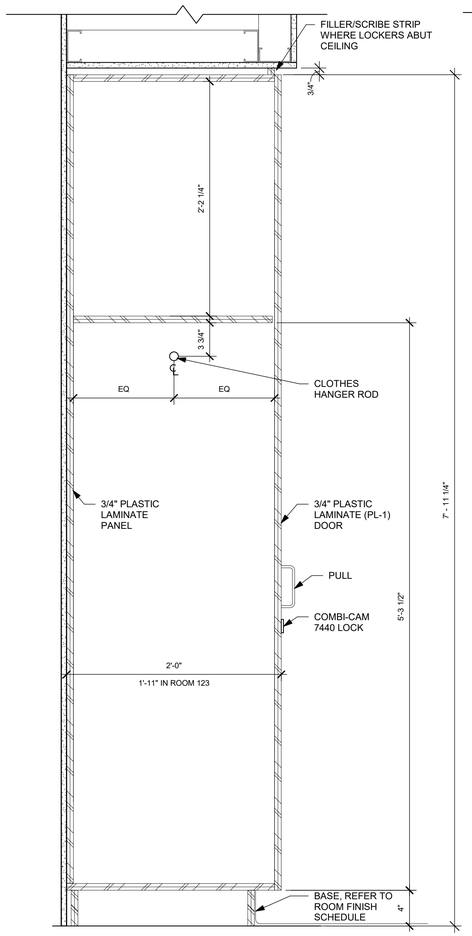
B2 HANGER ROD W/ SHELF (HGR)
1 1/2" = 1'-0"



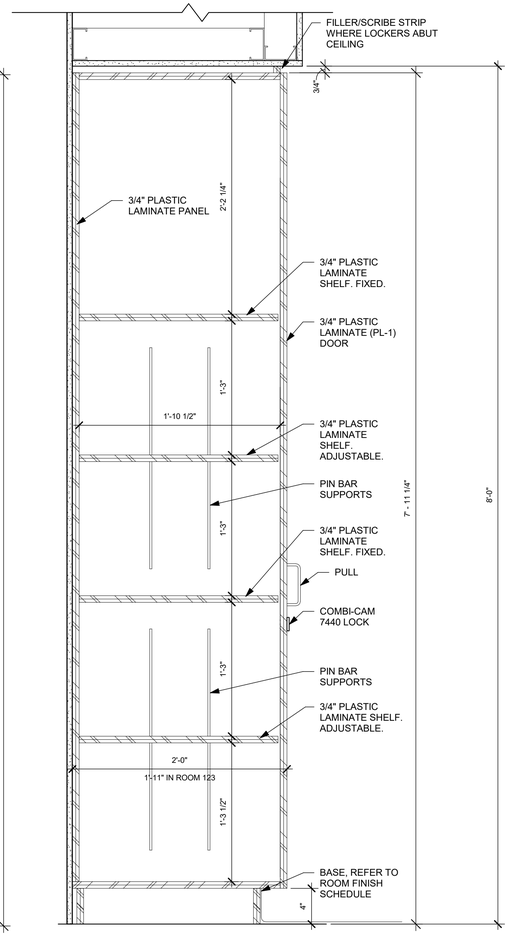
B4 ENTERTAINMENT CABINET (ET)
1 1/2" = 1'-0"



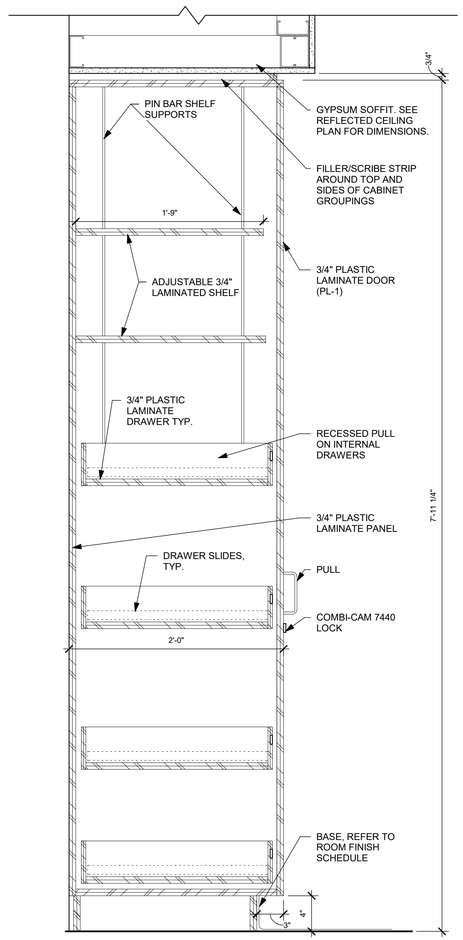
B6 BASE FILE CABINET (BFC) DETAIL
1 1/2" = 1'-0"



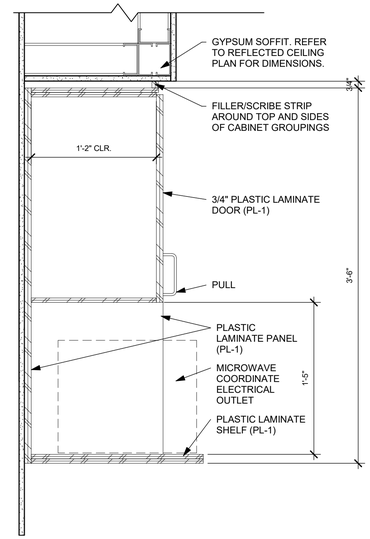
F1 LOCKER (LKR) - HANGER SIDE
1 1/2" = 1'-0"



F2 LOCKER (LKR) - SHELF SIDE
1 1/2" = 1'-0"



F4 PANTRY CABINET (PC) DETAIL
1 1/2" = 1'-0"



F6 MICROWAVE CABINET (WM) DETAIL
1 1/2" = 1'-0"

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CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

NO.	DATE	DESCRIPTION
	08/01/25	FOR CONSTRUCTION

DATE	08/01/25
JOB NO.	4284.01
DRAWN	AEE
CHECKED	CMS/TJB

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TITLE
CASEWORK DETAILS

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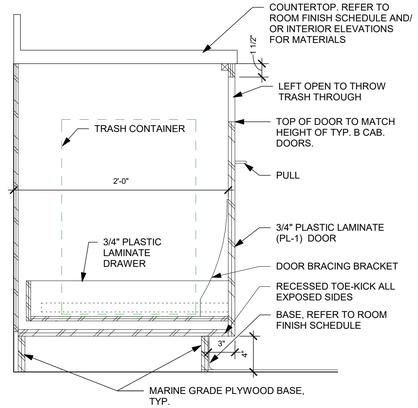
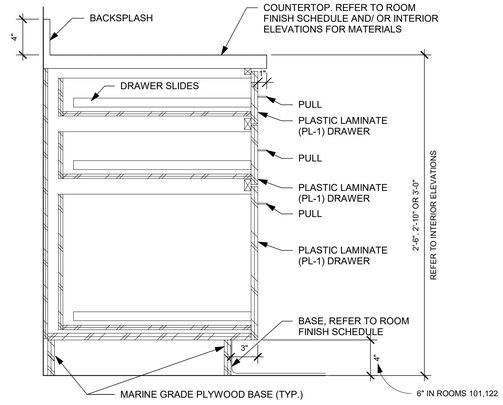
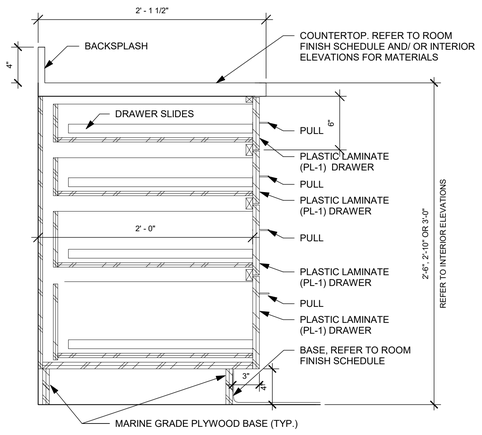


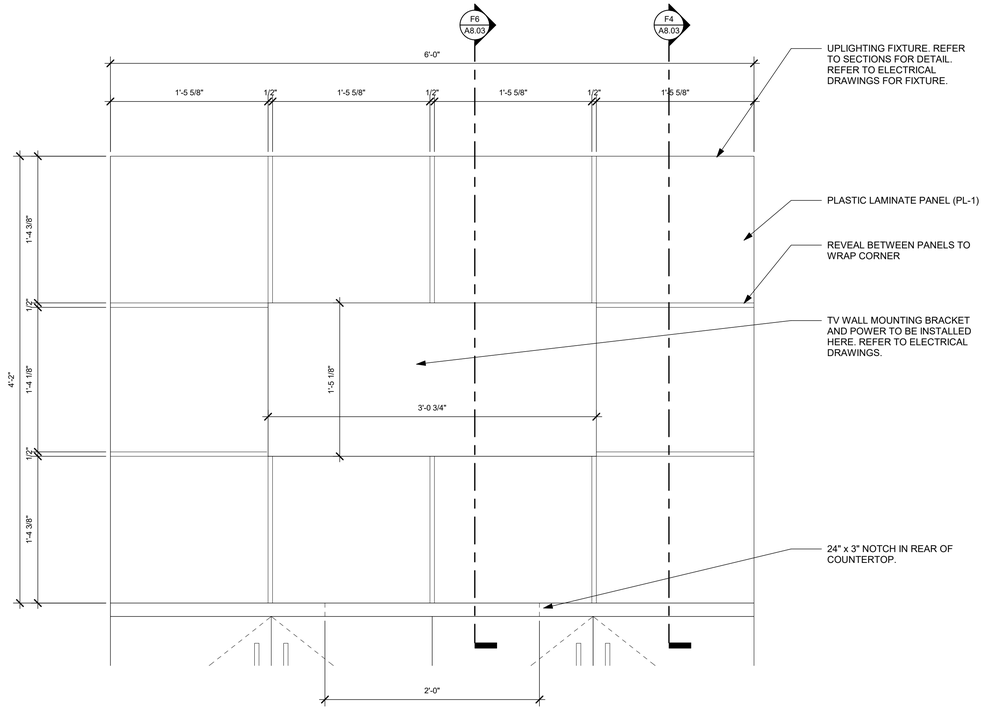
B1 TYP. TRASH BASE CABINET (BT) DETAIL
1 1/2" = 1'-0"



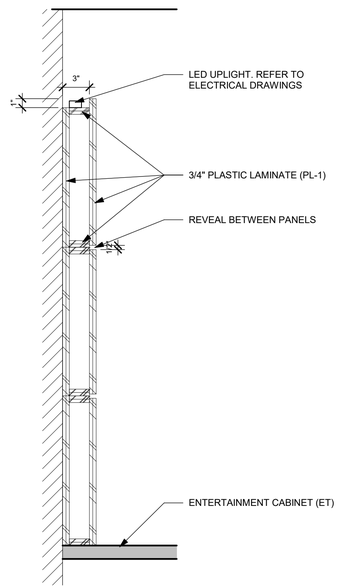
B2 3-DRAWER BASE CABINET (3BD) DETAIL
1 1/2" = 1'-0"



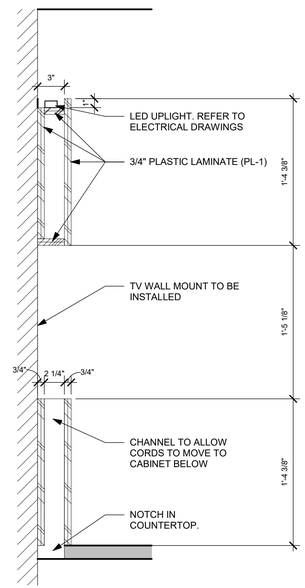
D1 4-DRAWER BASE CABINET (4BD) DETAIL
1 1/2" = 1'-0"



C4 TV DETAIL
1 1/2" = 1'-0"



F4 TV SECTION 1
1 1/2" = 1'-0"



F6 TV SECTION 2
1 1/2" = 1'-0"

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CASEWORK DETAILS

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C1 FINISH FLOOR PLAN - LEVEL 1
1/8" = 1'-0"

F1 FINISH FLOOR PLAN - BASEMENT
1/8" = 1'-0"

CONSTRUCTION NOTES

00 INDICATES CONSTRUCTION NOTE.

2 ALIGN EGDE OF MAT-1.

3 PAINT NEW CMU P-5.

4 EXTENTS OF LVT-1/LVT-2/LVT-3 FLOORING MIX.

5 CLEAN CONCRETE FLOOR.

GENERAL NOTES

A. REFER TO FINISH SCHEDULE A0.02 FOR ADDITIONAL MATERIAL DETAILS A LOCATIONS.

B. TRANSITION STRIPS ARE REQUIRED WHERE DIFFERING FLOORING TYPES MEET.

C. REFER TO ENLARGED FLOOR PLANS FOR TILE LAYOUTS AND DIMENSIONS.

CPT-1 CARPET TILE

MAT-1 WALK OFF MAT

PT-1 PORCELAIN TILE

LVT-1 / LVT-2 LUXURY VINYL TILE
50 / 50 MIX

LVT-1 / LVT-2 / LVT-3 LUXURY VINYL TILE
40 / 40 / 10 MIX

TF-1 RUBBER TILE FLOORING

FLOORING DIRECTION

VWP VWP-1 VINYL WALL PROTECTION

P ACCENT PAINT COLOR / LOCATION

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TITLE
FINISHES FLOOR PLANS

SHEET NO.
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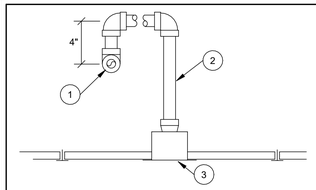
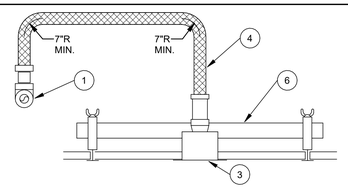
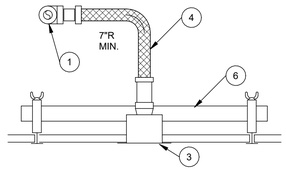


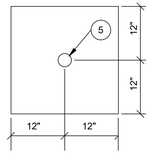
CENTER TILE USING THREADED STEEL PIPE



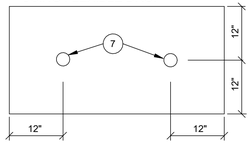
CENTER TILE WITH TWO BENDS USING FLEXIBLE DROP



CENTER TILE WITH ONE BEND USING FLEXIBLE DROPS



TYPICAL 2'x2' CEILING TILE INSTALLATION



TYPICAL 2'x4' CEILING TILE INSTALLATION

1. SPRINKLER BRANCH LINE.
2. THREADED STEEL PIPING.
3. SPRINKLER HEAD. SEE DESIGN CRITERIA FOR HEAD TYPE.
4. FLEXIBLE SPRINKLER HOSE.
5. SPRINKLER HEAD MOUNTED IN CENTER OF 2'x2' CEILING TILE.
6. MOUNTING BRACKET PROVIDED WITH FLEXIBLE HOSE.
7. SPRINKLER HEAD MOUNTED AT EITHER QUARTER POINT OF CEILING TILE.

GENERAL NOTES:

FLEXIBLE SPRINKLER PIPING SHALL MEET FM STANDARDS FOR MINIMUM BEND RADIUS AND MAXIMUM NUMBER OF BENDS.

ONE BEND IS EQUAL TO ONE 90° DEGREE CHANGE IN PIPING DIRECTION.

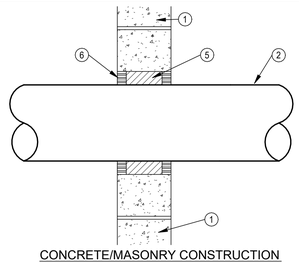
TWO BENDS IS EQUAL TO TWO 90° DEGREE, TOTAL OF 180°, CHANGE IN PIPE DIRECTION.

REFER TO FLEXIBLE HOSE MANUFACTURERS SPECIFICATION FOR THE ALLOWABLE NUMBER OF BENDS IN PROVIDED LENGTHS OF FLEXIBLE HOSES.

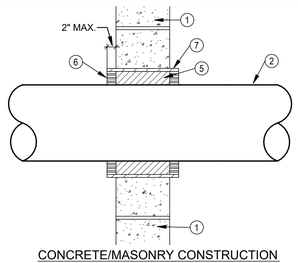
THE FIRE SUPPRESSION CONTRACTOR IS RESPONSIBLE FOR COORDINATING SPRINKLER PIPING BRANCH RUNS TO ALLOW FOR FM APPROVED INSTALLATION OF FLEXIBLE HOSES.

FLEXIBLE HOSES SHALL BE CONSTRUCTED WITH ANNULAR CORRIGATIONS. HELICAL CORRUGATIONS ARE NOT ACCEPTED.

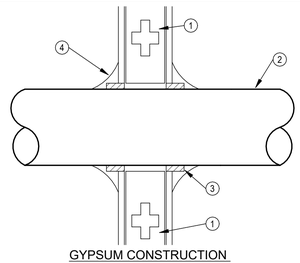
1 SPRINKLER HEAD FINAL CONNECTIONS
N.T.S.



CONCRETE/MASONRY CONSTRUCTION
1/2" - 1.5" PIPES



CONCRETE/MASONRY CONSTRUCTION
2" AND LARGER PIPES



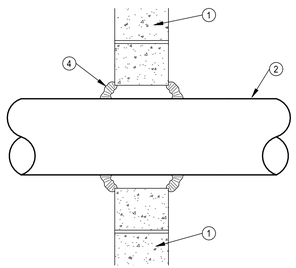
GYPSUM CONSTRUCTION
ALL PIPE SIZES

FIRESTOPPING MATERIALS/INSTALLATION

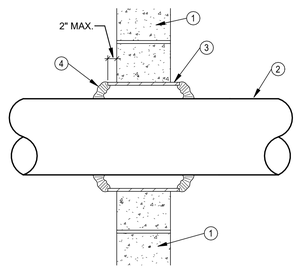
- MANUFACTURERS: REFER TO SPECIFICATION
- FIRESTOPPING MATERIAL INSTALLATION SHALL BE PER THE MANUFACTURERS DETAILED INSTALLATION DIAGRAMS AND INSTRUCTIONS.
- F-RATING OF PENETRATION SHALL BE NO LESS THAN THE FIRE RATING OF THE WALL.
- SUBMITTAL SHALL INCLUDE PRODUCT DATA AND DETAILED INSTALLATION SYSTEM DIAGRAMS.

1. RATED WALL ASSEMBLY.
2. PIPE.
3. APPROVED FIRESTOPPING VOID/CAVITY MATERIAL.
4. APPROVDED FIRESTOPPING CAULK OR SEALANT.
5. PACKING MATERIAL, MINERAL WOOL BATT INSULATION.
6. APPROVED FIRESTOPPING CAULK OR SEALANT FLUSH WITH SURFACE OF WALL OR EDGE OF SLEEVE.
7. SCHEDULE 40 STEEL PIPE SLEEVE CAST OR GROUTED INTO WALL ASSEMBLY. ENDS FLUSH OR MAX. 2" BEYOND WALL SURFACE.

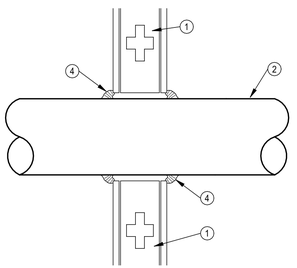
2 PIPE PENETRATIONS THRU FIRE RATED WALL
N.T.S.



CONCRETE/MASONRY CONSTRUCTION
1/2" - 1.5" PIPES



CONCRETE/MASONRY CONSTRUCTION
2" AND LARGER PIPES



GYPSUM CONSTRUCTION
ALL PIPE SIZES

1. FULL HEIGHT INTERIOR WALL.
2. PIPE OR TUBING.
3. SCHEDULE 40 STEEL PIPE SLEEVE CAST OR GROUTED INTO WALL ASSEMBLY. ENDS FLUSH OR MAX. 2" BEYOND WALL SURFACE.
4. CAULK TO FILL VOID AT WALL/SLEEVE OPENING.

3 PIPE PENETRATIONS THRU NON-RATED WALL
N.T.S.

FIRE SUPPRESSION PIPING

GENERAL NOTES:

PIPING SHALL CONFORM TO OBC REQUIREMENTS.

PIPING INSTALLATION AND TESTING SHALL COMPLY WITH NFPA 13 (2022 EDITION).

PROVIDE PIPING SLEEVES AT WALLS IN NEW CONSTRUCTION.

PIPING SHALL BE PITCHED FOR DRAINAGE.

PROVIDE DIELECTRIC FITTINGS FOR TRANSITIONS BETWEEN FERROUS AND NON-FERROUS PIPING SYSTEMS.

CLOSE OPEN ENDS OF PIPING DURING CONSTRUCTION.

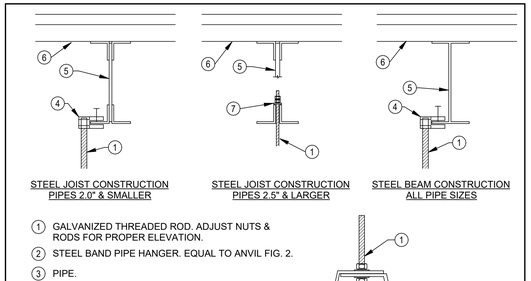
PIPE AND TUBING SHALL BE CUT AND FABRICATED TO FIELD MEASUREMENTS AND RUN PARALLEL TO NORMAL BUILDING LINES. PIPE INTERIOR SHALL BE CLEANED OF FOREIGN MATTER AND BURRS BEFORE ERECTION OF PIPE.

PIPING SHALL NOT BE RUN ABOVE ELECTRICAL SWITCHGEAR OR PANELBOARDS, NOR ABOVE THE ACCESS SPACE OF SUCH EQUIPMENT - NEC ARTICLE 384.

FLEXIBLE HOSES SHALL BE CONSTRUCTED WITH ANNULAR CORRIGATIONS. HELICAL CORRUGATIONS ARE NOT ACCEPTED.

PIPING SYSTEM	TYPE
WET PIPE SPRINKLER 2.5" AND LARGER	S1, S2, S3
WET PIPE SPRINKLER 2" AND SMALLER	S2
FINAL CONNECTION TO SPRINKLER HEAD	F1

TYPE	DESCRIPTION	TYPE	DESCRIPTION
S1	**ROLL GROOVED BLACK STEEL** SCHEDULE 10, ASTM A135 OR ASTM A795 MALLEABLE/DUCTILE FITTINGS NITRILE /EPDM GASKETS ASTM A47/A47M OR A536	S3	**ROLL/CUT GROOVED BLACK STEEL** SCHEDULE 40, ASTM A53 OR ASTM A795 MALLEABLE/DUCTILE FITTINGS NITRILE /EPDM GASKETS ASTM A47/A47M OR A536
S2	**THREADED BLACK STEEL** SCHEDULE 40, ASTM A53 OR ASTM A795, 150 LB. MALLEABLE OR C.I. SCREWED FITTINGS	F1	**FLEXIBLE SPRINKLER HOSE FITTING** 36" LENGTH MAXIMUM FULLY STAINLESS STEEL FLEXIBLE HOSE WITH CEILING BRACKET UL 2443 AND FM 1637 175 PSI RATING FOLLOW UL STANDARDS FOR BEND RADIUS AND NUMBER OF BENDS

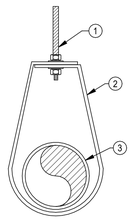


STEEL JOIST CONSTRUCTION PIPES 2.0" & SMALLER

STEEL JOIST CONSTRUCTION PIPES 2.5" & LARGER

STEEL BEAM CONSTRUCTION ALL PIPE SIZES

1. GALVANIZED THREADED ROD. ADJUST NUTS & RODS FOR PROPER ELEVATION.
2. STEEL BAND PIPE HANGER. EQUAL TO ANVIL FIG. 2.
3. PIPE.
4. THREADED ROD BEAM CLAMP.
5. STEEL JOIST OR BEAM.
6. METAL DECKING. DIRECT ATTACHMENT TO DECKING IS PROHIBITED. PROVIDE SUPPLEMENTAL STEEL ANGLES OR UNISTRUT WHERE REQUIRED FOR PROPER HANGER SPACING OR IN LIEU OF ATTACHMENTS SHOWN.
7. RETAINING NUTS & WASHERS.



4 PIPE HANGER
N.T.S.

GENERAL NOTES

A. PROVIDE A COMPLETE SPRINKLER SYSTEM THROUGHOUT THE AREA DESIGNATED.

B. ALL FIRE SUPPRESSION EQUIPMENT SHALL BE UL LISTED FOR FIRE SUPPRESSION SERVICE.

C. ALL FIRE SUPPRESSION SYSTEMS (SERVICE MAIN, FIRE DEPT. CONNECTION, SPRINKLER SYSTEM, INSPECTOR TEST, DRAIN, ETC.) SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HOURS WITH NO VISIBLE LEAKAGE. ALL CONCEALED PIPING SHALL BE AIR TESTED, WITH NO LEAKAGE, PRIOR TO FILLING SYSTEM WITH WATER. THE FIRE PROTECTION CONTRACTOR SHALL NOTIFY ALL AUTHORITIES HAVING JURISDICTION 24 HOURS PRIOR TO THE TEST TO ALLOW AHJ TO WITNESS ALL TESTS.

D. ALL VALVES CONTROLLING WATER SUPPLIES SHALL BE PROVIDED WITH TAMPER SWITCHES (SEE NOTE E).

E. THE FIRE SPRINKLER SYSTEM SHALL BE SUPERVISED BY AN APPROVED CENTRAL STATION FIRE ALARM SYSTEM IN ACCORDANCE WITH O.B.C. AND N.F.P.A. 72.

F. THE FIRE SUPPRESSION CONTRACTOR SHALL COORDINATE WIRING OF ELECTRICAL FIRE SUPPRESSION DEVICES AND EQUIPMENT WITH THE ELECTRICAL AND/OR FIRE ALARM CONTRACTOR. ALL FIRE ALARM WIRING BY ELECTRICAL CONTRACTOR. ALL DEVICES SHALL BE FURNISHED AND INSTALLED BY THE FIRE SUPPRESSION CONTRACTOR.

G. THE FIRE SUPPRESSION CONTRACTOR SHALL COORDINATE THE LAYOUT OF THE FIRE SUPPRESSION SYSTEM WITH ALL TRADES PRIOR TO INSTALLATION.

H. THE FIRE SUPPRESSION CONTRACTOR SHALL CENTER (WITHIN 1") ALL CONCEALED SPRINKLER HEADS INSTALLED IN ACOUSTICAL LAY-IN CEILING TILES. ALL PENDENT SPRINKLER HEADS IN CEILINGS SHALL BE SYMMETRICAL WITH LIGHTING AND AIR DEVICES.

I. VERIFY THE LOCATION AND TYPE OF FIRE DEPARTMENT CONNECTION WITH THE FIRE DEPARTMENT.

J. LOCAL SPRINKLER ALARM AND REMOTE ALARM AND SUPERVISION SHALL BE THRU THE FIRE ALARM SYSTEM PROVIDED BY THE E.C.

K. CONCEALED, NONCOMBUSTIBLE ATTIC SPACES DO NOT REQUIRE SPRINKLERS.

L. FINAL APPROVAL IS SUBJECT TO ACCEPTANCE AND TESTING BY ALL AHJ.

GENERAL LEGEND

EC	ELECTRICAL CONTRACTOR.
FC	FIRE PROTECTION CONTRACTOR.
GC	GENERAL CONTRACTOR.
HC	HVAC CONTRACTOR.
PC	PLUMBING CONTRACTOR.
TC	TEMPERATURE CONTROLS CONTRACTOR.
NIC	NOT IN CONTRACT.
AFF	ABOVE FINISHED FLOOR - TO BOTTOM OF ITEM UNLESS INDICATED OTHERWISE IN DRAWING.
(E)	EXISTING.
ES	EQUIPMENT SUPPLIER.
EM	EMERGENCY.
MH	MOUNTING HEIGHT.
S	SURFACE MOUNTED.
WP	WEATHER PROOF.
3	NOTE SYMBOL - APPLIES ONLY TO SHEET ON WHICH IS SHOWN.
2	DETAIL NOTE SYMBOL - APPLIES ONLY TO DETAIL ON WHICH IS SHOWN.
H-1	EQUIPMENT REFERENCE SYMBOL. ELECTRICAL CONNECTION REQUIRED.
H-1	EQUIPMENT REFERENCE SYMBOL. NO ELECTRICAL CONNECTION REQUIRED.
123	ROOM NUMBER.
B / H2	DETAIL SYMBOL DETAIL "B" SHOWN ON SHEET H2.
A / H1	SECTION SYMBOL SECTION "A" DESIGNATION, SHOWN ON SHEET H1.
	CONNECTION, NEW TO EXISTING.
FD1	UP TO SYMBOL UP TO "FD1", SHOWN ON FLOOR ABOVE.
	1 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	2 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	3 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	ITEM TO BE REMOVED.
	EXISTING TO REMAIN.
	NEW ITEM.

FIRE SUPPRESSION INDEX OF DRAWINGS

DESIGN CRITERIA

1. DESIGN AND INSTALLATION OF SERVICE MAIN AND WET PIPE SPRINKLER SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE 2024 OHIO BUILDING CODE, N.F.P.A. 13 (2020 EDITION), AND ALL AUTHORITIES HAVING JURISDICTION (AHJ).
2. WORKING PLANS AND HYDRAULIC CALCULATIONS SHALL BE PREPARED, SUBMITTED, AND APPROVED PRIOR TO INSTALLATION, BY THE FIRE SUPPRESSION CONTRACTOR. PLANS SHALL INCLUDE ALL ITEMS LISTED IN N.F.P.A. 13.
3. WATER SUPPLY DATA: THE FIRE SUPPRESSION CONTRACTOR IS RESPONSIBLE FOR CONDUCTING A FLOW TEST TO OBTAIN CURRENT WATER SUPPLY DATA FROM THE NEW WATER DISTRIBUTION SYSTEM FOR USE IN THE HYDRAULIC CALCULATIONS.
4. HYDRAULIC DESIGN CRITERIA FOR LIGHT HAZARD AREAS: (ALL AREAS EXCEPT WHERE NOTED OTHERWISE)
   - DENSITY: 0.10 GPM/SQ.FT.
   - DESIGN AREA: MOST DEMANDING 1500 SQ. FT. (REDUCTION WITH QUICK RESPONSE HEADS PERMITTED)
   - MAX SPRINKLER COVERAGE: 225 SQ. FT./HEAD
   - HOSE DEMAND: 100 GPM
   - DURATION: 30 MINUTES
5. HYDRAULIC DESIGN CRITERIA FOR ORDINARY HAZARD (GROUP 1) AREAS: (STORAGE ROOMS, MECHANICAL ROOMS, JANITOR'S ROOMS, KITCHEN, COMMUNICATION ROOMS)
   - DENSITY: 0.15 GPM/SQ.FT.
   - DESIGN AREA: MOST DEMANDING 1500 SQ. FT.
   - MAX SPRINKLER COVERAGE: 130 SQ. FT./HEAD
   - HOSE DEMAND: 250 GPM
   - DURATION: 60 MINUTES
6. ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE.
7. SPRINKLER HEADS IN AREAS WITH FINISHED CEILINGS SHALL BE CONCEALED PENDENT TYPE WITH FLAT PLATE AND CUSTOM COLOR TO MATCH THE ADJACENT CEILING COLOR OR FINISH. / WHITE FINISH.
8. SPRINKLER HEADS IN AREAS WITH NO CEILINGS SHALL BE BRASS/ CUSTOM COLOR UPRIGHTS. SIDEWALL SPRINKLER HEADS MAY ALSO BE USED IN STAIRWELLS WHERE PROPER COVERAGE CAN BE PROVIDED.

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone (937) 223-3821

PROJECT # 24066

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937-836.8898 F 937-832-3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI 63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

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TITLE
LEGENDS AND SCHEDULES

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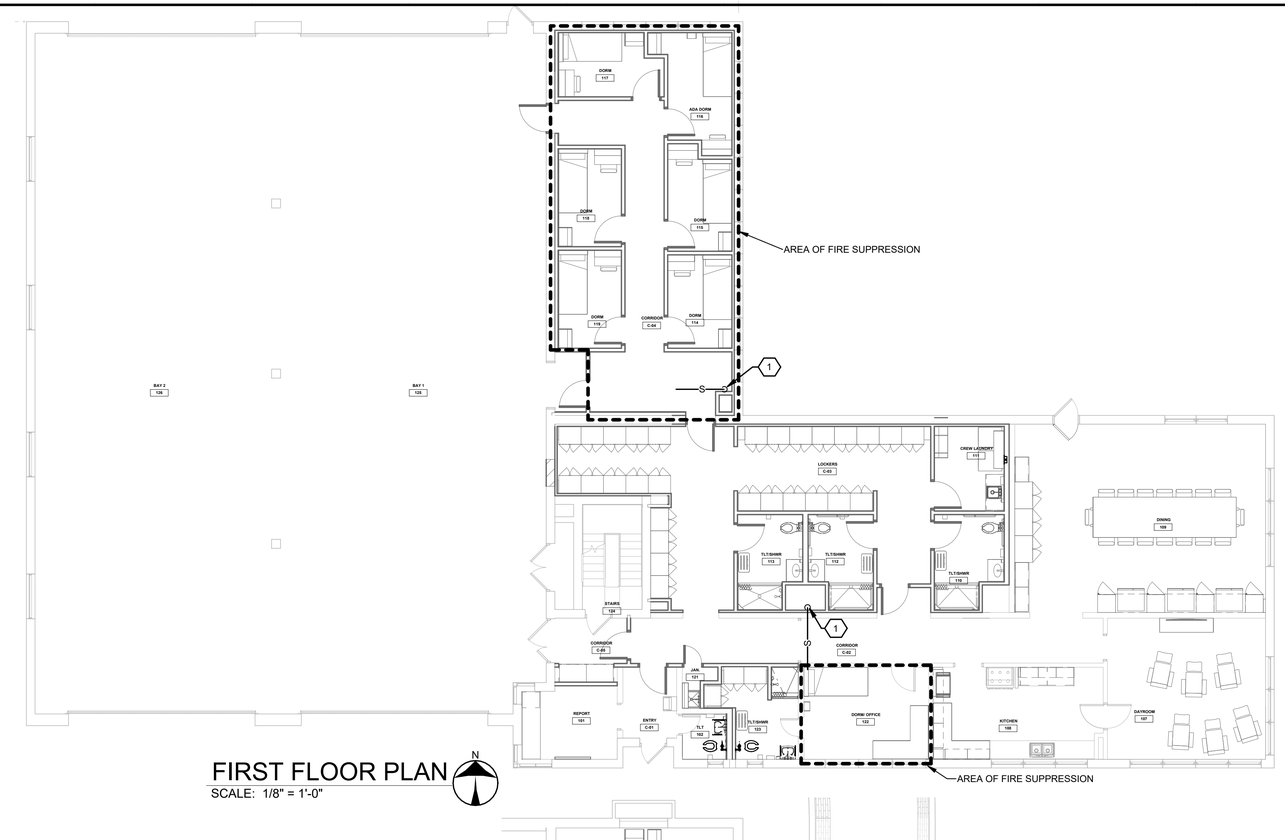
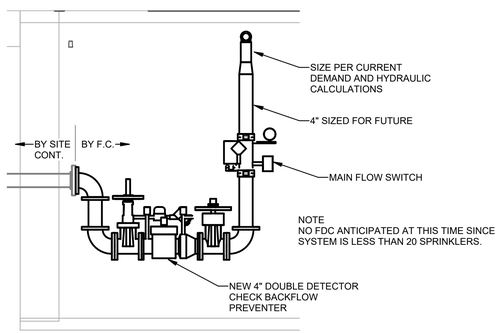
CONSTRUCTION NOTES

1. SPRINKLER RISER FROM BELOW.



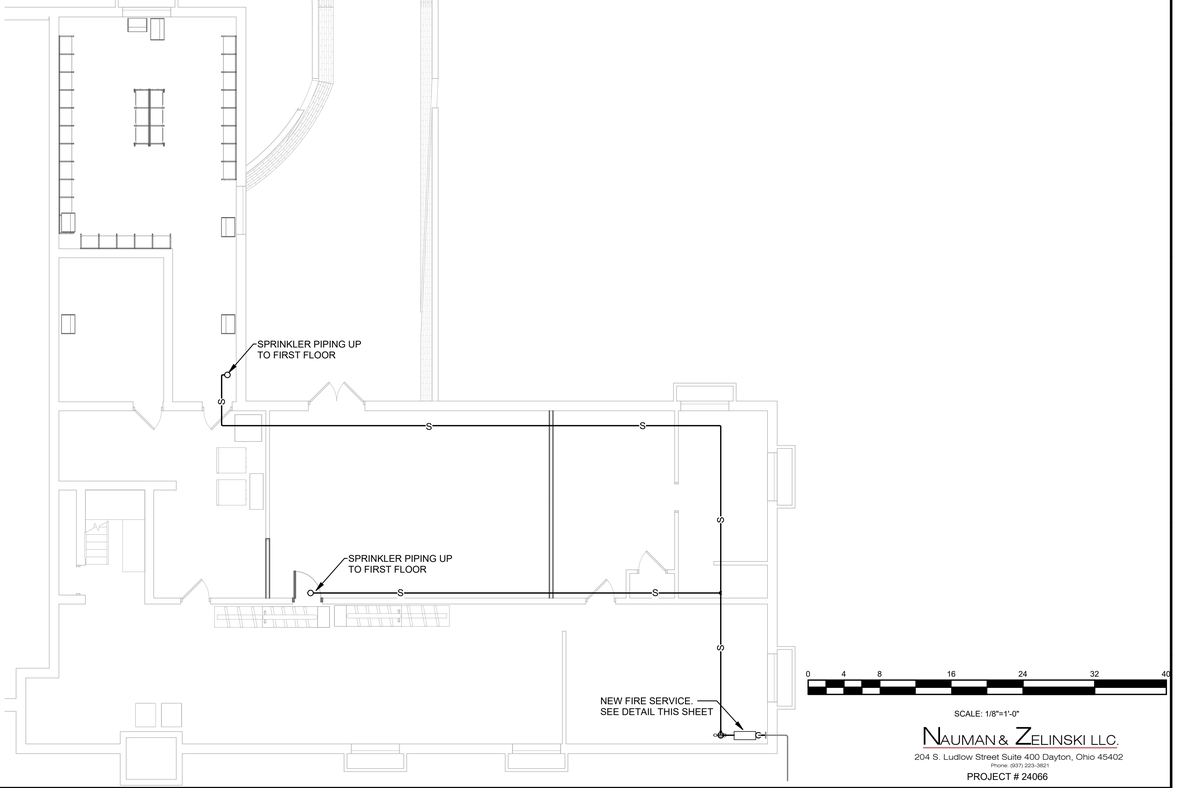
FIRST FLOOR PLAN

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



FIRE SUPPRESSION SERVICE ENTRANCE

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



BASEMENT PLAN

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

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

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FIRE SUPPRESSION PLAN

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Phone: (937) 223-3821

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PIPE HANGER SCHEDULE - PLUMBING

GENERAL NOTES FOR PIPE HANGERS:

DESIGN SUPPORTS FOR MULTIPLE PIPES CAPABLE OF SUPPORTING COMBINED WEIGHT OF SUPPORTED SYSTEMS, SYSTEM CONTENTS, AND TEST WATER.

WELDING: QUALIFY PROCEDURES AND PERSONNEL ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE: SECTION IX.

ATTACHMENT OF PIPE HANGER RODS TO THE STRUCTURE SHALL BE WITH:

1. PRE-SET CONCRETE INSERTS.
2. BEAM CLAMPS FOR STEEL CONSTRUCTION EQUAL TO ANVIL FIG. 92, 93, OR 94. UTILIZE SWIVEL TYPE IN SLOPED STEEL CONSTRUCTION TO PROVIDE VERTICAL SUPPORT OF PIPE WITHOUT BENDING HANGER RODS.
3. CHANNEL SUPPORT SYSTEM EQUAL TO UNISTRUT OR HILTI.

ATTACHMENT TO MANUFACTURED TRUSSES AND OTHER ENGINEERED STRUCTURAL MEMBERS AND SUPPORTS SHALL BE DONE IN ACCORDANCE WITH THE STRUCTURAL MANUFACTURER'S RECOMMENDATIONS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR TYPE OF ENGINEERED STRUCTURAL SYSTEMS BEING USED. CONNECTIONS TO THESE STRUCTURAL MEMBERS SHALL BE MADE WITH CONNECTION DEVICES AND METHODS APPROVED BY THE STRUCTURAL MANUFACTURER. PROVIDE ADDITIONAL SUPPORTS WITH SUPPLEMENTAL STEEL SHAPES WHEN SPACING BETWEEN STRUCTURAL MEMBERS EXCEEDS SPECIFIED DISTANCES.

ADJUST PIPE HANGERS TO PROPER ELEVATION AND SET HANGER RODS IN A VERTICAL POSITION BEFORE PIPE INSULATION IS INSTALLED.

THE FIRST TWO HANGERS ON PIPING CONNECTING TO MOTOR DRIVEN EQUIPMENT SHALL BE FITTED WITH A STEEL SPRING AND NEOPRENE VIBRATION ISOLATION SECTION SIMILAR TO MASON INDUSTRIES, NO. 30N.

TRAPEZE HANGERS FOR NUMEROUS PIPES RUN IN PARALLEL MAY BE UTILIZED. HORIZONTAL SUPPORT MEMBERS SHALL BE UNISTRUT TYPE SECTION WITH PIPE ROLLERS (TO ALLOW FOR EXPANSION TRAVEL) AND SPRING AND NUT CONNECTORS, SUSPENDED WITH HANGER RODS AND ATTACHMENTS SIMILAR TO INDIVIDUAL PIPE HANGER SUSPENSION.

SHORTENED EXTENDED LEGS OF PIPE RISER CLAMPS AS NEEDED TO MAINTAIN CONCEALMENT OF THE CLAMP WITHIN THE PIPE CHASE. INSURE THAT ADEQUATE SUPPORT IS STILL MAINTAINED.

HANGER ASSEMBLIES EXPOSED ON COMPLETION OF THE PROJECT SHALL BE PAINTED BEFORE INSTALLATION.

PIPE SUPPORTS FOR PIPE RUNNING ACROSS THE ROOF SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND AS DETAILED. INSTALL PROTECTIVE SLIP SHEETS OF ROOFING MEMBRANE UNDER THE BASES TO SATISFY REQUIREMENTS OF BOTH THE ROOFING MANUFACTURER AND THE SUPPORT SYSTEM MANUFACTURER.

IN PIPING SYSTEMS WITH MECHANICAL JOINT COUPLINGS, PIPE HANGERS SHALL BE PROVIDED ON HORIZONTAL PIPING AT NORMAL SPECIFIED INTERVALS AND, IN ADDITION, SO THAT NO PIPE SHALL BE LEFT UNSUPPORTED BETWEEN ANY TWO COUPLINGS NOR LEFT UNSUPPORTED WHENEVER A CHANGE IN DIRECTION TAKES PLACE. VERTICAL PIPING SHALL BE SUPPORTED AT NORMAL SPECIFIED INTERVALS OR EVERY OTHER PIPE LENGTH, WHICH EVER IS MORE FREQUENT. THE BASE OF THE RISER OR BASE FITTING SHALL BE SUPPORTED.

SYSTEM & SIZE	ORIENTATION & SIZE	SPACING
STEEL PIPING	VERTICAL	AT BASE AND 15 FT MAXIMUM
	HORIZONTAL 2" & SMALLER	8 FT.
	HORIZONTAL 2.5" - 6"	10 FT.
	HORIZONTAL 8" & LARGER	12 FT.
CAST IRON	VERTICAL	AT BASE AND 15 FT MAXIMUM
	HORIZONTAL	AT 10 FT. INTERVALS. SUPPORT EACH LENGTH OF PIPE NOT MORE THAN 18" FROM THE JOINT. SUPPORT TERMINAL ENDS OF HORIZONTAL RUNS AND BRANCHES AND EACH CHANGE IN DIRECTION. 5" AND LARGER PROVIDE BRACING TO PREVENT HORIZONTAL MOVEMENT IN ACCORDANCE WITH CISPI "SOIL PIPE AND FITTINGS HANDBOOK"
COPPER TUBING	VERTICAL	AT BASE AND 15 FT MAXIMUM
	HORIZONTAL 1.25" & SMALLER	6 FT.
	HORIZONTAL 1.5" - 2"	8 FT.
	HORIZONTAL 2.5" & LARGER	10 FT.
PLASTIC PIPING	VERTICAL	PER MANUFACTURER'S RECOMMENDATION
	HORIZONTAL	PER MANUFACTURER'S RECOMMENDATION

PLUMBING FIXTURE SCHEDULE

ITEM	FIXTURE DESCRIPTION	FIXTURE	SERVICES H.W.	SERVICES C.W.	SERVICES SAN.	SERVICES VENT	MTG. HGT.	TRIM REQUIREMENTS SUPPLY	STOPS	WASTE	TRAP	CARRIERS	ACCESSORIES	NOTES
W1	WATER CLOSET/ VIT. CHINA/ FLOOR SET/ MANUAL FLUSH VALVE/ 1.6 GPF/ ELONGATED BOWL/ 16 1/2" RIM HEIGHT/ 1,000 MG MaP SCORE/ OPEN FRONT SEAT WITH LID/ ACCESSIBLE	AM. STANDARD # 3043.001	--	1"	4"	2"	--	SLOAN # SLOAN 111-1.6	UNIT	UNIT	INTEGRAL	--	SEAT BEMIS # 1950SSTDG	
L1	LAVATORY/ SOLID SURFACE/ INTEGRAL WITH COUNTERTOP/ SINGLE LEVER CAST BRASS FAUCET/ 0.5 GPM/ ASSE 1070...	BY OTHERS	1/2"	1/2"	1 1/4"	1 1/2"	--	AM. STANDARD # 6114.116	MCGUIRE # LFBV2165	WITH TRAP	MCGUIRE # PW2150WC	--	POWERS # LFE480	
L2	LAVATORY/ VIT. CHINA/ WALL HUNG/ SINGLE LEVER CAST BRASS FAUCET/ 0.5 GPM/ ASSE 1070 DEVICE/ ACCESSIBLE	AM STANDARD # 65	1/2"	1/2"	1 1/4'	1 1/2"	34" A.F.F. TO RIM	AM. STANDARD # 6114.116	MCGUIRE # LFBV2165	WITH TRAP	MCGUIRE # PW2150WC	ZURN # Z1251	POWERS # LFE480	
S1	SINK/ ST. ST./UNDERMOUNT/ SINGLE BOWL/ 17" X 17"X 9" DEEP BOWL/ / SINGLE LEVER FAUCET W PULL DOWN SPRAY	ELKAY # ECTRU17179T	1/2"	1/2"	1 1/2"	1 1/2"	--	AM. STANDARD STUDIO S # 4803410	MCGUIRE # LFBV2165	MCGUIRE # 151A	MCGUIRE # 8912	--		
SH1	SHOWER/ STALL BY OTHERS/ CENTER DRAIN STYLE/ PRESSURE BALANCING MIXING VALVE WITH FIXED HEAD AND HAND HELD ON SLIDE BAR/ DIVERTER VALVE IN WALL	BY OTHERS	1/2"	1/2"	3"	1 1/2"	VALVE 40" HEAD 78"	POWERS #E710-M-4-N-B-W	UNIT	UNIT	SAME AS SANITARY PIPING	--	--	
SH2	SHOWER/ STALL BY OTHERS/ TRENCH DRAIN STYLE/ PRESSURE BALANCING MIXING VALVE WITH FIXED HEAD AND HAND HELD ON SLIDE BAR/ DIVERTER VALVE IN WALL	BY OTHERS	1/2"	1/2"	3"	1 1/2"	VALVE 40" HEAD 78"	POWERS #E710-M-4-N-B-W	UNIT	UNIT	SAME AS SANITARY PIPING	--		
M1	MOP SINK/ FLOOR SET/ 24" SQ. 10" DEEP/ MOLDED STONE/ VINYL CAPS/ ST.ST. WALL PANELS/ ON 2 SIDES/ WALL MOUNTED FAUCET WITH INTEGRAL CHECK STOPS	FIAT # MSB2424	1/2"	1/2"	3"	1 1/2"	36" FAUCET	AM. STANDARD # 8351.112	UNIT	UNIT	SAME AS SANITARY PIPING	--	FIAT # E-88-AA , # MSG2424	
WB1	WASHER UTILITY CONNECTION BOX/ 1/4 TURN BALL VALVES WITH WATER HAMMER ARRESTOR/ WASTE CONNECTION	OATEY # 38540	3/4"	3/4"	2"	1 1/2"	30"	UNIT	BALL VALVES ABOVE CEILING	UNIT	SAME AS SANITARY PIPING	--	--	

EQUALS

AMERICAN STANDARD CHINA - KOHLER, ZURN, SLOAN
AMERICAN STANDARD FAUCETS - KOHLER, ZURN, CHICAGO, T&S BRASS
SLOAN FLUSH VALVES - ZURN, DELANEY
ELKAY SINKS - JUST, ADVANCED TABCO
MCGUIRE - WATTS, BRASS CRAFT
MCGUIRE "PROWRAP" - TRUEBRO "LAV GUARD", PLUMBEREX "PROEXTREME"
OATEY SUPPLY BOXES - IPS, GUY GRAY, SIOUX CHIEF

NOTES:

1.

DRAIN SCHEDULE

TAG	DESCRIPTION	MANUFACTURER MODEL NUMBER	OUTLET SIZE	FEATURES ANCHOR FLANGE	FLASHING CLAMP	UNDERDECK CLAMP	DBL/ DRAINAGE	SEDIMENT BUCKET	STRAINER/GRATE TOP/STRAINER SIZE	FLAT	DOME	OPEN (NO GRATE)	HALF OPEN	ADJUSTABLE	FUNNEL	NOTES
FD1	FLOOR DRAIN/ CAST IRON BODY/ NICKEL BRONZE ROUND TOP/ ADJUSTABLE	ZURN # ZN415-B7	3"	●			●		7" DIA	●				●		1.

NOTES

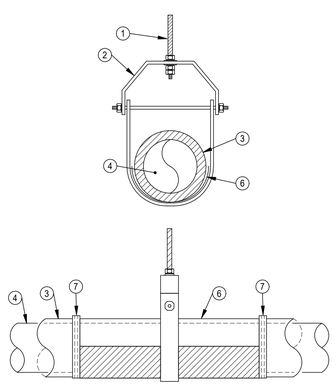
1. PROVIDE ASSE 1072 TRAP MAINTENANCE DEVICE ON DRAIN.
2. MOUNT APPROX. 24 " ABOVE FINISHED GRADE.

GENERAL LEGEND

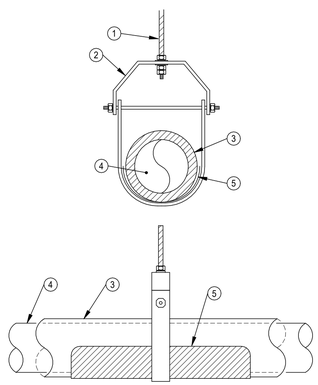
EC	ELECTRICAL CONTRACTOR.
FC	FIRE PROTECTION CONTRACTOR.
GC	GENERAL CONTRACTOR.
HC	HVAC CONTRACTOR.
PC	PLUMBING CONTRACTOR.
TC	TEMPERATURE CONTROLS CONTRACTOR.
NIC	NOT IN CONTRACT.
AFF	ABOVE FINISHED FLOOR - TO BOTTOM OF ITEM UNLESS INDICATED OTHERWISE IN DRAWING.
(E)	EXISTING.
ES	EQUIPMENT SUPPLIER.
EM	EMERGENCY.
MH	MOUNTING HEIGHT.
S	SURFACE MOUNTED.
WP	WEATHER PROOF.
3	NOTE SYMBOL - APPLIES ONLY TO SHEET ON WHICH IS SHOWN.
2	DETAIL NOTE SYMBOL - APPLIES ONLY TO DETAIL ON WHICH IS SHOWN.
H-1	EQUIPMENT REFERENCE SYMBOL. ELECTRICAL CONNECTION REQUIRED.
H-1	EQUIPMENT REFERENCE SYMBOL. NO ELECTRICAL CONNECTION REQUIRED.
123	ROOM NUMBER.
B / H2	DETAIL SYMBOL DETAIL "B" SHOWN ON SHEET H2.
A / H1	SECTION SYMBOL SECTION "A" DESIGNATION, SHOWN ON SHEET H1.
	CONNECTION, NEW TO EXISTING.
FD1	UP TO SYMBOL UP TO "FD1", SHOWN ON FLOOR ABOVE.
	1 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	2 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	3 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	ITEM TO BE REMOVED.
	EXISTING TO REMAIN.
	NEW ITEM.

PLUMBING LEGEND

	SANITARY DRAIN
	VENT
ST	STORM DRAIN
CD	CONDENSATE DRAIN ABOVE FLOOR OR GRADE
	COLD WATER
	HOT WATER
	HOT WATER RETURN
G	NATURAL GAS
A	COMPRESSED AIR
	SHUT-OFF VALVE, SEE SCHEDULE FOR TYPE
	CHECK VALVE
	BALANCING VALVE
	VALVE ON RISER
	UNION
R	PRESSURE REGULATOR
P	PRESSURE GAUGE
T	TEMPERATURE GAUGE
	CONNECTION, BOTTOM
	CONNECTION, TOP
	DIRECTION OF FLOW
	CAP
C.O.	CLEAN OUT
V.R.	VENT RISER
V.T.R.	VENT THRU ROOF
S.S.	SOIL STACK
V.S.	VENT STACK
D.S.	DOWNSPOUT (STORM)
S.D.S.	SECONDARY DOWNSPOUT (STORM)
S.S.O.	SECONDARY STORM OUTLET

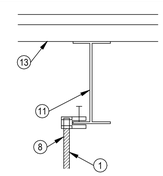


PIPING 2.5" & LARGER

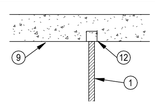


PIPING 2.0" & SMALLER

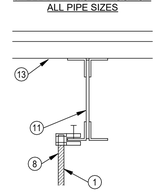
1 GALVANIZED THREADED ROD. ADJUST NUTS & RODS FOR PROPER ELEVATION.
2 STEEL CLEVIS PIPE HANGER. EQUAL TO ANVIL FIG. 260.
3 PIPE INSULATION.
4 PIPE.
5 12" LONG, 18 GA. GALVANIZED INSULATION SHIELD. EQUAL TO ANVIL FIG. 168. CONTINUOUS INSULATION.
6 18" LONG INSULATED PIPE SADDLES. BUCKAROOS TRU-BALANCE 3300E OR EQUAL. PROVIDE WITH 3.75 LB. DENSITY PNENOLIC FOAM INSULATION WITH VAPOR RETARDER JACKET & BOTTOM GALVANIZED METAL INSULATION SHIELD. SADDLES TO MEET 25/50 FLAME/SMOKE RATING.
7 PIPE INSULATION AND SADDLE INSULATION SHALL BE TIGHTLY ABUTTED TOGETHER. SEAL WITH 4" WIDE VAPOR RETARDER TAPE WITH FACTORY APPLIED JACKET WITH ACRYLIC ADHESIVE TO ASSURE VAPORTIGHT SEAL.
8 THREADED ROD BEAM CLAMP.
9 CONCRETE SLAB OR PLANK.
10 RETAINING NUTE & WASHERS.
11 STEEL JOIST OR BEAM.
12 CONCRETE EXPANSION ANCHOR OR CONCRETE INSERT IN NEW CONSTRUCTION.
13 METAL DECKING. DIRECT ATTACHMENT TO DECKING IS PROHIBITED. PROVIDE SUPPLEMENTAL STEEL ANGLES OR UNISTRUT WHERE REQUIRED FOR PROPER HANGER SPACING OR IN LIEU OF ATTACHMENTS SHOWN.



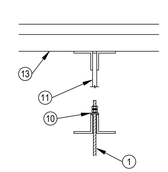
STEEL BEAM CONSTRUCTION ALL PIPE SIZES



CONCRETE CONSTRUCTION



STEEL JOIST CONSTRUCTION PIPES 2.0" & SMALLER



STEEL JOIST CONSTRUCTION PIPES 2.5" & LARGER

STRUCTURAL CONNECTIONS

1 **PIPE HANGERS**
N.T.S.

PLUMBING INDEX OF DRAWINGS

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-1821

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VALVE SCHEDULE

GENERAL NOTES FOR VALVES:

QUALITY ASSURANCE
VALVES SHALL COMPLY WITH ANSI, ASTM AND ASME.

VALVES ON DOMESTIC WATER SYSTEMS SHALL BE "LEAD FREE" IN ACCORDANCE WITH THE FEDERAL SAFE WATER ACT (S3874) DEFINITION AND CONFORM TO NSF 61.

GROOVED END VALVES SHALL CONFORM TO ANSI/AWWA C-606.

PRODUCTS
WORKING PRESSURES SHALL EXCEED THOSE IMPOSED BY THE SERVICE APPLIED.

VALVES WHICH ARE INSULATED SHALL HAVE EXTENDED SHAFTS.

PROVIDE FLOW MEASURING GAUGES WITH COCKS, HOSES & CONNECTORS FOR BALANCING VALVES. PROVIDE METERING TOOL.

PROVIDE HOSE ADAPTORS ON DRAIN VALVES.

SWEAT END VALVES OF EQUAL CONSTRUCTION ARE ACCEPTABLE IN LIEU OF SCREWED ENDS.

IN MECHANICALLY JOINED SYSTEMS, VALVES OF EQUAL CONSTRUCTION WITH COMPATIBLE ENDS ARE ACCEPTABLE AND MAY BE MANUFACTURED BY THE COUPLING MANUFACTURER.

VALVE MANUFACTURERS:
BALL VALVES - NIBCO, WATTS, MILWAUKEE, APOLLO, CONBRACO, CRANE.
BALANCING VALVES - BELL & GOSSETT, ARMSTRONG, WATTS.
CHECK VALVES - NIBCO, STOCKHAM, WATTS.

EXECUTION
VALVES SHALL BE INSTALLED WITH STEM ABOVE CENTERLINE OF PIPE.

PIPING SYSTEM	VALVE TYPE					
	BUTTERFLY	BALL	CHECK	GATE	BALANCING	LUB. PLUG
DOMESTIC WATER SERVICE 2" AND LARGER				D18		
DOMESTIC WATER (CW, HW, & HWR) 2" AND SMALLER		B11, B14	C11, C13		E11	
DOMESTIC WATER (CW, HW, & HWR) 2.5" AND LARGER		B14	C12, C14 C16			
DOMESTIC WATER (CW, HW, & HWR) 4" AND LARGER						
SANITARY OR STORM PUMP DISCHARGE 2" AND SMALLER		B13				
INTERIOR NATURAL GAS 3" AND SMALLER		B17				
EXTERIOR NATURAL GAS 2" AND SMALLER		B18				P12

TYPE	DESCRIPTION	TYPE	DESCRIPTION	TYPE	DESCRIPTION
B11	NIBCO T-585-80-LF. 150 W.S.P., 2 PIECE BRONZE BODY, SCREWED ENDS, BRONZE BALL AND STEM, TFE SEAT AND SEAL, HANDLE. NSF/ASME 61	C11	NIBCO T-413-Y-LF. 125 W.S.P., BRONZE BODY, SCREWED ENDS, RENEWABLE BRONZE SWING DISC WITH TFE SEAT RING. NSF 61	C16	WATTS SERIES LFWCV, 125 W.S.P. BRONZE BODY, SCREWED ENDS, BRONZE SWING DISC, NSF/ASME 61
B13	WATTS G-4000-FDA, 125 W.S.P. 2-PIECE EPOXY COATED CAST IRON BODY, FLANGED ENDS, STAINLESS STEEL BALL AND STEM, FULL PORT, TEFLON SEAT AND SEAL, HANDLE. NSF/ASME 61	C12	NIBCO F-938-33, 285 PSI C.W.P., DUCTILE IRON BODY, STAINLESS STEEL TRIM, FLANGED ENDS, RENEWABLE STAINLESS STEEL SWING DISC AND SEAT RING. NSF/ANSI 61-8	D18	KENNEDY KS-FW 8068A, 200 PSI, NSF 61 EPOXY COATED CAST IRON BODY, RESILIENT WEDGE, O.S.& Y., FLANGED ENDS
B14	APOLLO 70LF-240, 150 WSP, 2 PIECE LEAD-FREE BRONZE BODY, 316 STAINLESS STEEL BALL AND STEM, STANDARD PORT, TEFLON SEAT AND SEAL, HANDLE, NSF/ASME 61	C13	NIBCO T-480-Y-LF, 125 W.S.P., IN-LINE SPRING ACTUATED CENTER GUIDED SILENT CHECK, BRONZE BODY, SCREWED ENDS, TFE DISC AND SEAT RING, NSF/ASME 61	E11	BELL & GOSSETT CB-1LF 400 PSI, BRONZE BODY WITH BRASS BALL, SCREW CONNECTION, READOUT AND DRAIN PORTS, TFE SEATS, CALIBRATED NAMEPLATE, HANDLE WITH MEMORY STOP, NSF/ASME 61
B17	NIBCO T-FP-600A, 600 PSI NON-SHOCK COLD., 2 PIECE, BRASS BODY, SCREWED ENDS, FULL PORT, BRASS BALL, TFE SEAT, HANDLE. UL LISTED FOR GAS. ASME B16.44	C14	NIBCO F-910-LF 125 W.O.G., IN-LINE SPRING ACTUATED CENTER GUIDED SILENT CHECK, GLOBE STYLE, IRON BODY FOR INSTALLATION BETWEEN FLANGES, BRONZE SEAT AND DISC. NSF/ASME 61	P12	NORDSTROM NO. 115, 200 PSI, IRON BODY, ST. ST. STEM, FLANGED ENDS, WRENCH ASME B16.33
B18	NIBCO T-585(OR 580)-70-UL, 600 PSI NON-SHOCK COLD, 2 PIECE, BRONZE BODY, SCREWED ENDS, FULL PORT, BRASS BALL, TFE SEAT, HANDLE. UL LISTED FOR GAS. ASME B16.33				

PIPE INSULATION SCHEDULE - PLUMBING

GENERAL NOTES:

QUALITY ASSURANCE
FIRE, SMOKE RATINGS: FLAME SPREAD RATING OF 25 OR LESS, SMOKE DEVELOPED RATING OF 50 OR LESS.

THICKNESSES SHALL CONFORM TO ASHRAE 90.1 MINIMUMS.

GREEN GUARD INDOOR AIR QUALITY CERTIFIED.

EXECUTION
INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

COLD SERVICE PIPE INSULATION AND VAPOR BARRIER/JACKET TO BE CONTINUOUS THRU FLOOR AND WALL SLEEVES AT ALL PIPE DEVICES AND PUMP CASINGS.

INSULATION AND VAPOR BARRIER TO BE CONTINUOUS AT PIPE HANGERS AND SUPPORTS ON HORIZONTAL PIPING.

VERTICAL PIPE SUPPORTS SHALL ATTACH DIRECTLY TO PIPE. INSULATE SUPPORT AND OTHER SURFACES WITH FLEXIBLE CLOSED CELL INSULATION, SAME THICKNESS AS SYSTEM INSULATION ON COLD SERVICE PIPES TO PREVENT CONDENSATION.

PRIMARY AND SECONDARY ROOF DRAIN SUMPS SHALL BE INSULATED WITH 1" THICK INSULATION.

THE FIRST 10 FEET OF SECONDARY STORM PIPING AFTER THE DRAIN SHALL BE INSULATED.

ABOVE GRADE SANITARY DRAINAGE RECEIVING CONDENSATE SHALL BE INSULATED AS INDICATED BELOW FOR CONDENSATE DRAINAGE. WHERE THE DRAIN SUMP IS EXPOSED ON THE FLOOR BELOW, IT TOO SHALL BE INSULATED WITH 1" INSULATION.

SYSTEM & SIZE	INSULATION THICKNESS	TYPE	LOCATION
DOMESTIC COLD WATER 1.5" & SMALLER	0.5"	F1, P1	**INTERIOR**
DOMESTIC COLD WATER 2" & LARGER	1"	F1, P1	**INTERIOR**
DOMESTIC HOT WATER, TEMPERED WATER, & HOT WATER RETURN 1.25" AND SMALLER	1"	F1, P1	**INTERIOR**
DOMESTIC HOT WATER, TEMPERED WATER, & HOT WATER RETURN 1.5" AND LARGER	1.5"	F1, P1	**INTERIOR**
INTERIOR HORIZONTAL STORM DRAINAGE	1"	F1, P1	**INTERIOR**
CONDENSATE DRAINAGE	1"	F1, P1	**INTERIOR**

TYPE	BASIS OF DESIGN	APPROVED EQUALS	DESCRIPTION
F1	OWENS-CORNING SSL1-ASJ	KNAUF 1000° PIPE, JOHNS MANVILLE MICRO-LOK HP	* INORGANIC GLASS FIBER WITH RESIN BONDING. * K=0.24 @ 100 DEG. F. * 3.5 - 5.5 PCF. * PREFORMED TUBULAR. * WHITE FSRK JACKET. * LONGITUDINAL LAP WITH SELF-SEALING ADHESIVE. * ELBOWS, TEES, VALVES, CAPS, ETC., WHITE ONE PIECE, PREMOLDED 25/50 0.20" PVC FITTING COVERS WITH HIGH DENSITY FIBERGLASS INSULATION INSERTS SAME THICKNESS, K=0.26 EQUAL TO ZESTON OR PROTO.
P1	AEROFLEX AEROCEL EPDM	RUBATEX	* PREFORMED, FLEXIBLE CLOSED CELL EPDM, TUBULAR INSULATION, OR SHEET INSULATION. * K=0.25 @ 75 DEG. F. * CLEAN PIPE SURFACE WITH DENATURED ALCOHOL PRIOR TO INSULATING.

BUILDING DRAIN SYSTEMS SCHEDULE STORM, SANITARY, & VENT

GENERAL NOTES:

QUALITY ASSURANCE
PIPING SHALL CONFORM TO OBC REQUIREMENTS.

PIPING SHALL COMPLY WITH ASME B31.9 "BUILDING SERVICES PIPING".

INSTALL CAST-IRON SOIL PIPING ACCORDING TO CISPI'S "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK," CHAPTER IV, "INSTALLATION OF CAST IRON SOIL PIPE AND FITTINGS."

ON PIPING 5" AND LARGER PROVIDE BRACING AT EVERY BRANCH OPENING OR CHANGE IN DIRECTION AS REQUIRED BY CISPI'S "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK," CHAPTER IV, "INSTALLATION OF CAST IRON SOIL PIPE AND FITTINGS."

INSTALL PVC SOIL AND WASTE DRAINAGE AND VENT PIPING ACCORDING TO ASTM D 2665.

PRODUCTS
PVC PIPING SHALL NOT BE USED IN SPACES USED AS PLENUMS.

PVC PIPING IN PLENUM SPACES SHALL BE PROVIDED WITH A "PLENUM WRAP" INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

EXECUTION
PIPE AND TUBING SHALL BE CUT AND FABRICATED TO FIELD MEASUREMENTS AND RUN PARALLEL TO NORMAL BUILDING LINES. PIPE INTERIOR SHALL BE CLEANED OF FOREIGN MATTER AND BURRS BEFORE ERECTION OF PIPE.

ANNULAR SPACE AROUND PIPING THRU ALL WALLS SHALL BE SEALED OFF WITH PERMANENT PLIABLE CAULKING OR APPROVED PATCHING SEALANT.

PROVIDE PIPING SLEEVES AT FLOORS, WALLS & ROOFS IN NEW CONSTRUCTION. EXISTING WALLS TO BE SAW CUT TO PASS NEW PIPING.

PIPING SHALL NOT BE RUN ABOVE ELECTRICAL SWITCHGEAR OR PANELBOARDS, NOR ABOVE THE ACCESS SPACE OF SUCH EQUIPMENT - NEC ARTICLE 384.

LAY BURIED BUILDING DRAINAGE PIPING BEGINNING AT LOW POINT OF EACH SYSTEM. INSTALL TRUE TO GRADES AND ALIGNMENT INDICATED, WITH UNBROKEN CONTINUITY OF INVERT.

SUPPORT PIPING FROM BUILDING STRUCTURE WITH RODS, ANGLES & CLAMPS ATTACHED TO STRUCTURE. HANG PIPING WITH CLEVIS HANGER OR ROLLER SUPPORTS. HANGERS SHALL BE INSTALLED ON CENTERS AS RECOMMENDED BY MANUFACTURER.

SLOPE DRAINAGE PIPING AT 1/4" PER FOOT (2%) FOR PIPING SMALLER THAN 3" AND 1/8" PER FOOT (1%) FOR PIPING 3" AND LARGER.

VENT PIPING SHALL BE PITCHED FOR DRAINAGE.

CLOSE OPEN ENDS OF PIPING DURING CONSTRUCTION.

COUPLINGS AND GASKETS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

MAKE CHANGES IN DIRECTION FOR SOIL AND WASTE DRAINAGE AND VENT PIPING USING APPROPRIATE BRANCHES, BENDS, AND LONG-SWEEP BENDS. SANITARY TEES AND SHORT-SWEEP 1/4 BENDS MAY BE USED ON VERTICAL STACKS IF CHANGE IN DIRECTION OF FLOW IS FROM HORIZONTAL TO VERTICAL.

DO NOT ENCLOSE, COVER, OR PUT PIPING INTO OPERATION UNTIL IT IS INSPECTED AND APPROVED BY AUTHORITIES HAVING JURISDICTION.

TESTING
PIPING SHALL BE TESTED IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

PIPING SYSTEM	TYPE
SANITARY PIPING BELOW FLOOR SLAB IN GRADE	P1
SANITARY & VENT PIPING ABOVE THE FLOOR	CI1, CI2
SANITARY PUMPED DISCHARGE	S1, P1

TYPE	DESCRIPTION	TYPE	DESCRIPTION
CI1	**NO-HUB CAST IRON (STD)** SERVICE WEIGHT ASTM A888 OR CISPI 301 SHIELDED COUPLINGS ASTM C1277 OR CISPI 310 RUBBER SLEEVE ASTM C564	S1	**THREADED GALVANIZED STEEL** SCHEDULE 40, ASTM A53 TYPE E DWV FITTINGS ASME B16.12
CI2	**HUB & SPIGOT CAST IRON** ASTM A74, SERVICE CLASS DWV FITTING RUBBER GASKET ASTM C564	P1	**PVC** SCHEDULE 40 PVC ASTM D2665 AND D2321 DWV FITTINGS, ASTM D3311 GLUED JOINTS

NOTE:
IN ABOVE CEILINGS SPACES USED AS RETURN AIR PLENUMS, SANITARY,STORM, AND VENT PIPING SHALL BE CAST IRON TYPE C1 OR C2. COORDINATE WITH H.C. FOR RETURN AIR PLENUMS LOCATIONS

SANITARY, STORM, AND VENT PIPING ABOVE THE FLOOR SLAB AND WITHIN WALLS MAY BE PVC TYPE P1, ONLY IF ALL (ALL TRADES) WALL PENETRATIONS ARE SEALED TO PREVENT THE PASSAGE OF SMOKE INTO RETURN AIR PLENUMS. TRANSITION TO CAST IRON SHALL OCCUR WITHIN THE WALL.

BUILDING SUPPLY SYSTEMS SCHEDULE WATER, COMPRESSED AIR, & GAS

GENERAL NOTES:

QUALITY ASSURANCE
PIPING SHALL CONFORM TO OBC REQUIREMENTS.

PIPING SHALL COMPLY WITH ASME B31.9 "BUILDING SERVICES PIPING".

ALL COMPONENTS OF DOMESTIC WATER SYSTEMS (CW, HW, & HWR) SHALL BE "LEAD FREE" IN ACCORDANCE WITH THE FEDERAL SAFE WATER ACT (S3874) DEFINITION AND CONFORM TO NSF 61.

PRODUCTS
DIELECTRIC CONNECTORS SHALL BE PROVIDED AT CONNECTIONS BETWEEN FERROUS & COPPER PIPING.

GAS PRESSURE REGULATORS SHALL BE CAST IRON SELF-OPERATING SPRING LOADED TYPE. VALVE 125 PSI. SPRING AND DIAPHRAGM CASINGS SHALL BE ALUMINUM. REGULATOR SHALL HAVE AN INTERNAL RELIEF VALVE ASSEMBLY, TAPPED VENT CONNECTION WITH REMOVABLE SCREEN ON THE SPRING CASING AND AN EXTERNAL PILOT OPERATOR TO AFFORD A 5% MAXIMUM DROOP. OVER-PRESSURE PROTECTION SHALL BE TEN TIMES THE INLET PRESSURE (OR HIGHER AS MAY BE REQUIRED BY THE GAS COMPANY). FISHER TYPE S102 OR S202 OR EQUAL BY SPRAGUE OR EQUIMETER.

UNIONS
COPPER TUBING - WROUGHT OR CAST COPPER, CLASS 150, SOLDERED ENDS
THREADED STEEL PIPE - MALLEABLE IRON W/GROUND SEAT, 300 LB SCREWED ENDS.

MECHANICALLY FORMED TEES AND COUPLINGS (T-DRILL) ARE NOT PERMITTED.

EXECUTION
PIPE AND TUBING SHALL BE CUT AND FABRICATED TO FIELD MEASUREMENTS AND RUN PARALLEL TO NORMAL BUILDING LINES. PIPE INTERIOR SHALL BE CLEANED OF FOREIGN MATTER AND BURRS BEFORE ERECTION OF PIPE.

ANNULAR SPACE AROUND PIPING THRU ALL WALLS SHALL BE SEALED OFF WITH PERMANENT PLIABLE CAULKING OR APPROVED PATCHING SEALANT.

PROVIDE PIPING SLEEVES AT FLOORS, WALLS & ROOFS IN NEW CONSTRUCTION. EXISTING WALLS TO BE SAW CUT TO PASS NEW PIPING.

PIPING SHALL NOT BE RUN ABOVE ELECTRICAL SWITCHGEAR OR PANELBOARDS, NOR ABOVE THE ACCESS SPACE OF SUCH EQUIPMENT - NEC ARTICLE 384.

PIPING SHALL BE PITCHED FOR DRAINAGE.

CLOSE OPEN ENDS OF PIPING DURING CONSTRUCTION.

MECHANICAL JOINT PIPING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

GAS PRESSURE REGULATORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE VALVED GAUGE TAPS UPSTREAM AND DOWNSTREAM OF THE REGULATOR. VENT PIPING SHALL BE EXTENDED INDIVIDUALLY FROM EACH REGULATOR AND GAS VENTING DEVICE TO OUTSIDE THE BUILDING IN AN APPROVED LOCATION.

SUPPORT PIPING FROM BUILDING STRUCTURE WITH RODS, ANGLES & CLAMPS ATTACHED TO STRUCTURE. HANG PIPING WITH CLEVIS HANGER OR ROLLER SUPPORTS. HANGERS SHALL BE INSTALLED ON CENTERS AS RECOMMENDED BY MANUFACTURER.

CLEAN INTERIOR WATER PIPING AFTER INSTALLATION BY FLUSHING WITH CLEAN POTABLE WATER TO CLEAR ALL INTERNAL DEBRIS.

ALL NEW AND EXISTING DOMESTIC WATER PIPING SHALL BE DISINFECTED IN CONFORMANCE WITH AWWA C651-86. DOMESTIC WATER PIPING SHALL BE SANITIZED PRIOR TO PUTTING SYSTEM IN OPERATION BY A COMPANY OR PERSONNEL REGULARLY ENGAGED IN THE PERFORMANCE OF THIS SERVICE.

EXTERIOR NATURAL GAS PIPING SHALL BE PAINTED WITH 2 COATED OF EXTERIOR GRADE PAINT FOR PROTECTION.

TESTING
DOMESTIC WATER PIPING - 125 PSI FOR MIN. 6 HOURS AT THE LOW POINT IN THE SYSTEM.

NATURAL GAS PIPING - 100 PSI COMPRESSED AIR FOR 6 HOURS.

PIPING SYSTEM	TYPE
DOMESTIC COLD, HOT AND RECIRCULATING WATER	C5
NATURAL GAS ABOVE GROUND AT PRESSURES 5 PSI & LESS	S1, S2, S6

TYPE	DESCRIPTION	TYPE	DESCRIPTION
C5	**PRESS-FIT COPPER** TYPE "L" HARD COPPER ASTM B88 COPPER OR BRONZE FITTINGS ASTM B16.18 OR B16.22 250 DEG. F. EPDM SEALS	S2	**THREADED BLACK STEEL** SCHEDULE 40, ASTM A53 TYPE F 150 LB. C.I. FITTINGS
S1	**WELDED BLACK STEEL** SCHEDULE 40, ASTM A53 TYPE E WROUGHT-STEEL WELDING FITTINGS: ASTM A 234/A 234M 150 LB. C.I. FITTINGS	S6	**PRESS-FIT BLACK STEEL** SCHEDULE 40, ASTM A53 TYPE E CARBON STEEL FITTINGS: ASTM A420 OR ASTM B16.3, ANSI LC-4/CSA 6.32, & ASTM F3226

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937-836.8898 F 937-832-3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
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MATERIAL SCHEDULES

SHEET NO.
P0.2

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PROJECT # 24066

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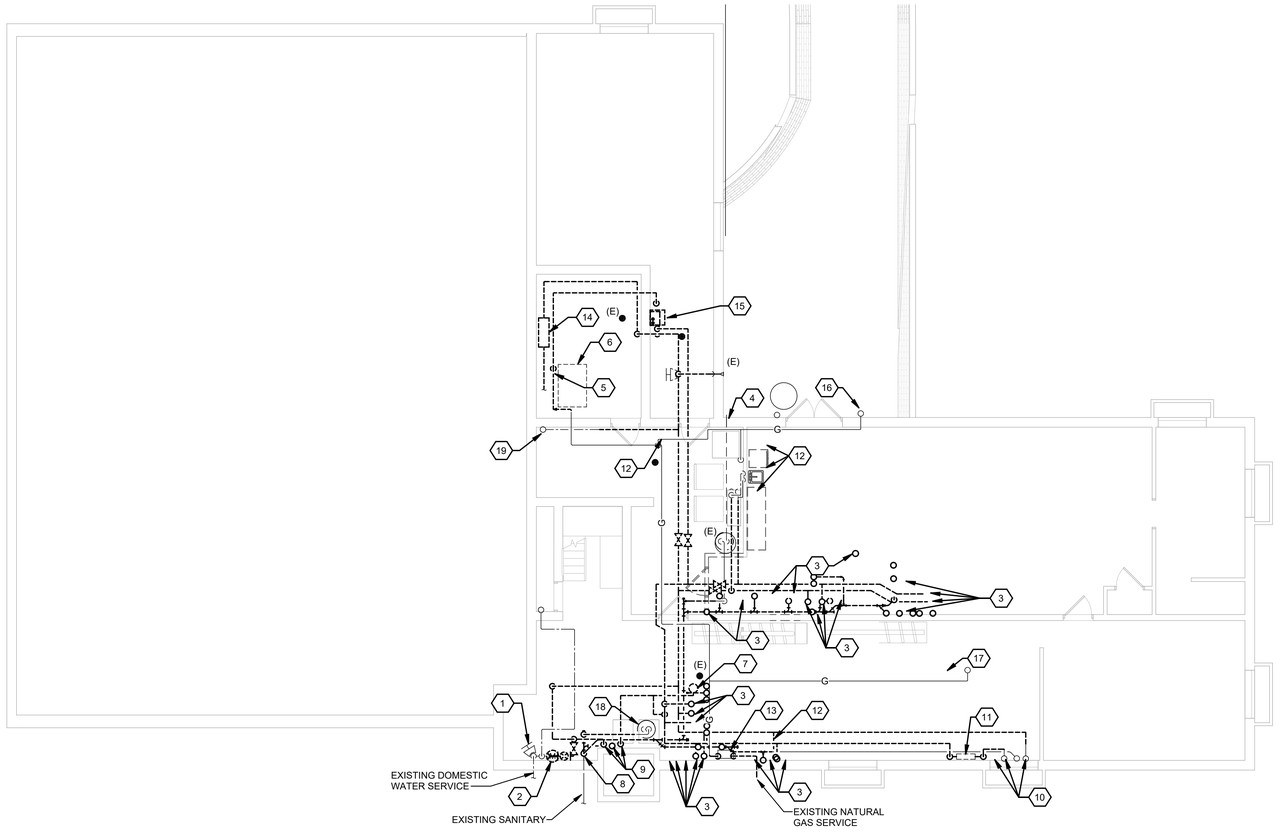

BASEMENT DEMOLITION PLAN

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

CONSTRUCTION NOTES

1. REMOVE WATER SERVICE TO SHUTOFF VALVE. REFER TO P2.0
2. REMOVE AND RETAIN WATER METER AND PRESSURE REDUCING VALVE. WATER SERVICE TO BE RECONFIGURED. REFER TO P2.0
3. REMOVE PIPE THROUGH FLOOR. PATCH FLOOR TO MATCH EXISTING CONSTRUCTION.
4. VENT THROUGH WALL TO REMAIN.
5. REMOVE PIPE TO LOCATION INDICATED. REFER TO P2.0.
6. STEAM BOILER REMOVED BY H.C.
7. REMOVE EMERGENCY SHOWER.
8. REMOVE SANITARY TO HUB & SPIGOT WYE AT FOUNDATION WALL. REFER TO P2.0 FOR NEW CONNECTION.
9. REMOVE WASH. AND DRYER PLUMBING ROUGH-IN ON WALL.
10. KITCHEN SINK SUPPLY AND WASTE PIPING THROUGH FLOOR TO REMAIN.
11. REMOVE ELECTRIC INSTANTANEOUS HOT WATER HEATER.
12. REMOVE PIPE TO LOCATION INDCIATED. REFER TO P2.0.
13. GAS SERVICE METER.
14. REMOVE MAKE-UP WATER SERVICE TO STEAM BOILER.
15. REMOVE WATER HEATER.
16. GAS SERVICE UP TO PATIO TO REMAIN.
17. GAS UP TO KITCHEN RANGE TO REMAIN.
18. EXISTING SEWAGE EJECTOR TO REMAIN. REFER TO P2.0 FOR NEW SANITARY PIPING CONNECTION. EXISTING SANITARY CHECK VALVE TO REMAIN.
19. DOMESTIC COLD WATER UP TO APPARATUS BAY TO REMAIN.

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creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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TITLE
BASEMENT DEMOLITION PLAN

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P1.0

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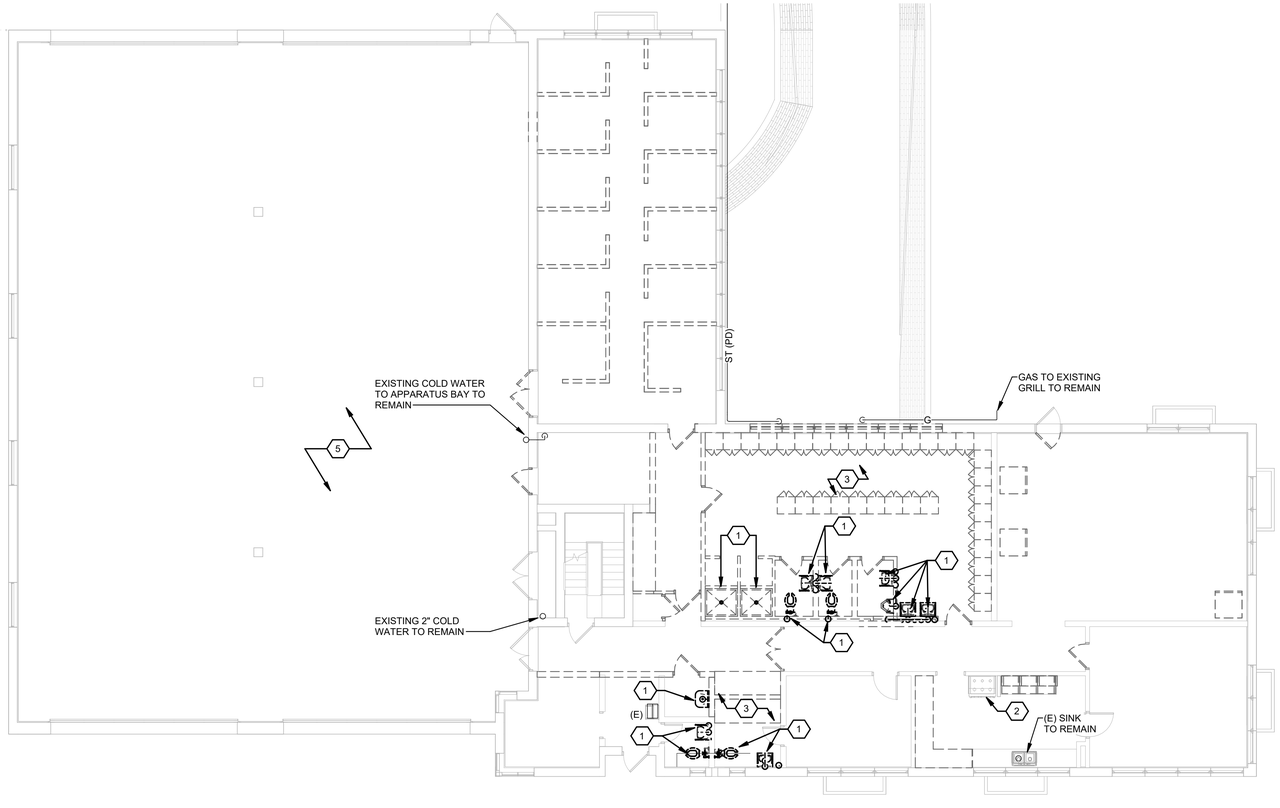

GROUND FLOOR DEMOLITION PLAN

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

CONSTRUCTION NOTES

1. REMOVE PLUMBING FIXTURE, SUPPLY WASTE TO FIXTURE.
2. DISCONNECT GAS TO RANGE. RETAIN RISER FOR REUSE. REFER TO P1.1.
3. TRACE OUT AND REMOVE ALL VENT ABOVE DRYWALL CEILING. REMOVE VENT RISERS THROUGH ROOF, PATCH ROOF TO MATCH EXISTING CONSTRUCTION.
4. EXISTING FIRE HOSE CONNECTION TO REMAIN.
5. ALL EXISTING DOMESTIC WATER PIPING IN APPARATUS BAY TO REMAIN.

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615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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FIRST FLOOR DEMOLITION PLAN

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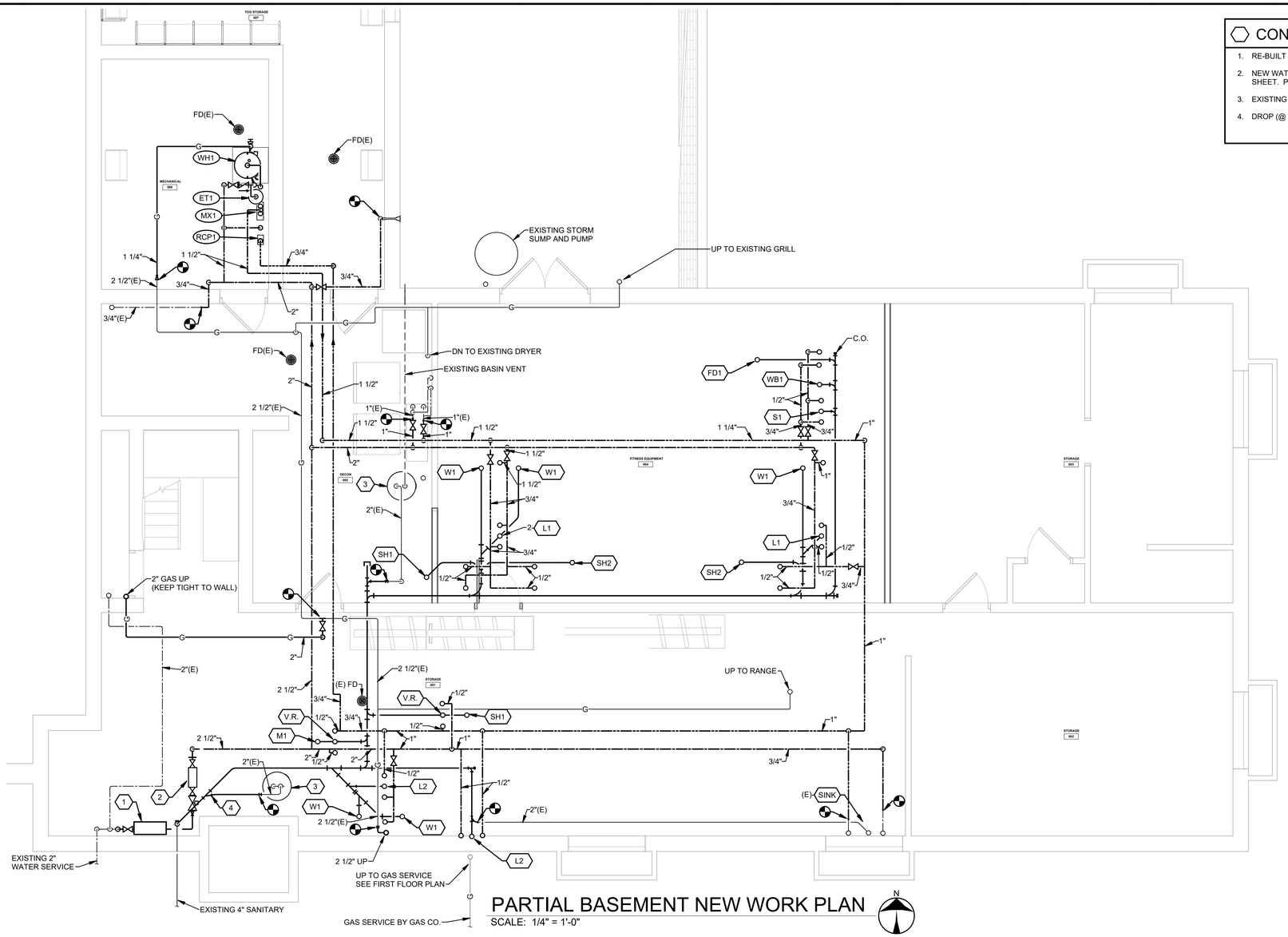
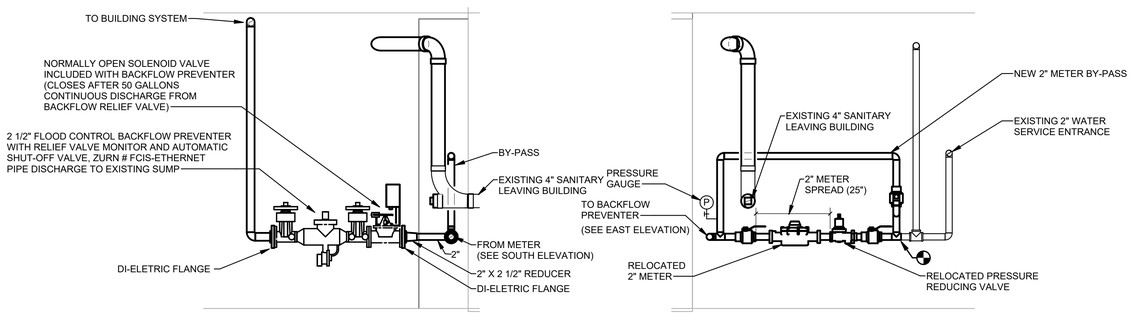
CONSTRUCTION NOTES

1. RE-BUILT WATER SERVICE. SEE DETAIL THIS SHEET.
2. NEW WATER SERVICE BACKFLOW PREVENTER. SEE DETAIL THIS SHEET. PIPE DISCHARGE TO EXISTING SUMP.
3. EXISTING SUMP PUMP TO REMAIN. NO WORK REQUIRED.
4. DROP (@ 45°) PUMPED DISCHARGE INTO SANITARY.



PARTIAL BASEMENT NEW WORK PLAN

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



EAST ELEVATION
BACKFLOW PREVENTER

SOUTH ELEVATION
METER

WATER SERVICE

N.T.S

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

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T 937-836.8898 F 937-832-3696
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TITLE
BASEMENT NEW WORK PLAN

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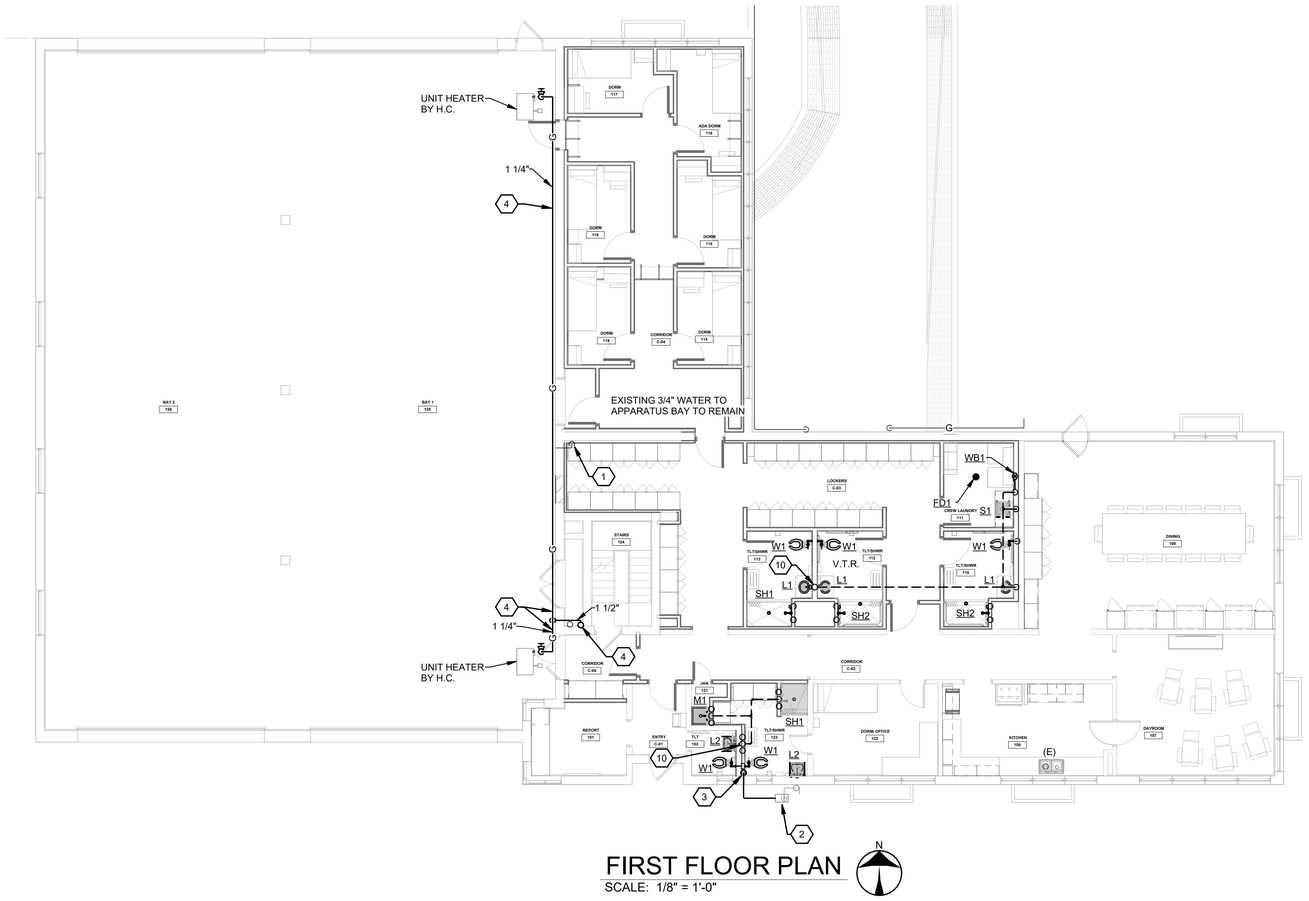
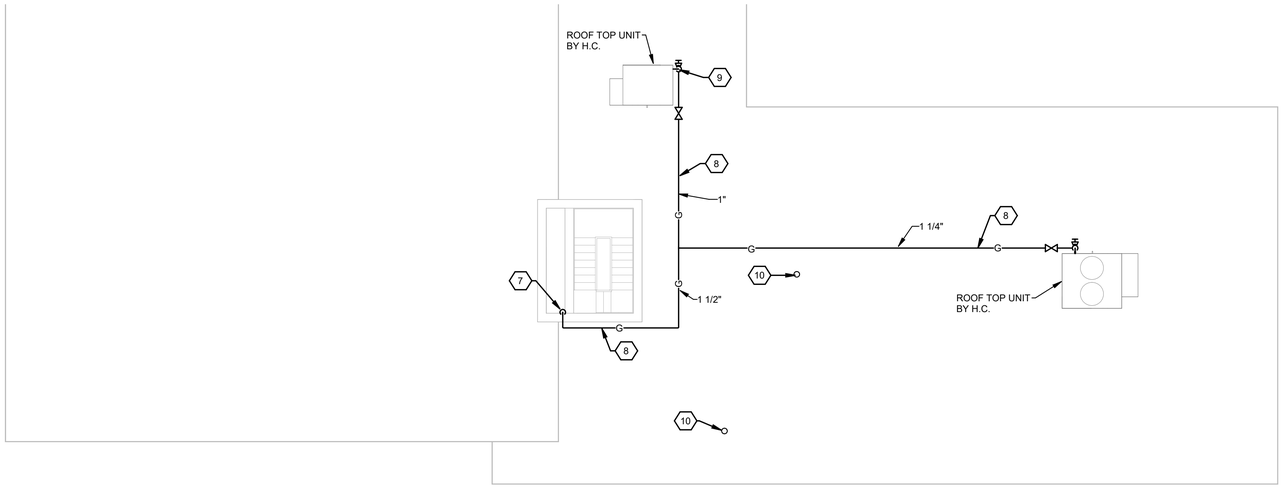


FIRST FLOOR PLAN

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



PARTIAL ROOF PLAN

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

CONSTRUCTION NOTES

1. EXISTING 3/4" WATER TO APPARATUS BAY TO REMAIN.
2. NEW GAS REGULATOR AND METER SETTING BY GAS COMPANY. CONNECT TO OUTLET. SEE DETAIL SHEET P3.1.
3. EXTEND NEW 2 1/2" GAS INTO BUILDING AND DROP IN WALL TO BASEMENT. SEAL PENETRATION IN EXTERIOR WALL WATER TIGHT.
4. 2" NATURAL GAS FROM BASEMENT, 1 1/2" UP ROOF. KEEP PIPING TIGHT TO WALL.
5. NATURAL GAS PIPING HIGH IN APPARATUS BAY.
6. DROP NATURAL GAS AND CONNECT TO UNIT HEATER. PROVIDE VALVE, FULL SIZE DIRT LEG, AND UNION. SEE NATURAL GAS CONNECTION DETAIL SHEET P3.1.
7. 1 11/2" NATURAL GAS FROM BELOW. EXTEND THRU WALL TO ROOF. SEAL PENETRATION IN EXTERIOR WALL WATER TIGHT.
8. NEW NATURAL GAS PIPING RUNNING ACROSS ROOF. PROVIDE PIING SUPPORT (SPACED SAMES AS PIPE HANGER) MIFAB # CR10-3 OR APPROVED EQUAL.
9. CONNECT NATURAL GAS TO ROOF TOP UNIT. PROVIDE VALVE, FULL SIZE DIRT LEG, AND UNION. SEE NATURAL GAS CONNECTION DETAIL SHEET P3.1
10. NEW VENT THRU ROOF.

0 4 8 16 24 32 40

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

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3621

PROJECT # 24066

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
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FIRST FLOOR NEW WORK PLAN

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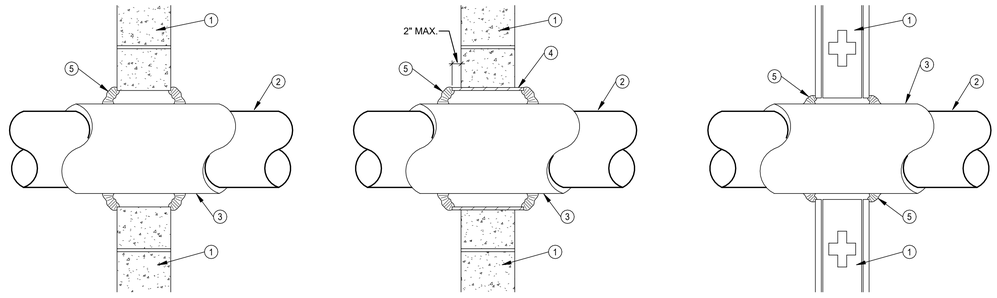


CONCRETE/MASONRY CONSTRUCTION
1/2" - 1.5" PIPES

CONCRETE/MASONRY CONSTRUCTION
2" AND LARGER PIPES

GYPSUM CONSTRUCTION
ALL PIPE SIZES

1. FULL HEIGHT INTERIOR WALL.
2. PIPE OR TUBING.
3. PIPE INSULATION, CONTINUOUS THROUGH WALL OPENING, SEE SCHEDULE FOR THICKNESS.
4. SCHEDULE 40 STEEL PIPE SLEEVE CAST OR GROUTED INTO WALL ASSEMBLY. ENDS FLUSH OR MAX. 2" BEYOND WALL SURFACE.
5. CAULK TO FILL VOID AT WALL/SLEEVE OPENING.

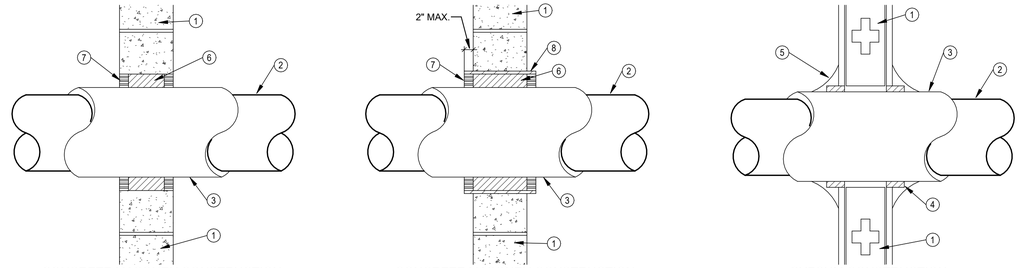
GENERAL NOTE:

A. SLEEVES ARE NOT REQUIRED IN THE FOLLOWING:

- IN FLOOR SLABS ON GRADE.
- IN STUD AND GYPSUM BOARD OR PLASTER WALLS AND PARTITIONS WHICH ARE NOT FIRE RATED.
- FOR UNINSULATED PIPE PASSING THRU MASONRY WALLS AND PARTITIONS AND STUD AND GYPSUM BOARD OR PLASTER WALLS AND PARTITIONS. SLEEVES ARE REQUIRED HOWEVER, FOR UNINSULATED CONDENSER WATER PIPING AND HYDRONIC HEAT PUMP PIPING FOR WHICH EXPANSION, CONTRACTION AND OTHER PIPE MOVEMENT CAN BE EXPECTED.
- IN CORE DRILLED OPENINGS IN SOLID CONCRETE NOT REQUIRING WATER PROTECTION. SLEEVES ARE REQUIRED, HOWEVER, AT CORE DRILLING THRU HOLLOW PRE-CAST SLABS AND CONCRETE BLOCK WALLS, TO FACILITATE CONTAINMENT OF REQUIRED FIRESTOPPING MATERIAL.
- IN LARGE FLOOR OPENINGS FOR MULTIPLE PIPE AND DUCT RISERS WHICH ARE WITHIN A FIRE RATED SHAFT, UNLESS THE OPENING IS TO BE CLOSED OFF WITH CONCRETE OR OTHER MATERIAL AFTER PIPE ARE SET.

B. WHERE UNINSULATED PIPES REQUIRING NO PIPE SLEEVES PASS THRU NON-FIRE RATED FLOOR, WALL OR PARTITION, THE ANNULAR SPACE SHALL BE CLOSED WITH MATERIAL AND METHODS COMPATIBLE WITH THE WALL OR PARTITION MATERIAL (TYPE M MASONRY GROUT, DRYWALL JOINT COMPOUND, PLASTER, ETC.).

2 PIPE PENETRATIONS THRU NON-RATED WALL
N.T.S.



CONCRETE/MASONRY CONSTRUCTION
1/2" - 1.5" PIPES

CONCRETE/MASONRY CONSTRUCTION
2" AND LARGER PIPES

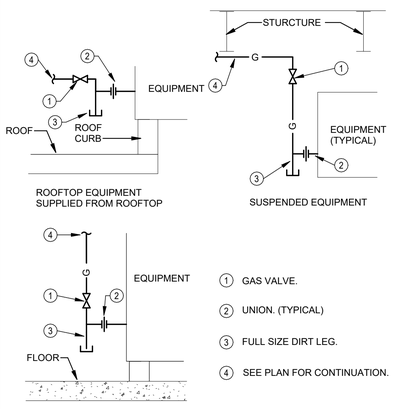
GYPSUM CONSTRUCTION
ALL PIPE SIZES

FIRESTOPPING MATERIALS/INSTALLATION

- MANUFACTURERS: 3M FIRE PROTECTION PRODUCTS HILTI FIRESTOP SYSTEMS
- FIRESTOPPING MATERIAL INSTALLATION SHALL BE PER THE MANUFACTURERS DETAILED INSTALLATION DIAGRAMS AND INSTRUCTIONS.
- F-RATING OF PENETRATION SHALL BE NO LESS THAN THE FIRE RATING OF THE WALL.
- SUBMITTAL SHALL INCLUDE PRODUCT DATA AND DETAILED INSTALLATION SYSTEM DIAGRAMS.

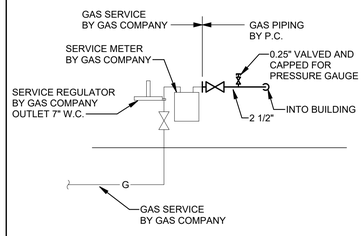
1. RATED WALL ASSEMBLY.
2. METALLIC PIPE OR TUBING.
3. PIPE INSULATION, CONTINUOUS THROUGH WALL OPENING, SEE SCHEDULE FOR THICKNESS.
4. APPROVED FIRESTOPPING VOID/CAVITY MATERIAL.
5. APPROVDED FIRESTOPPING CAULK OR SEALANT.
6. PACKING MATERIAL, MINERAL WOOL BATT INSULATION.
7. APPROVED FIRESTOPPING CAULK OR SEALANT FLUSH WITH SURFACE OF WALL OR EDGE OF SLEEVE.
8. SCHEDULE 40 STEEL PIPE SLEEVE CAST OR GROUTED INTO WALL ASSEMBLY. ENDS FLUSH OR MAX. 2" BEYOND WALL SURFACE.

1 PIPE PENETRATIONS THRU FIRE RATED WALL
N.T.S.



1. GAS VALVE.
2. UNION. (TYPICAL)
3. FULL SIZE DIRT LEG.
4. SEE PLAN FOR CONTINUATION.

5 NATURAL GAS CONNECTION DETAIL
N.T.S.



4 GAS SERVICE RISER
N.T.S.

GAS LOAD SCHEDULE

GENERAL NOTES
• PIPING SIZED USING THE LONGEST LENGTH METHOD.
•LOW PRESSURE (7" W.C.) GAS PIPING SIZED USING TABLE 402.4(2) OF THE 2015 IFC.

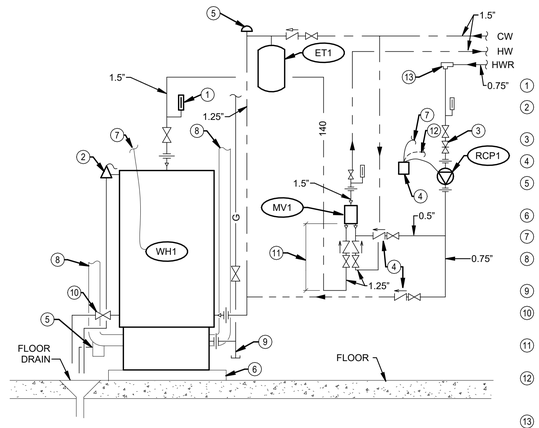
ITEM	LOAD	
GUH-1 GAS FIRED UNIT HEATER	175	CFH
GUH-2 GAS FIRED UNIT HEATER	175	CFH
RTU-1 ROOFTOP UNIT	80	CFH
RTU 2 ROOFTOP UNIT	200	CFH
WATER HEATER	199	CFH
EXISTING RANGE	219	CFH
EXISTING GAS DRYER	22	CFH
EXISTING GAS GRILL	75	CFH
TOTAL	**1,145**	CFH

(WH1) **WATER HEATER #1.**
GAS FIRED TANK TYPE HEATER W/ ST.ST. TANK AND HEAT EXCHANGER.
STORAGE - 50 GALLONS NOM.
RECOVERY - 253 GPH @ 90°F RISE
INPUT - 199,000 CFH
GAS PRESSURE - 7" W.C.
ELECTRICAL - 120V 1 PH
BASIS OF DESIGN - A.O.SMITH # GTP 199 OR APPROVED EQUAL.

(RCP1) HOT WATER RECIRC. PUMP #1
CAPACITY - 3 GPM @ 5 FT. HD
ELECTRICAL - 120V/1PH, 0.4 AMPS
BASIS OF DESIGN - B&G # NBF-9U/LW OR APPROVED EQUAL.

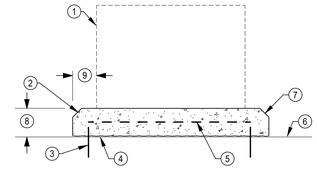
(MV1) 120° HOT WATER DIGITAL MIXING VALVE
CAPACITY - 50 GPM @ 5 PSI LOSS
MINIMUM FLOW - 3 GPM
BASIS OF DESIGN - POWERS INTELLISTATION 2 # ISQ2100VL
SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS AND ADDITIONAL MANUFACTURERS.

(ET1) EXPANSION TANK
BASIS OF DESIGN - AMTROL # 12C OR EQUAL.



1. THERMOMETER. (TYPICAL).
2. T&P SAFETY RELIEF VALVE. PIPE DISCHARGE TO FLOOR DRAIN W/ 2" MIN. AIR GAP.
3. BALANCING VALVE. BALANCE AT 3 GPM.
4. MOTOR STARTER CONTROLLER BY E.C.
5. PROVIDE CONDENSATE NEUTRALIZER. PIPE TO DRAIN
6. 4" CONCRETE PAD.
7. ELECTRICAL POWER CONNECTION BY E.C.
8. COMBUSTION AIR AND VENT FLUES TO BE EXTENDED OUTDOORS BY H.C..
9. FULL-SIZED DIRT LEG.
10. DRAIN VALVE. PIPE DISCHARGE TO FLOOR DRAIN WITH 2" MIN. AIR GAP.
11. HEAT TRAP PER MIXING VALVE MANUFACTURER'S RECOMMENDATION.
12. CONTROL WIRING BY H.C. TO BAS SYSTEM FOR TIMECLOCK CONTROL OF RECIRCULATION PUMP.
13. IMMERSION STAT BY H.C. FOR TEMPERATURE CONTROL OF RECIRCULATION PUMP.

3 DOMESTIC WATER HEATER
N.T.S.



1. OUTLINE OF EQUIPMENT.
2. 4,000 PSI CONCRETE.
3. 1-#4 DOWEL, 6" LONG, EACH CORNER.
4. ROUGHEN SLAB & APPLY BONDING AGENT.
5. STEEL REINFORCING MESH.
6. FINISHED CONCRETE FLOOR.
7. 45 DEG. CHAMFER ALL AROUND.
8. 4" THICK CONCRETE SLAB.
9. MINIMUM 2" DISTANCE.

NOTE: OVERALL DIMENSION TO BE DETERMINED BY CONTRACTOR.

6 INTERIOR CONCRETE EQUIPMENT PAD
N.T.S.

App Architecture
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615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFREY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

NO.	DATE	DESCRIPTION
	08/01/2025	FOR CONSTRUCTION

DATE	08/01/2025
JOB NO.	4284.01
DRAWN	DEG
CHECKED	JDZ

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TITLE
DETAILS

SHEET NO.
P3.1

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821
PROJECT # 24066

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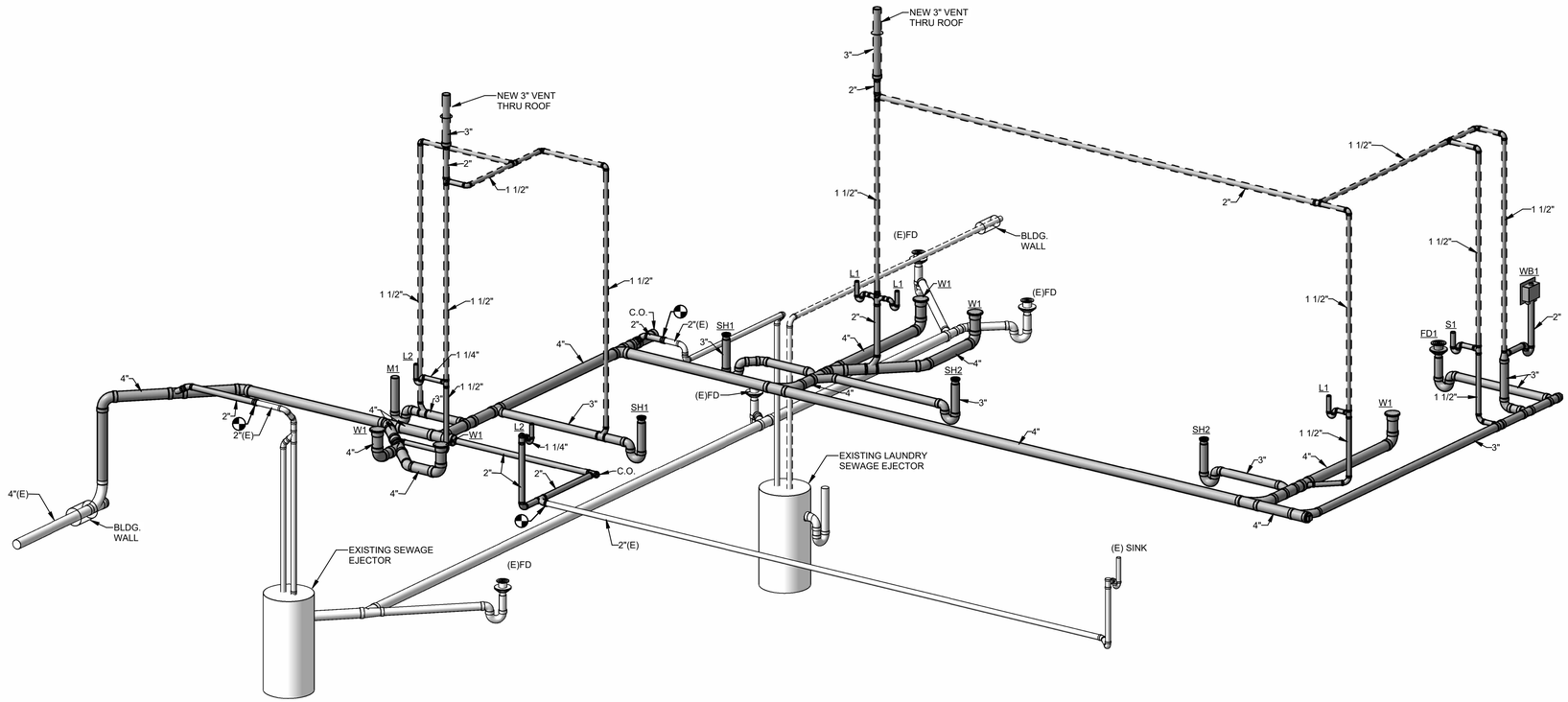

SOIL, WASTE, AND VENT DIAGRAM

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NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-1821

PROJECT # 24066

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GENERAL HVAC REMOVAL NOTES

A. GENERAL - THIS REMOVAL PLAN HAS BEEN MADE TO ASSIST THE CONTRACTOR IN DETERMINING GENERAL SCOPE OF REMOVALS. THESE DRAWINGS SHALL NEITHER BE CONSIDERED AS SHOWING ALL REMOVAL ITEMS NOR SHALL IT BE CONSIDERED A SUBSTITUTE FOR A THOROUGH SITE INVESTIGATION. NO ALLOWANCE SHALL BE MADE FOR LACK OF KNOWLEDGE CONCERNING EXISTING SITE CONDITIONS. ALL PIPE AND/OR DUCTWORK SHALL BE MADE CONTINUOUS TO ANY ACTIVE EQUIPMENT PAST THE ITEM(S) BEING REMOVED.

B. GENERAL REMOVALS - THE HVAC CONTRACTOR IS TO REMOVE ALL EXISTING, ACCESSIBLE UNUSED OR ABANDONED DEVICES, PIPING, WIRING, DUCTWORK AND SUPPORT HANGERS OR STRUCTURES TOTALLY BACK TO SOURCE. IN NO CASE SHALL ANY ABANDONED PIPING, WIRING, DUCTWORK, OR EQUIPMENT REMAIN WITHIN THE CONSTRUCTION AREA OR IN ADJACENT AREAS TO MECHANICAL ROOMS OR CLOSETS. ONLY ITEMS THAT ARE INACCESSIBLE SHALL BE ALLOWED TO BE ABANDONED IN PLACE WITH ALL ACCESSIBLE SERVICES APPROPRIATELY CAPPED.

C. SUPPORTS REMOVALS - ALL SUPPORTS SHALL BE REMOVED ENTIRELY FROM DEMOLISHED PIPING, DUCTWORK AND EQUIPMENT. REMAINING ACTIVE PIPING, DUCTWORK, ETC. SHALL BE RE-SUPPORTED AS REQUIRED WHERE EXISTING SUPPORTS ARE REMOVED, AS IN THE CASE OF DUCTWORK OR PIPING, WHICH IS BEING REMOVED OR WHERE EXISTING SUPPORTS/LOCATION CONFLICTS WITH NEW UTILITIES. NEW SUPPORTS SHALL UTILIZE APPROVED AND RECOGNIZED MATERIALS AND METHODS AND BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS.

D. WALL REMOVALS - RECESSED DEVICES TO BE ABANDONED IN EXISTING WALLS WHICH ARE TO REMAIN IN FINISHED AREAS SHALL BE COVERED BY SUITABLE BLANK COVER PLATES AND PAINTED TO MATCH FINISH. WHERE REMOVALS ARE COMPLETELY REMOVED FROM FACE OF WALL, PATCH WALL CONSISTENT WITH ADJACENT FINISH. SURFACE MOUNTED REMOVED DEVICES SHALL HAVE SURFACE REPAIRED AND FINISHED TO MATCH ADJACENT EXISTING OR NEW ARCHITECTURAL FINISHES.

E. ROOF REMOVALS - DEVICES, SERVICES, SUPPORTS & EQUIPMENT REMOVED FROM ROOF SHALL BE REMOVED. THE HVAC CONTRACTOR SHALL ENGAGE A ROOFING CONTRACTOR TO PATCH THE ROOFING CONSISTENT WITH THE EXISTING ROOF WARRANTY.

F. ABANDONED SERVICES - ALL INACTIVE DUCT AND PIPE ABOVE CEILINGS SHALL BE REMOVED IN ENTIRETY AND CAPPED AT NEAREST ACTIVE MAINS.

G. EQUIPMENT REMOVAL/DISPOSAL COORDINATION - COORDINATE REMOVAL ITEMS CLOSELY WITH OWNER. ANY ITEMS REMOVED WITHIN THE CONSTRUCTION AREA SHALL BE TURNED OVER TO THE OWNER IN GOOD CONDITION WHEN INDICATED HEREIN OR WHEN SO REQUESTED BY THE OWNER. ALL OTHERS WILL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REQUIRED TO BE DISPOSED OF ACCORDINGLY. DISPOSALS REGUALTED BY EPA SHALL BE DONE IN STRICT ACCORDANCE WITH LATEST REQUIREMENTS AND DOCUMENTED.

H. PROTECTION - EXISTING MATERIALS AND FINISHES ARE TO BE PROTECTED AND RESTORED TO MATCH ADJACENT FINISHES. PROVIDE ADEQUATE PROTECTION TO ALL EXPOSED SURFACES AND EQUIPMENT WITHIN THE REMOVAL AREA.

I. ACTIVE EQUIPMENT & SERVICES - ANY EXISTING EQUIPMENT OR DEVICES TO REMAIN IN ADJACENT SPACES MADE INACTIVE BY REMOVAL OF DEVICES OR WIRING WITHIN THE CONSTRUCTION AREA SHALL BE RE-FED AS REQUIRED TO MAKE DEVICES OR EQUIPMENT OPERATIONAL.

J. DAMAGED SERVICES & INSULATION - EXISTING PIPING & DUCTWORK TO REMAIN WITH DAMAGED INSULATION ENCOUNTERED IN AREAS OF WORK SHALL HAVE DAMAGED INSULATION REMOVED AND REPLACED WITH NEW. INSULATION THICKNESS SHALL MATCH EXISTING CONDITION. WORK TO BE PERFORMED ON A TIME AND MATERIAL BASIS AS ENCOUNTERED. SERVICES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

K. OPENINGS & PATCHING - WHERE DUCTWORK, PIPING, EQUIPMENT, OR AIR DEVICES ARE REMOVED THROUGH WALLS, FLOORS, CEILINGS AND ROOF, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO PATCH AND FINISH CONSISTENT WITH THE EXISTING OR NEW ARCHITECTURAL FINISHES FOR THAT AREA. OPENINGS OR HOLES EXPOSED TO EXTERIOR CONDITIONS SHALL BE MADE WEATHER-TIGHT AND WATERPROOF AND CONSISTENT WITH ADJACENT WALL FINISHES. PATCHING AND SEALING TO BE CONSISTENT WITH FIRE AND SMOKE STOPPING AND RATING.

CMU WALLS - GROUT SMALL PENETRATIONS CLOSED. TOOTH IN WITH NEW BLOCKING FOR LARGE HOLES.
BRICK WALLS - TOOTH IN WITH NEW BRICK
GYPSUM BOARD WALLS - REPLACE WITH NEW GYPSUM BOARD
STRUCTURAL METAL ROOF/FLOOR DECKING - REPLACE WITH NEW DECKING, SAME AS EXISTING SIZE
CONCRETE FLOORS/WALLS - GROUT PENETRATIONS CLOSED
WOOD FLOORS/WALLS - PATCH CONSISTENT WITH WOOD TYPE

L. ASBESTOS REMOVALS - ANY MATERIAL SUSPECTED OF CONTAINING ASBESTOS ENCOUNTERED DURING THE COURSE OF CONSTRUCTION SHALL IMMEDIATELY BE REPORTED TO OWNER AND PROJECT MANAGER. ALL WORK IN THAT AREA SHALL CEASE UNTIL DEEMED SAFE.

M. CEILING REMOVALS - THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY REMOVAL, STORAGE AND RE-INSTALLATION OF CEILING GRID AND TILES AS REQUIRED FOR WORK. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENTS, IF DAMAGED.

GENERAL NOTES - HVAC

1. PROVIDE COMPLETE AND FUNCTIONAL HVAC SYSTEMS PER HVAC PLANS INCLUDING FURNISHING, INSTALLING, TESTING AND WARRANTY OF ALL WORK.
2. WORK SHALL BE IN ACCORDANCE WITH THE 2024 OHIO BUILDING AND MECHANICAL CODES INCLUDING REFERENCED CODES AND STANDARDS, ALL FEDERAL, STATE, AND LOCAL CODES AND ALL APPLICABLE LAWS, ORDINANCES AND REGULATIONS.
3. WORK SHALL BE PERFORMED USING BEST QUALITY INSTALLATION PRACTICE BY A QUALIFIED TRADE CONTRACTOR AND THEIR QUALIFIED SUBCONTRACTORS. ALL CONTRACTORS SHALL BE LICENSED AND BE BONDED FOR THE WORK.
4. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA AND OWNER SAFETY STANDARDS AND PRACTICES. ALL ON SITE PERSONNEL SHALL BE SAFETY TRAINED AND OWNER CERTIFIED.
5. OBTAIN REQUIRED PERMITS RELATED TO THE WORK AND PAY ALL PERMIT AND INSPECTION FEES.
6. THE AUTHORITY HAVING JURISDICTION SHALL INSPECT AND APPROVE ALL WORK. PROVIDE A FINAL CERTIFICATE OF APPROVAL FROM THE AUTHORITY HAVING JURISDICTION AND PRESENT TO THE OWNER BEFORE REQUESTING FINAL PAYMENT AND RELEASE OF RETAINAGE.
7. ALL EQUIPMENT AND MATERIAL REQUIRED FOR COMPLETE AND FUNCTIONAL HVAC SYSTEMS ARE INCLUDED IN THE CONTRACT.

GENERAL REQUIREMENTS - HVAC

1. PROTECT ALL FURNISHED MATERIAL AND EQUIPMENT FROM THEFT AND DETERIORATION OR CONTAMINATION DUE TO WEATHER OR CONSTRUCTION ACTIVITIES.
2. PROTECT OWNERS PROPERTY AND PROPERTY OF OTHER CONTRACTORS.
3. REMOVE ALL CONSTRUCTION DEBRIS FROM SITE. RECYCLE DEBRIS WHERE POSSIBLE. DISPOSE OF ALL HAZARDOUS MATERIAL IN ACCORDANCE WITH ENVIRONMENTAL LAWS.
4. PROVIDE ALL CUTTING AND PATCHING REQUIRED TO INSTALL MATERIAL AND EQUIPMENT.
5. EXISTING ROOF PATCHING SHALL BE SUBCONTRACTED TO A BONDED ROOFING CONTRACTOR FAMILIAR WITH THE ROOFING SYSTEM. MAINTAIN ANY REMAINING ROOF WARRANTY.
6. PROVIDE APPROPRIATE FIRESTOPPING SYSTEM FOR ANNULAR SPACE OPENINGS AROUND DUCT AND PIPE PENETRATIONS THROUGH FIRE RESISTANCE RATED CONSTRUCTION. ANNULAR SPACE OPENINGS AT DUCT OR PIPE PENETRATIONS IN NON RATED CONSTRUCTION TO BE CLOSED AIR AND WATER TIGHT.
7. MATERIALS AND EQUIPMENT SHALL BE ONE OF THE BRAND OR MANUFACTURERS LISTED OR AN APPROVED EQUAL.
8. ELECTRONIC SHOP DRAWINGS SHALL BE PROVIDED IN .PDF FORMAT FOR THE ENGINEER'S APPROVAL FOR ALL MATERIALS AND EQUIPMENT. SHOP DRAWINGS SHALL BE SPECIFICALLY EDITED TO ELIMINATE SUPERFLUOUS INFORMATION AND SHALL CLEARLY SHOW SPECIFICS FOR THE MATERIAL AND EQUIPMENT PROVIDED.
9. COORDINATE INSTALLATION OF ACTUAL EQUIPMENT AND SYSTEMS PROVIDED WITH OTHER TRADES AND NEW OR EXISTING CONDITIONS.
10. INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS. PROVIDE REQUIRED CLEARANCES TO MEET CODE REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS AND MAINTENANCE SERVICE.
11. ALL WORK AREAS SHALL BE CLEANED TO MATCH ORIGINAL CONDITION.
12. PROVIDE TESTING, ADJUSTING AND BALANCING (TAB) REPORTS FOR AIR AND WATER SYSTEMS. A CERTIFIED AABC OR NEBB FIRM SHALL PROVIDE THE BALANCE.
13. PROVIDE FINAL COORDINATION/INSTALLATION DRAWINGS TO THE OWNER IN BOUND PAPER AS WELL AS ELECTRONIC FORMAT FOR RECORD.
14. MAINTAIN RECORD DRAWINGS AND PROVIDE TO THE OWNER OR HIS AGENT.
15. PROVIDE TWO (2) BOUND, PAPER COPIES OF ALL OPERATING AND MAINTENANCE MANUALS. PROVIDE AN ELECTRONIC COPY OF THE OPERATING AND MAINTENANCE MANUAL.
16. PROVIDE WARRANTY FOR ALL WORKMANSHIP, EQUIPMENT AND MATERIAL. WARRANTY SHALL BE 1 YEAR FOR PART AND LABOR. PROVIDE EXTENDED WARRANTY PERIOD FOR PARTS AND/OR LABOR AS IDENTIFIED OR AS STANDARD FOR CERTAIN ITEMS OF EQUIPMENT.
17. PROVIDE TRAINING AND MAINTENANCE INSTRUCTION FOR SYSTEMS AND EQUIPMENT TO THE OWNER. TRAINING SHALL BE 16 HOURS OF TIME WITH MAXIMUM TRAINING PERIOD OF 4 HOURS.

TEMPERATURE CONTROLS LEGEND

ABBREVIATIONS

A.I. -	ANALOG INPUT
A.O. -	ANALOG OUTPUT
AFMS -	AIR FLOW MEASURING STATION
BAS -	BUILDING AUTOMATION SYSTEM
DDC -	DIRECT DIGITAL CONTROLS
D.I. -	DIGITAL INPUT
D.O. -	DIGITAL OUTPUT
ECM -	ELECTRICALLY COMMUTATE MOTOR
E.W.T. -	ENTERING WATER TEMPERATURE
L.W.T. -	LEAVING WATER TEMPERATURE
M.C. -	MASTER CONTROLLER
N.O. -	NORMALLY OPEN
N.C. -	NORMALLY CLOSED
SCR -	SILICON CONTROLLED RECTIFIER
VFD -	VARIABLE FREQUENCY DRIVE

SENSORS & TRANSMITTERS

- (T) TEMPERATURE SENSOR
- (H) HUMIDITY SENSOR
- (TH) COMBINATION TEMPERATURE & HUMIDITY SENSOR
- (TC) COMBINATION TEMPERATURE & CARBON DIOXIDE SENSOR
- (P) PRESSURE SENSOR
- (N) NITROGEN DIOXIDE (NO_2) SENSOR
- (CO2) CARBON DIOXIDE (CO_2) SENSOR
- (C) CARBON MONOXIDE (CO) SENSOR
- (CN) COMBINATION CARBON MONOXIDE & NITROGEN DIOXIDE SENSOR
- (DP) DIFFERENTIAL PRESSURE SENSOR
- (E) ENTHALPY SENSOR
- (T) PIPE WELL TYPE TEMPERATURE SENSOR
- (FS) PIPE WELL TYPE FLOW METER
- THERMOSTAT - LINE OR LOW VOLTAGE
- HUMIDISTAT
- [R] RELAY

VALVES

- MOTORIZED TWO-WAY CONTROL VALVE
- MOTORIZED THREE-WAY CONTROL VALVE

DAMPERS

- MOTORIZED CONTROL DAMPER

OVER-RIDE TIMERS

- LV OVERRIDE TIMER - LINE VOLTAGE
- OVERRIDE PUSH BUTTON - DIGITAL SIGNAL

GAUGES

- (PDG) PRESSURE DIAL GAUGE - REFER TO SPECIFICATION FOR RANGES
  - AIRFLOW UNITS: IN. W.C.
  - WATER UNITS: PSI

SAFETY DEVICES

- WIRED DIRECTLY TO EQUIPMENT STARTER W/ MANUAL RESET

- [SD] DUCTWORK SMOKE DETECTOR - RELAY & LOW VOLTAGE WIRING TO FAN CONTROLLER BY T.C.
- [P] HIGH STATIC SAFETY SWITCH
- [FS] FLOW SWITCH
- [FZ] FREEZE STAT

PIPING LEGEND

- INDICATES DIRECTION OF FLOW
- CD — CONDENSATE DRAIN
- L — REFRIGERANT - LIQUID
- S — REFRIGERANT - SUCTION
- HPG — REFRIGERANT - HIGH/LOW PRESSURE GAS
- S/L — REFRIGERANT - SUCTION & LIQUID, 2 PIPES TOTAL
- S/L/HG — REFRIGERANT - SUCTION, LIQUID, & HOT GAS 3 PIPES TOTAL
- FLEXIBLE CONNECTION
- CAP
- CONNECTION, BOTTOM
- CONNECTION, TOP
- CONNECTION, SIDE
- ELBOW, 90", LONG RADIUS
- ELBOW, 45", LONG RADIUS
- ELBOW, TURNED UP
- ELBOW, TURNED DOWN
- REDUCER
- UNION, SCREWED
- PIPE HOSE THREAD CONNECTION
- (P) PRESSURE GAUGE
- TEMPERATURE GAUGE
- MV AIR VENT
  - MV = MANUAL
  - AV = AUTOMATIC

DUCTWORK LEGEND

- 20/12 / 20/12 — RECTANGULAR DUCT, FIRST FIGURE IS SIDE SHOWN
- 10"ø / 10"ø — ROUND DUCT, DIAMETER INDICATED
- FLEXIBLE FABRIC STEEL DUCT
- INSULATED FLEXIBLE DUCT
- R — CHANGE OF ELEVATION, R = RISE, D = DROP
- ELBOW WITH TURNING VANES
- 20/12 — ROUND RUNOUT DUCT TAP TO RECTANGULAR DUCT WITH SPIN-IN FITTING, SEE DETAIL
- 10"ø — ROUND RUNOUT DUCT FITTING IN ROUND DUCT MAIN
- VOLUME DAMPER
- AUTOMATIC CONTROL DAMPER, REFER TO CONTROL DIAGRAMS FOR TYPE.
- FD — FIRE DAMPER
- S — DUCT MOUNTED SMOKE DETECTOR
- SUPPLY DUCT SECTION - RISE, DROP
- RETURN DUCT SECTION - RISE, DROP
- S1-8" / 300 — SUPPLY AIR DEVICE S1, SEE SCHEDULE AND DETAIL, 8" NECK SIZE, 300 = REQUIRED AIR FLOW (CFM)
- R1 — TRANSFER AIR DEVICE, R1 DEVICE TAG, SEE SCHEDULE AND DETAIL
- R1 / 300 — RETURN/EXHAUST, DEVICE TAG: R=RETURN, E=EXHAUST, 300 = REQUIRED AIR FLOW (CFM), DEVICE SIZE AS INDICATED IN AIR DEVICE SCHEDULE
- S2-24/12 / 300-8' 6" — SIDEWALL AIR DEVICE, SEE AIR DEVICE SCHEDULE, 24/12 = DEVICE SIZE, 300 = AIR FLOW (CFM), 8' 6" = MOUNTING HEIGHT (AFF)
- S3-6" / 150-2 — LINEAR SLOT PLENUM, S3 - DEVICE TAG, SEE AIR DEVICE SCHEDULE, 6" = ROUND DUCT CONNECTION SIZE, 150 = AIR FLOW (CFM), 2 = NO. OF SLOTS
- (E) / 120 — EXISTING AIR DEVICE, REBALANCE TO AIR FLOW INDICATED

GENERAL LEGEND

EC	ELECTRICAL CONTRACTOR.
FC	FIRE PROTECTION CONTRACTOR.
GC	GENERAL CONTRACTOR.
HC	HVAC CONTRACTOR.
PC	PLUMBING CONTRACTOR.
TC	TEMPERATURE CONTROLS CONTRACTOR.
NIC	NOT IN CONTRACT.
AFF	ABOVE FINISHED FLOOR - TO BOTTOM OF ITEM UNLESS INDICATED OTHERWISE IN DRAWING.
(E)	EXISTING.
ES	EQUIPMENT SUPPLIER.
EM	EMERGENCY.
MH	MOUNTING HEIGHT.
S	SURFACE MOUNTED.
WP	WEATHER PROOF.
3	NOTE SYMBOL - APPLIES ONLY TO SHEET ON WHICH IS SHOWN.
2	DETAIL NOTE SYMBOL - APPLIES ONLY TO DETAIL ON WHICH IS SHOWN.
H-1	EQUIPMENT REFERENCE SYMBOL. ELECTRICAL CONNECTION REQUIRED.
H-1	EQUIPMENT REFERENCE SYMBOL. NO ELECTRICAL CONNECTION REQUIRED.
123	ROOM NUMBER.
B / H2	DETAIL SYMBOL, DETAIL "B" SHOWN ON SHEET H2.
A / H1	SECTION SYMBOL, SECTION "A" DESIGNATION, SHOWN ON SHEET H1.
A / H1	EXTERIOR ELEVATION SYMBOL, ELEVATION "A" DESIGNATION, SHOWN ON SHEET H1
	CONNECTION, NEW TO EXISTING.
FD1	UP TO SYMBOL, UP TO "FD1", SHOWN ON FLOOR ABOVE.
	1 HOUR FIRE PROTECTION, SEE SPECIFICATION FOR PENETRATION DETAILS
	2 HOUR FIRE PROTECTION, SEE SPECIFICATION FOR PENETRATION DETAILS
	3 HOUR FIRE PROTECTION, SEE SPECIFICATION FOR PENETRATION DETAILS
	ITEM TO BE REMOVED.
	EXISTING TO REMAIN.
	NEW ITEM.

HVAC INDEX OF DRAWINGS

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LEGENDS AND SCHEDULES

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NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821

PROJECT # 24066

7/31/2025 8:11:29 AM

PIPING SYSTEMS - HVAC

PIPING SYSTEM		TYPE	
COOLING COIL CONDENSATE		C3	
REFRIGERANT LINESETS		R2	
TYPE	**DESCRIPTION**	**TYPE**	**DESCRIPTION**
R2	COPPER COIL REFER TO SPECIFICATION 23 2300.	C3	SOLDERED COPPER TYPE "DWV" HARD COPPER ASTM B88 CAST DWV COPPER FITTINGS 95-5 SOLDER

PIPE INSULATION SCHEDULE

SYSTEM & SIZE		INSULATION THICKNESS	TYPE	LOCATION
REFRIGERANT LIQUID		0.75"	E1, E2	INTERIOR/EXTERIOR
REFRIGERANT HOT GAS		0.75"	E1, E2	INTERIOR/EXTERIOR
REFRIGERANT SUCTION		0.75"	E1, E2	INTERIOR/EXTERIOR
COOLING COIL CONDENSATE		0.5"	F1	INTERIOR
TYPE	**BASIS OF DESIGN**	**APPROVED EQUALS**	**DESCRIPTION**	
F1	OWENS CORNING #SSL II WITH ASJ MAX JACKET	- KNAUF - JOHNS MANVILLE - MANSON -CERTAINTEED	PREFORMED, TUBULAR, INORGANIC GLASS FIBER WITH RESIN BONDING. K=0.24 @ 100 DEG. F, 3.5 - 5.5 PCF. WHITE FSRK JACKET, LONGITUDINAL LAP, SELF-SEALING ADHESIVE. ELBOWS, TEES, VALVES, CAPS, ETC., WHITE ONE PIECE, PREMOLDED 25/50 0.20" PVC FITTING COVERS WITH HIGH DENSITY FIBERGLASS INSULATION INSERTS SAME THICKNESS, K=0.26 EQUAL TO ZESTON OR PROTO.	
E1	AEROFLEX #AEROCEL EPDM	- ARMACELL - RUBATEX	FLEXIBLE, PRE-FORMED, CLOSED CELL, EPDM ELASTOMERIC TUBULAR INSULATION, OR SHEET INSULATION. K=0.25 @ 75 DEG. F. CLEAN PIPE SURFACE WITH DENATURED ALCOHOL PRIOR TO INSULATING.	
E2	ARMACELL #AP ARMAFLEX FS	- AEROFLEX - RUBATEX	FLEXIBLE, PRE-FORMED, CLOSED CELL, ELASTOMERIC TUBULAR INSULATION. CLEAN PIPE SURFACE WITH DENATURED ALCOHOL PRIOR TO INSULATING. K=0.25 @ 75 DEG. F. 25/50 FLAME/SMOKE RATING. PROVIDE 0.20" ROLL ALLOY ALUMINUM EMBOSSED JACKET, SEAM SIDE DOWN WITH 0.50" WIDE, 0.015" S.S. STRAP AND SEALS EQUAL TO PABCO-CHILDERS METALS/GERRARD.	

RATED ASSEMBLY PENETRATIONS

GENERAL NOTES:

1. REFER TO THE ARCHITECTS LIFE SAFETY DRAWING FOR INFOMRATION ON RATED ASSEMBLIES ON THIS PROJECT.
2. REFER TO SPECIFCATION 23 0004, 23 0529, 23 3300 FOR INFORMATION ON SYSTEMS SPECIFIED PER THIS SCHEDULE.
3. FIRE, SMOKE, AND COMBINATION FIRE/SMOKE DAMPER ACCESS DOORS SHALL BE LOCATED IN AN EASILY ACCESSIBLE LOCATION. FOR HORIZONTAL PENETRATIONS, ACCESS DOORS SHALL BE LOCATED ON THE BOTTOM OF DUCTWORK. FOR VERTICAL PENETRATIONS, ACCESS DOORS SHALL BE LOCATED AT THE FLOOR LEVEL ON THE HIGHER FLOOR (I.E., A PENETRATION THROUGH THE 1ST AND 2ND FLOOR SHALL HAVE THE ACCESS DOOR LOCATED ON THE 2ND FLOOR LEVEL).

	DUCTWORK					PIPING			
ASSEMBLY TYPE	**FIRE DAMPER**	**FIRE STOPPING**	**PLIABLE CAULK**	**SMOKE DAMPER**	**COMBINATION FIRE / SMOKE**	**FIRE STOPPING**	**PLIABLE CAULK**	**CAST-IN PLACE FIRESTOP SYS.**	**NOTES**
FIRE BARRIER	●	●				●			1
FIRE WALLS	●					●			
FIRE WALL HORIZONTAL EXIT					●	●			
FIRE BARRIER HORIZONTAL EXIT					●	●			
SHAFT ENCLOSURE	●	●		●	●	●			2
FIRE PARTITIONS	●					●			1
SMOKE PARTITIONS			●	●			●		
SMOKE BARRIER		●		●		●			3
RATED HORIZONTAL ASSEMBLY (FLOOR / CEILING)	●	●				●		●	4
NON-RATED HORIZONTAL ASSEMBLY (FLOOR / CEILING)	●	●				●			5

NOTES:

1. PROVIDE FIRE DAMPERS ONLY WHERE INDICATED ON DRAWINGS. FOR DUCTS WITHOUT FIRE DAMPERS, PROVIDE FIRE STOPPING.
2. PROVIDE FIRE DAMPER, SMOKE DAMPER, OR COMBINATION FIRE/SMOKE ONLY WHERE INDICATED ON DRAWINGS. OBC 717.5.3 EXCEPTIONS ALLOW THE ELIMINATION OF SOME DAMPERS. WHERE FIRE DAMPERS ARE NOT INDICATED, PROVIDE FIRE STOPPING.
3. PROVIDE SMOKE DAMPERS ONLY WHERE INDICATED ON DRAWING. FOR DUCTS WITHOUT SMOKE DAMPERS, PROVIDE FIRE STOPPING.
4. PROVIDE FIRE DAMPERS ONLY WHERE INDICATED ON DRAWINGS. FOR DUCTS WITHOUT FIRE DAMPERS, PROVIDE FIRE STOPPING. NOTE: DUCTS PENETRATING RATED FLOORS MAY BE WITHIN A SHAFT ENCLOSURE, REFER TO SHAFT REQUIREMENTS.
5. DUCTS PENETRATING NON-RATED, NON-COMBUSTIBLE FLOORS AND NOT ENCLOSED IN A SHAFT REQUIRE A FIRE DAMPER. DUCTS PENETRATING NON-RATED, COMBUSTIBLE FLOORS AND NOT WITHIN A SHAFT REQUIRE FIRE STOPPING.

DUCTWORK SYSTEMS SCHEDULE

DUCTWORK SYSTEMS	LOCATION	MATERIAL	SMACNA CLASS.		NOTES
			SP. CONSTR.	SEAL CLASS	
RETURN AIR	CONCEALED	G1	-2"	C	
RETURN AIR	EXPOSED	G2	-2"	C	1
EXHAUST AIR	CONCEALED	G1	-2"	C	
EXHAUST AIR	EXPOSED	G2	-2"	C	1
AIR TRANSFER	ALL	G1	-1"	NOT REQ'D.	
SUPPLY AIR - CONSTANT VOLUME	CONCEALED	G1	+3"	B	
SUPPLY AIR - CONSTANT VOLUME	EXPOSED	G1	+3"	B	
FLEXIBLE DUCTWORK - SUPPLY	CONCEALED OR UNCONDITIONED	C1	+10" -5"	N.A.	
DOMESTIC WATER HEATER INTAKE	ALL	P1	-2"	A	
DOMESTIC WATER HEATER FLUE	ALL	P1	+4"	A	
RADIANT HEATER INTAKE	ALL	G1	-2"	A	
RADIANT HEATER FLUE	ALL	D1	+4"	A	
GAS FIRED UNIT HEATER FLUE	ALL	D1	+4"	A	
DOMESTIC DRYER VENT	ALL	A1	+/-2"	A	

DUCTWORK MATERIALS SCHEDULE

TYPE	MATERIAL	DESCRIPTION
A1	ALUMINUM	22 GA. MIN., SPIRAL ALUMINUM JOINTS FASTENED BY SCREWS/RIVETS - SCREWS SHALL NOT PROTRUDE FURTHER THAN 1/8" INTO AIR STREAM - OMC 504.8.2. SUPPORT AT 4' INTERVALS
C1	CHLORINATED POLYETHYLENE	BLACK INNER FABRIC WITH GALVANIZED STEEL HELIX REINFORICING, R = 6.0 (MIN.) FIBERGLASS INSULATION, REINFORCED METALIZED VAPOR BARRIER, 0.05 PERM, UL 181, CLASS 1 DUCT, MEET NFPA 90A & 90B, 25/50 FLAME/SMOKE SPREAD.
D1	DOUBLE WALL FLUE	REFER TO SPECIFICATION 23 5100 FOR INFORMATION.
G1	GALVANIZED STEEL	24 GA. MIN., HOT DIPPED, GALVANIZED BOTH SIDES, G90 PER ASTM A653.
G2	GALVANNEALED STEEL	24 GA. MIN., HOT DIPPED, HEAT TREATED GALVANNEALED BOTH SIDES PER ASTM A653, PAINT UNIFORM GRAY MATTE APPEARANCE, A40 PER ASTM A653.
P1	POLYPROPYLENE	SCHEDULE 40 POLYPROPYLENE PIPE AND FITTINGS. UL 1738 CERTIFIED.

NOTES:

1. DUCTWORK SYSTEMS ARE TO MATCH BASE MATERIALS FOR CONCEALED AND EXPOSED INSTALLATIONS.

DUCTWORK INSULATION SCHEDULE

SYSTEM		INSULATION THICKNESS	TYPE	LOCATION	NOTES
SUPPLY AIR DUCT		1.5"	1	CONCEALED	
SUPPLY AIR DUCT		2"	2	EXPOSED	
RETURN AIR DUCT		-	-	CONCEALED	
RETURN AIR DUCT		-	-	EXPOSED	
EXHAUST AIR DUCT & PLENUMS		-	-	CONCEALED	
EXHAUST AIR DUCT & PLENUMS		-	-	EXPOSED	
TYPE	**BASIS OF DESIGN**	**APPROVED EQUALS**	**DESCRIPTION**		
1	OWENS-CORNING SOFTR TYPE 75	KNAUF JM CERTAIN TEED	MATERIAL FIBERGLASS DUCT WRAP ON DUCT K = 0.30 @ 75 DEG. F. DENSITY - 0.75 PCF JACKET - FOIL REINFORCED JOINTS - OVERLAPPING STAPLE ALL JOINTS AT 6" CENTERS. FASTENERS - MECHANICAL ON 24" & WIDER DUCT. ADHESIVE - NONE TAPE - 3" WIDE		
2	OWENS-CORNING TYPE 703	KNAUF JM CERTAIN TEED	MATERIAL FIBERGLASS BOARD ON DUCT K = 0.23 @ 75 DEG. F. DENSITY - 3.0 PCF JACKET - ASJ JOINTS - BUTT FASTENERS - METAL PINS & CLIPS ON 12" CENTERS ADHESIVE - NONE TAPE - 3" WIDE VAPOR PATCHED		

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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STATION 16
4111 Kings Highway, Dayton, Ohio 45406

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DATE	08/01/2025
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MATERIALS SCHEDULES

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NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3921

PROJECT # 24066

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FAN & ROOF VENTILATOR SCHEDULE

BASIS OF DESIGN - GREENHECK
REFER TO SPECIFICATIONS FOR OTHER MANUFACTURERS

VFD DRIVEN MOTORS SHALL BE PROVIDED WITH SHAFT GROUNDING RINGS, VFD DUTY MOTORS.

REFER TO INSTALLATION DETAILS.

TAG	SERVICE	AREA	DESCRIPTION	MODEL NUMBER & SIZE	ROOF OPENING (L x W)	CAPACITY		ELECTRICAL		ELECTRIC				DRIVE TYPE		MOUNTING						APPLICATION					ACCESSORIES & OPTIONS									CONTROLS						
						AIRFLOW (CFM)	E.S.P. (IN. W.C.)	MOTOR HP	V/PH	DISCONNECT WITH FAN	DISCONNECT BY E.C.	VFD	ECM	DIRECT	BELT	ROOF CURB	BASE/FLOOR	SUSPENDED, INLINE	WALL	CEILING	UL 705 GREASE RATED	UL 864 SMOKE CONTROL	HIGH TEMP (ABOVE 200 °F)	EXPLOSION PROOF	VIBRATION ISOLATION	INSULATION HOUSING	THERMAL CONTROL	SLOPING ROOF CURB	HINGED ROOF CURB	CURB EXTENSION	POWDER COAT FINISH	EPOXY INTERIOR FINISH	DDC CONNECTION	MANUALON/OFF SWITCH	DIAL SPEED CONTROLLER	HOA CONTROLLER	MOTORIZED DAMPER	GRAVITY DAMPER	NOTES
EF-1	APP. BAY	ROOF	UPBLAST CENTRIFUGAL	CUE-200-VG	26.5 / 26.5	3,245	0.5	1	208 / 3	●			●	●		●																	●			●	●		1
EF-2	APP. BAY	INLINE	INLINE CENTRIFUGAL	SQ-80-VG	-	220	0.25	1/6	120 / 1	●			●	●				●							●								●			●	●		1
EF-3	LIVING QUARTERS	ROOF	DOWNBLAST CENTRIFUGAL	G-095-VG	12.5 / 12.5	500	0.75	1/6	120 / 1	●			●	●		●																	●			●	●		1
IH-1	APP. BAY	ROOF	INTAKE HOOD	FGI - 24X40	42.5 / 26.5	3,245	--	--	--							●																							2
JF-1	APP. BAY	CEILING	JET FAN	GJI-26	-	2,130	-	1	208 / 1	●			●	●											●								●						
JF-2	APP. BAY	CEILING	JET FAN	GJI-26	-	2,130	-	1	208 / 1	●			●	●											●								●						

NOTES:

1. REFER TO HOA CONTROLLER INSTALLATION DETAIL.

2. BASED ON 500 FPM MAX THRUST VELOCITY.

AIR DEVICE SCHEDULE

GENERAL NOTES

BASIS OF DESIGN: PRICE

MAXIMUM SOUND LEVEL AT NC-25 AT INDICATED AIR FLOW.

BALANCING DAMPER GENERALLY PROVIDED IN DUCT, NOT AT DEVICE.

STANDARD WHITE BAKED ACRYLIC FINISH UNLESS NOTED OTHERWISE

DIFFUSERS SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED OR INDICATED ON DRAWINGS.

VERIFY CEILING TYPE AND PROVIDE APPROPRIATE MOUNTING FRAME WHERE REQUIRED.

TAG	DESCRIPTION	MODEL NO.	MATERIAL	ACCESSORIES	NOTES
S1 & S1A	2'X2' SQUARE PLAQUE DIFFUSER ROUND DUCT CONNECTION	SPD (ASPD)	STEEL (A) = ALUMINUM	INSULATED BACKPAN (STYLE 31)	
S2 & S2A	12"X12"SQUARE PLAQUE DIFFUSER ROUND DUCT CONNECTION	SPD (ASPD)	STEEL (A) = ALUMINUM	INSULATED BACKPAN (STYLE 31)	1
S3	LOUVERED SUPPLY GRILLE DOUBLE DEFLECTION W/ LONG FRONT BLADES 3/4" BLADE SPACING	520	STEEL		
R1	RETURN GRILLE DEVICE SIZE - 24" X 24" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM	RETURN AIR CANOPY	
R2	RETURN GRILLE DEVICE SIZE - 24" X 12" 45° HORIZONTAL BLADES 1/2" SPACING BLADES PARALLEL TO LONG DIMENSION	635	ALUMINUM	RETURN AIR CANOPY	
R3	RETURN GRILLE DEVICE SIZE - 12" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM		1
R4	RETURN GRILLE HEAVY DUTY GYM GRILLE 45° HORIZONTAL BLADES 3/4" SPACING	96	STEEL	DAMPER	
E1	EXHAUST GRILLE DEVICE SIZE - 12" X 12" 45° HORIZONTAL BLADES 1/2" SPACING	635	ALUMINUM	SURFACE MOUNT FRAME	

NOTES:

1. DEVICE TO BE SURFACE MOUNTED IN CENTER OF ACOUSTIC CEILING PAD FOR LAY-IN APPLICATION.

GAS FIRED UNIT HEATER SCHEDULE

GENERAL NOTES

BASIS OF DESIGN: MODINE

UNIT NO.	SERVICE	MODEL	MOUNTING	(MBH) INPUT/OUTPUT	CFM	AMPS	VOLT/PH	DIMENSIONS			WEIGHT	NOTES
								L (IN.)	D (IN.)	H (IN.)		
GUH-1	APP. BAY	PTX-175	CEILING SUSPENDED	175 / 143	2,725	5	120 / 1	42.5"	32.8"	25.8"	210	1
GUH-2	APP. BAY	PTX -175	CEILING SUSPENDED	175 / 143	2,725	5	120 / 1	42.5"	32.8"	25.8"	210	1

NOTES:

1. CONTRACTOR CONVENIENCE PACKAGE - CONDENSATE PUMP OUTLET, UNIT DISCONNECT SWITCH, HEAT STATUS INDICATOR, EXTERNAL TERMINALS FOR DDC CONNECTION.

ELECTRIC FINNED TUBE CONVECTOR SCHEDULE

GENERAL NOTES

BASIS OF DESIGN - RAYWALL

UNIT	MODEL	ROWS OF FINNED TUBE	INLET LOCATION	ELECTRICAL			CABINET DIMENSIONS			COLOR	NOTES
				W/FT	TOTAL W	V/PH	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)		
FT-1	E-91-28-200-ITS-PD	1	BOTTOM	200	467	120 / 1	28"	3-1/8"	4-1/2"	NOTE 1	1, 3, 4
FT-2	E-91-120-250-ITS-PD	1	BOTTOM	250	2,500	208 / 1	120"	3-1/8"	4-1/2"	NOTE 1	1, 2, 3
FT-3	E-91-84-250-ITS-PD	1	BOTTOM	150	1,050	208 / 1	84"	3-1/8"	4-1/2"	NOTE 1	1, 2, 3

NOTES:

1. COLOR SELECTION BY ARCHITECT.
2. LINE VOLTAGE THERMOSTAT PROVIDED BY THE E.C., COORDINATE UNIT LOCATIONS AND QUANTITIES WITH THE E.C.
3. 3" PEDESTAL.
4. PROVIDE WITH INTEGRAL LINE VOLTAGE THEERMOSTAT AND DISSCONNECT SWITCH.

EQUIPMENT NOTES

DS-1
DUCT SILENCER
RECTANGULAR DISSIPATIVE TYPE
VIBRO-ACOUSTICS #RD-MV OR APPROVED EQUAL
AIRFLOW: 1,100 CFM
DUCTWORK DIMENSIONS: 12"W / 10"H
PRESSURE DROP: 0.25"

DS-2
DUCT SILENCER
RECTANGULAR DISSIPATIVE TYPE
VIBRO-ACOUSTICS #RD-MLV OR APPROVED EQUAL
AIRFLOW: 1,765 CFM
DUCTWORK DIMENSIONS: 26"W / 10"H
PRESSURE DROP: 0.25"

EQUIPMENT NOTES

FC-1 / CD-1

HVAC SPLIT SYSTEM
BASIS OF DESIGN: DAIKIN

INDOOR UNIT:
MODEL #AMST24BU1300
- ECM FAN
- COOLING CAPACITY: 18,000 BTU/HR
- REFRIGERANT: R-32
- LINESET SIZES: GAS (3/4") / LIQUID (3/8")
- WEIGHT: 117 LBS
- POWER: 208V/1PH/5.8 MCA/15 MOCP
- CONDENSATE PUMP: BLUE DIAMOND #X87-721

OUTDOOR UNIT (HEAT PUMP):
MODEL #DH4SEA1810
- RATED TEMPERATURES: 95 / 75
- COOLING CAPACITY: 18,000 BTU/HR
- HEATING CAPACITY: 17,400 BTU/HR
- POWER: 208V/1PH/11.4 MCA/15 MOCP
- MAX LINESET LENGTH: 200'
- WEIGHT: 160 LBS
- DIMENSIONS: 32.5"/29"/29" (W/D/H)
- COOLING OPERATING TEMP. RANGE: 55°F - 125°F
- HEATING OPERATING TEMP. RANGE: -20°F - 70°F

FC-2 / CD-2

HVAC SPLIT SYSTEM
BASIS OF DESIGN: DAIKIN

INDOOR UNIT:
MODEL #AMST24BU1300
- ECM FAN
- COOLING CAPACITY: 18,000 BTU/HR
- REFRIGERANT: R-32
- LINESET SIZES: GAS (3/4") / LIQUID (3/8")
- WEIGHT: 117 LBS
- POWER: 208V/1PH/5.8 MCA/15 MOCP
- CONDENSATE PUMP: BLUE DIAMOND #X87-721

OUTDOOR UNIT (HEAT PUMP):
MODEL #DH4SEA1810
- RATED TEMPERATURES: 95 / 75
- COOLING CAPACITY: 18,000 BTU/HR
- HEATING CAPACITY: 17,400 BTU/HR
- POWER: 208V/1PH/11.4 MCA/15 MOCP
- MAX LINESET LENGTH: 200'
- WEIGHT: 160 LBS
- DIMENSIONS: 32.5"/29"/29" (W/D/H)
- COOLING OPERATING TEMP. RANGE: 55°F - 125°F
- HEATING OPERATING TEMP. RANGE: -20°F - 70°F

PACKAGED ROOFTOP UNITS

UNIT TAG	RTU-1	RTU-2
BASIS OF DESIGN	DAIKIN #DPSC04B	DAIKIN #DPSC07B
SERVICE	DORM	LIVING QTR.
DESCRIPTION	HEAT / COOL	HEAT / COOL
MOUNTING	ROOF CURB	ROOF CURB
EVAPORATOR FAN		
AIRFLOW (CFM)	1100	2365
ESP. (" W.G.)	1.25	1.25
FAN TYPE	ECM	ECM
VARIABLE FREQUENCY DRIVE	NOT REQ.	NOT REQ.
FILTER		
PRE-FILTER	2" MERV 8	2" MERV 8
FINAL FILTER	4" MERV 14	4" MERV 14
COOLING - BASED ON 90/74 (DB/WB) O.A. & 76 DB, 50% RH R.A.		
TOTAL (MBH)	44	92
SENSIBLE (MBH)	30	64
ENTER. AIR (DB/WB)	80 / 66.5	80 / 66.5
SUPPLY AIR (DB/WB)	55 / 54	55 / 54
EER	13.2	13.0
HEATING - REQ. NATURAL GAS INPUT PRESSURE: 4.5" W.C. MIN./14" W.C. MAX. -BASED ON 0ºF O.A., 66ºF R.A. CONDITIONS		
GAS INPUT (MBH)	80	200
OUTPUT (MBH)	65	162
ENTER. AIR DB	48	44
SUPPLY AIR (DB/WB)	104	110
ELECTRIC		
MCA	34	51
MOCP	50	70
VOLTAGE/HZ/PHASE	208 / 3	208 / 3
PHYSICAL UNIT DATA		
LENGTH	84.5	101.6
WIDTH	53.3	73.4
HEIGHT - NOT INCLUDING CURB	69.5	85.9
MAX UNIT OP. WEIGHT (LBS)	942	1770
UNIT OPTIONS		
ECONOMIZER HOOD	•	•
MIN. O.A. HOOD	•	•
CONSTANT AIR VOLUME	•	•
VARIABLE AIR VOLUME		
SINGLE SPEED / STAGED COMPRESSORS		
DIGITAL SCROLL COMPRESSORS		
INVERTER DUTY COMPRESSOR	•	•
STAINLESS STEEL HEAT EXCHANGER	•	•
RETURN AIR SMOKE DETECTOR		
CO2 SENSOR D.V.C.		
14" ROOF CURB ADAPTER	•	•
POWERED RELIEF FAN		
BAROMETRIC GRAVITY RELIEF DAMPER		
WALL MOUNTED THERMOSTAT/HUMIDISTAT	•	•

NOTES:

1. SEE ROOFTOP UNIT MOUNTING DETAIL, DETAIL 3, SHEET H3.5.

2. COOLING COIL CONDENSATE TRAP PER DETAIL 4, SHEET H3.5.

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio 45406

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EQUIPMENT SCHEDULES

SHEET NO.
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NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821

PROJECT # 24066

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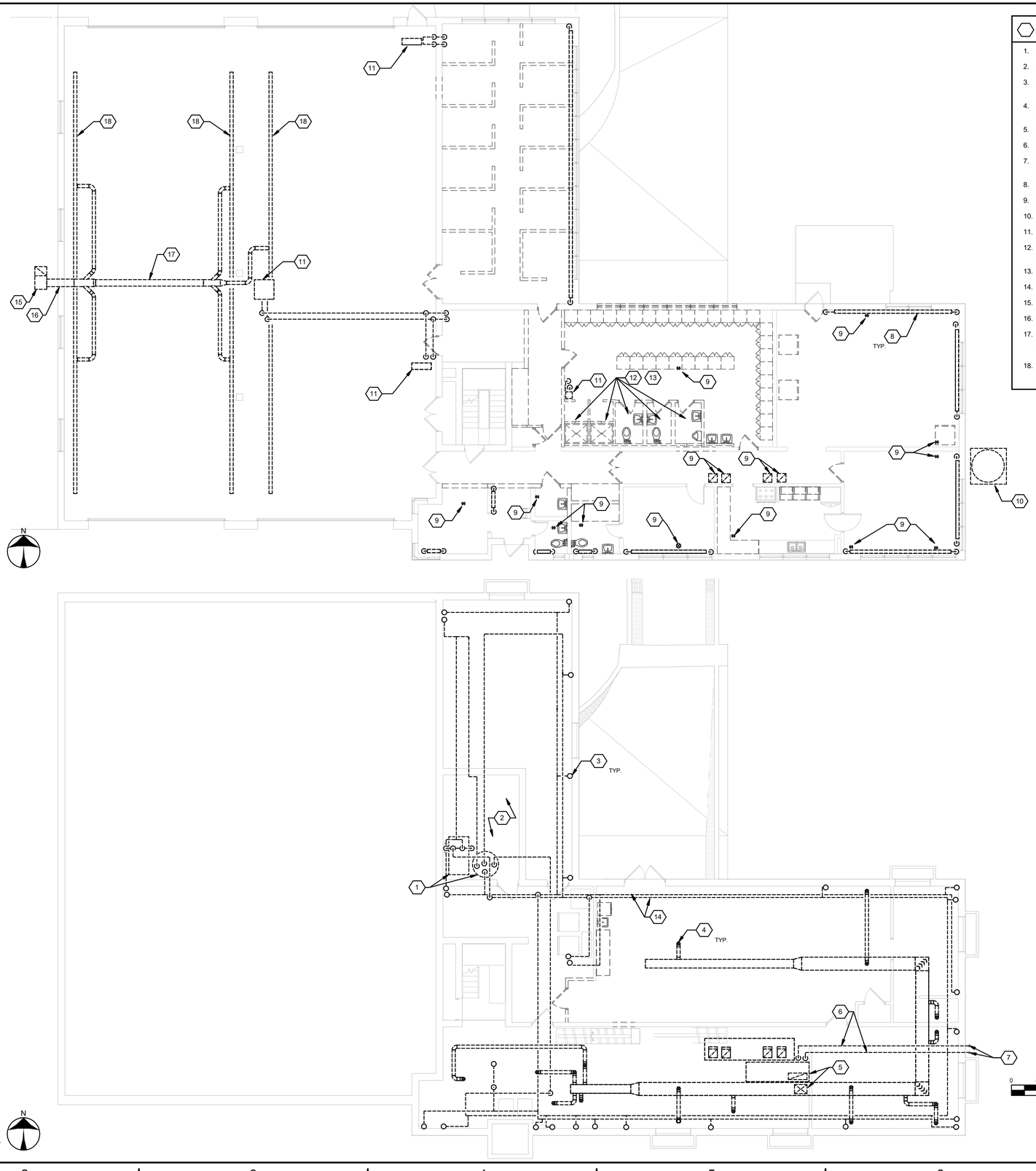

FIRST FLOOR DEMOLITION PLAN

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

BASEMENT DEMOLITION PLAN

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

CONSTRUCTION NOTES

1. REMOVE STEAM BOILER AND DEAERATOR TANK.
2. REMOVE ALL STEAM SYSTEM PIPING IN BOILER ROOM.
3. REMOVE PIPING RISE UP TO THE FIRST FLOOR. PATCH FLOOR TO MATCH EXISTING CONSTRUCTION. TYPICAL.
4. REMOVE DUCT RISE UP TO FIRST FLOOR. PATCH FLOOR TO MATCH EXISTING CONSTRUCTION. TYPICAL
5. REMOVE INDOOR COOLING ONLY HVAC UNIT.
6. REMOVE REFRIGERANT LINESET.
7. PATCH FOUNDATION WALL PENETRATION TO MATCH EXISTING CONSTRUCTION.
8. REMOVE RADIATOR. TYPICAL.
9. REMOVE AIR DEVICE IN FLOOR.
10. REMOVE CONDENSING UNIT.
11. REMOVE UNIT HEATER AND ASSOCIATED THERMOSTAT.
12. REMOVE EXHAUST GRILLES. TRACE OUT DUCTWORK ABOVE CEILING AND REMOVE.
13. REMOVE RESTROOM EXHAUST FAN ON ROOF.
14. REMOVE ALL STEAM AND CONDENSATE PIPING IN BASEMENT.
15. REMOVE VEHICLE EXHAUST FAN.
16. WALL PENETRATION TO BE REUSED.
17. REMOVE VEHICLE EXHAUST SYSTEM DUCTWORK. OWNER HAS RIGHT OF FIRST REFUSAL OF ALL VEHICLE EXHAUST COMPONENTS.
18. REMOVE VEHICLE EXHAUST HOSE & RAIL SYSTEM. OWNER HAS RIGHT OF FIRST REFUSAL OF ALL VEHICLE EXHAUST COMPONENTS.

0 4 8 16 24 32 40

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

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
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PROJECT # 24066

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T 937.836.8898 F 937.832.3696
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DEMOLITION PLAN

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H1.1

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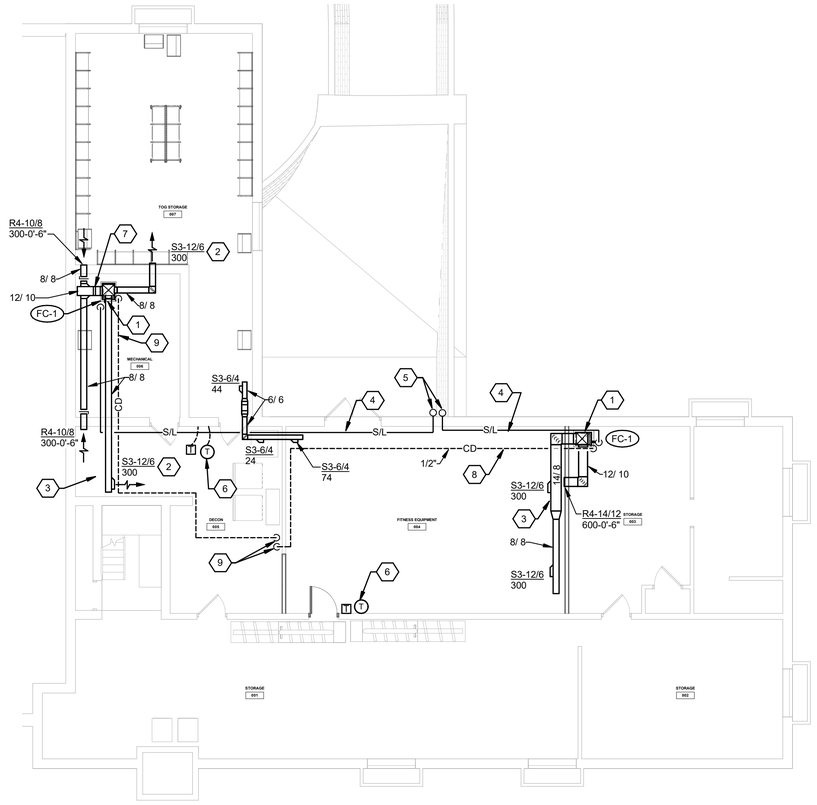

NEW WORK PLAN - BASEMENT

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

CONSTRUCTION NOTES

1. 4" CONCRETE EQUIPMENT PAD BY H.C.
2. TOP OF DEVICE AT 7'-6".
3. DUCT RUN TIGHT TO BAR JOISTS.
4. REFRIGERANT LINESET.
5. REFRIGERANT LINESET UP TO GRADE MOUNTED CONDENSING UNIT. SEAL EXTERIOR WALL PENETRATIONS WATER TIGHT.
6. DDC TEMPERATURE SENSOR.
7. PROVIDE 1" CAMFIL FILTER BANK IN RETURN DUCT. PROVIDE 1" CARBON FILTER EQUAL TO CAMFIL #CC-PG-LGX048.
8. CONDENSATE PUMP DISCHARGE.
9. TERMINATE CONDENSATE DRAIN IN EXISTING SEWAGE EJECTOR.

0 4 8 16 24 32 40

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

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3921

PROJECT # 24066

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creative focused design
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T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio 45406

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TITLE
NEW WORK PLAN - BASEMENT

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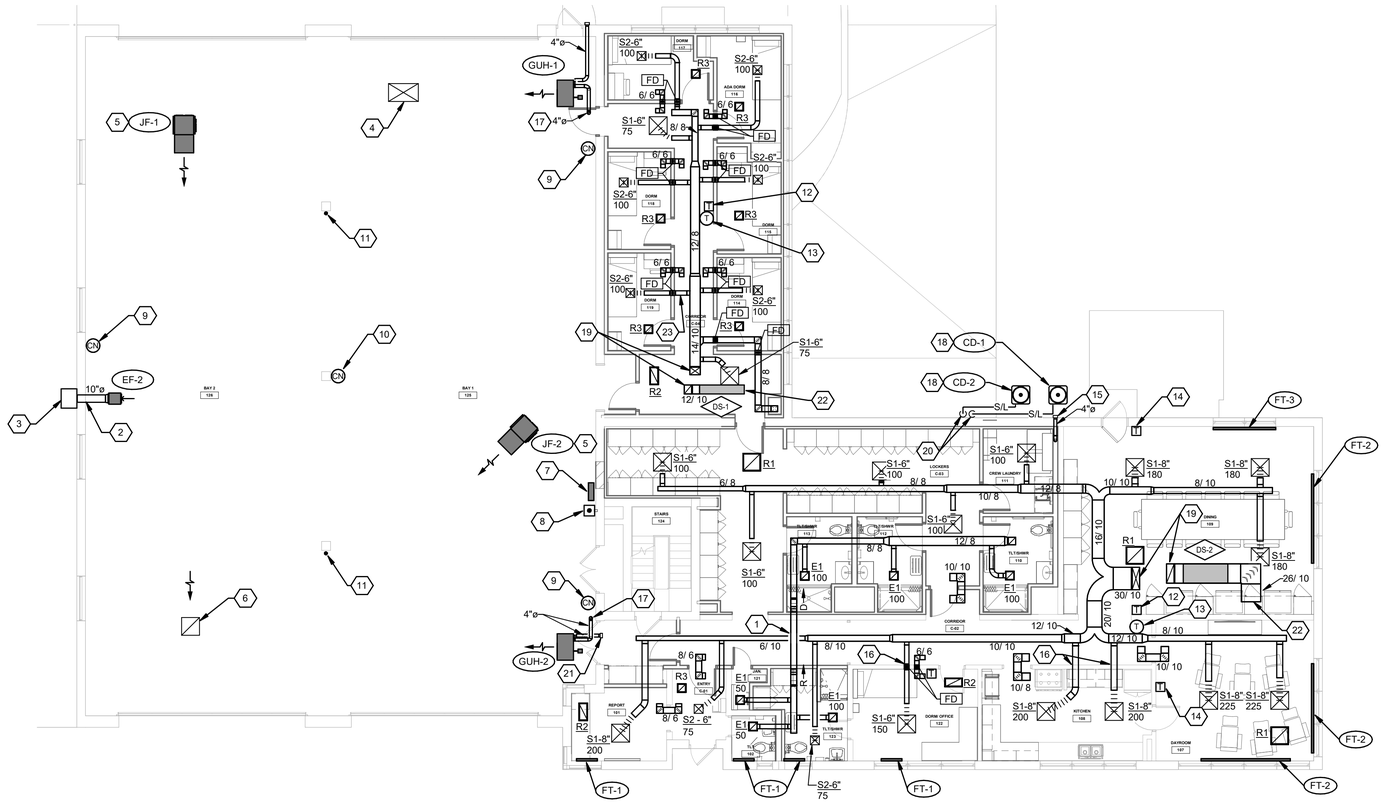

NEW WORK PLAN - GROUND FLOOR

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

CONSTRUCTION NOTES

1. COORDINATE DUCTWORK ROUTE ACROSS HALLWAY WITH EXISTING BUILDING STRUCTURE. DUCT RISES INTO JOIST SPACE TO RUN ACROSS CORRIDOR.
2. REUSED EXISTING WALL PENETRATION FOR NEW EXHAUST DUCTWORK. SEAL AROUND DUCT WATER TIGHT.
3. 45° WEATHERHOOD WITH BIRDSCREEN ON EXTERIOR OF BUILDING.
4. STUB DUCTWORK INTO APPARATUS BAY AND PROVIDE INSULATED AUTOMATIC CONTROL DAMPER DUCT END. DAMPER SHALL BE LOCATED ABOVE VEHICLE PATH OF TRAVEL.
5. MOUNT JET FAN CLEAR OF VEHICLE PATH OF TRAVEL.
6. DUCT UP TO EF-1. DUCT OPEN TO APP. BAY.
7. CO/NO2 DETECTION SYSTEM CONTROLLER.
8. EF-1 MANUAL OVERRIDE PUSH BUTTON.
9. CO/NO2 SENSOR. MOUNT 4' A.F.F.
10. CO/NO2 SENSOR. MOUNT ON COLUMN AT ROOF STRUCTURE.
11. NEEDERMAN RECIEVER GEN.-IIB #89115580. MOUNT 4' A.F.F.
12. RTU 7-DAY PROGRAMMABLE THERMOSTAT.
13. DDC TEMPERATURE SENSOR.
14. ELECTRIC FINNED TUBE THERMOSTAT.
15. 4"Ø DRYER VENT. REFER TO DETAIL FOR INSTALLATION REQUIREMENTS.
16. DUCT RUN IN JOIST SPACE TO COORDINATE WITH CEILING ELEVATION.
17. FLUE THROUGH ROOF.
18. GRADE MOUNTED CONDENSING UNIT. PROVIDE CONCRETE EQUIPMENT PAD.
19. DUCTS UP TO RTU ON ROOF.
20. PIPE DROPS IN ACCESS RAMP SPACE AND PENETRATES BUILDING EXTERIOR WALL AT BASEMENT FLOOR LEVEL. REFER TO H2.0 FOR PIPING CONTINUATION.
21. INTAKE HOOD THROUGH SIDEWALL. INSTALL UNDER APPRATUS BAY ROOF OVERHANG OF LIVING QUARTERS ROOF.
22. DUCT END OPEN TO PLENUM.
23. DORM ROOM AIR DEVICE RUNOUT DUCTWORK RUN IN JOIST SPACE. FIELD COORDINATE DUCTWORK ROUTING WITH EXISTING CONDITIONS. TYPICAL.

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

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821

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creative focused design
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T 937.836.8898 F 937.832.3696
www.app-arch.com

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JEFFREY D. ZELINSKI
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NEW WORK PLAN - GROUND FLOOR

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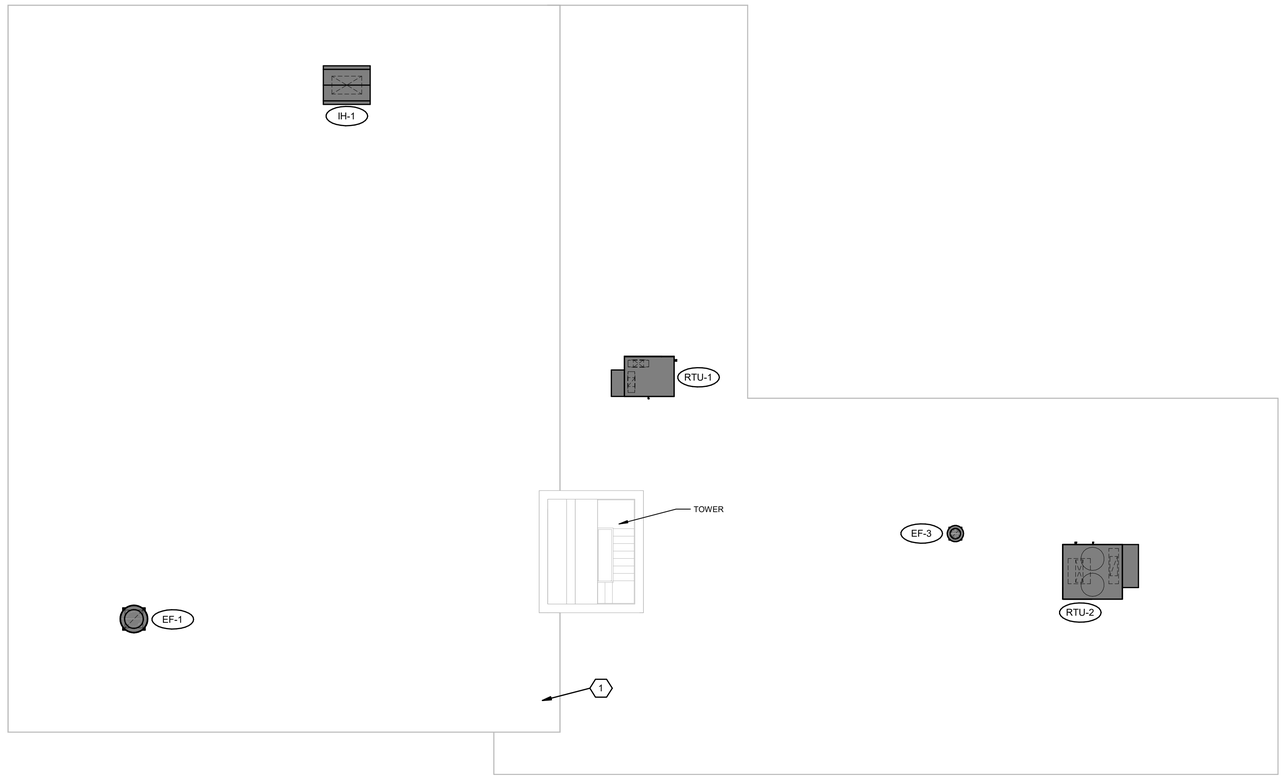
CONSTRUCTION NOTES

1. LOCATION OF INTAKE HOOD FOR GUH-1.



NEW WORK PLAN - ROOF

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

0 4 8 16 24 32 40

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

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T 937.836.8898 F 937.832.3696
www.app-arch.com

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NEW WORK PLAN - ROOF

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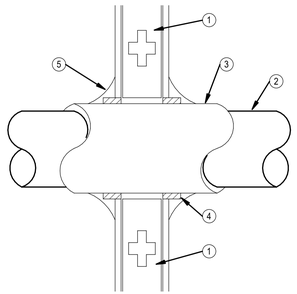
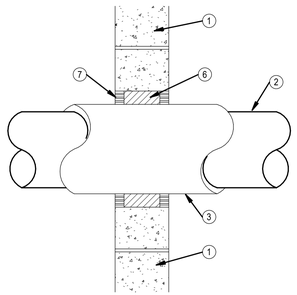
FIRESTOPPING MATERIALS/INSTALLATION

- MANUFACTURERS: REFER TO THE SPECIFICATION.
- FIRESTOPPING MATERIAL INSTALLATION SHALL BE PER THE MANUFACTURERS DETAILED INSTALLATION DIAGRAMS AND INSTRUCTIONS.
- F-RATING OF PENETRATION SHALL BE NO LESS THAN THE FIRE RATING OF THE WALL.
- SUBMITTAL SHALL INCLUDE PRODUCT DATA AND DETAILED INSTALLATION SYSTEM DIAGRAMS.

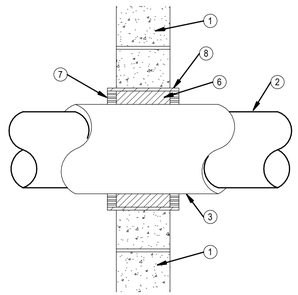
1. RATED WALL ASSEMBLY.
2. METALLIC PIPE OR TUBING.
3. PIPE INSULATION, CONTINUOUS THROUGH WALL OPENING, SEE SCHEDULE FOR THICKNESS.
4. APPROVED FIRESTOPPING VOID/CAVITY MATERIAL.
5. APPROVDED FIRESTOPPING CAULK OR SEALANT.
6. PACKING MATERIAL, MINERAL WOOL BATT INSULATION.
7. APPROVED FIRESTOPPING CAULK OR SEALANT FLUSH WITH SURFACE OF WALL OR EDGE OF SLEEVE.
8. SCHEDULE 40 STEEL PIPE SLEEVE CAST OR GROUTED INTO WALL ASSEMBLY. ENDS FLUSH OR MAX. 2" BEYOND WALL SURFACE.



GYPSUM CONSTRUCTION
ALL PIPE SIZES



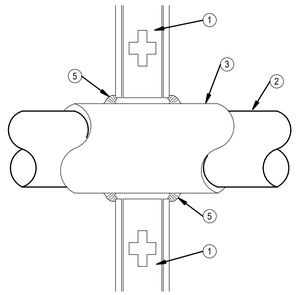
CONCRETE/MASONRY CONSTRUCTION
1/2" - 1.5" PIPES



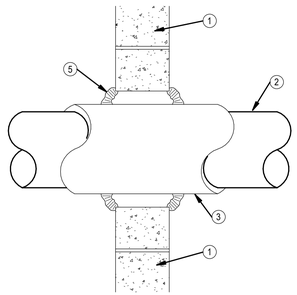
CONCRETE/MASONRY CONSTRUCTION
2" AND LARGER PIPES

1 PIPE PENETRATIONS THRU FIRE RATED WALL
N.T.S.

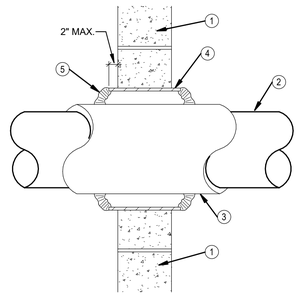
1. FULL HEIGHT INTERIOR WALL.
2. PIPE OR TUBING.
3. PIPE INSULATION, CONTINUOUS THROUGH WALL OPENING, SEE SCHEDULE FOR THICKNESS.
4. SCHEDULE 40 STEEL PIPE SLEEVE CAST OR GROUTED INTO WALL ASSEMBLY. ENDS FLUSH OR MAX. 2" BEYOND WALL SURFACE.
5. CAULK TO FILL VOID AT WALL/SLEEVE OPENING.



GYPSUM CONSTRUCTION
ALL PIPE SIZES

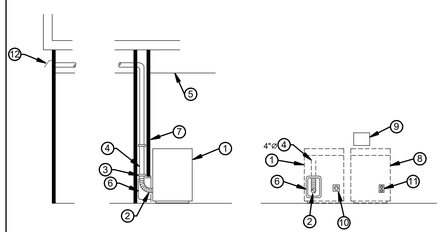


CONCRETE/MASONRY CONSTRUCTION
1/2" - 1.5" PIPES



CONCRETE/MASONRY CONSTRUCTION
2" AND LARGER PIPES

2 PIPE PENETRATIONS THRU NON-RATED WALL
N.T.S.

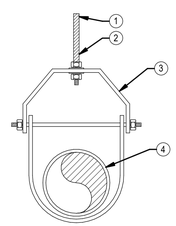


NOTE:
1. COORDINATE LOCATION OF VENT BOX WITH WASHER & DRYER PROVIDED AND WITH ELEC. & PLBG. CONTRACTORS ON LOCATION OF RECEPTACLES & WASHER BOX.

4" SIZE EXCEPT LARGER IF RECOMMENDED BY DRYER MANUFACTURER.

1. DRYER.
2. FLEXIBLE ALUMINUM DUCT WITH METAL DRAWBAND CONNECTORS.
3. STAINLESS STEEL DUCT SUPPORT. SUPPORT AT 4' INTERVALS.
4. 4" Ø ALUMINUM SPIRAL DUCT. DUCT SHALL NOT BE JOINED WITH SCREWS OR FASTENERS THAT PORTRUDE MORE THAN 1/8" INTO THE INSIDE OF THE DUCT.
5. LAY-IN CEILING.
6. RECESSED DRYER VENT BOX, FLUSH MTD. IN 6" STUD WALL. 22 GA. ALUMINIZED STEEL WITH FLANGE, 4" DIA. TOP OUTLET, 9"W'x18"Hx5.5"DP. INSIDE DIMENSION. FASTEN TO WALL AT FLANGE TO CONNECT TO STUDS. AMERICAN ALDES MODEL PN OR BY IN-O-VATE TECHNOLOGIES OR EQUAL. MOUNT BOTTOM AT 4" ABOVE FLOOR.
7. DRYWALL OR MASONRY ENCLOSURE BY G.C.
8. WASHER.
9. WASHER UTILITY BOX BY P.C.
10. 220/208 VOLT OUTLET BY E.C.
11. DOUBLE DUPLEX OUTLET BY E.C.
12. SIDEWALL DRYER VENT HOOD WITH DAMPER, AMERICAN ALDES #22-404 OR EQUAL. HOOD IS GALVANIZED, PAINTING BY G.C., FINAL CUSTOM COLOR SELECTION BY ARCHITECT.

3 DRYER VENT
N.T.S.



1. DRILL HOLE IN SUPPORT STEEL ABOVE. EXTEND ROD THRU AND PROVIDE WASHER AND NUT AS REQUIRED.
2. HANGER ROD, SIZE AS REQUIRED FOR INTENDED SERVICE.
3. HEAVY DUTY CLEVIS HANGER, SAME SIZE AS PIPE.
4. NON-INSULATED PIPE.

4 PIPE HANGER - NON INSULATED PIPE
N.T.S.

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615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
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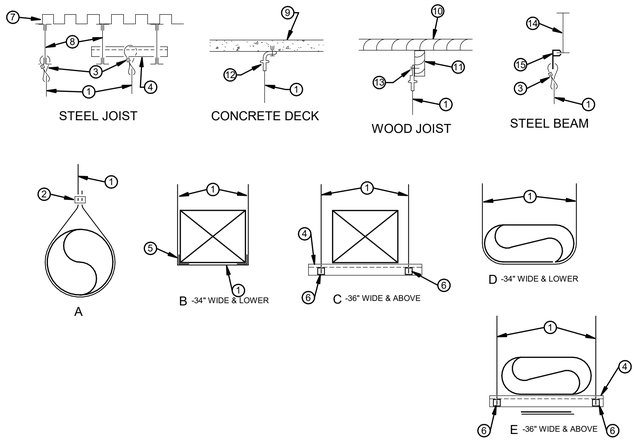
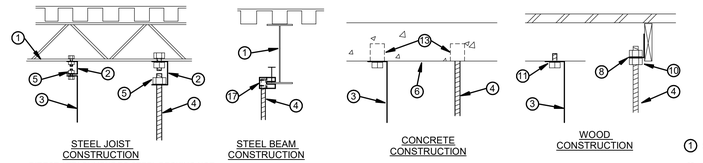


1. 1/8" DIA. OR 3/16" DIA. GALVANIZED STEEL CABLE, AISI 316 (GRIPPLE NO. 3 OR NO. 4).
2. CABLE LOCKING FASTENER, PERMITTED ONLY ON ROUND DUCT (GRIPPLE HF).
3. CABLE LOOP WITH LOCKING FASTENER (GRIPPLE HF).
4. UNISTRUT CHANNEL.
5. CORNER SADDLE (GRIPPLE).
6. GRIPPLE TRAPEZE SUPPORT (GRIPPLE NO. 3).
7. METAL DECK.
8. METAL JOIST.
9. CONCRETE SLAB.
10. WOOD DECK.
11. WOOD JOIST.
12. 90 DEG. EYELET. FASTEN TO CONC. WITH SCREWS, BOLTS OR POWER ACUATED TOOLS. (GRIPPLE 90 DEG. EYELET).
13. EYELET. FASTEN TO WOOD WITH SCREWS, BOLTS OR NAILS. (GRIPPLE EYELET).
14. STEEL BEAM.
15. BEAM CLIP - GRIPPLE GCB.

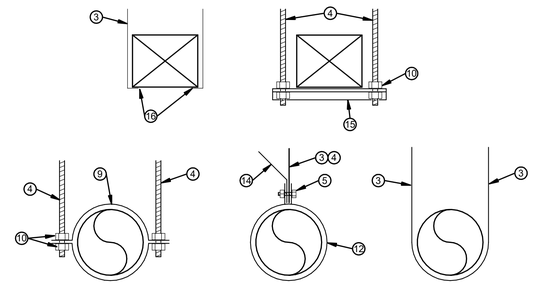
* HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN & LAYOUT OF DUCT HANGERS & SUPPORTS.
* ALL SUPPORT MATERIALS SHALL BE PAINTED, COATED OR GALVANIZED.
* STRUCTURE CONNECTIONS SHALL BE AT STRUCTURAL ELEMENTS ONLY. PROVIDE SPANNING STRUCTURAL ELEMENTS WHERE REQUIRED.
* SINGLE CHANNEL DUCT TRAPEZE CONNECTION DEVICES ARE NOT APPROVED.
* PROVIDE HANGER SPACING AS REQUIRED FOR SUPPORT, MAXIMUM 8 FT. SPACING EXCEPT FOR DUCT DIAMETER OR WIDTHS 36" & LARGER SHALL BE MAXIMUM 4 FT. SPACING.
* DESIGN SHALL MAINTAIN SUPPORT UPON FAILURE OF ANY INDIVIDUAL HANGER.
* STEEL CABLE DUCT SUPPORT SYSTEM A, B OR D SHALL BE UTILIZED WHERE DUCTS ARE EXPOSED IN NON MECHANICAL AREA.
* USE OF STRAP OR THREADED ROD HANGERS PER SMACNA ARE ALSO ACCEPTABLE IN ABOVE CEILING LOCATIONS.
* CABLE SUPPORTS & ACCESSORIES SHALL BE MANUFACTURED BY GRIPPLE OR EQUAL BY DUCTMATE OR DURODYNE.
* CABLE SUPPORTS & ACCESSORIES SHALL NOT BE PAINTED.

1 DUCT HANGERS & SUPPORTS — N.T.S. — **WIRE HANGERS**



DIRECT ATTACHMENT TO STEEL DECKING NOT ALLOWED. PROVIDE SUPPLEMENTAL STEEL BETWEEN STRUCTURAL MEMBERS WHERE NEEDED.

STRUCTURAL CONNECTIONS

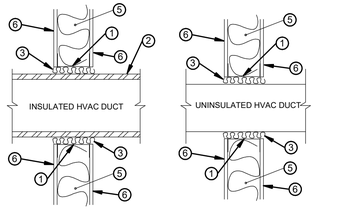


DUCT CONNECTIONS

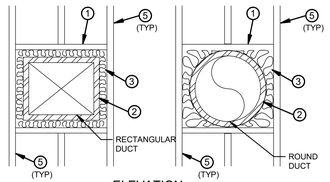
1. STEEL JOIST OR BEAM.
2. UNISTRUT CHANNEL SPANNING TWO JOIST OR BEAMS. ATTACH TO BOTTOM CHORDS OF TWO BEAMS OR JOIST WITH "C" CLAMP.
3. GALVANIZED SHEETMETAL STRAP HANGER.
4. GALVANIZED THREADED ROD.
5. GALVANIZED BOLT & NUT.
6. CONCRETE SLAB.
7. WOOD DECK & BEAM.
8. STEEL ANGLE CLIP ENGINEERED FASTENER FOR THREADED ROD INTO WOOD.
9. TWO GALVANIZED BAND HANGERS.
10. RETAINING NUTS & WASHERS.
11. ATTACH TO BOTTOM OF WOOD BEAM OR JOIST WITH LAG BOLT.
12. ONE PIECE GALVANIZED STEEL BAND HANGER.
13. CONCRETE EXPANSION ANCHOR OR CONCRETE INSERT IN NEW CONSTRUCTION.
14. SEISMIC SWAY BRACE ATTACHED TO STRUCTURE.
15. PAINTED STEEL UNISTRUT CHANNEL.
16. GALVANIZED STEEL RESTRAINT PER SMACNA REQUIREMENTS.
17. THREADED ROD BEAM CLAMP.

NOTE:
ALL HANGERS & SUPPORT OF DUCT SHALL BE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS SECOND ADDITION - 1995.

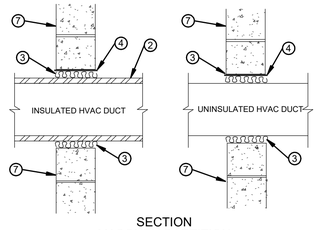
2 DUCT HANGERS & SUPPORTS — N.T.S. — **METAL STRAP & ROD HANGERS**



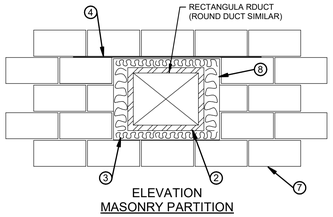
SECTION
DRYWALL PARTITION



ELEVATION
DRYWALL PARTITION



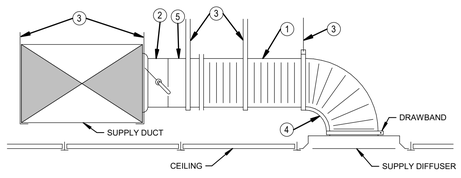
SECTION
MASONRY PARTITION



ELEVATION
MASONRY PARTITION

1. WALL OPENING WITH FRAMING BY G.C.
2. DUCT INSULATION, SEE SCHEDULE FOR THICKNESS.
3. FILL VOID WITH 1.5" THICK, 0.75 P FIBERGLASS BATT INSULATION.
4. LINTEL BY G.C.
5. WOOD OR METAL STUDS AT 16" O.C. BY G.C.
6. DRYWALL BY G.C.
7. MASONRY WALL BY G.C.
8. FRAMED MASONRY OPENING BY G.C.

3 DUCT SEALING THRU NON-FIRE RATED WALL — N.T.S. — * NEW CONSTRUCTION, FRAMED OPENING, DUCT SIDE OR DIA. ≥ 12"



1. FLEXIBLE DUCT SAME DIAMETER AS DIFFUSER INLET (ABOVE ACCESSIBLE CEILING ONLY USE SHEETMETAL ONLY ABOVE INACCESSIBLE CEILING). 7 FT. MAXIMUM LENGTH. STRETCH TO MINIMUM 90% OF FULLY EXTENDED LENGTH. ADDITIONAL HANGER REQUIRED IF DUCT LENGTH EXCEEDS 4 FT.
2. SPIN-IN BRANCH TAP FITTING, STRAIGHT SIDE, WITH MANUAL DAMPER. DAMPER SHAFT IN HORIZONTAL. INTEGRAL INSULATION GUARD SLEEVE REQUIRED FOR TAP FITTING TO MAIN DUCT WITH INTERNAL INSULATION.
3. DUCT STRAP HANGER. ATTACH TO STRUCTURE. PER SMACNA.
4. 90 DEGREE FLEXIBLE ELBOW SUPPORT BY FLEXRIGHT, FLEXFLOW OR SMARTFLOW. PROVIDE WITH DRAWBANDS, UL-2043 RATING.
5. SHEETMETAL DUCT, SAME DIAMETER AS DIFFUSER INLET. LONGITUDINAL OR SPIRAL LOCK SEAM, 0.50" S.P. CONSTRUCTION. PROVIDE EXTERIOR INSULATION, 1.5" THICKNESS, 0.75" DENSITY FIBERGLASS WITH FOIL/KRAFT PAPER JACKET.

4 CEILING DIFFUSER — N.T.S.

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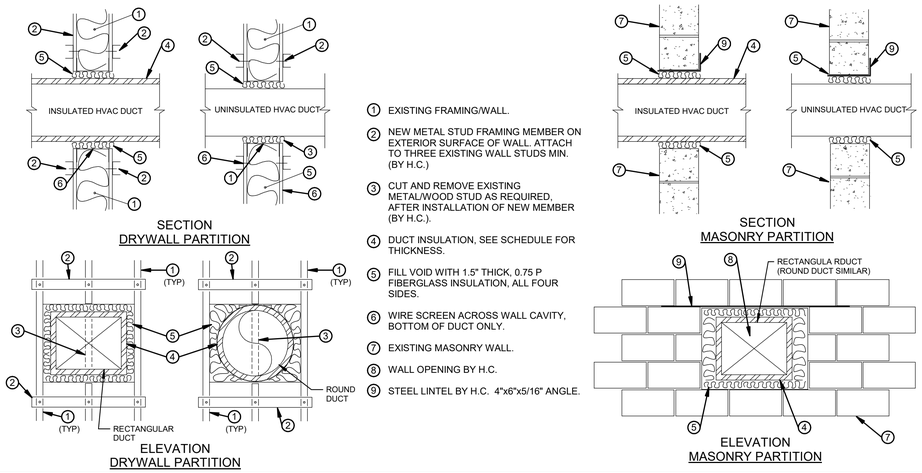
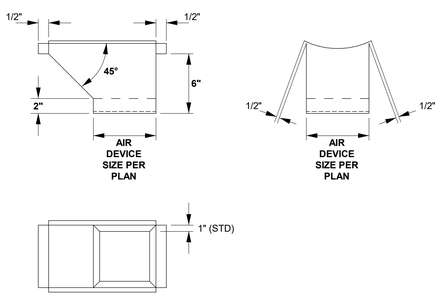


1. EXISTING FRAMING/WALL.
2. NEW METAL STUD FRAMING MEMBER ON EXTERIOR SURFACE OF WALL. ATTACH TO THREE EXISTING WALL STUDS MIN. (BY H.C.)
3. CUT AND REMOVE EXISTING METAL/WOOD STUD AS REQUIRED, AFTER INSTALLATION OF NEW MEMBER (BY H.C.).
4. DUCT INSULATION, SEE SCHEDULE FOR THICKNESS.
5. FILL VOID WITH 1.5" THICK, 0.75 P FIBERGLASS INSULATION, ALL FOUR SIDES.
6. WIRE SCREEN ACROSS WALL CAVITY, BOTTOM OF DUCT ONLY.
7. EXISTING MASONRY WALL.
8. WALL OPENING BY H.C.
9. STEEL LINTEL BY H.C. 4"x6"x5/16" ANGLE.

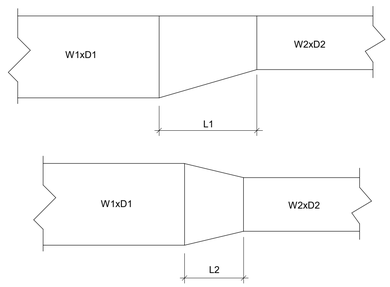
1 DUCT SEALING THRU NON-FIRE RATED WALL
N.T.S.

* EXISTING CONSTRUCTION, FRAMED OPENING, DUCT SIDE OR DIA. ≥ 12"



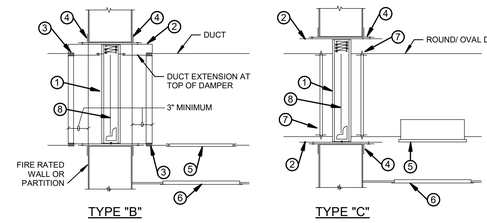
2 RECTANGULAR LO-LOSS TAP
N.T.S.

ROUND MAIN - RECTANGULAR TAP



NOTES:
1. DIMENSIONS W1, W2, D1, AND D2 AS INDICATED ON THE DRAWINGS.
2. FOR LOW VELOCITY DUCTWORK (1800 FPM OR LESS)
   L1 = 4 x (W1-W2) OR 4 x (D1-D2) WHICHEVER IS GREATER.
   L2 = 2 x (W1-W2) OR 2 x (D1-D2) WHICHEVER IS GREATER.
3. FOR MEDIUM AND HIGH VELOCITY DUCTWORK (OVER 1800 FPM)
   L1 = 7 x (W1-W2) OR 7 x (D1-D2) WHICHEVER IS GREATER.
   L2 = 3.5 x (W1-W2) OR 3.5 x (D1-D2) WHICHEVER IS GREATER.

3 RECTANGULAR TRANSITION
N.T.S.



GENERAL NOTES

-FIRE DAMPERS SHALL BE UL CLASSIFIED.

-FIRE DAMPERS SHALL BE 1.5 HOUR RATED FOR 2 HOUR RATED WALLS OR LESS; 3 HOUR FIRE RATED FOR 3 HOUR WALLS.

-FIRE DAMPERS SHALL BE DYNAMIC RATED, CURTAIN TYPE, SPRING OPERATED

-DIFFERENTIAL PRESSURE RATING OF 4" MINIMUM, HIGHER WHERE REQUIRED TO MATCH DUCT CONSTRUCTION.

-2000 FPM MAX. AIRFLOW RATING, EXCEPT 4000 FPM WHERE DESIGN DUCT VELOCITY IS OVER 2000 FPM.

-FIRE CLOSURE FUSIBLE LINK OF 165 DEG. F. EXCEPT WHERE REQUIRED TO BE HIGHER BY APPLICATION.

-GALVANIZED STEEL CONSTRUCTION IN GALVANIZED DUCT, STAINLESS STEEL IN OTHER APPLICATIONS.

-NOMINAL 4" STANDARD FRAME WIDTH.

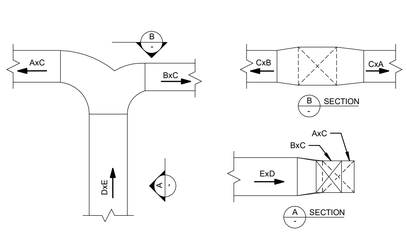
-INSTALLATION OF FIRE DAMPERS AND ACCESSORIES INCLUDING INSULATION SHALL CONFORM TO NFPA 90A, SMACNA AND MANUFACTURER'S INSTRUCTIONS.

-DETAILS SHOW INSTALLATION OF FIRE DAMPER IN WALL. DAMPER INSTALLATION IN FLOOR SIMILAR. REFER TO PLANS FOR ACCESS LOCATION.

1. FIRE DAMPER TYPES -
   TYPE "B" - BLADES STORED OUT OF AIR STREAM.
   TYPE "C" - ROUND/OVAL DUCT, BLADES STORED OUT OF AIR STREAM.
   ATTACH TO SLEEVE PER SMACNA, MINIMUM 4 CONNECTIONS (2 ON EACH SIDE OF BLADE CHANNEL) PER SIDE, MAX. 6" APART - TACK WELD, #10 SCREWS, 0.25" BOLTS/NUTS OR 3/16" STEEL POP RIVETS.
2. SHEETMETAL WALL SLEEVE, SAME MATERIAL AS DUCT. SHEETMETAL GAUGE PER SMACNA. MAINTAIN REQUIRED CLEARANCE TO WALL.
3. DUCT/SLEEVE CONNECTION, BREAKAWAY TYPE.
4. RETAINING ANGLE ALL FOUR SIDES, 1.5"x1.5" LEGS (MIN.). GAUGE PER SMACNA. 1" MINIMUM OVERLAP OF WALL BEYOND OPENING. EXTENDED LEG MAY BE REQUIRED. BOLT, SCREW, OR TACK WELD TO WALL SLEEVE. SPACING OF FASTENERS PER SMACNA.
5. DUCT ACCESS PANEL OR DOOR - 18"x16" EXCEPT SMALLER WHERE LIMITED BY DUCT SIZE.
6. CEILING ACCESS PANEL IF CEILING IS NOT ACCESSIBLE.
7. ROUND DUCT COUPLING.
8. STAINLESS STEEL CLOSURE SPRING.

NOTE:
AT 2 HR. FIRE WALL WITH DOUBLE WALL CONSTRUCTION, ONLY A SINGLE DAMPER IS REQUIRED PER 2006 NFPA 221 (NOT A HIGH CHALLENGE FIRE WALL) PROVIDE SINGLE SLEEVE CONTINUOUS THRU BOTH WALLS WITH FIRE DAMPER CENTERED IN SLEEVE FOR GYMNASIUM RETURN AIR, INSTALL SLEEVE DURING CONSTRUCTION OF WALL; TERMINATE SLEEVE IN MORTAR JOINTS AROUND OPEN AIR BLOCK (GYM SIDE). SLEEVE TO EXTEND THRU CORRIDOR SIDE WALL AND UTILIZE SINGLE SIDE MOUNTING ANGLE (RUSKIN FAST OR EQUAL). PROVIDE MULTIPLE SECTION DAMPER WITH FRAME AS REQUIRED FOR OPENING. CENTER TYPE "A" DAMPER(S) IN CORRIDOR SIDE WALL.

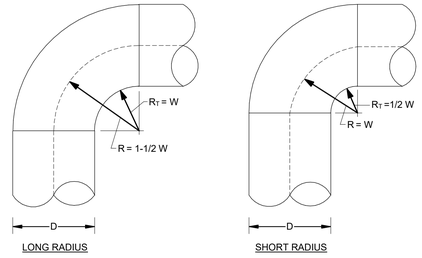
4 FIRE DAMPERS DETAIL
N.T.S.



NOTES:

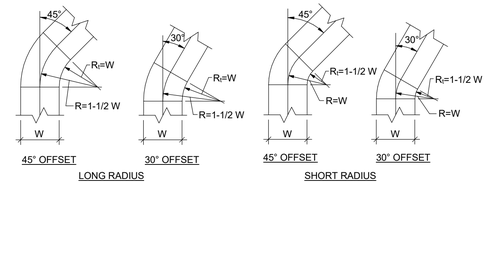
1. DIMENSIONS A, B, C, D, AND E AS INDICATED ON DRAWINGS.
2. TRANSITIONS SHOWN CONCENTRIC IN PLAN, MAY BE FLAT ON EITHER SIDE. TRANSITION SHOWN FLAT ON TOP IN SECTION, MAY BE FLAT ON BOTTOM OR CONCENTRIC. TRANSITION DUCT AS FIELD CONDITIONS DICTATE.
3. SAME FOR RETURN AND EXHAUST DUCTS EXCEPT AIRFLOW IS REVERSED.

5 RECTANGULAR TEE REDUCING Y-BRANCHES
N.T.S.



NOTES:
1. DIMENSION D AS SHOWN ON THE DRAWINGS.
2. USE LONG RADIUS ELBOWS ON ALL DUCTWORK SYSTEMS WHERE POSSIBLE OR UNLESS OTHERWISE INDICATED.
3. ONLY WHEN IT IS IMPOSSIBLE TO USE LONG RADIUS ELBOWS, USE LARGEST POSSIBLE RADIUS WITH A MINIMUM RADIUS EQUAL TO THAT OF A SHORT RADIUS ELBOW.

6 ROUND 90° RADIUS ELBOW
N.T.S.



NOTES:

1. USE ONLY LONG RADIUS ELBOWS ON KITCHEN HOOD AND DISHWASHER HOOD EXHAUST DUCTWORK.
2. USE LONG RADIUS ELBOWS ON ALL DUCTWORK SYSTEMS WHERE POSSIBLE OR UNLESS OTHERWISE INDICATED.
3. ONLY WHEN IT IS IMPOSSIBLE TO USE LONG RADIUS ELBOWS, USE LARGEST POSSIBLE RADIUS WITH A MINIMUM RADIUS EQUAL TO THAT OF A SHORT RADIUS ELBOW.

7 RECTANGULAR 45° & 30° RADIUS ELBOW
N.T.S.

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3921

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615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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CHECKED	JDZ

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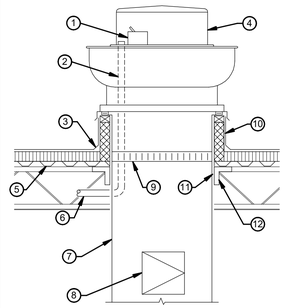
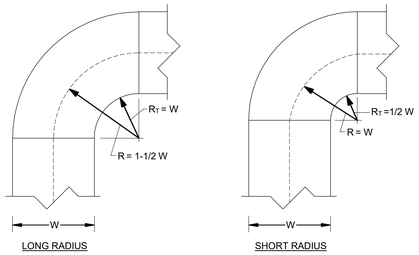


1. DISCONNECT SWITCH BY FAN MANUFACTURER.
2. WIRING CONDUIT CHASE BY FAN MANUFACTURER.
3. ROOFING & CURB FLASHING BY ROOFING CONTRACTOR.
4. EXHAUST FAN. INSTALL PER MANUFACTURERS RECOMMENDATION.
5. METAL ROOF DECK.
6. ELECTRIC CONDUIT BY E.C., SEAL DUCT PENETRATION.
7. EXHAUST DUCT-REFER TO PLANS/SCHEDULE FOR SIZE
8. ACCESS DOOR
9. 120V MOTORIZED DAMPER FROM MANUFACTURER.
10. 14" ROOF CURB WITH 1.5" INSULATION, INSTALL PER FAN AND ROOFING MANUFACTURERS INSTALLATION RECOMMENDATIONS.
11. FILL VOID BETWEEN DUCT AND STRUCTURE WITH FOAM INSULATION.
12. SUPPLEMENTAL STEEL FRAMING BY G.C.

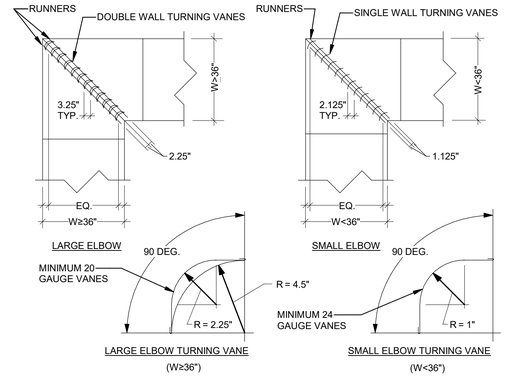
1 ROOF MOUNTED EXHAUST FAN DETAIL N.T.S. — UPBLAST, STEEL JOIST, METAL DECK



NOTES:
1. USE ONLY LONG RADIUS ELBOWS ON KITCHEN HOOD AND DISHWASHER HOOD EXHAUST DUCTWORK.
2. USE LONG RADIUS ELBOWS ON ALL DUCTWORK SYSTEMS WHERE POSSIBLE OR UNLESS OTHERWISE INDICATED.
3. ONLY WHEN IT IS IMPOSSIBLE TO USE LONG RADIUS ELBOWS, USE LARGEST POSSIBLE RADIUS WITH A MINIMUM RADIUS EQUAL TO THAT OF A SHORT RADIUS ELBOW.

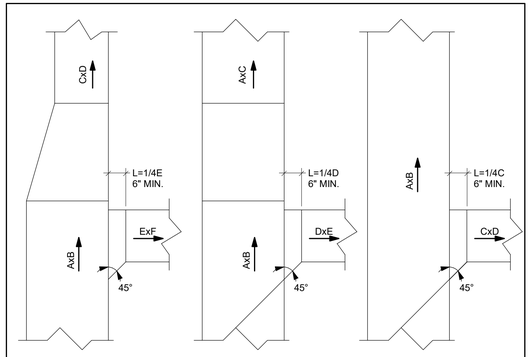
NOTE:
ELBOWS WITH 90 DEGREE SQUARE ON INSIDE RADIUS ARE NOT ACCEPTABLE.

2 RECTANGULAR 90° RADIUS ELBOW N.T.S.



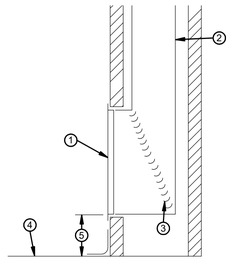
NOTES:
1. ALL VANES SHALL BE SECURE AND STABLE IN OPERATING POSITION.
2. VANES SHALL BE SECURELY FASTENED TO RUNNERS.
3. INSTALL VANES IN SECTIONS OR USE TIE RODS TO LIMIT THE UNBRACED LENGTH TO 60".
4. VANES ARE NOT TO HAVE TRAILING EDGES.

3 RECTANGULAR 90° MITERED ELBOW N.T.S.



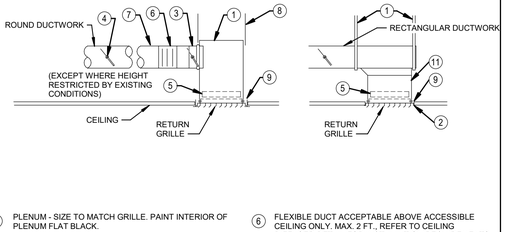
NOTES:
1. DIMENSIONS A, B, C, D, E, AND F AS INDICATED ON THE DRAWINGS.
2. TRANSITIONS MAY BE FLAT ON TOP, FLAT ON BOTTOM OR CONCENTRIC.
3. SAME FOR RETURN AND EXHAUST DUCTS EXCEPT AIRFLOW IS REVERSED.
4. TAP HEIGHT DIMENSION SHOULD BE 2" SMALLER THAN MAIN DUCT HEIGHT.

4 RECTANGULAR 90° SIDE TAP N.T.S.



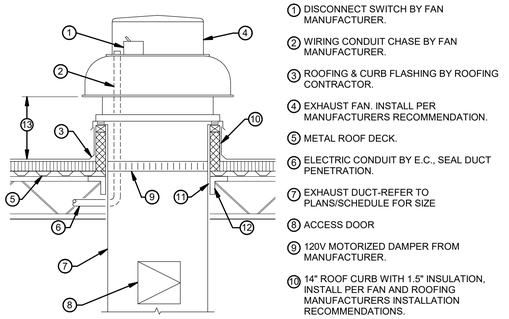
1. AIR DEVICE. SEE SCHEDULE.
2. DUCT DROP. SEE PLAN FOR SIZE.
3. TURNING VANES.
4. FLOOR.
5. DEVICE TO REUSE EXISTING WALL OPENING.

5 LOW EXHAUST GRILLE N.T.S.



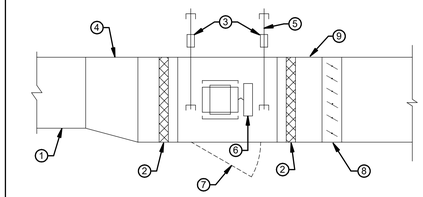
1. PLENUM - SIZE TO MATCH GRILLE. PAINT INTERIOR OF PLENUM FLAT BLACK.
2. EXHAUST/RETURN GRILLE FRAME TO MATCH CEILING CONDITION.
3. SPIN-IN FITTING WITH BALANCING DAMPER, USE FOR ALL ACCESSIBLE CEILINGS.
4. PROVIDE REMOTE BALANCING DAMPER IN BRANCH DUCT ABOVE ACCESSIBLE CEILING FOR EACH GRILLE WHERE GRILLE IS INSTALLED ABOVE INACCESSIBLE CEILING.
5. PROVIDE BALANCING DAMPER AT DEVICE ONLY WHERE DUCT MOUNTED DAMPER CANNOT BE PROVIDED DUE TO INACCESSIBLE CEILING.
6. FLEXIBLE DUCT ACCEPTABLE ABOVE ACCESSIBLE CEILING ONLY. MAX. 2 FT., REFER TO CEILING DIFFUSER DETAIL FOR INSTALLATION REQUIREMENTS.
7. SHEETMETAL DUCT.
8. SUPPORT PLENUM FROM STRUCTURE WITH DUCT STRAP HANGERS.
9. FASTEN SHEETMETAL PLENUM OR DUCT TO AIR DEVICE, EACH SIDE.
10. DUCT STRAP HANGER.
11. VIEWABLE PORTION OF DUCT INTERIOR TO BE PAINTED FLAT BLACK.

6 EXHAUST/RETURN GRILLE - DUCTED N.T.S.



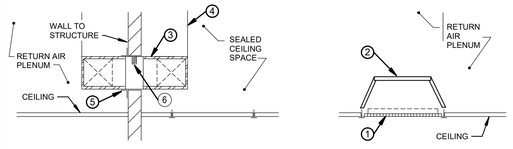
1. DISCONNECT SWITCH BY FAN MANUFACTURER.
2. WIRING CONDUIT CHASE BY FAN MANUFACTURER.
3. ROOFING & CURB FLASHING BY ROOFING CONTRACTOR.
4. EXHAUST FAN. INSTALL PER MANUFACTURERS RECOMMENDATION.
5. METAL ROOF DECK.
6. ELECTRIC CONDUIT BY E.C., SEAL DUCT PENETRATION.
7. EXHAUST DUCT-REFER TO PLANS/SCHEDULE FOR SIZE
8. ACCESS DOOR
9. 120V MOTORIZED DAMPER FROM MANUFACTURER.
10. 14" ROOF CURB WITH 1.5" INSULATION, INSTALL PER FAN AND ROOFING MANUFACTURERS INSTALLATION RECOMMENDATIONS.
11. FILL VOID BETWEEN DUCT AND STRUCTURE WITH FOAM INSULATION.
12. SUPPLEMENTAL STEEL FRAMING BY G.C.
13. MINIMUM 18" ABOVE ROOF DECK.

7 ROOF MOUNTED EXHAUST FAN DETAIL N.T.S. — DOWNBLAST, STEEL JOIST, METAL DECK



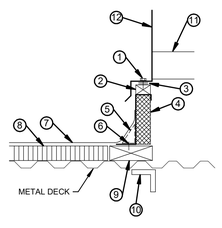
1. EXHAUST DUCT
2. FLEXIBLE DUCT CONNECTION VIBRATION ISOLATORS
3. VIBRATION ISOLATORS
4. TRANSITION TO EXHAUST FAN INLET SIZE
5. THREADED ROD
6. FAN MOTOR
7. ACCESS DOOR
8. MOTORIZED DAMPER PROVIDED WITH EXHAUST FAN
9. DISCHARGE DUCT IS SAME SIZE AS FAN OUTLET

8 INLINE EXHAUST FAN N.T.S. — **EXTERIOR WALL OUTLET**



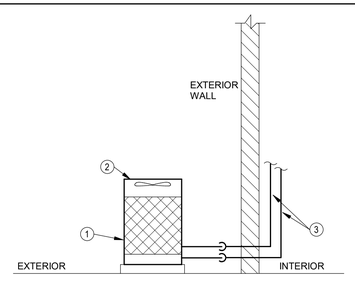
1. RETURN GRILLE.
2. RETURN AIR CANOPY.
3. TRANSFER AIR DUCT THROUGH FULL HEIGHT WALL. PROVIDE 1/2" INTERNAL DUCT LINER. REFER TO FLOOR PLAN FOR DUCT SIZE.
4. SUPPORT PLENUM FROM STRUCTURE WITH DUCT STRAP HANGERS.
5. FRAME OPENING THROUGH WALL AS REQUIRED AND SEAL WALL PENETRATION SMOKE TIGHT.
6. FIRE DAMPER WHERE INDICATED ON PLAN.

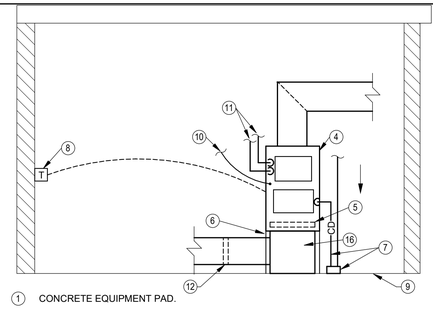
9 TRANSFER AIR GRILLE/PLENUM N.T.S.



1. SECURE EQUIPMENT TO CURB WITH 3/8" LAG BOLTS PER MFR. RECOMMENDATION.
2. PRESSURE TREATED WOOD NAILER.
3. GASKET PROVIDED WITH ROOFTOP UNIT.
4. 14" HIGH ALUMINUM CURB WITH 1.5" FIBERGLASS INSULATION.
5. FLASHING, CANT STRIPS (IF REQUIRED), ROOFING MATERIAL & ROOFING CONSTRUCTION BY CONTRACTOR.
6. FASTEN CURB BASE TO BLOCKING.
7. EXISTING ROOFING.
8. EXISTING INSULATION.
9. PRESSURE TREATED WOOD BLOCKING BY H.C. FASTEN TO DECK. BLOCKING TO BE SAME SIZE AS INSULATION THICKNESS.
10. STEEL FRAMING BY G.C.
11. ROOFTOP BASE.
12. ROOFTOP UNIT.

10 ROOFTOP UNIT ROOF CURB N.T.S. — EXISTING METAL DECK





1. CONCRETE EQUIPMENT PAD.
2. CONDENSING UNIT.
3. REFRIGERANT PIPING. REFER TO PLAN FOR PIPE ROUTE.
4. MULTI-POSITION AHU.
5. FILTER KIT PROVIDED WITH UNIT.
6. MOUNT UNIT ON 18" TALL FRAME.
7. CONDENSATE DRAIN. PROVIDE CONDENSATE PUMP AS SPECIFIED AND ROUTE PIPING PER FLOOR PLAN. POWER TO PUMP BY E.C. THROUGH FAN COIL CIRCUIT.
8. REMOTE ROOM THERMOSTAT.
9. DUCT FLOOR PENETRATION. SUPPLEMENTAL FRAMING BY G.C.
10. POWER BY E.C.
11. REFRIGERANT PIPING TO CONDENSING UNIT.
12. CARBON FILTER. EQUAL TO CAMFIL #CC-PG-LGX048. PROVIDE 1" FILTER FRAME FROM CAMFIL. PROVIDE WERE INDICATED ON PLAN.

11 SPLIT SYSTEM - MULTI-POSITION AHU N.T.S.

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REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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Phone: (937) 223-3921

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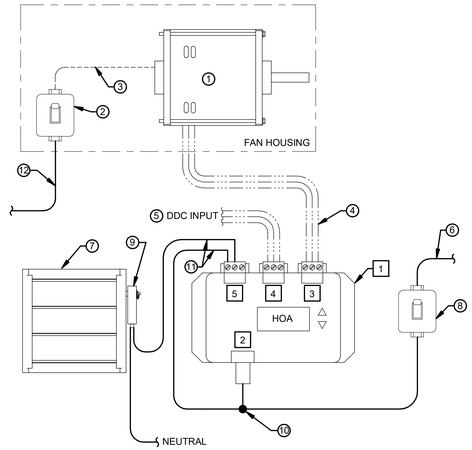


CONTROLLER NOTES

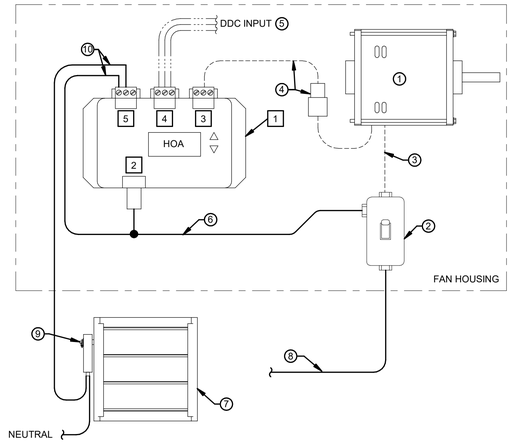
1. HAND/OFF/AUTO ECM FAN CONTROLLER BY FAN MANUFACTURER. MOUNTED IN FAN HOUSING OR IN BUILDING ADJACENT TO FAN.
2. 100 - 277V / 1 PHASE POWER TO CONTROLLER.
3. MOTOR CONTROL: 0-10 VDC, 24V, & COM.
4. DDC CONTROL SIGNAL: 0-10 VDC, 24V, & COM.
5. AUX. CONTACT, LINE OR LOW VOLTAGE. RATED FOR 10A @ 24-250V. N.O., N.C., & COM.

DETAIL NOTES

1. ECM FAN MOTOR
2. TOGGLE DISCONNECT MOUNTED IN FAN HOUSING BY FAN MANUFACTURER.
3. THREE PHASE POWER SUPPLY WIRING BY MANUFACTURER.
4. DDC CONTROL WIRING TO FAN BY H.C.
5. DDC INPUT CONTROL WIRING BY H.C.
6. 120V POWER BY E.C.
7. DUCT MOUNTED MOTORIZED DAMPER BY FAN MANUFACTURER.
8. TOGGLE DISCONNECT SWITCH BY E.C.
9. 120V MOTORIZED DAMPER ACTUATOR PROVIDED BY H.C.
10. TAP 120V TO PROVIDE POWER TO BOTH HOA CONTROLLER AND DAMPER ACTUATOR.
11. WIRE 120V DAMPER POWER THROUGH AUXILARY CONTACT.
12. FAN SUPPLY CIRCUIT BY E.C.

WIRING BY H.C.
WIRING BY E.C.
WIRING BY MANUFACTURER

1 HOA CONTROLLER - THREE PHASE ECM FAN WIRING DIAGRAM
N.T.S.



CONTROLLER NOTES

1. HAND/OFF/AUTO ECM FAN CONTROLLER BY FAN MANUFACTURER. MOUNTED IN FAN HOUSING OR IN BUILDING ADJACENT TO FAN.
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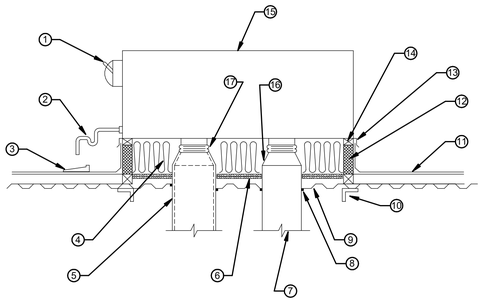
5. AUX. CONTACT, LINE OR LOW VOLTAGE. RATED FOR 10A @ 24-250V. N.O., N.C., & COM.

DETAIL NOTES

1. ECM FAN MOTOR.
2. TOGGLE DISCONNECT MOUNTED IN FAN HOUSING BY FAN MANUFACTURER.
3. SINGLE PHASE WIRING BY MANUFACTURER.
4. CONTROL WIRING BY MANUFACTURER.
5. DDC INPUT CONTROL WIRING BY H.C.
6. LINE VOLTAGE TO POWER MOTORIZED DAMPER BY E.C. TAP ON LOAD SIDE OF TOGGLE SWITCH. PROVIDES POWER TO HOA CONTROLLER AND DAMPER ACTUATOR.
7. DUCT MOUNTED MOTORIZED DAMPER BY FAN MANUFACTURER.
8. SUPPLY CIRCUIT POWER TO DISCONNECT BY E.C.
9. 120V MOTORIZED DAMPER ACTUATOR PROVIDED BY H.C.
10. WIRE 120V DAMPER POWER THROUGH AUXILARY CONTACT.

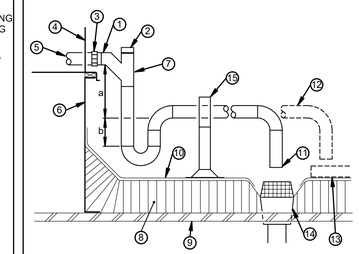
WIRING BY H.C.
WIRING BY E.C.
WIRING BY MANUFACTURER

2 HOA CONTROLLER - SINGLE PHASE ECM FAN WIRING DIAGRAM
N.T.S.



1. ELECTRICAL DISCONNECT W/ GFI RECEPTACLE SUPPLIED BY UNIT MANUFACTURER. POWER CONN. BY E.C. POWER ROUTED THROUGH ROOF CURB INTO UNIT.
2. CONDENSATE DRAIN, REFER TO DETAIL
3. PROVIDE CONCRETE SPLASH BLOCK ON NEOPRENE PAD UNDER CONDENSATE DRAIN
4. FILL ALL VOIDS BETWEEN ROOF DECK & BOTTOM OF UNIT WITH UNFACED BATT INSULATION
5. EXTERNALLY INSULATED SUPPLY DUCT, REFER TO PLANS FOR SIZE
6. PROVIDE TWO LAYERS OF 5/8" WATER RESISTANT GYPSUM BOARD ON ROOF DECK
7. RETURN DUCT, REFER TO PLANS FOR SIZE
8. SEAL AROUND DUCT PENETRATIONS, TYP.
9. ROOF OPENINGS SHALL BE NO LARGER THAN REQUIRED FOR DUCT PENETRATIONS.
10. STRUCTURAL SUPPORT BY OTHERS, TYP.
11. FLASHING, CANT STRIPS (IF REQUIRED), ROOFING MATERIAL & ROOF CONSTRUCTION BY ROOFING CONTRACTOR
12. 14" HIGH INSULATED ROOF CURB PROVIDED BY THE H.C. SEE DETAIL.
13. COUNTER FLASHING BY H.C.
14. NAILING STRIP
15. ROOFTOP UNIT - REFER TO PLANS FOR CAPACITIES
16. DUCT TRANSITION AS REQUIRED, TYP.
17. FLEXIBLE DUCT CONNECTION, TYP.

3 ROOFTOP UNIT
N.T.S.

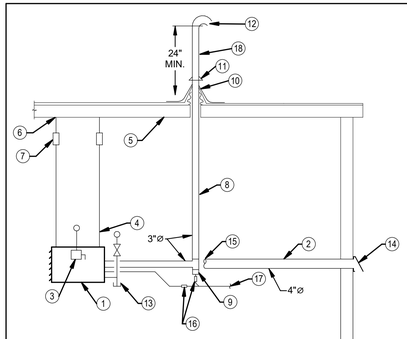


1. DRAIN PIPE. SAME SIZE AS UNIT OUTLET.
2. CLEANOUT PLUG.
3. UNION.
4. SIDE OF ROOFTOP UNIT.
5. FROM DRAIN PAN.
6. 14" HIGH ROOF CURB. SEE DETAIL.
7. DRAINAGE WYE FITTING.
8. ROOF INSULATION.
9. ROOF DECK.
10. ROOFING MEMBRANE.
11. OPEN DRAIN - 1" AIR GAP.
12. ALTERNATE ROUTING OF DRAIN.
13. 12"x12"x1" THICK CONCRETE SPLASH BLOCK. PLACE ON TOP OF ADDITIONAL PIECE OF ROOFING MEMBRANE.
14. ROOF DRAIN.
15. ADJUSTABLE PIPE SUPPORT. ERICO CADDY PYRAMID EZ OR EQUAL. SET SUPPORT ON MEMBRANE.

CALCULATIONS:
a = SUPPLY FAN T.S.P. + 1"
b = a / 2

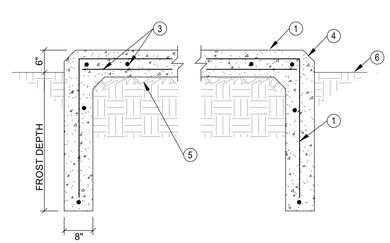
-VERIFY FAN T.S.P. WITH UNIT MANUFACTURER.

4 ROOFTOP COOLING COIL CONDENSATE PIPING
N.T.S.



1. GAS FIRED UNIT HEATER.
2. 4"ø COMBUSTION INTAKE DUCT.
3. DISCONNECT SWITCH WITH UNIT.
4. THREADED ROD HANGER.
5. ROOF STRUCTURE.
6. SECURE TO STRUCTURE.
7. VIBRATION ISOLATOR.
8. 4"ø VENT DUCT.
9. CLEAN OUT CAP WITH STANDARD VENT DRIP LEG.
10. S.S. FLASHING CONE. SEAL PENETRATION THROUGH ROOF WATERTIGHT.
11. STORM COLLAR.
12. GOOSENECK AND BIRD SCREEN ON FLUE VENT.
13. NATURAL GAS CONNECTION, SHUTOFF VALVE, AND DIRT LEG BY P.C.
14. 4"ø INTAKE CAP WITH BIRD SCREEN. COLOR BY ARCHITECT, PAINTING BY G.C.
15. EXTEND COMBUSTION AIR DUCT TO UNIT HEATER.
16. WATERLESS CONDENSATE TRAPS PROVIDED WITH UNIT. INSTALL PER MANUFACTURER'S RECOMMENDATION.
17. EXTEND CONDENSATE DRAIN TO FLOOR DRAIN IN TOWER.
18. CUSTOM PAINT COLOR SELECTED BY ARCHITECT, FINAL PAINTING BY G.C.

5 GAS FIRED UNIT HEATER
N.T.S



1. 6" THICK CONCRETE PAD. 3,500 PSI.
2. #4 BENT REBAR DOWEL @16" O.C.
3. #4 REBAR @12" O.C. EACH WAY.
4. 3/4" CHAMFER ALL EDGES.
5. COMPACTED #57 CRUSHED GRAVEL FILL. 4" THICKNESS MIN.
6. GRADE.

6 EXTERIOR CONCRETE EQUIPMENT PAD
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615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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DAYTON FIRE DEPARTMENT
STATION 16
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Phone: (937) 223-3921
PROJECT # 24066

7/31/2025 8:11:29 AM

MONITORING AND ALARMS

A. THE FOLLOWING POINTS SHALL BE MONITORED AND ALARMED AT THE MONITORING CONSOLE AND AS OTHERWISE SPECIFIED HEREINAFTER. THESE ARE IN ADDITION TO POINTS REQUIRED FOR OPERATIONAL CONTROL.

B. POINT DESCRIPTIONS

a. CURRENT SENSING RELAYS - PROVIDE FOR:
1) RTU-1 & 2 SUPPLY AIR FAN
4) RTU-1 & 2 COMPRESSORS
5) EXHAUST FANS
COORDINATE REQUIREMENTS FOR ECM EQUIPMENT.

b. HIGH/LOW TEMPERATURE ALARMS ON ALL DDC TEMPERATURE SENSORS WITH OFF-NORMAL MESSAGES.

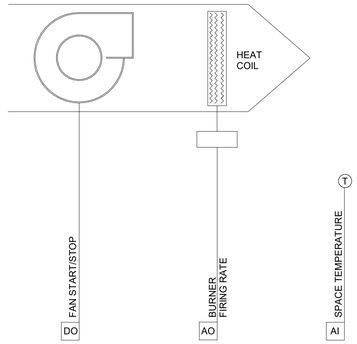
c. GENERATOR TROUBLE.

d. FC-1 / CD-1

e. FC-2 / CD-2

C. WHEN INTERFACING WITH EQUIPMENT PROVIDING REMOTE ANALOG INPUT OR RECEIVING ANALOG OUTPUTS TO THE DDC SYSTEM OR WHEN MONITORING REQUIRES THE INSTALLATION OF EXTERNAL RELAYS AT THE EQUIPMENT BEING MONITORED, COORDINATE ALL REQUIREMENTS SUCH AS RANGE, SIGNAL CONDITION, GROUNDIN, WIRING AND INPUT IMPEDANCE WITH THE SUPPLIER OF THE EQUIPMENT BEING MONITORED.

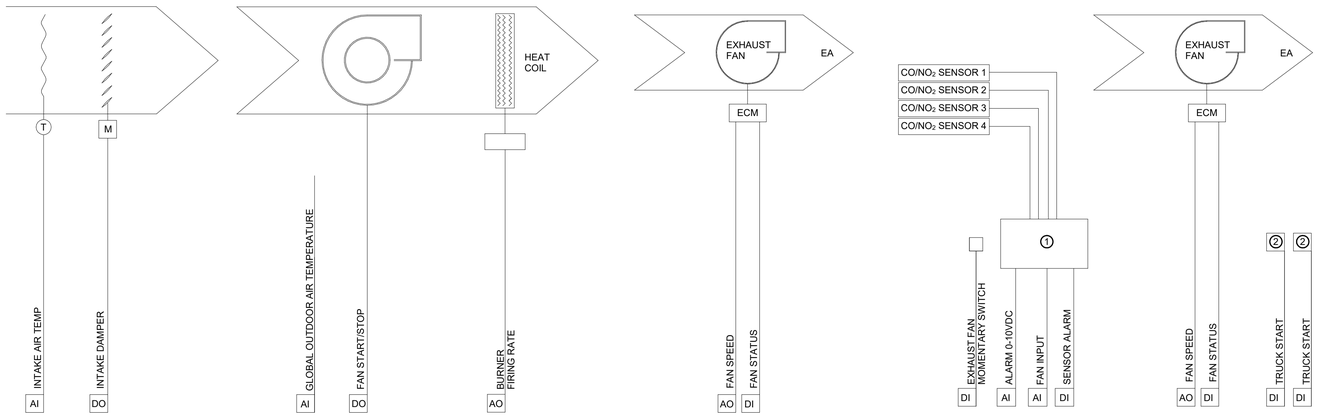
D. DIAL OUT ALARMS - DDC SYSTEM SHALL BE CAPABLE OF INITIATING DIAL OUT ALARM MESSAGE TO PAGERS, TELEPHONE OR INTERNET WHENEVER THE SYSTEM DETECTS AN ALARM. COORDINATE LIST OF DESIRED ALARMS AND INTERFACE WITH OWNERS' NOTIFICATION EQUIPMENT WITH THE OWNER.



1 GAS-FIRED UNIT HEATERS CONTROL DIAGRAM GUH-2

SEQUENCE OF OPERATION

THE GAS FIRED UNIT HEATER SHALL MODULATE TO MAINTAIN SPACE SETPOINT. UNIT SHALL BE LOCKED OUT WHEN THE OUTSIDE AIR TEMPERATURE IS GREATER THAN 55°F.



MAKEUP AIR DAMPER

GAS FIRED UNIT HEATER 'GUH-1'

EF-2 CONTROLS - MINIMUM VENTILATION

EF-1 CONTROLS - MAIN VENTILATION

① CO/NO_2 CONTROL PANEL BY T.C. SEE H1.2 FOR MOUNTING LOCATION AND REFER TO SPECIFICATIONS FOR EQUIPMENT INFORMATION

② NEDERMAN AUTO START RECEIVER - PART # 89115581 PROVIDED BY T.C.

SEQUENCE OF OPERATION

OUTDOOR AIR DAMPER

THE OUTDOOR AIR DAMPER SHALL OPEN TO 100% WHEN EF-3 IS OPERATING.

DAMPER SHALL BE CLOSED WHEN EF-3 IS OFF.

THE INTAKE AIR TEMPERATURE SENSOR SHALL CONTROL THE GAS FIRED UNIT HEATER, GUH-1, BURNER FIRING RATE.

GAS FIRED UNIT HEATER

THE GAS FIRED UNIT HEATER SHALL NORMALLY MODULATE TO MAINTAIN SPACE SETPOINT. UNIT SHALL BE LOCKED OUT WHEN THE OUTSIDE AIR TEMPERATURE IS GREATER THAN 55°F.

IF THE UNIT IS OPERATING AND THE INTAKE AIR DAMPER OPENS AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN 55°F, THE UNIT SHALL REMAIN ON UNTIL THE INTAKE AIR DAMPER CLOSES, REGARDLESS IF THE TEMPERATURE SETPOINT IS SATISFIED.

IF THE INTAKE DAMPER OPENS AND THE UNIT HEATER IS OFF AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN 55°F, THE HEATER SHALL START AND REMAIN FIRING UNTIL THE INTAKE DAMPER CLOSES.

IF THE INTAKE DAMPER OPENS AND THE OUTDOOR AIR TEMPERATURE IS GREATER THAN 55°F, THE UNIT HEATER SHALL REMAIN OFF.

MANUAL MOMENTARY WALL SWITCH

THE MANUAL MOMENTARY OVER-RIDE SWITCH SHALL COMMAND THE FAN TO 50% OF MAXIMUM AIRFLOW FOR 30 MINUTES (ADJ.).

EF-3 OPERATION

EF-3 SHALL OPERATE CONTINUOUSLY.

EF-4 OPERATION

EF-4 SHALL BE NORMALLY OFF.

THE FAN SHALL START UPON THE DDC SYSTEM RECEIVING AN ALARM FROM THE CO/NO_2 MONITORING SYSTEM, ACTIVATION FROM THE NEEDERMAN TRUCK START RECEIVERS, OR A LOCAL MANUAL, MOMENTARY, OVER-RIDE WALL PUSH BUTTON.

CO/NO2 SENSOR CONTROL

THE APPARATUS BAY'S CO/NO_2 SHALL BE PROGRAMMED TO THE FOLLOWING ALARM LEVELS.

ALARM LEVELS:
- NO ALARM: CO (<34 PPM) AND NO2 (<2.5 PPM)
- ALARM LEVEL 1: CO (35 - 50 PPM) OR NO2 (2.5 - 2.8 PPM)
- ALARM LEVEL 2: CO (>50 PPM) OR NO2 (>2.8 PPM)

FAN AIRFLOW:
- NO ALARM: OFF
- ALARM LEVEL 1: 50% OF MAXIMUM AIRFLOW
- ALARM LEVEL 2: MAXIMUM AIRFLOW

WHEN THE FAN IS INDEXED TO EITHER THE 50% OR MAXIMUM AIRFLOW, THE FAN SHALL RUN FOR A MINIMUM OF 30 MINUTES (ADJ.) AT THE RESPECTIVE AIRFLOW.

TRUCK START SIGNAL

UPON A SIGNAL FROM ANY OF THE FIVE (5) TRUCK START RECEIVERS, THE FAN SHALL RUN AT MAXIUM AIRFLOW FOR 5 MINUTES.

MANUAL MOMENTARY WALL SWITCH

THE MANUAL MOMENTARY OVER-RIDE SWITCH SHALL COMMAND THE FAN TO 50% OF MAXIMUM AIRFLOW FOR 30 MINUTES (ADJ).

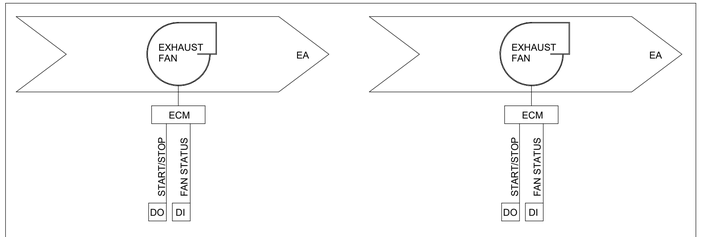
FAN SPEED CONTROL PRIORITY

THE CO/NO_2 SENSOR SHALL HAVE PRIORITY TO CHANGE THE FAN SPEED AT ANY TIME. IF THE MOMENTARY WALL SWITCH IS ACTIVATED TO RAISE THE FAN TO 50% AIRFLOW AND THE CO/NO_2 SENSOR ALARMS, THE FAN SHALL BE INDEXED TO RUN AT THE RESPECTIVE ALARM LEVEL AND RESET ITS RUN TIMER.

IF THE TRUCK START SIGNAL HAS ACTIVATED THE FAN AND A CO/NO_2 ALARM IS RECEIVED, THE FAN RUNTIME SHALL RESET TO 30 MINUTES.

THE MOMENTARY FAN SWITCH SHALL ONLY START THE FAN SPEED IF THERE IS NO ALARM LEVEL FROM THE CO/NO_2 SENSOR OR TRUCK SIGNAL, AND THE FAN IS OFF. THE MOMENTARY WALL SWITCH SHALL NOT OVERRIDE THE CO/NO2 CONTROLLER OR TRUCK START.

2 EF-4 - APPARATUS BAY CONTROL DIAGRAM

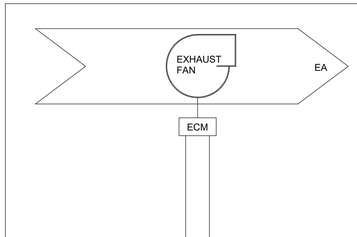


SEQUENCE OF OPERATION

A. FAN OPERATION

JF-1 & JF-2 SHALL START WHEN EF-1 STARTS. FANS SHALL RUN CONTINUOUSLY UNTIL EF-1 STOPS.

3 JF-1 & JF-2 CONTROL DIAGRAMS



SEQUENCE OF OPERATION

A. FAN OPERATION

THE EXHAUST FAN SHALL RUN CONTINUOUSLY.

4 EF-3 CONTROL DIAGRAM

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T 937.836.8898 F 937.832.3696
www.app-arch.com

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JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

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Phone: (937) 223-3921

PROJECT # 24066

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SEQUENCE OF OPERATION

RTU-2 SHALL OPERATE BASED ON A 7-DAY PROGRAMMABLE THERMOSTAT PROVIDED BY THE UNIT MANUFACTURER. PROGRAM TO LIMIT TEMPERATURE RANGE TO 68°F - 74°F.

PROVIDE A DDC TEMPERATURE SENSOR AS INDICATED ON PLAN. IF TEMPERATURE RISES ABOVE 78°F (ADJ.) OR DROPS BELOW 64°F (ADJ.), SEND AN ALARM TO THE CONSOLE.

PROVIDE BACNET MS/TP CONNECTION FROM THE RTU TO THE BUILDING DDC SYSTEM. PULL IN ALL UNIT ALARMS. PROVIDE OWNER WITH DIAL-OUT ALERT FOR ALARMS.

1 RTU-1 CONTROLS

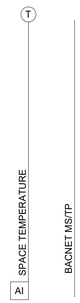
SEQUENCE OF OPERATION

RTU-2 SHALL OPERATE BASED ON A 7-DAY PROGRAMMABLE THERMOSTAT PROVIDED BY THE UNIT MANUFACTURER. PROGRAM TO LIMIT TEMPERATURE RANGE TO 68°F - 74°F.

PROVIDE A DDC TEMPERATURE SENSOR AS INDICATED ON PLAN. IF TEMPERATURE RISES ABOVE 78°F (ADJ.) OR DROPS BELOW 64°F (ADJ.), SEND AN ALARM TO THE CONSOLE.

PROVIDE BACNET MS/TP CONNECTION FROM THE RTU TO THE BUILDING DDC SYSTEM. PULL IN ALL UNIT ALARMS. PROVIDE OWNER WITH DIAL-OUT ALERT FOR ALARMS.

SAFETIES:
RETURN AIR SMOKE DETECTOR SHALL BE TIED INTO RTU-1 FAN MOTOR STARTER. UPON RECEIVING A SIGNAL FROM THE RETURN AIR SMOKE DETECTOR, THE FAN SHALL SHUT-DOWN. THE H.C. / T.C. SHALL PROVIDE ALL REQUIRED RELAYS, WIRING, ETC. TO ACOMPLISH THIS SAFETY.

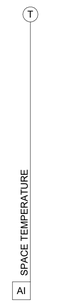


2 RTU-2 CONTROLS

SEQUENCE OF OPERATION

FC-1 / CD-1 SHALL OPERATE 24/7/365 TO MAINTAIN SPACE TEMPERATURE SETPOINT. PROGRAM THERMOSTAT TEMPERATURE RANGE TO 68-74 DEG. F.

PROVIDE DDC TEMPERATURE SENSOR AS INDICATED ON PLAN. IF TEMPERATURE RISES ABOVE 78°F (ADJ.) OR DROPS BELOW 64°F (ADJ.), SEND AN ALARM TO THE CONSOLE.

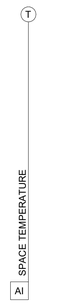


3 FC-1 / CD-1 CONTROLS

SEQUENCE OF OPERATION

FC-2 / CD-2 SHALL OPERATE 24/7/365 TO MAINTAIN SPACE TEMPERATURE SETPOINT. PROGRAM THERMOSTAT TEMPERATURE RANGE TO 68-74 DEG. F.

PROVIDE DDC TEMPERATURE SENSOR AS INDICATED ON PLAN. IF TEMPERATURE RISES ABOVE 78°F (ADJ.) OR DROPS BELOW 64°F (ADJ.), SEND AN ALARM TO THE CONSOLE.



4 FC-2 / CD-2 CONTROLS

SEQUENCE OF OPERATION

THE DOMESTIC WATER BACKFLOW PREVENTER IS EQUIPPED WITH A DIGITAL CONTACT TO PROVIDE AN ALARM SIGNAL.

THE T.C. SHALL CONNECT THE DDC CONTROL SYSTEM TO THE BACKFLOW PREVENTER TO RECEIVE THIS ALARM SIGNAL AND PERFORM A DIAL OUT FEATURE TO ALERT DESIGNATED PERSONNEL.

5 DOMESTIC WATER BACKFLOW PREVENTER

SEQUENCE OF OPERATION

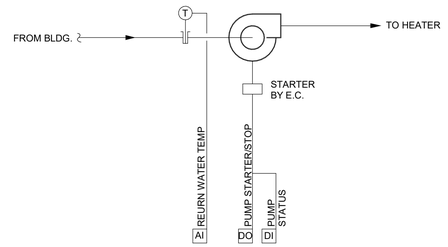
PUMP OPERATION

THE DOMESTIC HOT WATER RECIRCULATING PUMP SHALL BE STARTED AND STOPPED THROUGH THE DDC SYSTEM. PUMP SHALL OPERATE IN AN ENABLED OR DISABLED STATUS BASED ON BUILDING OCCUPANCY SCHEDULE.

THE BUILDING SHALL BE OCCUPIED 24/7/365

PUMP ENABLE

THE PUMP SHALL BE ENABLED DURING BUILDING OCCUPIED HOURS. WHEN ENABLED THE PUMP SHALL OPERATE BASED ON THE BUILDING RETURN WATER TEMPERATURE SETPOINT, 110 DEG. F. AS THE TEMPERATURE DROPS BELOW SETPOINT THE PUMP SHALL START AND SHALL OPERATE FOR A MINIMUM OF ONE HOUR. AFTER THE ONE HOUR MININIMUM RUN TIME IF THE RETURN WATER TEMPERATURE IS 110 DEG. F. OR GREATER THE PUMP SHALL STOP.



NOTE: REFER TO PLUMBING DRAWING FOR INSTALLATION LOCATION OF PIPE MOUNTED TEMPERATURE

6 DOMESTIC HOT WATER RECIRCULATING PUMP CONTROL DIAGRAM
N.T.S.

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615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

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PROJECT # 24066

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RTU-1

Building:	DAYTON FIRE STATION 16
System Tag/Name:	RTU-1
Operating Condition Description:	24/7
Units (select from pull-down list)	IP

Inputs for System

	Name	Units	System (w/o diversity)		Diversity	System (w/ diversity)
Floor area served by system	As	sf	2,400			
Population of area served by system	Ps	P	5	D	100%	5
Design primary supply fan airflow rate	Vpsd	cfm	1,950		100%	1,950
OA req'd per unit area for system (Weighted average)	Ras	cfm/sf	0.06			
OA req'd per person for system area (Weighted average)	Rps	cfm/p	11.3			
Percent increase in Vbz over minimum required			0%			

Inputs for Potentially Critical zones — Potentially Critical Zones (Zone title turns purple italic for critical zone(s))

	Name	Units		Corridor	Dorm	Dorm	ADA Dorm	ADA Dorm	ADA Dorm	Dorm	TOG	Decon	Fitness
Zone Name				CORRIDOR	DORM	DORM	ADA DORM	ADA DORM	ADA DORM	DORM	*TOG*	DECON	FITNESS
Zone Tag				C-04	119	114	115	116	117	118	7	5	4
Occupancy Category			Select from pull-down list:	Corridors	Restroom	Dwelling unit	Dwelling unit	Dwelling unit	Dwelling unit	Dwelling unit	Occupiable storage rooms for dry materials	Occupiable storage rooms for dry materials	Health club/weight rooms
Floor Area of zone	Az	sf		283	77	75	86	86	85	77	634	343	654
Design population of zone	Pz	P	(default value listed; may be overridden)	0	0	0.15	0.172	0.172	0.17	0.154	1.268	0.686	2
Design total supply to zone (primary plus local recirculated)	Vdzd	cfm		150	100	100	100	100	100	100	300	300	600
Induction Terminal Unit, Dual Fan Dual Duct or Transfer Fan?			Select from pull-down list or leave blank if N/A:										
Frac. of local recirc. air that is representative of system RA	Er												

Inputs for Operating Condition Analyzed

	Name	Units	System	C-04	119	114	115	116	117	118	7	5	4
Percent of total design airflow rate at conditioned analyzed	Ds	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Air distribution type at conditioned analyzed		Select from pull-down list:		CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH
Zone air distribution effectiveness at conditioned analyzed	Ez			0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Primary air fraction of supply air at conditioned analyzed	Ep												

Results

	Name	Units	Value
System Ventilation Efficiency	Ev		0.91
Outdoor air intake required for system	Vot	cfm	211 ← OMC CHAPTER 4 REQUIRED VENTILATION
Outdoor air per unit floor area	Vot/As	cfm/sf	0.09
Outdoor air per person served by system (including diversity)	Vot/Ps	cfm/p	44.3
Outdoor air as a % of design primary supply air	Ypd	%	11%

Detailed Calculations

	Name	Units	Formula		System		C-04	119	114	115	116	117	118	7	5	4
Initial Calculations for the System as a whole																
System primary supply air flow at conditioned analyzed	Vps	cfm	= Vpsd Ds	=	1950											
Uncorrected OA intake flow req'd for system	Vou	cfm	= Rps Ps + Ras As	=	193											
Uncorrected OA req'd as a fraction of primary SA	Xs		= Vou / Vps	=	0.10											
Initial Calculations for individual zones																
Area outdoor air rate	Ra	cfm/sf					0.06	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
People outdoor air rate	Rp	cfm/p					0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	20.00
Total supply air to zone (at condition being analyzed)	Vdz	cfm	Vdzd Ds				150	100	100	100	100	100	100	300	300	600
Primary airflow to zone (at condition being analyzed)	Vpz	cfm	= Vdz Ep	=			150	100	100	100	100	100	100	300	300	600
Breathing zone outdoor airflow	Vbz	cfm	= Rp Pz + Ra Az	=			17	0	5	6	6	6	5	44	24	79
Zone outdoor airflow	Voz	cfm	= Vbz / Ez	=			21	0	7	8	8	7	7	55	30	99
Fraction of zone supply not directly recirc. from zone	Fa		= Ep + (1-Ep) Er	=			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fraction of zone supply from fully mixed primary air	Fb		= Ep	=			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fraction of zone OA not directly recirc. from zone	Fc		= 1-(1-Ez)(1-Ep)(1-Er)	=			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
OA fraction required in the supply air to the zone	Zd		= Voz / Vdz	=			0.14	0.00	0.07	0.08	0.08	0.07	0.07	0.18	0.10	0.17
OA fraction required in the primary air to the zone	Zpz		= Voz / Vpz	=			0.14	0.00	0.07	0.08	0.08	0.07	0.07	0.18	0.10	0.17
System Ventilation Efficiency																
Zone Ventilation Efficiency (App A Method)	Evz		= (Fa+FbXs-FcZpzEp)/Fa	=			0.96	1.10	1.03	1.02	1.02	1.02	1.03	0.91	1.00	0.93
System Ventilation Efficiency (App A Method)	Ev		= min (Evz)	=	0.91											
System Ventilation Efficiency (Table 6.3 Method)	Ev		= Value from Table 6.3	=	0.97											
Minimum outdoor air intake airflow																
Outdoor Air Intake Flow required to System	Vot	cfm	= Vou / Ev	=	211											
OA intake req'd as a fraction of primary SA	Y		= Vot / Vps	=	0.11											
Outdoor Air Intake Flow required to System (Table 6.3 Method)	Vot	cfm	= Vou / Ev	=	200	11.15										
OA intake req'd as a fraction of primary SA (Table 6.3 Method)	Y		= Vot / Vps	=	0.10	0.05										
OA Temp at which Min OA provides all cooling																
OAT below which OA Intake flow is @ minimum		Deg F	= {(Tp-dTsf)-(1-Y)*(Tr+dTrf)}/Y	=	-85											

VENTILATION NOTES:
OMC REQUIRED VENTILATION: 211 CFM
POSTIVE PRESSURIZATION: 89 CFM
TOTAL OA PROVIDED: 300 CFM

RTU-2

Building:	DAYTON FIRE STATION 16
System Tag/Name:	RTU-2
Operating Condition Description:	24/7
Units (select from pull-down list)	IP

Inputs for System

	Name	Units	System (w/o diversity)		Diversity	System (w/ diversity)
Floor area served by system	As	sf	2,263			
Population of area served by system	Ps	P	32	D	100%	32
Design primary supply fan airflow rate	Vpsd	cfm	2,365		100%	2,365
OA req'd per unit area for system (Weighted average)	Ras	cfm/sf	0.06			
OA req'd per person for system area (Weighted average)	Rps	cfm/p	5.3			
Percent increase in Vbz over minimum required			0%			

Inputs for Potentially Critical zones — Potentially Critical Zones (Zone title turns purple italic for critical zone(s))

	Name	Units															
Zone Name				LOCKERS	TLT/SHWR	TLT/SHWR	TLT/SHWR	CREW LAUNDRY	*DINING*	DAYROOM	KITCHEN	DORM/OFFICE	TLT/SHWR	TLT	JAN	ENTRY	REPORT
Zone Tag				C-03	113	112	110	111	109	107	108	122	123	102	121	C-01	101
Occupancy Category			Select from pull-down list:	Occupiable storage rooms for dry materials	Restroom	Restroom	Restroom	Laundry rooms, central	Dayroom	Dayroom	Kitchen (cooking)	Dwelling unit	Restroom	Restroom	Storage - Unoccupied	Corridors	Office space
Floor Area of zone	Az	sf		517	70	70	74	74	589	278	192	143	85	25	12	48	86
Design population of zone	Pz	P	(default value listed; may be overridden)	1.034	0	0	0	0.74	17.67	8.34	3.84	0.286	0	0	0	0	0.43
Design total supply to zone (primary plus local recirculated)	Vdzd	cfm		400	0	0	0	100	540	450	400	150	75	0	0	50	200
Induction Terminal Unit, Dual Fan Dual Duct or Transfer Fan?			Select from pull-down list or leave blank if N/A:														
Frac. of local recirc. air that is representative of system RA	Er																

Inputs for Operating Condition Analyzed

	Name	Units	System	C-03	113	112	110	111	109	107	108	122	123	102	121	C-01	101
Percent of total design airflow rate at conditioned analyzed	Ds	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Air distribution type at conditioned analyzed		Select from pull-down list:		CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH	CSCRH
Zone air distribution effectiveness at conditioned analyzed	Ez			0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Primary air fraction of supply air at conditioned analyzed	Ep																

Results

	Name	Units	Value
System Ventilation Efficiency	Ev		0.84
Outdoor air intake required for system	Vot	cfm	360 ← OMC CHAPTER 4 REQUIRED VENTILATION
Outdoor air per unit floor area	Vot/As	cfm/sf	0.16
Outdoor air per person served by system (including diversity)	Vot/Ps	cfm/p	11.1
Outdoor air as a % of design primary supply air	Ypd	%	15%

Detailed Calculations

	Name	Units	Formula		System		C-03	113	112	110	111	109	107	108	122	123	102	121	C-01	101
Initial Calculations for the System as a whole																				
System primary supply air flow at conditioned analyzed	Vps	cfm	= Vpsd Ds	=	2365															
Uncorrected OA intake flow req'd for system	Vou	cfm	= Rps Ps + Ras As	=	303															
Uncorrected OA req'd as a fraction of primary SA	Xs		= Vou / Vps	=	0.13															
Initial Calculations for individual zones																				
Area outdoor air rate	Ra	cfm/sf					0.06	0.00	0.00	0.00	0.12	0.06	0.06	0.12	0.06	0.00	0.00	0.00	0.06	0.06
People outdoor air rate	Rp	cfm/p					5.00	0.00	0.00	0.00	5.00	5.00	5.00	7.50	5.00	0.00	0.00	0.00	0.00	5.00
Total supply air to zone (at condition being analyzed)	Vdz	cfm	Vdzd Ds				400	0	0	0	100	540	450	400	150	75	0	0	50	200
Primary airflow to zone (at condition being analyzed)	Vpz	cfm	= Vdz Ep	=			400	0	0	0	100	540	450	400	150	75	0	0	50	200
Breathing zone outdoor airflow	Vbz	cfm	= Rp Pz + Ra Az	=			36	0	0	0	13	124	58	52	10	0	0	0	3	7
Zone outdoor airflow	Voz	cfm	= Vbz / Ez	=			45	0	0	0	16	155	73	65	13	0	0	0	4	9
Fraction of zone supply not directly recirc. from zone	Fa		= Ep + (1-Ep) Er	=			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fraction of zone supply from fully mixed primary air	Fb		= Ep	=			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fraction of zone OA not directly recirc. from zone	Fc		= 1-(1-Ez)(1-Ep)(1-Er)	=			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
OA fraction required in the supply air to the zone	Zd		= Voz / Vdz	=			0.11	0.00	0.00	0.00	0.16	0.29	0.16	0.16	0.08	0.00	0.00	0.00	0.07	0.05
OA fraction required in the primary air to the zone	Zpz		= Voz / Vpz	=			0.11	0.00	0.00	0.00	0.16	0.29	0.16	0.16	0.08	0.00	0.00	0.00	0.07	0.05
System Ventilation Efficiency																				
Zone Ventilation Efficiency (App A Method)	Evz		= (Fa+FbXs-FcZpzEp)/Fa	=			1.01	1.13	1.13	1.13	0.97	0.84	0.97	0.97	1.04	1.13	1.13	1.13	1.06	1.08
System Ventilation Efficiency (App A Method)	Ev		= min (Evz)	=	0.84															
System Ventilation Efficiency (Table 6.3 Method)	Ev		= Value from Table 6.3	=	0.86															
Minimum outdoor air intake airflow																				
Outdoor Air Intake Flow required to System	Vot	cfm	= Vou / Ev	=	360															
OA intake req'd as a fraction of primary SA	Y		= Vot / Vps	=	0.15															
Outdoor Air Intake Flow required to System (Table 6.3 Method)	Vot	cfm	= Vou / Ev	=	351	9.14														
OA intake req'd as a fraction of primary SA (Table 6.3 Method)	Y		= Vot / Vps	=	0.15	0.03														
OA Temp at which Min OA provides all cooling																				
OAT below which OA Intake flow is @ minimum		Deg F	= {(Tp-dTsf)-(1-Y)*(Tr+dTrf)}/Y	=	-40															

VENTILATION NOTES:
OMC REQUIRED VENTILATION: 360 CFM

EXHAUST AIRFLOW: 500 CFM
POSTIVE PRESSURIZATION: 100 CFM
TOTAL OA PROVIDED: 600 CFM

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
PROJECT # 24066

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER
JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT STATION 16
4111 Kings Highway, Dayton, Ohio 45406

ISSUE

NO.	DATE	DESCRIPTION
	08/01/2025	FOR CONSTRUCTION

DATE	08/01/2025
JOB NO.	4284.01
DRAWN	LAC
CHECKED	JDZ

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TITLE
VENTILATION

SHEET NO.
H5.1

ELECTRICAL SPECIFICATIONS

Z. LABEL ALL NORMAL POWER PANELBOARDS WITH PHENOLIC WHITE BACKGROUND AND BLACK LETTER PLATE WITH SOURCE OF FEEDER, SWITCH OR BREAKER NUMBER, VOLTAGE, PHASE, AND BRANCH. EMERGENCY POWERED ITEMS SHALL BE MARKED THE SAME WAY BUT SHALL BE WITH RED BACKGROUND AND WHITE LETTERS.

AA. LABEL ALL NORMAL POWER DISCONNECT SWITCHES WITH PHENOLIC WHITE BACKGROUND AND BLACK LETTER PLATE WITH PANEL, CIRCUIT NUMBER, VOLTAGE, PHASE, FED FROM AND DESCRIPTION OF LOAD FED. EMERGENCY POWERED ITEMS SHALL BE MARKED THE SAME WAY BUT SHALL BE WITH RED BACKGROUND AND WHITE LETTERS.

AB. ALL OPEN CABLING SHALL BE PLENUM RATED AND INSTALLED ON J-HOOK SYSTEM ABOVE ACCESSIBLE CEILINGS. COORDINATE LOCATIONS AND TYPE/SIZE WITH THE SYSTEMS VENDOR FOR OPTIMUM CABLE ROUTING.

AC. DISCONNECT SWITCHES SHALL BE HEAVY DUTY; FUSIBLE TYPE TO UTILIZE 'RK1' FUSES.

AD. LIGHTING CONTROL OCCUPANCY SENSORS SHALL BE BY HUBBELL, LEVITON, COOPER CONTROLS OR SENSOR SWITCH. CEILING MOUNTED SENSORS SHALL BE LOW PROFILE, "DOME" TYPE SENSORS.

AE. EQUIPMENT, DUCTWORK AND PIPING SHALL NOT BE INSTALLED IN THE DEDICATED ELECTRICAL SPACE ABOVE OR IN THE WORKING SPACE REQUIRED AROUND ELECTRICAL SWITCHGEAR, MOTOR CONTROL CENTERS OR PANELBOARDS AS IDENTIFIED BY NEC 110.26 SPACES ABOUT ELECTRICAL EQUIPMENT – 600 VOLTS NOMINAL OR LESS.FOR EQUIPMENT RATED OVER 600 VOLTS NOMINAL – 110.32 WORK SPACE ABOUT EQUIPMENT – 110.33 ENTRANCE AND ACCESS TO WORK SPACE – 110.34 WORK SPACE AND GROUNDING. THE ELECTRICAL CONTRACTOR SHALL CAUTION OTHER TRADES TO COMPLY WITH THIS STIPULATION.

AF. EXISTING CONDUITS AND WIRING NOT TO BE REUSED, SHALL BE REMOVED BACK TO SOURCE. REMOVE ALL UNUSED ELECTRICAL WORK, EQUIPMENT, WIRING AND CONDUITS, ETC. IN AREA OF WORK. DO NOT ABANDON IN PLACE UNLESS INACCESSIBLE. DISPOSE OF ALL REMOVED ITEMS EXCEPT WHERE OWNER WISHES TO KEEP THE ITEM.

AG. PERFORM ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL SYSTEMS. PATCHING SHALL BE CONSISTENT WITH ADJACENT SURFACES.

AH. PROVIDE ONE YEAR COMPLETE WARRANTY (PARTS, MATERIALS, LABOR). START OF WARRANTY FROM DATE OF BENEFICIAL OCCUPANCY AGREED TO IN WRITING.

ELECTRICAL INDEX OF DRAWINGS

ELECTRICAL SPECIFICATIONS

A. ALL ELECTRICAL WIRING, EQUIPMENT AND INSTALLATION SHALL CONFORM TO THE 2023 OHIO BUILDING CODE, 2023 NATIONAL ELECTRIC CODE AND LOCAL CODES, LATEST ADOPTED EDITIONS.

B. ALL ELECTRICAL EQUIPMENT SHALL BE U.L. APPROVED AND COMMERCIAL GRADE. PANELBOARDS, CIRCUIT BREAKERS AND DISCONNECTS BY SQUARE D, SIEMENS, CUTLER-HAMMER OR G.E

C. SUBMIT ELECTRONIC SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO ORDERING FOR THE FOLLOWING EQUIPMENT: LIGHT FIXTURES, PANELBOARD(S), CIRCUIT BREAKER(S) AND WIRING DEVICES.

D. ALL POWER AND SYSTEMS WIRING SHALL BE INSTALLED IN CONDUIT RACEWAYS UNLESS OTHERWISE SPECIFICALLY NOTED.

E. STAGGER LOCATIONS OF RECESSED OUTLETS WHERE SHOWN ON OPPOSITE SIDES OF STUD WALL PARTITIONS TO PREVENT SOUND TRANSMISSION BETWEEN ROOMS.

F. DRAWINGS ARE SCHEMATIC IN NATURE TO REPRESENT REQUIRED EQUIPMENT/DEVICES AND ASSOCIATED POWER/CIRCUITRY. DRAWINGS SHALL NOT BE SCALED FOR DEVICE LOCATIONS. THE E.C. SHALL COORDINATE THE FINAL LOCATIONS OF ALL FLUSH MOUNTED DEVICES (INCLUDING FIRE ALARM AND TECHNOLOGY ROUGH-IN BOXES) WITH CASEWORK, FIXED FURNITURE, ETC. TO AVOID CONFLICTS AND VIEWING OBSTRUCTIONS. RECEPTACLES ASSOCIATED WITH/ADJACENT TO TECHNOLOGY OUTLET BOXES SHALL BE LOCATED AT THE SAME MOUNTING HEIGHT AND WITHIN 6" HORIZONTALLY UNLESS SPECIFICALLY NOTED OTHERWISE.

G. THE ARCHITECT SHALL RESERVE THE RIGHT TO MAKE MINOR ADJUSTMENT IN LOCATIONS OF SYSTEM RUNS AND COMPONENTS WHERE THEY CONSIDER SUCH ADJUSTMENTS DESIRABLE IN THE INTEREST OF CONCEALING WORK OR PRESENTING A BETTER APPEARANCE WHERE EXPOSED. ANY SUCH CHANGES SHALL BE ANTICIPATED AND REQUESTED SUFFICIENTLY IN ADVANCE SO AS TO NOT CAUSE EXTRA WORK, OR UNDULY DELAY THE WORK. COORDINATE WORK IN ADVANCE WITH ALL OTHER TRADES AND REPORT IMMEDIATELY ANY DIFFICULTIES WHICH CAN BE ANTICIPATED. WHERE ANY SYSTEM RUNS AND COMPONENTS ARE SO PLACED AS TO CAUSE OR CONTRIBUTE TO A CONFLICT, IT SHALL BE READJUSTED AT THE EXPENSE OF THE CONTRACTOR CAUSING SUCH CONFLICT. THE ARCHITECT'S DECISION SHALL BE FINAL IN REGARD TO ARRANGEMENT OF EQUIPMENT, CONDUIT(S), DEVICES, WIREWAYS ETC., WHERE CONFLICT ARISES.

H. ALL WIRING SHALL UTILIZE MIN. #12 AWG SIZE COPPER THHN/THWN STRANDED CONDUCTORS WITH INSULATION SUITABLE FOR THE APPLICATION. CONDUCTORS FOR ELECTRIC RADIANT HEATERS SHALL BE LISTED FOR THE APPLICATION.

I. PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT AND SEPARATE GREEN COLORED INSULATED COPPER GROUNDING CONDUCTOR FOR EACH BRANCH CIRCUIT CONDUIT. NEUTRAL WIRES FOR 120 VOLT CIRCUITS SHALL BE WHITE AND FOR 277 VOLT CIRCUITS SHALL BE GRAY COLOR.

J. ALL CONDUCTORS SHALL BE INSTALLED IN MIN. 0.75" SIZE CONDUIT. EMT SHALL BE UTILIZED FOR INTERIOR FEEDERS AND BRANCH CIRCUITRY. MC CABLE SHALL ONLY BE ALLOWED FOR FINAL CONNECTION TO INDOOR LIGHT FIXTURES. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED FOR ALL OTHER FINAL CONNECTIONS TO MOVEABLE/VIBRATING EQUIPMENT. ALL EXTERIOR CONDUIT SHALL BE RIGID METAL CONDUIT.

K. EMT CONDUIT FITTINGS SHALL BE ALL STEEL COMPRESSION OR SETSCREW TYPE.

L. ALL CONDUITS INSTALLED ON EXTERIOR OF BUILDING SHALL BE RIGID GALVANIZED TYPE WITH THREADED STEEL FITTINGS. UTILIZE COMPATIBLE NEMA 3R TYPE BOXES FOR ALL EXTERIOR FIXTURE AND OUTLET BOXES.

M. BRANCH CIRCUITS WHERE FISHED IN EXISTING INACCESSIBLE WALLS ONLY MAY UTILIZE MC CABLE OR 0.5" SIZE FLEXIBLE METALLIC CONDUIT TO INDIVIDUAL DEVICES WHEN PROPERLY SUPPORTED.

N. ALL EMPTY CONDUITS SHALL HAVE A NYLON PULLSTRING INSTALLED PER SPECIFICATIONS.

O. WIRING DEVICES SHALL BE SPECIFICATION GRADE, WHITE COLOR, WITH BRUSHED STAINLESS STEEL COVERPLATES, HUBBELL, P&S, COOPER OR LEVITON. PROVIDE TAMPER-RESISTANT RECEPTACLES IN LOCATIONS AS REQUIRED BY NEC 406.12.

P. ALL CONDUIT, FITTINGS, BENDS, ETC. SHALL BE PROPERLY SUPPORTED PER NEC AND NEATLY INSTALLED.

Q. IDENTIFY PANEL AND CIRCUIT NUMBER ON ALL RECEPTACLE COVERPLATES WITH PRINTED LABELS WITH BLACK LETTERS ON CLEAR ADHESIVE BACKGROUND.

R. PROVIDE TYPED PANEL DIRECTORIES INDICATING TYPE OF LOAD AND ROOM DESCRIPTION WITH ROOM NUMBER AND TYPE. UPDATE ALL EXISTING PANEL DIRECTORIES WITH NEW TYPED DIRECTORY CARDS WITH ALL CIRCUIT REVISIONS NOTED.

S. ALL SPARE BREAKERS IN PANELBOARDS SHALL BE TURNED 'OFF'.

T. THE TOTAL LOAD (AMPERES) OF ANY BRANCH CIRCUIT SHALL NOT EXCEED 80% OF THE RATED AMPACITY OF THE CIRCUIT BREAKER FOR THAT CIRCUIT.

U. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS TO AVOID INTERFERENCE WITH THE BUILDING COMPONENTS, EXISTING UTILITIES, EQUIPMENT, ETC.

V. THE E.C. SHALL PROVIDE FIRESTOPPING FOR ALL PENETRATIONS THRU RATED WALLS. ALL FIRESTOPPING ASSEMBLIES SHALL BE LISTED AND APPROVED FOR THE ASSEMBLY AND PENETRATION UTILIZED.

W. IDENTIFY ALL BRANCH CIRCUITS AT ALL JUNCTION BOXES BY NEATLY PRINTING PANEL AND CIRCUIT NUMBERS ON BOX COVERS WITH INDELIBLE MARKER.

X. NEATLY LABEL BRANCH CIRCUIT NUMBERS ON EACH EXPOSED CONDUIT LEAVING PANELBOARDS WITH INDELIBLE MARKERS.

Y. NEATLY LABEL PANEL AND BRANCH CIRCUIT NUMBERS ON EACH ACCESSIBLE OR EXPOSED CONDUIT ENTERING OR LEAVING ALL PULLBOXES AND JUNCTION BOXES WITH INDELIBLE MARKERS.

ELECTRICAL LEGEND

OS	OCCUPANCY SENSOR, CEILING MOUNTED.
OR	OCCUPANCY SENSOR CONTROL RELAY.
	DISCONNECT SWITCH (FUSIBLE)
	MOTOR STARTER OR VFD.
	COMBINATION MOTOR STARTER OR VFD AND DISCONNECT SWITCH.
	ELECTRIC MOTOR.
UH	UNIT HEATER.
FC	FAN COIL UNIT.
	CIRCUIT BREAKER PANEL, FLUSH MOUNTED.
	CIRCUIT BREAKER PANEL, SURFACE MOUNTED.
	POWER PANEL OR SWITCHBOARD, SURFACE MOUNTED.
EB	ELECTRIC BASEBOARD HEATER.
	NEW DATA OUTLET (18" M.H. UNLESS OTHERWISE INDICATED). TWO GANG OUTLET BOX WITH SINGLE GANG TRIM RING AND BLANK COVERPLATE. STUB AN EMPTY 1.0" BUSHED CONDUIT OUT ABOVE ACCESSIBLE CEILING.
	EXISTING DATA OUTLET (18" M.H. UNLESS OTHERWISE INDICATED M.H.). TWO GANG OUTLET BOX WITH SINGLE GANG TRIM RING AND BLANK COVERPLATE. STUB AN EMPTY 1.0" BUSHED CONDUIT OUT ABOVE ACCESSIBLE CEILING.
AP	WIRELESS WIFI ACCESS POINT; CEILING MOUNTED.
F 15	FIRE ALARM HORN & SIGNAL LIGHT (80" A.F.F.). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 110 CANDELA.
L 15	FIRE ALARM SIGNALING LIGHT (80" A.F.F.). # WHEN SHOWN INDICATES CANDELA RATING OF STROBE. WHEN A # IS NOT SHOWN, THE STROBE SHALL BE RATED 110 CANDELA.
F	FIRE ALARM SENDING STATION (46" M.H.).
S	CEILING MOUNTED SMOKE DETECTOR.
H	CEILING MOUNTED HEAT DETECTOR.
S S/R	DUCT MOUNTED SMOKE DETECTOR (S/SUPPLY, R/RETURN).
D	ELECTRO-MAGNETIC DOOR HOLDER.
W	WATER FLOW SWITCH.
V	FIRE ALARM SUPERVISED VALVE.
T1	TELEVISION MONITOR RECEPTACLE AND CABLE OUTLET BOX ASSEMBLY REFER TO TV WALL BOX DETAIL - T1
CR	DOOR ACCESS CONTROL SYSTEM CARD READER - 46" M.H.
C	CCTV CAMERA. ROUGH-IN BOX, 1" C. STUB.
A	ELECTRIC DOOR OPERATOR, INCLUDING RELAYS, OPERATING SWITCHES AND LIMIT SWITCHES SHALL BE FURNISHED BY THE DOOR EQUIPMENT SUPPLIER AND INSTALLED BY THE E.C. IN ACCORDANCE WITH APPROVED WIRING DIAGRAMS BY THE EQUIPMENT SUPPLIER (120 VOLT SINGLE PHASE OPERATION).
P	PUSHPLATE DOOR CONTROLS FURNISHED BY THE DOOR EQUIPMENT SUPPLIER AND INSTALLED BY THE E.C. (42" M.H.).
	PUSHBUTTON (46" M.H. UNLESS OTHERWISE NOTED ON PLAN).
B	4" DIAMETER BELL (90"M.H.).
SC	FLUSH MOUNTED CEILING SPEAKER.
S	TRUMPET TYPE SPEAKER (96" M.H.). SINGLE GANG BOX WITH 0.75" BUSHED CONDUIT TO ABOVE ACCESSIBLE CORRIDOR CEILING OR NEAREST CABLE TRAY.
	CEILING FAN FURNISHED AND INSTALLED BY H.C.; WIRED BY E.C.

ELECTRICAL LEGEND

	ELECTRICAL CONNECTION REQUIRED.
	EXIT LIGHTING FIXTURE. ARROWS AS INDICATED.
H1 B1 a b	LIGHTING FIXTURE: CAPITAL LETTER DENOTES FIXTURES TYPE. LOWER CASE LETTER DENOTES SWITCHING ARRANGEMENT.
H1 B1	LIGHTING FIXTURE ON NIGHT LIGHT OR EMERGENCY CIRCUIT.
A-1&2	EACH ARROWHEAD REPRESENTS ONE COMPLETE CIRCUIT; CAPITAL LETTER DENOTES PANEL; NUMBER DENOTES CIRCUIT.
	WIRE & CONDUIT IN WALL OR ABOVE CEILING
	WIRE & CONDUIT UNDERGROUND
J	JUNCTION BOX.
	DASHED SYMBOL INDICATES THAT PARTICULAR OUTLET OR DEVICE TO BE REMOVED AND CIRCUITRY MADE CONTINUOUS WHERE REQUIRED.
E	EXISTING OUTLET OR DEVICE TO REMAIN, MAINTAIN EXISTING CIRCUITRY.
	20A-125V SINGLE RECEPTACLE, NEMA 5-20R (18" M.H.).
	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R (18" M.H.).
U	20A-125V DUPLEX RECEPTACLE WITH INTEGRAL USB CHARGING PORTS (1 USB 'A'; 1 USB 'C' PORT), NEMA 5-20R (18" M.H.) USB TYPE A-C CHARGING PORTS WITH MINIMUM 5 AMPS COMBINED CHARGING POWER.
NL	15A-125V DUPLEX RECEPTACLE WITH INTEGRAL NIGHT LIGHT ACCESSORY, DEVICE SHALL HAVE LED NIGHT LIGHT IN FACE OF DEVICE WITH PHOTO-SENSOR CONTROL, NEMA 5-20R (18" M.H.).
	SPECIAL PURPOSE RECEPTACLE. REFER TO NOTE ON PLAN
D	20A-125V DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R. (18" M.H.) TWO-GANG ASSEMBLY. D = DOUBLE DUPLEX.
46" D	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, (46" M.H.) UNLESS OTHERWISE INDICATED D = DOUBLE DUPLEX.
GF	20A-125V DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" M.H.).
WP/GF	20A-125V WEATHERPROOF DUPLEX RECEPTACLE, NEMA 5-20R, WITH GROUND FAULT CIRCUIT INTERRUPTER (18" M.H.), WITH HUBBELL #WP26M CAST ALUMINUM "WHILE-IN-USE" COVER.
20	20A-125V/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-20R, (18" M.H.).
30	30A-125V/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-30R, (18" M.H.).
50	50A-125V/250V-1PH-4W SINGLE RECEPTACLE, NEMA 14-50R (18" M.H.)
	SINGLE POLE WALL SWITCH (46" M.H.)
2	TWO POLE WALL SWITCH (46" M.H.).
3	THREE-WAY WALL SWITCH (46" M.H.).
4	FOUR-WAY WALL SWITCH (46" M.H.).
OS	LIGHTING OCCUPANCY SENSOR WALL SWITCH (46" M.H.)
D	LIGHTING 0-10V LED DIMMER SWITCH WITH PRESET SLIDE CONTROL AND POWER ON-OFF 'DECORATOR' STYLE SWITCH (46" M.H.) UNLESS OTHERWISE INDICATED.
3D	LIGHTING 0-10V LED DIMMER SWITCH WITH PRESET SLIDE CONTROL AND 3-WAY POWER ON-OFF 'DECORATOR' STYLE SWITCH (46" M.H.) UNLESS OTHERWISE INDICATED.
VS	LIGHTING VACANCY SENSOR WALL SWITCH WITH MANUAL 'ON' PUSHBUTTON AND DUAL TECHNOLOGY MOTION SENSOR TO AUTOMATICALLY TURN 'OFF' WHEN ROOM UNOCCUPIED (46" M.H.).
DV	0-10V LED COMBINATION VACANCY SENSOR AND DIMMER SWITCH WITH PRESET SLIDE CONTROL AND SEPARATE ON-OFF 'DECORATOR' STYLE SWITCH (46" M.H.) UNLESS OTHERWISE INDICATED, RATED MIN. 800 WATTS.

GENERAL LEGEND

EC	ELECTRICAL CONTRACTOR.
FC	FIRE PROTECTION CONTRACTOR.
GC	GENERAL CONTRACTOR.
HC	HVAC CONTRACTOR.
PC	PLUMBING CONTRACTOR.
TC	TEMPERATURE CONTROLS CONTRACTOR.
NIC	NOT IN CONTRACT.
AFF	ABOVE FINISHED FLOOR - TO BOTTOM OF ITEM UNLESS INDICATED OTHERWISE IN DRAWING.
(E)	EXISTING.
ES	EQUIPMENT SUPPLIER.
EM	EMERGENCY.
MH	MOUNTING HEIGHT.
S	SURFACE MOUNTED.
WP	WEATHER PROOF.
3	NOTE SYMBOL - APPLIES ONLY TO SHEET ON WHICH IS SHOWN.
2	DETAIL NOTE SYMBOL - APPLIES ONLY TO DETAIL ON WHICH IS SHOWN.
H-1	EQUIPMENT REFERENCE SYMBOL. ELECTRICAL CONNECTION REQUIRED.
H-1	EQUIPMENT REFERENCE SYMBOL. NO ELECTRICAL CONNECTION REQUIRED.
123	ROOM NUMBER.
B E2	DETAIL SYMBOL DETAIL "B" SHOWN ON SHEET E2.
A E1	SECTION SYMBOL SECTION "A" DESIGNATION, SHOWN ON SHEET E1.
	CONNECTION, NEW TO EXISTING.
FD1	UP TO SYMBOL UP TO "FD1", SHOWN ON FLOOR ABOVE.
	1 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	2 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	3 HOUR FIRE PROTECTION SEE SPECIFICATION FOR PENETRATION DETAILS
	ITEM TO BE REMOVED.
	EXISTING TO REMAIN.
	NEW ITEM.

GENERAL NOTES

A. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2024 OHIO BUILDING CODE, INCLUDING REFERENCED CODES AND STANDARDS, ALL LOCAL AND STATE CODES AND MEET APPROVAL OF AUTHORITIES HAVING JURISDICTION.

B. BIDDERS SHALL INSPECT PROJECT SITE EXISTING CONDITIONS DURING BIDDING.

C. INCLUDE PAYMENT OF ALL PERMIT AND INSPECTION FEES AND OBTAIN AN ELECTRICAL PERMIT AND SECURE INSPECTION AND APPROVAL OF THE CODE OFFICIAL.

D. SUBMIT AN ELECTRONIC COPY OF SUBMITTAL DATA AND DESCRIPTIVE LITERATURE IN .PDF FORMAT FOR ALL FIXTURES AND EQUIPMENT.

E. WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY AND REPRESENT THE BEST PRACTICES OF THE INDUSTRY.

F. COORDINATE INSTALLATION WITH OTHER TRADES; PROVIDE OFFSETS AS REQUIRED.

G. INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.

H. COORDINATE EACH ROUGH-IN INSTALLATION REQUIREMENTS AND LOCATIONS WITH OTHER TRADES, ACTUAL EQUIPMENT OR CABINETRY PROVIDED AND FIELD CONDITIONS BEFORE PERFORMING WORK.

I. REFER TO ARCHITECTURAL DRAWING ELEVATIONS FOR MOUNTING LOCATION INFORMATION, ARRANGEMENT AND HEIGHT FOR ALL DEVICES AT FURNISHINGS, CASEWORK, ETC.

J. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES. WHERE DISCREPANCIES MAY OCCUR BETWEEN THE ELECTRICAL PLANS AND THE ARCHITECTURAL CEILING PLANS ON QUANTITY OF FIXTURES, THE ELECTRICAL PLANS SHALL TAKE PRECEDENCE. COORDINATE FIXTURE LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS WITH PIPING AND DUCTWORK.

K. ALL EQUIPMENT AND MATERIAL REQUIRED FOR COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEMS SHALL BE INCLUDED IN THE CONTRACT.

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937-836-8898 F 937-832-3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER
JEFFREY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT
STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

NO.	DATE	DESCRIPTION
	08/01/2025	FOR CONSTRUCTION

DATE	05/29/25
JOB NO.	4284.01
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TITLE
LEGEND

SHEET NO.
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NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821

7/31/2025 11:17:50 AM

SUSPENDED OVERHEAD CIRCULATION FANS

FAN										DISCONNECT MEANS							CONTROL					FEEDER				
			CHARACTERISTICS							TYPE			LOCATION													
FAN NUMBER	CIRCUIT NUMBER	NAMEPLATE	HP (KVA OR FLA)	120V-1PH	208V-3PH	208V-1PH	480V-1PH	480V-3PH	LOCATION	DISC. SWITCH	TOGGLE SWITCH	BREAKER	NEAR MOTOR	CONTROLLER	SEE NOTES	FURNISHED BY	FAN CONTROL PANEL	INDIVIDUAL SPEED CONT. / OFF	GROUP SPEED CONTROLLER / OFF	KEEP SPACE FOR FUTURE	SEE NOTES	NO. OF CONDUCTORS	WIRE SIZE	GRD. SIZE	CONDUIT SIZE	SEE NOTE
CF1		CIRCULATION FAN 1	0.1 KVA	•					DORM ROOMS	•								•				2	12	12	.5	1

Notes:

1. 36" DIAMETER (CEILING HUGGER) CONTEMPORARY STYLE FAN WHITE FINISH.

LIGHTING FIXTURE SCHEDULE

	LUMINAIRE										TRIM COLOR						MOUNTED	SIZE				
	TYPE																					
FIXTURE SYMBOL	LED			LOW VOLTAGE	WATTS/ FIXTURE	LUMENS/ COLOR TEMP	FIXTURE VOLTAGE	MANUFACTURER & CATALOG NO.	OTHER ACCEPTABLE MANUFACTURES	DIFFUSING MEDIA	WHITE	BLACK	ALUMINUM	BRONZE	STANDARD	SEE NOTES	S - SURFACE. R - RECESSED. SM - STEM MTD. WM - WALL MTD. C - CHAIN MTD. UC - UNDER CAB. CS - CLG. SURF.	WIDTH	LENGTH	DEPTH	DIAMETER	SEE NOTES
B1	•				30	3600 LUMENS/ 4000K	120	LITHONIA# CPX 2X2 AL07 SWW M4	COLUMBIA, DAYBRITE	MATTE WHITE LENS	•						R	24	24	2		
C1	•				40	5000 LUMENS/ 4000K	120	LITHONIA# CLX L48 5000LUM SEF FDL MVOLT G210 40K	COLUMBIA, DAYBRITE	FLAT DIFFUSE LENS	•						WM/S/SM	3	48	3		
C2	•				80	10000 LUMENS/ 4000K	120	LITHONIA# CLX L96 10000LUM SEF FDL MVOLT G210 40K	COLUMBIA, DAYBRITE	FLAT DIFFUSE LENS	•							3	96	3		
D1	•				30	2500 LUMENS/ 4000K	120	FINELITE# S17-LED-ACF-PF-4'-H-840-120V-SC	PRUDENTAL, AEL	ANGLED WHITE PERF DIFFUSER	•						WM (6'-0" A.F.F)	5	48	4		
D2	•				10	1300 LUMENS/ 3000K	120	LITHONIA# FMVTSL-24IN-MVOLT-30K-90CRI-BN-M4	COLUMBIA, DAYBRITE	SQUARE WHITE LENS	•						WM (7'-0" A.F.F)	6	24	4		
F1	•				13	1100 LUMENS/ 3000K	120	WF6 REG SWW5 90CRI MW M6	GREEN CREATIVE, LIGHTOLIER	FLAT WHITE LENS	•						R			1.5	6	1
F2	•				13	1100 LUMENS/ 4000K	120	WF6 REG SWW5 90CRI MW M6	GREEN CREATIVE, LIGHTOLIER	REGRESSED BAFFLE LED	•						R			1.5	6	
L1	•				20	4000K	120	ACOLYTE RB 90 AC12065 4.040	APPROVED EQUAL	TAPE LIGHT	•						COVE	.5	60	.5		
UC1	•				10	500 LUMENS/ 4000K	120	LITHONIA# UPLD-18IN-30K-90CRI-SWR-WH	CONTECH, TRACELITE	MATTE WHITE LENS	•					2	UC (OF SHELF)	18				2
X1	•				5		120	LITHONIA# LHQM-LED-R-HO-M6	COMPASS, CHLORIDE	LED EMERGENCY/EXIT RED LETTERS ON WHITE W/EM...	•						WM					
X2	•				5		120	LITHONIA# LHQM-LED-R-HO-M6	COMPASS, CHLORIDE	LED EMERGENCY/EXIT RED LETTERS ON WHITE W/EM...	•						CLG					
REM	•						120	LITHONIA# ERE-GY-T-RD-WP	COMPASS, CHLORIDE	LED REMOTE LAMP HEADS - 2 HEAD - ROUND					•		WM OR CLG SURFACE TO CANOPY				4	
EM	•						120	LITHONIA# EU2C-HO	COMPASS, CHLORIDE	EMERGENCY LITE	•						WM - 7'6"					

NOTES:

1. SWITCHABLE COLOR TEMPERATURE.
2. INTEGRAL ROCKER SWITCH (HARD WIRED CONNECTION).

MOTORS, STARTERS, DISCONNECTS & CONTROLS

MOTOR										STARTERS												DISCONNECT MEANS											CONTROL					FEEDER				
			CHARACTERISTICS								TYPE					LOCATION						TYPE					LOCATION															
MOTOR NUMBER	CIRCUIT NUMBER	NAMEPLATE	HP (KVA OR FLA)	120V-1PH	208V-3PH	208V-1PH	480V-1PH	480V-3PH	LOCATION	NEMA SIZE	MANUAL	MAGNETIC	BUILT-IN MOTOR 0/L	VFD	ECM*	NEAR MOTOR	MOTOR CONT. CNTR	EQUIP. CONT. PANEL	ROOM NUMBER	SEE NOTE	FURNISHED BY	DISC. SWITCH	MANUAL STARTER	RECEPTACLE	BREAKER	FUSIBLE	NEAR MOTOR	MOTOR. CONT. PANEL	EQUIP. CONT. PANEL	PANELBOARD	SEE NOTE	FURNISHED BY	INTERLOCK W/ DAMPER BY E.C.	MANUAL AT STARTER	INTEGRAL W/ EQUIP.	BY H.C.	SEE NOTE	NO. OF CONDUCTORS	WIRE SIZE	GRD. SIZE	CONDUIT SIZE	SEE NOTE
RTU-1		ROOFTOP UNIT 1	34 MCA / 50 MOCP		•				ROOF													•					•					HC				•		3	8	10	.75	1
RTU-2		ROOFTOP UNIT 2	51 MCA / 70 MOCP		•				ROOF													•					•					HC				•		3	6	10	.1	2
CD-1		CONDENSING UNIT 1	11.4 MCA / 15 MOCP			•			EAST EXTERIOR													•					•					EC				•		2	12	12	.5	
FC-1		FAN COIL 1	5.8 MCA / 15 MOCP			•			STORAGE 003													•					•					EC				•		2	12	12	.5	
CD-2		CONDENSING UNIT 2	11.4 MCA / 15 MOCP			•			EAST EXTERIOR													•					•					EC				•		2	12	12	.5	
FC-2		FAN COIL 2	5.8 MCA / 15 MOCP			•			MECHANICAL 006													•					•					EC				•		2	12	12	.5	
EF-1		EXHAUST FAN 1	1 HP		•				ROOF						•						HC	•					•					HC	•			•		3	12	12	.5	
EF-2		EXHAUST FAN 2	1/6 HP	•					BAY 2						•						HC	•					•					HC	•			•		2	12	12	.5	
EF-3		EXHAUST FAN 3	1/6 HP	•					ROOF						•						HC	•					•					HC	•			•		2	12	12	.5	
JF-1		JET FAN 1	12.2 MCA / 15 MOCP			•			BAY 2						•						HC	•					•					HC				•		2	12	12	.5	
JF-2		JET FAN 2	12.2 MCA / 15 MOCP			•			BAY 1						•						HC	•					•					HC				•		2	12	12	.5	
FT-1		HTR FIN TUBE 1	0.467 KW	•					RM 101, 102, 123																											•		2	12	12	.5	3
FT-2		HTR FIN TUBE 2	2.5 KW			•			RM 107, 109																											•		3	12	12	.5	3
FT-3		HTR FIN TUBE 3	1.05 KW			•			RM 109																											•		3	12	12	.5	3
GUH-1		GAS UNIT HEATER 1	6.75 A	•					BAY 1													•					•					HC				•		2	12	12	.5	
GUH-2		GAS UNIT HEATER 2	6.75 A	•					BAY 1													•					•					HC				•		2	12	12	.5	
WH1		WATER HEATER	1 A	•								•									EC						•					EC				•		2	12	12	.5	
RCP1		REG RC PUMP	1 A	•								•									EC						•					EC				•		2	12	12	.5	

* REFER TO ECM CONTROL DIAGRAM(S) ON HVAC DRAWINGS, WHEN NOTED, FOR INTERLOCK WIRING AND AUX POWER REQUIREMENTS.

NOTES:

1. PROVIDE 60A FEED TO FUSED DISCONNECT AT UNIT. FUSE PER MANUFACTURER RECOMMENDATION.
2. PROVIDE 100A FEED TO FUSED DISCONNECT AT UNIT. FUSE PER MANUFACTURER RECOMMENDATION.
3. PROVIDE LINE VOLTAGE THERMOSTAT (120-240V) COMPATIBLE WITH BASEBOARD HEATERS (WITH OFF FEATURE) EQUAL TO HONEYWELL #CT410 B SERIES. COORDINATE THERMOSTAT LOCATION WITH H.C.

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3621

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED
PROFESSIONAL ENGINEER

JEFFERY D. ZELINSKI, LICENSE #63822
EXPIRATION DATE 12/31/2025

CITY OF DAYTON
DAYTON FIRE DEPARTMENT STATION 16
4111 Kings Highway, Dayton, Ohio, 45406

ISSUE

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	08/01/2025	FOR CONSTRUCTION

DATE	05/29/25
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TITLE
SCHEDULES

SHEET NO.
E0.2

7/31/2025 11:17:50 AM

Branch Panel: A

Construction: New

System: Normal Power

LOCATION:
SUPPLY FROM: MDP
VOLTAGE: 120/208 Wye-3-4

MOUNTING: Surface
ENCLOSURE: Type 1
MCB RATING: 225 A

A.I.C RATING
MAINS TYPE: M.L.O.
MAINS RATING: 200 A

CKT	Description	Trip	Poles	Note	A		B		C		Note	Poles	Trip	Description	CKT
1	EF-1	20 A	3		333 VA	0 VA						3	60 A	East A/C	2
3	--	--	--				333 VA	0 VA				--	--	--	4
5	--	--	--						333 VA	0 VA		--	--	--	6
7	Roof A/C	60 A	3		0 VA	0 VA						3	20 A	Ex Fan Ctrl	8
9	--	--	--				0 VA	0 VA				--	--	--	10
11	--	--	--						0 VA	0 VA		--	--	--	12
13	Gen Chgr/Htr	30 A	2		0 VA	0 VA						1	15 A	Fire Alm Pnl	14
15	--	--	--				0 VA	1100 VA				1	20 A	EF-2	16
17	JF-1	20 A	2						550 VA	1000 VA		1	20 A	EF-3	18
19	--	--	--		550 VA	0 VA						3	30 A	Garage Doors	20
21	JF-2	20 A	2				550 VA	0 VA				--	--	--	22
23	--	--	--						550 VA	0 VA		--	--	--	24
25	Panel Rec	20 A	1		360 VA	1100 VA						1	20 A	GUH-1	26
27	Roof Rec	20 A	1				360 VA	1100 VA				1	20 A	GUH-2	28
29	Spare	20 A	1						0 VA		1				30
31											1				32
33											2				34
35	RTU-1	60 A	3						333 VA						36
37	--	--	--		333 VA	333 VA						3	60 A	RTU-2	38
39	--	--	--				333 VA	333 VA				--	--	--	40
41	CO/NO2 SYS	20 A	1						0 VA	333 VA		--	--	--	42
		Total Load:			3010 VA		4110 VA		3100 VA						

NOTES:
1: AFCI BREAKER
2: GFCI BREAKER

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
Motor	5000 VA	105.00%	5250 VA		
Other	0 VA	0.00%	0 VA	**Total Conn. Load:**	10220 VA
Power	4500 VA	100.00%	4500 VA	**Total Est. Demand:**	10470 VA
Receptacles	720 VA	100.00%	720 VA	**Total Conn. Current:**	28 A
				Total Est. Demand Current:	29 A

Branch Panel: B

Construction: New

System: Normal Power

LOCATION:
SUPPLY FROM: MDP
VOLTAGE: 120/208 Wye-3-4

MOUNTING: Surface
ENCLOSURE: Type 1
MCB RATING: 225 A

A.I.C RATING
MAINS TYPE: M.L.O.
MAINS RATING: 200 A

CKT	Description	Trip	Poles	Note	A		B		C		Note	Poles	Trip	Description	CKT
1	Water Htr	20 A	1		0 VA	0 VA						1	20 A	Exterior Lts	2
3	Boiler	20 A	1				0 VA	0 VA				1	20 A	Unit Htr	4
5	Batt Charger	30 A	2						0 VA	0 VA		1	20 A	Unknown	6
7	--	--	--		0 VA	0 VA						1	20 A	Boiler	8
9	Rm 2-3 Rec	20 A	1				0 VA	0 VA				1	20 A	Sp Pp Rec	10
11	CAD	20 A	1						0 VA	0 VA		1	20 A	Sp Pp Rec	12
13	Dorm Cor Lts	20 A	1		90 VA	439 VA						1	20 A	Dorm Lts	14
15	C-02 Lts	20 A	1				699 VA	565 VA				1	20 A	C-03 Lts	16
17	Dining Lts	20 A	1						270 VA	1000 VA	1	1	20 A	RM101 FT-1	18
19	TLT102 FT-1	20 A	1	1	1000 VA	1000 VA					1	1	20 A	TLT123 FT-1	20
21	Dorm122 FT-1	20 A	1				1000 VA	180 VA				1	20 A	Kitchen Rec	22
23	Kitchen Rec	20 A	1						180 VA	360 VA		1	20 A	Kitchen Rec	24
25	Kitchen Rec	20 A	1		360 VA	180 VA						1	20 A	Dining Fridge	26
27	Dining Fridge	20 A	1				180 VA	180 VA				1	20 A	Dining Fridge	28
29	Day Rm FT-2	20 A	2						500 VA	500 VA		2	20 A	Day Rm FT-2	30
31	--	--	--		500 VA	500 VA						--	--	--	32
33	Dayroom Tstat	20 A	1				1000 VA								34
35															36
37															38
39															40
41															42
		Total Load:			3984 VA		3802 VA		2558 VA						

NOTES:
1: PROVIDE GFCI BREAKER

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
Lighting	1787 VA	125.00%	2233 VA		
Power	7000 VA	100.00%	7000 VA	**Total Conn. Load:**	10338 VA
Receptacles	1620 VA	100.00%	1620 VA	**Total Est. Demand:**	10771 VA
				Total Conn. Current:	29 A
				Total Est. Demand Current:	30 A

Branch Panel: C

Construction: Existing

System: Normal Power

LOCATION: FITNESS...
SUPPLY FROM: MDP
VOLTAGE: 120/208 Wye-3-4

MOUNTING: Surface
ENCLOSURE: Type 1
MCB RATING: 225 A

A.I.C RATING
MAINS TYPE: M.L.O.
MAINS RATING: 200 A

CKT	Description	Trip	Poles	Note	A		B		C		Note	Poles	Trip	Description	CKT
1	Office	20 A	1		0 VA	0 VA						3	15 A	Washer 1	2
3	Office	20 A	1				0 VA	0 VA				--	--	--	4
5	New Bsmt Lts	20 A	1						683 VA	0 VA		--	--	--	6
7	Rec	20 A	1		0 VA	0 VA						3	15 A	Washer 2	8
9	Unknown	20 A	1				0 VA	0 VA				--	--	--	10
11	New Bsmt Lts	20 A	1						601 VA	0 VA		--	--	--	12
13	Washer/Dryer	30 A	2		0 VA	0 VA						1	20 A	Shop Lts	14
15	--	--	--				0 VA	0 VA				1	20 A	Ramp Sp Pp	16
17	New Bsmt Lts	20 A	1						503 VA	180 VA		1	20 A	Gear Dryer	18
19	Wash Sp Pp	20 A	1		0 VA	0 VA						2	20 A	Gear Dryer	20
21	CD-1	15 A	2				0 VA	0 VA				--	--	--	22
23	--	--	--						0 VA	550 VA		2	15 A	FC-1	24
25	CD-2	15 A	2		0 VA	550 VA						--	--	--	26
27	--	--	--				0 VA	500 VA				2	20 A	Dining FT-3	28
29	Dining FT-2	20 A	2						500 VA	500 VA		--	--	--	30
31	--	--	--		500 VA	1000 VA						1	20 A	Dining Tstat	32
33															34
35									0 VA			1	20 A	Spare	36
37	Spare	20 A	1		0 VA	0 VA						1	20 A	Spare	38
39	Fitness Rec	20 A	1				540 VA	540 VA				1	20 A	Storage Rec	40
41	Fitness Rec	20 A	1						180 VA	180 VA		1	20 A	Fitness Rec	42
		Total Load:			2050 VA		1580 VA		3877 VA						

NOTES:

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
Lighting	1787 VA	125.00%	2234 VA		
Motor	1000 VA	125.00%	1250 VA	**Total Conn. Load:**	7507 VA
Other	0 VA	0.00%	0 VA	**Total Est. Demand:**	8204 VA
Power	3100 VA	100.00%	3100 VA	**Total Conn. Current:**	21 A
Receptacles	1620 VA	100.00%	1620 VA	**Total Est. Demand Current:**	23 A

Branch Panel: D

Construction: Replace Interior

System: Normal Power

LOCATION: STAIRS 124
SUPPLY FROM: MDP
VOLTAGE: 120/208 Wye-3-4

MOUNTING: Flush
ENCLOSURE: Type 1
MCB RATING: 225 A

A.I.C RATING
MAINS TYPE: M.L.O
MAINS RATING: 200 A

CKT	Description	Trip	Poles	Note	A		B		C		Note	Poles	Trip	Description	CKT
1	Appr	20 A	1		0 VA	0 VA						1	20 A	Appr	2
3	Appr	20 A	1				0 VA	0 VA				1	20 A	Appr	4
5	Appr	20 A	1						0 VA	0 VA		1	20 A	Appr	6
7	Appr	20 A	1		0 VA	0 VA						1	20 A	Appr	8
9	Appr	20 A	1				0 VA	0 VA				1	20 A	Appr	10
11	Dorm Lts	20 A	1						0 VA	0 VA		1	20 A	Dorm Lts	12
13	Tlt Lts	20 A	1		0 VA	0 VA						1	20 A	Lounge Lts	14
15	Lounge Rec	20 A	1				0 VA	0 VA				1	20 A	Kitchen Lts	16
17	Captain Lts	20 A	1						0 VA	0 VA		1	20 A	Appr Rec	18
19	Dorm Rec	20 A	1	1	0 VA	0 VA						1	20 A	Appr Rec	20
21	Kitchen Rec	20 A	1				0 VA	0 VA				1	20 A	Captain Rec	22
23	Disp Rm Rec	20 A	1						0 VA	0 VA		1	20 A	Disp Rm Rec	24
25	Stair Lts	20 A	1		0 VA	0 VA						1	20 A	Night Lts	26
27	Unknown	20 A	1				0 VA	0 VA				1	20 A	CAD Day Rm	28
29	Unknown	20 A	1						0 VA	0 VA		1	20 A	RR Lts	30
31	Unknown	20 A	1		0 VA	0 VA						1	20 A	RR Rec	32
33															34
35															36
37															38
39															40
41															42
		Total Load:			0 VA		0 VA		0 VA						

NOTES:
1: AFCI BREAKER

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
				Total Conn. Load:	0 VA
				Total Est. Demand:	0 VA
				Total Conn. Current:	0 A
				Total Est. Demand Current:	0 A

Branch Panel: E

Construction: New

System: Normal Power

LOCATION: TOG STORAGE 007
SUPPLY FROM: MDP
VOLTAGE: 120/208 Wye-3-4

MOUNTING: Surface
ENCLOSURE: Type 1
MCB RATING: 225 A

A.I.C RATING
MAINS TYPE: M.L.O.
MAINS RATING: 100 A

CKT	Description	Trip	Poles	Note	A		B		C		Note	Poles	Trip	Description	CKT
1	FC-2	15 A	2		550 VA	990 VA						1	20 A	TOG Rec	2
3	--	--	--				550 VA	1572 VA				1	20 A	TOG Rec	4
5	Smp Pmp Rec	20 A	1						180 VA	2078 VA		1	20 A	TOG Rec	6
7	Mech006 Rec	20 A	1		180 VA	1620 VA						1	20 A	Dorm Rec	8
9	Dorm Rec	20 A	1				1620 VA	1620 VA				1	20 A	Multi Rm Rec	10
11	Rm111 Washer	20 A	1						180 VA	2496 VA		2	30 A	Rm111 Dryer	12
13						2496 VA						--	--	--	14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
		Total Load:			4946 VA		4423 VA		3675 VA						

NOTES:

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
Motor	1000 VA	125.00%	1250 VA		
Power	4591 VA	100.00%	4591 VA	**Total Conn. Load:**	12878 VA
Receptacles	10932 VA	95.74%	10466 VA	**Total Est. Demand:**	12676 VA
				Total Conn. Current:	36 A
				Total Est. Demand Current:	35 A

Switchboard: MDP

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

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

A.I.C. Rating:
Mains Type: M.L.O.
Mains Rating: 400 A
MCB Rating: 400 A

Notes:

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Wire Size	Feed	Cond. Size
1	Panel A	3	200 A	200 A	10220 VA	3-#4/0, 1-#4/0, 1-#6		2
2	Panel B	3	200 A	200 A	10338 VA	3-#4/0, 1-#4/0, 1-#6		2
3	Panel E	3	100 A	100 A	12878 VA	3-#2, 1-#2, 1-#8		1.25
4	Panel C	3	200 A	200 A	7507 VA	3-#4/0, 1-#4/0, 1-#6		2
5	Panel D	3	200 A	200 A	0 VA	3-#4/0, 1-#6		2
6	SPD	3	60 A	60 A	0 VA	--		-
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
			Total Conn. Load:		40411 VA			
			Total Amps:		112 A			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals	
Lighting	3533 VA	125.00%	4416 VA		
Motor	7000 VA	103.57%	7250 VA	**Total Conn. Load:**	40411 VA
Other	0 VA	0.00%	0 VA	**Total Est. Demand:**	39116 VA
Power	15400 VA	100.00%	15400 VA	**Total Conn. Current:**	112 A
Receptacles	14892 VA	83.58%	12446 VA	**Total Est. Demand...**	109 A

Notes:

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PANEL SCHEDULES

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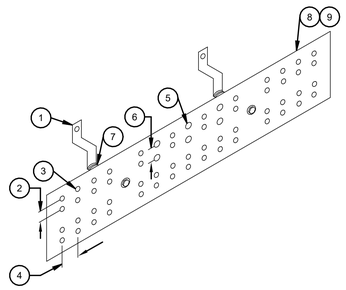
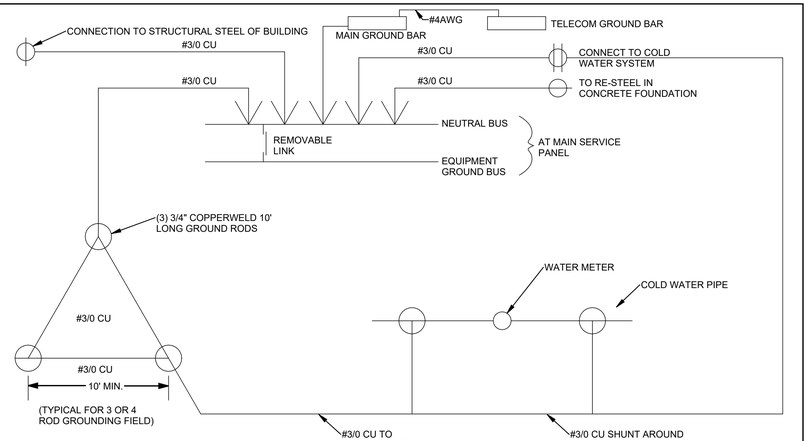


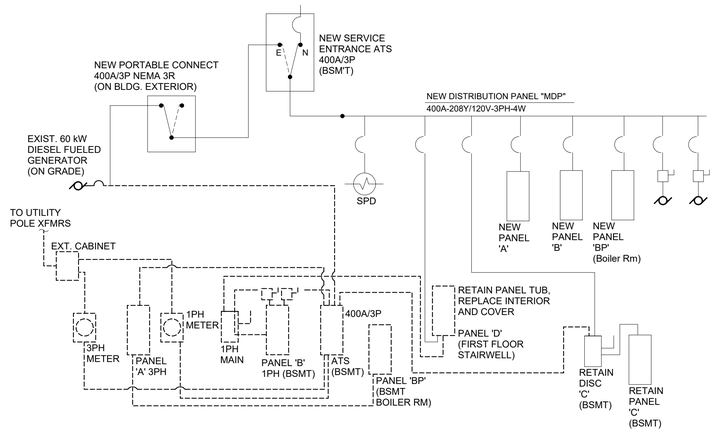
1. WALL MOUNTING BRACKET(S).
2. 5/8" (TYPICAL).
3. 5/16" DIA. HOLE (TYPICAL).
4. 1-1/8" (TYPICAL).
5. 7/16" DIA. HOLE (TYPICAL).
6. 1" (TYPICAL).
7. STANDOFF INSULATOR(S).
8. 1/4"x4"x16"L COPPER GROUND BAR. (MAINS GROUND BAR)
9. 1/4"x2"x12" COPPER GROUND BAR (TELECOM GROUND BAR)

2 GROUND BAR BRACKET
N.T.S.

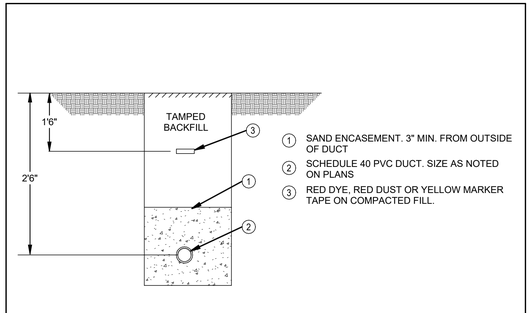


*DIVISION 16 SHALL FOLLOW THIS DETAIL FOR PROPER GROUNDING CONNECTIONS

3 GROUNDING DETAIL
N.T.S.

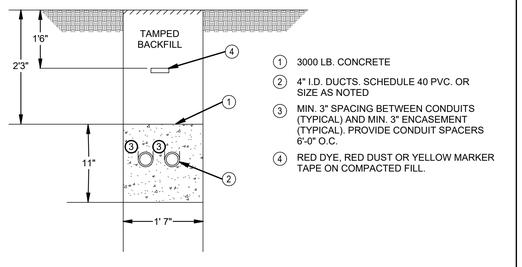


SINGLE LINE DIAGRAM
N.T.S.



1. SAND ENCASEMENT. 3" MIN. FROM OUTSIDE OF DUCT
2. SCHEDULE 40 PVC DUCT. SIZE AS NOTED ON PLANS
3. RED DYE, RED DUST OR YELLOW MARKER TAPE ON COMPACTED FILL.

5 DIRECT BURIAL UNDERGROUND DUCTS
N.T.S.



1. 3000 LB. CONCRETE
2. 4" I.D. DUCTS. SCHEDULE 40 PVC. OR SIZE AS NOTED
3. MIN. 3" SPACING BETWEEN CONDUITS (TYPICAL) AND MIN. 3" ENCASEMENT (TYPICAL). PROVIDE CONDUIT SPACERS 6'-0" O.C.
4. RED DYE, RED DUST OR YELLOW MARKER TAPE ON COMPACTED FILL.

3 UNDERGROUND DUCTS
N.T.S.

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DETAILS

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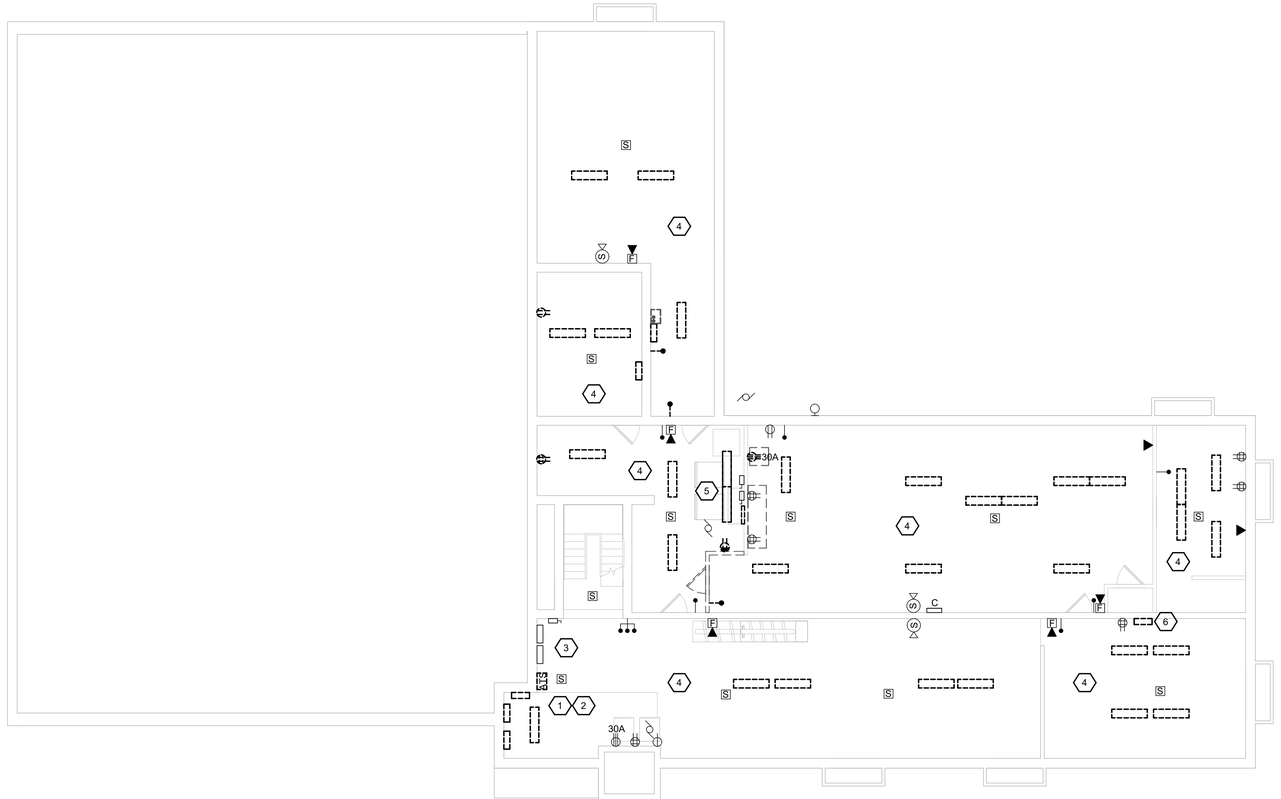
DEMOLITION NOTES

1. RETAIN EXISTING STANDBY GENERATOR AND ACCESSORY CIRCUITS, FEEDER, ETC.
2. REMOVE EXISTING MAIN SERVICE PANEL, ATS AND PANELBOARDS FOR REPLACEMENT WITH NEW SERVICE ENTRANCE ATS AND DISTRIBUTION PANEL. MAINTAIN EXISTING BRANCH CIRCUITRY TO REMAIN.
3. EXISTING FIRE ALARM PANEL/SYSTEM TO REMAIN.
4. EXISTING FIRE ALARM/FIRE CALL DEVICES TO REMAIN.
5. RETAIN EXISTING POWER TO TOG WASHERS.
6. RETAIN EXISTING POWER TO DATA RACK.



BASEMENT DEMO PLAN
SCALE: 1/8" = 1'-0"

N

0 4 8 16 24 32 40
SCALE: 1/8"=1'-0"

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63822
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JEFFERY D. ZELINSKI, LICENSE #63822
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BASEMENT DEMO PLAN

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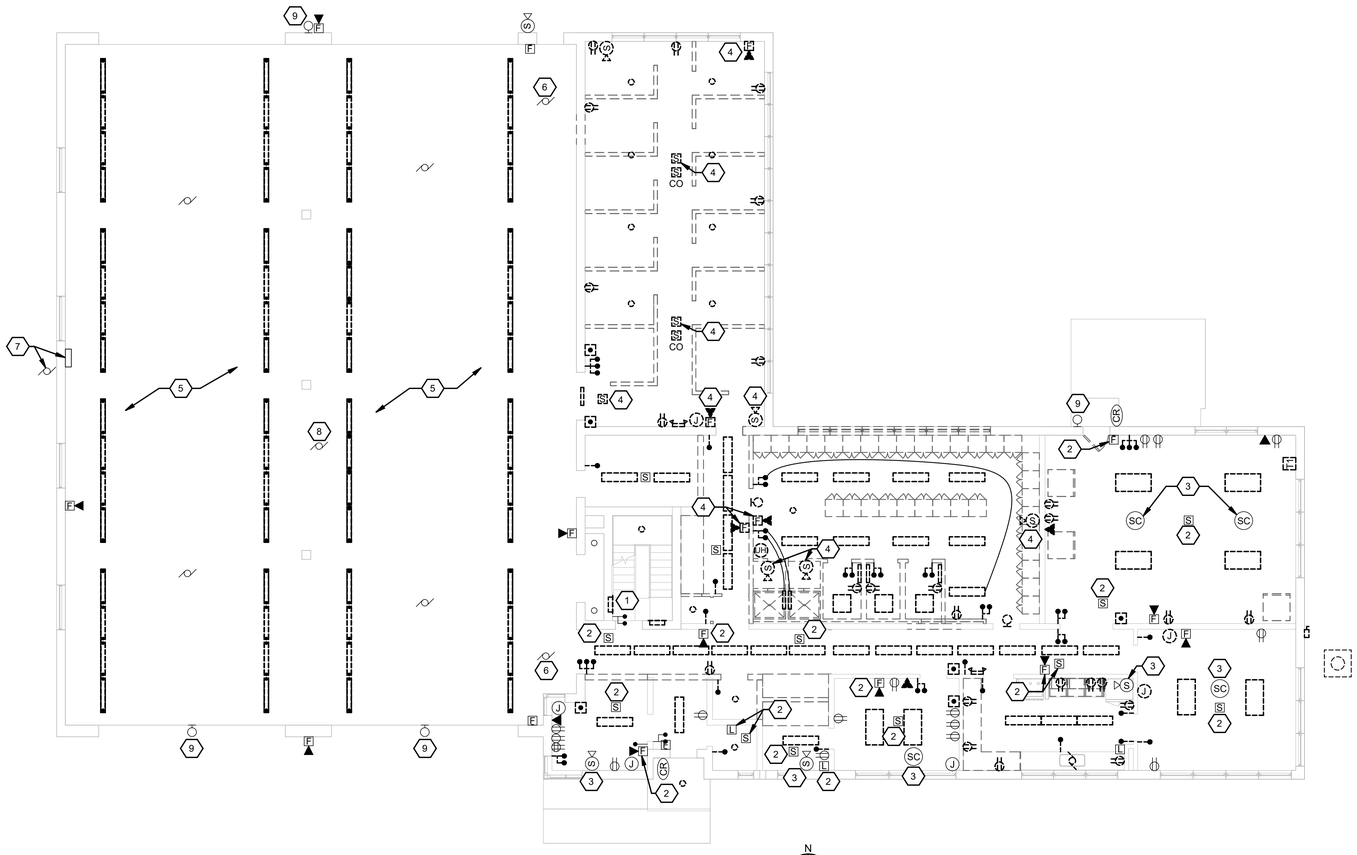

DEMOLITION NOTES

1. REPLACE EXISTING PANEL INTERIOR WITH NEW, FLUSH MOUNTED COVER. RETAIN PANEL TUB AND CONDUITS, REMOVE EXISTING WIRING FOR REUSE WHERE SHOWN AS EXISTING TO REMAIN FOR NEW CIRCUITRY. (36"H X 20"W TUB).
2. TEMPORARILY REMOVE/REINSTALL FIRE ALARM DEVICE TO ACCOMMODATE CEILING/WALL RENOVATION WORK.
3. TEMPORARILY REMOVE/REINSTALL FIRE CALL SYSTEM SPEAKER TO ACCOMMODATE CEILING/WALL RENOVATION WORK.
4. REMOVE FIRE ALARM/FIRE CALL DEVICE FOR REUSE. REFER TO NEW WORK PLAN.
5. SELECTIVE DEMOLITION IN APPARATUS BAY ONLY AS NOTED. FIRE ALARM, OVERHEAD DOOR, POWER, FIRE CALL SYSTEMS, POWER CORD DROPS TO REMAIN. LIGHTING REPLACED WITH NEW LED FIXTURES, IN SAME LOCATION, CONTROLS TO REMAIN.
6. DISCONNECT POWER TO UNIT HEATER TO ACCOMMODATE REMOVAL BY OTHERS. RETAIN CIRCUITRY FOR EXTENSION/CONNECTION TO NEW. REFER TO NEW WORK PLAN.
7. DISCONNECT AND REMOVE POWER TO VEHICLE EXHAUST EXTRACTION SYSTEM.
8. DISCONNECT POWER TO UNIT HEATER TO ACCOMMODATE REMOVAL BY OTHERS. RETAIN CIRCUITRY FOR EXTENSION/CONNECTION TO NEW EXHAUST FAN. REFER TO NEW WORK PLAN.
9. EXISTING EXTERIOR LIGHTS/CONTROLS TO REMAIN.

FIRST FLOOR DEMO PLAN

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

0 4 8 16 24 32 40

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

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FIRST FLOOR DEMO PLAN

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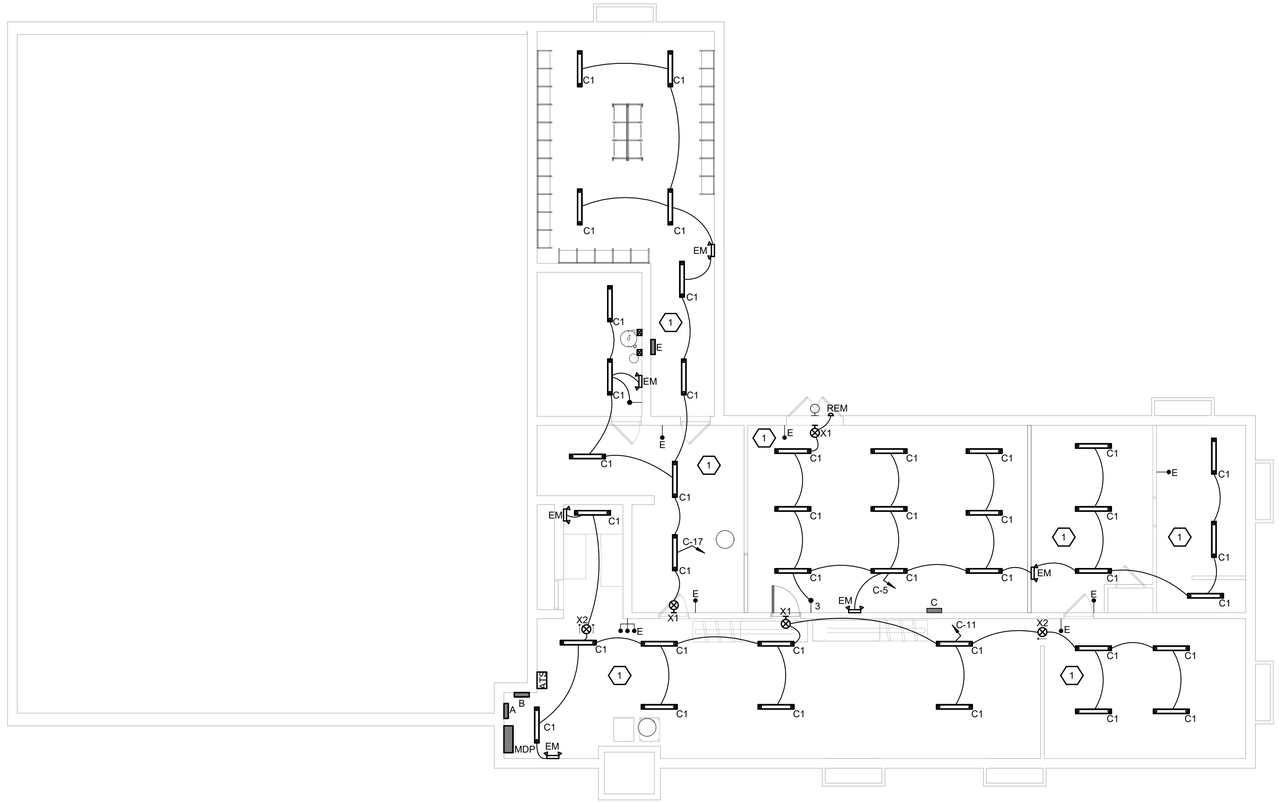
CONSTRUCTION NOTES

1. RETAIN EXISTING LIGHTING CONTROL CIRCUITRY AND LOCATIONS, REPLACE EXISTING SWITCHES AND COVERPLATES WITH NEW.



BASEMENT NEW LIGHTING PLAN

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

N

0 4 8 16 24 32 40

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

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NEW BASEMENT LIGHTING PLAN

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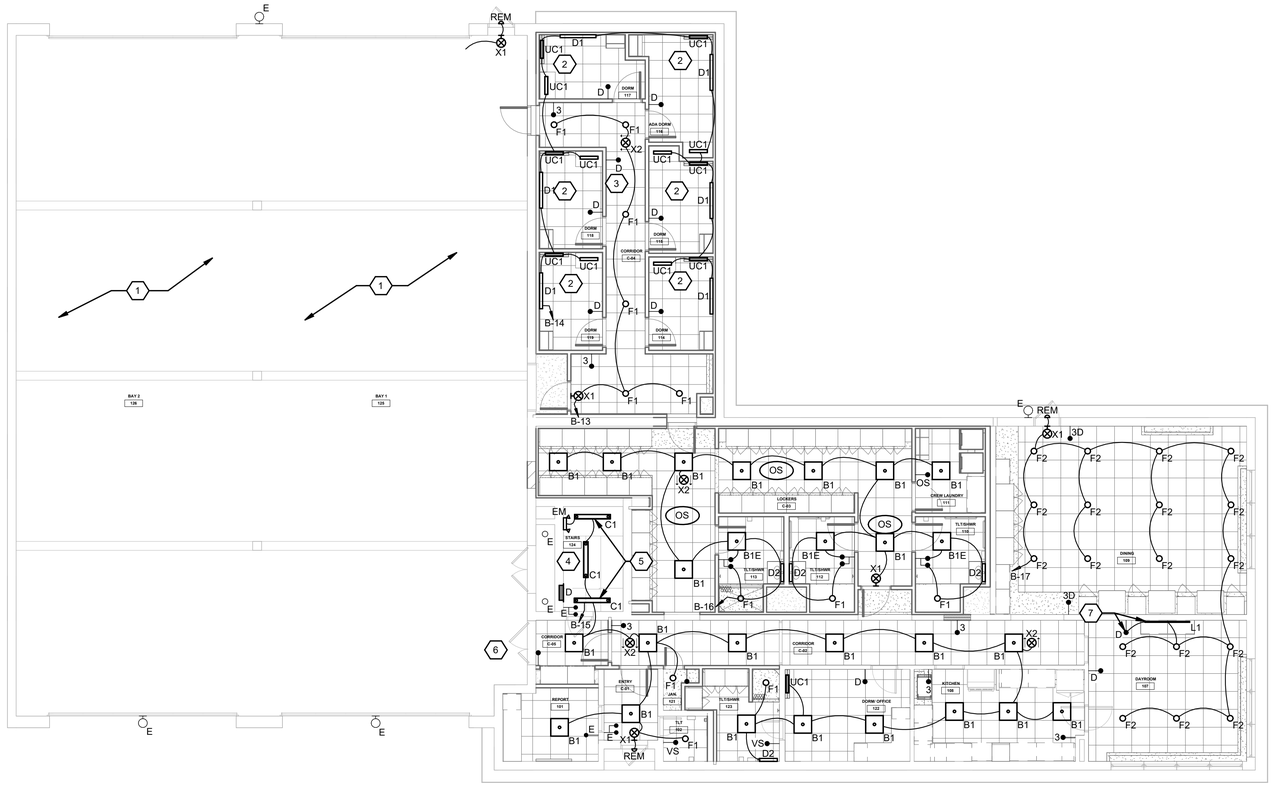
CONSTRUCTION NOTES

1. PROVIDE NEW LIGHTING IN APP BAY. CONNECT TO EXISTING CIRCUITRY/CONTROLS.
2. CONNECT UNDERCABINET LIGHTS AHEAD OF LOCAL ROOM LIGHTING CONTROL (UNDERCABINET LIGHTS CONTROLLED BY INTEGRAL SWITCH). COORDINATE ROUGH-IN LOCATION FOR UNDERCABINET LIGHTS WITH CASEWORK/HEADBOARD/ SHELVES.
3. PROVIDE THREE-WAY SWITCHING FOR DORM CORRIDOR AND SEPARATE DIMMING CONTROL AS SHOWN.
4. FIXTURE TO REPLACE EXISTING, TOP OF STAIRWELL AT CEILING.
5. FIXTURE TO REPLACE EXISTING, AT INTERMEDIATE LANDING.
6. MAINTAIN EXISTING LIGHTING CONTROLS IN APPARATUS BAY.
7. PROVIDE LINEAR TAPE LIGHT AT TOP OF TV DISPLAY CASE WORK, PROVIDE DIMMER FLUSH MOUNTED IN SIDE OF CASE WORK. CONNECT TO ROOM LIGHTING CIRCUIT.



FIRST FLOOR NEW LIGHTING PLAN

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

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

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NEW FIRST FLOOR LIGHTING PLAN

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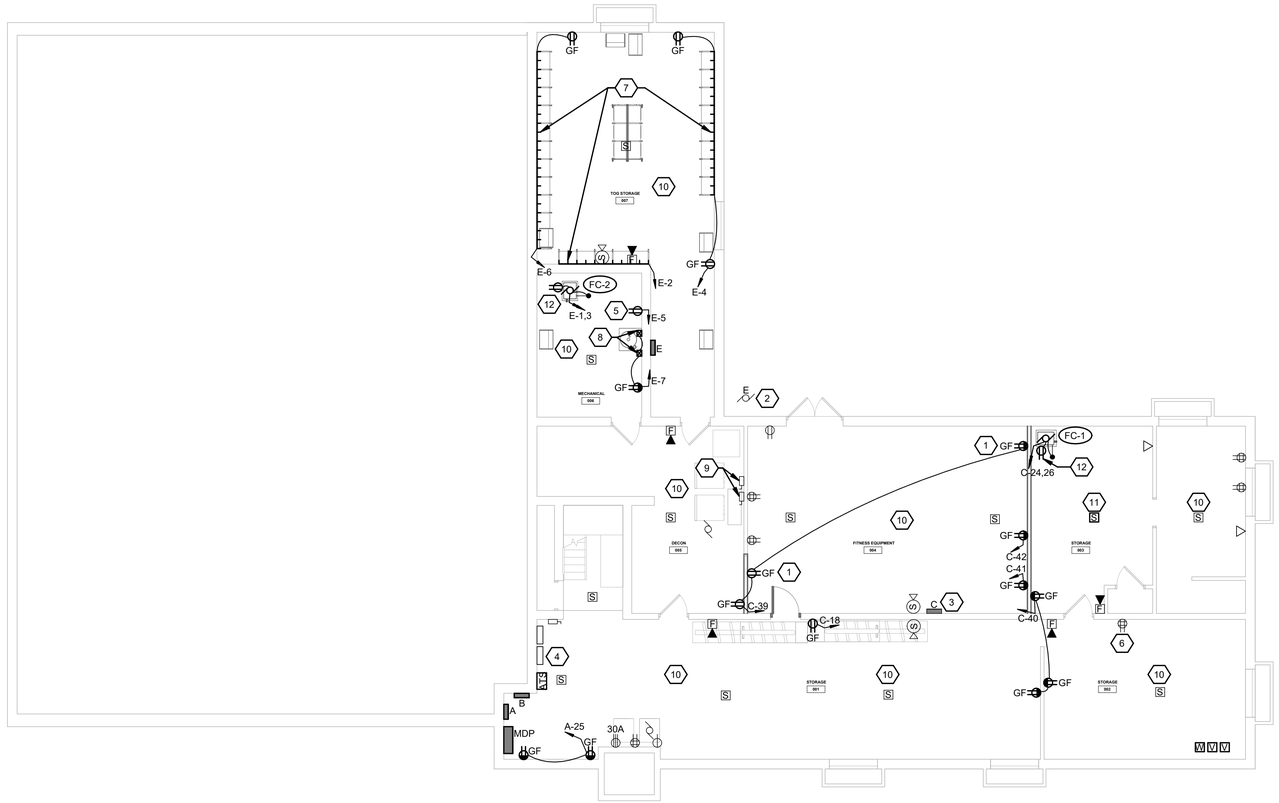
CONSTRUCTION NOTES

1. RECEPTACLE AT 72" M.H. FOR CONNECTION OF WALL MOUNTED OSCILLATING FAN. PROVIDE FAN EQUAL TO GLOBAL INDUSTRIAL #607050. 24" DIA, 7500 CFM, 120V CORD AND PLUG CONNECTED WITH 3 SPEED/OFF PULLCHAIN CONTROL.
2. RETAIN CIRCUITRY FOR EXISTING EXTERIOR SUMP PUMP.
3. EXISTING PANEL TO REMAIN, RE-FEED FROM NEW SERVICE AND RETAIN EXISTING BRANCH CIRCUITS.
4. EXISTING FIRM ALARM PANEL TO REMAIN. RE-FEED FROM NEW PANEL.
5. PROVIDE DEDICATED CIRCUIT/RECEPTACLE FOR NEW SUMP PUMP. COORDINATE LOCATION/REQUIREMENTS WITH P.C.
6. RETAIN POWER TO EXISTING SERVER RACK.
7. PROVIDE SURFACE MOUNTED PLUG MOLD ABOVE TOG LOCKERS, RUN CONTINUOUS WITH RECEPTACLE 18" O.C. EQUAL TO LEGEND 2000 SERIES, GRAY FINISH.
8. PROVIDE 120V POWER (WITH CONTRACTOR/STARTER) FOR WATER HEATER AND RE-CIRC PUMP. COORDINATE LOCATIONS WITH P.C., CONTROL BY H.C.
9. MAINTAIN EXISTING POWER TO TOG WASHERS.
10. MAINTAIN EXISTING FIRE ALARM SYSTEM DEVICES AND FIRE CALL SYSTEM SPEAKERS.
11. PROVIDE NEW SMOKE DETECTOR IN NEW ROOM.
12. CONNECT RECEPTACLE TO ADJACENT FAN COIL 208V CIRCUIT FOR CONDENSATE PUMP. RECEPTACLE TO BE SURFACE MOUNTED ON FAN COIL.



BASEMENT NEW POWER AND SYSTEMS PLAN

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

0 4 8 16 24 32 40

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

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NEW BASEMENT POWER AND SYSTEMS PLAN

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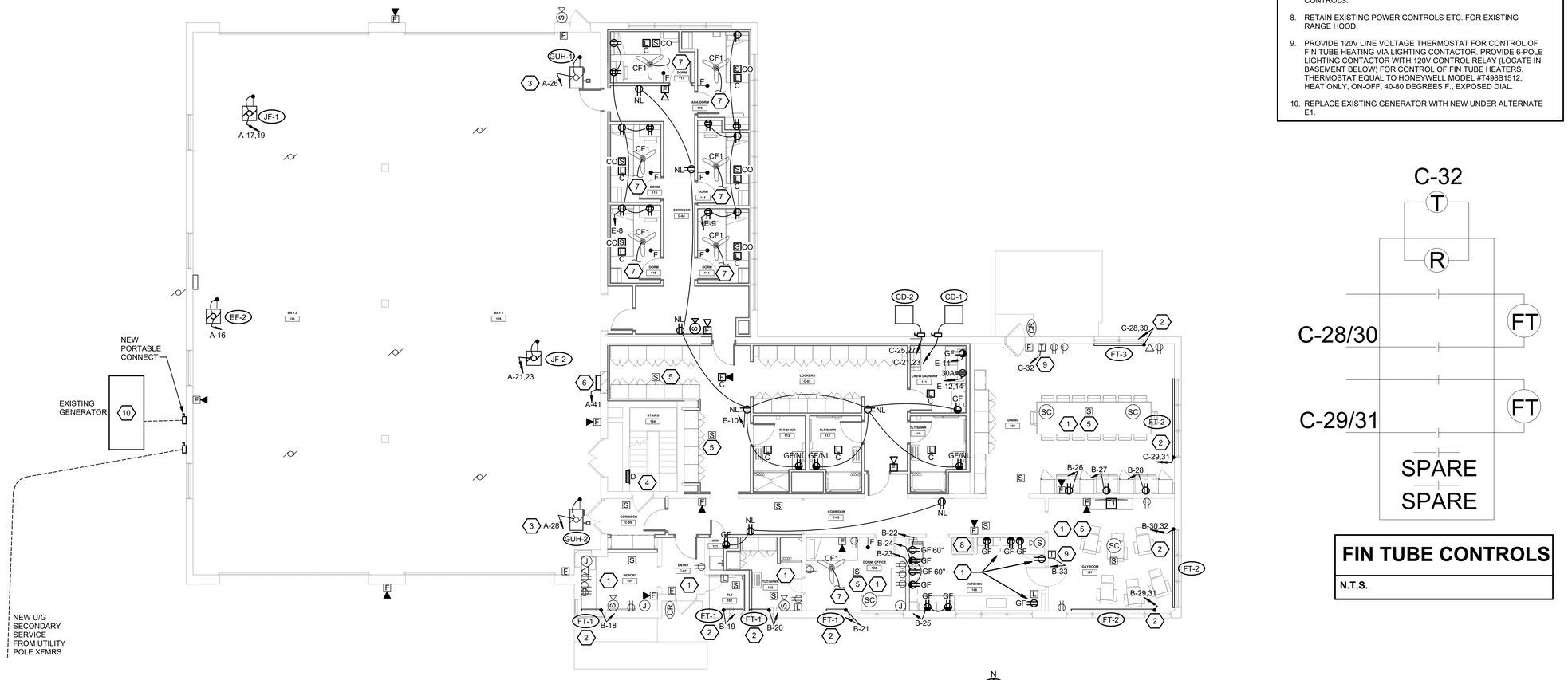
CONSTRUCTION NOTES

1. REPLACE EXISTING WIRING DEVICES, COVERPLATES AND BRANCH CIRCUITRY BACK TO PANEL SERVED FROM. MAINTAIN EXISTING RACEWAYS AND BACKBOXES.
2. FEED ELECTRIC FIN TUBE HEATER FROM BASEMENT (BELOW). COORDINATE CONNECTION REQUIREMENTS WITH H.C.
3. UTILIZE EXISTING CIRCUITRY FOR REPLACEMENT GAS FIRED UNIT HEATER.
4. REPLACE EXISTING PANEL INTERIOR AND FLUSH COVER WITH NEW. RETAIN EXISTING PANEL TUB AND CONDUIT SYSTEMS. FIELD MEASURE PANEL TUB FOR FIT (APPROX. 20"W X 36"H X 5"D).
5. RE-INSTALL EXISTING FIRE ALARM AND FIRE-CALL SYSTEM DEVICES/SPEAKERS IN NEW CEILING. COORDINATE LOCATION WITH NEW LIGHTING/HVAC DEVICES.
6. CO/NO2 DETECTION SYSTEM CONTROLLER.
7. CONNECT CEILING FAN TO ROOM LIGHTING CIRCUIT AHEAD OF CONTROLS.
8. RETAIN EXISTING POWER CONTROLS ETC. FOR EXISTING RANGE HOOD.
9. PROVIDE 120V LINE VOLTAGE THERMOSTAT FOR CONTROL OF FIN TUBE HEATING VIA LIGHTING CONTACTOR. PROVIDE 6-POLE LIGHTING CONTACTOR WITH 120V CONTROL RELAY (LOCATE IN BASEMENT BELOW) FOR CONTROL OF FIN TUBE HEATERS. THERMOSTAT EQUAL TO HONEYWELL MODEL #T498B1512, HEAT ONLY, ON-OFF, 40-80 DEGREES F., EXPOSED DIAL.
10. REPLACE EXISTING GENERATOR WITH NEW UNDER ALTERNATE E1.



FIRST FLOOR NEW POWER AND SYSTEMS PLAN

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

FIN TUBE CONTROLS

N.T.S.

0 4 8 16 24 32 40

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

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NEW FIRST FLOOR POWER AND SYSTEMS PLAN

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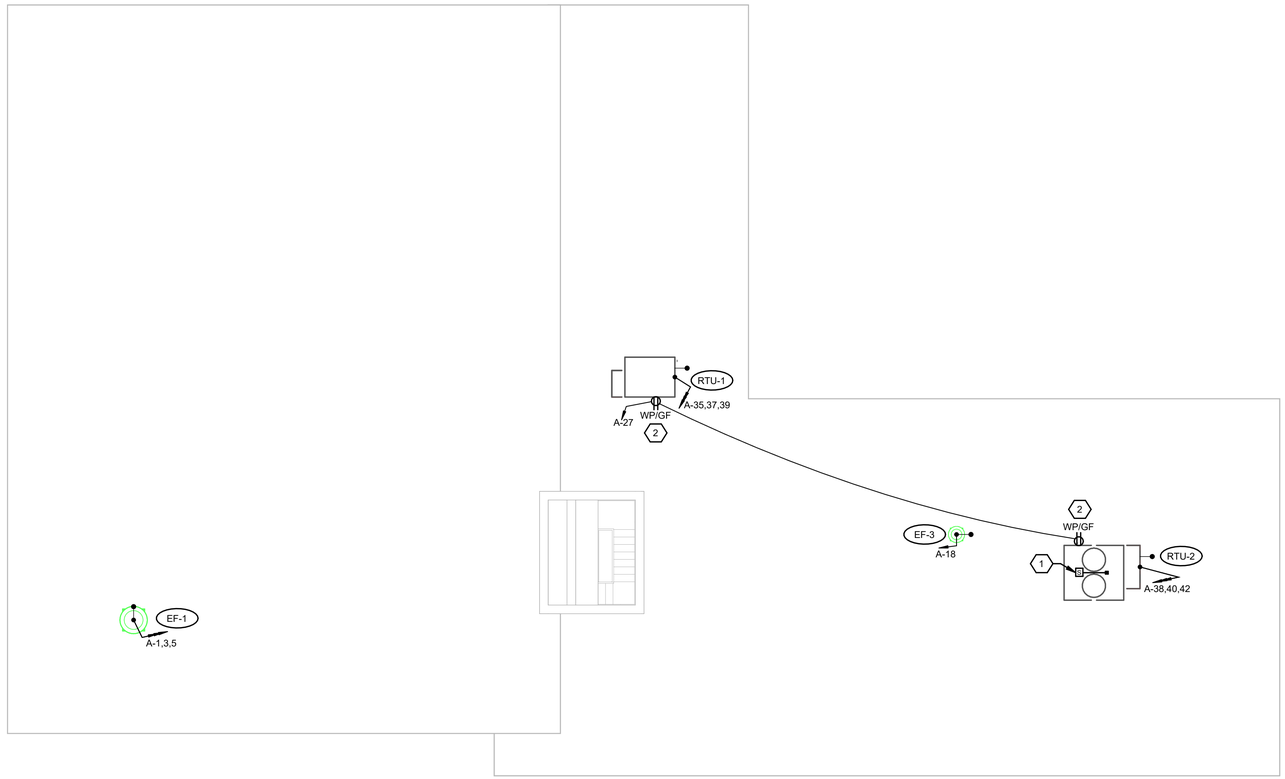
CONSTRUCTION NOTES

1. DUCT DETECTOR LOCATED ABOVE CEILING OF DORM CORRIDOR. COORDINATE INSTALLATION WITH H.C.
2. COORDINATE PENETRATIONS FOR POWER FEEDS TO ROOF MOUNTED EQUIPMENT WITH H.C.



ROOF POWER AND SYSTEMS PLAN

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

N

0 4 8 16 24 32 40

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

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