

COLFAX - MINGO CHILDCARE CENTER COLFAX, IA

ABBREVIATIONS

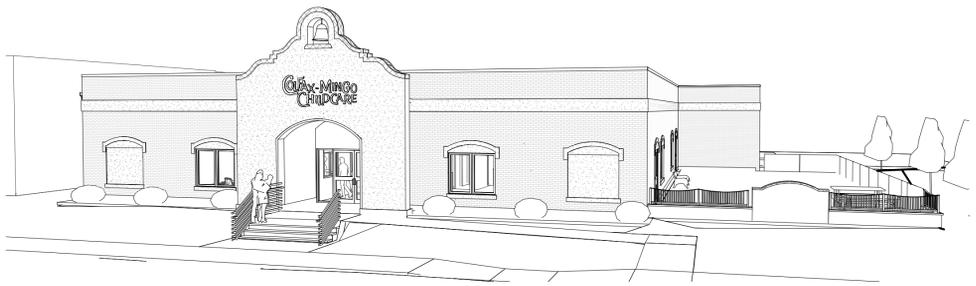
ABV	ABOVE	CAB	CABINET	DPR	DAMPER	FB	FACE BRICK	GB	GRAB BAR	LBL	LABEL	NL	NAILABLE	PT	POINT	SFGL	SAFETY GLASS	TOL	TOLERANCE
AFF	ABOVE FINISHED FLOOR	CAD	CADMIUM	DP	DAMP/PROOFING	FOC	FACE OF CONCRETE	GD	GRADE (D), (ING)	LAB	LABORATORY	NAT	NATURAL	PVC	POLYVINYL CHLORIDE	SCH	SCHEDULE	T&G	TONGUE AND GROOVE
ACC	ACCESS	CPT	CARPET	DL	DEAD LOAD	FOF	FACE OF FINISH	GVL	GRAVEL	LAD	LADDER	NI	NICKEL	PCF	POUNDS PER CUBIC FOOT	SCN	SCREEN	TOS	TOP OF SLAB
AP	ACCESS PANEL	CSMT	CASEMENT	DEMO	DEMOLISH, DEMOLITION	FOM	FACE OF MASONRY	GF	GROUND FACE	LAM	LAMINATE (D)	NRC	NOISE REDUCTION COEFFICIENT	PLF	POUNDS PER LINEAR FOOT	SLNT	SEALANT	TOW	TOP OF WALL
AC	ACOUSTICAL	CIPC	CAST-IN-PLACE CONCRETE	DEP	DEPRESSED	FOS	FACE OF STUDS	GYP	GYPSPUM	LAV	LAVATORY	NMC	NOMINAL	PSF	POUNDS PER SQUARE FOOT	STG	SEATING	TB	TOWEL BAR
ACT	ACOUSTICAL CEILING TILE	CST	CAST STONE	DTL	DETAIL	FF	FACTORY FINISH	HD	HAND DRYER	LH	LEFT HAND	N	NORTH	PCC	PRECAST CONCRETE	SECT	SECTION	TRD	TREAD
ADD	ADDENDUM	CB	CATCH BASIN	DIAG	DIAGONAL	FBD	FIBERBOARD	HBD	HARDBOARD	L	LENGTH	NIC	NOT IN CONTRACT	PCC	PRECAST CONCRETE	SHT	SHEATHING	TFW	TRENCH FOUNDATION WALL
ADH	ADHESIVE	CK	CAULK (ING)	DIA	DIAMETER	FGL	FIBERGLASS	HDW	HARDWARE	LT	LIGHT	NTS	NOT TO SCALE	PREFAB	PREFABRICATE (D)	SHT	SHEET	TYP	TYPICAL
ADJ	ADJACENT	CLG	CEILING	DIM	DIMENSION	FRP	FIBERGLASS REINFORCED	HWD	HARDWOOD	LWC	LIGHTWEIGHT CONCRETE	NO	NUMBER	PREFIN	PREFINISHED	SG	SHEET GLASS		
ADJT	ADJUSTABLE	CEM	CEMENT	DIV	DIVISION	FIN	FINISH BOARD	HWT	HARDWOOD	LMS	LIMESTONE	OBS	OBSCURE	PRF	PREFORMED	SH	SHELF, SHELVING	UC	UNDERCUT
AGG	AGGREGATE	CT	CERAMIC TILE	DR	DOOR	FIN	FINISH (ED)	LTL	LIME TILE	LTL	LIME TILE	OBS	OBSCURE	PSC	PRESTRESSED CONCRETE	SHWR	SHOWER	UNFIN	UNFINISHED
A/C	AIR CONDITIONING	CHAM	CHAMFER	DA	DOUBLEACTING	FFE	FINISHED FLOOR ELEVATION	LL	LIVE LOAD	OC	ON CENTER (S)	OP	OPAQUE	PL	PROPERTY LINE	SIM	SIMILAR	UR	URINAL
ALT	ALTERNATE	CIRC	CIRCLE	DH	DOUBLE HUNG	FFL	FINISHED FLOOR LINE	LVT	LUXURY VINYL TILE	OP	OPENING	OPNG	OPENING	QT	QUARRY TILE	SC	SOLID CORE	SP	SOUNDPROOF
ALUM	ALUMINUM	CO	CLEAN OUT	DS	DOWNSPOUT	FA	FIRE ALARM	HTG	HEATING	OPG	OPPOSITE	OPH	OPPOSITE HAND	RAD	RADIUS	S	SOUTH	S	SOUTH
ANC	ANCHOR, ANCHORAGE	CLR	CLEAR (ANCE)	D	DRAIN	FBRK	FIRE BRICK	HVAC	HEATING/VENTILATING/AIR	OPP	OPPOSITE	OD	OPPOSITE DIAMETER	REF	REFERENCE	SPC	SPACER	SPKR	SPEAKER
AB	ANCHOR BOLT	COL	COLUMN	DRB	DRAINBOARD	FE	FIRE EXTINGUISHER	HT	HEIGHT	OPH	OPPOSITE	OD	OPPOSITE DIAMETER	RFL	REFLECT (ED), (IVE), (OR)	SPC	SPACER	SPKR	SPEAKER
ANOD	ANODIZED	COMB	COMBINATION	DT	DRAIN TILE	FEC	FIRE EXTINGUISHER CABINET	HEX	HEXAGONAL	OPS	OPPOSITE SURFACE	OS	OVERFLOW SCUPPER	REFR	REFRIGERATOR	OS	OVERFLOW SCUPPER	REFR	REFRIGERATOR
APPROX	APPROXIMATE	COMP	COMPRESS (ED), (ION)	DWR	DRAWER	FP	FIREPROOF	HDPE	HIGH DENSITY POLYETHYLENE	OD	OPPOSITE SURFACE	OA	OVERALL	REG	REGISTER (ED)	OH	OVERHEAD	REG	REGISTER (ED)
ARCH	ARCHITECT (URAL)	CONC	CONCRETE	DF	DRAWINGS	FRC	FIRE-RESISTANT COATING	HC	HOLLOW CORE	OS	OVERFLOW SCUPPER	OH	OVERHEAD	REIN	REINFORCE (D), (ING)	SQ	SQUARE	STD	STANDARD
AD	AREA DRAIN	CONC	CONCRETE	DF	DRAWINGS	FRC	FIRE-RESISTANT COATING	HC	HOLLOW CORE	OS	OVERFLOW SCUPPER	OH	OVERHEAD	REIN	REINFORCE (D), (ING)	SQ	SQUARE	STD	STANDARD
ASPH	ASPHALT	CMU	CONCRETE MASONRY UNIT	DF	DRINKING FOUNTAIN	FLG	FLASHING	HM	HOLLOW METAL	OA	OVERALL	OH	OVERHEAD	RES	RESILIENT	STL	STEEL	STL	STEEL
AUTO	AUTOMATIC	CONST	CONSTRUCTION	EF	EACH FACE	FLR	FLOOR (ING)	HOR	HORIZONTAL	PNT	PAINT (ED)	PARA	PARALLEL	RET	RETURN	STOR	STORAGE	STR	STRUCTURE (AL)
		CONT	CONTINUOUS	E	EAST	FD	FLOOR DRAIN	HW	HOT WATER HEATER	PANL	PANEL	PB	PANIC BAR	RVS	REVERSE (SIDE)	SD	STORM DRAIN	STR	STRUCTURE (AL)
BSMT	BASEMENT	CONTR	CONTRACT (OR)	ELEC	ELECTRIC (AL)	FTG	FOOTING	ID	INSIDE DIAMETER	PBL	PANIC BAR	PTD	PAPER TOWEL DISPENSER	REV	REVISION (S), REVISED	SUSP	SUSPEND (ED)	SYM	SYMMETRY (ICAL)
BRG	BEARING	CJ	CONTROL JOINT	EP	ELECTRIC PANELBOARD	FND	FOUNDATION	INSUL	INSULATE (D), (ION)	PTH	PAPER TOWEL RECEPTOR	PTD	PAPER TOWEL DISPENSER	RH	RIGHT HAND	SYN	SYNTHETIC	WSCT	WAINSCOT (ING)
BPL	BEARING PLATE	CPR	COPPER	EWC	ELECTRIC WATER COOLER	FS	FULL SIZE	INT	INTERIOR	PARA	PARALLEL	PK	PARKING	ROW	RIGHT OF WAY	REVIT	REVISION (S), REVISED	SYN	SYNTHETIC
BM	BENCH MARK	CG	CORNER GUARD	ELEV	ELEVATION	FUR	FURRED	INTM	INTERMEDIATE	PK	PARKING	PRT BD	PARTICLE BOARD	RV	ROOF DRAIN	TB	TACKBOARD	TKS	TACKSTRIP
BEL	BELOW	CORR	CORRUGATED	ELEV	ELEVATOR	GALV	GAGE, GAUGE	INV	INVERT	PRT	PARTITION	PVMT	PAVEMENT	RFG	ROOFING	TEL	TELEPHONE	TV	TELEVISION
BTWN	BETWEEN	CTR	COUNTER	EMER	EMERGENCY	GP	GALVANIZED	JR	JANITOR'S RECEPTOR	PTH	PAPER TOWEL RECEPTOR	PTD	PAPER TOWEL DISPENSER	RH	RIGHT HAND	ROW	RIGHT OF WAY	RV	ROOF DRAIN
BVL	BEVELED	EPOX	EPOXY PAINT	EMER	EMERGENCY	GSS	GALVANIZED STEEL SHEET	JT	JOINT	PTH	PAPER TOWEL RECEPTOR	PTD	PAPER TOWEL DISPENSER	RH	RIGHT HAND	RV	ROOF DRAIN	TEL	TELEPHONE
BLK	BLOCK	C'FLG	COUNTERFLASHING	EQ	EQUAL	GKT	GASKET (ED)	JF	JOINT FILLER	MIN	MINIMUM	MIR	MIRROR	PERF	PERFORATE (D)	RM	ROOM	TC	TERRA COTTA
BD	BOARD	C'SINK	COUNTERSINK	EQUIP	EQUIPMENT	GC	GENERAL CONTRACT (OR)	J	JOIST	MISC	MISCELLANEOUS	MOD	MODULAR	PERIM	PERIMETER	PLAS	PLASTER	TZ	TERRAZZO
BS	BOTH SIDES	C'SINK	COUNTERSINK SCREW	EST	ESTIMATE	GL	GLASS	KPL	KICKPLATE	MLD	MOLDING, MOULDING	MT	MOUNT (ED), (ING)	PL	PLASTER	PLAM	PLASTIC LAMINATE	T	THICK (NESS)
BW	BOTH WAYS	CRS	COURSE (S)	EXP	EXHAUST	GLB	GLASS BLOCK	KIT	KITCHEN	MOV	MOVABLE	MT	MOUNT (ED), (ING)	PL	PLASTER	PLAM	PLASTIC LAMINATE	THR	THRESHOLD
BOT	BOTTOM			EXT	EXTERIOR	GLF	GLASS FIBER	KO	KNOCKOUT	MULL	MULLION	MT	MOUNT (ED), (ING)	PLYWD	PLYWOOD	PL	PLASTER	TPTN	TOILET PARTITION
BRK	BRICK																	TPD	TOILET PAPER DISPENSER
BRZ	BRONZE																		
BLDG	BUILDING																		

MATERIAL SYMBOLS

	EARTH - COMPACTED FILL		WOOD - FINISHED
	GRANULAR FILL		WOOD - PLYWOOD
	CONCRETE		WOOD - ROUGH LUMBER
	STANDARD CONCRETE BLOCK		WOOD - BLOCKING
	ARCHITECTURAL CONCRETE BLOCK		BATT INSULATION
	BRICK VENEER		RIGID INSULATION BOARD
	STEEL		ACOUSTICAL CEILING TILE
	METAL STUDS		GYPSPUM BOARD

GRAPHIC SYMBOLS

	BUILDING SECTION
	DETAIL
	ROOM/SPACE NUMBER
	DOOR NUMBER
	WINDOW TYPE
	KEYED NOTE
	INTERIOR ELEVATION



ARCHITECTURAL DRAWINGS

- A0.1 TITLE SHEET
- A1.1 BUILDING INFORMATION PLAN
- A2.1 FLOOR PLAN
- A2.2 SCHEDULES
- A2.3 FINISHED FLOOR PLAN
- A3.1 EXTERIOR ELEVATIONS
- A3.2 BUILDING SECTIONS
- A3.3 WALL SECTIONS
- A3.4 DETAILS
- A3.5 DETAILS
- A4.1 ROOF PLAN
- A5.1 INTERIOR ELEVATIONS
- A5.2 INTERIOR ELEVATIONS
- A6.1 REFLECTED CEILING PLANS
- A8.1 DETAILS

CIVIL DRAWINGS

- C1.0 COVER SHEET
- C1.1 DETAILS
- C2.0 TOPOGRAPHIC SURVEY & DEMOLITION PLAN
- C3.0 DIMENSION PLAN
- C4.0 GRADING PLAN
- C5.0 EROSION AND SEDIMENTARY CONTROL PLAN
- C6.0 UTILITY PLAN

STRUCTURAL DRAWINGS

- S0.1 STRUCTURAL TITLE SHEET
- S1.1 FOUNDATION PLAN
- S1.2 ROOF FRAMING PLAN
- S2.1 DETAILS
- S2.2 DETAILS

FOOD SERVICE DRAWINGS

- FS100 FOOD SERVICE PLAN

MECHANICAL DRAWINGS

- M000 MECHANICAL TITLE SHEET
- M2.1 MECHANICAL PLAN
- M2.2 MECHANICAL ROOF PLAN
- M5.1 MECHANICAL DETAILS
- M5.2 MECHANICAL DETAILS
- M6.1 MECHANICAL SCHEDULES
- M6.2 MECHANICAL SCHEDULES

PLUMBING DRAWINGS

- P000 PLUMBING TITLE SHEET
- P2.0 PLUMBING UNDER FLOOR PLAN
- P2.1 PLUMBING PLAN
- P5.1 PLUMBING DETAILS
- P5.2 PLUMBING DETAILS
- P6.1 PLUMBING SCHEDULES

ELECTRICAL DRAWINGS

- E0.0 ELECTRICAL TITLE SHEET
- EL2.1 LIGHTING FLOOR PLAN
- EM2.1 MECHANICAL POWER FLOOR PLAN
- EP2.1 POWER FLOOR PLAN
- EV2.1 SYSTEMS FLOOR PLAN
- ES.1 ELECTRICAL DETAILS
- ES.2 ELECTRICAL DETAILS
- E6.1 ELECTRICAL SCHEDULES
- E6.2 ELECTRICAL SCHEDULES

TECHNOLOGY DRAWINGS

- T000 TECHNOLOGY TITLE SHEET
- T2.1 TECHNOLOGY PLAN
- T5.1 TECHNOLOGY DETAILS
- T6.1 TECHNOLOGY SCHEDULES

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed architect under the laws of the state of Iowa.

Signature _____ Date: _____
 AOR Name/License Number: xxxxx / Renewal Date: _____
 Pages of sheets covered by this seal: _____

STRUCT ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #302
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDLUESTONE
5518 NW 88th ST.
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW Urbandale Drive
Urbandale, IA 50322
Ph. 515-369-4400

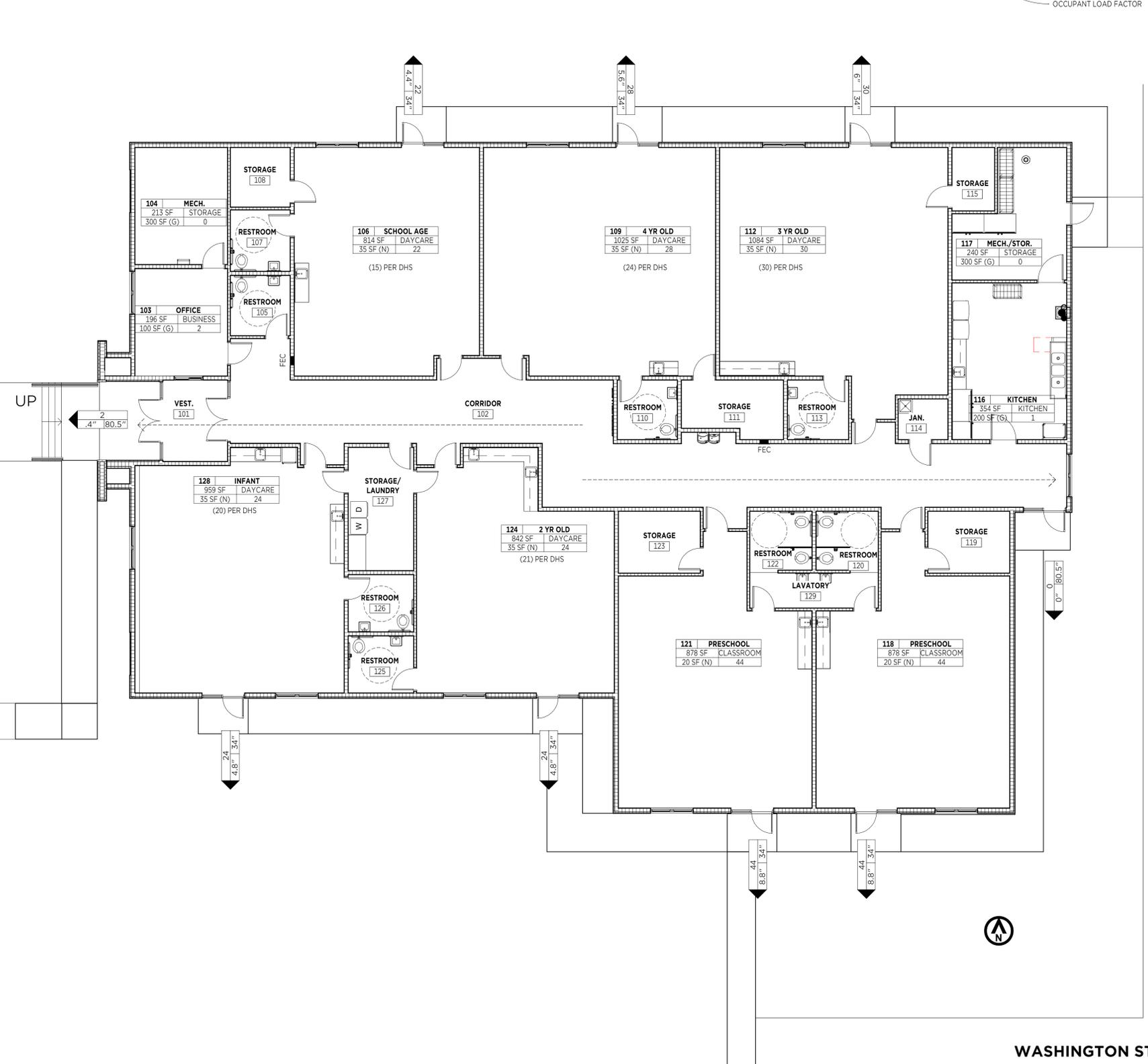
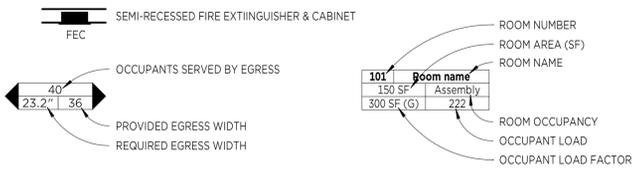
FOODSERVICE

ADVANCED FOODSERVICE CONSULTING
6201 S. Gateway Drive
Marion, IA 52302
Ph. 319-440-0450

REVISIONS

NO.	NAME	DATE

BUILDING CODE LEGEND



BUILDING CODE INFORMATION

APPLICABLE CODES	
2015 INTERNATIONAL BUILDING CODE	2021 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL FIRE CODE	2021 UNIFORM PLUMBING CODE
2012 INTERNATIONAL ENERGY CONSERVATION CODE	2020 NATIONAL ELECTRICAL CODE
2010 AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN	CURRENT CITY ORDINANCE

PROJECT SUMMARY	
BUILDING SUMMARY:	CHILDCARE FACILITY SERVING CHILDREN INFANT THROUGH 4 YRS OLD, AND PRESCHOOL CLASSROOMS
BUILDING USE:	CHILDCARE & PRESCHOOL
BUILDING CONSTRUCTION TYPE:	V-B
AUTOMATIC SPRINKLER SYSTEM:	NO

CHAPTER 3 USE & OCCUPANCY CLASSIFICATION		
GROUP	SECTION	DESCRIPTION
E	305.2	DAYCARE FACILITIES

CHAPTER 5 GENERAL BUILDING HEIGHTS & AREAS			
ALLOWABLE VALUES		ACTUAL VALUES	
HEIGHT (STORIES/FEET)	1 STORY / 40 FT.	HEIGHT (STORIES/FEET)	1 STORY / 17 FT.
AREA (TABULAR)	9,500 S.F.		
FRONTAGE INCREASE	4.275		
STORIES (S.)	x1		
TOTAL AREA	13,775 S.F.	AREA - TOTAL	11,004 S.F.

AREA CALCULATIONS
 $h = [F/P - 25] W/30 = [323/459 - 25] 30/30 = 45\%$
 $A_n = [A_r + (N5 \times h)] = 9,500 + (9,500 \times 45\%) = 13,775 S.F.$

CHAPTER 6 TYPES OF CONSTRUCTION			
TABLE 601: FIRE RESISTIVE RATING REQUIREMENTS FOR BUILDING ELEMENTS			
GROUP	CONST. TYPE	BUILDING ELEMENT	RATING (HOURS)
E	V-B	PRIMARY STRUCTURAL FRAME	0
		BEARING WALLS - EXTERIOR	0
		BEARING WALLS - INTERIOR	0
		NONBEARING WALLS - EXTERIOR	0
		NONBEARING WALLS - INTERIOR	0
		FLOOR CONSTRUCTION	0
		ROOF CONSTRUCTION	0
TABLE 602: FIRE RESISTIVE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE			
GROUP	CONST. TYPE	BUILDING ELEMENT	RATING (HOURS)
E	V-B	$x \geq 30$	0
E	V-B	$x \leq 5$	1

CHAPTER 7 FIRE & SMOKE PROTECTION FEATURES		
OPENINGS: TABLE 705.8		
FSD	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA
30 FT. OR GREATER	UNPROTECTED, NONSPRINKLERED	NO LIMIT

CHAPTER 9 FIRE PROTECTION SYSTEMS	
GROUP	FIRE AREA
E	< 12,000 SF
AUTOMATIC SPRINKLER SYSTEM NOT REQUIRED, NOT PROVIDED	
FIRE EXTINGUISHER	
MOUNT W/ HANDLE @ 48" AFF	

CHAPTER 10 MEANS OF EGRESS		
MIN. NUMBER OF EXITS OR ACCESS TO EXITS PER STORY		
STORY/LEVEL	REQUIRED	PROVIDED
MAIN LEVEL	2	10
EXITS ACCESS TRAVEL DISTANCE		
GROUP	MAX. ALLOWABLE	MAX. ACTUAL
E	200 FT.	75 FT.
CORRIDOR FIRE RESISTANCE RATING		
GROUP	NOT REQ'D - ALL ROOMS EXIT DIRECTLY OUTSIDE	
E		

UNIFORM PLUMBING CODE PLUMBING FIXTURES		
OCCUPANT LOADS FOR DETERMINING REQUIRED PLUMBING FIXTURES		
NON-ACCESSORY ROOMS	113 OCCUPANTS DAYCARE 88 OCCUPANTS PRESCHOOL	
FIXTURE TYPE	REQUIRED	PROVIDED
WATER CLOSETS	10	10
URINALS	0	0
LAVATORIES	10	10
DRINKING FOUNTAINS	2	2
SERVICE SINKS	1	1

LOCUST ST.

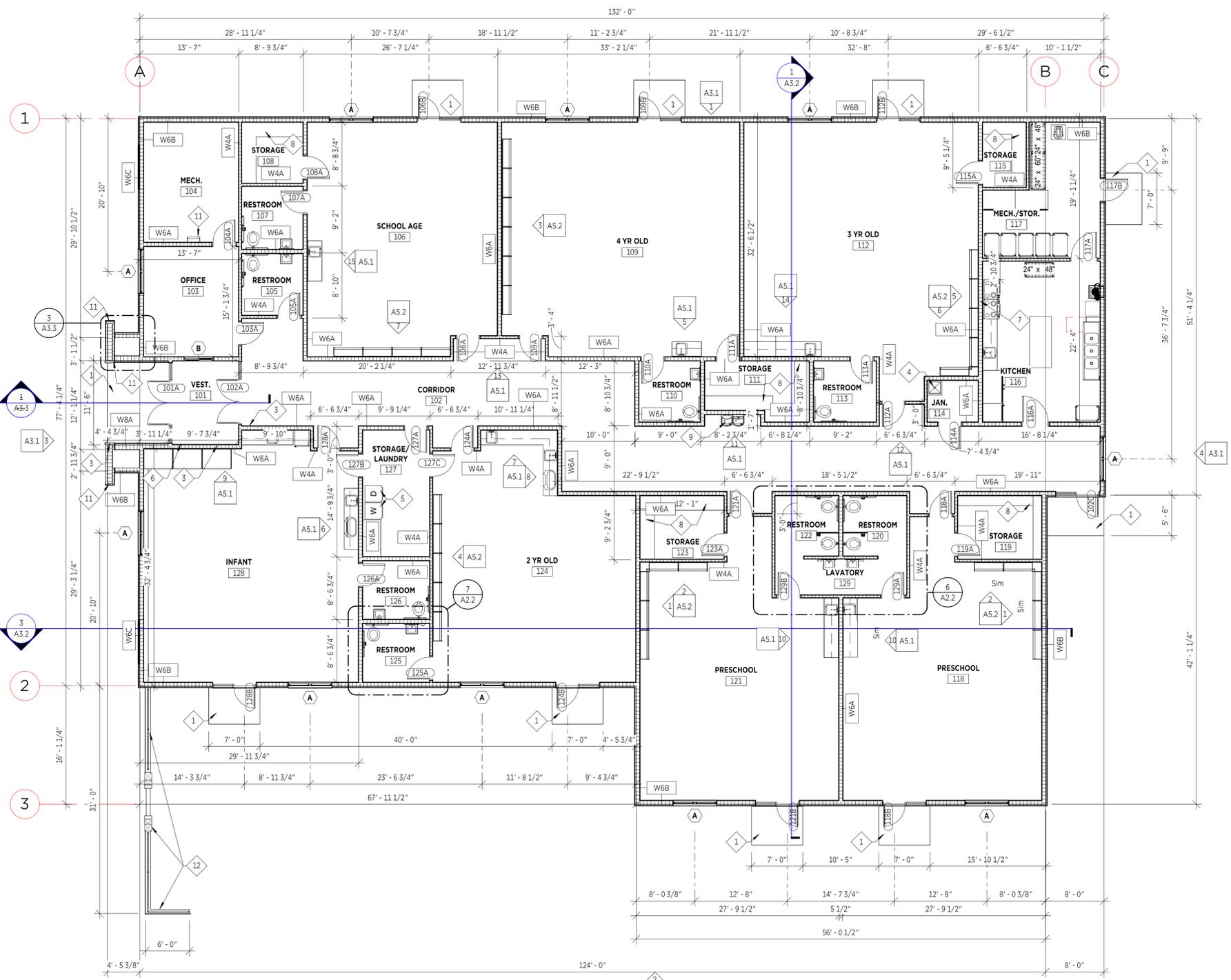
EXISTING PUBLIC ALLEY

WASHINGTON ST.

1 BUILDING INFORMATION PLAN

A1.1 SCALE: 1/8" = 1'-0"

REVISIONS		
NO.	NAME	DATE



GENERAL NOTES

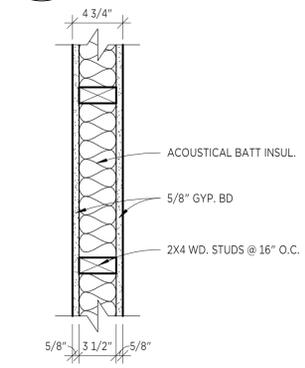
- PRIOR TO PROCEEDING WITH THE WORK, THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
- IT IS NOT THE INTENT OF THE DRAWINGS TO SET FORTH IN DETAIL OR TO OTHERWISE DIRECT EVERY ITEM PROPERLY NECESSARY TO THE COMPLETION OF THIS PROJECT. THE CONTRACTOR MUST RECOGNIZE THAT IT IS HIS SOLE RESPONSIBILITY TO BE FULLY QUALIFIED FOR THE WORK AND THAT HE MUST WITHOUT DIRECTION, ACCOMPLISH EVERYTHING NECESSARY SO AS TO PROVIDE A GOOD AND WORKMANLIKE CONSTRUCTION COMPLETE IN EVERY NECESSARY RESPECT AND IN ACCEPTABLE CONDITIONS, READY FOR USE WITHOUT ANY ADDITIONAL WORK BEING REQUIRED OTHER THAN EXPLICITLY STATED IN THE CONTRACTOR'S PROPOSAL.
- ALL NEW MATERIAL SHALL NOT CONTAIN ASBESTOS - CONTRACTOR SHALL VERIFY W/ SUPPLIERS & SUBCONTRACTORS. PROVIDE VERIFICATION DOCUMENTATION TO ARCHITECT.
- THE CONTRACTOR SHALL USE THE DIMENSIONS AS NOTED ON THE DRAWINGS. IF A REQUIRED DIMENSION IS NOT NOTED ON THE DRAWINGS, THE CONTRACTOR SHALL CONTACT THE ARCHITECT FOR CLARIFICATION. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS TO FIND A DIMENSION.
- ELEVATIONS ARE REFERENCED TO THE TOP OF THE CONCRETE FLOOR SLAB - ELEV. 0'-0" (ALL DRAWINGS EXCEPT SITE PLAN).
- PROPERLY PREPARE ALL SURFACES TO RECEIVE A FINISH.
- SEE STRUCTURAL DRAWINGS FOR: CONCRETE FLOOR & SLAB THICKNESS AND REINFORCING, WALL REINFORCING, ROOF FRAMING, WALL FRAMING, AND OTHER STRUCTURAL DETAILS AND INFORMATION.
- SLOPE CONCRETE PLATFORM SLABS 1/4" PER FOOT AWAY FROM THE BUILDING.
- EXPANSION JOINTS: 1/2" EXPANSION JOINT FILLER HELD 1/2" BELOW TOP OF CONCRETE SLAB, APPLY SEALANT OVER, FURNISH & INSTALL AT:
 - JUNCTION OF INTERIOR CONCRETE SLAB AND EXTERIOR WALLS
 - JUNCTION OF EXTERIOR CONCRETE SLAB AND EXTERIOR WALLS
 - OTHER AREAS AS DESIGNATED ON THE DRAWINGS OR REQUIRED TO ACCOMMODATE BUILDING MOVEMENT
- SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL REQUIRED MECHANICAL AND ELECTRICAL OPENINGS.
- PRIOR TO PLACEMENT OF CONCRETE SLABS, CONTRACTOR SHALL PLACE PLASTIC SHEATHING AT THE BOTTOM OF ADJACENT WALLS TO PROTECT THE WALLS FROM CONCRETE SPLATTERS.
- CONTRACTOR SHALL REMOVE AND REPAIR ALL ITEMS DAMAGED BY THE PROJECT WORK AT NO EXPENSE TO THE OWNER.
- FURNISH & INSTALL SEALANT WHERE DISSIMILAR MATERIALS MEET.
- PROVIDE & INSTALL 2X WD BLKG AT ALL WALL MOUNTED FIXTURES SUCH AS CABINETS, GRAB BARS, PLUMBING FIXTURES, KITCHEN EQUIPMENT, DOOR STOPS, ETC.
- DIMENSIONS ARE TO FACE OF STUD
- FURNISH & INSTALL BLKG IN STUD CAVITIES AS REQ. TO MAINTAIN CAVITY HEIGHT OF 10'-0" MAX.

FLOOR PLAN KEYED NOTES

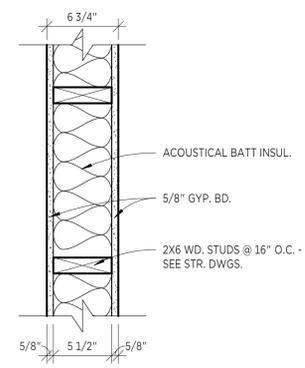
- REINF. CONC. PLATFORM SLAB - SLOPE AWAY FROM BUILDING @ 1/4" PER. 1'-0" - SEE 7/A3.4 & STR. DWGS.
- FIRE ALARM PANEL - SEE ELEC. DWGS.
- AUTO. DOOR OPENER - SEE ELEC. DWGS.
- MOP SINK - SEE MECH DWGS.
- WASHER & DRYER, BY OWNER (N.I.C.)
- CABINET UNIT HEATER - SEE ELEC. DWGS
- NON-COMBUSTIBLE WALL ASSEMBLY MTL. STUDS IN LEIU OF WOOD STUDS - 24" BEYOND HOOD
- (4) 14" D MELAMINE SHELVES W/ STANDARDS & BRACKETS @ 36" O.C.
- ELEC. WATER COOLER - SEE MECH. DWGS.
- WRAP EIFS AROUND CORNER
- STL. LADDER
- ALT. NO. 1- LANDSCAPE WALL

1 FLOOR PLAN

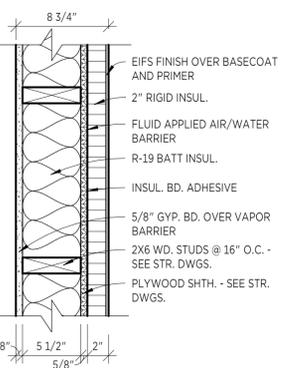
A2.1 SCALE: 1/8" = 1'-0"



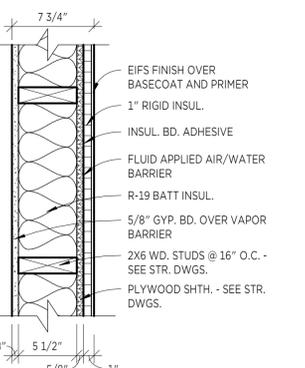
WALL TYPE - W4A



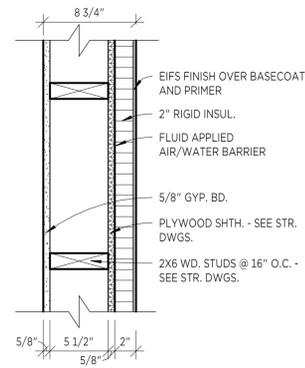
WALL TYPE - W6A



WALL TYPE - W6B



WALL TYPE - W6C



WALL TYPE - W8A

REVISIONS		
NO.	NAME	DATE

Autodesk Docs://Colfax-Mingo Childcare Center/2025-055 Colfax-Mingo Childcare Center - Atura - DD.rvt

NO.	DOOR				FIRE RATE	FRAME				DETAILS			HDW SET	REMARKS
	SIZE	MATL	TYPE	GL		MATL	TYPE	GL	WTH	HEAD	JAMB	SILL		
101A	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	C	B	4 1/2"	9-A8.1	14-A8.1		1.0	
102A	3'-0" x 7'-0" x 1 3/4"	ALUM	B	C		ALUM	D	C	4 1/2"	13-A8.1	15-8A.1		2.0	
102C	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	B	B	4 1/2"	1-A8.1	3-8A.1		5.0	
103A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	6-A8.1 SIM.		13.0	
104A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		8 3/4"	2-A8.1	5-A8.1		10.0	
105A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	5-A8.1		15.0	
106A	3'-0" x 7'-0" x 1 3/4"	WD	C	C		HM	A		5 3/4"	2-A8.1	7-A8.1		8.0	
106B	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	B	B	4 1/2"	1-A8.1	3-8A.1		3.0	
107A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	6-A8.1		16.0	
108A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	6-A8.1		12.0	
109A	3'-0" x 7'-0" x 1 3/4"	WD	C	C		HM	A		5 3/4"	2-A8.1	7-A8.1		8.0	
109B	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	B	B	4 1/2"	1-A8.1	3-8A.1		3.0	
110A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	6-A8.1		16.0	
111A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	6-A8.1		11.0	
112A	3'-0" x 7'-0" x 1 3/4"	WD	C	C		HM	A		5 3/4"	2-A8.1	5-A8.1		8.0	
112B	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	B	B	4 1/2"	1-A8.1	3-8A.1		3.0	
113A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	7-A8.1		16.0	
114A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	4-A8.1		9.0	
115A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	6-A8.1		11.0	
116A	3'-6" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	4-A8.1		7.0	
117A	3'-6" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	5-A8.1		14.0	
117B	3'-0" x 7'-0" x 1 3/4"	HM	A			HM	A		8 3/4"	1-A8.1	3-8A.1		6.0	
118A	3'-0" x 7'-0" x 1 3/4"	WD	C	C		HM	A		5 3/4"	2-A8.1	5-A8.1		8.0	
118B	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	B	B	4 1/2"	1-A8.1	3-8A.1		4.0	
119A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	7-A8.1		11.0	
121A	3'-0" x 7'-0" x 1 3/4"	WD	C	C		HM	A		5 3/4"	2-A8.1	5-A8.1		8.0	
121B	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	B	B	4 1/2"	1-A8.1	3-8A.1		4.0	
123A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	7-A8.1		11.0	
124A	3'-0" x 7'-0" x 1 3/4"	WD	C	C		HM	A		5 3/4"	2-A8.1	7-A8.1		8.0	
124B	3'-0" x 7'-0" x 1 3/4"	ALUM	B	B		ALUM	B	B	4 1/2"	1-A8.1	3-8A.1		4.0	
125A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	5-A8.1		16.0	
126A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	6-A8.1		16.0	
127A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	7-A8.1		10.0	
127B	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		7 3/4"	2-A8.1	6-A8.1		12.0	
127C	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	6-A8.1		12.0	
128A	3'-0" x 7'-0" x 1 3/4"	WD	C	C		HM	A		5 3/4"	2-A8.1	7-A8.1		8.0	
128B	3'-0" x 7'-0" x 1 3/4"	ALUM	B	A		ALUM	B	A	4 1/2"	1-A8.1	3-8A.1		4.0	
129A	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	7-A8.1		17.0	
129B	3'-0" x 7'-0" x 1 3/4"	WD	A			HM	A		5 3/4"	2-A8.1	7-A8.1		17.0	

NO.	ROOM	BASE	FLOOR	WALLS				CEILING		REMARKS
				N	S	E	W	FINISH	HEIGHT	
101	VEST.	V	LVT	PNT	PNT	PNT	PNT	ACT	10'-0"	
102	CORRIDOR	V	LVT	PNT	PNT	PNT	PNT	ACT	10'-0"	
103	OFFICE	V	LVT	PNT	PNT	PNT	PNT	ACT	10'-0"	
104	MECH.	V	SC							
105	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	GYP. BD. @ BOT. OF ROOF TRUSS - TAPE & MUD ALL JOINTS
106	SCHOOL AGE	V	LVT/CPT	PNT	PNT	PNT	PNT	ACT	9'-4"/10'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
107	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	10'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
108	STORAGE	V	LVT	PNT	PNT	PNT	PNT	ACT	10'-0"	
109	4 YR OLD	V	LVT/CPT	PNT	PNT	PNT	PNT	ACT	9'-4"/10'-0"	
110	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	10'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
111	STORAGE	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	
112	3 YR OLD	V	LVT/CPT	PNT	PNT	PNT	PNT	ACT	9'-4"/10'-0"	
113	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
114	JAN.	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	
115	STORAGE	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	
116	KITCHEN	EPOX	EPOXY	PNT	PNT	PNT	PNT	ACT	10'-0"	
117	MECH./STOR.	EPOX	EPOXY	PNT	PNT	PNT	PNT			GYP. BD. @ BOT. OF ROOF TRUSS - PAINT
118	PRESCHOOL	V	LVT/CPT	PNT	PNT	PNT	PNT	ACT	9'-4"/10'-0"	
119	STORAGE	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	
120	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
121	PRESCHOOL	V	LVT/CPT	PNT	PNT	PNT	PNT	ACT	9'-4"/10'-0"	
122	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
123	STORAGE	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	
124	2 YR OLD	V	LVT/CPT	PNT	PNT	PNT	PNT	ACT	9'-4"/10'-0"	
125	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
126	RESTROOM	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0"
127	STORAGE/LAUNDRY	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	
128	INFANT	V	LVT/CPT	PNT	PNT	PNT	PNT	ACT	9'-4"/10'-0"	
129	LAVATORY	V	LVT	PNT	PNT	PNT	PNT	ACT	9'-0"	WAINSCOT WALL PROTECTION FLOR TO +4'-0" @ NORTH WALL ONLY

GLAZING SCHEDULE

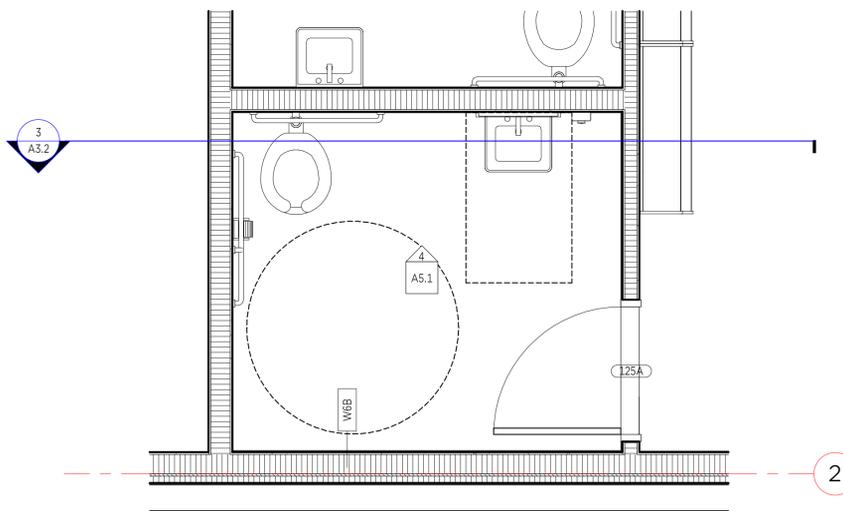
- A 1" INSULATED GLASS
- B 1" TEMPERED INSULATED GLASS
- C 1/4" TEMPERED GLASS

SCHEDULE ABBREVIATIONS

- ACT ACOUSTIC CEILING TILE
- FRP FIBERGLASS REINFORCED PLASTIC BOARD
- HM HOLLOW METAL
- LVT LUXURY VINYL TILE
- PNT PAINT
- SC SEALED CONCRETE
- CPT CARPET
- ALUM ALUMINUM
- EPOX EPOXY

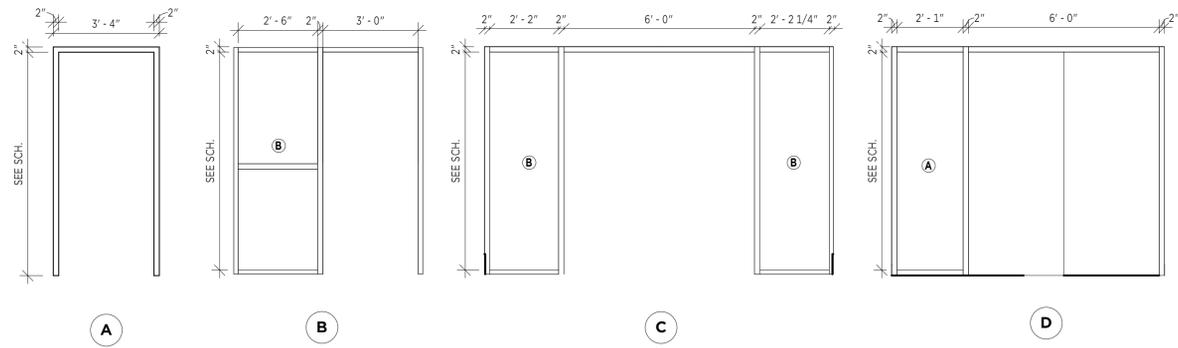
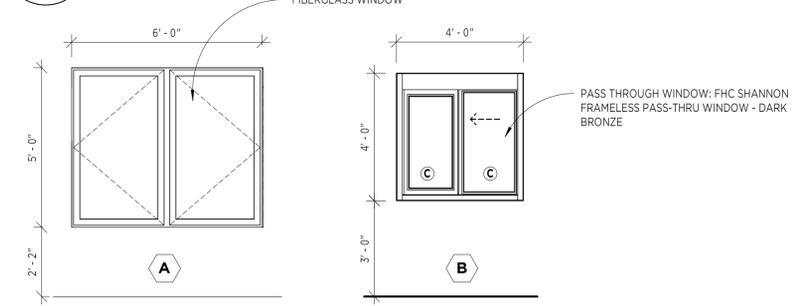
6 ENLARGED TOILET PLAN

A2.2 SCALE: 1/2" = 1'-0"

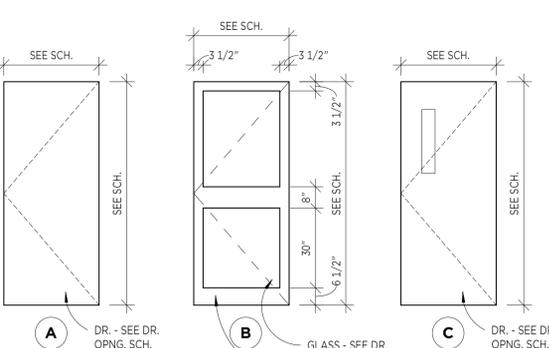


7 TYP. RESTROOM

A2.2 SCALE: 1/2" = 1'-0"



DOOR FRAME TYPES



DOOR TYPES

WINDOW TYPES



STRUCT ENGINEER
APEX STRUCTURAL, LLC
373 Collins Road NE #302
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER
KEDBLUESTONE
5518 NW 88th St.
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER
CIVIL DESIGN ADVANTAGE
4121 NW Urbandale Drive
Urbandale, IA 50322
Ph. 515-369-4400

FOODSERVICE
ADVANCED FOODSERVICE CONSULTING
6201 S. Gateway Drive
Marion, IA 52302
Ph. 319-440-0450

REVISIONS		
NO.	NAME	DATE

WALL FINISHED LEGEND

ABV.	TYPE	ELEV. TAG	LINE STYLE	MANUFACT.	STYLE	COLOR	SIZE	NOTES
PT-1	PAINT	PT-1	—	SHERWIN WILL.	SW 6785	QUENCH BLUE		
PT-2	PAINT	PT-2	—	SHERWIN WILL.	SW 9011	SUN BLEACHED OCHRE		
PT-3	PAINT	PT-3	—	SHERWIN WILL.	SW 7029	AGREEABLE GRAY		
WS-1	WAINSCOT	WS-1	—	INPRO	PROTECTIVE WALL COVERING	STANDARD TAD	FLOOR TO +4'0"	
CL-1	PAINT	CL-1	—	SHERWIN WILL.	SW 6785	QUENCH BLUE		
CL-2	PAINT	CL-2	—	SHERWIN WILL.	SW 9011	SUN BLEACHED OCHRE		CEILING TRANSITION TRIM - SEE REFLECTED CEILING PLAN

FLOOR FINISH SCHEDULE

HATCH	TAG	TYPE	MANUFACT.	STYLE	COLOR	SIZE	INSTALL
CPT-1	CARPET-TILE	INTERFACE		DETOURS	WALNUT 104722	19.5"X19.5"	
LVT	LUXURY VINYL	PHILADELPHIA COMMERCIAL	COLOR SCOPE 20	MANDARIN 00600		6"x48"	HALF-LAP: EAST WEST
LVT	LUXURY VINYL	PHILADELPHIA COMMERCIAL	PURVIEW 20	ECRU 00110		6"x48"	HALF-LAP: EAST WEST
EPOX	EPOXY				TBD		
SC	SEALED CONCRETE						

FINISH NOTES

- ALL INTERIOR WALLS THAT DO NOT HAVE A PAINT COLOR SPECIFIED ON THE FINISH PLAN SHALL BE PAINTED WITH AGREEABLE GRAY SW 7029



1 FLOOR PLAN
A2.3 SCALE: 1/8" = 1'-0"

STRUCTURAL ENGINEER

APEX STRUCTURAL, LLC
 373 Collins Road NE #102
 Cedar Rapids, IA 52402
 Ph. 319-294-2739

MEP ENGINEER

KEDLUESTONE
 5518 NW 88th St.
 Johnston, IA 50131
 Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
 4121 NW Urbandale Drive
 Urbandale, IA 50322
 Ph. 515-369-4400

FOODSERVICE

ADVANCED FOODSERVICE CONSULTING
 6201 S. Gateway Drive
 Marion, IA 52302
 Ph. 319-440-0450

REVISIONS

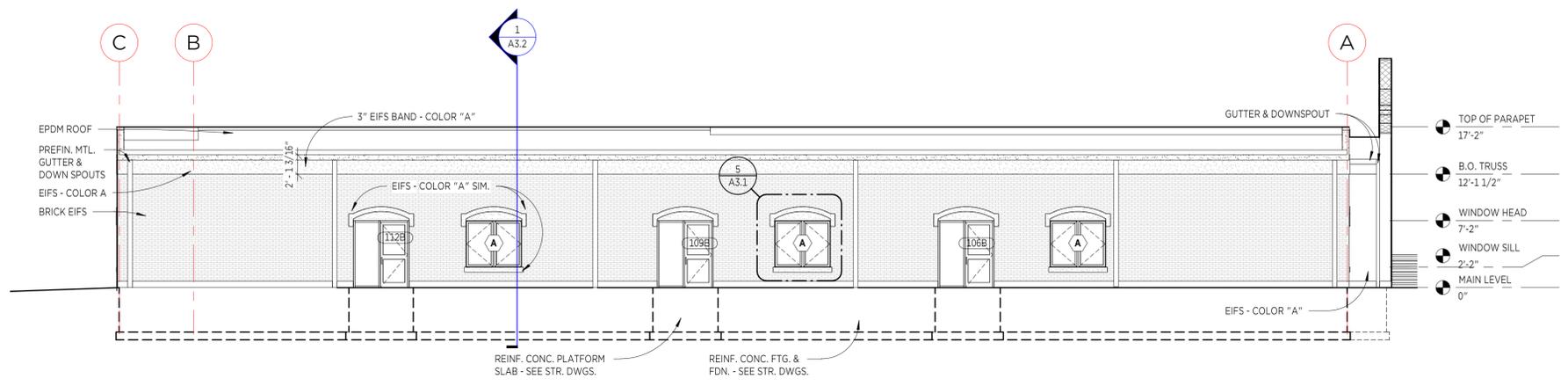
NO.	NAME	DATE

DATE

MAY 8, 2025

SHEET

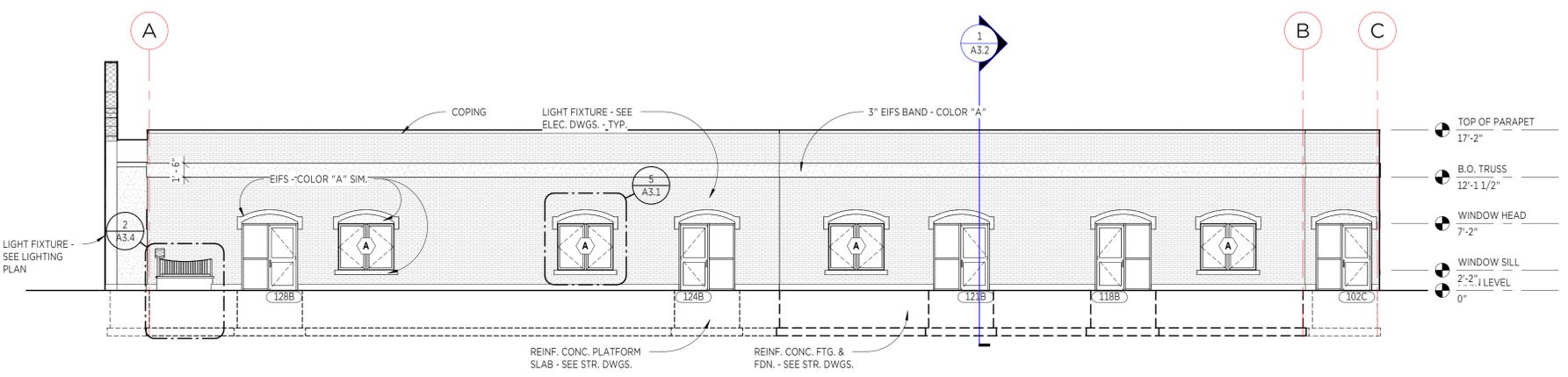
A2.3



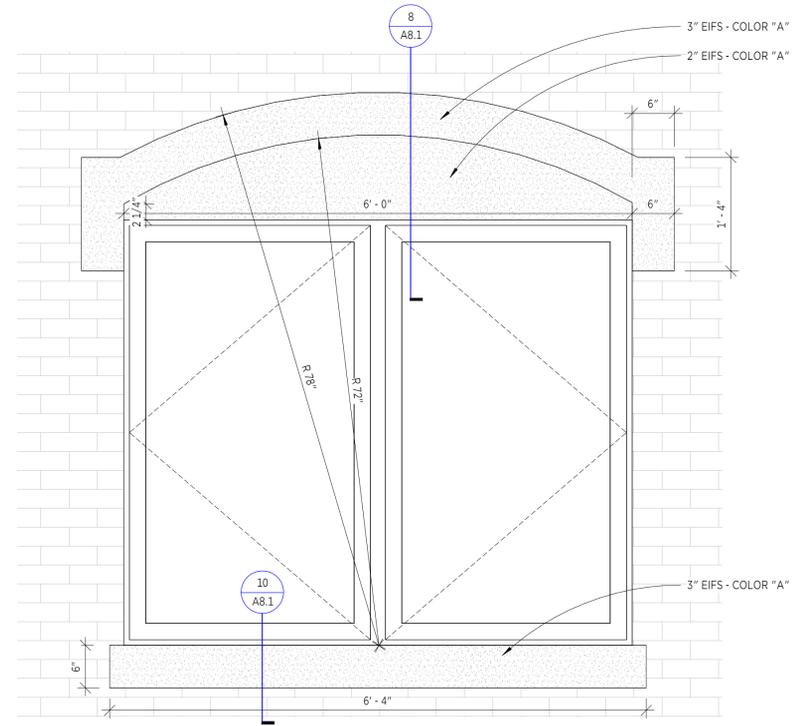
1 NORTH ELEVATION
A3.1 SCALE: 1/8" = 1'-0"

EXTERIOR FINISH LEGEND

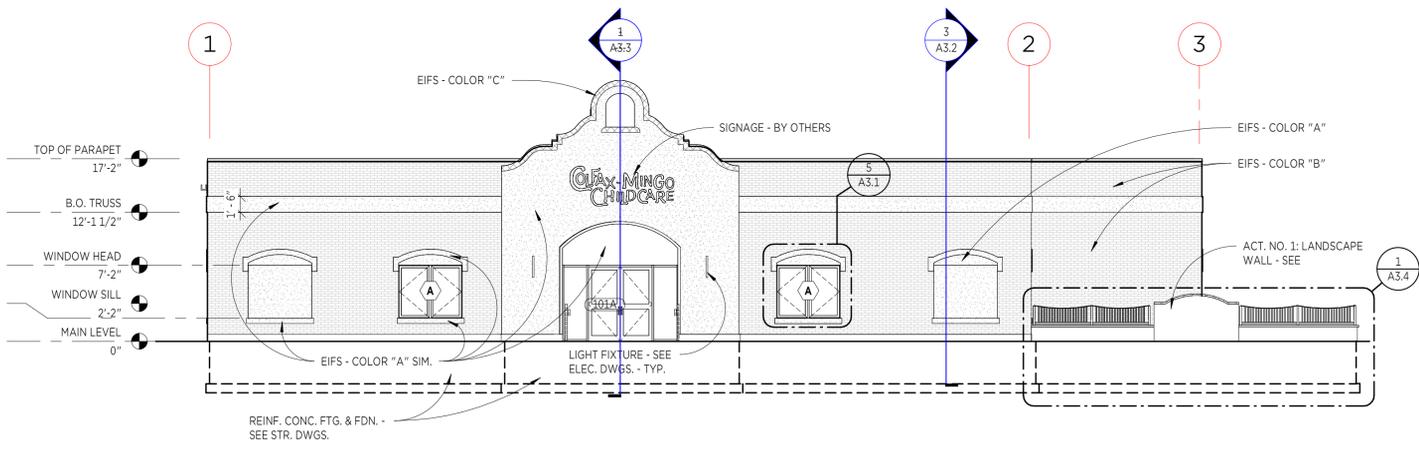
EXTERIOR FINISH LEGEND	
COPING CAP - 1	COLOR - DARK BRONZE
GUTTER - 1	COLOR - DARK BRONZE
DOWNSPOUT - 1	COLOR - DARK BRONZE
EIFS - COLOR "A" - GREEK VILLA, SW	
EIFS - COLOR "B" - SAVANNAH, STO	
EIFS - COLOR "C" - PEPPERCORN, SW	



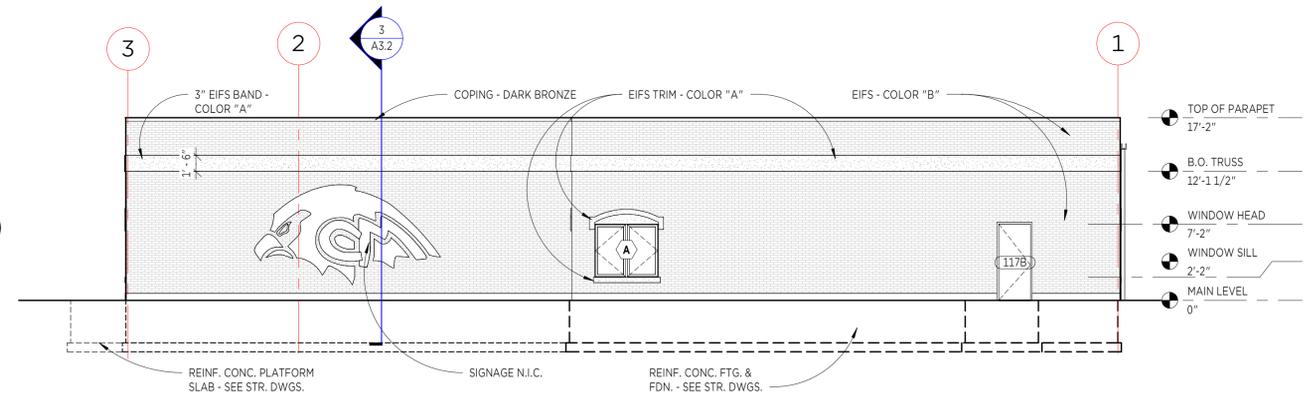
2 SOUTH ELEVATION
A3.1 SCALE: 1/8" = 1'-0"



5 EIFS DETAIL @ WINDOW/DOOR
A3.1 SCALE: 1" = 1'-0"



3 WEST ELEVATION
A3.1 SCALE: 1/8" = 1'-0"



4 EAST ELEVATION
A3.1 SCALE: 1/8" = 1'-0"

STRUCT ENGINEER
 APEX STRUCTURAL, LLC
 373 Collins Road NE #302
 Cedar Rapids, IA 52402
 Ph. 319-294-2739

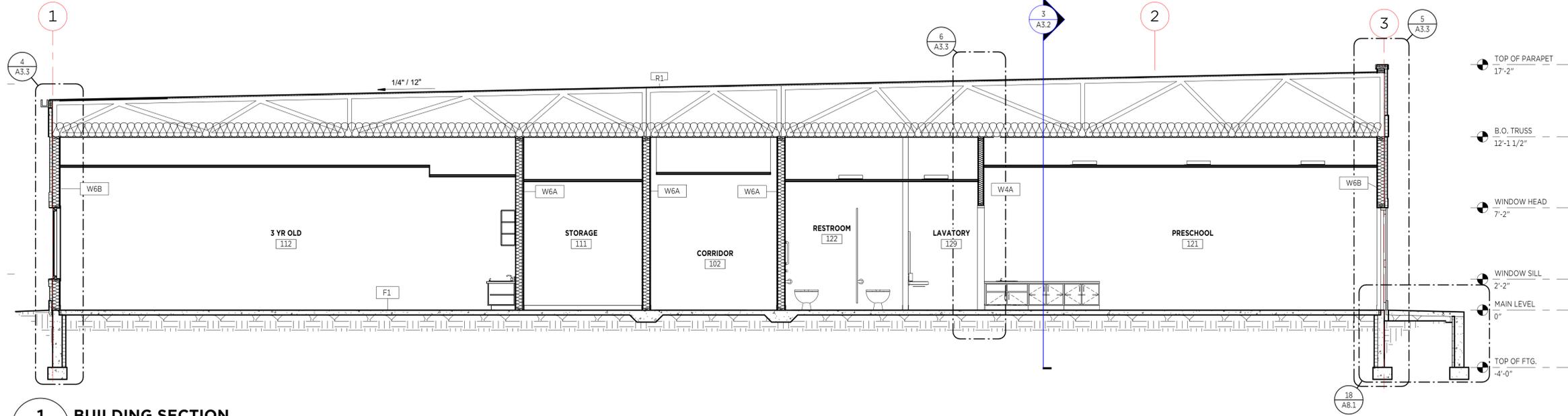
MEP ENGINEER
 KEDBLUESTONE
 5518 NW 88th St.
 Johnston, IA 50131
 Ph. 515-727-0700

CIVIL ENGINEER
 CIVIL DESIGN ADVANTAGE
 4121 NW Urbandale Drive
 Urbandale, IA 50322
 Ph. 515-369-4400

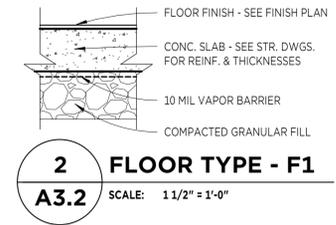
FOODSERVICE
 ADVANCED FOODSERVICE CONSULTING
 6201 S. Gateway Drive
 Marion, IA 52302
 Ph. 319-440-0450

REVISIONS

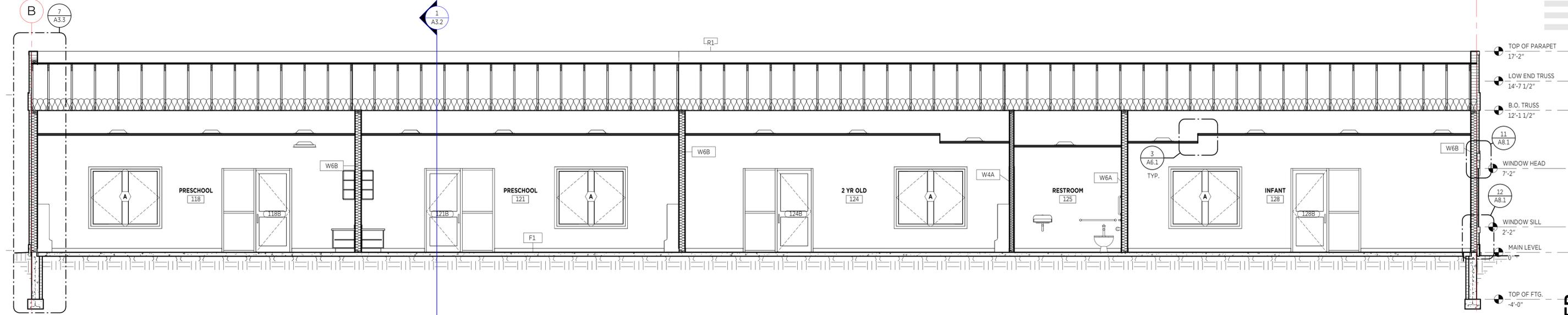
NO.	NAME	DATE



1 BUILDING SECTION
A3.2 SCALE: 1/4" = 1'-0"



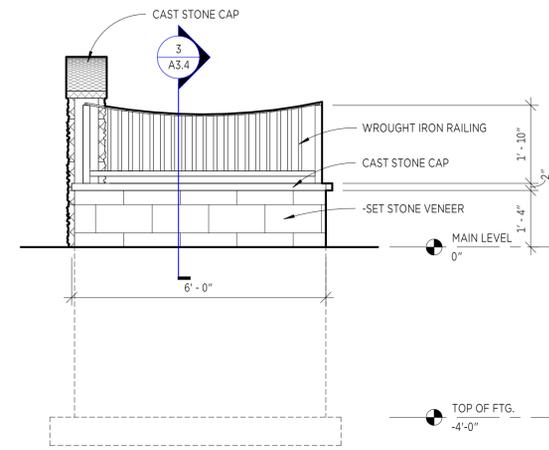
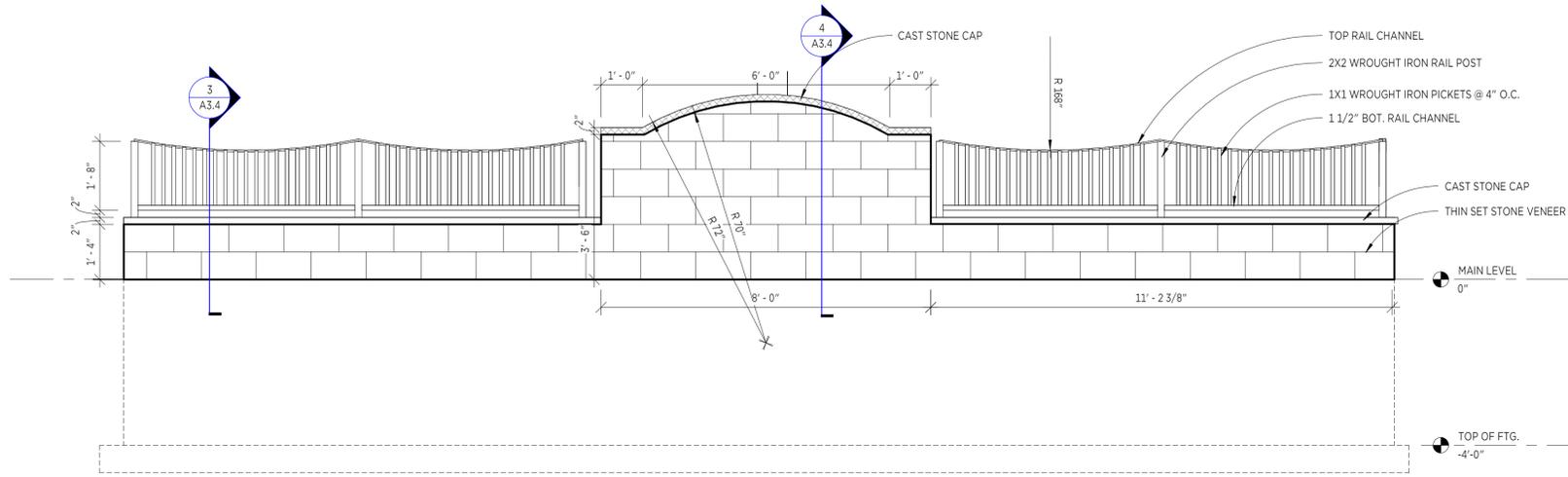
2 FLOOR TYPE - F1
A3.2 SCALE: 1 1/2" = 1'-0"



3 BUILDING SECTION
A3.2 SCALE: 1/4" = 1'-0"

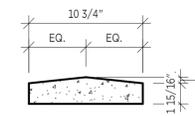
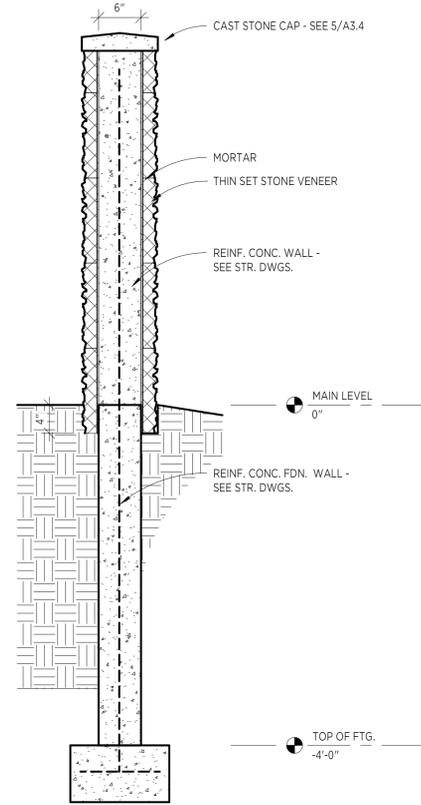
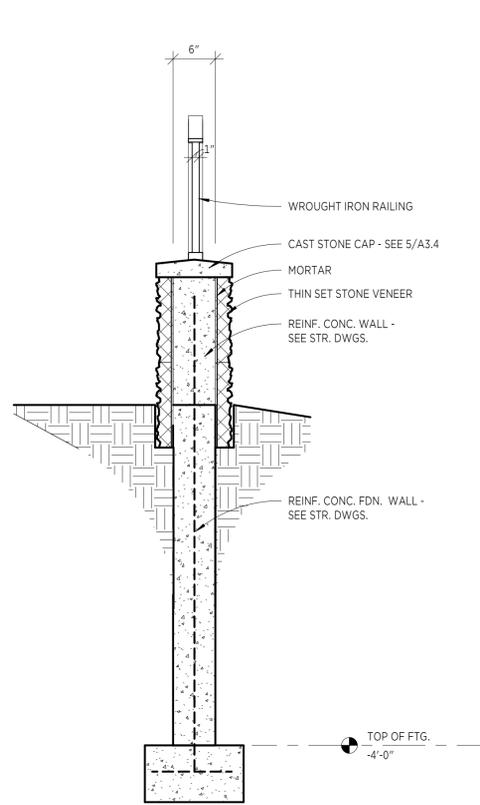
- STRUCT ENGINEER**
 APEX STRUCTURAL, LLC
 373 Collins Road NE #302
 Cedar Rapids, IA 52402
 Ph. 319-294-2739
- MEP ENGINEER**
 KEDLESTONE
 5518 NW 88th St.
 Johnston, IA 50131
 Ph. 515-727-0700
- CIVIL ENGINEER**
 CIVIL DESIGN ADVANTAGE
 4121 NW Urbandale Drive
 Urbandale, IA 50322
 Ph. 515-369-4400
- FOODSERVICE**
 ADVANCED FOODSERVICE CONSULTING
 6201 S. Gateway Drive
 Marion, IA 52302
 Ph. 319-440-0450

REVISIONS		
NO.	NAME	DATE



1 ALT. NO. 1 LANDSCAPE WALL WEST ELEVATION
A3.4 SCALE: 1/2" = 1'-0"

2 ALT. NO. 1 LANDSCAPE WALL SOUTH ELEVATION
A3.4 SCALE: 1/2" = 1'-0"



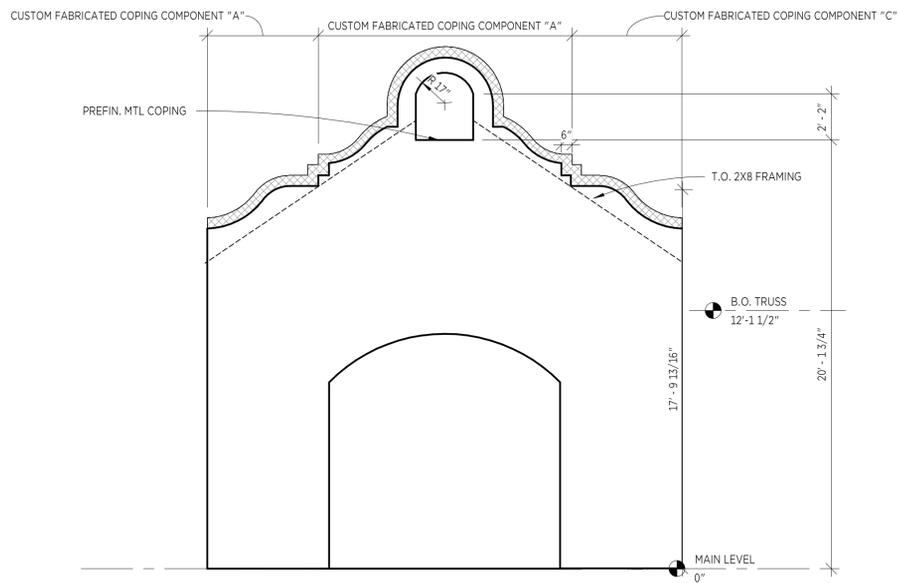
3 ALT. NO. 1 LANDSCAPE WALL SECTION
A3.4 SCALE: 1" = 1'-0"

4 ALT. NO. 1 LANDSCAPE WALL SECTION
A3.4 SCALE: 1" = 1'-0"

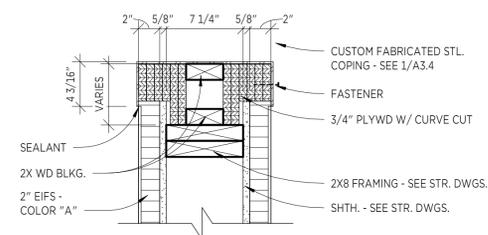
5 CAST STONE CAP
A3.4 SCALE: 1 1/2" = 1'-0"

REVISIONS

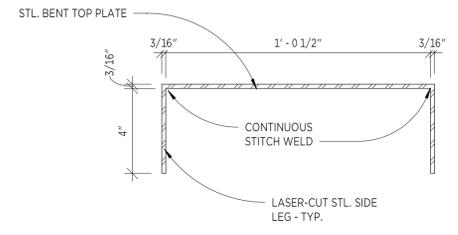
NO.	NAME	DATE



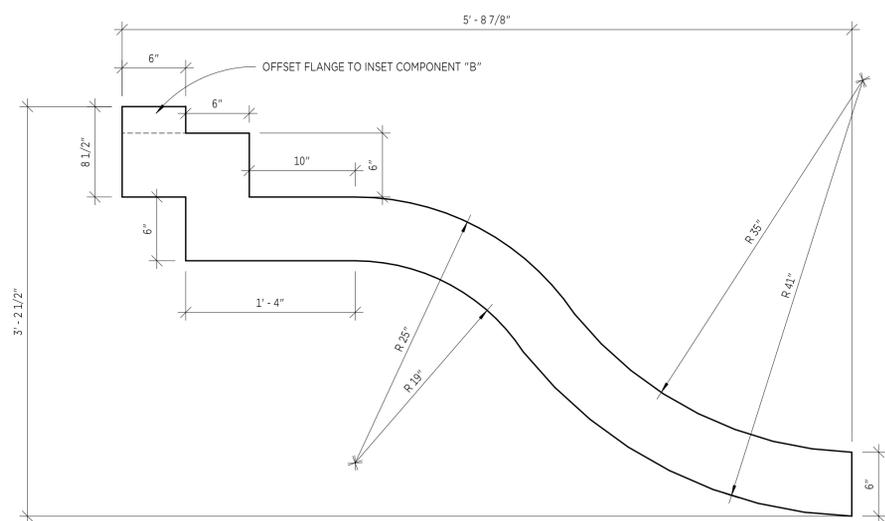
1 SECTION @ ENTRY
A3.5 SCALE: 1/4" = 1'-0"



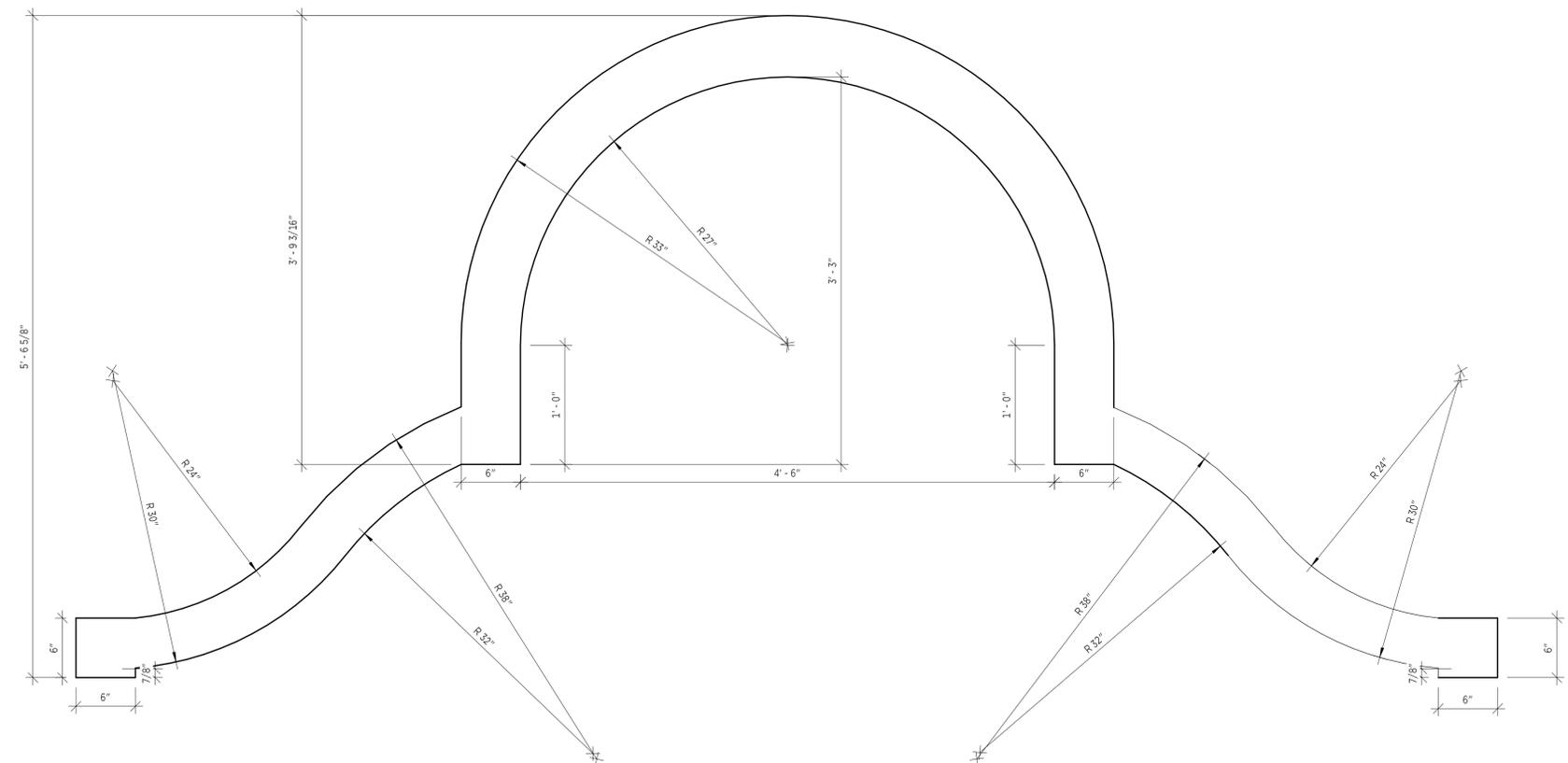
2 PARAPET WALL
A3.5 SCALE: 1 1/2" = 1'-0"



3 CUSTOM FABRICATED COPING
A3.5 SCALE: 3" = 1'-0"



4 COPING COMPONENT "A" COMPONENT "C" MIRRORED
A3.5 SCALE: 1 1/2" = 1'-0"



5 COPING COMPONENT "B"
A3.5 SCALE: 1 1/2" = 1'-0"

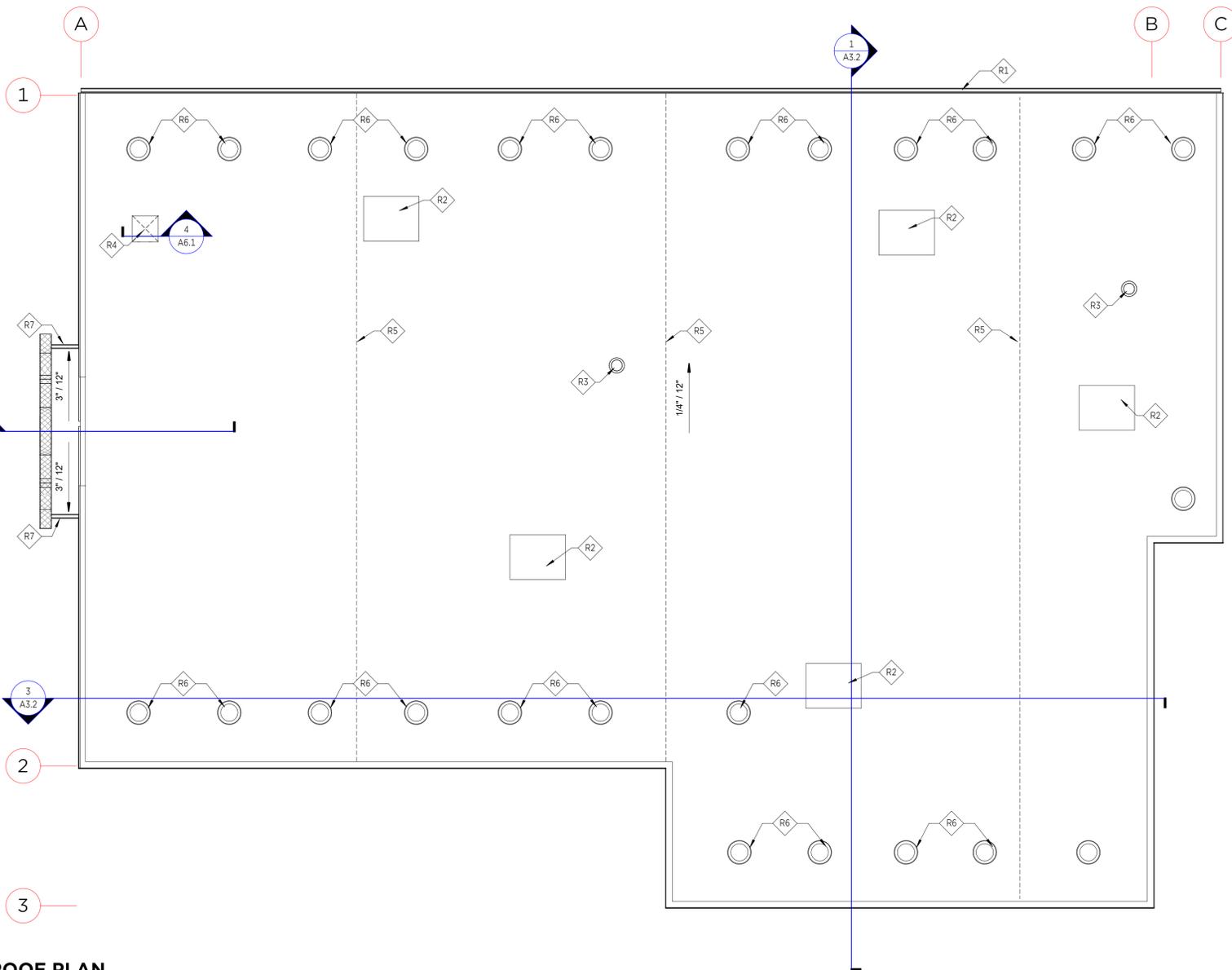
STRUCT ENGINEER
 APEX STRUCTURAL, LLC
 373 Collins Road NE #302
 Cedar Rapids, IA 52402
 Ph. 319-294-2739

MEP ENGINEER
 KEDBLUESTONE
 5518 NW 88th ST.
 Johnston, IA 50131
 Ph. 515-727-0700

CIVIL ENGINEER
 CIVIL DESIGN ADVANTAGE
 4121 NW Urbandale Drive
 Urbandale, IA 50322
 Ph. 515-369-4400

FOODSERVICE
 ADVANCED FOODSERVICE CONSULTING
 6201 S. Gateway Drive
 Marion, IA 52302
 Ph. 319-440-0450

REVISIONS		
NO.	NAME	DATE



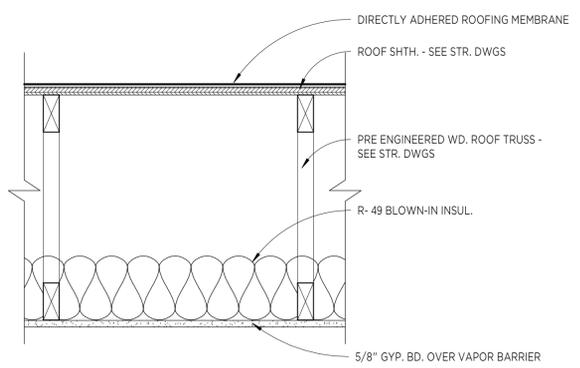
ROOF PLAN GENERAL NOTES

1. REFERENCE ROOF KEY PLAN FOR ROOFING, INSUL., AND RELATED WORK.
2. ARROWS INDICATE THE DIRECTION OF DOWNWARD SLOPE.
3. SEE MECH DRAWINGS FOR MECH. UNITS, OPENINGS, PENETRATIONS, CURBS, CONDUIT, ETC.
4. ROOF INSUL. SHALL BE R-49 BLOWN IN INSULATION AS SHOWN - UNLESS OTHERWISE NOTED.

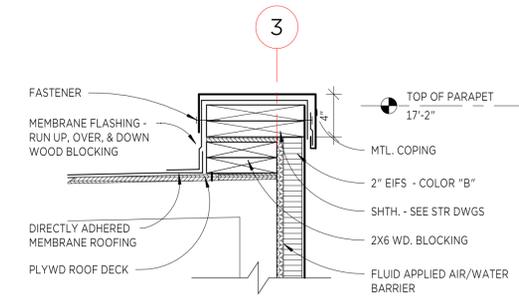
ROOF PLAN KEYED NOTES

- ◊ R1 6"x8" PREFIN. MTL. DOWNSPOUT.
- ◊ R2 ROOF TOP UNIT - SEE MECH. DWGS.
- ◊ R3 ROOF TOP VENT - SEE MECH. DWGS.
- ◊ R4 ROOF ACCESS HATCH
- ◊ R5 DRAFTSTOPPING: 5/8" GYP.BD. ATTACHED TO SIDE OF ENGINEERED ROOF TRUSS - DRAFTSTOPPING AREA 3,000 SF MAX.
- ◊ R6 ROOF VENT W/ FREE VENTILATED AREA: 450 SQ. IN. MIN.
- ◊ R7 4"x4" PREFIN MTL. DOWNSPOUT

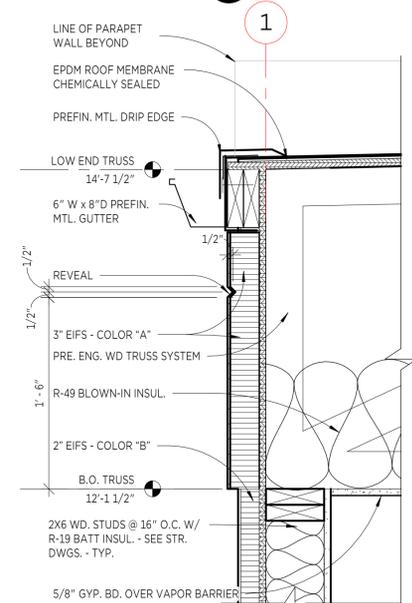
1 ROOF PLAN
A4.1 SCALE: 1/8" = 1'-0"



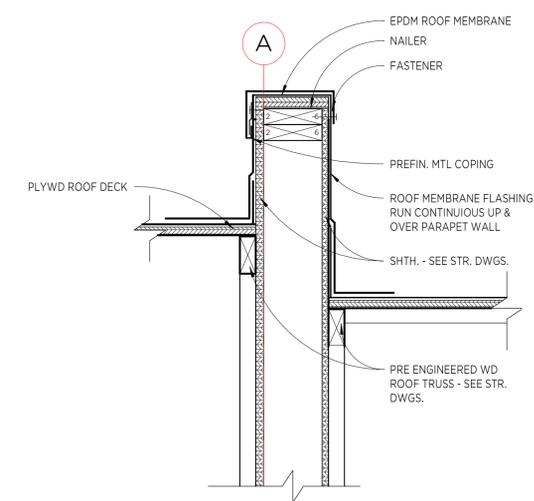
ROOF TYPE R1



2 UPPER ROOF PARAPET
A4.1 SCALE: 1 1/2" = 1'-0"

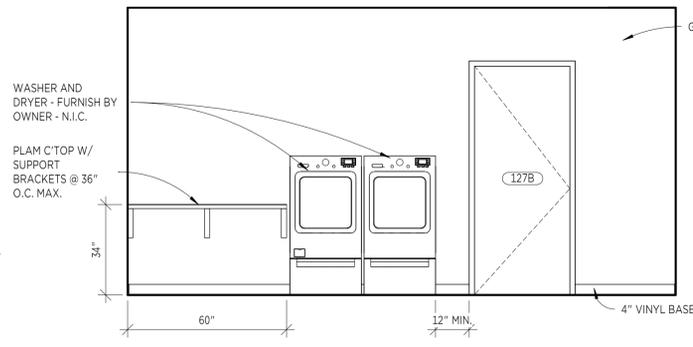


3 LOW ROOF GUTTER DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"

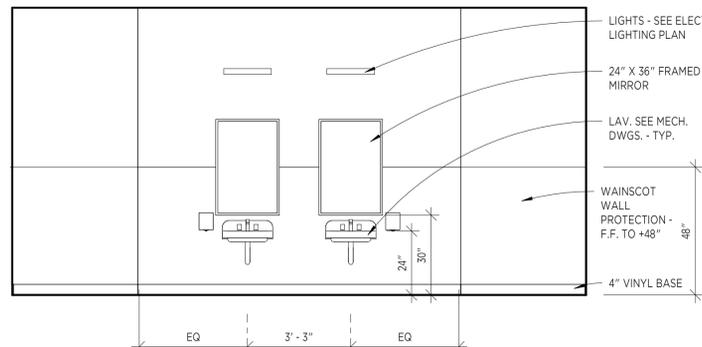


4 PARAPET WALL
A4.1 SCALE: 1 1/2" = 1'-0"

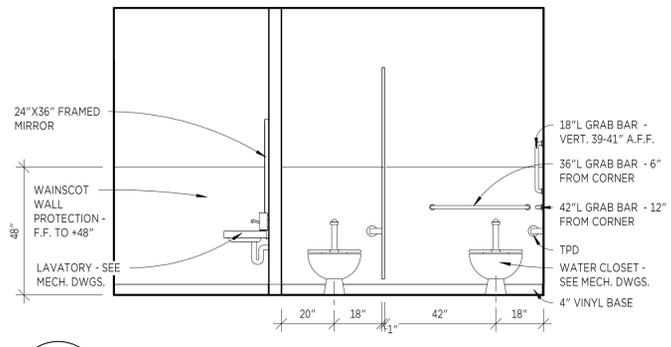
REVISIONS		
NO.	NAME	DATE



1 RM. NO. 127 WEST ELEV.
A5.1 SCALE: 3/8" = 1'-0"

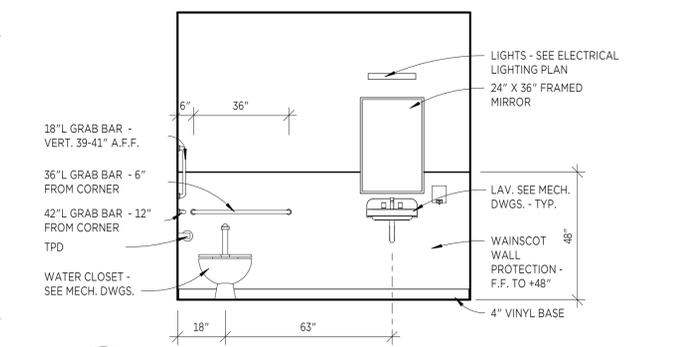


2 RM. NO. 129 NORTH ELEV.
A5.1 SCALE: 3/8" = 1'-0"

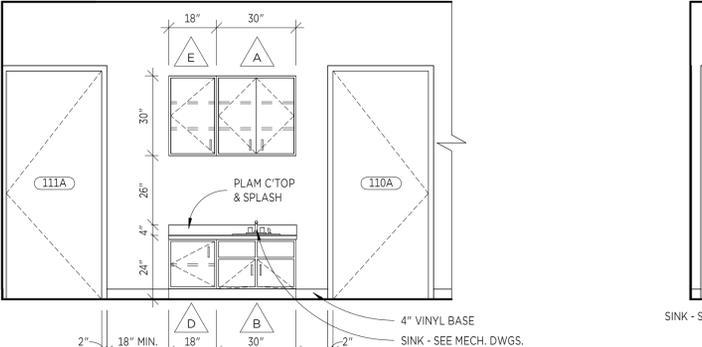


3 RM. NO. 120 WEST ELEV. / RM. NO. 121 MIRR.
A5.1 SCALE: 3/8" = 1'-0"

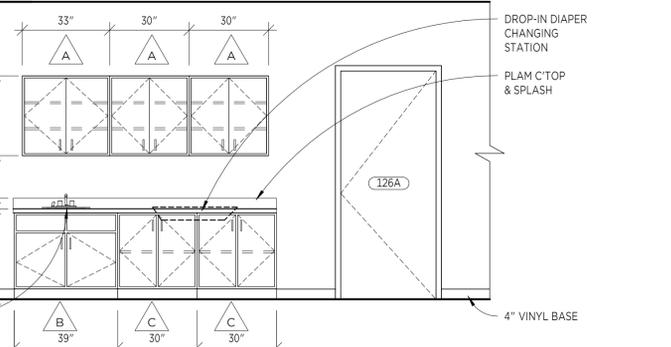
- CASEWORK LEGEND**
- A PLAM UPPER CABINET (14" D) W/ (2) DOORS & (2) ADJ. SHELVES.
 - B PLAM SINK BASE CABINET (24" D) W/ (2) DOORS & FALSE DRAWER.
 - C PLAM BASE CABINET (24"D) W/ (2) DOORS & (1) ADJ. SHELF.
 - D PLAM BASE CABINET (24"D) W/ (1) DOORS & (1) ADJ. SHELF.
 - E PLAM UPPER CABINET (14" D) W/ (1) DOORS & (2) ADJ. SHELVES.
 - F REMOVABLE PLAM BASE CABINET (24"D) W/ (2) DOORS.
 - G PLAM OPEN LOCKER (12"W X 12"D) W/ (12) FIXED SHELVES & (2) COAT HOOKS. - SEE 9/A5.2 - TYP.
 - H PLAM OPEN CAB. (30"D) W/ OPEN CUBBIES.



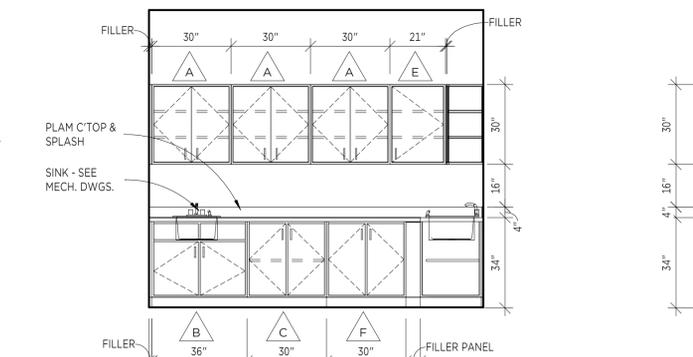
4 TYP. RESTROOM
A5.1 SCALE: 3/8" = 1'-0"



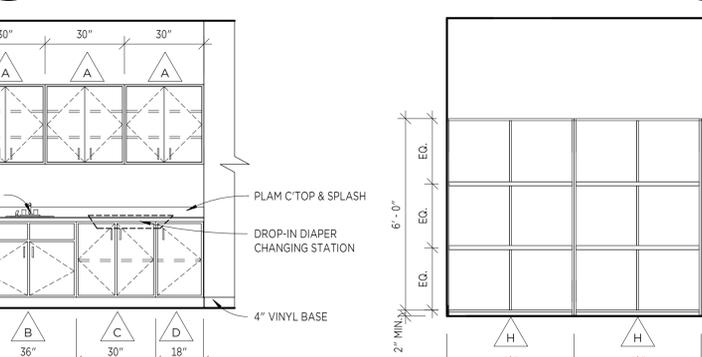
5 RM. NO. 109 SOUTH ELEV.
A5.1 SCALE: 3/8" = 1'-0"



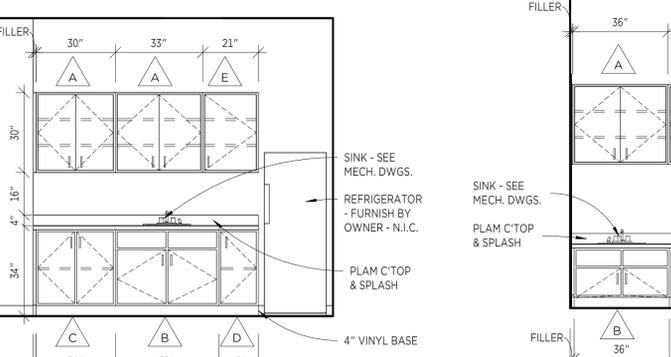
6 RM. NO. 128 EAST ELEV.
A5.1 SCALE: 3/8" = 1'-0"



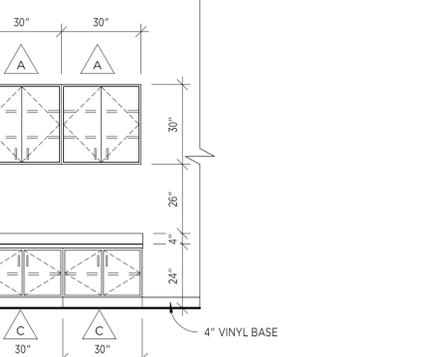
7 RM. NO. 124 NORTH ELEV.
A5.1 SCALE: 3/8" = 1'-0"



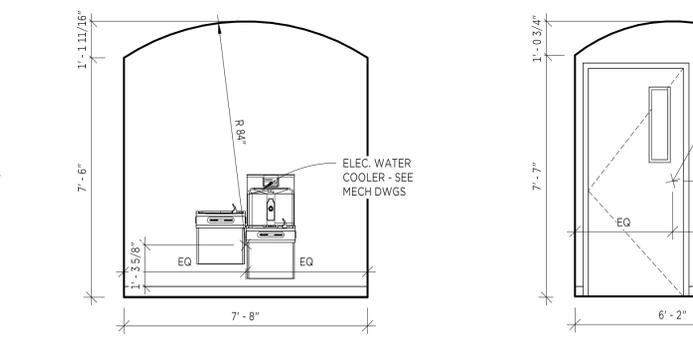
8 RM. NO. 124 EAST ELEV.
A5.1 SCALE: 3/8" = 1'-0"



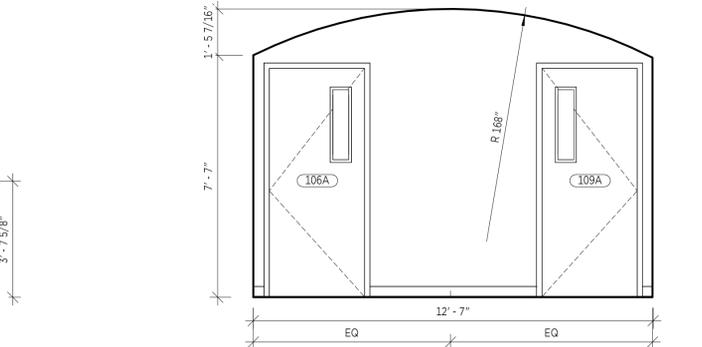
9 RM. NO. 128 NORTH ELEV.
A5.1 SCALE: 3/8" = 1'-0"



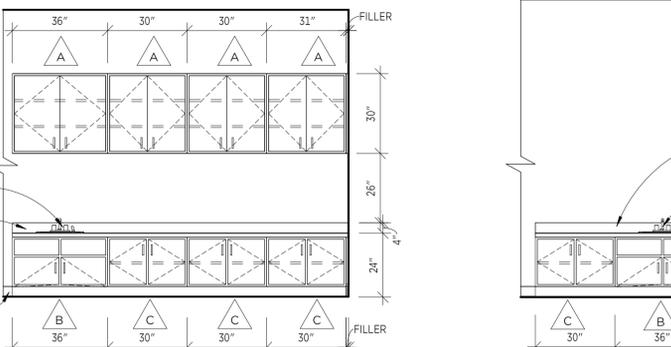
10 RM. NO. 121 EAST ELEV. RM. NO. 118 MIRR.
A5.1 SCALE: 3/8" = 1'-0"



11 VAULTED BARREL @ W.C.
A5.1 SCALE: 3/8" = 1'-0"



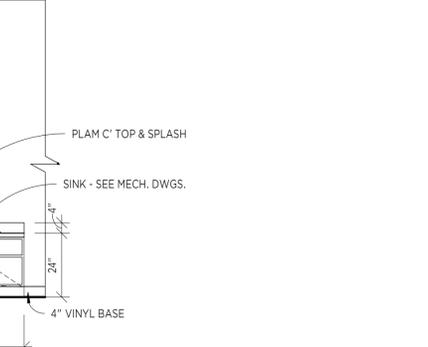
12 VAULTED BARREL 6'-2" TYP.
A5.1 SCALE: 3/8" = 1'-0"



13 VAULTED BARREL
A5.1 SCALE: 3/8" = 1'-0"



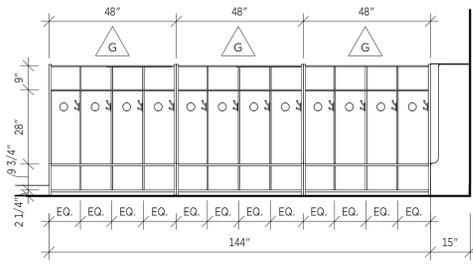
14 RM. NO. 112 SOUTH ELEV.
A5.1 SCALE: 3/8" = 1'-0"



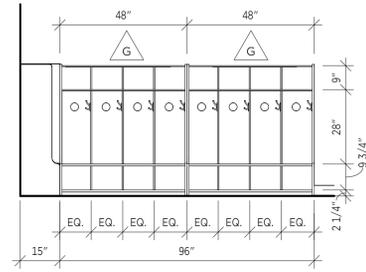
15 RM. NO. 106 WEST ELEV.
A5.1 SCALE: 3/8" = 1'-0"

REVISIONS

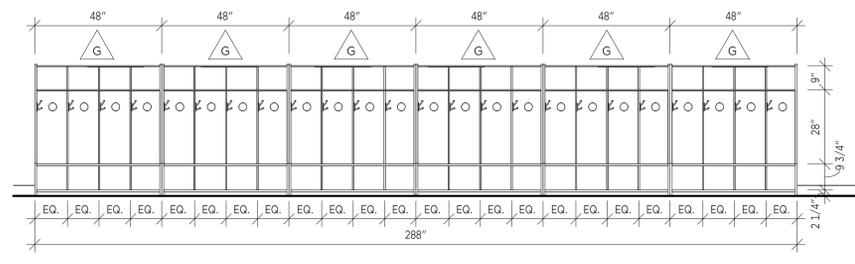
NO.	NAME	DATE



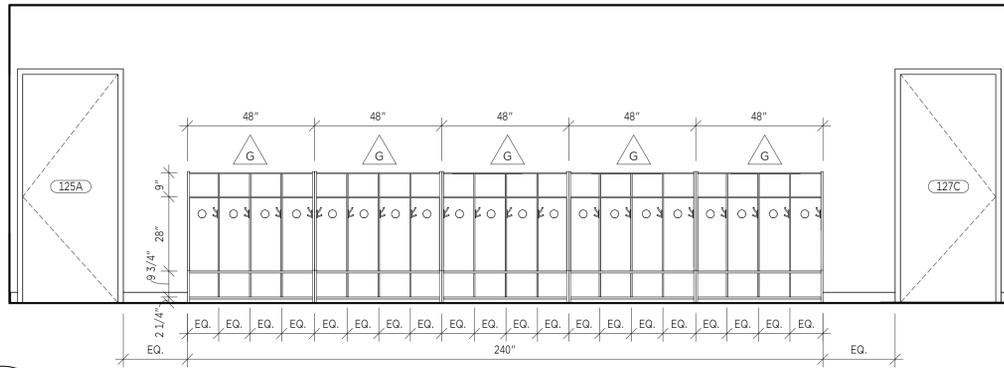
1
A5.2 ROOM CUBBIE ASSEMBLY RM. NO. 121 WEST ELEV.
RM. NO. 118 MIRR.
SCALE: 3/8" = 1'-0"



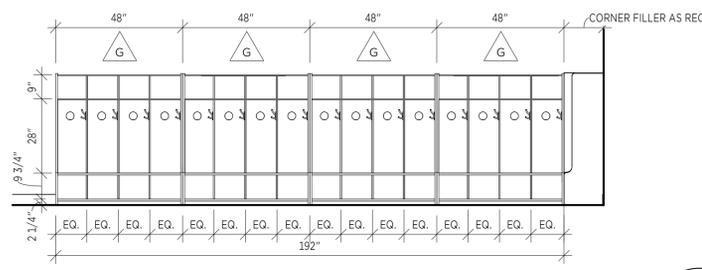
2
A5.2 ROOM CUBBIE ASSEMBLY RM. NO.121 NORTH ELEV.
RM. NO. 118 MIRR.
SCALE: 3/8" = 1'-0"



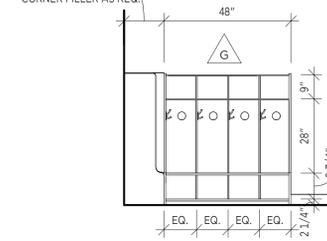
3
A5.2 ROOM CUBBIE ASSEMBLY RM. NO. 109 WEST ELEV.
SCALE: 3/8" = 1'-0"



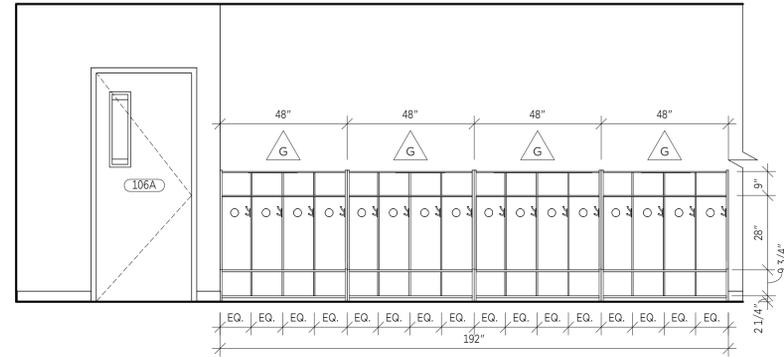
4
A5.2 RM. NO.124 WEST ELEV.
SCALE: 3/8" = 1'-0"



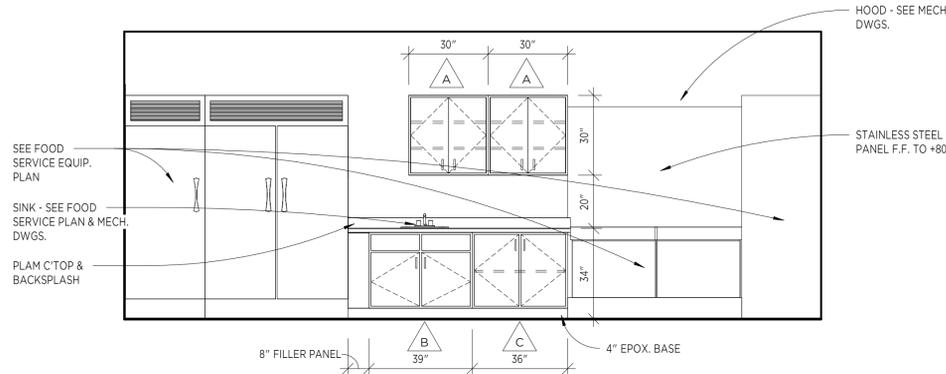
5
A5.2 ROOM CUBBIE ASSEMBLY RM. NO. 112 EAST ELEV.
SCALE: 3/8" = 1'-0"



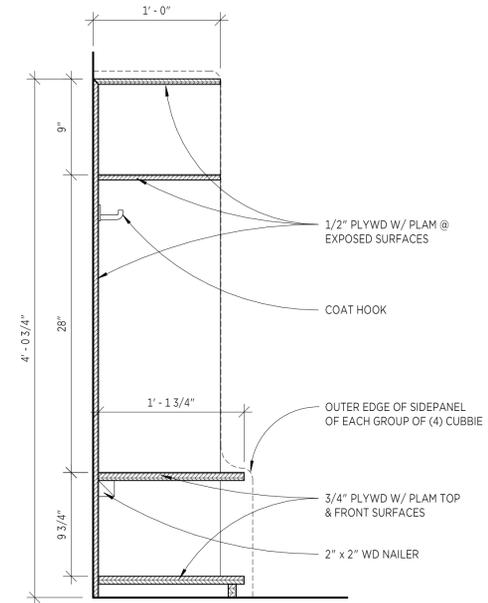
6
A5.2 ROOM CUBBIE ASSEMBLY RM. NO. 112 SOUTH ELEV.
SCALE: 3/8" = 1'-0"



7
A5.2 RM. NO. 106 SOUTH ELEV.
SCALE: 3/8" = 1'-0"



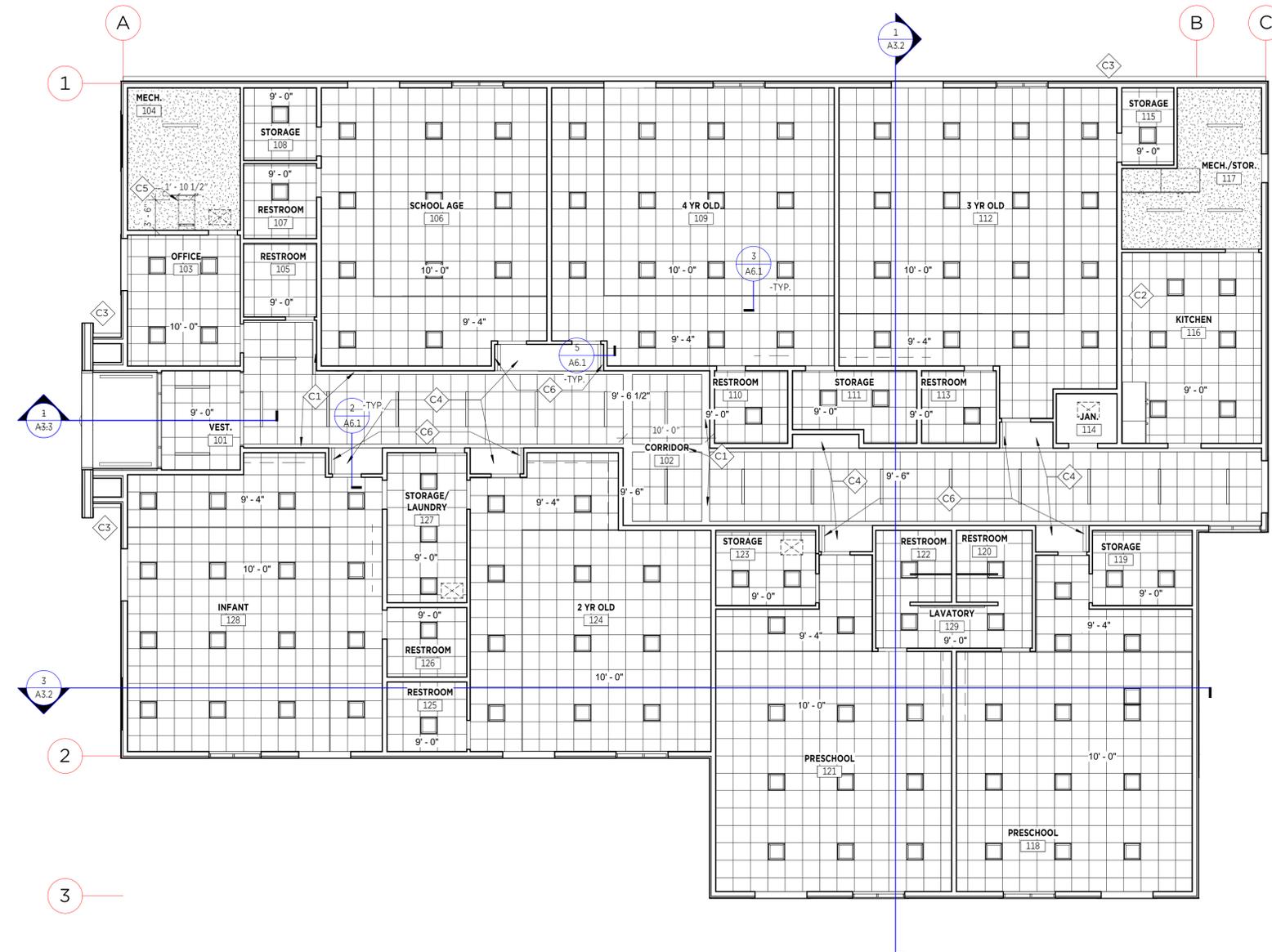
8
A5.2 RM. NO. 116 WEST ELEV.
SCALE: 3/8" = 1'-0"



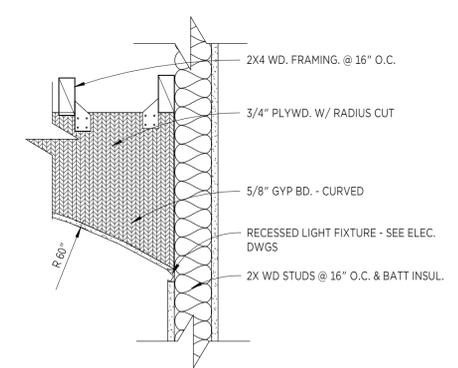
9
A5.2 CUBICLE SECTION
SCALE: 1 1/2" = 1'-0"

REVISIONS

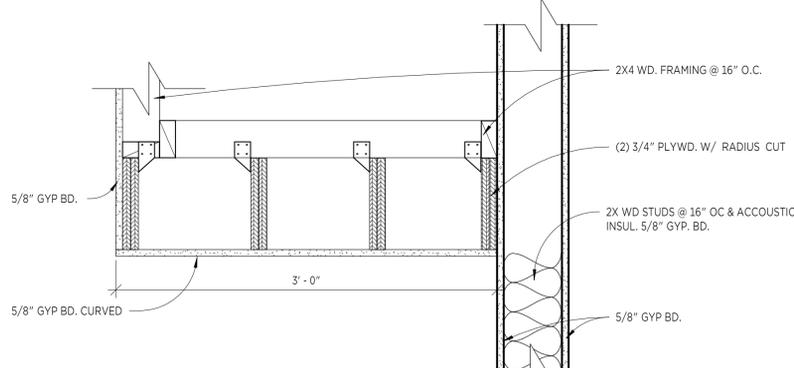
NO.	NAME	DATE



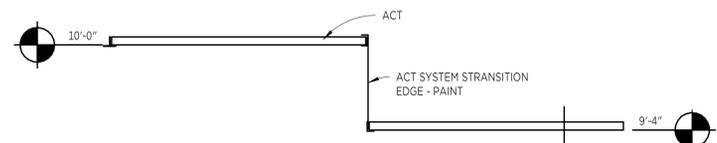
1 REFLECTED CEILING PLAN
A6.1 SCALE: 1/8" = 1'-0"



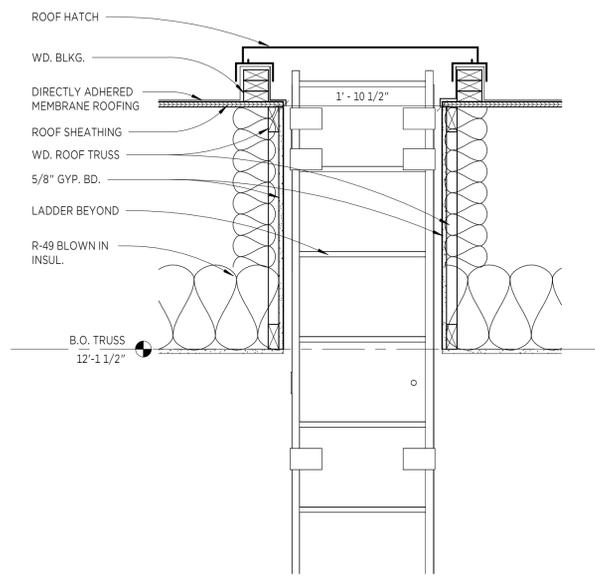
5 ARCH DETAIL
A6.1 SCALE: 1 1/2" = 1'-0"



2 ARCH DETAIL
A6.1 SCALE: 1 1/2" = 1'-0"



3 CEILING BULKHEAD DETAIL
A6.1 SCALE: 1 1/2" = 1'-0"



4 LADDER SECTION
A6.1 SCALE: 1" = 1'-0"

REFLECTED CEILING PLAN GENERAL NOTES

REFLECTED CEILING KEYED NOTES

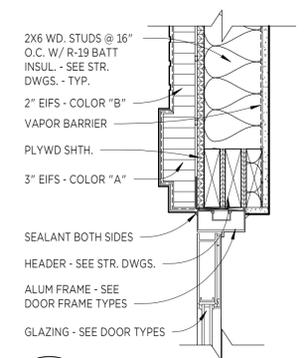
- C1 EXPOSED TO GYP. BD. ABOVE - PAINT ALL SURFACES VISIBLE FROM BELOW THE CEILING CLOUDS - COLOR "A"
- C2 HOOD - SEE MECH. DWGS.
- C3 PREFIN. MTL. GUTTER - TYP.
- C4 BARREL VAULT GYP. BD. CEILING - PAINT.
- C5 ROOF ACCESS HATCH.
- C6 FLUSH MOUNTED LIGHT

REFLECTED CEILING PLAN LEGEND

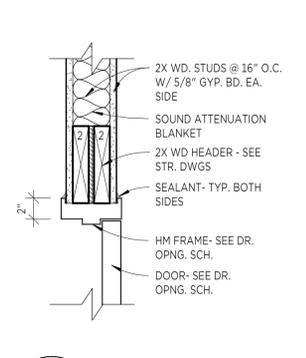
- 24" x 24" SUSPENDED ACT SYSTEM
- 24" x 24" LED TROFFER LIGHT FIXTURE - SEE ELEC. DWGS.
- LED STRIP LIGHT FIXTURE - SEE ELEC. DWGS.
- SUSPENDED LINEAR LIGHT FIXTURE - SEE ELEC. DWGS.
- SUPPLY AIR DIFFUSER - SEE MECH. DWGS.
- RETURN AIR GRILLE - SEE MECH. DWGS.
- EXHAUST GRILLE - SEE MECH. DWGS.
- ATTIC ACCESS HATCH: 21"X30" W/ 3/4" PLYWD. & RIGID INSUL. LOCATE BETWEEN TRUSSES - VERIFY LOCATION
- WD. STUD WALL - SEE FLOOR PLAN
- GYP. BD. AT UNDERSIDE OF ROOF TRUSSES - MUD & TAPE. DO NOT PAINT

REVISIONS

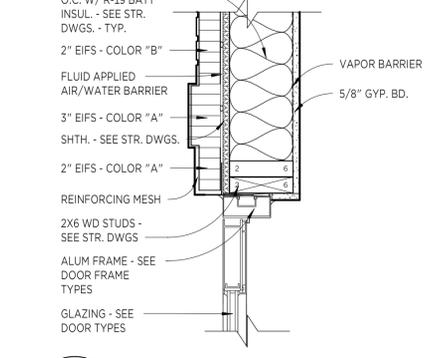
NO.	NAME	DATE



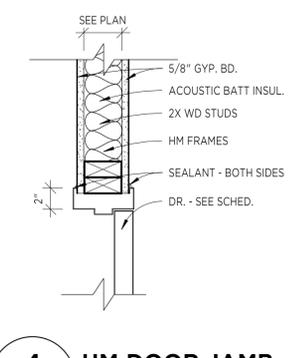
1 SF DOOR HEAD
A8.1 SCALE: 1 1/2" = 1'-0"



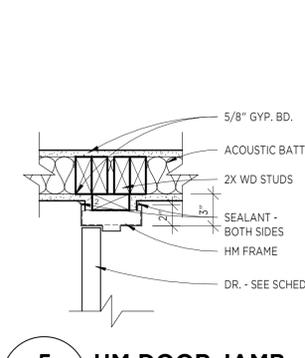
2 HM DOOR HEAD
A8.1 SCALE: 1 1/2" = 1'-0"



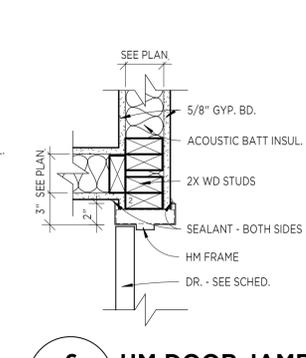
3 SF DOOR JAMB
A8.1 SCALE: 1 1/2" = 1'-0"



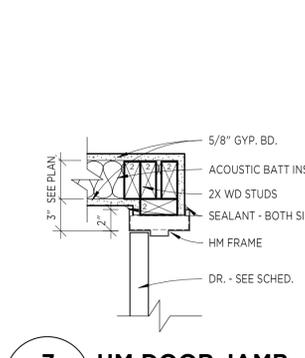
4 HM DOOR JAMB
A8.1 SCALE: 1 1/2" = 1'-0"



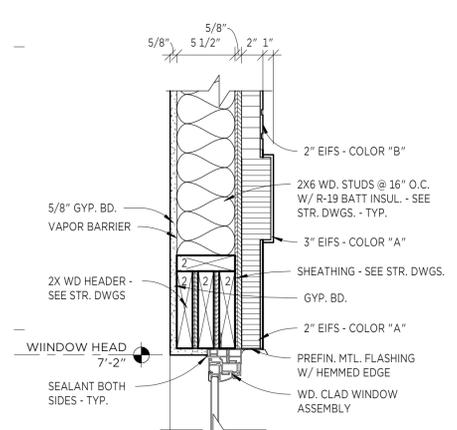
5 HM DOOR JAMB
A8.1 SCALE: 1 1/2" = 1'-0"



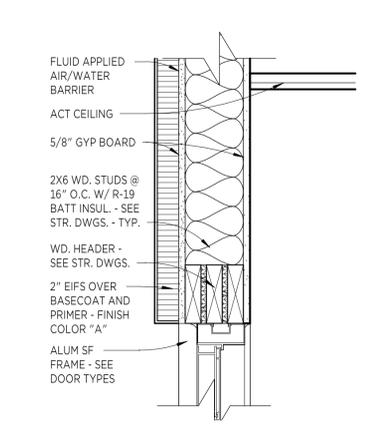
6 HM DOOR JAMB
A8.1 SCALE: 1 1/2" = 1'-0"



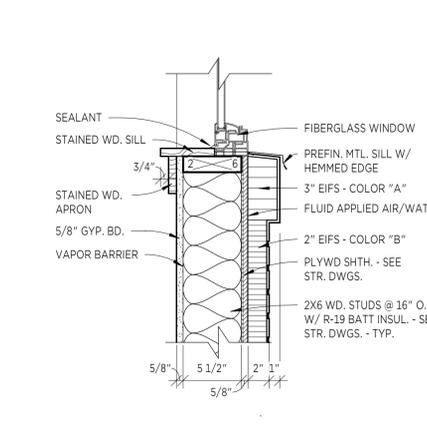
7 HM DOOR JAMB
A8.1 SCALE: 1 1/2" = 1'-0"



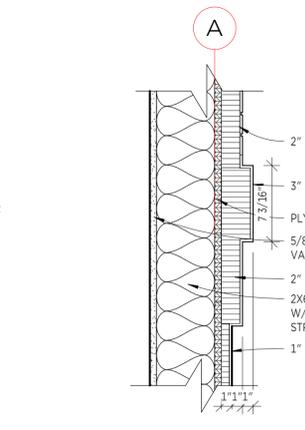
8 WINDOW HEAD
A8.1 SCALE: 1 1/2" = 1'-0"



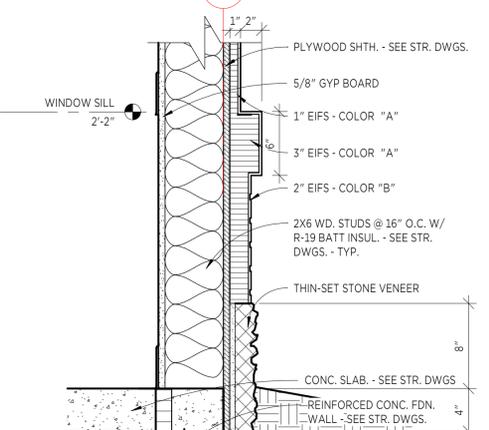
9 SF DOOR HEAD
A8.1 SCALE: 1 1/2" = 1'-0"



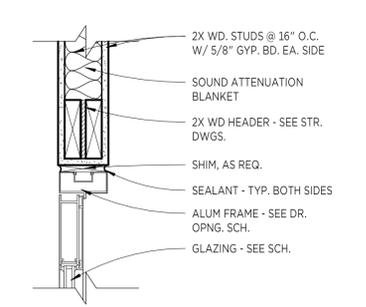
10 WINDOW SILL
A8.1 SCALE: 1 1/2" = 1'-0"



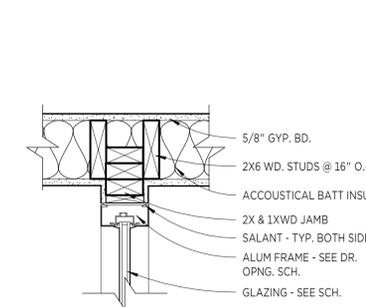
11 FALSE WINDOW HEAD DETAIL
A8.1 SCALE: 1 1/2" = 1'-0"



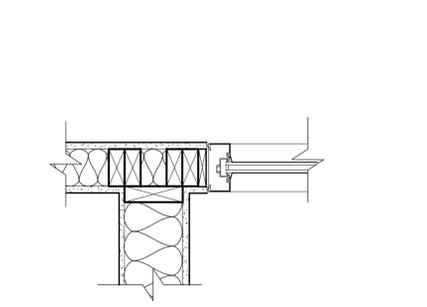
12 FALSE WINDOW SILL DETAIL
A8.1 SCALE: 1 1/2" = 1'-0"



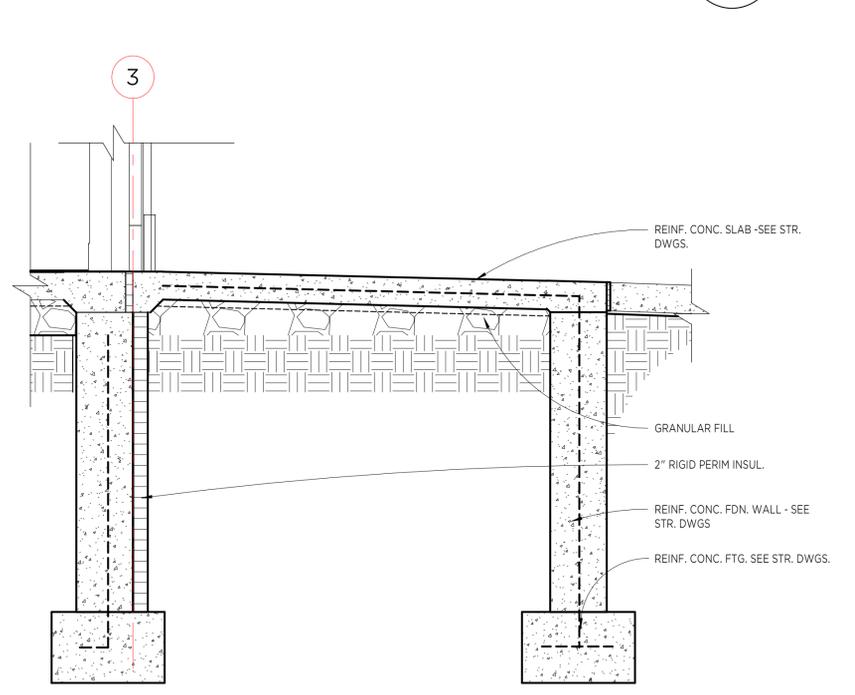
13 ALUM SF HEAD
A8.1 SCALE: 1 1/2" = 1'-0"



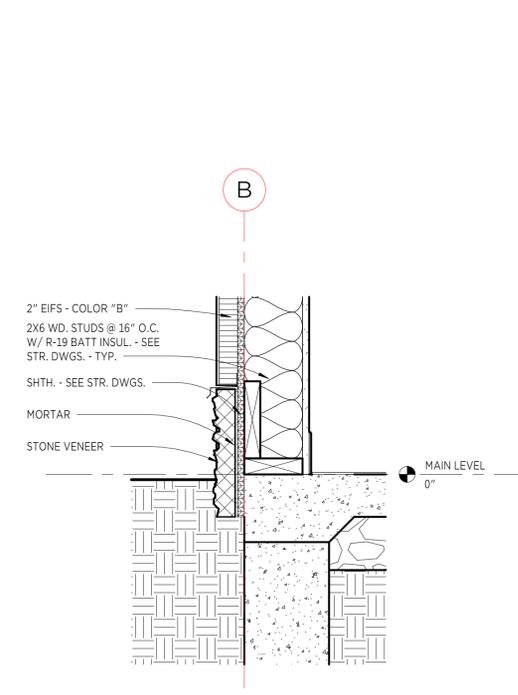
14 ALUM SF JAMB
A8.1 SCALE: 1 1/2" = 1'-0"



15 ALUM SF JAMB
A8.1 SCALE: 1 1/2" = 1'-0"



18 PLATFORM SLAB
A8.1 SCALE: 1" = 1'-0"



19 VENEER DETAIL
A8.1 SCALE: 1 1/2" = 1'-0"

REVISIONS

NO.	NAME	DATE

SITE PLAN FOR: COLFAX CHILD CARE CENTER

COLFAX, IOWA

VICINITY MAP

NOT TO SCALE



COLFAX, IOWA

OWNER / APPLICANT

COLFAX WINGO COMMUNITY SCHOOL DISTRICT
1000 N WALNUT STREET
COLFAX, IA 50054

ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBAN DALE DRIVE
URBAN DALE, IA 50322
CONTACT: ERIN OLLENDEIKE
EMAIL: ERINO@CDA-ENG.COM
PH: (515) 369-4400

SURVEYOR

CIVIL DESIGN ADVANTAGE
4121 NW URBAN DALE DRIVE
URBAN DALE, IA 50322
CONTACT: CHARLIE MCGLOTHLEN
EMAIL: CHARLIE@CDA-ENG.COM
PH. (515) 369-4400

ARCHITECT

ATURA ARCHITECTURE
912 N 13TH STREET
CLEAR LAKE, IA 50428
PH. (641) 357-1923

DATE OF SURVEY

02/04/2025

BENCHMARKS

- CUT 'X' ON SE BOLT ON HYDRANT SW OF 6' DIA. TREE NE OF THE INTERSECTION OF W WASHINGTON ST AND S LOCUST ST ELEVATION = 808.76
- STANDARD DISK, STAMPED B10 1933 AND SET IN THE TOP OF A CONCRETE POST, 235 FEET EAST OF THE INTERSECTION OF HWY 6 AND S WALNUT STREET, 26 FEET SOUTH OF THE CENTERLINE OF HWY 6 ELEVATION = 856.47

SUBMITTAL DATES

FIRST SUBMITTAL: 05/06/2025

LEGAL DESCRIPTION

LOTS A, B, AND C OF THE AUDITOR'S PLAT OF LOTS A, B, AND C OF BLOCK 1 OF JOHN BERRY'S ADDITION TO THE COLFAX, JASPER COUNTY, IOWA.

ZONING

RM - RESIDENTIAL MULTI FAMILY

PROJECT SITE ADDRESS

16 S LOCUST STREET

EXISTING/ PROPOSED USE

EXISTING: RESIDENTIAL

PROPOSED: DAYCARE

DEVELOPMENT SUMMARY

AREA: 0.50 ACRES (21,656 SF)

ZONING: RM - RESIDENTIAL MULTI FAMILY

SETBACKS:

FRONT: 20 FEET
SIDE: 6 FEET
REAR: 20 FEET

OPEN SPACE CALCULATION:

TOTAL SITE: = 21,656 SF (0.50 AC)
BUILDING = 11,100 SF
SIDEWALK = 2,763 SF
OPEN SPACE PROVIDED = 7,793 SF (36%)

PARKING:

REQUIRED: ONE PARKING SPACE PER EMPLOYEE

TOTAL REQUIRED = 8 SPACES
TOTAL PROVIDED = 8 SPACES

ADA REQUIRED = 1 SPACE
ADA PROVIDED = 1 SPACE

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = SUMMER 2025
ANTICIPATED FINISH DATE = WINTER 2025

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

INDEX OF SHEETS

NO.	DESCRIPTION
C1.0	COVER SHEET
C1.1	DETAILS
C2.0	TOPOGRAPHIC SURVEY & DEMOLITION PLAN
C3.0	DIMENSION PLAN
C4.0	GRADING PLAN
C5.0	EROSION & SEDIMENT CONTROL PLAN
C6.0	UTILITY PLAN

GENERAL LEGEND

PROPOSED	EXISTING
PROPERTY BOUNDARY	SANITARY MANHOLE
SECTION LINE	WATER VALVE BOX
CENTER LINE	FIRE HYDRANT
RIGHT OF WAY	WATER CURB STOP
BUILDING SETBACK	WELL
PERMANENT EASEMENT	STORM SEWER MANHOLE
TEMPORARY EASEMENT	STORM SEWER SINGLE INTAKE
TYPE SW-501 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-502 STORM INTAKE	FLARED END SECTION
TYPE SW-503 STORM INTAKE	DECIDUOUS TREE
TYPE SW-505 STORM INTAKE	CONIFEROUS TREE
TYPE SW-506 STORM INTAKE	DECIDUOUS SHRUB
TYPE SW-512 STORM INTAKE	CONIFEROUS SHRUB
TYPE SW-513 STORM INTAKE	ELECTRIC POWER POLE
TYPE SW-401 STORM MANHOLE	GUY ANCHOR
TYPE SW-402 STORM MANHOLE	STREET LIGHT
FLARED END SECTION	POWER POLE W/ TRANSFORMER
TYPE SW-301 SANITARY MANHOLE	UTILITY POLE W/ LIGHT
STORM/SANITARY CLEANOUT	ELECTRIC BOX
WATER VALVE	ELECTRIC TRANSFORMER
FIRE HYDRANT ASSEMBLY	ELECTRIC MANHOLE OR VAULT
SIGN	TRAFFIC SIGN
DETECTABLE WARNING PANEL	TELEPHONE JUNCTION BOX
WATER CURB STOP	TELEPHONE MANHOLE/VAULT
SANITARY SEWER	TELEPHONE POLE
SANITARY SERVICE	GAS VALVE BOX
STORM SEWER	CABLE TV JUNCTION BOX
STORM SERVICE	CABLE TV MANHOLE/VAULT
WATERMAIN WITH SIZE	MAIL BOX
WATER SERVICE	BENCHMARK
SAWCUT (FULL DEPTH)	SOIL BORING
SILT FENCE	UNDERGROUND TV CABLE
USE AS CONSTRUCTED	GAS MAIN
MINIMUM PROTECTION ELEVATION	FIBER OPTIC
	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

CIVIL DESIGN ADVANTAGE
4121 NW URBAN DALE DRIVE, URBAN DALE, IA 50322
PH: (515) 369-4400
PROJECT NO. 2502.074

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

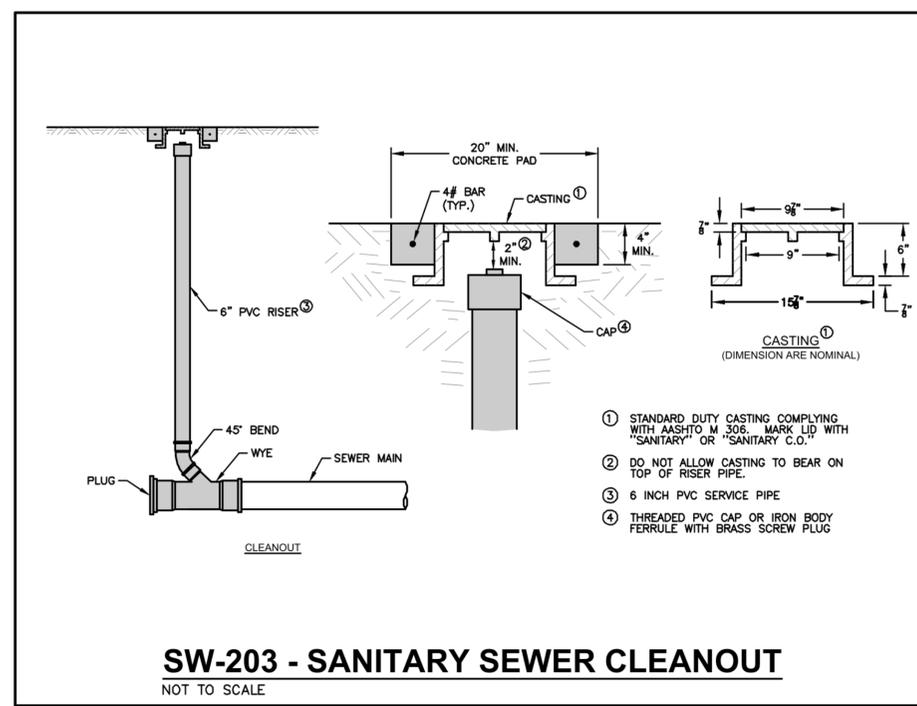
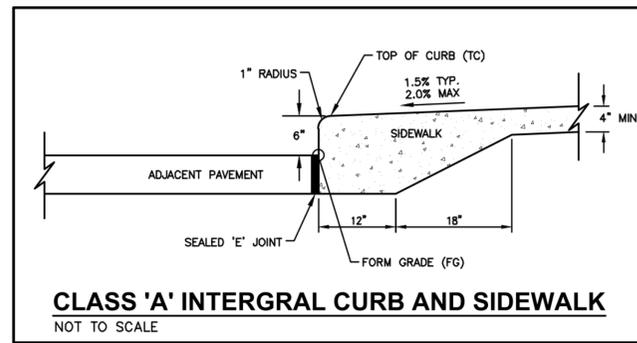
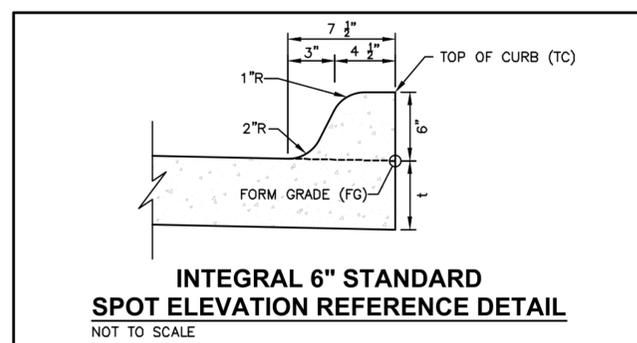
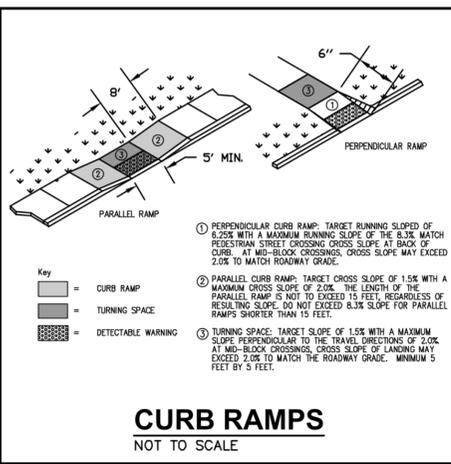
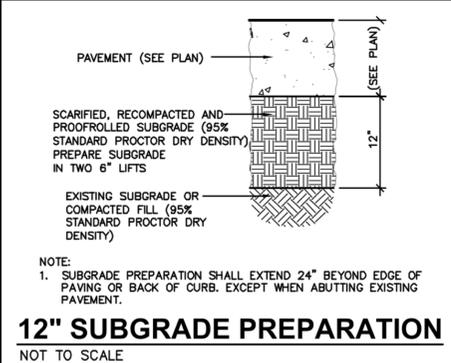
PRELIMINARY
NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

DATE: _____
PROJECT NUMBER: 16926
LICENSE RENEWAL DATE IS DECEMBER 31, 2025
PAGES OR SHEETS COVERED BY THIS SEAL: _____
ALL SHEETS

FILE: H:\2025\2502074\CDA\2502074-SITE.DWG COMMENT: DATE: 5/6/2025 11:30 AM PLOTTED BY: ERIN OLLENDEIKE

FILE: H:\2025\2502074\DWG\2502074-STEELING
 PLOTTED BY: GAGE HEROLD
 DATE: 5/17/2025 11:30 AM
 COMMENT: ENCL





DATE	
REVISIONS	
FIRST SUBMITTAL	05/06/2025

4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400

ENGINEER: GH EI: MAE
 ENGINEER: EKO



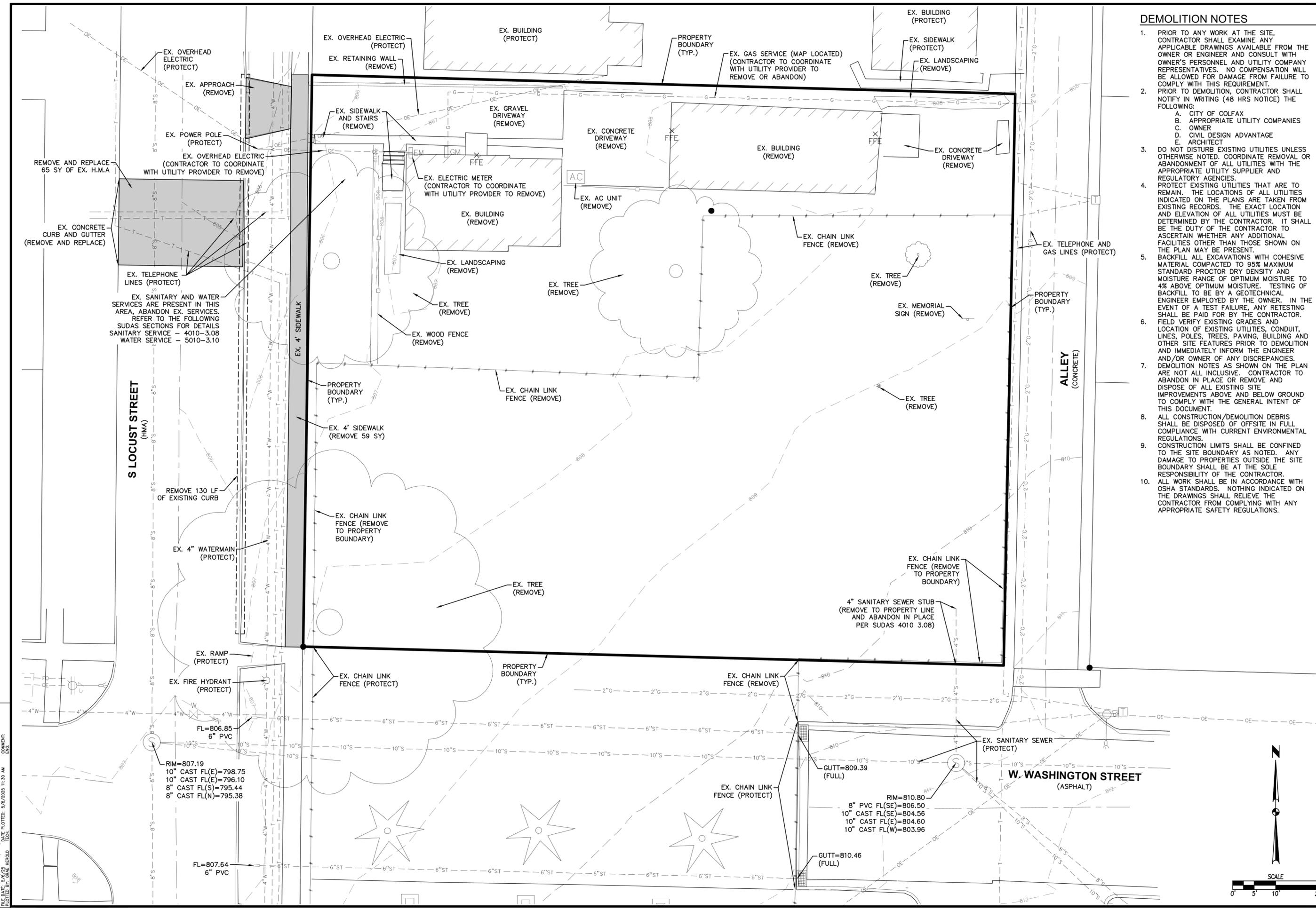
CIVIL DESIGN ADVANTAGE
 COLFAX, IOWA

COLFAX CHILD CARE CENTER TOPOGRAPHIC SURVEY & DEMOLITION PLAN

SHEET NUMBER:
C2.0
 2502.074

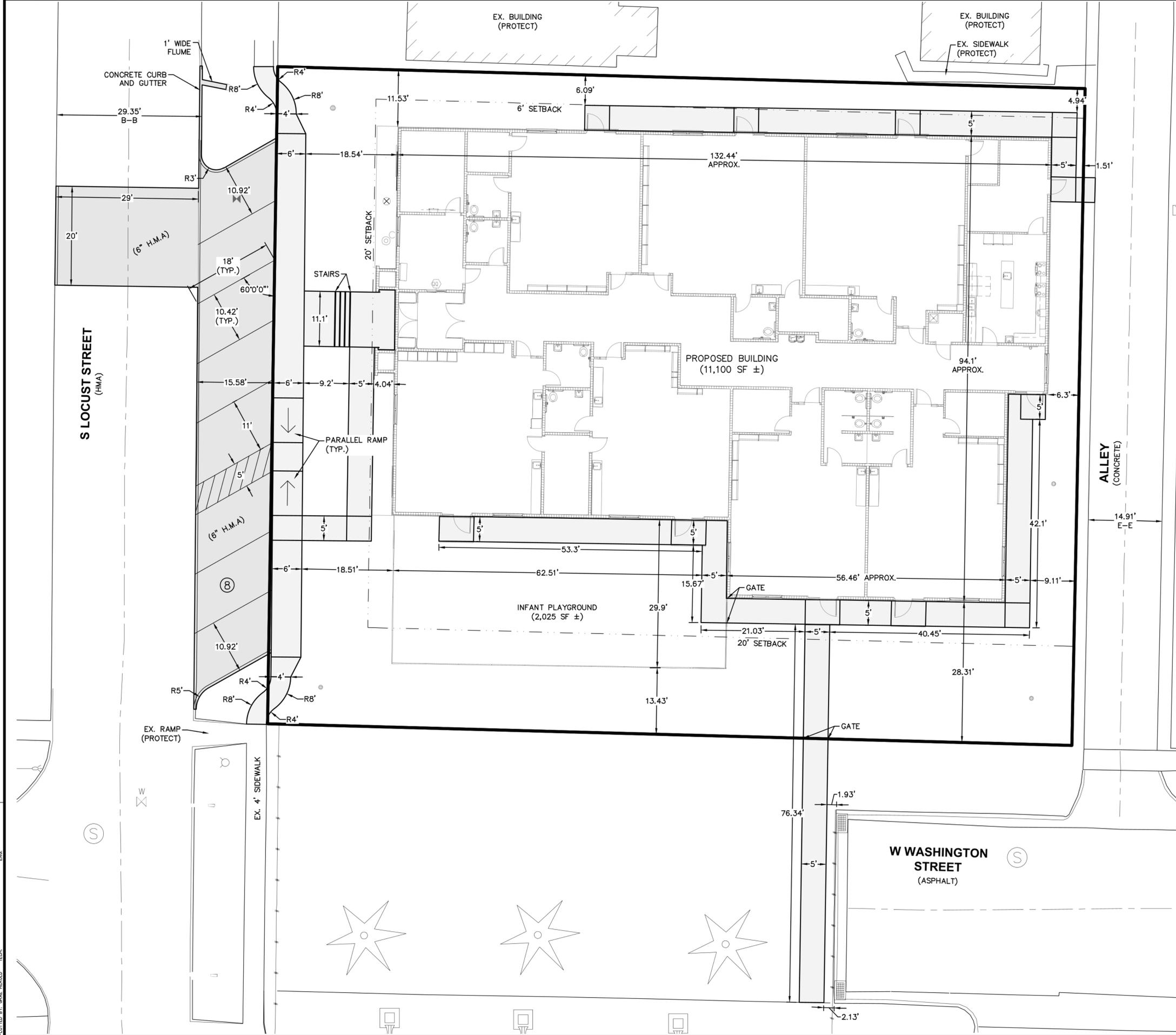
DEMOLITION NOTES

- PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
- PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY IN WRITING (48 HRS NOTICE) THE FOLLOWING:
 - CITY OF COLFAX
 - APPROPRIATE UTILITY COMPANIES
 - OWNER
 - CIVIL DESIGN ADVANTAGE
 - ARCHITECT
- DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
- PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT.
- BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DRY DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE. TESTING OF BACKFILL TO BE BY A GEOTECHNICAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
- FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES. DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT.
- ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DISPOSED OF OFFSITE IN FULL COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
- CONSTRUCTION LIMITS SHALL BE CONFINED TO THE SITE BOUNDARY AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.



FILE: H:\2025\2502074\2502074-STEELING
 COMMENT: EXIST
 PLOTTED BY: GAZZ HEROLD
 DATE: 5/16/2025 11:30 AM

FILE: H:\2025\2502074\DWG\2502074-DIMENSION PLAN.dwg
 COMMENT: DIMENSION PLAN
 PLOTTED BY: GAGE HEROLD
 DATE: 5/17/2025 11:30 AM



GENERAL NOTES

1. THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC UTILITIES CONTRACTOR SHALL NOTIFY THE CITY OF COLFAX.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
10. REMOVE ALL DEBRIS AND MUD SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
13. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK. ANY PAVEMENT REPLACEMENT SHALL COMPLY WITH THE 2025 EDITION OF SUDAS STANDARD SPECIFICATIONS.
15. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
17. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACT BID.
18. ALL STAKING, INCLUDING PEDESTRIAN FACILITIES, IS TO BE DONE UNDER THE DIRECTION OF A LICENSED ENGINEER OR SURVEYOR.
19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF WASHINGTON COMMUNITY DEVELOPMENT DEPARTMENT AT LEAST ONE WEEK PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.
20. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF COLFAX 72 HOURS PRIOR TO ANY PLANNED WEEKEND OR HOLIDAY WORK.
21. APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED FOR THESE BUILDINGS OR PORTION OF A BUILDING AS SOON AS CONSTRUCTION COMMENCES. THE FIRE APPARATUS ACCESS ROAD SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 503.2 AND SHALL EXTEND TO WITHIN 100 FEET OF ALL EXTERIOR PORTIONS OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING.
22. INDIVIDUAL GARBAGE TOTES ARE TO BE USED FOR GARBAGE PICKUP.
23. ALL STREETS TO BE PRIVATELY OWNED AND MAINTAINED.
24. INSTALLATION OF STREET BLADE SIGNS FOR THE PRIVATE STREETS TO BE INSTALLED AT THE TIME VERTICAL CONSTRUCTION BEGINS.
25. CONTRACTOR IS RESPONSIBLE TO OBTAIN WRITTEN APPROVAL FOR ANY PLAN CHANGES DURING CONSTRUCTION FROM THE COMMUNITY DEVELOPMENT DEPARTMENT. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES THAT HAVE NOT RECEIVE WRITTEN APPROVAL FROM THE COMMUNITY DEVELOPMENT DEPARTMENT.

TRAFFIC CONTROL NOTES

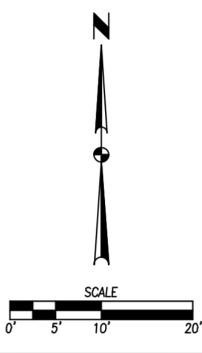
1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES. SIGNAGE AND TEMPORARY PEDESTRIAN ACCESS ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION R205 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A-4.
6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

PAVEMENT THICKNESS

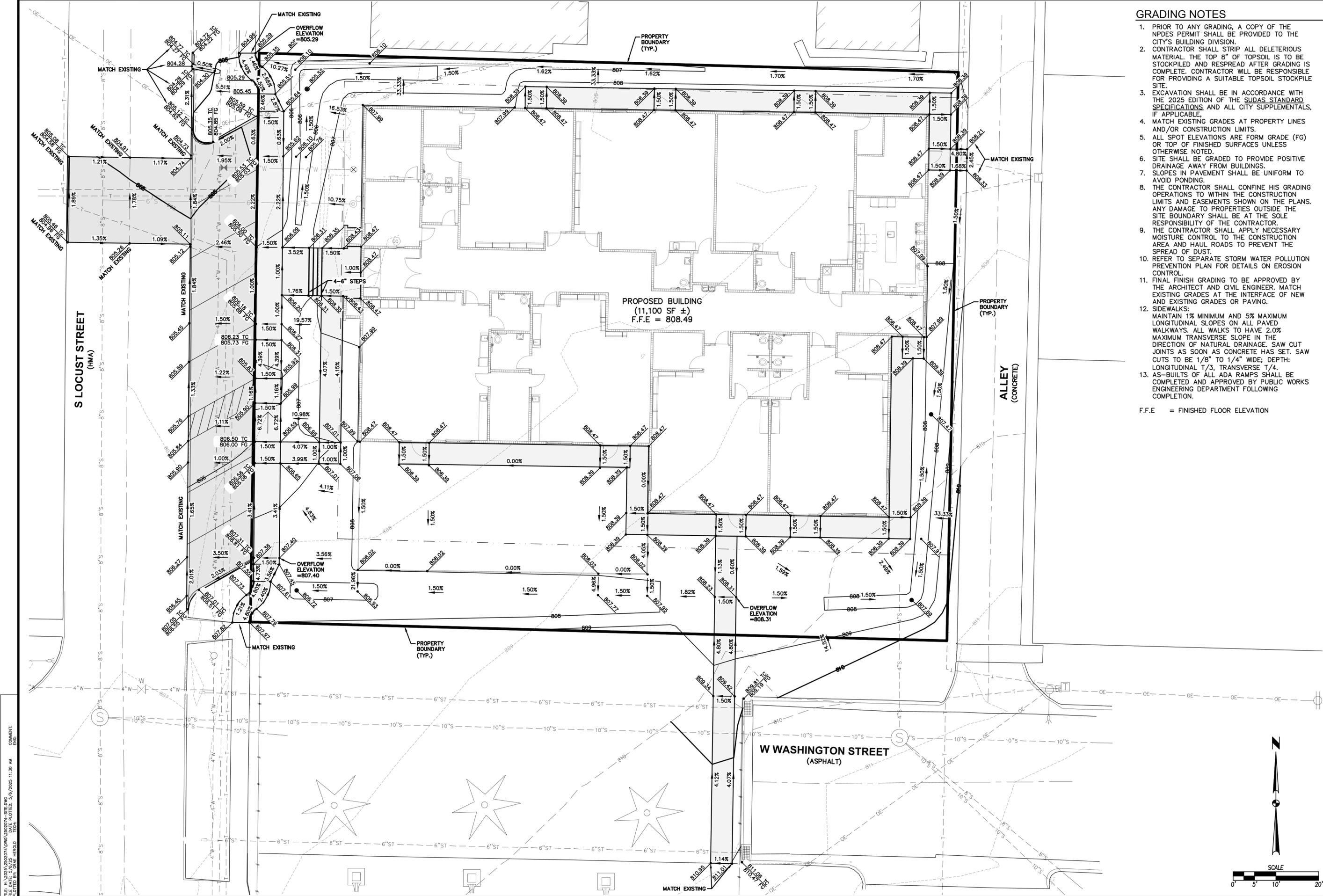
1. SIDEWALKS 4" P.C.C. (C-4 MIX)
2. SIDEWALK RAMPS AND TURNING SPACES 6" P.C.C. (C-4 MIX)

T ELECTRICAL TRANSFORMER LOCATION

NOTE: BUILDING DIMENSIONS SHOWN SHALL BE VERIFIED AND CONSTRUCTED PER THE ARCHITECTURAL DRAWINGS.



DATE: 5/17/2025
 REVISIONS:
 FIRST SUBMITTAL
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400
 ENGINEER: GH EI: MAE
 ENGINEER: EKO
 CIVIL DESIGN ADVANTAGE
 COLFAX, IOWA
COLFAX CHILD CARE CENTER
 DIMENSION PLAN
 SHEET NUMBER:
C3.0
 2502.074



- ### GRADING NOTES
- PRIOR TO ANY GRADING, A COPY OF THE NPDES PERMIT SHALL BE PROVIDED TO THE CITY'S BUILDING DIVISION.
 - CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL. THE TOP 8" OF TOPSOIL IS TO BE STOCKPILED AND RESPREAD AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
 - EXCAVATION SHALL BE IN ACCORDANCE WITH THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, AND ALL CITY SUPPLEMENTALS, IF APPLICABLE.
 - MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
 - ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
 - SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
 - SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
 - THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
 - THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
 - REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
 - FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
 - SIDEWALKS: MAINTAIN 1% MINIMUM AND 5% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 2.0% MAXIMUM TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
 - AS-BUILTS OF ALL ADA RAMPS SHALL BE COMPLETED AND APPROVED BY PUBLIC WORKS ENGINEERING DEPARTMENT FOLLOWING COMPLETION.
- F.F.E. = FINISHED FLOOR ELEVATION

FILE: H:\2025\2502074\0\2502074-STEELING
 COMMENT: ENCL
 PLOTTED BY: GAGE HEROLD
 DATE: 5/17/2025 11:30 AM

DATE	05/06/2025
REVISIONS	FIRST SUBMITTAL
ENGINEER: GH	EI: MAE

4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400

COLFAX CHILD CARE CENTER
GRADING PLAN

CIVIL DESIGN ADVANTAGE
 COLFAX, IOWA

SHEET NUMBER:
C4.0
 2502.074

COLFAX CHILD CARE CENTER

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP
NOT TO SCALE



COLFAX, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	268
2	SEEDING, FERTILIZING, AND MULCHING	AC	0.22
3	CONCRETE WASHOUT PIT	EA	1

DISCHARGE POINT SUMMARY

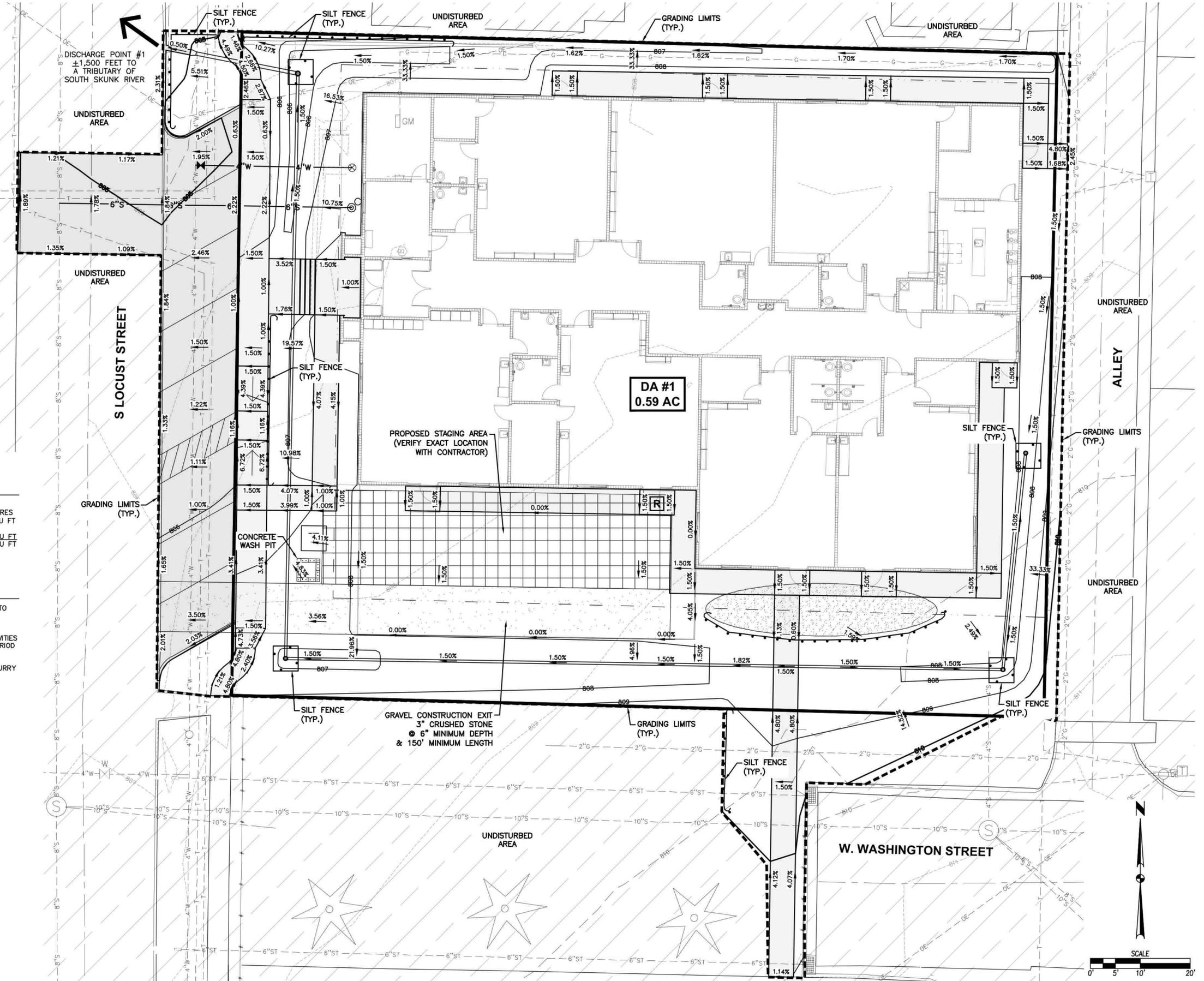
DISCHARGE POINT #1 TO SOUTH SKUNK RIVER ±1,500 FT
 TOTAL AREA DISTURBED TO DISCHARGE POINT 0.59 ACRES
 STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 2,124 CU FT
 VOLUME PROVIDED IN SILT FENCE (268 LF @ 10.0 CU FT/LF OF FENCE) 2,680 CU FT
 TOTAL VOLUME PROVIDED 2,680 CU FT

NOTES:

- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
- DISTURBED AREAS SHALL BE TEMPORARILY SEEDING OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.

SWPPP LEGEND

DRAINAGE ARROW	← X.XX %
GRADING LIMITS	--- 2" G ---
FILTER SOCK	▨
SILT FENCE	—●—
INLET PROTECTION	○
PORTABLE RESTROOM	R
CONCRETE WASHOUT PIT	□
UNDISTURBED AREA	▨
GRAVEL ENTRANCE	▨
STAGING AREA	▨



COMMENT: 5/7/2025 11:30 AM
 FILE: H:\2025\2502074\DWG\2502074-SWPPP.DWG
 PLOTTED BY: GAZI HEROLD
 DATE: 5/7/2025 11:30 AM

DATE	REVISIONS	FIRST SUBMITTAL
05/06/2025		

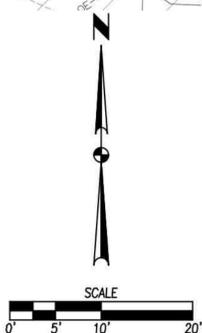
4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400

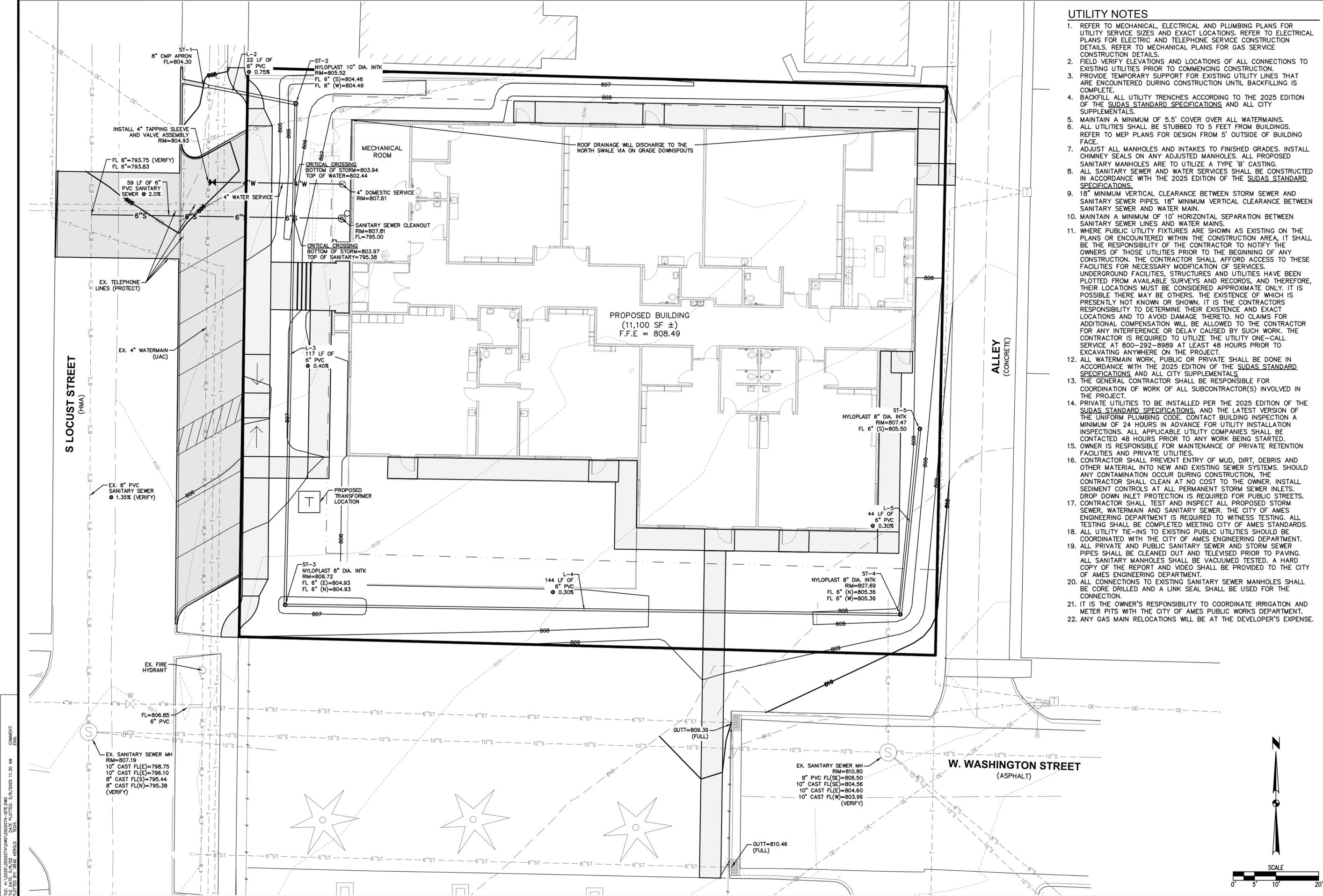


COLFAX CHILD CARE CENTER
EROSION AND SEDIMENT CONTROL PLAN
 CIVIL DESIGN ADVANTAGE
 COLFAX, IOWA

SHEET NUMBER:
C5.0
 2502.074

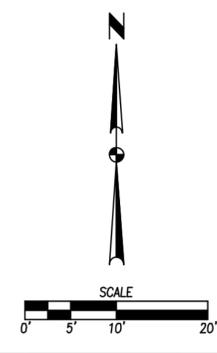
ENGINEER: EKO
 ENGINEER: GH
 EI: MAE





- ### UTILITY NOTES
- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
 - FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
 - PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
 - BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS.
 - MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMANS.
 - ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
 - ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. INSTALL CHIMNEY SEALS ON ANY ADJUSTED MANHOLES. ALL PROPOSED SANITARY MANHOLES ARE TO UTILIZE A TYPE 'B' CASTING.
 - ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
 - 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN.
 - MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
 - WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
 - ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS.
 - THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
 - PRIVATE UTILITIES TO BE INSTALLED PER THE 2025 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, AND THE LATEST VERSION OF THE UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. ALL APPLICABLE UTILITY COMPANIES SHALL BE CONTACTED 48 HOURS PRIOR TO ANY WORK BEING STARTED.
 - OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE RETENTION FACILITIES AND PRIVATE UTILITIES.
 - CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SEDIMENT CONTROLS AT ALL PERMANENT STORM SEWER INLETS. DROP DOWN INLET PROTECTION IS REQUIRED FOR PUBLIC STREETS.
 - CONTRACTOR SHALL TEST AND INSPECT ALL PROPOSED STORM SEWER, WATERMAIN AND SANITARY SEWER. THE CITY OF AMES ENGINEERING DEPARTMENT IS REQUIRED TO WITNESS TESTING. ALL TESTING SHALL BE COMPLETED MEETING CITY OF AMES STANDARDS.
 - ALL UTILITY TIE-INS TO EXISTING PUBLIC UTILITIES SHOULD BE COORDINATED WITH THE CITY OF AMES ENGINEERING DEPARTMENT.
 - ALL PRIVATE AND PUBLIC SANITARY SEWER AND STORM SEWER PIPES SHALL BE CLEANED OUT AND TELEVIEWED PRIOR TO PAVING. ALL SANITARY MANHOLES SHALL BE VACUUMED TESTED. A HARD COPY OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF AMES ENGINEERING DEPARTMENT.
 - ALL CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL BE CORE DRILLED AND A LINK SEAL SHALL BE USED FOR THE CONNECTION.
 - IT IS THE OWNER'S RESPONSIBILITY TO COORDINATE IRRIGATION AND METER PITS WITH THE CITY OF AMES PUBLIC WORKS DEPARTMENT.
 - ANY GAS MAIN RELOCATIONS WILL BE AT THE DEVELOPER'S EXPENSE.

FILE: H:\2025\2502074\DWG\2502074-UTILITY PLAN.dwg
 PLOTTED BY: SAJE HEROLD
 DATE: 5/17/2025 11:30 AM
 COMMENT: ENCL



DATE	05/06/2025
REVISIONS	FIRST SUBMITTAL
4121 NW URBANDALE DRIVE URBANDALE, IA 50322 PHONE: (515) 369-4400	ENGINEER: GH EI: MAE
ESA CIVIL DESIGN ADVANTAGE	ENGINEER: EKO
COLFAX CHILD CARE CENTER UTILITY PLAN	COLFAX, IOWA
SHEET NUMBER: C6.0 2502.074	

GENERAL STRUCTURAL NOTES

- Design Basis: International Building Code, 2021 Edition (IBC-2021) Allowable stress design (ASD) Methodology
- Design Live Loads:
 - Importance Factors based on Risk Category III
 - Roof:
 - Importance factor..... 1.1
 - Ground Snow..... 30 PSF
 - (23.1 PSF reduced Flat Roof Snow Load)
 - (Plus unbalanced, sliding, and drift loading in accordance with ASCE 7-10)
 - Live Load..... 20 PSF or 300 LBS. Concentrated Load
 - Dead Load..... 10 PSF Top Chord
 - 10 PSF Bottom Chord
 - Lateral:
 - Wind..... Per IBC 2021 Requirements (117 MPH 3-second gust, Exposure C)
- Special Inspection is recommended for the following types of work:
 - Cast-in-place concrete
 - Bolts indicated to be fully tightened
 - Field welded structural steel framing connections
- Refer to Architectural Floor Plans for dimensional location of non-bearing partition walls, door and window locations, and dimensions not shown on the structural plans.
- Unless otherwise noted, elevations are to the TOP of beams, footings, slabs, etc.
- Building drainage, insulation, flashing's, vapor / moisture protection, and fireproofing are not shown on the structural plans. Refer to the Architectural / Mechanical drawings and specifications for requirements.
- All sections, details and notes shown on the structural drawings are intended to be typical and shall apply to similar situations unless otherwise shown.
- The structural integrity of the building shown on these plans is dependent upon completion according to the Contract Documents. It is the Contractor's responsibility to furnish all temporary bracing and / or support that may be required as a result of construction methods and sequences.

FOUNDATION NOTES

- Foundation design was based on the assumed net allowable bearing capacity of 2000 psf. Apex Structural engineering recommends that a Geotechnical consultant be present to determine if the soil is suitable for bearing and an appropriate bearing capacity has been met.
- Foundations shall bear on suitable native soils or compacted structural fill extending to suitable native soils as determined by the Geotechnical Engineer.
- Existing unsuitable fill material encountered below floor slabs and foundations, as determined by the Geotechnical Engineer, shall be removed and replaced with properly placed and compacted structural fill material.
- Excavations shall be free of water and loose soil prior to concrete placement. Any unsuitable material is to be removed and replaced with compacted granular material.
- Any fill material that may be required to bring the subgrade to bearing elevation is to be tested and approved by the Geotechnical Engineer prior to placement. Fill material shall be placed in lifts not to exceed 9 inches in thickness when heavy, self-propelled compaction equipment is utilized, 6 inches in thickness if hand held compaction equipment is required.
 - Fill material shall be compacted as determined by the geotechnical engineer and soils report, or:
 - Under Slabs: Material should be compacted to at least 95% of it's maximum Standard Proctor Dry Density (ASTM D-698).
 - Under Footings: Material should be compacted to at least 98% of it's maximum Standard Proctor Dry Density (ASTM D-698).
 - The higher degree of fill compaction below footings shall extend laterally beyond the exterior edges of the element at least 8 inches per foot of thickness below the element's base elevation.
- Locate, verify and mark the location of underground utilities prior to excavation for foundations.

CONCRETE NOTES

- Except where modified by these Plans and Specifications, all concrete work shall conform to the requirements of ACI 301-latest, "Specifications for Structural Concrete Buildings" and ACI 318-latest, "Building Code Requirements for Reinforced Concrete".
- Reinforcing is to be detailed in accordance with ACI 315- latest, "Manual of Standard Practice for Detailing Reinforced Concrete Structures".
- Minimum Concrete 28 Day Compressive Strengths:
 - Footings 3,000 PSI
 - Foundation Walls, Piers 4,000 PSI
 - Slabs-on-grade 4,000 PSI
- Concrete reinforcing steel shall be in accordance with the following standards:
 - Reinforcing BarsASTM A615, Grade 60
 - Welded wire fabricASTM A185
- The following lap-splices shall be maintained including dowel extension and embedment, unless noted otherwise:
 - Reinforcing Bars:
 - #6 and Smaller:
 - Horizontal Bars.....48 bar diameters
 - Vertical Bars.....40 bar diameters
 - Welded wire fabric: 8 inches
- Maintain the minimum concrete coverage for reinforcing as indicated, unless noted otherwise on the drawings.
 - Concrete deposited directly against earth3 inches
 - Concrete exposed to earth or weather:
 - #6 and larger2 inches
 - #5 and smaller1-1/2 inches
 - Concrete not exposed to earth or weather:
 - Slabs and walls1 inch
 - Column / pier ties1-1/2 inches
 - Place the reinforcing bars as near to the surface as these minimums permit, unless specifically noted otherwise.
- Unless noted otherwise, provide #5 x 4'-0" bar, at 45 degrees to main reinforcing at corners of openings and inside corners of slabs.
- Shift reinforcing to clear anchor bolts and embedded items, cutting of reinforcing bars is not permitted.
- Reinforcing shall run continuous through construction joints unless shown otherwise.
- Vertical construction joints in walls shall have keyways 1-1/2 inch x one third the wall thickness.
- Provide horizontal reinforcing continuous around all corners unless shown otherwise. Provide corner bars with 48 bar diameter lap splices at all intersections of footings, and walls, same size and spacing as horizontal reinforcing, unless shown otherwise.
- Maximum spacing between construction joints at foundation walls shall not exceed 60 feet. All horizontal reinforcing shall run continuous through control joints.
- Hot weather concrete operations shall be in accordance with ACI 305. Cold weather concrete operations shall be in accordance with ACI 306.
- 4% air entrainment shall be added to concrete used for exterior construction.
- Slab control joints layout by Architect. Refer to details 1 & 2 on this sheet for requirements for control construction joints.

STRUCTURAL WOOD FRAMING NOTES

- All structural framing lumber shall be clearly marked and of a quality to meet the following minimum grade requirements.
 - Joists, studs, headers, & plates: Douglas fir-larch (DFL) No. 1 grade under WCLIB or WWPA grading requirements, unless noted otherwise.
- All wood in contact with concrete or masonry shall be pressure treated preservative lumber. All steel nails, bolts, and connectors in contact with pressure treated lumber shall be galvanized to G165 thickness specifications or stainless steel.
- All nailing of lumber shall conform to IBC table 2304.9.1 Fastening Schedule, except as otherwise noted.
- Attach multiple studs together w/ (2) rows of 16d nails at 12" O.C. (staggered, unless noted otherwise).
- Exterior wall sheathing shall be 5/8 inch thick APA rated 40/20 sheathing fastened with 10d common nails at 6 inches on center at all panel (individual sheet) edges and 12 inches on center at all intermediate supports, except as otherwise indicated. Refer to details for parapet sheathing size. Provide blocking between studs at all horizontal joints. Refer to shearwall schedule for fastener spacing requirements @ shearwalls.
- Roof sheathing shall be 5/8 inch thick APA rated 40/20 sheathing, fastened with 10d common nails at 6 inches on center at all supported panel (individual sheet) edges and at 12 inches on center at all intermediate supporting members, unless noted otherwise. Stagger joints parallel with the roof trusses. Use galvanized metal sheathing slips between trusses
- Laminated veneer lumber (LVL) beams and headers shall be "1.9E Microllam LVL" as manufactured by TRUS JOIST or approved equivalent.

PRE-ENGINEERED ROOF TRUSSES

- Truss Uplift (Unfactored):
 - Uplift at Interior Zone-31.7 PSF
 - Uplift at Edge Zone-42.4 PSF
 - End Zone 12 ft
- Maximum live load deflection shall not exceed L/360. Maximum total load deflection shall not exceed L/240. Maximum total load deflection shall not exceed 3/4".
- Truss manufacturer shall arrange truss web members as required by design and duct locations.
- Framing plans indicate the required basic truss layout.
- Truss designer shall design the truss to girder and the truss girder to support connections.
- Truss designer shall design framing for RTU openings and chase openings. Coordinate RTU locations with mechanical contractor.
- Proper erection bracing shall be installed to hold the trusses true and plumb and in safe condition until permanent truss bracing and bridging can be solidly secured in place to form a structurally sound framing system. All erection and permanent bracing shall be installed and all components permanently fastened before the application of any loads to the trusses. All bracing shall be designed by manufacturer.
- Truss manufacturer shall design permanent chord bridging.
- Truss manufacturer shall be responsible to verify final truss dimensions and slopes with the most current architectural drawings.
- The truss manufacturer shall provide shop drawings stamped and signed by a professional engineer in the state of Iowa. The deferred submittal item shall be reviewed by the engineer of record for general conformance with the contract documents and the design concept of the project.
- Top and bottom chords shall not be cut or drilled. See truss mfg. printed instructions.

SHEAR WALL SCHEDULE

MARK	SHEAR COLUMNS	HOLDOWN AT COLUMN BASE	EXTERIOR SHEATHING	HOLDOWN FLOOR/ROOF	WOOD SHEATHING FASTENER REQUIREMENTS
SW1	(2) 2x6 STUDS	SIMPSON HDU4-SDS2.5 (NOTES 1 & 2)	7/16" OSB ONE FACE	SIMPSON HGA10 @ 24" O.C.	8d COMMON NAILS @ 6" O.C. SPACING
SW2	(2) 2x STUDS, REFER TO PLAN FOR SIZE	SIMPSON HDU8-SDS2.5 (NOTES 1 & 2)	5/8" OSB ONE FACE	_____	10d COMMON NAILS @ 4" O.C. SPACING INTO FRAMING @ PANEL EDGES, AND 12" O.C. FIELD SPACING

NOTES:

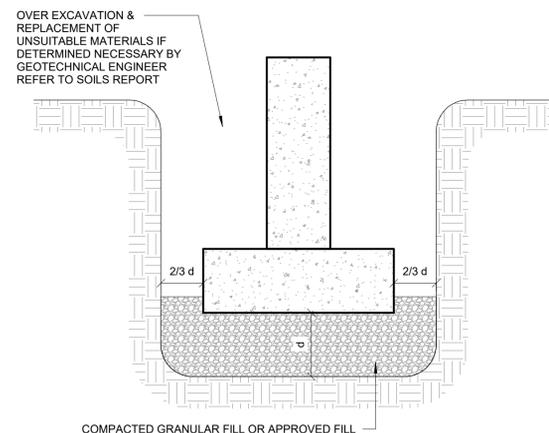
- SHEAR WALL COLUMNS SHALL BE PROVIDED WHERE NOTED & CONNECTED TO THE FOUNDATION WITH THE SPECIFIED HOLDOWN. SEE FOUNDATION PLAN FOR SHEAR WALL LOCATIONS.
- REFER TO SIMPSON SPECIFICATIONS FOR REQUIRED HOLDOWN ANCHORS INTO THE FOUNDATION AND REQUIRED CONNECTION TO STUD COLUMN. ANCHORS MAY BE EPOXIED INTO THE FOUNDATION USING HILTI-HY 200 ADHESIVE. DRILL AND EPOXY SIMPSON SPECIFIED ANCHOR BOLTS 10 1/2" INTO FOUNDATION.
- ALL SEAMS BETWEEN SHEATHING PANELS MUST BE BACKED BY SOLID WOOD FRAMING.
- REFER TO S/S0.1 FOR SHEAR WALL BASE DETAIL
- ALL SHEAR WALLS TO BE BLOCKED.

HEADER SCHEDULE

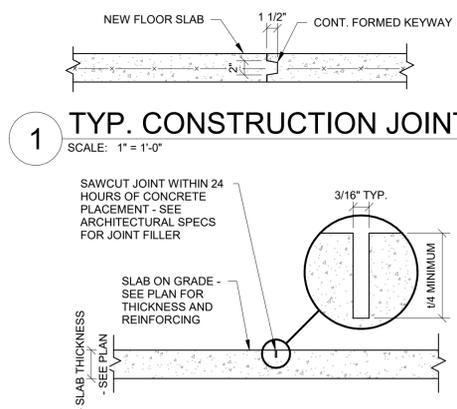
HEADER	SIZE	COLUMN SIZE EACH END	REMARKS
H1	(2) PLY 2x8 DF #2	(1) CRIPPLE & (2) KINGS - MATCH WALL STUDS	1
H2	(2) 1 3/4" x 9 1/4" LVL 1.9E	(2) CRIPPLES & (2) KINGS - MATCH WALL STUDS	1
H3	(3) 1 3/4" x 9 1/4" LVL 1.9E	(2) CRIPPLES & (2) KINGS - MATCH WALL STUDS	1
H3A	(4) 1 3/4" x 9 1/4" LVL 1.9E	(2) CRIPPLES & (2) KINGS - MATCH WALL STUDS	1
H4	(3) 1 3/4" x 9 1/4" LVL 1.9E	(2) CRIPPLES & (1) KING - MATCH WALL STUDS	1
H5	(3) 1 3/4" x 11 7/8" LVL 1.9E	(2) CRIPPLES & (1) KING - MATCH WALL STUDS	1

HEADER NOTES

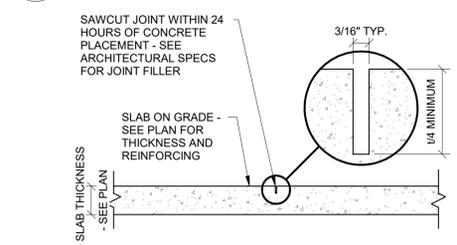
- VERIFY ROUGH OPENING WITH ARCHITECT / G.C.



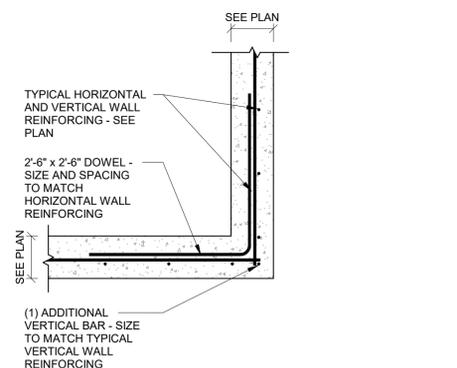
3 OVER EXCAVATION & FILL
SCALE: 3/4" = 1'-0"



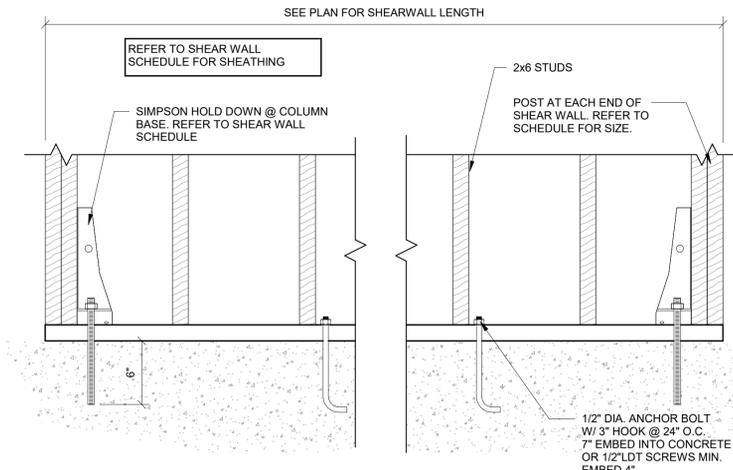
1 TYP. CONSTRUCTION JOINT
SCALE: 1" = 1'-0"



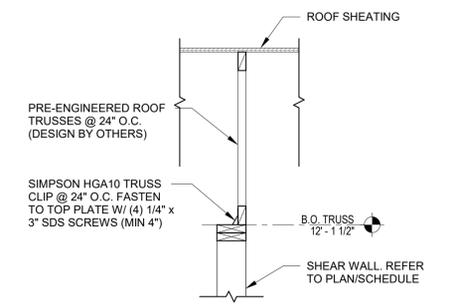
2 TYP. CONTROL JOINT DETAIL
SCALE: 1" = 1'-0"



4 TYP. FND. WALL CORNER REINF.
SCALE: 3/4" = 1'-0"



5 SHEAR WALL BASE CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



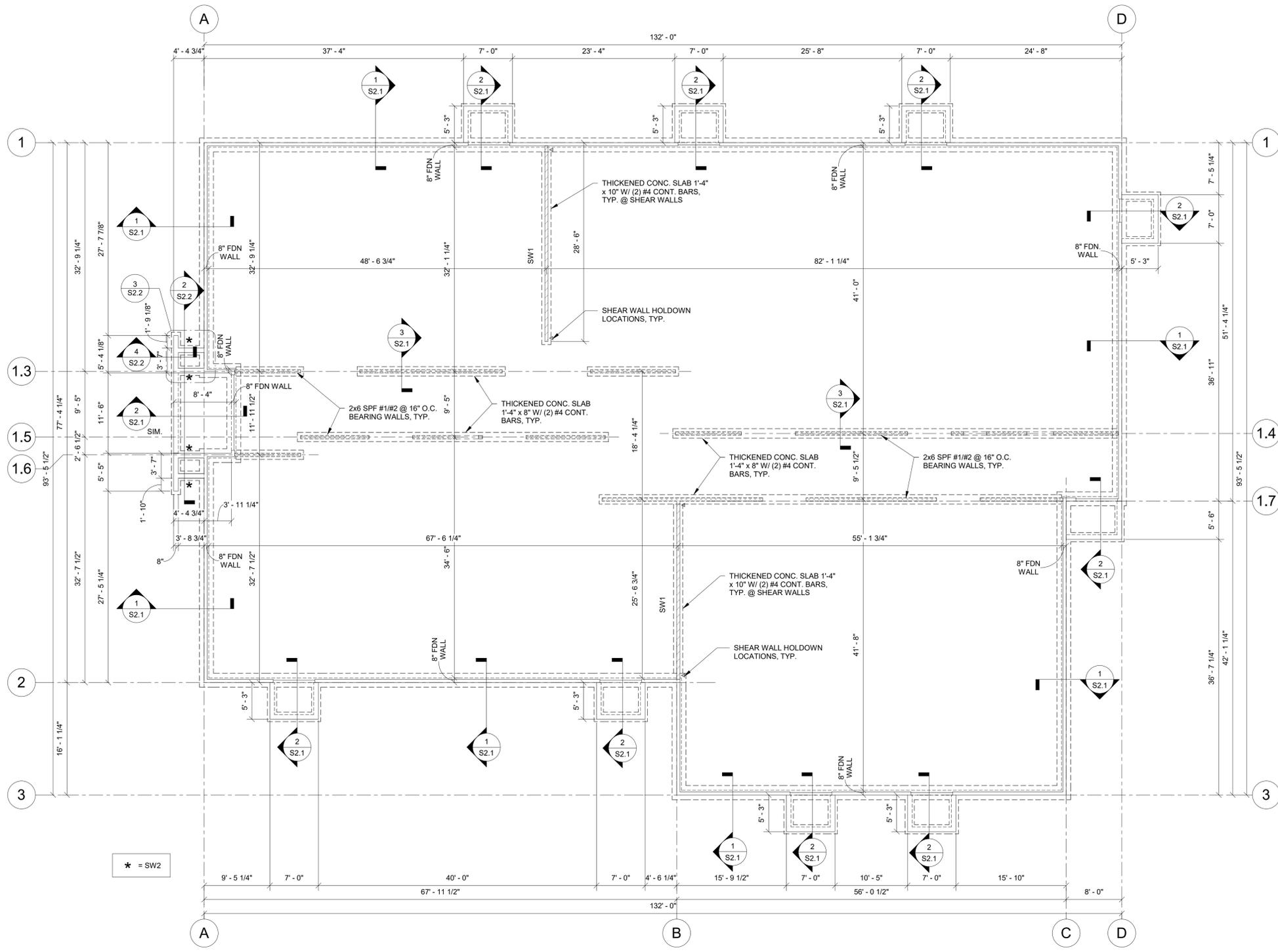
6 SHEAR WALL DETAIL AT ROOF
SCALE: 3/4" = 1'-0"

REVISIONS

NO.	NAME	DATE

5/8/2025 2:05:05 PM

C:\Users\ksnikkey\Documents\25-023 Aurora - Colfax Daycare - Structure_kelly\VC4XB.rvt



FOUNDATION PLAN

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

- PLAN NOTES**
1. FINISHED FLOOR ELEVATION IS 0'-0" UNLESS NOTED OTHERWISE.
 2. REFER TO ARCHITECTURAL SHEETS FOR LOCATIONS OF WALLS, SLAB RECESSES, FLOOR DRAINS, FLOOR SLOPES AND OTHER DIMENSIONS NOT SHOWN.
 3. COORDINATE PENETRATIONS THROUGH STRUCTURE WITH OTHER DISCIPLINES.
 4. UNLESS NOTED OTHERWISE, THE TYPICAL SLAB-ON-GRADE SHALL BE 4 INCHES THICK W/ 6X6-W1.4X1.4 W.W.F.
 5. SEE ARCHITECTURAL DRAWINGS AND / OR SPECIFICATIONS FOR REQUIRED VAPOR / MOISTURE PROTECTION.
 6. EXCEPT WHERE DESIGNATED, SLAB CONSTRUCTION JOINTS ARE LEFT TO THE DISCRETION OF THE ARCHITECT. JOINTS SHALL NOT EXCEED 12 FT. SPACING.
 7. REFER TO SHEETS S0.1 FOR TYPICAL DETAILS.
 8. REFER TO SHEET S0.1 FOR STUD WALL REQUIREMENTS.



STRUCTURAL ENGINEER
APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER
KEDRLUESTONE ENGINEERING
5518 NW 89th St
Johnston, IA 50131
Ph. 515-727-0700

REVISIONS

NO.	NAME	DATE

DATE
MAY 08, 2025

SHEET

S1.1



STRUCTURAL ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-254-2739

MEP ENGINEER

KEDRLLUESTONE ENGINEERING
5518 NW 89th St
Johnston, IA 50131
Ph. 515-727-0700

REVISIONS

NO.	NAME	DATE

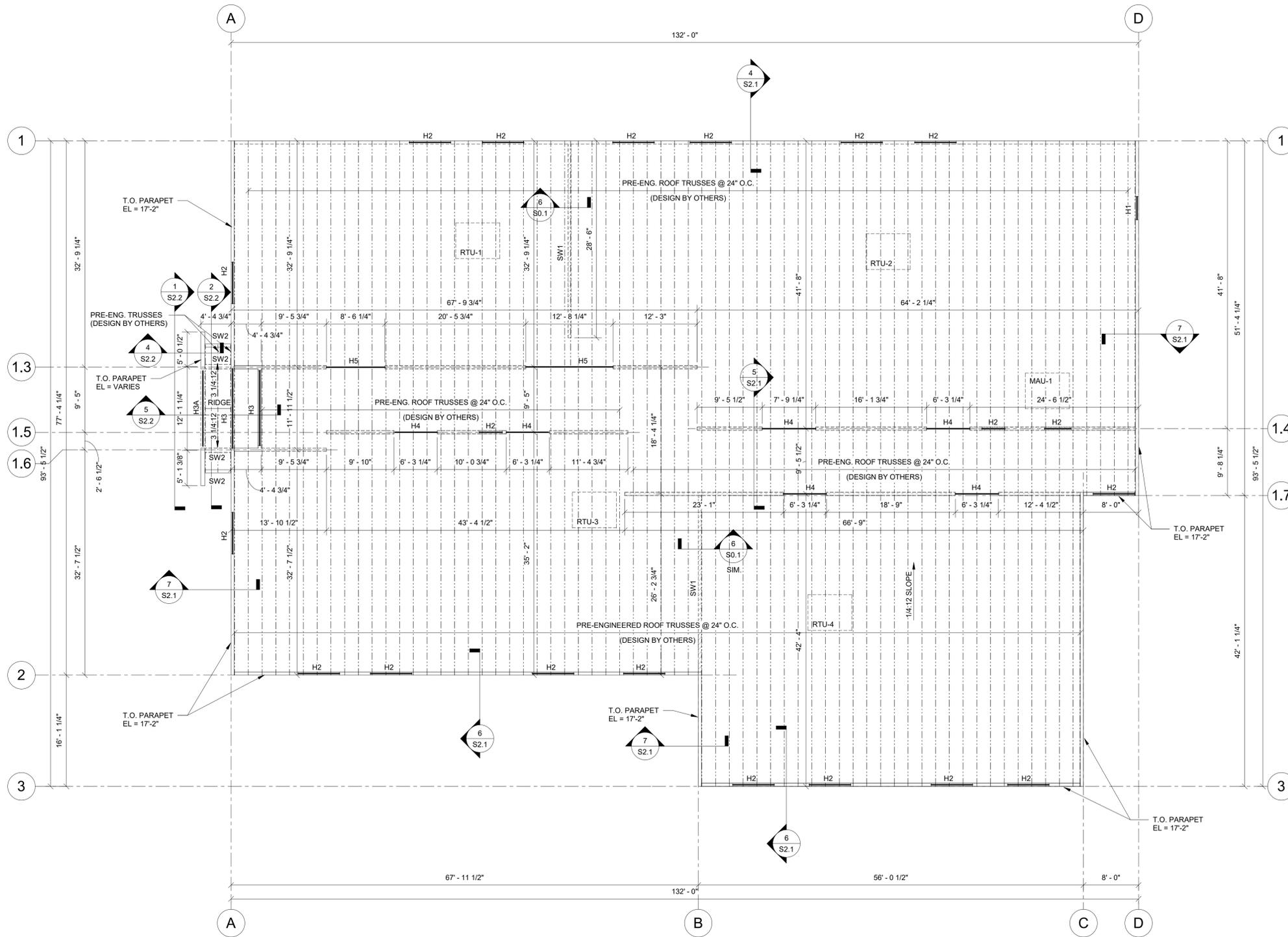
DATE

MAY 08, 2025

SHEET

S1.2

ATURAArchitecture



ROOF FRAMING PLAN

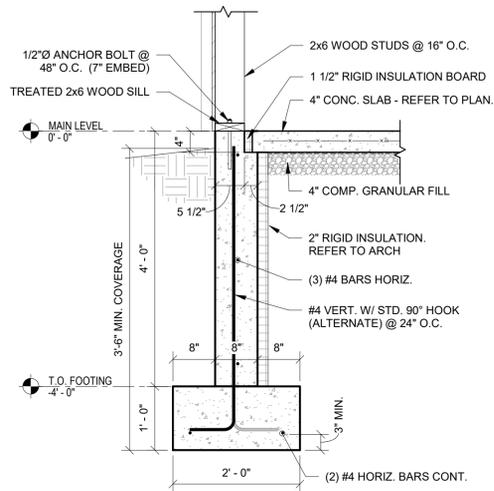
SCALE: 1/8" = 1'-0"

PLAN NOTES

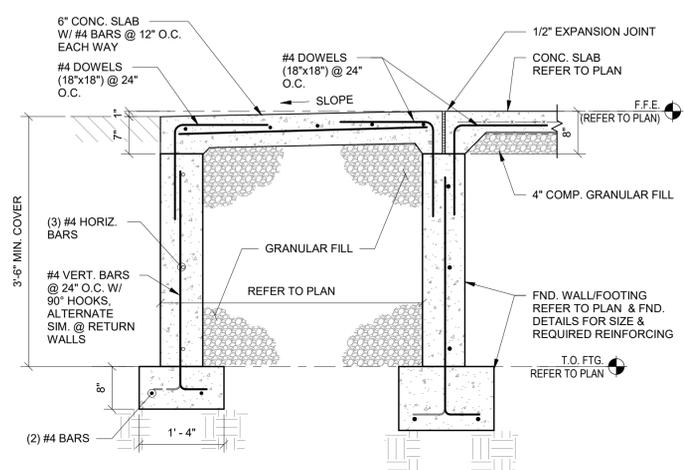
1. REFER TO ARCHITECTURAL SHEETS FOR LOCATIONS OF WALLS, OPENINGS AND OTHER DIMENSIONS NOT SHOWN ON THE PLAN.
2. COORDINATE PENETRATIONS THROUGH STRUCTURE WITH OTHER DISCIPLINES.
3. ALL EXTERIOR STUD WALLS SHALL BE 2x6 SPF #1/#2 @ 16" O.C., U.N.O.
4. REFER TO MECHANICAL FOR ROOF TOP UNIT WEIGHTS.



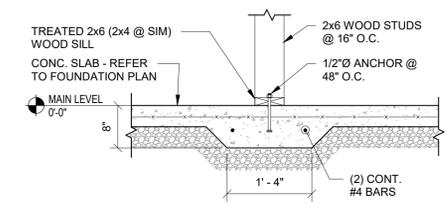
NO.	NAME	DATE



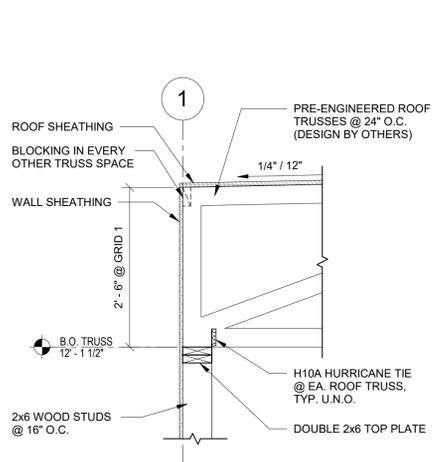
1 TYP. FOUNDATION WALL
SCALE: 3/4" = 1'-0"



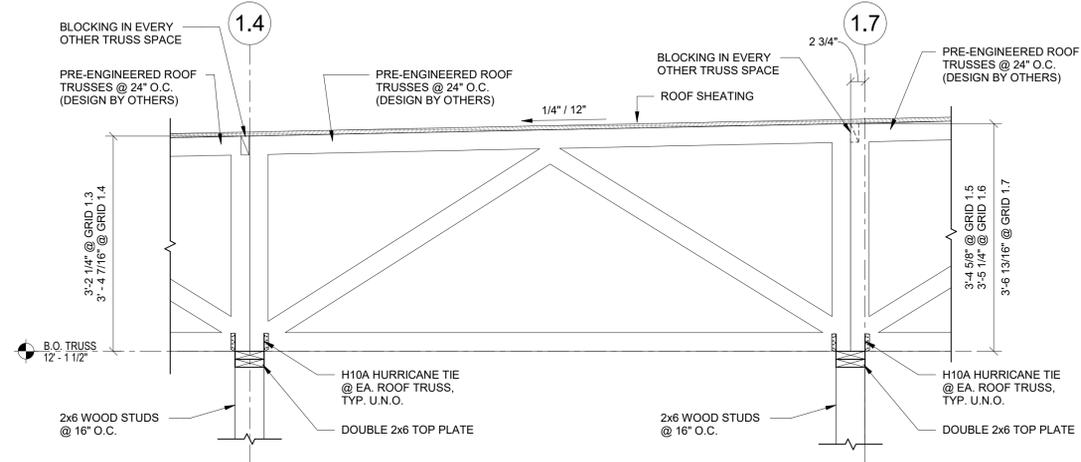
2 STOOP SECTION
SCALE: 3/4" = 1'-0"



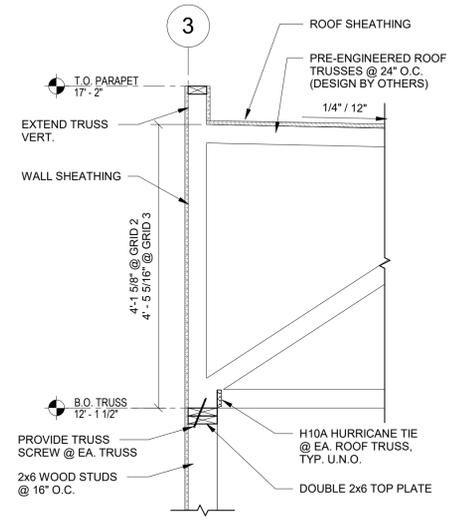
3 THICKENED SLAB - 2x6 BRG WALL
SCALE: 3/4" = 1'-0"



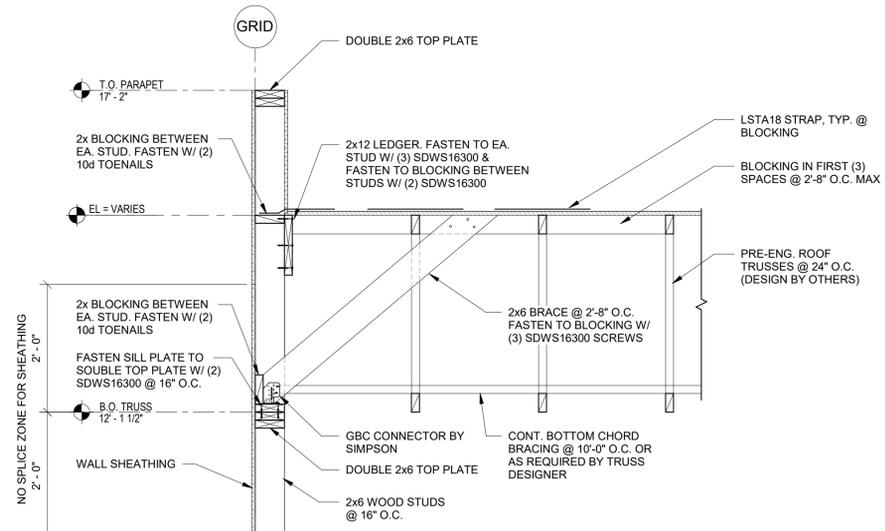
4 ROOF FRAMING DETAIL
SCALE: 3/4" = 1'-0"



5 ROOF FRAMING DETAIL
SCALE: 3/4" = 1'-0"



6 ROOF FRAMING DETAIL
SCALE: 3/4" = 1'-0"

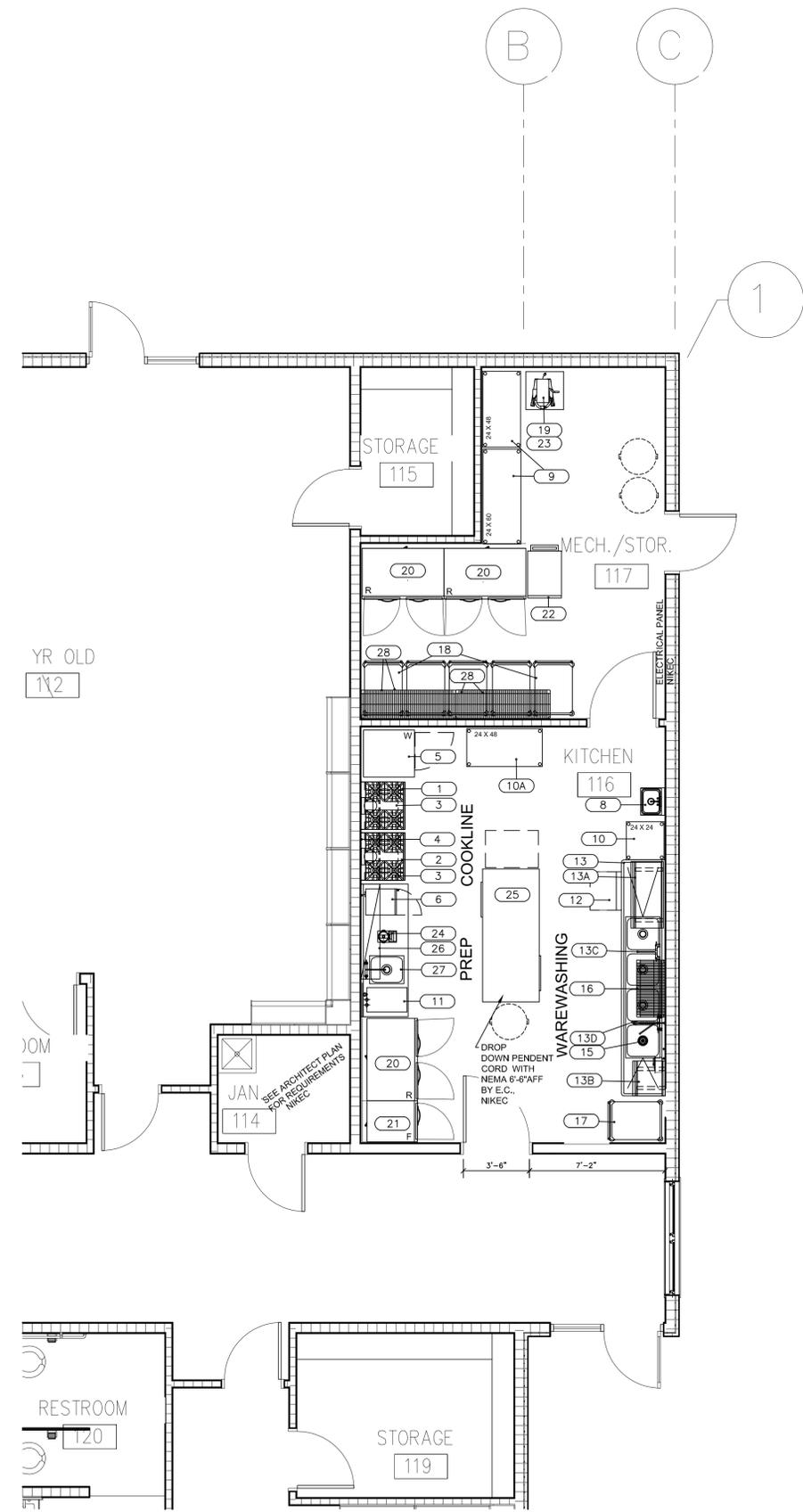


7 ROOF FRAMING DETAIL
SCALE: 3/4" = 1'-0"

GENERAL NOTES

- THE DRAWINGS, SPECIFICATIONS, ALL ELECTRONIC MEDIA, AND OTHER DOCUMENTS PROVIDED BY ADVANCED FOODSERVICE CONSULTING FOR THIS PROJECT SHALL BE DEEMED ADVANCED AND THEY SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHT. THE OWNER/ARCHITECT SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF THE ADVANCED DOCUMENTS FOR THIS PROJECT.
 - OWNER/ARCHITECT ACKNOWLEDGES THAT ADVANCED FOODSERVICE CONSULTING SHALL HAVE NO LIABILITY FOR ANY USE OF ADVANCED DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS BY ANY OTHER PARTY OTHER THAN ADVANCED.
 - ADVANCED FOODSERVICE CONSULTING TAKES NO RESPONSIBILITY FOR ELECTRONIC MEDIA'S COMPATIBILITY WITH SOFTWARE OR HARDWARE USED BY THE RECIPIENT. WHEREAS THE TRANSMITTED INFORMATION IS SUBJECT TO CHANGE, THE RECIPIENT MUST ACCEPT RESPONSIBILITY FOR OBTAINING ANY UPDATES.
 - ALL INFORMATION REMAINS PROPERTY OF ADVANCED FOODSERVICE CONSULTING AND MAY NOT BE COPIED OR USED WITHOUT WRITTEN PERMISSION BY AN OFFICER OF ADVANCED.
- DRAWINGS PROVIDED INDICATE THE GENERAL ARRANGEMENT AND LOCATION OF FOOD SERVICE EQUIPMENT AND ARE REASONABLY EXACT BASED UPON INFORMATION PROVIDED BY THE ARCHITECT AND OTHERS AT THE TIME THE DOCUMENTS WERE PRODUCED. THEREFOR, ACCURACY IS NOT GUARANTEED. DRAWINGS ARE FOR ASSISTANCE AND GUIDANCE. EXACT LOCATION AND LEVELS ARE TO BE GOVERNED BY THE BUILDING CONSTRUCTION DOCUMENTS.
- ALL WORK MATERIALS AND EQUIPMENT SHALL BE IN FULL ACCORDANCE WITH CURRENT CODES AND REGULATIONS OF LOCAL JURISDICTION AUTHORITIES, PUBLIC HEALTH, NATIONAL BOARD OF FIRE UNDERWRITERS, AS WELL AS LOCAL, STATE AND NATIONAL ORDINANCES.
- THE GENERAL AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE AS INDICATED BY THESE DRAWINGS AND SHALL NOTIFY FOODSERVICE CONTRACTOR OF ANY DISCREPANCIES BEFORE BEGINNING THEIR WORK.
- GENERAL CONTRACTOR TO VERIFY THE SIZE, LOCATION, AND CAPACITIES OF UTILITIES NECESSARY TO OPERATE ALL EQUIPMENT INDICATED BY OWNER OR BY OTHERS. IF UTILITIES ARE INDICATED FOR THIS EQUIPMENT ON ARCHITECT PLANS, THEY ARE TYPICAL CONNECTIONS ONLY AND MUST BE VERIFIED AS TO NECESSITY, CAPACITY, AND LOCATION.
- ALL ROUGH-INS ARE TO STUB THRU THE FLOOR OR TERMINATE IN THE WALLS. REFER TO THE MANUFACTURER'S SPECIFICATION SHEETS AND DETAIL DRAWINGS FOR FINAL CONNECTIONS FROM ARCHITECT.
- SEE ARCHITECTURAL DRAWINGS FOR ROUGH-IN REQUIREMENTS, CONVENIENCE RECEPTACLES, EXIT LIGHTS, EMERGENCY LIGHTING, PHONE CONNECTIONS, PA SYSTEMS, ALARM SYSTEMS, HOSE BIBS, WATER COOLERS, FLOOR SINKS, AND AREA DRAINS, ETC.
- ALL PLUMBING, ELECTRICAL, REFRIGERATION, AND VENTILATION WORK INCLUDING ROUGH-INS AND FINAL CONNECTIONS OF THE EQUIPMENT IS TO BE PERFORMED BY THE APPROPRIATE TRADES. THIS IS NOT A PART OF FOODSERVICE CONTRACT UNLESS NOTED OTHERWISE.
- BUILDING CONTRACTORS SHALL PROVIDE AND INSTALL WALL BACKING OR STEEL BACKING IN ANY WALLS AS REQUIRED TO HANG FOODSERVICE EQUIPMENT IF WALLS DEVIATE FROM CONCRETE WALLS.
- INSTALLATION OF EQUIPMENT (BY KEC) SHALL INCLUDE DELIVERY, UNCRATING, UNCRATING, SETTING IN PLACE OF EQUIPMENT, LEVELING AND CAULKING AS REQUIRED. INSTALLATION DOES NOT INCLUDE HOISTING OF EQUIPMENT TO THE ROOF TOP, CORE DRILLING, ROOF PENETRATIONS, BUILDING PENETRATIONS, AND PITCH POCKETS, CURBS, FIRE STOPPING, WEATHERPROOFING, IN WALL BLOCKING, INTERCONNECTING WIRING FROM EQUIPMENT CONTROLS TO EQUIPMENT, INTERCONNECTING PLUMBING, PERMITS, FEES INTERCONNECTING DUCT WORK FROM EQUIPMENT TO BUILDING HVAC SYSTEMS, HEAT TAPE AND INSULATION.
- ALWAYS VERIFY SCALE WITH DIMENSIONS GIVEN.

EQUIPMENT SCHEDULE			
ITEM NO	QTY	EQUIPMENT CATEGORY	EQUIPMENT REMARKS
1	1	RANGE	
2	1	RANGE	
3	2	FIRE READY HOOD	NIKEC - BY M.C.
4	1	S/S PANEL	
5	1	HOLDING CABINET	
6	1	MICROWAVE OVEN	
7	-	- SPARE NUMBER -	
8	1	HAND SINK	
9	2	SHELVING	
10	1	SHELVING	
10A	1	SHELVING, MOBILE	
11	1	ICE/WATER DISPENSER	
12	1	DISHWASHER, UNDERCOUNTER	
13	1	4 COMPARTMENT SINK	
13A	1	DISH RACK	
13B	1	DISH RACK	
13C	1	FAUCET, WALL MOUNT	
13D	1	PRE-RINSE W/ ADD ON FAUCET	
14	-	- SPARE NUMBER -	
15	1	GARBAGE DISPOSER	
16	1	WALL GRID SHELVING UNIT	
17	1	UTILITY CART	
18	5	UTILITY CART	
19	1	MIXER, COUNTER	
20	3	REFRIGERATOR, REACH-IN	
21	1	FREEZER, REACH-IN	
22	1	TRANSPORT INSULATED CABINET	
23	1	EQUIPMENT STAND, MOBILE	
24	1	BLENDER/MIXER	
25	1	WORK TABLE, MOBILE	
26	1	MILLWORK	NIKEC - BY OTHERS
27	1	PREP TABLE W/ SINK & FAUCET	
28	4	WALL SHELVING	



1 EQUIPMENT PLAN
1/4" = 1'-0"

MECHANICAL SHEET INDEX	
M000	MECHANICAL TITLE SHEET
M2.1	MECHANICAL PLAN
M2.2	MECHANICAL ROOF PLAN
M5.1	MECHANICAL DETAILS
M5.2	MECHANICAL DETAILS
M6.1	MECHANICAL SCHEDULES
M6.2	MECHANICAL SCHEDULES



STRUCT ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDBLUESTONE
5218 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 52222
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

ABBREVIATIONS	
▲ T	TEMPREATURE DIFFERENCE
Ø	ROUND ABOVE
ABV	AIR CONDITIONING
AC	AREA DRAIN
AD	ADDENDUM
ADD	ARCHITECT / ENGINEER
AIE	ABOVE FINISHED FLOOR
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
ALT	ALTERNATE
AP	ACCESS PANEL
ARCH	ARCHITECT/ARCHITECTURAL
BAS	BUILDING AUTOMATION SYSTEM
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSEPOWER
BLW	BELOW
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS PER HOUR
CAP	CAPACITY
CB	CATCH BASIN
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CFH	CUBIC FEET PER HOUR
CLG	CEILING
C.M.	CONSTRUCTION MANAGER
CO	CLEAN OUT
CV	CONTROL VALVE
CW	COLD WATER
D	DEGREE
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROLS
DIA	DIAMETER
DN	DOWN
DW	DEIONIZED WATER
EAT	ENTERING AIR TEMPERATURE
E.C.	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
EQUIP	EQUIPMENT
EW/C	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EA	EXHAUST AIR
EG	EXHAUST GRILLE
EXIST	EXISTING
F	DEGREES FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FL	FLOOR
FO	FUEL OIL
FOV	FUEL OIL VENT
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FPC	FIRE PROTECTION CONTRACTOR
FFM	FEET PER MINUTE
FS	FLOOR SINK
FT	FOOTFEET
FTR	FIN TUBE RADIATION
GAL	GALLON
GF	GAS-FIRED
G.C.	GENERAL CONTRACTOR
GFM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIBB
HP	HORSE POWER
HP	HIGH PRESSURE
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HYD	HYDRANT
ID	INDIRECT DRAIN
IN	INCH
IE	INVERT ELEVATION
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LBHR	POUNDS PER HOUR
LD	LINEAR DIFFUSER
LP	LOW PRESSURE
LVR	LIQUEFIED PETROLEUM GAS
LWT	LEAVING WATER TEMPERATURE
MA	MIXED AIR
MAX	MAXIMUM
MBH	ONE THOUSAND BTU PER HOUR
M.C.	MECHANICAL CONTRACTOR
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MP	MEDIUM PRESSURE
MTR	MOTOR
MUA	MAKE-UP/AIR
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NC	NOT IN CONTRACT
NG	NATURAL GAS
NO	NUMBER
NO	NORMALLY OPEN
NOT	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
ORD	OVERFLOW ROOF DRAIN
PD	PRESSURE DROP
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PWR	POWER
R	DUCT RISER
RA	RETURN AIR
RCP	RADIANT CEILING PANEL
RD	ROOF DRAIN
REC	RECESSED
RED	REDUCER
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RLA	RELIEF AIR
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SAN	SANITARY
SD	SMOKE DAMPER
SF	SQUARE FOOT
SG	SUPPLY GRILLE
SM	SURFACE MOUNT
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
STM	STEAM
T	THERMOSTAT
T.C.	TEMP CONTROLS CONTRACTOR
TD	TEMPERATURE DROP
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TYP	TYPICAL
UG	UNDERGROUND
VAC	VACUUM
V	VENT
VAV	VARIABLE AIR VOLUME
VENT	VENTILATION
VTR	VENT THROUGH ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
YCO	YARD CLEANOUT
ERV	ENERGY RECOVERY VENTILATOR
EWH	ELECTRIC WATER HEATER
FCU	FAN COIL UNIT
FP	FIRE PUMP
GI	GREASE INTERCEPTOR
GRV	GRAVITY ROOF VENTILATOR
HP	HEAT PUMP
HWP	HEATING WATER PUMP
HRU	HEAT RECOVERY UNIT
P	PUMP
PRV	POWER ROOF VENTILATOR
RF	RETURN FAN
RHC	REHEAT COIL
RTU	ROOFTOP UNIT
SP	SUMP PUMP
UH	UNIT HEATER
WH	WATER HEATER

GENERAL PLAN SYMBOLS	
	PLAN REVISION NUMBER
	DETAIL NUMBER ON SHEET
	SHEET NUMBER WHERE DETAIL IS PLACED
	KEYNOTE SYMBOL
	POINT WHERE NEW CONNECTS TO EXISTING
	ROOM NAME / NUMBER
	AREA BEING DEMOLISHED
	AREA NOT IN CONTRACT
<u>MARK</u>	SCHEDULED EQUIPMENT (UNDERLINED)
MARK	NONSCHEDULED EQUIPMENT
(E) MARK	EXISTING EQUIPMENT - HALF-TONE - (E) PREFIX
(R) MARK	EXISTING RELOCATED EQUIPMENT - (R) PREFIX
DUCTWORK SYMBOLS	
	RECT. DUCT SIZE (WIDTH / HEIGHT)
	ROUND DUCT SIZE (DIAMETER)
	OVAL DUCT SIZE (WIDTH / HEIGHT)
	EXISTING DUCT TO REMAIN
	DUCT TO BE DEMOLISHED
	SUPPLY AIR
	RETURN AIR
	EXHAUST AIR
	OUTSIDE AIR
	FLUE GAS VENT
	COMBUSTION AIR
	RECT. SUPPLY DUCT RISE / DROP
	ROUND SUPPLY DUCT RISE / DROP
	RECT. RETURN DUCT RISE / DROP
	ROUND RETURN DUCT RISE / DROP
	RECT. EXHAUST DUCT RISE / DROP
	ROUND EXHAUST DUCT RISE / DROP
	FLEXIBLE DUCTWORK
AIR TERMINALS	
	SUPPLY GRILLE, REGISTER, DIFFUSER
	RETURN GRILLE, REGISTER, DIFFUSER
	EXHAUST GRILLE, REGISTER, DIFFUSER
	DIFFUSER CALLOUT SYMBOL
	DIFFUSER CALLOUT SYMBOL UNDEFINED CFM
DAMPER TYPES	
	MANUAL DAMPER
	MOTORIZED DAMPER
	BACKDRAFT DAMPER
	SMOKE DAMPER
	FIRE DAMPER
	COMB. FIRE/ SMOKE DAMPER

MECHANICAL PIPING SYMBOLS	
	NOMINAL PIPE SIZE
	EXISTING PIPE TO REMAIN
	PIPE TO BE DEMOLISHED
	BOILER BLOW DOWN
	BOILER FEED-WATER
	CHILLED-WATER SUPPLY
	CHILLED-WATER RETURN
	CONDENSER-WATER SUPPLY
	CONDENSER-WATER RETURN
	FUEL OIL SUPPLY
	FUEL OIL RETURN
	GEO THERMAL LOOP SUPPLY
	GEO THERMAL LOOP RETURN
	HOT-WATER SUPPLY
	HOT-WATER RETURN
	REFRIGERANT LINESET
	LOW PRESSURE STEAM SUPPLY
	LOW PRESSURE STEAM RETURN
	MEDIUM PRESSURE STEAM SUPPLY
	MEDIUM PRESSURE STEAM RETURN
	HIGH PRESSURE STEAM SUPPLY
	HIGH PRESSURE STEAM RETURN
	NATURAL GAS
	LIQUID PROPANE
	CONDENSATE DRAIN
PIPE FITTINGS	
	PIPE RISE / DROP
	PIPE ELBOW
	PIPE TEE HORIZONTAL / RISER / DROP
	PIPE CAP / CONTINUATION
PIPE ACCESSORIES	
	BALANCING VALVE
	BALL VALVE
	ELEC. CONTROL VALVE
	GATE VALVE
	GENERIC ISOLATION VALVE
	2-WAY ELEC. CONTROL VALVE
	3-WAY ELEC. CONTROL VALVE
	FLOW SENSOR
	PRESSURE SENSOR
	TEMPERATURE SENSOR & WELL
	UNION
	STRAINER
	ANGLE VALVE
	BUTTERFLY VALVE
	PLUG VALVE
	GAS METER
	INLINE PUMP
	HOSE BIBB/ HYDRANT
	PRESSURE GAUGE
	AIR VENT
	PRESSURE RELIEF
	STEAM TRAP
DATA DEVICES	
	THERMOSTAT
	HUMIDISTAT
	TEMPERATURE & HUMIDITY DETECTOR
	TEMPERATURE & CO2 DETECTOR
	GENERIC DETECTOR
	DDC SENSOR. SEE ABBREVIATIONS LIST

GENERAL NOTES - FUEL GAS

- ALL FUEL GAS WORK SHOULD BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION:
 - NFPA 54 - NATIONAL FUEL GAS CODE
 - INTERNATIONAL FUEL GAS CODE
 - LOCAL CODES, INCLUDING ALL AMENDMENTS AND ORDINANCES
- NATURAL GAS SERVICE, METER AND UTILITY REGULATOR SHALL BE PROVIDED AND INSTALLED BY THE GAS UTILITY COMPANY, PAID FOR BY THE OWNER.
- TEST AND PURGE NATURAL GAS PIPING PER NFPA 54 RECOMMENDATIONS.
- PROVIDE GAS PIPING TO EQUIPMENT AND ALL FINAL CONNECTIONS REQUIRED FOR OPERATION.
- PROVIDE A LEVER HANDLE GAS SHUT-OFF VALVE IN THE BRANCH PIPING OF EACH APPLIANCE OR PIECE OF EQUIPMENT. FOR EACH APPLIANCE INSTALL QUICK DISCONNECT, FLEXIBLE PIPE "WHEN ALLOWED BY CODE", AND RESTRAINING DEVICE FURNISHED BY OWNER. PROVIDE PRESSURE REDUCING VALVES AT EACH PIECE OF EQUIPMENT OR APPLIANCE IF GAS PRESSURE GREATER THAN 10" WC IS USED DOWNSTREAM FROM THE GAS METER.
- NATURAL GAS PIPING INSTALLED BELOW FLOOR SHALL BE INSTALLED IN CONDUIT AND VENTED PER NFPA 54 REQUIREMENTS.
- EMERGENCY GAS SOLENOID VALVES SHALL BE WIRED TO BE POWER OPEN/FAIL CLOSED.
- VENT ALL REGULATORS PER FUEL GAS CODE REQUIREMENTS, EITHER TO THE BUILDING EXTERIOR OR BY PROVIDING VENT LIMITING DEVICES APPROVED FOR INDOOR LOCATIONS.

PROJECT NOTES - MECHANICAL

- ALL WORK OUTSIDE OF THE PROJECT AREA SHALL BE PERFORMED ON NIGHTS OR WEEKENDS. MECHANICAL CONTRACTOR SHALL INCLUDE ALL PREMIUM LABOR COSTS IN THEIR BID. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OWNER.
- REFER TO KITCHEN EQUIPMENT DRAWINGS FOR MECHANICAL ROUGH-IN SCHEDULE FOR ADDITIONAL WORK TO BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. ALL MECHANICAL ROUGH-INS AND FINAL CONNECTIONS TO KITCHEN EQUIPMENT SHALL BE MADE BY THE MECHANICAL CONTRACTOR.
- THE OWNER OR KITCHEN EQUIPMENT SUPPLIER MAY SUBSTITUTE EQUIPMENT OR THE EQUIPMENT MAY VARY FROM WHAT IS SHOWN. THEREFORE, VERIFY ALL CRITICAL DIMENSIONS WITH THE OWNER PRIOR TO CONSTRUCTION. FAILURE OF THE CONTRACTOR TO VERIFY THESE DIMENSIONS SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT RELOCATION DIRECTLY UPON THE CONTRACTOR.

GENERAL NOTES - MECHANICAL

- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE HVAC SYSTEMS AS INDICATED ON DRAWINGS, AS SPECIFIED, AND AS REQUIRED BY MOST CURRENT INTERNATIONAL MECHANICAL CODE AND ANY APPLICABLE LOCAL CODES. PROVIDE CLEARANCE FOR INSPECTION, REPAIR, REPLACEMENT, AND SERVICE TO ALL EQUIPMENT TO INCLUDE A MINIMUM OF 36 INCHES FROM ALL OBSTRUCTIONS (WALLS, STRUCTURE, DUCTWORK, PIPES, ETC.). CLEARANCE SHALL MAINTAIN ACCESS TO ALL ELECTRICAL PANELS, ACCESS DOORS, CONTROLLERS, VALVES, JUNCTION BOXES AND OPERATORS AND INCLUDE THE AREA DIRECTLY IN FRONT OF AND ABOVE THE SYSTEM COMPONENTS. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, FLANGES, ACCESSORIES, AND OTHER APPARATUS REQUIRING ACCESS ARE ACCESSIBLE.
- MECHANICAL CONTRACTOR SHALL VISIT THE JOB SITE AND EXAMINE THE DRAWINGS OF OTHER TRADES PRIOR TO BIDDING TO THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND THE SCOPE OF THE PROJECT. FAILURE TO DO SO DOES NOT RELIEVE THE MECHANICAL CONTRACTOR OF THE RESPONSIBILITY TO UNDERSTAND THE SCOPE OR OF UNDERSTANDING ANY FIELD CONDITIONS WHICH COULD BE REASONABLY EXPECTED TO BE KNOWN BY A THOROUGH INVESTIGATION.
- DRAWINGS ARE DIAGRAMMATICAL IN NATURE. IT IS NOT INTENDED THAT THE DRAWINGS SHOW EVERY DUCT, FITTING, TRANSITION, DAMPER, ETC., AND IT IS UNDERSTOOD THAT WHILE THE DRAWINGS MUST BE FOLLOWED AS CLOSELY AS CIRCUMSTANCES WILL PERMIT, THE PROPER INSTALLATION ACCORDING TO THE TRUE INTENT AND MEANING OF THE DRAWINGS, LOCAL CODES AND STANDARD PRACTICES SHALL BE PROVIDED. MECHANICAL CONTRACTOR TO PROVIDE ALL DUCTWORK TRANSITIONS, FLEXIBLE CONNECTIONS, AND ACCESSORIES AS REQUIRED. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION. REPORT ANY PROBLEMS OR CONFLICTS TO THE OWNER OR ENGINEER.
- ANY MINOR CHANGES IN THE LOCATION OF EQUIPMENT, DUCTS, PIPE CONTROL DEVICES, ETC., FROM THOSE LOCATIONS SHOWN ON THE DRAWINGS SHALL BE MADE WITHOUT EXTRA COST IF SO DIRECTED BY THE OWNERS REPRESENTATIVE OR ENGINEER BEFORE THE INSTALLATION IS MADE. A MINOR CHANGE IN LOCATION SHALL BE CONSIDERED TO BE WITHIN 6'-0" OF THE ORIGINALLY INDICATED LOCATIONS.
- VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED.
- WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
- INSTALL SYSTEMS, MATERIALS AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS WHERE INSTALLED EXPOSED IN FINISHED SPACES AND GIVING RIGHT-OF-WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIED SLOPE.
- INSTALL ALL HVAC EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- ALL OPENINGS IN FIRE-RATED AND SMOKE-RATED WALLS DUE TO DUCTWORK, PIPING AND CONTROL CONDUIT SHALL BE FIRE-STOPPED WITH AN APPROVED FIRE STOP MATERIAL. COORDINATE INSTALLATION WITH ARCHITECTURAL CODE PLANS.
- PROVIDE ACCESS DOORS IN DUCTWORK OR WALLS/CEILING FOR OPERATION, ADJUSTMENT, AND MAINTENANCE OF ALL FANS, VALVES, COILS, AND MECHANICAL EQUIPMENT. COILS LOCATED IN DUCTWORK TO BE PROVIDED WITH ACCESS DOORS ON OUTLET SIDE OF COIL.
- LOCATIONS AND SIZES OF ALL FLOOR, CEILING AND WALL OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED AND THE OWNER.
- MECHANICAL CONTRACTOR SHALL COORDINATE CEILING DIFFUSER/GRILLE/REGISTER LOCATIONS WITH LIGHTING, FIRE ALARM EQUIPMENT AND FIRE SUPPRESSION SYSTEMS.
- WHERE NEW WORK OCCURS, MECHANICAL CONTRACTOR SHALL PATCH AND SEAL ALL WALLS, FLOORS AND CEILINGS TO MATCH EXISTING. MECHANICAL CONTRACTOR SHALL VERIFY WITH OWNER ALL PATCHING MATERIALS AND INSTALLATION METHODS.
- MECHANICAL CONTRACTOR SHALL PROVIDE MANUAL BALANCE DAMPERS IN ALL BRANCH TAKE-OFFS TO SUPPLY DIFFUSERS. PROVIDE ADDITIONAL MANUAL BALANCE DAMPERS IN MAIN AND SUB-MAIN DUCTS AS REQUIRED TO ENSURE THE SUPPLY AND RETURN AIR SYSTEMS CAN BE BALANCED TO THE SPECIFIED DESIGN AIRFLOW.
- IN AREAS WHERE A CEILING GRID EXISTS, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF EXISTING CEILING GRID AND TILES AS NECESSARY FOR INSTALLATION OF VENTILATING WORK. ANY PORTION OF THE EXISTING TILES OR GRID WHICH BECOME DAMAGED DURING REMOVAL SHALL BE REPLACED BY THE MECHANICAL CONTRACTOR.
- DO NOT ROUTE DUCT OR PIPING ABOVE OR BELOW ELECTRICAL PANELS INCLUDING SERVICE CLEARANCES.
- ALL RECTANGULAR AND/OR ROUND SUPPLY AND RETURN DUCTWORK SHOWN ON THE PLANS MAY BE CONVERTED TO EQUIVALENT ROUND/RECTANGULAR DUCTWORK AT THE DISCRETION OF THE MECHANICAL CONTRACTOR. ANY DUCT CONVERSIONS SHALL BE SUBMITTED AS PART OF THE DUCTWORK SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER.
- MECHANICAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING METHODS OF BRINGING IN MECHANICAL EQUIPMENT THROUGH BUILDING INTO MECHANICAL ROOMS.
- PIPING SHALL NOT BE SUPPORTED FROM OTHER PIPING, CONDUIT, OR DUCTWORK.
- PROVIDE CHAIN WHEEL OPERATORS FOR ALL VALVES IN EQUIPMENT ROOMS MOUNTED GREATER THAN 7'-0" ABOVE FLOOR LEVEL. CHAIN SHALL EXTEND TO 7'-0" ABOVE FLOOR LEVEL.
- COORDINATE PIPE ROUTING TO AVOID RUNNING PIPING BELOW ROOF HATCHES, SKYLIGHTS AND ACCESS PANELS.
- ALL CONTROL WIRING ROUTED EXPOSED IN SPACES SUCH AS MECHANICAL ROOMS OR ABOVE HARD CEILINGS SHALL BE ROUTED IN CONDUIT. CONTROL WIRING ROUTED ABOVE ACCESSIBLE CEILINGS IS NOT REQUIRED TO BE RUN IN CONDUIT, BUT SHOULD BE SECURELY STRAPPED TO PERMANENT SUPPORTS FOR A CLEAN INSTALLATION.



5518 NW 88th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com

KED/BLUESTONE RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KED/BLUESTONE AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KED/BLUESTONE. © 2025 KED/BLUESTONE

COLFAX - MINGO
CHILDCARE CENTER

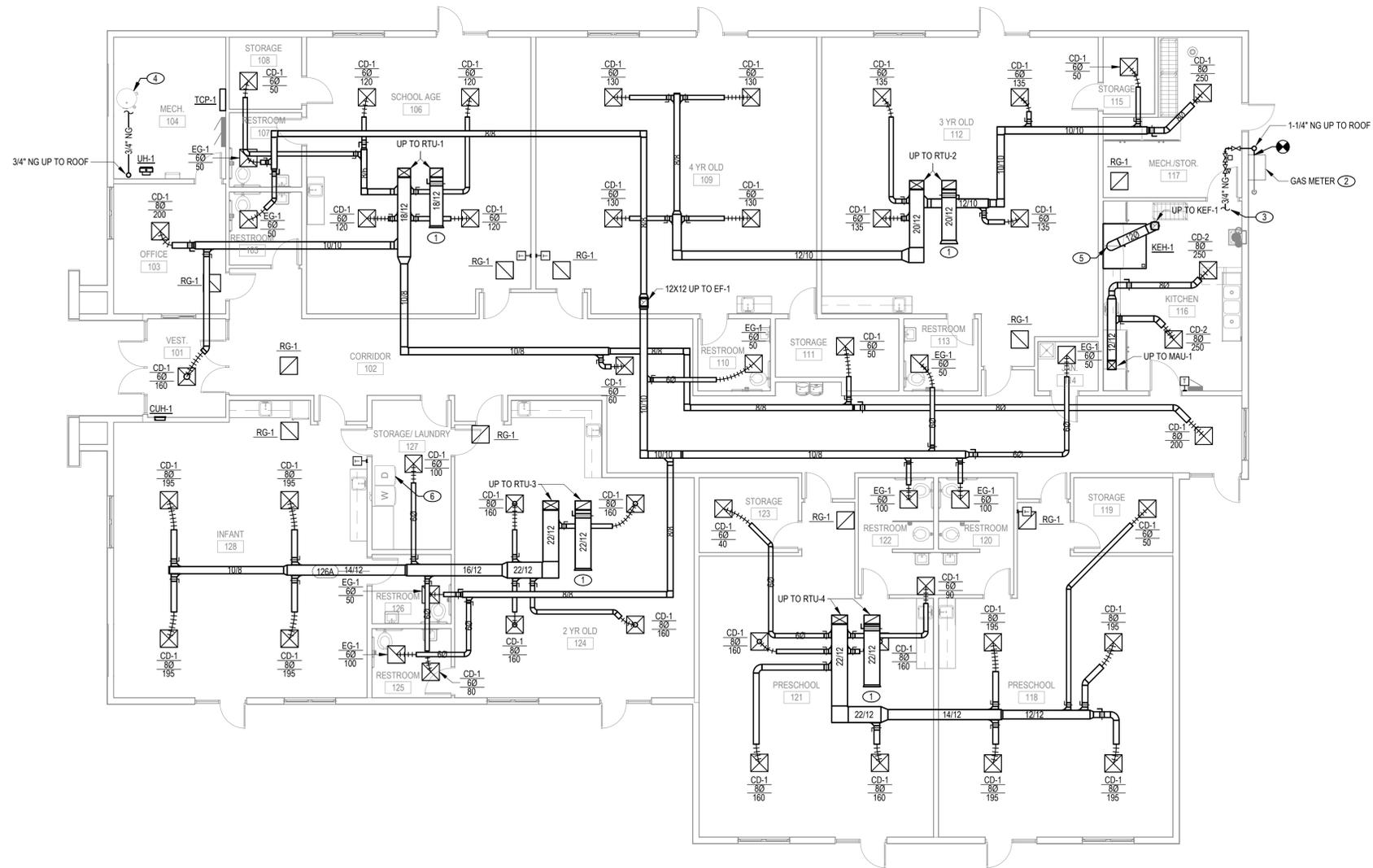
DATE

MAY 8, 2025

SHEET

M000

ATURARArchitecture



1 FIRST FLOOR-MECHANICAL PLAN
1/8" = 1'-0"

KEYED NOTES:

1. PROVIDE RETURN AIR DUCT INLET WITH PROTECTIVE BIRDSCREEN.
2. REFER TO NATURAL GAS PIPING RISER FOR ADDITIONAL INFORMATION.
3. 3/4" GAS TO SERVE KITCHEN EQUIPMENT, INCLUDING GAS RANGES. COORDINATE FINAL EQUIPMENT CONNECTION LOADS AND LOCATIONS WITH FINAL KEK PLANS.
4. PROVIDE WH-1 WITH ATMOSPHERIC VENT KIT. PENETRATE THROUGH ROOF ABOVE. ROUTE AND SIZE WATER HEATER VENT PER MANUFACTURER'S SPECIFICATIONS.
5. 12" ROUND GREASE EXHAUST DUCT DOWN TO KEH-1 CONNECTION.
6. M.C. TO PROVIDE AND INSTALL DRYER EXHAUST DUCT TO SERVE CLOTHES DRYER. DRYER VENT TO DISCHARGE ON ROOF ABOVE. ROUTE AND INSTALL DRYER VENT PER DRYER MANUFACTURER'S REQUIREMENTS AND PER THE DUCTWORK APPLICATION SCHEDULE.

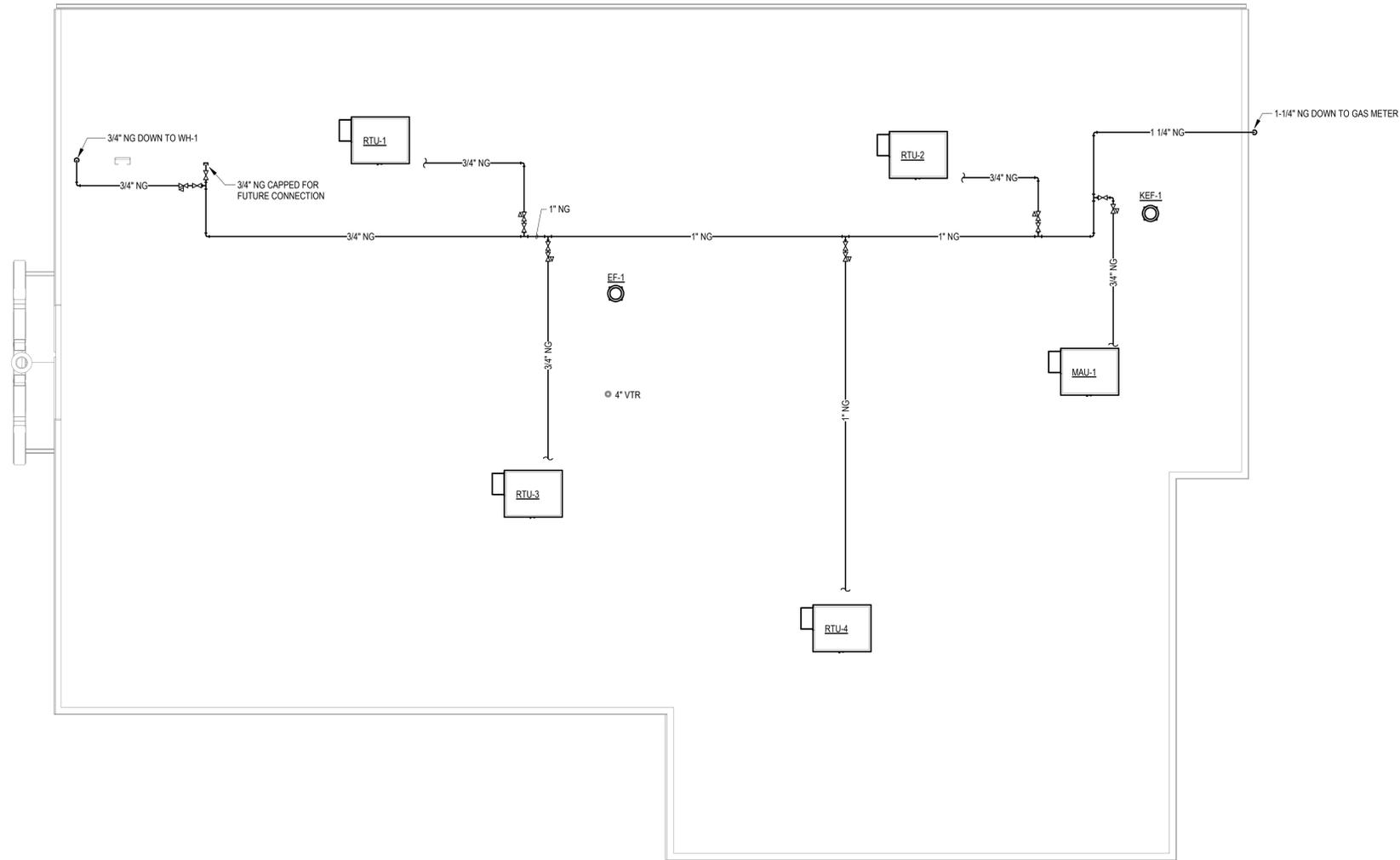
STRUCT ENGINEER
APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER
KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER
CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE



1 MECHANICAL ROOF PLAN
1/8" = 1'-0"



STRUCTURAL ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

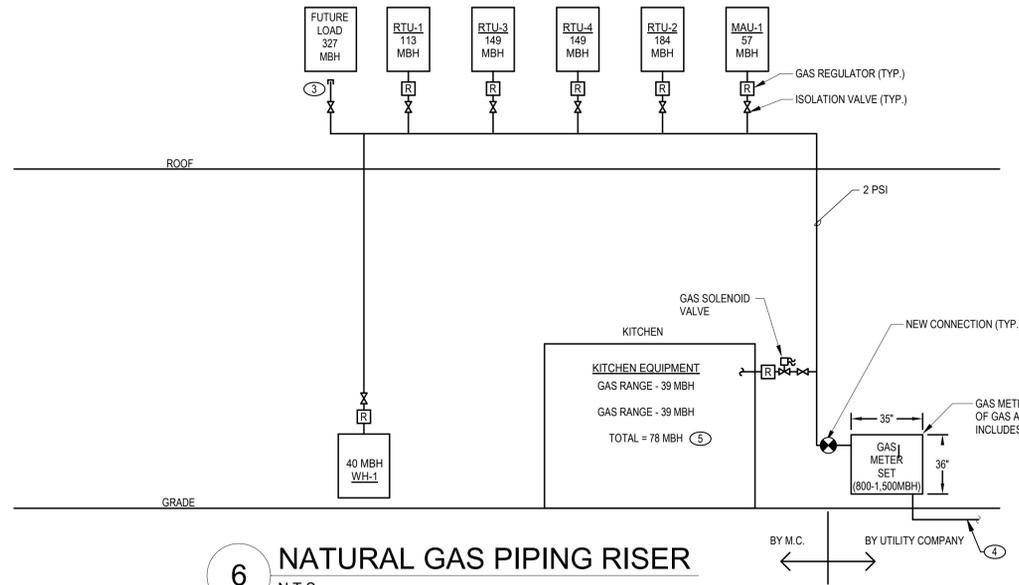
KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50222
Ph. 515-359-4400

REVISIONS

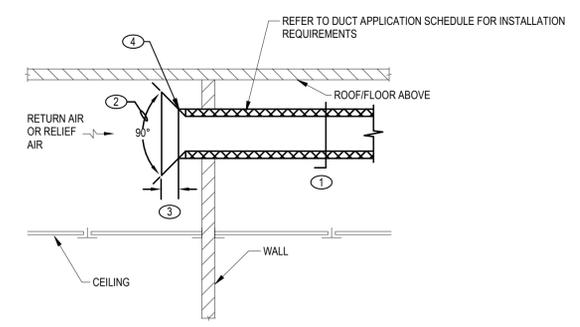
NO.	NAME	DATE



6 NATURAL GAS PIPING RISER
N.T.S.

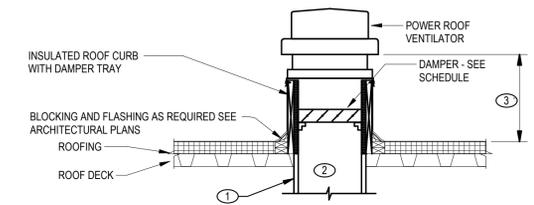
- GENERAL NOTES:**
- SEE PLANS FOR PIPE SIZES.
 - VENT ALL REGULATORS PER THE FUEL GAS CODE.
 - PAINT ALL EXPOSED PIPING AND FITTINGS. COORDINATE COLOR WITH ARCHITECT
 - MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL NEW SERVICE AND METER FEES ASSOCIATED WITH INSTALLING NEW GAS METER.
 - COORDINATE LOCATION OF SOLENOID VALVES WITH ARCHITECT.
 - METER SET DIMENSIONS LISTED ARE APPROXIMATE. M.C. TO COORDINATE FINAL METER SET DIMENSIONS BASED ON PROJECT SPECIFIC METER SET DESIGN WITH UTILITY COMPANY.

- KEYED NOTES:**
- M.C. TO PROVIDE UNI-STRUT RACK AND MOUNTING HARDWARE PER UTILITY COMPANY REQUIREMENTS.
 - M.C. TO PROVIDE BOLLARD POSTS PER UTILITY COMPANY REQUIREMENTS. REFER TO NATURAL GAS METER SET BOLLARD DETAIL FOR ADDITIONAL REQUIREMENTS.
 - LINE SIZE VALVE & CAP FOR FUTURE CONNECTION.
 - UNDER GROUND GAS UTILITY MAIN BY OTHERS.
 - CONFIRM KITCHEN GAS LOADS WITH FINAL KEC PLANS.



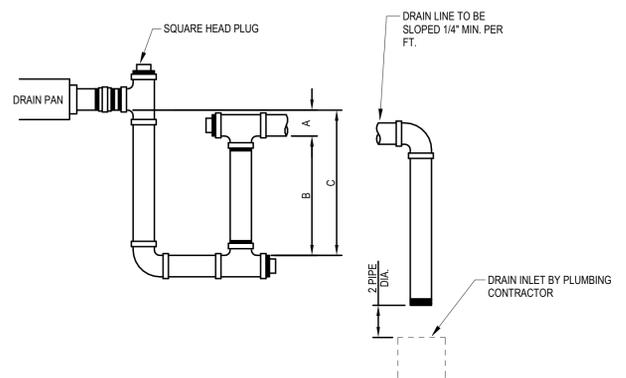
3 BELLMOUTH INLET
N.T.S.

- GENERAL NOTES:**
- BELLMOUTH FITTING TO BE INSTALLED ON ALL RETURN / RELIEF AIR DUCT INLETS NOT DIRECTLY CONNECTED TO A GRILLE OR DIFFUSER
 - BELLMOUTH FITTING INSTALLED SHALL INCLUDE A 1/2" MESH BIRDSCREEN
- KEYED NOTES:**
- MOUNT BALANCING DAMPER AS FAR FROM INLET AS POSSIBLE.
 - BELLMOUTH TRANSITION ANGLE TO BE A MINIMUM OF 90 DEGREES.
 - BELLMOUTH TRANSITION LENGTH TO BE A MINIMUM OF 6" LONG.
 - INSTALL METAL NOSING AT LEADING EDGE OF DUCT LINER.



2 EXHAUST FAN - DOWNBLAST
N.T.S.

- GENERAL NOTES:**
- ROOF CURB PROVIDED BY MECHANICAL CONTRACTOR. COORDINATE INSTALLATION AND FLASHING WITH THE GENERAL CONTRACTOR. REFER TO SCHEDULE FOR HEIGHT REQUIREMENTS.
 - MECHANICAL CONTRACTOR SHALL COORDINATE ROOF OPENING AND CURB SIZE REQUIRED FOR DUCT PENETRATION.
- KEYED NOTES:**
- COORDINATE DUCT INSULATION AND CONSTRUCTION WITH DUCT USAGE SCHEDULE.
 - REFER TO PLAN FOR DUCT SIZES AND ROUTING.
 - EXHAUST AIR OUTLET TO BE A MINIMUM OF 18" ABOVE ROOF.

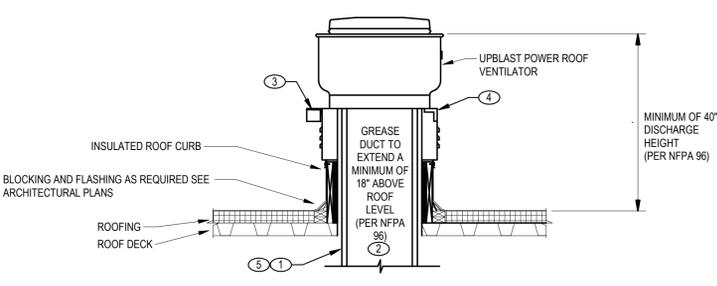


4 CONDENSATE DRAIN (BLOW THROUGH)
N.T.S.

- GENERAL NOTES:**
- FILL TRAP MANUALLY ON INITIAL START-UP.
 - TRAP EACH COMPONENT DRAIN CONNECTION.
 - PIPE SIZE SHALL NOT BE LESS THAN DRAIN PAN CONNECTION SIZE.
 - BLOW THROUGH UNITS:
A=1/2"
B=SP+1/2"
C=A+B"

SP TO BE MAXIMUM STATIC PRESSURE (SP) ON THE DRAIN PAN INCLUDING MAXIMUM FILTER PRESSURE DROP AND PRESSURE DROP OF FUTURE COMPONENTS OF UNIT IF APPLICABLE.

- RAISE COIL SECTION OR ENTIRE AIR HANDLING UNIT WITH STRUCTURAL MEMBERS OR STANDS TO PROVIDE TRAP HEIGHT.



1 GREASE EXHAUST FAN - UPBLAST
N.T.S.

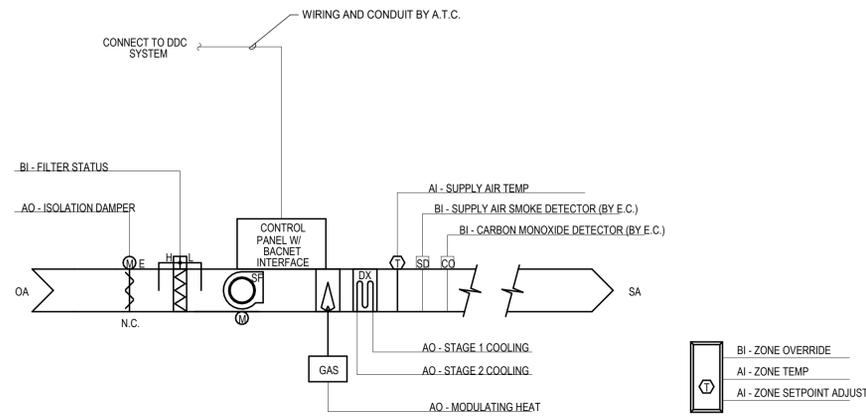
- GENERAL NOTES:**
- ROOF CURB PROVIDED BY MECHANICAL CONTRACTOR. COORDINATE INSTALLATION AND FLASHING WITH THE GENERAL CONTRACTOR. REFER TO SCHEDULE FOR HEIGHT REQUIREMENTS.
 - MECHANICAL CONTRACTOR SHALL COORDINATE ROOF OPENING AND CURB SIZE REQUIRED FOR DUCT PENETRATION.
 - GREASE EXHAUST FANS TO BE A MINIMUM OF 20' AWAY FROM OUTSIDE AIR INTAKES.
- KEYED NOTES:**
- COORDINATE DUCT INSULATION AND CONSTRUCTION WITH DUCTWORK APPLICATION SCHEDULE.
 - REFER TO PLANS FOR DUCT SIZES AND ROUTING.
 - PROVIDE WITH GREASE COLLECTION CUP.
 - HINGED, VENTED CURB EXTENSION TO ALLOW FOR CLEANING.
 - MAINTAIN MINIMUM CLEARANCE TO COMBUSTIBLE REQUIREMENTS AROUND THE DUCTWORK IN ACCORDANCE WITH NFPA 96 AND MANUFACTURER INSTALLATION REQUIREMENTS.

KED bluestone
5518 NW 88th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com

KED bluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KED bluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KED bluestone. © 2025 KED bluestone

REVISIONS

NO.	NAME	DATE



8 MAKEUP AIR UNIT - CONSTANT VOLUME

N.T.S.

CONTROL SEQUENCE:

RUN CONDITIONS - REQUESTED:

- THE UNIT SHALL RUN:
 - TO MAINTAIN BUILDING SPACE TEMP ABOVE 50 DEG F (ADJ) OR BELOW 90 DEG F (ADJ).

SUPPLY AIR SMOKE DETECTION:

THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A SUPPLY AIR SMOKE DETECTOR STATUS.

SUPPLY FAN:

THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.

HEATING:

THE CONTROLLER SHALL MEASURE SPACE TEMPERATURE AND MODULATE THE HEATING TO MAINTAIN ITS SETPOINT. THE HEATING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS LESS THAN 50°F (ADJ).
- AND THE SPACE TEMPERATURE IS LESS THAN 50°F (ADJ).
- AND THE SUPPLY FAN STATUS IS ON.

COOLING:

THE CONTROLLER SHALL MEASURE SPACE TEMPERATURE AND MODULATE THE COOLING COIL TO MAINTAIN ITS SETPOINT.

THE COOLING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS GREATER THAN 55°F (ADJ).
- AND THE SPACE TEMPERATURE IS GREATER THAN 75°F (ADJ).
- AND THE SUPPLY FAN STATUS IS ON.

FILTER STATUS:

THE CONTROLLER SHALL MONITOR THE FILTER STATUS.

- ALARMS SHALL BE PROVIDED AS FOLLOWS:
- FILTER CHANGE REQUIRED: FILTER DIFFERENTIAL PRESSURE EXCEEDS 0.5" W.C. (ADJ.).

SUPPLY AIR TEMPERATURE:

THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 100°F (ADJ.).
- LOW AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 40°F (ADJ.).

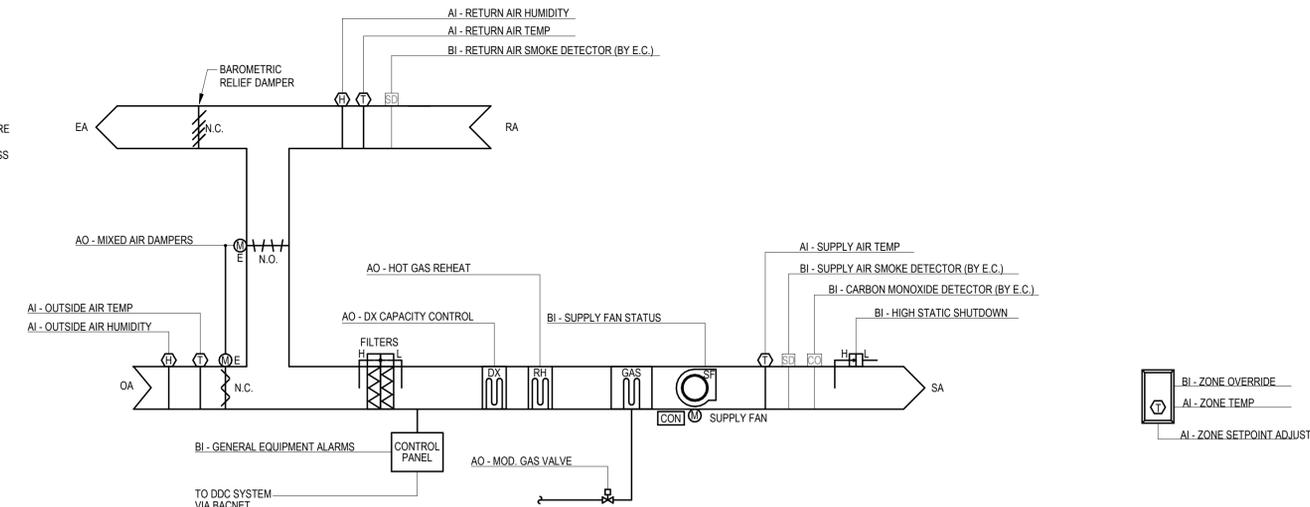


MISCELLANEOUS MECHANICAL EQUIPMENT SCHEDULE

MARK	MANUFACTURER	MODEL	DESCRIPTION	LOCATION (NOTE 1)	SERVICE	SYMBOL				NOTES
						VOLT	PH	MOCP	DISCONNECT	
TCP-1	PROVIDE AND INSTALLED BY ATC		TEMPERATURE CONTROL PANEL	MECH 104	RTU'S AND MAU	120	1	15	BY MFR TYPE NON-FUSED	2

NOTES:

- ALL CONTROL CABINETS IN WET OR DAMP LOCATIONS TO BE NEMA 3 RATED.
- PROVIDE TEMPERATURE CONTROL PANEL WITH INTEGRAL UPS.



4 RTU - SINGLE ZONE CONSTANT VOLUME - BACNET

N.T.S.

CONTROL SEQUENCE: SINGLE ZONE ROOFTOP UNIT

UNIT TO HAVE PACKAGED, STAND ALONE CONTROLS. A.T.C. TO MONITOR & CONTROL ALL POINTS AS SHOWN ON THE CONTROLS DIAGRAM VIA THE BACNET INTERFACE PROVIDED WITH THE UNIT. GENERAL EQUIPMENT ALARMS SHALL ALSO BE REPORTED TO THE BUILDING DDC SYSTEM.

ROOFTOP CONTROLS SHALL HAVE THE FOLLOWING FEATURES & ACCESSORIES:

- HEATING & COOLING CAPACITY CONTROL TO MODULATE FAN SPEED, COMPRESSORS, HEATING COIL, AND ECONOMIZER CONTROLS TO MAINTAIN SETPOINT. SIMULTANEOUS HEATING AND COOLING IS NOT ALLOWED.
- EXHAUST FAN SPEED CONTROL TO MAINTAIN THE SPACE PRESSURE TO +0.05" (ADJ.).
- DEHUMIDIFICATION SEQUENCE SHALL OVERRIDE THE DISCHARGE AIR SETPOINT AND MODULATE THE COMPRESSOR HOT GAS REHEAT BASED ON THE RETURN AIR HUMIDITY.
- DUAL ENTHALPY ECONOMIZER CONTROL. THE ECONOMIZER SHALL BE ENABLED WHENEVER:
 - A. OUTSIDE AIR TEMPERATURE IS LESS THAN 55° F (ADJ.)
 - B. AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 20 BTU/LB (ADJ.)
 - C. AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
 - D. AND THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY.
 - E. AND THE SUPPLY STATUS IS ON.
- REFRIGERANT LEAK DETECTION SYSTEM
- DX HEAT PUMP CAPABILITIES TO PROVIDE HEAT DURING LOW-LOAD HEATING CONDITIONS.

SUPPLY AIR SMOKE DETECTION (BY E.C.):

THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A SUPPLY AIR SMOKE DETECTION STATUS.

RETURN AIR SMOKE DETECTION (BY E.C.):

THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A RETURN AIR SMOKE DETECTION STATUS.

CARBON MONOXIDE DETECTION (BY E.C.):

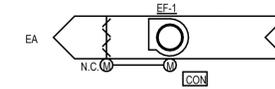
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A SUPPLY AIR CARBON MONOXIDE STATUS.

TEMPERATURE CONTROLS RESPONSIBILITY MATRIX

ITEM	PROVIDED BY	INSTALLED BY
THERMOSTATS AND TEMPERATURE SENSORS FOR EQUIPMENT CONTROLLED BY THE DDC SYSTEM	ATC	ATC
THERMOSTATS AND TEMPERATURE SENSORS FOR STAND-ALONE EQUIPMENT	EQUIP MFR OR MC	EC
SENSORS AND METERS REFERENCED IN THE CONTROLS DOCUMENTS	ATC (NOTE 1)	MC
CONTROL DAMPERS	MC	MC
DAMPER AND VALVE ACTUATORS	ATC	ATC
REFRIGERANT LEAK DETECTION SYSTEM	MC	ATC
TEMPERATURE CONTROL WIRING AND CONDUIT	ATC	ATC
INTERFACE FROM PACKAGED EQUIPMENT CONTROLS TO THE DDC	MC	ATC (NOTE 2)

NOTES:

- THE TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE ALL NECESSARY ADDITIONAL SENSORS TO EXECUTE ALL SEQUENCES AS INDICATED ON THE DRAWINGS. COORDINATE ADDITIONAL SENSOR REQUIREMENTS WITH EQUIPMENT MANUFACTURER(S).
- ATC TO CONNECT THE PACKAGED CONTROLS TO THE DDC SYSTEM.



3 EXHAUST FAN - ON/OFF

N.T.S.

CONTROL SEQUENCE:

RUN CONDITIONS - SCHEDULED:
THE FAN SHALL RUN ACCORDING TO A USER DEFINABLE SCHEDULE.

EXHAUST AIR DAMPER:

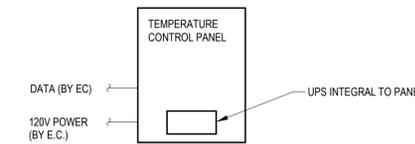
THE EXHAUST AIR DAMPER SHALL BE PROVIDED WITH THE EXHAUST FAN AND OPEN ANYTIME THE UNIT RUNS AND SHALL CLOSE ANYTIME THE UNIT STOPS.

FAN STATUS:

THE CONTROLLER SHALL MONITOR THE FAN STATUS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.



2 DDC PANEL

N.T.S.

GENERAL NOTES:

- REFER TO FLOOR PLAN DRAWINGS FOR CONTROL PANEL LOCATIONS. LOCATIONS SHOWN ARE FOR GENERAL COORDINATION PURPOSES. A.T.C. TO VERIFY CONTROL PANEL QUANTITY. PROVIDE CONTROL PANELS AS NECESSARY TO ACCOMMODATE ALL EQUIPMENT CONTROLLERS, ETC.

NOTES:

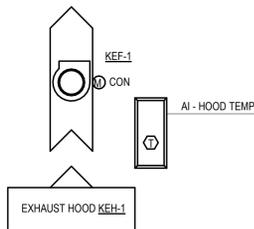
- NEW CONTROL SYSTEM SHALL BE AN EXTENSION OF EXISTING WOODMAN CONTROLS PLATFORM. MECHANICAL SYSTEMS CONTROLS PROVIDED IN THIS PROJECT SHALL BE COMPLETELY AND SEAMLESSLY INTEGRATED WITH EXISTING CONTROLS PLATFORM.
- PROVIDE INTERFACE TO CONTROL / MONITOR THE EXISTING EQUIPMENT. NEW SYSTEM MAY OVERLAY OR COMPLETELY REPLACE THE EXISTING BUILDING AUTOMATION SYSTEM HEAD END.
- REFER TO THE CONTROLS SPECIFICATION 230900 FOR A LIST OF THE EXISTING SYSTEM CONTROL POINTS.

LEGACY SYSTEM INTEGRATION:

- THE TEMPERATURE CONTROLS CONTRACTOR MUST PROVIDE INTEGRATION OF DEVICE DATA FROM THE EXISTING CONTROL SYSTEM. THE CONNECTION TO THE EXISTING SYSTEM SHALL BE VIA A CONNECTION BETWEEN THE NEW FACILITY MANAGEMENT CONTROL SYSTEM NETWORK AND THE EXISTING CONTROL SYSTEM.
- THE OWNER, AND/OR THE EXISTING CONTROL SYSTEM REPRESENTATIVE SHALL ENSURE THAT THE EXISTING SYSTEM'S DATABASE IS SETUP TO MAKE ALL DATA TO BE INTEGRATED INTO THE FMCS AVAILABLE AT THE PORT. ANY MODIFICATIONS TO THE EXISTING SYSTEM DATABASE TO ACCOMPLISH THIS SHALL BE THE RESPONSIBILITY OF THE OWNER.
 - LEGACY SYSTEM GENERIC AI OBJECT
 - LEGACY SYSTEM GENERIC AO OBJECT
 - LEGACY SYSTEM GENERIC BO OBJECT
 - LEGACY SYSTEM GENERIC BI OBJECT
- PROVIDE THE REQUIRED OBJECTS IN THE LIBRARY, INCLUDED WITH THE GRAPHICAL USER INTERFACE PROGRAMMING SOFTWARE, TO SUPPORT THE INTEGRATION OF THE EXISTING SYSTEMS SCHEDULES, ALARMS, LOGS, ETC. IS NEITHER REQUIRED NOR DESIRED.
- THE FACILITY MANAGEMENT CONTROL SYSTEM SUPPLIER SHALL PROVIDE A LEGACY SYSTEM COMMUNICATIONS DRIVER AS REQUIRED FOR INTEGRATION OF THE EXISTING SYSTEM.

7 TYP FAN PUMP DAMPER CONTROL

N.T.S.



KEF-1 CONTROL SEQUENCE:

RUN CONDITIONS - SCHEDULED:

THE CONTROLLER SHALL MONITOR THE KITCHEN TEMPERATURE AND THE HOOD EXHAUST TEMPERATURE AND ACTIVATE THE EXHAUST FAN WHEN THE HOOD EXHAUST TEMPERATURE IS GREATER THAN OR EQUAL TO 10°F (ADJ.) HIGHER THAN THE KITCHEN TEMPERATURE.

FAN:

THE FAN SHALL HAVE A 5 MINUTE (ADJ.) MINIMUM RUNTIME. UNIT SHALL BE ABLE TO ENABLE RUN-IN-HAND CONDITION WITH AN ON/OFF SWITCH, AND THIS SHALL BE DISPLAYED ON GRAPHICS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.

1 NEW TO EXISTING CONTROL SYSTEM INTERFACE

N.T.S.

STRUCT ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDBLUESTONE
5518 NW 88th St.
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 52022
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

DATE

MAY 8, 2025

SHEET

M5.2

KITCHEN HOOD SCHEDULE

SYMBOL	MANUFACTURER	MODEL	EXHAUST (CFM)	HOOD SIZE (IN.)			EXHAUST			FIRE SUPPRESSION (NOTE 1)	LIGHTS	STAINLESS STEEL BACKSPLASH (NOTE 2)	1/4 END PANELS	UTILITY CABINET LOCATION (L/R/H/REMOTE)	CONTROLLER LOCATION (FACE, SIDE, REMOTE RECESSED)	ELECTRICAL		NOTES
				L	W	H	DUCT CONNECTION	FILTERS	S.P. (IN. W.C.)							VOLT	PHASE	
KEH-1	CAPTIVE-AIRE	6024 ND-2	542	74	60	24	(1) 8" DIAM	YES	3	YES	YES	YES	RIGHT HAND	REMOTE RECESSED	120	1	3, 4	

- NOTES:**
- UTILITY CABINET BY HOOD MANUFACTURER.
 - PROVIDE WITH STAINLESS STEEL INSULATED BACKSPLASH. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
 - PROVIDE WITH DUCT TEMPERATURE KIT AND ROOM TEMPERATURE SENSOR.
 - PROVIDE WITH BACNET CONNECTIVITY PACKAGE.

GRILLES, REGISTERS, & DIFFUSERS SCHEDULE

MARK	MANUFACTURER	MODEL	STYLE	BORDER (NOTE 1)	INLET SIZE (INCH) (NOTE 2)	FACE SIZE (INCH)	DAMPER NEEDED	MATERIAL	COLOR	NOTES
CD-1	TITUS	OMNI	PANEL FACE	LAY-IN	SEE DWG.	24x24	NO	STEEL	WHITE	
CD-2	CAPTIVEAIRE	DI-PSP	PERFORATED FACE	LAY-IN	SEE DWG.	24x24	NO	STAINLESS STEEL	STAINLESS STEEL	
RG-1	TITUS	OMNI	PANEL FACE	LAY-IN	15" DIA.	24x24	NO	STEEL	WHITE	
EG-1	TITUS	OMNI	PANEL FACE	LAY-IN	SEE DWG.	24x24	NO	STEEL	WHITE	

- NOTES:**
- CONTRACTOR SHALL DETERMINE PROPER MARGIN STYLE TO MATCH CEILING TYPE.
 - BRANCH DUCT TO DIFFUSERS SHALL BE AT THE SAME SIZE AS THE DIFFUSER NECK, UNLESS SHOWN OTHERWISE.

FAN SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	TYPE	AIRFLOW (CFM)	S.P. (IN. W.C.)	MAX FAN RPM	DRIVE	MAX. AMCA SCORES	ROOF CURB			FAN CONSTRUCTION				ELECTRICAL (FAN)				DAMPER		CONTROL TYPE	NOTES		
										TYPE	HEIGHT (IN.) (NOTE 6)	PROVIDED BY	HOUSING (STEEL OR ALUM)	WHEEL (STEEL OR ALUM)	BHP	MHP	VOLT	PH	DISCONNECT BY	STARTER BY	TYPE (MOTORIZED OR GRAVITY)	VOLT			PH	
EF-1	GREENHECK	G	GENERAL EXHAUST	MUSHROOM EXHAUST	600	0.5	1550	DIRECT	9.3	STANDARD	12"	MFR.	ALUM	ALUM	0.1	0.125	115	1	MFR	NON-FUSED	MFR	GRAVITY	-	-	1	
KEF-1	CAPTIVEAIRE	DU33HFA	KITCHEN	UPBLAST GREASE EXHAUST FAN	542	0.5	1210	DIRECT	10.2	STANDARD	12"	MFR.	ALUM	ALUM	0.1	0.33	115	1	MFR	NON-FUSED	MFR	GRAVITY	-	-	BY HOOD MFR	1, 2

- NOTES:**
- VENTED, HINGED ROOF CURB. DUCTWORK SHALL ATTACH TO FAN AT A MINIMUM OF 18" ABOVE ROOF LEVEL.
 - GREASE COLLECTION SYSTEM.

CONTROL TYPE:
TYPE 1. TIME OF DAY SCHEDULE (DDC)

ROOFTOP AIR HANDLING UNIT SCHEDULE - GAS HEATING / ELECTRIC COOLING

MARK	MANUFACTURER	MODEL	SERVICE	NOMINAL CAPACITY (TONS)	SUPPLY FAN				HEAT PUMP INFORMATION				HEATING - GAS						COOLING COIL - DX									
					AIRFLOW (CFM) MAX	DESIGN OUTSIDE AIR (CFM)	ESP (IN. W.C.) (NOTE 1)	MHP	EAT DB (°F)	MAX TEMP RISE (°F)	LAT DB (°F)	C.O.P.	TEMP RISE (°F)	UNIT LAT DB (°F)	MIN EFF. (AFUE)	MIN INPUT (MBH)	MIN OUTPUT (MBH)	TURNDOWN RATIO	GAS PRESS (IN. W.C.)	EAT DB (°F)	EAT WB (°F)	MAX UNIT LAT DB (°F)	UNIT LAT WB (°F)	TOTAL MBH	AMBIENT TEMP (°F)	REFRIGERANT TYPE	MIN. EFF. (IEER)	# REFRIGERANT CIRCUITS
RTU-1	CAPTIVEAIRE	CAS	SCHOOL AGE	6	1,200	588	1.0	1.5	40	40	80	3.6	67	92	81%	113	92	6.1	7-14	84	71	52	51	79	95	R-454B	19.5	1
RTU-2	CAPTIVEAIRE	CAS	3 & 4 YEAR OLDS	10	1,500	1035	1.0	2	40	39	79	2.9	84	92	81%	184	149	6.1	7-14	89	74	53	52	118	95	R-454B	14.8	1
RTU-3	CAPTIVEAIRE	CAS	INFANT & 2 YEAR OLDS	7.5	1,600	784	1.0	2	40	38	78	3.5	66	92	81%	149	120	6.1	7-14	84	71	54	53	98	95	R-454B	18.6	1
RTU-4	CAPTIVEAIRE	CAS	PRESCHOOL	7.5	1,600	800	1.0	2	40	38	76	3.5	66	92	81%	149	121	6.1	7-14	84	71	54	53	98	95	R-454B	18.6	1

UNIT HEATER SCHEDULE - ELECTRIC

MARK	MANUFACTURER	MODEL	SERVICE	NOMINAL CFM	ELECTRIC COIL				ELECTRICAL						CONTROL TYPE	NOTES
					EAT (°F)	LAT (°F)	TOTAL KW	NUMBER OF STAGES	FAN HP	VOLT	PH	FLA	DISCONNECT			
UH-1	INDEECO	UHIR	MECH 104	350	50	73	2.5	1	FHP	208	1	12.3	MFR.	NON-FUSED	1	

- CONTROL TYPES:**
- UNIT MOUNTED THERMOSTAT (EXTERNAL KNOB ADJUSTMENT. NO TOOLS REQUIRED)

CABINET UNIT HEATER SCHEDULE - ELECTRIC

MARK	MANUFACTURER	MODEL	SERVICE	CONFIGURATION			NOMINAL AIRFLOW (CFM)	ELECTRIC HEATING COIL		CONTROLS TYPE	CABINET DIMENSIONS			DISCONNECT		NOTES			
				CABINET	MOUNTING	DISCHARGE		NUMBER OF STAGES	KW		HEIGHT (IN.)	WIDTH (IN.)	DEPTH (IN.)	VOLT	PH		FLA	BY	TYPE
CUH-1	INDEECO	9331	VESTIBULE	VERTICAL	SEMI-RECESSED	FRONT	100	1	3.0	1	19-5/16"	15-3/4"	5"	208	1	14.4	MFR	NON-FUSED	1

- NOTES:**
- VERIFY FINAL COLOR SELECTION WITH ARCHITECT.

CONFIGURATION NOTES:
 CABINET: HORIZONTAL OR VERTICAL
 MOUNTING: CONCEALED / RECESSED / SEMI-RECESSED / SURFACE
 DISCHARGE: BOTTOM / TOP / DUCTED / FRONT

- CONTROL TYPES:**
- UNIT MOUNTED THERMOSTAT

RTU SCHEDULE - CONTINUED

MARK	MAX VELOCITY (FPM)	THICKNESS	MERV	ROOF CURB (NOTE 2)		OPTIONS															ELECTRICAL (RTU)				NOTES											
				TYPE	HEIGHT (IN.) (NOTE 3)	PROVIDED BY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	VOLT	PH	MCA		MOCP	DISCONNECT		CONTROLS NOTES							
RTU-1	500	2"	8	STANDARD	18"	MFR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	208	3	34	35	MFR.	NON-FUSED	1, 2	4
RTU-2	500	2"	8	STANDARD	18"	MFR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	208	3	56	60	MFR.	NON-FUSED	1, 2	4
RTU-3	500	2"	8	STANDARD	18"	MFR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	208	3	42	50	MFR.	NON-FUSED	1, 2	4	
RTU-4	500	2"	8	STANDARD	18"	MFR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	208	3	40	45	MFR.	NON-FUSED	1, 2	4	

- CONTROLS NOTES:**
- PROVIDE WITH UNIT MOUNTED CONTROLLER AND WALL MOUNTED TEMPERATURE SENSOR / T-STAT TO BE INSTALLED IN THE SPACE SERVED. REFER TO THE CONTROL DIAGRAMS FOR ADDITIONAL REQUIREMENTS.
 - PROVIDE UNITS WITH RELIABLE MICROPROCESSOR CONTROLLER INCLUDING PHASE LOSS PROTECTION, PHASE REVERSAL PROTECTION, PHASE BALANCE PROTECTION, LOW AMBIENT COOLING TO OFF, FROSTAT & CRANKCASE HEATERS.

- OPTIONS:**
- 120 V FIELD POWERED CONVENIENCE OUTLET
 - CONDENSER COIL HAIL GUARDS
 - DOWNFLOW DISCHARGE UNIT
 - 100% DUAL ENTHALPY ECONOMIZER
 - INSULATED DRAIN PAN
 - BACNET INTERFACE
 - MOTORIZED OUTSIDE AIR DAMPER
 - BAROMETRIC RELIEF DAMPERS
 - INVERTER COMPRESSOR ON FIRST STAGE OF COOLING
 - SUPPLY & RETURN AIR SMOKE DETECTOR BY E.C.
 - MODULATING HOT GAS REHEAT
 - MODULATING GAS HEAT VALVE
 - SINGLE ZONE CONSTANT VOLUME
 - HEAT PUMP HEATING CAPABILITY FOR LOW LOAD HEATING CONDITIONS
 - 100% CAPACITY EXHAUST FAN WITH BUILDING PRESSURE CONTROL

- NOTES:**
- SUPPLY AIR EXTERNAL PRESSURE INCLUDES A 0.5" W.C. ALLOWANCE FOR DIRTY FILTERS.
 - CONTRACTOR TO PROVIDE THE NECESSARY DUCTWORK TRANSFORMATION PIECES & FLEXIBLE DUCTWORK CONNECTIONS FOR ALL ROOFTOP UNITS. FIELD COORDINATE REQUIREMENTS WITH APPROVED EQUIPMENT SHOP DRAWINGS PRIOR TO DUCT FABRICATION.
 - HEIGHT LISTED IS THE MINIMUM REQUIRED HEIGHT ABOVE THE FINISHED ROOF LEVEL. COORDINATE REQUIRED CURB HEIGHT WITH ARCHITECTURAL DRAWINGS AND ROOF CONSTRUCTION.
 - UNIT TO HAVE FACTORY PROVIDED AND INSTALLED REFRIGERANT LEAK DETECTION SYSTEM.

MAKE-UP AIR UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	AIRFLOW (CFM)	TYPE	FAN RPM	EXT. S.P. (IN. W.C.)	GAS HEATING (NATURAL GAS)				COOLING				HEAT PUMP INFORMATION				REHEAT				ELECTRICAL				ROOF CURB HEIGHT (IN.) (NOTE 4)	NOTES									
							FUEL PRESSURE	MIN AFUE (%)	CAPACITY (MBH) INPUT	OUTPUT	TURNDOWN RATIO	EAT DB (°F)	EAT WB (°F)	MAX. UNIT LAT DB (°F)	UNIT LAT WB (°F)	TOTAL MBH	SENSIBLE MBH	REFRIGERANT TYPE (NOTE 3)	EAT DB (°F)	MAX TEMP RISE (°F)	LAT DB (°F)	C.O.P.	DISCHARGE DB (°F)	WB (°F)	CAPACITY DESIRED (MBH)	MAX (MBH)			MOISTURE REMOVAL RATE (LBS/HR)	HP	MCA	MOCP	VOLT	PH	DISCONNECT		CONTROLLER BY (NOTE 1, 2)
MAU-1	CAPTIVEAIRE	CAS	500	INDIRECT FIRED	560	0.50	7-14"	81%	57	46	6:1	87	79	51	47	51	19	R-454B	40	45	65	3.5	70	58.5	10	42	29.1	2	55	70	208	1	MFR	NON-FUSED	MFR	18"	5, 6, 7, 8

- NOTES:**
- PROVIDE UNIT WITH A UNIT MOUNTED CONTROL PANEL. A REMOTE TEMPERATURE SENSOR AND OVERRIDE WILL BE LOCATED IN THE KITCHEN. UNIT TO INTERFACE WITH THE KITCHEN EXHAUST FANS.
 - UNIT TO INCLUDE PACKAGED CONTROLS WITH BTL LISTED BACNET INTERFACE FOR THE BUILDING AUTOMATION SYSTEM. REFER TO THE CONTROL DIAGRAM FOR ADDITIONAL CONTROL REQUIREMENTS.
 - UNIT TO HAVE FACTORY PROVIDED AND INSTALLED REFRIGERANT LEAK DETECTION SYSTEM.
 - HEIGHT LISTED IS THE MINIMUM REQUIRED HEIGHT ABOVE THE FINISHED ROOF LEVEL. COORDINATE REQUIRED CURB HEIGHT WITH ARCHITECTURAL DRAWINGS AND ROOF CONSTRUCTION.
 - UNIT TO HAVE A POWERED OUTSIDE AIR ISOLATION DAMPER TO CLOSE WHEN UNIT IS NOT OPERATING.
 - PROVIDE NECESSARY TRANSFORMATION PIECES AND FLEX DUCT FOR DUCTWORK CONNECTIONS TO UNIT.
 - PROVIDE WITH MODULATING GAS VALVE.
 - PROVIDE WITH 120 V FIELD POWERED CONVENIENCE OUTLET.

KED bluestone
 5518 NW 88th Street
 Johnston, IA 50131
 515-727-0700
 www.KEDbluestone.com

KED bluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KED bluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KED bluestone. © 2025 KED bluestone.



STRUCT ENGINEER
 APEX STRUCTURAL LLC
 373 Collins Road NE #102
 Cedar Rapids, IA 52402
 Ph. 319-294-2739

MEP ENGINEER
 KEDBLUESTONE
 5518 NW 88th St
 Johnston, IA 50131
 Ph. 515-727-0700

CIVIL ENGINEER
 CIVIL DESIGN ADVANTAGE
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

**COLFAX - MINGO
 CHILDCARE CENTER**

COLFAX, IA
 Project # 2025-055

DATE
 MAY 8, 2025

SHEET
 M6.1

© ATURARArchitecture

STRUCT ENGINEER
 APEX STRUCTURAL, LLC
 373 Collins Road NE #102
 Cedar Rapids, IA 52402
 Ph. 319-294-2739

MEP ENGINEER
 KEDBLUESTONE
 5518 NW 88th St
 Johnston, IA 50131
 Ph. 515-727-0700

CIVIL ENGINEER
 CIVIL DESIGN ADVANTAGE
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

PIPING APPLICATION SCHEDULE

SYSTEM (NOTE 1)	LOCATION	DESIGN WORKING PRESSURE (PSI)	MATERIAL	JOINTS	USAGE SIZE RANGE	INSULATION APPLICATION (NOTE 1)		NOTES
						THICKNESS (IN.)	TYPE (NOTES 3, 4)	
NATURAL GAS	ABOVE GRADE 5 PSI PRESSURE OR LESS	125	SCH 40 BLACK STEEL	THREADED OR WELDED	ALL	-	-	5
HVAC EQUIPMENT DRAINS (GRAVITY & PUMPED CONDENSATE)	ABOVE GRADE (RETURN AIR PLENUM)	N/A	DWV COPPER	SOLDER	ALL	1"	FIBERGLASS	2
	ABOVE GRADE (ROOF)	N/A	SCH 40 CPVC	SOLVENT	ALL	-	-	

- NOTES:**
- REFER TO EACH PIPING SPECIFICATION FOR SPECIFIC PIPING REQUIREMENTS.
 - INSULATION ONLY REQUIRED FOR COLD SERVICE PIPING. EQUIPMENT DRAIN PIPING LESS THAN 5' IN LENGTH NEED NOT BE INSULATED.
 - SEE SPECIFICATION SECTION 230719 FOR COMPLETE INSULATION AND JACKETING REQUIREMENTS. ALL INSULATION SHALL BE PLENUM RATED MEETING ASTM E84 WHERE INSTALLED IN A RETURN AIR PLENUM.
 - INSTALL RIGID CALCIUM SILICATE INSERTS AT ALL PIPING HANGERS.
 - GAS PIPING IS PROHIBITED FROM BEING INSTALLED IN SOLID PARTITIONS OR WALLS UNLESS IN A CHASE OR CASING (PIPE SLEEVE).

DUCTWORK APPLICATION SCHEDULE

AIR HANDLING SYSTEM	EQUIPMENT SERVICE	AIRSTREAM	DUCTWORK LOCATION (ALL DUCT CONCEALED UNLESS NOTED OTHERWISE)	SYSTEM TYPE (CONSTANT VOLUME OR VAV OR BOTH)	ACTUAL PRESSURE RATING (IN W.C.) (NOTES 4, 5, & 6)			DUCTWORK MATERIAL	SINGLE OR DOUBLE WALL	DUCT SHAPE	INSULATION APPLICATION (NOTE 1)				NOTES
					SEAL CLASS	RTU-1,2,3,4	MAU-1				MINIMUM R-VALUE (NOTE 2)	THICKNESS (IN.) (NOTE 3)	TYPE	LINER, WRAP, OR BOARD	
ROOFTOP UNITS MAKEUP AIR UNITS	RTU-1 RTU-2 RTU-3 RTU-4 MAU-1	SUPPLY AIR	FIRST 15' DOWNSTREAM OF AHU / RTU CONNECTION	CONSTANT VOLUME	C	2	2	GALVANIZED SHEET METAL	DOUBLE WALL WITH PERFORATED INNER LINER	RECT	R-6	1-1/2"	C OR D	LINER	
		SUPPLY AIR	FAN TO AIR OUTLET	CONSTANT VOLUME	C	2	2	GALVANIZED SHEET METAL	SINGLE	RECT / ROUND / FLAT OVAL	R-6	2.2"	A	WRAP	
ROOFTOP UNITS MAKEUP AIR UNITS	RTU-1 RTU-2 RTU-3 RTU-4 MAU-1	RETURN AIR	AIR INLET TO AHU / RTU	CONSTANT VOLUME	C	2	2	GALVANIZED SHEET METAL	SINGLE	RECT / ROUND / FLAT OVAL	R-6	2.2"	A	WRAP	
		RETURN AIR	FIRST 15' UPSTREAM OF AHU / RTU CONNECTION	CONSTANT VOLUME	C	2	2	GALVANIZED SHEET METAL	DOUBLE WALL WITH PERFORATED INNER LINER	RECT	R-6	1-1/2"	C OR D	LINER	
GENERAL EXHAUST	EF-1	EXHAUST AIR	INLET TO EXHAUST FAN	CONSTANT VOLUME	A	N / A		GALVANIZED SHEET METAL	SINGLE	RECT / ROUND / FLAT OVAL	-	NONE	-	-	
		EXHAUST AIR	FIRST 10' UPSTREAM OF EXHAUST FAN	CONSTANT VOLUME	A	N / A		GALVANIZED SHEET METAL	SINGLE	RECT / ROUND / FLAT OVAL	R-4	1"	C OR D	LINER	
KITCHEN GREASE	KEH-1 EF-2	EXHAUST AIR	EXHAUST AIR	CONSTANT VOLUME	A	N / A		STAINLESS STEEL / BLACK IRON	SINGLE	RECT OR ROUND	R-6	1-1/2"	E	WRAP	
		EXHAUST AIR	EXHAUST AIR	CONSTANT VOLUME	A	N / A		INNER (FLUE): 304 STAINLESS STEEL OUTER (CASING): 304 STAINLESS STEEL	PRE-FABRICATED & INSULATED DOUBLE WALL GREASE DUCT	ROUND	R-6	1-1/2"	E	LINER	
DRYER VENTS	-	EXHAUST AIR	DRYER VENT DUCT	-	A	N / A		ALUMINUM	SINGLE	RECT / ROUND / FLAT OVAL	-	-	-	-	7, 8
		EXHAUST AIR	DRYER VENT DUCT	-	A	N / A		STAINLESS STEEL		RECT / ROUND / FLAT OVAL	-	-	-	-	-
GAS-FIRED APPLIANCE INTAKES AND FLUES	WH-1	OUTSIDE AIR	INSIDE THE BUILDING INLET TO COMBUSTION AIR	CONSTANT VOLUME	-	N / A		SCH 40 CPVC	-	ROUND	R-6	2.2"	A	WRAP	
		EXHAUST / FLUE	INSIDE THE BUILDING COMBUSTION AIR TO OUTLET	CONSTANT VOLUME	-	N / A		SCH 40 CPVC	-	ROUND	R-4	1-1/2"	A	WRAP	
DUCTWORK ACCESSORIES	GENERAL	GENERAL	-	-	-	N / A		-	-	-	R-6	2.2"	A	WRAP	

- NOTES:**
- DUCT DIMENSIONS SHOWN ON PLAN ARE CLEAR INSIDE DIMENSIONS AND DO NOT INCLUDE INSULATION.
 - R-VALUE LISTED IN SCHEDULE IS THE MINIMUM ALLOWABLE INSTALLED R-VALUE.
 - INSULATION THICKNESS LISTED IS THE MINIMUM ALLOWABLE INSULATION THICKNESS. CONTRACTOR TO VERIFY REQUIRED INSULATION THICKNESS BASED ON INSULATION DENSITY USED.
 - DUCT SEAL CLASS TO BE BASED ON PRESSURE CLASS AS NOTED BELOW:
 CLASS A: -10" W.C. THRU -4" W.C.
 CLASS B: -3" W.C.
 CLASS C: -2" W.C. THRU +2" W.C.
 CLASS D: +3" W.C.
 CLASS A: +4" W.C. THRU +10" W.C.
 - ACTUAL DUCT CONSTRUCTION SHALL EXCEED THE ACTUAL PRESSURE RATING LISTED AND FALL INTO ONE OF THE STANDARD DUCT PRESSURE CLASS RATINGS AS FOLLOWS:
 0.5", 1", 2", 3", 4", 6", 10" (POSITIVE OR NEGATIVE)
 - ALL DUCTWORK BETWEEN A FAN AND A FIRE, FIRE / SMOKE OR SMOKE DAMPER REQUIRES A PRESSURE RELIEF DOOR TO PROTECT THE DUCTWORK DURING A CLOSURE OF THE DAMPER WHILE THE FAN IS STILL OPERATING. REFER TO THE PRESSURE RELIEF DOOR SCHEDULE AND SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
 - TERMINATE WITH A GOOSENECK OR WALL TERMINATION, APPROVED FOR USE WITH A DRYER VENT, AS NOTED ON THE PLANS.
 - DUCTWORK JOINTS SHALL NOT USE SHEET METAL SCREWS.

- INSULATION TYPES:**
- TYPE A: FLEXIBLE FIBERGLASS - OUTSIDE WRAP
 - TYPE B: SEMI-RIGID FIBERGLASS BOARD (EXTERIOR OF DUCT)
 - TYPE C: FLEXIBLE FIBERGLASS LINER
 - TYPE D: PREFORMED RIGID FIBERGLASS ACOUSTICAL LINER
 - TYPE E: FLEXIBLE MINERAL FIBER DUCT WRAP
 - TYPE F: FLEXIBLE FIBERGLASS SPIRAL DUCT LINER

KED bluestone
 5518 NW 88th Street
 Johnston, IA 50131
 515-727-0700
 www.KEDbluestone.com

KEDbluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KEDbluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KEDbluestone. © 2025 KEDbluestone

**COLFAX - MINGO
 CHILDCARE CENTER**

COLFAX, IA
 Project # 2025-055

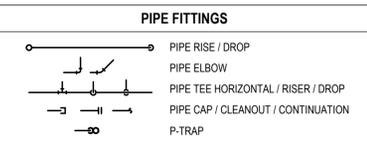
DATE
 MAY 8, 2025

SHEET
M6.2

ATURArchitecture

GENERAL PLAN SYMBOLS	
	PLAN REVISION NUMBER
	DETAIL NUMBER ON SHEET
	SHEET NUMBER WHERE DETAIL IS PLACED
	KEYNOTE SYMBOL
	CONTINUATION SYMBOL
	POINT WHERE NEW CONNECTS TO EXISTING
	ROOM NAME / NUMBER
	AREA BEING DEMOLISHED
	AREA NOT IN CONTRACT
	MARK SCHEDULED EQUIPMENT (UNDERLINED)
	MARK NONSCHEDULED EQUIPMENT
	EXISTING EQUIPMENT - HALFTONE - (E) PREFIX
	EXISTING RELOCATED EQUIPMENT - (R) PREFIX
ABBREVIATIONS	
▲ T TEMPERATURE DIFFERENCE	LB POUND
∅ ROUND	LB/HR POUNDS PER HOUR
ABV ABOVE	LD LINEAR DIFFUSER
AC AIR CONDITIONING	LP LOW PRESSURE
AD AREA DRAIN	LP LIQUEFIED PETROLEUM GAS
ADD ADDENDUM	LVR LOUVER
A/E ARCHITECT / ENGINEER	LWT LEAVING WATER TEMPERATURE
AFF ABOVE FINISHED FLOOR	MA MIXED AIR
AFUE ANNUAL FUEL UTILIZATION EFFICIENCY	MAX MAXIMUM
ALT ALTERNATE	MEH ONE THOUSAND BTU PER HOUR
AP ACCESS PANEL	M.C. MECHANICAL CONTRACTOR
ARCH ARCHITECT/ARCHITECTURAL	MD MOTORIZED DAMPER
BAS BUILDING AUTOMATION SYSTEM	MECH MECHANICAL
BFF BELOW FINISHED FLOOR	MFR MANUFACTURER
BHP BRAKE HORSEPOWER	MIN MINIMUM
BLW BELOW	MISC MISCELLANEOUS
BTU BRITISH THERMAL UNITS	MP MEDIUM PRESSURE
BTUH BRITISH THERMAL UNITS PER HOUR	MTR MOTOR
CAP CAPACITY	MUA MAKE-UP/AIR
CB CATCH BASIN	NC NOISE CRITERIA
CD CEILING DIFFUSER	NC NORMALLY CLOSED
CFM CUBIC FEET PER MINUTE	NC NOT IN CONTRACT
CFH CUBIC FEET PER HOUR	NG NATURAL GAS
CLG CEILING	NO NUMBER
C.M. CONSTRUCTION MANAGER	NO NORMALLY OPEN
CO CLEAN OUT	NTS NOT TO SCALE
CV CONTROL VALVE	O OXYGEN
CW COLD WATER	OA OUTSIDE AIR
D DEGREE	ORD OVERFLOW ROOF DRAIN
DB DRY BULB	PD PRESSURE DROP
DDC DIRECT DIGITAL CONTROLS	PIV POST INDICATOR VALVE
DIA DIAMETER	PLBG PLUMBING
DN DOWN	PRESS PRESSURE
DW DEIONIZED WATER	PRV PRESSURE REDUCING VALVE
EAT ENTERING AIR TEMPERATURE	PSI POUNDS PER SQUARE INCH
E.C. ELECTRICAL CONTRACTOR	PSIG POUNDS PER SQUARE INCH GAUGE
ELEC ELECTRICAL	PWR POWER
EQUIP EQUIPMENT	R DUCT RISER
EWC ELECTRIC WATER COOLER	RA RETURN AIR
EWT ENTERING WATER TEMPERATURE	RCP RADIANT CEILING PANEL
EA EXHAUST AIR	RD ROOF DRAIN
EG EXHAUST GRILLE	REC RECESSED
EXIST EXISTING	RED REDUCER
F DEGREES FAHRENHEIT	RG RETURN GRILLE
FCO FLOOR CLEAN OUT	RH RELATIVE HUMIDITY
FD FLOOR DRAIN	RLA RELIEF AIR
FDC FIRE DEPARTMENT CONNECTION	RM ROOM
FL FLOOR	RPM REVOLUTIONS PER MINUTE
FO FUEL OIL	SA SUPPLY AIR
FOV FUEL OIL VENT	SAN SANITARY
FOR FUEL OIL RETURN	SD SMOKE DAMPER
FOS FUEL OIL SUPPLY	SF SQUARE FOOT
FPC FIRE PROTECTION CONTRACTOR	SG SUPPLY GRILLE
FPM FEET PER MINUTE	SM SURFACE MOUNT
FS FLOOR SINK	SP STATIC PRESSURE
FT FOOT/FEET	SR SUPPLY REGISTER
FTR FIN TUBE RADIATION	STM STEAM
GAL GALLON	T THERMOSTAT
GF GAS-FIRED	T.C. TEMP CONTROLS CONTRACTOR
G.C. GENERAL CONTRACTOR	T.D. TEMPERATURE DROP
GPM GALLONS PER MINUTE	TD TRENCH DRAIN
GW GREASE WASTE	TEMP TEMPERATURE
HB HOSE BIBB	TYP TYPICAL
HP HORSE POWER	UG UNDERGROUND
HTG HEATING	VAC VACUUM
HTR HEATER	V VENT
HW HOT WATER	VAV VARIABLE AIR VOLUME
HYD HYDRANT	VENT VENTILATION
ID INDIRECT DRAIN	VTR VENT THROUGH ROOF
IN INCH	W WASTE
I.E. INVERT ELEVATION	WB WET BULB
K.E.C. KITCHEN EQUIPMENT CONTRACTOR	WCO WALL CLEAN OUT
LAT LEAVING AIR TEMPERATURE	WH WALL HYDRANT
	YCO YARD CLEANOUT
EQUIPMENT ABBREVIATIONS	
AC AIR CONDITIONING UNIT	ERV ENERGY RECOVERY VENTILATOR
ACCU AIR COOLING CONDENSING UNIT	EWH ELECTRIC WATER HEATER
AHU AIR HANDLING UNIT	FCU FAN COIL UNIT
AS AIR SEPARATOR	FP FIRE PUMP
B BOILER	GI GREASE INTERCEPTOR
BCU BLOWER COIL UNIT	GRV GRAVITY ROOF VENTILATOR
CH CHILLER	HP HEAT PUMP
CT COOLING TOWER	HWP HEATING WATER PUMP
CUH CABINET UNIT HEATER	HRT HEAT RECOVERY UNIT
CHWP CHILLED WATER PUMP	P PUMP
CP CONDENSER PUMP	PRV POWER ROOF VENTILATOR
DBP DOMESTIC WATER BOOSTER PUMP	RF RETURN FAN
DC DUCT MOUNTED COIL	RHC REHEAT COIL
CP DOMESTIC WATER CIRCULATING PUMP	RTU ROOFTOP UNIT
EF EXHAUST FAN	SP SUMP PUMP
EDC ELECTRIC DUCT COIL	UH UNIT HEATER
ET EXPANSION TANK	WH WATER HEATER
NOTE	
ALL GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL SUBSEQUENT SHEETS IN SHEET LIST. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.	

PLUMBING PIPING	
	2" NOMINAL PIPE SIZE
	2" CW EXISTING PIPE TO REMAIN
	PIPE TO BE DEMOLISHED
	CW COLD WATER
	SCW SOFTENED COLD WATER
	HW HOT WATER
	HW 140° HOT WATER 140°
	SHW SOFTENED HOT WATER
	HWC HOT WATER RECIRC
	HWC 140° HOT WATER RECIRC 140°
	SHWC SOFTENED HOT WATER RECIRC
	DI DEIONIZED WATER
	DIR DEIONIZED WATER RETURN
	RO REVERSE OSMOSIS
	ROR REVERSE OSMOSIS RETURN
	WS WATER SERVICE
	ST STORM
	STO STORM OVERFLOW
	SAN SANITARY
	PD PUMPED DISCHARGE
	V VENT
	AW ACID WASTE
	AV ACID VENT
	GSAV GREASE SANITARY
	GV GREASE VENT
	OW OIL WASTE
	OV OIL VENT
	CA COMPRESSED AIR



PIPE ACCESSORIES	
	BALANCING VALVE
	BALL VALVE
	SOLENOID VALVE
	GATE VALVE
	GENERIC ISOLATION VALVE
	PRESSURE REDUCING VALVE
	UNION
	STRAINER
	WATER METER
	ANGLE VALVE
	BUTTERFLY VALVE
	PLUG VALVE
	INLINE PUMP
	HOSE BIBB/HYDRANT
	PRESSURE GAUGE
	AIR VENT
	PRESSURE RELIEF
	BACKFLOW PREVENTER
	BACKFLOW PREVENTER

FIXTURE SYMBOLS	
	FD-1 FLOOR DRAIN
	FCO FLOOR CLEANOUT
	FS FLOOR SINK
	RD ROOF DRAIN
	RD COMBINATION ROOF DRAIN

- PROJECT NOTES - PLUMBING**
- ALL WORK OUTSIDE OF THE PROJECT AREA SHALL BE PERFORMED ON NIGHTS OR WEEKENDS. PLUMBING CONTRACTOR SHALL INCLUDE ALL PREMIUM LABOR COSTS IN THEIR BID. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OWNER.
 - REFER TO KITCHEN EQUIPMENT DRAWINGS FOR PLUMBING ROUGH-IN SCHEDULE FOR ADDITIONAL WORK TO BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR. ALL PLUMBING ROUGH-INS AND FINAL CONNECTIONS TO KITCHEN EQUIPMENT SHALL BE MADE BY THE PLUMBING CONTRACTOR. THE OWNER OR KITCHEN EQUIPMENT SUPPLIER MAY SUBSTITUTE EQUIPMENT OR THE EQUIPMENT MAY VARY FROM WHAT IS SHOWN. THEREFORE, VERIFY ALL CRITICAL DIMENSIONS WITH THE OWNER PRIOR TO CONSTRUCTION. FAILURE OF THE CONTRACTOR TO VERIFY THESE DIMENSIONS SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT RELOCATION DIRECTLY UPON THE CONTRACTOR.

- GENERAL NOTES - PLUMBING**
- ALL PLUMBING WORK SHOULD BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION:
 - 2021 IOWA STATE PLUMBING CODE
 - UNIFORM PLUMBING CODE
 - 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
 - LOCAL CODES, INCLUDING ALL AMENDMENTS AND ORDINANCES.
 - THESE DRAWINGS ARE DIAGRAMMATIC, NOT ALL PIPING, FITTINGS, OFFSETS, VALVES OR OTHER ACCESSORIES ARE SHOWN. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL ANY/ALL NECESSARY PIPING, FITTINGS, VALVES, REGULATORS, GAUGES, HANGERS, INSULATION, EQUIPMENT, FIXTURES, ETC. REQUIRED FOR A COMPLETE FUNCTIONAL SYSTEM AS SHOWN ON PLUMBING PLANS AND AS OUTLINED IN SPECIFICATION INFORMATION UNLESS OTHERWISE NOTED.
 - PLUMBING CONTRACTOR SHOULD UTILIZE THESE PLANS AND PROVIDE RECORD DRAWING COMMENTARY REFLECTING ACTUAL INSTALLATION. PROVIDE ONE HARD-COPY SET TO ARCHITECT/ENGINEER.
 - PLUMBING CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL FEES AND PERMITS REQUIRED TO ACCOMPLISH THIS WORK.
 - PLUMBING CONTRACTOR SHOULD REVIEW ANTICIPATED MATERIAL LIFT EQUIPMENT WITH OWNER'S REPRESENTATIVE PRIOR TO UTILIZING FOR INSTALLATION. DAMAGED FLOORING RESULTING FROM UNAPPROVED EQUIPMENT WILL BE REPLACED AT THE PLUMBING CONTRACTOR'S EXPENSE.
 - REFER TO WRITTEN SPECIFICATIONS FOR EQUIPMENT AND MATERIAL RELATED TO THIS WORK.
 - COORDINATE SEQUENCE OF PLUMBING WORK CLOSELY WITH GENERAL CONTRACTOR/ CONSTRUCTION MANAGER AND OTHER TRADES TO AVOID CONFLICTS.
 - ADA COMPLIANCE SHALL BE MAINTAINED WHERE ADJUSTMENTS ARE MADE TO FIXTURES LOCATED WITHIN ADA TOILET ROOMS.
 - PLUMBING CONTRACTOR SHOULD TAKE PRECAUTIONS NECESSARY TO MINIMIZE CONSTRUCTION DEBRIS TRANSFER TO ADJACENT NON-WORK AREAS.
 - PRIOR TO COMMENCING WORK ON THIS PROJECT, VERIFY DEPTH, SIZE, LOCATION AND CONDITION OF ALL EXISTING UTILITIES IN FIELD. SHOULD CONDITIONS EXIST OTHER THAN THOSE INDICATED WHICH WOULD CAUSE THE DESIGN TO BE ALTERED, CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER IMMEDIATELY.
 - PLUMBING UTILITY CONNECTIONS SHALL EXTEND TO 5'-0" OUTSIDE OF THE BUILDING FOR CONNECTION BY THE SITE UTILITIES CONTRACTOR.
 - COORDINATE ALL BELOW FLOOR PLUMBING PIPING AND EQUIPMENT WITH STRUCTURAL PLANS.
 - COORDINATE INSTALLATION OF PLUMBING WORK WITH ALL OTHER TRADES SO AS TO AVOID UNNECESSARY DELAY OR INTERFERENCES. PLUMBING CONTRACTOR SHALL REVIEW ARCHITECTURAL AND EQUIPMENT SHEETS.
 - PLUMBING CONTRACTOR SHALL RUN ALL DOMESTIC WATER, WASTE AND VENT, AND STORM PIPING AS HIGH AS POSSIBLE WITHIN THE CEILING / TRUSS SPACE. COORDINATE THE LOCATION OF ALL PIPING WITH THE STRUCTURAL PLANS, ARCHITECTURAL CEILING HEIGHTS, AND OTHER TRADES TO AVOID CONFLICTS. NOTIFY GENERAL CONTRACTOR/ CONSTRUCTION MANAGER AS SOON AS ANY CONFLICTS ARE DETECTED. FAILURE TO PROPERLY COORDINATE PIPE ROUTING WITH OTHER TRADES WILL BE REQUIRED TO BE MOVED AT THE PLUMBING CONTRACTOR'S EXPENSE.
 - PLUMBING CONTRACTOR SHALL COORDINATE PIPE ROUTING TO AVOID ROOF HATCHES, SKYLIGHTS, EQUIPMENT SERVICE ACCESS AND ACCESS PANELS.
 - PLUMBING CONTRACTOR SHALL FIELD VERIFY MEANS AND METHODS REQUIRED TO BRING PLUMBING FIXTURES, EQUIPMENT AND MATERIAL INTO THE BUILDING. COORDINATE STORAGE AND LAY DOWN AREAS WITH THE GENERAL CONTRACTOR/ CONSTRUCTION MANAGER PRIOR TO BRINGING MATERIALS TO THE PROJECT SITE.
 - REFERENCE ARCHITECTURAL DRAWINGS FOR CODE-RATED WALLS, FLOORS, AND CEILINGS. PROVIDE UL RATED, FM APPROVED FIRE STOP AT ALL NEW PLUMBING PIPE PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS AND CEILINGS.
 - ALL DOMESTIC WATER AND VENT PIPING DROPS TO PLUMBING FIXTURES SHALL BE CONCEALED IN THE WALL UNLESS OTHERWISE NOTED.
 - FLUSH NEW WATER PIPES AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO CONNECTING ANY FIXTURES OR EQUIPMENT.
 - PROVIDE WATER HAMMER ARRESTORS SERVING QUICK-CLOSING VALVES IN EACH BRANCH OR AT APPLIANCE OR FIXTURE.
 - ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILING SHALL BE INSTALLED BEHIND AN ACCESS PANEL. REFERENCE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES, HEIGHTS, AND OTHER CEILING MOUNTED ITEMS.
 - INSTALL SHUT-OFF VALVES ON ALL HOT & COLD WATER LINES TO FIXTURE OR APPLIANCE. ALL EXPOSED WATER AND WASTE LINES TO BE CHROME PLATED.
 - ALL VALVES, UNIONS, ETC. SHALL BE SAME SIZE AS PIPE UNLESS OTHERWISE INDICATED ON DRAWINGS.
 - ALL PLUMBING PIPING SHALL BE SUPPORTED. SEE SPECIFICATIONS.
 - FURNISH & INSTALL ALL BACKFLOW PROTECTION DEVICES REQUIRED BY AUTHORITY HAVING JURISDICTION. BACKFLOW DEVICES REQUIRING TESTING SHALL BE INSTALLED NO HIGHER THAN 5'-0" ABOVE FINISHED FLOOR.
 - PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR TESTS AND CERTIFICATION OF REDUCED PRESSURE BACKFLOW DEVICE PER AUTHORITY HAVING JURISDICTION. BACKFLOW CERTIFICATION SHALL BE POSTED ON BACKFLOW DEVICE ONCE TESTING HAS BEEN COMPLETED.
 - ALL WATER LINES SHALL BE RUN OVERHEAD UNLESS OTHERWISE NOTED.
 - PROVIDE ESCUTCHION PLATES AND SILICONE SEALANT AT ALL UTILITY PENETRATIONS INTO WALLS, CEILINGS, AND FLOORS. DO NOT USE CAULKS OR EXPANDING FOAMS FOR SEALANT.
 - COORDINATE FLOOR DRAIN AND CLEANOUT ROUGH-IN WITH SELECTED FLOOR COVERING SYSTEM.
 - DO NOT UTILIZE COMBINATION WASTE AND VENT SYSTEM FOR SINKS AND LAVATORIES ROUGHED IN ABOVE FLOOR.
 - NOTIFY LOCAL INSPECTOR PRIOR TO BACKFILL OF ALL UNDER SLAB PLUMBING. ANY WORK COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE INSPECTOR'S REQUEST.
 - FILL/SEAL ALL DRAIN TRAPS WITH MINERAL OIL.
 - PROVIDE TRAP PRIMERS FOR FLOOR DRAINS IN RESTROOMS, WHERE REQUIRED BY CODES. PROVIDE DEEP SEAL TRAPS FOR FLOOR DRAINS WITHOUT TRAP PRIMERS.
 - DO NOT USE PVC MATERIALS IN PLENUM AREAS USED AS RETURN AIR PATHS. REFERENCE ARCHITECTURAL CEILING PLAN AND MECHANICAL PLANS.
 - VERIFY THE LOCATION AND INVERT ELEVATION OF THE SANITARY SEWER ON THE SITE PLAN AND REVISE THE SEWER SYSTEM AS REQUIRED.
 - VERIFY THE LOCATION AND INVERT ELEVATION OF THE STORM SEWER ON THE SITE PLAN AND REVISE THE SEWER SYSTEM AS REQUIRED.
 - ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. THE CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENT, CABINETS, GRAB BARS, ETC. AND THE OWNERS REPRESENTATIVE PRIOR TO ANY INSTALLATION.
 - ALL PLUMBING FIXTURE VENTS SHALL TERMINATE A MINIMUM OF 12 INCHES AND A MAXIMUM OF 24 INCHES FROM ANY VERTICAL SURFACE AND A MINIMUM OF (10'-0") FROM ANY OUTSIDE AIR INTAKE OR OPENABLE DOOR, WINDOW, ETC. SHIFT VENT THRU ROOF AS REQUIRED.
 - ALL FLOOR SINKS AND FLOOR DRAINS IN TRAFFIC AREAS SHALL BE INSTALLED FLUSH TO FLOOR SURFACE.
 - PROVIDE AIR GAPS FOR INDIRECT DRAINS AS REQUIRED BY CODE. AIR GAP SHALL BE (A MINIMUM 2 TIMES THE DIAMETER OF THE INDIRECT DRAIN).
 - DO NOT ROUTE PIPING DIRECTLY ABOVE OR BELOW ELECTRICAL PANELS, INCLUDING PANEL SERVICE CLEARANCES.
 - DO NOT SUSPEND PIPING FROM OTHER PIPING, DUCTWORK OR CONDUIT. ALL PIPING SHALL BE SUPPORTED FROM BUILDING STRUCTURE USING THE APPROPRIATE ATTACHMENTS.
 - PIPE SPACING SHOWN ON THE DRAWINGS IS FOR CLARITY ONLY. PIPING SHALL BE INSTALLED TO CONSERVE SPACE WHERE POSSIBLE.
 - REFER TO MECHANICAL SHEETS FOR PLUMBING CONNECTIONS TO MECHANICAL EQUIPMENT.
 - ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING ALL LOW VOLTAGE CABLING AND POWER WIRING/CONDUIT INDICATED IN THIS PLAN UNLESS SPECIFICALLY NOTED OTHERWISE. COORDINATE ALL WORK WITH ELECTRICAL CONTRACTOR PRIOR TO BID.
 - SEE PLUMBING FIXTURE SCHEDULE FOR BRANCH PIPING SIZES TO INDIVIDUAL FIXTURES. BRANCH PIPE SIZES SHALL MATCH SCHEDULE UNLESS OTHERWISE NOTED.

PLUMBING SHEET INDEX	
P000	PLUMBING TITLE SHEET
P20	PLUMBING UNDERFLOOR PLAN
P21	PLUMBING PLAN
P5.1	PLUMBING DETAILS
P5.2	PLUMBING DETAILS
P6.1	PLUMBING SCHEDULES



STRUCT ENGINEER
 APEX STRUCTURAL, LLC
 373 Collins Road NE #102
 Cedar Rapids, IA 52402
 Ph. 319-294-2739

MEP ENGINEER
 KED/DUESTONE
 5518 NW 88th St
 Johnston, IA 50131
 Ph. 515-727-0700

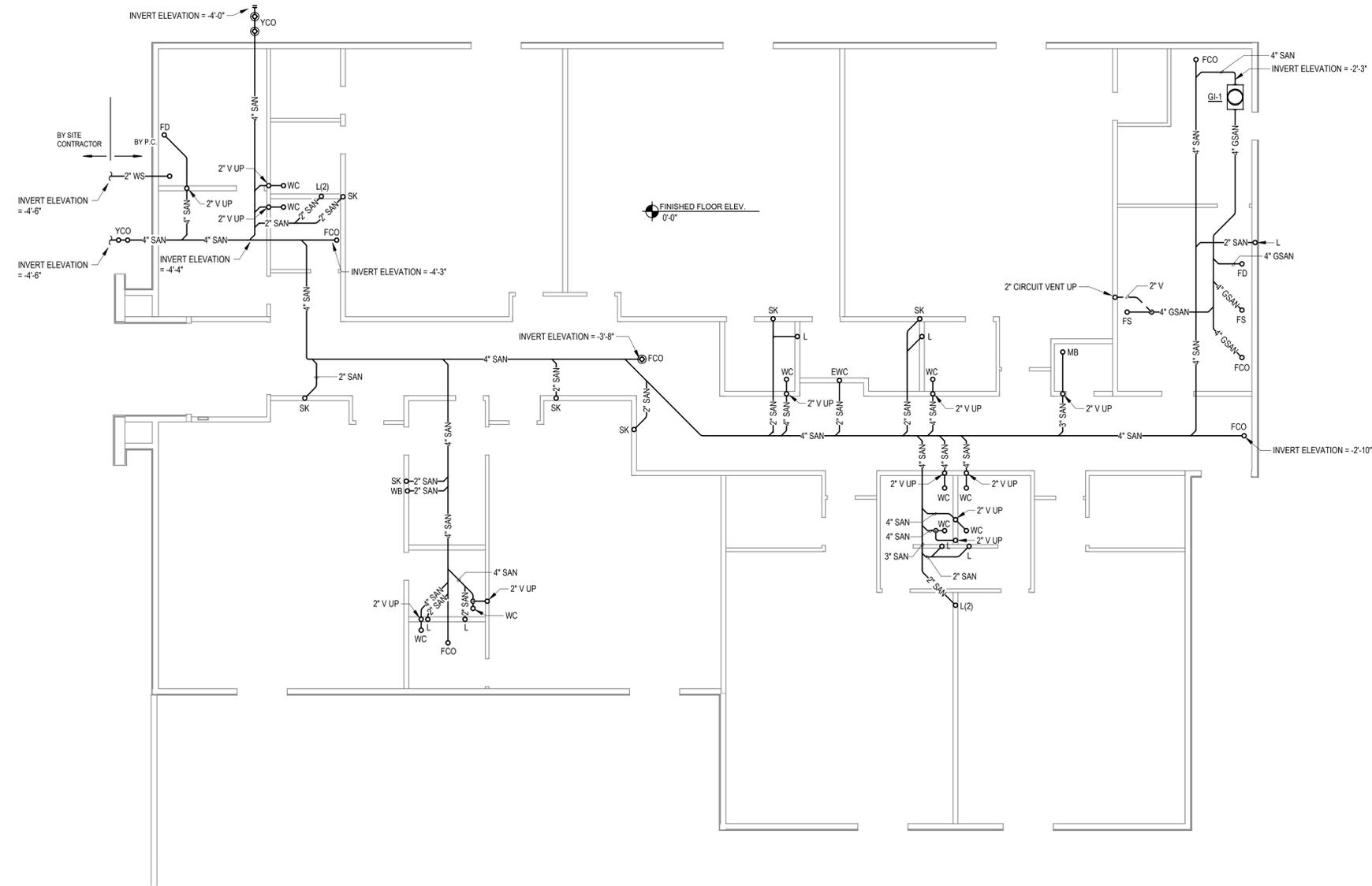
CIVIL ENGINEER
 CIVIL DESIGN ADVANTAGE
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 52082
 Ph. 515-369-4400

REVISIONS		
NO.	NAME	DATE

**COLFAX - MINGO
 CHILDCARE CENTER**
 COLFAX, IA
 Project # 2025-055

DATE
 MAY 8, 2025
SHEET
P000
 ATURArchitecture

**KED
 bluestone**
 5518 NW 88th Street
 Johnston, IA 50131
 515-727-0700
 www.KEDbluestone.com
 KED/bluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KED/bluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KED/bluestone. © 2025 KED/bluestone



1

FIRST FLOOR-PLUMBING UNDERFLOOR PLAN

1/8" = 1'-0"

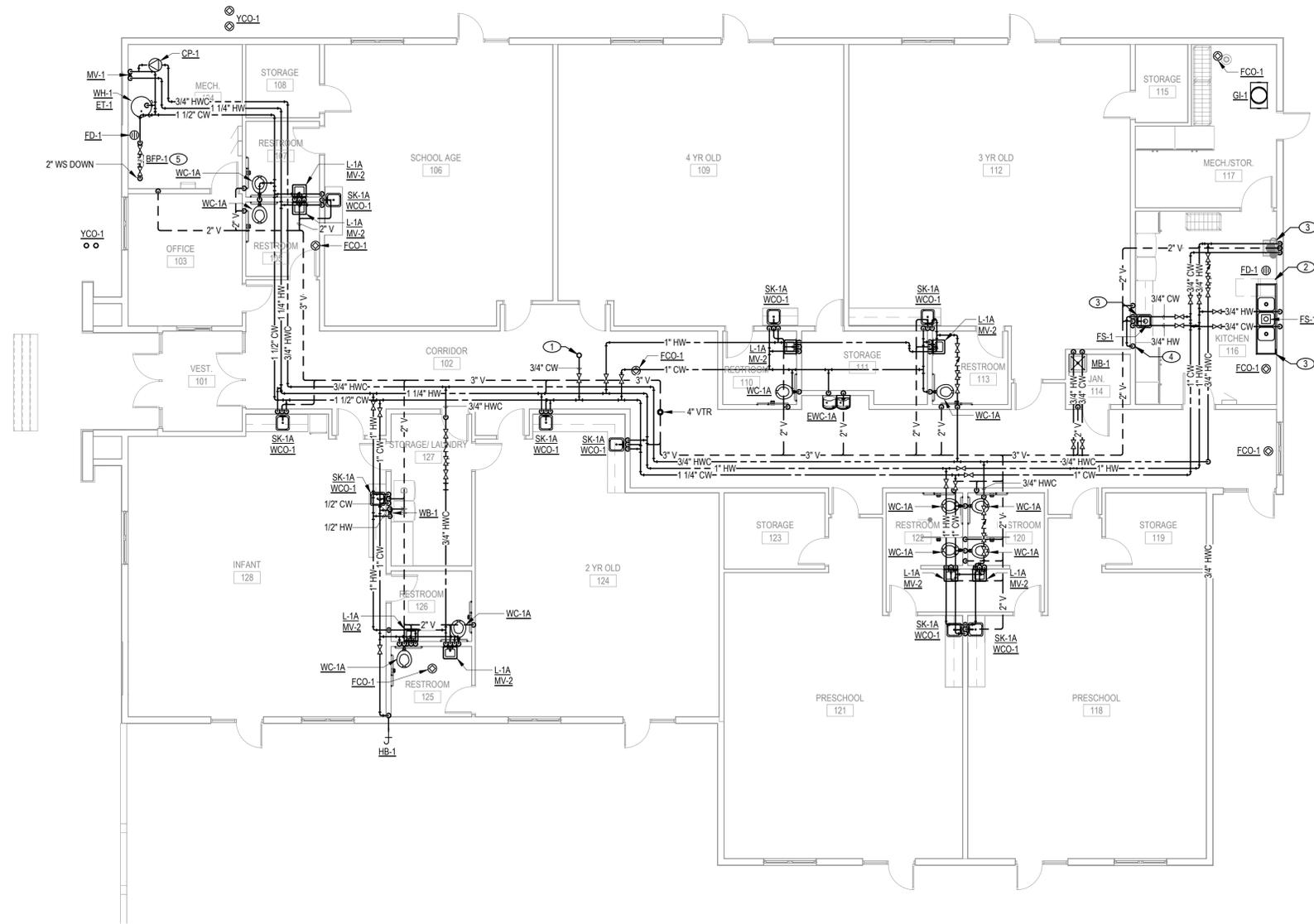
STRUCTURAL ENGINEER
APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER
KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER
CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50222
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE



1 FIRST FLOOR-PLUMBING PLAN
1/8" = 1'-0"

KEYED NOTES:

1. 3/4" CW UP TO HB-2.
2. 1/2" CW & HW TO BE ROUTED FROM ADJACENT SINK ROUGH-INS TO DISHWASHER. DISHWASHER TO DRAIN TO ADJACENT FLOOR SINK. DISCHARGE DRAIN PIPE WITH AIR GAP.
3. KITCHEN SINKS & LAVATORY SHALL BE PROVIDED BY OTHERS. PLUMBING CONTRACTOR TO PROVIDE DOMESTIC & SANITARY PIPING CONNECTIONS.
4. 1/2" CW TO SERVE ICE/WATER DISPENSER PROVIDED BY EC. PROVIDE WITH F-1 UPSTREAM OF CONNECTION POINT.
5. ROUTE BFP DRAIN TO ADJACENT FLOOR DRAIN.

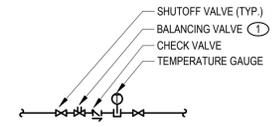
STRUCTURAL ENGINEER
APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER
KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER
CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

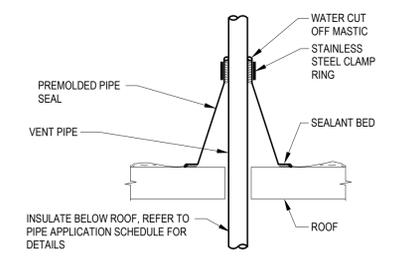


6 HOT WATER CIRC VALVE ASSEMBLY

N.T.S.

KEYED NOTES:

- ADJUST BALANCING VALVE AS NECESSARY TO MAINTAIN A RECIRCULATION WATER TEMPERATURE OF 110°F. BALANCING CONTRACTOR TO PROVIDE A REPORT SHOWING BALANCING VALVE INSTALLATION LOCATIONS, VALVE SETPOINTS, & RECIRCULATION WATER TEMPERATURE AS PART OF THE FINAL TESTING & BALANCING REPORT.

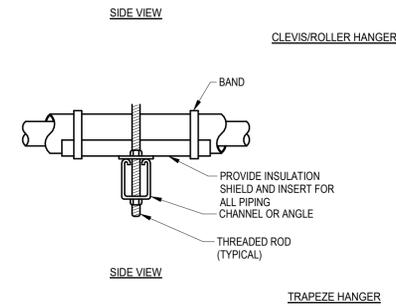
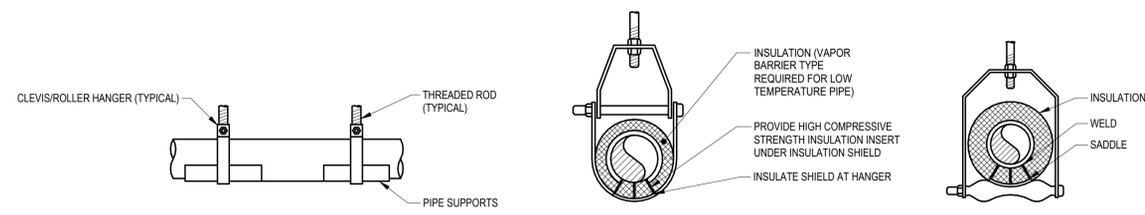


5 VENT THROUGH ROOF

N.T.S.

GENERAL NOTES:

- PIPE SEAL SHALL BE COMPATIBLE WITH ROOFING SYSTEM.
- THE MINIMUM PIPE SIZE FOR ALL ROOF PENETRATIONS SHALL BE 4"
- ALL VENTS SHALL BE A MINIMUM OF 10' FROM ALL OUTSIDE AIR INTAKES. FIELD COORDINATE WITH ALL TRADES PRIOR TO ROUGH IN.



MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET												
NOM. SIZE	THRU 3/4"	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10
STEEL PIPE - STD. WT.	7 FT	9	11	12	13	15	16	17	20	22	23	24
COPPER TUBING	5 FT	6	7	8	8	10	10	12	15	15	-	-
SCH. 40 PVC, CPVC (73°F)	3 FT	4	4	5	6	6	6	8	9	9	10	11
SCH. 80 PVC, CPVC (73°F)	3 FT	4	4	5	6	6	7	8	10	10	11	12
SCH. 40 CPVC (140°F)	-	-	-	-	5	6	6	6	7	7	7	8
SCH. 80 CPVC (140°F)	-	-	-	-	-	6	6	7	7	8	8	9
SDR 11 HDPE PIPE (73°F)	-	-	-	-	-	-	7	8	10	10	11	13

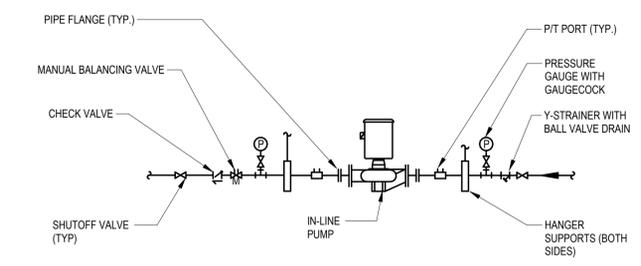
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

4 PIPE HANGERS

N.T.S.

GENERAL NOTES:

- SEE SPECIFICATIONS FOR HANGER AND INSULATION REQUIREMENTS.

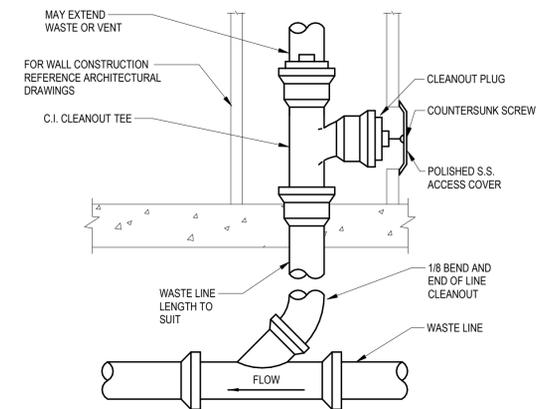


3 RECIRCULATION PUMP

N.T.S.

GENERAL NOTES:

- SUPPORT PUMP INDEPENDENTLY OF PIPING ON STRUCTURAL STEEL FRAME FROM STRUCTURE OR FLOOR. PIPING MAY BE SUPPORTED FROM SAME FRAME AS PUMP, BUT PIPING MAY NOT BE SUPPORTED BY PUMP ALONE.

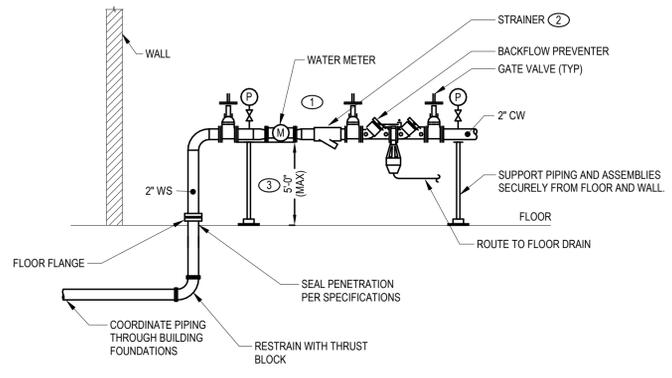


2 WALL CLEANOUT

N.T.S.

GENERAL NOTES:

- REFER TO PIPING APPLICATION SCHEDULE AND SPECIFICATIONS FOR ALLOWED JOINT TYPES.
- INSTALL WALL CLEANOUTS IN ALL LOCATIONS SHOWN ON THE FLOOR PLANS.
- INSTALL WALL CLEANOUTS IN DRAIN LINES AND RISERS SERVING ALL OF THE FOLLOWING PLUMBING FIXTURES:
A. SINKS
- COORDINATE ALL WALL CLEANOUT LOCATIONS AND ELEVATIONS WITH ARCHITECTURAL PLANS AND ELEVATIONS PRIOR TO ROUGH IN.



1 WATER SERVICE ENTRANCE - WM, BFP

N.T.S.

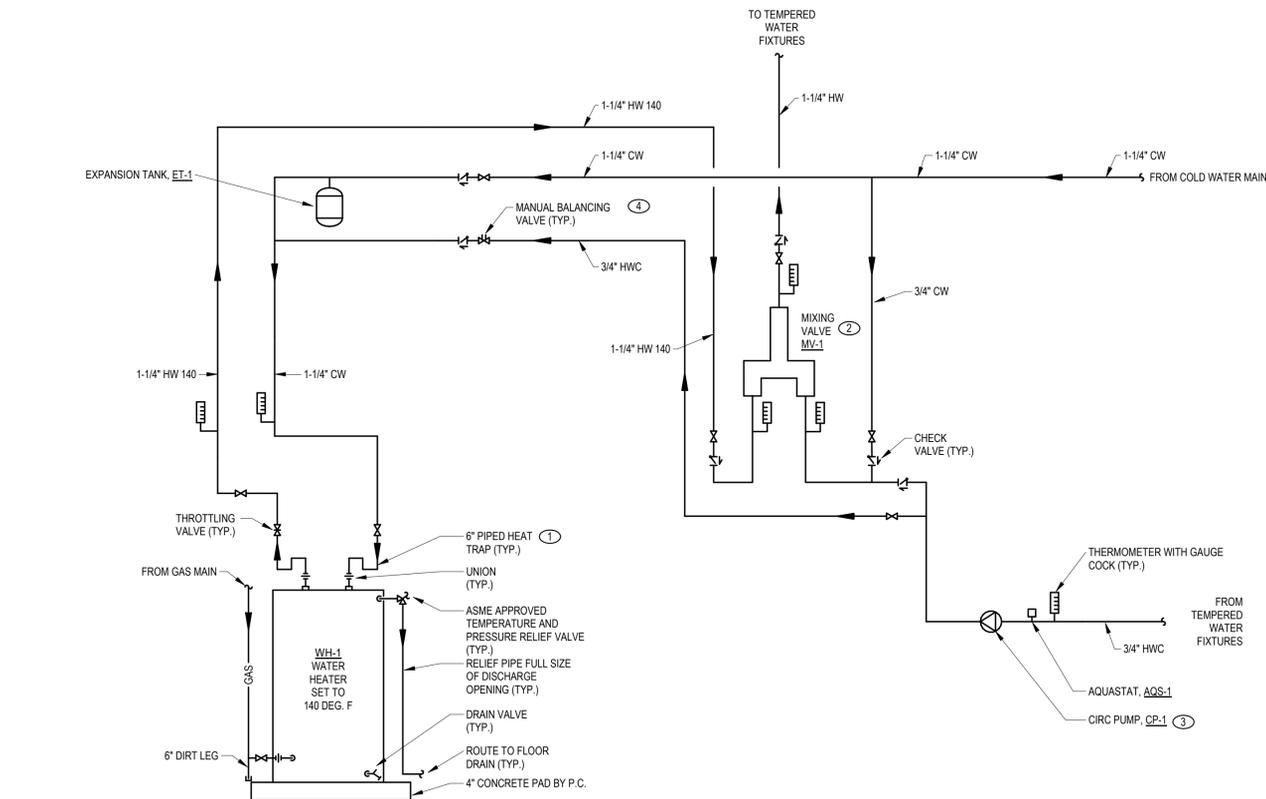
KEYED NOTES:

- VERIFY METER SIZE, QUANTITY, & INSTALLATION REQUIREMENTS WITH UTILITY. PROVIDE & INSTALL REMOTE METERING EQUIPMENT WHEN REQUIRED. MAINTAIN UPSTREAM AND DOWNSTREAM PIPE DIAMETERS AS REQUIRED BY METER MANUFACTURER.
- STRAINER MAY BE SUPPLIED INTEGRAL TO BACKFLOW PREVENTER ASSEMBLY.
- INSTALL THE BACKFLOW PREVENTER ASSEMBLY AT A MINIMUM DISTANCE FROM THE FLOOR OF 12"

KED bluestone
 5518 NW 88th Street
 Johnston, IA 50131
 515-727-0700
 www.KEDbluestone.com

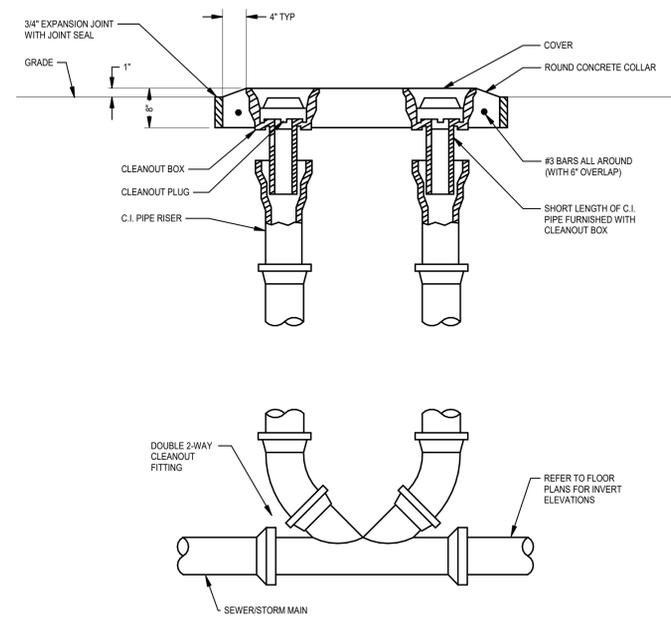
KED bluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KED bluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KED bluestone. © 2025 KED bluestone

REVISIONS		
NO.	NAME	DATE



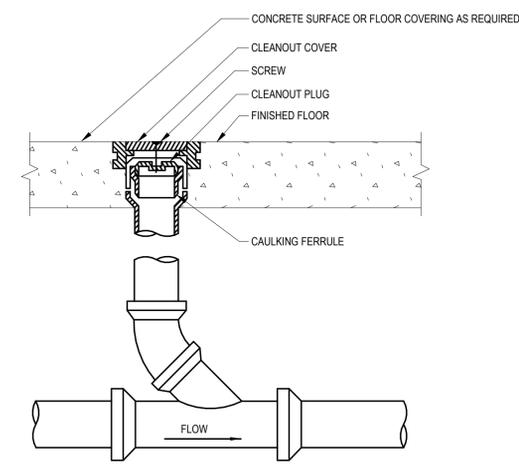
4 WATER HEATER - DOMESTIC HOT WATER FLOW DIAGRAM COMBINED
N.T.S.

- KEYED NOTES:**
- IN LIEU OF 6\"/>



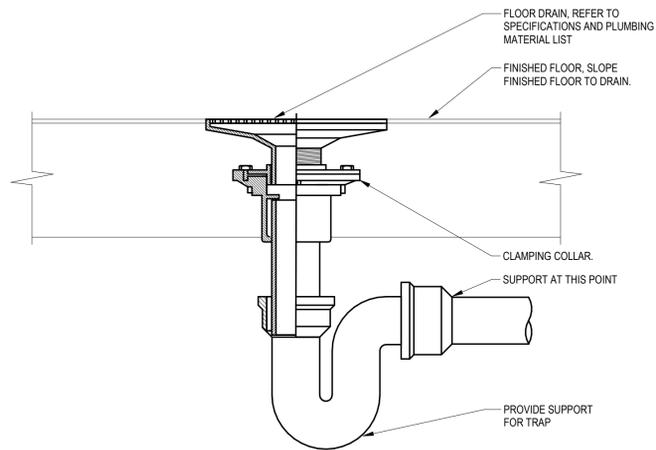
3 2-WAY YARD CLEANOUT
N.T.S.

- GENERAL NOTES:**
- REFER TO PIPING APPLICATION SCHEDULE AND SPECIFICATIONS FOR ALLOWED JOINT TYPES.



2 FLOOR CLEANOUT
N.T.S.

- GENERAL NOTES:**
- REFER TO PIPING APPLICATION SCHEDULE AND SPECIFICATIONS FOR ALLOWED JOINT TYPES.
 - INSTALL FLOOR CLEANOUTS IN ALL OF THE FOLLOWING LOCATIONS:
 - ALL LOCATIONS SHOWN ON THE FLOOR PLANS
 - IN ALL HORIZONTAL BRANCHES THAT ARE GREATER THAN 5'-0\"/>
 - EVERY 100' OF DEVELOPED PIPING LENGTH
 - EACH AGGREGATE HORIZONTAL CHANGE IN DIRECTION EXCEEDING 135°.



1 FLOOR DRAIN - ON GRADE
N.T.S.

- GENERAL NOTES:**
- REFER TO PLUMBING MATERIAL LIST FOR SPECIFIC DRAIN OPTIONS & ACCESSORIES.

KED bluestone
5518 NW 88th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com

KED bluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KED bluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KED bluestone. © 2025 KED bluestone

REVISIONS

NO.	NAME	DATE

PLUMBING CONNECTION SCHEDULE

FIXTURE	MINIMUM BRANCH SIZING				FIXTURE CONNECTION SIZE			NOTES
	CW	HW	SAN	VENT	CW	HW	SAN	
ELECTRIC WATER COOLER	1/2"	-	1 1/2"	1 1/4"	3/8"	-	1 1/4"	1, 2
FLOOR DRAIN/FLOOR SINK	-	-	3"	1 1/2"	-	-	3"	1
FLOOR DRAIN/FLOOR SINK	-	-	4"	2"	-	-	4"	
HOSE BIBB	3/4"	-	-	-	1/2"	-	-	
KITCHEN SINK	1/2"	1/2"	1 1/2"	1 1/4"	3/8"	3/8"	1 1/2"	1, 2
LAVATORY	1/2"	1/2"	1 1/4"	1 1/4"	3/8"	3/8"	1 1/4"	1, 2
MOP BASIN	3/4"	3/4"	3"	1 1/2"	1/2"	1/2"	3"	1
WASHING MACHINE WALL BOX	3/4"	3/4"	2"	1 1/4"	1/2"	1/2"	2"	
WATER CLOSET	3/4"	-	4"	2"	3/8"	-	4"	

- NOTES:**
 1. ALL BELOW GRADE SANITARY AND VENT PIPING SHALL BE A MINIMUM OF 2".
 2. ALL SUPPLY PIPING SERVING MORE THAN A SINGLE FIXTURE SHALL HAVE A MINIMUM PIPE SIZE OF 3/4".

PIPING APPLICATION SCHEDULE (PLUMBING)

SYSTEM (NOTE 1)	LOCATION	DESIGN WORKING PRESSURE (PSI)	MATERIAL	JOINTS	USAGE SIZE RANGE	INSULATION APPLICATION		NOTES
						THICKNESS (IN.)	TYPE (NOTES 2, 3)	
DOMESTIC COLD WATER	ABOVE GRADE	125	TYPE L COPPER	SOLDER OR MECHANICAL PRESS CONNECTION	1-1/4" OR LESS	1/2"	ELASTOMERIC FOAM OR FIBERGLASS	7
					1-1/2" & GREATER	1"		
	BELOW GRADE	125	PEX	PEX EXPANSION	1-1/4" OR LESS	1/2"	ELASTOMERIC FOAM OR FIBERGLASS	
					1-1/2" & GREATER	1"		
DOMESTIC HOT WATER SUPPLY AND RECIRCULATING	ABOVE GRADE	125	TYPE L COPPER	SOLDER OR MECHANICAL PRESS CONNECTION	1-1/4" OR LESS	1"	ELASTOMERIC FOAM OR FIBERGLASS	7
					1-1/2" & GREATER	1-1/2"		
	BELOW GRADE	N/A	CAST IRON AND/OR SCH 40 PVC	BELL & SPIGOT, NO HUB, OR SOLVENT	3" & GREATER	-	-	
					DUCTILE IRON PRESSURE WATER PIPE	MECHANICAL OR PUSH-ON	-	
SANITARY/VENT	BELOW GRADE	N/A	CAST IRON AND/OR SCH 40 PVC	BELL & SPIGOT, NO HUB, OR SOLVENT	ALL	-	-	-
	ABOVE GRADE (RETURN AIR PLENUM)	N/A	CAST IRON, DWV COPPER	BELL & SPIGOT, NO HUB, SOLDER	ALL	1/2"	FIBERGLASS	4
PLUMBING EQUIPMENT DRAINS	ABOVE GRADE	N/A	DWV COPPER	SOLDER	ALL	1"	FIBERGLASS	5
GREASE SANITARY	BELOW GRADE	N/A	CAST IRON OR SCH 40 PVC	BELL & SPIGOT, NO HUB, OR SOLVENT	ALL	-	-	-

- NOTES:**
 1. REFER TO EACH PIPING SPECIFICATION FOR SPECIFIC PIPING REQUIREMENTS.
 2. SEE SPECIFICATION SECTION 230719 FOR COMPLETE INSULATION AND JACKETING REQUIREMENTS. ALL INSULATION SHALL BE PLENUM RATED MEETING ASTM E84 WHERE INSTALLED IN A RETURN AIR PLENUM.
 3. INSTALL RIGID CALCIUM SILICATE INSERTS AT ALL PIPING HANGERS.
 4. INSULATE ALL PLUMBING VENT PIPE WITHIN 10' OF ROOF PENETRATION.
 5. INSULATION ONLY REQUIRED FOR COLD SERVICE PIPING. EQUIPMENT DRAIN PIPING LESS THAN 5' IN LENGTH NEED NOT BE INSULATED.
 6. PIPE SHALL BE CEMENT MORTAR LINED PER ANSI/AWWA STANDARDS. FITTINGS SHALL BE LONG RADIUS, 200 PSI RATED, CEMENT MORTAR LINED.
 7. PEX PIPING SHALL ONLY BE ALLOWED FOR INDIVIDUAL FIXTURE DROPS. PEX PIPING SHALL NOT BE INSTALLED IN RATED WALLS.

CIRCULATION PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	PUMP SPEED	PUMP				PUMP CONTROLLER				NOTES				
					PUMP CONSTRUCTION		FLOWRATE PER PUMP (GPM)	HEAD (FT.)	ELECTRICAL								
					HOUSING	IMPELLER			HP	VOLT	PHASE	DISCONNECT BY					
CP-1	GRUNDFOS	UP	INLINE	SINGLE SPEED	BRONZE	COMPOSITE	2	15	FHP	120	1	E.C.	AQS-1	120	1	E.C.	1, 2, 3

- NOTES:**
 1. PROVIDE PUMP WITH IMMERSION TYPE AQUASTAT TEMPERATURE SENSOR FOR PUMP OPERATION. REFER TO WATER HEATER DETAIL FOR ADDITIONAL INSTALLATION REQUIREMENTS.
 2. PROVIDE PUMP WITH FLANGED CONNECTIONS.
 3. REFER TO DOMESTIC WATER PIPING DIAGRAM AND PUMP DETAILS FOR ADDITIONAL REQUIREMENTS.

WATER HEATER SCHEDULE (DOMESTIC)

MARK	MANUFACTURER	MODEL	FUEL GAS OR ELECTRIC	INPUT (MBH)	EFFICIENCY (UEF)	GAS PRESSURE (IN. W.C.)	HW SETPOINT	RECOVERY RATE (GPH) (NOTE 1)	WORKING PRESSURE	STORAGE TANK SIZE (GAL)	ASME RATED	ELECTRICAL				NOTES
												HP	VOLT	PH	DISCONNECT BY	
WH-1	A.O. SMITH	GCR	GAS	40	0.64	7-14"	140	42	150 PSI	40	NO	FHP	120	1	EC	2

- NOTES:**
 1. RECOVERY RATE BASED ON 90 DEGREE TEMPERATURE RISE.

LAVATORIES AND SINK SCHEDULE

MARK	ADA	MANUFACTURER (NOTE 1)		DESCRIPTION			FIXTURE DIMENSIONS (INCHES)					NOTES
		FIXTURE	TRIM	FIXTURE	TRIM	ACCESSORIES	OVERALL		INSIDE BOWL			
							SIDE TO SIDE	FRONT TO BACK	SIDE TO SIDE	FRONT TO BACK	DEPTH	
L-1	L-1A	ZURN Z-5340 SERIES	DELTA 22C SERIES	WALL MOUNTED, WHITE VITREOUS CHINA, 4" CENTER FAUCET HOLES. HOLES FOR CONCEALED ARM CARRIER. FLOOR SUPPORTED CONCEALED ARM CARRIER BOLTED SECURELY TO FLOOR. PROVIDE ALL REQUIRED ACCESSORIES FOR INSTALLATION.	SINGLE HANDLE MIXING FAUCET, DOUBLE-HOLE WITH DECK PLATE, CONVENTIONAL SPOUT WITH LAMINAR FLOW OUTLET, WASHERLESS PUSH-PULL LEVER HANDLE WITH SUPPLIES 4" ON CENTER. CHROME-PLATED TRIM. MAXIMUM FLOW TO BE 0.5 GPM. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.	QUARTER-TURN 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND STOPS WITH CHROME PLATED SOFT COPPER RISERS OR FLEXIBLE BRAIDED STAINLESS STEEL RISERS AND CHROME ESCUTCHEONS. PERFORATED DRAIN GRATE, CHROME-PLATED P-TRAP, TAILPIECE AND ESCUTCHEON. PRE-MANUFACTURED INSULATION KIT FOR P-TRAP, STOPS, AND SUPPLY LINES. ADA-COMPLIANT. EQUAL TO TRUEBRO LAV GUARD 2. PROVIDE WITH <u>MV-2</u> . INSTALL BELOW FIXTURE IN ACCESSIBLE LOCATION.	20	18 1/4	16 1/2	10 1/4	6 3/8	
SK-1	SK-1A	JUST SL SERIES	DELTA 440 DST	STAINLESS STEEL DROP-IN SINK, SINGLE COMPARTMENT WITH FAUCET DECK, 18 GAUGE TYPE 304, SELF-RIMMING, COMPLETELY UNDERCOATED, 3-1/2" DIAMETER DRAIN OUTLET.	SINGLE HANDLE MIXING FAUCET FOR SINGLE HOLE SINK APPLICATIONS. SWIVEL SPOUT WITH 9" REACH & INTEGRAL ANTI-SIPHON DEVICE. HANDLE TO HAVE CERAMIC CARTRIDGE CONTROL MECHANISM & RED/BLUE TEMPERATURE INDICATORS. DECK MOUNTED SPRAY ATTACHMENT, 45" LONG SPRAY HOSE. MAXIMUM FLOW TO BE 1.5 GPM. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.	REMOVABLE STAINLESS STEEL BASKET STRAINER AND NEOPRENE STOPPER. QUARTER-TURN 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLIES AND STOPS WITH CHROME PLATED SOFT COPPER RISERS OR FLEXIBLE BRAIDED STAINLESS STEEL RISERS AND CHROME ESCUTCHEONS. CHROME-PLATED P-TRAP AND TAILPIECE AND ESCUTCHEON. PROVIDE WITH WALL CLEANOUT <u>WC-1</u> BELOW SINK.	17	20	14	14	6 3/8	2

- NOTES:**
 1. SEE SPECIFICATIONS FOR LIST OF ACCEPTABLE MANUFACTURERS AND INSTALLATION REQUIREMENTS.
 2. VERIFY SINK DIMENSIONS WITH CASEWORK PRIOR TO ORDERING.

PLUMBING MATERIAL LIST

FIXTURE	ADA (NOTE 1)	MANUFACTURER (NOTE 2)	DESCRIPTION	ELECTRICAL CONNECTION (VOLT/PHASE/AMPS)	NOTES
BFP-1	-	WATTS LF009	FIXTURE: REDUCED PRESSURE BACKFLOW PREVENTER, SPRING LOADED CHECKS WITH A DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN THE CHECK VALVES. BRONZE WITH BRONZE, PLASTIC OR STAINLESS STEEL INTERNAL PARTS AND STAINLESS STEEL SPRINGS. THE WETTED SURFACE OF THE BACKFLOW PREVENTER SHALL CONTAIN LESS THAN 0.25% LEAD BY WEIGHT. UNITS SHALL INCLUDE FOUR TEST COCKS WITH SHUT-OFF VALVES AND SHALL BE BACKFLOW TESTED AT THE FACTORY. RATED FOR 175 PSIG AT 30 DEGREES F. TO 140 DEGREES F. MAXIMUM PRESSURE DROP 15 PSI AT 10 FPS REGARDLESS OF SIZE. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED. ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LINE. WITH SHUTOFF. BALL VALVES ON BOTH SIDES OF UNIT AND AIR GAP DRAIN FITTING. PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM FROM UNIT. APPROVED BY: USC FCCC & HR, AWWA C511-92, ASSE 1013, IAPMO AND SBCCO LISTED. UNIT SHALL BE SAME SIZE AS PIPE IF NO SIZE IS SHOWN ON THE DRAWING.	-	
ET-1	-	WATTS DETA	FIXTURE: EXPANSION TANK - WELDED STEEL CONSTRUCTION, STAINLESS STEEL SYSTEM CONNECTION, HEAVY DUTY BUTYL DIAPHRAGM AND RIGID POLYPROPYLENE LINER MECHANICALLY BONDED TO TANK TO PROVIDE A 100% NON-CORROSIVE WATER RESERVOIR. DIAPHRAGM AND LINER SHALL BE APPROVED FOR USE IN POTABLE WATER SYSTEMS. ALL WETTED COMPONENTS OF FDA APPROVED MATERIALS. TANK SHALL HAVE A WORKING TEMPERATURE OF 200°F AND A WORKING PRESSURE OF 125 PSIG. MINIMUM TANK VOLUME TO BE 2.3 GALLONS. MINIMUM ACCEPTING VOLUME TO BE 3.5 GALLONS. FACTORY PRE-CHARGED TO 40 PSIG. PROVIDE STANDARD SCHRADER AIR VALVE FOR FIELD CHARGING. COORDINATE FIELD CHARGE PRESSURE WITH THE ACTUAL STATIC SYSTEM PRESSURE ADJACENT TO THE EXPANSION TANK CONNECTION.	-	
EW-C-1	EW-C-1A	ELKAY EZ SERIES	FIXTURE: ELECTRIC WATER COOLER WITH INTEGRAL VANDAL RESISTANT BOTTLE FILLER WITH WATER FILTER - WALL HUNG, BLEVEL UNITS, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT AND BOTH SIDES. BUILT-IN FLOW REGULATOR, DRAIN & TRAP ASSEMBLY, GRAY PAINTED CABINETS AND NON-SPLASH BASINS. STREAM PROJECTORS WITH PROTECTIVE HOODS. ADA COMPLIANT. 7.8 GPH OF WATER FROM 90 DEGREES F. TO 50 DEGREES F. AT 90 DEGREES F. ROOM TEMPERATURE. TANK TESTED TO 125 PSIG. ADJUSTABLE THERMOSTAT. MOUNTING ACCESSORIES, TANK DRAIN AND ANGLE STOPS. CORD AND PLUG. COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. EWC SHALL CONFORM TO ANSI A117.1-1986. WATER SYSTEM SHALL BE OF LEAD FREE CONSTRUCTION. ACCESSORIES: PROVIDE WITH 3 SPARE WATER FILTERS PER UNIT.	120V / SINGLE PHASE / 15 AMP	4
E-1	-	EVERPURE IN-9CF-S	FIXTURE: IN-LINE WATER FILTER FOR COFFEE OR ICE MAKER, 5 MICRON CARBON FILTER, 1/4" CONNECTIONS, 0.75 GPM RATED FLOW, 15,000 GALLON RATED CAPACITY. NSF/ANSI 53 CERTIFIED. PROVIDE WITH ONE SPARE FILTER PER LOCATION.	-	3
FCO-1	-	ZURN Z-1400	FIXTURE: FLOOR CLEANOUT - CAST IRON THREADED ADJUSTABLE HOUSING, FLANGED FERRULE WITH PLUG AND SECURED NICKEL BRONZE TOP. TOP STYLE SHALL MATCH FLOOR FINISH AS FOLLOWS. UNFINISHED FLOOR - ROUND SOLID SCORRIATED TOP, TILE-ROUND RECESSED TOP, CARPET - ROUND TOP WITH CARPET MARKER.	-	
FD-1	-	ZURN Z415 SERIES	FIXTURE: FLOOR DRAIN - 6" DIAMETER NICKEL BRONZE ADJUSTABLE TOP WITH SURFACE MEMBRANE CLAMP, 3" BOTTOM OUTLET, CAST IRON BODY WITH 1/2" TRAP PRIMER CONNECTION, FLASHING COLLAR, DEEP SEAL TRAP.	-	
FD-2	-	ZURN Z415 SERIES	FIXTURE: FLOOR DRAIN - 6" DIAMETER NICKEL BRONZE ADJUSTABLE TOP WITH SURFACE MEMBRANE CLAMP, 4" BOTTOM OUTLET, CAST IRON BODY WITH 1/2" TRAP PRIMER CONNECTION, FLASHING COLLAR, DEEP SEAL TRAP.	-	
FS-1	-	ZURN Z-1900 SERIES	FIXTURE: FLOOR SINK - 8" x 8" NICKEL BRONZE RIM AND NO GRATE, 3" BOTTOM OUTLET, 6" DEEP RECEPTOR WITH DOME STRAINER, CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE, SEEPAGE HOLES, & CLAMPING COLLAR, DEEP SEAL TRAP.	-	
GI-1	-	SCHIER GB2-CT	FIXTURE: HYDROMECHANICAL GREASE INTERCEPTOR, 25 GPM RATED FLOW, 20 GAL LIQUID HOLDING CAPACITY, 1.8 GAL SOLID HOLDING CAPACITY, POLYETHYLENE CONSTRUCTION, WATER / GAS-TIGHT COVER, CERTIFIED TO ASME A112.14.3 (TYPE D) AND CSA B481.1. PROVIDE WITH RISERS TO GRADE, FIELD CUT TO LENGTH.	-	
HB-1	-	WOODFORD MODEL B67	FIXTURE: FREEZELESS WALL HYDRANT, CONCEALED TYPE WITH FLUSH MOUNTED WALL BOX WITH STANDARD FINISH, AUTOMATIC DRAINING, VACUUM BREAKER, 3/4" MALE HOSE THREAD, BRASS VALVE BODY AND SEAT, NON-FERROUS METAL STEM, STANDARD FINISH, WALL CLAMP. FURNISH TWO LOOSE KEY OPERATORS. ASSE 1019 APPROVED AND LISTED.	-	
HB-2	-	WOODFORD MODEL SRH	FIXTURE: HOSE BIBB - FREEZELESS ROOF HYDRANT, 3/4" MALE HOSE THREAD DUAL CHECK BACKFLOW PREVENTER ON OUTLET WITH INTEGRAL VENT, 3/4" NPT INLET, ONE PIECE PLUNGER, EPDM OR TPO ROOF BOOT. PROVIDE MANUFACTURERS CAST IRON HYDRANT SUPPORT, MOUNTING SYSTEM.	-	
MB-1	-	FIAT MSB	FIXTURE: MOP BASIN - MOLDED STONE, 24"x24"x10", STAINLESS STEEL DRAIN WITH COMBINATION DOME STRAINER AND LINT BASKET, 3" OUTLET. DEEP SEAL TRAP. TRIM: TWO HANDLE EXPOSED MIXING FAUCET, 6" WRISTBLADE HANDLES, POLISHED CHROME PLATED, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, INTEGRAL STOPS. EQUAL TO DELTA 28C2385-R6. ACCESSORIES: VINYL BUMPER GUARD ON ALL OPEN SIDES. FRICTION HINGE MOP HANGER, HOSE, AND HOSE BRACKET. VINYL WALL GUARDS.	-	
MV-1	-	LAWLER 800 SERIES	FIXTURE: LEAD FREE THERMOSTATIC MIXING VALVE - MASTER HIGH/LOW MIXING VALVE FOR TEMPERED WATER CONTROL. BRONZE BODY CONSTRUCTION WITH STAINLESS STEEL PISTON AND LINER. ROUGH BRONZE FINISH. UNION INLETS WITH STRAINERS AND CHECK STOPS. DIAL THERMOMETER ON OUTLET. RATED FOR 20 GPM OUTPUT MAXIMUM AT 10 PSI DIFFERENTIAL AND 0.5 GPM OUTPUT MINIMUM. UNIT TO MIX 140 DEGREE F. HOT WATER SUPPLY AND 40 DEGREE F. COLD WATER SUPPLY FOR 120 DEGREE F. OUTLET. SHALL CONFORM TO THE REQUIREMENTS OF ASSE 1017. ACCESSORIES: ALSO PROVIDE MIXING VALVE WITH (1) ADDITIONAL COMPLETE REBUILD KIT INCLUDING THERMOSTATIC ELEMENT, STOP CHECKS, PISTON & LINER, BONNET, PUSHER, & ALL ASSOCIATED O-RINGS & GASKETS. PROVIDE STEEL MOUNTING FRAME, INLET STOPS, OUTLET THERMOMETER, AND OUTLET VALVES. CONFIGURATION OF VALVE AND BOX SHALL BE AS INDICATED ON THE PLANS.	-	
MV-2	-	POWERS LF400 SERIES	FIXTURE: UNDER-COUNTER THERMOSTATIC MIXING VALVE FOR TEMPERED WATER CONTROL. ALL LEAD FREE BRONZE/BRASS CONSTRUCTION. TAMPER RESISTANT ADJUSTABLE TEMPERATURE CONTROL. INTEGRAL CHECKS AND STRAINERS. UNIT TO MIX 120 DEGREE F. HOT WATER SUPPLY AND 40 DEGREE F. COLD WATER SUPPLY FOR 110 DEGREE F. OUTLET AT 0.25 GPM MINIMUM. SHALL CONFORM TO THE REQUIREMENTS OF ASSE 1070.	-	
WB-1	-	IPS CORP. MB1200HA	FIXTURE: WALL BOX WITH AUXILIARY DRAIN BOX, WHITE RESIN ENCLOSURE, 2" DRAIN CONNECTION, TWO QUARTER-TURN INTEGRAL WATER HAMMER ARRESTOR VALVES. COORDINATE OUTLET TYPE WITH EQUIPMENT SERVED. ACCESSORIES: PROVIDE WITH AIR GAP ON WASTE CONNECTION.	-	
WC-1	WC-1A	ZURN Z-5555 SERIES (NON-ADA) ZURN Z-5551 SERIES (ADA)	FIXTURE: TANK TYPE, ACCESSIBLE WATER CLOSET - FLOOR MOUNTED, BOTTOM OUTLET, WHITE VITREOUS CHINA, SIPHON JET, 1.6 GALLONS PER FLUSH, ELONGATED BOWL. ACCESSORIES: WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED, SOLID PLASTIC SELF-SUSTAINING SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS. QUARTER-TURN CHROME PLATED HEAVY BRASS ANGLE SUPPLY STOP WITH CHROME PLATED SOFT COPPER RISER OR FLEXIBLE BRAIDED STAINLESS STEEL RISER.	-	
WC-1	-	ZURN Z-1446	FIXTURE: WALL CLEANOUTS SHALL HAVE CAST IRON ACCESS BODY, GAS AND WATERTIGHT THREADED PLUG, ROUND POLISHED BRASS ACCESS COVER AND EXTENDED MACHINE SCREW.	-	
YCO-1	-	ZURN Z-1474	FIXTURE: 2-WAY YARD CLEANOUT - TWO ROUND DURA-COATED CAST IRON CLEANOUT AND DOUBLE FLANGED HOUSINGS, HEAVY DUTY SECURED SCORRIATED DURA-COATED CAST IRON COVERS WITH LIFTING DEVICE. BRONZE CLEANOUT PLUGS AND GAS/WATERTIGHT SEALS. PROVIDE WITH A DOUBLE 2-WAY CLEANOUT FITTING. REFER TO YARD CLEANOUT DETAIL FOR ADDITIONAL INFORMATION. SIZE AS LISTED ON PLANS.	-	

- NOTES:**
 1. FIXTURE TO BE ADA COMPLIANT AND INSTALLED AT ADA HEIGHT. COORDINATE REQUIRED LOCATIONS WITH ARCHITECTURAL DRAWINGS.
 2. SEE SPECIFICATIONS FOR LIST OF ACCEPTABLE MANUFACTURERS AND INSTALLATION REQUIREMENTS.
 3. INSTALL F-1 UPSTREAM OF ALL ICE MAKERS AND COFFEE MAKERS.
 4. CORD & PLUG DISCONNECT BY MFR.



5518 NW 88th Street
 Johnston, IA 50131
 515-727-0700
 www.KEDbluestone.com
 KED bluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KED bluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KED bluestone. © 2025 KED bluestone



STRUCT ENGINEER

APEX STRUCTURAL, LLC
 373 Collins Road NE #102
 Cedar Rapids, IA 52402
 Ph. 319-294-2739

MEP ENGINEER

KEDBLUESTONE
 5518 NW 88th St
 Johnston, IA 50131
 Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

DATE

MAY 8, 2025

SHEET

P6.1

ELECTRICAL ABBREVIATIONS		
1P	1 POLE (2P, 3P, 4P, ETC.)	LTNG LIGHTNING
A	6" ABOVE COUNTER OR BACKSPASH TO CENTERLINE OF DEVICE	LV LOW VOLTAGE
A, AMP	AMPERE	M MAXIMUM
AC	ABOVE COUNTER	MAG S MAGNETIC STARTER
ACLG	ABOVE CEILING	MIC MECHANICAL CONTRACTOR
AF	AMP FRAME	MCB MAIN CIRCUIT BREAKER
AFB	ABOVE FINISHED FLOOR	MCC MOTOR CONTROL CENTER
AFG	ABOVE FINISHED GRADE	MDC MAIN DISTRIBUTION CENTER
AFCI	ARC FAULT CIRCUIT INTERRUPTER	MDP MAIN DISTRIBUTION PANEL
AHU	AIR HANDLING UNIT	MFR MANUFACTURER
AL	ALUMINUM	MFS MAIN FUSED DISCONNECT SWITCH
ALT	ALTERNATE	MH MANHOLE
AMP	AMPERE	MI MICROPHONE
AMPL	AMPLIFIER	MIN MINIMUM
ANNUN	ANNUNCIATOR	MISC MISCELLANEOUS
APPROX	APPROXIMATELY	MLO MAIN LUGS ONLY
AQ-STAT	AQUASTAT	MMS MANUAL MOTOR STARTER
ARCH	ARCHITECT, ARCHITECTURAL	MOA MULTIOUTLET ASSEMBLY
AS	AMP SWITCH	MSP MOTOR STARTER PANELBOARD
AT	AMP TRIP	MSBD MAIN SWITCHBOARD
A.T.C.	AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR	MSS MOTOR STARTER SWITCH
ATS	AUTOMATIC TRANSFER SWITCH	MT MOUNT
AUTO	AUTOMATIC	MTR MOTOR, MOTORIZED
AUX	AUXILIARY	N.C. NORMALLY CLOSED
AV	AUDIO VISUAL	NEC NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
B	BLACK DEVICE COLOR WITH BLACK UNBREAKABLE THERMOPLASTIC COVER PLATE	NFDS NON-FUSED SAFETY DISCONNECT SWITCH
BATT	BATTERY	NIC NOT IN CONTRACT
BD	BOARD	NL NIGHT LIGHT
BLDG	BUILDING	N.O. NORMALLY OPEN
BMS	BUILDING MANAGEMENT SYSTEM	NPF NORMAL POWER FACTOR
C	CONDUIT	NTS NOT TO SCALE
CAB	CABINET	OC ON CENTER
CAT	CATALOG	OH OVERHEAD
CATV	CABLE TELEVISION	OL OVERLOADS
CB	CIRCUIT BREAKER	PA PUBLIC ADDRESS
CCTV	CLOSED CIRCUIT TELEVISION	PB PULL BOX OR PUSHBUTTON
CKT	CIRCUIT	PC PLUMBING CONTRACTOR
CLG	CEILING	PE PNEUMATIC ELECTRIC
CM	CONSTRUCTION MANAGER	PEDESTAL
COMB	COMBINATION	PF POWER FACTOR
CMPR	COMPRESSOR	PH PHASE
CONN	CONNECTION	PIV POST INDICATING VALVE
CONST	CONSTRUCTION	PNL PANEL
CONT	CONTINUATION OR CONTINUOUS	PP POWER POLE
CONTR	CONTRACTOR	PR RESTRICTION
CONV	CONVECTOR	PRI PRIMARY
CP	CIRCULATING PUMP	PROJ PROJECTION
CRT	CATHODE-RAY TUBE	PRV POWER ROOF VENTILATOR
CT	CURRENT TRANSFORMER	PT POTENTIAL TRANSFORMER
CTR	CENTER	PVC POLYVINYL CHLORIDE (CONDUIT)
CU	COPPER	PWR POWER
DEPT	DEPARTMENT	QUAN QUANTITY
DET	DETAIL	RAC RIGID ALUMINUM CONDUIT
DIA	DIAMETER	RCPT RECEPTACLE
DISC	DISCONNECT	REQD REQUIRED
DIST	DISTRIBUTION	RM ROOM
DN	DOWN	RMC RIGID METALLIC CONDUIT
DO	AUTOMATIC DOOR OPENER	RTU ROOF TOP UNIT
DPR	DAMPER	SC SURFACE CONDUIT
DS	SAFETY DISCONNECT SWITCH	SEC SECONDARY
DT	DOUBLE THROW	SHT SHEET
DWG	DRAWING	SIM SIMILAR
EC	ELECTRICAL CONTRACTOR	SLD SINGLE-LINE DIAGRAM
ELEC	ELECTRICAL, ELECTRICAL	SIN SOLID NEUTRAL
ELEV	ELEVATOR	SPEC SPECIFICATION
ELU	EMERGENCY LIGHTING UNIT	SPKR SPEAKER
EM	EMERGENCY	SP SPARE
EMS	ENERGY MANAGEMENT SYSTEM	SPP SINGLE-POINT POWER
EMT	ELECTRICAL METALLIC TUBING	SR SURFACE RACEWAY
EP	ELECTRIC PNEUMATIC	SS STAINLESS STEEL
EPO	EMERGENCY POWER OFF	SSW SELECTOR SWITCH
EQUIP	EQUIPMENT	STA STOP/START PUSHBUTTONS
EWIC	ELECTRIC WATER COOLER	STA STATION
EXIST	EXISTING	STD STANDARD
EXH	EXHAUST	SURF SURFACE MOUNTED
EXP	EXPLOSION PROOF	SW SWITCH
FA	FIRE ALARM	SWBD SWITCHBOARD
FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL	SYN SYMMETRICAL SYSTEM
FACP	FIRE ALARM CONTROL PANEL	TEL TELEPHONE
FCU	FAN COIL UNIT	TERM TERMINAL
FIXT	FIXTURE	T TAMPER RESISTANT
FLR	FLOOR	TL TWIST LOCK
FLUOR	FLUORESCENT	T-STAT THERMOSTAT
F.P.C.	FIRE PROTECTION CONTRACTOR	TTC TELEPHONE TERMINAL CABINET
FU	FUSE	TV TELEVISION
FUDS	FUSED SAFETY DISCONNECT SWITCH	TVTC TELEVISION TERMINAL CABINET
GA	GAUGE	TYP TYPICAL
GAL	GALLON	UC UNDER COUNTER
GALV	GALVANIZED	UE UNDERGROUND ELECTRICAL
GC	GENERAL CONTRACTOR	UG UNDERGROUND
GEN	GENERATOR	UH UNIT HEATER
GFI	GROUND FAULT CIRCUIT INTERRUPTER	UT UNDERGROUND TELEPHONE
GFP	GROUND FAULT PROTECTOR	UTL UTILITY
GND	GROUND	UV ULTRAVIOLET
GYP BD	GYP SUM BOARD	V VOLT
HWC#	DOMESTIC WATER CIRCULATING PUMP	VA VOLT-AMPERES
HOA	HANDS-OFF-AUTOMATIC SWITCH	VDT VIDEO DISPLAY TERMINAL
H	INSTALL DEVICE HORIZONTALLY	VERT VERTICAL
HP	HORSEPOWER	VFD VARIABLE FREQUENCY DRIVE
HPF	HIGH POWER FACTOR	VOL VOLUME
HT	HEIGHT	W WATT
HTG	HEATING	WI WITH
HTR	HEATER	WG WIRE GUARD
HV	HIGH VOLTAGE	WH WATER HEATER
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	W/O WITHOUT
IC	INTERRUPTING CAPACITY	WP WEATHERPROOF
IG	ISOLATED GROUND	XFMR TRANSFORMER
IMC	INTERMEDIATE METAL CONDUIT	XFR TRANSFER
INCAND	INCANDESCENT	XX LOCATION-SPECIFIC MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTERLINE OF DEVICE
IR	INFRARED	
IW	INTERLOCK WITH	
J-BOX	JUNCTION BOX	< ANGLE
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR	@ AT
KV	KILOVOLT	▲ DELTA
KVA	KILOVOLT-AMPERE	▲ FEET
KVAR	KILOVOLT-AMPERE REACTIVE	• INCHES
KW	KILOWATT	# NUMBER
KWH	KILOWATT HOUR	Ø PHASE
LOC	LOCATE OR LOCATION	C CENTER LINE
LT	LIGHT	P PLATE
LTG	LIGHTING	

BREAKER FUNCTION SCHEDULE	
SYMBOL	DESCRIPTION
A	ARC FAULT INTERRUPTER (AFCI)
AR	ARC ENERGY REDUCTION MAINTENANCE SWITCH
E	EXISTING BREAKER TO REMAIN
EM	PROVIDE IDENTIFICATION PER NEC 700.12(I)(2)(4)
EN	EXISTING BREAKER SERVING NEW CIRCUIT
G	GROUND FAULT CIRCUIT INTERRUPTER (GFCI) PROTECTION (5mA)
GE	GROUND FAULT CIRCUIT INTERRUPTER FOR EQUIPMENT (30mA)
GF	ADJUSTABLE GROUND FAULT PROTECTION FOR EQUIPMENT
HL	HANDLE LOCK TO LOCK BREAKER IN CLOSED POSITION
K#	KEY INTERLOCK (# REPRESENTS GROUPED KEYING)
LSI	LONG-TIME, SHORT-TIME, INSTANTANEOUS ADJUSTMENT
LSIG	LONG-TIME, SHORT-TIME, INSTANTANEOUS ADJUSTMENT, AND GROUND FAULT ADJUSTMENT
LSIA	LONG-TIME, SHORT-TIME, INSTANTANEOUS ADJUSTMENT, AND GROUND FAULT ALARM
N	NEW BREAKER IN EXISTING PANEL
NE	NEW BREAKER SERVING EXISTING CIRCUIT
SD	DENOTE SERVICE DISCONNECT
ST	SHUNT TRIP (120V OPERATED UNLESS NOTED OTHERWISE)

EQUIPMENT/DEVICE HOME RUN KEY	
1.	BRANCH CIRCUIT WIRING SHALL BE #12AWG UNLESS NOTED OTHERWISE ON THE PLAN OR IN THE SCHEDULES.
2.	AS A MINIMUM USE 10 AWG CONDUIT FOR 20 AMPERE, 120 VOLT BRANCH CIRCUIT HOME RUNS LONGER THAN 100 FEET AND 277 VOLT BRANCH CIRCUIT HOME RUNS LONGER THAN 200 FEET.
3.	REFER TO SPECIFICATION SECTION 260519 FOR ADDITIONAL REQUIREMENTS.

GENERAL PLAN SYMBOLS	
<u>MARK</u>	SCHEDULED EQUIPMENT (UNDERLINED)
MARK	NONSCHEDULED EQUIPMENT
(E) MARK	EXISTING EQUIPMENT - HALFTONE - (E) PREFIX
(R) MARK	EXISTING RELOCATED EQUIPMENT - (R) PREFIX
	SECTION VIEW, TOP REPRESENTS DETAIL NUMBER, BOTTOM REPRESENTS SHEET NUMBER
	ENLARGED VIEW, TOP REPRESENTS VIEW NUMBER, BOTTOM REPRESENTS SHEET NUMBER
	NEW WORK BY THE E.C. (DARK SOLID LINE)
	NEW UNDERGROUND WORK BY THE E.C. (DARK DASHED LINE)
	WORK BY OTHERS AND/OR EXISTING (LIGHT SOLID LINE)
	DEMO WORK BY THE E.C. (DARK DASHED LINE)
	MATCHLINE
	KEYED NOTE
	LIGHTING CONTROL SYMBOL (DIAMOND)
	KITCHEN EQUIPMENT SYMBOL (OCTAGON)

GENERAL ELECTRICAL SYMBOLS	
	ELECTRICAL CONNECTION TO EQUIPMENT
	EMERGENCY STOP PUSH BUTTON, REFER TO SCHEDULE FOR ADDITIONAL INFORMATION.
	DIGITAL POWER METER, LCD DISPLAY, MONITORING OF VOLTAGE, CURRENT, POWER, PF, FREQUENCY, MIN/MAX AND AVERAGE VALUES, AND ENERGY
	AUTOMATIC DOOR PUSH PAD
	PANELBOARD - SEE SCHEDULES FOR MORE INFORMATION
	UTILITY TRANSFORMER - PROVIDED BY UTILITY
	SWITCHBOARD - SEE SCHEDULES FOR MORE INFORMATION
	TRANSFORMER - SEE SCHEDULES FOR MORE INFORMATION
	DISCONNECT SWITCH, SEE SCHEDULES FOR MORE INFORMATION
	POWER METER
	COMBINATION STARTER, SEE SCHEDULES FOR MORE INFORMATION
	ELECTRICAL EQUIPMENT, DASHED LINES INDICATE CODE REQUIRED CLEARANCES. SEE SCHEDULES FOR MORE INFORMATION

GENERAL POWER SYMBOLS	
	DUPLEX / DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, EMERGENCY POWER, REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	DUPLEX / DOUBLE DUPLEX RECEPTACLE, REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION.
	CORD REEL / CORD DROP, REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	SIMPLEX RECEPTACLE, NEMA 5-20R
	SPECIAL RECEPTACLE
	RECESSED FLOOR BOX OR POKE-THRU
	CEILING MOUNTED RECEPTACLE, REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	SURFACE MOUNT MULTI-OUTLET ASSEMBLY, SEE GENERAL ELECTRICAL SCHEDULE FOR ADDITIONAL INFORMATION

GENERAL FIRE ALARM SYMBOLS	
	CONTROL PANEL
	NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL
	REMOTE ANNUNCIATOR PANEL
	POST INDICATOR VALVE AND TAMPER SWITCH
	AIR PRESSURE SWITCH
	VALVE TAMPER SWITCH
	WATER FLOW SWITCH
	BEAM SMOKE REFLECTOR
	LINEAR BEAM SMOKE DETECTOR
	DUCT SMOKE DETECTOR
	DUCT SMOKE DETECTOR REMOTE INDICATOR STATION
	HEAT DETECTOR ADDRESSABLE
	LINEAR HEAT DETECTION CABLE
	ADDRESSABLE FIRE ALARM MANUAL PULL STATION
	SMOKE DETECTOR
	AUDIO/VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED
	VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED
	SPEAKER NOTIFICATION APPLIANCE, CEILING MOUNTED
	SPEAKER/VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED
	HORN NOTIFICATION APPLIANCE, WALL MOUNTED
	AUDIO/VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED
	SPEAKER NOTIFICATION APPLIANCE, WALL MOUNTED
	SPEAKER/VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED
	VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED
	ADDRESSABLE MONITOR MODULE
	ADDRESSABLE RELAY MODULE
	MAGNETIC DOOR HOLDER
	HVAC ELEVATOR HOISTWAY DAMPER
	HVAC SMOKE DAMPER
	ZONE ADAPTER MODULES
	CO DETECTOR
	VOICE COMMAND CENTER
	DUCT CO DETECTOR
	BELL
	HIGH FIDELITY SPEAKER - CEILING MOUNT
	HIGH FIDELITY SPEAKER - WALL MOUNT
	AIR SAMPLING SMOKE DETECTOR
	FIRE SMOKE DAMPER

GENERAL SWITCH SYMBOLS	
	SWITCH, REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION.
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION

GENERAL LIGHTING SYMBOLS	
	CRITICAL FIXTURE (FULL SHADED)
	LIFE SAFETY (HALF SHADED)
	RECESSED MOUNTED (DIAGONAL SLASH)
	SURFACE MOUNTED
	SURFACE OR PENDANT FIXTURE (DOTS)
	POLE MOUNTED SITE FIXTURE
	RECESSED DOWNLIGHT
	EMERGENCY FIXTURE
	SINGLE / DOUBLE FACED EXIT SIGN
	EMERGENCY REMOTE HEAD (SINGLE/DOUBLE)
	COMBINATION EXIT/EMERGENCY FIXTURE
	WALL MOUNTED FIXTURE (STEM OR STEMS)
	CYLINDRICAL FIXTURE (ARROW INDICATES WALL WASH)

- ### GENERAL NOTES
- ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES INCLUDING BUT NOT LIMITED TO THE NATIONAL ELECTRICAL CODE, THE INTERNATIONAL BUILDING CODE, AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES, AND INTERNATIONAL ENERGY CONSERVATION CODE. THE AUTHORITY HAVING JURISDICTION SHALL HAVE THE FINAL DECISION ON ALL INSTALLATIONS AND PRACTICES.
 - ALL MATERIAL FURNISHED SHALL BE NEW, FREE OF DEFECTS, AND LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY UNLESS NOTED OTHERWISE.
 - INSTALLATION OF EQUIPMENT SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS APPROVED BY THE AUTHORITY HAVING JURISDICTION (A.H.J.). PLACE ALL CABLE/WIRING IN CONDUIT OR RACEWAY UNLESS NOTED OTHERWISE. DO NOT LIE ON, OR SUPPORT CABLE FROM, CEILING DEVICES, PIPING OR DUCTWORK. PROVIDE NEW WIRING FOR ALL BRANCH CIRCUITS AND FEEDERS.
 - FEEDERS ON DRAWINGS ARE SCHEMATIC ONLY. CONDUIT RUNS SHALL COMPLY WITH CONDUIT SPECIFICATIONS AND CONTAIN BENDS THAT ARE NOT GREATER THAN 90 DEGREES. CONDUITS ABOVE GRADE SHALL BE RUN PARALLEL TO OR PERPENDICULAR WITH BUILDING LINES AND STRUCTURE.
 - ALL FEEDER AND BRANCH CIRCUITS TO PANELS, MOTORS, LIGHTS, RECEPTACLES, GENERAL DISTRIBUTION, ETC. SHALL CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR SIZED ACCORDING TO THE N.E.C. THE CONDUIT SYSTEM SHALL NOT BE CONSIDERED AN ACCEPTABLE GROUND.
 - REFER TO MECHANICAL EQUIPMENT SCHEDULES FOR DETAILED INFORMATION ON EQUIPMENT, DISCONNECTS, AND CONTROLS. E.C. SHALL PROVIDE AND INSTALL ITEMS AS NOTED BY THE E.C. ON THE MECHANICAL SCHEDULES.
 - ALL WIRING AND FEEDER SIZES ON DRAWINGS ARE SIZED FOR COPPER WIRING UNLESS SPECIFICALLY NOTED OTHERWISE.
 - IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE INSTALLATION OF ELECTRICAL SYSTEM AND THOSE REQUIRING ELECTRICAL CONNECTIONS TO MAINTAIN NEC REQUIRED CLEARANCES, INCLUDING BUT NOT LIMITED TO AREAS ABOVE ACCESSIBLE CEILINGS.
 - PROVIDE CABLE OR CONDUIT AND WIRE AS REQUIRED TO ACHIEVE CIRCUITING AS SHOWN. SIZE CONDUCTOR PER NEC AMPACITIES AND WIRE FILL CRITERIA. PROVIDE DEDICATED NEUTRALS AND GROUND CONDUCTOR FOR CIRCUITING, UNLESS NOTED OTHERWISE.
 - CONDUIT FOR POWER WIRING SHALL BE PERMITTED TO BE LOCATED BENEATH FLOOR SLAB UNLESS NOTED OTHERWISE. RACEWAYS FOR LOW VOLTAGE CABLING FOR CONTROL, TELECOMMUNICATIONS, AND OTHER LOW VOLTAGE SYSTEMS SHALL NOT BE ALLOWED BENEATH, NOR WITHIN, THE FLOOR SLAB UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. WHERE CABLING IS ROUTED BENEATH OR WITHIN THE FLOOR SLAB, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE CABLING IS LISTED FOR SUCH USE.
 - ALL ELECTRICAL CONDUCTORS SHALL BE STRANDED COPPER WITH TYPE THHN-THWN INSULATION UNLESS SPECIFICALLY NOTED OTHERWISE. THE MINIMUM WIRE SIZE SHALL BE #12 AWG.
 - ALL NEW CIRCUITS REQUIRING NEUTRAL CONDUCTORS SHALL HAVE DEDICATED NEUTRALS. SHARED NEUTRALS ARE NOT ALLOWED.
 - A GREEN GROUNDING CONDUCTOR SHALL BE CONNECTED TO ALL LOADS SERVED. THE CONDUCTOR SHALL BE SIZED PER THE NATIONAL ELECTRICAL CODE TO ACCOMMODATE THE LOAD SERVED. ALL GROUNDING CONDUCTORS SHALL BE INSTALLED IN CONDUIT.
 - ALL BUILDING WIRING SHALL BE INSTALLED IN CONDUIT. MINIMUM SIZE SHALL BE 3/4".
 - ALL HOME RUN CONDUITS SHALL BE A MINIMUM OF 1" CONDUIT WITH 4-1/16" DEEP JUNCTION BOXES. ALL JUNCTION BOX COVERS SHALL BE CLEARLY MARKED TO IDENTIFY CIRCUIT NUMBERS IN THE ENCLOSURES. EACH HOME RUN RACEWAY SYSTEM SHALL HAVE SPARE CAPACITY FOR A MINIMUM OF 1 ADDITIONAL CIRCUIT AND ASSOCIATED DEDICATED NEUTRAL CONDUCTORS.
 - MC CABLING IS NOT PERMITTED UNLESS SPECIFICALLY NOTED OTHERWISE.
 - ALL CONDUITS SHALL BE CONCEALED IN WALLS, ABOVE CEILINGS, ETC. WHERE POSSIBLE. ALL CONDUIT ROUTED EXPOSED IN FINISHED SPACES SHALL BE A PRE-MANUFACTURED SURFACE RACEWAY (IE. WIREMOLD OR EQUAL) WITH THE EQUIVALENT USABLE AREA OF THE SUBSTITUTED CONDUIT. EXPOSED SURFACE RACEWAY SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL FROM ARCHITECT/ENGINEER. ALL EXPOSED SURFACE RACEWAY SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO WALLS AND CEILINGS. SURFACE WIREWAY SHALL BE FACTORY OR FIELD PAINTED TO MATCH MOUNTING SURFACE.
 - COORDINATE THE EXACT LOCATION OF ALL DEVICES LOCATED ABOVE OR BELOW COUNTERS, ETC. WITH OTHER TRADES, ARCHITECTURAL ELEVATIONS, AND REVIEWED SUBMITTALS PRIOR TO ROUGH-IN. ARCHITECTURAL ELEVATIONS AND DETAILS TAKE PRECEDENCE OVER LOCATIONS SHOWN ON ELECTRICAL DRAWINGS.
 - ALL CUTTING AND PATCHING REQUIRED FOR CONDUITS, DEVICES OR OTHER ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
 - ALL PENETRATIONS THROUGH FIRE-RATED WALLS, FLOORS, AND CEILINGS SHALL BE SEALED WITH A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) APPROVED FIRE-RATED SYSTEM EQUAL TO OR EXCEEDING THE RATING OF THE MATERIAL PENETRATED.
 - COORDINATE LOCATIONS OF ALL ELECTRICAL ITEMS INCLUDING LIGHTING FIXTURES, CEILING MOUNTED DEVICES (OCCUPANCY SENSORS, FIRE ALARM DETECTORS, SPEAKERS, ETC.) WITH EACH OTHER AND WITH ALL SPRINKLER HEADS, AIR SUPPLY DIFFUSER AND RETURN GRILLES. ALL CEILING DEVICES SHALL BE CENTERED IN CEILING TILE WHERE POSSIBLE.
 - COORDINATE ALL MOUNTING OF ELECTRICAL MATERIALS, EQUIPMENT AND DEVICES REQUIRED FOR EQUIPMENT/DEVICES SUPPLIED BY OTHERS. ELECTRICAL ITEMS SHALL BE MOUNTED TO AVOID ANY INTERFERENCE WITH OTHER EQUIPMENT OPERATION OR ACCESS. ALL INSTALLATIONS OF ELECTRICAL ITEMS FOR EQUIPMENT/DEVICES SUPPLIED BY OTHERS SHALL BE COORDINATED AND APPROVED BY SUPPLYING CONTRACTOR PRIOR TO ROUGH-IN.
 - BOXES LOCATED ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 24" OR A FIRE RATED MATERIAL EQUAL TO OR GREATER THAN THE FIRE WALL MATERIAL RATING SHALL BE INSTALLED AROUND THE BOX. BOXES LOCATED ON OPPOSITE SIDES OF NON-FIRE RATED WALLS SHALL BE OFFSET A MINIMUM 6".
 - REMOVE AND INSTALL ALL CEILING TILES NECESSARY TO PERFORM REQUIRED ELECTRICAL WORK. ALL CEILING TILES WHICH ARE DAMAGED DURING REMOVAL/REINSTALLATION, SHALL BE REPLACED WITH NEW TILES OF THE SAME MANUFACTURER AND MODEL OF EXISTING TILE.
 - ALL REQUEST FOR CHANGE PROPOSALS IN THIS PROJECT SHALL INCLUDE A BREAKDOWN OF MATERIALS, LABOR, AND SUBCONTRACTORS, WITH SUFFICIENT DETAIL FOR ENGINEER EVALUATION. EACH SEPARATE PROPOSAL REQUEST ITEM SHALL INCLUDE SEPARATE MATERIALS AND LABOR BREAKDOWNS. SUPPLIER BACK-UP PRICING SHALL BE INCLUDED ON THE SUPPLIERS' LETTERHEAD. ALL LABOR UNITS ASSOCIATED WITH THE NEW MATERIAL INSTALLATIONS SHALL NOT EXCEED 75% OF THE NECA 1 "NORMAL CONDITION" LABOR RATES, WITHOUT SPECIFIC APPROVAL.

ELECTRICAL SHEET LIST	
E0.0	ELECTRICAL TITLE SHEET
EL2.1	LIGHTING FLOOR PLAN
EM2.1	MECHANICAL POWER FLOOR PLAN
EP2.1	POWER FLOOR PLAN
EY2.1	SYSTEMS FLOOR PLAN
E5.1	ELECTRICAL DETAILS
E5.2	ELECTRICAL DETAILS
E6.1	ELECTRICAL SCHEDULES
E6.2	ELECTRICAL SCHEDULES

912 North 13th St., Clear Lake, IA 50403 | 641.387.1923 | info@aturarchitecture.com

STRUCT ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDQUESTONE
5518 NW 88th St.
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW USBRANDLE DRIVE
URBANDALE, IA 50222
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

COLFAX - MINGO CHILD CARE CENTER

COLFAX, IA
Project # 2025-055

DATE

MAY 8, 2025

SHEET

E0.0

© 2025 KEDQUESTONE

5518 NW 88th Street
Johnston, IA 50131
515-727-0700
www.KEDQUESTONE.com

KEDQUESTONE RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KEDQUESTONE AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KEDQUESTONE. © 2025 KEDQUESTONE.

GENERAL LIGHTING CONTROL:

1. PROVIDE 0-10V CONTROL WIRING TO ALL LUMINARIES SERVED BY 0-10V DIMMING DEVICES.
2. UTILIZE 924 DEVICES FOR ALL SWITCHED EMERGENCY FIXTURES TO DRIVE ALL EMERGENCY FIXTURES ON TO 100% WHEN UTILITY POWER IS NOT PRESENT.
3. SUBSCRIPTS ON PLANS INDICATE LIGHTING ZONES OF CONTROL. THE CORRESPONDING SWITCH OR SWITCHES IN ROOM WHICH ARE LABELED WITH SAME SUBSCRIPT, INDICATES THE ZONE OR ZONES TO BE CONTROLLED FROM THAT SWITCH.
4. REFER TO SPECIFICATION FOR ADDITIONAL SYSTEM INFORMATION AND REQUIREMENTS.
5. 6 MONTHS AFTER SUBSTANTIAL COMPLETION OF THE PROJECT, PROVIDE A FOLLOW UP SESSION TO REPROGRAM ANY LIGHTING THAT THE OWNER WISHES TO CHANGE. THIS SHALL BE AT NO CHARGE TO THE OWNER.
6. PRIOR TO THE START OF PROGRAMMING, A LIGHTING CONTROL PRE-INSTALLATION MEETING SHALL OCCUR AND CONSIST OF THE OWNER, ELECTRICAL ENGINEER, ARCHITECT, ELECTRICAL CONTRACTOR, AND LIGHTING CONTROL SYSTEM PROGRAMMER. ELECTRICAL IS RESPONSIBLE TO SET UP MEETING.
7. *NL* INDICATES NIGHT LIGHT.

INTERIOR LIGHTING CONTROL:

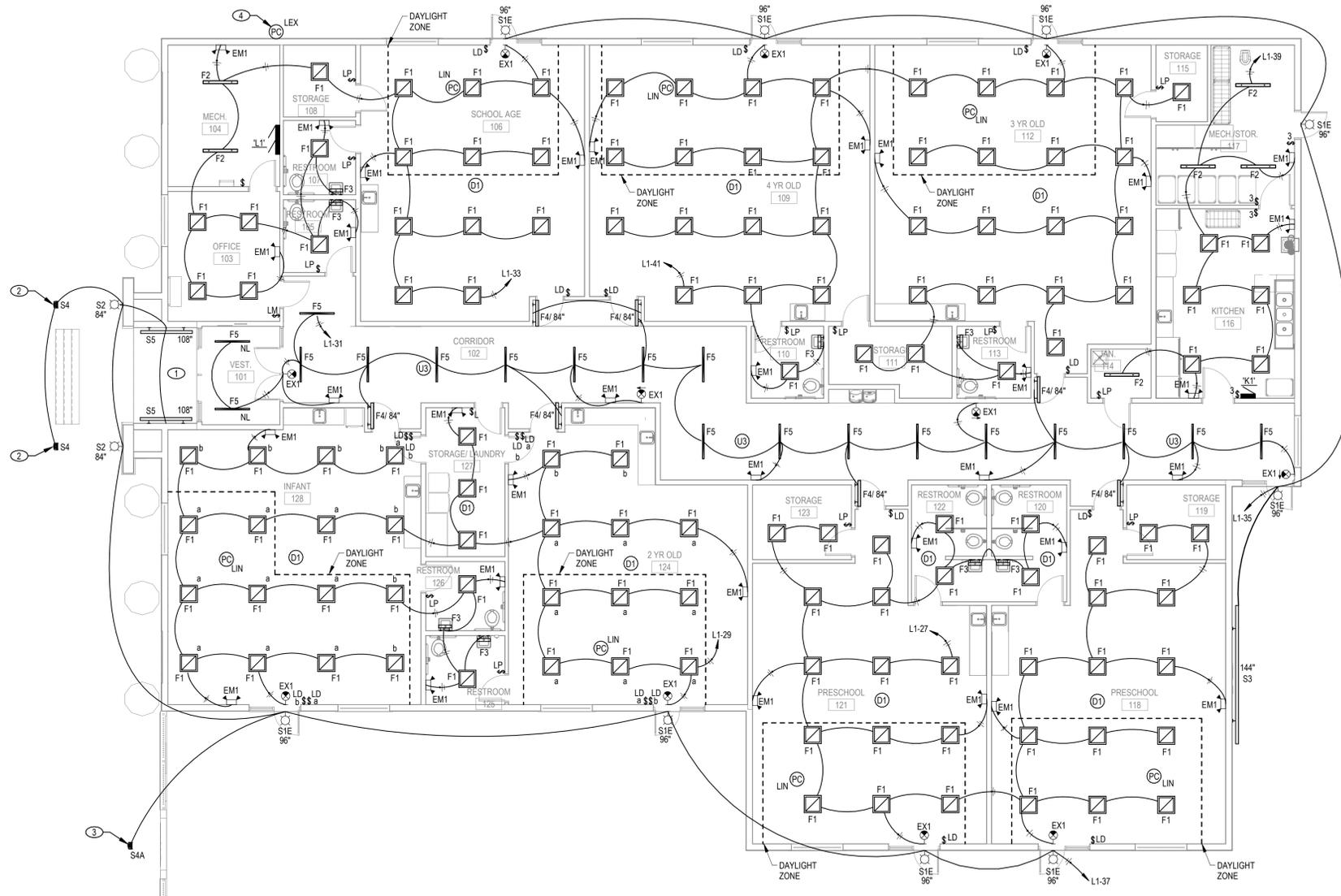
8. ALL EMERGENCY FIXTURE SHALL BE CONTROLLED WITH NORMAL FIXTURES IN ROOM. UPON LOSS OF UTILITY POWER, DRIVE EMERGENCY FIXTURES TO 100% ON.
9. ELECTRICAL AND MECHANICAL ROOM SHALL NOT INCORPORATE AUTOMATIC LIGHTING CONTROLS DUE TO SAFETY CONCERNS.
10. ALL FIXTURES WITHIN 15' OF EXTERIOR FENESTRATION SHALL UTILIZE DAYLIGHT HARVESTING WITH A DAYLIGHT SENSOR LOCATED WITHIN THE DAYLIGHT HARVESTING ZONE IN ACCORDANCE WITH INTERNATIONAL ENERGY CONSERVATION CODE (2012). DAYLIGHT ZONES ARE INDICATED ON PLAN BY A DASHED LINE WITH A DAYLIGHT SENSOR IN IT. FIXTURE WITHIN ZONE ARE ALSO TO BE CONTROLLED BY OCCUPANCY SENSOR AND SWITCH IF SHOWN LOCATED WITHIN SAME ROOM. IF A DAYLIGHT SENSOR IS SHOWN WITH NO DASHED ZONE, THE ENTIRE ROOM SHALL BE CONTROLLED BY DAYLIGHT SENSOR.
11. OFFICE SHALL BE OCCUPANCY SENSOR ON TO 50%, MANUAL ON TO 100%, AND AUTOMATIC OFF 10 MINUTES AFTER BEING UNOCCUPIED.
12. LOBBY/ CORRIDOR LIGHTING:
 - A. LIGHTING TO BE MANUAL ON TO 100% DURING BUSINESS HOURS (CONFIRM HOUSE AND SCHEDULE WITH DAYCARE DIRECTOR. AFTER BUSINESS HOURS, LIGHTING TO BE AT 100% UPON OCCUPANCY SENSOR ACTIVATION AND MAINTAIN LIGHTS ON UNTIL UNOCCUPIED FOR 30 MINUTES.
13. ALL ROOMS WITH MULTIPLE ZONES SHALL HAVE EACH SWITCH LABELED WITH NAME OF ZONE IT CONTROLS.
14. IF NO SUBSCRIPTS ARE SHOWN WITHIN ROOM, ALL LIGHTS WITHIN THAT ROOM WILL BE CONTROLLED AS A SINGLE ZONE.

EXTERIOR LIGHTING CONTROL:

15. EXTERIOR WALL MOUNT FIXTURES WHICH DO NOT HAVE A SUBSCRIPT SHALL BE CONTROLLED BY EXTERIOR PHOTOCELL. LIGHTS TO TURN ON WHEN INSUFFICIENT DAYLIGHT OCCURS AND OFF WHEN PHOTOCELL INDICATES ADEQUATE DAYLIGHT. PROVIDE A MANUAL OVERRIDE BUTTON TO FORCE WALL MOUNTED EXTERIOR LIGHTS ON IN ELECTRICAL ROOM. LABEL SWITCH 'BUILDING EXTERIOR LIGHTS ON'.

KEYED NOTES:

1. CONTROL LIGHTING FOR CANOPY WITH EXTERIOR PHOTOCELL.
2. LIGHT FIXTURES TO BE AIMED AT SIGN ABOVE ENTRY. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION. REFER TO FLOOD LIGHT DETAIL 31E.1.
3. PROVIDE LIGHT FIXTURE UNDER ALTERNATE BID. LIGHT TO BE AIMED AT MONUMENT SIGN. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION. REFER TO FLOOD LIGHT DETAIL 31E.1.
4. INSTALL EXTERIOR PHOTOCELL ON SIDE WALL ONE FOOT BELOW BUILDING SOFFIT.



1 FIRST FLOOR-LIGHTING PLAN
1/8" = 1'-0"



STRUCTURAL ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50222
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

DATE

MAY 8, 2025

SHEET

EL2.1

- KEYED NOTES:**
1. MECHANICAL EQUIPMENT LOCATED ON ROOF WITH INTEGRAL RECEPTACLE WIRED BY ELECTRICAL CONTRACTOR.
 2. DISCONNECT BY MANUFACTURER, WIRED BY ELECTRICAL CONTRACTOR.
 3. 120V FIELD POWERED CONVENIENCE RECEPTACLE PROVIDED WITH RTU. ELECTRICAL CONTRACTOR RESPONSIBLE FOR FIELD WIRED CONNECTION. REFER TO MECHANICAL SCHEDULE FOR ADDITIONAL INFORMATION.
 4. 120V FIELD POWERED CONVENIENCE RECEPTACLE PROVIDED WITH MAU. ELECTRICAL CONTRACTOR RESPONSIBLE FOR FIELD WIRED CONNECTION. REFER TO MECHANICAL SCHEDULE FOR ADDITIONAL INFORMATION.

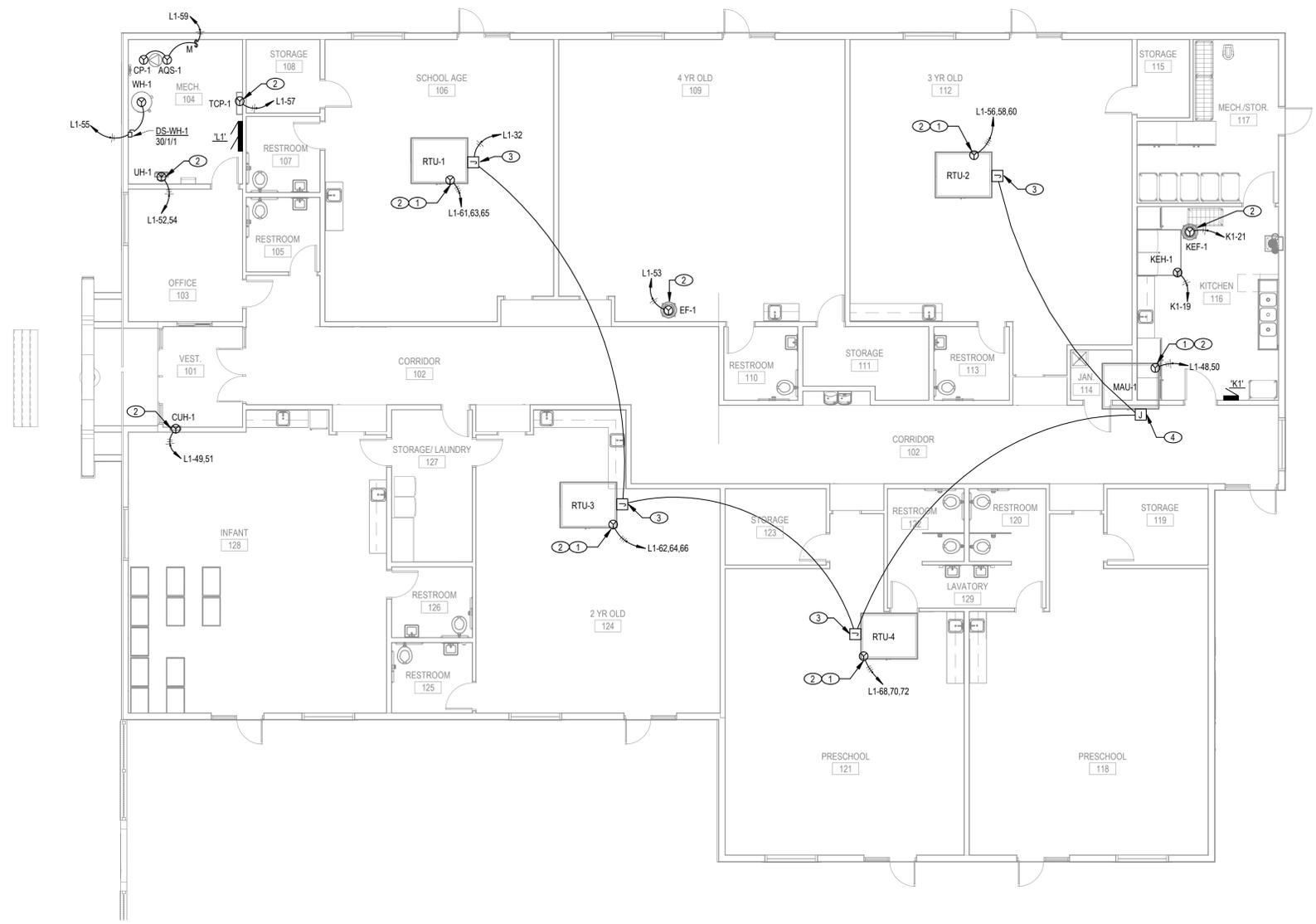
STRUCT ENGINEER
APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER
KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER
CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50222
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE



1 FIRST FLOOR-MECHANICAL CONNECTION PLAN
1/8" = 1'-0"

KED
bluestone

5518 NW 88th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com

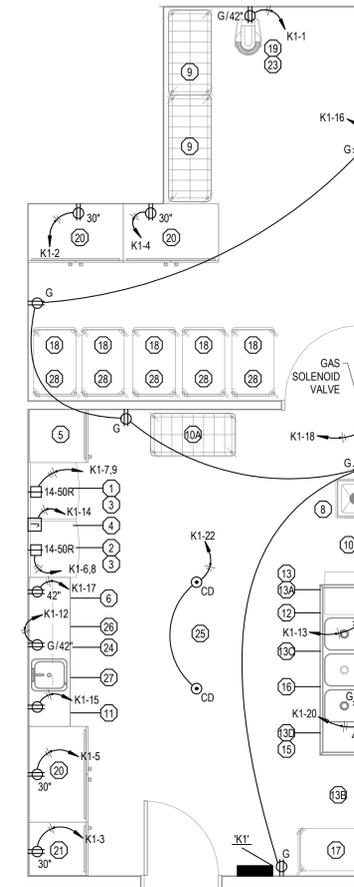
KEDbluestone RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KEDbluestone AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KEDbluestone. © 2025 KEDbluestone

GENERAL NOTES:

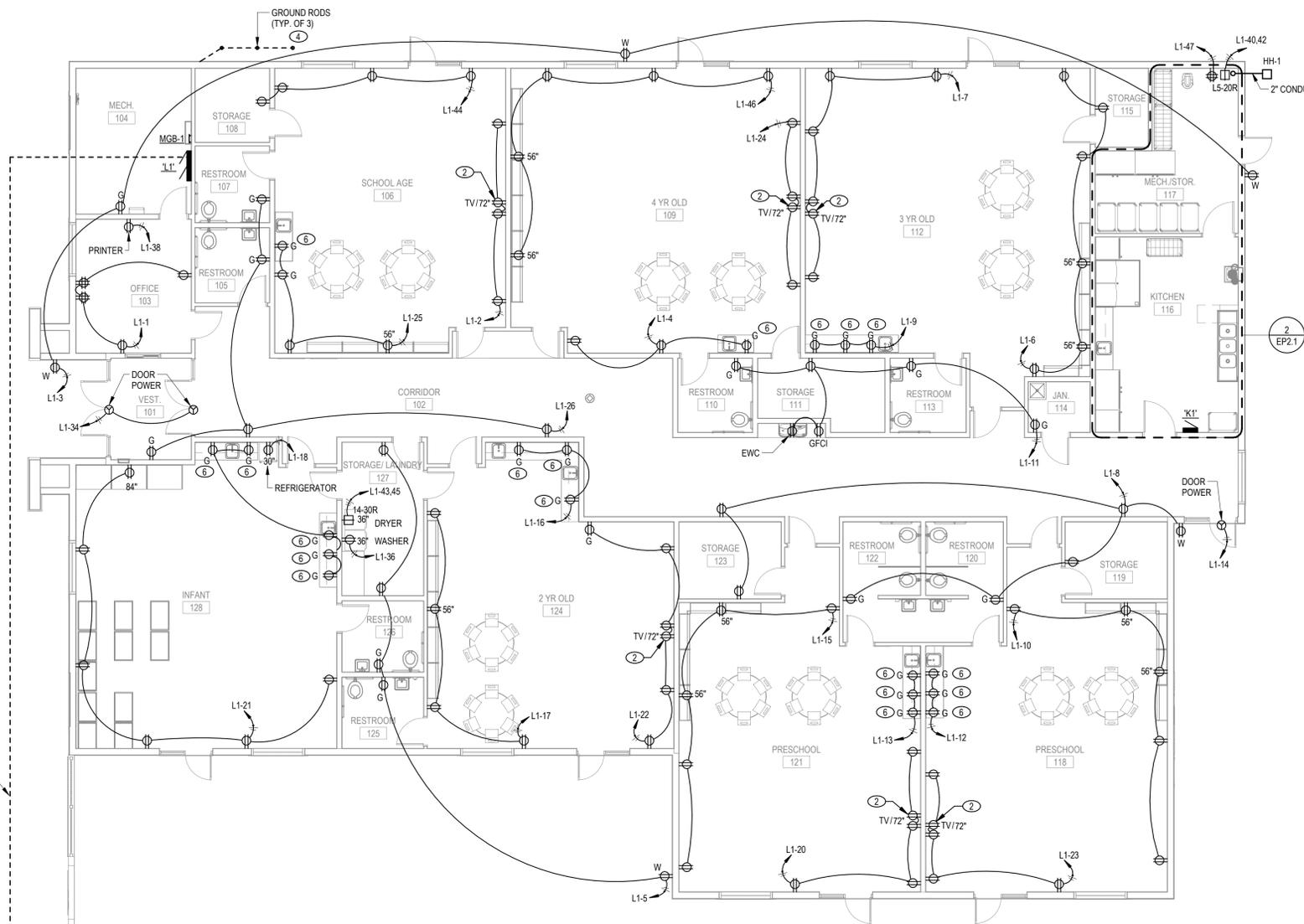
1. ALL RECEPTACLES TO BE TAMPER RESISTANT.
2. IN ROOMS WITH A TV, ELECTRICAL CONTRACTOR TO ADD (1) 4 SQUARE BOX AT 18" DIRECTLY BELOW TV BOX. ELECTRICAL CONTRACTOR TO RUN (1) 1" CONDUIT BETWEEN ARLINGTON TV BACKBOX AND 4 SQUARE BOX RECESSED IN WALL. COORDINATE LOCATIONS WITH OWNER AND TECHNOLOGY PLANS.
3. ELECTRICAL CONTRACTOR TO COORDINATE FINAL KITCHEN EQUIPMENT POWER REQUIREMENTS WITH OWNER/ KITCHEN CONSULTANT PRIOR TO ROUGH-IN.

KEYED NOTES:

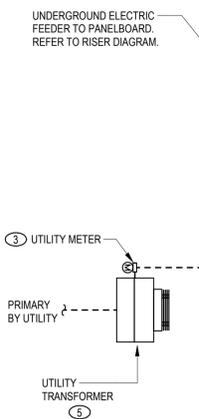
1. ELECTRICAL CONTRACTOR TO INSTALL DISHWASHER RECEPTACLES IN EASILY ACCESSIBLE LOCATION IN KITCHEN. COORDINATE CORD LENGTH WITH PRODUCT MANUFACTURER PRIOR TO DEVICE ROUGH-IN FOR DETERMINING PLUG LOCATION IN WALL.
2. TV RECEPTACLE, ELECTRICAL CONTRACTOR TO VERIFY LOCATION AND HEIGHT WITH OWNER PROVIDED EQUIPMENT PRIOR TO ROUGH-IN.
3. CTR/PT CABINET BY ELECTRICAL CONTRACTOR. METER BY MIDAMERICAN ENERGY. FOLLOW MIDAMERICAN ENERGY SPECIFICATIONS FOR METER CABINET SELECTION. MOUNT METER TO UNI-STRUT ADJACENT TO UTILITY TRANSFORMER.
4. GROUND RODS, SEE 1-ES.2 FOR ADDITIONAL INFORMATION.
5. UTILITY PAD MOUNT TRANSFORMER, TRANSFORMER BY MIDAMERICAN, PAD COORDINATED BY ELECTRICAL CONTRACTOR WITH GENERAL CONTRACTOR PER MIDAMERICAN ENERGY SPECIFICATIONS.
6. RECEPTACLES IN CLASSROOM ABOVE COUNTER TO BE COORDINATED WITH OWNER PRIOR TO ROUGH-IN DUE TO VARYING COUNTER HEIGHTS.



2 ENLARGED KITCHEN PLAN
1/4" = 1'-0"



1 FIRST FLOOR-POWER PLAN
1/8" = 1'-0"

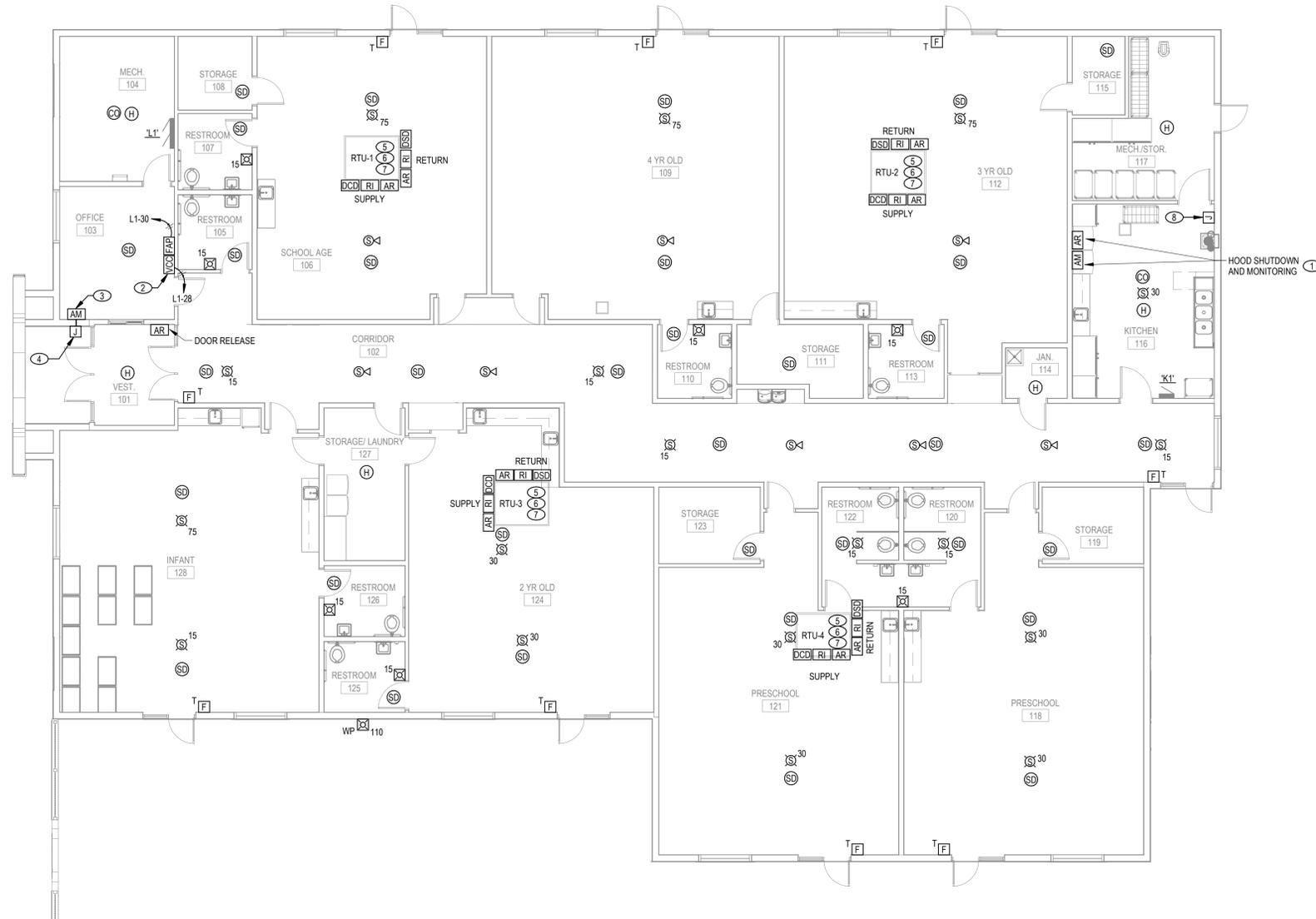


COLFAX DAYCARE KITCHEN SCHEDULE				
ITEM	DESCRIPTION	QTY.	ELECTRICAL REMARKS	ITEM
1	RANGE	1		1
2	RANGE	1		2
3	FIRE READY HOOD	2		3
4	S/S PANEL	1		4
5	HOLDING CABINET	1		5
6	MICROWAVE OVEN	1		6
7	SPARE NUMBER	-		7
8	HAND SINK	1		8
9	SHELVING	2		9
10	SHELVING	1		10
10A	SHELVING, MOBILE	1		10A
11	ICE/ WATER DISPENSER	1		11
12	DISHWASHER, UNDERCOUNTER	1		12
13	4 COMPARTMENT SINK	1		13
13A	DISH RACK	1		13A
13B	DISH RACK	1		13B
13C	FAUCET, WALL MOUNTED	1		13C
13D	PRE-RINSE W/ ADD ON FAUCET	1		13D
14	SPARE NUMBER	-		14
15	GARBAGE DISPOSER	1		15
16	WALL GRID SHELVING UNIT	1		16
17	UTILITY CART	1		17
18	UTILITY CART	5		18
19	MIXER, COUNTER	1		19
20	REFRIGERATOR, REACH-IN	3		20
21	FREEZER, REACH-IN	1		21
22	TRANSPORT INSULATED CABINET	1		22
23	EQUIPMENT STAND, MOBILE	1		23
24	BLENDER/ MIXER	1		24
25	WORK TABLE, MOBILE	1		25
26	MILLWORK	1	NIKEC - BY OTHERS	26
27	PREP TABLE W/ SINK & FAUCET	1		27
28	WALL SHELVING	4		28

KED
bluestone
5518 NW 88th Street
Johnston, IA 50131
515-727-0700
www.KEDbluestone.com

REVISIONS

NO.	NAME	DATE



1 FIRST FLOOR-SYSTEMS PLAN
1/8" = 1'-0"

GENERAL NOTES:

1. RTU DUCT DETECTORS PROVIDED WITH WEATHERPROOF ENCLOSURE (TYP.) IF MOUNTED ON EXTERIOR. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
2. REFER TO FIRE ALARM DETAIL 2/E5.1 FOR MOUNTING LOCATION AND DISTANCE CEILING MOUNTED INITIATING DEVICE (SMOKE, HEAT, CO) SHOULD BE MOUNTED FROM MECHANICAL DIFFUSER/ RETURN.

KEYED NOTES:

1. REFER TO DETAILS ON MECHANICAL DRAWINGS AND KITCHEN DRAWINGS FOR ADDITIONAL INFORMATION ON WIRING AND FIRE INTERFACE. ELECTRICAL CONTRACTOR TO SHUNT TRIP BREAKERS SERVING EVERYTHING UNDER THE HOOD. ELECTRICAL CONTRACTOR TO WIRE AND COORDINATE QUANTITY AND LOCATION WITH KITCHEN DRAWINGS PRIOR TO ROUGH-IN.
2. COORDINATE FINAL LOCATION FOR FIRE ALARM VCC WITH OWNER/ ARCHITECT PRIOR TO ROUGH-IN.
3. MONITOR MODULE TO MONITOR KNOX BOX. INSTALL ABOVE ACCESSIBLE CEILING IN A CLIMATE CONTROLLED LOCATION.
4. KNOX BOX, COORDINATE LOCATION WITH G.C. AND FIRE DEPARTMENT PRIOR TO ROUGH-IN.
5. MOUNT REMOTE INDICATOR/ TEST SWITCH IN MECH 104. COORDINATE FINAL MOUNTING LOCATION WITH OWNER AND EQUIPMENT IN ROOM PRIOR TO ROUGH-IN.
6. REFER TO MANUFACTURER'S REQUIREMENTS FOR LOCATION OF DUCT TO DETERMINE IF A WITH A WEATHERPROOF ENCLOSURE IF NEEDED.
7. LOCATE ADDRESSABLE RELAY IN CLIMATE CONTROLLED LOCATION.
8. FIRE SUPPRESSION ANSUL PULL STATION ELECTRICAL CONTRACTOR TO COORDINATE FINAL LOCATION WITH MECHANICAL AND KITCHEN CONSULTANT DRAWINGS PRIOR TO ROUGH-IN.



STRUCT ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

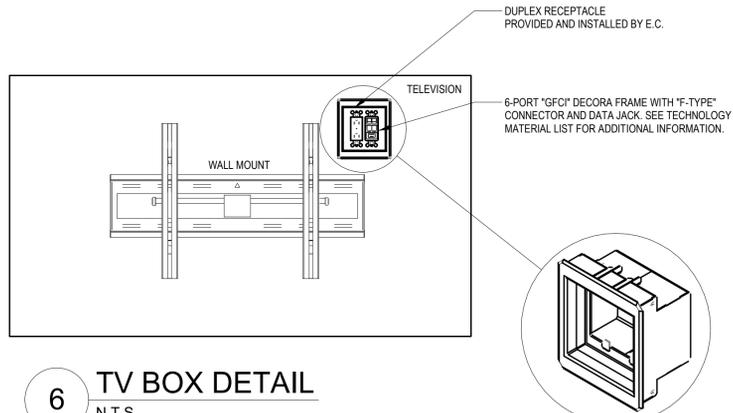
KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50222
Ph. 515-369-4400

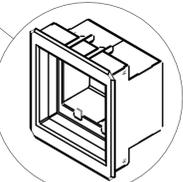
REVISIONS

NO.	NAME	DATE



6 TV BOX DETAIL

- N.T.S.
- NOTES:**
- COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT AND TV MOUNT DIMENSIONS PRIOR TO ROUGH-IN.

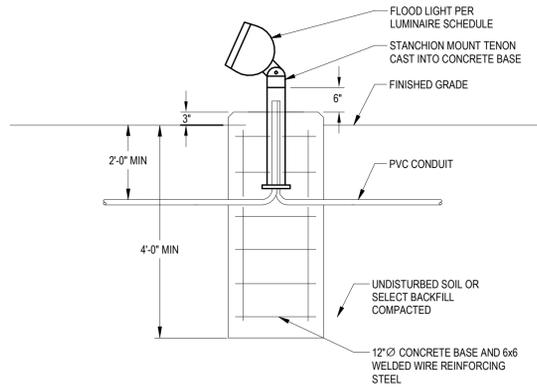


RECESSED STEEL TV BOX, 2-GANG, WITH VOLTAGE SEPARATOR. SEE MATERIAL LIST FOR ADDITIONAL INFORMATION.

SYSTEM INPUTS	SYSTEM OUTPUTS																			
	FACP ANNUNCIATION				NOTIFICATION				REQUIRED FIRE SAFETY CONTROL											
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1 FIRE ALARM SYSTEM AC POWER FAILURE				X																
2 FIRE ALARM SYSTEM LOW BATTERY				X																
3 OPEN CIRCUIT				X																
4 GROUND FAULT				X																
5 NOTIFICATION APPLIANCE CIRCUIT SHORT				X																
6 BUILDING MANUAL PULL STATIONS	X	X					X	X	X	X	X								X	
7 CORRIDOR SMOKE DETECTORS	X	X					X	X	X	X	X								X	X
8 AREA SMOKE DETECTORS	X	X					X	X	X	X	X								X	
9 HVAC AIR DUCT SMOKE DETECTORS			X	X			X			X										X
10 AREA HEAT DETECTORS			X	X			X	X	X	X	X								X	
11 HOOD OR ROOM FIRE SUPPRESSION SYSTEM ALARM	X	X					X	X	X	X	X								X	
12 AREA CO DETECTORS	X	X					X	X	X	X	X									X

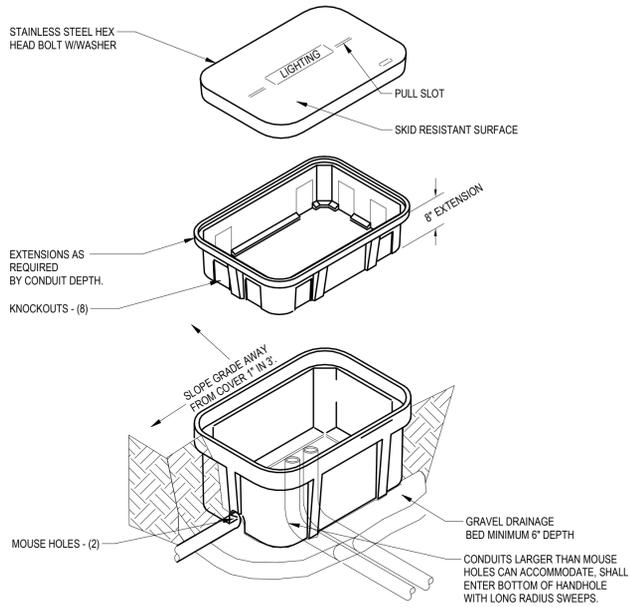
4 FIRE ALARM MATRIX

N.T.S.



3 FLOOD LIGHT BASE

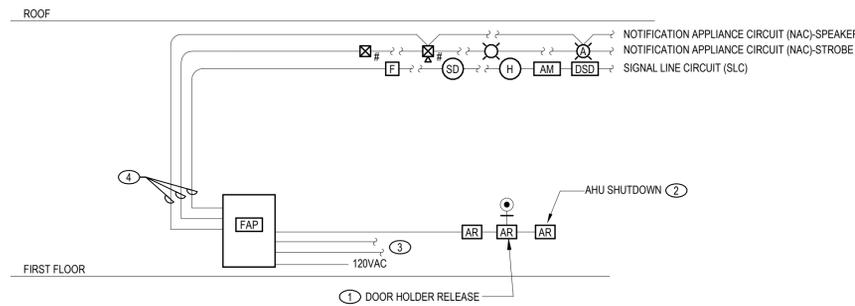
N.T.S.



5 HANDHOLE

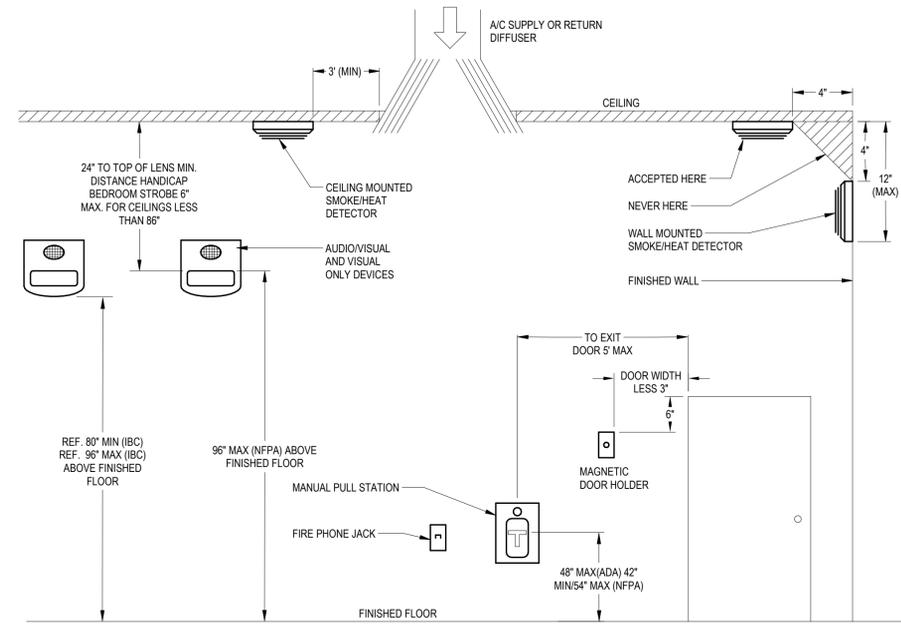
N.T.S.

- NOTES:**
- REFER TO SITE PLAN FOR SIZE OF HANDHOLE.



1 ADDRESSABLE FIRE ALARM SYSTEM RISER

N.T.S.



2 FIRE ALARM DEVICE MOUNTING HEIGHT

N.T.S.

NOTES:

- THE FIRE ALARM RISER DIAGRAM IS MEANT TO CONVEY THE GENERAL SCOPE OF WORK AND SHOULD NOT BE USED AS A DETAILED WIRING SCHEMATIC. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING QUANTITIES OF DEVICES AND CONTROL/MONITORING INTERFACES WITH OTHER BUILDING SYSTEMS (I.E. FIRE/SMOKE DAMPERS, AHU SHUT-DOWN, ELEVATOR CONTROLS, ETC.).
- THE COMPLETE FIRE ALARM SYSTEM SHALL MEET ALL APPLICABLE CODES AS WELL AS THE FIRE ALARM SYSTEM MANUFACTURER'S RECOMMENDATIONS.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL 120VAC CIRCUITS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. THIS INCLUDES THE MAIN FIRE ALARM PANEL AS WELL AS ANY NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANELS. ALL 120VAC CIRCUIT BREAKERS SERVING FIRE ALARM EQUIPMENT SHALL BE PROVIDED WITH HANDLE LOCKS.
- ALL FIRE ALARM WIRING SHALL BE INSTALLED EITHER IN EXISTING RACEWAY (WHERE AVAILABLE) OR FLOWN ABOVE THE FINISHED CEILING. ALL FLOWN CABLES SHALL BE PLENUM RATED AND SHALL BE SUPPORTED INDEPENDENT OF THE CEILING SYSTEM USING J-HOOKS AND OTHER APPROPRIATE SUPPORTS. COORDINATE CABLE TYPE REQUIREMENTS WITH THE FIRE ALARM SYSTEM MANUFACTURER.
- MAINTAIN 3'-0" SEPARATION BETWEEN SMOKE DETECTORS AND HVAC DIFFUSERS.
- ALL DEVICES SHALL BE FLUSH MOUNTED WHERE WALL AND CEILING CONSTRUCTION ALLOWS. IF FLUSH MOUNTING OF DEVICES IS NOT POSSIBLE, SURFACE MOUNT USING SURFACE BOXES AND WIREMOLD 700 SERIES METALLIC RACEWAY (OR EQUAL), PAINTED TO MATCH EXISTING FINISHES.

KEYED NOTES:

- THE ELECTRICAL CONTRACTOR SHALL CONNECT TO DOOR RELEASE CIRCUITS. EC SHALL FIELD VERIFY QUANTITY AND LOCATION OF NEW ADDRESSABLE RELAYS REQUIRED FOR DOOR RELEASE CONTROL.
- THE ELECTRICAL CONTRACTOR SHALL CONNECT FIRE ALARM RELAYS TO AIR HANDLING UNIT CONTROLS FOR SHUT-DOWN PURPOSES. EC SHALL FIELD VERIFY QUANTITY AND LOCATION OF ADDRESSABLE RELAYS REQUIRED FOR AHU SHUT-DOWN CONTROL.
- FIRE ALARM PANEL REQUIRES (2) TYPES OF TECHNOLOGY, (1) CELLULAR CARDS AND (1) VOIP.
- REFER TO SPECIFICATIONS FOR SIGNAL AND NOTIFICATION LOOP REQUIREMENTS.



STRUCT ENGINEER

APEX STRUCTURAL LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 52002
Ph. 515-369-4400

REVISIONS

NO.	NAME	DATE

DATE

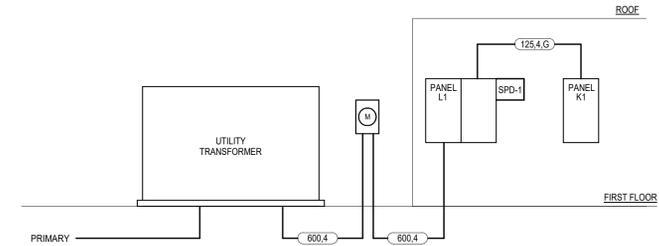
MAY 8, 2025

SHEET

E5.1

ATURArchitecture

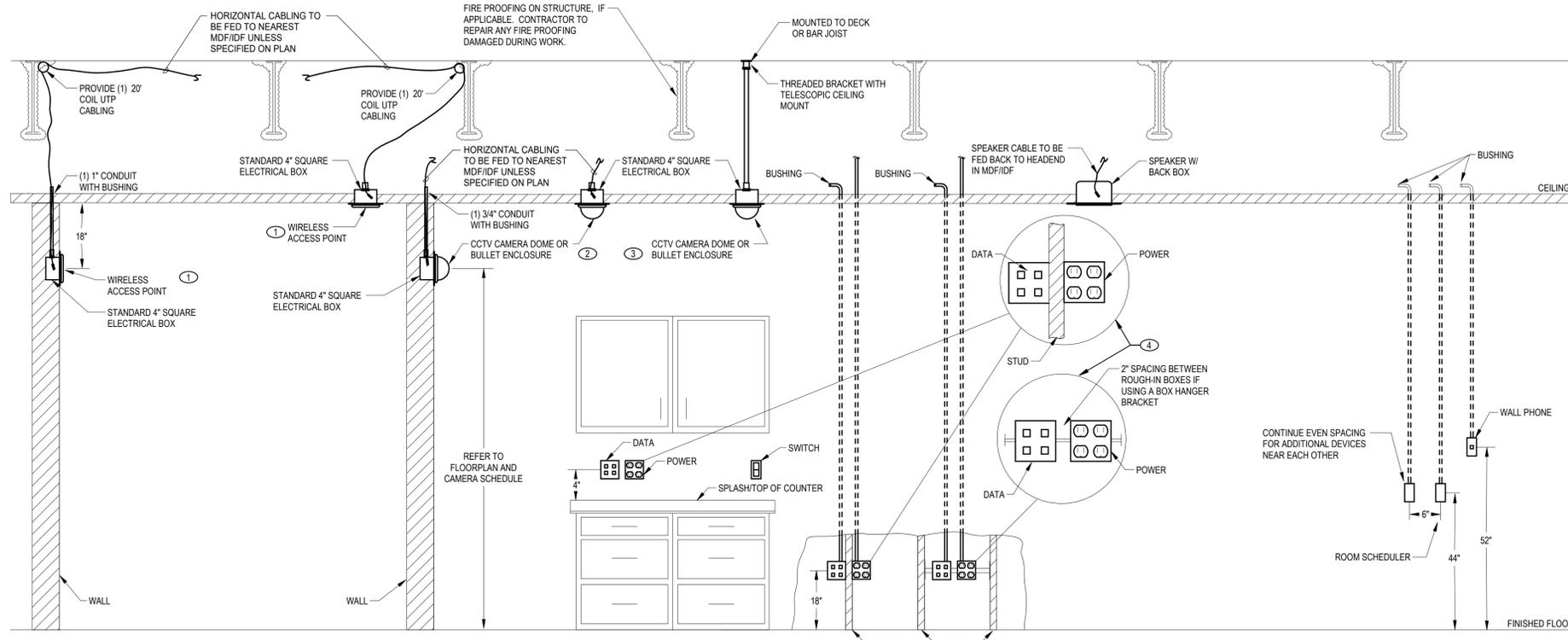
NO.	NAME	DATE



2 ELECTRICAL RISER DIAGRAM
N.T.S.

PANEL FEEDER SCHEDULE - COPPER

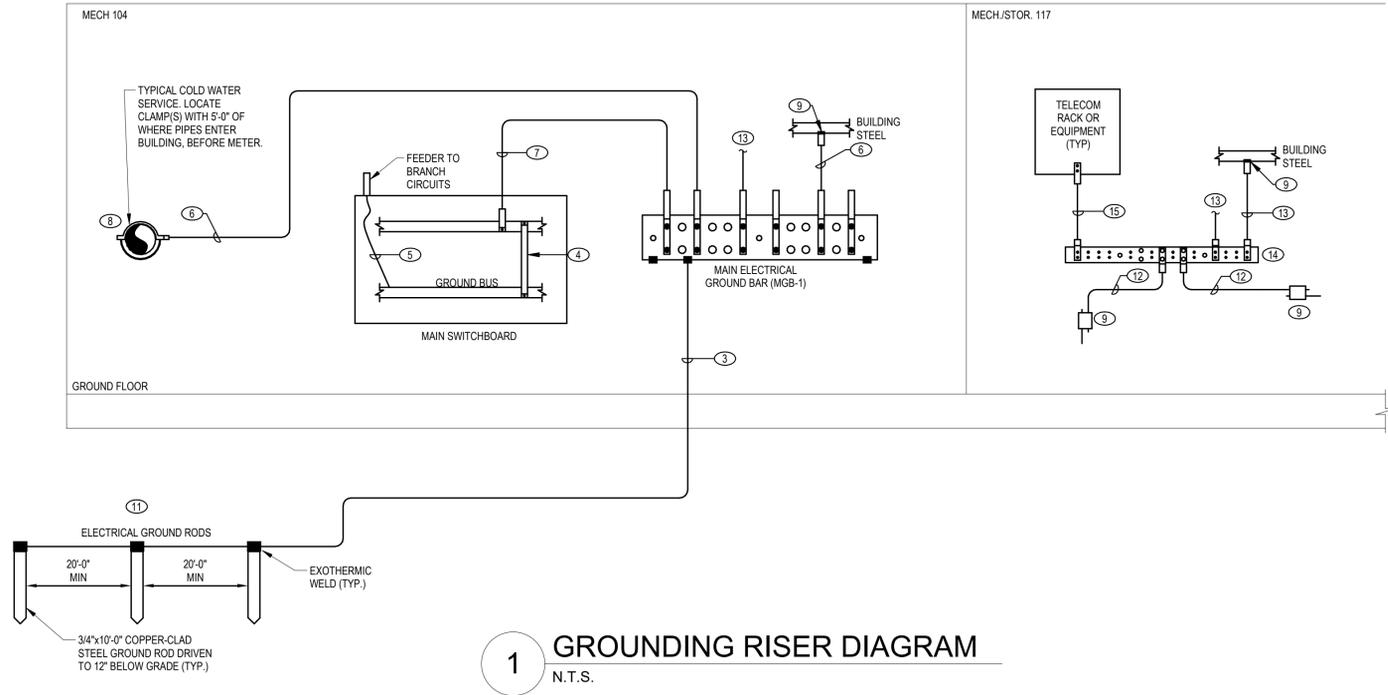
CALL OUT	OCPD RATING	PARALLEL SETS	PHASE	NEUTRAL	GRD	CONDUIT
125,4,G	125	1	#1	#1	#6	1-1/2"
600,4	600	2	350KCM	350KCM		3"



3 DEVICE MOUNTING DETAIL
N.T.S.

- NOTES:**
- SOME DEVICES SHOWN MAY NOT BE USED. DETAIL IS NOT TO SCALE.
 - IF WALL PROTECTION IS PRESENT, WALL ROUGH-INS TO BE MOUNTED AT 42" A.F.F. RATHER THAN 46".
 - MOUNTING HEIGHTS ARE AS SHOWN HERE UNLESS NOTED OTHERWISE ON THE FLOORPLAN.
 - ALL DEVICES TO BE INSTALLED IN ACCORDANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO AHJ ADOPTED NEC - INFORMATIVE ANNEX J OR AHJ ADOPTED PUBLISHING OF ADA STANDARDS FOR ACCESSIBLE DESIGN FOR ADDITIONAL INFORMATION.

- KEYED NOTES:**
- WIRELESS ACCESS POINTS ARE PROVIDED BY THE OWNER AND INSTALLED BY CONTRACTOR.
 - TYPICAL FOR INTERIOR CAMERAS (EXCEPT POLE MOUNTED) AS NOTED ON TECHNOLOGY FLOORPLANS. E.C. SHALL PROVIDE STANDARD 4" SQUARE ELECTRICAL BOX FLUSH MOUNTED IN WALL OR CEILING. PROVIDE CAT6 UTP AND ROUTE THROUGH 3/4" CONDUIT TO ACCESSIBLE SPACE.
 - TYPICAL FOR ALL POLE MOUNTED INTERIOR CAMERAS. PROVIDE CAT6 UTP FROM DEVICE TO NEAREST MDF/IDF UNLESS SPECIFIED ON PLAN.
 - TYPICAL FOR ALL POWER AND DATA IN THE SAME GENERAL LOCATION. POWER AND DATA ROUGH-IN TO BE MOUNTED ADJACENT TO EACH OTHER ON EITHER SIDE OF A STUD OR BETWEEN STUDS IF USING A BRACKET HANGER. IF USING A BRACKET HANGER, POWER AND DATA BOXES TO BE INSTALLED WITH A 2" SPACING BETWEEN THEM.



1 GROUNDING RISER DIAGRAM
N.T.S.

- NOTES:**
- SEAL ANY HOLES IN EXTERIOR WALLS OR FOUNDATIONS. FINISH TO MATCH SURFACE.
 - SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - ALL CONDUCTOR TO BE ROUTED IN CONDUIT UNLESS NOTED OTHERWISE.
- KEYED NOTES:**
- NOT USED.
 - NOT USED.
 - GROUNDING ELECTRODE CONDUCTOR AND ASSOCIATED GROUND RODS.
 - REMOVABLE BUILDING LINK.
 - EQUIPMENT GROUND CONDUCTOR; SIZE PER NEC TABLE 250.122 OR AS SHOWN ON THE PLANS.
 - COPPER BONDING CONDUCTOR; SIZE PER NEC TABLE 250.66 OR AS SHOWN ON THE PLANS (#2/0 MINIMUM).
 - MAIN GROUND BAR BONDING CONDUCTOR; #3/0 MINIMUM OR AS SHOWN ON THE PLANS.
 - PROVIDE #2/0 COPPER JUMPER OVER WATER METER AND GROUND STRAPS FOR WATER PIPING.
 - UL LISTED EXOTHERMIC OR PERMANENT COMPRESSION STYLE CONNECTION.
 - NOT USED.
 - FURNISH AND INSTALL COUNTERPOISE SYSTEM GROUND ROD USING AN EXOTHERMIC CONNECTION. VERIFY THAT SERVICE GROUND IMPEDANCE IS LESS THAN 5 OHMS.
 - INTERCONNECTING BONDING CONDUCTOR. #3/0 CU.
 - BONDING CONDUCTOR, #6CU WITH GREEN INSULATION
 - GROUND BAR. REFER TO DRAWINGS AND SPECIFICATIONS FOR MORE INFORMATION.
 - BONDING CONDUCTOR BETWEEN GROUND BAR AND DATA RACK. #6CU WITH GREEN INSULATION. CONDUCTOR IS NOT REQUIRED TO BE IN CONDUIT.

GENERAL ELECTRICAL SCHEDULE		
SYMBOL	DESCRIPTION	MANUFACTURER
	CONNECTION TO MECHANICAL EQUIPMENT	MOTOR/EQUIPMENT FURNISHED AND INSTALLED BY M.C.
	ELECTRICAL CONNECTION TO MISC. EQUIPMENT	EQUIPMENT FURNISHED AND INSTALLED BY OTHERS
PANEL L1	BRANCH CIRCUIT PANELBOARD, 208/120V, 3-PHASE, 4-WIRE, NEMA 1 HOUSING, REFER TO PANEL SCHEDULES FOR DETAILS	SQUARE D NQ SIEMENS CUTLER-HAMMER GENERAL ELECTRIC
SPD-1	SURGE PROTECTION DEVICE, EXTERNALLY MOUNTED, NON-MODULAR BRICK, 208/120V, 3-PHASE, 4-WIRE + GRD SERVICE, 160 KAIC SURGE CURRENT RATING PER PHASE, 200K SCCR, SUITABLE FOR SERVICE ENTRANCE DOWNSTREAM OF SERVICE DISCONNECT, UL 1449 TYPE 2, ANSI/IEEE C62.41 CATEGORY C	SQUARE D EBA SERIES SIEMENS CUTLER-HAMMER GENERAL ELECTRIC
PT CABINET	CURRENT TRANSFORMER CABINET, COORDINATE WITH UTILITY	AMERICAN MIDWEST POWER OR EQUAL
METER	METER SOCKET, COORDINATE WITH UTILITY	MILBANK AMERICAN MIDWEST POWER
DS-XXX A/B/C	DISCONNECT SWITCH, HEAVY DUTY, SIZE INDICATED ON PLANS (A/B/C) WHERE A = RATING IN AMPS, B = NUMBER OF POLES, C = NEMA RATING (E.G. 1 = NEMA 1), XXX = NAME OF LOAD SERVED	SQUARE D CLASS 3110 SIEMENS CUTLER-HAMMER GENERAL ELECTRIC
MGB-1	MAIN GROUND BAR, WALL MOUNTED	REFER TO SPECIFICATIONS 260526
HH-1	IN GRADE HAND HOLE WITH GASKETED COVER, 12"X12", POLYMER CONCRETE	QUAZITE PC1212BA12/PC1212HA00 HUBBELL POWER SYSTEMS
	GAS EMERGENCY STOP PUSHBUTTON, ONE NORMALLY OPEN AND ONE NORMALLY CLOSED CONTACT, RED MUSHROOM HEAD WITH ALARMED, CLEAR, HINGED COVER, PROVIDE WITH ENGRAVED LABEL, "EMERGENCY GAS SHUT-DOWN".	EATON 10250T5B63-71X SQUARE D SIEMENS

PHOTOCELL SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
LEX	ANALOG EXTERIOR PHOTOCELL WITH ASSOCIATED LIGHTING CONTROL SYSTEM INTERFACE, SUN HOOD, WALL MOUNT, REFER TO DIGITAL LIGHTING CONTROLS - ZONING SCHEDULE ON PLANS FOR ZONES UTILIZING EXTERIOR PHOTOCELL CONTROL	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX
LIN	DIGITAL INTERIOR PHOTO SENSOR FOR DAYLIGHT HARVESTING, LOW VOLTAGE, CEILING MOUNT, CONNECT TO ZONE CONTROLLER, PROVIDE ZONE CONTROLLER SUITABLE OF QUANTITY/TYPE OF ZONES CONTROLLED	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX

ELECTRICAL CONNECTION SCHEDULE								
CALLOUT	LOAD CHARACTERISTICS			PANEL AND CIRCUIT INFORMATION				
	VOLTAGE	PHASE	LOAD	LOAD CLASS	FED FROM	CIRCUIT	MOC	CONDUIT & WIRE
AQS-1	120 V	1	180 VA	HVAC	L1	59	20/1	3/4"C, 1#12, #12N, #12G
CP-1	120 V	1	180 VA	HVAC	L1	59	20/1	3/4"C, 1#12, #12N, #12G
CJH-1	208 V	1	2995 VA	HVAC	L1	49.51	20/2	3/4"C, 2#12, #12N, #12G
DOOR POWER	120 V	1	180 VA	Non-Continuous	L1	34	20/1	3/4"C, 1#12, #12N, #12G
DOOR POWER	120 V	1	180 VA	Non-Continuous	L1	14	20/1	3/4"C, 1#12, #12N, #12G
DOOR POWER	120 V	1	180 VA	Non-Continuous	L1	34	20/1	3/4"C, 1#12, #12N, #12G
EF-1	120 V	1	500 VA	HVAC	L1	53	20/1	3/4"C, 1#12, #12N, #12G
KEF-1	120 V	1	700 VA	HVAC	K1	21	20/1	3/4"C, 1#12, #12N, #12G
KEH-1	120 V	1	1700 VA	HVAC	K1	19	20/1	3/4"C, 1#12, #12N, #12G
MAU-1	208 V	1	11378 VA	HVAC	L1	48.50	70/2	1"C, 2#4, #4N, #8G
RTU-1	208 V	3	12249 VA	HVAC	L1	61.63,65	35/3	3/4"C, 3#8, #8N, #10G
RTU-2	208 V	3	20175 VA	HVAC	L1	56.58,60	60/3	1-1/4"C, 3#4, #4N, #10G
RTU-3	208 V	3	14411 VA	HVAC	L1	62.64,66	50/3	1"C, 3#6, #6N, #10G
RTU-4	208 V	3	14411 VA	HVAC	L1	68.70,72	45/3	1"C, 3#6, #6N, #10G
TCP-1	120 V	1	360 VA	Non-Continuous	L1	57	15/1	3/4"C, 1#12, #12N, #12G
UH-1	208 V	1	2558 VA	HVAC	L1	52.54	20/2	3/4"C, 2#12, #12N, #12G
WH-1	120 V	1	180 VA	HVAC	L1	55	20/1	3/4"C, 1#12, #12N, #12G

POWER SWITCH SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
M	MANUAL MOTOR SWITCH, NEMA-1 ENCLOSURE	SQUARE D SIEMENS CUTLER-HAMMER GENERAL ELECTRIC
NO SUBSCRIPT	TOGGLE SWITCH, NEMA-1 ENCLOSURE, 20 AMP	SQUARE D SIEMENS CUTLER-HAMMER GENERAL ELECTRIC

LUMINAIRE SCHEDULE													
TYPE	DESCRIPTION	MANUFACTURER/MODEL	FINISHES	LIGHT SOURCE	MOUNTING	DELIVERED LUMENS	CRI	CCT	DIMMING	DISTRIBUTION	WATTS	VOLTAGE	EMERGENCY BACK-UP
EM1	INDOOR LED EMERGENCY LIGHTING UNIT, TWO ADJUSTABLE HEADS, SELF-TEST/SELF-DIAGNOSTICS, THERMOPLASTIC HOUSING	DUAL-LITE EV	WHITE	LED	SURFACE	NA	0	0 K	N/A	N/A	3 W	120	BATTERY
EX1	EXIT SIGN, SINGLE SIDED, THERMOPLASTIC HOUSING, SELF-TESTING/SELF-DIAGNOSTICS, ARROWS/MOUNTING PER PLANS	COMPASS CE	WHITE	LED	REFER TO PLANS	NA	0	0 K	N/A	N/A	5 W	120	BATTERY
F1	2X2' ARCHITECTURAL TROFFER, BACK LIT	LEDALITE ARCFORM DUO	WHITE	LED	RECESSED	4000	90	3500 K	0-10V, 5% DIM	LAMBERTIAN	28 W	120	N/A
F2	4' STRIP, ACRYLIC DROP LENS	HE WILLIAMS FS	WHITE	LED	SURFACE	4600	80	3500 K	N/A	LAMBERTIAN	32 W	120	N/A
F3	18" VANITY LIGHT, ACRYLIC LENS, HORIZONTAL MOUNT, CENTER ABOVE MIRROR AT 7' AFF	LITHONIA FMVCSL	BRUSHED ALUMINUM	LED	WALL	1300	90	3500 K	0-10V, 5% DIM	STANDARD	15 W	120	N/A
F4	3" TAPE LIGHT IN ALUMINUM CHANNEL, FROSTED LENS, PROVIDE WITH DIMMING DRIVER TO BE MOUNTED ABOVE ACCESSABLE CEILING	CORE ARCH. ALP-115R/LSM-55	WHITE	LED	RECESSED WALL	500/FT	90	3500 K	0-10V, 5% DIM	STANDARD	17 W	120	N/A
F5	2" APERTURE RECESSED ARCHITECTURAL LINEAR, FROSTED WHITE SNAP-IN FLUSH ACRYLIC LENS, LENGTH AND SHAPE PER PLANS	HE WILLIAMS LRX2	WHITE	LED	RECESSED	4000	90	3500 K	0-10V, 5% DIM	LAMBERTIAN	32 W	120	N/A
S1E	EXTERIOR WALL PACK, ALUMINUM CONSTRUCTION, UL WET LOCATION LISTED, EMERGENCY BATTERY BACK-UP	GARCOO 101L	BLACK	LED	WALL	1400	90	3500 K	N/A	IESNA TYPE II	15 W	120	BATTERY
S2	DECORATIVE WALL SCONCE, 9" LANTERN, UL WET LOCATION AND IP66 RATED	VISUAL COMFORT 8438751-12	BLACK	A19 LED LAMP	WALL	1500	80	3500 K	N/A	STANDARD	15 W	120	N/A
S3	EXTERIOR 16" LINEAR FIXTURE, 18" MOUNTING ARM, UL WET LOCATION LISTED, AIMED UP AT CANOPY, REMOTE DRIVER TO BE MOUNTED ABOVE ACCESSIBLE CEILING IN CLASSROOM	ELLIPTIPAR S151	WHITE	LED	WALL	800/FT	90	3500 K	N/A	STANDARD	104 W	120	N/A
S4	EXTERIOR FLOOD LIGHT, SNOOT SHORT FOR GLARE CONTROL	NLS NV-F1	BLACK	LED	KNUCKLE	2900	80	3500 K	N/A	30 DEG	25 W	120	N/A
S4A	EXTERIOR FLOOD LIGHT, SNOOT SHORT FOR GLARE CONTROL	NLS NV-F1	BLACK	LED	KNUCKLE	2700	80	3500 K	N/A	85 DEG	20 W	120	N/A
S5	EXTERIOR 6" LINEAR FIXTURE, 6" MOUNTING ARM, UL WET LOCATION LISTED, AIMED UP AT CANOPY, REMOTE DRIVER TO BE MOUNTED ABOVE ACCESSIBLE CEILING IN VESTIBULE	ELLIPTIPAR S151	WHITE	LED	WALL	800/FT	90	3500 K	N/A	STANDARD	104 W	120	N/A

CORD DROP / CORD REEL SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
CD	CORD DROP, CLEAR NEMA 6-50 CONNECTOR WITH BUILT-IN LIGHT, 50' 8/3 CORD, MOUNT TO ROOF FRAMING, PROVIDE KELLUM GRIPS AT THE ROOF FRAMING AND THE CONNECTOR, RECEPTACLE TO HANG AT 6'-6" AND ENOUGH CORD PROVIDED TO ALLOW RECEPTACLE TO BE LOWERED TO 5'-0"	CENTURY WIRE & CABLE PRO GRIP

CEILING MOUNTED OCCUPANCY SENSOR SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
D1	DIGITAL OCCUPANCY SENSOR, DUAL SENSING TECHNOLOGIES (PASSIVE INFRARED AND ULTRASONIC OR MICROPHONIC), LOW VOLTAGE, CEILING MOUNT, 360 DEGREE COVERAGE, UP TO 1000 SF COVERAGE	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX
U3	DIGITAL OCCUPANCY SENSOR, ULTRASONIC OR MICROPHONIC, LOW VOLTAGE, CEILING MOUNT, 360 DEGREE COVERAGE, UP TO 2000 SF OF COVERAGE	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX

NEMA 5-20R RECEPTACLE SUBSCRIPT SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
W	DUPLEX GROUND FAULT TAMPER RESISTANT RECEPTACLE, SPECIFICATION GRADE WITH DIE-CAST WEATHERPROOF COVER (WHILE IN USE), NEMA 5-20R	HUBBELL GFRTW20 LEVITON PASS & SEYMOUR COOPER
TV	STEEL RECESSED TV BOX, WHITE COVER PLATE, COORDINATE EXACT MOUNTING LOCATION WITH AV CONTRACTOR PRIOR TO INSTALLATION, REFER TO ELECTRICAL DRAWINGS FOR TV ROUGH-IN DETAIL. PROVIDE WITH NEMA 5-20R DUPLEX RECEPTACLE.	ARLINGTON COVER - DVFR ARLINGTON RECESSED 2 GANG STEEL BOX - TVB505 FACEPLATE 2 GANG
NO SUBSCRIPT	DOUBLE DUPLEX RECEPTACLE, TAMPER RESISTANT, HEAVY DUTY SPECIFICATION GRADE, NEMA 5-20R	HUBBELL (2) HBL5362TR LEVITON PASS & SEYMOUR COOPER
NO SUBSCRIPT	DUPLEX TAMPER RESISTANT RECEPTACLE, HEAVY DUTY SPECIFICATION GRADE, NEMA 5-20R	HUBBELL HBL5362TR LEVITON PASS & SEYMOUR COOPER
GFCI	FACELESS GFCI RECEPTACLE, 20A, 120V AC, 2 POLES, AUTO RESET, SET TEST TECHNOLOGY	HUBBELL GFBFST20 LEVITON PASS & SEYMOUR COOPER
G	DUPLEX GROUND FAULT TAMPER RESISTANT RECEPTACLE, SPECIFICATION GRADE, NEMA 5-20R	HUBBELL GFRTR20 LEVITON PASS & SEYMOUR COOPER

SWITCH SUBSCRIPT SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
3	SINGLE POLE THREE WAY SWITCH, COMMERCIAL GRADE, 20 AMP	COOPER HUBBELL LEVITON PASS & SEYMOUR
L	DIGITAL LOW VOLTAGE WALL STATION, SINGLE ZONE ON/OFF MANUAL CONTROL, LED STATUS LIGHT	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX
LD	DIGITAL LOW VOLTAGE WALL STATION, SINGLE ZONE ON/OFF AND RAISE/LOWER MANUAL CONTROL, LED STATUS LIGHT	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX
LM	LOW VOLTAGE WALL STATION WITH INTEGRAL OCCUPANCY SENSOR, DUAL SENSING TECHNOLOGIES (PASSIVE INFRARED AND ULTRASONIC OR MICROPHONIC), SINGLE ZONE ON/OFF AND RAISE/LOWER MANUAL CONTROL, LED STATUS LIGHT	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX
LP	LOW VOLTAGE WALL STATION WITH INTEGRAL OCCUPANCY SENSOR, PASSIVE INFRARED, SINGLE ZONE ON/OFF MANUAL CONTROL, LED STATUS LIGHT	WATT STOPPER DLM ACUITY NLIGHT CURRENT NX
NO SUBSCRIPT	SINGLE POLE SWITCH, COMMERCIAL GRADE, 20 AMP	COOPER HUBBELL LEVITON PASS & SEYMOUR

FIRE ALARM DEVICE SCHEDULE		
SYMBOL	DESCRIPTION	MODEL
	ADDRESSABLE FIRE ALARM MANUAL PULL STATION, TAMPER PROOF INSTITUTIONAL COVER KIT, RED POLYCARBONATE BODY, KEY RESET, STATUS LED	NOTIFIER: NBS-12LX
	ADDRESSABLE MONITOR MODULE, LED INDICATOR, SUPERVISION OF NORMALLY OPEN OR NORMALLY CLOSED CONTACT DEVICE	NOTIFIER: FMM-101
	ADDRESSABLE RELAY MODULE, LED INDICATOR, SPDT RELAY (CONTACT RATING OF 2A AT 24VDC OR 0.5A AT 120VAC), PROVIDE ADDITIONAL RELAYS WHERE LOAD CONTROLLED EXCEEDS CONTACT RATING, LED SHALL BE VISIBLE WITH COVER INSTALLED	NOTIFIER: FRM-1
	ADDRESSABLE SMOKE DETECTOR, PHOTOELECTRIC TYPE, STATUS LED	NOTIFIER: FSP-951/ B300-6
	COMBINATION DUCT SMOKE AND CARBON MONOXIDE DETECTOR, ADDRESSABLE, 300-4,000 FPM AIR VELOCITY, MINIMUM DUCT SIZE OF 8" SQUARE OR 18" ROUND, RELAY OUTPUT, TRANSPARENT COVER	NOTIFIER: DNRW
	DUCT SMOKE DETECTOR REMOTE INDICATOR STATION WITH TEST CAPABILITY, LED INDICATOR, KEY OPERATED	NOTIFIER: RIW/3V
	DUCT SMOKE DETECTOR, ADDRESSABLE, PHOTOELECTRIC, 300-4,000 FPM AIR VELOCITY, MINIMUM DUCT SIZE OF 8" SQUARE OR 18" ROUND, RELAY OUTPUT, TRANSPARENT COVER	NOTIFIER: DNRW
	FIRE ALARM CONTROL PANEL, ADDRESSABLE, SURFACE MOUNT, REFER TO SPECIFICATION SECTION 283100 FOR ADDITIONAL INFORMATION	NOTIFIER: NF52-3030
	FIRE ALARM OPTICAL THERMAL CARBON MONOXIDE DETECTOR	NOTIFIER: FSC-951/ B501
	FIRE ALARM REMOTE VOICE COMMAND CENTER, REFER TO SPECIFICATION SECTION 283100 FOR ADDITIONAL INFORMATION	NOTIFIER: DVC-KD
	FIRE ALARM SPEAKER NOTIFICATION APPLIANCE, CEILING MOUNTED, WHITE HOUSING WITH "FIRE" MARKING, 4-WIRE	NOTIFIER: SPCW8
	FIRE ALARM SPEAKER/VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED, WHITE HOUSING WITH "FIRE" MARKING, 4-WIRE, # IDENTIFIES CANDELA RATING: 15, 30, 75, 110	NOTIFIER: SPSCWL
	FIRE ALARM VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED, WHITE HOUSING WITH "FIRE" MARKING, 2-WIRE, # IDENTIFIES CANDELA RATING: 15, 30, 75, 110	NOTIFIER: SGWL
	FIRE ALARM VISUAL NOTIFICATION APPLIANCE, WEATHERPROOF, WALL MOUNTED, RED HOUSING WITH "FIRE" MARKING, 2-WIRE, # IDENTIFIES CANDELA RATING: 15, 30, 75, 110	NOTIFIER: SRHK
	HEAT DETECTOR, ADDRESSABLE, RATE-OF-RISE OR FIXED TEMPERATURE SENSOR WITH A 135 OR 155 DEGREE TEMPERATURE ALARM, STATUS LED	NOTIFIER: FST-951R/ B300-6

NO.	NAME	DATE

BRANCH PANELBOARD: K1

LOCATION: KITCHEN 116 VOLTAGE: 208/120 Wye MAIN DEVICE: MLO
MOUNTING: SURFACE PHASE: 3 BUS RATING: 125
ENCLOSURE: NEMA 1 WIRE: 4 NEUTRAL RATING: 100.00%
FED FROM: L1 LUGS: Standard A.I.C. RATING: 10,000

Table with columns: CKT #, CKT BKR A/P, NOTES, CIRCUIT DESCRIPTION, KVA LOAD 'PHASE A', KVA LOAD 'PHASE B', KVA LOAD 'PHASE C', CIRCUIT DESCRIPTION, NOTES, CKT BKR P/A, CKT #. Includes items like MIXER RECEPTACLE, FREEZER, REFRIGERATOR, OVEN RECEPTACLE, etc.

LOAD CLASSIFICATION table with columns: LOAD CLASSIFICATION, CONNECTED LOAD, DEMAND FACTOR, CALCULATED LOAD, PANELBOARD TOTALS. Includes HVAC, Lighting, Receptacle, Power.

NOTES:

BRANCH PANELBOARD: L1

LOCATION: MECH. 104 VOLTAGE: 208/120 Wye MAIN DEVICE: MLO
MOUNTING: SURFACE PHASE: 3 BUS RATING: 600
ENCLOSURE: NEMA 1 WIRE: 4 NEUTRAL RATING: 100.00%
FED FROM: UTILITY LUGS: Double A.I.C. RATING: 100,000

Table with columns: CKT #, CKT BKR A/P, NOTES, CIRCUIT DESCRIPTION, A, B, C, CIRCUIT DESCRIPTION, NOTES, CKT BKR P/A, CKT #. Includes items like RECEPTACLE, LIGHTING, CUH-1, EF-1, WH-1, etc.

LOAD CLASSIFICATION table with columns: LOAD CLASSIFICATION, CONNECTED LOAD, DEMAND FACTOR, CALCULATED LOAD, PANELBOARD TOTALS. Includes Continuous, HVAC, Lighting, Lighting - Exterior, Receptacle, Power, Lighting - Interior.

NOTES:

PROVIDE WITH SPARE LUGS FOR FUTURE EXPANSION. PANEL TO BE SERVICE ENTRANCE RATED.



STRUCT ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50222
Ph. 515-369-4400

REVISIONS

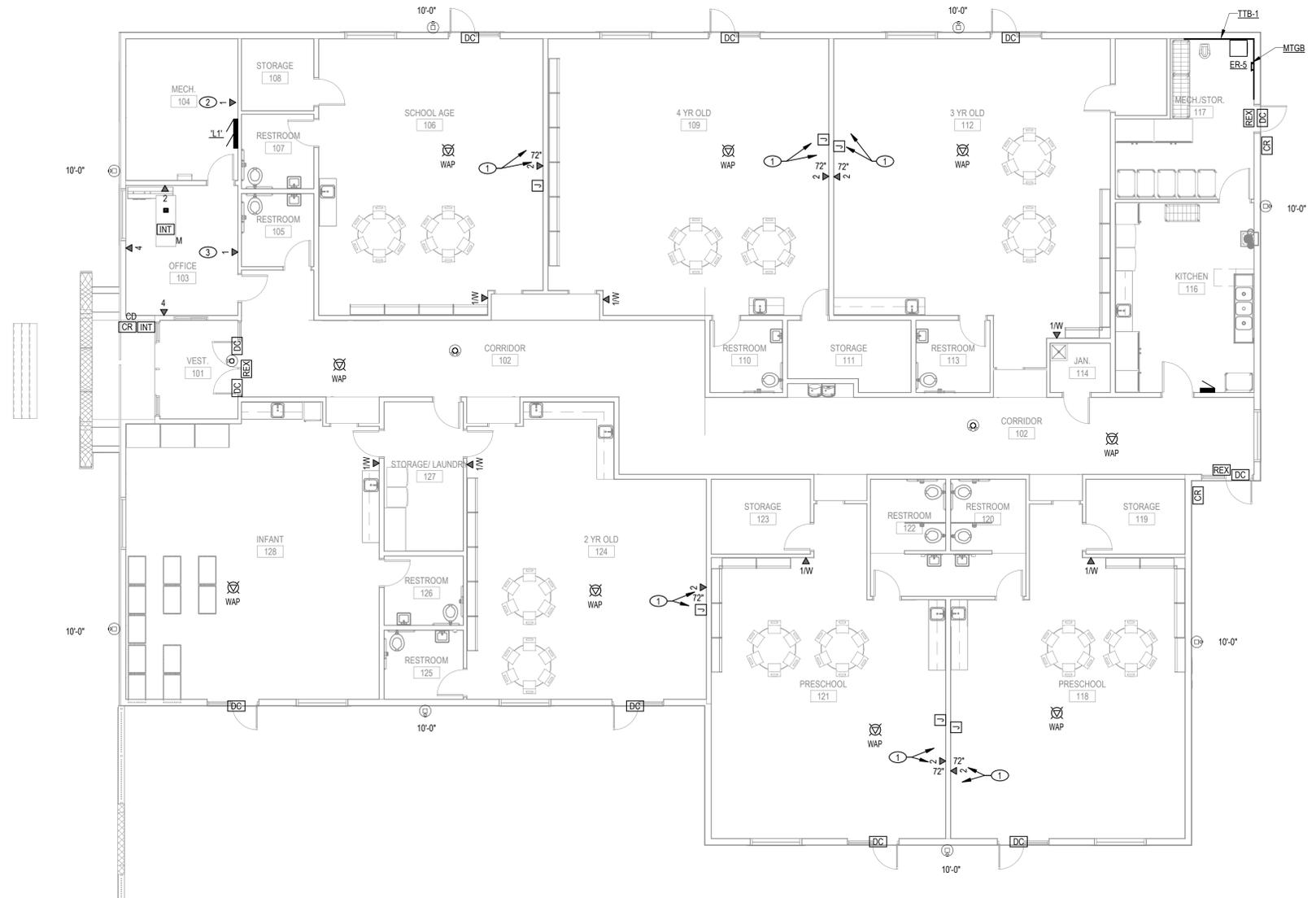
Table with columns: NO., NAME, DATE. Includes revision lines.

DATE

MAY 8, 2025

SHEET

E6.2



1

FIRST FLOOR-TECHNOLOGY PLAN

1/8" = 1'-0"

GENERAL NOTES:

1. ALL INFORMATION OUTLETS ON THIS SHEET TO BE SERVED FROM WALL MOUNTED EQUIPMENT RACK IN MECHSTOR 117.

KEYED NOTES:

1. SEE ELECTRICAL DRAWINGS FOR ROUGH-IN AT TV LOCATIONS. PROVIDE HDMI CABLE BETWEEN HDMI PASSTHRU JACKS IN ARLINGTON BOX AND AT BACKBOX BELOW AT 18".
2. INFORMATION OUTLET FOR DDC CONTROL PANEL. COORDINATE EXACT LOCATION WITH PANEL.
3. INFORMATION OUTLET FOR FIRE ALARM DIALER. COORDINATE EXACT LOCATION WITH PANEL.

STRUCTURAL ENGINEER

APEX STRUCTURAL, LLC
373 Collins Road NE #102
Cedar Rapids, IA 52402
Ph. 319-294-2739

MEP ENGINEER

KEDBLUESTONE
5518 NW 88th St
Johnston, IA 50131
Ph. 515-727-0700

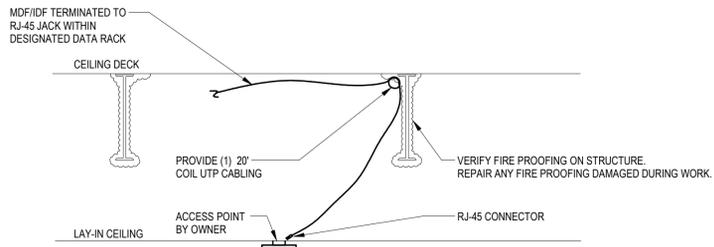
CIVIL ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50222
Ph. 515-369-4400

REVISIONS

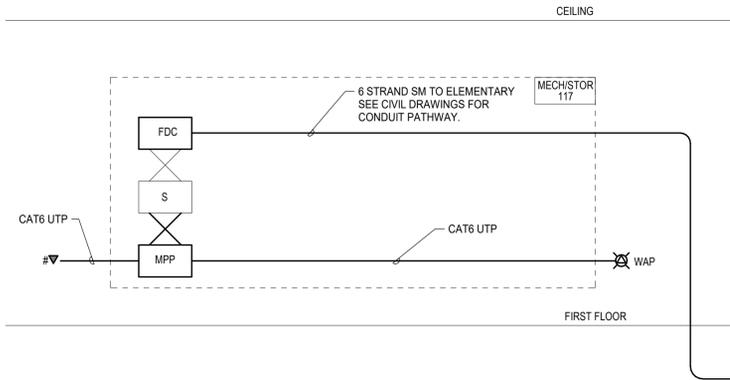
NO.	NAME	DATE

TELECOMMUNICATIONS RISER DIAGRAM SYMBOL LIST	
FDC	FIBER DISTRIBUTION CABINET
S	OWNER PROVIDED & INSTALLED NETWORK EQUIPMENT
MPP	MODULAR PATCH PANEL
DM	TELCO DEMARCATION POINT
▽ #	NETWORK INFORMATION OUTLET
▽ #	ANALOG INFORMATION OUTLET
✕	CROSS CONNECTS BY CONTRACTOR
✕	CROSS CONNECTS BY OTHERS
—	NEW WORK BY CONTRACTOR
—	WORK BY OTHERS
"UTP"	UNSHIELDED TWISTED PAIR
110	110 TERMINATION BLOCK
WAP	CEILING MOUNTED INFORMATION OUTLET



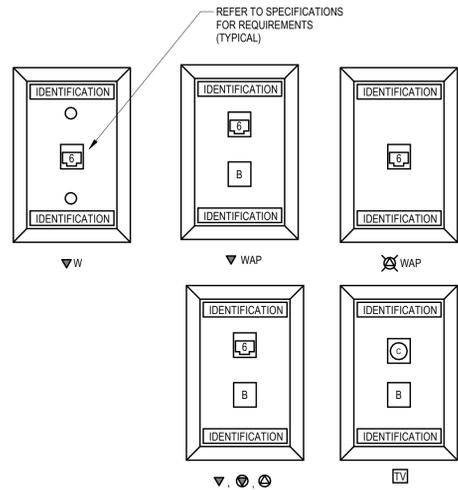
5 WIRELESS ACCESS POINT DETAIL

- N.T.S.
- NOTES:**
1. WIRELESS ACCESS POINTS ARE PROVIDED BY THE OWNER. T.C. SHALL INSTALL THE WIRELESS ACCESS POINTS.



4 RISER DIAGRAM - VOICE/DATA

N.T.S.

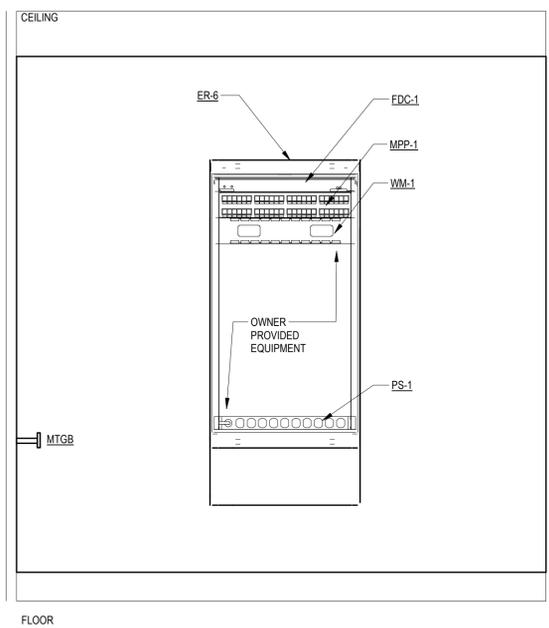


INFORMATION OUTLET JACK LEGEND		
SYMBOL	DESCRIPTION	MODEL #
B	BLANK MODULE	BLANK MODULE: PANDUIT CMBWH-X
B	BLANK MODULE	BLANK MODULE: PANDUIT CHB2MWH-X
6	CAT6 RJ-45 JACK # QUANTITY OF DATA ALL ARE DATA UNLESS NOTED OTHERWISE	PANDUIT CJB88TGWH
1	DATA JACK FOR CCTV SYSTEM	PANDUIT CJB88TG#
"F"	"F" TYPE COUPLER MODULE	PANDUIT CMFVH
HDMI	HDMI 2.0 COUPLER FEMALE TO FEMALE COUPLER	PANDUIT CMHDMVH
#	INFORMATION OUTLET ADAPTER - 4 PORT MOUNTED IN FLOORBOX PROVIDED BY OTHERS.	CAT6 JACK - FLOOR BOX: PANDUIT NK688MVH
#	SUBSCRIPT "F" QUANTITY OF CAT6 DATA CABLES SUBSCRIPT "AV" QUANTITY OF CAT6 DATA RESERVED FOR AV IN FLOORBOX. SUBSCRIPT "HDMI" FOR NETKEY HDMI COUPLER MODULE FEMALE TO FEMALE.	ADAPTER FOR FLOOR BOX: PANDUIT NK4RMFVH
#	CEILING INFORMATION OUTLET BOX: (1) CEILING SURFACE MOUNTED BOX SHALL BE SECURELY SUPPORTED ABOVE CEILING.	SURFACE MOUNT BOX: PANDUIT CBXQ2WH-A
▽ #	INFORMATION OUTLET (1) 4" SQUARE BOX, SINGLE GANG PLASTER RING, FLUSH MOUNT ON WALL OR AS NOTED ON PLANS.	INFORMATION OUTLET- WALL COVERPLATE: PANDUIT CPPE2WY - WALL CPPE4WY - WALL CPPE6WY - WALL
WAP	CEILING WIRELESS ACCESS POINT: (1) CEILING SURFACE MOUNTED BOX SHALL BE SECURELY SUPPORTED ABOVE CEILING.	AV WALL COVERPLATE: PANDUIT CBEWY SURFACE MOUNT BOX: PANDUIT CBXQ2WH-A

2 INFORMATION OUTLET DETAIL

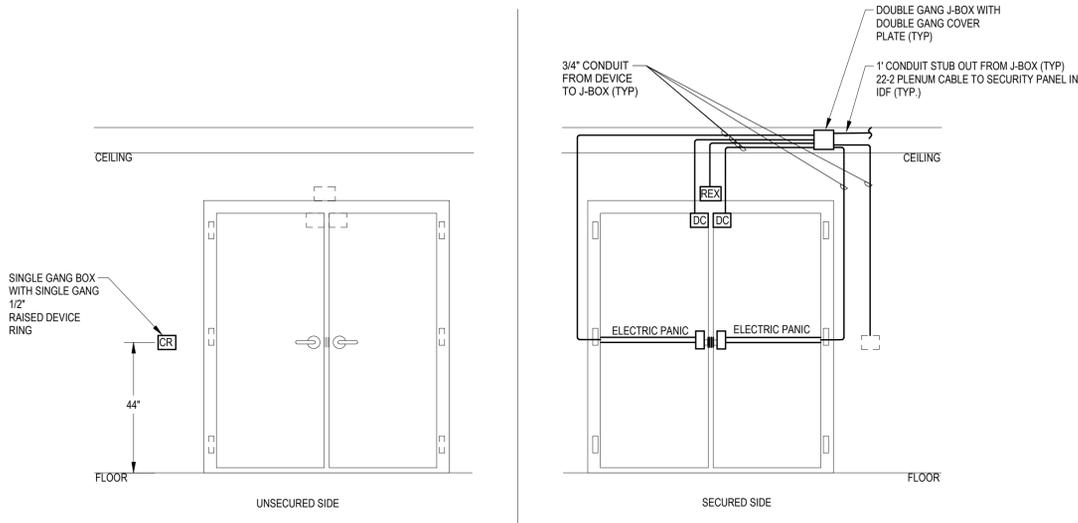
N.T.S.

- NOTES:**
1. WIRELESS ACCESS POINTS DATA CABLING. REFER TO ### FOR WIRELESS ACCESS POINT ROUGH-IN DETAIL.
 2. RJ-45 JACKS, COAX F-CONNECTOR, AND HDMI COUPLER SHALL BE ROUTED WITHIN THE SAME ROUGH-IN.



6 WALL RACK ELEVATION DETAIL

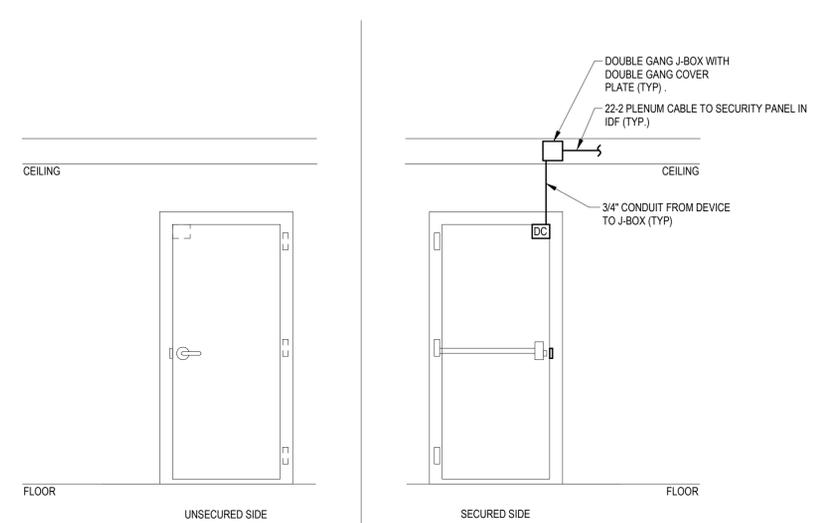
N.T.S.



3 DOUBLE DOOR WITH CARD READER

N.T.S.

- NOTES:**
1. THE OWNER'S SECURITY CONTRACTOR SHALL PROVIDE AND INSTALL ACCESS CONTROL POWER SUPPLY WITH 24V DC.



1 SINGLE DOOR WITH DOOR CONTACT

N.T.S.

- NOTES:**
1. PROVIDE AND INSTALL ACCESS CONTROL & DOOR HARDWARE POWER SUPPLY WITH 24V DC. DOOR HARDWARE CONTRACTOR SHALL PROVIDE AND INSTALL 24V FOR DOOR HARDWARE. ELECTRICAL CONTRACTOR SHALL PROVIDE 120V TO POWER SUPPLIES.

REVISIONS		
NO.	NAME	DATE

ACCESS CONTROL SCHEDULE		
SYMBOL	DESCRIPTION	MODEL
CR	CARD READER - PROVIDE FLUSH SINGLE GANG JUNCTION BOX FOR CARD READER. FROM DEVICE TO JUNCTION BOX TO ABOVE ACCESSIBLE SPACE. MOUNT AT 42" A.F.F. SUBSCRIPT "M" FOR MULLION MOUNT.	REFER TO SPECIFICATION SECTION [281000,281300,281643] FOR ADDITIONAL INFORMATION.
DC	DOOR CONTACT - PROVIDE 1" DIAMETER HOLE IN THE FRAME. SNAP LOCK INSULATION BUSHING FOR TIGHT FIT. REFER TO DOOR ELEVATIONS FOR ADDITIONAL INFORMATION.	REFER TO SPECIFICATION SECTION [281000,281300,281643] FOR ADDITIONAL INFORMATION.
REX	REQUEST TO EXIT. PROVIDE A FLUSH MOUNTED SINGLE GANG JUNCTION BOX CENTERED 12" ABOVE DOOR FRAME. CONNECTED TO DOUBLE GANG J-BOX ABOVE THE CEILING.	REFER TO SPECIFICATION SECTION [281000,281300,281643] FOR ADDITIONAL INFORMATION.

NETWORK SCHEDULE		
LABEL	DESCRIPTION	MODEL
ER-5	EQUIPMENT NETWORK WALL RACK, SWING TYPE. 36"HX24"D X 24"W, BLACK, 19RU	CHATSWORTH 11840-X36 B-LINE HOFFMAN DAMAC OR APPROVED EQUAL.
FDC-1	OPTICAL FIBER DISTRIBUTION CABINET, SINGLEMODE FIBER COMBINATION SHELF FOR [24 LC] TERMINATIONS. 1RU	FCE1U
MPP-2	ANGLED MODULAR PATCH PANEL 48 PORT	PANDUIT CPPLA48WBLY ANGLED
MTGB	PRE-ASSEMBLED BUS COPPER GROUND BAR.	PANDUIT GB280312TP1-1 NEWTON INSTRUMENTS ERICO STORM COPPER COMPONENTS GEORGIA COPPER OR AN APPROVED EQUAL
PS-1	POWER STRIP 20A, 5-15P, MOUNTED HORIZONTAL IN RACK.	APC AP7801B
TTB-1	TELECOMMUNICATION TERMINAL BOARD; 3/4" PLYWOOD 4' X 8', PAINTED WHITE WITH FIRE RETARDANT PAINT. REFER TO DRAWING #### FOR ADDITIONAL INFORMATION.	

INTERCOM SCHEDULE		
SYMBOL	DESCRIPTION	MODEL
INT CD	INTERCOM DOOR STATION COLOR CAMERA, VANDAL RESISTANT, STAINLESS STEEL - WEATHER RESISTANT FINISH, INTERNAL SPEAKER, AND CALL BUTTON. PROVIDE ELECTRIC DOOR STRIKE AT DOOR STATION LOCATION. PROVIDE FLUSH DOUBLE GANG JUNCTION BOX FOR INTERCOM DOOR STATION WITH 3/4" C FROM DEVICE TO JUNCTION BOX TO ABOVE ACCESSIBLE SPACE. MOUNT AT 42" A.F.F.	REFER TO SPECIFICATION SECTION 275123 FOR ADDITIONAL INFORMATION.
INT M	INTERCOM MASTER STATION. INTERNAL SPEAKER AND CALL BUTTON. PROVIDE ELECTRIC DOOR STRIKE AT DOOR STATION LOCATION.	REFER TO SPECIFICATION SECTION 275123 FOR ADDITIONAL INFORMATION.

REVISIONS		
NO.	NAME	DATE