ORANGE-ULSTER BOCES
ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

CONSTRUCTION DOCUMENTS - APRIL 24,2024

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Grand total: 94

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING
NY. S.E.D. # 44-90-00-00-0-035-009
KG&D Project No.
2023-1011

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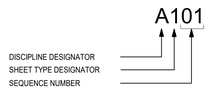
COVER

T1

ABBREVIATIONS

ACM	ASBESTOS CONTAINING MATERIAL	GALV	GALVANIZED	QT	QUARRY TILE
ACP	ALUMINUM COMPOSITE PANEL	GFB	GROUND FACE BLOCK	QTB	QUARRY TILE BASE
ACPL	ACOUSTIC PANEL	GFRG	GLASS FIBER REINFORCED GYPSUM	QTY	QUANTITY
ACT	ACOUSTIC CEILING TILE	GL	GLASS		
ADJ	ADJUSTABLE	GWB	GYPSUM WALLBOARD	RCP	REFLECTED CEILING PLAN
AC	AIR CONDITIONING			REFL	REFLECTED
AESS	ARCHITECTURAL EXPOSED STRUCT STEEL	H	HEIGHT AFF	REQD	REQUIRED
AFF	ABOVE FINISH FLOOR	HDW, HDWE	HARDWARE	RB	RUBBER BASE
AHAP	AS HIGH AS POSSIBLE	HDWD	HARDWOOD	RTN	RETURN
AL, ALUM	ALUMINUM	HD	HEAD	RA	RETURN AIR
AMP	ACRYLIC MODIFIED POLYESTER	HDR	HEADER	REV	REVISED/REVISION
APPROX	APPROXIMATE	HVAC	HEATING, VENTILATING, AIR CONDITIONING	RFI	REQUEST FOR INFORMATION
		HR	HOUR	RO	ROUGH OPENING
BEPO	BROADCAST EPOXY	HT	HEIGHT	RT	RUBBER TREAD/TILE
BTW	BETWEEN	HM	HOLLOW METAL	RTB	RUBBER TREAD BASE
BLKG	BLOCKING	HMFR	HOLLOW METAL FRAME	RTT	RESILIENT TERRAZZO TILE
BOT, BOTT	BOTTOM	HORIZ	HORIZONTAL	RW	RESCUE WINDOW
BLDG	BUILDING	HC	HANDICAP		
BL	BUILDING LINE			S	SAFETY GLAZING/SEE SPEC
BM	BEAM	IF	INSIDE FACE	SCHED	SCHEDULE/SCHEDULED
		IN	INCH/INCHES	SECT	SECTION
CAB	CABINET	INCL	INCLUDE/INCLUSIVE	SFB	SPLIT FACE BLOCK
CB	CEMENT BOARD	INFO	INFORMATION	SH	SHELVING/SHELF/SHELVES
CI	CAST IRON	INSUL	INSULATION	SIM	SIMILAR
CFMF	COLD FORMED METAL FRAMING	INT	INTERIOR	SL	SLATE
CLG, CLNG	CEILING			STC	SOUND TRANSMISSION CLASS
CL	CENTER LINE, CLASSROOM	JC	JANITOR'S CLOSET	SPEC	SPECIFICATION
CMU	CONCRETE MASONRY UNIT	JT	JOINT	SQFT	SQUARE FOOT
COL	COLUMN			ST	SAND, STAIN & SEAL
CONC	CONCRETE	KPL	KICK PLATE	STSTL	STAINLESS STEEL
CONF	CONFERENCE	KD	KNOCKDOWN	STL	STEEL
CONST	CONSTRUCTION	KO	KNOCKOUT	STR	STRUCTURAL/STRUCTURE
CONTR	CONTRACTOR			SUSP	SUSPENDED/SUSPENSION
CONT	CONTINUOUS	LAM	LAMINATED		
COORD	COORDINATE	LAMGL	LAMINATED GLASS	T	TOP
CPT	CARPET	LT	LIGHT	TB	TACKBOARD
CR	CARD READER	LTG	LIGHTING	TBD	TO BE DETERMINED
CT	CERAMIC TILE	LWC	LIGHT WEIGHT CONCRETE	TERR	TERRAZZO
CTB	CERAMIC TILE BASE	LIN	LINOLEUM	TFF	TOP FINISHED FLOOR
		LMF	LIGHT METAL FRAMING	TMP GL	TEMPERED GLASS
DA	DEVICE ARRANGEMENT			THERMO	THERMOSTAT
DET	DETAIL	MAINT	MAINTAIN/MAINTENANCE	T&B	TOP AND BOTTOM
DF	DRINKING FOUNTAIN	MAX	MAXIMUM	TO	TOP OF
DIM	DIMENSION	MBL	MARBLE	TOS	TOP OF STEEL
DR	DOOR	MFG	MANUFACTURER	TOSS	TOP OF STRUCTURAL SLAB
DN	DOWN	MSNRY	MASONRY	TOES	TOP OF EXISTING SLAB
DWG	DRAWING	MO	MASONRY OPENING	TRT	TERRAZZO RESILIENT TILE
		MATL	MATERIAL	TYP	TYPICAL
EE	EACH END	MECH	MECHANICAL		
EIFS	EXTERIOR INSULATION FINISH SYSTEM	MT	MONITOR	UNFIN	UNFINISHED
EJ	EXPANSION JOINT	MTL	METAL	UNO, UON	UNLESS NOTED OTHERWISE
ELEC	ELECTRIC/ELECTRICAL	MCP	METAL COMPOSITE PANEL	UR	URINAL
EL/ELEV	ELEVATION	MCB	METAL CORNER BEAD	UTIL	UTILITY
ENCL	ENCLOSURE	MS	METAL STUD		
EOD	EDGE OF DECK	MLWK	MILL WORK	VAT	VINYL ASBESTOS TILE
EOS	EDGE OF SLAB	MIN	MINIMUM	VCT	VINYL COMPOSITE TILE
EPO	EPOXY	MISC	MISCELLANEOUS	VEN	VENEER
EPS	EDGE OF POUR STOP	MLDG	MOLDING	VERT	VERTICAL
EQ	EQUAL	MTG	MOUNTING	VET	VINYL ENHANCED TILE
ES	EACH SIDE			VIF	VERIFY IN FIELD
EXIST	EXISTING	NIC	NOT IN CONTRACT	VRS	VINYL REDUCER STRIP
ETR	EXISTING TO REMAIN	NTS	NOT TO SCALE	VT	VINYL TILE
ETRE	EXISTING TO BE RELOCATED	NO	NUMBER	VWC	VINYL WALL COVERING
EXP JT	EXPANSION JOINT				
EXT, EXTR	EXTERIOR	OC	ON CENTER	WB	WHITEBOARD
EW	EACH WAY	OPNG	OPENING	WC	WATER CLOSET
		OPP	OPPOSITE	WF	WATER FOUNTAIN
FAB	FABRIC	OH	OPPOSITE HAND	WGL	WIRE GLASS
FTF	FACE TO FACE	OTS	OPEN TO STRUCTURE	W/	WITH
FIN	FINISHED	OUT	OUTLET	WC	WHEEL CHAIR
FA	FIRE ALARM	OD	OUTSIDE DIAMETER	W/O	WITHOUT
FD	FLOOR DRAIN	OF	OUTSIDE FACE	WOM	WALK OFF MAT
FDMPR	FIRE DAMPER			WD	WOOD
FE	FIRE EXTINGUISHER	P, PTD	PAINTED	WD BLKG	WOOD BLOCKING
FEC	FIRE EXTINGUISHER CABINET	PT	PORCELAIN TILE	WD DR	WOOD DOOR
FF	FACTORY FINISHED	PTB	PORCELAIN TILE BASE	WP	WATERPROOFING
FHC	FIRE HOSE CABINET	PR	PAIR	WR	WARDROBE
FHVC	FIRE HOSE VALVE CABINET	PNL	PANEL	WW	WINDOW WALL
FR	FIRE RATED	PTN	PARTITION		
FRD	FRENCH DRAIN	PL	PLATE / PROPERTY LINE	YD	YARD
FRP	FIBERGLASS REINFORCED POLYESTER	PLAM	PLASTIC LAMINATE	YCO	YARD CLEANOUT
FRTD	FIRE RETARDANT	PLMB	PLUMBING		
FIX	FIXTURE	PLYWD	PLYWOOD	ZCC	ZINC COATED COPPER
FL/FLR	FLOOR	PTWD	PRESERVATIVE TREATED WOOD	ZCP	ZINC COMPOSITE PANEL
FLUOR	FLUORESCENT			ZT	ZINC TILE SYSTEM
FL MTD	FLUSH MOUNTED				
FT	FOOT/FEET				
FDN	FOUNDATION				
FRITZ	FRITZ FLOOR (RTT) TILE				

SHEET IDENTIFICATION LEGEND



DISCIPLINE DESIGNATORS

G	GENERAL
CC	CODE COMPLIANCE
PH	PHASING
HM	HAZARDOUS MATERIAL ABATEMENT
C	CIVIL
L	LANDSCAPE
S	STRUCTURAL
A	ARCHITECTURAL
F	FIRE PROTECTION
P	PLUMBING
M	MECHANICAL
E	ELECTRICAL

ARCHITECTURAL SHEET TYPE DESIGNATOR

1	DEMOLITION
2	PLANS
3	EXTERIOR ELEVATIONS & BUILDING SECTIONS
4	ENLARGED PLANS & INTERIOR ELEVATIONS
5	FINISHES
6	REFLECTED CEILING PLANS
7	VERTICAL CIRCULATION
8	WALL SECTIONS & ENLARGED DETAILS
9	TYPICAL DETAILS

SYMBOLS LEGEND

ROOM NAME
101
150 SF — ROOM TAG (NAME, NUMBER, & AREA)

WALL TYPE & FIRE RATING TAG

1A — WINDOW TYPE TAG

101 — DOOR DESIGNATION TAG

C J — CONTROL JOINT

COLUMN LINE

1 / A101 — EXTERIOR ELEVATION

1 / 1 A101 1 / 1 — INTERIOR ELEVATION

1 / A101 — WALL OR BUILDING SECTION

DENOTES EXISTING AREA OF THE BUILDING TO REMAIN (NO MAJOR GENERAL CONSTRUCTION).

DENOTES EXISTING WALL TO REMAIN

DENOTES EXISTING WALL TO BE DEMOLISHED

DENOTES 1hr OR NON-RATED WALL

DENOTES 2hr RATED WALL

M4 2HR — DENOTES WALL TYPE & FIRE RATING

DENOTES HOLLOW METAL FRAME w/ SIDELITE OR TRANSOM

DENOTES EXISTING DOOR TO REMAIN (U.N.O)

DENOTES EXISTING DOOR AND OR FRAME TO BE DEMOLISHED. SEE DOOR SCHEDULE.

DENOTES NEW DOOR AND OR FRAME. SEE DOOR SCHEDULE

MATERIAL LEGEND

- CMU WALL
- CMU WALL
- GWB WALL
- MASONRY VENEER
- GWB - "TYPE X" UNO (SEE SPECS)
- EXPOSED TO WEATHER OR MOISTURE)
- WOOD BLOCKING (PRESSURE TREATED ALL AREAS EXPOSED TO WEATHER OR MOISTURE)
- CAULK w/ BACKER ROD
- WATERPROOFING MEMBRANE, OR ROOFING MEMBRANE OR FLASHING
- RIGID INSULATION
- BATT INSULATION
- POROUS FILL
- SUITABLE COMPACTED BACKFILL (SEE SPEC)
- UNDISTURBED SOIL
- CAST-IN-PLACE CONCRETE OR CAST STONE
- GLASS SURFACE

MEANS OF EGRESS

EGRESS INFORMATION:	DWG SHOWN
ROOM USE DESIGNATIONS	CC002, FLOOR PLANS
ROOM SQUARE FOOTAGE	CC002, FLOOR PLANS
ROOM OCCUPANCY LOADS	CC002
ASSEMBLY SPACE EXIT WIDTH CALCS	CC002
AREA OF REFUGE	N/A (NYS BC 1009.3.3 EXCEPTION 2))
RESCUE WINDOWS	FLOOR PLANS & ELEVATIONS

EXIT TRAVEL DISTANCE

NYS BC TABLE 1017.2
200' MAX UNSPRINKLERED
250' MAX SPRINKLERED

SED MANUAL OF PLANNING STANDARDS
150' TO EXTERIOR DOOR FROM CORRIDOR
120' TO STAIR ENCLOSURE FROM CORRIDOR
50' TO EXIT FROM ALL ROOMS 1500 SF & UNDER
75' TO SEPARATE SMOKE ZONE IN OPEN PLANNED AREAS
NO DEAD-END CORRIDORS (<1.5 x WIDTH, MAX 20')

OCCUPANCY LOADS:	**NYS BC TABLE 1004.5**
CLASSROOMS	20 NET SF/PERSON
SHOPS & OTHER VOCATIONAL ROOMS	50 NET SF/PERSON
OFFICE AREAS	100 GROSS SF/PERSON
KITCHEN AREA	200 GROSS SF/PERSON
STORAGE/MECHANICAL	300 GROSS SF/PERSON

EXIT WIDTH	**NYS BC SECTION 1005.1**
STAIR WIDTH	.3"/OCCUPANT UNSPRINKLERED
OTHER EGRESS COMPONENTS	.2"/OCCUPANT UNSPRINKLERED
STAIR WIDTH	.2"/OCCUPANT SPRINKLERED
OTHER EGRESS COMPONENTS	.15"/OCCUPANT SPRINKLERED

CORRIDORS — **NYS BC TABLE 1020.1**, **NY SED S103-2 & S103-5**

WIDTH (NY SED):
- MAIN CORRIDOR: 8'-0" MIN. (CLEAR) [12" LOCKERS ON ONE SIDE = 9'-0" MIN]* [12" LOCKERS ON BOTH SIDES = 10'-0" MIN]*
- SECONDARY: 6'-0" MIN. (CLEAR) [12" LOCKERS ON ONE SIDE = 7'-0" MIN]* [12" LOCKERS ON ONE SIDE = 8'-0" MIN]*
- PASSAGEWAY: 44" MIN.

*CORRIDOR LOCKER DOORS MAY NOT PROJECT INTO THE REQUIRED WIDTH

PROJECT INFORMATION

NYSED CONTROL NUMBER:	**44-90-00-00-0-035-009**
DISTRICT NAME:	ORANGE - ULSTER BOCES 53 GIBSON RD. GOSHEN, NY 10924
BUILDING NAME:	REGIONAL EDUCATION CENTER AT ARDEN HILL 4 HARRIMAN DRIVE GOSHEN, NY 10924
TYPE OF PROJECT:	ADDITIONS & ALTERATIONS
PROJECT COMMENCEMENT:	SEE MILESTONE SCHEDULE (SPECIFICATION)
PROJECTED COMPLETION:	SEE MILESTONE SCHEDULE (SPECIFICATION)
APPLICABLE CODES:	2020 NEW YORK STATE UNIFORM FIRE PREVENTION & BUILDING CODE 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE 2022 MANUAL OF PLANNING STANDARDS - THE UNIVERSITY OF THE STATE OF NEW YORK THE STATE EDUCATION DEPARTMENT ANSI A117.1-09 ACCESSIBLE & USABLE BUILDINGS & FACILITIES NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
WORK AREAS	ALTERATION LEVEL 2 NEW CONSTRUCTION EXISTING

UNIFORM SAFETY STANDARDS FOR SCHOOL CONSTRUCTION AND MAINTENANCE PROJECTS

THE OCCUPIED PORTION OF THE EXISTING SCHOOL BUILDING SHALL ALWAYS COMPLY WITH THE MINIMUM REQUIREMENTS NECESSARY TO MAINTAIN A CERTIFICATE OF OCCUPANCY.

ALL SCHOOL AREAS TO BE DISTURBED DURING RENOVATION OR DEMOLITION HAVE BEEN OR WILL BE TESTED FOR LEAD AND ASBESTOS.

GENERAL SAFETY AND SECURITY STANDARDS FOR CONSTRUCTION PROJECTS:

(A) ALL CONSTRUCTION MATERIALS SHALL BE STORED IN A SAFE AND SECURE MANNER.
(B) FENCES AROUND CONSTRUCTION SUPPLIES OR DEBRIS SHALL BE MAINTAINED.
(C) GATES SHALL ALWAYS BE LOCKED UNLESS A WORKER IS IN ATTENDANCE TO PREVENT UNAUTHORIZED ENTRY.
(D) DURING EXTERIOR RENOVATION WORK, OVERHEAD PROTECTION SHALL BE PROVIDED FOR ANY SIDEWALKS OR AREAS IMMEDIATELY BENEATH THE WORK SITE OR SUCH AREAS SHALL BE FENCED OFF AND PROVIDED WITH WARNING SIGNS TO PREVENT ENTRY.
(E) WORKERS SHALL BE REQUIRED TO WEAR PHOTO-IDENTIFICATION BADGES AT ALL TIMES FOR IDENTIFICATION AND SECURITY PURPOSES WHILE WORKING AT OCCUPIED SITES.

SEPARATION OF CONSTRUCTION AREAS FROM OCCUPIED SPACES:

CONSTRUCTION AREAS WHICH ARE UNDER THE CONTROL OF A CONTRACTOR AND THEREFORE NOT OCCUPIED BY DISTRICT STAFF OR STUDENTS SHALL BE SEPARATED FROM OCCUPIED AREAS. PROVISIONS SHALL BE MADE TO PREVENT THE PASSAGE OF DUST AND CONTAMINANTS INTO OCCUPIED PARTS OF THE BUILDING. PERIODIC INSPECTION AND REPAIRS OF THE CONTAINMENT BARRIERS MUST BE MADE TO PREVENT EXPOSURE TO DUST OR CONTAMINANTS. GYPSUM BOARD MUST BE USED IN EXIT WAYS OR OTHER AREAS THAT REQUIRE FIRE RATED SEPARATION. HEAVY DUTY PLASTIC SHEETING MAY BE USED ONLY FOR A VAPOR, FINE DUST OR AIR INFILTRATION BARRIER, AND SHALL NOT BE USED TO SEPARATE OCCUPIED SPACES FROM CONSTRUCTION AREAS.

(A) A SPECIFIC STAIRWELL AND/OR ELEVATOR SHOULD BE ASSIGNED FOR CONSTRUCTION WORKER USE DURING WORK HOURS. IN GENERAL, WORKERS MAY NOT USE CORRIDORS, STAIRS OR ELEVATORS DESIGNATED FOR STUDENTS OR SCHOOL STAFF.

(B) LARGE AMOUNTS OF DEBRIS MUST BE REMOVED BY USING ENCLOSED CHUTES OR A SIMILAR SEALED SYSTEM. THERE SHALL BE NO MOVEMENT OF DEBRIS THROUGH HALLS OF OCCUPIED SPACES OF THE BUILDING. NO MATERIAL SHALL BE DROPPED OR THROWN OUTSIDE THE WALLS OF THE BUILDING.

(C) ALL OCCUPIED PARTS OF THE BUILDING AFFECTED BY RENOVATION ACTIVITY SHALL BE CLEANED AT THE CLOSE OF EACH WORKDAY. SCHOOL BUILDINGS OCCUPIED DURING A CONSTRUCTION PROJECT SHALL MAINTAIN REQUIRED HEALTH, SAFETY AND EDUCATIONAL CAPABILITIES AT ALL TIMES THAT CLASSES ARE IN SESSION.

A PLAN DETAILING HOW EXITING REQUIRED BY THE APPLICABLE BUILDING CODE WILL BE MAINTAINED.

A PLAN DETAILING HOW ADEQUATE VENTILATION WILL BE MAINTAINED DURING CONSTRUCTION.

CONSTRUCTION AND MAINTENANCE OPERATIONS SHALL NOT PRODUCE NOISE IN EXCESS OF 60 DBA IN OCCUPIED SPACES OR SHALL BE SCHEDULED FOR TIMES WHEN THE BUILDING OR AFFECTED BUILDING SPACES ARE NOT OCCUPIED OR ACOUSTICAL ABATEMENT MEASURES SHALL BE TAKEN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF CHEMICAL FUMES, GASES, AND OTHER CONTAMINATES PRODUCED BY WELDING, GASOLINE OR DIESEL ENGINES, ROOFING, PAVING, PAINTING, ETC. TO ENSURE THEY DO NOT ENTER OCCUPIED PORTIONS OF THE BUILDING OR AIR INTAKES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ACTIVITIES AND MATERIALS WHICH RESULT IN "OFF-GASSING" OF VOLATILE ORGANIC COMPOUNDS SUCH AS GLUES, PAINTS, FURNITURE, CARPETING, WALL COVERING, DRAPERY, ETC. ARE SCHEDULED, CURED OR VENTILATED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS BEFORE A SPACE CAN BE OCCUPIED.

LARGE AND SMALL ASBESTOS ABATEMENT PROJECTS AS DEFINED BY 12NYCRR56 SHALL NOT BE PERFORMED WHILE THE BUILDING IS OCCUPIED". NOTE, IT IS OUR INTERPRETATION THAT THE TERM "BUILDING", AS REFERENCED IN THIS SECTION, MEANS A WING OR MAJOR SECTION OF A BUILDING THAT CAN BE COMPLETELY ISOLATED FROM THE REST OF THE BUILDING WITH SEALED NON COMBUSTIBLE CONSTRUCTION. THE ISOLATED PORTION OF THE BUILDING MUST CONTAIN EXITS THAT DO NOT PASS THROUGH THE OCCUPIED PORTION AND VENTILATION SYSTEMS MUST BE PHYSICALLY SEPARATED AND SEALED AT THE ISOLATION BARRIER.
EXTERIOR WORK SUCH AS ROOFING, FLASHING, SIDING, OR SOFFIT WORK MAY BE PERFORMED ON OCCUPIED BUILDINGS PROVIDED PROPER VARIANCES ARE IN PLACE AS REQUIRED, AND COMPLETE ISOLATION OF VENTILATION SYSTEMS AND AT WINDOWS IS PROVIDED. CARE MUST BE TAKEN TO SCHEDULE WORK SO THAT CLASSES ARE NOT DISRUPTED BY NOISE OR VISUAL DISTRACTION.

SURFACES THAT WILL BE DISTURBED BY RECONSTRUCTION MUST HAVE A DETERMINATION MADE AS TO THE PRESENCE OF LEAD. PROJECTS WHICH DISTURB SURFACES THAT CONTAIN LEAD SHALL HAVE IN THE SPECIFICATIONS A PLAN PREPARED BY A CERTIFIED LEAD RISK ASSESSOR OR SUPERVISOR WHICH DETAILS PROVISIONS FOR OCCUPANT PROTECTION, WORKSITE PREPARATION, WORK METHODS, CLEANING AND CLEARANCE TESTING WHICH ARE IN GENERAL ACCORDANCE WITH THE HUD GUIDELINES.

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
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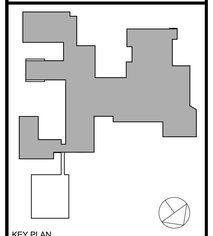
P:914.666.5900 KGDARCHITECTS.COM

NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

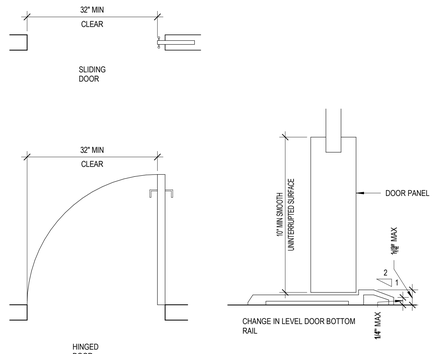
Sheet Title

GENERAL INFORMATION

Job No. 2023-1011	Date 04/24/2024
Scale	Drawn / Checked Author Checker

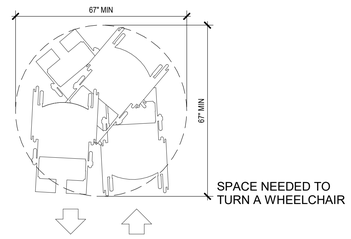
Sheet Number

G-001



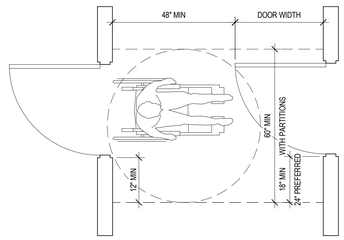
REF:
ADA: 404.2, 303.3
ANSI: 404.2.2, 404.2.9

3 DOOR OPENING
6" = 1'-0"

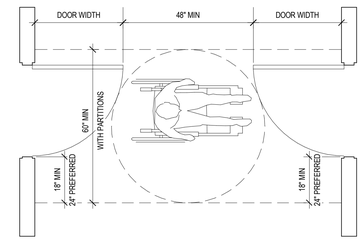


REF:
ADA: 304.3
ANSI: 304.3

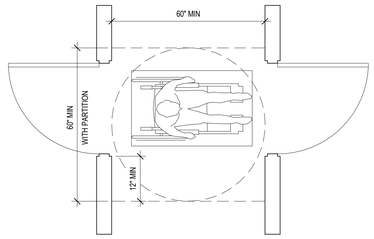
1 WHEELCHAIR TURNING RADIUS
1/2" = 1'-0"



A



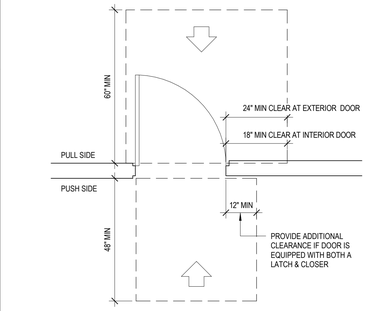
B



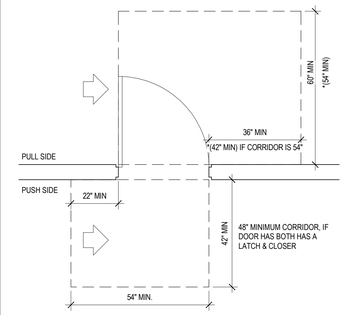
C

REF:
ADA: 404.2.6
ANSI: 404.2.5

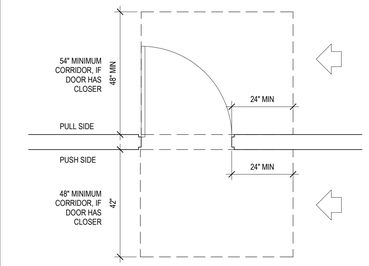
4 TWO HINGED DOORS IN SERIES
1/2" = 1'-0"



A. FRONT APPROACH



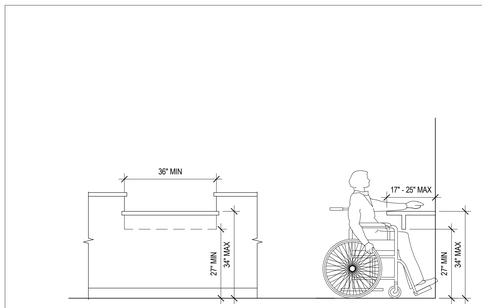
B. HINGE APPROACH



C. LATCH SIDE APPROACH

REF:
ADA: 404.2.4
ANSI: 404.2.3.1

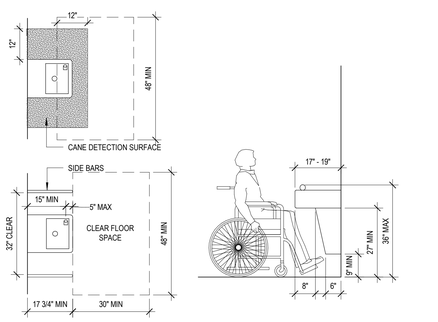
2 SWINGING DOOR APPROACH
1/2" = 1'-0"



CLEARANCES FOR
COUNTERS

REF:
ADA: 306.1
ANSI: 306.2

7 MINIMUM CLEARANCE FOR COUNTER
1/2" = 1'-0"

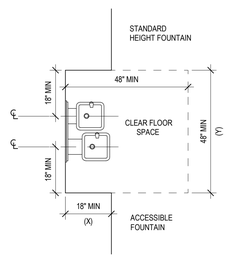


A. PLAN

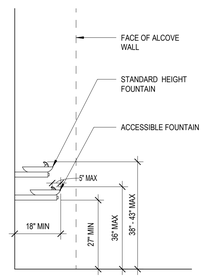
B. SIDE ELEVATION

REF:
ADA: 306.2, 306.3, 602
ANSI: 602.1

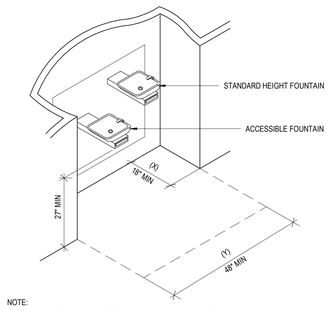
8 DRINKING FOUNTAIN-NON ALCOVE
1/2" = 1'-0"



A. PLAN



B. SIDE ELEVATION



NOTE:
IF ALCOVE DEPTH (X) IS GREATER THAN 24", THEN (Y) MUST BE 54" MIN ON AN ACCESSIBLE FOUNTAIN WITH A ROUND OR OVAL BOWL. THE SPOUT MUST BE POSITIONED SO THE FLOW OF WATER IS WITHIN 3" OF THE FRONT EDGE OF THE FOUNTAIN

REF:
ADA: 602.7

11 DRINKING FOUNTAIN HI - LOW
1/2" = 1'-0"

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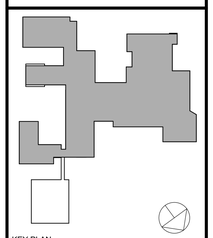
NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ADA COMPLIANCE

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

G-002

OCCUPANCY TABLE - 1ST FLOOR							
Level	NAME	ROOM #	AREA	OCCUPANCY USE	Occupant Load Factor	OCCUPANT LOAD	Comments
Not Placed	COURTYARD	EX4	Not Placed				
NORTH WING LOWER	TOIL	117	70 SF				
NORTH WING LOWER	ELEV	E1	55 SF				HIDE1
NORTH WING LOWER	COMMONS	C102A	355 SF				
: 4			475 SF			0	
BUSINESS							
NORTH WING UPPER	OFFICE	204	105 SF	BUSINESS	150	1	
NORTH WING UPPER	OFFICE	205	100 SF	BUSINESS	150	1	
NORTH WING UPPER	SECURITY	222	100 SF	BUSINESS	150	1	
BUSINESS: 3			300 SF			3	
CLASSROOM							
Not Placed	8:1:1 CLASS	OS3	Not Placed	CLASSROOM	15		
NORTH WING LOWER	8:1:1 CLASS	103	560 SF	CLASSROOM	20	29	
NORTH WING LOWER	8:1:1 CLASS	102	700 SF	CLASSROOM	20	35	
NORTH WING LOWER	8:1:1 CLASS	101	640 SF	CLASSROOM	20	32	
NORTH WING LOWER	6:1:1 CLASS	104	450 SF	CLASSROOM	20	23	
NORTH WING LOWER	15:1:1 CLASS	105	775 SF	CLASSROOM	20	39	
NORTH WING LOWER	8:1:1 CLASS	106	550 SF	CLASSROOM	20	28	
NORTH WING LOWER	8:1:1 CLASS	107	555 SF	CLASSROOM	20	28	
NORTH WING LOWER	SGI	113	125 SF	CLASSROOM	20	7	
NORTH WING LOWER	SGI	114	125 SF	CLASSROOM	20	7	
NORTH WING LOWER	COPY/FAC	115	125 SF	CLASSROOM	20	7	
NORTH WING LOWER	SGI	108	235 SF	CLASSROOM	20	12	
NORTH WING LOWER	SGI	109	210 SF	CLASSROOM	20	11	
NORTH WING UPPER	6:1:1 CLASS	206	470 SF	CLASSROOM	20	24	
NORTH WING UPPER	15:1:1 CLASS	207	790 SF	CLASSROOM	20	40	
NORTH WING UPPER	8:1:1 CLASS	201	610 SF	CLASSROOM	20	31	
NORTH WING UPPER	8:1:1 CLASS	202	550 SF	CLASSROOM	20	28	
NORTH WING UPPER	6:1:1 CLASS	203	460 SF	CLASSROOM	20	24	
NORTH WING UPPER	SGI	214	180 SF	CLASSROOM	20	9	
NORTH WING UPPER	SGI	213	170 SF	CLASSROOM	20	9	
NORTH WING UPPER	8:1:1 CLASS	208	550 SF	CLASSROOM	20	28	
NORTH WING UPPER	SGI	209	245 SF	CLASSROOM	20	13	
NORTH WING UPPER	15:1 CLASS	210	840 SF	CLASSROOM	20	43	
NORTH WING UPPER	15:1 CLASS	211	805 SF	CLASSROOM	20	41	
NORTH WING UPPER	15:1 CLASS	212	770 SF	CLASSROOM	20	39	
CLASSROOM: 25			11480 SF			587	
COURTYARD							
NORTH WING LOWER	COURTYARD	OS2	4495 SF	COURTYARD	40	113	HIDE1
COURTYARD: 1			4495 SF			113	
MECHANICAL							
NORTH WING LOWER	MECHANICAL ROOM	116	770 SF	MECHANICAL	300	3	
NORTH WING LOWER	DATA CL	126	130 SF	MECHANICAL	300	1	
NORTH WING LOWER	EXTERIOR STORAGE	OS1	325 SF	MECHANICAL	300	2	
NORTH WING UPPER	TECHNICAL	224	90 SF	MECHANICAL	300	1	
MECHANICAL: 4			1315 SF			7	
			18070 SF			710	

DOOR CAPACITY CALCULATIONS (GENERAL)
AT 36" WIDE SINGLE DOORS, 33" CLEAR EGRESS WIDTH SHALL BE PROVIDED
33" / 0.15" PER OCCUPANT = 220 OCCUPANT CAPACITY

AT 72" WIDE DOUBLE DOORS, 68" CLEAR EGRESS WIDTH SHALL BE PROVIDED
68" / 0.15" PER OCCUPANT = 454 OCCUPANT CAPACITY

STAIR CAPACITY CALCULATIONS (PER LOADING SHOWN IN CC PLANS)

LEARNING STAIR
REQUIRED: 107 OCCUPANTS X 0.2" PER OCCUPANT = 21"
PROVIDED: 46" (0.2" PER OCCUPANT = 230 OCCUPANT CAPACITY)

STAIR B
REQUIRED: 113 OCCUPANTS X 0.2" PER OCCUPANT = 23"
PROVIDED: 38" (0.2" PER OCCUPANT = 190 OCCUPANT CAPACITY)

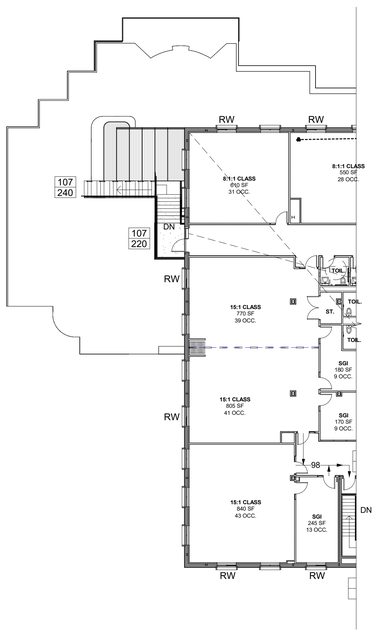
NORTH WING BUILDING PLUMBING FIXTURE COUNT								
TYPE	REQ. FIXTURES			PROVIDED			
	MALE	FEMALE	TOTAL	MALE	FEMALE	UNISEX	TOTAL
TOILETS (T) URINALS (U)	7	7	14	$0_{(T)}$ / $0_{(U)}$	0	14	14
LAVATORIES	7	7	14	0	0	14	14
DRINKING FOUNTIANS	7			7			
SERVICE SINK	1			3			

CALC. BASED ON FULL TIME OCCUPANCY OF ALL ROOM MINUS THE CAFETERIA
(ASSUME WHEN THIS SPACE IS OCCUPIED, OTHER SPACES ARE NOT)

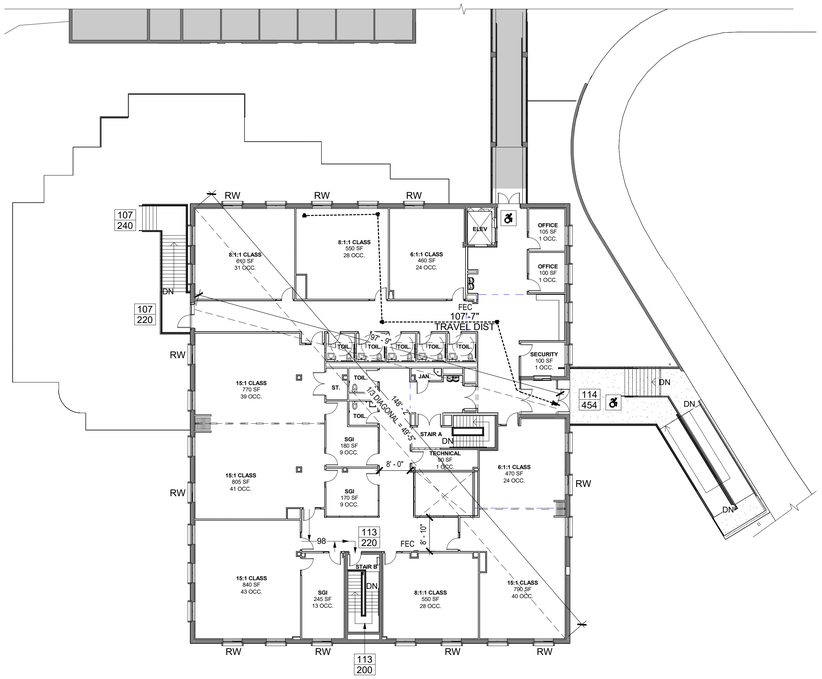
OCCUPANCY = 606 (ASSUME 303 MEN & 303 WOMEN)

1 FIXTURE PER 50 OCCUPANTS, 1 DRINKING FOUNTIAN PER 100 OCCUPANTS, 1 SERVICE SINK

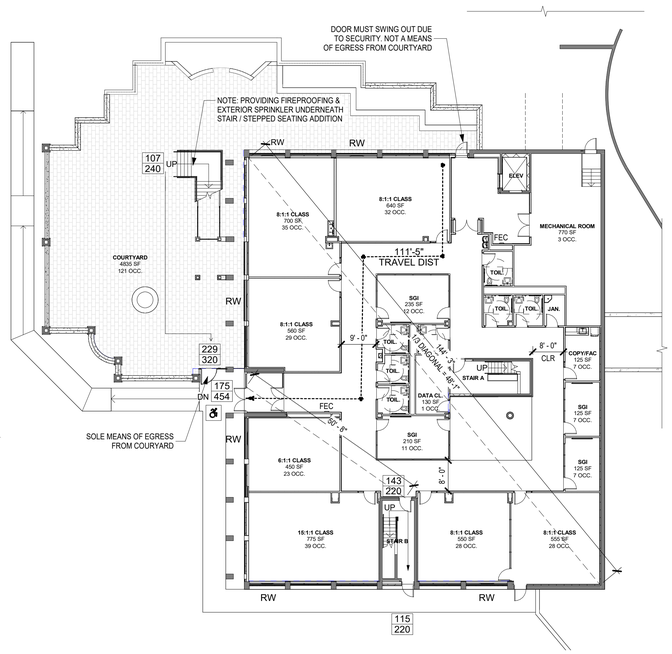
TOTAL RENOVATION OF UPPER & LOWER FLOORS (INTERIOR) = 21,180 SF



3 UPPER LEVEL EGRESS PLAN (ADD ALT)
1/16" = 1'-0"



2 UPPER LEVEL EGRESS PLAN
1/16" = 1'-0"



1 LOWER LEVEL EGRESS PLAN
1/16" = 1'-0"

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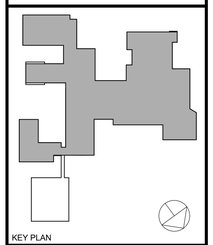
NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

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Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

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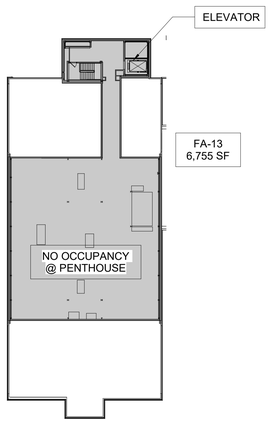
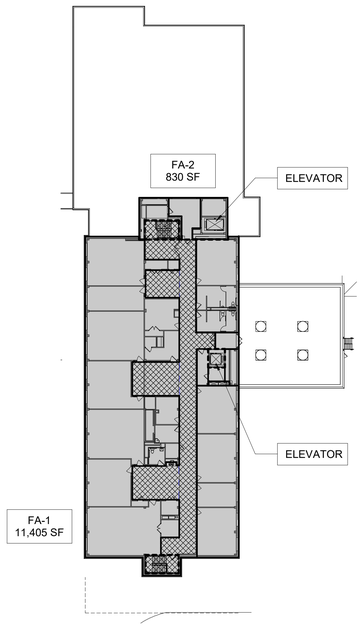
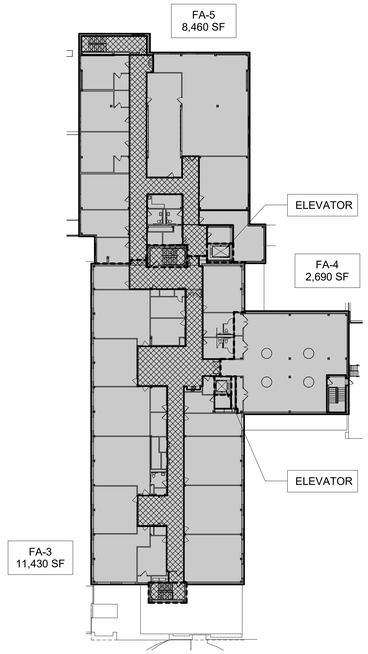


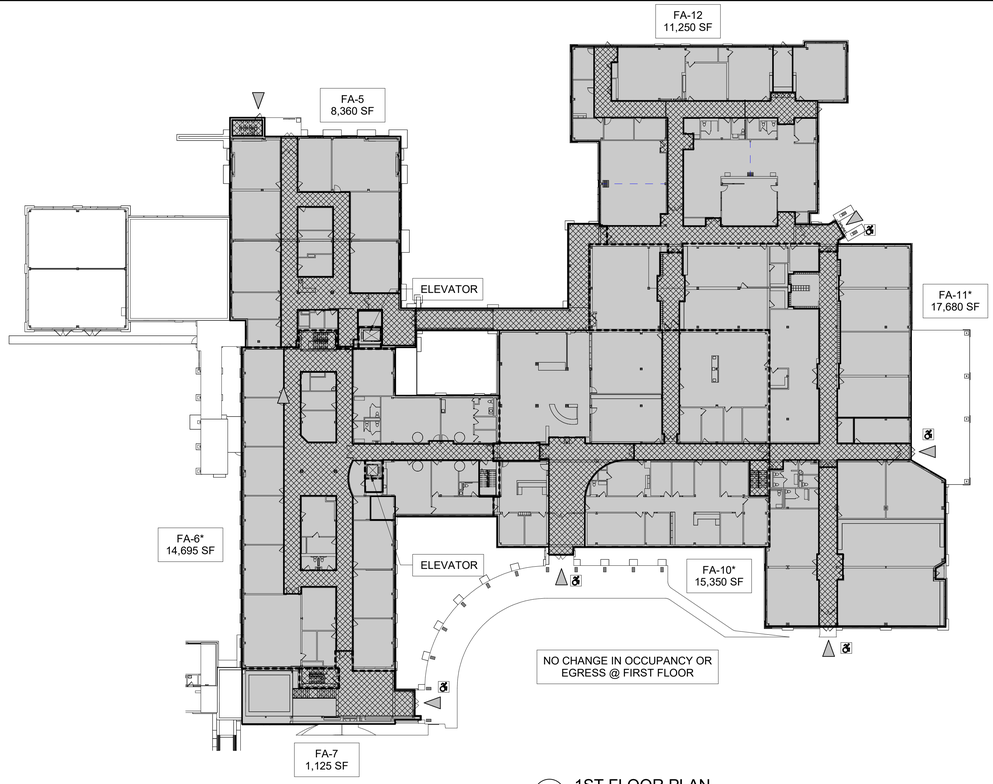
P PENTHOUSE PLAN
1" = 30'-0"



3 3RD FLOOR PLAN
1" = 30'-0"



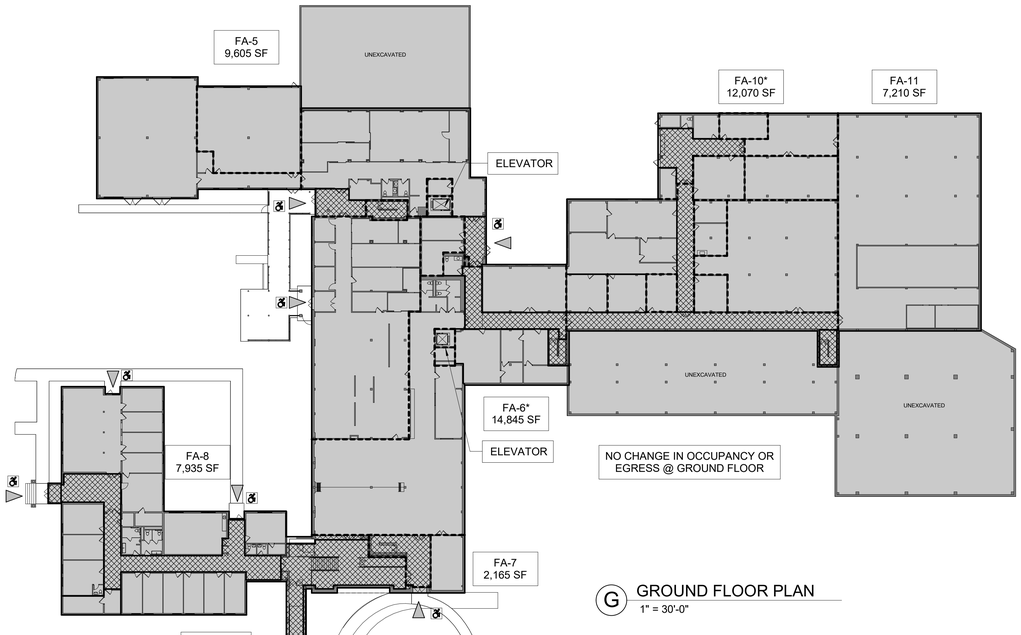
2 2ND FLOOR PLAN
1" = 30'-0"



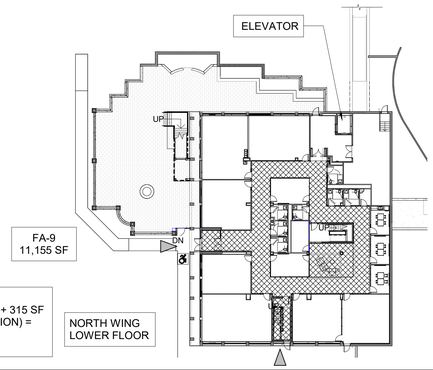
1 1ST FLOOR PLAN
1" = 30'-0"

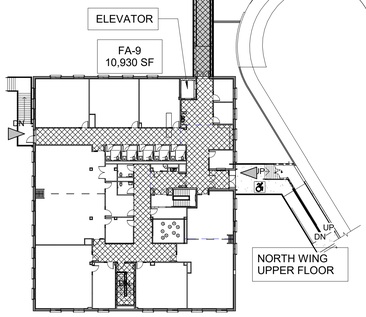
FIRE AREAS	PERMITTED FLR AREA	EXISTING ACTUAL FIRE AREA				
		LOWER	GROUND	1st FLR	2nd FLR	3rd FLR
"1"						11,405 SF
"2"						830 SF
"3"					11,870 SF	
"4"					2,875 SF	
"5"			9,605 SF	8,360 SF	8,750 SF	
"6"	UNLIMITED		14, 845 SF*	14,695 SF*		
"7"			2,165 SF	1,125 SF		
"8"			7,935 SF			
"9"		10,840 SF	10,930 SF			
"10"			12,070 SF*	15,350 SF*		
"11"			7,210 SF	17,680 SF*		
"12"				11,250 SF		
"13"						6,755 SF**
		10,840 SF	64,760 SF	68,460 SF	22,580 SF	18,990 SF**
	TOTAL EXISTING FIRE AREA:					185,630 SF
	NEW CONSTRUCTION FIRE AREA					
"9"		315 SF				315 SF
	TOTAL ADDITIONAL NEW CONSTRUCTION & EXISTING FIRE AREA:					185,945 SF

1B TYPE CONSTRUCTION: NON-COMBUSTIBLE EXTERIOR WALLS 2 HOUR FIRE-RESIST. RATING
* – PRE-EXISTING, NON-CONFORMING
** – PENTHOUSE SF. SHALL BE CONSIDERED AS A PORTION OF THE STORY BELOW PER 2020 BCNYS SECTION 1510.2



G GROUND FLOOR PLAN
1" = 30'-0"





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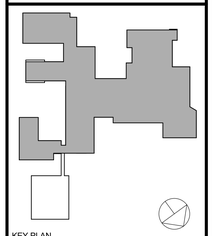
CONSTRUCTION DOCUMENTS

LEGEND

- EXISTING CONSTRUCTION
- 2hr FIRE WALL
- 2hr FIRE BARRIER
- 1hr FIRE BARRIER
- MAX TRAVEL DISTANCE
- 12 OCCUPANT LOAD ON PATH
- X / Y OCCUPANCY LOAD / MAXIMUM CAPACITY
- RW RESCUE WINDOW
- ADA ACCESSIBLE EXIT
- FEC FIRE EXTINGUISHER CABINET
- CORRIDOR



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
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CODE COMPLIANCE

Job No.	Date
2023-1011	04/24/2024
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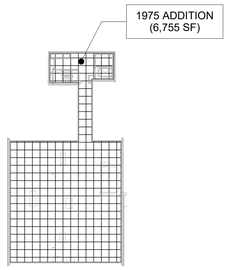
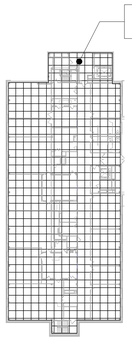
Sheet Number

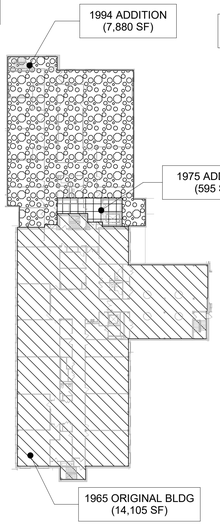
CC-2



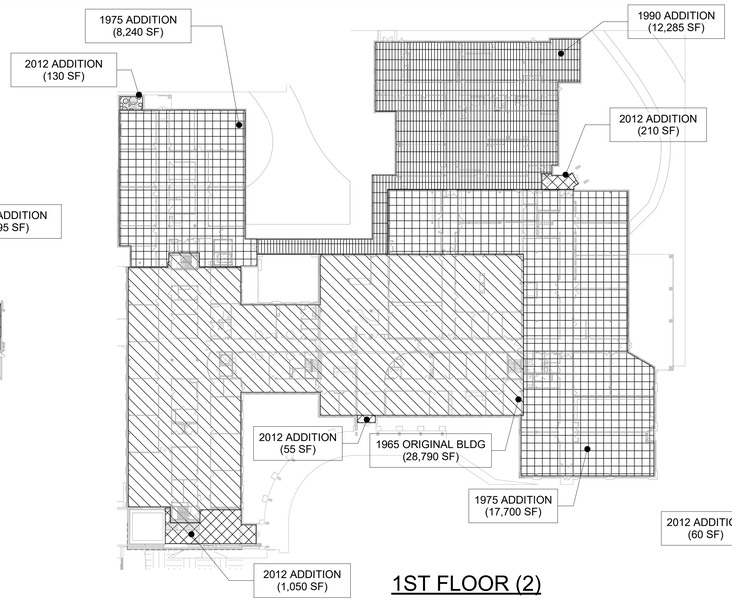
PENTHOUSE (5)



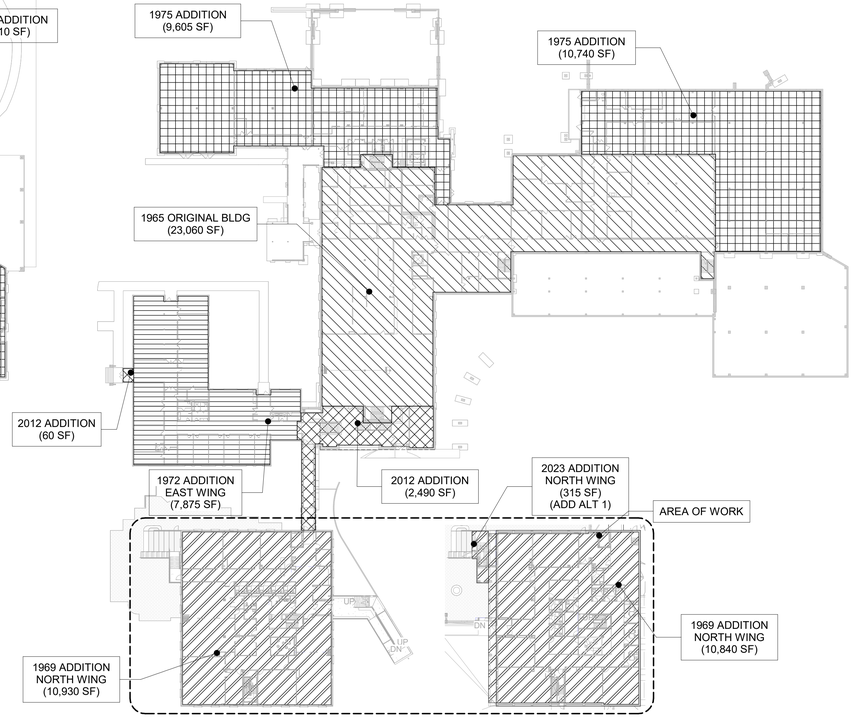
3RD FLOOR (4)



SECOND FLOOR (3)



1ST FLOOR (2)



GROUND FLOOR (1) LOWER LEVEL

CONSTRUCTION TYPE & BUILDING HEIGHT				
CONSTRUCTION TYPE	BUILDING HEIGHT		STORIES	
	PERMITTED	ACTUAL	PERMITTED	ACTUAL
1B	160'-0"	13'-0"	5**	1
		13'-0"		1
		13'-0"		1
		13'-0"		1
		65'-0"		3
		39'-0"		2
		33'-0"		2
		17'-0"		1
		33'-0"		2
		23'-0"		2
		27'-0"		2
		25'-0"		1

1B TYPE CONSTRUCTION: NON-COMBUSTIBLE EXTERIOR WALLS 2 HOUR FIRE-RESIST. RATING
* -- PRE-EXISTING, NON-CONFORMING
** -- FOR OCCUPANCY GROUP "E"
*** -- PENTHOUSE SF. SHALL BE CONSIDERED AS A PORTION OF THE STORY BELOW PER 2020 BCNYS SECTION 1510.2

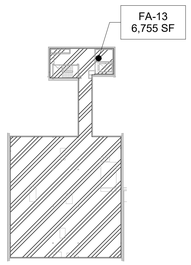
BUILDING INFORMATION	CONSTR. TYPE
1965 ORIGINAL BUILDING	1B
1969 NORTH WING	1B
1972 EAST WING	1B
1975 ADDITION	1B
1990 ADDITION	1B
1994 ADDITION	1B
2012 ADDITION	1B

	PERMITTED	ACTUAL
BUILDING HEIGHT	160'	65'
BUILDING STORIES	5	5
BUILDING AREA	UL	185,945

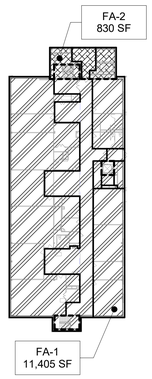
OCCUPANCY CLASSIFICATION - E EDUCATIONAL
FIRE AREAS SEPERATED BY 2 HOUR FIRE RATED WALLS
BUILDING IS PARTIALLY SPRINKLERED

BUILDING INFORMATION FLOOR PLANS

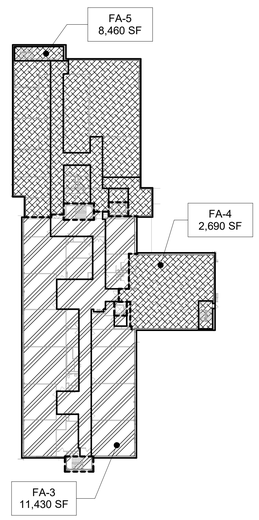
FIRE AREA FLOOR PLANS



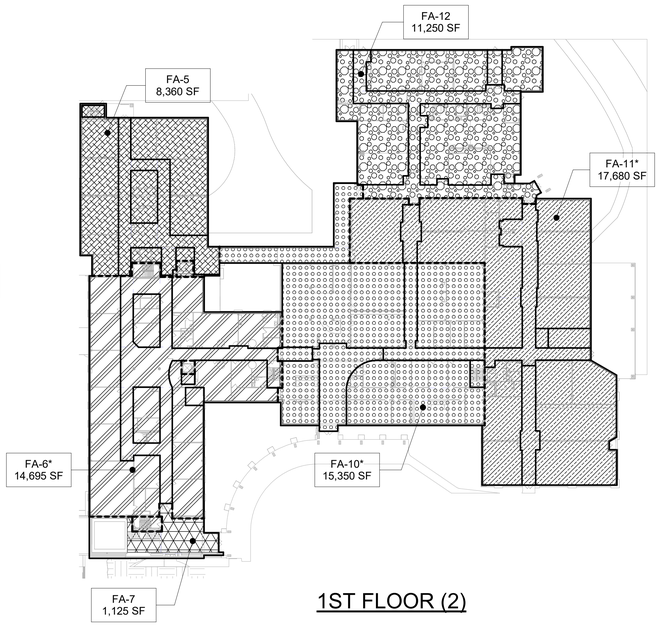
PENTHOUSE (5)



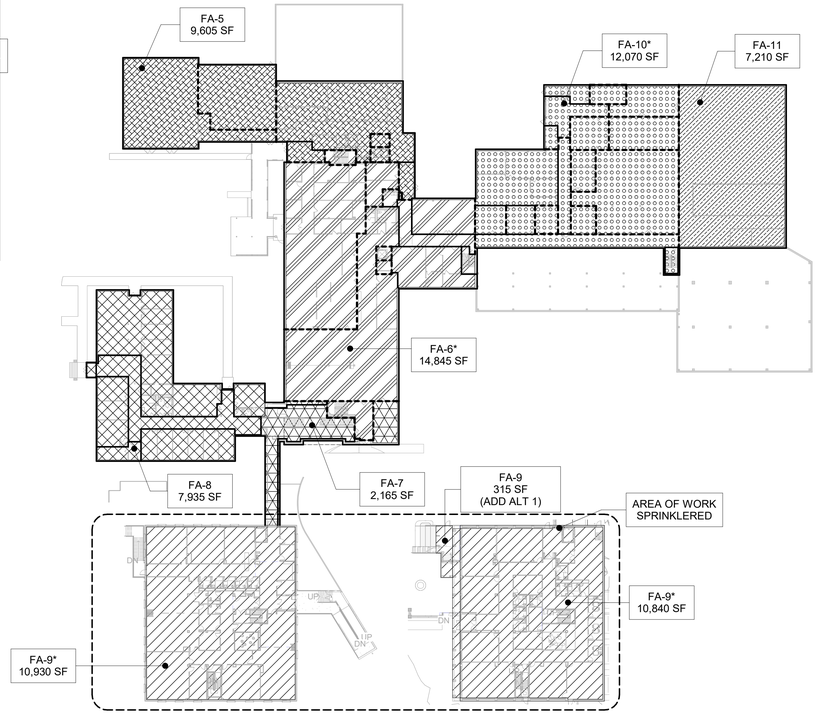
3RD FLOOR (4)



SECOND FLOOR (3)



1ST FLOOR (2)



GROUND FLOOR (1) LOWER LEVEL

* DENOTES AREA WITH SPRINKLER
** DENOTES PRE-EXISTING NON-CONFORMING FIRE AREA

ORANGE-ULSTER BOCES

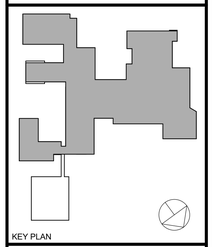
ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

CODE COMPLIANCE BLDG DIAGRAMS

Job No. 2023-1011	Date 04/24/2024
Scale	Drawn / Checked Author Checker

Sheet Number

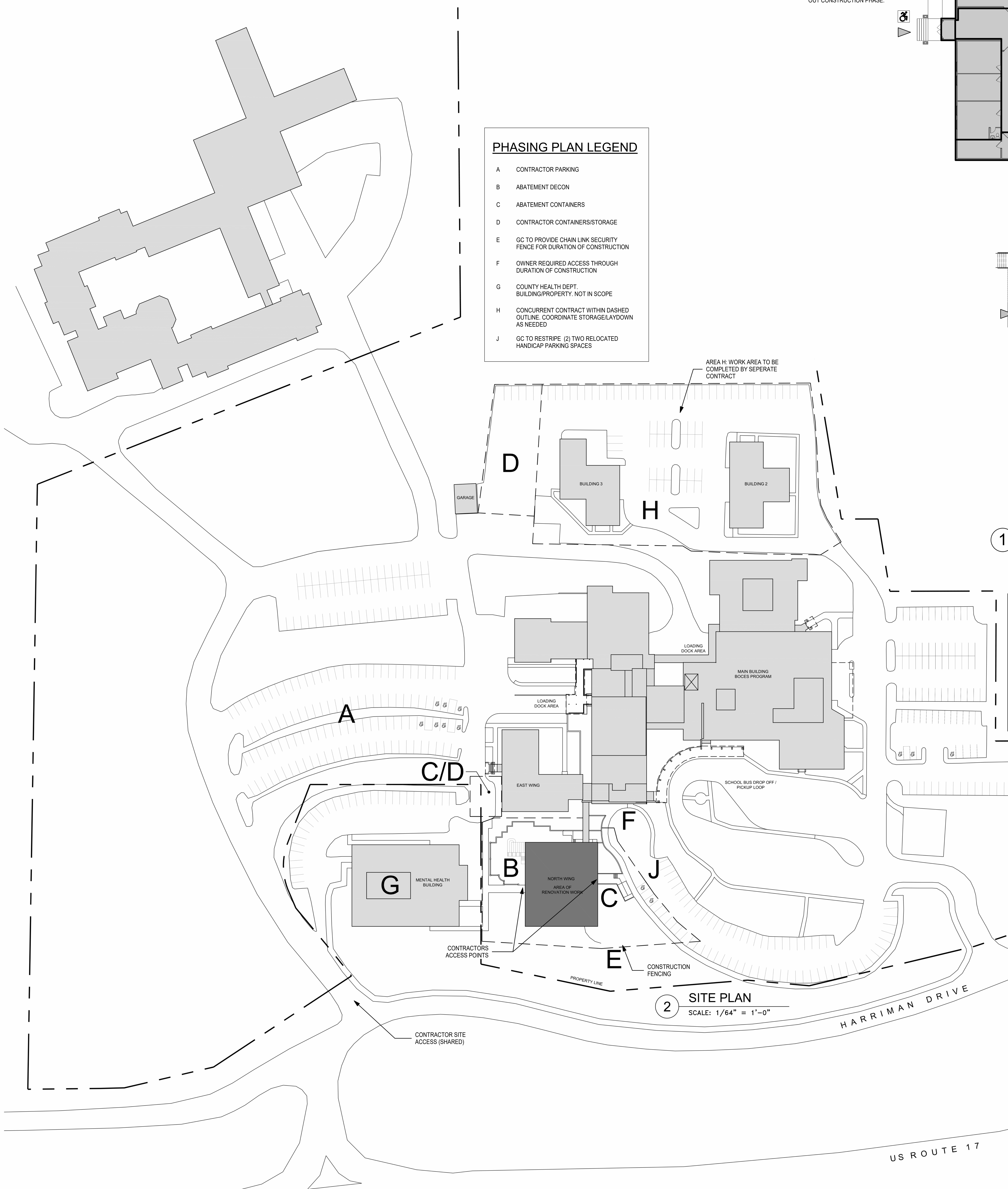
CC-3

CONSTRUCTION IMPLEMENTATION NOTES

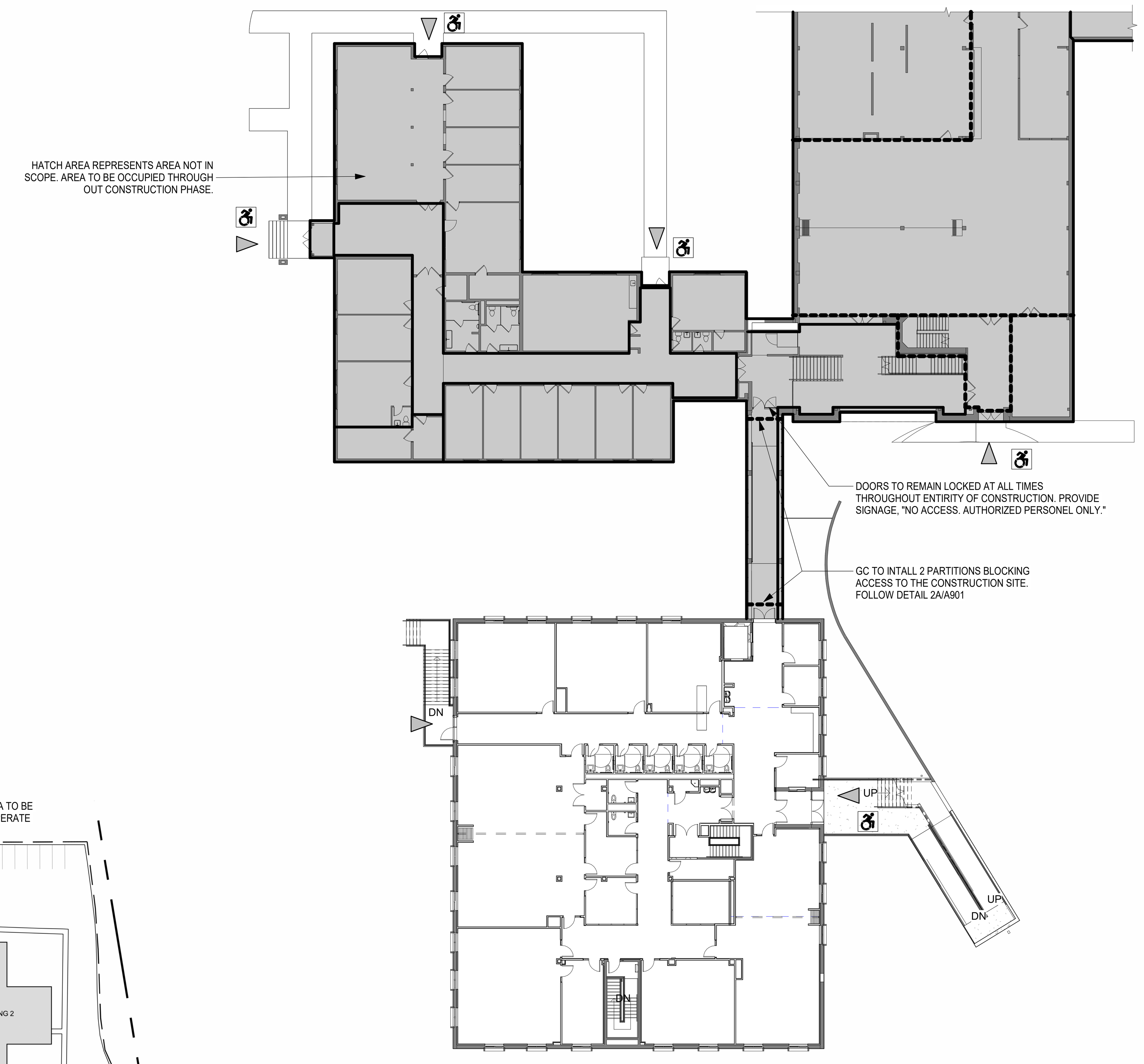
1. FINAL LOCATIONS FOR CONTRACTOR STORAGE CONTAINERS TO BE COORDINATED WITH CONSTRUCTION MANAGER.
2. CONTRACTOR IS RESPONSIBLE TO REPAIR THE ASPHALT, SIDEWALKS, GRADE AND/OR GRASS AFTER REMOVAL OF FENCING, EQUIPMENT, AND MATERIALS. THIS INCLUDES ANY REPAIRS AS A RESULT OF THEIR ACTIVITIES.
3. CONTRACTOR SHALL PROTECT CONCRETE AND ASPHALT SURFACES FROM ANY EQUIPMENT OR MATERIAL DAMAGE BY USING STEEL PLATES. ANY DAMAGE TO HARD SURFACES SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR THAT CAUSED THE DAMAGED. CONTRACTORS ARE TO TAKE PRE-CONSTRUCTION PHOTOS/VIDEOS AND SHARE WITH CM/OWNER.
4. CONTRACTOR IS REQUIRED TO COORDINATE ON SITE FOR THEIR ACTIVITIES ALONG WITH OTHER CONTRACTORS AND THE DISTRICT.
5. CONTRACTOR IS TO PROVIDE AND MAINTAIN PERIODICALLY ALL TEMPORARY CONSTRUCTION SIGNAGE AS SHOWN ON THE LOGISTICS PLANS AND PER OSHA AND LOCAL GOVERNMENT REGULATION. THIS INCLUDES BUT IS NOT LIMITED TO:
   - JOBSITE RULES SIGN (3'-4" X 2'-3") SECURED TO SITE FENCE AT EACH ENTRANCE OF THE STAGING AREA (4 MINIMUM - 1 AT EACH LOCATION)
   - "PERSONAL PROTECTIVE EQUIPMENT REQUIRED" SIGNAGE AT 20' INTERVALS ON ENTIRE PERIMETER OF SITE FENCE.
   - "CONSTRUCTION ZONE WARNING" SIGNAGE AT 20' INTERVALS ON ENTIRE PERIMETER OF SITE FENCE AND AT ANY DOORS/ENTRANCE AREAS.
   - PROJECT CONSTRUCTION DELIVERY SIGNAGE/WAY FINDING AT MAIN ENTRANCE (3'X5')
6. CONTRACTOR WILL BE REQUIRED TO SCHEDULE DELIVERIES WITH THE CONSTRUCTION MANAGER AND THE DISTRICT. THE DISTRICT AND/OR THE CONSTRUCTION MANAGER HOLD THE RIGHT TO REJECT DELIVERIES IF NOT SCHEDULED WITH THE CONSTRUCTION MANAGER OR DISTRICT.
7. MATERIAL WILL NOT BE PERMITTED TO BE STORED OUTSIDE FENCED-IN AREAS OR IN AREAS NOT DESIGNATED BY THE CONSTRUCTION MANAGER.
8. PARKING FOR CONTRACTORS IS NOT PERMITTED ON ANY OF THE STREETS AROUND THE SCHOOL DURING CONSTRUCTION. SEE SITE LOGISTICS FOR PARKING LOCATIONS.
9. CRANE PICKS AND OPERATIONS ARE TO BE SCHEDULED WITH THE CONSTRUCTION MANAGER DURING A KICK-OFF MEETING AND CONFIRMED THROUGH THE PROJECT'S MASTER CONSTRUCTION PROGRESS SCHEDULE.
10. WORKERS ARE REQUIRED TO WEAR ID BADGES, HIGH VISIBILITY VESTS, HARD HATS AND ALL OTHER REQUIRED PPE AT ALL TIMES WHILE ON SITE. WORKERS/PERSONNEL WITHOUT THESE REQUIREMENTS WILL BE REMOVED FROM THE SITE.
11. INTERACTION BETWEEN CONSTRUCTION PERSONNEL AND STAFF/STUDENTS IS NOT PERMITTED. ANY PERSONNEL FOUND INTERACTING (VERBALLY OR PHYSICALLY) WILL BE ESCORTED BY LAW ENFORCEMENT FROM THE SITE. THIS IS A ZERO STRIKE POLICY.
12. PRIME CONTRACTOR FOR GENERAL CONSTRUCTION IS RESPONSIBLE FOR THE PORTABLE TOILETS.
13. GENERAL CONTRACTOR IS RESPONSIBLE FOR PANEL FENCING. FENCING TO BE SIX FOOT MINIMUM WITH JOBSITE RULES CONSTRUCTION SIGNAGE. REQUIRED AROUND ALL MATERIALS, EQUIPMENT AND DUMPSTERS.
14. THE PRIME CONTRACTOR FOR GENERAL CONSTRUCTION WILL BE RESPONSIBLE FOR ALL DUST PARTITIONS TO CONTROL THE SPREAD OF DUST WITHIN THE BUILDING.
15. PRIME CONTRACTOR FOR GENERAL CONSTRUCTION WILL PROVIDE FINAL CLEANING OF ALL SPACES AFFECTED BY CONSTRUCTION ACTIVITIES.
16. ALL PRIME CONTRACTORS ARE RESPONSIBLE FOR CLEANING UP THEIR OWN DEBRIS AT THE END OF EACH DAY AND DISPOSING IN THE DUMPSTERS PROVIDED BY THE PRIME CONTRACTOR FOR GENERAL CONSTRUCTION.
17. GENERAL CONTRACTOR MUST WATER ALL LAWN RESTORATION AREAS UNTIL GRASS HAS FULLY MATURED AND NO BARE SPOTS REMAIN.
18. GENERAL CONTRACTOR FOR PRIME CONSTRUCTION TO PROVIDE SNOW REMOVAL WITHIN THE CONSTRUCTION AS WELL AS MOW GRASS.
19. THE PRIME CONTRACTOR FOR GENERAL CONSTRUCTION IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL INTERIOR AND EXTERIOR PROTECTIONS.
20. ADDITIONAL INTERIOR LOGISTICS SHALL BE PLANNED AND DISCUSSED WITH THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER AND THE DISTRICT PRIOR TO INSTALLATION.

PHASING PLAN LEGEND

A	CONTRACTOR PARKING
B	ABATEMENT DECON
C	ABATEMENT CONTAINERS
D	CONTRACTOR CONTAINERS/STORAGE
E	GC TO PROVIDE CHAIN LINK SECURITY FENCE FOR DURATION OF CONSTRUCTION
F	OWNER REQUIRED ACCESS THROUGH DURATION OF CONSTRUCTION
G	COUNTY HEALTH DEPT. BUILDING/PROPERTY. NOT IN SCOPE
H	CONCURRENT CONTRACT WITHIN DASHED OUTLINE. COORDINATE STORAGE/LAYDOWN AS NEEDED
J	GC TO RESTRIPE (2) TWO RELOCATED HANDICAP PARKING SPACES



2 SITE PLAN
SCALE: 1/64" = 1'-0"



1 ENLARGED NORTH WING CONNECTION
3/64" = 1'-0"

GENERAL PHASING, STAGING, & EGRESS/ACCESS NOTES:

1. STAGING AREAS : GENERAL CONTRACTOR TO PROVIDE TEMPORARY CONSTRUCTION ROAD / LAYDOWN AREAS. ALL AREAS TO BE RESTORED AS REQUIRED
2. TEMPORARY BARRIERS : PROVIDE 1-HOUR RATED HOLLOW METAL DOORS AND FRAME WITH SECURE (LOCKABLE) HARDWARE SET FOR CONTRACTOR ACCESS WITHIN 1-HOUR RATED WALL ASSEMBLY
3. FENCING AT STAGING AREA SHALL BE 6'-0" HIGH MIN. TEMPORARY RENTAL TYPE FENCING SECURED TO GROUND. PROVIDE TWO (2) 3'-0" WIDTH MIN. DOORS FOR CONTRACTOR USE AND ONE (1) 20'-0" WIDTH OPENING FOR TRUCK USE
4. AREAS SHOWN ON PHASING PLANS TO REMAIN CLEAR SHALL REMAIN FULLY CLEAR OF ANY DEBRIS, MATERIALS, EQUIPMENT, ETC. CONTRACTOR(S) SHALL COORDINATE WITH DISTRICT FOR USE OF ELEVATORS AND LOADING DOCK AREA
5. PROVIDE TEMPORARY PROTECTION OF FLOORING, WALLS, STAIRS, FINISHES, EQUIPMENT SIDEWALKS, ROADS, LANDSCAPING, ETC. ALONG AREAS OF ENTRY/EXIT TO WORK AREA. PATCH AND REPAIR WITH MATCHING MATERIALS/FINISHES AS REQUIRED

JOBSITE RULES SIGN DETAIL

2'-3" × 3'-4"

ATTENTION!

AUTHORIZED PERSONNEL ONLY
SAFETY STARTS HERE

Jobsite Requirements:

- All visitors must check in at the project office where identification badges will be issued.
- All accidents must be reported to project managers immediately.
- Material Safety Data Sheets are required for all materials brought onto the jobsite.

Jobsite Rules:

- Possessing and/or working under the influence of drugs and/or alcohol is prohibited.
- No firearms or weapons of any kind are permitted on site.
- Hard hats must be worn at all times.
- Protective eye wear is required.
- No smoking.
- No loitering.
- ALL trade persons must wear shirts with sleeves, long pants, and proper footware.

ANY PERSONS FOUND IN VIOLATION OF THESE REQUIREMENTS WILL BE REMOVED FROM THE JOBSITE AT THE DISCRETION OF THE PROJECT MANAGER

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

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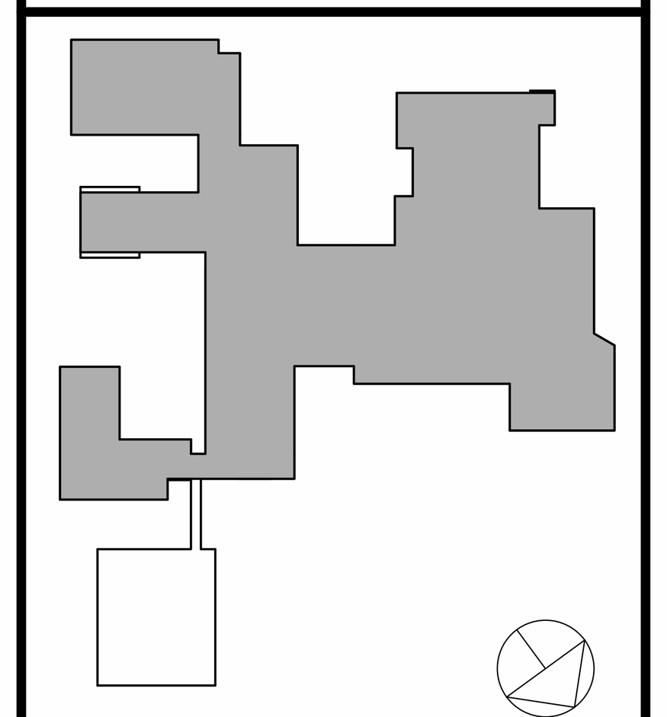

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

CAMPUS SITE PLAN

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

PH-1

ASBESTOS ABATEMENT NOTES

1. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF FRIABLE ACM CONTAINING SPRAY ON FIRE-PROOFING ON COLUMNS, DECKING THROUGHOUT THE WORK AREA.
2. ASBESTOS ABATEMENT CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS CONTAINING MUDDED JOINT PIPE (MJP) THERMAL SYSTEMS INSULATION LOCATED THROUGHOUT.
3. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF NON FRIABLE ACM POSITIVE 12X12 FLOOR TILE AND MASTIC AT LOCATIONS INDICATED ON THE PLANS.
4. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF ACM POSITIVE WATER PROOFING/DAMP PROOFING TAR LOCATED ON EXTERIOR CONCRETE AND/OR MASONRY BLOCK WALLS WHERE PENETRATIONS REQUIRE ABATEMENT.
5. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF ACM POSITIVE RESIDUAL CARPET MASTIC ON THE FIRST FLOOR AND CARPET MASTIC AND GLUE AT LOCATIONS INDICATED ON THE PLANS.
6. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL OF ACM PIN MASTIC ON DUCTWORK THROUGHOUT THE WORK AREA.

ASBESTOS ABATEMENT NOTES

GENERAL NOTE: THE ENTIRE BUILDING IS CONSIDERED CONTAMINATED BY ACM SRAY ON FIRE PROOFING (SOFP). THE SOFP IS DETERIORATED AND WAS FOUND WITHIN THE NON-ACM SHEETROCK WALL CAVITIES. IN ADDITION TO THE SOFP THERE'S ACM MUDDED JOINTS, PIPE INSULATION, ACM DUCT INSULATION PIN MASTIC, THE ENTIRE LOWER LEVEL HAS HAD ALL OF THE CARPET REMOVED LEAVING BEHIND THE RESIDUAL MASTIC. THERE IS ALSO POSITIVE 1X1 FLOOR TILE WITH POSITIVE MASTIC IN THE REMAINDER OF THE LOWER LEVEL. THE UPPER LEVEL HAS THE SAME CONDITIONS. THE EXTERIOR PERIMETER WALLS THOUGH OUT THE ENTIRE NORTH WING HAVE A POSITIVE TAR COATING THAT WILL NOT BE DISTURBED. THE ENTIRE ROOFING SYSTEM IS POSITIVE AND WILL BE REMOVED AS ACM.

1) ARDEN HILL–BUILDING – NORTH WING LOWER LEVEL

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 400SF NON-FRIABLE ASBESTOS-CONTAINING FLOOR TILE ON ACM MASTIC TO THE SUBSTRATE. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR ABATEMENT TO PERFORM REMOVALS UTILIZING MANUAL, WET METHODS TO ENSURE TOTAL AND COMPLETE REMOVAL EXISTING FLOOR TILE SYSTEMS, INCLUDING ALL ASSOCIATED LAYERS, FILLERS, WOOD ETC. TO BUILDING SUBSTRATE(S). SUBSEQUENT TO FINAL AIR CLEARANCES, THE SUBSTRATE(S) SHALL BE WASHED WITH A NEUTRALIZING AGENT TO PREPARE THE SUBSTRATE TO ACCEPT NEW COVERINGS/FINISH AS WELL AS ELIMINATE RESIDUAL ODORS.

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 7,000SF NON-FRIABLE ASBESTOS-CONTAINING RESIDUAL CARPET MASTIC TO THE SUBSTRATE. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR ABATEMENT TO PERFORM REMOVALS UTILIZING MANUAL, WET METHODS TO ENSURE TOTAL AND COMPLETE REMOVAL EXISTING FLOOR TILE SYSTEMS, INCLUDING ALL ASSOCIATED LAYERS, FILLERS, WOOD ETC. TO BUILDING SUBSTRATE(S). SUBSEQUENT TO FINAL AIR CLEARANCES, THE SUBSTRATE(S) SHALL BE WASHED WITH A NEUTRALIZING AGENT TO PREPARE THE SUBSTRATE TO ACCEPT NEW COVERINGS/FINISH AS WELL AS ELIMINATE RESIDUAL ODORS.

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 14,000SF OF CONTAMINATED SUSPENDED CEILING TILE AND/OR SHEETROCK CEILING, ALL PIPE INSULATION, ALL HVAC DUCT WORK INSULATION ALONG WITH THE POSITIVE PIN MASTIC, ALL INTERNAL SHEETROCK WALLS, ANY CINDER BLOCK WALLS SCHEDULED TO BE DEMOLISHED AS PART OF THIS PROJECT AS SOFP HAS BEEN FOUND WITHIN THE CAVITIES. THE ABATEMENT CONTRACTOR WILL BE REQUIRED TO COMPLETE ALL DEMOLITION UNDER THE REGULATIONS OF ICR-56

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY HVAC DUCT WORK INSULATION ALONG WITH THE POSITIVE PIN MASTIC, ALL INTERNAL SHEETROCK WALLS, ANY CINDER BLOCK WALLS SCHEDULED TO BE DEMOLISHED AS PART OF THIS PROJECT AS SOFP HAS BEEN FOUND WITHIN THE CAVITIES. THE ABATEMENT CONTRACTOR WILL BE REQUIRED TO COMPLETE ALL DEMOLITION UNDER THE REGULATIONS OF ICR-56

2) ARDEN HILL–BUILDING – NORTH WING UPPER LEVEL

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 1,400SF NON-FRIABLE ASBESTOS-CONTAINING FLOOR TILE ON ACM MASTIC TO THE SUBSTRATE. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR ABATEMENT TO PERFORM REMOVALS UTILIZING MANUAL, WET METHODS TO ENSURE TOTAL AND COMPLETE REMOVAL EXISTING FLOOR TILE SYSTEMS, INCLUDING ALL ASSOCIATED LAYERS, FILLERS, WOOD ETC. TO BUILDING SUBSTRATE(S). SUBSEQUENT TO FINAL AIR CLEARANCES, THE SUBSTRATE(S) SHALL BE WASHED WITH A NEUTRALIZING AGENT TO PREPARE THE SUBSTRATE TO ACCEPT NEW COVERINGS/FINISH AS WELL AS ELIMINATE RESIDUAL ODORS.

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 100SF CARPET WITH NON-FRIABLE ASBESTOS-CONTAINING CARPET MASTIC TO THE SUBSTRATE. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR ABATEMENT TO PERFORM REMOVALS UTILIZING MANUAL, WET METHODS TO ENSURE TOTAL AND COMPLETE REMOVAL EXISTING FLOOR TILE SYSTEMS, INCLUDING ALL ASSOCIATED LAYERS, FILLERS, WOOD ETC. TO BUILDING SUBSTRATE(S). SUBSEQUENT TO FINAL AIR CLEARANCES, THE SUBSTRATE(S) SHALL BE WASHED WITH A NEUTRALIZING AGENT TO PREPARE THE SUBSTRATE TO ACCEPT NEW COVERINGS/FINISH AS WELL AS ELIMINATE RESIDUAL ODORS.

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ASBESTOS ABATEMENT LEGEND

- REMOVE AND DISPOSE ACM PERIMETER INSIDE MASONRY OR CONCRETE WALL DAMP PROOFING TAR. SPOT REMOVAL LOCATIONS TO BE DETERMINED.
- SUSPENDED CEILING IN HALLWAYS AND CENTRAL ROOMS, GRID TO BE REMOVED AND UNDER CONTAINMENT TO ADDRESS ANY ACM DEBRIS ON TILES.
- SHEETROCK CEILING IN PERIMETER ROOMS TO BE REMOVED.
- REMOVE AND DISPOSE OF ACM POSITIVE CARPET AND CARPET MASTIC
- REMOVE AND DISPOSE OF ACM POSITIVE FIRE RATED DOOR AND FRAME AT STAIRWELL.
- REMOVE AND DISPOSE OF ACM POSITIVE 12" X12" FLOOR TILES AND MASTIC.

REFER TO SELECTIVE DEMOLITION DRAWING SERIES. RESPECT BOUNDARY LINES BETWEEN DEMOLITION / PHASING AREAS AND WORK AND NON-WORK AREAS. PROTECT AREAS THAT ARE EXPOSED TO THE WEATHER.

ASBESTOS SCOPE OF WORK

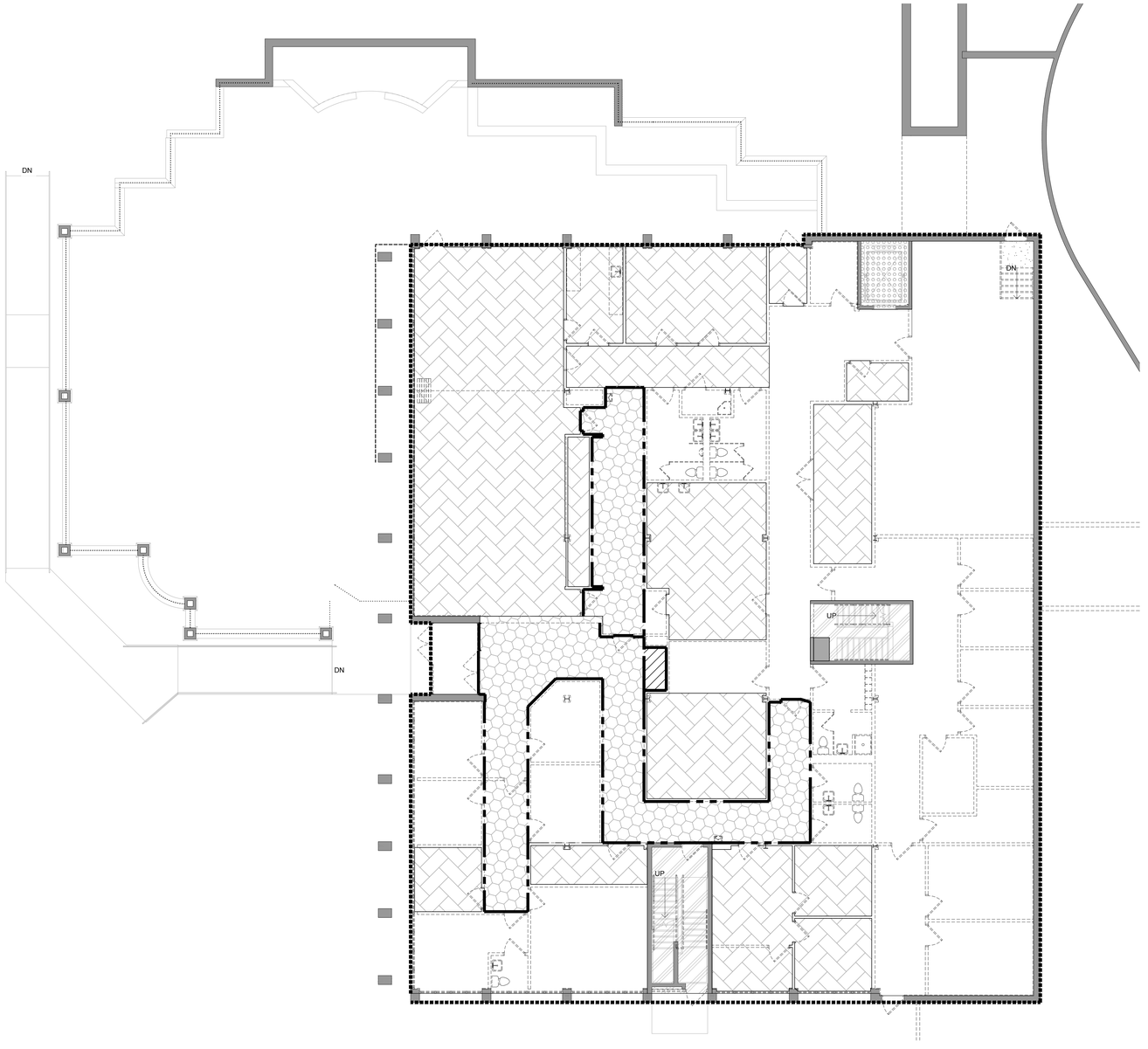
THE ABATEMENT CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

1. REMOVING EVERYTHING FROM WITHIN THE INTERIOR OF THE BUILDING. ALL INTERIOR STUDDED AND FURRING WALLS, PORTIONS OF INTERIOR CMU WALLS (SEE ARCHITECTURAL DRAWINGS FOR WALLS TO REMAIN), CEILINGS, SPRAY ON FIREPROOFING, PERSONAL CONTENT, FIXTURES, FURNISHINGS, WALL FINISHES, ELEVATOR ASSEMBLY, CARPETS, FLOOR TILE AND MASTIC (ALL FLOORS ARE TO BE GRINDED DOWN TO SUBSTRATE LEAVING NO FLOOR FILLER OR CERAMIC TILE). REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION

2. REMOVAL OF EXTERIOR ROOF ASSEMBLY, EXTERIOR PLASTER SOFFITS, EXTERIOR DOORS AND WINDOWS

3. REMOVAL OF ALL PLUMBING FIXTURES, PIPING, INSULATION AS PER THE PLUMBING DEMO DRAWINGS. HVAC/MECHANICAL EQUIPMENT, DUCT WORK, FAN UNITS, ETC., INCLUDING ALL ROOF TOP EQUIPMENT, PROPER EVACUATION OF FREON OR COOLANT AS PER THE DEMO DRAWINGS. ALL ELECTRICAL COMPONENTS INCLUDING ALL LIGHT FIXTURES, IT WIRES, ELECTRICAL WIRING, HANGERS, APART FROM THE MAIN ELECTRICAL PANELS AS PER THE ELECTRICAL DEMO DRAWINGS. ABATEMENT CONTRACTOR WILL BE REQUIRED TO SUPPLY AT MINIMUM AN ALLIED TRADES TRAINED ELECTRICIAN (APPROVED BY THE DISTRICT CONSULTANT AND ONSITE PROJECT MONITOR) TO DISCONNECT ALL ELECTRICAL WIRING DURING PREP FROM THE MAIN PANELS AND TO CONNECT ABATEMENT CONTRACTOR SUPPLIED PANELS THAT WILL BE LOCATED OUTSIDE OF THE BUILDING OR ABATEMENT WORK AREA.

REFER TO DRAWINGS FP101, P101, P102, M101, M102, E101, E102 FOR DRAWINGS SHOWING PLUMBING, FIRE PROTECTION, MECHANICAL AND ELECTRICAL REMOVALS



1 NORTH WING LOWER LEVEL ABATEMENT PLAN
1/8" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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285 MAIN STREET MOUNT KISCO , NEW YORK , 10549
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QuES&T Quality Environmental Solutions & Technologies, Inc.
1376 ROUTE 9 WAPPINGERS FALLS, NY 12590
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NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

NORTH WING LOWER LEVEL ABATEMENT PLAN

Job No.	Date
2023-1011	08/25/2023
Scale	Drawn / Checked
	AM/LG

Sheet Number

HZ101

ASBESTOS ABATEMENT NOTES

1. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF FRIABLE ACM CONTAINING SPRAY ON FIRE-PROOFING ON COLUMNS, DECKING THROUGHOUT THE WORK AREA.
2. ASBESTOS ABATEMENT CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS CONTAINING MUDDED JOINT PIPE (MJP) THERMAL SYSTEMS INSULATION LOCATED THROUGHOUT.
3. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF ACM POSITIVE WATER PROOFING/DAMP PROOFING TAR LOCATED ON EXTERIOR CONCRETE AND/OR MASONRY BLOCK WALLS WHERE PENETRATIONS REQUIRE ABATEMENT.
4. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF ACM POSITIVE RESIDUAL CARPET MASTIC ON THE FIRST FLOOR AND CARPET MASTIC AND GLUE AT LOCATIONS INDICATED ON THE PLANS.

ASBESTOS ABATEMENT NOTES

GENERAL NOTE: THE ENTIRE BUILDING IS CONSIDERED CONTAMINATED BY ACM SRAY ON FIRE PROOFING (SOFP). THE SOFP IS DETERIORATED AND WAS FOUND WITHIN THE NON-ACM SHEETROCK WALL CAVITIES. IN ADDITION TO THE SOFP THERE'S ACM MUDDED JOINTS, PIPE INSULATION, ACM DUCT INSULATION PIN MASTIC, THE ENTIRE LOWER LEVEL HAS HAD ALL OF THE CARPET REMOVED LEAVING BEHIND THE RESIDUAL MASTIC. THERE IS ALSO POSITIVE 1X1 FLOOR TILE WITH POSITIVE MASTIC IN THE REMAINDER OF THE LOWER LEVEL. THE UPPER LEVEL HAS THE SAME CONDITIONS. THE EXTERIOR PERIMETER WALLS THOUGH OUT THE ENTIRE NORTH WING HAVE A POSITIVE TAR COATING THAT WILL NOT BE DISTURBED. THE ENTIRE ROOFING SYSTEM IS POSITIVE AND WILL BE REMOVED AS ACM.

1) ARDEN HILL–BUILDING – NORTH WING UPPER LEVEL

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 1,400SF NON-FRIABLE ASBESTOS-CONTAINING FLOOR TILE ON ACM MASTIC TO THE SUBSTRATE. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR ABATEMENT TO PERFORM REMOVALS UTILIZING MANUAL, WET METHODS TO ENSURE TOTAL AND COMPLETE REMOVAL EXISTING FLOOR TILE SYSTEMS, INCLUDING ALL ASSOCIATED LAYERS, FILLERS, WOOD ETC. TO BUILDING SUBSTRATE(S). SUBSEQUENT TO FINAL AIR CLEARANCES, THE SUBSTRATE(S) SHALL BE WASHED WITH A NEUTRALIZING AGENT TO PREPARE THE SUBSTRATE TO ACCEPT NEW COVERINGS/FINISH AS WELL AS ELIMINATE RESIDUAL ODORS.

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 100SF CARPET WITH NON-FRIABLE ASBESTOS-CONTAINING CARPET MASTIC TO THE SUBSTRATE. ASBESTOS CONTRACTOR IS RESPONSIBLE FOR ABATEMENT TO PERFORM REMOVALS UTILIZING MANUAL, WET METHODS TO ENSURE TOTAL AND COMPLETE REMOVAL EXISTING FLOOR TILE SYSTEMS, INCLUDING ALL ASSOCIATED LAYERS, FILLERS, WOOD ETC. TO BUILDING SUBSTRATE(S). SUBSEQUENT TO FINAL AIR CLEARANCES, THE SUBSTRATE(S) SHALL BE WASHED WITH A NEUTRALIZING AGENT TO PREPARE THE SUBSTRATE TO ACCEPT NEW COVERINGS/FINISH AS WELL AS ELIMINATE RESIDUAL ODORS.

ASBESTOS CONTRACTOR RESPONSIBLE FOR TOTAL AND COMPLETE REMOVAL AND DISPOSAL OF APPROXIMATELY 14,000SF OF CONTAMINATED SUSPENDED CEILING TILE AND/OR SHEETROCK CEILING, ALL PIPE INSULATION, ALL HVAC DUCT WORK INSULATION ALONG WITH THE POSITIVE PIN MASTIC, ALL INTERNAL SHEETROCK WALLS, ANY CINDER BLOCK WALLS SCHEDULED TO BE DEMOLISHED AS PART OF THIS PROJECT AS SOFP HAS BEEN FOUND WITHIN THE CAVITIES. THE ABATEMENT CONTRACTOR WILL BE REQUIRED TO COMPLETE ALL DEMOLITION UNDER THE REGULATIONS OF ICR-56

ASBESTOS ABATEMENT LEGEND

REMOVE AND DISPOSE ACM PERIMETER INSIDE MASONRY OR CONCRETE WALL DAMP PROOFING TAR. SPOT REMOVAL LOCATIONS TO BE DETERMINED.

SUSPENDED CEILING IN HALLWAYS AND CENTRAL ROOMS GRID TO BE REMOVED UNDER CONTAINMENT TO ADDRESS ANY ACM DEBRIS ON TILES.

SHEETROCK CEILING IN PERIMETER ROOMS TO BE REMOVED.

REFER TO SELECTIVE DEMOLITION DRAWING SERIES. RESPECT BOUNDARY LINES BETWEEN DEMOLITION / PHASING AREAS AND WORK AND NON-WORK AREAS. PROTECT AREAS THAT ARE EXPOSED TO THE WEATHER.

ASBESTOS SCOPE OF WORK

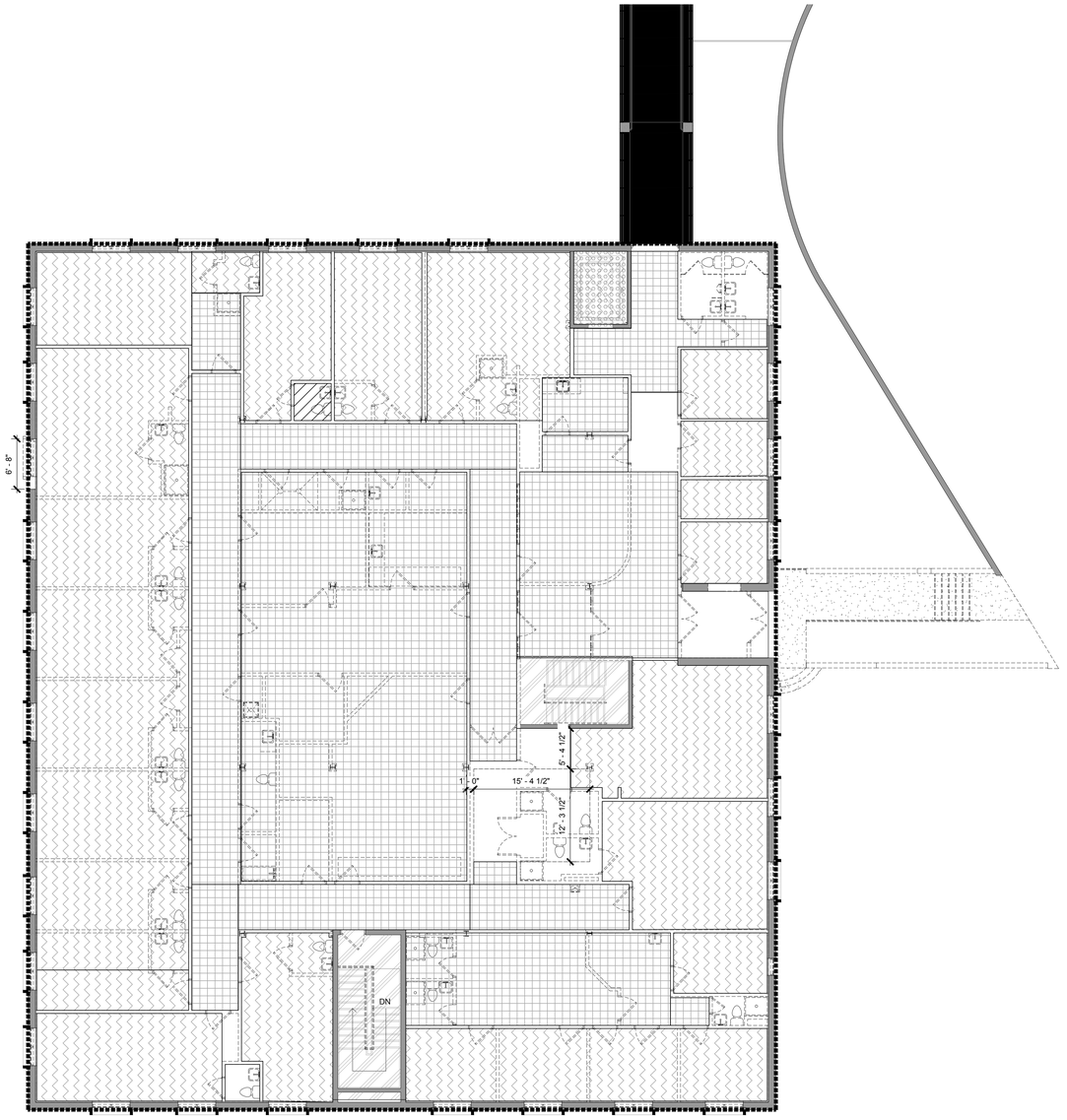
THE ABATEMENT CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

1. REMOVING EVERYTHING FROM WITHIN THE INTERIOR OF THE BUILDING. ALL INTERIOR STUDDED AND FURRING WALLS, PORTIONS OF INTERIOR CMU WALLS (SEE ARCHITECTURAL DRAWINGS FOR WALLS TO REMAIN), CEILINGS, SPRAY ON FIREPROOFING, PERSONAL CONTENT, FIXTURES, FURNISHINGS, WALL FINISHES, ELEVATOR ASSEMBLY, CARPETS, FLOOR TILE AND MASTIC (ALL FLOORS ARE TO BE GRINDED DOWN TO SUBSTRATE LEAVING NO FLOOR FILLER OR CERAMIC TILE). REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION

2. REMOVAL OF EXTERIOR ROOF ASSEMBLY, EXTERIOR PLASTER SOFFITS, EXTERIOR DOORS AND WINDOWS

3. REMOVAL OF ALL PLUMBING FIXTURES, PIPING, INSULATION AS PER THE PLUMBING DEMO DRAWINGS. HVAC/MECHANICAL EQUIPMENT, DUCT WORK, FAN UNITS, ETC., INCLUDING ALL ROOF TOP EQUIPMENT, PROPER EVACUATION OF FREON OR COOLANT AS PER THE DEMO DRAWINGS. ALL ELECTRICAL COMPONENTS INCLUDING ALL LIGHT FIXTURES, IT WIRES, ELECTRICAL WIRING, HANGERS, APART FROM THE MAIN ELECTRICAL PANELS AS PER THE ELECTRICAL DEMO DRAWINGS. ABATEMENT CONTRACTOR WILL BE REQUIRED TO SUPPLY AT MINIMUM AN ALLIED TRADES TRAINED ELECTRICIAN (APPROVED BY THE DISTRICT CONSULTANT AND ONSITE PROJECT MONITOR) TO DISCONNECT ALL ELECTRICAL WIRING DURING PREP FROM THE MAIN PANELS AND TO CONNECT ABATEMENT CONTRACTOR SUPPLIED PANELS THAT WILL BE LOCATED OUTSIDE OF THE BUILDING OR ABATEMENT WORK AREA.

REFER TO DRAWINGS FP101, P101, P102, M101, M102, E101, E102 FOR DRAWINGS SHOWING PLUMBING, FIRE PROTECTION, MECHANICAL AND ELECTRICAL REMOVALS



1 NORTH WING UPPER LEVEL ABATEMENT PLAN
1/8" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

QuES&T Quality Environmental Solutions & Technologies, Inc.
1376 ROUTE 9 WAPPINGERS FALLS, NY 12590
P:914.666.5900

NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

NORTH WING UPPER LEVEL ABATEMENT PLAN

Job No.	Date
2023-1011	08/25/2023
Scale: AS NOTED	Drawn / Checked: AM/LG

Sheet Number

HZ102

ASBESTOS SCOPE OF WORK

THE ABATEMENT CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

1. REMOVING EVERYTHING FROM WITHIN THE INTERIOR OF THE BUILDING. ALL INTERIOR STUDDED AND FURRING WALLS, PORTIONS OF INTERIOR CMU WALLS (SEE ARCHITECTURAL DRAWINGS FOR WALLS TO REMAIN), CEILINGS, SPRAY ON FIREPROOFING, PERSONAL CONTENT, FIXTURES, FURNISHINGS, WALL FINISHES, ELEVATOR ASSEMBLY, CARPETS, FLOOR TILE AND MASTIC (ALL FLOORS ARE TO BE GRINDED DOWN TO SUBSTRATE LEAVING NO FLOOR FILLER OR CERAMIC TILE). REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION

2. REMOVAL OF EXTERIOR ROOF ASSEMBLY, EXTERIOR PLASTER SOFFITS, EXTERIOR DOORS AND WINDOWS

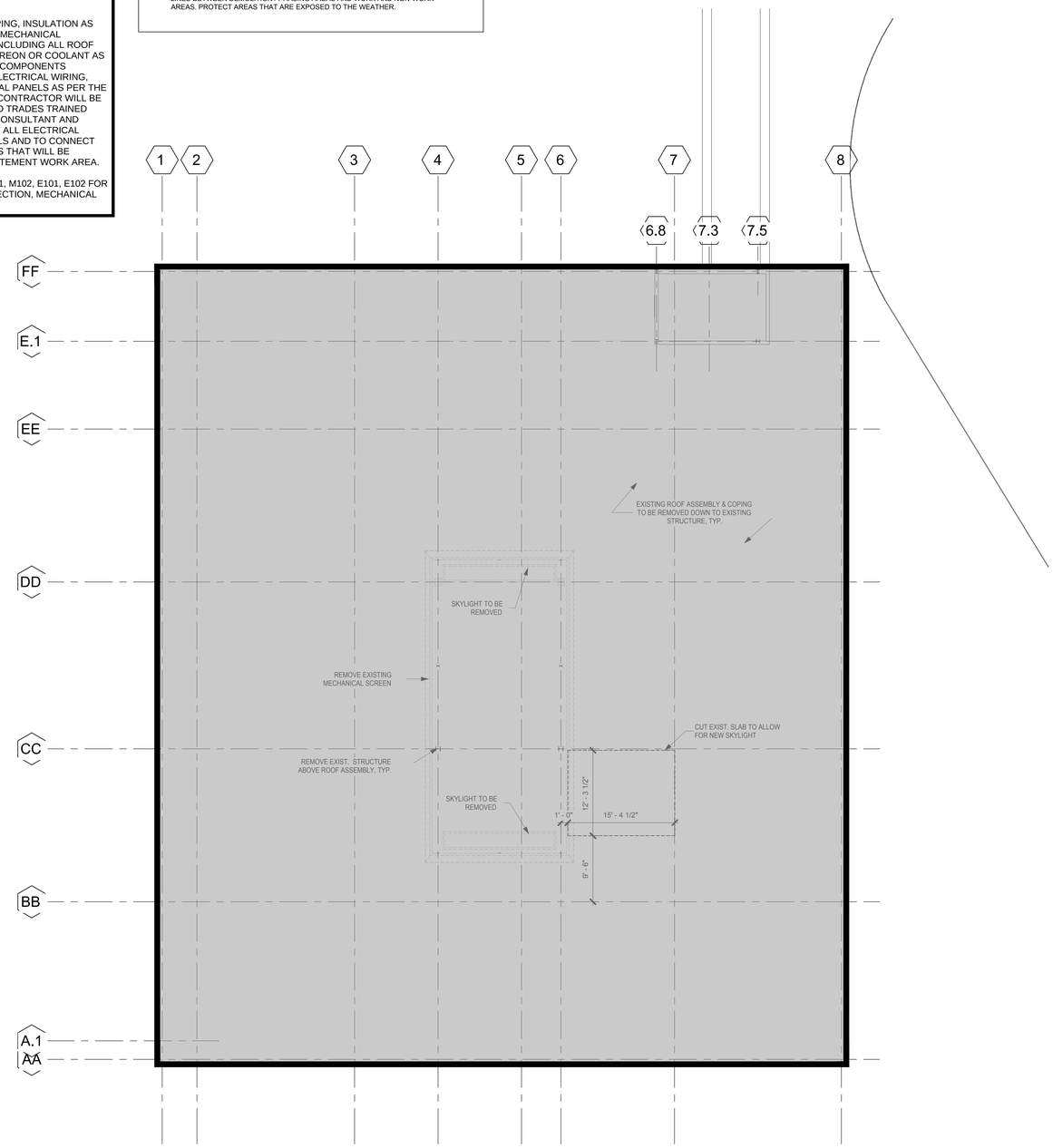
3. REMOVAL OF ALL PLUMBING FIXTURES, PIPING, INSULATION AS PER THE PLUMBING DEMO DRAWINGS. HVAC/MECHANICAL EQUIPMENT, DUCT WORK, FAN UNITS, ETC., INCLUDING ALL ROOF TOP EQUIPMENT, PROPER EVACUATION OF FREON OR COOLANT AS PER THE DEMO DRAWINGS. ALL ELECTRICAL COMPONENTS INCLUDING ALL LIGHT FIXTURES, IT WIRES, ELECTRICAL WIRING, HANGERS, APART FROM THE MAIN ELECTRICAL PANELS AS PER THE ELECTRICAL DEMO DRAWINGS. ABATEMENT CONTRACTOR WILL BE REQUIRED TO SUPPLY AT MINIMUM AN ALLIED TRADES TRAINED ELECTRICIAN (APPROVED BY THE DISTRICT CONSULTANT AND ONSITE PROJECT MONITOR) TO DISCONNECT ALL ELECTRICAL WIRING DURING PREP FROM THE MAIN PANELS AND TO CONNECT ABATEMENT CONTRACTOR SUPPLIED PANELS THAT WILL BE LOCATED OUTSIDE OF THE BUILDING OR ABATEMENT WORK AREA.

REFER TO DRAWINGS FP101, P101, P102, M101, M102, E101, E102 FOR DRAWINGS SHOWING PLUMBING, FIRE PROTECTION, MECHANICAL AND ELECTRICAL REMOVALS

ASBESTOS ABATEMENT LEGEND

REMOVE AND DISPOSE ACM POSITIVE MULTI LAYER BUILT UP ROOFING.

REFER TO SELECTIVE DEMOLITION DRAWING SERIES. RESPECT BOUNDARY LINES BETWEEN DEMOLITION / PHASING AREAS AND WORK AND NON-WORK AREAS. PROTECT AREAS THAT ARE EXPOSED TO THE WEATHER.



1 NORTH WING ROOF ABATEMENT PLAN
1/8" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
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NY SED PROJECT CONTROL NO:
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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

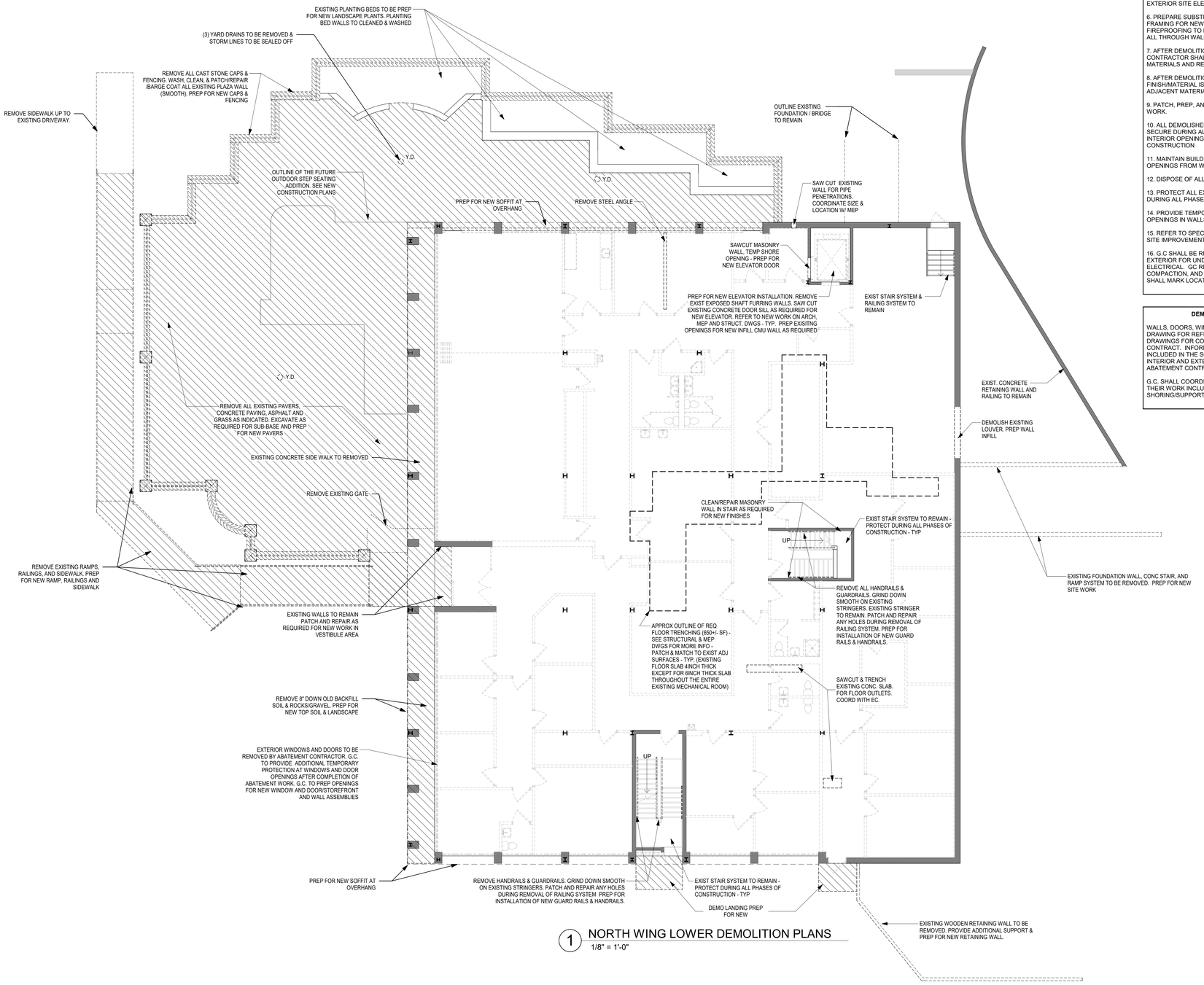
Sheet Title

ROOF ABATEMENT PLAN

Job No.	Date
2023-1011	08/25/2023
Scale	Drawn / Checked
	AM/LG

Sheet Number

HZ103



1 NORTH WING LOWER DEMOLITION PLANS
1/8" = 1'-0"

DEMOLITION LEGEND

GENERAL CONTRACTOR SCOPE OF DEMO WORK

- INTERIOR DEMOLITION - SEE NOTES FOR MORE INFO.
- REMOVE HARDSCAPE, SOFTSCAPE & ALL COURTYARD DEMO

DEMOLITION NOTES

1. PERFORM DEMOLITION WORK AS NOTED ON THE PLANS AND AS REQUIRED FOR EXECUTION OF ALL CONTRACT WORK. EXISTING STRUCTURAL ELEMENTS TO REMAIN UNLESS NOTED OTHERWISE.

2. SEE ABATEMENT DEMOLITION DRAWINGS FOR ADDITIONAL REMOVALS AND COORDINATION NOT SHOWN ON THIS PLAN.

3. SEE MEP DRAWINGS FOR ADDITIONAL REMOVALS AND COORDINATION NOT SHOWN ON THIS PLAN.

4. PATCH SURFACE OF EXTERIOR WALLS IF NOT INDICATED FOR REMOVAL.

5. ANY DAMAGE TO ADJACENT FLOORS, WALLS, CEILINGS, ROOFS, AND EXTERIOR SITE ELEMENTS TO REMAIN SHALL BE PATCHED & REPAIRED.

6. PREPARE SUBSTRATES INCLUDING ROOF DECK, FLOOR SLAB AND STEEL FRAMING FOR NEW SPRAY-APPLIED FIREPROOFING. DAMAGED FIREPROOFING TO BE PATCHED & REPAIRED CONTINUOUSLY. INCLUSIVE OF ALL THROUGH WALL, FLOOR & ROOF PENETRATIONS.

7. AFTER DEMOLITION, WHETHER SPECIFICALLY CALLED OUT OR NOT, CONTRACTOR SHALL REPAIR ALL SCARS TO EXISTING ADJACENT REMAINING MATERIALS AND RESTORE TO UNDAMAGED CONDITION.

8. AFTER DEMOLITION OPERATIONS, WHEN FINISH PATCHING, IF SPECIFIC FINISH/MATERIAL IS NOT CALLED OUT, CONTRACTOR SHALL MATCH EXISTING ADJACENT MATERIALS.

9. PATCH, PREP, AND LEVEL CONCRETE FLOOR AS REQUIRED FOR NEW WORK.

10. ALL DEMOLISHED EXTERIOR OPENINGS TO REMAIN WATER TIGHT AND SECURE DURING ALL PHASES OF CONSTRUCTION. ALL DEMOLISHED INTERIOR OPENINGS SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION

11. MAINTAIN BUILDING SECURITY AND PROTECT EXISTING EXTERIOR OPENINGS FROM WEATHER DURING ALL PHASES OF CONSTRUCTION.

12. DISPOSE OF ALL DEMOLISHED COMPONENTS.

13. PROTECT ALL EXISTING INTERIOR AND EXTERIOR SURFACES TO REMAIN DURING ALL PHASES OF CONSTRUCTION.

14. PROVIDE TEMPORARY SHORING, SUPPORTS, AND PROTECTION FOR NEW OPENINGS IN WALLS, FLOORS, AND ROOF AS REQUIRED FOR NEW WORK.

15. REFER TO SPECIFICATION FOR TEMPORARY EROSION CONTROLS FOR SITE IMPROVEMENTS

16. G.C SHALL BE RESPONSIBLE FOR TRENCHING IN FLOOR SLABS AND AT EXTERIOR FOR UNDERGROUND UTILITIES INCLUDING PLUMBING AND ELECTRICAL. GC RESPONSIBLE FOR CUTTING, EXCAVATION, BACKFILL, COMPACTION, AND NEW SLABS / GRADING / FINISH SURFACES. MEP TRADES SHALL MARK LOCATIONS, PROVIDE BEDDING, AND PIPING/CONDUIT.

DEMOLITION NOTES - ABATEMENT CONTRACT

WALLS, DOORS, WINDOWS, FIXTURES, FURNISHINGS, ETC. SHOWN ON THIS DRAWING FOR REFERENCE PURPOSES ONLY. REFER TO ABATEMENT DRAWINGS FOR COMPLETE SCOPE OF REMOVALS PERFORMED UNDER THAT CONTRACT. INFORMATION SPECIFICALLY INDICATED ON THIS PLAN IS INCLUDED IN THE SCOPE OF THE GENERAL CONTRACTOR, ALL OTHER INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR.

G.C. SHALL COORDINATE WITH ABATEMENT CONTRACTOR AS REQUIRED FOR THEIR WORK INCLUDING PROVISIONS FOR TEMPORARY BARRIERS, SHORING/SUPPORT, PROTECTION OF OPENINGS AND TEMPORARY ROOFING

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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P:914.666.5900 KGDARCHITECTS.COM

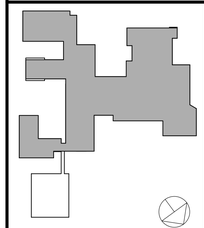
NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

DEMOLITION NOTES

1. DENOTES AREA OF NO MAJOR ARCHITECTURAL WORK. SPECIFIC WORK MAY BE SHOWN ELSEWHERE INCLUDING WORK THAT MAY REQUIRE ACCESS, PATCHING & RESTORATION. REFER TO STRUCTURAL & M.E.P. DWGS.
2. DENOTES EXISTING CONSTRUCTION TO BE DEMOLISHED (U.N.O.).
3. DENOTES EXISTING WALL TO REMAIN
4. PRIOR TO ANY DEMOLITION CONTRACTORS ARE REQUIRED TO BE FAMILIAR WITH EXISTING CONDITIONS. SHORING MAY BE NEEDED INCLUDING INSTALLATION OF LINTELS PRIOR TO THE REMOVAL OF ANY BUILDING ELEMENT.
5. COORDINATE ALL DEMOLITION w/ M.E.P. REMOVALS. NOTE: ALL WIRING, DEVICES & M.E.P. SYSTEMS NOT BEING REMOVED AS PART OF THE WORK, WHICH RUN THROUGH THE WORK AREA, SHALL BE TESTED, LABELED & PROTECTED FROM DISTURBANCE SO THEY REMAIN OPERATIONAL THROUGHOUT THE PROJECT.
6. MAINTAIN WATER TIGHTNESS DURING ALL PHASES OF CONSTRUCTION



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

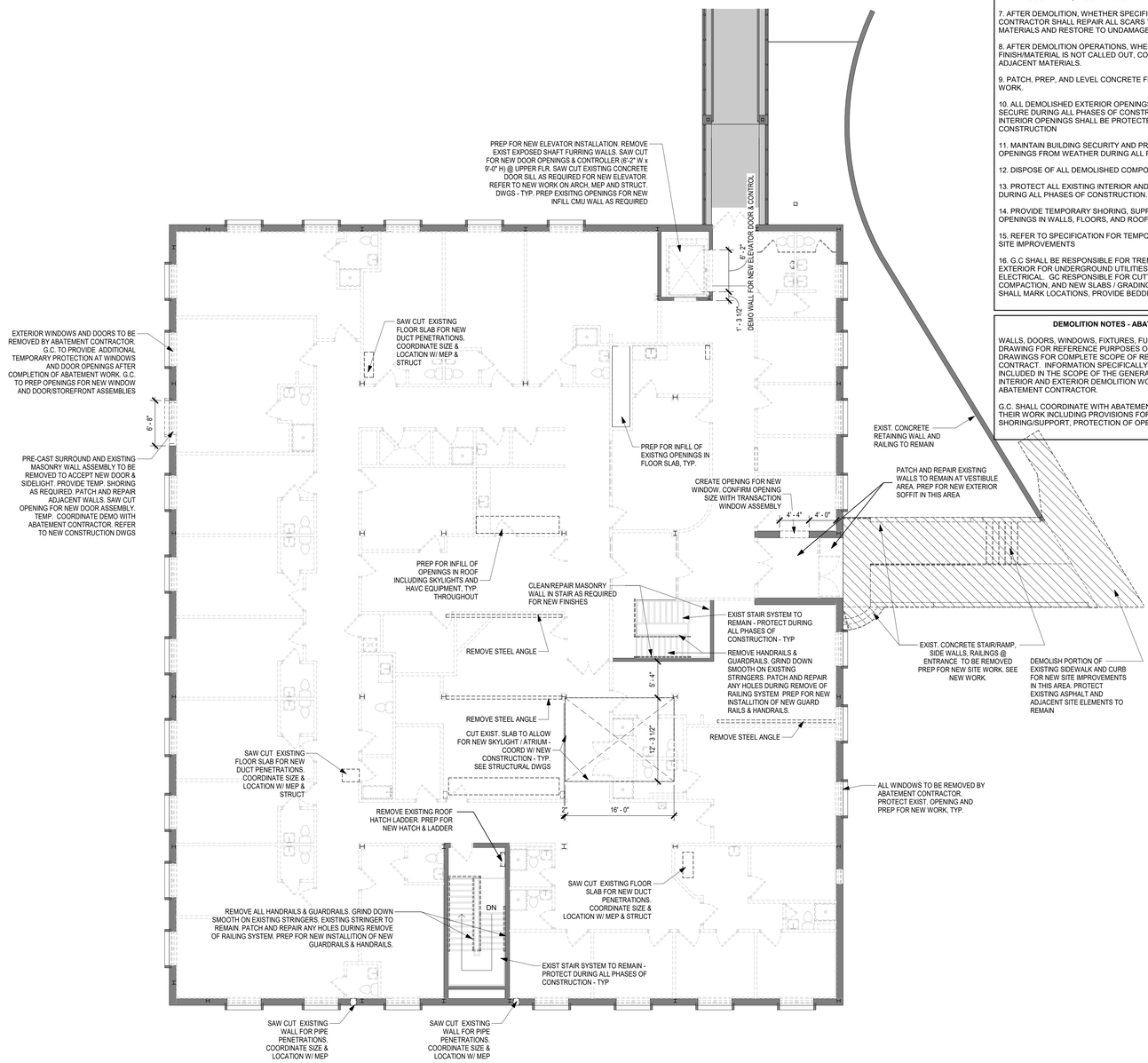
Sheet Title

NORTH WING LOWER LEVEL DEMOLITION PLAN

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

A101



1 NORTH WING UPPER DEMOLITION PLANS
1/8" = 1'-0"

DEMOLITION LEGEND

GENERAL CONTRACTOR SCOPE OF DEMO WORK

- INTERIOR DEMOLITION - SEE NOTES FOR MORE INFO.
- REMOVE HARDSCAPE, SOFTSCAPE & ALL COURTYARD DEMO

DEMOLITION NOTES

1. PERFORM DEMOLITION WORK AS NOTED ON THE PLANS AND AS REQUIRED FOR EXECUTION OF ALL CONTRACT WORK. EXISTING STRUCTURAL ELEMENTS TO REMAIN UNLESS NOTED OTHERWISE.

2. SEE ABATEMENT DEMOLITION DRAWINGS FOR ADDITIONAL REMOVALS AND COORDINATION NOT SHOWN ON THIS PLAN.

3. SEE MEP DRAWINGS FOR ADDITIONAL REMOVALS AND COORDINATION NOT SHOWN ON THIS PLAN.

4. PATCH SURFACE OF EXTERIOR WALLS IF NOT INDICATED FOR REMOVAL.

5. ANY DAMAGE TO ADJACENT FLOORS, WALLS, CEILINGS, ROOFS, AND EXTERIOR SITE ELEMENTS TO REMAIN SHALL BE PATCHED & REPAIRED.

6. PREPARE SUBSTRATES INCLUDING ROOF DECK, FLOOR SLAB AND STEEL FRAMING FOR NEW SPRAY-APPLIED FIREPROOFING. DAMAGED FIREPROOFING TO BE PATCHED & REPAIRED CONTINUOUSLY. INCLUSIVE OF ALL THROUGH WALL, FLOOR & ROOF PENETRATIONS.

7. AFTER DEMOLITION, WHETHER SPECIFICALLY CALLED OUT OR NOT, CONTRACTOR SHALL REPAIR ALL SCARS TO EXISTING ADJACENT REMAINING MATERIALS AND RESTORE TO UNDAMAGED CONDITION.

8. AFTER DEMOLITION OPERATIONS, WHEN FINISH PATCHING, IF SPECIFIC FINISH/MATERIAL IS NOT CALLED OUT, CONTRACTOR SHALL MATCH EXISTING ADJACENT MATERIALS.

9. PATCH, PREP, AND LEVEL CONCRETE FLOOR AS REQUIRED FOR NEW WORK.

10. ALL DEMOLISHED EXTERIOR OPENINGS TO REMAIN WATER TIGHT AND SECURE DURING ALL PHASES OF CONSTRUCTION. ALL DEMOLISHED INTERIOR OPENINGS SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION

11. MAINTAIN BUILDING SECURITY AND PROTECT EXISTING EXTERIOR OPENINGS FROM WEATHER DURING ALL PHASES OF CONSTRUCTION.

12. DISPOSE OF ALL DEMOLISHED COMPONENTS.

13. PROTECT ALL EXISTING INTERIOR AND EXTERIOR SURFACES TO REMAIN DURING ALL PHASES OF CONSTRUCTION.

14. PROVIDE TEMPORARY SHORING, SUPPORTS, AND PROTECTION FOR NEW OPENINGS IN WALLS, FLOORS, AND ROOF AS REQUIRED FOR NEW WORK.

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DEMOLITION NOTES - ABATEMENT CONTRACT

WALLS, DOORS, WINDOWS, FIXTURES, FURNISHINGS, ETC. SHOWN ON THIS DRAWING FOR REFERENCE PURPOSES ONLY. REFER TO ABATEMENT DRAWINGS FOR COMPLETE SCOPE OF REMOVALS PERFORMED UNDER THAT CONTRACT. INFORMATION SPECIFICALLY INDICATED ON THIS PLAN IS INCLUDED IN THE SCOPE OF THE GENERAL CONTRACTOR, ALL OTHER INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR.

G.C. SHALL COORDINATE WITH ABATEMENT CONTRACTOR AS REQUIRED FOR THEIR WORK INCLUDING PROVISIONS FOR TEMPORARY BARRIERS, SHORING/SUPPORT, PROTECTION OF OPENINGS AND TEMPORARY ROOFING

ORANGE-ULSTER BOCES

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NY SED PROJECT CONTROL NO:
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CONSTRUCTION DOCUMENTS

DEMOLITION NOTES

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3. DENOTES EXISTING WALL TO REMAIN
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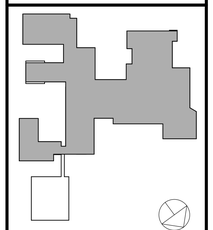
6. MAINTAIN WATER TIGHTNESS DURING ALL PHASES OF CONSTRUCTION



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

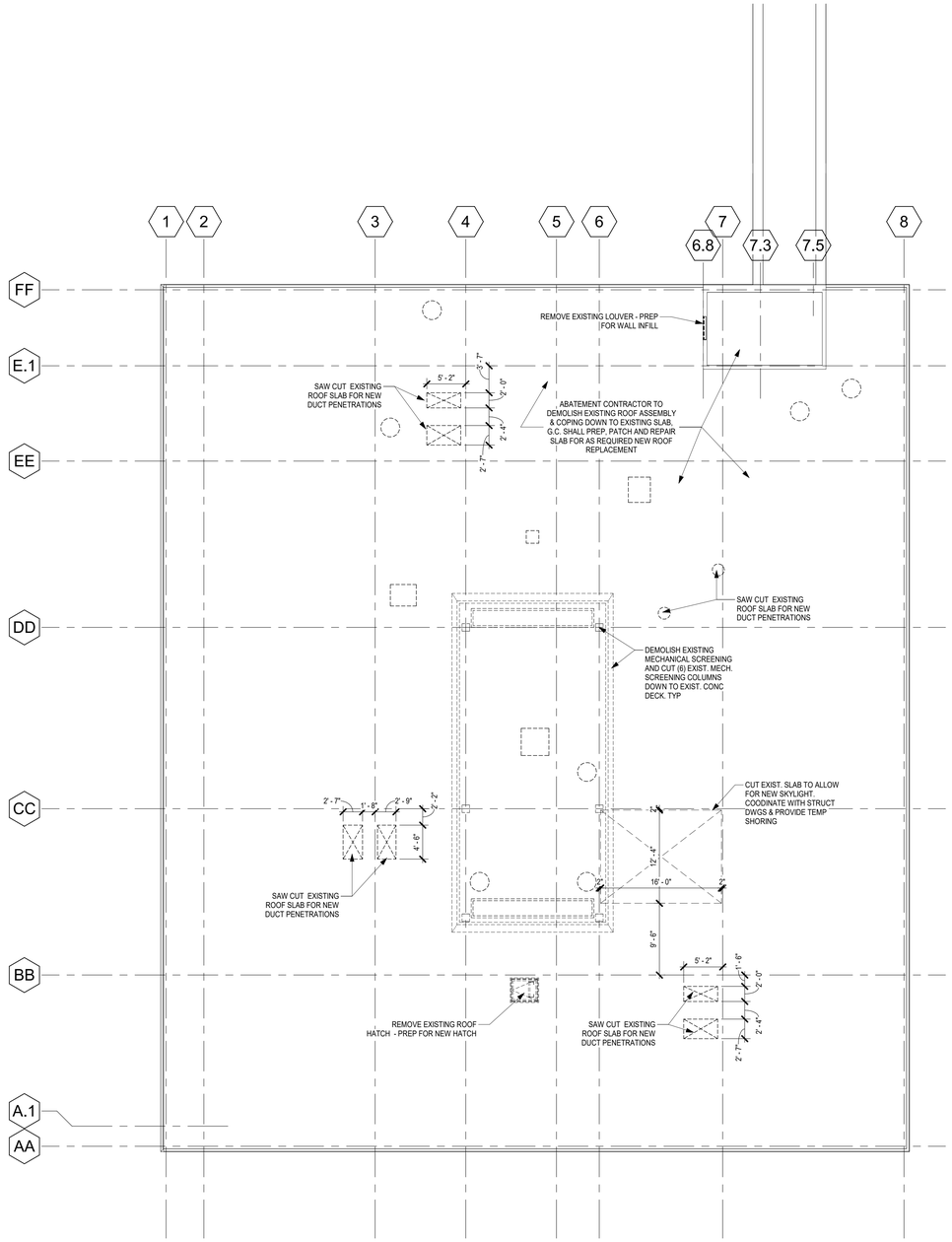
Sheet Title

NORTH WING UPPER LEVEL DEMOLITION PLAN

Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: Author Checker

Sheet Number

A102



1 NORTH WING ROOF DEMOLITION PLAN
1/8" = 1'-0"

DEMOLITION LEGEND

GENERAL CONTRACTOR SCOPE OF DEMO WORK

- INTERIOR DEMOLITION - SEE NOTES FOR MORE INFO.
- REMOVE HARDSCAPE, SOFTSCAPE & ALL COURTYARD DEMO

DEMOLITION NOTES

1. PERFORM DEMOLITION WORK AS NOTED ON THE PLANS AND AS REQUIRED FOR EXECUTION OF ALL CONTRACT WORK. EXISTING STRUCTURAL ELEMENTS TO REMAIN UNLESS NOTED OTHERWISE.

2. SEE ABATEMENT DEMOLITION DRAWINGS FOR ADDITIONAL REMOVALS AND COORDINATION NOT SHOWN ON THIS PLAN.

3. SEE MEP DRAWINGS FOR ADDITIONAL REMOVALS AND COORDINATION NOT SHOWN ON THIS PLAN.

4. PATCH SURFACE OF EXTERIOR WALLS IF NOT INDICATED FOR REMOVAL.

5. ANY DAMAGE TO ADJACENT FLOORS, WALLS, CEILINGS, ROOFS, AND EXTERIOR SITE ELEMENTS TO REMAIN SHALL BE PATCHED & REPAIRED.

6. PREPARE SUBSTRATES INCLUDING ROOF DECK, FLOOR SLAB AND STEEL FRAMING FOR NEW SPRAY-APPLIED FIREPROOFING. DAMAGED FIREPROOFING TO BE PATCHED & REPAIRED CONTINUOUSLY. INCLUSIVE OF ALL THROUGH WALL, FLOOR & ROOF PENETRATIONS.

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12. DISPOSE OF ALL DEMOLISHED COMPONENTS.

13. PROTECT ALL EXISTING INTERIOR AND EXTERIOR SURFACES TO REMAIN DURING ALL PHASES OF CONSTRUCTION.

14. PROVIDE TEMPORARY SHORING, SUPPORTS, AND PROTECTION FOR NEW OPENINGS IN WALLS, FLOORS, AND ROOF AS REQUIRED FOR NEW WORK.

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DEMOLITION NOTES - ABATEMENT CONTRACT

REFER TO ABATEMENT DRAWINGS FOR COMPLETE SCOPE OF REMOVALS PERFORMED UNDER THAT CONTRACT. INFORMATION SPECIFICALLY INDICATED ON THIS PLAN IS INCLUDED IN THE SCOPE OF THE GENERAL CONTRACTOR, ALL OTHER INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR.

G.C. SHALL COORDINATE WITH ABATEMENT CONTRACTOR AS REQUIRED FOR THEIR WORK INCLUDING PROVISIONS FOR TEMPORARY BARRIERS, SHORING/SUPPORT, PROTECTION OF OPENINGS AND TEMPORARY ROOFING

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NY SED PROJECT CONTROL NO:

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CONSTRUCTION DOCUMENTS

DEMOLITION NOTES

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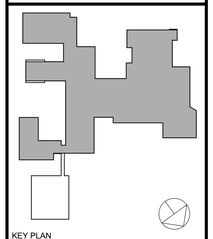
2 DENOTES EXISTING CONSTRUCTION TO BE DEMOLISHED (U.N.O.).

3 DENOTES EXISTING WALL TO REMAIN

4 PRIOR TO ANY DEMOLITION CONTRACTORS ARE REQUIRED TO BE FAMILIAR WITH EXISTING CONDITIONS. SHORING MAY BE NEEDED INCLUDING INSTALLATION OF LINTELS PRIOR TO THE REMOVAL OF ANY BUILDING ELEMENT.

5 COORDINATE ALL DEMOLITION w/ M.E.P. REMOVALS. NOTE: ALL WIRING, DEVICES & M.E.P. SYSTEMS NOT BEING REMOVED AS PART OF THE WORK, WHICH RUN THROUGH THE WORK AREA, SHALL BE TESTED, LABELED & PROTECTED FROM DISTURBANCE SO THEY REMAIN OPERATIONAL THROUGHOUT THE PROJECT.

6 MAINTAIN WATER TIGHTNESS DURING ALL PHASES OF CONSTRUCTION



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ROOF DEMOLITION PLAN

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

A151

TYPICAL LAP SPLICE - CONCRETE

BAR	CONCRETE LAP SPLICES		
	LENGTH, IN. (U.N.O.)		
	F'c = 3000 PSI	F'c = 3500 PSI	F'c = 4000 PSI
#3	13	12	12
#4	18	16	15
#5	22	20	19
#6	26	24	23
#7	41	38	36
#8	54	50	47

TYPICAL LAP SPLICE - MASONRY

BAR	MASONRY LAP SPLICES		
	LENGTH, IN. (U.N.O.)		
	F'm = 1500 PSI	F'm = 2000 PSI	F'm = 2500 PSI
#3	16	15	15
#4	27	24	21
#5	33	30	27
#6	40	36	33
#7	54	48	42
#8	59	51	46

NOTE:
WHEN TWO BAR SIZES ARE SPLICED, USE LAP LENGTH OF SMALLER BAR.

CMU LINTEL SCHEDULE

TYP. CMU LINTELS @ NON-LOAD BEARING WALLS						
MARK	CLEAR SPAN	BLOCK WIDTH	DEPTH (D)	HORIZONTAL REINFORCING	SHEAR STIRRUPS/TEES	REMARKS
L1	0 TO 3'-4"	8"	8"	2-#4 BOTTOM	-	
L2	3'-4" TO 6'-4"	8"	8"	2-#5 BOTTOM	-	
L3	6'-4" TO 8'-4"	8"	16"	1-#6 BOTTOM	-	

MASONRY NOTES:

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" ACI 530/TMS 402.
2. ALL CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT WITH TWO (2) CELLS AND CONFORM TO ASTM C90.
3. ALL BRICK MASONRY UNITS SHALL CONFORM TO ASTM C216 OR ASTM C67.
4. ALL MORTAR SHALL CONFORM TO ASTM C270.
5. ALL GROUT SHALL CONFORM TO ASTM C476.
6. THE MINIMUM SPECIFIED NET AREA COMPRESSIVE STRENGTH OF MASONRY (f'm) SHALL BE 2000 PSI AND SHALL CONSIST OF THE FOLLOWING COMPONENTS:
   A. CONCRETE MASONRY UNITS: 2000 PSI MINIMUM NET AREA COMPRESSIVE STRENGTH
   B. BRICK MASONRY UNITS: 4950 PSI MINIMUM NET AREA COMPRESSIVE STRENGTH
   C. PORTLAND CEMENT MORTAR: TYPE S
   D. GROUT: 2000 psi MINIMUM 28 DAY COMPRESSIVE STRENGTH
7. PROVIDE CONTINUOUS HORIZONTAL BOND BEAMS REINFORCED WITH (1) #6 BARS WITH TOP OF BOND BEAM ELEVATIONS AS INDICATED. DO NOT CONTINUE REINFORCEMENT ACROSS CONTROL JOINTS. EXCEPT FOR CONTROL JOINTS AT OPENINGS.
8. GROUT ALL CELLS CONTAINING REINFORCEMENT AND/OR HEADED STUD ANCHORS AS WELL AS DIRECTLY BELOW ALL BEARING PLATES.
9. REINFORCEMENT SPLICES SHALL BE LAPPED. SEE LAP SPLICE TABLE.
10. UNLESS OTHERWISE INDICATED, ALL CMU WALLS SHALL HAVE A NOMINAL WIDTH OF 8" (AS SHOWN ON PLANS) AND BE PROVIDED WITH HOT DIPPED GALVANIZED HORIZONTAL REINFORCING (DURO-WAL W1.7 LADDER WIRE, OR EQUAL) EVERY OTHER COURSE (16" O.C.). PROVIDE HORIZONTAL REINFORCEMENT FOR THE FIRST TWO COURSES ABOVE ALL LINTELS.
11. REINFORCEMENT SHALL BE PLACED SUCH THAT A MINIMUM OF 5/8" GROUT COVER EXISTS FOR EXTERIOR FACES, AND A MINIMUM OF 1/2" GROUT COVER EXISTS FOR INTERIOR FACES.
12. (2) CONTINUOUS VERTICAL #5 BARS SHALL BE PROVIDED FOR THE FULL HEIGHT OF THE WALL AND ANCHORED INTO THE FOOTING AT THE FOLLOWING LOCATIONS:
   A. WALL CORNERS
   B. EACH SIDE OF CONTROL JOINTS
   C. SIDES OF MASONRY OPENINGS (DOOR JAMBS, ETC.)
   D. WALL ENDS
13. PROVIDE CONTROL JOINTS IN MASONRY WALLS AT A MAXIMUM SPACING OF 3 TIMES THE WALL HEIGHT. CONTROL JOINTS SHALL BE SPACED AT A MAXIMUM OF 15 FEET FROM ALL CORNERS, SUBMIT CONTROL JOINT PLAN TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
14. CONTROL JOINTS SHALL BE PLACED AT ALL CHANGES IN MASONRY WALL HEIGHT AND MASONRY WALL THICKNESS.
15. ALL MASONRY WALLS SHALL HAVE #4 @ 32"O.C. VERTICAL REINFORCEMENT.

AISI COLD FORMED FRAMING NOTES:

1. METAL STUD SIZES SHOWN ON PLANS AND DETAILS ARE BASED ON CLARKDIETRICH GALVANIZED STEEL STUDS. ALL FRAMING MATERIALS AND CONNECTIONS SHALL BE EQUIVALENT TO THOSE MANUFACTURED BY CLARKDIETRICH. ALL STUDS AND THEIR CONNECTIONS SHALL BE GALVANIZED AND SHALL COMPLY WITH THE REQUIREMENTS OF AISI SPECIFICATION FOR THE DESIGN OF COLD FORM STEEL STRUCTURAL MEMBERS, LATEST EDITION.
2. ALL METAL STUDS SHALL HAVE A MIN. YIELD STRENGTH OF 50 KSI. PROVIDE GALVANIZED STUDS WHERE EXPOSED TO THE EXTERIOR.
3. STEEL STUDS: MANUFACTURER'S STANDARD C-SHAPED STEEL STUDS, OF WEB DEPTHS INDICATED, PUNCHED, WITH STIFFENED FLANGES, AND AS FOLLOWS:
   A. LOAD BEARING FRAMING
      a. MINIMUM BASE-METAL THICKNESS: 16 GA. (54 MILS)
      b. FLANGE WIDTH: 1-5/8 INCHES.
   B. NON-LOAD BEARING FRAMING
      a. MINIMUM BASE-METAL THICKNESS: 20 GA. (33 MILS)
      b. FLANGE WIDTH: 1-5/8 INCHES.
4. INSTALL CONTINUOUS TRACKS SIZED TO MATCH STUDS. ALIGN TRACKS ACCURATELY AND SECURELY ANCHOR TO SUPPORTING STRUCTURE AT EACH STUD LOCATION.
5. FASTEN BOTH FLANGES OF STUDS TO BOTTOM TRACK UNLESS OTHERWISE INDICATED. SPACE STUDS AS FOLLOWS:
   A. STUD SPACING: 16" O.C. MAX.
6. SET STUDS PLUMB, EXCEPT AS NEEDED FOR DIAGONAL BRACING OR REQUIRED FOR NON-PLUMB WALLS OR WARPED SURFACES AND SIMILAR REQUIREMENTS.
7. ISOLATE NON-LOAD-BEARING STEEL FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF VERTICAL LOADS WHILE PROVIDING LATERAL SUPPORT.
8. BRIDGE ALL JOISTS, RAFTERS AND WALL STUDS WITH BRIDGING CHANNEL AT 4'-0" ON CENTER MAXIMUM. SCREW OR WELD BOTTOM OF BRIDGING AFTER SHEATHING IS IN PLACE.
9. ALL CLIP AND UTILITY ANGLES SHALL BE THE SAME GAUGE AS THE MEMBERS BEING CONNECTED. IF THE MEMBERS BEING CONNECTED ARE DIFFERENT GAUGES, ANGLES SHALL BE A MINIMUM OF THE THINNER GAUGE.
10. FOR ALL OPENINGS LARGER THAN JOIST FRAMING, FRAME WITH DOUBLE-HEADERS AND TRIMMERS AROUND OPENINGS. PROVIDE DOUBLE BOX JOISTS AROUND PARTITION WALLS PARALLEL TO JOISTS.
11. SHOP DRAWINGS OF ALL LIGHT GAUGE METAL FRAMING SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER PRIOR TO MANUFACTURING.
12. IF BASIS OF DESIGN MANUFACTURER'S LIGHT GAUGE FRAMING IS NOT USED, CONTRACTOR SHALL PROVIDE ALL SPECIFICATIONS AND MATERIAL PROPERTIES FOR THE SELECTED LIGHT GAUGE MANUFACTURER FOR APPROVAL PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

WELDING NOTES:

1. ALL WELDING SHALL BE CONDUCTED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS D1.1, LATEST EDITION FOR STRUCTURAL STEEL AND AWS D1.3, LATEST EDITION FOR STRUCTURAL SHEET STEEL.
2. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR PROTECTING EXISTING EQUIPMENT, MATERIAL, BUILDING STRUCTURE, AND BUILDING COMPONENTS DURING ANY FIELD WELDING OPERATIONS.
3. WELDS OF HEADED STUDS SHALL MATCH STRENGTH OF STUDS.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SYSTEMS INCLUDING MATERIALS, INSTALLATION, WORKMANSHIP, FABRICATION, ASSEMBLY, ERECTION, INSPECTION, QUALITY CONTROL, AND TESTING SHALL BE PROVIDED IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
2. UNLESS OTHERWISE NOTED, ALL STEEL SHALL CONFORM TO ASTM A992 WITH A MINIMUM YIELD STRENGTH OF 50 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE C, WITH A MINIMUM YIELD STRENGTH OF 46 KSI. ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO ASTM A36 WITH A MINIMUM YIELD STRENGTH OF 36 KSI.
3. ALL STEEL SHAPES, BOLTS, WASHES, ETC. USED IN AN EXTERIOR CONDITION SHALL BE HOT DIPPED GALVANZIED. HSS SECTIONS BE VENTED TO ENSURE THE INTERNAL SURFACES ARE COMPLETELY COVERED.
4. ALL HOLES IN STEEL SHALL BE STANDARD SIZE 1/16" LARGER THAN BOLT DIAMETER UNLESS OTHERWISE NOTED. ALL HOLES SHALL BE DRILLED OR PUNCHED. BURNING IS NOT ALLOWED. COLUMN ANCHOR BOLT HOLES MAY BE OVERSIZED.
5. COPES SHALL BE PROVIDED WITH 1/2" RADIUS MINIMUM, SMOOTH CORNERS, AND FREE OF NOTCHES. DEPTH AND LENGTH OF COPES SHALL BE AS INDICATED OR SPECIFIED BY DETAILER.
6. UNLESS OTHERWISE INDICATED, ALL BOLTS SHALL CONFORM TO ASTM A325, EXCEPT ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GR. 36. ALL NUTS SHALL CONFORM TO ASTM A563, GRADE AND STYLE FOR APPLICABLE ASTM BOLT STANDARD. ALL WASHERS SHALL CONFORM TO ASTM F844 FOR ASTM A307 BOLTS, AND ASTM F436 FOR ASTM A325 BOLTS.
7. INSTALL 1/4" WEB STIFFENERS ON BOTH SIDES THE BEAM WEB FOR ALL BEAMS RECEIVING A COLUMN OR BEAM FROM ABOVE OR CONTINUING OVER A COLUMN BELOW. WEB STIFFENERS SHALL BE PLACED DIRECTLY ABOVE / BELOW THE COLUMN.
8. STEEL DETAILER SHALL PROVIDE CONNECTION DESIGN IN ACCORDANCE WITH ANSI/AISC 303. DETAILER SHALL SELECT AND COMPLETE CONNECTIONS USING SCHEMATIC DETAILS INDICATED ON PLANS AND ANSI/AISC 360.

CONCRETE NOTES:

1. CONCRETE SHALL CONFORM TO ACI 211.1, ACI 301, ACI 304R (WHEN PUMPING), AND ACI 318-14. AGGREGATE SHALL CONFORM TO ASTM C33. RANGE OF SLUMP, WATER-TO-CEMENT RATIO, AND AIR ENTRAINMENT SHALL BE IN ACCORDANCE WITH CAST-IN-PLACE CONCRETE SPECIFICATION 033000. SUBMIT COPIES OF TEST REPORTS SHOWING THAT THE MIX HAS BEEN SUCCESSFULLY TESTED TO PRODUCE CONCRETE WITH THE PROPERTIES SPECIFIED. TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.
2. CEMENT SHALL CONFORM TO ASTM C150, TYPE I/II AND SHALL HAVE A CURING PERIOD OF NOT LESS THAN 7 DAYS.
3. CONCRETE FLAT WORK SHALL BE WET CURED, USING BURLAP OR COTTON CURING MATS, OR CURED USING ASTM D4397 POLYETHYLENE SHEETING IN ACCORDANCE WITH ASTM C171. WET THE ENTIRE EXPOSED SURFACE OF THE CONCRETE THOROUGHLY WITH A FINE SPRAY OF WATER AND COVER WITH SHEETING THROUGHOUT THE CURING PERIOD. LAY SHEETING DIRECTLY ON CONCRETE SURFACE. PROVIDE SHEETING NOT LESS THAN 18 INCHES WIDER THAN CONCRETE SURFACE. OVERLAP EDGES 12 INCHES AND CONTINUOUSLY TAPE JOINTS.
4. PUMPING SHALL NOT RESULT IN SEPARATION OR LOSS OF MATERIALS NOR CAUSE INTERRUPTIONS SUFFICIENT TO PERMIT LOSS OF PLASTICITY BETWEEN SUCCESSIVE INCREMENTS. LOSS OF SLUMP IN PUMPING EQUIPMENT SHALL NOT EXCEED 2 INCHES. CONCRETE SHALL NOT BE CONVEYED THROUGH PIPE MADE OF ALUMINUM OR ALUMINUM ALLOY. RAPID CHANGES IN PIPE SIZES SHALL BE AVOIDED. MAXIMUM SIZE OF COURSE AGGREGATE SHALL BE LIMITED TO 33 PERCENT OF THE DIAMETER OF THE PIPE. MAXIMUM SIZE OF WELL ROUNDED AGGREGATE SHALL BE LIMITED TO 40 PERCENT OF THE PIPE DIAMETER SAMPLES FOR TESTING SHALL BE TAKEN AT BOTH THE POINT OF DELIVERY TO THE PUMP AND AT THE DISCHARGE END.
5. CONCRETE SHALL NOT BE PLACED WHEN WEATHER CONDITIONS PREVENT PROPER PLACEMENT AND CONSOLIDATION INCLUDING PERIODS OF PRECIPITATION. TRANSPORT CONCRETE AS RAPIDLY AS PRACTICABLE TAKING PRECAUTION TO PREVENT SEGREGATION OR LOSS OF INGREDIENTS. PUMPING IN ACCORDANCE WITH ACI 304 SHALL BE PERMITTED. DO NOT EXCEED A FREE VERTICAL DROP OF 3 FEET FROM THE POINT OF DISCHARGE. PLACE CONCRETE IN ONE CONTINUOUS OPERATIONS FROM ONE SIDE OF SLAB TO THE OTHER. POSITION GRADE STAKES AT 12 FEET ON CENTER MAXIMUM IN EACH DIRECTION.
6. REINFORCING BARS SHALL CONFORM TO ASTM A615 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60 KSI. WELDED WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A1064. REINFORCEMENT SHALL NOT CONTAIN RUST, SCALE, OIL, GREASE, CLAY, OR FOREIGN SUBSTANCES THAT WOULD REDUCE THE CONCRETE BONDING STRENGTH. REMOVE LOOSE RUST PRIOR TO PLACEMENT OF REINFORCEMENT.
7. REINFORCEMENT SPLICES SHALL BE KEPT TO A PRACTICAL MINIMUM. UNLESS OTHERWISE INDICATED, MINIMUM LAP SPLICE LENGTH PER LAP SPLICE TABLE ON SHEET S-501.
8. PROVIDE MINIMUM 2" OF CONCRETE COVER FOR ALL REINFORCING STEEL UNLESS OTHERWISE INDICATED.
9. CONCRETE FOOTINGS AND MAT FOUNDATIONS SHALL BE PLACED MONOLITHICALLY WITH THE EXCEPTION THAT VERTICAL CONSTRUCTION JOINTS WILL BE ALLOWED IF EPOXY BONDING COMPOUND IS APPLIED TO THE ROUGHENED SURFACE OF THE HARDENED CONCRETE.
10. INTERIOR SLABS: THE CONTRACTOR SHALL PROVIDE CONTRACTION JOINTS AS INDICATED. JOINTS MAY BE SAWCUT OR CUT WITH A JOINTING TOOL. SAWED JOINTS SHALL BE COMPLETED WITHIN 4 TO 12 HOURS AFTER PLACEMENT OF CONCRETE. JOINTS SHALL INTERSECT WITH THE CORNERS OF ISOLATION JOINT AT COLUMN LOCATIONS, IF ANY ARE PRESENT, AND BE SPACED A MAXIMUM OF 15 FEET ON CENTER, UNLESS NOTED OTHERWISE.
11. REINFORCEMENT SUPPORTS SHALL BE CONCRETE OR OTHER NON-CORRODIBLE MATERIAL HAVING A COMPRESSIVE STRENGTH EQUAL TO OR GREATER THAN THE COMPRESSIVE STRENGTH OF THE CONCRETE BEING PLACED.
12. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
13. EPOXY BONDING COMPOUND SHALL BE USED ON ALL CONTACTING SURFACES BETWEEN EXISTING CONCRETE AND NEW CONCRETE. EPOXY BONDING COMPOUND SHALL CONFORM TO ASTM C881 TYPE II, CLASS C, GRADE 1 OR 2 FOR HORIZONTAL SURFACES. GRADE 3 FOR VERTICAL SURFACES. THOROUGHLY CLEAN AND ROUGHEN EXISTING SURFACES PRIOR TO PLACEMENT. DO NOT ALLOW COMPOUND TO HARDEN PRIOR TO CONCRETE PLACEMENT.
14. PLACE, CONSOLIDATE AND IMMEDIATELY STRIKE OFF CONCRETE TO OBTAIN PROPER CONTOUR GRADE AND ELEVATION BEFORE BLEEDWATER APPEARS. PERMIT CONCRETE TO ATTAIN A SET SUFFICIENT FOR FLOATING AND SUPPORTING THE WEIGHT OF THE FINISHER AND EQUIPMENT. IF BLEEDWATER IS PRESENT PRIOR TO FLOATING THE SURFACE, DRAG THE EXCESS WATER OFF OR REMOVE BY ABSORPTION WITH POROUS MATERIALS. DO NOT USE DRY CEMENT TO ABSORB BLEEDWATER.
15. UNLESS OTHERWISE NOTED, ALL CONCRETE CONSTRUCTION SHALL MEET THE SPECIFIED TOLERANCES OF ACI 117. TOP ELEVATIONS SHALL MATCH THE SPECIFIED ELEVATIONS WITHIN A TOLERANCE OF ±1/4"
16. THE REQUIREMENTS OF ACI 302.1R SHALL BE IN EFFECT FOR THE CONSTRUCTION OF ALL SLABS ON GROUND.
17. NO CONCRETE SHALL BE PLACED UNTIL ALL EMBEDDED ITEMS (I.E. PROCESS, ELECTRICAL, MECHANICAL, ETC) HAVE BEEN SET. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TRADES.
18. ALL BAR PLACING AND BENDING SHALL BE IN ACCORDANCE WITH ACI 315.
19. PERFORM COMPRESSIVE TESTS IN ACCORDANCE WITH ASTM C39. OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. TAKE PRECAUTIONS TO PREVENT EVAPORATION AND LOSS OF WATER FROM SPECIMENS. TEST ONE CYLINDER AT 7 DAYS, AND TWO (THREE FOR 4"x8" CYLINDERS) CYLINDERS AT 28 DAYS AND HOLD ONE IN RESERVE. PERFORM SLUMP TESTS IN ACCORDANCE WITH ASTM C143. PERFORM AIR CONTENT TESTS IN ACCORDANCE WITH ASTM C173 OR ASTM C231. SUBMIT ALL TEST DATA TO THE ENGINEER.
20. CONSOLIDATE CONCRETE WITH HIGH FREQUENCY, INTERNAL, MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND SPADING AND TAMPING. FURNISH A SPARE VIBRATOR ON THE JOB SITE WHENEVER CONCRETE IS PLACED. OPERATE VIBRATORS WITH VIBRATORY ELEMENT SUBMERGED IN THE CONCRETE, WITH A MINIMUM FREQUENCY OF NOT LESS THAN 6000 IMPULSES PER MINUTE WHEN SUBMERGED. INSERT AND WITHDRAW VIBRATORS AT INTERVALS APPROXIMATELY 18 INCHES APART.
21. ELASTOMERIC JOINT SEALANT SHALL CONFORM TO ASTM C920, TYPE S, GRADE P, CLASS 25.

PRECAST CONCRETE NOTES:

1. PRECAST PLANK & STAIRS SHOWN AS CONCEPTUAL.
2. PRECAST PLANK & STAIRS TO BE DESIGNED AND DETAILED TO SUPPORT THE PROVIDED LOADS IN THE STRUCTURAL PROVISIONS AND SHALL ACCOMMODATE THE GEOMETRY INDICATED ON THE PLANS.
3. CONTRACTOR TO SUBMIT SIGNED AND SEALS (NY) PRECAST SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO FABRICATION.
4. CONNECTIONS BETWEEN PRECAST STAIRS AND PLANK TO BE PROVIDED BY MANUFACTURER.
5. THICKNESS OF PRECAST UNITS SHOWN ON PLANS IS CONCEPTUAL, ACTUAL THICKNESS TO BE AS DETERMINED BY THE PRECAST DESIGNER.
6. ALL WALKING SURFACES SHALL BE ANTI-SLIP.
7. ALL EXPOSED SURFACES SHALL BE SMOOTH AND FREE OF BLEMISHES, FINISHED TO GRADE A COMMERCIAL FINISH.
8. PRECAST COLOR PER OWNER/ARCH.
9. PLANKS TO BE PROVIDED W/ EMBEDDED STEEL PLATES/TABS SUITABLE FOR WELDED CONNECTION TO THE STEEL SUPPORT FRAME.

SPECIAL INSPECTIONS:

ALL SPECIAL INSPECTIONS LISTED ARE IN ADDITION TO ALL OTHER INSPECTIONS REQUIRED BY STATE AND LOCAL BUILDING CODES. ALL SPECIAL INSPECTIONS SHALL BE PERFORMED BY AN AGENCY RETAINED AND PAID BY THE OWNER OR OWNER'S REPRESENTATIVE. THE APPROVED AGENCY SHALL PROVIDE ALL INFORMATION AS NECESSARY FOR THE BUILDING OFFICIAL TO DETERMINE THAT THE AGENCY MEETS THE APPLICABLE REQUIREMENTS. COPIES OF NECESSARY TEST AND INSPECTION RECORDS SHALL BE FILED WITH THE BUILDING OFFICIAL AND REGISTERED DESIGN PROFESSIONAL. ALL SPECIAL INSPECTIONS AND REPORTS SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE 2020 NEW YORK STATE BUILDING CODE LATEST REVISION.

CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH OWNER'S DESIGNATED INSPECTOR FOR SCHEDULING OF ALL SPECIAL INSPECTIONS. CONTRACTOR SHALL NOTIFY INSPECTOR MINIMUM 48 HOURS PRIOR TO NEED OF INSPECTION.

THE OWNER RESERVES THE RIGHT TO BACK CHARGE THE CONTRACTOR FOR ANY COSTS ASSOCIATED WITH ADDITIONAL SPECIAL INSPECTIONS REQUIRED DUE TO CANCELLATION OF SCHEDULED INSPECTIONS AND RE-INSPECTION OF PREVIOUSLY FAILED INSPECTIONS.

SPECIAL INSPECTIONS REQUIRED INCLUDE BUT ARE NOT LIMITED TO:

STEEL:
1. STRUCTURAL STEEL:
   A. SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS, STRUCTURES AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360-16.
2. COLD-FORMED STEEL DECK:
   A. SPECIAL INSPECTIONS AND QUALIFICATION OF WELDING SPECIAL INSPECTORS FOR COLD-FORMED STEEL FLOOR AND ROOF DECK SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF SDI QA/QC.

CONCRETE:
1. PERIODIC INSPECTION OF REINFORCING STEEL.
2. PERIODIC INSPECTION OF ANCHORS CAST IN CONCRETE.
3. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE.
   A. CONTINUOUS INSPECTION OF ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.
   B. PERIODIC INSPECTION OF MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 3.A.
4. PERIODIC VERIFICATION OF DESIGN MIX.
5. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP, AIR, AND TEMPERATURE TESTS; CONTINUOUS.
6. CONTINUOUS INSPECTION OF PLACEMENT & FOR PROPER APPLICATION TECHNIQUES.
7. PERIODIC INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.
8. PERIODIC INSPECTION OF FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS, OF THE CONCRETE MEMBER BEING FORMED.

MASONRY:
1. SPECIAL INSPECTIONS AND TESTS OF MASONRY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE QUALITY ASSURANCE PROGRAM REQUIREMENTS OF TMS 402 AND TMS 602.

SOILS:
1. CONTINUOUS INSPECTION OF
   A. PROPER MATERIALS
   B. DENSITIES
   C. LIFT THICKNESS DURING PLACEMENT
   D. COMPACTION OF CONTROLLED FILL
2. PERIODIC INSPECTION OF
   A. MATERIALS BELOW FOOTINGS ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY OF 4000 PSF (ALLOWABLE).
   B. EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL
   C. CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS
   D. SUBGRADE PRIOR TO PLACEMENT OF COMPACTED FILL
3. THE APPROVED SOILS REPORT, PREPARED BY TECTONIC ENGINEERING DATED SEPTEMBER 21, 2023 SHALL BE USED TO DETERMINE COMPLIANCE.

NYSBC 2020 STRUCTURAL PROVISIONS:

THE STRUCTURE SHOWN HEREON HAS/SHALL BE DESIGNED FOR THE FOLLOWING IN ACCORDANCE WITH NYSBC 2020:

FLOOR LIVE LOAD:
FIRST FLOOR CORRIDORS AND COMMON AREA = 100 PSF
CORRIDORS (ABOVE 1ST FLOOR) = 80 PSF
CLASSROOMS = 40 PSF
OFFICES = 50 PSF
LEARNING STAIRS & SEATING = 100 PSF

EXISTING ROOF LIVE LOAD:
DISTRIBUTED LOAD = 35 PSF
CONCENTRATED LOAD = 300 LBS

ROOF SNOW LOAD:
GROUND SNOW LOAD (Pg) = 35 PSF
FLAT ROOF SNOW LOAD (Pf) = 29.6 PSF
SNOW EXPOSURE FACTOR (Ce) = 1.00
SNOW IMPORTANCE FACTOR (I) = 1.10
THERMAL FACTOR (Ct) = 1.1
SLOPE FACTOR (Cs) = .97
DRIFT SURCHARGE (Pdr) = 17.3 PSF
WIDTH OF DRIFT (w) = 12.35 FT

WIND LOAD:
BASIC WIND SPEED = 120 MPH
BUILDING CATEGORY = RISK CATEGORY III
WIND EXPOSURE = B
WIND DIRECTIONALITY FACTOR = Kd=0.85
TOPOGRAPHIC FACTOR = Kzt=1.0
GUST FACTOR = 0.85
ENCLOSURE CLASSIFICATION = ENCLOSED
APPLICABLE. INTERNAL PRESSURE COEFF. = ±0.18

COMPONENTS & CLADDING PRESSURES:

	WIND PRESSURES (PSF)				
ZONE	< 10 SQ. FT.	< 20 SQ. FT.	< 50 SQ. FT.	< 100 SQ. FT.	< 500 SQ. FT.
1'	9.35/-21.093	8.00/-16.688	8.00/-16.688	8.00/-16.688	8.00/-16.688
1	9.35/-36.757	8.00/-27.104	8.00/-24.528	8.00/-22.624	8.00/-22.624
2	9.35/-48.416	8.00/-35.728	8.00/-32.480	8.00/-30.016	8.00/-30.016
3	9.35/-66.038	8.00/-47.152	8.00/-40.656	8.00/-35.728	8.00/-35.728
4	23.051/-25.009	17.360/-18.928	16.240/-17.808	16/-17.024	16/-17.024
5	23.051/-30.883	17.360/-22.736	16.240/-20.496	16/-18.928	16/-18.928

NOTES:
1. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE PROJECTED SURFACE, RESPECTIVELY.
2. WIND PRESSURES SHOWN ARE ULTIMATE AND CAN BE CONVERTED TO SERVICE BY MULTIPLYING BY 0.6
3. JOIST NET UPLIFT LOAD COMBINATION IS 0.6D+0.6W, "D" = 12 PSF
4. WIDTH OF PRESSURE COEFFICIENT ZONE, a = 9.6 FT.

SEISMIC DESIGN DATA:
OCCUPANCY RISK CATEGORY = III
SEISMIC IMPORTANCE FACTOR = 1.25
SITE CLASS = D (ASSUMED)
MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss = 0.228 AND S1 = 0.056
SPECTRAL RESPONSE PARAMETERS: SDS = 0.243 AND SD1 = 0.089
SEISMIC DESIGN CATEGORY = B
SEISMIC RESPONSE COEFFICIENT: CS = 0.0435
RESPONSE MODIFICATION COEFFICIENT: R = 3
ANALYSIS PROCEDURE = NOT EVALUATED
DESIGN BASE SHEAR = N/A
BASIC SEISMIC FORCE RESIST. SYS. = H. STEEL SYSTEMS NOT SPECIFICALLY DETAILS FOR SEISMIC RESISTANCE, EXCLUDING CANTILEVER COLUMNS

GEOTECHNICAL DESIGN DATA:
GEOTECHNICAL EVALUATION REPORT PREPARED BY TECTONIC ENGINEERING DATES SEPT. 21, 2023
ALLOWABLE BEARING STRENGTH = 4000 PSF

ROOF RAIN LOAD DATA:
RAIN INTENSITY (i) = 2.22 IN./HR.

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D , ARCHITECTS PC
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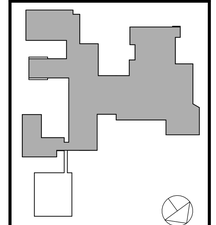
P.914.666.5900 KGDARCHITECTS.COM

MHE ENGINEERING
55 Airport Center Drive, Suite 202, New Windsor, NY 12553, (845) 567-3100
111 Wheatfield Drive, Suite 1, Milford, PA 18337, (570) 296-2765

NY SED PROJECT CONTROL NO:
44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

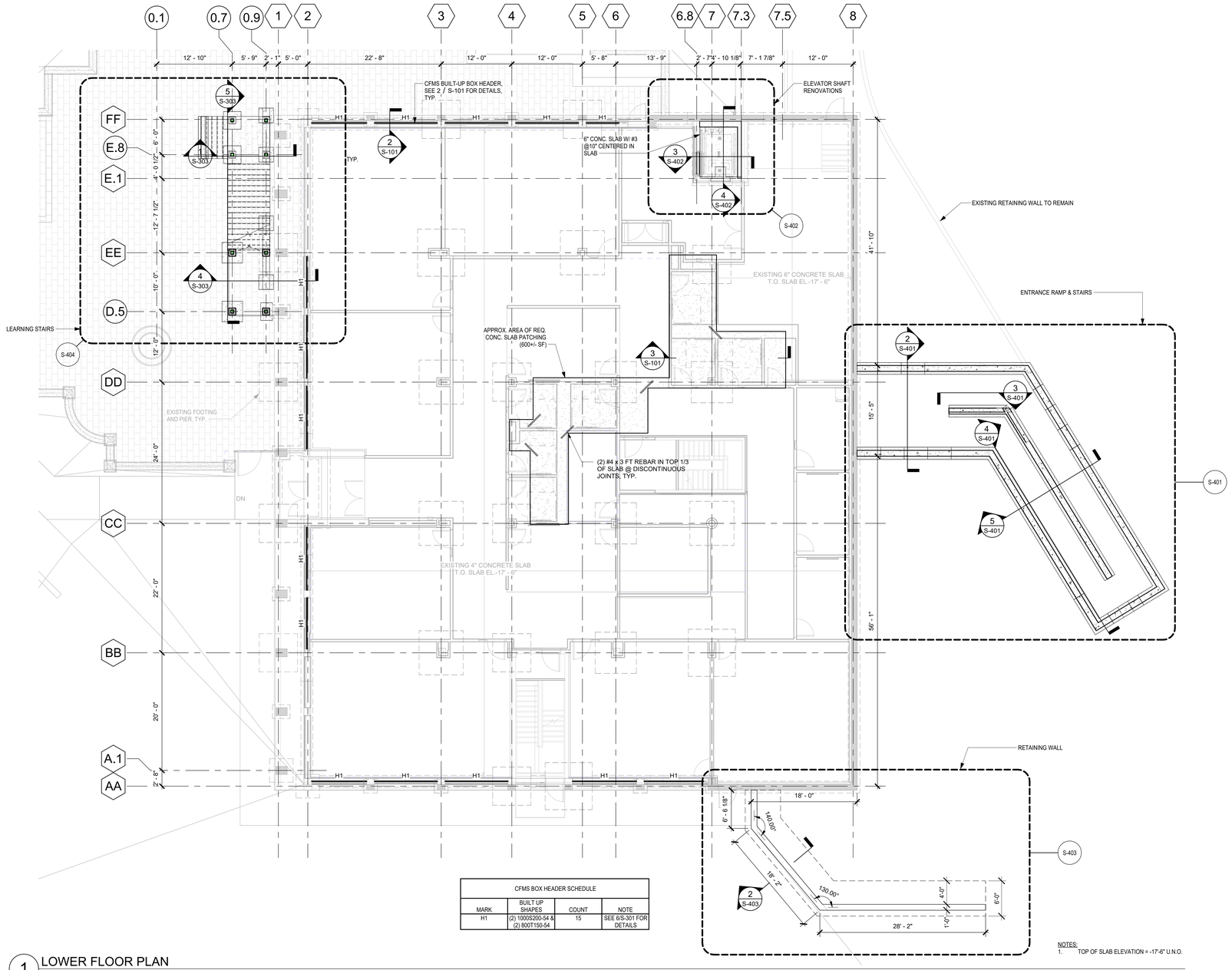
Sheet Title

STRUCTURAL NOTES & SCHEDULES

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	WRB JSS

Sheet Number

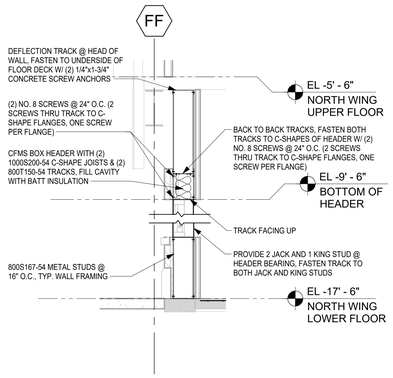
S-001



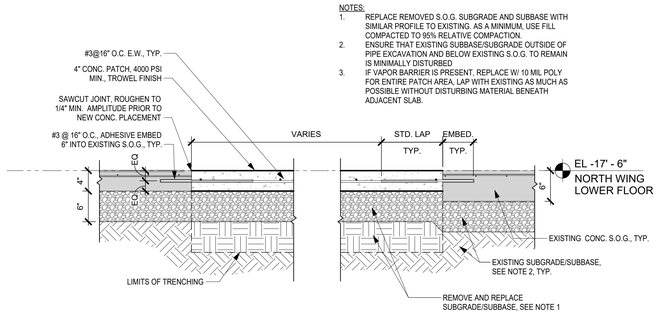
CFMS BOX HEADER SCHEDULE			
MARK	BUILT UP SHAPES	COUNT	NOTE
H1	(2) 1000S200-54 & (2) 800T150-54	15	SEE 6/S-301 FOR DETAILS

NOTES:
1. TOP OF SLAB ELEVATION = -17'-6" U.N.O.

1 LOWER FLOOR PLAN
1/8" = 1'-0"



2 CFMS INFILL WALL - HEADER DETAIL
1/2" = 1'-0"



NOTES:
1. REPLACE REMOVED S.O.G. SUBGRADE AND SUBBASE WITH SIMILAR PROFILE TO EXISTING. AS A MINIMUM, USE FILL COMPACTED TO 95% RELATIVE COMPACTION.
2. ENSURE THAT EXISTING SUBBASE/SUBGRADE OUTSIDE OF PIPE EXCAVATION AND BELOW EXISTING S.O.G. TO REMAIN IS MINIMALLY DISTURBED
3. IF VAPOR BARRIER IS PRESENT, REPLACE W/ 10 MIL POLY FOR ENTIRE PATCH AREA, LAP WITH EXISTING AS MUCH AS POSSIBLE WITHOUT DISTURBING MATERIAL BENEATH ADJACENT SLAB.

3 TYP. SLAB ON GRADE INFILL DETAIL
1" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
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NY SED PROJECT CONTROL NO.

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

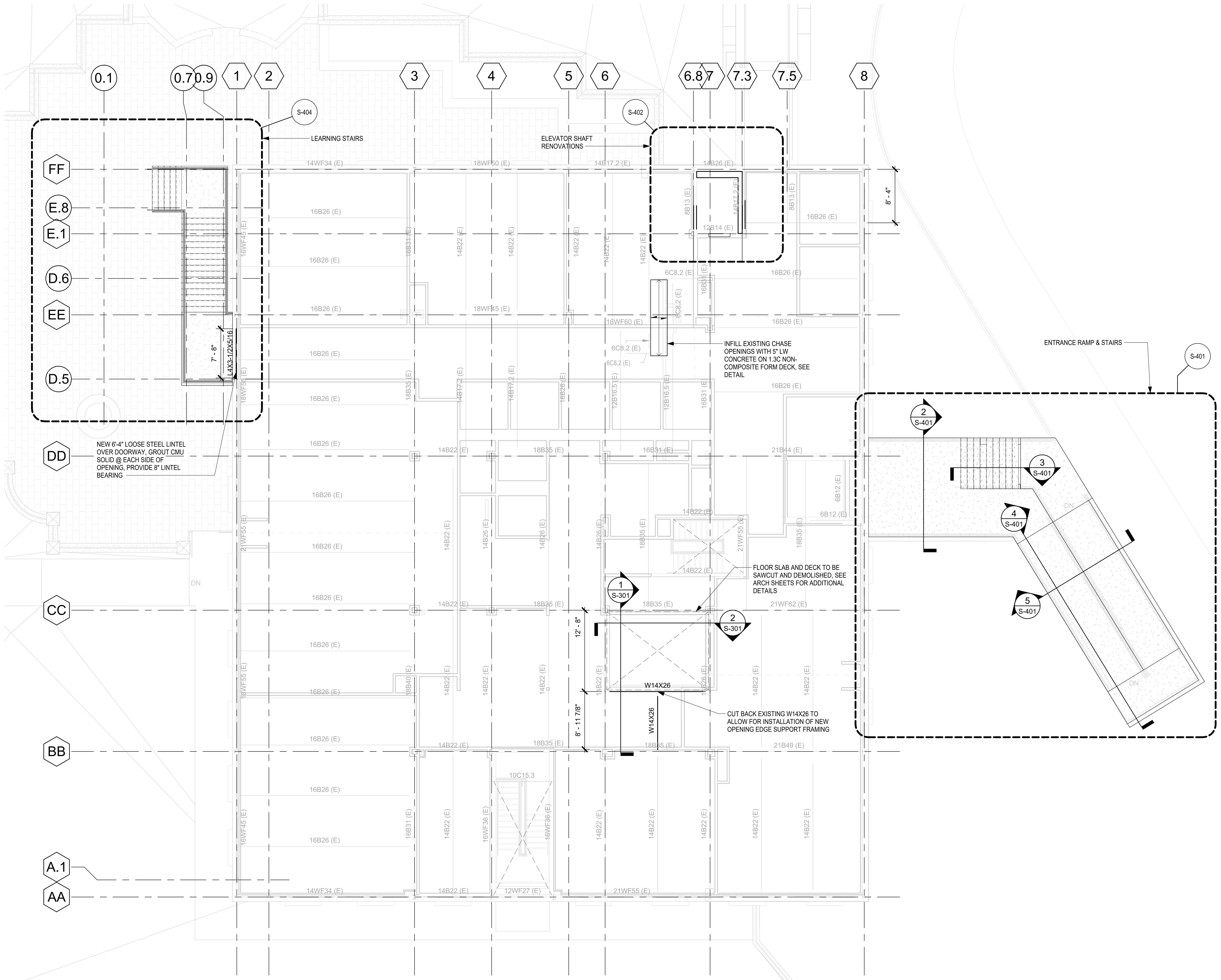
Sheet Title

LOWER FLOOR PLAN

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
AS NOTED	WRB JSS

Sheet Number

S-101



NOTES:
1. TOP OF STEEL ELEVATION = -5'-11¼" U.N.O.
2. EXISTING WALL LINTEL CALLOUTS OMITTED FOR CLARITY

1 UPPER FLOOR FRAMING PLAN
1/8" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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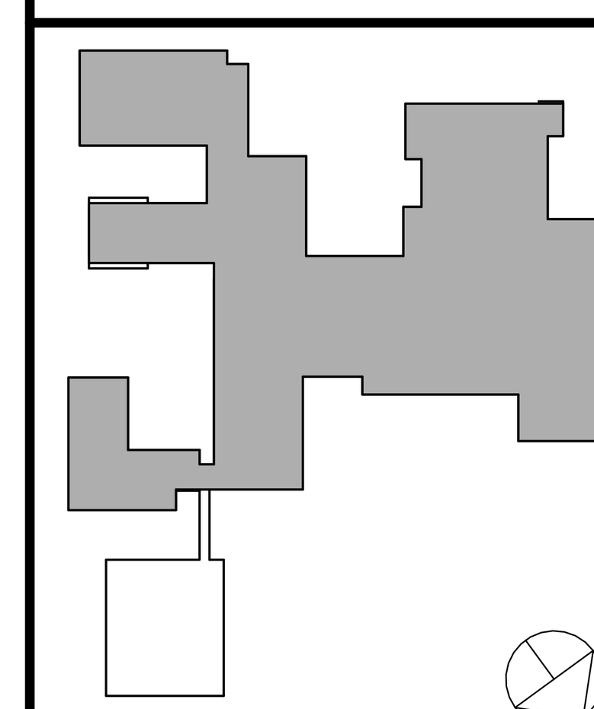
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

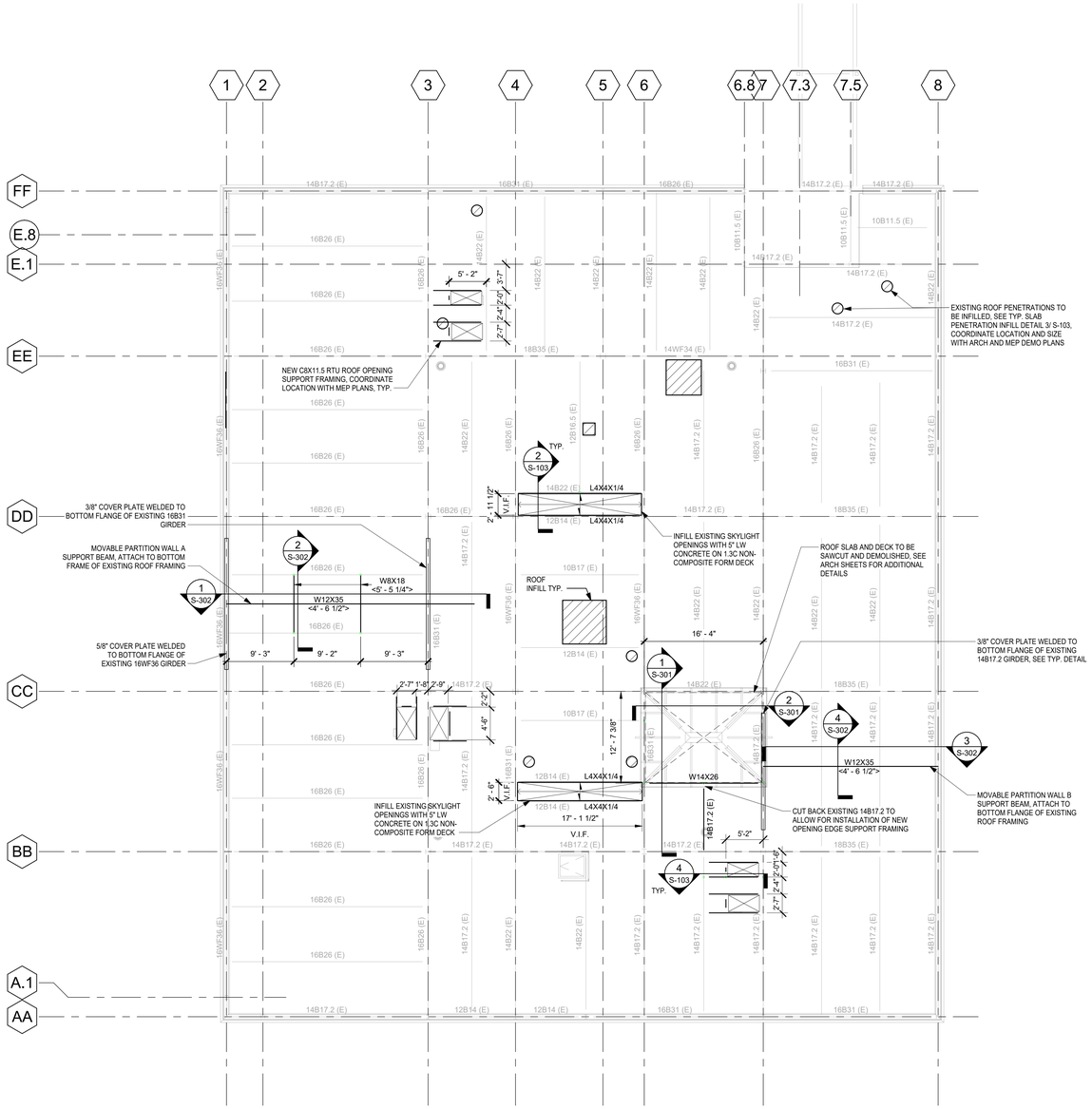
Sheet Title

UPPER FLOOR FRAMING PLAN

Job No.	Date
2023-1011	04/24/2024
Scale	**Drawn / Checked**
AS NOTED	WRB JSS

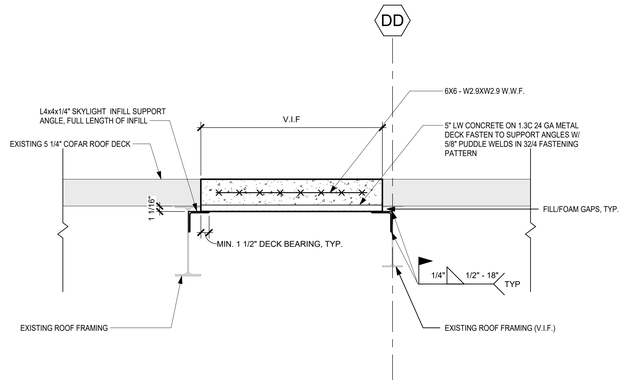
Sheet Number

S-102

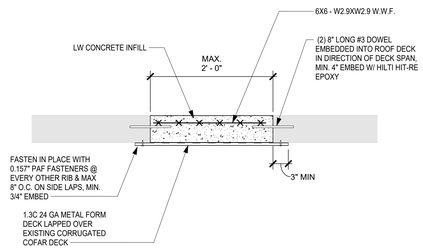


NOTES:
1. TOP OF STEEL ELEVATION = 6'-0½" U.N.O.

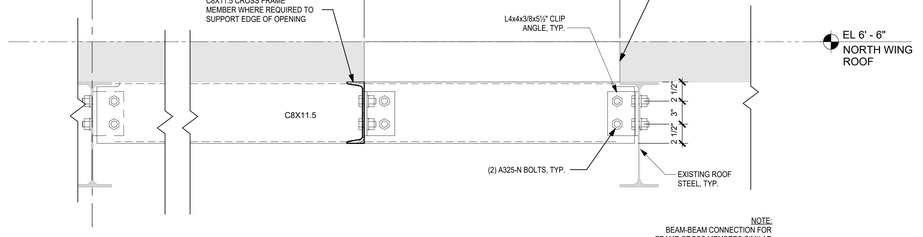
1 ROOF FRAMING PLAN
1/8" = 1'-0"



2 EXISTING SLAB OPENING INFILL DETAIL (OPENINGS W/ SUPPORT STEEL)
1" = 1'-0"



3 TYP. SLAB PENETRATION INFILL DETAIL (NO SUPPORT FRAMING)
1" = 1'-0"



NOTE:
BEAM-BEAM CONNECTION FOR FRAME CROSS MEMBERS SIMILAR

4 HVAC UNIT SUPPORT FRAME DETAIL
1 1/2" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

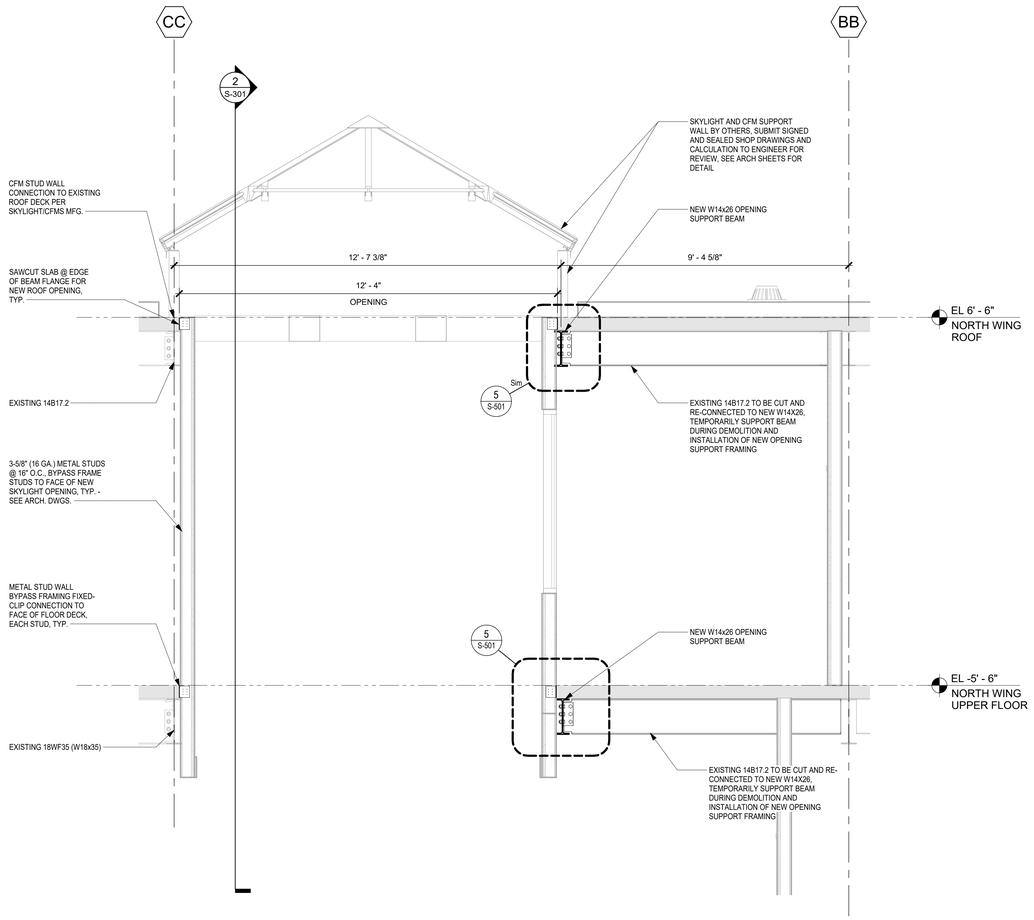
Sheet Title

ROOF FRAMING PLAN

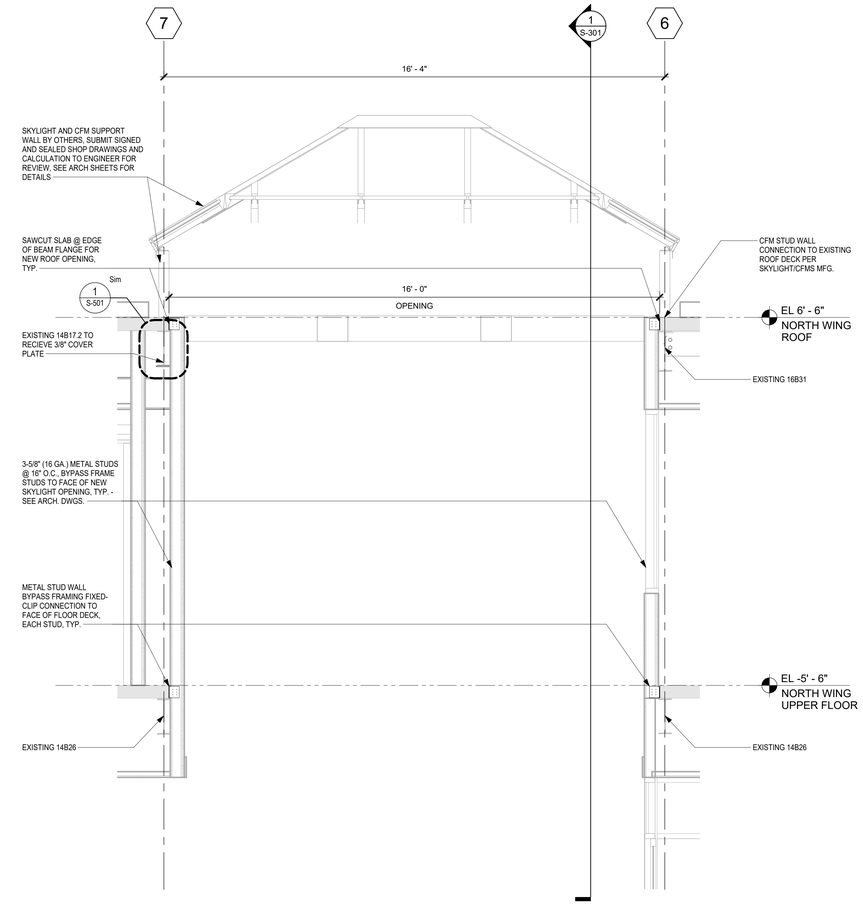
Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: WRB JSS

Sheet Number

S-103



1 ROOF SECTION - SKYLIGHT OPENING
1/2" = 1'-0"



2 ROOF SECTION - SKYLIGHT OPENING 2
1/2" = 1'-0"

ORANGE-ULSTER BOCES

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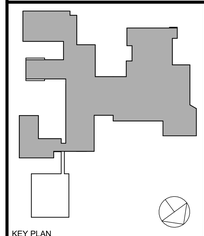
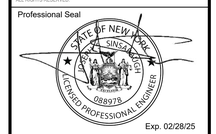
44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal



Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

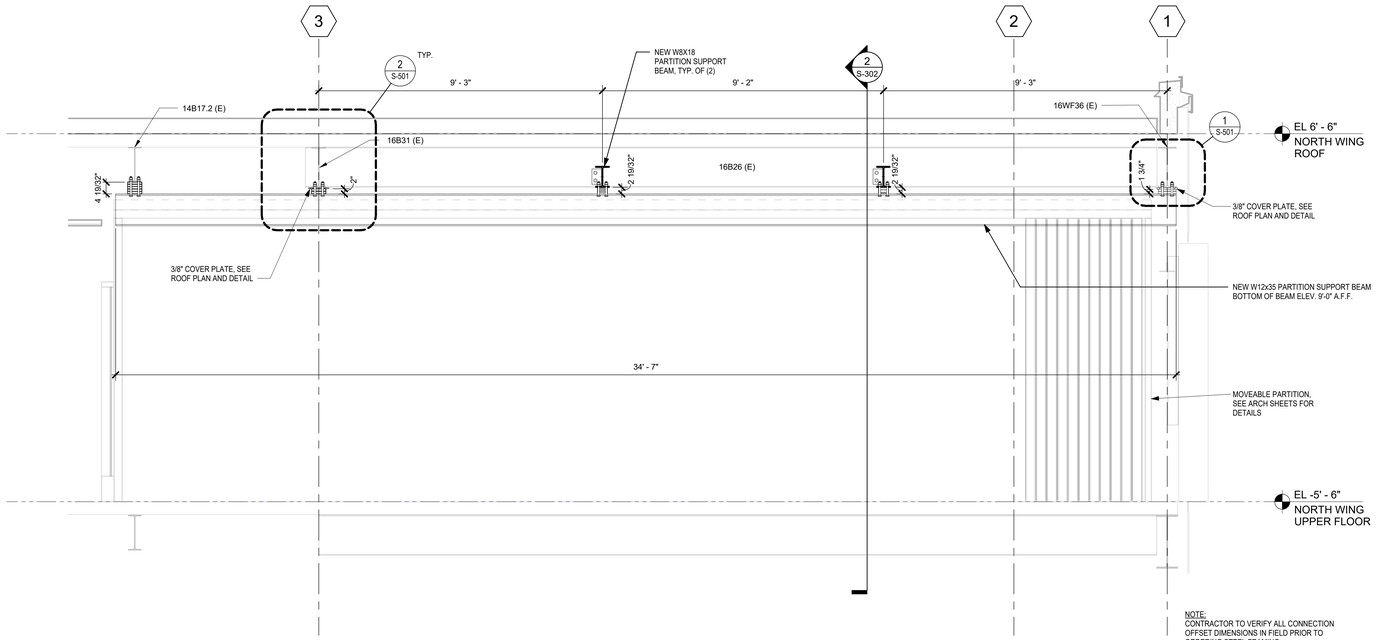
Sheet Title

ROOF & SKYLIGHT SECTIONS

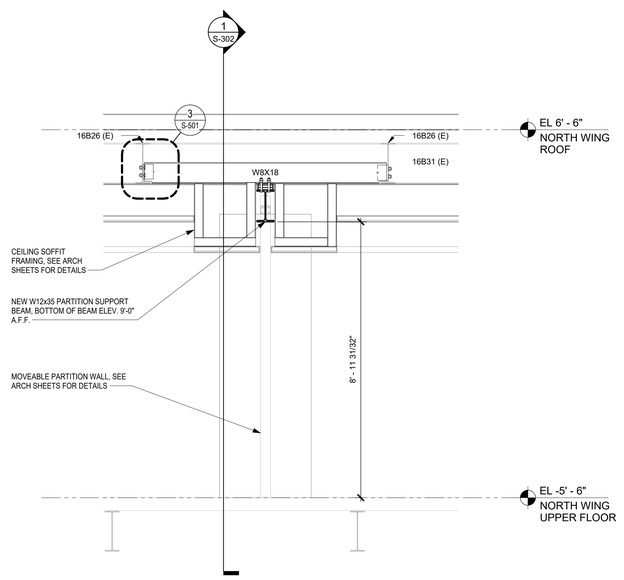
Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
AS NOTED	WRB JSS

Sheet Number

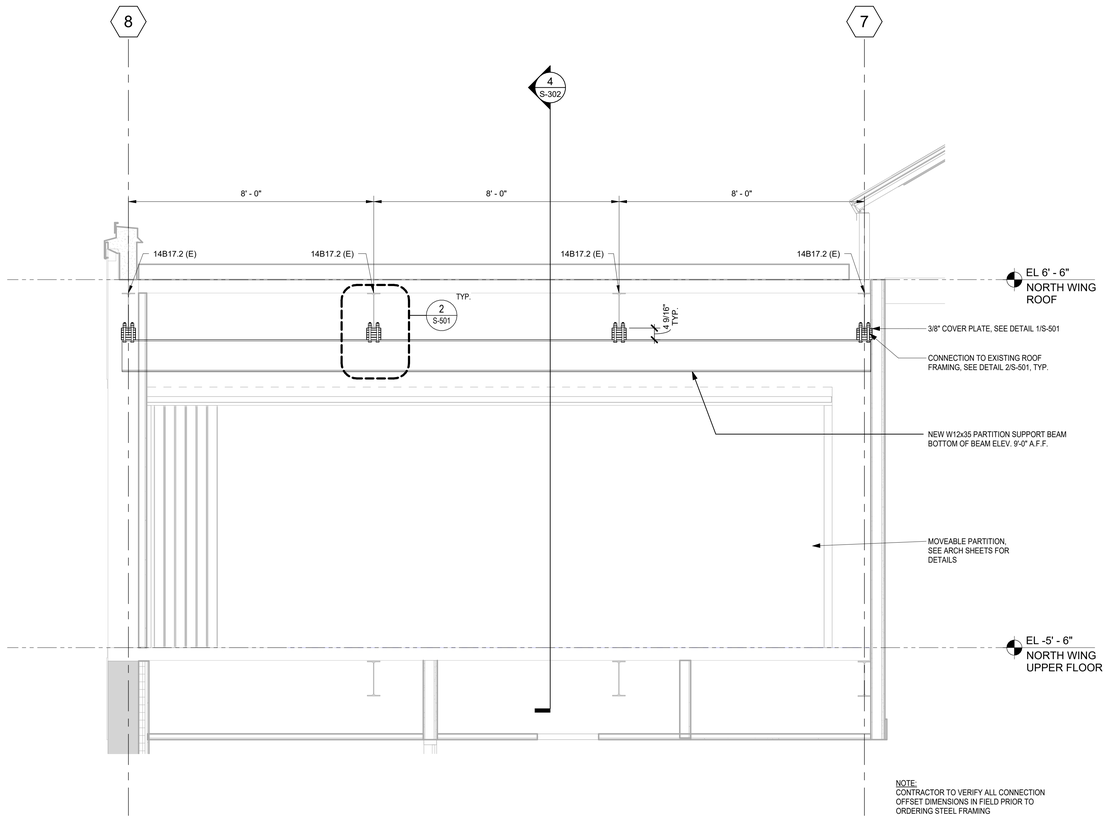
S-301



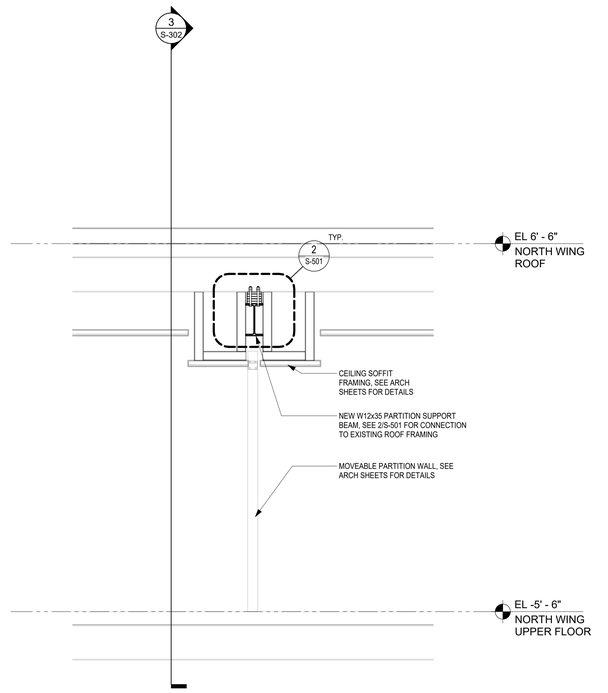
1 OPERBALE PARTITION A SUPPORT FRAMING - LONGITUDINAL SECTION
1/2" = 1'-0"



2 OPERABLE PARTITION A SUPPORT FRAMING - TRANSVERSE SECTION
1/2" = 1'-0"



3 OPERABLE PARTITION B SUPPORT FRAMING - LONGITUDINAL SECTION
1/2" = 1'-0"



4 OPERABLE PARTITION B SUPPORT FRAMING - TRANSVERSE SECTION
1/2" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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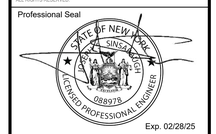
CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal



Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

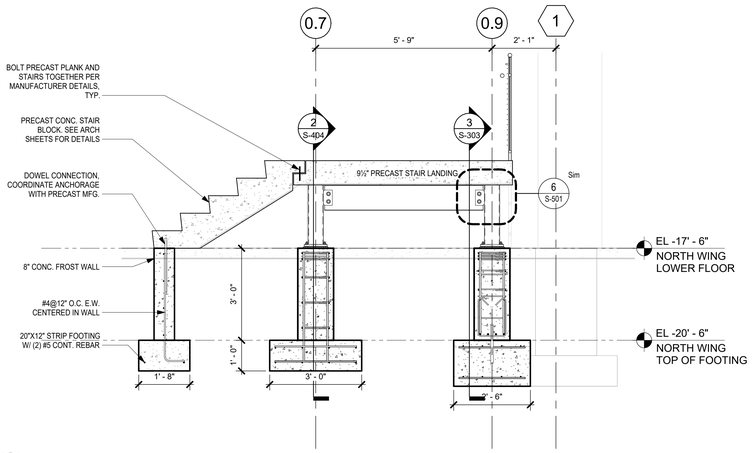
Sheet Title

OPERABLE PARTITION SUPPORT SECTIONS

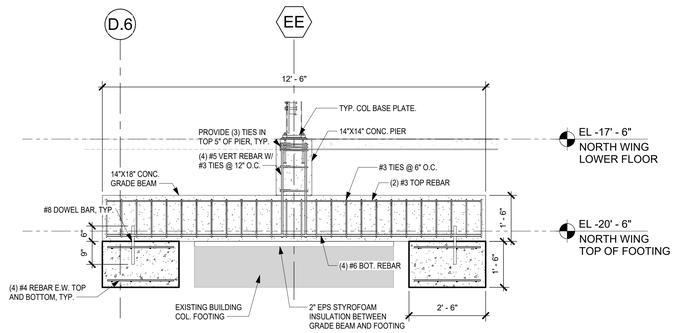
Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
AS NOTED	WRB JSS

Sheet Number

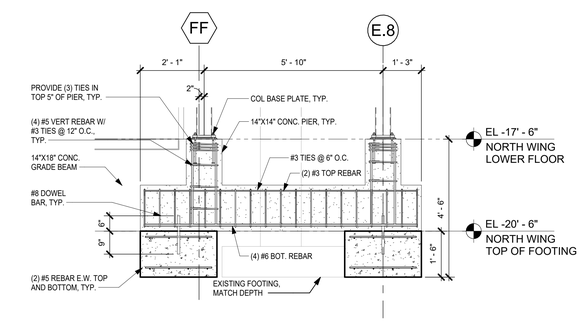
S-302



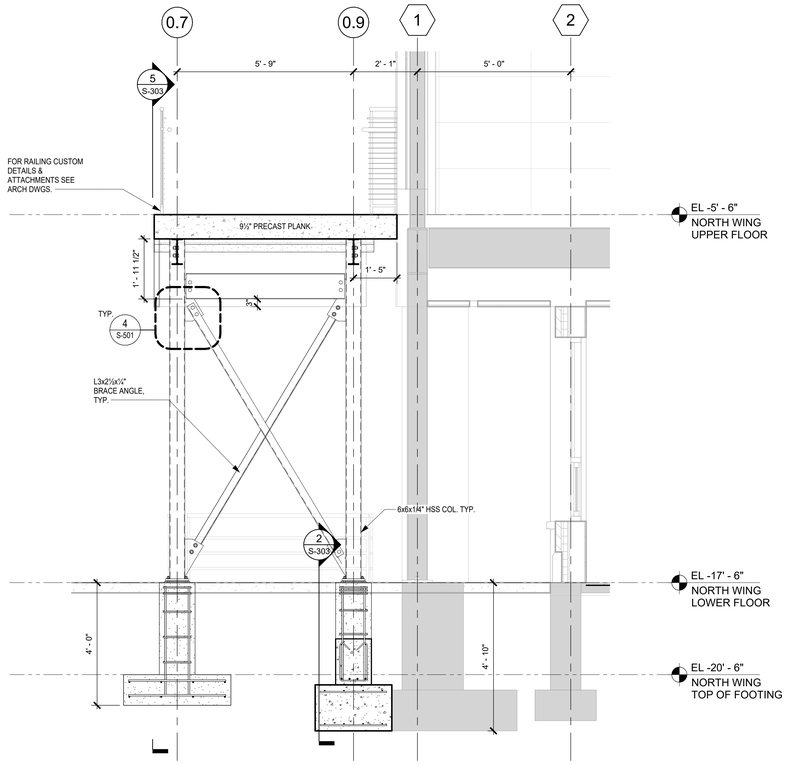
1 LEARNING STAIR SECTION A
1/2" = 1'-0"



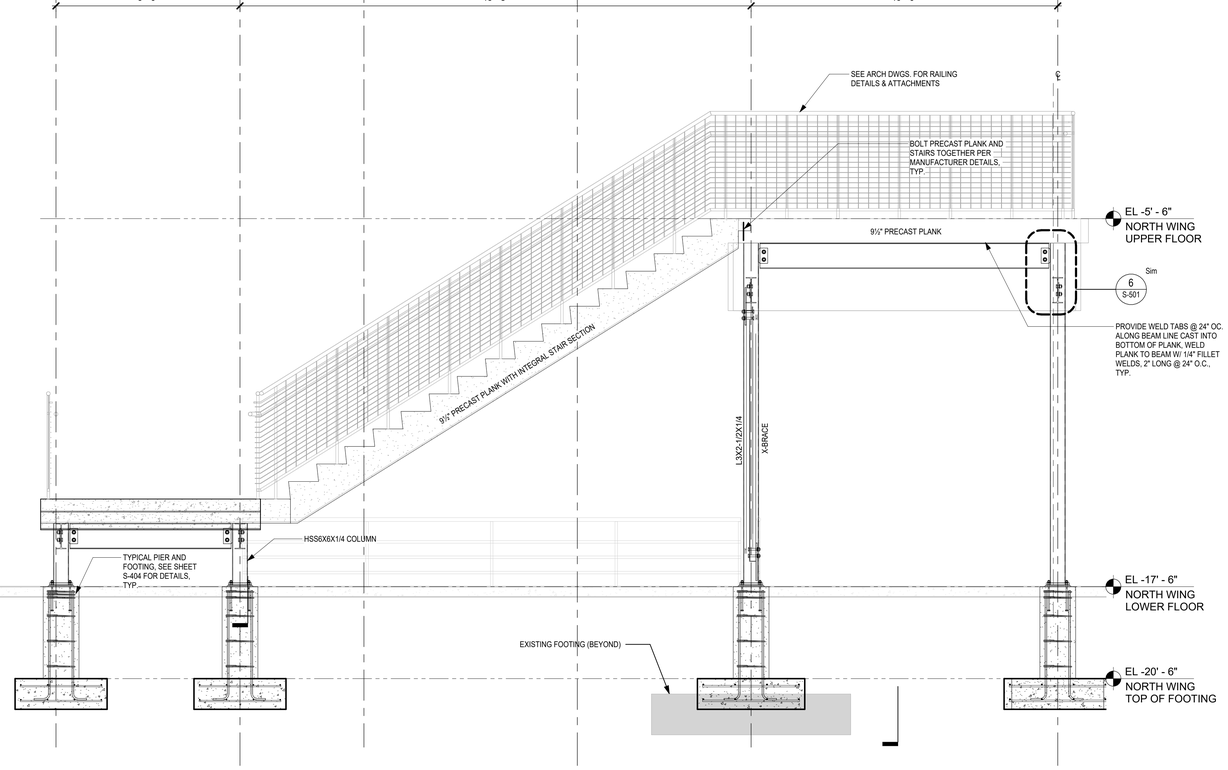
2 UPPER LANDING GRADE BEAM DETAIL
1/2" = 1'-0"



3 LOWER LANDING GRADE BEAM DETAIL
1/2" = 1'-0"



4 LEARNING STAIR SECTION C
1/2" = 1'-0"



NOTE:
CONTRACTOR SHALL PROVIDE TEMPORARY SHORING DURING INSTALLATION OF PRECAST SLABS AND STAIRS.

5 LEARNING STAIR SECTION D
1/2" = 1'-0"

ORANGE-ULSTER BOCES

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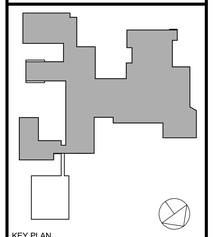
CONSTRUCTION DOCUMENTS



Professional Seal

Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

LEARNING STAIR SECTIONS

Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: WRB JSS

Sheet Number

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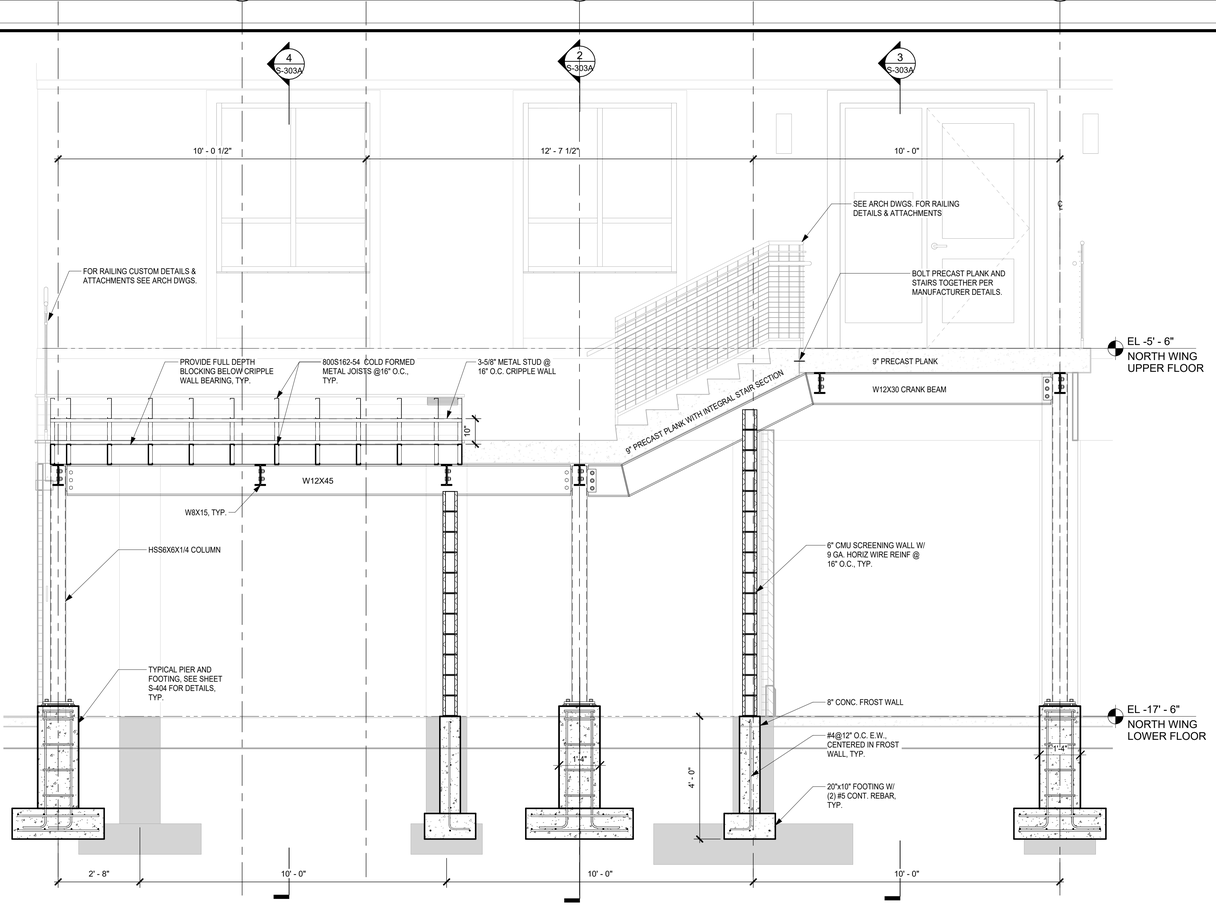
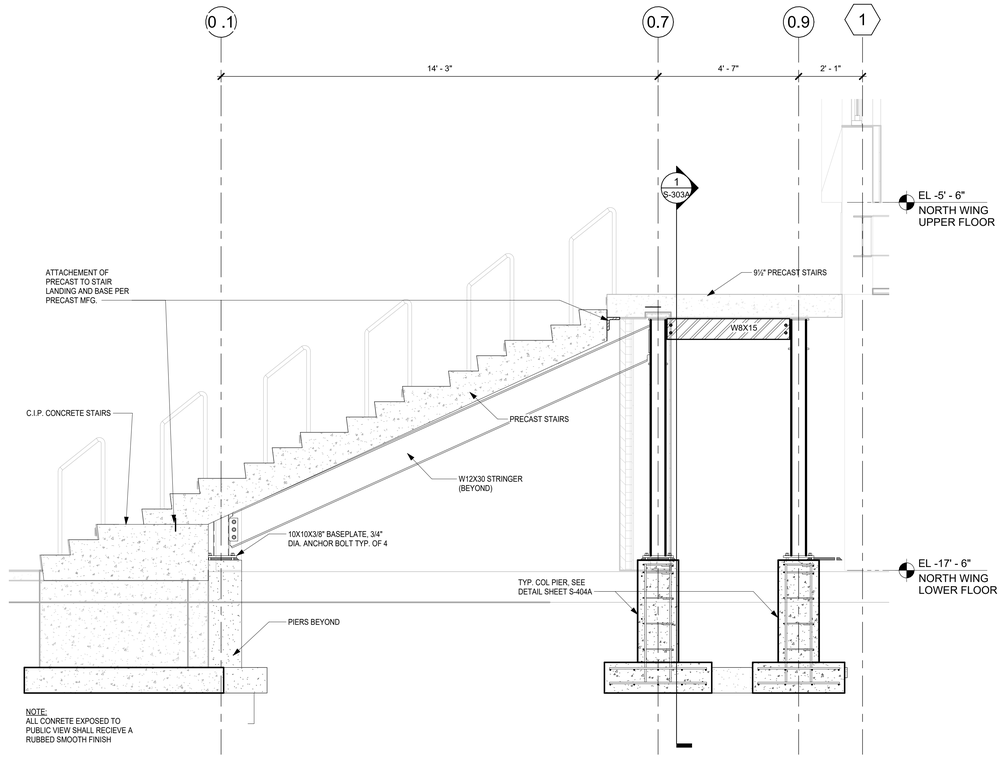
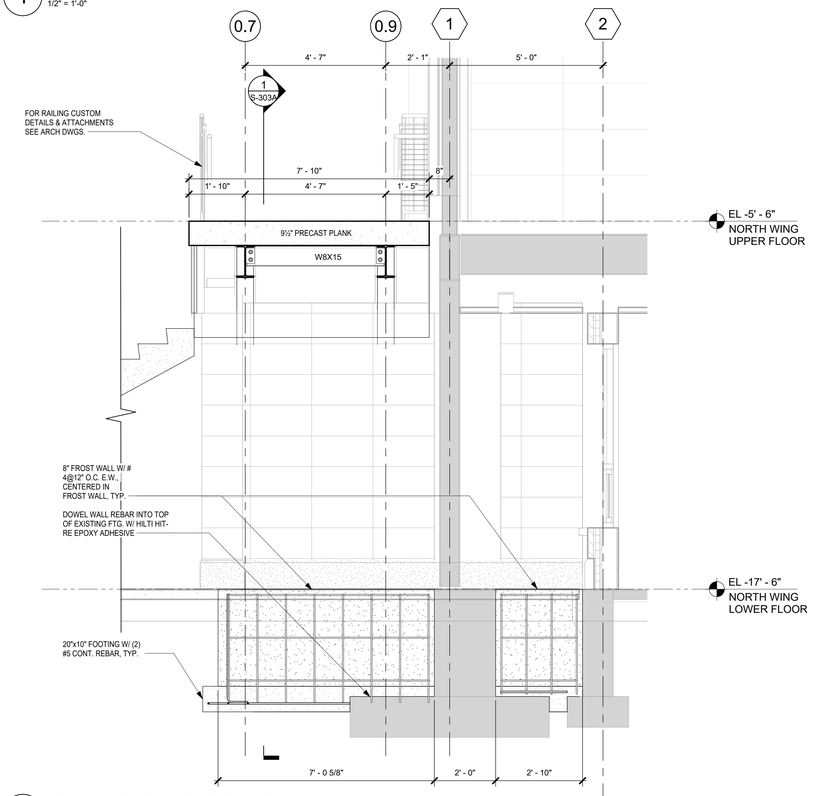


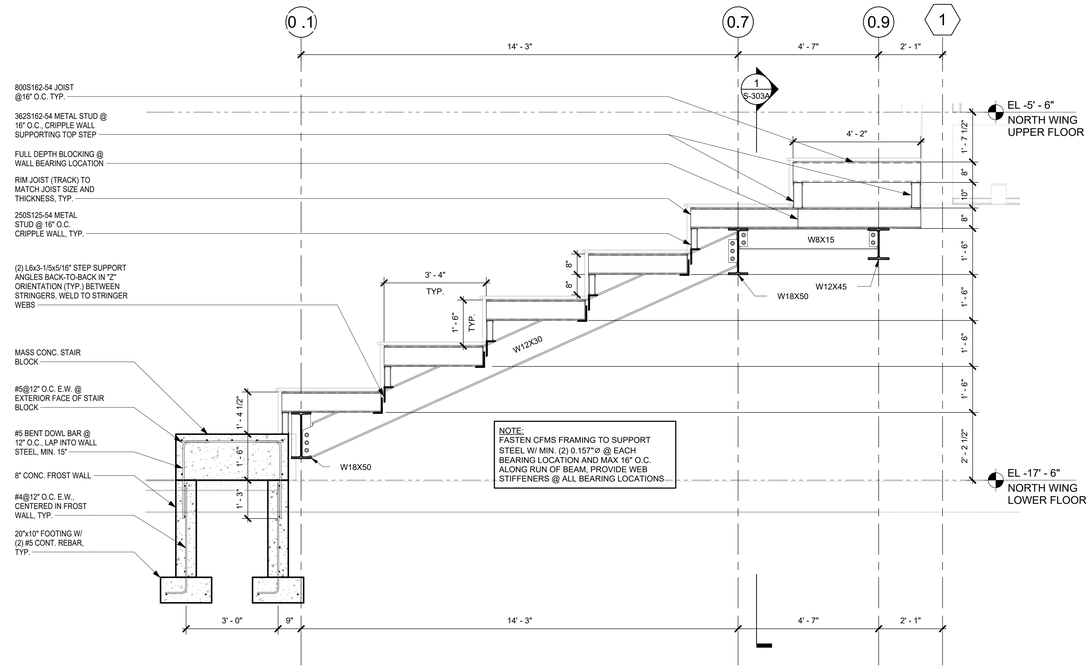
1 LEARNING STAIR SECTION D
1/2" = 1'-0"



2 LEARNING STAIR SECTION B
1/2" = 1'-0"



3 LEARNING STAIR SECTION C
1/2" = 1'-0"



4 LEARNING STAIR SECTION A
1/2" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

Exp. 02/28/25

No.	Date	Issue

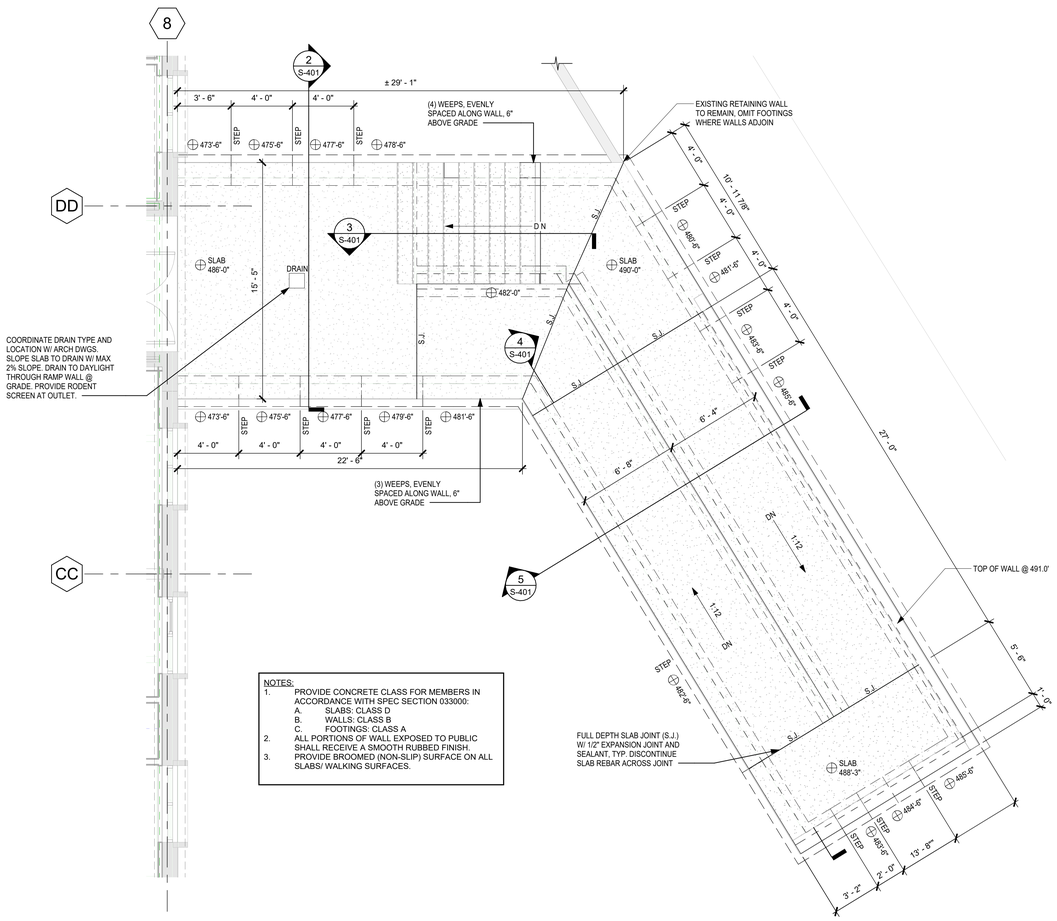
Sheet Title

LEARNING STAIR SECTIONS (ADD ALT)

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
AS NOTED	WRB JSS

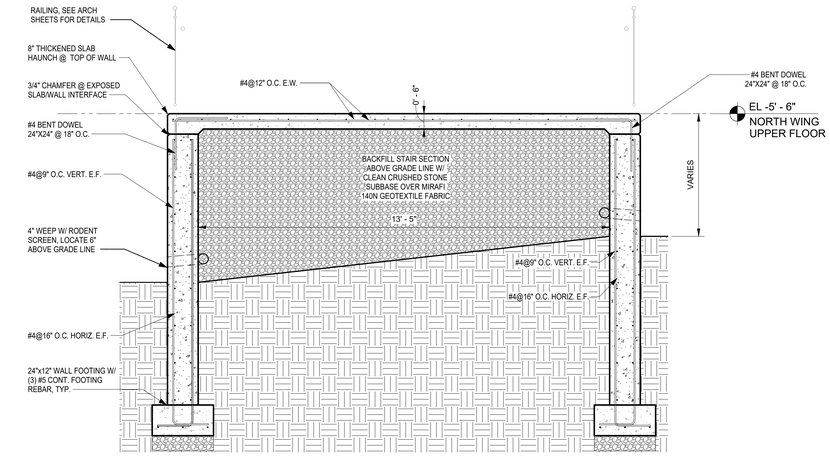
Sheet Number

S-303A

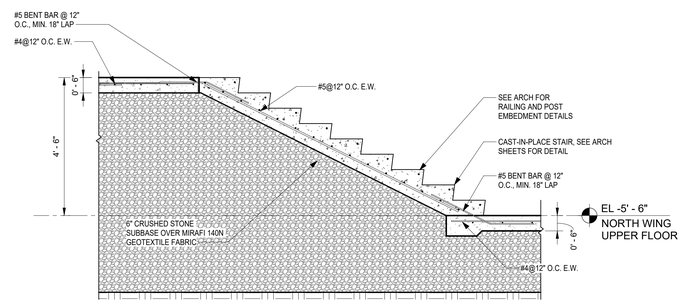


NOTES:
1. PROVIDE CONCRETE CLASS FOR MEMBERS IN ACCORDANCE WITH SPEC SECTION 033000:
   A. SLABS: CLASS D
   B. WALLS: CLASS B
   C. FOOTINGS: CLASS A
2. ALL PORTIONS OF WALL EXPOSED TO PUBLIC SHALL RECEIVE A SMOOTH RUBBED FINISH.
3. PROVIDE BROOMED (NON-SLIP) SURFACE ON ALL SLABS/ WALKING SURFACES.

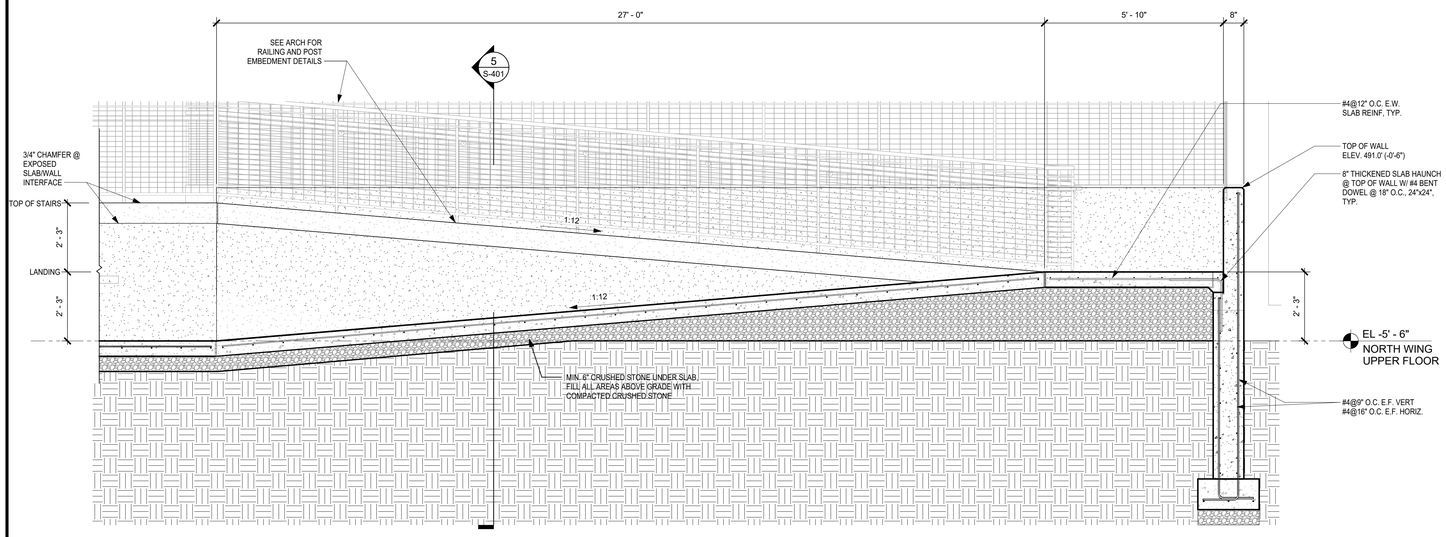
1 ENTRYWAY RAMP AND STAIRS
1/4" = 1'-0"



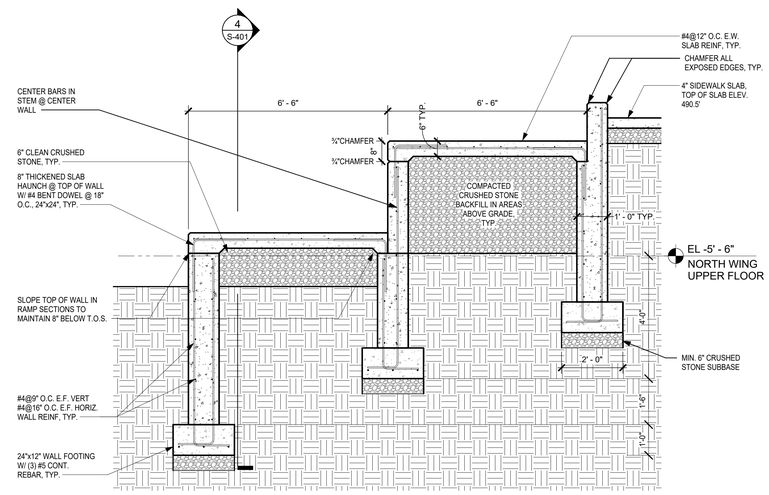
2 ENTRYWAY - LOWER SECTION
1/2" = 1'-0"



3 ENTRYWAY - STAIR SECTION
1/2" = 1'-0"



4 ENTRYWAY - RAMP LONG. SECTION
1/2" = 1'-0"



5 ENTRYWAY - RAMP CROSS SECTION
1/2" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

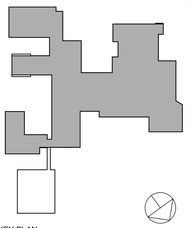
KG+D listen imagine build
KG+D , ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

MHE ENGINEERING
55 Airport Center Drive, Suite 202 New Windsor, NY 12553 (845) 567-3100
111 Wheatfield Drive, Suite 1 Milford, PA 18337 (570) 296-2765

NY SED PROJECT CONTROL NO.

44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

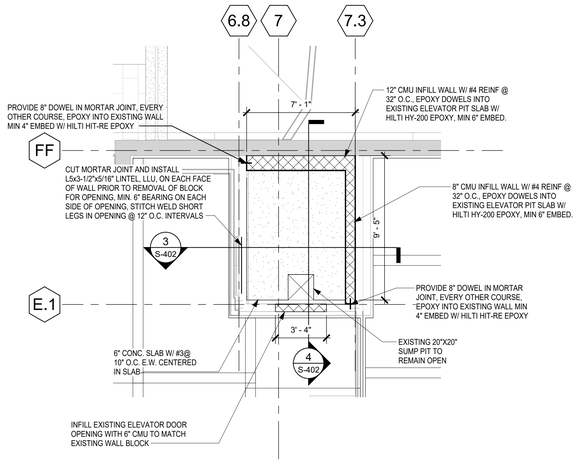
Sheet Title

ENLARGED ENTRYWAY RAMP AND STAIR PLANS AND DETAILS

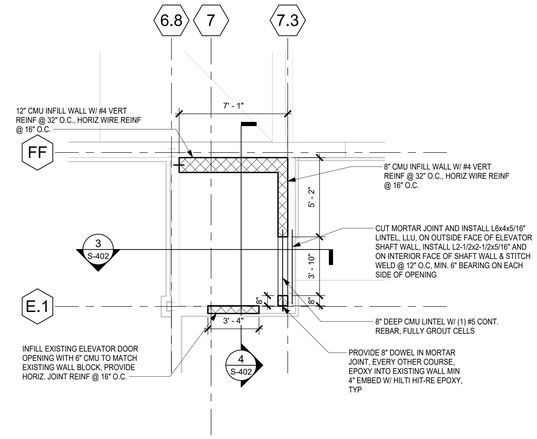
Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
AS NOTED	WRB JSS

Sheet Number

S-401



1 ENLARGED ELEVATOR PLAN - LOWER LEVEL
1/4" = 1'-0"



2 ENLARGED ELEVATOR PLAN - UPPER LEVEL
1/4" = 1'-0"

3 ENLARGED ELEVATOR SECTION
1/4" = 1'-0"

4 ENLARGED ELEVATOR SECTION1
1/4" = 1'-0"

STEEL LINTEL SCHEDULE

LOCATION	SIZE	LENGTH	QTY
EXISTING 6" CMU SHAFT WALL (LL)	L6x3-1/2x5/16"	5'-0"	2
EXISTING 6" CMU SHAFT WALL (UL)	L6x4x5/16"	5'-0"	1
EXISTING 6" CMU SHAFT WALL (UL)	L2-1/2x2-1/2x5/16"	5'-0"	1

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CONSTRUCTION DOCUMENTS

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1	08/21/23	CON DOCS - NYSED

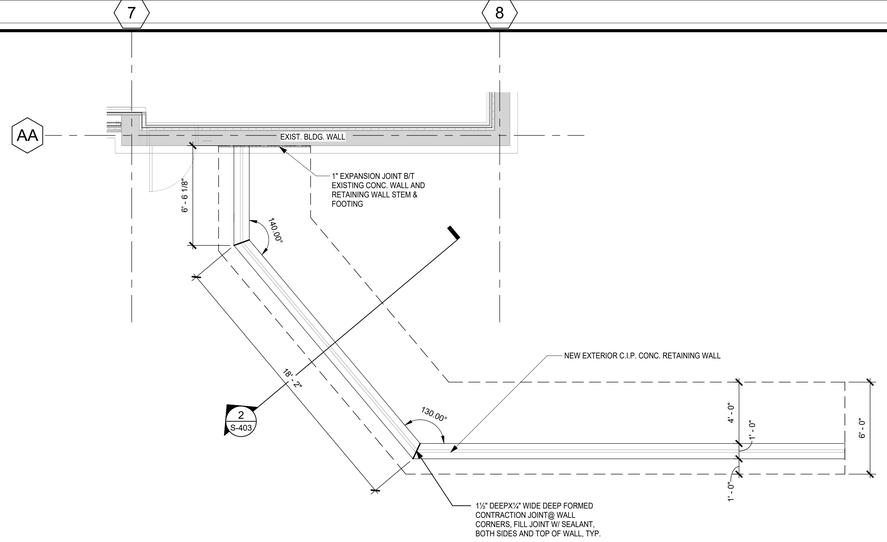
Sheet Title

ENLARGED ELEVATOR PLANS AND DETAILS

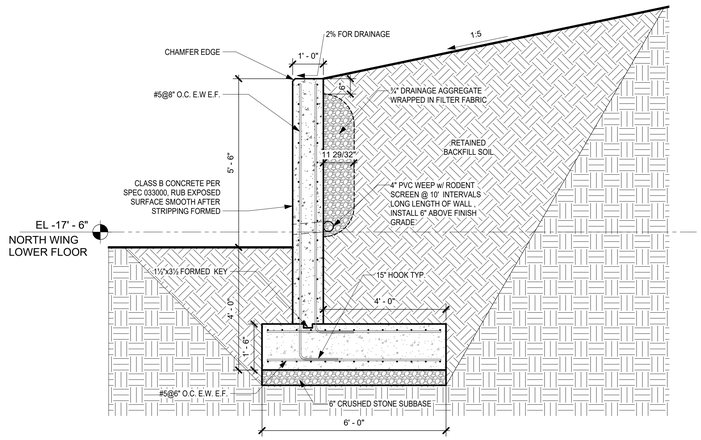
Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: WRB JSS

Sheet Number

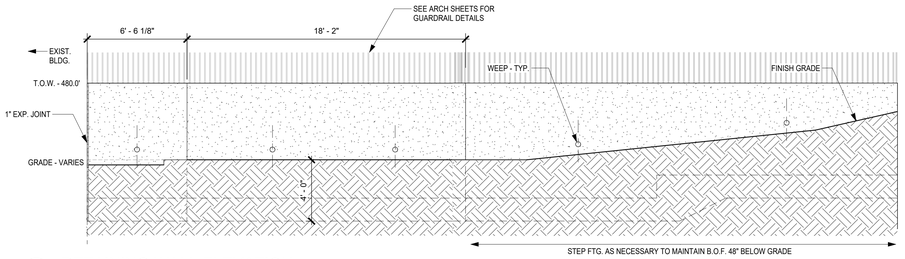
S-402



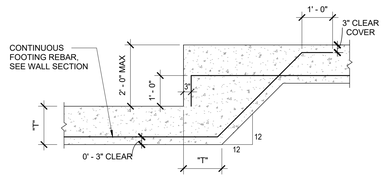
1 RETAINING WALL PLAN
1/4" = 1'-0"



2 RETAINING WALL SECTION
1/2" = 1'-0"



3 RETAINING WALL ELEVATION
1/4" = 1'-0"



6 TYPICAL STEPPED FOOTING
1/2" = 1'-0"

RETAINING WALL NOTES
1. RETAINING WALL SHALL BE COMPRISED OF CLASS B CAST-IN-PLACE CONCRETE CONFORMING SPECIFICATION SECTION 033000 OF THE CONTRACT DOCUMENTS.

GEOTEXTILE FABRIC
1. GEOTEXTILE FABRIC SHALL BE TENCATE MIRAFI 180N OR APPROVED EQUAL (8OZ MINIMUM) AND SHALL MEET THE PROPERTIES SPECIFIED BY THE MANUFACTURER.
2. ALL GEOTEXTILE SEAMS SHALL BE OVERLAPPED BY A MINIMUM OF 12-INCHES

COLLECTION DRAIN SYSTEM
1. SUBSURFACE DRAINAGE SYSTEM CONSTRUCTED OF 4-INCH PERFORATED HDPE OR PVC PIPE PER ASTM D3034 AND/OR ASTM F2648. IF THE PIPE IS NOT PLACED WITHIN CLEAN CRUSHED STONE IT SHALL BE WRAPPED IN A GEOTEXTILE FABRIC.
2. USE NON-PERFORATED PIPE TO OUTLET THROUGH FACE OF WALL, BENEATH WALL, AND WHEN CONNECTING TO DRAINAGE STRUCTURES.
3. PIPE FITTINGS SHALL BE PER MANUFACTURER'S RECOMMENDATION.

DRAINAGE AGGREGATE
1. DRAINAGE AGGREGATE SHALL BE DURABLE CLEAN CRUSHED STONE HAVING AT LEAST TWO FRACTURED FACES AND COMPLY WITH THE FOLLOWING GRADATION:

1.1. SIEVE SIZE	% PASSING
1 INCH	100
3/4 INCH	100 - 75
NO. 4	0 - 10
NO. 50	0 - 5

2. ROUNDED AGGREGATE (E.G. RIVER ROCK AND PEA GRAVEL) IS NOT ACCEPTABLE DRAINAGE AGGREGATE MATERIAL.

FOUNDATION SOIL
1. THE FOUNDATION SOIL IS ASSUMED TO BE SAND (USE SOIL TYPE SM OR SC PER USCS) EXHIBITING A MINIMUM EFFECTIVE INTERNAL FRICTION ANGLE OF 30°, A MOIST UNIT WEIGHT OF 120 PCF, AND A COHESION OF 0 PSF.
2. FOUNDATION SOIL SHALL BE EXAMINED AND TESTED TO CONFIRM THAT THE ACTUAL CONDITIONS MEET OR EXCEED THE DESIGN ASSUMPTIONS
3. ALLOWABLE BEARING CAPACITY OF 3000 PSF
4. THE FOUNDATION SOIL SHALL BE FREE OF DEBRIS, HIGH PLASTIC CLAY, FROST, ICE, ORGANIC MATTER (<1%), AND OTHER DELETERIOUS MATERIALS.

RETAINED BACKFILL SOIL
1. THE RETAINED BACKFILL SHALL BE SAND (USE SOIL TYPE SM OR SC PER USCS) EXHIBITING A MINIMUM EFFECTIVE INTERNAL FRICTION ANGLE OF 30°, A MOIST UNIT WEIGHT OF 120 PCF, A COHESION OF 0 PSF, AND COMPLY WITH THE FOLLOWING GRADATION:

1.1. SIEVE SIZE	% PASSING
2 INCH	100
3/4 INCH	100 - 75
NO. 4	100 - 20
NO. 40	0 - 60
NO. 200	0 - 35

1.2. PLASTICITY INDEX (PI)<10
1.3. 4.5 < PH < 9

2. RETAINED BACKFILL SHALL BE FREE OF DEBRIS, HIGH PLASTIC CLAY, ICE, ORGANIC MATTER (<1%), AND OTHER DELETERIOUS MATERIALS.
3. CONTRACTOR MAY USE A HIGHER QUALITY MATERIAL IN LIEU OF SAND WITH APPROVAL
4. RETAINED BACKFILL MAY BE SITE EXCAVATED WHEN THE ABOVE REQUIREMENTS ARE MET.

SOIL COMPACTION
1. COARSE GRAINED SOILS: ALL COARSE GRAINED SOIL SHALL BE PLACED IN MAXIMUM 9-INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF ITS STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL, PRIOR TO AND DURING CONSTRUCTION, SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE WITHIN A RANGE OF 2% BELOW TO 2% ABOVE OPTIMUM MOISTURE CONTENT.
2. FINE GRAINED SOILS: ALL FINE GRAINED SOIL SHALL BE PLACED IN MAXIMUM 8-INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF ITS STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL, PRIOR TO AND DURING CONSTRUCTION, SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE WITHIN A RANGE OF 2% BELOW TO OPTIMUM MOISTURE CONTENT.
3. CRUSHED STONE: CRUSHED STONE SHALL BE PLACED IN MAXIMUM 12-INCH LOOSE LIFTS AND COMPACTED WITH A MINIMUM OF THREE (3) PASSES OF A VIBRATORY COMPACTOR (OR OTHER SUITABLE EQUIPMENT) CAPABLE OF EXERTING A MINIMUM OF 3,000 LBS OF CENTRIFUGAL FORCE AND TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
4. ONLY LIGHTWEIGHT HAND-OPERATED COMPACTION EQUIPMENT SHALL BE USED WITHIN 3-FEET OF THE BACK OF WALL DURING CONSTRUCTION.

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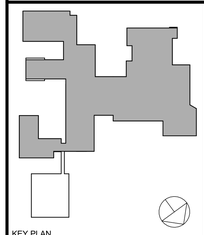
44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

Exp. 02/28/25

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

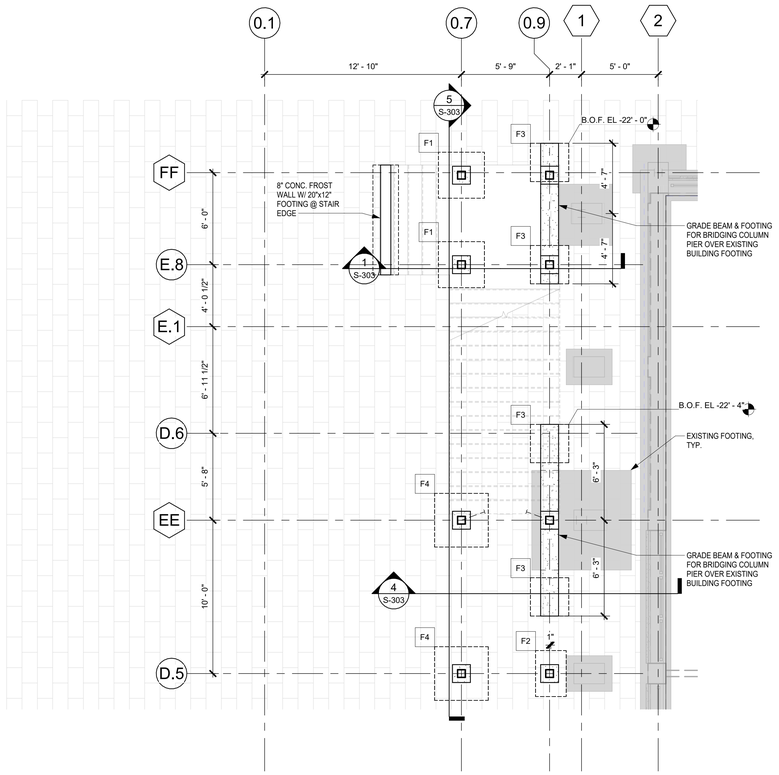
Sheet Title

RETAINING WALL PLAN, ELEVATION, SECTION, & NOTES

Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: WRB JSS

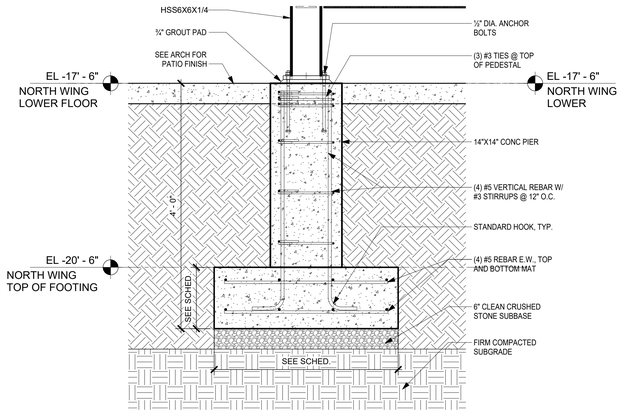
Sheet Number

S-403



NOTE:
NEW BOTTOM OF FOOTING ELEV. = -21'-6" U.N.O.

1 LEARNING STAIRS FOUNDATION PLAN
1/4" = 1'-0"

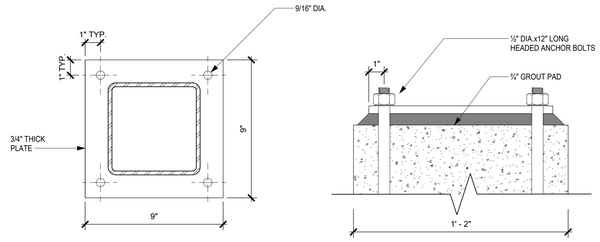


2 TYPICAL PIER & FOUNDATION DETAIL
1" = 1'-0"

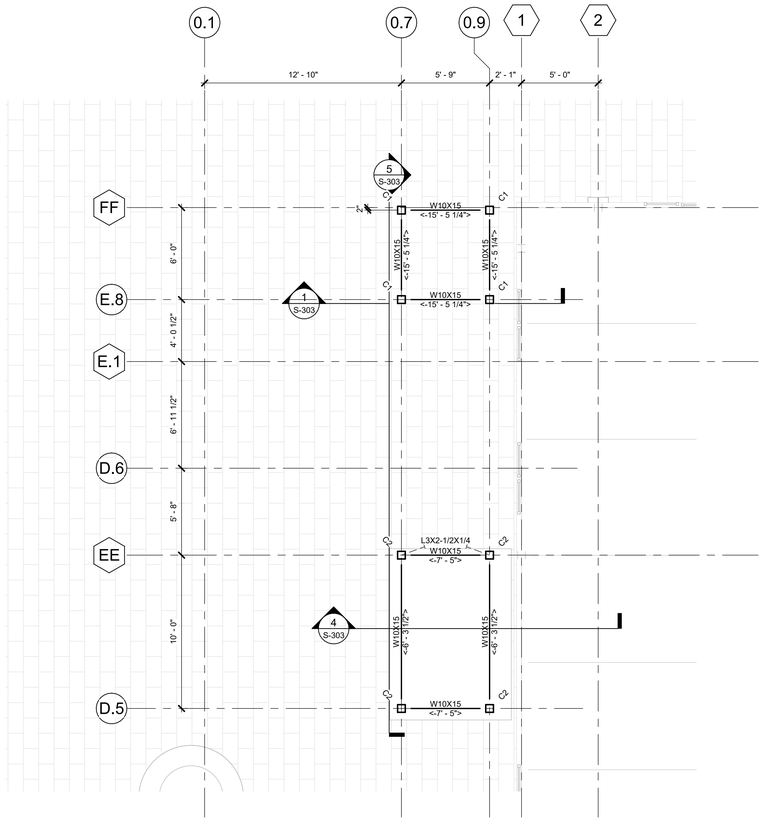
COLUMN SCHEDULE		
COLUMN DESIGNATION	SIZE	LENGTH OF COLUMN
C-1	HSS 6x6x¼	2'-0"
C-2	HSS 6x6x¼	11'-1½"

NOTE: LENGTH OF COL. INCLUDES BASEPLATE AND CAP PLATE

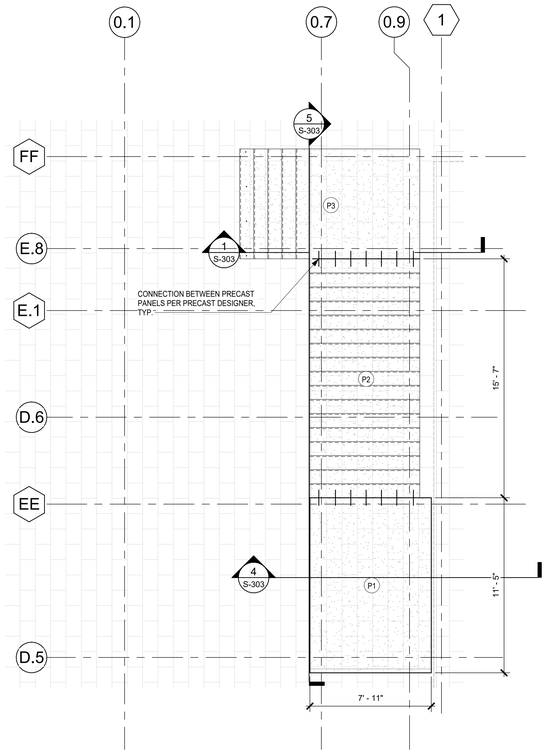
FOOTING SCHEDULE			
FOOTING DESIGNATION	SIZE LxWxD	REINFORCING	QUANTITY
F1	3' x 3' x 12"	(4) #5 REBAR, EVENLY SPACED E.W., TOP AND BOT MAT	2
F2	3' x 2' x 12"	(3) #5 REBAR, EVENLY SPACED E.W., TOP AND BOT MAT	1
F3	2.5' x 2.5' x 18"	(4) #4 REBAR, EVENLY SPACED E.W., TOP AND BOT MAT	4
F4	3.5' x 3.5' x 12"	(4) #5 REBAR, EVENLY SPACED E.W., TOP AND BOT MAT	2



3 BASE PLATE DETAIL
3" = 1'-0"



4 LEARNING STAIRS FRAMING PLAN
1/4" = 1'-0"



5 LEARNING STAIRS PRECAST PLAN
1/4" = 1'-0"

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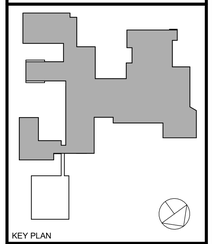
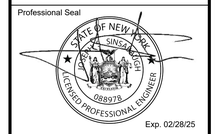
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal



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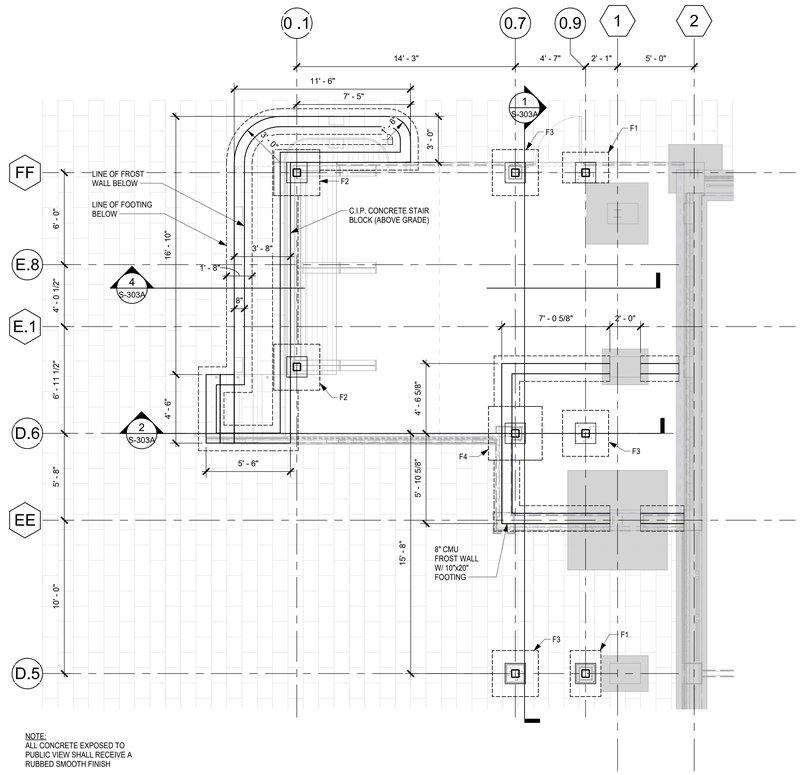
Sheet Title

LEARNING STAIRS PLANS AND DETAILS

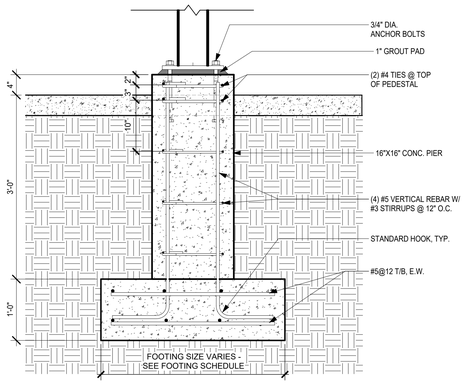
Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: WRB JSS

Sheet Number

S-404



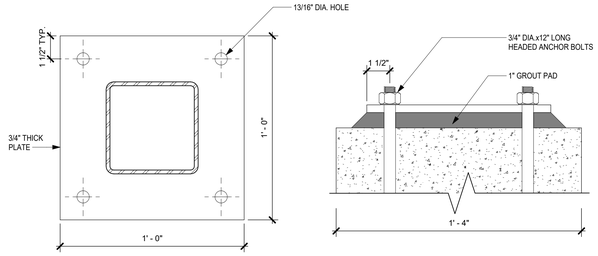
1 LEARNING STAIRS FOUNDATION
1/4" = 1'-0"



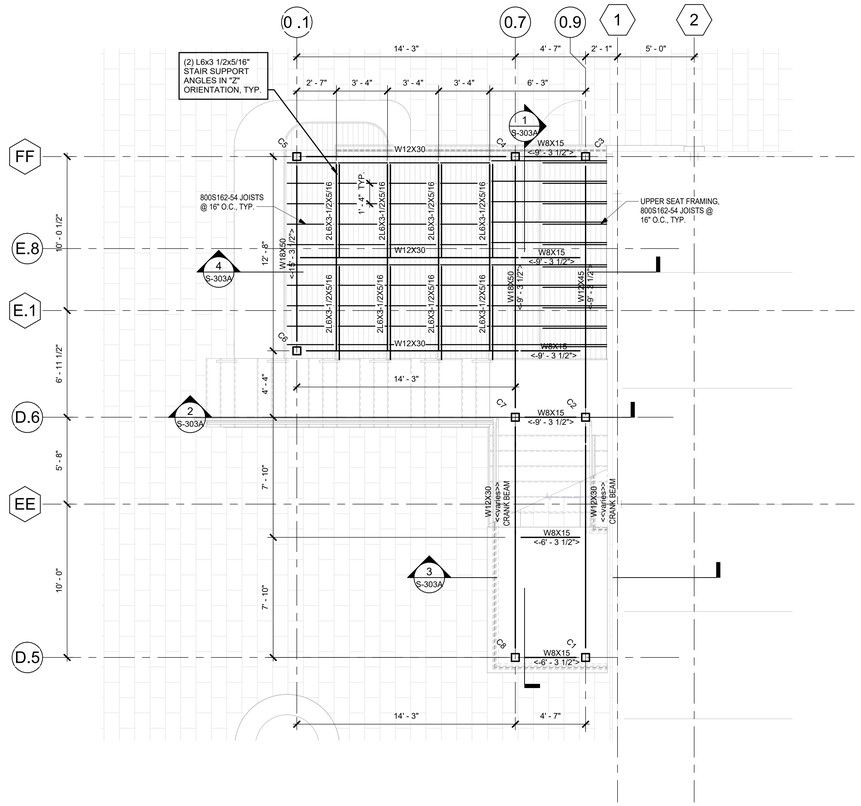
2 TYPICAL PIER & FOUNDATION DETAIL
1" = 1'-0"

COLUMN SCHEDULE		
COLUMN DESIGNATION	SIZE	HEIGHT
C-1	HSS 6 x 6 x ¼"	11'-2"
C-2	HSS 6 x 6 x ¼"	8'-2"
C-3	HSS 6 x 6 x ¼"	8'-2"
C-4	HSS 6 x 6 x ¼"	8'-2"
C-5	HSS 6 x 6 x ¼"	2'-0"
C-6	HSS 6 x 6 x ¼"	2'-0"
C-7	HSS 6 x 6 x ¼"	8'-2"
C-8	HSS 6 x 6 x ¼"	11'-2"

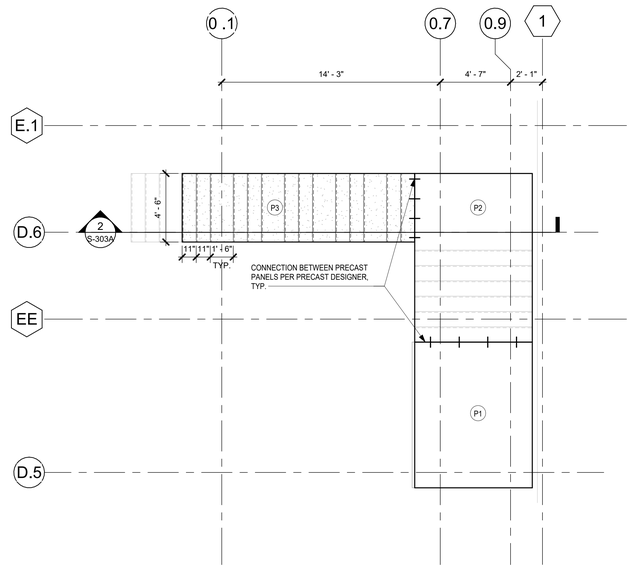
FOOTING SCHEDULE			
FOOTING DESIGNATION	SIZE LxWxD	REINFORCING	QUANTITY
F-1	3' x 2' x 1'	#5 BARS @ 12" O.C.E.W. TOP AND BOTTOM	2
F-2	3' x 3' x 10"	#5 BARS @ 12" O.C.E.W. TOP AND BOTTOM	2
F-3	3' x 3' x 1'	#5 BARS @ 12" O.C.E.W. TOP AND BOTTOM	3
F-4	3.5' x 3.5' x 1'	#5 BARS @ 12" O.C.E.W. TOP AND BOTTOM	1



3 BASE PLATE DETAIL
3" = 1'-0"



4 LEARNING STAIRS FRAMING
1/4" = 1'-0"



5 LEARNING STAIR PRECAST
1/4" = 1'-0"

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Sheet Title

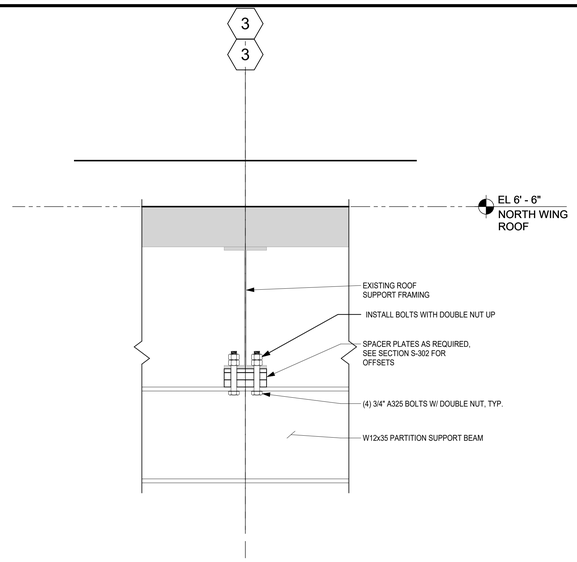
LEARNING STAIRS PLANS AND DETAILS (ADD ALT)

Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: WRB JSS

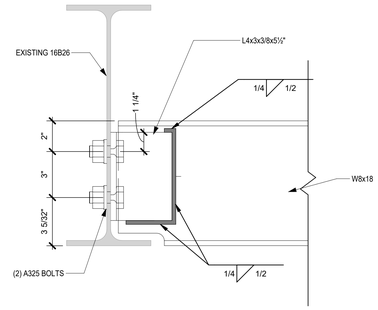
Sheet Number

S-404A

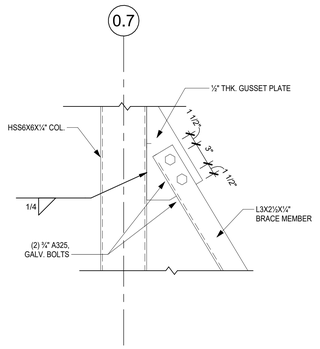
1 TYP. COVER PLATE DETAIL
3" = 1'-0"



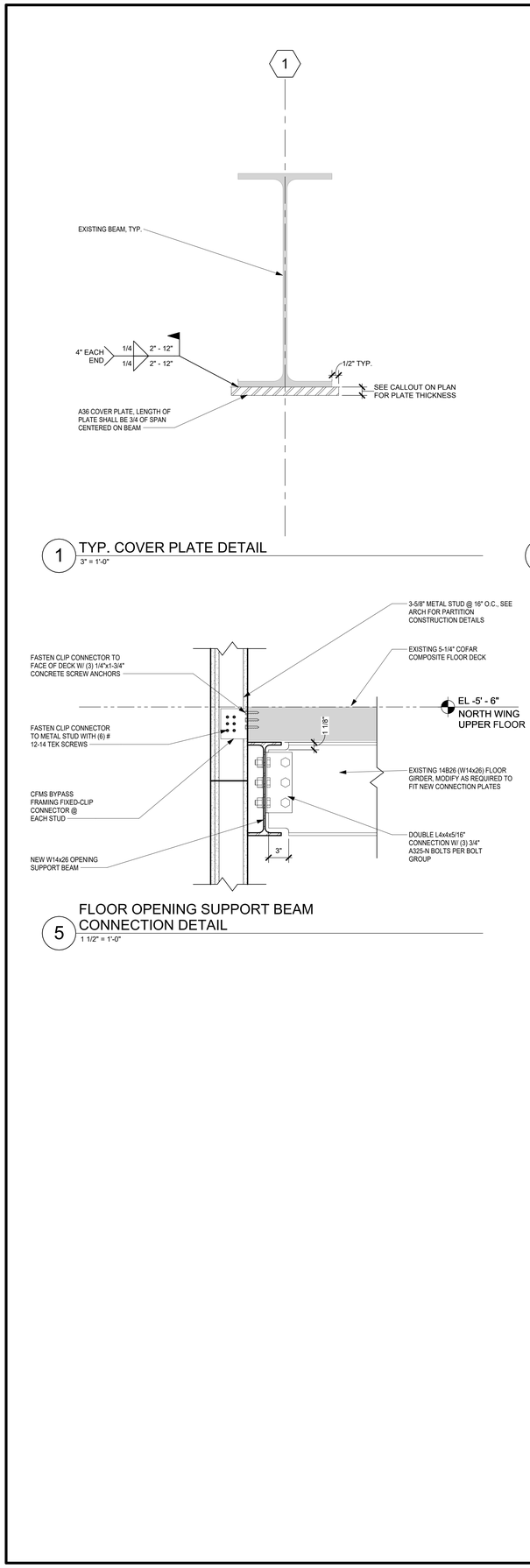
2 TYP. CONNECTION TO EXISTING ROOF FRAMING - OPERABLE PARTITON SUPPORT BEAM
1 1/2" = 1'-0"



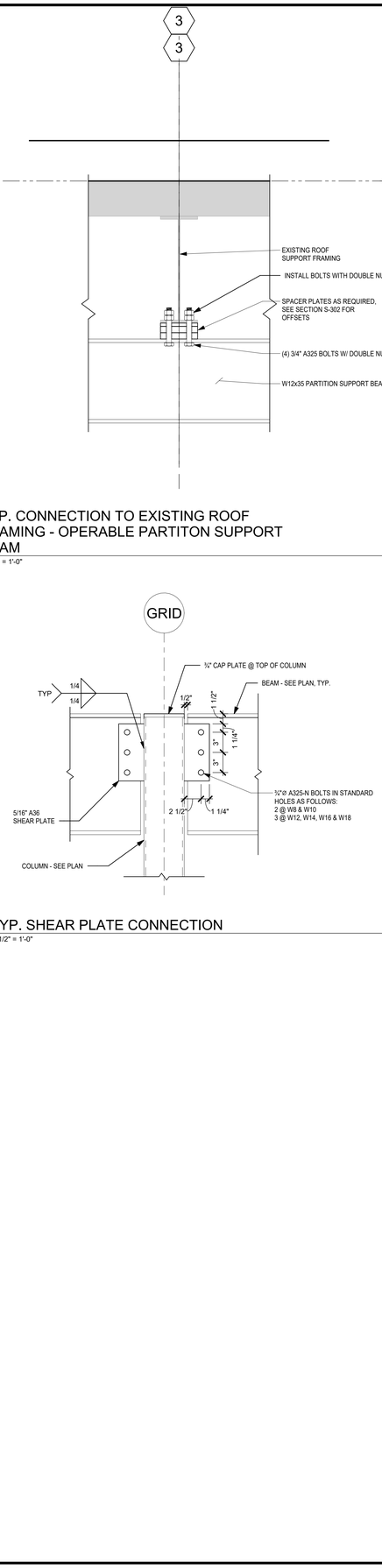
3 W8X18 CLIP ANGLE CONNECTION DETAIL
3" = 1'-0"



4 BRACE GUSSET CONNECTION DETAIL
1 1/2" = 1'-0"



5 FLOOR OPENING SUPPORT BEAM CONNECTION DETAIL
1 1/2" = 1'-0"



6 TYP. SHEAR PLATE CONNECTION
1 1/2" = 1'-0"

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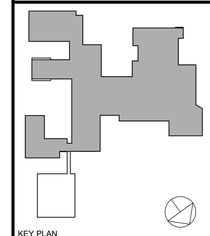

KEY PLAN

Professional Seal

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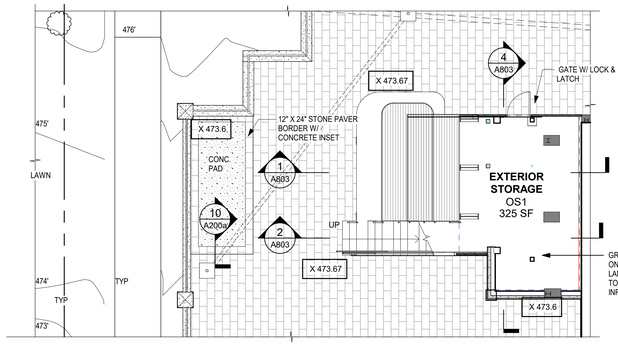
Sheet Title

FRAMING & CONNECTION DETAILS

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
AS NOTED	WRB JSS

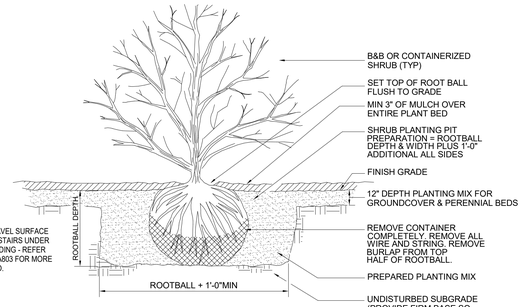
Sheet Number

S-501



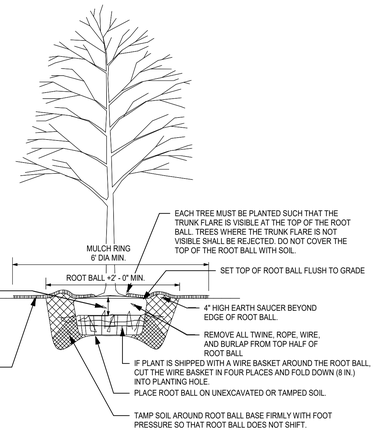
2 LEARNING STAIR @ NORTH WING PLAZA (ADD ALT #1)

1/8" = 1'-0"



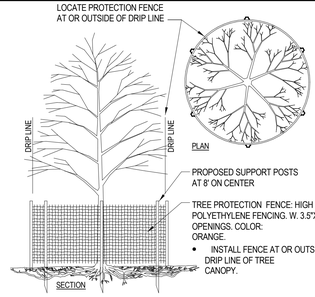
5 SHRUB PLANTING DETAIL

NTS



4 TREE PLANTING DETAIL

NTS

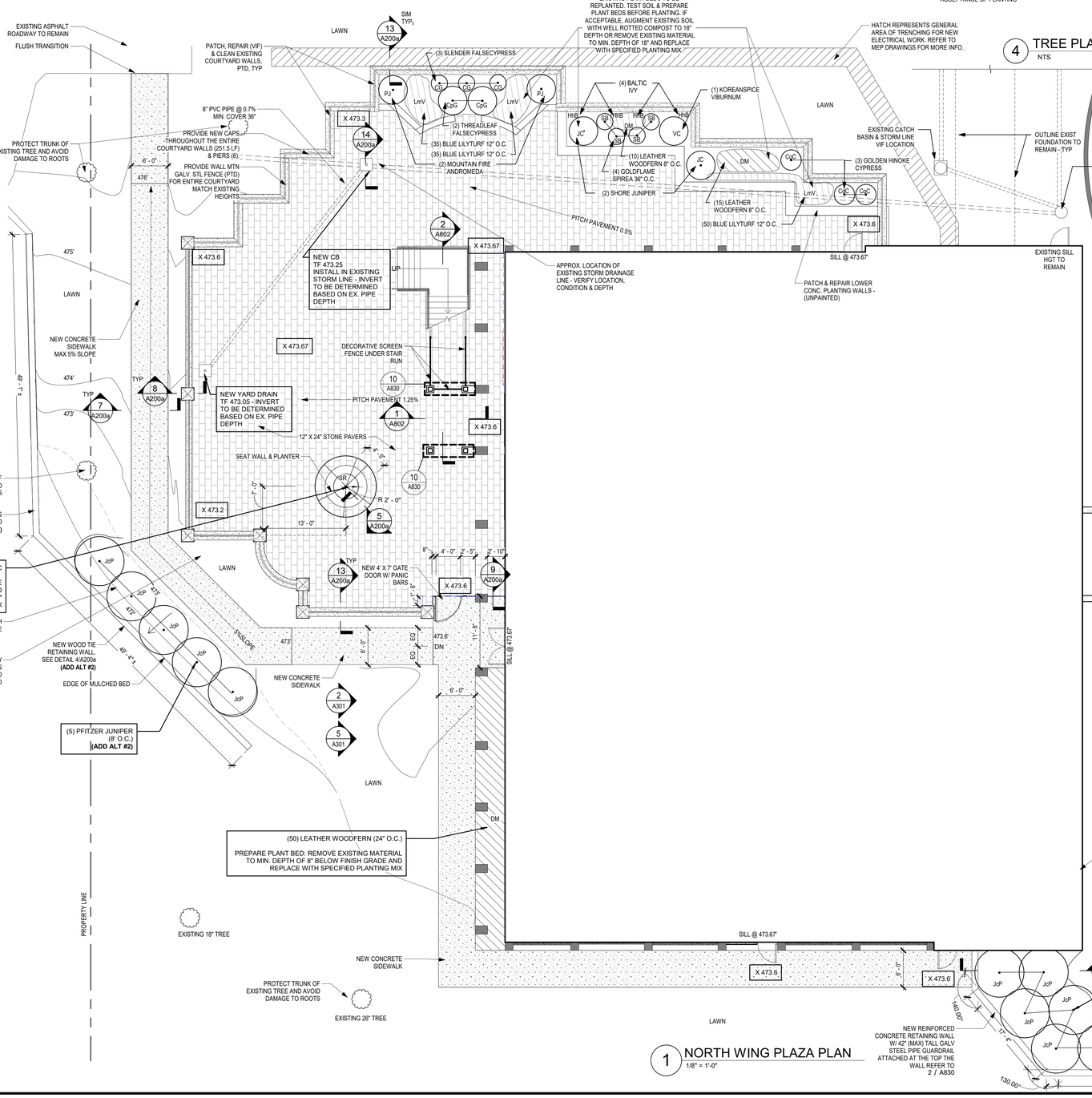


TREE PROTECTION NOTES:

1. INSTALL TREE PROTECTION FOR ANY AND ALL EXISTING TREES IDENTIFIED TO BE PRESERVED ON THE PLANS. INSTALL PRIOR TO DEMO, CLEARING, GRUBBING OR GRADING. CONTRACTOR SHALL TAKE WHATEVER ADDITIONAL PROTECTIVE MEASURES ARE NECESSARY TO AVOID CUTTING, BREAKING OR SKINNING OF BARK OR ROOTS OF EXISTING TREES TO REMAIN.
2. CONSTRUCTION ACTIVITY SHALL STRICTLY AVOID COMPACTION OF THE ROOT ZONE, INCLUDING MATERIAL STOCKPILING, VEHICLE TRAFFIC OR PARKING WITHIN THE DRIP LINE. NO CONSTRUCTION ACTIVITY, INCLUDING STORAGE OF EQUIPMENT OR MATERIALS, SHALL TAKE PLACE IN AREAS ENCLOSED BY TREE PROTECTION FENCE.
3. ANY DAMAGE TO EXISTING TREE BRANCHES OR ROOTS SHALL BE PROMPTLY REPAIRED. ROOTS OR BRANCHES DAMAGED DURING GRADING OR CONSTRUCTION SHALL BE CUT OFF CLEANLY. EXPOSED ROOTS SHALL BE PROMPTLY COVERED WITH TOPSOIL.
4. TIE BACK ANY TREE BRANCHES THAT CONFLIFT WITH CONSTRUCTION EQUIPMENT OPERATION. TREE LIMB REMOVAL, WHERE NECESSARY, SHALL BE CUT FLUSH WITH THE TRUNK OR MAIN LIMB. ALL PRUNING SHALL BE DONE IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE.
5. REMOVE TREE PROTECTION WHEN SITE DEVELOPMENT IS FINISHED.
6. WHERE TRENCHING FOR UTILITIES IS REQUIRED WITHIN THE ROOT ZONE, TUNNELING UNDER AND AROUND ROOTS SHALL BE DONE BY HAND DIGGING. ROOTS 3" OR LARGER THAT CANNOT BE AVOIDED SHALL BE HAND PRUNED 6" BACK FROM THE NEW CONSTRUCTION LIMIT IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. EXPOSED ROOTS SHALL BE IMMEDIATELY COVERED WITH MOIST SOIL OR WET BURLAP.

3 TREE PROTECTION DETAIL

NTS



1 NORTH WING PLAZA PLAN

1/8" = 1'-0"

LANDSCAPE NOTE:

PLANTING SOIL MIX SHALL CONSIST OF FRIABLE LOAM TOPSOIL FREE OF CLAY LUMPS, STONES OVER TWO (2") INCHES IN ANY DIMENSION, DEBRIS, VEGETATIVE MATTER, GARBAGE, AND ANY OTHER MATERIAL DELETERIOUS TO PLANT GROWTH, AND AMENDED IN ACCORDANCE WITH A LAB ANALYSIS & RECOMMENDATIONS. PLANTING SOIL SHALL BE SCREENED TOPSOIL IMPORTED TO THE PROJECT SITE OR ON-SITE TOPSOIL STRIPPED, STOCKPILED AND SHALL MEET THE FOLLOWING SPECIFICATIONS:

SAND 35%-60%, SILT 30%-35%, CLAY 10%-25%.

NOT LESS THAN FIVE (5%) PERCENT ORGANIC MATTER, AND PH BETWEEN 5.5 & 7.0

TOPSOIL LAB ANALYSIS SHALL SPECIFY QUANTITY AND TYPE OF SOIL AMENDMENTS REQUIRED BASED UPON THE SPECIFIED PLANT MATERIAL. ADJUST ALL SOIL AMENDMENTS OTHERWISE SPECIFIED TO COMPLY WITH THE LAB TEST RECOMMENDATIONS. SOIL REMOVED FROM PLANT PITS AND BEDS SHALL NOT BE REUSED AS PLANTING MIX UNLESS DEMONSTRATED TO MEET THE SPECIFICATIONS OF THE LAB ANALYSIS & RECOMMENDATIONS.

SITE ELECTRICAL NOTES:

1. ALL UNDERGROUND CONDUITS SHALL HAVE A MINIMUM OF 24" COVER FROM TOP OF CONDUIT TO TOP OF FINISHED SURFACE.
2. ALL CONDUIT ROUTING SHALL BE COORDINATED IN FIELD WITH GENERAL CONTRACTOR AND ELECTRICAL ENGINEER. GENERAL CONTRACTOR SHALL MARK OUT ALL EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, EXCAVATING AND BACKFILLING ASSOCIATED WITH INSTALLATION OF ELECTRICAL CONDUIT AND PULL BOXES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR BEDDING AROUND CONDUIT.

PLANTING NOTES

1. PLANT SIZES AND GRADING SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014) OF THE AMERICAN ASSOCIATION OF NURSERYMEN. ALL PLANT MATERIAL SHALL BE NURSERY GROWN, FULLY FORMED AND IN A HEALTHY CONDITION FREE OF INSECTS, PESTS, DISEASE OR DAMAGE AT THE TIME OF INSTALLATION.
2. ALL PLANT MATERIALS MAY BE SUBJECT TO INSPECTION AND REJECTION BY THE ARCHITECT AT ANY TIME PRIOR TO FINAL ACCEPTANCE OF THE WORK.
3. OBTAIN ARCHITECT'S APPROVAL OF PLANT SUBSTITUTIONS AND TIME OF PLANTING PRIOR TO DELIVERY OF MATERIALS TO THE SITE.
4. OBTAIN ARCHITECT'S APPROVAL OF SEED MIXTURES AND TIME OF SEEDING PRIOR TO DELIVERY OF MATERIALS TO THE SITE.
5. STAKE OR FLAG PROPOSED PLANT LOCATIONS FOR APPROVAL BY THE ARCHITECT PRIOR TO COMMENCING PLANTING.
6. NOTIFY ARCHITECT AT LEAST 72 HOURS IN ADVANCE OF STARTING PLANTING OPERATIONS. RECEIVE APPROVAL FOR LAYOUT OF ALL BED LINES AND TREE LOCATIONS PRIOR TO INSTALLATION.
7. PLANTING GUARANTEE & REPLACEMENT : THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR ONE FULL YEAR FROM THE TIME OF FORMAL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL REPLACE ANY PLANT THAT IS DEAD OR IN AN UNHEALTHY OR UNSIGHTLY CONDITION THROUGH NO FAULT OF THE OWNER, IN THE OPINION OF THE OWNER'S REPRESENTATIVE. REPLACEMENTS, IF REQUIRED, SHALL BE EQUAL IN ALL RESPECTS TO THE ORIGINAL SPECIFICATIONS.
8. CONTRACTOR SHALL MAINTAIN ALL PLANTINGS UNTIL FINAL ACCEPTANCE OF THE WORK. MAINTENANCE INCLUDES WATERING AS MANY TIMES AS NEEDED TO MAINTAIN PLANT VIGOR.
9. CONTRACTOR SHALL BE FAMILIAR WITH LOCATIONS OF ABOVEGROUND AND BELOWGROUND UTILITIES, MECHANICAL EQUIPMENT AND OTHER FEATURES IN THE WORK AREA BEFORE PROCEEDING WITH WORK. CONFLICTS WITH PLANTINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
10. CONTACT 'DIG SAFELY NEW YORK' 811 OR 1-800-962-7962 FOR LOCATION OF UNDERGROUND UTILITIES 72 HOURS PRIOR TO STARTING ANY EXCAVATION.
11. TREES NEED NOT BE STAKED EXCEPT IN LOCATIONS EXPOSED TO WINDS OR HEAVY PEDESTRIAN TRAFFIC, OR AS DIRECTED BY THE ARCHITECT. ALL STAKES AND GUYING MATERIALS MUST BE REMOVED AFTER ONE YEAR.
12. ALL PLANTINGS ARE TO BE INSTALLED BY A QUALIFIED LANDSCAPE CONTRACTOR.
13. CONTRACTOR SHALL CARRY WORKMAN'S COMPENSATION INSURANCE AND COMPREHENSIVE GENERAL LIABILITY INSURANCE. CERTIFICATES WILL BE REQUIRED PRIOR TO SIGNING CONTRACTS.
14. IF THERE IS A DISCREPANCY BETWEEN PLANT QUANTITY SHOWN ON THE PLAN AND PLANT LIST, THE PLANT LIST SHALL PREVAIL.
15. TEST PLANTING SOIL FOR PH AND NUTRIENTS AND ADJUST IN ACCORDANCE WITH AGRONOMY LAB RECOMMENDATIONS PRIOR TO PLANTING.
16. REFER TO TREE, SHRUB AND GROUNDCOVER PLANTING DETAILS.
17. ALL EXPOSED SOIL AREAS IN THE WORK AREA ARE TO BE SEEDED AND MULCHED UNLESS OTHERWISE SHOWN.

NOTE: VERIFY LOCATIONS OF EXISTING SUBSURFACE PIPING, STRUCTURES, ETC. AND PROTECT

PLANT MATERIALS LIST

Key	Botanical Name	Common Name	Quant	Size	Planting Remarks
	MINOR TREES				
SR	Syringa reticulata Ivory Silk	Japanese Tree Lilac	1	2-2 1/2" Cal.	B&B, SPECIMEN
	SHRUBS				
CoC	Chamaecyparis obtusa 'Crippsii'	Golden Hinoke Cypress	3	3 GAL	
CG	Chamaecyparis obtusa 'Gracilis'	Slender Falsecypress	2	3 GAL	
CpG	Chamaecyparis pisifera Golden Mop	Threadleaf Falsecypress	2	3 GAL	
JcP	Juniperus chinensis Pfitzeriana	Pfitzer Juniper	13	5 GAL	PLANT 8' O.C.
JC	Juniperus conferta	Shore Juniper	2	3 GAL	
PJ	Pieris japonica 'Mountain Fire'	Mountain Fire Andromeda	2	3 GAL	
SB	Spirea x bumalda 'Goldflame'	Goldflame Spirea	4	3 GAL	PLANT 36" O.C.
VC	Viburnum carlesi	Koreanspice Viburnum	1	5 GAL	
	GROUNDCOVERS				
HhB	Hedera helix 'Baltica'	Baltic Ivy	4	#1 CONT.	
LM	Liriope muscari Variegata	Blue Lilyturf	120	#1 CONT.	PLANT 12" O.C.
	FERNS & PERENNIALS				
DM	Dryopteris marginalis	Leather Woodfern	75	4" PLUG	SPACING AS PER PLAN

NOTES:
1. All plants to be B&B or container grown unless otherwise indicated.
2. Contractor shall verify all quantities and furnish all plants shown on the plan.
3. All plant beds shall receive 3" depth of specified mulch over fabric weed barrier unless otherwise shown.
4. Mulch for Fern plant bed shall be fine shredded pine bark, natural color.
5. Mulch for all other plant beds shall be shredded bark, black.

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

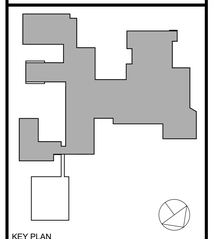
4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

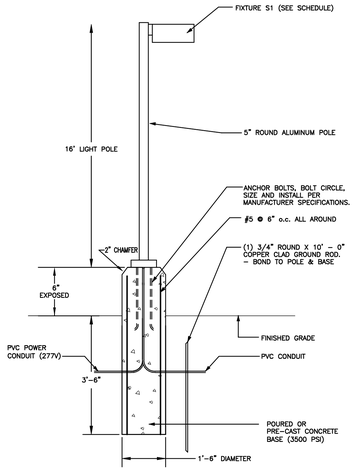
Sheet Title

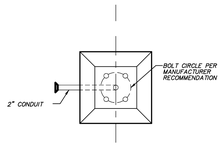
NORTH WING PLAZA PLAN

Job No.	Date
2023-1011	04/24/2024
Scale: AS NOTED	Drawn / Checked: Author Checker

Sheet Number

A200



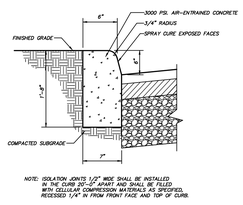


PLAN

NOTES:

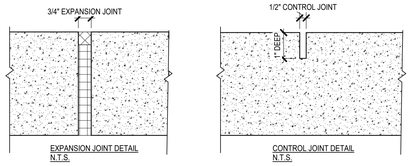
1. IT IS INTENDED THAT THE LIGHT FOUNDATIONS SHALL BE SIMILAR TO EXISTING AT SITE. PRECAST LIGHT FOUNDATIONS WOULD BE ACCEPPTABLE WITH SHOP DRAWINGS PROVIDED FOR REVIEW.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE LIGHTING MANUFACTURER, PRECASTER, AND THE CONTRACTOR INSTALLING THE LIGHTING STANDARD PRIOR TO INSTALLATION OF THE FOUNDATIONS.
3. FOUNDATION REINFORCEMENT TO BE DETERMINED BY PRECASTER.
4. BACKFILL WITH SUITABLE MATERIAL, COMPACTED IN 8" LIFTS PER GEOTECH RECOMMENDATIONS, IF AREA TO BE BACKFILLED IS GREATER THAN 1' WIDE AROUND LIGHT FOUNDATION. IF BACKFILL AREA IS LESS THAN 1' WIDE, BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).
4. CONTRACTOR SHALL ORIENT ANCHOR BOLTS AND CONDUIT AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. ALL CONDUIT SHALL EXTEND TO THE INTERFACE OF THE CLSM OR COMPACTED BACKFILL AREA AND THE UNEXCAVATED AREA, AT A MINIMUM.

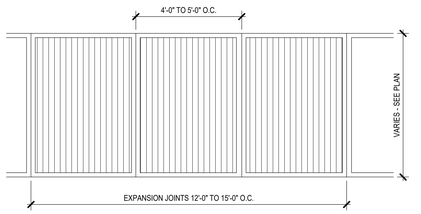
12 SITE LIGHTING DETAIL
NTS



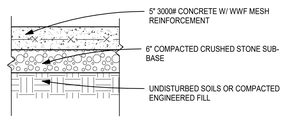
NOTE: ISOLATION JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'–0" APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIALS AS SPECIFIED, RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

11 CONCRETE CURB DETAIL
NTS





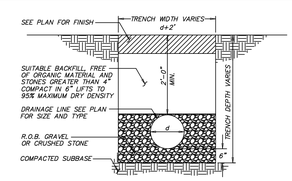
7 SIDEWALK DETAIL
NTS



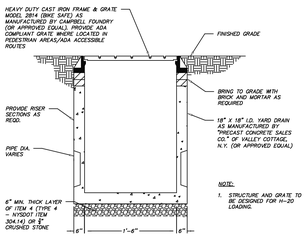
NOTE:

WHEN PROTECTION POSTS ARE TO BE USED FOR PROTECTION OF HANDICAP PARKING SIGNS OR OTHER TRAFFIC SIGNS, SIGN SUPPORTING POST SHALL BE EMBEDDED A MINIMUM OF THREE (3) FEET INTO THE CONCRETE.

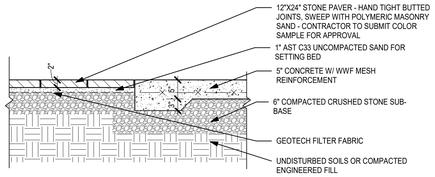
6 SITE BOLLARDS
NTS



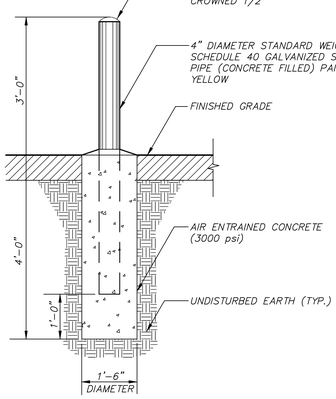
16 DRAINAGE LINE TRENCH DETAIL
NTS

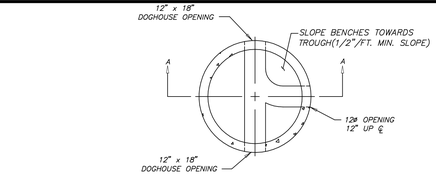


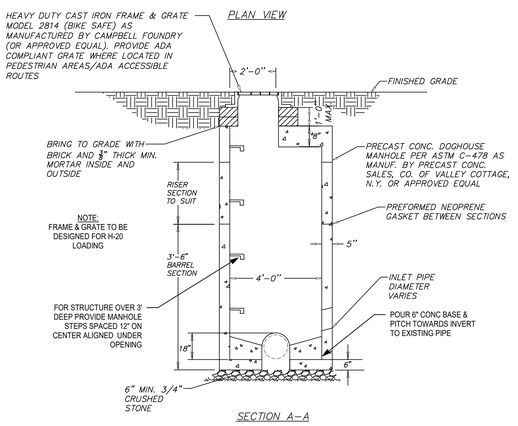
15 18" X 18" YARD DRAIN DETAIL
NTS



10 TRANSITION PAVER DETAIL
3/4" = 1'-0"

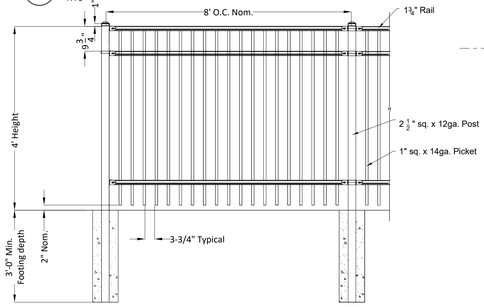






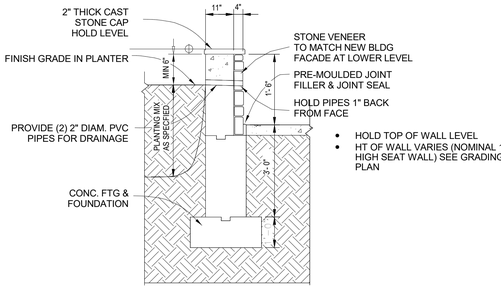
SECTION A–A

14 DOGHOUSE DRAINAGE MANHOLE DETAIL
NTS



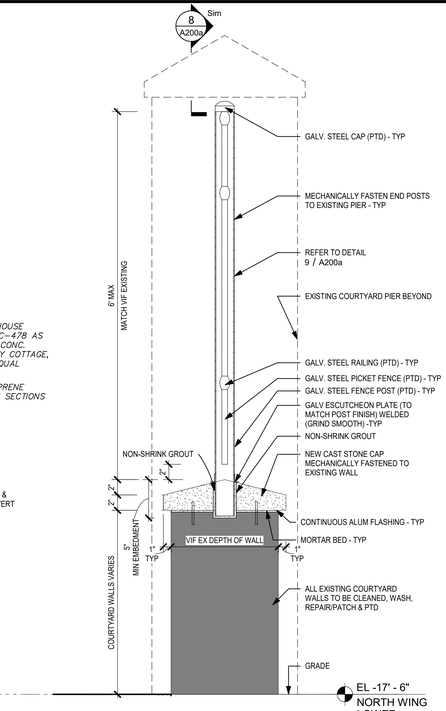
NOTES:
1.) FENCE STYLE TO BE MONTAGE II MAJESTIC STEEL PICKET FENCE MANUFACTURED BY AMERISTAR FENCE PRODUCTS, INC, OR EQUAL.
2.) USE SLEEVE IN BOREHOLE MOUNTING FOR TOP OF WALL INSTALLATION.

9 STEEL PICKET FENCE
NTS

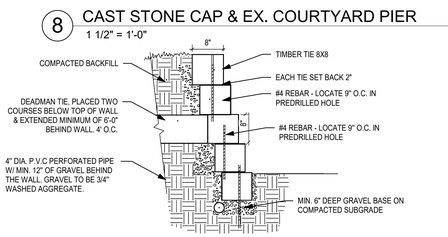


- HOLD TOP OF WALL LEVEL
- HT OF WALL VARIES (NOMINAL 18" HIGH SEAT WALL) SEE GRADING PLAN

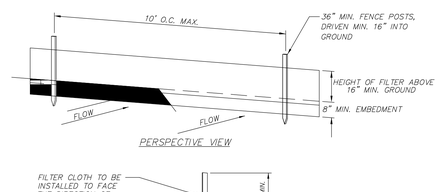
5 CONCRETE & MASONRY PLANTER WALL
NTS



13 STEEL FENCE & CAP @ COURTYARD DETAIL
NTS

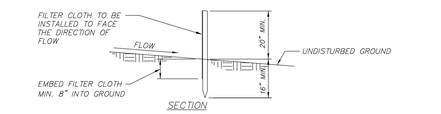


8 CAST STONE CAP & EX. COURTYARD PIER
1 1/2" = 1'-0"



PERSPECTIVE VIEW

4 TIMBER RETAINING WALL
NTS



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

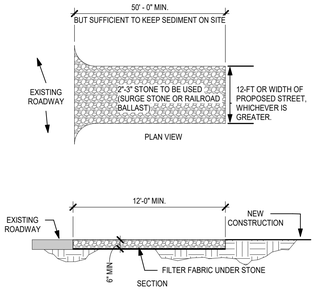
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE DETAIL
(N.T.S.)

1 SILT FENCE DETAIL
NTS



NOTES:
1. STONE - SIZE 2"-3" STONE TO BE USED

2. LENGTH - AS REQUIRED BUT NOT LESS THAN 50'

3. WIDTH - 12 FOOT MIN. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR

4. FILTER CLOTH - WILL BE PLACED OVER THEENTIRE AREA PRIOR TO PLACING OF STONE

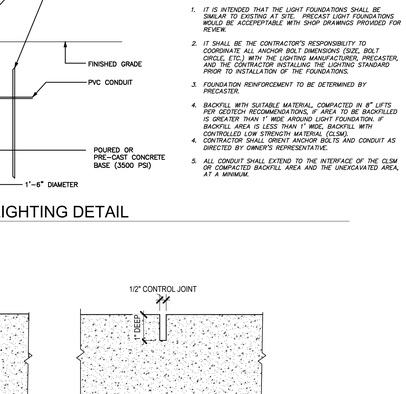
5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCHE IF PIPING IN IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED

6. MAINTANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE PERODIC TOP DRESSING WITH ADDITION STONE AS CONDITIONS DEMAND AND REPAIR AND /OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.

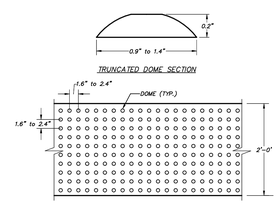
7. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPED DEVICE.

8. PERIODIC INSPECTION AND NEEDED MAINTANCE SHALL BE PROVIDED AFTER RAIN

2 CONSTRUCTION ENTRANCE
NTS



SIDEWALK CURB RAMP



TRUNCATED DOME DETAIL
(N.T.S.)

TRUNCATED DOME DETECTABLE WARNING FIELD NOTES:

1. The detectable warning field shall consist of raised truncated domes with a nominal diameter of 0.9 inches, a nominal height of 0.2 inches, and a nominal spacing of 2.35 inches on center in accordance with the most recent version of ANSI ICC A117.1.
2. The details provided are not drawn to scale. The quantity of domes depicted on the detectable warning field (the domes and the entire 24 inch level surface) is for illustration only.
3. The size of the detectable warning field shall be 24 inches in the direction of travel and shall extend the full width of the curb ramp or flush surface, exclusive of side flares.
4. Detectable warnings shall be located so that the edge of the warning field nearest to the roadway or street surface is 6 inches to 8 inches from the edge of the roadway/street, or from the front of the dropped curb, where a dropped curb continues across the bottom of the sidewalk curb ramp.
5. Domes shall be aligned on a square grid in the predominant direction of travel.
6. The detectable warning field shall be yellow.

3 SIDEWALK CURB RAMP DETAIL
NTS

GENERAL NOTES FOR ACCESSIBLE ROUTES ON THE SITE:

1. ACCESSIBLE ROUTES ON THE SITE INCLUDE MARKED ACCESSIBLE PARKING SPACES AND ACCESS AISLES, SIDEWALK CURB RAMPS, WALKWAYS AND RAMPS.
2. MARKED ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL HAVE SURFACE SLOPES NOT STEEPER THAN 1:50.
3. SIDEWALK CURB RAMPS SHALL COMPLY WITH THE FOLLOWING ITEMS AS APPLICABLE:
   a. WALKING SURFACES OF SIDEWALK CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
   b. THE RUNNING SLOPE SHALL NOT EXCEED 7.5%.
   c. THE CROSS SLOPE SHALL NOT EXCEED 1.5%.
   d. LANDINGS AND BLENDED TRANSITIONS SHALL BE CONSTRUCTED TO PREVENT THE ACCUMULATION OF WATER.
   e. WHERE PROVIDED, SIDE FLARES FOR CURB RAMPS SHALL NOT BE STEEPER THAN 9.5% WITHIN THE PATH WAY.
   f. CURB RAMPS AT MARKED CROSSWALKS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
   g. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE 36 INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING.
   h. WHERE DETECTABLE WARNINGS ARE PROVIDED ON CURB RAMPS, THEY SHALL BE 24 INCHES MINIMUM IN DEPTH IN THE DIRECTION OF TRAVEL, SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE, AND BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE.
   i. REFER TO SIDEWALK CURB RAMP DETAILS FOR ADDITIONAL INFORMATION.
4. WALKWAYS ALONG AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE FOLLOWING ITEMS AS APPLICABLE:
   a. WALKING SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT.
   b. VERTICAL CHANGES IN LEVEL ALONG WALKING SURFACE SHALL NOT EXCEED 1/4". CHANGES IN LEVEL GREATER THAN 1/4" IN HEIGHT AND NOT MORE THAN 1/2" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.
   c. THE RUNNING SLOPE OF THE WALKING SURFACES SHALL NOT BE STEEPER THAN 4.5%
   d. THE CROSS SLOPE OF A WALKING SURFACE SHALL NOT BE STEEPER THAN 1.5%.
   e. THE CLEAR WIDTH OF AN ACCESSIBLE ROUTE SHALL BE 36" MINIMUM.
   f. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60 INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF 200 FEET MAXIMUM. PASSING SPACES SHALL BE 60 INCH MINIMUM BY 60 INCH MINIMUM.
5. RAMPS ALONG AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE FOLLOWING ITEMS:
   a. RAMP RUNS SHALL HAVE A RUNNING SLOPE GREATER THAN 4.5% AND NOT STEEPER THAN 7.5%.
   b. THE CROSS SLOPE OF RAMP RUNS SHALL NOT EXCEED 1.5%.
   c. WALKING SURFACES OF RAMP RUNS AND ASSOCIATED LANDINGS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
   d. THE CLEAR WIDTH OF A RAMP RUN SHALL BE 36 INCHES MINIMUM OR AS SHOWN. HANDRAILS AND HANDRAIL SUPPORTS THAT ARE PROVIDED ON THE RAMP RUN SHALL NOT PROJECT INTO THE REQUIRED CLEAR WIDTH OF THE RAMP RUN OR ASSOCIATED LANDING.
   e. THE MAXIMUM RISE FOR ANY RAMP IS 2'–6".
   f. THE MAXIMUM RUN FOR ANY RAMP IS 30'–0".
   g. RAMPS SHALL HAVE LANDINGS AT THE BOTTOM AND TOP OF EACH RAMP RUN. LANDINGS SHALL HAVE A SLOPE NOT TO EXCEED 1.5% AND SHALL HAVE A CLEAR LENGTH AND WIDTH OF 60" MINIMUM.
   h. ADJACENT FINISHED GRADES ALONG SIDES OF RAMP SHALL NOT HAVE A VERTICAL DROPOFF OF 1/2" WITHIN 10" OF THE EDGE OF THE CONCRETE.
   i. REFER TO CONCRETE HANDICAP RAMP DETAIL FOR ADDITIONAL INFORMATION.

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE

Sheet Title

SITEWORK DETAILS & NOTES

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

A200a

SPRAY APPLIED FIREPROOFING NOTES:

1. ALL SPRAY APPLIED FIREPROOFING APPLICATIONS SHALL MEET REQUIREMENTS TO SCHIEVE A 2-HOUR FIRE RATING.
2. NEW SPRAY APPLIED FIRERPOOFING TO BE APPLIED TO ALL EXISTING AND NEW STEEL FRAMING (COLUMNS, BEAMS, ETC.), THE ENTIRE UNDERSIDE OF THE FLOOR DECK, AND THE ENTIRE UNDERSIDE OF THE ROOF DECK.
3. AT EXISTING STEEL FRAMING (COLUMNS, BEAMS, ETC.), CONTRACTOR SHALL INSTALL METAL LATH PRIOR TO SPRAY FIREPROOFING MATERIALS
4. CONTRACTOR SHALL PATCH AND REPAIR ANY DAMAGED OR DISTURBED FIREPROOFING THROUGHOUT THE DURATION OF CONSTRUCTION.
5. PROVIDE INTUMESCENT FIREPROOFING RATED FOR EXTERIOR USE AT ALL NEW FRAMING FOR THE EXTERIOR STAIR (BASE-BID) AND LEARNING STAIR ASSEMBLY (ADD-ALTERNATE #1).
6. CONTRACTOR SHALL PROVIDE ALL FURRING, Z-CLIPS, AND ACCESSORIES REQUIRED FOR ATTACHMENT OF STUD ASSEMBLIES TO DECKING AND STEEL FRAMING.

PARTITION NOTES:

CORRIDOR WALLS - ALL CORRIDOR WALLS SHALL HAVE 2 LAYERS GYP. BOARD AT CORRIDOR SIDE REGARDLESS OF WALL TYPE INDICATED. AT TILE FACED PARTITIONS, USE 5/8" CEMENTITIOUS BOARD IN LIEU OF OUTER LAYER OF GYP BD SET 2" LOWER THAN TOP OF TILE. SEE A901 FOR ADDITIONAL INFORMATION

CONTINUE GYP. BOARD TO UNDERSIDE OF DECKING, TYP.

CONTRACTOR SHALL PROVIDE SCHLUTER CORNER TRIM (OR EQ.) AT ALL OUTSIDE CORNERS OF TILE LOCATIONS. SEE SPECIFICATIONS

1 NORTH WING LOWER
1/8" = 1'-0"

ORANGE-ULSTER BOCES

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NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. DENOTES AREA OF NO MAJOR ARCHITECTURAL RENOVATION WORK. SPECIFIC WORK MAY BE SHOWN ELSEWHERE. REFER TO M.E.P. DWGS.
2. (101) DENOTES DOOR NUMBER SEE A802 FOR DOOR SCHEDULE. SEE SPECS. FOR HARDWARE SETS & INFO
3. RW DENOTES RESCUE WINDOW SEE A903
4. DENOTES EXISTING WALL TO REMAIN (MOST EXISTING WALLS ARE MASONRY)
5. DENOTES 2hr RATED WALL
6. DENOTES WALL TYPE & FIRE RATING, WHERE SHOWN (SEE A901)
7. DENOTES HOLLOW METAL FRAME w/ SIDELITE OR TRANSOM (SEE A903)
8. FINISH SCHEDULE & ABBREVIATION LIST - SEE DWG. A501
9. **ALL EXISTING, NEW STEEL STRUCTURE & UNDERSIDE FLOOR SLAB AND UPPER FLOOR DECK TO BE SPRAYED WITH 2HR FIRE PROOFING**
10. DIMENSIONS SHOWN FOR INTERIOR WALLS ARE: 'FACE OF GYP BOARD' OR 'FACE OF CMU'
11. FACE OF ADJACENT WALL TO EDGE OF DOOR FRAME IS 4" (TYP) U.N.O. (SEE A & B ON A902)
12. MB8, TB4 - DENOTES MARKERBOARD OR TACKBOARD OF SPECIFIED LENGTH (FT)
13. DENOTES EXISTING DOOR TO REMAIN (U.N.O.)
    (101) DENOTES NEW DOOR, FRAME, & HARDWARE, SEE NOTE 2 (ABOVE)
14. EXISTING INSIDE FACE OF EXTERIOR WALL FURRED OUT W/ 0F2 WALL - U.N.O.

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

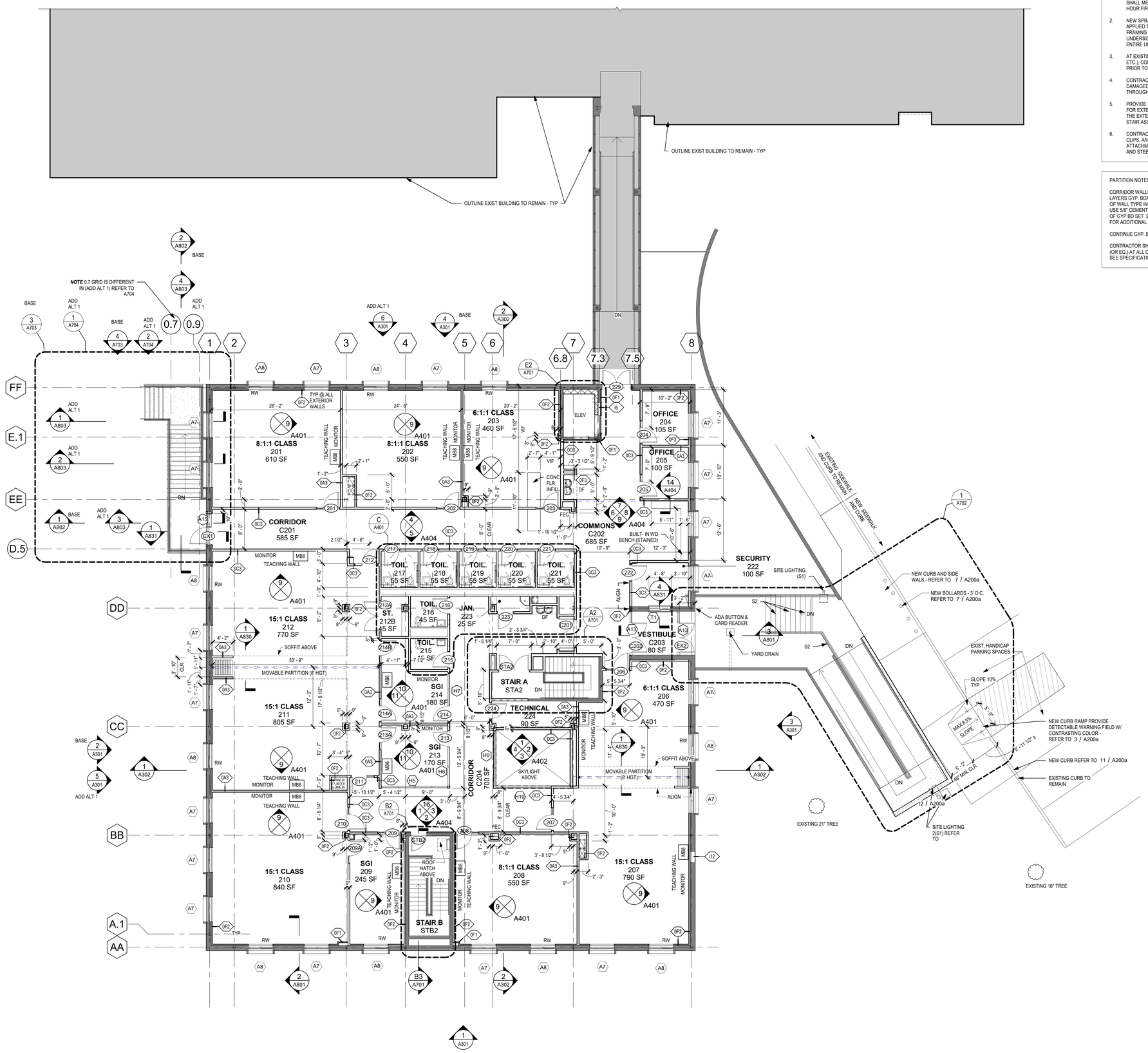
Sheet Title

NORTH WING LOWER LEVEL PLAN

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

A201



1 NORTH WING UPPER
1/8" = 1'-0"

SPRAY APPLIED FIREPROOFING NOTES:

1. ALL SPRAY APPLIED FIREPROOFING APPLICATIONS SHALL MEET REQUIREMENTS TO SCHIEVE A 2-HOUR FIRE RATING.
2. NEW SPRAY APPLIED FIRERPOOFING TO BE APPLIED TO ALL EXISTING AND NEW STEEL FRAMING (COLUMNS, BEAMS, ETC.), THE ENTIRE UNDERSIDE OF THE FLOOR DECK, AND THE ENTIRE UNDERSIDE OF THE ROOF DECK.
3. AT EXISTING STEEL FRAMING (COLUMNS, BEAMS, ETC.), CONTRACTOR SHALL INSTALL METAL LATH PRIOR TO SPRAY FIREPROOFING MATERIALS
4. CONTRACTOR SHALL PATCH AND REPAIR ANY DAMAGED OR DISTURBED FIREPROOFING THROUGHOUT THE DURATION OF CONSTRUCTION.
5. PROVIDE INTUMESCENT FIREPROOFING RATED FOR EXTERIOR USE AT ALL NEW FRAMING FOR THE EXTERIOR STAIR (BASE-BID) AND LEARNING STAIR ASSEMBLY (ADD-ALTERNATE #1).
6. CONTRACTOR SHALL PROVIDE ALL FURRING, Z-CLIPS, AND ACCESSORIES REQUIRED FOR ATTACHMENT OF STUD ASSEMBLIES TO DECKING AND STEEL FRAMING.

PARTITION NOTES:

CORRIDOR WALLS - ALL CORRIDOR WALLS SHALL HAVE 2 LAYERS GYP. BOARD AT CORRIDOR SIDE REGARDLESS OF WALL TYPE INDICATED. AT TILE FACED PARTITIONS, USE 5/8" CEMENTITIOUS BOARD IN LIEU OF OUTER LAYER OF GYP BD SET 2" LOWER THAN TOP OF TILE. SEE A901 FOR ADDITIONAL INFORMATION

CONTINUE GYP. BOARD TO UNDERSIDE OF DECKING, TYP.

CONTRACTOR SHALL PROVIDE SCHLUTER CORNER TRIM (OR EQ.) AT ALL OUTSIDE CORNERS OF TILE LOCATIONS. SEE SPECIFICATIONS

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NY SED PROJECT CONTROL NO:
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CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. DENOTES AREA OF NO MAJOR ARCHITECTURAL RENOVATION WORK, SPECIFIC WORK MAY BE SHOWN ELSEWHERE, REFER TO M.E.P. DWGS.
2. (101) DENOTES DOOR NUMBER SEE A902 FOR DOOR SCHEDULE. SEE SPECS. FOR HARDWARE SETS & INFO
3. RW DENOTES RESCUE WINDOW SEE A903
4. DENOTES EXISTING WALL TO REMAIN (MOST EXISTING WALLS ARE MASONRY)
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7. DENOTES HOLLOW METAL FRAME w/ SIDELITE OR TRANSOM (SEE A903)
8. FINISH SCHEDULE & ABBREVIATION LIST - SEE DWG. A501
9. **ALL EXISTING, NEW STEEL STRUCTURE & UNDERSIDE FLOOR SLAB AND UPPER FLOOR DECK TO BE SPRAYED WITH 2HR FIRE PROOFING**
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11. FACE OF ADJACENT WALL TO EDGE OF DOOR FRAME IS 4" (TYP) U.N.O. (SEE A & B ON A902)
12. MB8, TB4 - DENOTES MARKERBOARD OR TACKBOARD OF SPECIFIED LENGTH (FT)
13. DENOTES EXISTING DOOR TO REMAIN (U.N.O.)
14. (101) DENOTES NEW DOOR, FRAME, & HARDWARE. SEE NOTE 2 (ABOVE)
14. EXISTING INSIDE FACE OF EXTERIOR WALL FURRED OUT W/ 0F2 WALL - U.N.O.

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

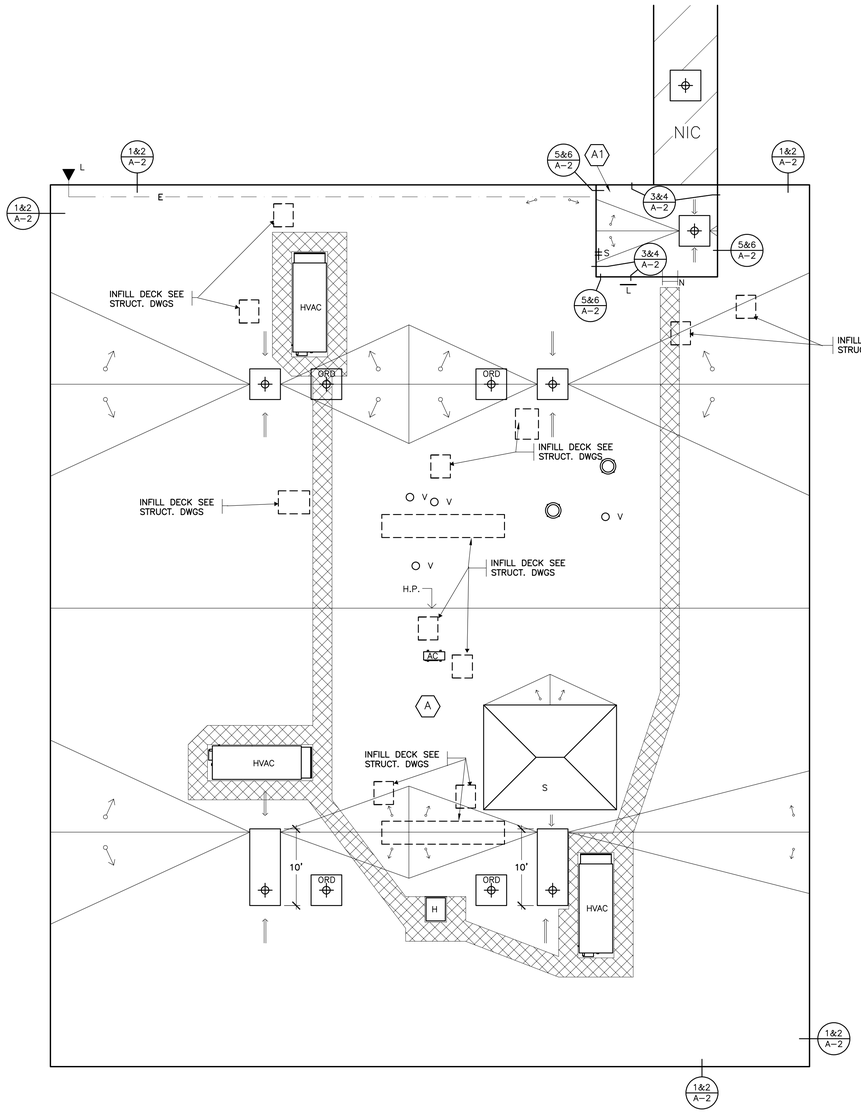
Sheet Title

NORTH WING UPPER LEVEL PLAN

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

A202



ROOF PLAN

0' 2' 4' 8'

PROJECT NORTH

LEGEND:

- A — ROOF AREA DESIGNATION
- S — SCUPPER (SEE DET. 4A/A252)
- ROOF DRAIN & SUMP (SEE DET. 7/A252)
- OVER FLOW DRAIN (SEE DET. 7 SIM/A252)
- V — VENT PIPE (SEE DET. 8/A252)
- H — ROOF HATCH (SEE DET. 9/A252)
- HVAC — HVAC EQUIPMENT (SEE DET. 10/A252)
- SKYLIGHT (SEE DET. 11/A252)
- N — ROOF LADDER (SEE DET. 12/A252)
- AC — AC EQUIPMENT (SEE M/E DRAWINGS)
- L — SITE LIGHT (SEE NOTE 6)
- E — ELECTRICAL CONDUIT (SEE NOTE 6)
- WALL LOUVER (SEE NOTE 9)
- LIGHTNING PROTECTION–NOT SHOWN (SEE NOTE 11)
- BREATHER VENT–NOT SHOWN (SEE NOTE 5)
- TAPERED ISOCYANURATE INSULATION, SLOPE 1/8" PER FT
- CRICKET– SLOPE 1/4" PER FT
- H.P. — INSULATION HIGH POINT
- WALKWAY PADS

DUCT WATERPROOFING/INSULATION DETAIL REFER TO 7/A831

DECK TYPE CHART & INSULATION REQUIREMENTS

ROOF AREA	DECK TYPE	STARTING THICKNESS OF NEW INSULATION	MINIMUM R–VALUE OF NEW INSULATION	AVERAGE THICKNESS OF NEW INSULATION	AVERAGE R–VALUE OF NEW INSULATION
A	CONCRETE DECK	5.5"	30	7.0"	47.2
A1	CONCRETE DECK	5.5"	30	5.8"	33.6

NOTES:

1. INSTALL CONTINUOUS INSULATION WITH A MINIMUM R–VALUE OF 30 ABOVE THE DECK, TO MEET THE NYS ENERGY CONSERVATION CONSTRUCTION CODE, INCLUDING THE INTERNATIONAL ENERGY CONSERVATION CODE AND THE NY STATE SUPPLEMENT, FOR A BUILDING IN CLIMATE ZONE 5.
2. INSTALL TAPERED ISOCYANURATE INSULATION THAT SLOPES 1/8 INCH PER FOOT; MINIMUM STARTING THICKNESS 5–1/2 INCHES UNLESS OTHERWISE NOTED. INSTALL THE ISOCYANURATE INSULATION IN MULTIPLE LAYERS, WITH THE THICKEST LAYER BEING 4 INCHES. STAGGER ALL JOINTS BETWEEN LAYERS 12 INCHES.
3. INSTALL ISOCYANURATE INSULATION CRICKETS OVER THE TAPERED INSULATION.
4. INSTALL A COVER BOARD USING LOW RISE FOAM ADHESIVE OVER THE INSULATION AND CRICKETS.
5. INSTALL SLOPING CRICKETS ON THE UP–HILL SIDE OF ALL CURBS THAT ARE 30 INCHES AND WIDER.

ROOF PROTECTION NOTES:

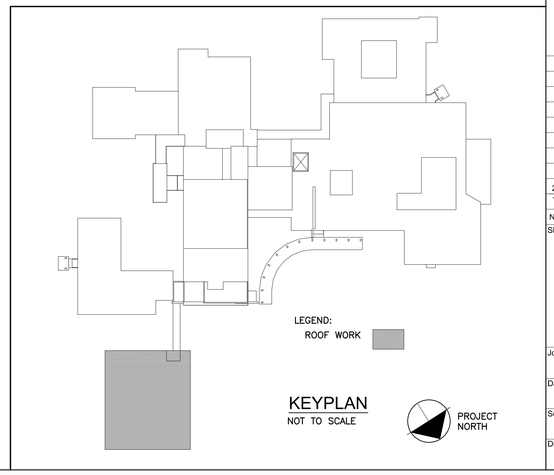
1. AVOID WALKING ON NEW AND EXISTING ROOF AREAS.
2. DO NOT STORE MATERIAL OR EQUIPMENT, AND DO NOT PILE DEBRIS ON NEW AND EXISTING ROOF AREAS.
3. INSTALL 1 INCH THICK EXTRUDED POLYSTYRENE INSULATION OVER 6 MIL FIRE RETARDANT POLYETHYLENE, COVERED WITH 2x10 WOOD PLANKS TO PROTECT ROOFING WHERE CONSTRUCTION WORK AND TRAFFIC WILL OCCUR.
4. NEATLY CUT AND POSITION ROOF PROTECTION COMPONENTS TO FIT WITHIN 1/2 INCH OF ROOF PENETRATIONS, EAVES AND CHANGE IN ELEVATION WALLS.
5. DO NOT COVER THE ROOF DRAINS. MAINTAIN THE ROOF DRAIN STRAINERS VISIBLE AND CLEAR AT ALL TIMES.

GENERAL NOTES:

1. THESE DRAWINGS ARE SUPPLEMENTED BY DETAILED TECHNICAL SPECITICATIONS. PERFORM THE WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS.
2. DIMENSIONS AND CONDITIONS ON THE ROOF PLAN AND DETAILS ARE APPROXIMATE AND SHALL BE CONFIRMED BY THE CONTRACTOR.
3. ONLY CERTAIN FASTENERS ARE SHOWN ON THE DRAWINGS, REFER TO THE SPECIFICATIONS FOR ADDITIONAL FASTENER REQUIREMENTS.
4. TEST EACH DRAIN LINE WITH A RUNNING HOSE FOR AT LEAST ONE HOUR PRIOR TO STARTING ANY OTHER WORK ON SITE. PROVIDE A WRITTEN REPORT OF ANY CLOGGED LINES TO THE OWNER.
   A. CLOGGED DRAIN LINES REPORTED TO THE OWNER BEFORE WORK STARTS WILL BE CLEANED BY THE OWNER.
   B. COVER & PROTECT ALL DRAIN OPENINGS AT THE BEGINNING OF EACH WORK DAY. REMOVE THE COVERS AT THE END OF EACH DAY AND BEFORE PRECIPITATION OCCURS.
   C. PERFORM WHATEVER WORK IS REQUIRED SO ALL DRAIN LINES ARE CLEAN AND FREE FLOWING UPON COMPLETION OF THE PROJECT.
5. REMOVE ALL EXISTING ROOF TOP EQUIPMENT AND THE BREATHER VENTS. REFER TO THE M/E DRAWINGS FOR ADDITIONAL INFORMATION.
6. REMOVE AND RESET SITE LIGHT FIXTURES, WIRES AND CONDUITS, MOUNTED ON THE ROOF FASICA AND ROOF SURFACE. REPLACE COMPONENTS THAT CANNOT BE PROPERLY REINSTALLED.
7. REMOVE THE EXISTING METAL PANEL SCREEN WALL, STEEL SUPPORT STRUCTURE AND SEALANT POCKET.
8. REMOVE THE EXISTING SKYLIGHTS. REFER TO THE STRUCTURAL DRAWINGS FOR DECK IN–FILL REQUIREMENTS.
9. REMOVE AND RESET THE EXISTING WALL LOUVER; INSTALL THE NEW CAP FLASHING TO PAN OUT AND WRAP THE SILL. REPLACE THE SEALANT JOINTS ON THE SIDES AND TOPS OF THE LOUVER.
10. INSULATE THE NEW DRAIN LINES, AND THE UNDERSIDES OF THE NEW DRAIN BOWLS.
11. REMOVE, RESET AND REPAIR LIGHTNING PROTECTION.

CODE COMPLIANCE REQUIREMENTS:

1. INSTALL NEW ROOFING TO MEET THE FOLLOWING MINIMUM REQUIREMENTS:
   A. NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, WHICH INCLUDES BY REFERENCE THE NEW YORK STATE ENERGY CONSERVATION CODE.
   B. UNDERWRITERS LABORATORIES INC. CLASS A EXTERNAL FIRE RATING FOR ROOF ASSEMBLIES TESTED IN ACCORDANCE WITH ASTM E 108 OR UL 790.
   C. UNDERWRITERS LABORATORIES INC. STANDARD 1256 FOR ROOF ASSEMBLIES WITH FOAM INSULATION.
2. INSTALL ROOFING TO COMPLY WITH THE WIND UPLIFT REQUIREMENTS OF THE NY STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, BASED ON THIS CRITERIA:
   RISK CATEGORY III
   BASIC WIND SPEED 130 MPH
   EXPOSURE CATEGORY B
   BUILDING HEIGHT 30 FT.
3. INSTALL ROOFING AS INDICATED TO RESIST THE FOLLOWING UPLIFT LOADS, CALCULATED IN ACCORDANCE WITH ASCE 7 USING A SAFETY FACTOR OF 2:
   FIELD ZONE: 60 PSF
   PERIMETER ZONE: 100 PSF
   CORNER ZONE: 150 PSF
4. FABRICATE AND INSTALL ROOF PERIMETER FLASHINGS THAT COMPLY WITH THE NY STATE UNIFORM FIRE PREVENTION AND BUILDING CODE AND WITH ANSI/SPRI ES–1 "WIND STANDARD FOR EDGE SYSTEMS USED WITH LOW SLOPE ROOFING SYSTEMS", ON A BUILDING USING THE CRITERIA DESCRIBED ABOVE.
5. FABRICATE AND INSTALL WOOD BLOCKING COMPONENTS TO RESIST A FORCE OF 275 POUNDS PER LINEAL FOOT APPLIED IN ANY DIRECTION.



KEYPLAN
NOT TO SCALE

PROJECT NORTH

ORANGE-ULSTER BOCES

Regional Education Center at Arden Hill

North Wing

4 Harriman Drive
Goshen • NY 10924

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S.E.D. Control No.
44-90-00-00-8-035-008

CONSTRUCTION DOCUMENTS

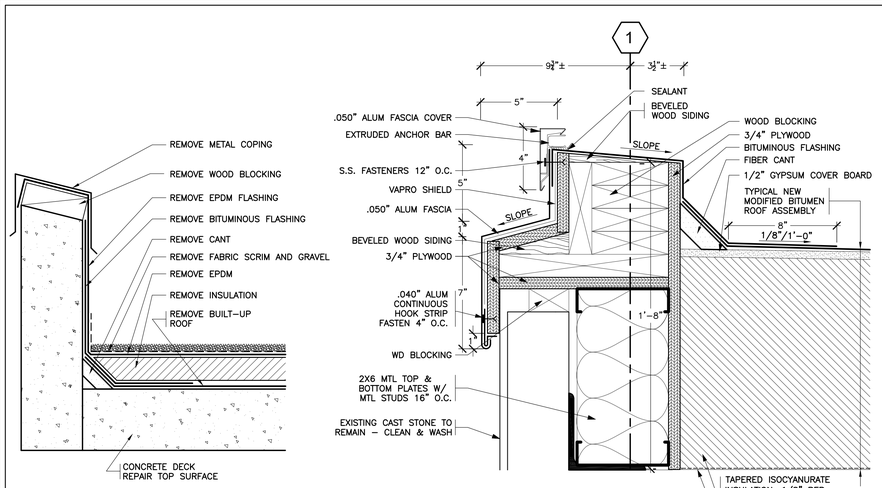
Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

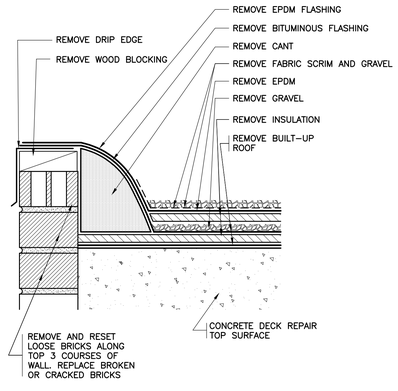
ROOF PLAN

Job No. 2023-1008	Sheet No. A251
Date	
Scale AS NOTED	
Drawn/Checked	



1 EXISTING EAVE
SCALE: 0 1" 2" 4" 8"

2 REVISED EAVE
SCALE: 0 1" 2" 4" 8"



3 EXISTING EAVE AT BULKHEAD
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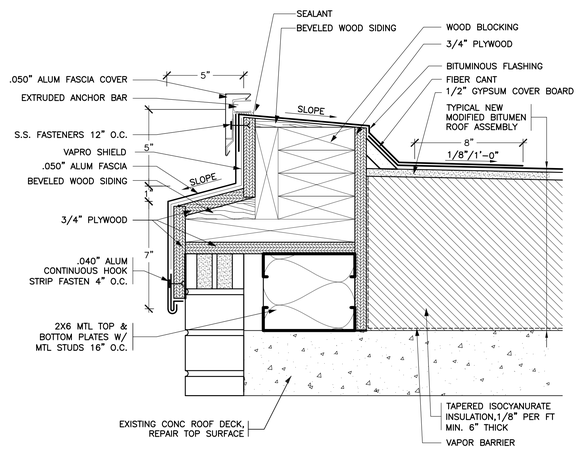

4 REVISED EAVE AT BULKHEAD
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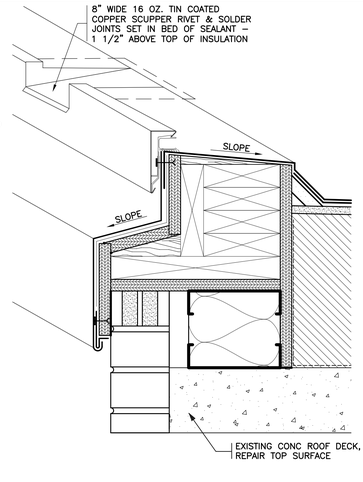
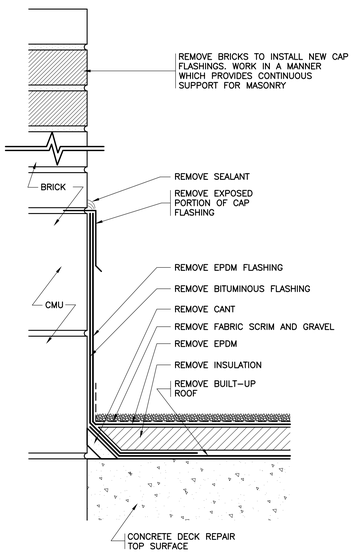
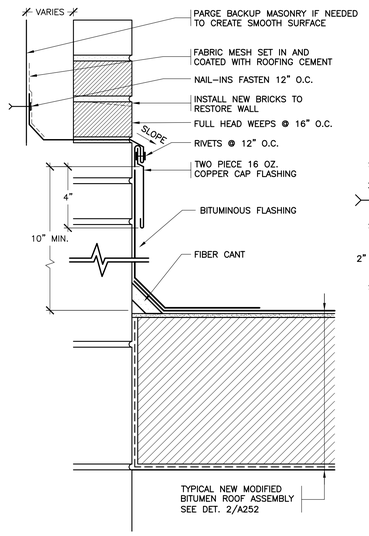


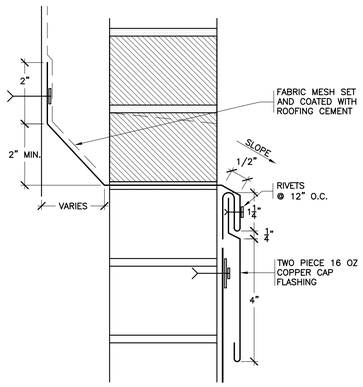
4A OVERFLOW SCUPPER AT BULKHEAD
SCALE: 0 1" 2" 4" 8"



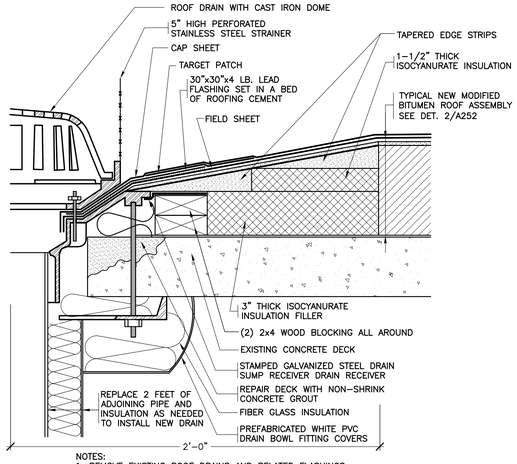
5 EXISTING BASE
SCALE: 0 1" 2" 4" 8"



6 REVISED BASE
SCALE: 0 1" 2" 4" 8"



6A REVISED CAP FLASHING
SCALE: 6"=1'-0"



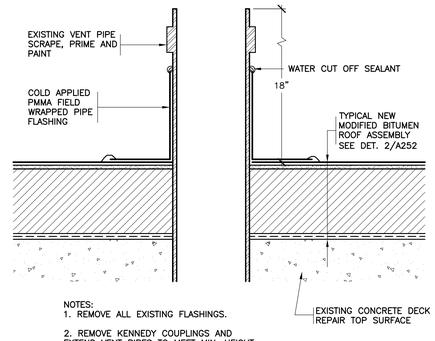
NOTES:
1. REMOVE EXISTING ROOF DRAINS AND RELATED FLASHINGS.

2. INSTALL TAPERED EDGE STRIPS & INSULATION FILLERS TO CREATE A MINIMUM 4 FT. x 4 FT. SQUARE SUMP AT EACH DRAIN.

3. INSULATE THE DRAIN BOWL, AND THE NEW PIPE.

4. SEE ROOF PLAN FOR TWO OVERSIZE DRAIN SUMPS MEASURING APPROXIMATELY 4"X10".

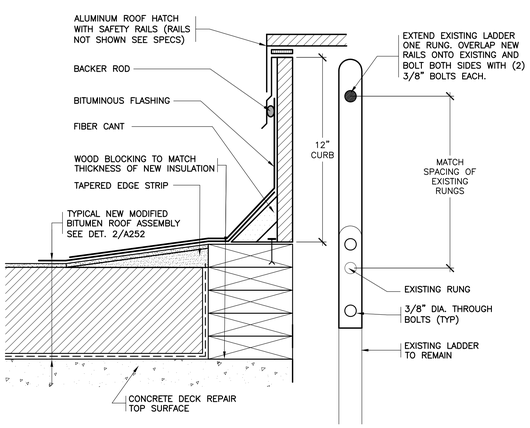
7 REVISED ROOF DRAIN
SCALE: 0 1" 2" 4" 8"



NOTES:
1. REMOVE ALL EXISTING FLASHINGS.

2. REMOVE KENNEDY COUPLINGS AND EXTEND VENT PIPES TO MEET MIN. HEIGHT REQUIREMENT.

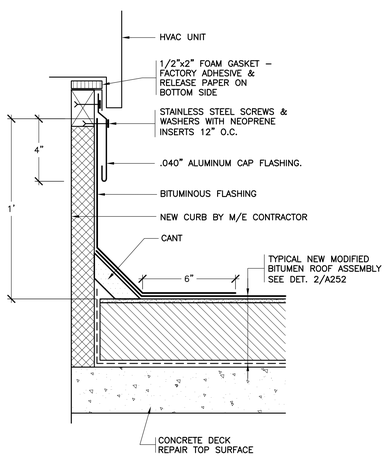
8 REVISED VENT PIPE
SCALE: 0 1" 2" 4" 8"



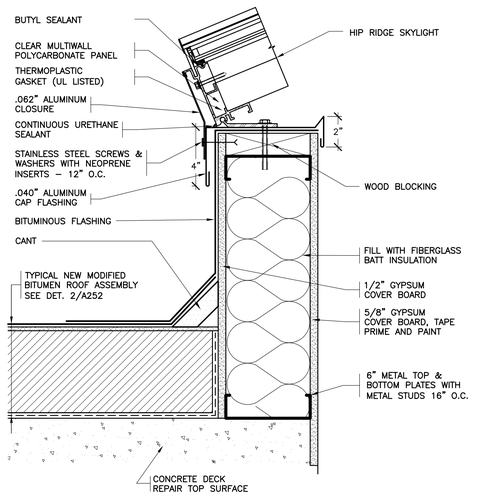
NOTE:
1. REMOVE & DISPOSE OF EXISTING ROOF HATCH, CURB AND RELATED FLASHINGS.

2. LADDER SHALL BE OSHA COMPLIANT.

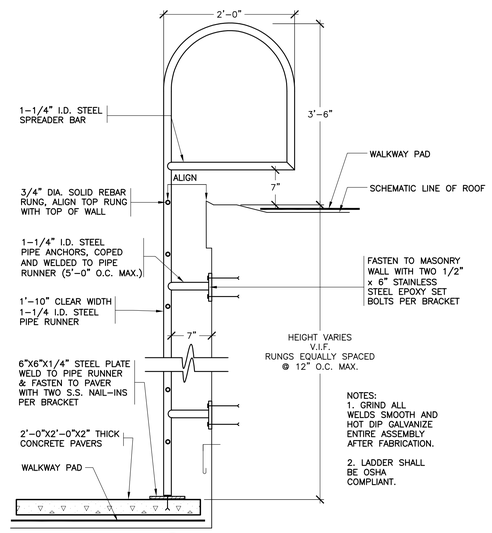
9 REVISED ROOF HATCH
SCALE: 0 1" 2" 4" 8"



10 REVISED HVAC CURB
SCALE: 0 1" 2" 4" 8"



11 REVISED SKYLIGHT
SCALE: 0 1" 2" 4" 8"



NOTES:
1. GRIND ALL WELDS SMOOTH AND HOT DIP GALVANIZE ENTIRE ASSEMBLY AFTER FABRICATION.

2. LADDER SHALL BE OSHA COMPLIANT.

12 NEW ROOF LADDER
NOT TO SCALE

ORANGE-ULSTER BOCES

Regional Education Center at Arden Hill

North Wing

4 Harriman Drive
Goshen • NY 10924

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285 MAIN STREET MOUNT KISCO . NEW YORK. 10549
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S.E.D. Control No.
44-90-00-00-8-035-008

CONSTRUCTION DOCUMENTS

Professional Seal

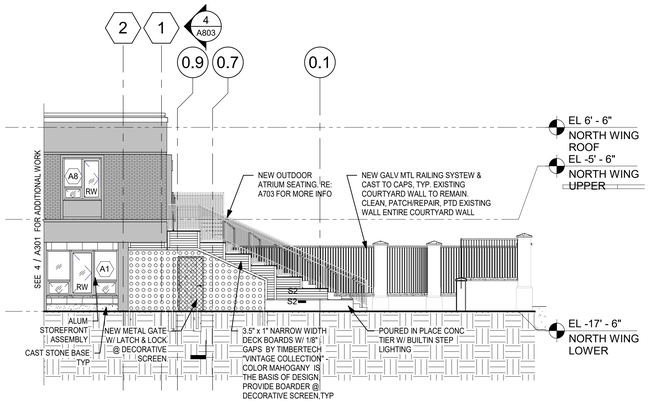
No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

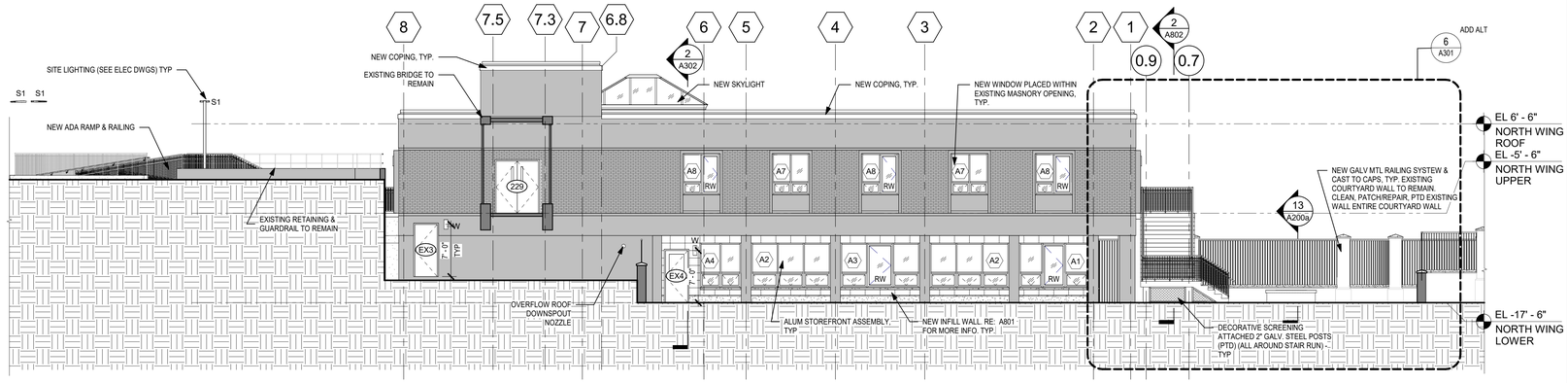
ROOF DETAILS

Job No. 2023-1008
Date
Scale
Drawn/Checked

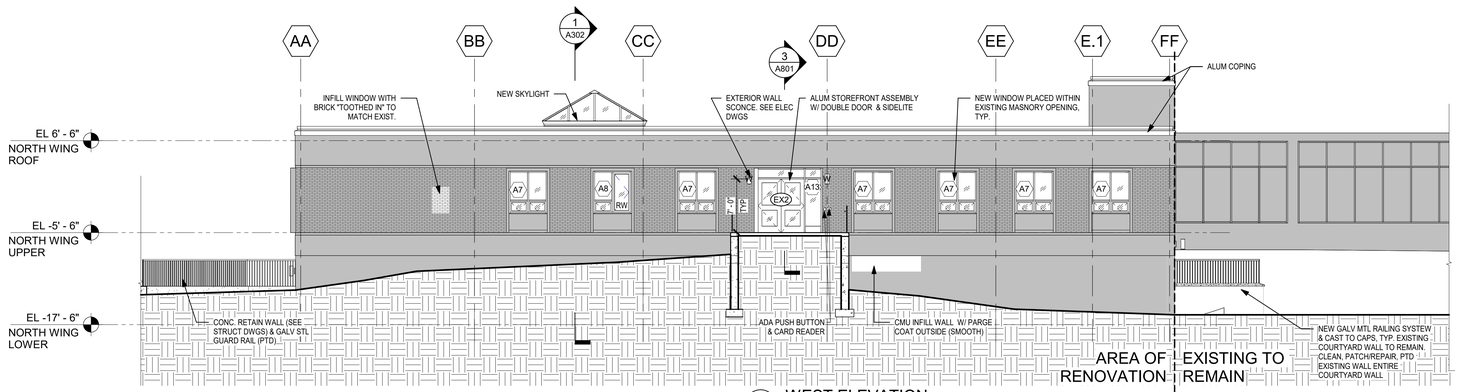
Sheet No.
A252



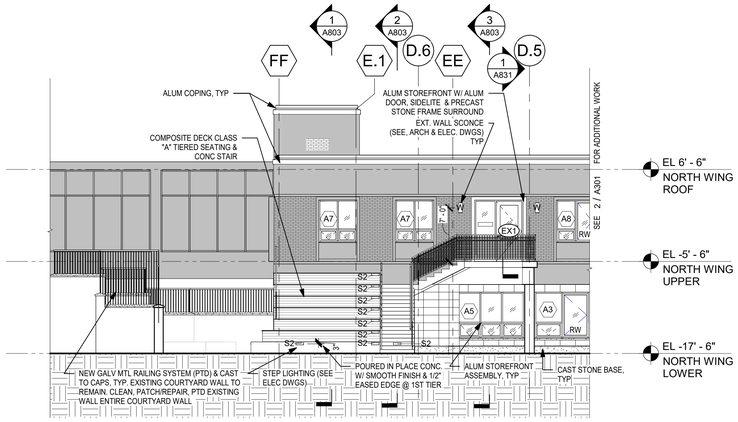
6 SOUTH ELEVATION (ADD ALT)
1/8" = 1'-0"



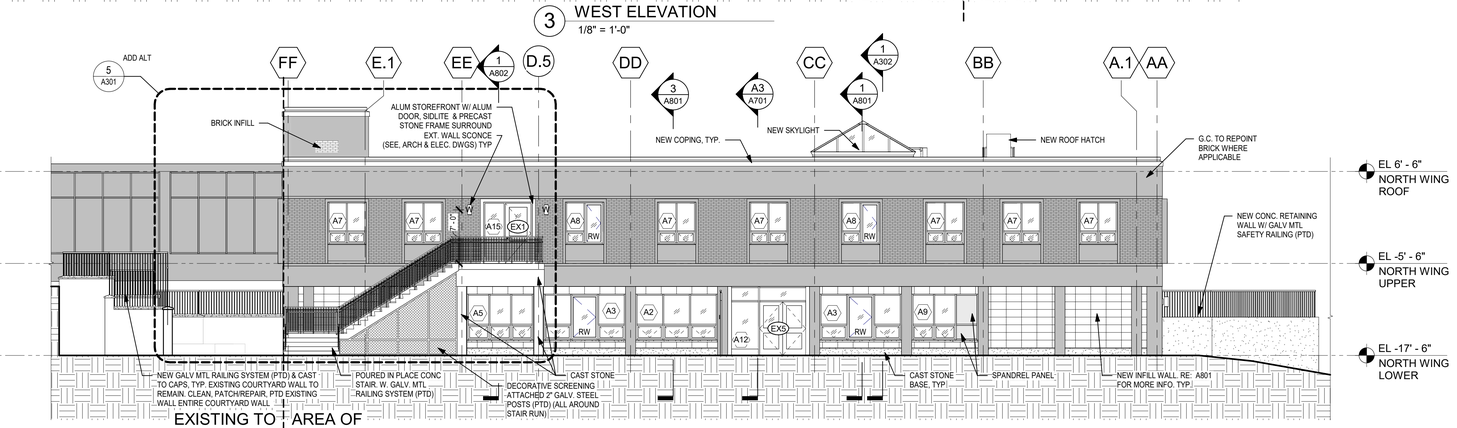
4 SOUTH ELEVATION
1/8" = 1'-0"



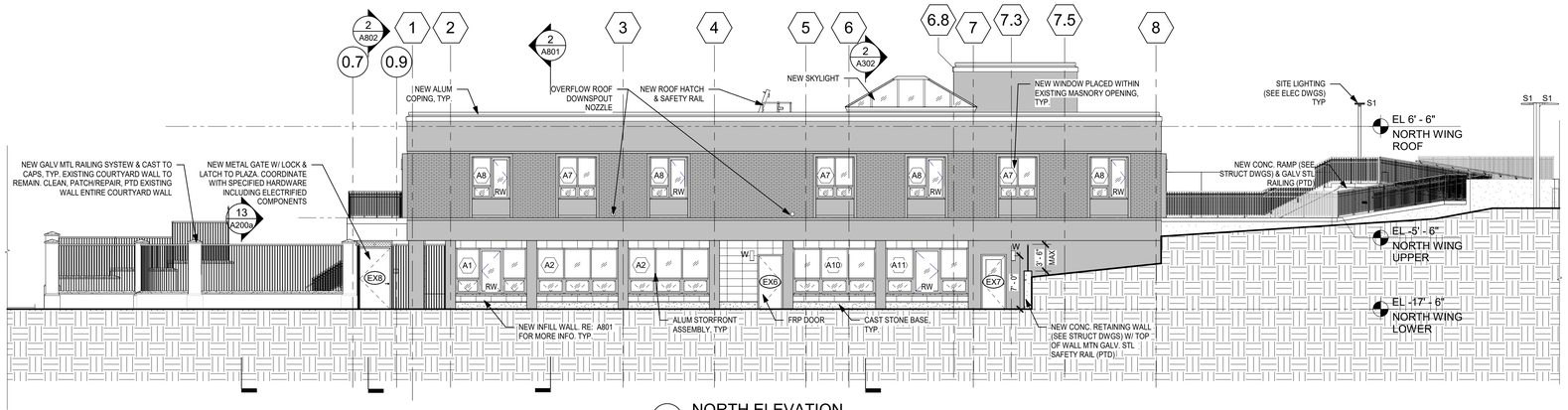
3 WEST ELEVATION
1/8" = 1'-0"



5 EAST ELEVATION (ADD ALT)
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"



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

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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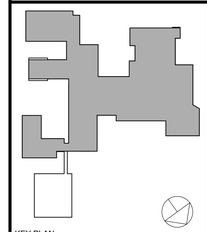
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. (1A) DENOTES WINDOW TYPE, SEE DWG A8.9
2. (101) DENOTES DOOR NUMBER. SEE DOOR SCHEDULE ON A9.2
3. C.J CONTROL JOINT
4. RW DENOTES RESCUE WINDOW SEE A8.9 & SPECS FOR MORE INFO
5. ALL EXTERIOR LOUVERS SHALL BE 4" DEEP, ALUM. HORIZ BLADE, STORMPROOF, DRAINABLE w/50% FREE AREA (MIN) FINISHED IN PREM. (KYNAR) METALLIC) OR CUSTOM COLOR AS SELECTED BY ARCHITECT w/BIRD SCREEN, (SIM OR EQUAL TO RUSKIN ELF375DX)

   G.C. SHALL PROVIDE LOUVERS & COORDINATE FREE AREA REQUIREMENTS w/H.C.
6. GLAZING IN DOORS, SIDELIGHTS & WITHIN 18" OF GRADE, FLOORS, & STAIR LANDINGS SHALL BE TEMPERED GLASS.



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

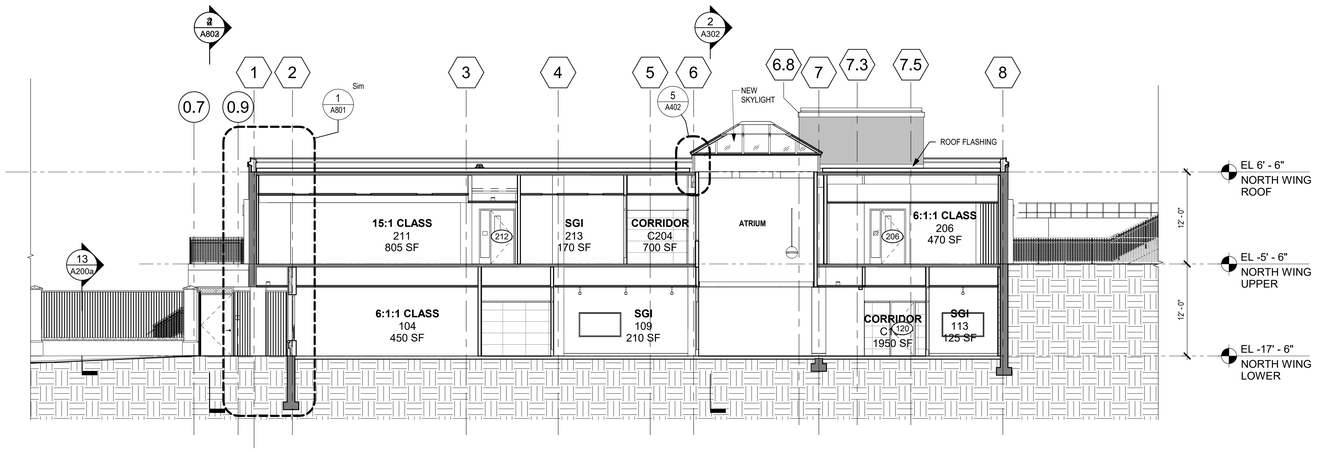
Sheet Title

BUILDING ELEVATIONS

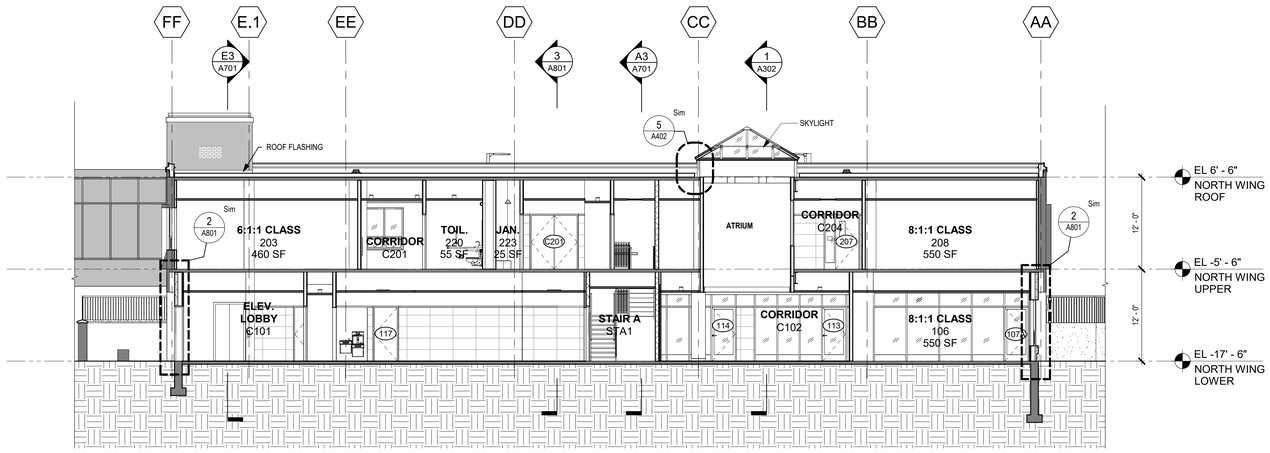
Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

A301



1 BUILDING SECTION LOOKING SOUTH
1/8" = 1'-0"



2 BUILDING SECTION LOOKING WEST
1/8" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

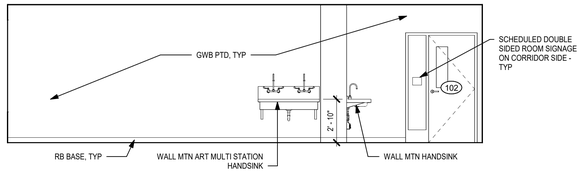
Sheet Title

BUILDING SECTIONS

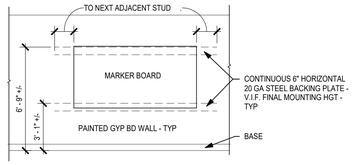
Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

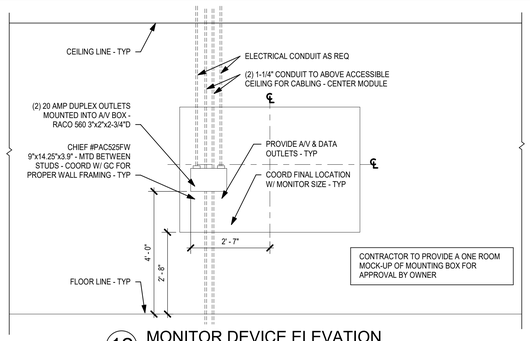
A302



14 ROOM 102 CLASSROOM - EAST ELEV.
1/4" = 1'-0"



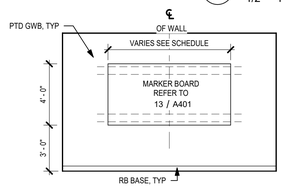
13 MARKERBOARD WALL ELEVATION
1/4" = 1'-0"



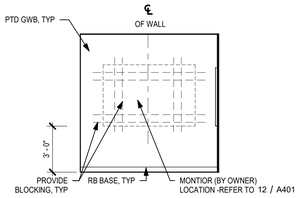
12 MONITOR DEVICE ELEVATION
1/2" = 1'-0"

WHITEBOARD SCHEDULE

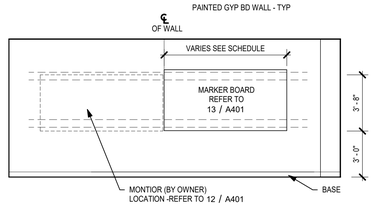
ROOM #	ROOM NAME	QTY	SIZE (W X H)
101	8:1:1 CLASS	1	8'-0" x 4'-0"
102	8:1:1 CLASS	1	8'-0" x 4'-0"
103	8:1:1 CLASS	1	8'-0" x 4'-0"
104	6:1:1 CLASS	1	8'-0" x 4'-0"
105	15:1:1 CLASS	1	8'-0" x 4'-0"
106	8:1:1 CLASS	1	8'-0" x 4'-0"
107	8:1:1 CLASS	1	8'-0" x 4'-0"
108	SGI	1	6'-0" x 4'-0"
109	SGI	1	6'-0" x 4'-0"
113	SGI	1	6'-0" x 4'-0"
114	SGI	1	6'-0" x 4'-0"
115	COPY/FAC	1	6'-0" x 4'-0"
201	8:1:1 CLASS	1	8'-0" x 4'-0"
202	8:1:1 CLASS	1	8'-0" x 4'-0"
203	6:1:1 CLASS	1	8'-0" x 4'-0"
206	6:1:1 CLASS	1	8'-0" x 4'-0"
207	15:1 CLASS	1	8'-0" x 4'-0"
208	8:1:1 CLASS	1	8'-0" x 4'-0"
209	SGI	1	6'-0" x 4'-0"
210	15:1 CLASS	1	8'-0" x 4'-0"
211	15:1 CLASS	1	8'-0" x 4'-0"
212	15:1 CLASS	1	8'-0" x 4'-0"
213	SGI	1	6'-0" x 4'-0"
214	SGI	1	6'-0" x 4'-0"
EX4	COURTYARD	1	



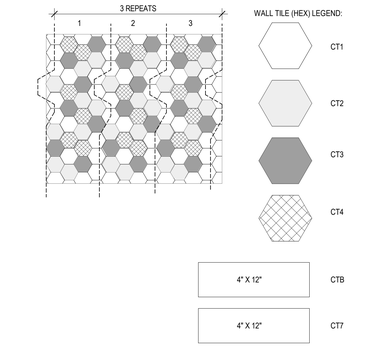
11 TYP MARKERBOARD WALL
1/4" = 1'-0"



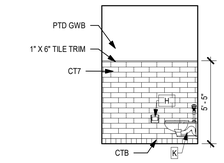
10 TYP MONITOR WALL
1/4" = 1'-0"



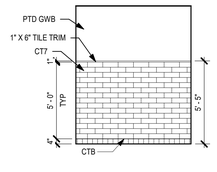
9 TYP TEACHING WALL
1/4" = 1'-0"



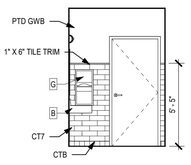
ENLARGED TILE PATTERN LEGEND
3/4" = 1'-0"



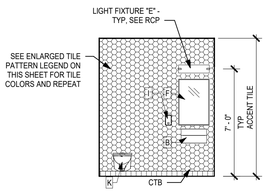
8 TOILET RM - SOUTH ELEV
1/4" = 1'-0"



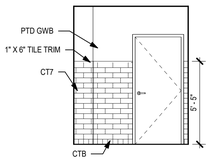
7 TOILET RM - WEST ELEV
1/4" = 1'-0"



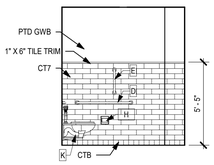
6 TOILET RM - EAST ELEV
1/4" = 1'-0"



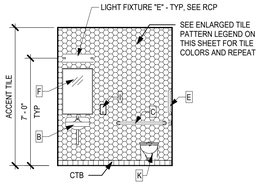
5 TOILET RM - NORTH ELEV
1/4" = 1'-0"



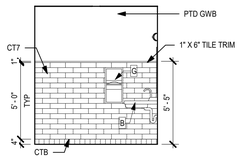
4 TOIL RM - NORTH ELEV
1/4" = 1'-0"



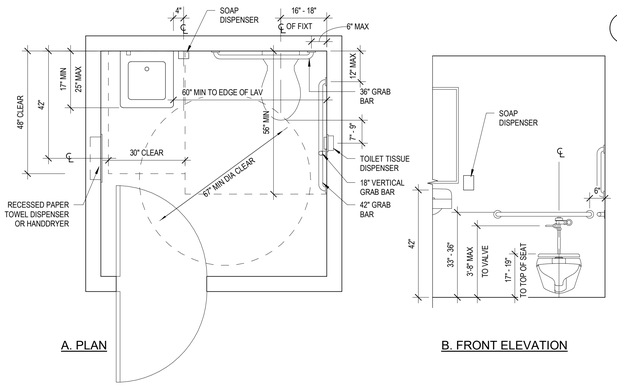
3 TOIL RM - WEST ELEV
1/4" = 1'-0"



2 TOIL RM - SOUTH ELEV
1/4" = 1'-0"



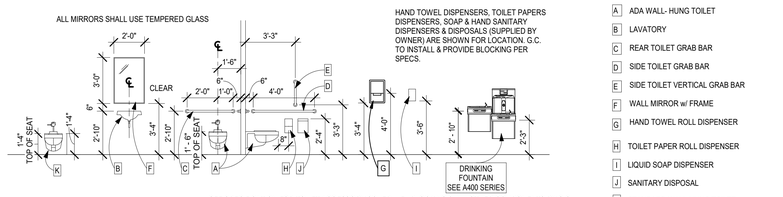
1 TOIL RM - EAST ELEV
1/4" = 1'-0"



TD TYP. ADA TOILET ROOM DIMENSIONS
1/2" = 1'-0"

REF:
ADA: 603.2, 604.2, 604.3.2, 604.7, 604.8, 609.1
ANSI: 604.4

G100-1010F



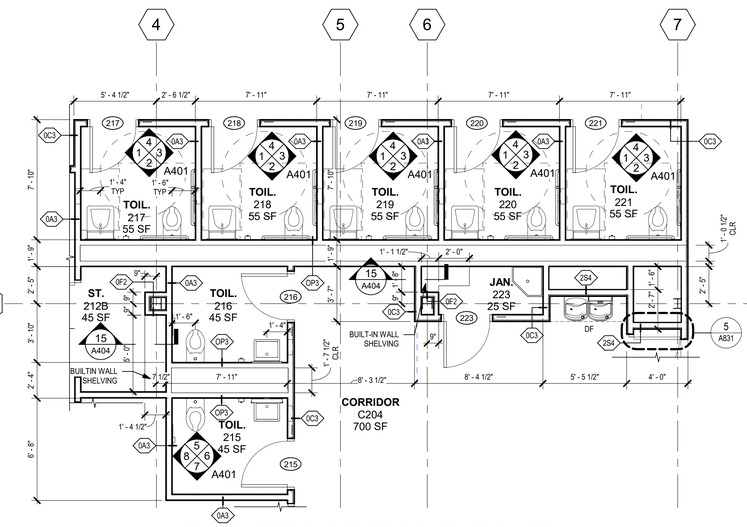
TOILET ROOM EQUIPMENT GENERAL NOTES

HAND TOWEL DISPENSERS, TOILET PAPERS DISPENSERS, SOAP & HAND SANITARY DISPENSERS & DISPOSALS (SUPPLIED BY OWNER) ARE SHOWN FOR LOCATION. G.C. TO INSTALL & PROVIDE BLOCKING PER SPECS.

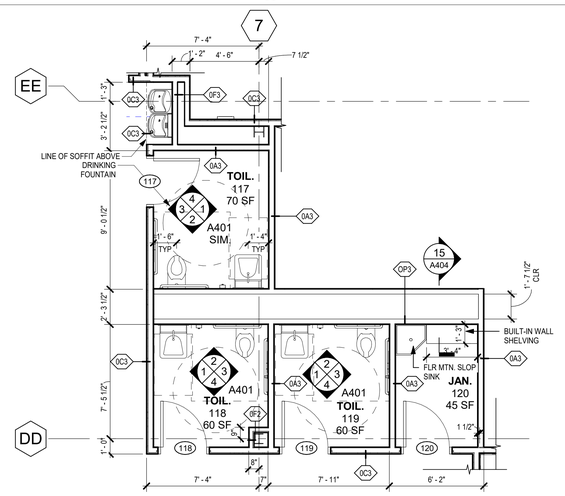
NOTE:
ACCESSORIES G1, H, I & J ARE SUPPLIED BY OWNER, INSTALLED BY GC.

- A ADA WALL- HUNG TOILET
- B LAVATORY
- C REAR TOILET GRAB BAR
- D SIDE TOILET GRAB BAR
- E SIDE TOILET VERTICAL GRAB BAR
- F WALL MIRROR w/ FRAME
- G HAND TOWEL ROLL DISPENSER
- H TOILET PAPER ROLL DISPENSER
- I LIQUID SOAP DISPENSER
- J SANITARY DISPOSAL
- K STANDARD WALL-HUNG TOILET
- L STANDARD WALL-HUNG URINAL

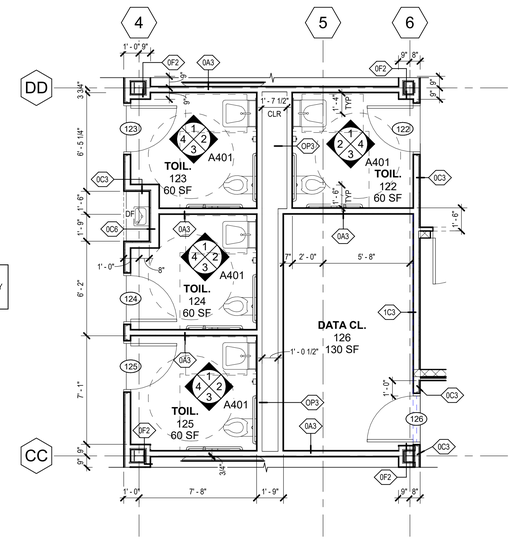
TOILET RM EQUIP. SCHEDULE W/ MOUNTING HGTS
1/4" = 1'-0"



C NW 2ND FLR - TOIL RM 215 - 221, & JAN 223
1/4" = 1'-0"



B NW 1ST FLR - TOIL RMS 118,119, 120 & JAN 117
1/4" = 1'-0"



A NW 1ST FLR - TOIL RMS 122,123, 124 & 125
1/4" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

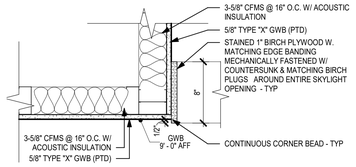
Sheet Title

ENLARGED TOILET RM PLANS, ELEV., SCHEDULES, & DETAILS

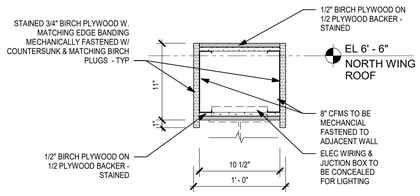
Job No. 2023-1011	Date 04/24/2024
Scale	Drawn / Checked Author Checker

Sheet Number

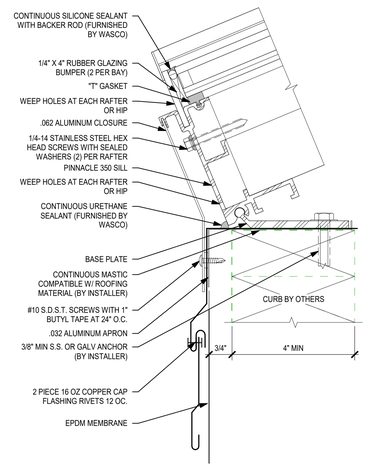
A401



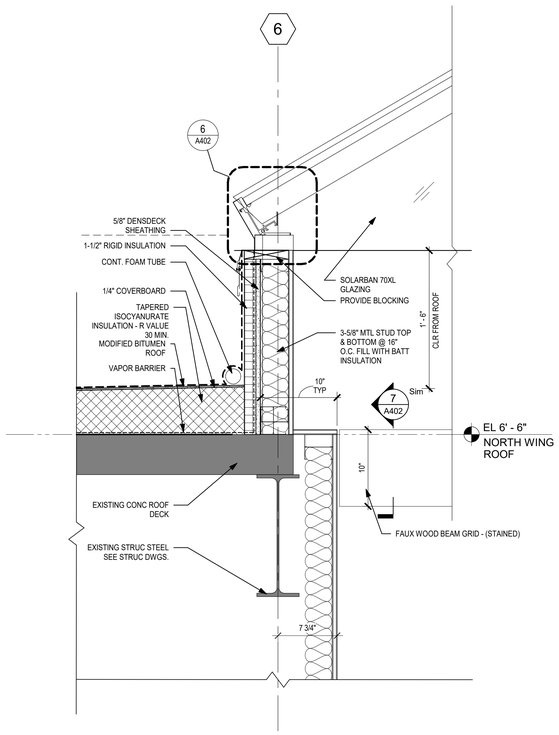
8 CEILING DETAIL @ SKYLIGHT OPENING
1 1/2" = 1'-0"



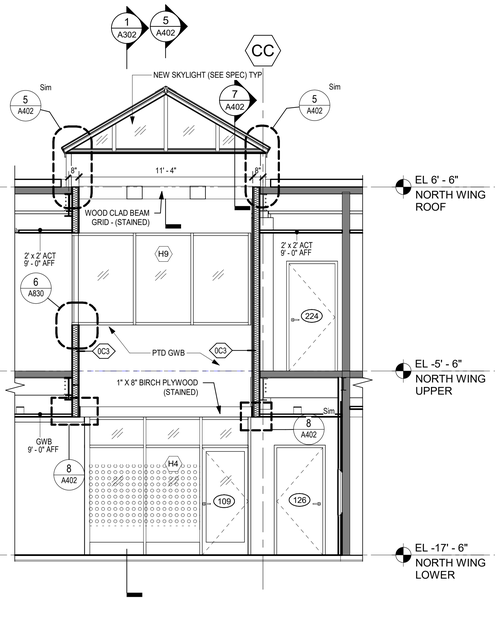
7 SECTION DETAIL @ WOOD GRID
1 1/2" = 1'-0"



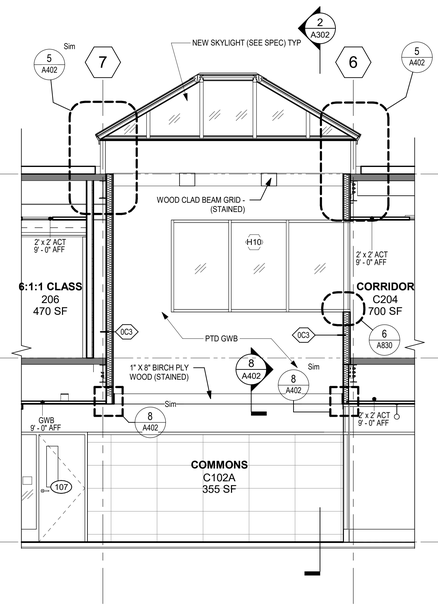
6 SKYLIGHT SILL DETAIL
6" = 1'-0"



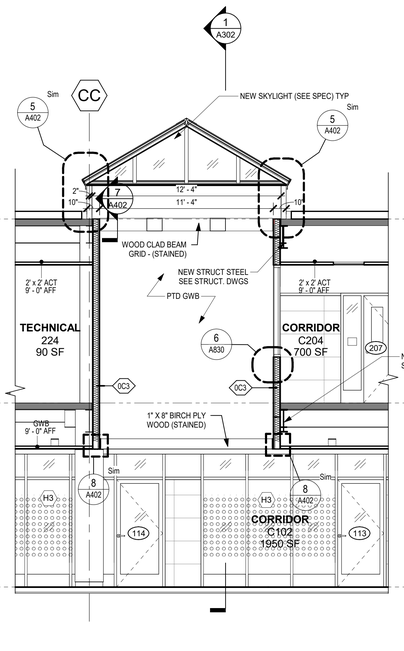
5 SECTION @ SKY LIGHT CURB & ATRUIM
1 1/2" = 1'-0"



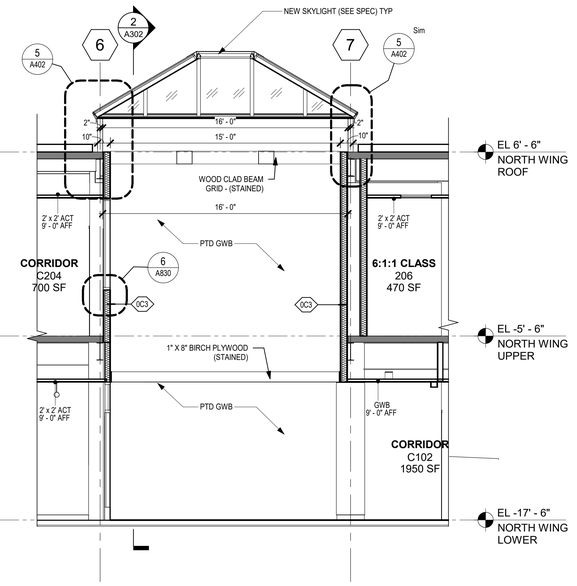
4 SKY LIGHT - EAST ELEVATION
1/4" = 1'-0"



3 SKY LIGHT - NORTH ELEVATION
1/4" = 1'-0"



2 SKY LIGHT - WEST ELEVATION
1/4" = 1'-0"



1 SKY LIGHT - SOUTH ELEVATION
1/4" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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GOSHEN, NY 10924

KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

KEY PLAN

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ENLARGED SKYLIGHT ELEVATIONS & DETAILS

Job No.	Date
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Scale	Drawn / Checked
	Author Checker

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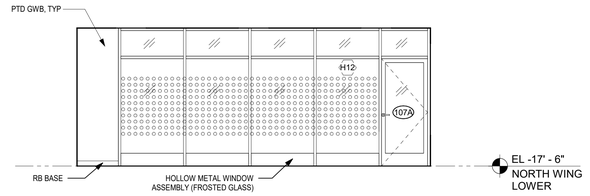
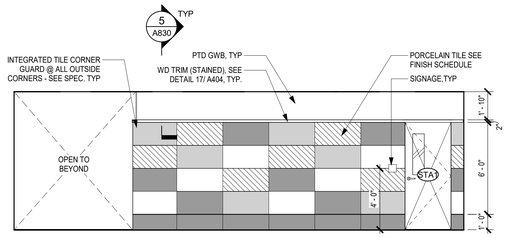
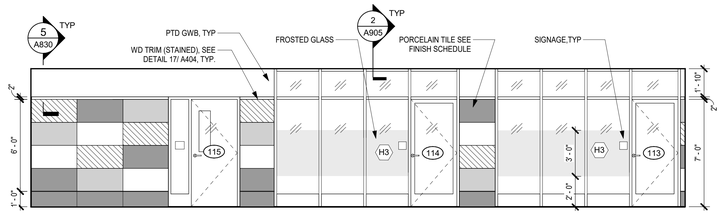


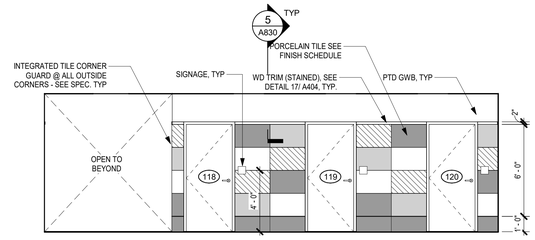
14 8.1.1 CLASS (106) - WEST ELEV
1/4" = 1'-0"



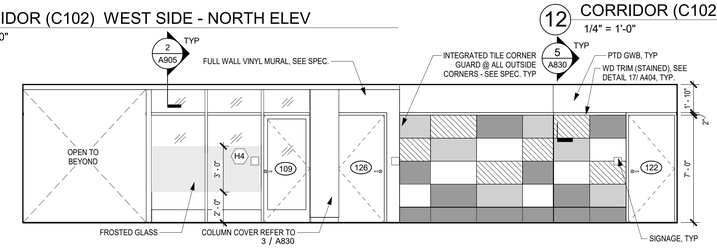
13 CORRIDOR (C102) WEST SIDE - NORTH ELEV
1/4" = 1'-0"



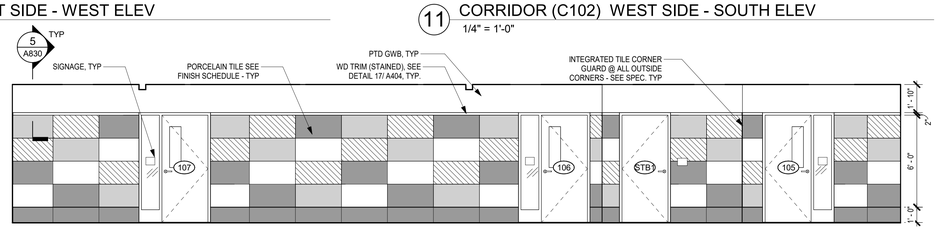
12 CORRIDOR (C102) WEST SIDE - WEST ELEV
1/4" = 1'-0"



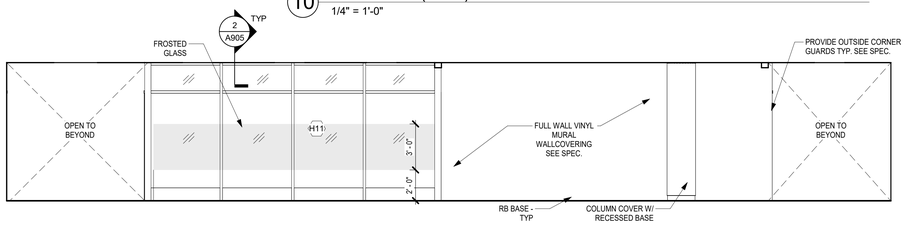
11 CORRIDOR (C102) WEST SIDE - SOUTH ELEV
1/4" = 1'-0"



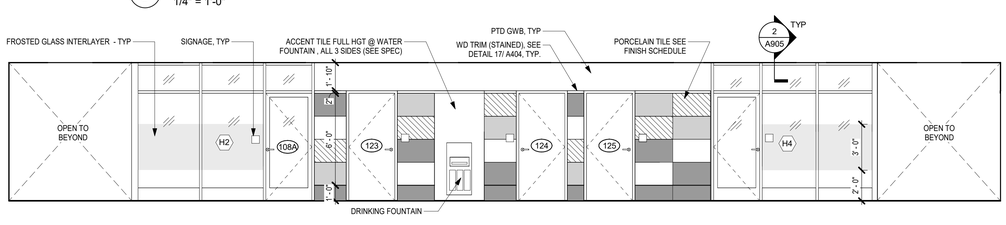
10 CORRIDOR (C102) WEST SIDE - EAST ELEV
1/4" = 1'-0"



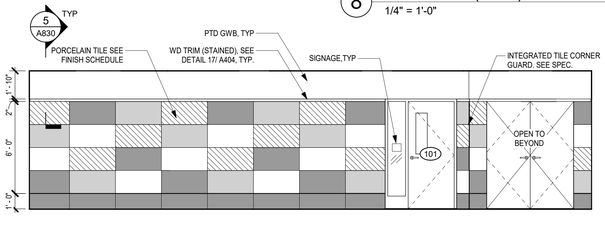
9 CORRIDOR (C102) NORTH SIDE - NORTH ELEV
1/4" = 1'-0"



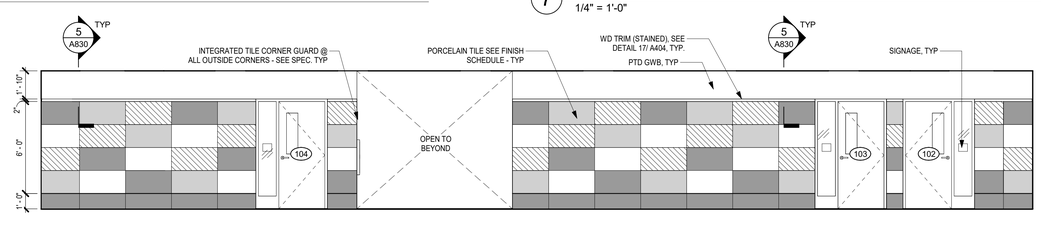
8 CORRIDOR (C102) NORTH SIDE - SOUTH ELEV
1/4" = 1'-0"



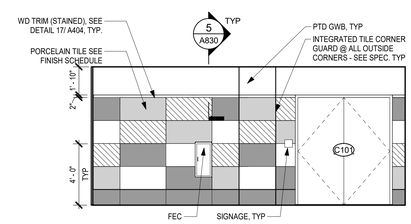
7 CORRIDOR (C102) EAST SIDE - WEST ELEV
1/4" = 1'-0"



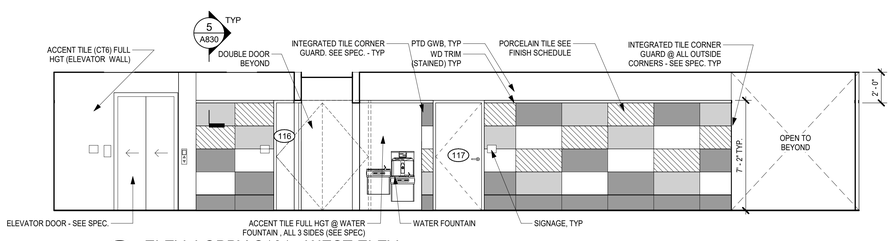
6 CORRIDOR (C102) SOUTH SIDE - EAST ELEV
1/4" = 1'-0"



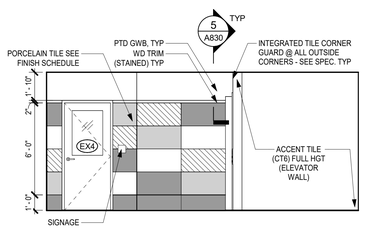
5 CORRIDOR (C102) WEST SIDE - EAST ELEV
1/4" = 1'-0"



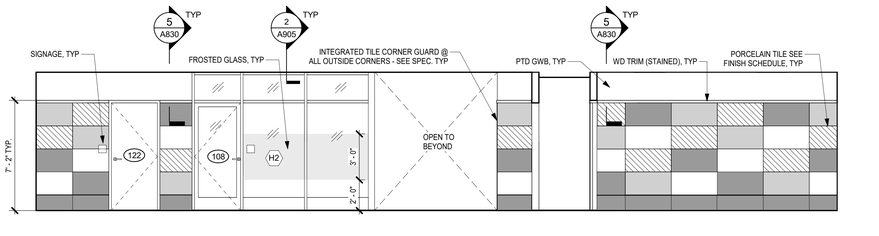
4 ELEV. LOBBY C101 - NORTH ELEV
1/4" = 1'-0"



3 ELEV. LOBBY C101 - WEST ELEV
1/4" = 1'-0"



2 ELEV. LOBBY C101 - SOUTH ELEV
1/4" = 1'-0"



1 ELEV. LOBBY C101 - EAST ELEV
1/4" = 1'-0"

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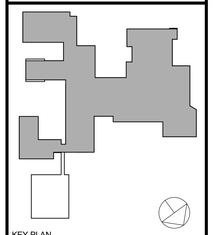
CONSTRUCTION DOCUMENTS

WALL TILE LEGEND:
- PTI
- PT2
- PT3
- PT4



KEY PLAN

Professional Seal

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INTERIOR ELEVATIONS

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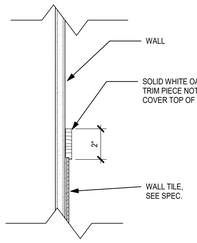
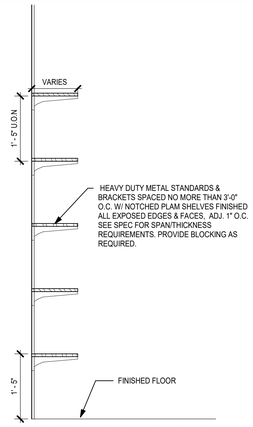
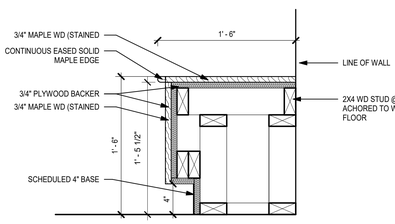


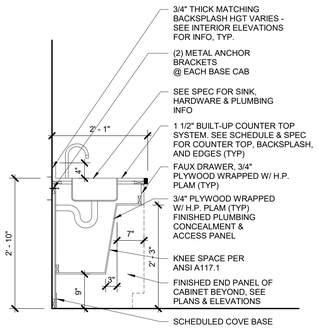
17 WOOD TRIM PIECE @ TILE
3" = 1'-0"



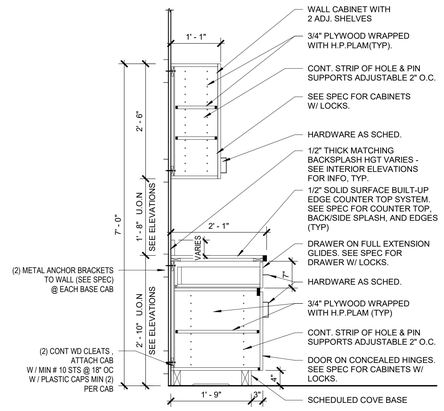
15 DETAIL THRU SHELVES
3/4" = 1'-0"



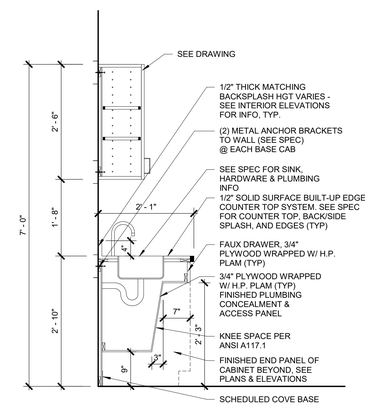
14 BENCH DETAIL
1 1/2" = 1'-0"



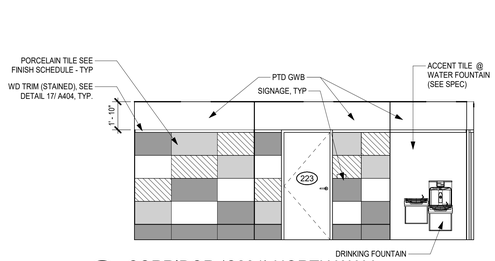
13 SECTION @ ADA SINK
3/4" = 1'-0"



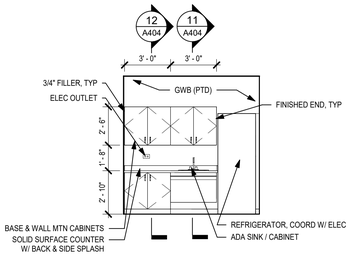
12 TYP SECTION @ BASE & WALL CABINETS
3/4" = 1'-0"



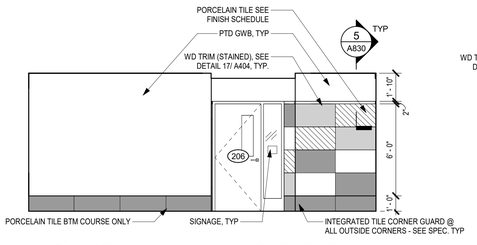
11 SECTION @ ADA SINK & WALL CAB.
3/4" = 1'-0"



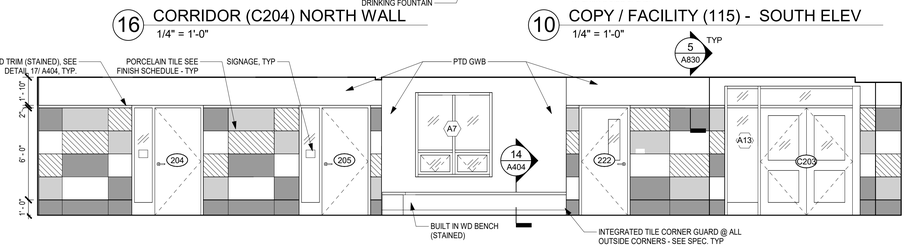
16 CORRIDOR (C204) NORTH WALL
1/4" = 1'-0"



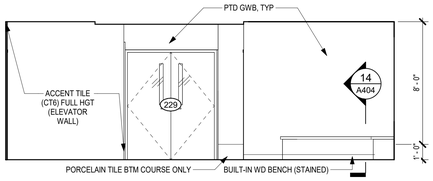
10 COPY / FACILITY (115) - SOUTH ELEV
1/4" = 1'-0"



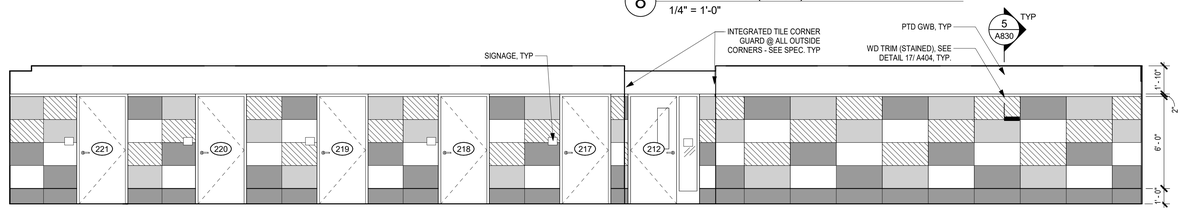
9 COMMONS (C202) - NORTH ELEV
1/4" = 1'-0"



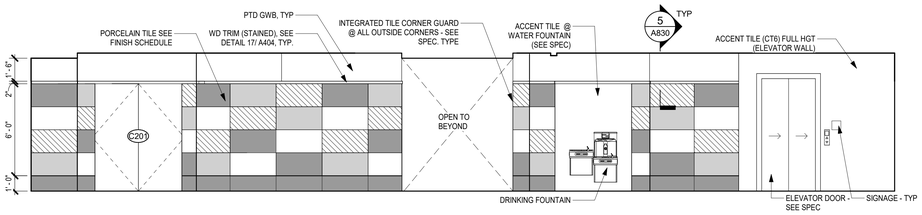
8 COMMONS (C202) - WEST ELEV
1/4" = 1'-0"



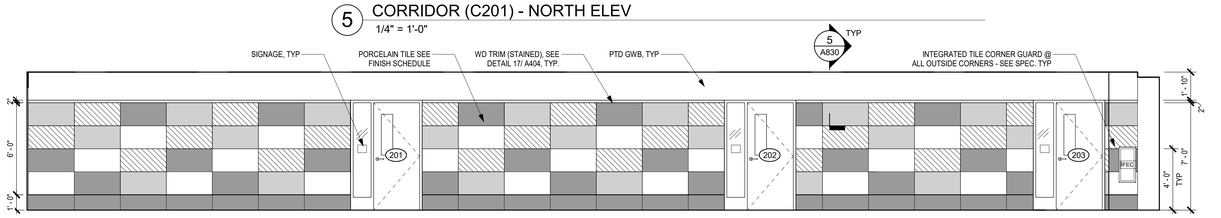
7 COMMONS (C202) - SOUTH ELEV
1/4" = 1'-0"



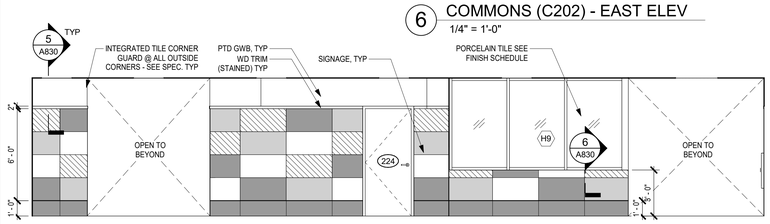
5 CORRIDOR (C201) - NORTH ELEV
1/4" = 1'-0"



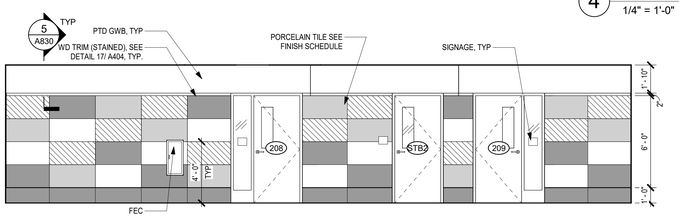
6 COMMONS (C202) - EAST ELEV
1/4" = 1'-0"



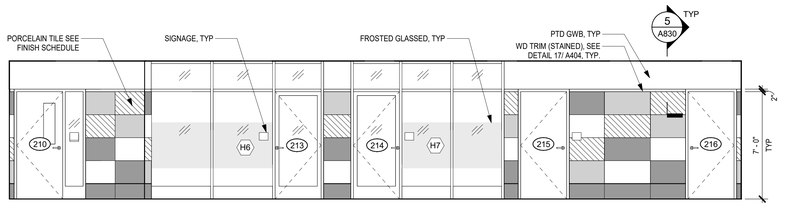
4 CORRIDOR (C201) - SOUTH ELEV
1/4" = 1'-0"



3 CORRIDOR (C204) - WEST ELEV
1/4" = 1'-0"



2 CORRIDOR (C204) - NORTH ELEV
1/4" = 1'-0"



1 CORRIDOR (C204) - EAST ELEV
1/4" = 1'-0"

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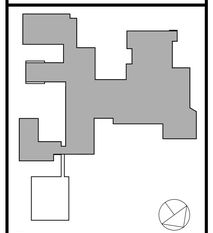
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INTERIOR ELEVATIONS & TYP MILLWORK DETAILS

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

A404

FINISH SCHEDULE ABBREVIATIONS

ACCENT	ACCENT PAINT COLOR	EX-ACT	EXISTING ACOUSTIC CEILING TILE	GWB	GYPSUM WALL BOARD	RCP	REFLECTED CEILING PLAN
ACT*	ACOUSTIC CEILING TILE	EX-H	EXISTING HARD CEILING	MEP	MECHANICAL, ELECTRICAL AND PLUMBING	SCH	SCHLUTER ALUMINUM COVE BASE
AFF	ABOVE FINISH FLOOR	EVT*	EXISTING VINYL TILE	MH	MATCH EXISTING HEIGHT	T*	TILE
CB	CEMENT BOARD	FF	FACTORY FINISH	OTS	OPEN TO STRUCTURE	TT	TERRAZZO TILE
CMU	CONCRETE MASONRY UNIT	FRP	FIBER REINFORCED POLYMER	PTD	PAINT / PAINTED	VCT	VINYL COMPOSITE TILE
CPT*	CARPET	GL	GLASS / WINDOW WALL	PT*	PORCLAIN TILE	LVT	(LUXURY) VINYL TILE
CT	CERAMIC TILE			RB	RUBBER BASE	WD	WOOD
CTB	CERAMIC TILE BASE			RT	RUBBER TILE	WDP	WOOD PANEL
EPO	EPOXY PAINT						
EX	EXISTING MATERIAL						

FINISH SCHEDULE GENERAL NOTES:

NOTE :
[*] NUMBER INDICATES STYLE - REFER TO SPEC FOR MORE INFORMATION ON FINISHES

[-] DASH INDICATES SURFACE TO REMAIN AS IS & PROTECTED FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION

CEILING HEIGHTS SHOWN IN CEILING PLANS, SECTIONS & DETAILS SHALL TAKE PRECEDENCE OVER HEIGHTS INDICATED ON SCHEDULE.

PATCH & MATCH TO EXISTING ADJACENT FINISHES WHEN WALLS/SURFACES ARE DISTURBED, TYP.

FOR ROOMS LABEL MH - MATCH CEILING HEIGHT W/ EXIST HEIGHT. CONSULT W/ ARCHITECT BEFORE INSTALL - TYP

Finish Schedule

		FLOOR		NORTH WALL		EAST WALL		SOUTH WALL		WEST WALL		CEILING		
ROOM #	ROOM NAME	BASE	FLOOR	MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN	HT
101	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
102	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
103	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
104	6:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
105	15:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
106	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
107	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
108	SGI	RB1	CPT1	GWB	PTD	GWB/WW	PTD	GWB/WW	PTD	GWB/WW	PTD	ACT	FF	9'-0"
109	SGI	RB1	CPT1	GWB/WW	PTD	GWB/WW	PTD	GWB	PTD	GWB/WW	PTD	ACT	FF	9'-0"
113	SGI	RB1	CPT1	GWB	PTD	GWB/WW	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
114	SGI	RB1	CPT1	GWB	PTD	GWB/WW	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
115	COPY/FAC	RB1	CPT1	GWB	PTD	GWB/WW	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
116	MECHANICAL ROOM	RB3	EX	GWB	PTD	GWB	PTD	EX	PTD	EX	PTD	EX	-	OTS
117	TOIL.	CTB	PT5	CB	CT1,2,3,4,	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
118	TOIL.	CTB	PT5	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB	CT1,2,3,4	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
119	TOIL.	CTB	PT5	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB	CT1,2,3,4	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
120	JAN.	CTB	PT5	GWB	EP	GWB	EP	GWB	EP	GWB	EP	EX	-	OTS
122	TOIL.	CTB	PT5	CB/GWB	CT5/PTD	CB	CT1,2,3,4	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
123	TOIL.	CTB	PT5	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB	CT1,2,3,4	GWB	PTD	9'-0"
124	TOIL.	CTB	PT5	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB	CT1,2,3,4	GWB	PTD	9'-0"
125	TOIL.	CTB	PT5	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB	CT1,2,3,4	GWB	PTD	9'-0"
126	DATA CL.	RB2	HLVT	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
127	VESTIBULE	RB3	WOM	GWB	PTD	GWB/WW	PTD	GWB	PTD	GWB/WW	PTD	GWB	PTD	9'-0"
200A	CORRIDOR	PT4	PT5	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	CT6/PT1,PT2,PT3,PTD	CB,GWB	CT6/PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	ACT/GWB	FF/PTD	9'-0"
201	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
202	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
203	6:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
204	OFFICE	RB1	CPT1	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
205	OFFICE	RB1	CPT1	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
206	6:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
207	15:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT/GWB	FF	9'-0"/8"-8"
208	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
209	SGI	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
210	15:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
211	15:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT/GWB	FF / PTD	9'-0" / 8'-0"
212	15:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT/GWB	FF / PTD	9'-0" / 8'-0"
212B	ST.	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	9'-0"
213	SGI	RB3	CPT2	GWB/WW	PTD	GWB	PTD	GWB	PTD	GWB/WW	PTD	ACT	FF	9'-0"
214	SGI	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB/WW	PTD	ACT	FF	9'-0"
215	TOIL.	CTB	PT5	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB	CT1,2,3,4	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
216	TOIL.	CTB	PT5	CB	CT1,2,3,4,	CB/GWB	CT5/PTD	CB,GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
217	TOIL.	CTB	PT5	CB	CT1,2,3,4,	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
218	TOIL.	CTB	PT5	CB	CT1,2,3,4,	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
219	TOIL.	CTB	PT5	CB	CT1,2,3,4,	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
220	TOIL.	CTB	PT5	CB	CT1,2,3,4,	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
221	TOIL.	CTB	PT5	CB	CT1,2,3,4,	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	CB/GWB	CT5/PTD	GWB	PTD	9'-0"
222	SECURITY	RB3	WOM	GWB	PTD	GWB	PTD	EX	PTD	GWB	PTD	ACT	FF	9'-0"
223	JAN.	CTB	PT5	GWB	EP	GWB	EP	GWB	EP	GWB	EP	EX	-	OTS
224	TECHNICAL	RB2	HLVT	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
C101	ELEV. LOBBY	PT4	HLVT	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	CT6/PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD/CT6	ACT	FF	9'-0"
C102	CORRIDOR	PT4	HLVT	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD/CT6	ACT/GWB	FF / PTD	9'-0"/8"-8"
C102A	COMMONS	PT4	CPT1	GWB	PTD	GWB	VWC	GWB	VWC			GWB/WD BEAM	PTD/STAIN	9'-0"
C201	CORRIDOR	PT4	HLVT	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	ACT/GWB	FF/PTD	9'-0"/8"-8"
C202	COMMONS	PT4	PT5	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD/CT6	CB,GWB	CT6/PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	ACT/GWB	FF/PTD	9'-0"
C203	VESTIBULE	PT4	WOM	EX-BR		GWB/WW	PTD/FF	EX-BR		GWB/WW	PTD/FF	GWB	PTD	9'-0"
C204	CORRIDOR	PT4	HLVT/PT5	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	CB,GWB	PT1,PT2,PT3,PTD	ACTGWB	FF/PTD	9'-0"/8"-8"
EX4	COURTYARD													
OS3	8:1:1 CLASS	RB3	CPT2	GWB	PTD	GWB	PTD	GWB	PTD	GWB	PTD	ACT	FF	9'-0"
STA1	STAIR A	RB3/PT4	RT1/RTR	GWB/EX	PT2	CB	PT2	CB/EX	PT2	EX	PT2	GWB	PTD	9'-6"
STA2	STAIR A	RB3/PT4	RT1/RTR/RB TILE LANDING	CB/EX	PT2	CB	PT2	CB	PT2	EX	PT2	ACT	FF	9'-0"
STB1	STAIR B	RB3/PT4	RB TREAD / RB TILE LANDING	EX	PT2	EX	PT2	EX	PT2	EX	PT2	GWB	PTD	9'-6"/7'-0"
STB2	STAIR B	RB3/PT4	RB TREAD / RB TILE LANDING	EX	PT2	EX	PT2	EX	PT2	EX	PT2	ACT	FF	9'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

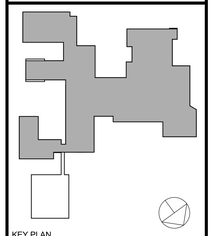
4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

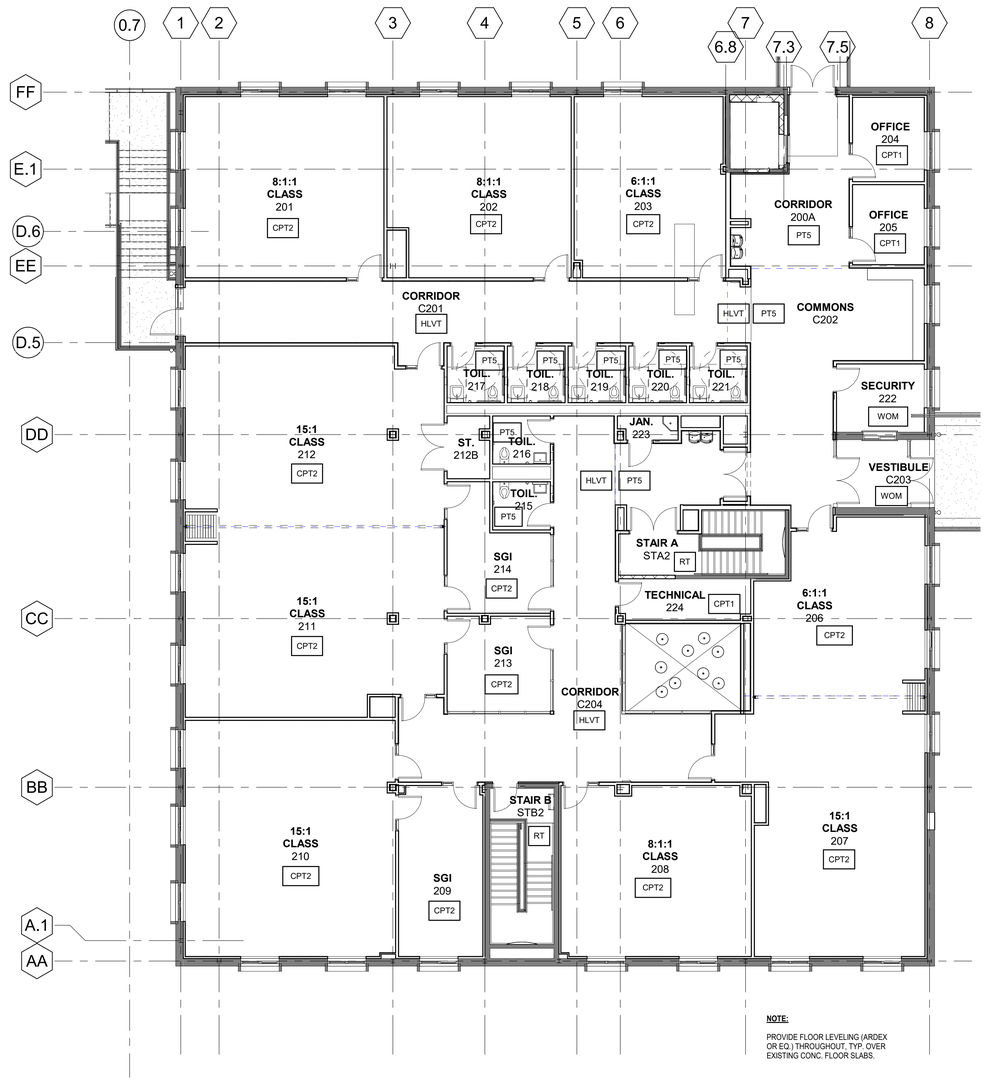
Sheet Title

FINISH SCHEDULE & DETAILS

Job No. 2023-1011	Date 04/24/2024
Scale	Drawn / Checked Author Checker

Sheet Number

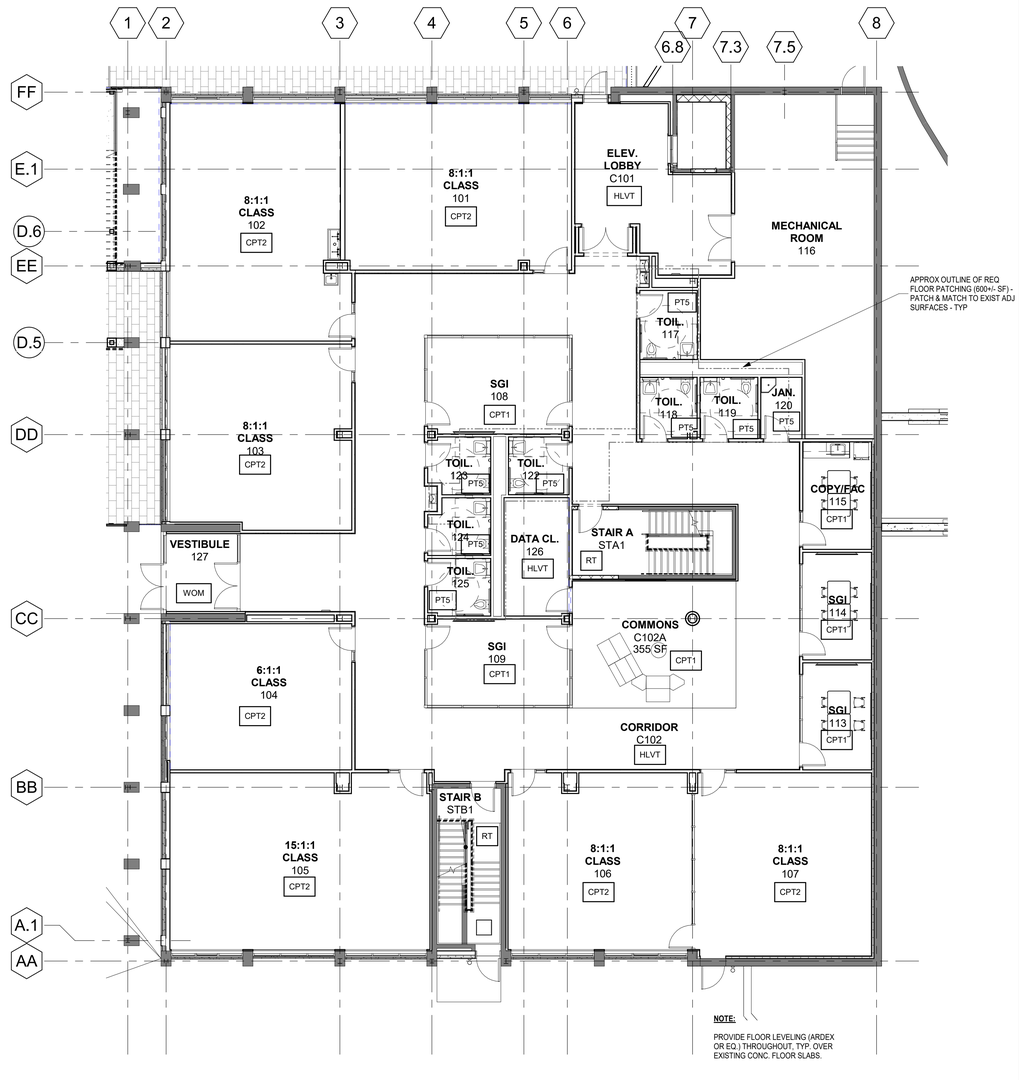
A501



NOTE:

PROVIDE FLOOR LEVELING (ARDEX OR EQ.) THROUGHOUT, TYP. OVER EXISTING CONC. FLOOR SLABS.

2 NORTH WING UPPER FINISH PLAN
1/8" = 1'-0"



NOTE:

PROVIDE FLOOR LEVELING (ARDEX OR EQ.) THROUGHOUT, TYP. OVER EXISTING CONC. FLOOR SLABS.

1 NORTH WING LOWER FINISH PLAN
1/8" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

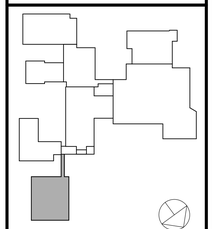
4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

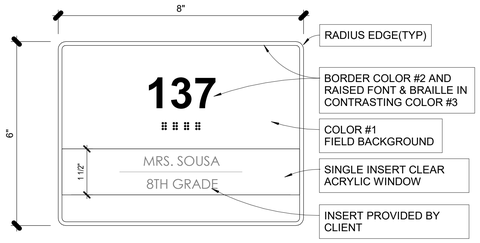
Sheet Title

FINISH PLANS

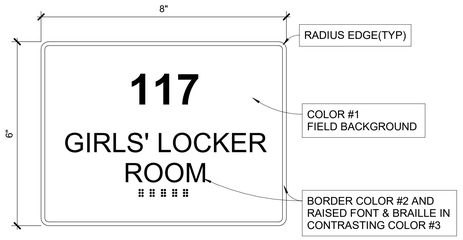
Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

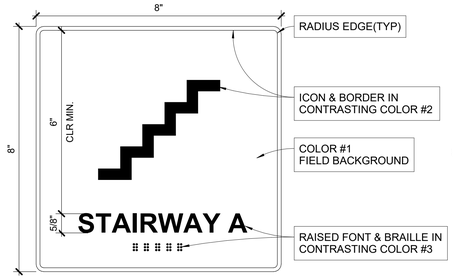
A502



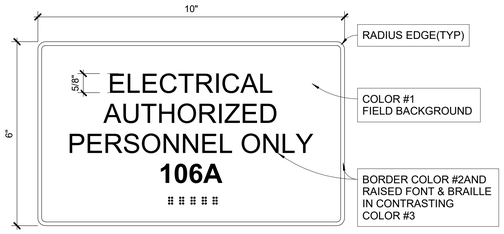
TYPE A
TYP. ROOM IDENTIFICATION SIGN WITH NAME SLOT



TYPE B
ROOM IDENTIFICATION SIGN

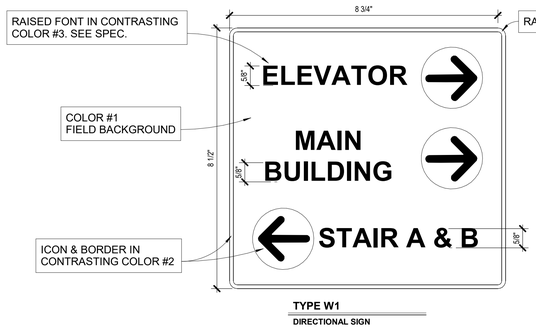


TYPE S
STAIR IDENTIFICATION SIGN

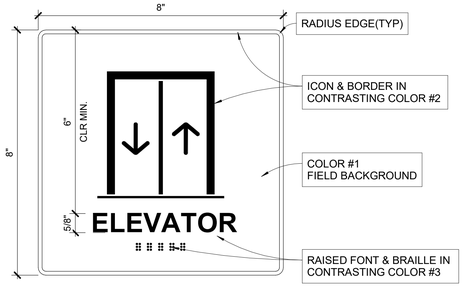


TYPE D
AUTHORIZED PERSONNEL - ROOM IDENTIFICATION

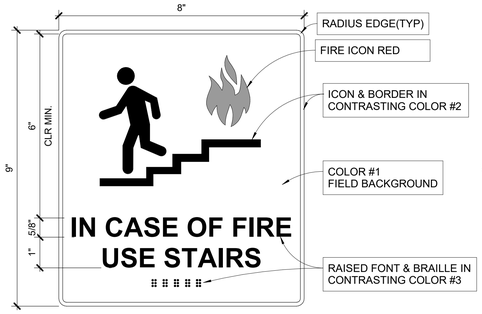
NOTE: WIDTH/HEIGHT OF SIGN TO BE ADJUSTED AS REQUIRED FOR WORDING FROM 8" - 12" W AND 6" - 10" H



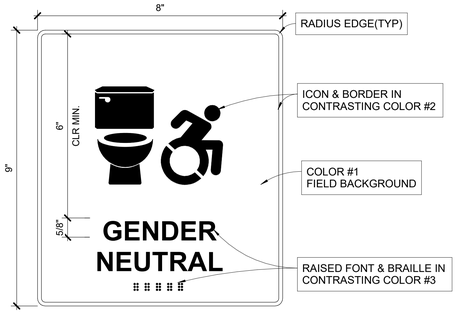
TYPE W1
DIRECTIONAL SIGN



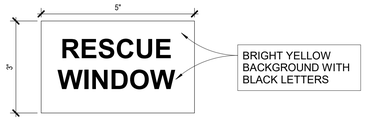
TYPE E
ELEVATOR IDENTIFICATION SIGN



TYPE F
ELEVATOR SECONDARY SIGN

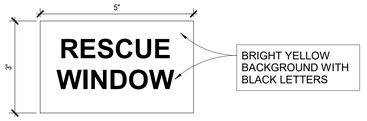


TYPE G1
SINGLE USER TOILET IDENTIFICATION SIGN



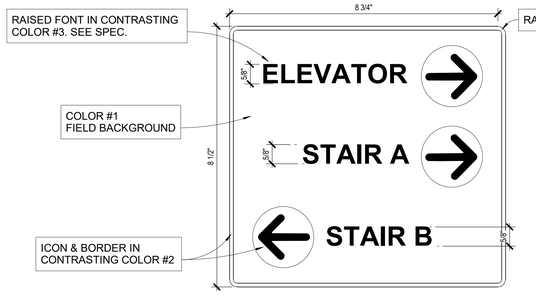
TYPE R1
RESCUE WINDOW ADHESIVE

NOTE: PROVIDE TEXT ON BOTH SIDES OF STICKER

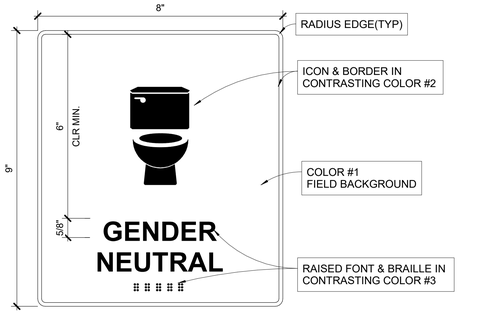


TYPE R2
RESCUE WINDOW ADHESIVE

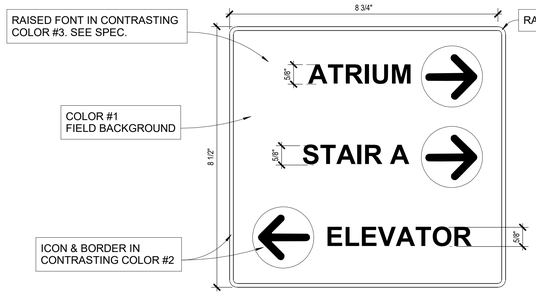
NOTE: PROVIDE ON WALL ADJACENT TO RESCUE WINDOW



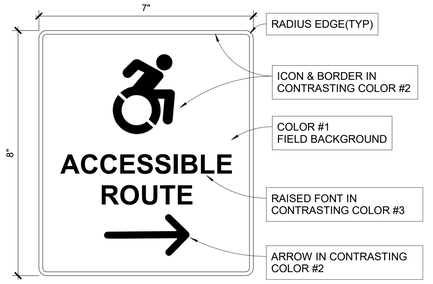
TYPE W2
DIRECTIONAL SIGN



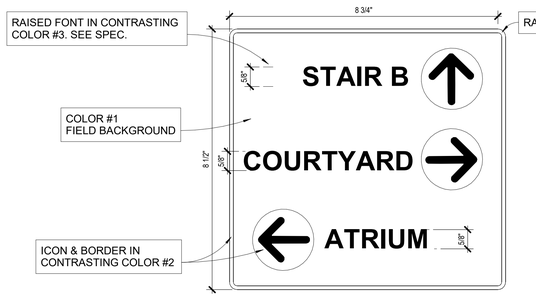
TYPE G2
SINGLE USER TOILET IDENTIFICATION SIGN



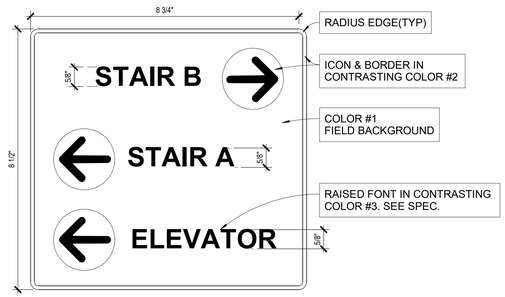
TYPE W3
DIRECTIONAL SIGN



TYPE H
ELEVATOR IDENTIFICATION SIGN



TYPE W4
DIRECTIONAL SIGN



TYPE W5
DIRECTIONAL SIGN

SIGNAGE_SCHEDULE

ROOM #	LOCATION	SIGN TYPE	SIGN TEXT (TEXT TO BE CONFIRMED WITH OWNER)	COMMENT	GLASS MOUNTED	QTY	SIGN SHOW	HIDE
101	8:1:1 CLASS	A	ROOM #		Yes	1		
102	8:1:1 CLASS	A	ROOM #		Yes	1		
103	8:1:1 CLASS	A	ROOM #		Yes	1		
104	6:1:1 CLASS	A	ROOM #		Yes	1		
105	15:1:1 CLASS	A	ROOM #		Yes	1		
106	8:1:1 CLASS	A	ROOM #		Yes	1		
107	8:1:1 CLASS	A	ROOM #		Yes	1		
108	SGI	B	ROOM # / COLLAB SPACE		Yes	1		
109	SGI	B	ROOM # / COLLAB SPACE		Yes	1		
113	SGI	B	ROOM # / COLLAB SPACE		Yes	1		
114	SGI	B	ROOM # / COLLAB SPACE		Yes	1		
115	COPY/FAC	B	ROOM # / FACULTY ROOM		Yes	1		
116	MECHANICAL ROOM	D	ROOM #/ MECHANICAL ROOM		No	1		
117	TOIL.	G	GENDER NEUTRAL		No	1		
118	TOIL.	G	GENDER NEUTRAL		No	1		
119	TOIL.	G	GENDER NEUTRAL		No	1		
120	JAN.	B	ROOM # / JANITOR CLOSET		No	1		
122	TOIL.	G	GENDER NEUTRAL		No	1		
123	TOIL.	G	GENDER NEUTRAL		No	1		
124	TOIL.	G	GENDER NEUTRAL		No	1		
125	TOIL.	G	GENDER NEUTRAL		No	1		
126	DATA CL.	D	ROOM # / DATA CLOSET		No	1		
201	8:1:1 CLASS	A	ROOM #		Yes	1		
202	8:1:1 CLASS	A	ROOM #		Yes	1		
203	6:1:1 CLASS	A	ROOM #		Yes	1		
204	OFFICE	A	ROOM #		Yes	1		
205	OFFICE	A	ROOM #		Yes	1		
206	6:1:1 CLASS	A	ROOM #		Yes	1		
207	15:1 CLASS	A	ROOM #		Yes	1		
208	8:1:1 CLASS	A	ROOM #		Yes	1		
209	SGI	B	ROOM # / COLLAB SPACE		Yes	1		
210	15:1 CLASS	A	ROOM #		Yes	1		
211	15:1 CLASS	A	ROOM #		Yes	1		
212	15:1 CLASS	A	ROOM #		Yes	1		
212B	ST.	B	ROOM # / STORAGE ROOM		No	1		
213	SGI	B	ROOM # / COLLAB SPACE		Yes	1		
214	SGI	B	ROOM # / COLLAB SPACE		Yes	1		
215	TOIL.	G2	GENDER NEUTRAL		No	1		
216	TOIL.	G2	GENDER NEUTRAL		No	1		
217	TOIL.	G	GENDER NEUTRAL		No	1		
218	TOIL.	G	GENDER NEUTRAL		No	1		
219	TOIL.	G	GENDER NEUTRAL		No	1		
220	TOIL.	G	GENDER NEUTRAL		No	1		
221	TOIL.	G	GENDER NEUTRAL		No	1		
222	SECURITY	B	ROOM # / SECURITY OFFICE			1		
223	JAN.	B	ROOM # / JANITOR CLOSET		No	1		
224	TECHNICAL	D	ROOM # / DATA CLOSET		No	1		
C201	CORRIDOR	B	COURTYARD		No	1		
E1	ELEV	E F	ELEVATOR IN CASE OF FIRE USE STAIRS	PROVIDE ONE ON BOTH UPPER & LOWER LEVEL	No	4		
EX4	COURTYARD	B	NO ROOM # / COURTYARD	NO ROOM # REQUIRED	No	1		
STA1	STAIR A	S	STAIR A - LOWER LEVEL		No	1		
STA2	STAIR A	S	STAIR A - UPPER LEVEL		No	1		
STB1	STAIR B	S	STAIR B - LOWER LEVEL		No	1		
STB2	STAIR B	S	STAIR B - UPPER LEVEL		No	1		

SIGNAGE SCHEDULE - ADDITIONAL SIGNS

- PROVIDE (1) W1, (1) W2, (1) W3, (1) W4, (1) W5 - WALL MOUNTED - LOCATION AS DIRECTED BY ARCHITECT
- ALLOW FOR 6 ACCESSIBLE ROUTE TYPE H SIGNS - WALL MOUNTED - DIRECTION OF ARROW AND LOCATIONS AS DIRECTED BY ARCHITECT
- RESCUE WINDOW STICKERS - PROVIDE TYPE R1 ON ON ALL RESCUE WINDOWS AND TYPE R2 ON WALL ADJACENT TO ALL RESCUE WINDOWS

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
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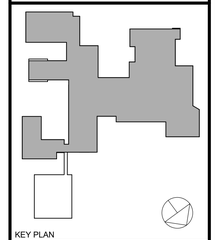
NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

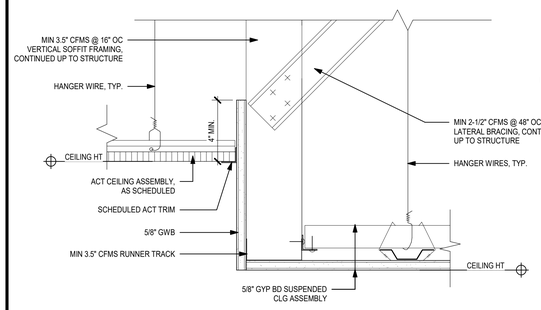
Sheet Title

SIGNAGE TYPES AND SCHEDULE

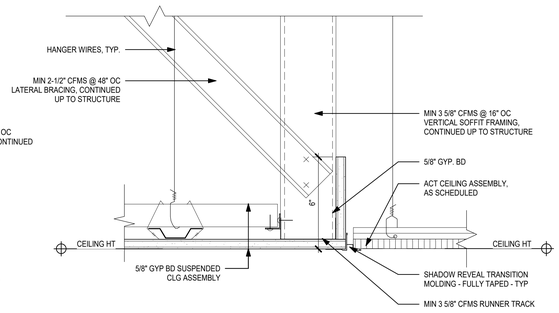
Job No. 2023-1011	Date 04/24/2024
Scale	Drawn / Checked Author Checker

Sheet Number

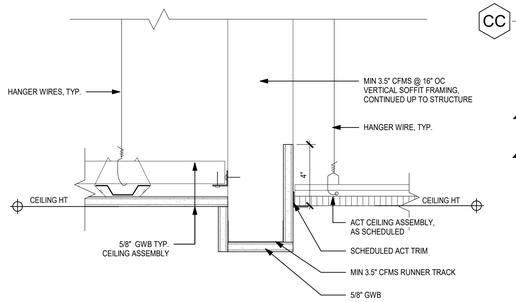
A530



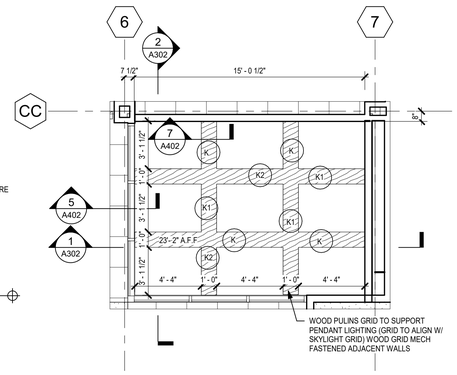
6 CEILING DETAIL AT DROPPED SOFFIT
3" = 1'-0"



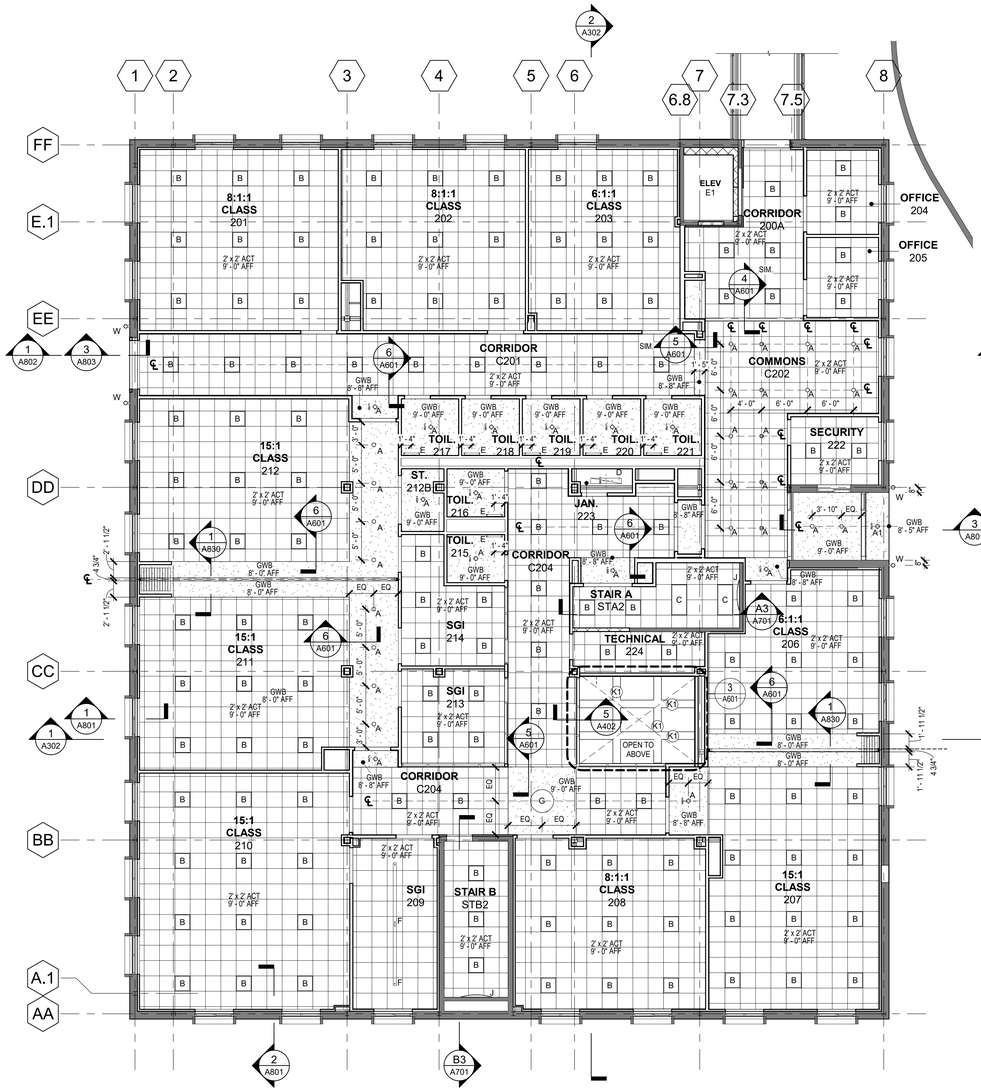
5 TYP. CEILING DETAIL GYP TO ACT TRANSITION
3" = 1'-0"



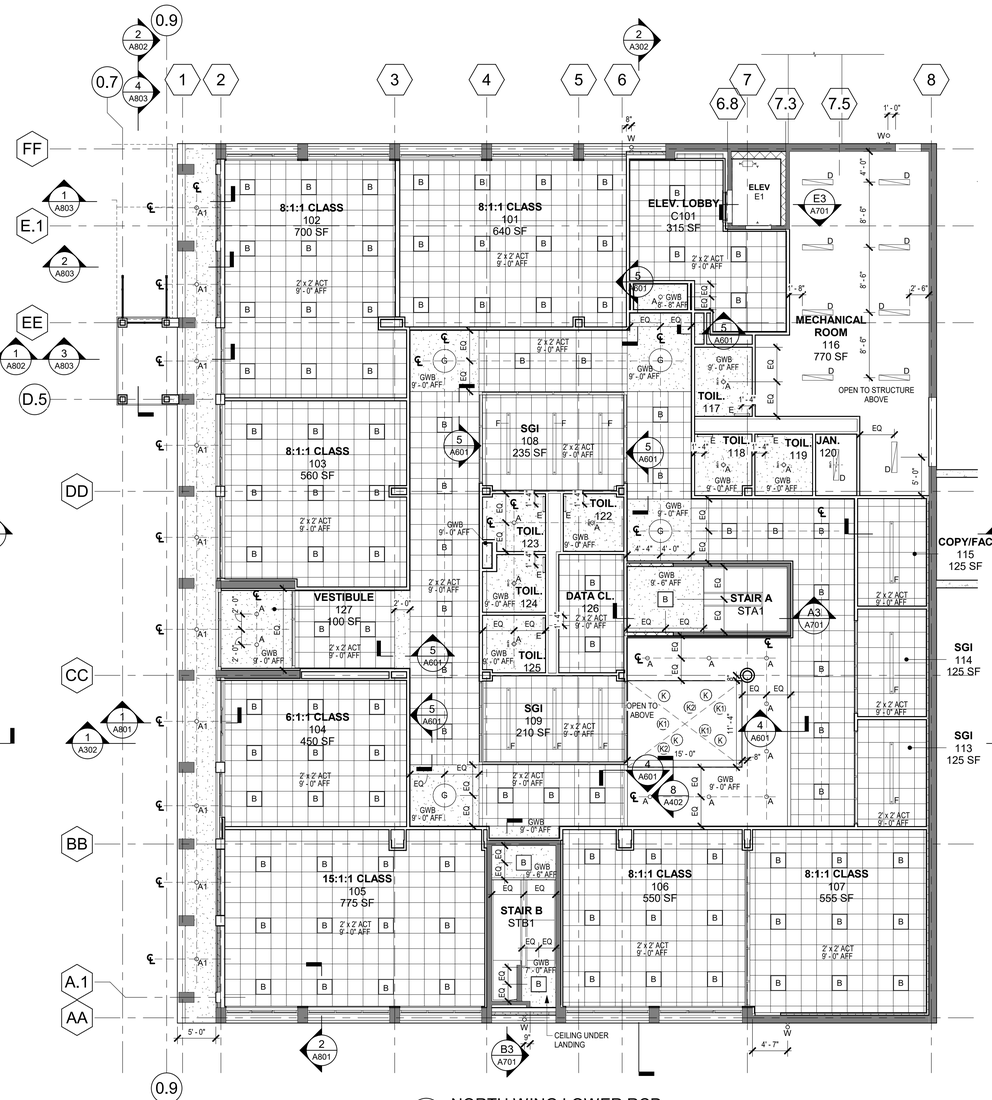
4 CEILING DETAIL AT SOFFIT
3" = 1'-0"



3 NORTH WING UPPER RCP - WOOD GRID PLAN
1/4" = 1'-0"



2 NORTH WING UPPER RCP
1/8" = 1'-0"



1 NORTH WING LOWER RCP
1/8" = 1'-0"

CEILING NOTES

1. DENOTES AREA OF NO ARCHITECTURAL WORK, UNLESS NOTED ELSEWHERE IN THE DOCUMENTS - SEE M.E.P. DWGS.
2. CEILINGS GRIDS ARE TO BE CENTERED IN ROOM. ALL CEILING FIXTURES, INCLUDING EXIT SIGNS, HVAC REGISTERS, ARE TO BE CENTERED IN CEILING TILES.
3. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SCHEDULE
4. FINISH SCHEDULE - SEE DWG. A501
5. CEILING HEIGHTS SHOWN IN PLANS, SECTIONS, & DETAILS SHALL TAKE PRECEDENCE OVER HEIGHTS INDICATED ON SCHEDULES

CLNG GENERAL NOTES

1. CEILING GRIDS SHALL BE CENTERED WITHIN THE ROOM OR SPACE - U.N.O.
2. CEILING MOUNTED ELEMENTS (I.E. LIGHT FIXTURES, EXIT SIGNS, HVAC REGISTERS, SPRINKLER HEADS, SPEAKERS, WIRELESS ACCESS POINTS, ETC) SHALL BE CENTERED IN CEILING TILES
3. SEE E601 FOR LIGHT FIXTURE SCHEDULE
4. CEILING HEIGHTS SHOWN IN PLANS, SECTIONS, & DETAILS SHALL TAKE PRECEDENCE OVER HEIGHTS INDICATED ON SCHEDULES
5. EXACT LOCATION & ELEVATION OF CEILING MOUNTED ELEMENTS IN SUPPORT SPACES (I.E. MECHANICAL, ELECTRIC, DATA ROOMS, ETC) SHALL BE COORDINATED WITH ARCHITECT & RESPECTIVE CONTRACTORS/OWNER
6. C R A — LIGHT FIXTURE CENTERED IN ROOM/CEILING. COORDINATE W/ EC; LIGHT FIXTURE TAG
7. SEE MEP DRAWINGS FOR:
   - CEILING SUPPLY REGISTER
   - CEILING RETURN REGISTER
   - WALL MOUNTED SUPPLY REGISTER
   - WALL MOUNTED RETURN REGISTER
   - VRF DUCTLESS HEAT RECOVERY INDOOR UNIT
   - INDOOR DUCTLESS AIR HANDLING UNIT
   - CABINET HEATER
   - SPRINKLER HEAD
   - SECURITY CAMERA (BY OWNER, NIC)
   - CEILING / WALL MOUNTED EXIT SIGN

RCP LEGEND

- A — 4" DOWN LIGHT A-1 : EXTERIOR
- B — 2X2 RECESSED
- C — 2X4 RECESSED
- D — 1X4 (CHAIN HUNG/CEILING MOUNTED) UTILITY LIGHT
- E — 4" X 24" OVER VANITY SURFACE MOUNTED
- F — 6" X 8' LINEAR PENDANT
- G — 36" ROUND RECESSED
- W-1 — EXTERIOR WALL SCONCE

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CONSTRUCTION DOCUMENTS

KEY PLAN

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Sheet Title

REFLECTED CEILING PLANS

Job No.	Date
2023-1011	04/24/2024
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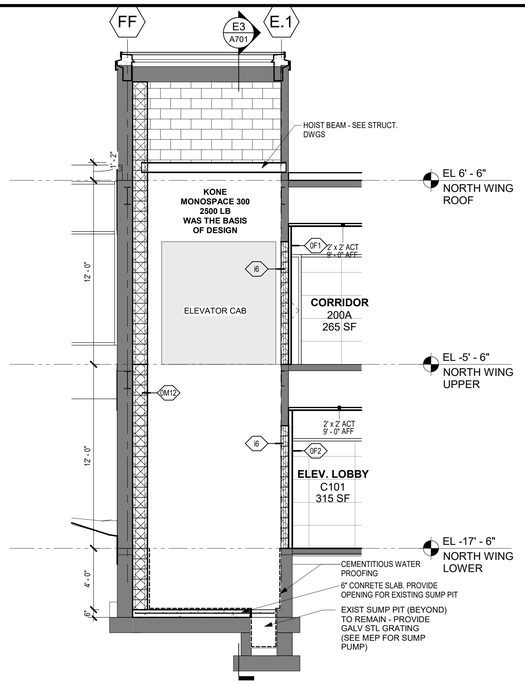
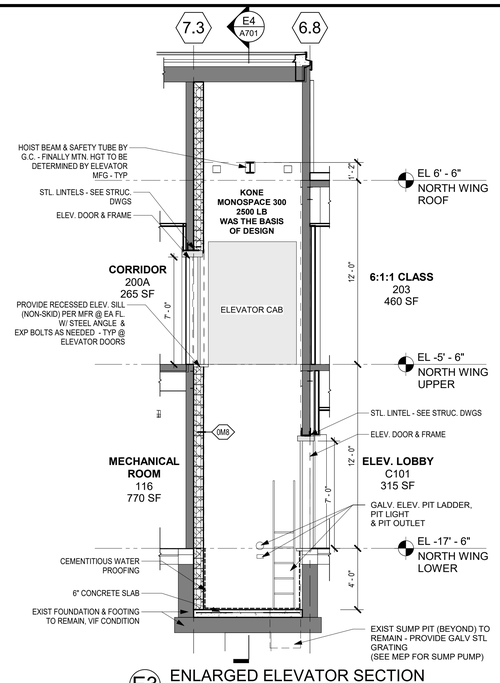
	Author Checker

Sheet Number

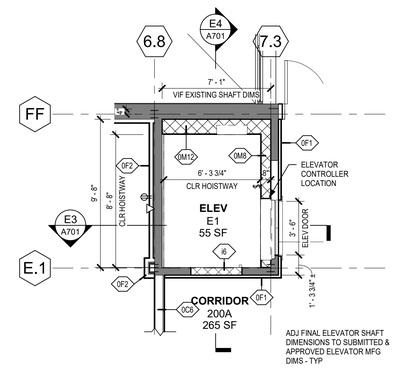
A601



E4 ELEVATOR SECTION
1/4" = 1'-0"



E3 ENLARGED ELEVATOR SECTION
1/4" = 1'-0"



E2 ENLARGED PLAN - ELEVATOR UL
1/4" = 1'-0"

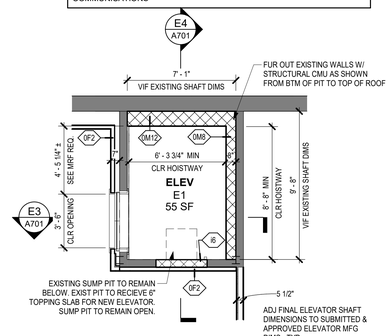
ELEVATOR INFORMATION

- BASIS OF DESIGN: KONE MONOSPACE 300
- MACHINE-ROOM-LESS, GEARLESS TRACTION
- ONE FRONT AND ONE REAR OPENING
- RATED LOAD 2500 LBS
- RATED SPEED 150 FPM
- INSIDE WIDTH – 6'-0" WALL TO WALL
- INSIDE DEPTH – 4'-4-1/2" WALL TO WALL
- INSIDE HEIGHT – 8'-0"
- WALL PANELS – WOODGRAINED PLASTIC LAMINATE – KENSINGTON MAPLE
- FLOOR FINSH – RESILIENT TILE - LVT
- CEILING FINISH – SATIN STAINLESS STEEL WITH LED DOWNLIGHTS
- HOISTWAY ENTRANCE WIDTH – 3'-6"
- HOISTWAY ENTRANCE HEIGHT – 7'-0"

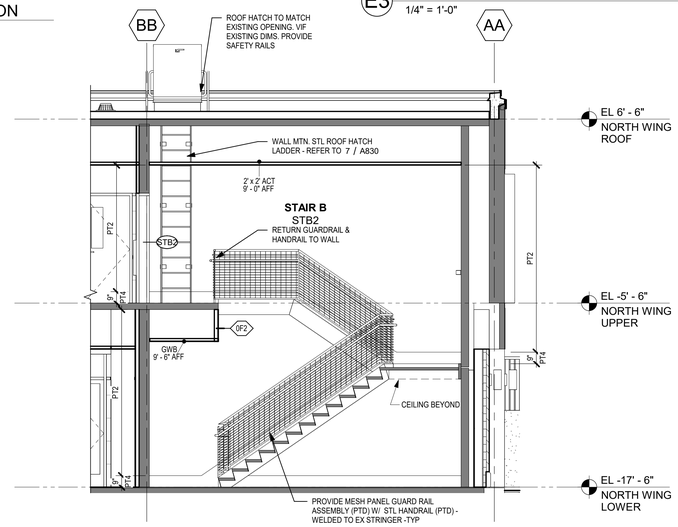
ADDITIONAL INFORMATION:

PROVISIONS FOR CARD ACCESS AT HALLWAY SIDE

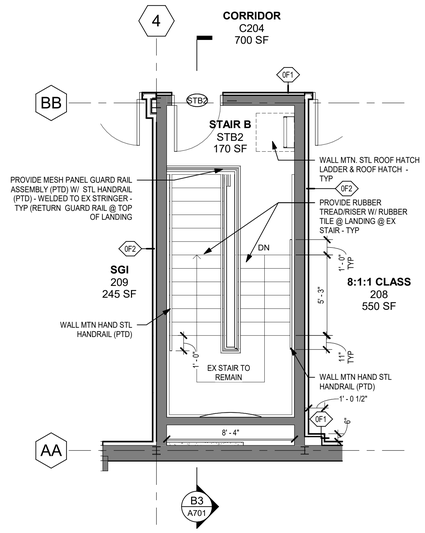
TWO WAY EMERGENCY COMMUNICATION FOR BOTH VOICE AND VISUAL COMMUNICATIONS



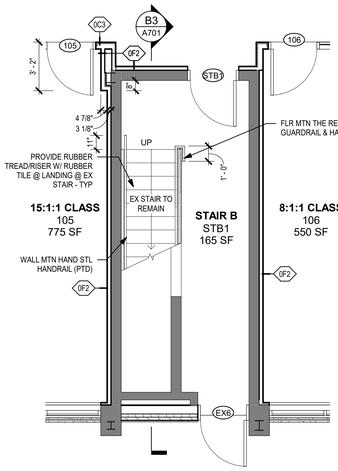
E1 ENLARGED PLAN - ELEVATOR LL
1/4" = 1'-0"



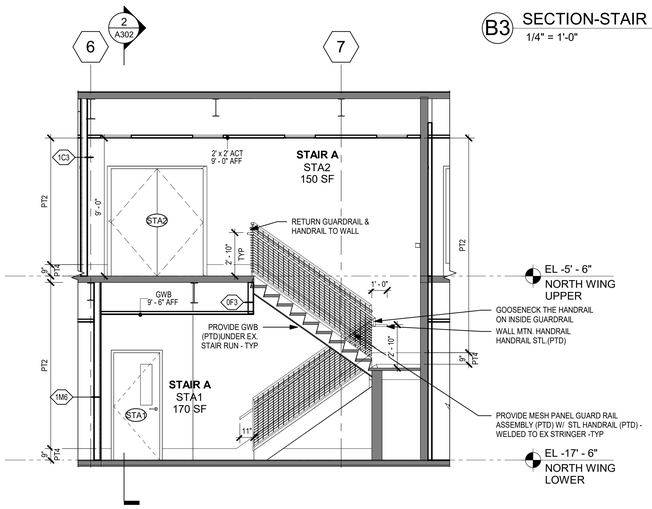
B3 SECTION-STAIR B
1/4" = 1'-0"



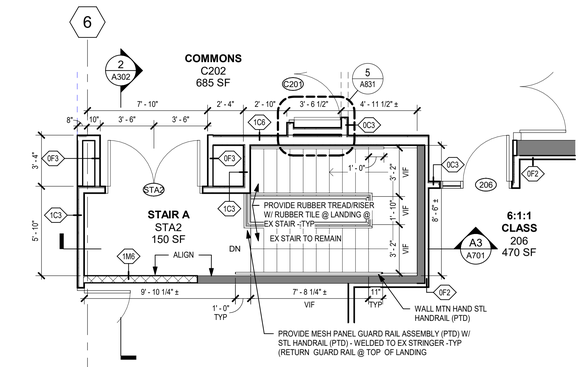
B2 ENLARGED PLAN - STAIR B UL
1/4" = 1'-0"



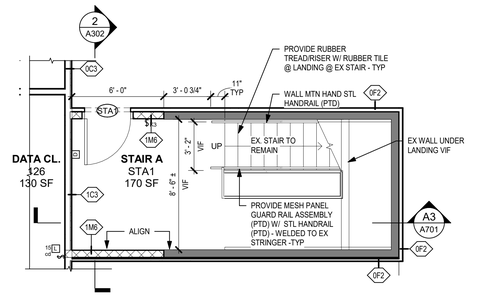
B1 ENLARGED PLAN - STAIR B LL
1/4" = 1'-0"



A3 SECTION STAIR A
1/4" = 1'-0"



A2 ENLARGED PLAN - STAIR A UPPER LEVEL
1/4" = 1'-0"



A1 ENLARGED PLAN - STAIR A LOWER LEVEL
1/4" = 1'-0"

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CONSTRUCTION DOCUMENTS

STAIR NOTES

1 SEE TYPICAL STAIR DETAILS ON A705
2 UNDERSIDES OF STAIRS SHALL BE PTD GWB OVER LMF (TYPICAL)
3 ALL EXTERIOR HANDRAILS SHALL BE STAINLESS STEEL
5 ALL NOSINGS SHALL BE ADA COMPLIANT

KEY PLAN

Professional Seal

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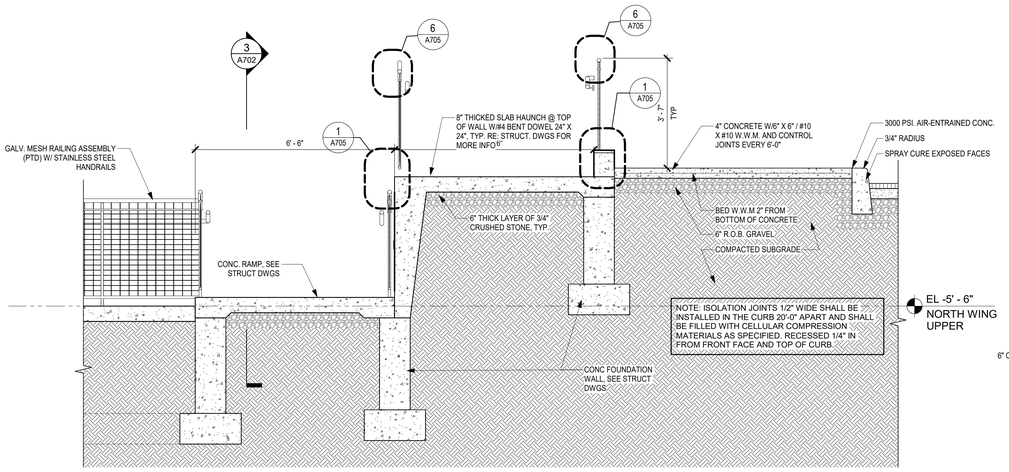
ENLARGED FLOOR PLANS & SECTIONS - STAIRS & ELEVATOR

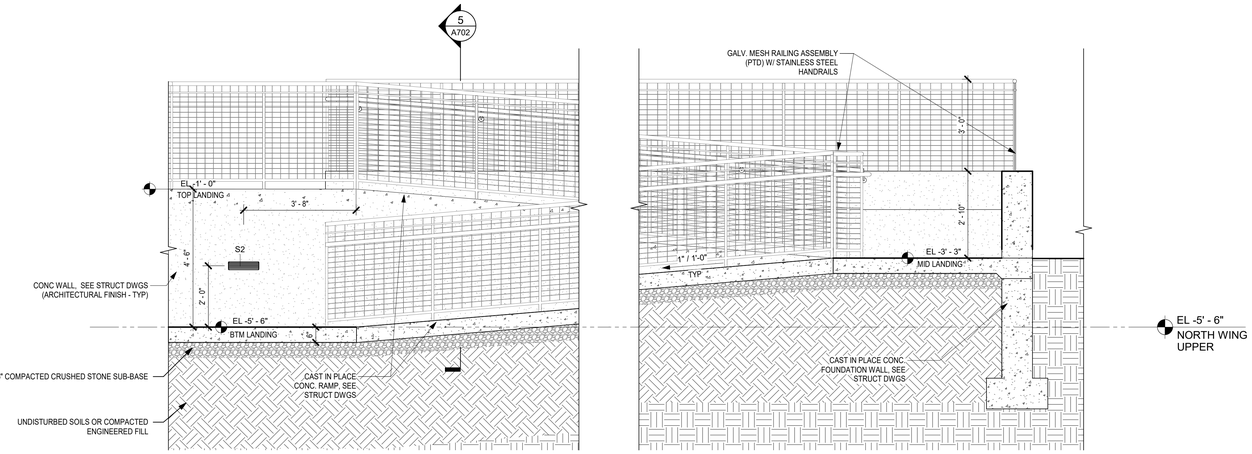
Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

Sheet Number

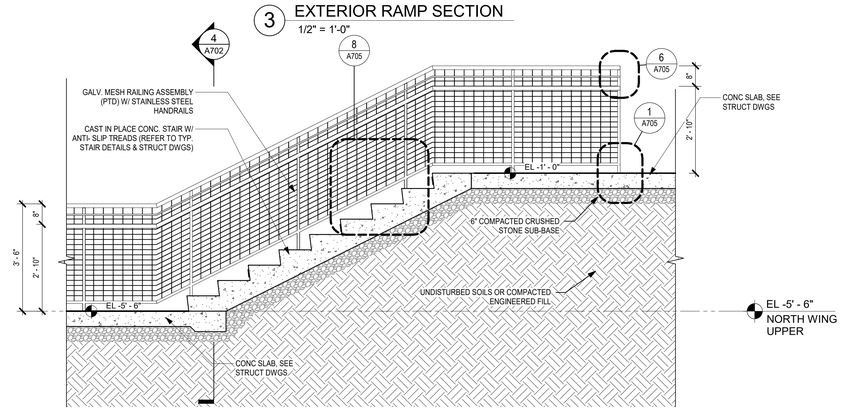
A701



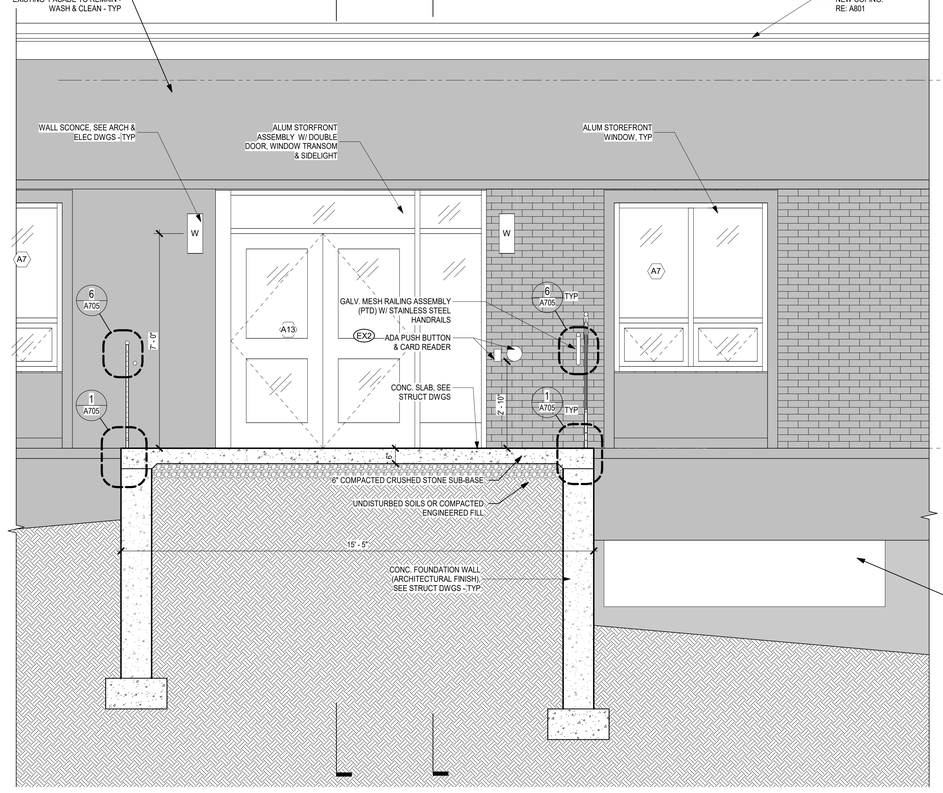
5 EXTERIOR RAMP CROSS SECTION
1/2" = 1'-0"



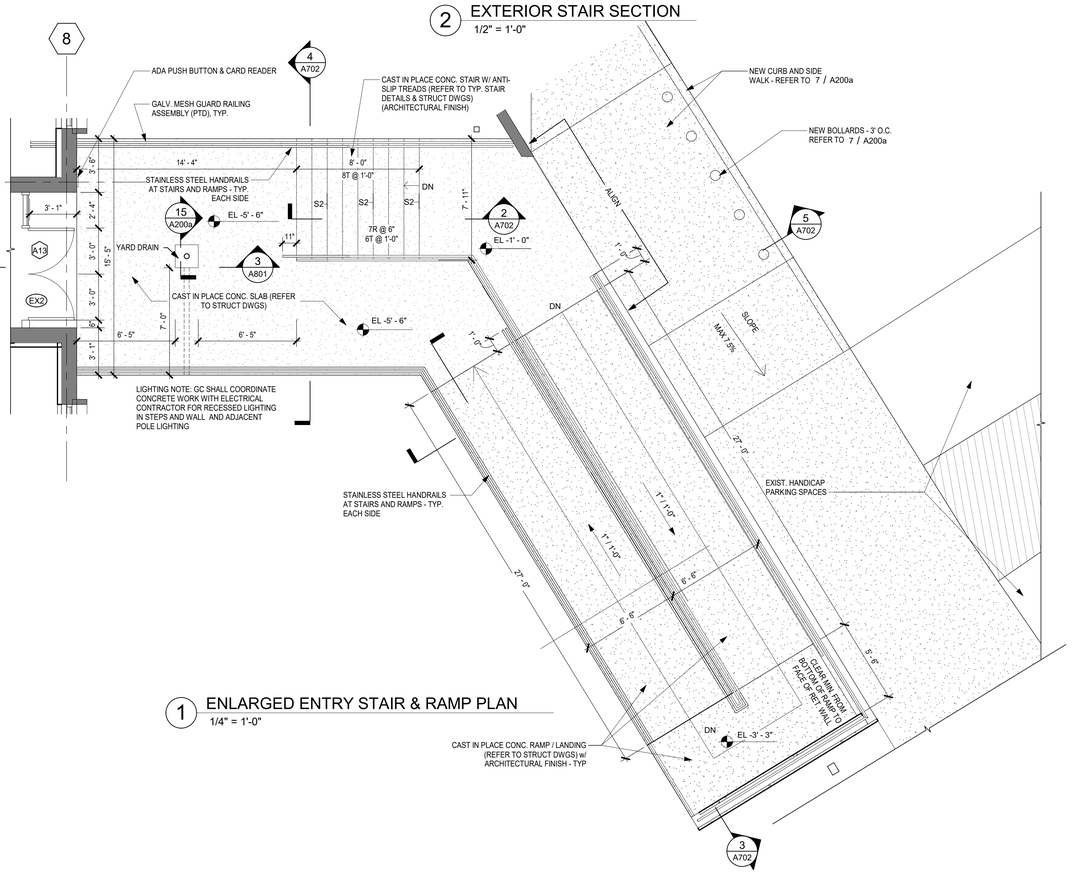
3 EXTERIOR RAMP SECTION
1/2" = 1'-0"



2 EXTERIOR STAIR SECTION
1/2" = 1'-0"



4 ENTRY FOUNDATION SECTION
1/2" = 1'-0"



1 ENLARGED ENTRY STAIR & RAMP PLAN
1/4" = 1'-0"

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CONSTRUCTION DOCUMENTS

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Sheet Title

ENTRY STAIR AND RAMP

Job No.	Date
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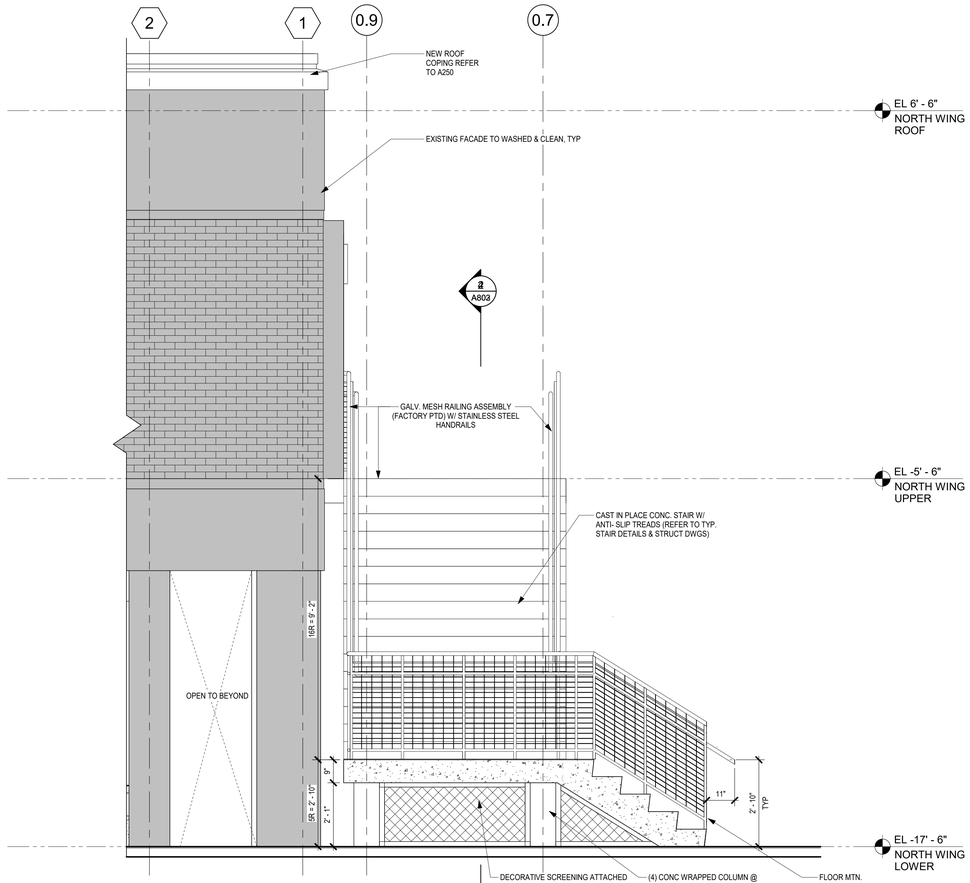
Scale	Drawn / Checked
	Author Checker

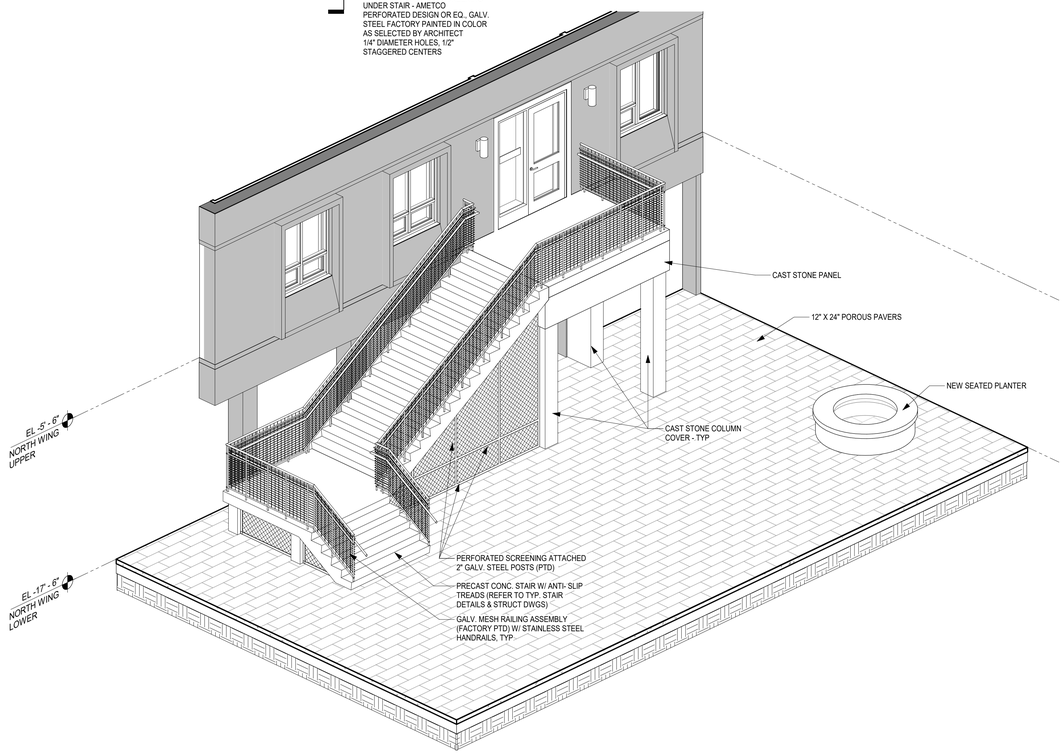
Sheet Number

A702

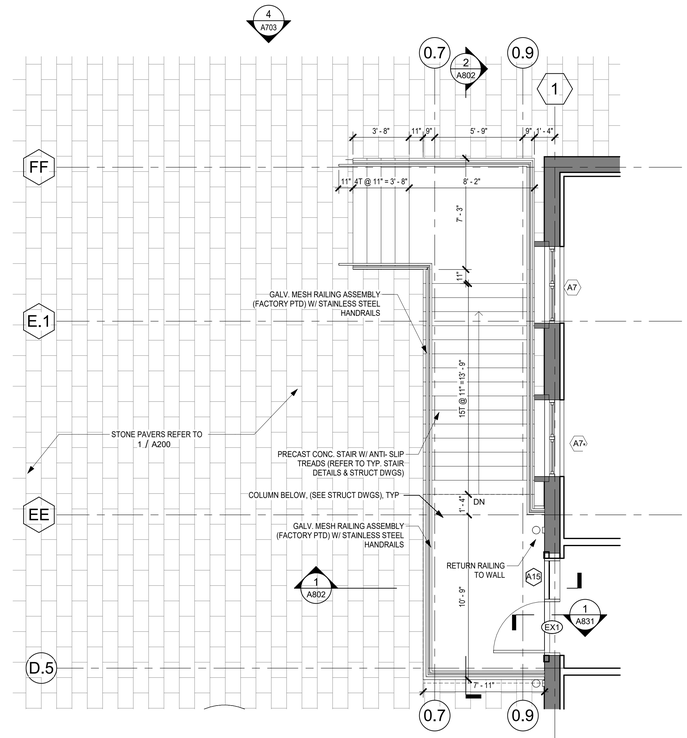


4 LEARNING STAIR - SOUTH ELEVATION (BASE)
1/2" = 1'-0"

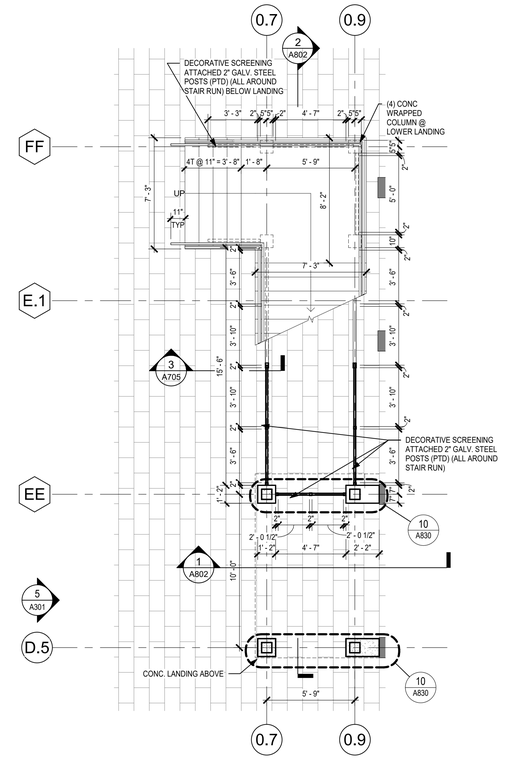
BASIS OF DESIGN FOR SCREENING UNDER STAIR - AMETCO PERFORATED DESIGN OR EQ., GALV. STEEL FACTORY PAINTED IN COLOR AS SELECTED BY ARCHITECT 1/4" DIAMETER HOLES, 1/2" STAGGERED CENTERS



2 LEARNING STAIR AXON (BASE)



3 ENLARGED PLAN - OUTSIDE STAIR UPPER LVL (BASE)
1/4" = 1'-0"



1 ENLARGED PLAN - OUTSIDE STAIR LOWER LVL (BASE)
1/4" = 1'-0"

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LEARNING STAIRS (BASE)

Job No.	Date
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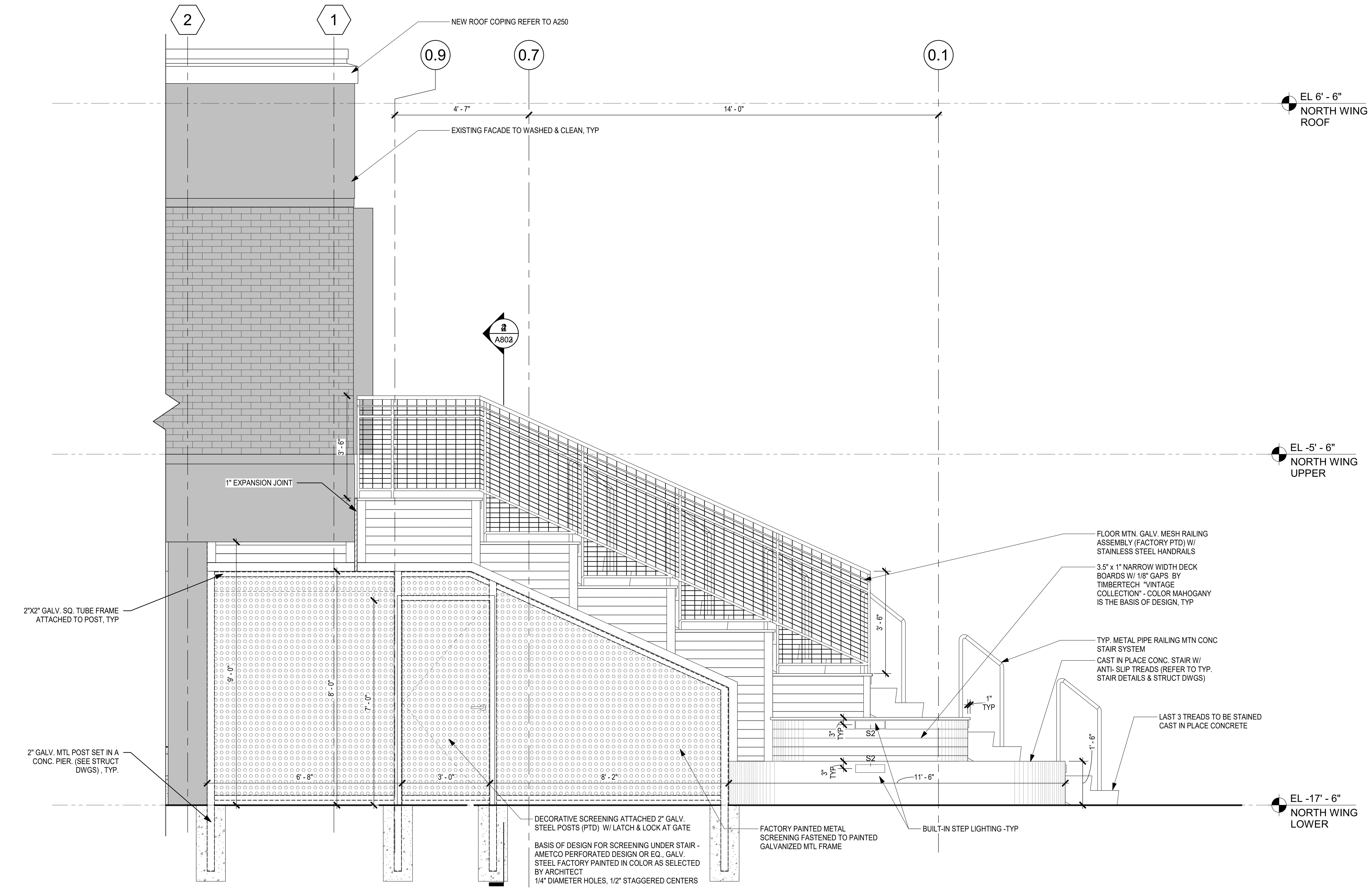
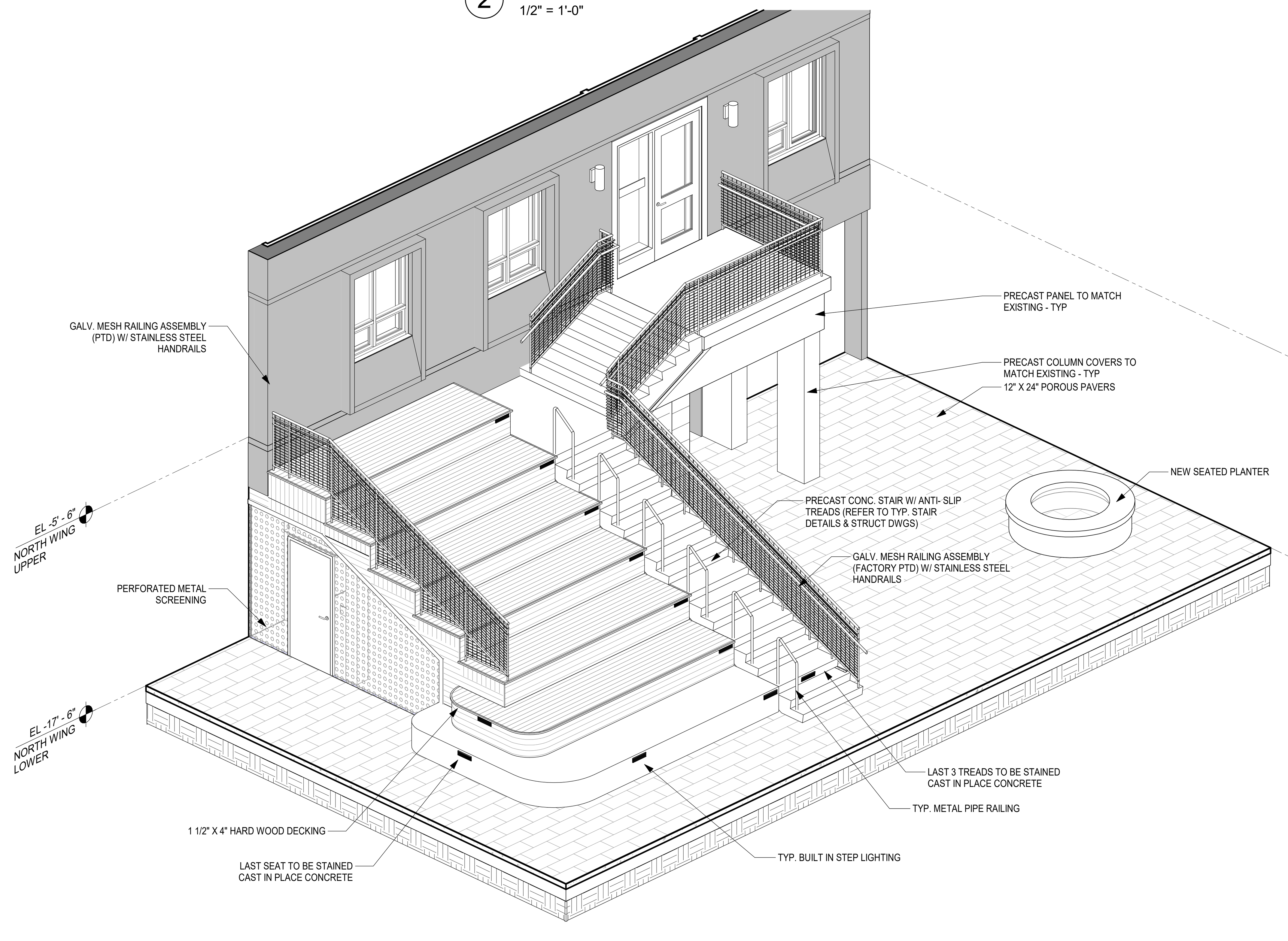
Scale	Drawn / Checked
	Author Checker

Sheet Number

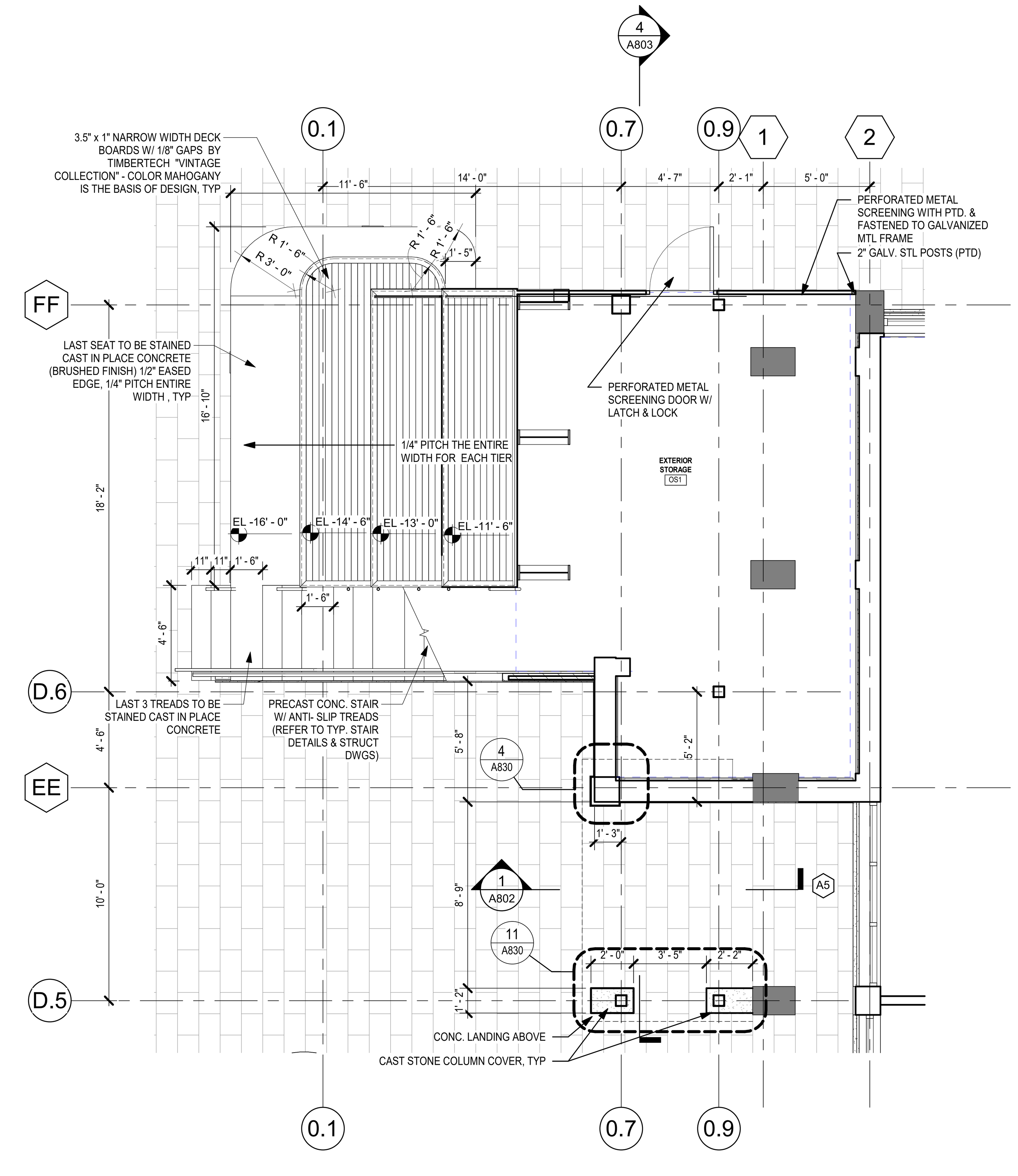
A703



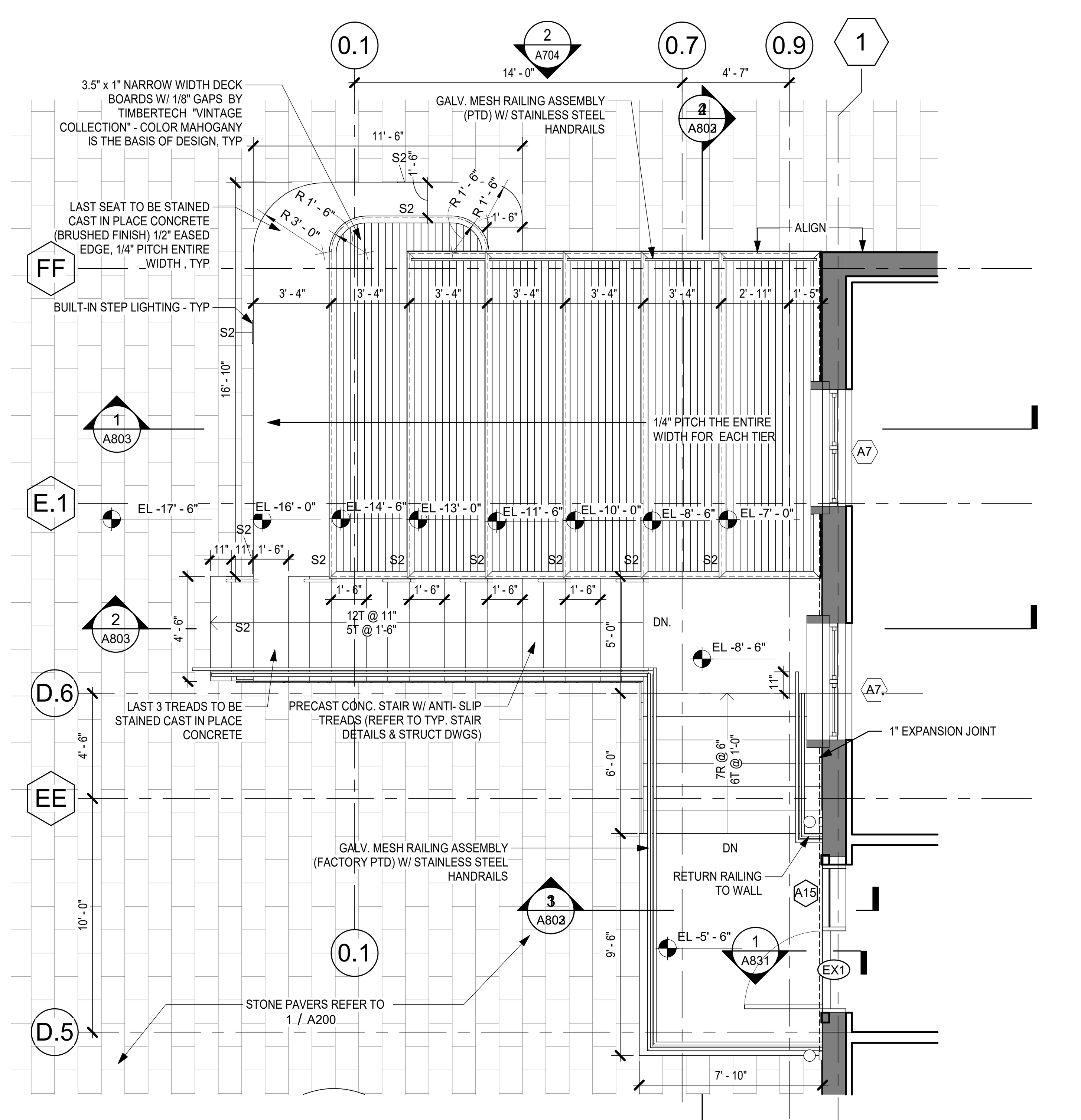
2 LEARNING STAIR - SOUTH ELEVATION (ADD ALT)
1/2" = 1'-0"



3 LEARNING STAIR AXON (ADD ALT)



4 ENLARGED PLAN - OUTSIDE STAIR LOWER LVL (ADD ALT 1)
1/4" = 1'-0"



1 ENLARGED PLAN - LEARNING STAIR (ADD ALT)
1/4" = 1'-0"

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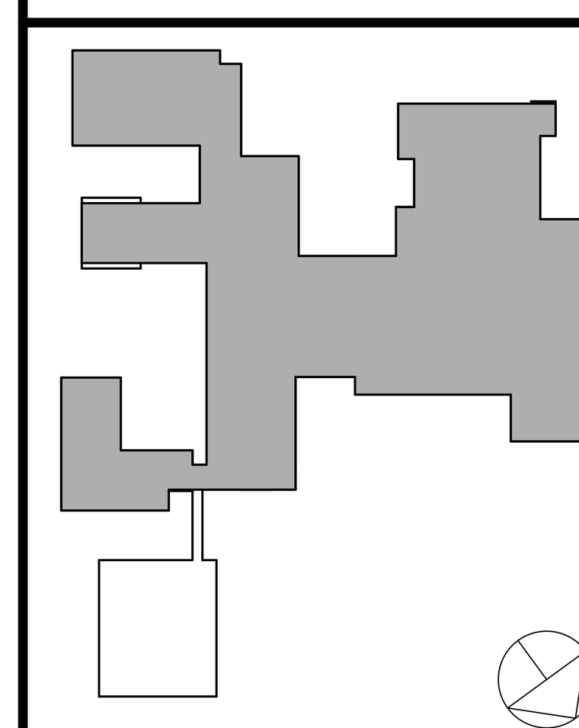

KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

LEARNING STAIRS (ADD ALT)

Job No.	Date
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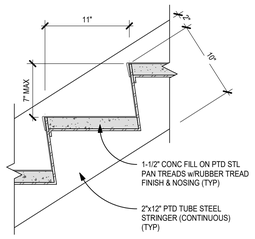
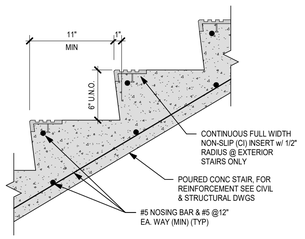
Scale	Drawn / Checked: Author Checker

Sheet Number

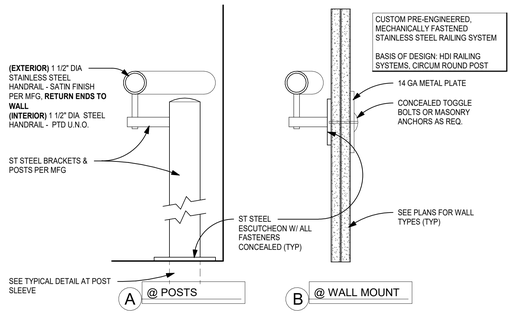
A704



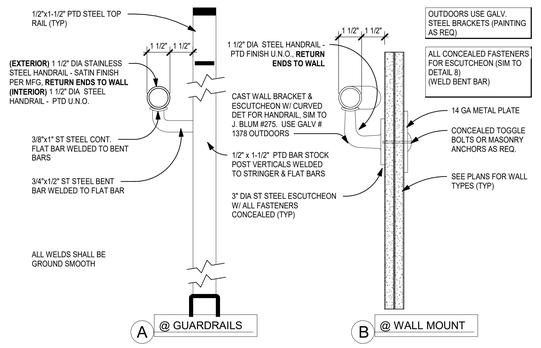
9 TYP CONCRETE STEEL PAN STAIRS
1 1/2" = 1'-0"



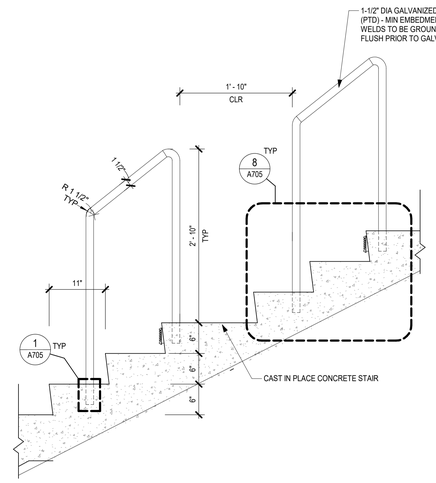
8 TYP. EXTERIOR CONC. POURED IN PLACE TREAD
1 1/2" = 1'-0"



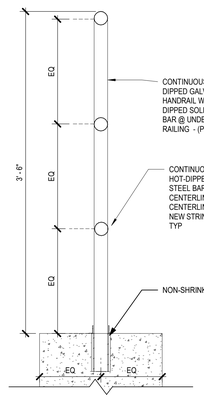
7 TYP DETAIL @ FLOOR & WALL MOUNTED HANDRAIL @ RAMPS
3" = 1'-0"



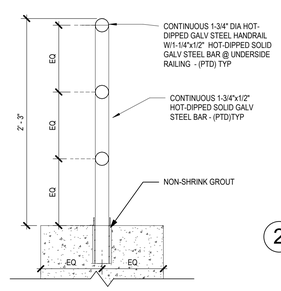
6 TYP DETAILS @ WALL & GUARDRAIL MOUNTED HANDRAIL
3" = 1'-0"



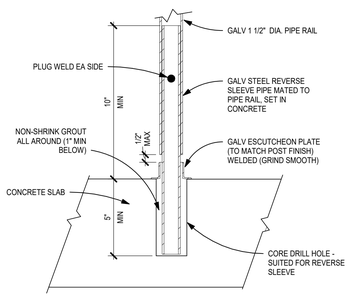
5 LEARNING STAIR HANDRAIL DETAIL
1" = 1'-0"



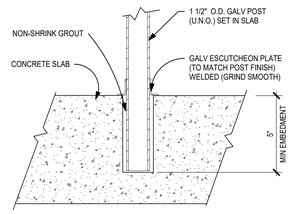
4 MECH GUARDRAIL
1 1/2" = 1'-0"



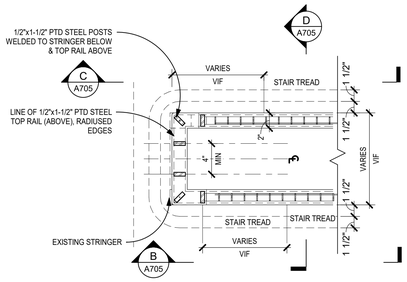
3 BARRIER GUARDRAIL
1 1/2" = 1'-0"



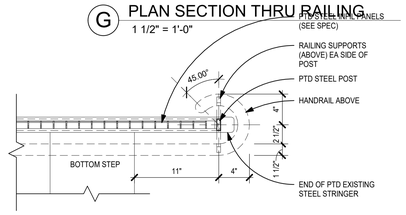
2 DETAIL @ REVERSE POST SLEEVE
3" = 1'-0"



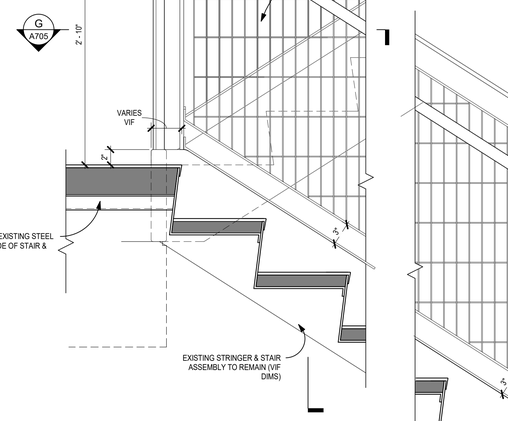
1 DETAIL @ POST SLEEVE
3" = 1'-0"



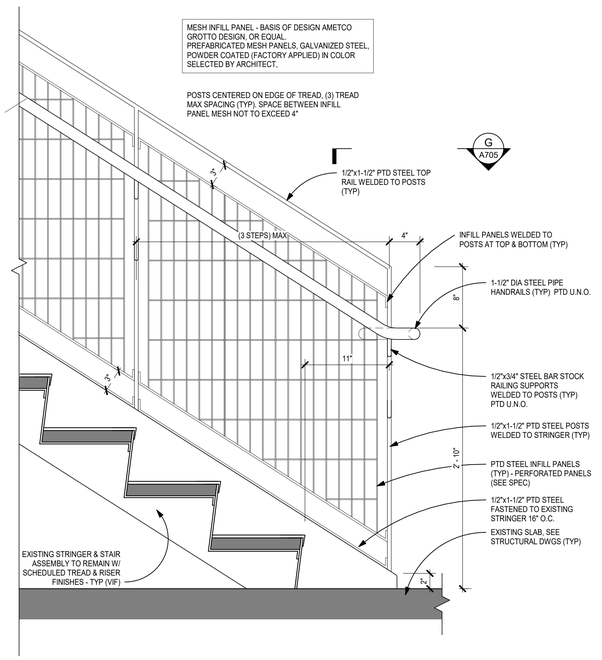
G PLAN SECTION THRU RAILING
1 1/2" = 1'-0"



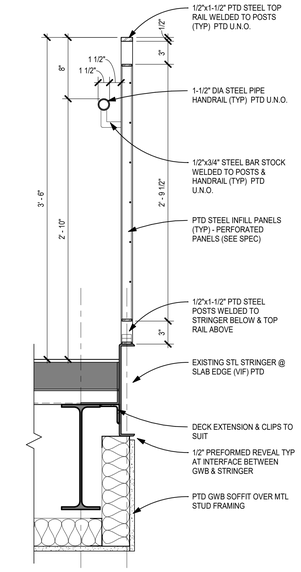
F PLAN DETAIL THRU RAILING
1 1/2" = 1'-0"



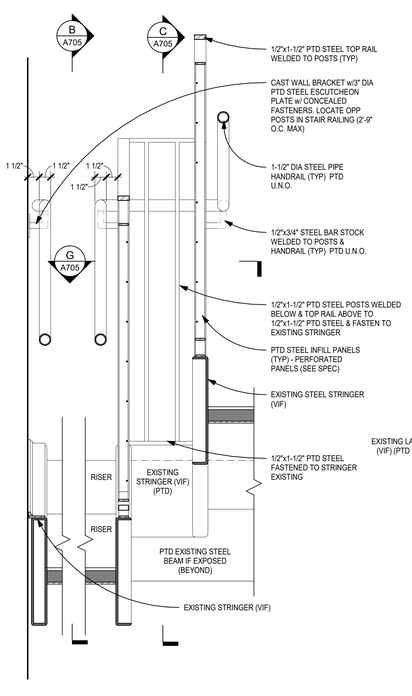
B STAIRS @ LANDING
1 1/2" = 1'-0"



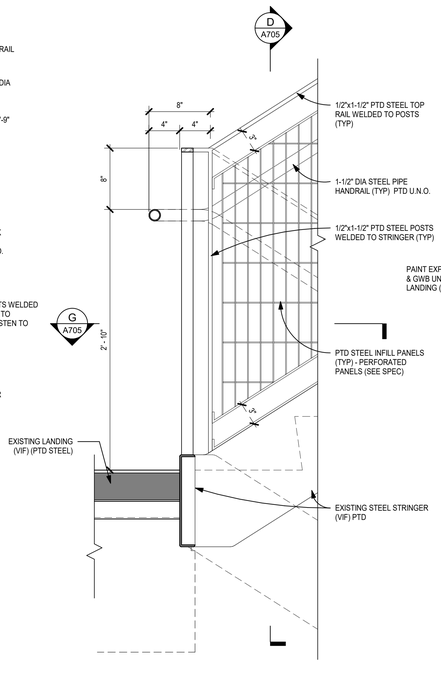
A STAIRS @ BOTTOM
1 1/2" = 1'-0"



E TYP. LANDING EDGE DETAIL
1 1/2" = 1'-0"



D STAIR SECTION
1 1/2" = 1'-0"



C TYP. CURB SETION
1 1/2" = 1'-0"

ORANGE-ULSTER BOCES
ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING
4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D . ARCHITECTS PC
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P:914.666.5900 KGDARCHITECTS.COM

NYSED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

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Professional Seal

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TYPICAL STAIR DETAILS

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	Author Checker

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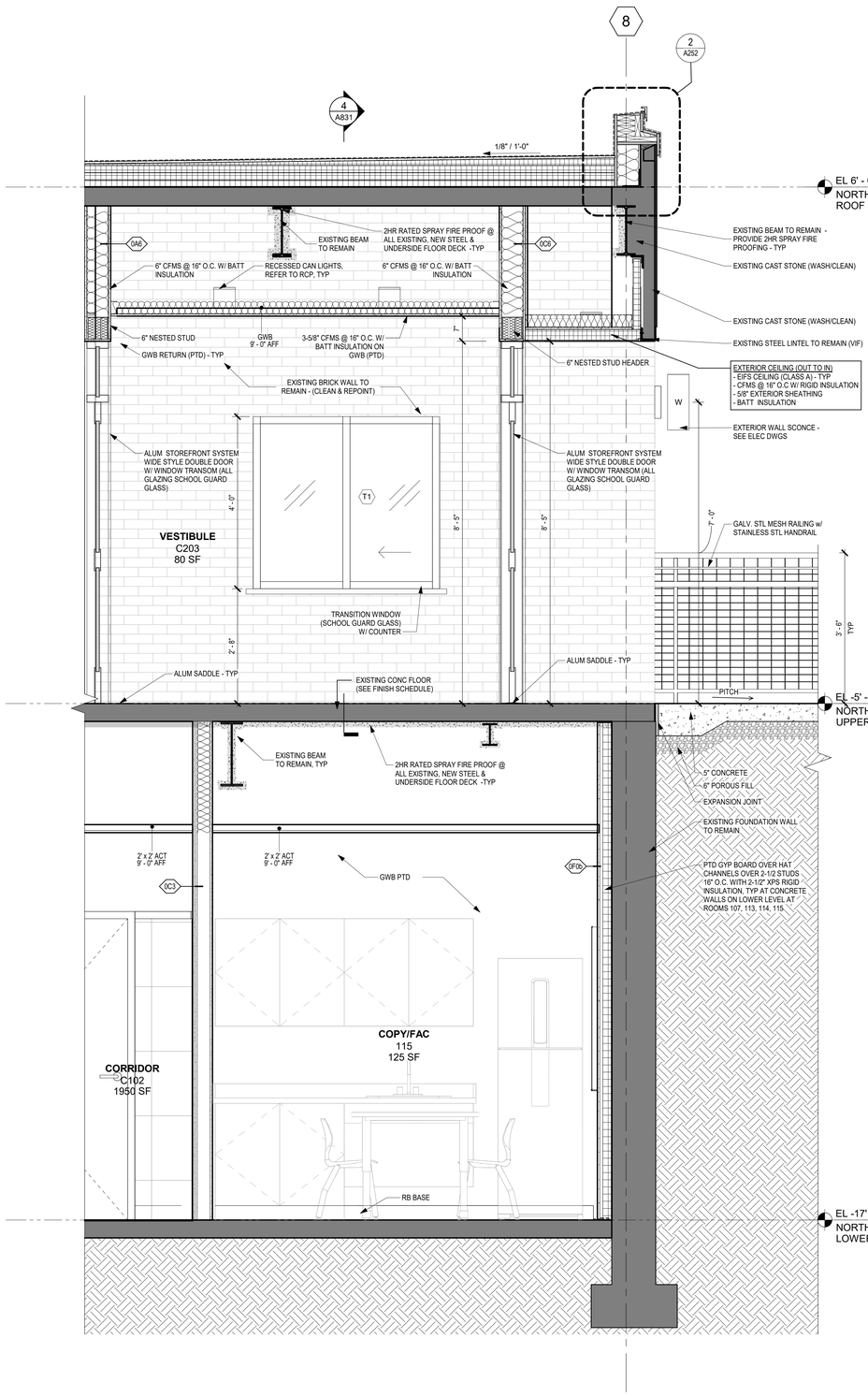
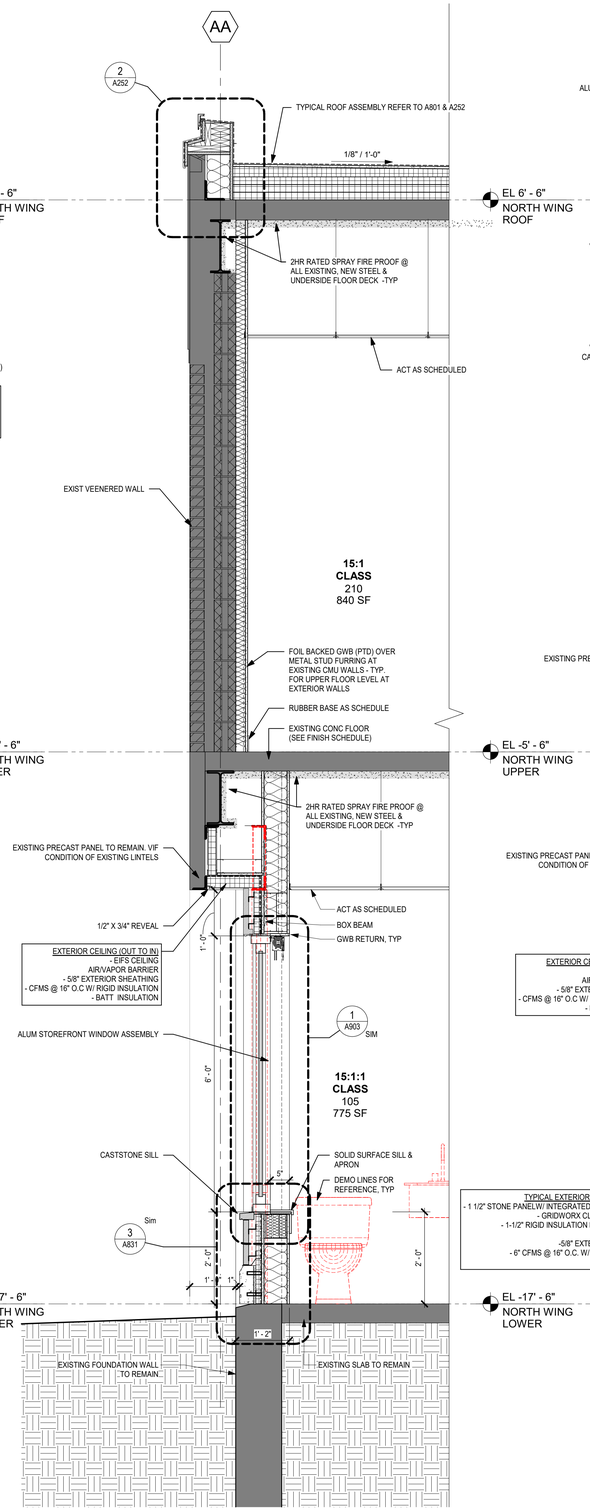
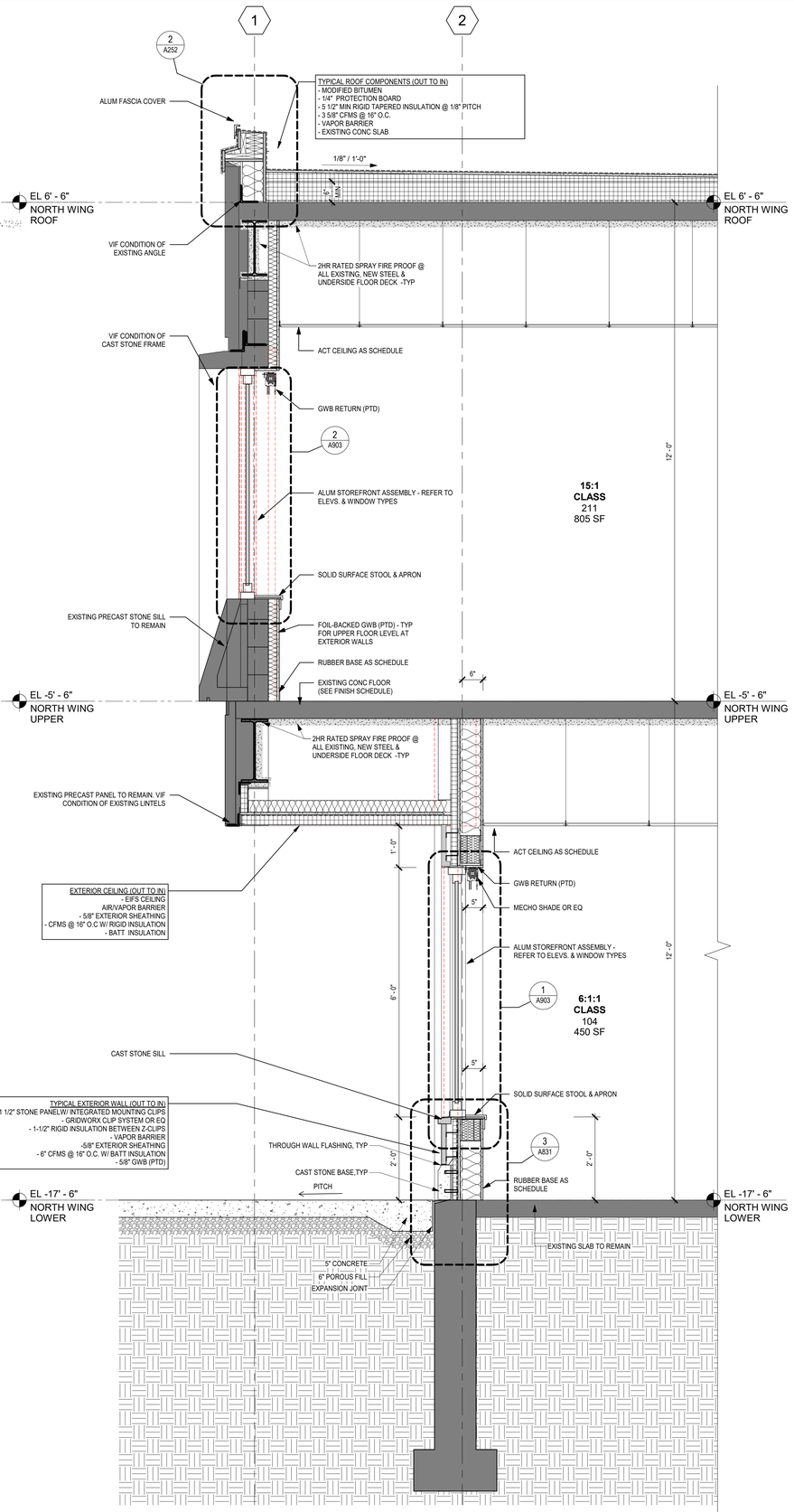
A705



3 WALL SECTION @ UPPER ENTRANCE
3/4" = 1'-0"



2 WALL SECTION @ NORTH SIDE
3/4" = 1'-0"



1 WALL SECTION @ EAST SIDE
3/4" = 1'-0"

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Sheet Title
WALL SECTIONS

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	Author Checker

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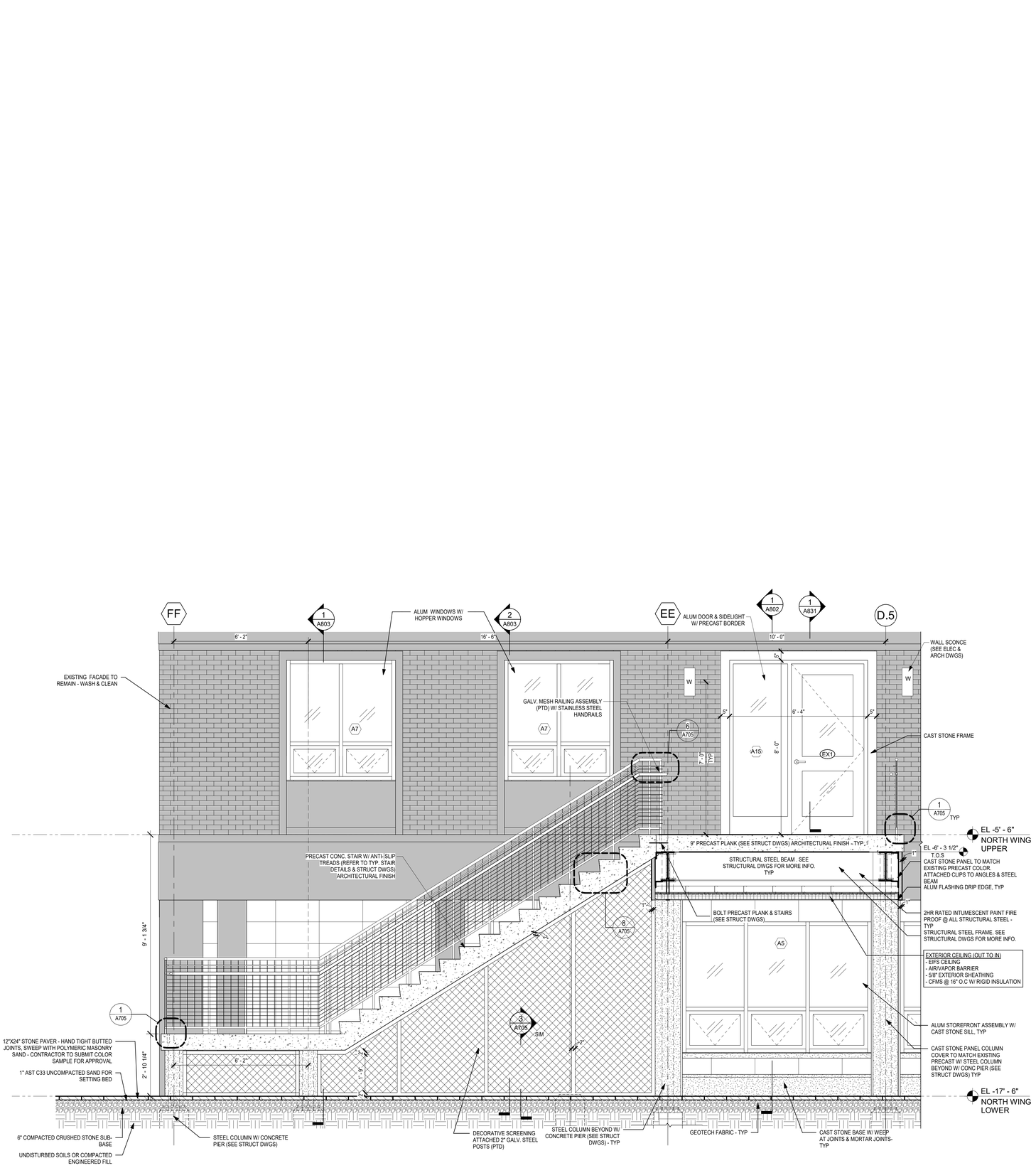
A801



2 WALL SECTION EGRESS STAIR
1/2" = 1'-0"

1 WALL SECTION EGRESS STAIR LANDING
1/2" = 1'-0"

ORANGE-ULSTER BOCES

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WALL SECTION - EGRESS STAIR (BASE BID)

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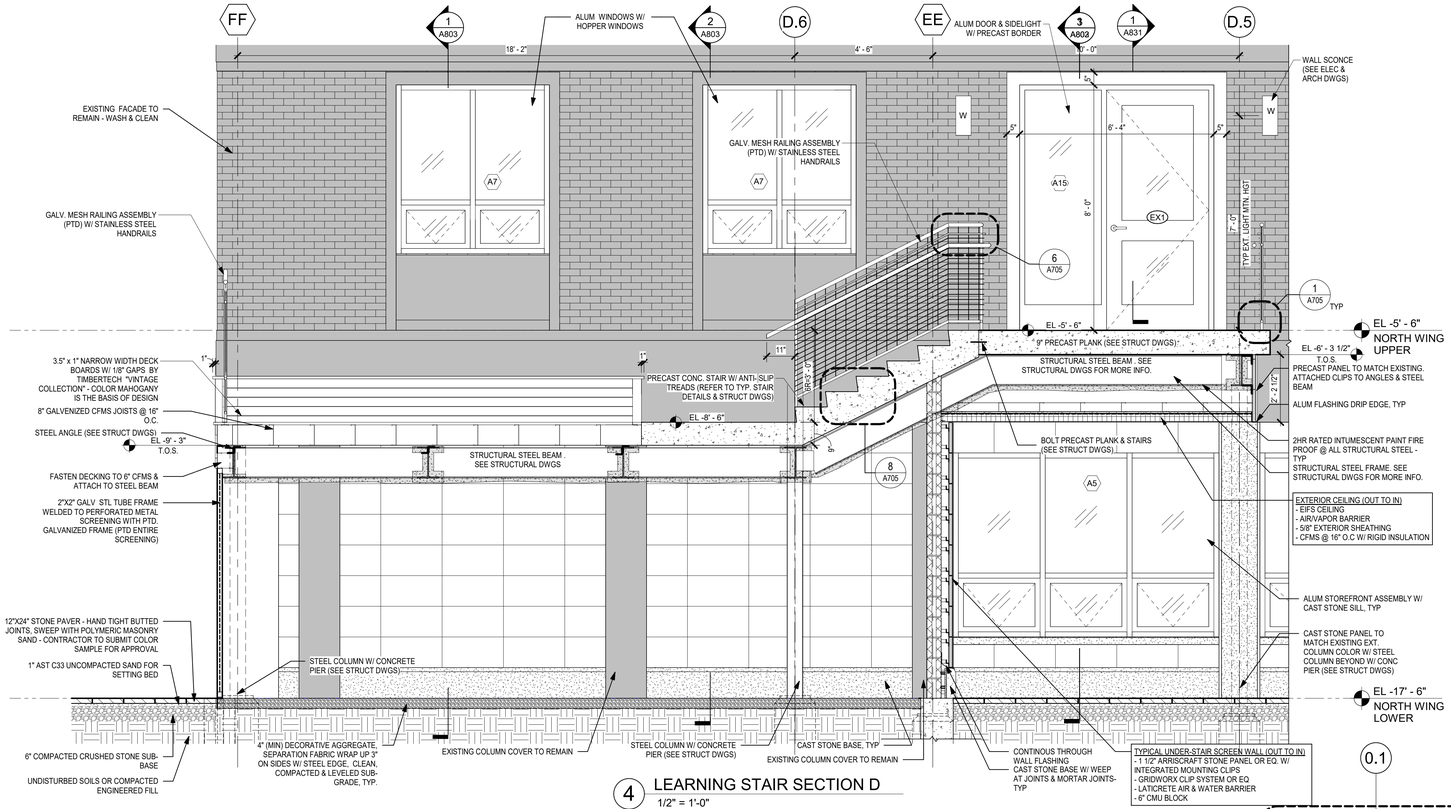
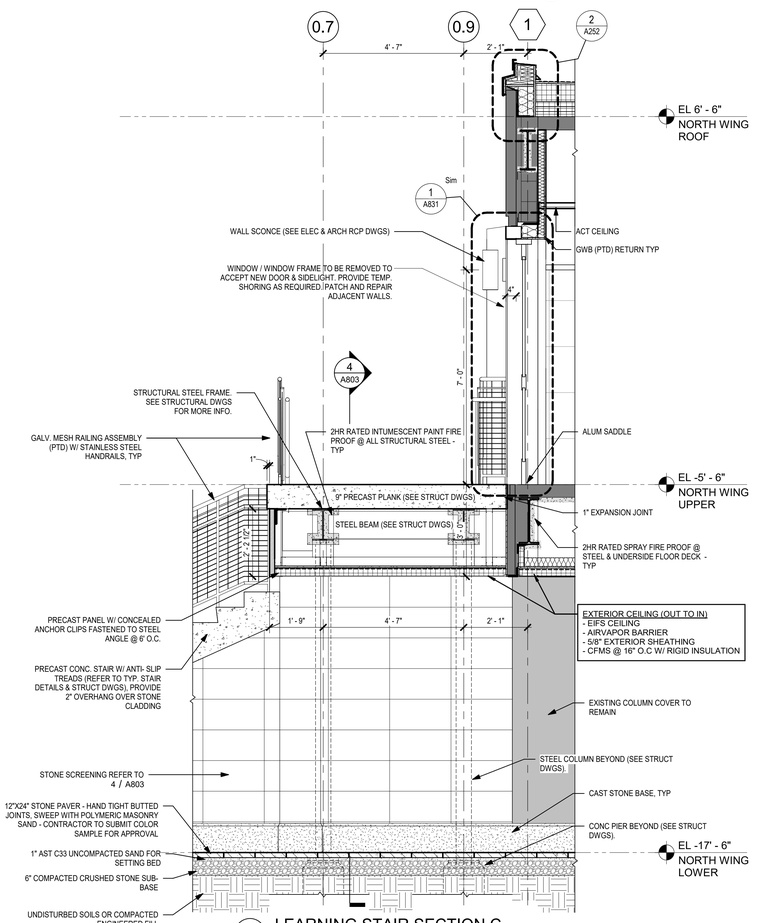
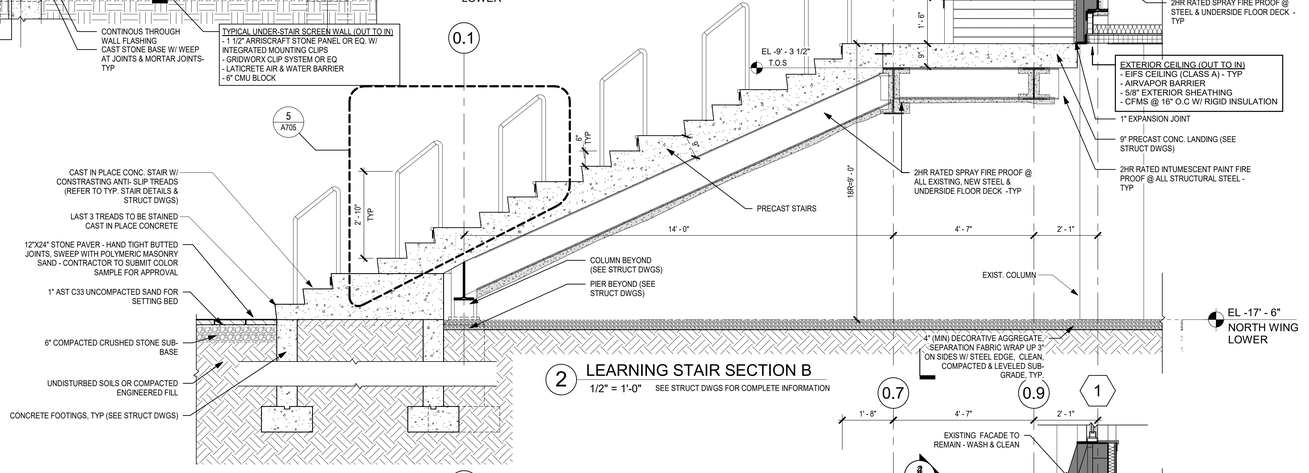
A802



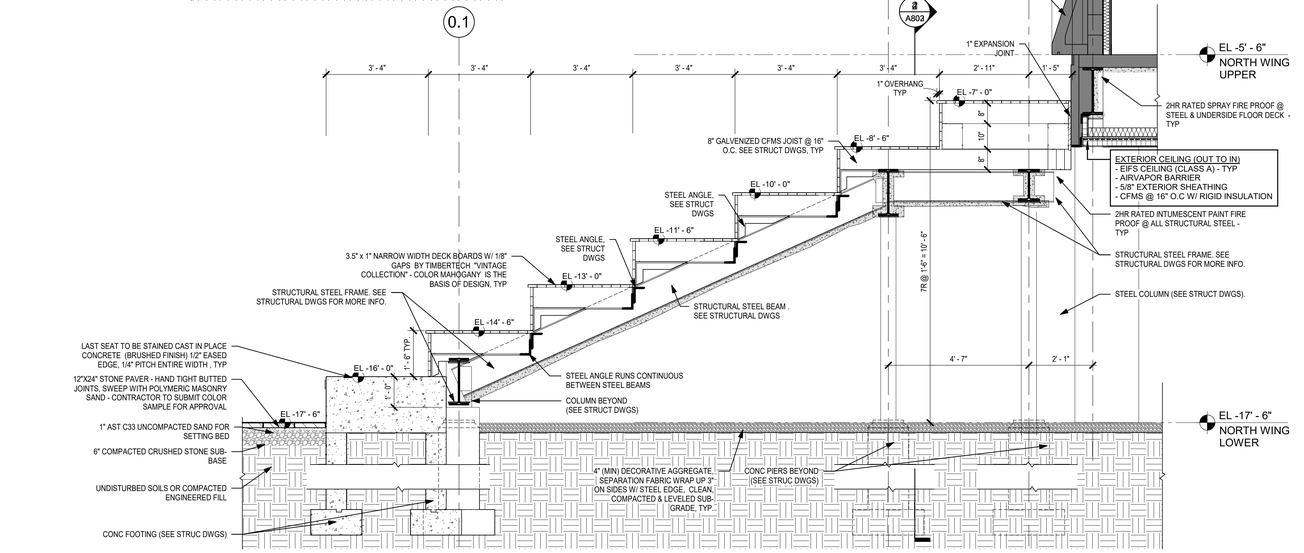
4 LEARNING STAIR SECTION D
1/2" = 1'-0"



3 LEARNING STAIR SECTION C
1/2" = 1'-0"



2 LEARNING STAIR SECTION B
1/2" = 1'-0" SEE STRUCT DWGS FOR COMPLETE INFORMATION



1 LEARNING STAIR SECTION A
1/2" = 1'-0" SEE STRUCT DWGS FOR COMPLETE INFORMATION

ORANGE-ULSTER BOCES

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WALL SECTION - LEARNING STAIR (ADD ALT)

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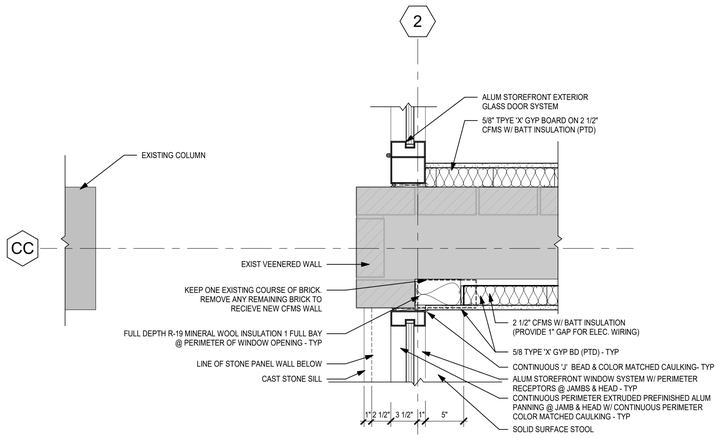
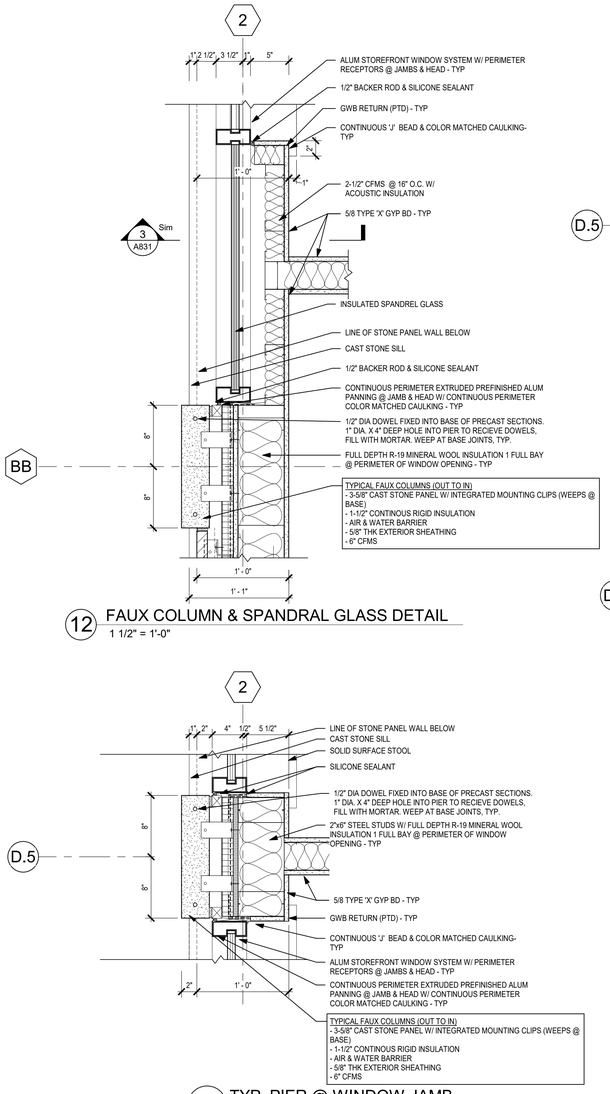
A803

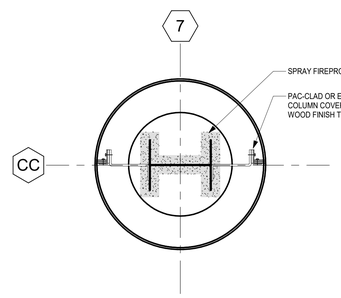


9 WINDOW JAMB @ VESTIBULE
1 1/2" = 1'-0"

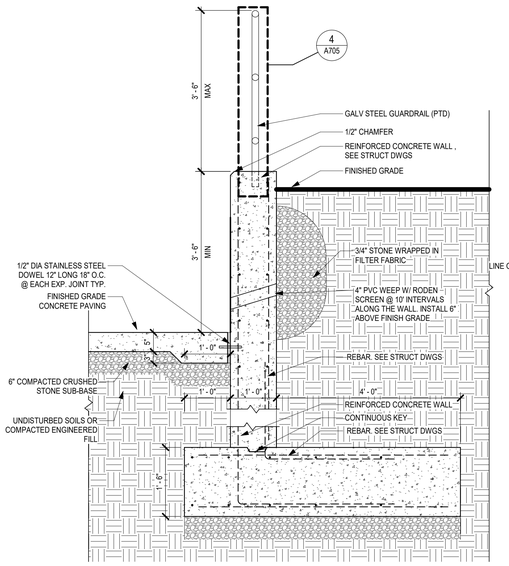


8 TYP. PIER @ WINDOW JAMB
1 1/2" = 1'-0"

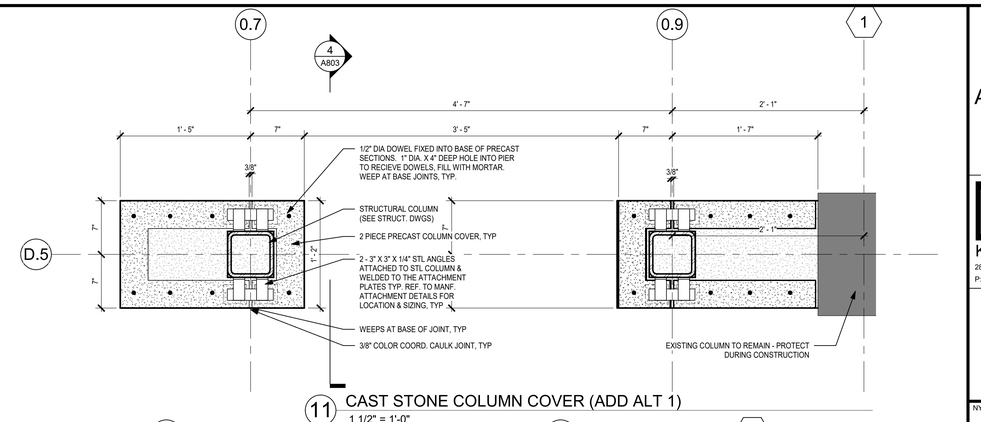
4 CORNER PIER @ LEARNING STAIR (ADD ALT)
1 1/2" = 1'-0"



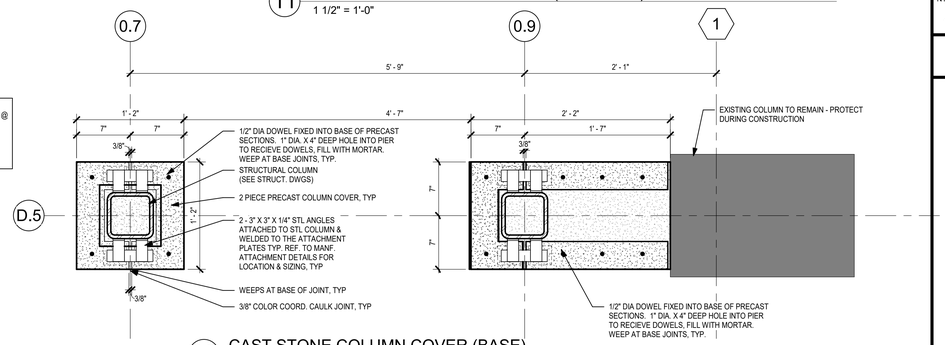
3 COLUMN COVER
1 1/2" = 1'-0"



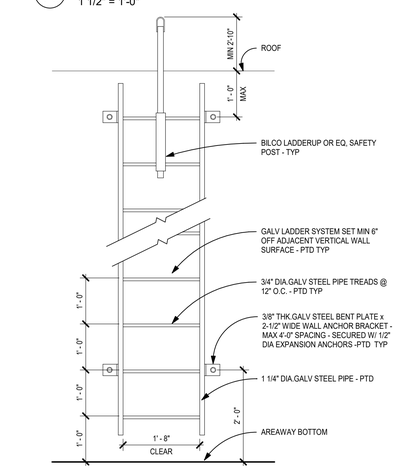
2 CONCRETE RETAINING WALL
3/4" = 1'-0"



11 CAST STONE COLUMN COVER (ADD ALT 1)
1 1/2" = 1'-0"



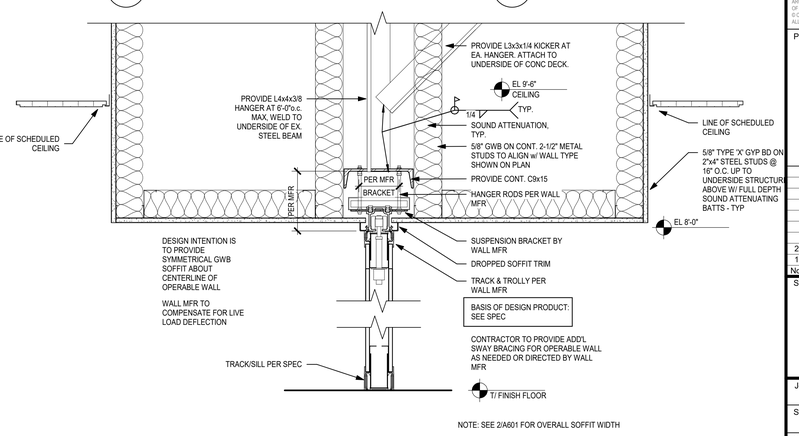
10 CAST STONE COLUMN COVER (BASE)
1 1/2" = 1'-0"



7 ROOF LADDER DETAIL
3/4" = 1'-0"

6 INTERIOR WINDOW SILL DETAIL
1 1/2" = 1'-0"

5 WOOD TRIM DETAIL
1 1/2" = 1'-0"



NOTE: SEE 2/A601 FOR OVERALL SOFFIT WIDTH

1 FOLDING MOVEABLE PARTITION WALL
1 1/2" = 1'-0"

ORANGE-ULSTER BOCES

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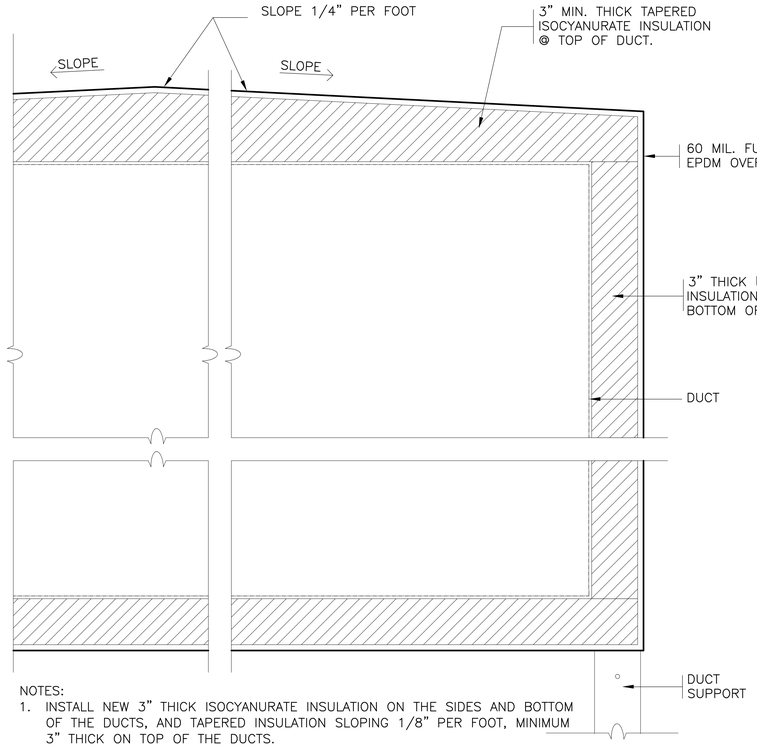
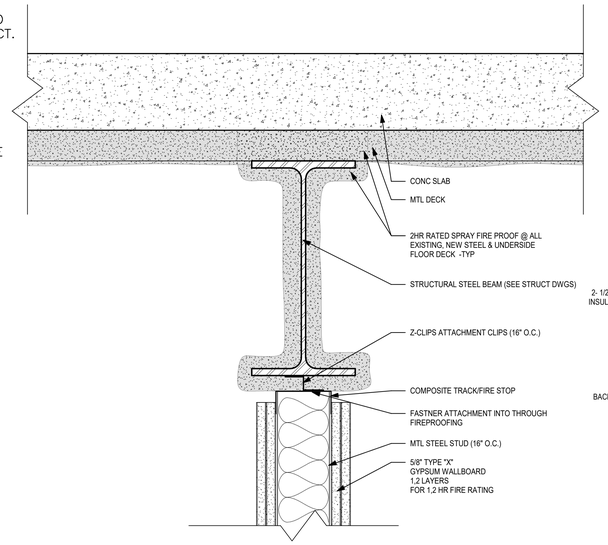
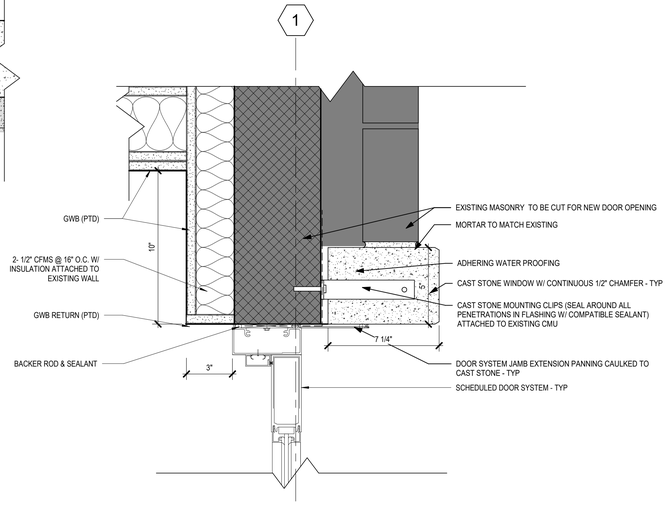


NOTES:
1. INSTALL NEW 3" THICK ISOCYANURATE INSULATION ON THE SIDES AND BOTTOM OF THE DUCTS, AND TAPERED INSULATION SLOPING 1/8" PER FOOT, MINIMUM 3" THICK ON TOP OF THE DUCTS.
2. INSTALL DUCTS A MINIMUM OF 2'-0" ABOVE THE ROOF MEMBRANE.

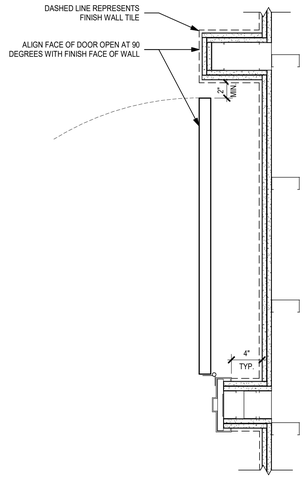
7 TYPICAL DUCT WATERPROOFING
3" = 1'-0"



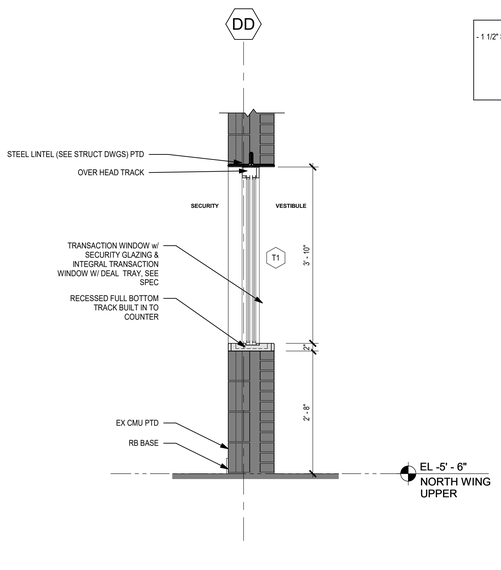
6 FIREPROOFING STEEL BEAM & MTL STUD CONNECTION
3" = 1'-0"



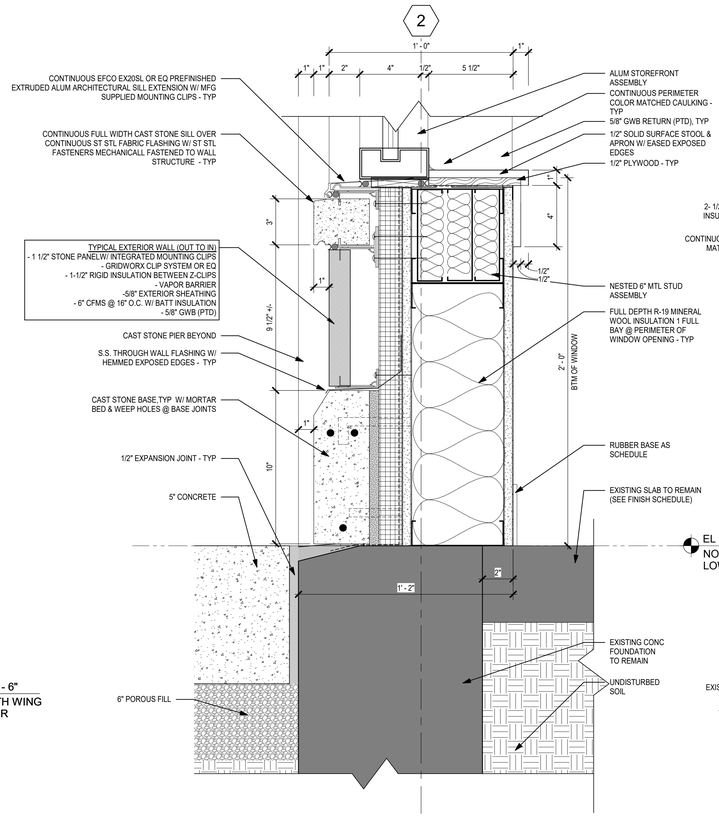
2 CASTSTONE DOOR JAMB
3" = 1'-0"



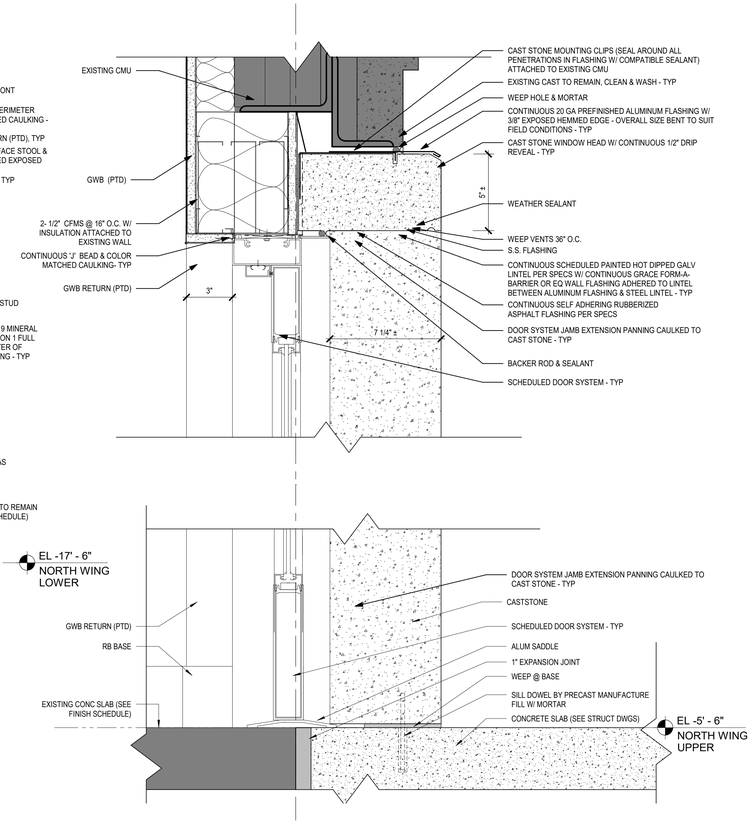
5 TYP. CORRIDOR RECESSED DOOR
1 1/2" = 1'-0"



4 SECTION @ TRANSACTION WINDOW
3/4" = 1'-0"



3 TYP BASE @ ALUM STOREFRONT WALL SECT. - DETAIL
3" = 1'-0"



1 CASTSTONE DOOR HEAD & SILL DETAIL
3" = 1'-0"

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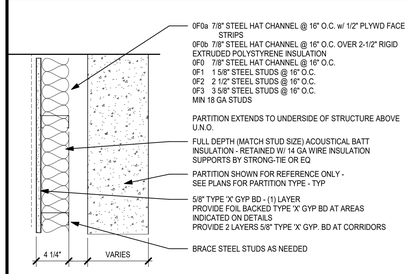
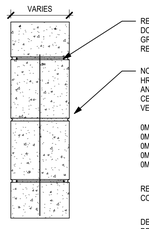
SPECIALTY PARTITIONS



0FX NON-RATED FURRING PARTITION

MASONRY PARTITIONS



REINFORCE ALL MASONRY PARTITIONS W/ #4 REBAR @ 16" VERTS W/ MATCHING DOWELS TO MATCH EXTENDED 16" REBAR FROM SLAB OR PARTITION. FULLY GROUT REINFORCED CELLS. SEE SPECS & STRUCTURAL DWGS FOR OTHER REQUIREMENTS

NOMINAL 6" BY 8" BY 16" HOLLOW OR SOLID CONCRETE BLOCK CLASSIFICATION (2 HR) - BLOCKS LAID IN FULL BED MORTAR, NOM. 3/8" THICK OF NOT LESS THAN 2-1/4 AND NOT MARE THAN 3-1/2 PARTS OF CLEAN SHARP SAND TO 1 PART PORTLAND CEMENT AND NOT MORE THAN 50% HYDRATED LIME BY CEMENT VOLUME. VERTICAL JOINTS STAGGERED - TYP

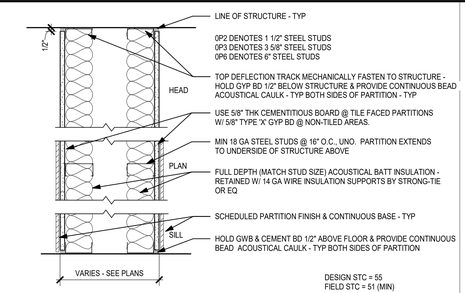
0M4 DENOTES 4" CMU 3 5/8" WIDTH
0M6 DENOTES 6" CMU 5 5/8" WIDTH
0M8 DENOTES 8" CMU 7 5/8" WIDTH
0M10 DENOTES 10" CMU 9 5/8" WIDTH
0M12 DENOTES 12" CMU 11 5/8" WIDTH

REFER TO DETAILS MT & MB FOR REQUIREMENTS WHERE MASONRY PARTITIONS CONNECT TO FLOORS AND DECKS - COORDINATE W/ STRUCTURAL DWGS

DESIGN STC = 44 UNFINISHED HOLLOW UNIT
DESIGN STC = 59 W/ 0F2 FURRING PARTITION BOTH SIDES

0MX NON-RATED CMU PARTITION

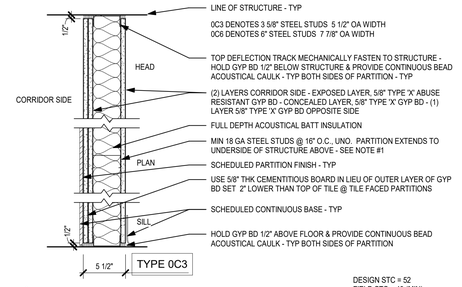
SHAFT PARTITION PARTITIONS



DESIGN STC = 55
FIELD STC = 51 (MIN)

0PX NON-RATED CAVITY PARTITION - PLUMBING, ETC.

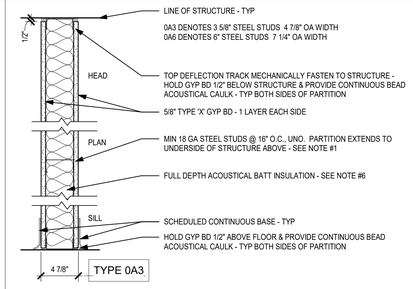
METAL STUD CORRIDOR PARTITIONS



DESIGN STC = 52
FIELD STC = 49 (MIN)

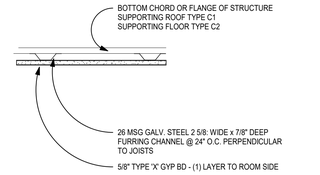
0CX NON-RATED CORRIDOR PARTITION

METAL STUD PARTITIONS



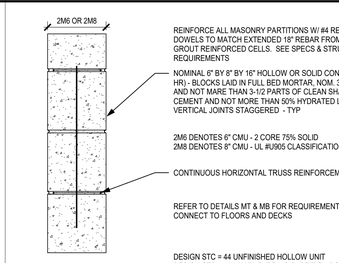
0AX NON-RATED STEEL STUD WALL

NON-RATED PARTITIONS

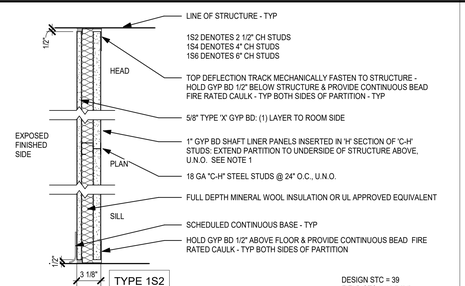


C1 1 hr - RATED ROOF/CEILING (UL # P519)

C2 1 hr - RATED FLOOR/CEILING (UL # G515)



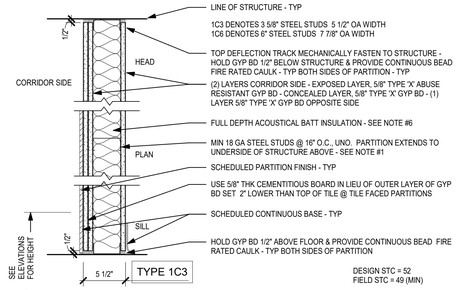
2MX 2 HR FIRE RESISTIVE CMU PARTITION - UL #U906



DESIGN STC = 39
FIELD STC = 45 (MIN)

1SX 1 HR SHAFT PARTITION - UL #U415 - SYSTEM A

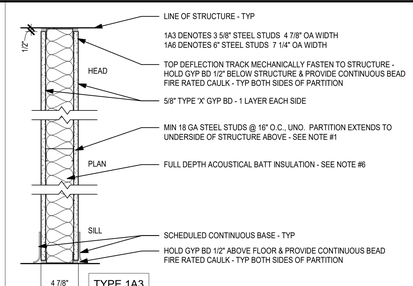
NOTE:
ASSEMBLE PARTITION PER UNDERWRITERS LABORATORY FIRE RESISTANCE RATING REQUIREMENTS.



DESIGN STC = 52
FIELD STC = 49 (MIN)

1CX 1 HR FIRE RESISTIVE CORRIDOR PARTITION UL #U465

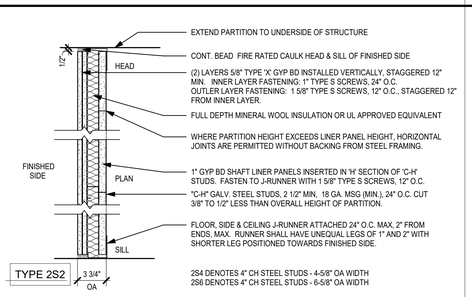
NOTE:
ASSEMBLE PARTITION PER UNDERWRITERS LABORATORY FIRE RESISTANCE RATING REQUIREMENTS.



1AX 1 hr FIRE RESISTIVE - UL #U419

NOTE:
ASSEMBLE PARTITION PER UNDERWRITERS LABORATORY FIRE RESISTANCE RATING REQUIREMENTS.

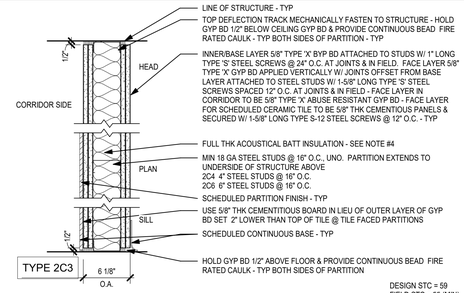
1 hr RATED PARTITIONS



2S4 DENOTES 4" CH STEEL STUDS - 4-5/8" OA WIDTH
2S6 DENOTES 4" CH STEEL STUDS - 6-5/8" OA WIDTH

2S- 2 HR SHAFT PARTITION - UL #U415 - SYSTEM B

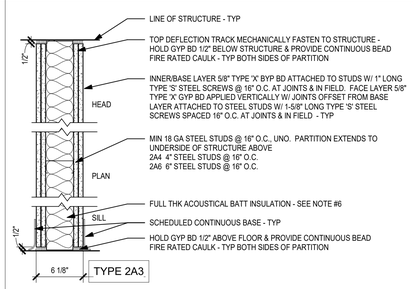
DESIGN STC = 45
FIELD STC = 38 (MIN)



DESIGN STC = 59
FIELD STC = 55 (MIN)

2C- 2 HR FIRE RESISTIVE CORRIDOR PARTITION UL #U443

NOTE:
ASSEMBLE PARTITION PER UNDERWRITERS LABORATORY FIRE RESISTANCE RATING REQUIREMENTS.

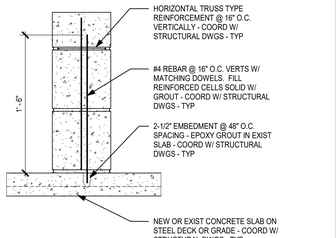


2A- 2 hr FIRE RESISTIVE - UL #U419

DESIGN STC = 59
FIELD STC = 55 (MIN)

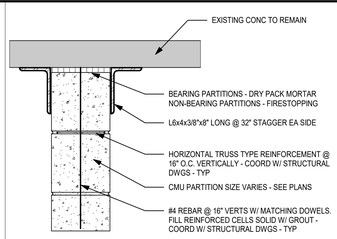
NOTE:
ASSEMBLE PARTITION PER UNDERWRITERS LABORATORY FIRE RESISTANCE RATING REQUIREMENTS.

2hr RATED PARTITIONS



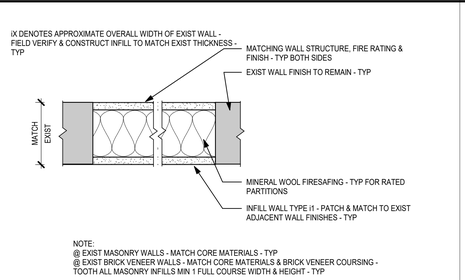
MB TYPICAL CONCRETE MASONRY UNIT PARTITION & SLAB ATTACHMENT

COORDINATE WITH STRUCTURAL DRAWINGS - TYP



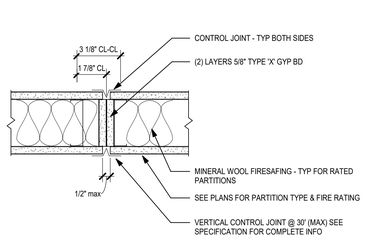
MT TYPICAL CONCRETE MASONRY UNIT PARTITION / SLAB ATTACHMENT

COORDINATE WITH STRUCTURAL DRAWINGS - TYP

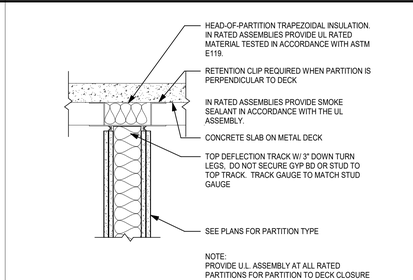


NOTE:
@ EXIST MASONRY WALLS - MATCH CORE MATERIALS - TYP
@ EXIST BRICK VENEER WALLS - MATCH CORE MATERIALS & BRICK VENEER COURSING - TOOTH ALL MASONRY INFILLS MIN 1 FULL COURSE WIDTH & HEIGHT - TYP

iX TYPICAL INFILL WALL



A TYPICAL GYP BD CONTROL JOINT



NOTE:
PROVIDE U.L. ASSEMBLY AT ALL RATED PARTITIONS FOR PARTITION TO DECK CLOSURE

H1 TYPICAL PARTITION HEAD DETAIL @ METAL DECK PERPENDICULAR TO DECK

GENERAL PARTITION NOTES/ DETAILS

PARTITION CONSTRUCTION NOTES

1. PARTITION TYPES DESIGNATED WITH '48' ADJACENT TO PARTITION TYPE SYMBOL SHALL TERMINATE AT 48" ABOVE FINISHED FLOOR. PROVIDE STEEL TUBE, ANGLE OR HEAVY GAUGE STUDS INSIDE THE PARTITION, AS REQUIRED TO MEET PARTITION DEFLECTION CRITERIA.

2. PROVIDE DEFLECTION TRACK AT TOP OF ALL PARTITIONS THAT EXTEND TO STRUCTURE ABOVE, (TYPICAL). PROVIDE FIRE-RATED DEFLECTION TRACK SYSTEM AT TOP OF ALL FIRE-RATED PARTITIONS, (TYPICAL). SEE DETAIL H1 ON THIS SHEET.

3. SEE SPECIFICATIONS FOR FOR FIRESTOPPING REQUIREMENTS.

4. WHERE ACOUSTICAL BATT INSULATION IS USED IN PARTITIONS: SEAL AIRTIGHT W/ NON-HARDENING ACOUSTICAL SEALANT AT TOP, BOTTOM & SIDES. PARTITION MOUNTED ELECTRICAL BOXES SHOULD BE OFFSET MIN 24" (NOT BACK TO BACK) W/ PERIMETER OF BOXES SEALED AIR-TIGHT W/ NON-HARDENING ACOUSTICAL PUTTY PADS. PIPE & DUCT PENETRATIONS SHALL BE SLEEVED, PACKED W/ 100i. DENSITY CLOSED CELL FOAM, & SEALED TO PARTITION W/ NON-HARDENING ACOUSTICAL SEALANT. FIRE RATED PARTITIONS TO RECEIVE FIRE RATED PUTTY PADS - TYP

5. PROVIDE 'INSULHOLD' HANGERS OR EQ BATT RETAINING CLIPS HORIZONTALLY @ MAX 48" SPACING PER MFG SPECS IN ALL SINGLE SIDED (GYP BD) FURRING PARTITIONS.

6. COORDINATE REQUIRED STUD GAUGE WITH STRUCTURAL DRAWINGS & SPECIFICATIONS - TYP

7. WHEN (2) LAYERS OF TYPE 'X' GYP BD ARE REQUIRED, ONLY OUTER LAYER TO BE 5/8" THK ABUSE RESISTANT TYPE.

8. REFER TO SPECIFICATIONS AND MANUFACTURER RECOMMENDATIONS FOR ENVIRONMENTAL CONDITIONS REQUIRED FOR STORAGE AND INSTALLATION OF GYPSUM PARTITION BOARD PRODUCTS. PRODUCTS IMPROPERLY STORED OR INSTALLED WITHOUT INDOOR ENVIRONMENTAL CONTROL MAY BE REJECTED.

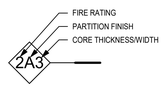
9. SEE SPECIFICATIONS FOR FINISH REQUIREMENTS OF GYP BD AT WET AREAS. USE TILE BACKER BOARD (CEMENT BOARD) FOR ALL TILED AREAS. GREEN BOARD &/OR BLUE BOARD ARE PROHIBITED FROM USE ON THIS PROJECT.

10. ASSEMBLE ALL RATED PARTITION TYPES PER UNDERWRITERS LABORATORY FIRE RESISTANCE RATING REQUIREMENTS.

11. METALLIC BOXES LOCATED ON OPPOSITE SIDES OF PARTITIONS OR PARTITIONS SHOULD BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 IN. THIS MINIMUM SEPARATION DISTANCE BETWEEN METALLIC BOXES MAY BE REDUCED WHEN WALL-OPENING PROTECTIVE MATERIALS (CUV) ARE INSTALLED ACCORDING TO THE REQUIREMENTS OF THEIR CERTIFICATION.

12. METALLIC BOXES SHALL NOT BE INSTALLED ON OPPOSITE SIDE OF PARTITIONS OR PARTITIONS OF STAGGERED STUD CONSTRUCTION UNLESS WALL-OPENING PROTECTIVE MATERIALS ARE INSTALLED WITH THE METALLIC BOXES IN ACCORDANCE WITH CERTIFICATION REQUIREMENTS FOR THE PROTECTIVE MATERIALS.

PARTITION TAG NAMING MATRIX



1st NUMBER = FIRE RATING

0 = NON-RATED PARTITION TYPE
1 = 1 HR FIRE RATED PARTITION TYPE
2 = 2 HR FIRE RATED PARTITION TYPE

2nd NUMBER = PARTITION FINISH

A = GYPSUM BOARD - BOTH SIDES
B = CEMENTITIOUS BOARD - 1 OR BOTH SIDES
C = ABUSE RESISTANT BOARD - 1 OR BOTH SIDES
F = FURRING PARTITION
M = MASONRY PARTITION - CMU
P = PLUMBING CHASE
S = SHAFT PARTITION

3rd NUMBER = PARTITION CORE THICKNESS / WIDTH

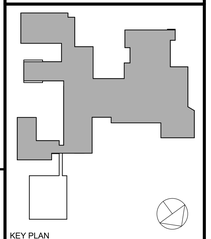
0 = 7/8" HAT CHANNEL
1 = 1-5/8" STUD
2 = 2-1/2" STUD
3 = 3-5/8" STUD OR 4" CMU BLOCK
4 = 4" STUD
6 = 6" STUD OR 5-5/8" CMU BLOCK
8 = 8" STUD OR 7-5/8" CMU BLOCK
10 = 10" STUD OR 9-5/8" CMU BLOCK
12 = 12" STUD ORT 11-5/8" CMU BLOCK

ORANGE-ULSTER BOCES
ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING
4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

NY SED PROJECT CONTROL NO:
44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

PARTITION TYPES

Job No. 2023-1011	Date 04/24/2024
Scale	Drawn / Checked Author Checker

Sheet Number

A901

GLASS NOTES:

GL-1 = FULLY LAMINATED FLOAT GLASS

GL-2 = CERAMIC COATED TEMPERED SPANDREL CLASS

GL-3 = LOW-E COATED, CLEAR INSULATING GLASS

GL-4 = LOW-E COATED, CLEAR TEMPERED INSULATING GLASS @ EGRESS WINDOWS

FR-1 = FIRE RATED LAMINATED GLASS, 45 MIN FIRE RESISTIVE

FR-2 = FIRE RATED LAMINATED GLASS, 120 MIN FIRE RESISTIVE

SECURITY GLAZING NOTES

1. INTRUDER RESISTIVE SECURITY GLAZING BASIS OF DESIGN:

SG -1 = TYPE 1 (EXTERIOR) - SCHOOL GUARD GLAZING SG4 IGU w/ SOLARBAN 70XL LOW-E COATING

SG -2 = TYPE 2 (INTERIOR) - SCHOOL GUARD GLAZING SG4

SG -3 = TYPE 3 (TRANSACTION WINDOW) - SCHOOL GUARD GLAZING SG5

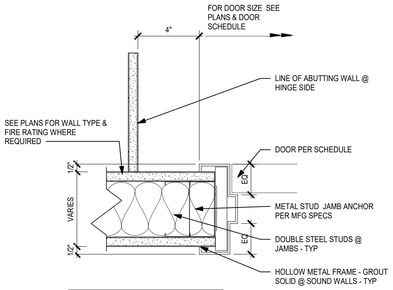
2. INTRUDER RESISTIVE SECURITY FILM BASIS OF DESIGN (EXISTING GLAZING):

SG -4 = TYPE 4 - 3M SECURITY WINDOW FILM & ATTACHMENT SYSTEM

SG -5 = TYPE 5 - SCHOOL GUARD

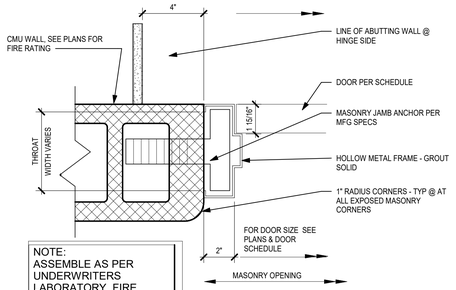
ALL SAFETY GLAZING SHALL CONFORM TO THE 2015 IBC WITH 2016 SUPPLEMENTS, SECTION 2406.4

ALL INTERIOR GLAZING SIZES AND TYPES ARE TO COMPLY WITH NFPA 80 AND/OR ASTM E110 THROUGHOUT



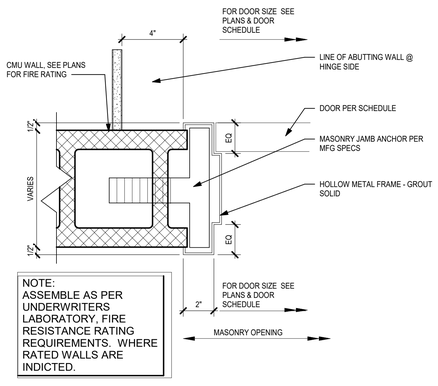
NOTE:
ASSEMBLE AS PER UNDERWRITERS LABORATORY, FIRE RESISTANCE RATING REQUIREMENTS. WHERE RATED WALLS ARE INDICTED.

B DOOR JAMB AT GYP BD WALL
SCALE 3"= 1'-0"



NOTE:
ASSEMBLE AS PER UNDERWRITERS LABORATORY, FIRE RESISTANCE RATING REQUIREMENTS. WHERE RATED WALLS ARE INDICATED.

C DOOR JAMB AT CMU WALL
SCALE 3"= 1'-0"



NOTE:
ASSEMBLE AS PER UNDERWRITERS LABORATORY, FIRE RESISTANCE RATING REQUIREMENTS. WHERE RATED WALLS ARE INDICTED.

A DOOR JAMB AT CMU WALL
SCALE 3"= 1'-0"

3 JAMB DETAILS
3" = 1'-0"

DOOR FINISH SCHEDULE ABBREV.

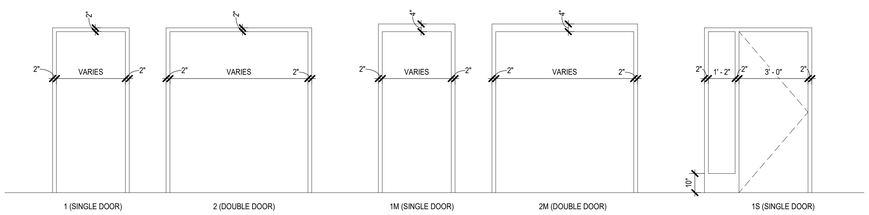
AL ALUMINUM
CL CLASSROOM
CS CORRIDOR, SMOKE, & FIRE DOORS (RATED)
EA EXTERIOR, ALUMINUM
EX EXISTING

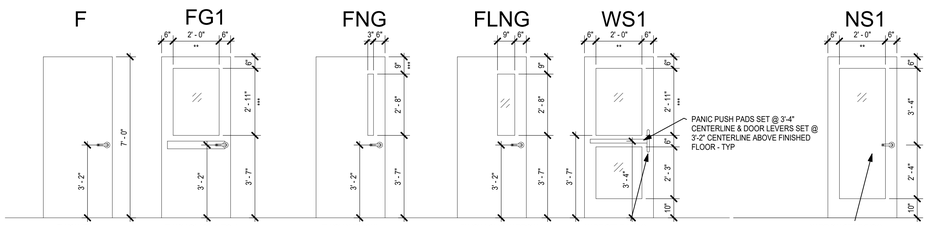
F FLUSH FLOOR
FF FACTORY FINISH
FP FLAT PANEL
FG1 FLUSH DOOR GLASS
FLNG FLUSH LONG NARROW GLASS

FNG FLUSH NARROW GLASS
HM HOLLOW METAL
MBL MARBLE
OF OUTSIDE FACE
PTD PAINTED

SA SECURE ACCESS
SE SECURE
SL SLATE
SGG SCHOOLGUARD GLASS
SS STAINLESS STEEL
ST STAIN & SEAL

SW STAIRWAY DOOR
TM TOILET, MULTIUSER
TS TOILET, SINGLE USER
WD WOOD
WSI WIDE STILE





*** DIMENSION INCREASES AT DOORS > 7'-0" H AT DOORS > 3'-0" W

*** DIMENSION INCREASES AT DOORS > 7'-0" H AT DOORS > 3'-0" W MAXIMUM GLAZING 96 SQ. IN. AT 'B' LABEL DOORS

MAXIMUM GLAZING 288 SQ. IN. AT 'C' LABEL DOORS

*** DIMENSION INCREASES AT DOORS > 7'-0" H AT DOORS > 3'-0" W

1 1/4" DIA ARCH PULL 12" C.C. AT ALL ALUM EXTERIOR DOORS USD32D FINISH

*** DIMENSION INCREASES AT DOORS > 7'-0" H AT DOORS > 3'-0" W

EXTERIOR DOORS USD32D FINISH

2 DOOR TYPES
3/8" = 1'-0"

Door Schedule

Mark	From Room	From #	To Room	# LEAVES	Width	Wl	HT	Door Elevation	Door Mat	Door Fin	Frame Mat	Frame Fin	Fire Label	DET./A902	Saddle	Holdopens	Comments
101	8:1:1 CLASS	101	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
102	8:1:1 CLASS	102	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
103	8:1:1 CLASS	103	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
104	6:1:1 CLASS	104	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
105	CORRIDOR	C102	15:1:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
106	8:1:1 CLASS	106	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
107	CORRIDOR	C102	8:1:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
107A	8:1:1 CLASS	107	8:1:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD		H4		No	WIRELESS
108	CORRIDOR	C102	SGI	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD		H2		No	WIRELESS
108A	SGI	108	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD		H2		No	WIRELESS
109	SGI	109	COMMONS	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD		H4		No	WIRELESS
109A	CORRIDOR	C102	SGI	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD		H4		No	WIRELESS
113	SGI	113	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD				No	WIRELESS
114	SGI	114	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD				No	WIRELESS
115	COPY/FAC	115	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
116	ELEV. LOBBY	C101	MECHANICAL ROOM	2	6' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD				No	HARDWIRED
117	TOIL.	117	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
118	TOIL.	118	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
119	TOIL.	119	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
120	CORRIDOR	C102	JAN.	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
122	TOIL.	122	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
123	TOIL.	123	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
124	TOIL.	124	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
125	CORRIDOR	C102	TOIL.	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD				No	WIRELESS
126	DATA CL.	126	COMMONS	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD				No	HARDWIRED
127	VESTIBULE	127	CORRIDOR	2	6' - 0"	3' - 0"	7' - 0"	WS1	AL	FF	AL	FF		A12	AL	No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED/REMOTE CONTROL ACCESS, & ADA BUTTON
C101	ELEV. LOBBY	C101		2	6' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD				No	PANIC HARDWARE WITH HOLD OPEN
EX3	MECHANICAL ROOM	116		1	3' - 0"	3' - 0"	7' - 0"	FRP FG1	FRP	FF	AL	FF			AL	No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED
EX4	ELEV. LOBBY	C101	COURTYARD	1	3' - 0"	3' - 0"	7' - 0"	FRP FG1	FRP	FF	AL	FF			AL	No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED
EX5			VESTIBULE	2	6' - 0"	3' - 0"	7' - 0"	WS1	AL	FF	AL	FF		A12	AL	No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED/REMOTE CONTROL ACCESS, & ADA BUTTON
EX6	STAIR B	STB1		1	3' - 0"	3' - 0"	7' - 0"	FRP FG1	FRP	FF	AL	FF			AL	No	FORCED - ENTRY RESISTANT GLASS
EX7	8:1:1 CLASS	107		1	3' - 0"	3' - 0"	7' - 0"	FRP FG1	FRP	FF	AL	FF				No	HARDWIRED
EX8	COURTYARD	OS2		1	4' - 0"	4' - 0"	8' - 0"	SEE COMMENTS	STL	PTD	STL	PTD				No	COURTYARD GATE W/ PANIC HARDWARE, HARDWIRED
STA1	CORRIDOR	C102	STAIR A	1	3' - 0"	3' - 0"	7' - 0"	FNG	WD	ST	HM	PTD	60 MIN			Yes	PANIC HARDWARE WITH HOLD OPEN
STB1	CORRIDOR	C102	STAIR B	1	3' - 0"	3' - 0"	7' - 0"	FNG	WD	PTD	HM	PTD	60 MIN			Yes	PANIC HARDWARE WITH HOLD OPEN
201	CORRIDOR	C201	8:1:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
202	CORRIDOR	C201	8:1:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
203	CORRIDOR	C201	6:1:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
204	CORRIDOR	200A	OFFICE	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD		H8		No	WIRELESS
205	CORRIDOR	200A	OFFICE	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD		H8		No	WIRELESS
206	6:1:1 CLASS	206	COMMONS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
207	15:1 CLASS	207	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
208	CORRIDOR	C204	8:1:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
209	CORRIDOR	C204	SGI	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
209A	SGI	209	15:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
210	CORRIDOR	C204	15:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
211	CORRIDOR	C204	15:1 CLASS	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
212	15:1 CLASS	212	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
212A	ST.	212B	15:1 CLASS	2	6' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD				No	WIRELESS
213	CORRIDOR	C204	SGI	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD				No	WIRELESS
213A	15:1 CLASS	211	SGI	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
214	CORRIDOR	C204	SGI	1	3' - 0"	3' - 0"	7' - 0"	NS1	HM	PTD	HM	PTD				No	WIRELESS
214A	15:1 CLASS	211	SGI	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
214B	15:1 CLASS	212	SGI	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD		H8		No	WIRELESS
215	TOIL.	215	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
216	TOIL.	216	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
217	TOIL.	217	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
218	TOIL.	218	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
219	TOIL.	219	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
220	TOIL.	220	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
221	TOIL.	221	CORRIDOR	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
222	COMMONS	C202	SECURITY	1	3' - 0"	3' - 0"	7' - 0"	FLNG	WD	ST	HM	PTD				No	WIRELESS
223	JAN.	223	COMMONS	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD			SL	No	WIRELESS
224	CORRIDOR	C204	TECHNICAL	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD				No	WIRELESS
229	CORRIDOR	200A		2	5' - 8"	2' - 10"	7' - 0"	FNG	WD	ST	HM	PTD	90 MIN			No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED
C201	COMMONS	C202	COMMONS	1	3' - 0"	3' - 0"	7' - 0"	F	WD	ST	HM	PTD				No	PANIC HARDWARE WITH HOLD OPEN
C203	VESTIBULE	C203	COMMONS	2	6' - 0"	3' - 0"	7' - 0"	WS1	AL	FF	AL	FF		A13	AL	No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED/REMOTE CONTROL ACCESS, & ADA BUTTON
EX1	CORRIDOR	C201	COURTYARD	1	3' - 4"	3' - 4"	7' - 10"	WS1	AL	FF	AL	FF			AL	No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED
EX2			VESTIBULE	2	6' - 0"	3' - 0"	7' - 0"	WS1	AL	FF	AL	FF		A13	AL	No	FORCED - ENTRY RESISTANT GLASS, HARDWIRED/REMOTE CONTROL ACCESS, & ADA BUTTON
STA2	STAIR A	STA2	COMMONS	2	6' - 0"	3' - 0"	7' - 0"	FNG	WD	ST	HM	PTD	60 MIN		AL	Yes	PANIC HARDWARE WITH HOLD OPEN
STB2	CORRIDOR	C204	STAIR B	1	3' - 0"	3' - 0"	7' - 0"	FNG	WD	ST	HM	PTD	60 MIN			Yes	PANIC HARDWARE WITH HOLD OPEN

Grand total: 71

CHART OF DOOR RATINGS & UL LABEL

UL LABEL	RATING	RATING	MAX GLASS AREA
B	1 1/2 HR	90 MIN	100 SQ INCHES PER LEAF
C	3/4 HR	45 MIN	1296 SQ INCHES PER LEAF
S	SMOKE	SMOKE	

NOTE:
GLAZING AND GLASS SIZES FOR INTERIOR DOORS AND WINDOWS ARE TO COMPLY WITH NFPA 80 OR ASTM E119 - TYP.

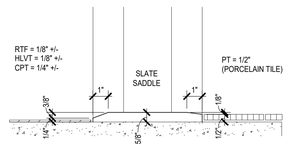
SADDLE NOTES:

1. COORDINATE DOOR UNDERCUT WITH SADDLE & OTHER UNDERCUTTING REQ. SEE DOOR SCHEDULE & SADDLE DETAILS ON THIS SHEET.

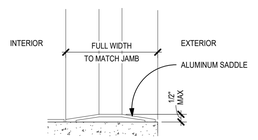
2. SADDLES ARE TO BE FULL WIDTH OF DOOR FRAME

3. SADDLES MAY BE OMITTED WHERE MATERIALS OF SIMILAR THICKNESS MEET WITH THE WRITTEN APPROVAL OF THE ARCHITECT. DOOR UNDERCUTS MUST BE COORDINATED.

4. SLATE SADDLES, WHEN USED OR CALLED FOR SHALL BE SELECTED FROM FULL COLOR RANGE TO MATCH ADJACENT FLOORING.



1B SADDLE DETAIL
SCALE 3"= 1'-0"



1A TYPICAL EXTERIOR SADDLE
SCALE 3"= 1'-0"

1 SADDLE DETAILS
3" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

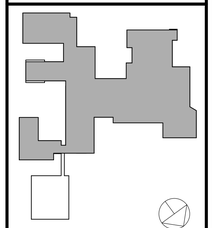
NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

GENERAL NOTES DOORS

1. GLAZING IN FIRE RATED DOORS SHALL BE FIRELITE PLUS TO MEET THE FIRE RATING SCHEDULED, UNLESS NOTED OTHERWISE.
2. G.C. SHALL VERIFY SIZE OF REPLACEMENT DOORS & FRAMES IN THE EXISTING BUILDING BEFORE ORDERING.
3. SEE SPEC. SECTION 08 71 00 FOR DOOR HARDWARE SETS, HARDWARE NOTES, COMPONENTS & OTHER INFORMATION.
4. EXTERIOR DOOR SYSTEMS SHALL BE FULLY PERIMETER CAULKED TO ADJACENT FINISHED SURFACES, BOTH INTERIOR & EXTERIOR - TYP.
5. EXTERIOR DOOR PAIRS SHALL HAVE AN ALUMINUM KEYED REMOVABLE MULLION WITH RIM CYLINDER EXIT DEVICE w/KEYED CYLINDER DOGGING.
6. INTERIOR DOOR PAIRS SHALL HAVE AN HOLLOW METAL KEYED REMOVABLE MULLION WITH RIM CYLINDER EXIT DEVICE w/KEYED CYLINDER DOGGING. EXCEPTION IS CROSS-CORRIDOR DOOR PAIRS & DOORS INTO STAIRS.
7. FRP DOORS SHALL HAVE SUITABLE BLOCKING FOR LEVER OR ARHICTECTURAL PULLS. RECESSED DOOR PULL NOT ACCEPTABLE.
8. FACE OF ADJACENT WALL TO EDGE OF DOOR FRAME IS 4" (TYPICAL) U.N.O. SEE JAMB DETAILS A, B & C ON 3/A902



KEY PLAN

Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

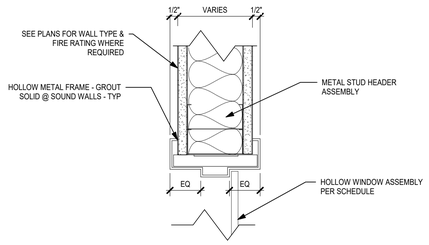
Sheet Title

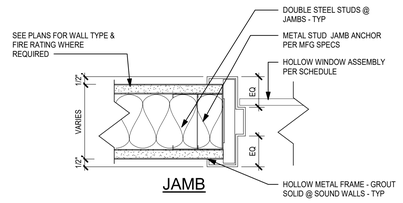
DOOR SCHEDULES & DETAILS

Job No.	Date
2023-1011	04/24/2024
Scale	Drawn / Checked
	Author Checker

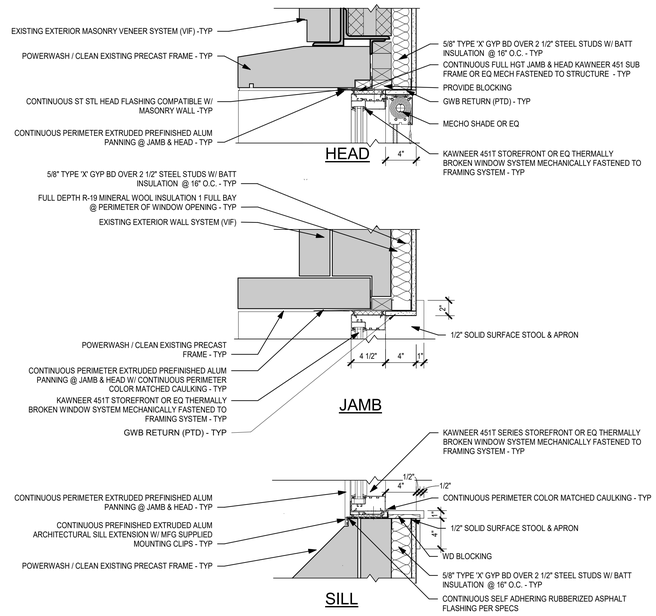
Sheet Number

A902

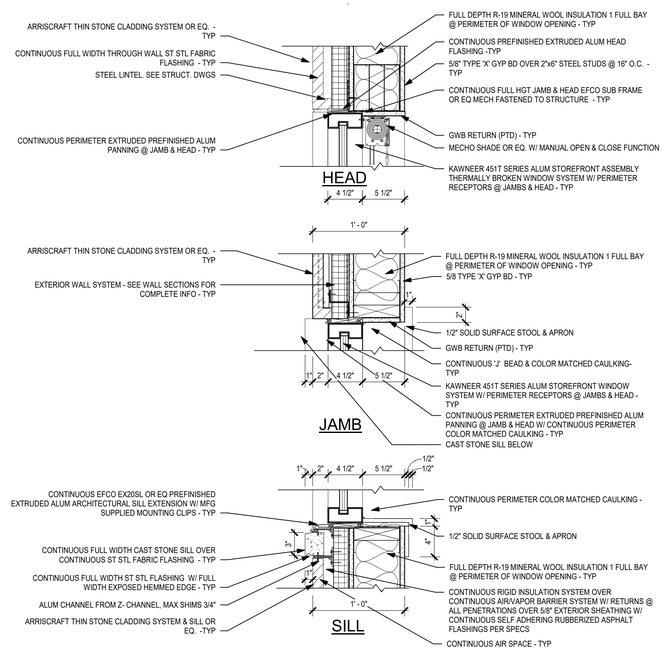




3 HOLLOW MTL GLASS ASSEMBLY HEAD/JAMB DETAIL
3" = 1'-0"



2 EXISTING WINDOW HEAD,JAMB & SILL DETAIL
1 1/2" = 1'-0"



1 MASONARY ALUM STOREFRONT WINDOW DETAIL - SILL, JAMB & HEAD
1 1/2" = 1'-0"

GLASS NOTES:

GL-1 = FULLY LAMINATED FLOAT GLASS

SECURITY GLAZING NOTES

1. INTRUDER RESISTIVE SECURITY GLAZING BASIS OF DESIGN:

SG -1 = TYPE 1 (EXTERIOR) - SCHOOL GUARD GLAZING SG4 IGU w/ SOLARBAN 70XL LOW-E COATING

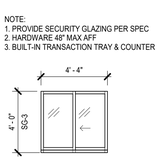
SG -3 = TYPE 3 (TRANSACTION WINDOW) - SCHOOL GUARD GLAZING SG5

2. INTRUDER RESISTIVE SECURITY FILM BASIS OF DESIGN (EXISTING GLAZING):

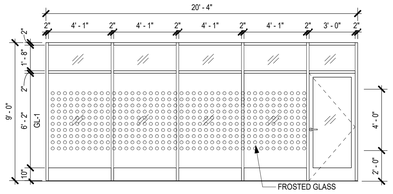
SG -4 = TYPE 4 - 3M SECURITY WINDOW FILM & ATTACHMENT SYSTEM

ALL SAFETY GLAZING SHALL CONFORM TO THE 2020 IBC

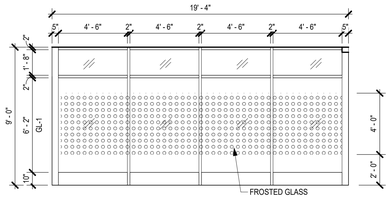
ALL INTERIOR GLAZING SIZES AND TYPES ARE TO COMPLY WITH NFPA 80 AND/OR ASTM E110 THROUGHOUT



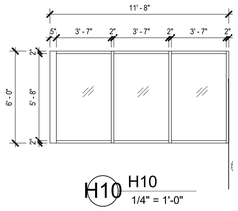
T1 TRANSACTION WINDOW
1/4" = 1'-0"



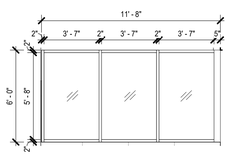
H12 H12
1/4" = 1'-0"



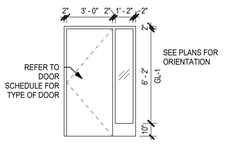
H11 H11
1/4" = 1'-0"



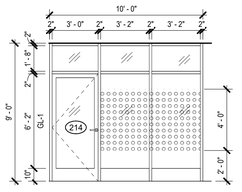
H10 H10
1/4" = 1'-0"



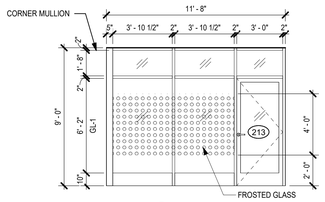
H9 H9
1/4" = 1'-0"



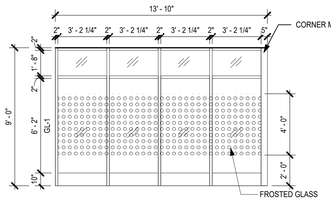
H8 SIDELIGHT ELEVATION
1/4" = 1'-0"



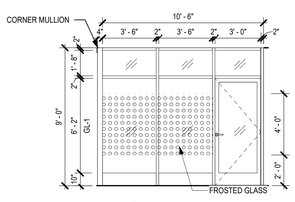
H7 H7
1/4" = 1'-0"



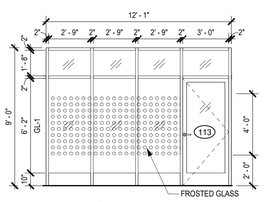
H6 H6
1/4" = 1'-0"



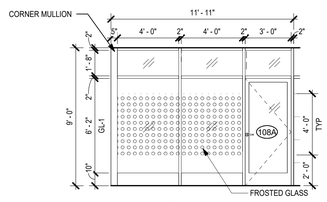
H5 H5
1/4" = 1'-0"



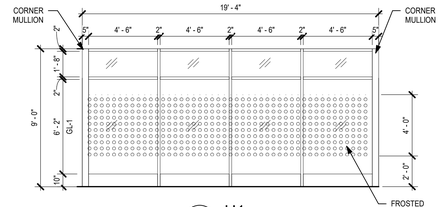
H4 H4
1/4" = 1'-0"



H3 H3
1/4" = 1'-0"

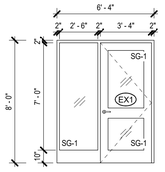


H2 H2
1/4" = 1'-0"

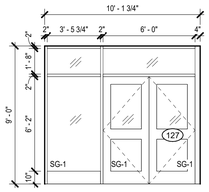


H1 H1
1/4" = 1'-0"

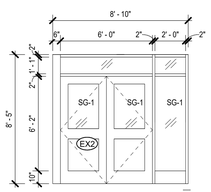
HOLLOW WINDOW ASSEMBLYS



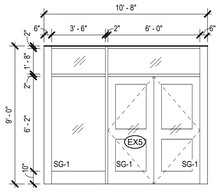
A15 A15
1/4" = 1'-0"



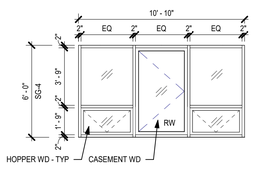
A14 A14
1/4" = 1'-0"



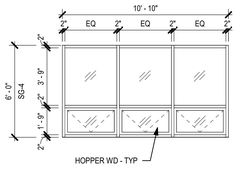
A13 A13
1/4" = 1'-0"



A12 A12
1/4" = 1'-0"



A11 A11
1/4" = 1'-0"



A10 A10
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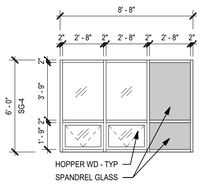

A9 A9
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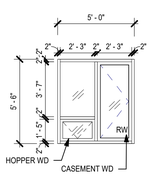
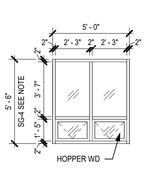
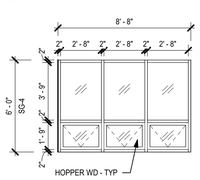


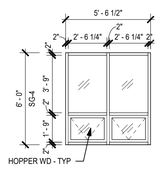
A8 A8
1/4" = 1'-0"



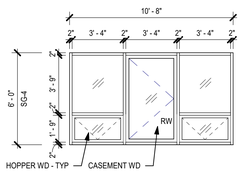
A7 A7
1/4" = 1'-0"
A7▽ DENOTES SG-4 SEE FLOOR PLAN



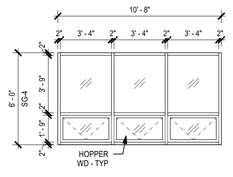
A5 A5
1/4" = 1'-0"



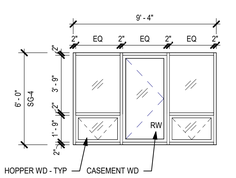
A4 A4
1/4" = 1'-0"



A3 A3
1/4" = 1'-0"



A2 A2
1/4" = 1'-0"



A1 A1
1/4" = 1'-0"

ALUMINUM WINDOWS ASSEMBLYS

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D . ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

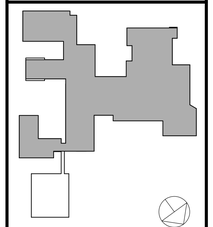
NY SED PROJECT CONTROL NO:

44-90-00-00-0-035-009

CONSTRUCTION DOCUMENTS

GENERAL NOTES

1		DENOTES INSULATED CLEAR GLAZING
2		DENOTES INSULATED SPANDREL GLAZING
3		GLAZING IN DOORS, SIDELIGHTS & WITHIN 18" OF GRADE,. FLOORS, STAIR LANDINGS SHALL BE TEMPERED GLASS
4		EXTERIOR WINDOW & DOOR SYSTEMS SHALL BE FULLY PERIMETER CAULKED TO ADJACENT FINISHED SURFACES, BOTH INTERIOR & & AS DIRECTED BY MFG - TYP.
5		ALL EXTERIOR LOUVERS SHALL BE 4" DEEP ALUM. HORIZONTAL BLADE, STORM-PROOF, DRAINABLE, w/ 50% FREE AREA (MIN) IN PREMIUM (KYNAR) METALLIC (OR CUSTOM) COLOR SELECTED BY ARCHITECT. w/ BIRD SCREEN (SIM TO RUSKIN ELF375DX)
6		G.C. SHALL PROVIDE LOUVERS & COORDINATE FREE AREA REQ'D w/ H.C.
7		H.C. SHALL BLANK-OFF w/ BLACK PTD SHEETMETAL & INSULATE ALL UNUSED PORTIONS OF LOUVERS
8	101	DENOTES DOOR NUMBER, SEE A902 FOR DOOR & HARDWARE INFO
9	1A	DENOTES WINDOW TYPE, SEE A903 FOR SIZES & OTHER INFO
10	RW	DENOTES RESCUE WINDOW. PROVIDE 24" MINIMUM "CLEAR" WIDTH, 6 SF MINIMUM "CLEAR" AREA
11	SG	FORCED - ENTRY RESISTANT GLASS - SEE GLAZING NOTES
12		FROSTED GLASS
13		G.C. SHALL VERIFY EXISTING CONDITIONS AND DIMENSIONS FOR NEW ASSEMBLIES IN EXISTING BUILDING INCLUDING ROUGH OPENINGS, DEPTH, HEAD/SOFFIT HEIGHTS, SILL CONDITIONS, ETC.



Professional Seal

No.	Date	Issue
2	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

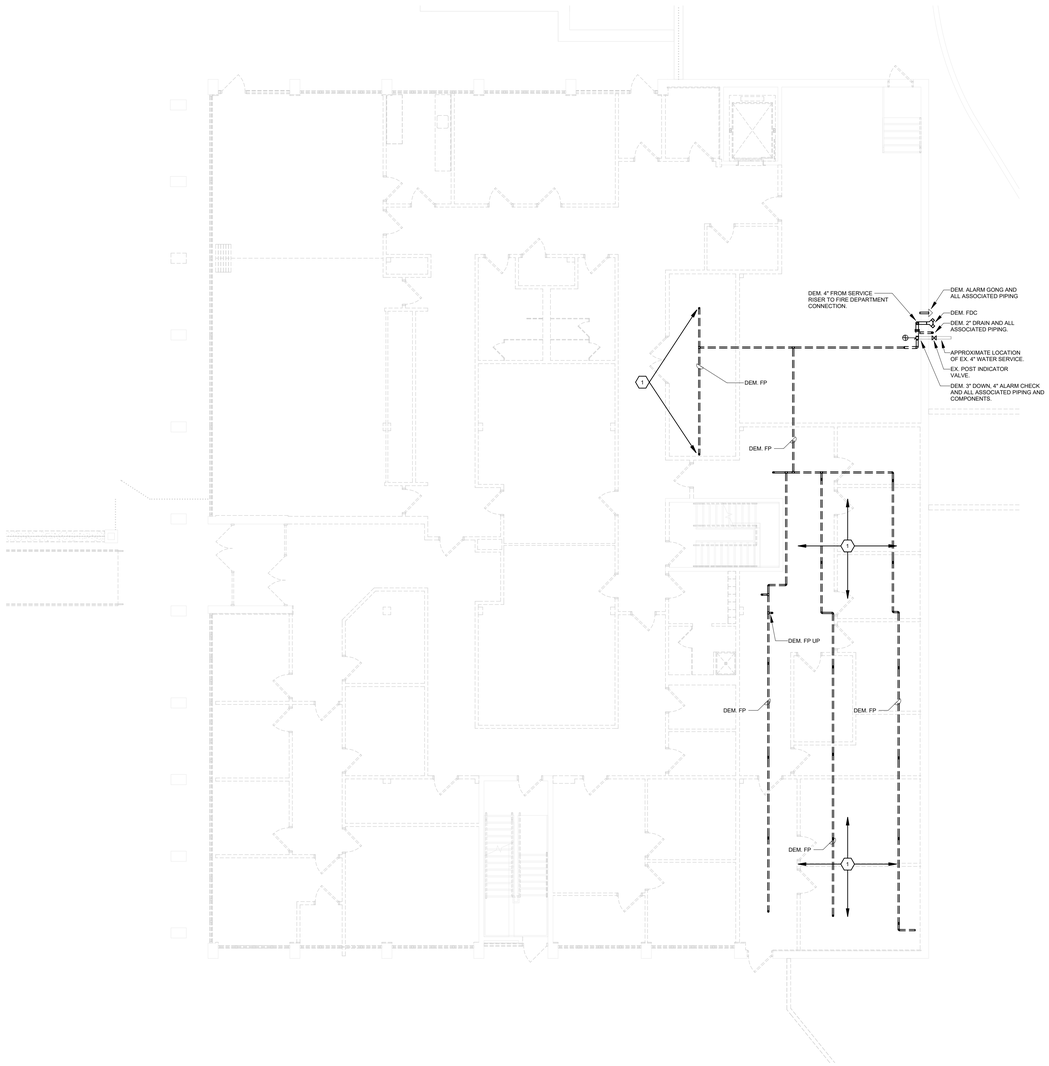
Sheet Title

WINDOWS & INTERIOR FRAME TYPES & DETAILS

Job No. 2023-1011	Date 04/24/2024
Scale	Drawn / Checked Author Checker

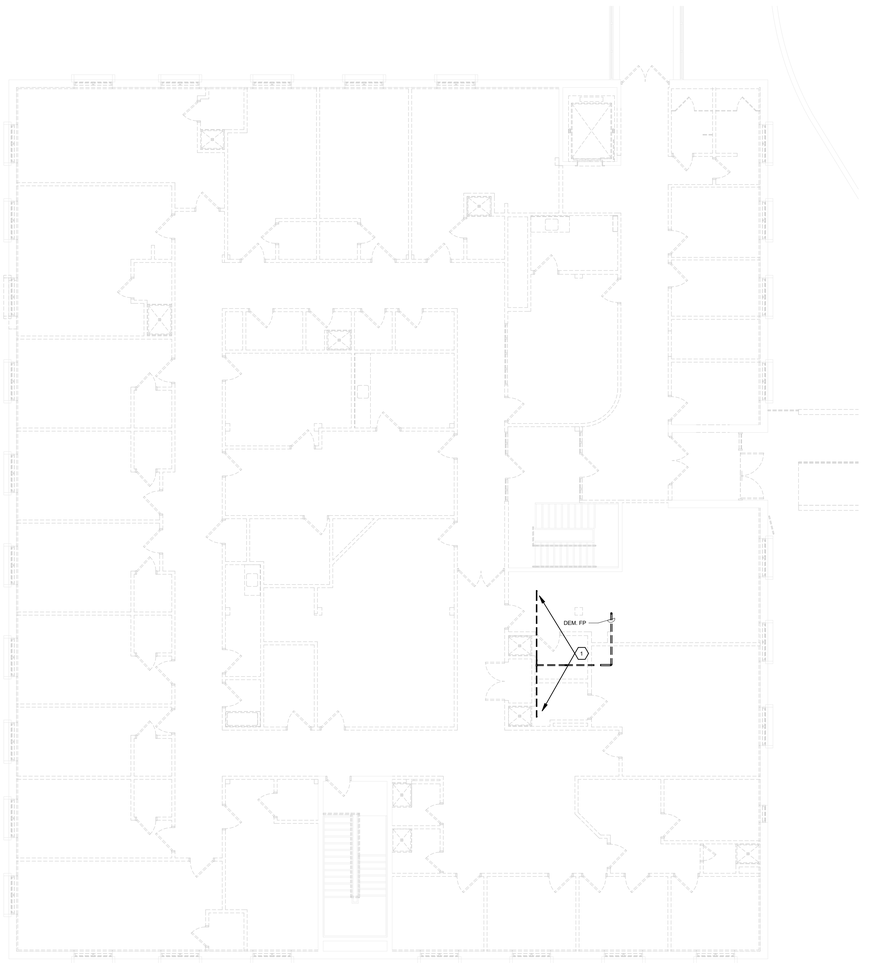
Sheet Number

A903



1 FIRE PROTECTION - NORTH WING LOWER LEVEL DEMOLITION PLAN

1/8" = 1'-0"



2 FIRE PROTECTION - NORTH WING UPPER LEVEL DEMOLITION PLAN

1/8" = 1'-0"

FIRE PROTECTION DEMOLITION KEYED NOTES	
#	NOTE TEXT
1	DEMOLISH SPRINKLER HEAD AND ALL ASSOCIATED PIPING TO POINT INDICATED.

NOTES:
1.) ALL INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR, REFER TO BID DOCUMENTS FOR MORE INFORMATION.
2.) ALL FIRE PROTECTION WORK, UNLESS OTHERWISE NOTED, SHALL BE PERFORMED AS PART OF THE PLUMBING CONTRACT.

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D , ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
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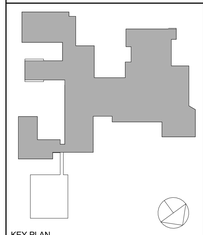
GA23012

NY SED PROJECT CONTROL NO:

44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

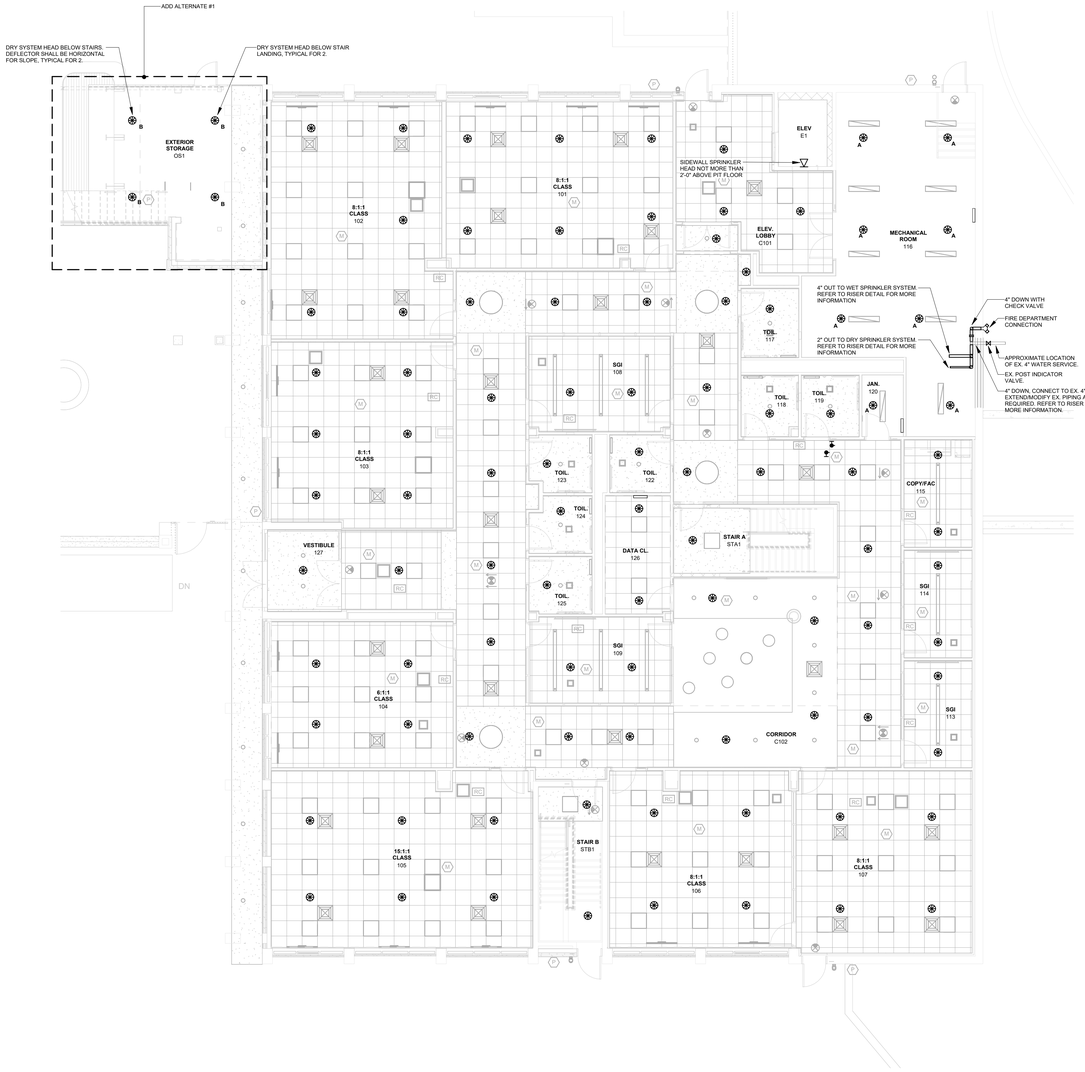
Sheet Title

FIRE PROTECTION:
NORTH WING LOWER LEVEL & UPPER LEVEL DEMOLITION PLANS

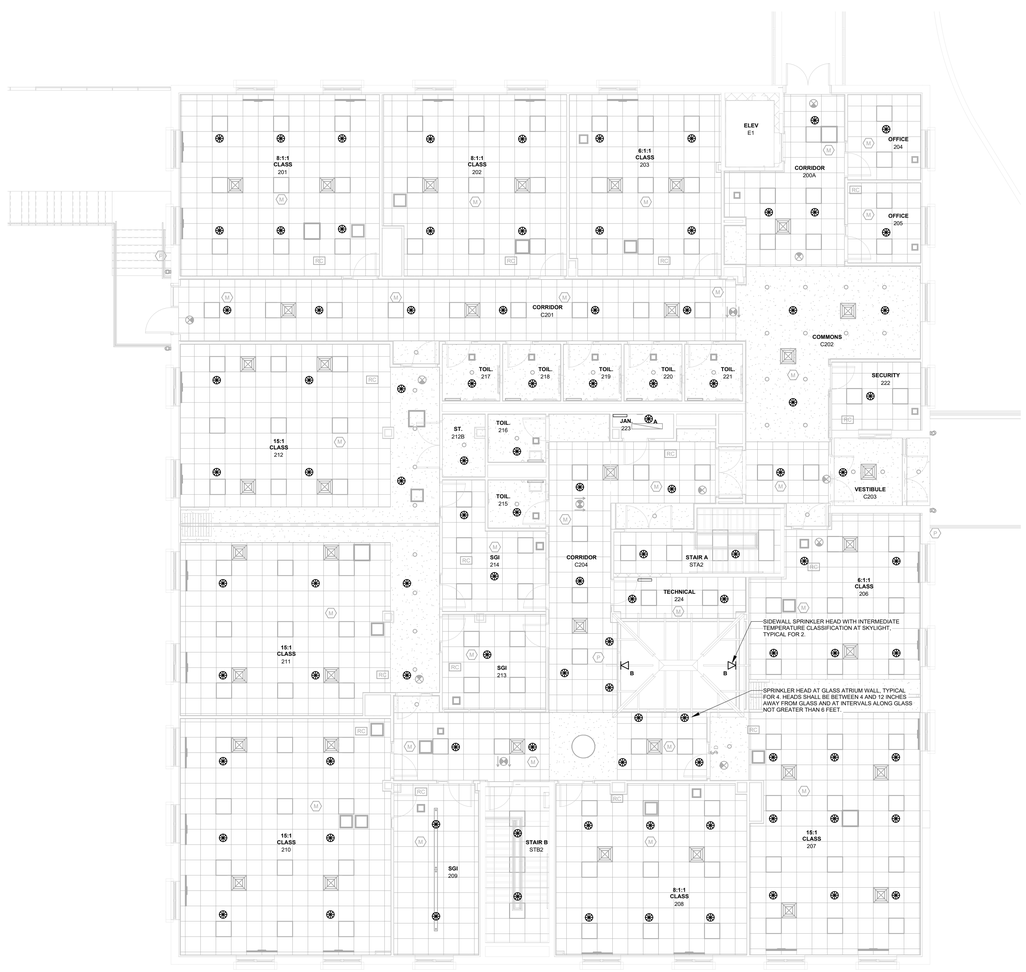
Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: DC SZ

Sheet Number

FP101



1 FIRE PROTECTION - NORTH WING LOWER LEVEL PLAN
1/8" = 1'-0"



2 FIRE PROTECTION - NORTH WING UPPER LEVEL PLAN
1/8" = 1'-0"

NOTES:
1. ALL FIRE PROTECTION WORK, UNLESS OTHERWISE NOTED, SHALL BE PERFORMED AS PART OF THE PLUMBING CONTRACT.

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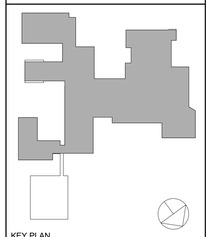


KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

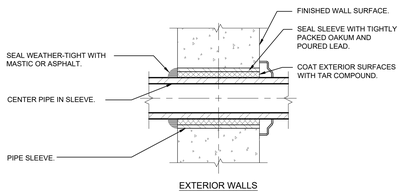
Sheet Title

FIRE PROTECTION:
NORTH WING LOWER LEVEL & UPPER LEVEL PLANS

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: DC SZ

Sheet Number

FP201

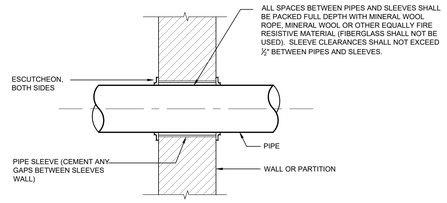


EXTERIOR WALLS

NOTE:

1. PIPE SLEEVE FOR EXTERIOR WALL ABOVE GRADE.

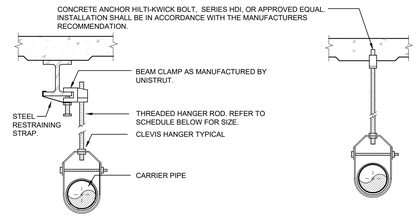
1 EXTERIOR WALL PIPE PENETRATION DETAIL
NOT TO SCALE



NOTE:

THIS DETAIL ALSO APPLICABLE TO INTERIOR NON-WATER PROOF FLOOR CONSTRUCTION. FOR WATER PROOF FLOOR CONSTRUCTION AND OTHER CONSTRUCTION - SEE SPECIFICATIONS.

2 FIRE RATED PARTITION AND WALL PENETRATION DETAIL
NOT TO SCALE

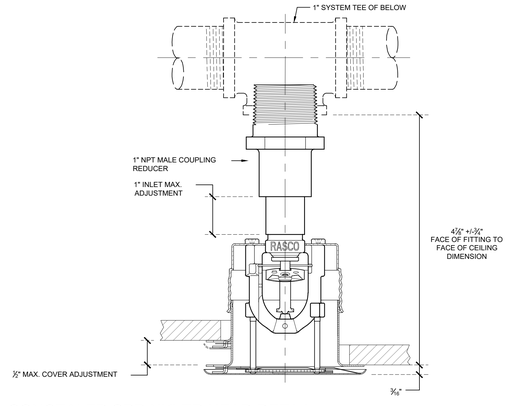


PIPE HANGER SCHEDULE					
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

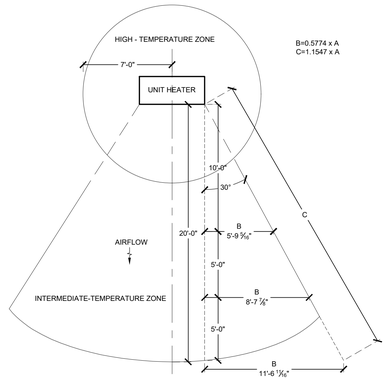
NOTES:

1. CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
2. ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
3. WHERE BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIRESTOPPING TO MATCH EXISTING CONDITIONS OR BETTER.

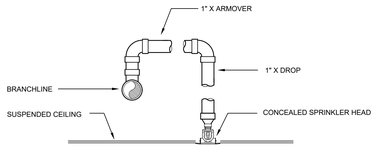
3 PIPE HANGER DETAIL
NOT TO SCALE



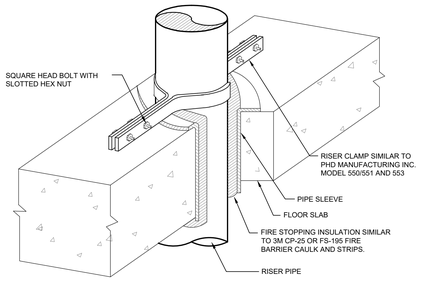
4 CONCEALED SPRINKLER HEAD DETAIL
NOT TO SCALE



5 SPRINKLER TEMPERATURE ZONES AT UNIT HEATERS
NOT TO SCALE



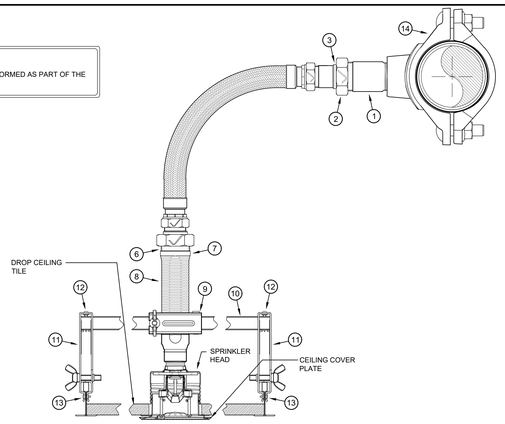
6 TYPICAL ARM OVER DETAIL
NOT TO SCALE



7 PIPE PENETRATION THROUGH FLOOR DETAIL
NOT TO SCALE

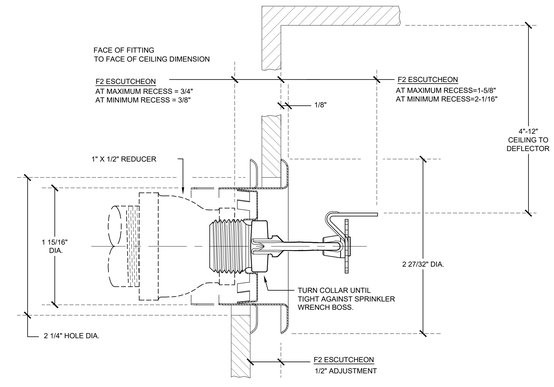
NOTE:

1. ALL FIRE PROTECTION WORK, UNLESS OTHERWISE NOTED, SHALL BE PERFORMED AS PART OF THE PLUMBING CONTRACT.

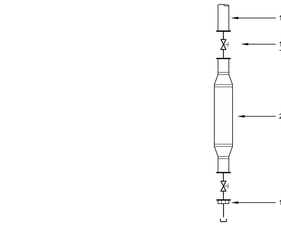


PRODUCT LEGEND	
TAG	DESCRIPTION
1	INLET NIPPLE (1" MPT)
2	NUT
3	ADAPTER RING
4	NOT USED
5	STAINLESS STEEL FLEXIBLE UNBRAIDED HOSE (7/8" NOMINAL DIAMETER) (LENGTHS AVAILABLE 31", 36", 48", 60", & 72")
6	ADAPTER RING
7	NUT
8	REDUCING OUTLET (AVAILABLE 1/2" OR 3/4" FMPT)
9	CENTER BRACKET ASSEMBLY
10	SQUARE BAR (AVAILABLE IN 24" AND 48" LENGTHS)
11	END BRACKET ASSEMBLY
12	SHEET METAL SCREW
13	#8 X 1/2-INCH SELF-TAPPING SCREW
14	MECHANICAL-T OUTLET

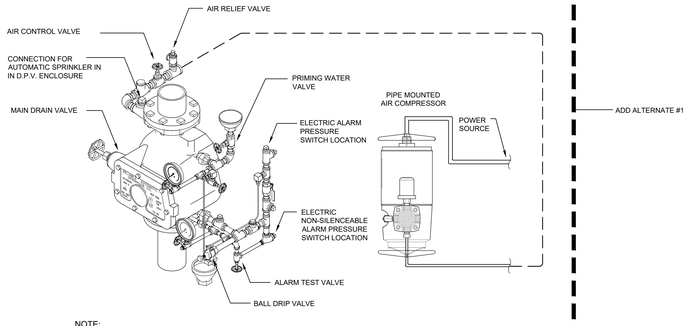
9 TYPICAL FLEXIBLE HOSE SPRINKLER ASSEMBLIES FOR CONCEALED PENDANT SPRINKLERS
NOT TO SCALE



10 SIDEWALL SPRINKLER DETAIL
NOT TO SCALE



8 DRY SYSTEM AUXILIARY DRAIN DETAIL
NOT TO SCALE



NOTE:

PIPING ARRANGEMENT IS FOR PRESENTATION PURPOSES ONLY. REFER TO CODES AND TO MANUFACTURER'S REQUIREMENTS FOR A COMPLETE LIST OF SPECIALTIES AND CONNECTIONS.

11 DRY PIPE VALVE AND TRIM DETAIL
NOT TO SCALE

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NY SED PROJECT CONTROL NO:

44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

FIRE PROTECTION: DETAILS

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

FP601

FIRE PROTECTION GENERAL NOTES

1. ALL FIRE PROTECTION SYSTEM WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2022 VERSION OF NYS EDUCATION DEPARTMENT MANUAL OF PLANNING STANDARDS FOR SCHOOL BUILDINGS, 2020 FIRE CODE OF NEW YORK STATE, NFPA 13-2016, AND ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
2. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING, SPRINKLER HEADS, TESTS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE SPRINKLER SYSTEM COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS. WHERE NECESSARY ALL MATERIALS, EQUIPMENT, AND ETC. SHALL BE UL LISTED AND FM APPROVED.
3. CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL PIPING, SPRINKLER HEADS AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID CONFLICTS. FURNISH TO OTHER AFFECTED TRADES ALL NECESSARY INFORMATION, WORKING DRAWINGS OR MATERIALS REQUIRED FOR INSTALLATION AND COMPLETION OF ALL WORK. CONTRACTOR SHALL PARTICIPATE IN MAKING COORDINATION DRAWINGS WITH OTHER PRIME CONTRACTS.
4. CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS AND CEILINGS WITH FIRE-STOPPING MATERIAL SIMILAR TO HILTI INTUMESCENT FIRE STOP MATERIAL TO MAINTAIN FIRE AND SMOKE RATINGS.
5. CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER, AND AGREES TO REPLACE DEFECTIVE WORK (INCLUDING ALL REQUIRED LABOR AND MATERIALS) AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
6. CONTRACTOR SHALL DEMONSTRATE NEW FIRE PROTECTION SYSTEM TO OWNER AND REVIEW MAINTENANCE PROCEDURES.
7. CONTRACTOR SHALL PERFORM ALL REQUIRED TESTS BY NFPA, ENGINEER, BUILDING DEPARTMENT AND FIRE DEPARTMENT TO THEIR SATISFACTION.
8. CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS TO ENSURE CONCEALMENT OF ALL PIPING. NOTIFY ARCHITECT OR CONSTRUCTION MANAGER WHEN CONFLICTS EXIST PRIOR TO INSTALLING PIPING.
9. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING (24V) & (120V) FOR SYSTEMS SHOWN ON THE DRAWINGS, INCLUDING ALL RELAYS, TRANSFORMERS, CONDUIT, JUNCTION BOXES, CONDUCTORS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE AND OPERABLE.
10. CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
11. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OBSERVE ALL CLEARANCES.
12. ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH N.E.C. ELECTRICAL CODE AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER WITH THHN INSULATION IN EMT CONDUIT. 120V/1 - MINIMUM CONDUCTOR SIZE #12. 24V - MINIMUM CONDUCTOR SIZE #18. MINIMUM CONDUIT SIZE SHALL BE ¾". CONDUIT INSTALLED OUTDOORS SHALL BE GALVANIZED. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR APPROVED MATERIALS AND METHODS OF INSTALLATION.
13. CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT OR STRUCTURAL ENGINEER.
14. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CUTTING, PATCHING, AND PAINTING ASSOCIATED WITH WORK WITH THE GENERAL CONTRACTOR, WHO SHALL PERFORM THE WORK. CONTRACTOR SHALL PROVIDE ACCESS DOORS, WHERE REQUIRED, FOR ALL CONCEALED SYSTEM COMPONENTS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN FIRE RATING OF WALL ON CEILING. ACCESS DOORS TO BE TURNED OVER TO GENERAL CONTRACTOR FOR INSTALLATION.
15. CONTRACTOR SHALL OBSERVE CLEARANCES TO OBSTRUCTIONS.
16. CONTRACTOR SHALL PROVIDE METAL VALVE TAGS FOR ALL VALVES INSTALLED ON THE FIRE PROTECTION SYSTEM AND ALL OTHER REQUIRED IDENTIFICATION LABELS AND SIGNAGE. PROVIDE (2) MANUALS LISTING TAG NUMBER, LOCATIONS OF VALVE AND EQUIPMENT/PIPING SERVED BY VALVE.
17. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING ALL FIRE PROTECTION SYSTEM PIPING, EQUIPMENT AND HEAD LOCATIONS WITH HYDRAULIC CALCULATIONS. COORDINATE SPRINKLER HEAD AND PIPING LOCATIONS WITH OTHER CONTRACTORS TO AVOID CONFLICTS. RELOCATE SPRINKLER HEADS AND PIPING TO MEET FIELD CONDITIONS. SHOP DRAWINGS SHALL SHOW SPRINKLER PIPE SIZES, PIPE HANGER REQUIREMENTS, FIRESTOPPING AND NECESSARY DETAILS REQUIRED FOR BUILDING DEPARTMENT AND INSURANCE CARRIER APPROVAL. HYDRAULIC CALCULATIONS SHALL BE BASED ON HYDRANT FLOW TEST PERFORMED BY THIS CONTRACTOR. SUBMIT SHOP DRAWINGS WITH HYDRAULIC CALCULATION TO ENGINEER FOR APPROVAL. SHOP DRAWINGS AN HYDRAULIC CALCULATIONS SHALL BE SIGNED BY A NYS PROFESSIONAL ENGINEER.
18. CONTRACTOR SHALL FURNISH & INSTALL NEW SPRINKLER CABINET WITH MINIMUM SIX SPARE SPRINKLER HEADS AND WRENCH. INCLUDE SEPARATE CABINET WITH SPRINKLERS AND WRENCH FOR EACH TYPE OF HEAD ON PROJECTION IN ACCORDANCE WITH NFPA 13.
19. WHEN INSTALLING SPRINKLER HEADS, THE CONTRACTOR SHALL PROVIDE THE SHORTEST HYDRAULIC PIPE LENGTH BETWEEN THE FINAL SPRINKLER HEAD LOCATION AND THE BRANCH LINE CONNECTION.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING (AND PROPERLY DISPOSING OF DRAINED WATER) AND FILLING THE NEW SYSTEM AS REQUIRED FOR COMPLETION OF WORK. PROVISIONS SHALL BE MADE FOR COMPLETE DRAINAGE OF THE SYSTEM.
21. PROVIDE (2) 2½ GALLON PRESSURIZED WATER AND (1) 10 POUND ABC DRY CHEMICAL EXTINGUISHERS FOR EMERGENCY USE DURING CONSTRUCTION.
22. CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AND OPERATING AUTOMATIC FIRE PROTECTION SYSTEM TO COMPLY WITH NFPA 13 AND NFPA 20.
23. PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH WALL, FLOORS, AND CEILING IN FINISHED AREAS.
24. FIRE PROTECTION SYSTEM PIPING SHALL BE ALTERED AS NEEDED TO ACCOMMODATE CEILING HEIGHTS, DUCTWORK, LIGHTS AND OTHER PIPING. PROVIDE ALL REQUIRED PIPING AND FITTINGS AS NEEDED TO OFFSET SPRINKLER SYSTEM TO AVOID STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL INTERFERENCES, WHETHER SHOWN ON THE DRAWINGS OR NOT.
25. SPRINKLER HEADS INSTALLED IN HUNG CEILING WILL BE POSITIONED WITH TOLERANCE OF ±½" OF THE CENTERLINE OF THE TILES. INSTALL SPRINKLER HEADS TIGHT TO THE BOTTOM OF THE HUNG CEILING, WITH CARE THAT THE FINISH IS NOT DAMAGED. WHEN CONCEALED TYPE SPRINKLER HEADS ARE USED, THE COVER PLATES SHALL BE FLUSH WITH THE CEILING PLANE, TOLERANCE GREATER THAN ±⅛" IS UNACCEPTABLE.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
27. CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK.
28. CONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLER HEADS AROUND ALL OBSTRUCTIONS SUCH AS LIGHTS, EQUIPMENT, COLUMNS, AND ETC. AS REQUIRED TO PROVIDE COMPLETE COVERAGE IN ACCORDANCE WITH NFPA 13.
29. ALL FLOW, TAMPER AND ALARM DEVICES MUST BE TIED INTO THE BUILDING'S FIRE ALARM SYSTEM. THIS CONTRACTOR SHALL COORDINATE WITH THE FIRE ALARM CONTRACTOR. THIS CONTRACTOR SHALL FURNISH AND INSTALL TAMPER-SWITCHES ON ALL SHUT-OFF VALVES.
30. ALL PRESSURE GAUGES SHALL BE LOCATED SO THEY ARE EASILY READABLE FROM THE FLOOR. MINIMUM ¼" GAUGE COCKS SHALL BE PROVIDED BETWEEN PIPING AND ALL GAUGES. INSTRUMENTS SHALL BE SELECTED SO THAT THE NORMAL RANGE OF OPERATING PRESSURE FALLS WITHIN THE MIDDLE-THIRD OF THE INSTRUMENT RANGE.
31. ALL VALVES SHALL BE FULL LINE SIZE UNLESS OTHERWISE NOTED. SCREWED VALVES SHALL BE OF BRONZE CONSTRUCTION AND FLANGED VALVES OF CAST IRON CONSTRUCTION WITH BRONZE TRIM.
32. CONTRACTOR SHALL PROVIDE ALL REQUIRED SIGNAGE FOR FIRE PROTECTION SYSTEM.
33. ALL NEW HOLES IN WALLS AND FLOORS SHALL BE CORE DRILLED BY THIS CONTRACTOR. PRIOR TO CORE DRILLING FLOORS, RADAR SCAN FLOOR SLABS. USE CAUTION WHEN CORE DRILLING TO AVOID DAMAGE TO EXISTING EQUIPMENT, SYSTEMS, STRUCTURE AND ETC. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO THE SCHOOL DISTRICT.

NOTE:

1. ALL FIRE PROTECTION WORK, UNLESS OTHERWISE NOTED, SHALL BE PERFORMED AS PART OF THE PLUMBING CONTRACT.

FIRE PROTECTION SYSTEM TESTS

1. HYDROSTATIC TEST: ALL PIPING AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT MINIMUM OF 200 PSI OR AT 50 PSI IN EXCESS OF THE MAXIMUM PRESSURE TO BE MAINTAINED IN THE SYSTEM, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS.
2. SYSTEM OPERATIONAL TESTS - WATER FLOW DETECTING DEVICES.
3. MAIN DRAIN VALVE - STATIC AND RESIDUAL PRESSURES.
4. CONTRACTOR SHALL PERFORM ALL FIRE PROTECTION SYSTEM TESTS REQUIRED BY NFPA 13, AND LOCAL FIRE INSPECTOR, OR AUTHORITY HAVING JURISDICTION.
5. ALL TESTS SHALL BE WITNESSED BY LOCAL FIRE INSPECTOR OR AUTHORITY HAVING JURISDICTION. SUBMIT REPORT ON ALL TESTS TO LOCAL FIRE INSPECTOR AND ENGINEER FOR APPROVAL.
6. DRY PIPE AIR TEST: IN ADDITION TO THE STANDARD HYDROSTATIC TEST, AN AIR PRESSURE LEAKAGE TEST AT 40 PSI SHALL BE CONDUCTED FOR 24 HOURS, ANY LEAKAGE THAT RESULTS IN A LOSS OF PRESSURE IN EXCESS OF 1½ PSI FOR THE 24 HOURS SHALL BE CORRECTED.

FIRE PROTECTION SYSTEM REQUIREMENTS

OCCUPANCY CLASSIFICATIONS:

1. NFPA 13 LIGHT HAZARD: ALL AREAS UNLESS OTHERWISE NOTED.
2. NFPA 13 ORDINARY HAZARD I: MECHANICAL ROOM 116, DATA CLOSET 126 AND TECHNICAL 224

FIRE PROTECTION SERVICE REQUIREMENTS:

1. NFPA 13 LIGHT HAZARD:
   - MINIMUM WATER SUPPLY (1500 SQ. FT. X 0.10 GPM/SQ. FT.) 150 GPM
   - HOSE STREAM ALLOWANCE AT SOURCE 100 GPM
   - MINIMUM FLOW (FINAL FLOW REQUIREMENT BASED ON HYDRAULIC CALCULATIONS) 250 GPM
2. NFPA 13 LIGHT HAZARD (DRY SYSTEM):
   - MINIMUM WATER SUPPLY (1500 SQ. FT. X 0.10 GPM/SQ. FT. X 1.3) 195 GPM
   - HOSE STREAM ALLOWANCE AT SOURCE 100 GPM
   - MINIMUM FLOW (FINAL FLOW REQUIREMENT BASED ON HYDRAULIC CALCULATIONS) 295 GPM
3. NFPA 13 ORDINARY HAZARD GROUP I:
   - MINIMUM WATER SUPPLY (1500 SQ. FT. X 0.15 GPM/SQ. FT.) 225 GPM
   - HOSE STREAM ALLOWANCE AT SOURCE 250 GPM
   - MINIMUM FLOW (FINAL FLOW REQUIREMENT BASED ON HYDRAULIC CALCULATIONS) 475 GPM

FIRE PROTECTION SYSTEM REQUIREMENTS:

1. MINIMUM PRESSURE AT SPRINKLER HEAD SHALL BE 7 PSI UNLESS OTHERWISE NOTED.
2. FLOW VELOCITY IN PIPING SHALL NOT EXCEED 20 FEET PER SECOND.
3. EQUIVALENT FITTING LENGTHS USED IN HYDRAULIC CALCULATIONS SHALL BE IN ACCORDANCE WITH NFPA 13.
4. LIGHT HAZARD MAXIMUM SPRINKLER HEAD PROTECTION AREA: 225 SQ. FT.
5. ORDINARY HAZARD GROUP I MAXIMUM SPRINKLER HEAD PROTECTION AREA: 130 SQ. FT.

FLOW TEST:

1. CONTRACT SHALL PERFORM A HYDRANT FLOW TEST ON THE EXISTING MUNICIPAL WATER SYSTEM. FIRE PROTECTION SYSTEM HYDRAULIC CALCULATIONS SHALL BE BASED ON HYDRANT FLOW TEST RESULTS.

SYMBOLS AND ABBREVIATIONS

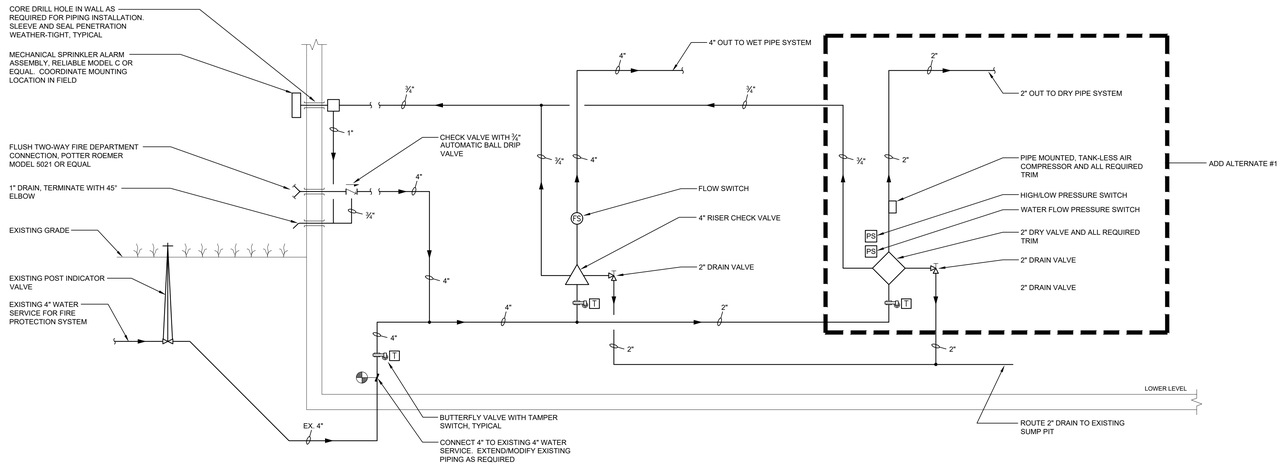
SYMBOL	ABBREVIATION	DESCRIPTION
	-	POINT OF DISCONNECT/CONNECT
———	NEW	NEW WORK
———	EX.	EXISTING TO REMAIN
- - - - - - -	DEM.	EXISTING TO BE REMOVED
O	——	PENDENT OR UPRIGHT SPRINKLER HEAD
K	——	SIDEWALL SPRINKLER HEAD
——	FP	FIRE PROTECTION
——	GPM	GALLONS PER MINUTE
——	HP	HORSEPOWER
——	HZ	HERTZ
——	MAX.	MAXIMUM
——	MIN.	MINIMUM
Ø	DIA. OR PH	DIAMETER OR PHASE
——	PSI	POUNDS PER SQUARE INCH
——	SQ. FT.	SQUARE FEET
——	V	VOLTS
	——	BUTTERFLY VALVE
FS	FS	FLOW SWITCH
T	TS	TAMPER SWICTH
	——	ELBOW DOWN
	——	ELBOW UP
	——	FIRE DEPARTMENT CONNECTION
	——	OS&Y GATE VALVE
	——	CHECK VALVE

FIRE PROTECTION EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
K	RELIABLE	F1FR56	HORIZONTAL SIDEWALL, QUICK RESPONSE, GLASS BULB SPRINKLER HEAD, 5.6 K-FACTOR, ½" NOMINAL ORIFICE, 100°F MAXIMUM AMBIENT TEMPERATURE, AND 155°F TEMPERATURE RATING. BRASS FINISH.
K_B	RELIABLE	F1FR56	RECESSED, HORIZONTAL SIDEWALL, QUICK RESPONSE, GLASS BULB SPRINKLER HEAD WITH MODEL F2 ESCUTCHEON, 5.6 K-FACTOR, ½" NOMINAL ORIFICE, 150°F MAXIMUM AMBIENT TEMPERATURE, AND 175°F TEMPERATURE RATING. SPRINKLER HEAD AND ESCUTCHEON FINISHES SHALL BE AS SELECTED BY ARCHITECT.
O	RELIABLE	G5-56	ADJUSTABLE, CONCEALED, QUICK RESPONSE, GLASS BULB SPRINKLER HEAD WITH COVER PLATE, 5.6 K-FACTOR, ½" NOMINAL ORIFICE, 100°F MAXIMUM AMBIENT TEMPERATURE, AND ORDINARY CLASSIFICATION 165°F SPRINKLER AND 135°F COVER PLATE. COVER PLATE FINISH SHALL BE AS SELECTED BY ARCHITECT.
O_A	RELIABLE	F1FR56	UPRIGHT, QUICK RESPONSE, GLASS BULB SPRINKLER HEAD WITH 5.6 K-FACTOR, ½" NOMINAL ORIFICE, 100°F MAXIMUM AMBIENT TEMPERATURE, AND 135°F TEMPERATURE RATING. SPRINKLER HEAD FINISH SHALL BE AS SELECTED BY ARCHITECT.
	———	———	WET PIPE SPRINKLER SYSTEM PIPING: SCHEDULE 40 BLACK STEEL PIPE WITH SCREWED JOINTS FOR PIPING UP TO AND INCLUDING 2-INCHES. USE SCHEDULE 10 BLACK STEEL PIPE WITH MECHANICAL GROOVED COUPLINGS FOR PIPING OVER 2-INCHES.
FS	SYSTEM SENSOR	WFDN	VANE TYPE, UL LISTED FLOW SWITCH WITH NEMA 4 ENCLOSURE, TWO SETS OF SPDT CONTROLS, 450 PSI PRESSURE RATING, (2) CONDUIT ENTRANCES AND 4-10 GPM TRIGGER RANGE.
T	SYSTEM SENSOR	PIBV2	BUTTERFLY VALVE TAMPER SWITCH, UL LISTED WITH NEMA 3R ENCLOSURE, AND TWO SETS OF SPDT CONTACTS.
△	RELIABLE	CVE	4" RISER CHECK VALVE (CONTRACTOR TO VERIFY SIZE BASED ON HYDRAULIC CALCULATIONS), UL LISTED, FM APPROVED, SPRING LOADED CHECK VALVE WITH RATED WORKING PRESSURE OF 300 PSI. VALVE BODY AND COVER CONSTRUCTION SHALL CONSIST OF GRAY IRON PER ASTM-A48 CLASS 30A. CHECK VALVE SHALL HAVE A THREADED-IN, ONE PIECE SEAT OF BRONZE CONSTRUCTION FOR EASE OF MAINTENANCE, AND O-RING SEALS TO PREVENT CORROSION AND LEAKAGE. CLAPPER ASSEMBLY SHALL BE DUCTILE IRON CASTING WITH BRASS BUSHING ASSEMBLY, WITH EPDM RUBBER FACING SEAL AND STAINLESS STEEL CLAMPING RING. END CONNECTIONS TO BE GROOVED. THE VALVE BODY SHALL HAVE A REMOVABLE FACEPLATE FOR EASE OF INSPECTION AND MAINTENANCE AS REQUIRED BY NFPA 25. THE RISER CHECK VALVE SHALL BE FACTORY TAPPED WITH ONE ¾" AND TWO 2" NPT PLUGGED CONNECTIONS. BASIC RISER CHECK VALVE TRIM SHALL CONSIST OF GALVANIZED AND BRASS TRIM COMPONENTS, INCLUDING 2 INCH MAIN DRAIN, AND BOTH SYSTEM AND SUPPLY WATER PRESSURE GAUGES.
ADD ALTERNATE #1 ◇	RELIABLE	FX	DRY VALVE SHALL BE A UL LISTED, FM APPROVED DIFFERENTIAL STYLE CLAPPER DRY-PIPE VALVE. VALVE CONSTRUCTION SHALL BE DUCTILE IRON AND UTILIZE STAINLESS STEEL SEAT AND CLAPPER ASSEMBLY WITH A SINGLE HINGE PIN. CLAPPER GASKET SHALL BE INTEGRATED INTO THE SEAT ASSEMBLY AND THE VALVE TRIM SHALL BE GALVANIZED. DRY-PIPE VALVE SHALL HAVE AN EXTERNAL RESET FEATURE AND NOT REQUIRE PRIMING WATER. VALVE SHALL BE ACTIVATED BY A LOSS OF SUPERVISORY PNEUMATIC PRESSURE BASED ON A DIFFERENTIAL OF SIX TO ONE OF THE HYDRAULIC PRESSURE SIDE VERSUS THE PNEUMATIC PRESSURE SIDE, RESPECTIVELY. SUPERVISORY PRESSURE TO BE PER THE MANUFACTURER'S REQUIREMENTS. VALVE SHALL HAVE A RATED WORKING PRESSURE OF 250 PSI. VALVE SIZE SHALL BE 2" (CONTRACTOR TO VERIFY SIZE BASED ON HYDRAULIC CALCULATIONS) WITH GROOVE/GROOVE END CONNECTIONS. VALVE SHALL BE FULLY ASSEMBLED AND INCLUDE ALL REQUIRED TRIM INCLUDING BUT NOT LIMITED TO: HIGH/LOW AIR SUPERVISORY SWITCH, WATER FLOW ALARM PRESSURE SWITCH, CONTROL VALVE, PRESSURE GAUGES, MAIN DRAIN VALVE, AIR INLET VALVE, AIR INLET CHECK VALVE, ALARM TEST VALVE, EXTERNAL RESET, ALARM LINE BALL DRIP VALVE, INTERMEDIATE CHAMBER BALL DRIP VALVE, TRIM PIPING, ETC.
	RELIABLE	RRMA23016-4050	TANK-LESS, PIPE MOUNTED AIR COMPRESSOR WITH WITH 100 PSI SAFETY RELIEF VALVE, PIPE MOUNTING SYSTEM AND CONNECTION KIT (AIR PRESSURE GAUGE, BALL VALVE AND ½" X 30" STAINLESS STEEL HOSE). CUT-IN AT 40 PSI AND CUT-OUT AT 50 PSI. ELECTRICAL: 115V/1Ø/60HZ, ½ HP, 4.4 FULL LOAD AMPS AND 26 START UP AMPS. PROVIDE DISCONNECT SWITCH. FINAL COMPRESSOR SIZING TO BE VERIFIED BY CONTRACTOR BASED ON SYSTEM PIPING LAYOUT.
O_B	RELIABLE	F1FR56	UPRIGHT, QUICK RESPONSE, GLASS BULB SPRINKLER HEAD WITH 5.6 K-FACTOR, ½" NOMINAL ORIFICE, 100°F MAXIMUM AMBIENT TEMPERATURE, AND 135°F TEMPERATURE RATING. SPRINKLER HEAD FINISH SHALL BE AS SELECTED BY ARCHITECT. FOR USE IN DRY PIPE SPRINKLER SYSTEM.
	———	———	DRY PIPE SPRINKLER SYSTEM PIPING: SCHEDULE 40 GALVANIZED STEEL PIPE WITH SCREWED JOINTS FOR PIPING UP TO AND INCLUDING 2-INCHES. USE SCHEDULE 10 GALVANIZED STEEL PIPE WITH MECHANICAL GROOVED COUPLINGS FOR PIPING OVER 2-INCHES.

NOTES:

1. SPRINKLER HEADS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE METAL WIRE GUARDS WHERE SPRINKLERS ARE SUBJECT TO DAMAGE.
3. ALL HEAT GENERATING EQUIPMENT WHICH CAN AFFECT THE TEMPERATURE RATING OF THE SPRINKLER HEADS SHALL BE CLEARLY IDENTIFIED ON THE SHOP DRAWINGS. COORDINATE HEATING EQUIPMENT LOCATIONS WITH MECHANICAL PLANS.
4. CONTRACTOR SHALL FURNISH & INSTALL SHIELDS ON SPRINKLERS THAT CANNOT BE SUFFICIENTLY SPACED TO AVOID DISCHARGE INTERACTION.
5. FINAL K-FACTOR OF SPRINKLER HEADS BASED UPON HYDRAULIC CALCULATION REQUIREMENTS.



NOTES:

1. FIRE PROTECTION SYSTEM INSTALLATION, TESTING AND COMPONENTS SHALL BE IN ACCORDANCE WITH NFPA-13.
2. FIRE DEPARTMENT CONNECTION TYPE AND FINAL SHALL BE COORDINATED WITH LOCAL FIRE DEPARTMENT. LOCATE FIRE DEPARTMENT CONNECTION NOT LESS THAN 18" AND NOT MORE THAN 4'-0" ABOVE LEVEL OF ADJACENT GRADE.
3. FINAL SIZING OF ALL FIRE PROTECTION SYSTEM PIPING, EQUIPMENT, COMPONENTS, ETC. SHALL BE BASED ON HYDRAULIC CALCULATIONS PROVIDED BY THIS CONTRACTOR.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL UNUSED PIPE OPENINGS REMAINING IN EXTERIOR WALL AS A RESULT OF DEMOLITION WORK. PATCHING SHALL MATCH EXISTING CONDITIONS OR BETTER.

1 FIRE PROTECTION SYSTEM RISER DIAGRAM
NOT TO SCALE

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FIRE PROTECTION: EQUIPMENT SCHEDULES

Job No.	Date
2023-1011	02/03/2023
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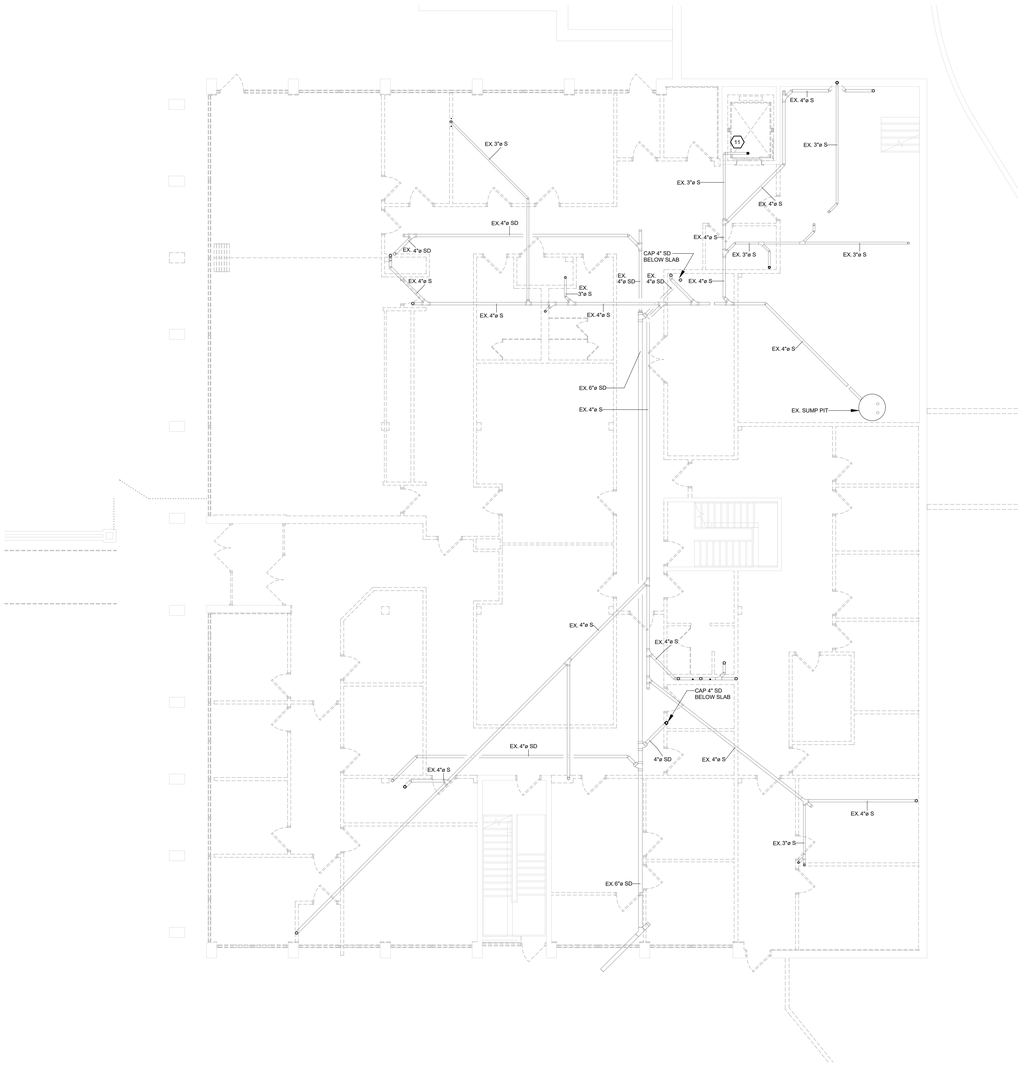
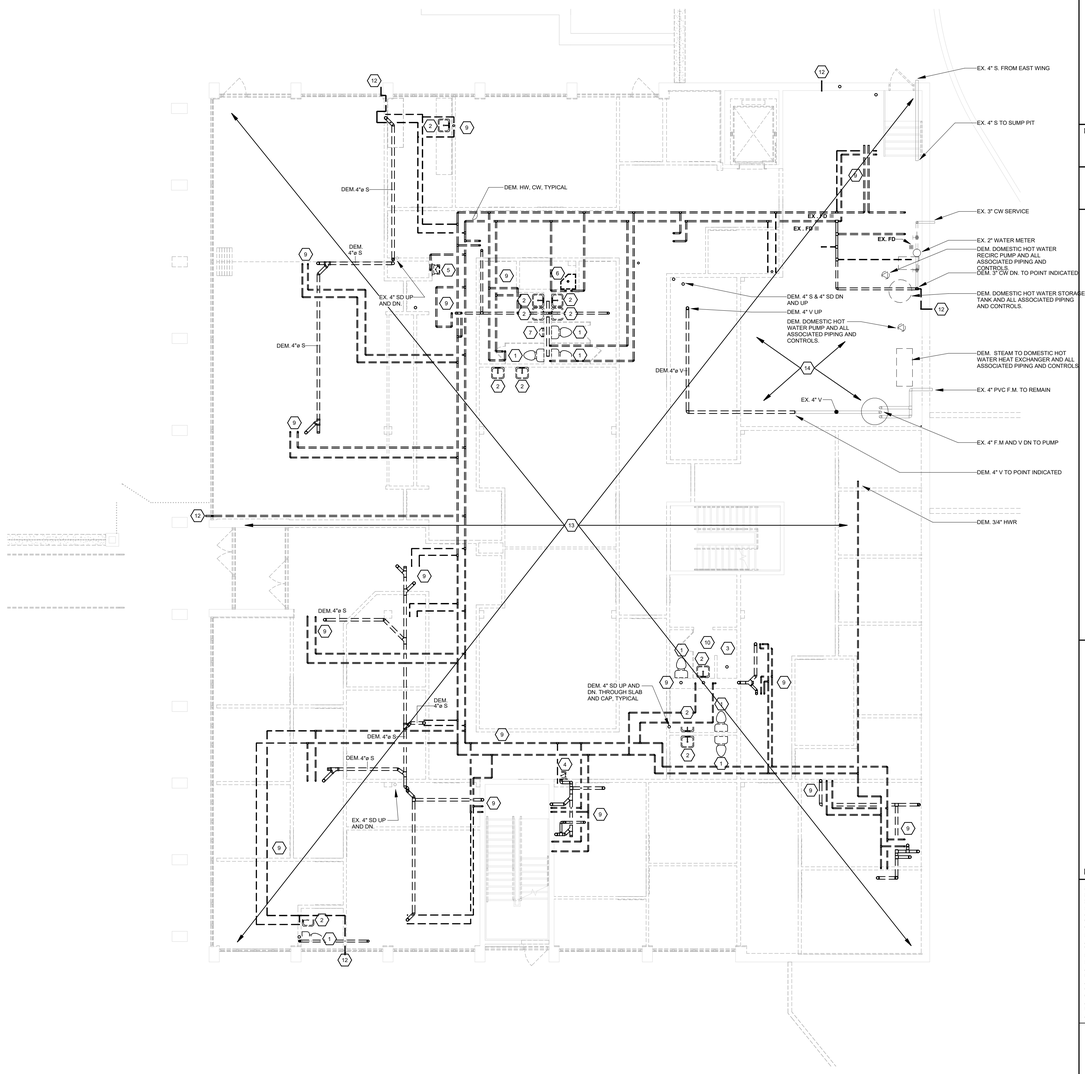
Sheet Number

FP701



1 PLUMBING - NORTH WING BELOW SLAB DEMOLITION PLAN

1/8" = 1'-0"



2 PLUMBING - NORTH WING LOWER LEVEL DEMOLITION PLAN

1/8" = 1'-0"

BELOW SLAB & LOWER LEVEL PLUMBING PLAN DEMOLITION KEYED NOTES

#	NOTE TEXT
1	DEMOLISH WATER CLOSET COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD, SANITARY AND VENT PIPING. CAP PIPING BELOW FLOOR SLAB. COORDINATE ALL FLOOR CUTTING/PATCHING WITH GENERAL CONTRACTOR.
2	DEMOLISH LAVATORY COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD AND HOT WATER, SANITARY AND VENT PIPING COMPLETE. WHERE APPLICABLE CAP PIPING BELOW FLOOR SLAB. COORDINATE ALL FLOOR CUTTING/PATCHING WITH GENERAL CONTREACTOR.
3	DEMOLISH SHOWER COMPLETE. DEMOLISH ALL ASSOCIATED COLD, HOT, SANITARY AND VENT PIPING. CAP PIPING BELOW FLOOR SLAB. COORDINATE ALL FLOOR CUTTING/PATCHING WITH GENERAL CONTRACTOR.
4	DEMOLISH BATH TUB COMPLETE. DEMOLISH ALL ASSOCIATED COLD, HOT, SANITARY AND VENT PIPING. CAP PIPING BELOW FLOOR SLAB. COORDINATE ALL FLOOR CUTTING/PATCHING WITH GENERAL CONTRACTOR.
5	DEMOLISH WATER COOLER COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD, SANITARY AND VENT PIPING COMPLETE.
6	DEMOLISH JANITOR SINK COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD AND HOT WATER, SANITARY AND VENT PIPING COMPLETE.
7	DEMOLISH URINAL COMPLETE. DEMOLISH ALL ASSOCIATED COLD WATER, SANITARY AND VENT PIPING COMPLETE.
8	DEMOLISH 3" VTR COMPLETE. COORDINATE ROOF PATCHING WITH GENERAL CONTRACTOR.
9	DEMOLISH COLD WATER, HOT WATER, HOT WATER RECIR, SANITARY AND VENT PIPING COMPLETE. CAP SANITARY AND VENT PIPING BELOW FLOOR SLAB. COORDINATE ALL FLOOR CUTTING/PATCHING WITH GENERAL CONTRACTOR
10	DEMOLISH FLOOR DRAIN COMPLETE. CAP PIPING BELOW SLAB, COORDINATE ALL FLOOR CUTTING/PATCHING WITH GENERAL CONTRACTOR.
11	DEMOLISH SUMP PUMP AND ALL ASSOCIATES COMPONENTS. EXTEND/MODIFY EXISTING SANITARY PIPING AS REQUIRED FOR REPLACEMENT. CLEANOUT AND PRESSURE WASH CLEAN EXISTING SUMP PIT.
12	DEMOLISH HOSE-BIB COMPLETE. DEMOLISH ALL ASSOICATED COLD WATER PIPING COMPLETE. IN LOCATIONS WHERE HOSE-BIBS ARE TO NOT BE REINSTALLED, PATCH EXTERIOR WALL TO MATCH EXISTING CONDITIONS OR BETTER.
13	DEMOLISH ALL COLD, HOT, HOT WATER RECIRC., SANITARY AND VENT PIPING COMPLETE. CAP SANITARY AND VENT PIPING BELOW FINISHED FLOOR. COORDINATE FLOOR CUTTING AND PATCHING WITH GENERAL CONTRACTOR.
14	UNLESS OTHERWISE NOTED ALL PLUMBING EQUIPMENT, ASSOCIATED PIPING AND CONTROLS IN MECHANICAL ROOM SHALL BE REMOVED.

NOTES:
1. ALL INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR. REFER TO BID DOCUMENTS FOR MORE INFORMATION.
2. ALL FLOOR CUTTING AND PATCHING REQUIRED FOR PLUMBING WORK SHALL BE PERFORMED BY THE GENERAL CONTRACTOR. PLUMBING CONTRACTOR SHALL COORDINATE.
3. PLUMBING CONTRACTOR SHALL POWER SNAKE AND FLUSH CLEAN ALL EXISTING TO REMAIN SANITARY AND STORM PIPING BELOW LOWER LEVEL FLOOR SLAB.

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PLUMBING:
NORTH WING BELOW SLAB & LOWER LEVEL DEMOLITION PLANS

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AS NOTED	DC SZ

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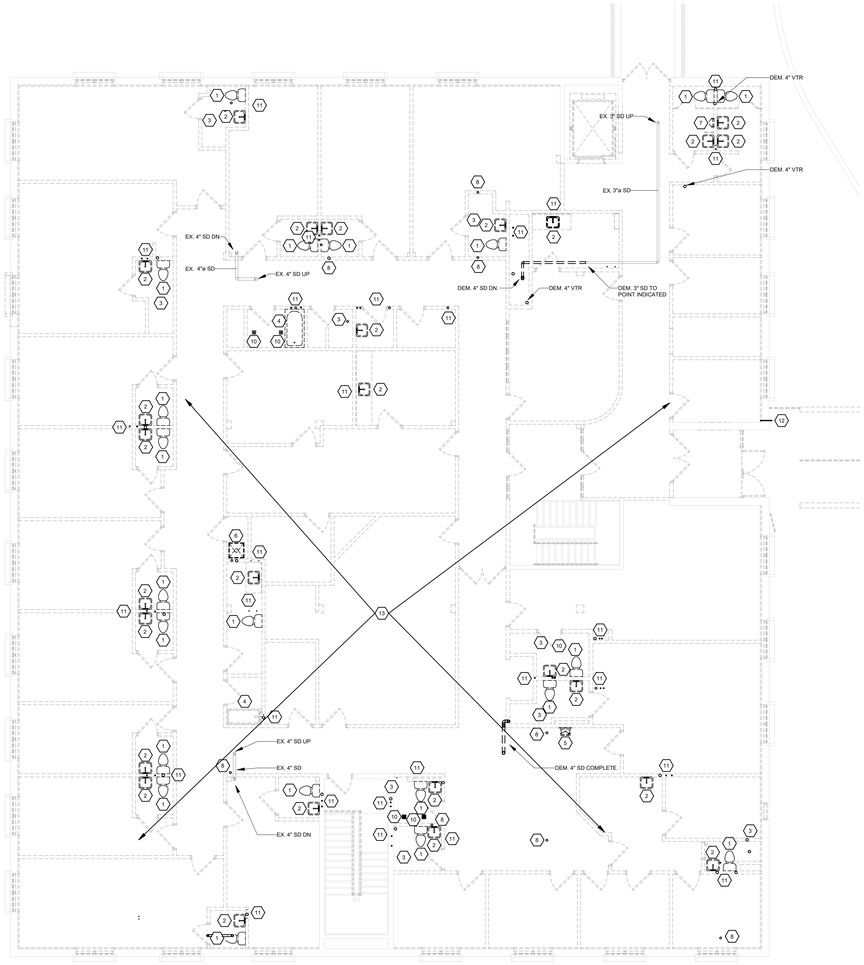
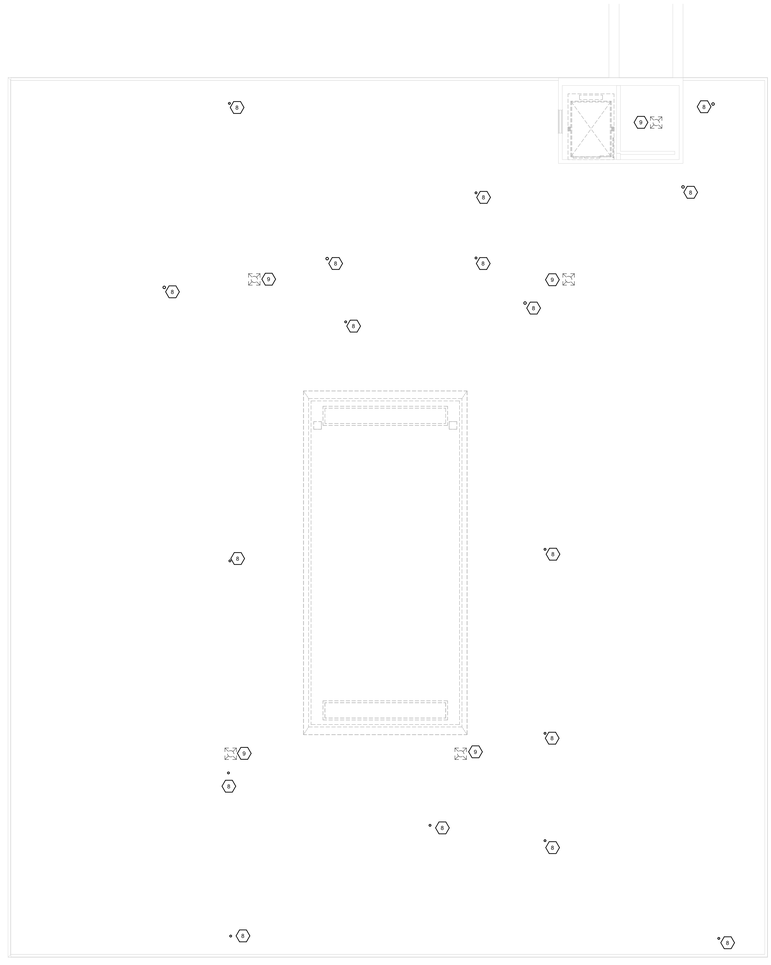
P101



1 PLUMBING - NORTH WING UPPER LEVEL DEMOLITION PLAN

1/8" = 1'-0"



2 PLUMBING - NORTH WING ROOF DEMOLITION PLAN

1/8" = 1'-0"

PLUMBING PLAN DEMOLITION KEYED NOTES

#	NOTE TEXT
1	DEMOLISH WATER CLOSET COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD WATER, SANITARY AND VENT PIPING COMPLETE.
2	DEMOLISH LAVATORY COMPLETE. DEMOLISH ALL ASSOCIATEDSUPPORTS, COLD AND HOT WATER, SANITARY AND VENT PIPING COMPLETE.
3	DEMOLISH SHOWER COMPLETE. DEMOLISH ALL ASSOCIATED COLD AND HOT WATER, SANITARY AND VENT PIPING COMPLETE.
4	DEMOLISH BATH TUB COMPLETE. DEMOLISH ALL ASSOCIATED COLD AND HOT WATER, SANITARY AND VENT PIPING COMPLETE.
5	DEMOLISH WATER COOLER COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD, SANITARY AND VENT PIPING COMPLETE.
6	DEMOLISH JANITOR SINK COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD AND HOT WATER, SANITARY AND VENT PIPING COMPLETE.
7	DEMOLISH URINAL COMPLETE. DEMOLISH ALL ASSOCIATED SUPPORTS, COLD WATER, SANITARY AND VENT PIPING COMPLETE.
8	DEMOLISH VENT AND VENT THROUGH ROOF COMPLETE. DEMOLISH ALL ASSOCIATED VENT PIPING.
9	DEMOLISH ROOF DRAIN AND ALL ASSOCIATED COMPONENTS AS REQUIRED FOR REPLACEMENT.
10	DEMOLISH FLOOR DRAIN COMPLETE. DEMOLISH ALL ASSOCIATED SANITARY AND VENT PIPING COMPLETE.
11	DEMOLISH COLD WATER, HOT WATER, HOT WATER RECIR, SANITARY AND VENT PIPING COMPLETE.
12	DEMOLISH HOSE-BIB COMPLETE. DEMOLISH ALL ASSOICATED COLD WATER PIPING COMPLETE.
13	DEMOLISH COLD WATER, HOT WATER, HOT WATER RECIR, SANITARY AND VENT PIPING COMPLETE.

NOTES:
1. ALL INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR. REFER TO BID DOCUMENTS FOR MORE INFORMATION.
2. PLUMBING CONTRACTOR SHALL POWER SNAKE AND FLUSH CLEAN ALL EXISTING TO REMAIN STORM PIPING.

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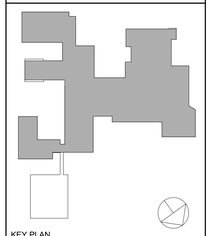

KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

PLUMBING:
NORTH WING UPPER LEVEL & ROOF DEMOLITION PLANS

Job No.	Date
2023-1011	02/03/23
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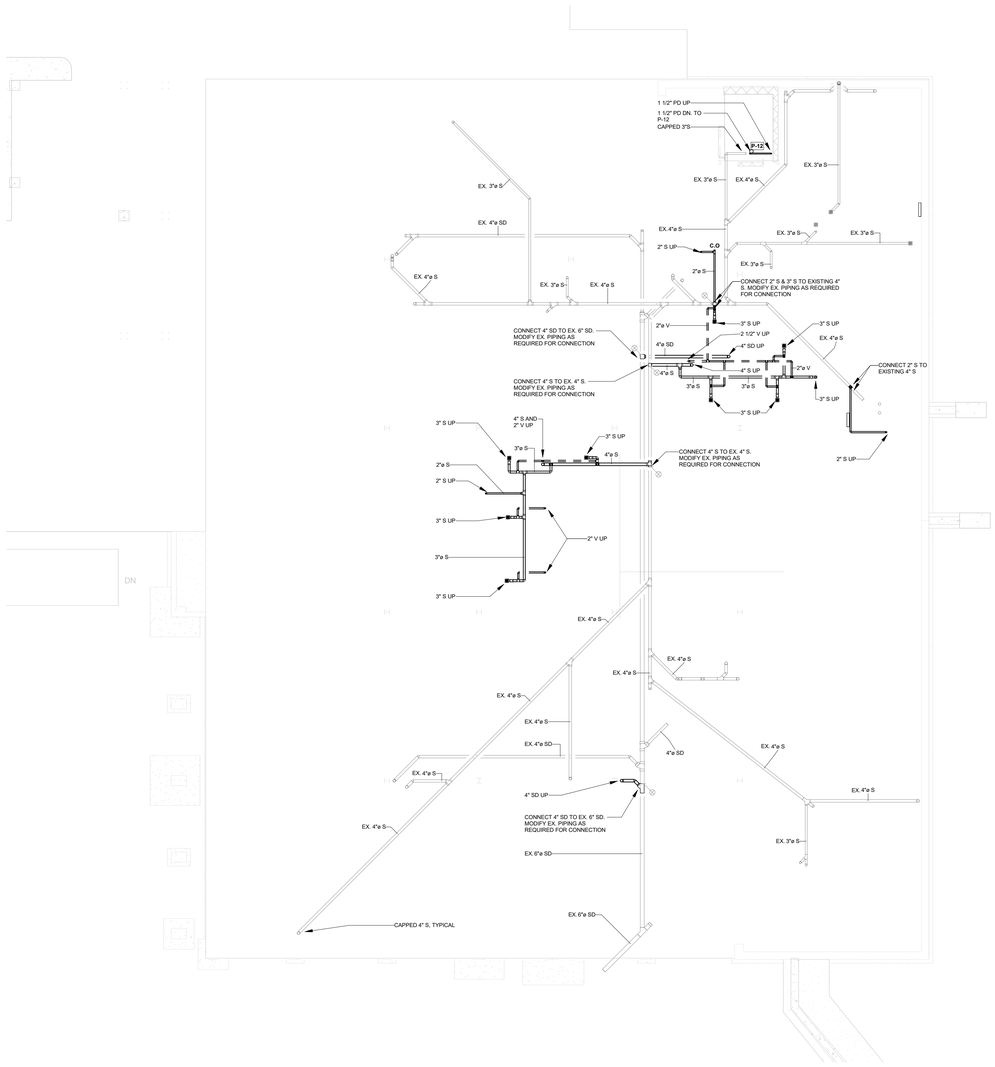
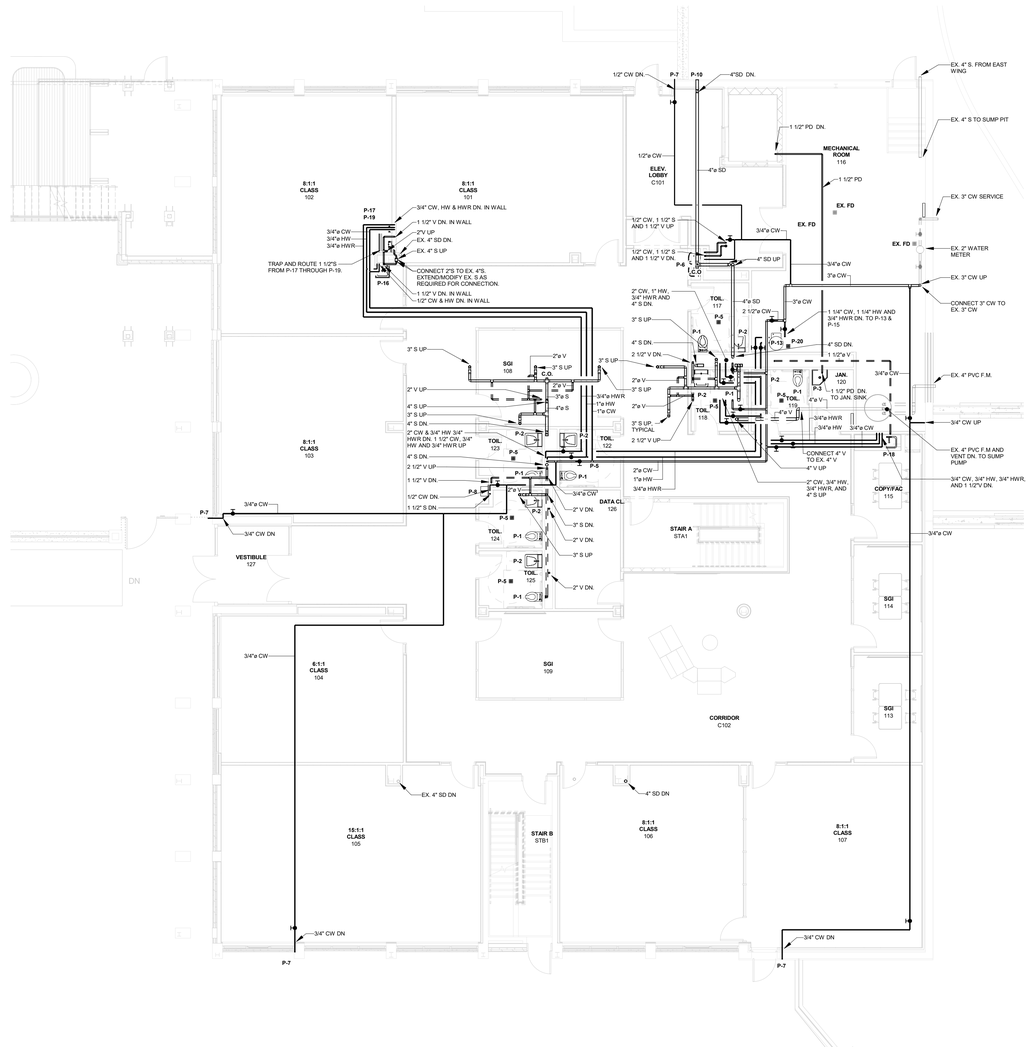
Sheet Number

P102



1 PLUMBING - NORTH WING BELOW SLAB PLAN
1/8" = 1'-0"



2 PLUMBING - NORTH WING LOWER LEVEL PLAN
1/8" = 1'-0"

NOTES:
1. ALL FLOOR CUTTING AND PATCHING REQUIRED FOR PLUMBING WORK SHALL BE PERFORMED BY THE GENERAL CONTRACTOR. PLUMBING CONTRACTOR SHALL COORDINATE.

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Sheet Title

PLUMBING:
NORTH WING BELOW SLAB & LOWER LEVEL PLANS

Job No.	Date
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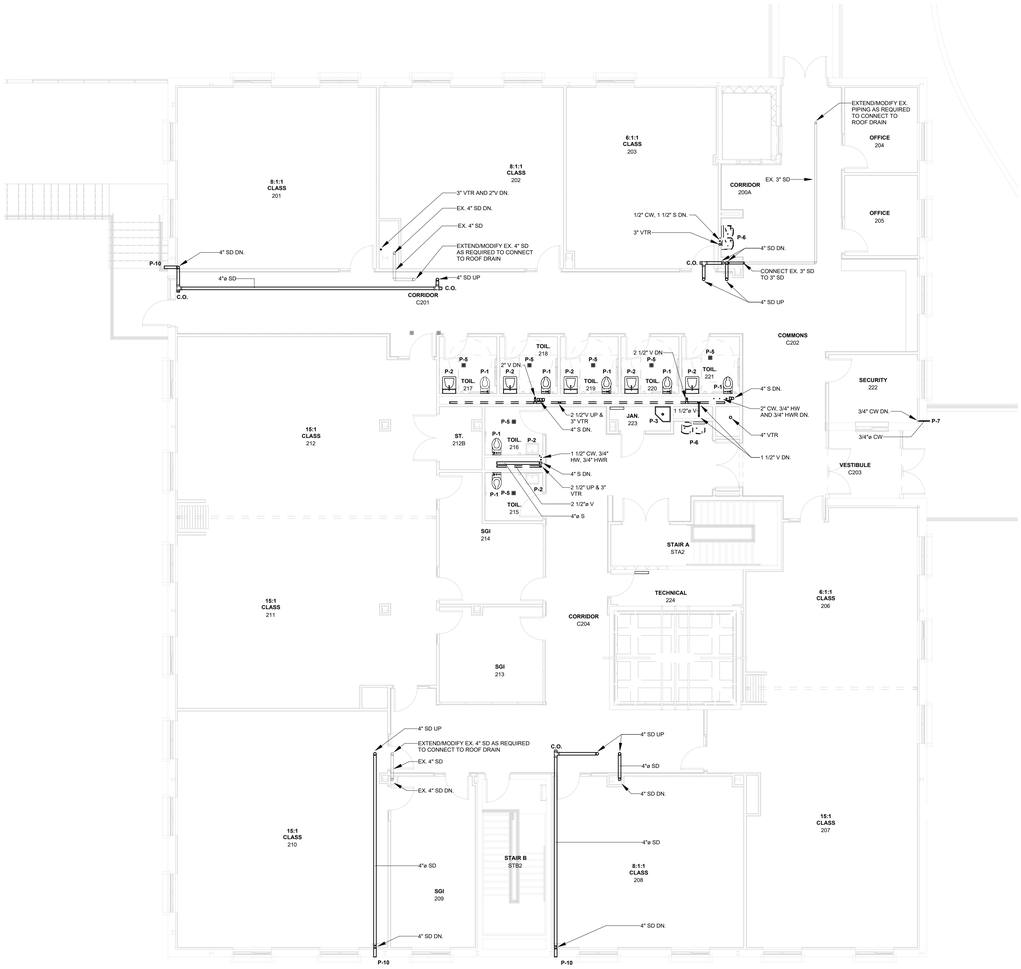
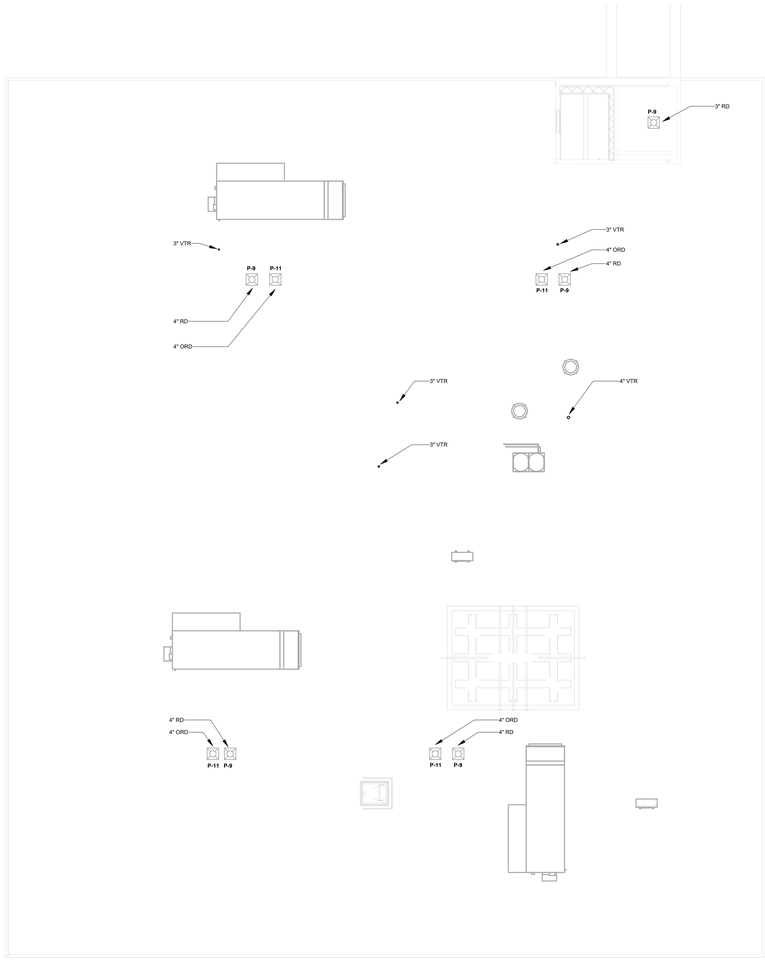
P201



1 PLUMBING - NORTH WING UPPER LEVEL PLAN
1/8" = 1'-0"



2 PLUMBING - NORTH WING ROOF PLAN
1/8" = 1'-0"

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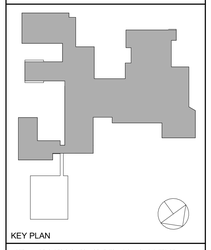

KEY PLAN

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PLUMBING:
NORTH WING UPPER LEVEL & ROOF PLANS

Job No.	Date
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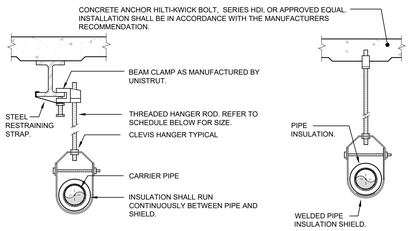
P202

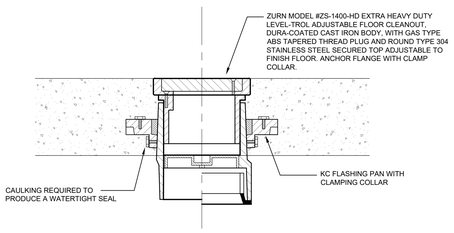


PIPE HANGER SCHEDULE					
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

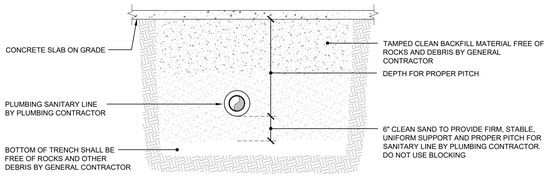
NOTES:

1. CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
2. FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3. FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4. ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
5. FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.

1 PIPE HANGER DETAIL
NOT TO SCALE



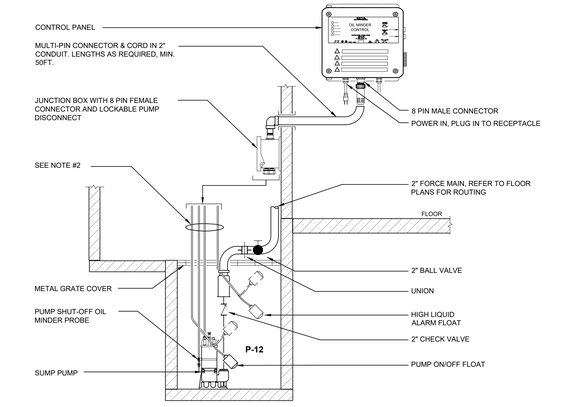
2 FLOOR CLEAN OUT DETAIL
NOT TO SCALE



NOTES:

1. ALL CONCRETE SLAB SAW CUTTING AND PATCHING SHALL BE BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEYING AND PROVIDING LAYOUT TO AND COORDINATION WITH THE GENERAL CONTRACTOR.
2. ALL TRENCHING, EXCAVATION AND BACKFILL OF TRENCH SHALL BE BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PITCHING THE PIPING WITH PROPER BEDDING AND PERFORMING TESTING PRIOR TO BACKFILLING.

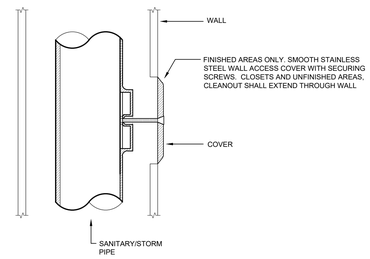
3 TYPICAL SANITARY LINE BELOW SLAB DETAIL
NOT TO SCALE



NOTES:

1. JUNCTION BOX WILL BE PROVIDED WITH MULTI-PIN CONNECTOR AND CORD IN LENGTHS AS REQUIRED; 25 FT. IS STANDARD, OPTIONAL 25 FT. INCREMENTS AVAILABLE
2. OIL MINDER CABLE, POWER CABLE, PROBE CABLE, HIGH LIQUID ALARM CABLE & PUMP ON FLOAT CABLE ALL ROUTED IN 2" CONDUIT
3. SEAL ALL PIPE AND CONDUIT PENETRATIONS THROUGH ELEVATOR SHAFT WALLS.
4. ROUTE PIPING AND CONDUIT IN ELEVATOR SHAFT TO AVOID CONFLICTS WITH ELEVATOR COMPONENTS, FRAMING AND ETC.
5. TIE HIGH LIQUID LEVEL ALARM TO BUILDING MANAGEMENT SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
6. CONTROL PANEL SHOULD BE MOUNTED IN MECHANICAL ROOM. COORDINATE EXACT LOCATION IN FIELD.

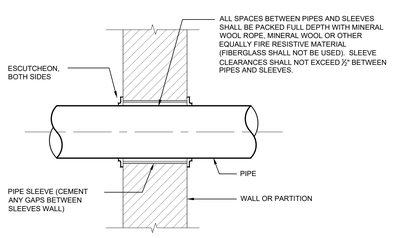
4 ELEVATOR SUMP PUMP (P-12) DETAIL
NOT TO SCALE



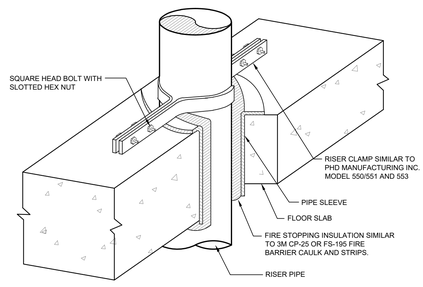
NOTES:

1. COORDINATE WALL CLEAN OUT LOCATIONS WITH GENERAL CONTRACTOR.

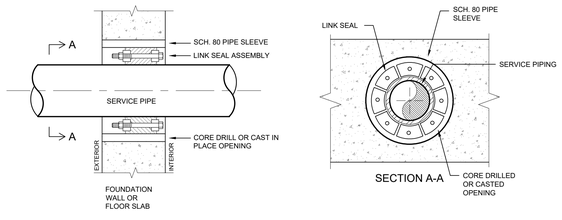
5 WALL CLEAN OUT DETAIL
NOT TO SCALE



6 FIRESTOP DETAIL
NOT TO SCALE



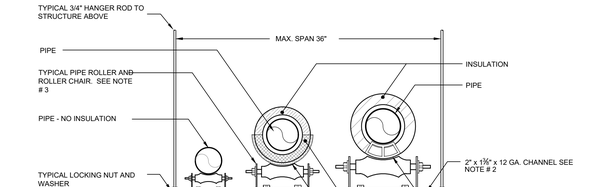
7 PIPE PENETRATION THROUGH FLOOR DETAIL
NOT TO SCALE



NOTES:

1. SEAL ASSEMBLY BASED ON THUNDERLINE MODEL "C" LINK-SEAL MODULAR SEAL, WITH EPDM SEAL ELEMENT, COMPOSITE PRESSURE PLATES, STEEL WITH 2-PART ZINC DICHROMATE & ORGANIC COATED NUTS AND BOLTS RATED FOR AN OPERATING TEMPERATURE RANGE OF -40°F TO +250°F.
2. USE LINK SEAL AT ALL LOCATIONS WHERE PIPES PENETRATE NEW OR EXISTING FOUNDATION WALLS AND SLABS ON GRADE.

8 LINK SEAL DETAIL
NOT TO SCALE



NOTES:

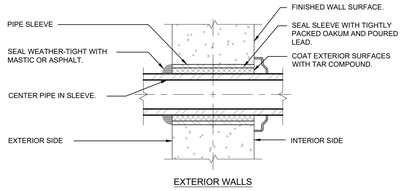
1. PROVIDE INSULATION SHIELD OR PIPE SADDLE BASED ON THE PIPING SYSTEM AND PIPE SIZE AS INDICATED IN THE SPECIFICATIONS.
2. TRAPEZE TYPE HANGER SHALL BE USED FOR A MAXIMUM 1,000 LB UNIFORM LOAD.
3. ELIMINATE PIPE ROLLERS AND ROLLER CHAIRS AT ANCHOR POINTS

9 TRAPEZE TYPE HANGER INSTALLATION DETAIL
NOT TO SCALE

NOTES:

1. CONTRACTOR TO SELECT FLASHING BOOT BASED ON QUANTITY & SIZE OF PIPE PENETRATIONS. FLASHING BOOT SHALL PROVIDE A WATERTIGHT SEAL.
2. CLEAN AND PREPARE ROOF SURFACE AS REQUIRED FOR INSTALLATION OF FLASHING BOOT AND IN ACCORDANCE WITH ANY SPECIAL REQUIREMENTS PER THE ROOFING MANUFACTURER.
3. COORDINATE QUANTITIES AND SIZES OF PIPE PENETRATIONS IN THE FIELD WITH CAP AND BOOT REQUIREMENTS.
4. USE ONLY MATERIALS COMPATIBLE WITH THE ROOFING SYSTEM.
5. TERMINATE VENT PIPING MINIMUM 24" ABOVE ROOF.

10 ROOF PIPE PENETRATION DETAIL
NOT TO SCALE

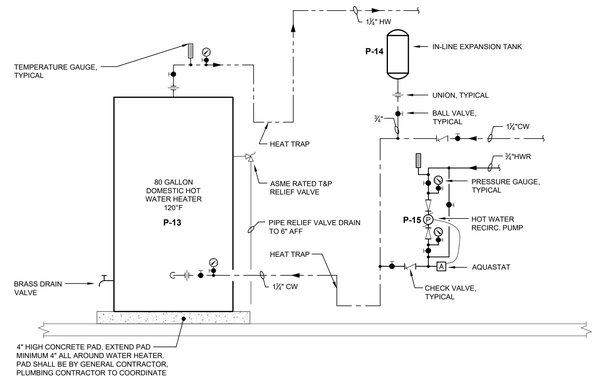


EXTERIOR WALLS

NOTE:

1. PIPE SLEEVE FOR EXTERIOR WALL ABOVE GRADE.

11 EXTERIOR WALL PENETRATION DETAIL
NOT TO SCALE



NOTES:

1. DISCHARGE PIPE FROM RELIEF VALVE SHALL BE SAME SIZE SHALL BE SAME SIZE OF RELIEF VALVE DISCHARGE.

12 DOMESTIC HOT WATER HEATER DETAIL
NOT TO SCALE

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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KG+D , ARCHITECTS PC
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P:914.666.5900 KGDARCHITECTS.COM

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CONSULTING ENGINEERS, D.P.C.
223 MAIN STREET, GOSHEN, NY 10924
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NY SED PROJECT CONTROL NO:

44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

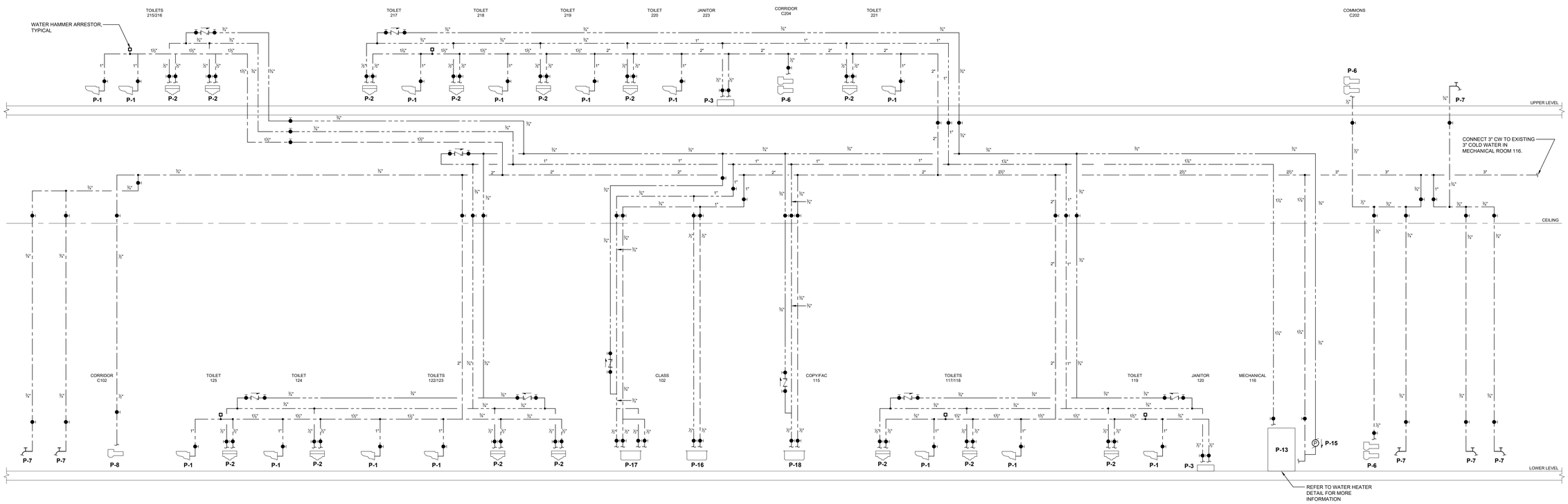
Sheet Title

PLUMBING:
DETAILS

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

P601



1 DOMESTIC WATER RISER DIAGRAM
NOT TO SCALE

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

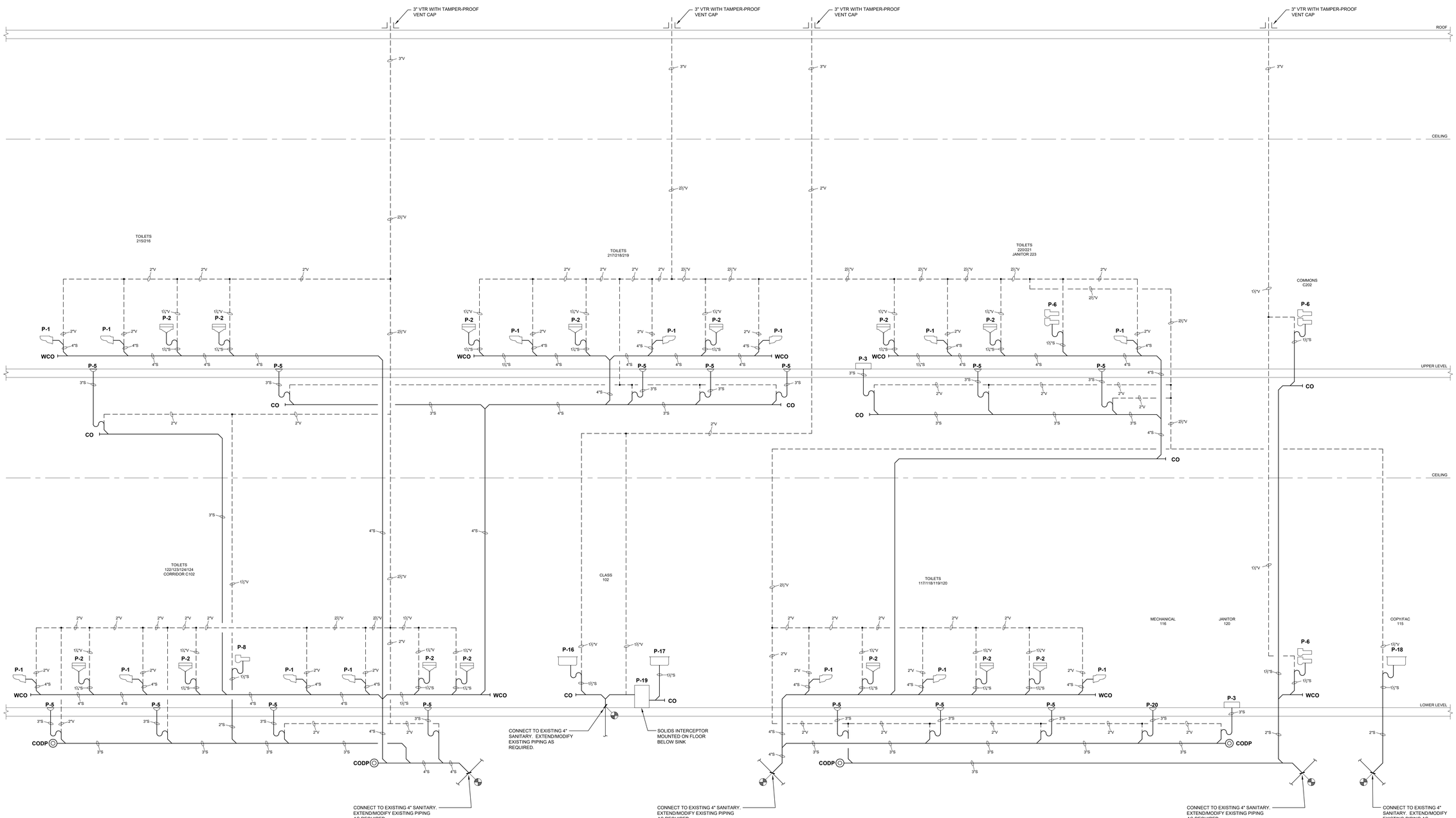
Sheet Title

PLUMBING:
DOMESTIC WATER RISER DIAGRAM

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

P602



1 SANITARY RISER DIAGRAM
NOT TO SCALE

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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CONSTRUCTION DOCUMENTS

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

PLUMBING:
SANITARY RISER DIAGRAM

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

P603

PLUMBING NOTES:

1. ALL PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2022 VERSION OF NYS EDUCATION DEPARTMENT MANUAL OF PLANNING STANDARDS FOR SCHOOL BUILDINGS, THE 2020 VERSION OF THE PLUMBING CODE, FIRE CODE, BUILDING CODE AND ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
2. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, FIXTURES, PIPING, VALVES, ACCESS DOORS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE PLUMBING SYSTEMS COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
3. CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL PIPING AND EQUIPMENT WITH OTHER TRADES TO AVOID CONFLICTS. ROUGHING-IN DIMENSIONS OF FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR. SEE ARCHITECT'S DRAWINGS FOR EXACT LOCATIONS AND ELEVATIONS OF PLUMBING FIXTURES. CONTRACTOR SHALL PARTICIPATE IN MAKING COORDINATION DRAWINGS WITH OTHER PRIME CONTRACTS.
4. ALL PIPE OPENINGS THROUGH PARTITIONS, FLOORS AND CEILINGS SHALL HAVE PIPE SLEEVES. FOR PIPE PENETRATING FIRE RATED PARTITIONS, CEILINGS AND FLOORS THE CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS WITH HILTI INTUMESCENT FIRE STOP MATERIAL BETWEEN THE PIPE AND SLEEVE TO MAINTAIN FIRE AND SMOKE RATINGS. PROVIDE FIRE STOP SEALANT ON ALL EXISTING PIPING PENETRATING NEW FIRE RATED WALLS CONSTRUCTED AS PART OF THE PROJECT.
5. CONTRACTOR SHALL PITCH ALL SANITARY, STORM AND OVERFLOW DRAIN PIPING UNDER 3" A MINIMUM OF ¼" PER FOOT. SANITARY AND STORM PIPING 3" AND ABOVE MAY BE PITCHED A MINIMUM OF ⅛" PER FOOT.
6. CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER AND AGREES TO REPLACE DEFECTIVE WORK (INCLUDING ALL REQUIRED LABOR AND MATERIAL) AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT, PIPING, INSULATION, VALVES AND PLUMBING FIXTURES TO OWNER AND ARCHITECT FOR APPROVAL. DEMONSTRATE NEW PLUMBING SYSTEMS TO OWNER AND REVIEW MAINTENANCE PROCEDURES.
8. PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH WALLS, FLOORS AND CEILINGS IN FINISHED AREAS.
9. CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS WITH GENERAL CONTRACTOR TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS, CEILINGS AND UNDER VANITIES.
10. CONTRACTOR SHALL LOCATE ALL PIPING ON THE WARM SIDE OF BUILDING INSULATION ENVELOPE.
11. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING (24V) AND (120V) FOR SYSTEMS SHOWN ON PLUMBING DRAWINGS AND TRANSFORMERS, CONDUIT, JUNCTION BOXES, CONDUCTORS, THERMOSTATS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE AND OPERABLE.
12. CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTIONS FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
13. CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES CONCEALED IN WALLS/CEILINGS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN INTEGRITY OF WALL/CEILING. ACCESS DOORS TO BE INSTALLED BY GENERAL CONTRACTOR.
14. CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT, OR STRUCTURAL ENGINEER.
15. CONTRACTOR IS RESPONSIBLE FOR INSULATING ALL DOMESTIC HOT AND COLD WATER PIPING, HOT WATER RECIRCULATION PIPING, STORM AND OVERFLOW DRAIN PIPING. SEE PLUMBING INSULATION SCHEDULE ON THIS DRAWING.
16. ALL DOMESTIC WATER PIPING CONNECTIONS TO PLUMBING EQUIPMENT SHALL BE COPPER TYPE "L".
17. ALL NEW PIPES ARE TO BE SUPPORTED FROM STRUCTURE, NOT FROM EXISTING PIPING OR DUCTWORK.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING (AND PROPER DISPOSAL OF ALL DRAINED WATER) AND REFILLING EXISTING SYSTEMS AS REQUIRED FOR COMPLETION OF WORK.
19. CONNECTIONS TO EXISTING UTILITIES AND SERVICES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, INVERT ELEVATIONS, AND SIZES OF EXISTING PLUMBING SERVICES IN FIELD, AND SHALL CONNECT NEW PLUMBING SERVICES AS INDICATED ON DRAWINGS.
20. PROVIDE DIELECTRIC FITTINGS OR COUPLINGS WHEREVER DISSIMILAR METALS ARE JOINED.
21. PROVIDE SHUTOFF VALVES AT ALL FIXTURES AND EQUIPMENT ON COLD WATER AND HOT WATER SUPPLY PIPES.
22. ALL WORK SHALL BE PROPERLY TESTED, BALANCED, AND CLEANED AND DISINFECTED.
23. A CLEANOUT SHALL BE LOCATED AT ALL CHANGES IN DIRECTION AND AT THE BASE OF EACH STACK AND LEADER.
24. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR PLUMBING EQUIPMENT SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE PLUMBING CONTRACTOR FOR PLUMBING EQUIPMENT SHALL BE HEAVY DUTY TYPE.
25. FIXTURE (GENERAL):
    - A. FIXTURE SHALL BE COMPLETE WITH REQUIRED TRIM, INCLUDING BUT NOT LIMITED TO: SUPPORTS, FAUCETS, SUPPLIES, STOP VALVES, 17 GAUGE WASTE TAILPIECES, TRAPS, SEATS, FLUSHOMETER, VACUUM BREAKER, BOLTS, GASKETS CHROME PLATED EXUTCHEONS, CAST BRASS FLOOR FLANGE AND BOLT CAPS. ALL SCREWS SHALL BE VANDALPROOF.
    - B. EXPOSED METAL TRIM AND ROUGHING SHALL BE CHROME PLATED NICKEL BRASS. CHROME PLATED CAST BRASS 'P' TRAPS WITH SCREW PLUG CLEANOUT, SLIP-JOINT INLET AND FEMALE CAST SWIVEL THREADED ELBOW OUTLET. CHROME PLATED BRASS NIPPLE AT WALL WITH CHROME PLATED ESCUTCHEON. SWING SPOUTS SHALL HAVE 140° SWING LIMIT STOPS.
    - C. SUPPORT WALL FIXTURES SECURELY ON APPROVED COMMERCIAL GRADE CARRIERS AS MANUFACTURED BY JAY R. SMITH, JOSAM, OR ZURN.
26. PIPE TESTING:
    - A. UPON COMPLETION OF THE ENTIRE SANITARY DRAIN AND VENT SYSTEM AND STORM WATER AND OVERFLOW DRAIN SYSTEM, THE CONTRACTOR SHALL PERFORM AN AIR TEST WITNESSED BY AUTHORITY HAVING JURISDICTION. AIR SHALL BE FORCED INTO THE SYSTEM UNTIL THERE IS A UNIFORM GAUGE PRESSURE OF 5 PSI OR SUFFICIENT TO BALANCE A 10 INCH COLUMN OF MERCURY. THIS TEST SHALL BE HELD FOR A PERIOD OF AT LEAST 15 MINUTES.
    - B. WATER SUPPLY SYSTEM TEST SHALL BE DONE ON COMPLETION OF A SECTION OF OR THE ENTIRE WATER SUPPLY SYSTEM, THE SYSTEM, OR THE PORTION COMPLETED, SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM: OR, BY AN AIR TEST OF NOT LESS THAN 50 PSI. TEST PRESSURE SHALL BE HELD FOR A MINIMUM OF 15 MINUTES. THE WATER UTILIZED FOR TESTS SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.
    - C. FORCE MAIN PIPING TEST SHALL CONSIST OF PLUGGING PIPE AT CONNECTION TO EXISTING SYSTEM AND APPLYING A PRESSURE OF 5 PSI GREATER THAN THE PUMP RATING AND MAINTAINING SUCH PRESSURE FOR 15 MINUTES.
    - D. REFER TO SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
27. DOMESTIC WATER PIPING DISINFECTION:
    - A. ALL OPEN ENDS OF PIPING, VALVES AND EQUIPMENT SHALL BE PLUGGED EXCEPT WHEN ACTUAL WORK IS BEING PERFORMED, TO MINIMIZE ACCUMULATION OF DIRT AND DEBRIS.
    - B. THE CONTRACTOR SHALL DISINFECT WATER PIPING BEFORE IT IS PLACED IN SERVICE.
    - C. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT AND MATERIALS NECESSARY TO DO THE WORK OF DISINFECTING, AND SHALL PERFORM THE WORK IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN THE AWWA C651 0R AWWA C652 OR AS DESCRIBED BELOW.
    - D. SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF CHLORINE AND THE SYSTEM OR PART THEREOF SHALL BE ALLOWED TO STAND FOR 24 HOURS.
    - E. DURING THE DISINFECTION PERIOD, CARE SHALL BE EXERCISED TO PREVENT CONTAMINATION OF WATER IN THE STREET MAIN OR THE ACTIVE WATER PIPING WITHIN THE BUILDING.
    - F. FOLLOWING REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
28. PIPING AND EQUIPMENT IDENTIFICATION:
    - A. CONTRACTOR TO PROVIDE OPTI-CODE LABELS FOR ALL NEW PIPING. LABELS SHALL INDICATE SERVICE AND FLOW DIRECTION. LETTERS AND ARROWS INDICATING FLOW SHALL BE 2 1/2" HIGH, PLACED EVERY 10' AND SHALL BE WHITE ON A GREEN BACKGROUND AND SHALL CONFORM TO ANSI AND OSHA STANDARDS. LABELS SHALL BE APPLIED OVER INSULATION ONLY.
    - B. VALVE SERVICE IDENTIFICATION TAGS: NUMBER 19 B&S GAGE BRASS, WITH 1/4" HIGH VALVE SERVICE ABBREVIATED LETTERING ON ONE LINE OVER 1/2" HIGH VALVE SERVICE CHART NUMBER, BOTH DEEP STAMPED AND BLACK FILLED; AND WITH 3/16" TOP HOLE FOR BRASS "S" HOOK OR BRASS JACK CHAIN FASTENER.
    - C. PROVIDE VALVE SERVICE IDENTIFICATION CHART MOUNTED IN LOCATION COORDINATED WITH OWNER'S REPRESENTATIVE. FRAME SHALL BE SATIN FINISHED EXTRUDED ALUMINUM WITH RIGID CLEAR PLASTIC GLAZING, SIZE TO FIT 8-1/2" x 11" VALVE CHART.
    - D. EQUIPMENT SHALL HAVE 3" HIGH BLACK LAMACOID NAME PLATES WITH WHITE ENGRAVED LETTERS PERMANENTLY FASTENED TO ALL NEW EQUIPMENT.
29. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
30. CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK.
31. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CUTTING, PATCHING, AND PAINTING ASSOCIATED WITH PLUMBING WORK WITH THE GENERAL CONTRACTOR, WHO SHALL PERFORM THE WORK. ALL FLOORS AND WALLS WHERE AN EXISTING PIPE HAS BEEN REMOVED AND NOT REPLACED SHALL BE PATCHED BY THE GENERAL CONTRACTOR, THIS CONTRACTOR SHALL COORDINATE.
32. ALL NEW HOLES IN WALLS AND FLOORS SHALL BE CORE DRILLED BY THIS CONTRACTOR. PRIOR TO CORE DRILLING FLOORS, RADAR SCAN FLOOR SLABS. USE CAUTION WHEN CORE DRILLING TO AVOID DAMAGE TO EXISTING EQUIPMENT, SYSTEMS, STRUCTURE AND ETC. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO SCHOOL DISTRICT.

PIPE HANGER SCHEDULE

PIPE SIZE (INCHES)	MAXIMUM HORIZONTAL SPACING (FEET)		SINGLE STEEL ROD HANGER SIZE (INCHES)		HANGER TYPE STEEL	MAXIMUM VERTICAL SPACING (FEET)	
	COPPER TUBE	CAST IRON	TUBING	PIPING		COPPER TUBE	CAST IRON
½"	6	5	¼"	⅜"	BAND	10	15
¾"	6	5	¼"	⅜"	BAND	10	15
1"	6	5	¼"	⅜"	BAND	10	15
1¼"	6	5	¼"	⅜"	CLEVIS	10	15
1½"	6	5	¼"	⅜"	CLEVIS	10	15
2"	10	5	¼"	⅜"	CLEVIS	10	15
2½"	10	5	⅜"	½"	CLEVIS	10	15
3"	10	5	⅜"	½"	CLEVIS	10	15
4"	10	5	½"	⅝"	CLEVIS	10	15
5"	10	5	½"	⅝"	CLEVIS	10	15
6"	10	5	½"	¾"	CLEVIS	10	15
8"	10	5	⅝"	⅞"	CLEVIS	10	15
10"	10	5	⅝"	⅞"	CLEVIS	10	15
12"	10	5	⅝"	⅞"	CLEVIS	10	15

NOTES:
1. MAXIMUM HORIZONTAL SPACING OF CAST-IRON PIPE HANGERS SHALL BE INCREASED TO 10 FEET WHERE 10 FOOT LENGTHS OF PIPE ARE INSTALLED.
2. INSTALL HANGER OR SUPPORT CLOSE TO THE POINT OF CHANGE OF DIRECTION IN ALL PIPE RUNS.
3. INSTALL ADDITIONAL HANGERS ON SUPPORTS AT CONCENTRATED LOADS.
4. SUPPORT ALL BRANCH PIPING OVER 5'-0" IN LENGTH.
5. SUPPORT VERTICAL PIPING AT EVERY FLOOR.

SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
—	DN.	DOWN
—	GPH	GALLONS PER HOUR
—	GPM	GALLONS PER MINUTE
—	TYP.	TYPICAL
—	V	VOLTS
—	VTR	VENT THROUGH ROOF
—— - ——	CW	DOMESTIC COLD WATER
— - - —	HW	DOMESTIC HOT WATER
— - - - —	HWR	DOMESTIC HOT WATER RETURN
———	S	SANITARY
- - - - -	V	VENT
●	—	BALL VALVE
	-	MANUAL AIR VENT
	-	THERMOMETER
	-	PRESSURE GAUGE
—‖—	-	UNION
◎	CODP	CLEANOUT DECK PLATE
—	EX.	EXISTING TO REMAIN
- - - - - - -	DEM.	EXISTING TO BE REMOVED
━━━	NEW	NEW WORK
○—	-	ELBOW UP
	-	ELBOW DOWN
—○—	-	TEE UP
	-	TEE DN
	-	TRAP
▦	FD	FLOOR DRAIN
	-	POINT OF DISCONNECT/CONNECT
-	MC	MECHANICAL CONTRACTOR
-	OD	OVERFLOW DRAIN
-	FM	FORCE MAIN
	RD	ROOF DRAIN
⋈	PRV	PRESSURE REDUCING VALVE
-	°F	DEGREES FAHRENHEIT
-	IN	INCHES
-	PSI	POUNDS PER SQUARE INCH
-	H	HEIGHT
-	W	WIDTH
-	L	LENGTH
Ø	DIA / PH	DIAMETER / PHASE
—]	-	PIPE CAP
-	MIN	MINIMUM
-	MAX	MAXIMUM
-	FT²	SQUARE FEET
├—	CO	CLEAN OUT
├—	WCO	WALL CLEAN OUT
— SD —	SD	STORM DRAIN
	-	HOSE-BIBB
—+—	-	WALL HYDRANT
-	PC	PLUMBING CONTRACTOR
-	HZ	HERTZ
-	V	VOLTS
-	FT	FEET
-	HP	HORSEPOWER
-	FLA	FULL LOAD AMPS
-	RPM	REVOLUTIONS PER MINUTE

WATTS WATER HAMMER ARRESTORS

NO. 15 SIZE	FIXTURE UNITS	CROSS REF. PDI STANDARD
1/2" M1	1-11	A
3/4" M1	12-32	B
1" M1	33-60	C
1-1/4" M1	61-113	D
1-1/2" M1	114-154	E
2" M1	155-330	F

PLUMBING EQUIPMENT SCHEDULE

TAG	SYMBOLS		PLUMBING CONNECTIONS					MANUFACTURER	CATALOG #	DESCRIPTION
	PLAN	ELEVATION	SAN./STORM	VENT	COLD	HOT	GAS			
P-1			4"	2"	1"	-	-	KOHLER	K-4325	WALL-MOUNTED, VITREOUS CHINA, ELONGATED BOWL, FLUSHOMETER TOILET WITH CONCEALED TRAPWAY, DIRECT-FED SIPHON JET ACTION, AND 1-1/2" TOP SPUD. FIXTURE COLOR SHALL BE WHITE. PROVIDE COMMERCIAL HEAVY DUTY PLASTIC TOILET SEAT, BEMIS MODEL 1955CT AND COMMERCIAL GRADE FLOOR MOUNTED VERTICAL ADJUSTABLE CLOSET CARRIERS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
								ZURN	ZER6000AV-TM -WS1-DF	EXPOSED, BATTERY POWERED, GEAR DRIVEN, ELECTRONIC SENSOR OPERATED WATER CLOSET FLUSHOMETER WITH: MANUAL OVERRIDE BUTTON, CONTROL STOP WITH VANDAL-RESISTANT CAP AND VACUUM BREAKER. DUAL FLUSH, LOW CONSUMPTION, 1.6/1.1 GALLONS PER FLUSH. ADA COMPLIANT.
P-2			1¼"	1¼"	½"	½"	-	KOHLER	K-1728	19¼"(L)x17¼"(W) WALL-HUNG, VITREOUS CHINA, D-SHAPED BOWL LAVATORY WITH FRONT OVERFLOW, CONCEALED ARM SUPPORTS, FAUCET LEDGE, AND SELF-DRAINING DECK AREA. FIXTURE COLOR SHALL BE WHITE. PROVIDE: COMMERCIAL GRADE, FLOOR MOUNTED CONCEALED ARM SUPPORTS; OFFSET LAVATORY GRID STRAINER (MCGUIRE MANUFACTURING PART NUMBER 155WC); AND TRUEBRO MODEL 103 E-Z LAV GUARD. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS. LAVATORY SHALL BE ADA COMPLIANT.
								ZURN	Z6915-XL-TMV1-N	ADA COMPLIANT, LOW-LEAD COMPLIANT, BATTERY POWERED, CHROME PLATED CAST BRASS BODY, SENSOR FAUCET WITH: INFRARED PROXIMITY SENSOR, THIRTY SECOND TIME OUT FEATURE, IN LINE FILTER, (4) "AA" BATTERIES, 0.5 GPM VANDAL-RESISTANT LAMINAR FLOW, AND THERMOSTATIC MIXING VALVE.
P-3		▭	3"	1½"	½"	½"	-	ACORN	TNC-24	PRECAST MOP SINK, ONE PIECE TERRAZZO COMPOSED OF MARBEL CHIPS IN PORTLAND CEMENT. MOP SINK SHALL BE 24"X 24" NEO-CORNER STYLE WITH 12" STANDARD HEIGHT FRONT SHOULDER. INTEGRAL DRAIN WITH A REMOVABLE STAINLESS STEEL GRID STRAINER FOR INSIDE CAULK CONNECTION TO 3" PIPE. PROVIDE STAINLESS STEEL CAPS ON ALL SHOULDERS, 36" HOSE WITH WALL HANGER, AND MOP HANGER.
								SPEAKMAN	SEF-9000-TW	FAUCET WITH EYEWASH/DRENCH HOSE. UNIT SHALL BE COMPLETE WITH SPEAKMAN SC-5811-RCP SERVICE SINK FAUCET CONNECTED TO EYEWASH. EYEWASH SHALL BE ACTIVATED BY SQUEEZE VALVE AND INCLUDE (2) YELLOW PLASTIC SPRAY HEADS WITH FLIP TOP DUST CAPS, INTEGRAL VACUUM BREAKER AND CHECK VALVE. PROVIDE SE-370 THERMOSTATIC MIXING VALVE. SERVICE SINK FAUCET SHALL HAVE VANDAL RESISTANT FOUR-ARM HANDLES, CAST BRASS NOZZLE WITH ¾" HOSE THREAD, PAIL HOOK AND TOP BRACE OUTLET, AND INTEGRAL VACUUM BREAKER.
P-4	—+—		-	-	¾"	-	-	WOODFORD	24	CHROME, ANTI-SIPHON, VACUUM BREAKER PROTECTED WALL FAUCET WITH ¾" MALE HOSE THREAD, POLYCARBONATE WHEEL HANDLE AND LOOSE TEE KEY, AND ¾" INLET.
P-5	▦		3"	1½"	-	-	-	WATTS	FD-100-M	VANDAL-PROOF, EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE SQUARE HEEL-PROOF NICKEL BRONZE STRAINER, AND 3" NO HUB OUTLET. FLOOR DRAIN SHALL BE COMPLETE WITH 6"x6" STRAINER. PROVIDE SURESEAL MODEL SS3009V WATERLESS INLINE 3" DRAIN TRAP SEAL.
P-6			1½"	1½"	½"	-	-	ELKAY	LZSTL8WSVRLK	BOTTLE FILLING STATION AND BI-LEVEL ADA VANDAL-RESISTANT COOLER, FILTERED, REFRIGERATED, AND LIGHT GRAY. FIXTURE FEATURES: ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, LAMINAR FLOW, REAL DRAIN, VISUAL FILTER MONITOR, VANDAL RESISTANT BUBBLER, ELECTRONIC BOTTLE FILLER SENSOR WITH ELECTRONIC FRONT AND SIDE BUBBLER PUSHBAR ACTIVATION. WALL MOUNTED. CHILLING CAPACITY OF 8 GALLONS PER HOUR OF 50°F DRINKING WATER AT 90°F AMBIENT. ELECTRICAL: 115V/60Hz., 6.0 FULL LOAD AMPS, 370 WATTS. ADA COMPLIANT, NSF 61 CERTIFIED. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS AND COOLER CONFIGURATION. PROVIDE COMMERCIAL GRADE, IN-WALL, FLOOR MOUNTED FIXTURE SUPPORT AND (2) SPARE FILTERS.
P-7	—+—		-	-	¾"	-	-	ZURN	Z1320XL	ENCASED, LEAD FREE, NON-FREEZE, ANTI-SIPHON, AUTOMATIC DRAINING WALL HYDRANT WITH INTEGRAL BACKFLOW PREVENTER FOR FLUSH INSTALLATION WITH 3/4" MALE HOSE CONNECTION, TYPE 304 STAINLESS STEEL HOUSING WITH LOCKING HINGED COVER, OPERATING KEY AND WALL CLAMP.
P-8			1½"	1½"	½"	-	-	ELKAY	LZS8WSLK	BOTTLE FILLING STATION WITH SINGLE ADA VANDAL-RESISTANT COOLER, FILTERED, REFRIGERATED, AND LIGHT GRAY. FIXTURE FEATURES: ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, LAMINAR FLOW, REAL DRAIN, VISUAL FILTER MONITOR, VANDAL RESISTANT BUBBLER, ELECTRONIC BOTTLE FILLER SENSOR WITH ELECTRONIC FRONT AND SIDE BUBBLER PUSHBAR ACTIVATION. WALL MOUNTED. CHILLING CAPACITY OF 8 GALLONS PER HOUR OF 50°F DRINKING WATER AT 90°F AMBIENT. ELECTRICAL: 115V/60Hz., 6.0 FULL LOAD AMPS, 370 WATTS. ADA COMPLIANT, NSF 61 CERTIFIED. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS. PROVIDE COMMERCIAL GRADE, IN-WALL, FLOOR MOUNTED FIXTURE SUPPORT AND (2) SPARE FILTERS.
P-9			REFER TO PLAN	-	-	-	-	JAY R. SMITH	1011Y	ROOF DRAIN FOR IRMA ROOF APPLICATIONS. DUCO CAST IRON BODY WITH FLASHING CLAMP; 1/16", 4" HIGH STAINLESS STEEL PERFORATED GRAVEL STOP WITH 3/8" DIAMETER OPENINGS; AND NO-HUB OUTLET. ROOF DRAIN SHALL BE COMPLETE WITH SUMP RECEIVER, UNDERDECK CLAMP, VANDAL-PROOF CAST IRON DOME, AND CAST IRON CLAMPING RINGS. ROOF DRAIN IS TO BE PROVIDED AND SET BY THE PLUMBING CONTRACTOR.
P-10			REFER TO PLAN	-	-	-	-	JAY R. SMITH	1775A	SPECIAL PURPOSE DOWNSPOUT COVER. FABRICATED TYPE 304 STAINLESS STEEL DOWNSPOUTS WITH HINGED PERFORATED COVER. DOWNSPOUT COVER IS TO BE PROVIDED AND SET BY THE PLUMBING CONTRACTOR.
P-11			REFER TO PLAN	-	-	-	-	JAY R. SMITH	1011Y	ROOF DRAIN FOR IRMA ROOF APPLICATIONS. DUCO CAST IRON BODY WITH FLASHING CLAMP; 1/16", 4" HIGH STAINLESS STEEL PERFORATED GRAVEL STOP WITH 3/8" DIAMETER OPENINGS; AND NO-HUB OUTLET. ROOF DRAIN SHALL BE COMPLETE WITH SUMP RECEIVER, UNDERDECK CLAMP, VANDAL-PROOF CAST IRON DOME, WATER DAM COLLAR AND CAST IRON CLAMPING RINGS. ROOF DRAIN IS TO BE PROVIDED AND SET BY THE PLUMBING CONTRACTOR.
P-12	-	-	2"	-	-	-	-	STANCOR	SE-50	OIL-MINDER SIMPLEX PUMP AND CONTROL SYSTEM. NEMA 4X CORROSION RESISTANT POLYCARBONATE ENCLOSURE, STAINLESS STEEL SENSOR PROBE, DIRECT PLUG-IN POWER SOURCE, SOLID STATE COMPONENTS, ALARMS, LIGHTS, SILENCE SWITCH, REMOTE MONITORING CIRCUIT FOR OIL, HIGH LIQUID AND HIGH AMPERAGE CONDITIONS. FACTORY ASSEMBLED AND TESTED. 74 GPM @ 37 FT HEAD. - 1/2 HP - 120V/1. CONTROL PANEL SHALL HAVE AUXILIARY CONTACTS TO TIE HIGH LIQUID LEVEL ALARM TO BUILDING MANAGEMENT SYSTEM.
P-13	○	▯	-	-	1¼"	1¼"	-	AO SMITH	DVE-80A	ASME RATED, COMMERCIAL ELECTRIC WATER HEATER. HEATER SHALL BE RATED AT 18KW, 208 VOLTS, 3 PHASE, 60HZ, 50 FLA. TANK SHALL HAVE 80 GALLON CAPACITY AND 92 GPH RECOVERY AT 80°F TEMPERATURE RISE. HEATER SHALL HAVE 160 PSI WORKING PRESSURE AND BE EQUIPPED WITH TWO ANODE ROD. ALL INTERNAL SURFACES EXPOSED TO WATER SHALL BE GLASS LINED. HEATING ELEMENTS SHALL BE MEDIUM WATT DENSITY WITH ZINC PLATED COPPER SHEATH AND BE CONTROLLED BY INDIVIDUAL THERMOSTATS AND HIGH TEMPERATURE CUTOFF OUTER JACKET SHALL HAVE BAKED ENAMEL FINISH AND SHALL ENCLOSE THE TANK WITH FOAM INSULATION. HEATERS SHALL BE COMPLETE WITH: ELECTRICAL JUNCTION BOX WITH HEAVY TERMINAL BLOCK, NEMA 1 DISCONNECT SWITCH, DRAIN VALVE AND ASME RATED TEMPERATURE AND PRESSURE RELIEF VALVE
P-14	○		-	-	-	¾"	-	AMTROL	ST-12C-DD	EXPANSION TANK WITH TANK VOLUME OF 6.4 GALLONS AND AN ACCEPTANCE VOLUME OF 3.2 GALLONS. TANK SHALL BE ANSI/NSF 61 FOR POTABLE WATER USE AND SHALL BE ASME RATED. MAXIMUM OPERATING TEMPERATURE 200°F AND MAXIMUM WORKING PRESSURE 150 PSI.
P-15	Ⓟ	Ⓟ	-	-	-	¾"	-	TACO	003-B4	LOW-LEAD COMPLIANT, NSF 61, BRONZE, SELF-LUBRICATING, HOT WATER RECIRCULATION PUMP. FLOW RANGE: 0-7 GPM. HEAD RANGE: 0-4.5 FEET. PUMP MAXIMUM WORKING PRESSURE 125 PSI AND MAXIMUM OPERATING TEMPERATURE 220°F. PROVIDE TACO 563-2 TEMPERATURE AQUASTAT. PROVIDE DISCONNECT SWITCH. ELECTRICAL: 120V/1Ø/60Hz., 0.43 AMPS, 3250 RPM, AND 1/40 HP.
P-16			1½"	1½"	½"	½"	-	ELKAY	ELV2219SACC	ADA COMPLIANT, 18-GAUGE, TYPE 304 STAINLESS STEEL, SINGLE BOWL, WALL HUNG LAVATORY SINK KIT. OVERALL SINK DIMENSIONS: 22"x19"x19-1/8". BOWL DIMENSIONS: 16"x11-1/2"x5-1/2". SINK SHALL HAVE REAR CENTER DRAIN, 3-3/8" DRAIN SIZE, BOTTOM SOUND DEADENING PADS, AND BUFFED SATIN FINISH. SINK KIT SHALL BE PROVIDED WITH ELKAY MODEL LKB721C FAUCET. PROVIDE ELKAY MODEL LKAD174 ADA COMPLIANT, CHROME PLATED BRASS, PERFORATED GRID STRAINER AND TRUEBRO MODEL 103 EZ LAV GUARD.
								ELKAY	LKB721C	ADA COMPLIANT, DECK MOUNTED, SCRUB/HANDWASH, BATTERY POWERED, ELECTRONIC SENSOR FAUCET. SOLID BRASS CONSTRUCTION WITH ELECTRONIC CONTROL MODULE VALVE. 1.5 GPM FLOW RATE. 11-5/8" HIGH GOOSENECK SPOUT WITH 5-5/8" REACH. FAUCET FINISH SHALL BE CHROME PLATED. FAUCET SHALL BE NSF 61 AND NSF 372 (LEAD FREE) COMPLIANT.
P-17			1½"	1½"	½"	½"	-	ELKAY	EWMA4820C	14-GAUGE, TYPE 304 STAINLESS STEEL, SINGLE BOWL, WALL HUNG MULTIPLE STATION HAND WASH SINK KIT. OVERALL SINK DIMENSIONS: 48"x20"x18". BOWL DIMENSIONS: 45"x16-1/2"x8". SINK SHALL HAVE CENTER DRAIN, 3-3/8" DRAIN SIZE AND BUFFED SATIN FINISH. SINK KIT SHALL BE PROVIDED WITH: (1) ELKAY MODEL LK18B STAINLESS STEEL GRID STRAINER AND TAILPIECE AND (2) ELKAY MODEL LK940GN05T4H FAUCETS.
								ELKAY	LK940GN05T4H	ADA COMPLIANT, WALL MOUNTED, SCRUB/HANDWASH, 8" CENTERSET FAUCET WITH 4" WRIST BLADE HANDLES. SOLID BRASS CONSTRUCTION WITH QUARTER TURN CERAMIC DISC VALVE. 1.5 GPM FLOW RATE. 11" HIGH GOOSENECK SPOUT WITH 5" REACH. FAUCET FINISH SHALL BE CHROME PLATED. FAUCET SHALL BE NSF 61 AND NSF 372 (LEAD FREE) COMPLIANT.
P-18			1½"	1½"	½"	½"	-	ELKAY	ELUHAD131650PD	ADA COMPLIANT, 18-GAUGE, TYPE 304 STAINLESS STEEL, SINGLE BOWL, UNDERMOUNT ADA SINK. OVERALL SINK DIMENSIONS: 16"x18-1/2"x6-3/8". BOWL DIMENSIONS: 13-1/2"x16"x4-7/8". SINK SHALL HAVE REAR CENTER DRAIN, BOTTOM ONLY SOUND DEADENING PADS, 3-3/8" DRAIN SIZE AND LUSTROUS SATIN FINISH. SINK SHALL BE PROVIDED WITH: UNDERMOUNT BRACKETS AND ELKAY MODEL LKPDVR18B CHROME PLATED BRASS BODY VANDAL RESISTANT GRID STRAINER. PROVIDE TRUEBRO MODEL 103 EZ LAV GUARD IN ADA LOCATIONS.
								ELKAY	LKAV3021	ADA COMPLIANT, DECK MOUNTED, SINGLE HOLE BAR FAUCET WITH LEVER HANDLE. SOLID BRASS CONSTRUCTION WITH CERAMIC DISC VALVE. 1.8 GPM FLOW RATE. 360° GOOSENECK SPOUT WITH STANDARD SPRAY. FAUCET FINISH SHALL BE SELECTED BY ARCHITECT. FAUCET SHALL BE NSF 61 AND NSF 372 (LEAD FREE) COMPLIANT.
P-19	○	▯	1½"	-	-	-	-	JAY R. SMITH	8710T	ON FLOOR, SOLIDS INTERCEPTOR. WHITE DUCO COATED CAST IRON BODY, ALUMINUM GASKETED COVER WITH LOCKING DEVICE, SEDIMENT STRAINER WITH REMOVABLE STAINLESS STEEL SCREEN.
P-20	▦		3"	1½"	-	-	-	WATTS	FD-100-M	VANDAL-PROOF, EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE SQUARE HEEL-PROOF NICKEL BRONZE STRAINER, AND 3" NO HUB OUTLET. FLOOR DRAIN SHALL BE COMPLETE WITH 6"x6" STRAINER AND SEDIMENT BUCKET. PROVIDE SURESEAL MODEL SS3009V WATERLESS INLINE 3" DRAIN TRAP SEAL.

PLUMBING PIPING FITTING SCHEDULE

SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD
WATER PIPE AND FORCE MAIN PIPING (ABOVE GROUND)	ALL	COPPER	LEAD-FREE SOLDER ASTM B828	ASTM B 16.22
SANITARY, VENT, AND STORM (ABOVE GROUND)	ALL	SERVICE WEIGHT CAST IRON	NO-HUB ASTM C1277 ASTM C564	ASTM A 74
SANITARY, VENT, AND STORM (BELOW GROUND)	ALL	EXTRA-HEAVY CAST IRON	HUB AND SPIGOT ASTM C564	ASTM A 74

PLUMBING PIPING MATERIAL SCHEDULE

SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD
WATER PIPE AND FORCE MAIN PIPING (ABOVE GROUND)	ALL	COPPER	TYPE L TUBE	ASTM B 88
SANITARY, VENT & STORM (ABOVE GROUND)	ALL	CAST IRON	SERVICE WEIGHT	ASTM A 74
SANITARY, VENT, AND STORM (BELOW GROUND)	ALL	CAST IRON	EXTRA-HEAVY WEIGHT	ASTM A 74

PLUMBING PIPE INSULATION SCHEDULE

SERVICE	INSULATION THICKNESS (INCHES)	
	PIPE SIZE (INCHES)	
	BELOW 1½"	1½" AND OVER
COLD WATER	½"	1"
HOT WATER	1"	1½"
HOT WATER RECIRCULATION	1"	1½"
HORIZONTAL STORM PIPING	1"	1"
HORIZONTAL OVERFLOW DRAIN PIPING	1"	1"

NOTES:
1. PIPE COVERING SHALL BE FIBERGLASS PIPE INSULATION WITH: FIRE RETARDANT VAPOR BARRIER JACKET, 0.23 K-FACTOR AT 75°F MEAN TEMPERATURE, FLAME SPREAD = 25, SMOKE DEVELOPED = 50.
2. FITTINGS AND VALVES SHALL BE PROVIDED WITH PREMOLDED FITTING COVERS WITH PVC JACKETING EQUAL IN THICKNESS AND MATERIAL TO ADJOINING PIPE INSULATION.
3. ALL EXISTING HORIZONTAL STORM DRAIN PIPING SHALL BE INSULATED AS PART OF THIS PROJECT. PLUMBING CONTRACTOR TO COORDINATE IN FIELD.

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GA23012

NY SED PROJECT CONTROL NO:
44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS

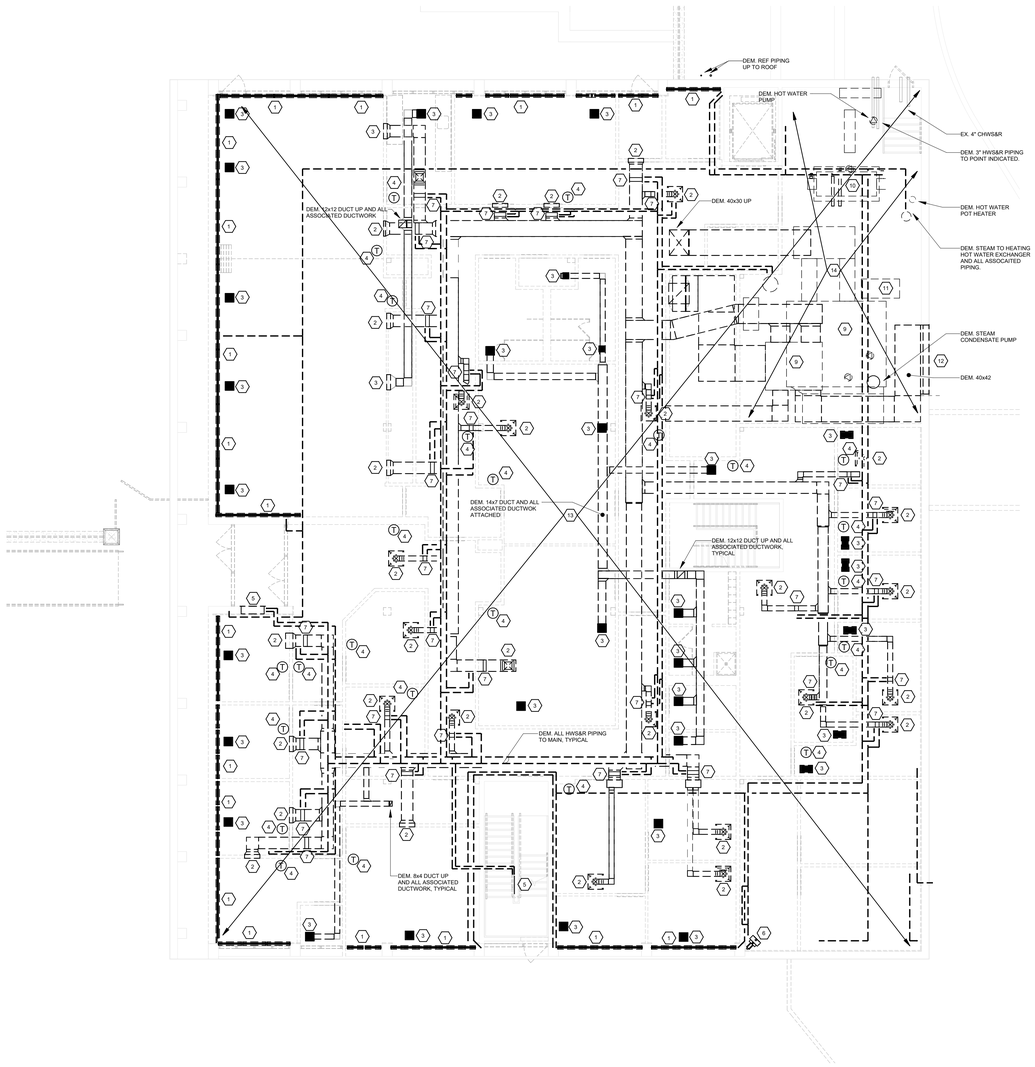
Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

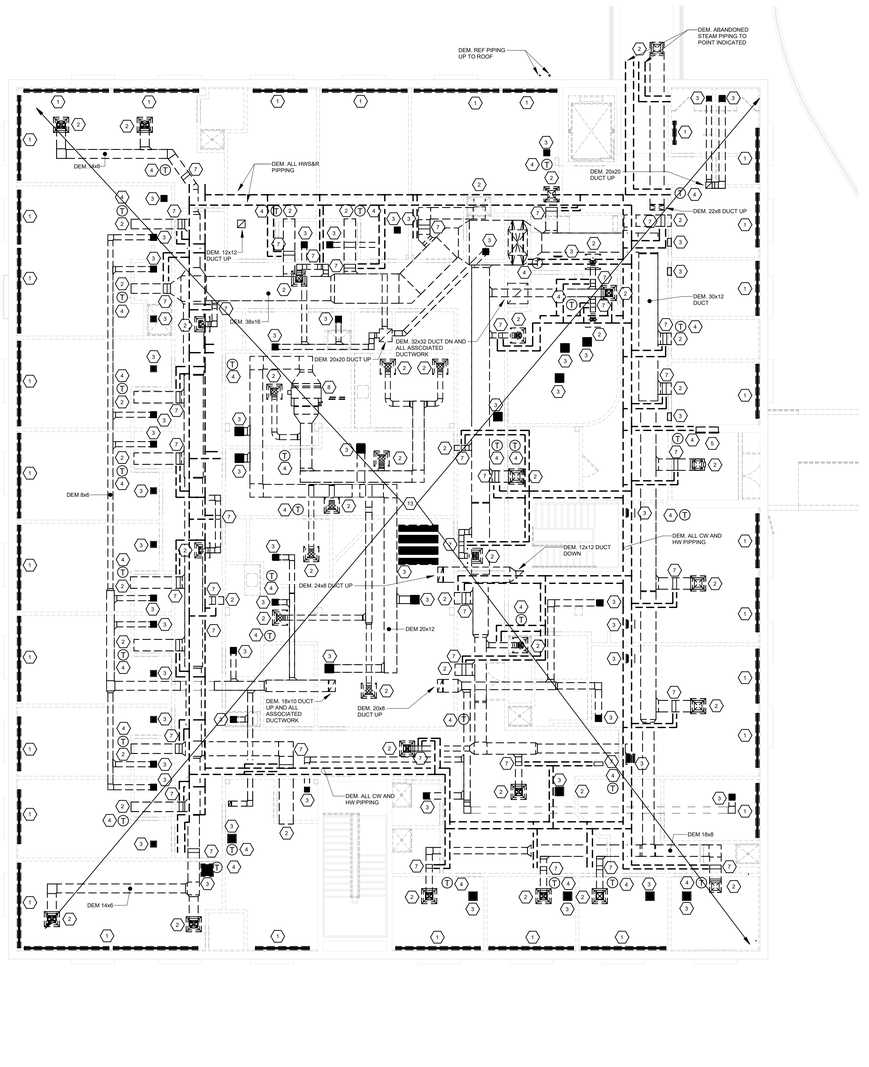
Sheet Title
PLUMBING:
EQUIPMENT SCHEDULES

Job No. 2023-1011
Date 02/03/2023
Scale AS NOTED
Drawn / Checked DC/RL SZ/WH

Sheet Number
P701



1 MECHANICAL - NORTH WING LOWER LEVEL DEMOLITION PLAN
1/8" = 1'-0"



2 MECHANICAL - NORTH WING UPPER LEVEL DEMOLITION PLAN
1/8" = 1'-0"

MECHANICAL PLAN DEMOLITION KEYED NOTES

#	NOTE TEXT
1	DEMOLISH FINNED TUBE RADIATION AND ALL ASSOCIATED PIPING, CONTROLS, SUPPORTS, AND ETC.
2	DEMOLISH CEILING DIFFUSER/SUPPLY REGISTER AND ALL ASSOCIATED DUCTWORK COMPLETE.
3	DEMOLISH EXHAUST/RETURN REGISTER AND ALL ASSOCIATED DUCTWORK COMPLETE.
4	DEMOLISH THERMOSTAT AND ALL ASSOCIATED TUBING, WIRING, CONDUIT, AND ETC. COMPLETE.
5	DEMOLISH CABINET UNIT HEATER AND ALL ASSOCIATED HOT WATER PIPING, CONTROLS AND ETC. COMPLETE.
6	DEMOLISH UNIT HEATER AND ALL ASSOCIATED HOT WATER PIPING, CONTROLS AND ETC. COMPLETE.
7	DEMOLISH DUCT MOUNTED HOT WATER COIL AND ALL ASSOCIATED HOT WATER PIPING, CONTROLS AND ETC. COMPLETE.
8	DEMOLISH FAN COIL UNIT AND ALL ASSOCIATED REFRIGERANT PIPING ,DUCTWORK AND CONTROLS AND ETC. COMPLETE.
9	DEMOLISH AIR HANDLER AND ASSOCIATED SUPPORTS. DEMOLISH ALL ASSOCIATED PIPING COMPLETE. DEMOLISH SUPPLY, RETURN AND OUTSIDE AIR INTAKE DUCTWORK COMPLETE.
10	DEMOLISH CHILLER AND ALL ASSOCIATED PIPING, CONTROLS, SUPPORTS AND ETC. COMPLETE.
11	DEMOLISH EXPANSION TANK AND ALL ASSOCIATED PIPING, CONTROLS, SUPPORTS AND ETC. COMPLETE.
12	DEMOLISH LOUVER AND ALL ASSOCIATED DUCTWORK. COORDINATE WALL PATCHING WITH GENERAL CONTRACTOR.
13	DEMOLISH ALL SUPPLY, RETURN,AND EXHAUST DUCTWORK COMPLETE. DEMOLISH ALL HOT WATER SUPPLY AND RETURN PIPING TO POINT INDICATED.
14	UNLESS OTHERWISE NOTED, DEMOLISH ALL EQUIPMENT, PIPING, DUCTWORK, SUPPORTS, CONCRETE PADS, CONTROLS, ETC. COMPLETE IN MECHANICAL ROOM.

NOTES:
1. ALL INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR, REFER TO BID DOCUMENTS FOR MORE INFORMATION.

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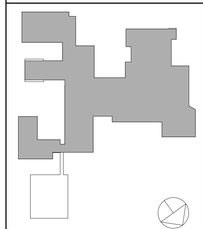
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

MECHANICAL:
NORTH WING LOWER LEVEL & UPPER LEVEL DEMOLITION PLANS

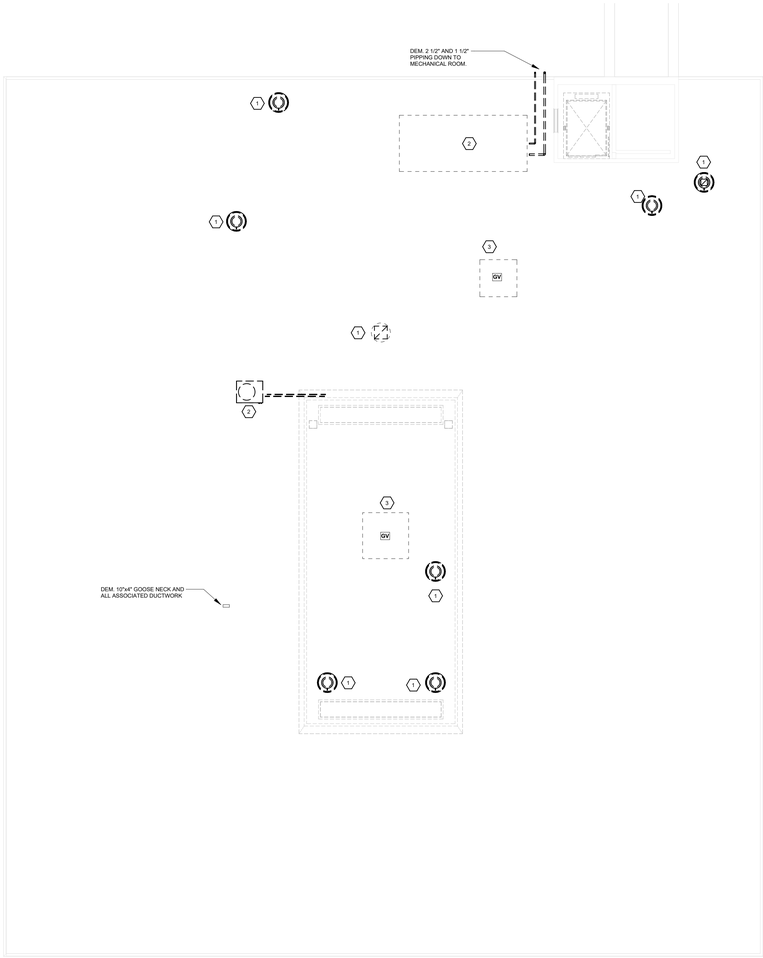
Job No. 2023-1011	Date 02/03/23
Scale AS NOTED	Drawn / Checked DC SZ

Sheet Number

M101

MECHANICAL ROOF PLAN DEMOLITION KEYED NOTES	
#	NOTE TEXT
1	DEMOLISH EXHAUST FAN, ROOF CURB, AND ALL ASSOCIATED DUCTWORK, AND CONTROLS. COMPLETE.
2	DEMOLISH AIR COOLED CONDENSING UNIT AND ALL CONTROLS, CONDUIT, WIIRING, REFRIGERANT PIPING AND ETC. COMPLETE.
3	DEMOLISH GRAVITY VENT, ROOF CURB, AND ALL ASSOCIATED DUCTWORK. COMPLETE.

NOTES:
1. ALL INTERIOR AND EXTERIOR DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR. REFER TO BID DOCUMENTS FOR MORE INFORMATION.



1 MECHANICAL - NORTH WING ROOF DEMOLITION PLAN
1/8" = 1'-0"

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

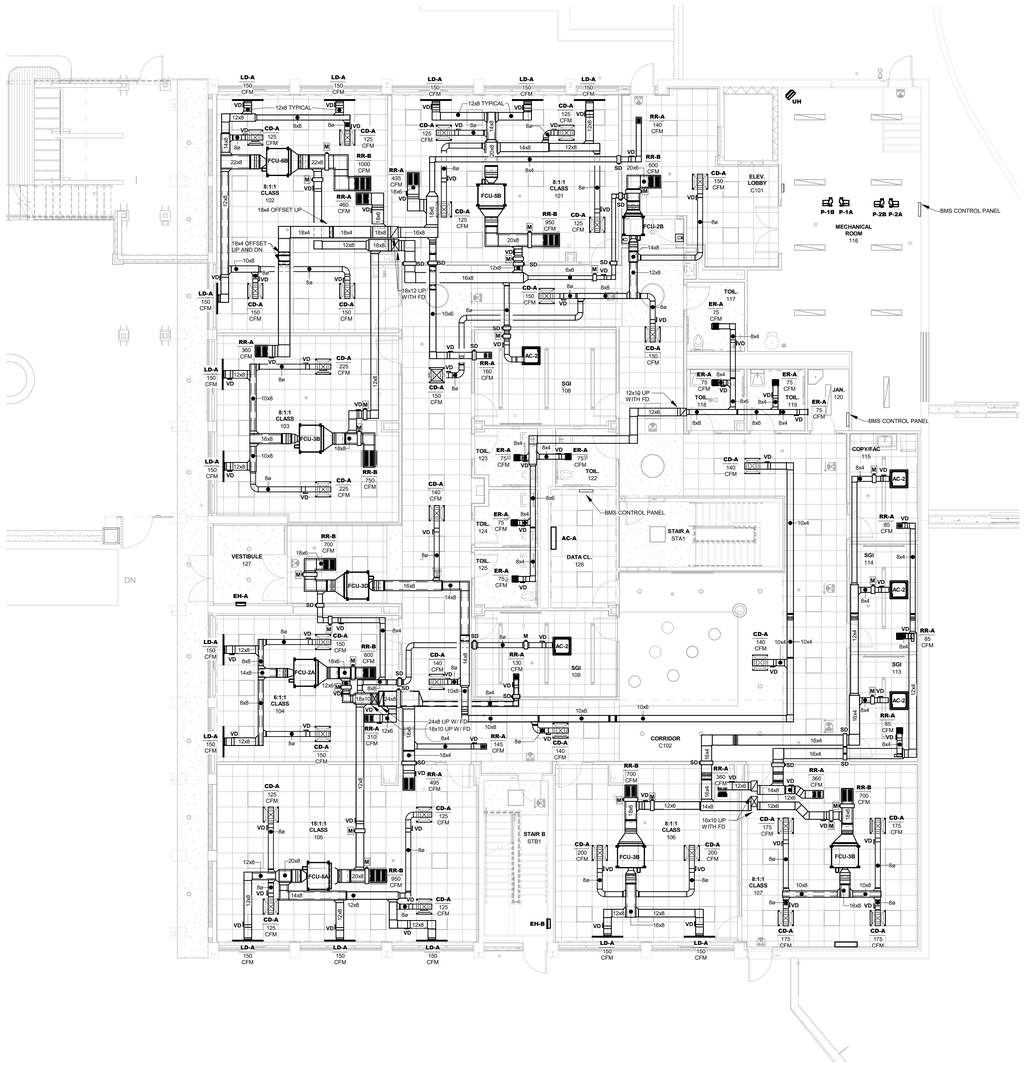
No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

MECHANICAL:
NORTH WING ROOF DEMOLITION PLAN

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: DC SZ

Sheet Number
M102



1 MECHANICAL - NORTH WING LOWER LEVEL PLAN

1/8" = 1'-0"

2 MECHANICAL - NORTH WING UPPER LEVEL PLAN

1/8" = 1'-0"

NOTES:

1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. FAN COIL UNITS SHALL BE INSTALLED UP IN BETWEEN STRUCTURAL STEEL AS REQUIRED TO MAINTAIN CEILING HEIGHT.

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

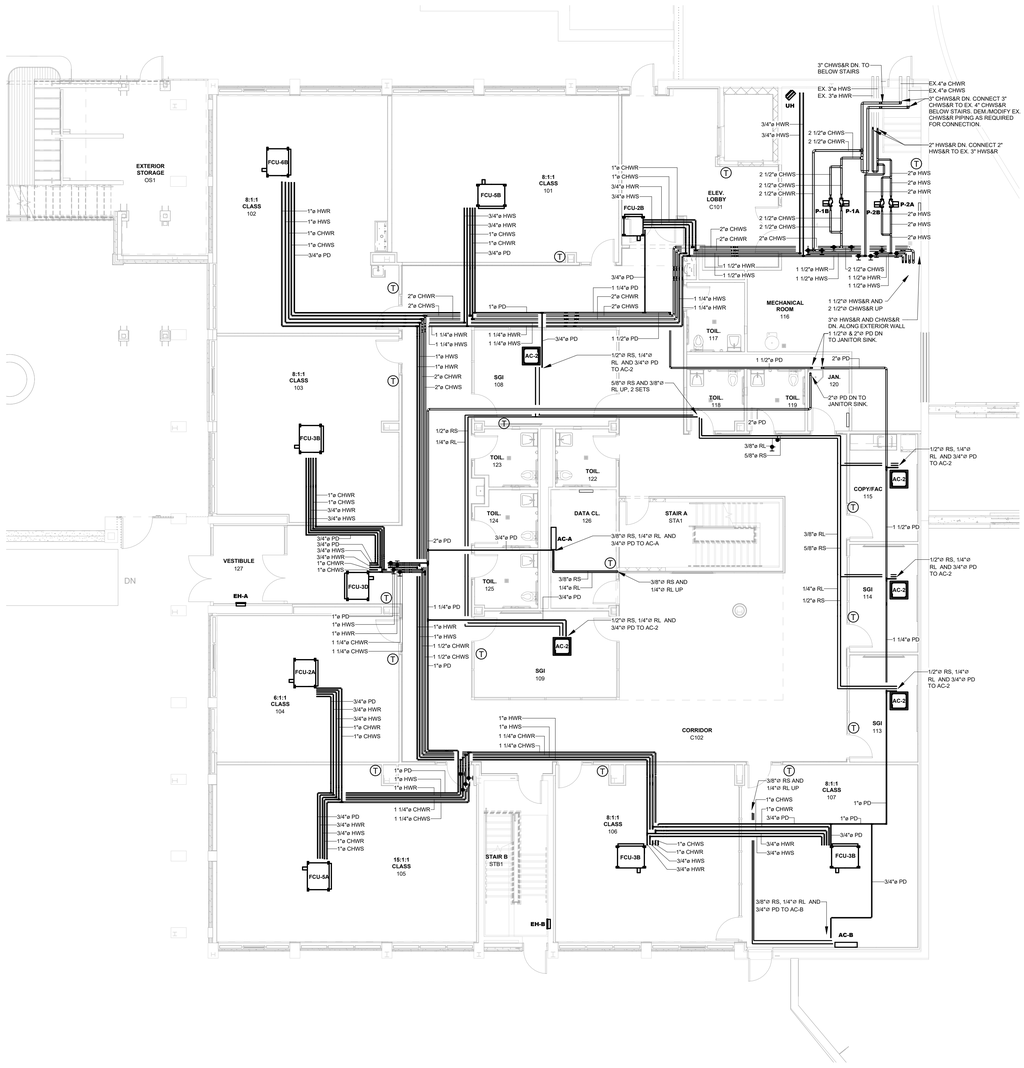
Sheet Title

MECHANICAL:
NORTH WING LOWER LEVEL & UPPER LEVEL PLANS

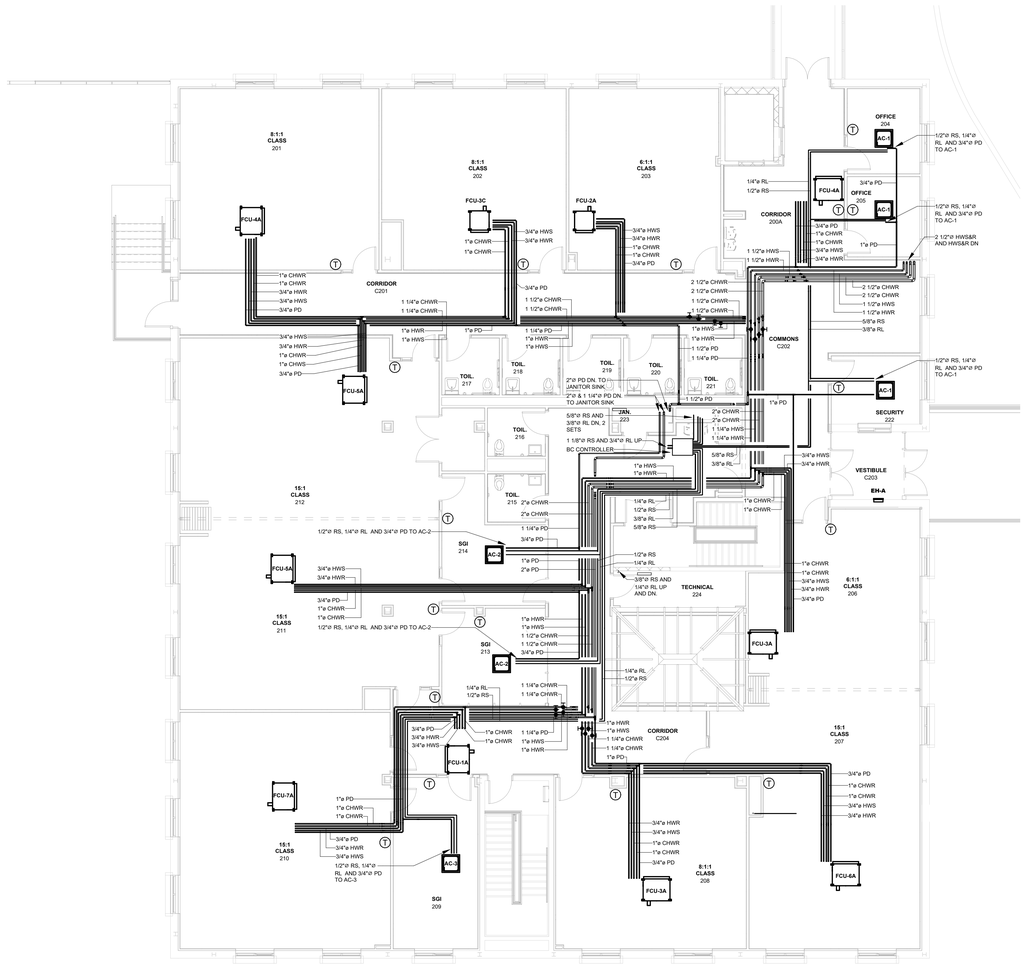
Job No.	Date
2023-1011	02/03/23
Scale	Drawn / Checked
AS NOTED	DC SZ

Sheet Number

M201



1 MECHANICAL - NORTH WING LOWER LEVEL PIPING PLAN
1/8" = 1'-0"



2 MECHANICAL - NORTH WING UPPER LEVEL PIPING PLAN
1/8" = 1'-0"

NOTES:
1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. FINAL REFRIGERANT PIPE SIZING SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER'S REPRESENTATIVE BASED ON CONTRACTOR'S PIPING LAYOUT DRAWINGS.
3. MECHANICAL CONTRACTOR SHALL ISOLATE CHILLED WATER SUPPLY AND RETURN PIPING WITH WING FROM MAIN BUILDING AND EAST WING AT EXISTING ISOLATION VALVES IN BOILER AND PIPING ROOM PRIOR TO DEMOLITION OF CHILLED WATER SUPPLY AND RETURN PIPING. CONTRACTOR SHALL DRAIN DOWN PIPING AND PROPERLY DISPOSE OF DRAINED WATER. REFILL EXISTING PIPING AFTER COMPLETION OF WORK.

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KEY PLAN

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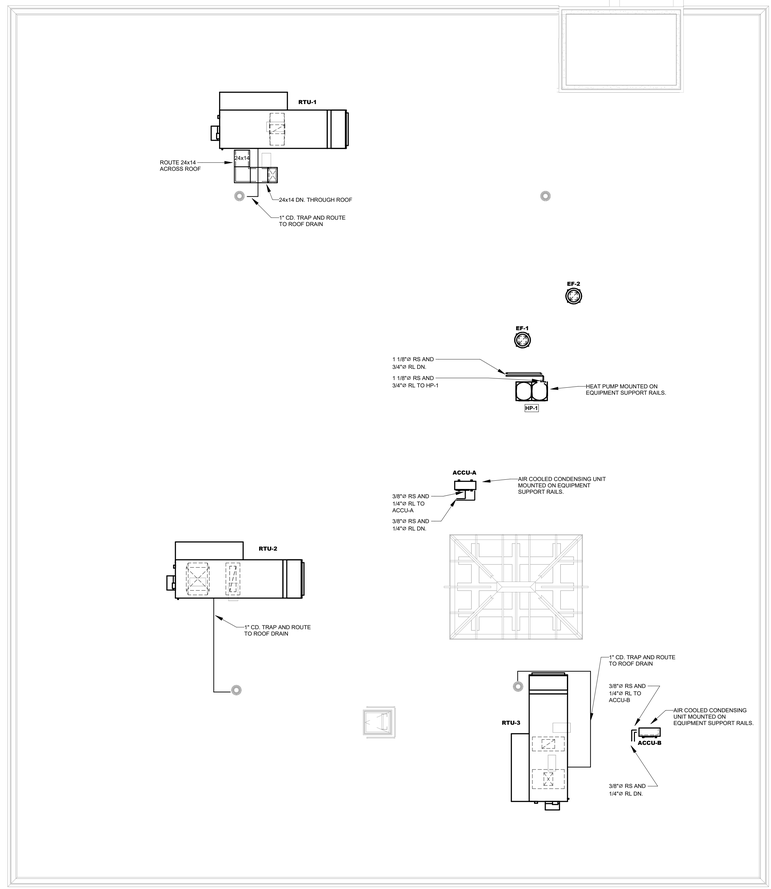
Sheet Title

MECHANICAL:
NORTH WING LOWER LEVEL & UPPER LEVEL PIPING PLANS

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: DC SZ

Sheet Number

M201a



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

NOTES:
1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. FINAL REFRIGERANT PIPE SIZING SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER'S REPRESENTATIVE BASED ON CONTRACTOR'S PIPING LAYOUT DRAWINGS.

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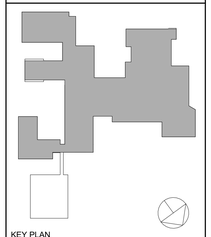
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

MECHANICAL:
NORTH WING ROOF PLAN

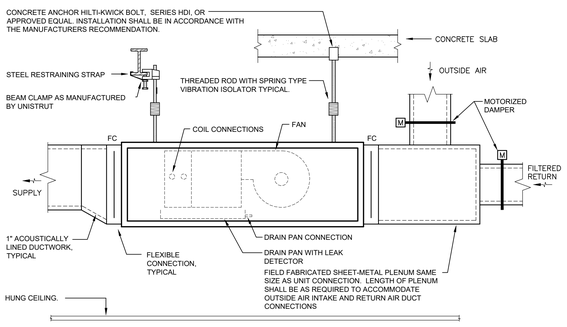
Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: DC SZ

Sheet Number

M202

NOTES:

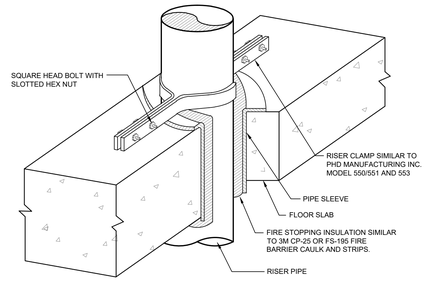
1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. VERIFY ALL FINISH COLORS WITH ARCHITECT PRIOR TO ORDERING FOR ALL EQUIPMENT VISIBLE WITHIN SPACE OR FROM EXTERIOR OF BUILDING. ALL EQUIPMENT SHALL BE FINISHED USING MANUFACTURER'S FULL RANGE OF STANDARD AND CUSTOM COLORS/FINISHES UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN FOR WIND RESTRAINT OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT. REFER TO WIND DESIGN DATA ON DRAWING S001.



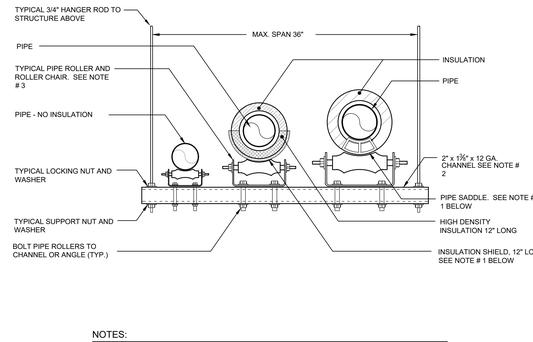
NOTES:

1. CONTRACTOR TO COORDINATE COIL CONNECTIONS AS RIGHT OR LEFT HAND IN FIELD PRIOR TO ORDERING.
2. HANG UNIT AS HIGH AS POSSIBLE FROM STRUCTURE ABOVE. COORDINATE ELEVATIONS WITH FIELD CONDITIONS.
3. REFER TO COIL PIPING AND CONDENSATE DRAIN PIPING DETAILS ELSEWHERE.
4. REFER TO FLOOR PLANS FOR DUCT SIZES.
5. DUCTWORK CONFIGURATION AT INLET SIDE OF FAN COIL UNIT IS SCHEMATIC. ACTUAL CONFIGURATION MAY VARY BASED ON INSULATION LOCATION, MECHANICAL CONTRACTOR TO COORDINATE.

1 CONCEALED HORIZONTAL FAN COIL UNIT DETAIL
NOT TO SCALE



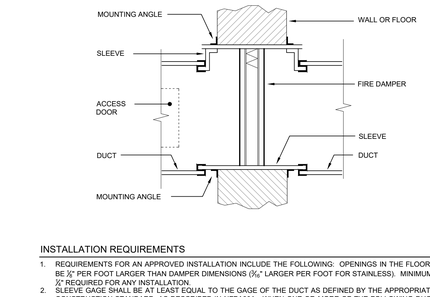
4 PIPE PENETRATION THROUGH FLOOR DETAIL
NOT TO SCALE



NOTES:

1. PROVIDE INSULATION SHIELD OR PIPE SADDLE BASED ON THE PIPING SYSTEM AND PIPE SIZE AS INDICATED IN THE SPECIFICATIONS.
2. TRAPEZE TYPE HANGER SHALL BE USED FOR A MAXIMUM 1,000 LB UNIFORM LOAD.
3. ELIMINATE PIPE ROLLERS AND ROLLER CHAIRS AT ANCHOR POINTS

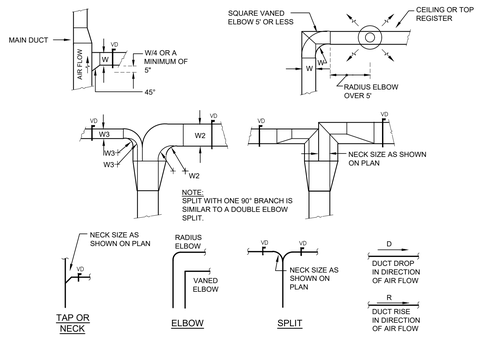
7 TRAPEZE TYPE HANGER INSTALLATION DETAIL
NOT TO SCALE



INSTALLATION REQUIREMENTS

1. REQUIREMENTS FOR AN APPROVED INSTALLATION INCLUDE THE FOLLOWING: OPENINGS IN THE FLOOR OR WALL SHALL BE ½" PER FOOT LARGER THAN DAMPER DIMENSIONS (⅜" LARGER PER FOOT FOR STAINLESS). MINIMUM CLEARANCE OF ½" REQUIRED FOR ANY INSTALLATION.
2. SLEEVE GAGE SHALL BE AT LEAST EQUAL TO THE GAGE OF THE DUCT AS DEFINED BY THE APPROPRIATE SMACNA DUCT CONSTRUCTION STANDARD, AS DESCRIBED IN NFPA90A. WHEN ONE OR MORE OF THE FOLLOWING DUCT CONNECTIONS ARE USED, PLAIN S SLIP, HEMMED S SLIP, STANDING S SLIP, REINFORCED STANDING S SLIP, INSIDE SLIP JOINT, OR DOUBLE S SLIP.
3. IF ANY OTHER DUCT SLEEVE CONNECTIONS ARE USED, THE SLEEVE SHALL BE MINIMUM 16 GAGE FOR DAMPERS UP TO 36" (W) x 24" (H) AND 14 GAGE IF WIDTH EXCEEDS 36" OR HEIGHT EXCEEDS 24".
4. MOUNTING ANGLES SHALL BE MINIMUM OF 1½" x 1½" x 14" GAGE AND BOLTED. TACK WELDED PR SCREWED TO SLEEVE AT MAXIMUM SPACING OF 12" AND WITH MINIMUM OF TWO CONNECTIONS IN EACH SIDE, TOP AND BOTTOM. MOUNTING ANGLES SHALL OVERLAP WALL A MINIMUM OF ONE INCH ON ALL FOUR SIDES.
5. DAMPER SHALL BE BOLTED, TACK WELDED, OR SCREWED TO SLEEVE ON SAME SPACING AS ANGLES. SLEEVES SHALL NOT EXTEND MORE THAN 6" OUTSIDE OF WALL.
6. IF GAP BETWEEN DUCT/SLEEVE AND CONSTRUCTION IS 1" OR LESS, PACK SPACE WITH FIREPROOF FIBROUS MATERIAL AND SEAL BOTH SIDES WITH NON-HARDENING FIREPROOF SEALER. IF GAP EXCEEDS 1", WRAP DUCT WITH 1" THICK FIREPROOF FIBROUS MATERIAL AND FILL REMAINING SPACE WITH GROUT.

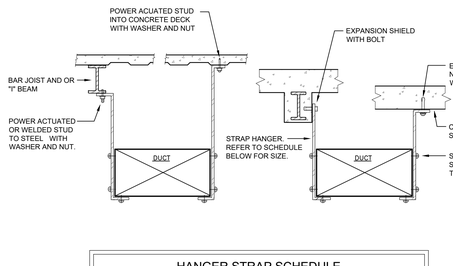
10 FIRE DAMPER DETAIL
NOT TO SCALE



NOTES:

1. SINGLE LINE REPRESENTATIONS REFER TO DOUBLE LINE DETAILS.
2. USE RADIUS OR SQUARE VANED BENDS FOR BOTH ELBOWS AND SPLITS AS DETERMINED BY SPACE LIMITATIONS, AND THE DISTANCE FROM AIR OUTLETS.
3. ALL SQUARE ELBOWS SHALL HAVE FACTORY TURNING VANES, AND MAINTAIN A CONSTANT WIDTH.
4. WHERE DUCTS SPLIT, THE SOLID LINE REPRESENTATION IS PREFERRED, UNLESS PRECLUDED BY SPACE, OR OTHERWISE INDICATED.
5. USE ELBOW SPLIT FOR BRANCH CONNECTIONS ONLY WHERE NECK SIZE IS GIVEN.

2 DUCT BRANCH TAKE-OFF DETAIL
NOT TO SCALE



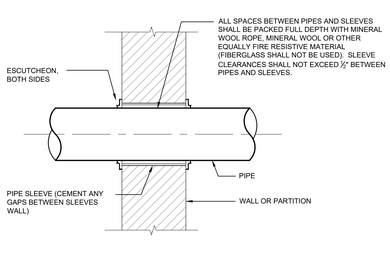
HANGER STRAP SCHEDULE

DUCT SIZE	HANGER SIZE	MAXIMUM SPACING
UP TO 2 SQ.FT.	1" X 1/16"	8'-0"
2 SQ.FT. TO 4 SQ.FT.	1" X 1/8"	8'-0"
4 SQ.FT. TO 10 SQ.FT.	1" X 1/8"	6'-0"
OVER 10 SQ.FT.	1" X 1/8"	4'-0"

NOTES:

1. FOR DUCTS OVER 49" WIDE, THE STRAP HANGER SHALL BE TURNED UNDER THE BOTTOM OF THE DUCT.
2. WHERE BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.

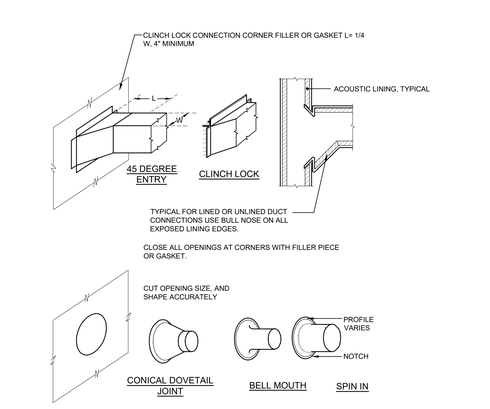
5 DUCT HANGER DETAIL
NOT TO SCALE



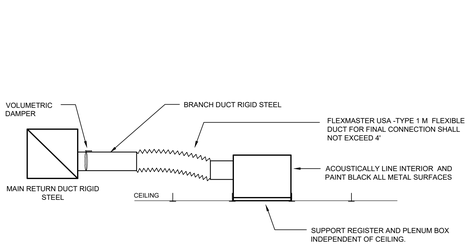
NOTES:

1. THIS DETAIL ALSO APPLICABLE TO INTERIOR NON-WATER PROOF FLOOR CONSTRUCTION. FOR WATER PROOF FLOOR CONSTRUCTION AND OTHER CONSTRUCTION - SEE SPECIFICATIONS.

8 FIRE RATED PARTITION AND WALL PIPE PENETRATION
NOT TO SCALE



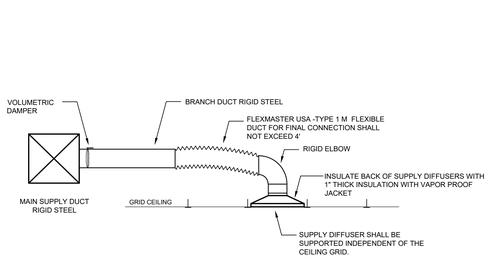
11 DUCT BRANCH CONNECTION DETAIL
NOT TO SCALE



NOTE:

1. FLEXIBLE AIR DUCT SHALL BE TESTED AND APPROVED IN ACCORDANCE WITH UL 181. ALL SUCH CONNECTORS AND FLEXIBLE AIR DUCTS SHALL BE LISTED AND LABELED AS CLASS O OR CLASS 1, IN ACCORDANCE WITH 2020 MCNYS SECTION 603.6.1 AND 603.6.2.

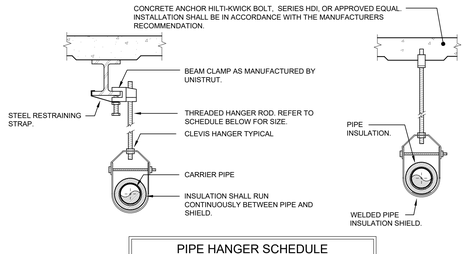
3 RETURN REGISTER DETAIL
NOT TO SCALE



NOTE:

1. FLEXIBLE AIR DUCT SHALL BE TESTED AND APPROVED IN ACCORDANCE WITH UL 181. ALL SUCH CONNECTORS AND FLEXIBLE AIR DUCTS SHALL BE LISTED AND LABELED AS CLASS O OR CLASS 1, IN ACCORDANCE WITH 2020 MCNYS SECTION 603.6.1 AND 603.6.2.

6 SUPPLY DIFFUSER LAY-IN DETAIL
NOT TO SCALE



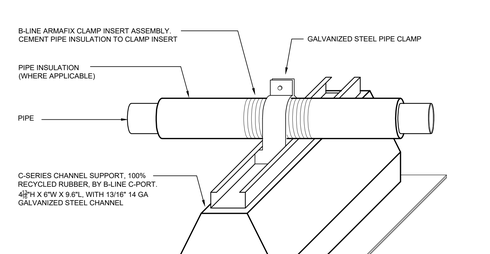
PIPE HANGER SCHEDULE

PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

NOTES:

1. CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
2. FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3. FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4. ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
5. FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.
6. WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.

9 PIPE HANGER DETAIL
NOT TO SCALE



NOTES:

1. ALL BRACKETS, HANGERS, AND FASTENERS SHALL BE GALVANIZED STEEL.
2. CLAMP INSERT ASSEMBLY SHALL INCLUDE GALVANIZED STEEL PIPE CLAMP, ARMAFLEX INSULATION WITH PAINTED ALUMINUM JACKET, AND INTERIOR SUPPORTS.
3. CEMENT RUBBER SUPPORT BLOCKS TO ROOF - USE ONLY MATERIALS COMPATIBLE WITH THE ROOFING SYSTEM

12 ROOF PIPE SUPPORT DETAIL
NOT TO SCALE

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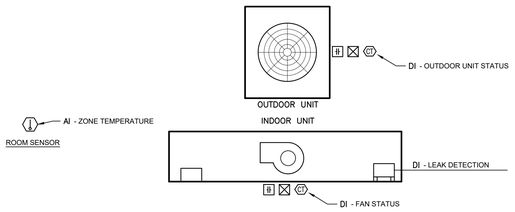
Sheet Title

MECHANICAL:
DETAILS

Job No.	Date
2023-1011	02/03/2023
Scale	Drawn / Checked
AS NOTED	DC/RL SZ/WH

Sheet Number

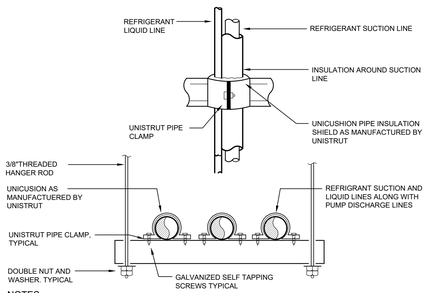
M601



DUCTLESS SPLIT-SYSTEM POINT LIST								
POINT NAME	AI	AO	DI	DO	SCHED	TREND	ALARM	SHOW ON GRAPHICS
INDOOR UNIT FAN STATUS			×			×		×
OUTDOOR UNIT STATUS			×			×		×
LEAK DETECTION			×			×	×	×
ZONE TEMPERATURE	×					×	×	×
CONDENSATE PUMP HIGH ALARM							×	×
FIRE ALARM SHUTDOWN SIGNAL			×				×	×

NOTE:
1. AT A MINIMUM THE POINTS INDICATED ABOVE SHALL BE PROVIDED.
2. FIRE ALARM SHUTDOWN SIGNAL POINT ONLY APPLIES TO AC-1, AC-2 AND AC-3.

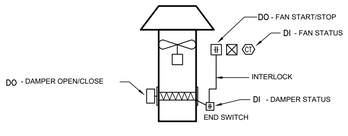
1 DUCTLESS SPLIT-SYSTEM CONTROLS SCHEMTIC
NOT TO SCALE



NOTES:
1. LIQUID AND SUCTION LINES MAY BE ROUTED TOGETHER FOR CONVENIENCE, BUT MUST BE COMPLETELY INSULATED FROM EACH OTHER. DO NOT SOLDER LIQUID AND SUCTION LINES TOGETHER. DO NOT ALLOW METAL TO METAL CONTACT.
2. LINES SHOULD BE INSTALLED WITH AS FEW BENDS AS POSSIBLE, ALLOWING SERVICE ACCESS TO THE INDOOR COIL.
3. USE LONG RADIUS ELBOWS WHEREVER POSSIBLE, EXCEPT IN OIL RETURN TRAPS, WHERE SHORT RADIUS ELBOWS SHOULD BE USED.
4. SLOPE HORIZONTAL SUCTION LINES 1 INCH EVERY 20 FEET TOWARD THE OUTDOOR UNIT.

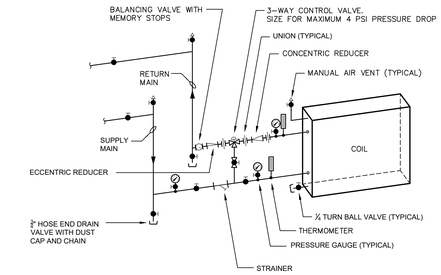
2 REFRIGERANT PIPE SUPPORT DETAIL
NOT TO SCALE

GENERAL EXHAUST FAN POINTS LIST								
POINT NAME	AI	AO	DI	DO	SCHED	TREND	ALARM	SHOW ON GRAPHICS
DAMPER STATUS			×			×		×
FAN STATUS			×			×		×
FAN START/STOP				×		×		×
DAMPER OPEN/CLOSE				×		×		×
SCHEDULE					×			
DAMPER FAILURE							×	×
FAN FAILURE							×	×



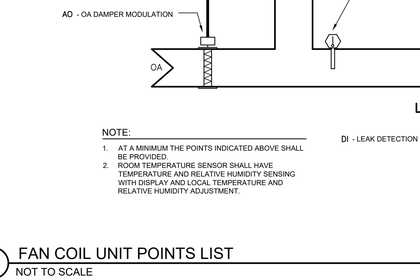
NOTE:
1. SHALL BE USED FOR EXHAUST FANS: 1 AND 2.
2. AT A MINIMUM THE POINTS INDICATED ABOVE SHALL BE PROVIDED.

3 GENERAL EXHAUST FAN CONTROLS SCHEMATIC
NOT TO SCALE



NOTES:
1. LOCATE ALL COIL UNIONS CLOSE TO, AND CLEAR OF, COIL. ARRANGE PIPING SO AS NOT TO NOT INTERFERE WITH COIL REMOVAL.
2. DETAIL IS TYPICAL FOR FAN COIL UNITS.
3. PROVIDE FLEXIBLE CONNECTION FOR THOSE COILS MOUNTED IN UNITS ON VIBRATION ISOLATORS.
4. REFER TO PLANS FOR PIPE SIZES.

4 HYDRONIC COIL WITH 3-WAY MIXING VALVE PIPING SCHEMATIC
NOT TO SCALE

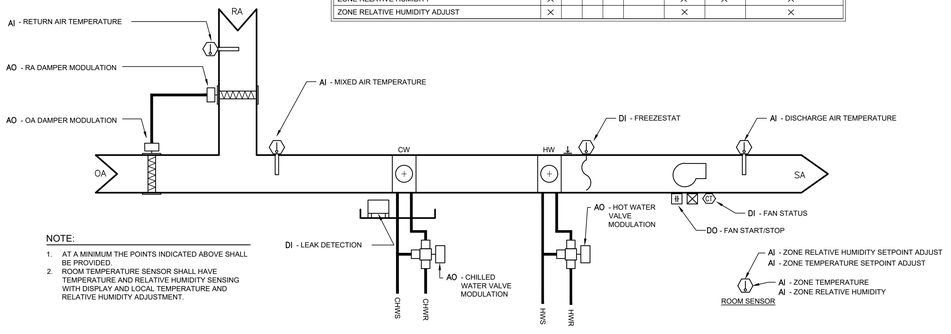


NOTES
1. INSULATED PREFABRICATED ROOF CURB SHALL BE BASED ON THYCURB MODEL TC-3. ROOF CURB SHALL BE CONSTRUCTED OF 18 GAUGE GALVANIZED STEEL WITH FULLY WELDED CORNERS, FACTORY INSTALLED WOOD NAILERS, REINFORCED SIDES, GASKETING, AND 1½" THICK 3-POUND DENSITY RIGID INSULATION. CURB HEIGHT SHALL BE 24". ROOF CURB SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
2. GENERAL CONTRACTOR SHALL MAKE PENETRATION WEATHER-TIGHT, REFER TO ARCHITECTURAL AND ROOFING DRAWINGS. REFER TO ARCHITECTURAL ROOF DETAILS FOR MORE INFORMATION.
3. THIS DETAIL SHALL BE USED FOR ALL DUCT PENETRATIONS THROUGH ROOF.

5 ROOF DUCT PENETRATION DETAIL
NOT TO SCALE

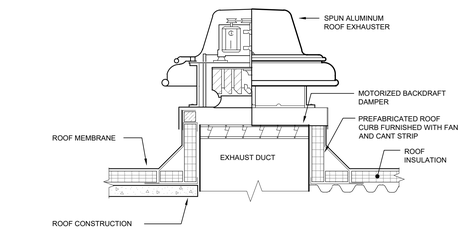
NOTES:
1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. VERIFY ALL FINISH COLORS WITH ARCHITECT PRIOR TO ORDERING FOR ALL EQUIPMENT VISIBLE WITHIN SPACE OR FROM EXTERIOR OF BUILDING. ALL EQUIPMENT SHALL BE FINISHED USING MANUFACTURER'S FULL RANGE OF STANDARD AND CUSTOM COLORS/FINISHES UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN FOR WIND RESTRAINT OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT. REFER TO WIND DESIGN DATA ON DRAWING S001.

FAN COIL UNIT POINTS LIST								
POINT NAME	AI	AO	DI	DO	SCHED	TREND	ALARM	SHOW ON GRAPHICS
SUPPLY FAN STATUS			×			×		×
SUPPLY FAN START/STOP				×		×		×
SUPPLY FAN FAILURE							×	×
HOT WATER VALVE MODULATION		×				×		×
RETURN AIR TEMPERATURE	×					×		×
FREEZESTAT			×			×	×	×
DISCHARGE AIR TEMPERATURE	×					×	×	×
RETURN DAMPER MODULATION		×				×		×
OUTSIDE AIR DAMPER MODULATION		×				×		×
SCHEDULE					×			
FIRE ALARM SHUTDOWN SIGNAL			×				×	×
ZONE TEMPERATURE	×					×	×	×
ZONE TEMPERATURE ADJUST	×					×		×
LEAK DETECTION			×				×	×
CHILLED WATER VALVE MODULATION		×				×		×
CONDENSATE PUMP HIGH LEVEL SWITCH			×				×	×
ZONE RELATIVE HUMIDITY	×					×	×	×
ZONE RELATIVE HUMIDITY ADJUST	×					×		×



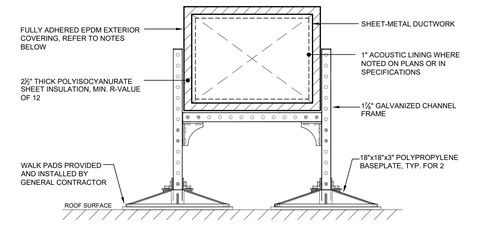
NOTE:
1. AT A MINIMUM THE POINTS INDICATED ABOVE SHALL BE PROVIDED.
2. ROOM TEMPERATURE SENSOR SHALL HAVE TEMPERATURE AND RELATIVE HUMIDITY SENSING WITH DISPLAY AND LOCAL TEMPERATURE AND RELATIVE HUMIDITY ADJUSTMENT.

6 FAN COIL UNIT POINTS LIST
NOT TO SCALE



NOTES:
1. ROOF CURB TO BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY GENERAL CONTRACTOR. REFER TO ARCHITECTURAL ROOF DETAILS FOR MORE INFORMATION.
2. COORDINATE ROOF OPENINGS AS REQUIRED FOR MECHANICAL WORK WITH GENERAL CONTRACTOR.

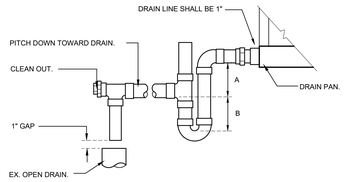
7 ROOFTOP EXHAUST FAN DETAIL
NOT TO SCALE



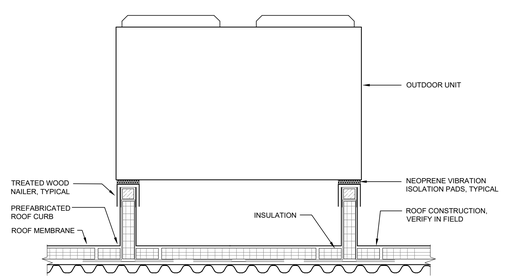
NOTES
1. ROOF DUCT SUPPORT SHALL BE BASED ON PHP SYSTEMS/DESIGN MODEL NUMBER PHP-D.
2. ALL BRACKETS, HANGERS, FASTENERS AND SUPPORTS LOCATED OUTDOORS SHALL BE GALVANIZED OR NICKEL PLATED
3. USE ONLY THOSE MATERIALS COMPATIBLE WITH THE ROOFING SYSTEM, REFER TO ARCHITECTURAL DRAWINGS.
4. SEAL ALL EXTERIOR DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE-SEAL CLASS A. SEAL ALL DUCT JOINTS AND MAKE WATER-TIGHT.
5. DUCT SUPPORTS SHALL SET ON WALK PADS PROVIDED AND INSTALLED BY GENERAL CONTRACTOR.
6. INSULATION INSTALLED ON THE TOP OF THE DUCTWORK SHALL BE SLOPED 1/2" PER FOOT.
7. INSULATION SHALL BE FASTENED TO THE DUCTWORK WITH SCREWS AND PLATES INSTALLED 12" ON CENTER IN ALL DIRECTIONS.
8. INSULATION SHALL BE COVERED WITH 60 MIL THICK, FIRE RATED, FULLY ADHERED EPDM BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL APPLY TWO ROLLER COATS OF WHITE ACRYLIC LATEX COATING TO EXTERIOR.

8 INSULATED ROOF DUCT SUPPORT DETAIL
NOT TO SCALE

9 CONDENSATE DRAIN DETAIL
NOT TO SCALE

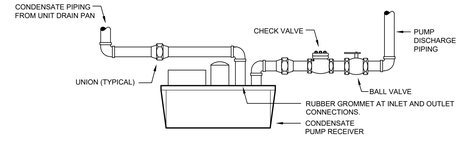


NOTE:
1. DRAW THRU UNITS; DIMENSION A (DEPTH OF SEAL) SHALL BE 2" MINIMUM AND DIMENSION B SHALL BE 1.2 x THE STATIC PRESSURE OF THE UNIT.

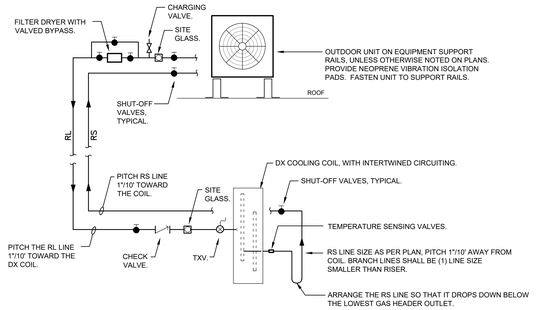


NOTES
1. EQUIPMENT SUPPORT RAILS TO BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY GENERAL CONTRACTOR. REFER TO ARCHITECTURAL ROOF DETAILS FOR MORE INFORMATION.
2. PROVIDE A MINIMUM OF (2) RAILS PER OUTDOOR UNIT. RAILS SHALL EXTEND A MINIMUM OF 6" LONGER THAN UNIT ON BOTH ENDS.
3. OUTDOOR UNITS ARE TO BE INSTALLED LEVEL. WHERE ROOFS ARE SLOPED EQUIPMENT SUPPORTS RAILS ARE TO BE ORDERED AS REQUIRED FOR LEVEL UNIT INSTALLATION.
4. EQUIPMENT SUPPORT RAILS SHALL BE BASED ON THYBAR MODEL TEMS-3, 24" HIGH. CONSTRUCTION SHALL BE WELDED 18 GAUGE GALVANIZED STEEL SHELL, BASE PLATE AND COUNTER FLASHING WITH FACTORY INSTALLED 2"x4" WOOD NAILER AND INTERNAL BULKHEAD REINFORCEMENT.

10 EQUIPMENT SUPPORT RAIL DETAIL
NOT TO SCALE



11 CONDENSATE PUMP PIPING SCHEMATIC
NOT TO SCALE



NOTES:
1. PROVIDE (1) ONE TRAP AT THE BOTTOM OF SUCTION LINE FOR RISES UP TO 50'-0". FOR RISERS BETWEEN 50'-0" AND 100'-0" PROVIDE A SECOND RISER HALF WAY UP.
2. PIPING SHALL BE INSTALLED SO NOT TO OBSTRUCT SERVICE ACCESS TO EITHER THE INDOOR OR OUTDOOR UNIT.
3. ALL FASTENERS LOCATED OUTDOORS SHALL BE GALVANIZED.
4. SLOPE HORIZONTAL SUCTION LINES APPROXIMATELY 1" EVERY 20 FEET TOWARD OUTDOOR UNIT TO FACILITATE OIL RETURN.
5. FINAL REFRIGERANT PIPING SIZING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, MECHANICAL CONTRACTOR TO COORDINATE.

12 DX SPLIT SYSTEM AC UNIT PIPING SCHEMATIC
NOT TO SCALE

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CONSTRUCTION DOCUMENTS

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No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

MECHANICAL:
DETAILS

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2023-1011	02/03/2023
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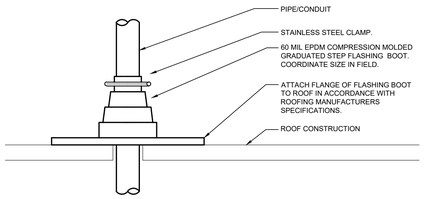
Sheet Number

M602

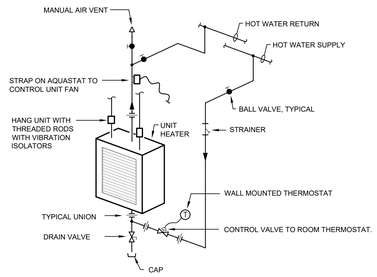


NOTES:

1. CONTRACTOR TO SELECT FLASHING BOOT BASED ON QUANTITY & SIZE OF PIPE PENETRATIONS. FLASHING BOOT SHALL PROVIDE A WATERTIGHT SEAL.
2. CLEAN AND PREPARE ROOF SURFACE AS REQUIRED FOR INSTALLATION OF FLASHING BOOT AND IN ACCORDANCE WITH ANY SPECIAL REQUIREMENTS PER THE ROOFING MANUFACTURER.
3. COORDINATE QUANTITIES AND SIZES OF PIPE/CONDUIT PENETRATIONS IN THE FIELD WITH CAP AND BOOT REQUIREMENTS.
4. USE ONLY MATERIALS COMPATIBLE WITH THE ROOFING SYSTEM.

1 ROOF PIPE/CONDUIT PENETRATION DETAIL

NOT TO SCALE



NOTES:

1. HANG UNIT WITH THREADED RODS WITH SPRING TYPE VIBRATION ISOLATORS. (TYPICAL FOR 2)
2. SUSPEND UNIT HEATERS SECURELY WITH PROVISIONS FOR EASY REMOVAL.
3. MAKE CERTAIN UNITS HANG LEVEL VERTICALLY AND HORIZONTALLY.
4. PROVIDE FOR EXPANSION IN SUPPLY LINES (NOTE SWING JOINTS IN SUGGESTED PIPING ARRANGEMENTS).
5. PROVIDE UNIONS ADJACENT TO UNIT HEATERS IN BOTH SUPPLY AND RETURN LATERALS. ALSO PROVIDE SHUT-OFF VALVES IN ALL SUPPLY LATERALS.
6. USE 45° ANGLE RUN-OFFS FROM ALL SUPPLY AND RETURN MAINS.

2 UNIT HEATER DETAIL

NOT TO SCALE

PACKAGED ROOFTOP UNIT POINTS LIST

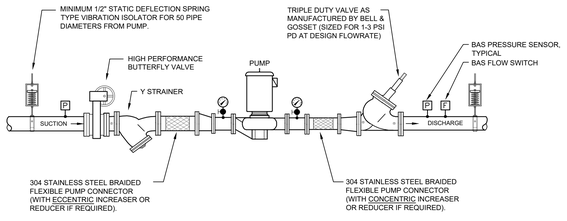
POINT NAME	AI	AO	DI	DO	SCHED	TREND	ALARM	SHOW ON GRAPHICS
UNIT STATUS			X			X		X
UNIT START/STOP				X		X		X
UNIT FAILURE							X	X
RETURN AIR TEMPERATURE	X					X		X
DISCHARGE AIR TEMPERATURE	X					X	X	X
FILTER STATIC PRESSURE DROP	X					X	X	X
SMOKE DETECTOR SHUTDOWN SIGNAL			X				X	X
FIRE ALARM SHUTDOWN SIGNAL			X				X	X
SCHEDULE					X			
SUPPLY AIR STATIC PRESSURE	X					X	X	X
FREEZESTAT			X			X	X	X
OUTSIDE AIRFLOW MEASURING STATION	X					X	X	X

NOTE:

1. SHALL BE USED FOR ALL ROOFTOP UNITS.
2. AT A MINIMUM THE POINTS INDICATED ABOVE SHALL BE PROVIDED.

3 PACKAGED ROOFTOP UNIT POINTS LIST

NOT TO SCALE



4 IN LINE PUMP DETAIL

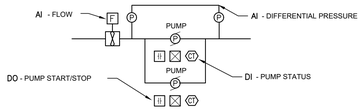
NOT TO SCALE

PUMP POINTS LIST

POINT NAME	AI	AO	DI	DO	SCHED	TREND	ALARM	SHOW ON GRAPHICS
PUMP STATUS			X			X		X
PUMP START/STOP				X		X		X
FLOW	X					X	X	X
PRESSURE DIFFERENTIAL	X					X	X	X
PUMP FAILURE							X	X
SCHEDULE					X			

NOTE:

1. AT A MINIMUM THE POINTS INDICATED ABOVE SHALL BE PROVIDED.



5 PUMP WITHOUT VARIABLE FREQUENCY DRIVE POINTS LIST

NOT TO SCALE

NOTES:

1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. VERIFY ALL FINISH COLORS WITH ARCHITECT PRIOR TO ORDERING FOR ALL EQUIPMENT VISIBLE WITHIN SPACE OR FROM EXTERIOR OF BUILDING. ALL EQUIPMENT SHALL BE FINISHED USING MANUFACTURER'S FULL RANGE OF STANDARD AND CUSTOM COLORS/FINISHES UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN FOR WIND RESTRAINT OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT. REFER TO WIND DESIGN DATA ON DRAWING S001.

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3	04/24/24	BID ISSUE

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MECHANICAL:
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Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

M603

GENERAL HVAC NOTES

1. ALL HVAC AND AUTOMATIC TEMPERATURE CONTROLS WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2022 VERSION OF NYS EDUCATION DEPARTMENT MANUAL OF PLANNING STANDARDS FOR SCHOOL BUILDINGS, 2020 VERSION OF THE MECHANICAL CODE, FIRE CODE, PLUMBING CODE, BUILDING CODE, AND ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
2. UNLESS OTHERWISE NOTED MECHANICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, PIPING, VALVES, ACCESS DOORS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE HVAC SYSTEMS COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS. CONTRACTORS SHALL PARTICIPATE IN MAKING COORDINATION DRAWINGS WITH OTHER TRADES.
3. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT TO ARCHITECT FOR APPROVAL. DEMONSTRATE NEW HVAC SYSTEMS TO SCHOOL DISTRICT AND REVIEW MAINTENANCE PROCEDURES.
4. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SEAL AROUND ALL PIPE/CONDUIT AND DUCT PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS AND CEILINGS WITH HILTI INTUMESCENT FIRE STOP MATERIALS TO MAINTAIN FIRE AND SMOKE RATINGS. DUCTS PENETRATING FIRE RATED WALLS, FLOORS AND CEILINGS SHALL BE INSTALLED WITH FIRE DAMPER AND ACCESS DOORS WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.
5. MECHANICAL CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT.
6. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
7. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING (120V) AND (24V) FOR SYSTEMS SHOWN ON HVAC DRAWINGS AND DESCRIBED IN HVAC SPECIFICATIONS, INCLUDING ALL PANELS, RELAYS, TRANSFORMERS, CONDUIT, JUNCTION BOXES, CONDUCTORS, THERMOSTATS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE AND OPERABLE.
8. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
9. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CUTTING, PATCHING AND PAINTING ASSOCIATED WITH HVAC WORK WITH THE GENERAL CONTRACTOR, WHO SHALL PERFORM THE WORK. ALL FLOORS AND WALLS WHERE AN EXISTING PIPE OR DUCT HAS BEEN REMOVED AND NOT REPLACED SHALL BE PATCHED BY GENERAL CONTRACTOR. THIS CONTRACTOR SHALL COORDINATE.
10. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SHEET METAL AND AIR CONDITIONING MECHANICAL CONTRACTORS NATIONAL ASSOCIATION (SMACNA) DUCT STANDARDS. PROVIDE RADIUS TURNS OR TURNING VANES ON ALL CHANGES IN DIRECTION IN ACCORDANCE WITH SMACNA STANDARDS.
11. ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (N.E.C.) AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER WITH THHN INSULATION IN EMT CONDUIT. 120V/1 - MINIMUM CONDUCTOR SIZE #12. 24V - MINIMUM CONDUCTOR SIZE #18. MINIMUM CONDUIT SIZE SHALL BE ¾". CONDUIT INSTALLED OUTDOORS SHALL BE GALVANIZED.
12. ALL DUCTWORK SHALL BE FABRICATED WITH MINIMUM 26 GAGE GALVANIZED STEEL INCLUDING ROUND DUCTS.
13. FINAL LOCATIONS OF ALL THERMOSTATS AND SENSORS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION, COORDINATE IN FIELD. THERMOSTATS AND SENSORS SHALL BE LOCATED 4'-0" ABOVE FINISHED FLOOR.
14. MECHANICAL CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES AND DUCT ACCESSORIES CONCEALED IN WALLS/CEILINGS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN INTEGRITY OF WALL/CEILING. TURN OVER ACCESS DOORS TO GENERAL CONTRACTOR FOR INSTALLATION.
15. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING/CONDUIT IN FINISHED AREAS WITH GENERAL CONTRACTOR TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS AND CEILINGS.
16. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL FURNISH AND INSTALL VALVE TAGS, PIPE LABELS, DUCT LABELS AND EQUIPMENT LABELS. LOG ALL TAGS AND LABELS IN A 3-RING BINDER WITH LOCATION, DESCRIPTION AND FUNCTION. SEE SPECIFICATIONS FOR MORE INFORMATION.
17. MECHANICAL CONTRACTOR SHALL PROVIDE ALL AIR AND HYDRONIC BALANCING FOR ALL NEW HVAC SYSTEMS. PROVIDE ALL NECESSARY MOTOR, DRIVE, BELT CHANGES AND ETC. SEE SPECIFICATIONS FOR BALANCE PROCEDURES AND ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL COMFORT BALANCE ALL HVAC SYSTEMS TO THE SATISFACTION OF ENGINEER/ARCHITECT.
18. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUPPLEMENTAL STRUCTURAL STEEL SUPPORT ASSOCIATED WITH NEW HVAC EQUIPMENT HUNG OR SUPPORTED FROM OR ON THE BUILDING STRUCTURE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ARCHITECT FOR APPROVAL PRIOR TO STEEL FABRICATION AND INSTALLATION OF EQUIPMENT.
19. MECHANICAL CONTRACTOR SHALL INSTALL DUCT MOUNTED SMOKE DETECTORS IN SUPPLY AND RETURN AIR DUCTWORK OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OR OUTDOOR AIR CONNECTIONS AND WHERE REQUIRED FOR SMOKE DAMPERS. DUCT SMOKE DETECTORS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CONNECTION TO FIRE ALARM SYSTEM SHALL BE BY THE FIRE ALARM CONTRACTOR. MECHANICAL CONTRACTOR SHALL INSTALL AN ACCESS DOOR IN DUCTWORK FOR EACH SMOKE DETECTOR.
20. MECHANICAL CONTRACTOR SHALL SUBMIT PIPING AND DUCTWORK FULLY COORDINATED SHOP DRAWINGS FOR ENGINEERS REVIEW. SEE GENERAL CONDITIONS FOR NUMBER OF SHOP DRAWINGS.
21. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL INSTRUCT SCHOOL DISTRICT AND KEY PERSONNEL ON OPERATION OF ALL HVAC SYSTEMS. SET ALL THERMOSTATS TO TEMPERATURES AND SCHEDULES AS DIRECTED BY SCHOOL DISTRICT.
22. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL INCLUDE IN BID ALL MATERIALS, RIGGING AND LABOR REQUIRED FOR THE COMPLETE AND PROPER INSTALLATION OF THE MECHANICAL SYSTEM.
23. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE BEGINNING OF WORK, AND COORDINATE WORK ALL OTHER TRADES.
24. PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES.
25. PROVIDE VOLUME DAMPERS ON ALL SUPPLY, RETURN, OUTSIDE AIR AND EXHAUST BRANCH DUCTWORK, WHETHER SPECIFICALLY INDICATED ON DRAWINGS OR NOT.
26. PROVIDE ½" ACOUSTIC LINING A MINIMUM OF 25'-0" FROM INLET AND OUTLET OF ALL FANS. THE FIRST FIGURE OF DUCT SIZE INDICATE DIMENSION OF FACE SHOWN OR INDICATED. DUCT DIMENSIONS SHOWN ON DRAWINGS REFER TO INSIDE CLEAR DIMENSIONS. WHERE DUCTWORK IS LINED, THE CONTRACTOR SHALL INCREASE THE SIZE OF DUCT TO COMPENSATE FOR LINING.
27. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SCHEDULE ALL SHUT-DOWNS OF EXISTING BASE BUILDING EQUIPMENT/SYSTEMS WITH SCHOOL DISTRICT AS REQUIRED FOR PERFORMING WORK. NOTICE SHALL BE GIVEN NO LESS THAN (5) FIVE BUSINESS DAYS PRIOR TO REQUIRED SHUT-DOWN. SHUT-DOWNS SHALL NOT BE PERFORMED WITHOUT APPROVAL FROM SCHOOL DISTRICT.
28. UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS, CEILING REMOVAL, TEMPORARY PROTECTION, AND REPLACEMENT AS REQUIRED PERFORMING SCOPE OF WORK SHALL BE BY THIS MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR. CEILING TILES DAMAGED AS A RESULT OF THIS CONTRACTOR'S WORK SHALL BE REPLACED AT NO ADDITIONAL COST TO THE SCHOOL DISTRICT.
29. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE MECHANICAL CONTRACTOR FOR HVAC EQUIPMENT SHALL BE HEAVY DUTY TYPE AND SHALL BE NEMA 3R WHEN LOCATED OUTSIDE.
30. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING (AND PROPER DISPOSAL OF DRAINED WATER) AND REFILLING EXISTING SYSTEMS AS REQUIRED FOR COMPLETION OF WORK.
31. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER AND AGREES TO REPLACE DEFECTIVE WORK (INCLUDING ALL REQUIRED LABOR AND MATERIAL) AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
32. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP AND COMMISSIONING OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
33. MECHANICAL AND AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK.
34. ALL NEW HOLES IN WALLS AND FLOORS SHALL BE CORE DRILLED BY CONTRACTOR. PRIOR TO CORE DRILLING FLOORS, RADAR SCAN FLOOR SLABS. USE CAUTION WHEN CORE DRILLING TO AVOID DAMAGE TO EXISTING EQUIPMENT, SYSTEMS, STRUCTURE AND ETC. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO SCHOOL DISTRICT.
35. UNLESS OTHERWISE NOTED AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE ALL CONTROLS EQUIPMENT, WIRING, CONTROL VALVES, PROGRAMMING, GRAPHICS UPDATES AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE HVAC CONTROLS SYSTEMS COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.

SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
CD-X / CFM	DESIGNATION / AIRFLOW	CEILING DIFFUSER
ER-X / CFM	DESIGNATION / AIRFLOW	EXHAUST REGISTER
RG-X / CFM	DESIGNATION / AIRFLOW	RETURN GRILLE
RR-X / CFM	DESIGNATION / AIRFLOW	RETURN REGISTER
LD-X / CFM	DESIGNATION / MAX AIRFLOW	LINEAR DIFFUSER
—	A	AMPS
—	AC	AIR CONDITIONING UNIT
—	ACCU	AIR COOLED CONDENSING UNIT
—	AD	ACCESS DOOR
—	AFF	ABOVE FINISHED FLOOR
—	AHC	ABOVE HUNG CEILING
—	AI	ANALOG INPUT
—	AO	ANALOG OUTPUT
—	ATC	AUTOMATIC TEMPERATURE CONTROL
—	AV	ANALOG VALUE
—	BAS	BUILDING AUTOMATION SYSTEM
—	BDD	BACKDRAFT DAMPER
—	BHP	BRAKE HORSE POWER
—	BI	BINARY INPUT
—	BO	BINARY OUTPUT
—	BTU	BRITISH THERMAL UNIT
—	BTUH	BRITISH THERMAL UNIT PER HOUR
—	BV	BINARY VALUE
—	CFM	CUBIC FEET PER MINUTE
—	DB	DRY BULB TEMPERATURE
—	DDC	DIRECT DIGITAL CONTROL
—	DI	DIGITAL INPUT
Ø	DIA	DIAMETER OR PHASE
—	DN	DOWN
—	DO	DIGITAL OUTPUT
—	DS	DISCONNECT SWITCH
—	DX	DIRECT EXPANSION
—	EA	EXHAUST AIR
—	EAT	ENTERING AIR TEMPERATURE
—	EC	ELECTRICAL CONTRACTOR
—	EER	ENERGY EFFICIENT RATING
—	EF	EXHAUST FAN
—	ESP	EXTERNAL STATIC PRESSURE
—	EWT	ENTERING WATER TEMPERATURE
—	°F	FAHRENHEIT
—	FAI	FRESH AIR INTAKE
—	FCU	FAN COIL UNIT
—	FLA	FULL LOAD AMPS

SYMBOL	ABBREVIATION	DESCRIPTION
—	FPI	FINS PER INCH
—	FPM	FEET PER MINUTE
—	FT H_2O	FEET OF WATER
—	FT^2	SQUARE FEET
—	GA	GAUGE
—	GC	GENERAL CONTRACTOR
—	GPM	GALLONS PER MINUTE
—	IN H_2O	INCHES OF WATER COLUMN
—	HOA	HAND-OFF-AUTO SWITCH
—	HP	HORSE POWER
—	HSPF	HEATING SEASONAL PERFORMANCE FACTOR
—	HZ	HERTZ
—	IPLV	INTEGRATED PART LOAD VALVE
—	LAT	LEAVING AIR TEMPERATURE
—	LBS	POUNDS
—	LWT	LEAVING WATER TEMPERATURE
—	MAX.	MAXIMUM
—	MBH	1000 BRITISH THERMAL UNITS PER HOUR
—	MCA	MINIMUM CIRCUIT AMPACITY
—	MER	MECHANICAL EQUIPMENT ROOM
—	MIN.	MINIMUM
—	MOCP	MAXIMUM OVERCURRENT PROTECTION
—	NC	NORMALLY CLOSED
—	NC	NOISE CRITERIA
—	NIC	NOT IN CONTACT
—	NO	NORMALLY OPEN
—	OAI	OUTSIDE AIR INTAKE
—	PC	PLUMBING CONTRACTOR
—	PRV	PRESSURE REDUCING VALVE
—	PSI	POUNDS PER SQUARE INCH
—	RA	RETURN AIR
—	RF	RETURN FAN
—	RPM	REVOLUTIONS PER MINUTE
—	RTU	ROOFTOP UNIT
—	SA	SUPPLY AIR
—	SEER	SEASONAL ENERGY EFFICIENCY RATIO
—	SQ.FT.	SQUARE FEET
—	TD	TRANSFER DUCT
—	TSP	TOTAL STATIC PRESSURE
—	TXV	THERMAL EXPANSION VALVE
—	TYP.	TYPICAL
—	V	VOLT
—	VFD	VARIABLE FREQUENCY DRIVE
—	UON	UNLESS OTHERWISE NOTED
—	VTR	VENT TO ROOF
—	WB	WET BULB TEMPERATURE
—	WG	INCHES OF WATER GAUGE
—	WMS	WIRE MESH SCREEN

SYMBOL	ABBREVIATION	DESCRIPTION
CD	-	CONDENSATE DRAIN
CHWR	CHWR	CHILLED WATER RETURN
CHWS	CHWS	CHILLED WATER SUPPLY
HWS	HWS	HOT WATER SUPPLY
HWR	HWR	HOT WATER RETURN
PD	PD	PUMP DISCHARGE, CONDENSATE
RL	RL	REFRIGERANT LIQUID
RS	RS	REFRIGERANT SUCTION
EX.	EXISTING TO REMAIN	
NEW	NEW WORK	
DEM.	EXISTING TO BE REMOVED	
-	ELBOW UP	
-	ELBOW DOWN	
-	TEE UP	
-	TEE DN	
-	BRAIDED FLEXIBLE CONNECTION	
-	CONCENTRIC REDUCER	
-	CONCENTRIC REDUCER	
-	STRAINER	
-	FLOW ARROW	
-	CHECK VALVE	
-	BALANCING VALVE	
-	2-WAY VALVE	
-	3-WAY VALVE	
-	OS&Y GATE VALVE	
-	BALL VALVE	
-	BUTTERFLY VALVE - HIGH PERFORMANCE	
-	UNION	
-	MANUAL AIR VENT	
-	THERMOMETER	
-	PRESSURE GAUGE	
-	ROOF DRAIN	
-	PUMP	

SYMBOL	ABBREVIATION	DESCRIPTION
	LD	LINEAR DIFFUSER
CD	CD	CEILING DIFFUSER
ER	ER	EXHAUST REGISTER
RG	RG	RETURN GRILLE
RR	RR	RETURN REGISTER
	-	SUPPLY/OUTSIDE AIR INTAKE DUCT UP
	-	SUPPLY/OUTSIDE AIR INTAKE DUCT DOWN
	-	RETURN/EXHAUST AIR DUCT UP
	-	RETURN/EXHAUST AIR DUCT DOWN
6 x 8	-	DUCT SIZE
	FC	FLEXIBLE CONNECTION
	-	TRANSITION FROM SQUARE TO ROUND DUCT
	-	TRANSITION
D	-	DUCT DROP
R	-	DUCT RISE
	-	SQUARE VANED ELBOW
	-	DUCT TRANSITION
	-	DUCT DROP
	-	DUCT RISE
	-	FLEXIBLE DUCTWORK
	-	ACOUSTIC LINING
VD	VD	VOLUME DAMPER
CFSD	CFSD	COMBINATION FIRE/SMOKE DAMPER WITH ACCESS DOOR
FD	FD	FIRE DAMPER WITH ACCESS DOOR
M	MD	MOTORIZED DAMPER
SD	SD	SMOKE DAMPER WITH ACCESS DOOR
S	-	DUCT MOUNTED SMOKE DETECTOR
T	-	COMBINATION TEMPERATURE/HUMIDITY SENSOR
T	-	TEMPERATURE SENSOR
	-	AIR INTO REGISTER
	-	POINT OF DISCONNECT/CONNECT

NOTES:

1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. VERIFY ALL FINISH COLORS WITH ARCHITECT PRIOR TO ORDERING FOR ALL EQUIPMENT VISIBLE WITHIN SPACE OR FROM EXTERIOR OF BUILDING. ALL EQUIPMENT SHALL BE FINISHED USING MANUFACTURER'S FULL RANGE OF STANDARD AND CUSTOM COLORS/FINISHES UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN FOR WIND RESTRAINT OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT. REFER TO WIND DESIGN DATA ON DRAWING S001.

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

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GOSHEN, NY 10924

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44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

MECHANICAL:
EQUIPMENT SCHEDULES

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

M701

FAN COIL UNIT SCHEDULE

DESIGNATION	MODEL	SIZE	AREA SERVED	FAN CHARACTERISTICS				ELECTRICAL			COOLING CHARACTERISTICS								HEATING CHARACTERISTICS						FILTER DATA
				CFM	OUTSIDE AIR CFM	ESP (IN H_2O)	HP	VOLTS/Ø	FLA/MCA	MOCP	TOTAL CAP. (BTUH)	SENS. CAP. (BTUH)	EAT (DB/WB)	LAT (DB/WB)	EWT/LWT	PD (FT. H_2O)	NO. OF ROWS/FPI	FLOW RATE (GPM)	SENS. CAP. (BTUH)	EAT/LAT (DB)	EWT/LWT	PD (FT. H_2O)	NO. OF ROWS/FPI	FLOW RATE (GPM)	TYPE
FCU-1A	BCHE	12	REFER TO PLANS	400	65	0.75	½	208/3	2.4/3.0	15	9,010	7,500	71.90/61.70	54.84/53.91	45.0/55.0	0.64	6/10	1.9	14,920	67/100.49	200/151.87	0.10	1/10	0.59	NA
FCU-2A	BCHE	24	REFER TO PLANS	600	310	0.75	½	208/3	2.4/3.0	15	15,430	11,910	71.90/61.70	53.81/52.70	45.0/55.0	2.21	6/10	3.3	22,650	67/101.94	200/139.40	0.16	1/10	0.75	NA
FCU-2B	BCHE	24	REFER TO PLANS	600	140	0.75	½	208/3	2.4/3.0	15	15,430	11,910	71.90/61.70	53.81/52.70	45.0/55.0	2.21	6/10	3.3	22,650	67/101.94	200/139.40	0.16	1/10	0.75	NA
FCU-3A	BCHE	24	REFER TO PLANS	700	340	0.75	½	208/3	2.40/3.0	15	17,570	13,380	72.0/61.90	54.58/53.18	45.0/55.0	2.90	6/10	3.9	26,790	67/102.45	200/144.08	0.25	1/10	0.9	NA
FCU-3B	BCHE	24	REFER TO PLANS	700	360	0.75	½	208/3	2.40/3.0	15	17,570	13,380	72.0/61.90	54.58/53.18	45.0/55.0	2.90	6/10	3.9	26,790	67/102.45	200/144.08	0.25	1/10	0.9	NA
FCU-3C	BCHE	24	REFER TO PLANS	700	375	0.75	½	208/3	2.40/3.0	15	17,570	13,380	72.0/61.90	54.58/53.18	45.0/55.0	2.90	6/10	3.9	26,790	67/102.45	200/144.08	0.25	1/10	0.9	NA
FCU-3D	BCHE	24	REFER TO PLANS	700	145	0.75	½	208/3	2.40/3.0	15	17,570	13,380	72.0/61.90	54.58/53.18	45.0/55.0	2.90	6/10	3.9	26,790	67/102.45	200/144.08	0.25	1/10	0.9	NA
FCU-4A	BCHE	36	REFER TO PLANS	900	410	0.75	½	208/3	2.40/3.0	15	22,560	16,810	72.20/62.60	55.20/54.04	45.0/55.0	3.90	4/10	4.8	33,580	67/101.50	200/124.82	0.29	1/10	0.9	NA
FCU-5A	BCHE	36	REFER TO PLANS	950	500	0.75	½	208/3	2.40/3.0	15	21,540	17,510	71.90/61.70	55.11/53.86	45.0/55.0	3.66	4/10	4.6	35,530	67/101.59	200/126.48	0.33	1/10	0.9	NA
FCU-5B	BCHE	36	REFER TO PLANS	950	435	0.75	½	208/3	2.40/3.0	15	21,540	17,510	71.90/61.70	55.11/53.86	45.0/55.0	3.66	4/10	4.6	35,530	67/101.59	200/126.48	0.33	1/10	0.9	NA
FCU-6A	BCHE	36	REFER TO PLANS	1000	500	0.75	½	208/3	2.40/3.0	15	22,510	18,230	72.0/61.80	55.39/54.03	45.0/55.0	4.00	4/10	4.9	37,540	67/101.73	200/128.23	0.38	1/10	1.0	NA
FCU-6B	BCHE	36	REFER TO PLANS	1000	460	0.75	½	208/3	2.40/3.0	15	22,510	18,230	72.0/61.80	55.39/54.03	45.0/55.0	4.00	4/10	4.9	37,540	67/101.73	200/128.23	0.38	1/10	1.0	NA
FCU-7A	BCHE	36	REFER TO PLANS	1100	505	0.75	1	208/3	4.60/5.75	15	24,410	19,890	72.20/61.90	55.73/54.27	45.0/55.0	4.66	4/10	5.3	41,360	67/101.79	200/131.93	0.49	1/10	1.2	NA

NOTES:

1. 4-PIPE FAN COIL UNITS SHALL BE BASED ON TRANE.
2. ALL FAN COIL UNITS SHALL BE UL LISTED AND LABELED.
3. FAN COIL UNIT CONTROLS SHALL BE BY AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR.
4. MECHANICAL CONTRACTOR TO CONFIRM COIL SIDE CONNECTIONS IN FIELD PRIOR TO ORDERING.
5. EACH FAN COIL UNIT SHALL BE PROVIDED WITH: DISCONNECT SWITCH, INLET/OUTLET FLEXIBLE CONNECTIONS, RUBBER-IN SHEAR VIBRATION ISOLATORS, 1-INCH MATTE FACED INSULATION, STAINLESS STEEL DRAIN PAN, STAINLESS STEEL AUXILIARY DRAIN PAN, AND ELECTRONICALLY COMMUTATED MOTORS .
6. HOT WATER COILS SHALL BE IN THE REHEAT POSITION.

MINIMUM HANGER SIZES FOR RECTANGULAR DUCT

MINIMUM HALF OF DUCT PERIMETER	PAIR AT 10Ft SPACING		PAIR AT 8Ft SPACING		PAIR AT 5Ft SPACING		PAIR AT 4Ft SPACING	
	STRAP	ROD	STRAP	ROD	STRAP	ROD	STRAP	ROD
P/2 = 30"	1" x 22ga	¼"	1" x 22ga	¼"	1" x 22ga	¼"	1" x 22ga	¼"
P/2 = 72"	1" x 18ga	⅜"	1" x 20ga	¼"	1" x 22ga	¼"	1" x 22ga	¼"
P/2 = 96"	1" x 16ga	⅜"	1" x 18ga	⅜"	1" x 20ga	⅜"	1" x 22ga	⅜"
P/2 = 120"	1½" x 16ga	½"	1" x 16ga	⅜"	1" x 18ga	⅜"	1" x 20ga	⅜"
P/2 = 168"	1½" x 16ga	½"	1" x 16ga	½"	1" x 16ga	⅜"	1" x 18ga	⅜"
P/2 = 192"	-	-	1" x 16ga	½"	1" x 16ga	⅜"	1" x 18ga	⅜"

WHEN STRAPS ARE LAP JOINED USE THESE MINIMUM FASTENERS:

1" x 18, 20, 22ga - ON ¼" BOLT
1" X 16ga - TWO ¼" Dia.
1" X 16ga - TWO ⅜" Dia.

PLACE FASTENERS IN SERIES, NOT SIDE BY SIDE.

SINGLE HANGER MAXIMUM ALLOWABLE LOAD

STRAP	ROD (Dia.)
1" x 22ga - 260Lbs.	¼" - 270Lbs.
1" x 20ga - 32Lbs.	⅜" - 680Lbs.
1" x 18ga - 420Lbs.	½" - 1250Lbs.
1" x 16ga - 700Lbs.	⅝" - 2000Lbs.
1½" x 16ga - 1100Lbs.	¾" - 3000Lbs.

NOTES:

1. DIMENSIONS OTHER THAN GAUGE ARE IN INCHES.
2. TABLES ALLOW FOR DUCT WEIGHT, 1 LB./SF. INSULATION WEIGHT AND NORMAL REINFORCEMENT AND TRAPEZE WEIGHT, BUT NO EXTERNAL LOADS.
3. STRAPS ARE GALVANIZED STEEL.
4. ALLOWABLE LOADS FOR P/2 ASSUME THAT DUCTS ARE 16 GA. MAXIMUM, EXCEPT WHEN MAXIMUM DUCT DIMENSION (W) IS OVER 60" THEN P/2 MAXIMUM IS 1.25 W.

PIPE HANGER SCHEDULE

PIPE SIZE (INCHES)	MAXIMUM HORIZONTAL SPACING (FEET)			SINGLE STEEL ROD HANGER SIZE (INCHES)		HANGER TYPE STEEL	MAXIMUM VERTICAL SPACING (FEET)		
	COPPER TUBE	STEEL PIPE	PVC PIPE	TUBING	PIPING		COPPER TUBE	STEEL PIPE	PVC PIPE
½"	6	8	4	¼"	⅜"	BAND	10	15	10
¾"	6	8	4	¼"	⅜"	BAND	10	15	10
1"	6	8	4	¼"	⅜"	BAND	10	15	10
1¼"	6	9	4	¼"	⅜"	CLEVIS	10	15	10
1½"	6	9	4	¼"	⅜"	CLEVIS	10	15	10
2"	10	10	4	¼"	⅜"	CLEVIS	10	15	10
2½"	10	12	4	⅜"	½"	CLEVIS	10	15	10
3"	10	12	4	⅜"	½"	CLEVIS	10	15	10
4"	——	12	4	½"	⅝"	CLEVIS OR ROLLER	——	15	10
6"	——	12	——	——	¾"	CLEVIS OR ROLLER	——	15	——

NOTES:

1. INSTALL HANGER OR SUPPORT CLOSE TO THE POINT OF CHANGE OF DIRECTION IN ALL PIPE RUNS.
2. INSTALL ADDITIONAL HANGERS ON SUPPORTS AT CONCENTRATED LOADS.
3. SUPPORT ALL BRANCH PIPING OVER 5'-0" IN LENGTH.
4. USE ROLLER TYPE HANGERS (MSS TYPE 41) WHERE PIPING IS SUBJECT TO MOVEMENT CAUSED BY EXPANSION AND CONTRACTION.
5. HANGERS AND ANCHORS SHALL BE ATTACHED TO THE BUILDING CONSTRUCTION IN AN APPROVED MANNER.
6. PIPING SHALL BE SUPPORTED AT DISTANCES NOT EXCEEDING THE SPACING SPECIFIED IN SCHEDULE OR IN ACCORDANCE WITH MSS SP-69.

MECHANICAL PIPING MATERIAL SCHEDULE

SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD
HOT & CHILLED WATER	3" & DOWN	COPPER	HARD DRAWN TYPE L TUBING	ASTM B 88
HOT & CHILLED WATER	4" & UP	BLACK STEEL	SCHEDULE 40	ASTM A 53
INTERIOR CONDENSATE & CONDENSATE PUMP DISCHARGE	ALL	COPPER	HARD DRAWN TYPE L TUBING	ASTM B 88
CONDENSATE DRAIN (EXTERIOR)	ALL	PVC	SCHEDULE 40 DWV	ASTM D 2665
REFRIGERANT	ALL	COPPER	HARD OR ANNEALED TYPE ACR	ASTM B 280

MECHANICAL PIPING FITTING SCHEDULE

SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD
HOT & CHILLED WATER	3" & DOWN	WROUGHT COPPER	LEAD-FREE SOLDER ASTM B828	ASME B 16.22
HOT & CHILLED WATER	4" & UP	CARBON STEEL	BUTT WELDED OR FLANGED	ASME B 16.9 ASME 234
INTERIOR CONDENSATE & CONDENSATE PUMP DISCHARGE	ALL	WROUGHT COPPER	SOLDER	ASME B 16.22
CONDENSATE DRAIN (EXTERIOR)	ALL	PVC	SCHEDULE 40 DWV SOLVENT CEMENT	ASTM D 3034 ASTM D 2855
REFRIGERANT	ALL	COPPER	SILVER SOLDER 300 PSI	ANSI B 16.22

NOTES:

1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. VERIFY ALL FINISH COLORS WITH ARCHITECT PRIOR TO ORDERING FOR ALL EQUIPMENT VISIBLE WITHIN SPACE OR FROM EXTERIOR OF BUILDING. ALL EQUIPMENT SHALL BE FINISHED USING MANUFACTURER'S FULL RANGE OF STANDARD AND CUSTOM COLORS/FINISHES UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN FOR WIND RESTRAINT OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT. REFER TO WIND DESIGN DATA ON DRAWING S001.

MECHANICAL EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
CD-A	KRUEGER	1400	STEEL HIGH PERFORMANCE CEILING DIFFUSER. MAXIMUM CORE VELOCITY: 550 FPM. MAXIMUM NOISE CRITERIA: 15 NC. SURFACE MOUNTED WITH FRAMES AND BORDERS SUITABLE FOR THE CONSTRUCTION IN WHICH THEY WILL BE INSTALLED, CONTRACTOR TO COORDINATE. BAKED ENAMEL FINISH, COLOR SELECTED BY ARCHITECT. 4-WAY DEFLECTION. 24" x 24" MODULE SIZE. ALL DIFFUSERS SHALL BE EQUIPPED WITH OPPOSED BLADE VOLUME DAMPER. CFM RANGE: NECK SIZE: 0-100 → 6"Ø 101-200 → 8"Ø 201-300 → 10"Ø 301-450 → 12"Ø 451-650 → 14"Ø
SD	RUSKIN	SD60	CONSTRUCTED AND INSTALLED ACCORDING TO NFPA90A AND UL LABELS. UL 555S OPPOSED AIRFOIL BLADE DAMPER, HIGH PERFORMANCE AND LOW LEAKAGE CLASS 1. DAMPER SHALL BE RATED FOR DYNAMIC AIRFLOW CONDITIONS OF 4,000 FPM AND 8.0" SP. FURNISH UL RATED ELECTRIC DAMPER ACTUATOR AND CONTROL SWITCHES AS REQUIRED. FURNISH WITH FACTORY WELDED INTEGRAL WALL SLEEVE, FRAME MOUNTING ANGLES, G STYLE WITH ¾" MOUNTING FLANGE, AND EITHER DUCTMATE OR SLIP DRIVE BREAK AWAY CONNECTIONS. 120V/1Ø/60Hz; 0.25 AMPS; 23 WATTS. COORDINATE ROTATION IN FIELD. PROVIDE DISCONNECT, DAMPER TEST SWITCH, AND END SWITCH. SMOKE DETECTOR PROVIDED BY OTHERS, INSTALLED BY MECHANICAL CONTRACTOR IN DUCTWORK.
ER-A **RR-A**	KRUEGER	S80H	STEEL RETURN REGISTER WITH ¾" FIXED BLADE SPACING. MAXIMUM CORE VELOCITY: 500 FPM. MAXIMUM NOISE CRITERIA: 25 NC. SURFACE MOUNTED 35° FIXED DEFLECTION BLADES. BLADES PARALLEL TO LONG DIMENSION UNLESS OTHERWISE NOTED. BAKED ENAMEL FINISH, COLOR SELECTED BY ARCHITECT. REGISTERS SHALL HAVE FRAMES AND BORDERS SUITABLE FOR THE CONSTRUCTION IN WHICH THEY WILL BE INSTALLED, CONTRACTOR TO COORDINATE. REGISTERS SHALL BE PROVIDED WITH OPPOSED BLADE VOLUME DAMPERS. UNLESS OTHERWISE NOTED ON PLANS REGISTERS AND GRILLES SHALL BE SIZED PER SCHEDULE. CFM RANGE: NECK SIZE: 0-150 → 8"x8" 151-250 → 10"x10" 251-360 → 12"x12" 361-725 → 18"x18" 726-1125 → 24"x24"
RR-B	KRUEGER	S580H	ALUMINUM RETURN GRILLE WITH 3/4" BLADE SPACING. MAXIMUM CORE VELOCITY: 350 FPM. MAXIMUM NOISE CRITERIA: 25NC. GRILLE SHALL HAVE 2" FILTER FRAME WITH 1/4 TURN FASTENER. FINISH, COLOR SELECTED BY ARCHITECT. 4-WAY DEFLECTION. 23.75" x 23.75 MODULE SIZE WITH 20" x 20" NOMINAL DUCT SIZE. ALL REGISTERS SHALL BE EQUIPPED WITH OPPOSED BLADE VOLUME DAMPER. PROVIDE (2) 2" MERV 11 FILTERS PER RETURN REGISTER.
FD	RUSKIN	DIBD2	1-1/2 HOUR UL555 RATED, SUITABLE FOR INSTALLATION IN WALL AND FLOOR PARTITIONS WITH FIRE RATINGS OF LESS THAN 3 HOURS. DAMPER SHALL BE A COMPLETE FACTORY PACKAGE INCLUDING UL APPROVED ANGLES, WALL SLEEVE, AND BREAKAWAY CONNECTIONS. DAMPER SHALL BE RATED FOR DYNAMIC AIRFLOW CONDITIONS OF 2,000 FPM AND 4.0" ESP. 165°F FUSIBLE LINK.
LD-A	KRUEGER	PTBS	PLENUM, HIGH FLOW, SLOT DIFFUSER WITH GASKETED ALUMINUM BLADE, EASILY ROTATED FOR ADJUSTMENT FROM HORIZONTAL TO VERTICAL FLOW. MAXIMUM NOISE CRITERIA: 25 NC. DIFFUSERS SHALL BE 4'-0" LONG WITH (1) 1" SLOT, INTERNALLY INSULATED PLENUM WITH 10" OVAL INLET. FINISH COLORS TO BE SELECTED BY ARCHITECT. FRAME SHALL BE F23A-CN. PROVIDE ADJUSTABLE PATTERN CONTROLLERS.
$\boxed{M}$	RUSKIN	CD450	HIGH PERFORMANCE CONTROL DAMPER. UNLESS PROVIDED WITH A SPECIFIC PIECE OF EQUIPMENT MOTORIZED DAMPERS SHALL BE CONSTRUCTED OF: 4"x1" EXTRUDED ALUMINUM FRAME, 6" WIDE EXTRUDED ALUMINUM AIRFOIL DAMPER BLADES, SANTOPRENE BLADE EDGE AND JAMB SEALS, LEXAN WITH ACETAL COPOLYMER BEARINGS. CLASS 1A LEAKAGE (3 CFM/FT² AT 1"WC). DAMPER SHALL HAVE OPPOSED BLADES, MOTOR AND LINKAGE. PROPORTIONAL DAMPER ACTUATORS SHALL BE 24VAC/60Hz., MAXIMUM 6 WATTS RUNNING AND 2 WATTS HOLDING POWER CONSUMPTION, COMPLETE WITH DISCONNECT SWITCH, TRANSFORMER AND END SWITCH KITS, SIMILAR TO BELIMO NF24-SR.
CIRCUIT SETTER	BELL AND GOSSETT	CB	HEAVY DUTY, CALIBRATED BALANCE VALVE, CAST-IRON CONSTRUCTION WITH FLANGED CONNECTIONS, BRASS DISC, STAINLESS STEEL STEM, 175 PSIG @ 250°F RATING.
EXPANSION COMPENSATOR	METRAFLEX	HP2	COMPENSATOR SHALL ACCOMMODATE ½" OF EXPANSION AND 2" OF COMPRESSION. 175 PSI WORKING PRESSURE. COMPENSATOR CONSTRUCTION: CARBON STEEL WITH MULTI-PLY 304 STAINLESS STEEL BELLOWS.
HIGH PERFORMANCE BUTTERFLY VALVE	BRAY CONTROLS	HIGH PERFORMANCE	• HIGH PERFORMANCE BUTTERFLY VALVES, ANSI CLASS 150. • VALVES SHALL PROVIDE ABSOLUTE SHUT-OFF (ZERO LEAKAGE) TO FULL ANSI CLASS RATING WITH PRESSURE IN EITHER DIRECTION. • BODY SHALL BE FULL LUG STYLE. VALVE SHALL PROVIDE DRIP-TIGHT-SHUT-OFF ON DEAD END SERVICE, WITH PRESSURE IN EITHER DIRECTION TO ALLOW FOR PIPING CHANGES OR EQUIPMENT REMOVAL. EXTENDED NECK SHALL ALLOW FOR PIPING INSULATION AND ACCESS TO PACKING ADJUSTMENT AND OPERATOR MOUNTING. • VALVE BODY AND SEAT RETAINER RING SHALL BE CARBON STEEL, ASTM A216 GR WCB / A516 GR 70. DISC SHALL BE STAINLESS STEEL ASTM A351 GR CF8M, FOR LONG TERM CORROSION RESISTANCE. DISC SHALL BE DOUBLE OFFSET DESIGN. SEAT SHALL BE LIVE LOADED RPTFE. SHAFT SHALL BE ONE-PIECE CONTSRUCTION, 17-4PH STAINLESS STEEL. • VALVES SHALL COMPLY WITH PED 97/23/EC. • FOR MANUAL VALVES, PROVIDE LEVER OPERATORS UP TO 6" SIZE, AND GEAR OPERATORS FOR VALVES LARGER THAN 6".
EQUIPMENT SUPPORT RAILS	THYBAR	TEMS-3	24" HIGH EQUIPMENT SUPPORT RAIL CONSTRUCTED OF WELDED 18 GAUGE GALVANIZED STEEL SHELL, BASE PLATE AND COUNTER FLASHING WITH FACTORY INSTALLED 2"x4" WOOD NAILERS AND INTERNAL BULKHEAD REINFORCEMENT. RAIL LENGTH TO EXTEND 6" ON BOTH ENDS OF EQUIPMENT. EQUIPMENT SUPPORT RAILS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
CONDENSATE PUMP	LITTLE GIANT	VCCA-20-P	HARDWIRED AUTOMATIC CONDENSATE PUMP WITH FLOAT ACTIVATED AUXILIARY HIGH LEVEL SWITCH. ELECTRICAL: 115V/1Ø/60Hz, 1.5 AMPS, 93 WATTS, ⅓ HP. SHUT-OFF HEAD 20 FEET. PERFORMANCE: 70 GALLONS PER HOUR AT 5 FEET OF HEAD. PUMP SHALL BE COMPLETE WITH DISCONNECT SWITCH. PROVIDE AT ALL FAN COIL UNITS.
AC-A	MITSUBISHI	MSY-GL09NA	WALL MOUNTED DUCTLESS INDOOR UNIT. 9,000 BTUH RATED COOLING CAPACITY. ELECTRICAL CHARACTERISTICS: 208V/1Ø/60HZ., 1.0 AMPS MCA, 15 AMPS MOCP. 24.6 SEER AND 15.4 EER. UNIT SHALL BE COMPLETE WITH WALL MOUNTED WIRELESS CONTROLLER WITH LOCK DOWN BRACKET, DISCONNECT SWITCH, CONDENSATE PUMP, AND DRAIN PAN LEVEL SENSOR.
ACCU-A	MITSUBISHI	MUY-GL09NA	AIR COOLED CONDENSING UNIT. ELECTRICAL CHARACTERISTICS: 208V/1Ø/60HZ., 7 AMPS MCA, 15 AMPS MOCP. UNIT SHALL BE COMPLETE WITH: NEMA 3R DISCONNECT SWITCH AND WIND BAFFLE. R-410A REFRIGERANT. FULL CAPACITY LOW AMBIENT COOLING OPERATION DOWN TO O°F.
AC-B	MITSUBISHI	MSY-GL12NA	WALL MOUNTED DUCTLESS INDOOR UNIT. 12,000 BTUH RATED COOLING CAPACITY. ELECTRICAL CHARACTERISTICS: 208V/1Ø/60HZ., 1.0 AMPS MCA, 15 AMPS MOCP. 24.6 SEER AND 15.4 EER. UNIT SHALL BE COMPLETE WITH WALL MOUNTED WIRELESS CONTROLLER WITH LOCK DOWN BRACKET, DISCONNECT SWITCH, CONDENSATE PUMP, AND DRAIN PAN LEVEL SENSOR.
ACCU-B	MITSUBISHI	MUY-GL12NA	AIR COOLED CONDENSING UNIT. ELECTRICAL CHARACTERISTICS: 208V/1Ø/60HZ., 7 AMPS MCA, 15 AMPS MOCP. UNIT SHALL BE COMPLETE WITH: NEMA 3R DISCONNECT SWITCH AND WIND BAFFLE. R-410A REFRIGERANT. FULL CAPACITY LOW AMBIENT COOLING OPERATION DOWN TO O°F.
AC-1	TRANE	TPLFY008FM140A	2'x2' CEILING CASSETTE, 4-WAY AIRFLOW PATTERN, INDOOR UNIT WITH BUILT-IN CONDENSATE PUMP AND FRESH AIR INTAKE KNOCKOUT. UNITS SHALL BE COMPLETE WITH FRESH AIR INTAKE DUCT FLANGE KIT, DISCONNECT SWITCH, SPRING TYPE VIBRATION ISOLATORS, AND TAC-YT53CRAU-J REMOTE CONTROLLER AND PAC-UKPR BACNET INTERFACE. EACH UNIT SHALL HAVE 20 CFM OUTSIDE AIR. PERFORMANCE: 315 CFM, 8,000 BTUH COOLING CAPACITY AT 80°F DB/67°F WB EAT AND 95°F AMBIENT, 9,000 BTUH HEATING CAPACITY AT 70°F DB/60°F WB EAT AND 5° AMBIENT. ELECTRICAL: 208V/1ϕ/60Hz, .28 AMPS.
AC-2	TRANE	TPLFY012FM140A	2'x2' CEILING CASSETTE, 4-WAY AIRFLOW PATTERN, INDOOR UNIT WITH BUILT-IN CONDENSATE PUMP AND FRESH AIR INTAKE KNOCKOUT. UNITS SHALL BE COMPLETE WITH FRESH AIR INTAKE DUCT FLANGE KIT, DISCONNECT SWITCH, SPRING TYPE VIBRATION ISOLATORS, AND TAC-YT53CRAU-J REMOTE CONTROLLER AND PAC-UKPR BACNET INTERFACE. REFER TO VENTILATION SCHEDULE FOR OUTSIDE AIR. PERFORMANCE: 335 CFM, 12,000 BTUH COOLING CAPACITY AT 80°F DB/67°F WB EAT AND 95°F AMBIENT, 13,500 BTUH HEATING CAPACITY AT 70°F DB/60°F WB EAT AND 5° AMBIENT. ELECTRICAL: 208V/1ϕ/60Hz, .29 AMPS.
AC-3	TRANE	TPLFY015FM140A	2'x2' CEILING CASSETTE, 4-WAY AIRFLOW PATTERN, INDOOR UNIT WITH BUILT-IN CONDENSATE PUMP AND FRESH AIR INTAKE KNOCKOUT. UNITS SHALL BE COMPLETE WITH FRESH AIR INTAKE DUCT FLANGE KIT, DISCONNECT SWITCH, SPRING TYPE VIBRATION ISOLATORSAND TAC-YT53CRAU-J REMOTE CONTROLLER AND PAC-UKPR BACNET INTERFACE. EACH UNIT SHALL HAVE 165 CFM OUTSIDE AIR. PERFORMANCE: 390 CFM, 15,000 BTUH COOLING CAPACITY AT 80°F DB/67°F WB EAT AND 95°F AMBIENT, 17,000 BTUH HEATING CAPACITY AT 70°F DB/60°F WB EAT AND 5° AMBIENT. ELECTRICAL: 208V/1ϕ/60Hz, .35 AMPS.
HP-1	TRANE	TURYH1203AN40AN	10.0 TON OUTDOOR VRF HEAT RECOVERY SYSTEM COMPLETE WITH NEMA 3R DISCONNECT SWITCH, BC CONTROLLER, TCMBG0108 BRANCH BOX, BRANCH JOINTS, BALL VALVES AND REDUCERS. 22.05 SEER, 12.65 EER, AND 3.8 HSPF. R-410A. RATED COOLING PERFORMANCE: 120,000 BTUH. RATED HEATING PERFORMANCE: 135,000 BTUH. SYSTEM ELECTRICAL: 208V/3ϕ/60Hz, 47 MCA, AND 70 AMPS MOCP.
EH-A	BERKO	FRC1512F	ARCHITECTURAL, HEAVY-DUTY, FAN FORCED WALL HEATER. CAPACITY: 1500 WATTS, 5120 BTUH, 100 CFM. ELECTRICAL: 120V/1Ø, 12.5 AMPS. FINISH SHALL BE NORTHERN WHITE. HEATER SHALL HAVE: CONCEALED TAMPER-PROOF THERMOSTAT, MANUAL RESET THERMAL CUT-OUT, CONCEALED POWER ON/OFF SWITCH, BACK BOX, SURFACE MOUNTING FRAME, DISCONNECT SWITCH, AND 14 GAUGE SECURITY FRONT COVER.
EH-B	BERKO	FRC4024F	ARCHITECTURAL, HEAVY-DUTY, FAN FORCED WALL HEATER. CAPACITY: 3000 WATTS, 10235 BTUH, 100 CFM. ELECTRICAL: 208V/1Ø, 14.4/7.2 AMPS. FINISH SHALL BE NORTHERN WHITE. HEATER SHALL HAVE: CONCEALED TAMPER-PROOF THERMOSTAT, MANUAL RESET THERMAL CUT-OUT, CONCEALED POWER ON/OFF SWITCH, BACK BOX, SURFACE MOUNTING FRAME, DISCONNECT SWITCH, AND 14 GAUGE SECURITY FRONT COVER.
UH	VULCAN	HV-125A	HOT WATER UNIT HEATER. HEATING CAPACITY: 24.8 MBH, 580 CFM, 2.5 GPM, 2.2 FT WATER PRESSURE DROP, AND 102°F FINAL AIR TEMPERATURE. RATINGS BASED ON 200° EWT AND 60°F EAT. ELECTRICAL: 2 SPEED MOTOR, 120V/1Ø, 1.2 AMPS. COMPLETE WITH: MOUNTING BRACKET, OSHA FAN GUARD, NON-FUSED DISCONNECT SWITCH, "AUTO/OFF/FAN SWITCH" LINE VOLTAGE THERMOSTAT, STRAP-ON AQUASTAT, AND AIR DEFLECTION LOUVER.
P-1A **P-1B**	BELL AND GOSSET	ecocirc XL 70-145	HIGH EFFICIENCY LARGE WET ROTOR CIRCULATOR WITH ELECTRONIALLY COMMUTATED PERMENANT MAGNET MOTOR. PUMP SHALL HAVE CAPACITY OF 85.0 GPM. PUMP SHALL HAVE TOTAL DYNAMIC HEAD OF 42'. PREMIUM EFFICIENCY MOTOR SHALL BE 2 HP. ELECTRICAL: 208V/1ϕ/60Hz. PUMP SHALL BE FURNISHED WITH A NEMA 1 DISCONNECT SWITCH. DISCONNECT SWITCH SHALL BE PURCHASED BE MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
P-2A **P-2B**	BELL AND GOSSET	ecocirc XL 65-130	HIGH EFFICIENCY LARGE WET ROTOR CIRCULATOR WITH ELECTRONIALLY COMMUTATED PERMENANT MAGNET MOTOR. PUMP SHALL HAVE CAPACITY OF 20.0 GPM. PUMP SHALL HAVE TOTAL DYNAMIC HEAD OF 35'. PREMIUM EFFICIENCY MOTOR SHALL BE 1 HP. ELECTRICAL: 208V/1ϕ/60Hz. PUMP SHALL BE FURNISHED WITH A NEMA 1 DISCONNECT SWITCH. DISCONNECT SWITCH SHALL BE PURCHASED BE MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.

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CONSTRUCTION DOCUMENTS

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

MECHANICAL:
EQUIPMENT SCHEDULES

Job No. 2023-1011
Date 02/03/2023
Scale AS NOTED
Drawn / Checked DC/RL SZ/WH

Sheet Number
M702

PACKAGED ROOFTOP UNIT SCHEDULE

DESIGNATION	RTU-1	RTU-2	RTU-3
AREA SERVED	REFER TO PLAN	REFER TO PLAN	REFER TO PLAN
MODEL NUMBER	OAKE144A3	OAKE180A3	OAKE144A3
NOMINAL CAPACITY (TONS)	12	15	12
WEIGHT OF UNIT (POUNDS)	4,214	4,237	4,179
EER/IEER	15.9	14.2	14.9
DESIGN DATA:			
SUPPLY AIR (CFM)	2,840	3,045	2,175
OUTDOOR AIR (CFM)	2,840	3,045	2,175
CONDENSER/COMPRESSOR DATA:			
COMPRESSOR No./TYPE	DIGITAL SCROLL	DIGITAL SCROLL	DIGITAL SCROLL
CAPACITY CONTROL	FOUR-STAGE	FOUR-STAGE	FOUR-STAGE
REFRIGERANT TYPE	R-410A	R-410A	R-410A
COMPRESSOR (RLA) EACH	20.4	24	20.4
No. OF FANS	3	3	3
FAN MOTOR HP	1.23	1.59	1.01
COIL FACE AREA (SQ. FT.)	30	30	30
No. OF ROWS/FPI	2/12	2/12	2/12
AMBIENT TEMPERATURE (°F)	95	95	95
FILTER DATA:			
TYPE	MERV-8/MERV-13	MERV-8/MERV-13	MERV-8/MERV-13
RETURN AIR (QTY. / SIZE)	(4) 16x20x2	(4) 16x20x2	(4) 16x20x2
OUTSIDE AIR (QTY. / SIZE)	(4) 16x20x2	(4) 16x20x2	(4) 16x20x2
EVAPORATOR COIL DATA:			
FACE AREA (SQ. FT.)	10	10	10
No. OF ROWS/FPI	4/12	4/12	4/12
EAT (°F) DB/WB	79.4/66.2	79.1/66.0	78.6/65.7
LAT (°F) DB/WB	50.9/50.4	48.3/48.0	45.6/45.5
FACE VELOCITY (FPM)	284	304	217
TOTAL/SENSIBLE CAP. (MBH)	128.8/85.5	153.8/99	120.7/76.4
ELECTRIC HEATING DATA:			
INPUT (MBH)	51.15	51.15	34.10
CAPACITY (KW)	15	15	10
EAT/LAT (°F) DB	53.1/69.8	54.5/70.1	56.0/70.5
CAPACITY CONTROL	SCR MODULATING	SCR MODULATING	SCR MODULATING
HOT GAS REHEAT DATA:			
CAPACITY (MBH)	58.9	71.7	57.6
EAT/LAT (°F) DB	50.9/70	48.3/70	45.6/70
ENERGY RECOVERY WHEEL DATA:			
EXHAUST AIR (CFM)	3,033	3,604	2,362
OUTDOOR AIR (CFM)	3,033	3,244	2,362
PRESSURE DROP (IN H_2O)	0.84	0.90	0.65
MOTOR HP	0.17	0.17	0.17
MOTOR FLA (AMPS)	0.7	0.7	0.7
ENERGY RECOVERY WHEEL SUMMER DATA:			
OUTDOOR AIR EAT (°F) DB/WB	95.0/75.0	95.0/75.0	95.0/75.0
RETURN AIR EAT (°F) DB/WB	75.0/63.0	75.0/63.0	75.0/63.0
WHEEL LEAVING T (°F) DB/WB	79.4/66.1	79.1/66.0	78.6/65.7
CAPACITY RECOVERED (MBH)	92.48	100.66	74.45
EFFECTIVENESS (TOTAL/SENS.)	0.73/0.72	0.74/0.79	0.77/0.81
ENERGY RECOVERY WHEEL WINTER DATA:			
OUTDOOR AIR EAT (°F) DB/WB	0.0/0.0	0.0/0.0	0.0/0.0
RETURN AIR EAT (°F) DB/WB	70.0/53.0	70.0/53.0	70.0/53.0
WHEEL LEAVING T (°F) DB/WB	53.1/43.0	54.5/43.8	56.0/44.8
CAPACITY RECOVERED (MBH)	204.95	224.88	164.72
EFFECTIVENESS (TOTAL/SENS.)	0.77/0.73	0.72/0.77	0.77/0.81
HEAT PUMP DATA:			
CAPACITY (MBH)	79.2	97.4	77.2
COP	2.4	2.3	2.4
EAT/LAT (°F) DB	53.1/77.4	54.5/82.5	56/87.5
SUPPLY FAN DATA:			
SUPPLY AIRFLOW (CFM)	2,840	3,045	2,175
ESP/TSP (IN H_2O)	1.25/2.45	1.25/0.91	1.25/2.10
BHP/HP	1.57/3.0	1.74/3.0	1.01/1.5
RPM	1,552	1,592	1,646
FLA (AMPS)	8	8	4.8
EXHAUST FAN DATA:			
EXHAUST AIRFLOW (CFM)	2,840	3,045	2,175
ESP/TSP (IN H_2O)	0.75/1.83	0.75/2.0	0.75/1.62
BHP/HP	1.23/2.0	1.59/3.0	0.86/1.5
RPM	1,397	1,307	1,267
FLA (AMPS)	6	8	4.8
SINGLE POINT POWER CONNECTION ELECTRICAL DATA:			
VOLTS/Ø/Hz	208/3/60	208/3/60	208/3/60
MCA/MOCP (AMPS)	115.0/125.0	125.1/150.0	93.3/100

NOTES:
1. UNITS BASED ON TRANE
2. PROVIDE (1) COMPLETE EXTRA SET OF FILTERS FOR EACH UNIT.
3. UNITS SHALL BE COMPLETE WITH:
   - NON-FUSED DISCONNECT SWITCH
   - FACTORY POWERED 115 VOLT GFI OUTLET
   - INVERTER RATED PREMIUM EFFICIENCY MOTORS SUITABLE FOR VARIABLE SPEED AND TORQUE APPLICATIONS.
   - COMPARATIVE ENTHALPY ECONOMIZER WITH LOW LEAK DAMPERS.
   - OUTDOOR AIRFLOW MONITORING STATION.
   - POLYMER CONSTRUCTION ERV WITH FROST PROTECTION AND VFD.
   - FILTER STATUS SWITCH.
   - DIRECT DRIVE EXHAUST FAN WITH VFD.
   - DIRECT DRIVE SUPPLY FAN WITH VFD.
   - STAINLESS STEEL DRAIN PANS.
   - BACNET IP INTERFACE. PROVIDE FACTORY START-UP SUPPORT FOR INTERFACE WITH THE BUILDING MANAGEMENT SYSTEM.
   - 5 YEAR COMPRESSOR PARTS WARRANTY.
   - LOW AMBIENT CONTROL.
   - 24" HIGH ROOF CURB
   - TRANE UC600 CONTROLS WITH BACNET.
   - CONDENSER HAILGUARD.
4. ROOF CURBS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION.
5. ALL UNITS SHALL BE PROVIDED WITH VARIABLE FREQUENCY DRIVES.
6. RTU-1 SHALL BE SUPPLIED CAMBRIDGEPORT CUSTOM ROOF CURB OR APPROVED EQUAL. ROOF CURB SHALL HAVE ONE-PIECE WELDED CONSTRUCTION, BE MADE OF HEAVY GAUGE GALVANIZED STEEL, GALVANIZED COMPOUND COATED WELDS, GASKETING FOR UNIT TO CURB SEALING, FULLY INSULATED AND HAVE SUPPLY TRANSITION AND RETURN PLENUM WITH A OVERALL HEIGHT OF 36".

EXHAUST FAN SCHEDULE

DESIGNATION	EF-1	EF-2
LOCATION	ROOF	ROOF
AREA SERVED	REFER TO PLANS	REFER TO PLANS
MODEL	G-100-VG	G-095-VG
CFM	600	600
BHP	0.1	0.15
HP	1/4	1/6
RPM	1,238	1,689
ESP (IN H_2O)	0.45"	0.43"
VOLTS/Ø	115/1	115/1
FLA (AMPS)	3.8	2.8
MCA/MOCP (AMPS)	4.8/15	3.5/15
SOUND DATA (dBA/SONES)	49/5.2	59/10.4

NOTES:
1. FANS BASED ON GREENHECK
2. ALL SINGLE PHASE MOTORS TO INCLUDE THERMAL OVERLOAD.
3. ALL FANS SHALL BE PROVIDED WITH MOTORIZED BACKDRAFT DAMPERS CONSTRUCTED OF A GALVANIZED STEEL FRAME AND ALUMINUM BLADES WITH SEALS. MOTORIZED DAMPER VOLTAGE SHALL BE 120 VOLTS. MOTORIZED DAMPER SHALL BE COMPLETE WITH END SWITCH AND DISCONNECT SWITCH.
4. ALL EXHAUST FANS SHALL BE PROVIDED WITH THE FOLLOWING: VARI-GREEN EC MOTOR WITH MOUNTED POTENTIOMETER DIAL, BIRDSCREEN, HOOD HASPS, CURB SEAL AND 18" HIGH ALUMINUM ROOF CURB WITH DAMPER TRAY.
5. ALL FANS SHALL BE PROVIDED WITH DISCONNECT SWITCH AT UNIT FOR SERVICE. OUTDOOR DISCONNECT SWITCHES SHALL BE NEMA 3R.
6. ROOF CURBS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY GENERAL CONTRACTOR.

MINIMUM DUCT INSULATION
COMMERCIAL

ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHEN LOCATED IN UNCONDITIONED SPACES AND ABOVE CEILINGS AND WITH A MINIMUM OF R-12 INSULATION WHEN LOCATED OUTSIDE THE BUILDING ENVELOPE. WHEN LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-12 INSULATION.

EXCEPTIONS:
1. WHEN LOCATED WITHIN EQUIPMENT.
2. WHEN THE DESIGN TEMPERATURE DIFFERENCE BETWEEN THE INTERIOR AND EXTERIOR OF THE DUCT OR PLENUM DOES NOT EXCEED 15°F (8°C).

ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, AND CONNECTIONS IN DUCTWORK, SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS (ADHESIVES), MASTIC-PLUS- EMBEDDED FABRIC SYSTEMS OR TAPES. TAPES AND MASTICS USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A OR UL 181B. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. UNLISTED DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.

NOTE:
DUCT INSULATION, COVERINGS AND LINING MATERIALS AND ADHESIVES SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25, AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50, IN ACCORDANCE WITH 2020 MECHANICAL CODE OF NEW YORK STATE SECTION 604.3.

HEATING AND COOLING MINIMUM PIPE INSULATION
COMMERCIAL
(THICKNESS IN INCHES)

FLUID	NOMINAL PIPE DIAMETER			
	< 1-1/2"	1-1/2" < 4.0"	4.0" to 8.0"	8.0"≤
HOT WATER	1.5	2.0	2.0	2.0
REFRIGERANT	1.0	1.0	1.0	1.0
INTERIOR CONDENSATE AND PUMP DISCHARGE	1.0	1.0	1.0	1.0
CHILLED WATER	1.5	1.5	1.5	1.5

NOTES:
1. UNLESS OTHERWISE NOTED ALL INTERIOR PIPE COVERING SHALL BE FIBERGLASS PREFORMED PIPE AND PREMOLDED FITTING INSULATION WITH: FIRE RETARDANT VAPOR BARRIER JACKET, 0.23 K-FACTOR AT 75°F MEAN TEMPERATURE, FLAME SPREAD = 25, SMOKE DEVELOPED = 50.
2. ALL INTERIOR AND EXTERIOR PIPING, FITTINGS, AND VALVES SHALL BE INSTALLED WITH 20 MIL THICK, WHITE PVC JACKETING. PVC JACKETING SHALL BE HIGH IMPACT RESISTANT, UV RESISTANT COMPLYING WITH ASTM D 1784, CLASS 16354-C. PROVIDE FACTORY FABRICATED FITTING AND VALVE COVERS WHERE AVAILABLE.
3. REFRIGERANT AND CONDENSATE PIPE INSULATION SHALL BE FLEXIBLE ELASTOMERIC FOAM SIMILAR TO ARMAFLEX. EXTERIOR INSULATIONS TO BE COATED WITH ARMAFLEX WB OR BE INSTALLED WITH PVC JACKETING.
4. FITTINGS AND VALVES SHALL BE PROVIDED WITH PREMOLDED FITTING COVERS WITH PVC JACKETING EQUAL IN THICKNESS AND MATERIAL TO ADJOINING PIPE INSULATION.

MINIMUM HANGER SIZES FOR ROUND DUCT

DIAMETER	MAXIMUM SPACING	WIRE DIAMETER	ROD	STRAP
≤ 10"	12'	——	1/4"	1" X 22 ga.
11" - 18"	12'	——	1/4"	1" X 22 ga.
19" - 24"	12'	——	1/4"	1" X 22 ga.
25" - 36"	12'	——	3/8"	1" X 20 ga.
37" - 50"	12'	——	TWO 3/8"	TWO 1" X 20 ga.
51" - 60"	12'	——	TWO 3/8"	TWO 1" X 18 ga.
61" - 84"	12'	——	TWO 3/8"	TWO 1" X 16 ga.

NOTES:
1. STRAPS AND RODS ARE GALVANIZED STEEL
2. TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS, AND JOINT SYSTEMS PLUS ONE lb/sf OF INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE INSTALLED, ADJUST HANGER SIZES TO BE WITHIN THEIR LOAD LIMITS.

NOTES:
1. ALL WORK ASSOCIATED WITH AUTOMATIC TEMPERATURE CONTROLS SHALL BE PERFORMED BY THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR DIRECT TO THE SCHOOL DISTRICT. AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL SUPPLY AND TURNOVER CONTROLS ELEMENTS REQUIRED TO BE INSTALLED IN PIPING AND/OR DUCTWORK TO THE MECHANICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR INSTALLING THE CONTROL ELEMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE.
2. VERIFY ALL FINISH COLORS WITH ARCHITECT PRIOR TO ORDERING FOR ALL EQUIPMENT VISIBLE WITHIN SPACE OR FROM EXTERIOR OF BUILDING. ALL EQUIPMENT SHALL BE FINISHED USING MANUFACTURER'S FULL RANGE OF STANDARD AND CUSTOM COLORS/FINISHES UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN FOR WIND RESTRAINT OF ALL ROOF MOUNTED MECHANICAL EQUIPMENT. REFER TO WIND DESIGN DATA ON DRAWING S001.

VENTILATION SCHEDULE FIRST FLOOR

Space Name	Gross Area	Ra	Ventilation based on Net Floor Area		Occupancy Density	Calculated Occupants (Pz)	People Used	Rp Cfm/Person	Ventilation based on People		Total OA Ventilation (Vbz)		Zone Air Distribution Effectiveness (Ez)	Zone OA Required (Voz)	Ventilation Provided	Exhaust Airflow Rates	Exhaust Required	Exhaust Provided
	sqft	CFM/sqft	CFM		#/1000 sqft				CFM		CFM			CFM	CFM	CFM/sqft	CFM	CFM
Class 101	650	0.12	78	+	35	22.8	27.0	10	270	=	348	x	0.8	435	435	-	-	-
Class 102	710	0.12	86	+	40	28.4	28.0	10	280	=	366	x	0.8	458	460	-	-	-
Class 103	545	0.12	66	+	40	21.8	22.0	10	220	=	286	x	0.8	358	360	-	-	-
Class 104	475	0.12	57	+	40	19.0	19.0	10	190	=	247	x	0.8	309	310	-	-	-
Class 105	780	0.12	94	+	30	23.4	30.0	10	300	=	394	x	0.8	493	495	-	-	-
Class 106	560	0.12	68	+	40	22.4	22.0	10	220	=	288	x	0.8	360	360	-	-	-
Class 107	545	0.12	66	+	40	21.8	22.0	10	220	=	286	x	0.8	358	360	-	-	-
SGI 108	230	0.12	28	+	40	9.2	10.0	10	100	=	128	x	0.8	160	160	-	-	-
SGI 109	200	0.12	24	+	40	8.0	8.0	10	80	=	104	x	0.8	130	130	-	-	-
SGI 113	130	0.12	16	+	40	5.2	5.0	10	50	=	66	x	0.8	83	85	-	-	-
SGI 114	130	0.12	16	+	40	5.2	5.0	10	50	=	66	x	0.8	83	85	-	-	-
SGI 115	130	0.12	16	+	40	5.2	5.0	10	50	=	66	x	0.8	83	85	-	-	-
Toil 117	70	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 118	60	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 119	60	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Jan 120	45	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 122	60	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 123	60	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 124	60	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 125	60	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Elev Lobby	365	0.06	22	+	30	11.0	12.0	7.5	90	=	112	x	0.8	140	140	-	-	-
Corridor C102	410	0.06	-	+	-	-	-	-	-	=	25	x	0.8	31	30	-	-	-

VENTILATION SCHEDULE SECOND FLOOR

Space Name	Gross Area	Ra	Ventilation based on Net Floor Area		Occupancy Density	Calculated Occupants (Pz)	People Used	Rp Cfm/Person	Ventilation based on People		Total OA Ventilation (Vbz)		Zone Air Distribution Effectiveness (Ez)	Zone OA Required (Voz)	Ventilation Provided	Exhaust Airflow Rates	Exhaust Required	Exhaust Provided
	sqft	CFM/sqft	CFM		#/1000 sqft				CFM		CFM			CFM	CFM	CFM/sqft	CFM	CFM
Class 201	635	0.12	77	+	40	25.4	25.0	10	250	=	327	x	0.8	409	410	-	-	-
Class 202	565	0.12	68	+	40	22.6	23.0	10	230	=	298	x	0.8	373	375	-	-	-
Class 203	470	0.12	57	+	40	18.8	19.0	10	190	=	247	x	0.8	309	310	-	-	-
Office 204	100	0.06	6	+	5	0.5	2.0	5	10	=	16	x	0.8	20	20	-	-	-
Office 205	100	0.06	6	+	5	0.5	2.0	5	10	=	16	x	0.8	20	20	-	-	-
Class 206	515	0.12	62	+	40	20.6	21.0	10	210	=	272	x	0.8	340	340	-	-	-
Class 207	815	0.12	98	+	30	24.5	30.0	10	300	=	398	x	0.8	498	500	-	-	-
Class 208	540	0.12	65	+	40	21.6	22.0	10	220	=	285	x	0.8	357	360	-	-	-
SGI 209	255	0.12	31	+	40	10.2	10.0	10	100	=	131	x	0.8	164	165	-	-	-
Class 210	860	0.12	104	+	30	25.8	30.0	10	300	=	404	x	0.8	505	505	-	-	-
Class 211	830	0.12	100	+	30	24.9	30.0	10	300	=	400	x	0.8	500	500	-	-	-
Class 212	825	0.12	99	+	30	24.8	30.0	10	300	=	399	x	0.8	499	500	-	-	-
SGI 213	180	0.12	22	+	40	7.2	7.0	10	70	=	92	x	0.8	115	115	-	-	-
SGI 214	180	0.12	22	+	40	7.2	7.0	10	70	=	92	x	0.8	115	115	-	-	-
Toil 215	45	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 216	45	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 217	55	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 218	55	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 219	55	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 220	55	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Toil 221	55	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Security 222	100	0.06	6	+	5	0.5	1.0	5	5	=	11	x	0.8	14	15	-	-	-
Jan 223	25	-	-	+	-	-	-	-	-	=	-	x	-	-	-	-	75	75
Corridor 200-C202	1370	0.06	-	+	-	-	-	-	-	=	82	x	0.8	103	105	-	-	-

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CONSTRUCTION DOCUMENTS

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

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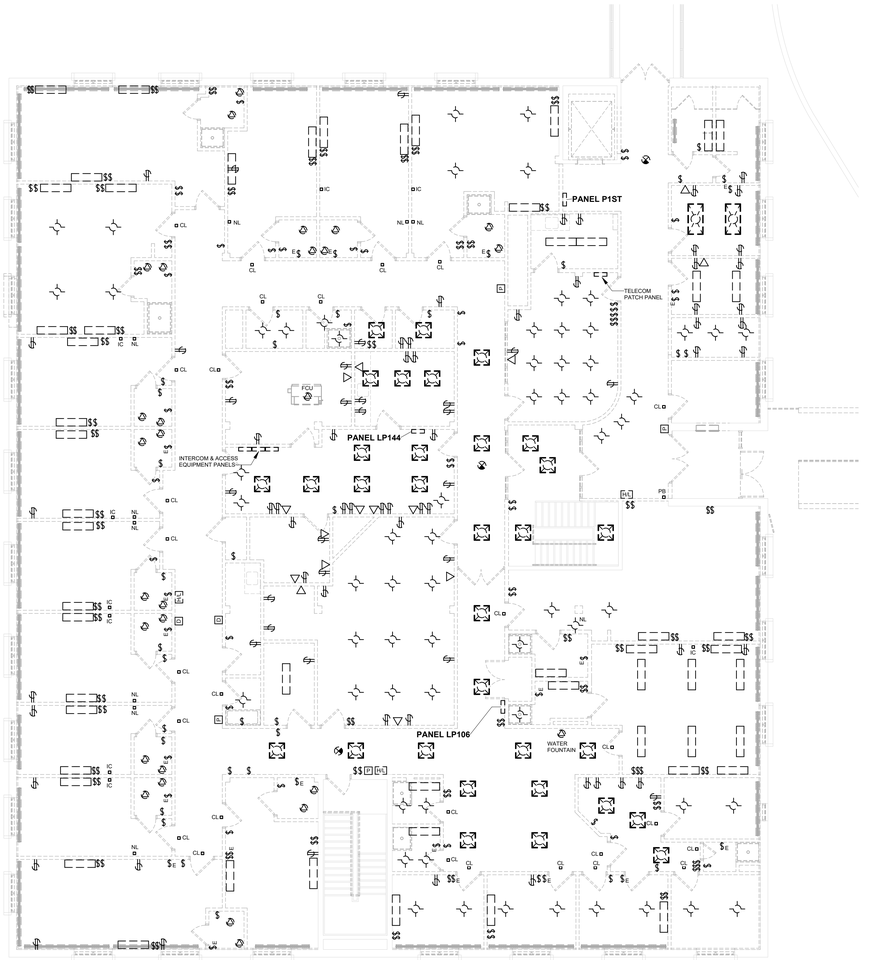
MECHANICAL:
EQUIPMENT SCHEDULES

Job No. 2023-1011
Date 02/03/2023
Scale AS NOTED
Drawn / Checked DC/RL SZ/WH

Sheet Number
M703



1 ELECTRICAL - NORTH WING LOWER LEVEL DEMOLITION PLAN

1/8" = 1'-0"

2 ELECTRICAL - NORTH WING UPPER LEVEL DEMOLITION PLAN

1/8" = 1'-0"

ELECTRICAL DEMOLITION NOTES

1. ALL DEVICES, FIXTURES, PANELS, AND ETC ARE SHOWN BASED ON CASUAL FIELD OBSERVATIONS AND SHOULD BE VERIFIED IN FIELD BY THIS CONTRACTOR.
2. CONTRACTOR SHALL DEMOLISH ALL LIGHT FIXTURES, LIGHTING CONTROL DEVICES, ELECTRICAL DEVICES, FIRE ALARM DEVICES, FIRE ALARM PANELS, PANELBOARDS, MOTOR CONTROL PANELS, INTERCOM PANELS, SECURITY DEVICES, NURSE CALLS, SPEAKERS, CONDUITS, CONDUCTORS, AND ETC THROUGHOUT EXISTING BUILDING AND ON THE ROOF TOP, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL DISCONNECT AND DEMOLISH EXISTING CONDUIT, CONDUCTORS, DISCONNECT SWITCES, AND ETC FOR THE ROOF MOUNTED AIR COOLED CONDENSING UNIT, AND ALL EXHAUST FANS. COORDINATE DEMOLITION WITH THE MECHANICAL CONTRACTOR.

ELECTRICAL DEMOLITION KEYED NOTES

#	NOTE TEXT
1	SUMP PUMP AND SUMP PUMP CONTROLLER EXISTING TO REMAIN. DISCONNECT FEEDER CONDUCTORS FROM SOURCE CIRCUIT BREAKER. PREPARE CONDUCTORS TO BE EXTENDED TO NEW PANELBOARD AND CIRCUIT BREAKER.

NOTES:
1.) ALL DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR, UNLESS NOTED OTHERWISE. REFER TO BID DOCUMENTS FOR MORE INFORMATION.

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CONSTRUCTION DOCUMENTS

KEY PLAN

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3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED
	Date	Issue

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ELECTRICAL:
NORTH WING LOWER LEVEL & UPPER LEVEL DEMOLITION PLANS

Job No. 2023-1011	Date 02/03/23
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Sheet Number

E101

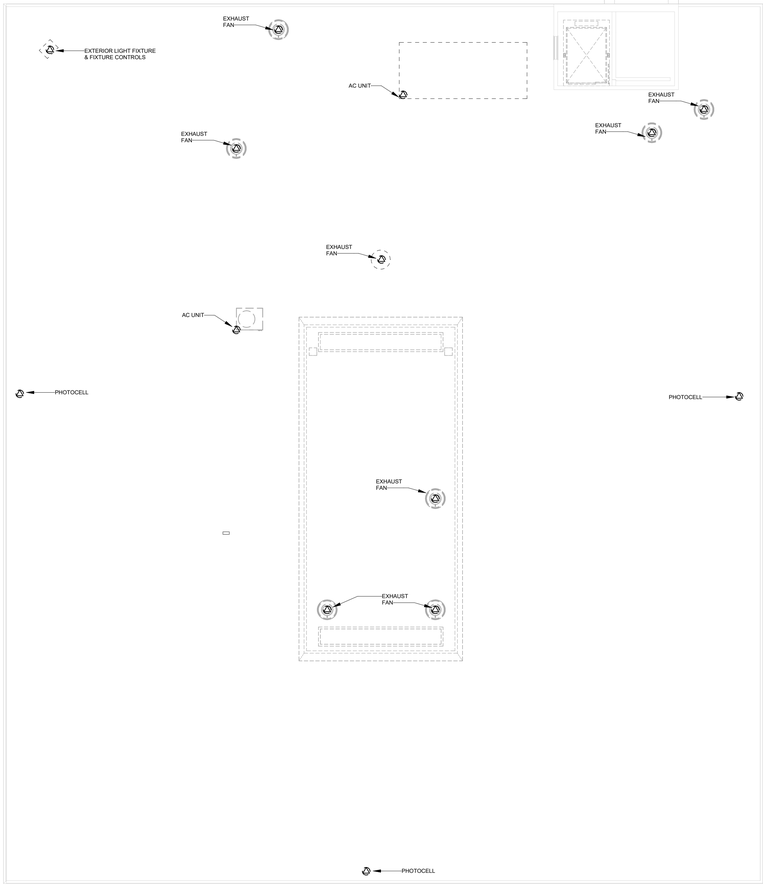
ELECTRICAL REMOVAL SCHEDULE	
SYMBOL	DESCRIPTION
	EXIT SIGN
D	MAGNETIC DOOR HOLD
	RECEPTACLE
$	TOGGLE SWITCH / LIGHTING CONTROL DEVICE
$E	EMERGENCY CALL DEVICE
IC CL	INTERCOM / CALL LIGHT SYSTEM
PB	PUSH BUTTON
P	MANUAL FIRE ALARM PULL STATION
L H/L	FIRE ALARM NOTIFICATION DEVICE
	DATA / COMMUNICATION DEVICE
	HARD WIRED CONNECTION
	2X2 / 2X4 LIGHT FIXTURE
	LINEAR LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
NL	RECESSED WALL MOUNTED NIGHT LIGHT FIXTURE
J	JUNCTION BOX
S	SMOKE / FIRE DETECTION DEVICE

ELECTRICAL DEMOLITION NOTES

1. ALL DEVICES, FIXTURES, PANELS, AND ETC ARE SHOWN BASED ON CASUAL FIELD OBSERVATIONS AND SHOULD BE VERIFIED IN FIELD BY THIS CONTRACTOR.
2. CONTRACTOR SHALL DEMOLISH ALL LIGHT FIXTURES, LIGHTING CONTROL DEVICES, ELECTRICAL DEVICES, FIRE ALARM DEVICES, FIRE ALARM PANELS, PANELBOARDS, MOTOR CONTROL PANELS, INTERCOM P/T PANELS, SECURITY DEVICES, NURSE CALLS, SPEAKERS, CONDUITS, CONDUCTORS, AND ETC THROUGHOUT EXISTING BUILDING AND ON THE ROOF TOP, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL DISCONNECT AND DEMOLISH EXISTING CONDUIT, CONDUCTORS, DISCONNECT SWITCHES, AND ETC FOR THE ROOF MOUNTED AIR COOLED CONDENSING UNIT, AND ALL EXHAUST FANS. COORDINATE DEMOLITION WITH THE MECHANICAL CONTRACTOR.

DEMOLITION NOTES - LIGHTNING PROTECTION:

1. ELECTRICAL CONTRACTOR SHALL DISCONNECT LIGHTNING ARRESTER FROM ALL ROOF MOUNTED EQUIPMENT, DEVICES, VENT PIPES, EXHAUST FANS, ROOF TOP UNITS, LIGHT FIXTURES, RECEPTACLES, AND ETC ON ROOF TOP TO BE DEMOLISHED.
2. ELECTRICAL CONTRACTOR SHALL DISCONNECT, REMOVE AND STORE ALL EXISTING LIGHTNING PROTECTION EQUIPMENT, CONDUCTORS, COMPONENTS, CONNECTORS, ETC. NECESSARY TO ALLOW FOR ROOF REPLACEMENT. ELECTRICAL CONTRACTOR SHALL REINSTALL SYSTEM UPON COMPLETION OF ROOF REPLACEMENT AND CONNECT NEW EQUIPMENT AND CONDUCTORS SHOWN ON PLAN TO RENDER COMPLETE AND COMPLIANT SYSTEM.



1 ELECTRICAL - NORTH WING ROOF DEMOLITION PLAN
1/8" = 1'-0"

NOTES:
1.) ALL DEMOLITION WORK TO BE PERFORMED BY ABATEMENT CONTRACTOR, UNLESS NOTED OTHERWISE. REFER TO BID DOCUMENTS FOR MORE INFORMATION.

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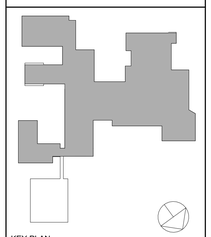
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ELECTRICAL:
NORTH WING ROOF DEMOLITION PLAN

Job No.	Date
2023-1011	02/03/23
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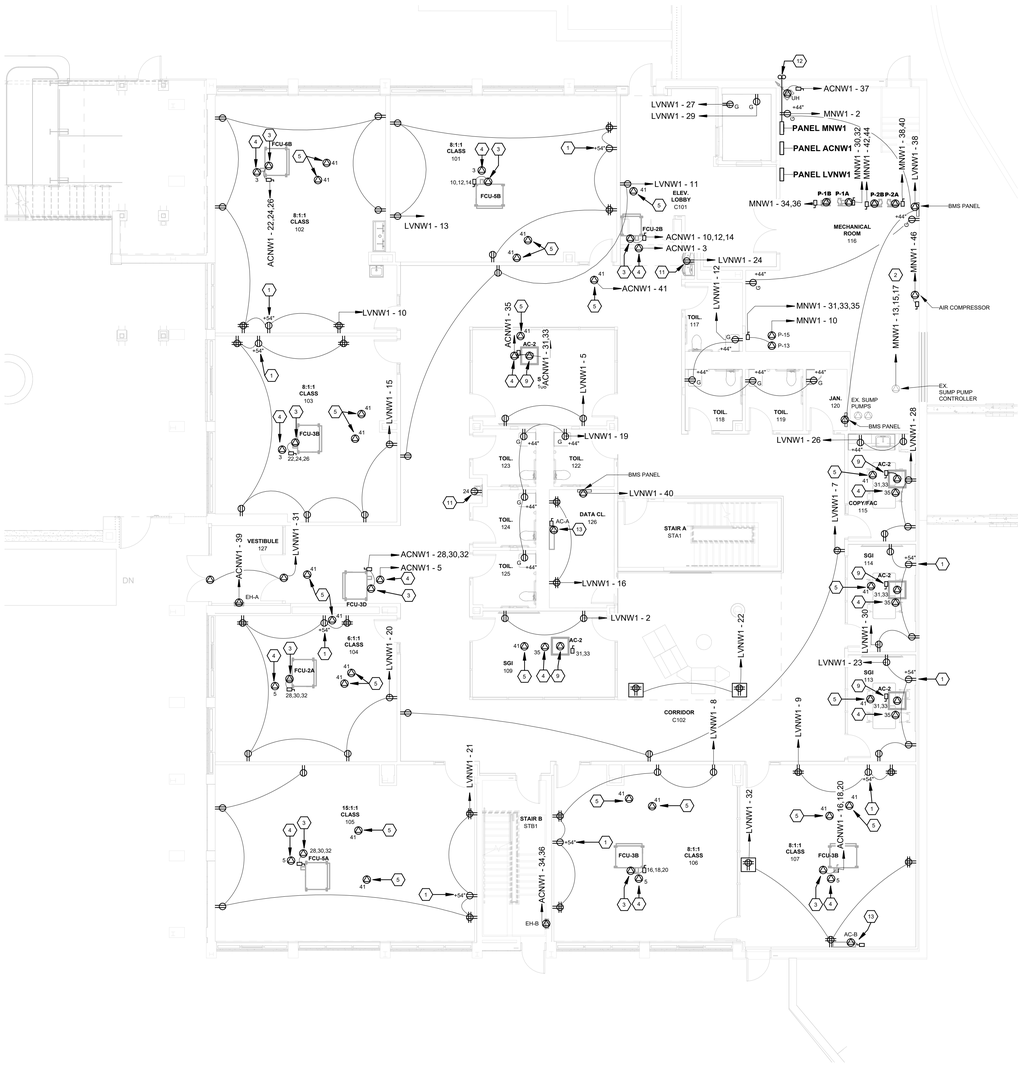
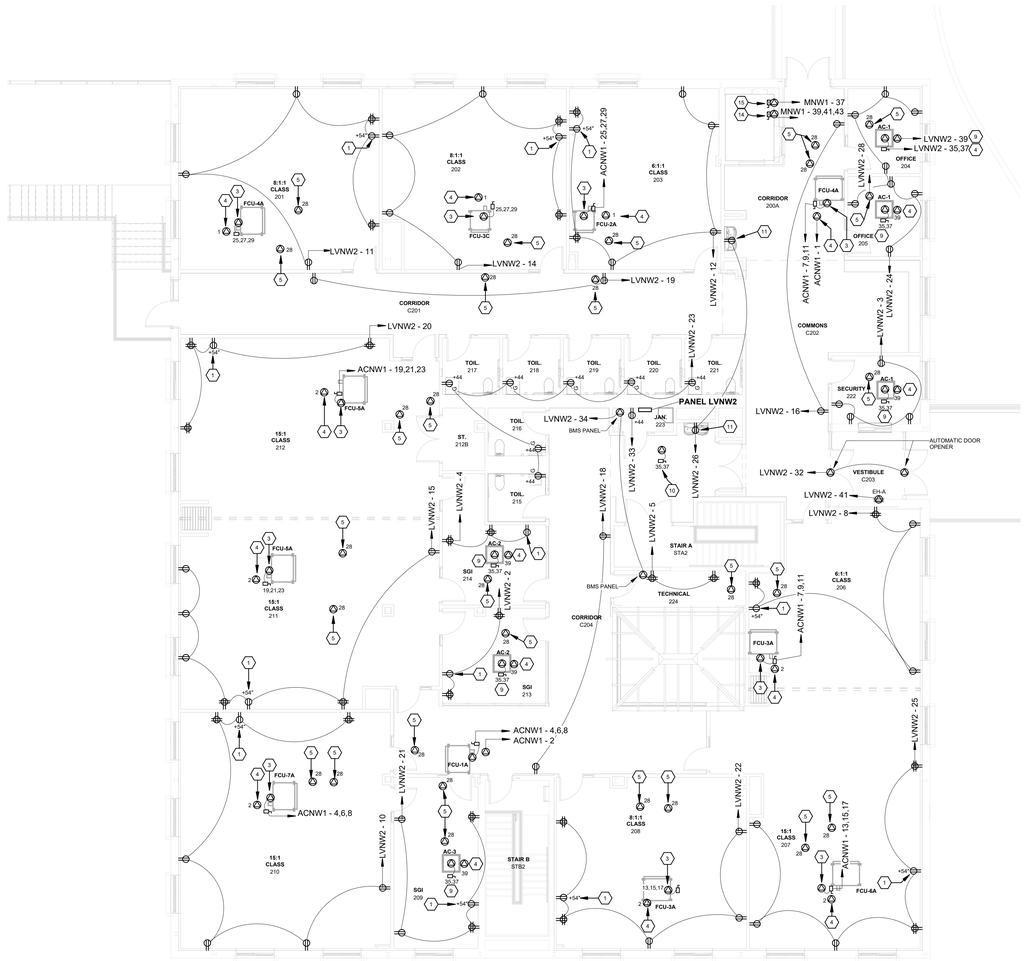
Sheet Number

E102





1 ELECTRICAL - NORTH WING LOWER LEVEL POWER PLAN

1/8" = 1'-0"

POWER PLAN KEYED NOTES	
#	NOTE TEXT
1	POWER AND DATA FOR TV SCREEN. MOUNT DEVICES +54" AFF.
2	EXISTING PUMP CONTROLLER TO BE CONNECTED TO NEW PANELBOARD MNW1. REFER TO PANEL SCHEDULE MNW1 FOR CONDUIT AND CONDUCTOR TYPES AND SIZES.
3	TYPICAL, FCU CONNECTION SHALL BE MADE ABOVE FINISHED CEILING. COORDINATE TERMINATION LOCATIONS WITH THE MECHANICAL CONTRACTOR.
4	TYPICAL, CONDENSATE PUMP BY OTHERS. THIS CONTRACTOR TO PROVIDE HARDWIRE CONNECTION TO CONDENSATE PUMP AND DISCONNECT SWITCH. REFER TO CONDENSATE WIRING ABOVE CEILING DETAIL ON SHEET E601 FOR MORE INFORMATION.
5	TYPICAL, MOTORIZED DAMPER BY OTHERS. THIS CONTRACTOR TO PROVIDE 120V POWER CONNECTION.
6	COORDINATE CONDUIT ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR. THIS CONTRACTOR SHALL TERMINATE CONDUCTORS ON FACTORY INSTALLED CIRCUIT BREAKER. FURNISH AND INSTALL NON-FUSED DISCONNECT SWITCH WHERE CIRCUIT BREAKER DOES NOT COMPLY WITH 2017 NEC 440.14.
7	COORDINATE CONDUIT ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR. THIS CONTRACTOR SHALL INSTALL FIELD FABRICATED GALVANIZED STANCHION TO SUPPORT DISCONNECT SWITCH, RECEPTACLE, CONDUIT, AND ETC AS REQUIRED.
8	COORDINATE CONDUIT ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR.
9	TYPICAL, CEILING CASSETTE UNIT CONNECTION SHALL BE MADE ABOVE FINISHED CEILING. COORDINATE TERMINATION LOCATIONS WITH THE MECHANICAL CONTRACTOR.
10	BRANCH CIRCUIT CONTROLLER FOR THE VRF SYSTEM. CONNECTION SHALL BE MADE ABOVE FINISHED CEILING. COORDINATE THE TERMINATION LOCATION WITH THE MECHANICAL CONTRACTOR.
11	TYPICAL WATER FOUNTAIN RECEPTACLE. THE BRANCH CIRCUIT SHALL BE PROTECTED BY A CLASS A GFCI TYPE CIRCUIT BREAKER. A GFCI TYPE RECEPTACLE IS NOT PERMITTED TO BE MOUNTED BEHIND OR WITHIN THE HOUSING OF THE WATER FOUNTAIN. COORDINATE RECEPTACLE MOUNTING LOCATION WITH THE PLUMBING CONTRACTOR.
12	FEEDER CONDUITS AND CONDUCTORS FROM EXISTING TRANSFORMER ON THE SOUTH CORNER OF THE BUILDING ADJACENT TO THE PARKING LOT. EXTEND (2) SETS OF (4) #350 THWN IN 3" PVC FROM THE EXISTING TRANSFORMER TO THE MAIN CIRCUIT BREAKER IN PANEL MNW1.
13	AC INDOOR UNIT. EXTEND (3) #12 THHN, #12 G IN 3/4" RMC FROM ROOF THE ASSOCIATED TOP UNIT ACCU.
14	ELEVATOR CONTROLLER BY OWNER'S ELEVATOR EQUIPMENT INSTALLER. EXTEND (3) #8 THHN, #10G, IN 1" EMT TO 208V, 3 ∅, 60A RATED FUSED DISCONNECT SWITCH. FURNISH FUSED DISCONNECT SWITCH WITH (3) 35A RK1 DUAL-ELEMENT TIME-DELAY FUSES. COORDINATE EQUIPMENT INSTALLATION WITH THE ELEVATOR EQUIPMENT INSTALLER.
15	FURNISH AND INSTALL 30 AMPERE, 2 POLE FUSED SWITCH WITH LOCKABLE HANDLE AND (1) 20 AMPERE DUAL ELEMENT TIME DELAY FUSE IN ELEVATOR SHAFT AT TOP FOR ELEVATOR CAB POWER. PROVIDE (2) #12 THHN (1) #12 GROUND IN 3/4" EMT. FIELD VERIFY DISCONNECT MOUNTING LOCATION AND CONDUIT ROUTE WITH THE ELEVATOR EQUIPMENT INSTALLER.

2 ELECTRICAL - NORTH WING UPPER LEVEL POWER PLAN

1/8" = 1'-0"

NOTES:
1. ALL DISCONNECT SWITCHES SUPPLIED WITH MECHANICAL AND PLUMBING EQUIPMENT SHALL BE INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR. REFER TO MECHANICAL AND PLUMBING EQUIPMENT SCHEDULES.
2. ALL DISCONNECT SWITCHES SHALL BE LABELED WITH ENGRAVED LAMACOID NAMEPLATE WITH LETTERING INDICATING CIRCUIT NUMBER AND SOURCE. FASTEN LABEL WITH SILICON ADHESIVE.
3. ALL BRANCH CIRCUITRY FEEDING ROOFTOP EQUIPMENT SHALL BE EXTENDED ABOVE CEILING AND BELOW ROOF TO PENETRATE THROUGH ROOF WITHIN EQUIPMENT OR AS CLOSE AS POSSIBLE TO EQUIPMENT. COORDINATE IN FIELD WITH MECHANICAL AND PLUMBING CONTRACTORS.

NOTES:
1.) ALL FLOOR CUTTING AND PATCHING SHALL BE BY THE GENERAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF FLOOR MOUNTED DEVICES WITH THE GENERAL CONTRACTOR.

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NY SED PROJECT CONTROL NO:

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ELECTRICAL:
NORTH WING LOWER LEVEL & UPPER LEVEL POWER PLANS

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

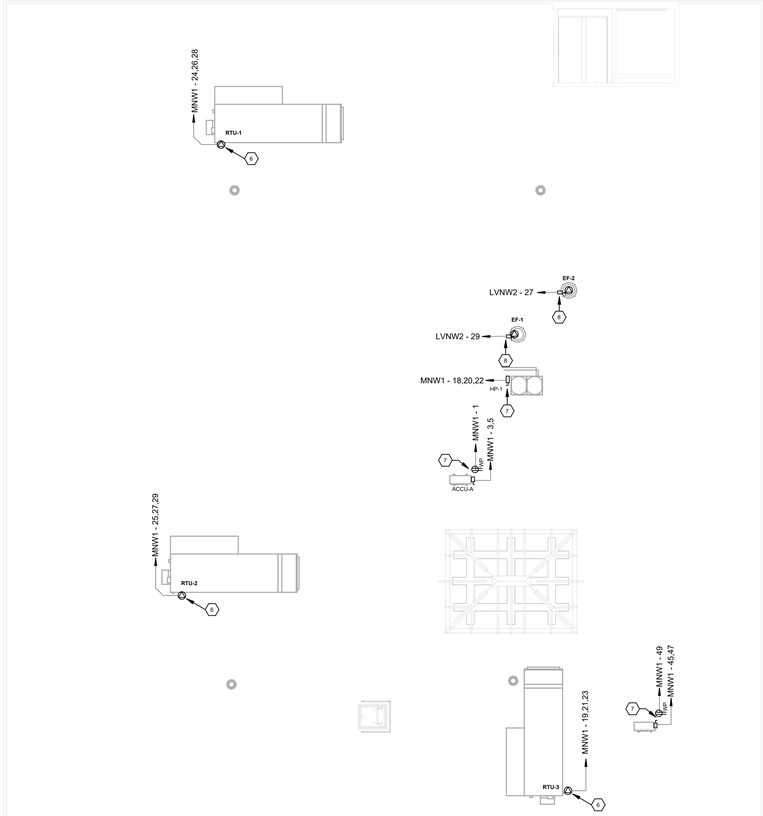
Sheet Number

E201

POWER PLAN KEYED NOTES	
#	NOTE TEXT
1	POWER AND DATA FOR TV SCREEN. MOUNT DEVICES +54" AFF.
2	EXISTING PUMP CONTROLLER TO BE CONNECTED TO NEW PANELBOARD MNW1. REFER TO PANEL SCHEDULE MNW1 FOR CONDUIT AND CONDUCTOR TYPES AND SIZES.
3	TYPICAL. FCU CONNECTION SHALL BE MADE ABOVE FINISHED CEILING. COORDINATE TERMINATION LOCATIONS WITH THE MECHANICAL CONTRACTOR.
4	TYPICAL. CONDENSATE PUMP BY OTHERS. THIS CONTRACTOR TO PROVIDE HARDWIRE CONNECTION TO CONDENSATE PUMP AND DISCONNECT SWITCH. REFER TO CONDENSATE WIRING ABOVE CEILING DETAIL ON SHEET E601 FOR MORE INFORMATION.
5	TYPICAL. MOTORIZED DAMPER BY OTHERS. THIS CONTRACTOR TO PROVIDE 120V POWER CONNECTION.
6	COORDINATE CONDUIT ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR. THIS CONTRACTOR SHALL TERMINATE CONDUCTORS ON FACTORY INSTALLED CIRCUIT BREAKER. FURNISH AND INSTALL NON-FUSED DISCONNECT SWITCH WHERE CIRCUIT BREAKER DOES NOT COMPLY WITH 2017 NEC 440.14.
7	COORDINATE CONDUIT ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR. THIS CONTRACTOR SHALL INSTALL FIELD FABRICATED GALVANIZED STANCHION TO SUPPORT DISCONNECT SWITCH, RECEPTACLE, CONDUIT, AND ETC AS REQUIRED.
8	COORDINATE CONDUIT ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR.
9	TYPICAL. CEILING CASSETTE UNIT CONNECTION SHALL BE MADE ABOVE FINISHED CEILING. COORDINATE TERMINATION LOCATIONS WITH THE MECHANICAL CONTRACTOR.
10	BRANCH CIRCUIT CONTROLLER FOR THE VRF SYSTEM. CONNECTION SHALL BE MADE ABOVE FINISHED CEILING. COORDINATE THE TERMINATION LOCATION WITH THE MECHANICAL CONTRACTOR.
11	TYPICAL WATER FOUNTAIN RECEPTACLE. THE BRANCH CIRCUIT SHALL BE PROTECTED BY A CLASS A GFCI TYPE CIRCUIT BREAKER. A GFCI TYPE RECEPTACLE IS NOT PERMITTED TO BE MOUNTED BEHIND OR WITHIN THE HOUSING OF THE WATER FOUNTAIN. COORDINATE RECEPTACLE MOUNTING LOCATION WITH THE PLUMBING CONTRACTOR.
12	FEEDER CONDUITS AND CONDUCTORS FROM EXISTING TRANSFORMER ON THE SOUTH CORNER OF THE BUILDING ADJACENT TO THE PARKING LOT. EXTEND (2) SETS OF (4) #350 THWN IN 3" PVC FROM THE EXISTING TRANSFORMER TO THE MAIN CIRCUIT BREAKER IN PANEL MNW1.
13	AC INDOOR UNIT. EXTEND (3) #12 THHN, #12 G IN 3/4" RMC FROM ROOF THE ASSOCIATED TOP UNIT ACCU.
14	ELEVATOR CONTROLLER BY OWNER'S ELEVATOR EQUIPMENT INSTALLER. EXTEND (3) #8 THHN, #10G, IN 1" EMT TO 208V, 3 Ø, 60A RATED FUSED DISCONNECT SWITCH. FURNISH FUSED DISCONNECT SWITCH WITH (3) 35A RK1 DUAL-ELEMENT TIME-DELAY FUSES. COORDINATE EQUIPMENT INSTALLATION WITH THE ELEVATOR EQUIPMENT INSTALLER.
15	FURNISH AND INSTALL 30 AMPERE, 2 POLE FUSED SWITCH WITH LOCKABLE HANDLE AND (1) 20 AMPERE DUAL ELEMENT TIME DELAY FUSE IN ELEVATOR SHAFT AT TOP FOR ELEVATOR CAB POWER. PROVIDE (2) #12 THHN (1) #12 GROUND IN 3/4" EMT. FIELD VERIFY DISCONNECT MOUNTING LOCATION AND CONDUIT ROUTE WITH THE ELEVATOR EQUIPMENT INSTALLER.

NOTES:

1. ALL DISCONNECT SWITCHES SUPPLIED WITH MECHANICAL AND PLUMBING EQUIPMENT SHALL BE INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR. REFER TO MECHANICAL AND PLUMBING EQUIPMENT SCHEDULES.
2. ALL DISCONNECT SWITCHES SHALL BE LABELED WITH ENGRAVED LAMACOID NAMEPLATE WITH LETTERING INDICATING CIRCUIT NUMBER AND SOURCE. FASTEN LABEL WITH SILICON ADHESIVE.
3. ALL BRANCH CIRCUITRY FEEDING ROOFTOP EQUIPMENT SHALL BE EXTENDED ABOVE CEILING AND BELOW ROOF TO PENETRATE THROUGH ROOF WITHIN EQUIPMENT OR AS CLOSE AS POSSIBLE TO EQUIPMENT. COORDINATE IN FIELD WITH MECHANICAL AND PLUMBING CONTRACTORS.



1 ELECTRICAL - NORTH WING ROOF POWER PLAN
1/8" = 1'-0"

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

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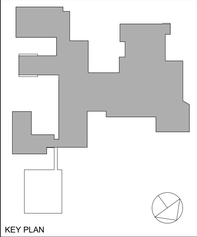
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

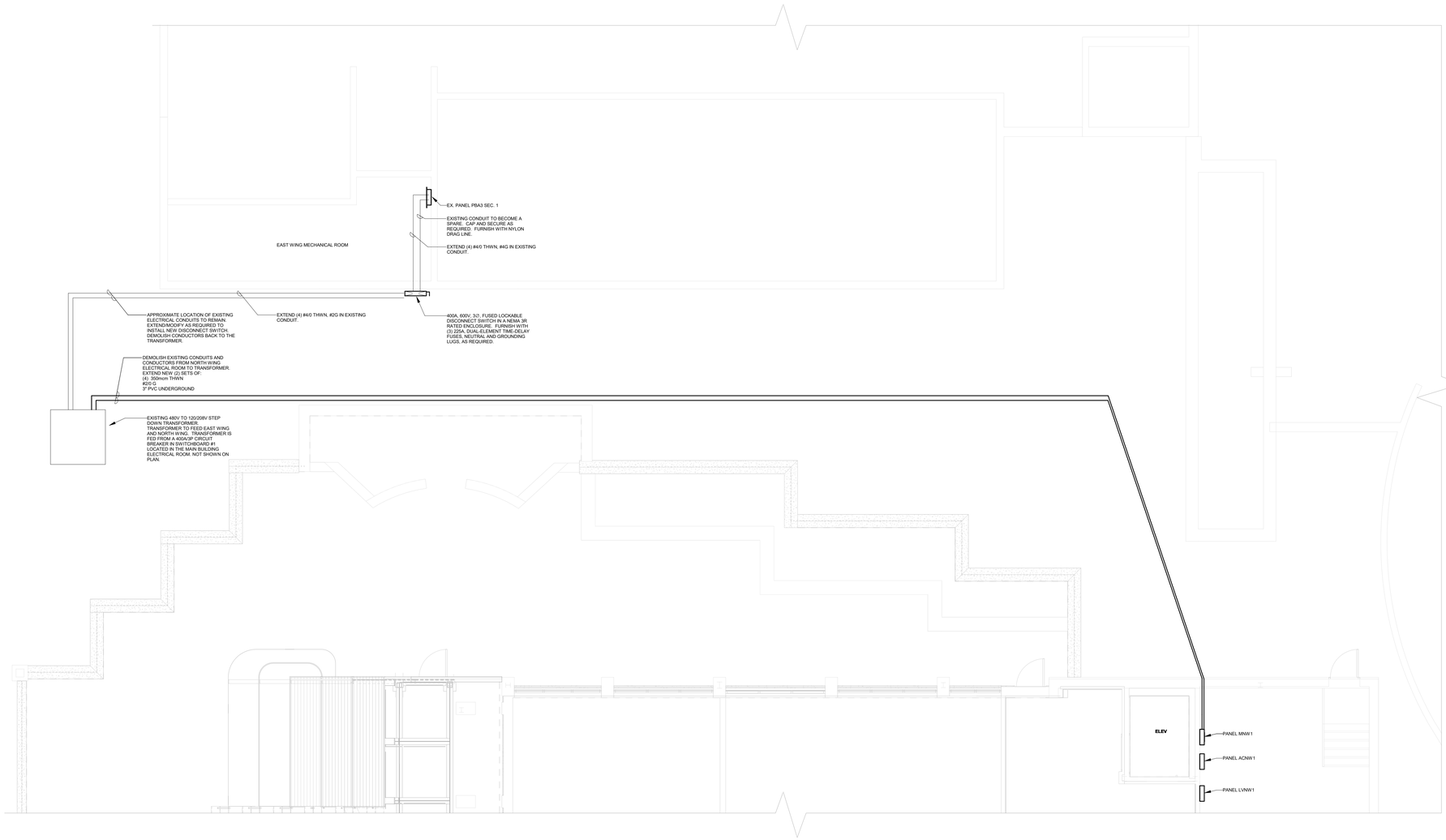
Sheet Title

ELECTRICAL:
NORTH WING ROOF POWER PLAN

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

Sheet Number

E202



1 ELECTRICAL - EAST WING PARTIAL PLAN

3/16" = 1'-0"

SITE ELECTRICAL NOTES:

1. ALL UNDERGROUND CONDUITS SHALL HAVE A MINIMUM OF 24" COVER FROM TOP OF CONDUIT TO TOP OF FINISHED SURFACE.
2. ALL CONDUIT ROUTING SHALL BE COORDINATED IN FIELD WITH GENERAL CONTRACTOR AND ELECTRICAL ENGINEER. GENERAL CONTRACTOR SHALL MARK OUT ALL EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, EXCAVATING AND BACKFILLING ASSOCIATED WITH INSTALLATION OF ELECTRICAL CONDUIT AND PULL BOXES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR BEDDING AROUND CONDUIT.

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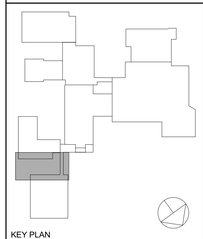
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE

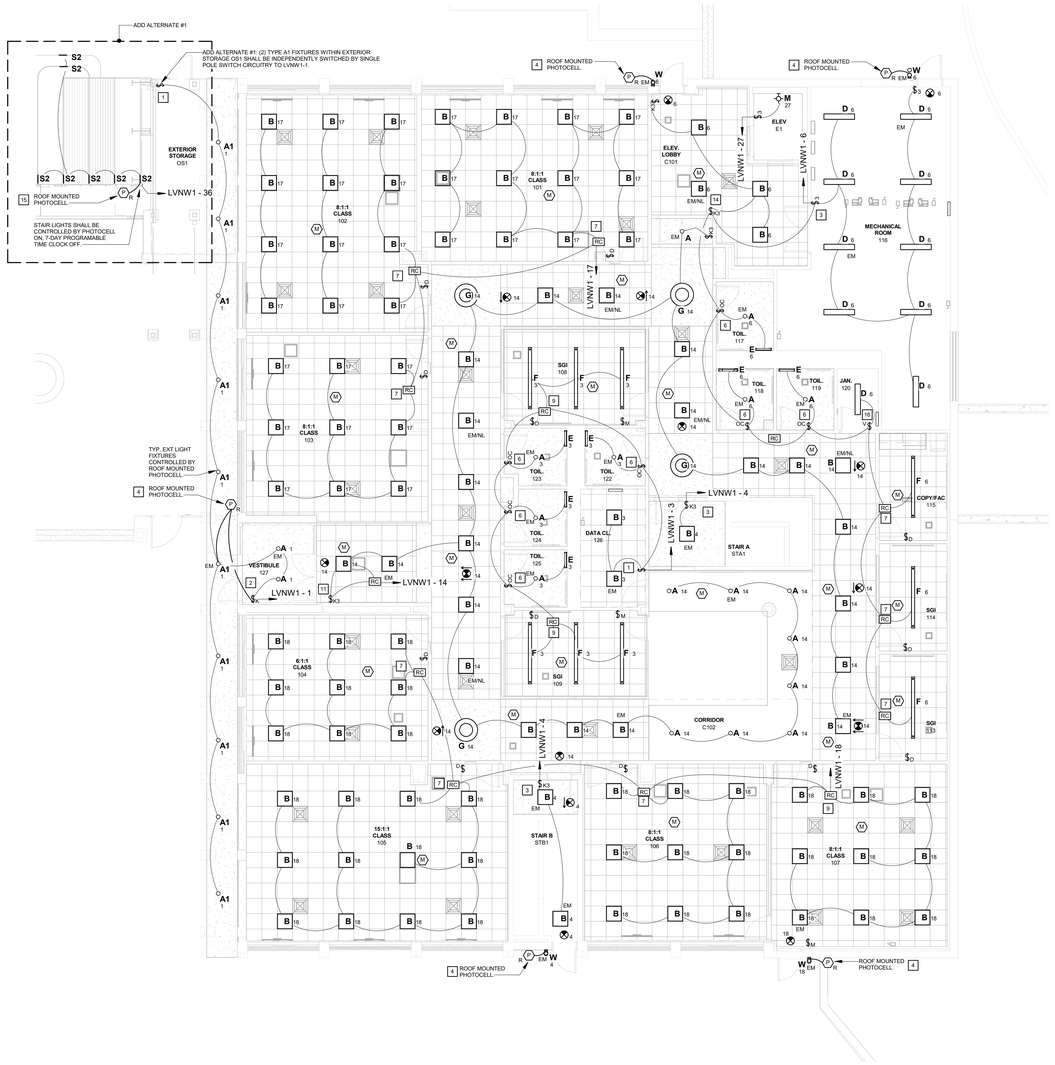
Sheet Title

ELECTRICAL:
EAST WING
PARTIAL POWER PLAN

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

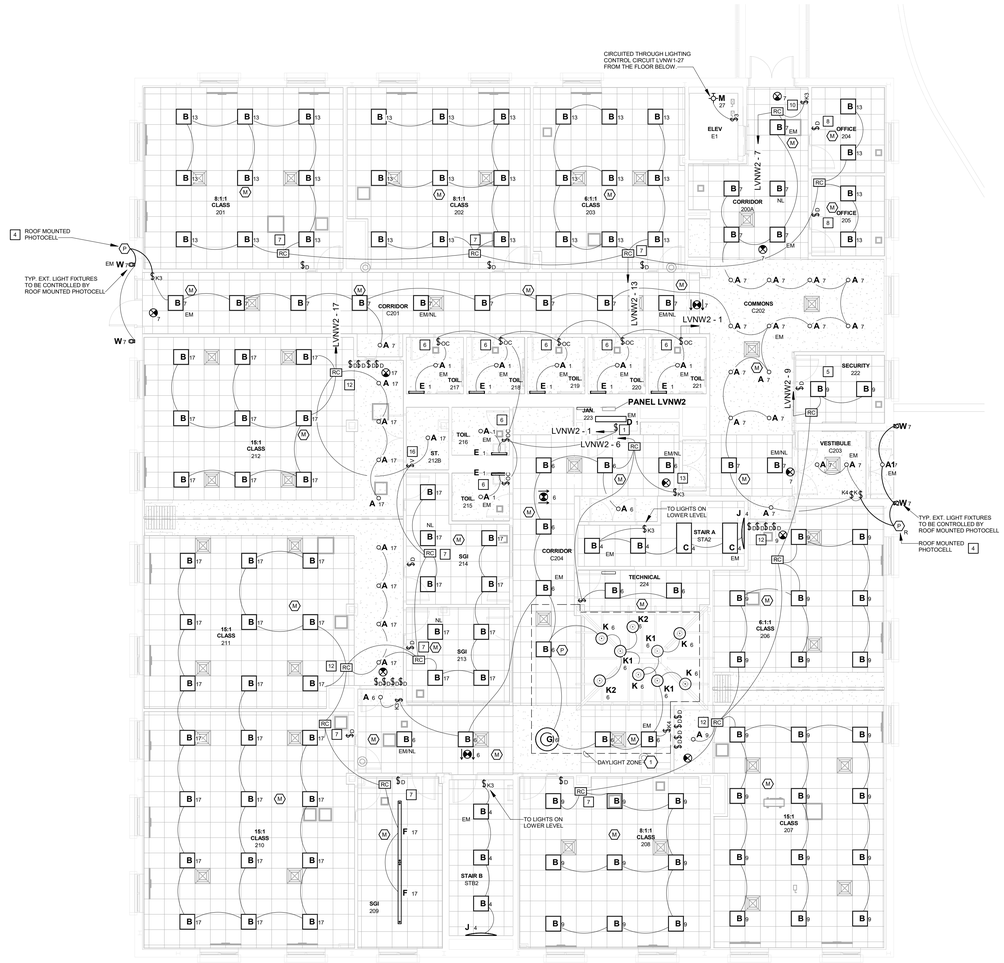
Sheet Number

E203



1 ELECTRICAL - NORTH WING LOWER LEVEL LIGHTING PLAN

1/8" = 1'-0"



2 ELECTRICAL - NORTH WING UPPER LEVEL LIGHTING PLAN

1/8" = 1'-0"

LIGHTING CONTROL NOTE

[#] REFER TO LIGHTING CONTROL EQUIPMENT SCHEDULE AND LIGHTING CONTROL ROOM SCHEDULE FOR SENSOR AND SWITCH PART SPECIFICATION AND OPERATION MODE.

LIGHTING PLAN KEYED NOTES

#	NOTE TEXT
1	DAYLIGHT ZONE. DAYLIGHT SENSOR SHALL AUTOMATICALLY ADJUST LIGHTING LEVELS OF ALL LIGHT FIXTURES WITHIN THE DAYLIGHT ZONE IN ACCORDANCE WITH 2020 NEW YORK STATE ENERGY CODE.

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CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

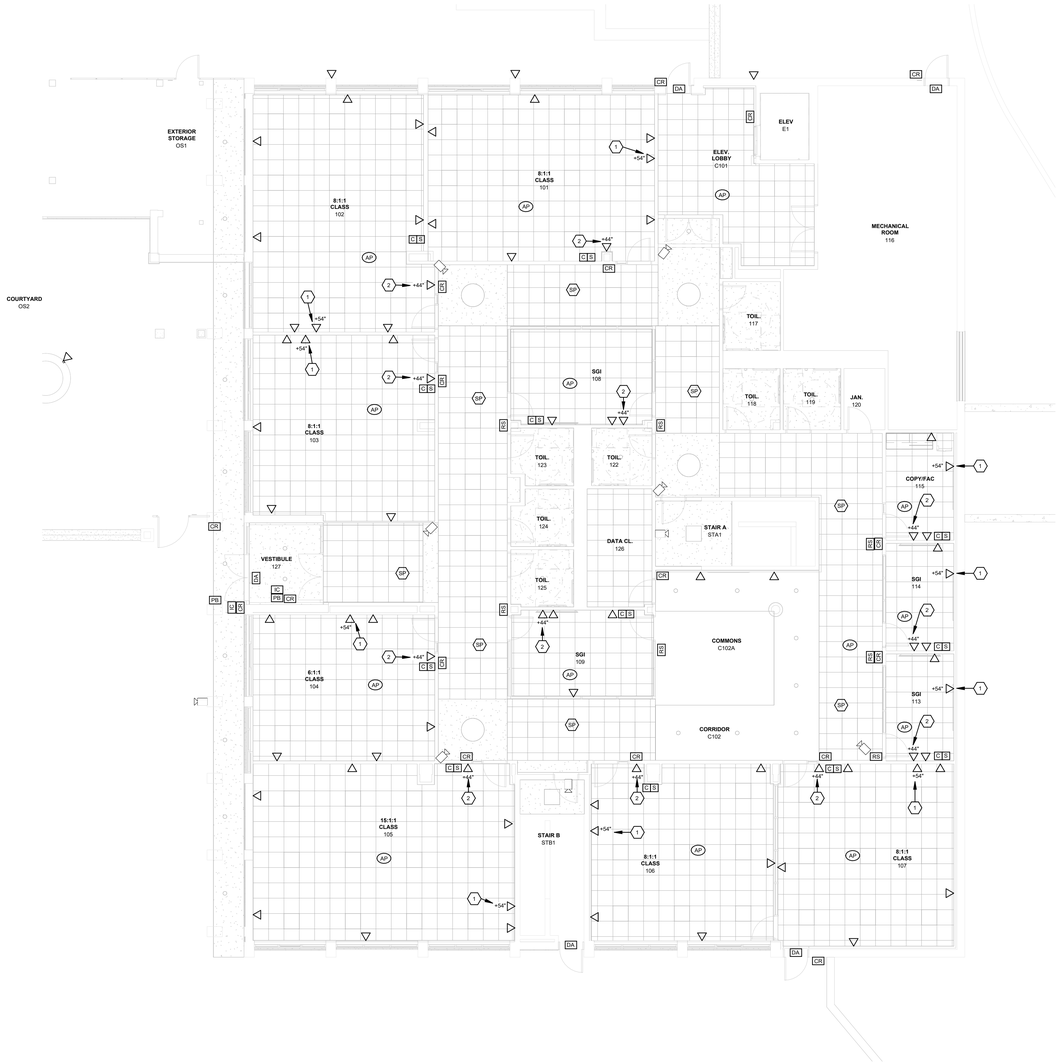
Sheet Title

ELECTRICAL:
NORTH WING LOWER & UPPER LEVEL LIGHTING PLANS

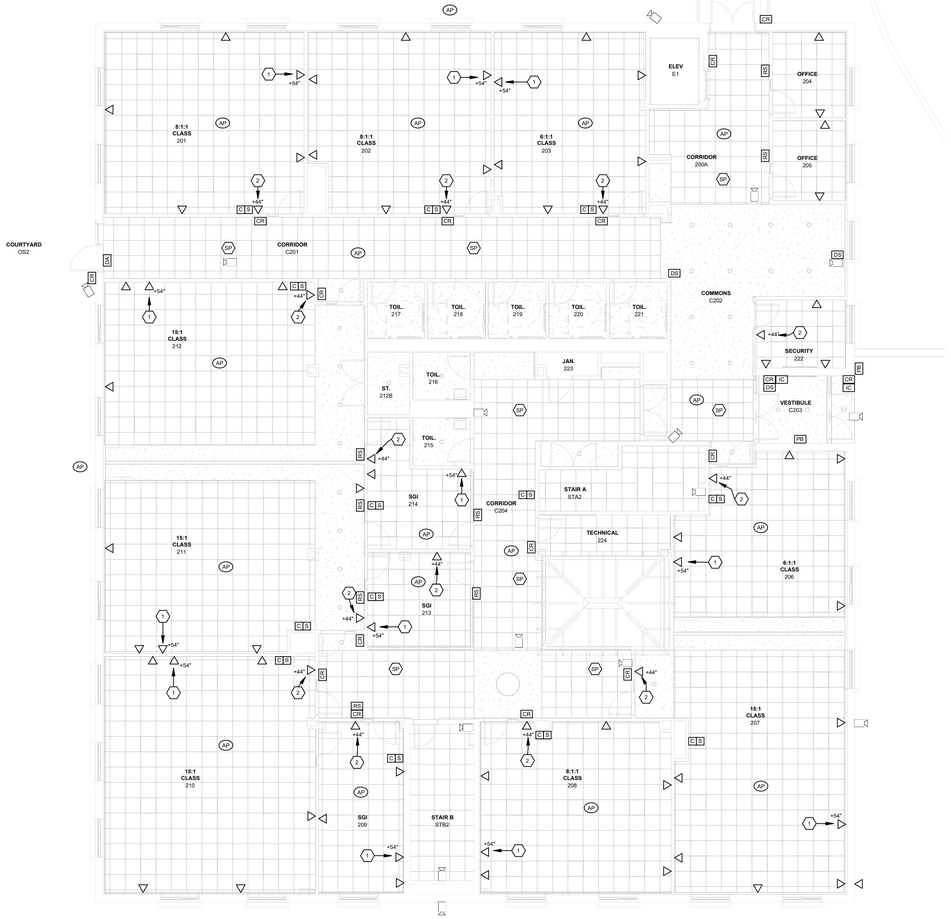
Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

Sheet Number

E301



1 ELECTRICAL - NORTH WING LOWER LEVEL DATA, AV & SECURITY PLAN
1/8" = 1'-0"



2 ELECTRICAL - NORTH WING UPPER LEVEL DATA, AV & SECURITY PLAN
1/8" = 1'-0"

COMMUNICATIONS PLAN KEYED NOTES

#	NOTE TEXT
1	POWER AND DATA FOR TV SCREEN. MOUNT DEVICES +54" AFF.
2	DATA OUTLET FOR TELEPHONE. MOUNT DEVICE +44" AFF

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CONSTRUCTION DOCUMENTS

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3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ELECTRICAL:
NORTH WING LOWER & UPPER LEVEL DATA, AV & SECURITY PLANS

Job No.	Date
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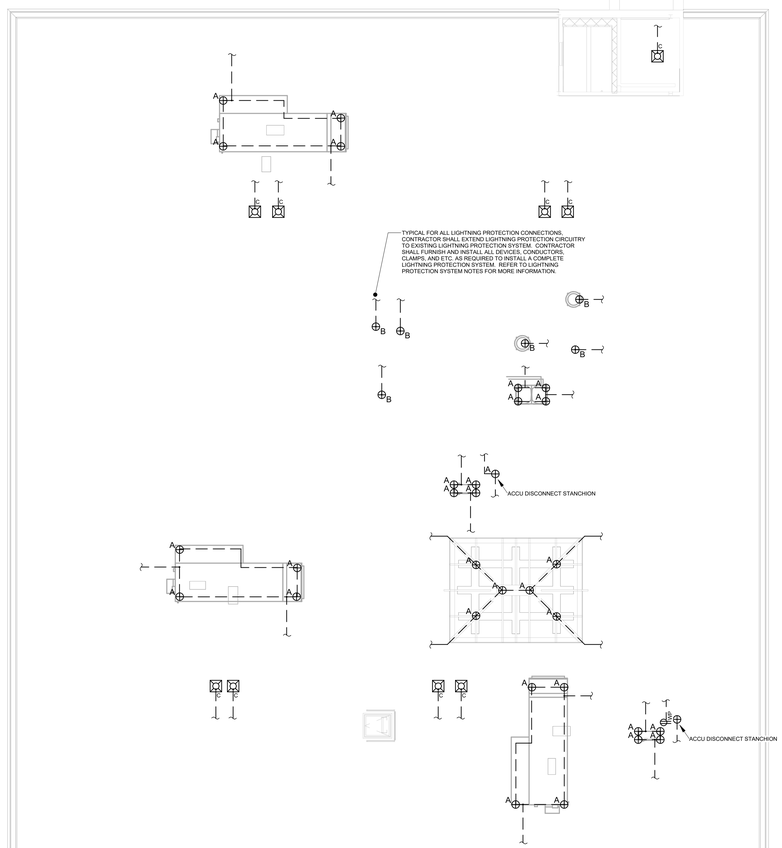
Sheet Number

E401

LIGHTNING PROTECTION EQUIPMENT SCHEDULE	
SYMBOL	DESCRIPTION
⊕A	3/8" x 18" GENTLY TAPERED SOLID COPPER AIR TERMINAL WITH HORIZONTAL BASE MOUNT SET IN ADHESIVE.
⊕B	3/8" x 10" GENTLY TAPERED SOLID COPPER AIR TERMINAL WITH HORIZONTAL BASE MOUNT SET IN ADHESIVE.
●C	BOND CONNECTION TO METAL EQUIPMENT.
	CONDUCTOR CONNECTION
— — —	CLASS I COPPER MAIN CONDUCTOR, 32 STRAND, 17 GAUGE, 64,800CM, FASTEN TO STRUCTURE EVERY 3 FEET.

LIGHTING PROTECTION SYSTEM NOTES

1. THE LIGHTNING PROTECTION SYSTEM SHALL MEET ALL THE REQUIREMENTS OF A CLASS I SYSTEM IN ACCORDANCE WITH NFPA STANDARD 780 AND U.L. 96.
2. ADHESIVE USED WITH AIR TERMINAL BASES AND CONDUCTOR FASTENERS SHALL BE COMPATIBLE WITH ROOFING MEMBRANE, PARAPET WALL COPING AND OTHER MOUNTING SURFACES. ADHESIVE SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
3. ALL DOWN CONDUCTORS SHALL BE CONCEALED WITHIN THE EXTERIOR WALL ASSEMBLIES. ROOF PENETRATIONS, CONDUCTOR LOCATIONS AND FASTENER LOCATIONS SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL PREPARE A SHOP DRAWING OF THE ENTIRE LIGHTNING PROTECTION SYSTEM FOR REVIEW AND APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION. THE SHOP DRAWING SHALL BEAR THE SEAL OF A LIGHTNING PROTECTION INSTITUTE (LPI) CERTIFIED MASTER DESIGNER.
5. THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED SHOP DRAWING UNDER THE SUPERVISION OF AN LPI CERTIFIED MASTER INSTALLER.
6. ELECTRICAL CONTRACTOR SHALL DISCONNECT, REMOVE AND STORE ALL EXISTING LIGHTNING PROTECTION EQUIPMENT, CONDUCTORS, COMPONENTS, CONNECTORS, ETC. NECESSARY TO ALLOW FOR ROOF REPLACEMENT. ELECTRICAL CONTRACTOR SHALL REINSTALL SYSTEM UPON COMPLETION OF ROOF REPLACEMENT AND CONNECT NEW EQUIPMENT AND CONDUCTORS SHOWN ON PLAN TO RENDER COMPLETE AND COMPLIANT SYSTEM.



1 ELECTRICAL - NORTH WING ROOF LIGHTNING PROTECTION PLAN
1/8" = 1'-0"

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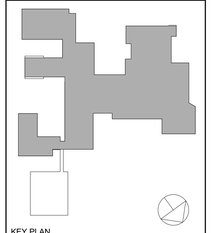
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ELECTRICAL:
NORTH WING ROOF LIGHTNING PROTECTION PLAN

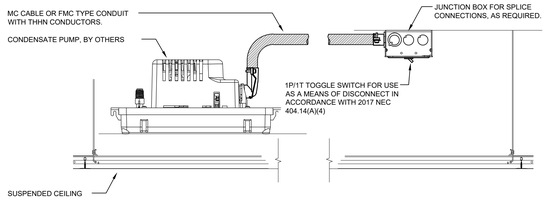
Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

Sheet Number

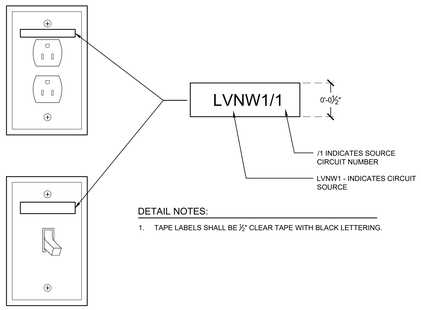
E501

NOTES:

1. CONDENSATE SHALL BE HARDWIRED WITH MC TYPE CABLE, OR FMC TYPE CONDUIT WITH THHN CONDUCTORS.
2. CORD CONNECTIONS SHALL NOT BE PERMITTED ABOVE CEILINGS IN ACCORDANCE WITH 2017 NEC 400.12
3. TOGGLE SWITCH SHALL BE PERMISSIBLE TO BE MOUNTED ABOVE FINISHED CEILING IN ACCORDANCE WITH 2017 NEC 404.8(A) EXCEPTION #2.
4. TOGGLE SWITCH SHALL BE MOUNTED SUCH THAT THE SWITCH IS WITHIN LINE OF SIGHT OF THE CONDENSATE PUMP IN ACCORDANCE WITH 2017 NEC 430.102(A).



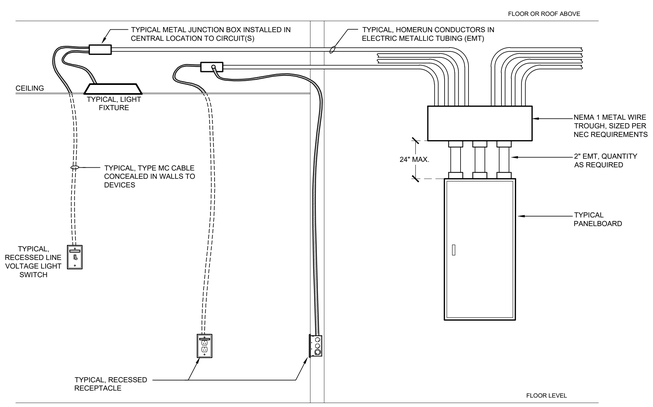
1 CONDENSATE WIRING ABOVE CEILING DETAIL
NOT TO SCALE



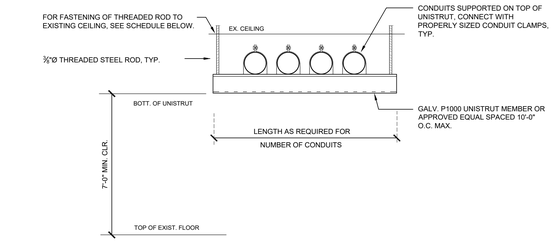
DETAIL NOTES:

1. TAPE LABELS SHALL BE ½" CLEAR TAPE WITH BLACK LETTERING.

2 ELECTRICAL: TYPICAL RECEPTACLE/SWITCH IDENTIFICATION DETAIL
NOT TO SCALE



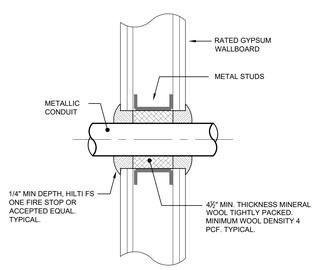
3 ELECTRICAL: BRANCH CIRCUITRY WIRING DETAIL
NOT TO SCALE



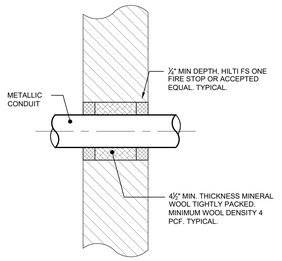
CEILING CONSTRUCTION	ANCHOR TYPE	EMBEDMENT
NORMAL WT. CONC	HILTI HDI DROP-IN ANCHOR	1" MIN.
CINDER CONCRETE	HILTI KWIK BOLT II	3" MIN.
HOLLOW CONSTRUCTION	TOGGLE BOLTS	NA

4 ELECTRICAL: TRAPEZE SUPPORT DETAIL
NOT TO SCALE

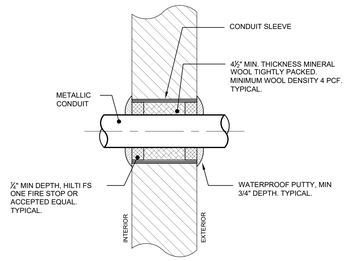
5 ELECTRICAL: TYPICAL CONDUIT SUPPORT ON MASONRY DETAIL
NOT TO SCALE



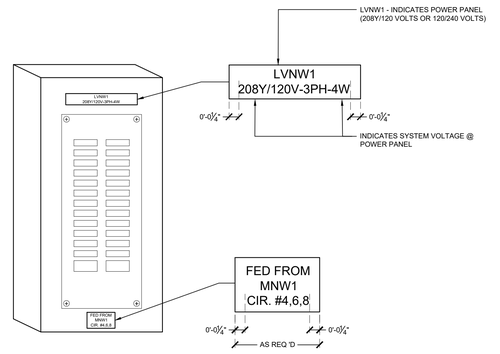
6 ELECTRICAL: TYPICAL CONDUIT GYPSUM WALL PENETRATION DETAIL
NOT TO SCALE



7 ELECTRICAL: TYPICAL CONDUIT INTERIOR MASONRY WALL PENETRATION DETAIL
NOT TO SCALE



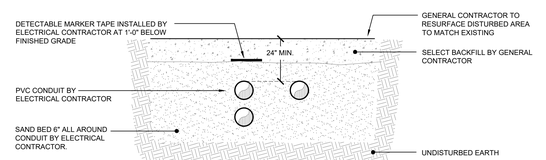
8 ELECTRICAL: TYPICAL CONDUIT EXTERIOR MASONRY WALL PENETRATION DETAIL
NOT TO SCALE



DETAIL NOTES:

1. LETTERS SHALL BE UPPERCASE, CONDENSED BLOCK TYPE
2. NAMEPLATES SHALL BE ENGRAVED LAMICOID
3. FASTEN TO NEMA 1, 9, & 12 ENCLOSURE WITH DOUBLE-FACED URETHANE FOAM TAPE 3M #70-0024-8019-5.
4. FASTEN TO NEMA 3R & 4 ENCLOSURE WITH SILICON ADHESIVE.

9 TYPICAL POWER PANEL IDENTIFICATION DETAIL
NOT TO SCALE



10 ELECTRICAL CONDUIT TRENCH DETAIL
NOT TO SCALE

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CONSTRUCTION DOCUMENTS

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No.	Date	Issue
3	04/24/24	BID ISSUE
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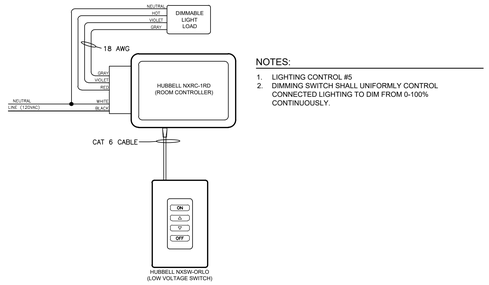
Sheet Title

ELECTRICAL:
DETAILS

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

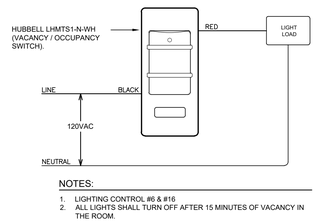
E601



NOTES:

1. LIGHTING CONTROL #5
2. DIMMING SWITCH SHALL UNIFORMLY CONTROL CONNECTED LIGHTING TO DIM FROM 0-100% CONTINUOUSLY.

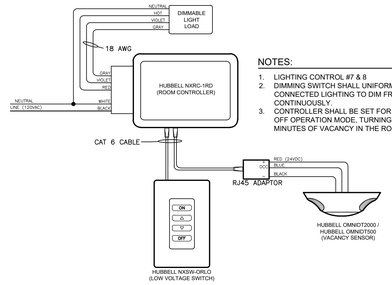
1 DIMMING SWITCH DETAIL
NOT TO SCALE



NOTES:

1. LIGHTING CONTROL #6 & #16
2. ALL LIGHTS SHALL TURN OFF AFTER 15 MINUTES OF VACANCY IN THE ROOM.

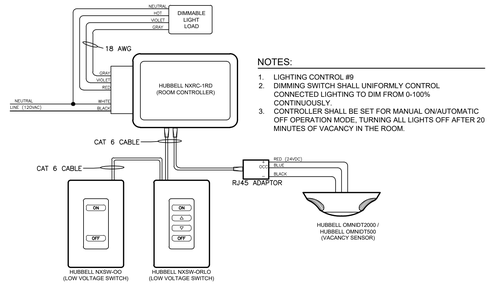
4 LINE VOLTAGE OCCUPANCY SWITCH DETAIL
NOT TO SCALE



NOTES:

1. LIGHTING CONTROL #7 & 8
2. DIMMING SWITCH SHALL UNIFORMLY CONTROL CONNECTED LIGHTING TO DIM FROM 0-100% CONTINUOUSLY.
3. CONTROLLER SHALL BE SET FOR MANUAL ON/AUTOMATIC OFF OPERATION MODE, TURNING ALL LIGHTS OFF AFTER 20 MINUTES OF VACANCY IN THE ROOM.

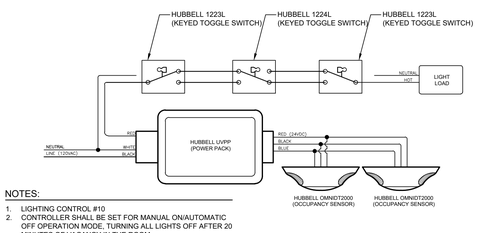
6 CEILING VAC. SENSOR & DIMMING SWITCH DETAIL
NOT TO SCALE



NOTES:

1. LIGHTING CONTROL #9
2. DIMMING SWITCH SHALL UNIFORMLY CONTROL CONNECTED LIGHTING TO DIM FROM 0-100% CONTINUOUSLY.
3. CONTROLLER SHALL BE SET FOR MANUAL ON/AUTOMATIC OFF OPERATION MODE, TURNING ALL LIGHTS OFF AFTER 20 MINUTES OF VACANCY IN THE ROOM.

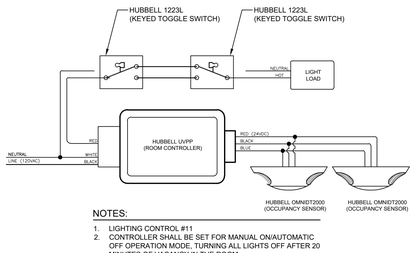
9 CEILING VAC. SENSOR, 2-BUTTON SWITCH, & DIMMING SWITCH DETAIL
NOT TO SCALE



NOTES:

1. LIGHTING CONTROL #10
2. CONTROLLER SHALL BE SET FOR MANUAL ON/AUTOMATIC OFF OPERATION MODE, TURNING ALL LIGHTS OFF AFTER 20 MINUTES OF VACANCY IN THE ROOM.

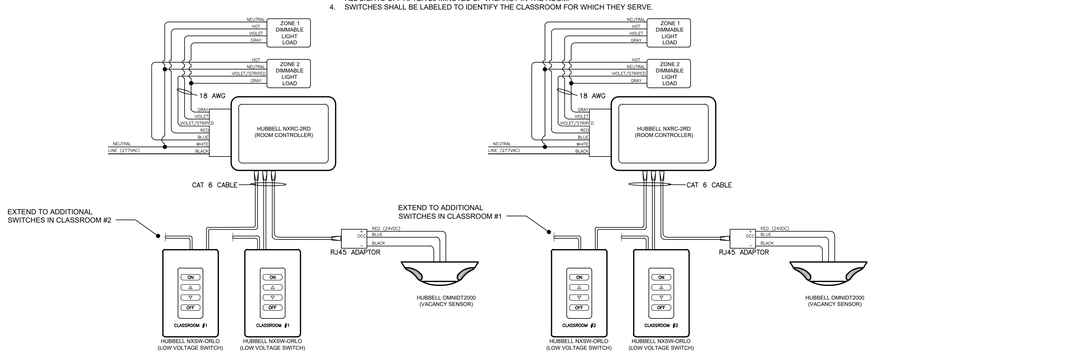
2 CEILING OCC. SENSORS W/ 3&4-WAY SWITCHES DETAIL
NOT TO SCALE



NOTES:

1. LIGHTING CONTROL #11
2. CONTROLLER SHALL BE SET FOR MANUAL ON/AUTOMATIC OFF OPERATION MODE, TURNING ALL LIGHTS OFF AFTER 20 MINUTES OF VACANCY IN THE ROOM.

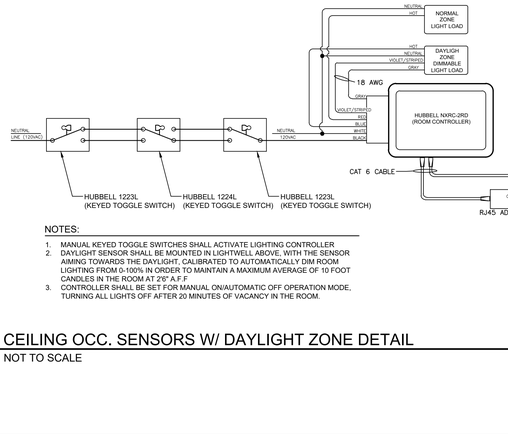
5 CEILING OCC. SENSORS W/ SPST SWITCH DETAIL
NOT TO SCALE



NOTES:

1. LIGHTING CONTROL #12
2. NXSW-ORLO DIMMING SWITCHES SHALL UNIFORMLY CONTROL RESPECTIVE LIGHTING ZONES TO DIM FROM 10-100% CONTINUOUSLY.
3. CONTROLLER SHALL BE SET FOR MANUAL ON/AUTOMATIC OFF OPERATION MODE, TURNING ALL LIGHTS OFF AFTER 20 MINUTES OF VACANCY IN THE ROOM.
4. SWITCHES SHALL BE LABELED TO IDENTIFY THE CLASSROOM FOR WHICH THEY SERVE.

7 CLASSROOM W/ PARTITION WALL - CEILING VAC. SENSORS W/ 2-ZONE DIMMING DETAIL
NOT TO SCALE



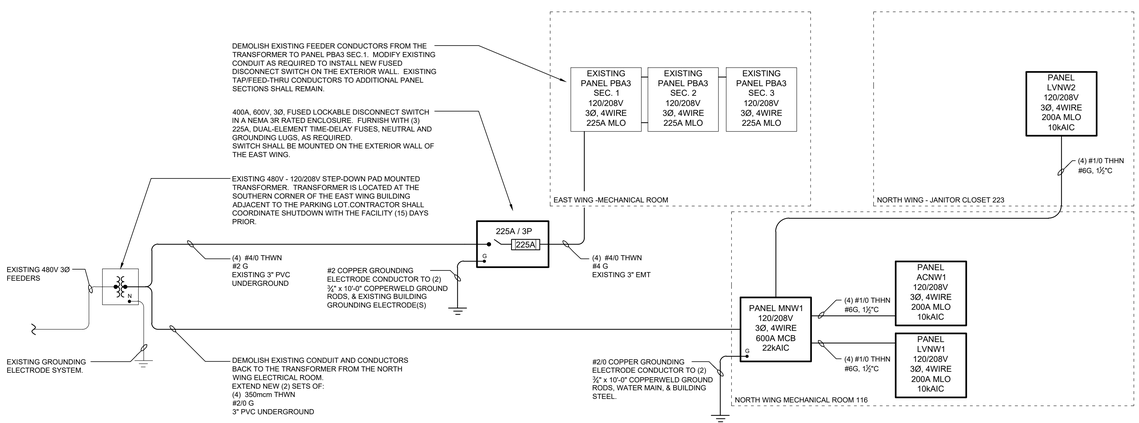
NOTES:

1. MANUAL KEYED TOGGLE SWITCHES SHALL ACTIVATE LIGHTING CONTROLLER
2. DAYLIGHT SENSOR SHALL BE MOUNTED IN LIGHTWELL ABOVE, WITH THE SENSOR AIMING TOWARDS THE DAYLIGHT, CALIBRATED TO AUTOMATICALLY DIM ROOM LIGHTING FROM 0-100% IN ORDER TO MAINTAIN A MAXIMUM AVERAGE OF 10 FOOT CANDLES IN THE ROOM AT 2'6" A.F.F.
3. CONTROLLER SHALL BE SET FOR MANUAL ON/AUTOMATIC OFF OPERATION MODE, TURNING ALL LIGHTS OFF AFTER 20 MINUTES OF VACANCY IN THE ROOM.

3 CEILING OCC. SENSORS W/ DAYLIGHT ZONE DETAIL
NOT TO SCALE

LIGHTING CONTROL NOTES:

1. LIGHTING CONTROL #13
2. ALL LOW-VOLTAGE DEVICES THAT ARE TO BE RECESSED WALL/CEILING MOUNTED SHALL BE INSTALLED IN LOW-VOLTAGE PVC ELECTRICAL BOXES WITH ALL WIRE CONNECTIONS MADE INSIDE BOX.
3. ALL LOW VOLTAGE DEVICES THAT ARE TO BE SURFACE MOUNTED SHALL BE INSTALLED IN METAL JUNCTION BOX WITH ALL WIRE CONNECTIONS MADE INSIDE BOX.
4. POWER PACKS AND CONTROLLERS SHALL BE MOUNTED TO 4x4 METAL JUNCTION BOX WITH ALL WIRE CONNECTIONS MADE INSIDE BOX.
5. ALL LOW VOLTAGE WIRING SHALL BE ISOLATED FROM LINE VOLTAGE CONDUCTORS.
6. ALL 'RJ45 ADAPTOR' CONNECTIONS SHALL BE MADE INSIDE JUNCTION BOX.
7. NO CAT 6 CABLE SHALL EXTEND MORE THAN 328 FEET IN TOTAL LINEAR LENGTH.
8. GROUND CONDUCTORS OMITTED FROM SCHEMATICS.



8 ELECTRICAL POWER SCHEMATIC
NOT TO SCALE

ORANGE-ULSTER BOCES

ARDEN HILL - MAIN BUILDING ALTERATIONS TO NORTH WING

4 HARRIMAN DRIVE
GOSHEN, NY 10924

KG+D listen imagine build
KG+D , ARCHITECTS PC
285 MAIN STREET MOUNT KISCO . NEW YORK . 10549
P:914.666.5900 KGDARCHITECTS.COM

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CONSULTING ENGINEERS, D.P.C.
223 MAIN STREET, GOSHEN, NY 10924
(845) 291 1272 GerardAssociates.com

GA23012

NY SED PROJECT CONTROL NO:

44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ELECTRICAL:
DETAILS

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

E602

LIGHTING CONTROL EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG#	DESCRIPTION
$	HUBBELL	1221	SINGLE POLE TOGGLE SWITCH WITH METAL COVER PLATE, EXTRA HEAVY DUTY INDUSTRIAL GRADE, 20A, 125V.
$3	HUBBELL	1223	THREE WAY TOGGLE SWITCH WITH METAL COVER PLATE, EXTRA HEAVY DUTY INDUSTRIAL GRADE, 20A, 120V.
$D	_____	_____	WALL MOUNTED DIMMING LIGHT SWITCH WITH METAL COVER PLATE. REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR PART SPECIFICATION AND OPERATION MODE.
$OC	_____	_____	SINGLE POLE OCCUPANCY WALL SWITCH WITH METAL COVER PLATE. REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR PART SPECIFICATION AND OPERATION MODE.
$V	_____	_____	SINGLE POLE VACANCY WALL SWITCH WITH METAL COVER PLATE. REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR PART SPECIFICATION AND OPERATION MODE.
$M	_____	_____	LOW VOLTAGE MOMENTARY CONTACT LIGHT SWITCH WITH METAL COVER PLATE. REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR PART SPECIFICATION AND OPERATION MODE.
$K	HUBBELL	1221L	SINGLE POLE KEY OPERATED TOGGLE SWITCH, EXTRA DUTY INDUSTRIAL GRADE, 20A, 125V. PROVIDE WITH OPERATING KEY.
$K3	HUBBELL	1223L	3-WAY KEY OPERATED TOGGLE SWITCH, EXTRA DUTY INDUSTRIAL GRADE, 20A, 125V. PROVIDE WITH OPERATING KEY.
$K4	HUBBELL	1224L	4-WAY KEY OPERATED TOGGLE SWITCH, EXTRA DUTY INDUSTRIAL GRADE, 20A, 125V. PROVIDE WITH OPERATING KEY.
RC	HUBBELL	NXRC	HUBBELL NX ROOM CONTROLLER. 120V. REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR FURTHER INFORMATION.
M	HUBBELL	NXSW-OMNIDT	DUAL TECHNOLOGY (PIR/ULTRASONIC) CEILING MOUNTED LOW VOLTAGE (24V) DIGITAL PRESENCE DETECTOR FOR USE WITH NXRC AND UVPP . REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR FURTHER INFORMATION.
P	HUBBELL	NXDS	CEILING MOUNTED LOW VOLTAGE (24V) PHOTO SENSOR FOR USE WITH NXRC. REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR FURTHER INFORMATION.
PR	INTERMATIC	EK4000	EXTERIOR MOUNTED LINE VOLTAGE (120V) PHOTO SENSOR. REFER TO LIGHTING CONTROL ROOM SCHEDULE FOR FURTHER INFORMATION.

LIGHTING FIXTURE SCHEDULE

TYPE MARK	DESCRIPTION	MANUFACTURER	CATALOG #	SOURCE	COLOR TEMPERATURE	WATTAGE	VOLTAGE	LUMENS
A	4" ROUND DOWNLIGHT	ALPHABET	NU4-RD-20L-35K-HE60-WH-WH-NC-120-DIM10	LED	3500	16	120	1600
A1	WET LOCATION RATED, 4" ROUND DOWNLIGHT	ALPHABET	NU4-RD-20L-35K-SS60-CL-WH-WH-NC-120-DIM10	LED	3500	16	120	1600
B	2'X2' RECESSED DIRECT TROFFER, SATIN ICE ACRYLIC LENSES, INTEGRAL 0-10V DIMMING DRIVER, 80+CRI.	DAY-O-LITE	HML-A-D-SI-35K-HO-22-G-W-DIM10	LED	3500	44	120	4060
C	2'X4' RECESSED DIRECT TROFFER, SATIN ICE ACRYLIC LENSES, INTEGRAL 0-10V DIMMING DRIVER, 80+CRI.	DAY-O-LITE	HML-A-D-SI-35K-HO-22-G-W-DIM10	LED	3500	70	120	7550
D	SURFACE MOUNTED 48" LINEAR WRAP WITH FIXED OUTPUT DRIVER.	COLUMBIA LIGHTING	RLW-4-35-MW-FA-W-E-U	LED	3500	28.8	120	3800
E	DAMP LOCATION RATED, 22" LED LIGHT BAR, WITH REMOTE TRIAC/ELV DIMMING DRIVER	SONNEMAN	KEEL LED BATH BAR	LED	3500	11	120	800
F	OPEN APERTURE PENDENT INDIRECT/DIRECT 8' LINEAR LED WITH 51" SUSPENSION KIT, CLEAR ACRYLIC DUST COVER LENS, AND INTEGRAL 0-10V DIMMING DRIVER.	LITECONTROL	75L-P-ID-STD-8'-08-C3-35K-1 050-D070-D01-1C-UNV-ECO-FA1-NL-EF-L1-CB1	LED	3500	3.5W/FT	120	500LM/FT
G	36" ROUND RECESSED DIRECT LED WITH FROSTED LENS, INTEGRAL 0-10V DIMMING DRIVER, 80+CRI	SKYDOME	FSLD-33-FLXP-3000L-35-K-1 C-UNV-LD1	LED	3500	49	120	3000
J	INDIRECT/DIRECT LED WALL SCONCE WITH INTEGRAL 0-10V DIMMING TO 1%, AND 80+CRI.	DAY-O-LITE	CRESL-DI-SI-35-SO-3-NW-W	LED	3500	7W/FT	120	500LM/FT
K	18" SUSPENDED LED BALL WITH 0-10V DIMMING DRIVER AND 90+CRI	ARANCIA	K-P84-18-N-N-B-1-U-O-C--10-N-BL	LED	3500	32	120	1585
K1	18" SUSPENDED LED BALL WITH 0-10V DIMMING DRIVER AND 90+CRI	ARANCIA	K-P84-18-N-N-B-1-U-O-C--10-N-BL-SP-N	LED	3500	32	120	1585
K2	18" SUSPENDED LED BALL WITH 0-10V DIMMING DRIVER AND 90+CRI	ARANCIA	K-P84-18-N-N-B-1-U-O-C--10-N-SP-BL	LED	3500	32	120	1585
M	VAPOR TIGHT, WALL MOUNTED LED WITH FROSTED GLASS LENS PROTECTED BY DIE CAST GUARD.	STONCO	VWXL-14-NW-G1-8	LED	4000	14	120	1390
S2	LED IN STEP LIGHT, HORIZONTAL, SUITABLE FOR CONCRETE POUR, DIFFUSE GLASS FACEPLATE, WITH TAMPER RESISTANT SCREWS.	GRADCO	941L-31L-NW-C-DG1-UNV-TP-BK	LED	4000	31	120	920
W	WET LOCATION RATED, WALL MOUNTED LED WITH FORWARD THROW LIGHT DISTRIBUTION, INTGRAL 0-10V DIMMING DRIVER, 80+CRI	BEGA	33817-K35	LED	3500	17	120	1659

LIGHTING CONTROL ROOM SCHEDULE

NOTE NUMBER	SWITCH	MOTION SENSOR	DAYLIGHT SENSOR	ROOM CONTROLLER	OPERATION MODE	DESCRIPTION
1	HUBBELL: 1221	N/A	N/A	N/A	MANUAL ON/MANUAL OFF	SINGLE POLE SWITCH. 120V
2	HUBBELL: 1221L (W/KEY HBL1209)	N/A	N/A	N/A	MANUAL ON/MANUAL OFF	SINGLE POLE KEY OPERATED SWITCH. 120V
3	HUBBELL: (2) 1223	N/A	N/A	N/A	MANUAL ON/MANUAL OFF	(2) THREE-WAY SWITCHES. 120V
4	INTERMATIC: EK4000	N/A	INTERMATIC EK4000	N/A	AUTOMATIC ON/AUTOMATIC OFF	(1) PHOTOSENSOR. 120V
5	HUBBELL: NXSW-ORLO	N/A	N/A	HUBBELL NXRC-1RD	MANUAL ON/MANUAL OFF	(1) ZONE SYSTEM W/ (1) WALL MOUNTED 4-BUTTON DIMMING SWITCH. 120V
6	HUBBELL: HMTS1-N-WH	N/A	N/A	N/A	AUTOMATIC ON/AUTOMATIC OFF	WALL MOUNTED PASSIVE INFRARED, SINGLE RELAY, OCCUPANCY SWITCH, 120V.
7	HUBBELL: NXSW-ORLO	HUBBELL OMNIDT2000	N/A	HUBBELL NXRC-1RD	MANUAL ON/AUTOMATIC OFF	(1) ZONE SYSTEM W/ (1) CEILING MOUNTED MOTION SENSOR & (1) WALL MOUNTED 4-BUTTON DIMMING SWITCH. 120V
8	HUBBELL: NXSW-ORLO	HUBBELL OMNIDT500	N/A	HUBBELL NXRC-1RD	MANUAL ON/AUTOMATIC OFF	(1) ZONE SYSTEM W/ (1) CEILING MOUNTED MOTION SENSOR & (1) WALL MOUNTED 4-BUTTON DIMMING SWITCH. 120V
9	HUBBELL: NXSW-ORLO, NXSW-OO	HUBBELL OMNIDT2000	N/A	HUBBELL NXRC-1RD	MANUAL ON/AUTOMATIC OFF	(1) ZONE SYSTEM W/ (1) CEILING MOUNTED MOTION SENSOR & (1) WALL MOUNTED 4-BUTTON DIMMING SWITCH, (1) WALL MOUNTED 2-BUTTON SWITCH. 120V
10	HUBBELL: (2) 1223L, (1) 1224L (W/KEY HBL1209)	(7) HUBBELL OMNIDT2000	N/A	HUBBELL UVPP	MANUAL ON/AUTOMATIC OFF	(1) ZONE SYSTEM W/ (7) CEILING MOUNTED MOTION SENSOR, (2) THREE-WAY SWITCHES & (1) FOUR-WAY SWITCHES. 120V
11	HUBBELL: (2) 1223L (W/KEY HBL1209)	(10) HUBBELL OMNIDT2000	N/A	HUBBELL UVPP	AUTOMATIC ON/AUTOMATIC OFF	(1) ZONE SYSTEM W/ (10) CEILING MOUNTED MOTION SENSOR & (1) SINGLE POLE KEY OPERATED SWITCH. 120V
12	HUBBELL: (4) NXSW-ORLO	(1) HUBBELL OMNIDT2000	N/A	HUBBELL (1) NXRC-2RD	MANUAL ON/AUTOMATIC OFF	(2) ZONE SYSTEM W/ (1) CEILING MOUNTED MOTION SENSOR & (4) WALL MOUNTED 4-BUTTON DIMMING SWITCHES. 120V
13	HUBBELL: (2) 1223L, (1) 1224L (W/KEY HBL1209)	(6) HUBBELL OMNIDT2000	NXDS	HUBBELL: (1) NXRC-2RD	MANUAL ON/AUTOMATIC OFF	(2) ZONE SYSTEM W/ (6) CEILING MOUNTED MOTION SENSOR, (1) CEILING MOUNTED DAYLIGHT SENSOR, (2) THREE-WAY SWITCHES & (1) FOUR-WAY SWITCH. 120V
14	HUBBELL: (2) 1223L (W/KEY HBL1209)	HUBBELL OMNIDT2000	N/A	HUBBELL UVPP	AUTOMATIC ON/AUTOMATIC OFF	(1) ZONE SYSTEM W/ (1) CEILING MOUNTED MOTION SENSOR & (2) THREE-WAY KEY OPERATED SWITCH. 120V
15	INTERMATIC: EK4000, EI600	N/A	INTERMATIC EK4000	N/A	AUTOMATIC ON/AUTOMATIC OFF	(1) PHOTOSENSOR, (1) 7-DAY PROGRAMMABLE TIME CLOCK, 120V
16	HUBBELL: HMTS1-N-WH	N/A	N/A	N/A	MANUAL ON/AUTOMATIC OFF	WALL MOUNTED PASSIVE INFRARED, SINGLE RELAY, VACANCY SWITCH, 120V.

ELECTRICAL EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG#	DESCRIPTION
	SURE-LITES	LPX7SD	CEILING OR WALL MOUNTED L.E.D. EXIT SIGN WITH INTEGRAL BATTERY AND CHARGER FOR 90 MINUTE ILLUMINATION IN CASE OF POWER LOSS. SIGN SHALL CONTAIN SELF-DIAGNOSTICS. SIGN SHALL BE WIRED TO UNSWITCHED PHASE LEG OF INDICATED CIRCUIT. 120 VOLTS.
	HUBBELL	5362TR	DUPLEX RECEPTACLE. WITH METAL COVER PLATE, TAMPER-RESISTANT, EXTRA HEAVY DUTY SPECIFICATION GRADE, 20 AMPERES, 125 VOLTS.
IG	HUBBELL	GF5362SG	DUPLEX RECEPTACLE WITH GFCI PROTECTION AND METAL COVER PLATE, INDUSTRIAL GRADE, TAMPER-RESISTANT, 20 AMPERES, 125 VOLTS. FEED THROUGH FEATURE SHALL NOT BE UTILIZED. INSTALL GFCI TYPE RECEPTACLE AT EACH LOCATION SHOWN.
WP	HUBBELL	GF5362SG	DUPLEX RECEPTACLE WITH GFCI PROTECTION AND WEATHERPROOF COVER, INDUSTRIAL GRADE, 20 AMPERES, 125 VOLTS.
	HUBBELL	(2) 5362TR	(2) DUPLEX RECEPTACLES IN COMMON BOX (QUAD) WITH METAL COVER PLATE, INDUSTRIAL GRADE, TAMPER-RESISTANT, 20 AMPERES, 125 VOLTS.
	LEGRAND; HUBBELL	880S3, 838TCAL, (2) 828R-TCAL, 828COMTCAL; 5362TR	3-GANG STEEL FLOOR BOX WITH (2) DUPLEX TAMPER-RESISTANT RECEPTACLES (20A, 120V) AND DATA BOX AND METAL COVER PLATE. EXTENDED 1" CONDUIT (PVC WITHIN FLOOR SLAB AND EMT ABOVE FLOOR) FROM DATA BOX TO ACCESSIBLE SPACE ABOVE CEILING. PROVIDE AND INSTALL ALL NECESSARY FITTINGS AND COVER PLATES. COLOR TO BE CHOSEN BY OWNER.
	_____	_____	HARDWIRED CONNECTION - WHERE EQUIPMENT OR APPLIANCE DOES NOT HAVE INTEGRAL DISCONNECTING MEANS, ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL INDEPENDANT DISCONNECT SWITCH.
	_____	_____	UNFUSED DISCONNECT SWITCH
'EM'	_____	_____	PROVIDE INTEGRAL OR REMOTE EMERGENCY BATTERY AND CHARGER FOR 90 MINUTES OF ILLUMINATION WITHOUT UTILITY POWER. BATTERY AND CHARGER SHALL BE WIRED TO UNSWITCHED PHASE LEG OF INDICATED CIRCUIT.
'NL'	_____	_____	CONTINUOUS LIGHTING (NIGHT LIGHT) SHALL BE CIRCUITED DIRECTLY FROM THE LIGHTING BRANCH CIRCUIT OR KEYED OPERATED SWITCH. FIXTURE SHALL NOT BE CONTROLLED BY A ROOM CONTROLLER OR OTHER AUTOMATED DEVICE.

EQUIPMENT NOTES:

1. CONTRACTOR SHALL VERIFY ALL EQUIPMENT MOUNTING HEIGHTS/TYPES AND LOCATIONS IN FIELD.
2. CONTRACTOR SHALL VERIFY ALL EQUIPMENT COLORS AND FINISHES WITH ARCHITECT. COLOR CHOICES FOR SELECTION SHALL BE MANUFACTURER'S FULL RANGE OF STANDARD AND CUSTOM COLORS/FINISHES UNLESS OTHERWISE NOTED.
3. ALL RECEPTACLES, AND LINE VOLTAGE LIGHT SWITCHES SHALL BE LABELLED WITH CIRCUIT SOURCE AND NUMBER. REFER TO DETAIL.

DATA, A/V & SECURITY EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG#	DESCRIPTION
▽	_____	_____	DUPLEX DATA OUTLET. ELECTRICAL CONTRACTOR SHALL PROVIDE/INSTALL METAL OUTLET BOX AND 3/4" EMT WITH DRAGLINE FROM OUTLET BOX TO ACCESSIBLE LOCATION ABOVE CEILING. EXTEND (2) CAT6A (UTP) FROM BOX TO DATA CLOSET 126. PROVIDE/INSTALL FEMALE RJ45 TERMINATION W/ COVER PLATE AT BOX LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA CLOSET 126. VERIFY LOCATION AND HEIGHT IN FIELD WITH OWNER.
SP	_____	_____	13" ROUND CEILING MOUNTED SPEAKER FOR INTERCOM SYSTEM PROVIDED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL EXTEND (1) CAT6A (UTP) FROM SPEAKER LOCATION TO DATA CLOSET 126. PROVIDE/INSTALL MALE RJ45 TERMINATION AT SPEAKER LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA CLOSET 126. VERIFY LOCATION AND HEIGHT IN FIELD WITH OWNER.
C S	_____	_____	IP CLOCK & SPEAKER POWERED BY POE, PROVIDED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL PROVIDE/INSTALL METAL OUTLET BOX AND 3/4" EMT WITH DRAGLINE FROM OUTLET BOX TO ACCESSIBLE LOCATION ABOVE CEILING. EXTEND (2) CAT6A (UTP) FROM BOX TO DATA CLOSET 126. PROVIDE/INSTALL MALE RJ45 TERMINATION AT CLOCK & SPEAKER LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA CLOSET 126. VERIFY LOCATION AND HEIGHT IN FIELD WITH OWNER.
CR	_____	_____	ACCESS CONTROL DOOR WITH CARD READER, MOTION SENSOR, AND DOOR CONTACT (ALL BY OTHERS). ELECTRICAL CONTRACTOR SHALL PROVIDE/INSTALL METAL OUTLET BOX (48" AFF) AND 3/4" EMT WITH DRAGLINE FROM OUTLET BOX TO ACCESSIBLE LOCATION ABOVE CEILING. EXTEND (1) CAT6A (UTP) FROM BOX TO DATA CLOSET 126. PROVIDE/INSTALL MALE RJ45 TERMINATION AT DOOR ACCESS LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA CLOSET 126. VERIFY LOCATION AND HEIGHT IN FIELD WITH OWNER.
AP	_____	_____	WIRELESS ACCESS POINT. PROVIDED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL PROVIDE/INSTALL METAL OUTLET BOX IN CEILING AND 3/4" EMT WITH DRAGLINE FROM OUTLET BOX TO ACCESSIBLE LOCATION ABOVE CEILING (WHERE REQUIRED). EXTEND (1) CAT6A (UTP) FROM BOX TO DATA CLOSET 126. PROVIDE/INSTALL MALE RJ45 TERMINATION AT WAP LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA CLOSET 126. VERIFY LOCATION IN FIELD WITH OWNER.
	_____	_____	INDOOR DOME NETWORK CAMERA POWERED BY POE. PROVIDED AND INSTALLED BY OTHERS. EXTEND (1) CAT6A (UTP) FROM CAMERA LOCATION TO DATA CLOSET 126. PROVIDE/INSTALL MALE RJ45 TERMINATION AT CAMERA LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA CLOSET 126. VERIFY LOCATION AND HEIGHT IN FIELD WITH OWNER.
RS	_____	_____	ROOM SIGN POWERED BY POE. PROVIDED AND INSTALLED BY OTHERS. EXTEND (1) CAT6A (UTP) FROM ROOM SIGN LOCATION TO DATA CLOSET 126. PROVIDE/INSTALL MALE RJ45 TERMINATION AT ROOM SIGN LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA 126. VERIFY LOCATION AND HEIGHT IN FIELD WITH OWNER.
DA	_____	_____	DOOR AJAR SENSOR PROVIDED AND INSTALLED BY OTHERS. INSTALL METAL OUTLET BOX AND 3/4" EMT WITH DRAGLINE TO ACCESSIBLE LOCATION ABOVE CEILING. EXTEND (1) CAT6A (UTP) FROM BOX TO DATA CLOSET 126. PROVIDE/INSTALLL MALE RJ45 TERMINATION AT DOOR SENSOR LOCATION, AS REQUIRED. PROVIDE/INSTALL FEMALE RJ45 KEYSTON TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA CLOSET 126. VERIFY LOCATION AND COORDINATE WITH OWNER'S EQUIPMENT INSTALLER
DS	_____	_____	DIGITAL SIGN POWERED BY 120V LINE VOLTAGE. PROVIDED AND INSTALLED BY OTHERS. EXTEND (1) CAT6A (UTP) FROM DIGITAL SIGN LOCATION TO DATA CLOSET 126, AND 120V BRANCH CIRCUITRY FROM PANEL LVNV2-30. PROVIDE/INSTALL MALE RJ45 TERMINATION AT DIGITAL SIGN LOCATION. PROVIDE/INSTALL FEMALE RJ45 KEYSTONE TERMINATION IN OWNER PROVIDED PATCH PANEL IN DATA 126. VERIFY LOCATION AND HEIGHT IN FIELD WITH OWNER. COORDINATE BRANCH CIRCUITRY TERMINATION WITH OWNER'S SPECIFIED EQUIPMENT, AS REQUIRED.
PB	_____	_____	ADA DOOR ACCESS PUSH BUTTON. EXTEND #18/2 LOW VOLTAGE CONTROL WIRING FROM AUTOMATIC DOOR OPENER CONCEALED BEHIND FINISHED WALLS TO THE AUTOMATIC DOOR OPENER. COORDINATE FINAL LOCATIONS WITH THE OWNER'S EQUIPMENT INSTALLER PRIOR TO INSTALLATION. COORDINATE CONTROL CIRCUITRY TERMINATION WITH OWNER'S SPECIFIED EQUIPMENT, AS REQUIRED.

DATA, A/V & SECURITY CABLING NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER'S I.T. OPERATION TEAM PRIOR TO PURCHASE OF ANY EQUIPMENT/WIRING OR INSTALLATION OF NETWORK INFRASTRUCTURE.
2. COMPLETION OF DATA, A/V & SECURITY INSTALLATION WILL NOT BE ACCEPTED UNTIL REVIEWED BY A MEMBER OF OWNER I.T. OPERATION TEAM.
3. UTP (UNSHIELDED TWISTED PAIR) SHALL BE PLENUM RATED IN ALL LOCATIONS. UTP INSTALLATION SHALL BE AS FOLLOWS:
   - 3.1. CABLES SHALL BE DRESSED AND TERMINATED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND BEST INDUSTRY PRACTICES.
   - 3.2. CABLING SHALL BE EXTENDED AS FOLLOWS:
     - 3.2.1. EMT CONDUIT WITHIN NEW WALLS, SOFFITS AND ABOVE INACCESSIBLE CEILINGS.
     - 3.2.2. SURFACE MOUNTED STEEL RACEWAY ON EXISTING WALLS.
     - 3.2.3. J-HOOKS W/ FABRIC HOOK AND LOOP STRAPS ABOVE ACCESSIBLE CEILINGS.
       - 3.2.3.1. OPEN TOP METAL J-HOOK HANGERS SHALL BE INSTALLED 4'-0" ON CENTER AND ATTACHED TO BUILDING STRUCTURE A MINIMUM OF 8" ABOVE CEILING.
       - 3.2.3.2. SUPPORTED CABLING SHALL HAVE NO MORE THAN 12" SAG BETWEEN HANGERS.
       - 3.2.3.3. FABRIC HOOK AND LOOP STRAPS SHALL BE INSTALLED AROUND CABLE BUNDLES AT INTERVALS NOT EXCEEDING 2'6".
       - 3.2.3.4. CABLE SHALL BE SUPPORTED NOT MORE THAN 6" FROM CABINETS, BOXES, FITTINGS, OUTLETS, RACKS, AND TERMINALS.
   - 3.3. ALL UTP CABLING SHALL BE INSTALLED WITH SERVICE LOOP AT EACH END. SERVICE LOOP SHALL BE STORED IN AN EXTENDED LOOP OR FIGURE-EIGHT CONFIGURATION. NOT A BUNDLED LOOP.
     - 3.3.1. 3'-0" ABOVE CEILING NEAR OUTLET
     - 3.3.2. 6'-0" AT RACK LOCATION.
   - 3.4. UTP CABLING SHALL BE BUNDLED IN GROUPS OF NO MORE THAN 50 CABLES.
   - 3.5. UTP CABLING SHALL BE BUNDLED WITH NO OTHER WIRING.
   - 3.6. CABLING SHALL NOT BE EXTENDED THROUGH STRUCTURAL MEMBERS OR IN CONTACT WITH PIPES, DUCTS, OR OTHER POTENTIALLY DAMAGING ITEMS.
   - 3.7. DO NOT INSTALL BRUISED, SCORED, DEFORMED, OR ABRADED CABLES. DO NOT SPLICE CABLE BETWEEN TERMINATION, TAP, OR JUNCTION POINTS. CABLES WITH DEFECT SHALL BE DISCARDED AND REPLACED.
   - 3.8. MANUFACTURER'S RECOMMENDED BEND RADIUS LIMITATION SHALL NOT BE EXCEEDED.
   - 3.9. UNTWIST CABLE PAIRS NO MORE THAN 0.5" WHEN TERMINATING.
   - 3.10. MAXIMUM LENGTH SHALL BE PER MANUFACTURER'S REQUIREMENTS.
4. LABELING:
   - 4.1. FURNISH WRAP-TYPE LAMINATED PRINTABLE LABELS, 1-1/2" WIDE. LABEL SHALL COMPLETELY WRAP AROUND CABLE OUTER DIAMETER. HANDWRITTEN LABELS AND THE USED OF 'TABBED' OR 'FLAGGED' METHOD ARE NOT ACCEPTABLE.
   - 4.2. EACH CABLE SHALL BE CLEARLY LABELED ON THE CABLE TERMINATION JACK IN ACCORDANCE WITH OWNER SELECTED LABELING METHOD.
   - 4.3. EACH CABLE SHALL BE CLEARLY LABELED ON EACH END IN ACCORDANCE WITH OWNER SELECTED LABELING FORMAT.
5. INSTALL CONDUIT SLEEVES BETWEEN SPACES FOR CABLING. SLEEVES SHALL BE EMT WITH PLASTIC BUSHINGS ON BOTH ENDS. INSTALL ABOVE CEILING AND COORDINATE HEIGHTS WITH ALL OTHER TRADES. COORDINATE FINAL SIZES BASED ON CABLE QUANTITIES. PROVIDE AND INSTALL FIRESTOPPING AT PENETRATION TO MAINTAIN FIRE RATING OF WALL.
6. CONTRACTOR SHALL TEST ALL CABLING AND TERMINATIONS FOR CONTINUITY. PROVIDE REPORT DOCUMENTING TESTING OF EACH CABLE, IDENTIFIED BY LABEL.

ORANGE-ULSTER BOCES

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NY SED PROJECT CONTROL NO:

44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

ELECTRICAL: EQUIPMENT SCHEDULES

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

Sheet Number

E701

GENERAL ELECTRICAL NOTES

1. ELECTRICAL CONTRACTOR SHALL PROVIDE TYPEWRITTEN SCHEDULES OF ALL CIRCUITRY IN ALL PANELS. SCHEDULES SHALL MATCH THE LOADS SHOWN IN THE PROJECT PANEL SCHEDULE INCLUDED WITH THESE DRAWINGS. ALL SPARE PANEL SPACES SHALL BE FULLY PROTECTED WITH METAL BLANKS.
2. ELECTRICAL DEVICES MATERIALS AND PACKAGED EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) SUCH AS UNDERWRITERS LABORATORIES INC. (UL), FOR THE INTENDED USE, AND SHALL BEAR ITS LABEL. NOTE THAT NRTL APPROVAL OF INDIVIDUAL COMPONENTS OF PACKAGED EQUIPMENT DOES NOT CONSTITUTE APPROVAL OF THE ENTIRE PACKAGE.
3. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE 2017 EDITION (NFPA 70), AND THE BUILDING CODE OF NEW YORK STATE.
4. ELECTRICAL CONTRACTOR SHALL OBTAIN, PAY FOR AND COMPLY WITH ALL REQUIRED PERMITS. THE ELECTRICAL CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO OWNER PRIOR TO COMPLETION OF PROJECT.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS, NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE ELECTRICAL INSTALLATION COMPLETE AND OPERATIVE, AND IN COMPLIANCE WITH APPLICABLE CODES.
6. ALL WIRING SHALL BE COPPER CONDUCTOR, MINIMUM SIZE #12 AWG.
7. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING EQUIPMENT AND NOTE CONDITIONS AND AREAS WHERE WORK WILL OCCUR IN FIELD.
8. ELECTRICAL CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS THROUGH WALLS, FLOORS AND CEILINGS WITH AN INTUMESCENT FIRE STOP MATERIAL TO MAINTAIN FIRE AND SMOKE RATINGS.
9. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH AND MEET ALL REQUIREMENTS OF SERVING POWER UTILITY COMPANY.
10. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO AVOID CONFLICTS OF EQUIPMENT INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL EQUIPMENT CONNECTIONS, WIRING DEVICES AND LIGHTING WITH ARCHITECT PRIOR TO INSTALLATION.
11. ELECTRICAL CONTRACTOR SHALL SUBMIT EQUIPMENT SHOP DRAWINGS FOR APPROVAL BY ARCHITECT PRIOR TO COMMENCING INSTALLATION.
12. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND PAINTING ASSOCIATED WITH ELECTRICAL WORK.
13. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF COMPLETION AND ACCEPTANCE BY THE OWNER. CONTRACTOR AGREES TO REPLACE ANY DEFECTIVE EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER FOR THE DURATION OF THE GUARANTEE PERIOD.
14. MOUNTING HEIGHTS FROM FINISHED FLOOR TO CENTER LINE OF DEVICES SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON DRAWINGS:
    - CONVENIENCE OUTLETS: 18"
    - LIGHT SWITCHES: 48"
    - COMMUNICATIONS OUTLETS: 18"

Branch Panel: MNW1

Location: MECHANICAL ROOM 116 | **Supply From:** EXISTING TRANSFORMER | **Mounting:** Surface | **Enclosure:** NEMA 1 Indoor
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
Mains Type: MCB | **Mains Rating:** 600 A | **MCB Rating:** 600 A | **AIC Rating:** 22,000 A

NOTES	CKT NO.	CIRCUIT DESCRIPTION	CONDUCTORS	CB SIZE	POLES	A		B		C		POLES	CB SIZE	CONDUCTORS	CIRCUIT DESCRIPTION	CKT NO.	NOTES
	1	ROOF TOP RECEPTACLE	(2) #12 THWN, #12G, 3/4"C	20 A	1	180 VA	540 VA					1	20 A	(2) #12 THWN, #12G, 3/4" EMT	RECEPTACLES MAINT. 116	2	
1	3	ACCU-A	(2) #12 THWN, #12G, 3/4"C	20 A	2			261 VA	11454 VA			3	150 A	(4) #1/0 THHN, #6G, 1-1/2"C	LVNW1	4	2
	5									261 VA	9207 VA					6	
	7	ACNW1	(4) #1/0 THHN, #6G, 1-1/2"C	150 A	3	10477 VA	7655 VA									8	
	9							12754 VA	50 VA			1	20 A	(2) #12 THWN, #12G, 3/4" C	CIRCULATING PUMP P-15	10	3
	11									12684 VA	11818 VA					12	
3	13	EXISTING SEWAGE EJECTOR PUMP	(3) #8 THHN, #10G, 3/4"C	50 A	3	4892 VA	12014 VA					3	150 A	(4) #1/0 THHN, #6G, 1-1/2"C	LVNW2	14	2
	15							4892 VA	12081 VA							16	
	17									4892 VA	5643 VA					18	
1	19	RTU-3	(3) #3 THWN, #8G, 1-1/4"C	100 A	3	11200 VA	5643 VA					3	70 A	(3) #4 THWN, #8G, 1"C	HP-1	20	1
	21							11200 VA	5643 VA							22	
	23									11200 VA	13700 VA					24	
1	25	RTU-2	(3) #1/0 THWN, #6G, 1-1/2"C	150 A	3	15000 VA	13700 VA					3	125 A	(3) #1 THWN, #6G, 1-1/2"C	RTU-1	26	1
	27							15000 VA	13700 VA							28	
	29									15000 VA	1373 VA					30	
3	31	HOT WATER HEATER P-13	(3) #8 THHN, #10G, 3/4"C	50 A	3	6167 VA	1373 VA					2	20 A	(2) #12 THHN, #12G, 3/4" C	PUMP P-1A	32	
	33							6167 VA	1373 VA			2	20 A	(2) #12 THHN, #12G, 3/4" C	PUMP P-1B	34	3
	35									6167 VA	1373 VA					36	
	37	ELEVATOR CAB	(2) #12 THHN, #12G, 3/4" C	20 A	1	500 VA	915 VA					2	20 A	(2) #12 THHN, #12G, 3/4" C	PUMP P-2A	38	3
	39	ELEVATOR - SHUNT TRIP	(3) #8 THHN, #10G, 1" C	35 A	3			1633 VA	915 VA							40	
	41									1633 VA	915 VA	2	20 A	(2) #12 THHN, #12G, 3/4" C	PUMP P-2B	42	3
	43					1633 VA	915 VA									44	
	45	ACCU-B	(2) #12 THWN, #12G, 3/4"C	20 A	2			261 VA	500 VA			1	20 A	(2) #12 THHN, #12G, 3/4" C	SPINKLER SYSTEM AIR COMPRESSOR	46	3
	47									261 VA	--	1	--		SPACE ONLY	48	
	49	ROOF TOP RECEPTACLE	(2) #12 THWN, #12G, 3/4"C	20 A	1	180 VA	--					1	--		SPACE ONLY	50	
	51	SPACE ONLY		--	1			--	--			1	--		SPACE ONLY	52	
	53	SPACE ONLY		--	1					--	--	1	--		SPACE ONLY	54	
						92893 VA		97844 VA		96057 VA							
						774 A		819 A		805 A							

NOTES:

1 - EXTEND CONDUCTORS IN EMT TYPE CONDUIT WITHIN THE BUILDING. EXTEND LFMC TYPE CONDUIT THROUGH ROOF PENETRATIONS FOR CONNECTION TO EQUIPMENT. EXTEND LFMC TYPE CONDUIT FROM THE EQUIPMENT DISCONNECT SWITCH TO THE SPECIFIED UNIT FOR FINAL TERMINATION, AS REQUIRED.
2 - EXTEND CONDUCTORS IN EMT TYPE CONDUIT BETWEEN PANELBOARD CONNECTIONS.
3 - EXTEND CONDUCTORS IN EMT TYPE CONDUIT TO EQUIPMENT DISCONNECT SWITCH. EXTEND FMC TYPE CONDUIT WITH THHN CONDUCTORS FROM DISCONNECT SWITCH TO MECHANICAL EQUIPMENT.

Branch Panel: LVNW1

Location: MECHANICAL ROOM 116 | **Supply From:** MNW1 | **Mounting:** Surface | **Enclosure:** NEMA 1 Indoor
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
Mains Type: MLO | **Mains Rating:** 200 A | **AIC Rating:** 10,000 A

NOTES	CKT NO.	CIRCUIT DESCRIPTION	CONDUCTORS	CB SIZE	POLES	A		B		C		POLES	CB SIZE	CONDUCTORS	CIRCUIT DESCRIPTION	CKT NO.	NOTES
	1	LT - EXTERIOR & VEST 127	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	192 VA	360 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES SGI 109	2	
	3	LT - 108, 109, 122, 123,124,125,126	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			359 VA	461 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	LT - STAIRWELLS	4	
	5	RECEPTACLES SGI 108	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					360 VA	718 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	LT 113, 114, 115, 120, 119, 118, 117, C116	6	
	7	RECEPTACLES CORRIDOR 102	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	540 VA	1260 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 106	8	
	9	RECEPTACLES CLASS 107	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			900 VA	1620 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS C102	10	
	11	RECEPTACLES CORRIDOR 102	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					540 VA	720 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES 117, 118, 119, 120	12	
	13	RECEPTACLES CLASS 101	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	1440 VA	1482 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	LT - CORRIDOR C102	14	
	15	RECEPTACLES CLASS 103	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			1620 VA	720 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES DATA 126	16	
	17	LT - 101, 102, 103	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					1452 VA	1752 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	LT - 104, 105, 106, 107	18	
	19	RECEPTACLES 122, 123, 124, 125	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	720 VA	1440 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 104	20	
	21	RECEPTACLES CLASS 105	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			1440 VA	360 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	C102A FLOOR RECEPTACLES	22	
	23	RECEPTACLES SGI 113	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					720 VA	360 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	WATER FOUNTAINS LOWER LEVEL	24	2
1	25	FIRE ALARM NAC#1	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	580 VA	360 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES COPY 115	26	
	27	ELEVATOR PIT RCPT& LIGHTS	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			330 VA	540 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES COPY 115	28	
	29	ELEVATOR SUMP PUMP	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					180 VA	720 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES SGI 114	30	
	31	DOOR OPENER	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	1000 VA	1080 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLE 107	32	
	33	SPARE		20 A	1			0 VA	360 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	CORRIDOR RECEPTACLE	34	
	35	SPARE		20 A	1					0 VA	147 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	STORAGE AND STAIR LIGHTS	36	
	37	SPARE		20 A	1	0 VA	1000 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	BMS CONTROL PANEL 116, 120	38	
	39	SPARE		20 A	1			0 VA	500 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	BMS CONTROL PANEL 126	40	
	41	SPARE		20 A	1					0 VA	0 VA	1	20 A		SPARE	42	
						11454 VA		9207 VA		7655 VA							
						97 A		79 A		64 A							

NOTES:

1 - CIRCUIT BREAKER SHALL BE LOCKABLE IN THE CLOSED POSITION.
2 - CIRCUIT BREAKER SHALL BE CLASS A GFCI TYPE.

Branch Panel: ACNW1

Location: MECHANICAL ROOM 116 | **Supply From:** MNW1 | **Mounting:** Surface | **Enclosure:** NEMA 1 Indoor
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
Mains Type: MLO | **Mains Rating:** 200 A | **AIC Rating:** 10,000 A

NOTES	CKT NO.	CIRCUIT DESCRIPTION	CONDUCTORS	CB SIZE	POLES	A		B		C		POLES	CB SIZE	CONDUCTORS	CIRCUIT DESCRIPTION	CKT NO.	NOTES
1	1	CONDENSATE PUMPS 2ND FL	(2) #12 THHN, #12G, 3/4" C	20 A	1	372 VA	651 VA					1	20 A	(2) #12 THHN, #12G, 3/4" C	CONDENSATE PUMPS 2ND FL	2	1
1	3	CONDENSATE PUMPS 1ST FL	(2) #12 THHN, #12G, 3/4" C	20 A	1			372 VA	1076 VA			3	15 A	(3) #12 THHN, #12G, 3/4" C	FCU-7A, FCU-1A CLASS 210, CORR C204	4	1
1	5	CONDENSATE PUMPS 1ST FL	(2) #12 THHN, #12G, 3/4" C	20 A	1					465 VA	1076 VA					6	
1	7	FCU-4A, FCU-3A CORRIDOR 200A, CLASS 206	(3) #12 THHN, #12G, 3/4" C	15 A	3	720 VA	1076 VA									8	
	9							720 VA	720 VA			3	15 A	(3) #12 THHN, #12G, 3/4" C	FCU-2B, FCU-5B LOBBY C101, CLASS 101	10	1
	11									720 VA	720 VA					12	
1	13	FCU-3A, FCU-6A CLASS 208, 207	(3) #12 THHN, #12G, 3/4" C	15 A	3	1126 VA	720 VA									14	
	15							1126 VA	1031 VA			3	15 A	(3) #12 THHN, #12G, 3/4" C	FCU-3B, FCU-3B CLASS 106, 107	16	1
	17									1126 VA	1031 VA					18	
1	19	FCU-5A, FCU-5A CLASS 211, 212	(3) #12 THHN, #12G, 3/4" C	15 A	3	1031 VA	1031 VA									20	
	21							1031 VA	1126 VA			3	15 A	(3) #12 THHN, #12G, 3/4" C	FCU-6B, FCU-3B CLASS 102, 103	22	1
	23									1031 VA	1126 VA					24	
1	25	FCU-2A, FCU-3C, FCU-4A CLASS 203, 202, 201	(3) #12 THHN, #12G, 3/4" C	15 A	3	1080 VA	1126 VA									26	
	27							1080 VA	1365 VA			3	15 A	(3) #12 THHN, #12G, 3/4" C	FCU 3D, FCU-2A, FCU-5A CORR C102, CLASS 104, 105	28	1
	29									1080 VA	1385 VA					30	
1	31	CEILING CASSETTE 108, 109, 113, 114, 115	(2) #12 THHN, #12G, 3/4" C	15 A	2	200 VA	1385 VA									32	
	33							200 VA	1500 VA			2	20 A	(2) #12 THHN, #12G, 3/4" C	ELECTRIC HEATER EH-B	34	1
1	35	C-PUMPS 108, 109, 113, 114, 115	(2) #12 THHN, #12G, 3/4" C	20 A	1					465 VA	1500 VA					36	
1	37	UNIT HEATER UH	(2) #12 THHN, #12G, 3/4" C	20 A	1	144 VA	0 VA					1	20 A		Spare	38	
1	39	ELECTRIC HEATER EH-A	(2) #12 THHN, #12G, 3/4" C	20 A	1			1500 VA	0 VA			1	20 A		Spare	40	
1	41	MOTORIZED DAMPERS	(2) #12 THHN, #12G, 3/4" C	20 A	1					1150 VA	0 VA	1	20 A		Spare	42	
						10477 VA		12754 VA		12684 VA							
						87 A		109 A		109 A							

NOTES:

1 - EXTEND CONDUCTORS IN EMT TYPE CONDUIT TO EQUIPMENT DISCONNECT SWITCH. EXTEND FMC TYPE CONDUIT WITH THHN CONDUCTORS FROM DISCONNECT SWITCH TO MECHANICAL EQUIPMENT.

Branch Panel: LVNW2

Location: JAN. 223 | **Supply From:** MNW1 | **Mounting:** Surface | **Enclosure:** NEMA 1 Indoor
Volts: 120/208 Wye | **Phases:** 3 | **Wires:** 4
Mains Type: MLO | **Mains Rating:** 200 A | **AIC Rating:** 10,000 A

NOTES	CKT NO.	CIRCUIT DESCRIPTION	CONDUCTORS	CB SIZE	POLES	A		B		C		POLES	CB SIZE	CONDUCTORS	CIRCUIT DESCRIPTION	CKT NO.	NOTES
	1	LT - TOILETS & JANITORS CLOSET	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	220 VA	900 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES SGI 213	2	
	3	RECEPTACLE SECURITY 222	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			720 VA	900 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES SGI 214	4	
	5	RECEPTACLES TECH 224	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					720 VA	954 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	LT - CORRIDOR C204	6	
	7	LT - C200, C201, C202, C203	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	1139 VA	1260 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 206	8	
	9	LT - 206, 207, 208, 222	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			1399 VA	1620 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 210	10	
	11	RECEPTACLES CLASS 201	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					1440 VA	1620 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 203	12	
	13	LT -201, 202, 203, 204, 205	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	1364 VA	1620 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 202	14	
	15	RECEPTACLES CLASS 211	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			1620 VA	360 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CORRIDOR C202	16	
	17	LT - 209, 210, 211, 212, 212B, 213, 214	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					1932 VA	360 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CORRIDOR C204	18	
	19	RECEPTACLES CORRIDOR C201	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	360 VA	1260 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 212	20	
	21	RECEPTACLES SGI 209	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			1260 VA	1440 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES CLASS 208	22	
	23	RECEPTACLES TOILETS	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					1260 VA	1440 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	RECEPTACLES OFFICE 204, 205	24	
	25	RECEPTACLES CLASS 207	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	1440 VA	360 VA					1	20 A	(2) #12 THHN, #12G, 3/4" EMT	WATER FOUNTAIN RECEPTACLES	26	4
1	27	EF-2	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			420 VA	644 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	MOTORIZED DAMPERS	28	
1	29	EF-1	(2) #12 THHN, #12G, 3/4" EMT	20 A	1					540 VA	0 VA	1	20 A	(2) #12 THHN, #12G, 3/4" EMT	DIGITAL SIGN	30	
2	31	FIRE ALARM NAC#2	(2) #12 THHN, #12G, 3/4" EMT	20 A	1	580 VA	1000 VA					1	20 A		DOOR OPENER	32	
	33	RECEPTACLE JANITOR 223	(2) #12 THHN, #12G, 3/4" EMT	20 A	1			180 VA	1000 VA			1	20 A	(2) #12 THHN, #12G, 3/4" EMT	BMS CONTROL PANEL 223, 224	34	
3	35	CEILING CASSETTES C204, 205, 209, 213, 214, 222	(2) #12 THHN, #12G, 3/4" C	15 A	2					315 VA	0 VA	1	20 A		SPARE	36	
	37					315 VA	0 VA					1	20 A		SPARE	38	
3	39	CONDENSATE PUMPS	(2) #12 THHN, #12G, 3/4" C	20 A	1			558 VA	0 VA			1	20 A		SPARE	40	
3	41	ELECTRIC HEATER EH-A	(2) #12 THHN, #12G, 3/4" C	20 A	1					1500 VA	0 VA	1	20 A		SPARE	42	
						11818 VA		12014 VA		12081 VA							
						98 A		100 A		101 A							

NOTES:

1 - EXTEND CONDUCTORS IN EMT TYPE CONDUIT WITHIN THE BUILDING. EXTEND LFMC TYPE CONDUIT THROUGH ROOF PENETRATIONS FOR CONNECTION TO EQUIPMENT. EXTEND LFMC TYPE CONDUIT FROM THE EQUIPMENT DISCONNECT SWITCH TO THE SPECIFIED UNIT FOR FINAL TERMINATION, AS REQUIRED.
2 - CIRCUIT BREAKER SHALL BE LOCKABLE IN THE CLOSED POSITION.
3 - EXTEND CONDUCTORS IN EMT TYPE CONDUIT TO EQUIPMENT DISCONNECT SWITCH. EXTEND FMC TYPE CONDUIT WITH THHN CONDUCTORS FROM DISCONNECT SWITCH TO MECHANICAL EQUIPMENT.
4 - CIRCUIT BREAKER SHALL BE CLASS A GFCI TYPE.

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NY SED PROJECT CONTROL NO:

44-90-00-00-8-035-009

CONSTRUCTION DOCUMENTS

KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

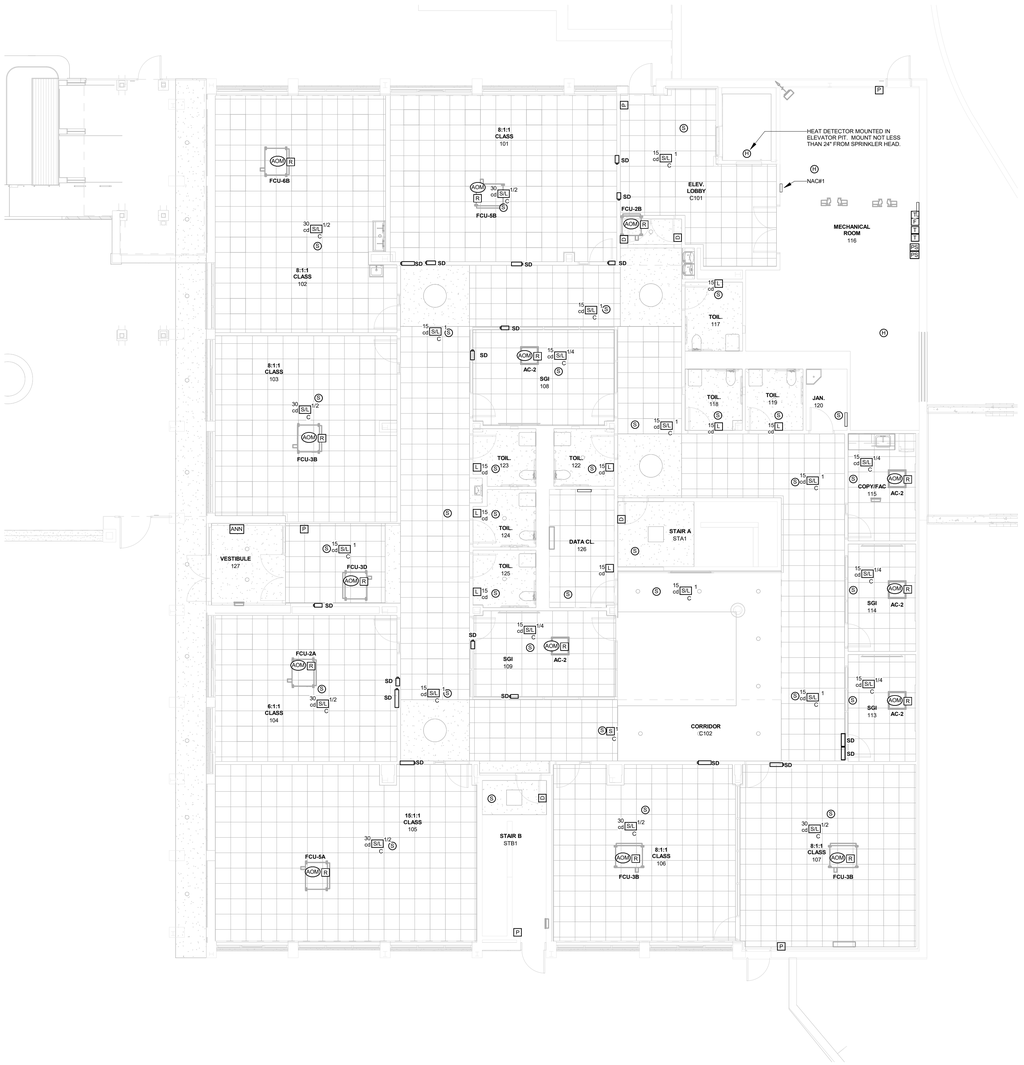
Sheet Title

ELECTRICAL:
EQUIPMENT SCHEDULES

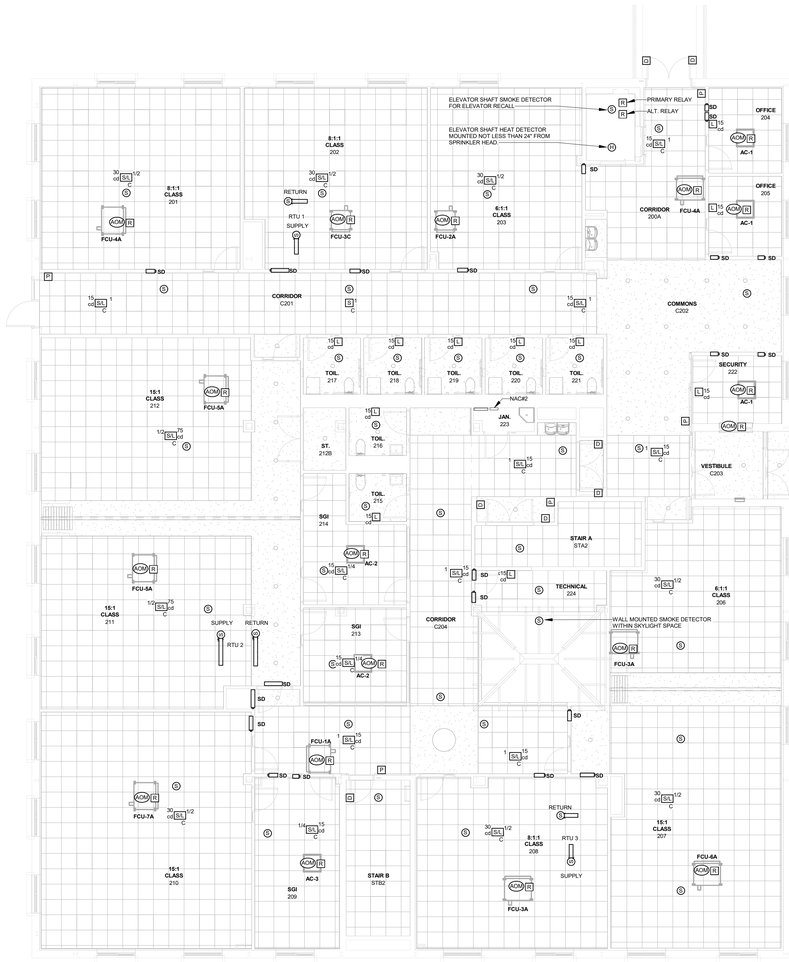
Job No.	Date
2023-1011	02/03/23
Scale	Drawn / Checked
AS NOTED	RL WH

Sheet Number

E702



1 FIRE ALARM - NORTH WING LOWER LEVEL FLOOR PLAN
1/8" = 1'-0"



2 FIRE ALARM - NORTH WING UPPER LEVEL FLOOR PLAN
1/8" = 1'-0"

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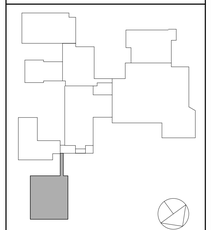


KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

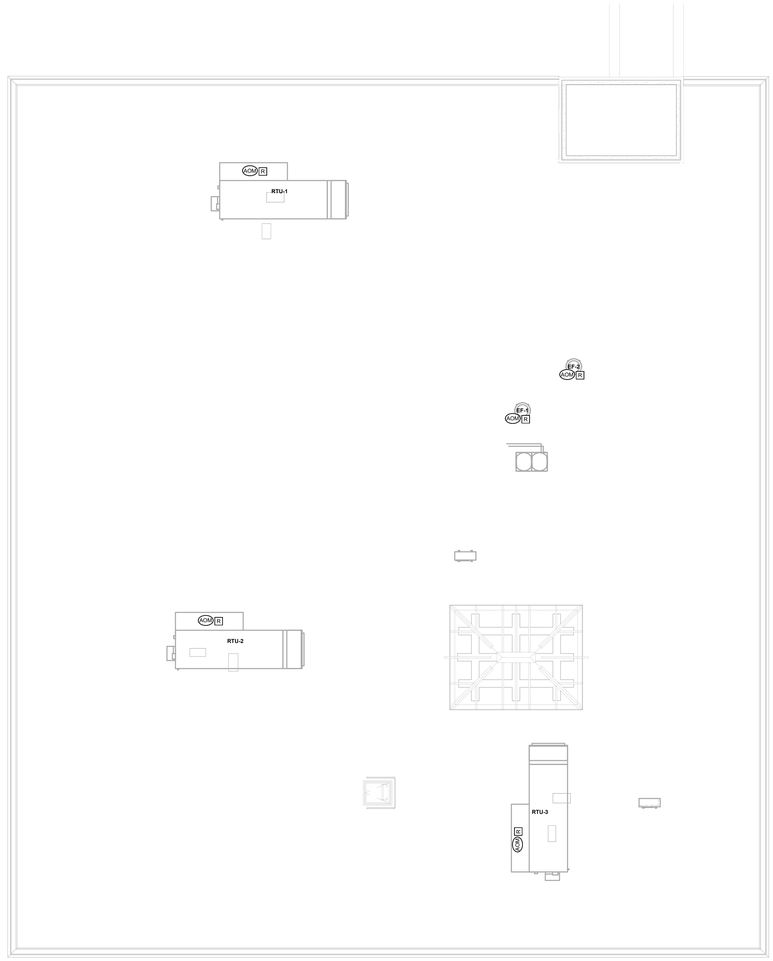
Sheet Title

FIRE ALARM:
NORTH WING LOWER LEVEL & UPPER LEVEL PLANS

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

Sheet Number

FA201



1 FIRE ALARM - NORTH WING ROOF PLAN
1/8" = 1'-0"

ORANGE-ULSTER BOCES

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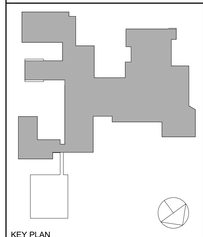
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
3	04/24/24	BID ISSUE
1	08/21/23	CON DOCS - NYSED

Sheet Title

FIRE ALARM:
NORTH WING ROOF PLAN

Job No.	Date
2023-1011	02/03/23
Scale: AS NOTED	Drawn / Checked: RL WH

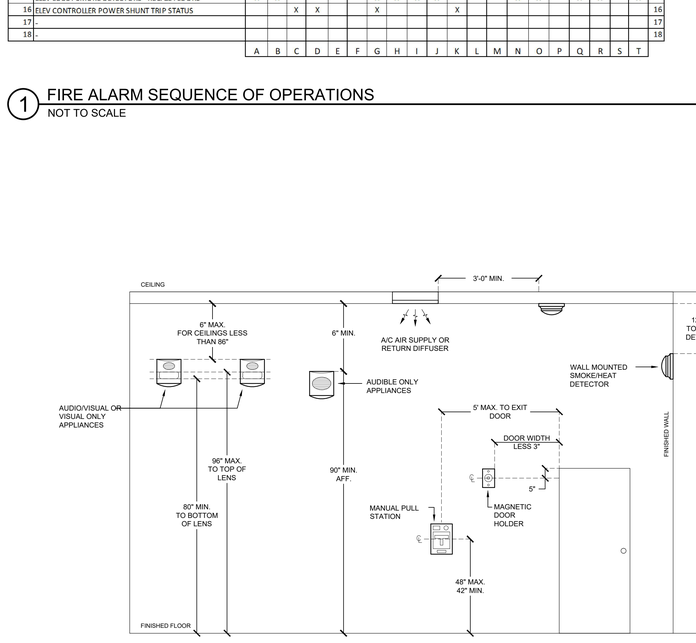
Sheet Number

FA202

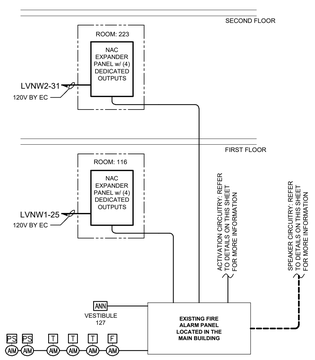
FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX	SYSTEM OUTPUTS																			
	FACP ANNUNCIATION									NOTIFICATION						REQUIRED FIRE SAFETY CONTROL			
	ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE ZONE OR DEVICE ADDRESS ALARM INDICATOR	ACTUATE GENERAL EVACUATION SIGNAL	DISPLAY CHANGE OF STATUS	TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION	RECALL ELEVATOR TO PRIMARY FLOOR	RECALL ELEVATOR TO ALTERNATE RECALL FLOOR	ACTUATE WARNING TZ ELEVATOR CABS	CLOSE ALL DOOR OPENING OF POWER FROM ELEVATOR	UNLOCK EXITS AND CONTROL DOORS	SHUT DOWN RESPECTIVE AIR HANDLING EQUIPMENT	ACTUATE SMOKE DAMPER
SYSTEM INPUTS	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	X							X									1
2 FIRE ALARM SYSTEM LOW BATTERY					X	X						X								2
3 OPEN CIRCUIT					X	X						X								3
4 GROUND FAULT					X	X						X								4
5 NOTIFICATION APPLIANCE SHORT CIRCUIT					X	X						X								5
6 BUILDING MANUAL PULL STATIONS	X	X					X	X	X	X							X			6
7 SMOKE DETECTORS	X	X					X	X	X	X			X				X	X	X	7
8 HEAT DETECTORS	X	X					X	X	X	X			X				X	X	X	8
9 HVAC AIR DUCT SMOKE DETECTORS			X	X			X				X								X	9
10 SPRINKLER TAMPER SWITCH			X	X			X				X									10
11 SPRINKLER WATER FLOW IN BUILDING	X	X					X	X	X	X			X				X	X		11
12 SPRINKLER WATER FLOW IN ELEV EQUIP RM OR SHAFT	X	X					X	X	X	X			X		X	X	X	X		12
13 ELEV SHAFT AND ELEV EQUIP RM HEAT DETECTORS	X	X					X	X	X	X			X		X	X	X	X		13
14 ELEV LOBBY SMOKE DETECTORS - UPPER FLOORS	X	X					X	X	X	X							X	X	X	14
15 ELEV LOBBY SMOKE DETECTORS - RECALL FLOORS	X	X					X	X	X	X					X	X	X	X	X	15
16 ELEV CONTROLLER POWER SHUNT TRIP STATUS			X	X			X				X									16
17 -																				17
18 -																				18
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T

1 FIRE ALARM SEQUENCE OF OPERATIONS
NOT TO SCALE

2 ELECTRICAL: FIRE ALARM DEVICE MOUNTING REFERENCE
NOT TO SCALE



3 FIRE ALARM RISER DIAGRAM (2 OF 2)
NOT TO SCALE



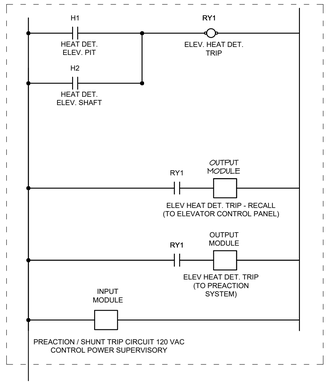
4 FIRE ALARM RISER DIAGRAM (1 OF 2)
NOT TO SCALE

ELEVATOR SPRINKLER PREACTIVE SYSTEM CONTROL REQUIRED COMPONENTS

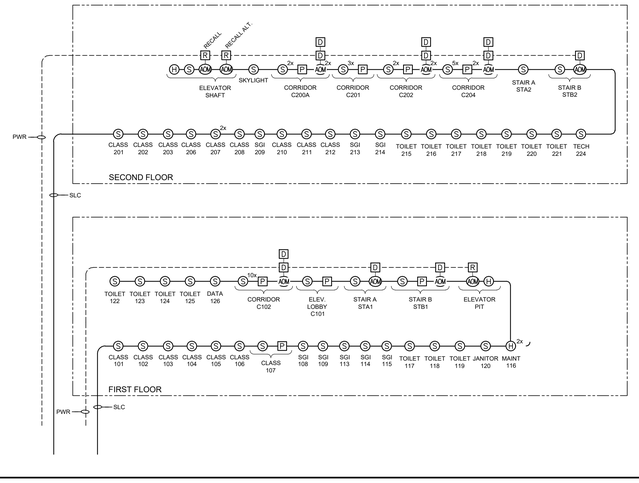
1. 135°F HEAT DETECTOR IN ELEVATOR PIT WITHIN 24 IN. OF SPRINKLER HEAD.
2. 135°F HEAT DETECTOR IN ELEVATOR SHAFT WITHIN 24 IN. OF SPRINKLER HEAD.
2. FIRE ALARM PANEL OUTPUT MODULE FOR ELEVATOR RECALL.
3. FIRE ALARM PANEL OUTPUT MODULE FOR ELEVATOR/SPRINKLER PREACTION CONTROL.
4. ELEVATOR CONTROL PANEL OUTPUT MODULE (OR ELEVATOR CONTROL PANEL N.O. CONTACT PAIR) FOR ELEVATOR RECALL COMPLETE STATUS.
5. ELEVATOR POWER DISCONNECT FUSIBLE DISCONNECT SWITCH
   5.1. EQUIPPED WITH SHUNT TRIP MECHANISM OPERATED BY FIRE SAFETY INTERFACE RELAY (2017 NEC 620.51).
   5.2. EQUIPPED WITH AUXILIARY CONTACT THAT DISCONNECTS ANY ADDITIONAL EMERGENCY OR STANDBY POWER FROM THE LOAD WHEN THE DISCONNECT SWITCH IS IN THE OPEN POSITION (2017 NEC 620.91).
6. FIRE ALARM PANEL 120VAC INPUT MODULE FOR SUPERVISORY MONITORING OF CONTROL POWER.

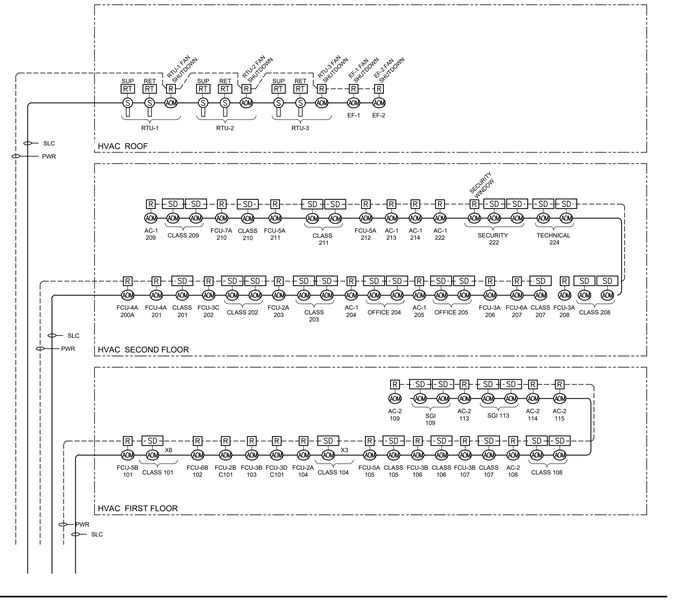
SEQUENCE OF OPERATION

1. HEAT DETECTOR TRIPS (ELEVATOR PIT, OR ELEVATOR SHAFT).
2. ELEVATOR RECALL CONTACTS FROM FIRE PANEL TO ELEVATOR CONTROL PANEL ACTIVATE.
3. ELEVATOR RECALLS TO DEFAULT LEVEL.
4. ELEVATOR RECALL COMPLETE STATUS CONTACTS ACTIVATE.
5. ELEVATOR POWER SUPPLY SWITCH SHUNT TRIP COIL IS ENERGIZED.
6. ELEVATOR POWER SUPPLY SWITCH OPENS.
7. LOSS OF 120 VAC CONTROL POWER GENERATES FIRE ALARM PANEL TROUBLE ALARM (SUPERVISORY).



5 ELEVATOR SPRINKLER PREACTION DETAIL
NOT TO SCALE





FIRE ALARM EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	DESCRIPTION
ANN	———	———	LCD REMOTE ANNUNCIATOR. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION ABOVE CEILING.
S/L# cd c	———	———	CEILING MOUNTED FIRE ALARM SPEAKER/STROBE LIGHT WITH MINIMUM FIELD SELECTABLE OUTPUT OF 1/4, 1/2, 1, & 2 WATTS AND 15, 30, 75 & 110 CANDELAS. COLOR: RED. LABEL: 'FIRE' "cd" - MINIMUM CANDELA SETTING "#" - MINIMUM DESIGN TAP SETTING - CAN BE ADJUSTED LOWER IN FIELD AS REQUIRED TO MEET AUDIBILITY REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION IN CASE WHERE DEVICE IS MOUNTED IN INACCESSIBLE CEILING / WALL LOCATION.
L# cd	———	———	WALL MOUNTED FIRE ALARM STROBE LIGHT WITH MINIMUM FIELD SELECTABLE OUTPUT OF 15, 30, 75 CANDELAS. COLOR: RED. LABEL: 'FIRE'. "cd" - MINIMUM CANDELA SETTING ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION ABOVE CEILING.
S# c	———	———	CEILING MOUNTED FIRE ALARM SPEAKER WITH MINIMUM FIELD SELECTABLE OUTPUT AUDIO OUTPUT OF 1/4, 1/2, 1, & 2 WATTS. COLOR: RED. LABEL: 'FIRE'. "#" - MINIMUM DESIGN TAP SETTING - CAN BE ADJUSTED LOWER IN FIELD AS REQUIRED TO MEET AUDIBILITY REQUIREMENTS. "C" - CEILING MOUNTED ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION IN CASE WHERE DEVICE IS MOUNTED IN INACCESSIBLE CEILING / WALL LOCATION.
P	———	———	DOUBLE ACTION ADDRESSABLE MANUAL PULL STATION WITH TAMPER-PROOF CLEAN POLYCARBONATE SHIELD HINGED AT TOP. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION ABOVE CEILING.
S	———	———	ADDRESSABLE OPTICAL SMOKE DETECTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION IN CASE WHERE DEVICE IS MOUNTED IN INACCESSIBLE CEILING / WALL LOCATION.
H	———	———	ADDRESSABLE HEAT DETECTOR ACTUATED BY A FIXED TEMPERATURE OF 135°F OR A RATE OF RISE OF THAT EXCEEDS 15°F PER MINUTE. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION IN CASE WHERE DEVICE IS MOUNTED IN INACCESSIBLE CEILING / WALL LOCATION.
S	———	———	ADDRESSABLE DUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBE. PROVIDE WITH KEYED REMOTE TEST STATION. DETECTOR INSTALLED ON SUPPLY AND RETURN DUCTWORK UPSTREAM OF FAN OR FILTERS OF INDICATED SYSTEM. FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR MEASURING EXISTING DUCTWORK FOR SAMPLING TUBE SIZE. DETECTOR SHALL BE INSTALLED IN WEATHERPROOF ENCLOSURE IN CASE OF ROOF MOUNTED DUCTWORK INSTALLATION.
R	———	———	AUXILIARY RELAY
RT	———	———	KEY ACTIVATED REMOTE TEST STATION. TEST STATION SHALL BE INSTALLED WITH WEATHERPROOF COVER WHEN INSTALLED ON ROOF IN CASE OF ROOF MOUNTED DUCTWORK.
D	———	———	MAGNETIC DOOR HOLDER. CONTRACTOR SHALL COORDINATE WITH ARCHITECT AND REFER TO DOOR HARDWARE SCHEDULE FOR REQUIRED CONTROL AND MOUNTING AT EACH INDICATED LOCATION. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL METAL BOX AND ¾" EMT WITH DRAG LINE TO ACCESSIBLE LOCATION ABOVE CEILING.
F	———	———	SPRINKLER FLOW SWITCH
T	———	———	SPRINKLER TAMPER SWITCH
ANN	———	———	ADDRESSABLE MONITOR MODULE
ACM	———	———	ADDRESSABLE CONTROL MODULE
SD	———	———	SMOKE DAMPER - HOUSING PROVIDED BY MECHANICAL CONTRACTOR, SMOKE DETECTION DEVICE BY OWNER'S VENDOR.
PS	———	———	PRESSURE SWITCH - DEVICE BY THE FIRE PROTECTION CONTRACTOR, OWNER'S VENDOR SHALL BE RESPONSIBLE FOR CONNECTION OF THE DEVICE TO THE FIRE ALARM SYSTEM.

FIRE ALARM NOTES

1. FIRE ALARM SYSTEM WIRING, NUMBER AND SIZE OF CONDUCTORS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS BUT NOT LESS THAN 18 AWG. COPPER CONDUCTOR.
2. FIRE ALARM SYSTEM SHALL BE FULLY ADDRESSABLE, WITH DISCREET ADDRESSES FOR EACH ACTIVATING DEVICE. MAIN PANEL SHALL IDENTIFY DEVICE BY ROOM NAMES AND LOCATIONS TO BE PROVIDED BY THE BUILDING OPERATOR.
3. OWNER'S VENDOR SHALL FURNISH AND INSTALL A COMPLETE AND OPERABLE FIRE ALARM AND SMOKE DETECTION SYSTEM IN ACCORDANCE WITH NFPA 72, BUILDING CODE OF NEW YORK STATE AND ALL LOCAL CODES, INCLUDING ALL CIRCUITRY, SMOKE DETECTORS, HEAT DETECTORS, ZONE MODULES, ANNUNCIATION DEVICES, FIRE ALARM PANEL, POWER MODULES, BATTERY BACKUP, MUNICIPAL TIE AND CONNECTION AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THIS DRAWING TO RENDER FIRE ALARM SYSTEM COMPLETE AND OPERATIVE.
4. OWNER'S VENDOR SHALL FULLY DEMONSTRATE SYSTEM FUNCTION, OPERATION AND MAINTENANCE OF FIRE ALARM SYSTEM TO OWNER.
5. HVAC CONTRACTOR SHALL INSTALL DUCT SMOKE DETECTORS IN DUCTS. DUCT SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY OWNER'S VENDOR.
6. OWNER'S VENDOR CONTRACTOR SHALL PROVIDE AND INSTALL ALL WIRING, RELAYS AND MISCELLANEOUS EQUIPMENT ASSOCIATED WITH HVAC AIR HANDLER UNIT SHUTDOWN FROM FIRE ALARM PANEL.
7. FIRE ALARM SHOP DRAWINGS, WIRE PULLS, TERMINATIONS, INSTALLATION/FURNISHING OF DEVICES, WIRING & EQUIPMENT SHALL BE BY OWNER'S VENDOR. ELECTRICAL CONTRACTOR SHALL FOLLOW RESPONSIBILITIES AS INDICATED ON DRAWINGS. FINAL LOCATIONS SHALL BE BASED ON SHOP DRAWINGS PROVIDED BY OWNER'S VENDOR.

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CONSTRUCTION DOCUMENTS

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Sheet Title

FIRE ALARM: DETAILS

Job No.	Date
2023-1011	02/03/2023
Scale: AS NOTED	Drawn / Checked: DC/RL SZ/WH

Sheet Number

FA601