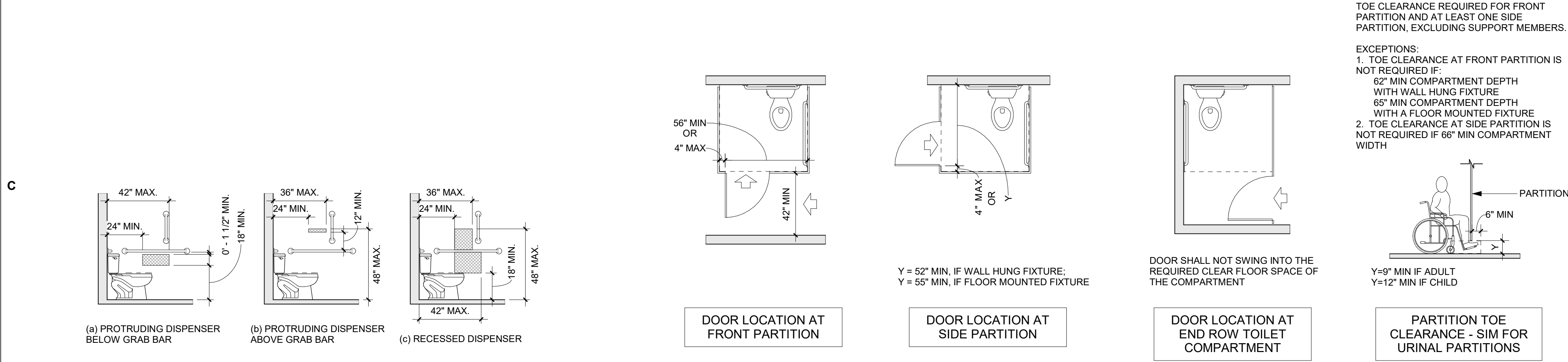


NOTE: ALL DOORS IN ALCOVES SHALL COMPLY WITH THE CLEARANCES FOR FRONT APPROACHES.

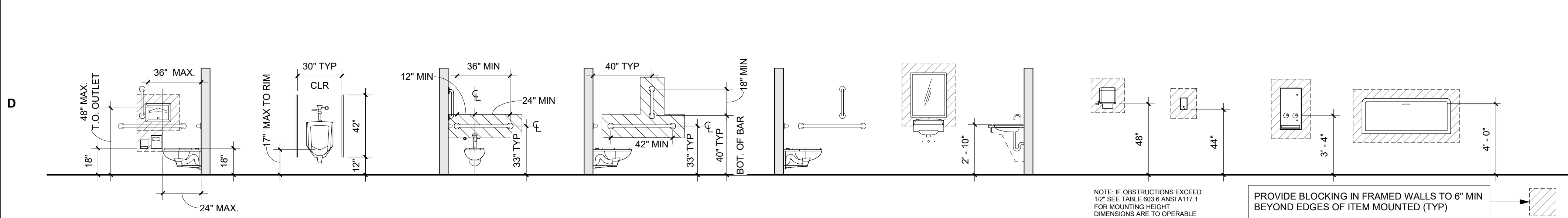
ACCESSIBLE ROUTE - CHANGE IN LEVEL  
N.T.S.

MANEUVER CLEARANCES AT MANUAL SWING DOORS AND DOORWAYS WITHOUT DOORS  
N.T.S.



ACCESSIBLE DISPENSER OUTLET LOCATIONS  
N.T.S.

ACCESSIBLE TOILET COMPARTMENTS  
N.T.S.



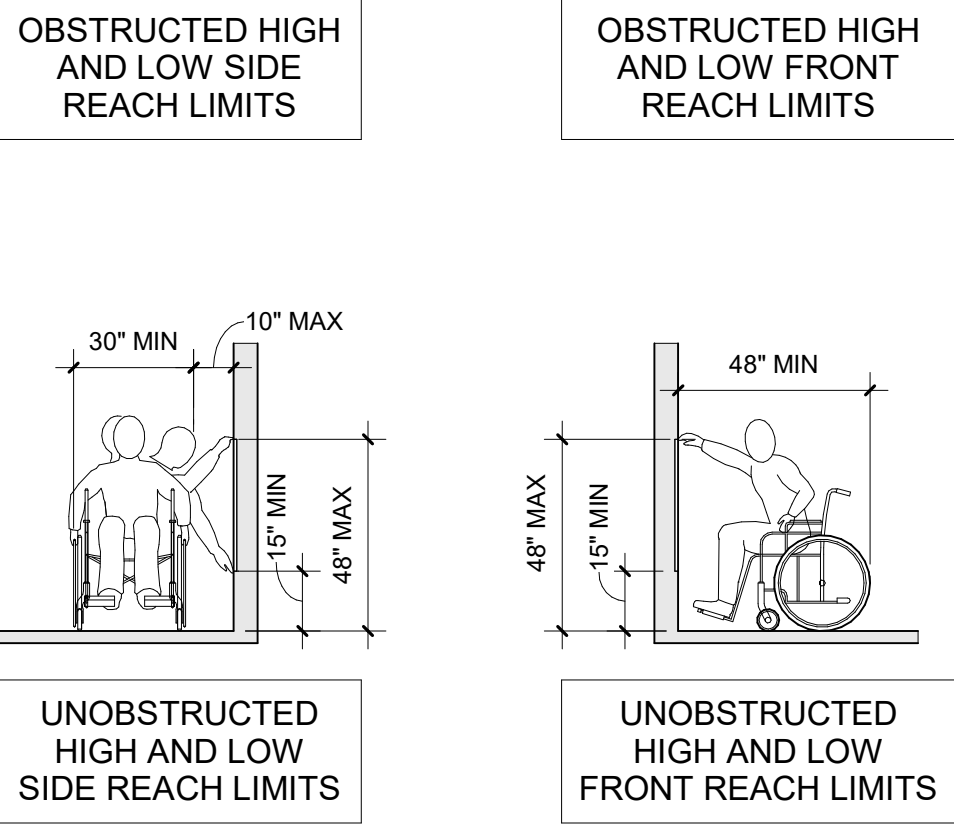
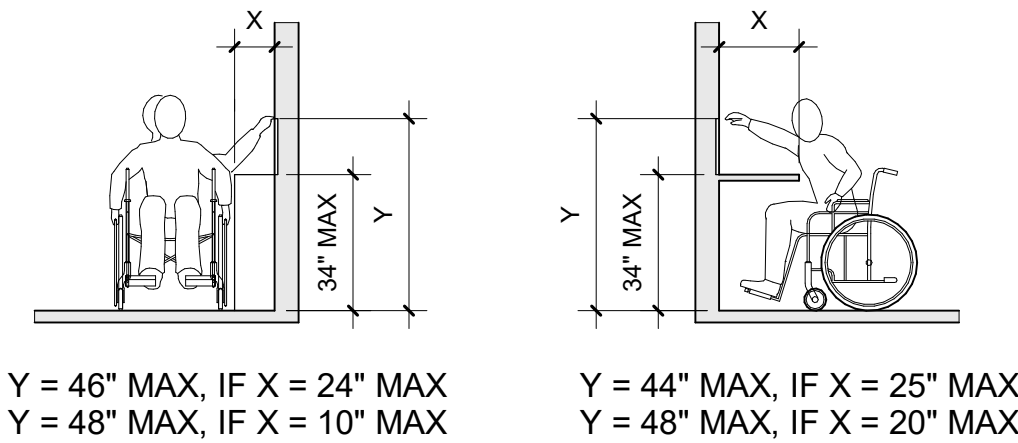
ACCESSIBLE RESTROOM TOILET MOUNTING HEIGHTS  
N.T.S.

ACCESSIBILITY CODE NOTES

1. THE INFORMATION ON THIS SHEET IS PROVIDED AS A MEANS TO GRAPHICALLY IDENTIFY THE MOST COMMON DIMENSIONS, CLEARANCES, AND MOUNTING HEIGHTS REQUIRED. IT IS NOT FEASIBLE FOR ALL OF THE ADDITIONAL GRAPHIC AND NON-GRAPHIC INFORMATION INCLUDE IN ANSI ICC A117.1-2009: ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, TO BE INCLUDED ON THIS SHEET. THEREFORE, THE CONTRACTOR SHALL REFER TO ANSI A117.1-2009 AND BE RESPONSIBLE FOR ALL REQUIRED INFORMATION INCLUDED THEREIN.
2. VERIFY ACCESSORY SIZE WITH MANUFACTURER TO ENSURE CONFORMANCE WITH ADA MOUNTING HEIGHTS. COORDINATE THE INSTALLATION OF ALL PLUMBING FIXTURES AND ACCESSORIES. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
3. DIMENSIONS TO TOILET ROOM ACCESSORIES ARE TO THE HIGHEST PORTION OF THE OPENING OR OPERATING DEVICE.
4. PLACE TELEPHONE DEVICES AT 44" ABOVE FINISH FLOOR.
5. PROVIDE BLOCKING WITHIN WALL AS REQUIRED FOR MOUNTING FIXTURES.
6. PROVIDE GYPSUM BOARD WRAP BEHIND FIXTURES AT WALLS DESIGNATED ON FLOOR PLANS AS FIRE-RATED. SEE WALL TYPES.
7. EDGE OF ACCESSIBLE SHOWER UNITS SHALL BE FLUSH WITH THE FINISHED SURFACE OF ADJACENT FLOORING.
8. THIS DRAWING ONLY SHOWS WALL-MOUNTED TOILET FIXTURES. SUBSTITUTE FLOOR-MOUNTED TOILET FIXTURES WHERE INDICATED IN BATHROOM ELEVATIONS.

ACCESSIBILITY CODE LEGEND

- PROVIDE BLOCKING IN FRAMED WALLS TO 6" MIN. BEYOND EDGES OF ITEM MOUNTED (TYP)
- DIRECTION OF TRAVEL OR APPROACH
- BOUNDARY OF CLEAR FLOOR SPACE OR MANEUVERING CLEARANCE
- WALL, FLOOR, CEILING, OR OTHER ELEMENT CUT IN SECTION OR PLAN
- CENTERLINE



ACCESSIBLE REACH RANGES  
N.T.S.



REMOVAL KEY NOTES

- 1 SAWCUT AND REMOVE EXISTING PCC PAVEMENT AND AGGREGATE AS SHOWN
- 2 SAWCUT AND REMOVE EXISTING HMAC PAVEMENT AND AGGREGATE AS SHOWN
- 3 SAWCUT AND REMOVE EXISTING CURB
- 4 REMOVE STAIRS AND LANDING
- 5 REMOVE HANDRAIL
- 6 REMOVE PLANTER BLOCK WALL
- 7 RELOCATE STOP SIGN
- 8 RELOCATE WATER METER (APPROXIMATE METER LOCATION SHOWN)
- 9 RELOCATE CATCH BASIN
- 10 RELOCATE ACCESSIBLE SIGN

GENERAL SURVEY NOTES

1. PROJECT SITE IS LOCATED IN SECTION 12, TOWNSHIP 11 SOUTH, RANGE 13 EAST, WILLAMETTE MERIDIAN, JEFFERSON COUNTY, OREGON.
2. TOPOGRAPHIC SURVEY INFORMATION DEPICTED HEREIN IS FROM SURVEY PREPARED BY HWA IN APRIL 2023. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INCLUDING POTHOLES OF EXISTING UTILITIES AS NECESSARY TO VERIFY LOCATION, DEPTH, AND SIZE.
3. WITH REGARD TO UNDERGROUND UTILITIES, INFORMATION FROM CITY OF MADRAS AND UTILITY LOCATE MARKINGS WERE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES TO DEVELOP A VIEW OF THOSE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, EXCAVATION MAY BE NECESSARY.
4. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS, RESTRICTIONS, AND RIGHT-OF-WAYS OF RECORD AND THOSE COMMON AND APPARENT ON THE LAND.
5. THE COORDINATES SHOWN ARE BASED ON THE CENTRAL OREGON COORDINATE SYSTEM. ELEVATIONS SHOWN ARE BASED ON THE VERTICAL DATUM NGVD29 AND WERE DERIVED FROM PUBLISHED CENTRAL OREGON COORDINATE SYSTEM BENCHMARKS.

CONTACT INFORMATION

OWNER / DEVELOPER: JEFFERSON COUNTY SCHOOL DISTRICT  
445 SE BUFF STREET  
MADRAS, OR 97741  
PH: (541)-475-6192

SURVEYOR / ENGINEER: HWA, INC.  
62930 O.B. RILEY ROAD, SUITE 100  
BEND, OR 97703  
PH: (541) 389-9351

ARCHITECT: BLRB ARCHITECTURE  
721 SW INDUSTRIAL WAY, SUITE 130  
BEND, OR 97702  
PH: (541) 330-6506

REMOVAL GENERAL NOTES

1. MINIMUM SAWCUT REMOVAL SHOWN - ACTUAL SAWCUT LINES TO FOLLOW EXISTING CONCRETE SCORE LINES (TYPICAL FOR ALL CONCRETE REMOVAL).

LEGEND

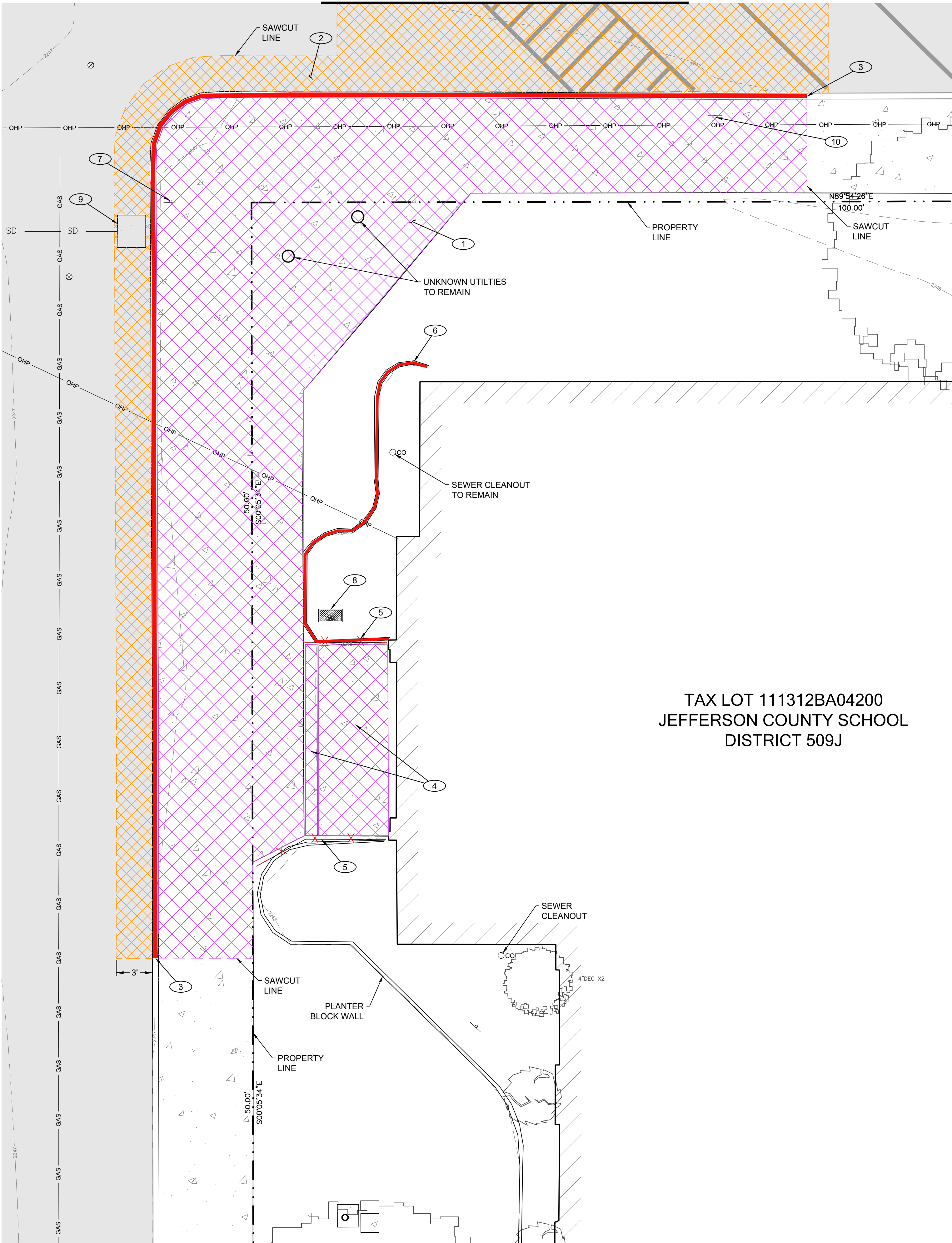
- PROPERTY LINE
- ASSESSOR'S TAX LOT LINE (APPROX. LOCATION)
- CURB LINE
- GAS UNDERGROUND GAS LINE
- OHP OVERHEAD POWER LINE
- HMAC PAVEMENT
- PCC PAVEMENT
- CONTOUR LINE, 1' INTERVAL
- CONTOUR LINE, 5' INTERVAL
- CATCH BASIN
- WATER METER
- WATER VALVE
- SIGN
- FLAG POLE
- DECIDUOUS TREE (SIZE AS NOTED)
- PINE TREE (SIZE AS NOTED)
- SHRUB

- EXISTING CURB/WALL TO BE REMOVED
- EXISTING HANDRAIL TO BE REMOVED
- EXISTING PCC PAVEMENT TO BE REMOVED
- EXISTING HMAC PAVEMENT TO BE REMOVED

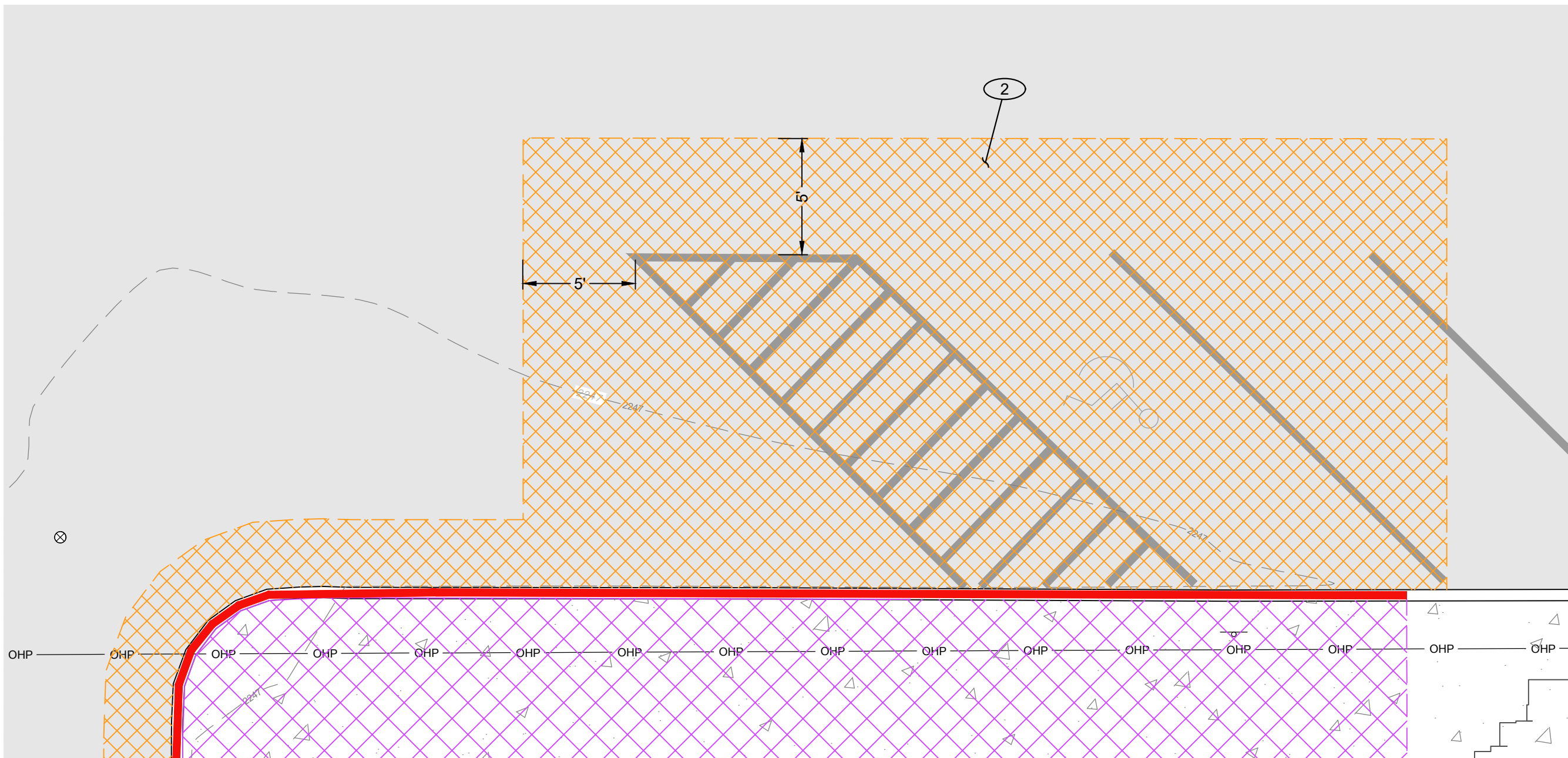


VICINITY MAP  
SCALE: 1"=1000'  
TAXLOT: 11-13-12-BA-04200

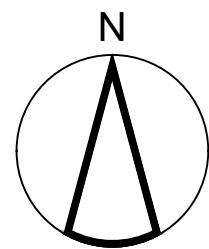
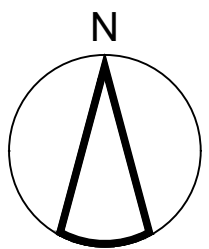
SEE THIS SHEET FOR ADA DEMOLITION DETAILS



TAX LOT 111312BA04200  
JEFFERSON COUNTY SCHOOL  
DISTRICT 509J



ADA DEMOLITION DETAILS  
SCALE: 1"=5'



DRAWING REVISIONS	
Description	Date

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS  
JEFFERSON COUNTY SCHOOL DISTRICT (509J)  
BID SET

EXISTING CONDITIONS AND REMOVAL PLAN	
Drawn By: MWB	Project No. 22140
Date: SEPTEMBER 11, 2023	
Revised:	

Sheet No. C1.01



GENERAL GRADING NOTES

- ALL GRADING SHALL BE IN CONFORMANCE WITH THE CURRENT 2019 OREGON STRUCTURAL SPECIALTY CODE AND WITH THE C.O.M. STANDARDS.
- EXCAVATORS SHALL COMPLY WITH THE PROVISIONS OF OAR 952-001-0090.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT "UNDERGROUND LOCATE SERVICE" AT 1-800-332-2344 AT LEAST 2 FULL BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION FOR LOCATION OF UNDERGROUND WATER, SEWER, STORM DRAIN, POWER, GAS, OIL, CABLE TV, AND TELEPHONE FACILITIES.
- ALL UNSUITABLE SOILS MATERIALS, RUBBISH, AND DEBRIS RESULTING FROM GRADING OPERATIONS SHALL BE REMOVED FROM THE JOB SITE AND DISPOSED OF PROPERLY.
- THE CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT, AND METHODS REQUIRED TO PREVENT HIS OPERATIONS FROM PRODUCING DUST IN AMOUNTS DAMAGING TO PROPERTY, CULTIVATED VEGETATION, AND DOMESTIC ANIMALS OR CAUSING A NUISANCE TO PERSONS OCCUPYING BUILDINGS IN THE VICINITY OF THE JOB SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY DUST RESULTING FROM HIS OPERATIONS.
- ALL ACCESSIBLE ROUTES SHALL BE CONSTRUCTED WITH A SLOPE OF NO MORE THAN 5.0% IN THE DIRECTION OF TRAVEL AND A CROSS SLOPE OF NO MORE THAN 2.0%.

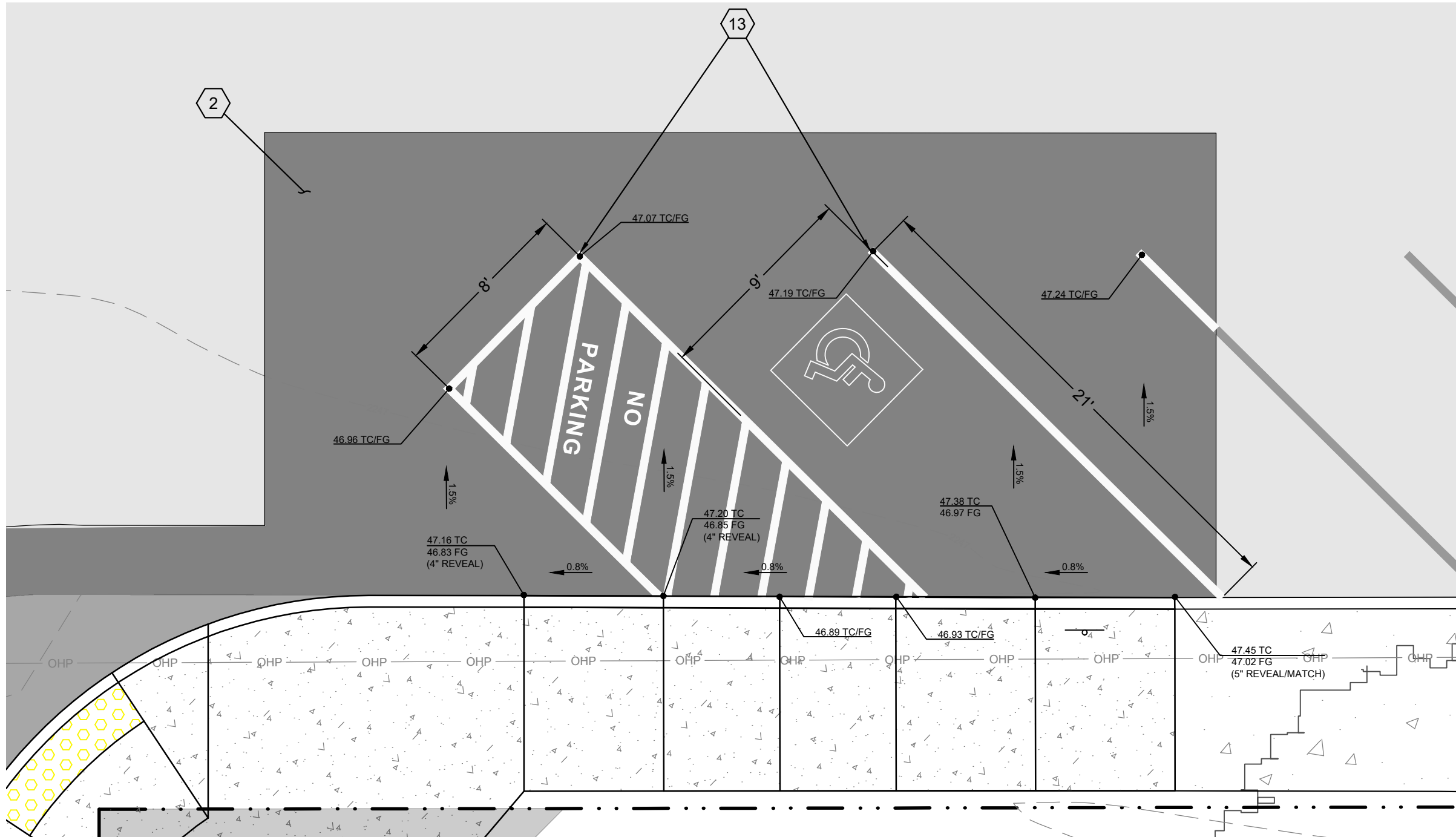
GRADING LEGEND

- EXISTING CURB
- 2201 — EXISTING 1' GROUND SURFACE CONTOUR
- 2205 — EXISTING 5' GROUND SURFACE CONTOUR
- 60.50 FG PROPOSED SPOT ELEVATION
- FG FINISH GRADE
- EG EXISTING GRADE
- EP EDGE OF PAVEMENT
- RE RIM ELEVATION

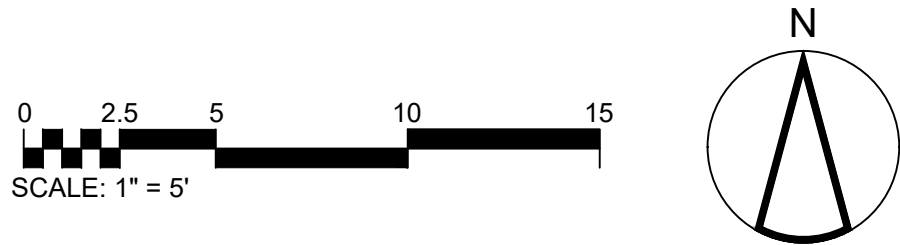
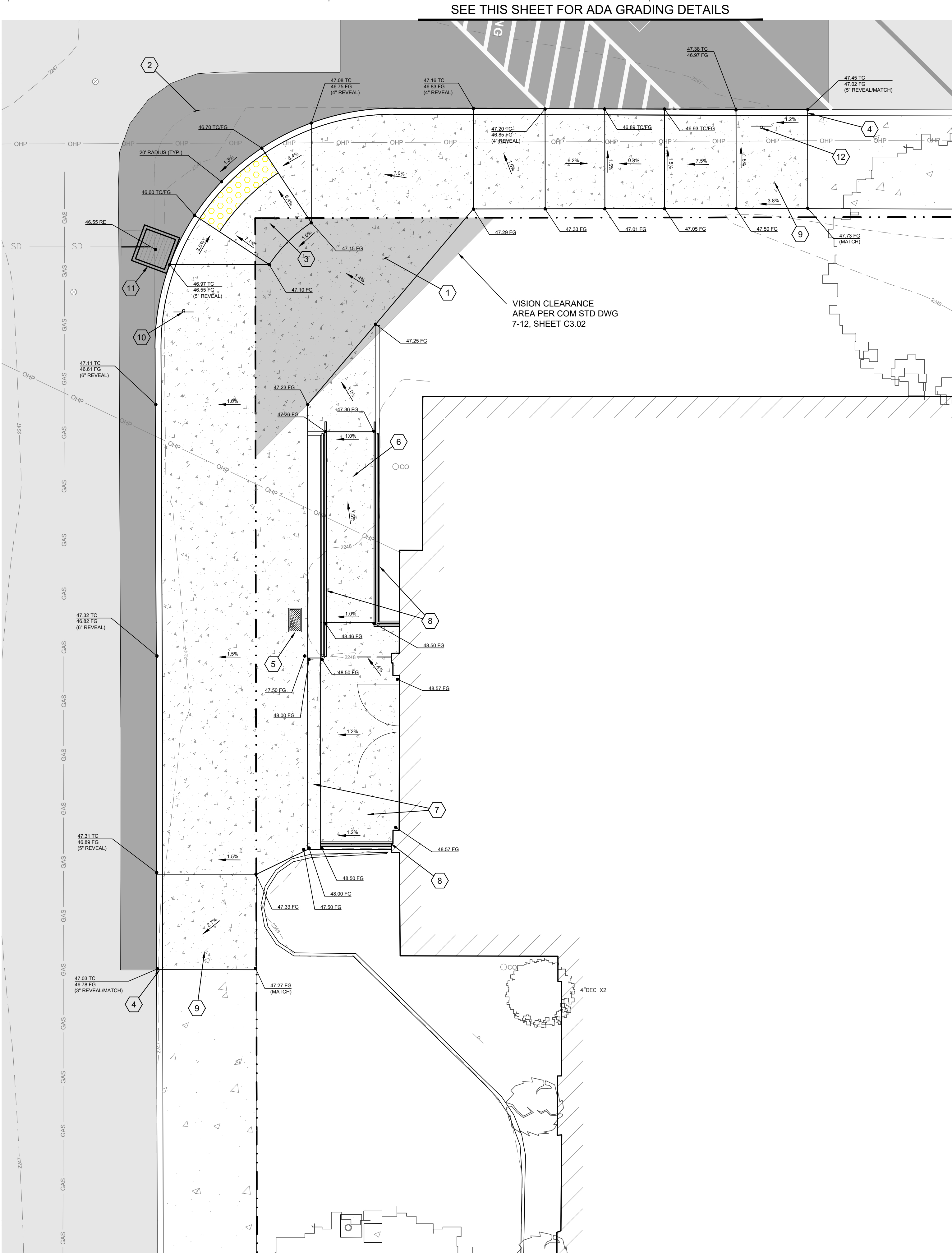
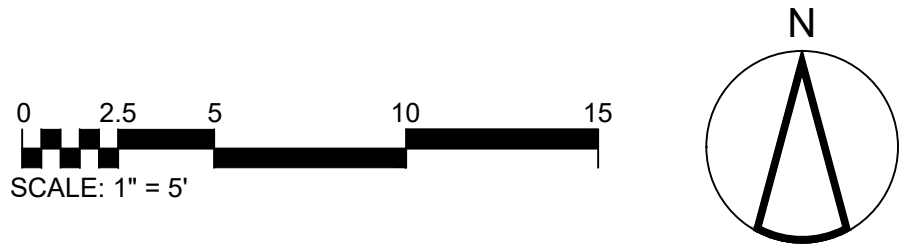
CONSTRUCTION KEY NOTES

- CONSTRUCT LIGHT-DUTY PCC PAVEMENT (4" PCC ON 4" AGGREGATE BASE)  
(PER ODOT STD DWG RD720, SHEET C3.01)
- CONSTRUCT HMAC PAVEMENT (4" HMAC ON 6" AGGREGATE BASE)  
(PER COM STD DWG 7-5, SHEET C3.01)
- CONSTRUCT SINGLE PERPENDICULAR ADA RAMP  
(PER ODOT STD DWG RD916, SHEET C3.01)
- CONSTRUCT 12" CONCRETE CURB (REVEAL PER PLANS)  
(PER COM STD DTL 7-15, SHEET C3.01)
- INSTALL SALVAGED WATER METER  
(PER COM STD DTL 6-1, SHEET C3.02)
- CONSTRUCT CONCRETE ACCESSIBLE RAMP
- CONSTRUCT CONCRETE LANDING AND STAIRS
- INSTALL HANDRAILS
- CONSTRUCT TRANSITION PANEL  
(PER ODOT DTD DWG RD722, SHEET C3.02)
- INSTALL SALVAGED STOP SIGN W/ STREET SIGNS  
(PER COM STD DWG 7-17, SHEET C3.02)
- INSTALL SALVAGED CATCH BASIN. EXTEND STORM DRAIN PIPE 2 LF.  
(PER ODOT STD DWG RD364, SHEET C3.02)
- INSTALL SALVAGED ACCESSIBLE SIGN  
(PER DETAIL 1/3.03 & COM STD DWG 7-17, SHEET C3.02)
- STRIPE ADA PARKING SPACE AND LOADING ZONE PER DETAIL 1/C3.03

- NOTE:  
ADD 2200.00 FT TO ALL SPOT ELEVATIONS
- EXISTING HMAC PAVEMENT TO REMAIN
- PROPOSED HMAC PAVEMENT
- EXISTING CONCRETE TO REMAIN
- PROPOSED PCC PAVEMENT



ADA GRADING DETAILS  
SCALE: 1"=5'



DRAWING REVISIONS	
Description	Date

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS  
JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

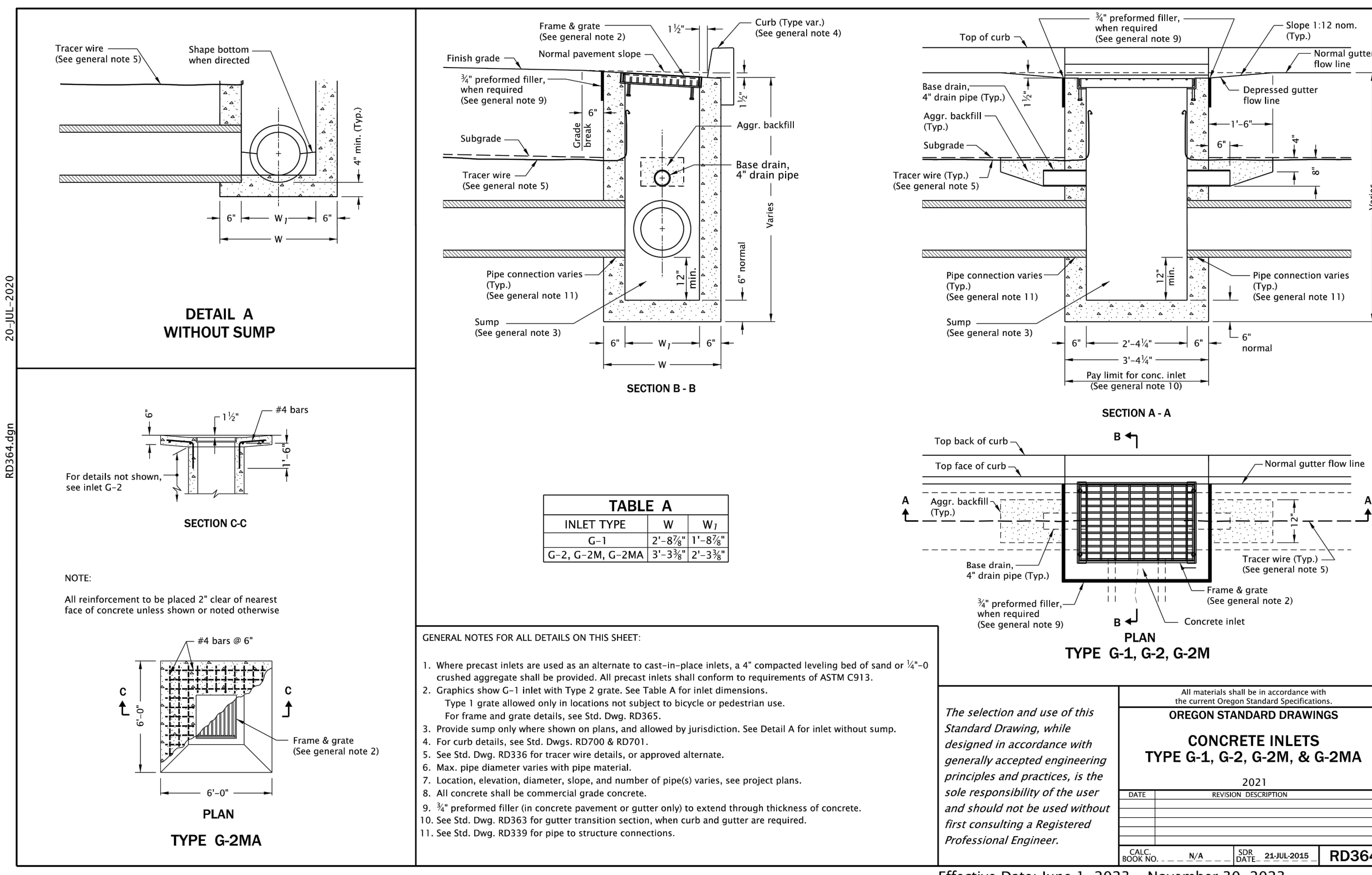
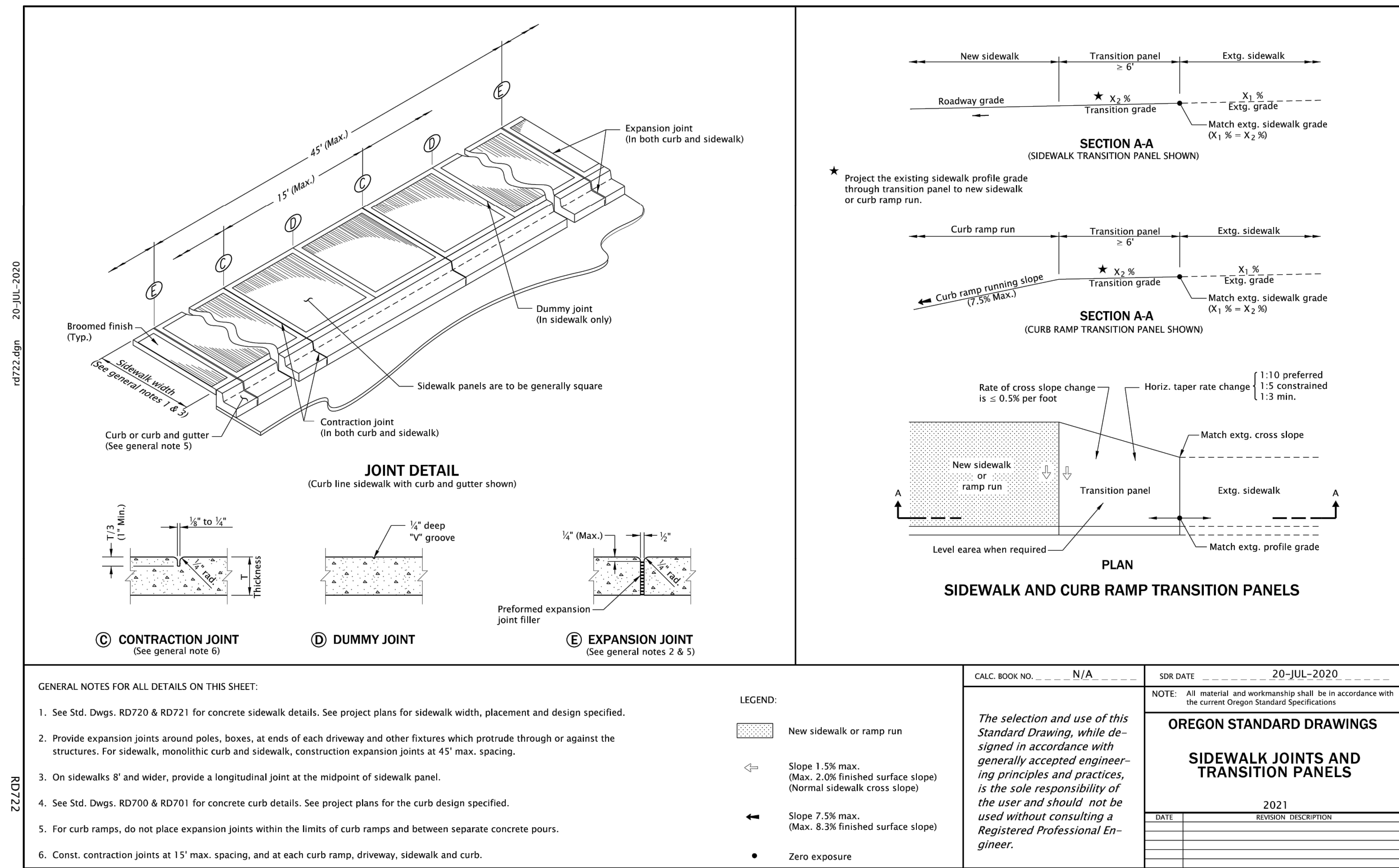
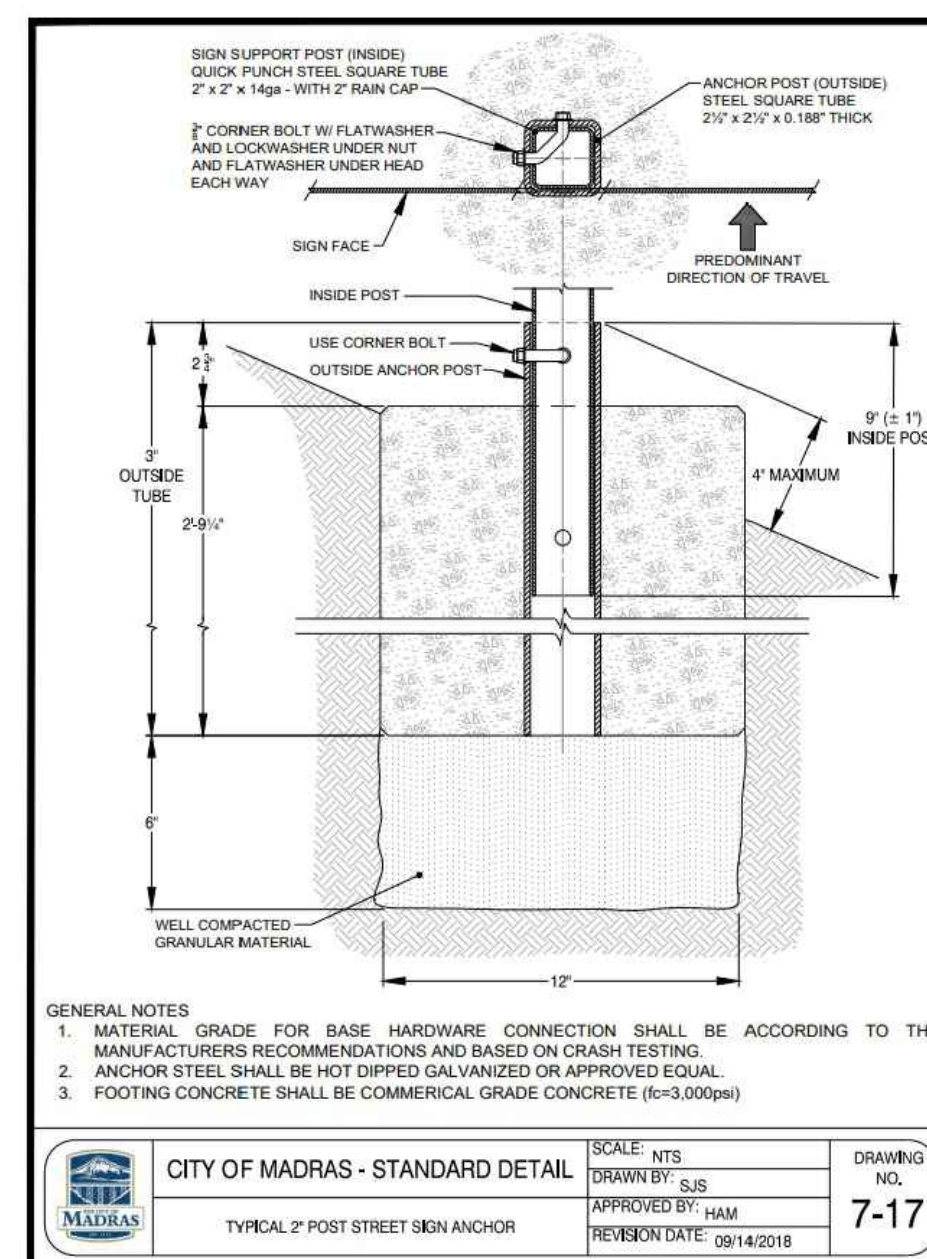
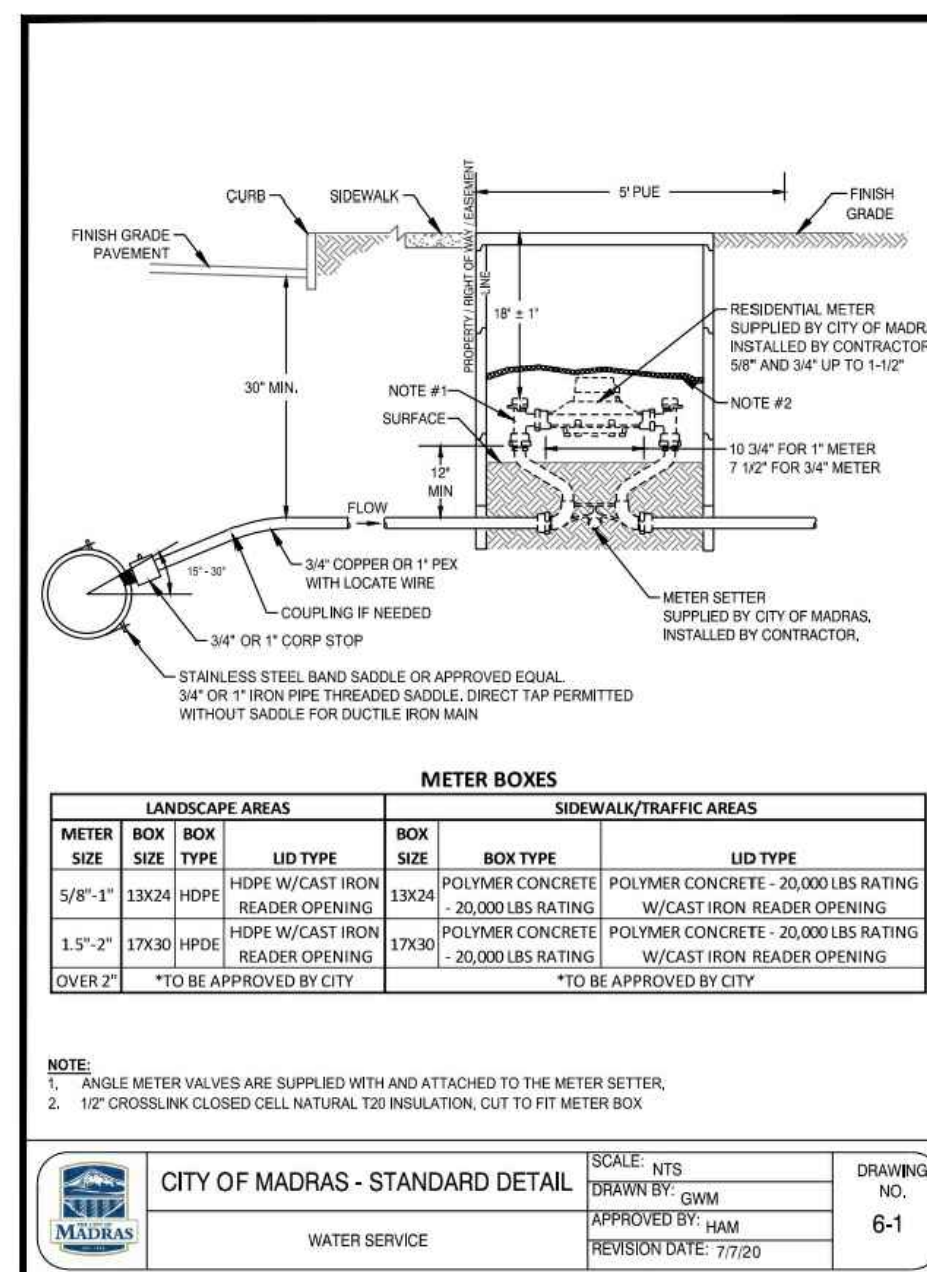
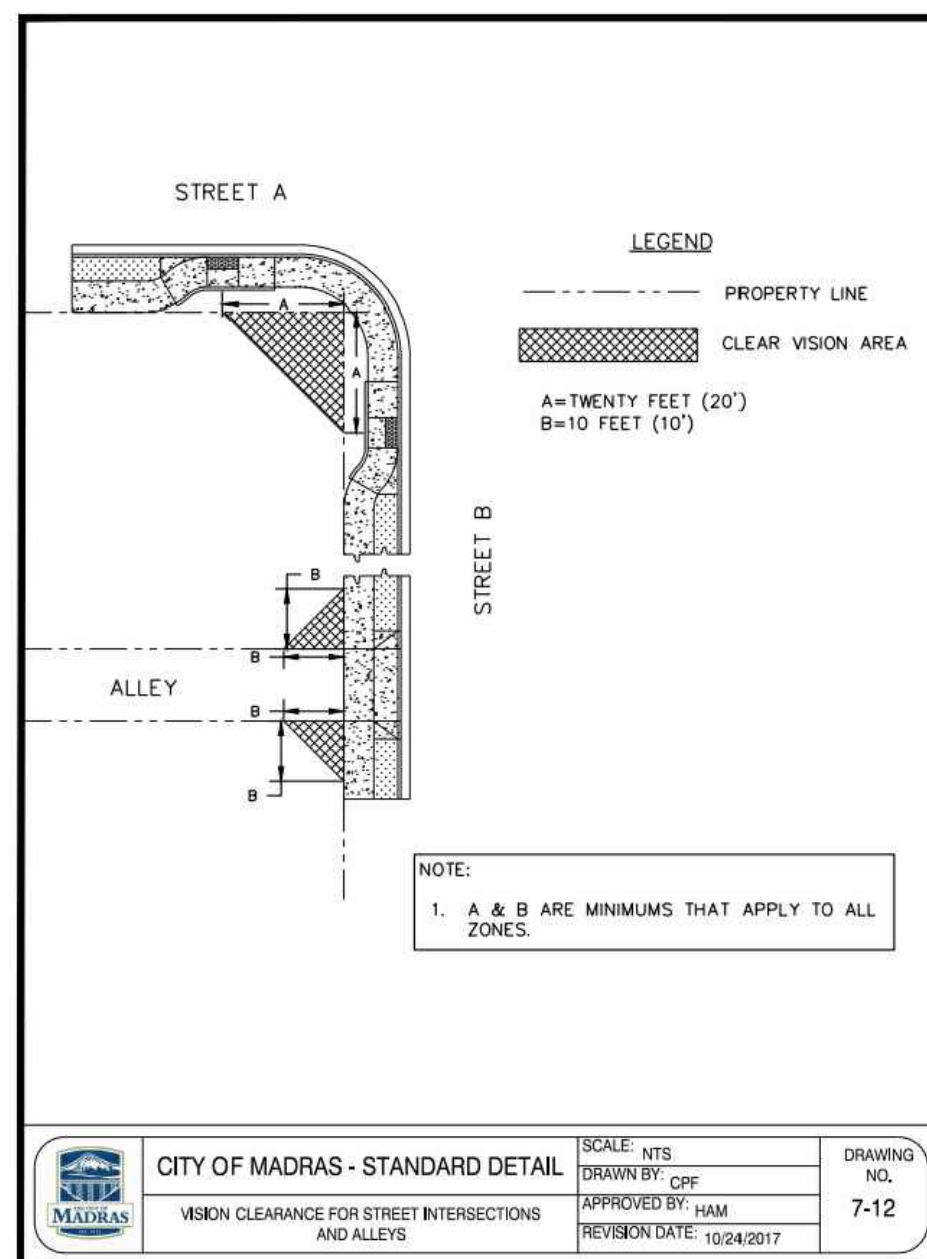
Drawing Title: GRADING AND PAVING PLAN	
Date: SEPTEMBER 11, 2023	Drawn By: MWB
Revised:	Project No. 22140

Sheet No.  
C2.01











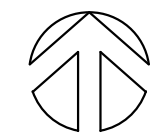




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1 OVERALL SITE PLAN  
0' 8' 16' 32' 1/64" = 1'-0" @ FULL SIZE



SITE PLAN GENERAL NOTES

- A. SIDEWALKS AND RAMPS SHALL BE CONSTRUCTED TO THE FOLLOWING REQUIREMENTS:
- MAXIMUM CROSS SLOPE OF SIDEWALKS & LANDINGS: 1:50
  - MAXIMUM SLOPE OF SIDEWALKS 1:20
  - MAXIMUM SLOPE OF RAMPS: 1:12
  - MAXIMUM SLOPE OF DISABLED PARKING STALLS: 2% IN ANY DIRECTION
  - 2% MAXIMUM SLOPE FOR 5'-0" IN DIRECTION OF TRAVEL AT ALL BUILDING ENTRANCES.
- B. LIMITS OF WORK: THE CONTRACTOR SHALL CONFINE OPERATIONS AT THE SITE TO AREAS PERMITTED BY LAW, ORDINANCES, PERMITS AND THE CONTRACT DOCUMENTS.
- C. STAGING AREA: THE CONTRACTOR AND SUBCONTRACTORS SHALL LIMIT STORAGE OF MATERIALS AND PORTABLE FIELD OFFICES WITHIN THE AREAS APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- D. GENERAL CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE OR DISRUPT EXISTING UTILITIES, INCLUDING DRAINS, WHILE EXCAVATING OR GRADING DURING CONSTRUCTION. CONFIRM LOCATION OF EXISTING UTILITIES ON ADJACENT PROPERTIES
- E. PRIOR TO START OF WORK THE CONTRACTOR SHALL COORDINATE WITH EACH RESPECTIVE GOVERNING AUTHORITY IN VERIFYING THE LOCATION (INVERT ELEVATIONS, HORIZONTAL CONTROLS, EASEMENTS) OF EXISTING SANITARY AND STORM SEWER, WATER, NATURAL GAS, ELECTRICAL, FIBER OPTIC, TELEPHONE, OVERHEAD POWER LINES AND OTHER UTILITY SYSTEMS, BOTH ONSITE AND OFFSITE. THE CONTRACTOR SHALL COMPARE UTILITY INFORMATION WITH THE CONTRACT DOCUMENTS. IF A CONSTRUCTION CONFLICT IS DISCOVERED BETWEEN THE UTILITY INFORMATION OBTAINED AND THE CONTRACT DOCUMENTS NOTIFY THE ARCHITECT IMMEDIATELY.
- F. EMERGENCY VEHICLE ACCESS: THE CONTRACTOR SHALL MAINTAIN FIRE TRUCK ACCESS TO THE SITE THROUGHOUT THE CONSTRUCTION PROCESS UNLESS AN ALTERNATE PLAN IS APPROVED BY THE FIRE DEPARTMENT.

KEYNOTE LEGEND - SITE PLAN

#	DESCRIPTION
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SITE PLAN LEGEND

- PROPERTY BOUNDARY
- - - BUILDING SETBACK
- - - UTILITY EASEMENT
- - - ACCESSIBLE PATH OF TRAVEL TO PUBLIC WAY
- FENCE



Stamp

DRAWING REVISIONS

Date

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MADRAS ELEMENTARY SCHOOL IMPROVEMENTS  
JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

SITE PLAN

Drawing Title:

Sheet No.

A1.01

SAJ ARCHITECTURE

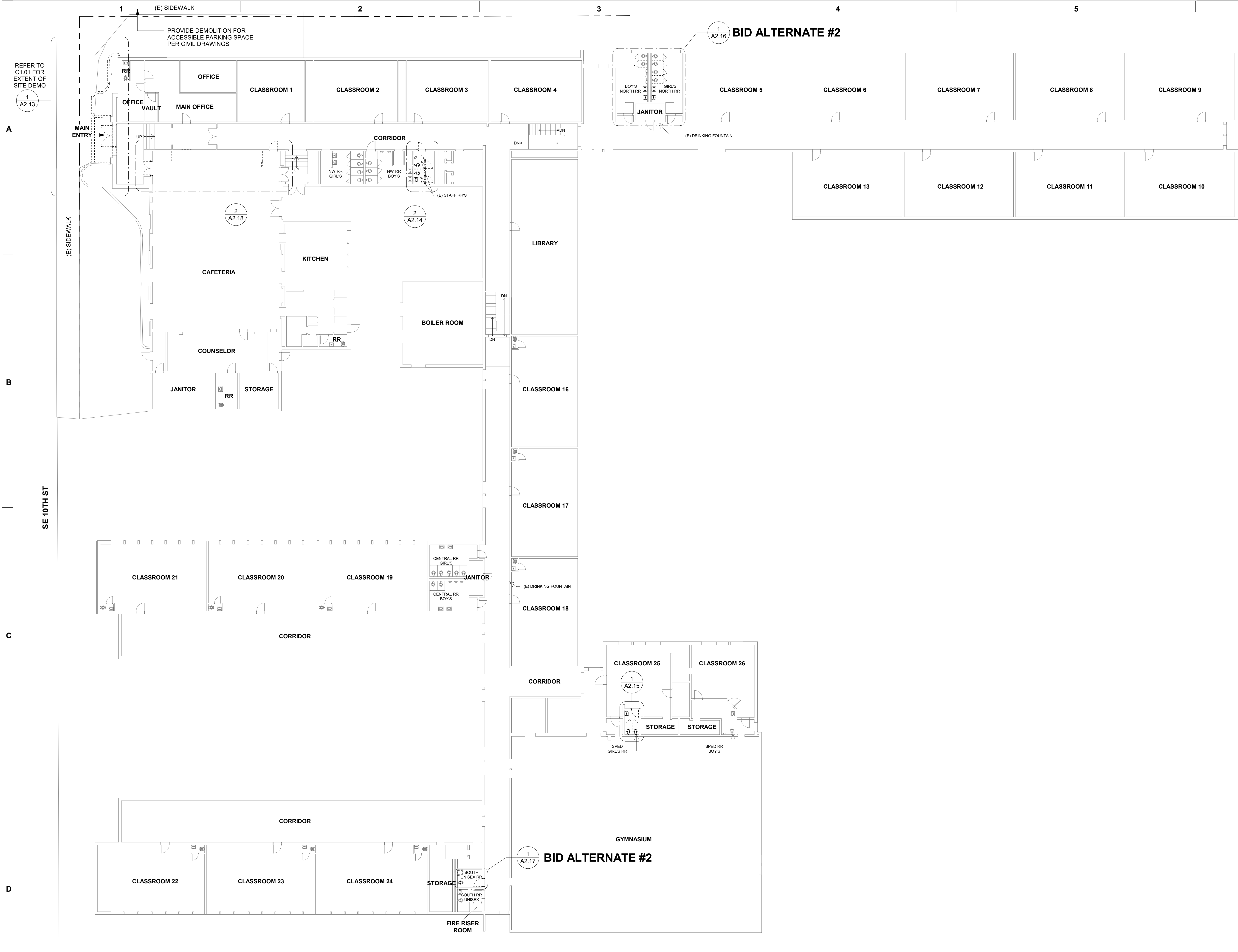
Drawn By: LCG

Date: SEPTEMBER 11, 2023

Project No.

22140





- FLOOR PLAN GENERAL NOTES
- A.

DRAWINGS ARE SHOWN TO SCALE AS NOTED AS AIDS IN DETERMINING SIZE AND PROPORTION. ONLY WRITTEN DESCRIPTIONS AND SIZES SHALL BE UTILIZED FOR CONSTRUCTION. DRAWINGS SHALL NOT BE SCALED.
- B.

FIXTURES AND EQUIPMENT SHOWN ARE FOR COORDINATION PURPOSES ONLY. REFER TO THE MANUFACTURER'S PRODUCT DATA, ENGINEERING DRAWINGS, AND SPECIFICATIONS FOR FIXTURE AND EQUIPMENT DESCRIPTIONS AND LOCATIONS.
- C.

PRESERVATION OF ADJACENT OR EXISTING CONSTRUCTION:
- D.

AVOID DAMAGE TO EXISTING STRUCTURES, SIDEWALKS, CURBS, PAVING AND LANDSCAPING.
- E.

CAREFULLY REVIEW ALL CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION. BRING DISCREPANCIES OR CONFLICTING DATA TO THE ATTENTION OF THE ARCHITECT PRIOR TO COMMENCING WORK.
- F.

UNLESS NOTED OTHERWISE, INSTALL DOORS WITH 4" FROM HINGE SIDE OF DOOR TO ADJACENT WALL FRAMING.
- G.

CONTRACTOR TO VERIFY SIZES OF ROUGH DOOR AND WINDOW OPENINGS PRIOR TO ORDERING DOORS AND WINDOWS.
- H.

SEE SHEET A9.11 FOR MATERIALS/FINISHES

Stamp

DRAWING REVISIONS

#	Date	Description

MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

Drawing Title:

REFERENCE DEMOLITION PLAN

Date :

SEPTEMBER 11, 2023

Revised :

Drawn By :

LCG

Project No.

22140

Sheet No.

A2.11

SAJ ARCHITECTURE

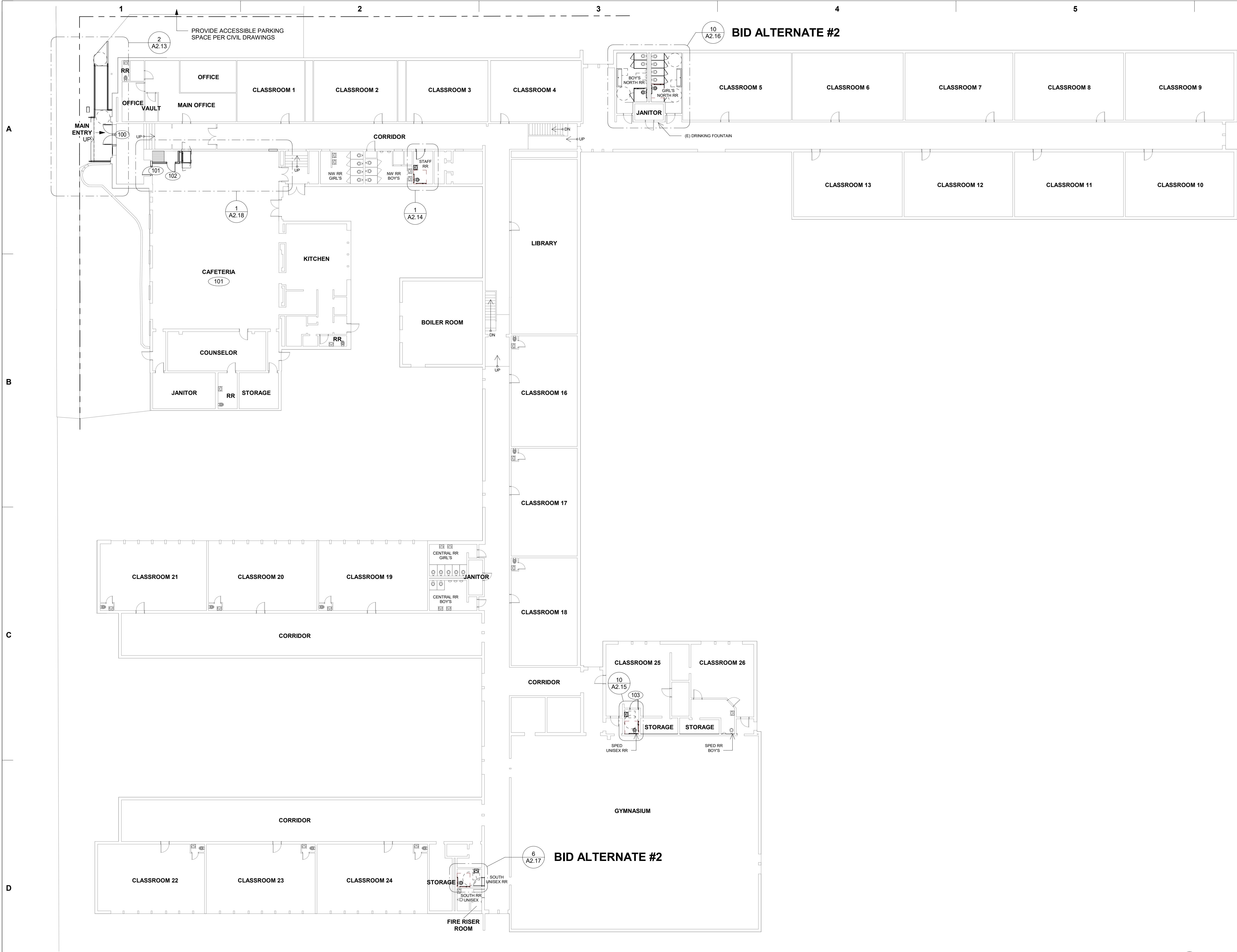
/saj/

Architecture

BEND / PORTLAND



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- FLOOR PLAN GENERAL NOTES**
- A. DRAWINGS ARE SHOWN TO SCALE AS NOTED AS AIDS IN DETERMINING SIZE AND PROPORTION. ONLY WRITTEN DESCRIPTIONS AND SIZES SHALL BE UTILIZED FOR CONSTRUCTION. DRAWINGS SHALL NOT BE SCALED.
- UNLESS NOTED OTHERWISE, DIMENSIONS ON PLANS ARE:
    - FACE OF STUD (F.O.S.)
    - FACE OF CONCRETE (F.O.C.)
    - CENTERLINE OF DOOR AND WINDOW OPENINGS.
- B. FIXTURES AND EQUIPMENT SHOWN ARE FOR COORDINATION PURPOSES ONLY. REFER TO THE MANUFACTURER'S PRODUCT DATA, ENGINEERING DRAWINGS, AND SPECIFICATIONS FOR FIXTURE AND EQUIPMENT DESCRIPTIONS AND LOCATIONS.
- C. PRESERVATION OF ADJACENT OR EXISTING CONSTRUCTION:
- AVOID DAMAGE TO EXISTING STRUCTURES, SIDEWALKS, CURBS, PAVING AND LANDSCAPING
  - PATCH, REPAIR, OR REPLACE ANY ITEMS DAMAGED, OR AS DIRECTED BY THE PROPERTY OWNER.
- D. AVOID UNNECESSARY DISRUPTIONS TO THE FUNCTIONS AND ACTIVITIES OF ADJACENT BUILDINGS.
- E. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION. BRING DISCREPANCIES OR CONFLICTING DATA TO THE ATTENTION OF THE ARCHITECT PRIOR TO COMMENCING WORK
- F. UNLESS NOTED OTHERWISE, INSTALL DOORS WITH 4" FROM HINGE SIDE OF DOOR TO ADJACENT WALL FRAMING.
- G. CONTRACTOR TO VERIFY SIZES OF ROUGH DOOR AND WINDOW OPENINGS PRIOR TO ORDERING DOORS AND WINDOWS.
- H. SEE SHEET A9.11 FOR MATERIALS/FINISHES

Stamp

DRAWING REVISIONS

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MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT  
(509J)

BID SET

Drawing Title:  
REFERENCE NEW PLAN

Date :  
SEPTEMBER 11, 2023

Drawn By :  
LCG

Revised :  
Project No.  
22140

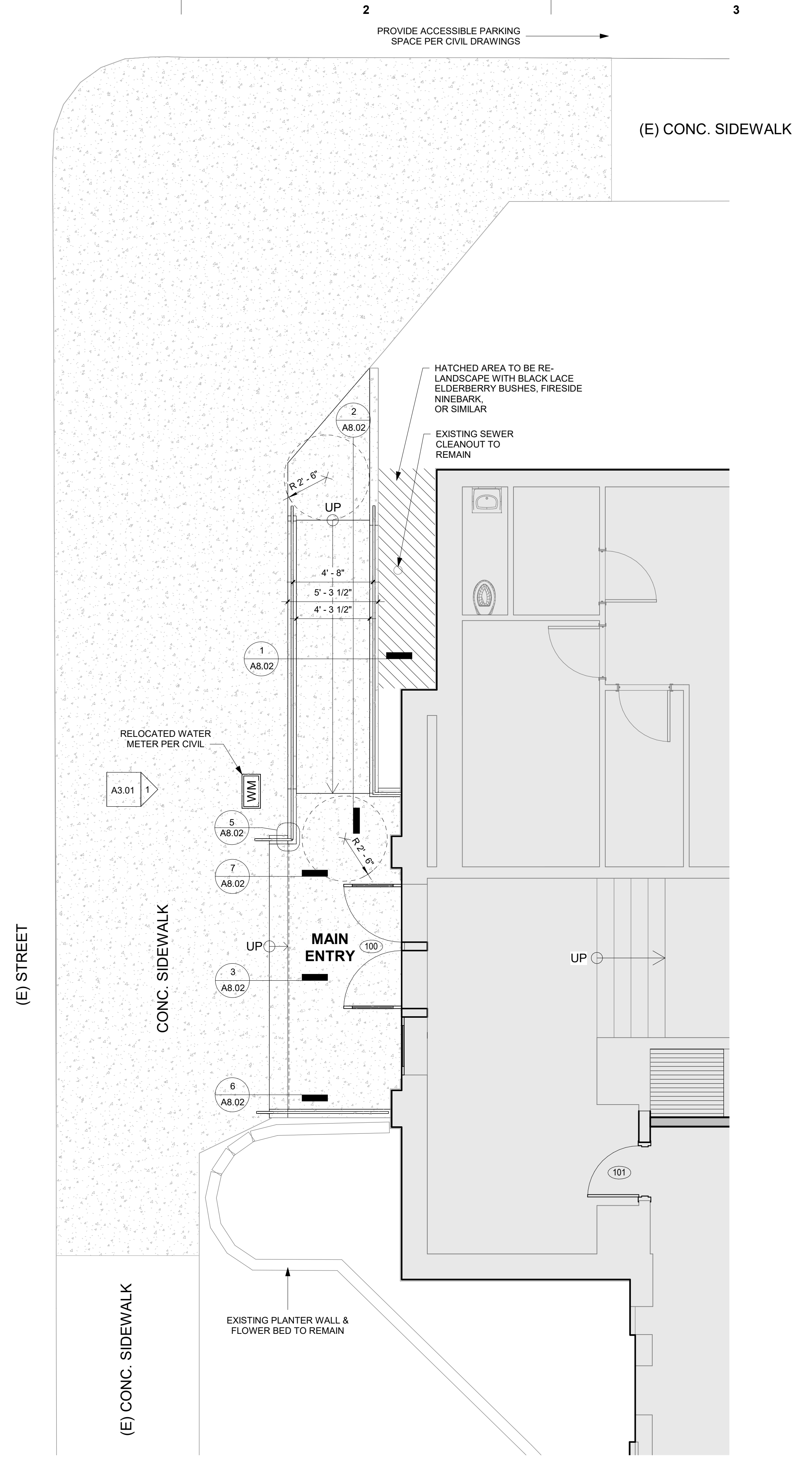
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A2.12

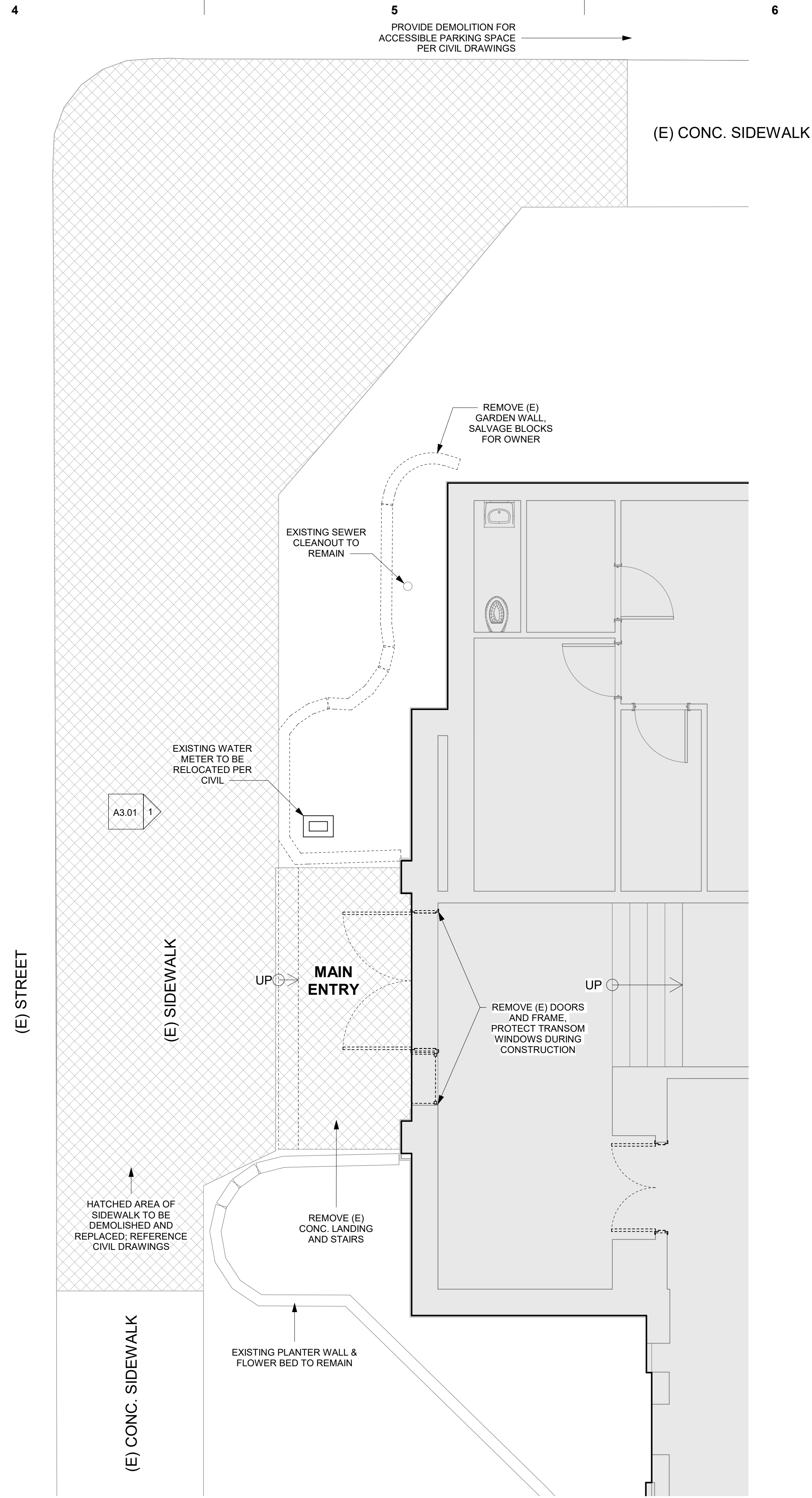
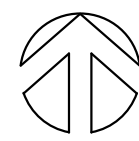
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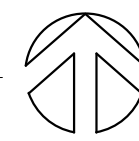
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2 MAIN ENTRANCE PLAN



1 MAIN ENTRANCE DEMO PLAN



Drawing Title:

MAIN ENTRANCE PLANS

Sheet No.

A2.13

Date: SEPTEMBER 11, 2023

Drawn By: LCG

Revised:

Project No. 22140

MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

Stamp

DRAWING REVISIONS

Description

Date

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BEND / PORTLAND







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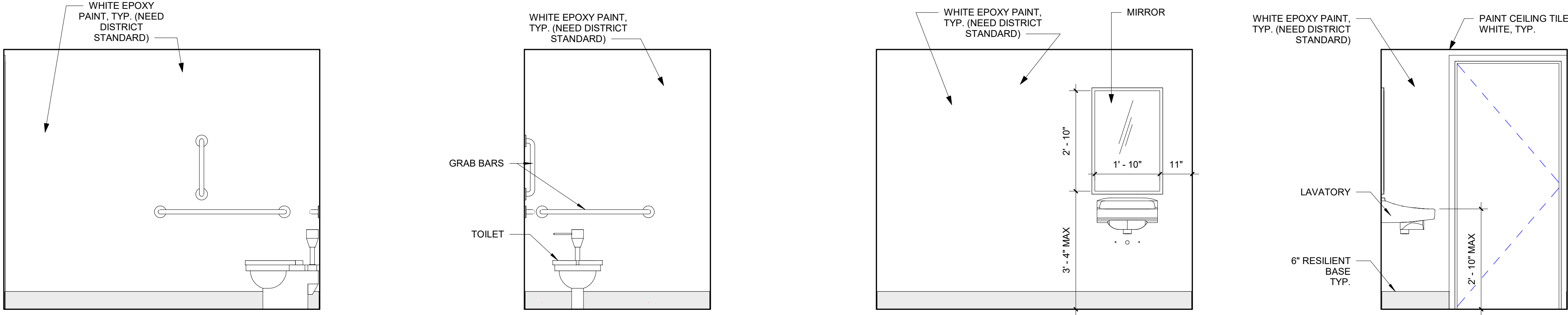
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B



14 SPED RR - ELEVATION - EAST

13 SPED RR - ELEVATION - SOUTH

12 SPED RR - ELEVATION - WEST

11 SPED RR - ELEVATION - NORTH

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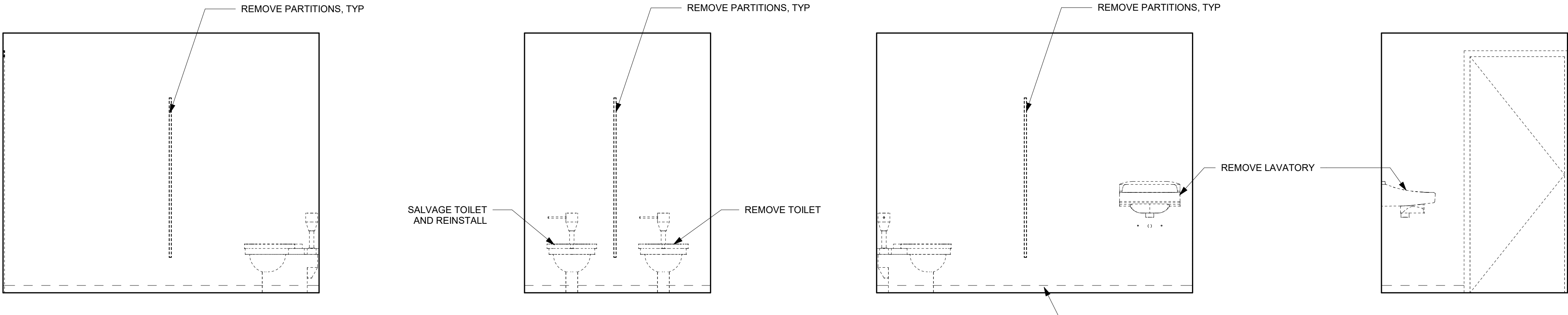
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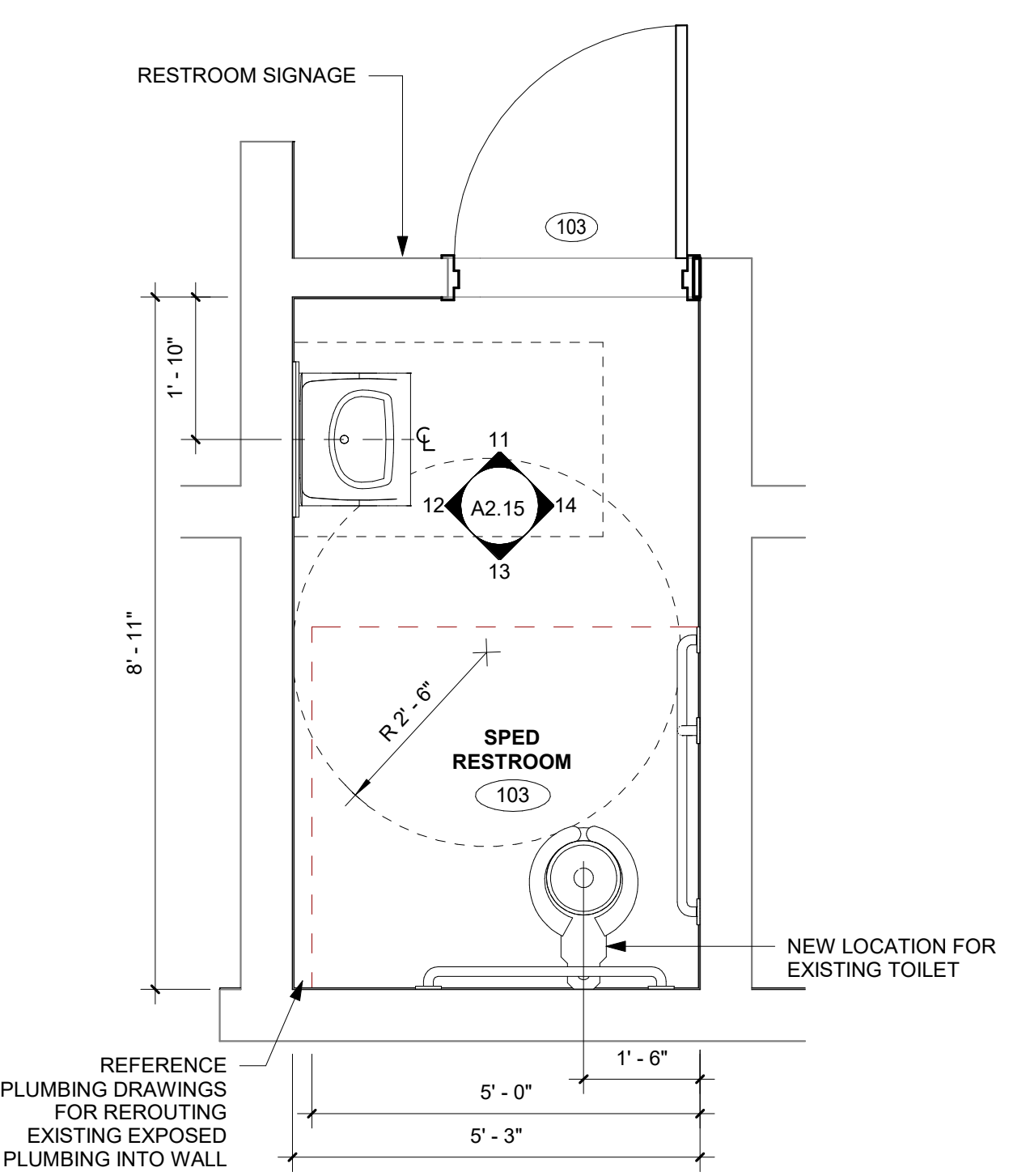
5 SPED RR - DEMO ELEVATION - EAST

4 SPED RR - DEMO ELEVATION - SOUTH

3 SPED RR - DEMO ELEVATION - WEST

2 SPED RR - DEMO ELEVATION - NORTH

6



10 NEW RESTROOM PLAN - SPED UNISEX

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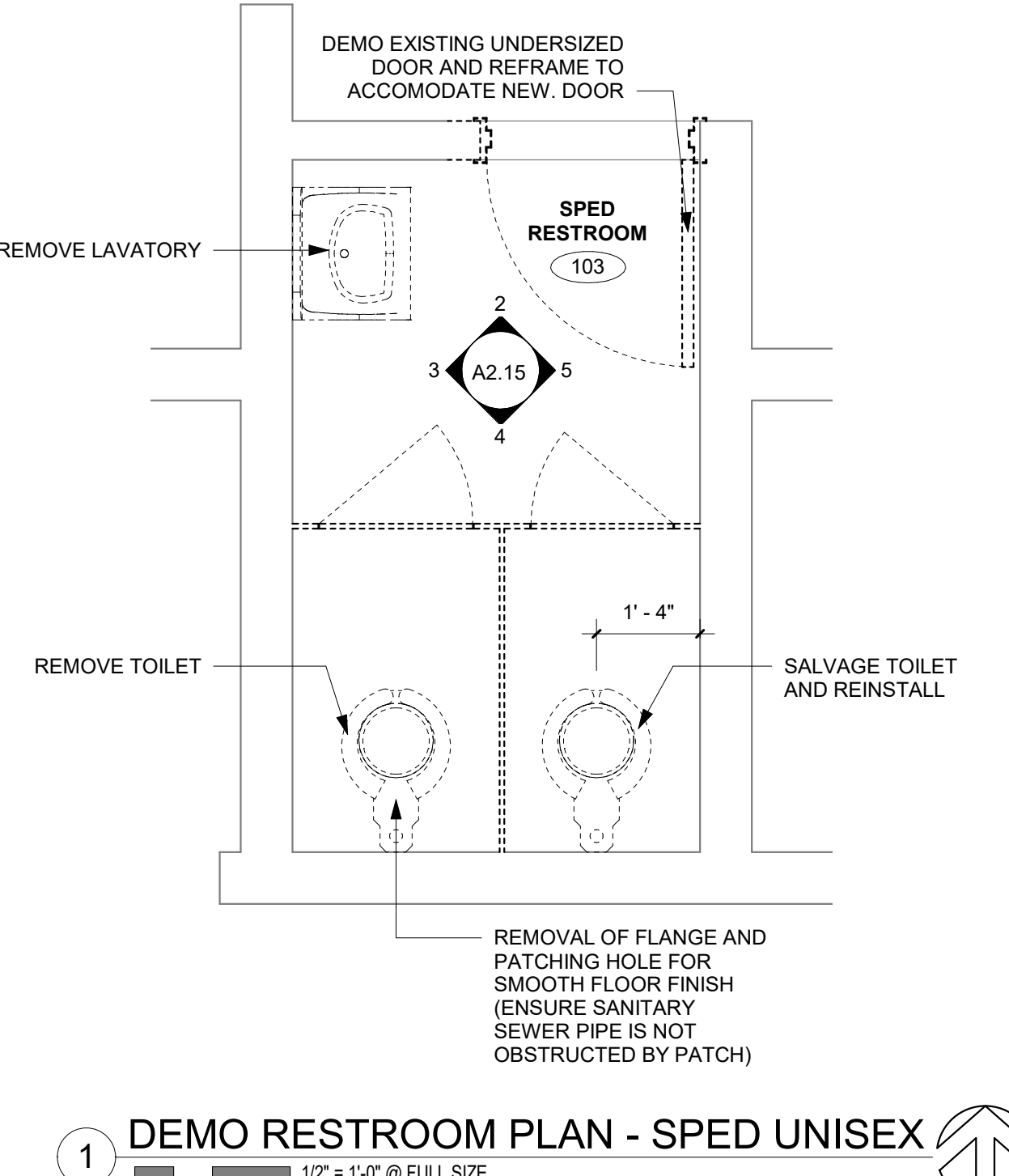
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1 DEMO RESTROOM PLAN - SPED UNISEX

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DRAWING REVISIONS

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Date

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Drawing Title:

SPED RESTROOM PLANS & ELEVATIONS

Date:

SEPTEMBER 11, 2023

Revised:

Drawn By:

Author

Project No.

22140

Sheet No.

A2.15

MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

SAJ

Architecture

BEND / PORTLAND

SAJ ARCHITECTURE



















FINISH KEY SCHEDULE					
Keynote	Mark	Description	Manufacturer	Model	Comments
092900.MRG	MRG	MOISTURE AND MOLD RESISTANT GWB	MOISTURE AND MOLD RESISTANT GYPSUM WALLBOARD		EPOXY PAINT
033600.PC	PC1	POLISHED CONCRETE	BY CONTRACTOR	REFER TO ARCHITECTURAL SPECIFICATIONS FOR PRODUCT INFORMATION	SEE ARCHITECTURAL SPECIFICATION FOR SUBSTRATE AND REQUIREMENTS
099123.PT	PT1	PAINT	BENJAMIN MOORE	1074 ALPACA	MATCH EXISTING "TAN"
099123.PT	PT2	PAINT	BENJAMIN MOORE	POPCORN TC-36	MATCH EXISTING "WHITE"
099513.RB	RB1	6" RUBBER BASE	ROPPE	100 BLACK OR EQ	
123200.SSC	SSC	STAINLESS STEEL COUNTER	STAINLESS STEEL COUNTER		
062023.WT	WT1	WOOD TRIM	BY CONTRACTOR	TRIM BOARD TO BE PAINTED TO MATCH PARTITIONS	3 1/2" TRIM TO MATCH EXISTING

ROOM		FLOOR		BASE	WALLS								CEILING		NOTES
NUMBER	NAME	MATERIAL	FINISH		NORTH		EAST		SOUTH		WEST		MATERIAL	FINISH	
					MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH			
100	LOBBY	(E) CPT	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)		
101	CAFETERIA	(E) WOOD	(E)	WOOD	(E) NEW	WD/AWP	(E)	(E)	(E)	(E)	(E) NEW	WD/AWP	(E)		
102	STORAGE	(E) WOOD	(E)	RB1	(E) NEW	WD/AWP	GW8	PAIN	GW8	PAIN	(E) NEW	WD/AWP	(E)		
103	SPED RESTROOM	(E) CONC	PC1	RB1	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)		
104	NORTH STAFF RR	(E)	PC1	RB1	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)		
105	BOYS NORTH RESTROOM	(E) CONC	PC1	RB1	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)		
106	GIRLS NORTH RESTROOM	(E) CONC	PC1	RB1	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)		
107	UNISEX RESTROOM SOUTH	(E) CONC	PC1	RB1	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)	PAIN	(E)		







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DRAWING REVISIONS

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MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

Drawing Title:  
INTERIOR ELEVATIONS

Date :  
SEPTEMBER 11, 2023

Revised :

Drawn By :  
LCG

Project No.  
22140

Sheet No.  
A5.01

/sāj/

Architecture

BEND / PORTLAND

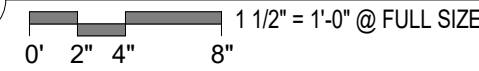
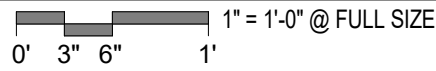
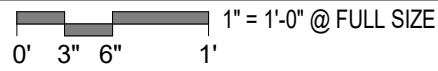




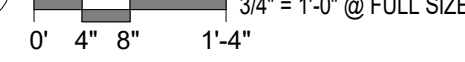
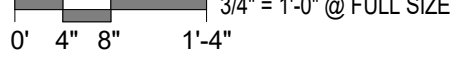
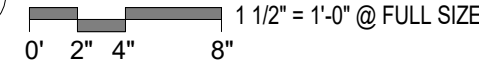
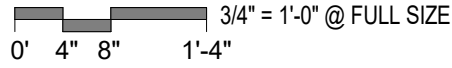








1. ACCESSIBLE REESTROOM SHALL COMPLY WITH ALL ICC A117.1-2009 REQUIREMENTS. NOT ALL REFERENCES ARE CONTAINED HEREIN. THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR FOR PROPER INSTALLATION OF ALL ACCESSIBLE FEATURES AND COMPLIANCE.
2. GRAB BARS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/2" AND HAVE A SPACE BETWEEN THE WALL AND THE GRAB BAR OF 1 1/2".
3. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS
4. ALLOWABLE STRESSED SHALL NOT BE EXCEEDED FOR MATERIALS USED WHERE A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER MOUNTING DEVICE, OR SUPPORTING STRUCTURE.
5. GRAB BARS, AND ANY WALL OR OTHER SURFACES ADJACENT TO GRAB BARS SHALL BE FREE OF SHARP OR ABRASIVE EDGES. EDGES SHALL BE ROUNDED.
6. NEW DOORS SHALL HAVE A CLEAR OPENING OF 32" MINIMUM BETWEEN THE FACE OF THE DOOR AND STOP WITH THE DOOR OPEN 90 DEGREES.
7. PROJECTIONS INTO THE CLEAR OPENING WITHIN BETWEEN 34" AND 80" ABOVE THE FLOOR OR FINISHED GRADE WITH NO PROJECTIONS ALLOWED BELOW 34"
8. MINIMUM MANEUVERING CLEARANCES SHALL BE 48" MINIMUM FOR SECTION 404.2.3 AND PER DIAGRAMS ON SHEET A7.30.
9. WHERE DOOR THRESHOLDS ARE PROVIDED, SAID THRESHOLDS SHALL NOT EXCEED 1/2" IN HEIGHT.
10. DOOR OPENING FORCE FOR PULLING OR PUSHING SHALL NOT EXCEED 5.0 POUNDS.
11. ON FLOOR SURFACES WITHIN 10' OF THE FLOOR SHALL BE A SMOOTH SURFACE AND COMPLY WITH SECTION 404.2.9



**MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS**

JEFFERSON COUNTY SCHOOL DISTRICT  
(509J)

**BID SET**

SAJ ARCHITECTURE



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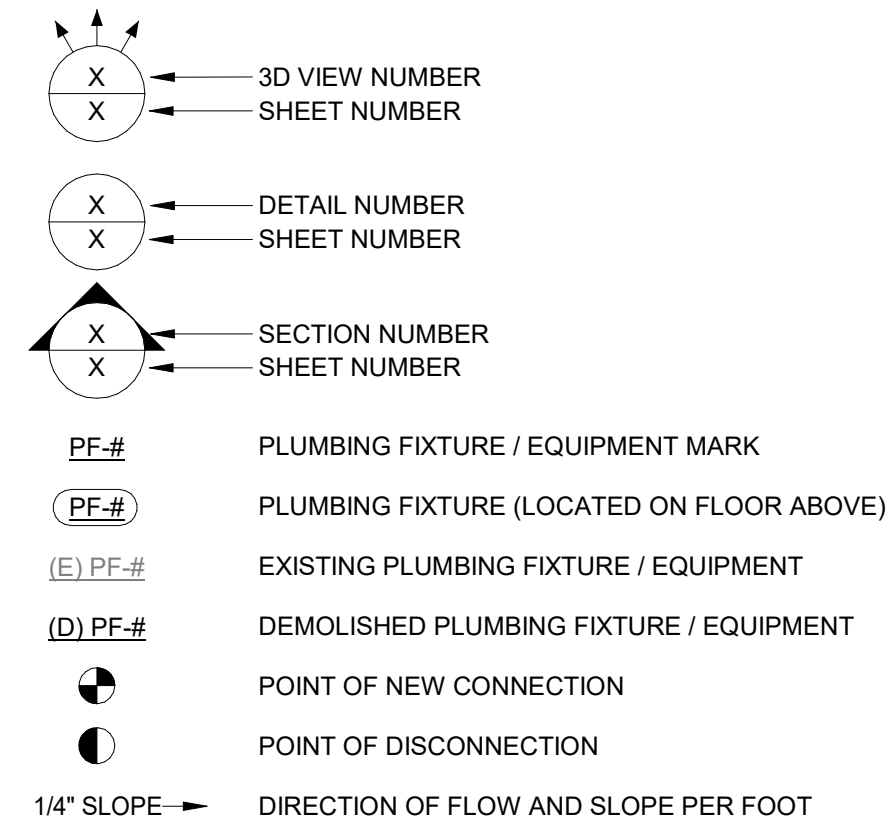
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ABBREVIATIONS

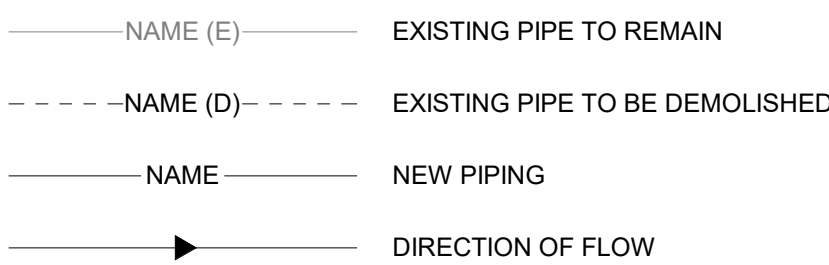
ACC	AIR COOLED CONDENSER	ID	INSIDE DIAMETER
ACU	AIR CONDITIONING UNIT	IFB	INTEGRAL FACE & BYPASS
AD	ACCESS DOOR	IGV	INLET GUIDE VANES
ADJ	ADJUSTABLE	IPS	IRON PIPE SIZE
AF	AIR FOIL	IU	INDUCTION UNIT
AFF	ABOVE FINISHED FLOOR	KW	KILOWATTS
AFG	ABOVE FINISHED GRADE	KWH	KILOWATT HOUR
AFR	ABOVE FINISHED ROOF		
AFS	AIR FLOW STATION	LAT	LEAVING AIR TEMPERATURE (°F)
AHU	AIR HANDLING UNIT	LF	LINEAR FEET
AP	ACCESS PANEL	LWT	LEAVING WATER TEMPERATURE (°F)
ATC	AUTOMATIC TEMPERATURE CONTROL		
ATM	ATMOSPHERE	M	MOTOR OPERATED
AWG	AMERICAN WIRE GAUGE	MAU	MAKEUP AIR UNIT
		MB	MIXING BOX
B	BOILER	MBH	1000 BTU/HR
BB	BASEBOARD	MC	MECHANICAL CONTRACTOR
BC	BACKWARD CURVED	MFR	MANUFACTURER
BD	BACKDRAFT DAMPER	MS	MINI-SPLIT
BF	BOILER FEED		
BHP	BRAKE HORSEPOWER	NC	NOISE CRITERIA
BI	BACKWARD INCLINED	NC	NORMALLY CLOSED
BMS	BUILDING MANAGEMENT SYSTEM	NC	NOT IN CONTRACT
BOD	BOTTOM OF DUCT	NO	NORMALLY OPEN
BOJ	BOTTOM OF JOIST	NPS	NOMINAL PIPE SIZE
BOS	BOTTOM OF STEEL		
BTU	BRITISH THERMAL UNIT	OA	OUTSIDE AIR
		OAD	OUTSIDE AIR DAMPER
C	COMMON	OBD	OPPOSED BLADE DAMPER
CAV	CONSTANT AIR VOLUME		
CC	COOLING COIL	P	PUMP
CCW	COUNTER CLOCKWISE	PC	PLUMBING CONTRACTOR
CFM	CUBIC FEET PER MINUTE	PD	PRESSURE DROP
CH	CHILLER	PH	PHASE
C&I	CONTROLS & INSTRUMENTATION	PHC	PREHEAT COIL
CLG	CEILING	PPM	PART PER MILLION
CMU	CONCRETE MASONRY UNIT	PROP	PROPELLER
CND	CONDENSATE	PRV	PRESSURE REDUCING VALVE
COR	CONTINUATION	PSIA	PSI, ABSOLUTE
CORR	CORRIDOR	PSIG	PSI, GAUGE
CT	COOLING TOWER	QTY	QUANTITY
CU	CONDENSING UNIT		
CH	CABINET HEATER	R	REGISTER
CV	CONTROL VALVE	RA	RETURN AIR
CVS	CONTROL VALVE STATION	RD	RADIAL DAMPER
CW	CLOCKWISE	RF	RETURN/RELIEF AIR FAN
		RH	RELATIVE HUMIDITY
dB	DECIBEL	RHC	REHEAT COIL
DB	DRY BULB TEMPERATURE (°F)		
DDC	DIRECT DIGITAL CONTROL	SA	SUPPLY AIR
DH	DUCT HEATER	SAF	SUPPLY AIR FAN
DP	DEW POINT TEMPERATURE (°F)	SC	SENSIBLE COOLER
DX	DIRECT EXPANSION	SCFM	CFM, STANDARD CONDITIONS
		SD	SMOKE DETECTOR
E	EXHAUST	SEER	SEASONAL ENERGY EFFICIENCY RATIO
EA	EXHAUST AIR	SENS	SENSIBLE
EAT	ENTERING AIR TEMPERATURE (°F)	SP	STATIC PRESSURE
EC	ELECTRICAL CONTRACTOR	SPS	STATIC PRESSURE SENSOR
EDR	EQUIVALENT DIRECT RADIATION	SS	STAINLESS STEEL
EER	ENERGY EFFICIENCY RATIO		
EF	EXHAUST FAN	T	THERMOSTAT
EFF	EFFICIENCY	TA	TRANSFER AIR
ELEV	ELEVATION	TCC	TEMPERATURE CONTROL CONTRACTOR
ERV	ENERGY RECOVERY VENTILATOR	TCP	TEMPERATURE CONTROL PANEL
ESP	EXTERNAL STATIC PRESSURE	TG	TRANSFER GRILL
ET	EXPANSION TANK	TOD	TOP OF DUCT
EWT	ENTERING WATER TEMPERATURE (°F)	TOP	TOP OF PIPE
		TOS	TOP OF STEEL
F&T	FLOAT & THERMOSTATIC	TSP	TOTAL STATIC PRESSURE
FA	FACE AREA	TYP	TYPICAL
FC	FORWARD CURVED		
FC	FAN COIL	UH	UNIT HEATER
FP	FIRE PROTECTION	UNC	UNDERCUT
FBM	FEET PER MINUTE	UV	UNIT VENTILATOR
FT	FEET		
		VA	VOLT-AMPERE
GA	GAUGE OR GAGE	VAV	VARIABLE AIR VOLUME
GC	GENERAL CONTRACTOR	VD	VOLUME DAMPER
GEN	GENERATOR	VEL	VELOCITY
GH	GRAVITY HOOD	VFD	VARIABLE FREQUENCY DRIVE
GPD	GALLONS PER DAY	VRF	VARIABLE REFRIGERANT FLOW
GPH	GALLONS PER HOUR		
GPM	GALLONS PER MINUTE	WB	WET BULB TEMPERATURE (°F)
		WC	WATER COLUMN
H	HUMIDIFIER	WG	WATER GAUGE
HC	HEATING COIL	WSHP	WATER SOURCE HEAT PUMP
HG	MERCURY		
HOA	HAND-OFF-AUTOMATIC	ΔT	TEMPERATURE DIFFERENCE (°F)
HP	HORSEPOWER		
HR	HOUR		
HX	HEAT EXCHANGER		

PLUMBING LEGEND

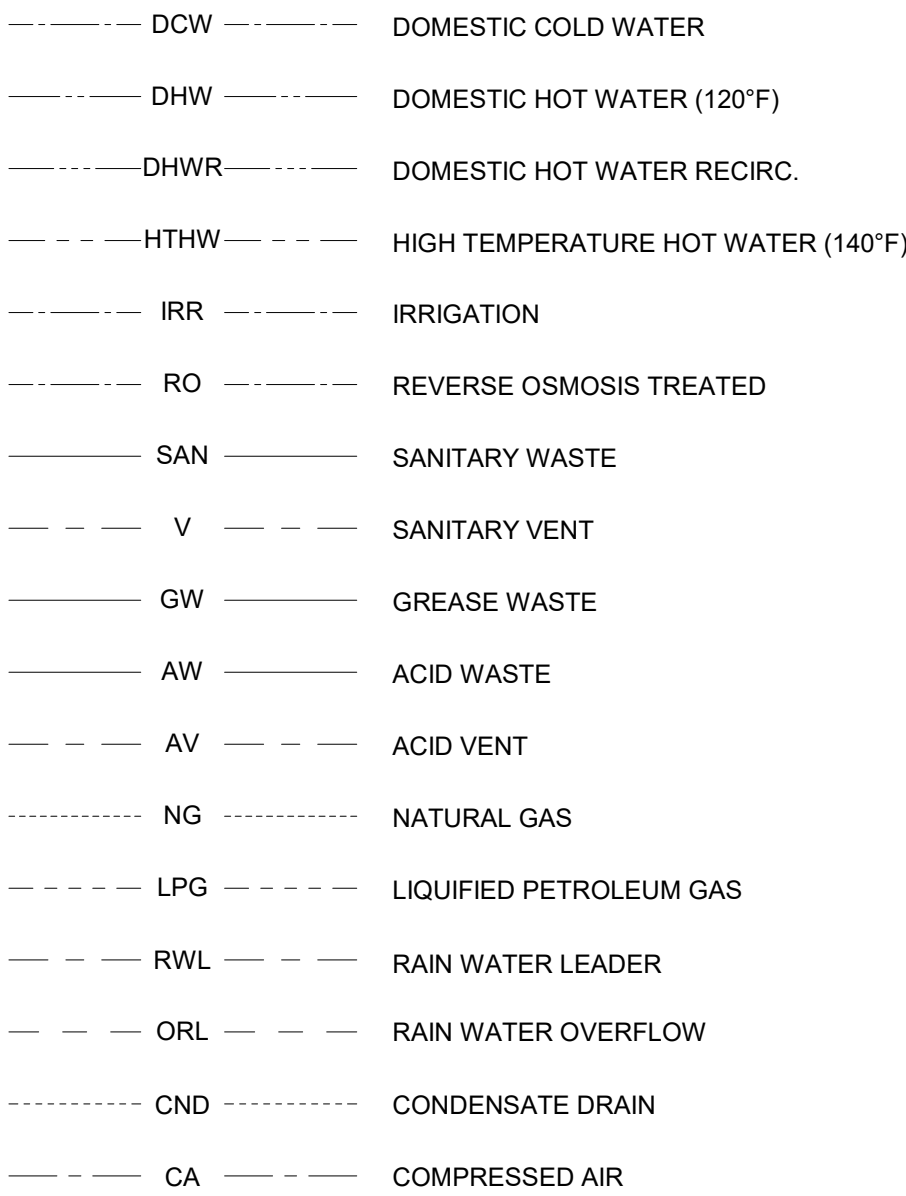
ANNOTATION SYMBOLS



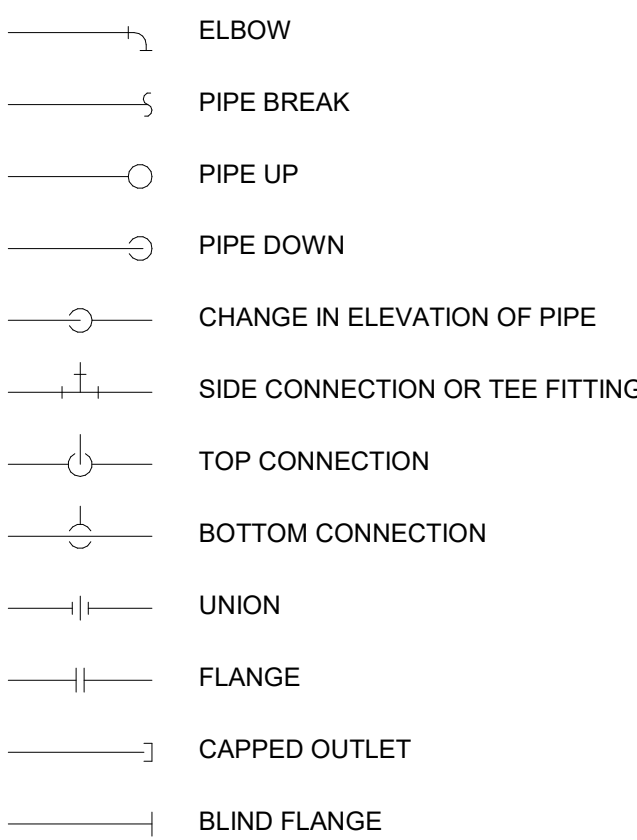
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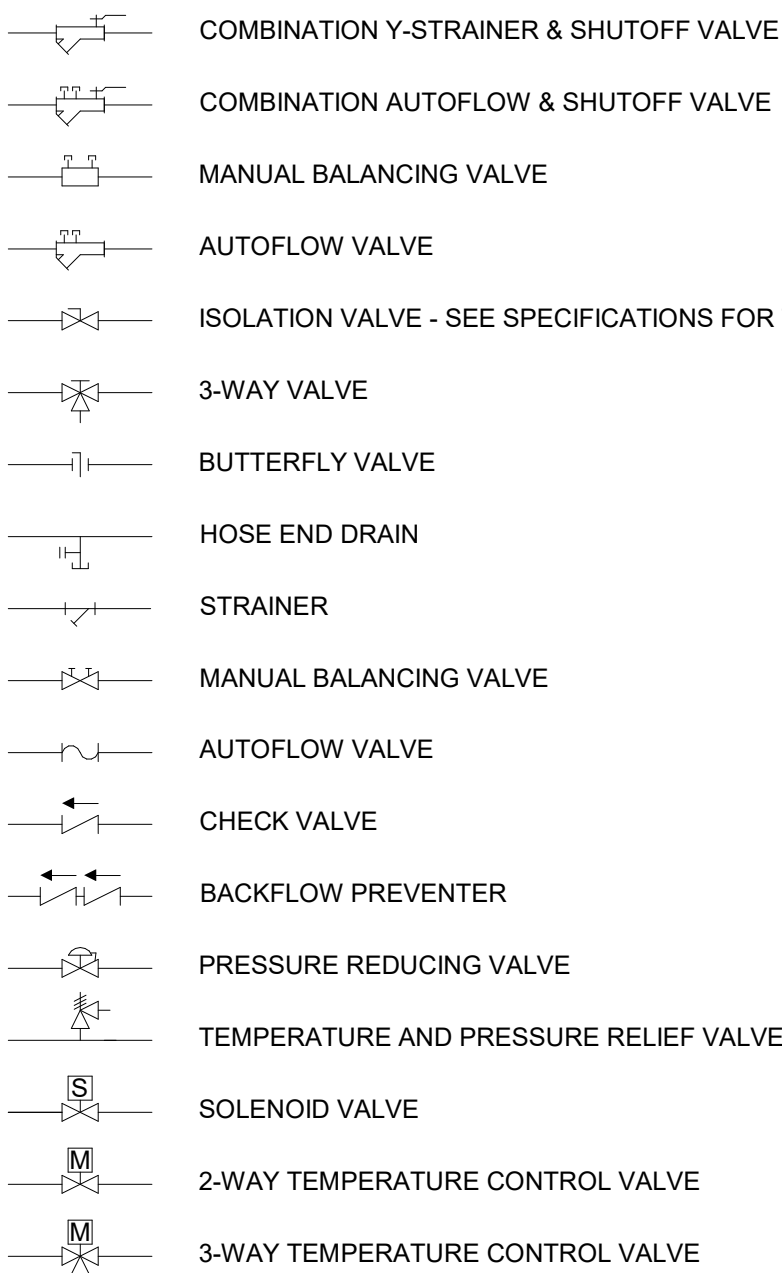
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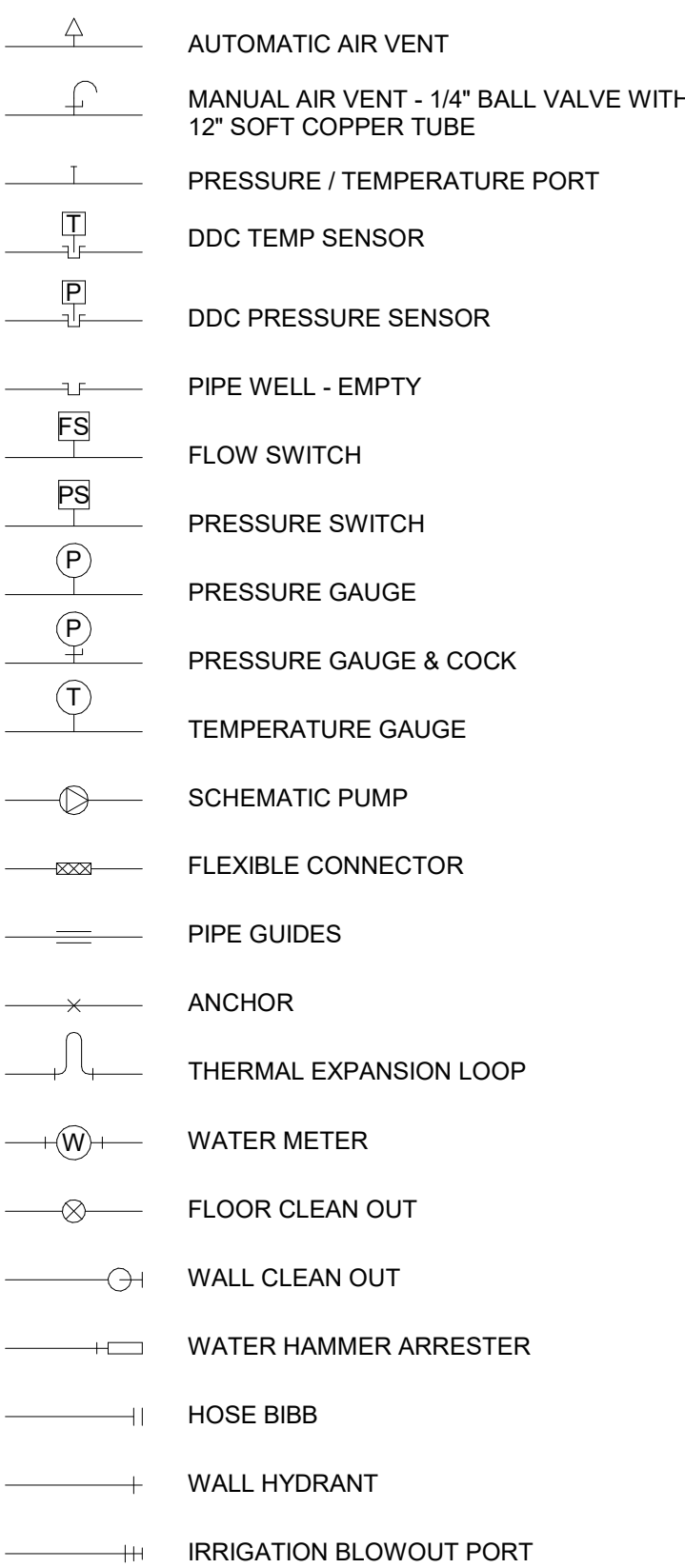
PIPE FITTINGS



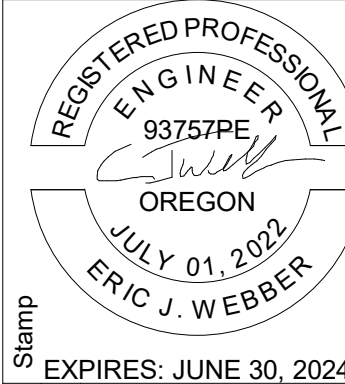
VALVES



PIPING SPECIALTIES



NOTE: THIS IS A STANDARD LEGEND. NOT ALL PIPE TYPES AND SYMBOLS ARE NECESSARILY UTILIZED IN THE DRAWINGS.



DRAWING REVISIONS

#	Date	Description

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS  
JEFFERSON COUNTY SCHOOL DISTRICT  
(509J)  
BID SET

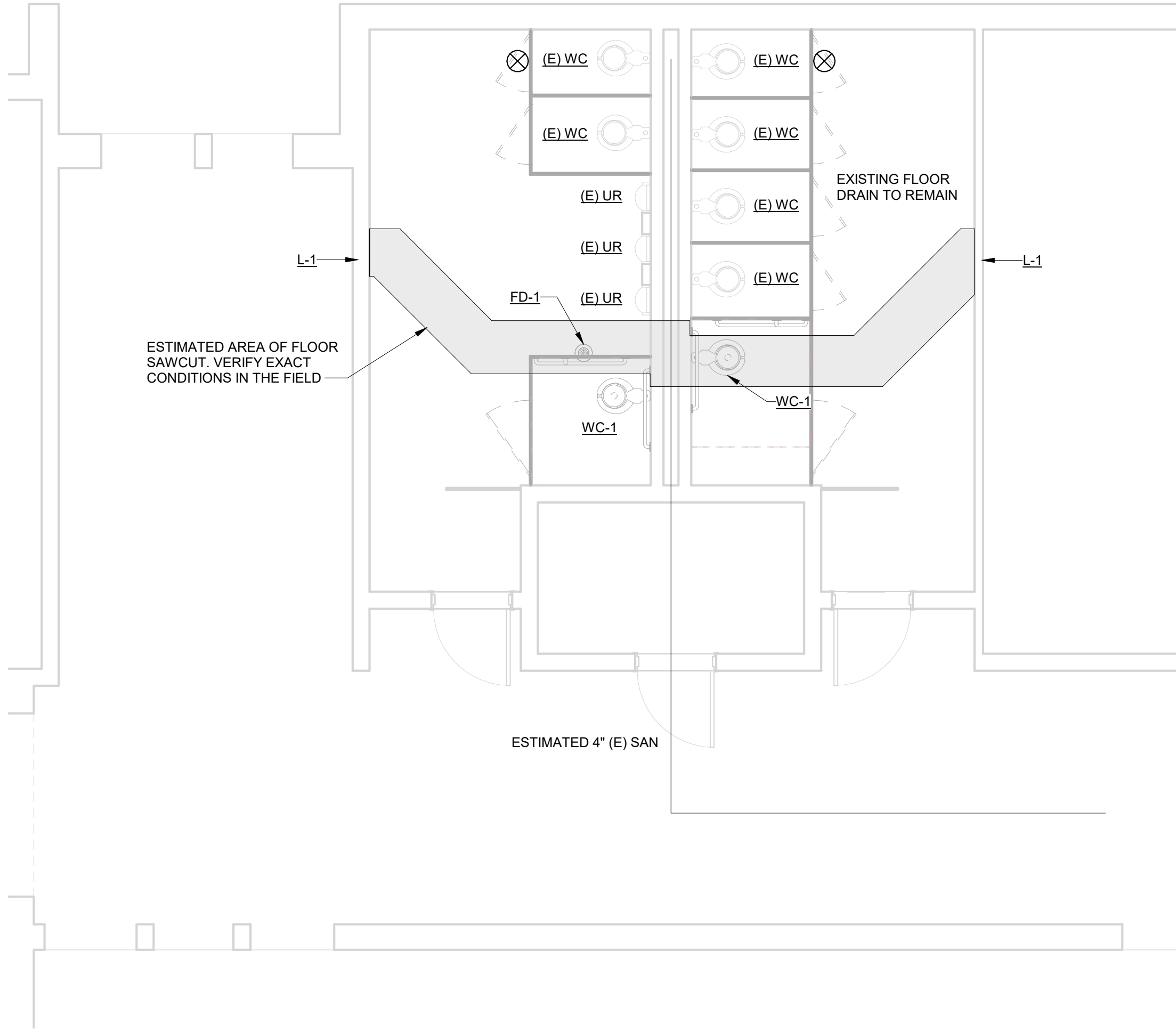
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Date:	SEPTEMBER 11, 2023
Revised:	
Drawn By:	Author
Project No.	22140





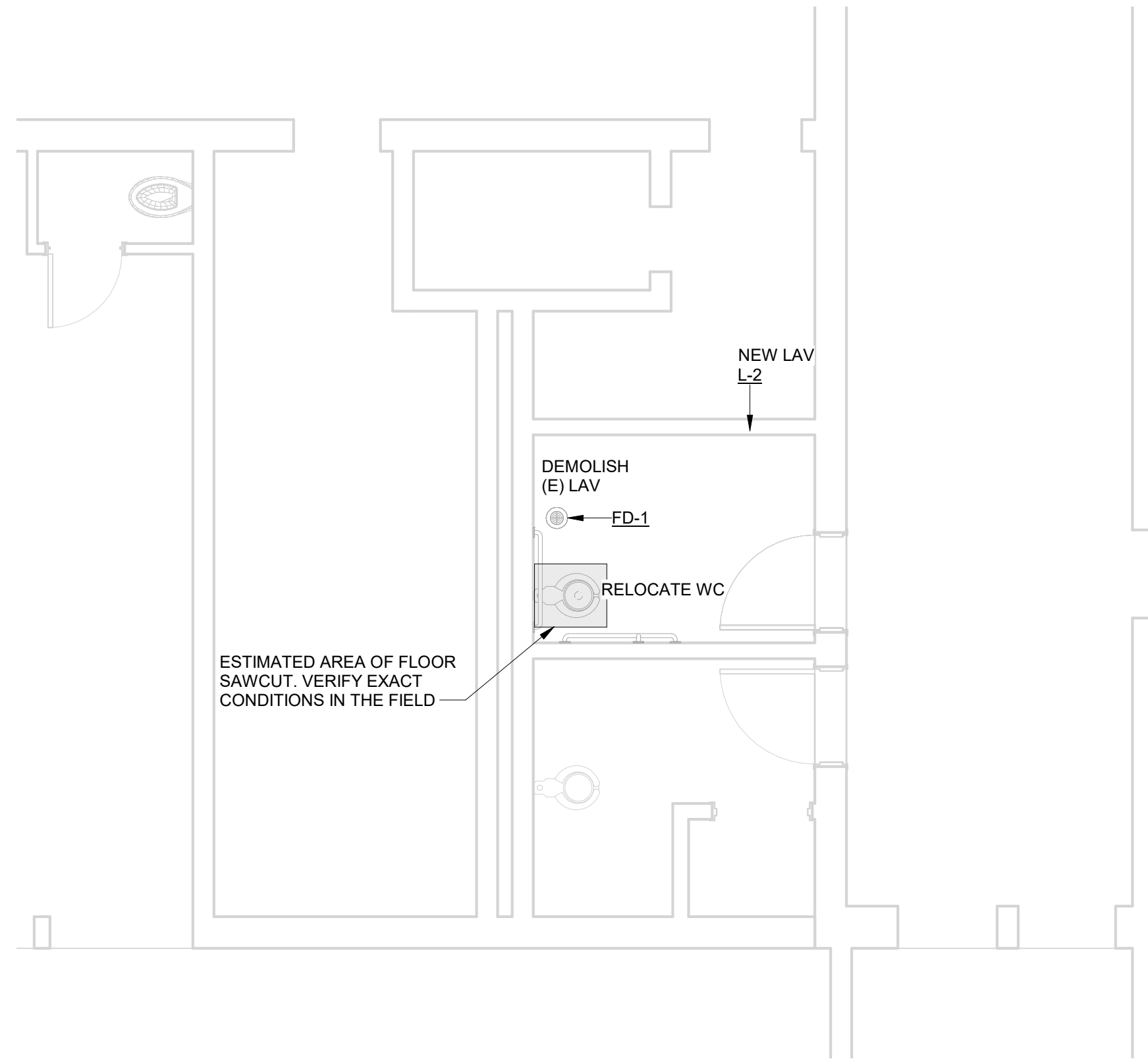


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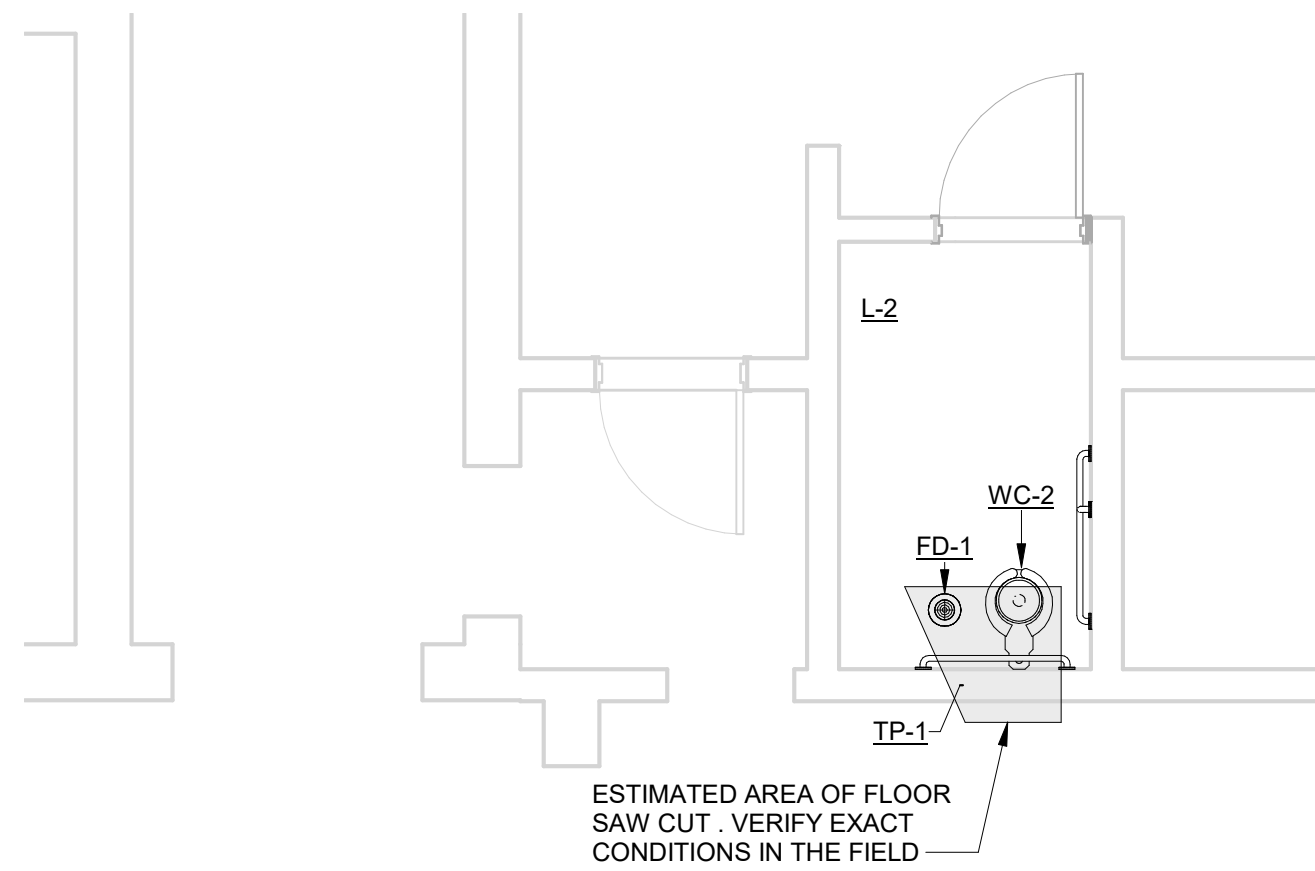
1 PLUMBING NORTH BATH FLOOR PLAN - BID ALTERNATE #2  
1/4" = 1'-0"

- SCOPE OF WORK:
- DEMOLISH (2) EXISTING LAVATORIES IN EACH OF TWO BATHROOMS.
  - PROVIDE NEW ADA WALL MOUNT FLUSH VALVE WATER CLOSET AND TOILET SEAT, WATER CLOSET TO HAVE BATTERY OPERATED SENSOR FLUSH.
  - PROVIDE NEW 2" FLOOR DRAIN FD-1 IN BOYS BATHROOM ONLY. ROUTE 2" SANITARY WASTE TO CONNECT TO EXISTING. 4" SANITARY WASTE LINE TO BE MAXIMUM 6 FEET LONG, OR PROVIDE 1-1/2" VENT PIPE TO ROUTE TO CONNECT TO EXISTING IN WALL.
  - MODIFY WATER SUPPLY, SANITARY WASTE AND VENT CONNECTIONS.
  - PROVIDE NEW WALL MOUNT ADA 3-POSITION LAVATORY WITH NEW FAUCETS AND FITTINGS.
  - REROUTE ALL PLUMBING AS REQUIRED FOR CONNECTION TO NEW FIXTURE LOCATIONS.



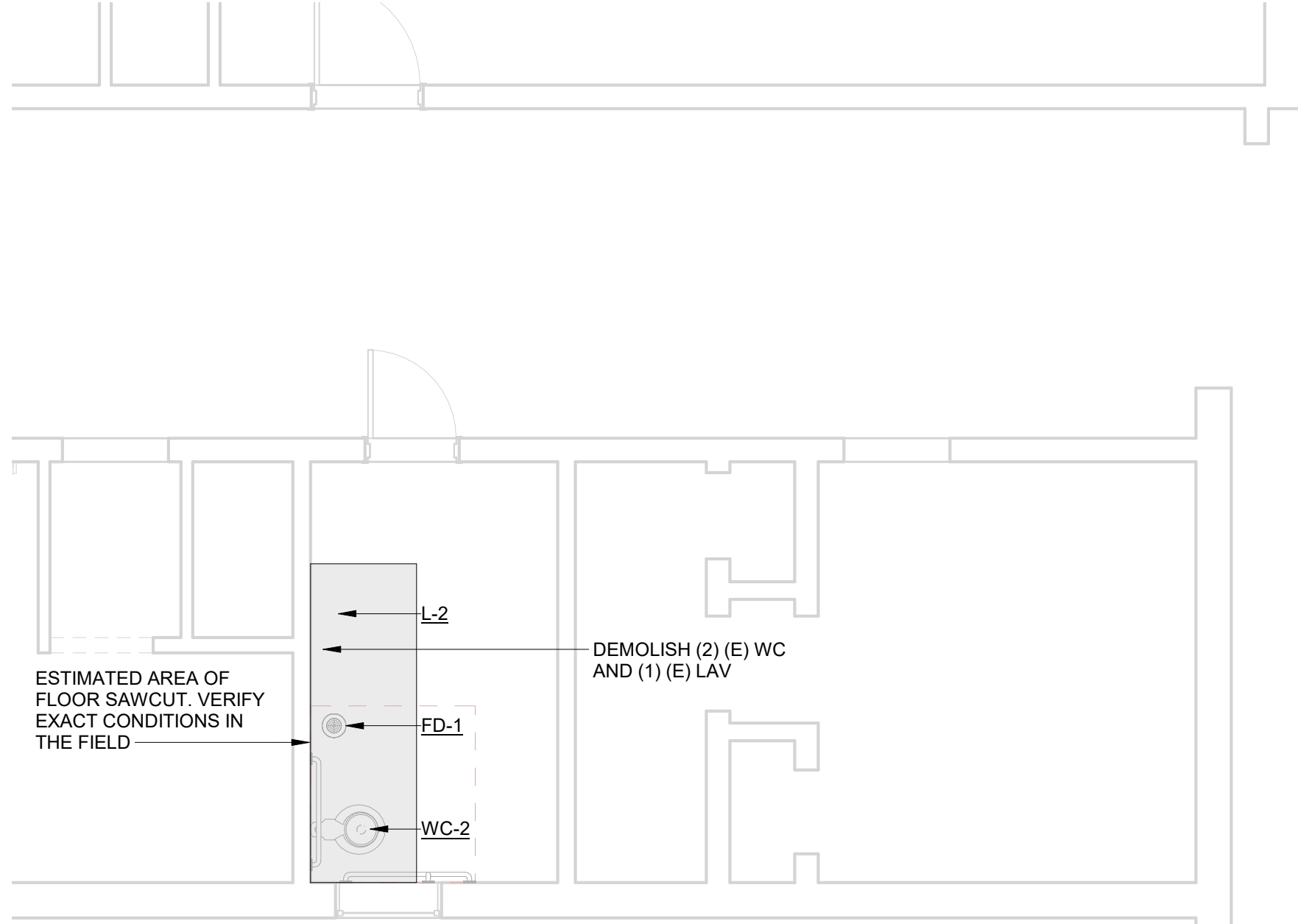
2 PLUMBING SOUTH ADA BATH FLOOR PLAN - BID ALTERNATE #2  
1/4" = 1'-0"

- SCOPE OF WORK:
- REMOVE (1) EXISTING FLOOR MOUNT FLUSH TANK WC, AND RELOCATE TO COMPLY WITH ADA REQUIREMENTS. SEE ARCHITECTURAL PLANS.
  - PROVIDE NEW TOILET SEAT TO RAISE HEIGHT TO ADA REQUIREMENTS.
  - PROVIDE NEW 2" FLOOR DRAIN FD-1. ROUTE 2" SANITARY WASTE TO CONNECT TO EXISTING. 2" SANITARY WASTE LINE TO BE MAXIMUM 6 FEET LONG, OR PROVIDE 1-1/2" VENT PIPE TO ROUTE TO CONNECT TO EXISTING IN WALL.
  - MODIFY WATER SUPPLY, SANITARY WASTE AND VENT CONNECTIONS.
  - PROVIDE NEW WALL MOUNT ADA LAVATORY L-2 WITH NEW FAUCET AND FITTINGS. ROUTE 2" SAN FROM NEW LAVATORY, IN WALL TO WEST PLUMBING CHASE.
  - REROUTE ALL PLUMBING AS REQUIRED FOR CONNECTION TO NEW FIXTURE LOCATIONS.



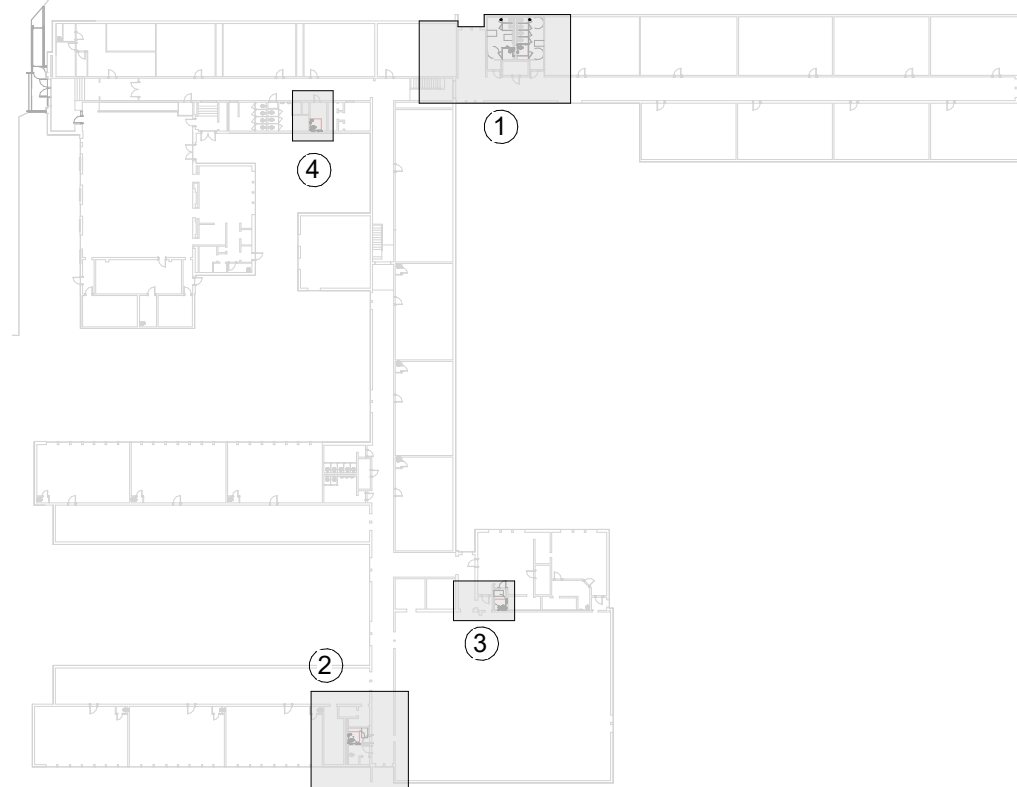
3 PLUMBING SPED UNISEX ADA BATH FLOOR PLAN - BASE BID  
1/4" = 1'-0"

- SCOPE OF WORK:
- DEMOLISH (2) EXISTING FLOOR MOUNTED WATER CLOSETS ON SOUTH WALL. VERIFY EXACT LOCATION IN THE FIELD.
  - PROVIDE (1) NEW FLOOR MOUNT FLUSH VALVE ADA WATER CLOSET AND SEAT, WC-1 TO HAVE BATTERY POWERED SENSOR FLUSH. DISCONNECT EXISTING TOILET FLANGE AND LOCATE 2" TO SIDE AS SHOWN ON ARCHITECTURAL PLANS.
  - PROVIDE NEW 2" FLOOR DRAIN FD-1. ROUTE 2" SANITARY WASTE TO CONNECT TO EXISTING. 2" SANITARY WASTE LINE TO BE MAXIMUM 6 FEET LONG, OR PROVIDE 1-1/2" VENT PIPE TO ROUTE TO CONNECT TO EXISTING IN WALL.
  - MODIFY WATER SUPPLY, SANITARY WASTE AND VENT CONNECTIONS.
  - PROVIDE NEW WALL MOUNT ADA LAV AND FAUCET L-2.
  - REROUTE ALL PLUMBING AS REQUIRED FOR CONNECTION TO NEW FIXTURE LOCATIONS.
  - RELOCATE EXISTING SURFACE MOUNTED DCW PIPING INTO SOUTH WALL OF BATHROOM.



4 PLUMBING UNISEX ADA BATHROOM FLOOR PLAN - BASE BID  
N.T.S.

- SCOPE OF WORK:
- DEMOLISH (2) EXISTING FLOOR MOUNTED WATER CLOSETS ON WEST WALL. VERIFY EXACT LOCATION IN THE FIELD.
  - PROVIDE (1) NEW FLOOR MOUNT FLUSH VALVE ADA WATER CLOSET AND SEAT, WC-1 TO HAVE BATTERY POWERED SENSOR FLUSH. DISCONNECT EXISTING TOILET FLANGE AND LOCATE AS SHOWN ON ARCHITECTURAL PLANS.
  - PROVIDE NEW 2" FLOOR DRAIN FD-1. ROUTE 2" SANITARY WASTE TO CONNECT TO EXISTING. 2" SANITARY WASTE LINE TO BE MAXIMUM 6 FEET LONG, OR PROVIDE 1-1/2" VENT PIPE TO ROUTE TO CONNECT TO EXISTING IN WALL.
  - MODIFY WATER SUPPLY, SANITARY WASTE AND VENT CONNECTIONS.
  - PROVIDE NEW WALL MOUNT ADA LAV AND FAUCET L-2.
  - REROUTE ALL PLUMBING AS REQUIRED FOR CONNECTION TO NEW FIXTURE LOCATIONS.
  - RELOCATE EXISTING SURFACE MOUNTED DCW PIPING INTO SOUTH WALL OF BATHROOM.



KEY PLAN



A

B

C

D

ABBREVIATIONS					
ACC	AIR COOLED CONDENSER	ID	INSIDE DIAMETER		
ACU	AIR CONDITIONING UNIT	IFB	INTEGRAL FACE & BYPASS		
AD	ACCESS DOOR	IGV	INLET GUIDE VANES		
ADJ	ADJUSTABLE	IPS	IRON PIPE SIZE		
AF	AIR FOIL	IU	INDUCTION UNIT		
AFB	ABOVE FINISHED FLOOR	KW	KILOWATTS		
AFG	ABOVE FINISHED GRADE	KWH	KILOWATT HOUR		
AFR	ABOVE FINISHED ROOF				
AFS	AIR FLOW STATION				
AHU	AIR HANDLING UNIT	LAT	LEAVING AIR TEMPERATURE (°F)		
AP	ACCESS PANEL	LF	LINEAR FEET		
ATC	AUTOMATIC TEMPERATURE CONTROL	LWT	LEAVING WATER TEMPERATURE (°F)		
ATM	ATMOSPHERE				
AWG	AMERICAN WIRE GAUGE	M	MOTOR OPERATED		
		MAU	MAKEUP AIR UNIT		
B	BOILER	MB	MIXING BOX		
BB	BASEBOARD	MBD	MANUAL BALANCING DAMPER		
BC	BACKWARD CURVED	MBH	1000 BTU/HR		
BD	BACKDRAFT DAMPER	MC	MECHANICAL CONTRACTOR		
BF	BOILER FEED	MFR	MANUFACTURER		
BHP	BRAKE HORSEPOWER	MS	MINI-SPLIT		
BI	BACKWARD INCLINED				
BMS	BUILDING MANAGEMENT SYSTEM	NC	NOISE CRITERIA		
BOD	BOTTOM OF DUCT	NC	NORMALLY CLOSED		
BOJ	BOTTOM OF JOIST	NC	NOT IN CONTRACT		
BOS	BOTTOM OF STEEL	NO	NORMALLY OPEN		
BTU	BRITISH THERMAL UNIT	NPS	NOMINAL PIPE SIZE		
C	COMMON	OA	OUTSIDE AIR		
CAV	CONSTANT AIR VOLUME	OAD	OUTSIDE AIR DAMPER		
CC	COOLING COIL	OBD	OPPOSED BLADE DAMPER		
CCW	COUNTER CLOCKWISE				
CFM	CUBIC FEET PER MINUTE	P	PUMP		
CH	CHILLER	PC	PLUMBING CONTRACTOR		
C&I	CONTROLS & INSTRUMENTATION	PD	PRESSURE DROP		
CLG	CEILING	PH	PHASE		
CMU	CONCRETE MASONRY UNIT	PHC	PREHEAT COIL		
CND	CONDENSATE	PPM	PART PER MILLION		
CONT	CONTINUATION	PROP	PROPELLER		
CORR	CORRIDOR	PRV	PRESSURE REDUCING VALVE		
CT	COOLING TOWER	PSIA	PSI, ABSOLUTE		
CU	CONDENSING UNIT	PSIG	PSI, GAUGE		
CH	CABINET HEATER	QTY	QUANTITY		
CV	CONTROL VALVE				
CVS	CONTROL VALVE STATION	R	REGISTER		
CW	CLOCKWISE	RA	RETURN AIR		
		RD	RADIAL DAMPER		
dB	DECIBEL	RF	RETURN/RELIEF AIR FAN		
dB	DRY BULB TEMPERATURE (°F)	RH	RELATIVE HUMIDITY		
DDC	DIRECT DIGITAL CONTROL	RHC	REHEAT COIL		
DH	DUCT HEATER				
DP	DEW POINT TEMPERATURE (°F)	SA	SUPPLY AIR		
DX	DIRECT EXPANSION	SAF	SUPPLY AIR FAN		
		SC	SENSIBLE COOLER		
E	EXHAUST	SCFM	CFM, STANDARD CONDITIONS		
EA	EXHAUST AIR	SD	SMOKE DETECTOR		
EAT	ENTERING AIR TEMPERATURE (°F)	SEER	SEASONAL ENERGY EFFICIENCY RATIO		
EC	ELECTRICAL CONTRACTOR	SENS	SENSIBLE		
EDR	EQUIVALENT DIRECT RADIATION	SP	STATIC PRESSURE		
EER	ENERGY EFFICIENCY RATIO	SPS	STATIC PRESSURE SENSOR		
EF	EXHAUST FAN	SS	STAINLESS STEEL		
EFF	EFFICIENCY				
ELEV	ELEVATION	T	THERMOSTAT		
ERV	ENERGY RECOVERY VENTILATOR	TA	TRANSFER AIR		
ESP	EXTERNAL STATIC PRESSURE	TCC	TEMPERATURE CONTROL CONTRACTOR		
ET	EXPANSION TANK	TCP	TEMPERATURE CONTROL PANEL		
EW	ENTERING WATER TEMPERATURE (°F)	TG	TRANSFER GRILL		
		TOD	TOP OF DUCT		
F&T	FLOAT & THERMOSTATIC	TOP	TOP OF PIPE		
FA	FACE AREA	TOS	TOP OF STEEL		
FC	FORWARD CURVED	TSP	TOTAL STATIC PRESSURE		
FC	FAN COIL	TYP	TYPICAL		
FP	FIRE PROTECTION				
FPM	FEET PER MINUTE	UH	UNIT HEATER		
FT	FEET	UNC	UNDERCUT		
		UV	UNIT VENTILATOR		
GA	GAUGE OR GAGE	VA	VOLT-AMPERE		
GC	GENERAL CONTRACTOR	VAV	VARIABLE AIR VOLUME		
GEN	GENERATOR	VD	VOLUME DAMPER		
GH	GRAVITY HOOD	VEL	VELOCITY		
GPD	GALLONS PER DAY	VFD	VARIABLE FREQUENCY DRIVE		
GPH	GALLONS PER HOUR	VRF	VARIABLE REFRIGERANT FLOW		
GPM	GALLONS PER MINUTE				
		WB	WET BULB TEMPERATURE (°F)		
H	HUMIDIFIER	WC	WATER COLUMN		
HC	HEATING COIL	WG	WATER GAUGE		
HG	MERCURY	WSP	WATER SOURCE HEAT PUMP		
HOA	HAND-OFF AUTOMATIC	ΔT	TEMPERATURE DIFFERENCE (°F)		
HP	HORSEPOWER				
HR	HOUR				
HX	HEAT EXCHANGER				

MECHANICAL LEGEND	
<b>ANNOTATION SYMBOLS</b>	
	3D VIEW NUMBER SHEET NUMBER
	DETAIL NUMBER SHEET NUMBER
	SECTION NUMBER SHEET NUMBER
	AIR DEVICE MARK AND CFM
	AIR DEVICE MARK AND CFM - PROVIDE OPPOSED BLADE DAMPER
	AIR DEVICE MARK AND CFM - PROVIDE RADIAL DAMPER
	MECHANICAL EQUIPMENT MARK
	EXISTING MECHANICAL EQUIPMENT
	DEMOLISHED MECHANICAL EQUIPMENT
	POINT OF NEW CONNECTION
	POINT OF DISCONNECTION
<b>HVAC CONTROL SYMBOLS</b>	
	DDC THERMOSTAT
	ZONED THERMOSTAT
	ZONED THERMOSTAT - MASTER
	THERMOSTAT W/ LOCKABLE COVER
	WALL SWITCH
	HUMIDISTAT
	ROOM TEMPERATURE SENSOR
	ADJUSTABLE ROOM TEMPERATURE SENSOR
	COMBO ROOM TEMPERATURE & CO2 SENSOR
	ADJUSTABLE COMBO ROOM TEMP & CO2 SENSOR
	ROOM HUMIDITY SENSOR
	ROOM CO2 SENSOR
	BUILDING PRESSURE SENSOR
	STATIC PRESSURE SENSOR
	DIFFERENTIAL PRESSURE SENSOR
	CARBON MONOXIDE / NITRIC OXIDE SENSOR
<small>NOTE: THIS IS A STANDARD LEGEND. NOT ALL PIPE TYPES AND SYMBOLS ARE NECESSARILY UTILIZED IN THE DRAWINGS.</small>	
<b>HVAC DUCTWORK</b>	
	RECTANGULAR DUCT WIDTH x DEPTH
	ROUND DUCT DIAMETER
	OVAL DUCT WIDTH/DEPTH
	FLEXIBLE DUCT DIAMETER
	FLOOR/CEILING SUPPLY DIFFUSER
	FLOOR/CEILING RETURN GRILLE
	FLOOR/CEILING EXHAUST GRILLE
	SIDEWALL SUPPLY DIFFUSER
	SIDEWALL RETURN/EXHAUST GRILLE
	SUPPLY DUCT (SECTION VIEW)
	RETURN DUCT (SECTION VIEW)
	EXHAUST DUCT (SECTION VIEW)
	OUTDOOR AIR DUCT (SECTION VIEW)
	DUCT UP (PLAN VIEW)
	DUCT DOWN (PLAN VIEW)
	INCLINED RISE - IN DIRECTION OF AIRFLOW
	INCLINED DROP - IN DIRECTION OF AIRFLOW
	INTERNAL DUCT LINING
	ELBOW WITH TURNING VANES
	RADIUS ELBOW
	MANUAL VOLUME DAMPER
	REMOTE VOLUME DAMPER
	BACKDRAFT DAMPER
	ZONE DAMPER
	BYPASS DAMPER
	MOTORIZED DAMPER
	FIRE DAMPER
	FIRE/SMOKE DAMPER
	SMOKE DAMPER

MECH. GENERAL NOTES	
<b>INSTALLATION:</b>	
A. NEW PIPING, DUCTWORK AND EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE CURRENTLY ADOPTED INTERNATIONAL MECHANICAL AND INTERNATIONAL BUILDING CODES.	
B. EQUIPMENT SHALL BE INSTALLED LEVEL, PLUMB, AND FIRMLY ANCHORED IN LOCATIONS INDICATED ON PLAN. OBSERVE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PRODUCTS SERVE THEIR INTENDED FUNCTION.	
C. INSTALL EQUIPMENT, DUCTWORK, AND PIPING SO AS TO MAINTAIN CODE REQUIRED CLEARANCES FOR ELECTRICAL AND TELECOMMUNICATION EQUIPMENT.	
D. ELEMENTS PENETRATING BUILDING COMPONENTS (ROOF ASSEMBLIES, WALL ASSEMBLIES, ETC.) SHALL BE SEALED WEATHER AND WATER TIGHT. COORDINATE PENETRATIONS WITH GENERAL CONTRACTOR TO PATCH TO THE SATISFACTION OF THE ARCHITECT OR ENGINEER.	
<b>COORDINATION:</b>	
A. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO FIELD COORDINATE THE LOCATION OF EQUIPMENT, ROUTING OF DUCTWORK, AND ROUTING OF PIPING WITH OTHER TRADES.	
B. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO REVIEW THE DRAWINGS OF OTHER DISCIPLINES AND PROVIDE THE NECESSARY LABOR AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.	
C. COORDINATE THE INSTALLATION OF GRILLES, REGISTERS AND DIFFUSERS WITH THE ARCHITECTURAL REFLECTED CEILING PLANS, THE ELECTRICAL LIGHTING PLANS, AND IF RELEVANT, THE TELECOMMUNICATION AND FIRE SPRINKLER PLANS.	
<b>ELECTRICAL COORDINATION:</b>	
A. SEE THE MEP COORDINATION SCHEDULE FOR ELECTRICAL INFORMATION. COORDINATE WITH OTHER TRADES TO ENSURE THAT ELECTRICAL DISCONNECTS, MOTOR STARTERS, VARIABLE FREQUENCY DRIVES, CONTROLS, AND ELECTRICAL ACCESSORIES ARE FURNISHED AND/OR INSTALLED BY THE APPROPRIATE TRADE.	
<b>SITE ELEVATION:</b>	
A. EQUIPMENT SHALL BE SELECTED FOR THE PROJECT ELEVATION OF 2,240'.	
<b>COMMISSIONING:</b>	
A. A COMMISSIONING AGENT IS A PART OF THIS PROJECT. REFER TO SPECIFICATION SECTION 01 91 13. REQUESTS MADE BY THE COMMISSIONING AGENT ARE REQUIRED TO BE FOLLOWED AS PART OF THIS CONTRACT WITHOUT ANY ADDITIONAL CHARGES. CONTRACTOR IS REQUIRED TO GET APPROVAL FROM ENGINEER ON ANY MODIFICATIONS, ALTERATIONS, OR CHANGES TO ANY MECHANICAL OR ELECTRICAL SYSTEM ON THIS PROJECT PRIOR TO MAKING ANY CHANGES.	

HVAC SHEET INDEX	
NUMBER	SHEET NAME
M0.00	MECHANICAL SYMBOLS AND ABBREVIATIONS
M0.01	MECHANICAL SCHEDULES
M0.03	MECHANICAL DETAILS
M2.01	MECHANICAL PARTIAL FLOOR PLAN
M2.02	MECHANICAL ROOF PLAN

Drawing Title:

MECHANICAL SYMBOLS AND ABBREVIATIONS

Date :

SEPTEMBER 11, 2023

Drawn By :

DPD

Revised :

22140

Sheet No.

M0.00

SAJ ARCHITECTURE

MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

DRAWING REVISIONS

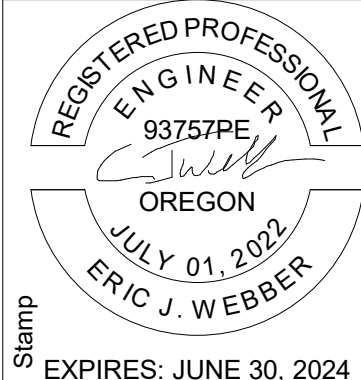
Stamp

Description

Date

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EXPIRES: JUNE 30, 2024

/saj/ Architecture BEND / PORTLAND



THE SCHOOL DISTRICT HAS HIRED ALLIANT MECHANICAL AS A THIRD-PARTY CONTROLS CONTRACTOR TO SPECIFY, INSTALL AND PROGRAM ALL NEW CONTROLS SYSTEMS WITHIN THE SCHOOL. THE CONTRACTORS SHALL COORDINATE MECHANICAL AND PLUMBING EQUIPMENT INSTALLATION WITH THE CONTROLS CONTRACTOR AS NECESSARY FOR A FULLY FUNCTIONING SYSTEM. SEE SPECIFICATION SECTIONS FROM CONTROLS CONTRACTOR FOR ADDITIONAL INFORMATION. THE CONTROLS CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS SPECIFIED IN 230900 SECTION 1.2 TO THE ENGINEER AND OWNER FOR REVIEW PRIOR TO PROCUREMENT OR INSTALLATION OF ANY CONTROL COMPONENTS.

PACKAGED ROOFTOP UNIT SCHEDULE																	
MARK	MFGR	SERIES	MINIMUM OUTSIDE AIR (CFM)	SUPPLY FAN				DX COOLING PERFORMANCE (HFC 410A)		NATURAL GAS HEATING PERFORMANCE (AT SEA LEVEL)				FILTER TYPE	BASIS OF DESIGN WEIGHT (LB.)	ACTION NEW (N), EXISTING (E), DEMOLISH (D)	REMARKS
				CFM	ESP (IN. WG)	DRIVE	HP	NOMINAL TONS	SEER2	INPUT (MBH)	OUTPUT (MBH)	STAGES	EFFICIENCY (%)				
RTU-1	CARRIER	48GCE	300	2000	0.5	DIRECT	1	5	16.1	110	88	2	80	MERV 13	820	N	1,2,3,4,5,6
RTU-2	CARRIER	48GCE	300	2000	0.5	DIRECT	1	5	16.1	110	88	2	80	MERV 13	820	N	1,2,3,4,5,6

NOTES:  
 1.) ALL INFORMATION TAKEN FROM AVAILABLE RECORD DRAWINGS AND FIELD OBSERVATIONS. CONTRACTOR TO VERIFY EXACT CONDITIONS IN THE FIELD AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES, PRIOR TO PLACING EQUIPMENT ORDERS.  
 2.) PROVIDE UNIT COMPLETE WITH TERMINAL STRIP FOR CONNECTION TO NEW DDC CONTROLS SYSTEM. PROVIDE 7-DAY SCHEDULE, NIGHT SET BACK AND OPTIMUM START FUNCTIONS. PROVIDE 5° F DEADBAND BETWEEN HEATING AND COOLING MODES.  
 3.) PROVIDE PREMIUM EFFICIENCY OR ECM MOTORS, ECONOMIZER WITH FIELD INSTALLED SENSORS, POWER EXHAUST, LOW LEAK DAMPERS, FACTORY MOUNTED DISCONNECT WITH CONVENIENCE OUTLET, SINGLE POINT ELECTRICAL CONNECTION. 14" HIGH FACTORY ROOF CURB, AND REPLACEMENT NATURAL GAS PRESSURE REGULATOR.  
 4.) PROVIDE ECONOMIZER FAULT DETECTION AND DIAGNOSTICS PER OREGON STATE ENERGY CODE. REPORT TO DDC SYSTEM.  
 5.) PROVIDE SMOKE DETECTOR AT RETURN AIR DUCT CONNECTION. SHUT DOWN RTU ON SMOKE DETECTION. PROVIDE MANUAL RESET CONTROLS.  
 6.) EQUIPMENT WEIGHTS INCLUDE MANUFACTURER'S 14" HIGH ROOF CURB, AND AIRSIDE ECONOMIZER.  
 7.) COORDINATE ALL CONTROL FUNCTION REQUIREMENTS WITH TEH CONTROLS CONTRACTOR PRIOR TO PLACING EQUIPMENT ORDERS.

MARK	MANUFACTURER	MODEL #	TYPE	LOCATION	DRIVE	CFM	ESP (IN.WG)	DAMPER	ACTION NEW (N), EXISTING (E), DEMOLISH (D)	REMARKS
RH-1	--	--	PENTHOUSE	ROOFS D & E	--	1000	--	MODULATING	E	1,2,3

NOTES:  
 1.) VERIFY DAMPER SIZE AND TYPE IN THE FIELD. REPLACEMENT MOTORIZED AND MODULATING DAMPERS SHALL BE LOW LEAKAGE TYPE. MOTOR ACTUATOR BY CONTROLS CONTRACTOR TO INTERFACE WITH BMS.  
 2.) REUSE EXISTING ROOF CURB.  
 3.) ALL INFORMATION TAKEN FROM AVAILABLE RECORD DRAWINGS AND FIELD OBSERVATIONS. CONTRACTOR TO VERIFY EXACT CONDITIONS IN THE FIELD AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES, PRIOR TO PLACING EQUIPMENT ORDERS.  
 4.) COORDINATE ALL CONTROL FUNCTION REQUIREMENTS WITH THE CONTROLS CONTRACTOR PRIOR TO PLACING EQUIPMENT ORDERS.

<b>ACCESSORIES:</b> 1. STANDARD DISCONNECT PREWIRED. 2. FAN SPEED CONTROLLER. 3. LOW LEAKAGE MOTORIZED DISCHARGE DAMPER. 4. COMBINATION SPRING/NEOPRENE VIBRATION ISOLATION HANGERS. 5. STANDARD FINISH. 6. PROVIDE ECM MOTOR WHERE AVAILABLE.					<b>CONTROLS:</b> 1. BAS. 2. COORDINATE ALL CONTROL FUNCTION REQUIREMENTS WITH THE CONTROLS CONTRACTOR PRIOR TO PLACING EQUIPMENT ORDER.  <b>ELECTRICAL DATA:</b> SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.					
MARK	MANUF.	MODEL	AIRFLOW (CFM)	SONES	ESP (IN W/C)	DRIVE	TYPE	MOUNTING	CONTROL	WEIGHT (LBS)
EF-1	LOREN COOK	SQN-D	550	7	0.0625	ECM	IN-LINE	SUSPENDED	BAS	49

MARK	DESCRIPTION	ELECTRICAL DATA		CONTROL		NOTES	DISCONNECT / STARTER		DISCONNECT			FEEDER		CIRCUIT
		LOAD	VOLT-PHASE	TYPE	DIV		TYPE	DIV	SWITCH (AMPS)	FUSE (AMPS)	ENCLOSURE (NEMA)	COPPER WIRE (AWG)	CONDUIT (INCHES)	
<b>MECHANICAL EQUIPMENT</b>														
RTU-1	PACKAGED ROOFTOP UNIT	29 A	208/3	BAS	23/23	6, 8	FD	26/26	30	NOTE 6	3R	EXISTING	EXISTING	2B3-13,15,17
RTU-2	PACKAGED ROOFTOP UNIT	29 A	208/3	BAS	23/23	6, 8	FD	26/26	30	NOTE 6	3R	EXISTING	EXISTING	2B3-14,16,18
EF-1	EXHAUST FAN	0.144 HP	120/1	BAS	23/23	6	FST	26/26	20	NOTE 6	--	#12	1/2"	NEAREST CIRCUIT
<b>CONTROL TYPE:</b>		<b>DISCONNECT/STARTER TYPE:</b>					<b>DIVISION OF RESPONSIBILITIES:</b>							
BAS	BUILDING AUTOMATION SYSTEM	CB	PANELBOARD CIRCUIT BREAKER WITHIN SIGHT OF EQUIPMENT					22/22	FURNISHED AND INSTALLED BY DIV. 22, WIRED BY DIV. 22					
CONF	CARBON MONOXIDE DETECTOR	CSFD	COMBINATION STARTER/DISCONNECT - HOA					22/26	FURNISHED AND INSTALLED BY DIV. 22, WIRED BY DIV. 26					
CONT	CONTINUOUS OPERATION	FD	FUSED DISCONNECT					23/23	FURNISHED AND INSTALLED BY DIV. 23, WIRED BY DIV. 23					
EF	INTERLOCK WITH EXHAUST FAN	FST	FUSTAT					23/26	FURNISHED AND INSTALLED BY DIV. 23, WIRED BY DIV. 26					
HCP	HOOD CONTROL PANEL	FW	FACTORY-WIRED SINGLE POINT CONNECTION					26/26	FURNISHED AND INSTALLED BY DIV. 26, WIRED BY DIV. 26					
INT	INTEGRAL	MOCF	MOTOR OVER-CURRENT PROTECTION											
L	LIGHT SWITCH	MSS	MANUAL STARTER SWITCH WITH THERMAL OVERLOADS (1-, 2- OR 3-POLE AS REQUIRED)											
MS	MANUAL SWITCH	NFD	NON-FUSED DISCONNECT											
OS	OCCUPANCY SENSOR	RCPT	20A DUPLEX RECEPTACLE (GFCI PROTECTED AS REQUIRED), CORD AND											
PS	PRESSURE SWITCH	RVSS	PLUG											
T	THERMOSTAT	VFD	REDUCED VOLTAGE SOLID-STATE											
TC	TIME CLOCK	N/A	VARIABLE FREQUENCY DRIVE - HOA											
UC	UNIT CONTROLLER		NOT APPLICABLE											
VE	VEHICLE EXHAUST DETECTION SYSTEM													
N/A	NOT APPLICABLE													
<b>NOTES:</b>														
<b>GENERAL NOTES:</b>														
1.	INTEGRAL DISCONNECTS AND OVERLOADS	A. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL CONSTRUCTION, ABOVE CEILING, OR RUN IN CONDUIT.												
2.	INTEGRAL OVERLOADS	B. EXPOSED CONTROL WIRING IS UNACCEPTABLE.												
3.	SINGLE POINT CONNECTION	C. UNLESS SPECIFICALLY NOTED, ALL FEEDERS SHALL INCLUDE A FULL SIZE NEUTRAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WITH THE MANUFACTURER OF THE ACTUAL EQUIPMENT BEING SUPPLIED WHETHER A NEUTRAL IS REQUIRED PRIOR TO ROUGH IN.												
4.	PROVIDE RECEPTACLE AND DATA CONNECTION FOR PANEL	D. ALL DUCT SMOKE DETECTORS FURNISHED BY DIV. 26, INSTALLED BY DIV. 23, AND WIRED BY DIV. 26. DIV. 26 SHALL WIRE ALL FANS TO SHUT DOWN WHEN ALARM IS INITIATED BY ANY DUCT SMOKE DETECTOR.												
5.	MOUNT ON UNI-STRUT IN FRONT OF UNIT													
6.	SIZE FUSES IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES FOR INSTALLED EQUIPMENT													
7.	INTEGRAL VARIABLE FREQUENCY DRIVE													
8.	DUCT SMOKE DETECTOR(S) REQUIRED. SEE GENERAL NOTE C.													



Stamp  
C J. WEBB  
EXPIRES: JUNE 30, 2024

[illegible]

**MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS**

JEFFERSON COUNTY SCHOOL DISTRICT  
(509.J)

**BID SET**

Drawing Title:
MECHANICAL SCHEDULES

Date :
SEPTEMBER 11, 2023
Drawn By :
DPD
Revised :
Project No.

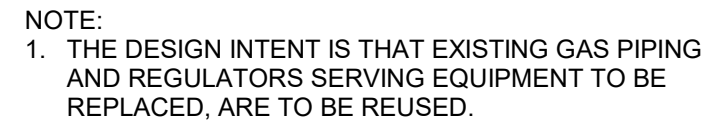
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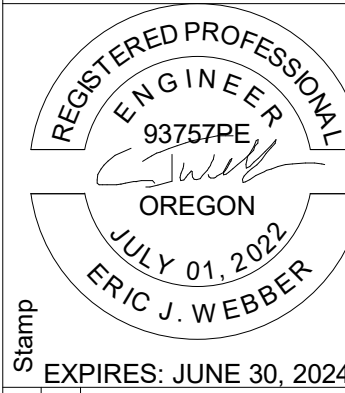
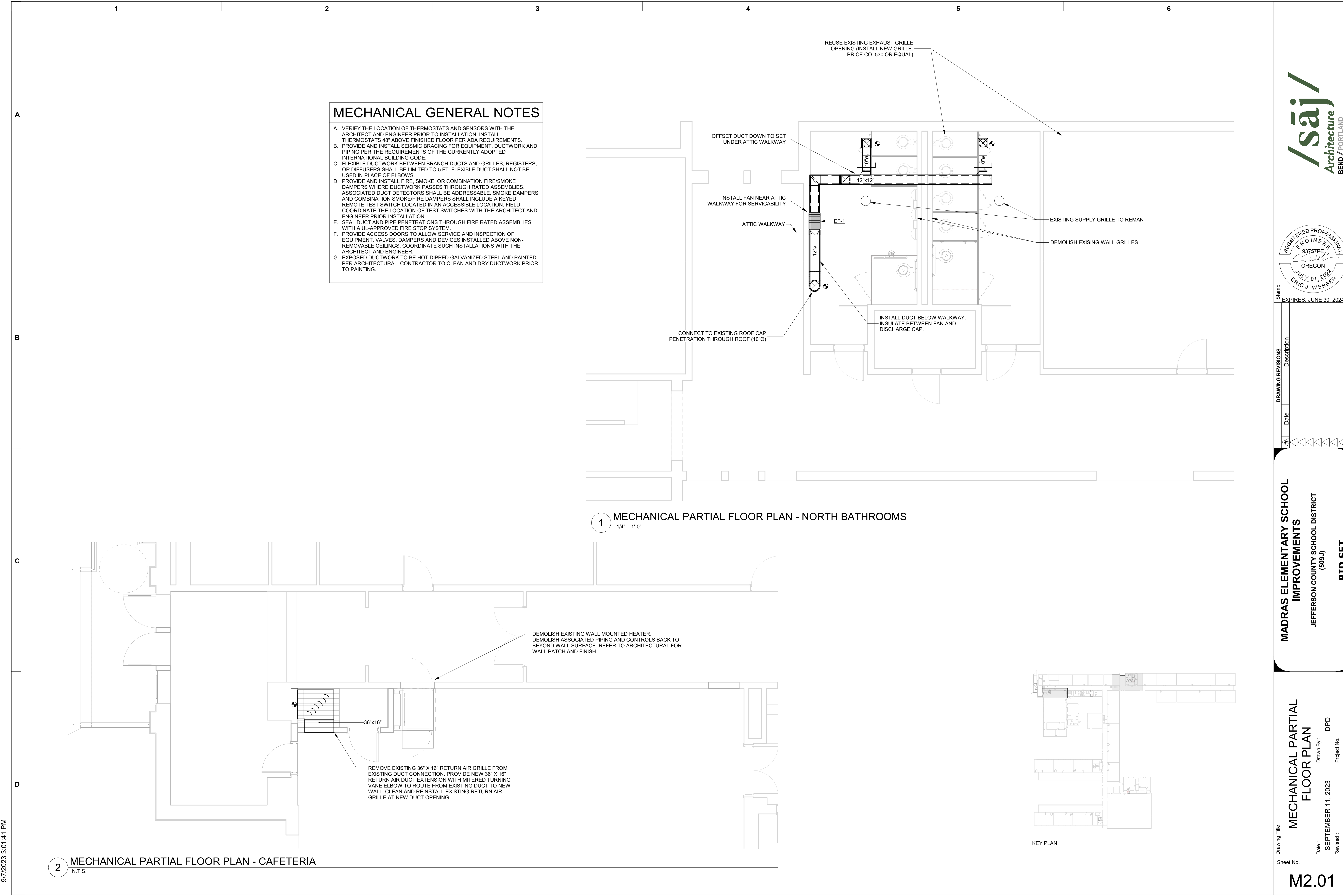




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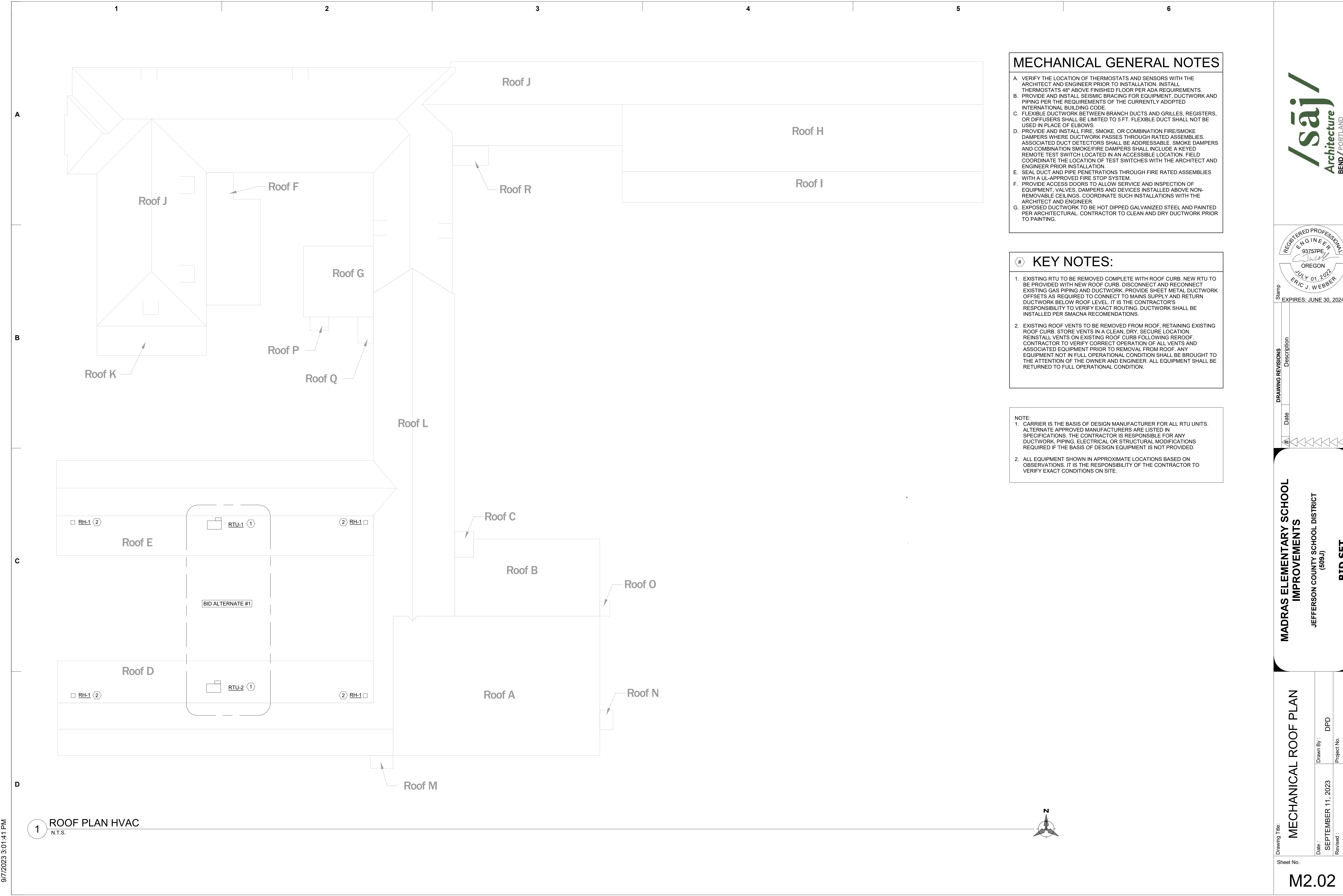


DRAWING REVISIONS	
#	Description

**MADRAS ELEMENTARY SCHOOL IMPROVEMENTS**  
JEFFERSON COUNTY SCHOOL DISTRICT (509-J)  
**BID SET**

Drawing Title: <b>MECHANICAL PARTIAL FLOOR PLAN</b>	
Date: SEPTEMBER 11, 2023	Drawn By: DPD
Revised:	Project No. 22140
Sheet No. <b>M2.01</b>	





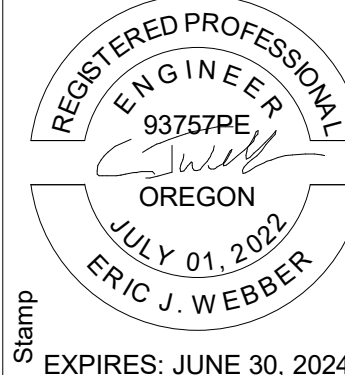
MECHANICAL GENERAL NOTES

- A. VERIFY THE LOCATION OF THERMOSTATS AND SENSORS WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION. INSTALL THERMOSTATS 48" ABOVE FINISHED FLOOR PER ADA REQUIREMENTS.
- B. PROVIDE AND INSTALL SEISMIC BRACING FOR EQUIPMENT, DUCTWORK AND PIPING PER THE REQUIREMENTS OF THE CURRENTLY ADOPTED INTERNATIONAL BUILDING CODE.
- C. FLEXIBLE DUCTWORK BETWEEN BRANCH DUCTS AND GRILLES, REGISTERS, OR DIFFUSERS SHALL BE LIMITED TO 5 FT. FLEXIBLE DUCT SHALL NOT BE USED IN PLACE OF ELBOWS.
- D. PROVIDE AND INSTALL FIRE, SMOKE, OR COMBINATION FIRE/SMOKE DAMPERS WHERE DUCTWORK PASSES THROUGH RATED ASSEMBLIES. ASSOCIATED DUCT DETECTORS SHALL BE ADDRESSABLE. SMOKE DAMPERS AND COMBINATION SMOKE/FIRE DAMPERS SHALL INCLUDE A KEYED REMOTE TEST SWITCH LOCATED IN AN ACCESSIBLE LOCATION. FIELD COORDINATE THE LOCATION OF TEST SWITCHES WITH THE ARCHITECT AND ENGINEER PRIOR INSTALLATION.
- E. SEAL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH A UL-APPROVED FIRE STOP SYSTEM.
- F. PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED ABOVE NON-REMOVABLE CEILINGS. COORDINATE SUCH INSTALLATIONS WITH THE ARCHITECT AND ENGINEER.
- G. EXPOSED DUCTWORK TO BE HOT DIPPED GALVANIZED STEEL AND PAINTED PER ARCHITECTURAL. CONTRACTOR TO CLEAN AND DRY DUCTWORK PRIOR TO PAINTING.

KEY NOTES:

- 1. EXISTING RTU TO BE REMOVED COMPLETE WITH ROOF CURB. NEW RTU TO BE PROVIDED WITH NEW ROOF CURB. DISCONNECT AND RECONNECT EXISTING GAS PIPING AND DUCTWORK. PROVIDE SHEET METAL DUCTWORK OFFSETS AS REQUIRED TO CONNECT TO MAINS SUPPLY AND RETURN DUCTWORK BELOW ROOF LEVEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXACT ROUTING. DUCTWORK SHALL BE INSTALLED PER SMACNA RECOMENDATIONS.
- 2. EXISTING ROOF VENTS TO BE REMOVED FROM ROOF, RETAINING EXISTING ROOF CURB. STORE VENTS IN A CLEAN, DRY, SECURE LOCATION. REINSTALL VENTS ON EXISTING ROOF CURB FOLLOWING REROOF. CONTRACTOR TO VERIFY CORRECT OPERATION OF ALL VENTS AND ASSOCIATED EQUIPMENT PRIOR TO REMOVAL FROM ROOF. ANY EQUIPMENT NOT IN FULL OPERATIONAL CONDITION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER. ALL EQUIPMENT SHALL BE RETURNED TO FULL OPERATIONAL CONDITION.

- NOTE:
- 1. CARRIER IS THE BASIS OF DESIGN MANUFACTURER FOR ALL RTU UNITS. ALTERNATE APPROVED MANUFACTURERS ARE LISTED IN SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DUCTWORK, PIPING, ELECTRICAL OR STRUCTURAL MODIFICATIONS REQUIRED IF THE BASIS OF DESIGN EQUIPMENT IS NOT PROVIDED.
  - 2. ALL EQUIPMENT SHOWN IN APPROXIMATE LOCATIONS BASED ON OBSERVATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EXACT CONDITIONS ON SITE.



Stamp  
EXPIRES: JUNE 30, 2024

DRAWING REVISIONS	
#	Description

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS  
JEFFERSON COUNTY SCHOOL DISTRICT  
(509-J)  
BID SET

Drawing Title: MECHANICAL ROOF PLAN		Sheet No. M2.02	
Date: SEPTEMBER 11, 2023	Drawn By: DPD	Project No. 22140	
Revised:			



A

B



























C

D


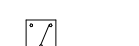






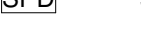










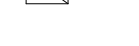


## ELECTRICAL ABBREVIATIONS LEGEND

A, AMP AC AF AFC AFCI AFF AFG AHU AL AS ATS BAS BKR BOF C CB CCT CCTV CKT CLG C.O. COD CNTRL CU (D) DISC DIST DPDT DWG EA EC EFC EMT EQUIP EX, EXIST FA FAA FACP FD FLR FO FSD  FVNR FVR GEC GFCI GFI GFP GND GNC HID HOA HP HPS HTR HVAC HZ J-BOX KVA KW LCP LPW LTG LUMS LV	AMPERES ALTERNATING CURRENT AIR CONDITIONING AMP FUSE AVAILABLE FAULT CURRENT ARC FAULT CIRCUIT INTERRUPTER ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AIR HANDLING UNIT ALUMINUM AMP SWITCH AUTOMATIC TRANSFER SWITCH BUILDING AUTOMATION SYSTEM BREAKER BOTTOM OF FIXTURE RACEWAY/CONDUIT CIRCUIT BREAKER COLOR RENDERING TEMPERATURE CLOSED CIRCUIT TELEVISION CIRCUIT CEILING RACEWAY/CONDUIT ONLY, WITH PULL STRING CENTER OF DEVICE CONTROL COPPER EXISTING TO BE DEMOLISHED DISCONNECT DISTRIBUTION DOUBLE POLE DOUBLE THROW DRAWING EACH ELECTRICAL CONTRACTOR EXHAUST FAN ELECTRIC ELECTRICAL METALLIC TUBING EQUIPMENT EX, EXIST FIRE ALARM FIRE ALARM ANNUNCIATOR FIRE ALARM CONTROL PANEL FUSED DISCONNECT FLOOR FIBER OPTIC FIRE SMOKE DAMPER RELAY, CONTROLLED BY ASSOCIATED SMOKE DETECTOR AND CIRCUITED BACK TO FACP FULL VOLTAGE NON-REVERSING FULL VOLTAGE REVERSING GROUNDED ELECTRODE CONDUCTOR GROUND FAULT CIRCUIT INTERRUPTER GROUND FAULT INTERRUPTER GROUND FAULT PROTECTION GROUND GALVANIZED RIGID CONDUIT HIGH INTENSITY DISCHARGE HAND-OFF-AUTOMATIC HORSEPOWER HIGH PRESSURE SODIUM HEATER HEATING, VENTILATION & AIR CONDITIONING HERTZ JUNCTION BOX KILOVOLT-AMPERES KILOWATT LIGHTING CONTROL PANEL LUMENS PER WATT LIGHTING LUMENS LOW VOLTAGE	MAG MAN MAX MC MCA MCC MDP MECH MEP MH MIN MSS N NC NEC NEMA  NFD NIC NO # OAE OC OCPD OH P PB PC PH PNL PVC PWR (R) RCPT RECEPT RGS RM RVNR RVR SP SPD SPEC SPST SSPB SW SWBD SWGR  T TR TTB TYP UG UH UO V VA VFD W WAO WP W/O XFMR Y Δ ø	MAGNETIC STARTER MANUAL MAXIMUM MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPACITY MOTOR CONTROL CENTER MAIN DISTRIBUTION PANEL MECHANICAL MECHANICAL ELECTRICAL, PLUMBING METAL HALIDE MINIMUM MOTOR STARTER SWITCH WITH THERMAL OVERLOADS NEUTRAL NORMALLY CLOSED NATIONAL ELECTRIC CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NON-FUSED DISCONNECT NOT IN CONTRACT NORMALLY OPEN NUMBER OR APPROVED EQUAL ON CENTER OVERCURRENT PROTECTIVE DEVICE OVERHEAD POLE PUSHBUTTON PLUMBING CONTRACTOR PHASE PANEL POLYVINYL CHLORIDE CONDUIT POWER EXISTING TO REMAIN RECEPTACLE RECEPTACLE RIGID GALVANIZED STEEL ROOM REDUCED VOLTAGE NON-REVERSING REDUCED VOLTAGE REVERSING SINGLE POLE TOGGLE SWITCH SURGE PROTECTIVE DEVICE (TVSS) SPECIFICATION SINGLE POLE SINGLE THROW START-STOP PUSHBUTTON SWITCH SWITCHBOARD TELEPHONE BOARD TIME CLOCK TIME DELAY TELEPHONE TAMPER RESISTANT TWISTED SHIELDED PAIR TELEPHONE TERMINAL BOARD TYPICAL UNDERGROUND UNIT HEATER UNLESS NOTED OTHERWISE VOLT VOLT-AMPERES VARIABLE FREQUENCY DRIVE WATTS WORK AREA OUTLET WEATHERPROOF WITHOUT TRANSFORMER WYE-CONNECTED DELTA-CONNECTED PHASE
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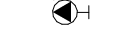














## ELECTRICAL LOW VOLTAGE LEGEND

FIRE ALARM SYSTEM		TELEPHONE/DATA SYSTEM	
	SPRINKLER PRESSURE SWITCH		TELEPHONE OUTLET (MOUNT AT +18", UNO). SEE NOTE.
	SPRINKLER FLOW SWITCH		VOICE-DATA OUTLET (MOUNT AT +18", UNO). SEE NOTE.
	SPRINKLER TAMPER SWITCH		DATA OUTLET (MOUNT AT +18", UNO). SEE NOTE.
	HEAT DETECTOR		WIRELESS ACCESS POINT
	SMOKE DETECTOR - PHOTO-ELECTRIC		CABLE TRAY OR BASKET TRAY - LENGTH AND HEIGHT PER PLAN
	DUCT SMOKE DETECTOR	<b>NOTE:</b> PROVIDE ROUGH-IN ONLY. 4-SQUARE BOX WITH MUD RING & 1" C. STUBBED UP TO ACCESSIBLE CEILING SPACE.	
	SINGLE-STATION SMOKE DETECTOR, PROVIDE 120V AND MONITOR AT FACP VIA RELAY.	SECURITY SYSTEM	
	CARBON MONOXIDE DETECTOR		CARD READER - SEE ELECTRICAL DETAILS FOR ROUGH-IN (MOUNT AT +48", OR MATCH ADJACENT DOOR ACCESS CONTROL)
	DOOR HOLDER		REQUEST TO EXIT MOTION DETECTOR
	MANUAL STATION (MOUNT AT +48", UNO)		DOOR CONTACTS
	STROBE - WALL MOUNT (+90"), CEILING MOUNT		ELECTRIC STRIKE
	HORN/STROBE - WALL MOUNT (+90"), CEILING MOUNT		ELECTRIC LOCK
	SPEAKER STROBE - WALL MOUNT (+90"), CEILING MOUNT		MOTION DETECTOR
			GLASS BREAK DETECTOR
			CCTV CAMERA - CEILING MOUNT OR WALL MOUNT. SEE NOTE.
		<b>NOTE:</b> PROVIDE ROUGH-IN ONLY. 2-GANG BOX WITH MUD RING & 1" C. STUBBED UP TO ACCESSIBLE CEILING SPACE.	












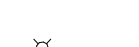




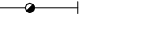



## ELECTRICAL ONE-LINE LEGEND

	CT AND CUSTOMER POWER METER		AUTOMATIC TRANSFER SWITCH
	MOTOR		VARIABLE FREQUENCY DRIVE
	UTILITY ELECTRIC METER AND BASE (BASE BY CUSTOMER)		FIXED MOUNT LV BREAKER
	SURGE PROTECTION DEVICE		FUSED SWITCH ("XXAS/XXAF" - SW AND FUSE AMP RATING)
	LIGHTNING ARRESTER, TYPE 1 SPD, MOUNTED ON EXTERIOR OF MAIN SWITCHGEAR (SQUARE D. SDSA SERIES, OAE)		GENERATOR
	STRESS RELIEF CONE		WALL MOUNTED BREAKER
	POWER FACTOR CORRECTION CAPACITOR		THERMAL OVERLOAD ELEMENT
	EQUIPMENT TOGGLE DISCONNECT SWITCH "X" INDICATES TYPE: F - FUSTAT M - MOTOR STARTER SWITCH W/ THERMAL OVERLOADS		DISCONNECT SWITCH ("XXAS" = SWITCH AMP RATING)
	CONTACTOR NORMALLY OPEN, NORMALLY CLOSED		FUSED DISCONNECT SWITCH ("XXAS/XXAF" = SW AND FUSE AMP RATING)
	TRANSFORMER, 3-PH, 3-WIRE DELTA CONNECTION		COMBINATION MOTOR STARTER (STR SIZE, TYP, AS, AF, SEE MEP COORDINATION SCHEDULE)
	TRANSFORMER, 3-PH, 4-WIRE GROUNDED WYE CONNECTION		SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED





## ELECTRICAL POWER LEGEND

	PANEL AND CIRCUIT DESIGNATION ARE SHOWN NEXT TO EACH DEVICE (PANEL NAME - CIRCUIT NUMBER). BRANCH CIRCUIT WIRE SIZE IS #12, UNO. A SINGLE INSULATED GREEN GROUND CONDUCTOR SHALL BE PROVIDED WITH EACH HOME RUN. PROVIDE A SEPARATE NEUTRAL FOR EACH CIRCUIT. HOME RUNS SHALL HAVE NO MORE THAN THREE CIRCUITS. LINE VOLTAGE AND LOW VOLTAGE WIRING IS NOT SHOWN ON PLANS. FOR EQUIPMENT CIRCUITING, SEE MEP COORDINATION SCHEDULE. "X" INDICATES TYPE: GFI - GROUND FAULT INTERRUPTER WP - WEATHERPROOF WHILE-IN-USE COVER U - PROVIDE WITH (2) USB PORTS TR - TAMPER RESISTANT		PANELBOARD OR LOAD CENTER  SPECIAL PURPOSE RECEPTACLE (MOUNT AT +18", UNO) "X" INDICATES TYPE: A - NEMA 5-20R, #12 CU; C - NEMA 5-50R, #6 CU; D - NEMA 6-20R, #12 CU; E - NEMA 6-30R, #10 CU; F - NEMA 6-50R, #6 CU; G - NEMA 14-20R, #12 CU; H - NEMA 14-30R, #10 CU; I - NEMA 14-50R, #6 CU * +4" AFF FOR RANGE
	SIMPLEX RECEPTACLE - CEILING MOUNT, WALL MOUNT (+18", UNO)		PUSHBUTTON (MOUNT AT +48", UNO) "X" INDICATES TYPE: EPO - EMERGENCY POWER OFF ADA - HANDICAPPED ACCESSIBLE DOOR (DEVICE BY OTHERS) ODO - OVERHEAD DOOR OPERATOR (DEVICE BY OTHERS)
	DUPLEX RECEPTACLE - CEILING MOUNT, WALL MOUNT (+18", UNO)		FLATSREEN TV BOX: 3-GANG, FLUSH IN WALL, PASS & SEYMOUR TV3WMTVSSW, DUPLEX RECEPTACLE & 2-SINGLE GANG DATA/ LOW VOLTAGE OPENINGS. PROVIDE BLANK COVERS FOR LOW VOLTAGE OPENINGS AND ROUTE AN 1-1 1/4" EMPTY C. TO CENTER OPENING AND 1-1" EMPTY C. TO SIDE OPENING. CONDUITS START AT THE TOP OF GANG OPENING IN WALL AND ROUTE INTO ACCESSIBLE CEILING SPACE. MOUNT BOX AT +72", UNO
	QUADRUPLEX RECEPTACLE - CEILING MOUNT, WALL MOUNT (+18", UNO)		JUNCTION BOX
	ABOVE COUNTER RECEPTACLE - MOUNT AT +4" ABOVE BACKSPLASH		DROP-DOWN RECEPTACLE
	FLOOR BOX WITH (2) DUPLEX RECEPTACLES - FURNISH WITH (1) 3/4" MIN. CONDUIT FOR POWER FROM BOX. "X" INDICATES TYPE: A - 4-GANG FLOOR BOX, CORROSION RESISTANT COATING FOR CONCRETE* FLOORS (3" MIN. POUR DEPTH). (HUBBELL NO. CFB4G30CR, OAE) B - 4-GANG FLOOR BOX FOR RAISED ACCESS FLOORS. (HUBBELL NO. AFB4G50, OAE) C - FIRE RATED POKE-THROUGH FLOOR BOX FOR ELEVATED CONCRETE* SLABS, 3" DIA. CORE (HUBBELL NO. PT7FSD, OAE) D - 8" DIA. FIRE RATED POKE-THROUGH FLOOR BOX FOR ELEVATED CONCRETE* SLABS, (HUBBELL NO. S1R8PTFIT3, OAE) E - FLUSH, ROUND SINGLE SERVICE FLOOR BOX FOR CONCRETE* FLOORS, UP TO 1" CONDUIT FEED (HUBBELL NO. B250S, OAE) F - TOMBSTONE PEDESTAL FLOOR BOX, 1" CONDUIT FEED (HUBBELL NO. 6301, OAE)  * NOTE: INCLUDE ALL HARDWARE/ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. PROVIDE COVER (COORDINATE WITH ARCHITECT FOR FLOORING TYPE AND FINISH). POKE-THROUGH FLOOR BOXES CAN ALSO BE USED FOR TILE, CARPET, OR WOOD FLOORS.		SURFACE MOUNTED PLUGSTRIP "X" INDICATES TYPE: A - PLUGSTRIP, POWER ONLY, OUTLET EVERY 3' OC B - WIREMOLD SERIES 4000 POWER AND DATA C - WIREMOLD SERIES 5000 POWER AND DATA
	SURFACE MOUNTED RACEWAY		RACEWAY CONCEALED IN WALL, FLOOR, OR CEILING IN FINISHED SPACES, EXPOSED IN UNFINISHED SPACES
	RACEWAY BELOW FLOOR OR BELOW GRADE		RACEWAY STUB-OUT WITH CAPPED END
	RACEWAY STUB-OUT WITH BRUSHED END		GROUNDING BUS

## ELECTRICAL LIGHTING FIXTURE LEGEND

	RECESSED LED FIXTURE - "a" & "b" DESIGNATES SWITCH		EXIT SIGN - WALL MOUNT, CEILING MOUNT, ARROW INDICATES DIRECTION OF TRAVEL, SHADING INDICATES LIGHTED FACE.
	RECESSED EMERGENCY LED FIXTURE - "a" & "b" DESIGNATES SWITCH		COMBINATION EXIT SIGN/ EGRESS LIGHTING UNIT - WALL MOUNT, CEILING MOUNT. ARROW INDICATES DIRECTION OF TRAVEL, SHADING INDICATES LIGHTED FACE.
	SURFACE LED FIXTURE - "a" & "b" DESIGNATES SWITCH		DUAL HEAD EMERGENCY EGRESS BATTERY PACK, WALL MOUNT OR CEILING MOUNT
	SURFACE EMERGENCY LED FIXTURE - "a" & "b" DESIGNATES SWITCH		WALL MOUNTED SCONCE
	SURFACE WALL MOUNT LED FIXTURE		SURFACE DOWNLIGHT
	LED STRIP OR INDUSTRIAL, SURFACE OR CHAIN HUNG		SURFACE EMERGENCY DOWNLIGHT
	EMERGENCY LED STRIP OR INDUSTRIAL, SURFACE OR CHAIN HUNG		RECESSED CAN DOWNLIGHT
	POLE MOUNTED FIXTURE		RECESSED CAN EMERGENCY DOWNLIGHT
	LIGHTED BOLLARD		RECESSED CAN WALL WASHER
	PENDANT FIXTURE; HIGH BAY, LOW BAY, DECORATIVE		TRACK LIGHTING. SEE FIXTURE SCHEDULE AND LIGHTING PLANS.

## ELECTRICAL LIGHTING CONTROL LEGEND

STANDARD LIGHTING CONTROLS: SWITCHES AND LINE VOLTAGE DIMMERS		
	TOGGLE SWITCH (MOUNT AT +48", UNO) "X" INDICATES TYPE: BLANK - SINGLE POLE 3 - INDICATES THREE-WAY 4 - INDICATES FOUR-WAY D - INDICATES DIMMER SWITCH PHILIPS SUNRISE - ON/OFF K - INDICATES KEYED SWITCH T - INDICATES TIMER P - INDICATES PILOT LIGHT OS - INDICATES WALL SWITCH OCC SENSOR WATTSTOPPER DW100 (SINGLE OR DUAL DW-200 SWITCH) OSD - INDICATES WALL SWITCH OCC SENSOR WITH 0-10V DIMMING - WATTSTOPPER DW-311 a - INDICATES SINGLE POLE LIGHTING SWITCH ZONE FOR ZONE a b - INDICATES SINGLE POLE LIGHTING SWITCH ZONE FOR ZONE b ab - INDICATES LIGHTING SWITCHES WITH MULTIPLE ZONES	
	 	OCCUPANCY SENSOR - DUAL TECHNOLOGY CEILING MOUNT: WATTSTOPPER DT-300, OR EQUAL WALL MOUNT: WATTSTOPPER DT-200, OR EQUAL WALL MOUNTED SHALL BE AT +96", UNO PROVIDE WITH BZ-50 POWER PACKS AS NEEDED.
		PHOTOCELL - CEILING MOUNT, WATTSTOPPER LS-301, OR EQUAL

## ABBREVIATIONS AND SYMBOLS GENERAL NOTES

- THE ABBREVIATIONS ON THIS SHEET COMPRISE A STANDARD LIST; NOT ALL ABBREVIATIONS APPEAR ON THIS PROJECT.
- THE SYMBOLS ON THIS SHEET COMPRISE A STANDARD LIST; NOT ALL SYMBOLS APPEAR ON THIS PROJECT.
- ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS, MAKING ADJUSTMENTS AS REQUIRED TO AVOID INTERFERENCE WITH EQUIPMENT SUCH AS BASEBOARD FIN-TUBE, CABINET UNIT HEATERS, ETC. ARCHITECT/ENGINEER SHALL BE NOTIFIED OF ALL SUCH HEIGHT ADJUSTMENTS. MOUNTING HEIGHTS INDICATED ON ARCHITECTURAL WALL ELEVATIONS OR AS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED.

## ELECTRICAL PROJECT GENERAL NOTES

- PRIOR TO BID CONTRACTOR SHALL VISIT THE SITE. NOT ALL WORK REQUIRED TO COMPLETE THE PROJECT IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH ALL THE WORK REQUIRED TO COMPLETE THE PROJECT IN ADDITION TO THE LOCAL CONDITIONS AND INCLUDE SAID WORK IN THE BID.
- GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1, "STANDARD PRACTICES FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING." THIS PUBLICATION IS AVAILABLE FROM NECA BY TELEPHONE AT 301-657-3110 OR ON-LINE AT WWW.NECANET.ORG.
- IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH MECHANICAL FOR PLENUM SPACES AND PROVIDE PLENUM RATED CABLES WHERE REQUIRED FOR LIGHTING CONTROL, DATA, FIRE ALARM AND ALL OTHER L.V. SYSTEMS NOT INSTALLED IN CONDUIT. VERIFY CONDUIT REQUIREMENTS ON DRAWINGS AND SPECIFICATIONS.
- FIRE-RESISTANCE: PROVIDE A MINIMUM HORIZONTAL DISTANCE OF 24" BETWEEN OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE-RESISTANCE RATED WALLS. WHERE THIS IS NOT POSSIBLE INSTALL UL LISTED PUTTY PADS ON ALL OUTLET BOXES NOT MEETING THE 24" SEPARATION. PROVIDE A UL LISTED THROUGH -PENETRATION FIRESTOP FOR PENETRATIONS OF FIRE-RESISTANCE RATED ASSEMBLIES.
- CONDUCTORS ARE SIZED PER THE 75 DEGREE C RATING COLUMN OF NEC TABLE 310.16. IF THE TERMINAL USED FOR A TERMINATION OF A PARTICULAR CONDUCTOR IS NOT MARKED, OR THE TERMINAL IS MARKED FOR 60 DEGREE C CONDUCTORS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EITHER ADJUST THE AMPACITY OF THE CONDUCTOR TO MATCH THE 60 DEGREE COLUMN OF TABLE 310.16, OR REPLACE THE TERMINAL WITH ONE RATED FOR AT LEAST 75 DEGREES C.
- BASED ON ACTUAL HOMERUN LENGTHS REQUIRED IN THE FIELD, THE CONTRACTOR SHALL CALCULATE AND INCREASE THE WIRE SIZES AS REQUIRED TO LIMIT BRANCH CIRCUIT VOLTAGE DROP TO 3%. FOR 20A BRANCH CIRCUITS THE MINIMUM CONDUCTOR SIZES SHALL BE AS FOLLOWS: #10 AWG CU FOR RUNS BETWEEN 100 AND 200 LINEAR FEET, #8 AWG CU FOR RUNS BETWEEN 200 AND 325 LINEAR FEET, AND AS CALCULATED BY THE CONTRACTOR FOR CIRCUITS EXTENDING BEYOND 325 LINEAR FEET. IN ALL CASES WHERE WIRE SIZES INCREASE, THE CONTRACTOR SHALL PROVIDE LARGER CONDUITS AS REQUIRED.
- PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V BRANCH CIRCUIT.

## ELECTRICAL PROJECT DEMO NOTES

- DURING DEMOLITION, THE CONTRACTOR SHALL NOTE ALL EXISTING RACEWAY (BOTH SURFACE AND CONCEALED) TO THE EXTENT POSSIBLE. THESE RACEWAYS SHALL BE REUSED TO THE GREATEST EXTENT POSSIBLE TO INSURE A CLEAN FINISHED PRODUCT, WHERE PRACTICAL, AND ALLOWED PER CODE, FISHING THROUGH WALLS WITH MC CABLE IS PREFERRED TO SURFACE-MOUNTED CONDUIT.
- ALL POWER INTERRUPTIONS SHALL BE COORDINATED WITH OWNER. ANY DISRUPTION OF WORKERS IN THE SPACE SHALL BE KEPT TO A MINIMUM AND BE COORDINATED WITH THE OWNER PRIOR TO WORK COMMENCING IN THAT SPACE.
- CONTRACTOR SHALL EXTEND UNSWITCHED HOT LEG FROM EXISTING EMERGENCY FIXTURE LOCATION TO NEW EMERGENCY FIXTURES, AS NEEDED. SEE DEMO PLANS FOR AN APPROXIMATION OF EXISTING EMERGENCY FIXTURE LOCATIONS. FIELD VERIFY EXACT LOCATION PRIOR TO BID.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY EXISTING CONDUIT OR FEEDER CIRCUITS THAT ARE INTENDED TO REMAIN THAT ARE SAW-CUT, OR OTHERWISE DAMAGED, AS PART OF THE DEMOLITION PROCESS. PROVISION FOR THIS WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: ALL NECESSARY CONDUIT AND CONDUCTORS, MOUNTING ACCESSORIES AND LABOR, TO RESTORE THE SYSTEM TO ITS INTENDED FUNCTION.
- ELECTRICAL DRAWINGS SHOWING EXISTING BUILDING CONDITIONS, SUCH AS DEMOLITION DRAWINGS, EXISTING PANEL SCHEDULES, ETC ARE BASED ON RECORD DRAWINGS AND SITE VISITS. IF ACTUAL EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON DRAWINGS, PLEASE NOTIFY ENGINEER.

## ELECTRICAL SHEET INDEX

NUMBER	SHEET NAME
E0.00	ELECTRICAL SYMBOLS AND ABBREVIATIONS
E0.01	ELECTRICAL SCHEDULES AND DETAILS
E2.01	ELECTRICAL FLOOR PLAN
E2.02	ELECTRICAL ROOF PLAN
ED2.01	ELECTRICAL DEMOLITION PLAN

Drawing Title:

ELECTRICAL SYMBOLS AND ABBREVIATIONS

Date : SEPTEMBER 11, 2023

Drawn By : PMH

Project No.

22140

Sheet No.

E0.00

SAJ ARCHITECTURE

MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

Stamp

DRAWING REVISIONS

Date

#

Description

1

2

3

4

5

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11

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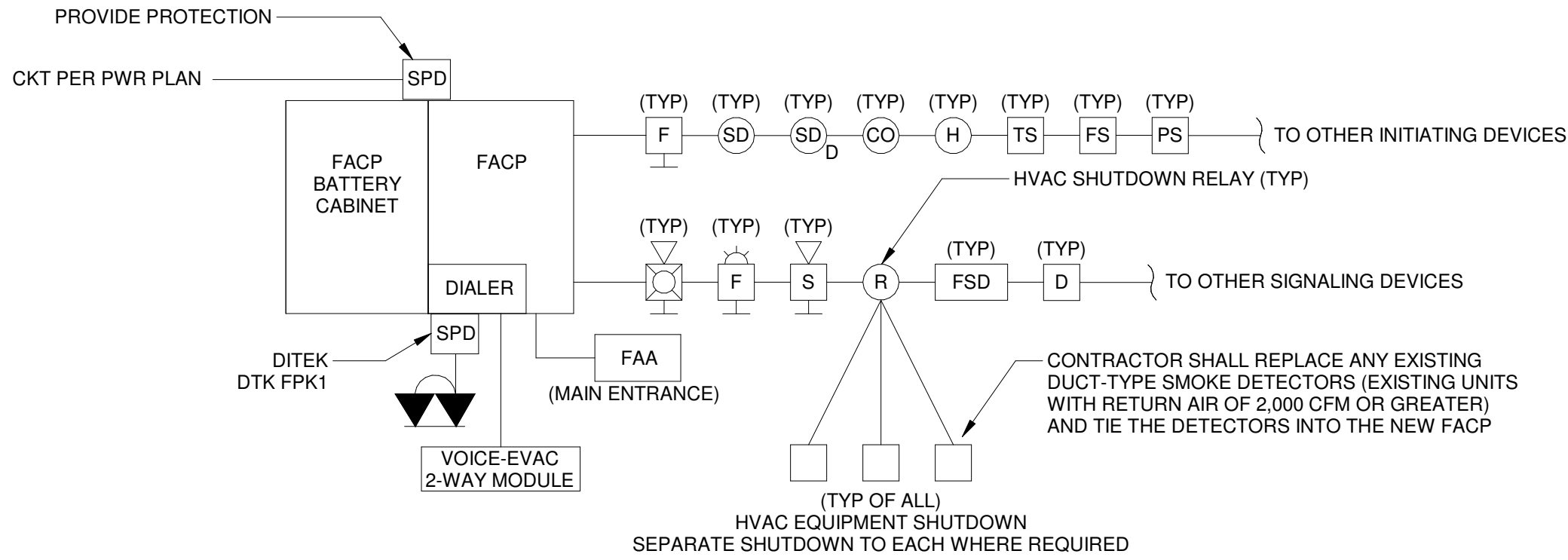
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A



- NOTES:
- ALL FIRE ALARM SYSTEM CONDUCTORS SHALL BE PLENUM RATED.
  - FIRE ALARM SYSTEM CONDUCTORS SHALL BE RUN IN CONDUIT WHEREVER EXISTING CONDUIT IS AVAILABLE. CONDUCTORS MAY BE INSTALLED ABOVE ACCESSIBLE CEILING USING STEEL J-HOOKS MOUNTED 24" OC IN ACCORDANCE WITH OESC 760.24.
  - PROVIDE POWER SUPPLIES AS REQUIRED FOR SIGNALING DEVICES. PROVIDE A SMOKE DETECTOR WITHIN 5 FEET OF FACP AND EACH POWER SUPPLY LOCATION.
  - SPEAKER STROBES SHALL BE WHITE AND SHALL SAY "ALERT" IN LIEU OF "FIRE".
  - BREAKER SERVING THE FIRE ALARM SYSTEM SHALL HAVE PERMANENT PROVISIONS FOR BEING SECURED IN THE "ON" POSITION AND SHALL BE IDENTIFIED IN RED AS "FIRE ALARM CIRCUIT."

1 FIRE ALARM RISER DIAGRAM  
N.T.S.

B

C

D

MEP COORDINATION SCHEDULE

MARK	DESCRIPTION	ELECTRICAL DATA		CONTROL		NOTES	DISCONNECT / STARTER		DISCONNECT			FEEDER		CIRCUIT
		LOAD	VOLT-PHASE	TYPE	DIV		TYPE	DIV	SWITCH (AMPS)	FUSE (AMPS)	ENCLOSURE (NEMA)	COPPER WIRE (AWG)	CONDUIT (INCHES)	
MECHANICAL EQUIPMENT														
RTU-1	PACKAGED ROOFTOP UNIT	29 A	208/3	BAS	23/23	6, 8	FD	26/26	30	NOTE 6	3R	EXISTING	EXISTING	2B3-13,15,17
RTU-2	PACKAGED ROOFTOP UNIT	29 A	208/3	BAS	23/23	6, 8	FD	26/26	30	NOTE 6	3R	EXISTING	EXISTING	2B3-14,16,18
EF-1	EXHAUST FAN	0.144 HP	120/1	BAS	23/23	6	FST	26/26	20	NOTE 6	--	#12	1/2"	NEAREST CIRCUIT
CONTROL TYPE:		DISCONNECT/STARTER TYPE:					DIVISION OF RESPONSIBILITIES:							
BAS	BUILDING AUTOMATION SYSTEM	CB	PANELBOARD CIRCUIT BREAKER WITHIN SIGHT OF EQUIPMENT					22/22	FURNISHED AND INSTALLED BY DIV. 22. WIRED BY DIV. 22					
CO	CARBON MONOXIDE DETECTOR	CSFD	COMBINATION STARTER/DISCONNECT - HOA					22/26	FURNISHED AND INSTALLED BY DIV. 22. WIRED BY DIV. 26					
CONT	CONTINUOUS OPERATION	FD	FUSED DISCONNECT					23/23	FURNISHED AND INSTALLED BY DIV. 23. WIRED BY DIV. 23					
EF	INTERLOCK WITH EXHAUST FAN	FST	FUSTAT					23/26	FURNISHED AND INSTALLED BY DIV. 23. WIRED BY DIV. 26					
HCP	HOOD CONTROL PANEL	FW	FACTORY-WIRED SINGLE POINT CONNECTION					26/26	FURNISHED AND INSTALLED BY DIV. 26. WIRED BY DIV. 26					
INT	INTEGRAL	MOCP	MOTOR OVER-CURRENT PROTECTION											
L	LIGHT SWITCH	MSS	MANUAL STARTER SWITCH WITH THERMAL OVERLOADS (1-, 2- OR 3-POLE AS REQUIRED)											
MS	MANUAL SWITCH	NFD	NON-FUSED DISCONNECT											
OS	OCCUPANCY SENSOR	RCPPT	20A DUPLEX RECEPTACLE (GFCI PROTECTED AS REQUIRED), CORD AND											
PS	PRESSURE SWITCH	RVSS	PLUG											
T	THERMOSTAT	VFD	REDUCED VOLTAGE SOLID-STATE											
TC	TIME CLOCK	N/A	VARIABLE FREQUENCY DRIVE - HOA											
UC	UNIT CONTROLLER		NOT APPLICABLE											
VE	VEHICLE EXHAUST DETECTION SYSTEM													
N/A	NOT APPLICABLE													
NOTES:		GENERAL NOTES:												
1.	INTEGRAL DISCONNECTS AND OVERLOADS	A. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL CONSTRUCTION, ABOVE CEILING, OR RUN IN CONDUIT.												
2.	INTEGRAL OVERLOADS	B. EXPOSED CONTROL WIRING IS UNACCEPTABLE.												
3.	SINGLE POINT CONNECTION	C. UNLESS SPECIFICALLY NOTED, ALL FEEDERS SHALL INCLUDE A FULL SIZE NEUTRAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WITH THE MANUFACTURER OF THE ACTUAL EQUIPMENT BEING SUPPLIED WHETHER A NEUTRAL IS REQUIRED PRIOR TO ROUGH IN.												
4.	PROVIDE RECEPTACLE AND DATA CONNECTION FOR PANEL	D. ALL DUCT SMOKE DETECTORS FURNISHED BY DIV. 26, INSTALLED BY DIV. 23, AND WIRED BY DIV. 26. DIV. 26 SHALL WIRE ALL FANS TO SHUT DOWN WHEN ALARM IS INITIATED BY ANY DUCT SMOKE DETECTOR.												
5.	MOUNT ON UNI-STRUT IN FRONT OF UNIT													
6.	SIZE FUSES IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES FOR INSTALLED EQUIPMENT													
7.	INTEGRAL VARIABLE FREQUENCY DRIVE													
8.	DUCT SMOKE DETECTOR(S) REQUIRED. SEE GENERAL NOTE C.													

LUMINAIRE SCHEDULE

TYPE	LAMPS	LOAD (W)	OUTPUT (LM, NOMINAL)	CCT (K)	DESCRIPTIONS	MFR	CATALOG NO. OR SERIES	MOUNTING	VOLTAGE	NOTES
A1	LED	42	5,000	4000	4' LED INDUSTRIAL STRIP	LITHONIA	ZL1N-L48-5000LM-FST-MVOLT-40K-80CRI-WH	SURFACE	120	1
<div>NOTES:</div> <div>1. PRIOR SUBMITTAL NOT REQUIRED. ALL ALTERNATE FIXTURE SHOP DRAWINGS WILL BE REVIEWED AFTER THE PROJECT IS AWARDED.</div> <div>2. PRIOR SUBMITTAL IS REQUIRED.</div> <div>3. ALTERNATE FIXTURE IS NOT ACCEPTED FOR SUBSTITUTIONS.</div> <div>4. PROVIDE 0-10V DIMMING.</div> <div>5. PROVIDE FUSING.</div> <div>6. VERIFY FINISH WITH ARCHITECT.</div> <div>7. PROVIDE WITH REMOTE 12V STEP-DOWN TRANSFORMER.</div> <div>8. CIRCUIT VIA TYPE EM INVERTER.</div> <div>9. LAMP DATA IS FOR 4' CROSS-SECTION OF FIXTURE.</div>						<div>GENERAL NOTE:</div> <div>THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND PROVIDE ALL MOUNTING, FIRE-RATED, AND IC-RATED ACCESSORIES AS REQUIRED. FOR FIRE-RATED CEILING ASSEMBLIES AND FOR CEILINGS WITH INSULATION, VERIFY ALL RECESSED LUMINAIRE HOUSINGS ARE RATED APPROPRIATELY OR PROVIDE DROP-OVER ENCLOSURES OR TENTS FOR LUMINAIRES. VERIFY THAT DROP-OVER ENCLOSURES OR TENTS ALLOW FOR AIR SPACE AROUND LUMINAIRE PER MANUFACTURER'S RECOMMENDATIONS.</div>				

Drawing Title:

ELECTRICAL SCHEDULES  
AND DETAILS

Date : SEPTEMBER 11, 2023

Revised :

Drawn By : PMH

Project No.

22140

Sheet No.

E0.01

SAJ ARCHITECTURE

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT  
(509-J)

BID SET

Stamp

DRAWING REVISIONS

Date

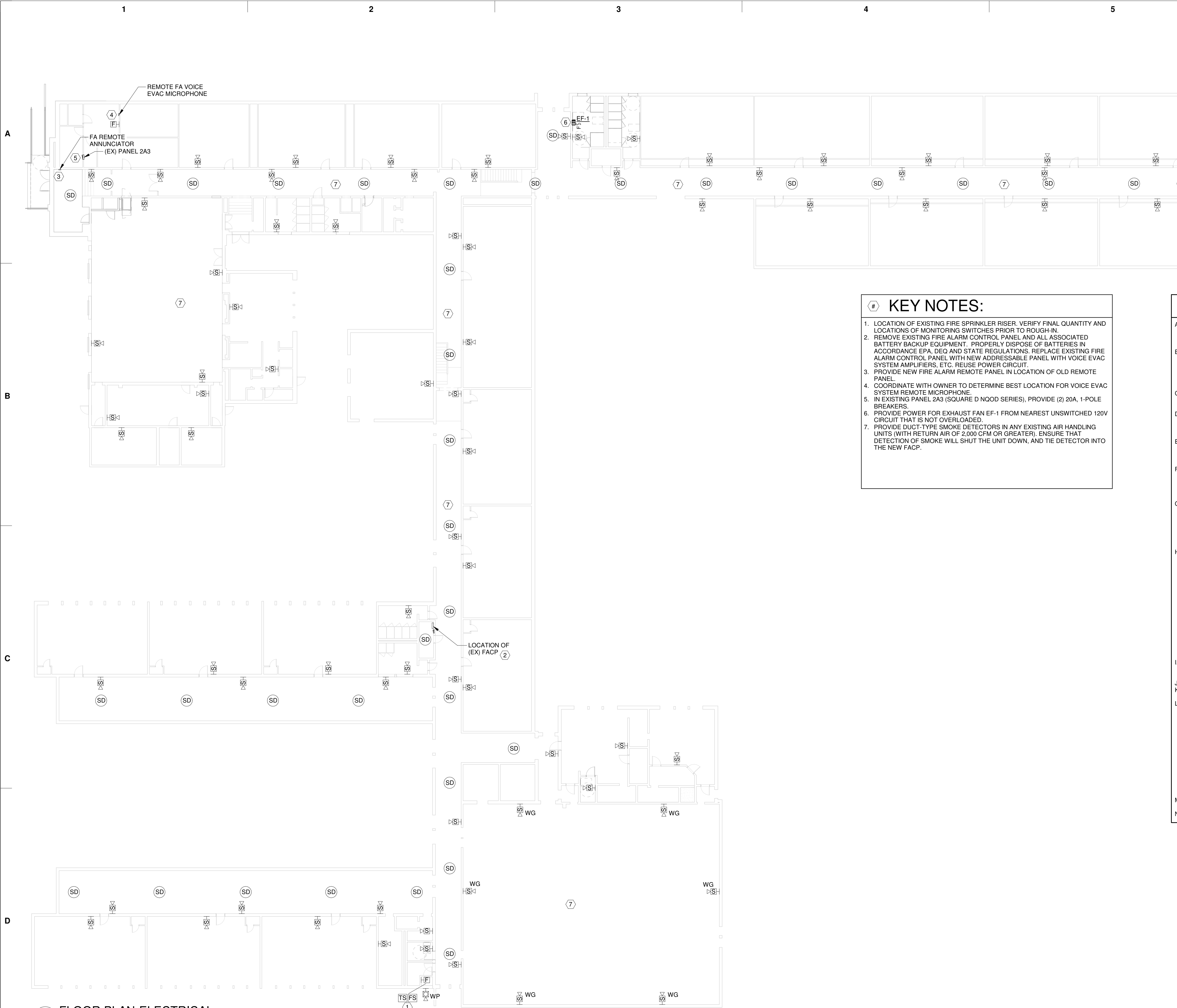
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100





9/8/2023 10:13:06



1 FLOOR PLAN-ELECTRICAL  
1/16" = 1'-0"

### KEY NOTES:

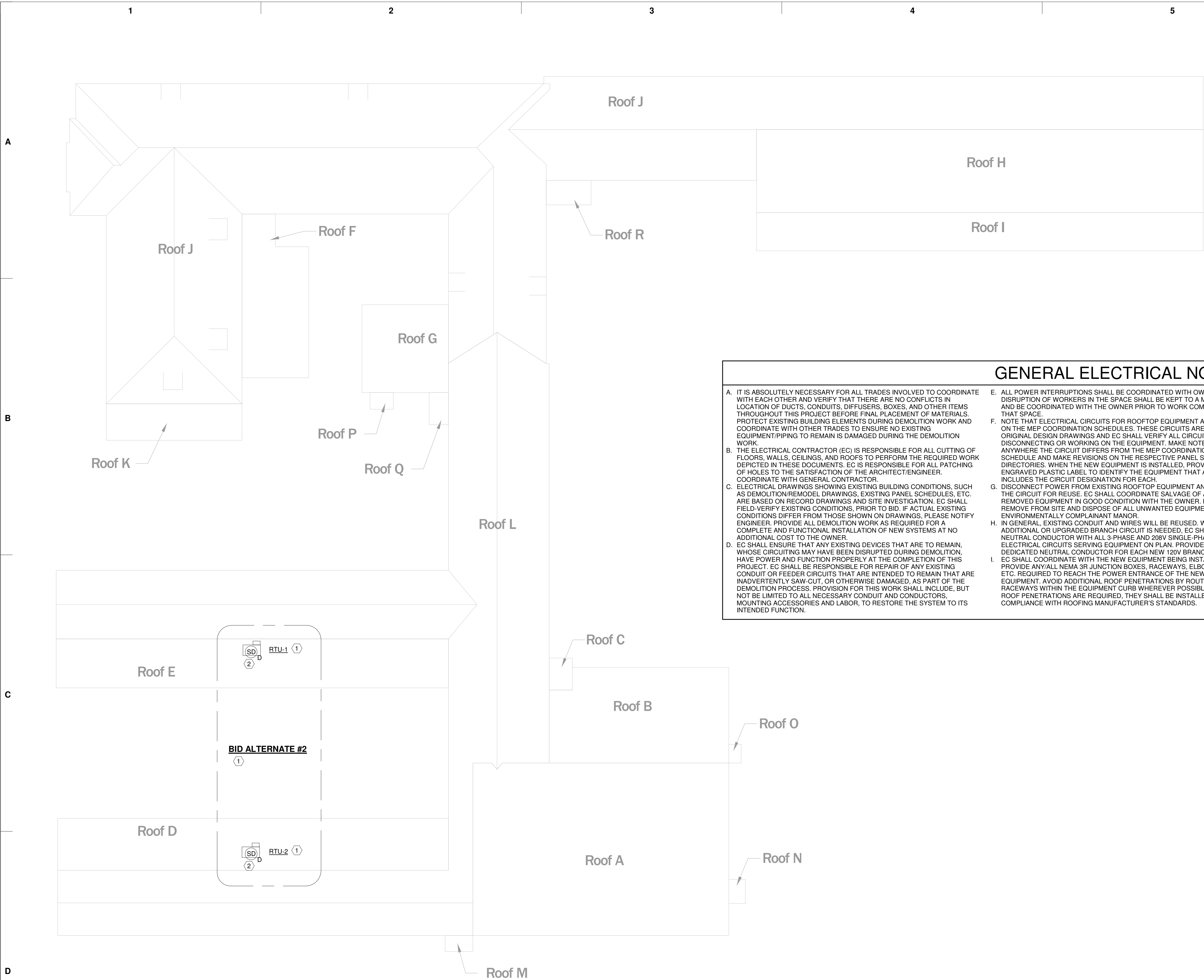
1. LOCATION OF EXISTING FIRE SPRINKLER RISER. VERIFY FINAL QUANTITY AND LOCATIONS OF MONITORING SWITCHES PRIOR TO ROUGH-IN.
2. REMOVE EXISTING FIRE ALARM CONTROL PANEL AND ALL ASSOCIATED BATTERY BACKUP EQUIPMENT. PROPERLY DISPOSE OF BATTERIES IN ACCORDANCE EPA, DEQ AND STATE REGULATIONS. REPLACE EXISTING FIRE ALARM CONTROL PANEL WITH NEW ADDRESSABLE PANEL WITH VOICE EVAC SYSTEM AMPLIFIERS, ETC. REUSE POWER CIRCUIT.
3. PROVIDE NEW FIRE ALARM REMOTE PANEL IN LOCATION OF OLD REMOTE PANEL.
4. COORDINATE WITH OWNER TO DETERMINE BEST LOCATION FOR VOICE EVAC SYSTEM REMOTE MICROPHONE.
5. IN EXISTING PANEL 2A3 (SQUARE D NQOD SERIES), PROVIDE (2) 20A, 1-POLE BREAKERS.
6. PROVIDE POWER FOR EXHAUST FAN EF-1 FROM NEAREST UNSWITCHED 120V CIRCUIT THAT IS NOT OVERLOADED.
7. PROVIDE DUCT-TYPE SMOKE DETECTORS IN ANY EXISTING AIR HANDLING UNITS (WITH RETURN AIR OF 2,000 CFM OR GREATER). ENSURE THAT DETECTION OF SMOKE WILL SHUT THE UNIT DOWN, AND TIE DETECTOR INTO THE NEW FACP.

### GENERAL FIRE ALARM NOTES

- IT IS ABSOLUTELY NECESSARY FOR ALL TRADES INVOLVED TO COORDINATE WITH EACH OTHER AND VERIFY THAT THERE ARE NO CONFLICTS IN LOCATION OF DUCTS, CONDUITS, DIFFUSERS, BOXES, AND OTHER ITEMS THROUGHOUT THIS PROJECT BEFORE FINAL PLACEMENT OF MATERIALS.
- ELECTRICAL DRAWINGS SHOWING EXISTING BUILDING CONDITIONS, SUCH AS DEMOLITION/REMODEL DRAWINGS, EXISTING PANEL SCHEDULES, ETC. ARE BASED ON RECORD DRAWINGS AND SITE INVESTIGATION. EC SHALL FIELD-VERIFY EXISTING CONDITIONS, PRIOR TO BID. IF ACTUAL EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON DRAWINGS, PLEASE NOTIFY ENGINEER.
- WALLS, EQUIPMENT, FIXTURES AND DEVICES SHOWN IN GRAY, ARE EXISTING AND ITEMS IN BLACK ARE NEW, UNLESS SPECIFICALLY NOTED OTHERWISE.
- EC SHALL ENSURE THAT ANY EXISTING DEVICES THAT ARE TO REMAIN, WHOSE CIRCUITING WAS ROUTED THROUGH AN AREA THAT WAS DEMOLISHED, HAVE POWER AND FUNCTION PROPERLY AT THE COMPLETION OF THIS PROJECT.
- REUSE EXISTING RACEWAY TO THE EXTENT POSSIBLE TO INSURE A CLEAN FINISHED PRODUCT. WHERE PRACTICAL, AND ALLOWED PER CODE, FISHING THROUGH WALLS WITH MC CABLE IS PREFERRED TO SURFACE-MOUNTED CONDUIT.
- THE ELECTRICAL CONTRACTOR (EC) IS RESPONSIBLE FOR ALL CUTTING OF FLOORS, WALLS, CEILINGS, AND ROOFS TO PERFORM THE REQUIRED WORK DEPICTED IN THESE DOCUMENTS. EC IS RESPONSIBLE FOR ALL PATCHING OF HOLES TO THE SATISFACTION OF THE ARCHITECT/ENGINEER. COORDINATE WITH GENERAL CONTRACTOR.
- PHASING FOR REPLACEMENT OF EXISTING FIRE ALARM SYSTEM SHALL BE COORDINATED WITH OWNER. MAINTAIN EXISTING EQUIPMENT FULLY OPERATIONAL UNTIL NEW EQUIPMENT HAS BEEN TESTED AND ACCEPTED. AS NEW EQUIPMENT IS INSTALLED, LABEL IT "NOT IN SERVICE" UNTIL IT IS ACCEPTED. REMOVE LABELS FROM NEW EQUIPMENT WHEN PUT INTO SERVICE AND LABEL EXISTING FIRE ALARM EQUIPMENT "NOT IN SERVICE" UNTIL REMOVED FROM THE BUILDING.
- ALL CABLES/CONDUCTORS ASSOCIATED WITH THE FIRE ALARM SYSTEM SHALL BE PLENUM RATED. PROVIDE CONDUIT WHERE WIRING WILL BE CONCEALED WITHIN WALLS, UNDER FLOORS OR ABOVE NON-LAY-IN CEILINGS. ALSO PROVIDE CONDUIT WHERE WIRING WOULD OTHERWISE BE EXPOSED IN PUBLIC AREAS. ACCESSIBLE CEILING AND ATTIC SPACES ARE ACCEPTABLE FOR USE AS RACEWAYS.
  - HOOKS OR FASTENERS SHALL BE PLACED AT INTERVALS ON 48 INCH CENTERS.
  - CABLE SAG BETWEEN SUPPORTS SHALL NOT EXCEED 16 INCHES.
  - ATTACHING WIRE TO PIPES OR OTHER MECHANICAL ITEMS SHALL NOT BE PERMITTED.
  - CABLES SHALL BE ROUTED TO AVOID LIGHT FIXTURES (18 INCHES MINIMUM SPACING), SOURCES OF HEAT (12 INCHES MINIMUM SPACING) POWER FEEDER CONDUITS (12 INCHES MINIMUM SPACING).
  - PROVIDE APPROVED CONDUIT SLEEVES THROUGH ALL AREA SEPARATION FIRE WALLS AND OTHER WALLS.
- PROVIDE POWER SUPPLIES AS REQUIRED FOR SIGNALING DEVICES. PROVIDE A SMOKE DETECTOR WITHIN 5 FEET OF EACH POWER SUPPLY LOCATION.
- PROVIDE A FIRE ALARM DOCUMENTS BOX ADJACENT TO FACP.
- PROVIDE CIRCUIT BREAKER LOCKS AND RED LABELS FOR 120V POWER FOR FACP AND POWER BOOSTERS.
- THE QUANTITY AND LOCATION OF SPEAKERS ON THE PLAN ARE APPROXIMATE. THE REQUIRED QUANTITY AND LOCATION OF SPEAKERS WILL VARY DEPENDING ON THE CHARACTERISTICS AND CAPABILITIES OF DIFFERENT MANUFACTURER'S SPEAKERS. THEREFORE, IT IS THE RESPONSIBILITY OF THE FIRE ALARM SUPPLIER TO DETERMINE THE FINAL QUANTITY, LOCATIONS AND SETTINGS OF SPEAKERS IN ORDER TO MEET NFPA 72 SOUND LEVEL AND INTELLIGIBILITY REQUIREMENTS. THIS SHALL BE DONE USING SUPPLIER'S SOFTWARE AND OTHER ENGINEERING RESOURCES. IN THE EVENT THE INSTALLED SYSTEM IS NOT ACCEPTED BY THE AHJ, IT IS THE RESPONSIBILITY OF THE FIRE ALARM SUPPLIER TO MAKE WHATEVER CORRECTIONS, INCLUDING INSTALLATION OF ADDITIONAL SPEAKERS, REMOVAL OF SPEAKERS, OR RELOCATION OF SPEAKERS TO SATISFY THE AHJ. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER.
- THE WORD "ALERT" SHALL APPEAR ON SPEAKER STROBES. DO NOT LABEL AS "FIRE".
- SEE SPECIFICATIONS FOR FURTHER INFORMATION.



9/8/2023 10:13:06



- # KEY NOTES:
1. BID ALL WORK ASSOCIATED WITH DEMOLITION OF OLD ROOFTOP UNIT AND INSTALLATION OF NEW EQUIPMENT AS BID ALTERNATE #2. ELECTRICAL CIRCUITS FOR ROOFTOP EQUIPMENT ARE SHOWN ON THE MEP COORDINATION SCHEDULES. DISCONNECT POWER FROM ALL EXISTING ROOFTOP EQUIPMENT AND RETAIN THE CIRCUIT FOR REUSE. REUSE EXISTING CONDUIT AND WIRES MODIFYING/EXTENDING CONDUIT AND WIRES AS REQUIRED TO ACCOMMODATE NEW EQUIPMENT. PROVIDE ANY/ALL NEMA 3R JUNCTION BOXES, RACEWAYS, ELBOWS, WIRES, ETC. REQUIRED. COORDINATE WITH MC AND PROVIDE ALL RACEWAYS, PULL BOXES, WIRING, ETC. AS REQUIRED TO EXTEND THE ASSOCIATED CONTROL WIRING FOR EACH UNIT. WHERE A DISCONNECT OR MOTOR STARTER IS CALLED OUT, MOUNT IT IN A CONVENIENT LOCATION UNDER THE EQUIPMENT HOOD, OR MOUNT IT NEATLY ON OR NEXT TO THE UNIT.

2. BID FIRE ALARM SYSTEM AND DEVICES AS BASE BID. PROVIDE DUCT-TYPE SMOKE DETECTOR AND TIE INTO FIRE ALARM SYSTEM.

- GENERAL ELECTRICAL NOTES
- A. IT IS ABSOLUTELY NECESSARY FOR ALL TRADES INVOLVED TO COORDINATE WITH EACH OTHER AND VERIFY THAT THERE ARE NO CONFLICTS IN LOCATION OF DUCTS, CONDUITS, DIFFUSERS, BOXES, AND OTHER ITEMS THROUGHOUT THIS PROJECT BEFORE FINAL PLACEMENT OF MATERIALS. PROTECT EXISTING BUILDING ELEMENTS DURING DEMOLITION WORK AND COORDINATE WITH OTHER TRADES TO ENSURE NO EXISTING EQUIPMENT/PIPING TO REMAIN IS DAMAGED DURING THE DEMOLITION WORK.

B. THE ELECTRICAL CONTRACTOR (EC) IS RESPONSIBLE FOR ALL CUTTING OF FLOORS, WALLS, CEILINGS, AND ROOFS TO PERFORM THE REQUIRED WORK DEPICTED IN THESE DOCUMENTS. EC IS RESPONSIBLE FOR ALL PATCHING OF HOLES TO THE SATISFACTION OF THE ARCHITECT/ENGINEER. COORDINATE WITH GENERAL CONTRACTOR.

C. ELECTRICAL DRAWINGS SHOWING EXISTING BUILDING CONDITIONS, SUCH AS DEMOLITION/REMODEL DRAWINGS, EXISTING PANEL SCHEDULES, ETC. ARE BASED ON RECORD DRAWINGS AND SITE INVESTIGATION. EC SHALL FIELD-VERIFY EXISTING CONDITIONS, PRIOR TO BID. IF ACTUAL EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON DRAWINGS, PLEASE NOTIFY ENGINEER. PROVIDE ALL DEMOLITION WORK AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION OF NEW SYSTEMS AT NO ADDITIONAL COST TO THE OWNER.

D. EC SHALL ENSURE THAT ANY EXISTING DEVICES THAT ARE TO REMAIN, WHOSE CIRCUITING MAY HAVE BEEN DISRUPTED DURING DEMOLITION, HAVE POWER AND FUNCTION PROPERLY AT THE COMPLETION OF THIS PROJECT. EC SHALL BE RESPONSIBLE FOR REPAIR OF ANY EXISTING CONDUIT OR FEEDER CIRCUITS THAT ARE INTENDED TO REMAIN THAT ARE INADVERTENTLY SAW-CUT, OR OTHERWISE DAMAGED, AS PART OF THE DEMOLITION PROCESS. PROVISION FOR THIS WORK SHALL INCLUDE, BUT NOT BE LIMITED TO ALL NECESSARY CONDUIT AND CONDUCTORS, MOUNTING ACCESSORIES AND LABOR, TO RESTORE THE SYSTEM TO ITS INTENDED FUNCTION.

E. ALL POWER INTERRUPTIONS SHALL BE COORDINATED WITH OWNER. ANY DISRUPTION OF WORKERS IN THE SPACE SHALL BE KEPT TO A MINIMUM AND BE COORDINATED WITH THE OWNER PRIOR TO WORK COMMENCING IN THAT SPACE.

F. NOTE THAT ELECTRICAL CIRCUITS FOR ROOFTOP EQUIPMENT ARE SHOWN ON THE MEP COORDINATION SCHEDULES. THESE CIRCUITS ARE FROM ORIGINAL DESIGN DRAWINGS AND EC SHALL VERIFY ALL CIRCUITS PRIOR TO DISCONNECTING OR WORKING ON THE EQUIPMENT. MAKE NOTE OF ANYWHERE THE CIRCUIT DIFFERS FROM THE MEP COORDINATION SCHEDULE AND MAKE REVISIONS ON THE RESPECTIVE PANEL SCHEDULE DIRECTORIES. WHEN THE NEW EQUIPMENT IS INSTALLED, PROVIDE AN ENGRAVED PLASTIC LABEL TO IDENTIFY THE EQUIPMENT THAT ALSO INCLUDES THE CIRCUIT DESIGNATION FOR EACH.

G. DISCONNECT POWER FROM EXISTING ROOFTOP EQUIPMENT AND RETAIN THE CIRCUIT FOR REUSE. EC SHALL COORDINATE SALVAGE OF ALL REMOVED EQUIPMENT IN GOOD CONDITION WITH THE OWNER. EC SHALL REMOVE FROM SITE AND DISPOSE OF ALL UNWANTED EQUIPMENT IN AN ENVIRONMENTALLY COMPLAINT MANOR.

H. IN GENERAL, EXISTING CONDUIT AND WIRES WILL BE REUSED. WHERE ADDITIONAL OR UPGRADED BRANCH CIRCUIT IS NEEDED, EC SHALL PULL A NEUTRAL CONDUCTOR WITH ALL 3-PHASE AND 208V SINGLE-PHASE ELECTRICAL CIRCUITS SERVING EQUIPMENT ON PLAN. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH NEW 120V BRANCH CIRCUIT.

I. EC SHALL COORDINATE WITH THE NEW EQUIPMENT BEING INSTALLED AND PROVIDE ANY/ALL NEMA 3R JUNCTION BOXES, RACEWAYS, ELBOWS, WIRES, ETC. REQUIRED TO REACH THE POWER ENTRANCE OF THE NEW EQUIPMENT. AVOID ADDITIONAL ROOF PENETRATIONS BY ROUTING RACEWAYS WITHIN THE EQUIPMENT CURB WHEREVER POSSIBLE. WHERE ROOF PENETRATIONS ARE REQUIRED, THEY SHALL BE INSTALLED IN STRICT COMPLIANCE WITH ROOFING MANUFACTURER'S STANDARDS.

J. IN ADDITION TO PROVIDING POWER TO THE NEW MECHANICAL UNITS ON THE ROOF, EC SHALL COORDINATE WITH MC AND PROVIDE ALL RACEWAYS, PULL BOXES, WIRING, ETC. AS REQUIRED TO EXTEND THE ASSOCIATED CONTROL WIRING FOR EACH UNIT.

K. MOST NEW ROOFTOP EQUIPMENT WILL COME WITH INTEGRAL DISCONNECT SWITCH AND ONLY REQUIRE AN ELECTRICAL CONNECTION TO THE MAIN TERMINAL BLOCK. WHERE A DISCONNECT OR MOTOR STARTER IS CALLED OUT ON THIS PLAN OR IN THE MEP COORDINATION SCHEDULE, EC SHALL EITHER MOUNT IT IN A CONVENIENT LOCATION UNDER THE EQUIPMENT HOOD, OR MOUNT IT NEATLY ON OR NEXT TO THE UNIT.

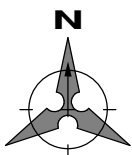
L. ALL NEW BUILDING EXTERIOR RECEPTACLES SHALL BE GFCI-STYLE, WEATHER-RESISTANT, SELF-TESTING AND SHALL HAVE A WEATHERPROOF RATED ENCLOSURE/COVER. ENCLOSURES FOR RECEPTACLES ON ROOF (FOR EQUIPMENT REQUIRING SERVICING) SHALL BE WEATHERPROOF RATED WHEN THE RECEPTACLE IS COVERED (NOTHING PLUGGED IN AND RECEPTACLE COVERS CLOSED). ALL OTHER OUTDOOR RECEPTACLES (INCLUDING THOSE ON THE ROOF WHERE A LOAD MAY NOT BE ATTENDED WHILE IN USE) SHALL FEATURE A METALLIC WEATHERPROOF-IN-USE COVER (WITH LOAD PLUGGED IN OR REMOVED) THAT IS CAPABLE OF ACCEPTING A STANDARD HASP STYLE PADLOCK, AS WELL AS ANY ADDITIONAL FEATURES CALLED FOR ON THE PLANS.

M. NEW ROOFTOP UNITS WILL INCLUDE AN INTEGRAL GFI RECEPTACLE POWERED FROM THE UNIT CIRCUIT. EC SHALL PROVIDE ADDITIONAL GFCI RECEPTACLES WHERE SHOWN ON PLANS, OR ANYWHERE THERE IS MECHANICAL EQUIPMENT ON A DIFFERENT LEVEL, OR MORE THAN 25FT FROM A RECEPTACLE. CIRCUIT TO NEAREST 120V SERVICE RECEPTACLE CIRCUIT THAT HAS CAPACITY.

1

ROOF PLAN ELECTRICAL

N.T.S.



Stamp

DRAWING REVISIONS

#	Date	Description

ELECTRICAL ROOF PLAN

9/8/2023 10:13:06

SEPTMBER 11, 2023

DATE

PMH

DRAWN BY

22140

PROJECT NO.

E2.02

SHEET NO.

MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (509J)

BID SET

SAJ ARCHITECTURE

BEND / PORTLAND







Madras Elementary  
215 SE 10th St  
Madras, Oregon

SE 10th St

SE D St

Roof S  
NIP

Roof K

Roof J  
NIP

Roof F

Roof G

Roof P

Roof Q

Roof L  
NIP

Roof E

Roof D

Roof J  
NIP

Roof R

Roof H

Roof I  
NIP

Roof C  
NIP

Roof B  
NIP

Roof O

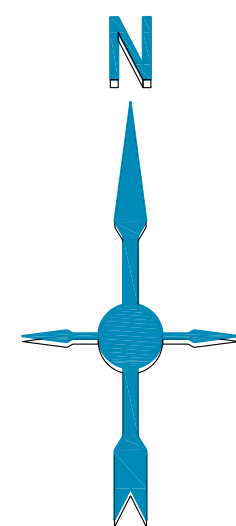
Roof A  
NIP

Roof N

Roof M

Play Ground

Parking



Single-Ply ROOF AREA SQ.FT. ( Approximate )		Metal ROOF AREA SQ.FT. ( NIP )	
Roof D:	2,657 sf	Roof I:	2,422 sf
Roof E:	2,514 sf	Roof J:	20,765 sf
Roof F:	1,286 sf	Roof L:	13,941 sf
Roof G:	992 sf	Roof S:	506 sf
Roof H:	4,845 sf	Total:	37,634 sf
Roof K:	179 sf		
Roof M:	59 sf		
Total:	12,532 sf		
B.U.R. ROOF AREA SQ.FT. ( Approximate )		Single-Ply ROOF AREA SQ.FT. ( NIP )	
Roof N:	52 sf	Roof A:	6,523 sf
Roof O:	30 sf	Roof B:	2,174 sf
Roof P:	51 sf	Roof C:	97 sf
Roof Q:	81 sf	Total:	8,794 sf
Roof R:	144 sf		
Total:	358 sf		
Roof Total:		59,318 sf	

TECH / NORTHWEST, INC.

2501 NW Gerke Rd  
Pineville, OR 97754  
1.503.628.2882 | 1.503.266.2428

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT  
(500J)

BID SET

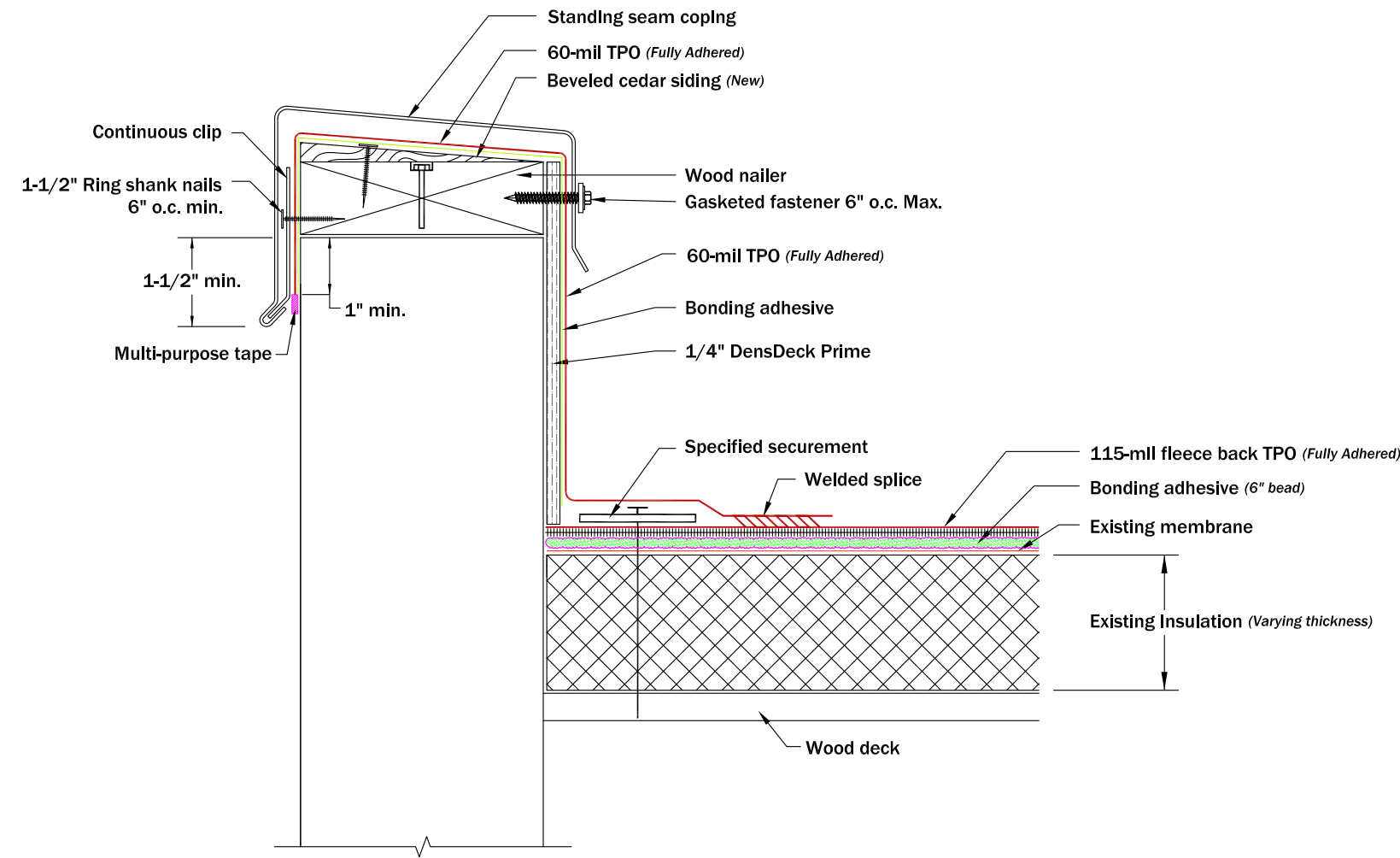
Roof Plan

SEPTEMBER 11, 2023

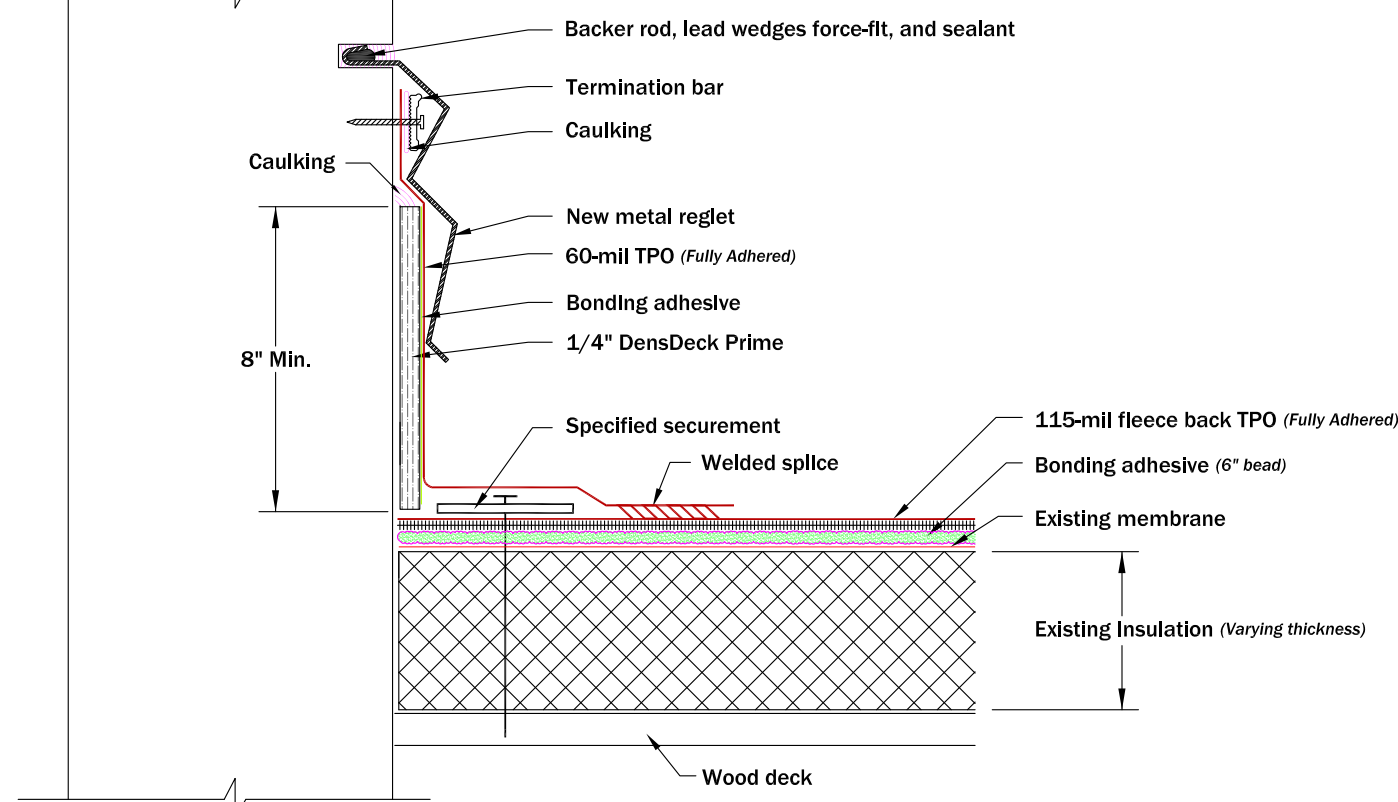
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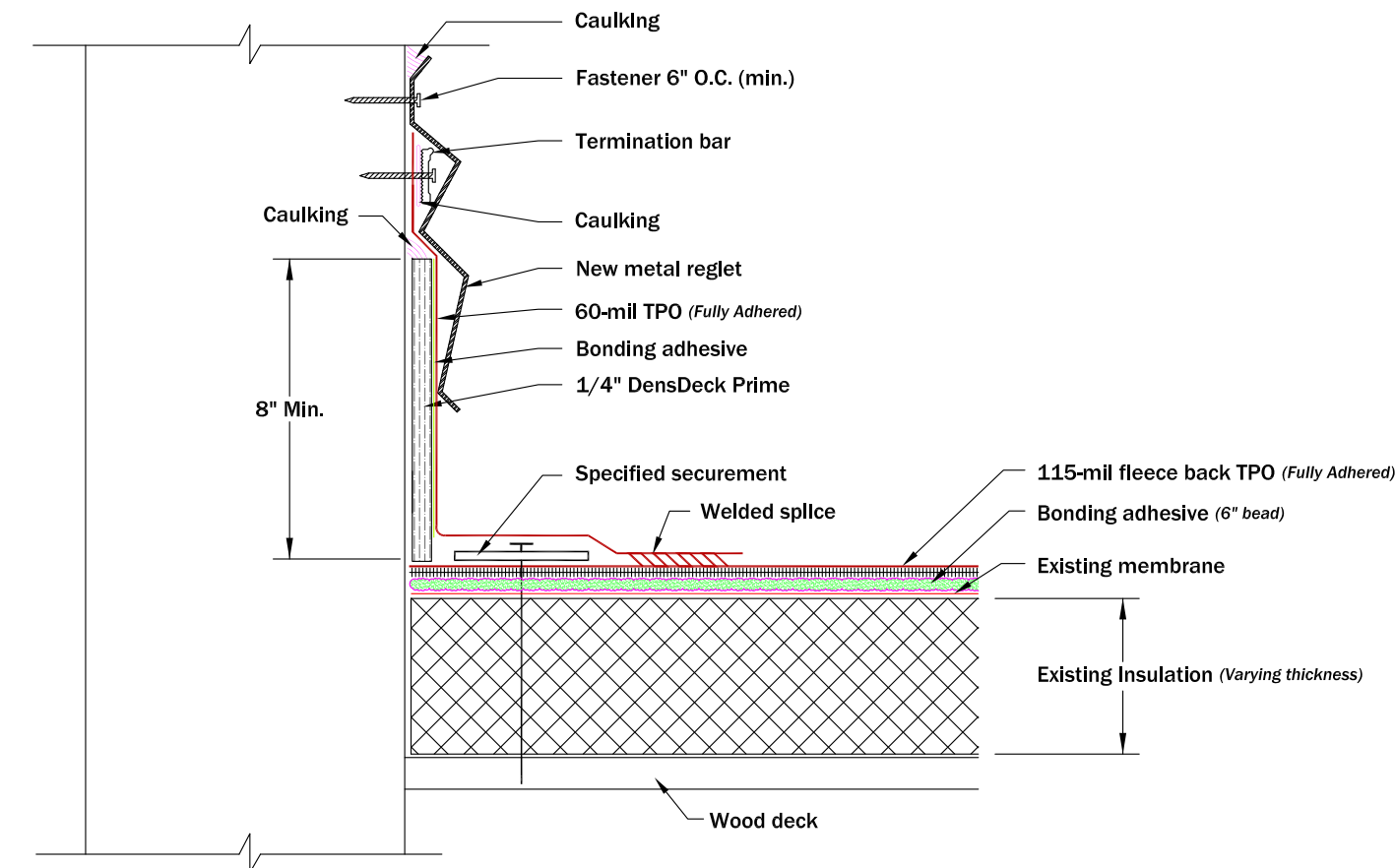




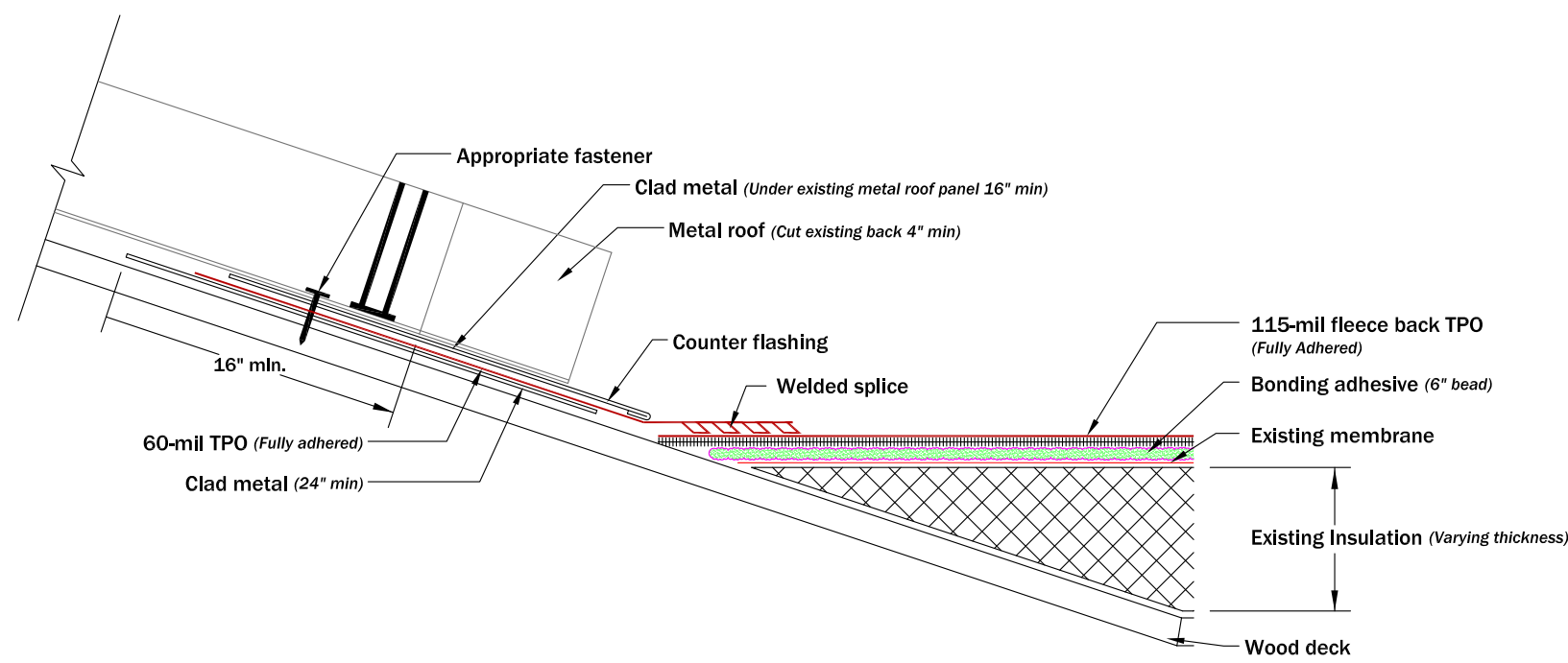
1 Perimeter - Parapet & Coping  
R-MES NTS



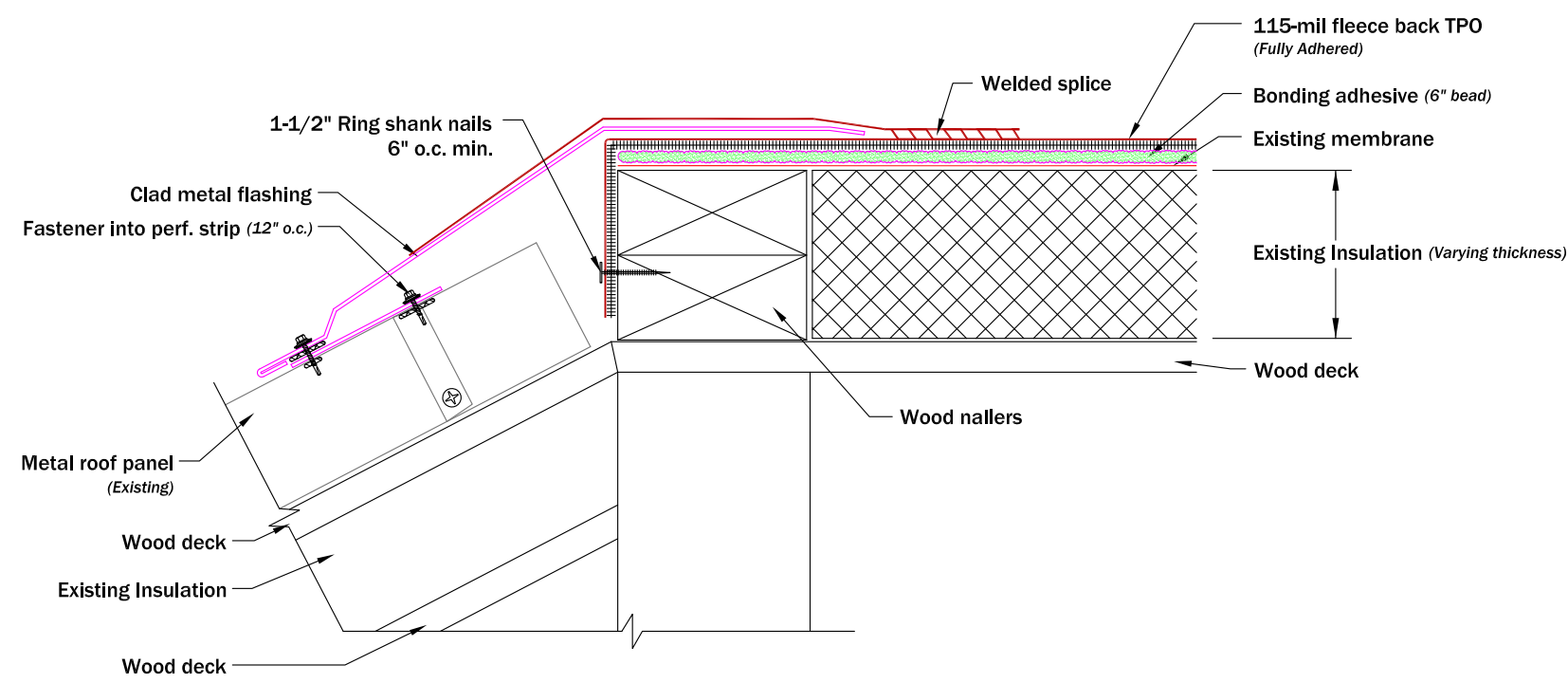
2 Perimeter - Saw Cut Reglet  
R-MES NTS



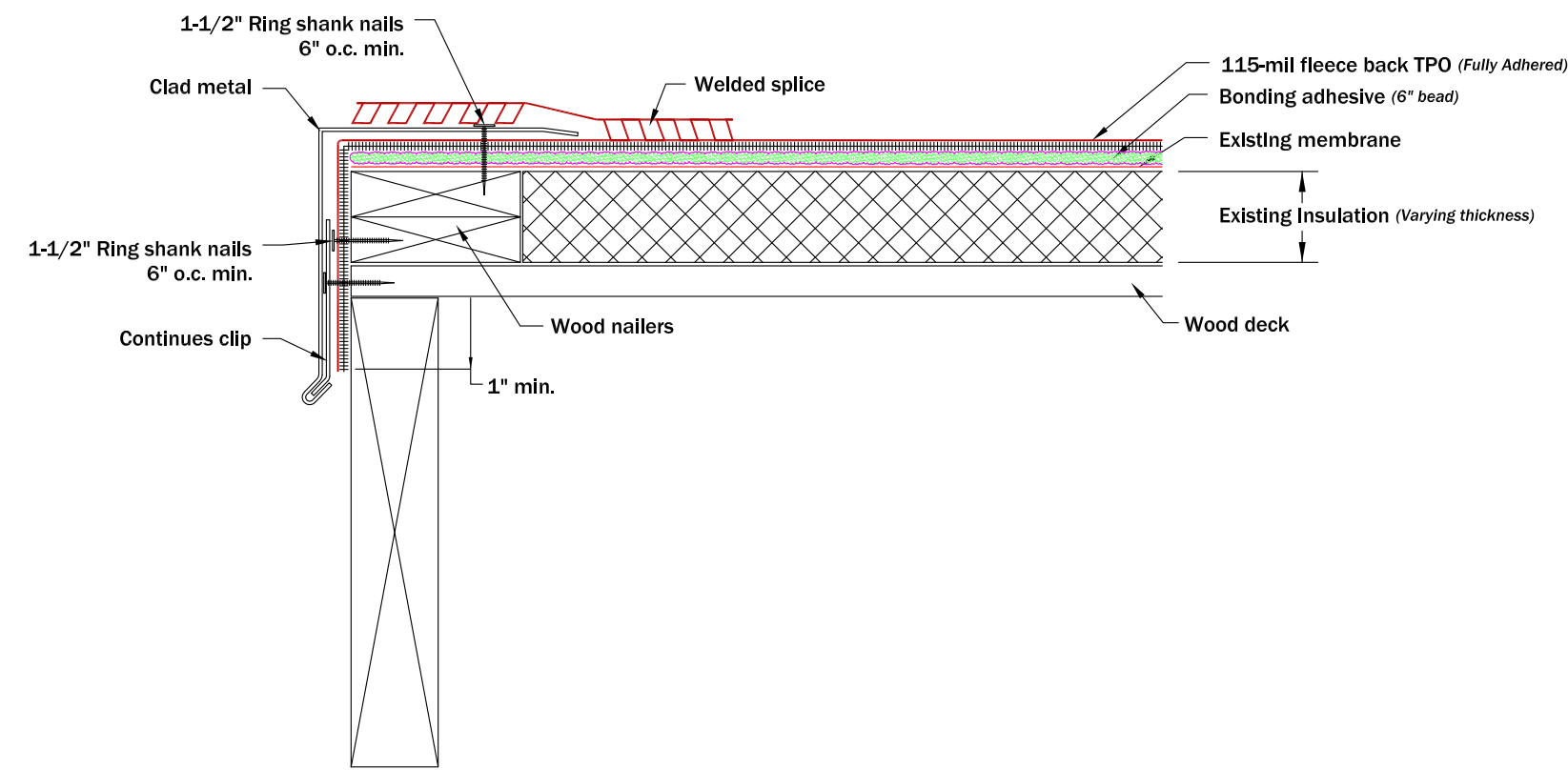
3 Perimeter - Surface Mounted Reglet  
R-MES NTS



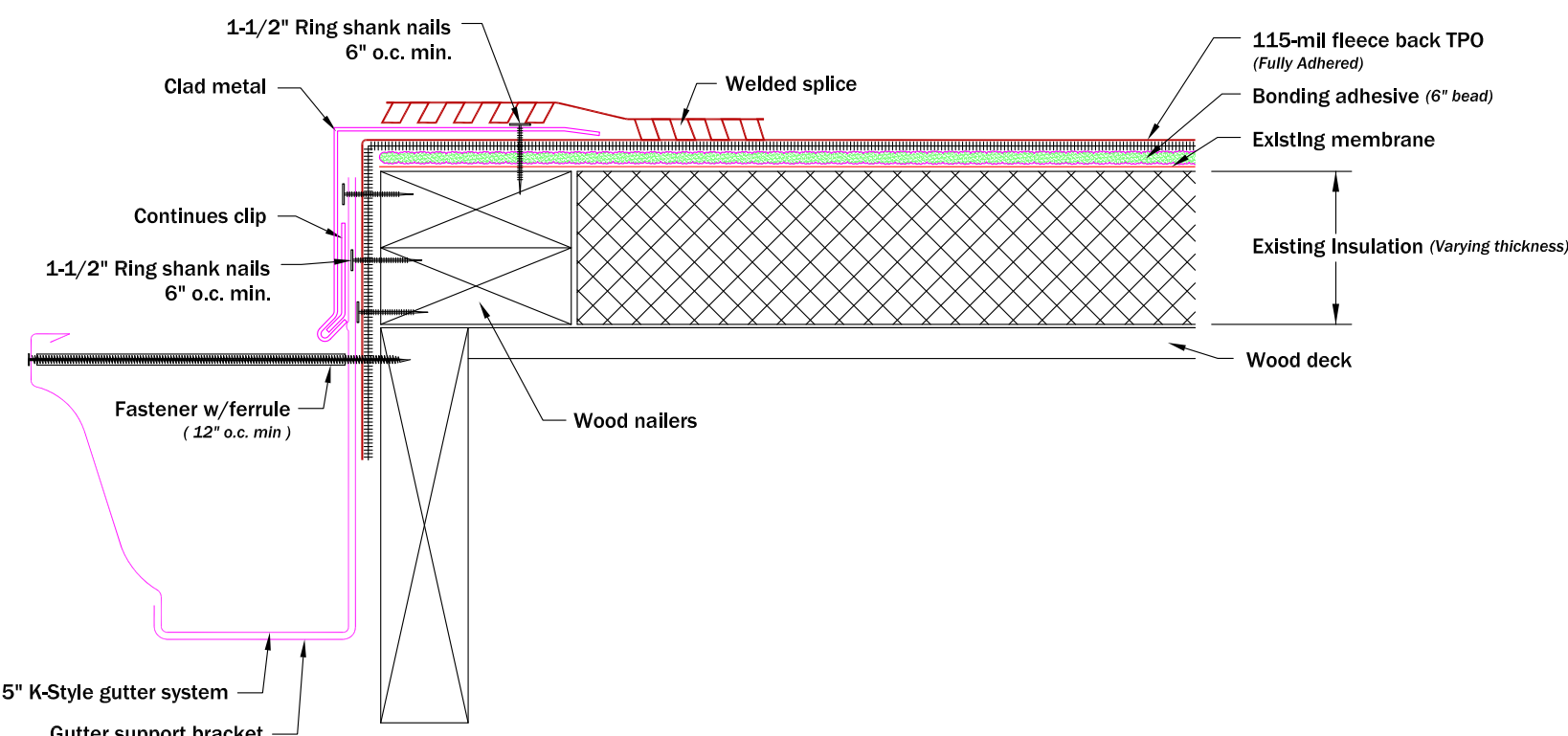
4 Perimeter - Metal to Single-ply  
R-MES NTS



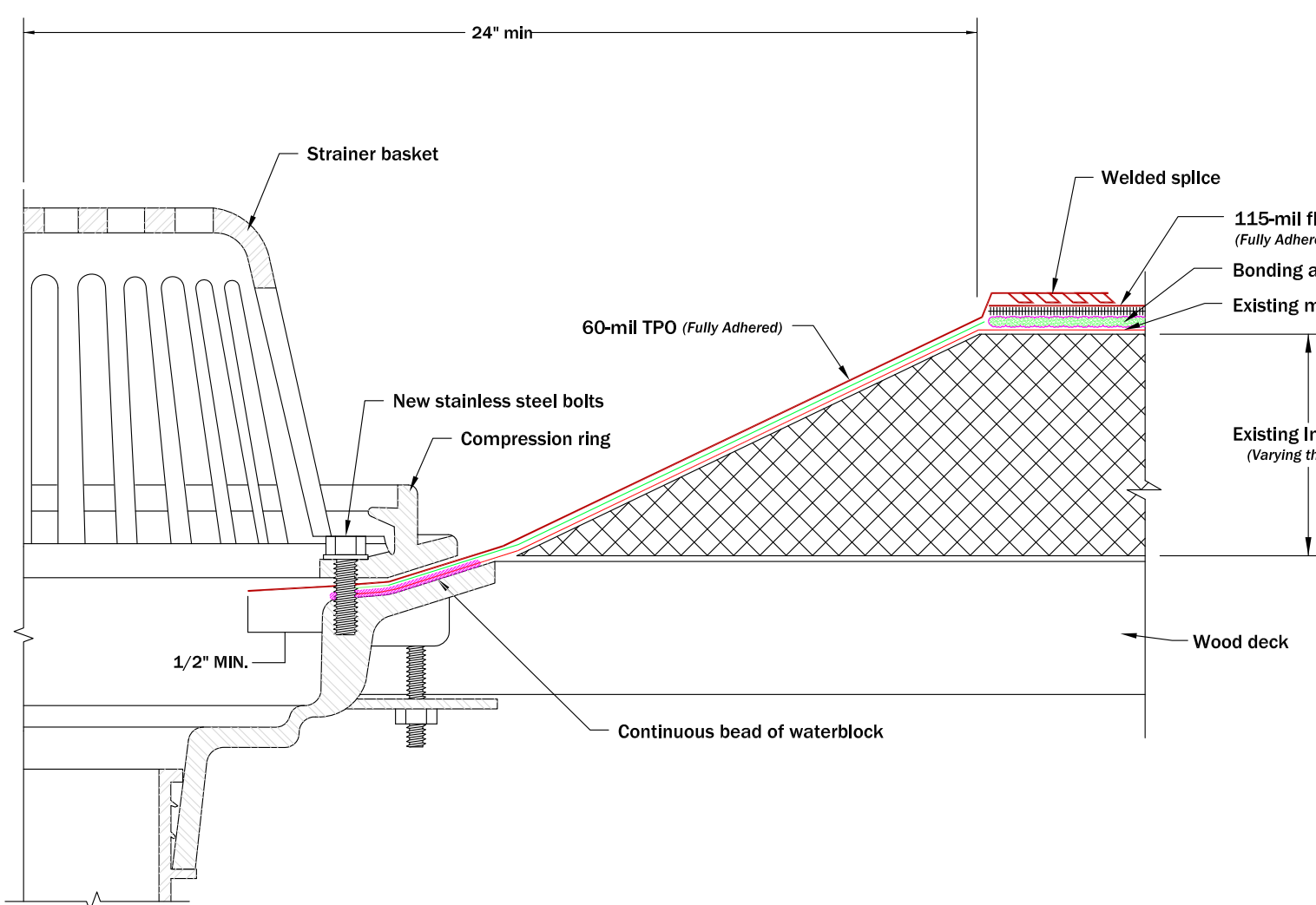
5 Perimeter - Drip Edge to Existing Metal Roof  
R-MES NTS



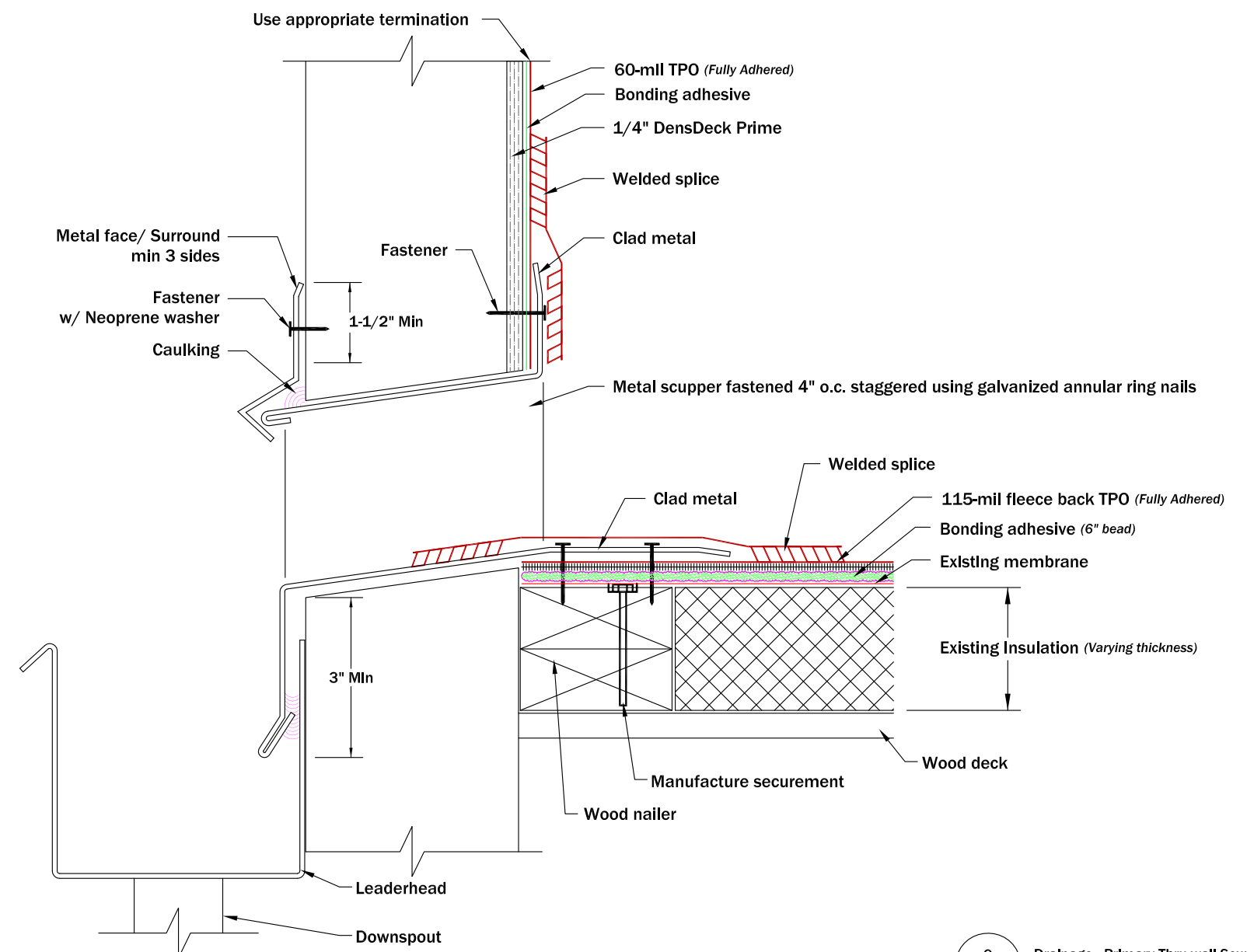
6 Drainage - Drip edge  
R-MES NTS



7 Drainage - Drip edge w/ Gutter  
R-MES NTS



8 Drainage - Roof Drain  
R-MES NTS



9 Drainage - Primary Thru-wall Scupper  
R-MES NTS



2501 NW Gerke Rd  
Pineville, OR 97754  
1.503.628.2882 | 1.503.266.2428

DRAWING REVISIONS

#

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT  
(500J)

BID SET

Roofing details

Drawing Title:

Sheet No.

Drawn By :

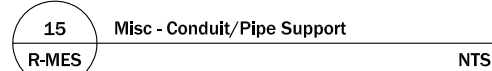
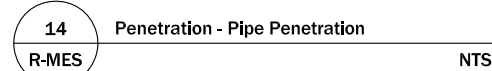
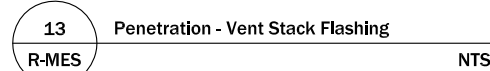
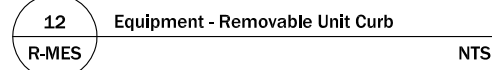
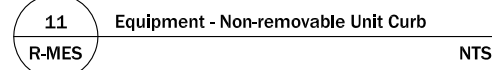
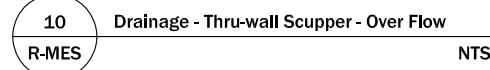
SEPTEMBER 11, 2023

Project No.

22140

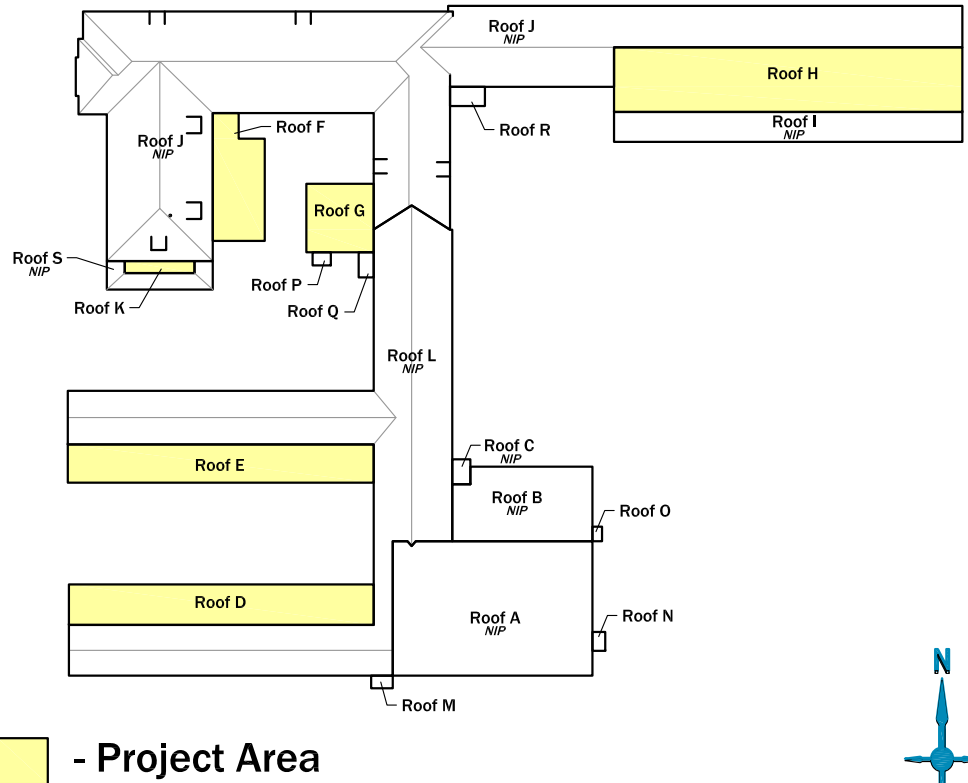
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JCSD – JEFFERSON COUNTY SD  
Madras Elementary - Madras, OR  
ROOF LAYOUT



DRAWING REVISIONS

#

MADRAS ELEMENTARY SCHOOL  
IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT  
(500J)

BID SET

Detail Callout Maps

Drawn By : D.V.G.

Date : SEPTEMBER 11, 2023

Revised :

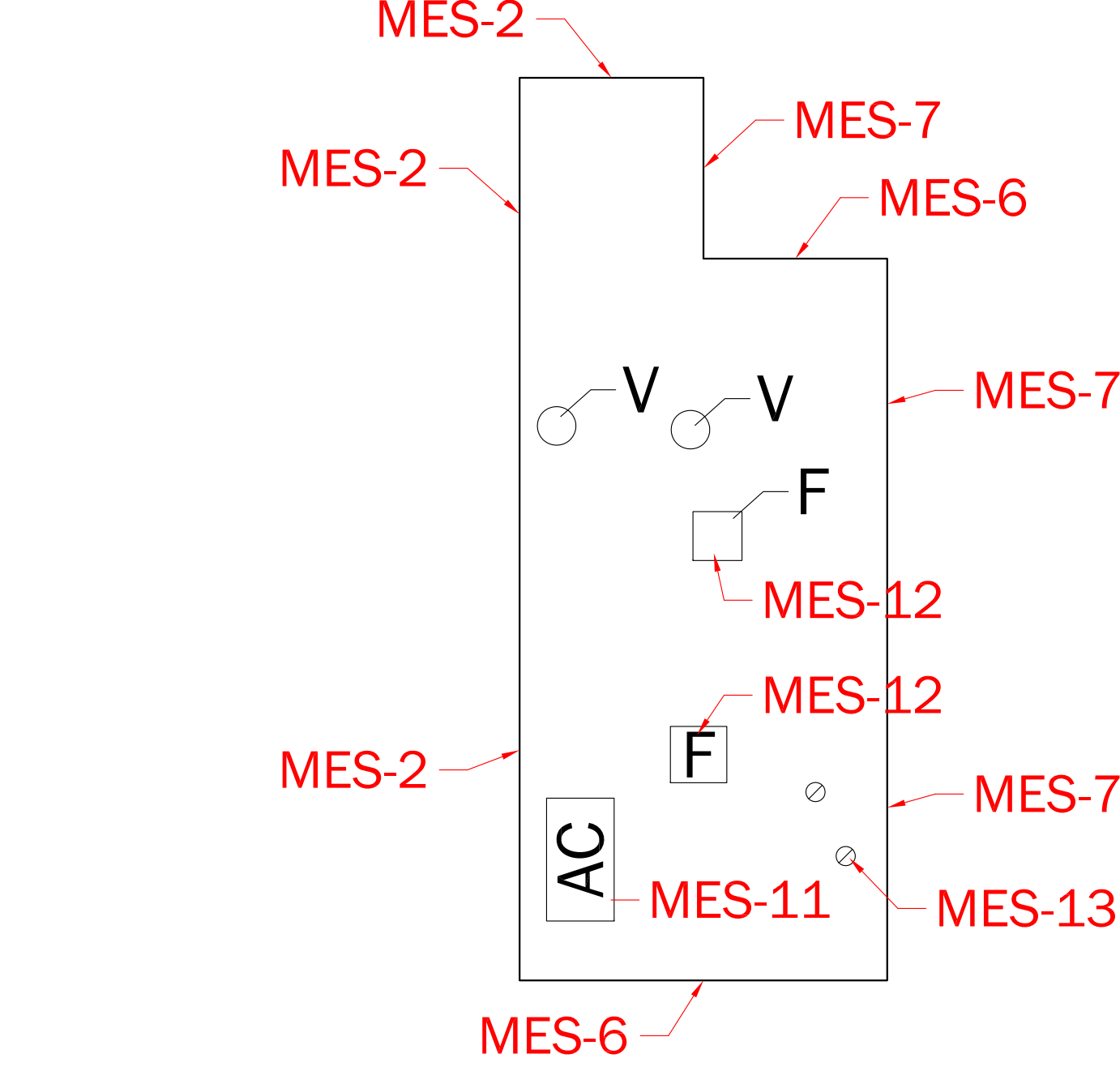
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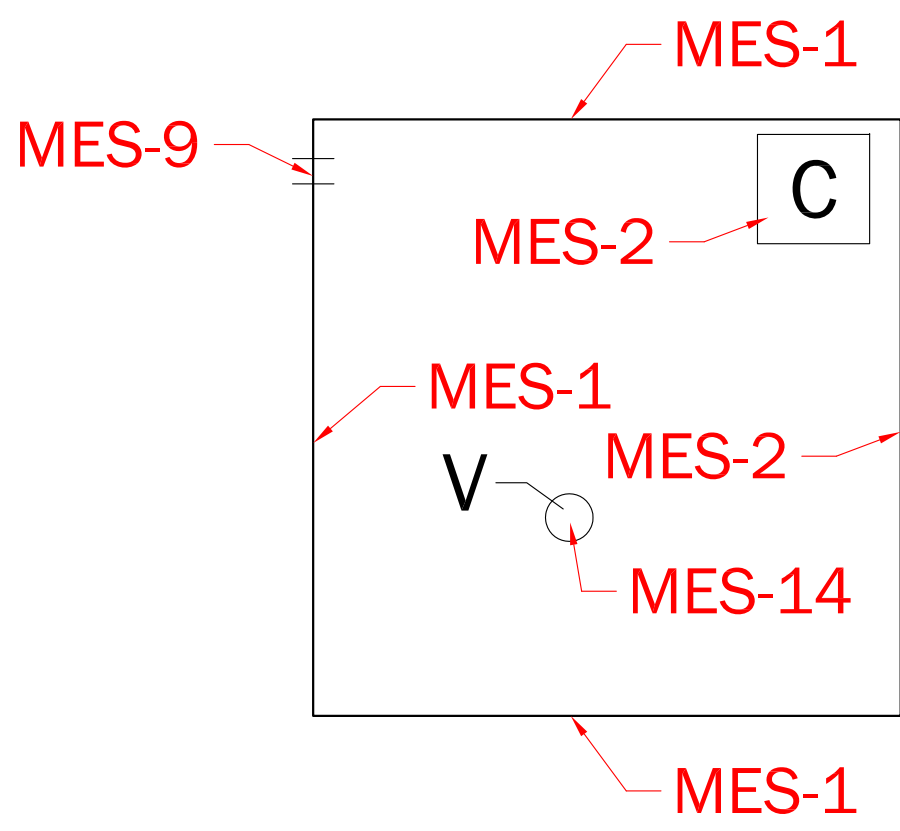
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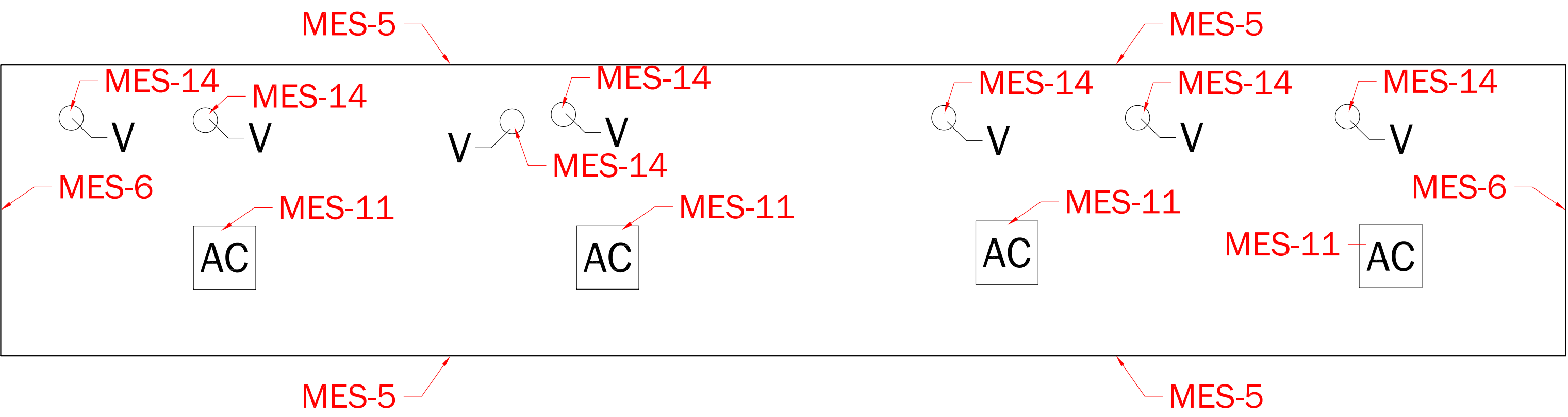
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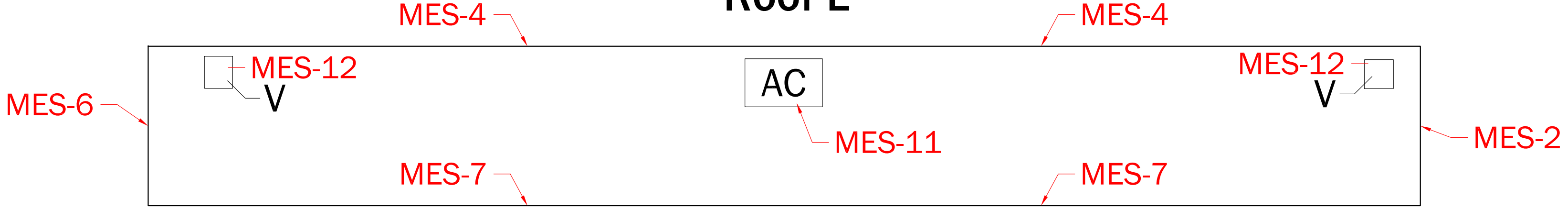
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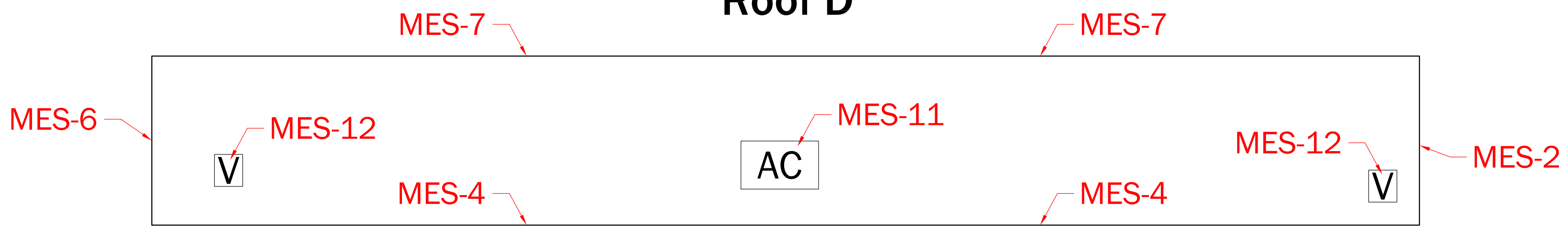
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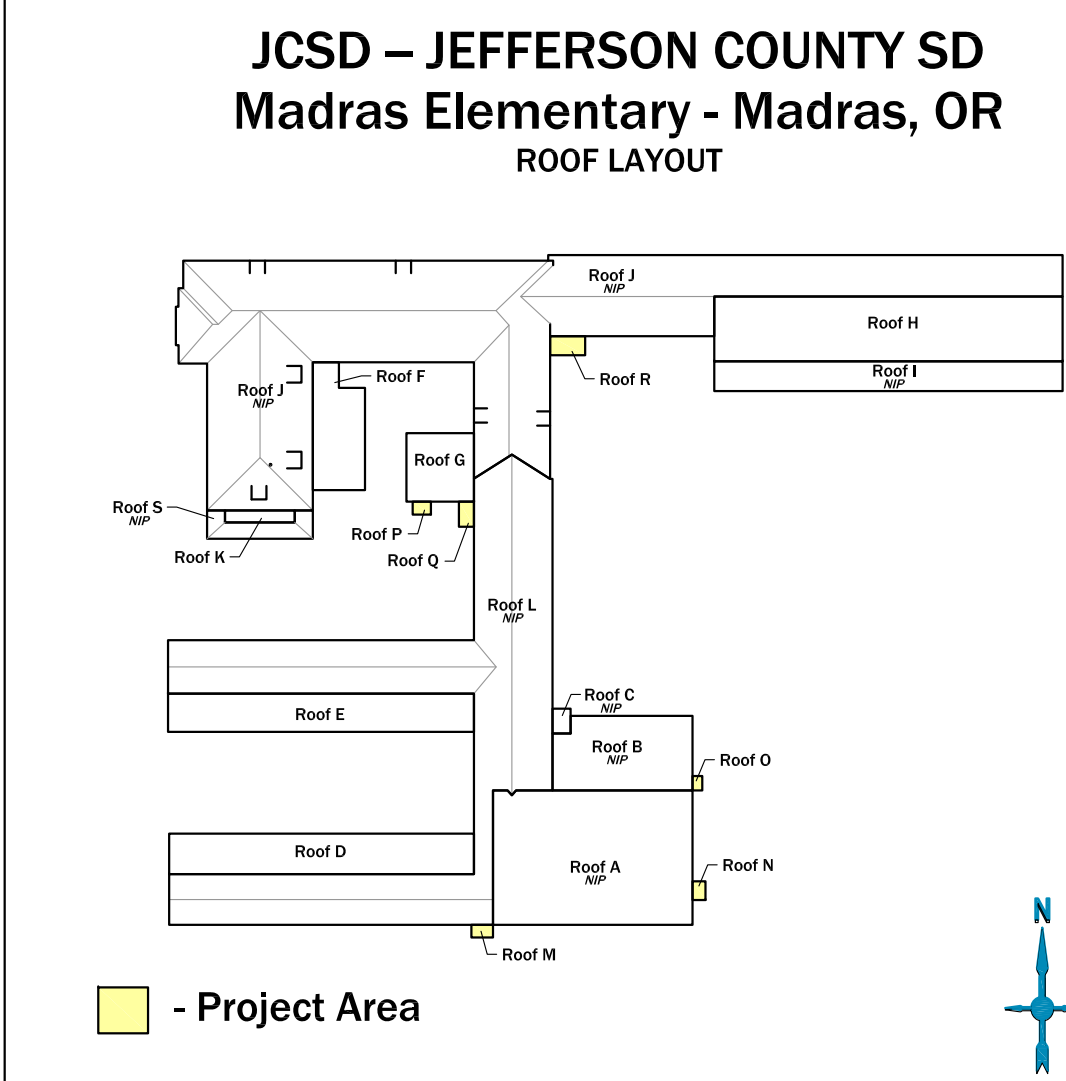
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Roof D

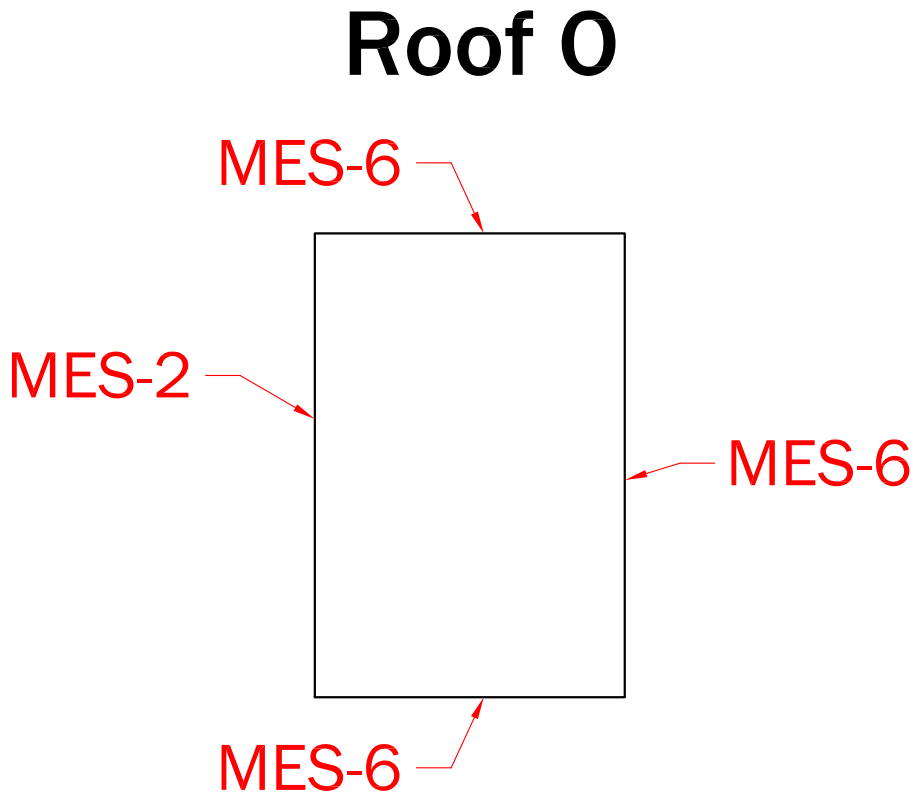
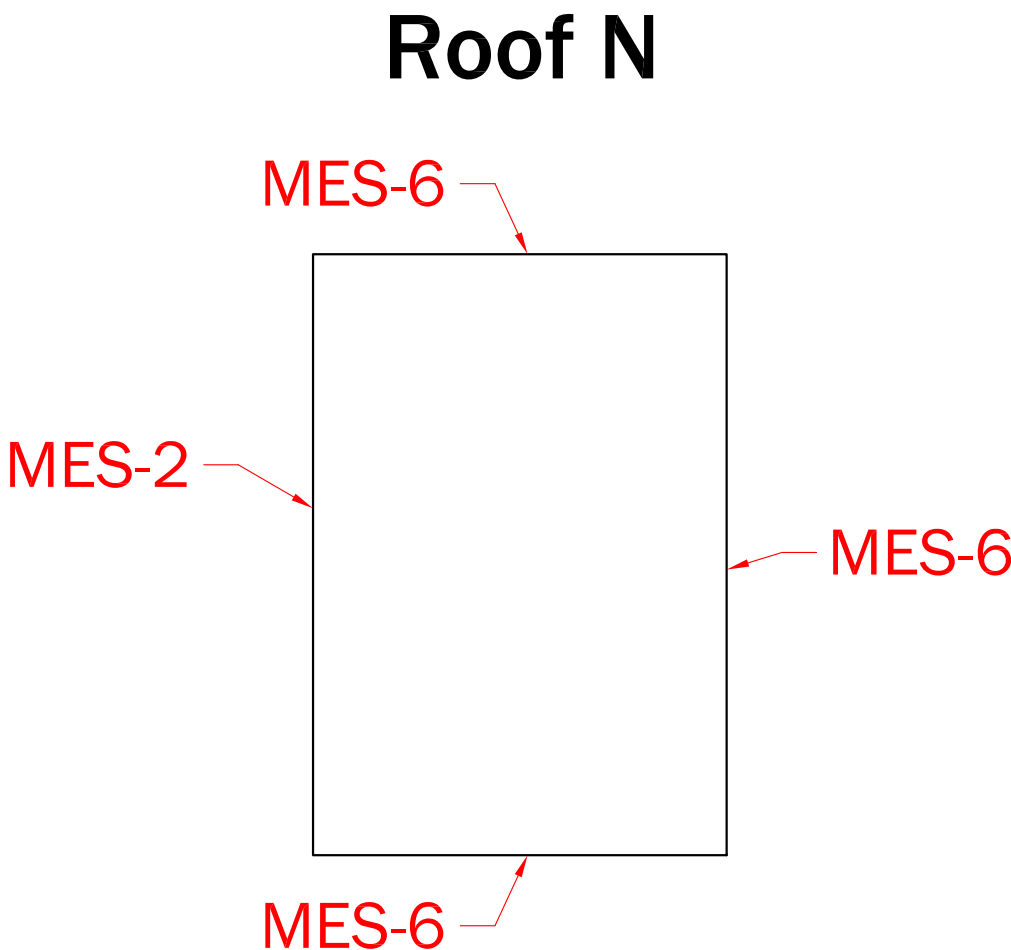
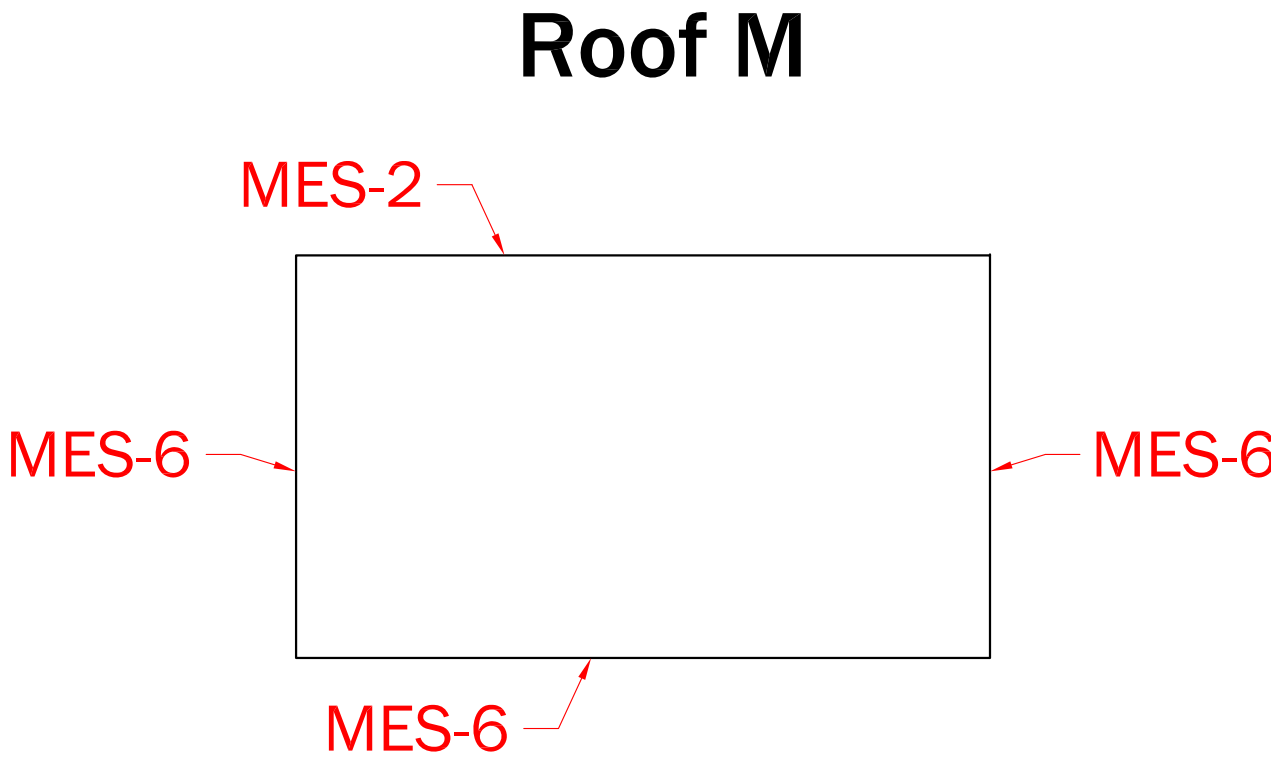
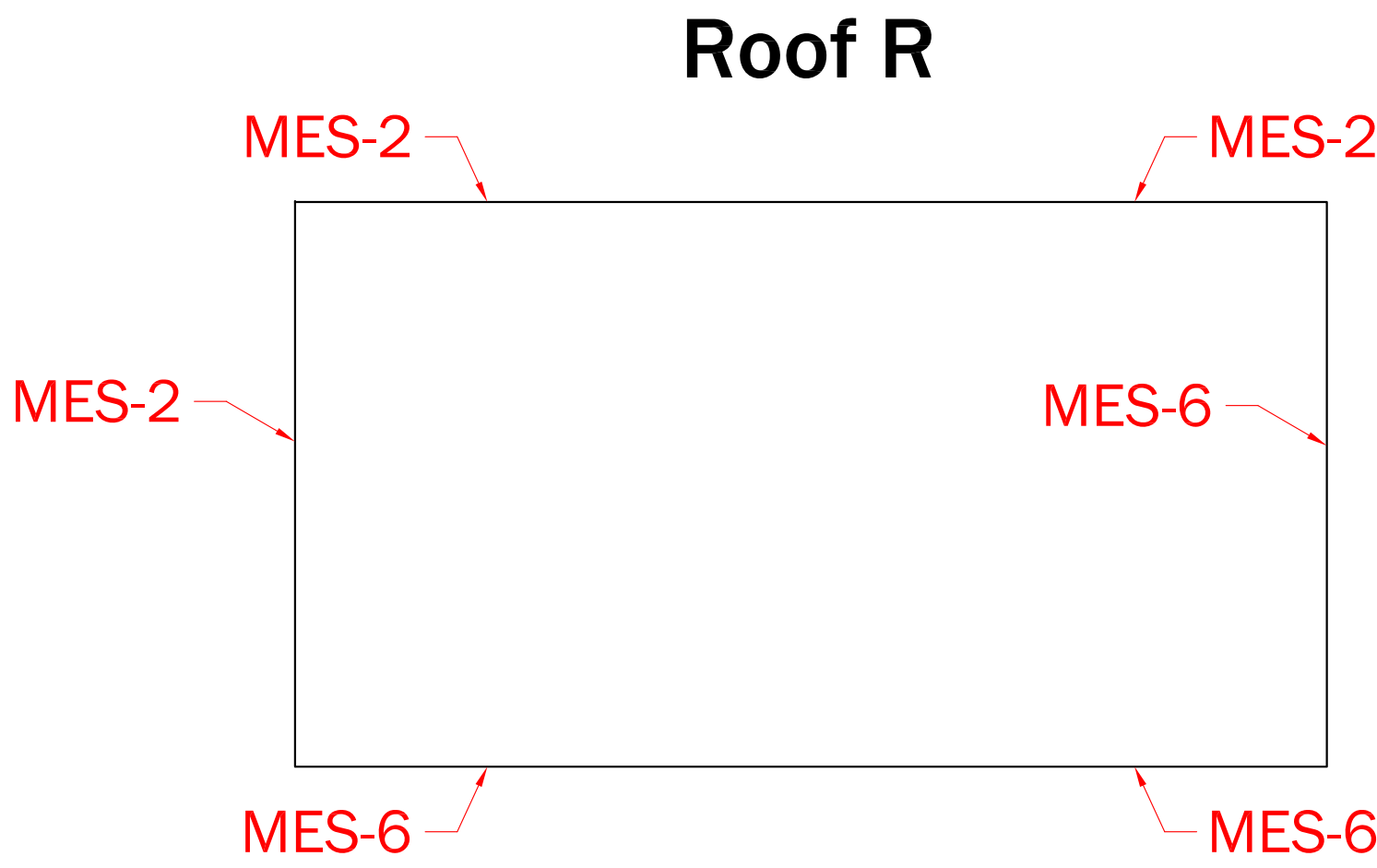
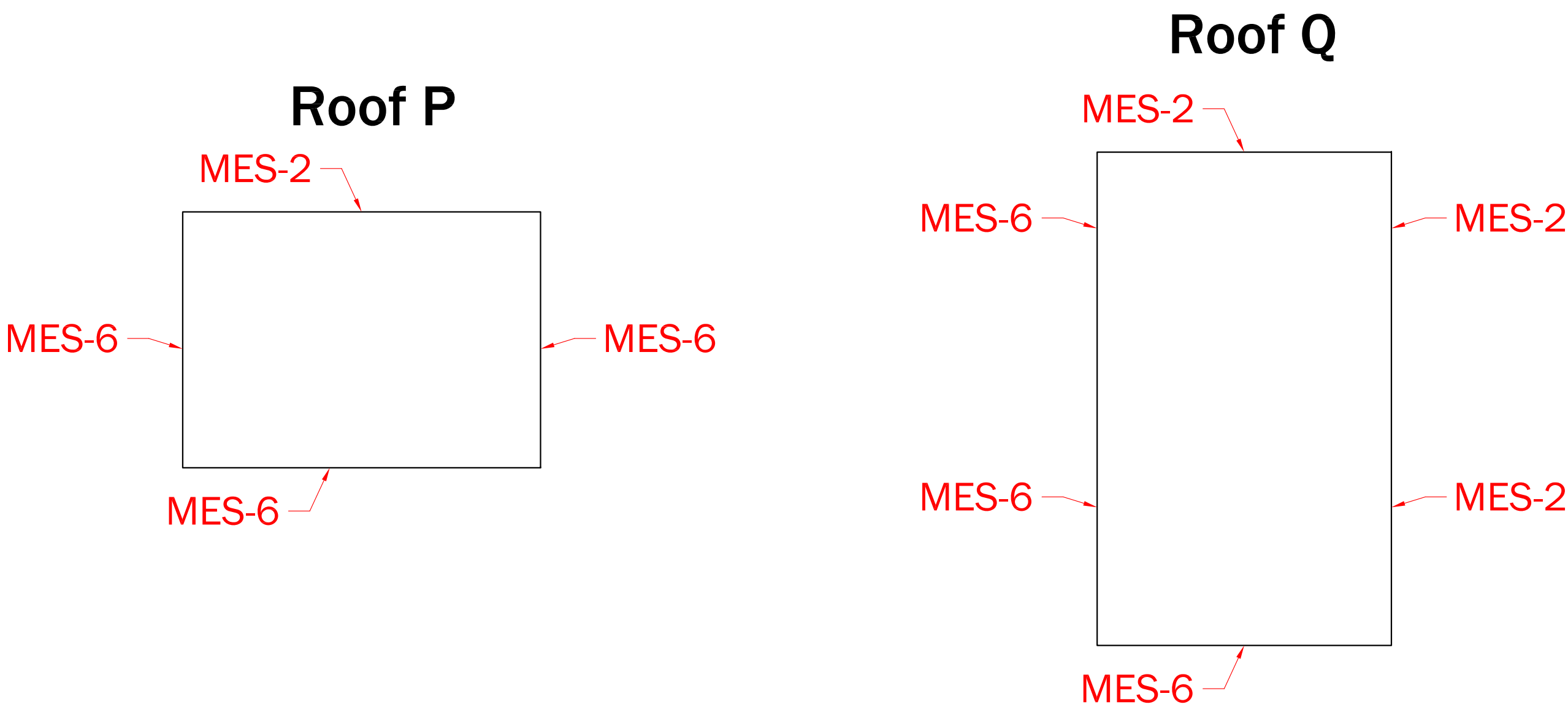






TECH / NORTHWEST, INC.

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MADRAS ELEMENTARY SCHOOL IMPROVEMENTS

JEFFERSON COUNTY SCHOOL DISTRICT (500J)

BID SET

Drawing Title:  
Detail Callout Maps

Date :  
SEPTEMBER 11, 2023

Drawn By :  
D.V.G.

Revised :

Project No.  
22140

Sheet No.  
R1.05