EMERY COUNTY SCHOOL DISTRICT

HUNTINGTON ELEMENTARY MECHANICAL UPGRADE

90 EAST 100 NORTH

HUNTINGTON, UT 84528

PROJECT CONTACTS

OWNER
EMERY COUNTY SCHOOL DISTRICT
120 NORTH MAIN STREET
HUNTINGTON, UTAH 84528
(435) 687-9846

ARCHITECTURAL
KMA ARCHITECTS, INC.
170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
(801) 377-5062

STRUCTURAL
DYNAMIC STRUCTURES
744 SOUTH 400 EAST,
OREM, UTAH 84097
(801) 356-1140

MECHANICAL
OLSEN & PETERSON ENGINEERING
14 EAST 2700 SOUTH
SALT LAKE CITY, UTAH 84115
(801) 486-4646

ELECTRICAL
RESOLUT
181 EAST 5600 SOUTH, SUITE 200
MURRAY, UT 84107
(801) 530-3148

GRAPHIC SYMBOLS

- ENGINEERED FILL
- EARTH
- CONCRETE
- ASPHALT
- BRICK VENEER
- STONE VENEER
- WOOD STUDS
- PLYWOOD
- HARDWOOD
- RIGID INSULATION
- BATT INSULATION
- BLOCKING
- GYPSUM BOARD
- PROPERTY LINE
- WALLTYPE TAG (X)
- DOOR NUMBER (XX)
- WINDOW TYPE (X)
- CEILING HEIGHT (9'-0")
- SHEET NOTE (XX)
- BUILDING ELEVATION MARK
- ROOM NUMBER (XXX)
- DETAIL TAG (X / XXX)
- ELEVATION MARK (X / XXX)
- SECTION MARK (X / XXX)

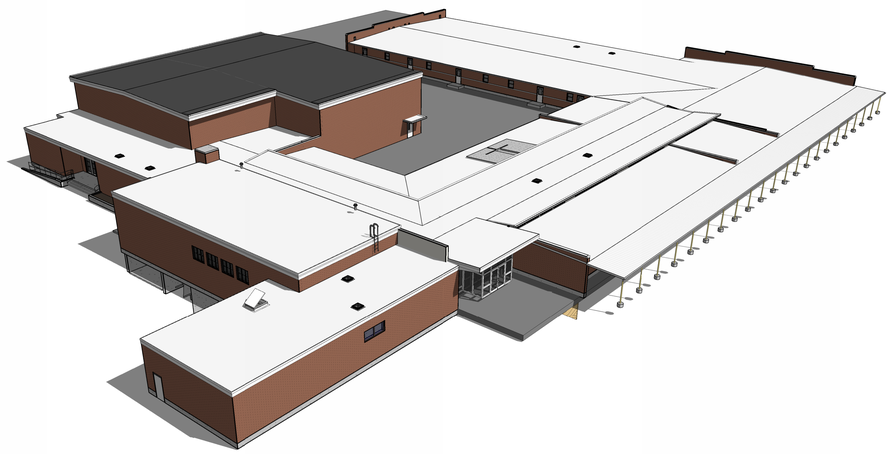
PROJECT DATA

APPROX. TOTAL BUILDING AREA: 48,870 SQ. FT.

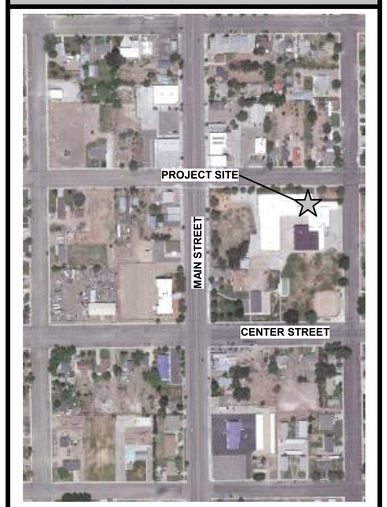
PROJECT SCOPE

HUNTINGTON ELEMENTARY SCHOOL MECHANICAL UPGRADE CONSISTS OF INSTALLING NEW GAS FIRE/DX ROOF TOP UNITS ALONG WITH THE ASSOCIATED DUCT WORK, NEW HEAT PUMP INDOOR UNIT, NEW AIR COOLED OUTDOOR UNIT, CABINET UNIT HEATER, REPLACING A NEW MAKE-UP AIR UNIT, REPLACING EXISTING EXHAUST FANS. ELECTRICAL SYSTEMS WILL BE MODIFIED ACCORDINGLY TO MEET THE NEW MECHANICAL NEEDS, UPGRADING THE BUILDINGS MAIN SERVICE AND REPLACEING EXISTING SWITCH GEAR. ROOF PATCHING IS REQUIRED FOR NEW PENETRATIONS AND STRUCTURAL BRACING AS NEEDED FOR THE NEW ROOF TOP UNITS. ARCHITECTURAL ITEMS WILL BE TO ADDRESS THE AFFECTED AREAS DUE TO CONSTRUCTION.

RENDERING



VICINITY MAP



INDEX OF DRAWINGS

ARCHITECTURAL

STRUCTURAL

PLUMBING

MECHANICAL

ELECTRICAL

1/14/2026 4:31:38 PM 12" = 1'-0"

170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
WWW.KMAARCHITECTS.COM

KMA ARCHITECTS

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY: STAFF
CHECKED BY: WC
DATE: JAN 2026
PROJECT #: 176525

TITLE

OVERALL MAIN FLOOR PLAN

1/16" = 1'-0"

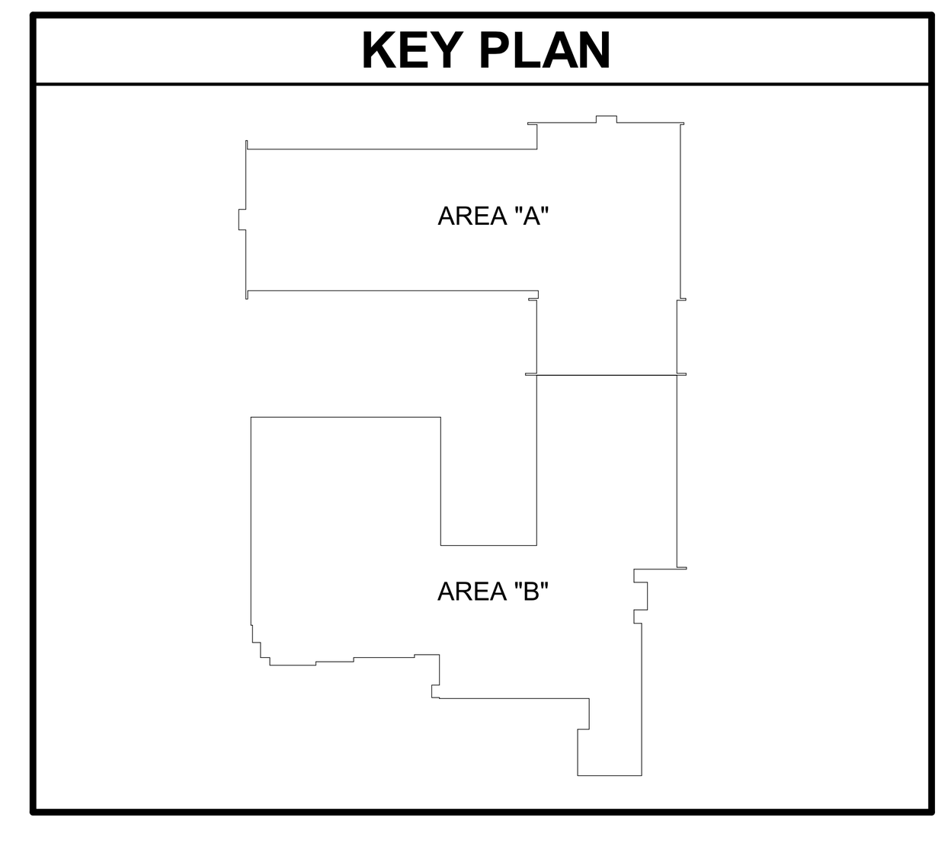
NORTH

GENERAL NOTES

A - COORDINATE WITH MECHANICAL PLANS FOR ADDITIONAL DEMOTION OF MECHANICAL SYSTEMS

B - ADDITIONAL CEILINGS MAY NEED TO BE DEMOLISHED THAT MAY NOT BE NOTED, TO PROVIDE ADDITIONAL ACCESS FOR THE MECHANICAL SYSTEM AND CONTROLS. CONTRACTOR IS TO PLAN ON WORKING ABOVE AND AROUND THE CEILINGS AND TO BE CAREFUL TO PROTECT THE CEILING TILES, THE GRIDS, EXISTING LIGHTING, FIRE ALARM, AND ANY GYPSUM BOARD MATERIAL FROM ANY DAMAGE. THE CONTRACTOR SHALL REPLACE ANY DAMAGED MATERIALS.

KEY PLAN



170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
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KMA ARCHITECTS

REVISIONS:

PROJECT TITLE

EMERY SCHOOL DISTRICT

HUNTINGTON ELEMENTARY SCHOOL

MECHANICAL UPGRADE

90 E 100 N

HUNTINGTON, UT 84528

DRAWN BY:	KMA
CHECKED BY:	WC
DATE:	JAN 2026
PROJECT #:	176525

A1.1

SHEET NOTES

1 - PROPOSED NEW LOCATION OF THE ATC PANEL. COORDINATE IN FIELD WITH EXISTING CONDITIONS, PATCH AND REPAIR ALL EXISTING CONDITIONS DUE TO CONSTRUCTION.

2 - EXISTING CONSTRUCTION TO REMAIN. CONTRACTOR TO PATCH, REPAIR, AND CLEAN AS REQUIRED DUE TO DEMOLITION AND NEW CONSTRUCTION.

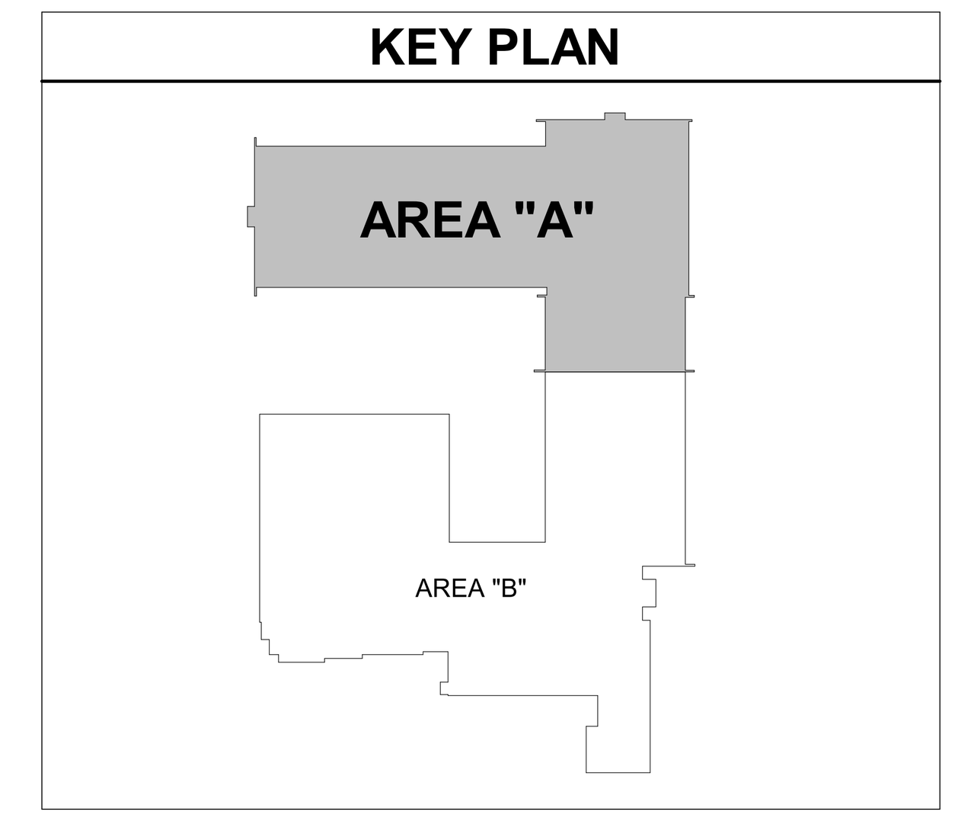
AREA 'A' MAIN FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

A - COORDINATE WITH MECHANICAL PLANS FOR ADDITIONAL DEMOTION OF MECHANICAL SYSTEMS

B - ADDITIONAL CEILINGS MAY NEED TO BE DEMOLISHED THAT MAY NOT BE NOTED, TO PROVIDE ADDITIONAL ACCESS FOR THE MECHANICAL SYSTEM AND CONTROLS. CONTRACTOR IS TO PLAN ON WORKING ABOVE AND AROUND THE CEILINGS AND TO BE CAREFUL TO PROTECT THE CEILING TILES, THE GRIDS, EXISTING LIGHTING, FIRE ALARM, AND ANY GYPSUM BOARD MATERIAL FROM ANY DAMAGE. THE CONTRACTOR SHALL REPLACE ANY DAMAGED MATERIALS.

KEY PLAN



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KMA ARCHITECTS

REVISIONS:

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HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

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A1.1A

AREA 'B' MAIN FLOOR PLAN

1/8" = 1'-0"

SHEET NOTES

1 - PROPOSED NEW LOCATION OF THE ATC PANEL. COORDINATE IN FIELD WITH EXISTING CONDITIONS. PATCH AND REPAIR ALL EXISTING CONDITIONS DUE TO CONSTRUCTION.

2 - EXISTING CONSTRUCTION TO REMAIN. CONTRACTOR TO PATCH, REPAIR, AND CLEAN AS REQUIRED DUE TO DEMOLITION AND NEW CONSTRUCTION.

3 - EXISTING CHIMNEY BLOCK AND FOUNDATION TO BE REMOVED FOR NEW ELECTRICAL EQUIPMENT. CONTRACTOR TO COORDINATE WITH ELECTRICAL PLANS.

4 - EXISTING CONCRETE SLAB TO BE REMOVED TO PROVIDE ACCESS FOR NEW ELECTRICAL EQUIPMENT/CONDUIT. REPLACE CONCRETE SLAB TO MATCH EXISTING.

5 - CONTRACTOR IS TO PATCH EXISTING VOID RESULTING FROM DEMOLITION OF EXISTING CHIMNEY. CONCRETE IS TO BE FORMED INTO OPENING TO TIE IN WITH EXISTING FOUNDATION. COORDINATE WITH STRUCTURAL PLANS.

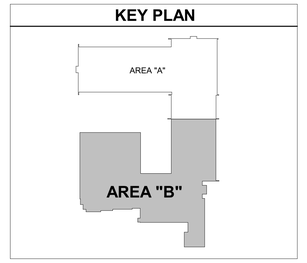
6 - PROVIDE NEW CONCRETE CURB FOR ELECTRICAL EQUIPMENT. COORDINATE SIZE AND THICKNESS WITH ELECTRICAL PLANS AND SPECS.

GENERAL NOTES

A - COORDINATE WITH MECHANICAL PLANS FOR ADDITIONAL DEMOTION OF MECHANICAL SYSTEMS

B - ADDITIONAL CEILINGS MAY NEED TO BE DEMOLISHED THAT MAY NOT BE NOTED, TO PROVIDE ADDITIONAL ACCESS FOR THE MECHANICAL SYSTEM AND CONTROLS. CONTRACTOR IS TO PLAN ON WORKING ABOVE AND AROUND THE CEILINGS AND TO BE CAREFUL TO PROTECT THE CEILING TILES, THE GRIDS, EXISTING LIGHTING, FIRE ALARM, AND ANY GYPSUM BOARD MATERIAL FROM ANY DAMAGE. THE CONTRACTOR SHALL REPLACE ANY DAMAGED MATERIALS.

KEY PLAN



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KMA ARCHITECTS

STATE OF UTAH
WILLIAM CHRISTENSEN
No. 9469958-0301
1-15-26
LICENSED ARCHITECT

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N HUNTINGTON, UT 84528

DRAWN BY:	KMA
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DATE:	JAN 2026
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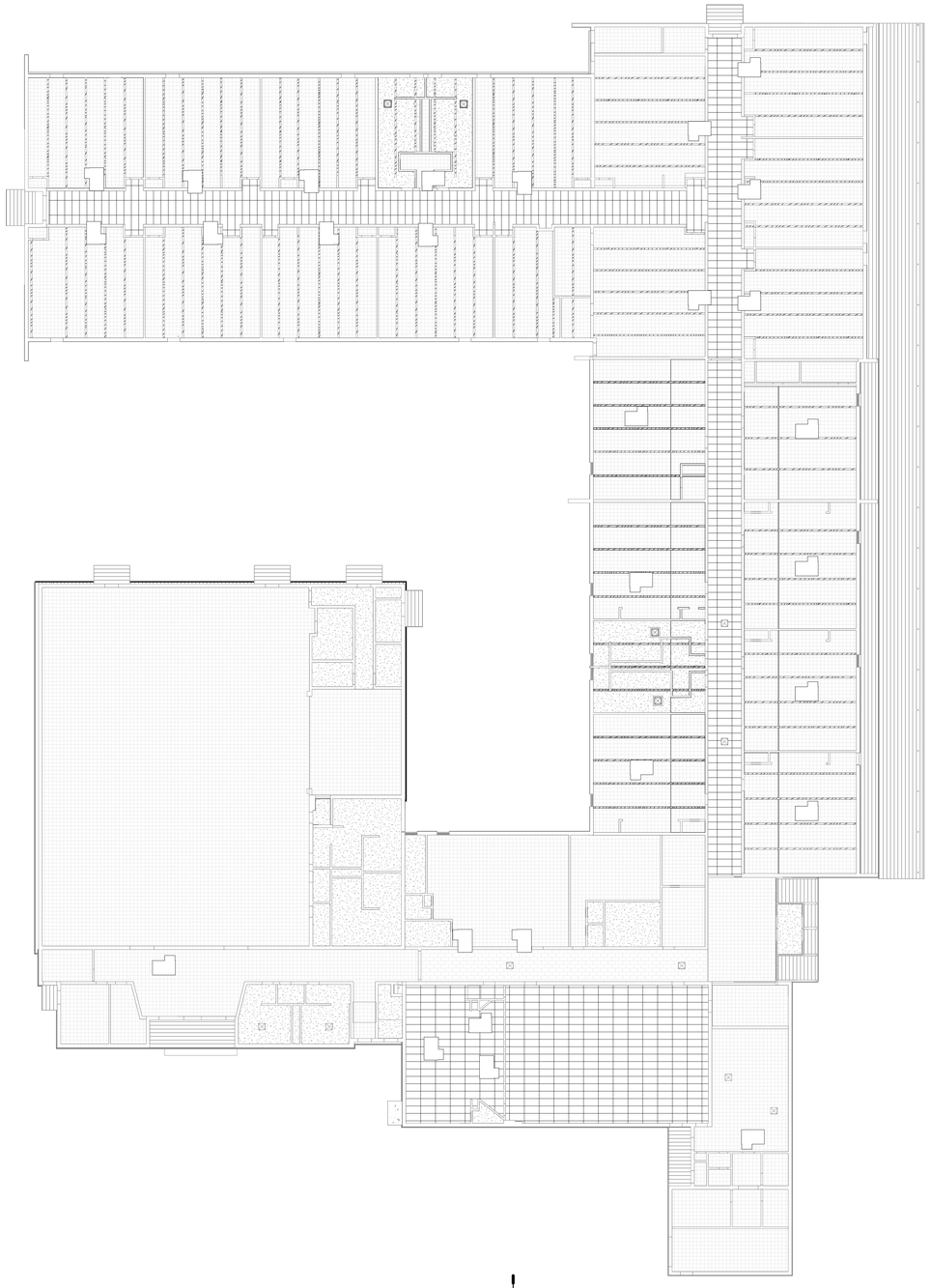
A1.1B

1/14/2026 4:37:49 PM As indicated

11/4/2026 4:31:40 PM As indicated



MAIN FLOOR REFLECTED
1/16" = 1'-0"

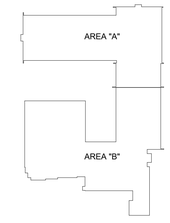
NORTH

GENERAL NOTES

A - COORDINATE WITH MECHANICAL PLANS FOR ADDITIONAL DEMOTION OF MECHANICAL SYSTEMS

B - ADDITIONAL CEILINGS MAY NEED TO BE DEMOLISHED THAT MAY NOT BE NOTED, TO PROVIDE ADDITIONAL ACCESS FOR THE MECHANICAL SYSTEM AND CONTROLS. CONTRACTOR IS TO PLAN ON WORKING ABOVE AND AROUND THE CEILINGS AND TO BE CAREFUL TO PROTECT THE CEILING TILES, THE GRIDS, EXISTING LIGHTING, FIRE ALARM, AND ANY GYPSUM BOARD MATERIAL FROM ANY DAMAGE. THE CONTRACTOR SHALL REPLACE ANY DAMAGED MATERIALS.

KEY PLAN



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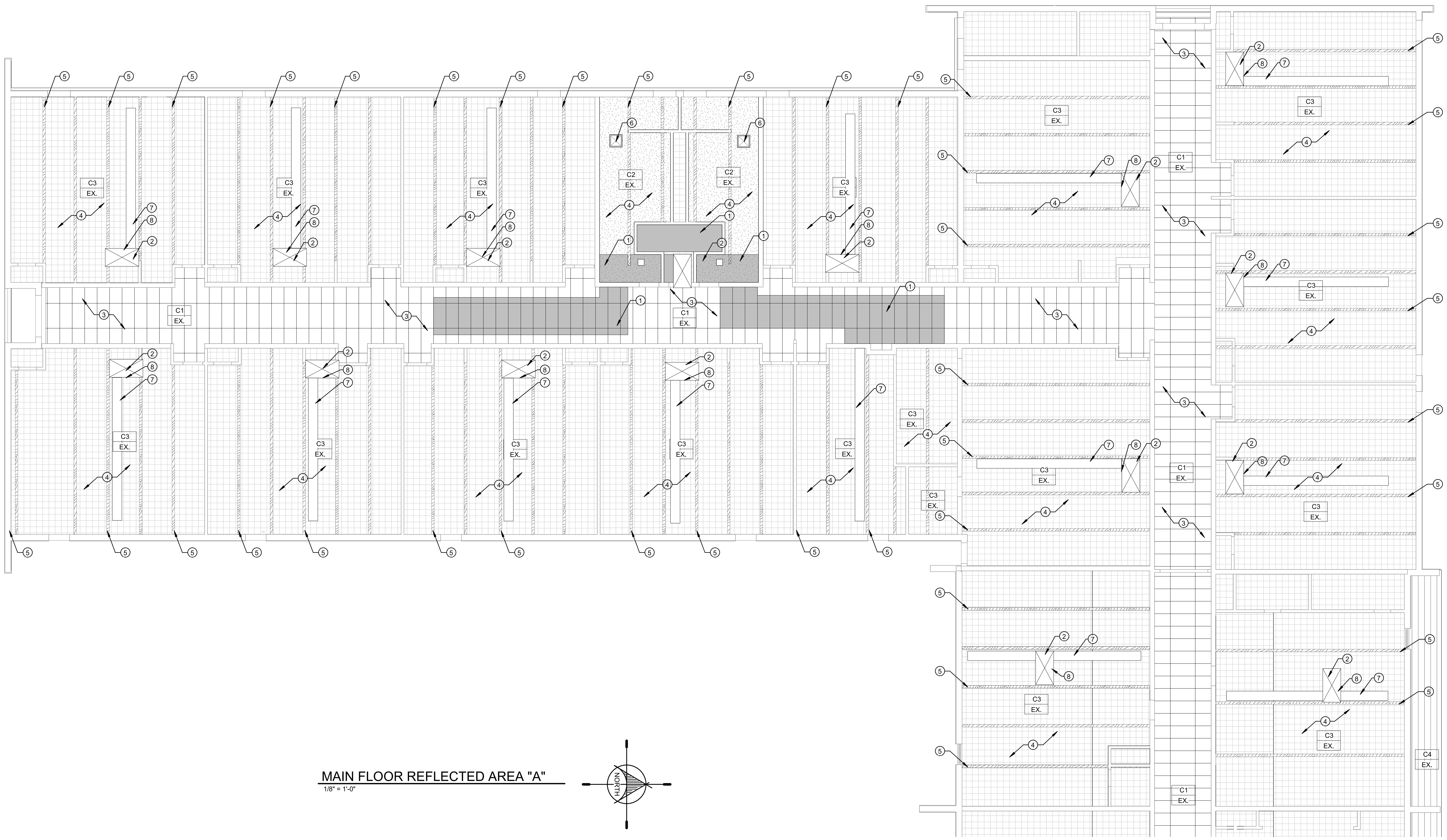
A2.1



MAIN FLOOR REFLECTED AREA "A"
1/8" = 1'-0"

SHEET NOTES

1 - EXISTING CEILING TO BE REMOVED TO ALLOW ACCESS FOR DEMOLITION AND NEW CONSTRUCTION. CONTRACTOR IS TO PRESERVE ALL CEILING ELEMENTS (LIGHT FIXTURES, CEILING TILE, CEILING GRID, ETC.) THAT IS REMOVED TO PROVIDE ACCESS WITHIN THE SHADED REGION, REINSTALL ALL ELEMENTS WHEN WORK ABOVE IS COMPLETED. CONTRACTOR IS TO REPLACE ANY DAMAGED COMPONENTS CAUSED BY CONSTRUCTION.

2 - APPROXIMATE LOCATION OF NEW MECHANICAL UNIT. COORDIANTE WITH MECHANICAL AND STRUCTURAL PLAN ON EXACT LOCATION AND BRACING - SEE STRCUTRAL DETAILS ON SHEET S2.0.

3 - CEILING TILE IS TO BE REMOVED AND REINSTALLED AS NEEDED TO ALLOW FOR ANY NEW CONTROL WIRES TO BE INSTALLED. CONTRACTOR IS TO FIX ANY GRID DAMAGED DUE TO CONSTRUCTION.

4 - EXISTING CONSTRUCTION TO REMAIN. CONTRACTOR TO PATCH, REPAIR, AND CLEAN AS REQUIRED DUE TO DEMOLITION AND NEW CONSTRUCTION.

5 - EXISTING STRUCTURE TO REMAIN.

6 - EXISTING SKY LIGHTS TO REMAIN.

7 - NEW MECHANICAL EQUIPMENT AND DUCT WORK TO BE PAINTED - COLOR SELECTED BY ARCHITECT.

8 - NEW WOOD STRUCTUTRAL SUPPORTS ARE TO BE STAINED TO MATCH EXISTING BEAMS. -STAIN COLOR TO BE APPROVED BY ARCHITECT.

GENERAL NOTES

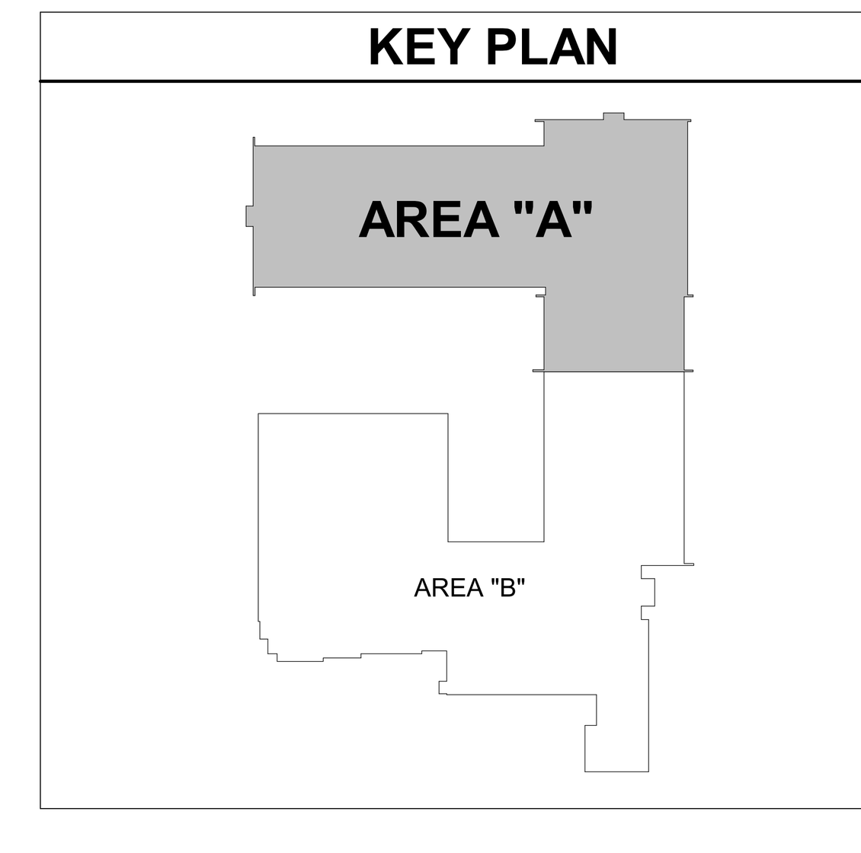
A - COORDINATE WITH MECHANICAL PLANS FOR ADDITIONAL DEMOTION OF MECHANICAL SYSTEMS

B - ADDITIONAL CEILINGS MAY NEED TO BE DEMOLISHED THAT MAY NOT BE NOTED, TO PROVIDE ADDITIONAL ACCESS FOR THE MECHANICAL SYSTEM AND CONTROLS. CONTRACTOR IS TO PLAN ON WORKING ABOVE AND AROUND THE CEILINGS AND TO BE CAREFUL TO PROTECT THE CEILING TILES, THE GRIDS, EXISTING LIGHTING, FIRE ALARM, AND ANY GYPSUM BOARD MATERIAL FROM ANY DAMAGE. THE CONTRACTOR SHALL REPLACE ANY DAMAGED MATERIALS.

CEILING LEGEND

C1	EXISTING 2X4 CEILING GRID.	
C2	EXISTING 5/8" GYP. BOARD (TEXTURED AND PAINTED)	
C3	EXISTING GLUE UP CEILING TILES	
C4	EXISTING SOFFIT	
	EXISTING CEILING HEIGHT (VERIFY ELEVATION)	C1 EX.
	LIGHT FIXTURES	
	MECHANICAL DIFFUSERS	

KEY PLAN



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KMA ARCHITECTS

STATE OF UTAH
LICENSED ARCHITECT
1-15-26

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY:	KMA
CHECKED BY:	WC
DATE:	JAN 2026
PROJECT #:	176525

A2.1A

MAIN FLOOR REFLECTED AREA "B"
1/8" = 1'-0"

SHEET NOTES

1 - EXISTING CEILING TO BE REMOVED TO ALLOW ACCESS FOR DEMOLITION AND NEW CONSTRUCTION. CONTRACTOR IS TO PRESERVE ALL CEILING ELEMENTS (LIGHT FIXTURES, CEILING TILE, CEILING GRID, ETC.) THAT IS REMOVED TO PROVIDE ACCESS WITHIN THE SHADED REGION, REINSTALL ALL ELEMENTS WHEN WORK ABOVE IS COMPLETED. CONTRACTOR IS TO REPLACE ANY DAMAGED COMPONENTS CAUSED BY CONSTRUCTION.

2 - APPROXIMATE LOCATION OF NEW MECHANICAL UNIT. COORDIANTE WITH MECHANICAL AND STRUCTURAL PLAN ON EXACT LOCATION AND BRACING - SEE STRCUTRAL DETAILS ON SHEET S2.0.

3 - CEILING TILE IS TO BE REMOVED AND REINSTALLED AS NEEDED TO ALLOW FOR ANY NEW CONTROL WIRES TO BE INSTALLED. CONTRACTOR IS TO FIX ANY GRID DAMAGED DUE TO CONSTRUCTION.

4 - EXISTING CONSTRUCTION TO REMAIN. CONTRACTOR TO PATCH, REPAIR, AND CLEAN AS REQUIRED DUE TO DEMOLITION AND NEW CONSTRUCTION.

5 - EXISTING STRUCTURE TO REMAIN.

6 - EXISTING SKY LIGHTS TO REMAIN.

7 - NEW MECHANICAL EQUIPMENT AND DUCT WORK TO BE PAINTED - COLOR SELECTED BY ARCHITECT.

8 - NEW WOOD STRUCTUTRAL SUPPORTS ARE TO BE STAINED TO MATCH EXISTING BEAMS. -STAIN COLOR TO BE APPROVED BY ARCHITECT.

GENERAL NOTES

A - COORDINATE WITH MECHANICAL PLANS FOR ADDITIONAL DEMOTION OF MECHANICAL SYSTEMS

B - ADDITIONAL CEILINGS MAY NEED TO BE DEMOLISHED THAT MAY NOT BE NOTED, TO PROVIDE ADDITIONAL ACCESS FOR THE MECHANICAL SYSTEM AND CONTROLS. CONTRACTOR IS TO PLAN ON WORKING ABOVE AND AROUND THE CEILINGS AND TO BE CAREFUL TO PROTECT THE CEILING TILES, THE GRIDS, EXISTING LIGHTING, FIRE ALARM, AND ANY GYPSUM BOARD MATERIAL FROM ANY DAMAGE. THE CONTRACTOR SHALL REPLACE ANY DAMAGED MATERIALS.

CEILING LEGEND

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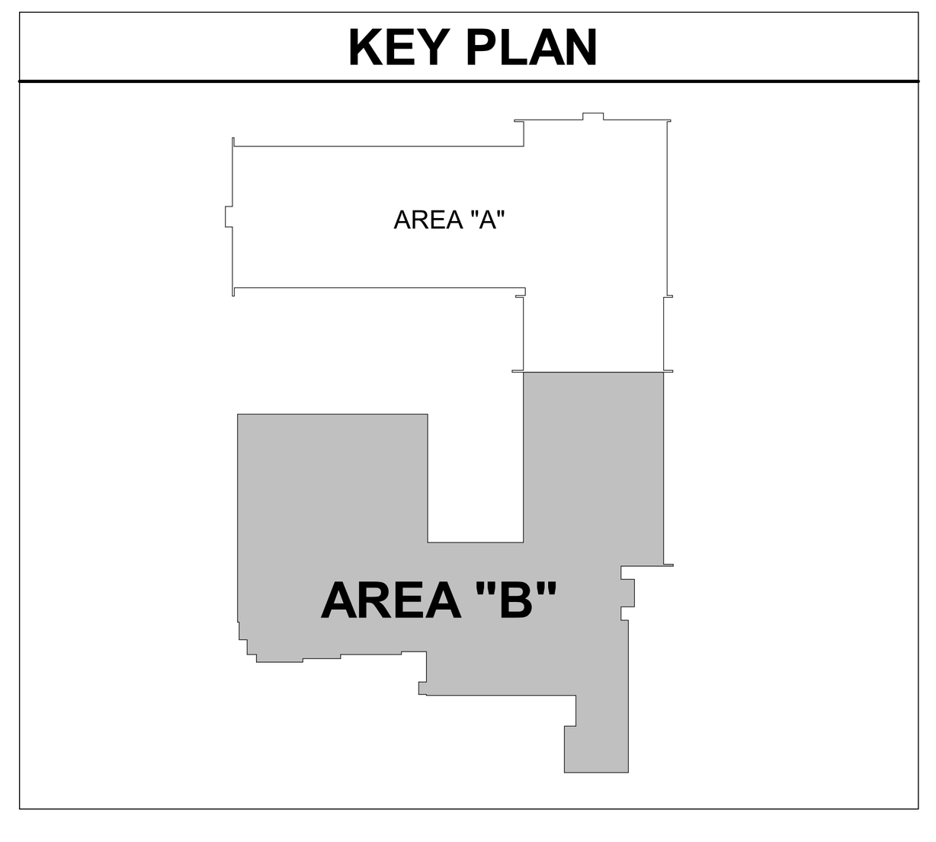
C4	EXISTING SOFFIT	
	EXISTING CEILING HEIGHT (VERIFY ELEVATION)	C1 EX.
	LIGHT FIXTURES	
	MECHANICAL DIFFUSERS	

KEY PLAN



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KMA ARCHITECTS

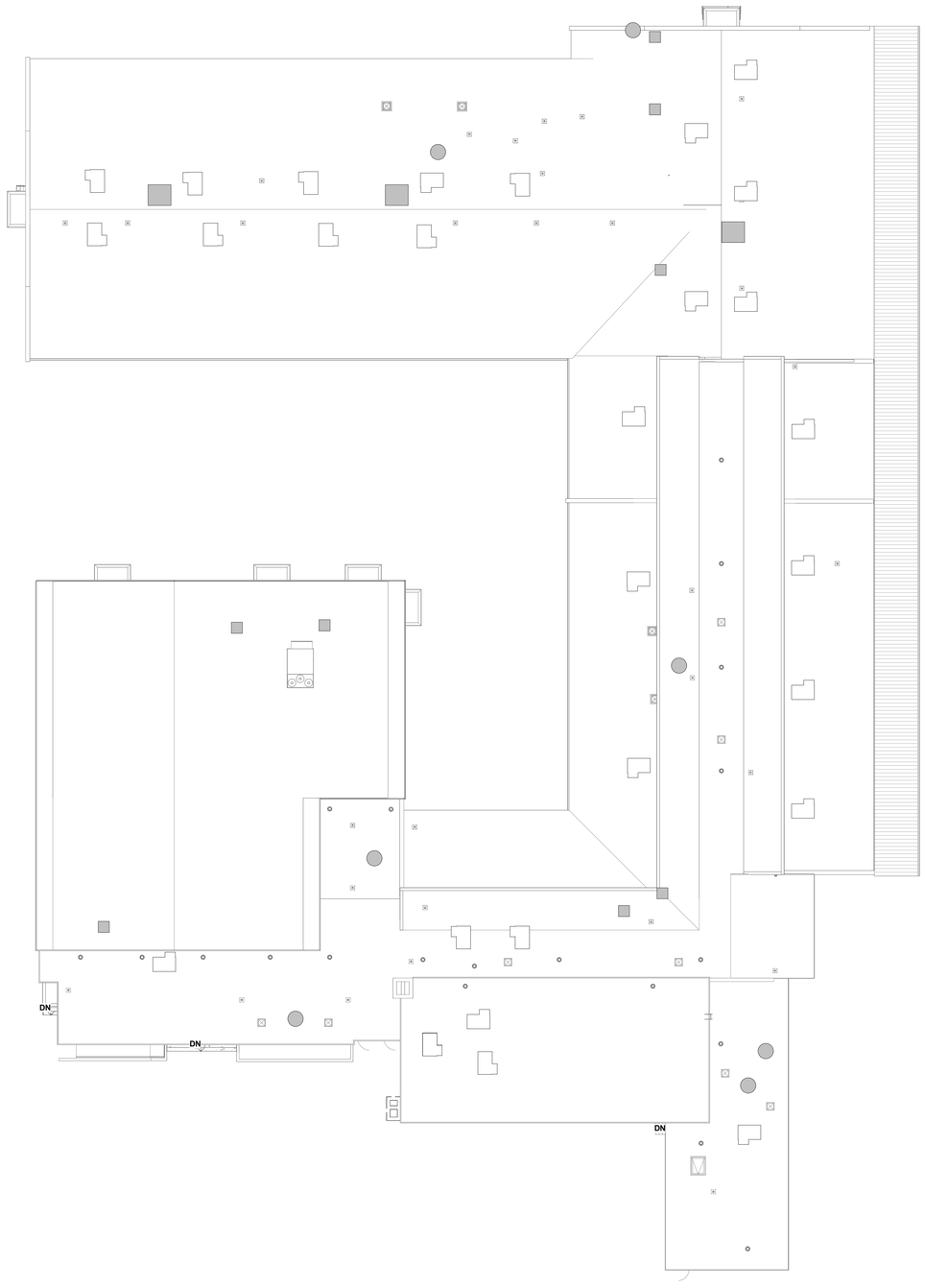
STATE OF UTAH – LICENSED ARCHITECT – WESLEY ALLEN CHRISTENSEN – No. 9469958-0301 – 1-15-26

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY:	KMA
CHECKED BY:	WC
DATE:	JAN 2026
PROJECT #:	176525

A2.1B



OVERALL ROOF PLAN
1/16" = 1'-0"

GENERAL NOTES

A - ALL MECHANICAL UNITS AND ROOF PENETARIONS MAY NOT BE SHOWN. PROVIDE FLASHING, CRICKETS, AND REGLETS AT EACH UNIT SHOWN OR NOT. VERIFY ALL EXISTING PENETRATIONS

B - PROVIDE FLASHING AND ROOFING BOOTS FOR ALL ELECTRICAL, CONDUIT PENETRATIONS THROUGH ROOF - VERIFY ALL EXISTING ELECTRICAL PENETRATIONS

C - ALL ROOF CRICKETS TO BE SIZED AND SLOPED TO MATCH EXISTING

D - ALL MEMBRANE ROOFING AREAS TO MATCH EXISTING SLOPE.

E - ALL MECHANICAL, ROOF HATCH, SKYLIGHT, AND SOLATUBE CURBS TO BE 18" MINIMUM ABOVE ROOF DECK.

F- CONTRACTOR RESPONSIBLE FOR ANY INTERIOR DAMAGES DUE TO MECHANICAL UPPGRADE.

G- CONTRACTOR IS TO PRESERVE, PROTECT, REPLACE ALL EXISTING CONDITIONS THAT ARE AFFECTED DUE TO CONSTRUCTION

H- CONTRACTOR IS TO DOCUMENT EXISTING CONDITIONS BEFORE STARTING DEMOLITION.

GENERAL DEMOLITION NOTES

1 - CONTRACTOR TO PROVIDE PLYWOOD SHEATHING, INSULATION, AND MEMBRANE FOR WALLS & ROOF TO PROTECT INTERIOR FROM WEATHER DURING DEMOLITION AND CONSTRUCTION.

2 - ALL PLUMBING, HVAC, & ELECTRICAL WILL BE RE-ROUTED OR MODIFIED TO ALLOW COMPLETE CONTINUITY OF UTILITY SERVICE FOR SCHOOL OPERATION DURING CONSTRUCTION.

3 - STAGING TO BE DETERMINED BY GENERAL CONTRACTOR. (COSTS FOR TEMPORARY STAGING BY CONTRACTOR.)

4 - CONSTRUCTION FENCING SEPARATE NEW CONSTRUCTION AND DEMOLITION FROM ALL STUDENT ACTIVITY. (COSTS FOR TEMPORARY CONSTRUCTION FENCING BY CONTRACTOR.)

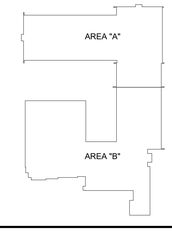
5 - CONSTRUCTION AND DEMOLITION ACCESS TO BE DETERMINED BY GENERAL CONTRACTOR AND OWNER.

ROOFING DEMOLITION NOTE

A - CONTRACTOR TO INCLUDE ANY NEW ROOF DECKING, 6" RIGID INSULATION, CURBING, AND SHEET MEMBRANE ROOFING AT ANY ROOF PENETRATION DUE TO CONSTRUCTION. COORDINATE ALL ROOF PENETRATIONS WITH STRUCTURAL, MECHANICAL, ELECTRICAL AND KITCHEN SHEETS FOR ROOF REPAIRS.

B - CONTRACTOR TO ADD NEW PLYWOOD DECKING, 6" RIGID INSULATION AND ROOF MEMBRANE OVER OPENING CREATED AT CURBS BY REMOVAL OF ANY EXISTING UNITS. REFER TO MECHANICAL DEMOLITION SHEET FOR LOCATIONS.

KEY PLAN



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KMA ARCHITECTS

STATE OF UTAH
WILLIAM CHRISTENSEN
No. 9409958-0301
1-15-26
LICENSED ARCHITECT

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EMERY SCHOOL DISTRICT
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MECHANICAL UPGRADE
90 E 100 N HUNTINGTON, UT 84528

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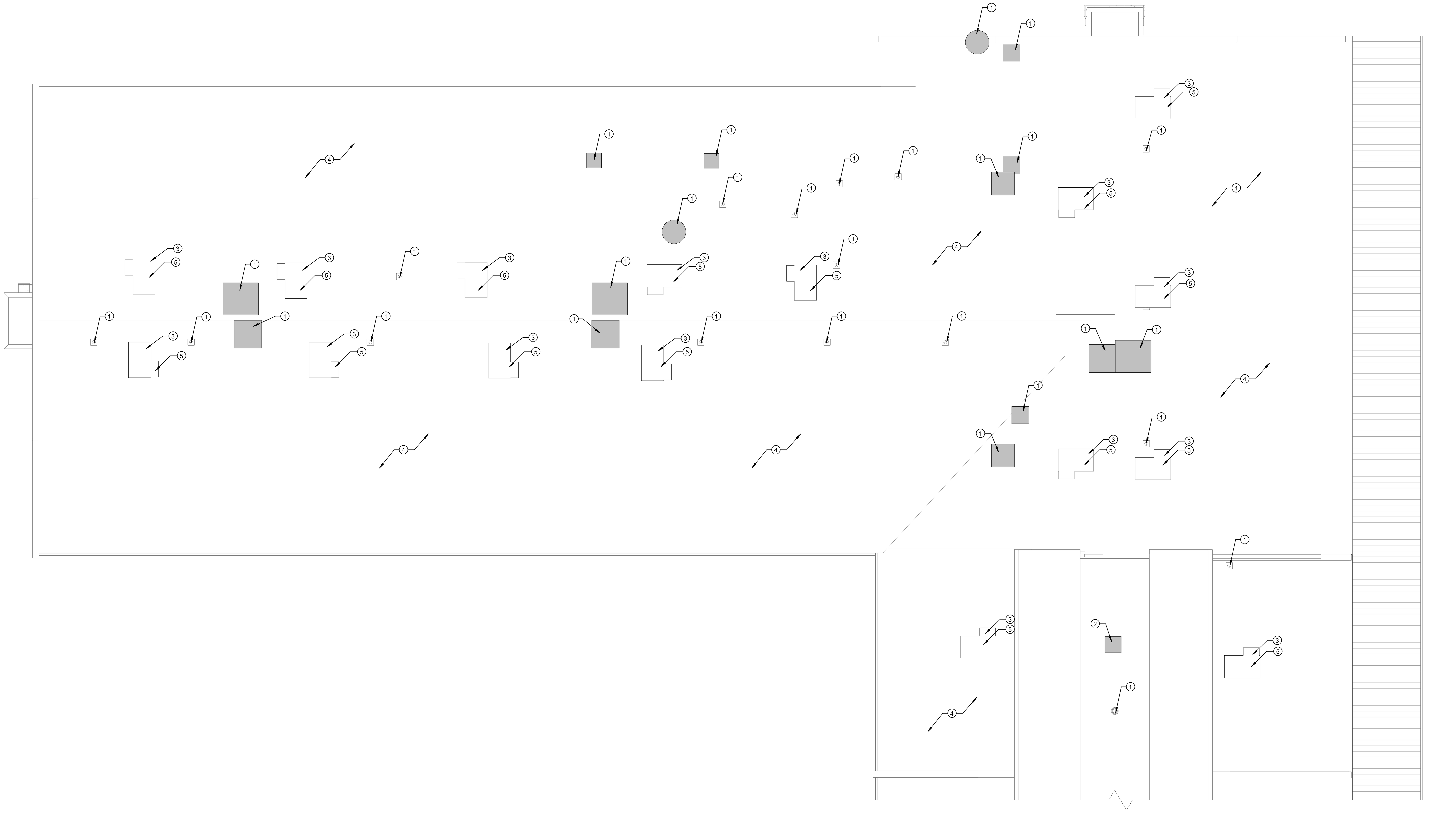
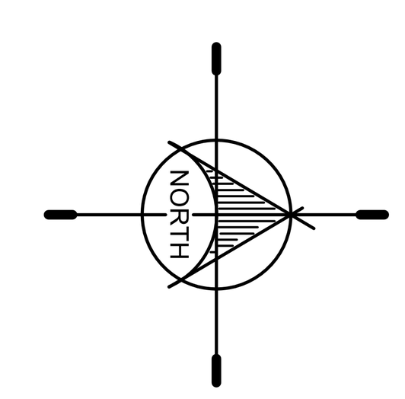
A2.3

1/14/2026 4:41:42 PM As indicated



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



SHEET NOTES

1 - EXISTING MECHANICAL UNITS, VENTS, PIPING, ETC. COORDINATE WITH MECHANICAL DEMOLITION PLANS. IF COMPONENT IS TO BE REMOVED CONTRACTOR IS TO PATCH AND REPAIR THE ROOF AND DECKING. IF THE COMPONENT IS NOT TO BE REMOVED PRESERVE AND PROTECT DURING CONSTRUCTION.

2 - EXISTING SKY LIGHTS TO REMAIN.

3 - APPROXIMATE LOCATION OF NEW MECHANICAL UNIT. REMOVE EXISTING ROOF FOR NEW MECHANICAL UNIT CURB. PATCH AND REPAIR ALL ADDITIONAL PENETRATIONS. COORDINATE WITH MECHANICAL PLANS.

4 - EXISTING ROOF MEMBRANE AND INSULATION TO REMAIN - PATCH AND REPAIR DUE TO CONSTRUCTION.

5 - NEW MECHANICAL CURBING AND FLASHING AT ALL NEW UNITS TO PROVIDE PROPER DRAINAGE SEE MECHANICAL DETAIL ON SHEET M6.1.

GENERAL NOTES

A - ALL MECHANICAL UNITS AND ROOF PENETARIONS MAY NOT BE SHOWN. PROVIDE FLASHING, CRICKETS, AND REGLETS AT EACH UNIT SHOWN OR NOT. VERIFY ALL EXISTING PENETRATIONS

B - PROVIDE FLASHING AND ROOFING BOOTS FOR ALL ELECTRICAL, CONDUIT PENETRATIONS THROUGH ROOF - VERIFY ALL EXISTING ELECTRICAL PENETRATIONS

C - ALL ROOF CRICKETS TO BE SIZED AND SLOPED TO MATCH EXISTING

D - ALL MEMBRANE ROOFING AREAS TO MATCH EXISTING SLOPE.

E - ALL MECHANICAL, ROOF HATCH, SKYLIGHT, AND SOLATUBE CURBS TO BE 18" MINIMUM ABOVE ROOF DECK.

F- CONTRACTOR RESPONSIBLE FOR ANY INTERIOR DAMAGES DUE TO MECHANICAL UPPGRADE.

G- CONTRACTOR IS TO PRESERVE, PROTECT, REPLACE ALL EXISTING CONDITIONS THAT ARE AFFECTED DUE TO CONSTRUCTION

H- CONTRACTOR IS TO DOCUMENT EXISTING CONDITIONS BEFORE STARTING DEMOLITION.

GENERAL DEMOLITION NOTES

1 - CONTRACTOR TO PROVIDE PLYWOOD SHEATHING, INSULATION, AND MEMBRANE FOR WALLS & ROOF TO PROTECT INTERIOR FROM WEATHER DURING DEMOLITION AND CONSTRUCTION.

2 - ALL PLUMBING, HVAC, & ELECTRICAL WILL BE RE-ROUTED OR MODIFIED TO ALLOW COMPLETE CONTINUITY OF UTILITY SERVICE FOR SCHOOL OPERATION DURING CONSTRUCTION.

3 - STAGING TO BE DETERMINED BY GENERAL CONTRACTOR. (COSTS FOR TEMPORARY STAGING BY CONTRACTOR.)

4 - CONSTRUCTION FENCING SEPARATE NEW CONSTRUCTION AND DEMOLITION FROM ALL STUDENT ACTIVITY. (COSTS FOR TEMPORARY CONSTRUCTION FENCING BY CONTRACTOR.)

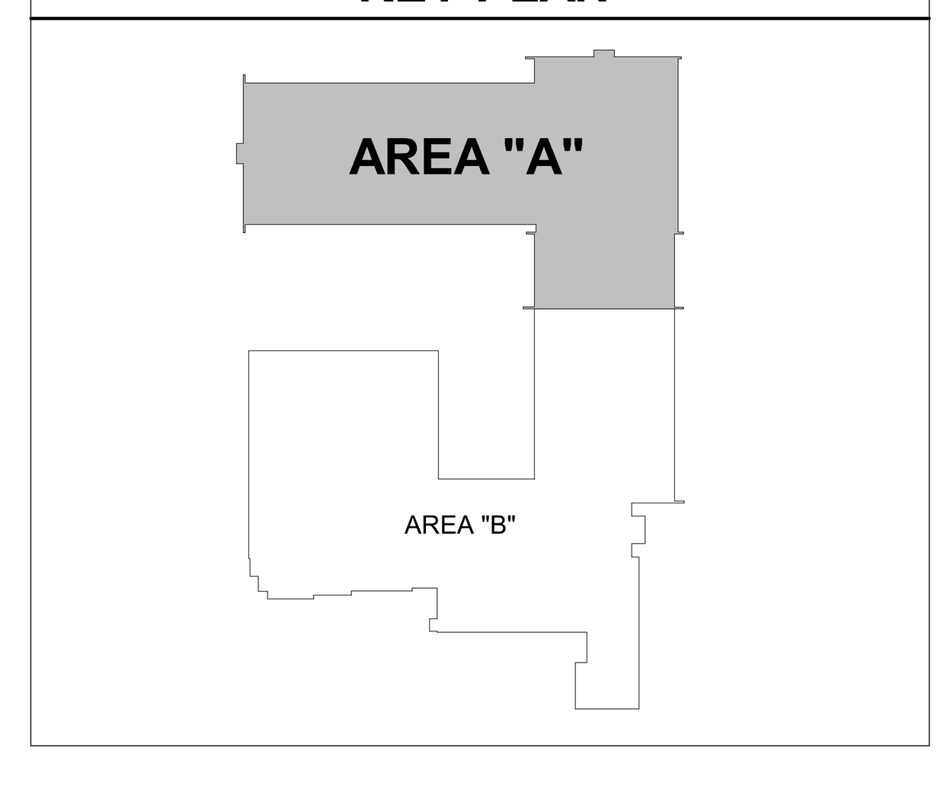
5 - CONSTRUCTION AND DEMOLITION ACCESS TO BE DETERMINED BY GENERAL CONTRACTOR AND OWNER.

ROOFING DEMOLITION NOTE

A - CONTRACTOR TO INCLUDE ANY NEW ROOF DECKING, 6" RIGID INSULATION, CURBING, AND SHEET MEMBRANE ROOFING AT ANY ROOF PENETRATION DUE TO CONSTRUCTION. COORDINATE ALL ROOF PENETRATIONS WITH STRUCTURAL, MECHANICAL, ELECTRICAL AND KITCHEN SHEETS FOR ROOF REPAIRS.

B - CONTRACTOR TO ADD NEW PLYWOOD DECKING, 6" RIGID INSULATION AND ROOF MEMBRANE OVER OPENING CREATED AT CURBS BY REMOVAL OF ANY EXISTING UNITS. REFER TO MECHANICAL DEMOLITION SHEET FOR LOCATIONS.

KEY PLAN



170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
WWW.KMAARCHITECTS.COM

KMA ARCHITECTS

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
HUNTINGTON, UT 84528
90 E 100 N

DRAWN BY:	KMA
CHECKED BY:	WC
DATE:	JAN 2026
PROJECT #:	176525

A2.3A

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

NORTH

SHEET NOTES

1 - EXISTING MECHANICAL UNITS, VENTS, PIPING, ETC. COORDINATE WITH MECHANICAL DEMOLITION PLANS. IF COMPONENT IS TO BE REMOVED CONTRACTOR IS TO PATCH AND REPAIR THE ROOF AND DECKING. IF THE COMPONENT IS NOT TO BE REMOVED PRESERVE AND PROTECT DURING CONSTRUCTION.

2 - EXISTING SKYLIGHT TO REMAIN (TYP.)

3 - EXISTING ROOF DRAIN TO REMAIN (TYP.)

4 - EXISTING ROOF ACCESS HATCH TO REMAIN.

5 - EXISTING ACCESS LADDER TO REMAIN.

6 - APPROXIMATE LOCATION OF NEW MECHANICAL UNIT. REMOVE EXISTING ROOF FOR NEW MECHANICAL UNIT CURB. PATCH AND REPAIR ALL ADDITIONAL PENETRATIONS. COORDINATE WITH MECHANICAL PLANS.

7 - NEW MECHANICAL CURBING AND FLASHING AT ALL NEW UNITS TO PROVIDE PROPER DRAINAGE SEE MECHANICAL DETAIL ON SHEET M6.1.

8 - EXISTING ROOF MEMBRANE AND INSULATION TO REMAIN - PATCH AND REPAIR DUE TO CONSTRUCTION.

GENERAL NOTES

A - ALL MECHANICAL UNITS AND ROOF PENETARIONS MAY NOT BE SHOWN. PROVIDE FLASHING, CRICKETS, AND REGLETS AT EACH UNIT SHOWN OR NOT. VERIFY ALL EXISTING PENETRATIONS

B - PROVIDE FLASHING AND ROOFING BOOTS FOR ALL ELECTRICAL, CONDUIT PENETRATIONS THROUGH ROOF - VERIFY ALL EXISTING ELECTRICAL PENETRATIONS

C - ALL ROOF CRICKETS TO BE SIZED AND SLOPED TO MATCH EXISTING

D - ALL MEMBRANE ROOFING AREAS TO MATCH EXISTING SLOPE.

E - ALL MECHANICAL, ROOF HATCH, SKYLIGHT, AND SOLATUBE CURBS TO BE 18" MINIMUM ABOVE ROOF DECK.

F- CONTRACTOR RESPONSIBLE FOR ANY INTERIOR DAMAGES DUE TO MECHANICAL UPPGRADE.

G- CONTRACTOR IS TO PRESERVE, PROTECT, REPLACE ALL EXISTING CONDITIONS THAT ARE AFFECTED DUE TO CONSTRUCTION

H- CONTRACTOR IS TO DOCUMENT EXISTING CONDITIONS BEFORE STARTING DEMOLITION.

GENERAL DEMOLITION NOTES

1 - CONTRACTOR TO PROVIDE PLYWOOD SHEATHING, INSULATION, AND MEMBRANE FOR WALLS & ROOF TO PROTECT INTERIOR FROM WEATHER DURING DEMOLITION AND CONSTRUCTION.

2 - ALL PLUMBING, HVAC, & ELECTRICAL WILL BE RE-ROUTED OR MODIFIED TO ALLOW COMPLETE CONTINUITY OF UTILITY SERVICE FOR SCHOOL OPERATION DURING CONSTRUCTION.

3 - STAGING TO BE DETERMINED BY GENERAL CONTRACTOR. (COSTS FOR TEMPORARY STAGING BY CONTRACTOR.)

4 - CONSTRUCTION FENCING SEPARATE NEW CONSTRUCTION AND DEMOLITION FROM ALL STUDENT ACTIVITY. (COSTS FOR TEMPORARY CONSTRUCTION FENCING BY CONTRACTOR.)

5 - CONSTRUCTION AND DEMOLITION ACCESS TO BE DETERMINED BY GENERAL CONTRACTOR AND OWNER.

ROOFING DEMOLITION NOTE

A - CONTRACTOR TO INCLUDE ANY NEW ROOF DECKING, 6" RIGID INSULATION, CURBING, AND SHEET MEMBRANE ROOFING AT ANY ROOF PENETRATION DUE TO CONSTRUCTION. COORDINATE ALL ROOF PENETRATIONS WITH STRUCTURAL, MECHANICAL, ELECTRICAL AND KITCHEN SHEETS FOR ROOF REPAIRS.

B - CONTRACTOR TO ADD NEW PLYWOOD DECKING, 6" RIGID INSULATION AND ROOF MEMBRANE OVER OPENING CREATED AT CURBS BY REMOVAL OF ANY EXISTING UNITS. REFER TO MECHANICAL DEMOLITION SHEET FOR LOCATIONS.

KEY PLAN

170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
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KMA ARCHITECTS

STATE OF UTAH
WILLIAM CHRISTENSEN
No. 9409958-0301
1-15-26
LICENSED ARCHITECT

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N HUNTINGTON, UT 84528

DRAWN BY: KMA
CHECKED BY: WC
DATE: JAN 2026
PROJECT #: 176525

A2.3B

1/15/2026 4:51:44 PM As indicated

DYNAMIC STRUCTURES
744 S 400 E Orem, UT 84097 | 801.229.9020

170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
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KMA ARCHITECTS

REVISIONS:
02/13/2026

PROJECT TITLE
EMERY SCHOOL DISTRICT

HUNTINGTON ELEMENTARY SCHOOL

MECHANICAL UPGRADE
HUNTINGTON, UT 84528

90 E 100 N

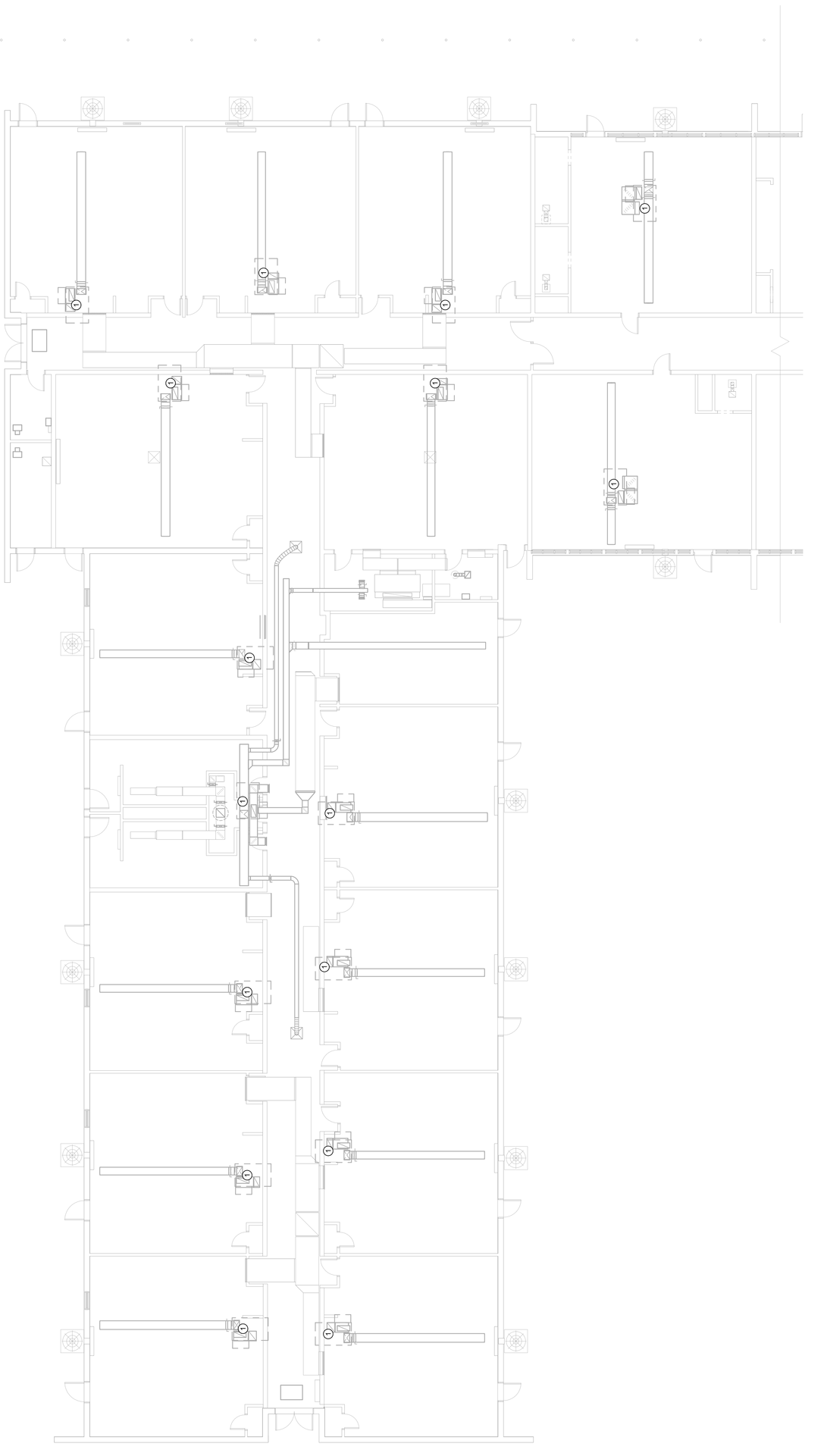
DRAWN BY: J.K.P.
CHECKED BY: J.D.A.
DATE: JAN. 15, 2026
PROJECT #: 7611125

S1.1A

KEY PLAN

SHEET NOTES

1. SEE DETAILS ON S2.0 FOR REQUIRED FRAMING AROUND NEW DUCT OPENINGS THROUGH EXISTING ROOF. SEE MECHANICAL PLANS FOR EXACT NUMBER OF NEW UNITS AND REQUIRED DUCT FORMATIONS.



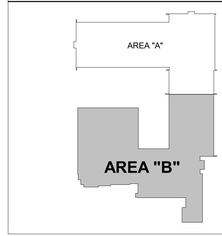
1 FLOOR PLAN AREA 'A'
1/8" = 1'-0"

1 FLOOR PLAN AREA 'B'
1/8" = 1'-0"

SHEET NOTES

1 SEE DETAILS ON S2.0 FOR REQUIRED FRAMING AROUND NEW DUCT OPENINGS THROUGH EXISTING ROOF. SEE MECHANICAL PLANS FOR EXACT NUMBER OF NEW UNITS AND REQUIRED DUCT CONFIGURATIONS

KEY PLAN



DYNAMIC STRUCTURES
744 S 460 E Orem, UT 84097 | 801.225.9020

KMA ARCHITECTS
170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
WWW.KMAARCHITECTS.COM

LICENSED ARCHITECT
JAY D. ADAMS
01/13/2026

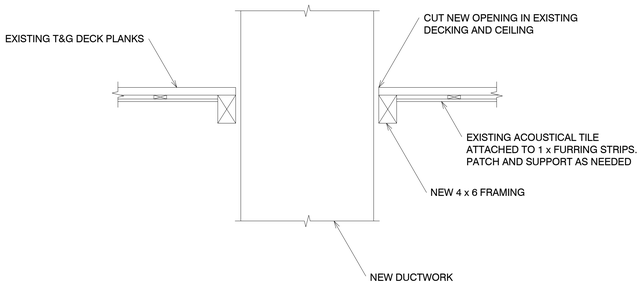
REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

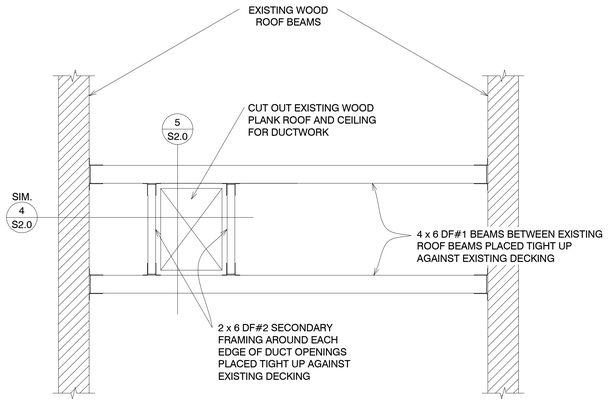
DRAWN BY: Author
CHECKED BY: Checker
DATE: JAN. 15, 2026
PROJECT #: 7611125

S1.1B

1/13/2026 2:22:37 PM As indicated



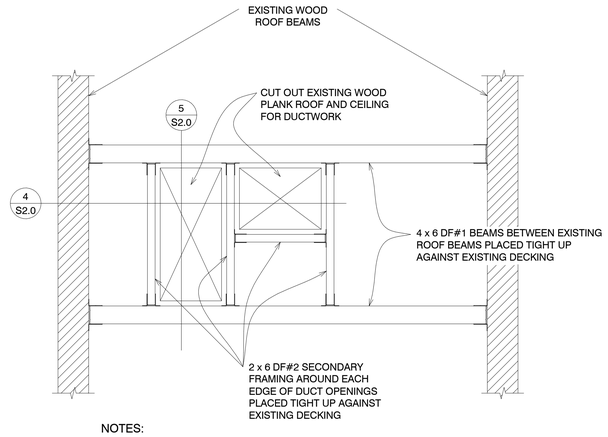
5 S2.0 **CONSTRUCTION DETAIL**
NO SCALE



NOTES:

1. PROVIDE SIMPSON HU46 EACH END OF EACH 4 x 6. PAINT BLACK.
2. PROVIDE SIMPSON HU26 EACH END OF EACH 2 x 6. PAINT BLACK.

3 S2.0 **CONSTRUCTION DETAIL**
NO SCALE

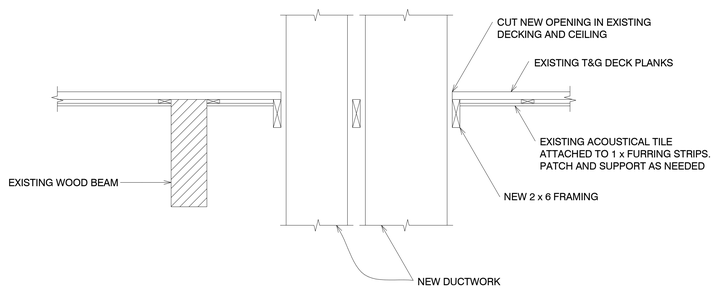


NOTES:

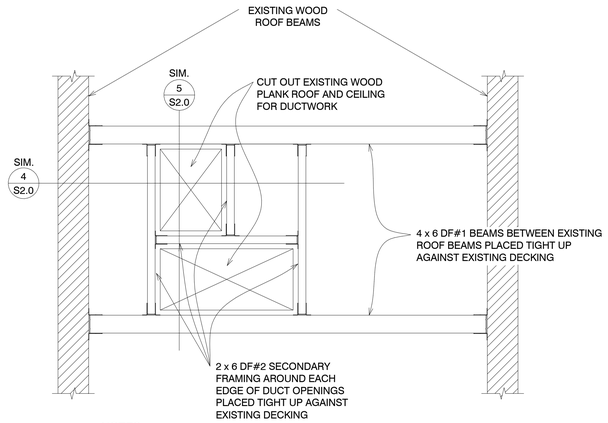
1. PROVIDE SIMPSON HU46 EACH END OF EACH 4 x 6. PAINT BLACK.
2. PROVIDE SIMPSON HU26 EACH END OF EACH 2 x 6. PAINT BLACK.

1 S2.0 **CONSTRUCTION DETAIL**
NO SCALE

FOR NEW DUCT OPENINGS THROUGH AREAS WITH CONVENTIONAL RAFTER FRAMING, USE SAME DETAILS BUT REPLACE FRAMING MEMBERS WITH NEW 2 X DIMENSIONAL RAFTERS MATCHING EXISTING RAFTER DEPTH. PROVIDE SIMPSON LU210 EACH END OF EACH NEW MEMBER



4 S2.0 **CONSTRUCTION DETAIL**
NO SCALE



NOTES:

1. PROVIDE SIMPSON HU46 EACH END OF EACH 4 x 6. PAINT BLACK.
2. PROVIDE SIMPSON HU26 EACH END OF EACH 2 x 6. PAINT BLACK.

2 S2.0 **CONSTRUCTION DETAIL**
NO SCALE

1/13/2026 2:23:7 PM 1" = 1'-0"

DYNAMIC STRUCTURES
744 S 460 E Orem, UT 84097 | 801.225.0020
170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
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KMA ARCHITECTS

REGISTERED PROFESSIONAL ENGINEER
JAY D ADAMS
01/13/2026

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY: J.K.P.
CHECKED BY: J.D.A.
DATE: JAN. 15, 2026
PROJECT #: 7611125

S2.0

REFERENCE NOTES

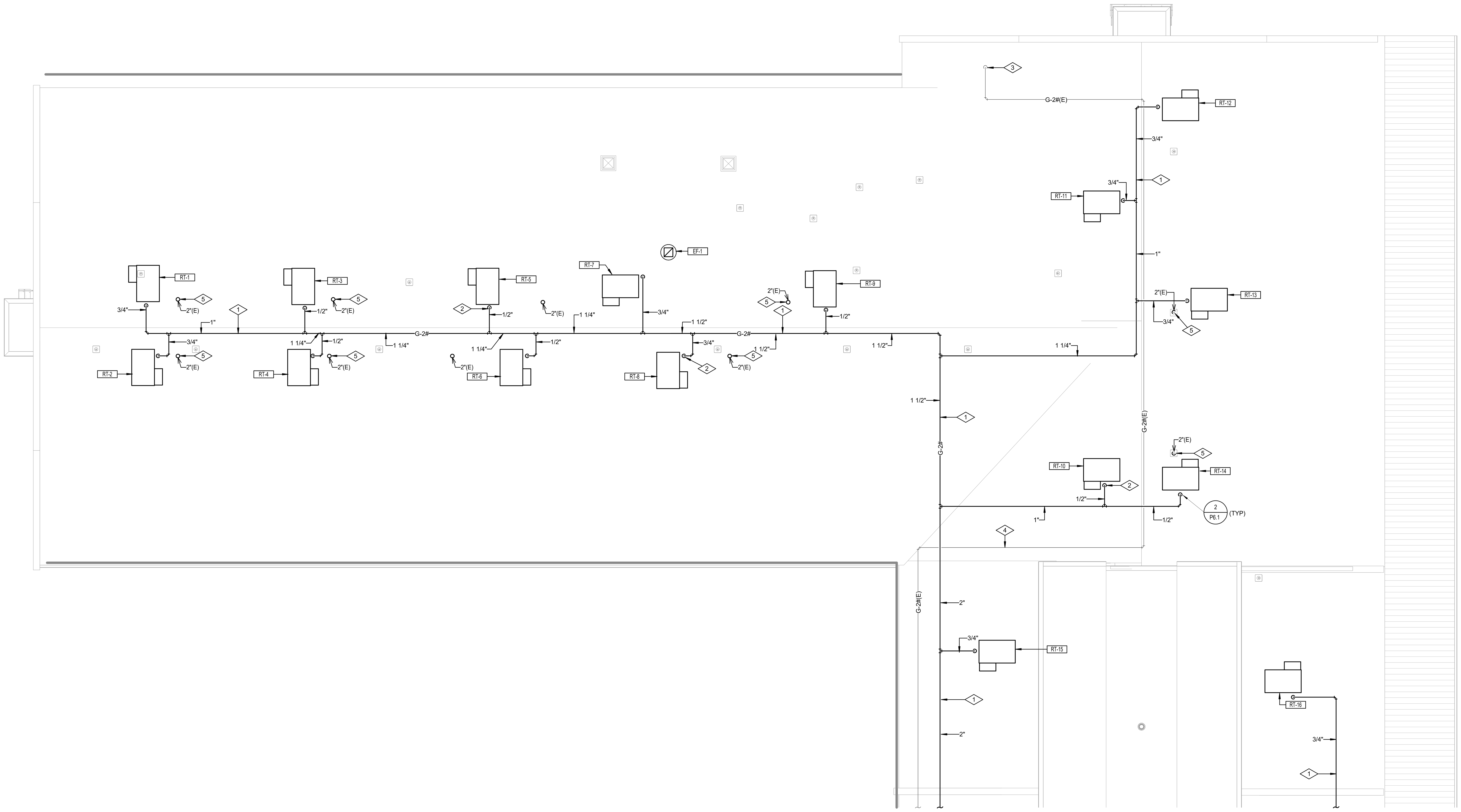
1 GAS PIPE TO RUN ON ROOF AND BE SUPPORTED ON STANDS FOLLOWING 2021 IFGC 415.1. SEE DETAIL 3/P6.1 (TYPICAL).

2 TYPICAL GAS CONNECTION TO EQUIPMENT. SEE DETAIL 2/P6.1 (TYPICAL).

3 EXISTING GAS PIPING DROPS TO SERVE EXISTING WATER HEATER.

4 EXISTING PIPING ON ROOF TO REMAIN.

5 ADD AIR ADMINTANCE VALVE WITH UV RESISTANT CAP TO EXISTING PLUMBING VENT, FIELD VERIFY VENT SIZE.

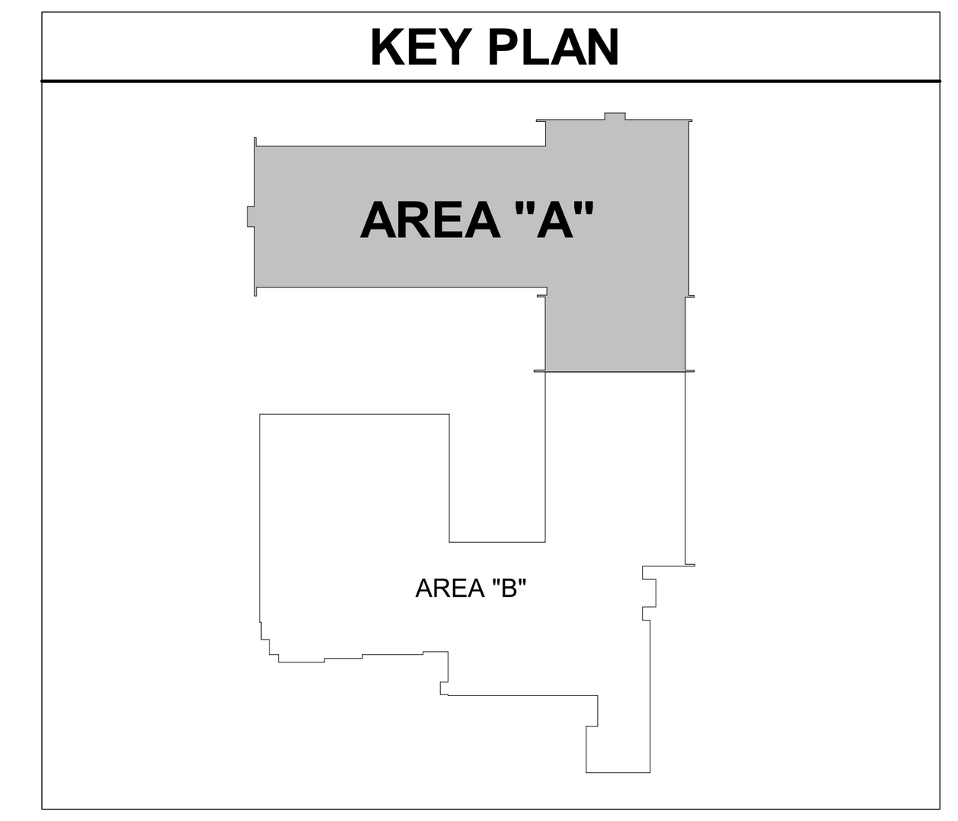


Overall Roof Plan - Area A

0 4' - 8' - 16' -

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

KEY PLAN



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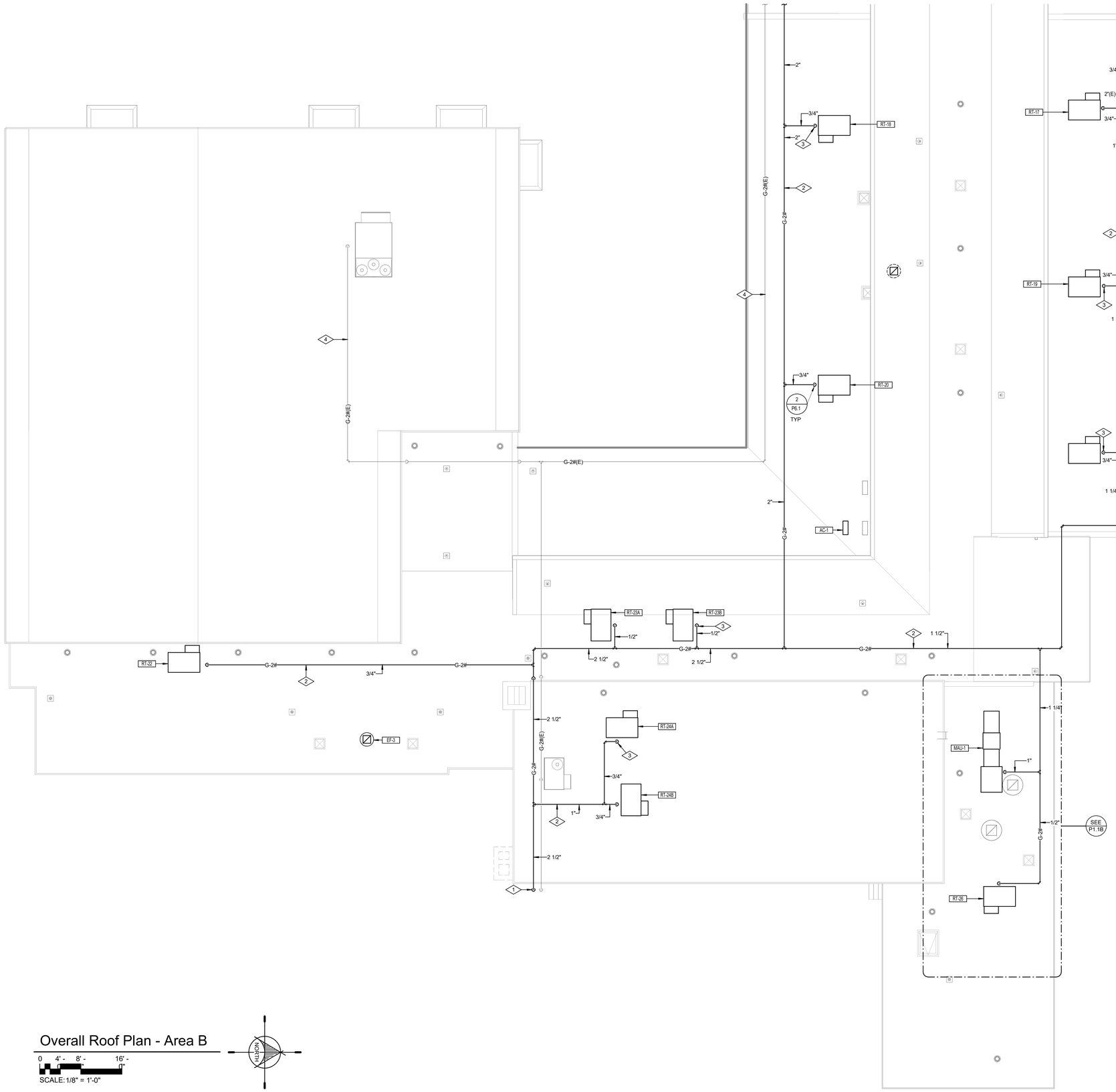
REVISIONS:

PROJECT TITLE

EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
HUNTINGTON, UT 84528
90 E 100 N

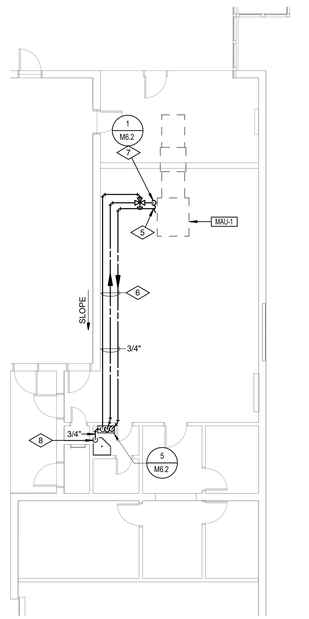
DRAWN BY: STAFF
CHECKED BY: M.T.
DATE: JAN. 2026
PROJECT #: 176525

P1.1A



REFERENCE NOTES

1. GAS LINE TO DROP AND MAKE NEW CONNECTION AT METER.
2. GAS PIPE TO RUN ON ROOF AND BE SUPPORTED ON STANDS FOLLOWING 2021 IFGC 415.1. SEE DETAIL 3/P6.1 (TYPICAL).
3. TYPICAL GAS CONNECTION TO EQUIPMENT. SEE DETAIL 2/P6.1 (TYPICAL).
4. EXISTING PIPING ON ROOF TO REMAIN.
5. CONNECT TO EXISTING WATER SUPPLY OF EXISTING EVAPORATIVE UNIT AT APPROXIMATELY THIS LOCATION. FEILD VERIFY EXACT LOCATION OF WATERS.
6. WATER PIPING TO RUN ABOVE CEILING, COORDINATE WITH EXISTING CONDITIONS, REPAIR CEILING OF ANY CEILING REMOVED.
7. CONNECT WATER SUPPLY TO NEW MAU.
8. DRAIN LINE TO DISCHARGE TO EXISTING SERVICE SINK INDIRECT.
9. ADD AIR ADMINTANCE VALVE WITH UV RESISTANT CAP TO EXISTING PLUMBING VENT, FIELD VERIFY VENT SIZE.



ENLARGED PLUMBING PLAN KITCHEN

0 4' - 8' - 16' - 0"

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

NORTH

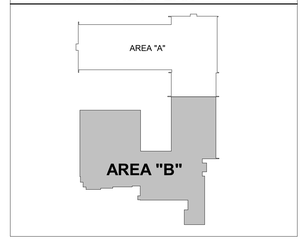
Overall Roof Plan - Area B

0 4' - 8' - 16' - 0"

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

NORTH

KEY PLAN



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REVISIONS:

PROJECT TITLE

EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N HUNTINGTON, UT 84528

DRAWN BY: STAFF
CHECKED BY: M.T.
DATE: JAN. 2026
PROJECT #: 176525

P1.1B

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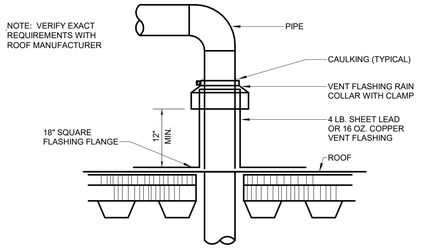
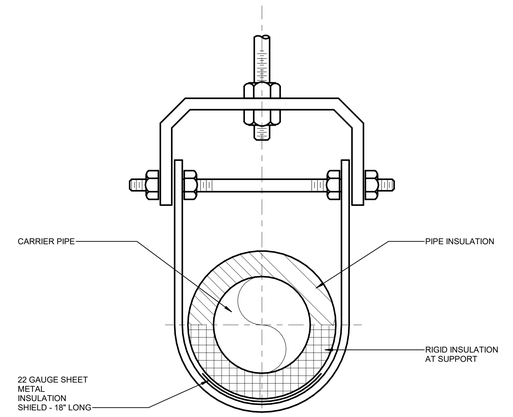


PIPE THRU ROOF PENETRATION DETAIL

SCALE: NTS

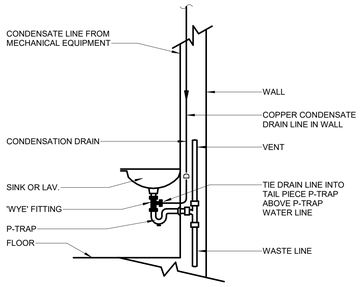
4 / P6.1



PIPE HANGER DETAIL

SCALE: NTS

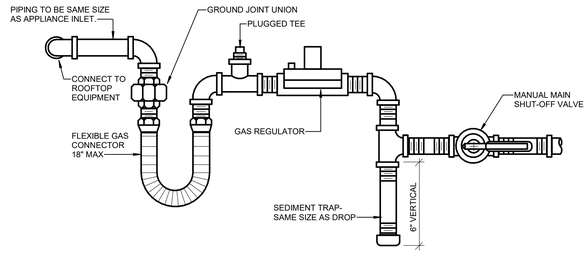
1 / P6.1



CONDENSATE DRAIN DETAIL

SCALE: NTS

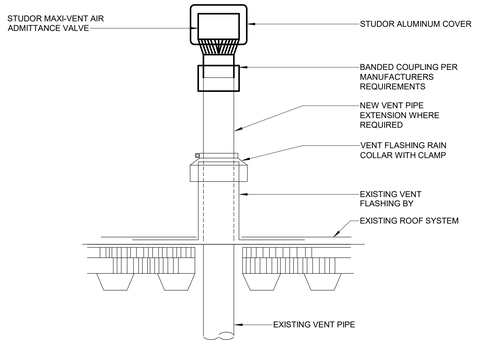
5 / P6.1



ROOFTOP GAS LINE CONNECTION DETAIL

SCALE: NTS

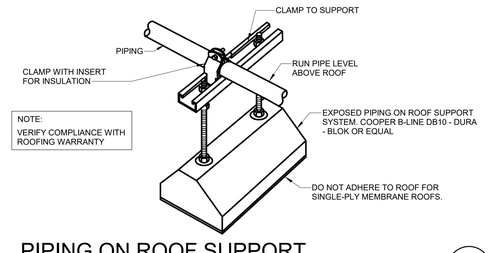
2 / P6.1



AIR ADMITTANCE VALVE DETAIL

SCALE: NTS

6 / P6.1



PIPING ON ROOF SUPPORT

SCALE: NTS

3 / P6.1

OLSEN & PETERSON consulting engineers, inc.
14 East 2700 South, Salt Lake City, UT 84115
Phone: (801) 466-4444 Fax: (801) 467-2301
170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
WWW.KMAARCHITECTS.COM
KMA ARCHITECTS

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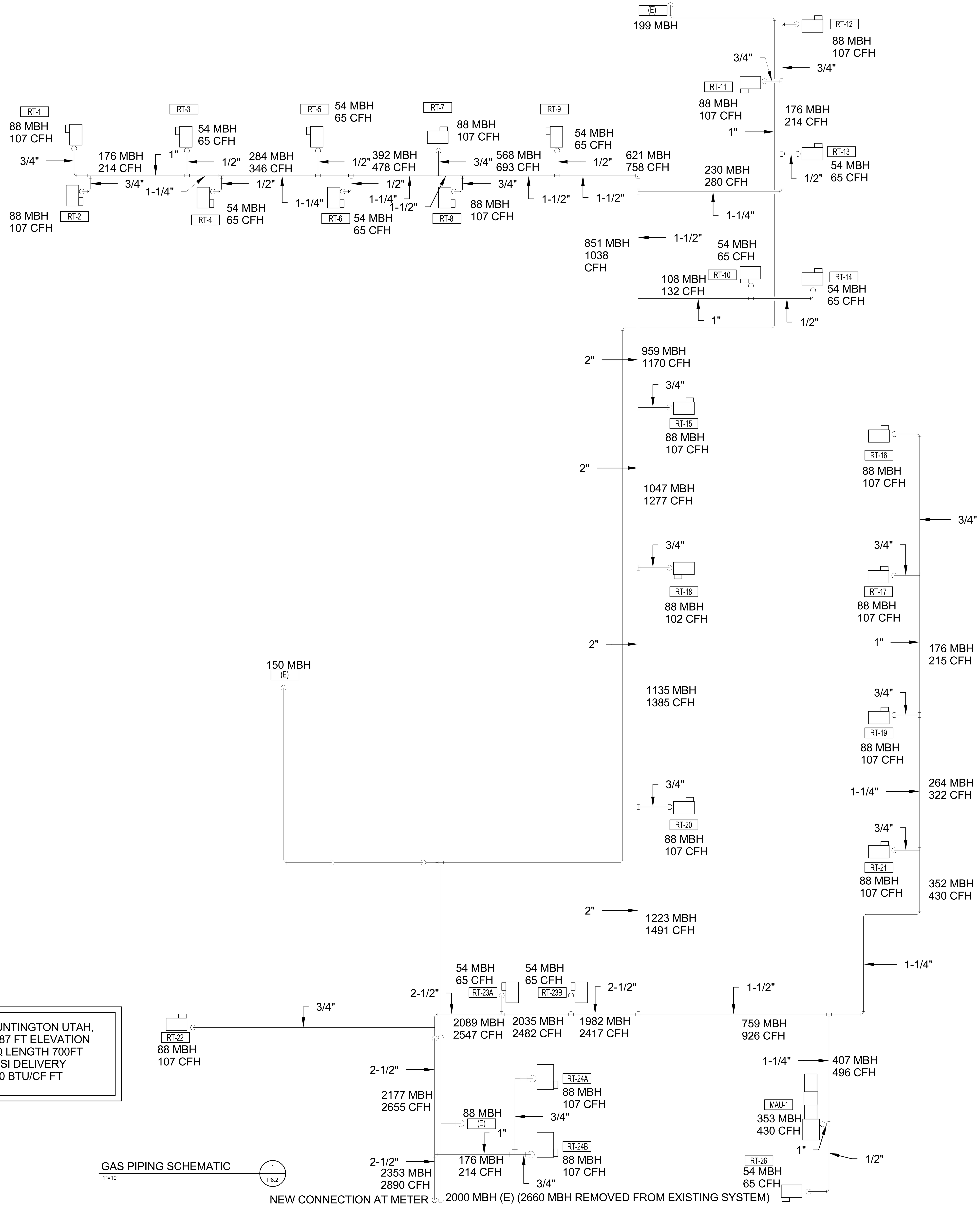
P6.1



HUNTINGTON UTAH,
5787 FT ELEVATION
EQ LENGTH 700FT
2PSI DELIVERY
820 BTU/CF FT

GAS PIPING SCHEMATIC
1"=10'
1
P6.2

OLSEN & PETERSON
consulting engineers, inc.

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SPANISH FORK, UTAH 84660
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HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
HUNTINGTON, UT 84528
90 E 100 N

DRAWN BY: STAFF
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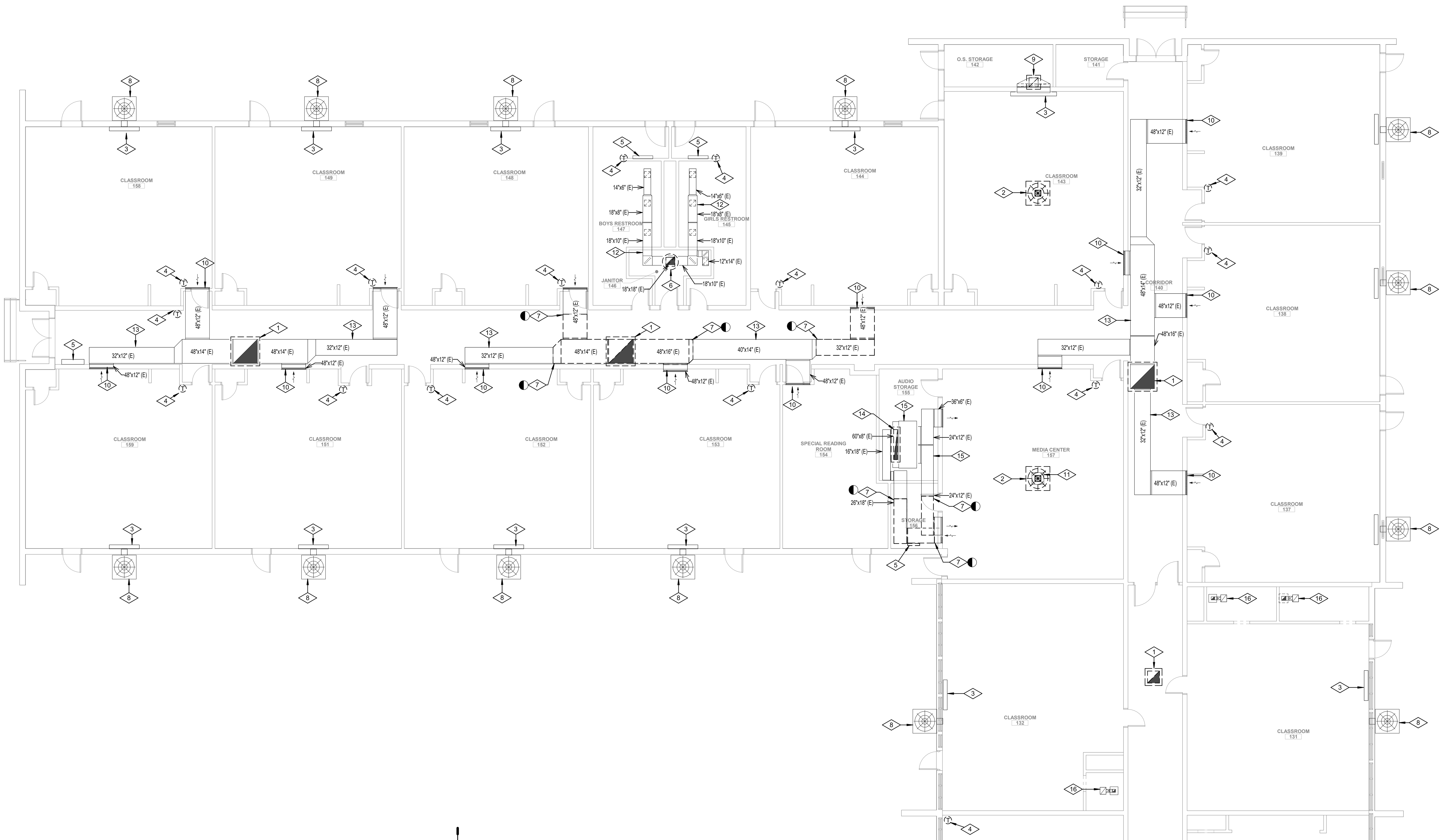
DATE: JAN. 2026
PROJECT #: 176525

P6.2

REFERENCE NOTES

1. REMOVE EXISTING RELIEF FAN COMPLETE, PATCH AND REPAIR ROOF.
2. REMOVE EXISTING EVAPORATIVE UNIT, CAP DUCT BELOW ROOF, PATCH AND REPAIR ROOF. (TYP)
3. ABANDON IN PLACE EXISTING UNIT VENTILATOR COMPLETE.
4. REMOVE EXISTING THERMOSTAT COMPLETE. REMOVE ANY WIRE MOULDING (TYPICAL)
5. ABANDON IN PLACE EXISTING CONVECTOR.
6. REMOVE EXISTING EXHAUST FAN COMPLETE. SEE NEW WORK FOR REPLACEMENT.
7. REMOVE EXISTING DUCT WORK TO APPROXIMATELY THIS LOCATION. EXISTING LOCATIONS AND SIZES ARE APPROXIMATE.
8. ABANDON EXISTING WINDOW EVAPORATIVE UNIT IN PLACE. (TYP)
9. REMOVE EXISITNG ROOF HOOD AND OUTSIDE AIR DUCTWORK TO UNIT CONVECTOR. PATCH AND REPAIR ROOF AND WALL. COORDINATE WITH ARCHITECTURAL PLANS. USE PREFERRED ROOFING CONTRACTOR.
10. ABANDON RELIEF VENTS IN PLACE. (TYPICAL)
11. EXISTING DIFFUSERS TO REMAIN. (TYPICAL)
12. EXISTING DUCTWORK TO REMAIN. (TYPICAL)
13. ABANDON EXISTING RELIEF AIR DUCTWORK IN PLACE (TYPICAL).
14. REMOVE EXISTING OUTSIDE AIR ROOF HOOD, CAP DUCTWORK BELOW ROOF, PATCH AND REPAIR ROOF. COORDINATE WITH ARCHITECTURAL PLANS.
15. ABANDON IN PLACE EXISTING FANCOIL UNIT AND DUCTWORK.
16. EXISTING CEILING MOUNTED EXHAUST FAN TO REMAIN (TYPICAL).

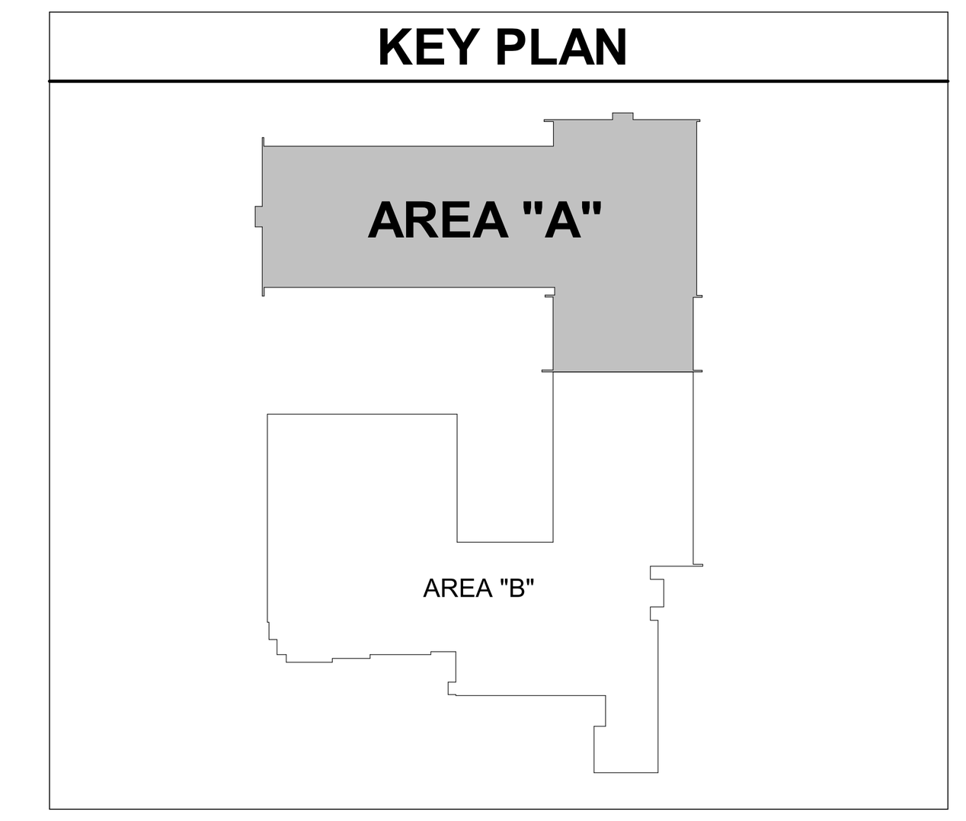


ENLARGED MECHANICAL DEMOLITION PLAN AREA A

0 4' 8' 16'

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

KEY PLAN



KMA ARCHITECTS
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WWW.KMAARCHITECTS.COM

LICENSED PROFESSIONAL ARCHITECT #334524-2202 JAMES AUSTIN BERRETT UTAH

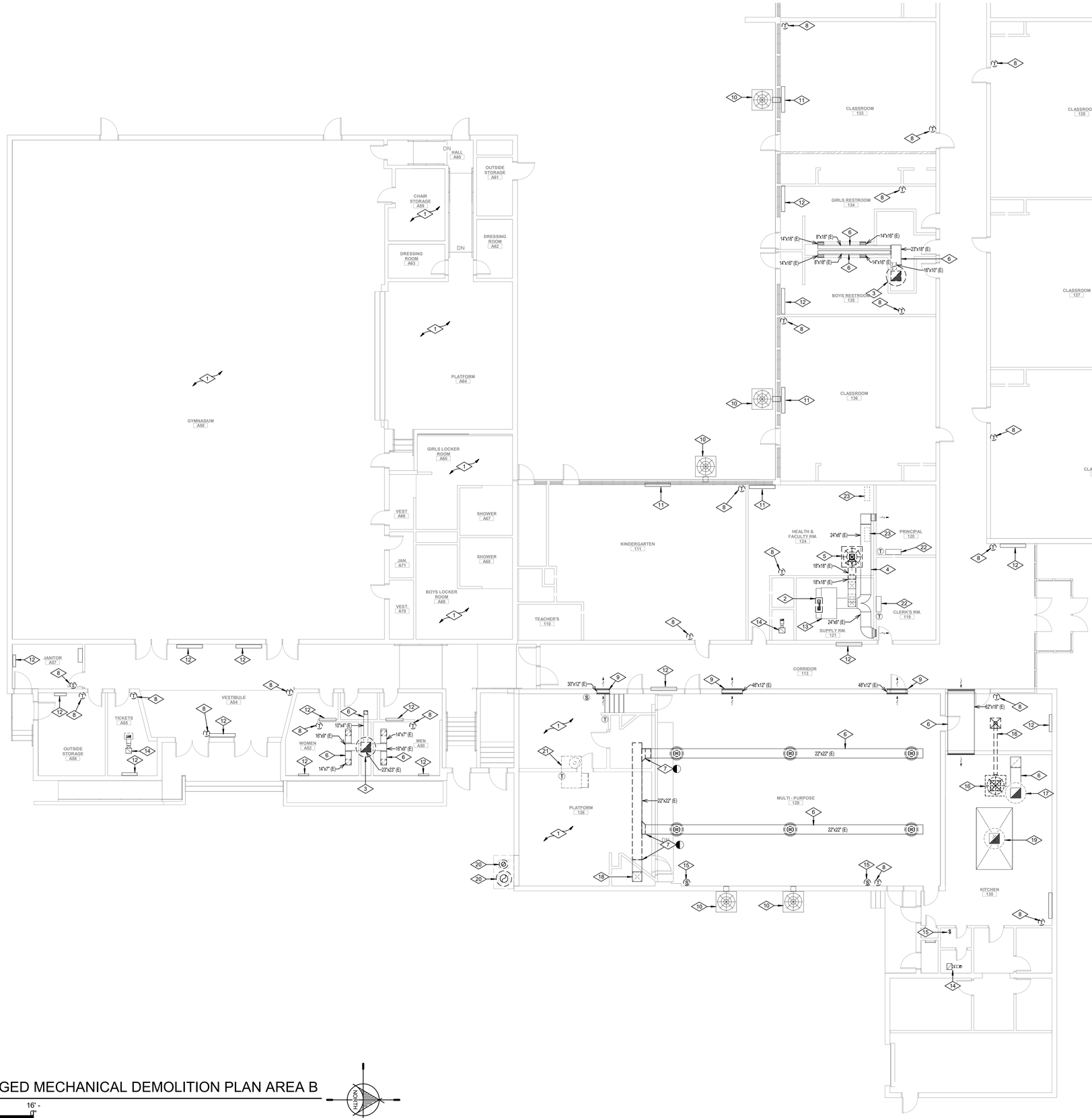
REVISIONS:

PROJECT TITLE

EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N HUNTINGTON, UT 84528

DRAWN BY: STAFF
CHECKED BY: M.T.
DATE: JAN. 2026
PROJECT #: 176525

M0.1A



REFERENCE NOTES

1. NO WORK IN THIS AREA. (TYPICAL)
2. REMOVE EXISTING ROOF HOOD COMPLETE, CAP DUCTWORK BELOW ROOF, PATCH AND REPAIR ROOF. COORDINATE WITH ARCHITECTURAL DRAWINGS.
3. REMOVE EXISTING ROOF MOUNTED EXHAUST FAN COMPLETE.
4. ABANDON EXISTING DUCTWORK IN PLACE (TYPICAL)
5. REMOVE EXISTING EVAPORATIVE UNIT, CAP INSIDE OF THE BUILDING. PATCH AND REPAIR WALL.
6. EXISTING DUCTWORK TO REMAIN (TYPICAL)
7. REMOVE EXISTING DUCTWORK TO APPROXIMATELY THIS LOCATION.
8. REMOVE EXISTING THERMOSTAT COMPLETE. (TYPICAL)
9. ABANDON EXISTING RELIEF VENTS IN PLACE. (TYPICAL)
10. ABANDON EXISTING WINDOW EVAPORATIVE UNIT IN PLACE. (TYP)
11. ABANDON EXISTING UNIT VENTILATOR COMPLETE.
12. ABANDON EXISTING CONVECTOR IN PLACE.
13. ABANDON FAN COIL IN PLACE.
14. EXISTING CEILING MOUNTED EXHAUST FAN TO REMAIN (TYPICAL)
15. REMOVE EXISTING EVAPORATIVE UNIT CONTROLS (TYPICAL)
16. REMOVE EXISTING EVAPORATIVE UNIT AND DUCTWORK ON ROOF. PATCH AND REPAIR ROOF. LEAVE DUCTWORK AND DIFFUSER FOR FUTURE MAU CONNECTION. COORDINATE WITH ARCHITECTURAL DRAWINGS.
17. EXISTING DISHWASHER AND GENERAL EXHAUST FAN TO REMAIN.
18. REMOVE DUCTWORK TO DROP TO THE BASEMENT. ABANDON DUCTWORK IN CHASE.
19. EXISTING HOOD AND HOOD EXHAUST FAN TO REMAIN.
20. REMOVE EXISTING EXHAUST DUCT COMPLETE.
21. EXISTING ROOFTOP UNIT, DUCTWORK, AND THERMOSTAT TO REMAIN (TYP).
22. EXISTING WALL MOUNTED SPLIT SYSTEM TO REMAIN (TYP).
23. EXISTING ROOF MOUNTED CONDENSING UNIT TO REMAIN.

ENLARGED MECHANICAL DEMOLITION PLAN AREA B

0 4' - 8' - 16' - 0"

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

KEY PLAN

170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
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LICENSED PROFESSIONAL ENGINEER
JAMES AUSTIN BERSETT
8/15/25
UTAH

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY: STAFF
CHECKED BY: M.T.
DATE: JAN. 2026
PROJECT #: 176525

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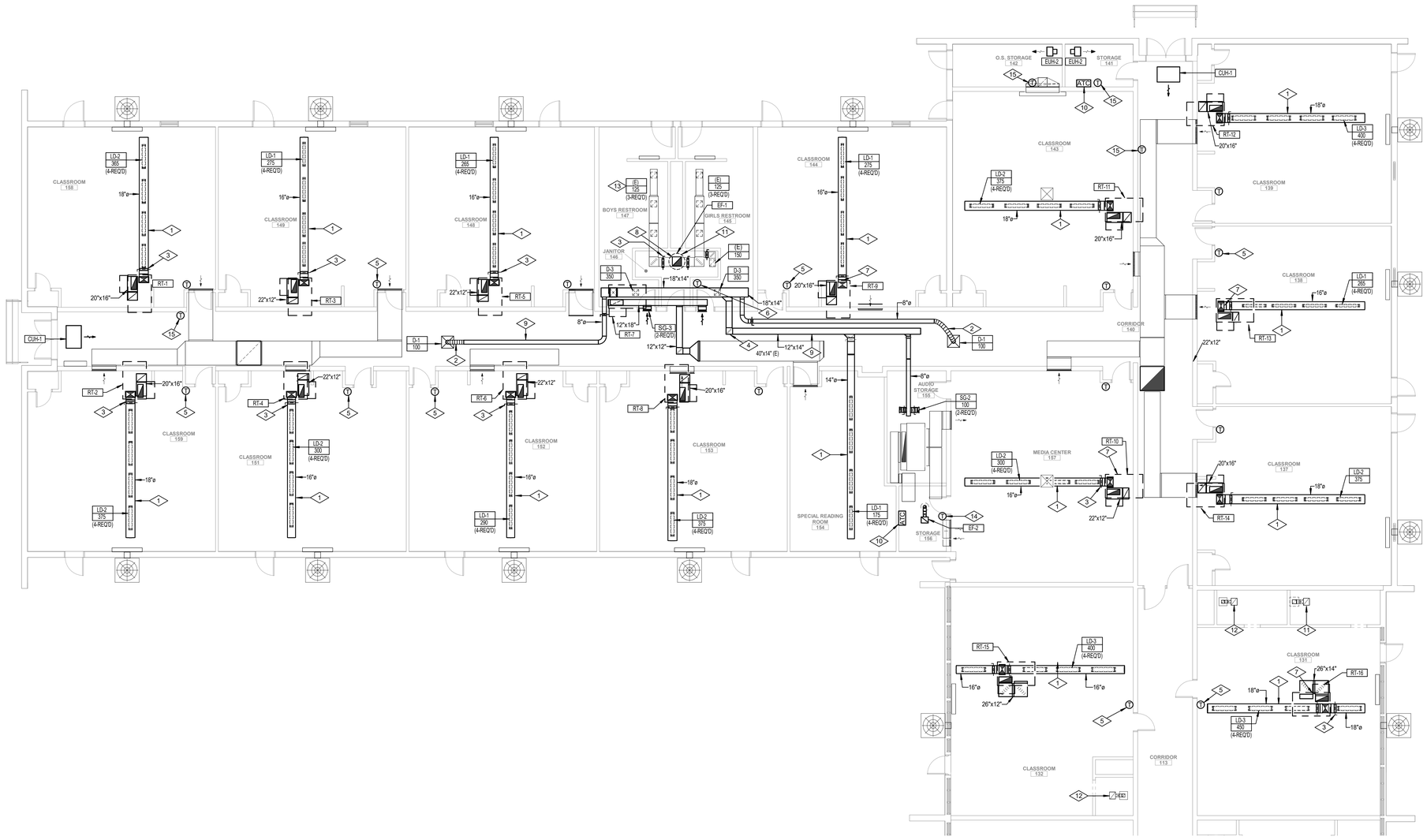


REFERENCE NOTES

1. DUCTWORK TO RUN EXPOSED BETWEEN BEAM AND OFFSET FOR LIGHTING. (TYPICAL)
2. FLEXIBLE DUCT WORK. MAXIMUM LENGTH 5'-0" (TYPICAL)
3. MANUAL VOLUME BALANCING DAMPER. (TYPICAL)
4. TURNING VANES. (TYPICAL)
5. NEW WALL MOUNTED HEATING/COOLING THERMOSTAT (TYPICAL). STAT TO BE MOUNTED IN SAME POSITION AS EXISTING. PULL POWER/CONTROL WIRES THROUGH EXISTING RUN IF POSSIBLE.
6. NEW WALL MOUNTED HEATING/COOLING THERMOSTAT TO BE MOUNTED 4'-0" AFF.
7. SUPPLY AND RETURN DUCT DOWN THRU ROOF FROM ROOFTOP UNIT. COORDINATE EXACT LOCATION WITH STRUCTURE AND UNIT PROVIDED (TYPICAL).
8. CONNECT NEW EXHAUST FAN TO EXISTING DUCTWORK. WITH AN ADAPTOR CURB.
9. DUCTWORK TO RUN ABOVE CEILING. COORDINATE WITH EXISTING CONTIDIONS AND RE-ROUTE AS NECESSARY.
10. NEW ATC PANEL. 120/1/60 POWER REQUIRED.
11. TIE IN EXISTING EXHAUST FAN TO NEW BUILDING CONTROL SYSTEM.
12. EXISTING EXHAUST FAN TO TURN ON WITH THE LIGHTS.
13. REBALANCE EXISTING EXHAUST AIR GRILLES TO CFM SHOWN.
14. NEW COOLING ONLY THERMOSTAT TO CONTROL EF-2.
15. NEW WALL MOUNTED HEATING ONLY THERMOSTAT. STAT TO BE 4'-0" AFF.

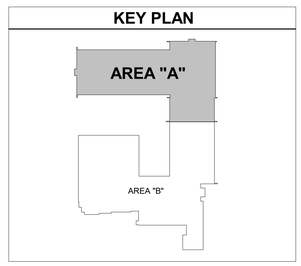
MECHANICAL PLAN AREA A

0 4' - 8' - 16' -

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

NORTH

KEY PLAN



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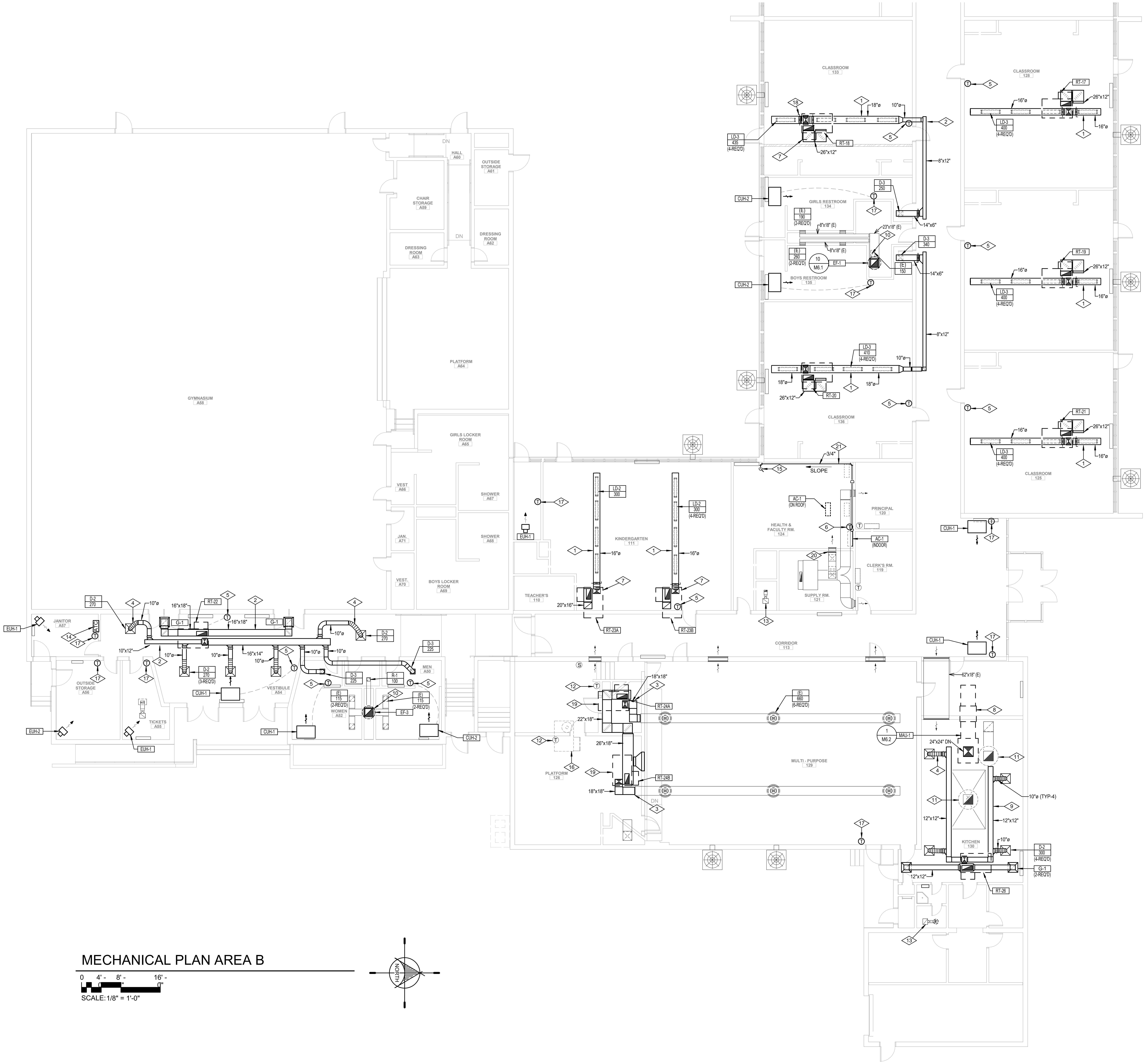


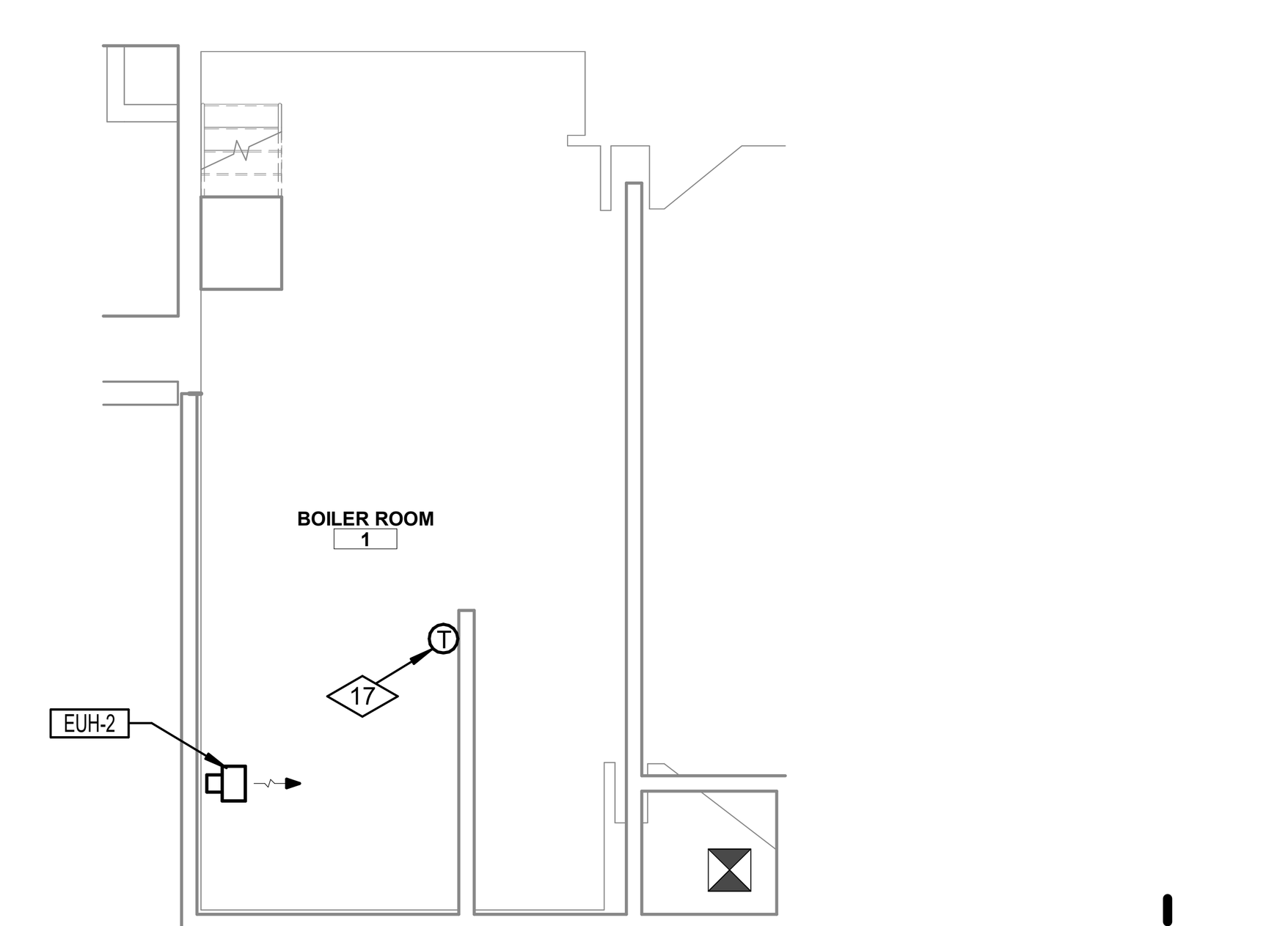
MECHANICAL PLAN AREA B

0 4' 8' 16'

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

REFERENCE NOTES

1. DUCTWORK TO RUN EXPOSED BETWEEN BEAM AND OFFSET FOR LIGHTING. (TYPICAL)
2. DUCTWORK TO RUN ABOVE CEILING. COORDINATE WITH EXISTING CONTIDIONS AND RE-ROUTE AS NECESSARY.
3. CONNECT TO EXISTING AT APPROXIMATELY THIS LOCATION.
4. FLEXIBLE DUCT WORK. MAXIMUM LENGTH 5'-0" (TYPICAL)
5. NEW WALL MOUNTED HEATING/COOLING THERMOSTAT (TYPICAL). STAT TO BE MOUNTED IN SAME POSITION AS EXISTING. PULL POWER/CONTROL WIRES THROUGH EXISTING RUN IF POSSIBLE.
6. WALL MOUNTED HARD WIRED, HEATING/COOLING THERMOSTAT TO CONTROL AC-1.
7. SUPPLY AND RETURN DUCT DOWN THRU ROOF FROM ROOFTOP UNIT. COORDINATE EXACT LOCATION WITH STRUCTURE AND UNIT PROVIDED (TYPICAL).
8. MAU-1 TO DROP INTO GRILLE FROM EXISTING EVAPORATIVE COOLER.
9. DUCTWORK TO RUN AS HIGH AS POSSIBLE ABOVE CEILING. COORDINATE WITH ALL TRADES.
10. CONNECT NEW EXHAUST FAN TO EXISTING DUCTWORK. WITH AN ADAPTOR CURB.
11. EXISTING EXHAUST FAN TO BE INTERLOCKED WITH MAKE-UP AIR UNIT.
12. TIE IN EXISTING THERMOSTATS TO NEW BUILDING CONTROL SYSTEM.
13. EXISTING EXHAUST FAN TO TURN ON WITH THE LIGHTS.
14. NEW ATC PANEL. 120/1/60 POWER REQUIRED.
15. CONDENSATE DRAIN TO TIE INTO EXISTING SINK. SEE DETAIL 5/P6.1.
16. CONNECT EXISTING ROOF TOP UNIT TO NEW ATC CONTROLS SYSTEM. (TYP)
17. NEW WALL MOUNTED HEATING ONLY THERMOSTAT. STAT TO BE 4'-0" AFF.
18. MANUAL VOLUME BALANCING DAMPER. (TYPICAL)
19. KEEP ROOFTOP UNIT AIR INTAKE AT LEAST 10' FROM ALL MECHANICAL AIR EXHAUSTS.
20. CAP EXISTING DUCTWORK AT APPROXIMATELY THIS LOCATION (TYP).
21. RUN DRAIN LINE AS HIGH AS POSSIBLE. TIGHT TO BOTTOM OF STRUCTURE.

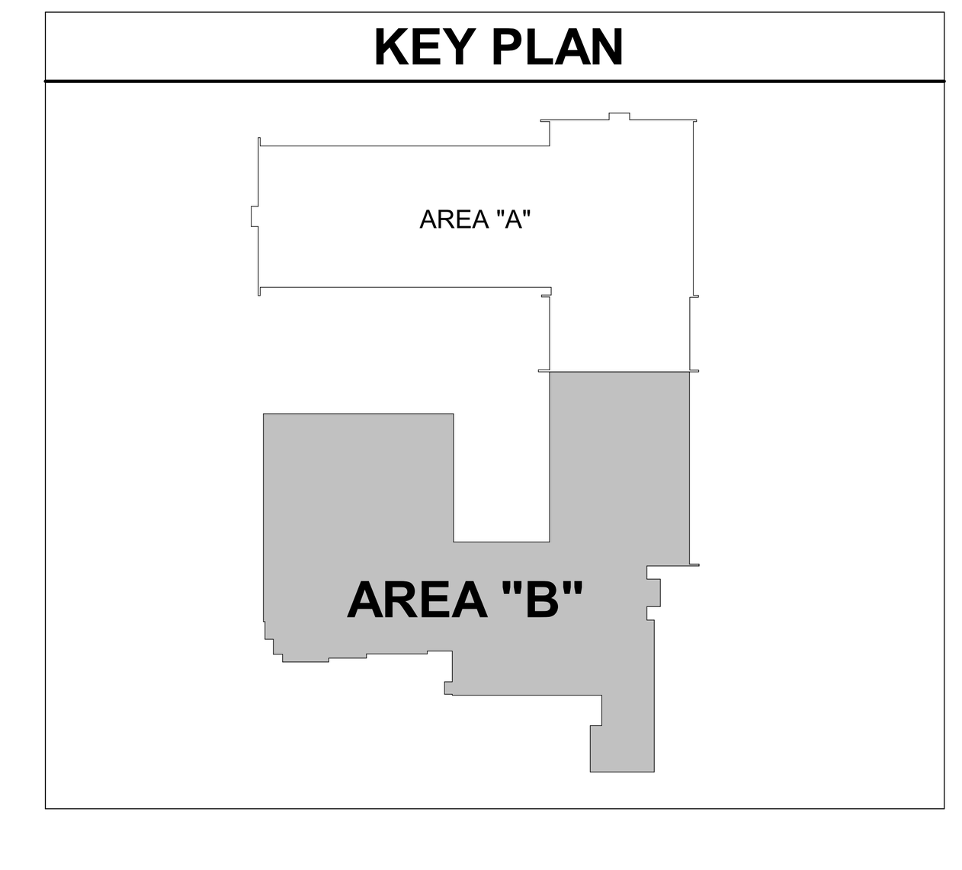


MECHANICAL BASEMENT PLAN

0 4' 8' 16'

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

KEY PLAN



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HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
HUNTINGTON, UT 84528
90 E 100 N

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GAS FIRED / DX ROOF TOP UNIT SCHEDULE

SYMBOL	LOCATION	CFM	E.S.P	MIN. O.A. CFM	DX - COOLING CAPACITY			GAS - HEATING CAPACITY			POWER	MCA	MOCP	RT-SIZE	UNIT WTS. LBS	MAKE & MODEL	NOTES (1)(2)(3)(4)(5)(6)
					DX MBH	DX SENSIBLE MBH	DX EFFICIENCY	GAS MBH INPUT	GAS MBH OUTPUT	GAS EFFICIENCY							
RT-1	CLASSROOM 158	1450	0.5	408	34.08	26.13	13.40 SEER2	88.0/65.6	70.4/52.0	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEEA04B2A5-8B1C0	
RT-2	CLASSROOM 159	1500	0.5	407	34.5	28.56	13.40 SEER2	88.0/65.6	70.4/52.0	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEEA04B2A5-8B1C0	
RT-3	CLASSROOM 149	1100	0.5	413	31.65	26.99	13.40 SEER2	53.6	43.2	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEDA04B2A5-8B1C0	
RT-4	CLASSROOM 151	1200	0.5	410	32.46	27.70	13.40 SEER2	53.6	43.2	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEDA04B2A5-8B1C0	
RT-5	CLASSROOM 148	1050	0.5	411	31.24	26.57	13.40 SEER2	53.6	43.2	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEDA04B2A5-8B1C0	
RT-6	CLASSROOM 152	1150	0.5	410	32.06	27.32	13.40 SEER2	53.6	43.2	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEDA04B2A5-8B1C0	
RT-7	JANITOR 146	1800	0.5	750	47.74	38.72	13.40 SEER2	88.0	70.4	80 %	208/3/60	31	45.0	74.4 L x46.6 W x 33.4 H	533	CARRIER 48FEEA05B2A5-8B1C0	
RT-8	CLASSROOM 153	1500	0.5	410	34.49	28.61	13.40 SEER2	88.0/65.6	70.4/52.0	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	533	CARRIER 48FEDA04B2A5-8B1C0	
RT-9	CLASSROOM 144	1100	0.5	750	34.49	26.99	13.40 SEER2	53.6	43.2	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEDA04B2A5-8B1C0	
RT-10	MEDIA CENTER 157	1200	0.5	410	32.46	27.70	13.40 SEER2	53.6	43.2	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	533	CARRIER 48FEDA04B2A5-8B1C0	
RT-11	CLASSROOM 143	1500	0.5	413	34.47	28.83	13.40 SEER2	88.0/65.6	70.4/52.0	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	648	CARRIER 48FEEA04B2A5-8B1C0	
RT-12	CLASSROOM 139	1600	0.5	408	47.47	38.37	13.40 SEER2	88.0	70.4	80 %	208/3/60	22	30.0	74.4 L x46.6 W x 33.4 H	594	CARRIER 48FEEA05B2A5-8B1C0	
RT-13	CLASSROOM 138	1053	0.5	426	31.27	26.58	13.40 SEER2	53.6	43.2	80 %	208/1/60	22	30.0	74.4 L x46.6 W x 33.4 H	533	CARRIER 48FEDA04B2A5-8B1C0	
RT-14	CLASSROOM 137	1500	0.5	415	50.76	31.84	13.40 SEER2	53.6	43.2	80 %	208/3/60	22	30.0	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEDA05B2A5-8B1C0	
RT-15	CLASSROOM 132	1990	0.5	410	47.47	38.42	13.40 SEER2	88.0	70.4	80 %	208/3/60	26	30.0	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEEA05B2A5-8B1C0	
RT-16	CLASSROOM 131	1800	0.5	412	47.47	38.72	13.40 SEER2	88.0	70.4	80 %	208/3/60	26	30.0	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEEA05B2A5-8B1C0	
RT-17	CLASSROOM 128	1600	0.5	435	47.47	38.87	13.40 SEER2	88.0	70.4	80 %	208/3/60	26	30.0	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEEA05B2A5-8B1C0	
RT-18	CLASSROOM 133	1990	0.5	435	47.47	38.25	13.40 SEER2	88.0	70.4	80 %	208/3/60	31	45.0	86.4 L x 59.5 W x39.3 H	676	CARRIER 48FEEA06B2A5-8B1C0	
RT-19	CLASSROOM 127	1600	0.5	418	47.47	38.42	13.40 SEER2	88.0	70.4	80 %	208/3/60	26	30.0	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEEA05B2A5-8B1C0	
RT-20	CLASSROOM 136	1990	0.5	415	48.43	38.32	13.40 SEER2	88.0	70.4	80 %	208/3/60	26	30.0	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEEA05B2A5-8B1C0	
RT-21	CLASSROOM 125	1600	0.5	418	47.47	38.42	13.40 SEER2	88.0	70.4	80 %	208/3/60	26	30.0	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEEA05B2A5-8B1C0	
RT-22	VESTIBULE A54	1800	0.5	272	47.47	38.72	13.40 SEER2	88.0	70.4	81 %	208/3/60	32	50	74.4 L x 46.6 W x 33.4 H	663	CARRIER 48FEEA05B2A5-8B1C0	
RT-23A	KINDERGARTEN 111	1200	0.5	185	32.46	27.7	13.40 SEER2	53.6	43.2	80 %	208/3/60	26	30	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEDA04B2A5-8B1C0	
RT-23B	KINDERGARTEN 111	1200	0.5	185	32.46	27.7	13.40 SEER2	53.6	43.2	80 %	208/3/60	26	30	74.4 L x 46.6 W x 33.4 H	594	CARRIER 48FEDA04B2A5-8B1C0	
RT-24A	MULTIPURPOSE 129	1990	0.5	625	47.74	44.49	13.40 SEER2	88.0	70.4	81 %	208/3/60	31	45	115.9 L x 63.4 W x 57.4 H	676	CARRIER 48FEEA06B2A5-8B1C0	
RT-24B	MULTIPURPOSE 129	1990	0.5	625	47.74	44.49	13.40 SEER2	88.0	70.4	81 %	208/3/60	31	45	115.9 L x 63.4 W x 57.4 H	676	CARRIER 48FEEA06B2A5-8B1C0	
RT-26	KITCHEN 130	1200	0.5	141	33.08	23.30	13.40 SEER2	53.6	43.2	80 %	208/3/60	22.0	30.0	74.4 L x 46.6 W x 33.4 H	648	CARRIER 48FEDA04B2A5-8B1C0	

NOTES:
(1) ROOFTOP UNIT TO BE COMPLETE WITH HINGED ACCESS DOORS, 100% OUTDOOR AIR ECONOMIZER PACKAGE WITH BUILT-IN 100% RELIEF AIR, 18" HIGH FACTORY ROOF CURB OR AS REQUIRED FOR 12" MIN ABOVE FINISHED ROOF, UNPOWERED WEATHERPROOF GFI CONVENIENCE OUTLET AND ALL CONTROLS FOR AUTOMATIC OPERATION. UNIT SHALL BE U.L. LOSTED, ARI CERTIFIED AND AGA APPROVED. DOWN DISCHARGE.
(2) COOLING CAPACITY BASEDON 55°F COOLING SUPPLY TEMPERATURE, 75°F INDOOR AIR TEMPERATURE, 91°F DB AND 60°F WB OUTDOOR AIR TEMP, HEATING BASED ON 5°F.
(3) UNITS SHALL BE COMPLETE WITH 2" MERV 8 FILTERS, ABLE TO UPGRADE TO MERV 13 WITH NO CHANGES TO FILTER RACK.
(4) CAPACITIES BASED ON 5675 FT. ELEVATION.
(5) UNITS SHALL USE R-454B.
(6) ROOFTOP UNITS TO COME FROM THE FACTORY BACNET COMPATIBLE, UNITS TO CONNECT TO EXISTING DELTA CONTROLS SYSTEM, SEE SPECIFICATIONS.

MECHANICAL EQUIPMENT SCHEDULE

AC-1 (INDOOR)
INDOOR UNIT: HEAT PUMP, HIGH WALL MOUNTED, HORIZONTAL DISCHARGE, 441 CFM, 11,730 BTUH TOTAL COOLING CAPACITY AT 95 DEG. F. O.A. TEMP, 80 DEG. F. D.B./67 DEG. F. W.B. INDOOR AIR, AND 10,428 BTUH HEATING CAPACITY AT 3 F. O.A.,70 F. INDOOR AIR. UNIT IS POWERED BY OUTDOOR UNIT. UNIT TO BE COMPLETE WITH CLEANABLE FILTER, CHECK & EXPANSION VALVE KIT, PRE-CHARGED LINE SET, DRIP PAN AND DRAIN CONNECTION OUT BACK SIDE OF UNIT. PROVIDE WALL MOUNTED THEROMSTAT WITH NIGHT SET BACK. THERMOSTAT SHALL BE HARD WIRED TO UNIT

UNIT DIM: 8.86" L x 31.30" W x 11.61" H
WEIGHT: 43.65 LBS
MANUFACTURER: CARRIER
MODEL: 45MAHAQ12XA3

AC-1 (ON ROOF)
OUTDOOR UNIT: AIR COOLED, HORIZONTAL DISCHARGE, INVERTER COMPRESSOR, UNIT TO BE MOUNTED ON HOUSEKEEPING PAD. 11,730 BTUH TOTAL COOLING CAPACITY AT 95 DEG. F. O.A. TEMP, 80 DEG. F. DB/67 DEG. F. WB, 10,428 BTUH TOTAL HEATING CAPACITY AT 5 DEG. F. O.A. TEMP. MCA=15, 208/1/60, MOTOR TO BE UL LISTED. UNIT TO BE COMPLETE WITH CRANKCASE HEATER, AMBIENT CONTROL KIT TO 0 DEG. F. , AND ALL CONTROLS FOR AUTOMATIC OPERATION. CONTRACTOR TO PROVIDE 4" HOUSE KEEPING PAD ABOVE GROND LEVEL.

UNIT DIM: 12.99" L x 31.69" W x 21.81" H
WEIGHT: 72.75 LBS
SEER/EER: 25.5/13.5
COP: 3.76
MANUFACTURER: CARRIER
MODEL: 37MAHAQ12AA3

LINEAR DIFFUSER SCHEDULE

SYMBOL	TYPE	NUMBER OF SLOTS	SIZE	AIR PATTERN	MAKE & MODEL	NOTES
LD-1	SUPPLY	2	4"x46"	2-WAY	PRICE SDS	(1)(2)(3)
LD-2	SUPPLY	3	5"x46"	2-WAY	PRICE SDS	(1)(2)(3)
LD-3	SUPPLY	4	7"x46"	2-WAY	PRICE SDS	(1)(2)(3)

NOTES:
(1) DUCT MOUNTED WITH PRICE TYPE 16 FRAMES
(2) EQUALIZING GRID
(3) ANODIZED ALUMINUM FINISH

MAKE-UP AIR UNIT SCHEDULE

SYMBOL	LOCATION	CFM	E.S.P	EVAP SECTION	FLOW CONFIG.	NATURAL GAS - HEATING CAPACITY			POWER	MCA	MOP	H.P.	MAKE & MODEL	NOTES
						GAS MBH INPUT	GAS MBH OUTPUT	GAS EFFICIENCY						
MAU-1	KITCHEN	5400	.5	YES	DOWN	353.3	325.0	92	208/3/60	27.6	45	7.5	EA3-D.500-24D	(1)(2)

NOTES:
(1) SINGLE POINT POWER CONNECTION WITH STEP DOWN TRANSFORMER FOR EVAP. SECTION. WALL CONTROL PANEL, INLET HOOD, AND 18" FACTORY CURB.
(2) PROVIDE UNPOWERED CONVENIENCE OUTLET.
(3) CAPACITIES BASED ON 5675 FT. ELEVATION.

CABINET UNIT HEATER

SYMBOL	LOCATION	MOUNTING	CFM	HEATING M.B.H	AMPS	POWER	CUSTOM UNIT HEIGHT	CUSTOM UNIT LENGTH	CUSTOM UNIT WIDTH	MAKE & MODEL	NOTES
CUH-1	VESTIBULE	CEILING	1000	20.4	18	208/3/60	0' - 10"	3' - 9"	2' - 6"	QMARK CU945	(1)(2)(3)(4)
CUH-2	RESTROOM	CEILING	1000	13.6	18	208/3/60	0' - 10"	3' - 9"	2' - 6"	QMARK CU945	(1)(2)(3)(4)

NOTES:
(1) PROVIDE FRAME FOR CEILING MOUNTING IN GYP BOARD CEILING OR T-BAR CEILING.
(2) PROVIDE SUPPORTS FROM STRUCTURE.
(3) CONTROLLED WITH DDC HEATING ONLY THERMOSTAT.
(4) UNITS SHALL HAVE BRIGHT-WHITE FINISH.

EXHAUST FAN SCHEDULE

SYMBOL	LOCATION	TYPE	CFM	E.S.P	MOTOR	DRIVE	UNIT WTS. LBS	MAKE & MODEL	NOTES
EF-1	BATHROOM	ROOF MOUNTED	900	0.5	.25HP 115/1/60	BELT	55	COOK 120 ACEB	(1)(2)
EF-2	STORAGE 156	CEILING MOUNTED	100	.25	.05HP 115/1/60	DIRECT DRIVE	30	COOK GC-148	(3)(4)
EF-3	SOUTH RR	ROOF MOUNTED	650	0.5	.25HP 115/1/60	BELT	30	COOK 100 ACEB	(1)(2)

NOTES:
(1) EXHAUST FAN TO BE ROOF-MOUNTED DOWN BLAST, COMPLETE WITH SPUN ALUMINUM HOOD, BIRDSCREEN, DISCONNECT SIWTCH UNDER HOOD, FACTORY PREFAB CURB AND BACKDRAFT DAMPER. SEE DETAIL 10/M6.1.
(2) EXHAUST FAN SHALL BE COMPLETE WITH 18" HIGH FACTORY PRE-FAB ROOF CURB.
(3) CEILING MOUNTED EXHAUST FAN TO BE COMPLETE WITH CEILING GRILLE, BACKDRAFT DAMPER, AND FELXIBLE CONNECTION ON DISCHARGE DUCT.
(4) CONTROLLED WITH COOLING ONLY THERMOSTAT.

ELECTRIC UNIT HEATER

SYMBOL	LOCATION	MOUNTING	CFM	HEATING M.B.H	AMPS	POWER	MAKE & MODEL	NOTES
EUH-1	STORAGE	CEILING	400	11.2	15.9	208/3/60	MARKEL F2F5103N	(1)
EUH-2	STORAGE	CEILING	700	19.2	16.2	208/3/60	MARKEL HF2B5107CA1L	(1)

NOTES:
(1) PROVIDE MOUNTING BRACKET, DISCONNET, SUMMER FAN SWITCH AND DDC HEATING ONLY THERMOSTAT.

DIFFUSER SCHEDULE

SYMBOL	TYPE	SIZE	LOCATION	AIR PATTERN	MAKE & MODEL	NOTES
D-1	SUPPLY	8"ø	CEILING	4-WAY	PRICE - SCD	(1)(2)
D-2	SUPPLY	10"ø	CEILING	4-WAY	PRICE - SCD	(1)(2)
D-3	SUPPLY	12"x12"	BATHROOM	3-WAY	PRICE SMD	(1)(2)

NOTES:
(1) DIFFUSERS SHALL HAVE BRIGHT-WHITE FINISH
(2) DIFFUSER SHALL BE SQUARE CONE FACE TYPE WITH 24" X 24" MODULE FOR T-BAR CEILING OR FRAME FOR GYP BOARD CEILING INSTALLATION.

GRILLES SCHEDULE

SYMBOL	TYPE	SIZE	LOCATION	MAKE & MODEL	NOTES
G-1	RETURN	24"x24"	CEILING	PRICE 535	(1)(2)
SG-2	SUPPLY	10"x6"	DUCT MOUNTED	PRICE 510	
SG-3	RETURN	16"x18"	WALL MOUNTED	PRICE 530	

NOTES:
(1) GRILLE SHALL HAVE BRIGHT WHITE FINISH.
(2) GRILLE SHALL FIT IN T-BAR CEILING.
(3) GRILLE TO BE HEAVY DUTY, STEEL, HAVE SURFACE MOUNTING FRAME

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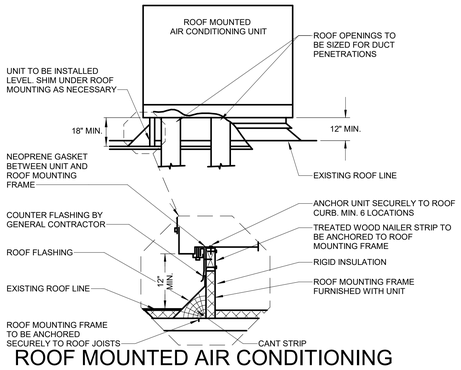
PROJECT #: 176525

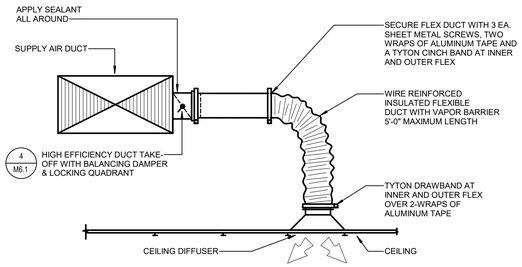
M5.1



ROOF MOUNTED AIR CONDITIONING UNIT DETAIL

SCALE: NTS

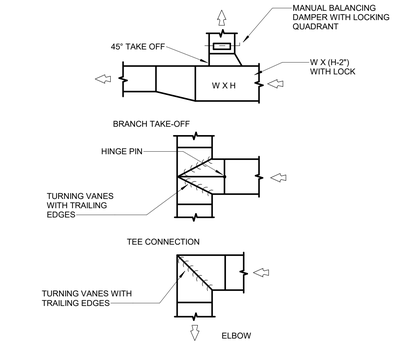
9 / M6.1



CEILING DIFFUSER DETAIL

SCALE: NTS

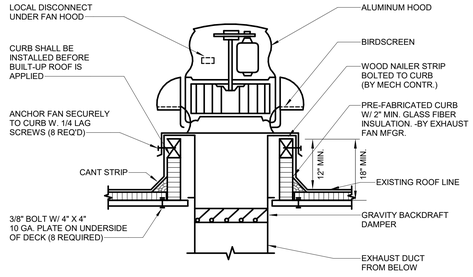
5 / M6.1



LOW PRESSURE DUCT DETAIL

SCALE: NTS

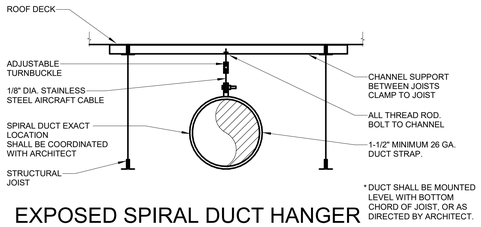
1 / M6.1



ROOF MOUNTED EXHAUST FAN DETAIL

SCALE: NTS

10 / M6.1

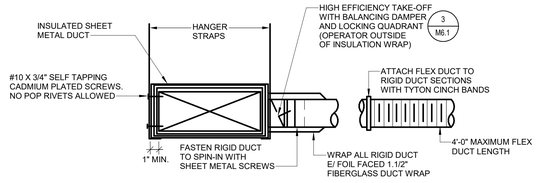


* DUCT SHALL BE MOUNTED LEVEL WITH BOTTOM CHORD OF JOIST, OR AS DIRECTED BY ARCHITECT.

EXPOSED SPIRAL DUCT HANGER DETAIL

SCALE: NTS

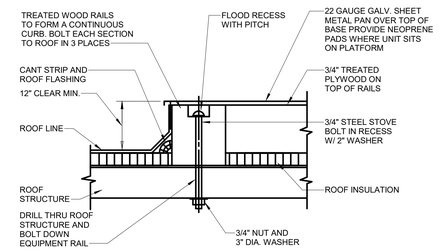
6 / M6.1



FLEX DUCT H.E.T. FITTING DETAIL

SCALE: NTS

2 / M6.1

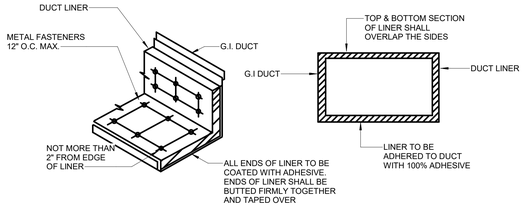


NOTE:
PROVIDE EQUIPMENT BASE AT MAKE-UP AIR UNITS IF REQUIRED. ANCHOR BASE SECURELY TO STRUCTURE AND EQUIPMENT TO BASE. BASE SHALL BE LARGE ENOUGH FOR ALL UTILITIES TO RISE THRU BASE. COVER OVER BASE SHALL BE ONE PIECE WATER TIGHT TURNED OVER EDGES, FLASH AT UTILITIES.

ROOFTOP EQUIPMENT BASE DETAIL

SCALE: NTS

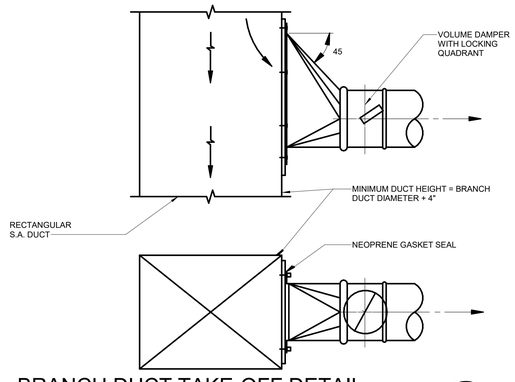
11 / M6.1



BRANCH DUCT TAKE-OFF DETAIL

SCALE: NTS

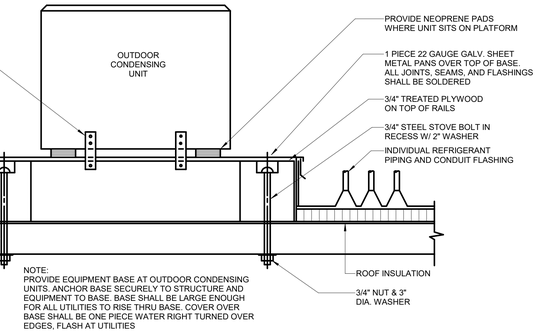
7 / M6.1



BRANCH DUCT TAKE-OFF DETAIL

SCALE: NTS

3 / M6.1

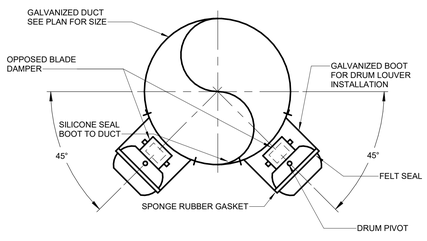


NOTE:
PROVIDE EQUIPMENT BASE AT OUTDOOR CONDENSING UNITS. ANCHOR BASE SECURELY TO STRUCTURE AND EQUIPMENT TO BASE. BASE SHALL BE LARGE ENOUGH FOR ALL UTILITIES TO RISE THRU BASE. COVER OVER BASE SHALL BE ONE PIECE WATER RIGHT TURNED OVER EDGES, FLASH AT UTILITIES

AC OUTDOOR UNIT DETAIL

SCALE: NTS

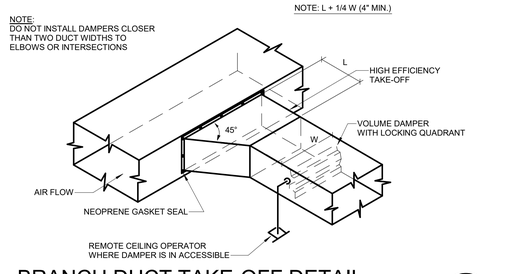
12 / M6.1



DRUM DIFFUSER INSTALLATION DETAIL

SCALE: NTS

8 / M6.1



BRANCH DUCT TAKE-OFF DETAIL

SCALE: NTS

4 / M6.1

OLSEN & PETERSON
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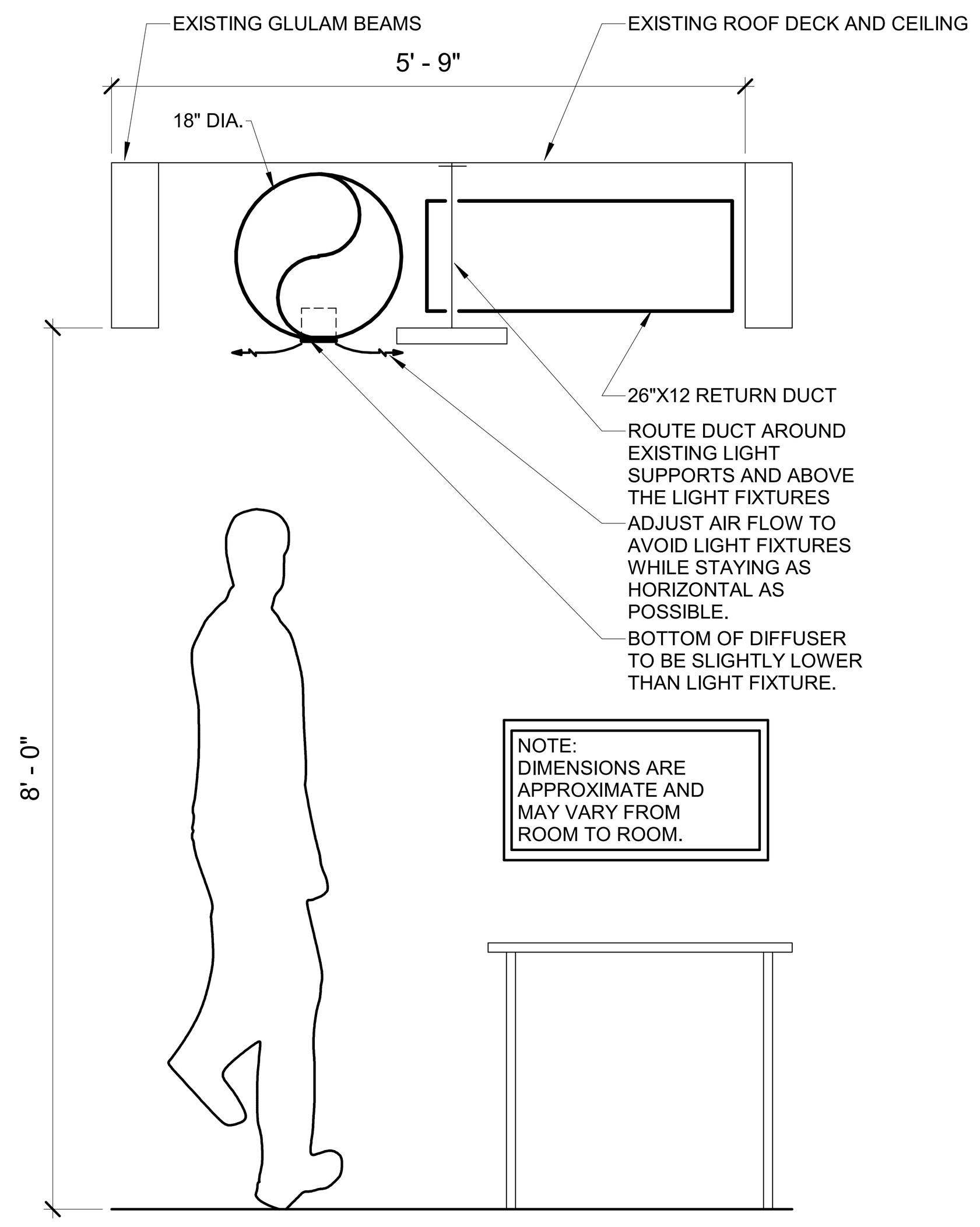
REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
HUNTINGTON, UT 84528
90 E 100 N

DRAWN BY: Author
CHECKED BY: Checker
DATE: JAN. 2026
PROJECT #: 176525

M6.1

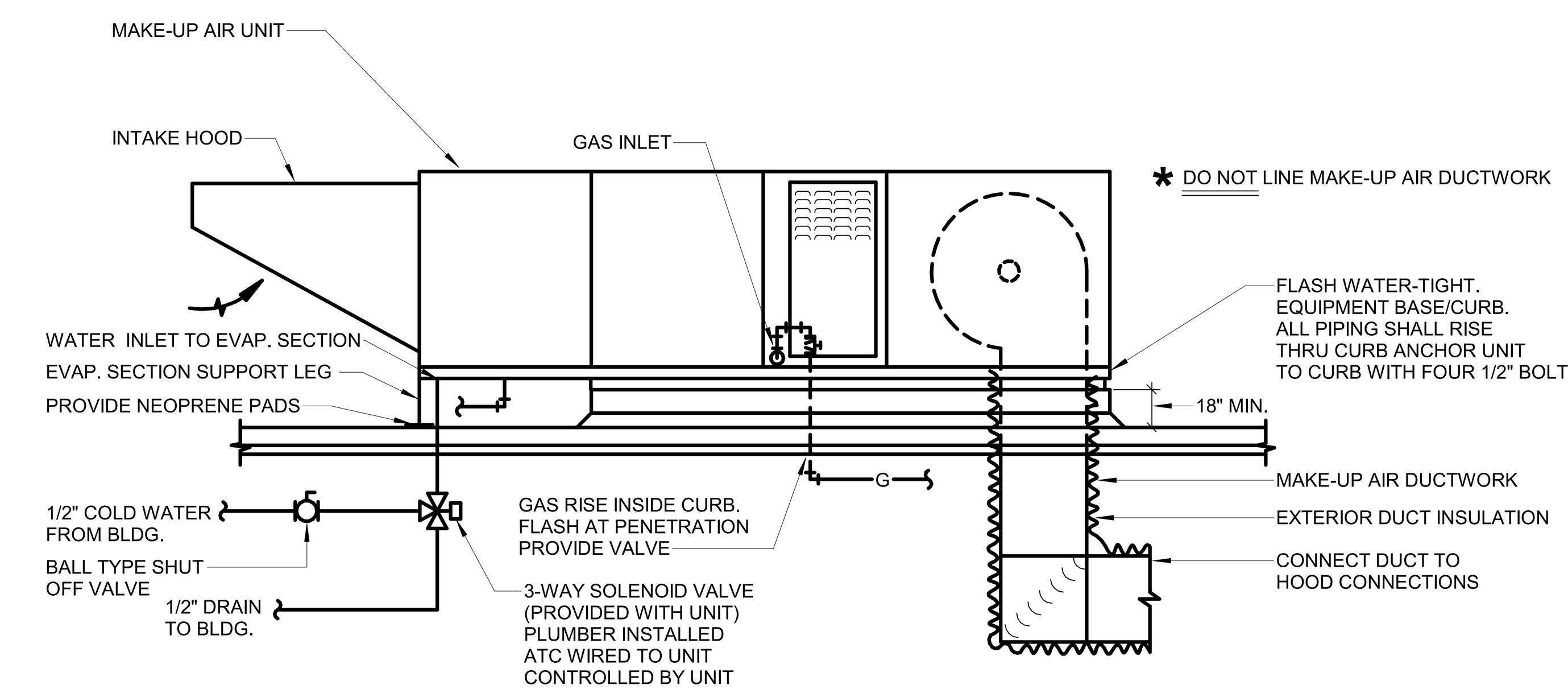
1/15/2026 11:53:49 AM 12" = 1'-0"



TYPICAL CLASSROOM DIFFUSER

4 / M6.2

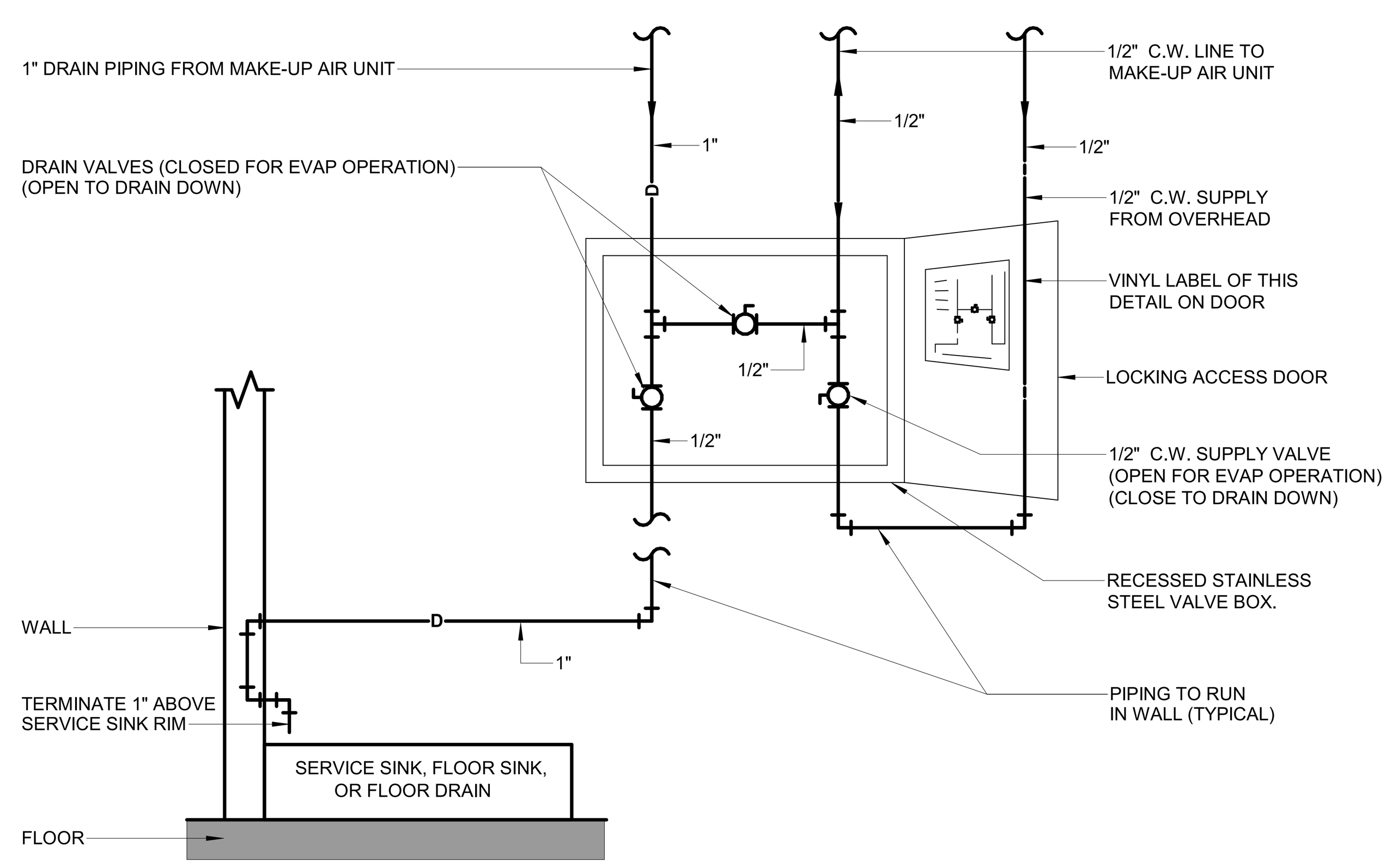
SCALE: NTS



MAKE-UP AIR UNIT DETAIL

1 / M6.2

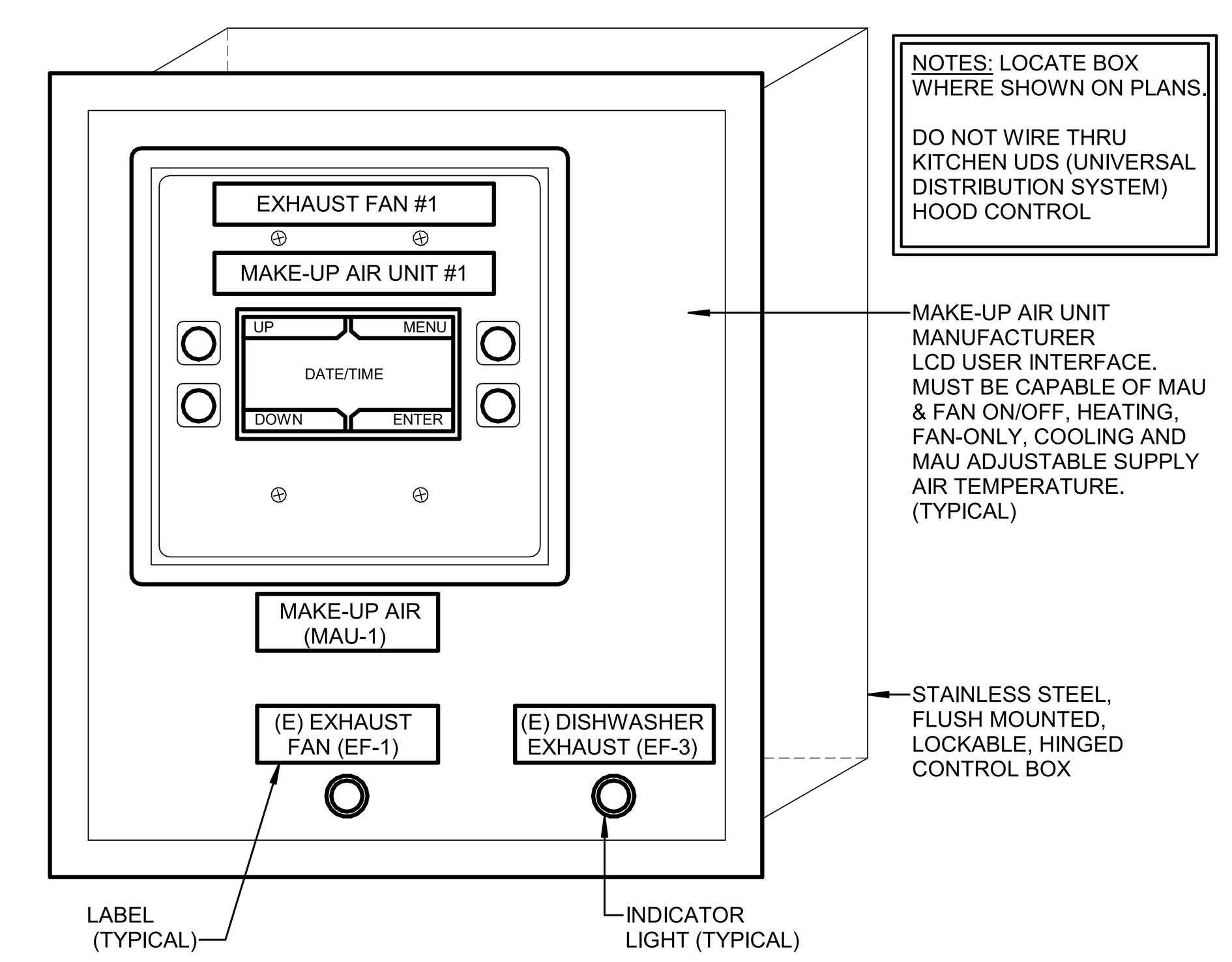
SCALE: NTS



MAKE-UP UNIT WATER SUPPLY & DRAIN DETAIL

5 / M6.2

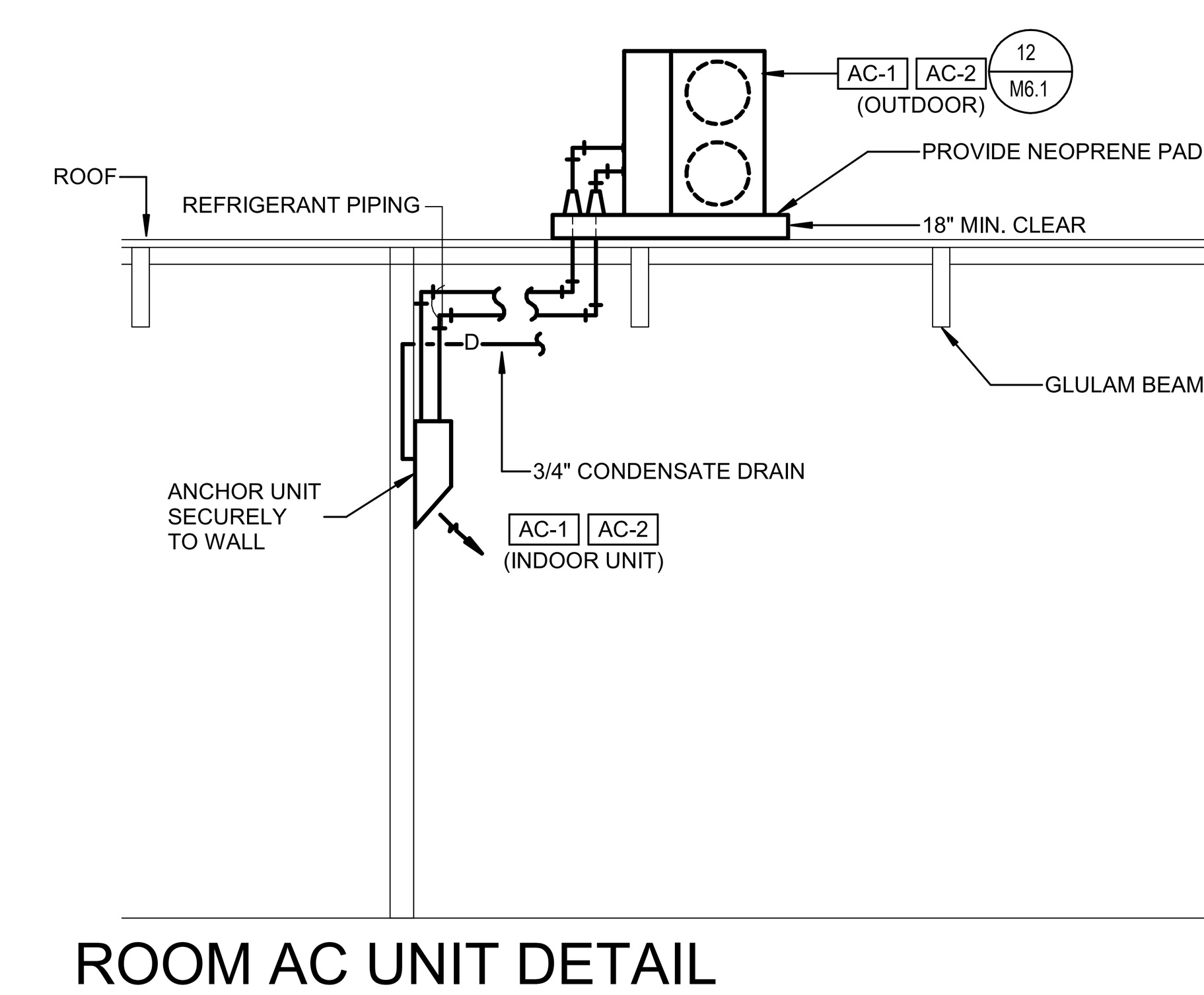
SCALE: NTS



MAKE-UP AIR UNIT AND KITCHEN EXHAUST CONTROL PANEL DETAIL

2 / M6.2

SCALE: NTS



ROOM AC UNIT DETAIL

3 / M6.2

SCALE: NTS

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90 E 100 N

DRAWN BY:	Author
CHECKED BY:	Checker
DATE:	JAN. 2026
PROJECT #:	176525

M6.2

1/15/2026 9:28:18 AM

1/8" = 1'-0"

SYMBOL LEGEND GENERAL NOTES

1. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE TYPES, MOUNTING REQUIREMENTS, WATTAGE & DETAILS.
2. WIRE LIGHT FIXTURE FROM ADJACENT JUNCTION BOX.
3. CONNECT NEAREST UN-SWITCHED HOT CONDUCTOR TO EMERGENCY BALLAST.
4. LIGHT FIXTURES ARE SCALED WITHIN THE DRAWINGS BASED ON ACTUAL DIMENSIONS.
5. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
6. SUBSCRIPT INDICATES FIXTURES TO BE CONTROLLED.
7. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISHED FLOOR.
8. NOT USED.
9. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE HEAVY DUTY (HD) DEVICE FOR 480 VOLT.
10. SIZE TO THE EQUIPMENT BEING CONTROLLED.
11. PROVIDE H.O.A. & S.S. PUSHBUTTONS AS REQUIRED.
12. DOUBLE ARROWS INDICATES A DOUBLE FACE UNIT.
13. FOR WATER COOLER LOCATION, REFER TO DIAGRAM R002. FOR ALL OTHER LOCATIONS, MOUNT AT +16" TO BOTTOM OF BOX FROM FINISHED FLOOR, OR AS NOTED.
14. ARROWS SHOWN ON DEVICE INDICATE AIMING DIRECTION.
15. COORDINATE WITH DOOR HARDWARE SUPPLIER.
16. MOUNT ON TRACK OF OVERHEAD DOOR, 6" FROM TOP OF DOOR, UNLESS OVERHEAD DOOR IS A ROLL UP DOOR, THEN MOUNT PER MANUFACTURER'S INSTRUCTIONS.
17. INSTALL DEVICES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
18. DASHED LINE INDICATES EQUIPMENT CLEARANCES. ARROW INDICATES FRONT OF RACK.
19. HEIGHT MEASURED TO BOTTOM OF THE DEVICE FROM FINISHED FLOOR.
20. PROVIDE MUD RING &/OR BOX COVER APPROPRIATE FOR DEVICE/FIXTURE SERVED.
21. REFER TO DIAGRAMS, ELEVATIONS, & SCHEDULES FOR CUSTOM ROUGH-IN REQUIREMENTS.
22. ROUGH-IN TO BE HORIZONTAL.
23. REFER TO MANUFACTURER'S RECOMMENDED CABLE REQUIREMENTS FOR EXACT CABLE REQUIRED.
24. FOLLOW BICSI STANDARDS FOR CABLE ROUTING & DISTANCES.
25. SUBSCRIPT INDICATES NEMA CONFIGURATION.
26. USE A 4" X 4" BOX WITH A MUD RING TO MATCH THE DEVICE & INSTALLATION.
27. USE WITH POWER PACK.
28. PROVIDE UL LISTED DEVICE COMPATIBLE WITH THE FIRE ALARM PANEL/SYSTEM.
29. CAMERA TYPES ARE INDICATED INSIDE THE CAMERA SYMBOL.
30. SOLID BOX AROUND DEVICE INDICATES INSTALLED IN FLOOR. DASHED BOX AROUND DEVICE INDICATES INSTALLED IN CEILING.
31. WALL DEVICES NOTED WITH A CHEVRON INDICATE THE PROPOSED INSTALLATION HEIGHT. COORDINATE WITH MILLWORK SHOP DRAWINGS & ELEVATIONS FOR HEIGHT.

GENERAL NOTES

1. CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
3. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS,ETC) OF ALL EQUIPMENT FURNISHED UNDER ALL DIVISIONS, INCLUDING ALL EXISTING EQUIPMENT TO BE RE-USED. REVIEW ALL SHOP DRAWINGS AND EXISTING EQUIPMENT BEFORE BEGINNING ROUGH-IN.
4. SEE SECTION 26 5100 OF THE SPECIFICATION FOR REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
5. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACK SPLASH EXCEPT THOSE SERVING UNDER COUNTER EQUIPMENT.
6. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
7. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
8. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS, COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
9. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
10. CONTRACTOR SHALL VERIFY FURNITURE LAYOUT PRIOR TO ANY FLOORBOX OR POKE-THRU INSTALLATION. COORDINATE EXACT LOCATION OF FLOOR BOX OR POKE-THRU WITH OWNER AND FURNITURE PROVIDER PRIOR TO ROUGH-IN.
11. CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 115' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH CONDUCTORS PER TABLE BELOW.

20 AMP MINIMUM BRANCH CIRCUIT CONDUCTOR SIZING		
MAXIMUM LENGTH	BRANCH CIRCUIT VOLTAGE	
CONDUCTOR LENGTH (FT)	120 VOLT	277 VOLT
<70	MIN. #12 AWG	MIN. #12 AWG
70-115	MIN. #10 AWG	MIN. #12 AWG
115-170	MIN. #8 AWG	MIN. #10 AWG
170 - 270	MIN. #6 AWG	MIN. #8 AWG
271-380	NOTE B	MIN. #8 AWG
>380	NOTE B	NOTE B

   A. THESE ARE BASED ON MAXIMUM LENGTH OF CIRCUIT.
   B. PERFORM VOLTAGE DROP CALCULATIONS AND PROVIDE CONDUCTOR SIZE TO KEEP BRANCH CIRCUIT VOLTAGE DROP LESS THAN 3% WITH A 15 AMP LOAD.
   C. CONTRACTOR SHALL ENSURE THAT THE INSTALLATION OF EACH BRANCH CIRCUIT STAYS WITHIN 3% VOLTAGE DROP FOR A 15 AMP LOAD. IF NECESSARY,CONTRACTOR SHALL INCREASE WIRE AND CONDUIT SIZE TO MEET THE STANDARD AT NO ADDITIONAL COST TO OWNER.

12. ALL CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES PARALLEL TO, OR AT RIGHT ANGLES TO, THE STRUCTURE OR ADJACENT BUILDING ELEMENTS. SEPARATIONS BETWEEN CONDUITS AND FASTENINGS OF CONDUITS SHALL BE NEAT AND CONSISTENT. CONDUIT SHALL BE INSTALLED AS TIGHT TO THE BOTTOM OF STRUCTURAL ELEMENTS WHEN PARALLEL TO JOISTS AS CODE WILL ALLOW. OVERALL INSTALLATION SHALL BE ACCOMPLISHED IN AN AESTHETIC AND WORKMANLIKE MANNER. NO CONDUITS SHALL BE ALLOWED TO RUN PERPENDICULAR TO THE BOTTOM CHORD OF THE JOISTS.
13. DIVISION 26 SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. FIELD VERIFY ALL ELECTRICAL EQUIPMENT.
14. BIDDERS SHALL EXAMINE THE SITE AND THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. THEY SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTION AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM.
15. ELECTRICAL CONTRACTOR SHALL COORDINATE PROJECT PHASING WITH GENERAL CONTRACTOR AND BID AND PERFORM RESPONSIBILITIES FOR THIS PROJECT TO GENERAL CONTRACTOR EXPECTATIONS.
16. COORDINATE ELECTRICAL DEMOLITION WITH ARCHITECTURAL DRAWINGS AND GENERAL CONTRACTOR.
17. CLOSELY COORDINATE ANY REQUIRED POWER SHUTDOWNS WITH HEAD CUSTODIAN AND OWNER.
18. WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF WORK REQUIRED, THE CONTRACTOR WILL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE OWNER.
19. SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF ELECTRICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING-IN THE BUILDING. COORDINATE THE CUTTING AND PATCHING OF BUILDING COMPONENTS TO ACCOMMODATE INSTALLATION OF ELECTRICAL EQUIPMENT AND MATERIALS.
20. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.
21. CONTRACTOR MUST CONCEAL ALL RACEWAY THROUGHOUT THE PROJECT. SURFACE MOUNT RACEWAY IS UNACCEPTABLE EXCEPT WHERE THE USE OF PAINTED SURFACE METAL RACEWAYS (EMT) IS APPROVED SOLEY BY THE ARCHITECT. PAINT TO MATCH SURROUNDING SURFACE.
22. ALL CONCRETE CUT AND PATCH WORK REQUIRED FOR FLOOR BOXES INSTALLATION AND/OR RELOCATION OF ELECTRICAL DEVICES AND PANELS THAT REQUIRE WORK WITHIN THE FLOORS SHALL BE DONE BY ELECTRICAL CONTRACTOR. ALL CORE CUTTING FOR NEW SERVICE SHALL ALSO BE COVERED UNDER ELECTRICAL CONTRACTORS REQUIRED WORK.
23. ALL CONCRETE CUT AND PATCH WORK REQUIRED FOR FLOOR BOXES INSTALLATION AND/OR RELOCATION OF ELECTRICAL DEVICES AND PANELS THAT REQUIRE WORK WITHIN THE FLOORS SHALL BE DONE BY ELECTRICAL CONTRACTOR. ALL CORE CUTTING FOR NEW SERVICE SHALL ALSO BE COVERED UNDER ELECTRICAL CONTRACTORS REQUIRED WORK.
24. CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE OF ALL WASTE, SURPLUS MATERIALS, RUBBISH OR DEBRIS WHICH IS CAUSED BY HIS EMPLOYEES OR RESULTING FROM HIS WORK. AFTER ALL EQUIPMENT AND DEVICES HAVE BEEN INSTALLED, REMOVE ALL LABELS, STICKERS, STAINS, TEMPORARY COVERS, ETC. IDENTIFICATION PLATES ON ALL EQUIPMENT.
25. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR.
26. PROVIDE GFCI CIRCUIT BREAKERS SERVING RECEPTACLES PROVIDING POWER TO DRINKING FOUNTAINS, REFRIGERATORS, VENDING MACHINES, DISPOSALS, AND WASHING MACHINES.
27. CAREFULLY REVIEW THE ENTIRE DRAWING PACKAGE PRIOR TO PROVIDING BID, INCLUDING THE ARCHITECTURAL AND MECHANICAL DRAWINGS. NOT REVIEWING THE ENTIRE SET IS NOT ACCEPTABLE.
28. PROVIDE CONDUIT FROM DEVICE TO DEVICE IN OPEN AND/OR EXPOSED CEILINGS. CEILINGS WITH CLOUDS ARE CONSIDERED OPEN/EXPOSED CEILING. NO EXPOSED CABLES SHALL BE SEEN FROM BELOW.
29. PROVIDE WEATHERPROOF, NEMA 3R RATED EQUIPMENT FOR ALL EXTERIOR APPLICATIONS.

ELECTRICAL ABBREVIATIONS INDEX

ABBREV.	DESCRIPTION
A	AMPS
AC	ALTERNATING CURRENT
ACLG	ABOVE CEILING
ADC	ANALOG-TO-DIGITAL CONVERTER
AF	AMP FRAME
AFC	AVAILABLE FAULT CURRENT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF / A.F.F.	ABOVE FINISH FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CAPACITY
AL	ALUMINUM
ALT	ALTERNATE
AM	AMPS METER
AMP	AMPERE
AMPL	AMPLIFIER
ANN	ANNUNCIATOR
AOE	AUDIO-OVER-ETHERNET
APPROX	APPROXIMATELY
AQ-STAT	AQUASTAT
ARCH	ARCHITECT, ARCHITECTURAL
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BC	BARE COPPER
BD	BOARD
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
BPM	BEATS-PER-MINUTE
C, CND	CONDUIT
C.O.	CONDUIT ONLY
C/W	COMPLETE WITH
CAB	CABINET
CAT	CATEGORY CABLE
CAT#	CATALOG
CATB	COMMUNITY ANTENNA TELEVISION
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CF	CREST FACTOR
CKT	CIRCUIT
CLG	CEILING
CMPR	COMPRESSOR
CNTR	CONTRACTOR
CO	CONDUIT ONLY
CODEC	CODER-DECORDER
COMB	COMBINATION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUATION OR CONTINUOUS
CONV	CONVECTOR
CP	CIRCULATING PUMP
CRT	COMPUTER TERMINAL
CT	CURRENT TRANSFORMER
CU	COPPER
CV	CONSTANT VOLTAGE
DAC	DIGITAL-TO-ANALOG CONVERTER
DB	DECIBEL
DBFS	DB REF. FULL SCALE
DBM	DB REF. 0.001 WATT
DBU	DB REF. 0.775 V
DBV	DB REF. 1 V
DC	DIRECT CURRENT
DCP	DOMESTIC CIRCULATING PUMP
DED	DEDICATED
DEPT	DEPARTMENT
DET	DETAIL
DFA	DROP FROM ABOVE
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DPR	DAMPER
DR	DYNAMIC RANGE
DS	DISCONNECT SWITCH
DT	DOUBLE THROW
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EG	EMERGENCY GENERATOR
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
ELU	EMERGENCY LIGHTING UNIT
EM	EMERGENCY/EGRESS BATTERY
EMI	ELECTRO-MAGNETIC INTERFERENCE
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ENT	ELEC. NON-METAL. TUBING
EP	ELECTRIC PNEUMATIC
EQUIP	EQUIPMENT
ER	EXISTING TO BE RELOCATED
ES	SOURCE VOLTAGE
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FABP	FIRE ALARM BOOSTER PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOT CANDLE
FCU	FAN COIL UNIT
FIR	FINITE IMPULSE RESPONSE FILTER
FIXT	FIXTURE
FLR	FLOOR
FLUOR	FLUORESCENT
FMC	FLEXIBLE METAL CONDUIT
FU	FUSE
FUDS	FUSE SAFETY DISCONNECT SWITCH
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEC	GRND. ELEC. COND. AT SES
GEN	GENERATOR
GFCI	GROUND FAULT CURRENT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTOR
GND	GROUND
GRC	GALVANIZED RIGID CONDUIT
GYP BD	GYPSUM BOARD
HOA	HAND-OFF-AUTOMATIC SWITCH
HORIZ	HORIZONTAL
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HZ	HERTZ
I/W	INTERLOCK WITH
IC	INTERRUPTING CAPACITY
IFC	INTERNATIONAL FIRE CODE
IG	ISOLATED GROUND
IIR	INFINITE IMPULSE RESPONSE FILTER
IMC	INTERMEDIATE METALLIC CONDUIT
INCAND	INCANDESCENT
IR	INFRARED
IT	TOTAL CURRENT
J-BOX	JUNCTION BOX
KCMIL	1000 CIRCULAR MILS (MCM)
KHZ	THOUSANDS OF HZ
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KVAR	KILOVARS
KW	KILOWATT
KWH	KILOWATT HOUR
LCS	C-WEIGHTED SLOW SOUND LEVEL
LEQ	EQUIVALENT SOUND LEVEL
LFMC	LIQUID-TIGHT FLEX. METAL. COND.
LFNC	LIQUID-TIGHT FLEX. NON-METAL. COND.
LOC	LOCATE OR LOCATION
LP, SPL	SOUND PRESSURE LEVEL
LRA	LOCKED ROTOR AMPS
LT	LIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LU	LOUDNESS UNIT METERING
LUFS	LOUDNESS UNIT FULL SCALE
LV	LOW VOLTAGE
M/C	MOMENTARY CONTACT
MAC	MEDIA ACCESS CONTROL
MAG.S	MAGNETIC STARTER
MAX	MAXIMUM
MB	MAIN BUS
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCM	1000 CIRCULAR MILLS
MDC	MAIN DISTRIBUTION CENTER
MDP	MAIN DISTRIBUTION PANEL
MEP	MECHANICAL, ELECTRICAL, AND PLUMBING
MFR	MANUFACTURER
MFS	MAIN FUSED DISCONNECT SWITCH
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MMS	MANUAL MOTOR STARTER
MNF	MANUFACTURER
MOA	MULTI-OUTLET ASSEMBLY
MSBD	MAIN SWITCHBOARD
MSP	MOTOR STARTER PANELBOARD
MSS	MOTOR STARTER SWITCH
MTG	MOUNTING
MTR	MOTOR
MTS	MANUAL TRANSFER SWITCH
N	NEW
N.I.C.	NOT IN CONTRACT
N/A	NOT APPLICABLE
N1	NEMA 1
N3R	NEMA 3R
NAC	NOTIFICATION APPLIANCE CIRCUIT PANEL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECT. MANUFAC. ASSOC.
NFDS	NON-FUSED SAFETY DISCONNECT SWITCH
NFPA	NATIONAL FIRE PROTECTION ASSOC.
NL	NIGHT LIGHT, BYPASS LOCAL SWITCHING
NO	NORMALLY OPENED
NPF	NORMAL POWER FACTOR
NTS	NOT TO SCALE
NVR	NETWORK VIDEO RECORDER
OC	ON CENTER
OH	OVERHEAD
OL	OVERLOADS
OS & Y	OUTSIDE SCREW & YOKE
OSI	OPEN SYSTEM INTEGRATION
PA	PASCAL
PB	PUSHBUTTON
PBB	PRIMARY BONDING BUSBAR
PC	PLUMBING CONTRACTOR
PCM	PULSE CODE MODULATION
PDU	POWER DISTRIBUTION UNIT
PE	PNEUMATIC ELECTRIC
PED	PEDESTAL
PF	POWER FACTOR
PFR	PHASE FAILURE RELAY
PIV	POST INDICATING VALVE
PLEN	PLENUM
PNL	PANEL
POC	POINT OF CONNECTION
POE	POWER OVER ETHERNET
POS	POINT OF SALE
PP	POWER POLE
PPM	PEAK PROGRAM METER
PR	PAIR
PRI	PRIMARY
PROJ	PROJECTION
PRV	POWER ROOF VENTILATOR
PSI	POUNDS-PER-SQUARE-INCH
PT	POTENTIAL TRANSFORMER
PTP	POINT TO POINT
PTZ	PAN, TILT, AND ZOOM
PVC	POLYVINYL CHLORIDE CONDUIT
PWR	POWER
QUAN	QUANTITY
R	RESISTANCE
RECEP, RECPT	RECEPTACLE
REQ,REQD	REQUIRED
REX	REQUEST TO EXIT
RF	RADIO FREQUENCY
RFM	ROOF MOUNTED
RL	LOAD RESISTANCE
RLA	RATED LOAD AMPS
RM	ROOM
RMC	RIGID METALLIC CONDUIT
RMP	ROCKY MOUNTAIN POWER
RMS	ROOT MEAN SQUARE
RNC	RIGID NON-METALLIC COND.
RPM	ROTATIONS-PER-MINUTE
RS	SOURCE RESISTANCE
RT	TOTAL RESISTANCE
RTU	ROOF TOP UNIT
RX	RECEIVER
S/N	SOLID NEUTRAL
S/S	STOP/START PUSHBUTTONS
SBB	SECONDARY BONDING BUSBAR
SBG	SUPPLEMENTARY BONDING GRID
SBJ	SYSTEM BONDING JUMPER
SC	SURFACE CONDUIT
SCA	SHORT CIRCUIT AMPERES
SDI	SERIAL DIGITAL INTERFACE
SE	SERVICE ENTRANCE
SEC	SECONDARY
SES	SMOKE EVACUATION SYSTEM
SHT	SHEET
SIM	SIMILAR
SLD	SINGLE-LINE DIAGRAM
SNR	SIGNAL-TO-NOISE RATIO
SP	SPARE
SPDIF	SONY PHILLIPS DIGITAL INTERFACE
SPEC	SPECIFICATIONS
SPKR	LOUDSPEAKER
SPL	SOUND PRESSURE LEVEL
SPP	SINGLE-POINT POWER
SR	SURFACE RACEWAY
SS	SELECTOR SWITCH
SSW	SELECTOR SWITCH
STA	STATION
STD	STANDARD
STP	SHIELDED TWISTED PAIR
SURF	SURFACE MOUNTED
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
SYS	SYSTEM
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
TC	TEMP. CONTROL CONTR.
TEL	TELEPHONE
TERM	TERMINAL
TL	TWIST LOCK
TR	TAMPER RESISTANT
T-STAT	THERMOSTAT
TTB	TELEPHONE TERMINAL BOARD
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TVTC	TELEVISION TERMINAL
TX	TRANSMITTER
TYP	TYPICAL
UC	UNDER COUNTER
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTED POWER SUPPLY
UT	UNDERGROUND TELEPHONE
UTIL	UTILITY
UTP	UNSHIELDED TWISTED PAIR
UV	ULTRAVIOLET
V	VOLT (KV-KILOVOLT)
VA	VOLT/AMPS
VA/R, VAR	VOLT-AMPS/REACTIVE
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DC CURRENT
VDT	VIDEO DISPLAY TERMINAL
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VI	VOLUME INDICATOR
VIF	VERIFY IN FIELD
VM	VOLT METER
VOL	VOLUME
VU	VOLUME UNIT
W	WATTS
W/	WITH
W/O	WITHOUT
WG	WIRE GUARD
WH	WATTHOUR METER
WP	WEATHERPROOF/NEMA 3R
XFMR	TRANSFORMER
XFMR SW	SW TRANSFER SWITCH
XFR	TRANSFER
XL	X-CONNECTOR LOCKING
XLR	X-CONNECTOR LOCKING RUBBERIZED
XP	EXPLOSION PROOF
XR	EXISTING TO BE REMOVED
1P	ONE-POLE
2P	TWO-POLE
3P	THREE-POLE
4P	FOUR-POLE
∠	ANGLE
&	AND
@	AT
°	DEGREE
▲	DELTA
', FT	FOOT, FEET
", IN	INCH, INCHES
#	NUMBER
Ω, OHM	UNIT OF ELECTRICAL RESISTANCE
Ø, PH	PHASE
℄, CTR	CENTER LINE, CENTER
P	PLATE

GENERAL LEGEND

SYMBOL	DESCRIPTION	MOUNTING	NOTES
	EXISTING	-	-
	DEMO	-	-
	TEMPORARY	-	-
	NEW	-	-
	NOT IN CONTRACT	-	-
	SOLID ARCHED LINES INDICATE UNSWITCHED POWER CIRCUITING	-	-
	DASHED ARCHED LINES INDICATE SWITCHED POWER CIRCUITING	-	-
	ONE CIRCUIT, HOME RUN TO PANEL	-	-
	TWO CIRCUITS, HOME RUN TO PANEL	-	-
	THREE CIRCUITS, HOME RUN TO PANEL	-	-
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND	-	-
	CONDUIT RUN CONCEALED IN WALL OR CEILING	-	-
	CONDUIT UP	-	-
	CONDUIT DOWN	-	-
	CONDUIT STUB LOCATION	-	CAP CONDUIT
	CONDUIT / CIRCUIT CONTINUATION	-	-
XX	CONDUIT OHP: OVERHEAD POWER SERVICE UGP: UNDERGROUND POWER SERVICE UGF: UNDERGROUND FIBER SERVICE TEL: TELEPHONE SERVICE	-	-
	CABLE TRAY SOLID BOTTOM LADDER BASKET	AS NOTED	19
	GROUND BUS BAR	+18"	7
CLG	EQUIPMENT CEILING RACK	CEILING	18, 25 SEE SPEC.
	EQUIPMENT CABINET/RACK	WALL / FLOOR	18, 25 SEE SPEC.
	EQUIPMENT 2-POST CABINET/RACK	FLOOR	18, 25 SEE SPEC.
	TELEPHONE DEMARCATION BOARD	+18"	25
TC	TIME CLOCK	+48"	25
TV	TV BACKBOX	FLAT PANEL HEIGHT +12"	7, 22
J J	JUNCTION BOX	AS NOTED	20
FB PT	FLOOR BOX / POKE-THRU - SEE SCHEDULE FOR TYPE INFORMATION	FLOOR	
	EQUIPMENT SYSTEM PANELS ACS: ACCESS CONTROL PANEL IDS: INTRUSION DETECTION PANEL PSP: POWER SUPPLY PANEL RP#: LIGHTING PANEL DAS: DISTRIBUTED ANTENNA SYSTEM ERCCS: FIRST RESPONDERS RADIO SYSTEM CATV: CABLE TV CONTENT EQUIPMENT	+60" TO TOP	

GENERAL LEGEND

SYMBOL	DESCRIPTION	MOUNTING	NOTES
#	KEYNOTE		
Space 004	ROOM NAME & NUMBER		
Space 005 XX	ROOM NAME & NUMBER W/ ZONE I.D.		
	DIAGRAM TAG		
	MATCH LINE TAG		
X##	DEVICES WITH A CHEVRON INDICATE TO COORDINATE WITH MILLWORK PRIOR TO ROUGH-IN.		31
	ELEVATION TAG. HATCHED AREA INDICATES WHICH WALL, NUMBER INDICATES VIEW, AND CENTER NUMBER INDICATES WHICH SHEET.		
##	REVISION CLOUD DELTA. SHOWN WITH CLOUD AND INDICATES A CHANGE PER THE TITLE BLOCK.		
	TAG FOR MECHANICAL, KITCHEN, AND SHOP DEVICES. REFER TO SCHEDULES FOR INFO.		

POWER DISTRIBUTION EQUIPMENT SYMBOLS

SYMBOL	DEVICE/FIXTURE DESCRIPTION	MOUNTING	NOTES
	TRANSFORMER: SEE SINGLE-LINE DIAGRAM FOR DESCRIPTION & REQUIREMENTS.	4" CONCRETE BASE	18
	POWER DISTRIBUTION PANEL	6'-6" TO TOP	18
	FLUSH PANELBOARD	6'-6" TO TOP	18
	SURFACE PANELBOARD	6'-6" TO TOP	18

POWER SYMBOLS LEGEND

SYMBOL (S / D / Q / SP)	DEVICE/FIXTURE DESCRIPTION	MOUNTING	NOTES
S / D / Q / SP	S: SIMPLEX D: DUPLEX Q: FOURPLEX SP: SPECIAL PURPOSE		
	WALL MOUNTED RECEPTACLE	18"	7, 25, 30
	CEILING MOUNTED RECEPTACLE	CEILING	25, 30
	SWITCHED RECEPTACLE	18"	7
	EMERGENCY RECEPTACLE	18"	7
	GROUND FAULT RECEPTACLE	18"	7
	ISOLATED GROUND RECEPTACLE	18"	7
	RECEPTACLE (SPECIFIC HEIGHT)		7, 31
	CONTROLLED RECEPTACLE	+18" OR AS NOTED	7, 31
#	RECEPTACLE MODIFIERS: ##": HEIGHT AFF O.C. WP: WEATHERPROOF W/ IN-USE COVER T: TAMPER-PROOF U: RECEPTACLE WITH USB OUTLET G: GROUND FAULT PROTECTED @ BREAKER H: HOSPITAL GRADE		7, 13, 31
	TOMBSTONE RECEPTACLE	COUNTER TOP	
	SPD PROTECTED RECEPTACLE	+18" OR AS NOTED	7
CR	CORD REEL, DEVICE VARIES	CEILING	
D	CORD DROP, DEVICE VARIES	CEILING	
	MULTI-OUTLET ASSEMBLY FILLED SQUARES INDICATE 120V OUTLET OPEN SQUARES INDICATE WITH USB	+46"OR AS NOTED	7, REFER TO SPEC
EV EV	SINGLE / DUAL PORT ELECTRICAL VEHICLE CHARGER	+46"	7
	POWER POLE		
$x	SWITCH MODIFIERS: K: KEYED T: TIMER M: MANUAL STARTER THERMAL OVERLOAD SWITCH	+46"	7
	EMERGENCY POWER OFF PUSH BUTTON	+46"	7
DO	DOOR OPENER PUSH PLATE	+46"	7
M	ELECTRICAL POWER METER	+72" TO TOP	
F	FUSED DISCONNECT SWITCH	+60" TO TOP	9, 10
	NON-FUSED DISCONNECT SWITCH	+60" TO TOP	9, 10
	MAGNETIC STARTER	+60" TO TOP	9, 10, 11
	MAGNETIC STARTER WITH FUSED DISCONNECT	+60" TO TOP	9, 10, 11
	MAGNETIC STARTER WITH BREAKER DISCONNECT	+60" TO TOP	9, 10, 11
VFD	VARIABLE FREQUENCY DRIVE	+60" TO TOP	9, 10, 11
	MOTOR		
	PUSHBUTTON	+46"	7

POWER TAGS LEGEND

NOTES:

1. HATCHED FILL INDICATES SWITCHBOARD OR POWER DISTRIBUTION PANEL.
2. SOLID FILL INDICATES BRANCH PANEL OR LOAD CENTER.
3. DASHED BOX INDICATES CODE-REQUIRED CLEARANCE (WIDTH & DEPTH).
4. DOOR INDICATES FRONT OF RECESSED PANEL.

FIRE ALARM SYMBOLS LEGEND

SYMBOL W	SYMBOL C	DEVICE/FIXTURE DESCRIPTION	MOUNTING	NOTES
W	C	W: WALL C: CEILING		
#	# # 0 cd	AUDIBLE ANNUNCIATION (BLANK): HORN LF: LOW FREQUENCY HORN SP: SPEAKER FB: FIRE BELL	+94" WALL / CEILING OR AS NOTED	7, 28
# 0 cd	# # 0 cd	VISIBLE ANNUNCIATION, CANDELA AS INDICATED (BLANK): CLEAR STROBE B: BLUE STROBE A: AMBER STROBE	+94" WALL / CEILING OR AS NOTED	7, 28
# 0 cd	# # 0 cd	AUDIBLE/VISIBLE ANNUNCIATION, CANDELA AS INDICATED (BLANK): CLEAR STROBE B: BLUE STROBE A: AMBER STROBE LF: LOW FREQUENCY HORN SP: SPEAKER	+94" WALL / CEILING OR AS NOTED	7, 28
# 0 cd	# # 0 cd	REMOTE INDICATOR w/ TEST SWITCH	+94" WALL / CEILING OR AS NOTED	7, 28
		SMOKE DETECTOR	CEILING	28
		HEAT DETECTOR	CEILING	28
		CARBON MONOXIDE DETECTOR	CEILING	28
R	T	BEAM DETECTOR T: TRANSMITTER R: RECEIVER	CEILING	28
CO		COMBINATION DETECTOR (UP TO THREE)	CEILING	28
		DUCT SMOKE DETECTOR	CEILING	28
FSD		FIRE/SMOKE DAMPER	DUCT	28
DH		DOOR HOLDER	AS INDICATED	28
DCL		DOOR CLOSER	AS INDICATED	28
☎		FIRE SERVICE PHONE	+46"	7, 28
XXX		ADDRESSABLE MODULE AIM: ADDRESSABLE INPUT MODULE AOM: ADDRESSABLE OUTPUT MODULE AIO: ADDRESSABLE INPUT/OUTPUT		28
XXXX		FIRE ALARM CONTROL UNIT EVAC: VOICE EVACUATION CONTROL PANEL FAA: FIRE ALARM ANNUNCIATOR FACP: FIRE ALARM CONTROL PANEL FATC: FIRE ALARM TERMINAL CABINET NACP: NOTIFICATION APPLIANCE CIRCUIT PANEL FAMN: FIRE ALARM MASS NOTIFICATION PANEL TW: TWO WAY COMMUNICATION INTERCOM TWZ: TWO WAY COMMUNICATION CONTROLLER	+46"	7, 21, 28
XX		SUPERVISORY or INTERFACE DEVICE PIV: POST INDICATOR VALVE PS: PRESSURE SWITCH R: NON-ADDRESSABLE RELAY VS: VALVE SUPERVISORY SWITCH FS: FLOW SWITCH TS: TAMPER SWITCH WF: WATER FLOOD SENSOR	LOCATE AT DEVICE	28
F		MANUAL PULL STATION	+46"	7, 28

DATA NETWORK SYMBOLS LEGEND

SYMBOL W	SYMBOL F	SYMBOL C	DEVICE/FIXTURE DESCRIPTION	MOUNTING	NOTES
W	F	C	W: WALL F: FLOOR C: CEILING		
			DATA OUTLET (SINGLE CABLE)	18" WALL/ FLOOR/CEILING	7, 24, 30
			DATA OUTLET (TWO CABLES)	18" WALL/ FLOOR/CEILING	7, 24, 30
			DATA OUTLET (THREE CABLES)	18" WALL/ FLOOR/CEILING	7, 24, 30
WAP		WAP	WIRELESS ACCESS POINT*	96" WALL/ CEILING	7, 24, 30
			SERIES-X COAXIAL CABLE OUTLET	18" WALL/ FLOOR/CEILING	7, 24, 30
XXX		XX	DISTRIBUTED ANTENNA SYSTEM (DAS) PUBLIC SAFETY AND/OR CELLULAR/COMMERCIAL ANT: ANTENNA BDA: BI-DIRECTIONAL AMPLIFIER SPL: SPLITTER VIA: VIA	108" WALL, CEILING, ABOVE CEILING, OR AS NOTED	7, 24, 30

ELECTRICAL SHEET LIST

EG001	ELECTRICAL TITLE SHEET
EG002	ELECTRICAL SCHEDULES
EG003	ELECTRICAL ONE-LINE DIAGRAM
EG004	ELECTRICAL DIAGRAMS
EG005	ELECTRICAL DIAGRAMS
EP112	MAIN FLOOR POWER PLAN AREA A
EP113	MAIN FLOOR POWER PLAN AREA B
EP114	OVERALL ROOF POWER PLAN
EP115	PANELBOARD SCHEDULE
ES112	MAIN FLOOR SYSTEM PLAN AREA A
ES113	MAIN FLOOR SYSTEM PLAN AREA B

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REVISIONS:

PROJECT TITLE

EMERY SCHOOL DISTRICT

HUNTINGTON ELEMENTARY SCHOOL

MECHANICAL UPGRADE

90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY: MK
CHECKED BY: ES
DATE: JAN. 2026
PROJECT #: 176525

EG001

MECHANICAL EQUIPMENT SCHEDULE

NOTES:

1. NON-FUSED DISCONNECT SWITCH
2. FUSED DISCONNECT SWITCH
3. BREAKER IN ENCLOSURE
4. MANUAL STARTER WITH THERMAL OVERLOAD
5. MAGNETIC STARTER
6. MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION
7. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION
8. MAGNETIC STARTER/BREAKER COMBINATION
9. VARIABLE FREQUENCY DRIVE
10. REDUCED VOLTAGE STARTER
11. DIRECT CONNECTION
12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC.
13. TWO-SPEED STARTER. COORDINATE WITH MOTOR TYPE
14. SOLID STATE SOFT-STARTER

A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26(16)
B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION. REQUIRED CONNECTION UNDER DIVISION 26(16)
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER...
D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION

CB = CIRCUIT BREAKER
CKW = CHILLER KILOWATTS

NOTE 1: PER 250.122(A), EQUIPMENT GROUND IS NOT REQUIRED TO BE LARGER THAN THE PHASE CONDUCTOR

NOTE 2: OVERCURRENT PROTECTION DEVICE (OCPD) SHOWN IS LOCATED AT POWER PANEL. ALL FUSING TO BE SIZED IN ACCORDANCE WITH FUSE MFR RECOMMENDATION FOR MOTOR NAME PLATE RATING.

NOTE 3: ALL EQUIPMENT TO BE RATED FOR THE ENVIRONMENT FOR WHICH IT IS INSTALLED.

IDENTITY INFORMATION				ELECTRICAL		LOAD INFORMATION					EM POWER	OCPD		CIRCUIT INFORMATION										STARTER			CONTROL			DISCONNECT			INTERLOCK	NOTES
														PHASE CONDUCTORS				NEUTRAL CONDUCTOR			GROUND CONDUCTOR		CONDUIT SIZE											
TYPE ID		INSTANCE ID	DESCRIPTION	VOLTAGE	PHASE	MOTOR POWER	APPARENT POWER	REAL POWER	FLA	MCA		TYPE	OCPD	SETS	NO.	SIZE	TYPE	NEUTRAL	SIZE	TYPE	SIZE	TYPE	SIZE	TYPE	FURNISH	INSTALL	TYPE	FURNISH	INSTALL	TYPE	FURNISH	INSTALL		
AC	-	1	AIR COOLED OUTDOOR UNIT	208 V	1	0.00 hp	2.5 kVA	2.2 kW	12 A	15 A	No	(Motor) Inverse Time Breaker	20 A	1	2	12	Cu	No	None		12	Cu	3/4"	7A	EC	EC	MC	MC	MC	7A	EC	EC		
CUH	-	1	CABINET UNIT HEATER	208 V	3	0.00 hp	6.5 kVA	5.8 kW	18 A	22.5 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
CUH	-	2	CABINET UNIT HEATER	208 V	3	0.00 hp	6.5 kVA	5.8 kW	18 A	22.5 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
EUH	-	1	ELECTRIC UNIT HEATER	208 V	3	0.00 hp	5.7 kVA	5.2 kW	15.9 A	15.9 A	No	(Motor) Inverse Time Breaker	25 A	1	3	12	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
EUH	-	2	ELECTRIC UNIT HEATER	208 V	3	0.00 hp	5.8 kVA	5.3 kW	16.2 A	16.2 A	No	(Motor) Inverse Time Breaker	25 A	1	3	12	Cu	No	None		10	Cu	3/4"	4A	EC	EC	MC	MC	MC	4A	EC	EC		
EF	-	1	EXHAUST FAN	120 V	1	0.25 hp	0.7 kVA	0.6 kW	5.8 A	7.3 A	No	(Motor) Inverse Time Breaker	15 A	1	1	12	Cu	No	None		12	Cu	3/4"	4A	EC	EC	MC	MC	MC	4A	EC	EC		
EF	-	2	EXHAUST FAN	120 V	1	0.50 hp	1.2 kVA	1.1 kW	9.8 A	12.3 A	No	(Motor) Inverse Time Breaker	15 A	1	1	12	Cu	No	None		12	Cu	3/4"	4A	EC	EC	MC	MC	MC	4A	EC	EC		
EF	-	3	EXHAUST FAN	120 V	1	0.25 hp	0.7 kVA	0.6 kW	5.8 A	7.3 A	No	(Motor) Inverse Time Breaker	15 A	1	1	12	Cu	No	None		12	Cu	3/4"	4A	EC	EC	MC	MC	MC	4A	EC	EC		
MAU	-	1	MAKE-UP AIR UNIT	208 V	3	7.50 hp	8.7 kVA	7.8 kW	24.2 A	27.6 A	No	(Motor) Inverse Time Breaker	40 A	1	3	10	Cu	No	None		10	Cu	3/4"	7A	EC	EC	MC	MC	MC	7A	EC	EC		
RT	-	1	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	2	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	3	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	4	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	5	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	6	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	7	ROOF TOP UNIT	208 V	3	0.00 hp	8.9 kVA	8.0 kW	24.8 A	31 A	No	(Motor) Inverse Time Breaker	40 A	1	3	8	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	8	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	9	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	10	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	11	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	12	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	13	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	14	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	15	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	16	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	17	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	18	ROOF TOP UNIT	208 V	3	0.00 hp	8.9 kVA	8.0 kW	24.8 A	31 A	No	(Motor) Inverse Time Breaker	40 A	1	3	8	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	19	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	20	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	21	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	22	ROOF TOP UNIT	208 V	3	0.00 hp	9.2 kVA	8.3 kW	25.6 A	32 A	No	(Motor) Inverse Time Breaker	40 A	1	3	8	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	23A	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	23B	ROOF TOP UNIT	208 V	3	0.00 hp	7.5 kVA	6.7 kW	20.8 A	26 A	No	(Motor) Inverse Time Breaker	35 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	24A	ROOF TOP UNIT	208 V	3	0.00 hp	8.9 kVA	8.0 kW	24.8 A	31 A	No	(Motor) Inverse Time Breaker	40 A	1	3	8	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	24B	ROOF TOP UNIT	208 V	3	0.00 hp	8.9 kVA	8.0 kW	24.8 A	31 A	No	(Motor) Inverse Time Breaker	40 A	1	3	8	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		
RT	-	26	ROOF TOP UNIT	208 V	3	0.00 hp	6.3 kVA	5.7 kW	17.6 A	22 A	No	(Motor) Inverse Time Breaker	30 A	1	3	10	Cu	No	None		10	Cu	3/4"	2A	EC	EC	MC	MC	MC	2A	EC	EC		

RESOLUT

170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
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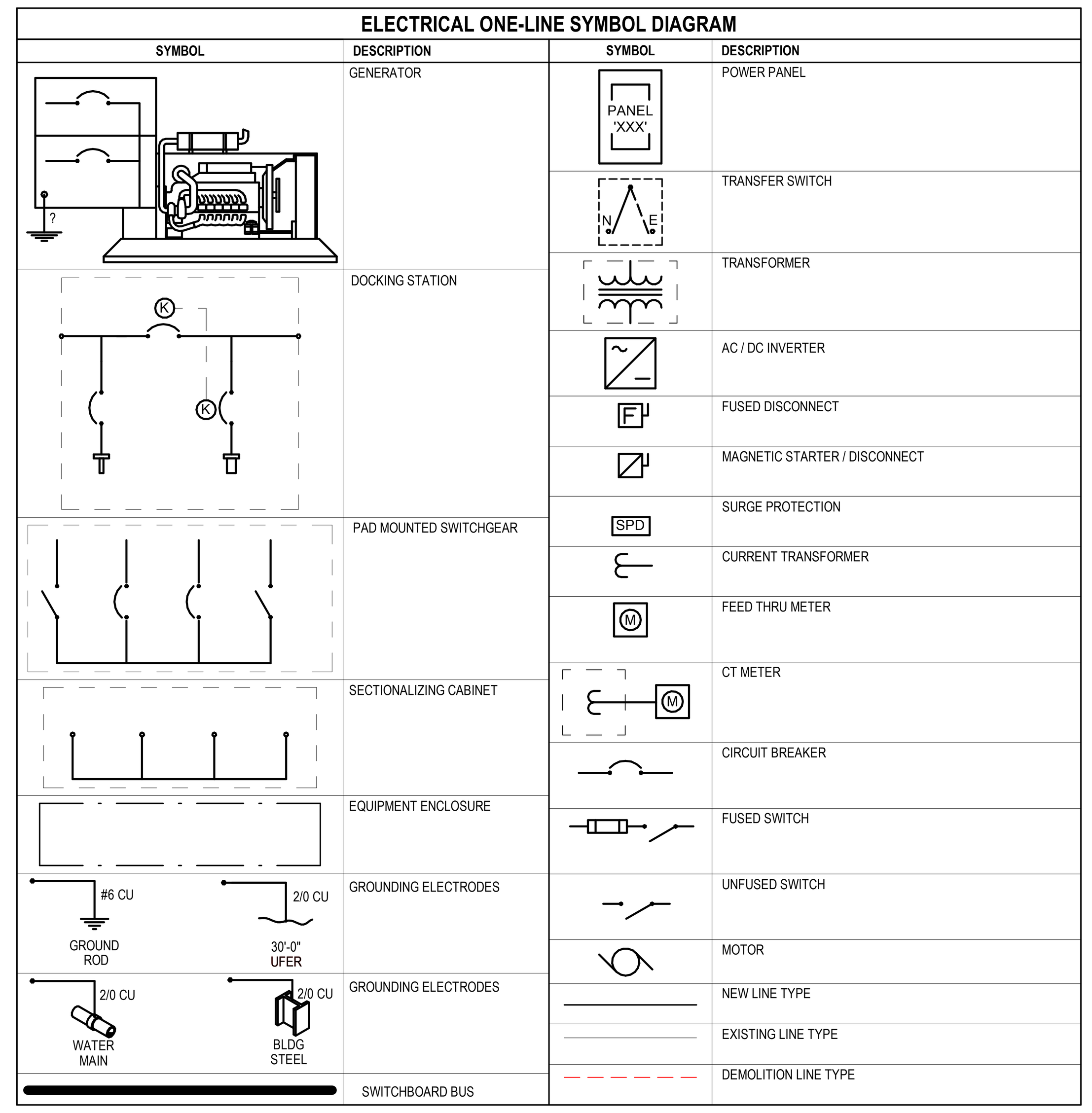
KMA ARCHITECTS

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY: MK
CHECKED BY: ES
DATE: JAN. 2026
PROJECT #: 176525

EG002



K13 RATED COPPER TRANSFORMER SCHEDULE

PRIMARY (LINE) SIDE 480D, 3P, 3W											SECONDARY (LOAD) SIDE 208/120Y, 3P, 5W, 200% NEUTRAL							
TRANS KVA	O.C. PROT.	TYPE COND.*	COND. AMPS	SETS	CONDUCTOR QUAN.	CONDUCTOR SIZE	GROUND COND.	CONDUIT SIZE	GEC (1)	MIN. Z%	O.C. PROT.	TYPE COND.*	COND. AMPS	SETS	CONDUCTOR QUAN.	CONDUCTOR SIZE	CONDUIT SIZE	BONDING JUMPER (2)
15	30	P015	30	1	3	10	10	3/4"	10	3	60	S015-2	68	1	5	3	2"	8
30	50	P030	50	1	3	6	8	1"	6	3	100	S030-2	120	1	5	1/0	2"	6
45	70	P045	70	1	3	4	8	1-1/4"	2	3	175	S045-2	184	1	5	4/0	3"	2
75	125	P075	125	1	3	1/0	6	2"	2	3	225	S075-2	248	1	5	350	3"	2
112.5	175	P112	175	1	3	2/0	6	2"	1/0	4	400	S112-2	408	2	5	250	3"	1/0
150	300	P150	310	1	3	350	3	3"	2/0	4	600	S150-2	608	2	5	500	4"	2/0
225	400	P225	380	1	3	500	3	4"	3/0	4	800	S225-2	804	3	5	400	4"	3/0
300	600	P300	620	2	3	350	1	3"	3/0	5	1200	S300-2	1216	4	5	500	4"	250
500	800	P500	760	2	3	500	1/0	4"	3/0	5	1600	S500-2	1608	6	5	400	4"	300
750	1200	P750	1260	4	3	350	3/0	3"	3/0	5	3000	S750-2	3040	10	5	500	4"	750

NOTES:
1. GROUNDING ELECTRODE CONDUCTOR. (NEC 250.66)
2. SUPPLY SIDE BONDING JUMPER. (NEC 250.102 (C)(1))

KEYNOTES

X1 EXISTING GENERAL ELECTRIC AV-LINE 1200A 208V 3P SWITCHBOARD TO REMAIN AND BE PROTECTED IN PLACE. SWITCHBOARD NM TO BE BACKFED FROM NEW CT/MS. INTERCEPT AND EXTEND EXISTING CONDUIT AND CONDUCTORS TO NEW CT/MS.

X2 PROVIDE A PERMANENT PLAQUE ADJACENT TO THE MAIN SWITCHBOARD WITH AVAILABLE FAULT CURRENT CALCULATIONS.

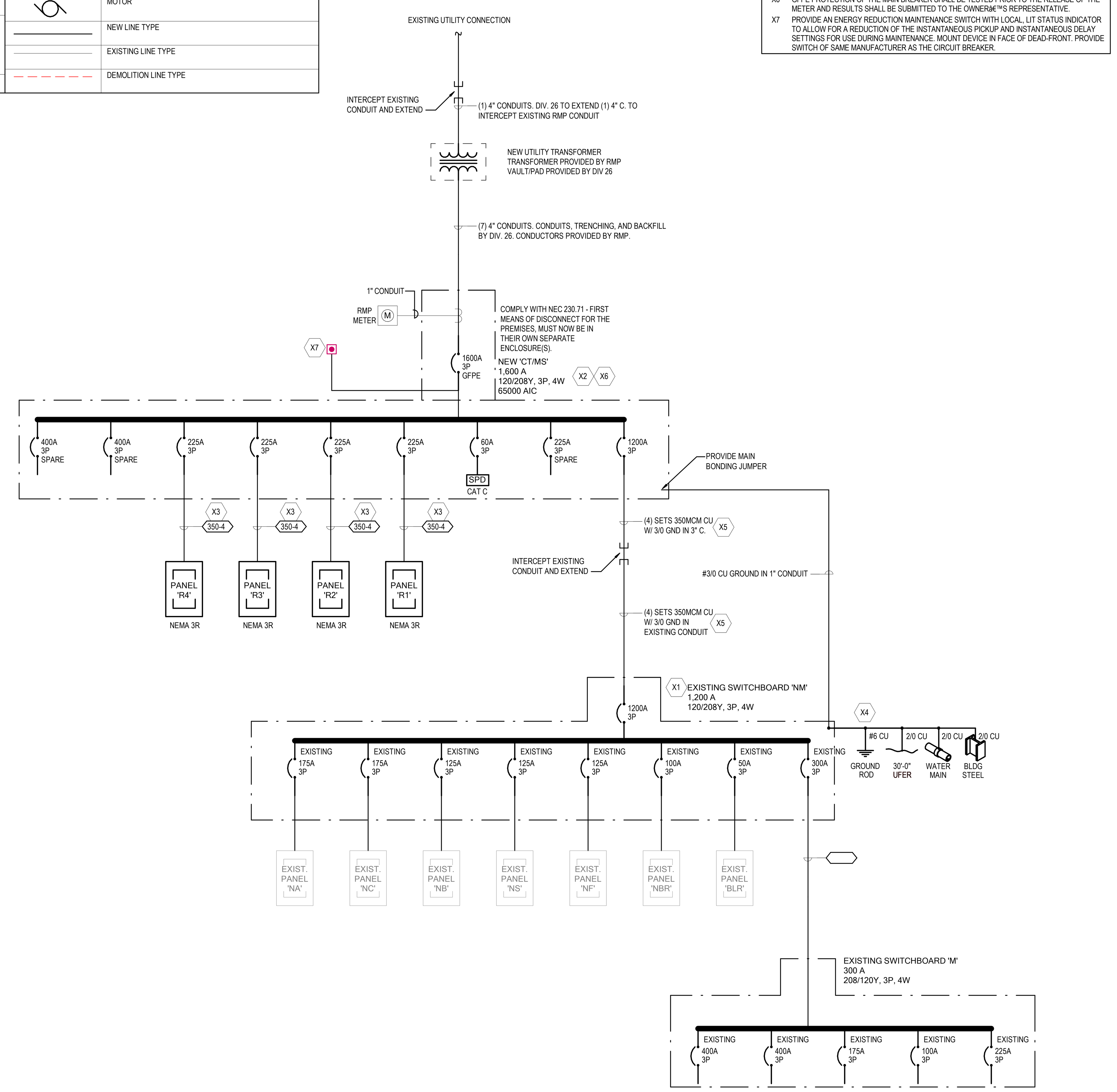
X3 FEEDER UPSIZED FOR VOLTAGE DROP. PROVIDE ALL REQUIRED LUG ADAPTERS, PIN REDUCERS, POLARIS LUG KITS, ETC. AS REQUIRED. PROVIDE NEC SIZED JUNCTION BOX AHEAD OF PANELBOARD/GEAR AS NEEDED TO LOCATED AND TERMINATE CONDUCTORS ON POLARIS LUG ADAPTERS (<10' FROM FINAL TERMINATION AT PANELBOARD).â€¯ SIZE DOWN TO CONDUCTORS THAT FIT THE AVAILABLE LUGS AND/OR BREAKERS.

X4 REWORK THE EXISTING GROUNDING AND BONDING SYSTEM. REWORK AND PROVIDE NEW UFER, AND BONDING CONNECTIONS AS REQUIRED TO MAKE ONE UNIFIED GROUNDING SYSTEM WITH THE NEW, EXTERIOR CT/MS.

X5 EXISTING CONDUIT TO BE INTERCEPTED AND EXTENDED TO NEW CT/MS. PROVIDE NEW CONDUCTORS THROUGHOUT. FIELD VERIFY EXISTING CONDUCTOR SIZE AND MATCH WITH NEW CONDUCTORS. FIELD VERIFY EXISTING CONDUIT SIZE AND MATCH.

X6 GFPE PROTECTION OF THE MAIN BREAKER SHALL BE TESTED PRIOR TO THE RELEASE OF THE METER AND RESULTS SHALL BE SUBMITTED TO THE OWNERâ€™S REPRESENTATIVE.

X7 PROVIDE AN ENERGY REDUCTION MAINTENANCE SWITCH WITH LOCAL, LIT STATUS INDICATOR TO ALLOW FOR A REDUCTION OF THE INSTANTANEOUS PICKUP AND INSTANTANEOUS DELAY SETTINGS FOR USE DURING MAINTENANCE. MOUNT DEVICE IN FACE OF DEAD-FRONT. PROVIDE SWITCH OF SAME MANUFACTURER AS THE CIRCUIT BREAKER.



1 Electrical One-Line Diagram
12" = 1'-0"

ALUMINUM CONDUCTOR & CONDUIT SCHEDULE

TYPE	MAX. O.C. PROT.	COND. AMPS	SETS	CONDUCTOR QUAN.	CONDUCTOR SIZE	CONDUIT SIZE	EQ. GND. COND.(AL)
100-5	100	96	1	5*	1/0	2"	4
125-3	125	120	1	3	1/0	2"	4
125-4	125	120	1	4	1/0	2"	4
125-5	125	124	1	5*	3/0	3"	4
150-3	150	135	1	3	2/0	2"	4
150-4	150	135	1	4	2/0	2"	4
150-5	150	144	1	5*	4/0	3"	2
175-3	175	155	1	3	3/0	2"	4
175-4	175	155	1	4	3/0	2"	4
175-5	175	164	1	5*	250	3"	2
200-3	200	180	1	3	4/0	2"	4
200-4	200	180	1	4	4/0	3"	4
200-5	200	184	1	5*	300	3"	2
225-3	225	205	1	3	250	2"	2
225-4	225	205	1	4	250	3"	2
225-5	225	216	1	5*	400	3"	2
250-3	250	230	1	3	300	3"	2
250-4	250	230	1	4	300	3"	2
250-5	250	248	1	5*	500	4"	1
300-3	300	270	1	3	400	3"	2
300-4	300	270	1	4	400	3"	2
300-5	300	270	1	5*	600	4"	2
350-3	350	310	1	3	500	4"	1
350-4	350	310	1	4	500	4"	1
350-5	350	308	1	5*	750	4"	1
400-3	400	410	2	3	250	2-1/2"	2/0
400-4	400	410	2	4	250	2-1/2"	2/0
400-5	400	400	2	5*	350	3"	2/0
600-3	600	620	2	3	500	3"	2/0
600-4	600	620	2	4	500	3"	2/0
600-5	600	600	3	5*	350	3"	2/0
800-3	800	810	3	3	400	2-1/2"	3/0
800-4	800	810	3	4	400	3"	3/0
800-5	800	800	4	5*	350	4"	3/0
1000-3	1000	1155	3	3	750	4"	4/0
1000-4	1000	1155	3	4	750	4"	4/0
1000-5	1000	1000	5	5*	350	4"	4/0
1200-3	1200	1240	4	3	500	4"	250
1200-4	1200	1240	4	4	500	4"	250
1200-5	1200	1240	5	5*	500	4"	250
1600-3	1600	1620	6	3	400	4"	350
1600-4	1600	1620	6	4	400	4"	350
1600-5	1600	1736	7	5*	500	4"	350
2000-4	2000	2310	6	4	750	4"	400
2500-4	2500	2695	7	4	750	5"	600
3000-4	3000	3080	8	4	750	5"	600
4000-4	4000	4235	11	4	750	5"	750

NOTES:

IN PARALLEL RUNS SIZE GND. COND. IN ACCORDANCE WITH NEC PARA. 250-122.

GND. CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS

* 200% NEUTRAL, DERATED TO 80% BASED ON NEC 310.15.B(5)(C)

** COPPER CONDUCTOR (XHHW)

PROVIDE COMPACT STRANDED ALUMINUM ASSOCIATION 8000 SERIES ALLOY CONDUCTORS.

PROVIDE TERMINATION FOR ALUMINUM ALLOY CONDUCTORS OF HYDRAULIC COMPRESSION TYPE ONLY, LISTED UNDER UL 486-B, MARKED "AL7CU" FOR 75 DEGREE RATED CIRCUITS.

PROVIDE ALL ELECTRICAL EQUIPMENT WITH PROPER SIZING TO ACCOMMODATE ALUMINUM CONDUCTORS. COORDINATE WITH EQUIPMENT SUPPLIER.

COPPER CONDUCTOR & CONDUIT SCHEDULE

TYPE	MAX. O.C. PROT.	COND. AMPS	SETS	CONDUCTOR QUAN.	CONDUCTOR SIZE	CONDUIT SIZE	EQ. GND. COND.(CU)
30-2	30	30	1	2	10	3/4"	10
30-3	30	30	1	3	10	3/4"	10
30-4	30	30	1	4	10	3/4"	10
40-2	40	40	1	2	8	1"	10
40-3	40	40	1	3	8	1"	10
40-4	40	40	1	4	8	1"	10
60-2	60	55	1	2	6	1"	8
60-3	60	55	1	3	6	1"	8
60-4	60	55	1	4	6	1"	8
70-2	70	70	1	2	4	1"	8
70-3	70	70	1	3	4	1-1/4"	8
70-4	70	70	1	4	4	1-1/4"	8
90-2	90	85	1	2	3	1-1/4"	8
90-3	90	85	1	3	3	1-1/4"	8
90-4	90	85	1	4	3	1-1/2"	8
100-3	100	95	1	3	2	1-1/2"	6
100-4	100	95	1	4	2	1-1/2"	6

RESOLUT

170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
WWW.KMAARCHITECTS.COM

KMA ARCHITECTS

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY: MK
CHECKED BY: ES
DATE: JAN. 2026
PROJECT #: 176525

EG003

12" = 1'-0"

NOTES:

TMGB - TELECOMMUNICATIONS MAIN GROUNDING BUS.

IBT - INTERSYSTEM BONDING TERMINAL.

BC - BONDING CONDUCTOR.

MBJ - MAIN BONDING JUMPER.

EGB - EQUIPMENT GROUNDING BUS.

NOTES:

1. SIZE PER NEC 250.66.
2. PROVIDE GROUNDING/BONDING SYSTEM CONNECTIONS TO MAIN ELECTRICAL SERVICE AT THE LOCATION OF THE THE MAIN SERVICE DISCONNECT.

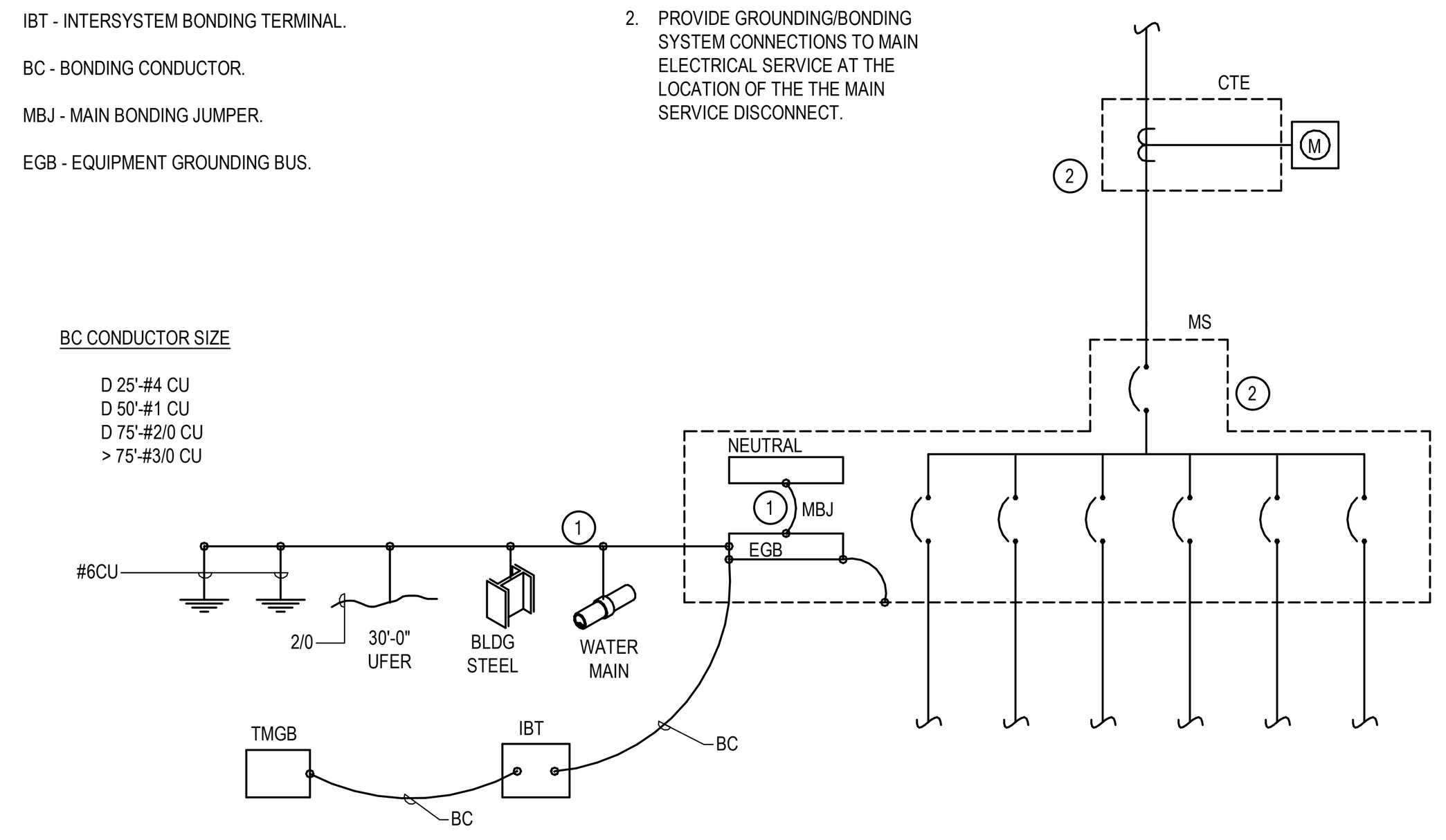


DIAGRAM (F023) ELECTRICAL SERVICES GROUNDING/BONDING

NTS

NOTES:

1. PROVIDE PULL CORD IN ALL EMPTY RACEWAYS.
2. BOND ALL RACEWAYS (SIZED PER NEC REQUIREMENTS) TO ELECTRICAL SERVICE GROUND

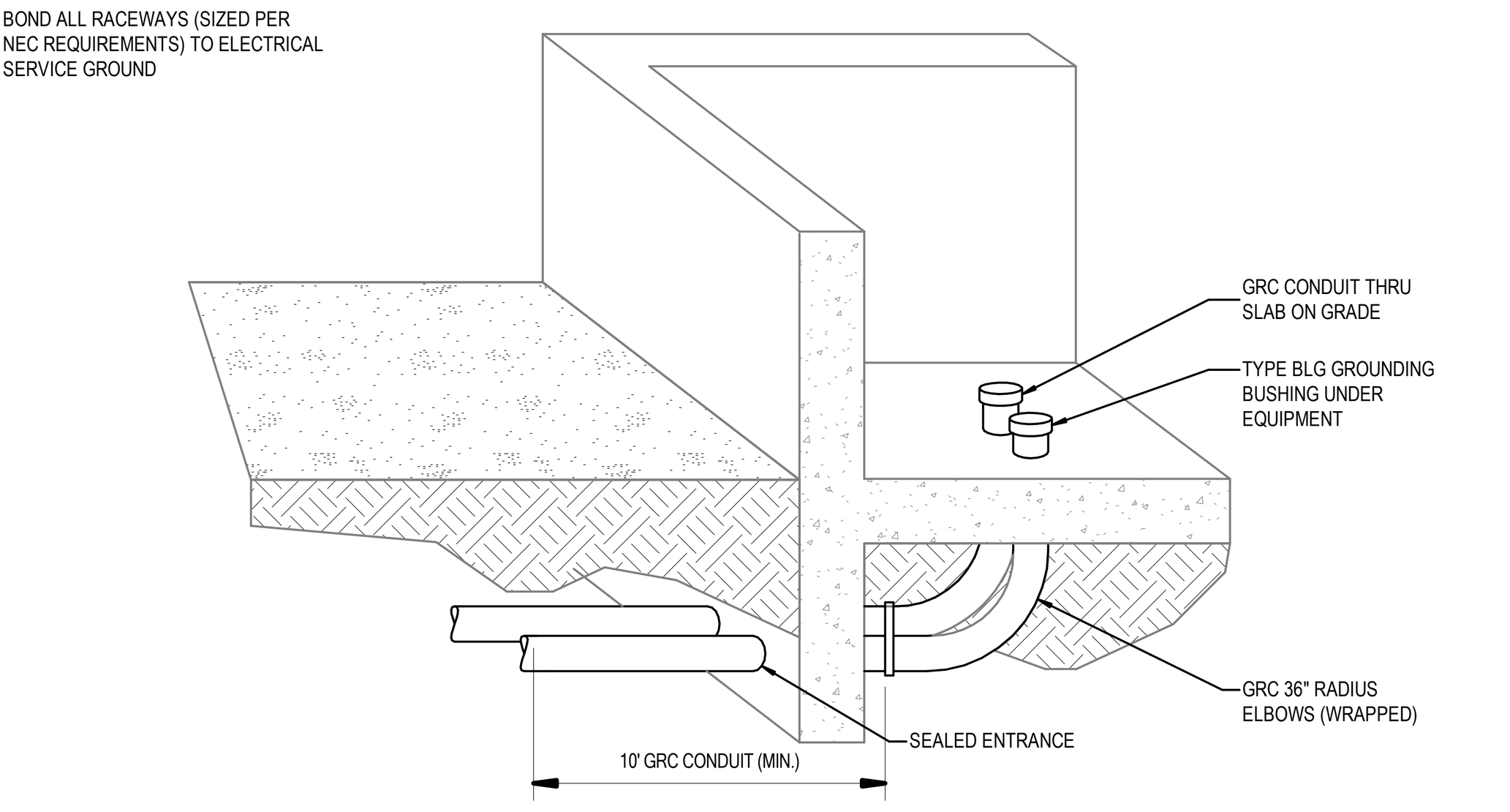


DIAGRAM (F002) BUILDING ENTRANCE CONDUITS

NTS

TYPICAL INSTALLATION FOR ELECTRICAL SYSTEMS

NOTES:

1. FREE AIR CABLE SHALL BE CLASSIFIED PLENUM RATED 2 UNSHIELDED CABLE NEC TYPE CMP AND CEC TYPE CMP FT6.SPECIAL COLOR CODE SPECIFIC TO LOW VOLTAGE BALLAST/DRIVER 0-10V WIRING PROTOCOL. PRODUCT SHALL BE MANUFACTURED TO BE IN COMPLIANT WITH THE REQUIREMENTS OF UL444 FOR INSTALLATIONS AND APPLICATIONS IN ACCORDANCE WITH NEC ARTICLES 725 AND 800.
2. FREE AIR CABLE SHALL BE INSTALLED IN A CLEAN AND CRAFTMANSHIP-LIKE MANNER. SUPPORT AT 5'-0" INTERVALS ALONG THE PATH OF THE ACCOMPANYING BRANCH CIRCUIT LIGHTING RACEWAY. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED. USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED
3. UTILIZE 18 AWG GAUGE WIRE FOR DISTANCES UP TO 300' AND 16 AWG FOR DISTANCES UP TO 400'.
4. SUPPORT RACEWAYS RIGIDLY ATTACHED TO THE STRUCTURE AT INTERVALS NOT TO EXCEED 8' ON CENTER. PROVIDE A MINIMUM OF 2 SUPPORTS PER 10' OF RACEWAY. SUPPORT RACEWAY WITHIN 12" OF JUNCTION BOX, COUPLING, OUTLET, OR FITTING. PROVIDE RACEWAY SUPPORTS AT EACH 90 DEGREE BEND. REFER TO SPECIFICATION FOR MARE DETAILS.
5. LOCATE LIGHTING JUNCTION BOX WITHIN 3' OF LAY IN FIXTURE.
6. MAKE SPLICES OF 0-10V CABLES INSIDE OF JUNCTION BOXES

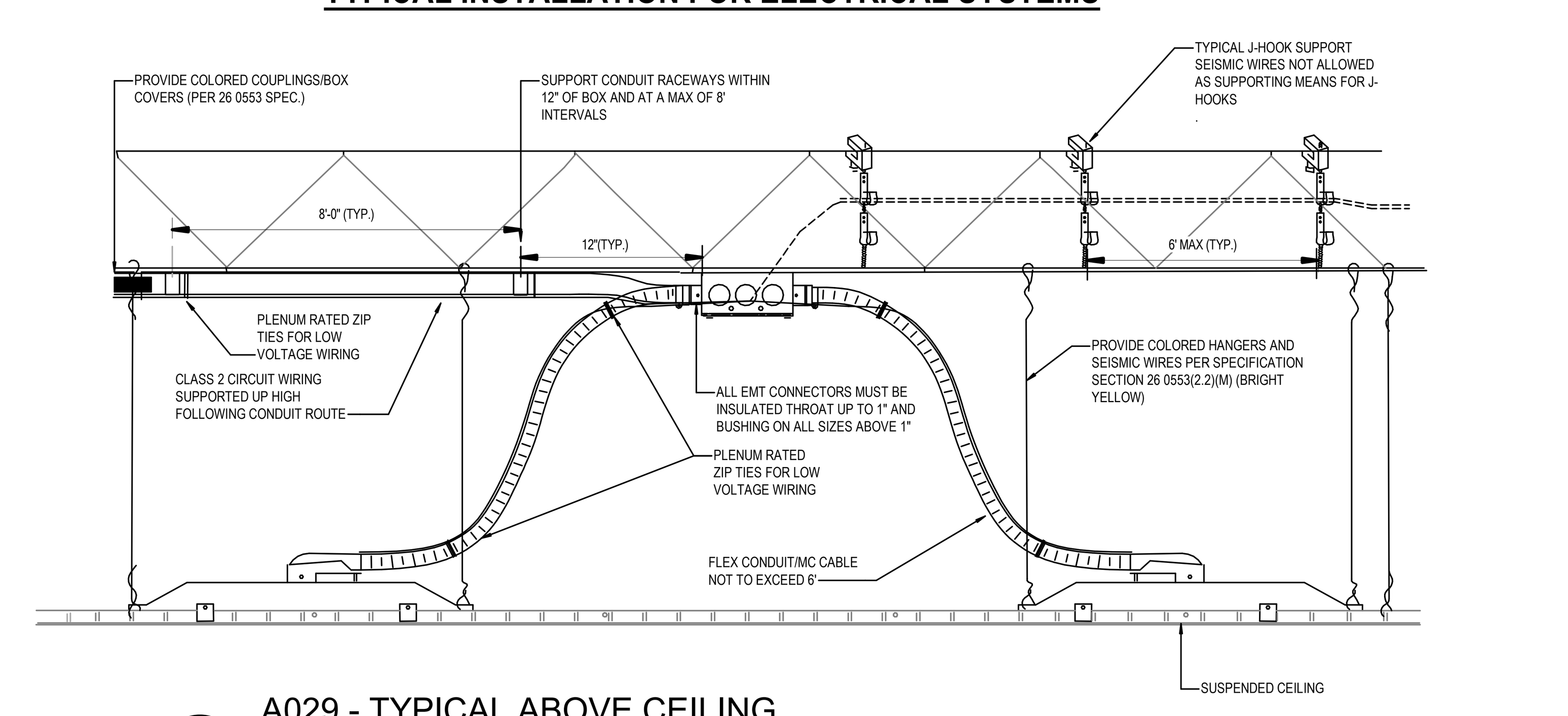
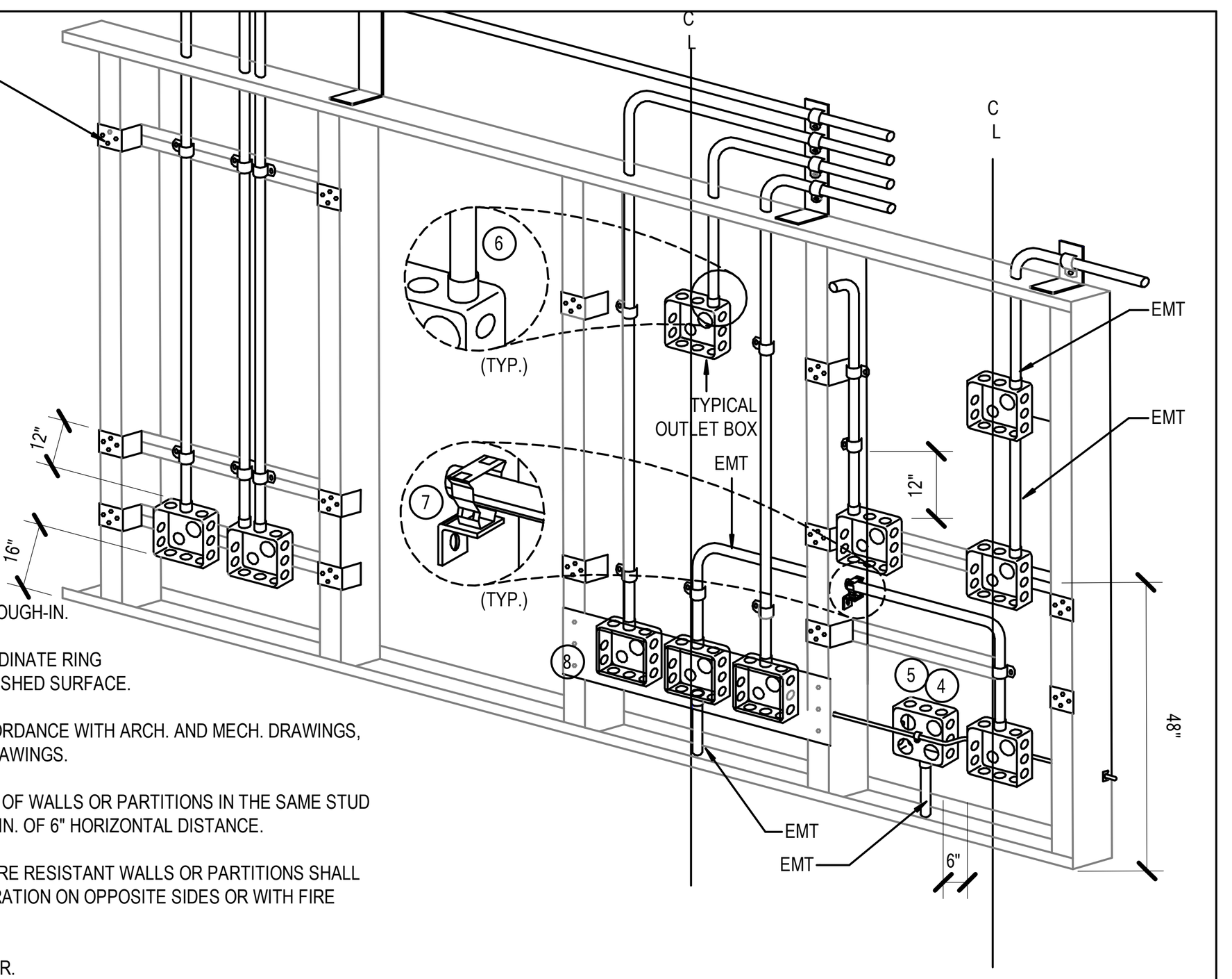


DIAGRAM (A029) A029 - TYPICAL ABOVE CEILING ROUGH-IN

NTS



NOTES:

1. TYP. FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN. COORDINATE RING DEPTH TO BE FLUSH WITH FINAL FINISHED SURFACE.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCH. AND MECH. DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 6" HORIZONTAL DISTANCE.
5. ELECTRICAL BOXES INSTALLED IN FIRE RESISTANT WALLS OR PARTITIONS SHALL COMPLY WITH IBC 714.4.2 (24" SEPARATION ON OPPOSITE SIDES OR WITH FIRE STOP PUTTY ON EACH BOX.)
6. INSULATED THROAT EMT CONNECTOR.
7. CADDY FASTENER, THROUGH STUD CABLE/CONDUIT SUPPORT .
8. CADDY BOX MOUNTING BRACKET .

DIAGRAM (H004) TYPICAL ROUGH IN REQUIREMENTS - CONDUIT

NTS

NOTES

1. PROVIDE PULL CORD IN ALL EMPTY RACEWAYS.
2. BOND ALL RACEWAYS (SIZED PER NEC REQUIREMENTS) TO ELECTRICAL SERVICE GROUND

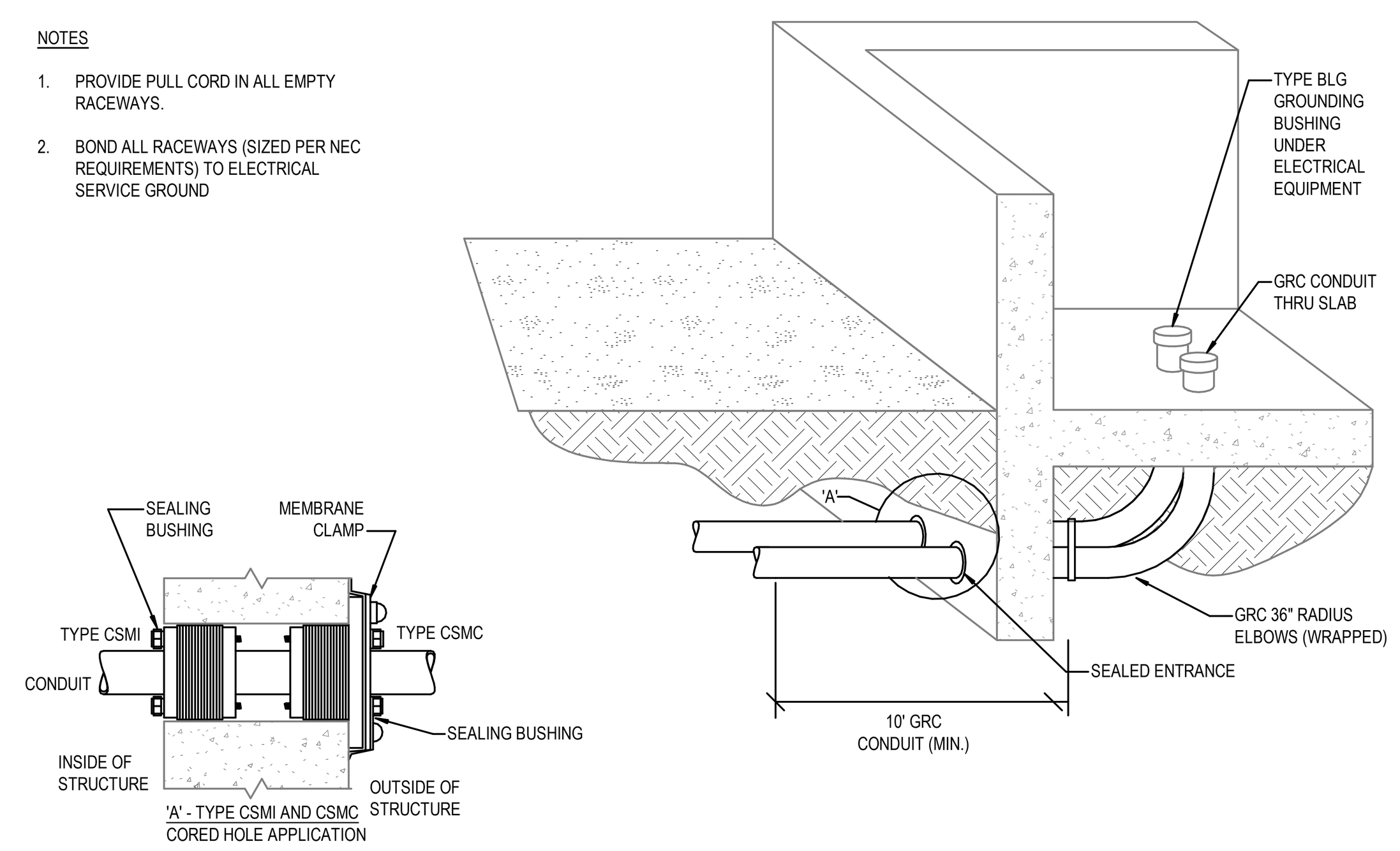
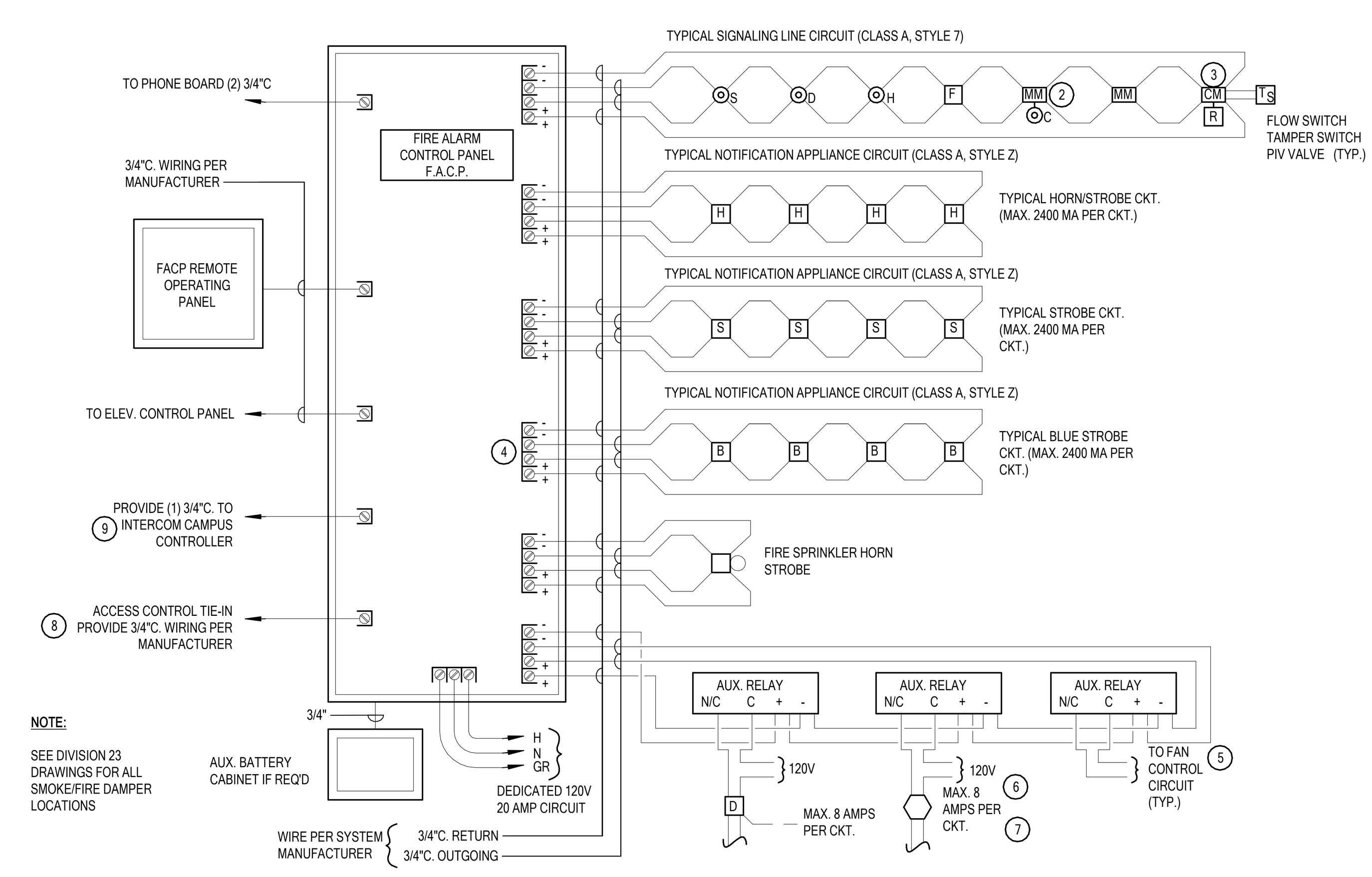


DIAGRAM (F003) BUILDING ENTRANCE CONDUITS (CORE DRILLED WALL BELOW GRADE)

NTS

NOTE:

1. PROVIDE ADDRESSABLE INITIATION LOOP(S) AND POWER CIRCUIT FOR THE CARBON MONOXIDE DETECTORS.
2. PROVIDE CARBON MONOXIDE DETECTOR WITH ASSOCIATED MONITOR MODULE. SEE PLANS FOR QUANTITY AND LOCATION.
3. PROVIDE CONTROL MODULE WITH FAN SHUTDOWN RELAY TO SHUTDOWN MECHANICAL UNIT ON LOCAL CARBON MONOXIDE DETECTOR ACTIVATION.
4. PROVIDE FIRE ALARM BLUE STROBE(S). SEE PLANS FOR QUANTITY AND LOCATIONS.
5. PROVIDE DUCT SMOKE DETECTORS AND FAN RELAYS AT ALL FAN UNITS 2000 CFM AND OVER. SHUT DOWN ALL SUPPLY AND RETURN FANS UPON A GENERAL ALARM SIGNAL.
6. PROVIDE KEY OVERRIDE SWITCH FOR EVERY PAIR OF ELECTROMAGNETIC DOOR HOLDERS/RELEASES.
7. PROVIDE KEY OVERRIDE SWITCH IN MAIN ADMINISTRATION OFFICE THAT WILL RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING.
8. COORDINATE WITH THE ACCESS CONTROL PROVIDER TO PROVIDE INPUT POINT THAT WILL ALLOW THE ACCESS CONTROL SYSTEM TO RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING DURING A LOCK DOWN EVENT OR PER THE OWNERS REQUIREMENTS.
9. COORDINATE WITH THE INTERCOM PROVIDER TO PROVIDE INPUT POINT THAT WILL ALLOW THE INTERCOM SYSTEM TO RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING DURING A LOCK DOWN EVENT OR PER THE OWNERS REQUIREMENTS.



NOTE:

SEE DIVISION 23 DRAWINGS FOR ALL SMOKE/FIRE DAMPER LOCATIONS

DIAGRAM (D002) TYPICAL FIRE ALARM RISER

NTS

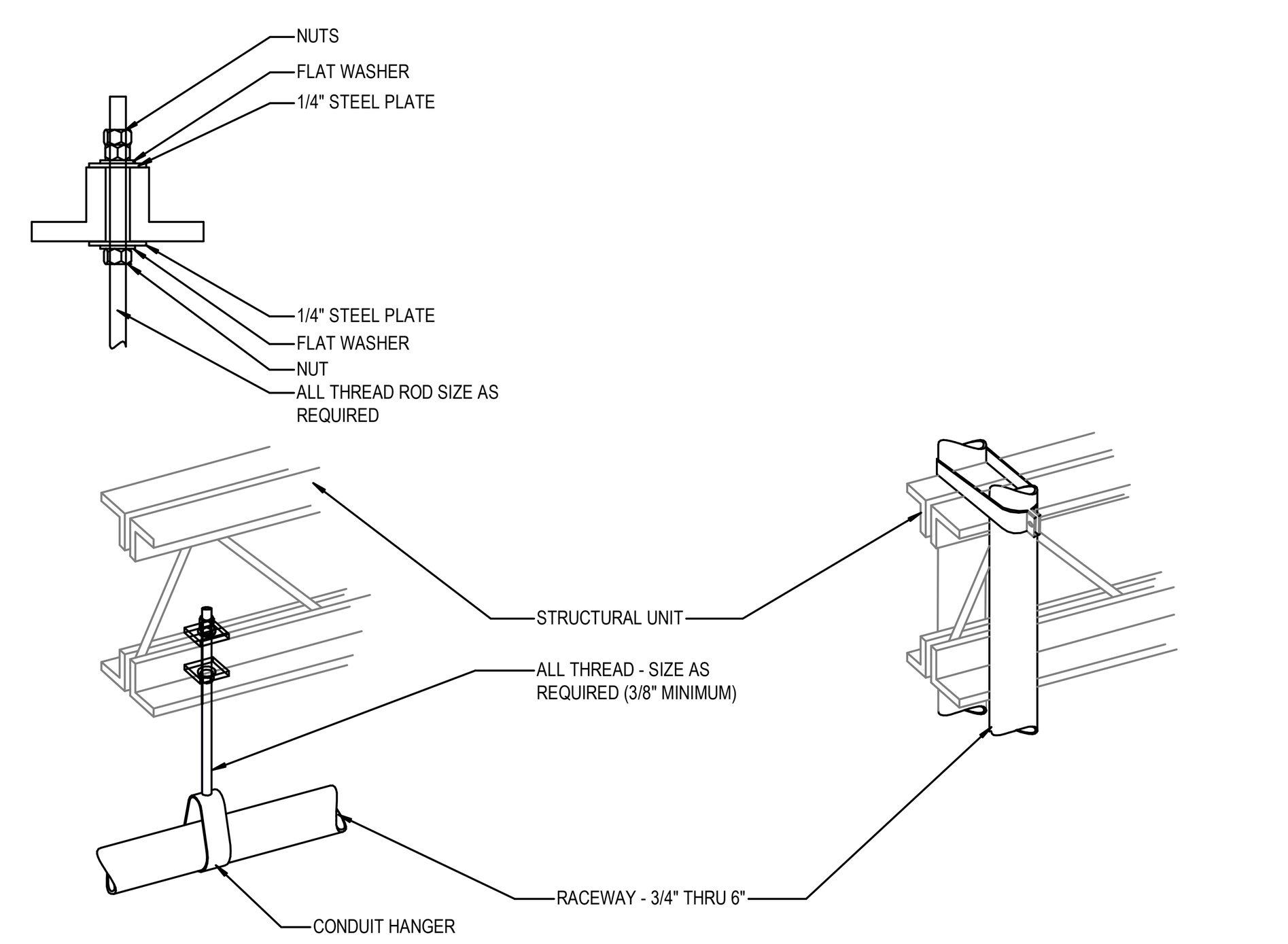
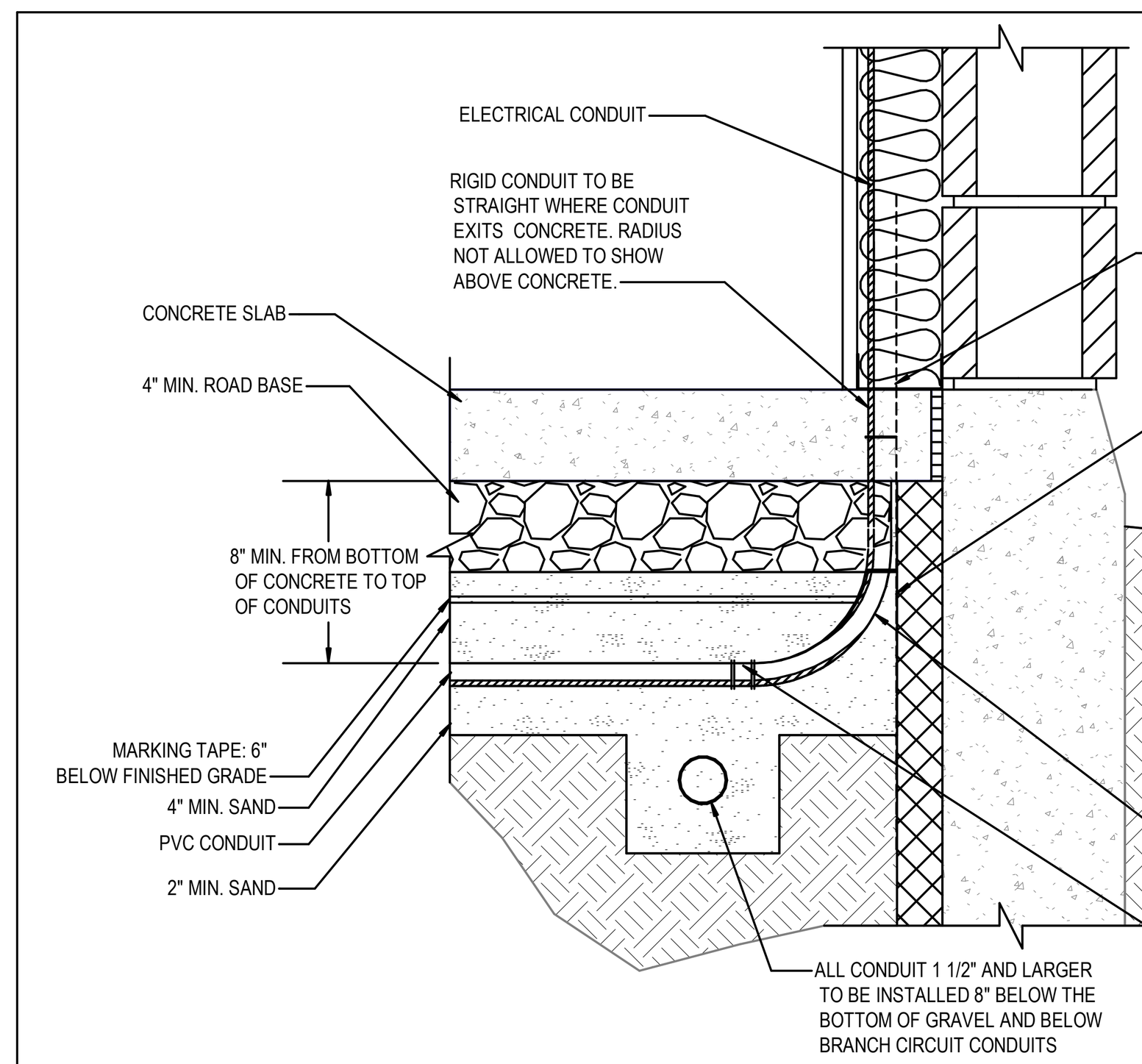


DIAGRAM (H003) TYPICAL RACEWAY SUPPORT METHODS

NTS



NOTES:

1. SEE SPECIFICATION FOR ALL INSTALLATION REQUIREMENTS.
2. INSTALL DETECTABLE MARKING TAPE FOR ALL UNDERGROUND WIRING. SEE SPECIFICATION FOR MORE INFORMATION.

ANCHOR/STRAP AT ALL VERTICAL CONDUIT SWEEPS. TIE CONDUIT TO REBAR AS REQUIRED. FOR LARGER CONDUIT INSTALLATIONS, PROVIDE UNDERGROUND RACKING SYSTEM.

#3 REBAR DRIVEN A MIN. OF 2' FEET

DIAGRAM (F016) TYPICAL CONDUIT INSTALLATION

NTS

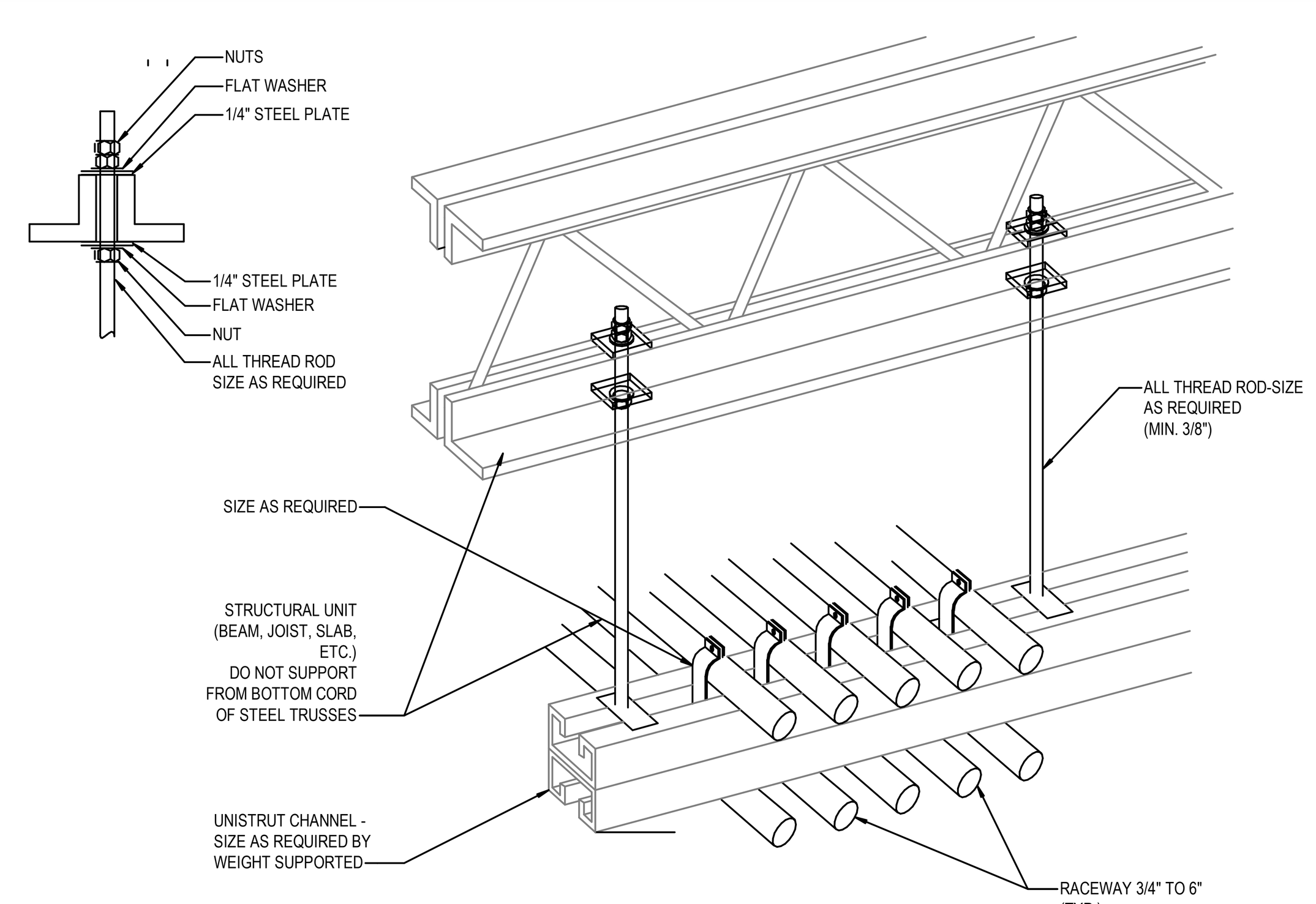
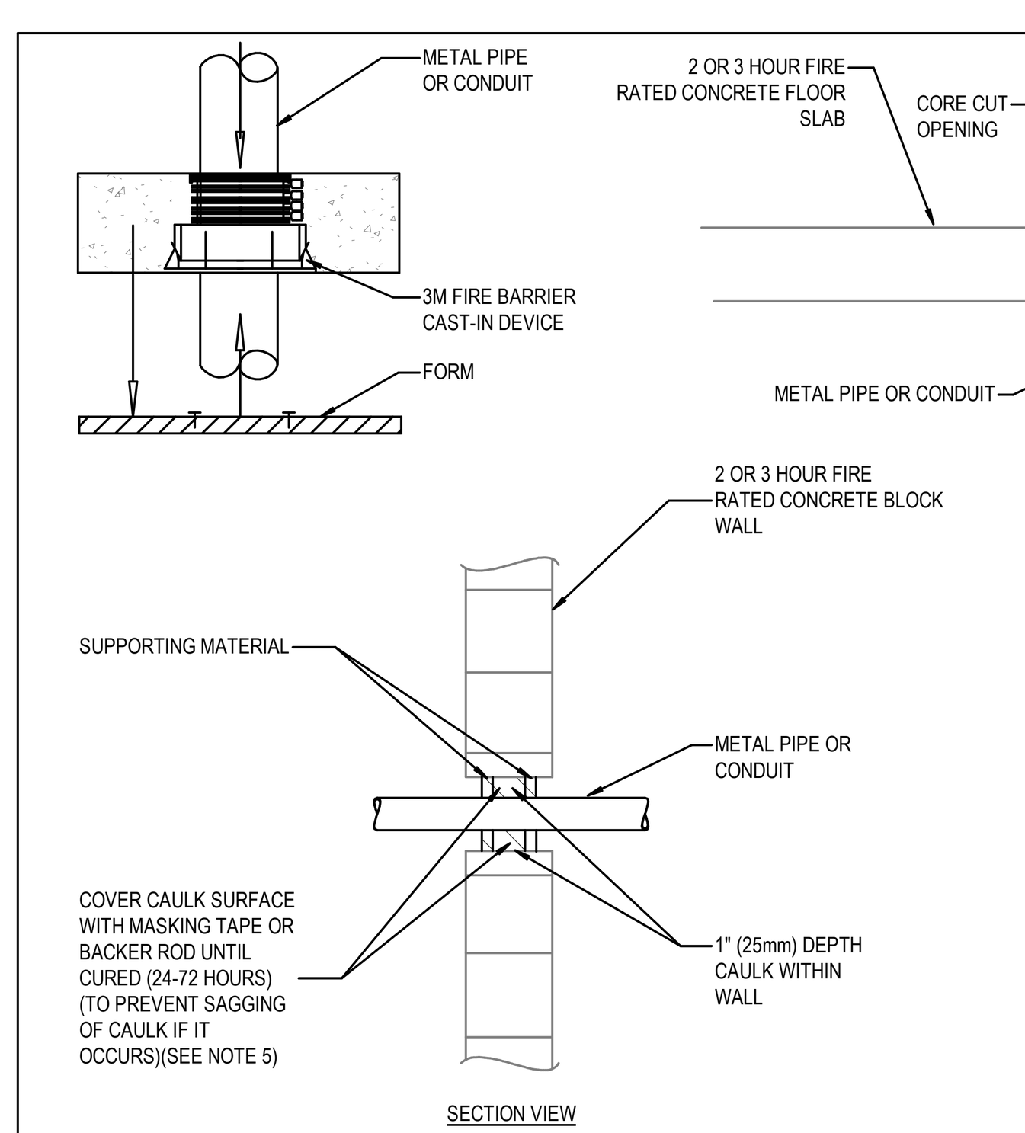
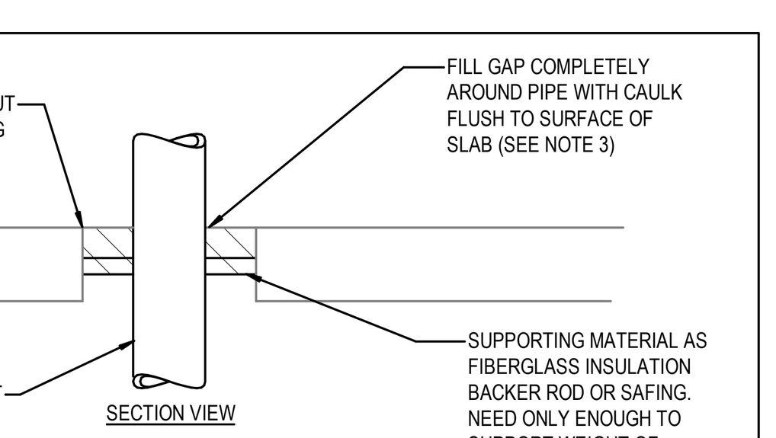


DIAGRAM (H001) TYPICAL TRAPEZE CONDUIT RACK

NTS





NOTES:

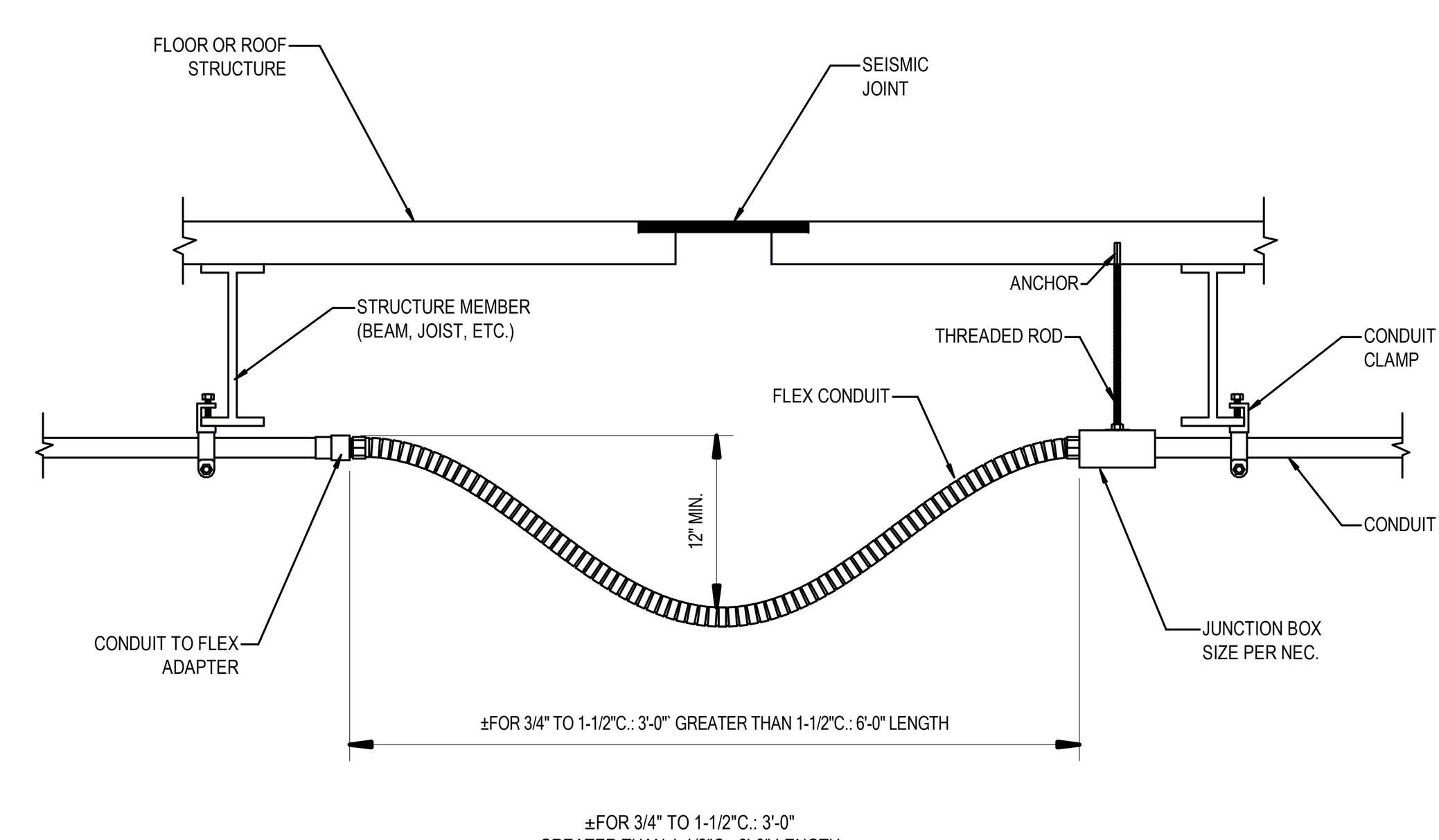
1. FOR CONCRETE BLOCK WALLS, CENTER CAULK CP-25 OR PUTTY 303 WITHIN WALL WITH DAMMING ON BOTH SIDES.
2. RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) FIRE TEST AND UL CLASSIFICATION FIRE STOP SYSTEMS 49, 33 AND 91.
3. WET INSTALLED DEPTH OF CAULK CP-25 OR PUTTY 303 DEPENDS ON TYPE AND SIZE OF PIPE:

WET DEPTH	PIPE SIZE	FIRE RATING
-1/2" (13mm)	MAX. 8" (203mm)	2 HRS.
- 2" (25mm)	MAX. 6" (152mm)	3 HRS.

4. UP TO 40% SHRINKAGE OF IS ACCEPTABLE AFTER WET DEPTH INSTALLATION.
5. OPTIONS TO MASKING TAPE TO PREVENT SAGGING:
   A. INSTALL ADDITIONAL DAMMING MATERIAL OVER PRODUCT TO HOLD WITHIN OPENING.
   B. REMOVE PRODUCT FROM CONTAINER AND ALLOW TO AIR CURE IN SMALL BATCHES FOR 12 HRS. THEN HAND FORM INTO OPENING.
6. WHEN ANNULAR SPACE EXCEEDS 3/4" (19mm). A 28 AWG METAL COVER PLATE MUST BE MECHANICALLY SECURED ATOP THE 3M FIRE BARRIER APPLICATION, OR TIGHTLY PACK A NON-COMBUSTIBLE DAMMING MATERIAL ATOP INSTALLED CAULK OR PUTTY.

DIAGRAM (H012) FIRE STOP

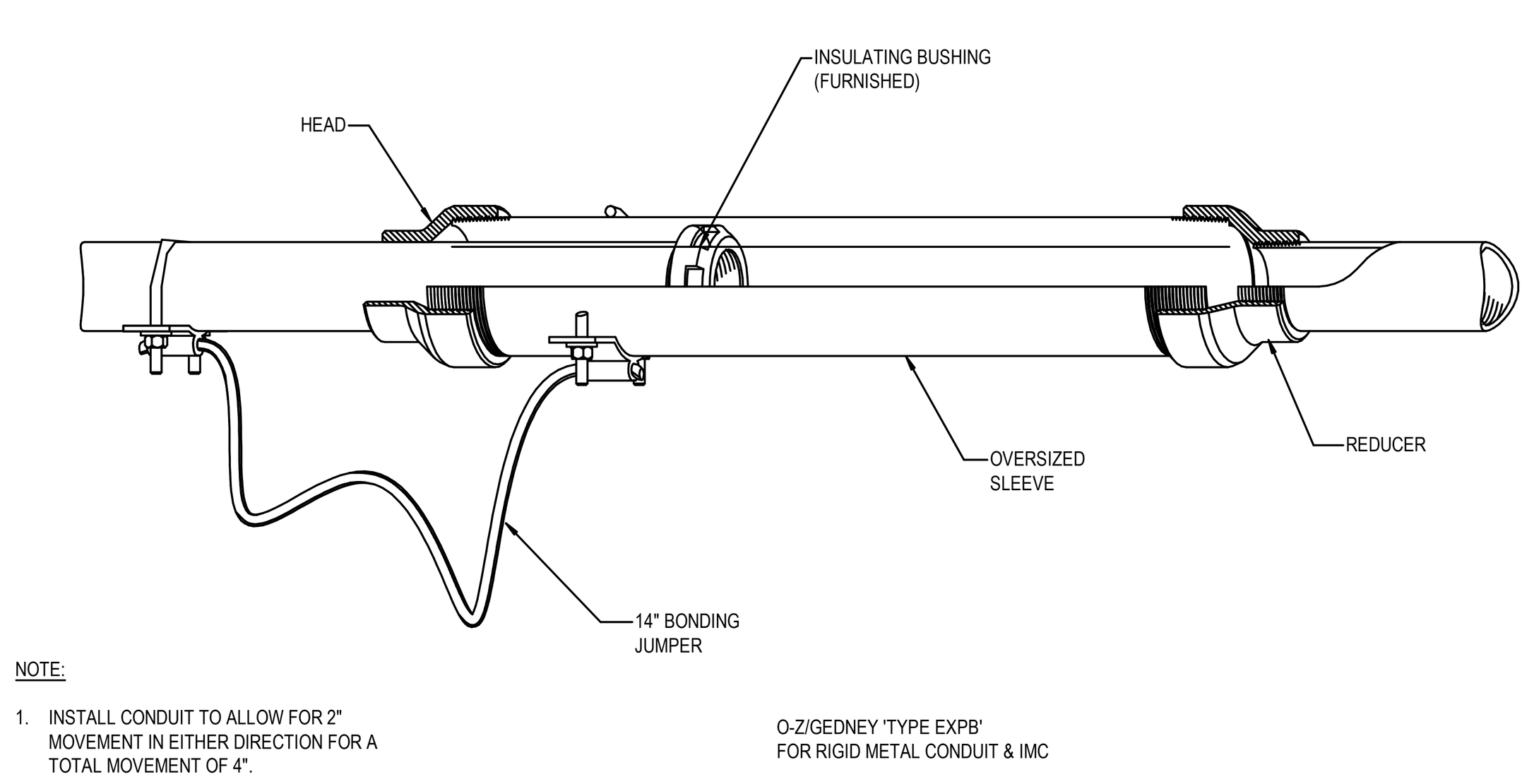
NTS



≤FOR 3/4" TO 1-1/2"C.: 3'-0" GREATER THAN 1-1/2"C.: 6'-0" LENGTH

DIAGRAM (H010) CONDUIT CROSSING SEISMIC JOINT

NTS



NOTE:

1. INSTALL CONDUIT TO ALLOW FOR 2" MOVEMENT IN EITHER DIRECTION FOR A TOTAL MOVEMENT OF 4".

O-Z/GEDNEY 'TYPE EXPB' FOR RIGID METAL CONDUIT & IMC

DIAGRAM (H009) EXPANSION & PULL BOX FITTING

NTS

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REVISIONS:

PROJECT TITLE

EMERY SCHOOL DISTRICT

HUNTINGTON ELEMENTARY SCHOOL

MECHANICAL UPGRADE

HUNTINGTON, UT 84528

90 E 100 N

DRAWN BY:	MK
CHECKED BY:	ES
DATE:	JAN. 2026
PROJECT #:	176525

EG004

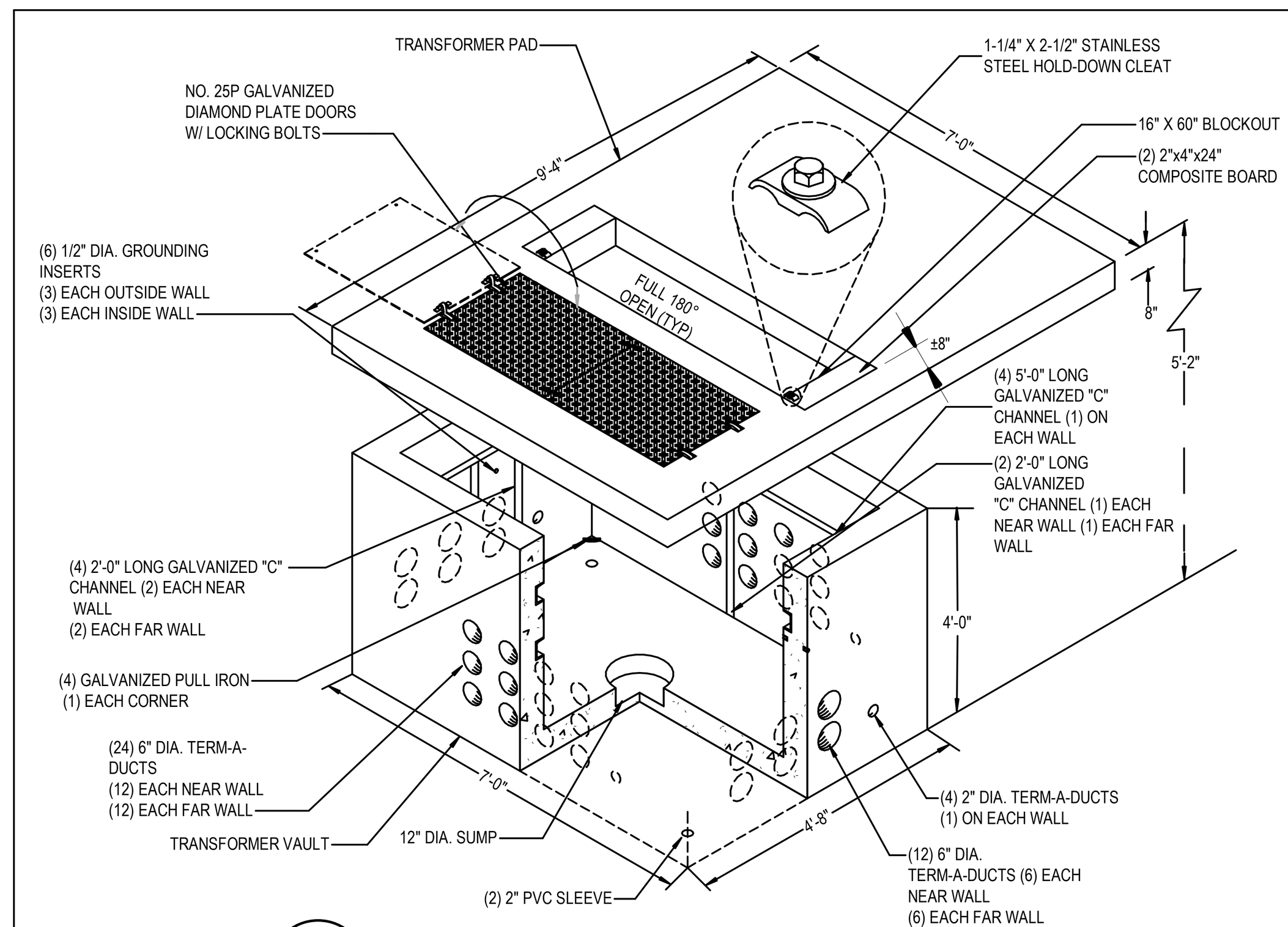

DIAGRAM Q015 TRANSFORMER VAULT (75-750 KVA)

NTS

GENERAL NOTES

1. COORDINATE WITH THE ROOFING CONTRACTOR TO PROVIDE APPROPRIATE ROOF JACK. THE JACK SHALL BE SIZED TO FIT TIGHTLY TO RACEWAY FOR WEATHER-TIGHT SEAL. COORDINATE WORK AND REQUIREMENTS UNDER ROOFING SECTION OF SPECIFICATIONS.
2. CONTRACTOR SHALL NOT INSTALL ELECTRICAL CONDUIT(S) THROUGH THE NEW MECHANICAL CURB AND/OR DUCTWORK. LOCATE ELECTRICAL CONDUITS A MINIMUM OF 12" AWAY FROM MECHANICAL CURB ALONG WITH MAINTAINING A MINIMUM OF 12" BETWEEN ANY OTHER CONDUIT AND ANY OTHER ROOF PENETRATION.
3. NO ELECTRICAL WIRES OF EITHER HIGH OR LOW VOLTAGE TO RUN INSIDE ANY CURBS.

NOTES:

1. PROVIDE SERVICE RECEPTACLE WITHIN 25' OF MECHANICAL UNIT.PROVIDE WEATHER RESISTANT GFCI DUPLEX AND INTERMATIC 1010MXD WEATHERPROOF COVER.
2. PROVIDE NEMA 3R DISCONNECT/STARTER REQUIRED. REFER TO SPECIFICATIONS FOR COORDINATION REQUIREMENTS WITH MECHANICALSHOP DRAWINGS PRIOR TO RELEASING EQUIPMENT AND PERFORMING ROUGH-IN.

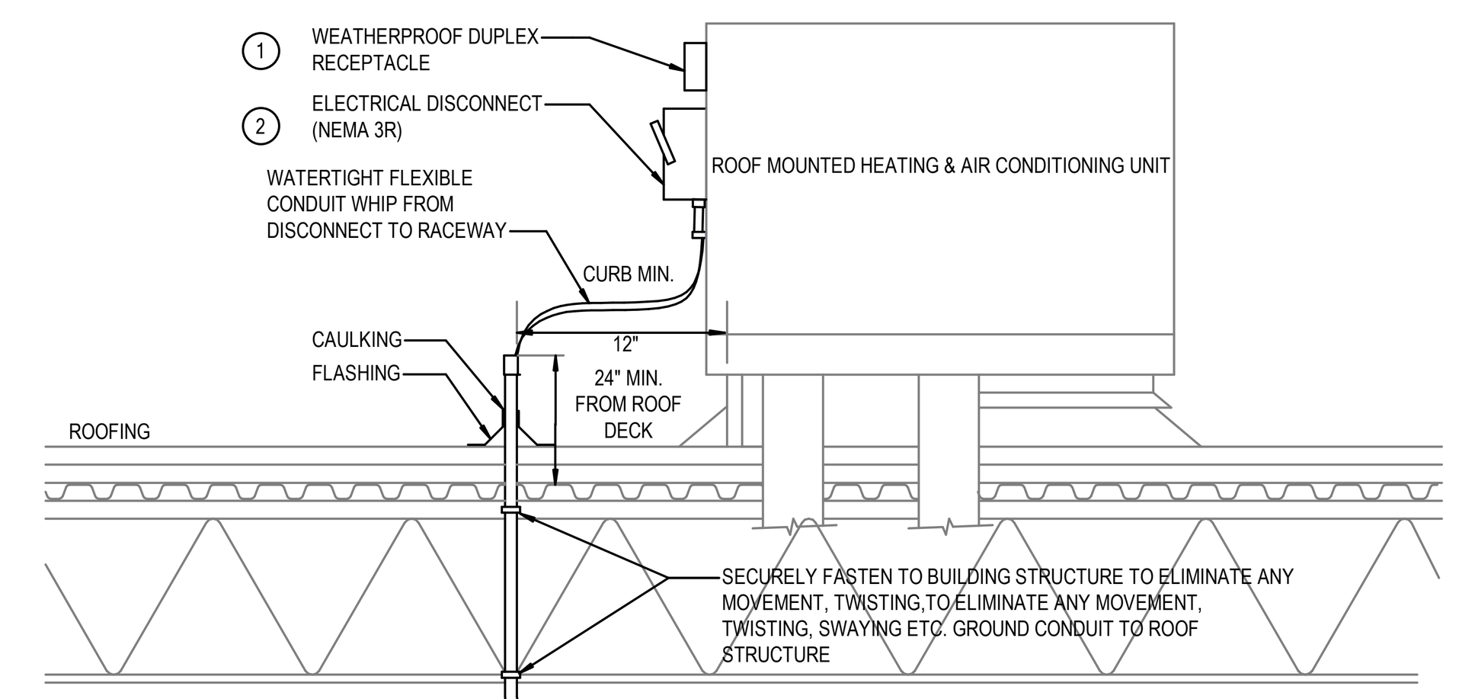

DIAGRAM G008 G008 - ROOF MOUNTED MECHANICAL EQUIPMENT ROUGH-IN REQUIREMENTS

NTS

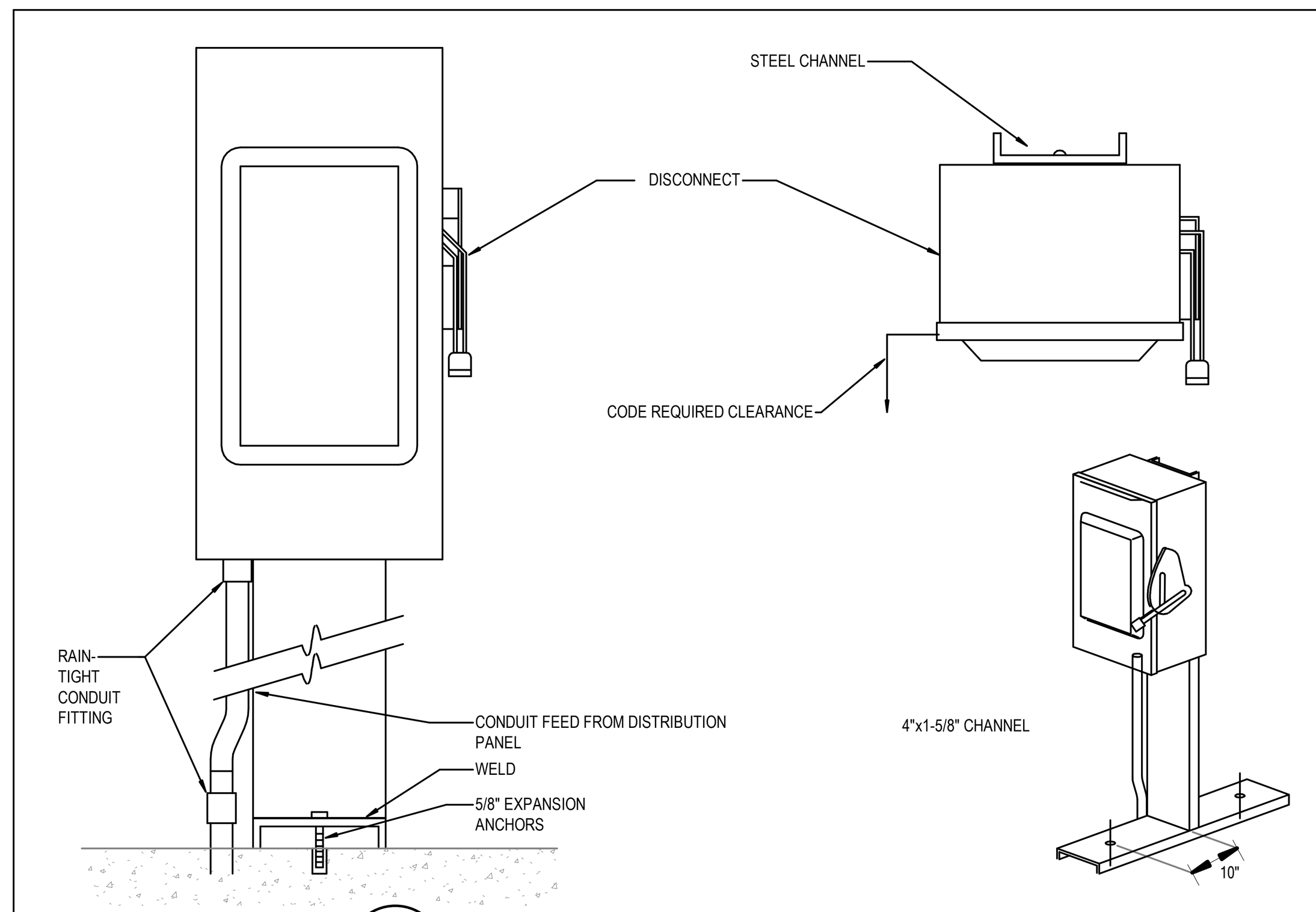

DIAGRAM M001 REMOTE DISCONNECT

NTS

NOTES:

TMGB - TELECOMMUNICATIONS MAIN GROUNDING BUS.

IBT - INTERSYSTEM BONDING TERMINAL.

BC - BONDING CONDUCTOR.

MBJ - MAIN BONDING JUMPER.

EGB - EQUIPMENT GROUNDING BUS.

TGB - TELECOMMUNICATIONS GROUNDING BUS.

NOTES:

1. SIZE PER NEC 250.66.
2. PROVIDE GROUNDING/BONDING SYSTEM CONNECTIONS TO MAIN ELECTRICAL SERVICE AT THE LOCATION OF THE THE MAIN SERVICE DISCONNECT.

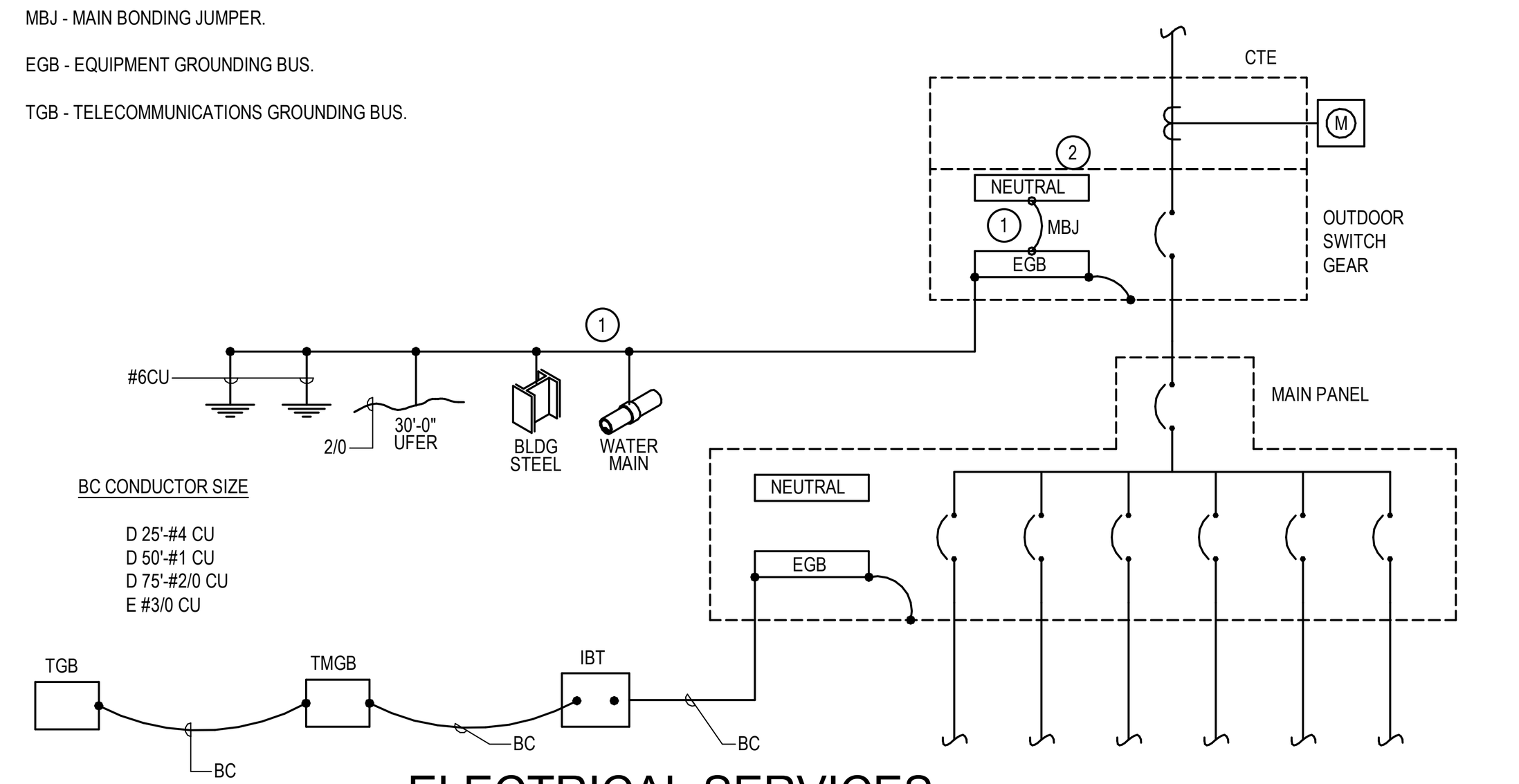

DIAGRAM F026 ELECTRICAL SERVICES GROUNDING/BONDING

NTS

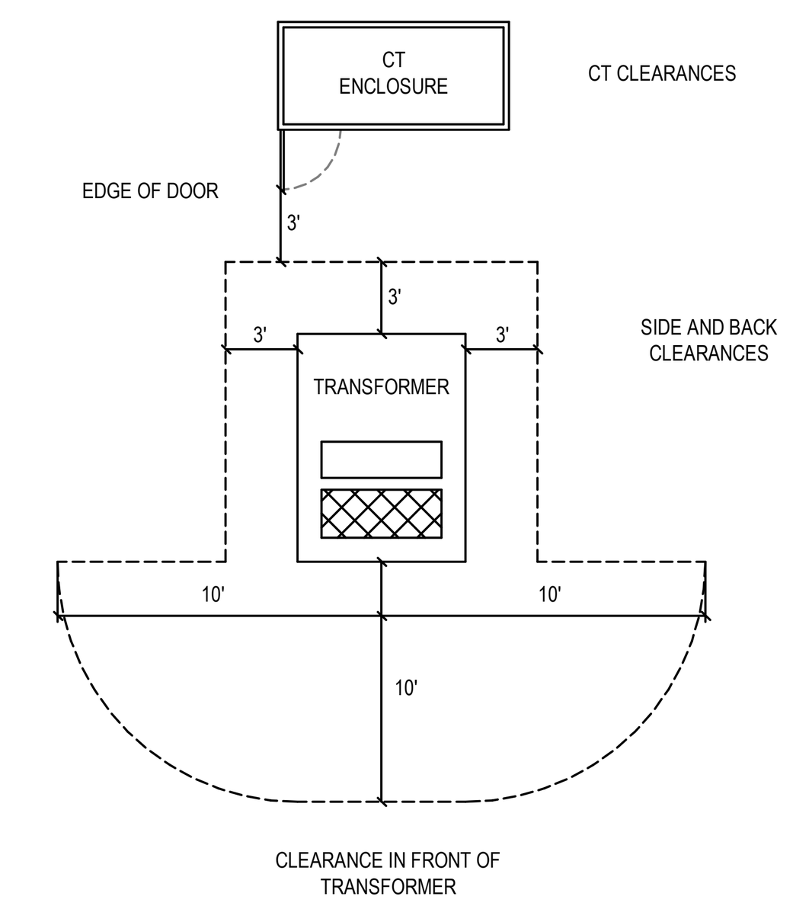

DIAGRAM Q014 TRANFORMER/CT ENCLOSURE LAYOUT (RMP)

NTS

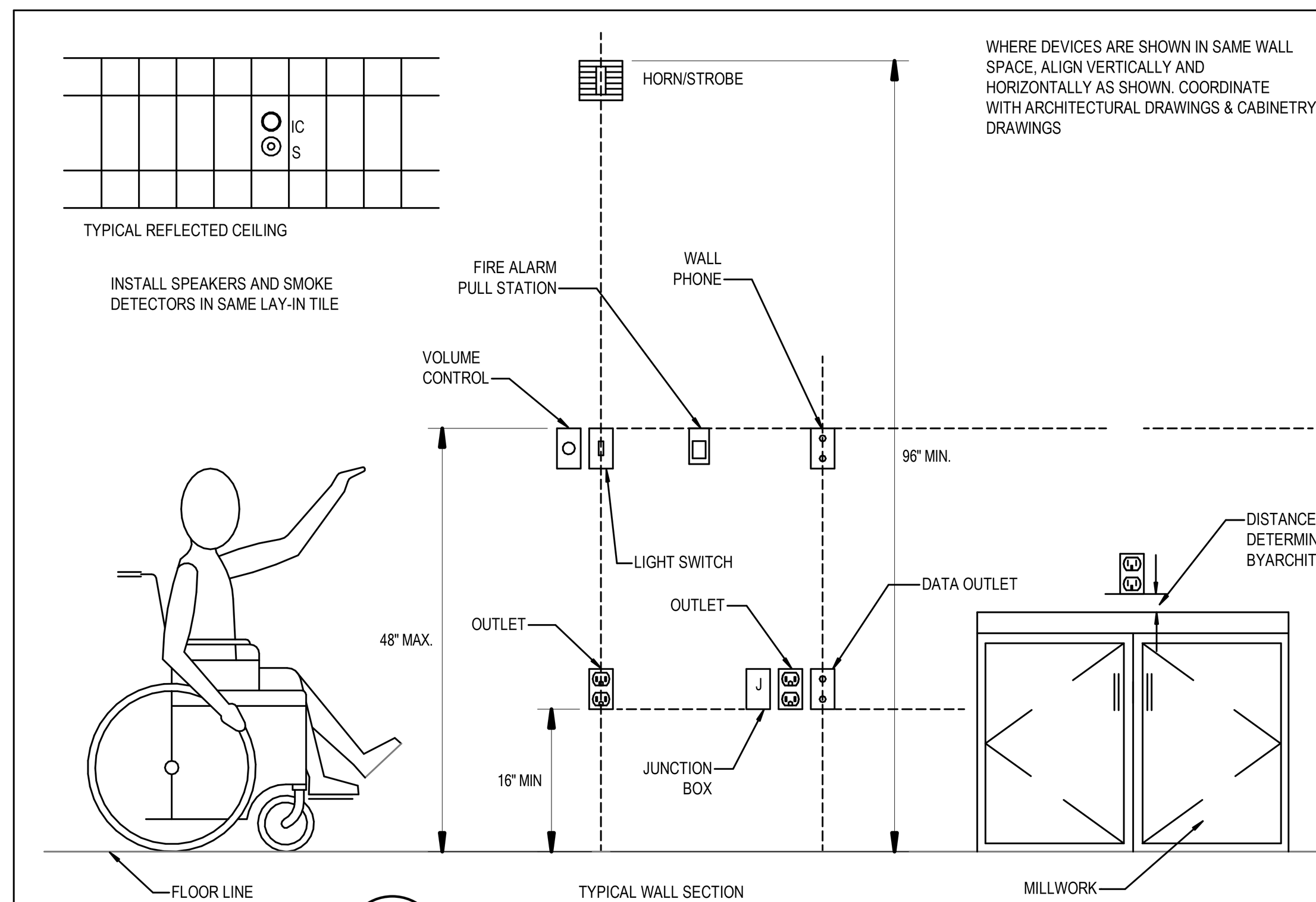

DIAGRAM R001 DEVICE MOUNTING HEIGHTS

NTS

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PROJECT TITLE

EMERY SCHOOL DISTRICT

HUNTINGTON ELEMENTARY SCHOOL

MECHANICAL UPGRADE

90 E 100 N HUNTINGTON, UT 84528

DRAWN BY: MK
CHECKED BY: ES
DATE: JAN. 2026
PROJECT #: 176525

EG005

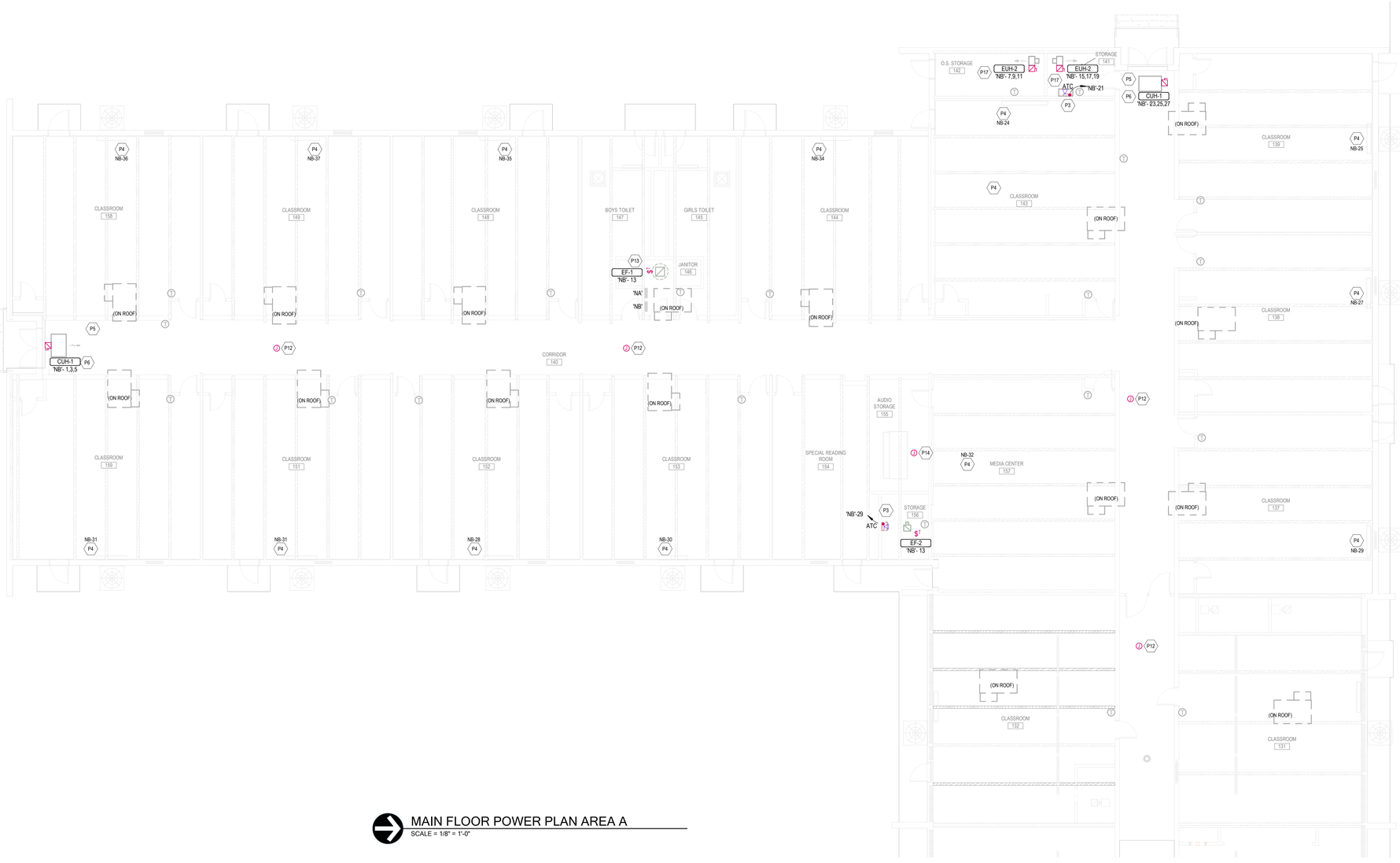
'1150508 10:29:28 AM 1/8" = 1'-0"

POWER GENERAL SHEET NOTES

1. COORDINATE PLACEMENT OF ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. WHERE DEVICES ARE SHOWN IN SAME WALL SPACE, ALIGN VERTICALLY AND HORIZONTALLY. COORDINATE WITH ARCHITECTURAL DRAWINGS, ATHLETIC SAFETY WALL PADDING AND CABINETRY DRAWINGS.
2. ALL THE LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, SOUND AMPLIFICATION, ETC. TO BE ROUTED THROUGH CONDUIT IN EXPOSED AND CLOUDED CEILING AREAS.
3. ALL LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, CLASSROOM SOUND AMPLIFICATION, ETC. TO BE PROPERLY SUPPORTED PER THE TELE/DATA SPEC. AND AT 5'-0" INTERVALS AND TO FOLLOW BUILDING STRUCTURAL LINES. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED. USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED.
4. PROVIDE GFCI PROTECTION ON ALL DEVICES AND EQUIPMENT PER THE NEC REQUIREMENTS. DEVICES SHALL BE READILY ACCESSIBLE. IF ANY OUTLET IS INSTALLED WITHIN 6 FEET OF OUTSIDE EDGE OF SINK, CONTRACTOR SHALL PROVIDE GFCI RECEPTACLE PER NEC, WHETHER SHOWN OR NOT.
5. ALL RECEPTACLES LOCATED THROUGHOUT THE BUILDING SHALL BE TAMPER RESISTANT PER NEC 406.12.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL MECHANICAL UNITS WITH MECHANICAL CONTRACTOR. CIRCUITS TO ALL MECHANICAL EQUIPMENT SHALL BE DEDICATED UNLESS NOTED OTHERWISE.
7. FOR VAV POWER, PROVIDE A DEDICATED 120V/20A CIRCUIT FROM A PANEL LOCATED IN THE ELECTRICAL ROOM OF THE ASSOCIATED QUADRANT. COORDINATE EXACT LOCATION OF ALL VAV BOXES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
8. PROVIDE 120V CIRCUIT FROM NEAREST PROVIDED CIRCUIT FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH. PROVIDE DUCT DETECTOR WITHIN 5 FEET OF EACH FIRE/SMOKE DAMPER.
9. CONTRACTOR TO COORDINATE ALL LOCATIONS OF FIRE/SMOKE AND SMOKE DAMPERS WITH MECHANICAL CONTRACTOR. CONTRACTOR TO PROVIDE POWER, MONITOR MODULES, AND RELAYS AS REQUIRED FOR A COMPLETE SYSTEM.
10. DIVISION-26 IS RESPONSIBLE TO PROVIDE CONDUIT AND ROUGH-IN FOR ALL THERMOSTAT CONTROLS LOCATED WITHIN WALLS. COORDINATE WITH THE CONTROLS CONTRACTOR AND VERIFY EXACT LOCATION OF ALL THERMOSTATS.

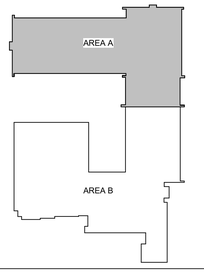
KEYNOTES

P3	PROVIDE (1) CAT6 DROP TO NEAREST DATA ROOM/RACK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ROUTING AND DATA ROOM/RACK LOCATION.
P4	EXISTING UNIT VENTILATOR AND EVAPORATIVE UNITS TO BE ABANDONED. DIV. 26 TO DISCONNECT EXISTING UNIT. DIV. 26 TO REMOVE CONDUCTORS BACK TO SOURCE AND RELABEL BREAKER AS SPARE. CIRCUIT NUMBER BASED ON EXISTING DRAWINGS AND TO BE FIELD VERIFIED.
P5	DIV. 26 TO DISCONNECT EXISTING UNIT HEATER. REMOVE CONDUCTORS COMPLETELY BACK TO SOURCE AND RELABEL AS SPARE.
P6	CIRCUIT NUMBER SHOWED FOR REFERENCE ONLY. UTILIZE CIRCUIT BREAKERS FREED DURING DEMOLITION/DISCONNECTING OF EXISTING UNIT VENTILATORS, UNIT HEATERS, AND EVAPORATIVE COOLERS. PROVIDE NEW 30A 3P BREAKER WITHIN PANELBOARD.
P12	EXISTING RELIEF FAN TO BE DEMOLISHED. DIV. 26 SHALL DISCONNECT AND REMOVE CONDUCTORS BACK TO SOURCE. RELABEL BREAKER AS SPARE.
P13	NEW EXHAUST FAN TO REPLACE EXISTING. PROVIDE NEW CIRCUIT AS INDICATED. DISCONNECT EXISTING UNIT AND REMOVE EXISTING CONDUCTORS BACK TO SOURCE.
P14	EXISTING FAN COIL TO BE ABANDONED. DIV. 26 SHALL DISCONNECT AND REMOVE CONDUCTORS BACK TO SOURCE. RELABEL BREAKER AS SPARE.
P17	CIRCUIT NUMBER SHOWED FOR REFERENCE ONLY. UTILIZE CIRCUIT BREAKERS FREED DURING DEMOLITION/DISCONNECTING OF EXISTING UNIT VENTILATORS, UNIT HEATERS, AND EVAPORATIVE COOLERS. PROVIDE NEW 25A 3P BREAKER WITHIN PANELBOARD.



MAIN FLOOR POWER PLAN AREA A
SCALE = 1/8" = 1'-0"

KEYPLAN



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KMA ARCHITECTS

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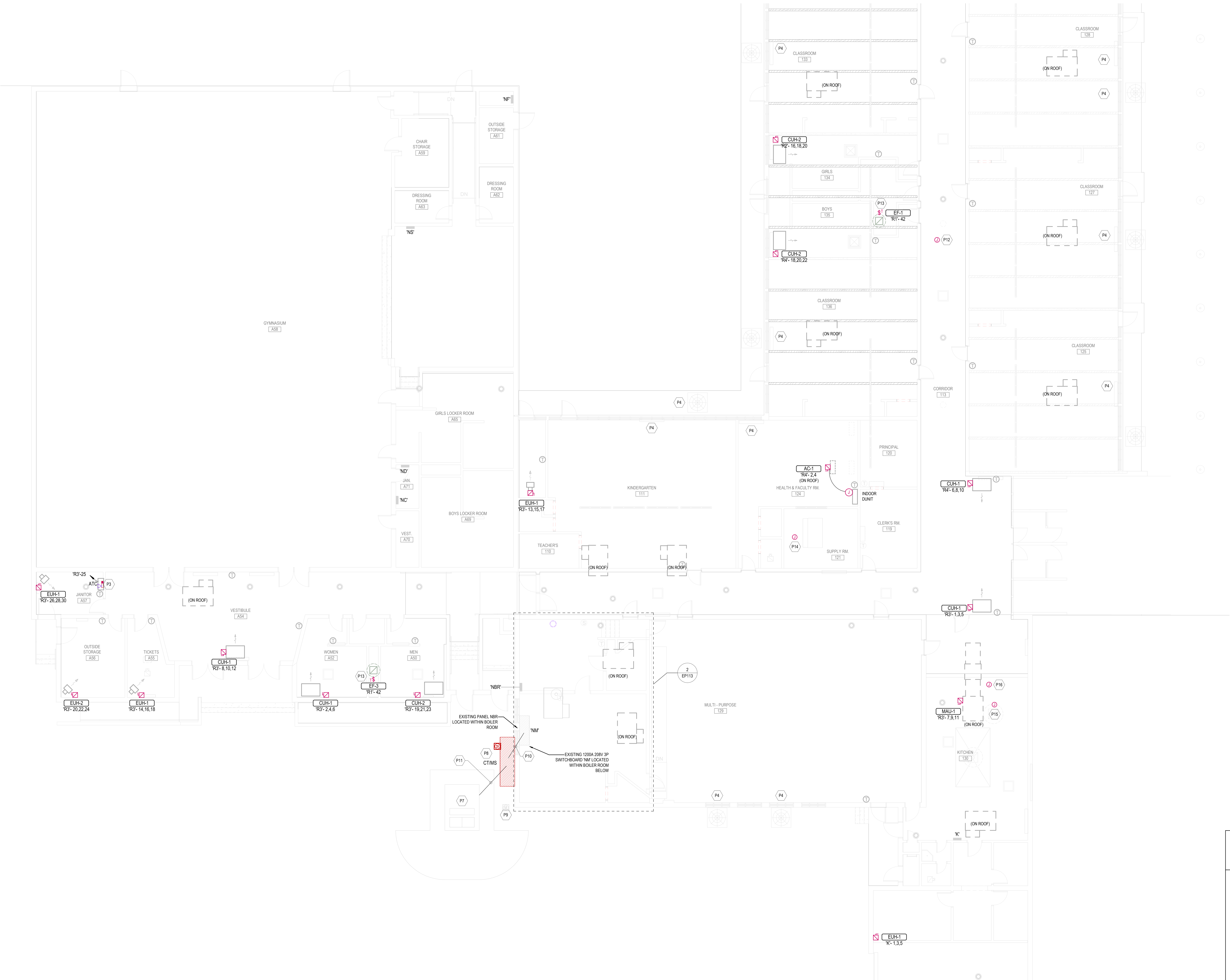
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

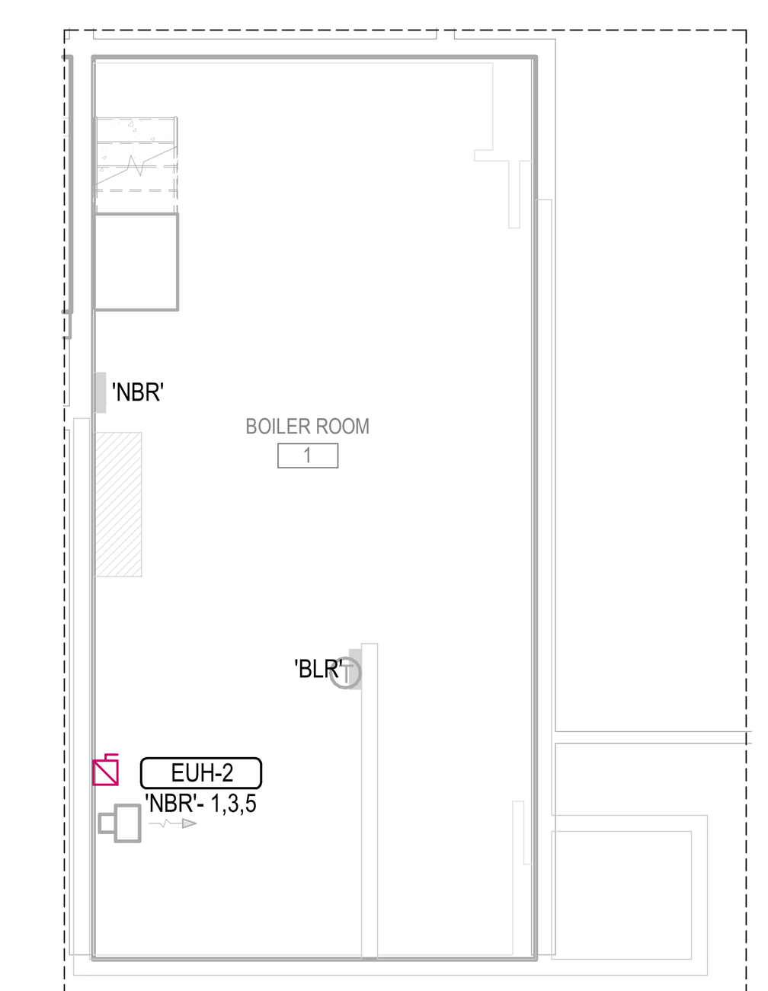
DRAWN BY: MK
CHECKED BY: ES
DATE: JAN. 2026
PROJECT #: 176525

EP112



MAIN FLOOR POWER PLAN AREA B

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



2 BASEMENT POWER MECH PLAN
1/8" = 1'-0"

POWER GENERAL SHEET NOTES

1. COORDINATE PLACEMENT OF ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. WHERE DEVICES ARE SHOWN IN SAME WALL SPACE, ALIGN VERTICALLY AND HORIZONTALLY. COORDINATE WITH ARCHITECTURAL DRAWINGS, ATHLETIC SAFETY WALL PADDING AND CABINETRY DRAWINGS.
2. ALL THE LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, SOUND AMPLIFICATION, ETC. TO BE ROUTED THROUGH CONDUIT IN EXPOSED AND CLOUDED CEILING AREAS.
3. ALL LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, CLASSROOM SOUND AMPLIFICATION, ETC. TO BE PROPERLY SUPPORTED PER THE TELE/DATA SPEC. AND AT 5'-0" INTERVALS AND TO FOLLOW BUILDING STRUCTURAL LINES. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED. USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED.
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7. FOR VAV POWER, PROVIDE A DEDICATED 120V/20A CIRCUIT FROM A PANEL LOCATED IN THE ELECTRICAL ROOM OF THE ASSOCIATED QUADRANT. COORDINATE EXACT LOCATION OF ALL VAV BOXES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
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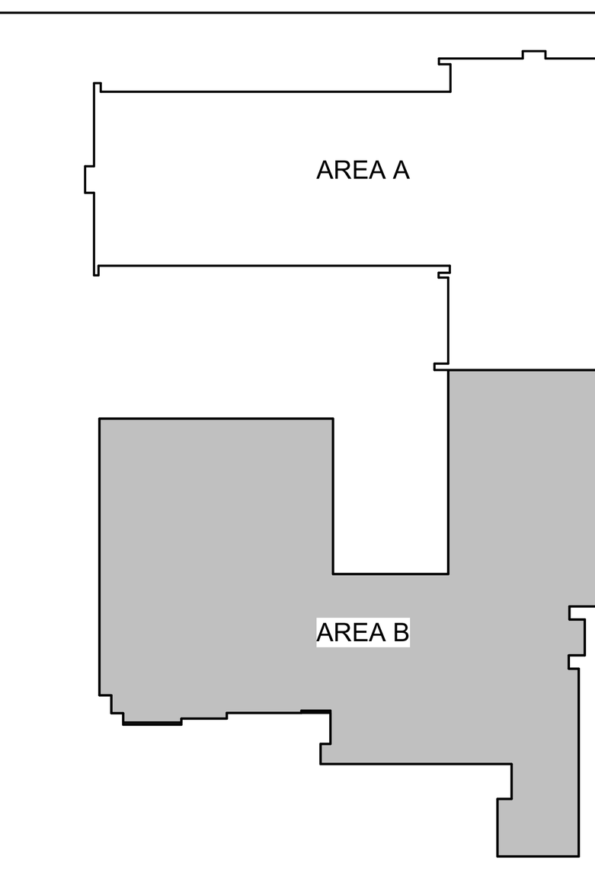
9. CONTRACTOR TO COORDINATE ALL LOCATIONS OF FIRE/SMOKE AND SMOKE DAMPERS WITH MECHANICAL CONTRACTOR, CONTRACTOR TO PROVIDE POWER, MONITOR MODULES, AND RELAYS AS REQUIRED FOR A COMPLETE SYSTEM.
10. DIVISION-26 IS RESPONSIBLE TO PROVIDE CONDUIT AND ROUGH-IN FOR ALL THERMOSTAT CONTROLS LOCATED WITHIN WALLS. COORDINATE WITH THE CONTROLS CONTRACTOR AND VERIFY EXACT LOCATION OF ALL THERMOSTATS.

KEYNOTES

P3	PROVIDE (1) CAT6 DROP TO NEAREST DATA ROOM/RACK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ROUTING AND DATA ROOM/RACK LOCATION.
P4	EXISTING UNIT VENTILATOR AND EVAPORATIVE UNITS TO BE ABANDONED. DIV. 26 TO DISCONNECT EXISTING UNIT. DIV. 26 TO REMOVE CONDUCTORS BACK TO SOURCE AND RELABEL BREAKER AS SPARE. CIRCUIT NUMBER BASED ON EXISTING DRAWINGS AND TO BE FIELD VERIFIED.
P7	APPROXIMATE LOCATION OF EXISTING RMP TRANSFORMER. TO BE REPLACED
P8	LOCATE NEW CT/MS WITH RMP METER. FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN. CT/MS TO BE LOCATED AS SUCH AS TO INTERCEPT EXISTING FEEDER TO EXISTING MAIN SWITCH BOARD â€˜NMâ€™. COORDINATE PHASING CLOSELY WITH ROCKY MOUNTY POWER TO ENSURE ALL WORK THAT CAN BE COMPLETED PRIOR TO THE NECESSARY POWER OUTAGE FOR INSTALLING THE NEW CT/MS IS COMPLETED TO MINIMIZE BUILDING POWER OUTAGE TIMEFRAME. PROVIDE MINIMUM FOUR WEEKS NOTICE OF POWER OUTAGE.
P9	EXISTING METER TO BE TEMPORARILY MAINTAINED WHILE EXISTING CHIMNEY IS DEMOLISHED. PROVIDE ADDITIONAL SUPPORTS/BACKING AS NECESSARY TO ALLOW METER TO OPERATE FREESTANDING TEMPORARILY UNTIL METER CAN BE REMOVED AFTER NEW CT/MS IS INSTALLED. PROTECT EXISTING METER AND EXISTING TRANSFORMER DURING DEMOLITION.
P10	CONTRACTOR RESPONSIBLE FOR FIELD VERIFYING CONDUIT PATH BETWEEN EXISTING TRANSFORMER AND EXISTING MAIN â€˜NMâ€™. INTERCEPT CONDUIT AND FEEDERS AND REWORK TO NEW â€˜CT/MSâ€™.
P11	CONTRACTOR TO PROVIDE NEW CONDUIT BETWEEN NEW CT/MS AND RMP TRANSFORMER. REFER TO RMP ESR FOR ADDITIONAL REQUIREMENTS. ALL CUTTING, EXCAVATING, TRENCHING, CONDUIT, AND BACKFILL BY DIV. 26. SECONDARY CONDUCTORS BY RMP.
P12	EXISTING RELIEF FAN TO BE DEMOLISHED. DIV. 26 SHALL DISCONNECT AND REMOVE CONDUCTORS BACK TO SOURCE. RELABEL BREAKER AS SPARE.
P13	NEW EXHAUST FAN TO REPLACE EXISTING. PROVIDE NEW CIRCUIT AS INDICATED. DISCONNECT EXISTING UNIT AND REMOVE EXISTING CONDUCTORS BACK TO SOURCE.
P14	EXISTING FAN COIL TO BE ABANDONED. DIV. 26 SHALL DISCONNECT AND REMOVE CONDUCTORS BACK TO SOURCE. RELABEL BREAKER AS SPARE.
P15	EXISTING EVAP UNIT TO BE DEMOLISHED. DIV. 26 TO DISCONNECT AND REMOVE CONDUCTORS COMPLETELY BACK TO SOURCE. RELABEL BREAKER AS SPARE.
P16	INTERLOCK EXISTING EXHAUST FAN WITH NEW MAU.

KEYPLAN



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REVISIONS:

EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N HUNTINGTON, UT 84528

PROJECT TITLE

DRAWN BY: MK
CHECKED BY: ES
DATE: JAN. 2026
PROJECT #: 176525

EP113

KEYNOTES

P1 FACTORY PROVIDED OUTLET. CONTRACTOR TO EXTEND 120V POWER FROM NEAREST AVAILABLE CIRCUIT.

P2 SURFACE MOUNT PANELBOARD TO WALL SPACE. PROVIDE ADDITIONAL UNISTRUT BACKING FOR PORTION OF PANELBOARD NOT ABLE TO MOUNT TO LOW ADJACENT WALL. EQUIPMENT IS EXPOSED TO HIGH WINDS, ENSURE ALL ELECTRICAL EQUIPMENT ON THE ROOF IS WELL SECURED AND SUPPORTED. SURFACE MOUNT CONDUITS TO EQUIPMENT ALONG THE ROOF. PROVIDE MINIMUM 6â€ TALL ROOF STANDOFFS/CONDUIT SUPPORTS EVERY 6â€™. ALL ROOF MOUNTED CONDUCTORS MUST BE XHHW.

POWER GENERAL SHEET NOTES

1. COORDINATE PLACEMENT OF ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. WHERE DEVICES ARE SHOWN IN SAME WALL SPACE, ALIGN VERTICALLY AND HORIZONTALLY. COORDINATE WITH ARCHITECTURAL DRAWINGS, ATHLETIC SAFETY WALL PADDING AND CABINETRY DRAWINGS.
2. ALL THE LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, SOUND AMPLIFICATION, ETC. TO BE ROUTED THROUGH CONDUIT IN EXPOSED AND CLOUDED CEILING AREAS.
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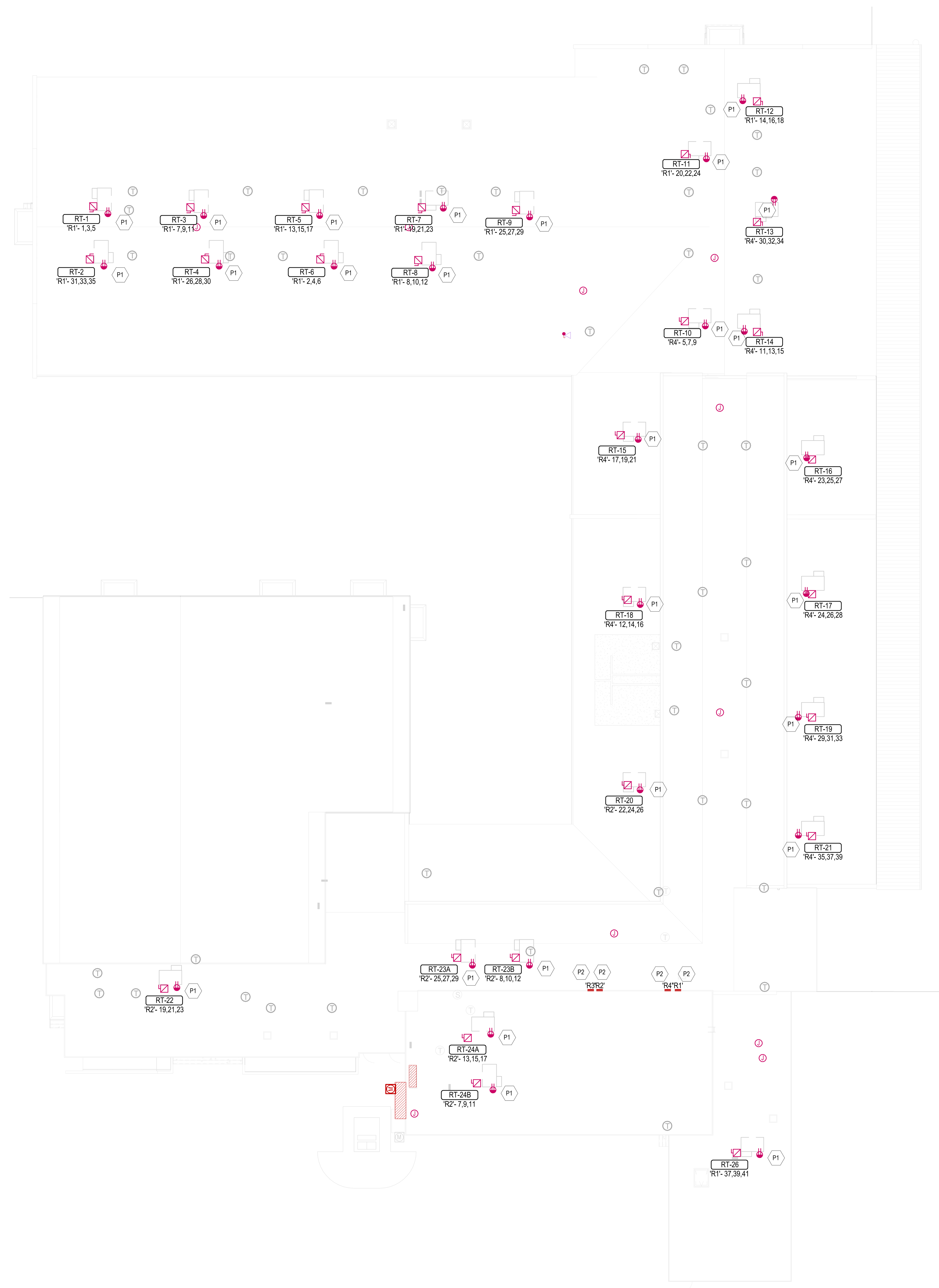
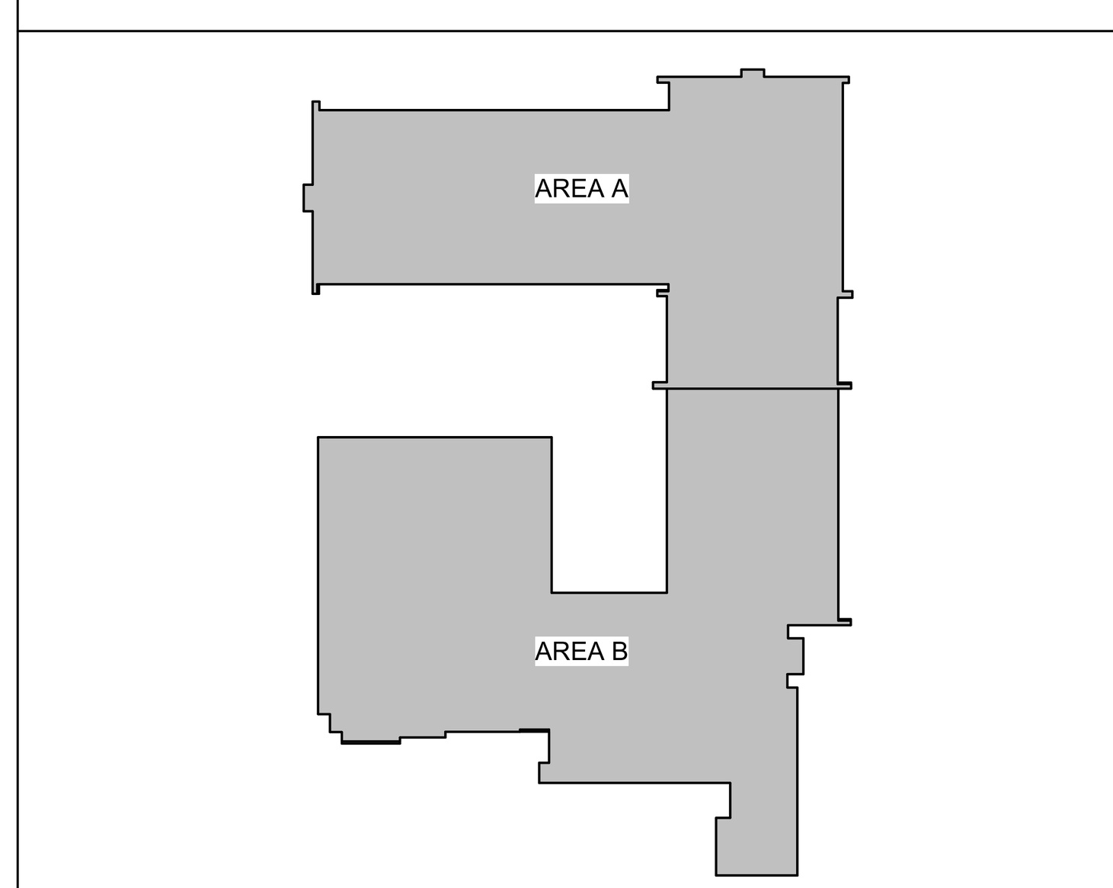


OVERALL ROOF POWER PLAN
SCALE = 1/16" = 1'-0"

KEYPLAN



RESOLUT

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KMA ARCHITECTS

REVISIONS:

EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
HUNTINGTON, UT 84528

PROJECT TITLE
90 E 100 N

DRAWN BY:	MK
CHECKED BY:	ES
DATE:	JAN. 2026
PROJECT #:	176525

EP114

PANELBOARD SCHEDULE

PANEL: 'R3' TYPE: Do Not Use; Use... VOLTS: 208Y/120, 3Φ, 4W PHASE: 3 WIRES: 4

LOCATION:
FED FROM: CT/MS
MOUNTING:
BUSSING: Do Not Use; Use Current Rating

MAINS/BUS AMPS: 400
MAIN DISC. TYPE: MLO
MAIN DISC. TRIP: MLO

LUGS: Standard
DOOR-IN-DOOR
200% NEUTRAL
ISO GROUND
SPD

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	AMPS	ITEM
AREA B CABINET UNIT HEATER CUH-1	30 A	3	#8	1	2,162 VA			2,162 VA			2	#6	3	30 A	AREA B CABINET UNIT HEATER CUH-1
				3		2,162 VA			2,162 VA		4				
				5			2,162 VA			2,162 VA	6				
AREA B MAKE-UP AIR UNIT MAU-1	40 A	3	#6	7	2,906 VA			2,162 VA			8	#6	3	30 A	AREA B CABINET UNIT HEATER CUH-1
				9		2,906 VA			2,162 VA		10				
				11			2,906 VA			2,162 VA	12				
AREA B ELECTRIC UNIT HEATER EUH-1	30 A	3	#8	13	1,909 VA			1,909 VA			14	#6	3	25 A	AREA B ELECTRIC UNIT HEATER EUH-1
				15		1,909 VA			1,909 VA		16				
				17			1,909 VA			1,909 VA	18				
AREA B CABINET UNIT HEATER CUH-2	30 A	3	#6	19	2,162 VA			1,945 VA			20	#6	3	30 A	AREA B CABINET UNIT HEATER CUH-2
				21		2,162 VA			1,945 VA		22				
				23			2,162 VA			1,945 VA	24				
Other JANITOR A57	20 A	1	#12	25	500 VA			1,909 VA			26	#6	3	25 A	AREA B ELECTRIC UNIT HEATER EUH-1
				27					1,909 VA		28				
				29						1,909 VA	30				
				31							32				
				33							34				
				35							36				
				37							38				
				39							40				
				41							42				
					19726	19226	19226	TOTAL (VA)							CONNECTED LOAD TOTAL
					164.4 A	160.2 A	160.2 A	AMPS/PHASE							58,179 VA

AIC RATING: 22,673 AMPS RMS SYSM.

NOTES:

PANELBOARD SCHEDULE

PANEL: 'R1' TYPE: Do Not Use; Use... VOLTS: 208Y/120, 3Φ, 4W PHASE: 3 WIRES: 4

LOCATION:
FED FROM: CT/MS
MOUNTING:
BUSSING: Do Not Use; Use Current Rating

MAINS/BUS AMPS: 400
MAIN DISC. TYPE: MLO
MAIN DISC. TRIP: MLO

LUGS: Standard
DOOR-IN-DOOR
200% NEUTRAL
ISO GROUND
SPD

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	AMPS	ITEM
ROOF TOP UNIT RT-1	30 A	3	#2	1	2,114 VA			2,114 VA			2	#2	3	30 A	ROOF TOP UNIT RT-6
				3		2,114 VA			2,114 VA		4				
				5			2,114 VA			2,114 VA	6				
ROOF TOP UNIT RT-3	30 A	3	#2	7	2,114 VA			2,114 VA			8	#2	3	30 A	ROOF TOP UNIT RT-8
				9		2,114 VA			2,114 VA		10				
				11			2,114 VA			2,114 VA	12				
ROOF TOP UNIT RT-5	30 A	3	#2	13	2,114 VA			2,114 VA			14	#2	3	30 A	ROOF TOP UNIT RT-12
				15		2,114 VA			2,114 VA		16				
				17			2,114 VA			2,114 VA	18				
ROOF TOP UNIT RT-7	40 A	3	#2	19	2,978 VA			2,114 VA			20	#4	3	30 A	ROOF TOP UNIT RT-11
				21		2,978 VA			2,114 VA		22				
				23			2,978 VA			2,114 VA	24				
ROOF TOP UNIT RT-9	30 A	3	#2	25	2,114 VA			2,114 VA			26	#2	3	30 A	ROOF TOP UNIT RT-4
				27		2,114 VA			2,114 VA		28				
				29			2,114 VA			2,114 VA	30				
ROOF TOP UNIT RT-2	30 A	3	#2	31	2,114 VA						32				
				33		2,114 VA					34				
				35			2,114 VA				36				
ROOF TOP UNIT RT-26	30 A	3	#6	37	2,114 VA						38				
				39		2,114 VA					40				
				41			2,114 VA			1,392 VA	42	#6	1	20 A	Other
					26227	26227	27619	TOTAL (VA)							CONNECTED LOAD TOTAL
					218.6 A	218.6 A	230.2 A	AMPS/PHASE							80,074 VA

AIC RATING: 18,831 AMPS RMS SYSM.

NOTES:

PANELBOARD SCHEDULE

PANEL: 'NB' TYPE: Do Not Use; Use... VOLTS: 208Y/120, 3Φ, 4W PHASE: 3 WIRES: 4

LOCATION:
FED FROM: 'NM'
MOUNTING:
BUSSING: Do Not Use; Use Current Rating

MAINS/BUS AMPS: 400
MAIN DISC. TYPE: MLO
MAIN DISC. TRIP: MLO

LUGS: Standard
DOOR-IN-DOOR
200% NEUTRAL
ISO GROUND
SPD

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	AMPS	ITEM
CUH-1	30 A	3	#8	1	2,162 VA			0 VA			2	--	1	20 A	EXISTING
				3		2,162 VA			0 VA		4	--	1	20 A	EXISTING
				5			2,162 VA			0 VA	6	--	1	20 A	EXISTING
AREA A ELECTRIC UNIT HEATER EUH-2	25 A	3	#8	7	1,945 VA			0 VA			8	--	1	20 A	EXISTING
				9		1,945 VA			0 VA		10	--	1	20 A	EXISTING
				11			1,945 VA			0 VA	12	--	1	20 A	EXISTING
EF-1	20 A	1	#12	13	1,872 VA			0 VA			14	--	1	20 A	EXISTING
ARE A ELECTRIC UNIT HEATER EUH-2	25 A	3	#8	15		1,945 VA			0 VA		16	--	1	20 A	EXISTING
				17			1,945 VA			0 VA	18	--	1	20 A	EXISTING
				19	1,945 VA			0 VA			20	--	1	20 A	EXISTING
ATC PANEL	20 A	1	#12	21		500 VA			0 VA		22	--	1	20 A	EXISTING
CUH-1	30 A	3	#8	23			2,162 VA			0 VA	24	--	1	20 A	EXISTING
				25	2,162 VA			0 VA			26	--	1	20 A	EXISTING
				27		2,162 VA			0 VA		28	--	1	20 A	EXISTING
ATC PANEL	20 A	1	#12	29			500 VA			0 VA	30	--	1	20 A	EXISTING
EXISTING	20 A	1	--	31	0 VA			0 VA			32	--	1	20 A	EXISTING
EXISTING	20 A	1	--	33		0 VA			0 VA		34	--	1	20 A	EXISTING
EXISTING	20 A	1	--	35			0 VA			0 VA	36	--	1	20 A	EXISTING
EXISTING	20 A	1	--	37	0 VA			0 VA			38	--	1	20 A	EXISTING
EXISTING	20 A	1	--	39		0 VA			0 VA		40	--	1	20 A	EXISTING
EXISTING	20 A	1	--	41			0 VA			0 VA	42	--	1	20 A	EXISTING
					10086	8714	8714	TOTAL (VA)							CONNECTED LOAD TOTAL
					84.1 A	72.6 A	72.6 A	AMPS/PHASE							27,514 VA

AIC RATING: 10,514 AMPS RMS SYSM.

NOTES:

PANELBOARD SCHEDULE

PANEL: 'R4' TYPE: Do Not Use; Use... VOLTS: 208Y/120, 3Φ, 4W PHASE: 3 WIRES: 4

LOCATION:
FED FROM: CT/MS
MOUNTING:
BUSSING: Do Not Use; Use Current Rating

MAINS/BUS AMPS: 400
MAIN DISC. TYPE: MLO
MAIN DISC. TRIP: MLO

LUGS: Standard
DOOR-IN-DOOR
200% NEUTRAL
ISO GROUND
SPD

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	AMPS	ITEM
				1				1,248 VA			2	#10	2	20 A	AREA B AC-1
				3					1,248 VA		4				
ROOF TOP UNIT RT-10	30 A	3	#4	5			2,114 VA			2,162 VA	6	#8	3	30 A	AREA B CABINET UNIT HEATER CUH-1
				7	2,114 VA			2,162 VA			8				
				9		2,114 VA			2,162 VA		10				
ROOF TOP UNIT RT-14	30 A	3	#4	11			2,114 VA			2,978 VA	12	#4	3	40 A	ROOF TOP UNIT RT-18
				13	2,114 VA			2,978 VA			14				
				15		2,114 VA			2,978 VA		16				
ROOF TOP UNIT RT-15	35 A	3	#4	17			2,498 VA			2,162 VA	18	#6	3	30 A	AREA B CABINET UNIT HEATER CUH-2
				19	2,498 VA			2,162 VA			20				
				21		2,498 VA			2,162 VA		22				
ROOF TOP UNIT RT-16	35 A	3	#4	23			2,498 VA			2,498 VA	24	#4	3	35 A	ROOF TOP UNIT RT-17
				25	2,498 VA			2,498 VA			26				
				27		2,498 VA			2,498 VA		28				
ROOF TOP UNIT RT-19	35 A	3	#6	29			2,498 VA			2,114 VA	30	#2	3	30 A	ROOF TOP UNIT RT-13
				31	2,498 VA			2,114 VA			32				
				33		2,498 VA			2,114 VA		34				
ROOF TOP UNIT RT-21	35 A	3	#6	35			2,498 VA				36				
				37	2,498 VA						38				
				39		2,498 VA					40				
				41							42				
					27379	27379	26131	TOTAL (VA)							CONNECTED LOAD TOTAL
					229.8 A	229.8 A	217.8 A	AMPS/PHASE							80,890 VA

AIC RATING: 19,212 AMPS RMS SYSM.

NOTES:

PANELBOARD SCHEDULE

PANEL: 'R2' TYPE: Do Not Use; Use... VOLTS: 208Y/120, 3Φ, 4W PHASE: 3 WIRES: 4

LOCATION:
FED FROM: CT/MS
MOUNTING:
BUSSING: Do Not Use; Use Current Rating

MAINS/BUS AMPS: 400
MAIN DISC. TYPE: MLO
MAIN DISC. TRIP: MLO

LUGS: Standard
DOOR-IN-DOOR
200% NEUTRAL
ISO GROUND
SPD

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	AMPS	ITEM
				1							2				
				3							4				
				5							6				
ROOF TOP UNIT RT-24B	40 A	3	#4	7	2,978 VA			2,498 VA			8	#6	3	35 A	ROOF TOP UNIT RT-23B
				9		2,978 VA			2,498 VA		10				
				11			2,978 VA			2,498 VA	12				
ROOF TOP UNIT RT-24A	40 A	3	#6	13	2,978 VA						14				
				15		2,978 VA			2,162 VA		16	#6	3	30 A	CUH-2
				17			2,978 VA			2,162 VA	18				
ROOF TOP UNIT RT-22	40 A	3	#4	19	3,074 VA			2,162 VA			20				
				21		3,074 VA			2,498 VA		22	#6	3	35 A	ROOF TOP UNIT RT-20
				23			3,074 VA			2,498 VA	24				
ROOF TOP UNIT RT-23A	35 A	3	#6	25	2,498 VA			2,498 VA			26				
				27		2,498 VA					28				
				29			2,498 VA				30				
				31							32				
				33							34				
				35							36				
				37							38				
				39							40				
				41							42				
					18686	18686	18686	TOTAL (VA)							CONNECTED LOAD TOTAL
					155.7 A	155.7 A	155.7 A	AMPS/PHASE							56,057 VA

AIC RATING: 22,213 AMPS RMS SYSM.

NOTES:

PANELBOARD GENERAL SHEET NOTES

1. PROVIDE EQUIPMENT LABELING PER SPECIFICATIONS 26 0553. THE LABEL SHALL IDENTIFY THE DEVICE OR EQUIPMENT WHERE THE POWER SUPPLY ORIGINATES, AND THE SYSTEM VOLTAGE, PHASE OR LINE AND SYSTEM AT ALL TERMINATION, CONNECTION AND SPLICE POINTS. FOR EXAMPLE: FEEDER POWER SUPPLY FOR PANEL "XX"ORIGINATES AT PANEL "XX"(OR SWITCHBOARD "XX", TRANSFORMER "XX", SWITCH "XX", ETC.); 120/208 VOLTS, 3-PHASE, PHASE COLOR IDENTIFICATION (OR 120/240, 277/480, ETC.).
2. PROVIDE TYPED PANELBOARD INDEXES AS EACH PANELBOARD. FILL OUT PANELBOARD'S CIRCUIT DIRECTORY CARD UPON COMPLETION OF INSTALLATION WORK. UTILIZE ACTUAL FINAL BUILDING ROOM NUMBERS, NOT ARCHITECTURAL NUMBERS USED ON DRAWINGS. IDENTIFY INDIVIDUAL LIGHTING CIRCUITS, INDIVIDUAL RECEPTACLE CIRCUITS BY ROOM SERVED, AND INDIVIDUAL EQUIPMENT, ETC. LABEL CIRCUIT BREAKERS TO IDENTIFY LOCATION OF SUBPANEL OR EQUIPMENT SUPPLIED USING ROOM NUMBERS AND EQUIPMENT NAMES. INCLUDE ROOM NUMBER WITH EQUIPMENT CIRCUIT DESIGNATIONS. ALL DIRECTORIES TO BE TYPEWRITTEN.
3. PROVIDE AIC AND ARC-FLASH HAZARD LABELS PER THE SPECIFICATIONS AND NEC.
4. ALL MECHANICAL AND KITCHEN EQUIPMENT BREAKERS TO BE SIZED PER THE MECHANICAL EQUIPMENT SCHEDULE AND KITCHEN EQUIPMENT SCHEDULE.
5. PROVIDE ALL REQUIRED LUG ADAPTERS, PIN REDUCERS, POLARIS LUG KITS, ETC. AS REQUIRED. PROVIDE NEC SIZED JUNCTION BOX AHEAD OF PANELBOARD/GEAR AS NEEDED TO LOCATED AND TERMINATE CONDUCTORS ON POLARIS LUG ADAPTERS (<10' FROM FINAL TERMINATION AT PANELBOARD). SIZE DOWN TO CONDUCTORS THAT FIT THE AVAILABLE LUGS AND/OR BREAKERS WHERE CONDUCTORS HAVE BEEN UPSIZED FOR VOLTAGE DROP.

RESOLUT

170 NORTH MAIN STREET
SPANISH FORK, UTAH 84660
WWW.KMAARCHITECTS.COM

KMA ARCHITECTS

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY: MK
CHECKED BY: ES
DATE: JAN. 2026
PROJECT #: 176525

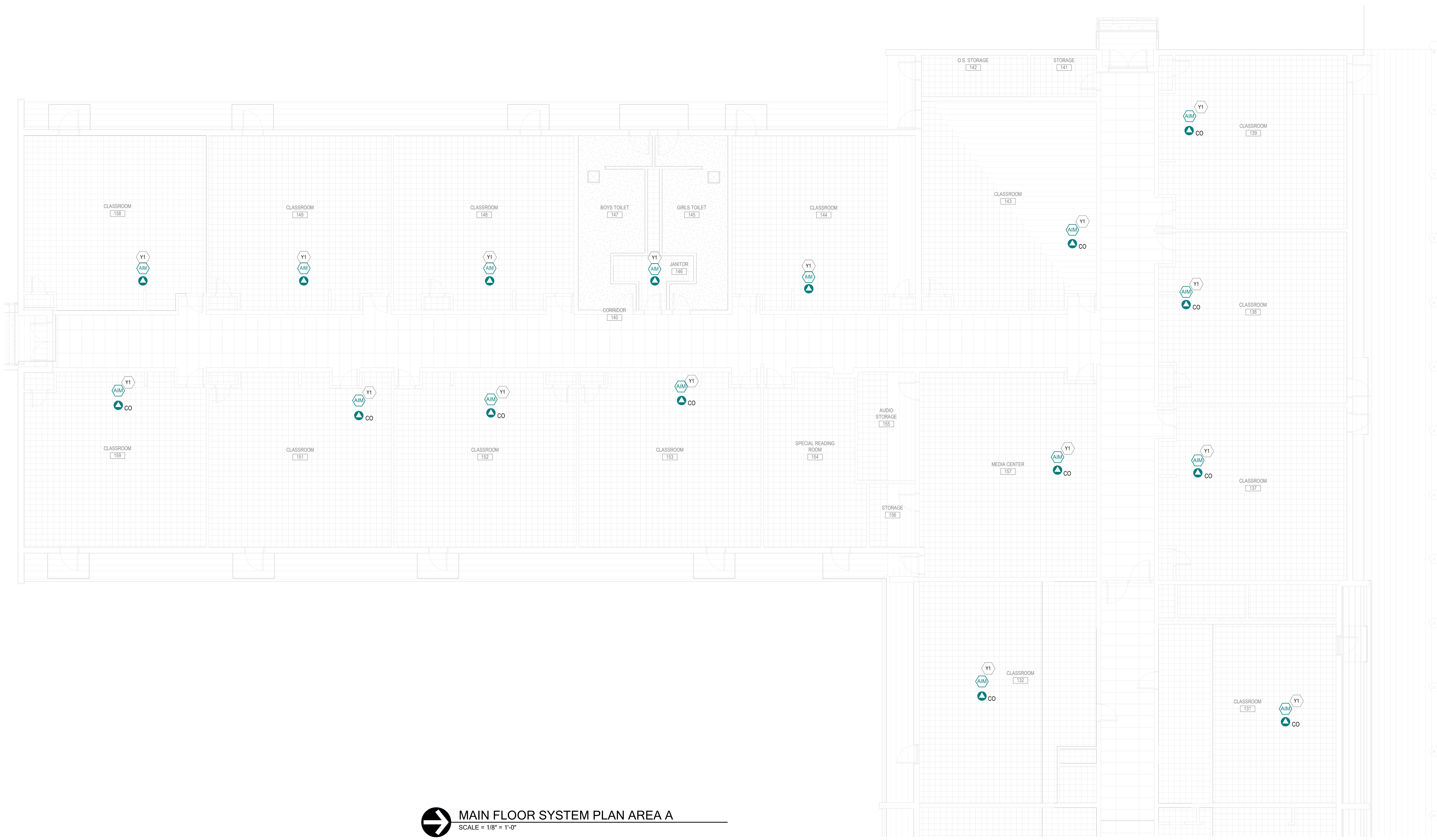
EP115

KEYNOTES

Y1 PROVIDE CONTROL MODULE WITH FAN SHUT DOWN RELAY FOR LOCAL CARBON MONOXIDE DETECTOR ACTIVATION. TIE TO LOCAL INITIATION LOOP. LOCATE CARBON MONOXIDE DETECTOR WITHIN THE FIRST ROOM SERVED BY THE DUCT.

SYSTEMS SHEET NOTES

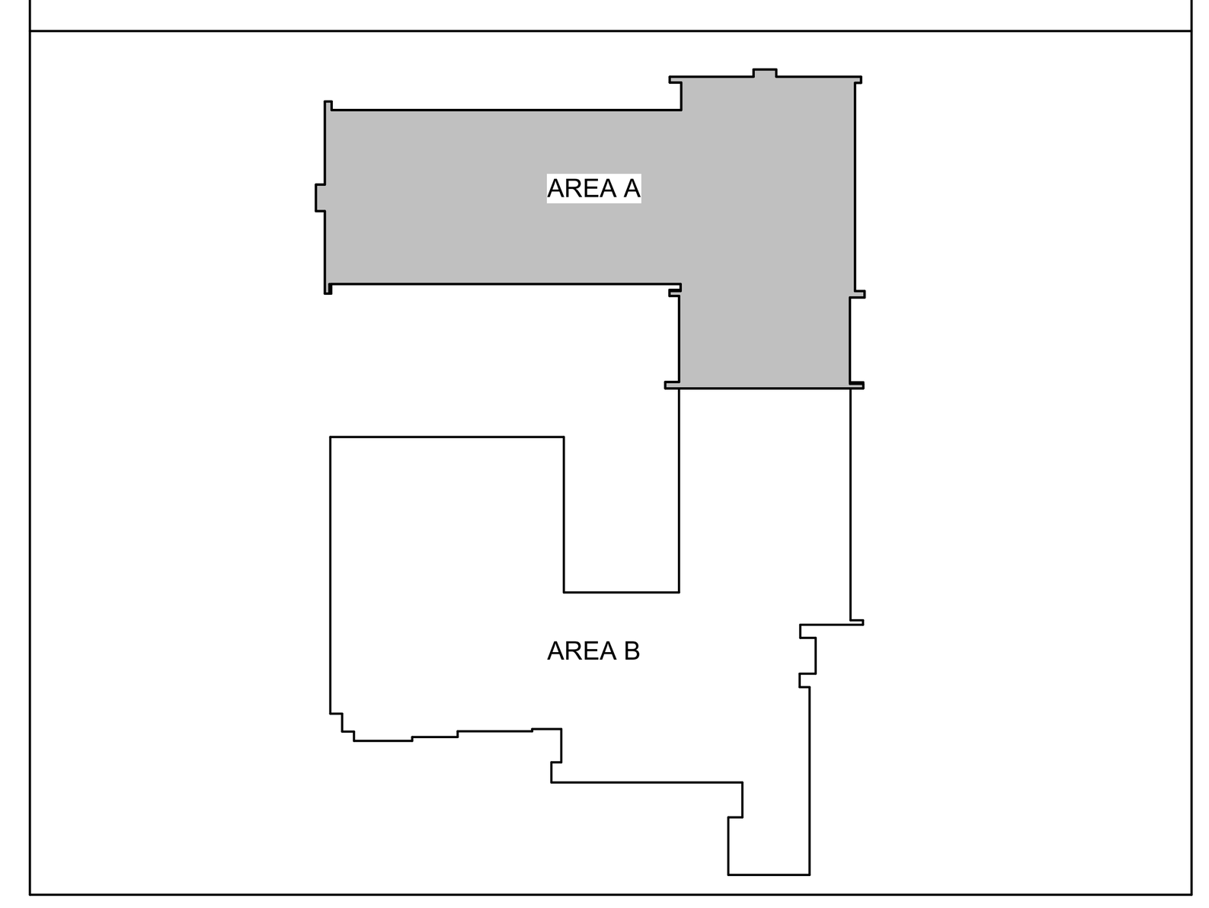
1. CONNECT ELEVATOR LOBBY SMOKE DETECTORS TO ELEVATOR CONTROLLER FOR ELEVATOR RECALL. PROVIDE SHUNT TRIP DEVICE AT DISCONNECT FOR ALL ELEVATOR CONTROLLERS. PROVIDE A HEAT DETECTOR AT THE TOP OF ELEVATOR SHAFT AND ADJACENT TO EACH SPRINKLER HEAD IN ALL ELEVATOR MACHINE ROOMS. ACTIVATION OF HEAT DETECTOR TO INITIATE SHUNT-TRIP.
2. PROVIDE #14 AWG MINIMUM WIRING FOR ALL SIGNAL AND INITIATION DEVICES.
3. ALL EXPOSED CONDUIT SHALL BE ROUTED PERPENDICULAR AND PARALLEL TO BUILDING LINES. ALL EXPOSED CONDUIT ROUTING SHALL BE COORDINATED WITH OWNER'S REP PRIOR TO INSTALLATION, NO ADDITIONAL COST TO THE OWNER WILL BE ALLOWED FOR RELOCATING CONDUIT DUE TO LACK OF COORDINATION WITH THE OWNER'S REP.
4. ALL BACK BOXES SHALL BE FLUSH MOUNTED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND BACK BOXES IN POURED CONCRETE, PRE-CAST CONCRETE, MASONRY AND GYP WALLS.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT QUANTITY AND LOCATIONS OF ALL FIRE SPRINKLER SYSTEM TAMPER AND FLOW SWITCHES WITH FIRE SPRINKLER DRAWINGS, CONNECT ALL TAMPER AND FLOW SWITCHES TO FIRE ALARM SYSTEM.
6. CONTRACTOR SHALL COORDINATE EXACT LOCATION AND QUANTITY OF ALL DUCT TYPE SMOKE DETECTORS WITH MECHANICAL CONTRACTOR. HARD WIRE TO RELAY STARTER.
7. PROVIDE SMOKE AND HEAT DETECTORS WITHIN ELEVATOR MACHINE ROOMS AND ELEVATOR HOST PITS.
8. PROVIDE CONNECTION OF FA SYSTEMS TO ALL MAGNETIC DOOR HOLD-OPEN DEVICES TO AUTOMATICALLY CLOSE DOORS DURING ALARM CONDITIONS.
9. DEVICES INDICATED ON FIRE ALARM ONE-LINE ARE FOR REFERENCE ONLY. REFER TO PLAN DRAWINGS AND SPECIFICATIONS FOR QUANTITIES. REFER TO ARCHITECTURAL DOOR SCHEDULE FOR MAGNETIC DOOR HOLDER AND BLOW OPEN DOOR REQUIREMENTS.
10. ALL VISUAL DEVICES SHALL BE SYNCHRONIZED WITHIN THE BUILDING REGARDLESS OF PROJECT SCOPE BOUNDARIES.
11. PROVIDE FIRE ALARM RELAY MODULES FOR ALL DOORS WITH ACCESS CONTROL DEVICES.
12. PROVIDE (2) DUCT TYPE SMOKE DETECTOR FOR EACH FAN COIL UNIT, AHU, SUPPLY FAN AND HEAT PUMP OF 2000 CFM OR GREATER.
13. FIRE ALARM DEVICES SHOWN ARE FOR REFERENCE ONLY AND BASED UPON A PERFORMANCE SPECIFICATION ALL NEW EQUIPMENT/DEVICE QUANTITIES, LOCATION, AND ALL NATIONAL & LOCAL CODE COMPLIANCE TO BE PROVIDED AND STAMPED BY A LICENSED FIRE ALARM ENGINEER AND INCLUDED IN THE FIRE ALARM CONTRACTORS BID. IN NO WAY ARE THE DEVICES SHOWN ON THESE DRAWINGS TO BE IMPLEMENTED AS FINAL DESIGN DOCUMENTS.
14. PROVIDE 120V CIRCUIT FROM THE NEAREST EQUIPMENT BRANCH PANELBOARD FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS, ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH. PROVIDE DUCT DETECTOR WITHIN 5'-0" OF EACH FIRE/SMOKE DAMPER. REFER TO DIAGRAM D012.
15. REFER TO ROOF ELECTRICAL SHEET AND MECHANICAL SHEETS FOR RTUMECHANICAL EQUIPMENT DUCT DETECTOR LOCATIONS.
16. PROVIDE FIRE ALARM SYSTEM DUCT DETECTOR(S) AS REQUIRED. COORDINATE WITH DIVISION 23 CONTRACTOR FOR THE QUANTITY AND FOR MOUNTING IN MECHANICAL UNIT DUCT WORK.



MAIN FLOOR SYSTEM PLAN AREA A

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

KEYPLAN



RESOLUT

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REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N
HUNTINGTON, UT 84528

DRAWN BY:	MK
CHECKED BY:	ES
DATE:	JAN. 2026
PROJECT #:	176525

ES112

KEYNOTES

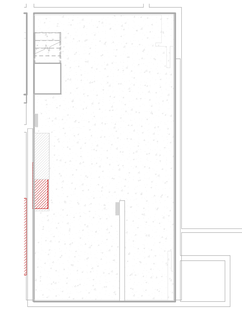
Y1 PROVIDE CONTROL MODULE WITH FAN SHUT DOWN RELAY FOR LOCAL CARBON MONOXIDE DETECTOR ACTIVATION. TIE TO LOCAL INITIATION LOOP. LOCATE CARBON MONOXIDE DETECTOR WITHIN THE FIRST ROOM SERVED BY THE DUCT.

Y2 EXISTING SILENT KNIGHT 6820 FACP. EXPAND EXISTING CO DETECTION/INITIATION LOOPS TO INCLUDE NEW CO DETECTORS WITH MONITOR MODULES WITH FAN SHUT-DOWN AS REQUIRED

SYSTEMS SHEET NOTES

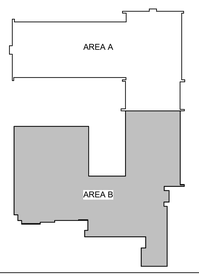
1. CONNECT ELEVATOR LOBBY SMOKE DETECTORS TO ELEVATOR CONTROLLER FOR ELEVATOR RECALL. PROVIDE SHUNT TRIP DEVICE AT DISCONNECT FOR ALL ELEVATOR CONTROLLERS. PROVIDE A HEAT DETECTOR AT THE TOP OF ELEVATOR SHAFT AND ADJACENT TO EACH SPRINKLER HEAD IN ALL ELEVATOR MACHINE ROOMS. ACTIVATION OF HEAT DETECTOR TO INITIATE SHUNT TRIP.
2. PROVIDE #14 AWG MINIMUM WIRING FOR ALL SIGNAL AND INITIATION DEVICES.
3. ALL EXPOSED CONDUIT SHALL BE ROUTED PERPENDICULAR AND PARALLEL TO BUILDING LINES. ALL EXPOSED CONDUIT ROUTING SHALL BE COORDINATED WITH OWNER'S REP PRIOR TO INSTALLATION. NO ADDITIONAL COST TO THE OWNER WILL BE ALLOWED FOR RELOCATING CONDUIT DUE TO LACK OF COORDINATION WITH THE OWNER'S REP.
4. ALL BACK BOXES SHALL BE FLUSH MOUNTED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND BACK BOXES IN POURED CONCRETE, PRE-CAST CONCRETE, MASONRY AND GYP WALLS.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT QUANTITY AND LOCATIONS OF ALL FIRE SPRINKLER SYSTEM TAMPER AND FLOW SWITCHES WITH FIRE SPRINKLER DRAWINGS. CONNECT ALL TAMPER AND FLOW SWITCHES TO FIRE ALARM SYSTEM.
6. CONTRACTOR SHALL COORDINATE EXACT LOCATION AND QUANTITY OF ALL DUCT TYPE SMOKE DETECTORS WITH MECHANICAL CONTRACTOR. HARD WIRE TO RELAY STARTER.
7. PROVIDE SMOKE AND HEAT DETECTORS WITHIN ELEVATOR MACHINE ROOMS AND ELEVATOR HOST PITS.
8. PROVIDE CONNECTION OF FA SYSTEMS TO ALL MAGNETIC DOOR HOLD-OPEN DEVICES TO AUTOMATICALLY CLOSE DOORS DURING ALARM CONDITIONS.
9. DEVICES INDICATED ON FIRE ALARM ONE-LINE ARE FOR REFERENCE ONLY. REFER TO PLAN DRAWINGS AND SPECIFICATIONS FOR QUANTITIES. REFER TO ARCHITECTURAL DOOR SCHEDULE FOR MAGNETIC DOOR HOLDER AND BLOW OPEN DOOR REQUIREMENTS.
10. ALL VISUAL DEVICES SHALL BE SYNCHRONIZED WITHIN THE BUILDING REGARDLESS OF PROJECT SCOPE BOUNDARIES.
11. PROVIDE FIRE ALARM RELAY MODULES FOR ALL DOORS WITH ACCESS CONTROL DEVICES.
12. PROVIDE (2) DUCT TYPE SMOKE DETECTOR FOR EACH FAN COIL UNIT, AHU, SUPPLY FAN AND HEAT PUMP OF 2000 CFM OR GREATER.
13. FIRE ALARM DEVICES SHOWN ARE FOR REFERENCE ONLY AND BASED UPON A PERFORMANCE SPECIFICATION ALL NEW EQUIPMENT/DEVICE QUANTITIES, LOCATION, AND ALL NATIONAL & LOCAL CODE COMPLIANCE TO BE PROVIDED AND STAMPED BY A LICENSED FIRE ALARM ENGINEER AND INCLUDED IN THE FIRE ALARM CONTRACTORS BID. IN NO WAY ARE THE DEVICES SHOWN ON THESE DRAWINGS TO BE IMPLEMENTED AS FINAL DESIGN DOCUMENTS.
14. PROVIDE 120V CIRCUIT FROM THE NEAREST EQUIPMENT BRANCH PANELBOARD FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH. PROVIDE DUCT DETECTOR WITHIN 5'-0" OF EACH FIRE/SMOKE DAMPER. REFER TO DIAGRAM D012.
15. REFER TO ROOF ELECTRICAL SHEET AND MECHANICAL SHEETS FOR RTU/MECHANICAL EQUIPMENT DUCT DETECTOR LOCATIONS.
16. PROVIDE FIRE ALARM SYSTEM DUCT DETECTOR(S) AS REQUIRED. COORDINATE WITH DIVISION 23 CONTRACTOR FOR THE QUANTITY AND FOR MOUNTING IN MECHANICAL UNIT DUCT WORK.

MAIN FLOOR SYSTEM PLAN AREA B
SCALE = 1/8" = 1'-0"



BASEMENT SYSTEM PLAN
SCALE = 1/8" = 1'-0"

KEYPLAN



RESOLUT
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KMA ARCHITECTS

PROFESSIONAL ENGINEER
BRIAN HICKS
STATE OF UTAH

REVISIONS:

PROJECT TITLE
EMERY SCHOOL DISTRICT
HUNTINGTON ELEMENTARY SCHOOL
MECHANICAL UPGRADE
90 E 100 N HUNTINGTON, UT 84528

DRAWN BY:	MK
CHECKED BY:	ES
DATE:	JAN. 2026
PROJECT #:	176525

ES113

11/5/2026 10:28:53 AM 1/8" = 1'-0"