

# ITD DISTRICT III MAINTENANCE BLDG. UPGRADES

5800 N. COFFEY ST.

GARDEN CITY, ID

WINDOW TYPE RE: A10.1-1 WINDOW TYPES

SHEET NOTE, RE: SHEET NOTES LIST

ACCESSORY/FIXTURE TYPE, RE: A5.1-1

REVISION KEY RE: REVISED BOX IN TITLE

ON CURRENT PAGE

WALL TYPE, RE: A0.2-2

BLOCK OF CURRENT PAGE

AREA DRAIN / CATCH BASIN

---- PROPERTY LINE

— - - → SWALE/FLOW LINE

—— Z — FLUSH SURFACE MEETING

BUILDING GRID LINE

DIMENSION WORK POINT

DRAWING MATCH LINE

(SEE DWG. #1 @ SHT. A4.4)

(SEE DWG. #1 @ SHT. A9.1)

(SEE DWG #2 @ SHT. A5.1)

— SECTION MARK REF.

— – STRUCTURE CENTERLINE

118'-0" ELEVATION POINT

A9.1-1 DETAIL REFERENCE

DETAIL SECTION MARK

TRENCH DRAIN

DOOR NUMBER RE: A10.2-1 DOOR SCHEDULE

## CONTACT INFORMATION

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CONSTRUCTION

6/25/18

DATE

5-2-18

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CAS

ADDENDUM NO. ONE

/ 1 \ 05-15-18

SHEET TITLE

PROJECT

DRAWN

LGB

18059.00

#### DRAWING INDEX G01 TITLE SHEET A20 MAIN FLOOR SLAB PLAN AREA 'A' A21A MAIN FLOOR PLAN-AREA 'A' A21B MAIN FLOOR PLAN-AREA 'B' A51 EXTERIOR ELEVATIONS A61 INTERIOR ELEVATIONS A71 DETAILS → A81 DOOR & WINDOW SCHEDULES S0.01 STRUCTURAL COVER SHEET S0.02 GENERAL NOTES S1.01 FOUNDATION PLAN S1.02 FRAMING PLAN S5.01 CONCRETE AND MASONRY DETAILS (GENERAL)

S5.02 CONCRETE DETAILS S6.01 DETAILS MECHANICAL & PLUMBING MO1 HVAC COVER SHEET MO2 ENERGY CODE COMPLIANCE M11A HVAC DEMO PLAN AREA 'A' M11B HVAC DEMO PLAN AREA 'B' M12A HVAC ROOF DEMO PLAN AREA 'A M12B HVAC ROOF DEMO PLAN AREA 'B' M21A HVAC FLOOR PLAN AREA 'A' M21B HVAC FLOOR PLAN AREA 'B' M22 2ND FLOOR HVAC PLAN M23A HVAC ROOF PLAN AREA 'A'

M23B HVAC ROOF PLAN AREA 'B' M60 HVAC DETAILS M61 HVAC DETAILS M70 HVAC SCHEDULES M71 HVAC SCHEDULES BM71 HVAC CONTROL DIAGRAMS P01 PLUMBING COVER SHEET P11A PLUMBING DEMOLITION PLAN AREA 'A' P11B PLUMBING DEMOLITION PLAN AREA 'B' P21A WASTE AND VENT PLAN AREA 'A' P21B WASTE AND VENT PLAN AREA 'B P22 SECOND FLOOR PLUMBING PLAN P23A COMPRESSED AIR PLAN AREA 'A' P23B COMPRESSED AIR PLAN AREA 'B' P24 PLUMBING ROOF PLAN

P41 PLUMBING SCHEDULES P51 PLUMBING DETAILS GENERAL SYMBOLS AND LEGEND SCHEDULES & COMPLIANCE FORMS ELECTRICAL SITE PLAN EO4A DEMOLITION PLAN GROUND FLOOR ARFA 'A' E04B DEMOLITION PLAN GROUND FLOOR AREA 'B' E05A DEMOLITION PLAN ROOF AREA 'A' E05B DEMOLITION PLAN ROOF AREA 'B' E11A LIGHTING PLAN GROUND FLOOR AREA 'A' E11B LIGHTING PLAN GROUND FLOOR AREA 'B' LIGHTING PLAN SECOND FLOOR E21A POWER PLAN GROUND FLOOR AREA 'A' E21B POWER PLAN GROUND FLOOR AREA 'B' POWER PLAN SECOND FLOOR E31A MECHANICAL PLAN GROUND FLOOR AREA 'A' E31B MECHANICAL PLAN GROUND FLOOR AREA 'B' E32 MECHANICAL PLAN SECOND FLOOR E33A MECHANICAL POWER ROOF PLAN AREA 'A' E33B MECHANICAL POWER ROOF PLAN AREA 'B' SINGLE-LINE DIAGRAM

E82 PANEL SCHEDULES

E83 PANEL SCHEDULES

SCOPE OF WORK CONSISTS OF UPGRADES TO AN EXISTING ITD MAINTENANCE AND REPAIR SHOP. WORK INCLUDES: REPLACEMENT OF ELECTRICAL SERVICE REPLACEMENT OF EXISTING HEATING SYSTEM REPLACEMENT OF SELECT DOORS AND HARDWARE REPLACEMENT OF WINDOWS REPAIRS TO ROOF REPAINTING OF BUILDING EXTERIOR REPAINTING OF THE REPAIR SHOPS SELECTIVE DEMOLITION OVERHEAD DOOR REPAIRS MISC. CARPENTRY AND CONCRETE WORK
CONSTRUCTION OF NEW OFFICE AREA AND RESTROOMS CONSTRUCTION OF NEW SLABS AT DEFINED AREAS INSTALLATION OF NEW DOORS AT DEFINED AREAS

	ABBREVIATION	ONS	
(E)	EXISTING	HT.	HEIGHT
(F)	FUTURE	I. D.	INSIDE DIAMETER
( N)	NEW	HVAC IN.	HEATING VENTILATING AND AIR CONDITIONING INCH
(R)	RENDVATE	INSUL.	INSULATION
⊈	CENTERL INE	INT.	INTERIOR
ф	DIAMETER OR ROUND	JAN.	JANITOR
	PERPENDICULAR	JT.	JINT
ф #	SQUARE NUMBER	К. 🛮.	KNOCKOUT
@	AT	KIT. L. F.	KITCHEN LINEAL FEET OR FOOT
A/C	AIR CONDITIONING	L.P.	LOW POINT
A. B.	ANCHOR BOLT	LAM.	LAMINATE
<u>A. D. A. A. G.</u> A. F. F.	AMERICAN'S WITH DISABILITIES ACT ABOVE FINISH FLOOR	LAV. LBS.	LAVATORY
ABV.	ABOVE	М. В.	POUNDS
AC□UST.	ACOUSTICAL		MACHINE BOLT
A. D. A.	AIRLINES OPERATION AREA	M. H. M. □.	MANHOLE MASONRY OPENING
ADJ.	ADJUSTABLE	MAX.	MAXIMUM
AGG.	AGGREGATE	MECH.	MECHANICAL
ALT.	ALTERNATIVE	MET.	METAL
ALUM.	ALUMINUM	MFR.	
APPR□X.	APPROXIMATE	MIN.	MANUFACTURER MINIMUM
ARCH.	ARCHITECTURAL	MISC.	MISCELLANEDUS
AUT□.	AUT⊡MATIC	MT'D	MDUNTED
AVE.	AVENUE	N. S.	NEAR SIDE
B. □.	BOTTOM OF		NORTH
B. D. C. B. U.	BASE OF CURB BUILT-UP	N. I. C.	NDT IN CONTRACT
BD.	BOARD	N. T. S. N□.	NOT TO SCALE NUMBER
BL DG.	BUILDING	NOM.	NDMINAL
BLK.	BLOCK	D/H	OVERHEAD
BM.	BEAM	<u>D/</u>	OVER  OVER ALL
B□T.	BOTTOM	D. A.	
C. B. C. C.	CATCH BASIN	□. C.	DN CENTER
C. I.	CENTER TO CENTER CAST IRON	D. D. D. H.	OUTSIDE DIAMETER OPPOSITE HAND
C. I. P.	CAST IN PLACE	OFF.	OFFICE
C. M. U.	CONCRETE MASONRY UNIT	OPNG.	OPENING
С. П. С. Т.	CONCRETE OPENING OR CLEAN-OUT CERAMIC TILE	DPP.	OPPOSITE
C. W.	COLD WATER	OZ. PART.	DUNCE PARTICLE
CAB.	CABINET	P/L	PROPERTY LINE
CEM.	CEMENT	P. LAM.	PLASTIC LAMINATE
CFM CLG,	CUBIC FEET/MINUTE CFILING	<u>P. T. D.</u> PL.	PAPER TOWEL DISPENSER
CLR.	CLEAR	PLUMB.	PLATE PLUMBING
CNTRSK.	COUNTERSUNK	PLYWD.	PLYWOOD
C□L.	COLUMN	PRE-ENG.	PRE-ENGINEERED METAL BUILDING
CDNC.	CONCRETE	PT.	POINT
CDNT.	CONTINUOUS	PVMT.	PAVEMENT
CORR.	CORRIDOR	QT.	QUARRY TILE
CW/	COORDINATE WITH	R.	RADIUS OR RISER
D.	DEEP	R. D.	ROOF DRAIN
D. F.	DRINKING FOUNTAIN	R. D.	ROUGH OPENING
D. S.	DOWNSPOUT	R. W. L.	RAIN WATER LEADER
D. S. P.	DRY STANDPIPE  DEFORMED BAR ANCHOR	RE:	REFERENCE (CW/)
D. B. A.		REINF.	REINFORCE(D)
DET.	DETAIL	<u>REQ'D.</u>	REQUIRED ROOM
DIA.	DIAMETER	RM.	
DIAG.	DIAGONAL	S. C.	SOLID CORE
DIM.	DIMENSION	S. C. D.	SEAT COVER DISPENSER
DN.	DOWN	S. D. S. F.	SDAP DISPENSER SQUARE FEET OR FOOT
DWG. E. B.	DRAWING EXPANSION BOLT	S. I. D. A.	SECURITY IDENTIFICATION DISPLAY AREA
E. I. F. S.	EXTERIOR INSULATION & FINISHING SYSTEM EXPANSION JOINT	S. N. D.	SANITARY NAPKIN DISPENSER
E. J.		S. N. R.	SANITARY NAPKIN RECEPTACLE
E. P.	ELECTRICAL PANELBOARD	S. S.	STAINLESS STEEL
E. W. C.	ELECTRIC WATER COOLER	SCHED.	SCHEDULE
EA.	EACH	SECT.	SECTION
	ELEVATION	SHR.	SHOWER
EL. ELEC.	ELECTRICAL	TH2.	SHEET
ELEV.	ELEVATOR	SIM.	SIMILAR OR SIMILAR TO
EQ.	EQUAL	SPECS.	SPECIFICATIONS
EQUIP.	EQUIPMENT	.02	SQUARE
EXH.	EXHAUST	.72	STREET OR STEEL
EXP.	EXPANSION	STD.	STANDARD
EXT.	EXTERIOR	STRUC.	STRUCTURAL
F. S.	FAR SIDE	SUSP.	SUSPENDED
F. A.	FIRE ALARM	SYM.	SYMMETRICAL
F. B.	FLAT BAR	T & G	TONGUE & GROOVE
F. D.	FLOOR DRAIN	T.	TREAD
F. E.	FIRE EXTINGUISHER	T. B.	TOWEL BAR
F. E. C.	FIRE EXTINGUISHER CABINET	T. D. T. D.	TOP OF DRAIN
F. H. C. F. □.	FIRE HOSE CABINET FACE OF	T. 🛮. C.	TOP OF CURB/CONCRETE
F. D. C.	FACE OF CURB/CONCRETE FACE OF FINISH	Т. П. М.	TOP OF MASONRY
F. D. F.		Т. П. Р.	TOP OF PARAPET
F. D. M.	FACE OF MASONRY	T. D. S.	TOP OF SLAB
F. D. S.	FACE OF STUDS	T. D. W.	TOP OF WALL
F. D. T.	FACE OF TREAD	T. P. D.	TOILET PAPER DISPENSER
FDN.	FOUNDATION	TEL.	TELEPHONE
FIN.	FINISH	THK.	THICKNESS
FL.	FLOOR( ING)	THRES.	THRESHOLD
FLASH.	FLASHING	TYP.	TYPICAL
FT.	FOOT OR FEET	<u>U. B. C.</u> U. □. N.	UNIFORM BUILDING CODE
FTG.	FOOTING	V. C. T.	UNLESS OTHERWISE NOTED
FTW.	FIRE TREATED WOOD		VINYL COMPOSITION TILE
FURR.	FURRING	V. I. F.	VERIFY IN FIELD
G.	GAS	VENT.	VENTILATION
G. B.	GRAB BAR	VERT.	VERTICAL
GA.	GAUGE DR GAGE	VEST.	VESTIBULE
GALV.	GALVANIZED	W/	WITH
GYP.	GYPSUM	W∕□	WITHOUT
H.	HIGH	WD.	WOOD
H. A. S.	HEADED ANCHOR STUD	W.	WIDE
H. C. A.	HEADED CONCRETE ANCHOR	W. B.	WALL BEYOND
н. в.	HOSE BIBB	<u>W. C.</u>	WATER CLOSET OR WALL COVERING WIRE GLASS
н. с.	HANDICAPPED - A. D. A. A. G.	W. G.	
н. с.	HANDICAPPED - A. D. A. A. G.	w. u.	WIRE GLASS
Н. М.	HOLLOW METAL	W. GL.	WIRE GLASS

WIRE GLASS WORK POINT

WASTE RECEPTACLE

WELDED WIRE FABRIC

HOLLOW METAL

HOR I ZONTAL HOUR

#### GENERAL NOTES

- 1. THE DRAWINGS INDICATE LOCATION, DIMENSIONS, REFERENCE, AND TYPICAL DETAILS OF CONSTRUCTION. THE DRAWINGS DO NOT INDICATE EVERY
- 3. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS. WHERE DISCREPANCIES OCCUR, THEY SHALL BE REPORTED TO ARCHITECT FOR
- 4. DETAILED DRAWINGS AND LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.
- MASONRY DIMENSIONS ARE GIVEN TO FACE OF MASONRY AND TO THE FACE OF ROUGH OPENINGS.
- 8. DOOR OPENING LOCATIONS ARE DIMENSIONED TO ROUGH OPENING OR CENTERLINE OF OPENING.

- 13. EACH TRADE IS RESPONSIBLE FOR DAILY CLEANUP OF THEIR WORK AREA(S). WORK AREAS SHALL BE KEPT ORDERLY AND STAGED MATERIALS
- 14. ALL EXITS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT, AS REQUIRED BY CURRENT
- CURRENT ADOPTED BUILDING CODE.
- 17. UNLESS OTHERWISE INDICATED ALL DRAWING, NOTES WHICH DO NOT READ "N.I.C.", "EXISTING", OR "EXISTING TO REMAIN", OR "BY OTHERS" SHALL
- INDICATE NEW WORK WHICH SHALL BE CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED.
- 19. PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRESTOPED AND PROTECTED IN ACCORANCE WITH CURRENT ADOPTED BUILDING CODE.

- CONDITION WORK NOT PARTICULARLY DETAILED SHALL BE OF CONSTRUCTION SIMILAR TO PARTS THAT ARE DETAILED.
- 2. DO NOT SCALE DRAWINGS
- 5. CONCRETE DIMENSIONS ARE GIVEN TO FACE OF CONCRETE AND TO THE FACE OF ROUGH OPENINGS
- 7. PARTITION DIMENSIONS ARE GIVEN TO THE FACE OF STUD UNLESS OTHERWISE NOTED.
- 9. WHERE NO MATERIAL NOTES OCCUR, THE GRAPHIC MATERIAL INDICATION SHALL INDICATE MATERIAL TYPES AND ITEMS. SEE MATERIALS & SYMBOL LIST ON THIS SHEET.
- 10. FINISH FLOOR ELEVATION DATUM 100'-0'' = XXX.
- 11. ALL NEW CONSTRUCTION TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND ANSI.
- 12. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- STACKED OUT OF TRAVELED WAYS. FINAL CLEANING SHALL BE BY THE GENERAL CONSTRUCTION AND DOOR ASSEMBLIES CONTRACTOR.
- 15. EXIT SIGNAGE SHALL BE EXTERNALLY OR INTERNALLY ILUMINATED BY THE PREMISES' WIRING AND BY STORAGE BATTERIES, AS REQUIRED BY
- 16. EXIT WAYS SHALL BE ILLUMINATED, AND THE POWER SUPPLY FOR EXIT ILLUMINATION SHALL NORMALLY BE PROVIDED BY THE PREMISES' WIRING SYSTEM, AS REQUIRED BY CURRENT ADOPTED BUILDING CODE.
- 18. EACH TRADE SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS FOR ACCURACY PRIOR TO COMMENCING WITH THE WORK. ANY DISCREPANCY
- SHALL BE BROUGHT TO THE ATTENTION OF THE THE CONSTRUCTION MANAGER.

NOT TO SCALE

VICINITY MAP



#### CODE INFORMATION

MATERIALS & SYMBOLS

CONCRETE MASONRY UNIT (NORMAL WEIGHT)

POROUS FILL - GRAVEL

CONCRETE

SINGLE GLAZING

INSULATED GLAZING

FRAMING LUMBER

PARTICLE BOARD

FINISH LUMBER

GYPSUM BOARD

BATT INSULATION

ACOUSTIC TILE/PANEL

SEMI-RIGID INSULATION

RIGID INSULATION

MOISTURE BARRIER

ASPHALT PAVING

PLYWOOD

METAL, (LARGE SCALE DRAWING)

----- METAL, (SMALL SCALE DRAWING)

#### ADOPTED CODES:

- BUILDING CODES: 2015 INTERNATIONAL BUILDING CODE (IBC)
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC) IDAPA 07.03.01 - RULES OF BUILDING SAFETY
- IDAHO STATE PLUMBING CODE (BASED ON THE 2015 UPC) RULES GOVERNING PLUMBING SAFETY IDAPA 07.02.02
- ELECTRICAL CODE: 2017 NATIONAL ELECTRIC CODE (NEC) INCLUDING AMENDMENTS AS LISTED IN IDAPA 07.01.06.
- IDAPA ELECTRICAL ADMINISTRATIVE RULES 07.01.01 MECHANICAL CODE:
- 2012 INTERNATIONAL MECHANICAL CODE (IMC) IDAPA RULE • 2012 INTERNATIONAL FUEL GAS CODE (IFGC) — IDAPA RULE 07.07.01.005
- FIRE CODE (ADMINISTERED BY THE STATE FIRE MARSHAL): 2015 INTERNATIONAL FIRE CODE (IFC)

CONTRACTOR TO KEEP MSDS SHEETS FOR ALL PRODUCTS USED DURING CONSTRUCTION IN A LOCATION DESIGNATED BY THE

CONSTRUCTION MANAGER. EACH TRADE IS ENTIRELY

RESPONSIBLE FOR THEIR SAFETY.

OCCUPANCY GROUP: F1 (NO CHANGE)

VEHICLE MAINTENANCE AND REPAIR (NO CHANGE)

CONSTRUCTION TYPE: III-B (NO CHANGE) NUMBER OF STORIES: 2 (NO CHANGE) BUILDING AREA: 34,165 S.F. (NO CHANGE) OCCUPANT LOAD: FIRE SPRINKLERS: NO (NO CHANGE)

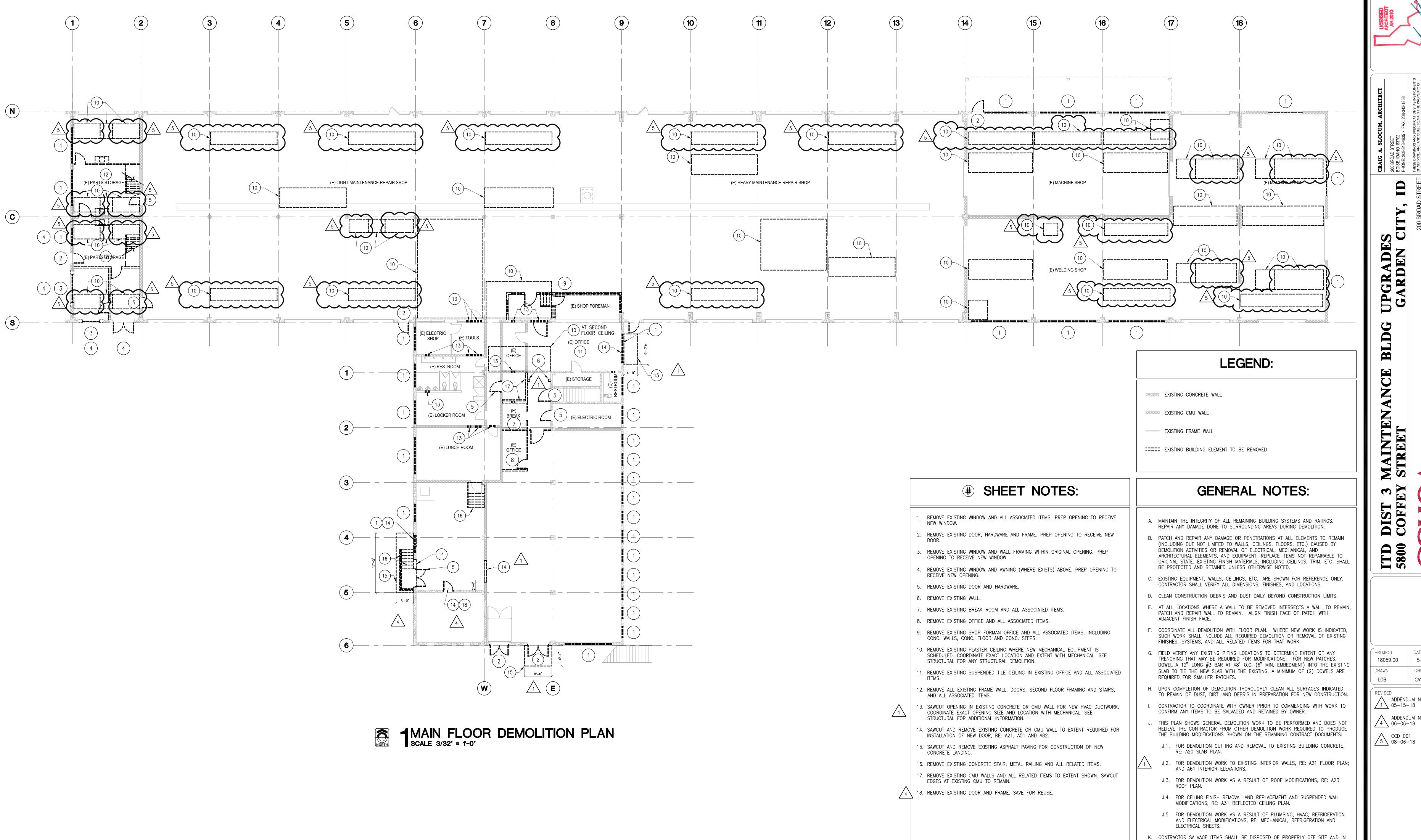
BUILDING USE:

#### SCOPE OF WORK

GUI

SHEET





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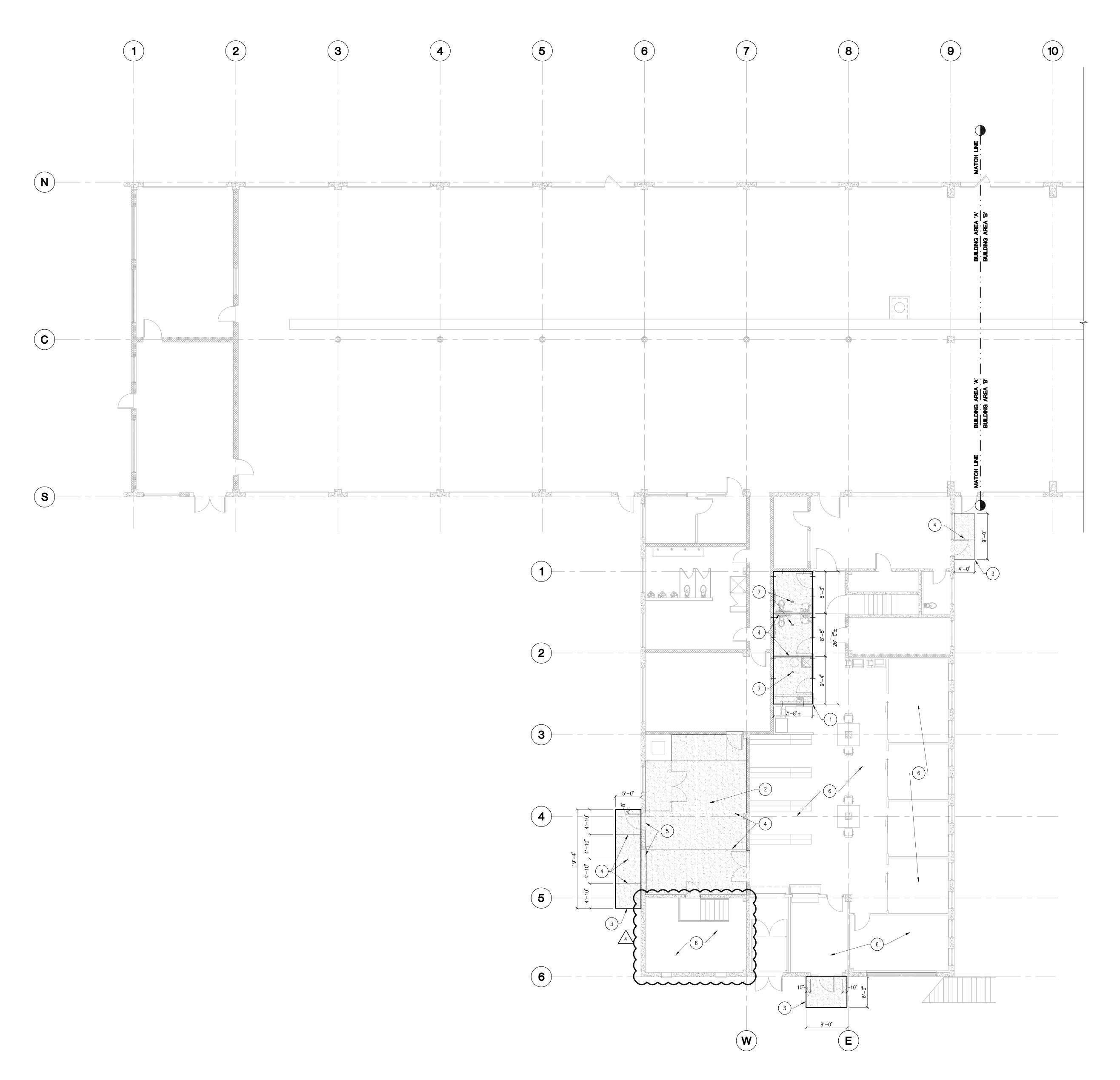
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↑ ADDENDUM NO. FIVE 

MAIN FLOOR **DEMOLITION** PLAN

A10



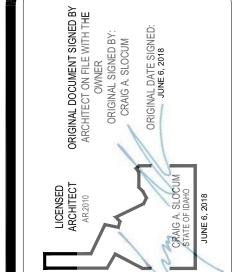


1 MAIN FLOOR SLAB PLAN - AREA 'A' SCALE 1/8' = 1'-0'





AREA OF CONCRETE REMOVAL AND REPLACEMENT, RE: GENERAL NOTES FOR DOWEL PLACEMENT.



**#** SHEET NOTES:

**GENERAL NOTES:** 

C. NEW SLABS SHOWN WITHIN THE EXISTING BUILDING AREA INDICATES EXISTING SLABS TO BE REMOVED.

D. ALL NEW CONCRETE SLAB WORK WITHIN EXISTING BUILDING AREA SHALL BE FLUSH WITH ADJACENT EXISTING CONCRETE SLABS UNLESS OTHERWISE NOTED

E. DOWEL AND EPOXY A 12" LONG #3 BAR AT 48" O.C. (6" MIN. EMBEDMENT) INTO EXISTING SLAB TO TIE NEW SLAB INTO EXISTING. A MINIMUM OF (2) DOWELS ARE REQUIRED FOR SMALLER PATCHES (DOWELS ARE REQUIRED AT

ALL NEW SLAB WORK WITH THE EXCEPTION OF ISOLATION JOINTS).

F. INSTALL 1/2" PRE-FORMED ISOLATION JOINT FILLER WHERE SLABS ABUT

A. DO NOT WET SUBGRADE PRIOR TO POURING SLABS. B. SAW CUT ALL CONCRETE FOR CLEAN STRAIGHT LINES.

- NEW CONCRETE SLAB OVER VAPOR RETARDER FOR PLUMBING AND ELECTRICAL MODIFICATIONS, RE: PLUMBING AND ELECTRICAL SHEETS. MATCH EXISTING ADJACENT THICKNESS & REINFORCEMENT.
- 2. NEW INTERIOR CONCRETE SLAB, RE: STRUCT.
- 3. NEW EXTERIOR CONCRETE SLAB, RE: STRUCT.

VERTICAL WALLS.

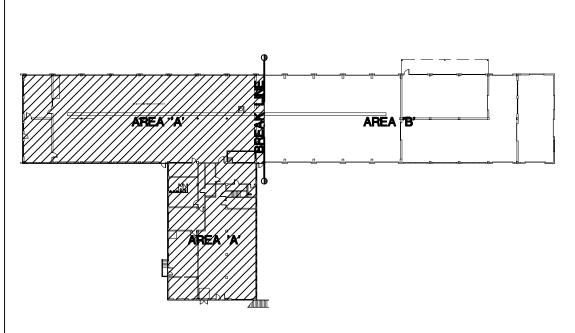
- 4. CONTROL JOINT, RE: A71-18, TYP.
- 5. LINE OF FOUNDATION BELOW.
- 6. EXISTING CONCRETE SLAB ON GRADE.
- 7. FLOOR DRAIN, RE: PLUMBING.

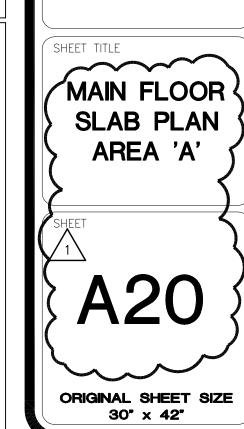
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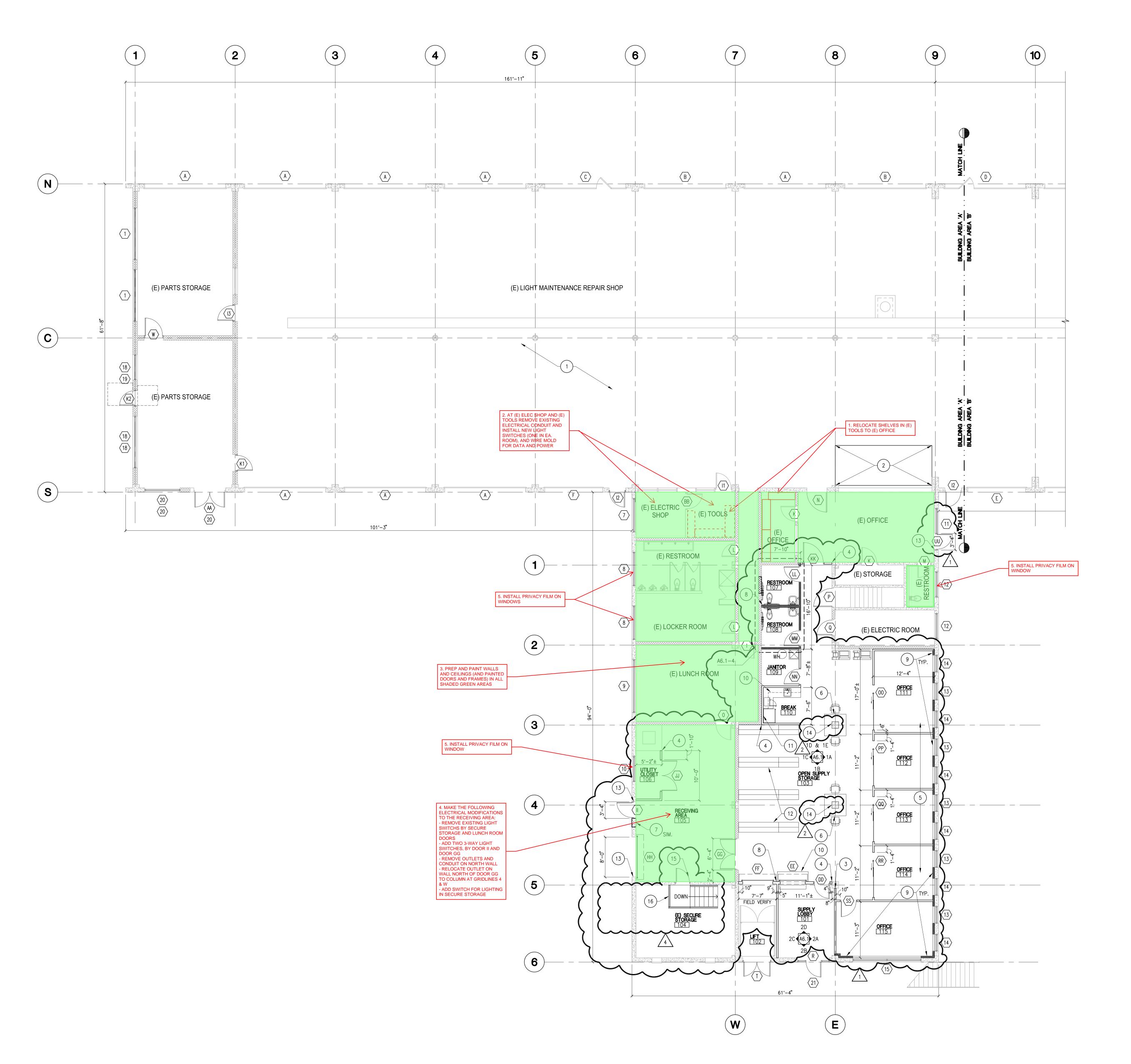
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BUILDING KEY PLAN

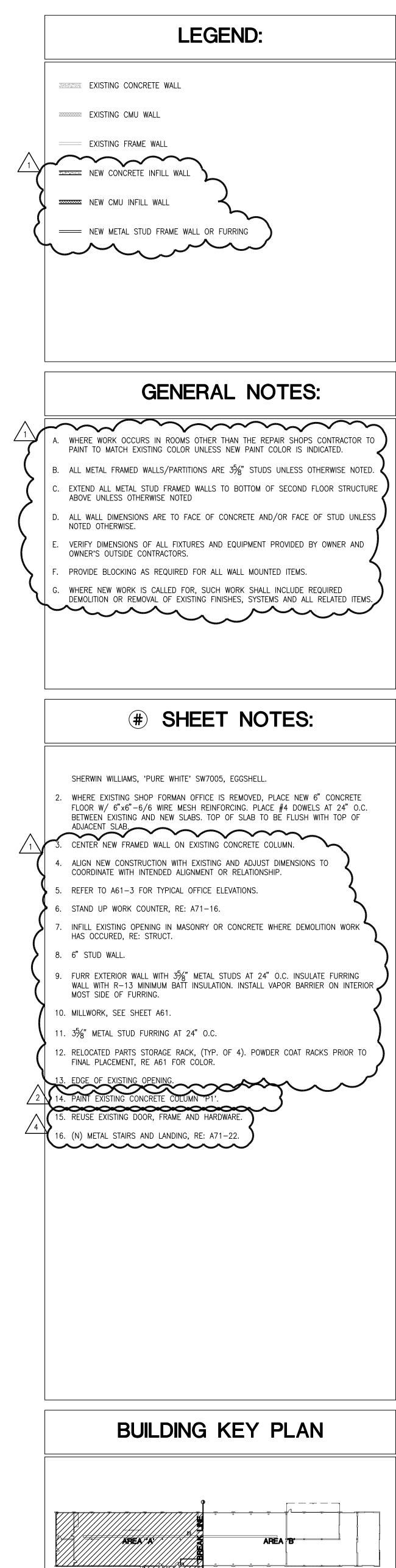


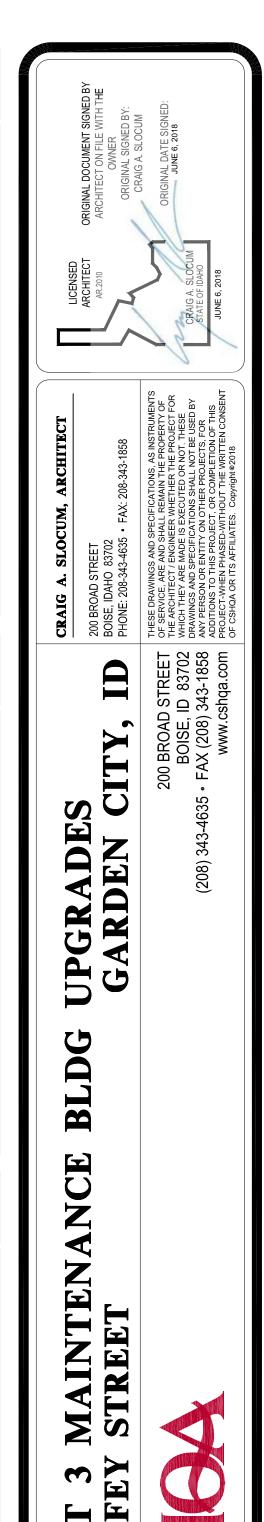






1 MAIN FLOOR PLAN - AREA 'A'
SCALE 1/8' = 1'-0'





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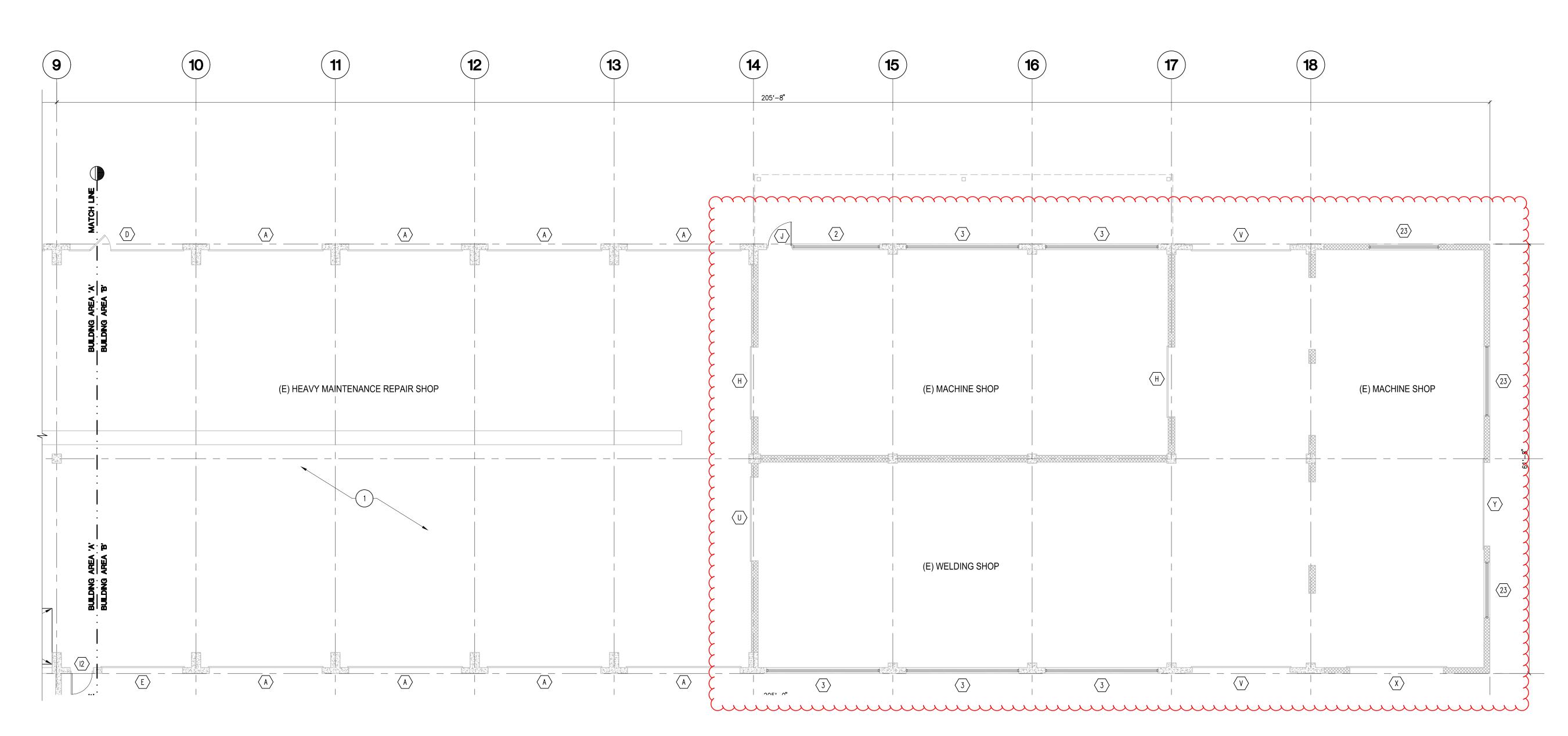
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SHEET TITLE

MAIN FLOOR
PLAN
AREA 'A'

A21A





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

#### **LEGEND:**

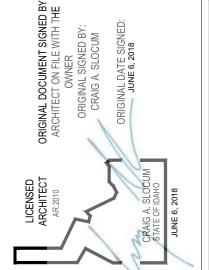
- EXISTING CONCRETE WALL
- EXISTING CMU WALL
- EXISTING FRAME WALL

#### **GENERAL NOTES:**

- . WHERE WORK OCCURS IN ROOMS OTHER THAN THE REPAIR SHOPS CONTRACTOR TO PAINT TO MATCH EXISTING COLOR UNLESS NEW PAINT COLOR IS INDICATED.
- B. ALL METAL FRAMED WALLS/PARTITIONS ARE  $3\frac{5}{8}$ " STUDS UNLESS OTHERWISE NOTED. EXTEND ALL METAL STUD FRAMED WALLS TO BOTTOM OF SECOND FLOOR STRUCTURE ABOVE UNLESS OTHERWISE NOTED

#### **# SHEET NOTES:**

- PAINT THE INTERIOR WALLS, CEILINGS, STRUCTURE AND ALL OTHER PAINTED ELEMENTS IN THE MAINTENANCE & REPAIR SHOPS. PAINT COLOR TO MATCH SHERWIN WILLIAMS, 'PURE WHITE' SW7005, EGGSHELL.
- 2. WHERE EXISTING SHOP FORMAN OFFICE IS REMOVED, PLACE NEW 6" CONCRETE FLOOR W/ 6"x6"-6/6 WIRE MESH REINFORCING. PLACE #4 DOWELS AT 24" O.C. BETWEEN EXISTING AND NEW SLABS. TOP OF SLAB TO BE FLUSH WITH TOP OF ADJACENT SLAB.
- 3. CENTER NEW FRAMED WALL ON EXISTING CONCRETE COLUMN.
- 4. ALIGN NEW CONSTRUCTION WITH EXISTING AND ADJUST DIMENSIONS TO COORDINATE WITH INTENDED ALIGNMENT OR RELATIONSHIP.
- 5. REFER TO A61-3 FOR TYPICAL OFFICE ELEVATIONS.
- 6. STAND UP WORK COUNTER, RE: A71-16.
- 7. INFILL EXISTING OPENING IN MASONRY OR CONCRETE WHERE DEMOLITION WORK HAS OCCURED, RE: STRUCT.
- 8. 6" STUD WALL.
- 9. FURR EXTERIOR WALL WITH  $3\frac{5}{8}$ " METAL STUDS AT 24" O.C. INSULATE FURRING WALL WITH R-13 MINIMUM BATT INSULATION. INSTALL VAPOR BARRIER ON INTERIOR MOST SIDE OF FURRING.



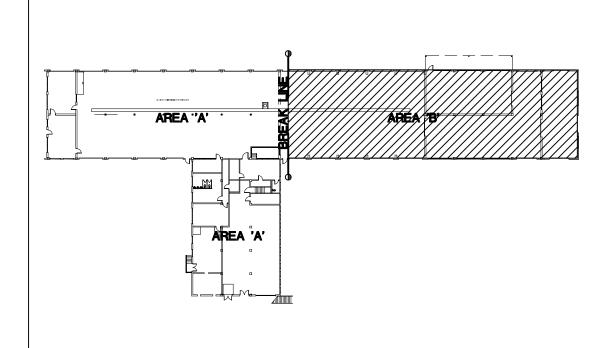
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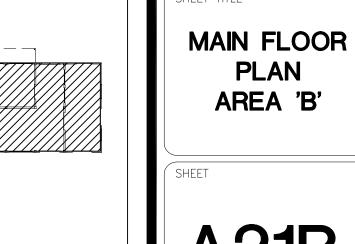
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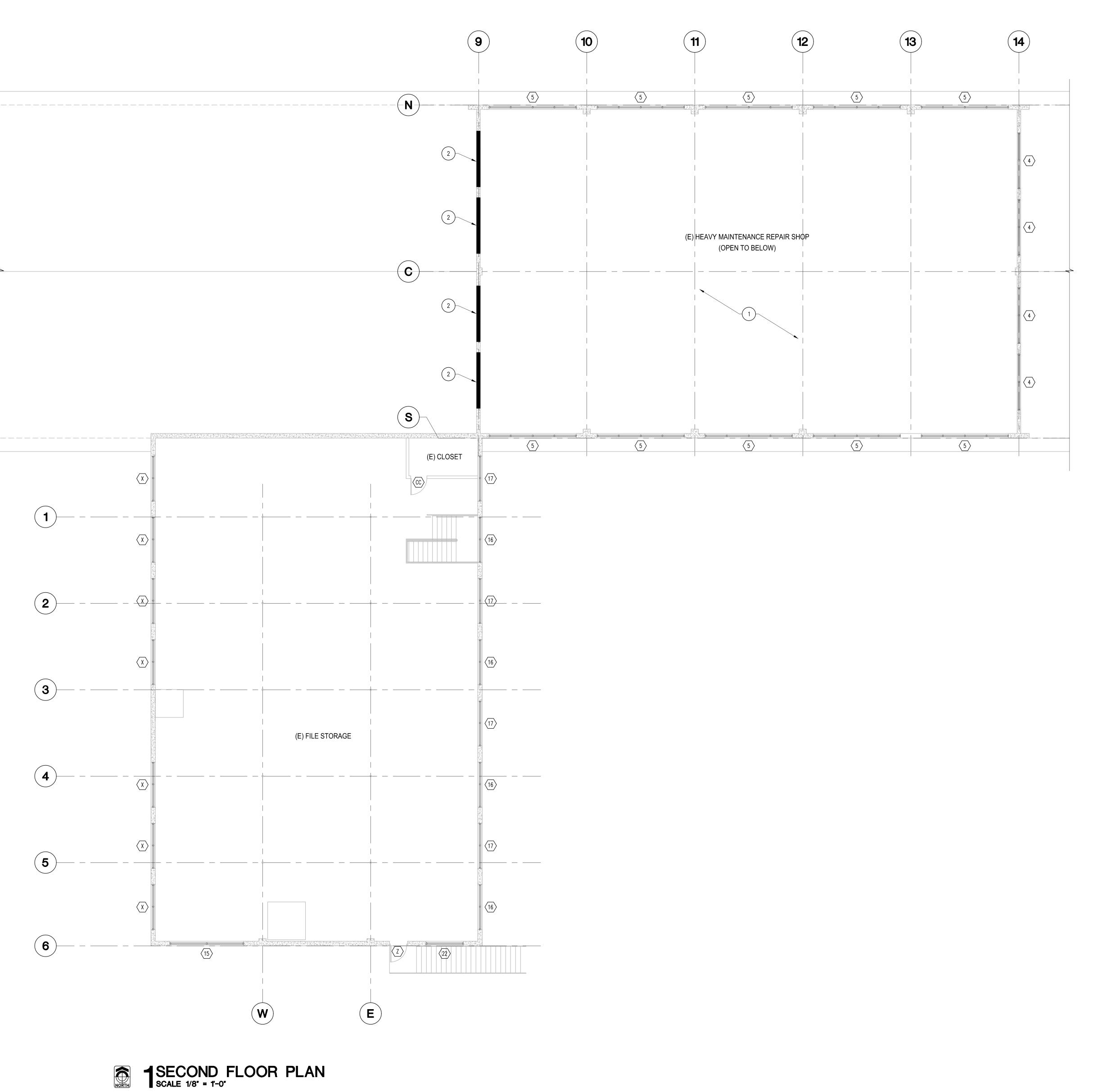












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RECHITECT
ARZONO
ORIGINAL DOCUMENT SIGNED BY
ACCHITECT
CRAIG A. SLOCUM
ORIGINAL DATE SIGNED BY:
CRAIG A. SLOCUM
ORIGINAL DATE SIGNED BY:
CRAIG A. SLOCUM
MAY 2, 2018

S018

GENERAL NOTES:

A. WHERE WORK OCCURS IN ROOMS OTHER THAN THE REPAIR SHOPS CONTRACTOR TO PAINT TO MATCH EXISTING COLOR.

# SHEET NOTES:

1. PAINT THE INTERIOR WALLS, CEILINGS, STRUCTURE AND ALL OTHER PAINTED ELEMENTS IN THE MAINTENANCE & REPAIR SHOPS. PAINT COLOR TO MATCH SHERWIN WILLIAMS, 'PURE WHITE' SW7005, EGGSHELL.

2. FILL IN EXISTING WINDOW OPENING WITH WALL FRAMING, RE: A71-5.

FOR CONSTRUCTION 6/25/18

PROJECT DATE

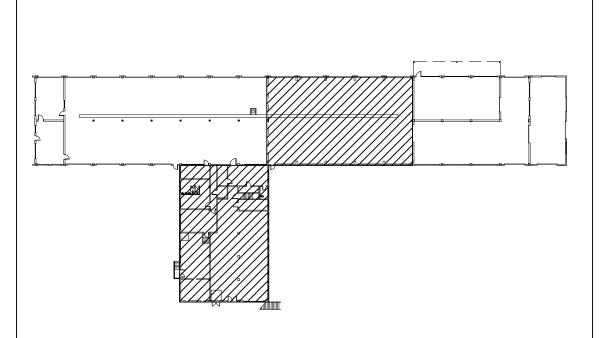
18059.00 5-2-18

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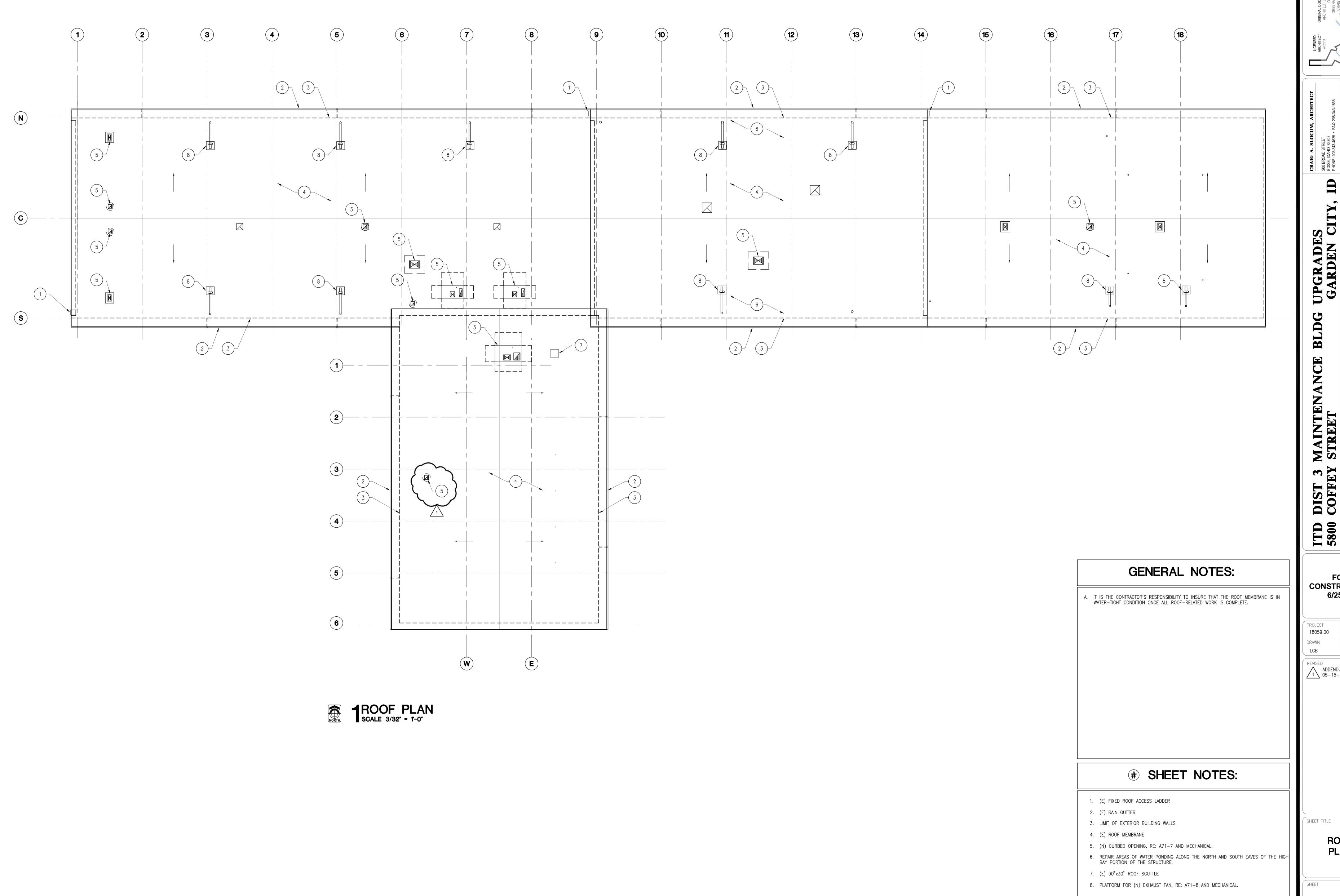
BUILDING KEY PLAN



SECOND FLOOR PLAN

422



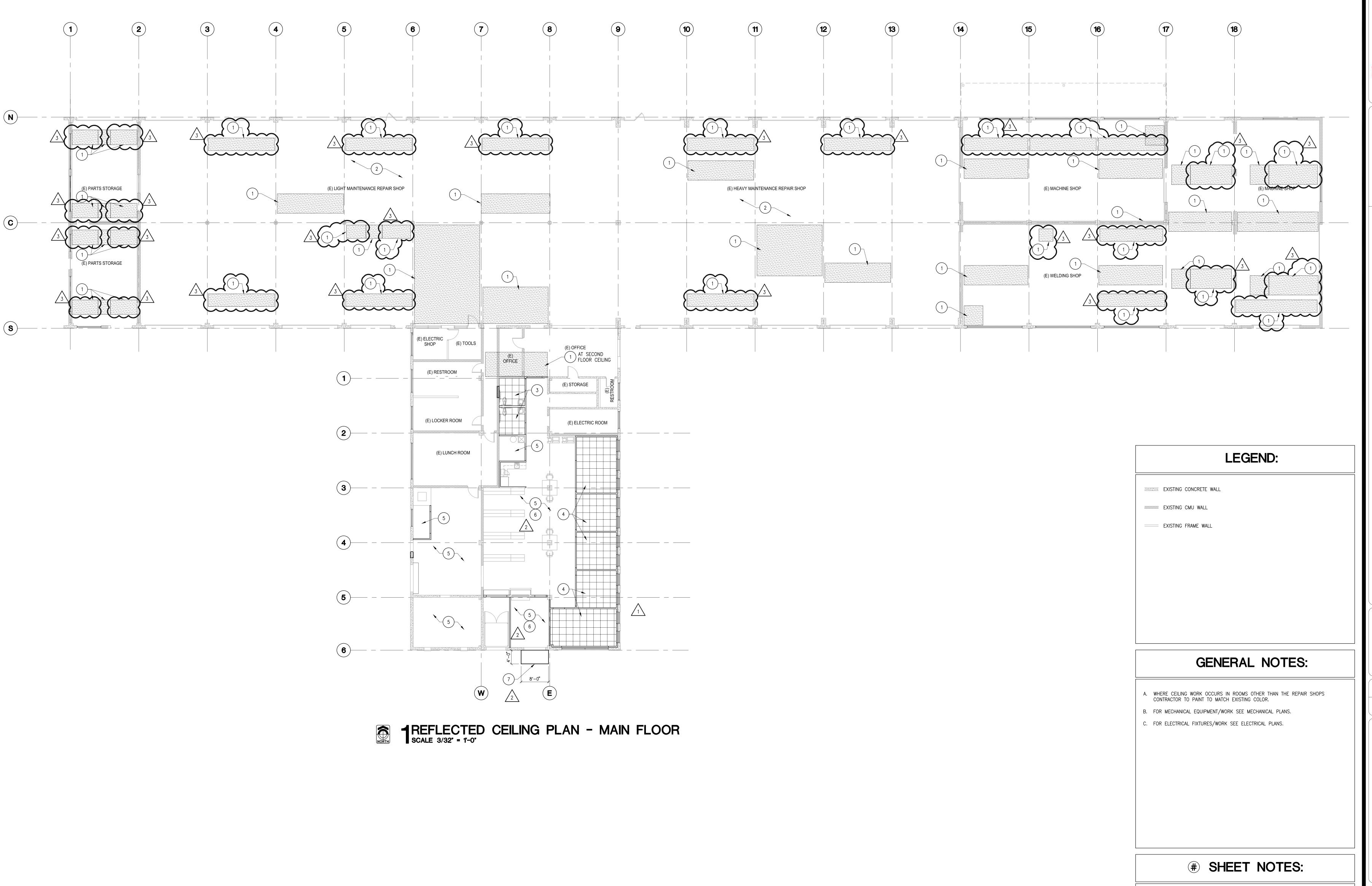


CONSTRUCTION 6/25/18

5-2-18 CHECKED CAS ADDENDUM NO. ONE 05-15-18

**ROOF** PLAN





PROJECT	DATE
18059.00	5-2-18
DRAWN	CHECKED
LGB	CAS
REVISED ADDENDU 05-15-	JM NO. ONE 18

ADDENDUM NO. THREE 05-24-18 CCD 001 08-06-18

SHEET TITLE

. REPAIR/REPLACE PORTIONS OF PLASTER CEILING AS NEEDED WHERE ROOF AND HVAC WORK OCCURS. COORDINATE LOCATIONS AND EXTENT OF WORK NEEDED WITH

2. PAINT CEILINGS (STRUCTURAL MEMBERS AND ALL OTHER EXISTING PAINTED ELEMENTS AT CEILING) IN THE REPAIR SHOPS. PAINT COLOR TO MATCH SHERWIN WILLIAMS

3. 2'x2' VINYL FACED GYP. BRD. LAY-IN SUSPENDED CEILING AT 8'-0" A.F.F.

4. 2'x2' ACOUSTICAL TILE LAY-IN SUSPENDED CEILING AT 9'-6" A.F.F.

MECHANICAL AND STRUCTURAL.

'PURE WHIŤE' SW7005.

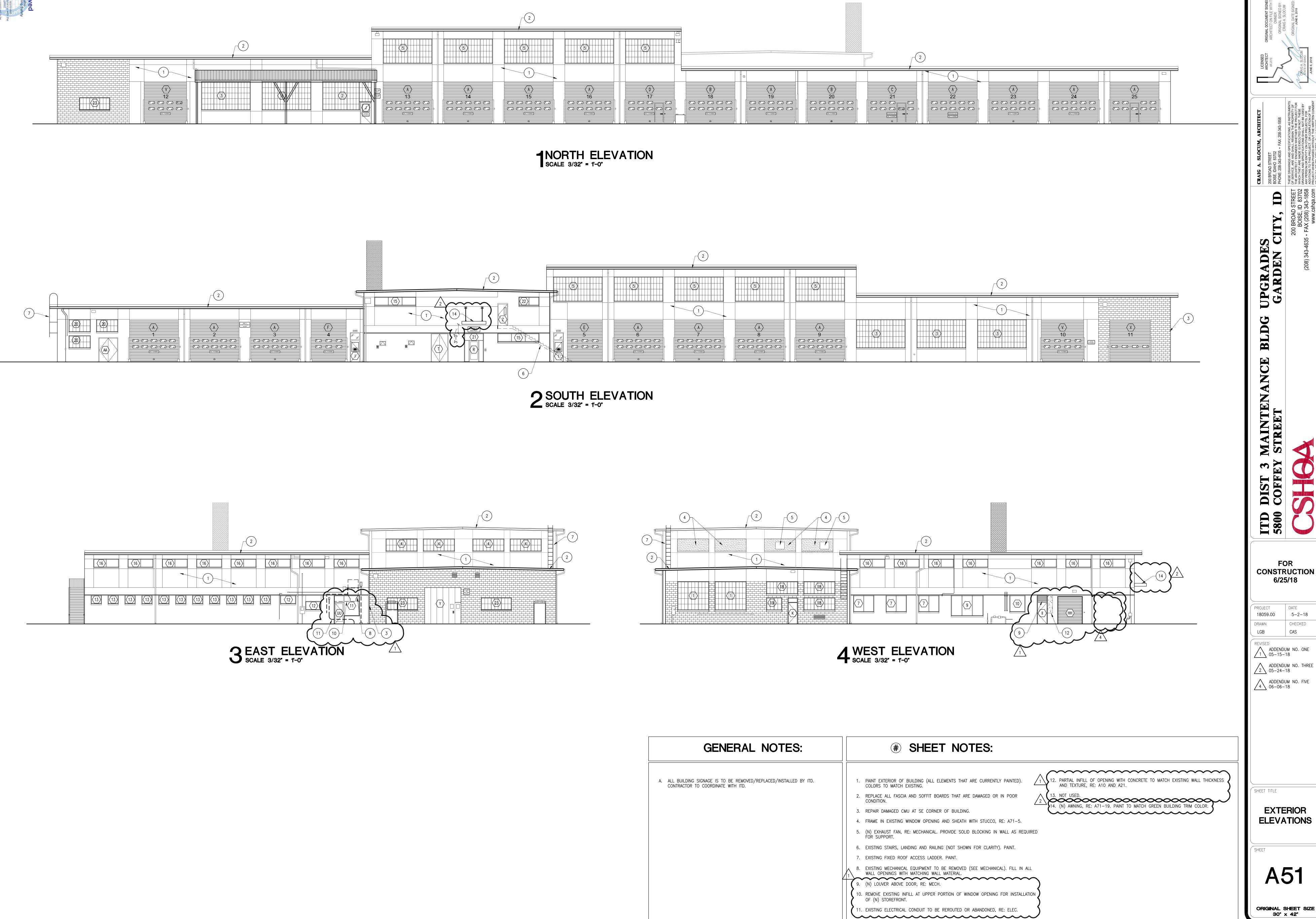
5. OPEN TO STRUCTURE ABOVE.

/2 6. PAINT UNDERSIDE OF SECOND FLOOR STRUCTURE 'P1'.

7. (N) AWNING, RE: A71-19. CENTER OVER DOOR.

REFLECTED

**CEILING PLAN** MAIN FLOOR



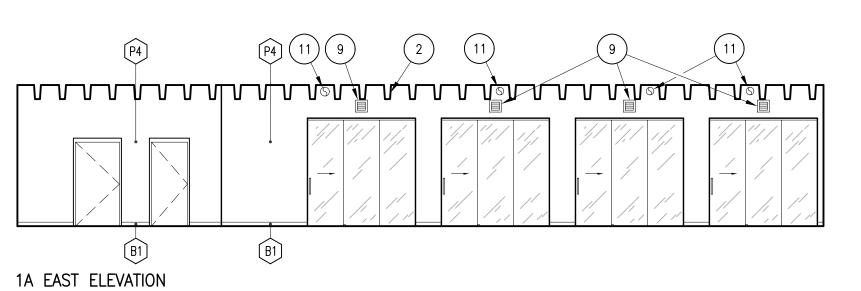
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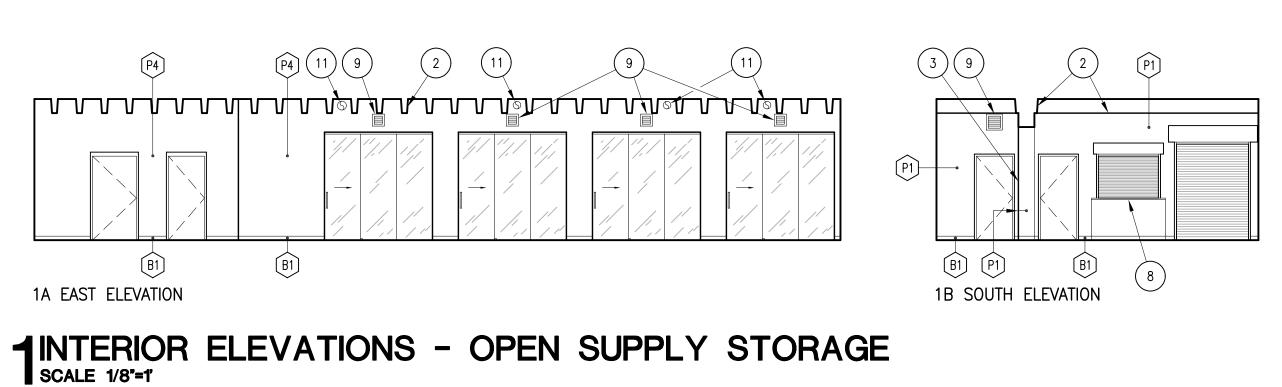


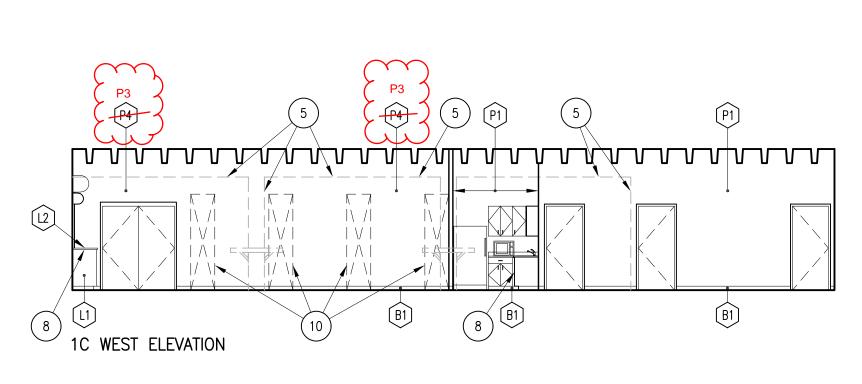


2B SOUTH ELEVATION

2 INTERIOR ELEVATIONS - SUPPLY LOBBY SCALE 1/8"=1"

2C WEST ELEVATION





3C WEST ELEVATION

3B SOUTH ELEVATION

TOILET PAPER

DISP. SURFACE C

D STAINLESS STEEL CHANNEL FRAME.

NOTE: PROVIDE SOLID BLOCKING OR OTHER SUITABLE BACKING AT LOCATIONS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: EDGES WHERE FINISH MATERIALS CHANGE, GRAB BARS, TOILET PARTITIONS, DOOR STOPS, SHELF

BRACKETS, HANDRAILS AND ALL MOUNTED EQUIPMENT, INCLUDING EQUIPMENT FURNISHED BY OWNER. SEE SPECIFICATIONS FOR LOADING RESISTANCE REQUIRED. EXTEND BACKING 6" BEYOND OUTLINE OF EQUIPMENT.

3 INTERIOR ELEVATIONS - TYPICAL OFFICE SCALE 1/8"=1"

3A EAST ELEVATION

SURFACE MOUNTED SANITARY NAPKIN DISPOSAL.

T1 - DALTILE VOLUME 1.0, AURAL SAND VL77 (12x24)

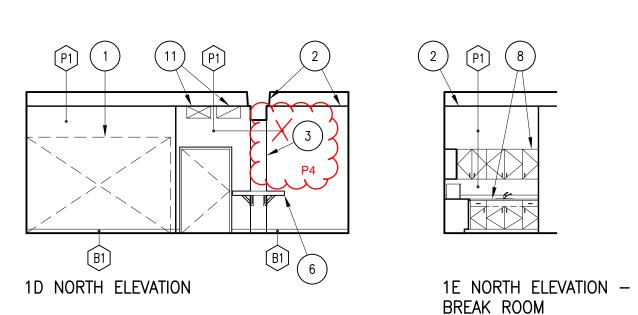
L1 - WILSONART, PORTICO TEAK #8210K-28

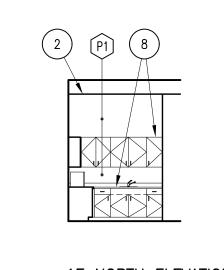
L2 – WILSONART, ORGANIC COTTON #4945-38

L3 - MARLITE, STANDARD FRP #P151 LIGHT GREY

LAMINATE/WALL FINISHES

H TOILET SEAT COVER DISPENSER.





## **GENERAL NOTES:**

**♥ FINISHES/MATERIALS** 

REFER TO "SCHEDULE OF INTERIOR MATERIALS AND FINISHES" ON THIS SHEET.

- A. FINISHES NOT REQUIRED ON WALL AREAS CONCEALED BY PERMANENT FIXTURES. FINISHES SHALL EXTEND A MINIMUM OF 6" BEHIND FIXTURE.
- B. ALL GYPSUM BOARD APPLICATIONS SHALL BE TAPED.
- C. PAINT ALL INTERIOR GYPSUM BOARD SOFFITS AND BOTTOM AND BACKSIDES OF SUSPENDED WALLS.

**# SHEET NOTES:** 

- 1. FIXTURE OR EQUIPMENT.
- 2. SECOND FLOOR CONCRETE STRUCTURE.
- EXISTING CONCRETE COLUMN.
- 4. EXISTING CONCRETE BEAM.
- 5. LINE OF EXISTING CONCRETE COLUMNS AND BEAMS IN FOREGROUND.
- 6. STAND UP WORK COUNTER, RE: A71-16.
- 7. R-11 BATT INSULATION.
- 8. MILLWORK, RE: A61-6 AND A61-7.
- 9. TRANSFER GRILLE, RE: MECH.
- 10. POWDER COAT 4 EXISTING PART STORAGE RACKS WITH COLOR TO MATCH 'P2' PRIOR TO FINAL PLACEMENT.
- 11. DUCT, RE: MECH.

SURFACE MOUNTED SOAP DISPENSER.

3D NORTH ELEVATION

LAVATORY C/W

(OPEN)

A71-12

PLUMBING

# 4 ENLARGED RESTROOM PLAN SCALE 1/4'=1'

GYP - 5%" GYPSUM BOARD (WATER RESISTANT GYP. BRD. AT FRAMED RESTROOM WALLS)

PLY — ½" CDX PLYWOOD

CONC - NEW CONCRETE

EC — EXISTING CONCRETE

CMU - CONCRETE MASONRY UNITS

STRUCT - OPEN TO STRUCTURE ABOVE

ACT - 2'x2' SUSPENDED ACOUSTICAL CEILING TILE

SVT - 2'X2' SUSPENDED VINYL FACE CEILING TILE

SKIM - NEW CONCRETE SKIM COAT OVER EXISTING SURFACE

EM - CONCRETE MASONRY UNITS (OR BRICK WHERE OCCURS)

SEE A6.1-5 FOR RESTROOM FIXTURE

DESIGNATIONS AND LOCATIONS

B1 P1

2A EAST ELEVATION

## 5 FIXTURE MOUNTING LOCATIONS SCALE 1/4'=1'

B ADA COMPLIANT GRAB BARS.

TOILET PAPER DISP.
SURFACE MOUNTED 2

54" MIN.

SURFACE MOUNTED
TOILET SEAT COVER H

ADA COMPLIANT TOILET A
FIXTURE. SEE MECH.

DWGS FOR FIXTURE

SPEC. 17"-19" MOUNTING HT. TO SEAT

2  $p_1$  3

2D NORTH ELEVATION

SURFACE MOUNTED > SANITARY NAPKIN

COMPLIANT B
GRAB BARS.

DWGS FOR FIXTURE SPEC. 17"-19"

MOUNTING HT. TO SEAT

ADA COMPLIANT TOILET A MIN.

DISPOSAL.

ROOM	ROOM	NOI	RTH	EA	ST	SO	UTH	WE	ST	FLC	OR	CEIL	ING	DEMARKS
NO.	NAME	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	BASE	MATERIAL	HEIGHT	REMARKS
101	SUPPLY LOBBY	GYP	P1	GYP	P1	GYP/EC	P1	GYP	P1	EC	B1	* STRUCT	- 2	* PAINT UNDERSIDE OF SECOND FLOOR STRUCTURE 'P1'
102	LIFT	GYP	_	GYP	-	EC	_	EC	-	EC	-	*	-	* OPEN
103	OPEN SUPPLY STORAGE	GYP/EM	* P1, P4	GYP	* P4	GYP/EC	* P1	GYP/EM	* P1, P3	EC	B1	** STRUCT	- 2	* SEE ELEVATION A61=1  ** PAINT UNDERSIDE OF SECOND FLOOR STRUCTURE 'P1'
104	SECURE STORAGE	EC	-	EC	-	EC	-	EC	-	CONC	-	STRUCT	-	-
105	RECEIVING AREA	EM	-	EM/EC	-	EC	_	GYP/EC	-	CONC	-	STRUCT	-	_
106	UTILITY CLOSET	EM	_	PLY *	_	PLY *	_	EC	-	CONC	_	STRUCT	-	* PLYWOOD TO 8'-0" A.F.F.
107	RESTROOM	EM	SKIM/P1	GYP	* T1/P1	GYP	* T1/P1	EM	* T1/P1	CONC	** T1	SVT	8'-0"	* SEE DETAIL A61-8, ** 6" HIGH TILE BASE AT PAINTED GYP. BRD. WALL
108	RESTROOM	GYP	* T1/P1	GYP	* T1/P1	GYP	PT	EM	* T1/P1	CONC	** T1	SVT	8'-0"	* SEE DETAIL A61-8, ** 6" HIGH TILE BASE AT PAINTED GYP. BRD. WALL
109	JANITOR	GYP	* L3	GYP	-	GYP	-	EM	-	CONC	B1	STRUCT	-	* 4'-0" x 8'-0" FRP PANEL AT MOP SINK. PAINT EXPOSED GYP. BRD. P1
110	BREAK	GYP	P1	-	-	GYP	P1	GYP	P1	EC/CONC	B1	* STRUCT	- 2	* PAINT UNDERSIDE OF SECOND FLOOR STRUCTURE 'P1'
111	OFFICE	GYP	P1	GYP	P1	GYP	P1	GYP	P1	CPT	B1	ACT	9'-6"	-
112	OFFICE	GYP	P1	GYP	P1	GYP	P1	GYP	P1	CPT	B1	ACT	9'-6"	_
113	OFFICE	GYP	P1	GYP	P1	GYP	P1	GYP	P1	CPT	B1	ACT	9'-6"	_
114	OFFICE	GYP	P1	GYP	P1	GYP	P1	GYP	P1	CPT	B1	ACT	9'-6"	_
115	OFFICE	GYP	P1	GYP	P1	GYP	P1	GYP	P1	CPT	B1	ACT	9'-6"	_

F1 - CARPET TILE - MANNINGTON COMMERCIAL, SCRIPT MODULAR BOROUGH 15217,

INSTALLATION - HORIZONTAL BRICK ASHLAR

B1 - JOHNSONITE, 4" RUBBER BASE #48 GREY WG

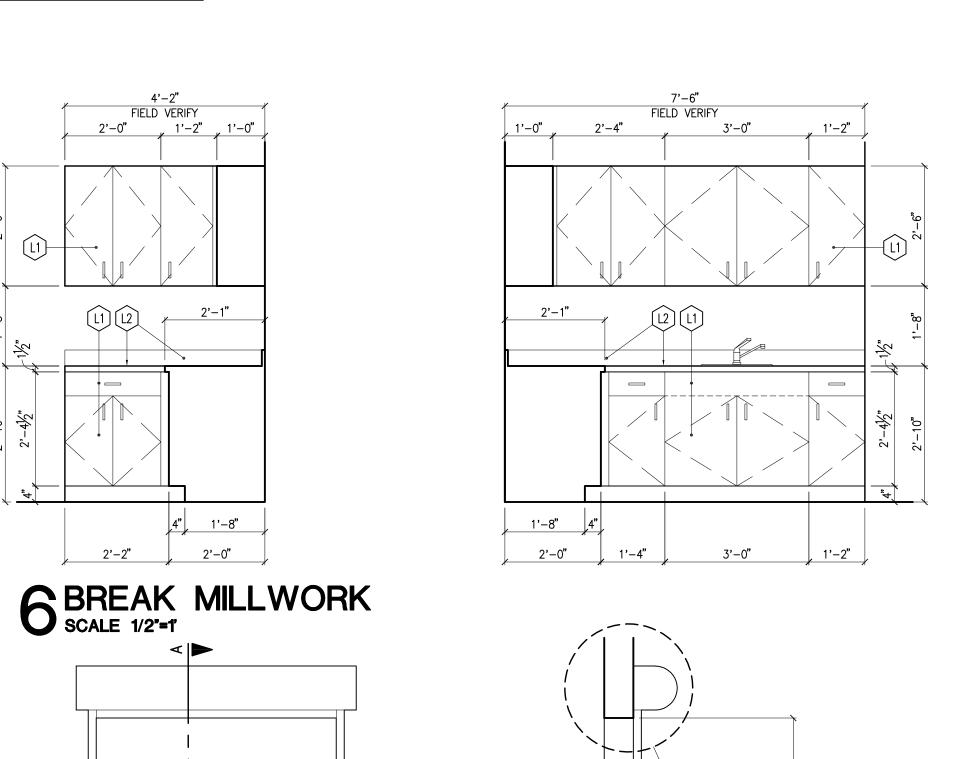
P1 — SHERWIN WILLIAMS #SW 7050 — USEFUL GREY P2 — SHERWIN WILLIAMS #SW 6965 — HYPER BLUE

P3 - SHERWIN WILLIAMS #SW 6883 - RAUCOUS ORANGE

P4 - BENJAMIN MOORE #2062-30 - SNOW CONE GREEN

WALL BASE

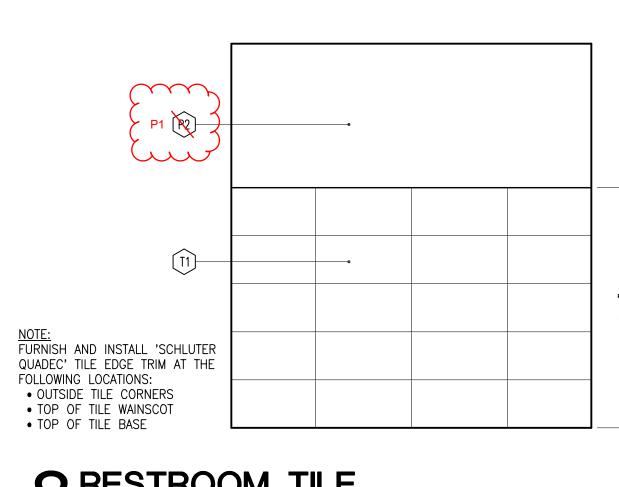
<u>PAINT</u>

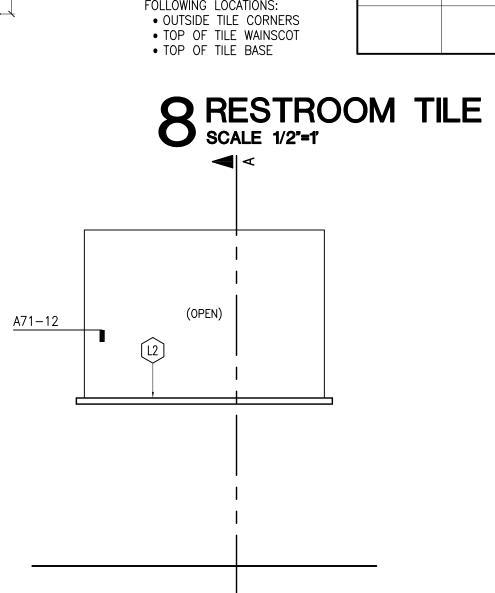


G SURFACE MOUNTED SANITARY

NAPKIN

DISPOSAL.





1'-0" 71/4" 2'-0" 7 SUPPLY COUNTER MILLWORK SCALE 1/2'=1'

A71-12

H SURFACE MOUNTED TRASH RECEPTACLE DISPENSER.

**INTERIOR ELEVATIONS** 

> ORIGINAL SHEET SIZE 30" x 42"

DIST COFF

PROJECT

DRAWN

18059.00

**FOR** CONSTRUCTION 6/25/18

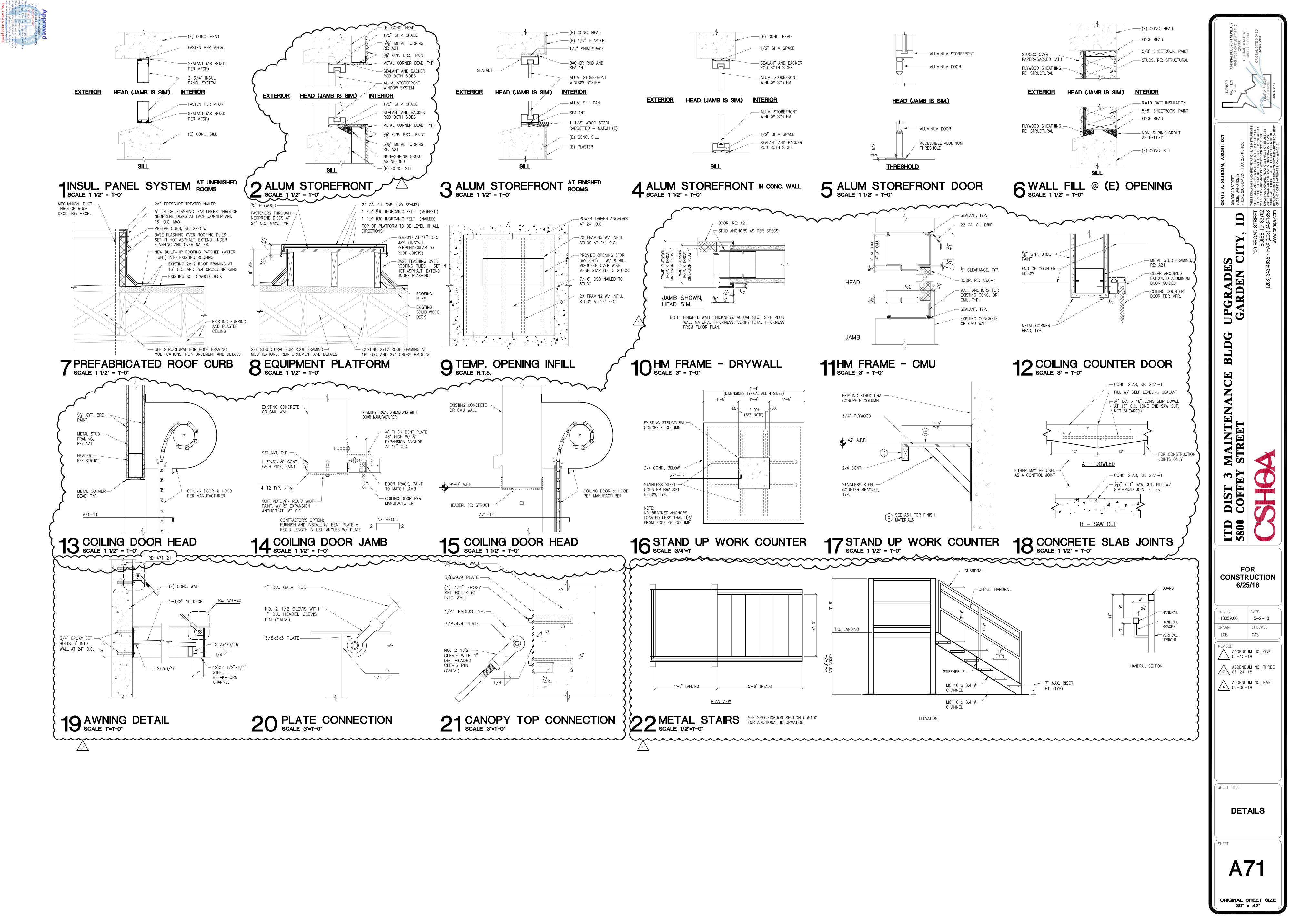
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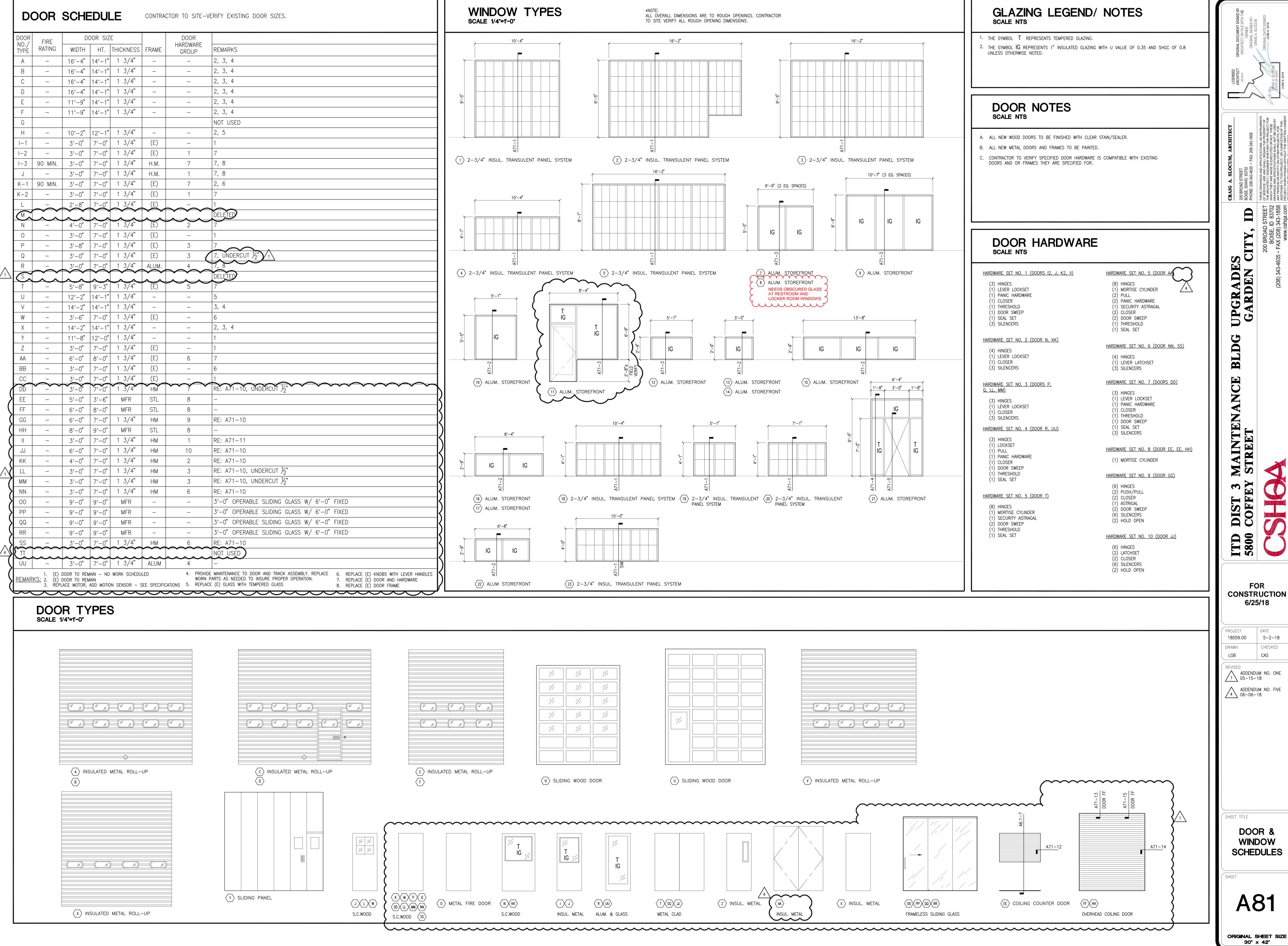
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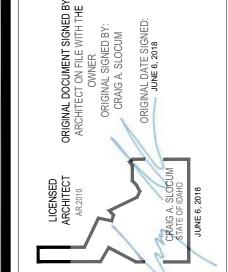
5-2-18

CHECKED CAS









ITD 5800

**CONSTRUCTION** 6/25/18

5-2-18 DRAWN CHECKED CAS ADDENDUM NO. ONE 05-15-18 ADDENDUM NO. FIVE 06-06-18

SHEET TITLE DOOR & **WINDOW** 

**SCHEDULES** 

**A81** 

STRUCTURAL ABBREVIATIONS MANUFACTURER NUMBER AND MIN MINIMUM ΑT MISC **MISCELLANEOUS DIAMETER** NTS NOT TO SCALE **ALTERNATE** ON CENTER ARCHITECT OD OUTSIDE DIAMETER **ARCHITECTURA** OPPOSITE **BOTTOM OF DECK** OSB ORIENTED STRAND BOARD BASE PLATE **PERPENDICULAR CONTROL JOINT** PLATE CONSTRUCTION JOINT POST TENSIONED CENTER LINE PRESSURE TREATED CLR CLEAR REINFORCE CONCRETE MASONRY UNITS REINFORCED REINFORCEMENT CONC CONCRETE REINFORCING CONN CONNECTION REQUIRED CONT **CONTINUOUS** SCHED **SCHEDULE DOUGLAS FIR** SHTHG SHEATHING DIA DIAMETER SIMILAR DRAG TRUSS SPEC SPECIFICATION EJ **EXPANSION JOINT** SHEAR TRUSS **ELEVATION** STANDARD STD ELEC **ELECTRICAL** STRUCTURAL

TOP AND BOTTOM

TOP OF CONCRETE

TOP OF FOOTING

TOP OF MASONRY

TOP OF PARAPET

TOP OF STEEL

TOP OF WALL

TRANVERSE

**TYPICAL** 

VERTICAL

**VERIFY IN FIELD** 

WORK POINT

TWS

TYP

VERT

VIF

THROUGH

TOP OF BEAM

TONGUE AND GROOVE

TOP OF CONCRETE PIER

THREADED WELD STUD

UNLESS NOTED OTHERWISE

STRUCT **EMBED EMBEDMENT** T&B EQUAL **EQUIP EQUIPMENT** THRU **EXISTING** EXST, (E TOB **EXTERIOR** FTG FOOTING TOCP **GAGE OR GAUGE GENERAL CONTRACTOR** TOM GLB **GLU LAM BEAM** TOP **GIRDER TRUSS** HORIZ **HORIZONTAL** INSIDE DIAMETER TRANS JOIST BEARING

MFD **MANUFACTURED** MFG MANUFACTURING STRUCTURAL UNITS POUND FT/LB FOOT POUND KIP (1000 LBS) KIPS PER SQUARE INCH POUNDS PER CUBIC FOOT

LONGITUDINAL

LIGHT WEIGHT

MAXIMUM

**MECHANICAL** 

LONG

**MECH** 

AWS

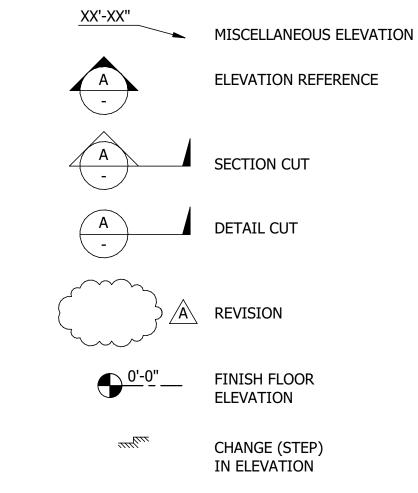
POUNDS PER SQUARE FOOT PSI POUNDS PER SQUARE INCH SQUARE FOOT

POUNDS PER LINEAL FOOT

STRUCTURAL ORGANIZATIONS AMERICAN CONCRETE INSTITUTE AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISI AMERICAN IRON AND STEEL INSTITUTE ANSI AMERICAN NATIONAL STANDARDS INSTITUTE APA AMERICAN PLYWOOD ASSOCIATION ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS

## GENERAL SYMBOL LEGEND

AMERICAN WELDING SOCIETY



#### STRUCTURAL SYMBOL LEGEND

ROOF SUPPORTED MECHANICAL UNIT WITH OPERATING WEIGHT 000 # PROVIDE FULL DEPTH BRIDGING BETWEEN MAIN FRAMING UNDER MECHANICAL UNIT CURB. COORDINATE EXACT LOCATION, SIZE AND NUMBER OF DECK PENETRATIONS WITH MECHANICAL. ROOF HUNG MECHANICAL WITH OPERATING WEIGHT, PROVIDE UNIT SUPPORT. INDICATES FINISH FLOOR ELEVATION, FFE

COORDINATE WITH ARCH

INDICATES BEAM/HEADER

**INDICATES 2x FLAT BLOCKING** 

LVL#x#

2x4@16" OC INDICATES WOOD WALL

#### **GENERAL NOTES**

**GENERAL REQUIREMENTS** 

**GOVERNING CODE:** THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE "INTERNATIONAL BUILDING CODE (IBC)", 2015 EDITION, HEREAFTER REFERRED TO AS THE IBC, AS ADOPTED AND MODIFIED BY THE LOCAL BUILDING DEPARTMENT WITH AUTHORITY HAVING JURISDICTION.

REFERENCE STANDARDS: REFER TO CHAPTER 35 OF IBC. WHERE OTHER STANDARDS ARE NOTED IN THE DRAWINGS, USE THE LATEST EDITION OF THE STANDARD UNLESS A SPECIFIC DATE IS INDICATED. REFERENCE TO A SPECIFIC SECTION IN A CODE DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE ENTIRE STANDARD. ALL SPECIFICATIONS AND CODES NOTED SHALL BE THE LATEST APPROVED EDITIONS AND REVISIONS BY THE AUTHORITY HAVING JURISDICTION OVER THIS PROJECT.

<u>SPECIFICATIONS</u>: REFER TO THE PROJECT SPECIFICATIONS ISSUED AS PART OF THE CONTRACT DOCUMENTS FOR INFORMATION SUPPLEMENTAL TO THESE DRAWINGS.

OTHER DRAWINGS: REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING BUT NOT LIMITED TO: DIMENSIONS, ELEVATIONS, SLOPES, DOOR AND WINDOW OPENINGS, NON-BEARING WALLS, STAIRS, FINISHES, DRAINS, WATERPROOFING, RAILINGS, CURBS, DEPRESSIONS, MECHANICAL UNIT LOCATIONS, AND OTHER NON-STRUCTURAL ITEMS.

STRUCTURAL DETAILS: THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT AND ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK. DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS OTHERWISE SHOWN OR NOTED. IF LOCATIONS ARE FOUND WHERE NO TYPICAL DETAIL, TYPICAL SCHEDULE, OR SPECIFIC DETAIL APPLIES, NOTIFY THE ARCHITECT/STRUCTURAL ENGINEER.

STRUCTURAL RESPONSIBILITIES: THE STRUCTURAL ENGINEER (SER) IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE PRIMARY STRUCTURE IN ITS COMPLETED FORM. THE STRUCTURAL DRAWINGS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION.

COORDINATION: THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING DETAILS AND ACCURACY OF THE WORK; FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; FOR SELECTING FABRICATION PROCESSES; FOR TECHNIQUES OF ASSEMBLY; AND FOR PERFORMING WORK IN A SAFE AND SECURE MANNER.

DIMENSIONS: DO NOT SCALE THE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES. STRUCTURE NOTED IN THE DRAWINGS AS EXISTING SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT/STRUCTURAL ENGINEER.

MEANS, METHODS AND SAFETY REQUIREMENTS: THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION) AND DOSH (DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH). THE CONTRACTOR IS TO PROVIDE ADEQUATE EXCAVATION PROCEDURES, SHORING, BRACING AND ERECTION PROCEDURES COMPLYING WITH NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.

TEMPORARY SHORING AND BRACING: THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE (BUT ARE NOT LIMITED TO): BRACING AND SHORING FOR LOADS DUE TO HYDROSTATIC, EARTH, WIND OR SEISMIC FORCES, CONSTRUCTION EQUIPMENT, ETC IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY. THE CONTRACTOR SHALL AT HIS DISCRETION EMPLOY A REGISTERED PROFESSIONAL ENGINEER FOR THE DESIGN OF ANY TEMPORARY BRACING AND

CONSTRUCTION LOADS: CONSTRUCTION LOADS AND MATERIALS SHALL BE SPREAD OUT WHEN PLACED ON FRAMED FLOORS OR ROOFS. LOADS ON THE STRUCTURE DURING CONSTRUCTION SHALL NOT EXCEED THE DESIGN LOADS AS NOTED IN DESIGN CRITERIA AND LOADS BELOW OR THE CAPACITY OF PARTIALLY COMPLETED CONSTRUCTION AS DETERMINED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER FOR BRACING/SHORING.

<u>CHANGES IN LOADING</u>: THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY THE SER OF ANY ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR PLUMBING LOAD IMPOSED ONTO THE STRUCTURE THAT DIFFERS FROM, OR THAT IS NOT DOCUMENTED ON THE ORIGINAL CONTRACT DOCUMENTS (ARCHITECTURAL / STRUCTURAL / MECHANICAL / ELECTRICAL OR PLUMBING DRAWINGS). PROVIDE DOCUMENTATION OF LOCATION, LOAD, SIZE AND ANCHORAGE OF ALL UNDOCUMENTED LOADS IN EXCESS OF 300 POUNDS. PROVIDE MARKED-UP STRUCTURAL PLAN INDICATING LOCATIONS OF ANY NEW EQUIPMENT OR LOADS NOT PREVIOUSLY DOCUMENTED. SUBMIT PLANS TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

ROOF DRAINAGE: THE ROOF DRAINAGE SYSTEM SHALL BE DESIGNED SO THAT RAINWATER LOADS DO NOT EXCEED THE ROOF SNOW OR LIVE LOADS AS SHOWN IN THE DESIGN CRITERIA AND LOADS SECTION.

NOTE PRIORITIES: PLAN AND DETAIL NOTES AND SPECIFIC LOADING DATA PROVIDED ON INDIVIDUAL PLANS AND DETAIL DRAWINGS SUPPLEMENTS INFORMATION IN THE STRUCTURAL GENERAL NOTES AND PROJECT SPECIFICATIONS.

DISCREPANCIES: IN CASE OF DISCREPANCIES BETWEEN THE GENERAL NOTES, SPECIFICATIONS PLAN/DETAILS OR REFERENCE STANDARDS, THE ARCHITECT/ENGINEER SHALL DETERMINE WHICH SHALL GOVERN. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK. SHOULD ANY DISCREPANCY BE FOUND IN THE CONTRACT DOCUMENTS, THE CONTRACTOR WILL BE DEEMED TO HAVE INCLUDED IN THE PRICE THE MOST EXPENSIVE WAY OF COMPLETING THE WORK, UNLESS PRIOR TO THE SUBMISSION OF THE PRICE, THE CONTRACTOR ASKS FOR A DECISION FROM THE ARCHITECT AS TO WHICH SHALL GOVERN. ACCORDINGLY, ANY CONFLICT IN OR BETWEEN THE CONTRACT DOCUMENTS SHALL NOT BE A BASIS FOR ADJUSTMENT IN THE CONTRACT PRICE.

SITE VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, UTILITIES, ETC IF ANY SUCH STRUCTURES ARE FOUND, NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY.

ADJACENT UTILITIES: THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO EARTH-WORK, FOUNDATIONS, SHORING, AND EXCAVATION. ANY UTILITY INFORMATION SHOWN ON THE STRUCTURAL DRAWINGS AND DETAILS ARE INTENDED FOR REFERENCE ONLY AND NOT FOR CONSTRUCTION.

<u>ALTERNATES</u>: ALTERNATE PRODUCTS OF SIMILAR STRENGTH, NATURE AND FORM FOR SPECIFIED ITEMS MAY BE SUBMITTED WITH ADEQUATE TECHNICAL DOCUMENTATION TO THE ARCHITECT/ENGINEER FOR REVIEW. ALTERNATE MATERIALS THAT ARE SUBMITTED WITHOUT ADEQUATE TECHNICAL DOCUMENTATION OR THAT SIGNIFICANTLY DEVIATE FROM THE DESIGN INTENT OF MATERIALS SPECIFIED MAY BE RETURNED WITHOUT REVIEW. ALTERNATES THAT REQUIRE SUBSTANTIAL EFFORT TO REVIEW WILL NOT BE REVIEWED UNLESS AUTHORIZED BY THE OWNER.

MECHANICAL, PLUMBING AND ELECTRICAL ANCHORAGE: ANCHORAGE AND SUPPORT OF MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING AND DUCTWORK IS TO BE DESIGNED BY OTHERS. SEE ASCE 7-10 SECTION 13.2 AND TABLE 13.2-1. USE ISOLATORS, FASTENERS AND BRACING APPROVED BY ICC-ES REPORTCAPABLE OF TRANSMITTING CODE REQUIRED LATERAL LOADS. ALL SUSPENDED EQUIPMENT IS TO BE SECURED WITH LATERAL BRACING. SEE THE LATEST EDITION OF "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS" BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.

OBSERVATION VISITS: OBSERVATION VISITS (SITE VISITS) BY REPRESENTATIVES OF ARCHITECT/STRUCTURAL ENGINEER DO NOT INCLUDE INSPECTION OF CONSTRUCTION MEANS AND METHODS. SITE VISITS DURING CONSTRUCTION ARE NOT CONTINUOUS AND DETAILED INSPECTION SERVICES (WHICH ARE TO BE PERFORMED BY OTHERS). OBSERVATIONS ARE PERFORMED SOLELY FOR THE PURPOSE OF DETERMINING IF THE CONTRACTOR UNDERSTANDS DESIGN INTENT SHOWN IN THE CONTRACT DRAWINGS. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND ARE NOT TO BE CONSTRUED AS SUPERVISION OR VERIFICATION OF CONSTRUCTION.

#### **GENERAL REQUIREMENTS (CONT)**

SHOP DRAWINGS: SHOP DRAWINGS SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW SHALL CONSIST OF (1) ELECTRONIC PDF SET OR (1) MARKUP SET (FOR OUR RECORDS) AND (1) REPRODUCIBLE SET. NO MODIFICATIONS OR SUBSTITUTION OF DRAWINGS AND SPECIFICATIONS WILL BE ACCEPTED VIA SHOP DRAWING REVIEW.

- CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ARCHITECT/STRUCTURAL ENGINEER. CONTRACTOR SHALL REVIEW FOR
- COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS SUBMIT SHOP DRAWINGS TO THE ARCHITECT/STRUCTURAL ENGINEER AS INDICATED
- OR SPECIFIED FOR REVIEW PRIOR TO FABRICATION. REVIEW WILL BE FOR GENERAL CONFORMANCE WITH DESIGN INTENT CONVEYED IN THE CONTRACT DOCUMENTS. WHEN AN ENGINEER IS REQUIRED TO SIGN AND STAMP SHOP DRAWINGS AND
- CALCULATIONS, ENSURE SEAL INDICATES ENGINEER AS BEING REGISTERED IN THE STATE OF THE PROJECT SITE.
- SHOP DRAWINGS ARE NOT A PART OF CONTRACT DOCUMENTS. THEREFORE, ARCHITECT'S/STRUCTURAL ENGINEER'S REVIEW DOES NOT CONSTITUTE AN AUTHORIZATION TO DEVIATE FROM TERMS AND CONDITIONS OF THE CONTRACT.
- SHOP DRAWINGS WILL BE REJECTED FOR INCOMPLETENESS, LACK OF COORDINATION WITH OTHER PORTIONS OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS (IF REQUIRED), OR WHERE MODIFICATIONS OR SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR REVIEW PER PARAGRAPH ABOVE.
- SUBMIT SHOP DRAWINGS AND CALCULATIONS TO GOVERNING CODE AUTHORITY WHEN SPECIFICALLY INDICATED OR REQUESTED.
- MAINTAIN A COPY OF ALL SHOP DRAWINGS REVIEWED BY THE ARCHITECT/STRUCTURAL ENGINEER AT SITE DURING CONSTRUCTION PERIOD
- STRUCTURAL ENGINEER REQUIRES 10 WORKING DAYS AFTER RECEIPT OF SHOP DRAWINGS AND CALCULATIONS FOR PROCESSING. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR RESUBMITTAL AS SHOP DRAWINGS IS PROHIBITED. SHOP DRAWINGS PRODUCED IN

#### DESIGN CRITERIA AND LOADS

RISK CATEGORY OF BUILDING

SUCH A MANNER WILL BE REJECTED AND RETURNED.

WIND DESIGN - ASCE 7-10 CHAPTER 26, 29, & 30 (STRENGTH LEVEL UNLESS NOTED) 115 MPH - BASIC WIND SPEED

 EXPOSURE CATEGORY 1.0 - TOPOGRAPHIC FACTOR (Kzt)

SEISMIC DESIGN - ASCE 7-10 CHAPTER 13 (NON-STRUCTURAL COMPONENTS) MAPPED MCE:  $S_S = 0.304$   $S_1 = 0.105$ - SOIL SITE CLASSIFICATION - DESIGN ACCEL:  $S_{DS} = 0.315g$   $S_{D1} = 0.167g$ - SEISMIC DESIGN CATEGORY (SDC) - SEISMIC IMPORTANCE FACTOR (I<sub>e</sub>) 1.0

<u>SNOW LOAD - ASCE 7-10 CHAPTER 7</u>

**20 PSF** - GROUND SNOW LOAD (pa) - SNOW EXPOSURE FACTOR (C<sub>e</sub>) 1.0 - THERMAL FACTOR (Ct) 1.0 1.0 - SNOW LOAD IMPORTANCE FACTOR (Is) **25 PSF** - ROOF SNOW LOAD (pf OR pm OR ps)

<u>DESIGN DEAD LOADS</u>

SEE ROOF PLAN FOR DRIFT LOADING

DEAD LOADS (PSF) UNO REMARKS AND NOTES **ROOF** 

#### TESTS AND INSPECTIONS

INSPECTIONS: SPECIAL INSPECTIONS AND TESTING SHALL BE DONE IN ACCORDANCE THE STATEMENT OF SPECIAL INSPECTIONS PER IBC SECTIONS 1704 AND 1705 AS APPLICABLE. FOR SPECIFIC SECTIONS:

- 1705.11 (WIND SPECIAL INSPECTIONS)
- 1705.12 (SEISMIC SPECIAL INSPECTIONS)

1705.13 (SEISMIC SPECIAL TESTING) FOUNDATIONS, FOOTINGS, UNDER SLAB SYSTEMS AND FRAMING ARE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL IN ACCORDANCE WITH IBC SECTION 110.3. CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE BUILDING

<u>SPECIAL INSPECTORS</u>: SPECIAL INSPECTORS SHALL BE EMPLOYED BY THE OWNER TO PROVIDE SPECIAL INSPECTIONS FOR THE PROJECT. SPECIAL INSPECTORS SHALL BE QUALIFIED PERSONS WHO DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION PER 1704.1.

<u>STATEMENT OF SPECIAL INSPECTIONS</u>: SPECIAL INSPECTIONS AND TESTING ARE REQUIRED BY 1704 AND 1705 FOR THE FOLLOWING:

- SOIL AND FOUNDATION CONSTRUCTION: PER IBC SECTION 1705.6: 1. PERIODIC INSPECTION OF SOILS EARTHWORK PER TABLE 1705.6 IS REQUIRED FOR:
- A. FOOTING SOIL BEARING SURFACES PRIOR TO PLACING ANY REINFORCING
- B. EXCAVATION DEPTH AND BEARING LAYER PRIOR TO PLACING ANY REINFORCING STEEL
- C. COMPACTED FILL MATERIAL CLASSIFICATION AND TESTING. D. SUBGRADE PREPARATION PRIOR TO FILLING
- CONTINUOUS INSPECTION PER TABLE 1705.6 REQUIRED TO VERIFY: A. FILLING OPERATIONS TO SATISFY REQUIREMENTS OF IBC TABLE 1705.6 AND THE GEOTECHNICAL REPORT LISTED UNDER SOILS AND FOUNDATIONS
- B. COMPACTED FILL DENSITY TESTING OF EACH LIFT, PROPER LIFT THICKNESS AND MATERIAL CLASSIFICATION.

CONCRETE CONSTRUCTION: PER IBC SECTION 1705.3 AND TABLE 1705.3 INCLUDING:

- 1. PERIODIC INSPECTION REQUIRED FOR: A. SIZE AND PLACEMENT OF ALL REINFORCING STEEL PRIOR TO THE POUR.
- B. PLACEMENT CLEARANCES AROUND REINFORCING STEEL AT EMBEDDED
- SHAPE, LOCATION AND DIMENSIONS OF MEMBERS FORMED. D. USE OF THE REQUIRED DESIGN CONCRETE MIX.
- MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. CONTINUOUS INSPECTION REQUIRED DURING THE: A. PLACING AND SIZE OF CAST-IN-PLACE BOLTS AND EMBEDDED FABRICATIONS
- PRIOR TO THE POUR.
- B. PLACING OF CONCRETE AROUND CAST-IN-PLACE BOLTS AND EMBEDS. SAMPLING OF FRESH CONCRETE.

D. DETERMINATIONS OF SLUMP, AIR CONTENT AND TEMPERATURE. STRUCTURAL STEEL FABRICATION: PER IBC SECTION 1705.2: SPECIAL INSPECTOR SHALL

REVIEW THE FABRICATION SHOP'S QUALITY CONTROL PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO AISC 360 CHAPTER M AND N, OF THE AISC CODE OF STANDARD PRACTICE, AWS D1.1-2015 STRUCTURAL WELDING CODE AND IBC CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.

STRUCTURAL STEEL INSPECTION: PER IBC SECTION 1705.2 AND AISC 360 CHAPTER M AND N AT THE SITE AND THE FABRICATION SHOP, SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

 PERIODIC INSPECTION REQUIRED: A. PRIOR TO THE START OF FABRICATION FOR:

OF STANDARD PRACTICE

- a. VERIFICATION OF SHOP COMPLIANCE WITH AISC CHAPTER N, SECTIONS N2 & N3 FOR COMPLETENESS AND ADEQUACY OF FABRICATION AND QUALITY CONTROL PROCEDURES
- b. VERIFICATION OF SHOP COMPLIANCE WITH AWS D1.1 STRUCTURAL WELDING CODE VERIFICATION OF SHOP COMPLIANCE WITH AISC 360 CHAPTER M, N, AND CODE
- C. PRIOR TO THE START OF ERECTION VERIFICATION OF FRAMING REQUIREMENTS AND BOLTING PROCEDURES PER AISC D. DURING HIGH STRENGTH BOLTING PER AISC TABLES N5.6-1, 2 AND 3

TESTS AND INSPECTIONS (CONT)

JURISDICTION FOR REVIEW.

IBC SECTION 1703.

SPECIAL INSPECTOR SHALL DOCUMENT IN THEIR SPECIAL INSPECTION REPORT

<u>INSPECTION REPORTS</u>: SPECIAL INSPECTION REPORTS SHALL BE PROVIDED AS SOON AS

INSPECTION REPORTS TO THE ARCHITECT/ENGINEER AND THE AUTHORITY HAVING

PRACTICAL AFTER COMPLETING INSPECTIONS. FINAL SPECIAL INSPECTION REPORTS WILL

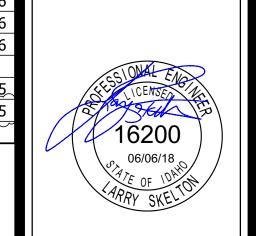
BE REQUIRED BY EACH SPECIAL INSPECTION FIRM PER IBC 1704.2.4. SUBMIT COPIES OF ALL

PREFABRICATED CONSTRUCTION: ALL PREFABRICATED CONSTRUCTION SHALL CONFORM TO

COMPLIANCE WITH EACH OF THE ELEMENTS REQUIRED WITHIN THE APPLICABLE ICC-ES

SHEET INDEX

ESTS AND INSPECTIONS (CONT)				CURRENT
	SHEET		CURRENT	REVISION
POST INSTALLED ANCHORS TO CONCRETE AND MASONRY: SHALL COMPLY WITH IBC	NUMBER	SHEET NAME	REVISION	DATE
SECTION 1705. INSPECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SET	S0.01	STRUCTURAL COVER SHEET	5	2018-06-06
FORTH IN THE APPROVED ICC EVALUATION REPORT AND AS INDICATED BY THE DESIGN	S0.02	GENERAL NOTES	5	2018-06-06
REQUIREMENTS SPECIFIED ON THE DRAWINGS. REFER TO THE POST INSTALLED	S1.01	FOUNDATION PLAN	5	2018-06-06
ANCHORS SECTION OF THESE NOTES FOR ANCHORS THAT ARE THE BASIS OF THE	S1.02	FRAMING PLAN		
DESIGN. SPECIAL INSPECTOR SHALL VERIFY ANCHORS ARE AS SPECIFIED IN THE POST INSTALLED ANCHORS SECTION OF THESE NOTES OR AS OTHERWISE SPECIFIED ON THE	S5.01	CONCRETE AND MASONRY DETAILS (GENERAL)	1	2018-05-15
DRAWINGS. SUBSTITUTIONS REQUIRE APPROVAL BY THE SER AND REQUIRE	S5.02	CONCRETE DETAILS	1	2018-05-15
SUBSTANTIATING CALCULATIONS AND CURRENT IBC RECOGNIZED ICC-ES REPORT.	S6.01	DETAILS		



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6/25/18

PROJECT DATE 18059.00 05/02/18 CHECKED DRAWN LS REVISED ADDENDUM 1 ADDENDUM 5

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SHEET TITLE STRUCTURAL **COVER** SHEET

SHEET

#### **SOIL AND FOUNDATIONS**

REFERENCE STANDARDS: CONFORM TO IBC CHAPTER 18 "SOILS AND FOUNDATIONS."

CONTRACTOR'S RESPONSIBILITIES: CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE GEOTECHNICAL REPORT AND SHALL FOLLOW THE RECOMMENDATIONS SPECIFIED THEREIN INCLUDING, BUT NOT LIMITED TO, SUBGRADE PREPARATIONS, PILE INSTALLATION PROCEDURES, GROUND WATER MANAGEMENT AND STEEP SLOPE BEST MANAGEMENT PRACTICES."

GEOTECHNICAL SUBGRADE INSPECTION: THE GEOTECHNICAL ENGINEER SHALL INSPECT ALL SUB-GRADES AND PREPARED SOIL BEARING SURFACES, PRIOR TO PLACEMENT OF FOUNDATION REINFORCING STEEL AND CONCRETE. GEOTECHNICAL ENGINEERS SHALL PROVIDE A LETTER TO THE OWNER STATING THAT SOILS ARE ADEQUATE TO SUPPORT THE "ALLOWABLE FOUNDATION BEARING PRESSURE(S)" SHOWN BELOW.

#### **DESIGN SOIL VALUES**

· ALLOWABLE FOUNDATION BEARING PRESSURE 1,500 PSF\*

DESIGN SOIL VALUES SHOWN ARE PRESUMPTIVE VALUES PRESENTED IN IBC 1806 AND THEREFORE ARE TO BE VERIFIED IN THE FIELD. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

SLABS-ON-GRADE: ALL SLABS-ON-GRADE SHALL BEAR ON COMPACTED STRUCTURAL FILL OR CONTROLLED DENSITY FILL. ALL MOISTURE SENSITIVE SLABS-ON-GRADE OR THOSE SUBJECT TO RECEIVE MOISTURE SENSITIVE COATINGS/COVERING SHALL BE PROVIDED WITH AN APPROPRIATE CAPILLARY BREAK AND VAPOR BARRIER/RETARDANT OVER THE SUBGRADE PREPARED AND INSTALLED AS NOTED IN THE GEOTECHNICAL REPORT, BARRIER MANUFACTURER'S WRITTEN RECOMMENDATIONS AND COORDINATED WITH THE FINISHES SPECIFIED BY THE ARCHITECT.

PREPARATION: THE CONTRACTOR SHALL PROVIDE FOR PROPER DEWATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER, SEEPING ETC

SHORING: THE CONTRACTOR SHALL PROVIDE FOR THE INSTALLATION AND DESIGN OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY AND ADEQUATELY RETAIN THE EARTH BANKS, NEW WALLS AND SUPPORT ANY EXISTING STRUCTURES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.

EXISTING CONDITIONS: ALL ABANDONED UTILITIES, FOOTINGS, ETC, THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED. NOTIFY THE STRUCTURAL ENGINEER SHOULD EXISTING FOUNDATIONS OR STRUCTURES BE ENCOUNTERED THAT ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.

BACKFILL: ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN THE BUILDING PERIMETER SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. FLOODING WILL NOT BE PERMITTED. SEE THE GEOTECHNICAL REPORT FOR REQUIREMENTS. BACKFILL BEHIND RETAINING OR PIT WALLS BELOW GRADE SHALL NOT OCCUR UNTIL THE WALLS HAVE REACHED FULL DESIGN STRENGTH. PROPER BRACING TO PROTECT THE STRUCTURE AGAINST LATERAL LOADS SHALL BE IN PLACE PRIOR TO BACKFILL UNTIL THE ATTACHING FLOORS ARE IN PLACE AND HAVE REACHED FULL DESIGN STRENGTH.

#### **CAST-IN-PLACE CONCRETE**

REFERENCE STANDARDS: CONFORM TO:

WITH SELECTED ACI AND ASTM REFERENCES."

- ACI 301-10 "SPECIFICATIONS FOR STRUCTURAL CONCRETE", WITH MODIFICATIONS AS NOTED ON THE PROJECT DRAWINGS AND SPECIFICATIONS IBC 2015 CHAPTER 19 "CONCRETE"
- ACI 318-14 WITH MODIFICATIONS AS NOTED ON THE PROJECT DRAWINGS AND SPECIFICATIONS
- ACI 117-10: SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY RE-APPROVED 2015

FIELD REFERENCE: THE CONTRACTOR SHALL KEEP A COPY OF ACI FIELD REFERENCE

CONCRETE MIXTURES: CONFORM TO ACI 301 SECTION 4 "CONCRETE MIXTURES" AND ACI 318 SECTION 26.4.

MANUAL, SP-15, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301-10)

MATERIALS: CONFORM TO ACI 301 SECTION 4.2.1 "MATERIALS" FOR REQUIREMENTS FOR

CEMENTITIOUS MATERIALS, AGGREGATES, MIXING WATER AND ADMIXTURES.

- CEMENT
- A. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE II. B. IF SULFATES ARE IN SOIL, PER GEOTECHNICAL REPORT, PROVIDE CEMENTITIOUSMATERIAL, MAXIMUM W/CM AND MINIMUM f'c CONCRETE STRENGTH
- PER EXPOSURE CATEGORY S "X" AND ACI 301 TABLE 4.2.2.7.a C. DO NOT USE CONCRETE OR GROUT CONTAINING CHLORIDES.

SUBMITTALS: PROVIDE ALL SUBMITTALS REQUIRED BY ACI 301 SECTION 4.1.2. SUBMIT MIX DESIGNS TO THE SER FOR EACH MIX IN THE TABLE BELOW. SUBSTANTIATING STRENGTH RESULTS FROM PAST TESTS SHALL NOT BE OLDER THAN 24 MONTHS PER ACI 318 SECTION 26.12. ALL MIX DESIGNS SHALL BE VERIFIED BY A QUALIFIED TESTING LABORATORY. WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, MIX DESIGNS SHALL BE WET STAMPED BY A CIVIL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED.

#### TABLE OF MIX DESIGN REQUIREMENTS

MEMBER TYPE/LOCATION	28 DAY STRENGTH f' <sub>c</sub> (PSI)	MAXIMUM AGGREGATE	EXPOSURE CLASS	MAX W/C	AIR CONTENT	
SLABS ON GRADE (INTERIOR)	3,000	3/4"	-	0.40	-	
CONCRETE STEM WALLS	4,500	3/4"	F1,C1	0.45	5%	
						$\sim$

#### TABLE OF MIX DESIGN REQUIREMENTS NOTES:

- W/C RATIO: WATER-CEMENTITIOUS MATERIAL RATIOS SHALL BE BASED ON THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS. MAXIMUM RATIOS ARE CONTROLLED BY STRENGTH NOTED IN THE TABLE OF MIX DESIGN REQUIREMENTS AND DURABILITY
- REQUIREMENTS GIVEN IN ACI 318 SECTION 4.3.

PLACEMENT.

- **CEMENTITIOUS MATERIALS:** A. THE USE OF FLY ASH, OTHER POZZOLANS, SILICA FUME, OR SLAG SHALL CONFORM TO ACI 318 SECTIONS 4.3.1 AND 4.4.2. MAXIMUM AMOUNT OF FLY ASH SHALL BE 20% OF TOTAL CEMENTITIOUS CONTENT UNLESS REVIEWED AND APPROVED OTHERWISE BY SER.
- B. CEMENTITIOUS MATERIALS SHALL CONFORM TO THE RELEVANT ASTM STANDARDS LISTED IN ACI 318 SECTION 3.2.1.
- HARDROCK AGGREGATES SHALL CONFORM TO ASTM C33. LIGHT-WEIGHT AGGREGATES SHALL CONFORM TO ASTM C330.
- SLUMP: CONFORM TO ACI 301 SECTION 4.2.2.2. SLUMP SHALL BE DETERMINED AT POINT OF DELIVERY
- CHLORIDE CONTENT: CONFORM TO ACI 318 SECTION 4.3.1 AND TABLE R4.3.1. NON-CHLORIDE ACCELERATOR: NON-CHLORIDE ACCELERATING ADMIXTURE MAY BE USED IN CONCRETE PLACED AT AMBIENT TEMPERATURES BELOW 50°F AT THE
- CONTRACTOR'S OPTION. ACI 318, SECTION 4 EXPOSURE CLASSES SHALL BE ASSUMED TO BE F0, S0, P0, AND C0 UNLESS DIFFERENT EXPOSURE CLASSES ARE LISTED IN THE TABLE OF MIX DESIGN
- REQUIREMENTS THAT MODIFY THESE BASE REQUIREMENTS. DO NOT ADD WATER TO CONCRETE DURING DELIVERY, AT PROJECT SITE OR DURING

MEASURING, MIXING AND DELIVERY: CONFORM TO ACI 301 SECTION 4.3-EXECUTION. DO NOT ADD WATER TO CONCRETE DURING DELIVERY, AT PROJECT SITE, OR DURING

HANDLING, PLACING, CONSTRUCTING AND CURING: CONFORM TO ACI 301 SECTION 5. IN ADDITION, HOT WEATHER CONCRETING SHALL CONFORM TO ACI 305R-10 WITH 305.1-14 UPDATES AND COLD WEATHER CONCRETING SHALL CONFORM TO ACI 306R-10. CONCRETE CURING: PROVIDE CURING COMPOUNDS FOR CONCRETE AS FOLLOWS:

AFFECT SURFACES TO BE COVERED WITH FINISH MATERIALS APPLIED DIRECTLY TO CONCRETE. APPLY CURING COMPOUNDS AT A RATE EQUIVALENT TO THE RATE OF APPLICATION AT

USE MEMBRANE CURING COMPOUNDS THAT ARE COMPATIBLE WITH AND WILL NOT

WHICH CURING COMPOUND WAS ORIGINALLY TESTED FOR IN CONFORMANCE TO THE REQUIREMENTS OF ASTM C 309-11 AND THE MANUFACTURER'S RECOMMENDATIONS.

#### CAST-IN-PLACE CONCRETE (CONT)

CONSTRUCTION JOINTS: CONFORM TO ACI 301 SECTIONS. 2.2.2.5, 5.2.2.1 AND 5.3.2.6. CONSTRUCTION JOINTS SHALL BE LOCATED AND DETAILED AS ON THE CONSTRUCTION DRAWINGS. SUBMIT ALTERNATE LOCATIONS PER ACI 301 SECTION 5.1.2.3A FOR REVIEW AND APPROVAL BY THE SER (2) WEEKS MINIMUM PRIOR TO FORMING. USE OF AN ACCEPTABLE ADHESIVE, SURFACE RETARDANT, PORTLAND CEMENT GROUT OR ROUGHENING THE SURFACE IS NOT REQUIRED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.

EMBEDDED ITEMS: POSITION AND SECURE IN PLACE EXPANSION JOINT MATERIAL, ANCHORS AND OTHER STRUCTURAL (REINFORCING BARS, ANCHOR BOLTS AND OTHER EMBEDDED ITEMS) AND NON-STRUCTURAL EMBEDDED ITEMS BEFORE PLACING CONCRETE. CONTRACTOR SHALL REFER TO MECHANICAL, ELECTRICAL, PLUMBING AND ARCHITECTURAL DRAWINGS AND COORDINATE OTHER EMBEDDED ITEMS.

CONCRETE PLACEMENT TOLERANCE: CONFORM TO ACI 117 FOR CONCRETE PLACEMENT

TOLERANCE. CONCRETE FORMS SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS INDICATED IN THE STRUCTURAL DRAWINGS. CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH ACI STANDARD 304R-00 AND PROJECT SPECIFICATIONS.

CONCRETE PREPARATION AND FINISH: CONCRETE SURFACES TO BE ROUGHENED TO 1/4" AMPLITUDE WHERE MASONRY WALLS INTERSECT CONCRETE OR WHERE NEW CONCRETE INTERFACES WITH EXISTING CONCRETE. THE PROJECTING CORNERS OF COLUMNS, BEAMS, AND WALLS, ETC, SHALL BE FORMED WITH A 3/4" CHAMFER, UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS OR SPECIFICATIONS.

SLABS: UNLESS OTHERWISE INDICATED IN THE MECHANICAL OR ELECTRICAL DRAWINGS OR PROJECT SPECIFICATIONS, MECHANICAL PIPES AND ELECTRICAL CONDUITS WHICH PASS THROUGH SLAB ON GRADE, CONCRETE ON STEEL DECK, FRAMED CONCRETE FLOORS AND WALLS DO NOT REQUIRE SLEEVES. IF SLEEVES ARE REQUIRED, THE SLEEVES SHALL BE INSTALLED PRIOR TO PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY INTERFERE WITH SLEEVE PLACEMENT. CORING OPENINGS IN CONCRETE IS NOT PERMITTED NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

FOR SLABS ON GRADE AND CONCRETE ON STEEL DECK NO PIPES OR CONDUITS SHALL BE PLACED WITHIN THE INDICATED CONCRETE SLAB THICKNESS AND SHALL BE LOCATED BELOW THE SLAB UNLESS SPECIFICALLY DETAILED OTHERWISE.

CLEAR COVERAGE TO REINFORCING: CLEAR COVERAGE OF CONCRETE REINFORCING SHALL BE PER ACI 318 SECTION 20.6.1.3.1 AS FOLLOWS:

#### CLEAR COVERAGE OF REINFORCING

LOCATION OF CONCRETE	CONCRETE COVER
SLAB ON GRADE:	SEE PLAN

#### <u>POST-INSTALLED ANCHORS (INTO CONCRETE )</u>

DESIGN STANDARDS: POST-INSTALLED ANCHORS INTO CONCRETE FOR THIS PROJECT ARE DESIGNED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE, ACI 318-14, APPENDIX D SPECIFICATIONS.

<u>POST-INSTALLED ANCHORS</u>: ALL ANCHORS AND THREADED RODS INSTALLED IN EXTERIOR OR DAMP ENVIRONMENTS SHALL BE GALVANIZED OR STAINLESS STEEL TO PROTECT AGAINST CORROSION. INSTALL ONLY WHERE SPECIFICALLY SHOWN IN THE DETAILS OR ALLOWED BY SER. ALL POST-INSTALLED ANCHORS TYPES AND LOCATIONS SHALL BE APPROVED BY THE SER AND SHALL HAVE A CURRENT ICC-EVALUATION SERVICE REPORT THAT PROVIDES RELEVANT DESIGN VALUES NECESSARY TO VALIDATE THE AVAILABLE STRENGTH EXCEEDS THE REQUIRED STRENGTH. SUBMIT CURRENT MANUFACTURER'S DATA AND ICC-ES REPORT TO SER FOR APPROVAL REGARDLESS OF WHETHER OR NOT IT IS A PRE-APPROVED ANCHOR. ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE TO ICC-ES REPORT AND MANUFACTURER'S INSTRUCTIONS. NO REINFORCING BARS SHALL BE DAMAGED DURING INSTALLATION OF POST-INSTALLED ANCHORS. SPECIAL INSPECTION SHALL BE PER THE TESTS AND INSPECTIONS SECTION. ANCHOR TYPE, DIAMETER AND EMBEDMENT SHALL BE AS INDICATED ON DRAWINGS.

POST-INSTALLED ANCHORS AT POST-TENSIONED CONCRETE DECKS (EXTENDING INTO THE DEPTH WHERE TENDONS ARE PLACED) SHALL NOT BE USED UNLESS THE TENDONS HAVE BEEN LOCATED AND WILL NOT BE DAMAGED BY THE ANCHOR INSTALLATION.

ADHESIVE ANCHORS: THE FOLLOWING ADHESIVE-TYPE ANCHORING SYSTEMS HAVE BEEN USED IN THE DESIGN AND SHALL BE USED FOR ANCHORAGE TO CONCRETE AND MASONRY, AS APPLICABLE AND IN ACCORDANCE WITH CORRESPONDING CURRENT ICC-ES REPORT. DRILLED-IN ANCHOR EMBEDMENT LENGTHS SHALL BE AS SHOWN ON

DRAWINGS, OR NOT LESS THAN 7 TIMES THE ANCHOR NOMINAL DIAMETER (7D).

- A. HILTI "HIT HY-200" ICC ESR-3187 FOR ANCHORAGE TO CONCRETE ONLY B. SIMPSON "SET-XP" -ICC ESR-2508 FOR ANCHORAGE TO CONCRETE ONLY
- 2. EXPANSION ANCHORS:
- A. HILTI "KB-TZ"-ICC ESR-1917 FOR ANCHORAGE TO CONCRETE ONLY B. SIMPSON "STRONG-BOLT"—ICC ESR-3037 FOR ANCHORAGE TO CONCRETE ONLY
- 3. SCREW ANCHORS: A. SIMPSON "TITEN HD"-ICC ESR-2713 FOR CONCRETE, ICC ESR-1056 FOR MASONRY

#### **WOOD FRAMING**

REFERENCE STANDARDS: CONFORM TO:

- 1. IBC CHAPTER 23 "WOOD"
- 2. NDS- "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION"
- 3. APA PDS-12 PLYWOOD DESIGN SPECIFICATION 4. ANSI/TPI1 "NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSS
- CONSTRUCTION" BCSI "GUIDE TO GOOD PRACTICE FOR INSTALLING, RESTRAINING AND BRACING OF
- METAL PLATED CONNECTED WOOD TRUSSES" TPI DSB "RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL
- PLATE CONNECTED WOOD TRUSSES" APA REPORT TT-045B "MINIMUM NAIL PENETRATION FOR WOOD STRUCTURAL PANEL
- CONNECTIONS SUBJECT TO LATERAL LOADS"

DEFERRED SUBMITTALS: SUBMIT PRODUCT DATA AND PROOF OF ICBO APPROVAL FOR FRAMING MEMBERS AND FASTENERS THAT HAVE BEEN DESIGNED BY OTHERS. SUBMIT CALCULATIONS PREPARED BY A PROFESSIONAL ENGINEER IN THE AUTHORITY HAVING JURISDICTION FOR ALL MEMBERS AND CONNECTIONS DESIGNED BY OTHERS ALONG WITH SHOP DRAWINGS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS AND WEB STIFFENERS SHALL BE DETAILED AND FURNISHED BY THE SUPPLIER. TEMPORARY AND PERMANENT BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECTION LIMITS SHALL BE AS NOTED UNDER DESIGN LOADS SECTION. PRODUCTS INCLUDED ARE: 1. STRUCTURAL COMPOSITE LUMBER (PSL, LSL, LVL, ETC)

IDENTIFICATION: ALL SAWN LUMBER AND PRE-MANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY.

#### <u>MATERIALS</u>

FRAMING LUMBER: SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

DOUGLAS FIR #1

JOISTS: (2x, 3x, AND 4x MEMBERS) DOUGLAS FIR #2

BEAMS AND STRINGERS: (INCLUDING 6x AND LARGER MEMBERS)

DOUGLAS FIR #1 POSTS AND TIMBERS:

STUDS, PLATES AND MISCELLANEOUS DOUGLAS FIR #2

LIGHT FRAMING: FRAMING LUMBER IN DIRECT CONTACT WITH CONCRETE OR MASONRY, EXPOSED TO WEATHER. OR THAT ARE WITHIN 8" OF EARTH SHALL BE PRESERVATIVE TREATED AND

PRODUCT, PRESERVATIVE, AND END USE. LAMINATED VENEER LUMBER (LVL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP, OR STAMPS, NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED VENEER LUMBER SHALL BE MANUFACTURED USING DOUGLAS-FIR VENEER GLUED WITH A WATERPROOF ADHESIVE

MARKED PER IBC SECTION 2303.1.9 AND AWPA STANDARD U1 AND M4 FOR THE SPECIES

FB = 2.600 PSI, E = 1.9 x 10 PSI, FV = 285 PSI DESIGN SHOWN ON PLANS IS BASE ON THE MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

LENGTH OF THE MEMBER. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE

ENGINEERED WOOD PRODUCTS: THE FOLLOWING MATERIALS ARE BASED ON LUMBER MANUFACTURED BY TRUS-JOIST AND WERE USED FOR THE DESIGN AS SHOWN ON THE PLANS. ALTERNATE PRODUCTS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUIVALENT OR GREATER LOAD AND STIFFNESS PROPERTIES AND ARE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.

TIMBER CONNECTORS: SHALL BE "STRONG-TIE" BY SIMPSON COMPANY AS SPECIFIED IN THEIR LATEST CATALOG. ALTERNATE CONNECTORS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUIVALENT OR GREATER LOAD CAPACITIES AND ARE REVIEWED AND APPROVED BY THE EOR PRIOR TO ORDERING. CONNECTORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT (2) MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. WHERE STRAPS ARE USED AS HOLD-DOWNS, NAIL STRAPS TO WOOD FRAMING JUST PRIOR TO DRYWALL APPLICATION, AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE. PREMATURE NAILING OF THE STRAP MAY LEAD TO STRAP BUCKLING AND POTENTIAL FINISH DAMAGE.

WHERE CONNECTORS ARE IN EXPOSED EXTERIOR APPLICATIONS IN CONTACT WITH PRESERVATIVE TREATED WOOD (PT) OTHER THAN SBX/DOT AND ZINC BORATE IN AN INTERIOR, DRY ENVIRONMENT, CONNECTORS SHALL BE EITHER BATCH HOT-DIPPED GALVANIZED (HDG), MECHANICALLY GALVANIZED (ASTM B695, CLASS 40 OR GREATER) STAINLESS STEEL, OR PROVIDED WITH 1.85 OZ/SF OF ZINC GALVANIZING EQUAL TO OR BETTER THAN SIMPSON ZMAX FINISH.

FASTENERS (NAILS, BOLTS, SCREWS, ETC) ATTACHING TIMBER CONNECTORS JOIST HANGERS, POST CAPS AND BASES, ETC) TO PT WOOD SHALL HAVE SIMILAR CORROSION RESISTANCE PROPERTIES (MATCHING PROTECTIVE TREATMENTS) AS THE PROTECTED CONNECTOR. FASTENERS (NAILS, BOLTS, SCREWS, ETC) ATTACHING SAWN TIMBER MEMBERS OR SHEATHING (SHEAR WALLS) TO PT WOOD BE CORROSION RESISTANT; NAILS AND LAG BOLTS SHALL BE EITHER HDG (ASTM A153) OR STAINLESS STEEL. VERIFY THE SUITABILITY OF THE FASTENER PROTECTION/COATING WITH THE WOOD TREATMENT CHEMICAL MANUFACTURER/SUPPLIER.

PROVIDE STANDARD CUT WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. ALL NAILS 12D AND SMALLER SHALL BE FULL LENGTH COMMON UNLESS NOTED OTHERWISE. 16D NAILS MAY BE 16D SINKERS UNLESS NOTED OTHERWISE. NAIL STRAPS TO WOOD FRAMING AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE. PREMATURE NAILING OF THE STRAP MAY LEAD TO STRAP BUCKLING AND POTENTIAL FINISH DAMAGE.

<u>FASTENERS</u>: CONFORM TO IBC SECTION 2304.10 "CONNECTIONS AND FASTENERS." UNLESS NOTED ON PLANS, NAIL PER TABLE 2304.10.1. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE COMMON. ALTERNATE NAILS MAY BE USED BUT ARE SUBJECT TO REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER. SUBSTITUTION OF STAPLES FOR THE NAILING OF RATED SHEATHING IS SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO

LAG SCREWS/BOLTS: CONFORM TO ASTM A307 AND IBC SECTION 2304.10.

CONSTRUCTION.

NAILING REQUIREMENTS: PROVIDE MINIMUM NAILING IN ACCORDANCE WITH IBC TABLE 2304.10.1. "FASTENING SCHEDULE" EXCEPT AS NOTED ON THE DRAWINGS. NAILING FOR ROOF/FLOOR DIAPHRAGMS/SHEAR WALLS SHALL BE PER DRAWINGS. NAILS SHALL BE DRIVEN FLUSH AND SHALL NOT FRACTURE THE SURFACE OF SHEATHING.

WOOD FASTENERS: NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

	WOOD FAS	STENERS	
DRAWING ID	NAIL NAME	NAIL DIAMETER	NAIL LENGTH
"6d"	6d COMMON	0.113"	2"
"8d BOX"	8d BOX	0.113"	2 1/2"
"8d"	8d COMMON	0.131"	2 1/2"
"10d-F"	10d FRAMER	0.131"	3"
"10d"	10d SHEAR	0.148"	2 1/4"
"16d"	16d SINKER	0.148"	3 1/4"
"16d-S"	16d SHORT	0.131"	3 1/4"

#### **WOOD FRAMING (CONT)**

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS: SHEATHING FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

HOT DIPPED GALVANIZED NAILS, BOLTS AND METAL PLATES: ALL NAILS, BOLTS AND METAL PLATES IN CONTACT WITH PRESSURE TREATED (INCLUDING FIRE-RETARDANT TREATED) LUMBER SHALL BE HOT DIPPED GALVANIZED. HARDWARE IN CONTACT WITH SBX/DOT AND ZINC BORATE TREATED IN AN INTERIOR, DRY ENVIRONMENT IS NOT REQUIRED TO BE HOT DIPPED GALVANIZED.

STANDARD LIGHT-FRAME CONSTRUCTION: UNLESS NOTED ON THE PLANS, CONSTRUCTION SHALL CONFORM TO IBC SECTION 2308, "CONVENTIONAL LIGHT-FRAME CONSTRUCTION."

NAILERS ON STEEL COLUMNS AND BEAMS: WOOD 3x NAILERS ARE GENERALLY REQUIRED ON ALL HSS COLUMNS AND STEEL BEAMS ABUTTING OR EMBEDDED WITHIN WOOD FRAMING. UNLESS NOTED OTHERWISE, ATTACH WITH 5/8" DIAMETER BOLTS OR WELDED THREADED STUDS @ 16" ON CENTERS. WOOD NAILERS ON BEAMS SUPPORTING JOIST HANGERS SHALI NOT OVERHANG THE BEAM FLANGE BY MORE THAN 1/4".

MOISTURE CONTENT: WOOD MATERIAL USED FOR THIS PROJECT SHALL HAVE MAXIMUM MOISTURE CONTENT OF 19% EXCEPT FOR THE PRESSURE-TREATED WOOD SILL PLATE. REFER TO TESTING AND INSPECTIONS FOR THE VERIFICATION OF THESE LIMITS. THE MAXIMUM MOISTURE CONTENT REQUIRED MAY BE LESS THAN 19% WHEN BASED ON A PARTICULAR CLADDING/INSULATION SYSTEM. REFER TO THE ARCHITECT'S DRAWINGS, AND PROJECT SPECIFICATIONS, OR WITH CLADDING INSTALLER FOR MAXIMUM RECOMMENDED MOISTURE CONTENT.

B 20

6/25/18

PROJECT DATE 18059.00 05/02/18 DRAWN CHECKED LS

REVISED ADDENDUM 5

SHEET TITLE **GENERAL** 

**NOTES** 

SHEET

FOUNDATION NOTES **GENERAL NOTES** 

1. X'-X" INDICATES NEW OPENING IN EXISTING WALL. LOCATE AS SHOWN ON PLAN, COORDINATE EXACT LOCATION WITH MECHANICAL. REINFORCE OPENING, SEE 1/S5.01. CONTACT STRUCTURAL EOR PRIOR TO ANY ADDITIONAL OPENINGS FOR

2. SLAB ON GRADE INDICATED ON PLAN, REINF SHALL BE:

6" SLAB = #4 @ 18" OC EACH WAY, 2" CLEAR FROM TOP OF CONC

4" SLAB = #4 @ 18" OC EACH WAY, 1 1/2" CLEAR FROM TOP OF CONC

ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS SHALL BE VERIFIED BY THE CONTRACTOR WITH THE LATEST ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER IMMEDIATELY.

CONTRACTOR SHALL FIELD VERIFY EXISTING STRUCTURAL CONDITIONS. IF ANY DISCREPANCY OCCURS BETWEEN EXISTING CONDITIONS AND PROPOSED ALTERATIONS, CONTRACTOR SHALL CONTACT ARCHITECT AND STRUCTURAL ENGINEER BEFORE

FOR GENERAL NOTES: CONCRETE STANDARD DETAILS:

PERFORMING ALTERATION WORK.

S0.00 SERIES SHEETS S5.00 SERIES SHEETS WOOD STANDARD DETAILS: S5.60 SERIES SHEETS

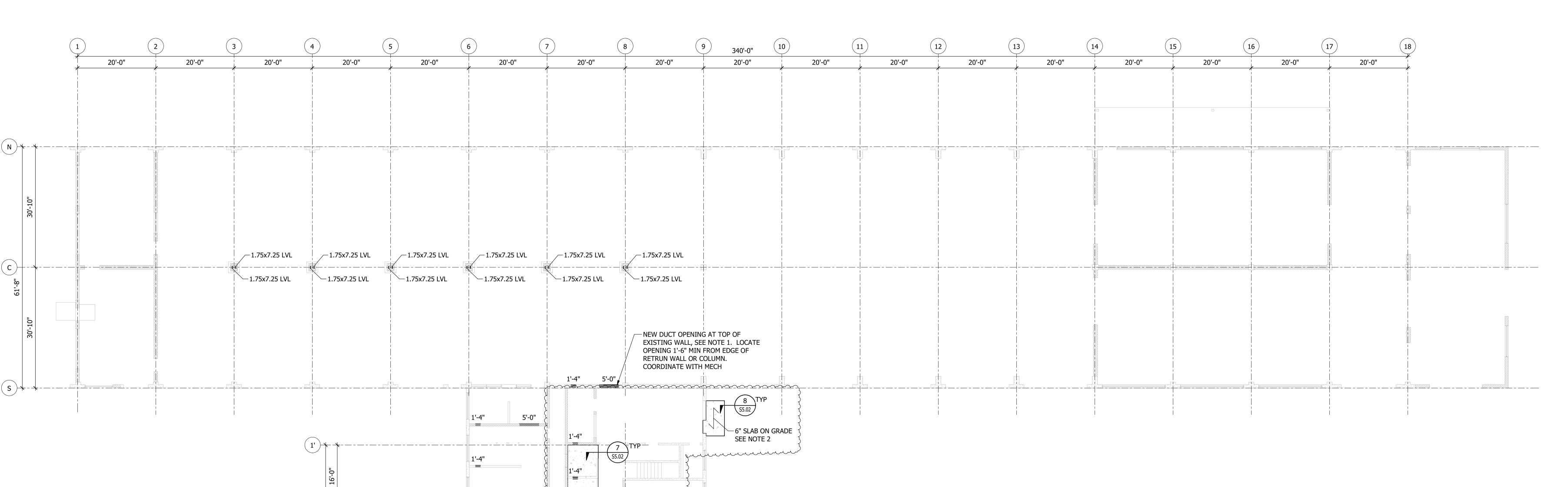
PROJECT	DATE
18059.00	05/02/18
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REVISED	
1 ADDENDUM 1	2018-05-15
5 ADDENDUM 5	5 2018-06-06

SHEET TITLE

FOUNDATION **PLAN** 

SHEET

ORIGINAL SHEET SIZE 30" x 42"



5'-0" 1'-0" REMOVE AND REPLACE EXIST SLAB ON GRADE WITH TYP 7 4" SLAB ON GRADE SEE NOTE 2 ── 6" SLAB ON GRADE \ SEE NOTE 2 PROVIDE 4'-0" OF CONTROLLED DENSITY FILL, f'c = 500 PSI UNDER NEW SLAB ON GRADE -6" SLAB ON GRADE - NEW OPENING AT EXISTING NON-BEARING CMU WALL, SEE DETAIL: 10/S5.01 TYP 8 S5.02 -6" SLAB ON GRADE . SINCREASE OPENING HEIGHT AS REQUIRED— SEE NOTE 2 20'-0" 5 FOR NEW SLAB ELEVATION PER: 10/S5.01

INFILL CONCRETE WALL BELOW TOP OF NEW

SLAB ON GRADE WITH #5 AT 12" OC EACH WAY EPOXY EMBED 6" MIN INTO EXISTING CONCRETE.

1 LEVEL 1 FOUNDATION PLAN

SCALE: 3/32" = 1'-0"

FLOOR FRAMING NOTES

1. ALL SISTERED BEAMS TO BE CONNECTED PER IBC FASTENING SCHEDULE FOR BUILT-UP GIRDERS ANND BEAMS, UNO. . WHERE CROSS BRIDGING IS REMOVED TO ALLOW FOR NEW SISTER

JOIST, REMOVE AND REPLACE CROSS BRIDGING.

**GENERAL NOTES** 

ALL DIMENSIONS AND ELEVATIONS ON THE STRUCTURAL PLANS SHALL BE VERIFIED BY THE CONTRACTOR WITH THE LATEST ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER IMMEDIATELY.

CONTRACTOR SHALL FIELD VERIFY EXISTING STRUCTURAL CONDITIONS. IF ANY DISCREPANCY OCCURS BETWEEN EXISTING CONDITIONS AND PROPOSED ALTERATIONS, CONTRACTOR SHALL CONTACT ARCHITECT AND STRUCTURAL ENGINEER BEFORE

FOR GENERAL NOTES: CONCRETE STANDARD DETAILS:

PERFORMING ALTERATION WORK.

S0.00 SERIES SHEETS S5.00 SERIES SHEETS WOOD STANDARD DETAILS: S5.60 SERIES SHEETS 05/02/18

CR. 200 200 BOIR PHC PHC PROFILE STREET PROFILE STR

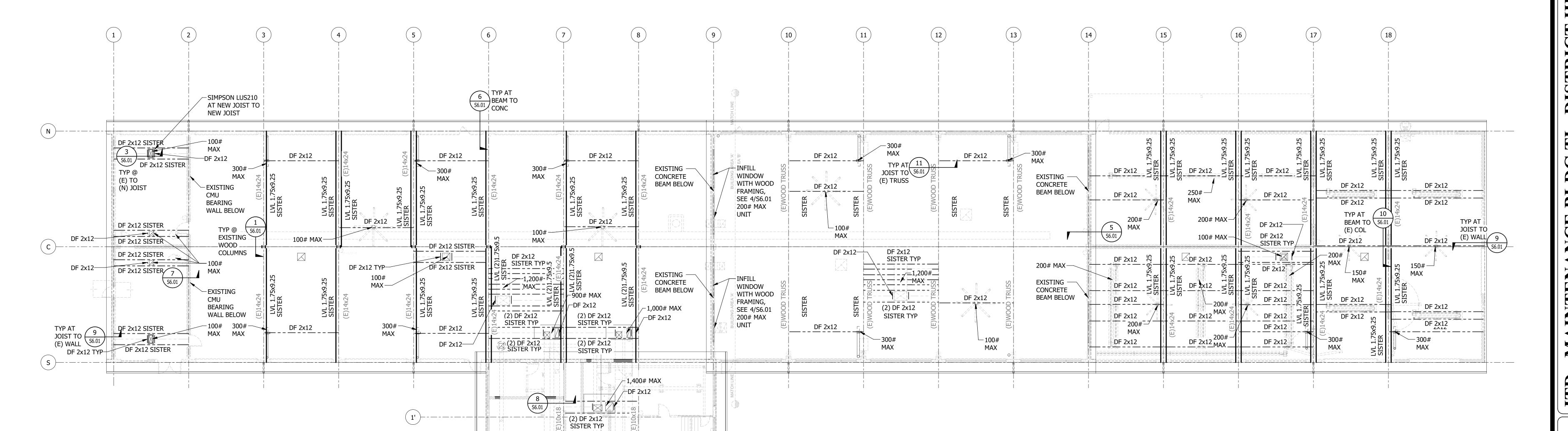
6/25/18

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PROJECT	DATE
18059.00	05/02/18
DRAWN	CHECKED
AP	LS
REVISED	

**FRAMING PLAN** 

**S1.02** 

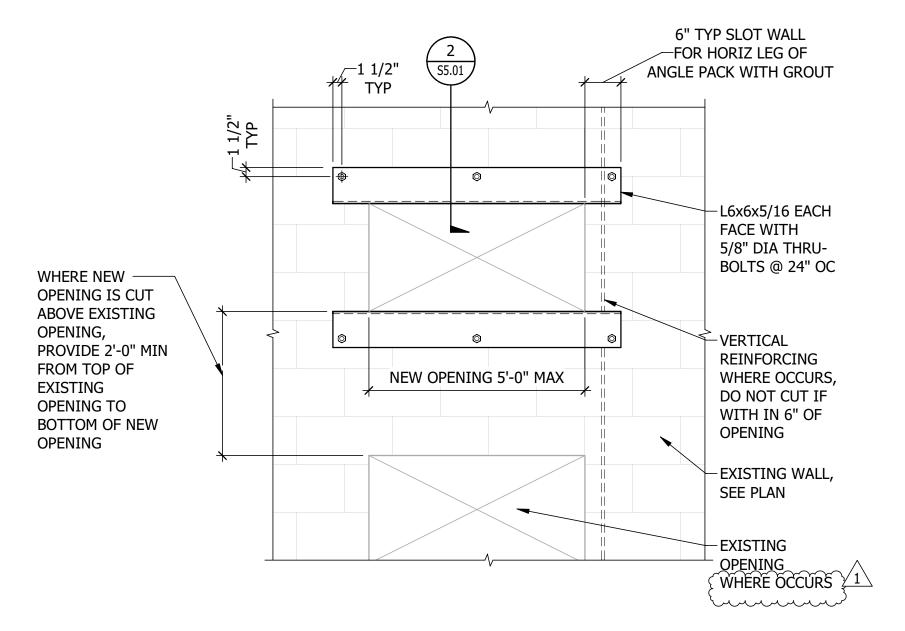
ORIGINAL SHEET SIZE 30" x 42"



LEVEL 2 FRAMING PLAN

SCALE: 3/32" = 1'-0"

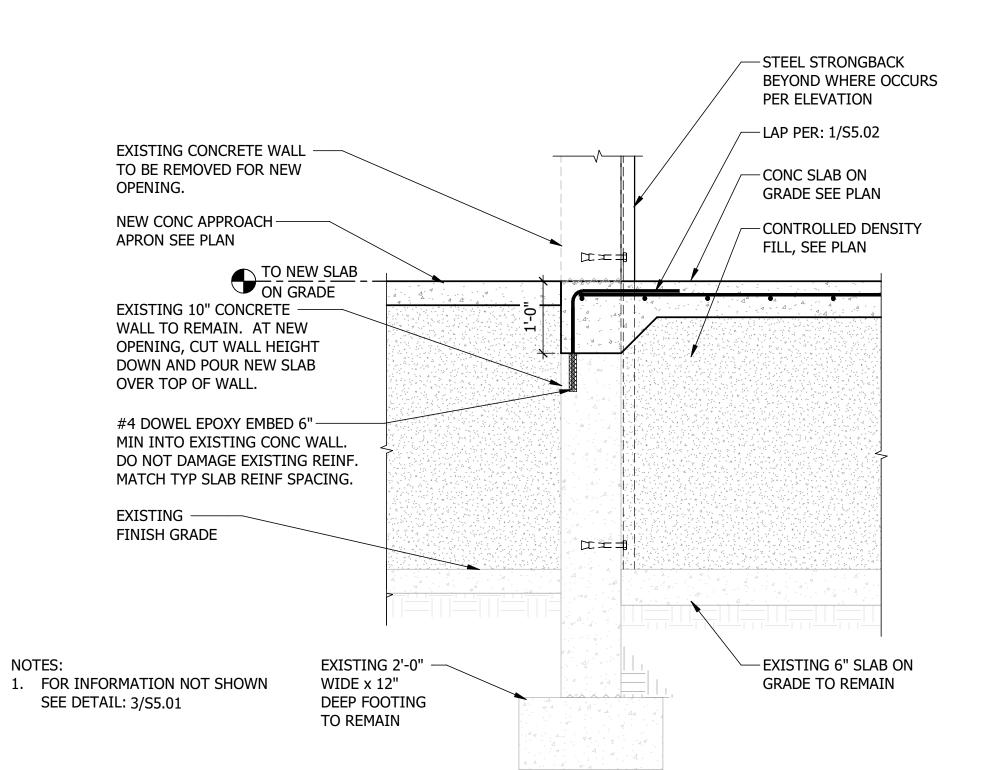


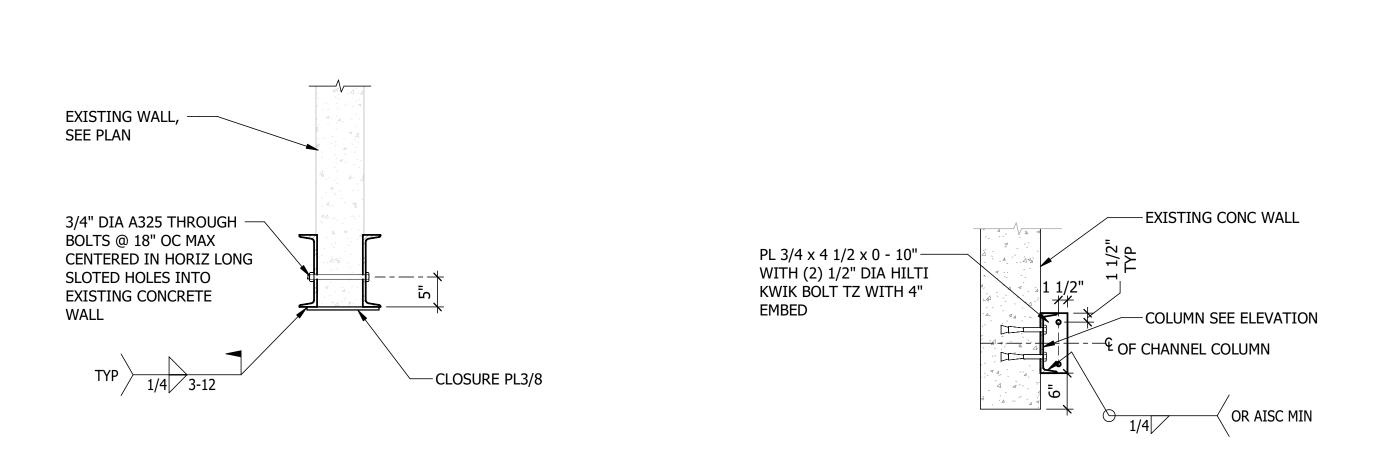


- 1. SAWCUT MASONRY AND INSERT HEAD REINFORCING ANGLES; INSTALL BOLTS THEN REMOVE 2'-0" STRIP OF MASONRY AT JAMBS
- TO INSTALL JAMB REINFORCING, THEN COMPLETE REMOVAL OF MASONRY. 2. MIRROR DETAIL AT BOTTOM OF OPENING WHERE NEW OPENING IS
- LOCATED ABOVE FLOOR LEVEL.
- 3. NEW OPENINGS LOCATED ABOVE ANOTHER WALL OPENING SHALL MAINTAIN 24" MIN CLEARANCE BETWEEN OPENINGS.
- NEW OPENING IN EXISTING WALL

INFILL DETAIL AT NEW OPENING

SCALE: NTS





1. FOR INFORMATION NOT SHOWN, SEE 5/S5.01 2. PLATE TO BE 1/2" FROM EDGE OF OPENING (EACH SIDE)

> BASE PLATE SECTION (9) SCALE: NTS

**EXISTING** WALL, SEE PLAN ANGLES BOLTED — TOGETHER WITH 5/8" DIA A307 THRU-BOLT WITH HEAVY HEX NUT AND WASHER EACH 3/8" -CLOSURE PL

JAMB AND HEAD DETAIL

SCALE: NTS

REF SHEET: S5.01

—LAP PER: 1/S5.02 SHORE WALL PRIOR —— -CONC SLAB ON TO PLACING CONTROL DENSITY FILL. GRADE SEE PLAN NEW CONC APPROACH— - CONTROLLED DENSITY APRON SEE PLAN FILL, SEE PLAN TO NEW SLAB -EXISTING -CONCRETE WALL AT CONTRACTOR -OPTION, FILL WTH CONTROLLED DENSITY FILL OR STRUCT FILL. EXISTING -FINISH GRADE EXISTING 2'-0" - EXISTING 6" SLAB ON WIDE x 12" GRADE TO REMAIN

1. FOR INFORMATION NOT SHOWN, SEE 1/S5.01 2. CONTRACTOR'S OPTION: 3/8" BENT PLATE WITH 6" LEGS EACH FACE, MAY BE USED IN LIEU OF ANGLE EACH FACE

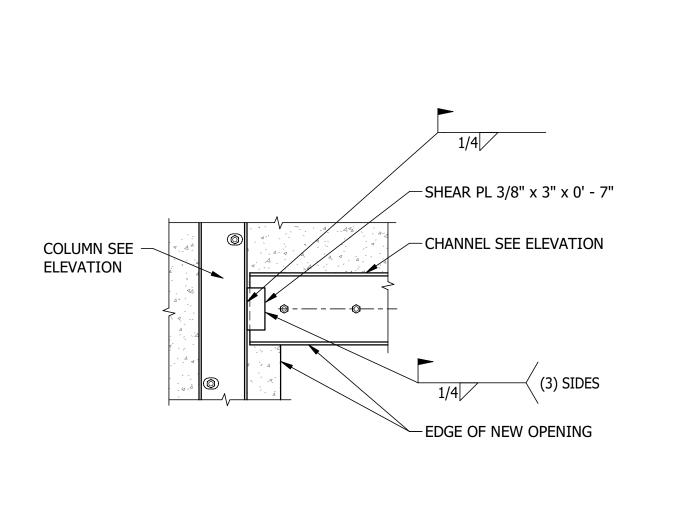
DEEP FOOTING

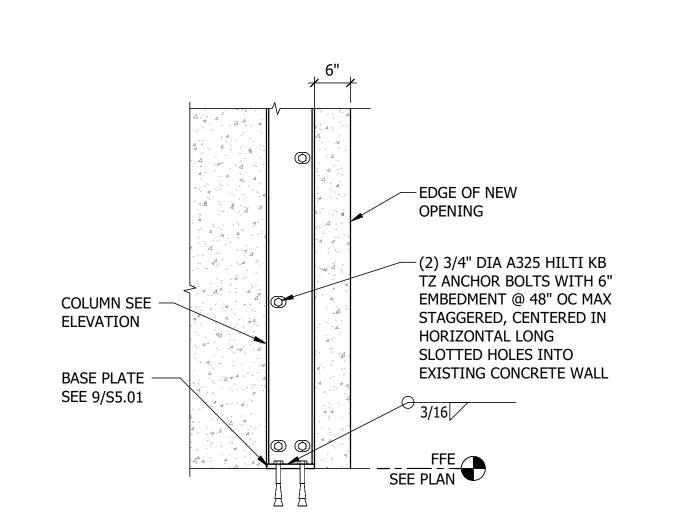
TO REMAIN

#4 DOWEL EPOXY EMBED 6"-MIN INTO EXISTING CONC WALL. DO NOT DAMAGE EXISTING REINF.

MATCH TYP SLAB REINF SPACING.

-EXISTING 2ND FLOOR LINE 8 S5.01 TYP 6 -C12x25 C8x11.5 -C8x11.5 -EXISTING WALL, NEW OPENING 6'-6" MAX SEE PLAN — NEW SLAB ON GRADE - CONTROLLED DENSITY FILL





-EXISTING CMU WALL

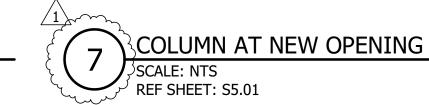
-LAP PER: 1/S5.02

RINEW OPENING IN EXISTING CONCRETE WALL SCALE: NTS

1. CHANNELS SHALL BE f<sub>y</sub>=50 KSI

HEADER AT NEW OPENING ∫SCALE: NTS REF SHEET: S5.01

6" TYP SLOT WALL



FOR HORIZ LEG OF 1 1/2" ★ TYP ANGLE PACK WITH GROUT -L6x6x5/16 EACH **FACE WITH** 5/8" DIA THRU-BOLTS @ 24" OC - VERTICAL REINFORCING WHERE OCCURS, DO NOT CUT IF WITH IN 6" OF OPENING -EXISTING WALL, SEE PLAN

-EXISTING SLAB ON GRADE

TO REMAIN

1. SAWCUT MASONRY AND INSERT HEAD REINFORCING ANGLES; INSTALL BOLTS THEN REMOVE 2'-0" STRIP OF MASONRY AT JAMBS TO INSTALL JAMB REINFORCING, THEN COMPLETE REMOVAL OF MASONRY.

NEW OPENING 6'-4" MAX

2. MIRROR DETAIL AT BOTTOM OF OPENING WHERE NEW OPENING IS LOCATED ABOVE FLOOR LEVEL. 3. NEW OPENINGS LOCATED ABOVE ANOTHER WALL OPENING SHALL MAINTAIN 24" MIN CLEARANCE BETWEEN OPENINGS.

NEW OPENING IN EXISTING WALL (10) SCALE: NTS

**AND** (GENERAL)

-#4 DOWEL EPOXY EMBED 6" MIN INTO EXISTING CONC WALL. DO NOT DAMAGE EXISTING REINF. MATCH TYP SLAB REINF SPACING.

6/25/18

PROJECT 18059.00 05/02/18 DRAWN CHECKED LS REVISED ADDENDUM 1

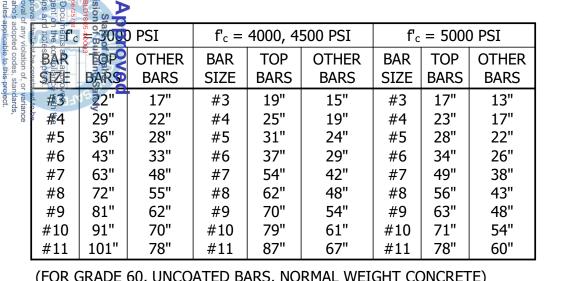
SCONCRETE TE **MASONRY DETAILS** 

**S5.01** 

ORIGINAL SHEET SIZE 30" x 42"

LINTEL HEAD DETAIL  $\frac{3}{2}$  SCALE: NTS

REF SHEET: S5.01



(FOR GRADE 60, UNCOATED BARS, NORMAL WEIGHT CONCRETE) MINIMUM STRAIGHT DEVELOPMENT LENGTH FOR BARS IN TENSION (Ld)

f'c	= 3000	) PSI	f'c =	4000, 4	500 PSI	f'c	= 5000	) PSI
BAR	TOP	OTHER	BAR	TOP	OTHER	BAR	TOP	OTHER
SIZE	BARS	BARS	SIZE	BARS	BARS	SIZE	BARS	BARS
#3	28"	22"	#3	25"	19"	#3	22"	17"
#4	38"	29"	#4	33"	25"	#4	29"	23"
#5	47"	36"	#5	41"	31"	#5	36"	28"
#6	56"	43"	#6	49"	37"	#6	44"	34"
#7	81"	63"	#7	71"	54"	#7	63"	49"
#8	93"	72"	#8	81"	62"	#8	72"	56"
#9	105"	81"	#9	91"	70"	#9	81"	63"
#10	118"	91"	#10	102"	79"	#10	92"	71"
#11	131"	101"	#11	114"	87"	#11	102"	78"

MINIMUM CLASS "B" LAP SPLICE LENGTH FOR BARS IN TENSION (Lb)

**\ REINF SPLICE & DEVELOPMENT LENGTH SCHEDULE** 

$f'_{c} = 30$	000 PSI	$f'_c = 4000$	-5000 PSI
BAR SIZE	ALL BARS	BAR SIZE	ALL BARS
#3	6"	#3	6"
#4	8"	#4	7"
#5	10"	#5	9"
#6	12"	#6	10"
#7	14"	#7	12"
#8	16"	#8	14"
#9	18"	#9	15"
#10	20"	#10	17"
#11	22"	#11	19"

MINIMUM LAP SPLICE LENGTHS FOR STANDARD END HOOKS (Ldh) FOR BARS IN COMPRESSION (Lbc)

$f'_c = 3000 \text{ PSI}$ $f'_c = 4000\text{-}5000 \text{ F}$ BAR ALL BAR ALL  SIZE BARS SIZE BARS	NOTES:  1. "TOP BARS" ARE HORIZ BARS WITH MORE THAN 12" DEPTH OF
	TO BARC" ARE HORTZ BARC WITH MORE THAN 12" DERTH OF
	CONCRETE CAST BELOW THEM.
#3 9" #3 8" #4 11" #4 10" #5 14" #5 12"	2. IF CLEAR CONCRETE COVER IS NOT GREATER THAN THE DIAMETER OF THE BAR OR THE CENTER TO CENTER SPACING I NOT GREATER THAN 2 BAR DIAMETERS, THEN VALUES SHALL E
#6 17" #6 15" #7 20" #7 17" #8 22" #8 19"	INCREASED BY A FACTOR OF 1.5.  3. END COVER FOR HOOKS MUST BE EQUAL TO OR GREATER THA  2". SIDE COVER MUST BE EQUAL TO OR GREATER THAN 2 1/2"  4. CLASS B - MORE THAN HALE OF THE BARS ARE SPLICED WITHIN

#9 #10 A REQUIRED LAP LENGTH. CLASS A - LAP SPLICES MAY BE USED #10 28" WHERE LESS THAN HALF OF THE BARS ARE SPLICED WITHIN A #11 | 31" | #11 | 27" REOUIRED LAP LENGTH BY DIVIDING THE CLASS B LENGTH BY A MINIMUM STRAIGHT DEVELOPMENT

 $f'_c = 3000-5000 PSI$ 

ALL BARS

12"

15"

19" 23"

27" 30"

34"

39"

43"

BAR SIZE

#3 #4

#5

#6 #7

#8

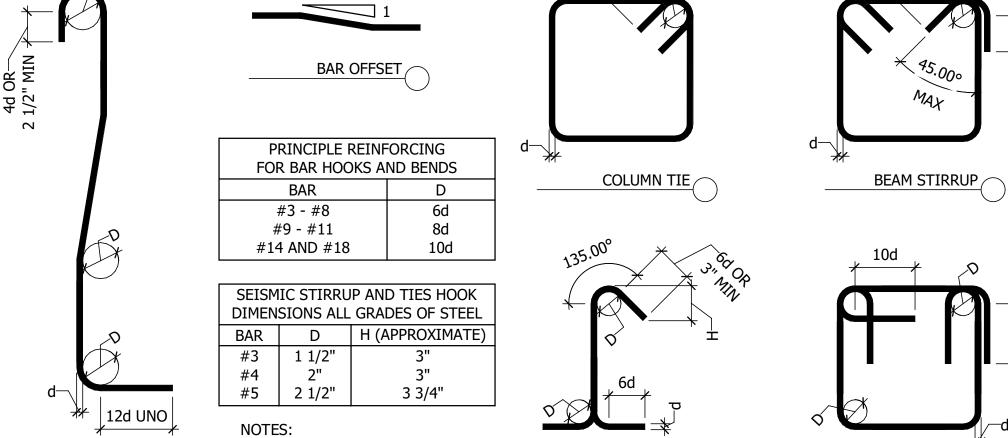
#9

#10

#11

-			KEGOTKED FAL FEMOLLI DI DIMIDINO LUI
	MINIMUM STRAIGHT DEVELOPMENT		FACTOR OF 1.3.
	LENGTH FOR BARS IN COMPRESSION (Ldc)	5.	REBAR BENDS FOR HOOKS, SEE 2/S5.02

4. CLASS B - MORE THAN HALF OF THE BARS ARE SPLICED WITHIN

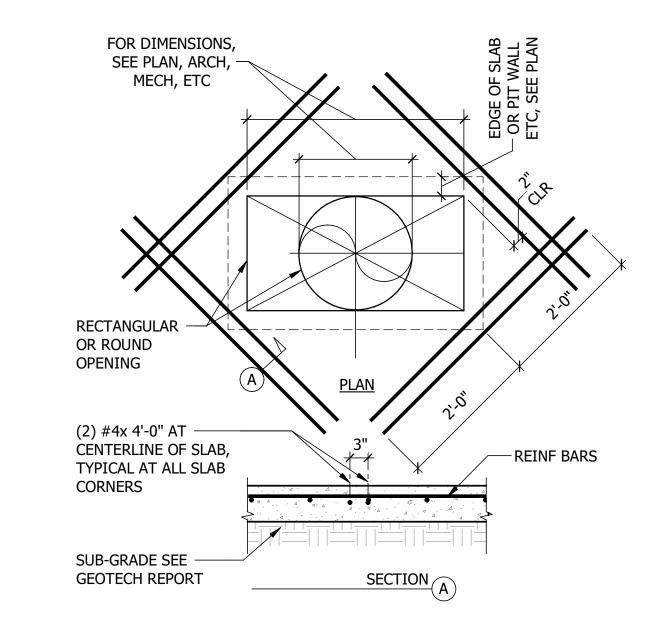


STIRRUPS & TIES

1. D= FINISHED BEND DIAMETER

CONTROL JOINT B

2. d= BAR DIAMETER



BAR HOOKS & BENDS

CONTROL JOINT, SAW CUT 1/8" WIDE x 1/4 SLAB ——

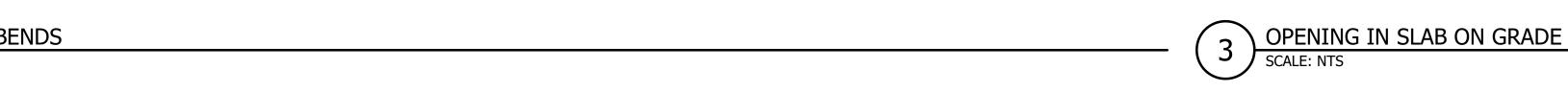
THICKNESS DEEP MIN SAWING MUST OCCUR AS SOON

AS CONCRETE SURFACE IS FIRM ENOUGH SO

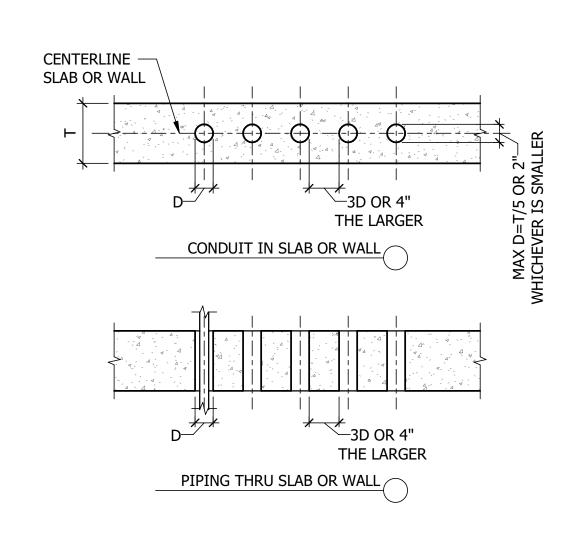
SUB-GRADE, SEE

**GEOTECH REPORT** 

CONCRETE WILL NOT BE DAMAGED, BUT NO LATER THAN 12 HOURS AFTER CONCRETE HAS BEEN PLACED

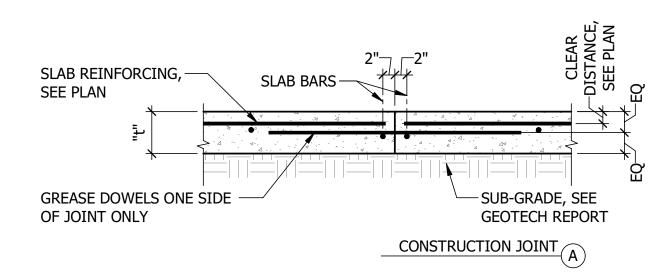


SPANDREL STIRRUP



NOTES: 1. WHERE CLEAR DISTANCE BETWEEN SLEEVES IS IMPOSSIBLE THIS AREA SHALL BE TREATED AS A SLAB OPENING OR AS A WALL OPENING.

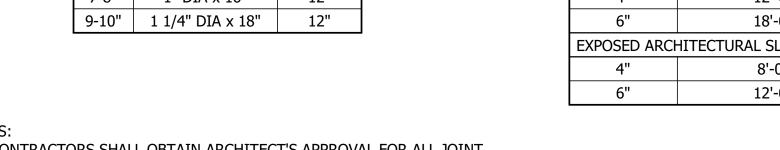
4 PIPING CONDUIT IN OR THRU WALL OR SLAB
SCALE: NTS

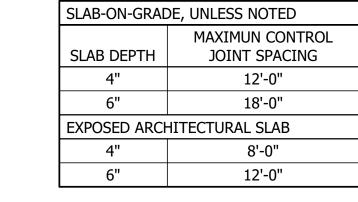


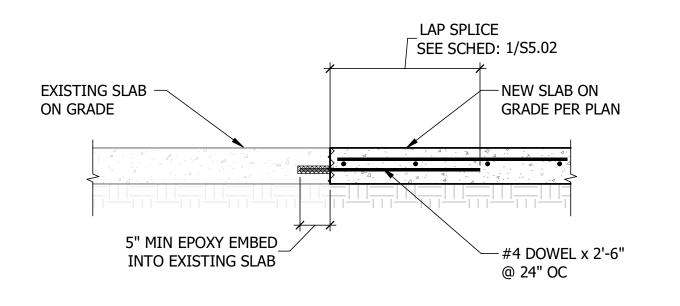
SLAB DEPTH	DOWEL SIZE	SPACING
4-6"	3/4" DIA x 14"	12"
7-8"	1" DIA x 16"	12"
9-10"	1 1/4" DIA x 18"	12"

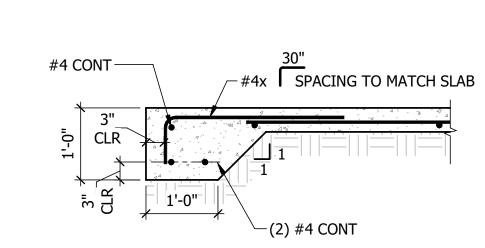


- 1. CONTRACTORS SHALL OBTAIN ARCHITECT'S APPROVAL FOR ALL JOINT LOCATIONS.
- COMPLY WITH ACI302.IR04, ACI360R-06 AND ACI DETAILING MATERIAL (SP66).
   SLAB ASPECT RATIO TO BE AS CLOSE TO 1:1 AS POSSIBLE, 1.5:1 MAXIMUM.





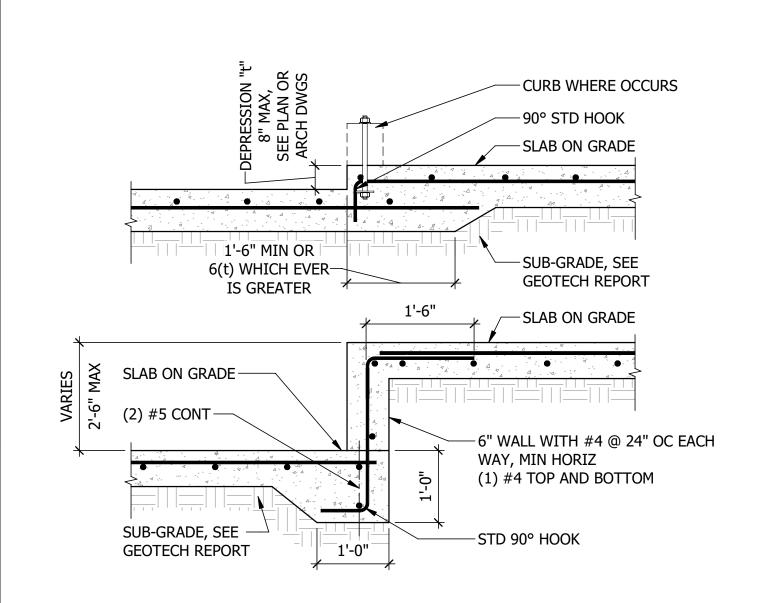




SLAB-ON-GRADE JOINT DETAILS SCALE: NTS







1. FOR LOCATION AND DEPTH, SEE PLAN OR ARCH DRAWINGS.





6/25/18

DATE

05/02/18

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PROJECT

18059.00

DRAWN

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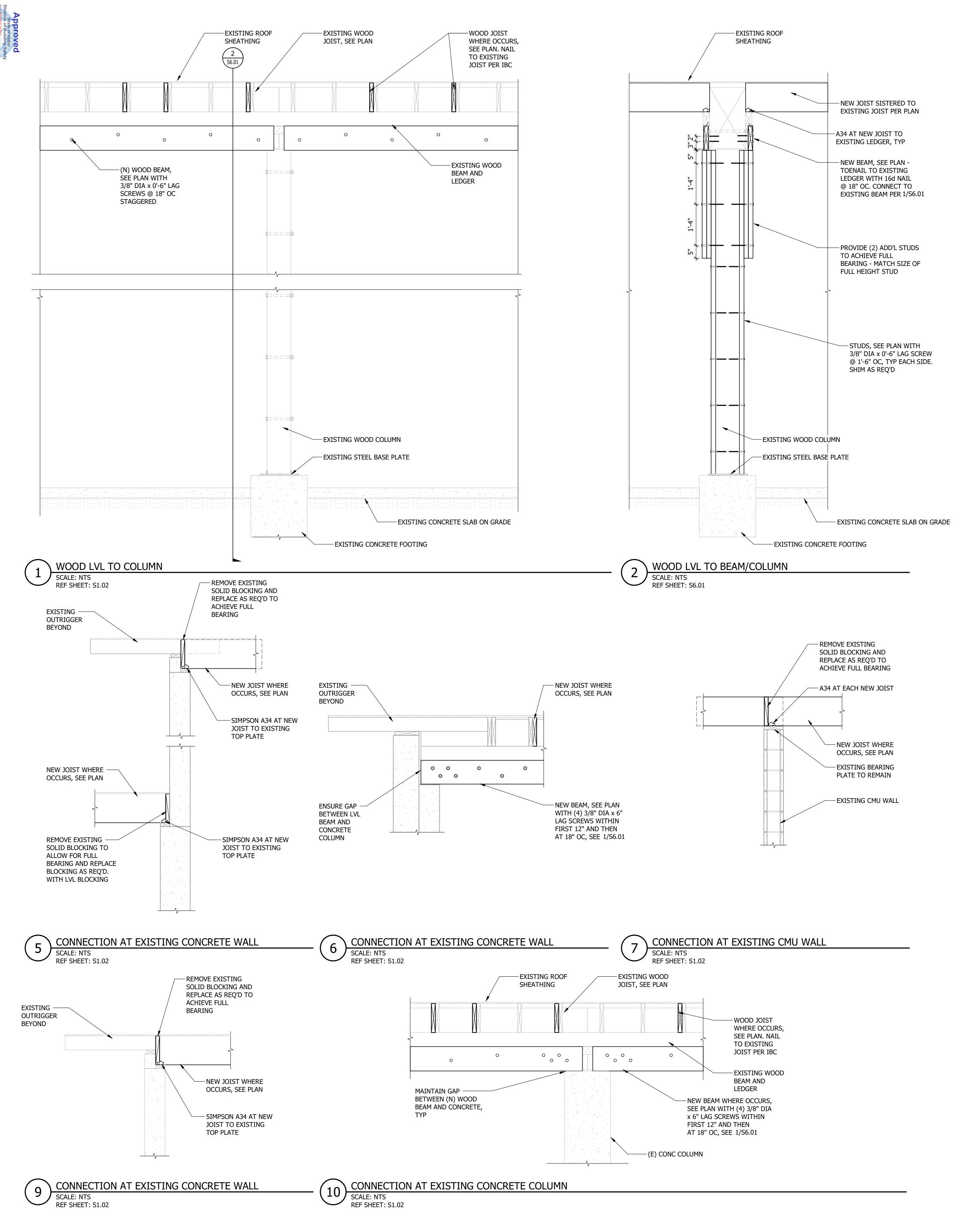
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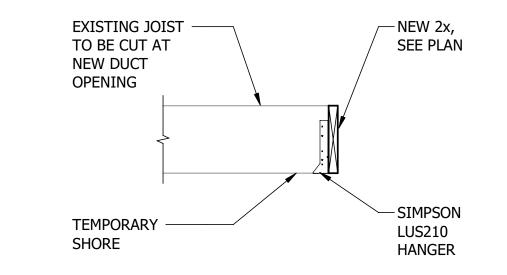
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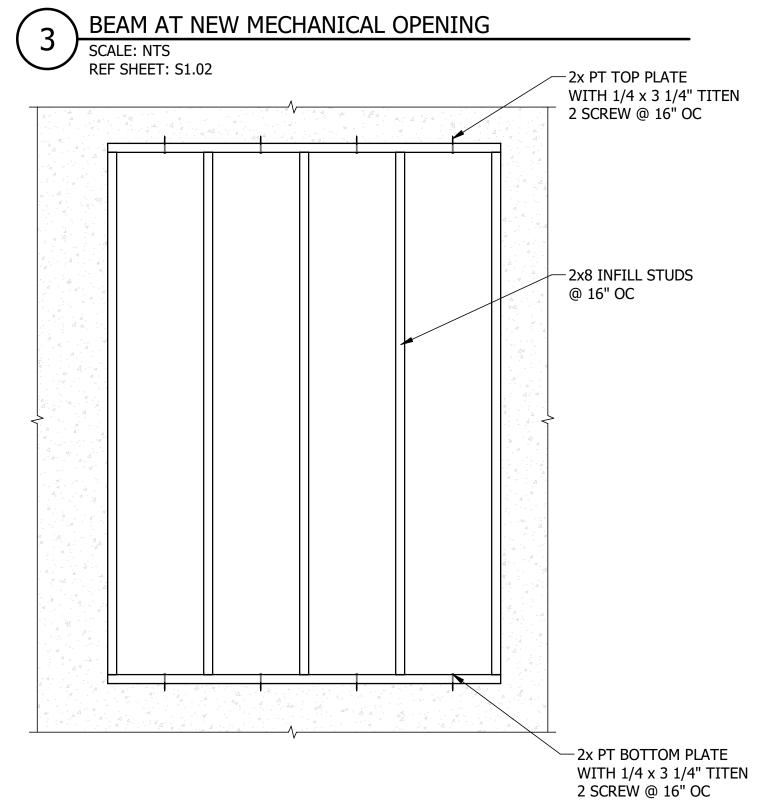
**DETAILS** 

**S5.02** ORIGINAL SHEET SIZE 30" x 42"

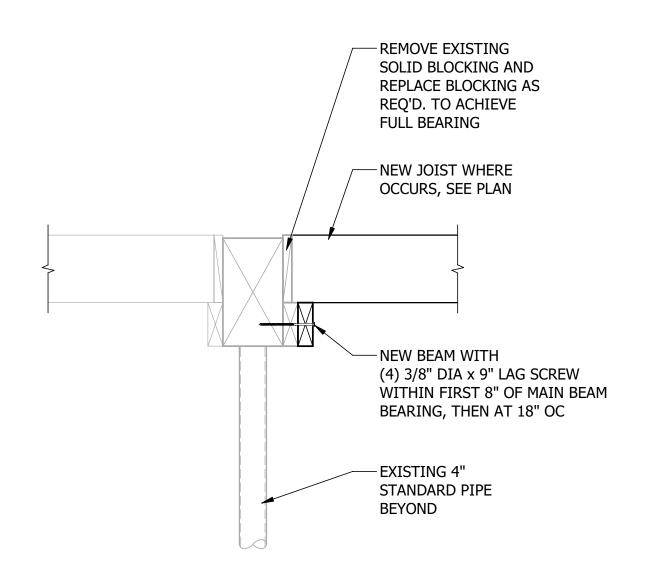
SHEET ADDED

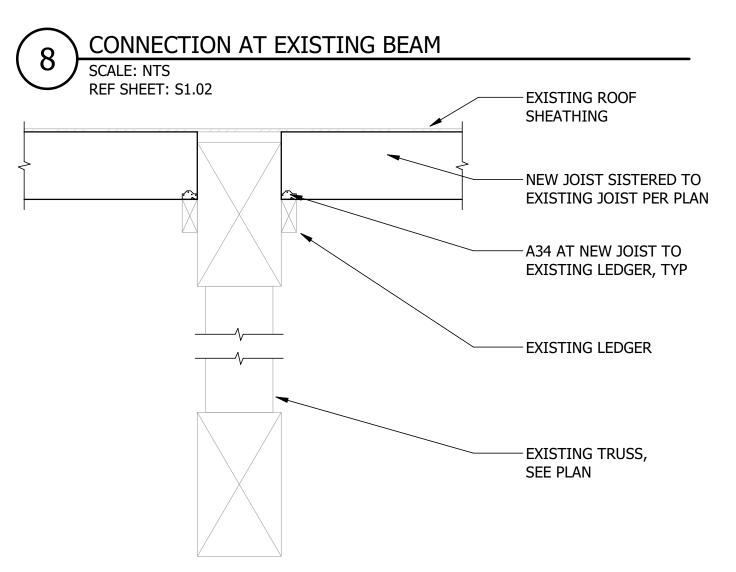






EXISTING OPENING INFILL





CONNECTION WOOD JOIST TO EXISTING TRUSS

SCALE: NTS REF SHEET: S1.02



SHEET TITLE **DETAILS** SHEET

6/25/18

PROJECT

18059.00

DRAWN

REVISED

DATE

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05/02/18

CHECKED

CR. 200 200 BOIR PHC PHC PROFILE STREET PROFILE STR



#### PLUMBING ABBREVIATIONS

IECC

IN WC

ISPC

KW

INTERNATIONAL ENERGY CONSERVATION CODE W

INTERNATIONAL MECHANICAL CODE

INTERNATIONAL PLUMBING CODE

INCHES OF WATER COLUMN

IDAHO STATE PLUMBING CODE

INVERT

KILOWATT

LAVATORY

	PLUIVIDING ADD		TIONS		PLUI
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM		
AG	AIR GAP	MECH	MECHANICAL	o—— – ——	PIPE ELBOW UP
ALT	ALTERNATIVE, ALTERNATE	MFR	MANUFACTURER		
AP	ACCESS PANEL	MHT	MALE HOSE THREAD	c	PIPE ELBOW DOWN
ARCH	ARCHITECT, ARCHITECTURAL	MIN	MINIMUM	1	
BFP	BACKFLOW PREVENTER	MISC	MISCELLANEOUS		PIPE TEE BRANCH UP (W/ ELBOW)
BHP	BRAKE HORSEPOWER	MTD	MOUNTED	1	, , ,
BLDG	BUILDING	MV	MIXING VALVE		PIPE TEE BRANCH DOWN (W/ ELBOW)
CD	CONDENSATE DRAIN	(N)	NEW	Č	THE TEE BIVARON DOWN (MY ELBON)
CFM	CUBIC FEET PER MINUTE	NC	NORMALLY CLOSED		INDICATES DIDECTION OF DOWNWARD DITCH
CO	CLEANOUT	NG	NATURAL GAS		INDICATES DIRECTION OF DOWNWARD PITCH
COTG	CLEANOUT TO GRADE	NIC	NOT IN CONTRACT		
CP	CONDENSATE PUMP	NO	NORMALLY OPEN	<del></del>	FLOW DIRECTION INDICATOR
CW	COLD WATER (DOMESTIC)	NO/#	NUMBER		
C/W	COORDINATE WITH	NO) # NTS	NOT TO SCALE	<del></del>	UNION
(D)	DEMOLISH	OD	OUTSIDE DIAMETER, OVERFLOW DRAIN		
DF	DRINKING FOUNTAIN	OFL	OVERFLOW LEADER	<del></del>	STRAINER
DIA/ø	DIAMETER	PRV	PRESSURE REDUCING VALVE		
DWG	DRAWING	PSF	POUNDS PER SQUARE FOOT	E	PIPE CAP
(E)	EXISTING	PSI	POUNDS PER SQUARE INCH		
EFF	EFFICIENCY	PVC	POLYVINYL CHLORIDE	— – — ф — – —	BALL VALVE
EL	ELEVATION	R/RAD	RADIUS		
ELEC	ELECTRIC, ELECTRICAL	RD	ROOF DRAIN		CHECK VALVE
ET	EXPANSION TANK	RE:	REFERENCE	1 24	(ARROW TOWARD DIRECTION OF FREE FLOW)
EW	EYE WASH	RM	ROOM		DOUBLE CHECK BACK FLOW PREVENTER
EWC	ELECTRIC WATER COOLER	RP	RECIRCULATION PUMP		DOUBLE CHECK BACK FLOW PREVENIER
EWS	EYE WASH SHOWER	RPM	REVOLUTIONS PER MINUTE	٩ .	
F F	FAHRENHEIT	RWL	RAINWATER LEADER		REDUCED PRESSURE BACK FLOW PREVENTER
FCO	FLOOR CLEANOUT	SA	SHOCK ARRESTER		
FD	FLOOR DRAIN	SCW	SOFT COLD WATER	—— – <del> </del>	CIRCUIT SETTER
FPM	FEET PER MINUTE	SH	SHOWER	GPM	
FS	FLOOR SINK	SK	SINK		HOSE BIBB, EXPOSED
FT	FEET	SPEC(S)	SPECIFICATION(S)		
FT HD	FEET OF HEAD	SS SFLC(S)	SANITARY SEWER	<del></del>	HOSE BIBB, RECESSED W/ LOCKING COVER
GA	GAUGE	TD	TRENCH DRAIN		
GAL	GALLON	TEMP	TEMPERATURE	——————————————————————————————————————	GAS SHUTOFF COCK
GCO	GRADE CLEANOUT	TP	TRAP PRIMER		
GI	GREASE INTERCEPTOR	TYP	TYPICAL		PRESSURE REGULATING VALVE
GPM	GALLONS PER MINUTE	U/UR	URINAL	2 7	THESSONE NEODENINO WILVE
GW	GREASE WASTE	UBC	UNIFORM BUILDING CODE	<b> </b>	A C M E DDESCUDE DELIEE VALVE
HB	HOSE BIBB	UFC	UNIFORM FIRE CODE		A.S.M.E. PRESSURE RELIEF VALVE
HP	HORSEPOWER	UMC	UNIFORM MECHANICAL CODE	•	
HW	HOT WATER	UON	UNLESS OTHERWISE NOTED	—- <del></del>	VALVE IN RISER SHUTOFF
HWR	HOT WATER RETURN	UPC	UNIFORM PLUMBING CODE	+	
IBC	INTERNATIONAL BUILDING CODE	V	VENT		CONTROL STOP
IDC	INSIDE DIAMETER	v VTR	VENT THROUGH ROOF		
יםו	HASIDE DIVINIETELY	VIIV	VLINI ITINUUUT KUUF	<u> </u>	IN-LINE PUMP

WIDE, WIDTH

WATER CLOSET

WALL CLEANOUT

WATER HEATER

WATER SOFTENER

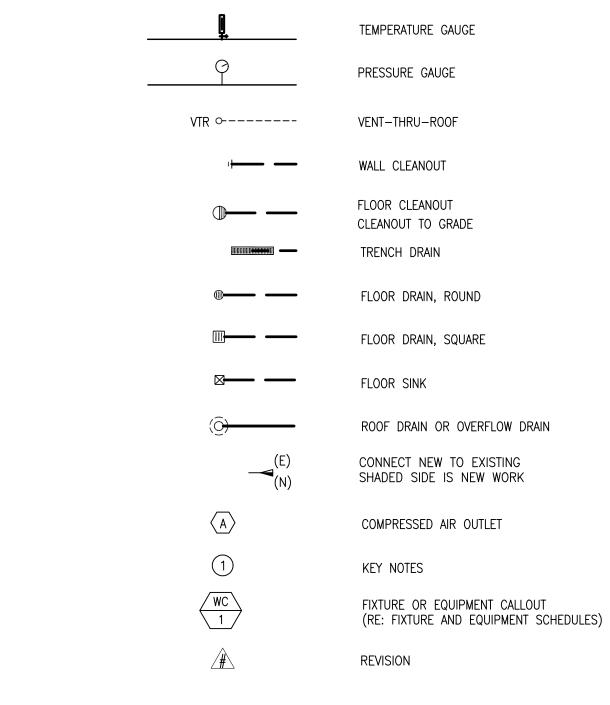
WATER GAUGE

WITHOUT

WCO

W/O

#### PLUMBING SYMBOLS



#### PLUMBING LINETYPE LEGEND

NEW	EXISTING	TO BE DEMOLISHED	
		411111111111111111111111111111111111111	DOMESTIC COLD WATER
		444444444	DOMESTIC HOT WATER
		44/////////////////////////////////////	DOMESTIC HOT WATER RETURN
		4//////////////////////////////////////	PLUMBING EQUIPMENT
—— NG ——	NG	4441 <b>XX</b> 44444	NATURAL GAS
—— MPG —	MPG	4///NNP\$\$/////	MEDIUM PRESSURE NATURAL GAS
——CD——	CD	44448884444	CONDENSATE DRAIN
		44///4/////////////////////////////////	SANITARY SEWER (BELOW GRADE)
		4//////////////////////////////////////	SANITARY SEWER (ABOVE GRADE)
		44444444	SANITARY VENT
—— CA ——	— CA ——	4441 <b>/88</b> /444	COMPRESSED AIR

SUFFIX (E) IN CONJUNCTION WITH LIGHTER SHADING INDICATES EXISTING PIPE OR EQUIPMENT. (TYPICAL OF ALL EQUIPMENT AND PIPING).

MEDIUM PRESSURE GAS CALCULATIONS							
JOB NAME: ITD MAINTENANCE BLDG TI - DISTRICT III JOB #: 18059							
Distance to Last Fixture:	550	Total Bldg. Load (MBH):				Main size: 2"	
Delivery Pressure:	Code: <b>2015 IFGC</b>			DATE: <b>5/2/2018</b>			
Regulator Designation	Distance Meter to Regulator (ft)	Line Size into Reg. (inches)	Line Size out of Reg. (inches)	Equipment Designation	MBH Input	Distance Reg. to Fixt/Equip (ft)	Line Size to Equip. (inches)
PRV-1		1/0	2/4	RH-4	65	30	1/2
130 MBH	550	1/2	3/4	RH-3	65	40	1/2
PRV-2			1	RH-6	65	45	1/2
	535	3/4		RH-5	65	30	1/2
280 MBH				RH-2	150	30	3/4
PRV-3	475	1/2	3/4	RH-1	150	15	3/4
PRV-4	330	1 1/4	1 1/2	MAU-2	1062	15	1 1/2
PRV-5	260	1/0	2/4	UH-2	60	25	1/2
120 MBH	260	1/2	3/4	UH-1	60	30	1/2
PRV-6	195	1	1 1/2	MAU-1	1062	15	1 1/2
PRV-7	140	1/0	2/4	RTU-1	108	30	3/4
178 MBH	140	1/2	3/4	RTU-2	70	15	1/2
PRV-8	115	1/2	3/4	RTU-3	240	10	3/4

TOTAL CONNECTED LOAD (MBH)

3222

#### PLUMBING SHEET INDEX

P01	PLUMBING COVER SHEET
P11A	PLUMBING DEMOLITION PLAN AREA A
P11B	PLUMBING DEMOLITION PLAN AREA B
P21A	PLUMBING PLAN AREA A
P21B	PLUMBING PLAN AREA B
P22	SECOND FLOOR PLUMBING PLAN
P23A	COMPRESSED AIR PLAN AREA A
P23B	COMPRESSED AIR PLAN AREA B
P24	PLUMBING ROOF PLAN
P41	PLUMBING SCHEDULES
P51	PLUMBING DETAILS

#### PLUMBING GENERAL NOTES

A.	ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE
	CODES, LOCAL CODES, LOCAL STANDARDS, IBC, IPC, NFPA, AND THE LANDLORD'S AND
	TENANT'S REQUIREMENTS INCLUDING SUPPLEMENTS AND DETAILS.

- B. PROVIDE SEAL BETWEEN WALLS AND PLUMBING FIXTURES PER HEALTH DISTRICT
- C. COLD AND HOT WATER SUPPLY PIPING SIZES FOR FIXTURE CONNECTIONS ARE NOT SHOWN ON PLANS. SEE FIXTURE SCHEDULE FOR CONNECTION SIZES.
- D. INSTALL ALL OVERHEAD PIPING AS CLOSE TO STRUCTURE AS POSSIBLE, OR AS DETAILED
- LOCATE AND LABEL ALL VALVES FOR SERVICE ACCESSIBILITY. VALVES INSTALLED ABOVE CEILINGS SHALL BE ACCESSIBLE THRU CEILING. SEE DRAWINGS FOR LOCATIONS.
- COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF THE OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA. DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS SHALL BE CORRECTED AT NO ADDITIONAL EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT OF CONDITIONS IN CONFLICT WITH THE PLANS.
- PROVIDE PIPING EQUIPMENT AND MATERIALS IN ACCORDANCE WITH APPLICABLE PLUMBING CODE REGULATIONS AND STANDARDS, AUTHORITIES HAVING JURISDICTION, OR AS OTHERWISE RECOMMENDED OR DIRECTED BY MANUFACTURERS.
- H. COORDINATE INSTALLATION OF PIPING BELOW AND ABOVE GRADE WITH STRUCTURAL COMPONENTS AND OTHER SYSTEM INSTALLATIONS.
- COORDINATE ALL FIXTURES, EQUIPMENT AND ROUGH—IN CONNECTION LOCATIONS AND SIZES WITH ARCHITECTURAL DRAWINGS, OWNER AND EQUIPMENT SUPPLIER PRIOR TO
- PROVIDE SEISMIC RESTRAINTS FOR ALL PIPE AND EQUIPMENT AS RECOMMENDED IN SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL EQUIPMENT", LATEST
- K. ALL PIPING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE. ALL WALLS IN WHICH WATER OR WASTE LINES ARE INSTALLED MUST BE PATCHED TO MATCH EXISTING AFTER LINES ARE INSTALLED.
- PRIOR TO BIDDING, OBTAIN A COPY OF THE SPECIFICAITONS AND PLANS, VISIT THE JOB SITE, TAKE NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL
- OTHER INFORMATION NEEDED FOR AN ACCURATE BID. NO ALLOWANCES WILL BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING CONDITIONS.
- M. PIPING PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRESTOPPED IN ACCORDANCE WITH APPLICABLE CODES.
- N. ALL WORK ON THE PLUMBING DRAWINGS SHALL BE COMPLETED BY THE PLUMBING CONTRACTOR UNLESS SPECIFIED OTHERWISE.
- O. ANY DISCREPANCIES OR INADEQUACIES BETWEEN THE PLUMBING DRAWINGS AND OTHER
- DISCIPLINES SHALL BE BROUGHT TO THE ATTENTION OF OWNER'S REPRESENTATIVE.
- P. INSTALL ALL PIPING RUNS AS HIGH AS POSSIBLE THROUGHOUT ENTIRE BUILDING. INSTALL LONG RUNS WITHIN JOIST SPACE AND OTHER PIPING TIGHT TO BOTTOM OF STEEL. COORDINATE WITH OTHER TRADES — DUCTWORK, FIRE PROTECTION, PIPING,
- LIGHTING SYSTEMS, ETC.
- Q. FINAL CONNECTION TO ALL GAS FIRED APPLIANCES TO BE BY PLUMBING CONTRACTOR REGARDLESS OF WHO PROVIDES APPLIANCES. THIS SHALL INCLUDE BUT NOT BE LIMITED TO HVAC EQUIPMENT, COOKING EQUIPMENT, EMERGENCY GENERATORS, DOMESTIC
- R. ALL PLUMBING FIXTURES SHALL HAVE THEIR OWN INDEPENDENT SHUT OFF BALL VALVES, INSTALLED IN AN EASILY ACCESSIBLE LOCATION. S. DOMESTIC WATER HEATER TEMPERATURE/PRESSURE RELIEF VALVES SHALL BE PIPED TO
- NEAREST APPROVED RECEPTOR. T. ALL HAND WASH SINKS SHALL HAVE IN-LINE WATER TEMPERING VALVES INSTALLED TO
- BE EASILY ACCESSIBLE. THESE TEMPERING VALVES SHALL BE SET TO DELIVER HOT WATER AT 110 DEGREES FAHRENHEIT. U. ALL REFRIGERATED CASE DRAINS AND COOLER/FREEZER EVAPORATOR COILS WILL BE PIPED TO HUB DRAINS OR STAND PIPES THAT SHALL TIE INTO THE SANITARY DRAINAGE SYSTEMS. CONDENSATE PIPING SHALL BE COPPER, COORDINATE WITH REFRIGERATION
- CONTRACTOR FOR CORRECT SIZE PIPE. V. PLUMBING CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF CASE WASH DOWN
- HOSE BIBBS, PRODUCE SPRAY CONNECTIONS, AND MISTING UNITS WITH WHOLE FOODS REPRESENTATIVE AND SHALL FURNISH AND INSTALL PIPING FOR SAME. PLUMBER SHALL FURNISH AND INSTALL ACCESSIBLE SHUT OFF VALVE FOR MISTING UNIT BRANCH SUPPLY.
- W. ALL FOOD PREPARATION EQUIPMENT WITH DIRECT CONNECTION TO DOMESTIC WATER SYSTEM SHALL BE EQUIPPED WITH A WATTS NO. 007 DUAL CHECK VALVE TYPE BACKFLOW PREVENTION DEVICE.
- X. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL WASH DOWN FAUCET EQUIPPED WITH INTEGRAL VACUUM BREAKER BENEATH ALL COMPARTMENT SINKS.
- Y. ALL FLOOR DRAINS AND TRENCH DRAINS IN KITCHENS, MECHANICAL ROOMS, AND BATHROOMS SHALL BE EQUIPPED WITH STRAINERS.
- Z. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

ARCHITECTURAL DRAWINGS.

AA. COORDINATE ALL PLUMBING PIPING ROOF PENETRATIONS WITH THE GENERAL CONTRACTOR. ALL PIPING PENETRATING THE ROOF MUST BE INSTALLED WITH A PREMANUFACTURED PENETRATION BOOT ASSEMBLY OR PROPERLY SEALED PER THE

- **€** O

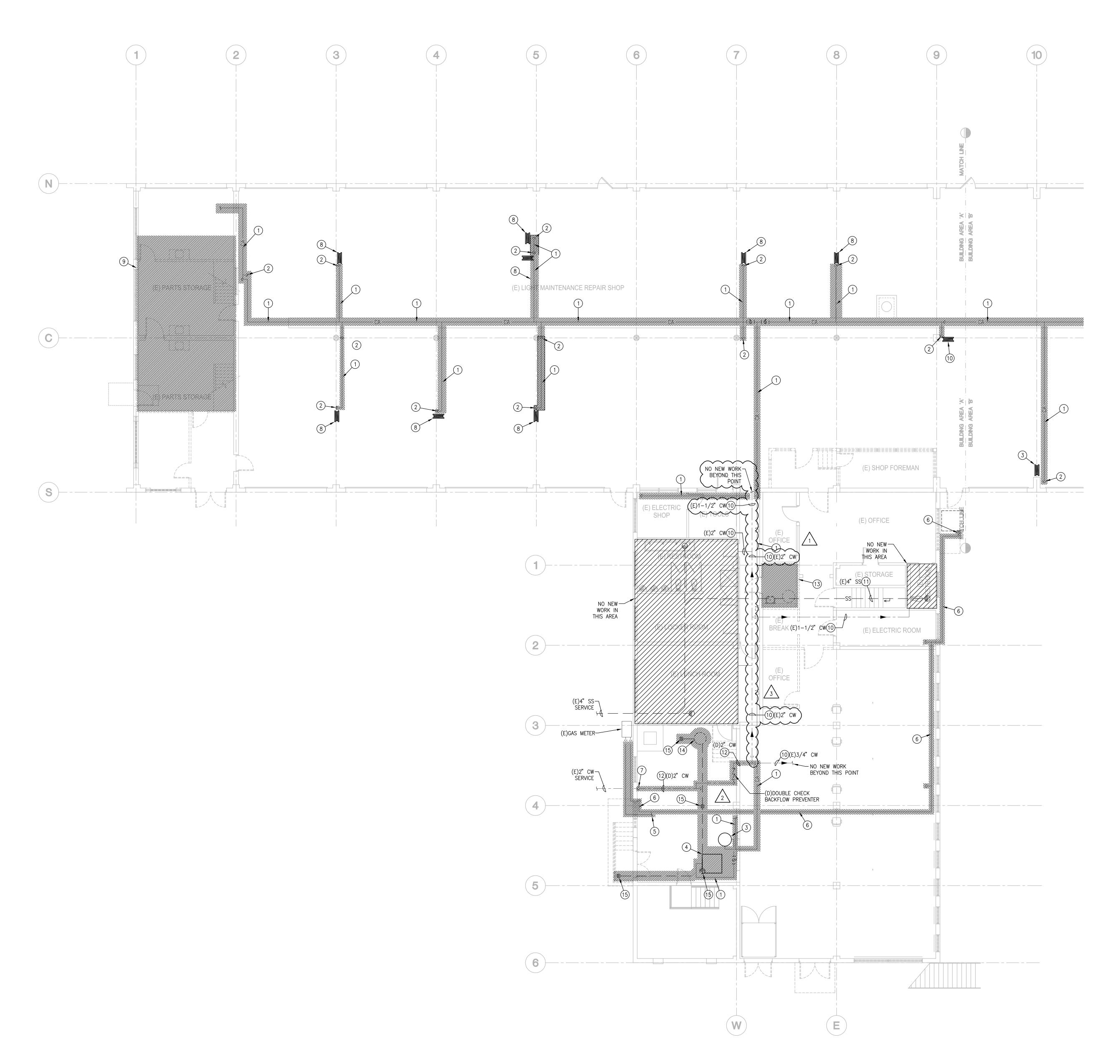
CONSTRUCTION 6/25/18

PROJECT 18059.00	DATE 5-2-18				
DRAWN	CHECKED				
KMH	RCP				

REVISED

**PLUMBING** COVER SHEET





DEMOLITION PLAN AREA A

SCALE 1/8' = 1'-0'

#### **LEGEND:**

	NEW	EXISTING	TO BE DEMOLISHED	
-			444444444444444444444444444444444444444	DOMESTIC COLD WATER
-			411111111111111111111111111111111111111	DOMESTIC HOT WATER
-			44/4/4/4/4	DOMESTIC HOT WATER RETURN
•			411111111111111111111111111111111111111	PLUMBING EQUIPMENT
•			4//////////////////////////////////////	PLUMBING EQUIPMENT ON ROOF
	NG	NG	411111111111111111111111111111111111111	NATURAL GAS
	——MPG——	MPG	411111111111111111111111111111111111111	MEDIUM PRESSURE GAS
•	CD	——CD——	///// <b>/XX</b> //////	CONDENSATE DRAIN
-	CA	CA	///// <b>XX</b> //////	CONDENSATE DRAIN
•	<del></del> SS	——ss——	411111111111111111111111111111111111111	SANITARY SEWER (BELOW GRADE
-			44444444	SANITARY VENT
			WC X	FIXTURE OR EQUIPMENT TAG (RE: FIXTURE AND EQUIPMENT SCHEDULES)

#### **GENERAL NOTES:**

- . PRIOR TO INSTALLING ANY PIPING, VERIFY EXISTING CONDITIONS AND INVERTS. NOTIFY GC/ARCHITECT OF ANY CONDITIONS THAT WILL NOT ALLOW FOR INVERTS
- B. SLOPE ALL DRAINAGE PIPING AS FOLLOWS:
- 1. SANITARY SEWER BRANCH PIPING AT 1/4" PER FOOT. 2. INDIRECT WASTE PIPING AT 1/4" PER FOOT.

FIXTURE LOCATIONS PRIOR TO START OF WORK.

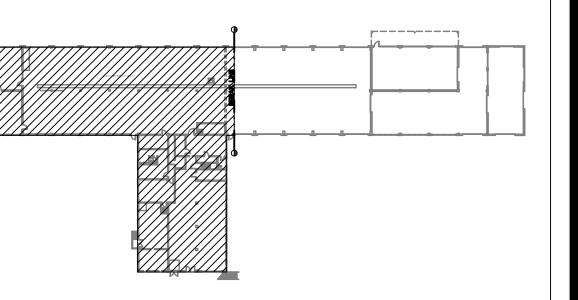
PATCH FLOOR AND WALLS AS REQUIRED.

- PROVIDE INDIRECT WASTE PIPING TO RECEPTORS FROM ALL EQUIPMENT AS REQUIRED. REFER TO FIXTURE SCHEDULES FOR FURTHER INFORMATION. PIPING SHALL BE TYPE DWV OR TYPE M COPPER INSTALLED A MINIMUM OF 1/2" OFF ADJACENT FLOOR AND
- COORDINATE ALL FURRING REQUIREMENTS AND WALL THICKNESS WITH REGARD TO PIPE AND WALL CLEANOUT INSTALLATIONS.
- COORDINATE ACCESS PANEL LOCATIONS WITH INTERIOR ELEVATIONS TO AVOID CONFLICTS WITH EQUIPMENT, GRAB BARS OR DECORATIVE ELEMENTS.
- RECORD DRAWINGS USED FOR DESIGN MAY NOT REFLECT CURRENT LAYOUT OF STORE. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND
- DEMOLISHED FIXTURES/EQUIPMENT SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY.
- WASTE, VENT AND WATER PIPING FROM DEMOLISHED FIXTURES/EQUIPMENT SHALL BE CAPPED AT MAIN ABOVE CEILING, BELOW FLOOR AND AT WALL AS REQUIRED. ALL ABANDONED PIPING SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY.
- PLUMBER SHALL COORDINATE REMOVAL OF FIXTURES/EQUIPMENT/PIPING WITH ALL OTHER DISCIPLINES.

#### # SHEET NOTES:

- 1. DEMOLISH EXISTING COMPRESSED AIR PIPING, SHUTOFF VALVES, AND PIPING COMPONENTS AS SHOWN SHADED AND REMOVE OFF SITE.
- 2. DEMOLISH EXISTING COMPRESSED AIR PIPE DROP, INLINE AIR FILTER, AND AIR HOSE QUICK CONNECTS AS SHOWN SHADED AND REMOVE OFF SITE.
- 3. RELOCATE EXISTING COMPRESSED AIR RECEIVER TANK TO NEW MECHANICAL ROOM. RE: P2.1A-1 FOR NEW LOCATION.
- 4. REMOVE EXISTING COMPRESSOR AND DELIVER TO THE OWNER.
- 5. REMOVE ALL EXISTING NG PIPING FROM METER TO BOILER EQUIPMENT BEING DEMOLISHED. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START
- 6. REMOVE ALL EXISTING NG PIPING FROM METER TO HVAC EQUIPMENT BEING DEMOLISHED. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START
- . REMOVE EXISTING 2" CW SERVICE AND BUILDING WITH SHUT-OFF VALVE.
- 8. EXISTING COMPRESSED AIR HOSE REEL TO REMAIN.
- 9. REMOVE ALL EXISTING PLUMBING FIXTURES AND EQUIPMENT IN THIS AREA. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START OF WORK.
- 10. EXISTING OVERHEAD PIPING TO REMAIN.
- 11. EXISTING PIPING BELOW FLOOR TO REMAIN.
- 12. REMOVE EXISTING CW PIPING AND REPLACE WITH NEW. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START OF WORK.
- 13. REMOVE SERVICE SINK, FLOOR DRAIN AND WATER HEATER IN JANITORS CLOSET. RETAIN HW PIPING SERVING EXISTING TOILET ROOM AND EMPLOYEE BREAKROOM FOR CONNECTION TO NEW HW PIPING.
- 14. DEMO EXISTING SUMP PIT AND REMOVE PUMP. CAP AND ABANDON ALL RELATED WASTE AND VENT PIPING BELOW FLOOR AS REQUIRED. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START OF WORK.
- 15. REMOVE EXISTING FLOOR DRAIN AND FLOOR CLEANOUT. CAP AND ABANDON ALL RELATED WASTE AND VENT PIPING BELOW FLOOR AS REQUIRED. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START OF WORK.

## BUILDING KEY PLAN





PROJECT DATE 18059.00 5-2-18 DRAWN CHECKED

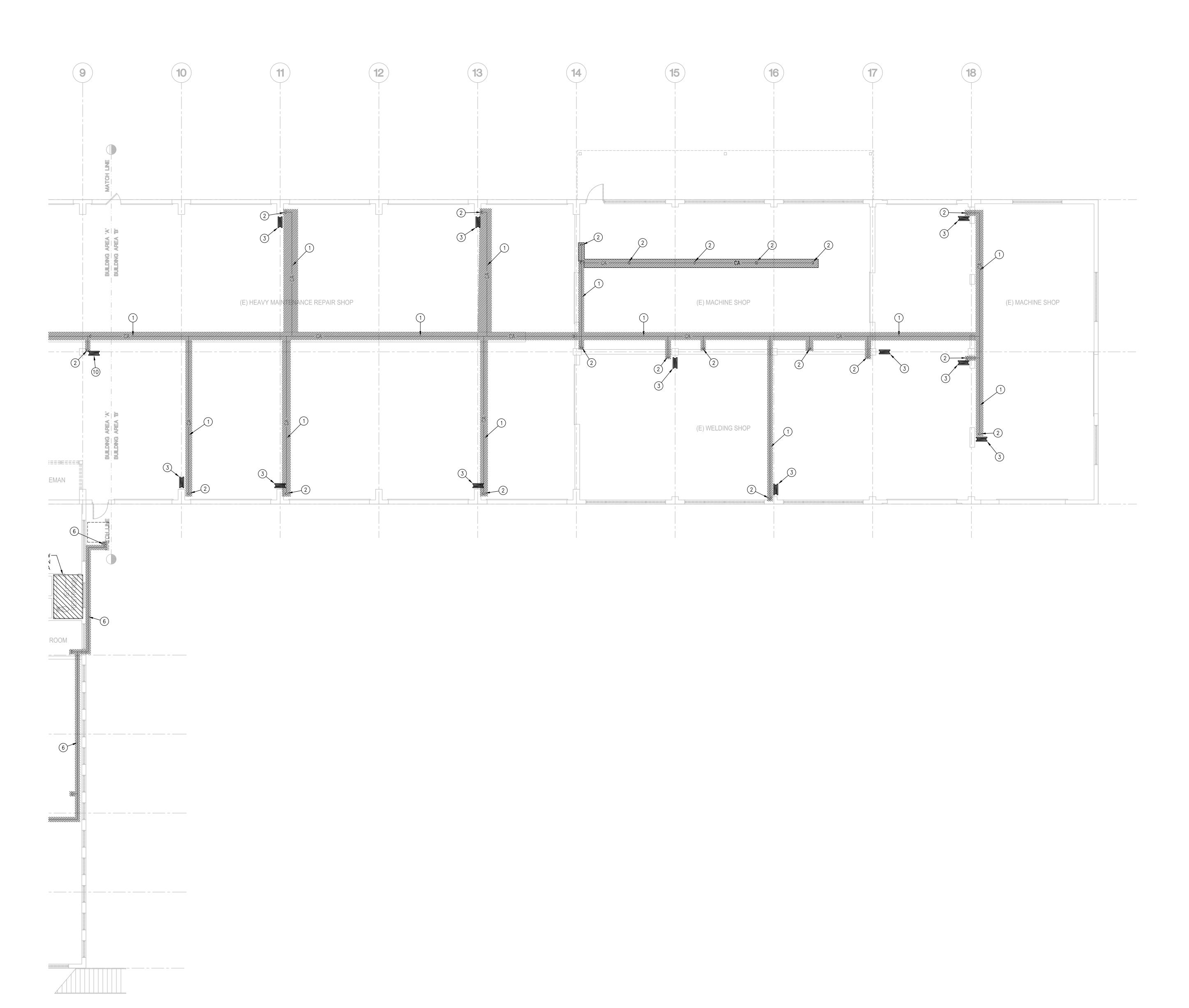
RCP

ADDENDUM NO. ONE ADDENDUM NO. THREE  $2 \sqrt{05-24-18}$ RESPONSE TO RFI 013 3 08-06-18

**PLUMBING** DEMOLITION PLAN AREA A

**P11A** 





1 DEMOLITION PLAN AREA B
SCALE 1/8' = 1'-0'

#### LEGEND:

NEW	EXISTING	TO BE DEMOLISHED	
		411111111111111111111111111111111111111	DOMESTIC COLD WATER
		444444444	DOMESTIC HOT WATER
		44/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4	DOMESTIC HOT WATER RETUR
		44444444	PLUMBING EQUIPMENT
		4//////////////////////////////////////	PLUMBING EQUIPMENT ON RO
——NG ——	NG	411111111111111111111111111111111111111	NATURAL GAS
——MPG——	MPG	4//////////////////////////////////////	MEDIUM PRESSURE GAS
——CD——	——CD——	4////28//////	CONDENSATE DRAIN
——CA——	——CA——	41111XXXIIIII	CONDENSATE DRAIN
<del></del> SS	——SS——	4//////////////////////////////////////	SANITARY SEWER (BELOW GRA
		WWWW	SANITARY VENT
		$\left\langle \begin{array}{c} WC \\ X \end{array} \right\rangle$	FIXTURE OR EQUIPMENT TAG (RE: FIXTURE AND EQUIPMEN' SCHEDULES)

#### **GENERAL NOTES:**

- A. PRIOR TO INSTALLING ANY PIPING, VERIFY EXISTING CONDITIONS AND INVERTS.
  NOTIFY GC/ARCHITECT OF ANY CONDITIONS THAT WILL NOT ALLOW FOR INVERTS
- B. SLOPE ALL DRAINAGE PIPING AS FOLLOWS:
- SANITARY SEWER BRANCH PIPING AT 1/4" PER FOOT.
   INDIRECT WASTE PIPING AT 1/4" PER FOOT.
- C. PROVIDE INDIRECT WASTE PIPING TO RECEPTORS FROM ALL EQUIPMENT AS REQUIRED. REFER TO FIXTURE SCHEDULES FOR FURTHER INFORMATION. PIPING SHALL BE TYPE DWV OR TYPE M COPPER INSTALLED A MINIMUM OF 1/2" OFF ADJACENT FLOOR AND WALL SURFACES.
- D. COORDINATE ALL FURRING REQUIREMENTS AND WALL THICKNESS WITH REGARD TO PIPE AND WALL CLEANOUT INSTALLATIONS.
- E. COORDINATE ACCESS PANEL LOCATIONS WITH INTERIOR ELEVATIONS TO AVOID CONFLICTS WITH EQUIPMENT, GRAB BARS OR DECORATIVE ELEMENTS.
- F. RECORD DRAWINGS USED FOR DESIGN MAY NOT REFLECT CURRENT LAYOUT OF STORE. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND FIXTURE LOCATIONS PRIOR TO START OF WORK.
- G. DEMOLISHED FIXTURES/EQUIPMENT SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY.
- H. WASTE, VENT AND WATER PIPING FROM DEMOLISHED FIXTURES/EQUIPMENT SHALL BE CAPPED AT MAIN ABOVE CEILING, BELOW FLOOR AND AT WALL AS REQUIRED. ALL ABANDONED PIPING SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY. PATCH FLOOR AND WALLS AS REQUIRED.
- I. PLUMBER SHALL COORDINATE REMOVAL OF FIXTURES/EQUIPMENT/PIPING WITH ALL OTHER DISCIPLINES.

#### **# SHEET NOTES:**

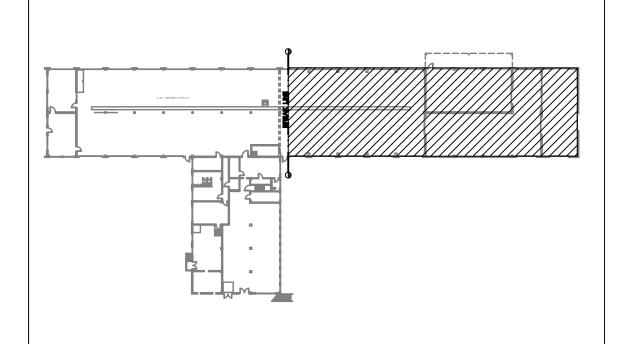
- 1. DEMOLISH EXISTING COMPRESSED AIR PIPING, SHUTOFF VALVES, AND PIPING COMPONENTS AS SHOWN SHADED AND REMOVE OFF SITE.
- 2. DEMO EXISTING COMPRESSED AIR DROP, EXISTING INLINE AIR FILTER, AIR HOSE QUICK CONNECTS, AND REMOVE OFF SITE. REPLACE ALL HOSE QUICK CONNECTS WITH NEW UNITS. RE: P2.1A AND P2.1B FOR SPECIFIC DIRECTION.
- 3. EXISTING COMPRESSED AIR HOSE REEL TO REMAIN.
- 4. NOT USED.
- 5. REMOVE ALL EXISTING NG PIPING FROM METER TO BOILER EQUIPMENT BEING DEMOLISHED. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START OF WORK.
- 6. REMOVE ALL EXISTING NG PIPING FROM METER TO HVAC EQUIPMENT BEING DEMOLISHED. VERIFY EXACT DEMOLITION REQUIREMENTS IN FIELD PRIOR TO START
- 7. EXISTING 2" CW SERVICE INTO BUILDING WITH SHUT-OFF VALVE TO REMAIN.

# 300 COF

FOR CONSTRUCTION 6/25/18

ROJECT	DATE
18059.00	5-2-18
RAWN	CHECKED
KRA	RCP
EVISED	

## BUILDING KEY PLAN

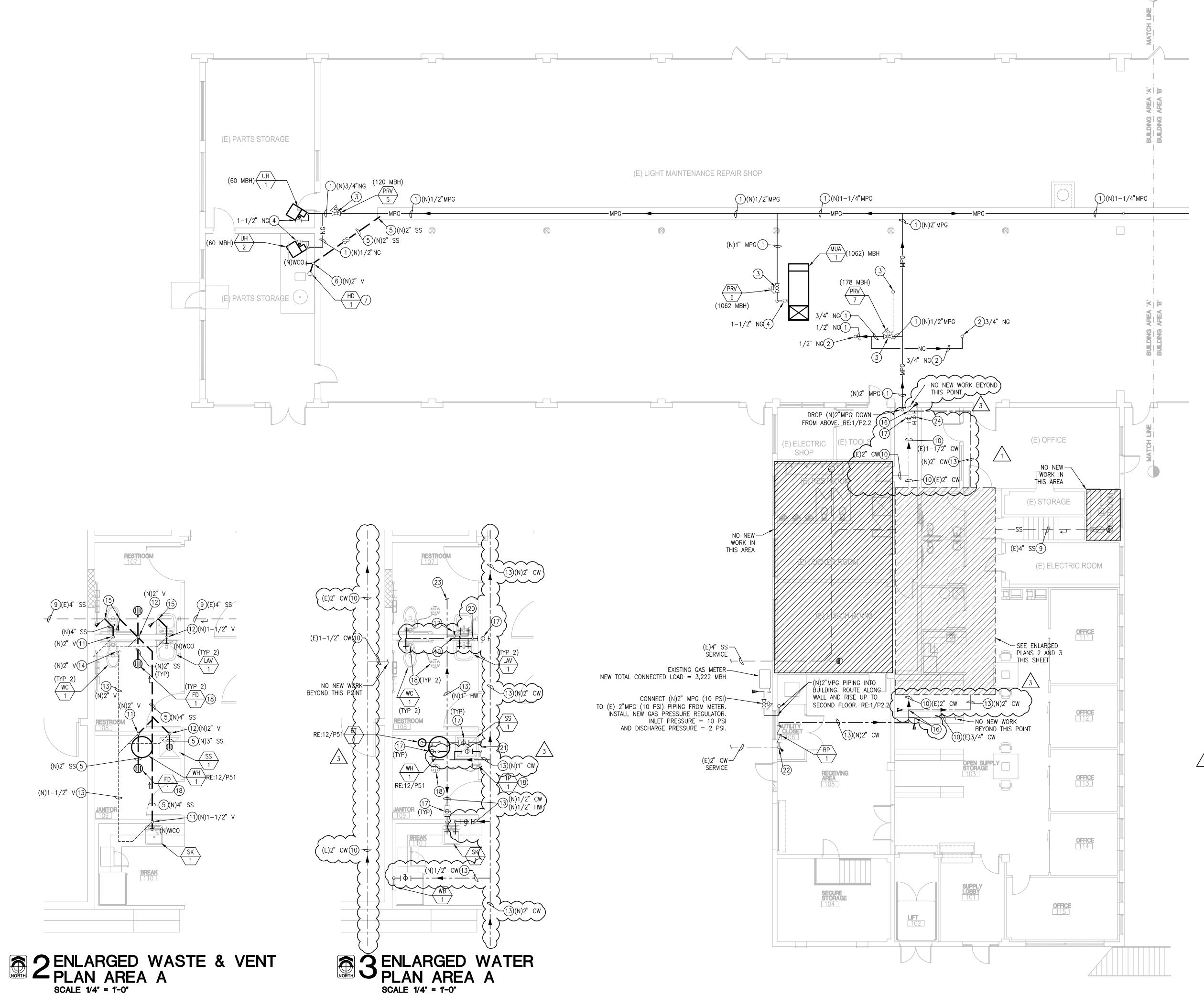


SHEET TITLE

PLUMBING
DEMOLITION
PLAN AREA B

P11B





**LEGEND:** 

DEMOLISHED

<del></del>		411111111111111111111111111111111111111	DOMESTIC COLD WATER
		444444444	DOMESTIC HOT WATER
		441141111111111111111111111111111111111	DOMESTIC HOT WATER RETURN
		4//////////////////////////////////////	PLUMBING EQUIPMENT
		411111111111111111111111111111111111111	PLUMBING EQUIPMENT ON ROOF
——NG ——	NG	444444444444444444444444444444444444444	NATURAL GAS
——MPG——	MPG	444444444444444444444444444444444444444	MEDIUM PRESSURE GAS
——CD——	CD	///// <i>XX/////i</i>	CONDENSATE DRAIN
——CA——	CA	44448 <b>8</b> 44444	CONDENSATE DRAIN
<del></del> SS	——ss——	44/////////////////////////////////////	SANITARY SEWER (BELOW GRADE)
		44444444	SANITARY VENT
		$\frac{\overline{WC}}{X}$	FIXTURE OR EQUIPMENT TAG (RE: FIXTURE AND EQUIPMENT SCHEDULES)

#### **GENERAL NOTES:**

- PRIOR TO INSTALLING ANY PIPING, VERIFY EXISTING CONDITIONS AND INVERTS. NOTIFY GC/ARCHITECT OF ANY CONDITIONS THAT WILL NOT ALLOW FOR INVERTS NOTED.
- SLOPE ALL DRAINAGE PIPING AS FOLLOWS:
- 1. SANITARY SEWER BRANCH PIPING AT 1/4" PER FOOT. 2. INDIRECT WASTE PIPING AT 1/4" PER FOOT.

NEW

- PROVIDE INDIRECT WASTE PIPING TO RECEPTORS FROM ALL EQUIPMENT AS REQUIRED. REFER TO FIXTURE SCHEDULES FOR FURTHER INFORMATION. PIPING SHALL BE TYPE DWV OR TYPE M COPPER INSTALLED A MINIMUM OF 1/2" OFF ADJACENT FLOOR AND WALL SURFACES.
- COORDINATE ALL FURRING REQUIREMENTS AND WALL THICKNESS WITH REGARD TO PIPE AND WALL CLEANOUT INSTALLATIONS.
- COORDINATE ACCESS PANEL LOCATIONS WITH INTERIOR ELEVATIONS TO AVOID CONFLICTS WITH EQUIPMENT, GRAB BARS OR DECORATIVE
- RECORD DRAWINGS USED FOR DESIGN MAY NOT REFLECT CURRENT LAYOUT OF STORE. PLUMBING CONTRACTOR SHALL FIELD
- VERIFY ALL EXISTING PIPING AND FIXTURE LOCATIONS PRIOR TO START OF WORK.
- DEMOLISHED FIXTURES/EQUIPMENT SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY.
- WASTE, VENT AND WATER PIPING FROM DEMOLISHED FIXTURES/EQUIPMENT SHALL BE CAPPED AT MAIN ABOVE CEILING, BELOW FLOOR AND AT WALL AS REQUIRED. ALL ABANDONED PIPING SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY. PATCH FLOOR AND WALLS AS REQUIRED.
- PLUMBER SHALL COORDINATE REMOVAL OF FIXTURES/EQUIPMENT/PIPING WITH ALL OTHER DISCIPLINES.

## **# SHEET NOTES:**

- ROUTE NEW PIPING OVERHEAD. COORDINATE ROUTING WITH EXISTING CRANE HEIGHT, STRUCTURE AND ALL EXISTING DUCTWORK AND/OR ELECTRICAL PIPING/EQUIPMENT. VERIFY EXACT ROUTING IN FIELD PRIOR TO START OF WORK.
- ROUTE (N)PIPING UP THROUGH ROOF. RE:1/P23.
- ROUTE NEW 1" VENT FROM GAS PRESSURE REGULATOR UP THROUGH ROOF. LOCATE NEW VENT MINIMUM 10'-0" FROM ALL AIR INTAKES. VERIFY AND MAKE ADJUSTMENT TO VTR LOCATIONS IN FIELD PRIOR TO START OF WORK.
- MAKE CONNECTION TO EQUIPMENT WITH CSA LISTED SHUT-OFF VALVE, FLEXIBLE CONNECTOR, UNION AND 6" DIRT LEG.
- REQUIREMENTS IN FIELD PRIOR TO START OF WORK.
- ROUTE NEW VENT PIPING UP TO AS HIGH AS POSSIBLE AND VENT THROUGH ROOF. VERIFY LOCATION OF EXISTING ROOFTOP EQUIPMENT AND LOCATE NEW VENT MINIMUM 10'-0" FROM ALL EXISTING AIR INTAKES. VERIFY AND MAKE ADJUSTMENT TO VTR LOCATIONS IN FIELD PRIOR TO START OF WORK.
- ROUTE INDIRECT WASTE AND CONDENSATE PIPING FROM AIR COMPRESSOR EQUIPMENT TO 4X2 HUB DRAIN, HD-1 AND CONNECT INDIRECTLY WITH MINIMUM 1" AIR GAP. SLOPE AT 1/4" PER FOOT. COORDINATE ALL DRAINAGE PIPING FROM EQUIPMENT IN FIELD.
- SPILL NEW 2" WASTE LINE INTO END OF EXISTING TRENCH DRAIN.
- EXISTING PIPING BELOW FLOOR TO REMAIN.
- 10. EXISTING OVERHEAD PIPING TO REMAIN.
- ROUTE NEW VENT PIPING UP TO AS HIGH AS POSSIBLE AND ROUTE OVERHEAD.
- ROUTE NEW VENT PIPING UP IN WALL TO +6" ABOVE FLOOD RIM LEVEL OF FIXTURE. ROUTE HORIZONTALLY IN WALL TO RISER.
- ROUTE NEW PIPING OVERHEAD. COORDINATE ROUTING WITH STRUCTURE AND DUCTWORK LAYOUT.
- CONNECT NEW OVERHEAD VENT PIPING TO EXISTING VENT SYSTEM AND VENT THROUGH ROOF. VERIFY EXACT LOCATION OF EXISTING VENT PIPING AND CONNECTION REQUIREMENTS IN FIELD PRIOR TO START OF WORK.
- CONNECT NEW WASTE LINE TO EXISTING WASTE LINE BELOW FLOOR. VERIFY EXACT SIZE AND LOCATION OF EXISTING PIPING IN
- REQUIREMENTS IN FIELD PRIOR TO START OF WORK.

CONNECT NEW OVERHEAD WATER PIPING TO EXISTING OVERHEAD PIPING. VERIFY EXACT SIZE, LOCATION AND CONNECTION

- PROVIDE NEW ISOLATION VALVES. PROVIDE ACCESS PANELS WHERE LOCATED OVER HARD CEILINGS OR IN VERTICAL DROPS.
- ROUTE PIPING FROM TRAP PRIMER DOWN TO BELOW FLOOR AND MAKE CONNECTION TO FLOOR SINK TRAP. ALL PIPING BELOW FLOOR SHALL BE PEX TUBING WITH NO JOINTS BELOW FLOOR.
- 19. DROP 1/2" HW DOWN, RUN IN WALL AND CONNECT TO MV-1 BELOW EACH LAV-1. ROUTE 105° HW TO EACH LAV-1.
- 20. DROP 1-1/2" CW DOWN TO 1-1/2" CW HEADER IN WALL. CONNECT 1" CW TO EACH WC-1, 1/2" CW TO EACH LAV-1 AND 1/2" CW
- TO MV-1 BELOW LAV-1. 21. DROP 1/2" HW-CW DOWN IN WALL. CONNECT 1/2" HW-CW TO SS-1 AND ROUTE 1/2" CW IN WALL TO TP-1.
- CONNECT NEW 2" CW LINE TO EXISTING CW SERVICE. INSTALL NEW BUILDING SHUT-OFF VALVE AT NEW FLOOR LEVEL AND ROUTE
- EXTEND NEW 1" HW AND MAKE CONNECTION TO EXISTING HW PIPING SERVING THE (E)LAVATORIES AND (E)BREAK ROOM SINK. VERIFY EXACT LOCATION OF EXISTING PIPING AND CONNECTION REQUIREMENTS IN FIELD PRIOR TO START OF WORK.

24. CAP 2" CW WITH BALL VALVE FOR FUTURE CONNECTION.



1 PLUMBING PLAN AREA A SCALE 1/8' = 1'-0'

DIST COFF]

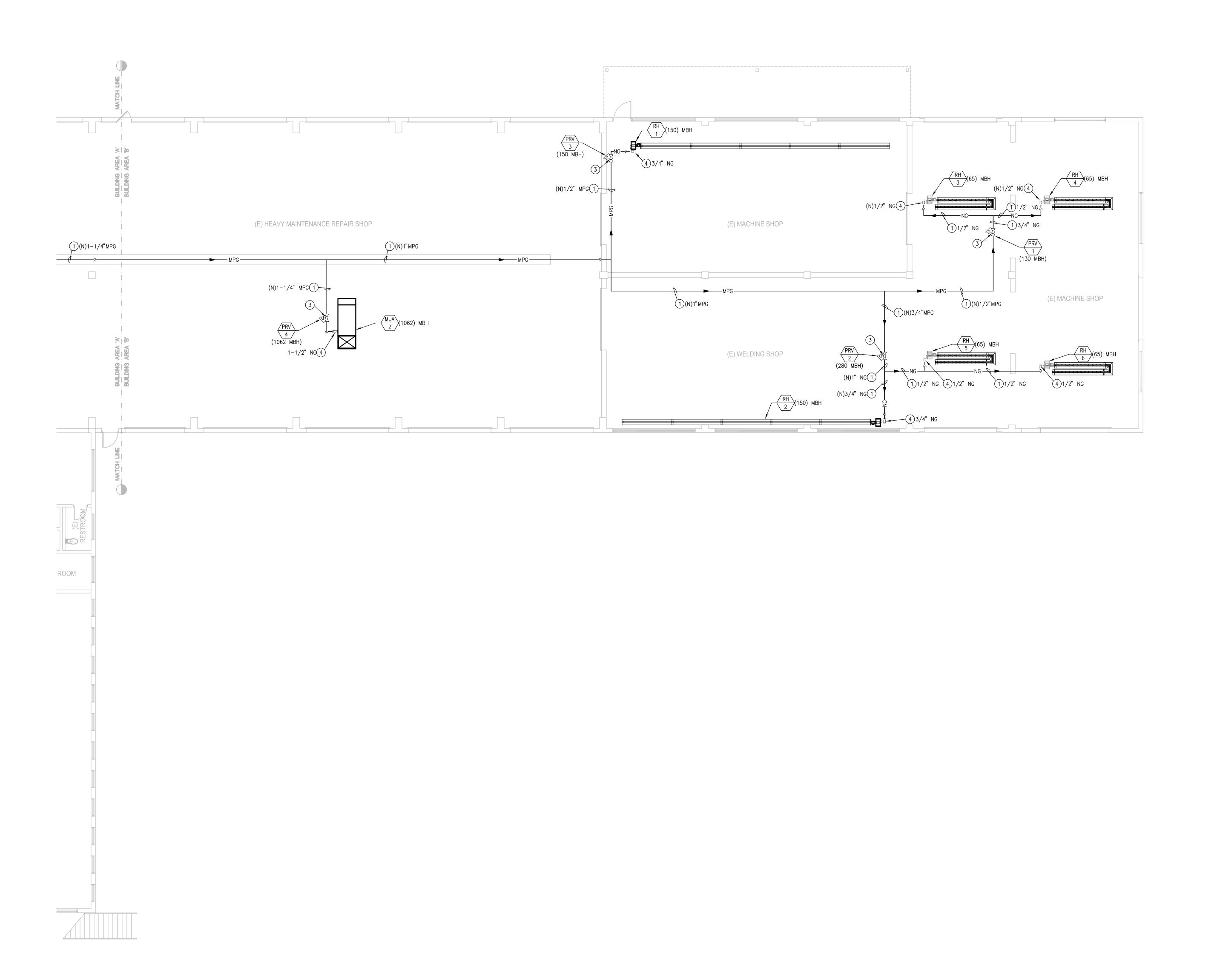
PROJECT 18059.00 5-2-18 DRAWN CHECKED RCP

ADDENDUM NO. ONE 05-15-18 RESPONSE TO RFI 013 08-06-18

**PLUMBNG** 

**PLAN** AREA A





1 PLUMBINGPLAN AREA B
SCALE 1/8' = 1'-0'

#### LEGEND:

	NEW	EXISTING	TO BE DEMOLISHED	
-			444444444	DOMESTIC COLD WATER
-			444444444	DOMESTIC HOT WATER
-			44/14/14/14	DOMESTIC HOT WATER RETURN
-			4//////////////////////////////////////	PLUMBING EQUIPMENT
-			4/14/14/14/14	PLUMBING EQUIPMENT ON ROC
-	NG	NG	4//////////////////////////////////////	NATURAL GAS
-	——MPG——	MPG	4//////////////////////////////////////	MEDIUM PRESSURE GAS
-	CD	——CD——	4444884444h	CONDENSATE DRAIN
-	CA	CA	411118 <b>8</b> 111111	CONDENSATE DRAIN
-	<del></del> SS	——SS——	4//////////////////////////////////////	SANITARY SEWER (BELOW GRAD
-				SANITARY VENT
			$\frac{\overline{WC}}{X}$	FIXTURE OR EQUIPMENT TAG (RE: FIXTURE AND EQUIPMENT SCHEDULES)

#### **GENERAL NOTES:**

- A. PRIOR TO INSTALLING ANY PIPING, VERIFY EXISTING CONDITIONS AND INVERTS. NOTIFY GC/ARCHITECT OF ANY CONDITIONS THAT WILL NOT ALLOW FOR INVERTS
- B. SLOPE ALL DRAINAGE PIPING AS FOLLOWS:
- SANITARY SEWER BRANCH PIPING AT 1/4" PER FOOT.
   INDIRECT WASTE PIPING AT 1/4" PER FOOT.
- PROVIDE INDIRECT WASTE PIPING TO RECEPTORS FROM ALL EQUIPMENT AS REQUIRED. REFER TO FIXTURE SCHEDULES FOR FURTHER INFORMATION. PIPING SHALL BE TYPE DWV OR TYPE M COPPER INSTALLED A MINIMUM OF 1/2" OFF ADJACENT FLOOR AND WALL SURFACES.
- COORDINATE ALL FURRING REQUIREMENTS AND WALL THICKNESS WITH REGARD TO PIPE AND WALL CLEANOUT INSTALLATIONS.
- COORDINATE ACCESS PANEL LOCATIONS WITH INTERIOR ELEVATIONS TO AVOID CONFLICTS WITH EQUIPMENT, GRAB BARS OR DECORATIVE ELEMENTS.
- RECORD DRAWINGS USED FOR DESIGN MAY NOT REFLECT CURRENT LAYOUT OF STORE. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND FIXTURE LOCATIONS PRIOR TO START OF WORK.
- DEMOLISHED FIXTURES/EQUIPMENT SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY.
- WASTE, VENT AND WATER PIPING FROM DEMOLISHED FIXTURES/EQUIPMENT SHALL BE CAPPED AT MAIN ABOVE CEILING, BELOW FLOOR AND AT WALL AS REQUIRED. ALL ABANDONED PIPING SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY. PATCH FLOOR AND WALLS AS REQUIRED.
- PLUMBER SHALL COORDINATE REMOVAL OF FIXTURES/EQUIPMENT/PIPING WITH ALL OTHER DISCIPLINES.

#### # SHEET NOTES:

ROUTE NEW PIPING OVERHEAD. COORDINATE ROUTING WITH EXISTING STRUCTURE AND ALL EXISTING DUCTWORK AND/OR ELECTRICAL PIPING/EQUIPMENT. VERIFY EXACT ROUTING IN FIELD PRIOR TO START OF WORK.

NOT USED

- ROUTE NEW 1" VENT FROM GAS PRESSURE REGULATOR UP THROUGH ROOF. LOCATE NEW VENT MINIMUM 10'-0" FROM ALL AIR INTAKES. VERIFY AND MAKE ADJUSTMENT TO VTR LOCATIONS IN FIELD PRIOR TO START OF WORK.
- . MAKE CONNECTION TO EQUIPMENT WITH CSA LISTED SHUT-OFF VALVE, FLEXIBLE CONNECTOR, UNION AND 6" DIRT LEG.

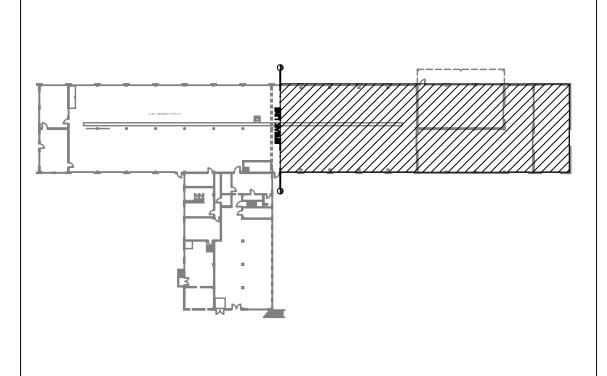


DIST 3 COFFEY

**FOR** CONSTRUCTION 6/25/18

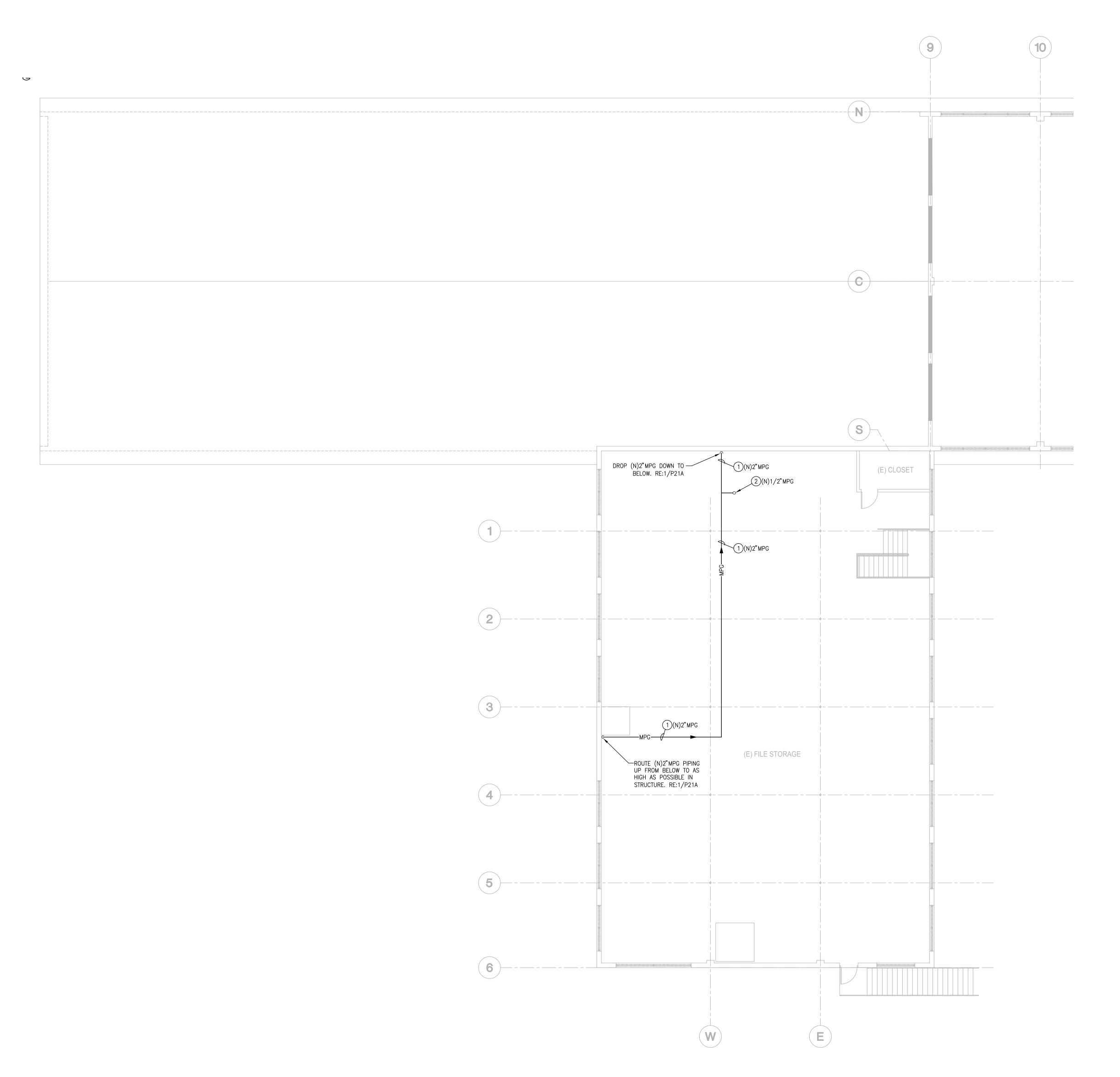
PROJECT <b>18059.00</b>	DATE 5-2-18	
DRAWN <b>KMH</b>	CHECKED RCP	
REVISED		





**PLUMBING PLAN** AREA B





1 GAS PLAN SECOND FLOOR SCALE 1/8' = 1'-0'

#### LEGEND:

NEW	EXISTING	TO BE DEMOLISHED	
		444444444444444444444444444444444444444	DOMESTIC COLD WATER
		444/4/4/4	DOMESTIC HOT WATER
		44/4/4/4/4	DOMESTIC HOT WATER RETURN
		44444444	PLUMBING EQUIPMENT
		4/4//4///	PLUMBING EQUIPMENT ON ROOF
——NG ——	NG	4444444444	NATURAL GAS
——MPG——	MPG	444444444	MEDIUM PRESSURE GAS
——CD——	——CD——	/////XX//////	CONDENSATE DRAIN
——CA——	——CA——	4441XXX4444	CONDENSATE DRAIN
——SS——	——SS——	44//44///44	SANITARY SEWER (BELOW GRADE
			SANITARY VENT
		$\frac{WC}{X}$	FIXTURE OR EQUIPMENT TAG (RE: FIXTURE AND EQUIPMENT SCHEDULES)

#### **GENERAL NOTES:**

- A. PRIOR TO INSTALLING ANY PIPING, VERIFY EXISTING CONDITIONS AND INVERTS. NOTIFY GC/ARCHITECT OF ANY CONDITIONS THAT WILL NOT ALLOW FOR INVERTS
- B. SLOPE ALL DRAINAGE PIPING AS FOLLOWS:
- 1. SANITARY SEWER BRANCH PIPING AT 1/4" PER FOOT. 2. INDIRECT WASTE PIPING AT 1/4" PER FOOT.
- PROVIDE INDIRECT WASTE PIPING TO RECEPTORS FROM ALL EQUIPMENT AS REQUIRED. REFER TO FIXTURE SCHEDULES FOR FURTHER INFORMATION. PIPING SHALL BE TYPE DWV OR TYPE M COPPER INSTALLED A MINIMUM OF 1/2" OFF ADJACENT FLOOR AND
- COORDINATE ALL FURRING REQUIREMENTS AND WALL THICKNESS WITH REGARD TO PIPE AND WALL CLEANOUT INSTALLATIONS.
- COORDINATE ACCESS PANEL LOCATIONS WITH INTERIOR ELEVATIONS TO AVOID CONFLICTS WITH EQUIPMENT, GRAB BARS OR DECORATIVE ELEMENTS.
- RECORD DRAWINGS USED FOR DESIGN MAY NOT REFLECT CURRENT LAYOUT OF STORE. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND FIXTURE LOCATIONS PRIOR TO START OF WORK.
- DEMOLISHED FIXTURES/EQUIPMENT SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY.
- WASTE, VENT AND WATER PIPING FROM DEMOLISHED FIXTURES/EQUIPMENT SHALL BE CAPPED AT MAIN ABOVE CEILING, BELOW FLOOR AND AT WALL AS REQUIRED. ALL ABANDONED PIPING SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY. PATCH FLOOR AND WALLS AS REQUIRED.
- PLUMBER SHALL COORDINATE REMOVAL OF FIXTURES/EQUIPMENT/PIPING WITH ALL OTHER DISCIPLINES.

#### # SHEET NOTES:

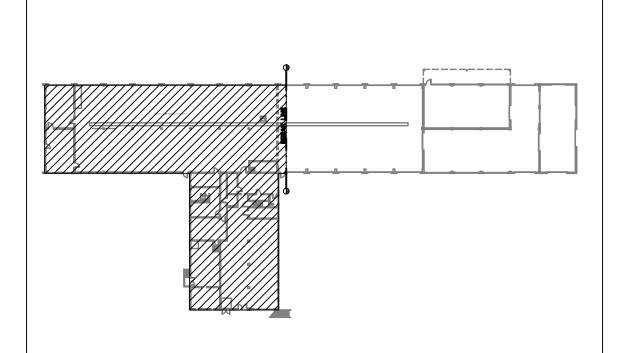
- ROUTE NEW PIPING OVERHEAD. COORDINATE ROUTING WITH EXISTING STRUCTURE AND ALL EXISTING DUCTWORK AND/OR ELECTRICAL PIPING/EQUIPMENT. VERIFY EXACT ROUTING IN FIELD PRIOR TO START OF WORK.

2. ROUTE (N)2 PSI GAS PIPING UP THROUGH ROOF. RE:1/P24.

CONSTRUCTION 6/25/18

PROJECT	DATE
18059.00	5-2-18
DRAWN	CHECKED
KMH	RCP
REVISED	

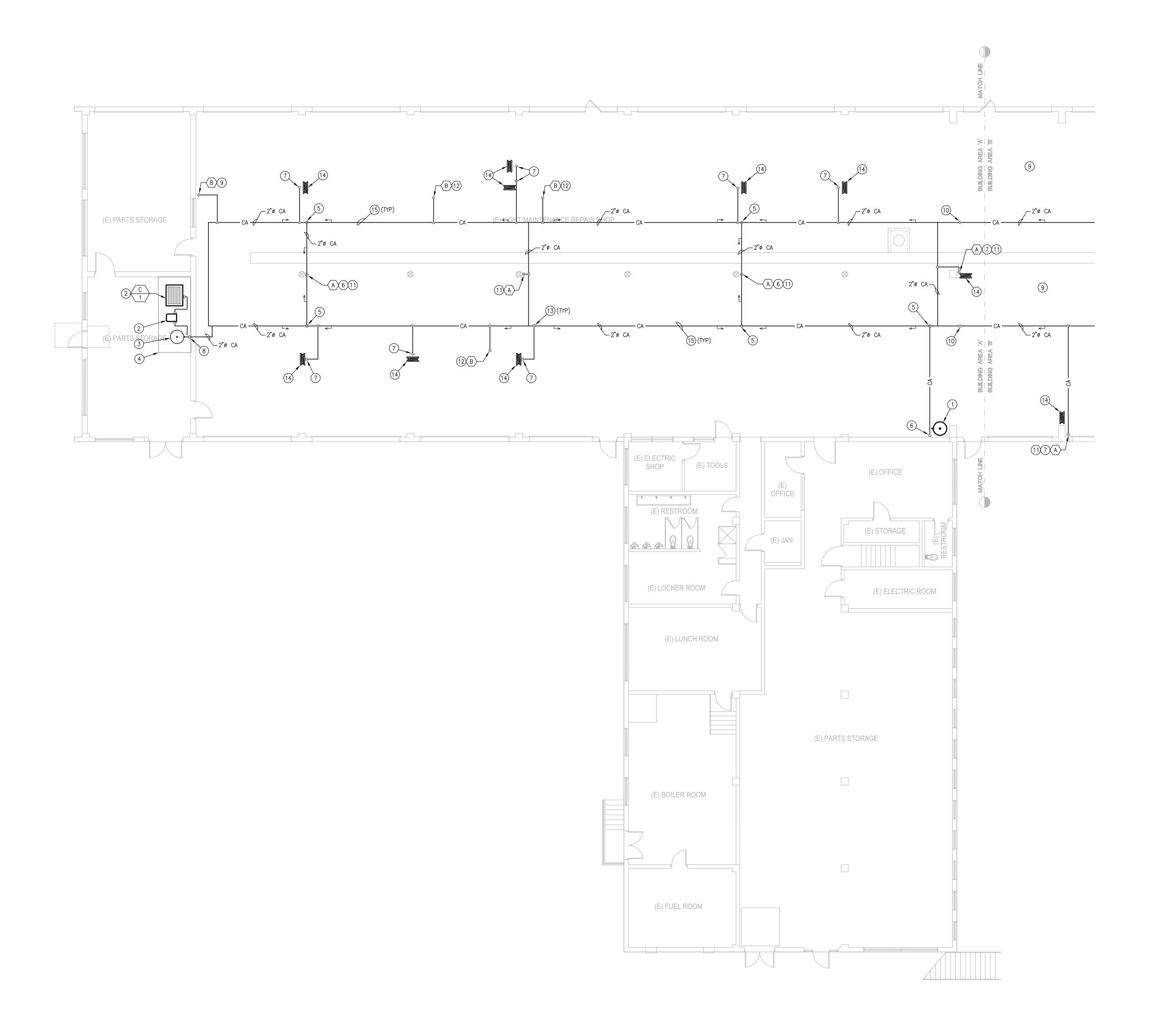




SECOND FLOOR PLUMBING PLAN

P22





COMPRESSED AIR PLAN AREA A SCALE 1/8' = 1'-0'

#### **LEGEND:**

OPIPE ELBOW UP ← PIPE ELBOW DOWN — – 🗓 – — PIPE TEE BRANCH DOWN FLOW DIRECTION INDICATOR INDICATES DIRECTION OF DOWNWARD PITCH 

COMPRESSED AIR OUTLET

FIXTURE OR EQUIPMENT TAG (RE: FIXTURE AND EQUIPMENT SCHEDULES AT P4.1)



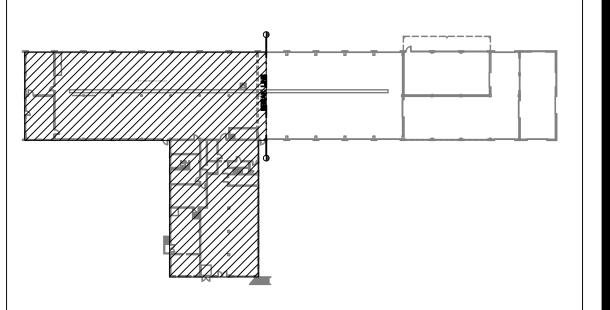
#### **GENERAL NOTES:**

- A. REFER TO THE MECHANICAL PLANS FOR EQUIPMENT AND DUCTWORK LOCATIONS BEFORE INSTALLING ANY PIPING. COORDINATE WITH THE MECHANICAL
- B. PIPING PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE CODE.
- C. CAREFULLY COORDINATE THE INSTALLATION OF COMPRESSED AIR PIPING LOCATED INSIDE WALLS OR ABOVE CEILINGS WITH OTHER TRADES PRIOR TO AND DURING CONSTRUCTION. COORDINATE PIPING ENTRY AND EXIT LOCATIONS WITH THE STRUCTURAL AND ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
- D. ALL CA BRANCH PIPING IS 3/4" UNLESS NOTED OTHERWISE.
- E. RE: P5.1 FOR ALL PLUMBING DETAILS THAT ARE NOT REFERENCED.

#### **# SHEET NOTES:**

- 1. INSTALL COMPRESSED AIR RECEIVER FURNISHED WITH AIR COMPRESSOR C-1 AS SHOWN. INSTALL THE Y-STRAINER WITH BALL VALVE AND AUTOMATIC ELECTRIC TIMED CONDENSATE DRAIN VALVE FURNISHED WITH RECEIVER ON THE BOTTOM OF RECEIVER AND ROUTE THE DRAIN LINE TO A 5-GALLON BUCKET NEXT TO THE RECEIVER. RE: P51-9 FOR COMPRESSED AIR PIPING DETAIL FOR CONDENSATE DRAIN INSTALLATION.
- 2. INSTALL AIR COMPRESSOR AND REFRIGERATED AIR DRYER FURNISHED WITH AIR COMPRESSOR C-1 PER MANUFACTURERS INSTALLATION INSTRUCTIONS. ROUTE THE CONDENSATE LINE INDIRECT TO THE NEAREST APPROVED RECEPTOR. RE: P51-9 FOR COMPRESSED AIR PIPING DETAIL
- 3. INSTALL RELOCATED COMPRESSED AIR RECEIVER WITH PRESSURE GAUGE AND AUTOMATIC ELECTRIC TIMED CONDENSATE DRAIN VALVE PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS. RE: P51-9 FOR COMPRESSED AIR PIPING DETAIL
- 4. 6" THICK HOUSEKEEPING PAD BY OTHERS. COORDINATE EXACT PAD DIMENSIONS WITH EQUIPMENT MOUNTING REQUIREMENTS PRIOR TO CONSTRUCTION. ALLOW 18" MIN BETWEEN ALL EQUIPMENT ON THE PAD AND TO NEAREST WALLS. RE: ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- 5. ROUTE COMPRESSED AIR LINE OFF BOTTOM OF MAIN AT LOW POINT TO ALLOW FOR CONDENSATE DRAINING.
- 6. ROUTE COMPRESSED AIR LINE DOWN TO SHOT-OFF VALVE FOR BLOW-DOWN. INSTALL BLOW-DOWN BELOW QUICK DISCONNECT. RE; P51-10 FOR COMPRESSED AIR DETAILS.
- 7. ROUTE 3/4"Ø CA LINE DOWN TO EXISTING COMPRESSED AIR HOSE REEL. CONNECT AIR LINE TO REEL PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 8. ROUTE 2"Ø CA LINE DOWN TO AIR COMPRESSOR EQUIPMENT WITH SHUT-OFF VALVE. RE: P51-10 FOR COMPRESSED AIR PIPING DETAIL.
- 9. CONNECT 3/4"ø CA TO FLUID DISTRIBUTION PUMP WITH A SHUTOFF VALVE AND FLEXIBLE CONNECTION PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- 10. ROUTE CA PIPING DOWN AGAINST WALL FROM HIGH CEILING TO LOW CEILING. CORE DRILL THROUGH WALL AND CONTINUE ROUTING AS SHOWN.
- 11. ROUTE 3/4" OCA DOWN AGAINST WALL TO PRESSURE REGULATOR/FILTER AND QUICK DISCONNECT. COORDINATE THE EXACT TYPE, SIZE, AND NUMBER OF DISCONNECTS WITH THE OWNER PRIOR TO CONSTRUCTION. RE: P51-10 FOR COMPRESSED AIR DETAILS.
- 12. ROUTE 3/4"ø DOWN TO EXISTING VEHICLE LIFT. CONNECT CA PIPING TO LIFT PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS. FIELD VERIFY THE EXACT LIST CONNECTION LOCATION PRIOR TO CONSTRUCTION. RE: P51-10 FOR COMPRESSED AIR DETAILS.
- 13. INSTALL ALL BRANCH TAKE-OFFS FROM THE TOP OF THE MAIN CA LINE.
- 14. EXISTING COMPRESSED AIR HOSE REEL TO REMAIN.
- 15. ROUTE CA PIPING CLOSE TO ROOF STRUCTURE OR IN ROOF JOIST WEBBING. COORDINATE PIPE ROUTING WITH MECHANICAL EQUIPMENT AND DUCTWORK PRIOR TO CONSTRUCTION.

## BUILDING KEY PLAN



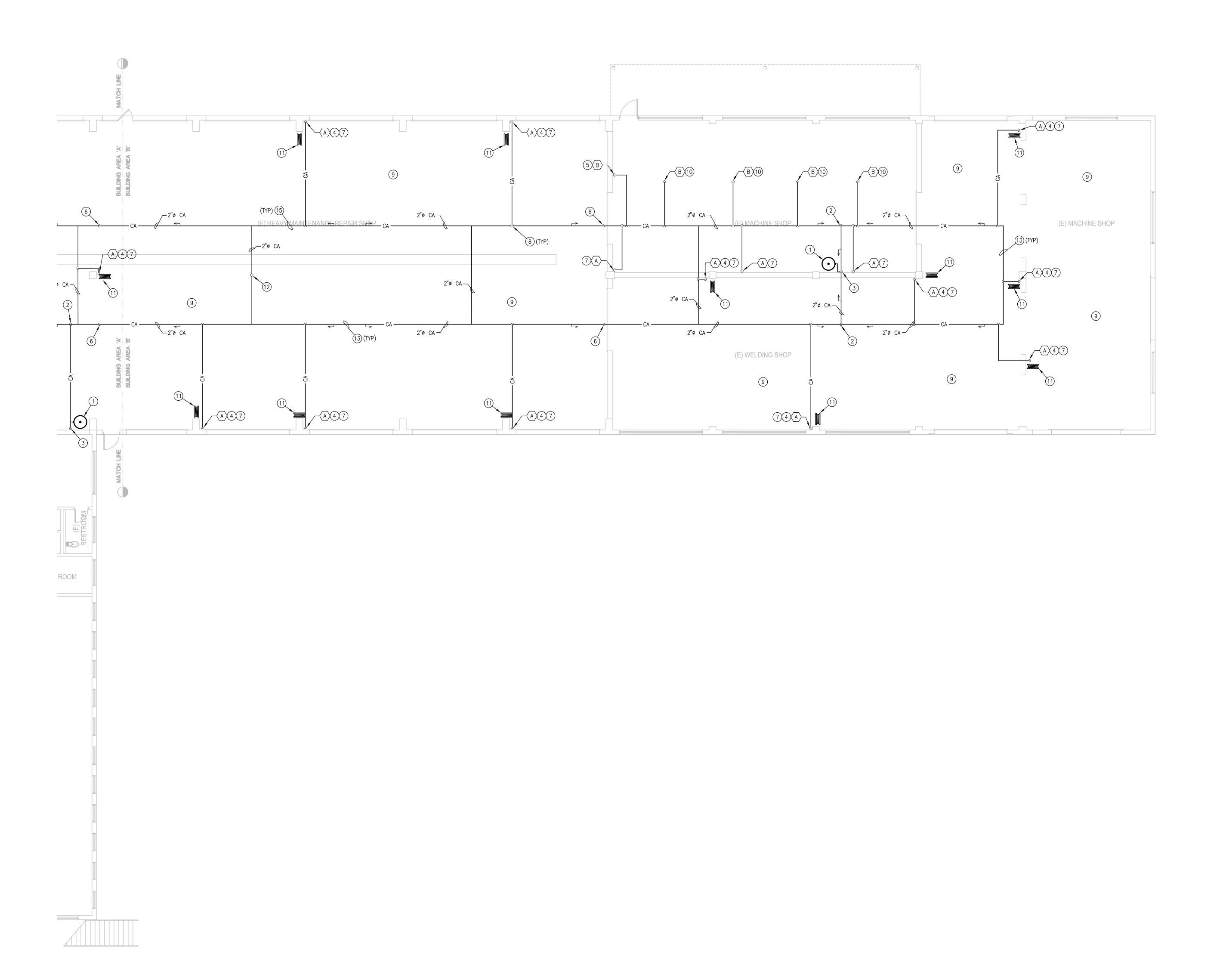
CONSTRUCTION 6/25/18

PROJECT 18059.00	DATE 5-2-18	
DRAWN <b>KRA</b>	CHECKED RCP	
REVISED		

COMPRESSED AIR PLAN AREA A

**P23A** 





# 1 COMPRESSED AIR PLAN AREA B SCALE 1/8' = 1'-0'

#### LEGEND:

— CA — COMPRESSED AIR

— PIPE ELBOW UP

— PIPE TEE BRANCH UP

— PIPE TEE BRANCH DOWN

— FLOW DIRECTION
INDICATOR
INDICATOR
INDICATES DIRECTION
OF DOWNWARD PITCH

— 

— BALL VALVE

— 

— COMPRESSED AIR OUTLET

— WC

— X

— FIXTURE OR EQUIPMENT TAG
(RE: FIXTURE AND EQUIPMENT TAG
(RE: FIXTURE AND EQUIPMENT
SCHEDULES AT P4.1)

## **GENERAL NOTES:**

- A. REFER TO THE MECHANICAL PLANS FOR EQUIPMENT AND DUCTWORK LOCATIONS
  BEFORE INSTALLING ANY PIPING. COORDINATE WITH THE MECHANICAL
- B. PIPING PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE CODE.
- C. CAREFULLY COORDINATE THE INSTALLATION OF COMPRESSED AIR PIPING LOCATED INSIDE WALLS OR ABOVE CEILINGS WITH OTHER TRADES PRIOR TO AND DURING CONSTRUCTION. COORDINATE PIPING ENTRY AND EXIT LOCATIONS WITH THE STRUCTURAL AND ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
- D. ALL CA BRANCH PIPING IS 3/4" UNLESS NOTED OTHERWISE.
- E. RE: P5.1 FOR ALL PLUMBING DETAILS THAT ARE NOT REFERENCED.
- F. ROUTE CA PIPING ABOVE CRANES IN THE HEAVY MAINTENANCE, WELDING, AND MACHINE SHOPS.

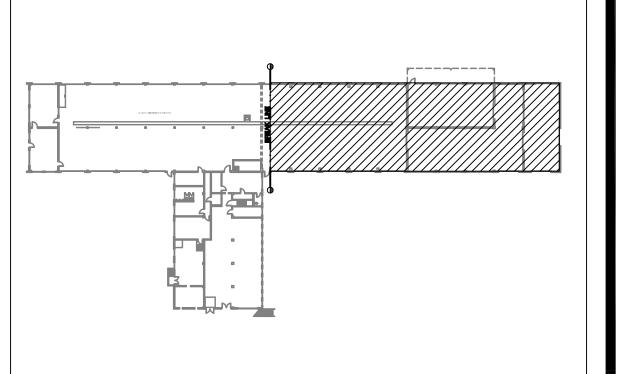
#### **# SHEET NOTES:**

- 1. INSTALL COMPRESSED AIR RECEIVER FURNISHED WITH AIR COMPRESSOR C-1 AS SHOWN. INSTALL THE Y-STRAINER WITH BALL VALVE AND AUTOMATIC ELECTRIC TIMED CONDENSATE DRAIN VALVE FURNISHED WITH RECEIVER ON THE BOTTOM OF RECEIVER AND ROUTE THE DRAIN LINE TO A 5-GALLON BUCKET NEXT TO THE RECEIVER. RE: P51-9 FOR COMPRESSED AIR PIPING DETAIL FOR CONDENSATE DRAIN INSTALLATION.
- ROUTE COMPRESSED AIR LINE OFF BOTTOM OF MAIN AT LOW POINT TO ALLOW FOR CONDENSATE DRAINING.
- PROVIDE FULL SIZE COMPRESSED AIR LINE DOWN TO SHOT-OFF VALVE FOR BLOW-DOWN. MOUNT AT 48" AFF.
- 4. ROUTE 3/4"Ø CA LINE DOWN TO EXISTING COMPRESSED AIR HOSE REEL. CONNECT AIR LINE TO REEL PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 5. CONNECT 3/4"Ø CA TO FLUID DISTRIBUTION PUMP WITH A SHUTOFF VALVE AND FLEXIBLE CONNECTION PER MANUFACTURER'S INSTALLATION
- 6. ROUTE CA PIPING DOWN AGAINST WALL FROM HIGH CEILING TO LOW CEILING. CORE DRILL THROUGH WALL AND CONTINUE ROUTING AS SHOWN.
- 7. ROUTE 3/4"Ø CA DOWN AGAINST WALL TO PRESSURE REGULATOR/FILTER AND QUICK DISCONNECT. COORDINATE THE EXACT TYPE, SIZE, AND NUMBER OF DISCONNECTS WITH THE OWNER PRIOR TO CONSTRUCTION. RE: P51-10 FOR COMPRESSED AIR DETAILS.
- 8. INSTALL ALL BRANCH TAKE-OFFS FROM THE TOP OF THE MAIN CA LINE.
- COORDINATE THE INSTALLATION OF ALL CA PIPING IN THIS AREA WITH THE EXISTING CRANE AND RELATED COMPONENTS PRIOR TO CONSTRUCTION. THE CA PIPING CANNOT INTERFERE WITH THE CRANE OPERATION.
- 10. ROUTE 3/4" O CA DOWN FROM CEILING TO HOSE WITH QUICK DISCONNECT. COORDINATE THE EXACT DISCONNECT TYPE, SIZE, HOSE REQUIREMENTS, AND DISCONNECT MOUNTING HEIGHT WITH THE OWNER PRIOR TO CONSTRUCTION. RE: P51-10 FOR COMPRESSED AIR DETAILS.
- 11. EXISTING COMPRESSED AIR HOSE REEL TO REMAIN.

REQUIREMENTS.

- 12. INSTALL PRESSURE TRANSDUCER FURNISHED WITH AIR COMPRESSOR AND CONNECT TO COMPRESSOR. ADJUST THE AIR COMPRESSOR AND RELATED SYSTEM COMPONENTS TO MAINTAIN A SYSTEM PRESSURE OF 135 PISG.
- 13. ROUTE CA PIPING CLOSE TO ROOF STRUCTURE OR IN ROOF JOIST WEBBING. COORDINATE PIPE ROUTING WITH MECHANICAL EQUIPMENT AND DUCTWORK PRIOR TO CONSTRUCTION.

## BUILDING KEY PLAN





33702

4635 • FAX: 208-343-1858

4805 • FAX: 208-343-1858

AND SPECIFICATIONS, AS INSTRUMENTS

AND SHALL REMAIN THE PROJECT FOR MADE IS EXECUTED OR NOT THESE PECIFICATIONS SHALL NOT BE USED BY PRINTY YOU OTHER PROJECTS, FOR IS PROJECT, OR COMPLETION OF THIS HASSED WITHOUT THE WRITTEN CONSENT

RUSSELL C. PRATT, P.E.

200 BROAD STREET
BOISE, IDAHO 83702
PHONE: 208-343-4635 • FAX: 208-343-18.
THESE DRAWINGS AND SPECIFICATIONS, AS I OF SERVICE, ARE AND SHALL REMAIN THE PR THE ARCHITECT / ENGINEER WHETHER THE PROJECT / ENGINEER WHETHER THE PROMISE AND SPECIFICATIONS SHALL NOT ANY PERSON OR ENTITY ON OTHER PROJECT ADDITIONS TO THIS PROJECT.

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200 BROAD BOISE, (208) 343-4635 • FAX (208) www.o

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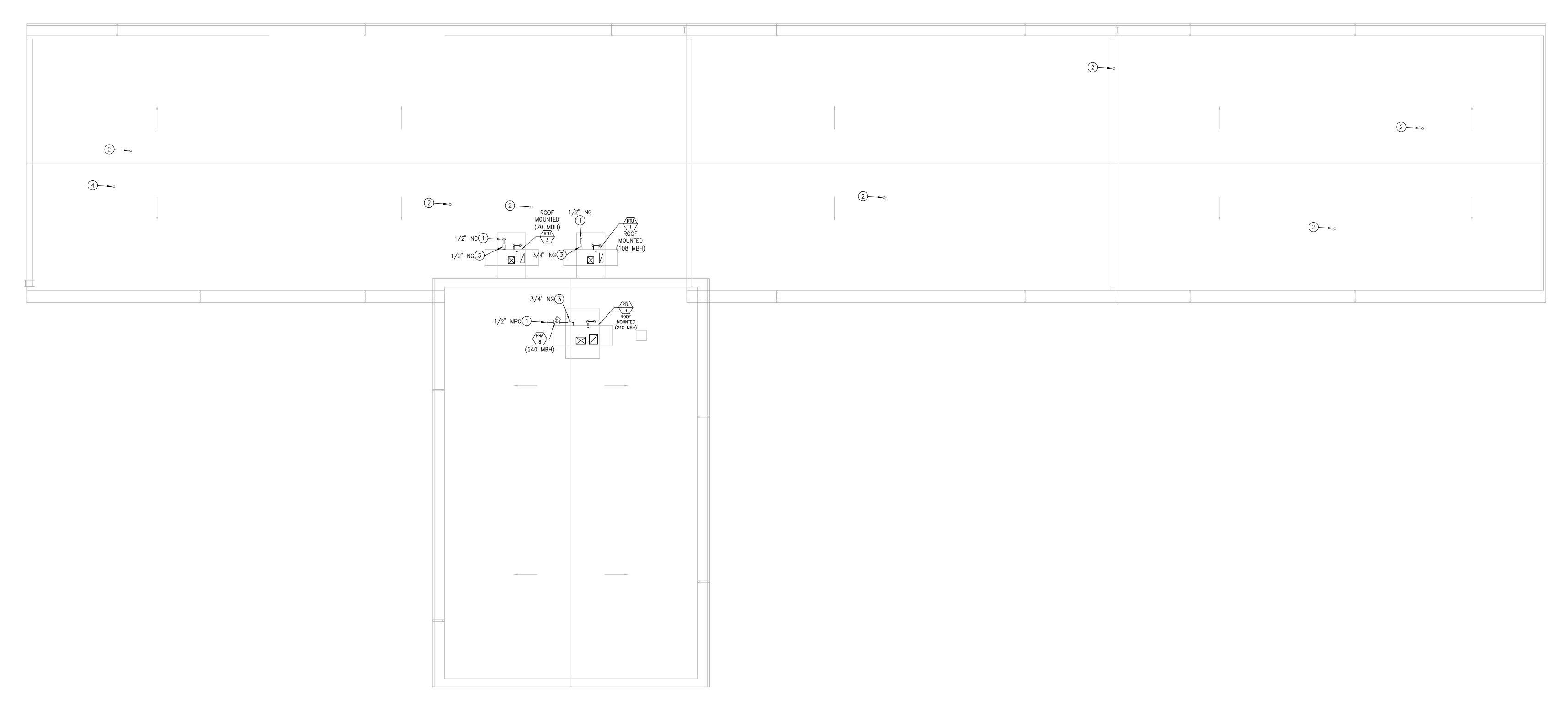
FOR CONSTRUCTION 6/25/18

PROJECT	DATE	
18059.00	5-2-18	
DRAWN	CHECKED	
KRA	RCP	
REVISED		

SHEET TITLE

COMPRESSED AIR PLAN AREA B





## 1 PLUMBING ROOF PLAN SCALE 3/32' = 1'-0'

LEGEND:	GENERAL NOTES:	# SHEET NOTES:
NEW EXISTING TO BE DEMOLISHED	A. PRIOR TO INSTALLING ANY PIPING, VERIFY EXISTING CONDITIONS AND INVERTS. NOTIFY GC/ARCHITECT OF ANY CONDITIONS THAT WILL NOT ALLOW FOR INVERTS NOTED.  B. SLOPE ALL DRAINAGE PIPING AS FOLLOWS:  1. SANITARY SEWER BRANCH PIPING AT 1/4" PER FOOT. 2. INDIRECT WASTE PIPING AT 1/4" PER FOOT.  C. PROVIDE INDIRECT WASTE PIPING TO RECEPTORS FROM ALL EQUIPMENT AS REQUIRED. REFER TO FIXTURE SCHEDULES FOR FURTHER INFORMATION. PIPING SHALL BE TYPE DWV OR TYPE M COPPER INSTALLED A MINIMUM OF 1/2" OFF ADJACENT FLOOR AND WALL SURFACES.  D. COORDINATE ALL FURRING REQUIREMENTS AND WALL THICKNESS WITH REGARD TO PIPE AND WALL CLEANOUT INSTALLATIONS.  E. COORDINATE ACCESS PANEL LOCATIONS WITH INTERIOR ELEVATIONS TO AVOID CONFLICTS WITH EQUIPMENT, GRAB BARS OR DECORATIVE ELEMENTS.  F. RECORD DRAWINGS USED FOR DESIGN MAY NOT REFLECT CURRENT LAYOUT OF STORE. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND FIXTURE LOCATIONS PRIOR TO START OF WORK.  G. DEMOLISHED FIXTURES/EQUIPMENT SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY.  H. WASTE, VENT AND WATER PIPING FROM DEMOLISHED FIXTURES/EQUIPMENT SHALL BE CAPPED AT MAIN ABOVE CEILING, BELOW FLOOR AND AT WALL AS REQUIRED. ALL ABANDONED PIPING SHALL BE REMOVED FROM THE BUILDING AND DISPOSED OF PROPERLY. PATCH FLOOR AND WALLS AS REQUIRED.	1. ROUTE (N)PIPING UP THROUGH ROOF. SEE SHEETS P21A, P21B OR P22.  2. ROUTE NEW 1" VENT FROM GAS PRESSURE REGULATOR UP THROUGH ROOF. LOCATE NEW VENT MINIMUM 10'-0" FROM ALL AIR INTAKES. VERIFY AND MAKE ADJUSTMENT TO VTR LOCATIONS IN FIELD PRIOR TO START OF WORK.  3. MAKE CONNECTION TO EQUIPMENT WITH CSA LISTED SHUT-OFF VALVE, FLEXIBLE CONNECTOR, UNION AND 6" DIRT LEG.  4. NEW 2" SANITARY VENT THROUGH ROOF. VERIFY LOCATION OF EXISTING ROOFTOP EQUIPMENT AND LOCATE NEW VENT MINIMUM 10'-0" FROM ALL EXISTING AIR INTAKES. VERIFY AND MAKE ADJUSTMENT TO VTR LOCATIONS IN FIELD PRIOR TO START OF WORK.
	I. PLUMBER SHALL COORDINATE REMOVAL OF FIXTURES/EQUIPMENT/PIPING WITH ALL OTHER DISCIPLINES.	



ROAD STREET

E: 10AHO 83702

E: 208-343-4635 • FAX: 208-343-1858

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EXAMINGS AND SPECIFICATIONS, AS INSTRUMENTS

RVICE, ARE AND SHALL REMAIN THE PROPERTY OF

ROHITECT / ENGINEER WHETHER THE PROJECT FOR

THEY ARE MADE IS EXECUTED OR NOT. THESE

THES ARE MADE IS EXECUTED OR NOT. THESE

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200 BROAD STREET
BOISE, IDAHO 83702
PHONE: 208-343-4635 • F.
THESE DRAWINGS AND SPEC
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WHICH THEY ARE MADE IS ES
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ANY PERSON OR ENTITY ON

DEN CITY, II
200 BROAD STRE
BOISE, ID 83

BLDG UPGRADES GARDEN

DIST 3 MAINTENA COFFEY STREET

CE

FOR CONSTRUCTION 6/25/18

 PROJECT
 DATE

 18059.00
 5-2-18

 DRAWN
 CHECKED

 KMH
 RCP

SHEET TITLE

PLUMBING ROOF PLAN

P24

ORIGINAL SHEET SI



AIR COMPRESSOR SCHEDULE																		
REFERE	ICE					PERFORMANCE			RECEIVER	AIR COMPR	ESSOR DIME	NSIONS	ELECT	RICAL				
MARK		BASIS OF DESIGN		TYPE	LOCATION	COMP. ACFM AT 135 PSIG	MOTOR	SOUND	VOLUME	LENGTH	WIDTH	HEIGHT	VOLTS	PHASE	MCA	MOCP	WEIGHT	REMARKS
	ITEM	MFR	MODEL			RANGE MIN-MAX	HP	LEVEL dBA	GAL EACH	IN	IN	IN					LBS	
C-1	AIR COMPRESSOR	ROGERS	KIV-30-125	ROTARY SCREW, ADJUSTABLE SPEED	NEW MECH ROOM	45-92	30	73	240	46	37	60	460	3	51	80	1,800	1, 2, 3

TANK VOL ACCEPT. WEIGHT REMARKS

FACTOR POUNDS

PROVIDE UNISTRUT BRACKET SECURED TO WALL WITH STRAP AROUND TANK.

GALLONS

DIAPHRAGM 4.4 0.73 36 1, 2

2. PROVIDE ISOLATION VALVE (LESS HANDLE OR LOCK-SHIELD).

TYPICAL REQUIREMENTS:

A. RE: DIVISION 22 SPECIFICATIONS FOR FURTHER REQUIREMENTS.

1. FURNISH VARIABLE SPEED LUBRICANT-INJECTED AIR COMPRESSOR WITH LOAD/NO LOAD CONTORRS, LUBRICANT-FLOODED ROTARY SCREW COMPRESSOR, HIGH-EFFICIENCY ROTOR PRIFILE, AIR-COOLED LUBRICANT COOLER WTH AUTOMAITC TEMPERAUTRE CONTROL, TRIPPLE LIP SHAFT SEAL, V-BELT DRIVE, MULTI-STAGE HIGH EFFICIENCY AIR-LUBRICANT SEPARATION SYSTEM, SPIN-ON TYPE LUBRICANT FILTER, INLET AIR FILTER/SILENCER, ASME PRESSURE RELIEF VLAVE, MINIMUM PRESSURE DISCHARGE AIR CHECK VAVLE, LUBRICANT LEVEL SIGHT GLASS, HIGH TEMPERATURE SHUTDOWN SWITCH, UL LISTED CONTROL PANEL AND INSTRUMENTATION, MICROPROCESSOR-BASED CONTROL COMPLETE WITH LCD DISPLAY, REMOTE START CAPABILITY, MULTIPLE-COMPRESSOR CONTROL SEQUENCING CAPABILITY, E-STOP BUTTON FOR IMMEDIATE MANUAL

2. FURNISH COMPRESSOR WITH TWO (2) VERTICAL, 30" DIAMETER 84" TALL, ASME RECEIVERS CODED FOR 200 PSIG COMPLETE WITH EXTERIOR PRIMER, SAFETY RELIEF VALVES MODEL 95404 SET TO 200 PSIG, 0-200 PSIG 2-

3. PROVIDE ZEKS MODEL 100HSH CYCLING AIR DRYER WITH AUTOMATIC TEMPERATURE CONTROL, STAINLESS STEEL HEAT EXCHANGER, ONE (1) 3/4 HP 115 VOLT / 1-PHASE MOTOR 0.98 KW 15.44 AMPS MCA 20 AMPS MOCP, REFRIGERANT SUCTION PRESSURE GAUGE, AUTOMATIC TIMED SOLENOID DRAIN, AND 1" MPT INLET AND OUTLET CONNECTIONS.

NH-1 WATER HEATER   A.O. SMITH   DEL-66   ELECTRIC STORAGE   JANITOR 109   12/P5.1   ELEC.   66   (4,500)   -   36   100   208   3   13.1   3/4	HW OP. W L 3/4 4	IN	CW	MCA							MANUE	PERFOR						IVOL	EFER
TYPICAL REQUIREMENTS:  A. RE: DIVISION 22 SPECIFICATIONS FOR FURTHER REQUIREMENTS.  1. SET OPERATING TEMPERATURE AT 140°F.	3/4 4		III		PHASE	VOLTAGE	TEMP RISE °F		EFF %	1999 T-24				LOCATION	TYPE	MODEL	MFR	ITEM	MARK
A. RE: DIVISION 22 SPECIFICATIONS FOR FURTHER REQUIREMENTS.  1. SET OPERATING TEMPERATURE AT 140°F.		3/4	3/4	13.1	3	208	100	36	-	(4,500)	66	ELEC.	12/P5.1	JANITOR 109	ELECTRIC STORAGE	DEL-66	A.O. SMITH	WATER HEATER	WH-1
<ol> <li>FURNISH WITH CONCENTRIC [ROOF][WALL] VENT KIT[AND CONDENSATE NEUTRALIZATION KIT].</li> <li>PROVIDE WITH INSTANT FLOW TEMPERATURE CONTROL, STAINLESS STEEL HEATING COIL, AND FLOW SWITCH TO ACTIVATE HEATER AT 0.5 GPM</li> <li>FURNISH WATER HEATER WITH ASME RATED CONSTRUCTION.</li> </ol>	PM.	AT 0.5 GPM.	EATER AT 0.	CTIVATE HEAT	WITCH TO AC			TAINLESS STEEL	CONTROL, S	OW TEMPERATURE	/ITH INSTANT FL	4. PROVIDE							

MFR

TYPICAL REQUIREMENTS:

NATURAL GAS PRESSURE REGULATOR SCHEDULE MARK MODEL REMARKS MFR SERVICE PRV-1 FISHER SC400 SERIES RH-3, RH-4 RH-2, RH-5, RH-6 FISHER SC400 SERIES FISHER SC400 SERIES RH-1

PRV-4 FISHER SC400 SERIES PRV-5 SC400 SERIES FISHER UH-1, UH-2 PRV-6 FISHER SC400 SERIES MAU-1 PRV-7 SC400 SERIES RTU-1, RTU-2 PRV-8 RTU-3 FISHER SC400 SERIES

A. RE: DIVISION 22 SPECIFICATIONS FOR FURTHER REQUIREMENTS.

DIVERTER, AND CHURCH SEAT NO. 9500CT. ADA COMPLIANT (BARRIER FREE).

1. THE DELIVERY PRESSURE ENTERING THE PRESSURE REGULATOR (UPSTREAM IS 2 PSI AND THE DISCHARGE PRESSURE (DOWNSTREAM IS 7 IN WC.

2. THE DELIVERY PRESSURE ENTERING THE PRESSURE REGULATOR (UPSTREAM IS 2 PSI AND THE DISCHARGE PRESSURE (DOWNSTREAM IS 8 IN WC.

3. PROVIDE APPROPRIATE SPRING AND ORIFICE TO DELIVER NATURAL GAS DEMAND AS SCHEDULED

PLUMBING FIXTURE SCHEDULE

SERVICE

ET-1 AMTROL ST-12 DOMESTIC HOT WATER JANITOR 109

A. RE: DIVISION 22 SPECIFICATIONS FOR FURTHER REQUIREMENTS.

LOCATION

DETAIL

REFERENCE

12/P51

**FIXTURE** TRIM CONNECTIONS, IN REMARKS CW HW W V ITEM MODEL MODEL MFR 2 1-1/2 CAST IRON BODY WITH ADJUSTABLE STRAINER HEAD. FURNISH WITH ROUND TOP, VANDAL PROOF SCREWS, AND 1/2" CW TRAP PRIMER CONNECTION. J.R. SMITH FLOOR DRAIN 2005YA[-P050][-U] (ROUND) HD-1 4 X 2 HUB DRAIN - | - | 2 | 2 LAV-1 ADA LAVATORY ZURN Z5344 **FAUCET** RESISTANT SCREWS, AND VANDAL RESISTANT .5 GPM AERATOR. INSULATE CW, HW, AND SS LINES FOR ADA COMPLIANCE. ADA COMPLIANT (BARRIER-FREE). PROVIDE MIXING VALVE (SQUARE WALL-MTD) MV-1 FOR HW INLET AND SET TO 105°F. INSTALL VALVE UNDER FIXTURE AND SIZE ACCORDING TO FIXTURE WATER SUPPLY. SET FOR 105°F. WATTS LFUSG-B MIXING VALVE (LAVATORIES, HAND SINKS) 1/2 1/2 2 1-1/2 COUNTER MOUNTED, 18 GAUGE TYPE 304 STAINLESS STEEL SINGLE BOWL SINK WITH SELF-RIMMING EDGE, STRAINER, AND TWO (2) HOLES 4" OC. INSIDE BOWL DIMENSIONS : 18" L, SK-1 **FAUCET** ZURN LR2219 14" W, 7-1/2" D. FURNISH WITH ADA COMPLIANT DECK-MOUNTED GOOSENECK FAUCET WITH LEVER HANDLES AND 2.2 GPM AERATOR. (COUNTER-MTD) FLOOR MOUNTED PRECAST TERRAZZO SERVICE SINK. FURNISH WITH E-77-AA BUMPER GUARD, STRAINER, 889-CC MOP BRACKET, 832-AA HOSE & BRACKET, WALL MOUNTED SS-1 FIAT **FAUCET** SERVICE SINK TSB-100 **ZURN** 

(SQUARE, CORNER-MTD) POLISHED CHROME FAUCET WITH TOP BRACE, STOPS, VACUUM BREAKER, 3/4" THREADED HOSE OUTLET, AND PAIL HOOK WITH WALL SUPPORT. 1/2 TRAP PRIMER [P1-500][P2-500] INSTALL TRAP PRIMER IN WALL IN AN ACCESSIBLE LOCATION. WITH A LOCKABLE STAINLESS STEEL ACCESS COVER. (AUTO-PNEUMATIC) STEEL ICEMAKER BOX WITH WHITE POWDER COAT FINISH AND ONE QUARTER-TURN VALVE. MOUNT FIXTURE FLUSH TO WALL AT 48" AFF TO TOP OF BOX WATER BOX MIB1AB (ICE MAKER) **GRAY** 

TYPICAL REQUIREMENTS:

ADA WATER CLOSET

(FLOOR-MTD)

WC-1

A. RE: DIVISION 22 SPECIFICATIONS FOR FURTHER REQUIREMENTS.

B. RE: ARCHITECTURAL DRAWINGS FOR ADA ACCESSIBLE FIXTURE APPLICABILITY, BARRIER CLEARANCE, AND MOUNTING HEIGHT.

ZURN

Z5665-BWL1

C. TRENCH DRAIN LENGTHS LISTED INCLUDE CATCH BASIN AND ARE NOMINAL ONLY. CONTRACTOR SHALL COORDINATE EXACT LENGTH REQUIRED WITH GENERAL CONTRACTOR.

FLUSH VALVE SLOAN

SLOAN

TRAP PRIMER

**BACKFLOW PREVENTER SCHEDULE** 

	BACKI LOW I KLVLIKI CONLEGEL										
REFERENCE						CONNECTIONS		PERFORMANCE			
MARK	ITEM	MFR	MODEL	TYPE	SERVICE	WATER IN	WASTE IN	FLOW RATE GPM	PRES. DROP PSI	REMARKS	
BP-1	BACKFLOW PREVENTER	WATTS	LF007M1QT-S	DOUBLE CHECK	BUILDING SUPPLY	2	-	55	6	1, 2	

- 3 2 VITREOUS CHINA, FLOOR MOUNTED, ADA WATER CLOSET WITH SIPHON-JET ACTION. FURNISH WITH 1.28 GPF MANUALLY OPERATED FLUSH VALVE ON OPEN SIDE, TRAP PRIMER

REMARKS:

TYPICAL REQUIREMENTS:

ROYAL-111-1.28 1

VBF-72-A1

A. RE: DIVISION 22 SPECIFICATIONS FOR FURTHER REQUIREMENTS.

1. PROVIDE BRACKETS, SUPPORTS, AND PIPING REDUCERS AS NECESSARY.

2. FURNISH WITH QUARTER-TURN BALL VALVES AND STRAINER ON INLET.

**PLUMBING SCHEDULES** 

DIST COFF]

CONSTRUCTION 6/25/18

5-2-18

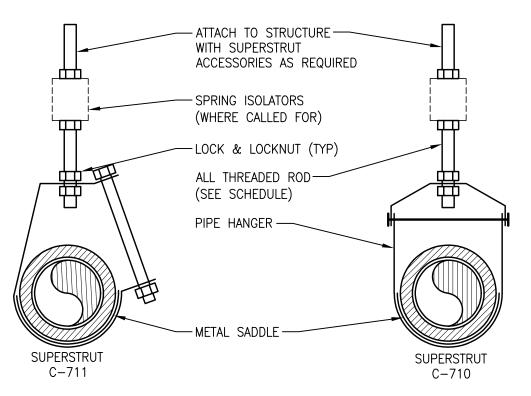
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PROJECT 18059.00

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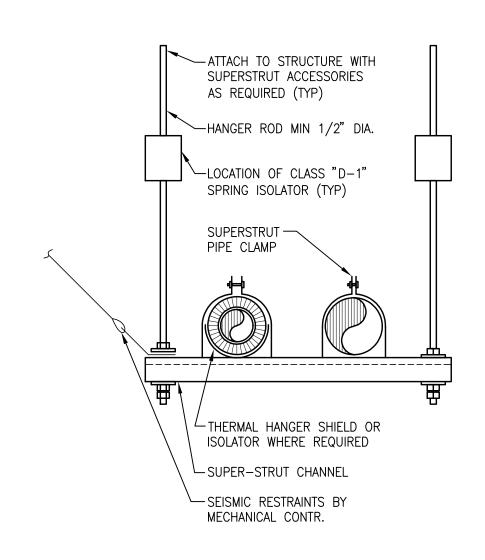
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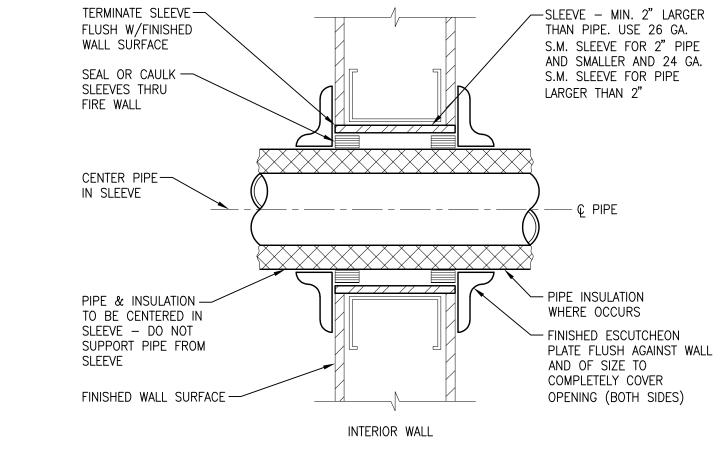


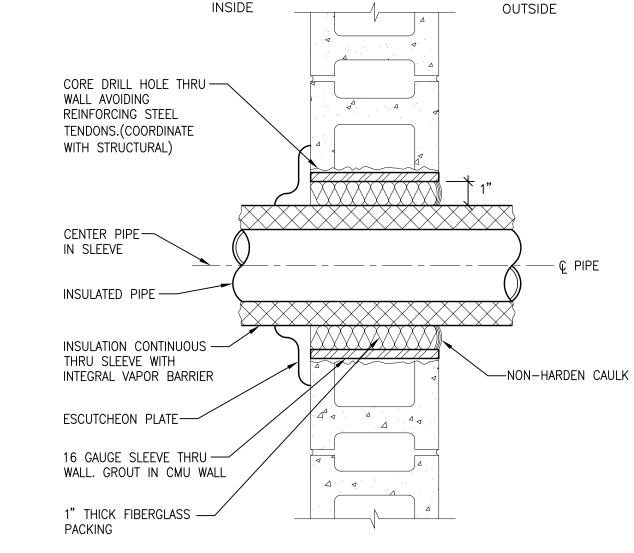


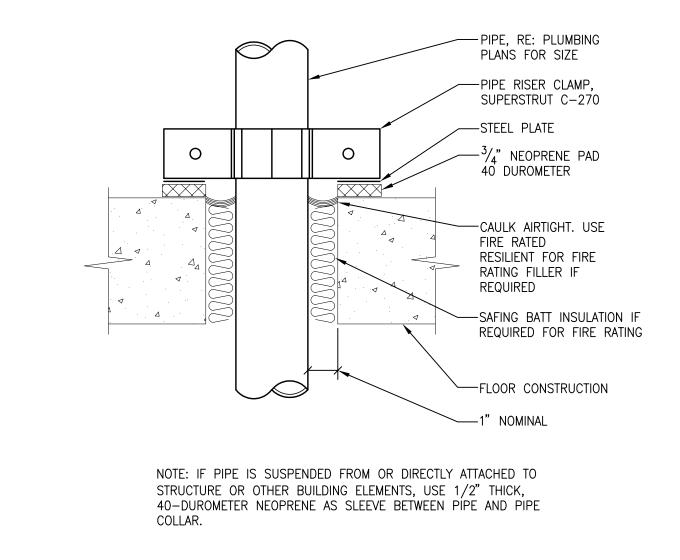
PIPE TYPE	MAX. HORIZONTAL HANGER SPACING	THREADED ROD SIZE
ABS PIPE	4 FT	1/2 IN
CAST IRON PIPE	5 FT	5/8 IN
CPVC 1 IN AND SMALLER	3 FT	1/2 IN
CPVC 1-1/4 IN AND LARGER	4 FT	1/2 IN
COPPER PIPE	12 FT	3/8 IN
COPPER TUBE 1-1/4 IN AND SMALLER	6 FT	3/8 IN
COPPER TUBE 1-1/2 IN AND LARGER	10 FT	1/2 IN
STEEL PIPE	12 FT	5/8 IN
PEX PIPE	32 IN	3/8 IN
PVC PIPE	4 FT	1/2 IN
POLYPROPYLENE 1 IN AND SMALLER	32 IN	1/2 IN
POLYPROPYLENE 1-1/4 IN AND LARGER	4 FT	1/2 IN

1 SINGLE PIPE SUPPORT DETAIL SCALE: NTS







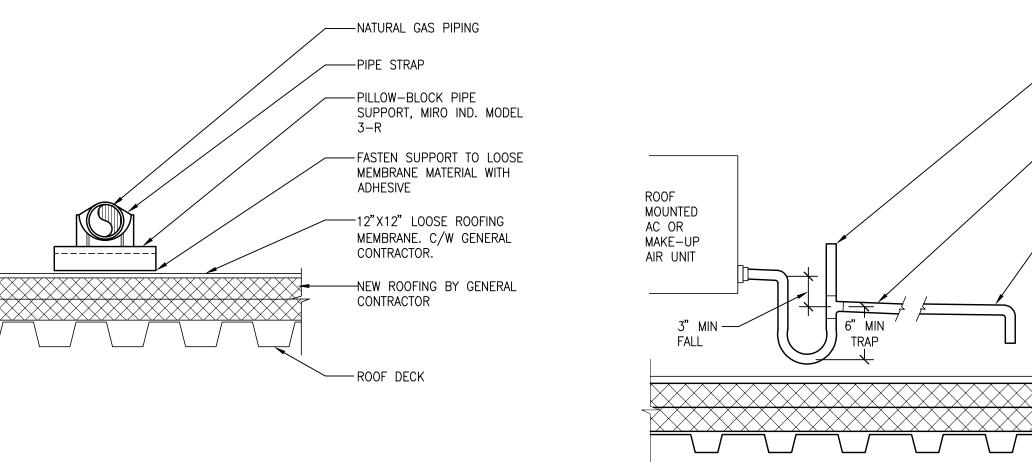


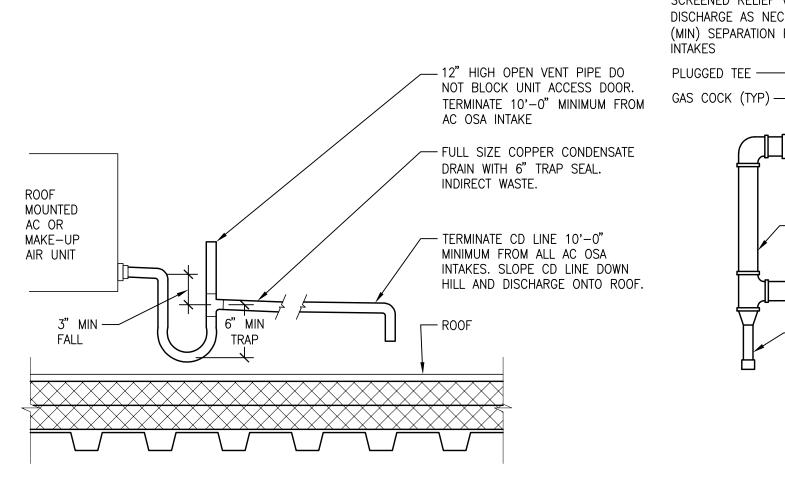
2 TRAPEZE SPRING HANGER DETAIL SCALE: NTS

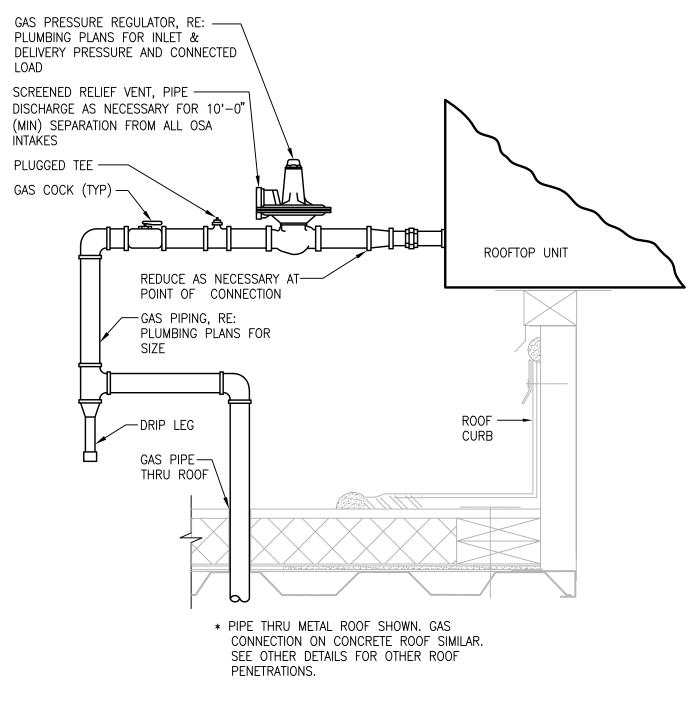
3 PIPE THRU FRAMED WALL DETAIL SCALE: NTS

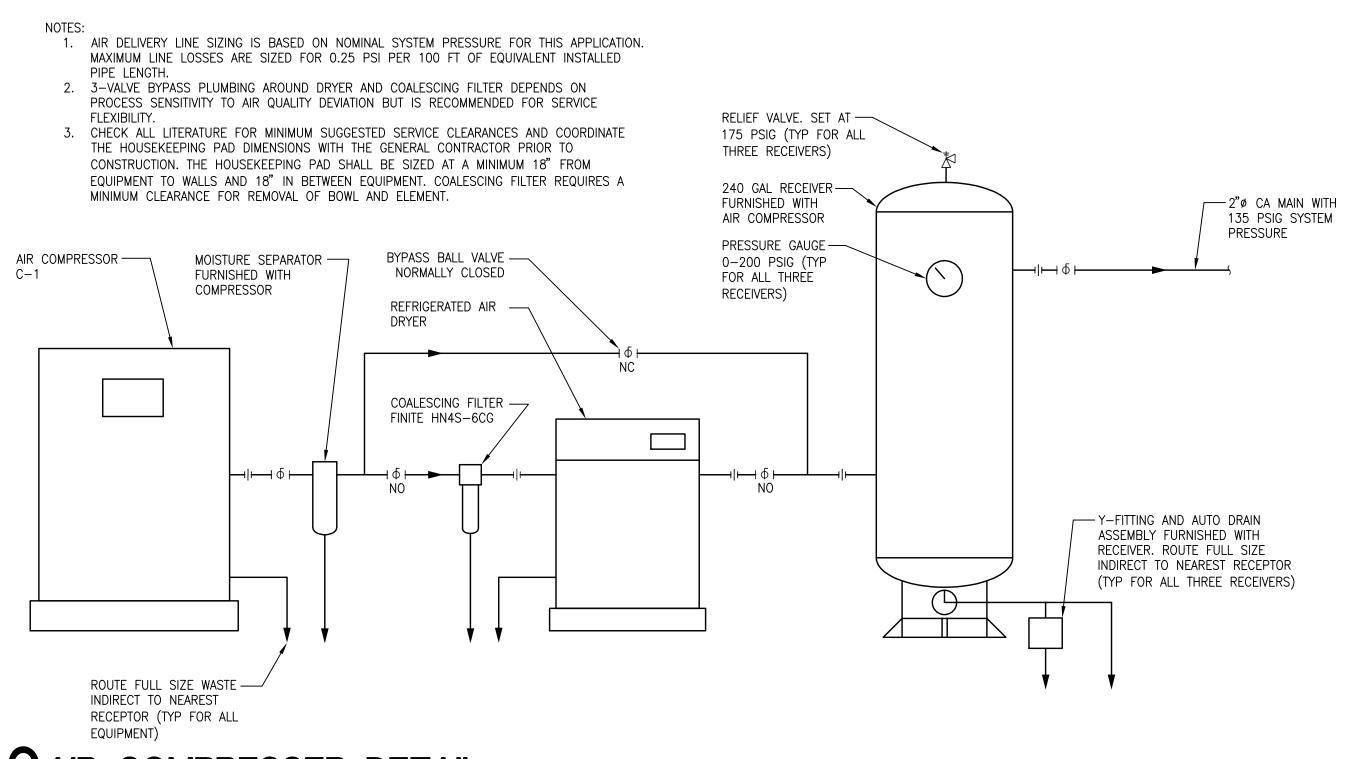
4 PIPE PENETRATION THRU CMU WALL DETAIL SCALE: NTS

5 PIPE ISOLATION AT FLOOR PENETRATION DETAIL
SCALE: NTS

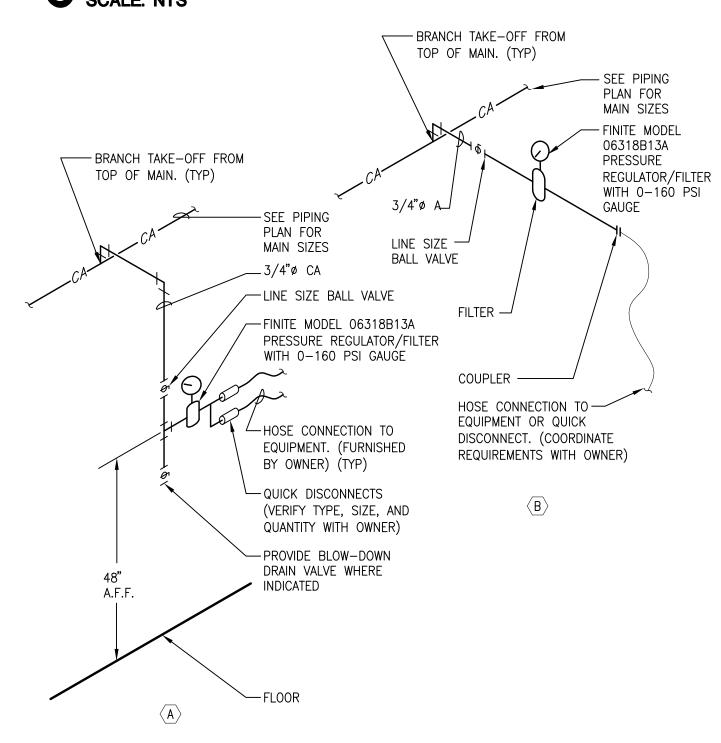






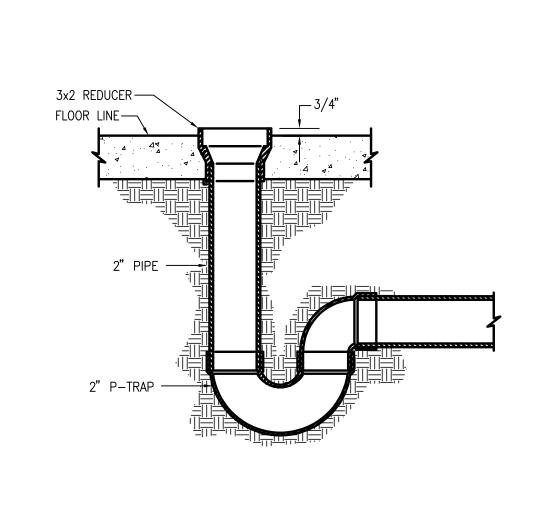


6 PIPE SUPPORT ON ROOF DETAIL SCALE: NTS



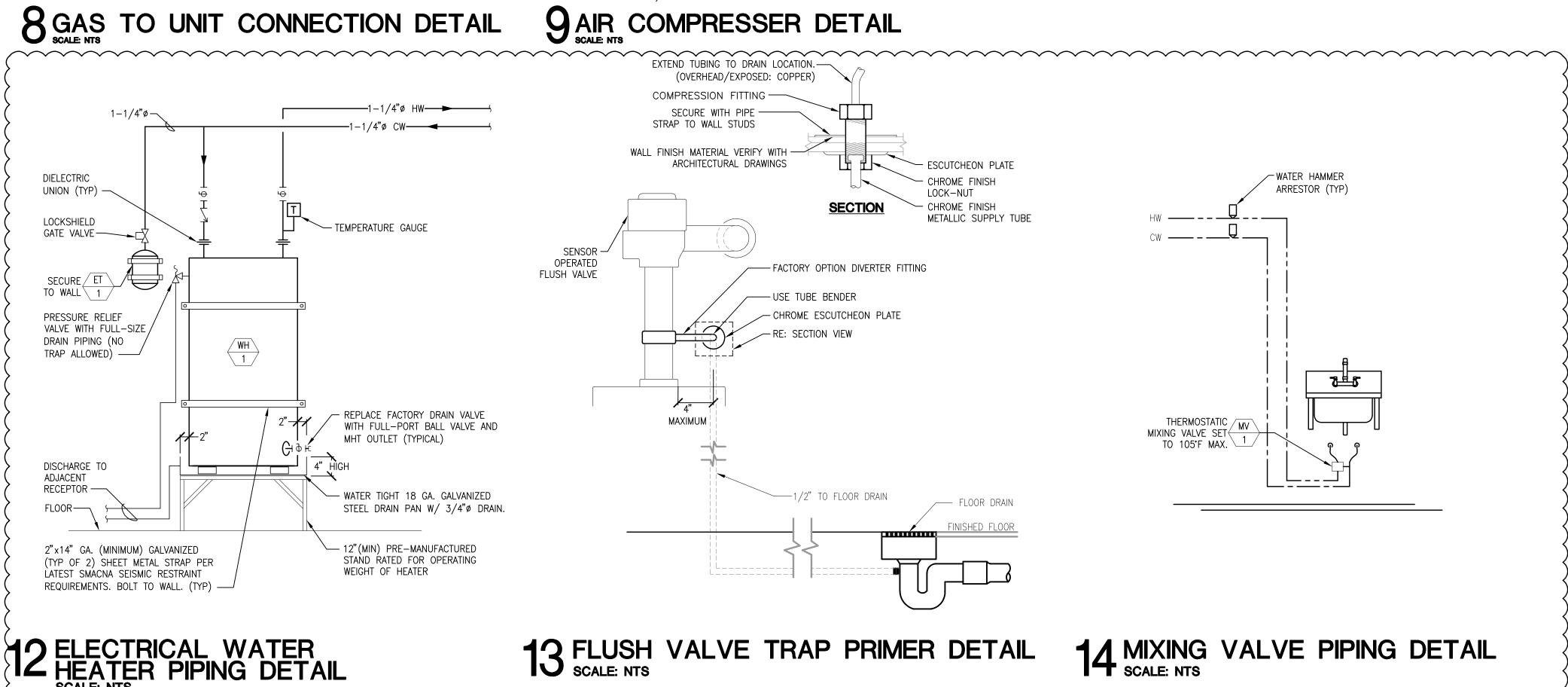
10 COMPRESSED AIR DETAILS SCALE: NTS

7 AC UNIT CONDENSATE DRAIN DETAIL SCALE: NTS



11 HUB DRAIN DETAIL SCALE: NTS





**P51** ORIGINAL SHEET SIZE 30" x 42"

**PLUMBING** 

**DETAILS** 

DIST COFF

CONSTRUCTION

PROJECT 18059.00

DRAWN

6/25/18

DATE

5-2-18

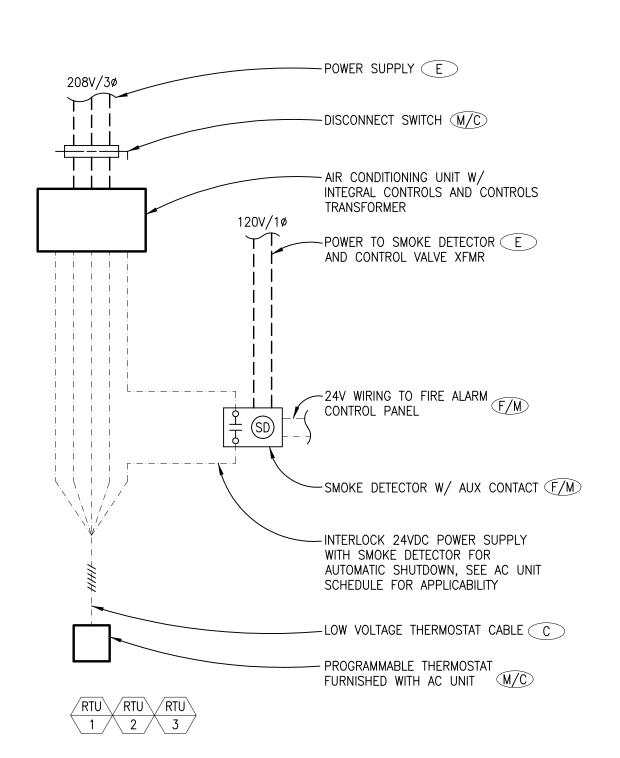
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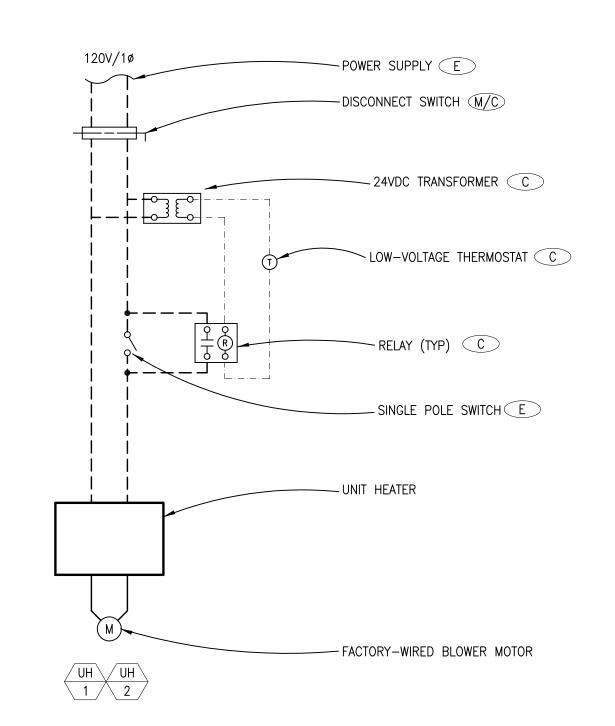
ADDENDUM NO. ONE

 $2 \times 100^{-15} = 18$ 

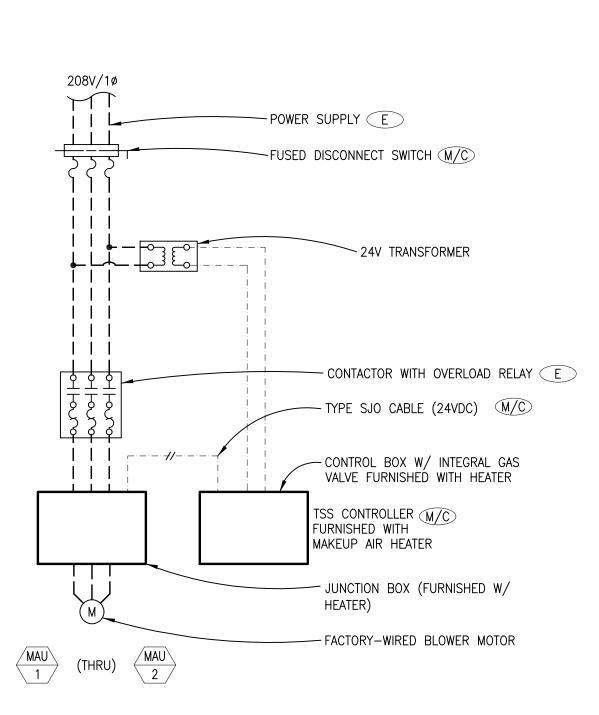


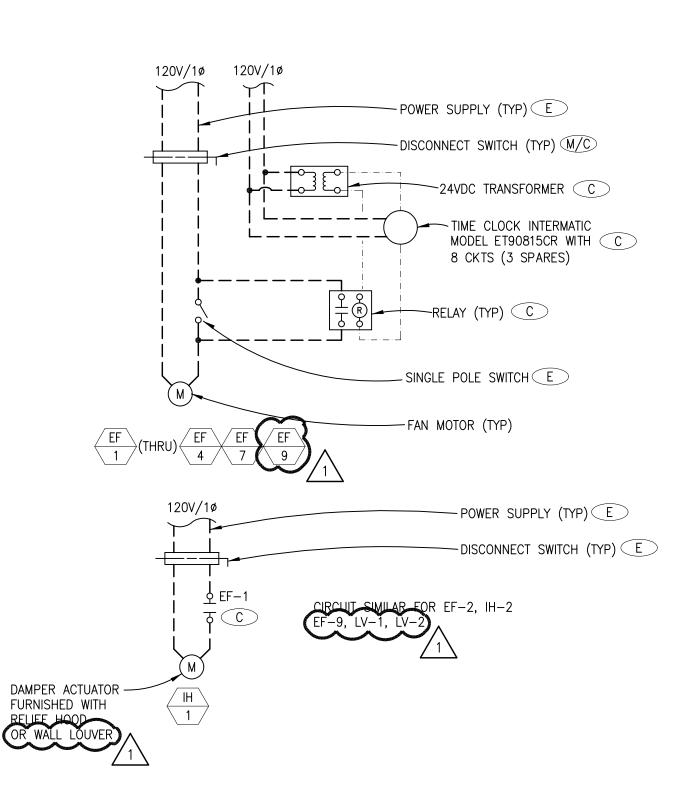


# 1 AIR CONDITIONING UNIT CONTROL SCHEMATIC

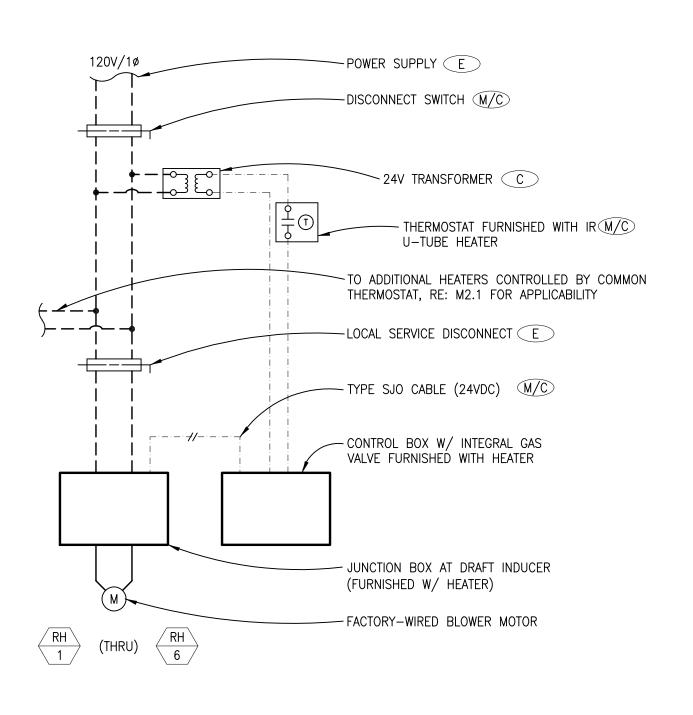


5 UNIT HEATER CONTROL SCHEMATIC

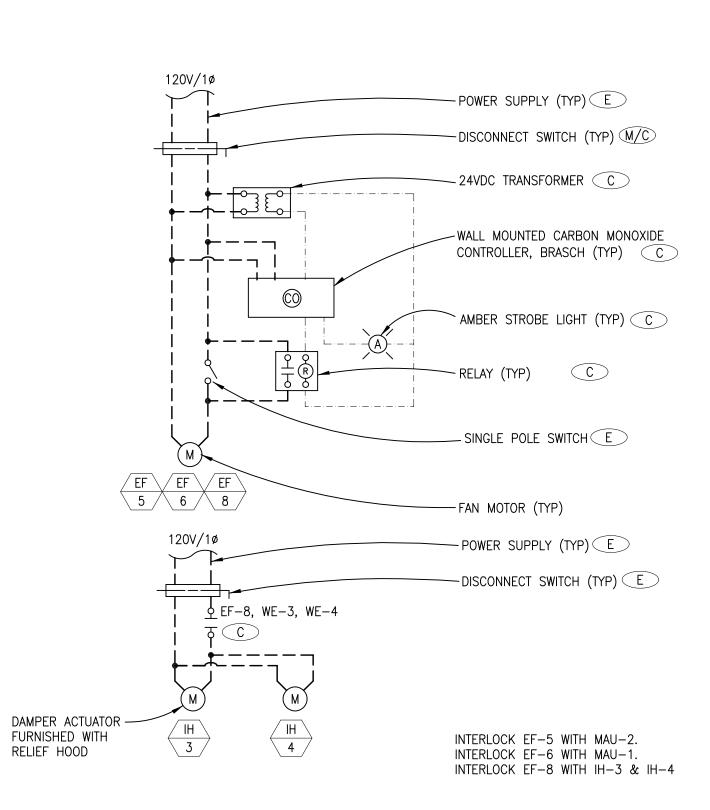




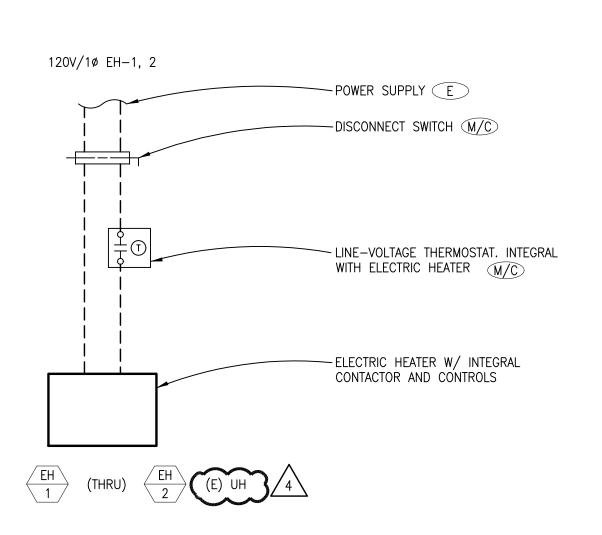
2 GENERAL EXHAUST CONTROL SCHEMATIC



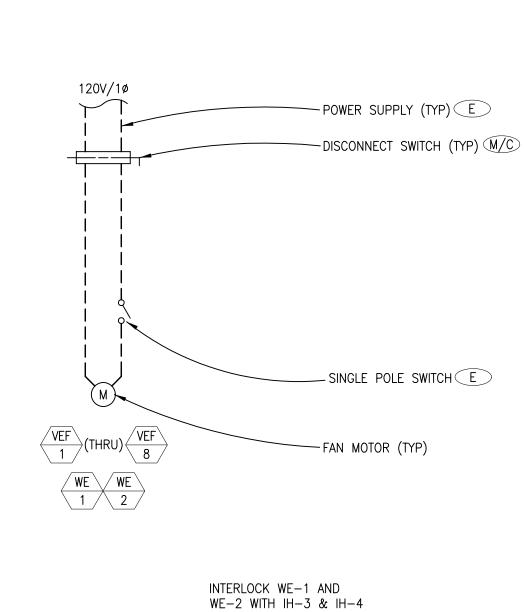
6 INFRARED RADIANT U-TUBE HEATER CONTROL SCHEMATIC



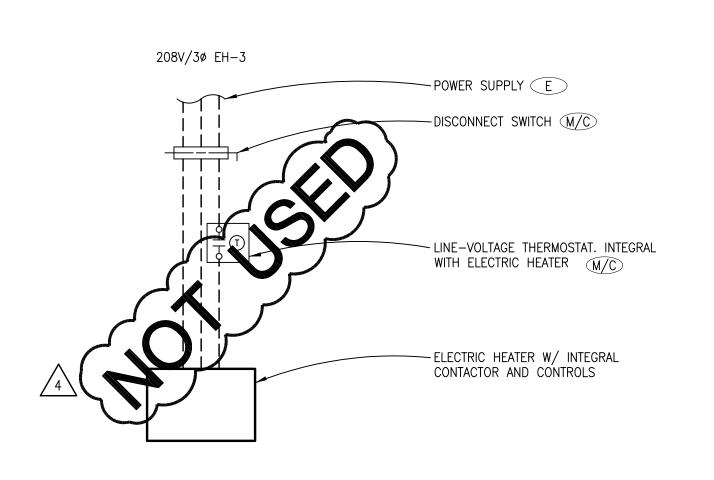
3 CARBON MONOXIDE VENTILATION CONTROL SCHEMATIC



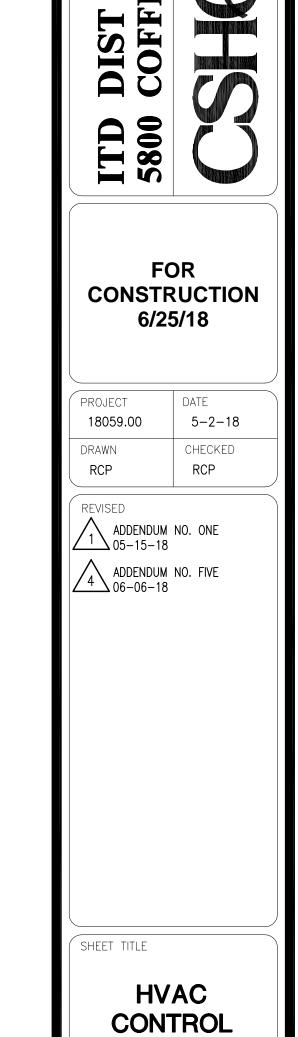
7 ELECTRIC HEATER CONTROL SCHEMATIC



4 VEHICLE AND WELDING EXHAUST CONTROL SCHEMATIC
SCALE: NTS



8 ELECTRIC HEATER CONTROL SCHEMATIC



**DIAGRAMS** 

**BM71** 

ORIGINAL SHEET SIZE 30" x 42"

(m)



	<u>M</u>	<u>ECHANICA</u>	L C	ONTE	ROL	SYMB	<u>OLS</u>	MECHANICAL D	ノし
		INDICATING LIGHT (PRESS TO	) TEST) G=	GREEN,R=RED,E	3=BLUE		CONDUCTOR CONTINUATION	<u>+</u>	
(BGS)		BREAK GLASS SWITCH				+++	JUNCTION		
(BG3)		STARTER COIL				++ +	TYPICAL SPACING		
		RELAY COIL					NUMBER OF CONDUCTORS (3 SHOWN	N)	
		MAIN AIR, 20 PSI				-어 Ю	CONTACT (NO)		
	1X	PRESSURE GAUGE W/ RANG	E INDICATED	)			CONTACT (NC)  RELAY COIL		
Mir	n	PNEUMATIC TERMINAL POINT					PUSHBUTTON NO		
		ELECTRICAL TERMINAL POINT				<u></u> o'o	SWITCH SPST		
		ELECTRICAL BUZZER					INDICATING LIGHT		
	-	TRANSFORMER				M	MOTOR (1ø)	<b>——</b>	
<del></del>		ELECTRICAL WIRING AND				M	MOTOR (3ø)		
<i></i>		NUMBER OF CONDUCTORS  DISCONNECT SWITCH						<i>///////</i>	
							DISCONNECT SWITCH	[+++++++]	
		FUSE ON-OFF SWITCH				~	FUSE		
010		DIFFERENTIAL PRESSURE SW	ITCH			0 0	ON-OFF SWITCH		
		PNEUMATIC DAMPER ACTUATO	OR			\$ (UNIT)	SWITCH	<u>/•</u> — —	
에 IP	-	NORMALLY OPEN ELECTRICAL	CONTACT	(NO)			CONTROL RELAY (NO)	<u>\_\</u> S	
—o} {o− —o} {o−	-	NORMALLY CLOSED ELECTRIC	CAL CONTAC	T (NC)			` ,	F/S	
TS	_	TEMPERATURE SENSOR (DUC	CT OR PIPE	MOUNTED)			CONTROL RELAY (NC)	<u>S</u> —	
HS		HUMIDITY SENSOR (DUCT MO		MOONIES		₹®		20"X18" >	
FMS	$\nabla$	WATER FLOW MEASURING ST					RELAY (3ø)	20"X18" }	
TC				n=)		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
15		TEMPERATURE SENSOR (AVE	RAGING TYP	'E)			TRANSFORMER		
			æ					<u> </u>	
	STARTER CO	IL		DUCT MOUN	NTED TEMPI	ERATURE SENSOR			
—R— ——————————————————————————————————	RELAY COIL PUSH-BUTTO	ON NO	<b>®</b>	DUCT MOUN (AVERAGING)	NTED TEMPE )	ERATURE SENSOR			
-olo-	PUSH-BUTTO		HS o	DUCT MOUN	ITED HUMIC	DITY SENSOR		<u> </u>	
<b></b> 0′0-	SWITCH SPS	Т	FMS	FLOW METEI	R			30° MAX	
H <sub>O</sub> O O A	SWITCH SPD			/—ASSOCIATED  TEMPERATUR				36"x12" 24"x12"	
0	HOA SWITCH		TS <sub>XXX</sub>	PRESSURE		7		30° MAX	
<del></del>	DISCONNECT DISCONNECT		HS XXX	HUMIDITY SI	ENSOR			36"x12" 24"x12" >	
	INDICATING L		© <sub>2</sub> <sub>XXX</sub>	CARBON DIC		SOR			
$\bigvee$			© <sub>XXX</sub>	CARBON MC					
(M) (Al)	MOTOR (3¢  ELECTRIC TE		BS) XXX	BY-PASS TI	IMER				DIA
	PRESSURE (							R	
	DIFFERENTIAL	PRESSURE GAGE			POWER WI	IRE FACTORY			[w
- <u></u>	SPEED CONT					AGE WIRE FACTORY		R R	
CSR	CURRENT SE	INSING RELAY			LOW VOLT	AGE WIRE FIELD			
						EUMATIC TUBING SHIELDED PAIR			
				135	CONTROL				
					OOMINGE	17,1422			
								15° MAX	
	C	FURNISHE	D AND INST	TALLED BY CON	ITROLS CON	ITRACTOR			
	E	FURNISHE	D AND INST	TALLED BY ELEC	CTRICAL CO	NTRACTOR			۲
	M	FURNISHE	D AND INST	TALLED BY MEC	HANICAL CO	ONTRACTOR			
	M/E)	FURNISHE	D AND INST	FALLED BY MEC	H WIRED B	Y ELECTRICAL			
	C/M)	FURNISHE	D AND WIRE	ED BY CONTROI	LS. INSTALL	ED BY MECHANICAL			
	E/M)			ED BY ELECTRIC				DUCT	>
	M/C					IRED BY CONTROLS			
	C/E)	FURNISHE	D BY CONT	ROLS WIRED AN	ND INSTALLE	ED BY ELECTRICAL			
									_
									3
									<u> </u>
								<b>A</b>	<del>/</del>

## ANICAL DIICTWORK SYMBOLS

CHANICAL	DUCTWORK SYMBOLS
<u>+</u>	SUPPLY DIFFUSER (ARROWS INDICATE THROW) (4-WAY SHOWN)
<u> </u>	RETURN GRILLE
	EXHAUST GRILLE
	ROUND DUCT/FLUE THRU ROOF OR FLOOR
	FLEX DUCT
	SUPPLY DUCT THRU ROOF OR FLOOR
	RETURN DUCT THRU ROOF OR FLOOR
	EXHAUST DUCT THRU ROOF OR FLOOR
	OUTSIDE AIR DUCT THRU ROOF OR FLOOR
	BALANCE DAMPER
/\/\\	OPPOSED BLADE DAMPER
///////	PARALLEL BLADE DAMPER
[+++++++	BACKDRAFT DAMPER
П	SIDEWALL OR DOOR GRILLE
<del>\</del>	FLEXIBLE DUCT CONNECTION

COMBINATION FIRE/SMOKE DAMPER SMOKE DETECTOR (DUCT MOUNTED) SUPPLY AIR ELBOW UP DIMENSION DESCRIPTION: 1ST FIGURE = SIDE SHOWN 2ND FIGURE = SIDE NOT SHOWN ALL SIZES IN INCHES (TYPICAL) SUPPLY AIR ELBOW DOWN RETURN AIR ELBOW UP RETURN AIR ELBOW DOWN

> EXHAUST AIR ELBOW UP EXHAUST AIR ELBOW DOWN OUTSIDE AIR ELBOW UP OUTSIDE AIR ELBOW DOWN DOUBLE SIDE TRANSITION

FIRE DAMPER

SMOKE DAMPER

SINGLE SIDE TRANSITION ELBOW UP

> ELBOW DOWN ELBOW – RADIUS (R) =  $1.5 \times DIA$

ELBOW - RADIUS (R) = WIDTH

90° OR 45° ELBOW

90° TAKE-OFF

ELBOW

DUCT DOWN

ANGLE TAKE-OFF

RADIUS TAKE-OFF

SIZE TRANSITION

RECTANGULAR TO ROUND TRANSITION

RXXX

90° MITERED DUCT DOWN ACOUSTICALLY-LINED DUCTWORK VOLUME DAMPER WITH OPPOSED RADIUS SPLITTER TAKE-OFF 45° TAKE-OFF 90° CONICAL TAKE-OFF

BLDG BOD COMMON CABINET CFM CLG CEILING CONC CONCRETE C/W DEMOLISH DIA/ø DIAMETER DIFFUSER DOWN DUC DWG DRAWING EXISTING ELEVATION ELEV ELEVATOR EQUIPMENT EXH EXHAUST **EXTERIOR** FCU FPM FSD FEET FUR FURNACE GAUGE GALLON INSIDE DIAMETER INVERT ELEVATION INTERNATIONAL ENERGY CONSERVATION CODE INTERNATIONAL FUEL GAS CODE IMC INTERNATIONAL MECHANICAL CODE INSUL INSULATION, INSULATE IN WC INCHES OF WATER COLUMN

## MECHANICAL CONTROL SYMBOLS

 $^{\scriptsize \bigcirc}_{\scriptscriptstyle \#}$  (ROOM OR UNIT#) THERMOSTAT

WALL-MOUNT TEMPERATURE SENSOR

#### MECHANICAL LINETYPES LEGEND

TO BE DEMOLISHED **EXISTING** 

MECHANICAL EQUIPMENT ROOFTOP MECHANICAL EQUIPMENT (E)

SUFFIX (E) IN CONJUNCTION WITH LIGHTER SHADING INDICATES EXISTING PIPE OR EQUIPMENT. TYPICAL OF ALL EQUIPMENT AND

#### MECHANICAL PIPING SYMBOLS

ACCU

ARCH

AUTO

BHP

KEY NOTES EQUIPMENT CALLOUT (STANDARD)

CONNECT NEW TO EXISTING SHADED SIDE IS NEW WORK

REVISION

#### HVAC ABBREVIATIONS

AIR CONDITIONING KW KILOWATT AIR COOLED CONDENSING UNIT LEAVING AIR TEMPERATURE LBS POUNDS AIR CONDITIONING UNIT LOUVER ABOVE FINISHED FLOOR ABOVE FINISHED GRADE MA MILLIAMPS AIR HANDLING UNIT MAXIMUM MCA ALUMINUM MINIMUM CIRCUIT AMPACITY MECH AIR PRESSURE DROP MECHANICAL APPROXIMATE MANUFACTURER ARCHITECT, ARCHITECTURAL MIN MINIMUM AMERICAN SOCIETY OF HEATING, MISC MISCELLANEOUS MOCP MAXIMUM OVER CURRENT PROTECTION REFRIGERATION, AND AIR CONDITIONING ENGINEERS MTD MOUNTED AUTOMATIC MUA MAKE UP AIR UNIT BAROMETRIC DAMPER NEW NEUTRAL BACKDRAFT DAMPER BRAKE HORSE POWER NC NORMALLY CLOSED NOT IN CONTRACT BUILDING BOTTOM OF DUCT NO NORMALLY OPEN NO/# NUMBER NOM BRITISH THERMAL UNIT NOMINAL NTS NOT TO SCALE OPPOSED BLADE DAMPER CUBIC FEET PER MINUTE ON CENTER CENTERLINE OUTSIDE DIAMETER OD OPNG OPENING OSA OUTSIDE AIR COORDINATE WITH PREHEAT PREFAB PREFABRICATED DEPTH, DEEP PSF POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH DRY BULB TEMPERATURE PVC DIRECT DIGITAL CONTROL POLYVINYL CHLORIDE R/RAD RADIUS RETURN AIR REFERENCE DEW POINT SENSOR REGISTER DOOR UNDER CUT REQ'D REQUIRED RETURN AIR GRILLE REHEAT RM ROOM EXHAUST AIR REVOLUTIONS PER MINUTE ENTERING AIR TEMPERATURE ENERGY EFFICIENCY RATIO RETURN REGISTER EXHAUST FAN REFRIGERANT SUCTION **EFFICIENCY** ROOFTOP UNIT EXHAUST GRILLE SUPPLY AIR SCHED SCHEDULE ELECTRIC, ELECTRICAL SUPPLY DIFFUSER SEER SEASONAL ENERGY EFFICIENCY RATIO SG SUPPLY AIR GRILLE SHEET EXTERNAL STATIC PRESSURE STATIC PRESSURE SPECIFICATION(S) FAHRENHEIT SQ. FT. SQUARE FEET FAN COIL UNIT STD STANDARD FIRE DAMPER TEMP TEMPERATURE FULL LOAD AMPS TEMPERATURE DIFFERENCE TEMPERATURE SENSOR FIRE PROTECTION THERMAL EXPANSION VALVE FEET PER MINUTE TXV TYP COMBINATION FIRE/SMOKE DAMPER TYPICAL UNIFORM BUILDING CODE FEET OF HEAD UFC UNIFORM FIRE CODE UMC UNIFORM MECHANICAL CODE UNIT HEATER UNIT VENTILATOR VARIABLE AIR VOLUME VOLUME DAMPER GENERAL CONTRACTOR VELOCITY GALLONS PER MINUTE VARIABLE FREQUENCY DRIVE VERIFY IN FIELD HORSEPOWER HUMIDITY SENSOR VARIABLE VOLUME-FAN POWERED HEIGHT/HIGH VARIABLE VOLUME-REHEAT WIDE, WIDTH HEATING/VENTILATION, AIR CONDITIONING WET BULB TEMPERATURE HOT WATER (DOMESTIC) HEAT EXCHANGER WATER COLUMN INTERNATIONAL BUILDING CODE

## MECHANICAL SHEET LIST

HVAC COVER SHEET ENERGY CODE COMPLIANCE

> HVAC DEMO PLAN HVAC DEMO PLAN

HVAC ROOF DEMO PLAN

HVAC ROOF DEMO PLAN HVAC FLOOR PLAN HVAC FLOOR PLAN

2ND FLOOR HVAC PLAN HVAC ROOF PLAN

HVAC SCHEDULES

HVAC ROOF PLAN HVAC DETAILS

HVAC SCHEDULES HVAC CONTROL DIAGRAMS

#### MECHANICAL GENERAL NOTES

- A. ALL WORK SHALL COMPLY WITH THE OWNERS REQUIREMENTS, AND WITH ALL APPLICABLE STATE AND LOCAL CODES, OR AUTHORITY HAVING JURISDICTION.
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- FOR LOW PRESSURE DUCTWORK, WHERE RECTANGULAR DUCT IS INDICATED ON PLANS, EQUIVALENT SIZE ROUND DUCT MAY BE USED. EQUIVALENT SIZE RECTANGULAR DUCT MAY BE USED IN PLACE OF ROUND DUCT, EXCEPT IN EXPOSED AREAS. EQUIVALENT RECTANGULAR SIZE MAY NOT BE USED ON DUCTS EXPOSED TO VIEW OR AS INDICATED
- D. HVAC CONTRACTOR IS RESPONSIBLE FOR COORDINATING FINAL LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS. CONTRACTOR SHALL NOT DEVIATE FROM REFLECTED CEILING PLAN UNLESS THERE ARE EXTENUATING JOB SITE CONDITIONS.
- E. DUCTWORK SIZES NOTED ON DRAWINGS ARE FREE AREA SIZES. HVAC CONTRACTOR SHALL BE RESPONSIBLE TO COMPENSATE FOR INSULATION, ETC.
- F. ALL SQUARE SUPPLY DIFFUSERS SHALL BE 4-WAY THROW UNLESS INDICATED OTHERWISE ON PLAN.
- G. PROVIDE TURNING VANES IN ALL MITERED ELBOWS AND BULL HEAD TEES.
- H. PROVIDE ACCESS DOORS IN DUCTWORK FOR RESETTING OF FIRE/SMOKE DAMPERS WHERE INDICATED AND AS REQUIRED BY SPECIFICATIONS OR CODE. SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE

RESPONSIBILITY OF THE HVAC CONTRACTOR. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL EXPENSE TO OWNER.

J. ALL WIRING, PIPING, AND EQUIPMENT IN ALL PLENUMS SHALL BE PLENUM RATED OR INSTALLED IN CONDUIT.

- K. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA. DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS SHALL BE CORRECTED AT NO ADDITIONAL EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT OF CONDITIONS IN CONFLICT WITH THE PLANS.
- L. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- M. PRIOR TO BIDDING, OBTAIN A COPY OF THE SPECIFICATIONS AND PLANS, VISIT THE JOB SITE, TAKE ALL NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL OTHER INFORMATION NEEDED FOR AN ACCURATE BID. ALLOWANCES WILL NOT BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING

## **BMS GENERAL NOTES**

- A. ALL WORK SHALL COMPLY WITH THE OWNERS REQUIREMENTS, AND WITH ALL APPLICABLE STATE AND LOCAL CODES, OR AUTHORITY HAVING JURISDICTION.
- B. SEE HVAC AND PLUMBING DRAWINGS FOR THERMOSTAT, SENSOR, AND EQUIPMENT LOCATIONS.
- C. CONTROLS CONTRACTOR IS RESPONSIBLE FOR THE PURCHASE, INSTALLATION AND TESTING OF ALL OF THE CARBON MONOXIDE DETECTION AND CONTROL SYSTEMS. RE: M21A, M2.1B, BM7.1.
- D. CONTROLS CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF CONTROLS ASSOCIATED WITH THE INDUSTRIAL CEILING FANS. RE: M21A, M2.1B.
- E. CONTROLS CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF CONTROLS ASSOCIATED WITH RTU-1, RTU-2, RTU-3. COORDINATE WITH MECHANICAL CONTRACTOR PROVIDED CONTROLS ON THE ROOFTOP UNITS.
- F. CONDUIT DROPS AND BACKER BOXES FOR T-STATS ARE BY EC. RE: ELECTRICAL
- WHERE 24V TRANSFORMERS ARE SHOWN ON THE CONTROL DIAGRAMS, THE EC WILL PROVIDE A JUNCTION BOX AND 120v POWER TO THE BOX. CC WILL PROVIDE AND INSTALL THE TRANSFORMER.



CONSTRUCTION 6/25/18

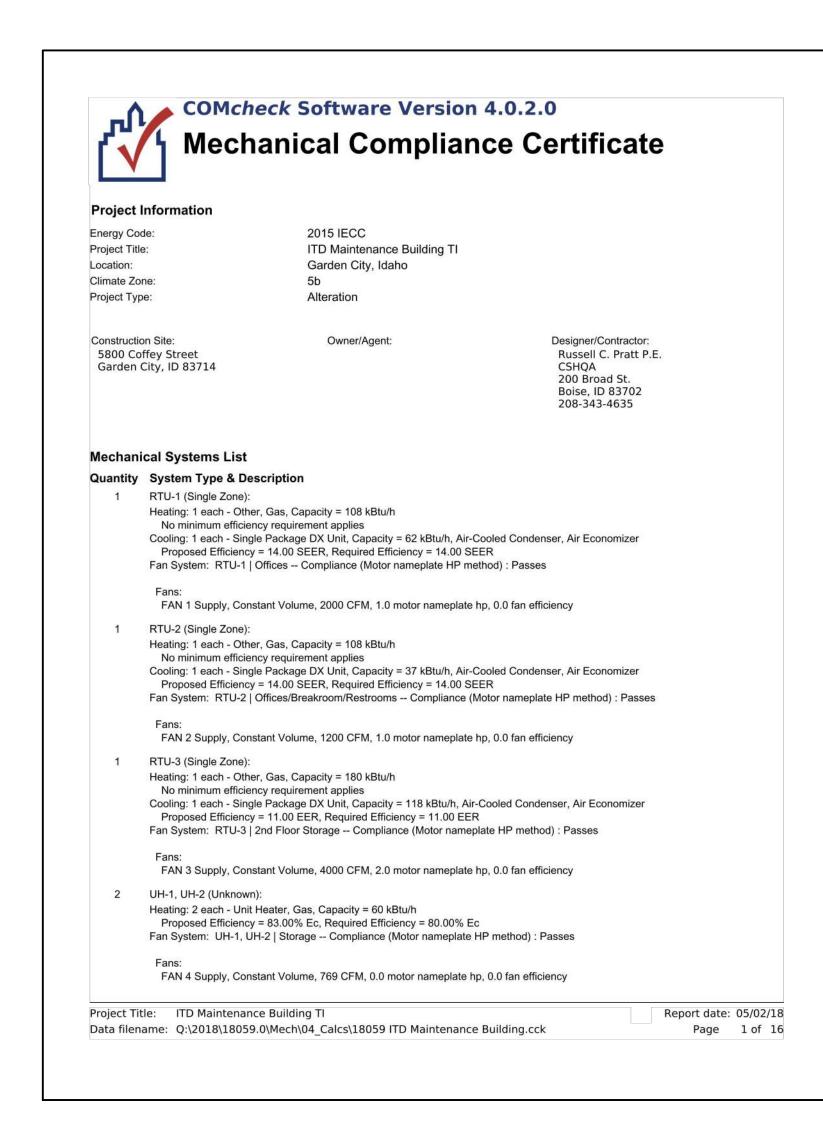
PROJECT DATE 18059.00 5-2-18 DRAWN CHECKED RCP

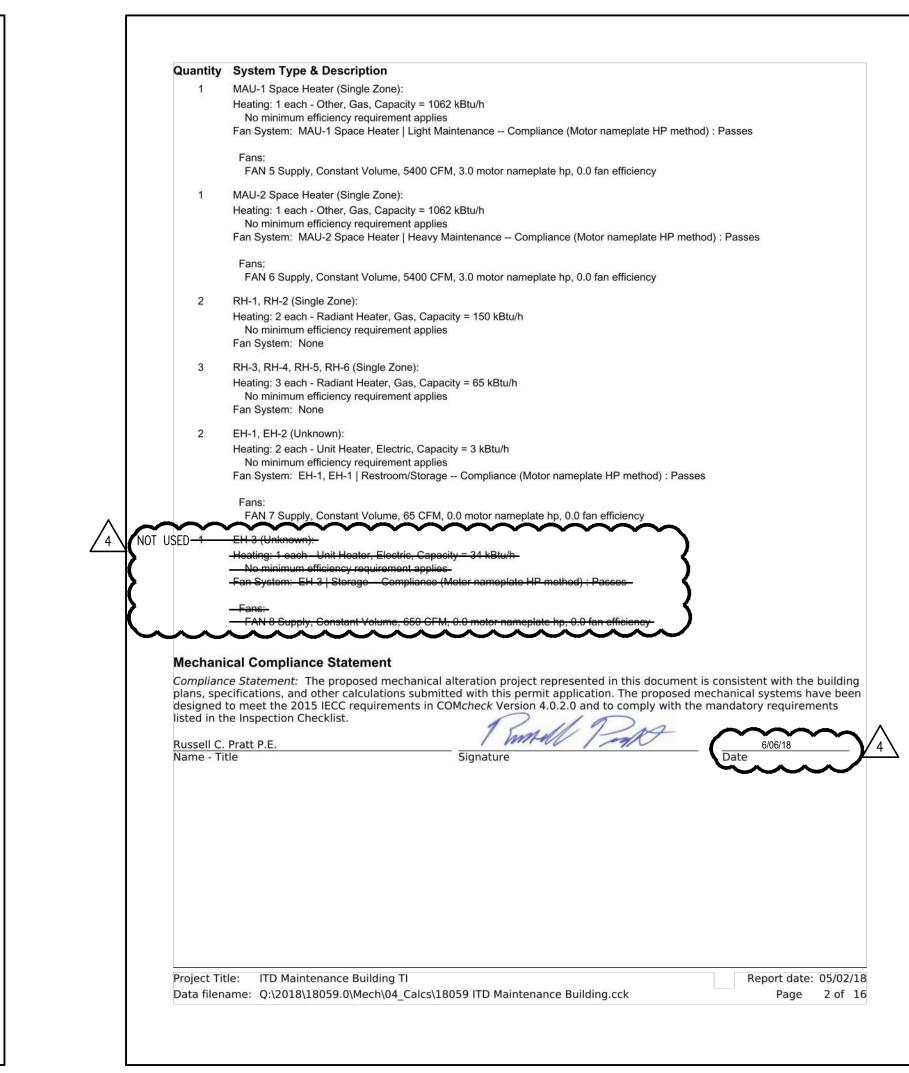
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SHEET TITLE **HVAC** COVER

SHEET









CONSTRUCTION

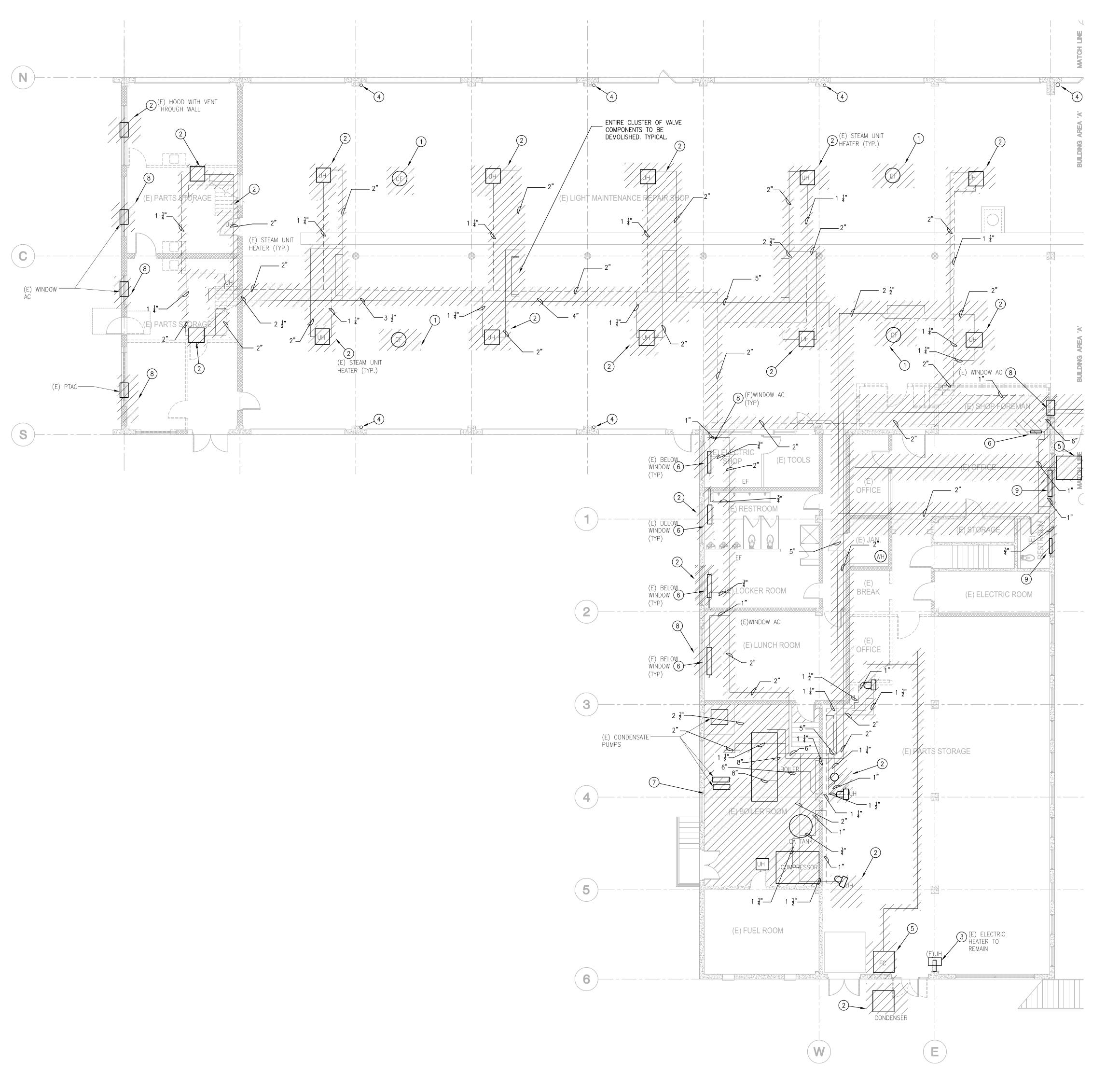
5-2-18

RCP ADDENDUM NO. FIVE 06-06-18

18059.00

ENERGY CODE COMPLIANCE





THVAC DEMO PLAN SCALE 1/8' = 1'-0'

#### MECHANICAL GENERAL NOTES:

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- D. COORDINATE FINAL LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS. CONTRACTOR SHALL NOT DEVIATE FROM REFLECTED CEILING PLAN UNLESS THERE ARE EXTENUATING JOB SITE CONDITIONS.
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- H. PROVIDE ACCESS DOORS IN DUCTWORK FOR RESETTING OF FIRE/SMOKE DAMPERS
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- J. ALL WIRING, PIPING, AND EQUIPMENT IN ALL PLENUMS SHALL BE PLENUM RATED OR INSTALLED IN CONDUIT.
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PRIOR TO BIDDING, OBTAIN A COPY OF THE PLANS, VISIT THE JOB SITE, TAKE ALL NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL OTHER INFORMATION NEEDED FOR AN ACCURATE BID. ALLOWANCES WILL NOT BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING CONDITIONS.

#### # SHEET NOTES:

- 1. DEMOLISH EXISTING CEILING FAN.
- 2. DEMOLISH EXISTING STEAM HEATER WITH ALL ASSOCIATED PIPING, VALVES, TRAPS, CONTROL WIRING AND SENSORS.
- 3. EXISTING ELECTRIC HEATER AND CONTROLS TO REMAIN IN SERVICE.
- 4. EXISTING HOSE, DUCT AND/OR REEL SYSTEM TO REMAIN.
- 5. DEMOLISH EXISTING FAN COIL OR AC UNIT AND ASSOCIATED DUCTWORK.
- 6. DEMOLISH EXISTING FLOOR MOUNTED STEAM RADIATOR.
- 7. DEMOLISH ALL EXISTING EQUIPMENT AND ASSOCIATED PIPING IN THIS AREA. 8. DEMOLISH EXISTING WALL AC OR PTAC.

#### MECHANICAL LEGEND:

SUPPLY DIFFUSER RETURN GRILLE

EA DUCT THRU ROOF OR FLOOR SA/OA DUCT THRU ROOF OR FLOOR

EXHAUST GRILLE SIDEWALL OR DOOR GRILLE ROUND DUCT THROUGH ROOF  $_{\#}$  THERMOSTAT

FLEX DUCT --- BALANCE DAMPER

TS, REMOTE TEMPERATURE SENSOR S — SMOKE DETECTOR

(XX) EQUIPMENT CALLOUT (STANDARD)

---- ROOFTOP MECHANICAL EQUIPMENT

CD	CEILING DIFFUSER	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
(D)	DEMOLISH	OBD	OPPOSED BLADE DAMPE
DIA/ø	DIAMETER	OSA	OUTSIDE AIR
(E)	EXISTING	(R)	RELOCATE
EA	EXHAUST AIR	RE:	REFERENCE
EF	EXHAUST FAN	RG	RETURN AIR GRILLE
EXH	EXHAUST	SA	SUPPLY AIR
F	FAHRENHEIT	SP	STATIC PRESSURE
FPM	FEET PER MINUTE	TG	TRANSFER GRILLE
MAX	MAXIMUM	WC	WATER COLUMN



DIST

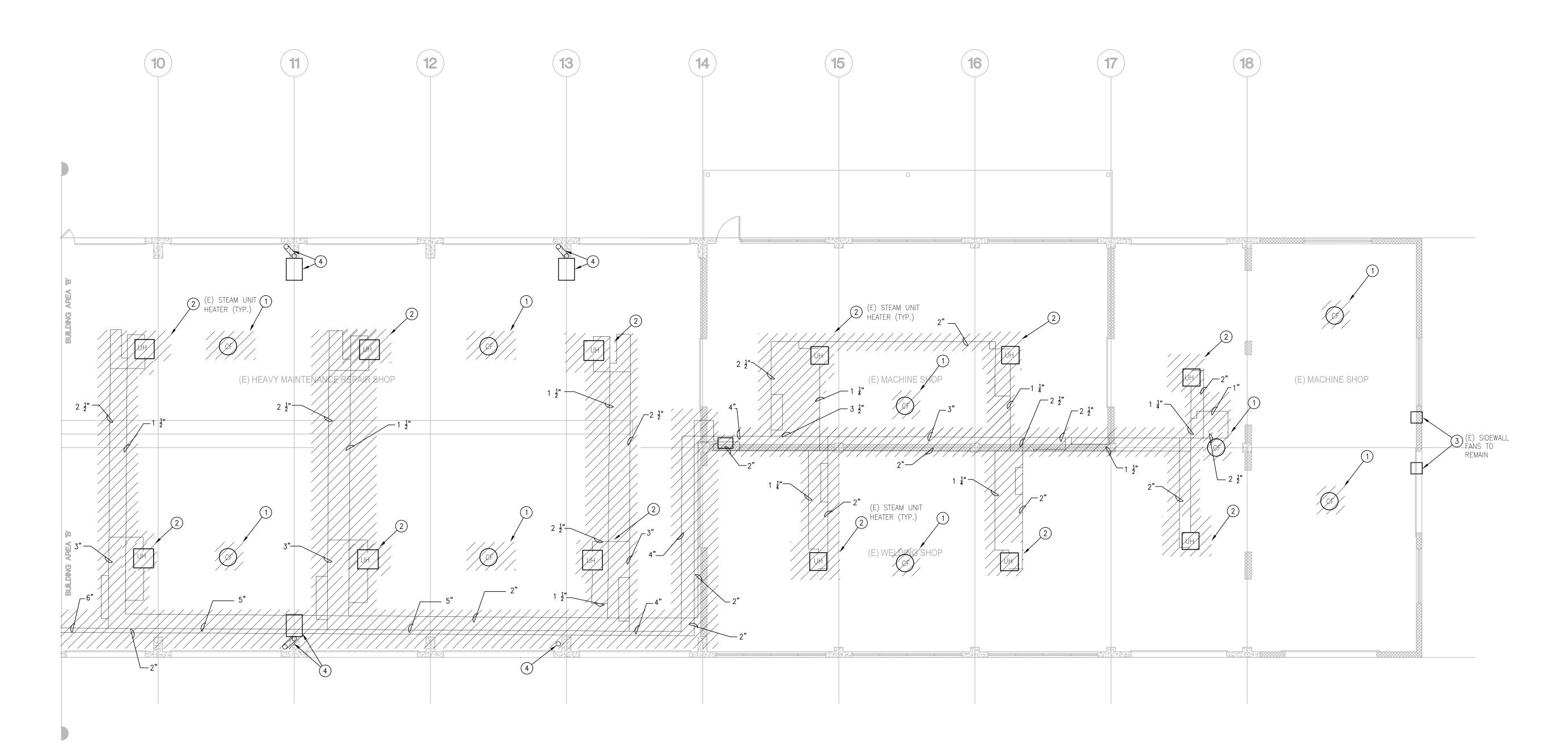
FOR CONSTRUCTION 6/25/18

PROJECT	DATE	
18059.00	5-2-18	
DRAWN	CHECKED	
RLM	RCP	
REVISED		

HVAC DEMO PLAN







HVAC DEMO PLAN SCALE 1/8' = 1'-0'

#### MECHANICAL GENERAL NOTES:

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- D. COORDINATE FINAL LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS. CONTRACTOR SHALL NOT DEVIATE FROM REFLECTED CEILING PLAN UNLESS THERE ARE EXTENUATING JOB SITE CONDITIONS.
- DUCTWORK SIZES NOTED ON DRAWINGS ARE FREE AREA SIZES. HVAC CONTRACTOR
- F. ALL SQUARE SUPPLY DIFFUSERS SHALL BE 4-WAY THROW UNLESS INDICATED OTHERWISE ON PLAN.

SHALL BE RESPONSIBLE TO COMPENSATE FOR INSULATION, ETC.

- G. PROVIDE TURNING VANES IN ALL MITERED ELBOWS AND BULL HEAD TEES.
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#### **# SHEET NOTES:**

1. DEMOLISH EXISTING FANS AND ASSOCIATED DUCTS AND DIFFUSERS.

4. EXISTING HOSE, DUCT AND/OR REEL SYSTEM TO REMAIN.

- 2. DEMOLISH EXISTING STEAM HEATER WITH ALL ASSOCIATED PIPING, VALVES, TRAPS, CONTROL WIRING AND SENSORS.
- 3. EXISTING FANS TO REMAIN.

#### MECHANICAL LEGEND: SUPPLY DIFFUSER EA DUCT THRU ROOF OR FLOOR SA/OA DUCT THRU ROOF OR FLOOR RETURN GRILLE

EXHAUST GRILLE ROUND DUCT THROUGH ROOF SIDEWALL OR DOOR GRILLE

FLEX DUCT TS, REMOTE TEMPERATURE SENSOR

 $\left(\begin{array}{c} XX \\ X \end{array}\right)$  EQUIPMENT CALLOUT (STANDARD)

S — SMOKE DETECTOR

---- ROOFTOP MECHANICAL EQUIPMENT

--- BALANCE DAMPER

CD	CEILING DIFFUSER	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
(D)	DEMOLISH	OBD	OPPOSED BLADE DAMPER
DIA/ø	DIAMETER	OSA	OUTSIDE AIR
(E)	EXISTING	(R)	RELOCATE
EA	EXHAUST AIR	RE:	REFERENCE
EF	EXHAUST FAN	RG	RETURN AIR GRILLE
EXH	EXHAUST	SA	SUPPLY AIR
F	FAHRENHEIT	SP	STATIC PRESSURE
FPM	FEET PER MINUTE	TG	TRANSFER GRILLE
MAX	MAXIMUM	WC	WATER COLUMN



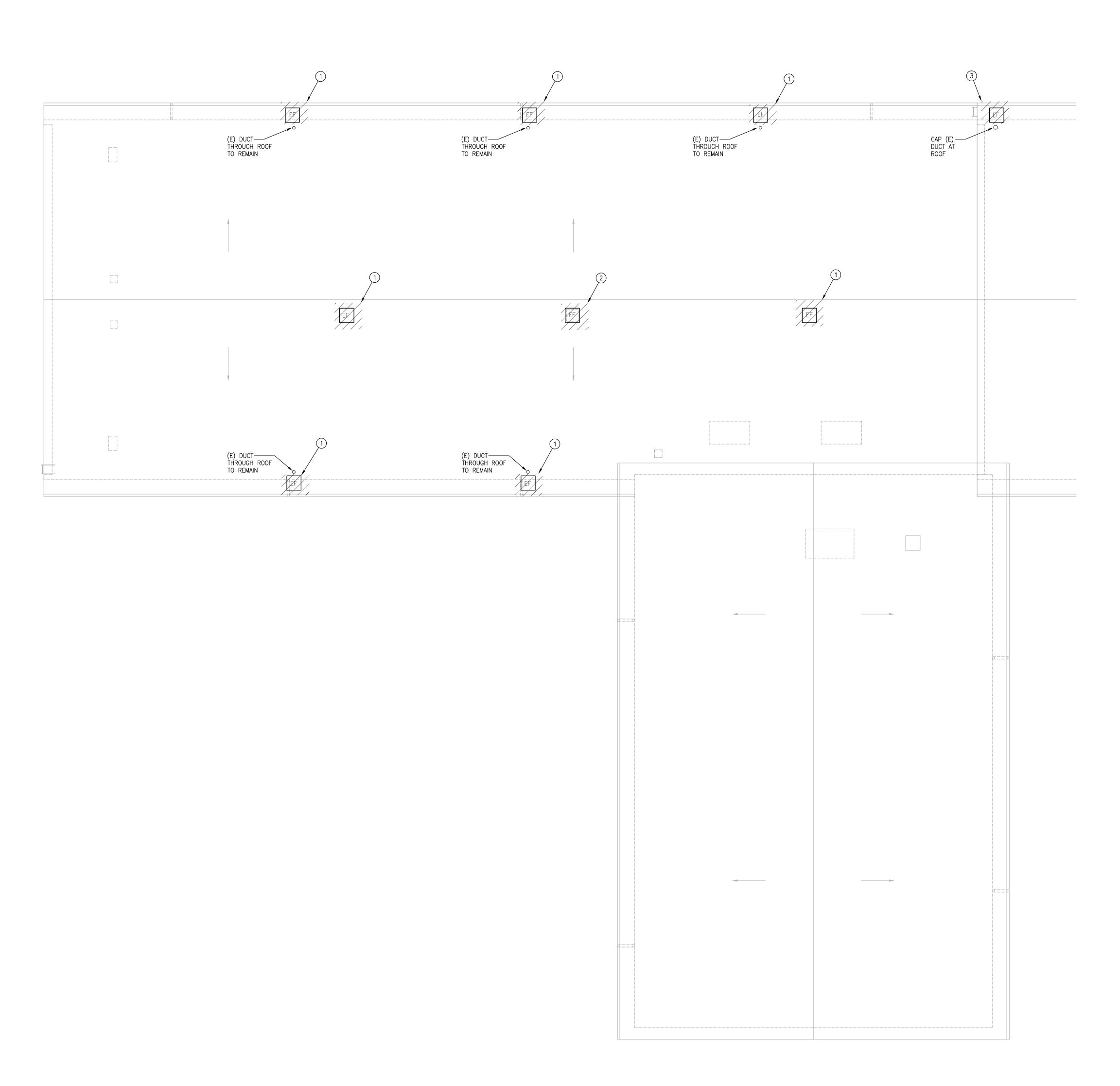
DIST COFF

CONSTRUCTION 6/25/18

DJECT	DATE
3059.00	5-2-18
4WN	CHECKED
RLM	RCP
/ISED	

HVAC DEMO PLAN





1 HVAC ROOF DEMO PLAN SCALE 1/8" = 1'-0"

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- G. PROVIDE TURNING VANES IN ALL MITERED ELBOWS AND BULL HEAD TEES.
- H. PROVIDE ACCESS DOORS IN DUCTWORK FOR RESETTING OF FIRE/SMOKE DAMPERS

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#### # SHEET NOTES:

1. DEMOLISH EXISTING FANS ON ROOF. CAP EXISTING OPENING WEATHERTIGHT. 2. DEMOLISH EXISTING FANS ON ROOF. REUSE EXISTING OPENING. SEE SHEET M23. 3. DEMOLISH EXISTING VEHICLE EXHAUST FAN ON ROOF. EXISTING DUCT THROUGH ROOF TO REMAIN.

## MECHANICAL LEGEND:

	SUPPLY DIFFUSER		EA DUCT THRU ROOF OR FLO
	RETURN GRILLE	M	SA/OA DUCT THRU ROOF OR
	EXHAUST GRILLE		ROUND DUCT THROUGH ROOF
	SIDEWALL OR DOOR GRILLE	T <sub>#</sub>	THERMOSTAT
	FLEX DUCT	TS)#	REMOTE TEMPERATURE SENSOR
1			

 $\left\langle \begin{array}{c} XX \\ X \end{array} \right\rangle$  EQUIPMENT CALLOUT (STANDARD) 

---- ROOFTOP MECHANICAL EQUIPMENT

--- BALANCE DAMPER

	CEILING DIFFUSER	MIN	MINIMUM
	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
	DEMOLISH	OBD	OPPOSED BLADE DAMPER
ø	DIAMETER	OSA	OUTSIDE AIR
	EXISTING	(R)	RELOCATE
	EXHAUST AIR	RE:	REFERENCE
	EXHAUST FAN	RG	RETURN AIR GRILLE
	EXHAUST	SA	SUPPLY AIR
	FAHRENHEIT	SP	STATIC PRESSURE
	FEET PER MINUTE	TG	TRANSFER GRILLE
	MAXIMUM	WC	WATER COLUMN

S — SMOKE DETECTOR



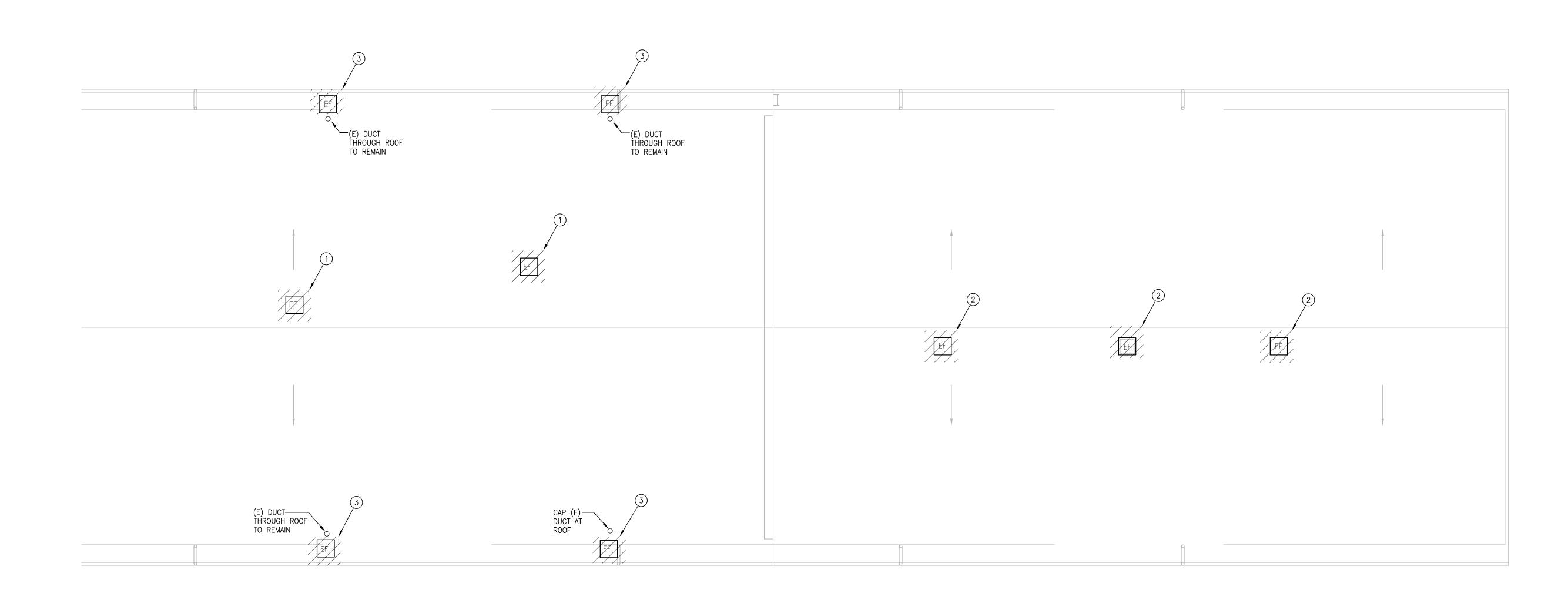
CONSTRUCTION

DATE PROJECT 5-2-18 18059.00 CHECKED DRAWN RCP REVISED

6/25/18

**HVAC ROOF DEMO** PLAN





1HVAC ROOF DEMO PLAN SCALE 1/8" = 1'-0"

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- B. PROVIDE SEISMIC RESTRAINTS FOR ALL PIPING EQUIPMENT, AND DUCTWORK AS RECOMMENDED IN SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL EQUIPMENT", LATEST EDITION. CONSULT LOCAL SEISMIC CODES FOR THE SEISMIC RATING OF AN AREA IN WHICH THE PROJECT IS BEING BUILT.
- C. FOR LOW PRESSURE DUCTWORK, WHERE RECTANGULAR DUCT IS INDICATED ON PLANS, EQUIVALENT SIZE ROUND DUCT MAY BE USED. EQUIVALENT SIZE RECTANGULAR DUCT MAY BE USED IN PLACE OF ROUND DUCT, EXCEPT IN EXPOSED AREAS. EQUIVALENT RECTANGULAR SIZE MAY NOT BE USED ON DUCTS EXPOSED TO VIEW OR AS INDICATED
- D. COORDINATE FINAL LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS. CONTRACTOR SHALL NOT DEVIATE FROM REFLECTED CEILING PLAN UNLESS THERE ARE EXTENUATING JOB SITE CONDITIONS.
- E. DUCTWORK SIZES NOTED ON DRAWINGS ARE FREE AREA SIZES. HVAC CONTRACTOR SHALL BE RESPONSIBLE TO COMPENSATE FOR INSULATION, ETC.
- F. ALL SQUARE SUPPLY DIFFUSERS SHALL BE 4-WAY THROW UNLESS INDICATED
- OTHERWISE ON PLAN. G. PROVIDE TURNING VANES IN ALL MITERED ELBOWS AND BULL HEAD TEES.
- H. PROVIDE ACCESS DOORS IN DUCTWORK FOR RESETTING OF FIRE/SMOKE DAMPERS WHERE INDICATED AND AS REQUIRED BY SPECIFICATIONS OR CODE.
- SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE RESPONSIBILITY OF THE HVAC CONTRACTOR. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL EXPENSE TO OWNER.
- J. ALL WIRING, PIPING, AND EQUIPMENT IN ALL PLENUMS SHALL BE PLENUM RATED OR INSTALLED IN CONDUIT.
- K. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA. DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS SHALL BE CORRECTED AT NO ADDITIONAL EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT OF CONDITIONS IN CONFLICT WITH THE PLANS.

PRIOR TO BIDDING, OBTAIN A COPY OF THE PLANS, VISIT THE JOB SITE, TAKE ALL NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL OTHER INFORMATION NEEDED FOR AN ACCURATE BID. ALLOWANCES WILL NOT BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING CONDITIONS.

#### **# SHEET NOTES:**

1. DEMOLISH EXISTING FANS ON ROOF. CAP EXISTING OPENING WEATHERTIGHT. 2. DEMOLISH EXISTING FANS ON ROOF. REUSE EXISTING OPENING. SEE SHEET M23. 3. DEMOLISH EXISTING VEHICLE EXHAUST FAN ON ROOF. REUSE EXISTING DUCT

THROUGH ROOF.

### MECHANICAL LEGEND:

	SUPPLY DIFFUSER		EA DUCT THRU ROOF OR FLOOR
	RETURN GRILLE		SA/OA DUCT THRU ROOF OR FLOOF
	EXHAUST GRILLE		ROUND DUCT THROUGH ROOF
T	T SIDEWALL OR DOOR GRILLE	T <sub>#</sub>	THERMOSTAT
	FLEX DUCT	TS)#	REMOTE TEMPERATURE SENSOR
<b></b>	- BALANCE DAMPER	S	- SMOKE DETECTOR

---- ROOFTOP MECHANICAL EQUIPMENT

CEILING DIFFUSER	MIN	MINIMUM
CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
DEMOLISH	OBD	OPPOSED BLADE DAMPER
DIAMETER	OSA	OUTSIDE AIR
EXISTING	(R)	RELOCATE
EXHAUST AIR	RE:	REFERENCE
EXHAUST FAN	RG	RETURN AIR GRILLE
EXHAUST	SA	SUPPLY AIR
FAHRENHEIT	SP	STATIC PRESSURE
FEET PER MINUTE	TG	TRANSFER GRILLE
MAXIMUM	WC	WATER COLUMN
	CUBIC FEET PER MINUTE DEMOLISH DIAMETER EXISTING EXHAUST AIR EXHAUST FAN EXHAUST FAHRENHEIT FEET PER MINUTE	CUBIC FEET PER MINUTE  DEMOLISH  DIAMETER  EXISTING  EXHAUST AIR  EXHAUST FAN  EXHAUST  FAHRENHEIT  FEET PER MINUTE  NTS  OBD  OR  OR  OR  OR  OR  OR  OR  OR  OR  O

 $\left\langle \begin{array}{c} XX \\ X \end{array} \right\rangle$  EQUIPMENT CALLOUT (STANDARD)

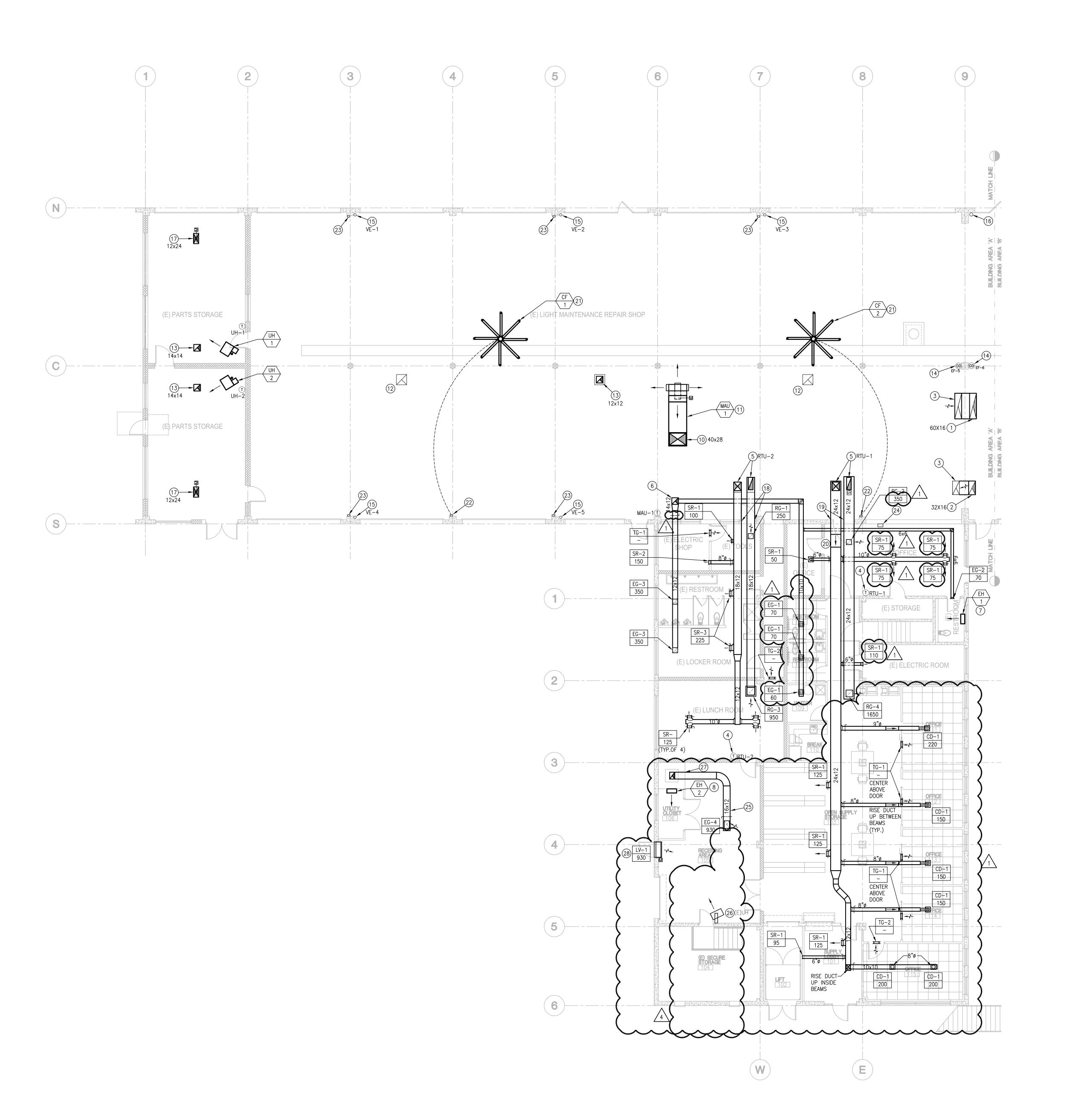


CONSTRUCTION 6/25/18

PROJECT	DATE	
18059.00	5-2-18	
DRAWN	CHECKED	
RLM	RCP	
REVISED		

**HVAC ROOF DEMO PLAN** 





1 HVAC FLOOR PLAN SCALE 1/8' = 1'-0'

#### MECHANICAL GENERAL NOTES:

- A. ALL WORK SHALL COMPLY WITH THE OWNERS REQUIREMENTS, AND WITH ALL APPLICABLE STATE AND LOCAL CODES, OR AUTHORITY HAVING JURISDICTION.
- B. PROVIDE SEISMIC RESTRAINTS FOR ALL PIPING EQUIPMENT, AND DUCTWORK AS RECOMMENDED IN SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL EQUIPMENT", LATEST EDITION. CONSULT LOCAL SEISMIC CODES FOR THE SEISMIC RATING OF AN AREA IN WHICH THE PROJECT IS BEING BUILT.
- C. FOR LOW PRESSURE DUCTWORK, WHERE RECTANGULAR DUCT IS INDICATED ON PLANS, EQUIVALENT SIZE ROUND DUCT MAY BE USED. EQUIVALENT SIZE RECTANGULAR DUCT MAY BE USED IN PLACE OF ROUND DUCT, EXCEPT IN EXPOSED AREAS. EQUIVALENT RECTANGULAR SIZE MAY NOT BE USED ON DUCTS EXPOSED TO VIEW OR AS INDICATED
- D. COORDINATE FINAL LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS, CONTRACTOR SHALL NOT DEVIATE FROM REFLECTED CEILING PLAN UNLESS THERE ARE EXTENUATING JOB SITE CONDITIONS.
- E. DUCTWORK SIZES NOTED ON DRAWINGS ARE FREE AREA SIZES. HVAC CONTRACTOR SHALL BE RESPONSIBLE TO COMPENSATE FOR INSULATION, ETC.
- F. PROVIDE TURNING VANES IN ALL MITERED ELBOWS AND BULL HEAD TEES.
- G. PROVIDE ACCESS DOORS IN DUCTWORK FOR RESETTING OF FIRE/SMOKE DAMPERS WHERE INDICATED AND AS REQUIRED BY SPECIFICATIONS OR CODE.
- H. SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE RESPONSIBILITY OF THE HVAC CONTRACTOR. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL
- ALL WIRING, PIPING, AND EQUIPMENT IN ALL PLENUMS SHALL BE PLENUM RATED OR INSTALLED IN CONDUIT.
- J. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA. DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS SHALL BE CORRECTED AT NO ADDITIONAL EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT OF CONDITIONS IN CONFLICT WITH THE PLANS.
- K. PRIOR TO BIDDING, OBTAIN A COPY OF THE PLANS, VISIT THE JOB SITE, TAKE ALL NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL OTHER INFORMATION NEEDED FOR AN ACCURATE BID. ALLOWANCES WILL NOT BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING CONDITIONS.

#### # SHEET NOTES:

- 1. EXHAUST DUCT DOWN AND TIGHT TO WALL OF HEAVY MAINTENANCE. FIELD VERIFY CLEARANCE BETWEEN CRANE STOP AND WALL. OFFSET DUCT UNDERNEATH LIGHT MAINTENANCE CEILING. HOLD BOTTOM OF DUCT 12" FROM FLOOR. SEE DETAILS SHEET M60 AND M61.
- 2. EXHAUST DUCT DOWN AND TIGHT TO WALL OF HEAVY MAINTENANCE. FIELD VERIFY CLEARANCE BETWEEN CRANE STOP AND WALL. OFFSET DUCT UNDERNEATH LIGHT MAINTENANCE CEILING. HOLD BOTTOM OF DUCT 12" FROM FLOOR. SEE DETAILS SHEET M60 AND M61.
- 3. COVER OPENING ON BOTTOM OF DUCT WITH 1/2",16GBW GALVANIZED WIRE FABRIC. 4. INSTALL THERMOSTAT AT 48" A.F.F. PER ADA REQUIREMENTS.
- 5. SA AND RA DUCT FROM ROOF TOP UNIT (RTU). SEE SHEET M23A FOR CONTINUATION. 6. EXHAUST DUCT DOWN THROUGH ROOF. HOLD EXHAUST DUCT BRANCHES BELOW CEILING OF FIRST FLOOR OFFICES.
- 7. ELECTRIC WALL HEATER INSTALLED BELOW WINDOW IN SURFACE MOUNT ENCLOSURE.
- 8. ELECTRIC WALL HEATER INSTALLED ON WALL IN SURFACE MOUNT ENCLOSURE. INSTALL AT

#### IOT USED -9. ELECTRIC HEATER SUSPENDED ON WALL WITH HEATER MOUNTING BRACKET. INSTALL AT

- 11. SUSPEND UNIT BELOW ROOF STRUCTURE PER MANUFACTURERS INSTRUCTIONS. VERIFY CLEARANCES REQUIRED BELOW UNIT FROM ALL OTHER EQUIPMENT PRIOR TO INSTALLATION. 12.CAP AND ABANDON EXISTING EXHAUST OPENING THROUGH ROOF FOR FUTURE
- 13.EXHAUST DUCT DOWN THROUGH ROOF 12" BELOW CEILING. COVER OPENING WITH
- ½",16GBW GALVANIZED WIRE FABRIC. 14.BRASCH MODEL GSE-NCM-LRO GAS DETECTOR AND EDWARDS SIGNALING MODEL 125STRNA120A LOCAL STROBE. BOTH PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR. MOUNT THE CONTROL 54" A.F.F. MOUNT THE STROBE 120" A.F.F. ON A 4" JUNCTION BOX.
- 15.EXISTING VEHICLE EXHAUST CONNECTION. SEE SHEET M23A FOR CONTINUATION. 16.EXISTING VEHICLE EXHAUST CONNECTION TO REMAIN. NO WORK REQUIRED.
- 17.INTAKE HOOD DUCT DOWN THROUGH ROOF 12" BELOW CEILING. COVER OPENING WITH 1/2",16GBW GALVANIZED WIRE FABRIC. INTERLOCK WITH EF TO OPEN WHEN
- 18.HOLD DUCTS TIGHT TO TOP OF WINDOW OPENING THROUGH WALL. 19.DUCTS THROUGH CONCRETE WALL. HOLD DUCTS TIGHT TO BOTTOM OF CONCRETE
- 20.DROP BOTTOM OF DUCT 8'-0" A.F.F.
- 21.PROPELLER FAN SUSPENDED FROM STRUCTURE WITH MANUFACTURER STANDARD 2'-0" MOUNTING TUBE. MAINTAIN A MINIMUM OF 2'-0" CLEARANCE FROM ALL LIGHTS, AIR COMPRESSOR PIPING AND OTHER SUSPENDED ITEMS BELOW CEILING.
- 22.PROPELLER FAN WIRED WALL CONTROLLER MOUNTED ON WALL 54" A.F.F. EC TO PROVIDE CONDUIT AND WALL MOUNTED SINGLE GANG JUNCTION BOX BETWEEN CONTROLLER AND FANS. MC TO PROVIDE LOW VOLTAGE WIRING TO FAN.
- 23.VEHICLE EXHAUST FAN STARTER MOUNTED ON WALL 54" A.F.F. EC TO PROVIDE INTERCONNECT WIRING AND CONDUIT BETWEEN STARTER AND FAN.
- 24.TIMECLOCK TO START AND STOP GENERAL EXHAUST FANS EF-1 THRU EF-4 AND EF-7. SEE SHEET BM71 FOR CONTROL SCHEMATIC.  $\sim\sim\sim\sim\sim$
- 25.HOLD DUCT TIGHT TO BOTTOM OF CONCRETE BEAMS.
- 26.RELOCATE EXISTING HEATER FROM EXISTING PARTS STORAGE ROOM AND INSTALL AS SHOWN. INSTALL AT 10'-0" A.F.F.
- 27.DUCT THROUGH EXISTING CHIMNEY AND UP THROUGH EXISTING CHASE TO ABOVE.
- SEE M22 FOR CONTINUATION. 28.INTAKE LOUVER THROUGH WALL. COVER OPENING WITH 1/2",16GBW GALVANIZED WIRE

FABRIC. INTERLOCK WITH EF TO OPEN WHEN OPERATING.

#### MECHANICAL LEGEND:

EA DUCT THRU ROOF OR FLOOR

ROUND DUCT THROUGH ROOF

①, THERMOSTAT

S- SMOKE DETECTOR

SA/OA DUCT THRU ROOF OR FLOOR

REMOTE TEMPERATURE SENSOR

- SUPPLY DIFFUSER RETURN GRILLE
- SIDEWALL OR DOOR GRILLE FLEX DUCT

- --- BALANCE DAMPER MECHANICAL EQUIPMENT

	MECHANICAL EQUIPMENT	XX EQUIF	PMENT CALLOUT (STANDARD)
	ROOFTOP MECHANICAL EQUIPMENT		
CD	CEILING DIFFUSER	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
(D)	DEMOLISH	OBD	OPPOSED BLADE DAMPER
DIA/ø	DIAMETER	OSA	OUTSIDE AIR
(E)	EXISTING	(R)	RELOCATE
EA	EXHAUST AIR	RE:	REFERENCE
EF	EXHAUST FAN	RG	RETURN AIR GRILLE
EXH	EXHAUST	SA	SUPPLY AIR
F	FAHRENHEIT	SP	STATIC PRESSURE
FPM	FEET PER MINUTE	TG	TRANSFER GRILLE
MAX	MAXIMUM	WC	WATER COLUMN



O

CONSTRUCTION

6/25/18

PROJECT	DATE
18059.00	5-2-18
DRAWN	CHECKED
RLM	RCP
REVISED ADDENDUM	NO ONF

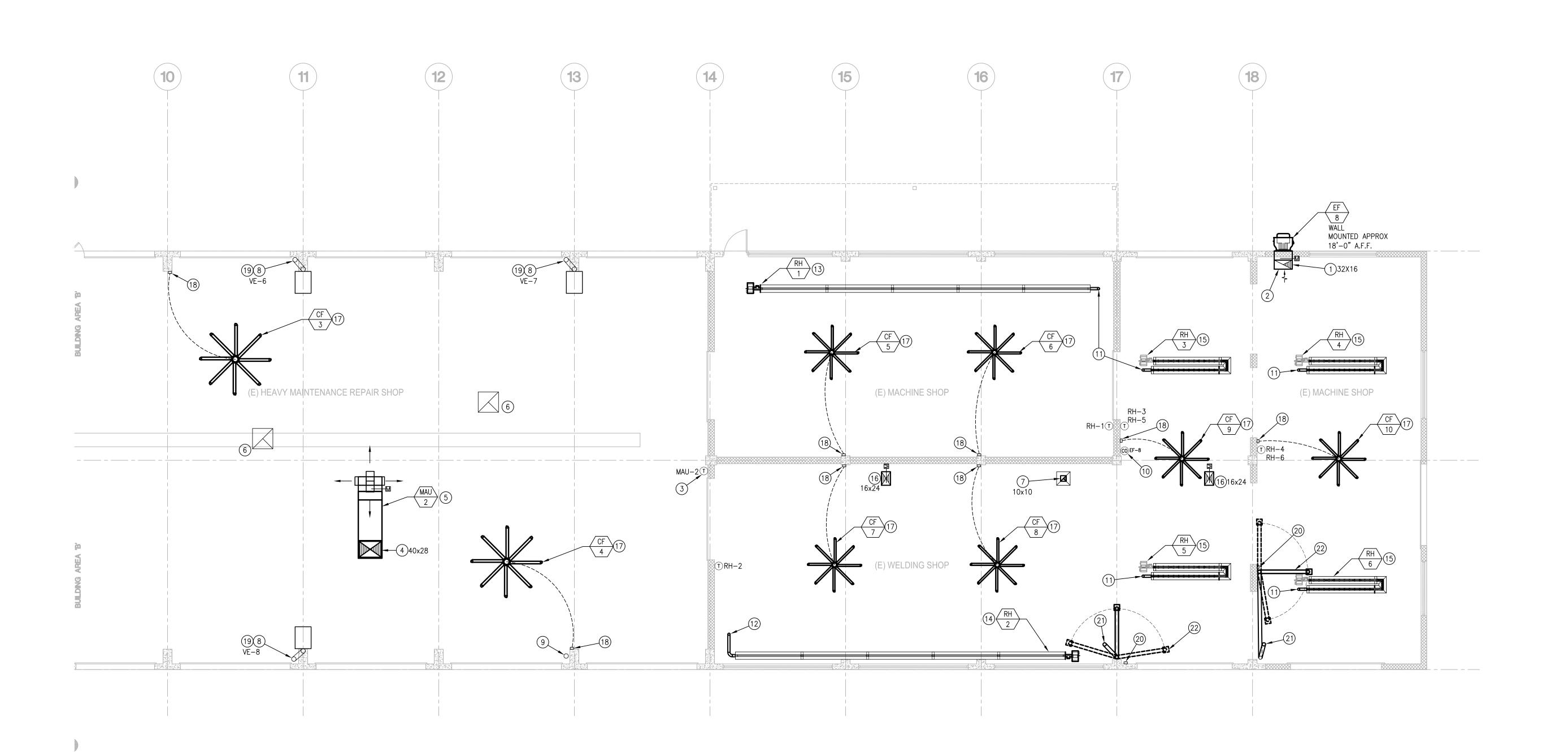
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SHEET TITLE **HVAC** 

**FLOOR** 

**PLAN** 





1 HVAC FLOOR PLAN SCALE 1/8" = 1'-0"

#### MECHANICAL GENERAL NOTES:

- A. ALL WORK SHALL COMPLY WITH THE OWNERS REQUIREMENTS, AND WITH ALL APPLICABLE STATE AND LOCAL CODES, OR AUTHORITY HAVING JURISDICTION.
- B. PROVIDE SEISMIC RESTRAINTS FOR ALL PIPING EQUIPMENT, AND DUCTWORK AS RECOMMENDED IN SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL EQUIPMENT", LATEST EDITION. CONSULT LOCAL SEISMIC CODES FOR THE SEISMIC RATING OF AN AREA IN WHICH THE PROJECT IS BEING BUILT.
- C. FOR LOW PRESSURE DUCTWORK, WHERE RECTANGULAR DUCT IS INDICATED ON PLANS, EQUIVALENT SIZE ROUND DUCT MAY BE USED. EQUIVALENT SIZE RECTANGULAR DUCT MAY BE USED IN PLACE OF ROUND DUCT, EXCEPT IN EXPOSED AREAS. EQUIVALENT RECTANGULAR SIZE MAY NOT BE USED ON DUCTS EXPOSED TO VIEW OR AS INDICATED
- D. COORDINATE FINAL LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS, CONTRACTOR SHALL NOT DEVIATE FROM REFLECTED CEILING PLAN UNLESS THERE ARE EXTENUATING JOB SITE CONDITIONS.
- E. DUCTWORK SIZES NOTED ON DRAWINGS ARE FREE AREA SIZES. HVAC CONTRACTOR SHALL BE RESPONSIBLE TO COMPENSATE FOR INSULATION, ETC.
- F. ALL SQUARE SUPPLY DIFFUSERS SHALL BE 4-WAY THROW UNLESS INDICATED
- OTHERWISE ON PLAN. G. PROVIDE TURNING VANES IN ALL MITERED ELBOWS AND BULL HEAD TEES.
- H. PROVIDE ACCESS DOORS IN DUCTWORK FOR RESETTING OF FIRE/SMOKE DAMPERS
- WHERE INDICATED AND AS REQUIRED BY SPECIFICATIONS OR CODE. SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE RESPONSIBILITY OF THE HVAC CONTRACTOR. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL EXPENSE TO OWNER.
- J. ALL WIRING, PIPING, AND EQUIPMENT IN ALL PLENUMS SHALL BE PLENUM RATED OR INSTALLED IN CONDUIT.
- K. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA. DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS SHALL BE CORRECTED AT NO ADDITIONAL EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT OF CONDITIONS IN CONFLICT WITH THE PLANS.
- PRIOR TO BIDDING, OBTAIN A COPY OF THE PLANS, VISIT THE JOB SITE, TAKE ALL NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL OTHER INFORMATION NEEDED FOR AN ACCURATE BID. ALLOWANCES WILL NOT BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING CONDITIONS.

#### # SHEET NOTES:

- 1. EXHAUST DUCT DOWN AND TIGHT TO WALL OF EXISTING ADDITION. FIELD VERIFY CLEARANCE BETWEEN CRANE STOP AND WALL. HOLD BOTTOM OF DUCT 12" FROM
- 2. COVER OPENING ON BOTTOM OF DUCT WITH 1/2",16GBW GALVANIZED WIRE FABRIC. 3. INSTALL THERMOSTAT AT 48" A.F.F. PER ADA REQUIREMENTS.
- 4. OSA DUCT DOWN THROUGH ROOF. CONNECT TO MAU PER MANUFACTURERS INSTRUCTIONS. 5. SUSPEND UNIT BELOW ROOF STRUCTURE PER MANUFACTURERS INSTRUCTIONS. VERIFY
- -CLEARANCES REQUIRED BELOW UNIT FROM ALL OTHER EQUIPMENT PRIOR TO INSTALLATION. 6. CAP AND ABANDON EXISTING EXHAUST OPENING THROUGH ROOF FOR FUTURE REUSE.
- 7. EXHAUST DUCT DOWN THROUGH ROOF 12" BELOW CEILING. COVER OPENING WITH ½",16GBW GALVANIZED WIRE FABRIC.
- 8. EXISTING VEHICLE EXHAUST CONNECTION. SEE SHEET M23B FOR CONTINUATION. 9. EXISTING VEHICLE EXHAUST CONNECTION TO REMAIN. NO WORK REQUIRED.
- 10.BRASCH MODEL GSE-NCM-LRO GAS DETECTOR AND EDWARDS SIGNALING MODEL125STRNA120A LOCAL STROBE. BOTH PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR. MOUNT THE CONTROL 54" A.F.F. MOUNT THE STROBE 120" A.F.F. ON A 4" JUNCTION BOX.
- 11.4" DIA. RADIANT HEATER FLUE UP THROUGH ROOF. SEE SHEET M23B FOR
- 12.4" DIA. RADIANT HEATER FLUE UP THROUGH ROOF. COORDINATE INSTALLATION WITH CRANE RAIL ABOVE. SEE SHEET M23B FOR CONTINUATION.
- 13.INSTALL RADIANT HEATER APPROX. 18'-0" A.F.F. HEATER INSTALLED AT 0° ANGLE. VERIFY THAT MANUFACTURER CLEARANCES FROM COMBUSTIBLES WILL BE MAINTAINED.
- 14.INSTALL RADIANT HEATER BELOW CRANE RAIL APPROX. 14'-0" A.F.F. HEATER INSTALLED AT 45° ANGLE. VERIFY THAT MANUFACTURER CLEARANCES FROM COMBUSTIBLES WILL BE MAINTAINED.
- 15.INSTALL RADIANT HEATER APPROX 18'-0" A.F.F. COORDINATE MOUNTING ABOVE CRANE RAIL. CONTRACTOR SHALL INSTALL INSULATED HEAT SHIELD TO PROTECT CRANE MOTOR COMPONENTS (SEE DETAIL SHEET M60) HEATER INSTALLED AT 0° ANGLE. VERIFY THAT MANUFACTURER CLEARANCES FROM COMBUSTIBLES WILL BE
- 16.DUCT DOWN THROUGH EXISTING ROOF OPENING 12" BELOW CEILING. COVER OPENING WITH ½",16GBW GALVANIZED WIRE FABRIC. INTERLOCK MOTORIZED DAMPER TO OPEN WHEN ANY EXHAUST FAN SERVING THE WELDING AREA IS IN OPERATION. 17.PROPELLER FAN SUSPENDED FROM STRUCTURE WITH MANUFACTURER STANDARD
- 2'-0" MOUNTING TUBE. MAINTAIN A MINIMUM OF 2'-0" CLEARANCE FROM ALL LIGHTS, AIR COMPRESSOR PIPING AND OTHER SUSPENDED ITEMS BELOW CEILING. 18.PROPELLER FAN WIRED WALL CONTROLLER MOUNTED ON WALL 54" A.F.F. EC TO PROVIDE CONDUIT AND WALL MOUNTED SINGLE GANG JUNCTION BOX BETWEEN
- CONTROLLER AND FANS. MC TO PROVIDE LOW VOLTAGE WIRING TO FAN. 19.EC SHALL CONNECT EXISTING VEHICLE EXHAUST FAN STARTER MOUNTED ON HOSE
- CONDUIT BETWEEN STARTER AND FAN. 20.WELDING EXHAUST FAN STARTER MOUNTED ON WALL 54" A.F.F. EC TO PROVIDE

REEL TO NEW VEHICLE EXHAUST FAN ON ROOF. PROVIDE INTERCONNECT WIRING AND

- INTERCONNECT WIRING AND CONDUIT BETWEEN STARTER AND FAN. 21.6" DIA. WELDING EXHAUST DUCT UP THROUGH ROOF. SEE SHEET M23B FOR CONTINUATION. VERIFY LOCATION OF DUCT ROUTING AND COORDINATE BETWEEN
- 22.MOUNT WELDING ARM ON COLUMN WHERE SHOWN. COORDINATE HEIGHT ABOVE FLOOR WITH OWNER VERIFY CLEARANCES FROM OVERHEAD CRANE OPERATION ABOVE.

#### MECHANICAL LEGEND:

- SUPPLY DIFFUSER RETURN GRILLE
- EXHAUST GRILLE
- SIDEWALL OR DOOR GRILLE ( FLEX DUCT
- --- BALANCE DAMPER

- $\left(\begin{array}{c} XX \\ X \end{array}\right)$  EQUIPMENT CALLOUT (STANDARD)

REMOTE TEMPERATURE SENSOR

EA DUCT THRU ROOF OR FLOOR

ROUND DUCT THROUGH ROOF

THERMOSTAT

S — SMOKE DETECTOR

SA/OA DUCT THRU ROOF OR FLOOR

— — — ROOFTOP MECHANICAL EQUIPMENT

	-ROOFTOP MECHANICAL EQUIPMENT		
	CEILING DIFFUSER	MIN	MINIMUM
	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
	DEMOLISH	OBD	OPPOSED BLADE DAMPE
Ø	DIAMETER	OSA	OUTSIDE AIR
	EXISTING	(R)	RELOCATE
	EXHAUST AIR	RE:	REFERENCE
	EXHAUST FAN	RG	RETURN AIR GRILLE
	EXHAUST	SA	SUPPLY AIR
	FAHRENHEIT	SP	STATIC PRESSURE
	FEET PER MINUTE	TG	TRANSFER GRILLE
	MAXIMUM	WC	WATER COLUMN



CONSTRUCTION

6/25/18

PROJECT 18059.00	DATE 5-2-18
DRAWN	CHECKED
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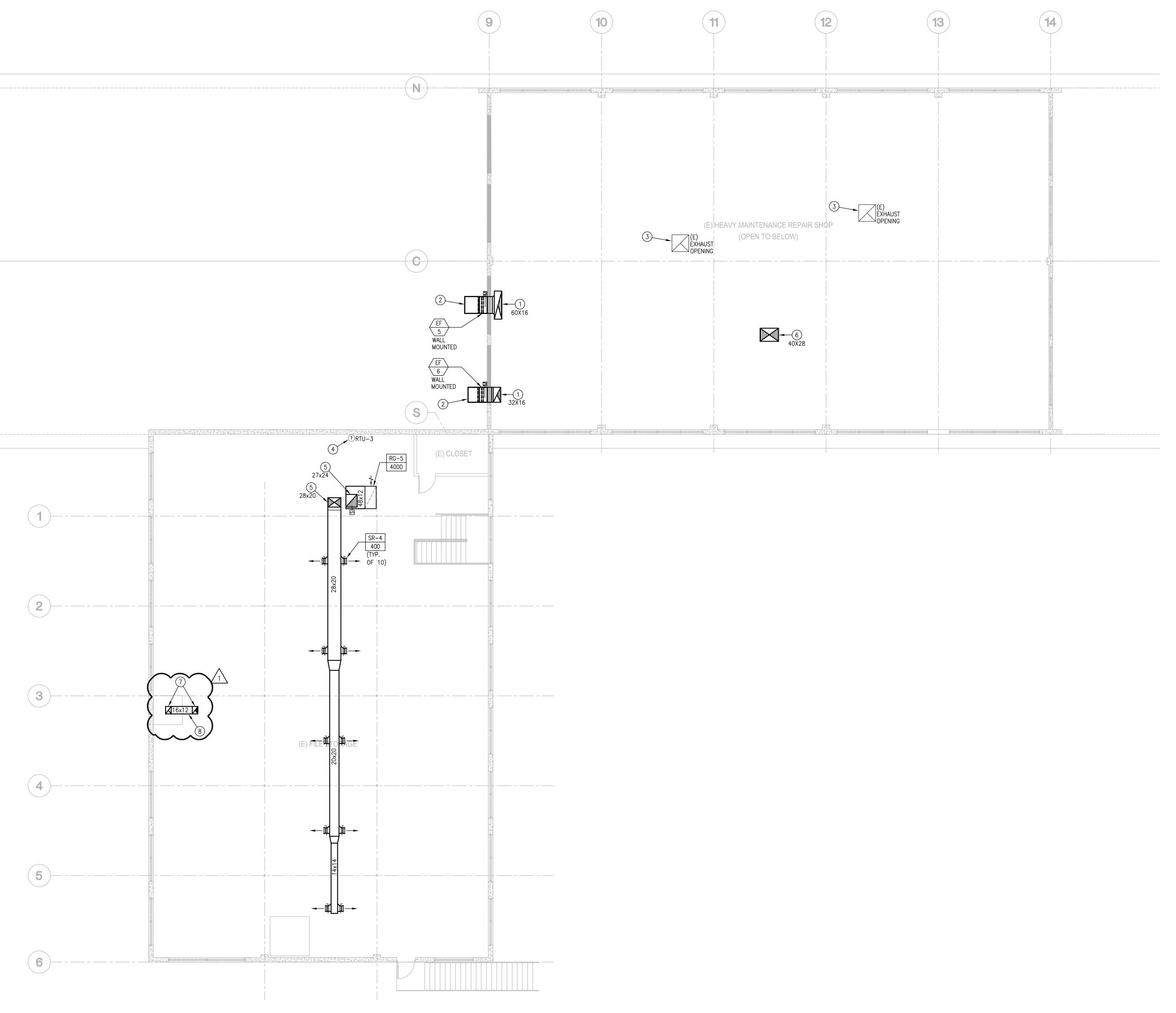
REVISED

SHEET TITLE **HVAC** 

**FLOOR** 

**PLAN** 





1HVAC PLAN SECOND FLOOR SCALE 1/8" = 1'-0"

#### MECHANICAL GENERAL NOTES:

- A. ALL WORK SHALL COMPLY WITH THE OWNERS REQUIREMENTS, AND WITH ALL APPLICABLE STATE AND LOCAL CODES, OR AUTHORITY HAVING JURISDICTION.
- PROVIDE SEISMIC RESTRAINTS FOR ALL PIPING EQUIPMENT, AND DUCTWORK AS RECOMMENDED IN SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL EQUIPMENT", LATEST EDITION. CONSULT LOCAL SEISMIC CODES FOR THE SEISMIC RATING OF AN AREA IN WHICH THE PROJECT IS BEING BUILT.
- FOR LOW PRESSURE DUCTWORK, WHERE RECTANGULAR DUCT IS INDICATED ON PLANS, EQUIVALENT SIZE ROUND DUCT MAY BE USED. EQUIVALENT SIZE RECTANGULAR DUCT MAY BE USED IN PLACE OF ROUND DUCT, EXCEPT IN EXPOSED AREAS. EQUIVALENT RECTANGULAR SIZE MAY NOT BE USED ON DUCTS EXPOSED TO VIEW OR AS INDICATED
- COORDINATE FINAL LOCATIONS OF DIFFUSERS, REGISTERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS. CONTRACTOR SHALL NOT DEVIATE FROM REFLECTED CEILING PLAN UNLESS THERE ARE EXTENUATING JOB SITE CONDITIONS.
- DUCTWORK SIZES NOTED ON DRAWINGS ARE FREE AREA SIZES. HVAC CONTRACTOR
- SHALL BE RESPONSIBLE TO COMPENSATE FOR INSULATION, ETC. . PROVIDE TURNING VANES IN ALL MITERED ELBOWS AND BULL HEAD TEES.
- PROVIDE ACCESS DOORS IN DUCTWORK FOR RESETTING OF FIRE/SMOKE DAMPERS WHERE INDICATED AND AS REQUIRED BY SPECIFICATIONS OR CODE.
- SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE RESPONSIBILITY OF THE HVAC CONTRACTOR. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL
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#### # SHEET NOTES:

- 1. EXHAUST DUCT DOWN TO FLOOR LEVEL BELOW. SEE SHEET M21 FOR CONTINUATION. 2. INSTALL EXHAUST FAN ON HIGH WALL THROUGH EXISTING OPENING. BOTTOM OF FAN SHALL BE INSTALLED A MINIMUM OF 3FT ABOVE ROOF LINE.
- 3. ABANDON EXISTING EXHAUST OPENING THROUGH ROOF FOR FUTURE REUSE.
- 4. INSTALL THERMOSTAT AT 48" A.F.F. PER ADA REQUIREMENTS.
- 5. SA AND RA DUCT FROM ROOF TOP UNIT (RTU). SEE SHEET M23A FOR CONTINUATION. 6. OSA DUCT DOWN THROUGH ROOF, CONNECT TO MAU. SEE SHEET M21B FOR CONTINUATION.

#### MECHANICAL LEGEND:

SUPPLY DIFFUSER RETURN GRILLE

EA DUCT THRU ROOF OR FLOOR

SA/OA DUCT THRU ROOF OR FLOOR ROUND DUCT THROUGH ROOF

SIDEWALL OR DOOR GRILLE

EXHAUST GRILLE

THERMOSTAT

FLEX DUCT --- BALANCE DAMPER  $(s)_{\mu}$  REMOTE TEMPERATURE SENSOR

S — SMOKE DETECTOR  $\left(\begin{array}{c} XX \\ X \end{array}\right)$  EQUIPMENT CALLOUT (STANDARD)

---- ROOFTOP MECHANICAL EQUIPMENT

CD	CEILING DIFFUSER	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
(D)	DEMOLISH	OBD	OPPOSED BLADE DAMPE
DIA/ø	DIAMETER	OSA	OUTSIDE AIR
(E)	EXISTING	(R)	RELOCATE
EA	EXHAUST AIR	RE:	REFERENCE
EF	EXHAUST FAN	RG	RETURN AIR GRILLE
EXH	EXHAUST	SA	SUPPLY AIR
F	FAHRENHEIT	SP	STATIC PRESSURE
FPM	FEET PER MINUTE	TG	TRANSFER GRILLE
MAX	MAXIMUM	WC	WATER COLUMN



DIST 3 COFFEY

CONSTRUCTION 6/25/18

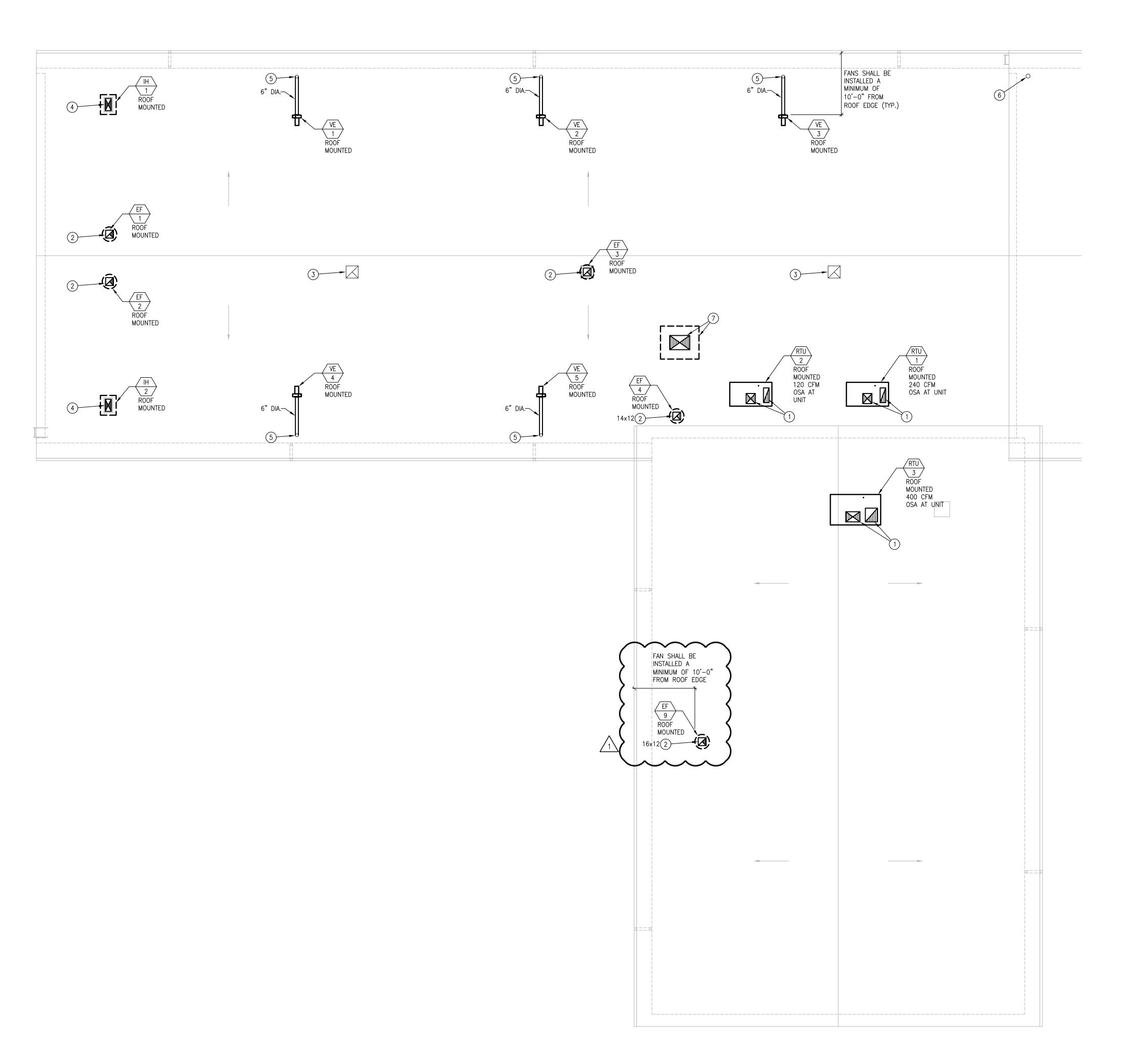
DATE PROJECT 5-2-18 18059.00 CHECKED DRAWN RCP

ADDENDUM NO. ONE 05-15-18

2ND FLOOR HVAC

**PLAN** 





THVAC ROOF PLAN
SCALE 1/8' = 1'-0'

#### MECHANICAL GENERAL NOTES:

- A. ALL WORK SHALL COMPLY WITH THE OWNERS REQUIREMENTS, AND WITH ALL APPLICABLE STATE AND LOCAL CODES, OR AUTHORITY HAVING JURISDICTION.
- B. PROVIDE SEISMIC RESTRAINTS FOR ALL PIPING EQUIPMENT, AND DUCTWORK AS RECOMMENDED IN SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL EQUIPMENT", LATEST EDITION. CONSULT LOCAL SEISMIC CODES FOR THE SEISMIC RATING OF AN AREA IN WHICH THE PROJECT IS BEING BUILT.
- C. SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE RESPONSIBILITY OF THE HVAC CONTRACTOR. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL EXPENSE TO OWNER.
- D. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA. DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS SHALL BE CORRECTED AT NO ADDITIONAL EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT OF CONDITIONS IN CONFLICT WITH THE PLANS.
- PRIOR TO BIDDING, OBTAIN A COPY OF THE PLANS, VISIT THE JOB SITE, TAKE ALL NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL OTHER INFORMATION NEEDED FOR AN ACCURATE BID. ALLOWANCES WILL NOT BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING CONDITIONS.

#### # SHEET NOTES:

- 1. SA AND RA DUCT DOWN FROM ROOF TOP UNIT (RTU). PROVIDE DUCT TRANSITIONING AS NECESSARY FROM RTU CURB. SEE SHEET M60 FOR RTU MOUNTING DETAIL. SEE SHEET M21A AND M23 FOR CONTINUATION.
- 2. EXHAUST DUCT DOWN THROUGH ROOF. SEE SHEET M21A FOR CONTINUATION. 3. CAP AND ABANDON EXISTING EXHAUST OPENING THROUGH ROOF FOR FUTURE REUSE.
- 4. INTAKE HOOD DUCT DOWN THROUGH ROOF. SEE SHEET M21A FOR CONTINUATION.
- 5. CONNECT NEW VEHICLE EXHAUST DUCT TO EXISTING VEHICLE EXHAUST DUCT THROUGH ROOF. VERIFY SIZE IN FIELD AND PROVIDE TRANSITION TO NEW DUCT SIZE. 6. CAP EXISTING VEHICLE EXHAUST DUCT THROUGH ROOF.
- 7. OSA INTAKE HOOD FURNISHED WITH HEATING AND VENTILATING UNIT MAU-1. OSA INTAKE DUCT DOWN THROUGH ROOF, SEE SHEET M21A FOR CONTINUATION.

#### MECHANICAL LEGEND:

EA DUCT THRU ROOF OR FLOOR SUPPLY DIFFUSER RETURN GRILLE

SA/OA DUCT THRU ROOF OR FLOOR ROUND DUCT THROUGH ROOF

SIDEWALL OR DOOR GRILLE FLEX DUCT

EXHAUST GRILLE

THERMOSTAT ® REMOTE TEMPERATURE SENSOR

--- BALANCE DAMPER ------ MECHANICAL EQUIPMENT

FAHRENHEIT

FPM

FEET PER MINUTE

S — SMOKE DETECTOR XX EQUIPMENT CALLOUT (STANDARD)

STATIC PRESSURE

TRANSFER GRILLE

WATER COLUMN

---- ROOFTOP MECHANICAL EQUIPMENT

	·		
CD	CEILING DIFFUSER	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
(D)	DEMOLISH	OBD	OPPOSED BLADE DAMPE
DIA/ø	DIAMETER	OSA	OUTSIDE AIR
(E)	EXISTING	(R)	RELOCATE
EA	EXHAUST AIR	RE:	REFERENCE
EF	EXHAUST FAN	RG	RETURN AIR GRILLE
EXH	EXHAUST	SA	SUPPLY AIR



CONSTRUCTION 6/25/18

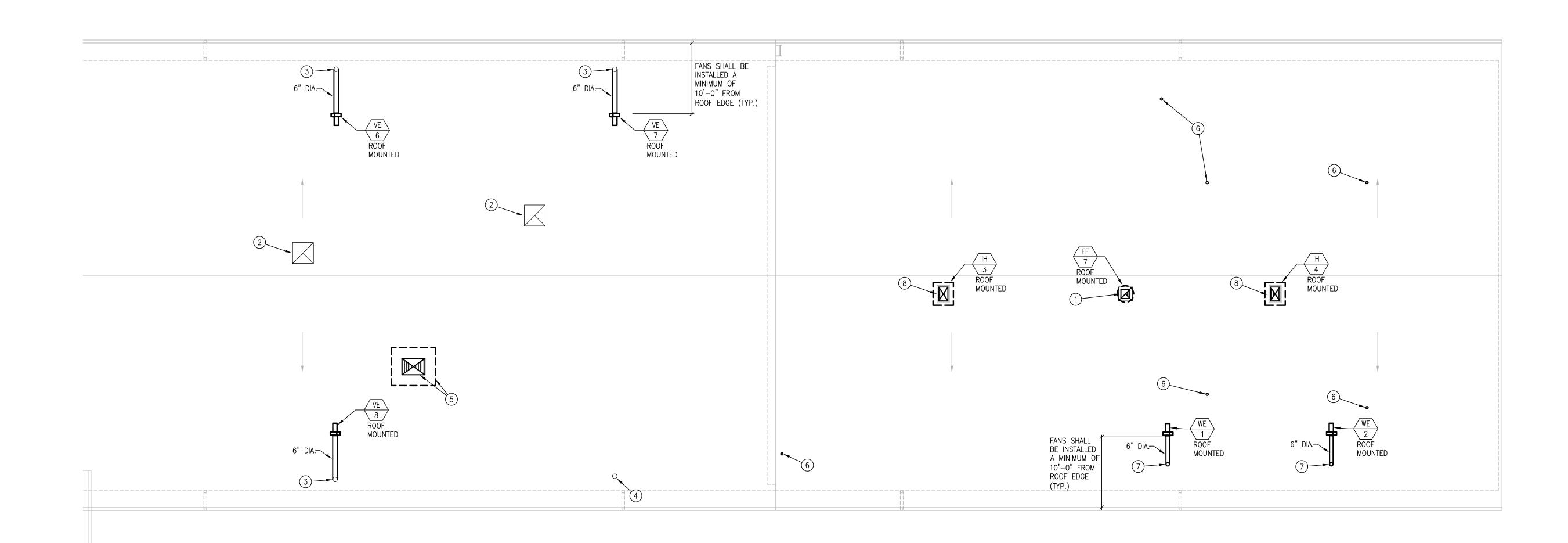
PROJECT	DATE	
18059.00	5-2-18	
DRAWN	CHECKED	
RLM	RCP	
REVISED ADDENDUM	NO. ONE	

1 05-15-18

HVAC ROOF PLAN







HVAC ROOF PLAN
SCALE 1/8' = 1'-0'

#### MECHANICAL GENERAL NOTES:

- A. ALL WORK SHALL COMPLY WITH THE OWNERS REQUIREMENTS, AND WITH ALL APPLICABLE STATE AND LOCAL CODES, OR AUTHORITY HAVING JURISDICTION.
- B. PROVIDE SEISMIC RESTRAINTS FOR ALL PIPING EQUIPMENT, AND DUCTWORK AS RECOMMENDED IN SMACNA "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL EQUIPMENT", LATEST EDITION. CONSULT LOCAL SEISMIC CODES FOR THE SEISMIC RATING OF AN AREA IN WHICH THE PROJECT IS BEING BUILT.
- C. SUBSTITUTIONS OF EQUIPMENT OTHER THAN AS SPECIFIED SHALL BE THE COMPLETE RESPONSIBILITY OF THE HVAC CONTRACTOR. ANY ADDITIONAL ELECTRICAL, STRUCTURAL, MECHANICAL OR ARCHITECTURAL REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL EXPENSE TO OWNER.
- D. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA. DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS SHALL BE CORRECTED AT NO ADDITIONAL EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT OF CONDITIONS IN CONFLICT WITH THE PLANS.
- E. PRIOR TO BIDDING, OBTAIN A COPY OF THE PLANS, VISIT THE JOB SITE, TAKE ALL NECESSARY MEASUREMENTS, NOTE EXISTING CONDITIONS, AND GATHER ALL OTHER INFORMATION NEEDED FOR AN ACCURATE BID. ALLOWANCES WILL NOT BE MADE FOR EXTRA COSTS RESULTING FROM FAILURE TO NOTE EXISTING CONDITIONS.

#### # SHEET NOTES:

- 1. EXHAUST DUCT DOWN THROUGH ROOF. SEE SHEET M21B FOR CONTINUATION.
- 2. CAP AND ABANDON EXISTING EXHAUST OPENING THROUGH ROOF FOR FUTURE REUSE.
- 3. CONNECT NEW VEHICLE EXHAUST DUCT TO EXISTING VEHICLE EXHAUST DUCT THROUGH ROOF. VERIFY SIZE IN FIELD AND PROVIDE TRANSITION TO NEW DUCT SIZE. 4. CAP EXISTING VEHICLE EXHAUST DUCT THROUGH ROOF.
- 5. OSA INTAKE HOOD FURNISHED WITH HEATING AND VENTILATING UNIT MAU-2. OSA INTAKE DUCT DOWN THROUGH ROOF, SEE SHEET M21A FOR CONTINUATION.
- 6. 4" DIA. FLUE FROM IR HEATER. FOLLOW MANUFACTURER INSTRUCTIONS FOR INSTALLATION. SEE GAS FLUE THROUGH ROOF DETAIL SHEET M60.
- 7. WELDING EXHAUST DUCT THROUGH ROOF TO WELDING EXHAUST FAN. SEE DETAIL
- 8. INTAKE HOOD DUCT DOWN THROUGH EXISTING OPENING IN ROOF. SEE SHEET M21B FOR

### MECHANICAL LEGEND:

	SUPPLY DIFFUSER		EA DUCT THRU ROOF OR FLOOR
	RETURN GRILLE		SA/OA DUCT THRU ROOF OR FLOOR
	EXHAUST GRILLE		ROUND DUCT THROUGH ROOF
П	SIDEWALL OR DOOR GRILLE	(T) <sub>#</sub>	THERMOSTAT
	FLEX DUCT	TS)#	REMOTE TEMPERATURE SENSOR
<b></b>	BALANCE DAMPER	S	- SMOKE DETECTOR
	-MECHANICAL EQUIPMENT	$\left(\begin{array}{c}XX\\X\end{array}\right)$	EQUIPMENT CALLOUT (STANDARD)

---- ROOFTOP MECHANICAL EQUIPMENT

CD	CEILING DIFFUSER	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
(D)	DEMOLISH	OBD	OPPOSED BLADE DAMPER
DIA/ø	DIAMETER	OSA	OUTSIDE AIR
(E)	EXISTING	(R)	RELOCATE
EA	EXHAUST AIR	RE:	REFERENCE
EF	EXHAUST FAN	RG	RETURN AIR GRILLE
EXH	EXHAUST	SA	SUPPLY AIR
F	FAHRENHEIT	SP	STATIC PRESSURE
FPM	FEET PER MINUTE	TG	TRANSFER GRILLE
MAX	MAXIMUM	wc	WATER COLUMN

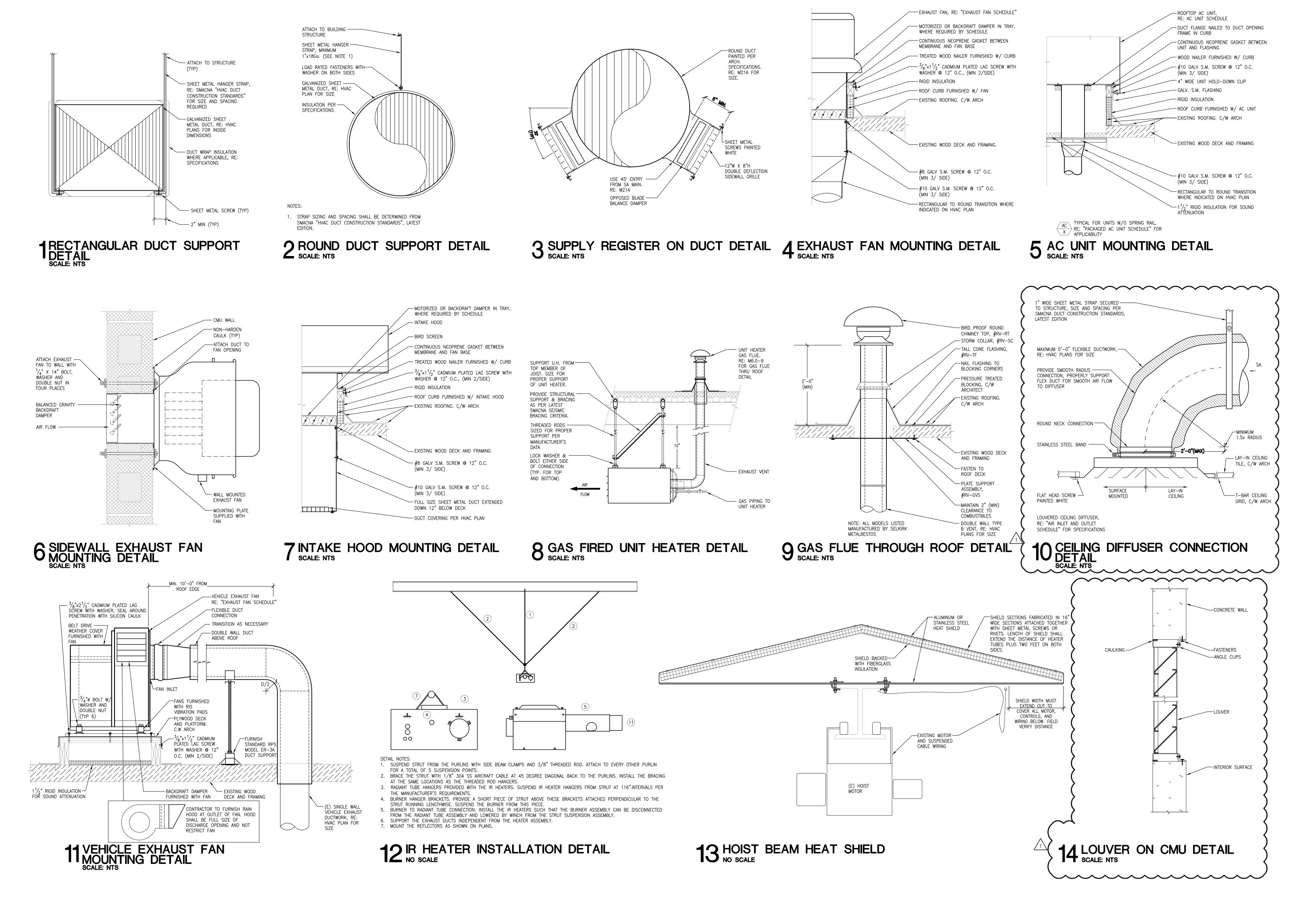


CONSTRUCTION 6/25/18

-		_
PROJECT	DATE	
18059.00	5-2-18	
DRAWN	CHECKED	
RLM	RCP	
REVISED		

HVAC PLAN







BROAD STREET

SE, IDAHO 83702

NE: 208-343-4635 • FAX: 208-343-1858

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BOISE, I

DIST 3 MAINTENAN COFFEY STREET

FOR CONSTRUCTION 6/25/18

DATE

18059.00 5-2-18

DRAWN CHECKED

RLM RCP

REVISED

ADDENDUM NO. ONE
05-15-18

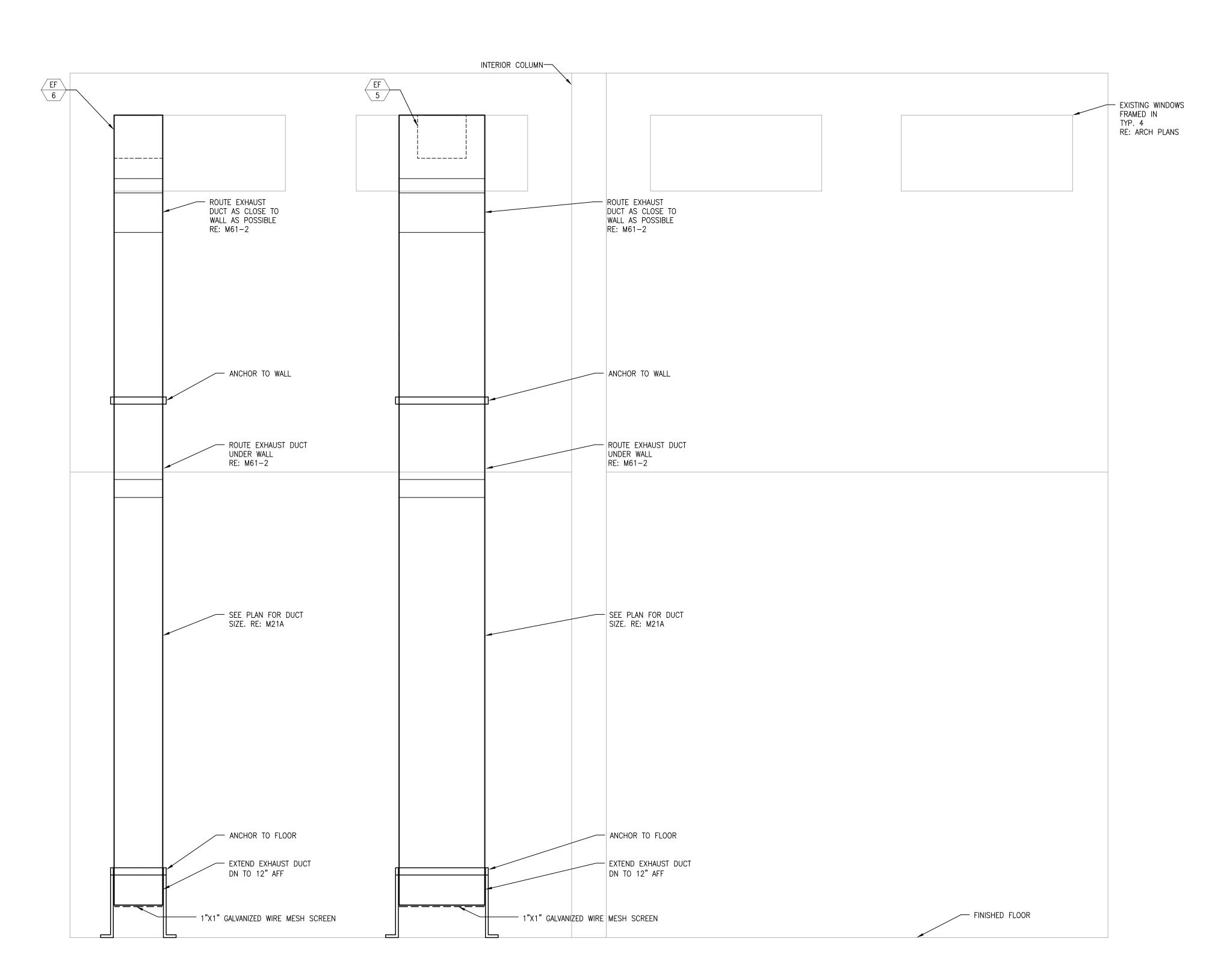
PROJECT

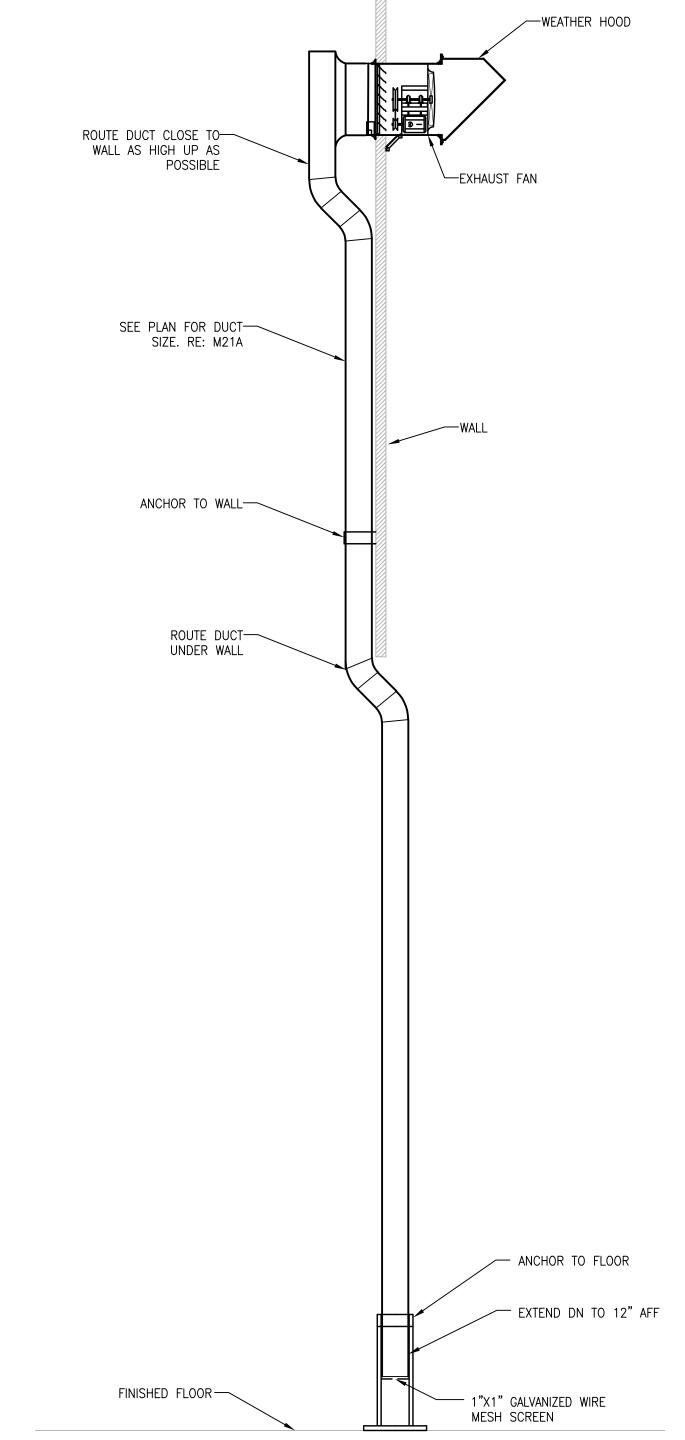
HVAC DETAILS

SHEET TITLE

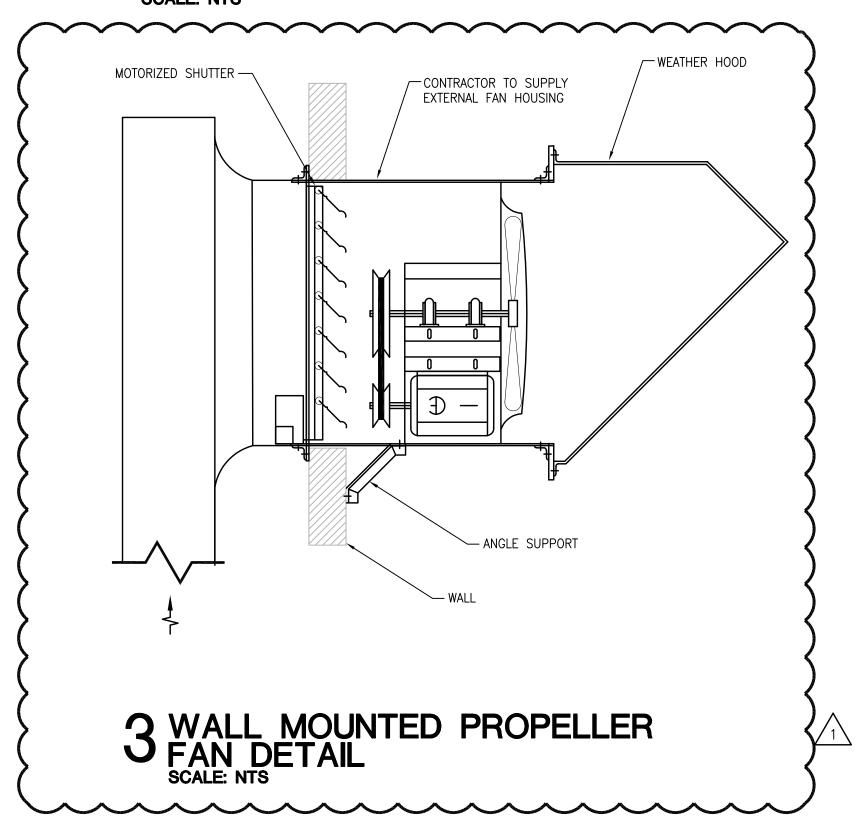
M60



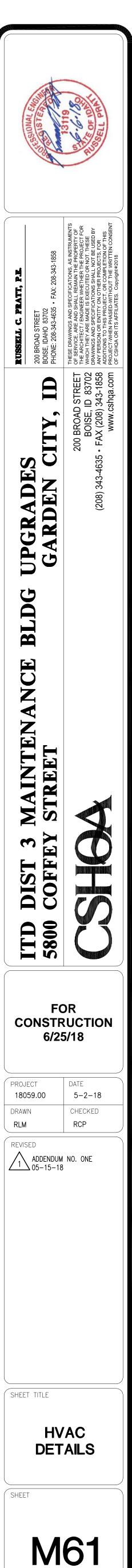




# 1 WALL MOUNTED EXHAUST FAN DUCT ROUTING SECTION



2 WALL MOUNTED EXHAUST FAN DUCT ROUTING SECTION





	BASIS O	FDESIGN		1051 110(00			OUTPUT.	NAT. GAS	TEMPER	ATURES	OUDDLY					
MARK	MANUFACTURER	MODEL NUMBER	LOCATION	AREA AND/OR BLDG SERVED	TYPE	INPUT MBH	OUTPUT MBH	INLET SIZE IN	EAT (F°)	LAT (F°)	SUPPLY	MOTOR HP	VOLTS/PHASE	HEATER FLA	WEIGHT	REMARKS
MAU-1	CAMBRIDGE	S1200	UNDER ROOF INTERIOR	HEAVY MAINTENANCE	100% OSA DIRECT FIRED	1062	977	1-1/4	2	160	5400	3	208/3	12.0	1150	1
MAU-2	CAMBRIDGE	S1200	UNDER ROOF INTERIOR	LIGHT MAINTENANCE	100% OSA DIRECT FIRED	1062	977	1-1/4	2	160	5400	3	208/3	12.0	1150	1

ROC	OFTOP AI	R COND	ITION	<b>ING UNIT</b>	S GAS	/ELEC	TRIC																	
	BASIS OF	DESIGN								coo	LING CAF	PACITY			H	EATING CAP	ACITY				ELECTRIC	CAL DATA		
MARK	MANUFACTURER	MODEL NUMBER	LOCATION	AREA AND/OR BLDG SERVED	TYPE	TOTAL SUPPLY AIR FLOW	MIN. OUTSIDE AIR FLOW	PRESSURE	MIN TOTAL CAPACITY	MIN SENS CAPACITY	MIN	Db E	Wb	OSA DESIGN TEMP	GAS MIN. INPUT (LOW/HIGH)	MIN. NET OUTPUT (LOW/HIGH)	EAT Db	LAT Db	AIR FILTER	INDOOR FAN	UNIT PO	WER CONN	IECTION	REMARKS
						CFM	CFM	IN	мвн	MBH	120000000000000000000000000000000000000	°F	°F	°F	MBH	MBH	°F	°F		HP	MCA	PHASE	VOLT	
RTU-1	LENNOX INDUSTRIES INC.	KGB060S4B	ROOF	1ST FLOOR, EAST SIDE	PACKAGED ROOFTOP	2000 /1	335	0.6	53.0	50.4	14	80	62	96	81 / 108	65 / 86	63.7	90.6	MERV 8	1	24	3	208	1, 2, 3, 4
RTU-2	LENNOX INDUSTRIES INC.	KGB036S4B	ROOF	1ST FLOOR, WEST SIDE	PACKAGED ROOFTOP	1200	120	0.6	32.4	31.0	14	80	62	96	53 / 70	43 / 57	65.9	82.8	MERV 8	1	18	3	208	1, 2, 4
RTU-3	LENNOX INDUSTRIES INC.	KGB120S4B	ROOF	2ND FLOOR STORAGE	PACKAGED ROOFTOP	4000	405	0.6	95.1	88.5	12.6	80	62	96	156 / 240	124.8 / 192	62.8	87.9	MERV 8	2	43	3	208	1, 2, 3, 4

#### REMARKS:

- 1. FURNISH WITH FACTORY INSTALLED SENSIBLE ECONOMIZER W/ HOOD, WEATHERPROOF DISCONNECT, GFCI NON-POWERED, CONSTANT AIR VOLUME BELT DRIVE, BAROMETRIC RELIEF DAMPERS W/ HOOD, HINGED DOORS, AND 2" MERV 4 FILTER.
- 2. FURNISH WITH FIELD INSTALLED 18" DNFLOW HYBRID CURB, COMMERCIAL PROGRAMMABLE THERMOSTAT MODEL # CS7500, HAIL/COIL GUARD, AND QTY. 4 MERV 8 FILTERS.
- 3. FURNISH WITH RETURN AIR SMOKE DETECTOR KIT
- 4. FURNISH WITH AUTOMATIC 7-DAY PROGRAMMABLE ELECTRONIC THERMOSTAT. CONTROLS SHALL HAVE 5 DEGREE DEADBAND, AUTO SETBACK, AND MANUAL OVERRIDE.

LOW	INTENSIT	Y RADIA	ANT T	UBE H	EATER S	CHE	DULE									
	BASIS OF D	DESIGN											ELECTRIC	AL		
MARK	MANUFACTURER	MODEL NUMBER	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	MAX INPUT	NATURAL GAS MAX SUPPLY PRESSURE	FUEL	STRAIGHT LENGTH	WEIGHT	IGNITION POWER	RUNNING POWER	PHASE	VOLT	REMARKS
							MBH	IN WG			LBS	AMP	AMP	1		
RH-1	DETROIT RADIANT PRODUCTS CO.	DET3-50-150	CEILING	MACHINE SHOP	SPACE HEATING	GAS-FIRED INFRARED STRAIGHT	150	14	NG	50'-9"	235	1.7	1.1	1	120	1, 4
RH-2	DETROIT RADIANT PRODUCTS CO.	DET3-50-150	CEILING	WELDING SHOP	SPACE HEATING	GAS-FIRED INFRARED STRAIGHT	150	14	NG	50'-9"	235	1.7	1.1	1	120	2, 4
RH-3, RH-4, RH-5, RH-6	DETROIT RADIANT PRODUCTS CO.	DET3-20-65	CEILING	WELDING SHOP	SPACE HEATING	GAS-FIRED INFRARED U-BEND	65	14	NG	21'-9"	150	1.7	1.1	1	120	3, 4

#### REMARKS:

3. DISCONNECT SWITCH FURNISHED BY MC AND INSTALLED BY EC.

2. FURNISH WITH SINGLE POLE INTERNAL THERMOSTAT (P/N: UHMT1), AND MOUNTING BRACKET (P/N: B10).

4. HANGING MATERIALS FURNISHED AND INSTALLED BY MC.

- 1. FURNISH WITH 4" ROOFTOP VENT PACKAGE, REFLECTOR AND SINGLE MOUNTING BRACKETS.
- FURNISH WITH 4" ROOFTOP VENT PACKAGE, REFLECTOR AND SINGLE MOUNTING BRACKETS. FURNISH WITH 45 DEGREE ANGLE MOUNTING BRACKET.
   FURNISH WITH 4" ROOFTOP VENT PACKAGE, REFLECTOR AND 'U' BEND PACKAGE, SINGLE MOUNTING BRACKETS, AND 180 DEGREE 4" RADIANT 'U' BEND.
- 4. FURNISH AND INSTALL MFG THERMOSTAT PART NUMBER TH-BR52 AND 120V/24V 40VA XFRMR. WHERE TWO HEATERS ARE LOCATED IN THE SAME AREA WIRE TO OPERATE BOTH UNITS IN PARALLEL FROM THE SAME THERMOSTAT.

FUEL	FIRED U	NIT HEAT	ER SO	CHEDU	LE													
	BASIS OF	DESIGN		AREA AND/OR		AIR FLOW	EAT	INPUT	OUTPUT	EFF.	TEMP. RISE			ELECTRIC	ΔI		WEIGHT	
MARK	MANUFACTURER	MODEL NUMBER	LOCATION	AREA AND/OR BLDG SERVED	FUEL	AIKTEOW		CAPACITY	CAPACITY	<b>L</b> 11.	TEMIT . KISE			LLLO INIO	-		WEIGHT	REMARKS
	WANDFACTOREK	MODEL NUMBER				CFM	°F	MBH	MBH	%	°F	HP	VOLT	PHASE	FLA	MOCP	LBS.	
UH-1 / UH-2	REZNOR	UDAP-60	CEILING	STORAGE	GAS	769	67	58.2	48.3	83	60	0.06	120	1	2.4	15	67	1, 2, 3, 4
R	EMARKS:		- <del>1</del>		*	•		d.	is A		<i></i>			20	8)	T.S.	*	
1	SCHEDULED OUTPUT RA	TING HAS BEEN DERATED	FOR 2800' ELEV	/ATION.														
2	. ELECTRONIC SPARK IGN	ITION, CL-18 THERMOSTAT	ГКП.															

MARK	BASIS O	F DESIGN	LOCATION	AREA AND/OR BLDG	TYPE	AIR FLOW	EAT	ELEC	MIN CAPACITY		POWER		REMARK
WAKK	MANUFACTURER	MODEL NUMBER	LOCATION	SERVED	ITPE	CFM	°F	KW ,	втин	AMP	PHASE	VOLT	KEWIAKK
EH-1	QMARK	CWH1101DS	WALL	OFFICE RESTROOM	ELEC.	65	67	1	3413	8.4	1	120	1
EH-2	QMARK	CWH1101DS	WALL	UTILITY CLOSET 106	ELEC.	65	67	1_	3413	8.4	1_	120	1
EH-3	OMARK	MUH108	WALL	RECEIVING AREA 105	FLEC	650	67	10	34121	48		208	2
(E) UH	QMARK	MOHIOZ	WALL	RECEIVING AREA 105	ELEC:			7.5	25613	<b>────────────────────────────────────</b>		208	

POST ENGLISH E

EUSSELL C. PPATT, P.E.

200 BROAD STREET
BOISE, IDAHO 83702
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CE BLDG UPGRADI GARDEN

TTD DIST 3 MAINTE 5800 COFFEY STREET

FOR CONSTRUCTION 6/25/18

 PROJECT
 DATE

 18059.00
 5-2-18

 DRAWN
 CHECKED

 RLM
 RCP

ADDENDUM NO. ONE
05-15-18

ADDENDUM NO. FIVE
06-06-18

SHFFT TITLE

HVAC SCHEDULES

M70

RIGINAL SHEET SIZE



WAI	LL LOUV	ERS												
MA DIC	BASIS OF	DESIGN	LOCATION	OVOTEM AND/OD OFFWAR	TVDE	ADDITION	WIDTH	HEIGHT	FRAME DEPTH	FREE AREA	AIR FLOW	APD	DAMBED TYPE	DEM A DICO
MARK	MANUFACTURER	MODEL NUMBER	LOCATION	SYSTEM AND/OR SERVICE	TYPE	APPLICATION	IN	IN	IN	FT <sup>2</sup>	CFM	IN	DAMPER TYPE	REMARKS
LV-1	RUSKIN	ELF375DX	WALL	RECEIVING AREA	INTAKE	DUCTED	36	18	4	2.06	930	0.043	BACKDRAFT	1
	RUSKIN	ELF375DX	WALL	SECURE STORAGE	INTAKE	DUCTED	18	18	4	0.97	430	0.042	BACKDRAFT	
	REMARKS:													
	1. FURNISH WITH 120V MOT	ORIZED BACKDRAFT DAM	PER, ALUMINUM II	NSECT SCREEN.										

VEHI	CLE / WELDING EX	(HAUST S	YSTEM S	CHED	JLE	
	RASIS OF DESIGN		FAN ROTATION AND	AIRFI OW	TSP	

	RASIS O	F DESIGN		FAN ROTATION AND	AIRFLOW	TSP				MOTOR EL	<b>ECTRICAL</b>	-	
MARK	BASIS S	I DESIGN	LOCATION	DISCHARGE	AIRI LOVV	131	ROT	DIS.	HP	FLA	PHASE	VOLT	REMARKS
	MANUFACTURER	MODEL NUMBER		DISCHARGE	CFM	IN			ПР	FLA	PHASE	VOLI	
VE-1 to VE-5	VENTAIRE	PW11-1	LIGHT MAINTENANCE	CCW-THD	635	3	ccw	THD	1.0	12.4	1	120	1,2,3
VE-6 to VE-8	VENTAIRE	PW11-3	HEAVY MAINTENANCE	CCW-THD	635	3	ccw	THD	1.0	12.4	1	120	1,2,3
WE-1 / WE-2	VENTAIRE	PW11-1	WELDING SHOP	CCW-THD	635	3	ccw	THD	1.0	12.4	1	120	1,2,3

- 1. FURNISH WITH SET OF 4 VIBRATION ISOLATORS, NON-FUSED DISCONNECT SWITCH (25A), FAN STARTER W/ OVERLOAD PROTECTION (1 HP MAX).
- 2. FURNISH WITH RPS STANDARD ROUND DUCT ROOF SUPPORTS MODEL ER-3A.
- 3. FAN FURNISHED WITH BACKDRAFT DAMPER.
- 4. CONTRACTOR TO FURNISH FIELD FABRICATED RAIN HOOD.

	BASIS O	F DESIGN				AIR	TOD									M	OTOR ELEC	CTRICAL			
MARK	MANUFACTURER <sub>A</sub>	MODEL NUMBER	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	FLOW	TSP	WHEEL	CLASS	ARRANGEMENT, ROTATION, AND	DIAMETER	DRIVE	FAN	FAN MAX	NOMINAL	POWER	PHASE	VOLT	RPM	SPEED	REMARKS
	MANUFAC TURER	MODEL NUMBER				CFM	IN	WHEEL	CLASS	DISCHARGE	(IN)	DRIVE	RPM	RPM	ВНР	HP	FRASE	VOLI	KFW	CONTROL	
EF-1 / EF-2	соок	ACRU-B 120R2B	ROOF	STORAGE	GENERAL EXHAUST	1000	0.25	CENTRIFUGAL	1	BACKWARD INCLINED, UPBLAST	30-3/16	BELT	1181	1671	0.127	1/6	1	120	1725	N/A	1, 2
EF-3	соок	ACRU-B 120R2B	ROOF	GARAGE	GENERAL EXHAUST	1 720	0.25	CENTRIFUGAL	1	BACKWARD INCLINED, UPBLAST	30-3/16	BELT	1 960	1671	0.07	1/6 1	1	120	1725	N/A	1, 2
EF-4	COOK	ACE-B 120C3B	ROOF	RESTROOMS	GENERAL EXHAUST	1110	0.5	CENTRIFUGAL	1	BACKWARD INCLINED, DOWNBLAST	28-7/16	BELT	1357	1669	0.19	1/4	1	120	1725	N/A	1, 2
EF-5	COOK	30 XMWH	WALL	LIGHT MAINT.	CO EXHAUST	6240	0.25	STEEL PROPELLER	1	X-STREAM STEEL PROPELLER	33-3/8	BELT	756	1175	0.571	3/4	1	120	1725	N/A	1, 3
EF-6	COOK	24 XMWH	WALL	HEAVY MAINT.	CO EXHAUST	4460	0.25	STEEL PROPELLER	1	X-STREAM STEEL PROPELLER	27-3/8	BELT	1044	1920	0.441	1/2	1	120	1725	N/A	1, 3
EF-7	COOK	ACRU-B 100R2B	ROOF	SHOP	GENERAL EXHAUST	310	0.15	CENTRIFUGAL	1	BACKWARD INCLINED, UPBLAST	25-3/16	BELT	843	2002	0.02	1/6	1	120	1725	N/A	1, 2
EF-8	соок	ACW-B 210W6B	WALL	MACH. SHOP	CO EXHAUST	4600	0.25	CENTRIFUGAL	1	BACKWARD INCLINED	41	BELT	859	1227	0.693	3/4	1	120	1725	N/A	1, 3
EF-9	соок	ACRU-B120R3B	ROOF	RECEIVING	GENERAL EXHAUST	930	0.5	CENTRIFUGAL		BACKWARD INCLINED, UPBLAST	30-3/16	BELT	1295	1671	0.171	1/4	1	120	1725	N/A	1, 2

1. SIZED FOR USE AT ALTITUDE OF 2800'.

2. FURNISH WITH NEMA 1 STANDARD DISCONNECT, GRAVITY BACKDRAFT DAMPER, AND GALVANIZED STEEL ROOF CURB.

3. FURNISH WITH NEMA 1 STANDARD DISCONNECT, MOTORIZED DISCHARGE SHUTTER, WALL COLLAR, AND WEATHER HOOD.

NIA		DD SCHE	DULE	<b>_</b> I	ı					1	
MARK	BASIS O	F DESIGN	LOCATION	SYSTEM AND/OR SERVICE	TYPE	APPLICATION	THROAT SIZE	AIR FLOW	APD	DAMPER TYPE	REMARKS
WAIN	MANUFACTURER	MODEL NUMBER	LOCATION	O TO TENT AND/OR SERVICE	''''	AFFLICATION	IN	CFM	IN	DAWIFERTIFE	KLWAKKO
1-1 / IH-2	COOK	12X24GR	ROOF	STORAGE	GRAVITY RELIEF	DUCTED	12 x 24	1000	0.011	BACKDRAFT	1
1-3 / IH-4	COOK	16X24GR	ROOF	WELDING/MACHINE SHOP	GRAVITY RELIEF	DUCTED	16 x 24	2300	0.034	BACKDRAFT	1

MARK	BASIS OF	FDESIGN	DIAMETER	LOCATION	MAX SPEED	PHASE	VOLT	RATED	WEIGHT	REMARKS
WARN	MANUFACTURER	MODEL NUMBER	(FT)	LOCATION	(RPM)	FHASE	VOLI	CURRENT	(LBS)	KEWAKKS
CF-1 to CF-4	BIG ASS FANS	ESSENCE	10	MAINT/REPAIR SHOP	107	1	208	3.4	81	1
CF-5 to CF-10	BIG ASS FANS	ESSENCE	8	WELD/MACHINE SHOP	158	1	208	3.6	75	1

(E) PROVY MANTERVICE  TORRESPONDE SERVICE  (B) LIGHI MARKH MANTERVICE  (C) STORAGE SERVICE  (C) STORAGE  (C)	ZONE & AREA	OCCUPANCY CATEGORY	NET AREA SO	AREA OUTDOOR AIR RATE CFM/SQ. FT.		NO. OF PEOPLE	PEOPLE OUTDOOR AIR RATE CFM/PERSON	CODE REQ'D BASED ON PEOPLE CFM	TOTAL OA REQUIRED BY CODE CFM	ZONE AIR DIST. EFF. (2015 IMC)	SPACE OUTDOOR AIR CFM	DESIGN OSA PROVIDED CFM	REMARKS
Committee   Comm	(E) HEAVY MAINTENANCE	STORAGE-REPAIR GARAGE	5941			3		30	387	0.8	484	484	EXHAUST AT 0.05 CFM/SF CONTINU 0.75 CFM/SF WITH CO SENSOR
(c) Practis Stromage West   Stromage   558   0.12   57   0   5   0   107   0.8   84   1000   Exhaust low, year by (c) Maderial since   METAL Since   1737   0.18   313   1   10   10   323   0.8   404	(E) LIGHT MAINTENANCE	STORAGE-REPAIR GARAGE	8178	0.06	491	3	10	30	521	0.8	651	651	EXHAUST AT 0.05 CFM/SF CONTINU 0.75 CFM/SF WITH CO SENSOR
(E) MACHINE SHOP	(E) PARTS STORAGE WEST	STORAGE	562	0.12	68	0	5	0	68	0.8	85	1000	EXHAUST ONLY, VENT BY TRANS
(E) MELLING SHOP  MELAL SHOP	(E) PARTS STORAGE WEST	STORAGE	558	0.12	67	0	5	0	67	0.8	84	1000	EXHAUST ONLY, VENT BY TRANS
(E) MACHINE SHOP METAL SHOP 1451 0.18 328 1 10 10 3.8 0.8 873 6.7 0.75 CHAPS MITH COS (E) MACHINE SHOP METAL SHOP 1451 0.18 262 1 10 10 10 272 0.8 340 340 240 ENAUST AT 0.05 CHAPS TO CO.7.5 CHAPS TWITH COS (E) CPRICE SPACE 489 0.06 27 3 5 13 42 0.8 53 ENAUGH COS (E) CRESTROOM RESTROOMS 43 0 0 0 0 0 0 0 0 0 0.8 0 ENHAUST ORLY, VENT BY 1 0.05 CHAPS TO COS (E) CPRICE SPACE 99 0.00 6 1 5 5 11 0.8 14 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 120 0.06 9 0 5 0 9 0.8 11 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 120 0.06 8 1 5 5 13 0.8 16 235 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 120 0.06 8 1 5 5 13 0.8 16 235 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 120 0.06 8 1 5 5 13 0.8 16 235 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 120 0.06 8 1 5 5 13 0.8 16 235 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 120 0.06 8 1 5 5 13 0.8 16 235 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 120 0.06 8 1 5 5 13 0.8 16 235 ENHAUST ORLY, VENT BY 1 0.00 CHAPS TO CASE SPACE 121 0.00 CHAPS TO CASE SPACE 122 0.00 CHAPS TO CASE SPACE 123 0.00 CHAPS TO CASE SPACE 124 0.00 CHAPS TO CASE SPACE	(E) MACHINE SHOP	METAL SHOP	1737	0.18	313	1	10	10	323	0.8	404	404	EXHAUST AT 0.05 CFM/SF CONTINU 0.75 CFM/SF WITH CO SENSOR
(e) OPFICE OFFICE SPACE 439 0.06 27 3 5 15 42 0.8 53 (E) PERMISSION PRESTROOM PRESTROOM STORAGE ROOM 55 0.2 7 0 5 0 9 0.8 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(E) WELDING SHOP	METAL SHOP	2933	0.18	528	1	10	10	538	0.8	673	673	EXHAUST AT 0.05 CFM/SF CONTINU 0.75 CFM/SF WITH CO SENSOR
(e) RESTROOMS	(E) MACHINE SHOP	METAL SHOP	1451	0.18	262	1	10	10	272	0.8	340	340	EXHAUST AT 0.05 CFM/SF CONTINU 0.75 CFM/SF WITH CO SENSOR
(E) OFFICE SPACE 94 0.06 6 1 5 5 11 0.8 14  (E) JAINTOR STORAGE RXXM 55 0.12 7 0 5 0 7 0.8 9  (P) HECTRIC RXXM XXC STORAGE RXXM 139 0.06 9 0 5 0 9 0.8 11  OFFICE 111 OFFICE SPACE 191 0.96 12 1 5 5 17 0.8 21  OFFICE 112 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 113 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 114 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 115 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 116 OFFICE SPACE 127 0.96 13 1 5 5 18 0.8 23  LIFT GENERAL-CORRIDOR 114 0.06 7 0 0 0 7 0.8 9  SUPPLY LODBY MISC-WAREHOUSE 167 0.06 11 1 1 10 10 21 0.8 26  OPEN STORAGE MISC-WAREHOUSE 1249 0.06 75 2 10 20 95 0.8 119  (E) LICKER/RESTROOM LOCKER/DOMS 400 0 0 0 0 0 0 0 0.8 0 EXHAUST ONLY, VENT BY TO STORAGE 120 OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) LICKER/RESTROOM LOCKER/DOMS 400 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(E) OFFICE	OFFICE SPACE	439	0.06	27	3	5	15	42	0.8	53		
(6) JANITOR STORAGE ROOM 55 0.12 7 0 5 0 7 0.8 9 ENAUST ONLY, VENT BY 1 (5) ELECTRIC ROOM OCC STORAGE ROOM 139 0.06 9 0 5 0 9 0.8 11   OFFICE 511 OFFICE SPACE 191 0.06 12 1 5 5 17 0.8 21  OFFICE 112 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 113 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 114 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 115 OFFICE SPACE 211 0.06 13 1 5 5 18 0.8 23   LIFT GENERAL-CORRIDOR 114 0.06 7 0 0 0 7 0.8 9 9  SUPPLY LOBBY MISC-WARREHOUSE 167 0.06 11 1 1 0 10 21 0.8 26  OPEN STORAGE MISC-WARREHOUSE 1249 0.06 75 2 10 20 95 0.8 119  (E) LUNCH ROOM BEAKROOM 376 0.06 23 6 5 30 53 0.8 66 (C) LUNCH ROOM BEAKROOM 376 0.06 6 1 5 5 11 0.8 14  (E) ELECTRIC SHOP OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) SECOND FLOOR FILE MISC-WARREHOUSE 5336 0.06 324 0 10 0 324 0.8 405 405	(E) RESTROOM	RESTROOMS	43	0	0	0	0	0	0	0.8	0		EXHAUST ONLY, VENT BY TRANS
(E) ELECTRIC ROOM	(E) OFFICE	OFFICE SPACE	94	0.06	6	1	5	5	11	0.8	14		
OFFICE 111 OFFICE SPACE 191 0.06 12 1 5 5 17 0.8 21 OFFICE 112 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16 OFFICE 113 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16 OFFICE 114 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16 OFFICE 115 OFFICE SPACE 211 0.06 13 1 5 5 13 0.8 16 OFFICE 115 OFFICE SPACE 211 0.06 13 1 5 5 18 0.8 23 LIFT GENERAL:CORRIDOR 114 0.06 7 0 0 0 7 0.8 9 SUPPLY LOBBY MISC-WAREHOUSE 167 0.06 11 1 1 10 10 21 0.8 26 OPEN STORAGE MISC-WAREHOUSE 1249 0.06 75 2 10 20 95 0.8 119 (E) LUNCH ROOM BREAKROOM 376 0.06 23 6 5 30 53 0.8 66 (E) LOCKERYRESTROOM LOCKER ROOMS 400 0 0 0 0 0 0 0.8 0 EXHAUST ONLY, VENT BY 1 (E) ELECTRIC SHOP OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14 (E) ODLS OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14 (E) SECOND FLOOR FILE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405 405	(E) JANITOR	STORAGE ROOM	55	0.12	7	0	5	0	7	0.8	9		EXHAUST ONLY, VENT BY TRANS
OFFICE 111 OFFICE SPACE 191 0.06 12 1 5 5 17 0.8 21 OFFICE 112 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16 OFFICE 113 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16 OFFICE 114 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16 OFFICE 115 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16 OFFICE 115 OFFICE SPACE 211 0.06 13 1 5 5 18 0.8 23  LIFT GENERAL:CORRIDOR 114 0.06 7 0 0 0 7 0.8 9 SUPPLY LOBBY MISC-WAREHOUSE 167 0.06 11 1 1 10 10 21 0.8 26 OPEN STORAGE MISC-WAREHOUSE 1249 0.06 75 2 10 20 95 0.8 119  (E) LUNCH ROOM BREAKROOM 376 0.06 23 6 5 30 53 0.8 66 (E) LUNCH ROOM BREAKROOM 376 0.06 6 1 5 5 11 0.8 14  (E) COCKER/RESTROOM LOCKER ROOMS 400 0 0 0 0 0 0 0 0.8 0 EXHAUST ONLY, VENT BY 1 0.8 14  (E) TOOLS OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) SECOND FLOOR FILE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405 405	` '	OCC STORAGE ROOM	139	0.06	9	0	5	0	9	0.8	11		
OFFICE 113 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 114 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 115 OFFICE SPACE 211 0.06 13 1 5 5 18 0.8 23  LIFT GENERAL:CORRIDOR 114 0.06 7 0 0 0 0 7 0.8 9  SUPPLY LOBBY MISC-WAREHOUSE 167 0.06 11 1 10 10 21 0.8 26  OPEN STORAGE MISC-WAREHOUSE 1249 0.06 75 2 10 20 95 0.8 119  (E) LUNCH ROOM BREAKROOM 376 0.06 23 6 5 30 53 0.8 66  (E) LOCKER/RESTROOM LOCKER ROOMS 400 0 0 0 0 0 0 0.8 0 EXHAUST ONLY, VENT BY 1 0.8 14  (E) ELECTRIC SHOP OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) TOOLS OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) SECOND FLOOR FILE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405 405			L	0.06	12	1	5	5	17	0.8	21		
OFFICE 114 OFFICE SPACE 126 0.06 8 1 5 5 13 0.8 16  OFFICE 115 OFFICE SPACE 211 0.06 13 1 5 5 18 0.8 23  LIFT GENERAL:CORRIDOR 114 0.06 7 0 0 0 7 0.8 9  SUPPLY LOBBY MISC-WAREHOUSE 167 0.06 11 1 10 10 21 0.8 26  OPEN STORAGE MISC-WAREHOUSE 1249 0.06 75 2 10 20 95 0.8 119  (E) LUNCH ROOM BREAKROOM 376 0.06 23 6 5 30 53 0.8 66  (E) LOCKER/RESTROOM LOCKER ROOMS 400 0 0 0 0 0 0 0.8 0 EXHAUST ONLY, VENT BY TO SECOND FLOOR FILE STORAGE 90 0.06 6 1 5 5 11 0.8 14  (E) TOOLS OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) SECOND FLOOR FILE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405 405	OFFICE 112	OFFICE SPACE	126	0.06	8	1	5	5	13	0.8	16	335	
OFFICE 115 OFFICE SPACE 211 0.06 13 1 5 5 18 0.8 23  LIFT GENERAL:CORRIDOR 114 0.06 7 0 0 0 0 7 0.8 9  SUPPLY LOBBY MISC-WAREHOUSE 167 0.06 11 1 10 10 21 0.8 26  OPEN STORAGE MISC-WAREHOUSE 1249 0.06 75 2 10 20 95 0.8 119  (E) LUNCH ROOM BREAKROOM 376 0.06 23 6 5 30 53 0.8 66  (E) LOCKER/RESTROOM LOCKER ROOMS 400 0 0 0 0 0 0 0.8 0 120  (E) ELECTRIC SHOP OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) TOOLS OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) SECOND FLOOR FILLE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405 405	OFFICE 113	OFFICE SPACE	126	0.06	8	1	5	5	13	0.8	16	•	
LIFT         GENERAL:CORRIDOR         114         0.06         7         0         0         0         7         0.8         9           SUPPLY LOBBY         MISC-WAREHOUSE         167         0.06         11         1         10         10         21         0.8         26           OPEN STORAGE         MISC-WAREHOUSE         1249         0.06         75         2         10         20         95         0.8         119           (E) LUNCH ROOM         BREAKROOM         376         0.06         23         6         5         30         53         0.8         66           (E) LOCKER/RESTROOM         LOCKER ROOMS         400         0         0         0         0         0         0.8         0           (E) ELECTRIC SHOP         OFFICE SPACE         90         0.06         6         1         5         5         11         0.8         14           (E) SECOND FLOOR FILE STORAGE         MISC-WAREHOUSE         5396         0.06         324         0         10         0         324         0.8         405         405	OFFICE 114	OFFICE SPACE	126	0.06	8	1	5	5	13	0.8	16	•	
SUPPLY LOBBY         MISC-WAREHOUSE         167         0.06         11         1         10         10         21         0.8         26           OPEN STORAGE         MISC-WAREHOUSE         1249         0.06         75         2         10         20         95         0.8         119           (E) LUNCH ROOM         BREAKROOM         376         0.06         23         6         5         30         53         0.8         66           (E) LOCKER/RESTROOM         LOCKER ROOMS         400         0         0         0         0         0         0.8         0           (E) ELECTRIC SHOP         OFFICE SPACE         90         0.06         6         1         5         5         11         0.8         14           (E) TOOLS         OFFICE SPACE         90         0.06         6         1         5         5         11         0.8         14           (E) SECOND FLOOR FILE SPACE         90         0.06         324         0         10         0         324         0.8         405         405	OFFICE 115	OFFICE SPACE	211	0.06	13	1	5	5	18	0.8	23	•	
OPEN STORAGE         MISC-WAREHOUSE         1249         0.06         75         2         10         20         95         0.8         119           (E) LUNCH ROOM         BREAKROOM         376         0.06         23         6         5         30         53         0.8         66           (E) LOCKER/RESTROOM         LOCKER ROOMS         400         0         0         0         0         0         0.8         0         EXHAUST ONLY, VENT BY TO	LIFT	GENERAL:CORRIDOR	114	0.06	7	0	0	0	7	0.8	9	•	
(E) LUNCH ROOM BREAKROOM 376 0.06 23 6 5 30 53 0.8 66  (E) LOCKER/RESTROOM LOCKER ROOMS 400 0 0 0 0 0 0 0.8 0 EXHAUST ONLY, VENT BY TO STORAGE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405 405	SUPPLY LOBBY	MISC-WAREHOUSE	167	0.06	11	1	10	10	21	0.8	26		
(E) LUNCH ROOM         BREAKROOM         376         0.06         23         6         5         30         53         0.8         66           (E) LOCKER/RESTROOM         LOCKER ROOMS         400         0         0         0         0         0         0.8         0           (E) ELECTRIC SHOP         OFFICE SPACE         90         0.06         6         1         5         5         11         0.8         14           (E) TOOLS         OFFICE SPACE         90         0.06         6         1         5         5         11         0.8         14           (E) SECOND FLOOR FILE STORAGE         MISC-WAREHOUSE         5396         0.06         324         0         10         0         324         0.8         405         405	<b>N</b>	MISC-WAREHOUSE	1249	0.06	75	2	10	20	95	0.8	119		
(E) ELECTRIC SHOP OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) TOOLS OFFICE SPACE 90 0.06 6 1 5 5 11 0.8 14  (E) SECOND FLOOR FILE SECOND FLOOR FILE STORAGE 5396 0.06 324 0 10 0 324 0.8 405 405		BREAKROOM	376	0.06	23	6	5	30	53	0.8	66		
(E) ELECTRIC SHOP         OFFICE SPACE         90         0.06         6         1         5         5         11         0.8         14           (E) TOOLS         OFFICE SPACE         90         0.06         6         1         5         5         11         0.8         14           (E) SECOND FLOOR FILE STORAGE         MISC-WAREHOUSE         5396         0.06         324         0         10         0         324         0.8         405	(E) LOCKER/RESTROOM	LOCKER ROOMS	400	0	0	0	0	0	0	0.8	0	400	EXHAUST ONLY, VENT BY TRANS
(E) SECOND FLOOR FILE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405 405 STORAGE	(E) ELECTRIC SHOP	OFFICE SPACE	90	0.06	6	1	5	5	11	0.8	14	120	
STORAGE MISC-WAREHOUSE 5396 0.06 324 0 10 0 324 0.8 405	(E) TOOLS	OFFICE SPACE	90	0.06	6	1	5	5	11	0.8	14		
		MISC-WAREHOUSE	1			1 0 1					I		
	A .												EXHAUST ONLY, VENT BY TRANS
UTILITY CLOSET 106         UTILITY ROOM         47         0         0         0         0         0         0         0         0         0	UTILITY CLOSET 106	UTILITY ROOM	47	0	0	0	0	0	0	0	0	0	

1. FURNISH WITH 120V MOTORIZED BACKDRAFT DAMPER, GALVANIZED STEEL ROOF CURB, AND ALUMINUM INSECT SCREEN.

	BASIS O	F DESIGN		AIR I	AIR FLOW MAX	PANEL/ FRAME I	NECK SIZE						
MARK	BASIS O	DESIGN	TYPE	MIN	MAX	APD	MOUNTING	SIZE	NECK SIZE	NC NC	DAMPER	FINISH	REMARKS
	MANUFACTURER	MODEL NUMBER	]	CFM	CFM	IN WG		IN x IN	IN				
SR-1	TITUS	300RS	SUPPLY REGISTER	50	135	0.090	DUCT	8 x 8	6 x 6	20	NONE	WHITE	1
SR-2	TITUS	300RS	SUPPLY REGISTER	150	200	0.060	DUCT	10 x 8	8 x 6	17	NONE	WHITE	1
SR-3	TITUS	300RS	SUPPLY REGISTER	200	300	0.070	DUCT	12 x 8	10 x 6	18	NONE	WHITE	1
SR-4	TITUS	300RS	SUPPLY REGISTER	400	500	0.070	DUCT	14 x 12	12 x 10	21	NONE	WHITE	1 ^
											~~	1	1
EG-1	TITUS	350RL	EXHAUST REGISTER	50	135	0.090	DUCT	8 x 8	6 x 6	20	OBD	WHITE	2.4
EG-2	TITUS	350RL	EXHAUST REGISTER	50	135	0.090	WALL	8 x 8	6 x 6	20	OBD	WHITE	2.4
EG-3	TITUS	350RL	EXHAUST REGISTER	350	500	0.030	DUCT	14 x 14	12 x 12	19	OBD	WHITE	2.4
EC4	PIUS	50E	EXHAUST REGISTER	800	1000	0 090	DUCT	20 x 14	18 x 12	19	OBD	WHITE	24
EG-5	TITUS	350RL	EXHAUST REGISTER	400	500	0.090	DUCT	12 x 12	10 x 10	20	OBD	WHITE	2(4)
				<b>~</b>		<b>10000</b>							
RG-1	TITUS	350RL	RETURN REGISTER	250	350	0.07	DUCT	12 x 12	10 x 10	20	NONE	WHITE	2
RG-2	TITUS	350RL	RETURN REGISTER	450	530	0.07	DUCT	14 x 14	12 x 12	19	NONE	WHITE	2
RG-3	TITUS	350RL	RETURN REGISTER	950	1250	0.07	DUCT	20 x 20	18 x 18	21	NONE	WHITE	2
RG-4	TITUS	350RL	RETURN REGISTER	1550	1850	0.07	DUCT	24 x 24	22 x 22	24	NONE	WHITE	2
RG-5	TITUS	350RL	RETURN REGISTER	4000	4500	0.07	DUCT	26 x 50	24 x 48	22	NONE	WHITE	2
TG-1	TITUS	350RL	TRANSFER GRILLE	150	250	0.07	WALL	10 x 10	8 x 8	16	NONE	WHITE	2
TG-2	TITUS	350RL	RETURN REGISTER	450	530	0.07	WALL	14 x 14	12 x 12	19	NONE	WHITE	2
CD-1	TITUS	TDCA	SUPPLY DIFFUSER	150	250	0.142	LAY-IN	9 x 9	8" Ø	22	NONE	WHITE	

1. SEE DETAIL FOR DAMPER IN BRANCH DUCT SERVING EACH DIFFUSER.

35° DEFLECTION. FURNISH WITH BLADES PARALLEL TO THE LONG DIMENSION.
 BORDER TYPE SHALL BE COMPATIBLE WITH THE ARCHITECTURAL CEILING TYPE. PROVIDE 24X24 LAY-IN MODULE FRAME FOR CEILING GRID.

Mechanical Plan Review: APPROVED with Conditions

1. An air balance report shall be provided to the HVAC Inspector prior to final inspection in order to verify that adequate makeup air has been provided for all exhaust equipment as per Seciton 403.7 of the 2012 IMC as well as reflecting adequate ventilation for the Repair Shop Areas in accordance with Table 403.3 of the 2012 IMC.

- 2. Ensure that all gas fired equipment within the shop areas have been supplied with adequate combustion air in accordance with Section 304 of the 2012 IFGC, accounting for all exhaust equipment where fuel fired gas equipment exist.
- 3. Final approval shall be based upon HVAC inspection for adherence to the 2012 IMC, 2012 IFGC, Idaho Statute Title 54 Chapter 50, stamped approved plans and manufacturers installation instructions.



CONSTRUCTION 6/25/18

PROJECT 18059.00 5-2-18 DRAWN CHECKED RCP

ADDENDUM NO. ONE 05-15-18 ADDENDUM NO. FIVE 06-06-18

**HVAC** & INSULATION SCHEDULES

M71



#### SYMBOLS

CONDUIT CONTINUATION	<u> </u>	EMERGENCY EXIT SIGN WITH BATTERY BACKUP: SHADED QUARTER OF SYMBOL INDICATES LIGHTED 'EXIT' ON THAT
CONDUIT CONCEALED IN WALL OR CEILING		ARROWS INDICATE LIGHTED DIRECTIONAL ARROW ON THAT FACE. CONNECT TO UNSWITCHED LOCAL LIGHTING CIRCUIT
CONDUIT EXISTING	22	EMERGENCY LIGHTING (SURFACE, RECESSED)
CONDUIT CONCEALED UNDERGROUND		CONNECT TO UNSWITCHED LOCAL LIGHTING CIRCUIT
HOMERUN	0	FIXTURES WITH HALF-SHADING ARE EMERGENCY LIGHTS WITH BATTI BACKUP. BATTERY BACKUP SHALL PROVIDE MINIMUM 1100 LUMEN
CONDUIT STUB DOWN STUB THROUGH	<b>D</b>	FIXTURE FOR 90 MINUTES. EMERGENCY BATTERY UNIT SHALL BE CONNECTED TO UNSWITCHED LOCAL LIGHTING CIRCUIT. EMERGENC
CONDUIT STUB UP		FIXTURES SHALL BE NIGHT LIGHTS CONNECTED FOR 24 HOUR OPE UON. EMERGENCY FIXTURES WITH AN 'EM' DESIGNATION SHALL B
JUNCTION BOX (NEW, EXISTING, DEMO)		SWITCHED WITH ROOM LIGHTS (ON AT LOSS OF POWER ONLY).
ELECTRICAL DISTRIBUTION PANELBOARD	0	FLUORESCENT LIGHT FIXTURE
EQUIPMENT ENCLOSURE AS NOTED	D	FLUORESCENT STRIP FIXTURE
DUPLEX RECEPTACLE (NEW, EXISTING, DEMO)	0	PENDANT FIXTURE
DOUBLE DUPLEX RECEPTACLE		
250 VOLT RECEPTACLE:	0	RECESSED ROUND FIXTURE
COORDINATE REQUIREMENTS WITH EQUIPMENT BEING SERVED	igodot	WALL SCONCE
DUPLEX FLOOR RECEPTACLE: FLUSH WITH BRASS COVER	$\bigcirc$	WALL MOUNTED FIXTURE
FLUSH FLOOR BOX DUPLEX RECEPTACLE, COMM/DATA, A/V	<b></b>	RECESSED STEP FIXTURE
ALL RECEPTACLES:		BOLLARD FIXTURE
X = EP - EXPLOSION PROOF  GFI - GROUND FAULT INTERRUPTER	□•	POST TOP LIGHT FIXTURE, POLE, AND BASE
WP - WEATHERPROOF	XXX	LIGHT FIXTURE CALLOUT
SPECIAL ELECTRICAL CONNECTION: COORDINATE REQUIREMENTS WITH EQUIPMENT BEING SERVED	\$	SWITCH 120/277 VOLT, 20 AMP
MOTOR CONNECTION	\$ <sub>HP</sub>	HORSEPOWER RATED SWITCH WITH THERMAL OVERLOADS SIZED AS REQUIRED BY EQUIPMENT LABEL RATING.
STARTER OR CONTACTOR:	\$ <sub>x</sub>	SWITCH 120/277 VOLT, 20 AMP
SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER	10	X = 2 - DOUBLE POLE-DOUBLE THROW 3 - THREE-WAY
COMBINATION MOTOR STARTER/DISCONNECT: SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER		4 — FOUR—WAY D — DIMMER CONTROL
DISCONNECT SWITCH:		K — KEY OPERATED OS — WALL MOUNT MOTION SENSOR SWITCH WITH BY—PASS.
SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER F=FUSED, BLANK=UNFUSED		P — WITH NEON PILOT LIGHT T — SPRING WOUND 15 MINUTE COUNTDOWN TIMER
SWITCH/DISCONNECT CONFIGURATION DESIGNATION		WP — WEATHERPROOF LV — LOW VOLTAGE
 NUMBER OF POLES	(PP)	POWER CONTROLLER ENCLOSURE (POWER PACK)
 AMPERE RATING OF THE SWITCH NEMA CLASSIFICATION	©	CEILING OCCUPANCY SENSOR
THERMOSTAT OR TEMPERATURE SENSOR:	(PH)	PHOTO SENSOR, CEILING MOUNT, LINE VOLTAGE, 0-10V DIMMING,
SEE MECHANICAL DRAWINGS FOR LOCATIONS		- TELEPHONE TERMINAL BOARD (PLAN VIEW)
FURNISH AND INSTALL BACKBOX AND 1"C TO ABOVE ACCESSIBLE CEILING. COORDINATE INSTALLATION WITH MECHANICAL		SIGNAL OUTLETS SYSTEM NOTES:
DUCT TYPE SMOKE DETECTOR:		SYSTEMS ARE RACEWAY ONLY FOR THIS CONTRACTOR UON. 4" SQUARE BOX MINIMUM WITH SINGLE GANG MUD RING UON.
SEE MECHANICAL DRAWINGS FOR LOCATIONS VERIFY REQUIREMENTS WITH MECHANICAL AND FIRE PROTECTION		1" MINIMUM CONDUIT SIZE FROM BOX TO NEAREST ACCESSIBLE C
FURNISH AND INSTALL ALL ELECTRICAL REQUIRED FOR COMPLETE OPERATIONAL SYSTEM	K	TELEPHONE-DATA OUTLET
	$T_V$	TELEVISION OUTLET
SMOKE DAMPER: SEE MECHANICAL DRAWINGS FOR LOCATIONS	[· V]	· · · · · · · · · · · · · · · · · ·
VERIFY REQUIREMENTS WITH MECHANICAL AND FIRE PROTECTION FURNISH AND INSTALL ALL ELECTRICAL REQUIRED FOR COMPLETE	X	SHEET NOTE CALLOUT
OPERATIONAL SYSTEM	$\triangle$	REVISION DELTA
MECHANICAL EQUIPMENT CALLOUT		
	(E)	EXISTING DEVICE/EQUIPMENT — FOR CLARIFICATION
	(N)	NEW DEVICE/EQUIPMENT — FOR CLARIFICATION

#### **ABBREVIATIONS**

<b>#"</b> C	SIZE OF TRADE SIZE CONDUIT. $\# = 1/2$ °C, 2°C.	КО	KNOCK OUT
<i>"</i> ₽	NUMBER OF POLES. $\# = 1P, 2P, ETC$ .	KV	KILOVOLT
<i>"</i> W	NUMBER OF WIRES, $\# = 3W$ , 4W, ETC.	KVA	KILOVOLT AMPERE
Ä	AMPERE	KW	KILOWATT
AC	ALTERNATING CURRENT	KWH	KILOWATT HOUR
ADA	AMERICANS WITH DISABILITIES ACT	LV	LOW VOLTAGE
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AFG	ABOVE FINISHED GRADE	MDSB	MAIN DISTRIBUTION SWITCHBOARD
AHJ	AUTHORITY HAVING JURISDICTION	MFR	MANUFACTURER
AIC	AMPERE INTERRUPTING CAPACITY	MLO	MAIN LUG ONLY
AL	ALUMINUM	N/A	NOT APPLICABLE
ANN	ANNUNCIATOR	ŃĊ	NORMALLY CLOSED
AUX	AUXILIARY	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
СВ	CIRCUIT BREAKER	NESC	NATIONAL ELECTRICAL SAFETY CODE
CLG	CEILING	NO	NORMALLY OPEN
С	CONDUIT	NO.	NUMBER
CD	CANDELLA	NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY — AS DEFINED BY OSHA
CT	CURRENT TRANSFORMER	OC	OVER COUNTER TOP BACKSPLASH — COORDINATE INSTALLATION
CU	COPPER	0.H.	OPPOSITE HAND — MIRRORED OR ROTATED LAYOUT
DC	DIRECT CURRENT	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
DPDT	DOUBLE POLE, DOUBLE THROW	PF	POWER FACTOR
DPST	DOUBLE POLE, SINGLE THROW	PH	PHASE
EMT	ELECTRICAL METALLIC TUBING	REV	REVISION
EP	EXPLOSION PROOF	RTU	ROOF TOP UNIT
EWH	ELECTRIC WATER HEATER	SPDT	SINGLE POLE, DOUBLE THROW
F	FUSE	SPST	SINGLE POLE, SINGLE THROW
FACP	FIRE ALARM CONTROL PANEL	SST	SOFT START/STOP MOTOR STARTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SYMM	SYMMETRICAL
GFI	GROUND FAULT INTERRUPTER	TTB	TELEPHONE TERMINAL BOARD
GND	GROUND	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
HOA	HAND-OFF-AUTO	TYP	TYPICAL
HP	HORSE POWER	UON	UNLESS OTHERWISE NOTED
HVAC	HEATING VENTILATION AND AIR CONDITIONING	UPS	UNINTERRUPTABLE POWER SUPPLY
1/0	INPUT / OUTPUT	V	VOLTAGE
ÍG	ISOLATED GROUND	VA	VOLT-AMPERE
INC	INCANDESCENT	VFD	VARIABLE FREQUENCY MOTOR DRIVE
J-B0	X JUNCTION BOX	WP	WEATHERPROOF
	THOUSAND CIRCULAR MIL	XFMR	TRANSFORMER
		VED	TRANSFER OWITCH

XFR TRANSFER SWITCH

#### ELECTRICAL PLAN REVIEW NOTES: APPROVED

Approval of the submitted documentation and drawings by an Electrical Plan Review does not alleviate the contractor or individuals from adherence to the 2017 National Electrical Code and local code requirements as they are adopted. Final approval will be based upon on-site Electrical Inspections.

Electrical service equipment, panels, and overcurrent protective devices shall be in compliance with NEC 110.9 and 110.10.

NEC 110.24 (B) - When modifications occur, that effect the maximum available fault current at the service or derived services (generators/transformers), the maximum available fault current shall be verified or recalculated. The required field markings shall be adjusted to reflect the new level of maximum available fault current.

NEC 210.63 - At least one 125-volt, single-phase 15 or 20 Ampere rated receptacle outlet shall be installed at an accessible location within 25 feet of the heating, air-conditioning and refrigeration equipment.

In other than dwelling units all single-phase receptacles rated 150 volts to ground or less, 50 amperes or less and three-phase receptacles rated 150 volts to ground or less, 100 amperes or less shall have GFCI protection where applicable in accordance with NEC 210.8 (B).

#### **GENERAL NOTES:**

- A. PROPOSED MODIFICATIONS OF ENGINEERED ELECTRICAL DRAWINGS SHALL BE APPROVED BY ENGINEER OF RECORD PRIOR TO PROCEEDING WITH WORK. PROPOSED CHANGES SHALL COMPLY WITH ALL APPLICABLE CODES/JURISDICTION REQUIREMENTS. COST OF ANY ENGINEERING/REVIEW REQUIRED BY PROPOSED CHANGES SHALL BE BORNE BY ENTITY PROPOSING CHANGE.
- B. ALL EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN FULLY FUNCTIONAL, UON.
- C. CONTRACTOR SHALL COORDINATE ALL POWER OUTAGES WITH THE OWNER AND OBTAIN PERMISSION A MINIMUM OF (5) DAYS PRIOR TO REMOVAL OF POWER.
- D. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES, AND THE LIKE, SHALL BE REPAIRED OR

REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.

- E. DESIGN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE STATUS OF ACTUAL CONDITIONS AS THEY RELATE TO THE SCOPE OF WORK AS SHOWN ON THESE PLANS.
- F. DEMOLITION WORK IS A PART OF THIS PROJECT. SEE DRAWINGS FOR EXISTING ELECTRICAL DEVICES TO BE REMOVED. REMOVE ASSOCIATED BOXES, RACEWAYS AND CONDUCTORS BACK TO SOURCE, AND MAKE SAFE. RACEWAYS THAT ARE IN WALLS OR FLOORS WHICH ARE TO REMAIN SHALL BE ABANDONED IN PLACE. THE RACEWAY SHALL BE REMOVED TO BELOW THE SURFACE OF THE ASSOCIATED WALL OR FLOOR. THE RESULTING DEPRESSION SHALL BE REPAIRED TO MATCH THE ADJACENT SURFACE.
- G. CONTRACTOR SHALL DISPOSE OF THE REMOVED ELECTRICAL. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES. REUSE EXISTING CONDUITS AND JUNCTION BOXES AS IS PRACTICAL.
- H. ALL EXISTING CIRCUITS TO REMAIN THAT RUN THROUGH WALLS TO BE REMOVED SHALL BE REROUTED AND RECONNECTED. REPAIR AND PATCH ALL WALLS TO MATCH SURROUNDING SURFACES.
- I. IF A CIRCUIT TO REMAIN IS INTERRUPTED AS A RESULT OF WORK RELATING TO THIS PROJECT, THE CIRCUIT SHALL BE RE-ENERGIZED AS REQUIRED TO MAINTAIN POWER TO THE AFFECTED DEVICES.
- J. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.

GALVANIZED OR POWDER COATED, NEMA 1 TYPE, UON.

- K. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL EQUIPMENT AND DEVICES WITH THE ARCHITECTURAL ELEVATIONS AND DETAILS PRIOR TO ROUGH-IN.
- L. CONTRACTOR SHALL COORDINATE WITH WALL TYPES AND FURNISH AND INSTALL EXTENSION RINGS AS REQUIRED. (I.E. WALLS WITH TWO LAYERS OF GYP BOARD).
- M. ALL MATERIALS AND EQUIPMENT FURNISHED TO THE PROJECT SHALL BE NEW AND SHALL BEAR THE LISTING LABEL OF UNDERWRITERS LABORATORY (UL), WHERE APPLICABLE.

N. ALL ELECTRICAL BOXES, FITTINGS AND CABINETS SHALL BE OF STEEL CONSTRUCTION,

- O. EQUIPMENT REMOVED AND RELOCATED SHALL HAVE ALL CONDUCTORS AND CONDUITS LABELED IN A LOGICAL FASHION. CONTRACTOR SHALL COORDINATE WITH LABELING SCHEME FOR RECONNECTION OF EQUIPMENT.
- P. THE ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL LOADS ON EXISTING CIRCUIT(S) AND PANELBOARDS PRIOR TO MAKING ANY MODIFICATION TO ENSURE ADEQUATE CAPACITY FOR NEW DEVICES AND LIGHT FIXTURES. FURNISH AND INSTALL CIRCUIT BREAKERS OF THE SAME TYPE AND RATING IN PANELBOARD AS NEEDED.
- Q. FOR CIRCUITS THAT ARE MADE SPARE, THE CIRCUIT BREAKER SHALL REMAIN IN PLACE. THE CIRCUIT CONDUCTORS SHALL BE DISCONNECTED FROM THE CIRCUIT BREAKER AND REMOVED FROM THE RACEWAY. THE CIRCUIT BREAKER SHALL BE MARKED SPARE.

DRAWING INDEX:

E01 GENERAL SYMBOLS AND LEGEND

E03 ELECTRICAL SITE PLAN

E05A DEMOLITION PLAN ROOF

E05B DEMOLITION PLAN ROOF

E11A LIGHTING PLAN GROUND FLOOR

E11B LIGHTING PLAN GROUND FLOOR

E12 LIGHTING PLAN SECOND FLOOR

E21A POWER PLAN GROUND FLOOR

E21B POWER PLAN GROUND FLOOR

E22 POWER PLAN SECOND FLOOR

E31A MECHANICAL POWER PLAN GROUND FLOOR

E31B MECHANICAL POWER PLAN GROUND FLOOR

E32 MECHANICAL POWER PLAN SECOND FLOOR

E33A MECHANICAL POWER PLAN ROOF

E33B MECHANICAL POWER PLAN ROOF

E81 SINGLE-LINE DIAGRAM

E82 PANEL SCHEDULES

E83 PANEL SCHEDULES

E71 DETAILS

E02 SCHEDULES & COMPLIANCE FORMS

E04A DEMOLITION PLAN GROUND FLOOR

E04B DEMOLITION PLAN GROUND FLOOR



CONSTRUCTION

6/25/18

PROJECT DATE 18059.00 5-2-18 DRAWN CHECKED JLB

REVISED

SHEET TITLE **GENERAL SYMBOLS** 

AND LEGEND





Project Information

Energy Code: ITD District 3 Maintenance Building Upgrades Project Title: **New Construction** Project Type:

Designer/Contractor: Construction Site: 5800 Coffey Street Garden City, ID 83714 CSHQA 200 Broad Street Boise, ID 83702 (208) 343-4635 Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watt (B X C)
1-Parts Storage (Common Space Types:Storage >=1000 sq.ft.)	1148	0.57	654
3-Open Supply Storage (Common Space Types:Storage >=1000 sq.ft.)	1086	0.57	619
4-Lift (Common Space Types:Lobby For Elevator)	116	0.58	67
2-Receiving Area (Common Space Types:Loading Dock)	622	0.42	261
5-Supply Lobby (Common Space Types:Lobby - General)	171	0.81	139
6-Offices (Common Space Types:Office - Enclosed)	839	1.00	839
7-Break (Common Space Types:Lounge/Breakroom)	61	0.66	40
8-Janitor (Common Space Types:Storage >=50 - <=1000 sq.ft.)	60	0.57	34
9-Restrooms (Common Space Types:Restrooms)	129	0.88	114
10-Vending (Common Space Types:Lobby - General)	383	0.81	310
		Total Allowed Watts	= 3078

Relocated LED Lowbay: 4' LED Lowbay: Other:

Proposed Interior Lighting Power				
A	В	C	D	E
Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	Lamps/ Fixture	# of Fixtures	Fixture Watt.	(C X D
1-Parts Storage (Common Space Types:Storage >=1000 sq.ft.) LED Highbay: L1: LED Highbay: Other:	1	4	280	1120
3-Open Supply Storage (Common Space Types:Storage >=1000 sq.ft.) Relocated LED Lowbay: 8' LED Lowbay: Other:	1	5	65	325
Relocated LED Lowbay: 4' LED Lowbay: Other:	1	3	33	99
4-Lift (Common Space Types:Lobby For Elevator) Relocated LED Lowbay: 4' LED Lowbay: Other:	1	3	33	99
2-Receiving Area (Common Space Types:Loading Dock) Relocated LED Lowbay: 8' LED Lowbay: Other:	4	2	65	130
Relocated LED Lowbay: 4' LED Lowbay: Other:	1	2	33	66
5-Supply Lobby (Common Space Types:Lobby - General)			19/65	0.35(2)

Project Title: ITD District 3 Maintenance Building Upgrades Report date: 06/01/18 Data filename: Q:\2018\18059.0\Elec\04\_Calcs\COMcheck\18059 COMcheck.cck Page 1 of 6

1 1 33 33

A Fixture ID: Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	(C X D)
6-Offices (Common Space Types:Office - Enclosed) LED Grid: G1: 2' x 2' LED: LED Panel 33W:	1	24	30	708
7-Break (Common Space Types:Lounge/Breakroom) Relocated LED Lowbay: 4' LED Lowbay: Other:	1	1	33	33
8-Janitor (Common Space Types:Storage >=50 - <=1000 sq.ft.) Relocated LED Lowbay: 4' LED Lowbay: Other:	1	1	33	33
9-Restrooms (Common Space Types:Restrooms)  Vanity fixture: V1: LED Vanity Light: Other:	1	2	33	67
10-Vending (Common Space Types:Lobby - General) Relocated LED Lowbay: 8' LED Lowbay: Other:	-1	2	65	130
	122	Total Propos	sed Watts =	2843

Interior Lighting PASSES: Design 8% better than code Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.0.8.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Project Title: ITD District 3 Maintenance Building Upgrades

Final Inspection

Data filename: Q:\2018\18059.0\Elec\04\_Calcs\COMcheck\18059 COMcheck.cck

Report date: 06/01/18

Comments/Assumptions

Page 2 of 6

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COMcheck Software Version 4.0.8.1

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception

Comments/Assumptions

is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Complies?

☐Not Observable

□Does Not

**Inspection Checklist** 

Requirements: 0.0% were addressed directly in the COMcheck software

and electrical systems and equipment Not Applicable

calculations provide all information Does Not

determined for the additional energy efficiency package options.

Energy Code: 2015 IECC

Plan Review

calculations provide all information

determined for the interior lighting

and document where exceptions to

provided should include interior

Plans, specifications, and/or

with which compliance can be

efficiency package options.

Additional Comments/Assumptions:

the standard are claimed. Information

lighting power calculations, wattage of

bulbs and ballasts, transformers and

with which compliance can be

C103.2 Plans, specifications, and/or [PR4]<sup>1</sup> calculations provide all inform

control devices.

& Req.ID

Project Title: ITD District 3 Maintenance Building Upgrades Data filename: Q:\2018\18059.0\Elec\04\_Calcs\COMcheck\18059 COMcheck.cck Page 3 of 6

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15] <sup>1</sup>	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	□Complies □Does Not	
	30%.	□Not Observable □Not Applicable	
C405.2.1 [EL18] <sup>1</sup>	Occupancy sensors installed in required spaces.	□Complies □Does Not	
		□Not Observable □Not Applicable	
C405.2.1, C405.2.2. 3 [EL23] <sup>2</sup>		□Complies □Does Not □Not Observable □Not Applicable	
1	Automatic controls to shut off all building lighting installed in all	□Complies □Does Not	
[EL22] <sup>2</sup>	buildings.	□Not Observable □Not Applicable	
C405.2.3 [EL16] <sup>2</sup>	Daylight zones provided with individual controls that control the lights independent of general area lighting.	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.3, C405.2.3. 1, C405.2.3. 2 [EL20] <sup>1</sup>	[1] [1] [2] [1] [4] [1] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.3, C405.2.3. 1, C405.2.3. 3 [EL21] <sup>1</sup>	are equipped with required lighting	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.4 [EL4] <sup>1</sup>	Separate lighting control devices for specific uses installed per approved lighting plans.	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.4 [EL8] <sup>1</sup>	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	□Complies □Does Not □Not Observable □Not Applicable	
C405.3 [EL6] <sup>1</sup>	Exit signs do not exceed 5 watts per	□Complies □Does Not □Not Observable □Not Applicable	

& Req.ID		0.0000000000000000000000000000000000000	
C303.3, C408.2.5. 2 [FI17] <sup>3</sup>	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	□Complies □Does Not □Not Observable □Not Applicable	
C405.4.1 [Fi18] <sup>1</sup>	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	□Complies □Does Not □Not Observable □Not Applicable	See the Interior Lighting fixture schedul
C408.2.5. 1 [FI16] <sup>3</sup>	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	□Complies □Does Not □Not Observable □Not Applicable	
C408.3 [FI33] <sup>1</sup>	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	□Complies □Does Not □Not Observable □Not Applicable	

**Additional Comments/Assumptions:** 

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: ITD District 3 Maintenance Building Upgrades

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1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: ITD District 3 Maintenance Building Upgrades Report date: 06/01/18 Data filename: Q:\2018\18059.0\Elec\04\_Calcs\COMcheck\18059 COMcheck.cck Page 5 of 6

Project Title: ITD District 3 Maintenance Building Upgrades Data filename: Q:\2018\18059.0\Elec\04 Calcs\COMcheck\18059 COMcheck.cck

Report date: 06/01/18 Page 6 of 6

#### LIGHTING FIXTURE SCHEDULE

LIGHT FIXTURES INDICATED IN SCHEDULE ARE BUILDING STANDARD FIXTURES PREFERRED BY OWNER. SUBSTITUTED FIXTURES MUST MATCH SPECIFIED FIXTURE IN APPEARANCE, QUALITY AND PERFORMANCE. CONTRACTOR MAY PROVIDE ALTERNATE FIXTURES EQUAL TO THOSE INDICATED BELOW PROVIDED THEY MEET SPECIFIED CRITERIA AND ARE ACCEPTABLE TO THE OWNER. EQUALITY OF SUBSTITUTED FIXTURE IS SUBJECT TO REVIEW BY ARCHITECT AND ENGINEER AT TIME OF LIGHTING FIXTURE SUBMITTALS. CONTRACTOR SHALL PROVIDE FIXTURES INDICATED ON SCHEDULE FOR ANY FIXTURES DEEMED NOT EQUAL BY THE ENGINEER.

TYPE	DESCRIPTION/MANUFACTURER NO.		LAMP TYPE	MOUNTING	NOTES
EX1	CONTEMPORARY THERMOPLASTIC EXIT SIGN, GREEN STENCIL, WHITE HOUSING, NICKEL—CADMIUM BATTERY LITHONIA: LQM—S—W—1—G—120/277—EL N	3	LED	UNIVERSAL	
EX2	EMERGENCY LIGHTING WALL MOUNTED. LED, LOW TEMPERATURE WET LABLED ENCLOSURE. LITHONIA: WLTU-LED-ELA-T-Q-L0309		LED	WALL MOUNTED	
AFN	WALL MOUNTED EMERGENCY EGRESS DISCHARGE LIGHT, WET LABLED, NI-CAD BATTERY LITHONIA: AFN-BN-PREM-WL	1.5	LED	WALL	
L1	HIGH BAY LED LIGHT FIXTURE, BLACK SHROUD (TO MATCH EXISTING) EATON: SSLED-LD1-28-M-UNV-L840-CD2-BLK-MP/SHK-U	280	LED	HOOK HANG FROM CEILING	SHOP AND STORAGE
G1	2' X 2' LED LIGHT FIXTURE, EATON: 2VTL2-33L-ADP-EZ1-LP840	280	LED	RECESSED IN CEILING	OFFICES
V1	SQUARE LED VANITY LIGHT FIXTURE LITHONIA: FMVTSL-48IN-MVOLT-30K-90CRI	33.3	LED	WALL MOUNTED	RESTROOMS
			The said had had had had had		

- 1. COORDINATE WITH MANUFACTURER FOR ALL REQUIRED MOUNTING HARDWARE
- 2. PROVIDE EMERGENCY BATTERY BACK UP FOR FIXTURES INDICATED. COORDINATE WITH MANUFACTURER.

- 3. LIGHT FIXTURE TO MATCH EXISTING IN SPACE. COORDINATE EXISTING FIXTURE MANUFACTURER PRIOR TO ORDERING AND MATCH TYPE.

4. COORDINATE EXISTING SUPPORT STRUCTURE FOR SECURE MOUNTING. NEW MOUNTING TO MATCH EXISTING.



CONSTRUCTION 6/25/18

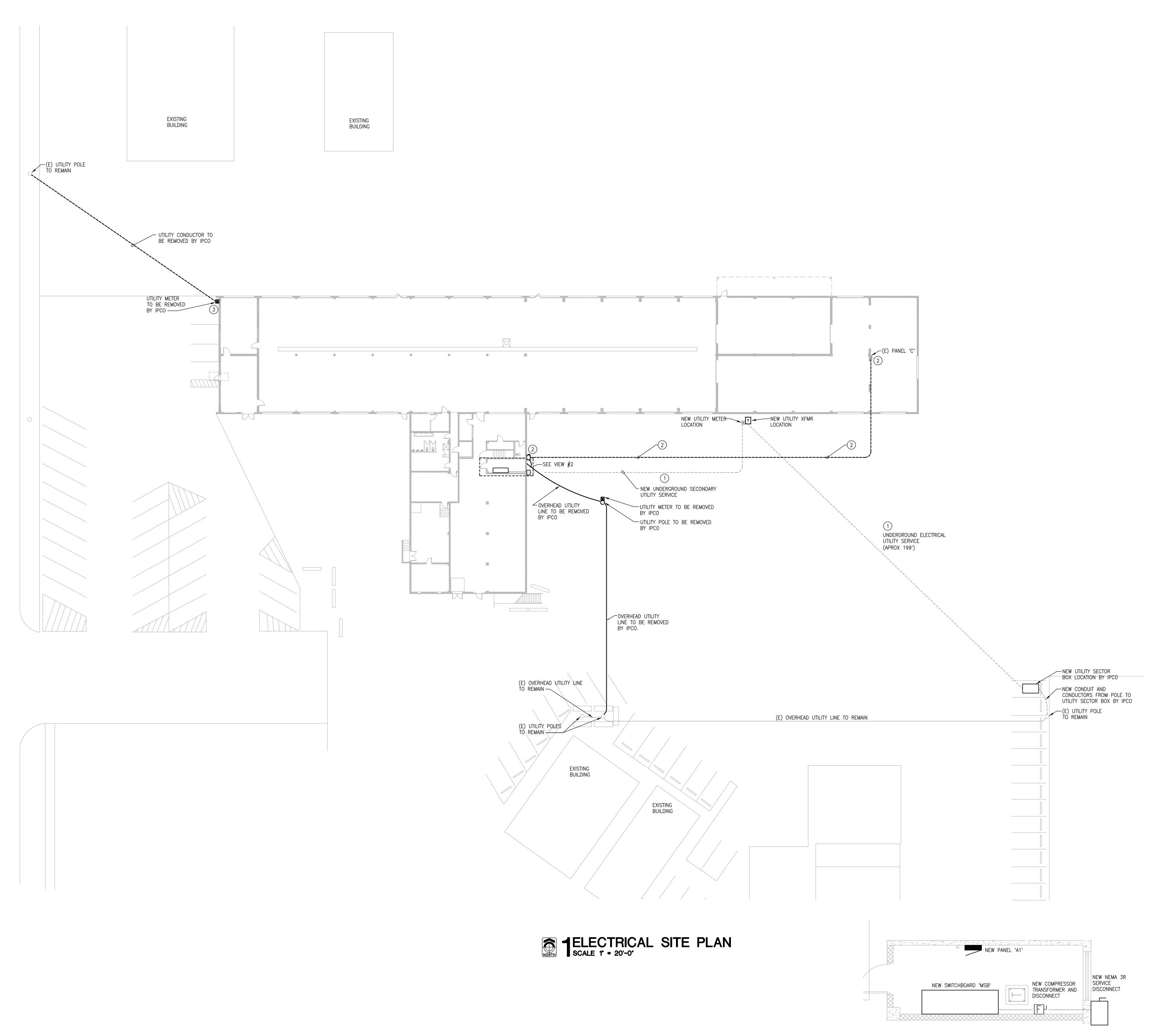
	DRAWN		CHECKED
	RJL		JLB
\			
	REVISE	D	
	1	ADDENDU 5-15-18	IM 1 B, BL
	4	ADDENDU 6-6-18,	IM 5 BL

18059.00 5-2-18

PROJECT

SCHEDULES & COMPLIANCE **FORMS** 





2 ELECTRIC ROOM
SCALE 1/4' = 1'-0'

#### **GENERAL NOTES:**

- A. FURNISH AND INSTALL PULLBOXES AND HANDHOLES FOR ALL SITE CONDUITS AS
- B. FURNISH AND INSTALL PULL CORDS IN EACH NEW CONDUIT.
- C. COORDINATE AND COMPLY WITH ALL UTILITY STANDARDS AND REQUIREMENTS.
- D. ALL SITE ELECTRICAL CONDUCTORS BELOW GRADE SHALL BE ROUTED IN SCHEDULE 40 PVC CONDUIT, 1" MINIMUM. INSTALL AT DEPTH REQUIRED BY NEC FOR CONDITIONS OF INSTALLATION.
- E. ALL EXTERIOR ELECTRICAL BOXES, FITTINGS, AND CABINETS SHALL BE OF STEEL CONSTRUCTION, GALVANIZED OR POWER COATED, NEMA 3R TYPE, UNLESS OTHERWISE
- F. COORDINATE WITH ALL ASSOCIATED SITE UTILITY ENTITIES PRIOR TO BEGINNING WORK.
- G. CONTRACTOR TO KEEP ACCURATE AS-BUILT INFORMATION FOR RECORD DRAWINGS FOR PROJECT COMPLETION.

#### **SHEET NOTES:**

- TRENCH PER IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION NO. SD-306. COORDINATE WITH IDAHO POWER. COORDINATE WITH DIG-LINE TO MARK ANY UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK.
- EXISTING 200 AMP SERVICE DISCONNECT TO BE REMOVED. EXISTING FEEDER ROUTED UNDERGROUND TO EXISTING PANEL 'C'. REMOVE EXISTING CONDUCTOR AND PERMANENTLY SEAL UNDERGROUND CONDUIT AT BOTH ENDS. CONDUIT SHALL NOT BE
- . EXISTING METER BASE TO BE REMOVED AND RETURNED TO OWNER. CAP EXISTING UNDERGROUND CONDUIT AT GRADE NEAR BUILDING.



DIST COFF

CONSTRUCTION 6/25/18

DATE PROJECT 5-2-18 18059.00 CHECKED DRAWN JLB

REVISED

SHEET TITLE

**ELECTRICAL** SITE PLAN

E03





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

- A. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCALLY ADOPTED ELECTRICAL CODE, ALL LOCAL CODES, AND TO THE FULL ACCEPTANCE OF THE AUTHORITY HAVING JURISDICTION.
- B. OBTAIN ALL PERMITS, COORDINATE, FURNISH, INSTALL, CONNECT AND TEST ALL ELECTRICAL EQUIPMENT REQUIRED FOR ALL THE SYSTEMS INSTALLED UNDER THIS CONTRACT TO INSURE COMPLETE AND FULLY OPERATIONAL SYSTEMS.
- C. ALL EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN FULLY FUNCTIONAL, UON.
- PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES, AND THE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.
- . DESIGN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE STATUS OF ACTUAL CONDITIONS AS THEY RELATE TO THE SCOPE OF WORK AS SHOWN ON THESE PLANS.
- CONTRACTOR SHALL DISPOSE OF THE REMOVED ELECTRICAL. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES. REUSE EXISTING CONDUITS AND JUNCTION BOXES AS IS PRACTICAL.
- . ALL EXISTING CIRCUITS TO REMAIN THAT RUN THROUGH WALLS TO BE REMOVED SHALL BE REROUTED AND RECONNECTED. REPAIR AND PATCH ALL WALLS TO MATCH SURROUNDING SURFACES.
- H. IF A CIRCUIT TO REMAIN IS INTERRUPTED AS A RESULT OF WORK RELATING TO THIS PROJECT, THE CIRCUIT SHALL BE RE-ENERGIZED AS REQUIRED TO MAINTAIN POWER TO THE AFFECTED DEVICES.
- FOR CIRCUITS THAT ARE MADE SPARE, THE CIRCUIT BREAKER SHALL REMAIN IN PLACE. THE CIRCUIT CONDUCTORS SHALL BE DISCONNECTED FROM THE CIRCUIT BREAKER AND

REMOVED FROM THE RACEWAY. THE CIRCUIT BREAKER SHALL BE MARKED SPARE.

COORDINATE ALL PHASING WITH ALL OTHER DISCIPLINES PRIOR TO POWERING DOWN OR DISCONNECTING ANY EQUIPMENT.

#### **SHEET NOTES:**

- 1. EXISTING PANEL TO BE RELOCATED.
- 2. EXISTING PANEL TO BE REMOVED AND REPLACED WITH NEW.
- 3. EXISTING PANEL TO BE REMOVED. DISCONNECT AND REMOVE ALL "DOWN STREAM" LOADS AND FEEDERS TO UTILITY METER.
- 4. EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. DISCONNECT EXISTING ELECTRICAL CONNECTIONS. REMOVE ASSOCIATED CONDUIT AND CONDUCTORS. RE: SHEET M11.
- . EXISTING DISCONNECT FOR CONDENSER AND UNIT HEATER TO BE REMOVED. IF AVAILABLE, REUSE EXISTING CONDUIT AND CONDUCTORS FOR CONNECTION TO EXISTING UNIT HEATER.
- 6. EXISTING LIGHTS AND LIGHTING CONTROLS IN AREA TO BE REMOVED. DISCONNECT EXISTING ELECTRICAL CONNECTIONS. ENSURE ALL "DOWN STREAM" EQUIPMENT TO REMAIN REMAINS OPERATIONAL.
- EXISTING MAIN SWITCHBOARD, SERVICE GUTTER, AND SERVICE DISCONNECT TO BE REMOVED AND REPLACED WITH NEW. COORDINATE POWER CUT OVER WITH IDAHO POWER AND OWNER PRIOR TO BEGINNING WORK.
- 8. EXISTING DISCONNECT FOR DOWNSTREAM PANEL TO BE REMOVED. REMOVE ASSOCIATED CONDUIT AND CONDUCTORS.
- EXISTING LIGHT FIXTURES IN THIS AREA TO BE REMOVED AND SALVAGED FOR REINSTALLATION. CAREFULLY DISCONNECT LIGHT FIXTURES AND REMOVE CONDUIT AND CONDUCTORS. CLEAN AND REPAIR ANY DAMAGE TO LIGHT FIXTURES. SEE LIGHTING PLAN E11A FOR NEW LOCATIONS.
- $\frac{1}{1}$  10. EXISTING HEATER TO BE RELOCATED TO SECURE STORAGE ROOM. SEE SHEET E31A FOR NEW LOCATION.
- CONDUIT PATH WITH ALL OTHER DISCIPLINES.
- EXISTING SWITCH TO BE REMOVED AND RELOCATED. EXISTING CONDUIT AND CONDUCTORS TO BE REUSED AND EXTENDED TO NEW SWITCH LOCATION.

BUILDING KEY PLAN



CONSTRUCTION 6/25/18

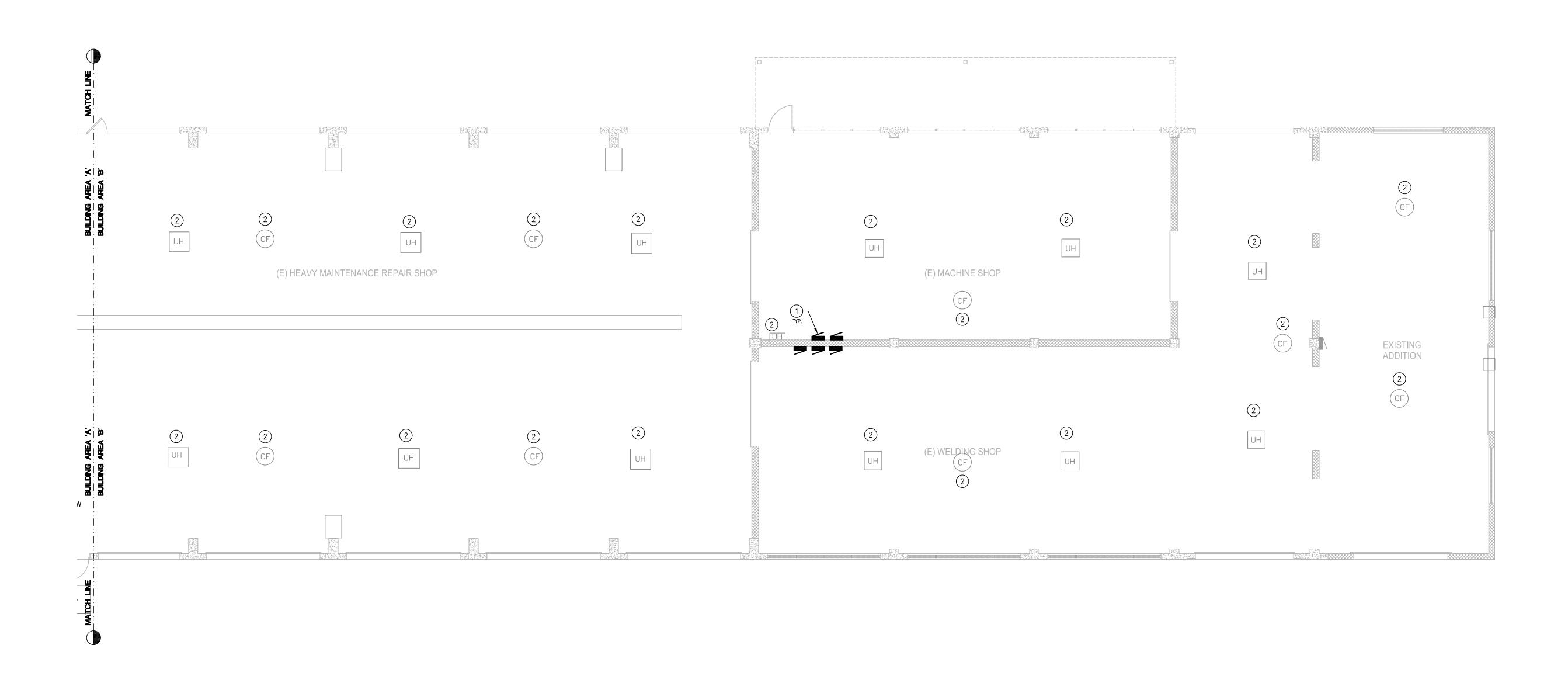
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PROJECT

**DEMOLITION** PLAN GROUND **FLOOR** 





DEMOLITION PLAN GROUND FLOOR - AREA 'B' SCALE 1/8' = 1'-0'

- A. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCALLY ADOPTED ELECTRICAL CODE, ALL LOCAL CODES, AND TO THE FULL ACCEPTANCE OF THE AUTHORITY HAVING JURISDICTION.
- B. OBTAIN ALL PERMITS, COORDINATE, FURNISH, INSTALL, CONNECT AND TEST ALL ELECTRICAL EQUIPMENT REQUIRED FOR ALL THE SYSTEMS INSTALLED UNDER THIS
- CONTRACT TO INSURE COMPLETE AND FULLY OPERATIONAL SYSTEMS. C. ALL EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN FULLY FUNCTIONAL, UON.
- . PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES, AND THE LIKE, SHALL BE REPAIRED OR
- REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER. E. DESIGN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY

EXISTING CONDITIONS TO DETERMINE STATUS OF ACTUAL CONDITIONS AS THEY RELATE

- TO THE SCOPE OF WORK AS SHOWN ON THESE PLANS. CONTRACTOR SHALL DISPOSE OF THE REMOVED ELECTRICAL. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES. REUSE EXISTING CONDUITS AND
- JUNCTION BOXES AS IS PRACTICAL. G. ALL EXISTING CIRCUITS TO REMAIN THAT RUN THROUGH WALLS TO BE REMOVED SHALL
- BE REROUTED AND RECONNECTED. REPAIR AND PATCH ALL WALLS TO MATCH SURROUNDING SURFACES.
- H. IF A CIRCUIT TO REMAIN IS INTERRUPTED AS A RESULT OF WORK RELATING TO THIS PROJECT, THE CIRCUIT SHALL BE RE-ENERGIZED AS REQUIRED TO MAINTAIN POWER TO THE AFFECTED DEVICES.
- FOR CIRCUITS THAT ARE MADE SPARE, THE CIRCUIT BREAKER SHALL REMAIN IN PLACE. THE CIRCUIT CONDUCTORS SHALL BE DISCONNECTED FROM THE CIRCUIT BREAKER AND REMOVED FROM THE RACEWAY. THE CIRCUIT BREAKER SHALL BE MARKED SPARE.
- COORDINATE ALL PHASING WITH ALL OTHER DISCIPLINES PRIOR TO POWERING DOWN OR DISCONNECTING ANY EQUIPMENT.

#### **SHEET NOTES:**

1. EXISTING PANEL TO BE REMOVED AND REPLACED WITH NEW. 2. EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. DISCONNECT EXISTING ELECTRICAL CONNECTIONS. REMOVE ASSOCIATED CONDUIT AND CONDUCTORS. RE: SHEET M11.

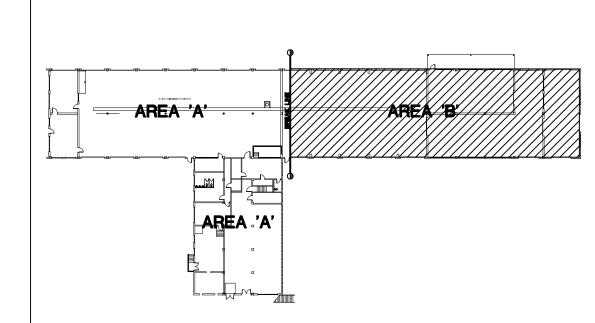


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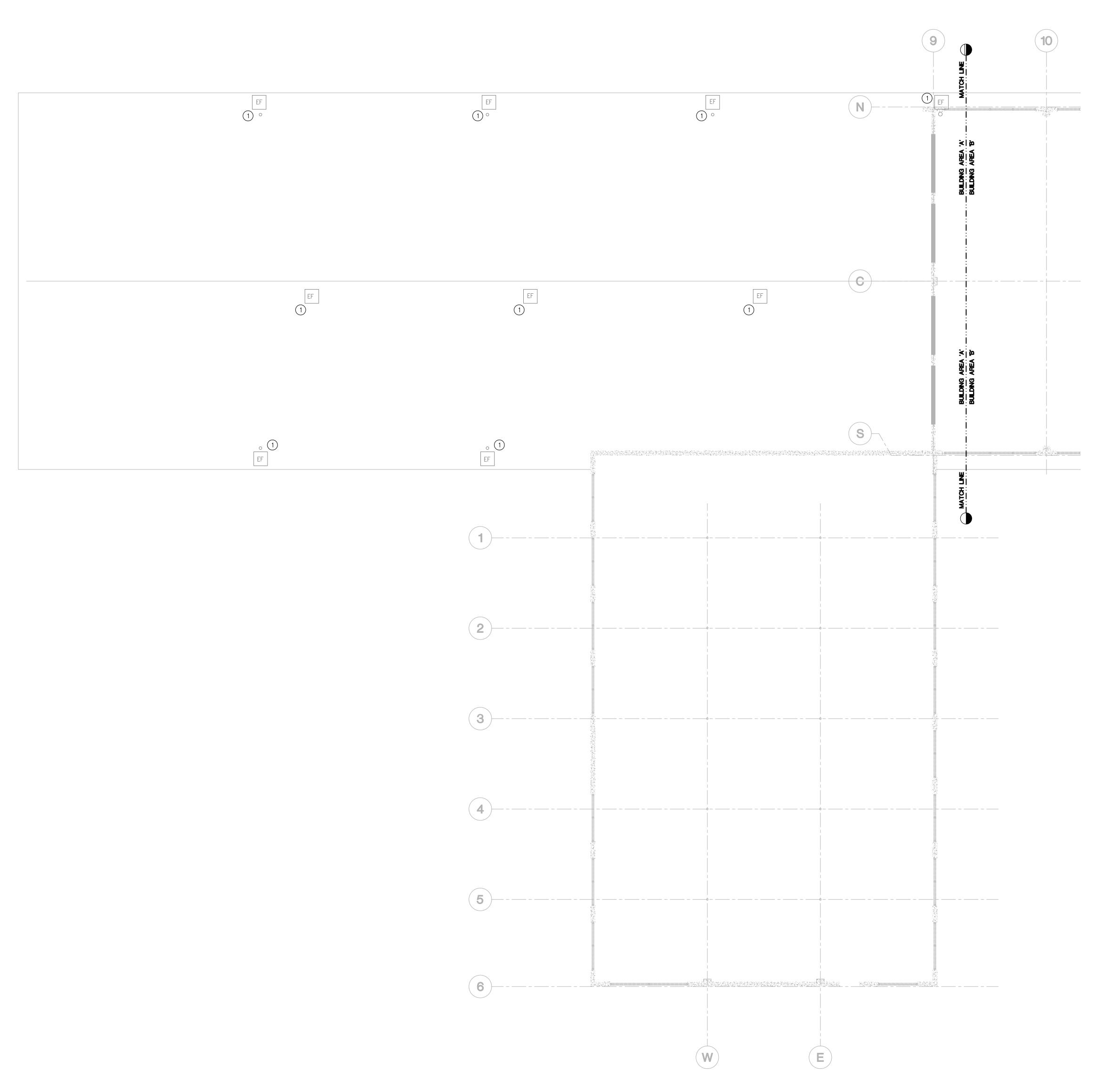
CONSTRUCTION 6/25/18





**DEMOLITION** PLAN GROUND **FLOOR** 





DEMOLITION PLAN ROOF - AREA 'A'
SCALE 1/8' = 1'-0'

A. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCALLY ADOPTED ELECTRICAL CODE, ALL LOCAL CODES, AND TO THE FULL ACCEPTANCE OF THE AUTHORITY HAVING JURISDICTION.

B. OBTAIN ALL PERMITS, COORDINATE, FURNISH, INSTALL, CONNECT AND TEST ALL ELECTRICAL EQUIPMENT REQUIRED FOR ALL THE SYSTEMS INSTALLED UNDER THIS

CONTRACT TO INSURE COMPLETE AND FULLY OPERATIONAL SYSTEMS.

C. ALL EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN FULLY FUNCTIONAL, UON.

PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES, AND THE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.

E. DESIGN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE STATUS OF ACTUAL CONDITIONS AS THEY RELATE TO THE SCOPE OF WORK AS SHOWN ON THESE PLANS.

CONTRACTOR SHALL DISPOSE OF THE REMOVED ELECTRICAL. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES. REUSE EXISTING CONDUITS AND JUNCTION BOXES AS IS PRACTICAL.

G. ALL EXISTING CIRCUITS TO REMAIN THAT RUN THROUGH WALLS TO BE REMOVED SHALL BE REROUTED AND RECONNECTED. REPAIR AND PATCH ALL WALLS TO MATCH SURROUNDING SURFACES.

H. IF A CIRCUIT TO REMAIN IS INTERRUPTED AS A RESULT OF WORK RELATING TO THIS PROJECT, THE CIRCUIT SHALL BE RE-ENERGIZED AS REQUIRED TO MAINTAIN POWER TO THE AFFECTED DEVICES.

FOR CIRCUITS THAT ARE MADE SPARE, THE CIRCUIT BREAKER SHALL REMAIN IN PLACE. THE CIRCUIT CONDUCTORS SHALL BE DISCONNECTED FROM THE CIRCUIT BREAKER AND REMOVED FROM THE RACEWAY. THE CIRCUIT BREAKER SHALL BE MARKED SPARE.

COORDINATE ALL PHASING WITH ALL OTHER DISCIPLINES PRIOR TO POWERING DOWN OR DISCONNECTING ANY EQUIPMENT.

#### **SHEET NOTES:**

1. EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. DISCONNECT EXISTING ELECTRICAL CONNECTIONS. REMOVE ASSOCIATED CONDUIT AND CONDUCTORS. RE: SHEET M11.



FOR CONSTRUCTION 6/25/18

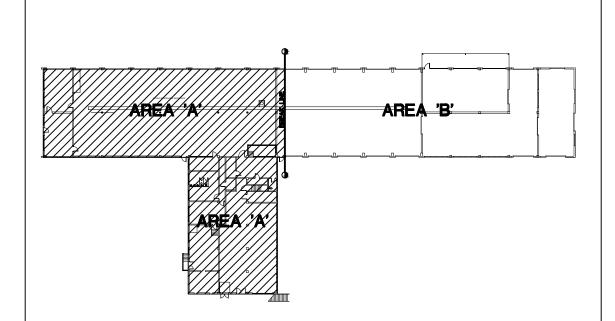
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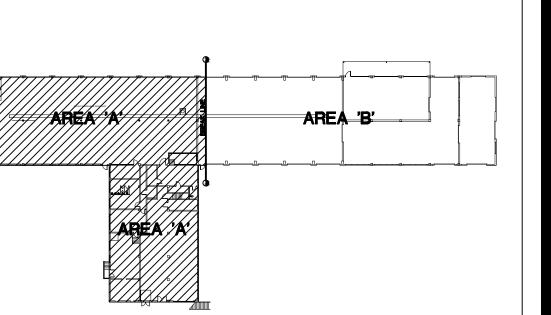
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PLAN ROOF

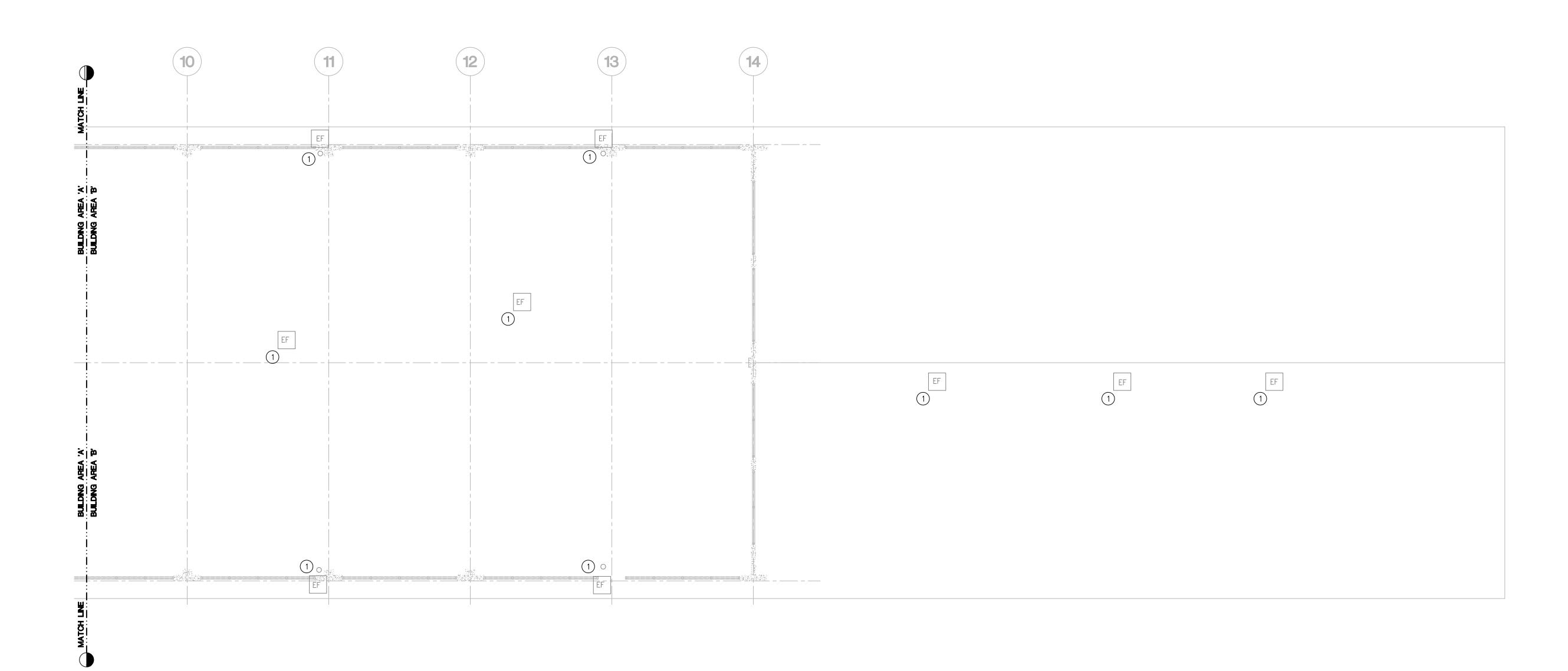
E05A











1 DEMOLITION PLAN ROOF - AREA 'B' SCALE 1/8' = 1'-0'

A. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCALLY ADOPTED ELECTRICAL CODE, ALL LOCAL CODES, AND TO THE FULL ACCEPTANCE OF THE AUTHORITY HAVING JURISDICTION.

B. OBTAIN ALL PERMITS, COORDINATE, FURNISH, INSTALL, CONNECT AND TEST ALL ELECTRICAL EQUIPMENT REQUIRED FOR ALL THE SYSTEMS INSTALLED UNDER THIS

CONTRACT TO INSURE COMPLETE AND FULLY OPERATIONAL SYSTEMS.

C. ALL EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN FULLY FUNCTIONAL, UON.

D. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES, AND THE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.

E. DESIGN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE STATUS OF ACTUAL CONDITIONS AS THEY RELATE TO THE SCOPE OF WORK AS SHOWN ON THESE PLANS.

F. CONTRACTOR SHALL DISPOSE OF THE REMOVED ELECTRICAL. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES. REUSE EXISTING CONDUITS AND JUNCTION BOXES AS IS PRACTICAL.

G. ALL EXISTING CIRCUITS TO REMAIN THAT RUN THROUGH WALLS TO BE REMOVED SHALL BE REROUTED AND RECONNECTED. REPAIR AND PATCH ALL WALLS TO MATCH SURROUNDING SURFACES.

H. IF A CIRCUIT TO REMAIN IS INTERRUPTED AS A RESULT OF WORK RELATING TO THIS PROJECT, THE CIRCUIT SHALL BE RE-ENERGIZED AS REQUIRED TO MAINTAIN POWER TO THE AFFECTED DEVICES.

I. FOR CIRCUITS THAT ARE MADE SPARE, THE CIRCUIT BREAKER SHALL REMAIN IN PLACE.
THE CIRCUIT CONDUCTORS SHALL BE DISCONNECTED FROM THE CIRCUIT BREAKER AND
REMOVED FROM THE RACEWAY. THE CIRCUIT BREAKER SHALL BE MARKED SPARE.

J. COORDINATE ALL PHASING WITH ALL OTHER DISCIPLINES PRIOR TO POWERING DOWN OR DISCONNECTING ANY EQUIPMENT.

#### **SHEET NOTES:**

1. EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. DISCONNECT EXISTING ELECTRICAL CONNECTIONS. REMOVE ASSOCIATED CONDUIT AND CONDUCTORS. RE: SHEET M11.



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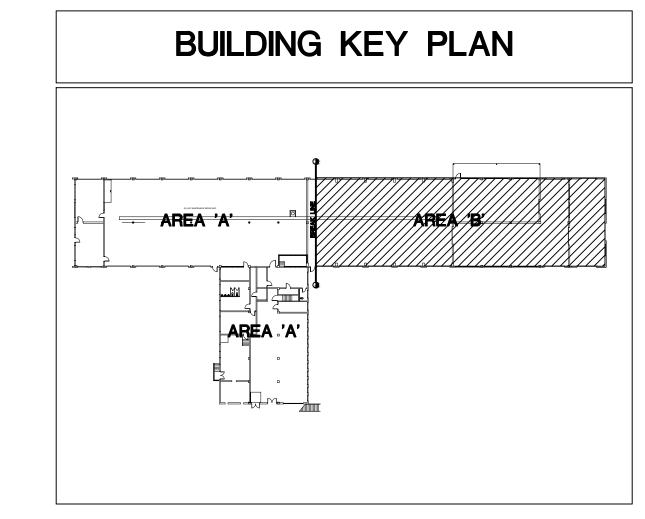
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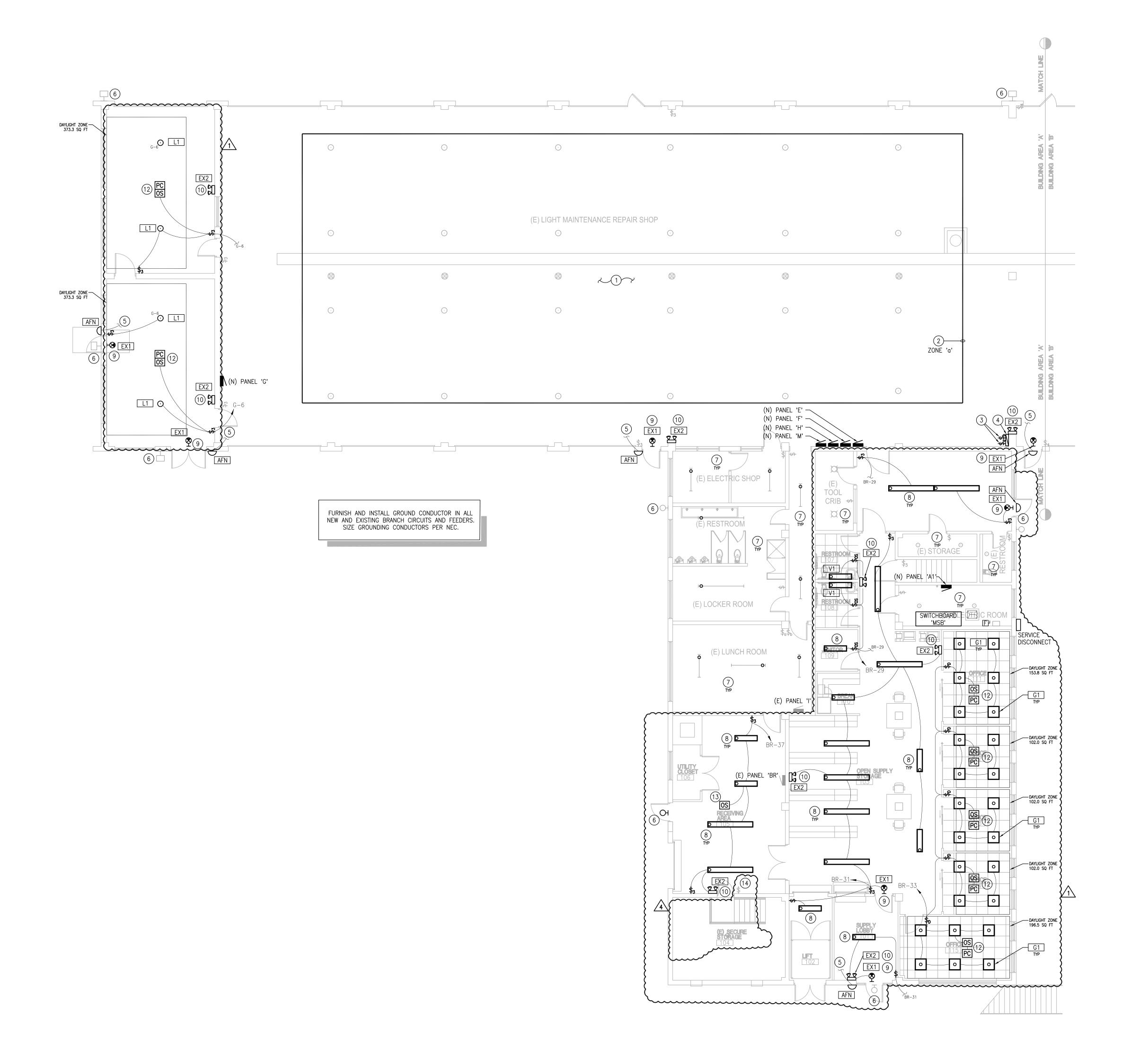


DEMOLITION
PLAN ROOF

PLAN ROOF

E05B





LIGHTING PLAN GROUND FLOOR - AREA 'A' SCALE 1/8' = 1'-0'

- A. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER
- B. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. C. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE
- CEILINGS WHERE AVAILABLE. D. ALL LIGHT FIXTURES SHALL BE 120 VOLT, UNLESS OTHERWISE NOTED.
- E. SHADED FIXTURE SHALL BE ON EMERGENCY/NIGHTLIGHT CIRCUIT AND SHALL NOT HAVE EMERGENCY BALLAST INSTALLED UNLESS OTHERWISE NOTED.
- F. ALL EXIT SIGNS AND NIGHT LIGHTS SHALL BE WIRED FOR CONTINUOUS OPERATION.
- G. FURNISH AND INSTALL 1000W RATED DIMMER SWITCH FOR CONTROL OF LIGHT FIXTURES AS INDICATED. DERATING IS REQUIRED IF MULTI-GANGED AND CONTROL FINS/SIDE SECTIONS ARE REMOVED. COORDINATE WITH DIMMER SWITCH MANUFACTURER'S INSTALLATION REQUIREMENTS.
- H. COORDINATE ALL UNDER CABINET LIGHTING WITH MILLWORK BEING INSTALLED AND ARCHITECTURAL ELEVATIONS. CONTRACTOR SHALL CONCEAL ALL CONDUIT.
- . ALL FINAL LOCATIONS AND ARRANGEMENTS OF CEILING LIGHTING FIXTURES SHALL BE COORDINATED WITH ALL OTHER TRADES.
- J. EACH SWITCH BOX SHALL HAVE A GROUND AND ASSOCIATED LIGHTING CIRCUIT NEUTRAL
- K. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.

#### **SHEET NOTES:**

- EXISTING LIGHTING IN THIS AREA TO REMAIN. COORDINATE EXISTING CONDITIONS FOR NEW SWITCHING. FURNISH AND INSTALL NEW EQUIPMENT GROUND CONDUCTOR TO EACH FIXTURE.
- CIRCUITS FOR LIGHT FIXTURES IN THIS AREA TO BE ROUTED THROUGH LIGHTING CONTROL PANEL AND CONTROLLED BY LOCAL AREA SWITCH AS INDICATED.
- . NEW LOCAL AREA LIGHTING CONTROL SWITCH FOR ZONE AS INDICATED. FURNISH AND INSTALL ALL CONDUIT, CONDUCTORS, J-BOXES AND SWITCHES AS REQUIRED FOR A COMPLETE INSTALLATION.
- 4. LIGHTING CONTROL PANEL WITH LOCAL AREA SWITCH(ES) BELOW.
- . BATTERY BACKED EMERGENCY EGRESS FIXTURE. MOUNT AT 8'-5" A.F.F. INTERCEPT CLOSEST EXISTING LIGHTING CIRCUIT AND CONNECT TO UNSWITCHED LEG. FIXTURE TO OPERATE IN THE EVENT OF POWER FAILURE.
- . EXISTING EXTERIOR LIGHTING TO BE CONTROLLED BY NEW PHOTOCELL LOCATED ON ROOF. INTERCEPT EXISTING CIRCUITS AND ROUTE THROUGH CONTACTOR PANEL FOR PHOTOCELL CONTROL. CONTRACTOR TO VERIFY CIRCUIT QUANTITIES AND PROVIDE CONTACTORS AS REQUIRED. SEE E11B FOR ADDITIONAL INFORMATION.
- EXISTING LIGHT FIXTURES AND CONTROLS TO REMAIN. RELOCATED SURFACE MOUNTED LED LIGHT FIXTURE. COORDINATE WITH OWNER FOR SALVAGED LIGHTS. RECONNECT PER MANUFACTURERS REQUIREMENTS. FIXTURES TO BE MOUNTED TO BOTTOM OF STRUCTURE.
- 9. NEW EXIT SIGN. FIELD COORDINATE MOUNTING CONDITIONS AND INSTALL PER MANUFACTURERS REQUIREMENTS. INTERCEPT 120V, UNSWITCHED GENERAL BRANCH LIGHTING CIRCUIT FOR THE AREA AND EXTEND TO EXIT SIGN.
- 10. EMERGENCY LIGHTING. PROVIDE POWER VIA UNSWITCHED LEG OF CIRCUIT. FIELD COORDINATE MOUNTING CONDITIONS. MOUNT LIGHT FIXTURE AT 10'-0" ABOVE FINISHED GRADE. AIM HEADS TO ILLUMINATE PATH OF EGRESS. COORDINATE WITH
- 11. NOT USED.
- 2. AREA LIGHTING TO BE CONTROLLED BY OCCUPANCY SENSOR AND PHOTOCELL WITH A LOCAL OVERRIDE. ROUTE POWER TO OCCUPANCY SENSOR AND PHOTOCELL PRIOR TO SWITCH AND LIGHT FIXTURES, TO MAINTAIN CONTINUOUS POWER TO SENSORS. FURNISH AND INSTALL SENSORS WITH RANGE TO FULLY DETECT THE AREA BEING
- 13. AREA LIGHTING TO BE CONTROLLED BY OCCUPANCY SENSOR AND LOCAL OVERRIDE. ROUTE POWER TO OCCUPANCY SENSOR PRIOR TO SWITCH AND LIGHT FIXTURES, TO MAINTAIN CONTINUOUS POWER TO SENSORS. FURNISH AND INSTALL OCCUPANCY
- SENSOR WITH RANGE TO FULLY DETECT THE AREA BEING CONTROLLED.
- FURNISHED FLOOR. INTERCEPT AND EXTEND EXISTING CONTROL WIRING AND CONDUIT TO NEW LOCATION.



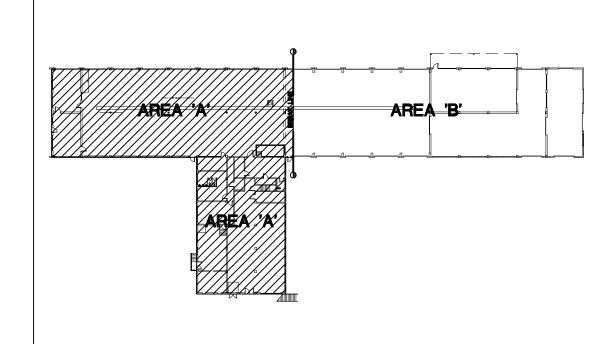
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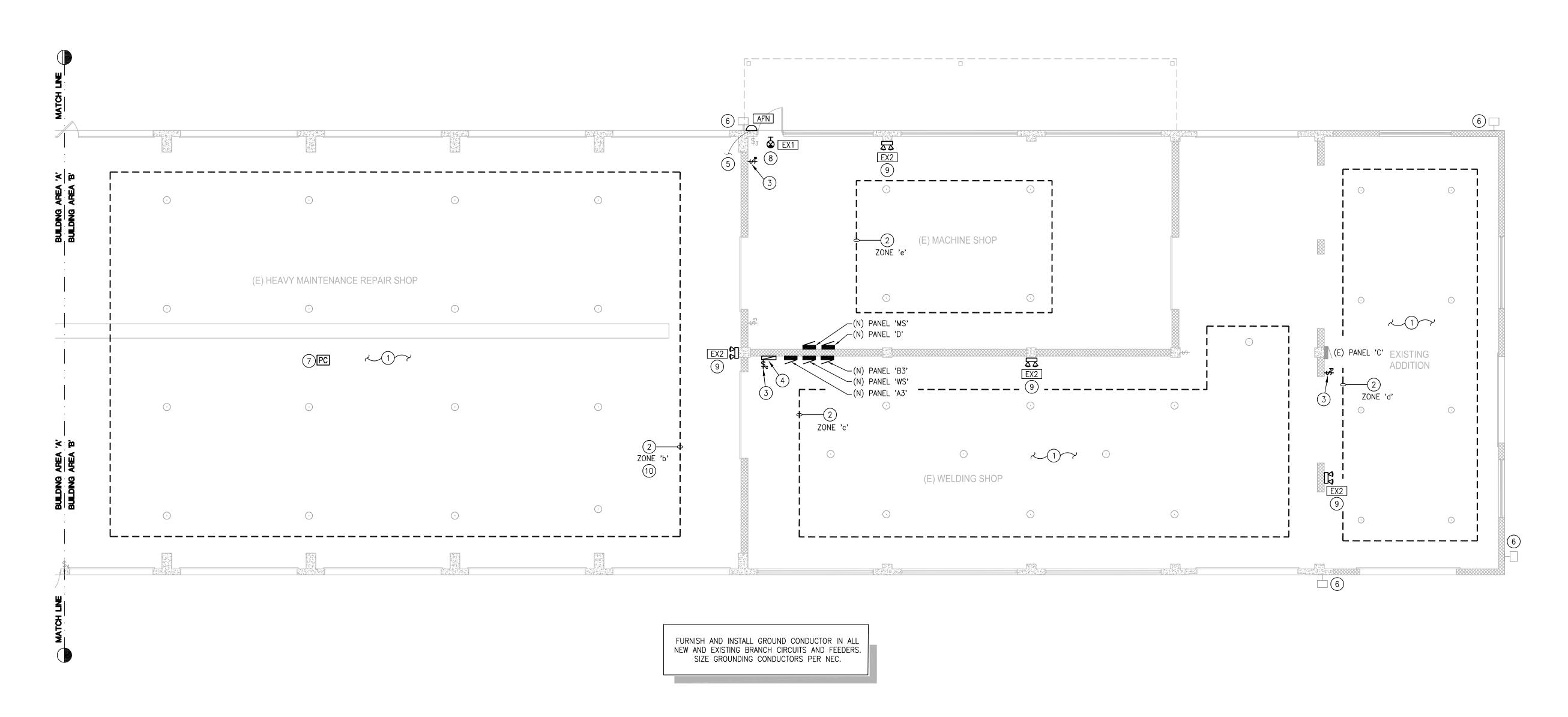
BUILDING KEY PLAN



LIGHTING PLAN GROUND FLOOR

**E11A** 





LIGHTING PLAN GROUND FLOOR - AREA 'B' SCALE 1/8' = 1'-0'

- A. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER
- B. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
- C. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
- D. ALL LIGHT FIXTURES SHALL BE 120 VOLT, UNLESS OTHERWISE NOTED.
- E. SHADED FIXTURE SHALL BE ON EMERGENCY/NIGHTLIGHT CIRCUIT AND SHALL NOT HAVE EMERGENCY BALLAST INSTALLED UNLESS OTHERWISE NOTED.
- F. ALL EXIT SIGNS AND NIGHT LIGHTS SHALL BE WIRED FOR CONTINUOUS OPERATION. G. FURNISH AND INSTALL 1000W RATED DIMMER SWITCH FOR CONTROL OF LIGHT FIXTURES AS INDICATED. DERATING IS REQUIRED IF MULTI-GANGED AND CONTROL FINS/SIDE

SECTIONS ARE REMOVED. COORDINATE WITH DIMMER SWITCH MANUFACTURER'S

H. COORDINATE ALL UNDER CABINET LIGHTING WITH MILLWORK BEING INSTALLED AND ARCHITECTURAL ELEVATIONS. CONTRACTOR SHALL CONCEAL ALL CONDUIT.

INSTALLATION REQUIREMENTS.

- ALL FINAL LOCATIONS AND ARRANGEMENTS OF CEILING LIGHTING FIXTURES SHALL BE COORDINATED WITH ALL OTHER TRADES.
- J. EACH SWITCH BOX SHALL HAVE A GROUND AND ASSOCIATED LIGHTING CIRCUIT NEUTRAL
- K. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.

#### **SHEET NOTES:**

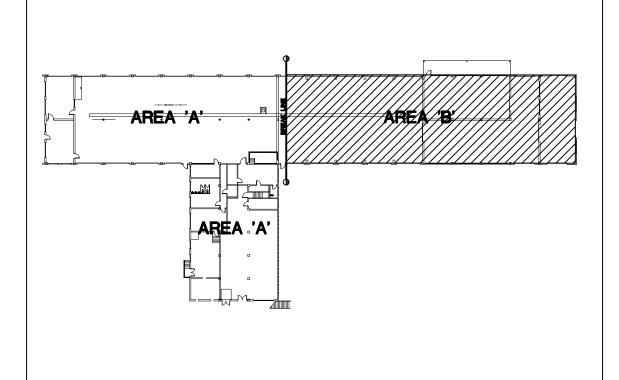
- EXISTING LIGHTING IN THIS AREA TO REMAIN. NEW EQUIPMENT GROUND CONDUCTOR TO BE PULLED TO EACH FIXTURE.
- CIRCUITS FOR EXISTING LIGHT FIXTURES IN THIS AREA TO BE ROUTED THROUGH LIGHTING CONTROL PANEL AND CONTROLLED BY LOCAL AREA SWITCH AS INDICATED. SEE AREA A FOR SWITCH LOCATION.
- NEW LOCAL AREA LIGHTING CONTROL SWITCH FOR ZONE AS INDICATED. FURNISH AND INSTALL ALL CONDUIT, CONDUCTORS, J-BOXES AND SWITCHES AS REQUIRED FOR A COMPLETE INSTALLATION.
- 4. LIGHTING CONTROL PANEL WITH LOCAL AREA SWITCH(ES) BELOW.
- BATTERY BACKED EMERGENCY EGRESS FIXTURE. MOUNT AT 8'-6" A.F.F. INTERCEPT CLOSEST EXISTING LIGHTING CIRCUIT AND CONNECT TO UNSWITCHED LEG. FIXTURE TO OPERATE IN THE EVENT OF POWER FAILURE.
- EXISTING EXTERIOR LIGHTING TO BE CONTROLLED BY PHOTOCELL LOCATED ON ROOF. INTERCEPT EXISTING CIRCUITS AND ROUTE THROUGH CONTACTOR PANEL FOR PHOTOCELL CONTROL. CONTRACTOR TO VERIFY CIRCUIT QUANTITIES AND PROVIDE CONTACTORS AS REQUIRED. SEE E1.1B FOR ADDITIONAL INFORMATION.
- FURNISH AND INSTALL NEW PHOTOCELL ON ROOF. COORDINATE WITH NEW LIGHTING CONTROL PANEL SYSTEM.
- 8. NEW EXIT SIGN. FIELD COORDINATE MOUNTING CONDITIONS AND INSTALL PER MANUFACTURERS REQUIREMENTS. INTERCEPT 120V, UNSWITCHED GENERAL BRANCH LIGHTING CIRCUIT FOR THE AREA AND EXTEND TO EXIT SIGN.
- B. EMERGENCY LIGHTING TO BE CONNECTED TO GENERAL LIGHTING CIRCUIT IN THE AREA CAPABLE OF ACCEPTING ADDITIONAL LOAD. INTERCEPT AND EXTEND TO LIGHT FIXTURE. FIELD COORDINATE MOUNTING CONDITIONS. MOUNT LIGHT FIXTURE AT 10'-0" ABOVE FINISHED GRADE. AIM HEADS TO ILLUMINATE PATH OF EGRESS. COORDINATE WITH ARCHITECTURE.
- 10. SWITCH LOCATED IN AREA 'A'.



CONSTRUCTION 6/25/18

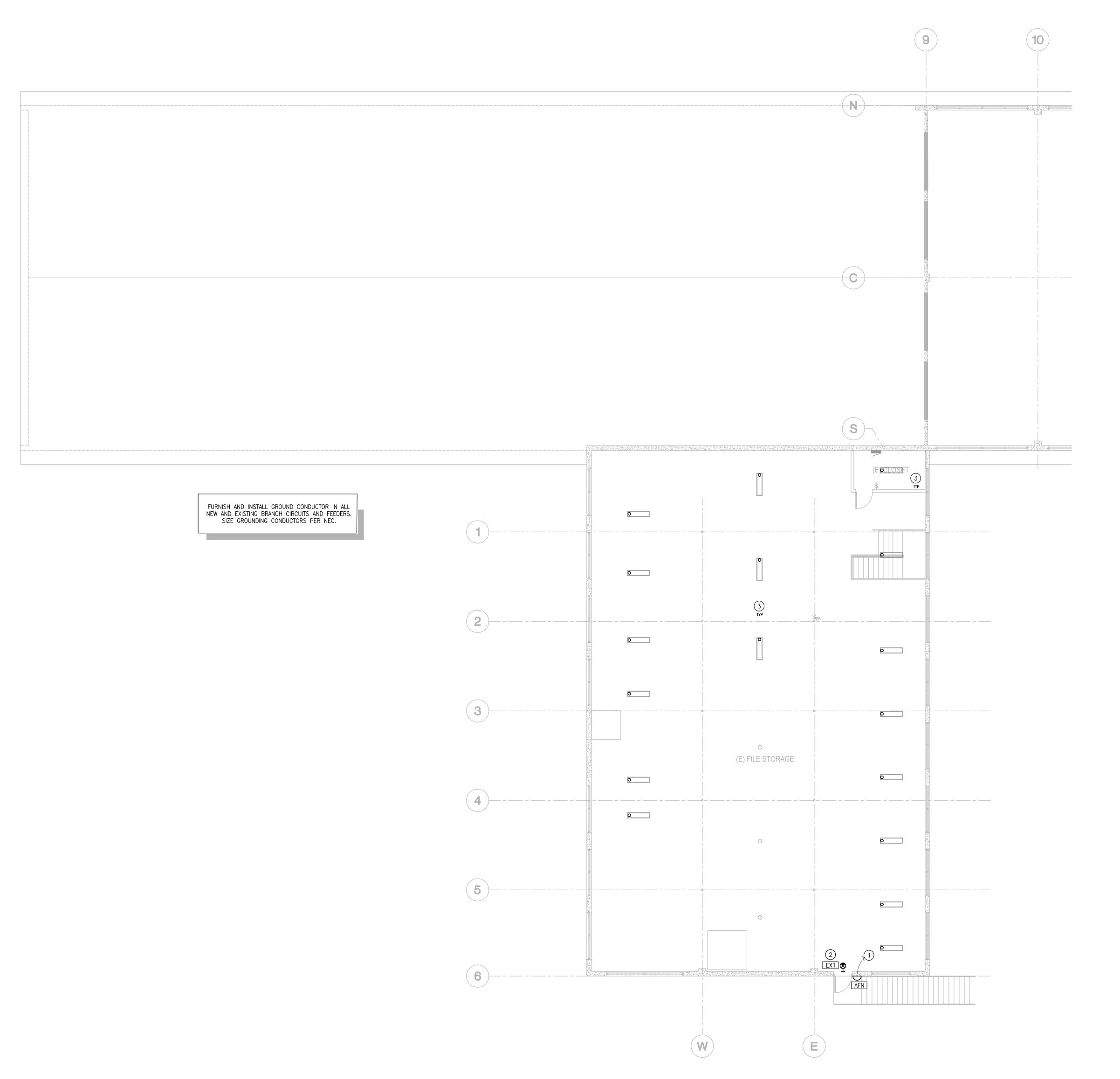
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LIGHTING PLAN GROUND FLOOR





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

- A. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER
- B. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. C. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
- D. ALL LIGHT FIXTURES SHALL BE 120 VOLT, UNLESS OTHERWISE NOTED.
- E. SHADED FIXTURE SHALL BE ON EMERGENCY/NIGHTLIGHT CIRCUIT AND SHALL NOT HAVE
- EMERGENCY BALLAST INSTALLED UNLESS OTHERWISE NOTED. F. ALL EXIT SIGNS AND NIGHT LIGHTS SHALL BE WIRED FOR CONTINUOUS OPERATION.
- G. FURNISH AND INSTALL 1000W RATED DIMMER SWITCH FOR CONTROL OF LIGHT FIXTURES AS INDICATED. DERATING IS REQUIRED IF MULTI-GANGED AND CONTROL FINS/SIDE SECTIONS ARE REMOVED. COORDINATE WITH DIMMER SWITCH MANUFACTURER'S INSTALLATION REQUIREMENTS.
- H. COORDINATE ALL UNDER CABINET LIGHTING WITH MILLWORK BEING INSTALLED AND ARCHITECTURAL ELEVATIONS. CONTRACTOR SHALL CONCEAL ALL CONDUIT.
- I. ALL FINAL LOCATIONS AND ARRANGEMENTS OF CEILING LIGHTING FIXTURES SHALL BE COORDINATED WITH ALL OTHER TRADES.
- J. EACH SWITCH BOX SHALL HAVE A GROUND AND ASSOCIATED LIGHTING CIRCUIT NEUTRAL
- K. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.

#### **SHEET NOTES:**

BATTERY BACKED EMERGENCY EGRESS FIXTURE. MOUNT AT 8'-5" A.F.F. INTERCEPT CLOSEST EXISTING LIGHTING CIRCUIT AND CONNECT TO UNSWITCHED LEG. FIXTURE TO OPERATE IN THE EVENT OF POWER FAILURE.

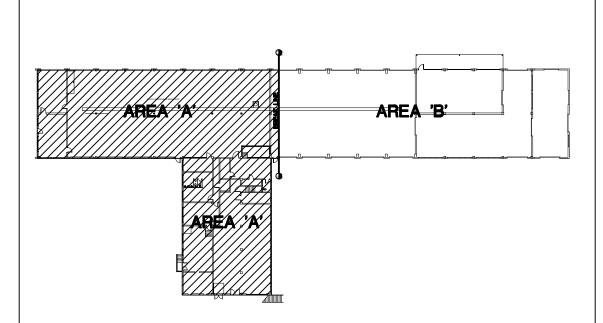
- . NEW EXIT SIGN. FIELD COORDINATE MOUNTING CONDITIONS AND INSTALL PER MANUFACTURERS REQUIREMENTS. INTERCEPT NEAREST 120 VOLT, UNSWITCHED BRANCH CIRCUIT AND EXTEND TO EXIT SIGN.
- 3. EXISTING LIGHT FIXTURES AND CONTROLS TO REMAIN.

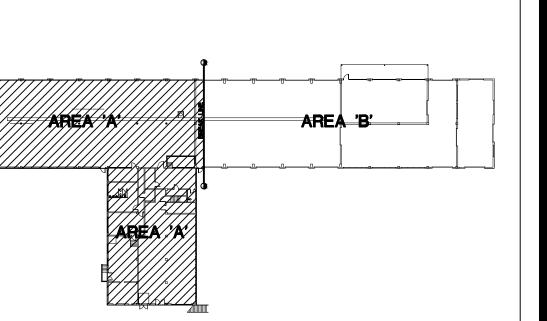


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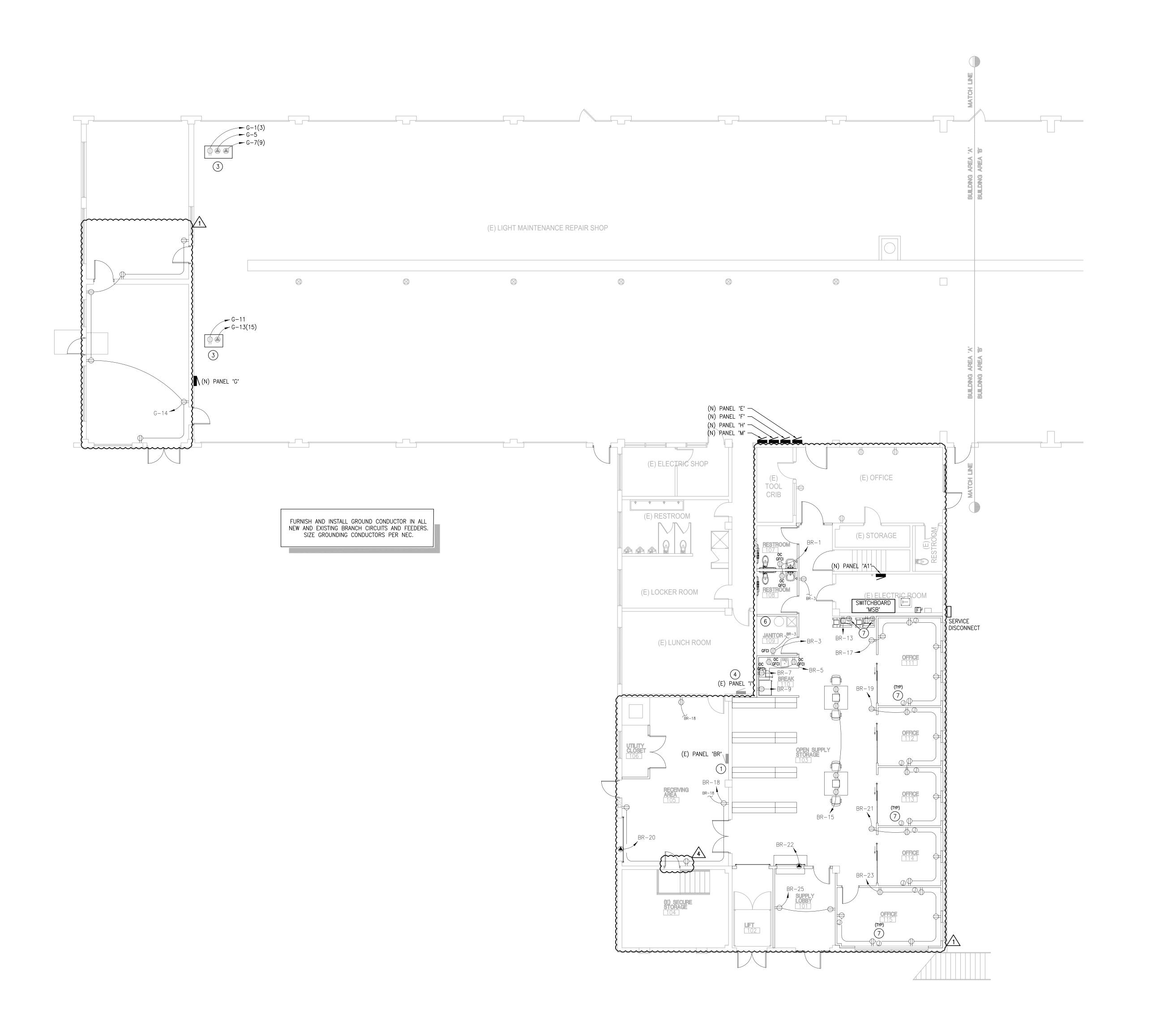




LIGHTING PLAN SECOND FLOOR

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

- A. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- 3. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.

#### **SHEET NOTES:**

RELOCATED PANEL. INTERCEPT AND EXTEND EXISTING PANEL FEEDER TO NEW LOCATION. PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED.

- 2. PROVIDE NEW ELECTRICAL CONDUIT AND CONDUCTORS FOR EXISTING FREIGHT LIFT. SEE SINGLE—LINE DIAGRAM. RE: E81.
- 3. INTERCEPT AND EXTEND EXISTING CIRCUITS FROM PANEL 'B2' TO NEW PANEL 'G'. PROVIDE ADDITIONAL CONDUIT AND CONDUCTORS AS REQUIRED.
- 4. EXISTING PANELBOARD TO BE RE-FED FROM PANEL 'BR'. SEE SINGLE-LINE DIAGRAM.
- . POWERED ROLL-UP DOOR. COORDINATE ELECTRICAL REQUIREMENTS WITH EQUIPMENT
- 6. SEE MECHANICAL POWER PLAN FOR WATER HEATER ELECTRICAL CONNECTIONS.
- FURNISH AND INSTALL SINGLE GANG JUNCTION BOX ADJACENT TO RECEPTACLE WITH 3/4" CONDUIT WITH PULL CORD TO ACCESSIBLE CEILINGS SPACE FOR FUTURE DATA/TELECOM OUTLETS. COORDINATE WITH OWNER'S PROJECT MANAGER FOR REQUIREMENTS PRIOR TO INSTALLATION. FURNISH AND INSTALL BLANK COVER PLATE.



CONSTRUCTION 6/25/18

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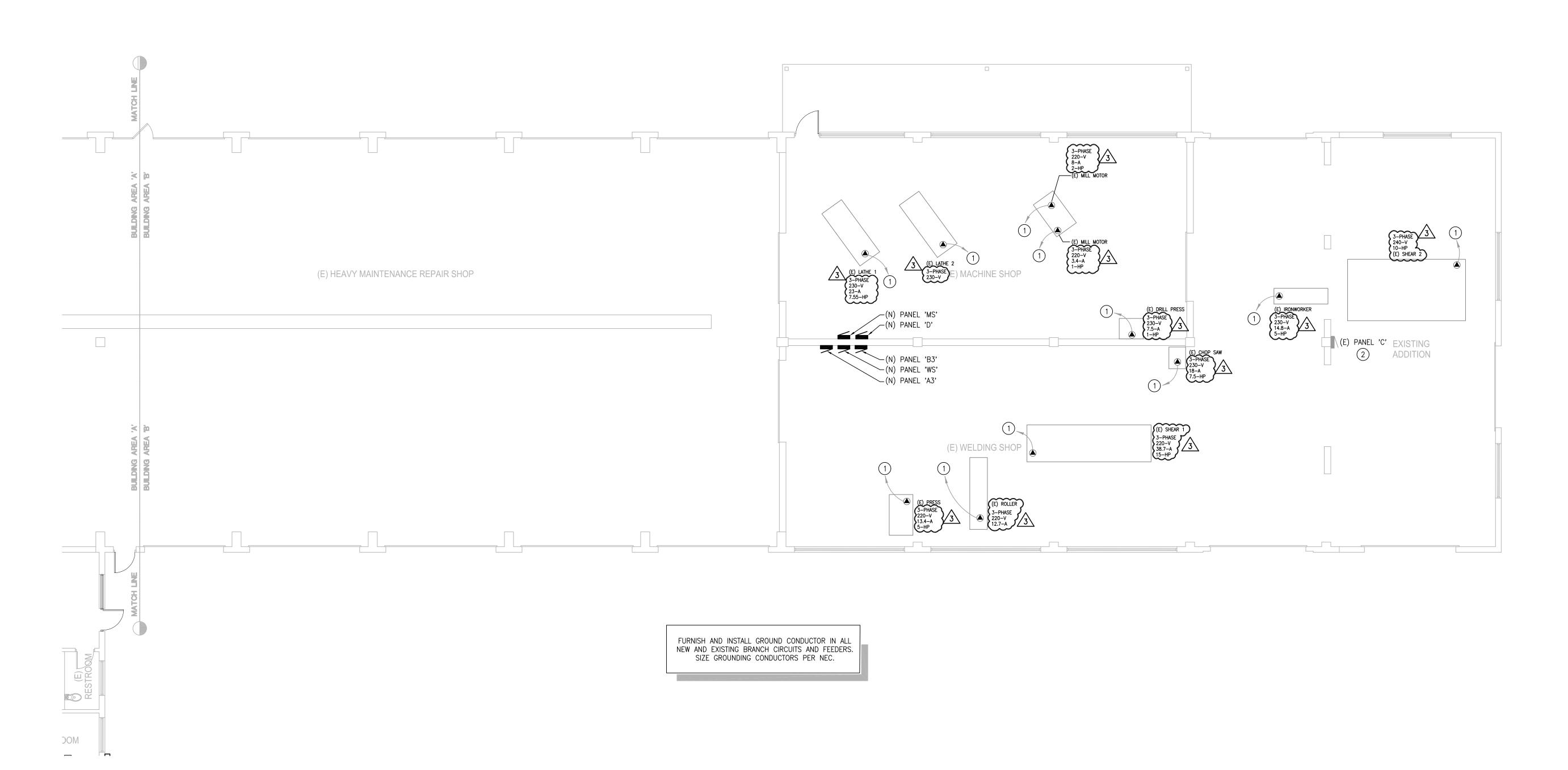
BUILDING KEY PLAN

AREA 'B'

POWER PLAN GROUND FLOOR

**E21A** 





1 POWER PLAN GROUND FLOOR - AREA 'B' SCALE 1/8' = 1'-0'

- A. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- B. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.

**SHEET NOTES:** 

INTERCEPT EXISTING ELECTRICAL FEED FOR EQUIPMENT TO NEW PANELS. PROVIDE ADDITIONAL CONDUIT AND CONDUCTORS AS REQUIRED.

2. EXISTING PANELBOARD TO BE RE-FED FROM NEW MAIN SWITCHBOARD. SEE SINGLE-LINE DIAGRAM.



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5-2-18

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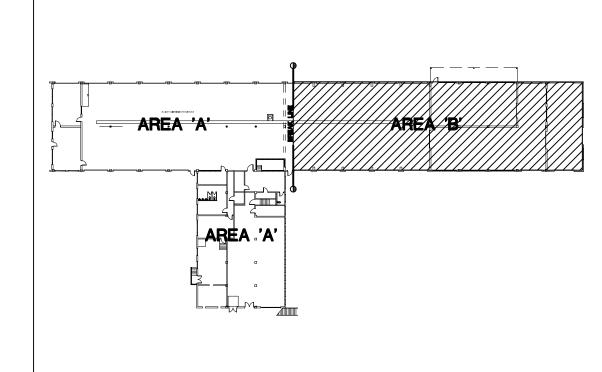
POWER PLAN

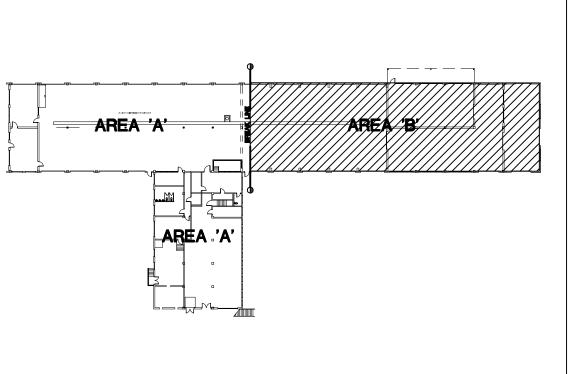
GROUND FLOOR

PROJECT

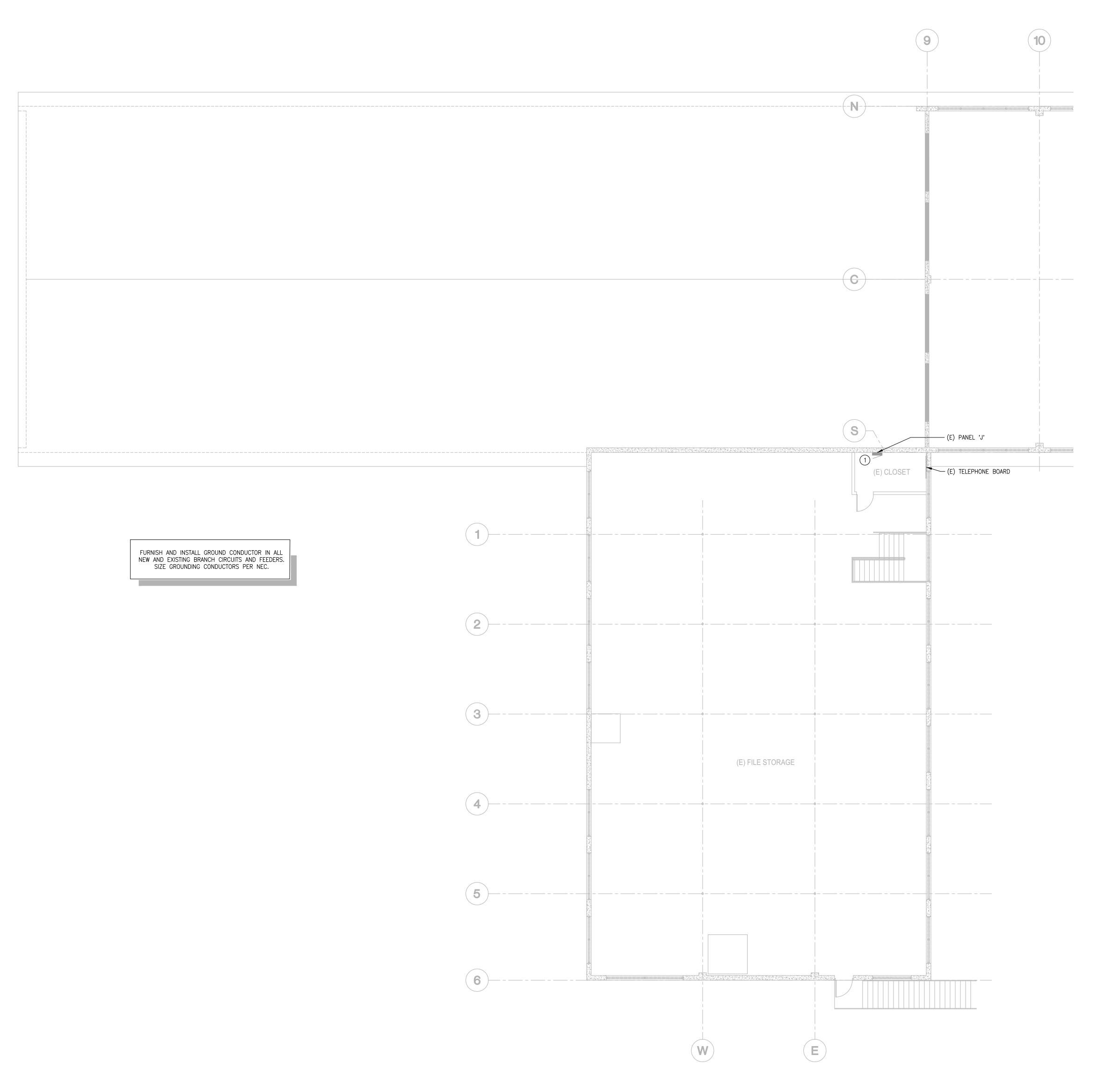
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BUILDING KEY PLAN









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

- A. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- B. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.

**SHEET NOTES:** 

1. REMOVE EXISTING LOAD CENTER FEEDER AND REPLACE WITH NEW. FIELD VERIFY EXISTING PANEL FEEDER. SEE SINGLE-LINE DIAGRAM FOR NEW FEEDER DETAILS. RE: E81.



CONSTRUCTION 6/25/18

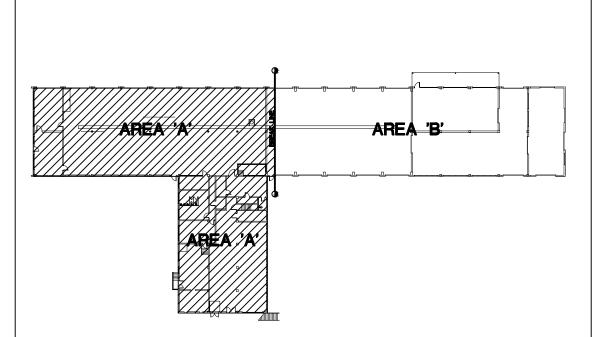
PROJECT 5-2-18 18059.00 DRAWN CHECKED JLB REVISED

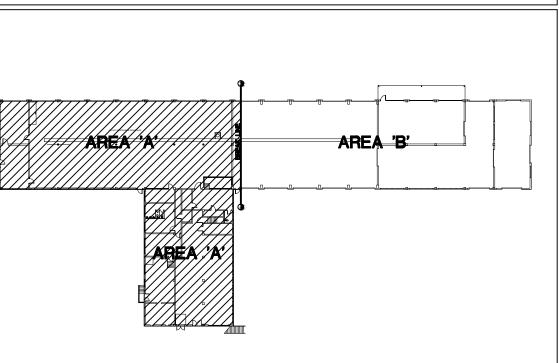
POWER PLAN SECOND FLOOR

**E22** 

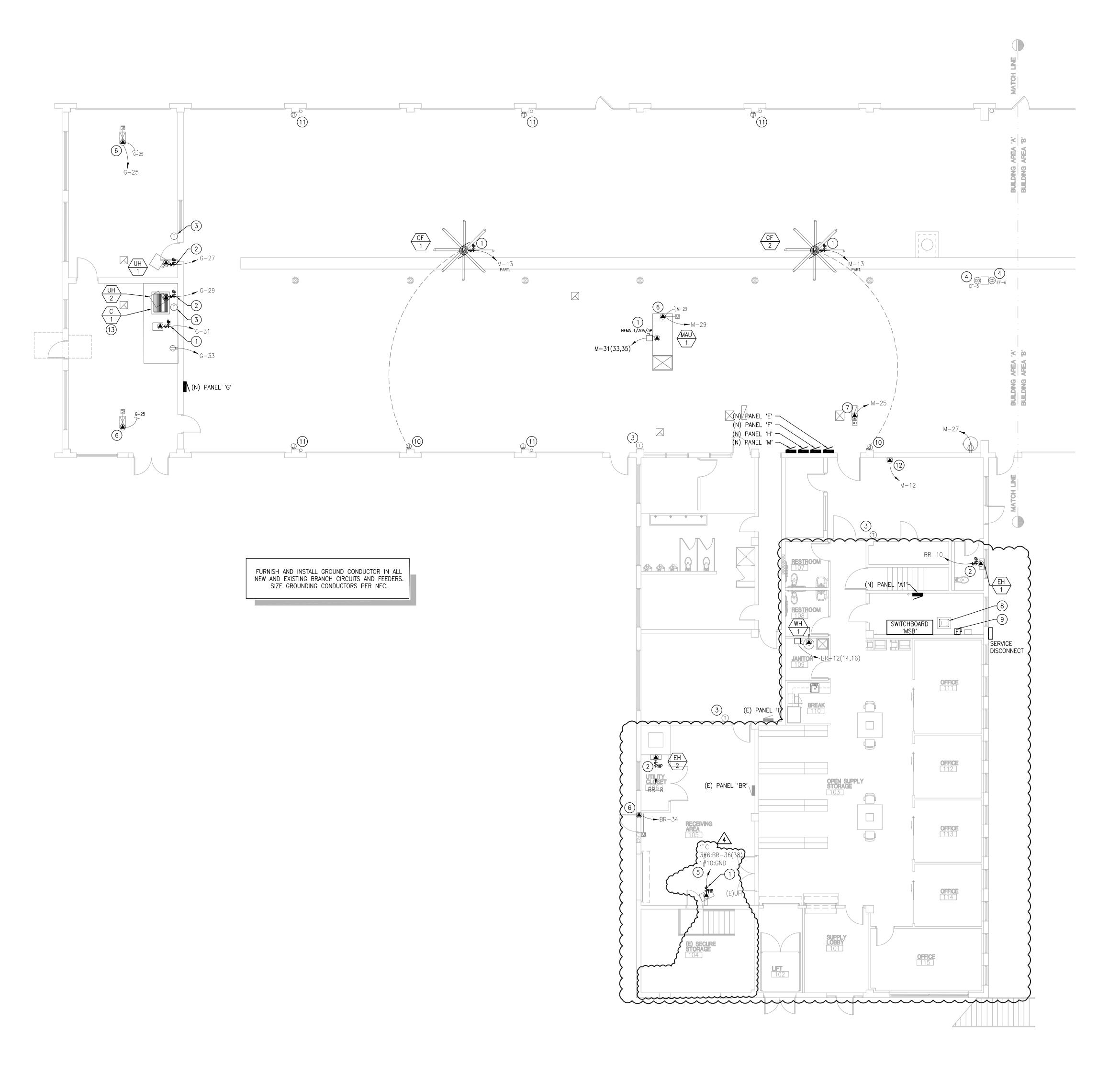
ORIGINAL SHEET SIZE 30" x 42"

BUILDING KEY PLAN









MECHANICAL PLAN GROUND FLOOR - AREA 'A'
SCALE 1/8' = 1'-0'

#### **GENERAL NOTES:**

- A. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- B. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- C. PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.
- D. COORDINATE ALL REQUIREMENTS FOR MECHANICAL EQUIPMENT, DUCT WORK, AND DIFFUSERS WITH MECHANICAL CONTRACTOR. INSTALL ALL CONDUIT RUNS PARALLEL AND PERPENDICULAR WITH OTHER TRADES. FURNISH AND INSTALL STARTERS FOR ALL MOTORS AS REQUIRED.
- E. ALL 120-V POWER TO MECHANICAL CONTROLS SHALL BE BY ELECTRICAL CONTRACTOR. ALL LOW VOLTAGE POWER BY MECHANICAL CONTROLS CONTRACTOR.

### SHEET NOTES:

- FURNISH AND INSTALL DISCONNECT. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE WITH MECHANICAL CONTRACTOR.
- ELECTRICAL DISCONNECT PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE WITH MECHANICAL CONTRACTOR.
- FURNISH AND INSTALL BACK BOX WITH 3/4" CONDUIT TO MECHANICAL UNIT INDICATED FOR HVAC THERMOSTAT. COORDINATE WITH CONTROLS CONTRACTOR FOR EXACT
- 4. FURNISH AND INSTALL 2-GANG JUNCTION BOX AT 54" FOR GAS DETECTOR AND 4-GANG JUNCTION BOX AT 120" FOR STROBE. ROUTE 3/4" CONDUIT BETWEEN THE TWO JUNCTION BOXES FOR CONTROL WIRING. COORDINATE WITH CONTROLS
- 5. EXISTING UNIT HEATER RELOCATED TO INDICATED LOCATION. VERIFY ELECTRICAL REQUIREMENTS AND ROUTE POWER TO NEW PANEL AS INDICATED.
- 6. MOTORIZED DAMPER. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.
- 7. DUCT-MOUNTED SMOKE DETECTOR FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE WITH FIRE ALARM CONTRACTOR FOR TIE-IN TO FIRE ALARM SYSTEM.
- 8. AIR COMPRESSOR TRANSFORMER PROVIDED BY EQUIPMENT PROVIDER. SEE SINGLE—LINE DIAGRAM FOR ELECTRICAL CONNECTION. RE: E81.
- 9. FURNISH AND INSTALL FUSED DISCONNECT FOR AIR COMPRESSOR TRANSFORMER. SEE SINGLE LINE DIAGRAM FOR ELECTRICAL INFORMATION. RE: E81.
- 10. FURNISH AND INSTALL JUNCTION BOX AT 54" AFF FOR CEILING FAN CONTROLLER. ROUTE 3/4" CONDUIT AND CONTROL WIRING TO CEILING FAN. COORDINATE WITH
- 11. FURNISH AND INSTALL JUNCTION BOX AT 54" AFF FOR VEHICLE EXHAUST FAN CONTROLLER. ROUTE 3/4" CONDUIT AND CONTROL WIRING TO EXHAUST FAN. COORDINATE WITH CONTROLS CONTRACTOR
- 2. EXHAUST FAN TIMECLOCK. COORDINATE ELECTRICAL REQUIREMENTS AND LOCATION WITH
- 2. EXHAUST FAN TIMECLOCK. COORDINATE ELECTRICAL REQUIREMENTS AND LOCATION WIT MECHANICAL CONTRACTOR.
- 13. SEE SINGLE-LINE DIAGRAM FOR COMPRESSOR ELECTRICAL CONNECTIONS. RE: E81.

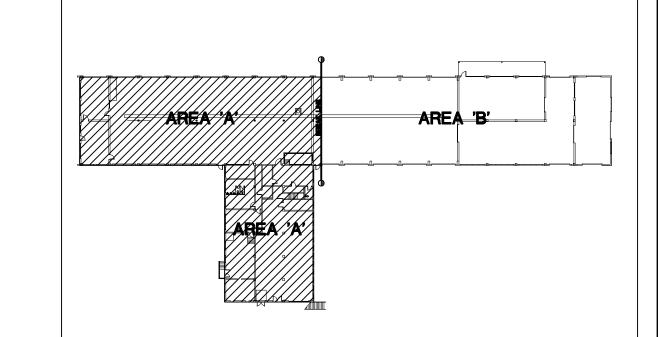


FOR CONSTRUCTION 6/25/18

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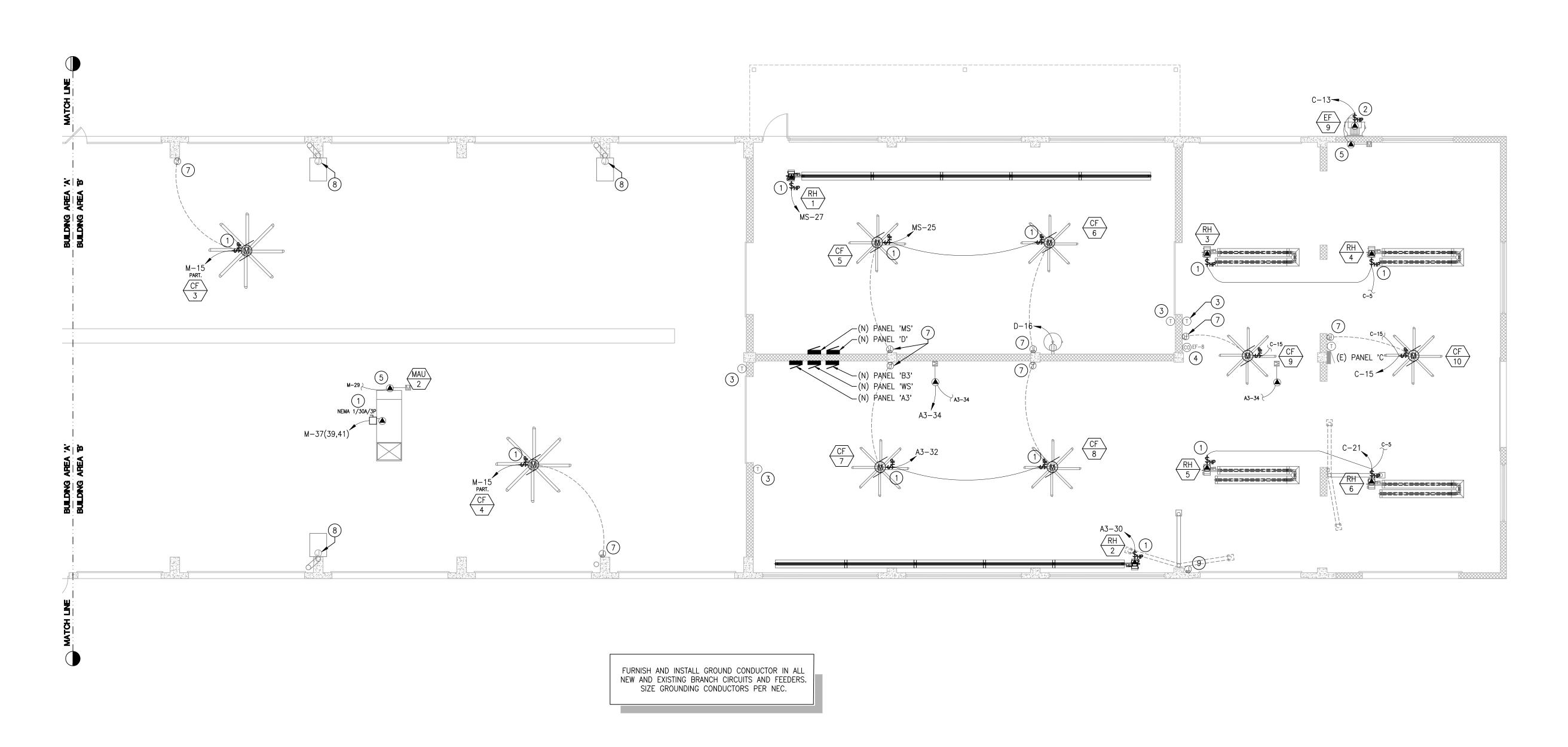
### BUILDING KEY PLAN



MECHANICAL POWER PLAN GROUND FLOOR

E31A





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

- A. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- B. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.
- COORDINATE ALL REQUIREMENTS FOR MECHANICAL EQUIPMENT, DUCT WORK, AND DIFFUSERS WITH MECHANICAL CONTRACTOR. INSTALL ALL CONDUIT RUNS PARALLEL AND PERPENDICULAR WITH OTHER TRADES. FURNISH AND INSTALL STARTERS FOR ALL MOTORS AS REQUIRED.
- E. ALL 120-V POWER TO MECHANICAL CONTROLS SHALL BE BY ELECTRICAL CONTRACTOR. ALL LOW VOLTAGE POWER BY MECHANICAL CONTROLS CONTRACTOR.



ISON L. DRUNSON, F.E.
0 BROAD STREET AISE, IDAHO 83702 ONE: 208-343-4635 • FAX: 208-343-1858
ESE DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF E ARCHITECT / ENGINEER WHETHER THE PROJECT FOR IICH THEY ARE MADE IS EXECUTED OR NOT. THESE AWINGS AND SPECIFICATIONS SHALL NOT BE USED BY Y PERSON OR ENTITY ON OTHER PROJECTS, FOR DITIONS TO THIS PROJECT, OR COMPLETION OF THIS OCCURAN ON THE WRITTEN CONSENT

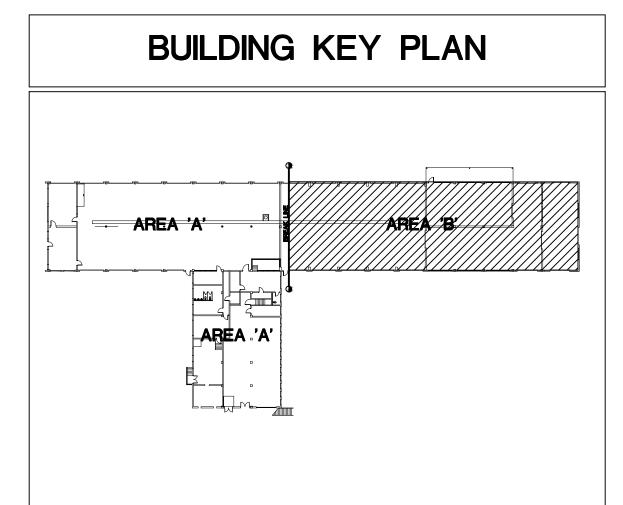
#### **SHEET NOTES:**

- ELECTRICAL DISCONNECT PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE WITH MECHANICAL CONTRACTOR.
- 4. FURNISH AND INSTALL 2-GANG JUNCTION BOX AT 54" FOR GAS DETECTOR AND 4-GANG JUNCTION BOX AT 120" FOR STROBE. ROUTE 3/4" CONDUIT BETWEEN THE TWO JUNCTION BOXES FOR CONTROL WIRING. COORDINATE WITH CONTROLS
- 7. FURNISH AND INSTALL JUNCTION BOX AT 54" AFF FOR CEILING FAN CONTROLLER. ROUTE 3/4" CONDUIT AND CONTROL WIRING TO CEILING FAN. COORDINATE WITH CONTROLS CONTRACTOR.
- 8. EXISTING VEHICLE EXHAUST FAN CONTROLLER. INTERCEPT AND EXTEND EXISTING CONDUIT AND CONTROL WIRING TO NEW VEHICLE EXHAUST FAN. PROVE ADDITIONAL CONDUIT AND CONTROL WIRING AS REQUIRED. COORDINATE WITH CONTROLS
- 9. FURNISH AND INSTALL JUNCTION BOX AT 54" AFF FOR WELDING EXHAUST FAN CONTROLLER. ROUTE 3/4" CONDUIT AND CONTROL WIRING TO EXHAUST FAN. COORDINATE WITH CONTROLS CONTRACTOR.

- FURNISH AND INSTALL DISCONNECT. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE WITH MECHANICAL CONTRACTOR.
- . FURNISH AND INSTALL BACK BOX WITH 3/4" CONDUIT TO MECHANICAL UNIT INDICATED FOR HVAC THERMOSTAT. COORDINATE WITH MECHANICAL FOR EXACT LOCATION.
- 5. MOTORIZED DAMPER. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR. 6. NOT USED.
- CONTRACTOR.

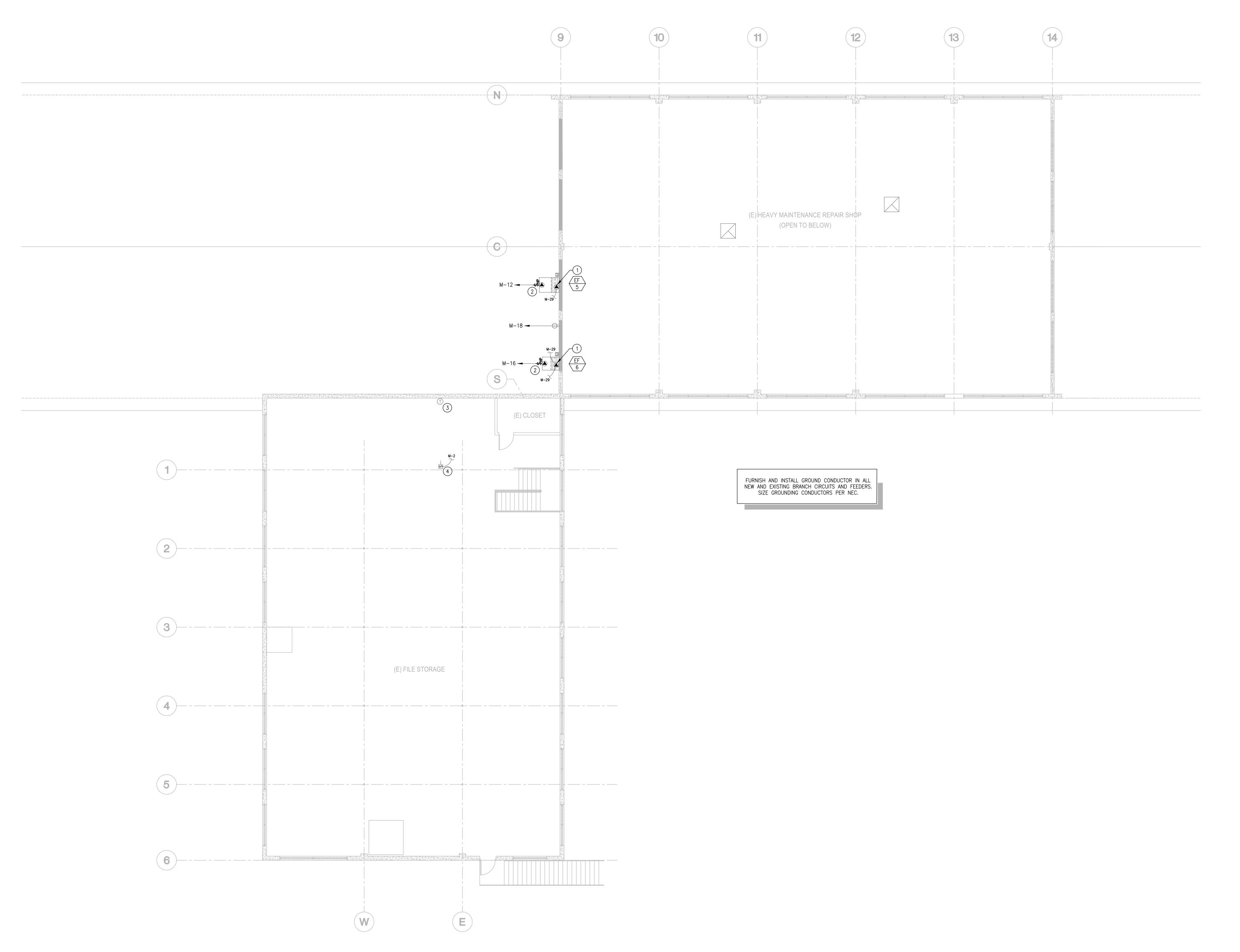
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**MECHANICAL** POWER PLAN GROUND FLOOR





MECHANICAL PLAN SECOND FLOOR SCALE 1/8" = 1'-0"

- A. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- B. ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.
- COORDINATE ALL REQUIREMENTS FOR MECHANICAL EQUIPMENT, DUCT WORK, AND DIFFUSERS WITH MECHANICAL CONTRACTOR. INSTALL ALL CONDUIT RUNS PARALLEL AND PERPENDICULAR WITH OTHER TRADES. FURNISH AND INSTALL STARTERS FOR ALL MOTORS AS REQUIRED.
- E. ALL 120-V POWER TO MECHANICAL CONTROLS SHALL BE BY ELECTRICAL CONTRACTOR. ALL LOW VOLTAGE POWER BY MECHANICAL CONTROLS CONTRACTOR.

**SHEET NOTES:** 

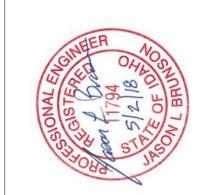
MOTORIZED DAMPER. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR. SEE SHEET E31A AND E31B FOR CIRCUIT CONTINUATION.

WITH MECHANICAL CONTRACTOR.

ELECTRICAL DISCONNECT PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE

3. FURNISH AND INSTALL BACK BOX WITH 3/4" CONDUIT TO MECHANICAL UNIT INDICATED FOR HVAC THERMOSTAT. COORDINATE WITH MECHANICAL FOR EXACT LOCATION.

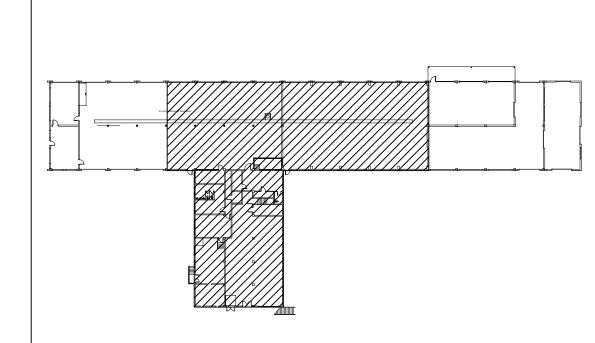
4. DUCT-MOUNTED SMOKE DETECTOR FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE WITH FIRE ALARM CONTRACTOR FOR TIE-IN TO FIRE ALARM SYSTEM. SEE ROOF PLAN FOR CIRCUIT CONTINUATION.



CONSTRUCTION 6/25/18

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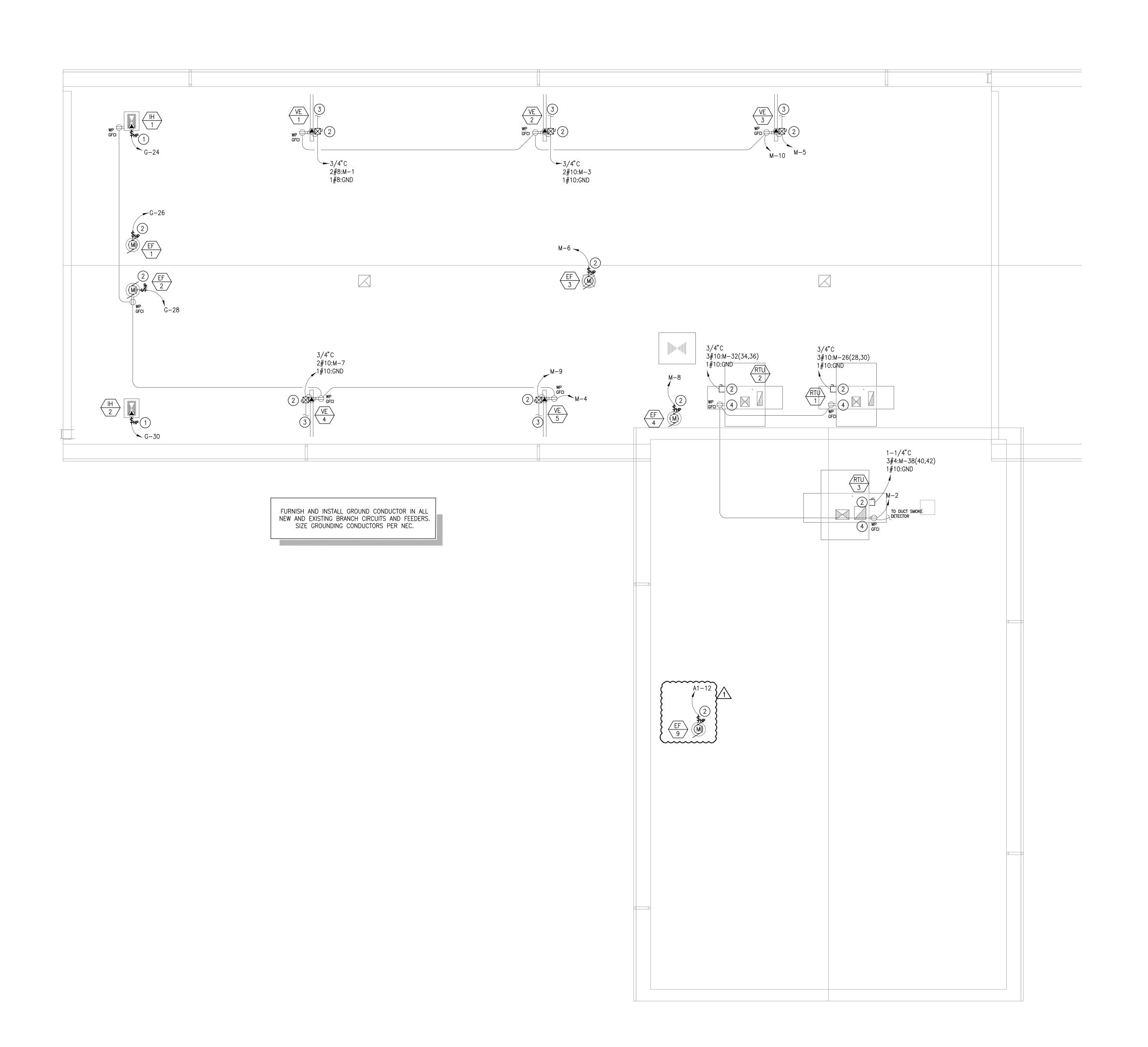
BUILDING KEY PLAN



**MECHANICAL** PLAN SECOND **FLOOR** 

E32





MECHANICAL POWER PLAN ROOF - AREA 'A'
SCALE 1/8' = 1'-0'

- A. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
- B. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
- MAKE ALL CONNECTIONS TO EQUIPMENT.
- DO NOT ROUTE CONDUITS ABOVE THE ROOF, EXCEPT IN RUNS THAT ARE SHORTER THAN 10'-0" FEET IN LENGTH.
- UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.
- H. CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR, ELECTRICAL BOXES AND CONDUIT RUN REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE ALL ELECTRICAL FOR MECHANICAL EQUIPMENT AS DIRECTED BY MECHANICAL CONTRACTOR.
- COORDINATE ALL CONTROL WORK WITH THE MECHANICAL CONTRACTOR. SEE THE MECHANICAL CONSTRUCTION DRAWINGS FOR ADDITIONAL WORK REQUIRED BY THE ELECTRICAL CONTRACTOR. PROVIDE ALL ELECTRICAL WORK AS SHOWN ON THE MECHANICAL DRAWINGS AND AS DIRECTED BY THE CONTROL CONTRACTOR.

#### **SHEET NOTES:**

- FURNISH AND INSTALL DISCONNECT. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE WITH MECHANICAL CONTRACTOR.
- ELECTRICAL DISCONNECT PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE WITH MECHANICAL CONTRACTOR.
- FURNISH AND INSTALL 3/4" CONDUIT TO CONTROL SWITCH LOCATED IN MAINTENANCE/REPAIR SHOP BELOW. COORDINATE WITH EQUIPMENT INSTALLER FOR FINAL MOUNTING HEIGHT AND LOCATION AND CONNECTION REQUIREMENTS.
- RECEPTACLE FURNISHED AND INSTALLED BY EQUIPMENT MANUFACTURER. COORDINATE WITH MECHANICAL CONTRACTOR. MAKE FINAL CONNECTIONS.



CONSTRUCTION 6/25/18

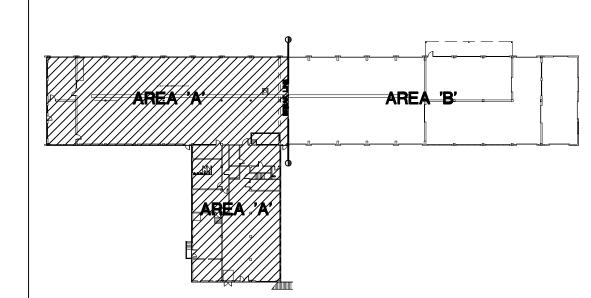
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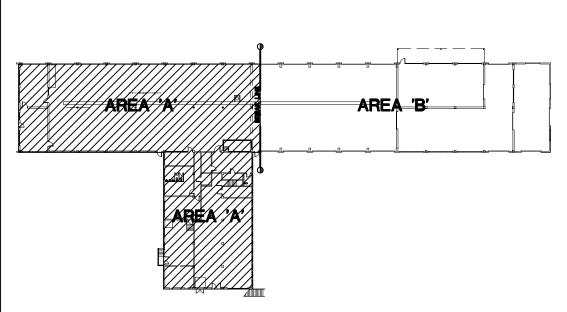
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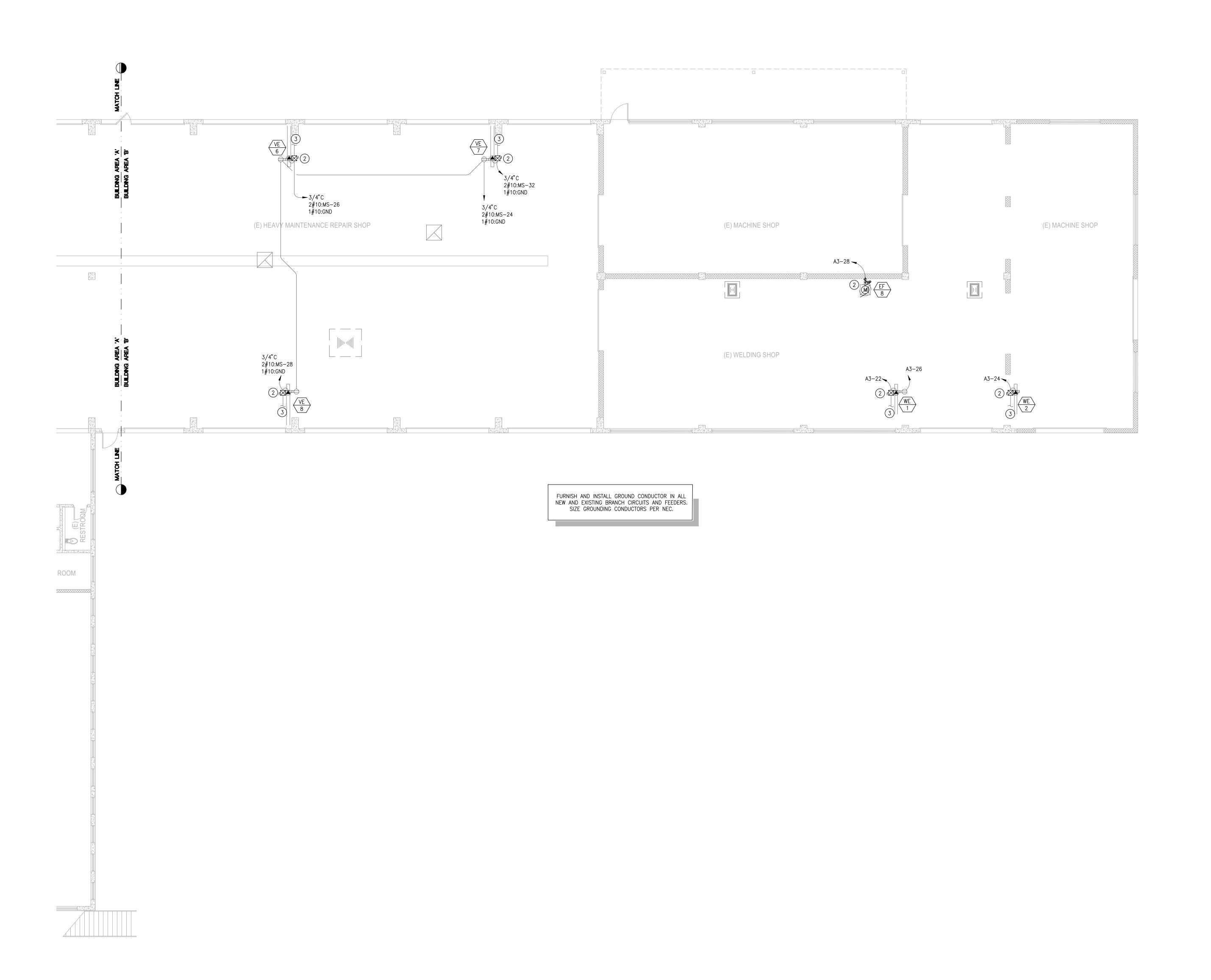






**MECHANICAL** POWER PLAN





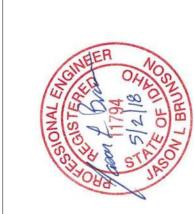
MECHANICAL POWER PLAN ROOF - AREA 'B' SCALE 1/8' = 1'-0'

- A. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
- B. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
- MAKE ALL CONNECTIONS TO EQUIPMENT.
- DO NOT ROUTE CONDUITS ABOVE THE ROOF, EXCEPT IN RUNS THAT ARE SHORTER THAN 10'-0" FEET IN LENGTH.
- UNLESS SPECIFICALLY NOTED TO THE CONTRARY, ALL MATERIALS AND EQUIPMENT SHALL BE OF STANDARD CATALOG AND PRODUCTION AS REQUIRED TO PRODUCE COMPLETE OPERATING SYSTEMS.
- ALL EQUIPMENT MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE LABEL ON COVER PLATE FOR ALL RECEPTACLES, J-BOXES, AND DEVICES INDICATING PANEL NAME AND CIRCUIT NUMBER.
- H. CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR, ELECTRICAL BOXES AND CONDUIT RUN REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE ALL ELECTRICAL FOR MECHANICAL EQUIPMENT AS DIRECTED BY MECHANICAL CONTRACTOR. COORDINATE ALL CONTROL WORK WITH THE MECHANICAL CONTRACTOR. SEE THE MECHANICAL CONSTRUCTION DRAWINGS FOR ADDITIONAL WORK REQUIRED BY THE

ELECTRICAL CONTRACTOR. PROVIDE ALL ELECTRICAL WORK AS SHOWN ON THE MECHANICAL DRAWINGS AND AS DIRECTED BY THE CONTROL CONTRACTOR.

#### **SHEET NOTES:**

- ELECTRICAL DISCONNECT PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. ROUTE POWER TO EQUIPMENT VIA DISCONNECT. COORDINATE WITH MECHANICAL CONTRACTOR.
- 3. FURNISH AND INSTALL 3/4" CONDUIT TO CONTROL SWITCH LOCATED IN MAINTENANCE/REPAIR SHOP BELOW. COORDINATE WITH EQUIPMENT INSTALLER FOR FINAL MOUNTING HEIGHT, LOCATION, AND CONNECTION REQUIREMENTS.

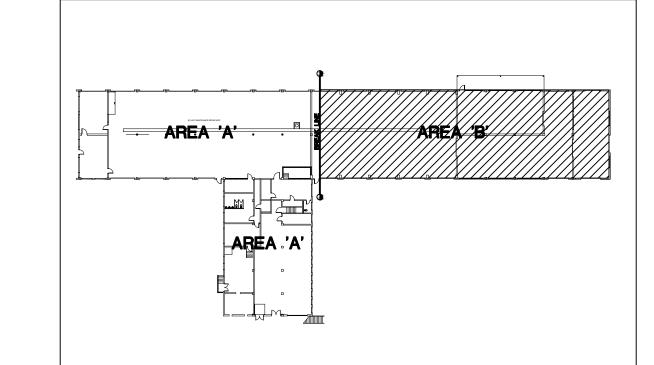


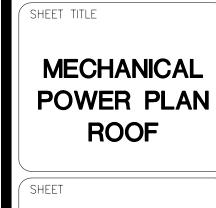
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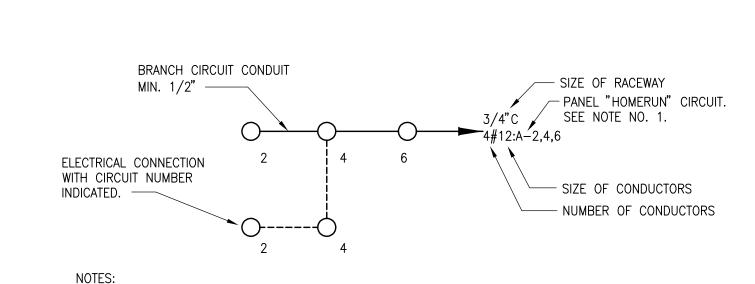
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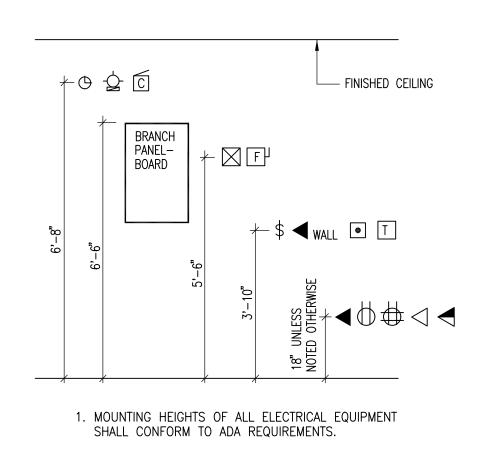




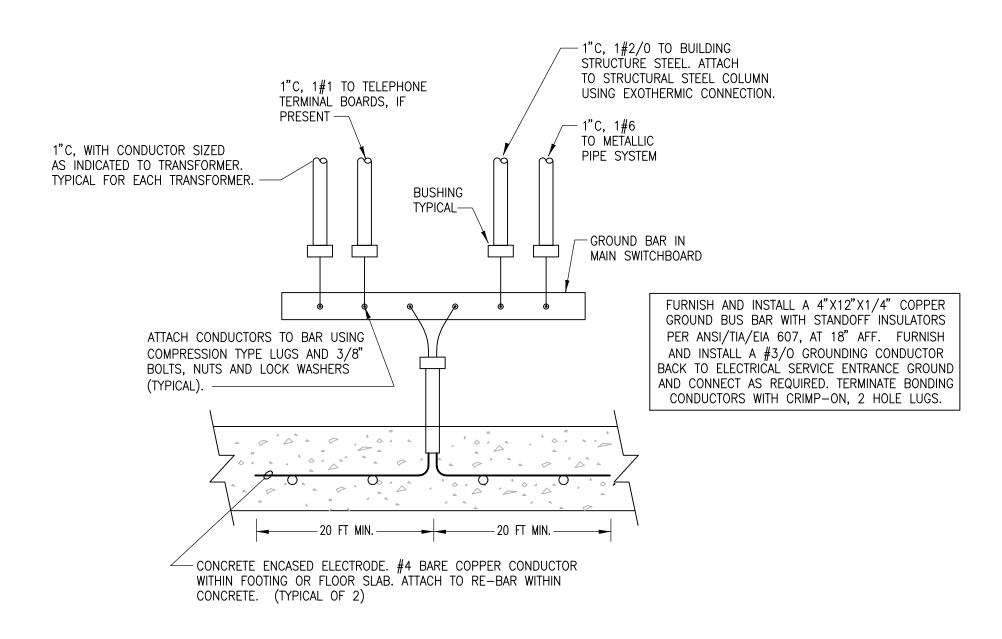


- 1) ALL HOME RUNS ARE TO BE 3/4" CONDUIT MINIMUM WITH BRANCH CIRCUIT AND GROUNDING CONDUCTOR #12 UNLESS NOTED OTHERWISE.
- 2 A GROUND CONDUCTOR, SIZED PER NEC, SHALL BE INCLUDED IN ALL CONDUIT RUNS.
- 3 DASHED LINES INDICATE UNDERSLAB OR UNDERGROUND CONDUIT (SCHEDULE 40 PVC, 1" MIN.)

## CIRCUITING SYMBOLS SCALE: NONE



## 2 STANDARD MOUNTING HEIGHTS SCALE: NONE



3 GROUNDING DETAIL
SCALE: NONE



:ROAD STREET E, IDAHO 83702 NE: 208-343-4635 • FAX: 208-343-1858	E DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS RVICE, ARE AND SHALL REMAIN THE PROPERTY OF RCHITECT / ENGINEER WHETHER THE PROJECT FOR THEY A THEY ARE MADE IS EXECUTED OR NOT. THESE INGS AND SPECIFICATIONS SHALL NOT BE USED BY ERSON OR ENTITY ON OTHER PROJECTS, FOR IONS TO THIS PROJECT, OR COMPLETION OF THIS SCT-WHEN PHASED-WITHOUT THE WRITTEN CONSENTHOA OR ITS AFFILIATES. Copyright@2018

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UPGRADES GARDEN CITY,

CONSTRUCTION

**DETAILS** 



BUILDING LOAD SUMMARY

PEAK DEMAND (EXISTING DEMAND @125%) | 114

TOTAL ADDED REMODEL DEMAND (KVA) | 152

MAXIMUM REMODEL DEMAND (KVA) 266

MAXIMUM REMODEL DEMAND (AMPS) 739

ADDITIONAL REMODEL LOADS HAVE BEEN SHOWN IN ORDER TO SHOW THE EXISTING SERVICE IS SUFFICIENT TO ACCEPT ADDITIONAL LOAD. THE LOADS SHOWN ARE WORST CASE SCENARIO AND DO NOT REFLECT THE

REMOVAL OF EXISTING EQUIPMENT, LIGHTING, REFRIGERATION AND MECHANICAL LOADS, WHICH WOULD LOWER

ADDITIONAL LIGHTING @ 125% 2.8

ADDITIONAL MOTOR LOAD @ 125%\*LARGEST + REMAINING | 71.5

ADDITIONAL HVAC EQUIPMENT LOADS @ 100% 39.3

ADDITIONAL MISCELLANEOUS LOADS @ 100% | 12.4

ADDITIONAL HEATING LOADS @ 100% | 20.7

MAIN SWITCHBOARD RATING: 800A @ 208V

MAXIMUM EXISTING DEMAND LOAD(KW) 91 PER UTILITY 04/2018

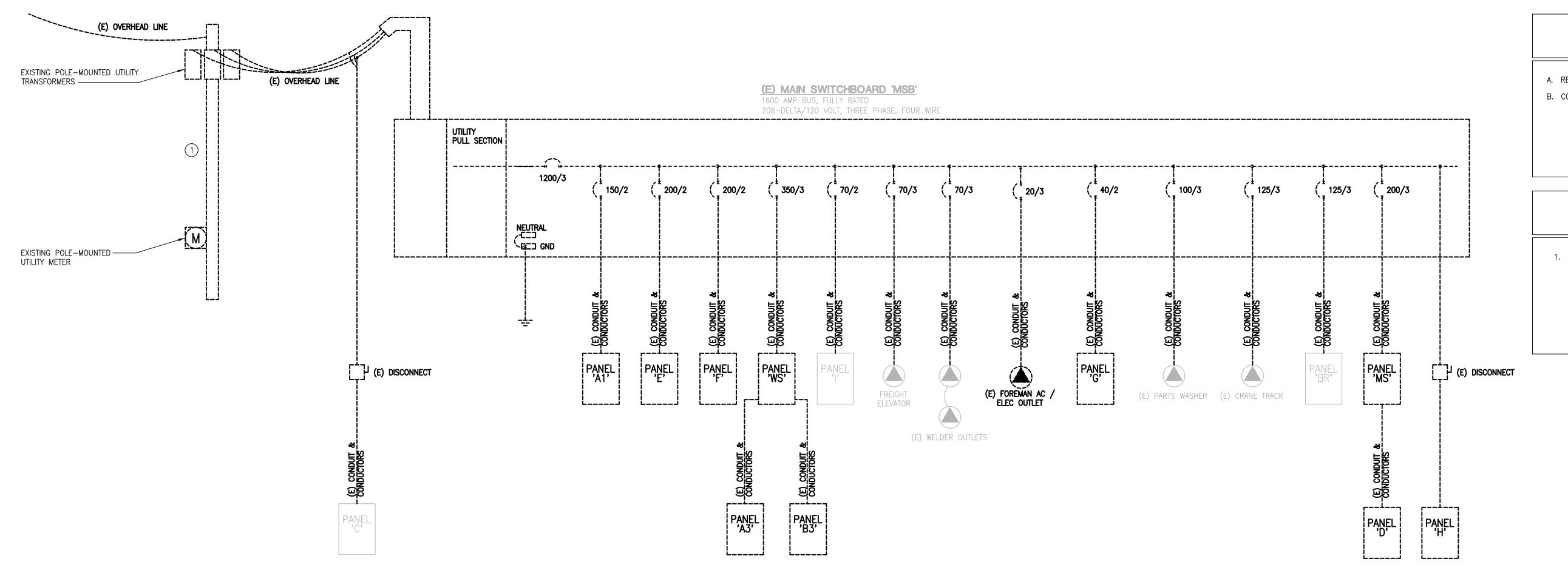
NEW STORAGE HIGH BAY LIGHTS

NEW RECEPTACLES

NEW CEILING FANS, EXHAUST FANS, AND COMPRESSOR

NEW ROOF TOP AND MAKE-UP AIR UNITS

NEW ROOF TOP AND MAKE-UP AIR UNITS



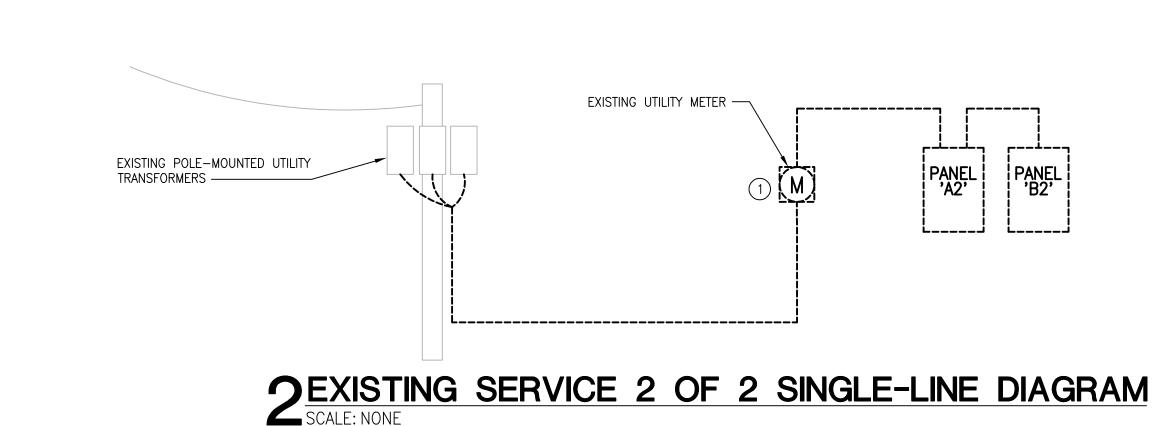
### **GENERAL NOTES:**

A. REFER TO PANEL SCHEDULES ON SHEET E82 FOR LOAD INFORMATION. B. COORDINATE ALL UTILITY CONNECTION REQUIREMENTS AND CONNECT.

#### SHEET NOTES:

1. REMOVAL OF ANY EXISTING UTILITY TRANSFORMERS, UTILITY METERS, AND APPLICABLE OVERHEAD LINES IS TO BE COMPLETED BY THE BY UTILITY.

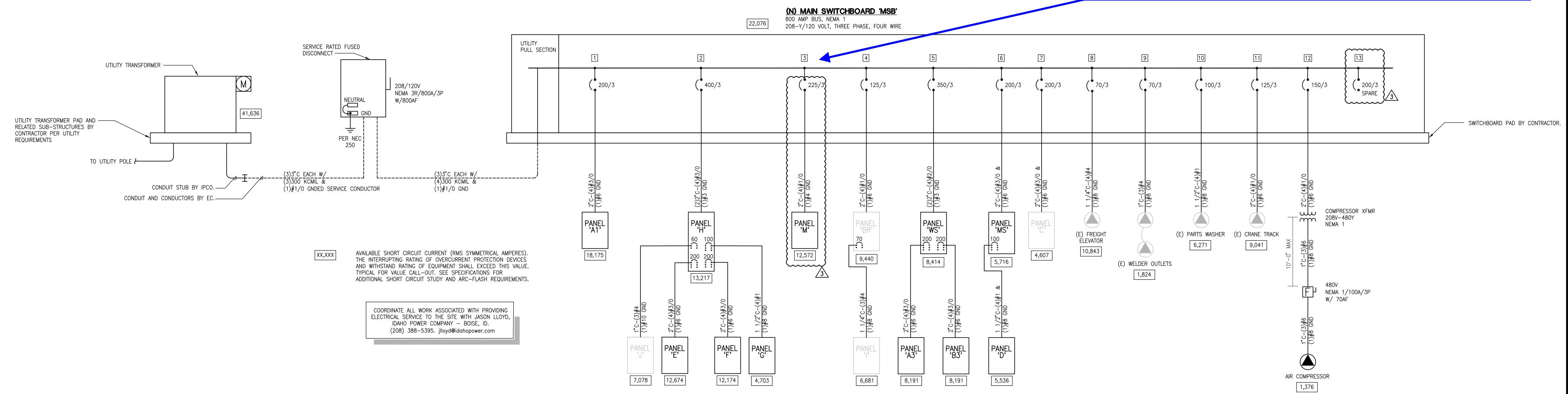
## **LEXISTING SERVICE 1 OF 2 SINGLE-LINE DIAGRAM**SCALE: NONE



**ELECTRICAL PLAN REVIEW NOTES:** 

\*\*\*Panel M - Compliance with NEC 215.2 and 215.3 shall be verified by on-site electrical inspections.

It appears the Feeders are undersized and the overcurrent protection device for the Feeders exceeds that allowed.\*\*\*



3 SINGLE-LINE DIAGRAM
SCALE: NONE

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CONSTRUCTION 6/25/18

PROJECT

18059.00

CHECKED JLB REVISED ↑ ADDENDUM 1  $1 \ 5-15-18$ , BL ADDENDUM 4 5-29-18, BL SHEET NOT ISSUED

5-2-18

SINGLE-LINE **DIAGRAM** 

E81



#### EXISTING PANEL TO BE REMOVED. SERVICE 2 OF 2

	NEL 'A1'						NOTES:	NEW COMME	ERCIAL BO	OLT ON	CIRCI	uit Brea	KER PANE	ELBOARD		
	18Y/120-VOLT, 3-PHASE, 4-WIRE 10-AMP, MAIN LUGS ONLY		MOUI	NTING:	SUR	FACE										
CKT	LOAD	REF	BRKR	LOAD	_	EAKER		PHASE AMPS		BREA	KER	LOAD	BRKR	REF	LOAD	
NO	DESCRIPTION	NO	TYPE	AMPS	-	AMP	A	В	С	AMP		AMPS	TYPE	NO	DESCRIPTION	
1	(E) JBOX				1	20	0.0			20	1				(E) JBOX – UPSTAIR	S
3	(E) JBOX				1	20		0.0		20	1				(E) LTS - UPSTAIR	S
5	(E) LTS - OFFICE				1	20			0.0	20	1				(E) HOIS	ίŢ
7	(E) OFFICE				1	20	0.0			20	1				(E) REC/LTS - UPSTAIR	
9	(E) BOILER ROOM				1	20		0.0		20	1	~~	~~	~~~	(E) JBOX – UPSTAIR	
11	(E) STORAGE				1	20			5.8	20	1 ,	5.8		EF-9	EXHAUST FAN - SECURE STORAG	-
13	(E) ELEC ROOM / HALL				1	20	0.0			20	1				SPAR	
15	(E) TOOL CRIB				1	20		0.0		20	1				(E) LUNC	
17	(E) REC - OFFICE				1	20			0.0	20	1				(E) LTS — LUNC	_
19	(E) LUNCH / PRTS STORAGE				1	20	0.0			20	1				(E) REC – BOILER / LUNC	
21	(E) FLOOD LTS				1	20		0.0		20	1				(E) REC/LTS — UPSTAIR	
23	(E)				1	20			0.0	15	1				(E) REC/LTS — UPSTAIR	
25	(E) ELEC ROOM / TOILET WASH ROOM				1	20	0.0			20	1				(E) REC - OFFIC	Έ
27	(E) REC - OFFICE				1	20		0.0		40	2				(E	-)
29	(E)				1	20			0.0	**	*					<b>*</b> *
	SPARE				1	20	0.0			20	1				SPAR	
33	SPARE				1	20		0.0		20	1				SPAR	
35	SPARE				1	20			0.0	20	1				SPAR	
37	SPARE				1	20	0.0			20	1				SPAR	
39	SPARE				1	20		0.0		20	1				SPAR	
41	SPARE			<u></u>	1	20			0.0	20	1	<u></u>			SPAR	E
	PROJECT #18059 Panel Schedule				TATAL	LOAD:	0	0	6						06/06/1	_

PA	NEL 'A2'					NOTES	: TO BE R	REMOVED.							
24	0/120-volt, 1-phase, 3-wire														
20	0-AMP, MAIN CIRCUIT BREAKER		MOU	NTING:	SURFAC	E									
жт	LOAD	REF	BRKR	LOAD	BREAK	ER	PHASE AM	PS	BREA	KER	LOAD	BRKR	REF	LOAD	٦
NO	DESCRIPTION	NO	TYPE	AMPS	P A	/IP L1		L2	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	
1	(E) REC - RM #2 SINK				1 2	0 0.	)		20	1				(E) REC - RM #3 E	Ē
3	(E) REC - RM #2 SINK GFCI				1 2	0		0.0	20	1				(E) REC - RM #3 SI	Ē
5	(E) REC - RM #2 N				1 2	0 0.	)		20	1				(E) REC - RM #1 SV	
7	(E) REC - RM #2 W				1 2	0		0.0	20	1				(E) REC - RM #3 N	E
9	(E) REC - RM #3 S				1 2	0 0.	)		20	1				(E) REC - RM #1 SINK GFC	)l
11	(E) REC - RM #3 SINK GFCI				1 2	0		0.0	20	1				(E) REC - RM #1 V	N
13	(E) REC - RM #3 SINK GFCI				1 2	0 0.	)		20	1				(E) SPARI	E
15	(E) REC - RM #3 W				1 2	0		0.0	20	1				(E) REC - RM #1 SE	E
	(E) REC - RM #3 OVEN				2 3	0 0.	)		20	1				(E) REC - OUTDOOR GFCI NV	N
	**				* 1	*		0.0	20	1				(E) REC - OUTDOOR GFCI SV	N
	(E) AC - RM #2				2 2	0 0.	)		20	2				(E) AC - RM #	:1
	**				* :	*		0.0	**	*				*	ok
25	(E) AC - RM #3				2 2	0 0.	)		20	2				(E) MIDDLE ROOM OVE	N
	**				* 3	*		0.0	**	*				*	*
29	(E) SPACE					0.	)							(E) SPACI	E
31	(E) SPACE							0.0						(E) SPACI	E
33	(E) SPACE					0.	)							(E) SPACI	_
35	(E) SPACE							0.0						(E) SPACI	
37	(E) SPACE					0.	)							(E) SPACI	
39	(E) SPACE							0.0						(E) SPACI	Ε
	PROJECT #18059 Panel Schedule			1	OTAL LO	VD: 0		0						06/06/18	= ጸ

IEL 'A3' NY/120-VOLT, 3-PHASE, 4-WIRE N-AMP, MAIN LUGS ONLY MOUNTING:						NOTES:	NEW COMM	iercial Bo	OLT ON	CIRCU	JIT BREA	KER PANI	ELBOARD		
-AMP, MAIN LUGS ONLY		MOU	NTING:	SURF	ACE										
LOAD	REF	BRKR	LOAD	BRE	AKER		PHASE AMPS	;	BREAK	ŒR	LOAD	BRKR	REF	LOAD	CI
DESCRIPTION	NO	TYPE	AMPS	Р	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	N
) LTS - MIDDLE BAY				2	20	0.0			20	2				(E) LTS	S 2
				*	**		0.0		**	*				**	* 4
) LTS - MIDDLE BAY				2	20			0.0	20	2				(E) LTS — MIDDLE BAY	Y 6
				*	**	0.0			**	*				**	* 8
) LTS				2	20		0.0							SPACE	E 10
				*	**			0.0						SPACE	E 1:
) LTS				2	20	0.0			20	2				(E) REC	C <b>1</b>
				*	**		0.0		**	*				**	* 1
PARE				1	20			0.0	20	2				(E) BAND SAW	N 1
) CRANE				1	20	0.0			**	*				akak	* 2
) CONNECTION				1	20		12.4		20	1	12.4		WE-1	WELDING EXHAUST — WELDING SHOP	P <b>2</b>
) HAMMER				1	20			12.4	20	1	12.4		WE-2	WELDING EXHAUST — WELDING SHOP	P <b>2</b>
) WIRE FEED WELDER				2	20	1.5			20	1	1.5			REC — ROOF TOP	
				*	**		4.4		20	1	4.4		EF-7	EXHAUST FAN - WELDING SHOP	
PARE				1	20			1.1	20	1	1.1		RH-2	RADIANT HEATER — WELDING SHOP	P 3
PARE				1	20	7.2			20	1	7.2		CF-7/8	CEILING FANS — WELDING SHOP	P <b>3</b>
) REC — PLASMA WELDER				2	50		2.0		20	1	2.0			MOTORIZED DAMPERS	S <b>3</b>
				*	**			0.0	20	1				Spare	E 3
PACE						0.0			20	1				SPARE	E 3
PACE							0.0		20	1				SPARE	E 4
PACE								0.0	20	1				Spare	E <b>4</b>
	LOAD DESCRIPTION  LTS - MIDDLE BAY  LTS - MIDDLE BAY  LTS - MIDDLE BAY  LTS  LTS  ARE  CRANE  CONNECTION  HAMMER  WIRE FEED WELDER  ARE  ARE  ARE  ARE  ARE  ARE  ARE	LOAD DESCRIPTION  LOAD DESCRIPTION  OUTS - MIDDLE BAY  OUTS - MIDLE BAY  OUTS - MIDDLE BA	LOAD DESCRIPTION NO TYPE  LOAD DESCRIPTION NO TYPE  LTS - MIDDLE BAY  LTS - MIDDLE BAY  LTS  LTS  ARE  CRANE  CONNECTION HAMMER  WIRE FEED WELDER  ARE  ARE  ARE  ARE  ARE  ARE  ARE	LOAD DESCRIPTION NO TYPE AMPS  LOAD DESCRIPTION NO TYPE AMPS  LOAD TYPE AMPS  LOAD DESCRIPTION NO TYPE AMPS  LOAD TYPE AMPS  L	LOAD DESCRIPTION NO TYPE AMPS P  LOAD LTS - MIDDLE BAY  2  **  LTS - MIDDLE BAY  1  LTS - MIDDLE BAY  2  **  LTS - MIDDLE BAY  1  LTS - MIDDLE BAY  2  **  ARE  LOAD  **  1  LTS - MIDDLE BAY  2  **  ARE  LOAD  **  1  LTS - MIDDLE BAY  2  **  ARE  LOAD  **  1  LTS - MIDDLE BAY  2  **  ARE  LOAD  **  LTS - MIDDLE BAY  2  **  ARE  LOAD  **  LTS - MIDDLE BAY  2  **  ARE  LOAD  **  LOAD  **  LTS - MIDDLE BAY  2  **  ARE  LOAD  **  LOAD  **	LOAD DESCRIPTION         REF NO         BRKR TYPE         LOAD AMPS         P         AMP           ) LTS - MIDDLE BAY         2         20         * ***           ) LTS - MIDDLE BAY         2         20           ) LTS         2         20           * ***         * ***           ) LTS         2         20           * ***         * **           ) LTS         2         20           * ***         * ***           ARE         1         20           ) CRANE         1         20           ) CONNECTION         1         20           ) HAMMER         1         20           WIRE FEED WELDER         2         20           ***         ***           ARE         1         20           ARE </th <th>  LOAD   REF   BRKR   LOAD   BREAKER    </th> <th>  NO   NO   NO   NO   NO   NO   NO   NO</th> <th>  AMP, MAIN LUGS ONLY</th> <th>  AMP, MAIN LUGS ONLY</th> <th>  NO   TYPE   AMP   NO   NO   NO   NO   NO   NO   NO   N</th> <th>  LOAD   REF   BRKR   LOAD   NO   TYPE   AMPS   P   AMP   A   B   C   AMP   P   AMPS    </th> <th>  NO   TYPE   NO   TYPE   NO   NO   NO   NO   NO   NO   NO   N</th> <th>  CAMP, MAIN LUGS ONLY   MOUNTINC: SURFACE   SURFACE   CAMP   CAM</th> <th>  LOAD   REF   BRKR   LOAD   NO   TYPE   MAPS   P   MAPS   P   MAPS   REF   LOAD   DESCRIPTION   NO   TYPE   MAPS   P   MAPS   REF   LOAD   DESCRIPTION   NO   REF   MAPS   REF   LOAD   DESCRIPTION   NO   REF   MAPS   REF   REF   MAPS   REF   REF   MAPS   REF   REF   MAPS   REF   R</th>	LOAD   REF   BRKR   LOAD   BREAKER	NO   NO   NO   NO   NO   NO   NO   NO	AMP, MAIN LUGS ONLY	AMP, MAIN LUGS ONLY	NO   TYPE   AMP   NO   NO   NO   NO   NO   NO   NO   N	LOAD   REF   BRKR   LOAD   NO   TYPE   AMPS   P   AMP   A   B   C   AMP   P   AMPS	NO   TYPE   NO   TYPE   NO   NO   NO   NO   NO   NO   NO   N	CAMP, MAIN LUGS ONLY   MOUNTINC: SURFACE   SURFACE   CAMP   CAM	LOAD   REF   BRKR   LOAD   NO   TYPE   MAPS   P   MAPS   P   MAPS   REF   LOAD   DESCRIPTION   NO   TYPE   MAPS   P   MAPS   REF   LOAD   DESCRIPTION   NO   REF   MAPS   REF   LOAD   DESCRIPTION   NO   REF   MAPS   REF   REF   MAPS   REF   REF   MAPS   REF   REF   MAPS   REF   R

### EXISTING PANEL TO BE REMOVED. SERVICE 2 OF 2

	NEL 'B2'						NOTES:	TO BE REI	MOVED.							
24	10/120-VOLT, 1-PHASE, 3-WIRE															
20	00-AMP, MAIN CIRCUIT BREAKER		MOU	NTING:	SUF	RFACE										
CKT NO	LOAD Description	REF NO	BRKR TYPE	LOAD AMPS	BF P	REAKER	L1	PHASE AMPS	S L2	BREA		LOAD AMPS	BRKR Type	REF NO	LOAD DESCRIPTION	
1	(E) TRUCK TIRE	NO	IIFE	AMF3	2	20	0.0		12	20	1	AMFS	IIFE	NO	(E) REC — WALL GFC	_
3	**				*	**	0.0		0.0	20	1				(E) SPARE	$\rightarrow$
5	(E) REC – LIFT				1	20	0.0		0.0	20	2				(E) VEHICLE LIFT	
7	(E) TIRE BALANCER				2	20	0.0		0.0	**	*				\(\(\frac{\pi}{\pi}\) \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	$\neg$
9	**				*	**	0.0		0.0						(E) SPACE	_
11	(E) SPACE								0.0						(E) SPACE	-
13	(E) SPACE						0.0								(E) SPACE	_
15	(E) SPACE								0.0						(E) SPACE	$\rightarrow$
17	(E) SPACE						0.0								(E) SPACE	$\rightarrow$
19	(E) SPACE								0.0						(E) SPACE	Ε
21	(E) SPACE						0.0								(E) SPACE	Ε
23	(E) SPACE								0.0						(E) SPACE	Ε
25	(E) SPACE						0.0								(E) SPACE	Ε
27	(E) SPACE								0.0						(E) SPACE	_
29	(E) SPACE						0.0								(E) SPACE	
31	(E) SPACE								0.0						(E) SPACE	
33	(E) SPACE						0.0								(E) SPACE	$\rightarrow$
35	(E) SPACE								0.0	1					(E) SPACE	
37	(E) SPACE						0.0								(E) SPACE	$\rightarrow$
39	(E) SPACE					_			0.0						(E) SPACE	Ε
41					<u>L</u>		0.0									
	PROJECT #18059 Panel Schedule			1	IATAI	LOAD:	0		0						06/06/18	2

	ANEL 'B3'						NOTES:	NEW COMM	IERCIAL BO	LT ON	CIRC	JIT BREA	KER PANE	LBOARD		
	08Y/120-VOLT, 3-PHASE, 4-WIRE 00-AMP, MAIN LUGS ONLY		MOUN	NTING:	SURI	FACE										
CKT	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS	 }	BREA	KER	LOAD	BRKR	REF	LOAD	C
NO	DESCRIPTION	NO	TYPE	AMPS	Р	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	ı
1	(E) HOIST E				3	15	0.0			70	3				(E) REC – WELDER	R
3	**				*	**		0.0		**	*				*	*
5	**				*	**			0.0	**	*				*	*
7	(E) REC - WELDER				3	60	0.0			15	3				SPARI	
9	**				*	**		0.0		**	*				*	*
11	**				*	**			0.0	**	*				*:	
13	(E) HAMMER				3	15	0.0			15	3				SPARI	E
15	**				*	**		0.0		**	*				ж	_
17	**				*	**			0.0	**	*				*	
19	(E)				3	20	0.0			20	3				(E) OVE	_
21	**				*	**		0.0		**	*				ж.	
23	**				*	**			0.0	**	*				*	_
25	(E) EAST DOORS				3	15	0.0			30	3				(E) CHOP SAV	_
27	**				*	**		0.0		**	*				*	_
29	**				*	**			0.0	**	*				*	
31	(E) SW 4 DOORS				3	15	0.0			15	3				SPARI	
33	**				*	**		0.0		**	*				**	
35	**				*	**			0.0	**	*				*	- 1
37	(E) NW 4 DOORS				3	15	0.0			15	3				SPARI	_
39	**				*	**		0.0		**	*				*	*
41	**			<u> </u>	*	**	<u> </u>		0.0	**	*				*	*
	PROJECT #18059 Panel Schedule			1	OTAL	LOAD:	0	0	0						06/06/18	 8

	ANEL 'BR'						NOTES:	EXISTING P.	anelboari	D						
	08Y/120-VOLT, 3-PHASE, 4-WIRE															
2	25-AMP, MAIN LUGS ONLY		MOUN	NTING:	SUR	FACE										
ЖТ	LOAD	REF	BRKR	LOAD	_	EAKER		PHASE AMPS		BREA		LOAD	BRKR	REF	LOAD	CKT
NO	DESCRIPTION	NO NO	TYPE	AMPS	Р	AMP	A	В	С	AMP	P	AMPS	TYPE	NO	DESCRIPTION	NO
1	REC - RESTROOMS			3.0	1	20	3.0			20	1				SPARE	2
3	REC - JANITOR/HALLWAY			3.0	1	20		3.0	{	20	1				SPARE	_
5				3.0	1	20			3.0	20	ملہ	~~	~~	~~	SPARE	-
7	BREAK MICROWAVE			5.0	1	20	13.4			20	1	8.4			EH-2	8
	BREAK FRIDGE		GFCI	5.0	1	20		13.4		20	1	8.4			EH-1	10
	SPARE				1	20			13.1	20	3	13.1			WATER HEATER	12
	REC - OFFICE PRINTERS			3.0	1	20	16.1			**	*	13.1			**	14
	REC - STAND UP COUNTERS			6.0	1	20		19.1		**	*	13.1			**	16
	REC - OFFICE 111			9.0	1	20			15.0	20	1	6.0			REC — RECEIVING AREA	
	REC - OFFICE 112/113			10.5	1	20	17.7			20	1	7.2			RECEIVING AREA DOOR	
	REC - OFFICE 114			6.0	1	20		13.2		20	1	7.2			SUPPLY LOBBY DOOR	
	REC - OFFICE 115			9.0	1	20			9.0	20	1				SPARE	
25	REC - SUPPLY LOBBY			3.0	1	20	3.0			20	1				SPARE	_
27	SPARE				1	20		0.0		20	1				SPARE	
	LTS - RESTROOMS/JANITOR/OFFICE			1.9	1	20			1.9	20	1				(E) CONDENSOR PUMP	30
31	LTS - OPEN SUPPLY/BREAK			4.1	1	20	4.1			20	1				(E) FEEDER PUMP	32
33	LTS - OFFICES			5.9	1	20		6.0		20	1	0.1			MOTORIZED DAMPERS	
35	( )				1	20			36.0	50	2	36.0			HEATER — RECEIVING AREA	36
	LTS - RECEIVING/SECURE STORAGE			2.2	1	20	38.2			**	*	36.0			**	38
	SPARE				1	20		0.0		70	2	0.0			PANEL 'I'	40
41	SPARE				1	20			0.0	**	*	0.0			**	42
	PROJECT #18059 Panel Schedule			7	OTAL	LOAD:	96	55	78						06/06/18	

P	ANEL 'C'						NOTES:	EXISTING P	ANELBOAR	D						
2	08Y/120-VOLT, 3-PHASE, 4-WIRE							1. 2-POLE	HANDLE	TIE (	3. F	TELD VER	RIFY LOCA	TION OF E	XISTING BRANCH CIRCUIT FOR LOAD. 3	
	50-AMP, MAIN CIRCUIT BREAKER		MOUI	NTING:	SUR	FACE		2. 3-POLE	HANDLE	TIE ,	<u></u>	~~~	~~	<u> </u>		
CKT	LOAD	REF	BRKR	LOAD	_	EAKER		PHASE AMPS		BREA	(ER	LOAD	BRKR	REF	LOAD	СКТ
NO	DESCRIPTION	NO	TYPE	AMPS	P	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO_	DESCRIPTION	NQ
1	(E) EXHAUST FANS S	2			3	60	0.0			20	3		{	2, 3	(E) SHEAR 2	2
3	**	2			*	**		0.0		**	*		<b>\</b>	2, 3	**	4
5	**	2			*	**			0.0	**	*		(	2, 3	**	6
7	(E) BRIDGE CRANE	2			3	30	0.0			50	3			$\sim_2$	(E) WELDER SE	8
9	**	2			*	**		0.0		**	*			2	**	10
11	**	2			*	**			0.0	**	*			2	**	12
13	EXHAUST FAN - WELDING BAY	EF-8		13.5	1	25	13.5			20	1				(E)	14
15	CEILING FANS — WELDING BAY	CF-9/10		7.2	1	20		7.2							(E) SPACE	16
17	SPARE				2	20			0.0	20	1				(E) REC — BENCH	18
19	**				*	**	0.0			20	1				(E) LTS - 1 & 2	20
21	RADIANT HEATERS - WELDING BAY	RH-3-6		4.4	1	20		4.4							(E) SPACE	22
23	(E) LTS - OUTDOORS	1			2	20			0.0	20	2				(E) LTS - 5 & 6	24
25	**	1			*	**	0.0			**	*				**	26
27	(E) SPACE							0.0							(E) SPACE	28
29	(E) LTS - OUTDOORS				1	20			0.0	20	1				(E) LTS - 7 & 8	30

P/	NEL 'D'					NOTES:	NEW COMM	IERCIAL BO	OLT ON	CIRC	UIT BREA	KER PANE	LBOARD			
20	8Y/120-VOLT, 3-PHASE, 4-WIRE															
	O-AMP, MAIN LUGS ONLY		MOU	NTING:	SUR	FACE										
СКТ	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS	3	BREA	KER	LOAD	BRKR	REF	LOAD	СКТ
NO	DESCRIPTION	NO	TYPE	AMPS	Р	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	NO
1	(E) LTS - MACHINE SHOP				1	20	0.0			20	1				(E) LTS - MACHINE SHOP	2
3	(E) LTS - MACHINE SHOP				1	20		0.0		20	1				(E) LTS - MACHINE SHOP	4
5	(E) LTS - MACHINE SHOP				1	20			0.0	20	1				(E) LTS - MACHINE SHOP	6
7	(E) LTS - MACHINE SHOP				1	20	0.0			20	1				(E) LTS - MACHINE SHOP	8
9	(E) LTS - DRIVE WAY				1	20		0.0		20	1				(E) LTS - MACHINE SHOP	10
11	(E) LTS - DRIVE WAY				1	20			0.0	20	1				(E) LTS - MACHINE SHOP	12
13	(E) LTS - MACHINE SHOP				1	20	0.0			20	1				SPARE	14
15	(E)				1	20		1.5		20	1	1.5			REC — AIR SYSTEM DRAIN	16
17	(E) LTS - MACHINE SHOP				1	20			0.0	20	1				(E) REC – WATER COOLER	18
19	SPARE				1	20	0.0			20	1				(E) REC - N HM	20
21	(E) REC - W MACHINE SHOP				1	20		0.0		20	1				(E) GRINDER	22
23	(E)				1	20			0.0	20	1				(E) PUMP CONTROL	24
	PROJECT #18059 Panel Schedule			1	OTAL	LOAD:	0	2	0						06/06/18	

4	00-AMP, MAIN LUGS ONLY		MOU	NTING:	SUR	FACE										
CKT	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS		BREA	KER	LOAD	BRKR	REF	LOAD	CKT
NO	DESCRIPTION	NO	TYPE	AMPS	P	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	NO
1	SPARE				1	20	0.0			20	1				(E) FLOOD LTS - NE	2
3	SPARE				1	20		0.0		20	1				(E) FLOOD LTS - NW	4
5	(E) REC - PIT				1	20			0.0	20	1				(E) FLOOD LTS - N	6
7	SPACE						0.0			20	1				SPARE	8
9	(E) HOSE CUTTER				2	30		0.0		20	1				(E) REC	10
11	**				*	**			0.0	20	1				(E) LTS - MECHANIC	12
13	(E)				1	20	0.0			20	1				SPARE	14
15	(E) DOOR MOTOR #4 N				1	20		0.0		20	2				(E) HIGH-BAY LTS - #1 N	16
17	(E)				1	20			0.0	**	*				**	18
19	(E) HIGH BAY LTS - #4 S				2	20	0.0			20	2				(E) HIGH-BAY LTS - #4 N	20
21	**				*	**		0.0		**	*				**	22
23	(E) HIGH-BAY LTS - BAY #5 S				2	20			0.0	20	2				(E) HIGH-BAY LTS - #5 N	24
25	**				*	**	0.0			**	*				**	26
27	(E) HIGH-BAY LTS - BAY #2 S				2	20		0.0		20	2				(E) HIGH-BAY LTS - #2 N	28
29	**				*	**			0.0	**	*				**	30
31	(E) HIGH-BAY LTS - BAY #3 S				2	20	0.0			20	2				(E) HIGH-BAY LTS - #3 N	32
33	**				*	**		0.0		**	*				**	34
35	(E) HIGH-BAY LTS - BAY #1 S				2	20			0.0	20	2				(E) DOOR MOTOR S	36
37	**				*	**	0.0			**	*				**	38
39	SPACE							0.0							SPACE	40
41	SPACE								0.0						SPACE	42

CONSTRUCTION 6/25/18

PROJECT 18059.00 5-2-18 CHECKED JLB

REVISED ADDENDUM 1 5-15-18, BL

ADDENDUM 4
5-29-18, BL
SHEET NOT ISSUED ADDENDUM 5 6-6-18, BL

**PANEL** SCHEDULES

E82



PANEL 'F' 208Y/120-\	/OLT, 3—PHASE, 4—WIRE						NOTES:	NEW COMM	MERCIAL BO	OLT ON	CIRCI	JIT BREA	KER PANE	LBOARD		
200-AMP, N	MAIN LUGS ONLY		MOU	NTING:	SURF	FACE										
κτ	LOAD	REF	BRKR	LOAD	BRE	EAKER		PHASE AMPS	3	BREAK	(ER	LOAD	BRKR	REF	LOAD	0
0	DESCRIPTION	NO	TYPE	AMPS	Р	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	I
1 (E) FLOO	D LTS - WING				1	20	0.0			20	1				SPARE	E
3 **					1	20		0.0		20	1				Spare	E
5 (E) LTS -	- ANGLE				1	20			0.0	20	1				SPARE	Ξ
7 **					1	20	0.0			20	1				Spare	Ξ
9 SPARE					1	20		0.0		20	1				Spare	Ε
1 SPARE					1	20			0.0	20	1				Spare	E
<b>3</b> (E) LTS					2	20	0.0			20	1				(E) LTS - CEILING #1 & 2	2
5 **					*	**		0.0		20	1				**	*
<b>7</b> (E) LTS					1	20			0.0	20	1				(E) LTS - CEILING #3 & 4	4
9 **					1	20	0.0			20	1				**	*
.1 (E) LTS					2	20		0.0		20	1				(E) LTS - CEILING #5 & 6	6
3 **					*	**			0.0	20	1				**	*
<b>5</b> (E) LTS					1	20	0.0			20	1				SPARE	Ε
7 **					1	20		0.0		20	1				SPARE	E
<b>9</b> (E) LTS					2	20			0.0	20	1				SPARE	E ;
1 **					*	**	0.0			20	1				SPARE	ΕĮ.
<b>3</b> (E) LTS					2	20		0.0		20	1				SPARE	E ;
5 **					*	**			0.0	20	1				SPARE	E ;
7 (E) LTS					1	20	0.0			20	1				SPARE	ΕÌ.
9 **					1	20		0.0		20	1				SPARE	Εļ.
1 (E) LTS -	- SHOP NIGHT				2	20			0.0	20	1				SPARE	Ε
3 **					*	**	0.0			20	1				SPARE	ΕŢ.
5 SPARE					1	20		0.0		20	1				SPARE	Ε
7 SPARE					1	20			0.0	20	1				SPARE	Ε

E, 4-WIRE Y D			ANEL 'G' 08Y/120-VOLT, 3-PHASE, 4-WIRE										RD.		
							1. INTERCE	.PI EXISIII	NG CIRC	UII F	ROM EXIS	STING PAN	NEL 'B2'.		
0		MOUN	NTING:	SUR	FACE										
	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS	ì	BREA	KER	LOAD	BRKR	REF	LOAD	СКТ
PTION	NO	TYPE	AMPS	Р	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	NO
	1			2	20	0.0			20	1				(E) FLOOD LTS - NW CORNER	2
	1			*	**		0.0		20	1				(E) FLOOD LTS - NW CORNER	4
	1			1	20			9.3	20	1	9.3			LTS — STORAGE HIGH BAYS	6
	1			2	20	0.0			20	1				SPARE	8
	1			*	**		0.0		20	1				(E) REC - W WALL	10
	1			1	20			0.0	20	1				(E) REC	12
	1			2	20	9.0			20	1	9.0			REC – PARTS STORAGE	14
	1			*	**		0.0		20	1				SPARE	16
				1	20			0.0	20	1				SPARE	18
				1	20	0.0			20	1				SPARE	20
				1	20		0.0		20	1				SPARE	22
				1	20			1.0	20	1	1.0		IH-1	INTAKE HOOD — STORAGE	24
			0.2	1	20	4.6			20	1	4.4		EF-1	EXHAUST FAN	26
	UH-1		2.4	1	15		6.8		20	1	4.4		EF-2	EXHAUST FAN	28
	UH-2		2.4	1	15			3.4	20	1	1.0		IH-2	INTAKE HOOD - STORAGE	30
			8.2	1	20	8.2			20	1				SPARE	32
AIN			1.5	1	20		1.5		20	1				SPARE	34
				1	20			0.0	20	1				SPARE	36
				1	20	0.0			20	1				SPARE	38
				1	20		0.0		20	1				SPARE	40
				1	20			0.0	20	1				SPARE	42
	AIN	UH-2	UH-2	UH-1 2.4 UH-2 2.4 8.2 AIN 1.5	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 20 1 2 20 1 * ** 1 1 20	1	1	1	1       1       20       9.3       20         1       2       20       0.0       20         1       * ***       0.0       20         1       1       20       0.0       20         1       2       20       9.0       20         1       20       0.0       20         1       20       0.0       20         1       20       0.0       20         1       20       0.0       20         1       20       0.0       20         1       20       4.6       20         0.2       1       20       4.6       20         UH-1       2.4       1       15       6.8       20         UH-2       2.4       1       15       3.4       20         AIN       1.5       1       20       1.5       20         1       20       0.0       20         1       20       0.0       20         1       20       0.0       20         1       20       0.0       20         1       20       0.0       20	1       1       20       9.3       20       1         1       2       20       0.0       20       1         1       1       1       20       0.0       20       1         1       1       2       20       9.0       20       1         1       1       2       20       9.0       20       1         1       2       20       9.0       20       1         1       20       0.0       20       1         1       20       0.0       20       1         1       20       0.0       20       1         1       20       0.0       20       1         0.2       1       20       4.6       20       1         0.2       1       20       4.6       20       1         0.1       1       20       4.6       20       1         0.0       2.4       1       15       3.4       20       1         0.0       2.4       1       15       3.4       20       1         0.0       2.0       1       20       1       1.5	1	1	1	1

4(	08Y/120-VOLT, 3-PHASE, 4-WIRE 00-AMP, MAIN LUGS ONLY		MOUI	NTING:	SUR	FACE										
СКТ	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS	)	BREA	(ER	LOAD	BRKR	REF	LOAD	Ī
NO	DESCRIPTION	NO	TYPE	AMPS	Р	AMP	Α	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	l
1	(E)				3	15	0.0			20	1				(E)	)
3	**				*	**		0.0		20	1				SPARE	
5	**				*	**			0.0	30	2				(E)	1
7	(E) DOORS 1,2,3,4 SW				3	15	0.0			**	*				***	_
9	**				*	**		0.0		20	1				SPARE	_
11	**				*	**			0.0	20	1				SPARE	_
13	(E) DOORS 22,23,24,25 NW				3	15	0.0			20	1				SPARE	_
15	**				*	**		0.0		20	1				SPARE	
17	**				*	**			0.0	20	1				SPARE	
19	(E) DOORS 18,19,20,21 NE				3	15	0.0			20	1				SPARE	. :
21	**				*	**		0.0		60	2	0.0			PANEL 'J	1
23	**				*	**			0.0	**	*	0.0			**	-
25	(E)				1	20	0.0			200	3	0.0			PANEL 'E	' '
27	SPACE							0.0		**	*	0.0			**	: ;
29	(E)				1	20			0.0	**	*	0.0			**	_
31	(E)				1	20	0.0			200	3	0.0			PANEL 'F	
33	SPACE							0.0		**	*	0.0			**	
35	(E)				1	20			0.0	**	*	0.0			**	+
37	(E)				1	20	22.0			100	3	22.0			PANEL 'G	,
39	SPACE							8.0		**	*	8.0			**	
41	(E)				1	20			14.0	**	*	14.0			**	:   -

PANEL 'I'							NOTES:	EXISTING LOA	DCENTE	7						
240/120-	-VOLT, 1-PHASE, 3-WIRE							1. TANDEM B	REAKER							
125-AMP	, MAIN LUGS ONLY		MOUI	NTING:	SUR	FACE										
CKT	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS		BREAKE	R	LOAD	BRKR	REF	LOAD	CKT
NO	DESCRIPTION	NO	TYPE	AMPS	Р	AMP	L1		L2	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	NO
<b>1</b> (E) RE	C – E		GFCI		1	20	0.0			30	2				(E) GATE	2
<b>3</b> SPARE					2	20			0.0	**	*				ack	ŧ 4
5 **					*	冰水	0.0			20	1				(E) REC – PANEL 'I	, 6
<b>7</b> (E) FA	N				1	20			0.0	20	1			1	(E) REC — OLD COAL BIN	8
PROJE	CT #18059 Panel Schedule			1	OTAL	LOAD:	0		0						06/01/18	 }

P	ANEL 'J'						NOTES:	EXISTING L	.OADCENTEF	₹						
2	40/120-volt, 1-phase, 3-wire															
60	D-AMP, MAIN CIRCUIT BREAKER		MOUI	NTING:	SUR	FACE										
CKT	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS	<u> </u>	BREA	KER	LOAD	BRKR	REF	LOAD	СКТ
NO	DESCRIPTION	NO	TYPE	AMPS	Р	AMP	L1		L2	AMP	P	AMPS	TYPE	NO	DESCRIPTION	NO
1	(E) BATTERY CHARGER				2	20	0.0			20	1				(E) REC	2
3	**				*	**			0.0	20	1				(E) REC	4
5	(E) REC				1	20	0.0			20	1				(E) REC	6
7	(E) REC				1	20			0.0	20	1				(E) REC	8
9	(E) SPACE						0.0								(E) SPACE	10
11	(E) SPACE								0.0						(E) SPACE	12
13	(E) SPACE						0.0			60	2				MAIN	14
15	(E) SPACE								0.0	**	*				**	16
17	UNUSABLE SPACE						0.0								UNUSABLE SPACE	18
	PROJECT #18059 Panel Schedule			1	OTAI	LOAD:	0		0						06/01/18	

PANEL 'M'  208Y/120-VOLT, 3-PHASE, 4-WIRE  225-AMP, MAIN LUGS ONLY  CKT LOAD  NO DESCRIPTION  1 VEHICLE EXHAUST FAN - LIGHT MAINT  3 VEHICLE EXHAUST FAN - LIGHT MAINT  5 VEHICLE EXHAUST FAN - LIGHT MAINT							NOTES:	NEW COM	MERCIAL BO	OLT ON	CIRC	JIT BREA	KER PANE	ELBOARD		
	•															
	·			NTING:	_	RFACE										_
- 1		REF	BRKR	LOAD	-	REAKER		PHASE AMP		BREA		LOAD	BRKR	ref	LOAD	0
$\overline{}$		NO	TYPE	AMPS	P	_	A	В	С	AMP	P	AMPS	TYPE	NO	DESCRIPTION	1
		VE-1		12.4	1	20	16.9			20	1	4.5			REC — ROOF TOP / DUCT SMOKE DETECT	_
3		VE-2		12.4	1	20		18.4		20	1	6.0			REC - ROOF TOP	_
5	VEHICLE EXHAUST FAN — LIGHT MAINT	VE-3		12.4	1	20			16.8	20	1	4.4		EF-3	EXHAUST FAN - GARAGE	+
7	VEHICLE EXHAUST FAN — LIGHT MAINT	VE-4		12.4	1	20	18.2			20	1	5.8		EF-4	EXHAUST FAN - RESTROOMS	$\rightarrow$
9	VEHICLE EXHAUST FAN — LIGHT MAINT	VE-5		12.4	1	20		16.9		20	1	4.5			REC - ROOF TOP	$\rightarrow$
	SPARE				1	20			0.0	20	1				EXHAUST FAN TIMECLOCH	_
13	CEILING FANS — LIGHT MAINT	CF-1/2		6.8	1	20	20.6			20	1	13.8		EF-5	EXHAUST FAN - LIGHT MAINT	i
15	CEILING FANS — HEAVY MAINT	CF-3/4		6.8	1	20		16.6		20	1	9.8		EF-6	EXHAUST FAN - HEAVY MAINT	i
17	SPARE				1	20			1.5	20	1	1.5			REC — HEAVY MAINT CEILING	;
19	SPARE				1	20	0.0			20	1				SPARE	:
21	SPARE				1	20		0.0		20	1				SPARE	-
23	SPARE				1	20			0.0	20	1				SPARE	:
25	DUCT SMOKE DETECTOR			1.0	1	20	25.0			30	3	24.0		RTU-1	ROOF TOP UNIT — 1ST FLOOR EAST	i
27	REC - AIR SYSTEM DRAIN			1.0	1	20		25.0		**	*	24.0		**	*:	
29	MOTORIZED DAMPERS			0.2	1	20			24.2	**	*	24.0		**	**	*
31	MAKE-UP AIR UNIT	MAU-1		12.0	3	20	30.0			25	3	18.0		RTU-2	ROOF TOP UNIT — 1ST FLOOR WEST	iΤ
33	**	**		12.0	*	**		30.0		**	*	18.0		**	**	*
35	**	**		12.0	*	**			30.0	**	*	18.0		**	**	*
37	MAKE-UP AIR UNIT	MAU-2		12.0	3	20	55.0			60	3	43.0		RTU-3	ROOF TOP UNIT - 2ND FLOOR STORAGE	: [
39	**	**		12.0	*	**		55.0		**	*	43.0		**	*:	*
41	**	**		12.0	*	**			55.0	**	†	43.0		**	*	*
	PROJECT #18059 Panel Schedule			1	OTAL	LOAD:	166	162	128						06/01/18	 3
	, ,						ACTUAL	DEMAND	DEMAND							_
	11	GHTING AN	n athed	CONTINI	אווטו	I UND•	6.0	FACTOR 125%	KVA 0.0	Evolu	dac t	rack and	chow wi	ndow light	ing	
	L	MY DITTIO	D OINER			HTING:	0.0	123% N/A	0.0	Track			oft	naow ngm	iliy.	
		IDOWS:		N/A	0.0				n: 0 ft							
				RECEPT			2.1	100%	2.1						over 10 kVA.	
			KITCHE	N EQUIP			0.0	100%	0.0				of equip			
		H	Eating (0				0.0	100%	0.0						ling and other electric heat.	
	HEATIN	g or othi	er non-				0.0	0%	0.0							
						LOAD:	0.0	0%	0.0							
	MOTORS AND OTHER NON-	CONTINUOL					37.0	100%	37.0	All ot	ther le	oads exc	luding mo	aximum m	otor load.	
			LA	RGEST M			15.5	125%	19.4			רבטבי	400 ***	<b>10</b>		
					I	OTALS:	54.6	107%	58.5	MINIM	IUM F	EEDER:	162-AMF	<u>'S</u>		_

P	ANEL 'MS'						NOTES:	NEW COMME	RCIAL BO	OLT ON	CIRCU	JIT BREA	KER PANE	LBOARD		
2	08Y/120-VOLT, 3-PHASE, 4-WIRE							1. FIELD VE	RIFY LOC	CATION C	F EX	ISTING B	RANCH CI	RCUIT FOR	LOAD.	
2	00-AMP, MAIN LUGS ONLY		MOU	NTING:	SUR	FACE										
CKT	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS		BREAK	ER	LOAD	BRKR	REF	LOAD	Ck
NO	DESCRIPTION	NO	TYPE	AMPS	Р	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	N
1	(E) LATHE 2	1			3		0.0				3			1	(E) IRON WORKER	2
3	**	1			*	**		0.0		**	*			1	**	4
5	**	1			*	**			0.0	**	*			1	**	6
7	(E) MILL MOTORS	1			3		0.0			15	3			1	(E) DRILL PRESS	8
9	**	1			*	**		0.0		**	*			1	**	1
11	**	1			*	**			0.0	**	*			1	**	1
13	(E) REC - 3 PHASE	1			3		0.0			25	3			1	(E) PRESS	1
15	**	1			*	**		0.0		**	*			1	**	1
17	**	1			*	**			0.0	**	*			1	**	18
19	(E) LATHE 1	1			3	40	0.0			20	1				SPARE	2
21	**	1			*	**		0.0		20	1				SPARE	_
23	**	1			*	**			4.5	20	1	4.5			REC - ROOF TOP	2
25	CEILING FANS — MACHINE SHOP	CF-5/6		7.2	1	20	19.6			20	1	12.4		VE-6	VEHICLE EXHAUST FAN - HEAVY MAINT	2
27	RADIANT HEATER — MACHINE SHOP	RH-1		1.1	1	20		13.5		20	1	12.4		VE-8	VEHICLE EXHAUST FAN - HEAVY MAINT	+-
29	SPARE				1	20			0.0	20	1				SPARE	-
31	SPACE						12.4			20	1	12.4		VE-7	VEHICLE EXHAUST FAN - HEAVY MAINT	3
33	SPACE							0.0							SPACE	-
35	SPACE								0.0						SPACE	_
37	SPACE						0.0			100	3	0.0			PANEL 'D'	+
39	SPACE							2.0		**	*	2.0			**	4
41	SPACE								0.0	**	*	0.0			**	4
	PROJECT #18059 Panel Schedule				·OT4!	LOAD:	32	16	5						06/01/18	

	EL 'WS'						NOTES:	NEW COMM			400 ADD	<i>-</i>		The effect of th	$\sqrt{3}$	
208	Y/120-VOLT, 3-PHASE, 4-WIRE							{1. FIELD VI	ERIFY LOC	ation (	OF EX	(ISTING BI	RANCH C	RCUIT FOR LOAD	). <b>y</b>	
400	00-AMP, MAIN LUGS ONLY		MOUNTING: SURFACE													
T	LOAD	REF	BRKR	LOAD	BR	EAKER		PHASE AMPS		BREA	KER	LOAD	BRKR	REF	LOAD	СК
ı	DESCRIPTION	NO	TYPE	AMPS	P	AMP	A	В	С	AMP	Р	AMPS	TYPE	NO	DESCRIPTION	N
	E) WELDER MECHANICAL SHOP				3	70	0.0			70	3		9	1	(E) SHEAR 1	2
	*				*	**		0.0		**	*		(	1	**	4
	*				*	**			0.0	**	*		(	1	**	6
	E) WELDER EAST WALL				3	70	0.0			70	3				(E) WELDER WEST WALL	8
	*				*	**		0.0		**	*				**	
ŀ	*				*	**			0.0	**	*				**	- '-
	E) WELDER / HEAVY END N & S WALLS				3	70	0.0			70	3				(E) ROLLER	14
	ж				*	**		0.0		**	*				**	16
	ж				*	**			0.0	**	*				**	
	E) CART WELDER				3	125	0.0								SPACE	_
	*				*	**		0.0							SPACE	_
╀	ж				*	**			0.0						SPACE	+
+	SPACE						0.0								SPACE	+
⊢	SPACE							0.0							SPACE	+
+	SPACE								0.0						SPACE	+
+	SPACE						0.0			200	3	0.0			PANEL 'B3'	32
+	SPACE							0.0		**	*	0.0			**	
+	SPACE								0.0	**	*	0.0			**	
+	SPACE						9.0			200	3	9.0			PANEL 'A3'	+
+	SPACE							19.0		**	*	19.0			**	1
Ľ	SPACE								14.0	**	*	14.0			**	42



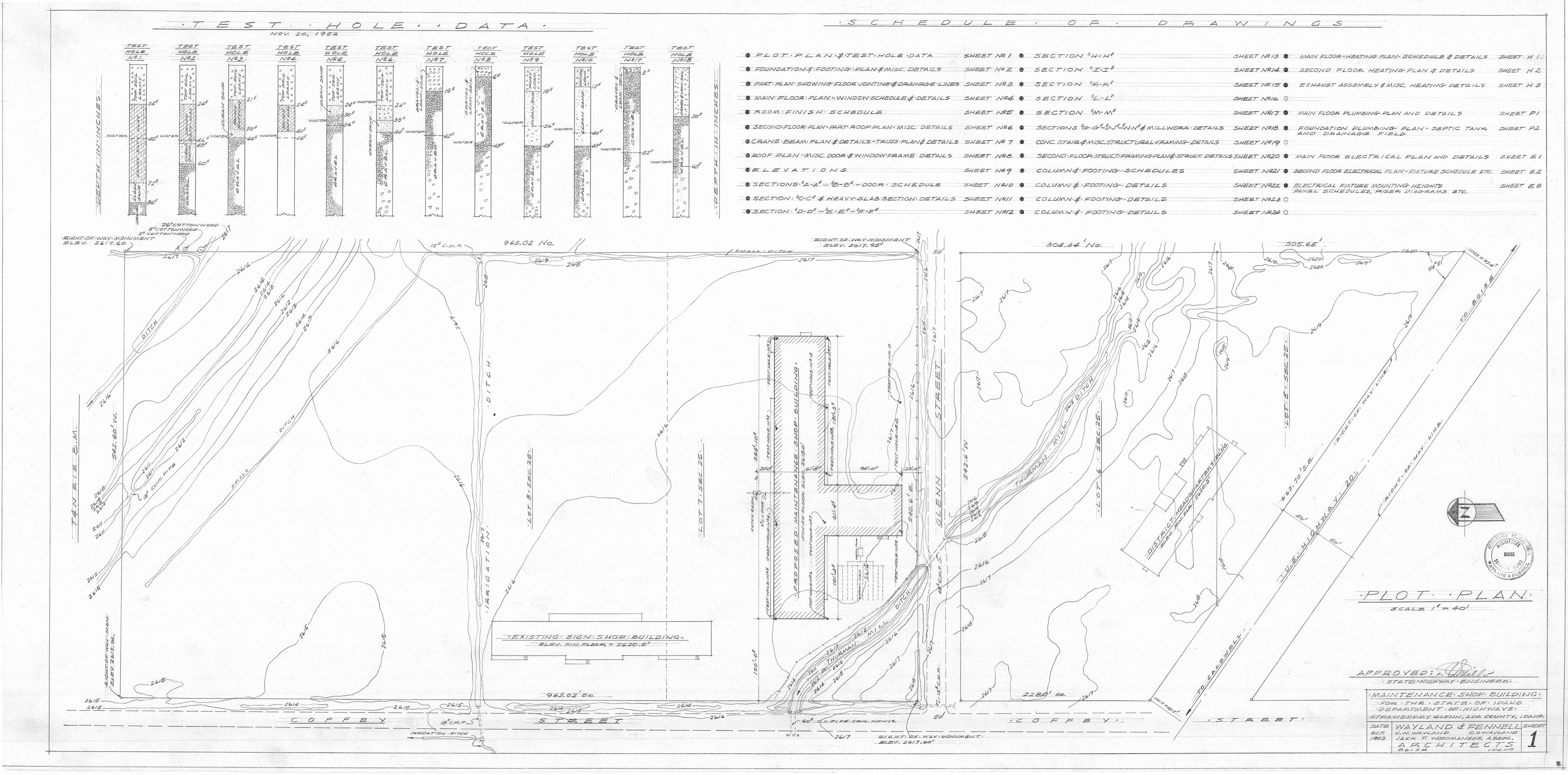
CONSTRUCTION 6/25/18

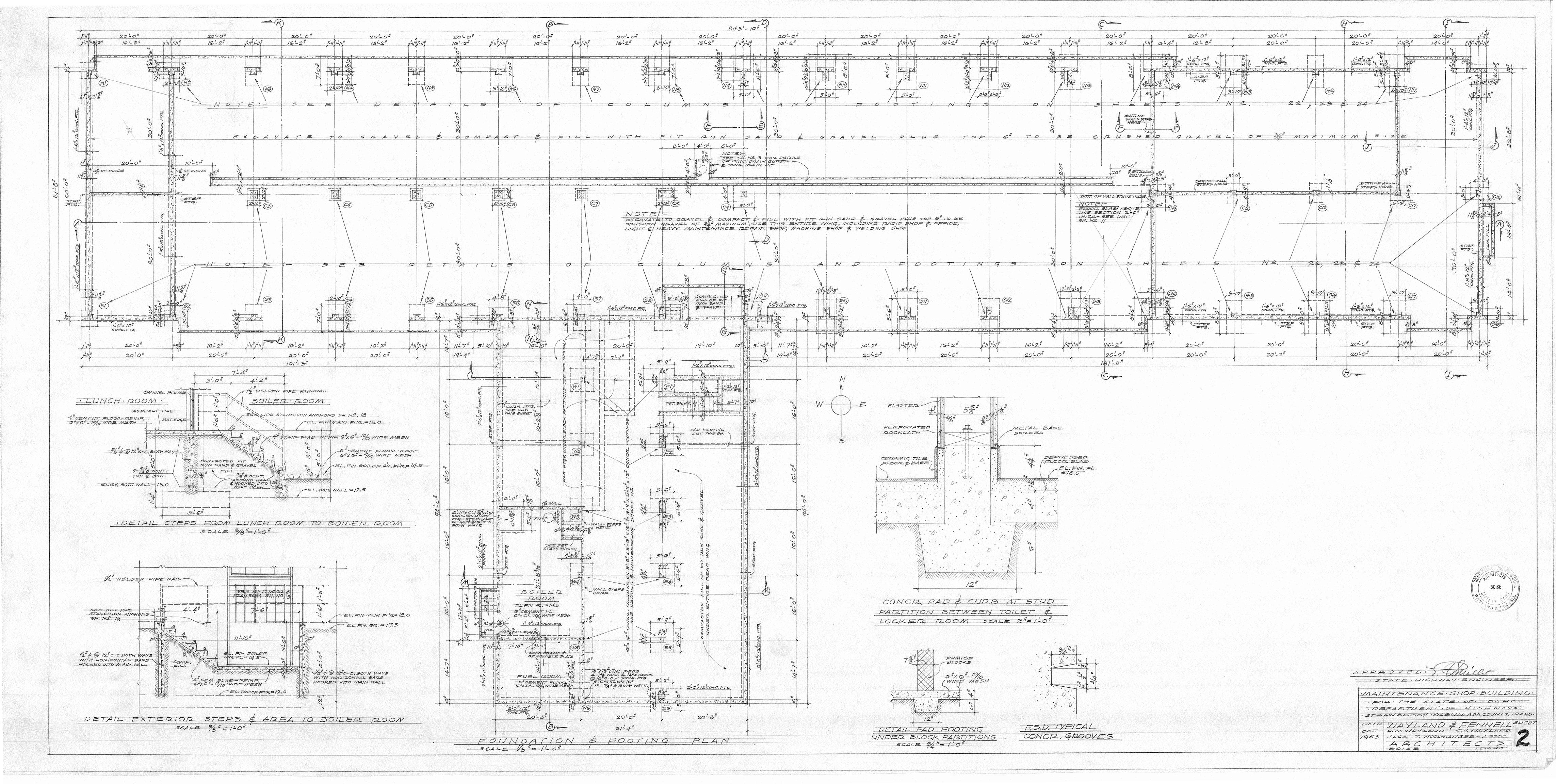
PROJECT 18059.00 5-2-18 CHECKED JLB

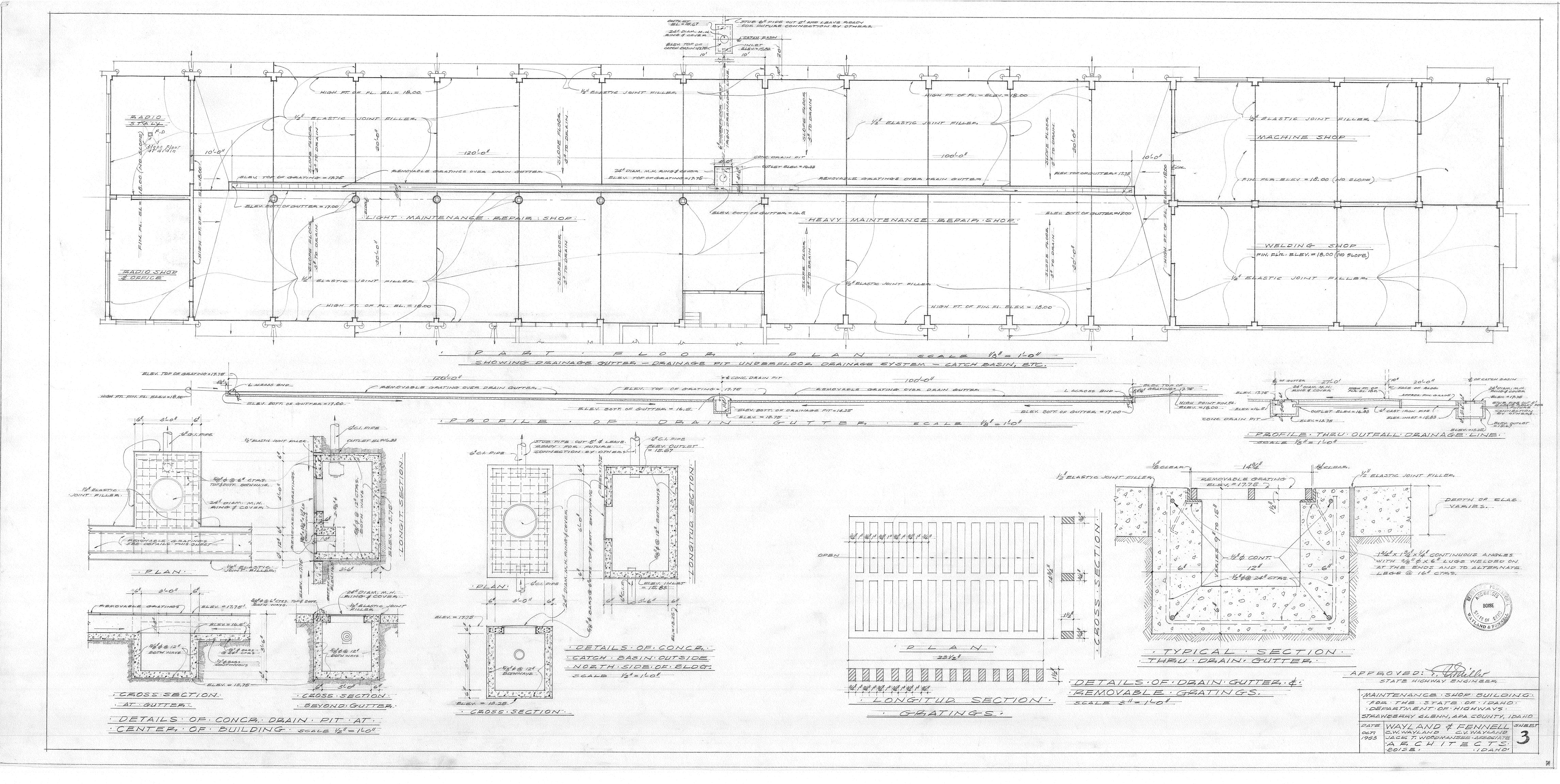
REVISED ADDENDUM 1 5-15-18, BL ADDENDUM 4 5-29-18, BL SHEET NOT ISSUED

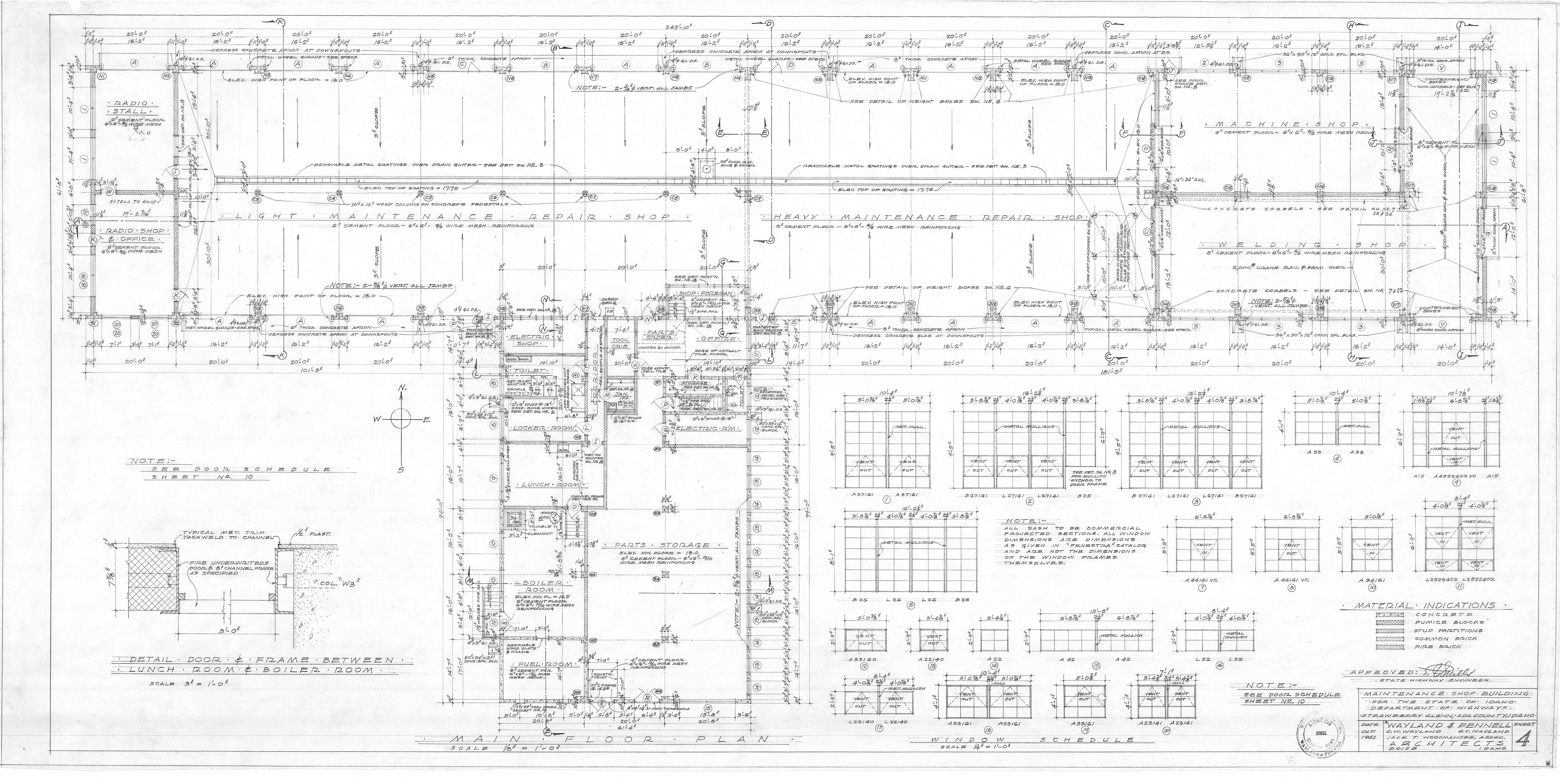
**PANEL** SCHEDULES

E83









	FLOOPS	<b>3</b> 335	BEAMS, PIERS, ETC	MASONRY WALLS & PARTNS.	STUD	CEILINGS	REMARKS	ti a pigangangan kan pangangan na mangangan pangan na mangan pangan na mangan na mangan na mangan na mangan na Tangan na mangangan pangan na mangan na mangan Pangan Pangan Pangan Pangan Pangan na mangan na	Filo OF S	i i i i i i i i i i i i i i i i i i i	CONC. WALLS BEAMS, PIERS, ETC.	MASONRY WALLS & PARTINS	STUD PARTITION	CEILINGS	REMARKS
FUEL BOOM	6"CEMENT	NoNE	EXPOSED			EXPOSED	WOOD FRAME & REMOVABLE SLATS IN OPENING TO BOILER ROOM. METAL COAL CHUTES.	TOILET ADJACENT	GREASEPROOF ASPHALT TILE OVER 4"CEMENT	4"HIGH BUBBER	PLASTER PUTTY COAT FIN.		ngangangungungangangan pangangangangangangangangangangangangan (	PLASTER, PUTTY COAT FINI OVER, CONCERTE	
BOILER FOOM	6" CEMENT	N.O.V.E	EXPOSED	EXPOSED. PUMICE BLOCK, EXPOSED BRICK, ON CHIMMEY	-	EXPOSED  CONCERETE	METAL THIMBLE & CLEANOUT DOOR IN CHIMNEY.  WOOD FRAME & SLATS TO FUEL ROOM  METAL FIRE DOOR & FRAME TO LUNCH ROOM  PIPE HANDRAIL ON CEMENT STEPS FLOOR DRAINS & SUMP		GREASEPROOF ASPHALT TILE OVER 4"CEMENT	411 HIGH EUSEE	PLASTER, SAND FINISH			34 ACOUSTICAL TILE ON SAND FINISH PLASTER PLASTER OVER BIB LATH AGAINST JOISTS	WOOD STOOL AT WINDOW  SEE DETAILS FOR
LUNCH ZOOM	4"CEMENT	411416H HUSSER	PLASTER, SAND FINISH	PLASTER SAND FINISH			WOOD STOOL AT WINDOWS  SUSPENDED CEIL, ON PART 108-6  SEE DETAILS FOR SINK CABINET		4 CEMENT		EXPOSED  CONCESTE  CARBORUNDUM  BUBBED	EXPOSED PUNICE BLOCK,		34 ACOUSTICAL TILE ON SAND FINISH PLASTER OVER RIB-LATH AGAINST JOISTS.	COUNTER, GATE
LOCKER ROOM	UNGLAZER CERAKIC TILE OVER A <sup>N</sup> CEMENT	444 HIGH GLAZED CEPANIG TIME	PLASTER PUTTY COAT FINI.			OVER FILE LATH	MET, SHOWER STALL & PARTY, WOOD STOOL AT WINDOWS DEPRESS FLOOR, FOR TILE	SHODEOMAN	AMCEMENT		EXPOSED CONCRETE CARBORUNDUM BUBBED		SEE DETAILS	HACOUSTICAL TILE ON SIGH SHEETE, OCK OVER STEILPING	PIZE HANDEAL STE
and and the contract of the co	UNGLAZED CERAMIC TILE OVER A <sup>N</sup> CEMENT	그들 중요 그렇게 하는 사람들은 사람이 불판하는 사람이다.	PUTTICON EN		LATH & PLASTER, PUTTY COAT FIN.	DUTTY COAT FIN, OVER FIE LATH AGAINST JOISTS		LIGHT MAINTENANCE BEPAIR, SHOP HEAVY MAINTENANCE BEPAIR, SHOP	LIGHT SHOP		EXPOSED	EXPOSED PUMICE BLOCK		JB" SHEETHOCH, OVER, STRIPPING	MET. GRATINGS OVER DRAIN GUT.  M.H.RING & COVER OVER DRAIN  METAL-COVERED WEIGHT.  FOR OVERHEAD DOORS  IN HEAVY REPAIR SHOP.  SPECIAL FOUNDATION & RIN  IN FLOOR SLAB IN ONE SECTION  IN HEAVY REPAIR SHOP.
ELECTENIC SHOP	4" CEMENT		EXPOSED CONCRETE CARBORUDUM RUBBED.	EXPOSED PUMICE BLOCK		BALACOUSTICAL TILE ON SAND FINISH PLASTER, PLASTER OVER, BIB LATH AGAINIST JOISTS.	SEE DETAILS FOR CLASS PAPITITIONS	BADIO STALL	6"CEMENT		EXPOSED	EXPOSED DUMICE BLOCK		5/8" SHEETBOCK	SEE DIL FOR GLASS PAR
CO421004	4"CEMENT	4" HTGH FAUSSEPA	PLASTER PUTTY COAT FIN,	PLASTER,		3/4 ACOUSTICAL TILE ON SAND FINISH PLASTER OVER, BIB LATH OF SUSPENDED CEILING	SUSPEND CEILING TO 8'6"	BADIO SHOP FOFFICE	61 CEMENT	NONE	EXPOSED CONCRETE	EXPOSED PUMICE BLOCK		-5/8" SHEETROCK OVER STRIPPING	SEE OTL. FOR GLASS PAP
7002 6618	4" cement	~~~~~	EXPOSED -CONCRETE	EXPOSED		EXPOSED CONCENTE ON PART		MACHINE SHOP	6"CEMENT			EXPOSED F PUMICE BLOCK #	SHEETROCK OVER TUPS ON UPPER PART OF SOUTH EAST PARTITIONS TO WELDING	5/8" SHEETROCK, OVER STRIPPING	
	GREASE PROOF ASPHALT TILE OVER 4 CEMENT				LATU & PLASTER, PUTTY COOT FINI.		SEE DETAILS FOR SHELVING  ELOOR DRAIN  EURRED PART'N AT ONE END								
ARTS STORAGE	1" CEMENT		EXPOSED CONCEPTE	EXPOSED PUMICE BLOCK		EXPOSED CONCESETE	METAL-CLAD DOOR & FRAME TO ELECTRIC ROOM  \$ STATEWAY GOING UP	WELDING SHOP	8" CONCETE		EXPOSED	EXPOSED OF PUNICE BLOCK, X	PPER PART OF	a disabatan sa sa tanàna na banda ao	METAL-COVERED WEIGHT FOR OVERHEAD DOORS CRANE BEAMS & BA FOR 4000 # OVERHEA CRANE & HOIST. AN 2,000 # CRANE & HOIS
LECTRIC FOOM	4"CEMENT		EXPOSED	EXPOSED PUMICE BLOCK		EXPOSED	METAL - ELAD DOES & FAME	UPPER PART HEAVY MAINTENANCE BEPAIR SHOP			EXPOSED			58 SHEETHOCK	CHANE BEAMS & PAILS FOR 10 TON OVERHEAD ELECTRIC TRAVELLI CRANE.
IRS GOING UP TO BAGE WAREHOUSE	4" CEMENT	NONE	EXPOSED				METAL SAFETY TREADS ON REINFORCED CONC. STEPS PIPE HAMPRAILS METAL-CLAD DOOR & FRAME.		CONCEETE 2×6 T. & G. OVER, EUTUR, E ELEVATOR, SHAFT		EXPOSEZ	EXPOSED BEICH			PIPE GUARDEAILS AROU STAIRWELL - SEE DETA STEEL PIPE COLUMA
	GREASEPROOF ASPHALT TILE OVER 4"CEMENT	andre en	PLASTER SAND FINISH			PLASTER, SAND FINISH OVER CONCRETE	기업 등 기대 경영은 그리 학교 등에 가는 경험 경우를 하는데 되었다면 보고 있다면 살아왔다.	STAIRS GOING DOWN			EXPOSED				METAL SAFETY TREAM ON REINFORCED CONC STEPS PIPE HANDRAILS

APPROVED: S. Miller . STATE · HICHWAY, ENGINEER.

MAINTENANCE. SHOP. BUILDING.

.FOR. THE . STATE . OF . I D A HO.

. DEPARTMENT. OF . HIGHWAYS.

.STRANBERRY GLENN, ADA COUNTY, IDAHO.

DATE WAYLAND & FENNELL SHEET

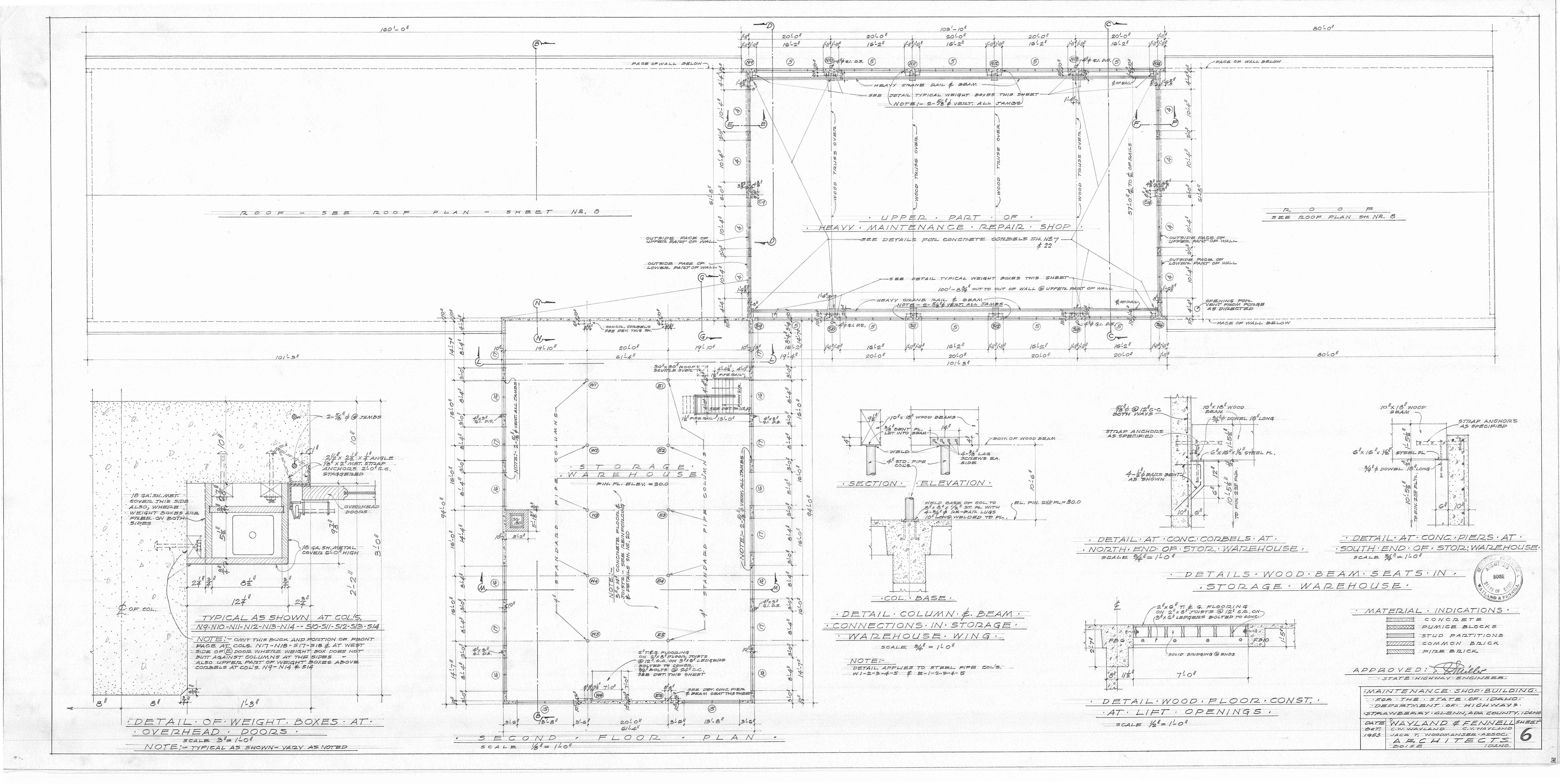
DOT. C.W. WAYLAND C.V. WAYLAND

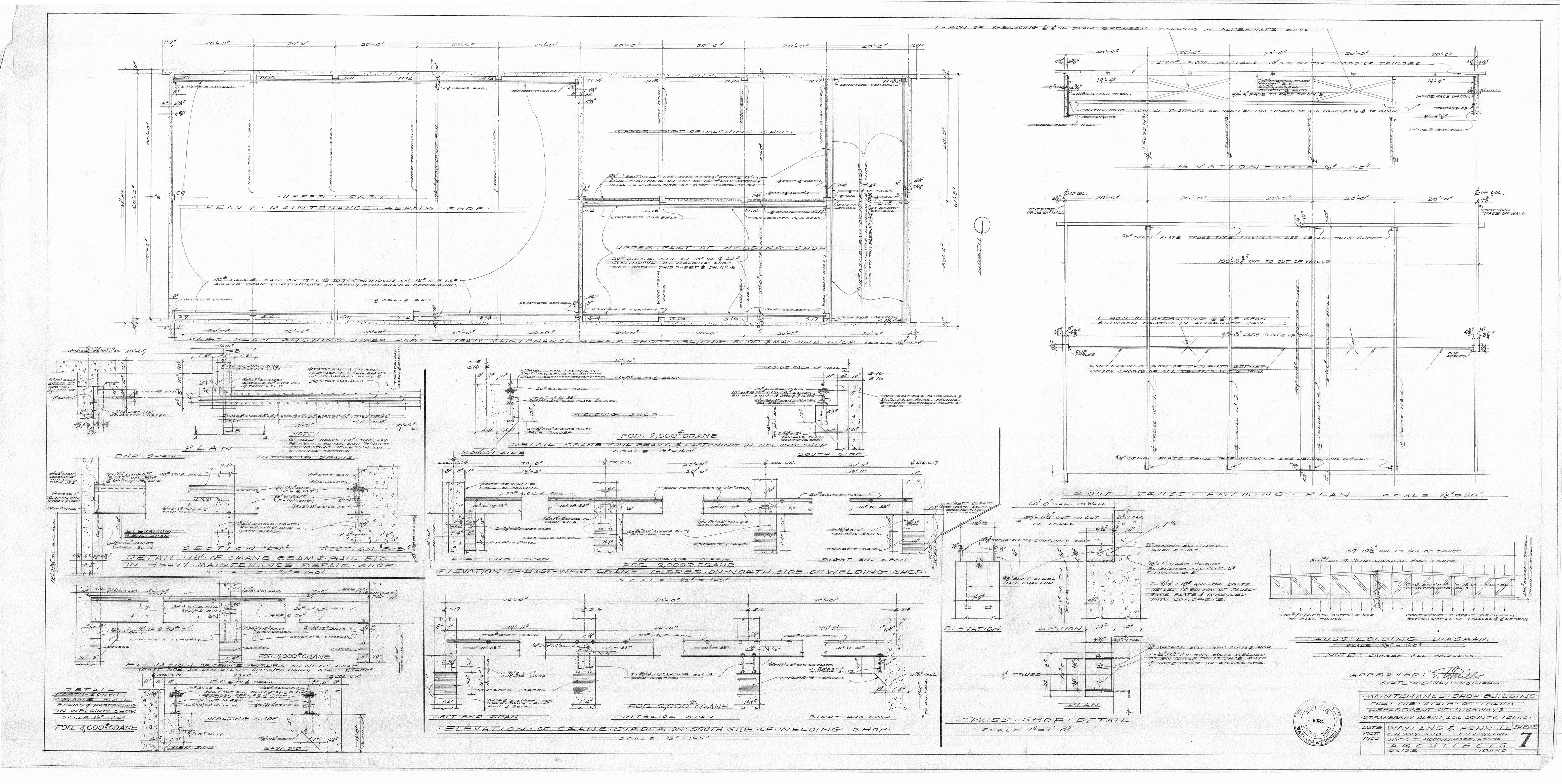
1953 JACK T. WOODMANSEE-ASSOC.

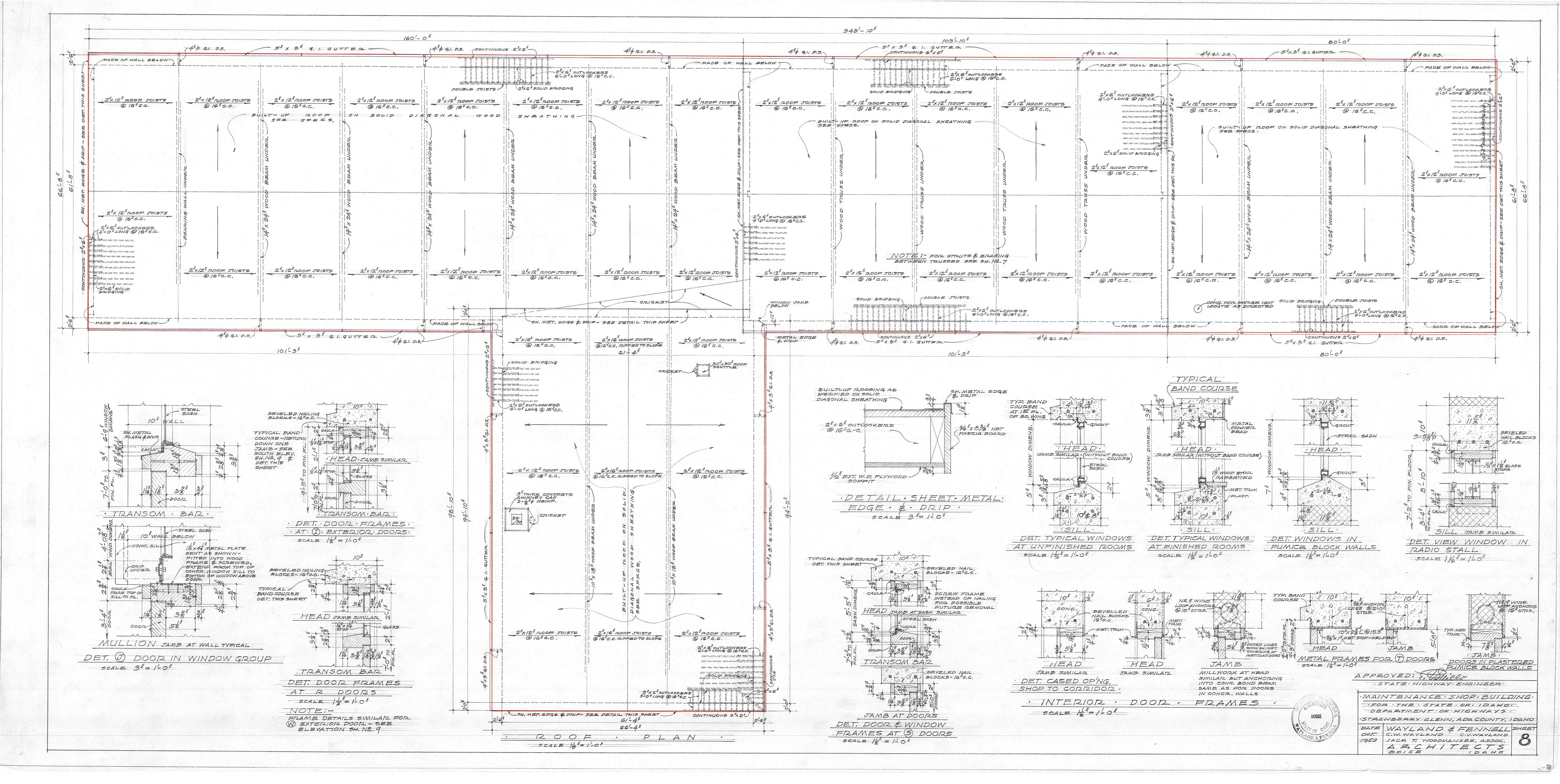
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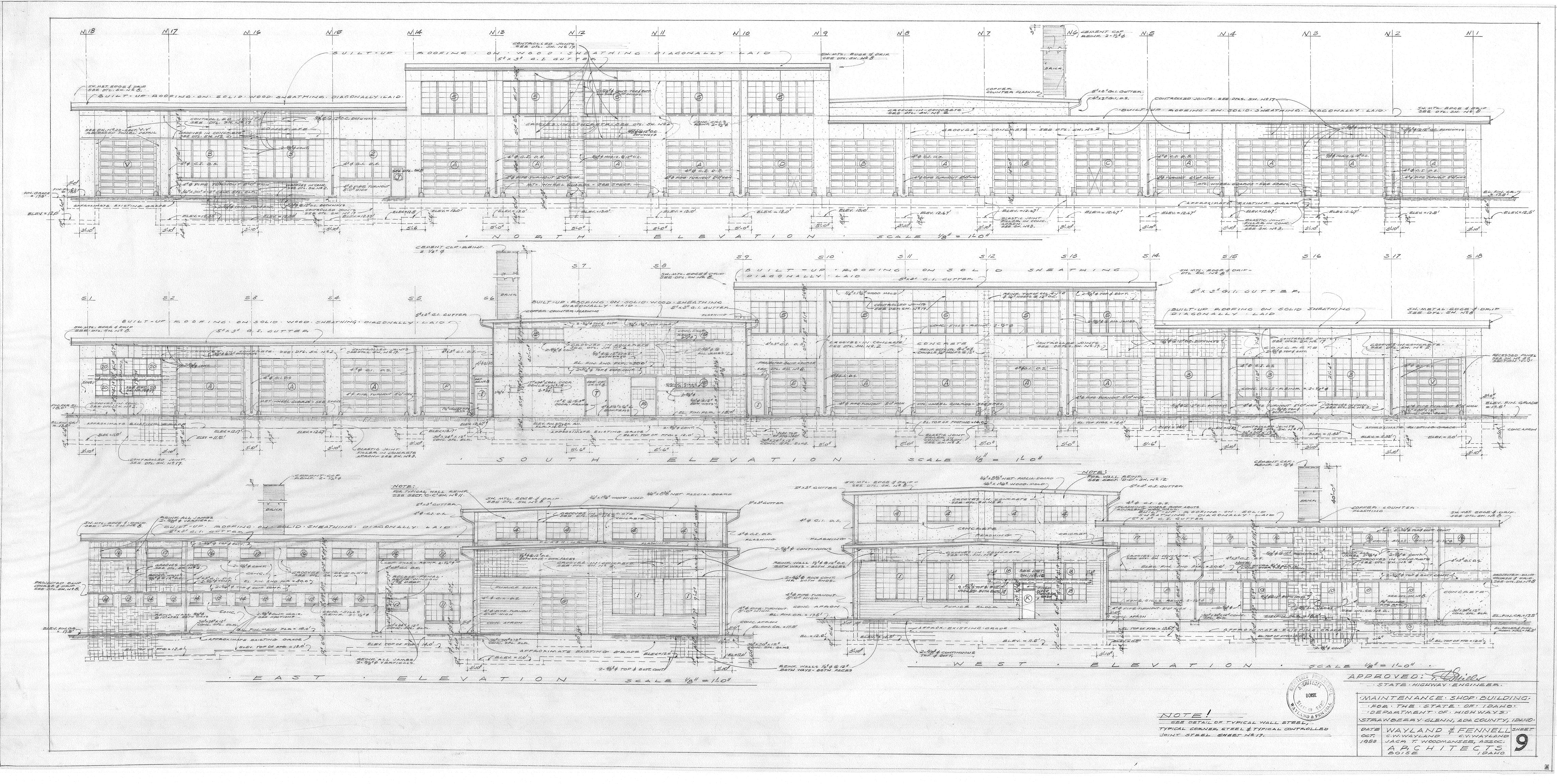
BOISE 10AHO

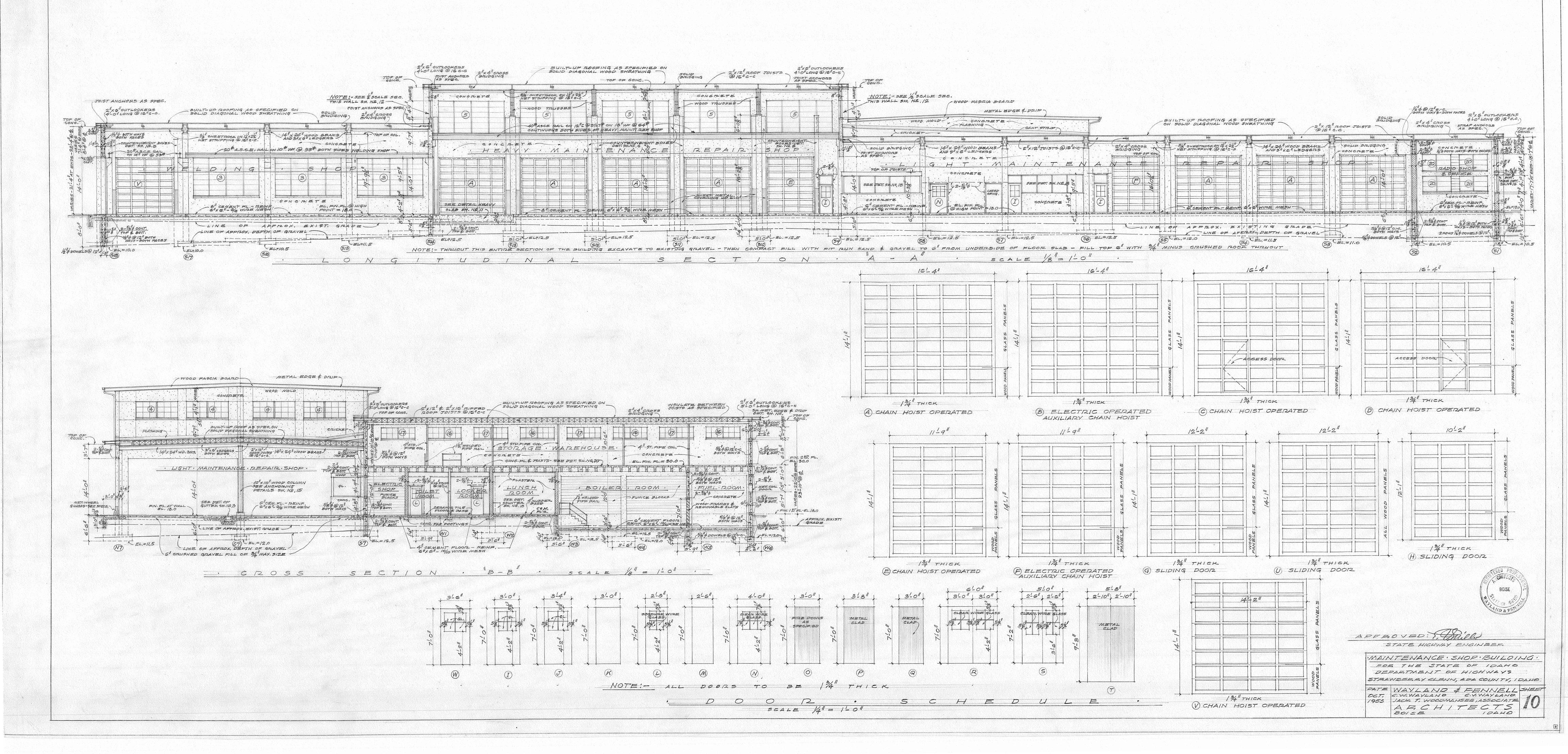
BOISE

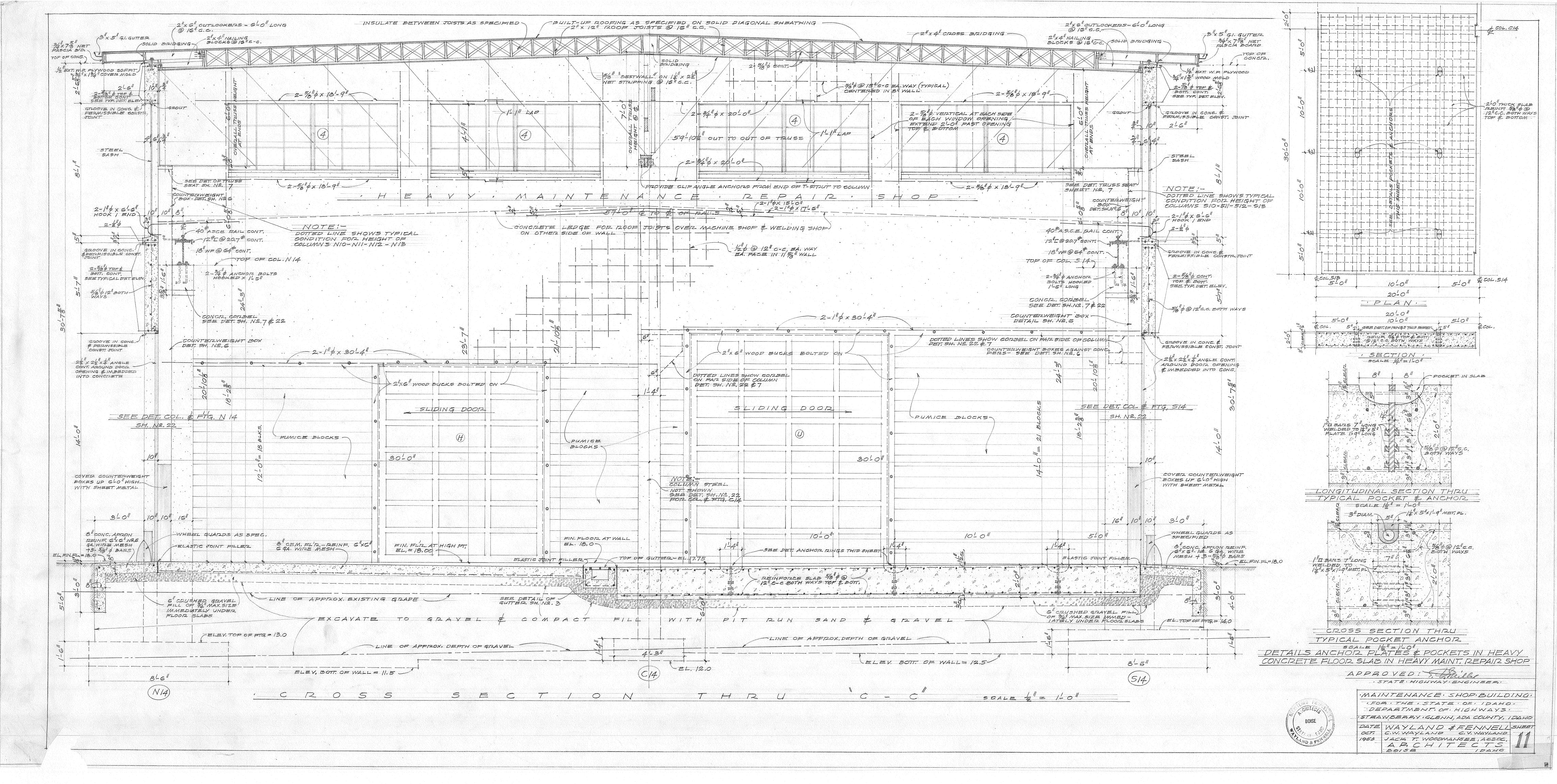


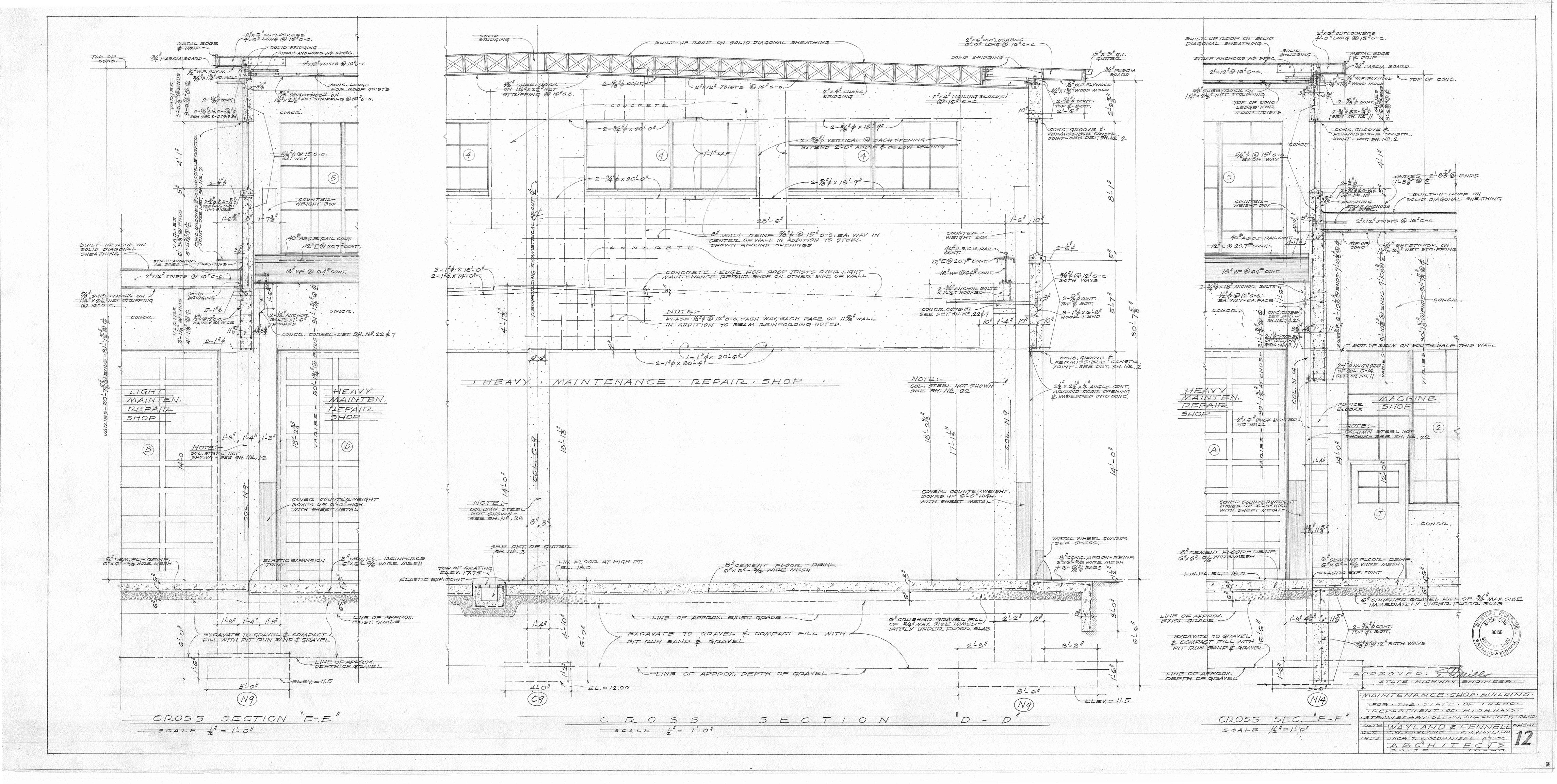


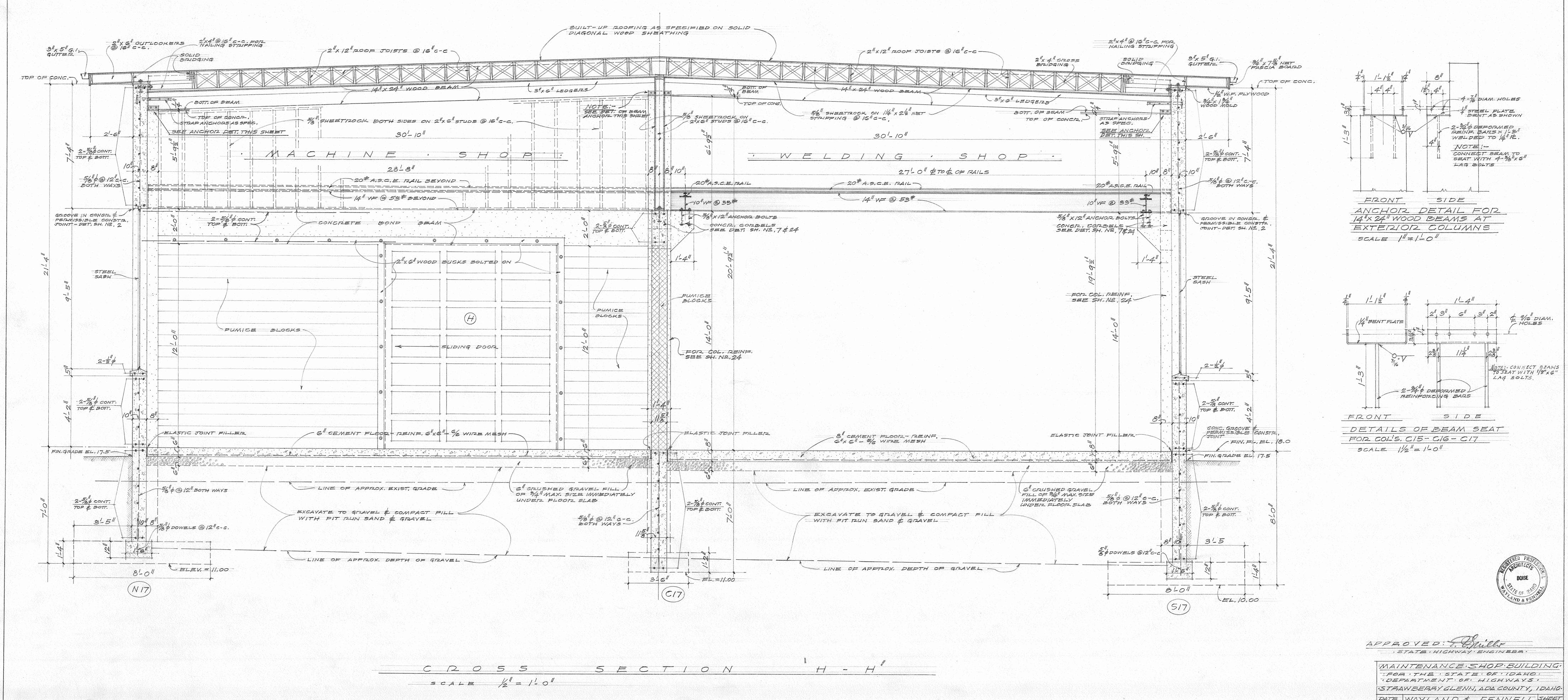








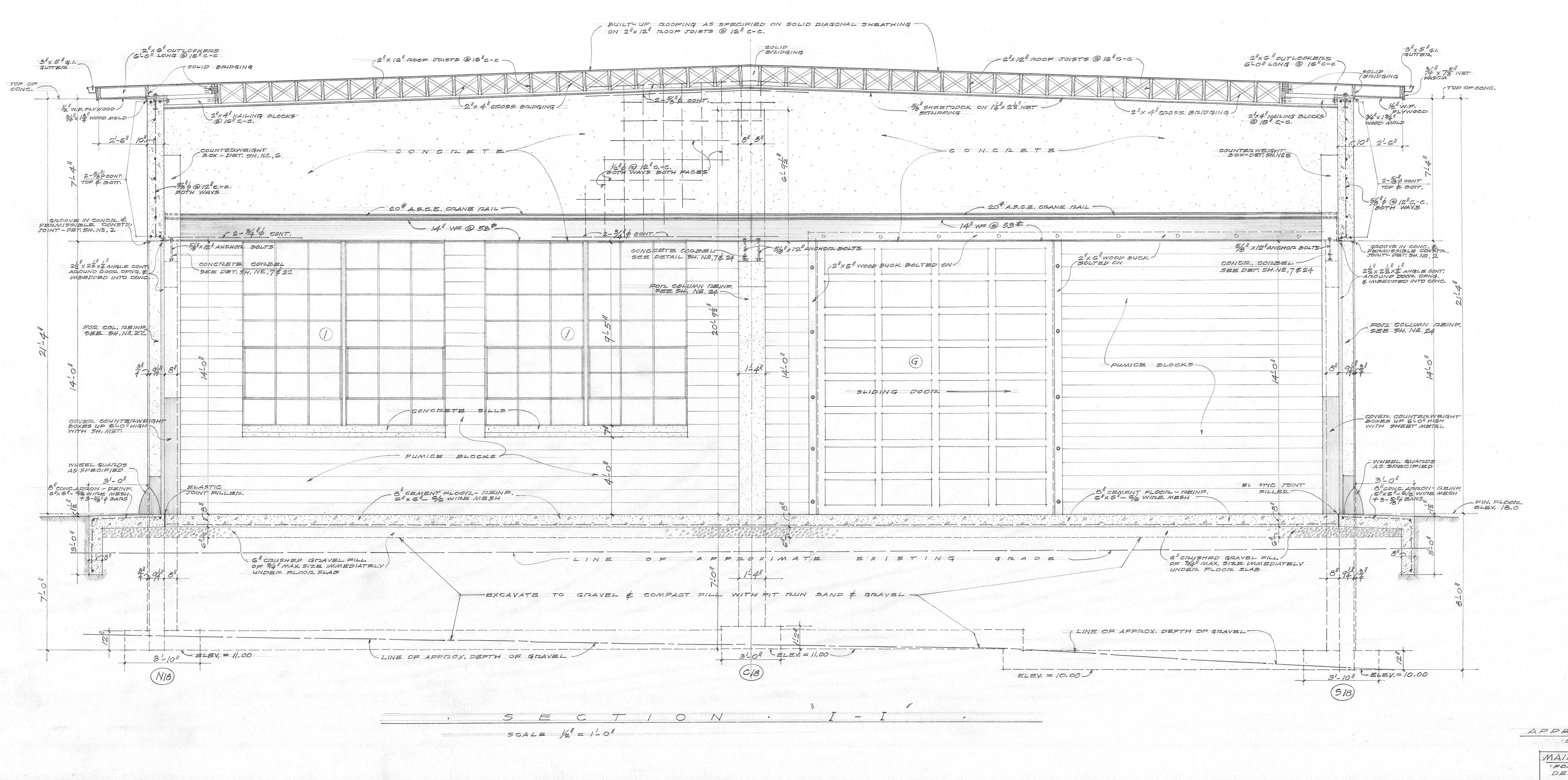




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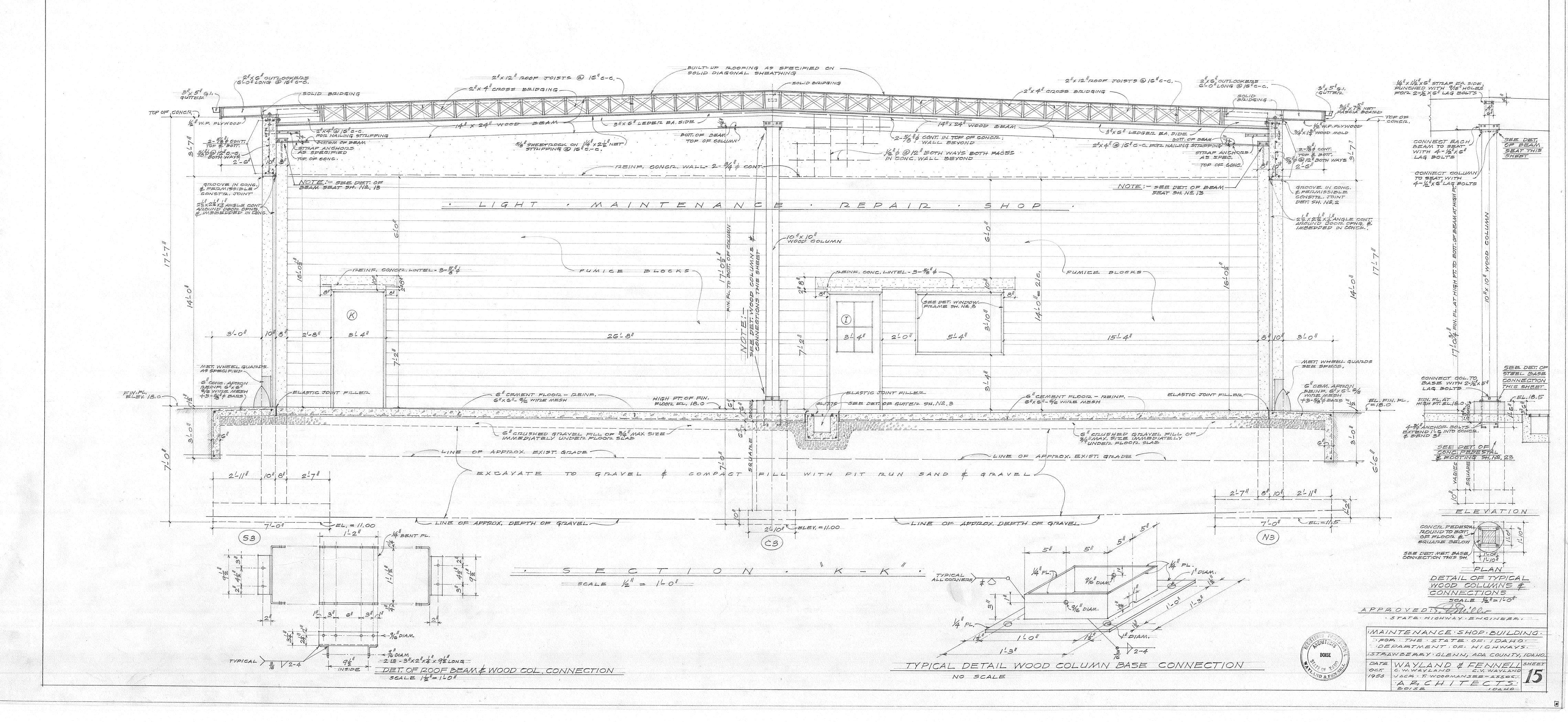
OCT. C.W. WAYLAND C.Y. WAYLAND 12 1953 JACK T. WOODMANSEE, ASSOC.

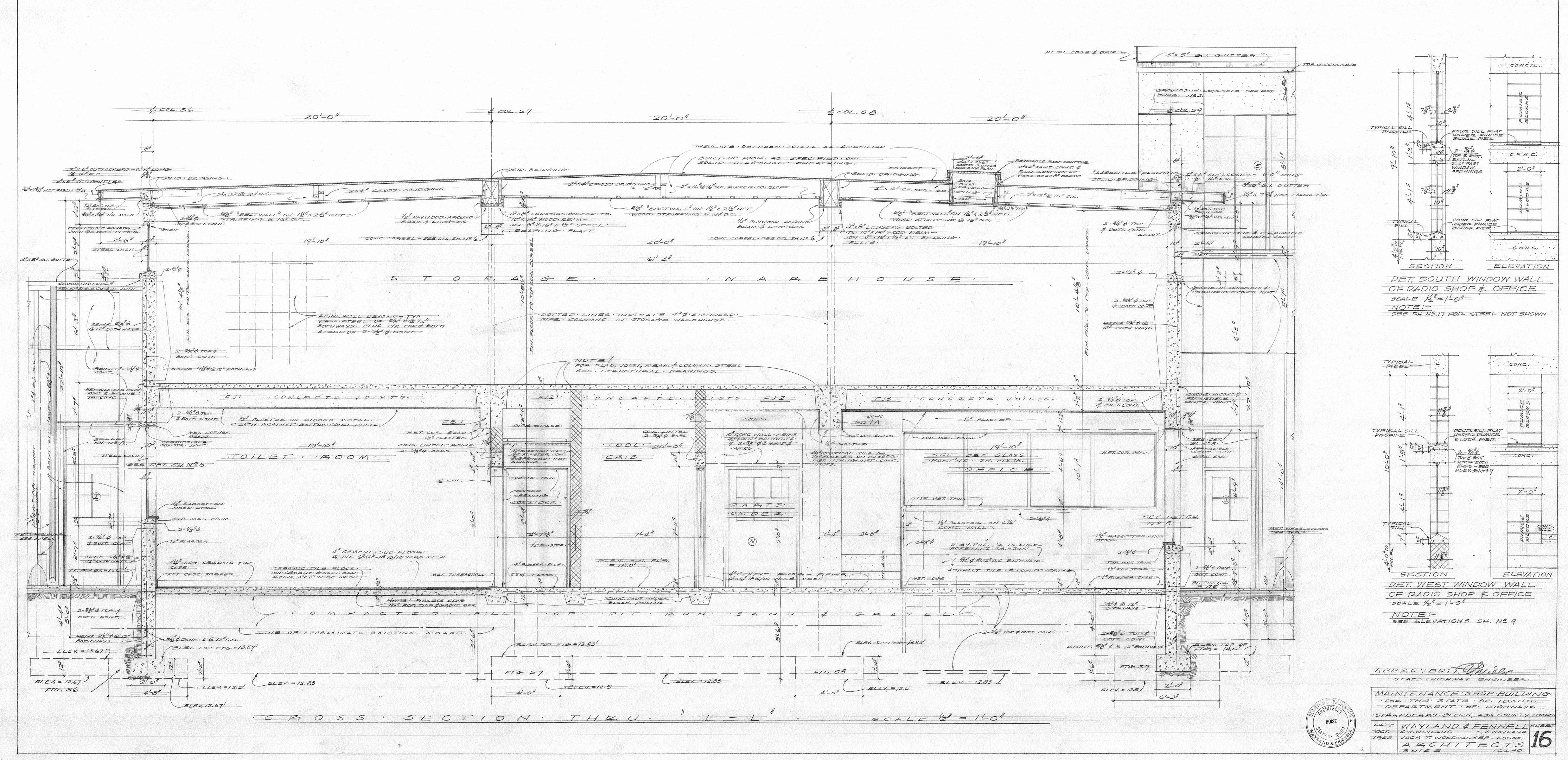
ARCHITECTS BOISE IDAHO



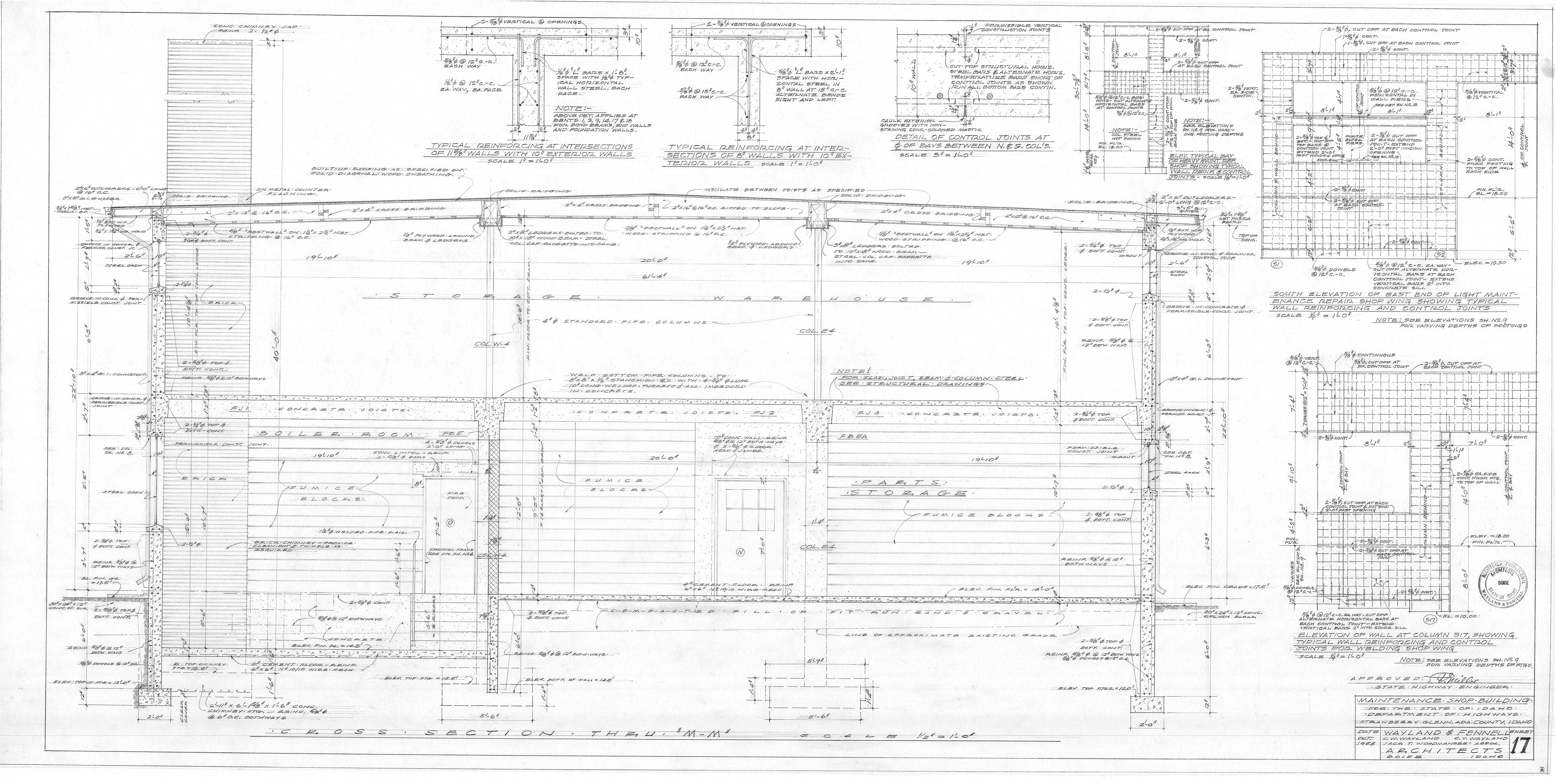
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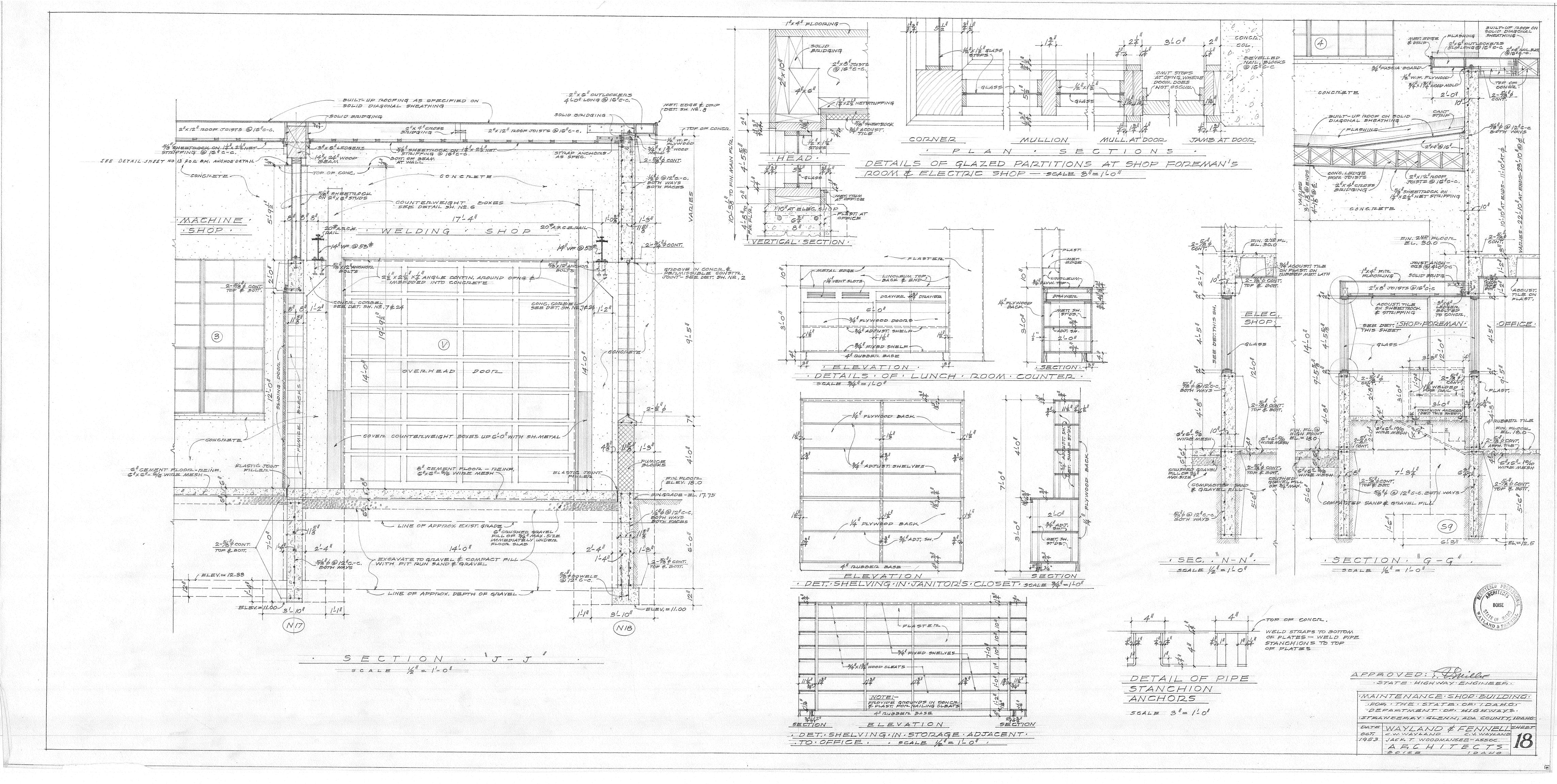
MAINTENANCE · SHOP · BUILDING · · FOR · THE · STATE · OF · IDAHO · DEPARTMENT OF HIGHWAYS STRAWBERRY GLENN, ADA COUNTY, IDAHO DATE WAYLAND & FENNELL SHEET OCT. C.W. WAYLAND C.V. WAYLAND 1953 JACK T. WOODMANSEE, ASSOC. ARCHITECTS. A BOISE IDAHO

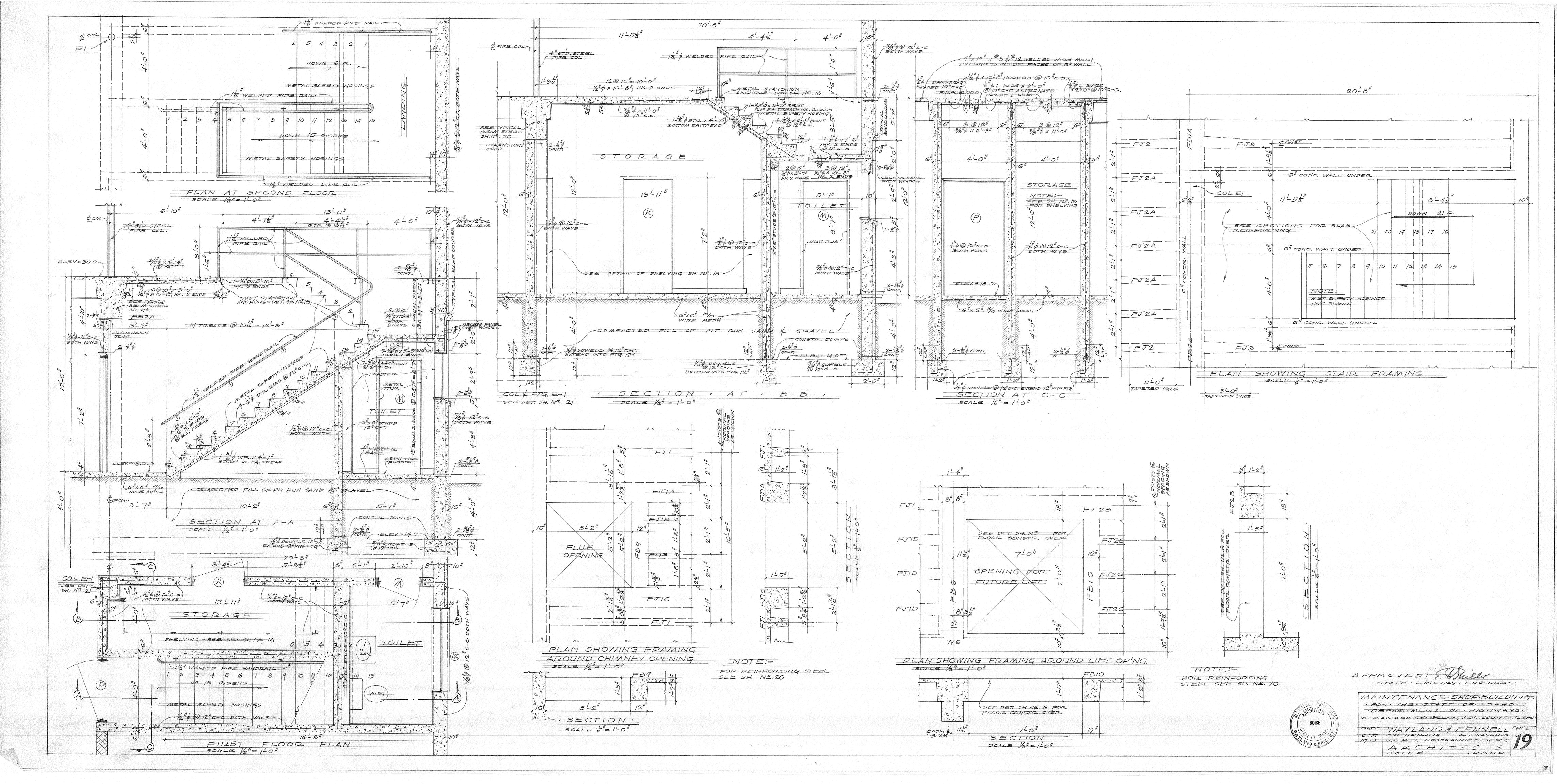


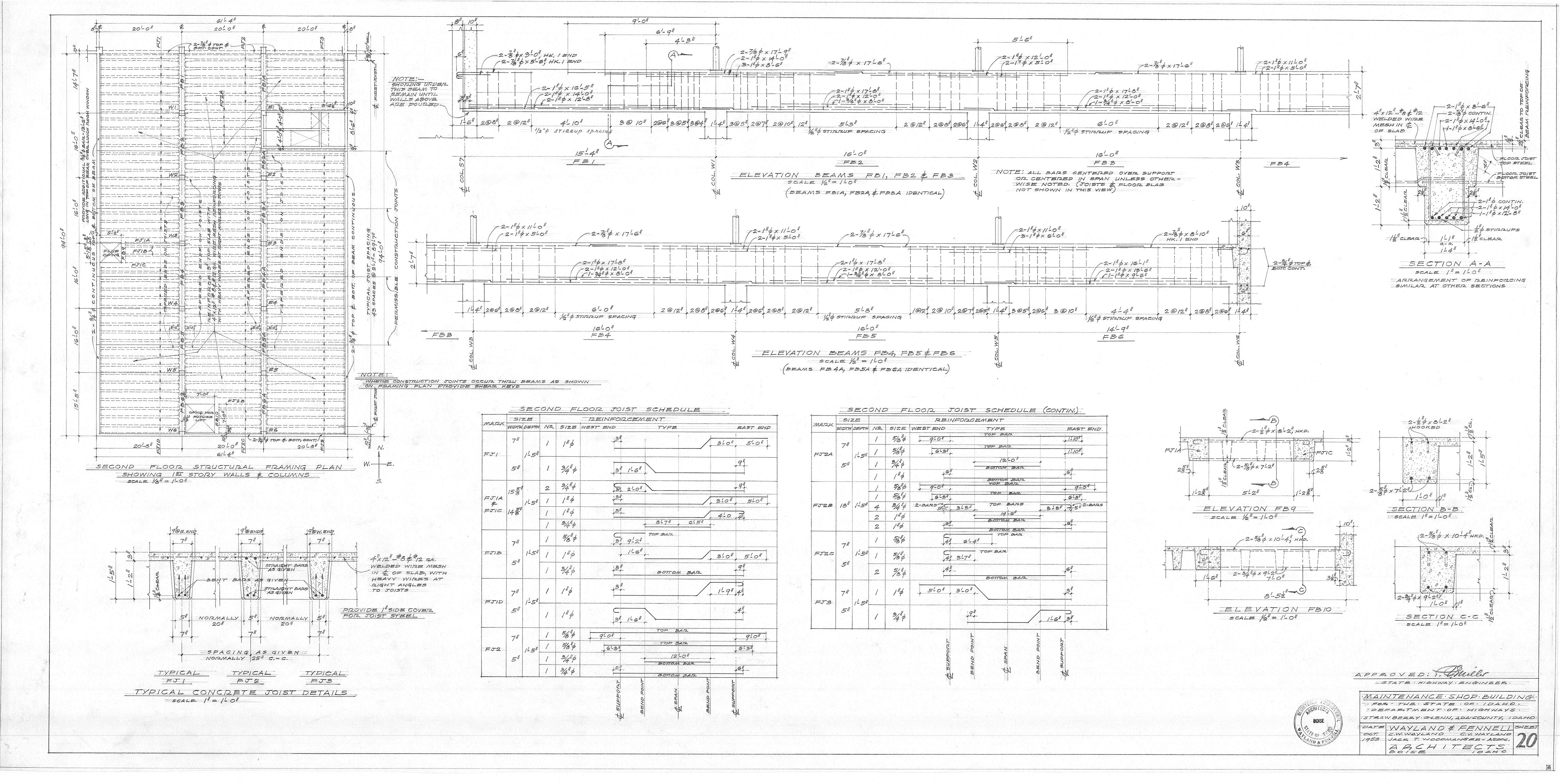


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MARK	NINZ	N3	N4	W5	NE		W3	N9	110	NI	N/Z	N/3	NIA	NG	NIG	N/7	N 18		32	53	54	55	56	57	58	59	5/0	5//	nagricon segundos
COLUMN SIZE EAST & WEST X NORTH & SOUTH									16"×20"	16"x20"	1611×2011	16"x20"															1611×2011	16"x 20"	1
VERTICAL BEINFORCING											American fill and																4-1110	4-1"0	
COLUMN SIZE		a marina da marina marina Marina marina marin	ting an in the second and the second		and a marker to the second and a		es facilità de la compania de la co				4400121									11 -11					aa jagaa fa aa a	the state of the s	14100121		
EAST & WEST X NORTH & SOUTH	16"x18" 16"x18"									green and the second se																	16" x 36" 8-1" <sup>1</sup>		# name and the opposite the
VERTICAL BEINFORCING	4-78" \$ 4-76" \$ 4" \$ @ 12" 4" \$ @ 12	1 4 4 0 IN PAIR	6-1" P 5 14" IN PAIRS 0 12"	6-1"0 14"0 IN PAIRS 0 12"	6-1"9 14"\$ IN PAIRS @ 12"	6-1"9 4"0 IN PAIRS @ 12"	6-1" PAIDS 0 12"	8-1"4 14"\$ IN PAIRS @ 12"	8-1"4 4" \$ IN PAIR @ 12"	8-1112 5 1411 \$ IN PAIRS @ 1211	8-1" = 5 14 0 IH PAIRS @ 1211	8-1" A 4" \$ IN PAIRS @ 12"	8- 1" A 5 14" \$ IN PAIRS @ 12"	4-1"H = 14"\$@12"	4-1"A 14" \$@ 12"	1/4"\$ @ 12"	14"0 @ 12"	4-78 9 1211	14"6@12"	1/4"   IN PAIRS	1/4 0 IN PAIRS	14 0 IN PAIRS	4012"	14"00 12"	14"00 12"	14 p IN PAIRS	5 14 1 \$ IN PAIRS @ 1211	14th & IN PAIR. @ 12"	1149
COLUMN SIZE EAST & WEST X NORTH & SOUTH	-16"X18" 16"X18	11 161 × 1811	16"X18"	16"×18"	1611×181	16"×18"	16"×18"	16"x36"	16"x 36"	16 <sup>11</sup> x36 <sup>11</sup>	" 16"1 x 36"	16"x36"	16" x36"	16"X18"	16"×18"	16"X18"	16"X 18"	16"×18"	16"×18"	16"X18"	16"×18"	16" × 18"	16"×18"	16"×18"	16"×18"	16"×36"	1611×3611	16" x 36"	<i>I</i>
VERTICAL REINFORCING	14"\$ @ 12" 14"\$ @ 12	6 6-111 p 211 1/4" PIN PAIR 21211	SAPIN PAIRS	5-1"\$ 14"\$ IN PAIRS @ 12"	14 OIN PAIRS	14 0 IN PAIRS	S /4" OIN PAIRS	14" \$ IN PAIRS	8-1"0 14"01N PAIZ	8-1" 0 5 4" \$ IN PAIR	8-111 = 5 4 14 14 PAIRS	8-1110 416IN PAIRS	8-1" II 8-1" II 8 14"   DIN PAIRS	6-1" A 5 14" O IN PAIRS	6-1" II 5 14" \$ IN PAIRS @ 12"	6-1" H 4" \$IN PAIRS	4-7/8" p = 14" p@12"	4-78"\$ 14"\$@12"	4-761/2	14" \$ IN PAIRS	14 0 IN PAIRS	6-111 p 1411 pin pains	4-1" p 14" p@ 12"	4-1"\$ 14"\$@12"	4-1"\$ 14"\$@12"	6-1" II	8-111 0 25 4 0 IN PAIRS 0 1211	8-111 A 1411 Ø IN PAIR. @ 1211	1147
VERTICAL DOWELS	4-7/8"\$ 4-7/6"9	6 6-116							8-1117	8-1/2								4-7/8" p	4-76"	6-1"p	6-1"p	6-11p	4-1"6	4-1116	4-1"\$	6-1"4	8-1110	8-1110	
물리 하는 것으로 발매되는 것은 것 같아요? 그 사람들은 사람들은 사람들은 것이 되었다. 그 아름이 되었다.	4-5/4 4-5/4	B. E.W. 5-1/21/2	B. E-W. 5-1/246	B. E. W. 5-16"6	B.EW.5-1/2/16	B.EW. 5-1/2"	DB.EW. 5-16/4	1/1/1	13-12/10	13-1/2/10	13-1/2110	13-1/2116	14-5/21/6	B E-W. 6-1/2"	6 B. E.W. 6-1/2"	B. EW. 6-1/2	\$ 4-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4-5"6	a force con a significant and	B. EW. 5-1/4/6	B E-W 5-1/4	bB, E-W, 5-1/2"4	5 , 1 = 4 / 6	and minimized in group amount of the four records	111/1	1-7-514	and a superior of the superior	12-11-11	1.11
MIDTH X LENGTH	9-2"\$ 9-2"\$ 3-10"x31-10" 3-10"x31-1		B.NS. 4-½9 B.NS. 9-56%			and the state of t	and the same of	ing the same and the contract of the contract	the second of th	and a supplier to the contract of the contract		to programme the second second to the second se	and the first term of the control of				and the second s	9-=104 13-101x3-104	and desired and processes on an annual commence of the second or s	Control of the second section of the second section of the second	and the state of t		And the second s	the family and the place of the	- And the state of	Color and the first training the four profession of the four mining and the profession of the section of the first first training of the first f	13-34¢	CONTRACTOR OF STREET,	***********
EAST \$ WEST X NORTH \$ SOUTH	3-10:X3-10 3-10 X3-1	(0" 3-10 x /-0	3:=10.3:-7:-0"	3-10" x 7-0"	3-10-X-7-0"		and a Samuel of Original Annual Territory Constraints														11								LAN-STREET, MI
THICKIYESS	124	4	44	4	4	en intersection and consistent of the Arthur and the intersection of the Arthur and the intersection of th		and processing and an experimental services of the services of		ania fina antana antana di Bilina antana antana antana di Bilina antana antana antana di Alembera di Alembera a Santana di Alembera di Ale	angan sa 181, sa				16 He i i i i i i i i i i i i i i i i i i	6.11.	1	in the second		and a second control of the second control o	A A		- Janjan	6 Managaran 16 Managaran	161	18	8		Michaelanna (d. damhada
FLEVATION TOP OF FOOTING	12,50   12,50	12.67	12.67	12,67	12.67	12.67	12.67	13,00	13.00	13,00	/3.00	13.00	13.00	/2,33	12,33	12,33	12.00	//,50	//.50		12,67	13.17	13.67	/3.83	13,83	14.00	14.00	14.00	0
	<b>T</b>						· · · ·		<i>O M</i>						55														
	5/3 5/4	575	<u> </u>		5/8				J M .												1 2	- W 5							Andrew Company
COLUMN SIZE	5/3 5/4	5.15										00   cq   16"x16"								2/1/B			16/X/16/		E 2		414		
	-/6"x20" 4-1"0											C 9 16"×16" 4-78"¢	C 14 16   X 16   4 - 7/8   4									4/ p	16"×16"	1" p	EZ  4// \$  STEEL DIPP		E STEEL PIPE		
COLUMN SIZE  EAST\$ WEST X NORTH \$ SOUTH  VERTICAL REINFORCING  HOOPS	-16"x20" 4-1"0 14"\$@12"											16"x16" 4-78"\$ 14"\$@12"	C 14 16   x 16   4 - 7/8   6 1   4/4 0 12					4 II B	All photographic states and the states are states as the states are states	4" \$ STEEL PIPE	41 p STEEL PIPE	4/4 = STEEL PIPLO	16" × 16"  4-1" \$ 40012"	A" p	4 A	4" p = STEEL PIPE	4" ¢ E STEEL PIPE	All B	
COLUMN SIZE  EAST & WEST X NORTH & SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST & WEST X NORTH & SOUTH	-/6"x 20" 4-1"0 14"0 @ 12" 16"x 36" 16"x 36	11 16 1 X 18 1	16 X 18 1	16"X18"	161 x 181	10"×10" WOOD COL.						C9 16"x16" 4-78"\$ 14"\$@12" 16"x16"	C 14  16"×16"  4-7/8"\$ 1/4"\$ @ 12"  24"×16"					4/p  STEEL PIPE	All John STEEL PIPE	STEEL PIPE	41 p STEEL PIPE	ILMXILM	16" × 16"  4-1" p  14" p @ 12"  16" × 16"	4" \$ STEEL PIPE	4   \$  STEEL PIPE	4" \$ = STEEL PIPE 16" X 16"	4   p E STEEL PIPE	4" \$  STEEL PIP.  16"X16"	
COLUMN SIZE  EAST & WEST X NORTH & SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE	-/6"x 20" 4-1"0 14"0 @ 12" 16"x 36" 16"x 36	16/x 18/ 4-1/4	16"X18" 4-1" a	16" X18"	16"x 18"	IO"X IO" WOOD COL.						16"x 16" 4-78" \$ 14" \$ @ 12" 16" x 16"	C 14  16 1 x 16 11  4-7/8 1/4  14 14 0 12 11  24 1 x 16 11					4 II B	SIEEL PIPE	4 1 6 STEEL PIPE	STEEL PIPE	STEEL PIPE	16" × 16"  4-1" 6  16" × 16"  16" × 16"  16" × 16"	4	4" \$ = STEEL DIPE  16" × 16"  4-1" \$	1 / p = STEEL PIPE	4" ¢ E STEEL PIPE	16" x 16"  4-1" \$	
COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH	-16" x 20"  4-1" 2  14" \$\phi = 12"  16" x 36"   16" x 36  -8-1" = 8-1" H  4" \$\phi   N PAIRS   4" \$\phi   N PAIR  @ 12"   \$\phi   2"  16" x 36"   16" x 36	16/x/8/ 4-1/H 25 14/160/2/	16"x18" 4-1" = 14" \( \phi \) \( \pi \) \( \	16" x 18"  4- 11= 14.16@ 12"	16"x 18" 4-7/8" f 1/4" f @ 12" 16" x 18"	IO" X IO" WOOD COL.  22" DIAM, ABOVE BOTT, OF FLSIAN 22" X 22" BELOW	F 22 DIAM. ABOVE BOTT. OF FL. SLAE 22 X 22 X BELOW	C 5  IO' X IO' I WOOD COL,  22"DIAM.ABOVE BOIT, OF FL.SLAB 22"X 22" BELOW	E 22 DIAM. ABOVE B BOTT, OF FL, SLA 22 X 22 II BELOW	E 22 DIAM, ABOVE ABOTT, OF FL. SLA 22 1 X 22 1 BELOW	IE 22 OIAM, ABOVE AB BOTT, OF FL, SLAE 22 X 22 Y 8ELOW	16"x16"  4-78"\$ 4-78"\$ 14"\$ @ 12"  16" x16"  4-1"\$ 14"\$ @ 12"	24"x16"  24"x16"  24"x16"  24"x16"	5 38 \$ 6 16"	16/1×16/1  16/1×16/1  16/1×16/1	3/8/P 0 16/	16/x/6/ 16/x/6/ 16/x/6/ 16/x/6/	4 / p STEEL PIPE 16" × 16" 14" p @ 12" 16" × 16"	4 b 16 x 16 1 16 x 16 1 16 x 16 1	4 1 p STEEL PIPE 16 1 x 16 1 4 - 1 1 p 14 1 p @ 12 1 16 11 x 16 1	4" \$  STEEL PIPE  16" X16"  4 - 1" \$  14" \$ @ 12"	16"X16" 16"X16" 4-1"\$ 16"X16"	16" × 16"  4-1" \$ 16" × 16"  16" × 16"  4-1" \$ 14" \$0 12"	4 / 6 / x / x	4   \$  STEEL DIPE  16   X 16      4 -     \$  14   \$ @ 12      16   X 16	16/1×16/1  16/1×16/1  16/1×16/1	4 4 p  E STEEL PIPE  1 16 11 X 16 11  4 p  4 p  4 p  4 p  4 p  4 p  4 p	16" x 16"  4-1" \$ 14"\$ @ 12"  16" x 16	
COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE	-16" x 20"  4-1" B  4-1" B  4-1" B  4-1" B  16" x 36" 16" x 36  -8-1" B  8-1" B  8-1" B  912"  16" x 36" 16" x 36"  16" x 36" 16" x 36"	13" 16" X 18"  4-1" #  25 14" p @ 12"  11 16" X 18"	16"X18" 4-1" = 14" \( \phi \) \	16" x 18"  4 1" ## 14" \$ @ 12"  16" x 18"	16"x 18" 4-78" \$ 14" \$ @ 12" 16"x 18"	10" × 10" WOOD COL. 22" DIAM, ABOVE BOTT, OF FL.SIAE 22" × 22" BELOW	E 22 DIAM, ABOVE BOTT, OF FL. SLAN 22 X 22 X BELOW	C 5  IO X IO II WOOD COL,  22 DIAM. ABOVE BOIT, OF FL. SLAB 22 X 22 II BELOW	E 22 DIAM, ABOYS B BOTT, OF FL, SLA 22 X 22 N BELOW	E 22 DIAM, ABOV. BOTT, OF FL. SA 22 X 22 DELOW	I 22 DIAM, ABOVE AB BOTT, OF FL. SLAE 22 X 22 II BELOW	16"x16"  4-78"\$ 14"\$ @ 12"  16"x16"  4-1"\$ 14"\$ @ 12"	16"x 16" 4-78" \$ 14" \$ @ 12" 24" x 16" 6-1" \$ (4" \$ IN PAIRS @ 12" 24" x 16" - 1" 1	5 3/8 \$ @ 16" 16" x 16"	16/1×16/1 16/1×16/1	16"X16"	16"x16" 16"x16" 16"x16" 16"x16"	4-14 6 12 16 1 16 1 X 16 1 1 1 1 1 1 1 1 1 1 1 1	4   \$  STEEL PIPE  16   X 16    4 - 1   \$  4   \$  2   \$  16   X 16    1 - 1   \$  1 - 1	1 1 6 12 1 6 16 16 16 1 16 1 X 16 16 1 X 16 16 16 16 16 16 16 16 16 16 16 16 16	11 \$ STEEL PIPE  16 12 14 \$ 16 12	1611 X 161	16" × 16"  4-1" b  16" × 16"  16" × 16"  16" × 16"  16" × 16"	4" \$  STEEL PIPE  16" × 16"  16" × 16"  16" × 16"	4	16"X16"  16"X16"  16"X16"  16"X16"	4   \$  E STEEL PIPE  1   16   X 16      4   4   6   2      1   16   X 16      4 - 1   6   4	16"x16"  16"x16"  16"x16"  16"x16  4-1"p	
COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS	-16" x 20"  4-1" 2  16" x 36" 16" x 36  -8-1" 2 8-1" H  4" \$ IN PAIRS  4" \$ IN PAIR  0 12" 0 12"  16" x 36" 16" x 36  8-1" 2 8-1" 2  4" \$ IN PAIRS  4" \$ IN PAIR  0 12" 0 12"	16/x/8/ 4-1/H 25/4/p@/2/ 1/6/x/8/ 1/6/x/8/ 1/6/x/8/ 1/6/x/8/ 1/6/x/8/ 1/6/x/8/	16"x18"  4-1" = 14" \( \phi \) \( \pi \) \( \p	16" x 18"  4- 1 E  14"\$ @ 12"  16" x 18"  6-1" E  14"\$ IN PAIRS  @ 12"	16"x 18" 4-7/8" \$ 1/4" \$ @ 12" 16" x 18" 4-7/8" \$ 14" \$ @ 12"	10" × 10" WOOD COL. 22" DIAM, ABOVE BOTT, OF FLSIAE 22" × 22" BELOW 4-34" \$ 14" \$@ 12"	C 4	22"DIAM. ABOVE BOIT, OF FL. SLAB 22"X 22" BELOW 4-34"\$ 1/4"\$ @ 12"	C 6	E 22 biam, above ABOT, of fl. 54 22 x 22 biam A - 34 bi 14 p@ 12 biam 14 p@ 12 biam 14 biam 14 biam 14 biam 14 biam 15 biam 16 biam 17 biam 18	10"x 10" WOOD COL. WOOD COL. 1E 22" DIAM, ABOVE AB BOTT, OF FL, SLAE 22" x 22" BELOW 4-3/4" p 14" p @ 12"	16"x16"  4-78"\$  14"\$ @ 12"  16" x16"  4-1"\$  16" x16"  4-1"\$  16" x16"  4-1"\$  16" x16"	C 14  16   x 16    4-7/8   \$  1/4   \$ @ 12    24   x 16    6-1   \$  1/4   \$ IN PAIRS @ 12    24   x 16    6-1   \$  1/4   \$ IN PAIRS @ 12    24   x 16    6-1   \$  1/4   \$ IN PAIRS @ 12    0   12    1   \$  1	5 3/8 \$ @ 16 "  4-1" \$ 3/8" \$ @ 16"	16/1×16/1 4-1/1/4 3/3/1/4 @ 16/1 16/1×16/1 2/8/4 @ 16/1	16/X/6/ 16/X/6/ 16/X/6/ 16/X/6/ 16/X/6/ 16/X/6/	16"x 16" 16"x 16" 16"x 16" 16" x 16" 16" x 16" 16" x 16" 3/8" \$ @ 16"	4 / p  STEEL PIPE  16" × 16"  16" × 16"  16" × 16"  16" × 16"  14" p @ 12"	4   b   2	4 1 p  STEEL PIPE  16 1 x 16 16  4 - 1 1 p  16 1 x 16 16  16 1 x 16 16  4 - 1 1 p  4 - 1 1 p  4 - 1 1 p	4 / 6 STEEL PIPE 16 / X / 6 // 4 - / / 6 16 / X / 6 // 16 / X / 6 // 16 / X / 6 // 4 / 6 @ / 2 //	16/1×16/1  16/1×16/1  16/1×16/1  16/1×16/1  16/1×16/1	16" × 16"  4-1" \$ 16" × 16"  16" × 16"  16" × 16"  16" × 16"  16" × 16"  16" × 16"	4" \$  STEEL PIPE  16" × 16"  4-1" \$ 16" × 16"  16" × 16"  4-1" \$ 14" \$ @ 12"	4	4   p  = STEEL PIPE  16   x 16    4 -   p  14   p @ 12    16   x 16    4 -   p  4 -   p  4 -   p  4 -   p	4   \$  E STEEL PIPE  1   16   X 16      4   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	16"x16"  16"x16"  2-1"\$ 16"x16  16"x16  4-1"\$ 14"\$@12"	
COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  VERTICAL REINFORCING  HOOPS	-16" x 20"  4-1" B  16" x 36"  16" x 36"  16" x 36"  8-1" B  2" B 10"  16" x 36"  8-1" B  2" B-1" B  8-1" B	16/1×18/1  4-1/4  25/4/p@12/  16/1×18/  16/1×1	16"X18"  4-1" = 14" \$\phi 0 12"  16" X18"  6-1" \$\pm   4" \$\phi 1N PAIRS 0 12"  6-1" \$\pm	16" x 18"  4-1" #  14" \$\phi \text{18"}  16" x 18"  16" x 18"  6-1" #  6-1" #  6-1" #  6-1" #  6-1" #  6-1" #	16"x 18" 4-7/8" \$ 14" \$ @ 12" 16"x 18" 4-7/8" \$ 14" \$ @ 12" 4-7/8" \$	10" × 10" WOOD COL. 22" DIAM, ABOVE BOTT, OF FLSIAE 22" × 22" BELOW 4-34" \$ 14" \$@ 12"	C 4	22"DIAM. ABOVE BOIT, OF FL. SLAB 22"X 22" BELOW 4-34"\$ 1/4"\$ @ 12"	C 6	E 22 biam, above ABOT, of fl. 54 22 x 22 biam A - 34 bi 14 p@ 12 biam 14 p@ 12 biam 14 biam 14 biam 14 biam 14 biam 15 biam 16 biam 17 biam 18	10"x 10" WOOD COL. WOOD COL. 1E 22" DIAM, ABOVE AB BOTT, OF FL, SLAE 22" x 22" BELOW 4-3/4" p 14" p @ 12"	16"x16"  4-78" \$ 14" \$ @ 12"  16" x 16"  16" x 16"  4-1" \$ 16" x 16"  4-1" \$ 14" \$ @ 12"  4-1" \$	C 14  16 1 x 16 11  4-7/8 1/4  14 1/4 0 12 11  24 1/ x 16 11  6-1 1/4  6-1 1/4  6-1 1/4  6-1 1/4  6-1 1/4  6-1 1/4  6-1 1/4  6-1 1/4  6-1 1/4  6-1 1/4	5 3/8 \$ @ 16" 4-1"\$  16" x 16"  16" x 16"  4-1"\$  3/8"\$ @ 16"  4-1"\$	16/1×16/1 3/8/6016/1 3/8/6016/1 3/8/6016/1	16"x16"  4-1"\$ 36"\$0 16"  4-1"\$ 36"\$0 16"	16/x/6/ 4-1/16 3/8/10/6/ 16/x/6/ 4-1/10/ 4-1/10/ 3/8/4@16/	4 / p  STEEL PIPE  16 1 x 16 1  4 - 1 1 p  16 1 x 16 1  4 - 1 1 p  14 1 p @ 12 1  4 - 1 1 p  4 - 1 1 p	4-116 4-116 4-116 4-116 4-116 4-116 4-116	4 1 6 STEEL PIPE 16 1 x 16 1 4-11 6 16 1 x 16 1 16 1 x 16 1 4-11 6 4-11 6 4-11 6	16 x 16 1 2 1 4 1 6 1 2 1 4 1 6 0 12 1 1 6 12 1 1 1 6 12 1 1 6 12 1 1 1 6 12 1 1 1 6 12 1 1 1 6 12 1 1 1 1	16/1×16/1  16/1×16/1  16/1×16/1  16/1×16/1  16/1×16/1	16" × 16"  4-1" \$ 16" × 16"  16" × 16"  4-1" \$ 14" \$ @ 12"  16" × 16"  4-1" \$ 14" \$ @ 12"  4-1" \$	4" \$  SIEEL PIPE  16" × 16"  4-1" \$  16" × 16"  4-1" \$  14" \$ @ 12"  4-1" \$	4 - 1   p 4 - 1   p	4-11-6 1611×1611 4-11-6 161×1611 4-11-6 141-401211	4	4-1" p	
COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING  HOOPS	16" x 20"  4-1" 2  4-1" 2  16" x 36" 16" x 36  8-1" 2  8-1" 36" 16" x 36  16" x 36" 16" x 36  16" x 36" 16" x 36  16" x 36" 16" x 36  8-1" 2  8-1" 2  8-1" 2  8-1" 3  8-1" 3  8-1" 3  8-1" 4  8-1" 56" 4  13-34" 6  15-34" 6	16/1×18/ 4-1/1/18 4-1/1/18 1/1/18/18/18/18/18/18/18/18/18/18/18/18/	16"X18"  4-1" A  14" \$\phi \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	16" x 18"  4-1" #  14" \$\phi \text{18"}  16" x 18"  6-1" #  6-1" #  6-1" #  6-1" #  6-1" #  8. E; W. 6-1/2" \$  8. N5. 11-5/4  8. N5. 11-5/4	16"x 18"  4-7/8" \$ 1/4" \$ @ 12"  16" x 18"  4-7/8" \$ 14" \$ @ 12"  4-7/8" \$ 9-2" \$	10" × 10" WOOD COL. 22" DIAM. ABOVE BOTT. OF FL. SIAE 22" × 22" BELOW 4-34" \$ 14" \$ @ 12" 4-34" \$	C 4  10" × 10"  WOOD GOL:  E 22" DIAM. ABOVE BOTT, OF FL. SLAN 22" × 22" BELOW 4-34" \$  4" \$ @ 12"	22"DIAM. ABOVE BOTT. OF FL. SLAB 22"x 22" BELOW 4-34" \$ 14" \$ @ 12"	E 22 DIAM. ABOYS B BOTT. OF FL. SLA 22 X 22 N BELOW 4-3/4 b 14 b @ 12 N	10" × 10" WOOD COL WOOD COL 22" × 22" BELOW 4-34" p 14" p@ 12" 4-34" p	10"x 10" WOOD COL. WOOD COL. WE 22"DIAM, ABOVE ABBOTT, OF FL. SLAE 22" x 22" BELOW 4-34"\$ 14"\$ @ 12" 4-34"\$	16"x16"  4-78"\$ 14"\$ @ 12"  16" x16"  4-1"\$  16" x16"  4-1"\$  14"\$ @ 12"  4-1"\$  13-12"\$	16" × 16"  4-78" \$ 14" \$ 0 12"  24" × 16"  24" × 16"  24" × 16"  6-1" \$ 14" \$ 1N PAIR  0 12"  6-1" \$ 14" \$ 1N PAIR  13-12" \$ 14-12" \$	5 3/8 / 6 / 6 / 6 / 5 3/8 / 6 0 / 6 / 6 / 6 / 6 / 6 / 6 / 6 / 6 /	16/1×16/1 4-1/1/6 3/8/1/6/16/1 16/1×16/1 16/1×16/1 16/1×16/1 4-1/1/6 3/8/1/6/16/1	16/1×16/1  16/1×16/1  16/1×16/1  16/1×16/1  4-1/1/p  3/8/1/p @ 16/1  7-1/2/1/p	16/x16/ 16/x16/ 16/x16/ 16/x16/ 16/x16/ 16/x16/ 4-1/b 3/8/\$@16/ 4-1/b 3/8/\$@16/ 7-1/2/b	4 / b STEEL PIPE  16 1 × 16 1  4 - 1 1 b  16 1 × 16 1  4 - 1 1 b  14 1 b @ 12 1  4 - 1 1 b  14 - 56 1 b  EA. WAY	16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 15/1	4 1 0 51EEL PIPE  16 1 x 16 1 x 16 1	16"x16"  16"x16"  16"x16"  16"x16"  16"x16"  15" \$ [2"]  12-56" \$ [2"]	1611 X 161 1611 X	16" X 16"  4-1" b 16" X 16"  16"	4 / p  SIEF PIPE  16 x 16 / x	16" × 16"  16" × 16"  16" × 16"  16" × 16"  16" × 16"  15" ≠ € 12"  12-518"  EA. WAY	4 / p @ 12/1  4 - 1 / p  4 - 1 / p  4 - 1 / p  4 - 1 / p  4 - 1 / p  4 - 1 / p  2 - 5/8 / EA, WAY	4	16"x16"  16"x16"  16"x16"  16"x16  16"x16  4-1"\$  14"\$@12"  14-58"  EA. WAY	
COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING HOOPS  VERTICAL REINFORCING HOOPS  VERTICAL REINFORCING HOOPS  STEEL MAT EW. REINFORCING NS.	-16" x 20"  4-1" B  16" x 36"  16" x 36"  16" x 36"  8-1" B  2" B 10"  16" x 36"  8-1" B  2" B-1" B  8-1" B	16/1×18/ 4-1/1/18 4-1/1/18 1/1/18/18/18/18/18/18/18/18/18/18/18/18/	16"X18"  4-1" A  14" \$\phi \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	16" x 18"  4-1" #  14" \$\phi \text{18"}  16" x 18"  6-1" #  6-1" #  6-1" #  6-1" #  6-1" #  8. E; W. 6-1/2" \$  8. N5. 11-5/4  8. N5. 11-5/4	16"x 18"  4-7/8" \$ 1/4" \$ @ 12"  16" x 18"  4-7/8" \$ 14" \$ @ 12"  4-7/8" \$ 9-2" \$	10" × 10" WOOD COL. 22" DIAM. ABOVE BOTT. OF FL. SIAE 22" × 22" BELOW 4-34" \$ 14" \$ @ 12" 4-34" \$	C 4  10" × 10"  WOOD GOL:  E 22" DIAM. ABOVE BOTT, OF FL. SLAN 22" × 22" BELOW 4-34" \$  4" \$ @ 12"	22"DIAM. ABOVE BOTT. OF FL. SLAB 22"x 22" BELOW 4-34" \$ 14" \$ @ 12"	E 22 DIAM. ABOYS B BOTT. OF FL. SLA 22 X 22 N BELOW 4-3/4 b 14 b @ 12 N	10" × 10" WOOD COL WOOD COL 22" × 22" BELOW 4-34" p 14" p@ 12" 4-34" p	10"x 10" WOOD COL. WOOD COL. WE 22"DIAM, ABOVE ABBOTT, OF FL. SLAE 22" x 22" BELOW 4-34"\$ 14"\$ @ 12" 4-34"\$	16"x16"  4-78"\$ 14"\$ @ 12"  16" x16"  4-1"\$  16" x16"  4-1"\$  14"\$ @ 12"  4-1"\$  13-12"\$	16" × 16"  4-78" \$ 14" \$ 0 12"  24" × 16"  24" × 16"  24" × 16"  6-1" \$ 14" \$ 1N PAIR  0 12"  6-1" \$ 14" \$ 1N PAIR  13-12" \$ 14-12" \$	5 3/8 / 6 / 6 / 6 / 5 3/8 / 6 0 / 6 / 6 / 6 / 6 / 6 / 6 / 6 / 6 /	16/1×16/1 4-1/1/6 3/8/1/6/16/1 16/1×16/1 16/1×16/1 16/1×16/1 4-1/1/6 3/8/1/6/16/1	16/1×16/1  16/1×16/1  16/1×16/1  16/1×16/1  4-1/1/p  3/8/1/p @ 16/1  7-1/2/1/p	16/x16/ 16/x16/ 16/x16/ 16/x16/ 16/x16/ 16/x16/ 4-1/b 3/8/\$@16/ 4-1/b 3/8/\$@16/ 7-1/2/b	16" × 16"  16" × 16"  16" × 16"  16" × 16"  16" × 16"  14" \$ @ 12"  14" \$ @ 12"  14" \$ @ 12"  14-56" \$ EA, WAY  15-9" × 5-9"	4   \$   \$   \$   \$   \$   \$   \$   \$   \$	16 1 x 16	16" X16"  4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 5-58" \$ 5-4-1" \$ 5-5-6" \$ 5	16/1x/6/12/1 16/1x/6/12/1 16/1x/6/12/1 16/1x/6/1 16/1x/6/1 14/1p@12/1 14-5/8/1 EA. WAY	16" X 16"  4-1" \$ 16" X 16"  15" X 16"  15" X 15	4 / p  STEEL PIPE  16 x 16 /   4-1 / p  14 / p @ 12 /   16 x 16 /   4-1 / p  14 / p @ 12 /   4-1 / p  14 - 5/8 / p  EA, WAY  15 ! 9 / x 5 ! 9 /	16" x 16"  4-1" \$ 14" \$ @ 12"  16" x 16"  4-1" \$ 14" \$ @ 12"  24-1" \$ EA WAY	16" X 16"  4-1" \$ 16" X 16"  16" X 16"  4-1" \$ 14" \$ @ 12"  16" X 16"  4-1" \$ 12" \$ 8"  EA, WAY	# 4   4   4   4   4   4   4   4   4   4	16" x 16"  16" x 16"  4-1" p  16" x 16  4-1" p  14" p@ 12"  4-1" p  14-58" EA. WAY	611
COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING HOOPS  COLUMN SIZE  EAST\$ WEST X NORTH\$ SOUTH  VERTICAL REINFORCING HOOPS  VERTICAL REINFORCING HOOPS  VERTICAL REINFORCING HOOPS  VERTICAL REINFORCING HOOPS  VERTICAL DOWELS  STEEL MAT EW. REINFORCING NS,	16" x 20"  4-1" 2  4-1" 2  16" x 36" 16" x 36  8-1" 2  8-1" 36" 16" x 36  16" x 36" 16" x 36  16" x 36" 16" x 36  16" x 36" 16" x 36  8-1" 2  8-1" 2  8-1" 2  8-1" 3  8-1" 3  8-1" 3  8-1" 4  8-1" 56" 4  13-34" 6  15-34" 6	16/1×18/ 4-1/1/18 4-1/1/18 1/1/18/18/18/18/18/18/18/18/18/18/18/18/	16"X18"  4-1" A  14" \$\phi \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	16" x 18"  4-1" #  14" \$\phi \text{18"}  16" x 18"  6-1" #  6-1" #  6-1" #  6-1" #  6-1" #  8. E; W. 6-1/2" \$  8. N5. 11-5/4  8. N5. 11-5/4	16"x 18"  4-7/8" \$ 1/4" \$ @ 12"  16" x 18"  4-7/8" \$ 14" \$ @ 12"  4-7/8" \$ 9-2" \$	10" × 10" WOOD COL. 22" DIAM. ABOVE BOTT. OF FL. SIAE 22" × 22" BELOW 4-34" \$ 14" \$ @ 12" 4-34" \$	C 4  10" × 10"  WOOD GOL:  E 22" DIAM. ABOVE BOTT, OF FL. SLAN 22" × 22" BELOW 4-34" \$  4" \$ @ 12"	22"DIAM. ABOVE BOTT. OF FL. SLAB 22"x 22" BELOW 4-34" \$ 14" \$ @ 12"	E 22 DIAM. ABOYS B BOTT. OF FL. SLA 22 X 22 N BELOW 4-3/4 b 14 b @ 12 N	10" × 10" WOOD COL WOOD COL 22" × 22" BELOW 4-34" p 14" p@ 12" 4-34" p	10"x 10" WOOD COL. WOOD COL. WE 22"DIAM, ABOVE ABBOTT, OF FL. SLAE 22" x 22" BELOW 4-34"\$ 14"\$ @ 12" 4-34"\$	16"x16"  4-78"\$ 14"\$ @ 12"  16" x16"  4-1"\$  16" x16"  4-1"\$  14"\$ @ 12"  4-1"\$  13-12"\$	16" × 16"  4-78" \$ 14" \$ 0 12"  24" × 16"  24" × 16"  24" × 16"  6-1" \$ 14" \$ 1N PAIR  0 12"  6-1" \$ 14" \$ 1N PAIR  13-12" \$ 14-12" \$	5 3/8 / 6 / 6 / 6 / 6 / 6 / 6 / 6 / 6 / 6 /	16/1×16/1 4-1/1/6 3/8/1/6/16/1 16/1×16/1 16/1×16/1 16/1×16/1 4-1/1/6 3/8/1/6/16/1	16/1×16/1  16/1×16/1  16/1×16/1  16/1×16/1  4-1/1/p  3/8/1/p @ 16/1  7-1/2/1/p	16/x16/ 16/x16/ 16/x16/ 16/x16/ 16/x16/ 16/x16/ 4-1/b 3/8/\$@16/ 4-1/b 3/8/\$@16/ 7-1/2/b	16" × 16"  16" × 16"  16" × 16"  16" × 16"  16" × 16"  14" \$ @ 12"  14" \$ @ 12"  14" \$ @ 12"  14-56" \$ EA, WAY  15-9" × 5-9"	16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 16/116/ 15/1	16 1 x 16	16" X16"  4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 4-1" \$ 5-58" \$ 5-4-1" \$ 5-5-6" \$ 5	1611 X 161 1611 X	16" X 16"  4-1" \$ 16" X 16"  15" X 16"  15" X 15	4 / p  STEEL PIPE  16 x 16 /   4-1 / p  14 / p @ 12 /   16 x 16 /   4-1 / p  14 / p @ 12 /   4-1 / p  14 - 5/8 / p  EA, WAY  15 ! 9 / x 5 ! 9 /	16" x 16"  4-1" \$ 16" x 16"  4-1" \$ 16" x 16"  4-1" \$ 14" \$ @ 12"  4-1" \$ 12-518"  EA. WAY	16" X 16"  4-1" \$ 16" X 16"  16" X 16"  4-1" \$ 14" \$ @ 12"  16" X 16"  4-1" \$ 12" \$ 8"  EA, WAY	# 4   4   4   4   4   4   4   4   4   4	16"x16"  16"x16"  16"x16"  16"x16  16"x16  4-1"\$  14"\$@12"  14-58"  EA. WAY	611



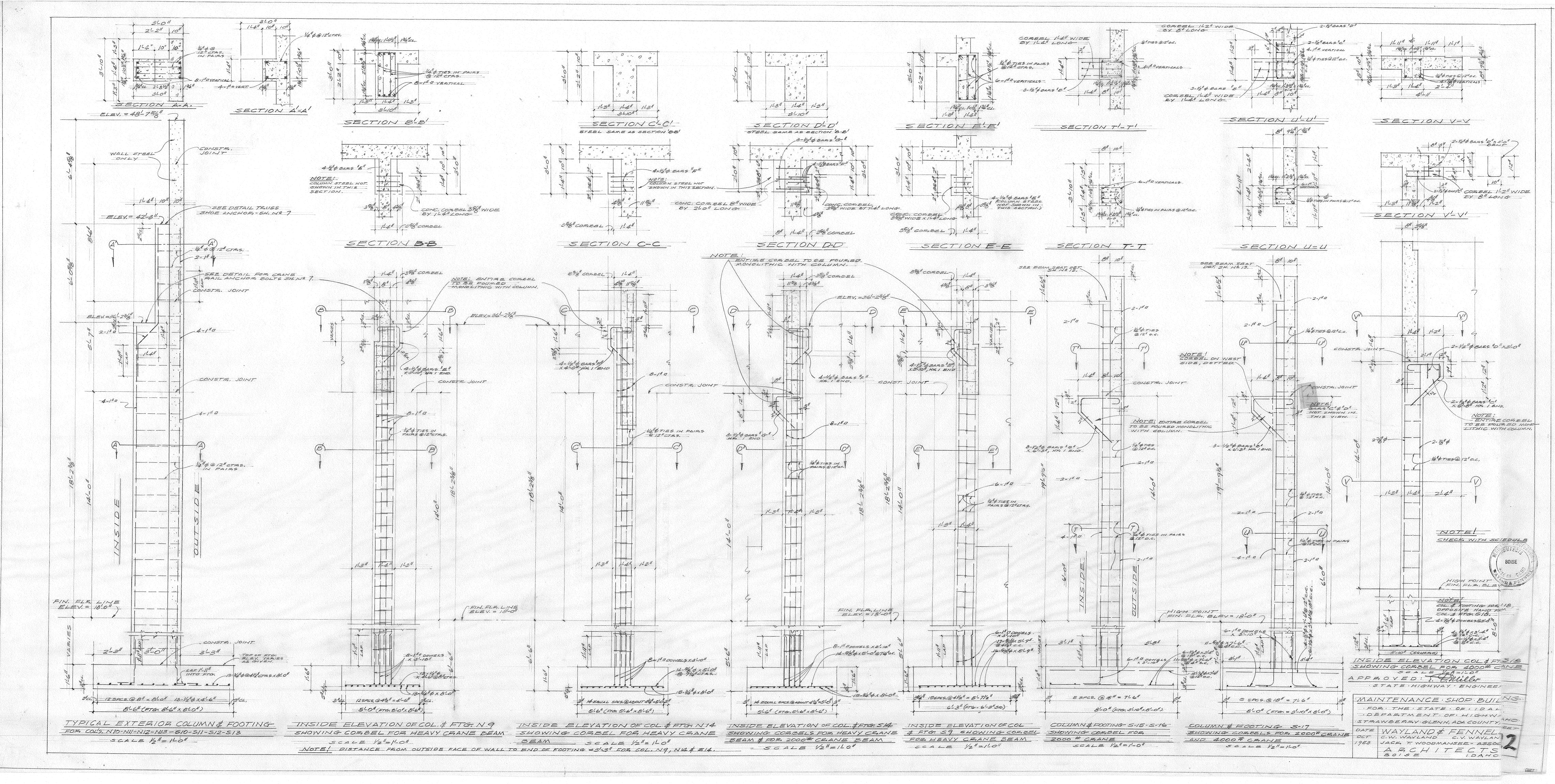
MAINTENANCE SHOP BUILDING. · FOR · THE · STATE · OF · | DAHO · · DEPARTMENT · OF · H | GHWAYS · · STRAWBERRY · GLENN , ADA COUNTY , IDAHO ·

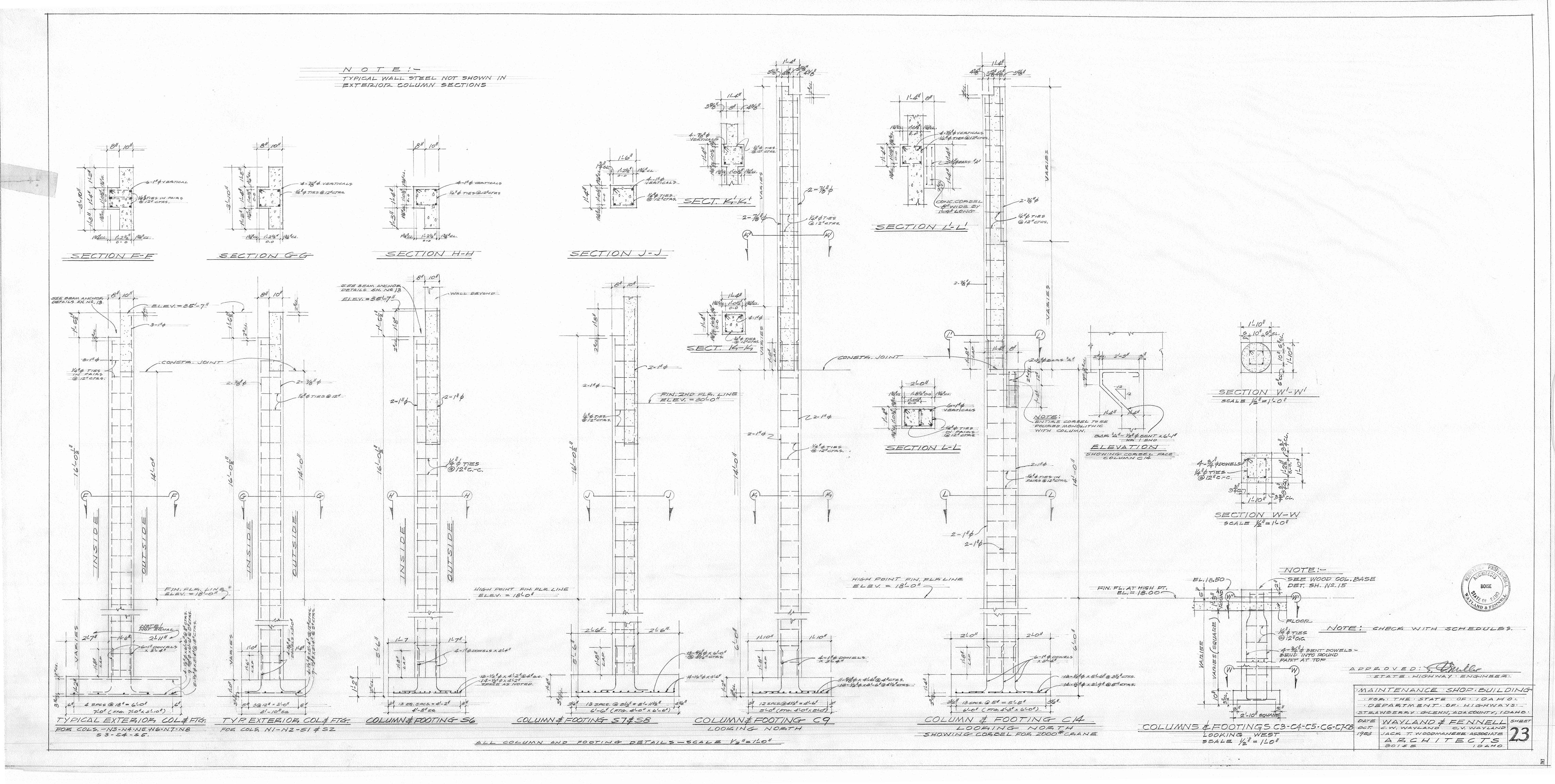
DATE WAYLAND FENNELL SHEET

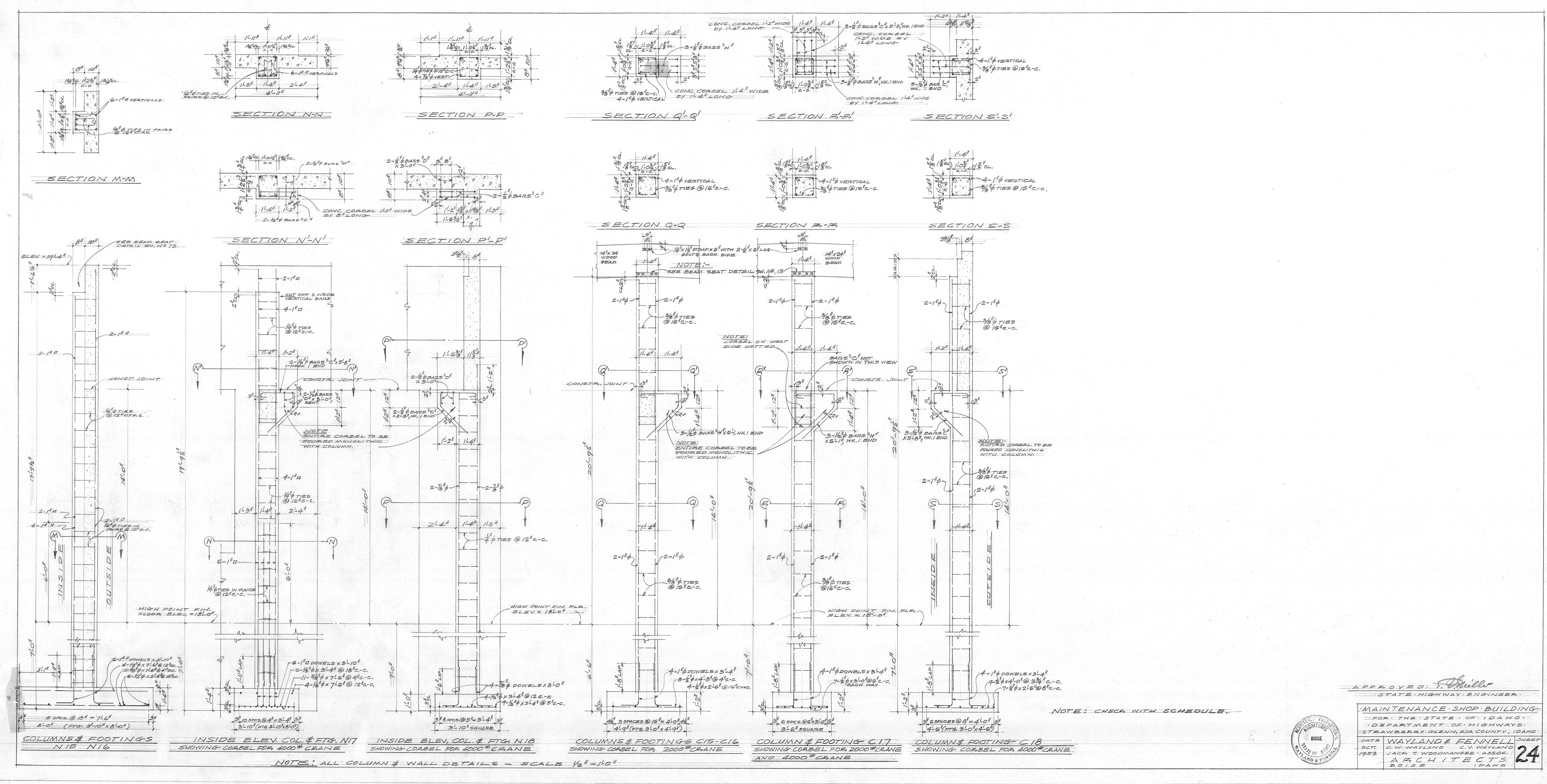
OCT. C.W. WAYLAND C.V. WAYLAND

1953 JACK T. WOODMANSEE-ASSOC.

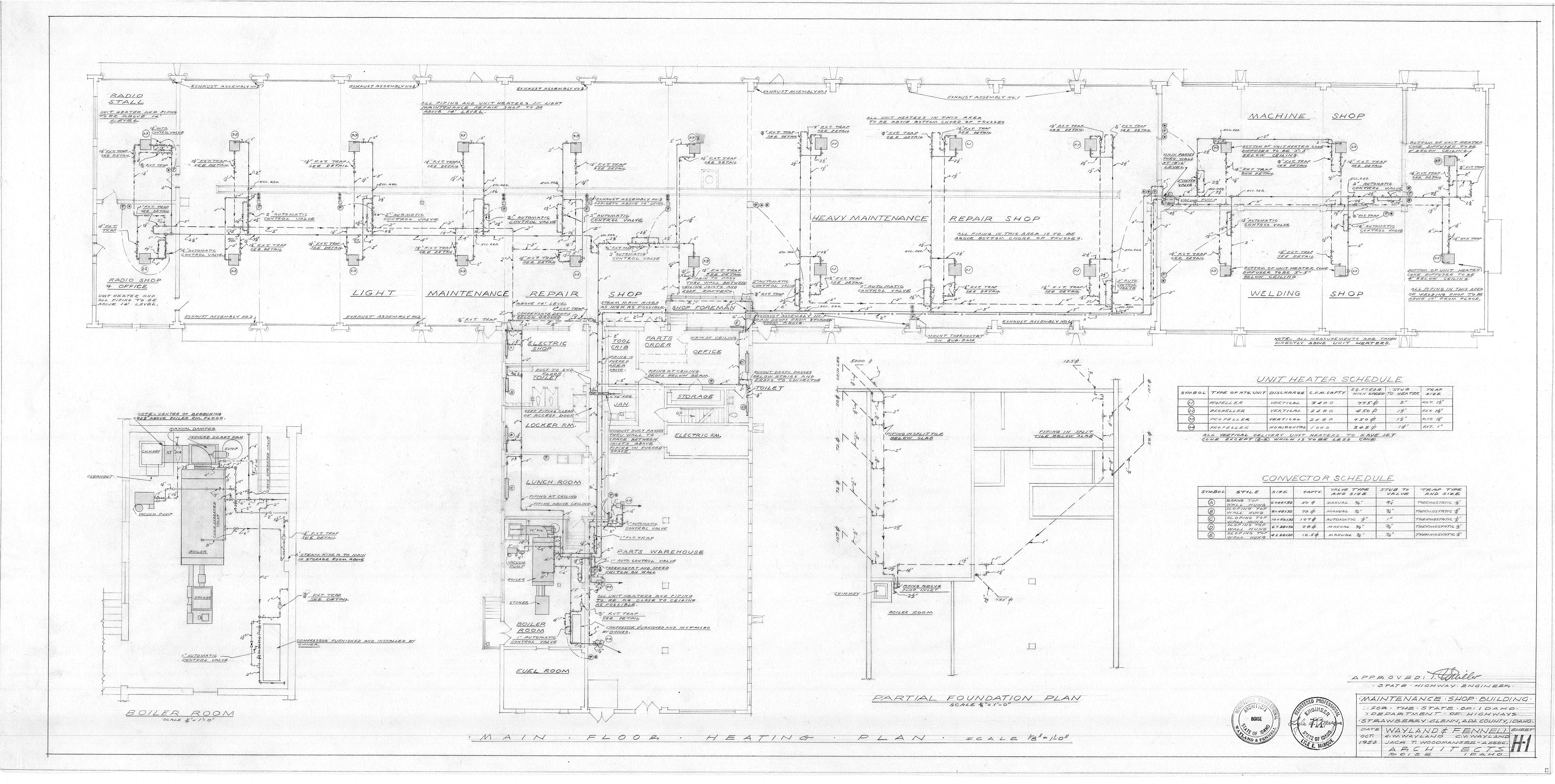
ARCHITECTS

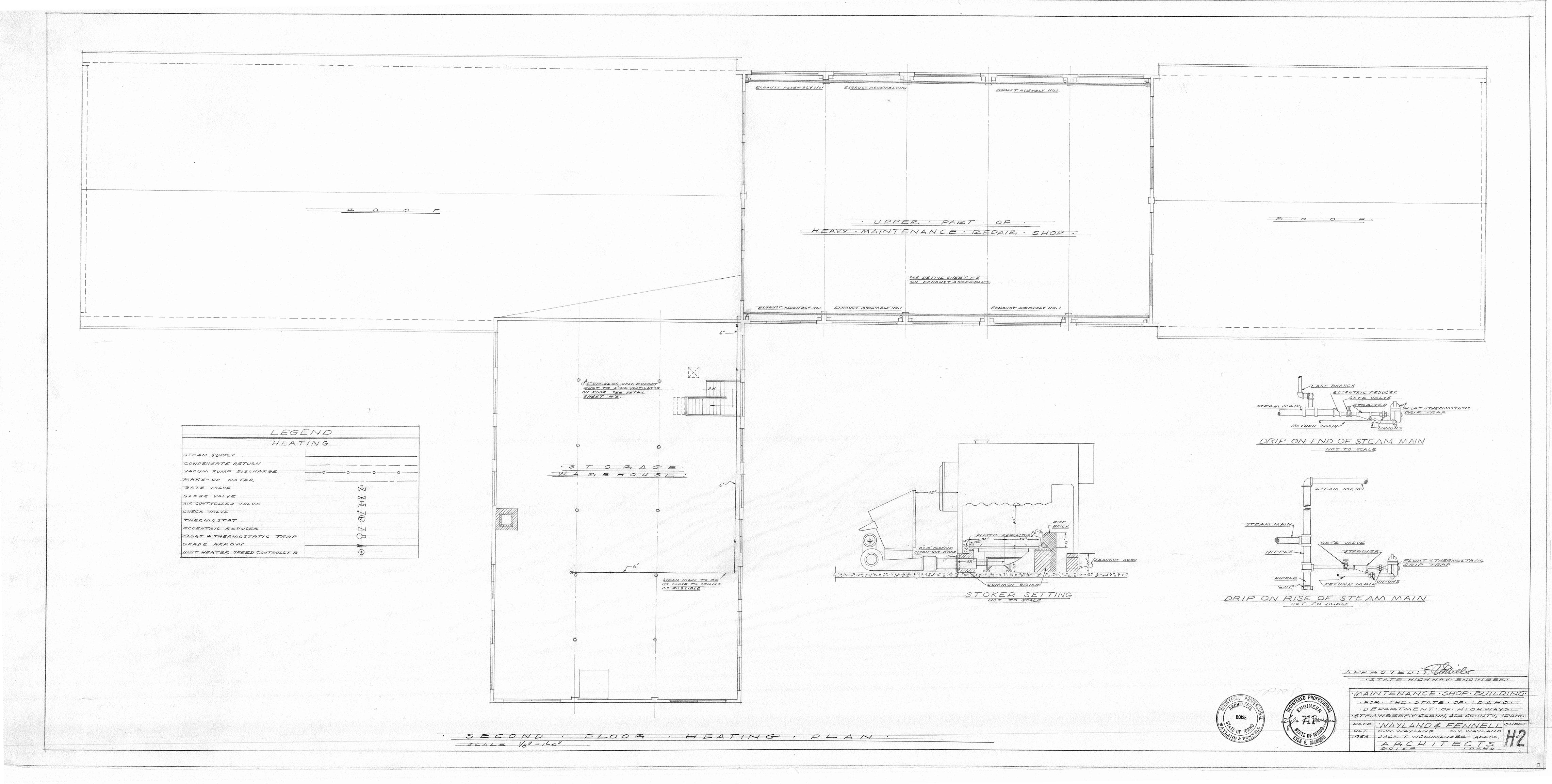


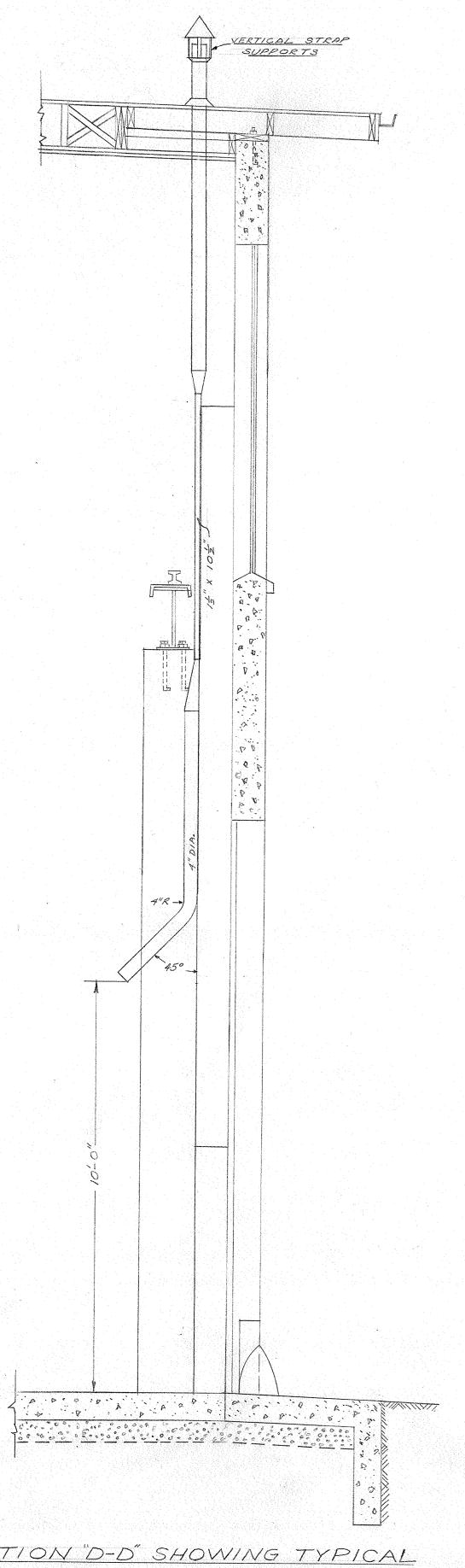




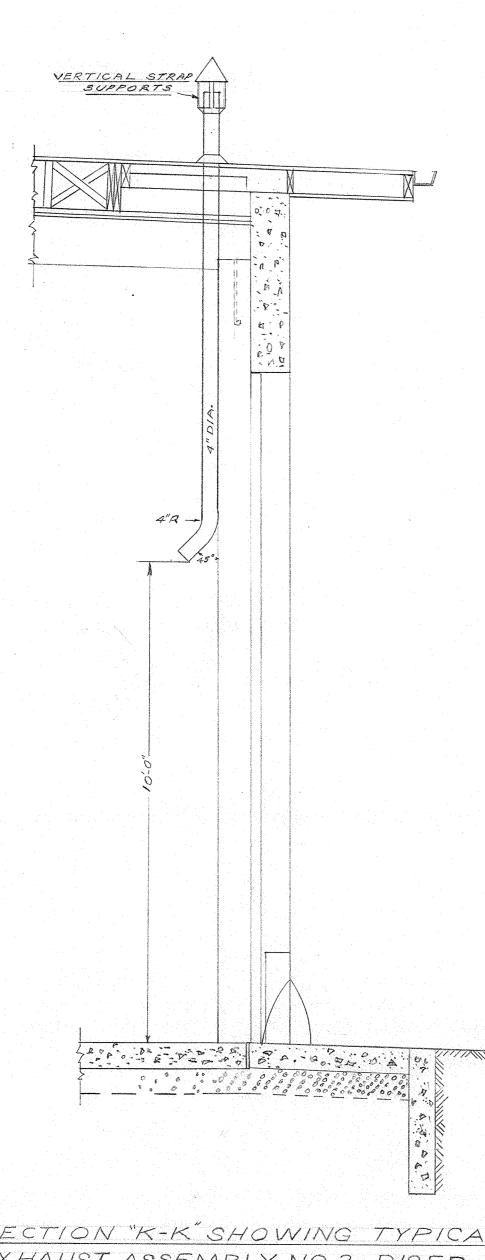
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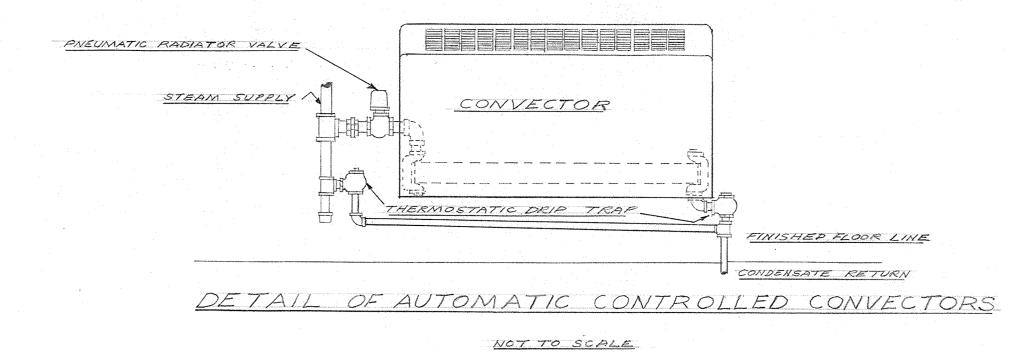


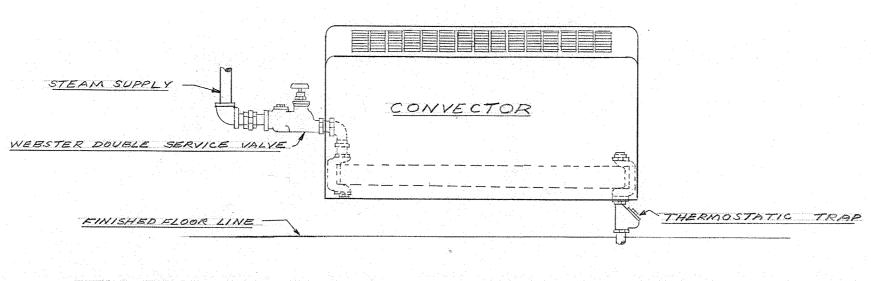


SECTION "D-D" SHOWING TYPICAL EXHAUST ASSEMBLY NO. 1 RISER SCALE &"- 1'-0"

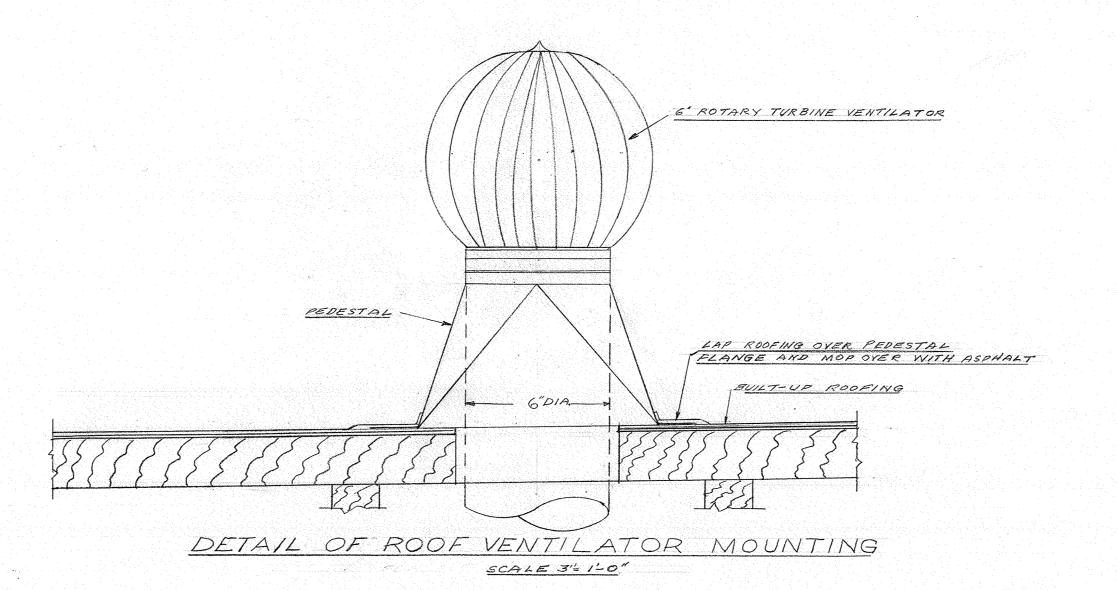


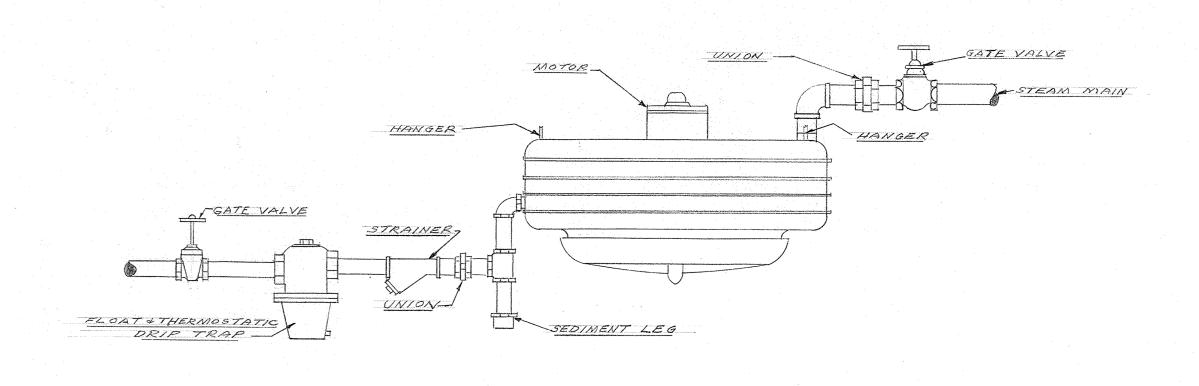
SECTION "K-K" SHOWING TYPICAL EXHAUST ASSEMBLY NO.2 RISER SCALE 2"= 1'-0"



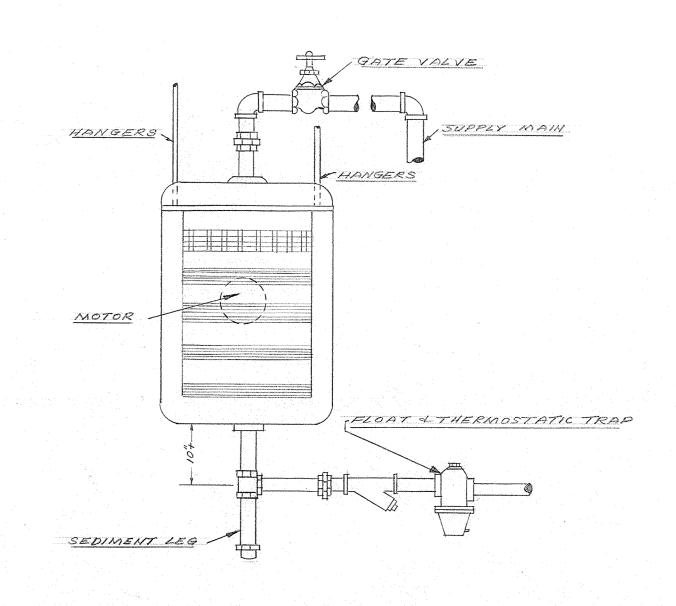


DETAIL OF MANUAL CONTROLLED CONVECTORS

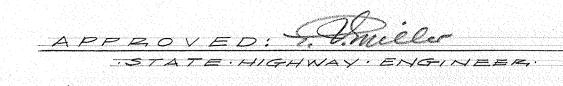




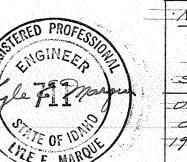
DETAIL OF VERTICAL DISCHARGE UNIT HEATERS



DETAIL OF HORIZONTAL UNIT HEATERS







·MAINTENANCE · SHOP · BUILDING ·

-FOR · THE · STATE · OF · I DA HO ·

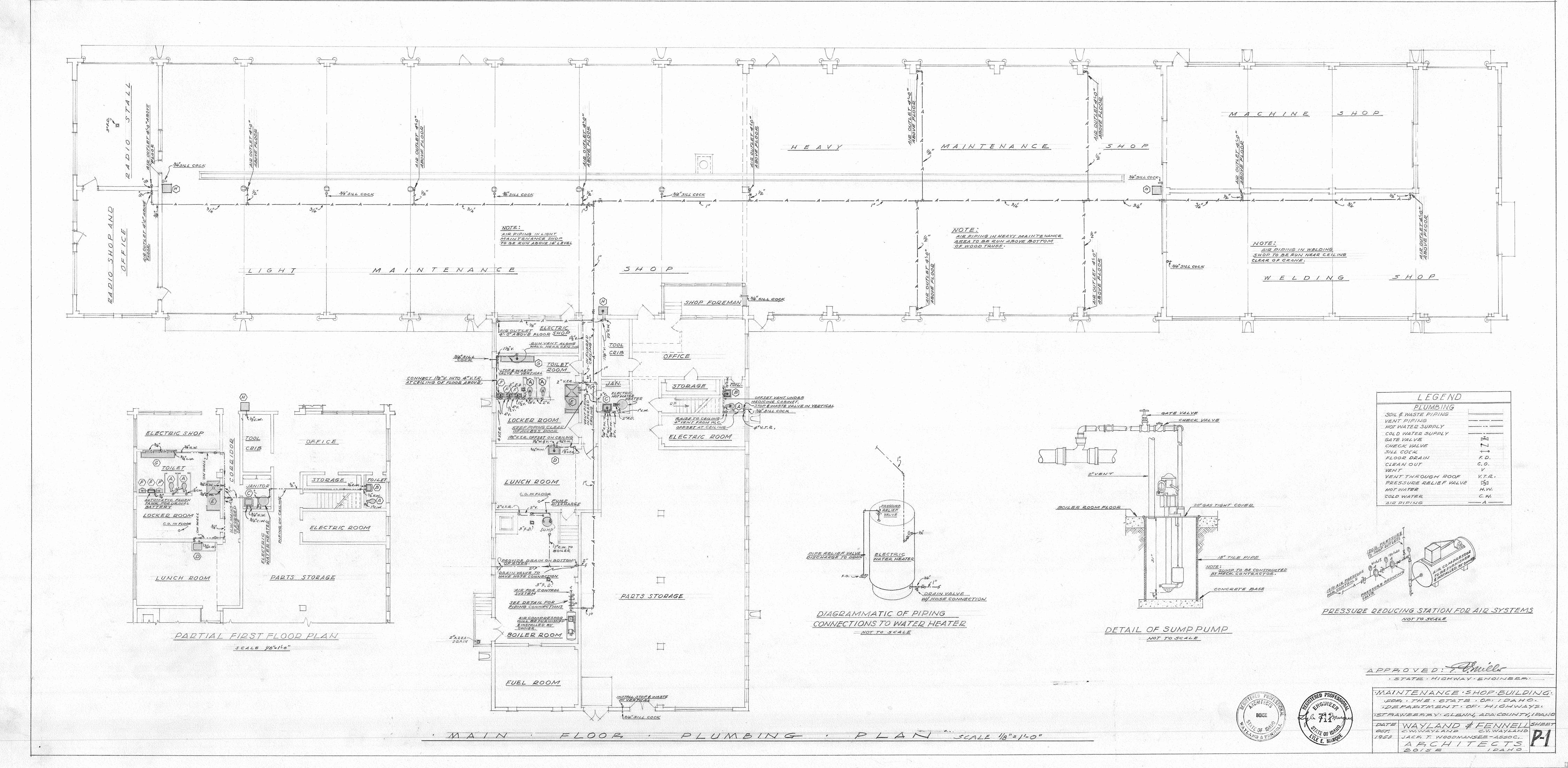
- DEPARTMENT · OF · H I GHWAYS ·

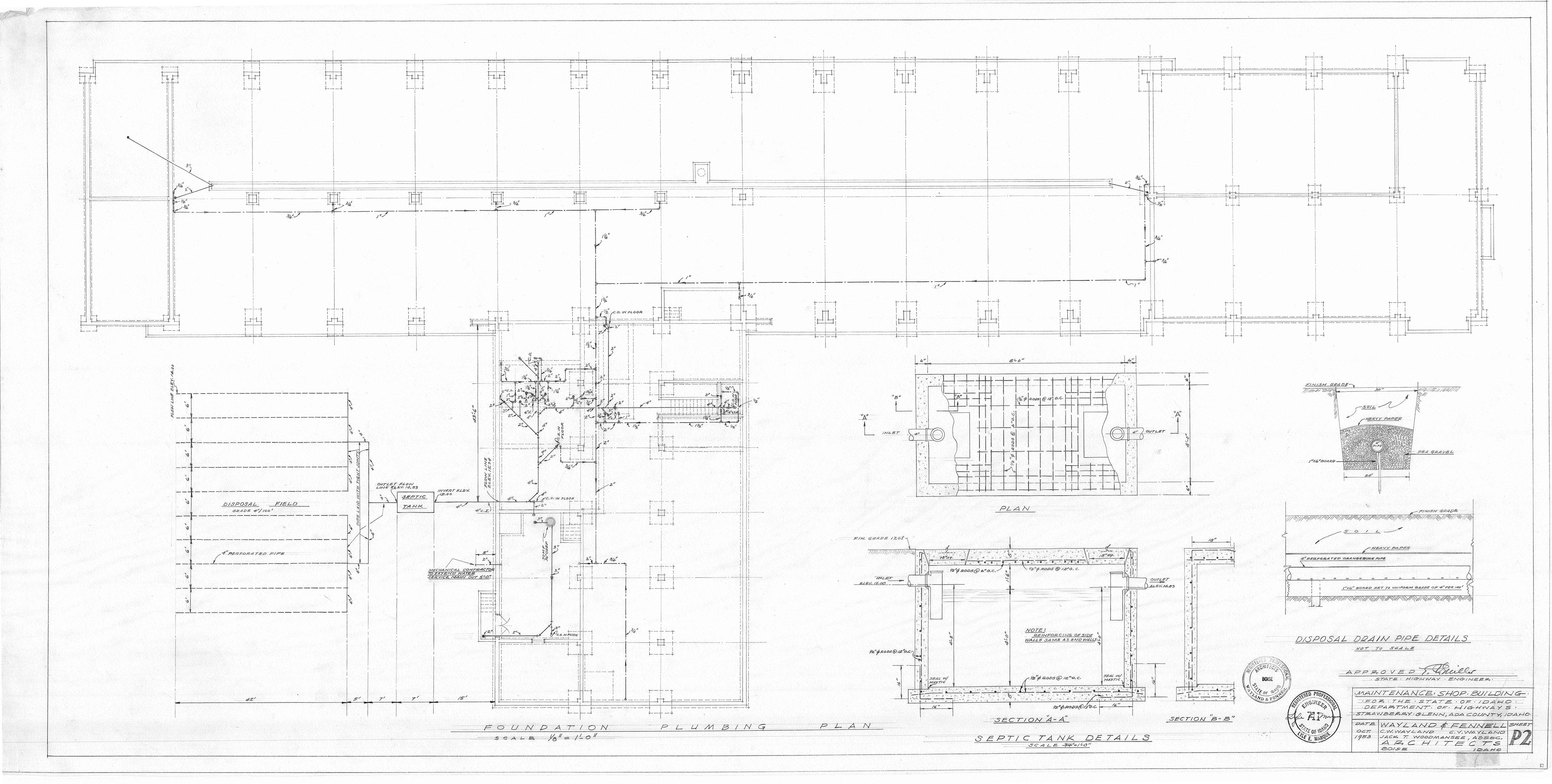
- STRAWBERRY · GLENN, ADA · COUNTY, I DAHO ·

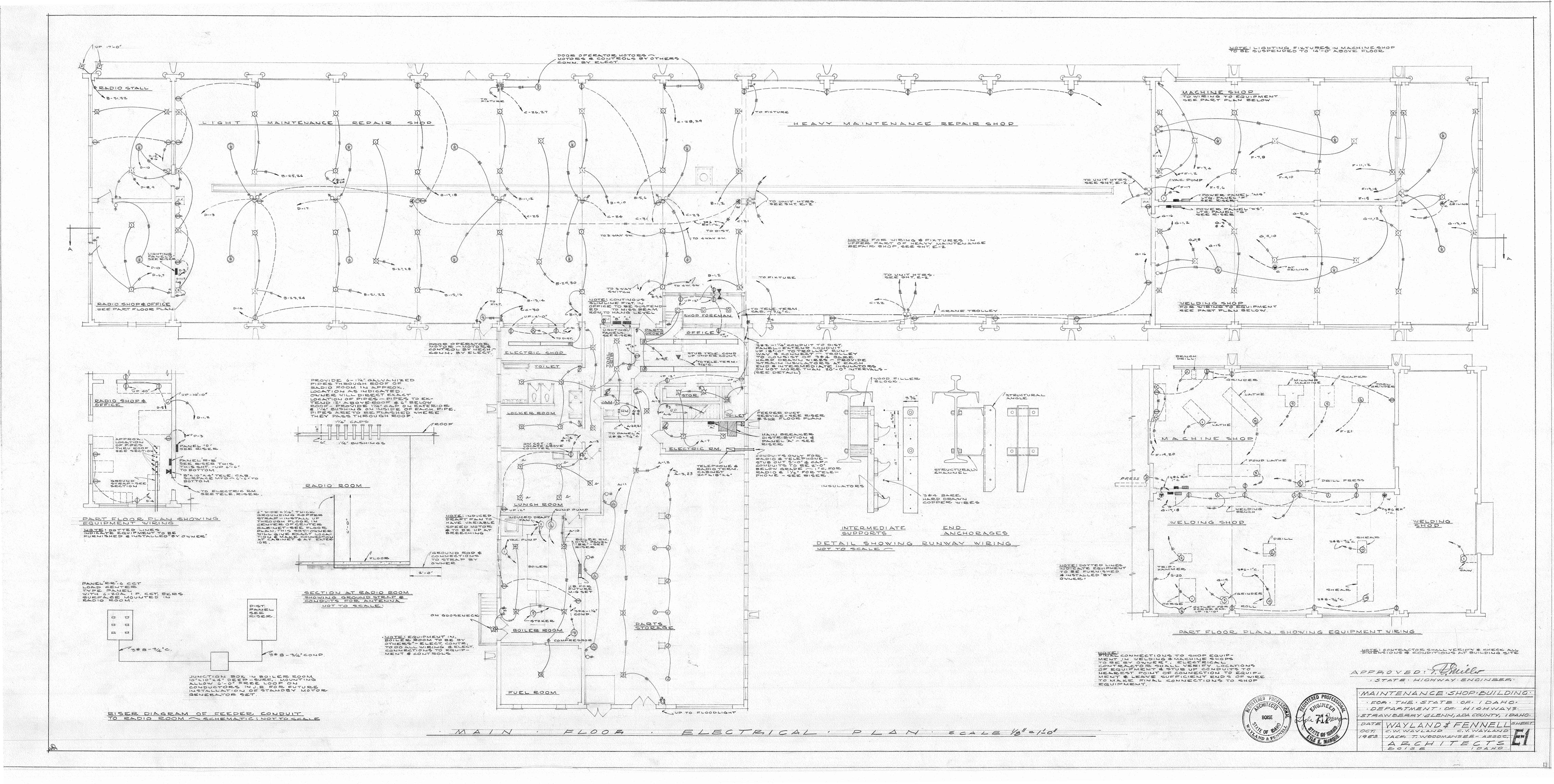
- DATE | MID Y | AND \$ EENINE | SHEET

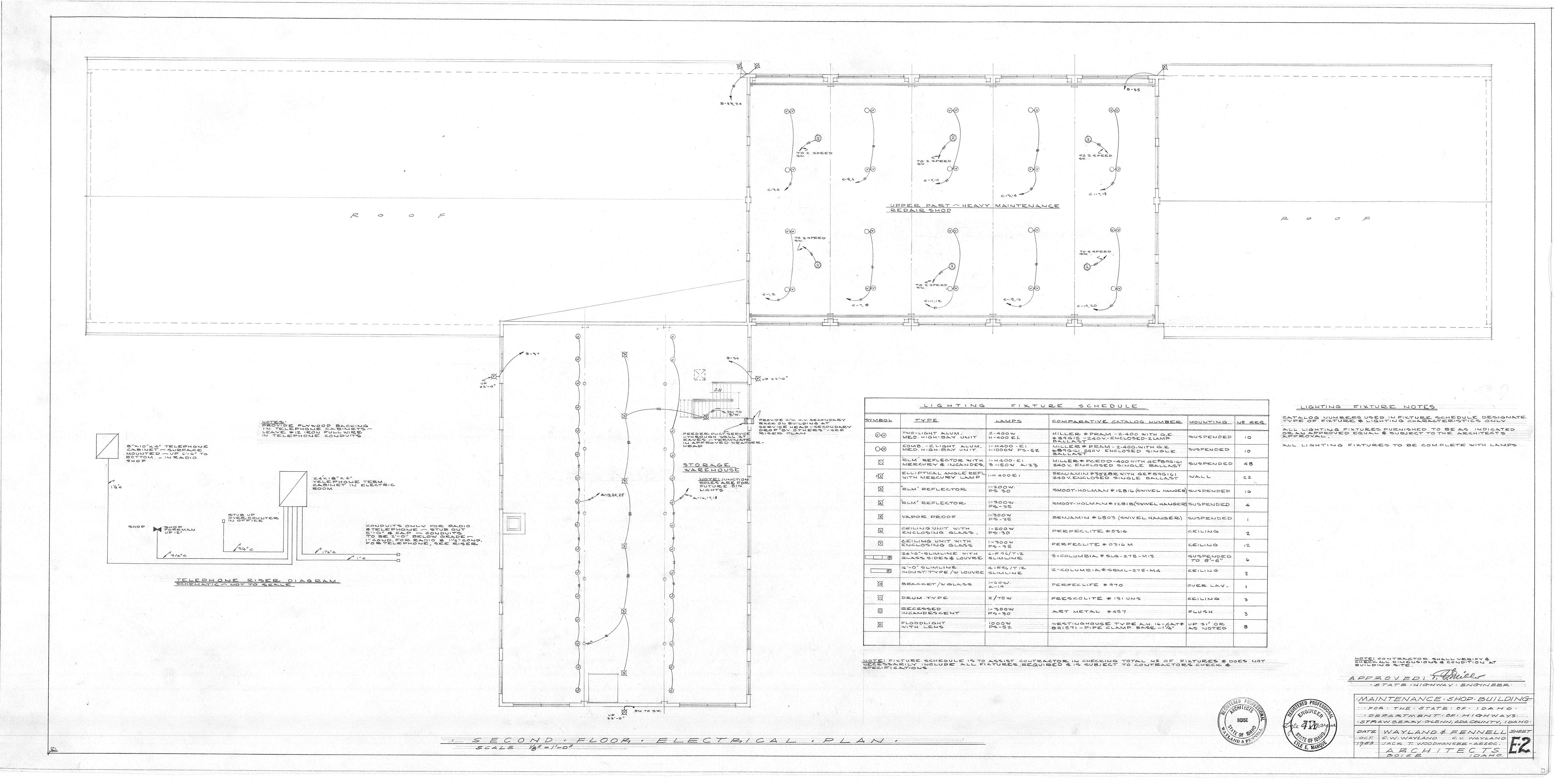
OATE WAYLAND & FENNELL SHEET
OCT. C.W. WAYLAND C.Y. WAYLAND 1953 JACK T. WOODMANSEE - ASSOC. 13

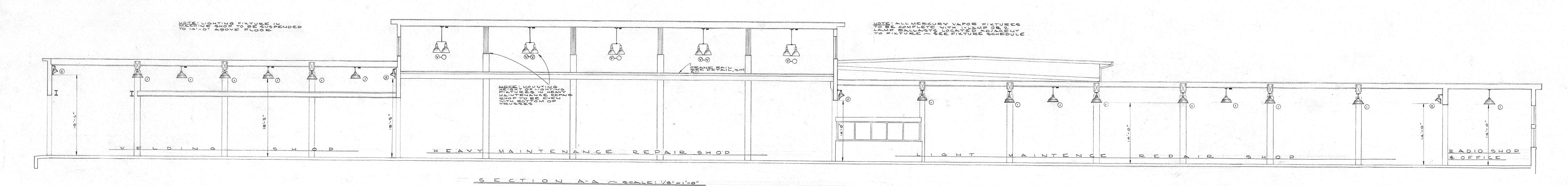
A RICHITE CTS. 100410











PANEL "A" NLAB30-3L200

CIRCUIT BKRS, AS FOLLOWS-28-1P,-20A, BKRS,-24 IN USE, 4 SPARE 1-2P,-40A, BKR,-H,W, TANK

PANEL "B"

NLAB4Z-3L2Z5

CIRCUIT BKRS, AS FOLLOWS —

15-ZP, -ZOA, BREAKERS-MERCURY VAPOR LAMPS

12-1P, -ZOA, BREAKERS-7 IN USE, 55PARES

PANEL "C"

NLAB38-3L 200

CIRCUIT BKRS AS FOLLOWS 
10-2P.-20A. BKRS-MERCURY VAPOR LAMPS
2-2P.-20A. BKRS-DOOR OPERATORS

14-1P.-20A. BKRS-TIN USE, 7 SPARES

PANEL "D"

NLAB20-3L100

CIRCUIT BKRS, AS FOLLOWS 
3-ZP. - 20A, BKRS, -MERCURY VAPOR LAMPS

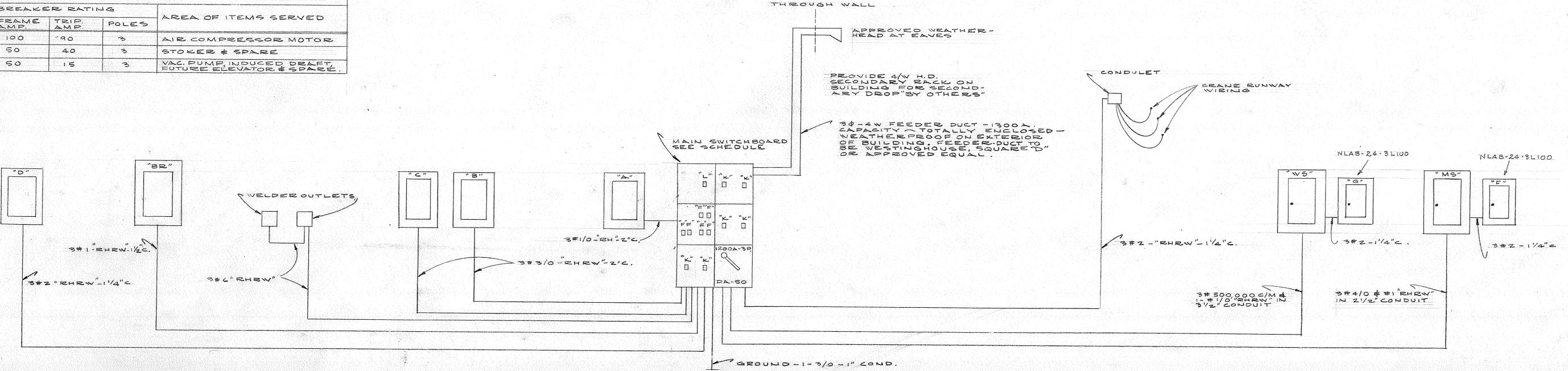
14-1P. - 20A, BKRS, - (1) IN USE, 35PARE

HOTE: WIRING TO COMBINATION MERCURY VAPOR & INCANDESCENT FIXTURES IS TO BE BALANCED SO THAT THE INCANDESCANT LIGHTING IS ON OPPOSITE LEGS OF ZZO V. CIRCUIT,

DESCRIPTION: TYPE AB-4L CONVERTIBLE DISTRIBUTION PANEL 120/240 30 4W. S/N MAINS - SURFACE MOUNTED. LUGS ONLY IN MAINS											
M5 O E	BKR	BREA	KER F	EATING							
BKRS	Ne.	FRAME	TRIP AMP	POLES	AREA OF ITEMS SERVED						
İ.	j.	100	100	2	PANEL "G"						
4	2-5	100	70	3	2 WELDER OUTLETS - 2 SHEARS						
2	6-7	50	20	Э	GRINDER & ROLL						
6	8-13	50	5	3	TRIPHAMMER, FORGE, DRILL SAW, CRANE, OUTLETS						
2	14-15	50	ıs	2	CRANE & SPARE						

	들드모!	PTION:	same a	S PANEL	"VS"				
A CONTRACTOR OF THE SECOND	BKR	BREA	KER R	EATING					
BKRS	NO.	FRAME AMP.	TRIP.	POLES	AREA OF ITEM 5 SERVED				
1	1	100	100	2	PANEL "E"				
<u>.</u>	2	100	100	3	SPACE OULY				
4	3-6	50	40		2 LATHES, MILLING MACH, SHAPER				
2	7-8	50	20	3	SPARES-OUTLETS				
5	9-13	50	15	3	DRILL, LATHE, DRILL PRESS VAC. PUMP # 1-5PARES				
	14	50	25	3	PRESS				

DE	SCRI	PTION: =	SAME A	S PANEL					
	SFEKE	BREAKE	ER RATI	ич					
BKRS	ಗಂ	FRAME AMP	TRIP.	POLES	AREA OF ITEMS SERVED				
	1	100	790	3	AIR COMPRESSOR MOTOR				
2	2, 3	50	4.0	3	STOKER & SPARE				
4	4-7	50	ış	3	VAC. PUMP INDUCED DRAFT,				



C.W. SERVICE

MAIN PANEL SCHEDULE

FRAME TRIP POLES.

1200

100 100 2

350

225 | 125 | 3

70

40

20

225 200

225 | 125

Nº OF BER FRAME | BREAKER RATING

1600

225

600

100

100

100

100

225

BKRS NO. OR TYPE

1 7 """

1 9 ""

1 | 10 | "E"

2 |13,14 "F"

DA-50

DESCRIPTION: BUILDING TYPE DISTRIBUTION SWITCHBOARD WITH TYPE DA-50 MAIN BREAKERS & S/N BUS

AREA OR ITEM SERVED

BOILER RM .- PANEL" BR "

OUTLET IN ELECT. SHOP

VELDER OUTLETS

MAIN BREAKER

PANEL "A"

PANEL "B"

PANEL "C"

PANEL "D"

PANEL "WS"

PANEL "MS"

PANEL "R-R"

CRANE

SPARES

## ELECTRICAL SYMBOLS

- M CEILING OUTLET-NUMERAL DENOTES FIXTURE HO BRACKET OUTLET-NUMERAL DENOTES FIXTURE O OUTLET FOR HIBAY FIXTURE AS NOTED
- 00 OUTLET FOR HI-BAY FIXTURE AS HOTED
- O OUTLET FOR RECESSED FIXTURE AS NOTES
- OUTLET FOR LAMPHOLDER H&H # III
- OUTLET FOR FLOODLIGHT AS NOTED
- OUTLET FOR SLIMLINE FIXTURE AS NOTED
- OUPLEX RECEPTACLE UP 4'-0" OR AS NOTED
- HO 30 4W POLARIZED OUTLET & CAP ZOA . UP 4
- WELDER OUTLET -UP 4'-0"
- 10 CRANE OUTLET ONCEILING
- MOTOR OUTLET NUMERAL DENOTES H.P.
- ( UNIT HEATER & OUTLET NUMERAL DENOTES H.P. CEILING MOUNTED
- 04 2 SPEED SWITCH FOR UNIT HEATER -UP 6'-0" BY OTHERS"
- DOOR OPERATOR SWITCH UP 51-0" "BY OTHERS"
- # SINGLE POLE FLUSH SWITCH
- HT THREE WAY FLUSH SWITCH
- HE FOUR WAY FLUSH SWITCH
- 1 JUNICTION BOX-4" SQUARE BOX, OR AS NOTED
- PUBLIC TELEPHONE OUTLET 4" SQ, BOX & PLATE
- POWER PANEL SEE RISER DIAGRAM & SCHEDULES
- LIGHTING PANEL-SEERISER DIAGRAM & SCHEDULES
- MOTOR STARTING SWITCH (BY MECHANICAL) CONNECTIONS BY ELECTRICAL
- DISCONNECT SWITCH BY ELECTRICAL
- TELEPHONE & RADIO CABINET SIZE AS NOTED
- CONDUIT-CONCEALED IN WALL OR CEILING
- CONDUIT CONCEALED FOR TELEPHONE & RADIO EMPTY -----CRANE TROLLEY RUNWAY WIRING

| CROSSHATCH ON CONDUIT DENOTES Nº OF WIRES, NO CROSSHATCH INDICATES 2 WIRES - MINIMUM SIZE OF WIRE TO BE #12 UNLESS OTHERWISE NOTED

NOTE: CONTRACTOR SHALL VERIFY & CHECK ALL DIMENSIONS & CONDITIONS AT BUILDING SITE

APPROVED T. C.Muller · STATE · HIGHWAY · ENGINEER ·



MAINTENANCE SHOP, BUILDING FOR THE STATE OF IDAHO ·DEPARTMENT OF HIGHWAYS STRAWBERRY GLENN, ADA COUNTY, IDAHO. DATE WAYLAND & FENNELL SHEET

OCT. C.W.WAYLAND C.V.WAYLAND 1953 JACK T. WOODMANSEE, ASSOC. A R. C H I T E C T S
BOISE I DAHO