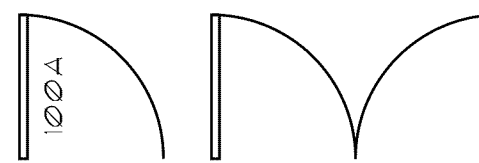
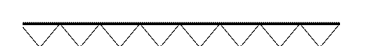
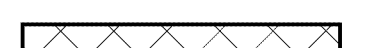


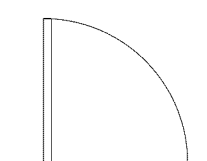
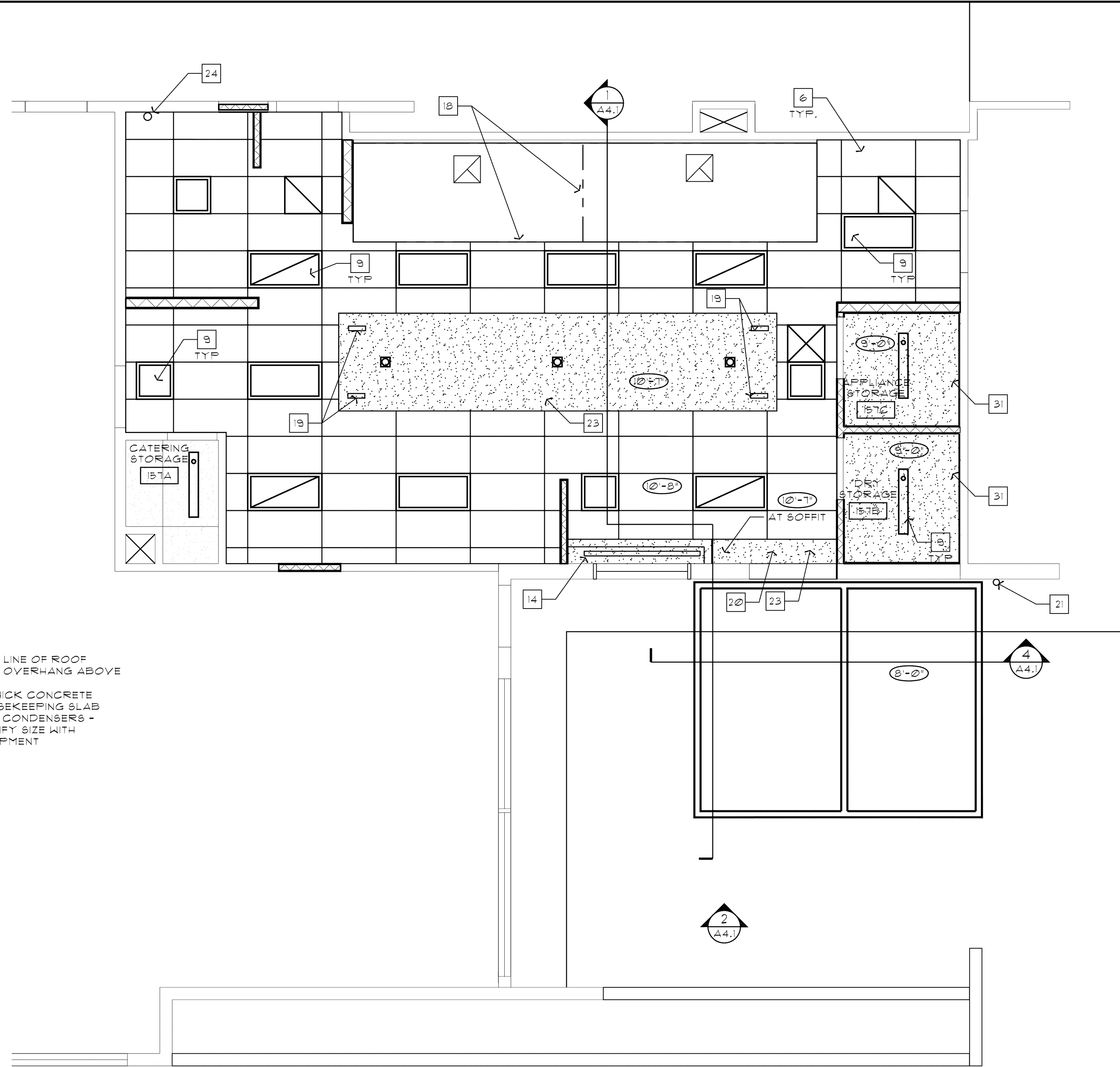
 1 FLOOR PLAN
1/4" = 1'-0"

FLOOR PLAN LEGEND

	NEW WOOD DOOR(S) AND HOLLOW METAL FRAMES - PAINT
	NEW FRAMED WALL - PAINT
	NEW CMU WALL - PAINT
	NEW HOLLOW METAL RELIGHT (A) PAINT
	EXISTING WALL TO REMAIN - PROTECT
	EXISTING DOOR TO REMAIN - PAINT

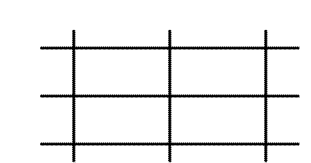

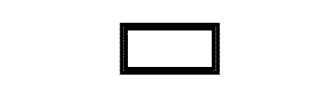




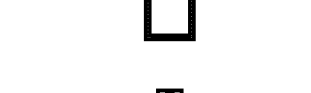


SHEET NOTES

1. NEW KITCHEN EQUIPMENT - SEE FOOD SERVICE DRAWINGS.
2. RELOCATED KITCHEN EQUIPMENT - SEE FOOD SERVICE DRAWINGS
3. NEW WINDOW - SEE SCHEDULE
4. NEW DOOR AND FRAME - SEE SCHEDULE
5. PAINT EXISTING AND NEW WALLS
6. NEW 2' X 4' SUSPENDED CEILING TILE SYSTEM
7. NEW POLY CRETE INTEGRAL BASE - TYP. SEE SPECIFICATIONS
8. STAINLESS STEEL ENDCAP
9. NEW LIGHTING - SEE ELECTRICAL
10. PATCH WALL AT NEW PLUMBING LINES. COORDINATE WITH PLUMBING DRAWINGS
11. NEW SINK - SEE PLUMBING
12. FIRE EXTINGUISHER ON BRACKET
13. NEW FLOY CRETE FLOORING - SEE SPECIFICATIONS
14. NEW GYPSUM BOARD CEILING ATTACH TO UNDERSIDE OF ROOF FRAMING
15. PROVIDE AND INSTALL GYPSUM WALL BOARD AS REQUIRED AND PATCH AND REPAIR EXISTING WALL DAMAGED BY CASEWORK AND SOFFIT REMOVAL
16. PAINT ALL DOORS AND TRIM - SEE SCHEDULE
17. NEW GRILLE - SEE MECHANICAL DRAWINGS
18. NEW HOOD - SEE ELEVATIONS AND MECHANICAL DRAWINGS
19. NEW CEILING MOUNTED CORD REEL POWER OUTLETS - SEE ELECTRICAL
20. NEW OPENING - SEE STRUCTURAL
21. NEW DOWNSPOUT - SEE PLUMBING DRAWINGS
22. NEW FLOOR STOP
23. NEW GYPSUM SOFFIT
24. NEW DRYER EXHAUST - SEE MECHANICAL
25. STAINLESS STEEL WALL PANELS - COORDINATE WITH ELECTRICAL DRAWINGS FOR OUTLET LOCATIONS
26. FRP WALL PANELS - COORDINATE WITH ELECTRICAL DRAWINGS FOR OUTLET LOCATIONS
27. STAINLESS STEEL CORNER GUARD
28. FLOOR DRAIN - SEE PLUMBING
29. FLOOR STUB POWER OUTLET - SEE ELECTRICAL
30. INFILL CONCRETE SLAB WHERE DAMAGED BY HALF-WALL REMOVAL - TO BE FLUSH WITH EXISTING.
31. NEW GYPSUM CEILING.
32. NEW FLOOR SINK - SEE PLUMBING DRAWINGS.

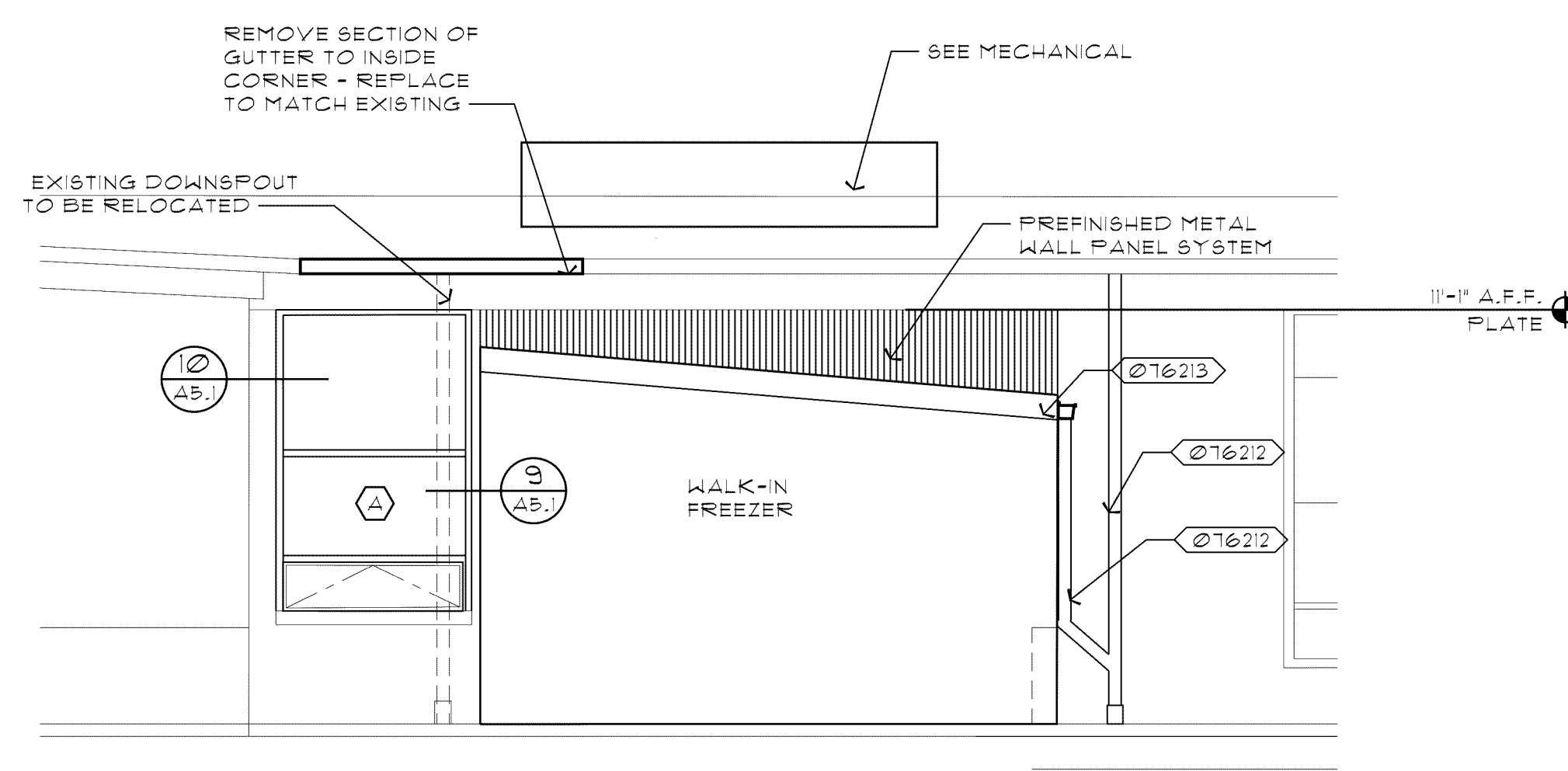


 2 REFLECTED CEILING PLAN
1/4" = 1'-0"

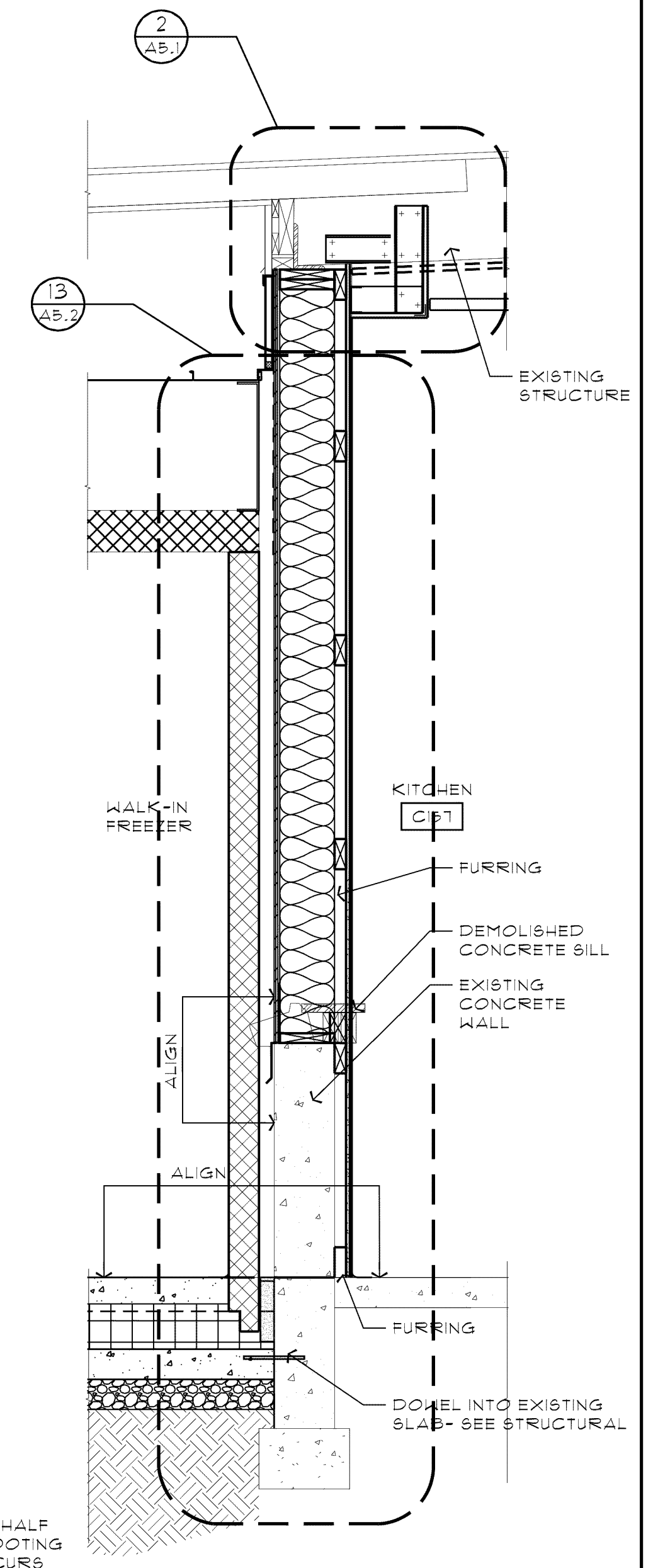
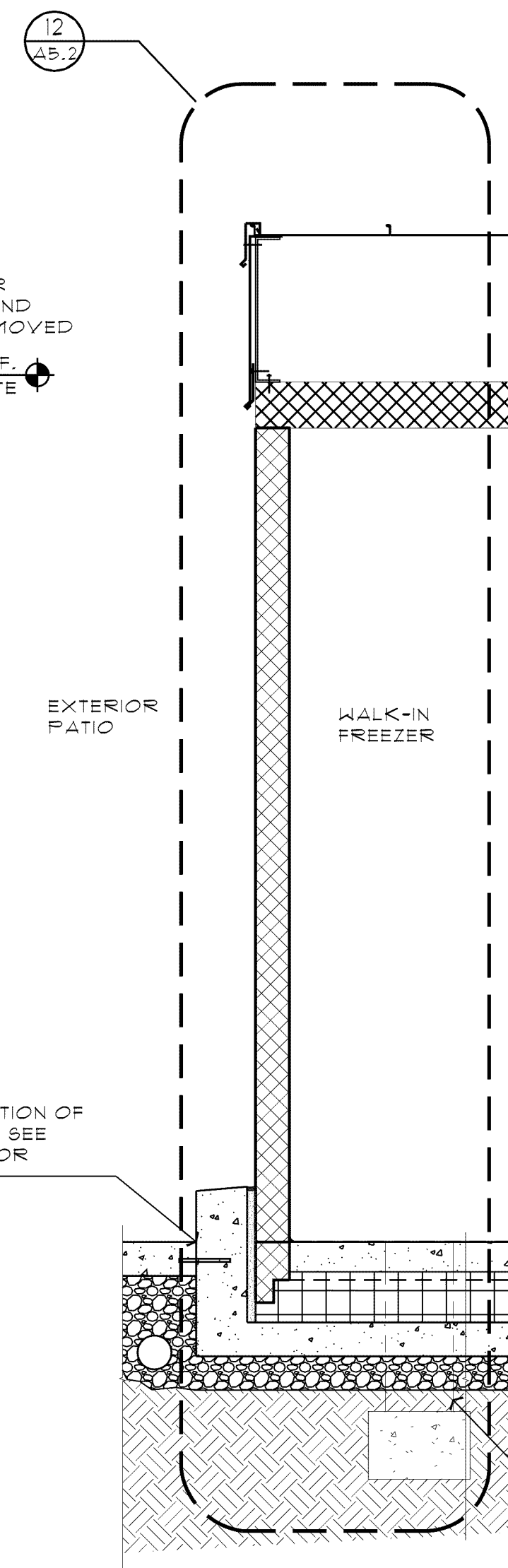
REFLECTED CEILING PLAN LEGEND

	NEW 2' X 4' ACOUSTIC CEILING TILE GRID
	NEW GYP. BD. CEILING
	NEW 2' X 4' LIGHT FIXTURE
	NEW EXHAUST GRILLE
	NEW SUPPLY AIR GRILLE
	NEW RETURN AIR GRILLE
	NEW FINISH CEILING HEIGHT ABOVE FINISH FLOOR
	NEW WALL TO STRUCTURE
	NEW BATTERY BACK-UP EMERGENCY LIGHT
	NEW LIGHT FIXTURE
	NEW 2' X 2' LIGHT FIXTURE
	NEW RECESSED LIGHT FIXTURE

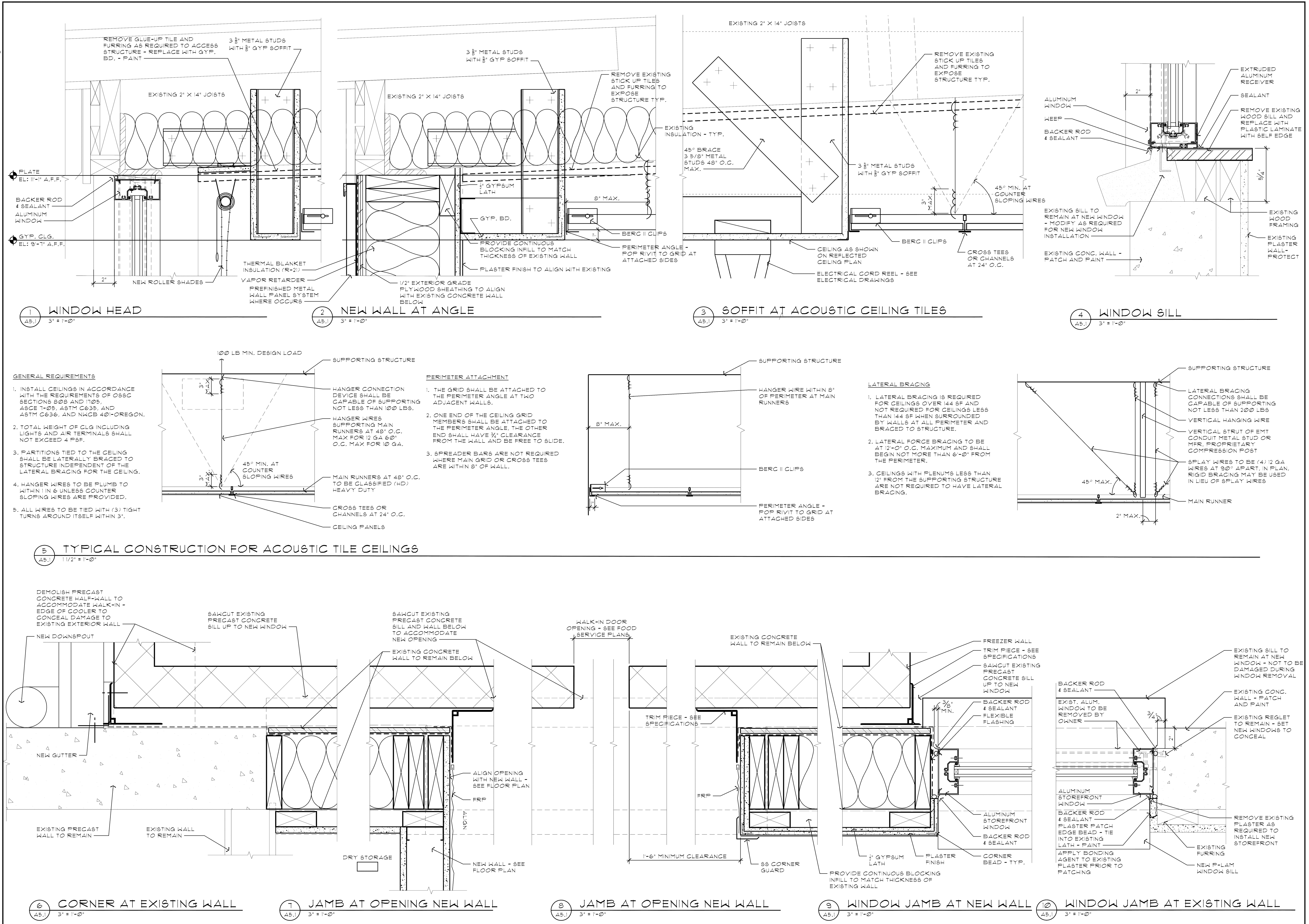
- * KITCHEN EQUIPMENT SHOWN DASHED - SEE FOOD SERVICE DRAWINGS

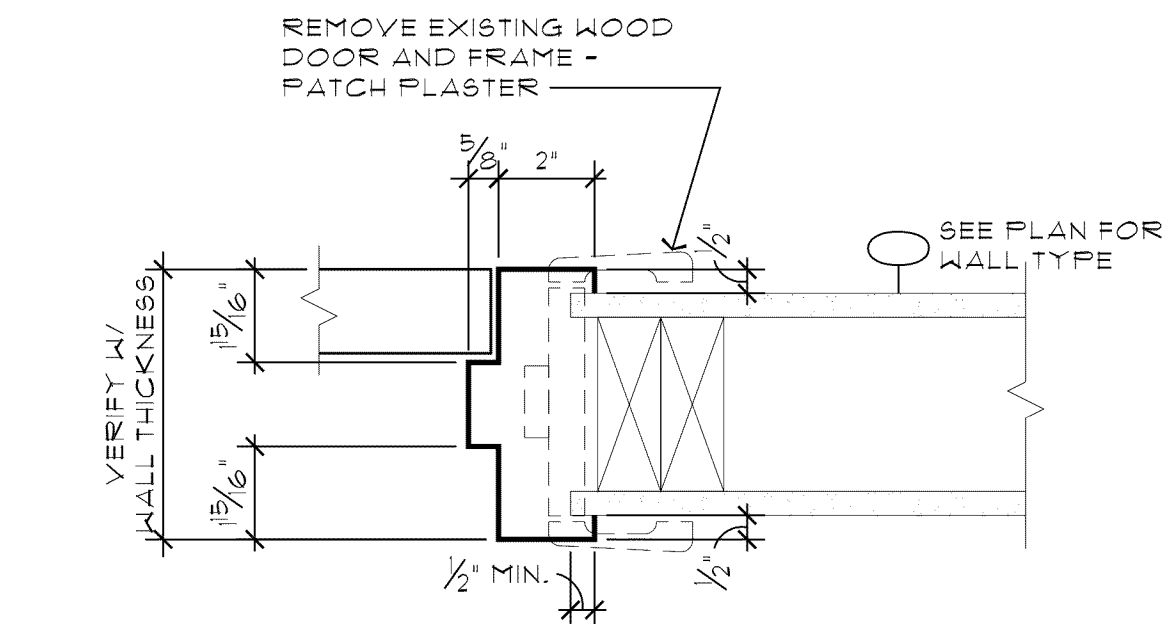


2 EXTERIOR ELEVATION
44.1 1/4" = 1'-0"

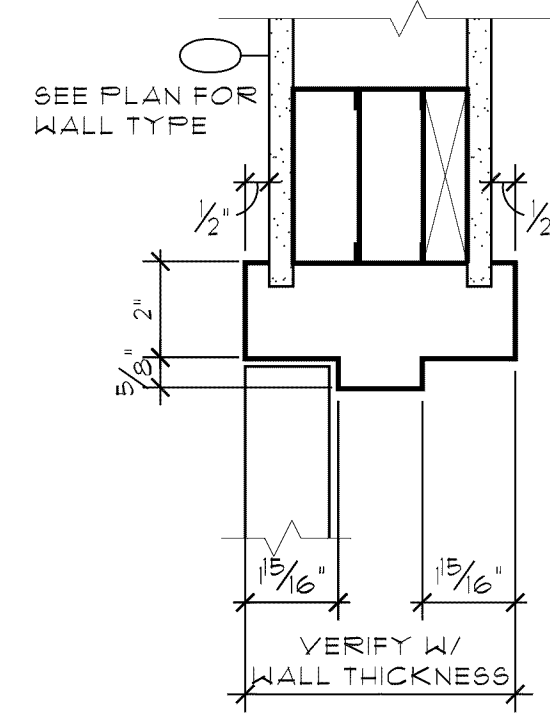


- 18 GAUGE GALVANIZED CLOSURE CHANNEL -
SCREW TO COOLER BOX PER MANUFACTURER RECOMMENDATION

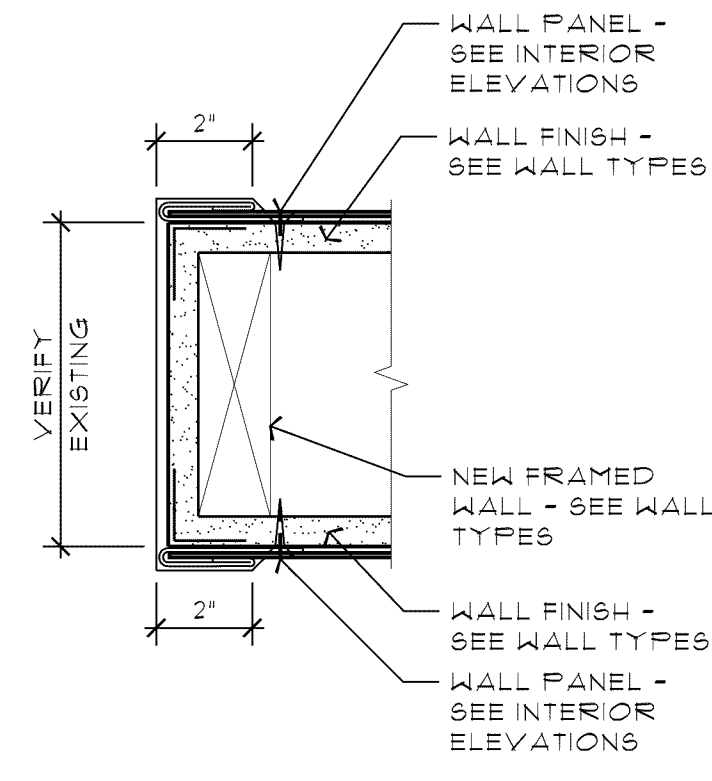




1 DOOR JAMB IN EXISTING WALL
A5.2 3" = 1'-0" (HEAD SIM.)



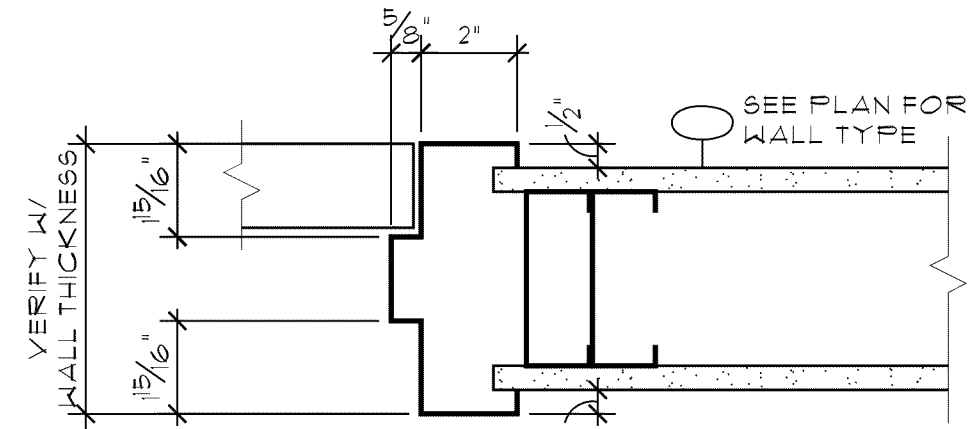
2 DOOR HEAD IN NEW WALL
45.2 3" = 1'-0"



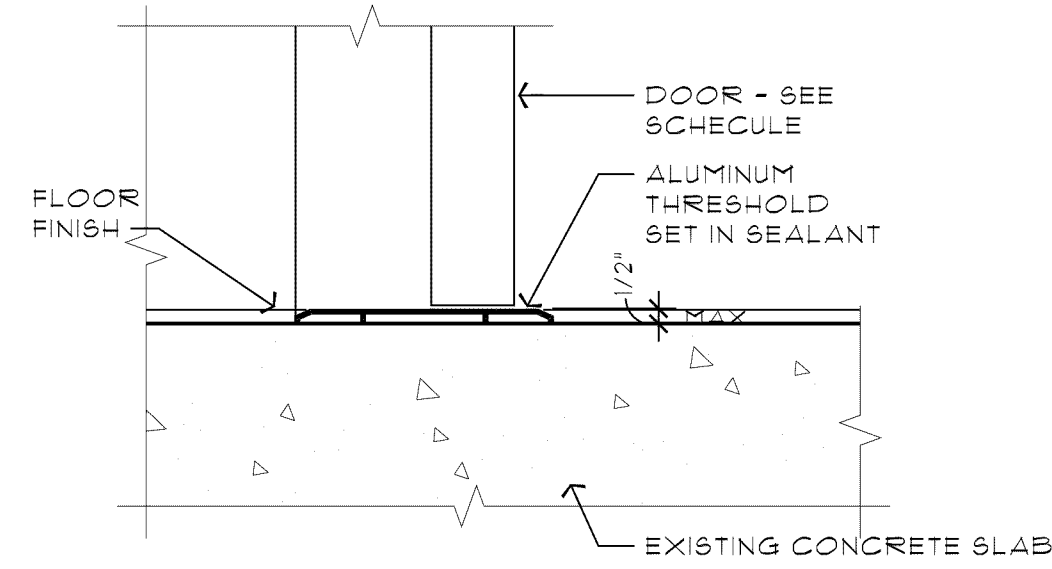
3 STAINLESS STEEL ENDCAP
A5.2 3" = 1'-Ø"

KEYNOTES

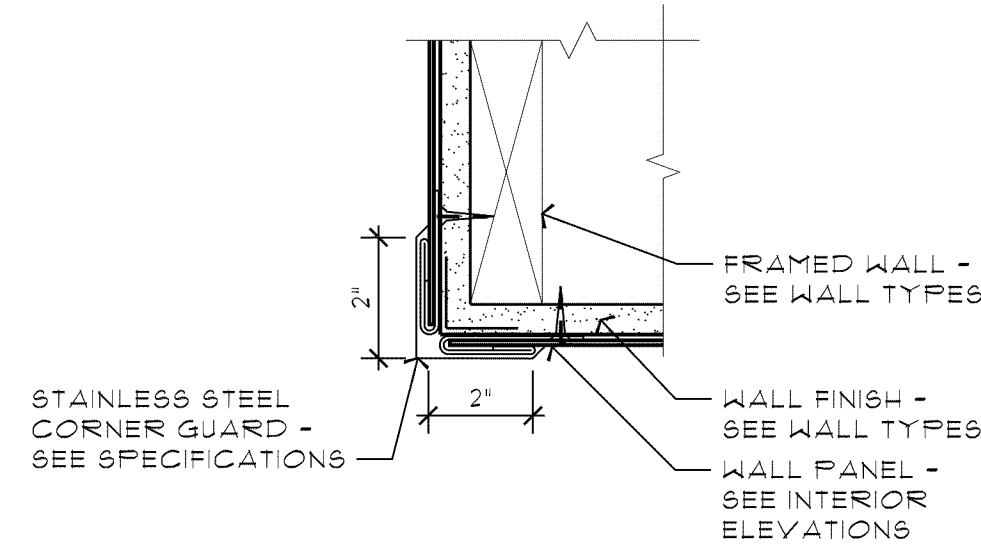
- | | |
|--------|----------------------------------|
| 033001 | CAST-IN-PLACE CONCRETE SLAB |
| 061602 | PLYWOOD WALL SHEATHING |
| 072101 | THERMAL BLANKET INSULATION |
| 072103 | RIGID INSULATION BOARD |
| 076216 | PREFINISHED SHEET METAL FLASHING |
| 312302 | COMPACTED BASE AGGREGATE |



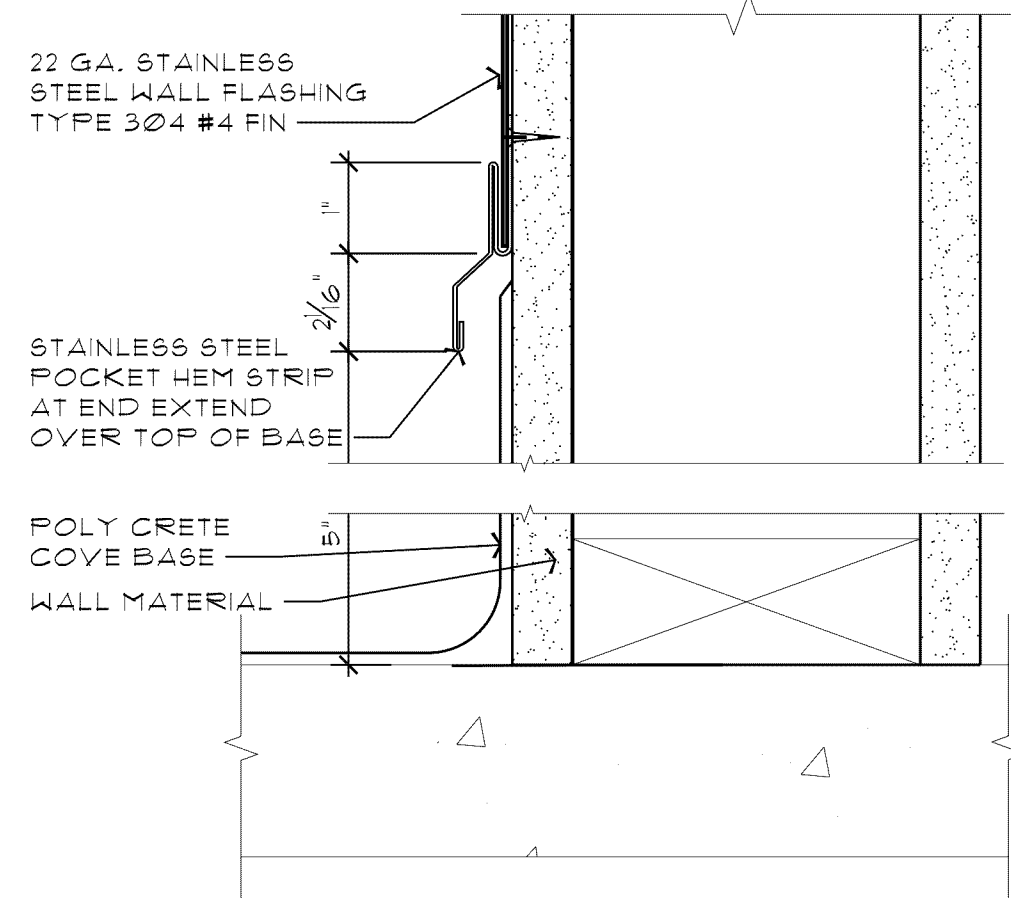
4 DOOR JAMB IN NEW WALL
45.2 3" = 1'-0"



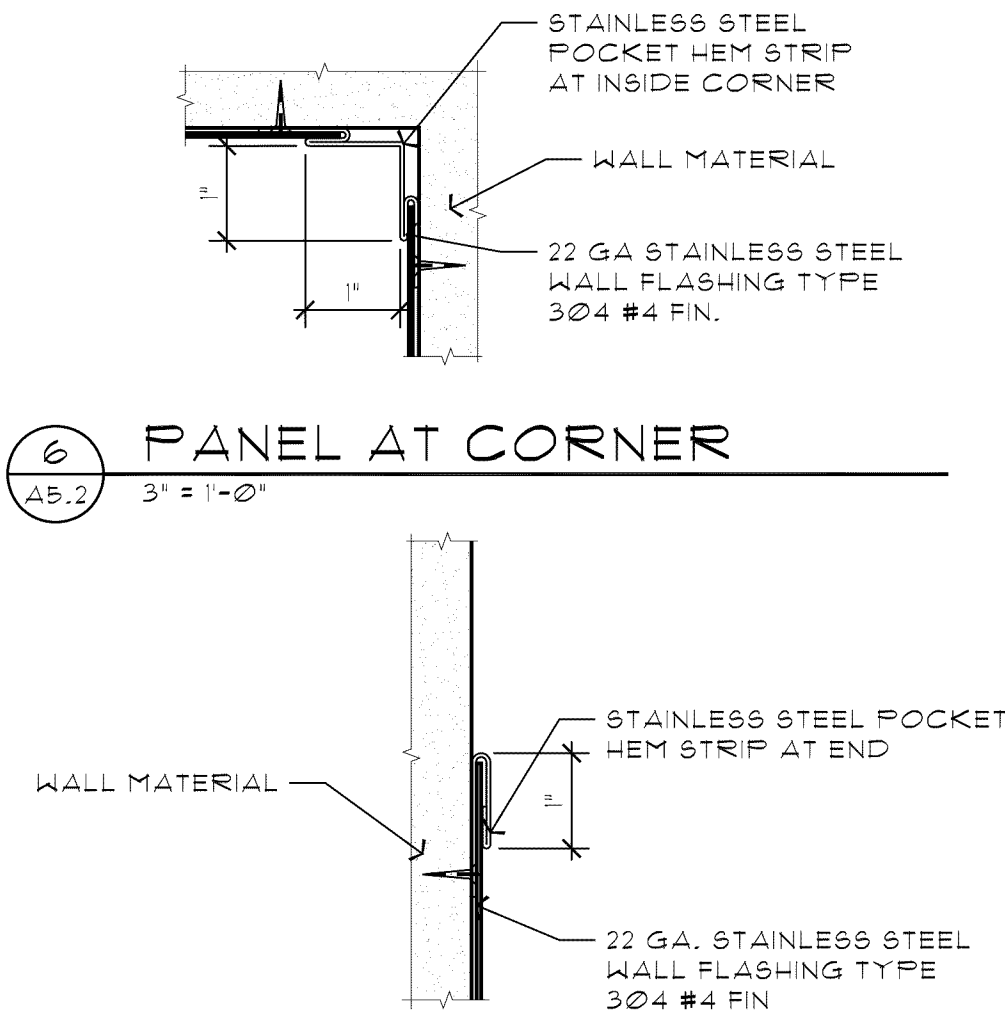
5 DOOR THRESHOLD
45.2 3" = 1'-0"



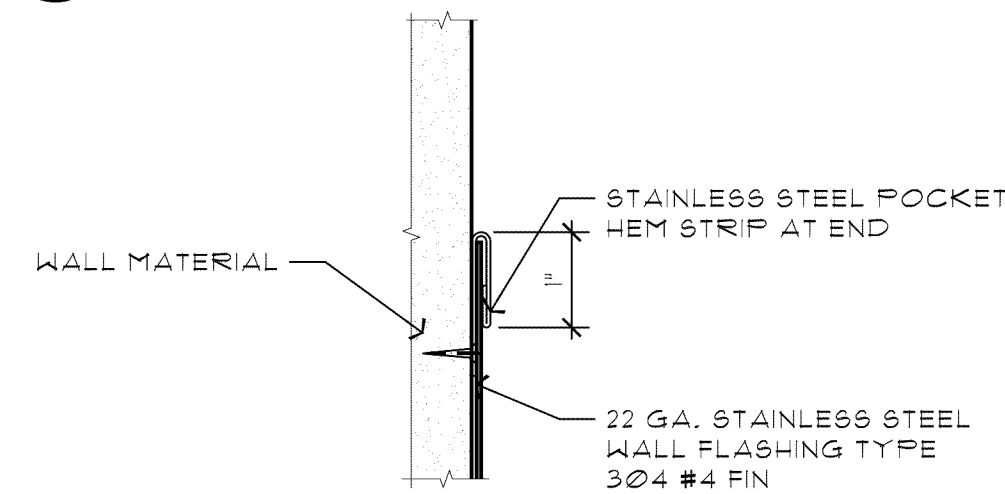
14 SS CORNER GUARD
A5.2 3" = 1'-0"



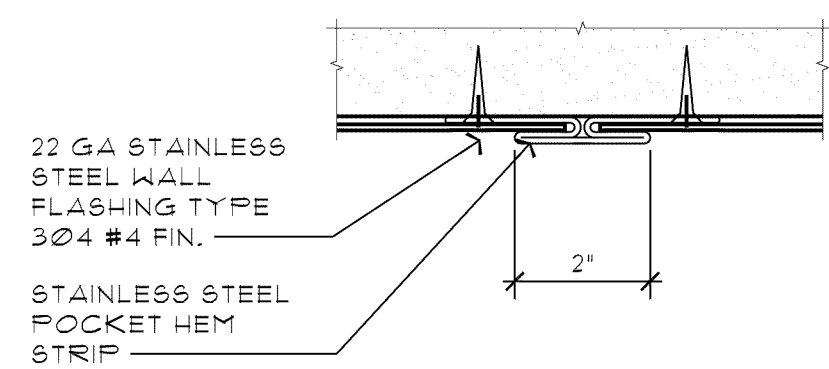
7 PANEL AT BASE
45.2 3" = 1'-0"



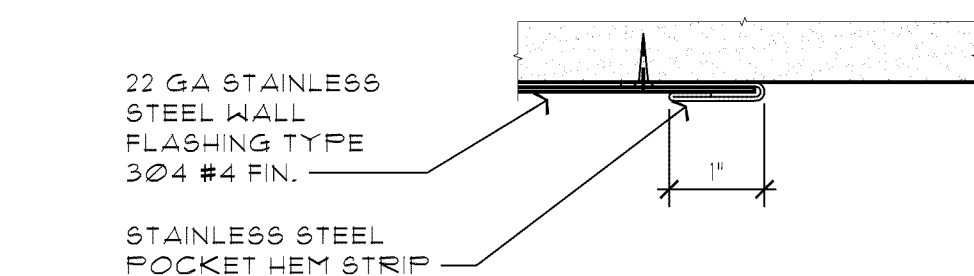
6 PANEL AT CORNER
 $\Delta 5.2$ $3'' = 1'-0''$



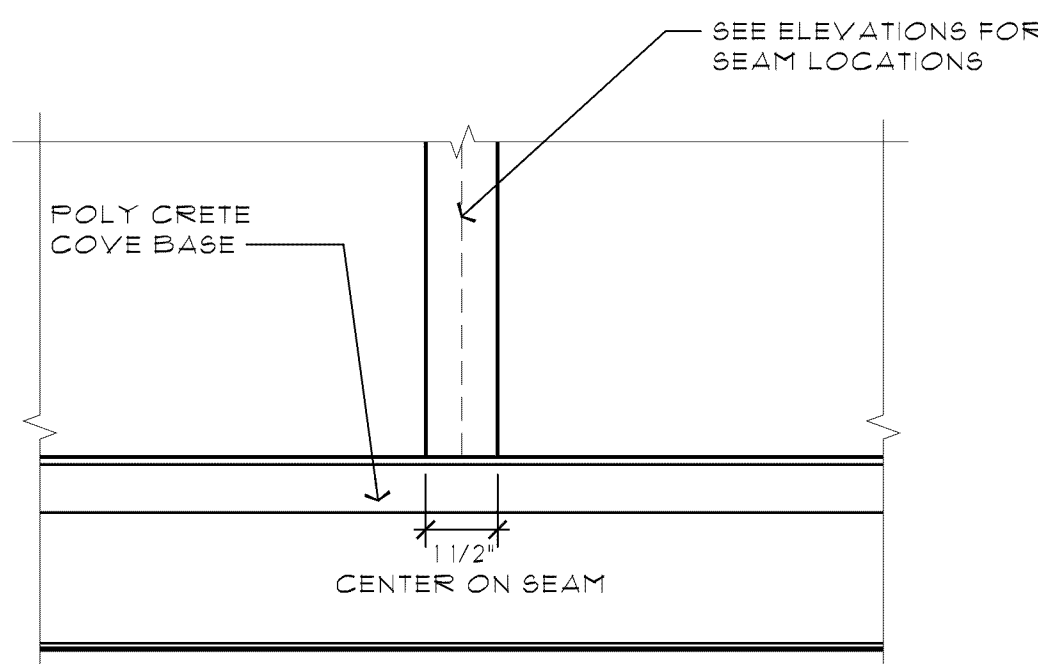
8 PANEL TOP CONNECTION
A5.2 3" = 1'-0"



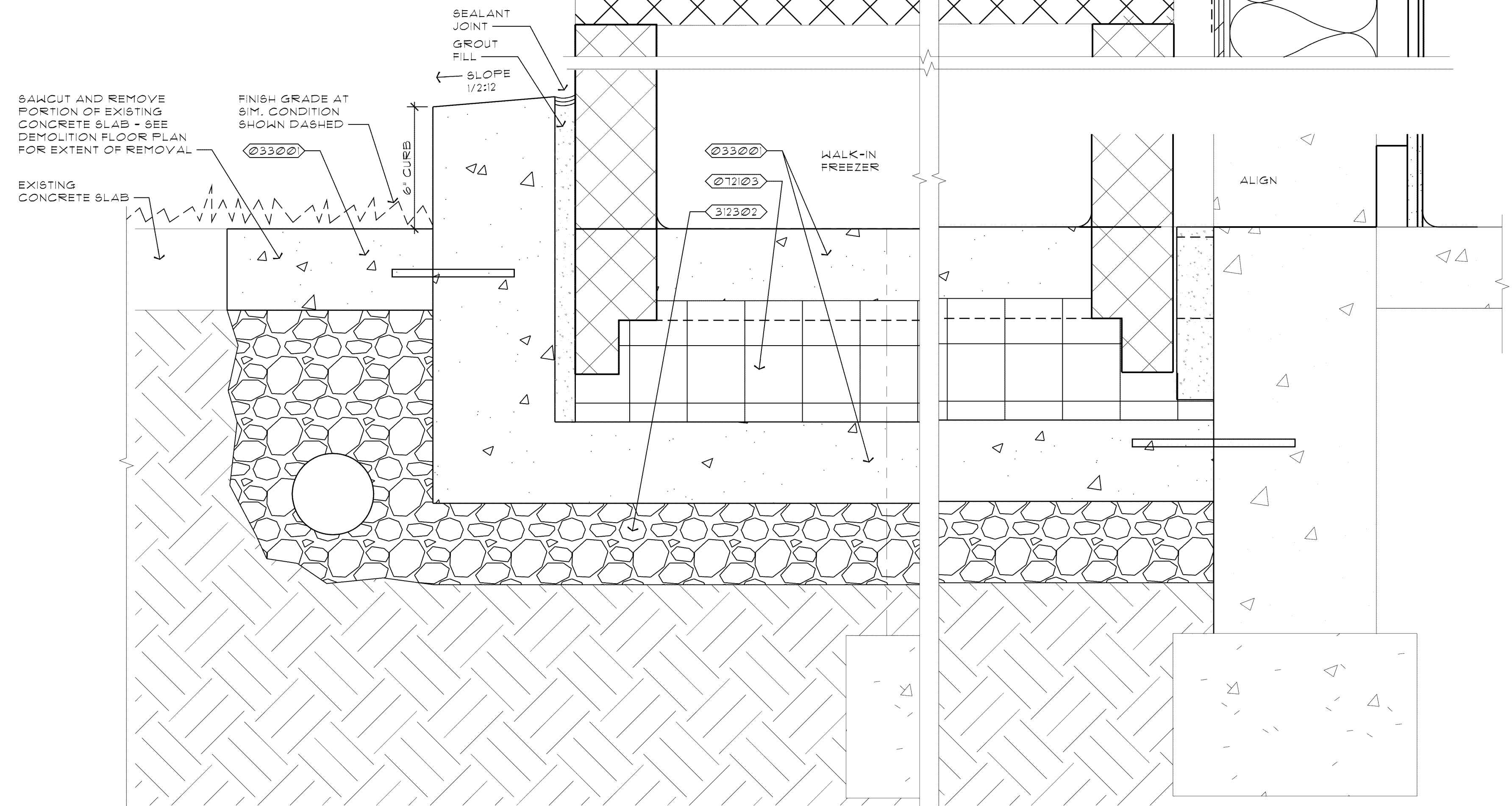
9 JOINT CONNECTION




 STAINLESS STEEL ENDCAP
 3" = 1'-0"

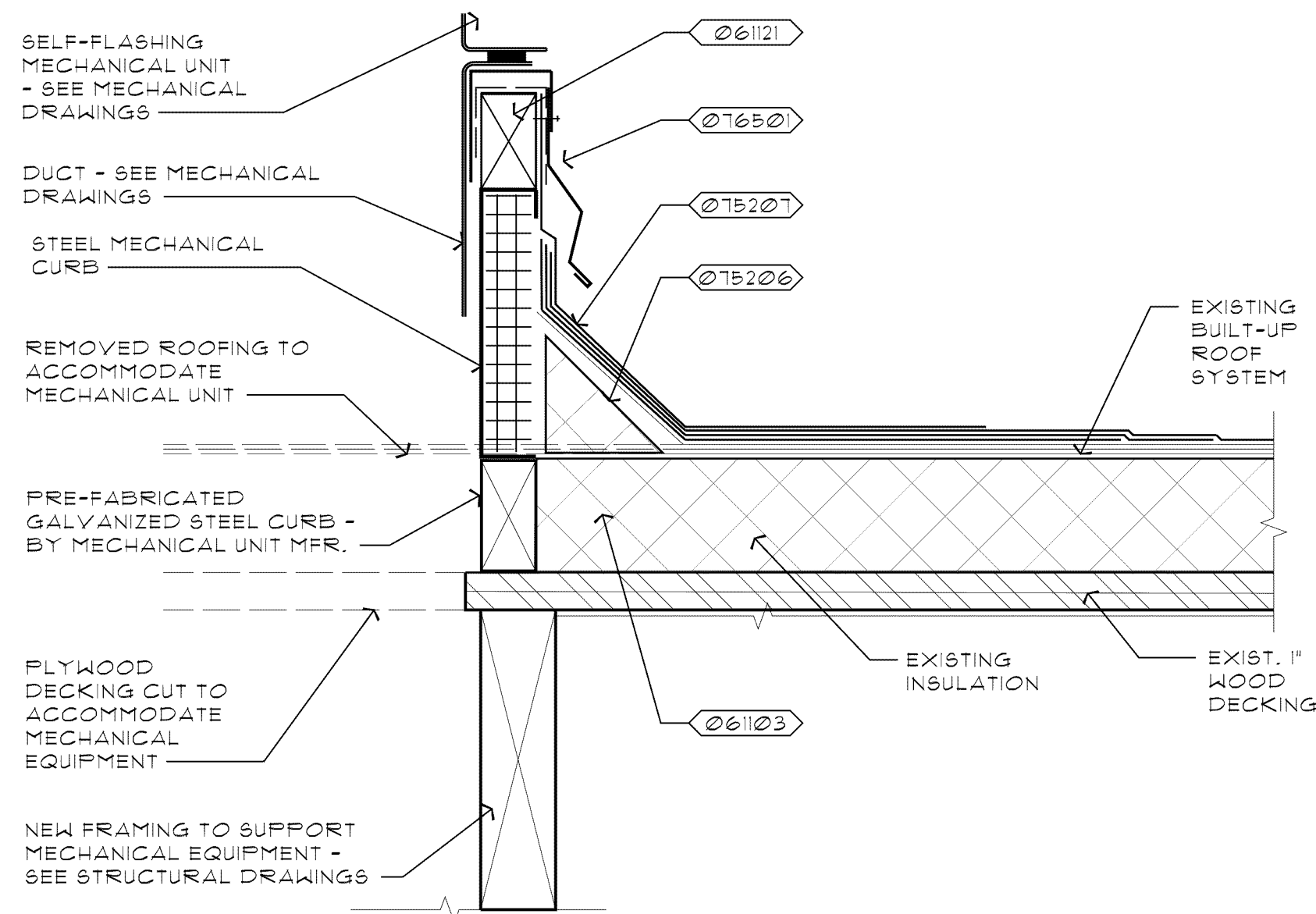



STAINLESS STEEL PANEL SEAM
 3" = 1'-0"



12 WALK-IN SECTION
45.2 3" = 1'-0"

13 WALK-IN SECTION AT EXTERIOR WALL
45.2 3" = 1'-0"



1 MECHANICAL CURB
A5.3 3' x 1'-0"

KEYNOTES

- 061103 WOOD BLOCKING
- 061121 PRESSURE TREATED NAILER
- 075206 CANT STRIP
- 075207 BASE FLASHING
- 076301 FLEXIBLE FLASHING

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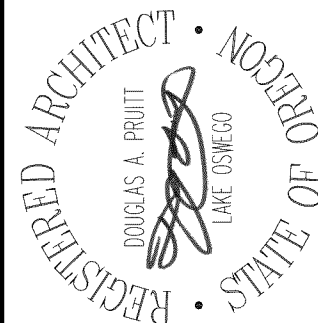
18039.00.1
PROJECT NUMBER
21 FEB 2019
DATE
REVISIONS

A5.3

BID SET

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200 North State Street ■ Lake Oswego, Oregon 97034



ROOM FINISH SCHEDULE										
NO.	ROOM NAME	FLOOR	BASE	WALLS					CLING.	REMARKS
				N	E	S	W	AT		
C5T	KITCHEN	PC	2	PP	PP	PG	PP	PG	AT	*
15TA	CATERING	-	-	PP	PP	PP	PP	PP	PP	-
15TB	DRY STORAGE	PC	2	PG	PG	PP	PP	PG	PG	-
15TC	APPLIANCE STORAGE	PC	2	PG	PG	PP	PP	PG	PG	-
15B	DINING ROOM	-	1	-	PP	-	-	-	-	-

* SEE INTERIOR ELEVATION FOR SS AND FRP MAINSCOT

ROOM FINISH KEY

FLOORS	BASE
PC POLY CRETE	1. 4" COVED RUBBER BASE 2. 6" INTEGRAL COVE
WALLS	NOTES
PG GYPSUM BOARD (PAINT)	— NO WORK REQUIRED
PP PLASTER (PAINT)	* SEE INT. ELEVATIONS
CEILING	
AT 2'x4' SUSPENDED ACOUSTIC TILE	
PG GYPSUM BOARD (PAINT)	
PP PLASTER (PAINT)	

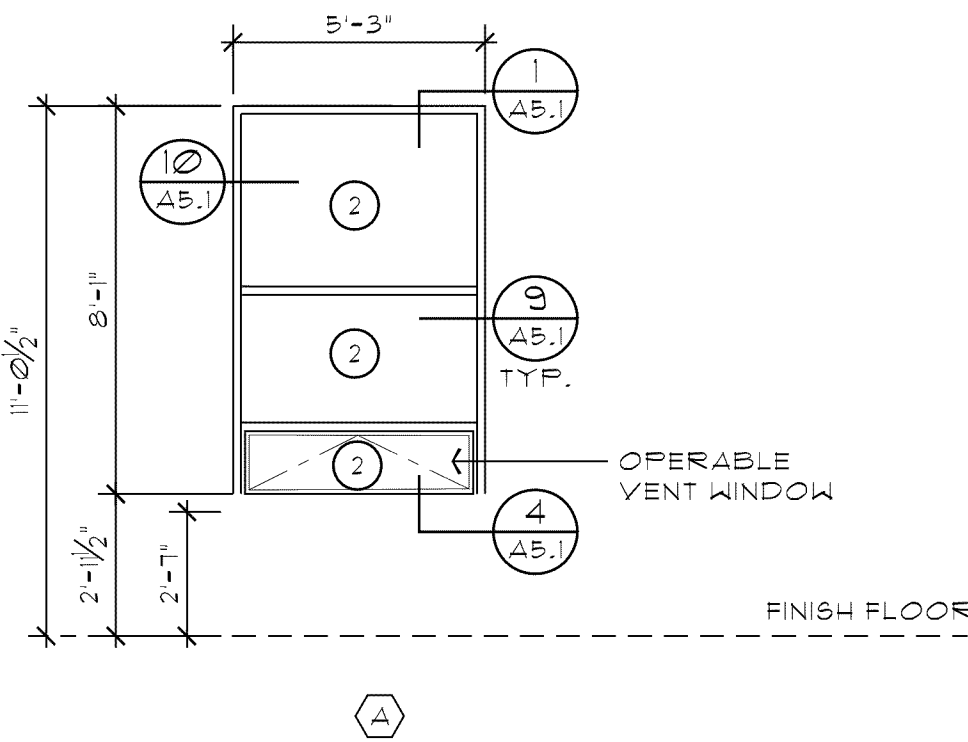
DOOR SCHEDULE										
NO.	DOOR				TYPE	DOOR MATERIAL/ FINISH	FRAME MATERIAL/ FINISH	HARDWARE GROUP	RATING	REMARKS
	WIDTH	HEIGHT	TH.	SIZE						
15TA	3'-0"	7'-0"	-	-	-	-	-	-	20	EXISTING TO REMAIN
15TB	3'-0"	7'-0"	1 3/4"	A	WD	HM	1	-	-	
15TC	3'-0"	7'-0"	1 3/4"	-	-	-	2	-	-	EXISTING TO REMAIN
15TD	3'-0"	7'-0"	1 3/4"	-	-	-	3	-	-	EXISTING TO REMAIN
15TE	3'-0"	7'-0"	1 3/4"	B	WD	HM	4	-	-	
15TF	3'-0"	7'-0"	1 3/4"	B	WD	HM	5	-	-	

NOTE: PROVIDE TEMPERED GLASS AT ALL DOOR LIGHTS UNLESS NOTED OTHERWISE.

DOOR SCHEDULE LEGEND

HM/P - HOLLOW METAL - PAINT
WD - WOOD
S/P - STEEL / SEE FACTORY FINISH
ALUM. - ALUMINUM
P - PAINT
FR - PAIR
S&V - STAIN AND VARNISH
SC - SOLID CORE
TEMP. - TEMPERED
GL. - GLAZING
MFR. - MANUFACTURED
ANOD. - ANODIZED
P&DF - PACKAGED STEEL DOOR FRAME
20M - 20 MINUTE SMOKE RATED
1HR - ONE HOUR RATED

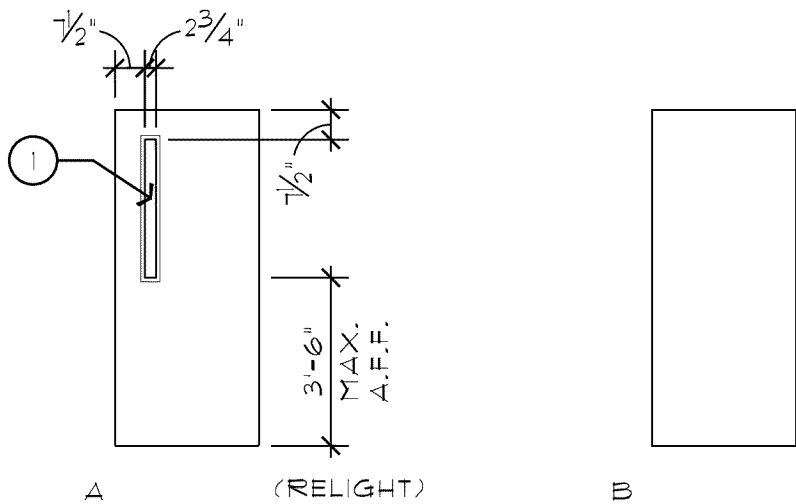
WINDOW TYPES



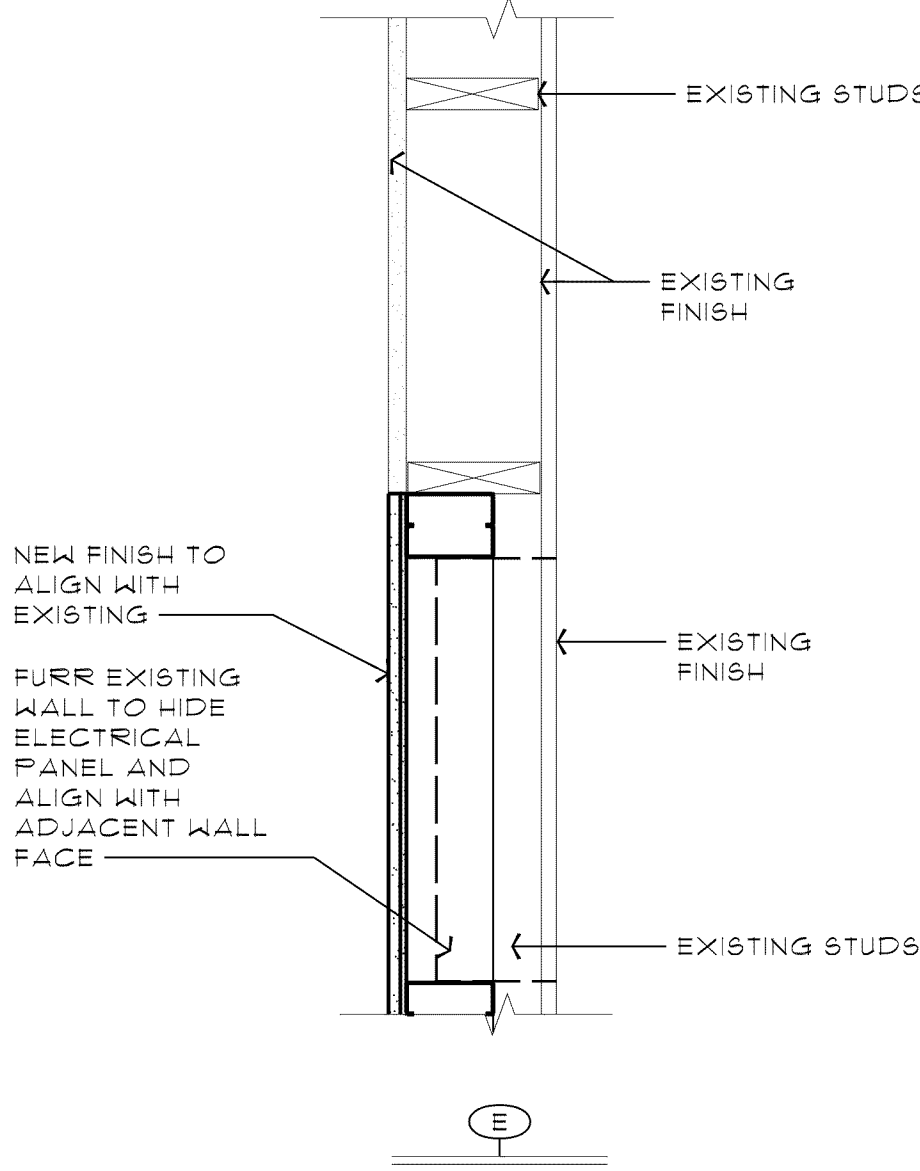
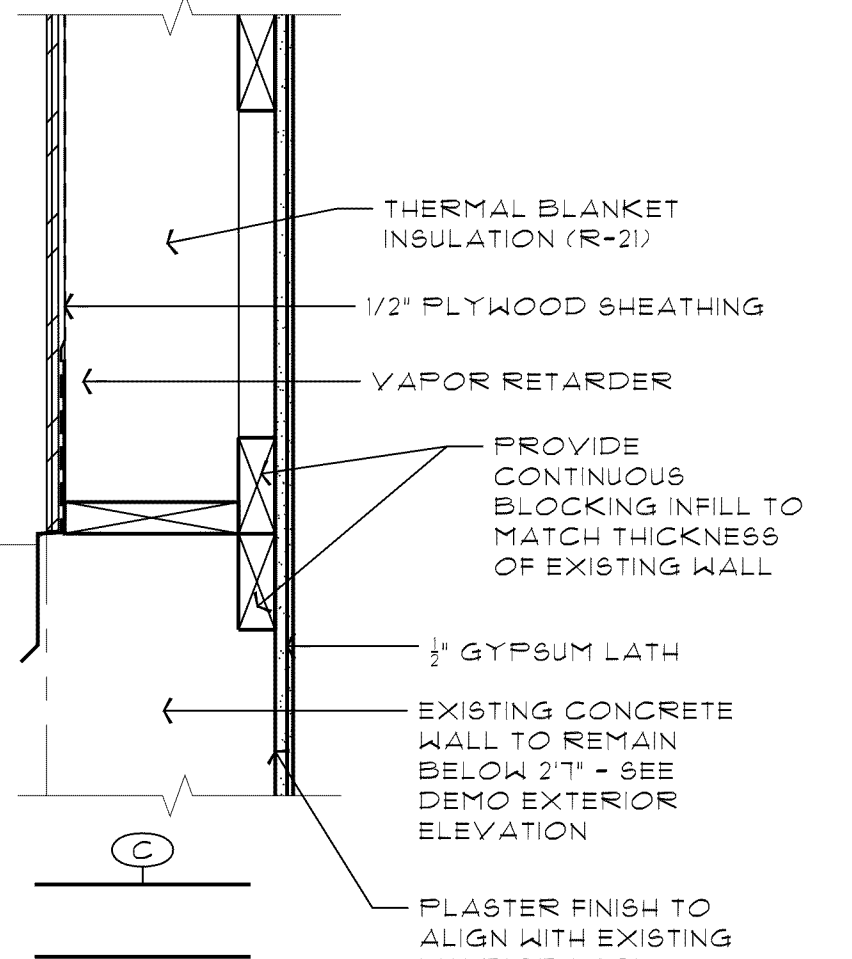
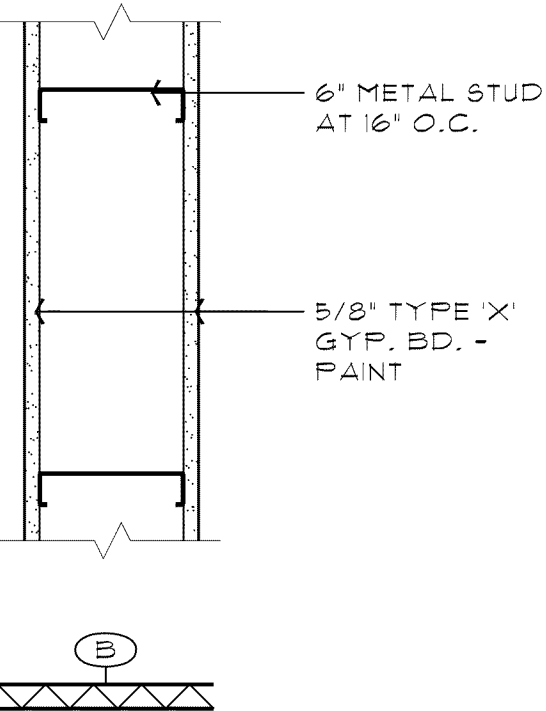
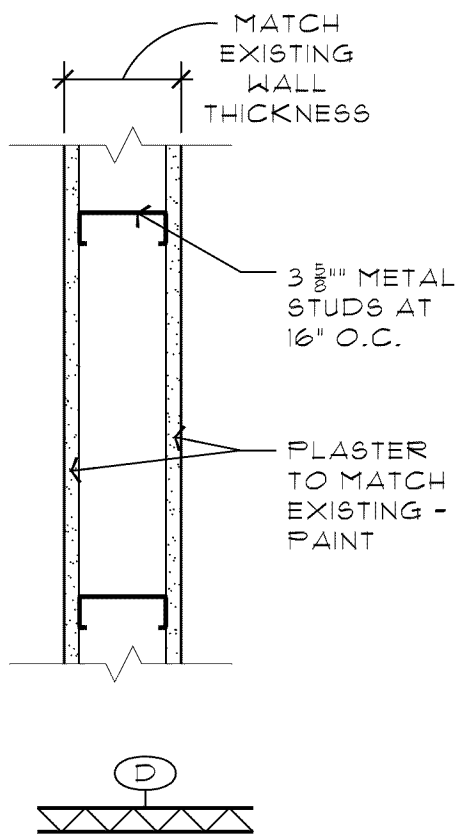
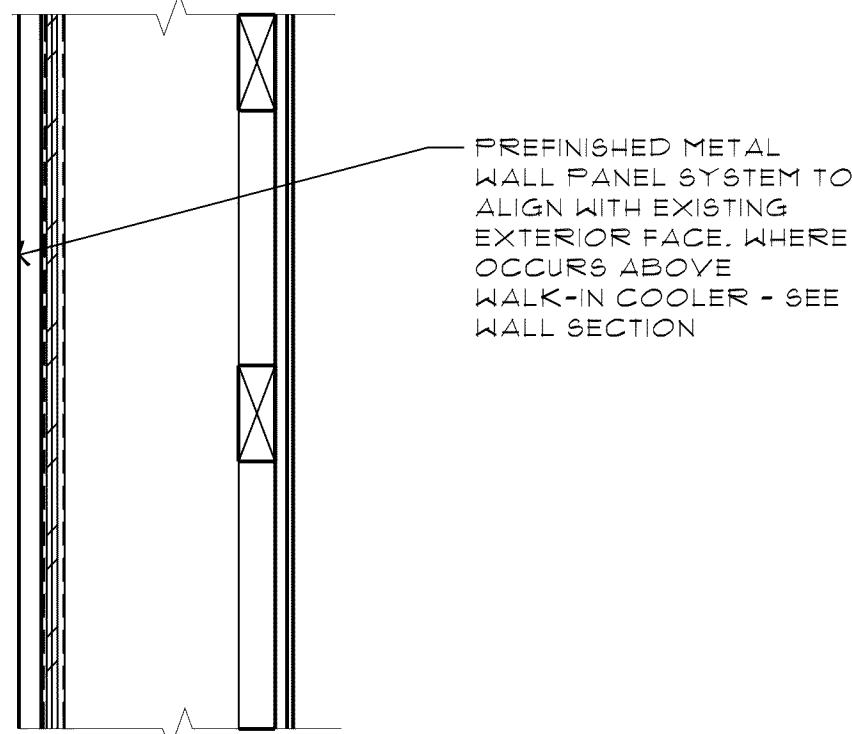
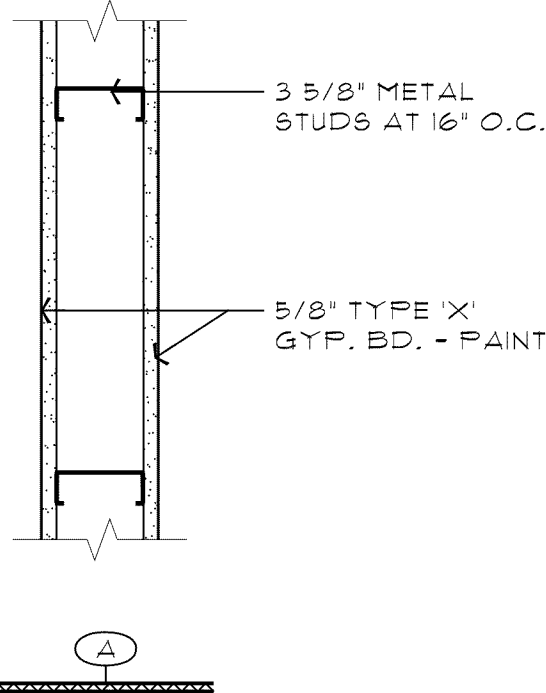
GLAZING TYPES

- 1 1/4" TEMPERED SAFETY GLASS
- 2 1" INSULATED GLASS

DOOR TYPES (PAIRS SHOWN DASHED)



WALL TYPES



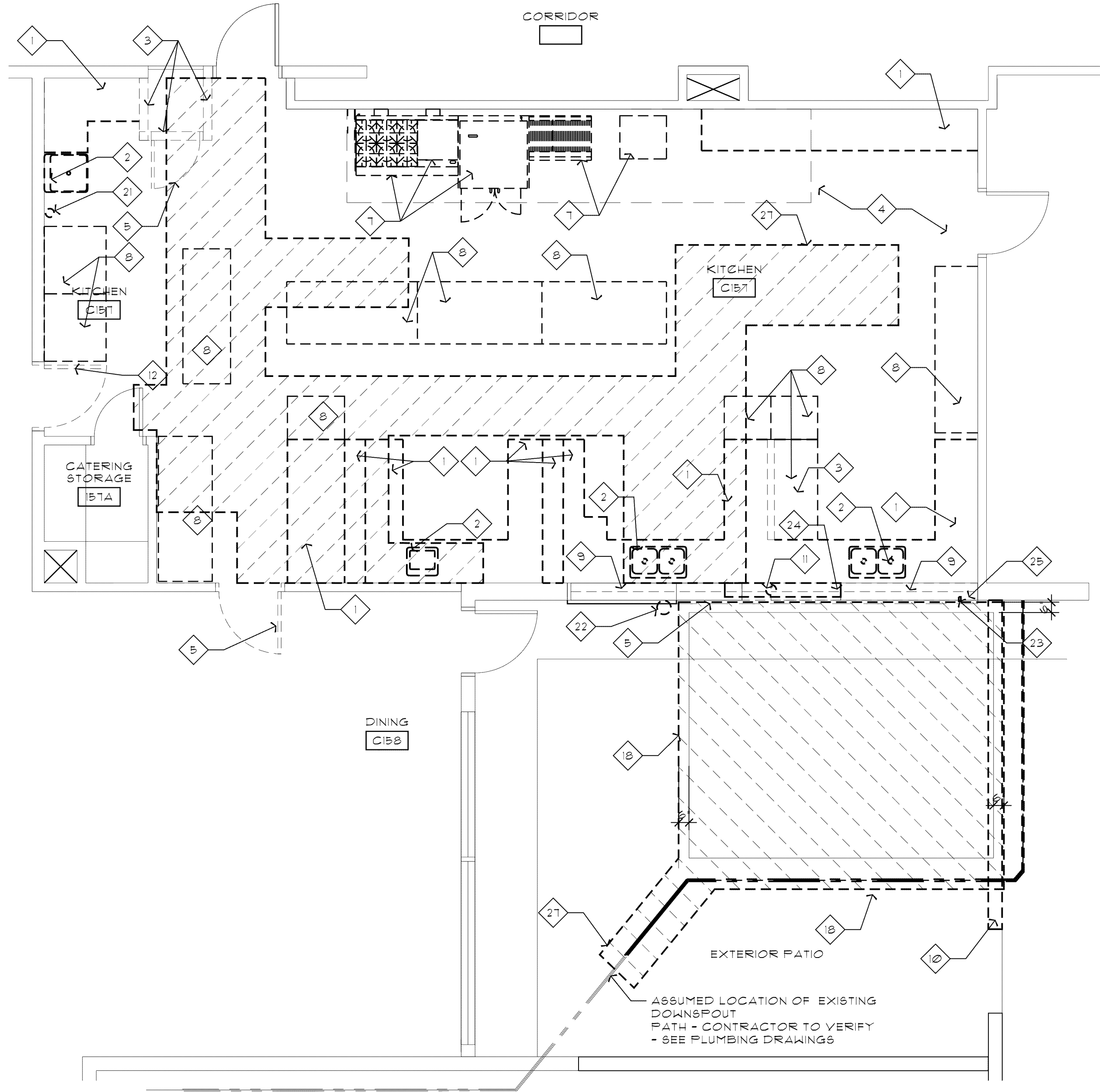
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KILT KITCHEN MODIFICATIONS
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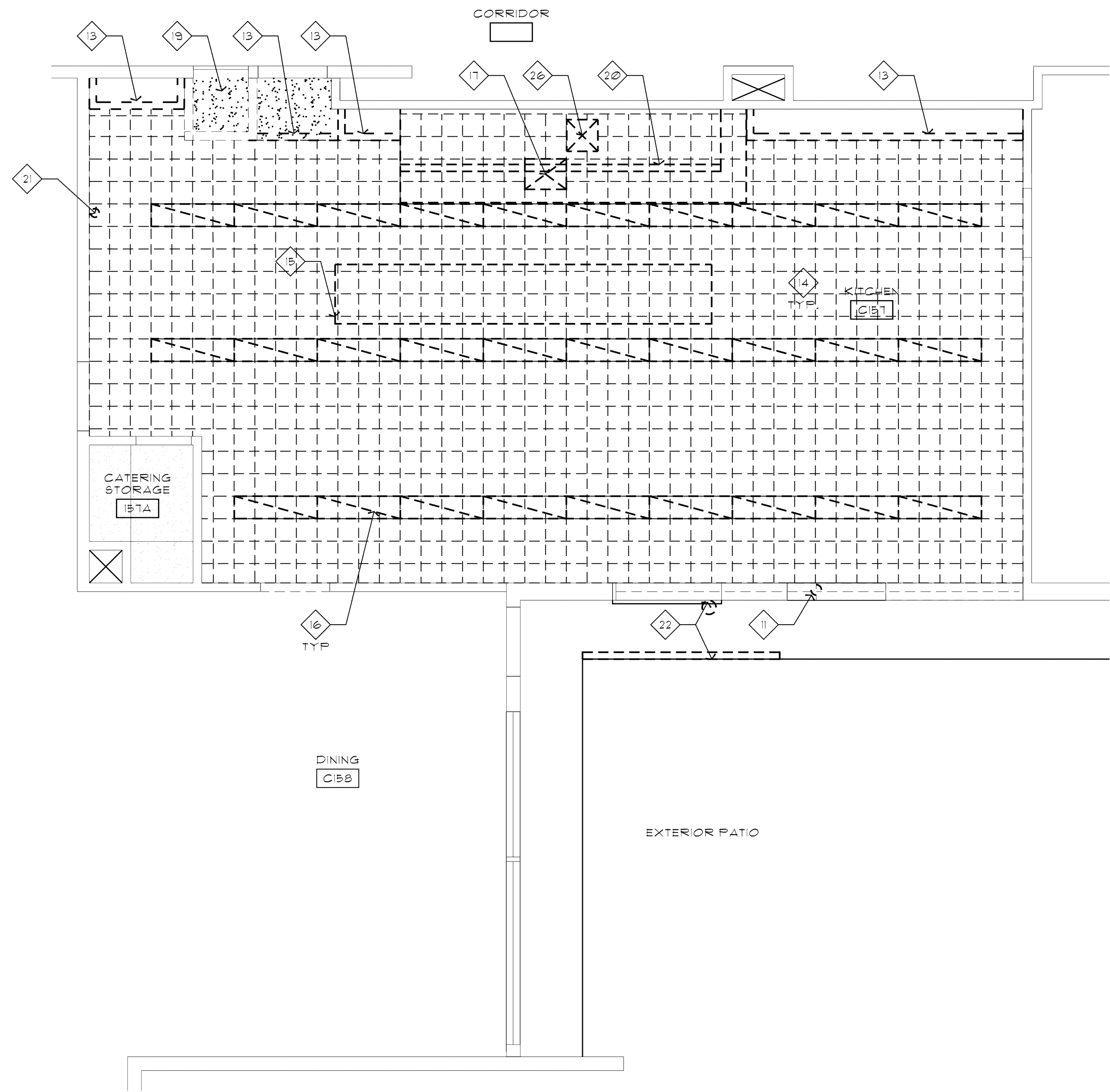
BID SET



1
D1.1
1/4" = 1'-0"

DEMOLITION PLAN LEGEND

	EXISTING DOOR TO REMAIN - PROTECT
	EXISTING WALL TO REMAIN - PROTECT
	EXISTING DOOR(S) TO BE REMOVED
	EXISTING WINDOWS TO BE REMOVED
	EXISTING FLOOR DRAIN TO BE REMOVED - CAP PLUMBING
	AREA OF CONCRETE SAWCUT DEMOLITION
	EXISTING 12" x 12" ACOUSTIC CEILING TO BE REMOVED TO ROOF JOISTS
	EXISTING LIGHT FIXTURE TO BE REMOVED

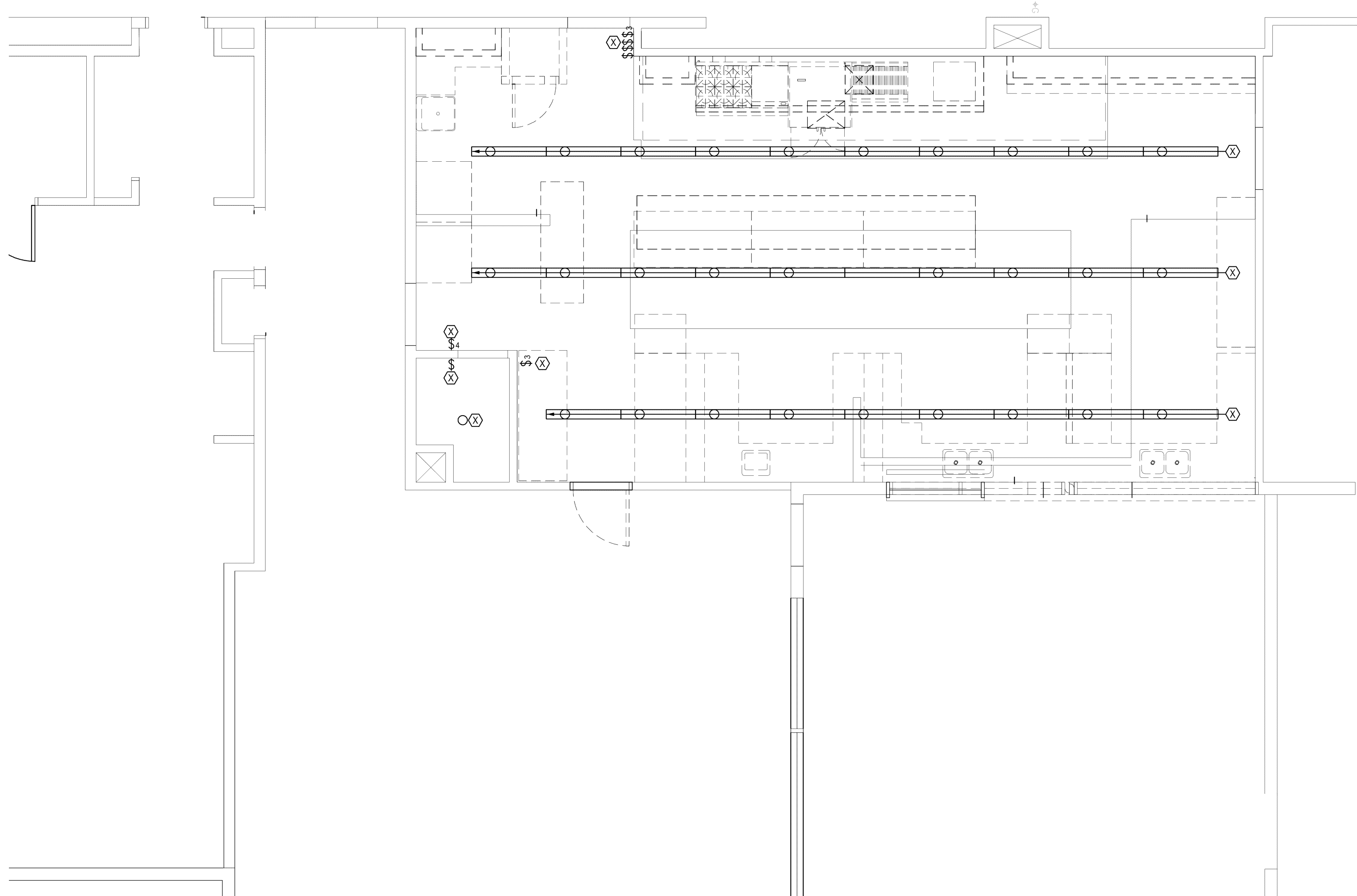


2
D1.1
1/4" = 1'-0"

DEMOLITION REFLECTED CEILING PLAN

DEMOLITION NOTES

1. REMOVE EXISTING CASEWORK.
2. REMOVE EXISTING SINKS. SEE PLUMBING.
3. REMOVE EXISTING WALL.
4. REMOVE EXISTING FLOORING.
5. REMOVE EXISTING WINDOW SILL WHERE NO NEW WINDOW - SEE FLOOR PLAN AND ELEVATIONS.
6. REMOVE EXISTING DOOR AND ASSEMBLY. PATCH WALL TO MATCH EXISTING.
7. SALVAGE ALL EXISTING KITCHEN EQUIPMENT FOR REINSTALLATION - SEE FOOD SERVICE DRAWINGS.
8. ALL EXISTING PORTABLE EQUIPMENT TO BE REMOVED BY OWNER.
9. REMOVE EXISTING WINDOWS TO ACCOMMODATE NEW WINDOW AND OPENING TO WALK-IN. PATCH WALL TO MATCH EXISTING. SEE ELEVATIONS.
10. DEMO EXISTING CAST IN PLACE CONCRETE HALF-WALL TO FOOTING TO ACCOMMODATE NEW WALK-IN COOLER.
11. REMOVE EXISTING COLUMN, SHORE HEADER - SEE STRUCTURAL.
12. REMOVE EXISTING DOOR TO ACCOMMODATE NEW DOOR.
13. REMOVE EXISTING SOFFIT AND ATTACHED CASEWORK. REPAIR PLASTER FINISH WHERE EXPOSED.
14. REMOVE EXISTING CEILING TILES AND FURRING TO EXPOSE STRUCTURE.
15. SALVAGE EXISTING POTRACK AND SUPPORT ASSEMBLY TO OWNER.
16. REMOVE EXISTING LIGHT FIXTURES. SEE ELECTRICAL.
17. REMOVE EXISTING VENT GRILL.
18. SAWCUT AND REMOVE PORTION OF CONCRETE SLAB TO ACCOMMODATE NEW WALK IN COOLER - EXTENT OF 8' FROM ALL FACES.
19. REMOVE EXISTING GYP BOARD CEILING.
20. REMOVE EXISTING HOOD AND SUPPORT ASSEMBLY.
21. REMOVE DRYER VENT FOR RELOCATION. SEE MECHANICAL.
22. CONTRACTOR TO VERIFY LOCATION OF EXISTING DOWNSPOUT AND RELOCATE. REMOVE SECTION OF EXISTING GUTTER AND REPLACE TO MATCH EXISTING - SEE ELEVATIONS.
23. REMOVE EXISTING HOSE BIB AND CAP - SEE PLUMBING.
24. REMOVE WALL AND CONCRETE WINDOW SILL TO CREATE OPENING TO WALK-IN. SEE ELEVATIONS.
25. REMOVE CAST IN PLACE CONCRETE WINDOW SILL - SILL AT NEW WINDOW REMAIN PROTECT - SEE ELEVATIONS.
26. REMOVE EXHAUST DUCT.
27. SAWCUT EXISTING CONCRETE AS REQUIRED FOR NEW PLUMBING.



1
E.1
ENLARGED DEMO KITCHEN FLOOR PLAN
1/4" = 1'-0"



DEMOLITION SCOPE OF WORK

SCOPE: THE SCOPE OF WORK INCLUDES THE REMODEL OF THE EXISTING BUILDING. THE WORK WILL INCLUDE BUT NOT BE LIMITED TO DEMOLITION (SEE BELOW) OF THE LIGHTING, POWER, AND DISTRIBUTION EQUIPMENT SYSTEMS. THE DEMO OF ALL MECHANICAL EQUIPMENT AND EQUIPMENT PROVIDED BY OTHERS, ELECTRICAL CONTRACTOR WILL DISCONNECT ALL MECHANICAL EQUIPMENT.

DEMOLITION: ELECTRICAL DRAWINGS ARE DIAGRAMMATIC, DEMOLITION INFORMATION HAS BEEN SHOWN ON THE CONSTRUCTION DRAWINGS, IN THE SPECIFICATIONS OR INDICATED BELOW. ELECTRICAL DEVICES AND EQUIPMENT ARE FROM EXISTING RECORD DRAWINGS AND / OR SITE OBSERVATIONS. THEIR ACCURACY IS NOT GUARANTEED. IT WILL BE THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO VISIT THE SITE PRIOR TO BID AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BID AND INCLUDE ALL LABOR AND MATERIAL REQUIRED FOR THE WORK INDICATED IN THE CONSTRUCTION SET

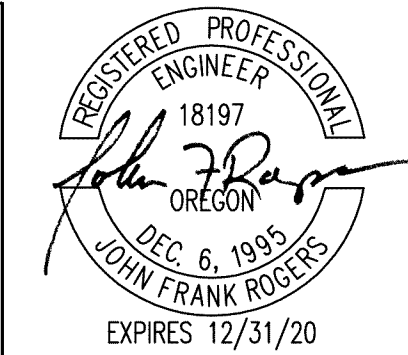
THE PURPOSE OF THE DEMOLITION INFORMATION IS TO OUTLINE A GENERAL DIRECTION OF WHAT NEEDS TO BE REMOVED TO ACCOMPLISH THE RENOVATION WORK. THE WORK IS DIAGRAMMATIC IN NATURE AND IS NOT INTENDED TO BE ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CONDITIONS AT THE SITE AND INCLUDE ALL WORK EVIDENT BY SITE INSPECTION WHETHER OR NOT SHOWN ON THE DRAWINGS, TO ACHIEVE THE DESIRED RESULTS INDICATED ON THE DOCUMENTS FOR THE FINISHED SPACES.

LIGHTING - EXISTING INTERIOR LUMINAIRES AND ASSOCIATED CIRCUITING WILL BE REMOVED UNLESS NOTED OTHERWISE ON DRAWINGS. REMOVE EXISTING LUMINAIRES AND ASSOCIATED BRANCH CIRCUITING INCLUDING BUT NOT BE LIMITED TO LUMINAIRES, CONDUIT, WIRE, AND SUPPORTS BACK TO PANEL. CONTRACTOR TO FIELD VERIFY.

POWER & SIGNAL - EXISTING RECEPTCALES, KITCHEN EQUIPMENT, FIRE ALARM DEVICES AND ASSOCIATED CIRCUITING WILL BE REMOVED UNLESS NOTED OTHERWISE ON DRAWINGS. REMOVE EXISTING DEVICES AND ASSOCIATED BRANCH CIRCUITING INCLUDING BUT NOT BE LIMITED TO JUNCTION BOXES, CONDUIT, WIRE, AND SUPPORTS BACK TO PANEL. CONTRACTOR TO FIELD VERIFY. UPDATE ALL PANEL SCHEDULES

KITCHEN EQUIPMENT - ELECTRICAL CONTRACTOR TO DISCONNECT ALL HARD WIRE CONNECTIONS TO EXISTING KITCHEN EQUIPMENT FOR REMOVAL

MECHANICAL - SEE MECHANICAL PLANS FOR ADDITIONAL DEMOLITION INFORMATION. MECHANICAL ROOF TOP EQUIPMENT WILL BE REMOVED UNLESS NOTED OTHERWISE. REMOVE EXISTING FEEDERS AND DISCONNECT SWITCHES INCLUDING BUT NOT BE LIMITED TO CONDUIT, WIRE, AND SUPPORTS BACK TO PANELS



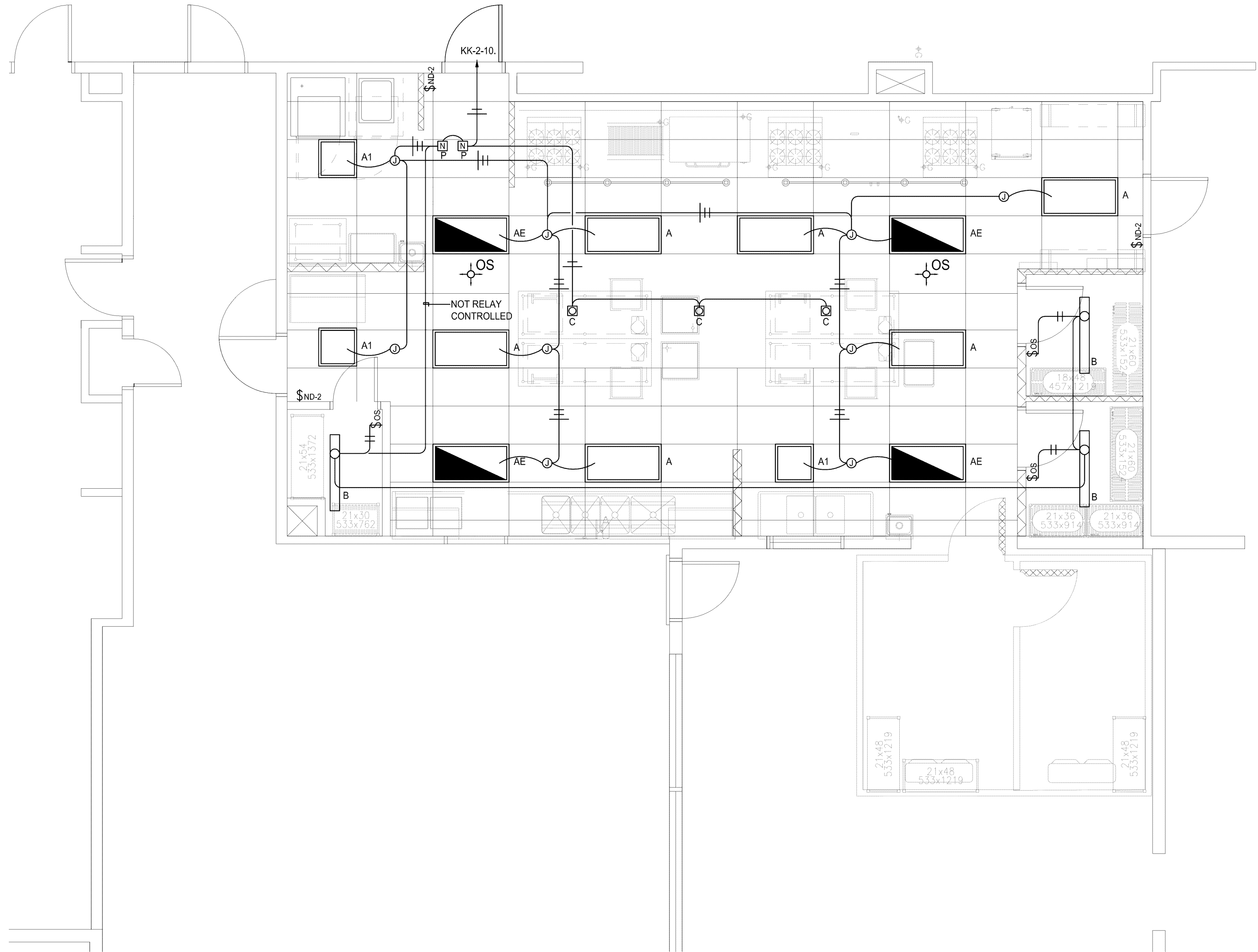
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DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
ENLARGED KITCHEN DEMO FLOOR PLAN

BBL1903
180319.00.1
PROJECT NUMBER
21 FEB 2019
DATE
REVISIONS

E.1

BID SET



1 ENLARGED NEW KITCHEN FLOOR PLAN
E1.2 1/4" = 1'-0"

GENERAL NOTES

- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO REFERENCE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE FOR CONDUIT FILL FOR THE EXACT TYPE OF CONDUCTOR BEING INSTALLED AND SIZE THE CONDUIT AS REQUIRED BY CODE.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY VOLTAGE DROP FOR EXACT ROUTING AND LENGTH OF ALL CONDUCTORS.
- ALL MOUNTING HEIGHTS FOR LUMINAIRES ARE TO BOTTOM OF FIXTURE OR AS NOTED IN LUMINAIRE SCHEDULE.
- VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS PRIOR TO START OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO START OF WORK.
- PATCH AND REPAIR EXISTING WORK DAMAGED DURING CONSTRUCTION OF NEW CONDITION.
- PROJECT WILL COMPLY WITH STATE ENERGY CODE. LIGHTING CONTROLS WHICH INCLUDE DAYLIGHT AND / OR OCCUPANT SENSING AUTOMATIC CONTROLS, AUTOMATIC SHUT-OFF CONTROLS, OCCUPANCY SENSORS, OR AUTOMATIC TIME SWITCHES. THE LIGHTING CONTROLS SHALL BE TESTED TO ENSURE THAT CONTROL DEVICES, COMPONENTS, EQUIPMENT AND SYSTEMS ARE CALIBRATED, ADJUSTED AND OPERATE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS. SEQUENCES OF OPERATION SHALL BE FUNCTIONALLY TESTED TO ENSURE THEY OPERATE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS. A COMPLETE REPORT OF TEST PROCEDURES AND RESULTS SHALL BE PREPARED AND FILED WITH THE OWNER.
- SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE RATED WALLS. PROVIDE FIRE STOPPING AS REQUIRED FOR RATING.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE BRANCH CIRCUITING AND SWITCHING FOR A COMPLETE AND OPERATIONAL LIGHTING SYSTEM. PROVIDE ALL LABOR AND MATERIAL INCLUDING BUT NOT BE LIMITED TO CONDUIT, JUNCTION BOXES, SWITCHES, CAT 5 CONTROL CABLE TO EACH LUMINAIRE (WHERE APPLICABLE), CONDUCTORS AND SUPPORTS.
- ALL CONDUITS WILL BE CONCEALED. NO SURFACE MOUNTED CONDUIT WILL BE ALLOWED WITHIN THE KILT KITCHEN AREA. OTHER AREAS WILL REQUIRED OWNER'S PRIOR APPROVAL.



LUMINAIRE SCHEDULE

TYPE :	A		
DESCRIPTION :	LED - SURFACE MOUNTED - 2x4	HOUSING :	STEEL
BALLAST :	ELECTRONIC DRIVER - 0-10V DIMMING	LENS / OPTICS :	ACRYLIC SATIN WHITE
VOLTAGE :	120-277V	REFLECTOR :	
LAMP TYPE :	LED - 4000K	DISTRIBUTION :	
LAMP QUANTITY :	1	FINISH :	WHITE
EFFICIENCY :	MIN 6000 LUMENS	WATTAGE :	47
OPTIONS :			
MANUFACTURER :	LITHONIA 2TL4-60L-FW-SWL-MV-EZ1-LP840 SERIES OR APPROVED EQUIVALENT		
TYPE :	AE		
DESCRIPTION :	LED - SURFACE MOUNTED - 2x4	HOUSING :	STEEL
BALLAST :	ELECTRONIC DRIVER - 0-10V DIMMING	LENS / OPTICS :	ACRYLIC SATIN WHITE
VOLTAGE :	120-277V	REFLECTOR :	
LAMP TYPE :	LED - 4000K	DISTRIBUTION :	
LAMP QUANTITY :	1	FINISH :	WHITE
EFFICIENCY :	MIN 6000 LUMENS	WATTAGE :	47
OPTIONS :	1400 LUMEN BATTERY BACKUP		
MANUFACTURER :	LITHONIA 2TL4-60L-FW-SWL-MV-EZ1-LP840-EL14L SERIES OR APPROVED EQUIVALENT		
TYPE :	A1		
DESCRIPTION :	LED - SURFACE MOUNTED - 2x2	HOUSING :	STEEL
BALLAST :	ELECTRONIC DRIVER - 0-10V DIMMING	LENS / OPTICS :	ACRYLIC SATIN WHITE
VOLTAGE :	120-277V	REFLECTOR :	
LAMP TYPE :	LED - 4000K	DISTRIBUTION :	
LAMP QUANTITY :	1	FINISH :	WHITE
EFFICIENCY :	MIN 3300 LUMENS	WATTAGE :	29
OPTIONS :			
MANUFACTURER :	LITHONIA 2TL2-33L-FW-SWL-MV-EZ1LP840 SERIES OR APPROVED EQUIVALENT		
TYPE :	B		
DESCRIPTION :	LED - SURFACE OR CHAIN STRIP	HOUSING :	STEEL
BALLAST :	ELECTRONIC DRIVER	LENS / OPTICS :	ACRYLIC DROP LENS
VOLTAGE :	120-277V	REFLECTOR :	
LAMP TYPE :	LED - 4000K	DISTRIBUTION :	
LAMP QUANTITY :	1	FINISH :	WHITE
EFFICIENCY :	MIN 3000 LUMENS	WATTAGE :	42
OPTIONS :	SURFACE OR AIR CRAFT CABLE		
MANUFACTURER :	LITHONIA ZL1D-L48-3000LM-FST-MV-40K-90CRI-WH-ZACVH SERIES OR APPROVED EQUIVALENT		
TYPE :	C		
DESCRIPTION :	LED - RECESSED DOWNLIGHT 6" ROUND	HOUSING :	DIE CAST ALUMINUM
BALLAST :	ELECTRONIC DRIVER - 0-10v DIMMING	LENS / OPTICS :	CLEAR
VOLTAGE :	120V	REFLECTOR :	SEMI-SPECULAR
LAMP TYPE :	LED - 4000K, 90 CRI	DISTRIBUTION :	MED WIDE
LAMP QUANTITY :	1	FINISH :	WHITE
EFFICIENCY :	MIN 1000 LUMENS	WATTAGE :	12
OPTIONS :	PROVIDE SHEET ROCK BOX FOR IC RATING		
MANUFACTURER :	GOTHAM EVO-40/10-6AR-MWD-LSS-EZ1 SERIES OR APPROVED EQUIVALENT		



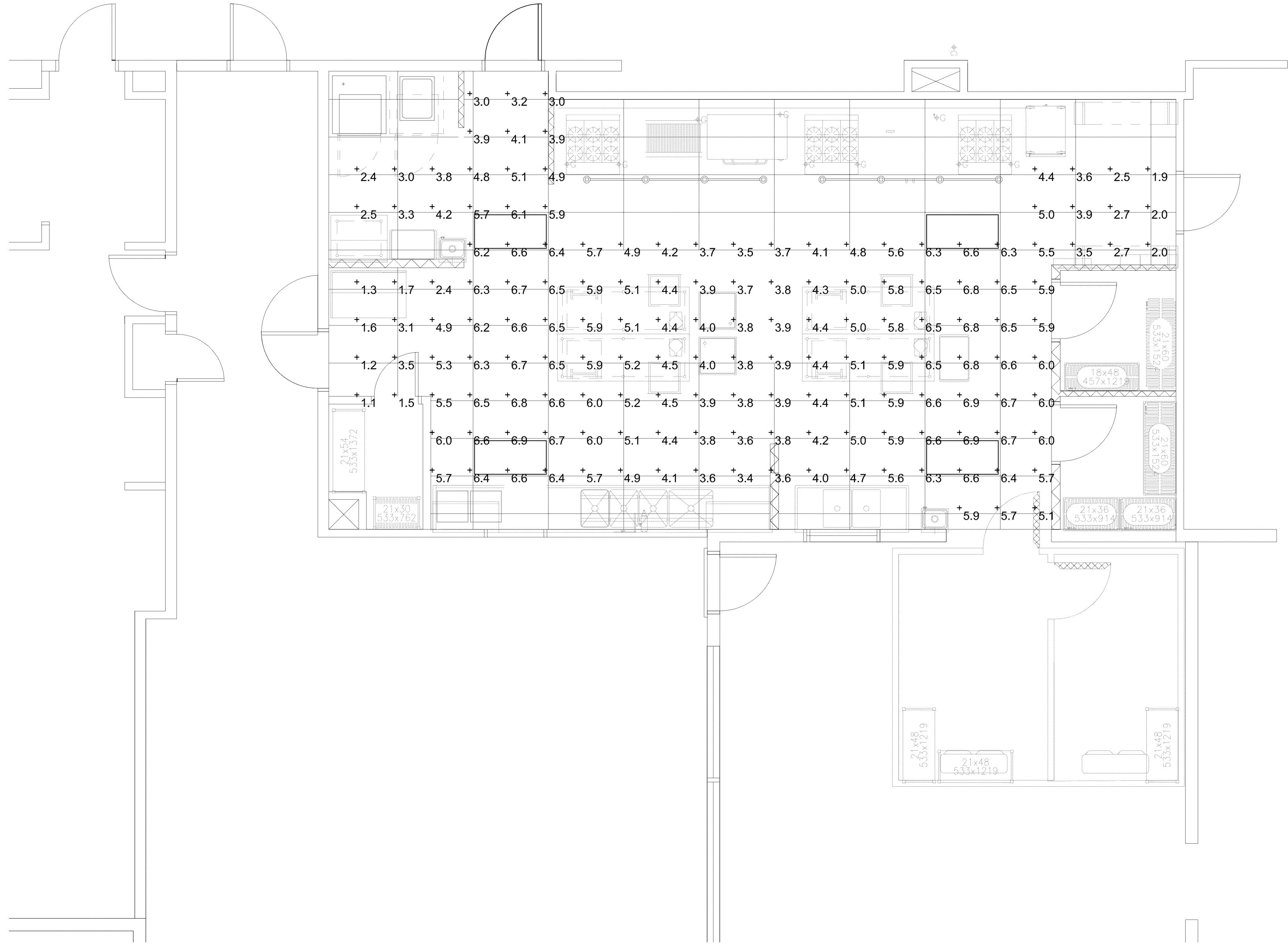
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DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
ENLARGED KITCHEN NEW FLOOR PLAN -
LIGHTING

BBL1903
180319.00.1
PROJECT NUMBER
21 FEB 2019
DATE
REVISIONS

E1.2

BID SET



1
E1.3 1/4" = 1'-0"

ENLARGED NEW KITCHEN FLOOR PLAN



STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Kilt Kitchen	+	4.9 fc	6.9 fc	1.1 fc	6.3:1	4.5:1

GENERAL NOTES

- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO REFERENCE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE FOR CONDUIT FILL FOR THE EXACT TYPE OF CONDUCTOR BEING INSTALLED AND SIZE THE CONDUIT AS REQUIRED BY CODE.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY VOLTAGE DROP FOR EXACT ROUTING AND LENGTH OF ALL CONDUCTORS.
- ALL MOUNTING HEIGHTS FOR LUMINAIRES ARE TO BOTTOM OF FIXTURE OR AS NOTED IN LUMINAIRE SCHEDULE.
- VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS PRIOR TO START OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO START OF WORK.
- PATCH AND REPAIR EXISTING WORK DAMAGED DURING CONSTRUCTION OF NEW CONDITION.
- MEANS OF EGRESS ILLUMINATION SHALL BE NOT LESS THAN 1-FOOTCANDLE AT THE WALKING SURFACE WHERE REQUIRED IBC 1006.
- EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES, IBC 1011.5.3.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE BRANCH CIRCUITING AND SWITCHING FOR A COMPLETE AND OPERATIONAL LIGHTING SYSTEM. PROVIDE ALL LABOR AND MATERIAL INCLUDING BUT NOT BE LIMITED TO CONDUIT, JUNCTION BOXES, SWITCHES, CAT 5 CONTROL CABLE TO EACH LUMINAIRE (WHERE APPLICABLE), CONDUCTORS AND SUPPORTS.
- ALL CONDUITS WILL BE CONCEALED. NO SURFACE MOUNTED CONDUIT WILL BE ALLOWED WITHIN THE KILT KITCHEN AREA. OTHER AREAS WILL REQUIRED OWNER'S PRIOR APPROVAL.

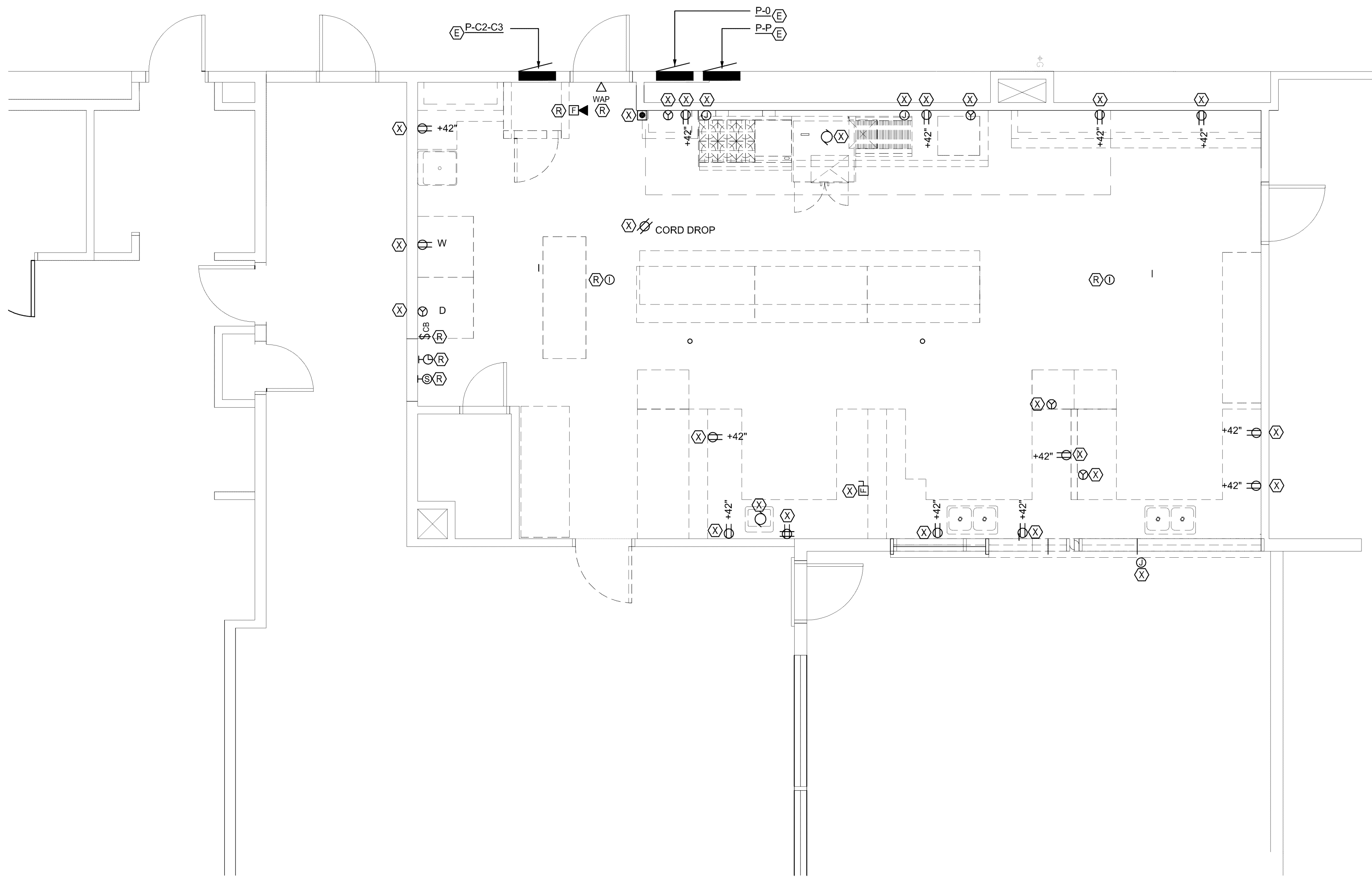
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KITCHEN MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
ENLARGED KITCHEN NEW FLOOR PLAN -
EGRESS PHOTOMETRICS

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PROJECT NUMBER
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REVISIONS

E1.3

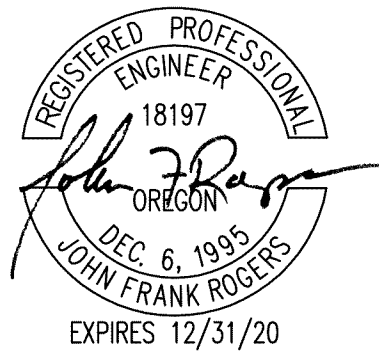
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1
E2.1 1/4" = 1'-0"

ENLARGED DEMO KITCHEN FLOOR PLAN



DEMOLITION SCOPE OF WORK

SCOPE: THE SCOPE OF WORK INCLUDES THE REMODEL OF THE EXISTING BUILDING. THE WORK WILL INCLUDE BUT NOT BE LIMITED TO DEMOLITION (SEE BELOW) OF THE LIGHTING, POWER, AND DISTRIBUTION EQUIPMENT SYSTEMS. THE DEMO OF ALL MECHANICAL EQUIPMENT AND EQUIPMENT PROVIDED BY OTHERS, ELECTRICAL CONTRACTOR WILL DISCONNECT ALL MECHANICAL EQUIPMENT.

DEMOLITION: ELECTRICAL DRAWINGS ARE DIAGRAMMATIC, DEMOLITION INFORMATION HAS BEEN SHOWN ON THE CONSTRUCTION DRAWINGS, IN THE SPECIFICATIONS OR INDICATED BELOW. ELECTRICAL DEVICES AND EQUIPMENT ARE FROM EXISTING RECORD DRAWINGS AND / OR SITE OBSERVATIONS. THEIR ACCURACY IS NOT GUARANTEED. IT WILL BE THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO VISIT THE SITE PRIOR TO BID AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BID AND INCLUDE ALL LABOR AND MATERIAL REQUIRED FOR THE WORK INDICATED IN THE CONSTRUCTION SET

THE PURPOSE OF THE DEMOLITION INFORMATION IS TO OUTLINE A GENERAL DIRECTION OF WHAT NEEDS TO BE REMOVED TO ACCOMPLISH THE RENOVATION WORK. THE WORK IS DIAGRAMMATIC IN NATURE AND IS NOT INTENDED TO BE ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CONDITIONS AT THE SITE AND INCLUDE ALL WORK EVIDENT BY SITE INSPECTION WHETHER OR NOT SHOWN ON THE DRAWINGS, TO ACHIEVE THE DESIRED RESULTS INDICATED ON THE DOCUMENTS FOR THE FINISHED SPACES.

LIGHTING - EXISTING INTERIOR LUMINAIRES AND ASSOCIATED CIRCUITING WILL BE REMOVED UNLESS NOTED OTHERWISE ON DRAWINGS. REMOVE EXISTING LUMINAIRES AND ASSOCIATED BRANCH CIRCUITING INCLUDING BUT NOT BE LIMITED TO LUMINAIRES, CONDUIT, WIRE, AND SUPPORTS BACK TO PANEL. CONTRACTOR TO FIELD VERIFY.

POWER & SIGNAL - EXISTING RECEPTACLES, KITCHEN EQUIPMENT, FIRE ALARM DEVICES AND ASSOCIATED CIRCUITING WILL BE REMOVED UNLESS NOTED OTHERWISE ON DRAWINGS. REMOVE EXISTING DEVICES AND ASSOCIATED BRANCH CIRCUITING INCLUDING BUT NOT BE LIMITED TO JUNCTION BOXES, CONDUIT, WIRE, AND SUPPORTS BACK TO PANEL. CONTRACTOR TO FIELD VERIFY. UPDATE ALL PANEL SCHEDULES

KITCHEN EQUIPMENT - ELECTRICAL CONTRACTOR TO DISCONNECT ALL HARD WIRE CONNECTIONS TO EXISTING KITCHEN EQUIPMENT FOR REMOVAL

MECHANICAL - SEE MECHANICAL PLANS FOR ADDITIONAL DEMOLITION INFORMATION. MECHANICAL ROOF TOP EQUIPMENT WILL BE REMOVED UNLESS NOTED OTHERWISE. REMOVE EXISTING FEEDERS AND DISCONNECT SWITCHES INCLUDING BUT NOT BE LIMITED TO CONDUIT, WIRE, AND SUPPORTS BACK TO PANELS

DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
ENLARGED KITCHEN DEMO FLOOR PLAN -
POWER

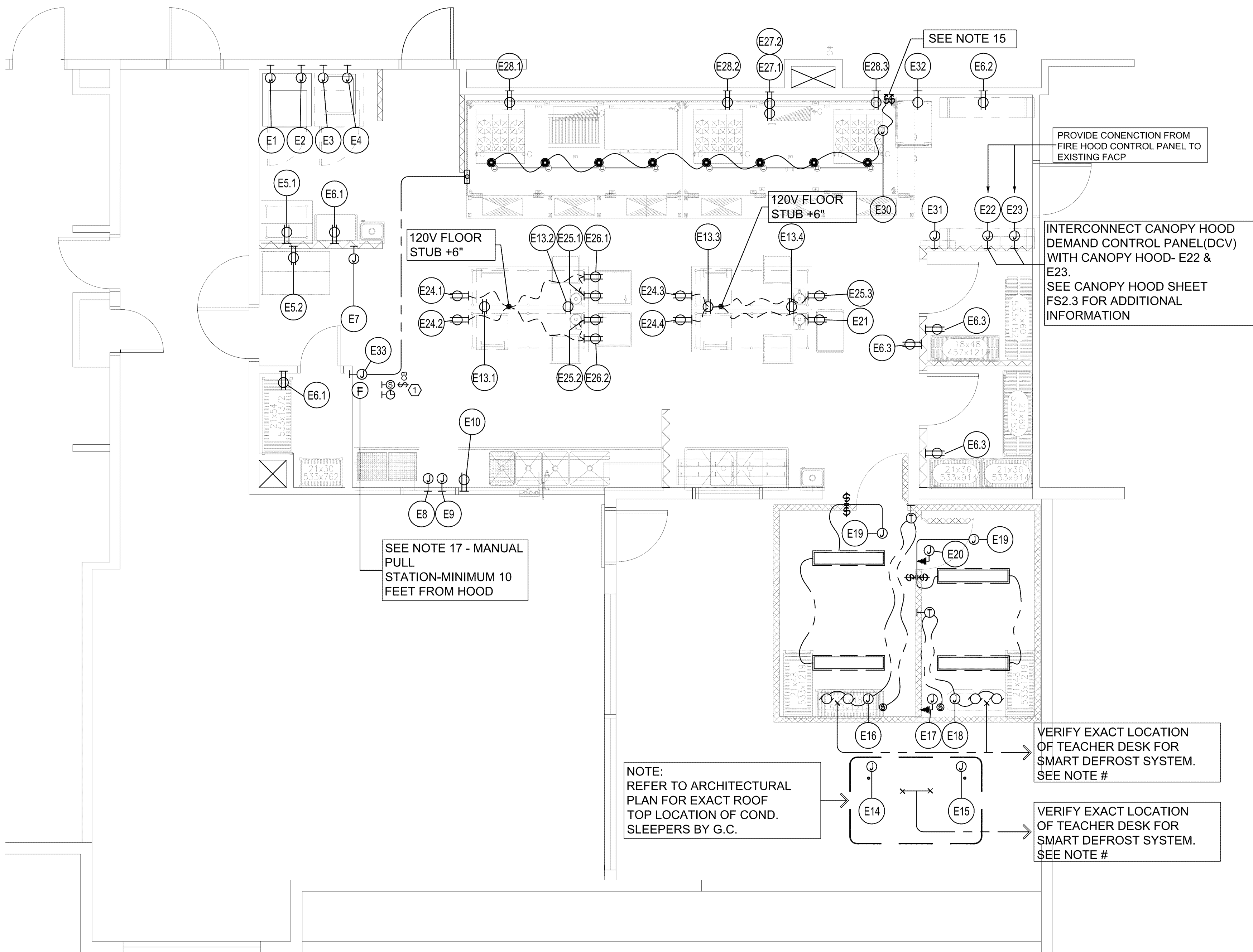
BBL1903
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21 FEB 2019
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E2.1

BID SET

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1 ENLARGED NEW KITCHEN FLOOR PLAN
E2.2 1/4" = 1'-0"

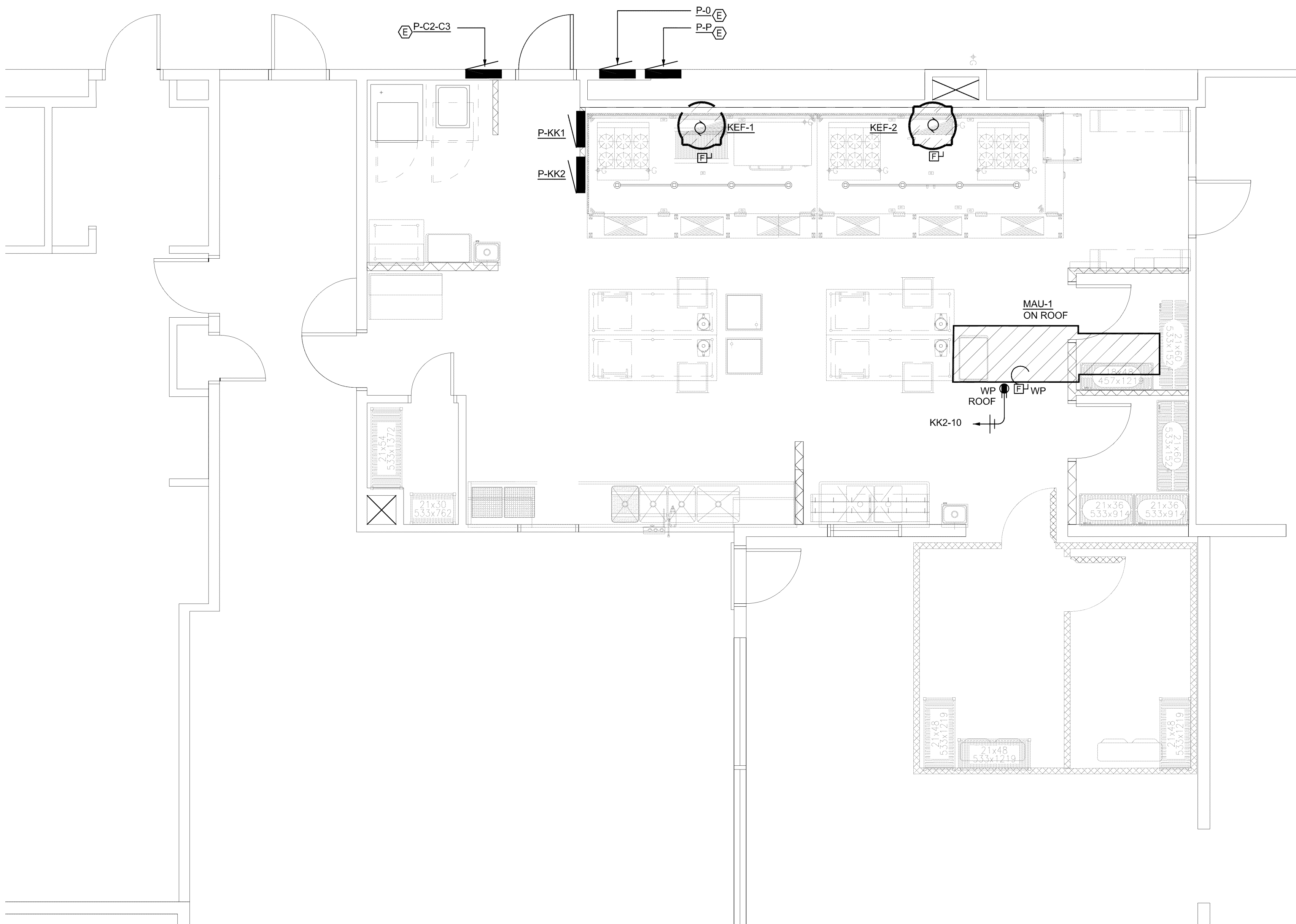
GENERAL NOTES

1. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO REFERENCE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE FOR CONDUIT FILL FOR THE EXACT TYPE OF CONDUCTOR BEING INSTALLED AND SIZE THE CONDUIT AS REQUIRED BY CODE.
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY VOLTAGE DROP FOR EXACT ROUTING AND LENGTH OF ALL CONDUCTORS.
3. VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS PRIOR TO START OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO START OF WORK.
4. PATCH AND REPAIR EXISTING WORK DAMAGED DURING CONSTRUCTION TO NEW CONDITION.
5. ALL CONDUITS WILL BE CONCEALED. NO SURFACE MOUNTED CONDUIT WILL BE ALLOWED WITHIN THE KILT KITCHEN AREA. OTHER AREAS WILL REQUIRED OWNER'S PRIOR APPROVAL.

SHEET NOTES

- ① RELOCATE CLOCK, INTERCOM SPEAKER AND CALL BACK SWITCH. TEST LV SYSTEMS PRIOR TO BEGINNING OF CONSTRUCTION TO VERIFY FUNCTIONALITY OF THE EXISTING DEVICES. EXTEND OR REPLACE CONDUCTORS TO NEW LOCATIONS SHOWN. TEST SYSTEM AGAIN FOR FUNCTIONALITY. CONTRACTOR IS RESPONSIBLE FOR A FULLY OPERATIONAL SYSTEM.


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E2.3 ENLARGED NEW KITCHEN FLOOR PLAN
1/4" = 1'-0"



**SYSTEM
DESIGN
CONSULTANTS INC.**
333 SE SECOND AVE., SUITE 100
PORTLAND, OREGON 97214
503-248-0227 FAX 248-0240
CONTACT: JEFFREY DAVIS



REGISTERED PROFESSIONAL
ENGINEER
18197
JOHN FRANK ROGERS
EXPIRES 12/31/20

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

Designation	Description	Voltage	Ph	Load	Kw/Hp/Amp	Panel	Circuit	Feeder (CU ONLY)			Notes
								Qty	Size	Conduit	
MUA-1	Make Up Air Unit	208	3	18.2	MCA	KK2	38.40.42.	3	#10	3/4	1
KEF-1	Exhaust Fan	120	1	9.2	MCA	KK2	44.46.48.	3	#12	3/4	1
KEF-2	Exhaust Fan	120	1	9.2	MCA	KK2	50.52.54.	3	#12	3/4	1

- General Notes:
- PROVIDE CONDUIT FOR ALL FEEDERS, SIZE AS REQUIRED PER THE CURRENT EDITION OF THE N.E.C. FOR CONDUCTORS SHOWN, ROUTE FROM UNIT TO PANEL DESIGNATED
 - COORDINATE EXACT LOCATIONS AND CONNECTION REQUIREMENTS OF EQUIPMENT WITH MECHANICAL CONTRACTOR AND OTHER TRADES PRIOR TO ROUGH-IN.
 - COORDINATE ELECTRICAL REQUIREMENTS AND INSTALLATION WITH EQUIPMENT SUPPLIER
 - PROVIDE INSULATED GROUND WIRE IN ALL CONDUITS. NOT SHOWN IN CONDUCTOR QUANTITY
 - CONNECT TO DUCT DETECTORS PROVIDED BY DIVISION 23 INSTALLED AND WIRED BY DIVISION 26.
 - CONNECT TO MOTOR STARTERS PROVIDED BY DIVISION 23 INSTALLED AND WIRED BY DIVISION 26.
 - RECEPTACLES ARE PROVIDED WITH MECHANICAL UNITS, CONNECT AS SHOWN

- Schedule Notes:
- PROVIDE DISCONNECT SWITCH FOR MECHANICAL EQUIPMENT. COORDINATE LOCATION WITH EQUIPMENT INSTALLER. SWITCH WILL BE INDEPENDANTLY MOUNTED FROM EQUIPMENT.

GENERAL NOTES

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BBL1903
180319.00.L

PROJECT NUMBER

21 FEB 2019

DATE

REVISIONS

DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
ENLARGED KITCHEN NEW FLOOR PLAN -
EQUIPMENT

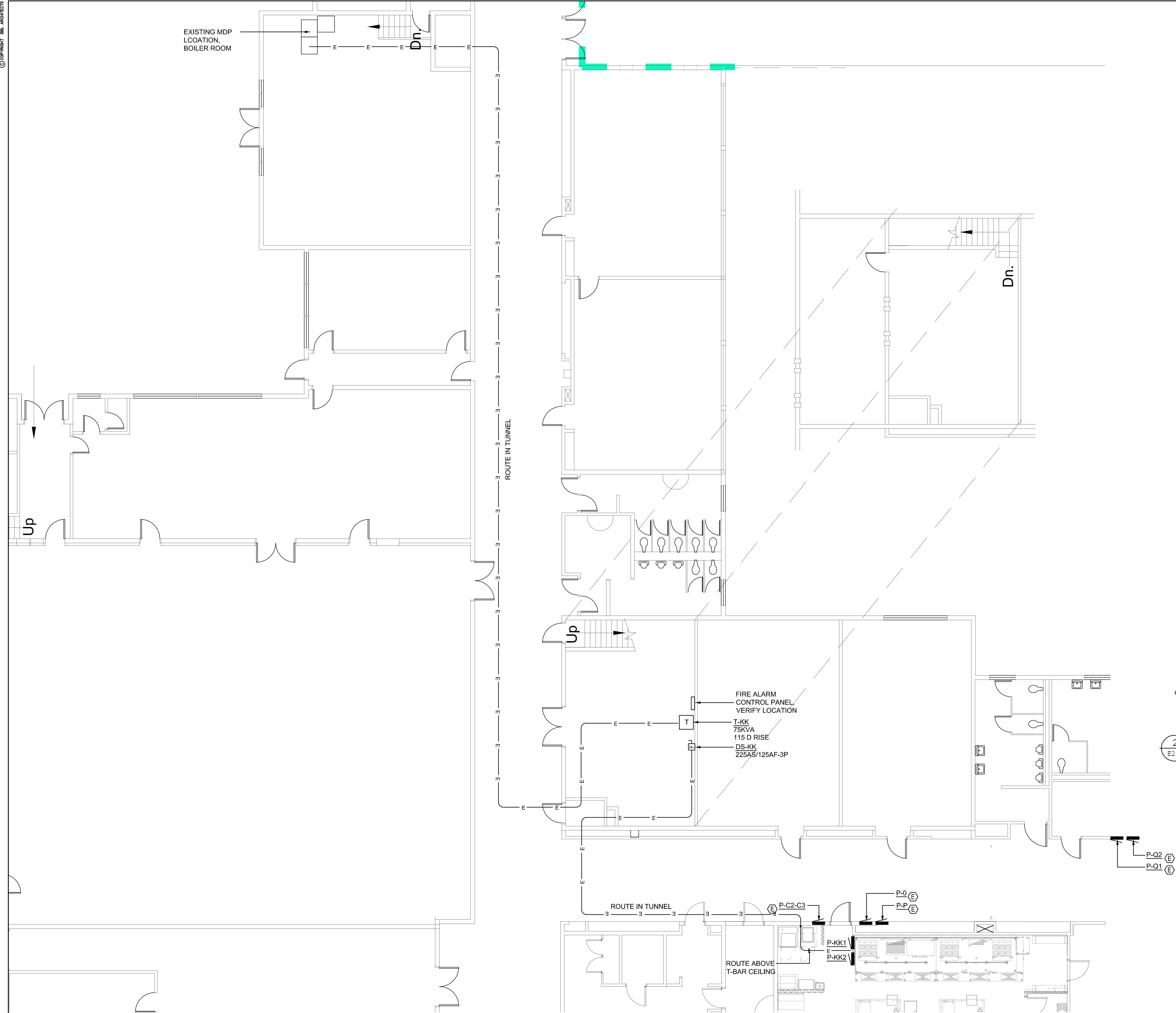


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E2.3

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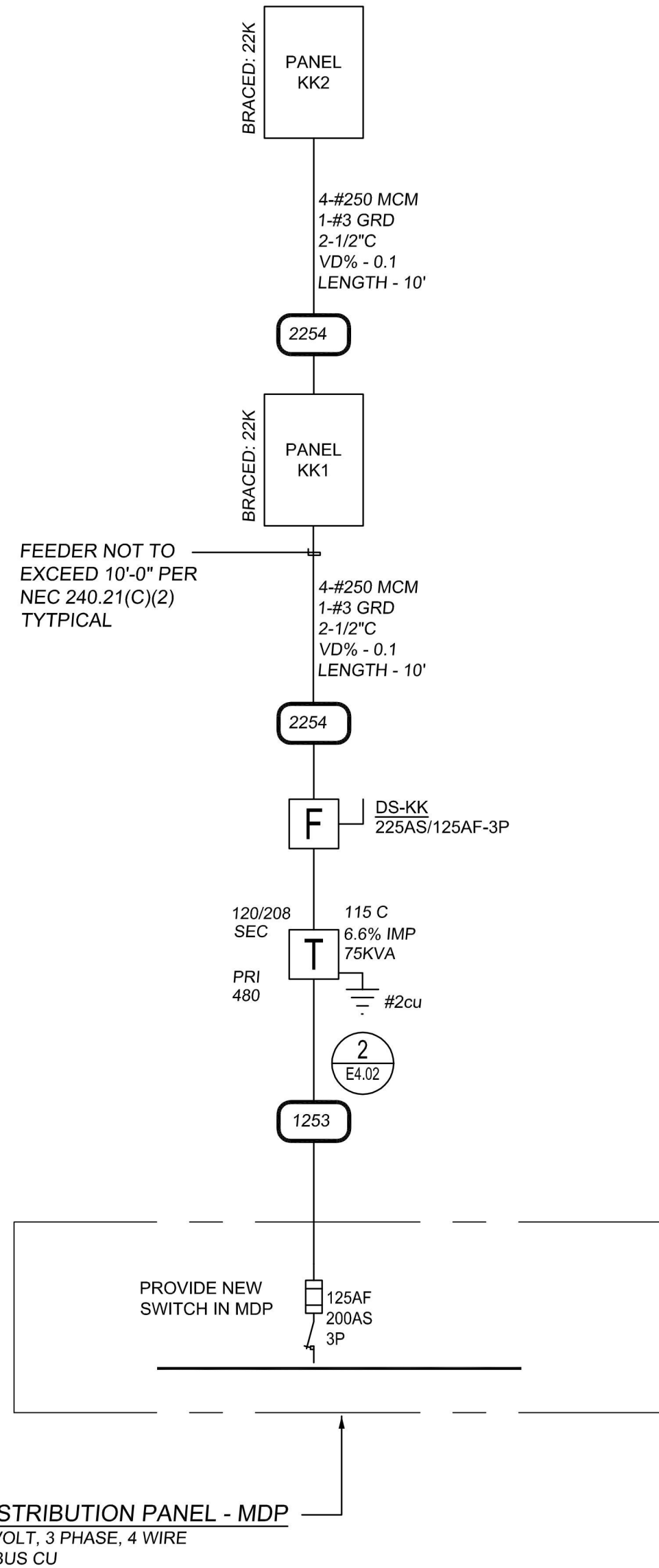
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1 OVERALL FLOOR PLAN
E2.4 1/8" = 1'-0"

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333 SE SECOND AVE, SUITE 100
PORTLAND, OREGON 97214
503-248-0227 FAX 503-248-0240
CONTACT: JEFFREY DAVIS

REGISTERED PROFESSIONAL ENGINEER
18197
JOHN FRANK ROGERS
DEC. 6, 1995
EXPIRES 12/31/20



E MAIN DISTRIBUTION PANEL - MDP
480Y/277 VOLT, 3 PHASE, 4 WIRE
1200 AMP BUS CU

2 ONE LINE DIAGRAM - PARTIAL
E2.4 480 VOLT THREE PHASE, THREE WIRE

GENERAL NOTES

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OVERALL FLOOR PLAN - EQUIPMENT

BBL1903
18039.00.1
PROJECT NUMBER
21 FEB 2019
DATE
REVISIONS

E2.4

BID SET

KITCHEN EQUIPMENT CONNECTION SCHEDULE

Designation	Elec #	Description	Location	Height	Voltage	Ph	Load	Kw/Hp/Amp	Mount Ht	Panel	Circuit	Feeder (CU ONLY)			Notes
												Qty	Size	Conduit	
2	E1	J-Box	Wall	36"	208	3	6.2	MCA	Washer	K1	1,3.5.	3	#12	3/4"	Schedule Note 1
2	E2	J-Box	Wall	36"	120	1	9.8	MCA	Dryer	K1	7	2	#12	3/4"	
2	E3	J-Box	Wall	36"	208	3	6.2	MCA	Washer	K1	9,11,13.	3	#12	3/4"	Schedule Note 2
2	E4	J-Box	Wall	36"	120	1	9.8	MCA	Dryer	K1	15	2	#12	3/4"	Schedule Note 2
----	E5.1	DCO	Wall	48"	120	1	1.44	kW	Conv	K1	17	2	#12	3/4"	Dedicated Circuit
----	E5.2	DCO	Wall	48"	120	1	1.44	kW	Conv	K1	19	2	#12	3/4"	Dedicated Circuit
----	E6.1	DCO	Wall	18"	120	1	1.44	kW	Conv	K1	21	2	#12	3/4"	Dedicated Circuit
----	E6.2	DCO	Wall	18"	120	1	1.44	kW	Conv	K1	23	2	#12	3/4"	Dedicated Circuit
----	E6.3	DCO	Wall	18"	120	1	1.44	kW	Conv	K1	25	2	#12	3/4"	Dedicated Circuit
6	E7	J-Box	Wall	Verify	120	1	Verify	MCA	Ice Mach	K1	27	2	#12	3/4"	Verify with Existing Equipment
10	E8	Washer	Wall	13"	208	3	2	HP	Washer - Booster Htr	K1	29,31,33.	3	#10	3/4"	& 5kW (Single Point Conn)
10	E9	J-Box	Wall	11"	208	3	8.5	kW	Washer - Booster Htr	K1	35,37,39.	3	#10	3/4"	----
10	E10	DCO	Wall	66"	120	1	1.44	kW	Washer - Detergent	K1	41	2	#12	3/4"	Dedicated Circuit
----	E11	Not Used	----	----	----	----	----	----	----	----	----	----	----	----	----
----	E12	Not Used	----	----	----	----	----	----	----	----	----	----	----	----	----
----	E13.1	Cord Drop	Ceiling	----	120	1	1.44	kW	Conv	K1	43	2	#12	3/4"	Schedule Note 3, Dedicated Circuit
----	E13.2	Cord Drop	Ceiling	----	120	1	1.44	kW	Conv	K1	45	2	#12	3/4"	Schedule Note 3, Dedicated Circuit
----	E13.3	Cord Drop	Ceiling	----	120	1	1.44	kW	Conv	K1	47	2	#12	3/4"	Schedule Note 3, Dedicated Circuit
----	E13.4	Cord Drop	Ceiling	----	120	1	1.44	kW	Conv	K1	49	2	#12	3/4"	Schedule Note 3, Dedicated Circuit
18	E14	J-Box	Ground	Verify	208	3	1	HP	W.I. Cooler - CU	K1	2,4,6.	3	#12	3/4"	System A - Beacon System
18	E15	J-Box	Ground	Verify	208	3	2 1/2	HP	W.I. Freezer - CU	K1	8,10,12.	3	#12	3/4"	System B - Beacon System
18	E16	J-Box	Ceiling	----	120	1	2	MCA	W.I. Cooler - Evap	K1	14	2	#12	3/4"	System A - Beacon System
17	E17	J-Box	Ceiling	----	120	1	0.5	kW	W.I. Cooler - Dr Htr	K1	16	2	#12	3/4"	----
18	E18	J-Box	Ceiling	----	208	1	10	MCA	W.I. Freezer - Evap	K1	18,20.	2	#12	3/4"	System B - Beacon System
17	E19	J-Box	Ceiling	----	120	1	0.16	kW	W.I. Lights	K1	22	2	#12	3/4"	80w each
17	E20	J-Box	Ceiling	----	120	1	0.5	kW	W.I. Door Htr	K1	24	2	#12	3/4"	----
43	E21	DCO	Fixture	34"	120	1	13.4	MCA	Microwave Oven	K1	26	2	#12	3/4"	Schedule Note 4
33	E22	J-Box	Wall	Verify	120	1	15	MCA	Hood Demand Control Pnl	K1	28	2	#12	3/4"	Schedule Note 5
33	E23	J-Box	Wall	Verify	120	1	15	MCA	Hood Demand Control Pnl	K1	30	2	#12	3/4"	Schedule Note 5
30	E24.1	DCO	Fixture	34"	120	1	2.9	MCA	Mixer - 5 qt	K1	32	2	#12	3/4"	Schedule Note 6
30	E24.2	DCO	Fixture	34"	120	1	2.9	MCA	Mixer - 5 qt	K1	34	2	#12	3/4"	Schedule Note 6
30	E24.3	DCO	Fixture	34"	120	1	2.9	MCA	Mixer - 5 qt	K1	36	2	#12	3/4"	Schedule Note 6
30	E24.4	DCO	Fixture	34"	120	1	2.9	MCA	Mixer - 5 qt	K1	38	2	#12	3/4"	Schedule Note 6
28	E25.1	DCO	Fixture	34"	120	1	7	MCA	Food Processor	K1	40	2	#12	3/4"	Schedule Note 6
28	E25.2	DCO	Fixture	34"	120	1	7	MCA	Food Processor	K1	42	2	#12	3/4"	Schedule Note 6
28	E25.3	DCO	Fixture	34"	120	1	7	MCA	Food Processor	K1	44	2	#12	3/4"	Schedule Note 6
31	E26.1	DCO	Fixture	34"	120	1	8	MCA	Mixer - 20 qt	K1	46	2	#12	3/4"	Schedule Note 6
31	E26.2	DCO	Fixture	34"	120	1	8	MCA	Mixer - 20 qt	K1	48	2	#12	3/4"	Schedule Note 6
37	E27.1	DCO	Wall	27"	120	1	3.5	MCA	Stack Conv Oven	K2	1	2	#12	3/4"	NEMA 5-15P
37	E27.2	DCO	Wall	53"	120	1	3.5	MCA	Stack Conv Oven	K2	5	2	#12	3/4"	NEMA 5-15P
38	E28.1	DCO	Wall	30"	120	1	3.4	MCA	Range	K2	9	2	#12	3/4"	NEMA 5-15P
38	E28.2	DCO	Wall	30"	120	1	3.4	MCA	Range	K2	13	2	#12	3/4"	NEMA 5-15P
38	E28.3	DCO	Wall	30"	120	1	3.4	MCA	Range	K2	17	2	#12	3/4"	NEMA 5-15P
----	E29	Not Used	----	----	----	----	----	----	----	----	----	----	----	----	----
33	E30	J-Box	Ceiling	----	120	1	15	MCA	Hood Ltg & Hood Controls	K2	2	2	#12	3/4"	----
33	E31	J-Box	Wall	102"	120	1	1	kW	Fire Protection Sys	K2	4	2	#12	3/4"	----
40	E32	SCO	Wall	36"	120	1	16	MCA	Proofing Cabinet	K2	6	2	#12	3/4"	NEMA 5-15P
33	E33	J-Box	Wall	48"	120	1	----	MCA	Hood Room Sensor	K2	8	2	#12	3/4"	Schedule Note 7

General Notes:

- 1 PROVIDE CONDUIT FOR ALL FEEDERS, SIZE AS REQUIRED PER THE CURRENT EDITION OF THE N.E.C.
- 2 CONDUCTORS SHOWN, ROUTE FROM UNIT TO PANEL DESIGNATED.
- 3 COORDINATE EXACT LOCATIONS AND CONNECTION REQUIREMENTS OF EQUIPMENT
- 4 COORDINATE ELECTRICAL REQUIREMENTS AND INSTALLATION WITH EQUIPMENT SUPPLIER
- 5 PROVIDE INSULATED GROUND WIRE IN ALL CONDUITS, NOT SHOWN IN CONDUCTOR QUANTITY
- 6 CONNECT TO DUCT DETECTORS PROVIDED BY DIVISION 23 INSTALLED AND WIRED BY DIVISION 26.
- 7 CONNECT TO MOTOR STARTERS PROVIDED BY DIVISION 26 INSTALLED AND WIRED BY DIVISION 26.
- 8 RECEPTACLES ARE PROVIDED WITH MECHANICAL UNITS, SHOWN FOR REFERENCE ONLY.
- 9 SEE MECHANICAL PLANS FOR ADDITIONAL ELECTRICAL REQUIREMENTS.
- 10 PROVIDE ALL LABOR & MATERIAL FOR A COMPLETE INSTALLATION.
- 11 SEE CURRENT FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.

Schedule Notes:

- 1 PROVIDE RECEPTACLE TO MATCH WASHER PROVIDED
- 2 PROVIDE BLANK COVER FOR FUTURE EQUIPMENT, CONDUCTORS TO BE INSTALLED
- 3 PROVIDE RECESSED RECEPTACLE & COPACT POWER CORD REEL, 20 AMP, 12/3, SINGLE RECEPTACLE
- 4 RECEPTACLE, RETRACTABLE, COXREEL MODEL #PC10-3012-A OR APPROVED
- 5 FURNISH WITH NEMA 5-15P. VERIFY WITH EXISTING EQUIPMENT, EXTEND FROM FLOOR
- 6 VERIFY HEIGHT, RUN CAT 5 CABLE TO WALL MOUNTED SWITCH @ 48" AFF.
- 7 FURNISH WITH NEMA 5-15P. EXTEND FROM FLOOR
- 8 WIRE TO HOOD CONTROL BOARD W/ PROVIDED 2-WIRE LOW VOLTAGE CABLE
- 9 PROVIDE WP DISCONNECT SWITCH FOR MECHANICAL EQUIPMENT, COORDINATE LOCATION WITH EQUIPMENT
- 10 INSTALLER, SWITCH WILL BE INDEPENDANTLY MOUNTED FROM EQUIPMENT.
- 11 EQUIPMENT UNDER THE HOOD TO BE PROVIDED WITH A SHUNT TRIP BREAKER AT THE PANEL
- 12 SEE ONE LINE DIAGRAM FOR FEEDER INFORMATION
- 13 PROVIDE CONTROL WIRE FOR SHUNT TRIP C/B, CONNECT COMPLETE TO FIRE CONTROL SYSTEM
- 14 EF - INTERLOCKS WITH LIGHT SWITCH
- 15 FAN COIL UNIT TO BE INTERCONNECTED WITH HEAT PUMP

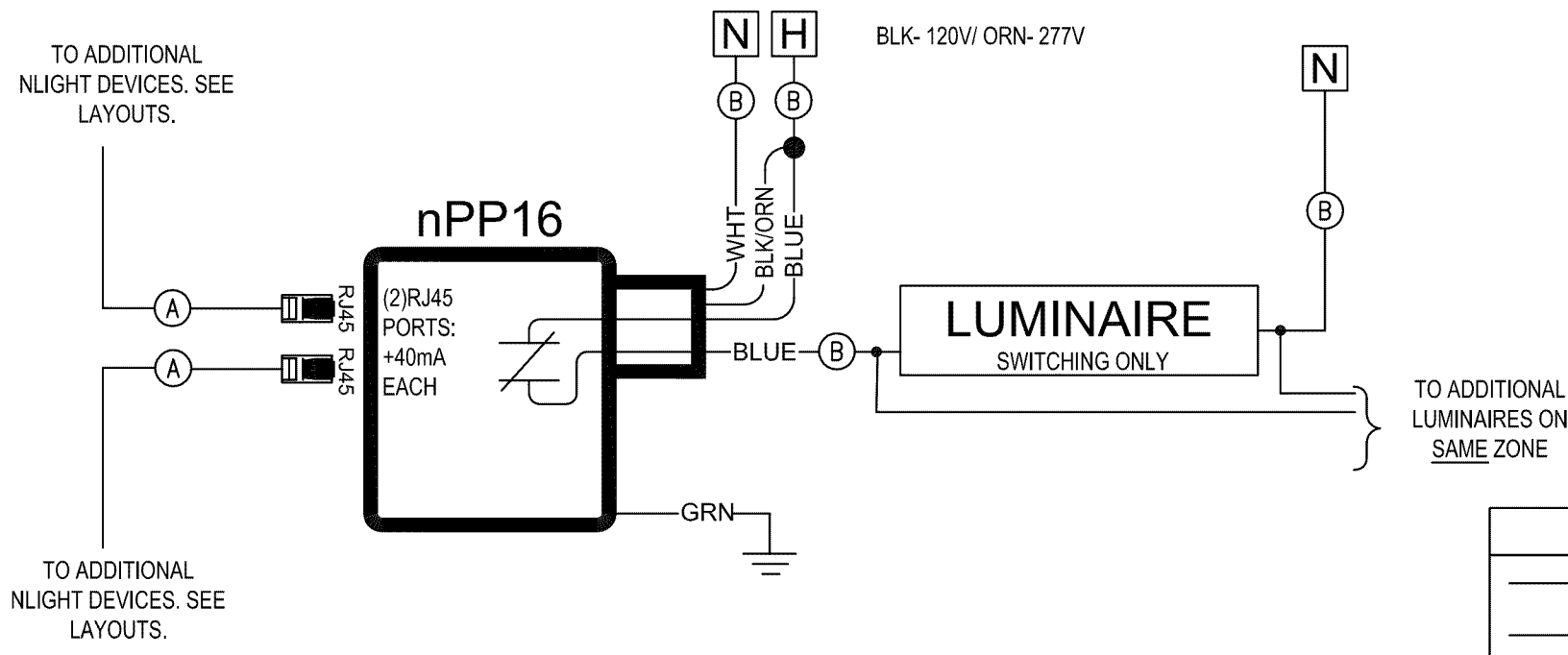
Panel KK1		X		Mio		Volts		120 / 208	
Location				MB		Buss Rating		225 Amps	
		A	B	C		A	B	C	
1	Service	P	Amps	Watts	Watts	Watts			2
3	E1	3	20	745	745		4	E14	3
5						745	6		576
7	E2 - GFCI	1	20	1176			8		1320
9					745		10	E15	3
11	E3	3	20		745	12			1320
13				745			14	E16	1
15	E4 - GFCI	1	20		1176		16	E17	1
17	E5.1 - GFCI	1	20			1440	18	E18	2
19	E5.2 - GFCI	1	20	1440			20		600
21	E6.1 - GFCI	1	20		1440		22	E19	1
23	E6.2 - GFCI	1	20			1440	24	E20	1
25	E6.3 - GFCI	1	20	1440			26	E21 - GFCI	1
27	E7	1	20				28	E22	1
29					2600		30	E23	1
31	E8	3	30	2600			32	E24.1 - GFCI	1
33					2600		34	E24.2 - GFCI	1
35						2833	36	E24.3 - GFCI	1
37	E9	3	30	2833			38	E24.4 - GFCI	1
39					2833		40	E25.1 - GFCI	1
41	E10 - GFCI	1	20			1440	42	E25.2 - GFCI	1
43	E13.1 - GFCI	1	20	1440			44	E25.3 - GFCI	1
45	E13.2 - GFCI	1	20		1440		46	E26.1 - GFCI	1
47	E13.3 - GFCI	1	20			1440	48	E26.2 - GFCI	1
49	E13.4 - GFCI	1	20	1440			50	Spare	1
51	Spare - GFCI	1	20				52	Spare - GFCI	1
53	Spare - GFCI	1	20				54	Spare - GFCI	1

Notes:	Phase A	19,739	Watts	164	Amp	Lighting :	988	125%	1235
R - Receptacle	Phase B	17,643	Watts	147	Amp	Motors :	13182	100%	13182
L - Lighting	Phase C	19,627	Watts	164	Amp	Largest - Motor :	7800	125%	9750
GFCI - GFCI Circuit Breaker						Other :	56196	100%	56196
AFCI - Arc Fault Circuit Interrupter						Continuous Other :	125%		0

FEED THRU LUGS : <input type="checkbox"/>		Total		57,009	Watts	156	Amp	Total :		78166	Watts
Panel Bracing: 22KAIC SC								Note: Loads include Sub-Pnls -		KK2	
								Total Watts :		80363	
								Average Amps :		223	

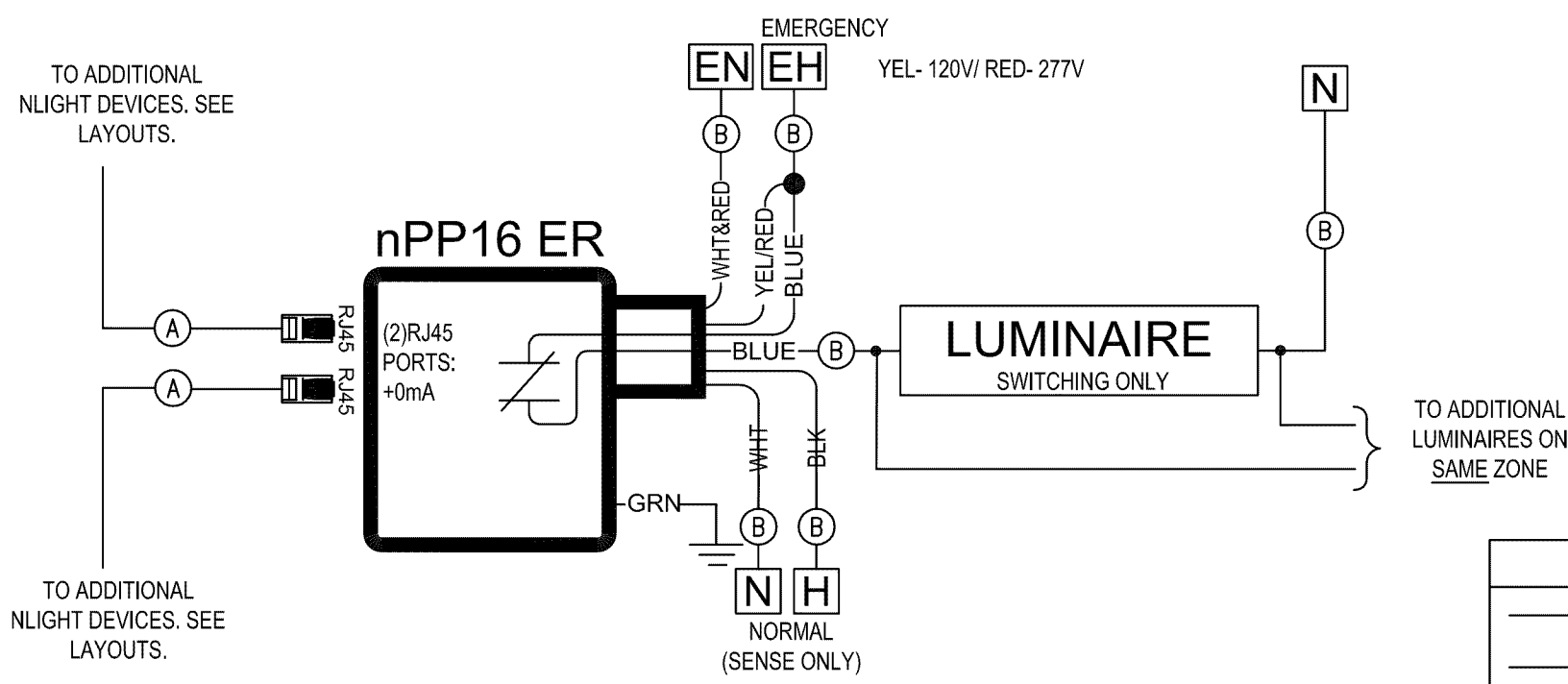
Panel KK2		X		Mio		Volts		120 / 208	
Location				MB		Buss Rating		225 Amps	
		A	B	C		A	B	C	
1	E27.1	1	20	420		2	E30	1	20
3	Shunt Trip					4	E31	1	20
5	E27.2	1	20		420	6	E32	1	20
7	Shunt Trip					8	E33	1	20
9	E28.1	1	20		420	10	L - Kitchen	1	20
11	Shunt Trip					12	R - Roof	1	20
13	E28.2	1	20	420		14	Spare	1	20
15	Shunt Trip					16	Spare	1	20
17	E28.3	1	20		420	18	Spare	1	20
19	Shunt Trip					20	Spare	1	20
21	Spare	1	20			22	Spare	1	20
23	Spare	1	20			24	Spare	1	20
25	Spare	1	20			26	Spare	1	20
27	Spare	1	20			28	Spare	1	20
29	Spare	1	20			30	Spare	1	20
31	Spare	1	20			32	Spare	1	20
33	Space					34	Space		
35	Space					36	Space		
37	Space					38			
39	Space					40	MAU-1	3	30
41	Space					42			
43	Space					44		1105	
45	Space					46	KEF-1	3	15
47	Space					48			1105
49	Space					50			
51	Space					52	KEF-2	3	15
53	Space					54			1105

Notes:	Phase A	7,214	Watts	60	Amp	Light
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TYPICAL WIRING DIAGRAM: NPP16

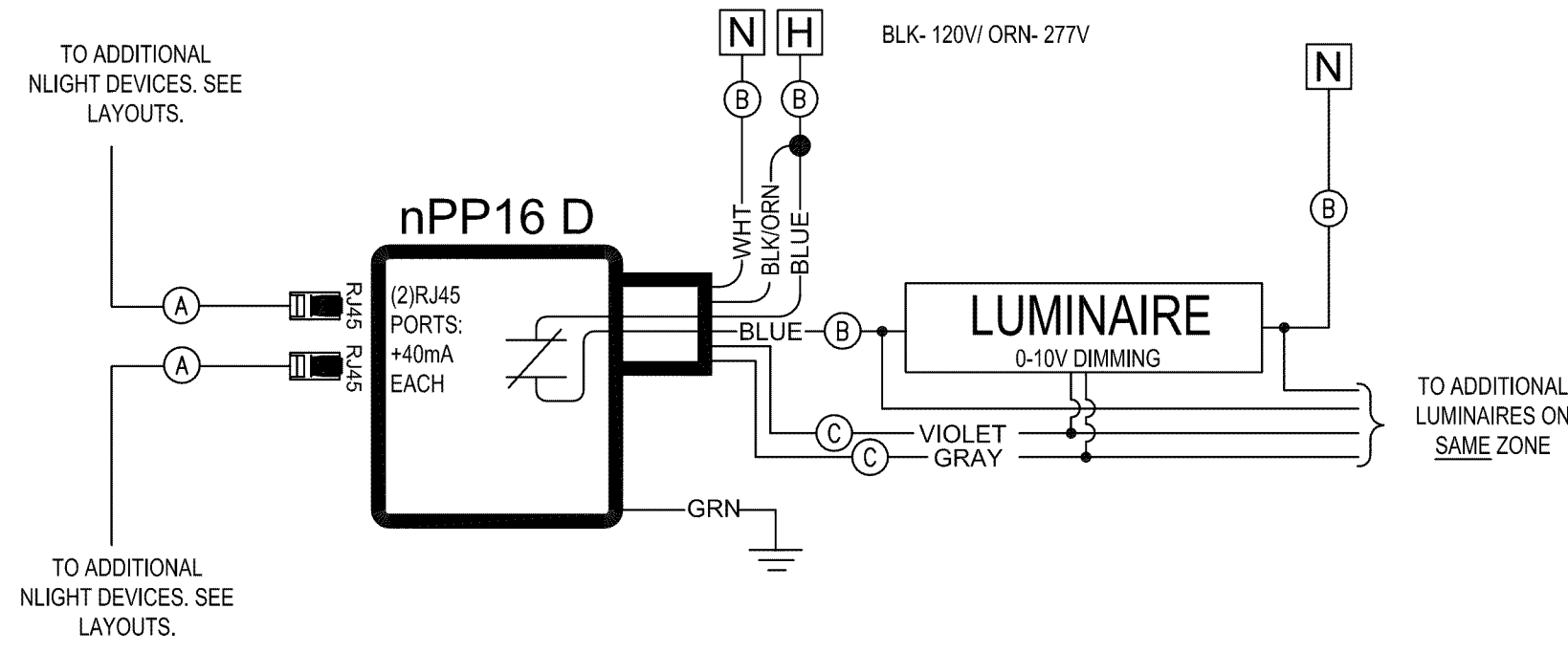
N.T.S.



TYPICAL WIRING DIAGRAM: NPP16 ER

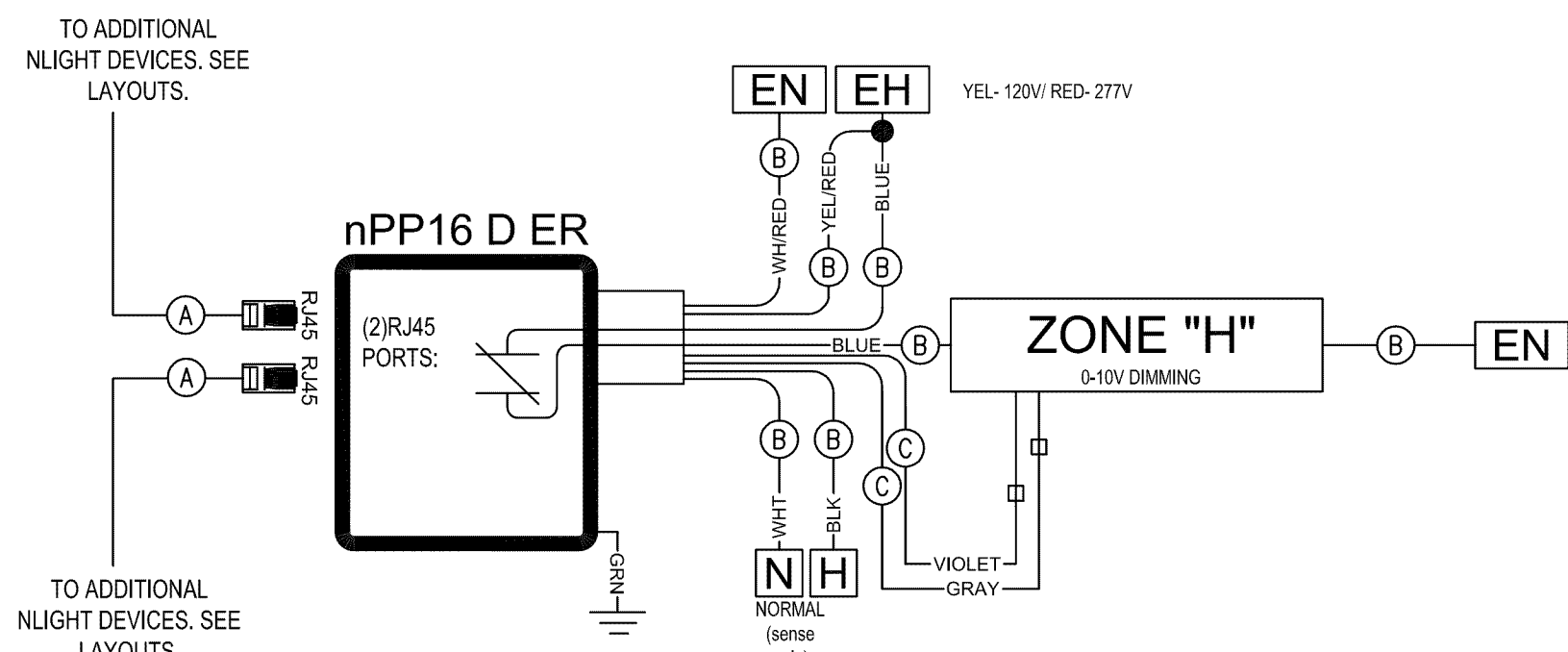
N.T.S.

EMERGENCY



TYPICAL WIRING DIAGRAM: NPP16 D

N.T.S.



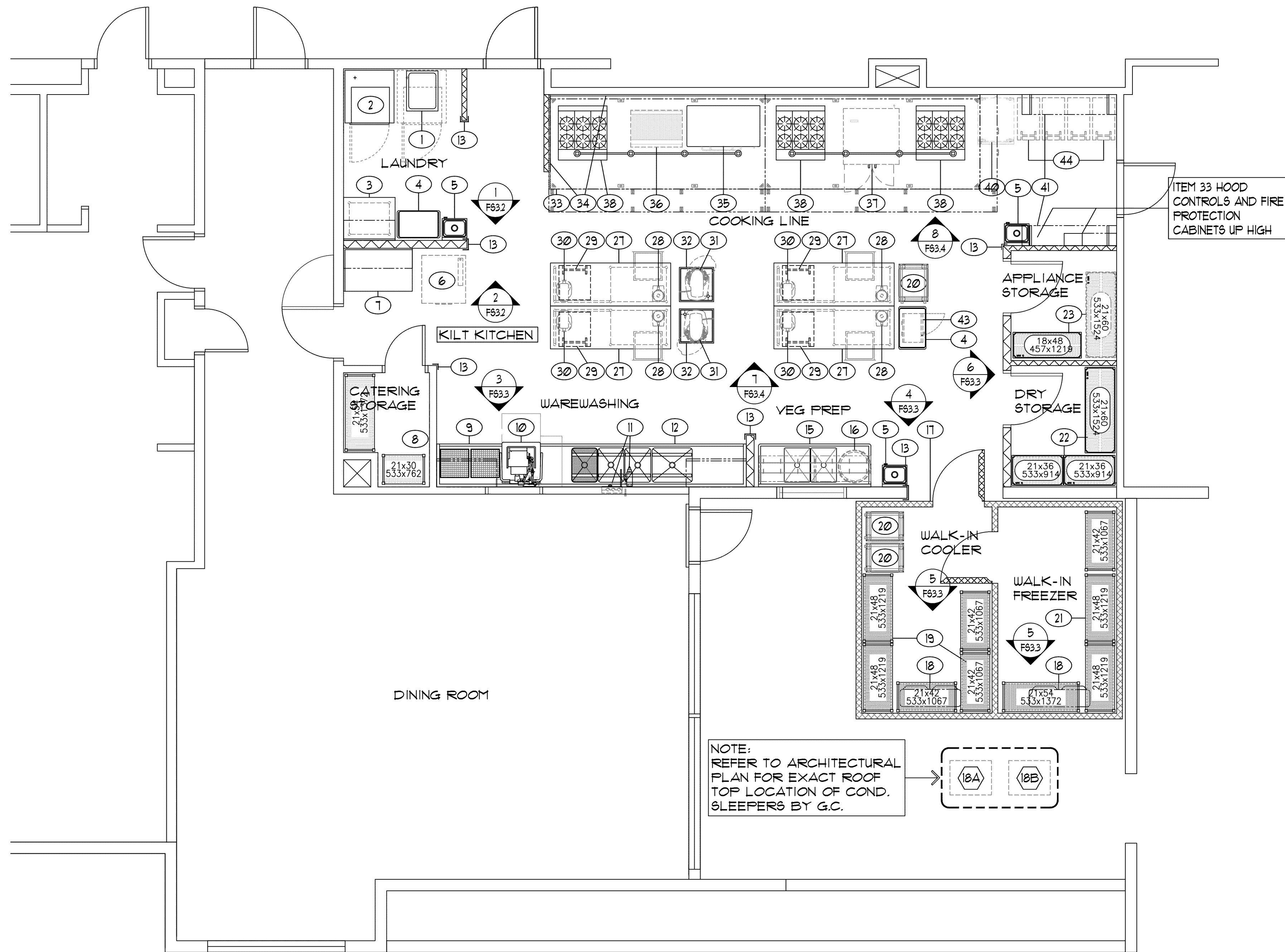
TYPICAL WIRING DIAGRAM: NPP16 D ER

N.T.S.

PARTIAL LEGEND (LTG)

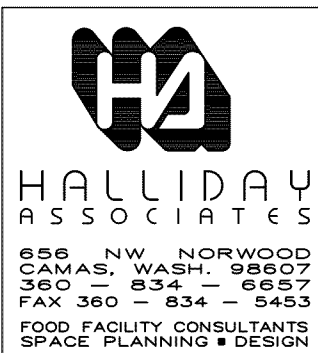
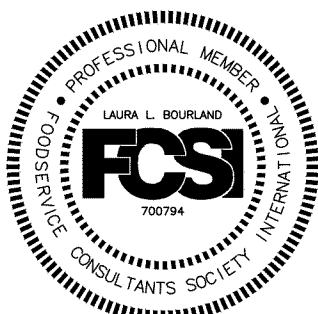
- \$25 WSD-2P (SENSOR SWITCH) - WALL SWITCH
- \$30 nPODM 1SB - WALL SWITCH (ON-OFF)
- \$42 nPODM 2S - WALL SWITCH (2 POLE / ON-OFF)
- \$5 nPODM DX - WALL SWITCH
- \$40 nPODM DX - WALL SWITCH - ON/OFF - RAISE/LOWER - W/ 0-10V DIMMING
- \$14.5 nPODM 2P DX
- \$30 WSX-PDT-EZ-D-SA - WALL SWITCH W/ OCCUPANCY SENSOR W/ 0-10VAC DIMMING
- 15 nCM PDT 10
- 15 nCM ADCX - AUTOMATIC DIMMING CONTROL PHOTOCELL
- 15 nIO IS - CONTACT CLOSURE INPUT DEVICE
- 15 nPP16 D - POWER RELAY PACK, 16A, 120/277 VAC W/ 0-10VDC DIMMING
- 15 nPP16 D ER - POWER RELAY PACK, 16A, 120/277 VAC UL-924, W/ 0-10VDC DIMMING
- 15 nPOD GFX - GRAPHIC WALL POD
- 15 nECLYPSE W/ ENCLOSURE
- C — DENOTES CAT5E CABLE (VERIFY WITH MANUFACTUER)
- K — DENOTES 2 #18 DIMMING CONDUCTOR (VERIFY WITH MANUFACTUER)

NOTE:
#1 - UNLESS OTHERWISE NOTED ALL MODEL NUMBERS REFER TO nLIGHT COMPONENTS.
#2 - CONNECT nLIGHT ENABLED FIXTURES AND nLIGHT CONTROL COMPONENTS VIA CAT5E CABLE PER MANUFACTURES RECOMMENDATION.
#3 - CONNECT FIXTURES AND CONTROL COMPONENTS NOT nLIGHT ENABLE WITH LV CONDUCTORS, VERIFY QUANTITY WITH LUMINAIRE PROVIDED, VERIFY VOLTAGE DROP AND SIZE AS REQUIRED.
#4 - PROVIDE FACTORY ENGINEERED DRAWINGS SHOWING EQUIPMENT, LAYOUT, SYSTEM RISER, WIRING AND COMPONENT DATA SHEETS.
#5 - PROVIDE FACTORY AUTHORIZED SYSTEM START-UP AND OWNER TRAINING.
#6 - ELECTRICAL CONTRACTOR WILL PROVIDE ALL LABOR AND MATERIAL REQUIRED FOR A COMPELTE AND OPERATIONAL LIGHTING AND CONTROL SYSTEMS INCLUDING BUT NOT BE LIMITED TO CONDUCTORS, LV CONDUCTORS, CONDUIT, JUNCTION BOXES, POWER SUPPLIES, SWITCHES AND SUPPORTS WEATHER SPECIFICALLY SHOWN



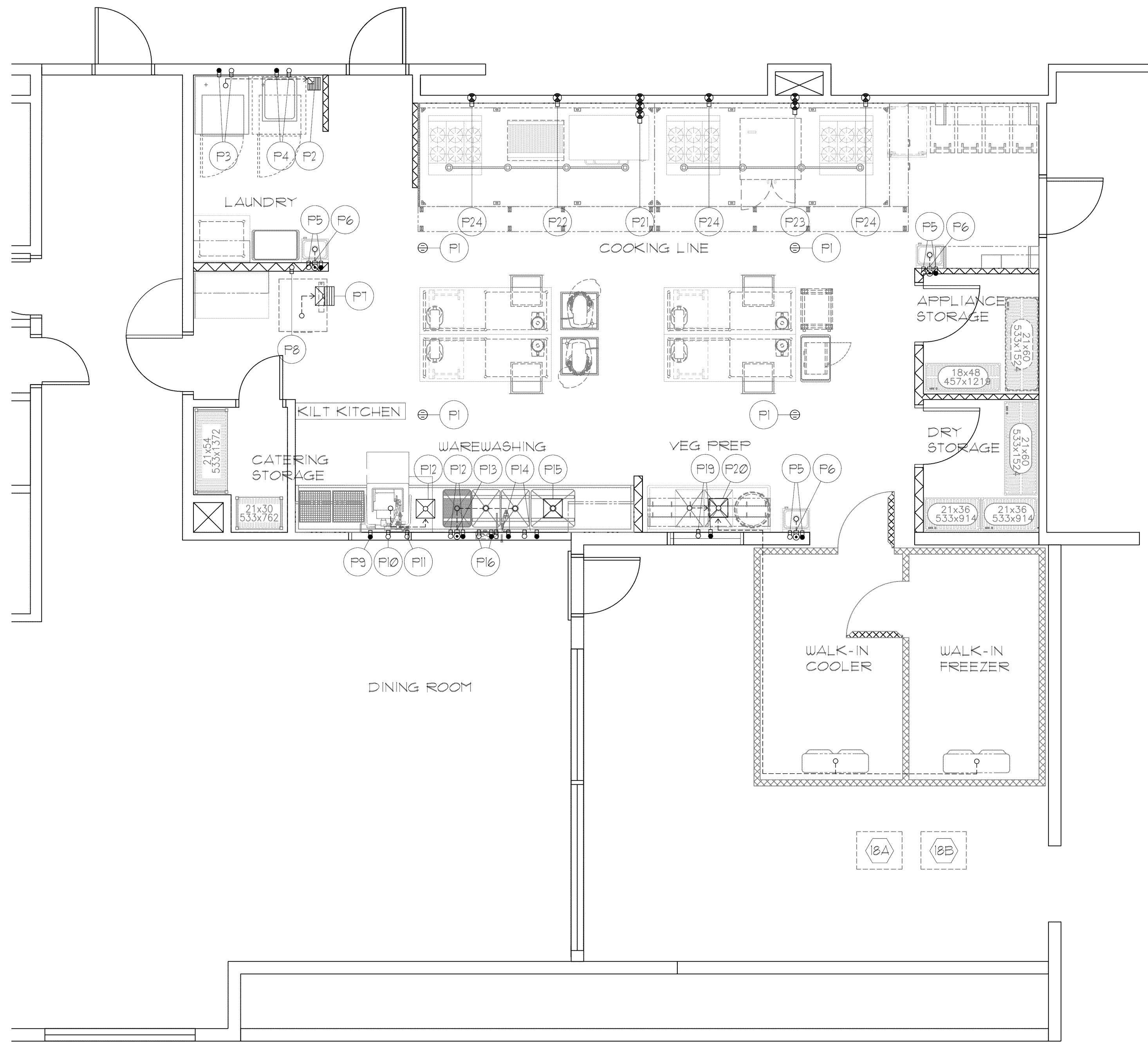
EQUIPMENT SCHEDULE			
ITEM	DESCRIPTION	QUAN	REMARKS
1	SOILED LAUNDRY CART	1	---
2	STACKING COMMERCIAL WASHER/DRYERS	2	ONE IS FUTURE
3	FOLDING TABLE	1	---
4	MOBILE UTILITY CARTS	2	---
5	HAND WASHING SINKS	3	---
6	CUBE ICE MACHINE WITH STORAGE BIN	1	EXISTING EQUIPMENT - RELOCATE/REINSTALL
7	DINING SUPPORT COUNTER	1	---
8	CATERING SHELVEING	LOT	---
9	CLEAN DISHTABLE	1	---
10	VENTLESS WAREWASHER WITH BOOSTER HEATER	1	---
11	HOSE REEL WITH CONTROL CABINET	1	---
12	SOILED DISHTABLE WITH POTWASHING SINKS	1	---
13	CORNER/CHANNEL GUARDS	LOT	NOT YET SHOWN
14	NOT USED	---	---
15	VEGETABLE PREP SINK TABLE	1	---
16	WASTE RECEPTACLE	1	EXISTING EQUIPMENT - RELOCATE/REINSTALL
17	WALK-IN COLD STORAGE ROOMS	2	---
18	REFRIGERATION SYSTEMS	2	---
19	WALK-IN COOLER SHELVEING	LOT	---
20	MOBILE SHEET PAN RACKS	2	---
21	WALK-IN FREEZER SHELVEING	LOT	---
22	DRY STORAGE SHELVEING	LOT	---
23	APPLIANCE STORAGE SHELVEING	LOT	ONE NEW AND ONE EXISTING
24	NOT USED	---	---
25	NOT USED	---	---
26	NOT USED	---	---
27	STUDENT WORK STATIONS	4	---
28	FOOD PROCESSORS	4	EXISTING EQUIPMENT - RELOCATE/REINSTALL
29	MOBILE INGREDIENT BINS	4	EXISTING EQUIPMENT - RELOCATE/REINSTALL
30	5-QUART MIXERS	4	EXISTING EQUIPMENT - RELOCATE/REINSTALL
31	20-QUART MIXERS	2	EXISTING EQUIPMENT - RELOCATE/REINSTALL
32	MOBILE MIXER CARTS	2	---
33	CANOPY HOOD WITH FIRE PROTECTION SYSTEM	1	---
34	STAINLESS STEEL WALL FLASHING	LOT	---
35	TRIPLE DECK OVENS	1	ON CASTERS
36	BROILER WITH STAND	1	EXISTING EQUIPMENT - RELOCATE/REINSTALL
37	DOUBLE STACK CONVECTION OVENS	1	TOP NEW/BOTTOM OVEN EXISTING - RELOCATE/REINSTALL
38	OPEN BURNER RANGES	3	ON CASTERS
39	NOT USED	---	---
40	MOBILE HOT HOLDING/PROOFING CABINET	1	EXISTING EQUIPMENT - RELOCATE/REINSTALL
41	WALL MOUNT SHELVEING	2	CONFIRM HEIGHT WITH OWNER
42	NOT USED	---	---
43	MICROWAVE OVEN	1	EXISTING EQUIPMENT - RELOCATE/REINSTALL
44	MOBILE INGREDIENT BINS	4	EXISTING EQUIPMENT - RELOCATE/REINSTALL

1 FLOOR PLAN - FOOD SERVICE EQUIPMENT PLAN
1/4" = 1'-0"



DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233

BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034

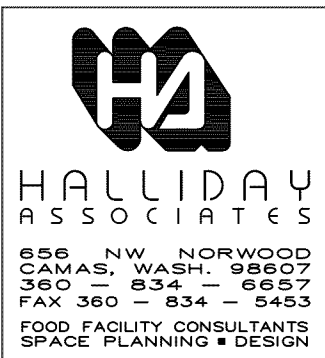
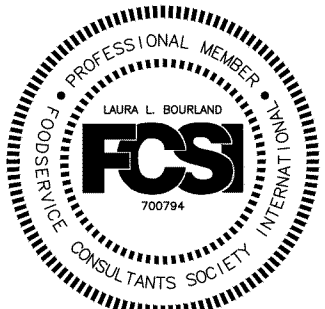


1 FLOOR PLAN - FOOD SERVICE PLUMBING PLAN
1/4" = 1'-0"

PLUMBING SCHEDULE							
ITEM NO.	P. NO.	SIZE	DESCRIPTION	LOCATION	HEIGHT	SERVICE TO :	REMARKS:
---	P1	---	FLOOR DRAIN	FLOOR	-1/2"	AREA DRAIN	---
2	P2	8" x 8"	FLOOR SINK	FLOOR	0"	STACKING COMMERCIAL WASHER/DRYER	THREE-QUARTER GRATE
2	P3	3/4"	HOT & COLD	WALL	24"	STACKING COMMERCIAL WASHER/DRYER	35 GPH HOT @ 120" . COLD FOR FIRE PROTECTION SYSTEM
2	P4	3/4"	HOT & COLD	WALL	24"	STACKING COMMERCIAL WASHER/DRYER	35 GPH HOT @ 120" . CAP FOR FUTURE EQUIPMENT
5	P5	1/2"	HOT & COLD	WALL	22"	HAND WASHING SINK	20 GPH HOT
5	P6	1-1/2"	WASTE	WALL	20"	HAND WASHING SINK	---
6	P7	12" x 12"	FLOOR SINK	FLOOR	0"	CUBE ICE MACHINE WITH BIN	HALF GRATE
6	P8	1/2"	COLD	WALL	VERIFY	CUBE ICE MACHINE WITH BIN	VERIFY REQUIREMENTS WITH EXISTING EQUIPMENT
10	P9	1/2"	HOT @ 110"	WALL	42"	VENTLESS WAREWASHER WITH BOOSTER HEATER	30 GPH HOT @ 20 PSI
10	P10	1/2"	COLD	WALL	73"	WAREWASHER INTERNAL CONDENSING SYSTEM	---
10	P11	1/2"	COLD	WALL	12"	WAREWASHER DRAIN WATER TEMPERING	---
10	P12	12" x 12"	FLOOR SINK	FLOOR	0"	VENTLESS WAREWASHER WITH BOOSTER HEATER	NO GRATE
12	P13	2"	WASTE	WALL	9"	(3) SINK DRAINS	CONNECT TO GREASE INTERCEPTOR
12	P14	1/2"	HOT & COLD	WALL	16"	SINK FAUCETS	20 GPH HOT
12	P15	12" x 12"	FLOOR SINK	FLOOR	0"	(1) SINK DRAIN	NO GRATE
11	P16	1/2"	HOT & COLD	WALL	78"	HOSE REEL WITH RECESSED CONTROL CABINET	40 GPH HOT
---	P17	---	NOT USED	---	---	---	---
---	P18	---	NOT USED	---	---	---	---
15	P19	1/2"	HOT & COLD	WALL	16"	SINK FAUCET	20 GPH HOT
15	P20	12" x 12"	FLOOR SINK	FLOOR	0"	(2) SINK DRAINS & WALK-IN EVAPORATOR DRAINS	NO GRATE
35	P21	3/4"	GAS	WALL	21" / 49" / 71"	TRIPPLE STACK DECK OVENS	20M BTU EACH CONNECTION- QUICK DISCONNECTS
36	P22	3/4"	GAS	WALL	26"	BROILER WITH STAND (EXISTING EQUIPMENT)	120M BTU TOTAL CONNECTION- QUICK DISCONNECT
37	P23	1/2"	GAS (STACKED)	WALL	22" 54"	DOUBLE STACK CONVECTION OVENS (ONE NEW)	60M BTU EACH CONNECTION- QUICK DISCONNECTS
38	P24	3/4"	GAS	WALL	34"	OPEN BURNER RANGE	184M BTU TOTAL CONNECTION- QUICK DISCONNECT
---	P25	---	NOT USED	---	---	---	---
---	P26	---	NOT USED	---	---	---	---

PLUMBING NOTES	
1.	THIS DRAWING IS NOT TO BE USED FOR ESTABLISHING ROUGH-IN LOCATIONS. REFER TO DIMENSIONED DRAWING PREPARED BY THE KITCHEN EQUIPMENT CONTRACTOR.
2.	UNDER PLUMBING WORK OF DIVISION 22, MAKE ALL ROUGH-INS AND FINAL CONNECTIONS IN CONFORMANCE WITH LOCAL CODES. PROVIDE SHUT-OFF VALVES WITH PERMANENT NAME TAGS IDENTIFYING SUPPLY LINES TO EACH INDIVIDUAL PIECE OF EQUIPMENT. INCLUDE TRAPS, TAIL PIECES, AND LINE STRAINERS AS REQUIRED.
3.	UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL ALL FLOOR SINKS AND AREA DRAINS FLUSH WITH FINISHED FLOOR IF CODE ALLOWS.
4.	UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL GREASE TRAP OR INTERCEPTOR AS REQUIRED.
5.	UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL ALL SINK WASTE LINES. USE COPPER TUBING UNEXPOSED AND PAINTED WHERE LINES ARE VISIBLE. NO PVC PIPING IS ACCEPTABLE.
6.	UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, FURNISH AND INSTALL ALL INDIRECT WASTE LINES FROM EQUIPMENT LOCATED AT CUSTOM COUNTERS. USE COPPER TUBING AND PAINT VISIBLE LINES. NO PVC PIPING IS ACCEPTABLE.
7.	UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, PROVIDE FAUCETS AT EQUIPMENT. UNDER PLUMBING WORK OF DIVISION 22, INSTALL AND CONNECT FAUCETS.
8.	UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL CHROME PLATED VACUUM BREAKERS OR BACKSYPHONING DEVICES ON SUPPLY LINES TO EQUIPMENT AS REQUIRED BY CODES.
9.	UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL STAINLESS STEEL OR CHROME PLATED ESCUTCHEON PLATES FOR ALL WATER LINES PENETRATING COUNTER TOPS AND BACK SPLASHES.
10.	UNDER PLUMBING WORK OF DIVISION 22, FURNISH PRESSURE REDUCING VALVE FOR ALL GAS, STEAM, AND WATER LINES. MAXIMUM WATER PRESSURE AT BOOSTER HEATER AND DISHWASHER SHALL BE 20 PSI.
11.	UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, FURNISH AND INSTALL WALK-IN COLD STORAGE ROOM EVAPORATOR COPPER DRAIN LINES. TRAP AT OUTLET END.
12.	UNDER KITCHEN EQUIPMENT WORK OF DIVISION 11, FURNISH GAS QUICK DISCONNECT ASSEMBLIES WITH CABLE RESTRAINTS FOR EACH GAS FIRED COOKING APPLIANCE.
13.	UNDER PLUMBING WORK OF DIVISION 22, PROVIDE 110 DEGREE HOT WATER SUPPLY AT WAREWASHER/ BOOSTER HEATER AND HOSE REEL AS SHOWN. VERIFY REQUIRED TEMPERATURE FOR SUPPLY AT SINK FAUCETS WITH LOCAL AND NATIONAL CODES.
14.	UNDER PLUMBING WORK OF DIVISION 22, FURNISH AND INSTALL A SOLENOID VALVE ON PRIMARY GAS SUPPLY TO SHUT-OFF EQUIPMENT DURING FIRE SYSTEM ACTIVATION. SOLENOID SHALL BE ACCESSIBLE FOR SERVICING, TESTING, AND RESETING IN THE EVENT OF SYSTEM ACTIVATION.
15.	SEE PLUMBING AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

PLUMBING/MECHANICAL SYMBOL LEGEND	
COLD WATER	8
HOT WATER	1
WASTE	5
FLOOR DRAIN	6
FLOOR SINK	7



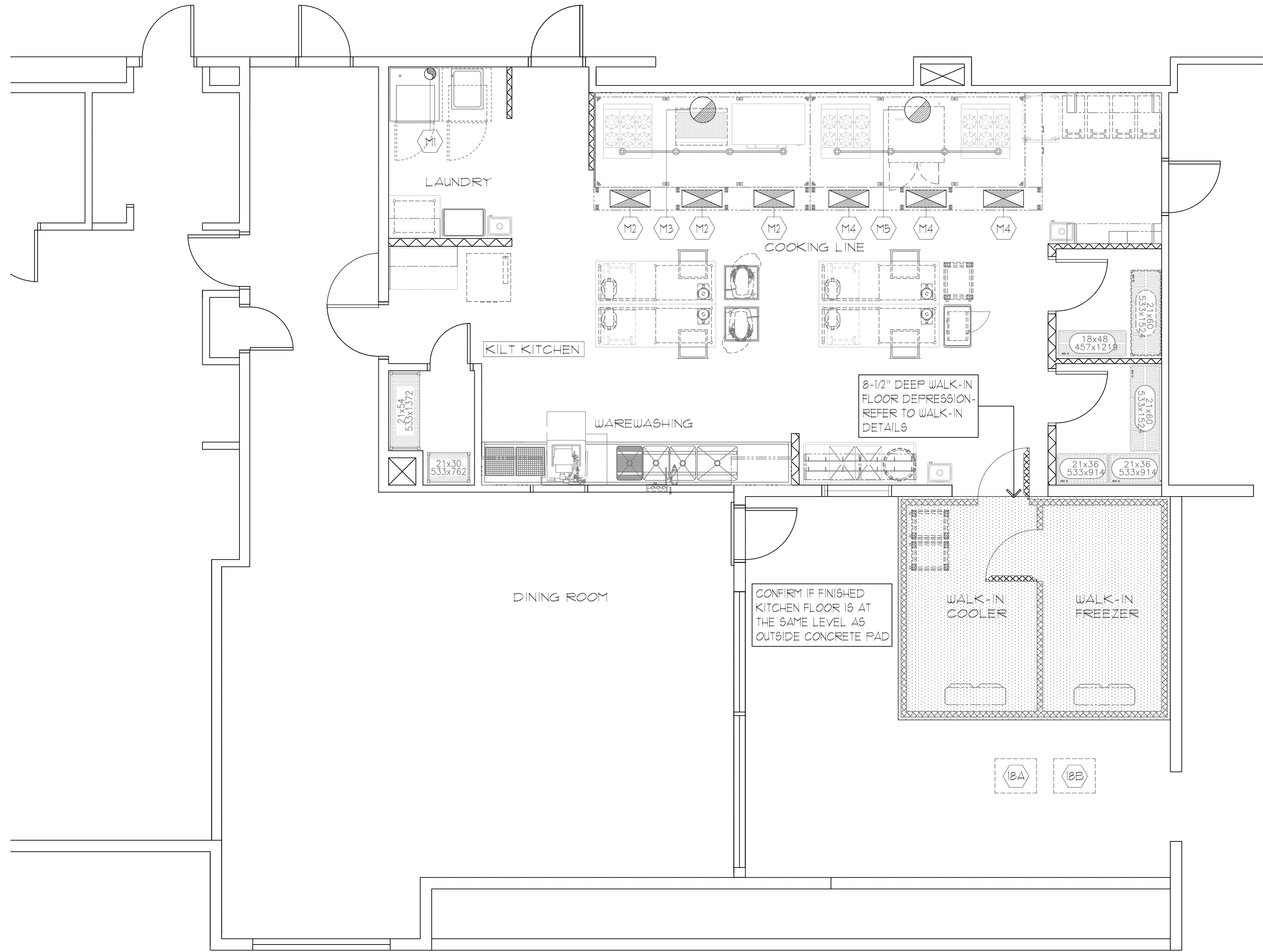
DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
FOOD SERVICE PLUMBING PLAN

10039.00-1
PROJECT NUMBER
21 FEB 2019
DATE
REVISIONS

FS1.2

BID SET

BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034



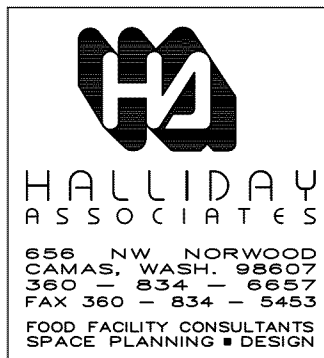
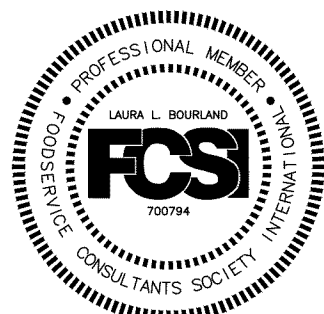
MECHANICAL NOTES

- M1. ONE (1) 6" DIAMETER EXHAUST DUCT CONNECTION AT 20-LB. DRYER.
500 CFM WITH 0.5" STATIC PRESSURE AT DUCT COLLAR.
- M2. THREE (3) 28" X 12" SUPPLY DUCT CONNECTIONS AT CANOPY HOOD.
881 CFM EACH WITH 0.285" STATIC PRESSURE AT DUCT COLLARS.
- M3. ONE (1) 18" DIAMETER TYPE I EXHAUST DUCT CONNECTION AT CANOPY HOOD.
3312 CFM WITH -1.160" STATIC PRESSURE AT DUCT COLLAR.
- M4. THREE (3) 28" X 12" SUPPLY DUCT CONNECTIONS AT CANOPY HOOD.
900 CFM EACH WITH 0.251" STATIC PRESSURE AT DUCT COLLARS.
- M5. ONE (1) 18" DIAMETER TYPE I EXHAUST DUCT CONNECTION AT CANOPY HOOD.
3000 CFM WITH -0.951" STATIC PRESSURE AT DUCT COLLAR.

DEPRESS./MECHANICAL
SYMBOL LEGEND

- | | |
|------------------|--|
| SUPPLY DUCT | |
| EXHAUST DUCT | |
| DRYER DUCT | |
| FLOOR DEPRESSION | |

1 FLOOR PLAN - FOOD SERVICE MECHANICAL PLAN
1/4" = 1'-0"



DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233

18039.00-1
PROJECT NUMBER
21 FEB 2019
DATE

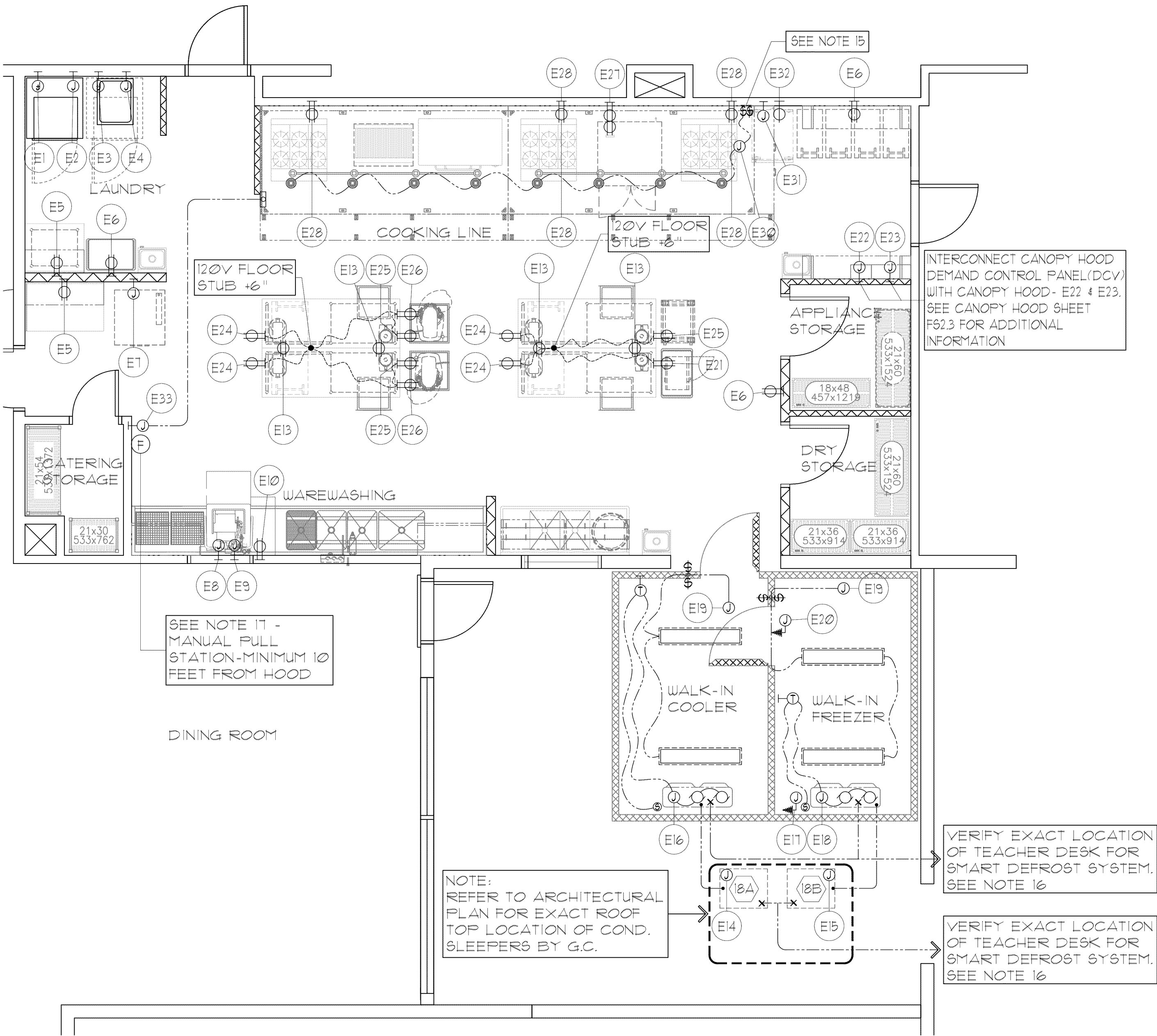
FS1.3

BID SET

BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034

FOOD SERVICE MECHANICAL PLAN

REVISIONS



1 FLOOR PLAN - FOOD SERVICE ELECTRICAL/REFRIGERATION PLAN
1/4" = 1'-0"

FIRE PROTECTION LEGEND

FIRE PROTECTION SYSTEM MANUAL PULL

NOTE:
LOCATE MANUAL FIRE SUPPRESSION PULL STATIONS PER CODES - DEVICES TO BE LOCATED A MINIMUM OF 10 FEET AND A MAXIMUM OF 20 FEET FROM THE KITCHEN EXHAUST SYSTEM IT SERVES. E.C. TO PROVIDE OCTAGON BOX AND RUN EMPTY CONDUIT TO FIRE SUPPRESSION CONTROL HEAD. MINIMUM 12" RADIUS BENDS IN ANY CHANGE OF DIRECTION. SET PULL STATION BOX @ 48" AFF. TO CENTERLINE. TYPICAL ALL LOCATIONS

(F)

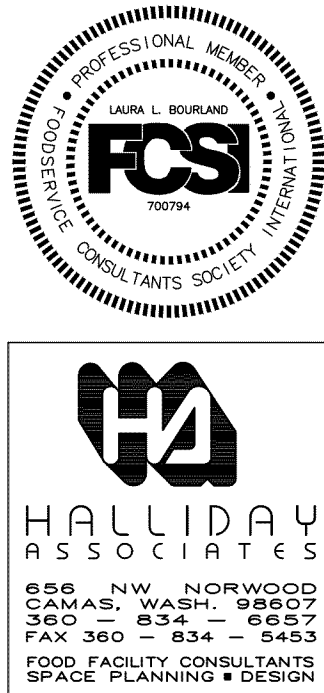
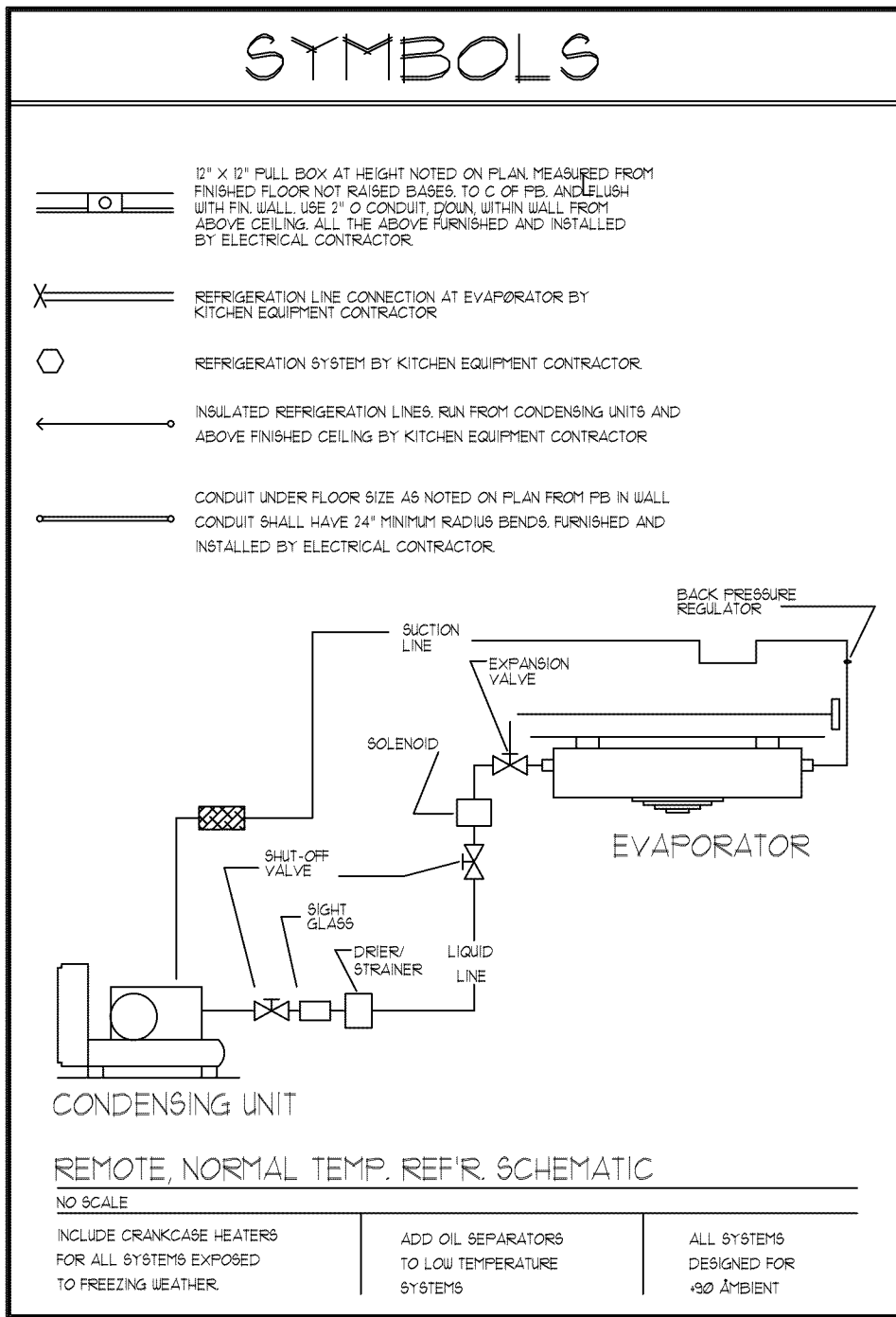
ELECTRICAL SYMBOL LEGEND

DCO (DUPLUX CONVENIENCE OUTLET)	⊕
J-BOX (JUNCTION BOX)	⊙
SCO	⊕
THERMOSTAT	⊕
SOLENOID	⊕
MOTOR	⊕
SWITCH(S)	⊕
LIGHT	⊕
FLOOR OR CEILING STUB (AS NOTED)	•

ELECTRICAL SCHEDULE									
ITEM NO	NO	VOLTS	Ø	DESCRIPTION	LOCN	HEIGHT	SERVICE TO:	RATING	REMARKS
2	E1	208	3	J-BOX	WALL	36"	STACKING COMMERCIAL WASHER	6.2 AMP	---
2	E2	120	1	J-BOX	WALL	36"	STACKING COMMERCIAL DRYER	9.8 AMP	2-WIRE + GROUND
2	E3	208	3	J-BOX	WALL	36"	STACKING COMMERCIAL WASHER	6.2 AMP	PROVIDE COVER PLATE FOR FUTURE WASHER
2	E4	120	1	J-BOX	WALL	36"	STACKING COMMERCIAL DRYER	9.8 AMP	2-WIRE + GROUND. PROVIDE COVER PLATE FOR FUTURE DRYER
---	E5	120	1	DCO	WALL	48"	CONVENIENCE	1440 W	DEDICATED CIRCUIT
---	E6	120	1	DCO	WALL	18"	CONVENIENCE	1440 W	DEDICATED CIRCUIT
6	E7	120	1	J-BOX (VERIFY)	WALL	VERIFY	CUBE ICE MACHINE WITH BIN	VERIFY	VERIFY ALL REQUIREMENTS WITH EXISTING EQUIPMENT
10	E8	208	3	J-BOX	WALL	13"	VENTLESS WAREWASHER (TANK HEAT/MOTORS)	2 HP	4.5 KW (SINGLE POINT CONNECTION FOR MOTOR/CONTROLS)
10	E9	208	3	J-BOX	WALL	11"	VENTLESS WAREWASHER BOOSTER HEATER	8.5 KW	---
10	E10	120	1	DCO	WALL	66"	VENTLESS WAREWASHER DETERGENT FEED	1440 W	DEDICATED CIRCUIT
---	E11	---	--	NOT USED	---	---	---	---	---
---	E12	---	--	NOT USED	---	---	---	---	---
---	E13	120	1	CORD DROP	CEILING	---	CONVENIENCE	1440 W	DEDICATED CIRCUIT - CEILING DROP-CORD
18	E14	208	3	J-BOX	GROUND	VERIFY	W1. COOLER CONDENSING UNIT	1 HP	SYSTEM A - BEACON SYSTEM
18	E15	208	3	J-BOX	GROUND	VERIFY	W1. FREEZER CONDENSING UNIT	2 1/2 HP	SYSTEM B - BEACON SYSTEM
18	E16	120	1	J-BOX	CEILING	---	WALK-IN COOLER EVAPORATOR	2 AMP	SYSTEM A - BEACON SYSTEM
11	E17	120	1	J-BOX	CEILING	---	WALK-IN DRAIN LINE HEATER	500 W	---
10	E18	208	1	J-BOX	CEILING	---	WALK-IN FREEZER EVAPORATOR	10 AMP	SYSTEM B - BEACON SYSTEM
17	E19	120	1	J-BOX	CEILING	---	(2) WALK-IN LIGHTS	160 W	80 W EACH
17	E20	120	1	J-BOX	CEILING	---	WALK-IN DOOR HEATER	500 W	---
43	E21	120	1	DCO	FIXTURE	34"	MICROWAVE OVEN	13.4 AMP	FURN'D. WITH NEMA 5-15P. VERIFY REQ'S. W/EXISTING EQUIPMENT. EXTEND FROM FLOOR STUB.
33	E22	120	1	J-BOX	WALL	VERIFY	CANOPY HOOD DEMAND CONTROL PANEL	15 AMP	MOUNT PANEL AT C/LG- VERIFY HEIGHT. RUN CAT 5 CABLE TO WALL MOUNT SWITCH AT 48" AFF.
33	E23	120	1	J-BOX	WALL	VERIFY	CANOPY HOOD DEMAND CONTROL PANEL	15 AMP	MOUNT PANEL AT C/LG- VERIFY HEIGHT. RUN CAT 5 CABLE TO WALL MOUNT SWITCH AT 48" AFF.
30	E24	120	1	DCO	FIXTURE	34"	5-QUART MIXER (EXISTING EQUIPMENT)	2.9 AMP	FURNISHED WITH NEMA 5-15P. EXTEND FROM FLOOR STUB
28	E25	120	1	DCO	FIXTURE	34"	FOOD PROCESSOR	7 AMP	FURNISHED W/NEMA 5-15P. EXTEND FROM FLOOR STUB. DEDICATED CIRCUIT
31	E26	120	1	DCO	FIXTURE	34"	20-QUART MIXER (EXISTING EQUIPMENT)	8 AMP	FURNISHED WITH NEMA 5-15P. EXTEND FROM FLOOR STUB
17	E27	120	1	DCO'S (STACKED)	WALL	21"-53"	DOUBLE STACK CONVECTION OVENS	3.5 AMP	EACH CONNECTION. FURNISHED W/NEMA 5-15P
38	E28	120	1	DCO	WALL	30"	OPEN BURNER RANGE OVEN BASE	3.4 AMP	FURNISHED WITH NEMA 5-15P
---	E29	---	--	NOT USED	---	---	---	---	---
33	E30	120	1	J-BOX	CEILING	---	(8) CANOPY HOOD LIGHTS & HOOD CONTROLS	15 AMP	---
33	E31	120	1	J-BOX	WALL	102"	FIRE PROTECTION SYSTEM	1 KW	---
40	E32	120	1	SCO	WALL	36"	MOBILE HOT HOLDING/PROOFING CABINET	16 AMP	FURNISHED WITH NEMA 5-20P
33	E33	6GL GANG	1	J-BOX	WALL	48"	CANOPY HOOD ROOM SENSOR CONTROL	---	WIRE TO HOOD SC CONTROL BOARD W/PROVIDED 2-WIRE LOW VOLT. CABLE

- ### ELECTRICAL NOTES

 - THIS DRAWING IS NOT TO BE USED FOR ESTABLISHING ROUGH-IN LOCATIONS. REFER TO DIMENSIONED DRAWINGS PREPARED BY THE KITCHEN EQUIPMENT CONTRACTOR.
 - UNDER ELECTRICAL WORK OF DIVISION 26, PROVIDE ALL ROUGH-INS AND FINAL CONNECTIONS IN CONFORMANCE WITH LOCAL CODES.
 - HOOD LIGHTS ARE FURNISHED UNDER KITCHEN EQUIPMENT, DIVISION 11. UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL SWITCHES AND FURNISH AND INSTALL ALL INTERCONNECTING CONDUIT AND WIRING CONCEALED FROM SIGHT.
 - UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL ALL INTERCONNECTING WIRING ACROSS CEILING AS REQUIRED BETWEEN HOODS AND HOOD FIRE CONTROL PANEL.
 - WALK-IN COLD STORAGE ROOMS, LIGHTS, AND CEILING MOUNT EVAPORATORS ARE FURNISHED AND INSTALLED UNDER KITCHEN EQUIPMENT, DIVISION 11. UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL ALL INTERCONNECTING CONDUIT AND WIRING ABOVE CEILING CONCEALED FROM SIGHT.
 - ALL ELECTRICAL RECEPTACLES SHALL BE MOUNTED HORIZONTALLY ON FIXTURES AND WALLS.
 - ALL EVAPORATOR MOTOR CONNECTIONS SHALL BE MADE WITH CONDUIT TO A J-BOX. PLUG-IN TYPE CONNECTIONS WILL NOT BE ACCEPTED.
 - COLD STORAGE ROOM EVAPORATOR DRAIN LINES (INCLUDING HEAT TAPE FOR FREEZER DRAIN) ARE FURNISHED AND INSTALLED UNDER KITCHEN EQUIPMENT, DIVISION 11. TRAP AT OUTLET END.
 - REFRIGERATION, HIGH PRESSURE WASH SYSTEM, AND BEVERAGE LINES SHOWN ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED TO FIT BUILDING CONDITIONS.
 - UNDER ELECTRICAL WORK OF DIVISION 26, PROVIDE ALL DISCONNECTS, INTERLOCKS, AND CONTRACTORS REQUIRED BY LOCAL CODES.
 - UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL SHUNT TRIP CIRCUIT BREAKERS TO SHUT OFF POWER SUPPLY TO ALL ELECTRICAL COOKING EQUIPMENT DURING FIRE SYSTEM ACTIVATION.
 - UNDER WORK OF KITCHEN EQUIPMENT, DIVISION 11, FURNISH AND INSTALL STAINLESS STEEL OR CHROME PLATED ESCUTCHEON PLATES FOR ALL ELECTRICAL CONNECTIONS PENETRATING COUNTER TOPS FOR BELOW COUNTER PLUG-INS.
 - UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL ALL INTERCONNECTING WIRING AS REQUIRED BETWEEN BOOSTER HEATER AND DISHWASHER.
 - UNDER ELECTRICAL WORK OF DIVISION 26, FURNISH AND INSTALL ALL INTERCONNECTING WIRING BETWEEN WAREWASHER CONTROL PANEL AND EXHAUST FAN FOR AUTO FAN ON/OFF DURING EQUIPMENT OPERATION. SET FAN TO CONTINUE TO RUN AN EXTRA 20 MINUTES AFTER WAREWASHER IS TURNED-OFF.
 - UNDER ELECTRICAL WORK OF DIVISION 26, PROVIDE POWER TO HOOD LIGHTS AND EXHAUST FAN ON ROOF-INTERLOCK WITH MAKE-UP AIR SUPPLY UNIT PER PER MECHANICAL ENG. PLANS. PROVIDE WALL SWITCH WITH PILOT LIGHT @ 48" ABOVE FINISHED FLOOR.
 - REFRIGERATION BEACON SYSTEM CONTROLLER, FURNISHED BY DIVISION 11, SHALL MONITOR WALK-IN EVAPORATORS & CONDENSING UNITS. UNDER ELECTRICAL WORK OF DIVISION 26 PROVIDE POWER FROM EVAPORATOR COILS USING 24V 18 GA. LOW VOLTAGE WIRING.
 - UNDER KITCHEN WORK OF DIVISION 11 LOCATE MANUAL FIRE SUPPRESSION PULL STATION PER CODES. PROVIDE OCTAGON BOX AND RUN EMPTY CONDUIT TO FIRE SUPPRESSION CONTROL HEAD. MINIMUM 12" RADIUS BENDS IN ANY CHANGE OF DIRECTION. SET PULL STATION BOX @ 48" AFF. TO CENTER LINE.



DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
FOOD SERVICE ELECTRICAL/REFRIGERATION PLAN

10039.00-1
PROJECT NUMBER
21 FEB 2019
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REVISIONS

FS1.4

BID SET

HOOD INFORMATION – Job#3719325

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM								TOTAL SUPPLY CFM	HOOD CONFIG.		
					TOTAL EXH. CFM	RISER(S)								HOOD CONSTRUCTION	END TO END	RDW
						WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.				
1		6630 ND-2-PSP-F	12' 6"	600 Deg.	3312			4'	18"	3312	1874	-1.160'	2650	304 SS 100%	LEFT	ALONE
2		6630 ND-2-PSP-F	12' 6"	600 Deg.	3000			4'	18"	3000	1698	-0.951'	2700	304 SS 100%	RIGHT	ALONE

PATENT NUMBERS

AC-PSP (United States) – US Patent 7963830 B2
AC-PSP Wall (Canada) – CA Patent 2820509
AC-PSP Island (Canada) – CA Patent 2320330

HOOD INFORMATION

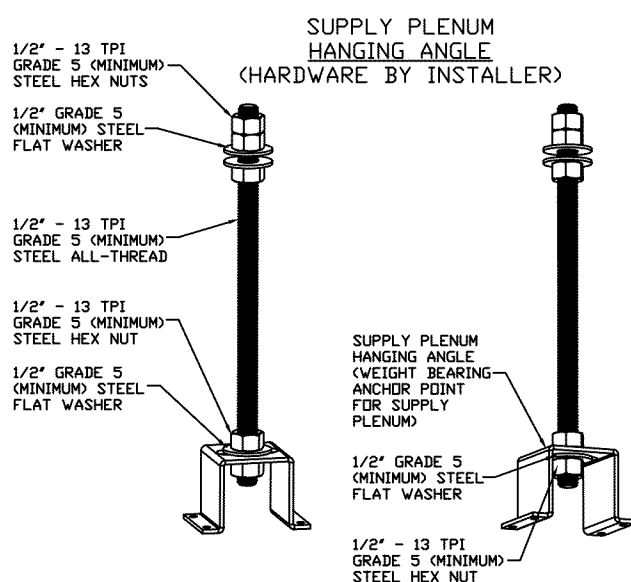
HOOD NO.	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)					FIRE SYSTEM PIPING	HOOD HANGING WGT	
		TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL			SWITCHES
												TYPE	SIZE	MODEL #			QUANTITY
1		Captrate Solo Filter	9	20"	16'	85% See Filter Spec.	4	Recessed	NO							YES	950 LBS
2		Captrate Solo Filter	9	20"	16'	85% See Filter Spec.	4	Recessed	NO	Right	12"x66"x30"	Ansul R102	3.0/3.0	DCV-2111	1 Light 1 Fan	YES	1138 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1		FIELD WRAPPER 18.00" High Front, Left
		LEFT END STANDOFF (FINISHED) 1" Wide 66" Long Insulated
		INSULATION FOR TOP OF HOOD
		STRUCTURAL FRONT PANEL
		INSULATION FOR BACK OF HOOD
2		FIELD WRAPPER 18.00" High Front, Right
		INSULATION FOR TOP OF HOOD
		STRUCTURAL FRONT PANEL
		INSULATION FOR BACK OF HOOD
		SENSOR-CV

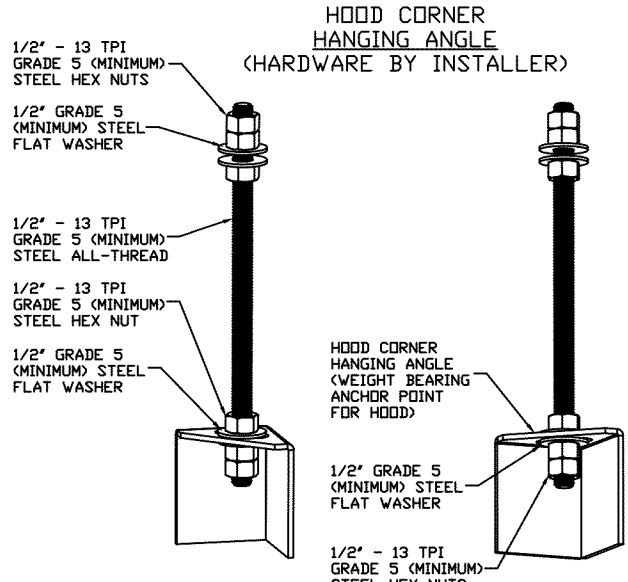
PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG.	DIA.	CFM	S.P.
1		Front	151"	16"	6"	MUA	12"	28"		881	0.285"
						MUA	12"	28"		881	0.285"
						MUA	12"	28"		900	0.257"
2		Front	162"	16"	6"	MUA	12"	28"		900	0.257"
						MUA	12"	28"		900	0.257"
						MUA	12"	28"		900	0.257"



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-Baffle DESIGN IN CONJUNCTION WITH A SLOTTED REAR Baffle DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

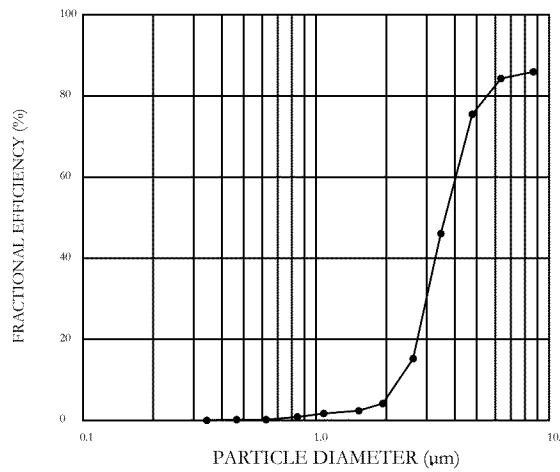
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

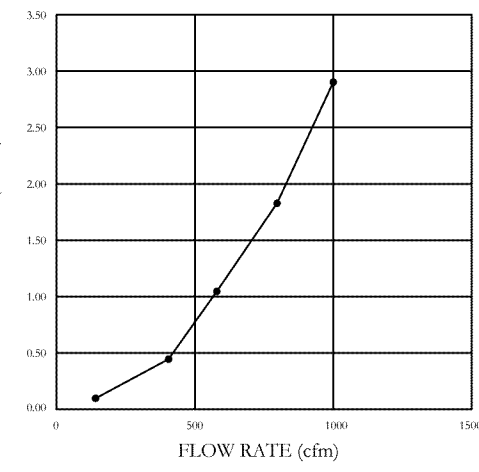
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES" OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05.

EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96
NSF STANDARD #2
UL STANDARD #1046
INT. MECH. CODE (IMC)
ULC-S649



REVISIONS

DESCRIPTION	DATE

Seattle Office

1309 Pacific Ave., Everett, WA, 98201 PHONE: (425) 212-5998 FAX: (425) 212-5998 EMAIL: reg@captivate.com

David Douglas HS - Portland OR R2
PORTLAND, OR, 97233

DATE: 2/18/2019
DWG.#: 3719325
DRAWN BY: ryan85
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 1

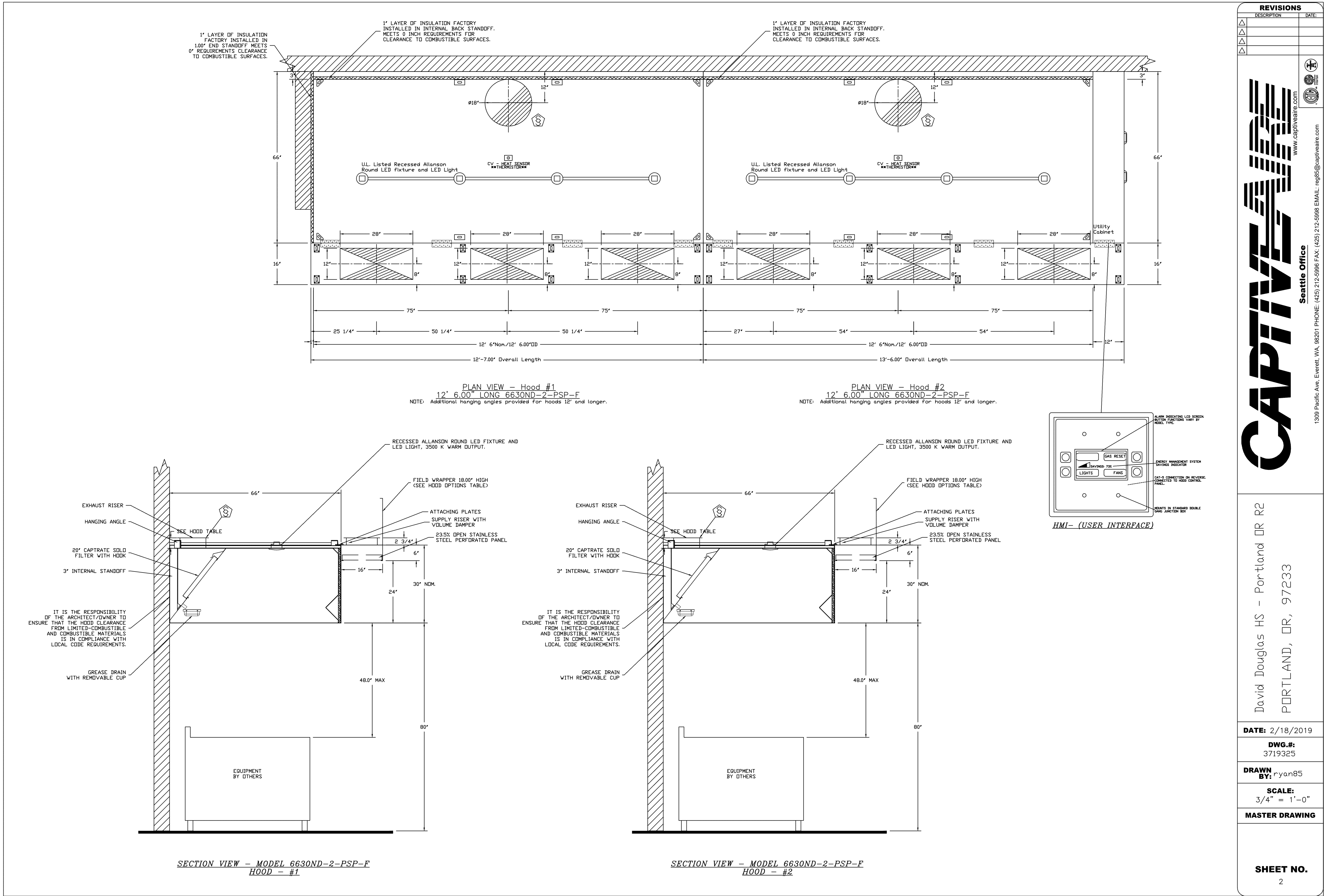


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1001 SE 135TH AVE, PORTLAND, OR 97233

FOOD SERVICE CANOPY HOOD DETAILS

BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN

200 North State Street ■ Lake Oswego, Oregon 97034



Fire System Information - Job#3719325

FIRE SYSTEM NO.	Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		Ansul R102	3.0/3.0	18	Fire Cabinet Right	Right

GAS VALVE(S)

FIRE SYSTEM NO.	TAG	TYPE	SIZE	SUPPLIED BY
1		SC Electrical	2.000	CaptiveAir Systems

NOTES

- FIELD PIPE DROPS AS SHOWN
- SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS

Job #: 3719325
Job Name: David Douglas HS - Portland OR R2

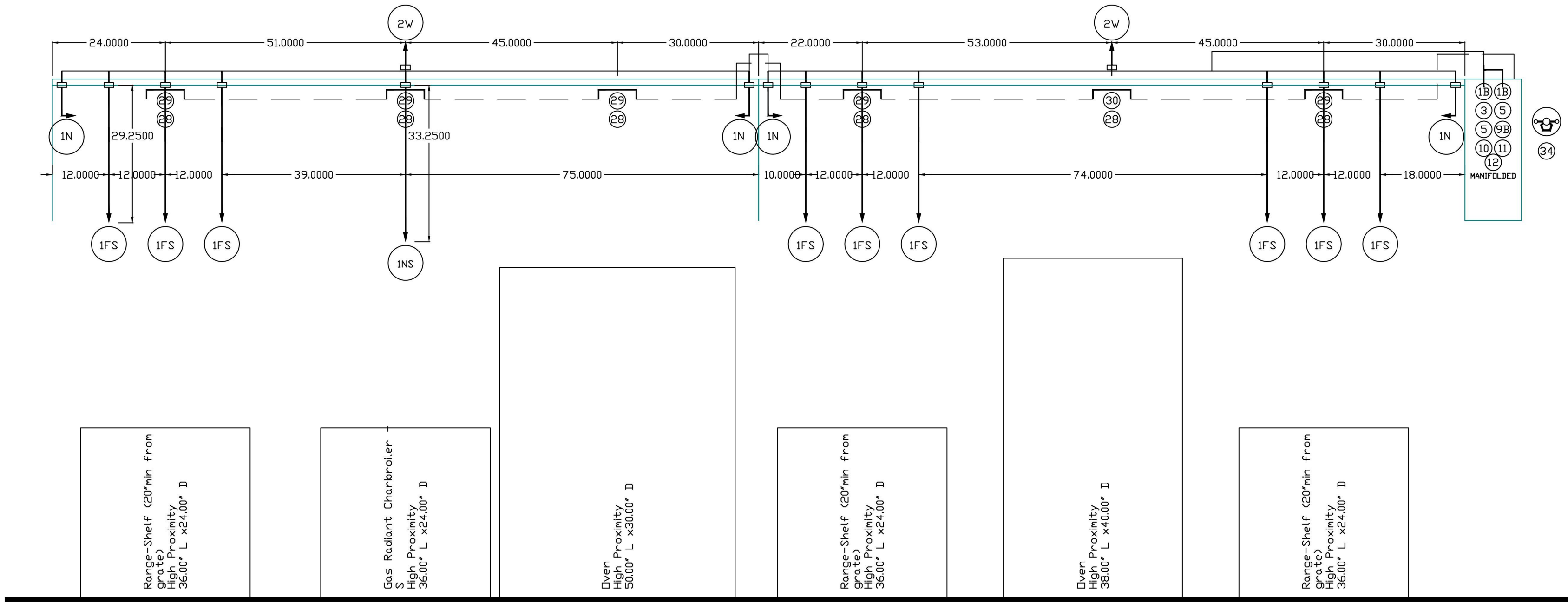
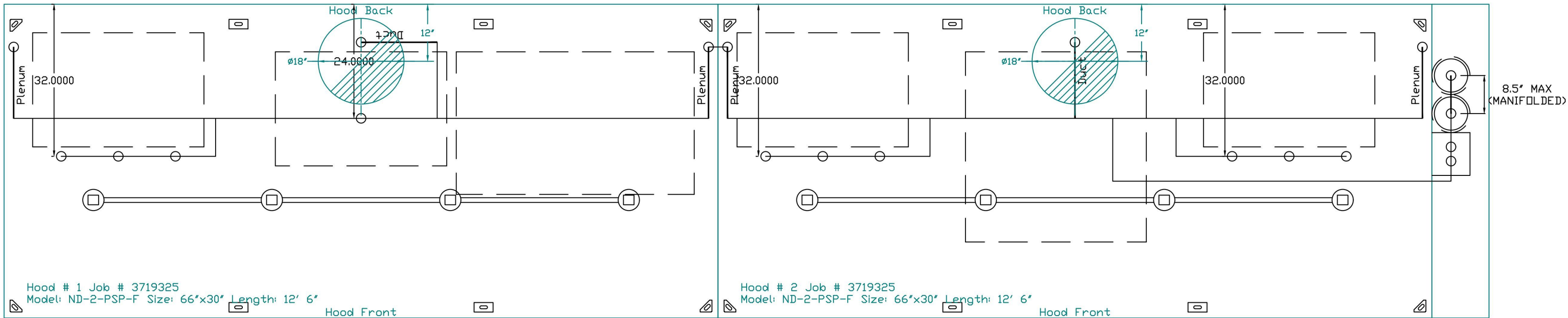
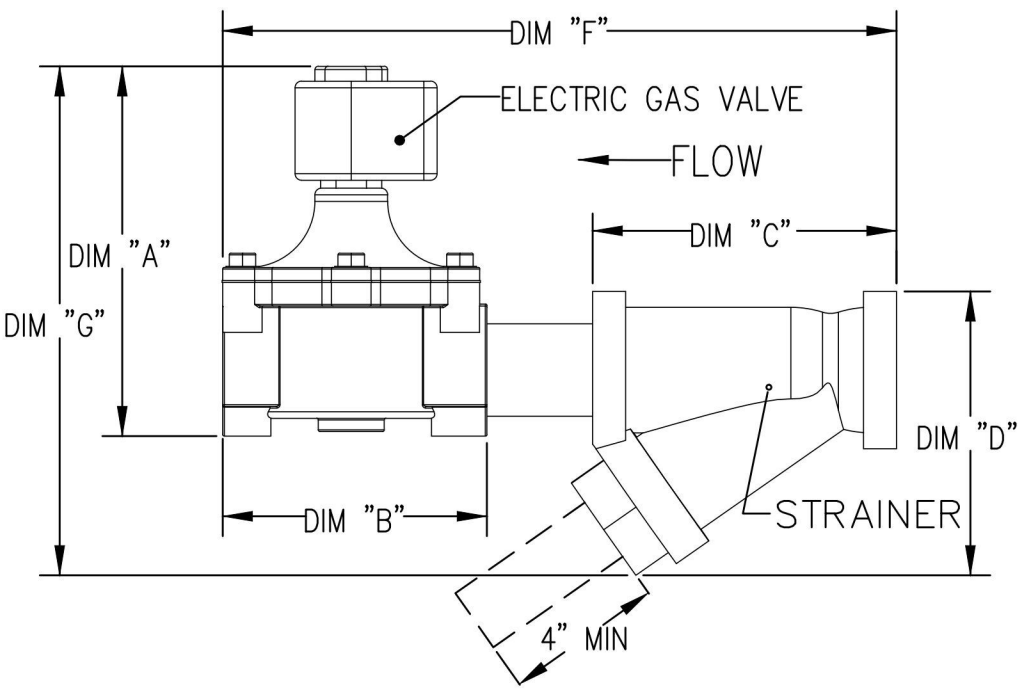
System Size: ANSUL-3.0/3.0-MANIFOLD Total FP required: 18
Hood # 1 12' 6.00' Long x 66' Wide x 30' High
Riser # 1 Size: 18' Dia.
Hood # 1 Metal Blow-Off Caps included.
Hood # 2 12' 6.00' Long x 66' Wide x 30' High
Riser # 1 Size: 18' Dia.
Hood # 2 Metal Blow-Off Caps included.

SIZE TBD BY PLUMBER

GAS VALVES AND STRAINERS																	
GAS VALVE SIZING						GAS VALVE DIMENSIONS											
TYPE	SIZE	VOLTAGE	MIN. INLET PRESS. DROP NATURAL GAS	MAX. INLET PRESS. DROP PROPANE	FLOW AT 1 IN.W.C. BTU/HR	FLOW AT 1 IN.W.C. DROP PROPANE BTU/HR	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "F"	DIM "G"	INSTALLATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT	
GAS VALVE FOR FSI(1)→	ELECTRICAL	2"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	2,940,500 BTU/HR	1,908,048 BTU/HR	7-5/8"	6-3/8"	7-1/4"	7-13-16"	15-5/8"	13-15/16"	HORIZONTAL/VERTICAL	8214280	4417K68	(SC)E0VA2

ALL GAS VALVES/STRAINERS
PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52

CALCULATIONS
TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP
NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP^{3/2}
TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY
NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)^{1/2}



LEGEND - FIRE CABINET ANSUL SYSTEM

- 1A 1.5 GALLON TANK
- 1B 3 GALLON TANK
- 2 DEM AUTOMAN RELEASE
- 3 DEM REGULATED RELEASE
- 4 DEM REGULATED ACTUATOR
- 5 ANSULEX LIQUID AGENT (3 GAL.)
- 6 ANSULEX LIQUID AGENT (1.5 GAL.)
- 7 CARTRIDGE (101-20)
- 8 CARTRIDGE (101-10)
- 9 CARTRIDGE (101-30)
- 9A CARTRIDGE (LT-A-101-30)
- 9B DOUBLE TANK CARTRIDGE
- 10 TEST LINK
- 11 DOUBLE MICROSWITCH
- 12 HOSE ASSEMBLY
- 1100 DUCT NOZZLE (430913)
- 2W DUCT NOZZLE (419337)
- 1W NOZZLE ASSEMBLY (419336)
- 1F NOZZLE ASSEMBLY (419333)
- 1N NOZZLE ASSEMBLY (419335)
- 1/2N NOZZLE ASSEMBLY (419334)
- 3N NOZZLE ASSEMBLY (419338)
- 245 NOZZLE ASSEMBLY (419340)
- 230 NOZZLE ASSEMBLY (419339)
- 2120 NOZZLE ASSEMBLY (419343)
- 290 NOZZLE ASSEMBLY (419342)
- 260 NOZZLE ASSEMBLY (419341)
- 28 DETECTOR BRACKET
- 29 LOW TEMP FUSIBLE LINK
- 30 HIGH TEMP FUSIBLE LINK
- MGV MECHANICAL GAS VALVE
- EGV ELECTRICAL GAS VALVE
- 34 REMOTE MANUAL PULL STATION
- S SWIVEL ADAPTOR

REVISIONS

DESCRIPTION	DATE

Seattle Office
1309 Pacific Ave., Everett, WA, 98201 PHONE: (425) 212-5986 FAX: (425) 212-5988 EMAIL: reg55@captiveaire.com
www.captiveaire.com

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DATE: 2/18/2019
DWG.#: 3719325
DRAWN BY: ryan85
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 3

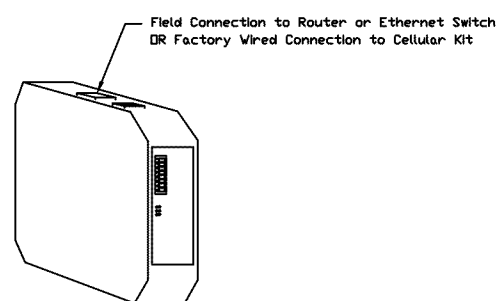
HALIDAY ASSOCIATES
656 NW NORWOOD
SEASIDE, WASH. 98602
PH: 360-853-6453
FAX: 360-853-6453
FOOD FACILITY CONSULTANTS
SPACE PLANNING • DESIGN

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ELECTRICAL PACKAGE - Job#3719325

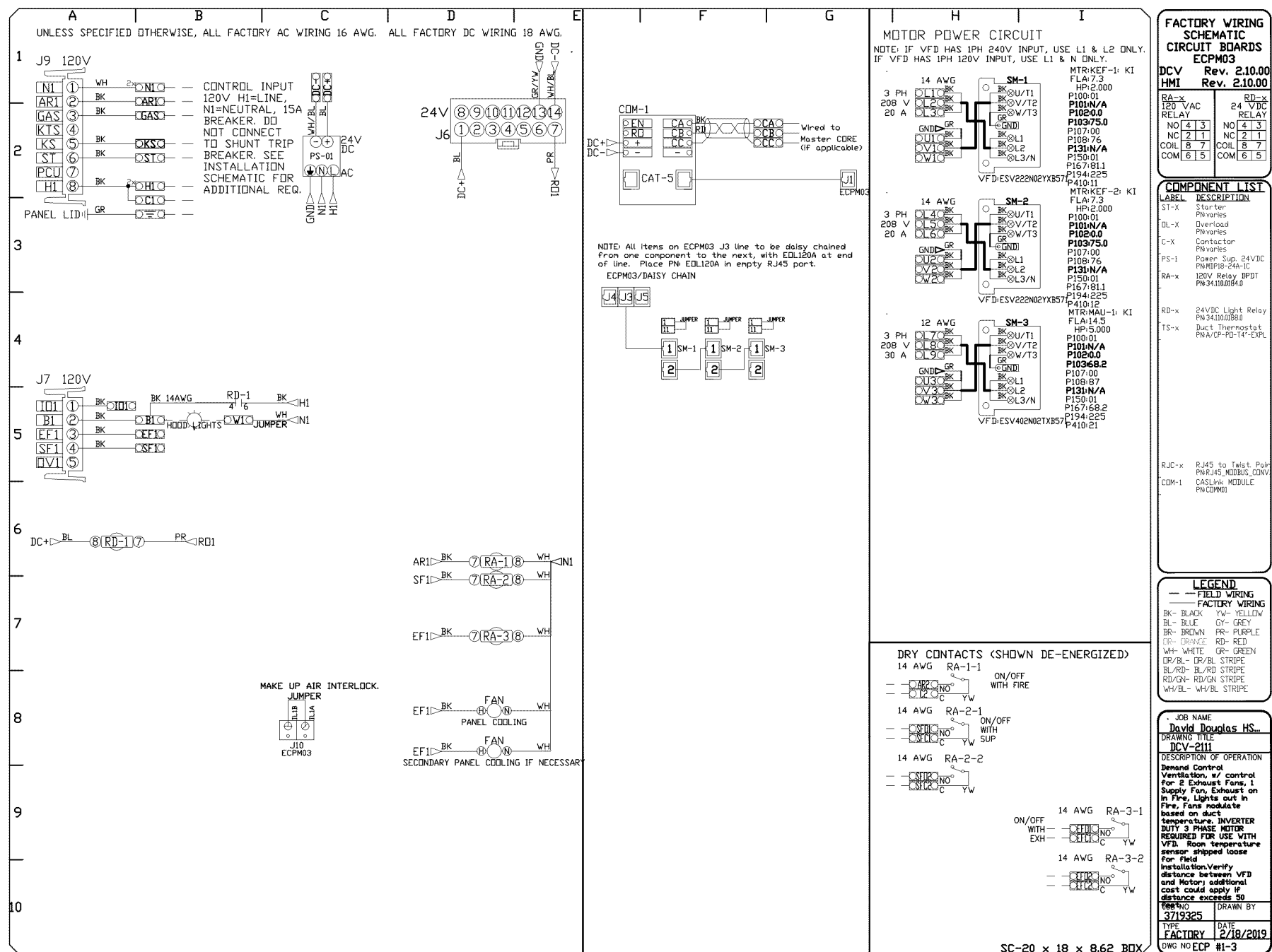
NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG		TYPE	HP.	VOLT	FLA
1		DCV-2111	Utility Cabinet Right	04 - Utility Cabinet Right	1 Light	Smart Controls DCV	KEF-1, KITCHEN LEFT	Exhaust	3	2000	208	7.3
				Hood # 2	1 Fan		KEF-2, KITCHEN RIGHT	Exhaust	3	2000	208	7.3
							MAU-1, KITCHEN	Supply	3	5000	208	14.5



CASLink Monitor and Control
- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined in the points list.
- Hood control panel to allow remote changes to system settings such as: VFD Frequencies, ECM speeds, temperature set points, fan and wash schedules, etc.

MONITORING AND CONTROL POINTS LIST

DCV Packages	Function	SC Packages	Function
Room Temperature	MONITOR	Room Temperature	MONITOR
Duct Temperature	MONITOR	Duct Temperature	MONITOR
MAK Discharge Temperature	MONITOR	MAK Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Controller Faults	MONITOR
Fan Amperage	MONITOR	Fan Faults	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	POU Filter Clog Percentages	MONITOR
Controller Faults	MONITOR	Fire Condition	MONITOR
Fan Faults	MONITOR	COSE Fire System	MONITOR
Fan Status	MONITOR	Building Pressures	MONITOR & CONTROL
POU Faults	MONITOR	Light Buttons	MONITOR & CONTROL
POU Filter Clog Percentages	MONITOR	Wash Button	MONITOR & CONTROL
Fire Condition	MONITOR		
COSE Fire System	MONITOR		
Building Pressures	MONITOR		
Prep Time Button	MONITOR & CONTROL		
Fane Button	MONITOR & CONTROL		
Light Button	MONITOR & CONTROL		
Wash Button	MONITOR & CONTROL		



ATTENTION ELECTRICIAN:

****LOAD WIRING FOR EACH FAN MOTOR MUST BE IN SEPARATE STEEL CONDUIT (DO NOT SHARE CONDUITS)****

REVISIONS

DESCRIPTION	DATE

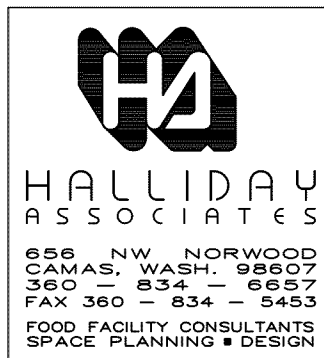
BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN

David Douglas HS - Portland OR R2
PORTLAND, OR, 97233

DATE: 2/18/2019
DWG.#: 3719325
DRAWN BY: ryan85
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 4

Seattle Office
1309 Pacific Ave., Everett, WA, 98201 PHONE: (425) 212-5998 FAX: (425) 212-5998 EMAIL: reg85@captiveware.com

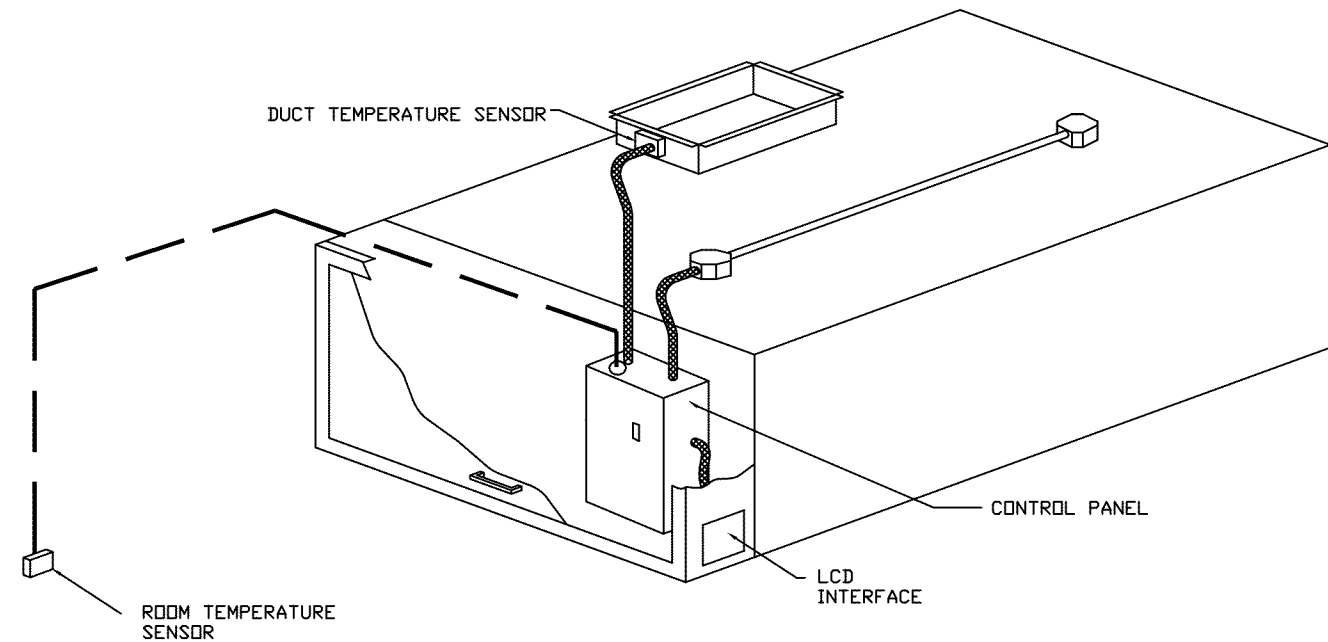


DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233

BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034

Demand Control Ventilation Hood Control Panel Specifications:

- Controls shall be listed by ETL (UL 508A) and shall comply with demand ventilation system turndown requirements outlined in IECC 403.2.8 (2015).
- The control enclosure shall be NEMA 1 rated and listed for installation inside of the exhaust hood utility cabinet. The control enclosure may be constructed of stainless steel or painted steel.
- Temperature probe(s) located in the exhaust duct riser(s) shall be constructed of stainless steel.
- A digital controller shall be provided to activate the hood exhaust fans dynamically based on a fixed differential between the ambient and duct temperatures sensors. This function shall meet the requirements of IMC 507.1.1.
- A digital controller shall provide adjustable hysteresis settings to prevent cycling of the fans after the cooking appliances have been turned off and/or the heat in the exhaust system is reduced.
- A digital controller shall provide an adjustable minimum fan run-time setting to prevent fan cycling.
- Variable Frequency Drives (VFDs) shall be provided for fans as required. The digital controller shall modulate the VFDs between a minimum setpoint and a maximum setpoint on demand. The duct temperature sensor input(s) to the digital controller shall be used to calculate the speed reference signal.
- The VFD speed range of operation shall be from 0% to 100% for the system, with the actual minimum speed set as required to meet minimum ventilation requirements.
- An internal algorithm to the digital controller shall modulate supply fan VFD speed proportional to all exhaust fans that are located in the same fan group as the supply fan. The system shall operate in PREP MODE during light cooking load or COOL DOWN MODE when sufficient heat remains underneath the hood system after cooking operations have completed. Operation during either of these periods will disable the supply fans and provide an exhaust fan speed that is equal to the minimum ventilation requirement.
- A digital controller shall disable the supply fan(s), activate the exhaust fan(s), activate the appliance shunt trip, and disable an electric gas valve automatically when fire condition is detected on a covered hood.
- A digital controller shall allow for external BMS fan control via Dry Contact (external control shall not override fan operation logic as required by code).
- An LCD interface shall be provided with the following features:
 - a. On/Off push button fan & light switch activation
 - b. Integrated gas valve reset for electronic gas valves (no reset relay required)
 - c. VFD Fault display with audible & visual alarm notification
 - d. Duct temperature sensor fault detection with audible & visual alarm notification
 - e. Mis-wired duct temperature sensor detection with audible & visual alarm notification
 - f. A single low voltage Cat-5 RJ45 wiring connection
 - g. An energy savings indicator that utilizes measured kWh from the VFDs

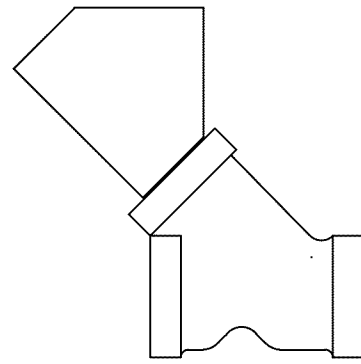


TYPICAL HOOD CONTROL PANEL INSTALLATION

Sequence of Operations

The hood control panel is capable of operating in one or more of the following states at any given time:

- **Automatic:** The system operates based on the differential between room temperature and the temperature at the hood cavity or exhaust duct collar. Fans activate at a configurable temperature differential threshold. Depending on the job configuration each fan zone can be configured as 'dynamic'. These fans will refer to whether a variable motor (such as EC Motors or VFD driven motors) modulate with temperature. If the panel is equipped with variable speed fans and the zone is defined as 'dynamic', these will modulate within a user-defined range based on the temperature differential. Panels equipped with variable speed fans and a fan zone defined as 'static', fans will run at a set speed calculated for the system. Demand control ventilation systems are capable of modulating exhaust and make up air fan speeds per the requirements outlined in IECC 402.2.8.
- **Manual:** The system operates based on human input from an HMI.
- **Schedule:** A weekly schedule can be set to run fans for a specified period throughout the day. There are three occupied times per day to allow for the user to set up a time that is suitable to their needs. Any time that is within the defined occupied time, the system will run at modulation mode and follow the fan procedure algorithm based on temperature during this time. During unoccupied time, the system will have an extra offset to prevent unintended activation of the system during a time where the system is not being occupied.
- **Other:** The system operates based on the input from an external source (DCD, BMS or hard-wired interlock)

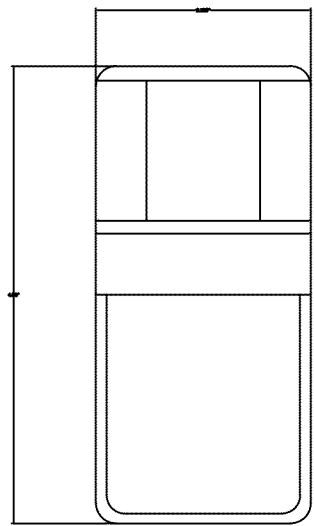


SC-ELECTRIC GAS VALVE

VALVE PROVIDED BY CAS. (CALL 888-338-5225 TO ORDER).

INSTALLATION LOCATION PER PLUMBING DRAWINGS.

WIRE TO SC PANEL (TERMINALS "GAS" & "N1"). GAS RESET
ON USER HMI.

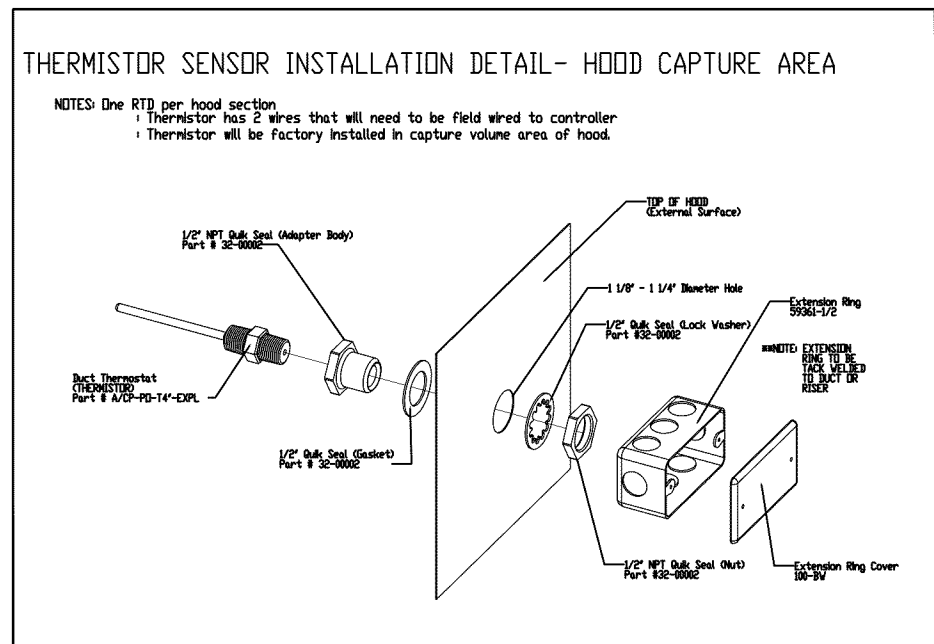


ROOM TEMPERATURE SENSOR

MOUNTS IN STANDARD SINGLE GANG ELECTRICAL BOX.

INSTALL IN LOCATION TO PROVIDE MOST ACCURATE
ROOM TEMPERATURE (NEAR RTU T-STAT OR RTU RETURN)
AWAY FROM HEAT SOURCES.











WIRE TO DCV CONTROL BOARD WITH PROVIDED 2 WIRE
LOW VOLTAGE CABLE.

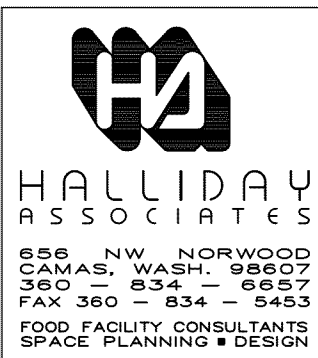
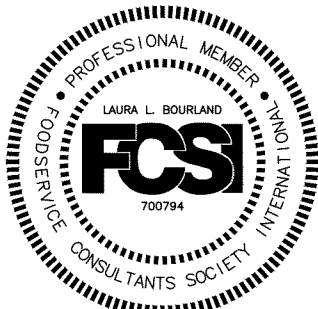


THERMISTOR- (1) PER HOOD SECTION

FACTORY INSTALLED IN HOOD CAPTURE VOLUME AREA

FIELD WIRE TO DCV CONTROL BOARD WITH PROVIDED
2 WIRE LOW VOLTAGE CABLE.

REVISIONS		         
DESCRIPTION	DATE	
David Douglas HS - Portland OR R2 PORTLAND, OR, 97233		
DATE: 2/18/2019		
DWG.#: 3719325		
DRAWN BY: ryan85		
SCALE: 3/4" = 1'-0"		
MASTER DRAWING		
SHEET NO. 5		



DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
0001 SE 15TH AVE, PORTLAND, OR 97233

FOOD SERVICE CANOPY HOOD DETAILS

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ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN

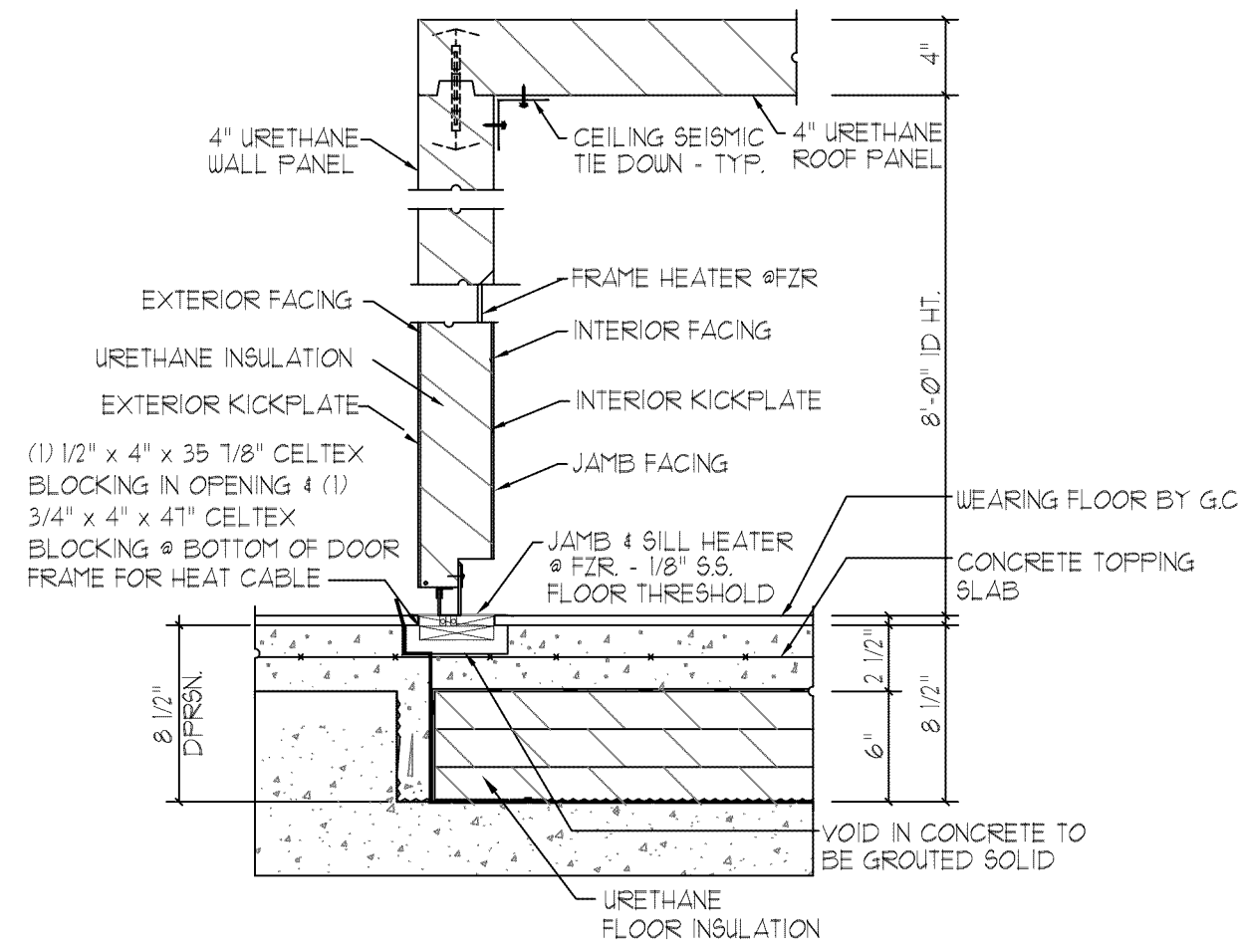
200 North State Street ■ Lake Oswego, Oregon 97034

18039.00.L
PROJECT NUMBER
21 FEB 2019
DATE

REVISIONS

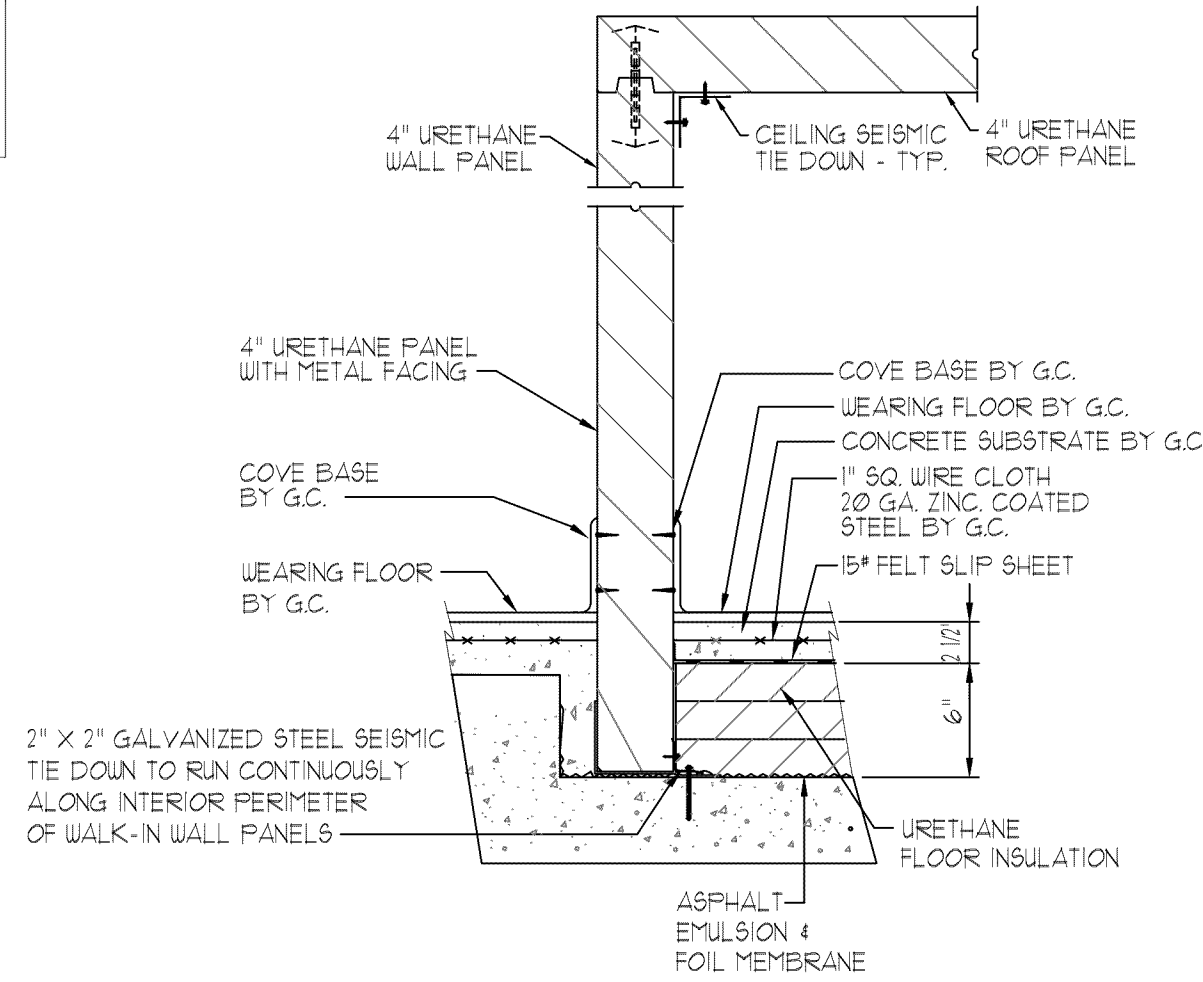
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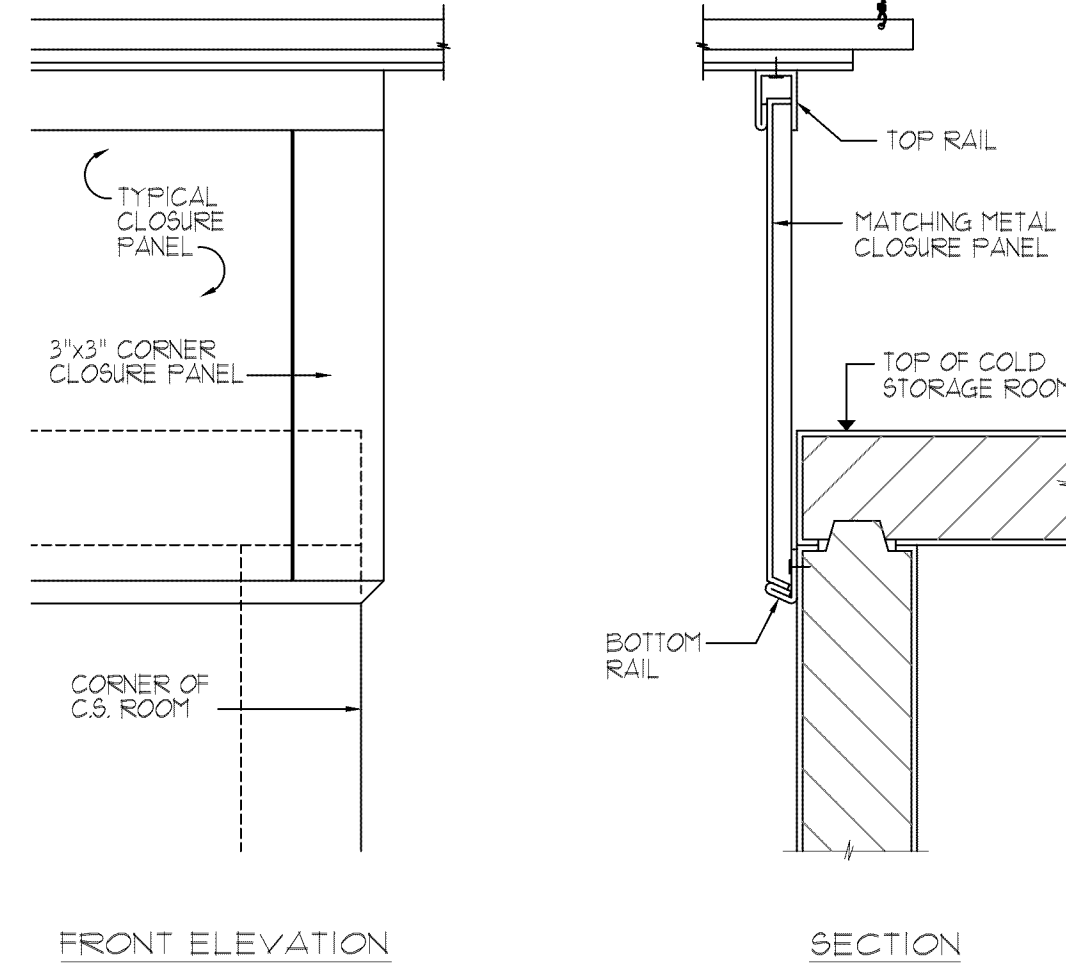


A DOOR/FLOOR SECTION
NO SCALE

NOTE: REFER TO IMPERIAL BROWN QUOTE #9-1B-25068 FOR ADDITIONAL INFORMATION/DETAIL FOR EXTERIOR SLOPED 5.5" WOOD FRAMED CEILING PANELS



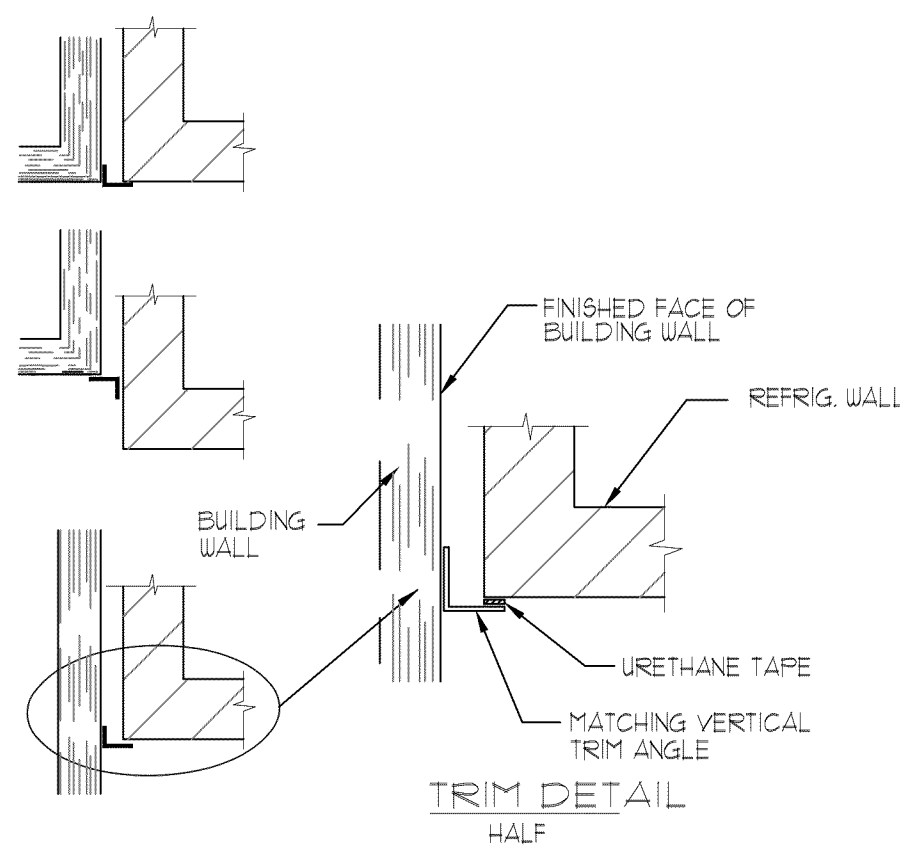
B WALL/FLOOR SECTION
NO SCALE



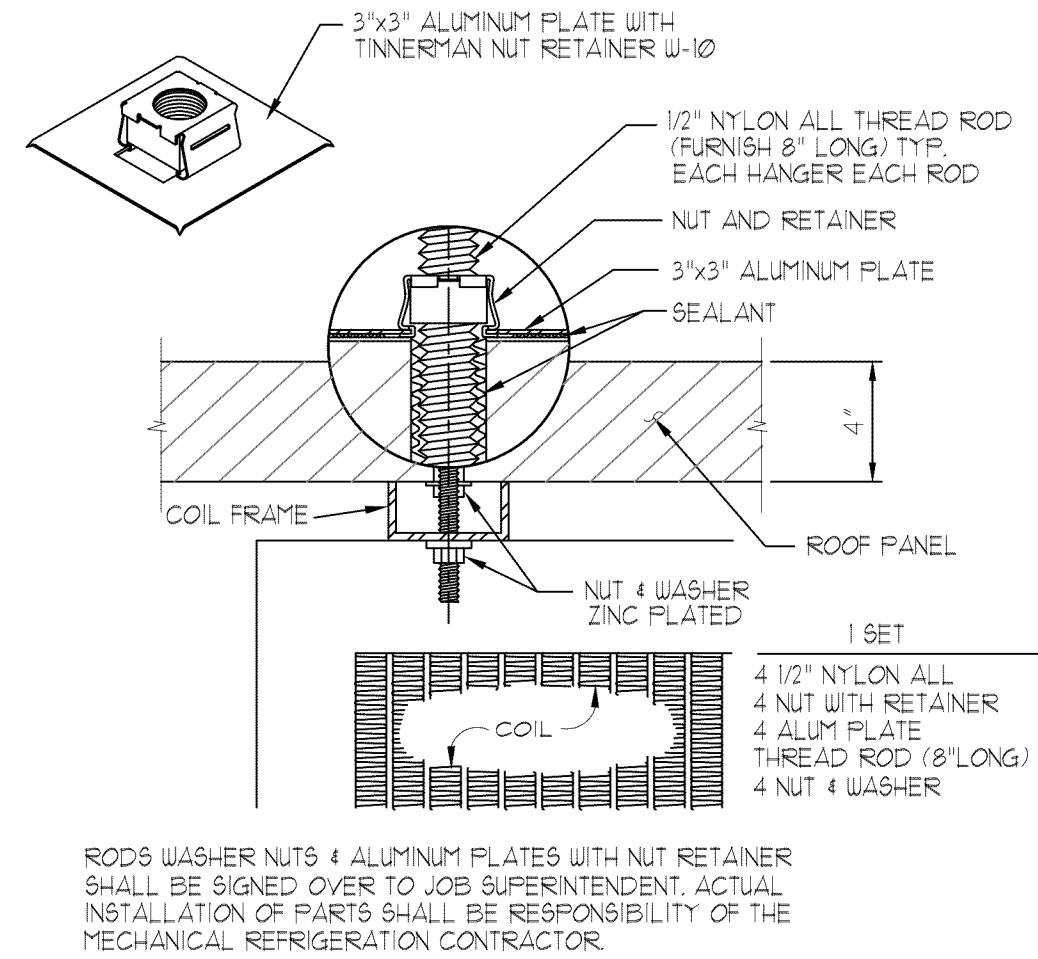
C CLOSURE PANEL DETAILS
NO SCALE

WALK-IN NOTES

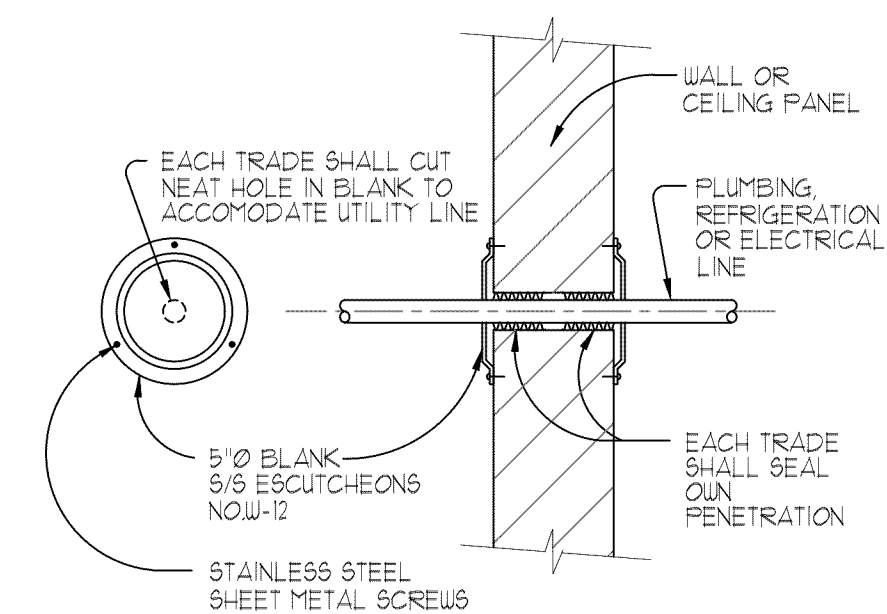
- REFER TO ARCHITECTURAL FINISH SCHEDULE FOR FINISHED FLOOR MATERIAL AT INTERIOR AND EXTERIOR OF WALK-IN COLD STORAGE ROOMS.
- WALL, CEILING, AND DOOR INSULATION SHALL BE AT LEAST R-25 FOR COOLERS AND R-32 FOR FREEZERS. FREEZER FLOOR INSULATION SHALL BE AT LEAST R-28. NOTE: SPECIFIED 4" INSULATED WALL PANELS ARE TO HAVE AN R-VALUE OF 8.06 PER INCH WITH A TOTAL MINIMUM 32.26 R VALUE.



D VERTICAL TRIM MOULDING DETAIL
NO SCALE

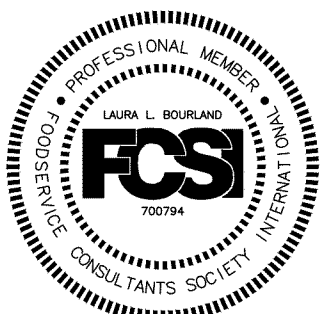


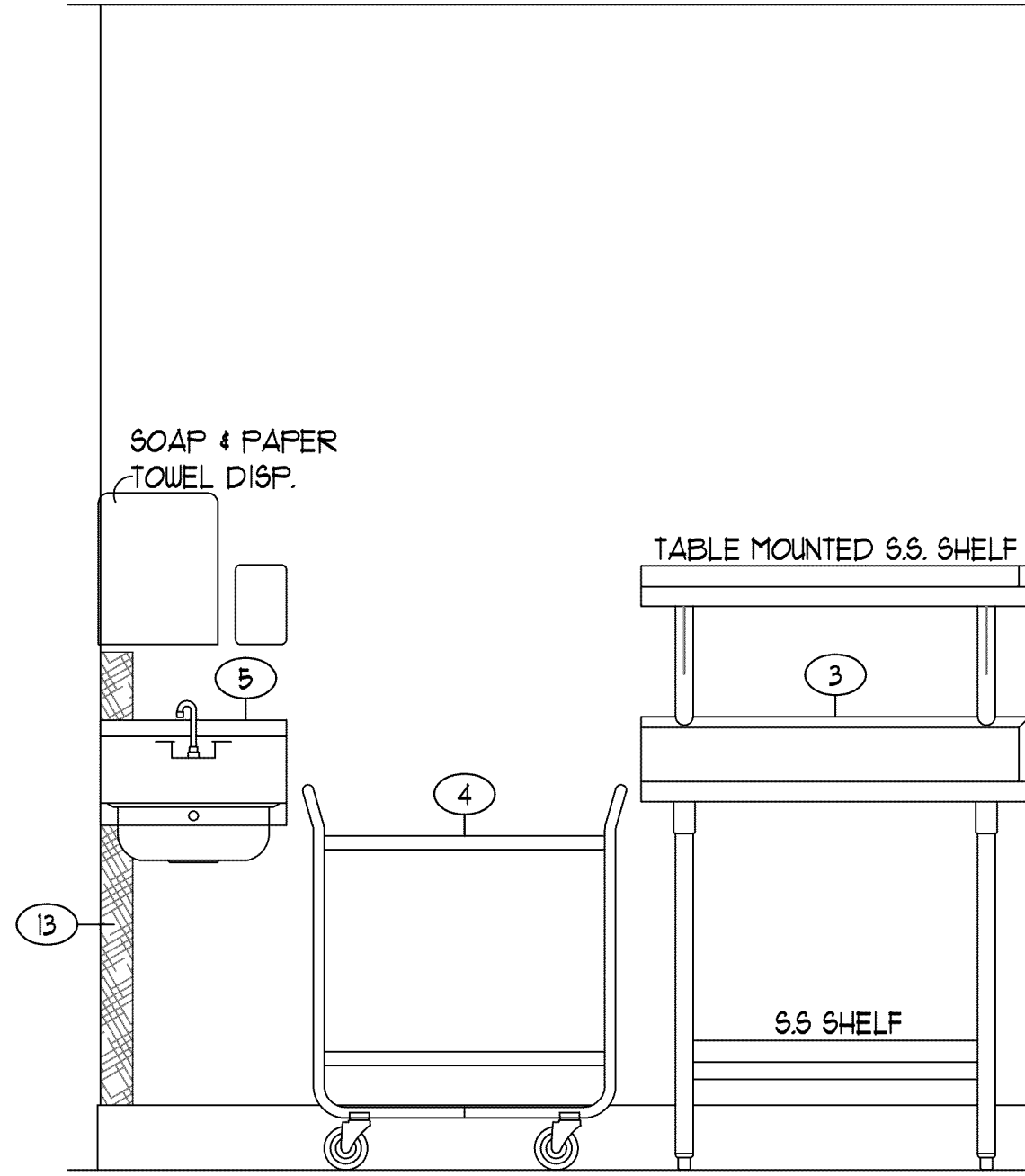
E NYLON ROD COIL HANGER DETAIL
NO SCALE



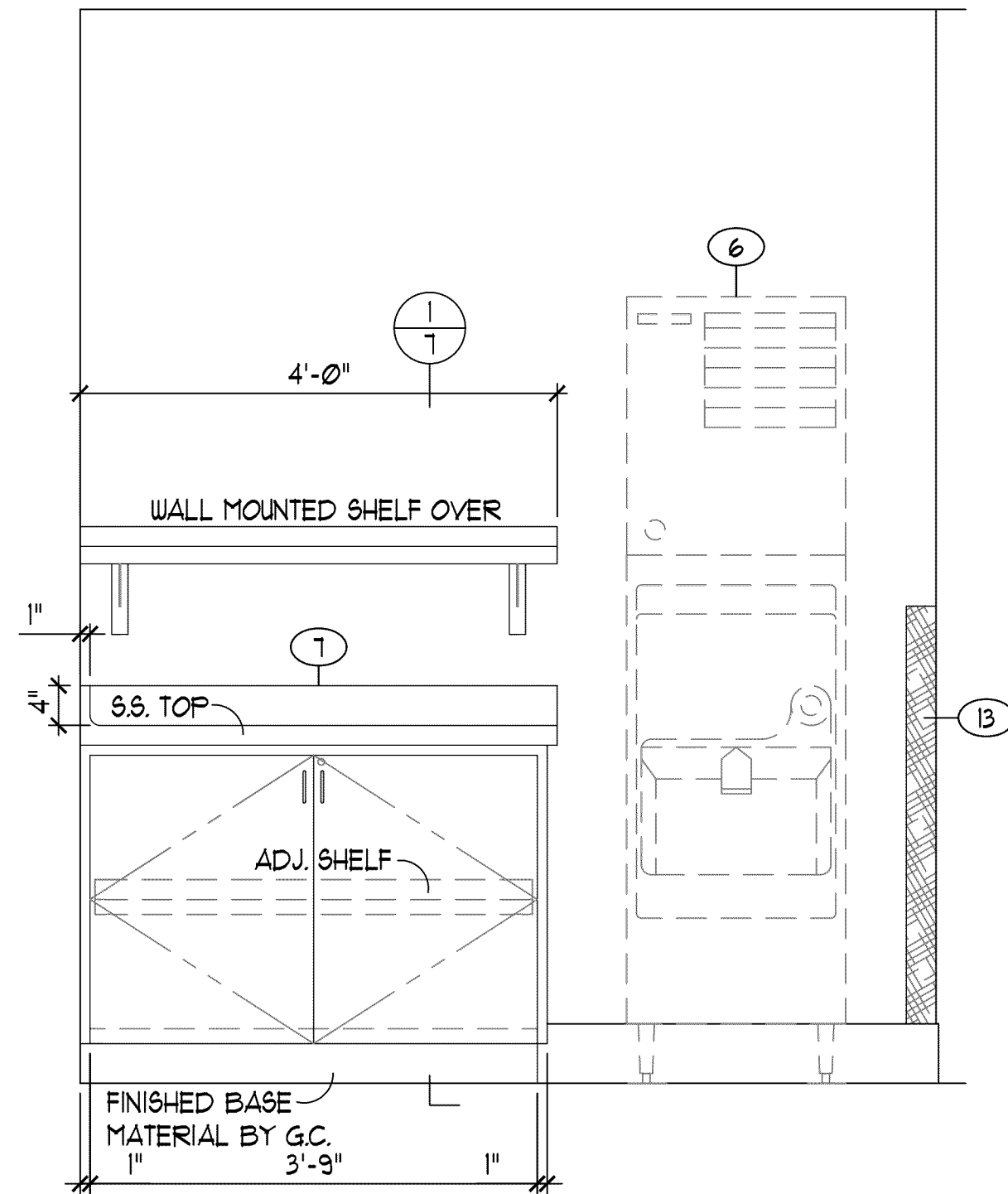
F TYPICAL ESCUTCHEON DETAIL
NO SCALE

1 FOOD SERVICE WALK-IN DETAILS NO SCALE

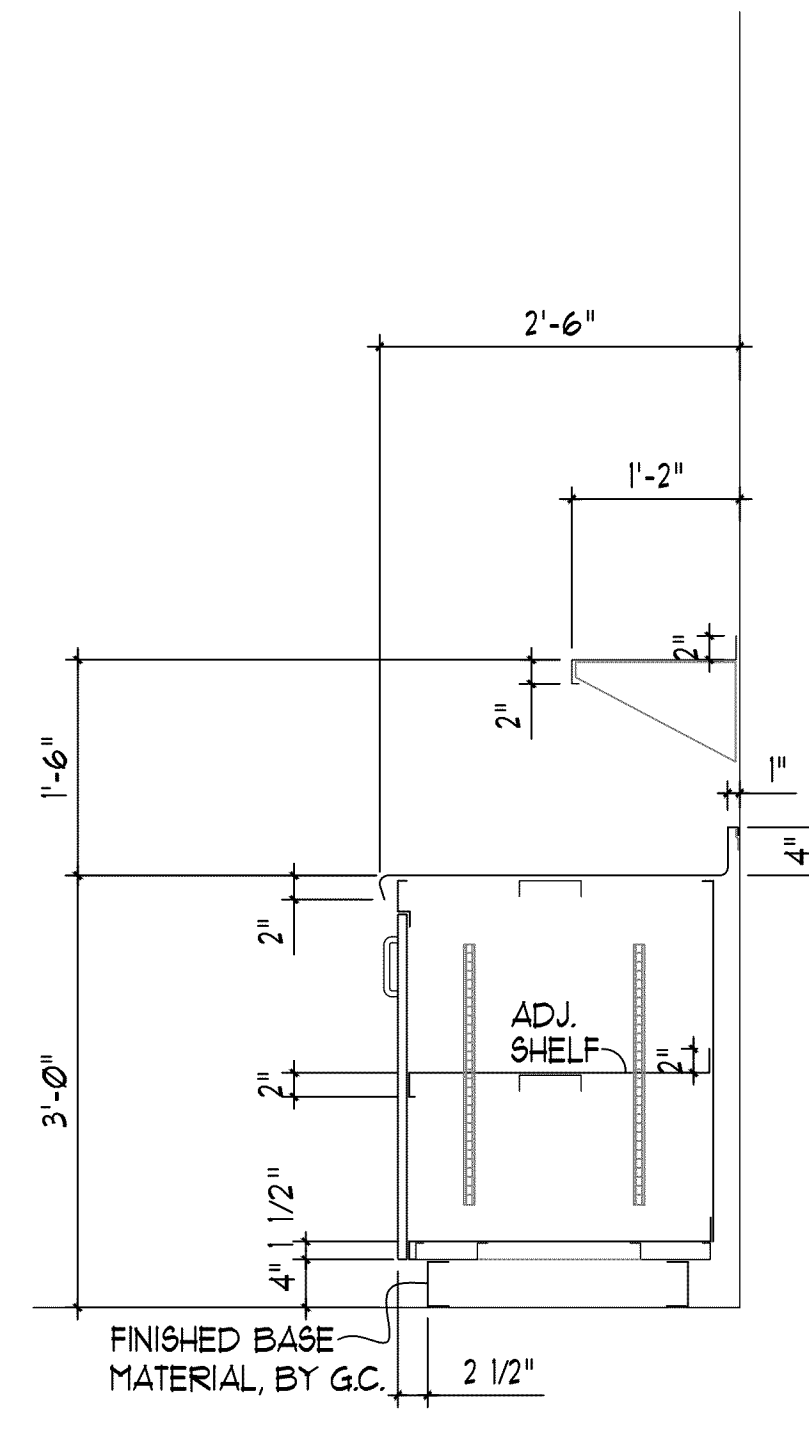




1 ELEVATION
WORK TABLE, CART, & HAND SINK
3/4" = 1'-0"

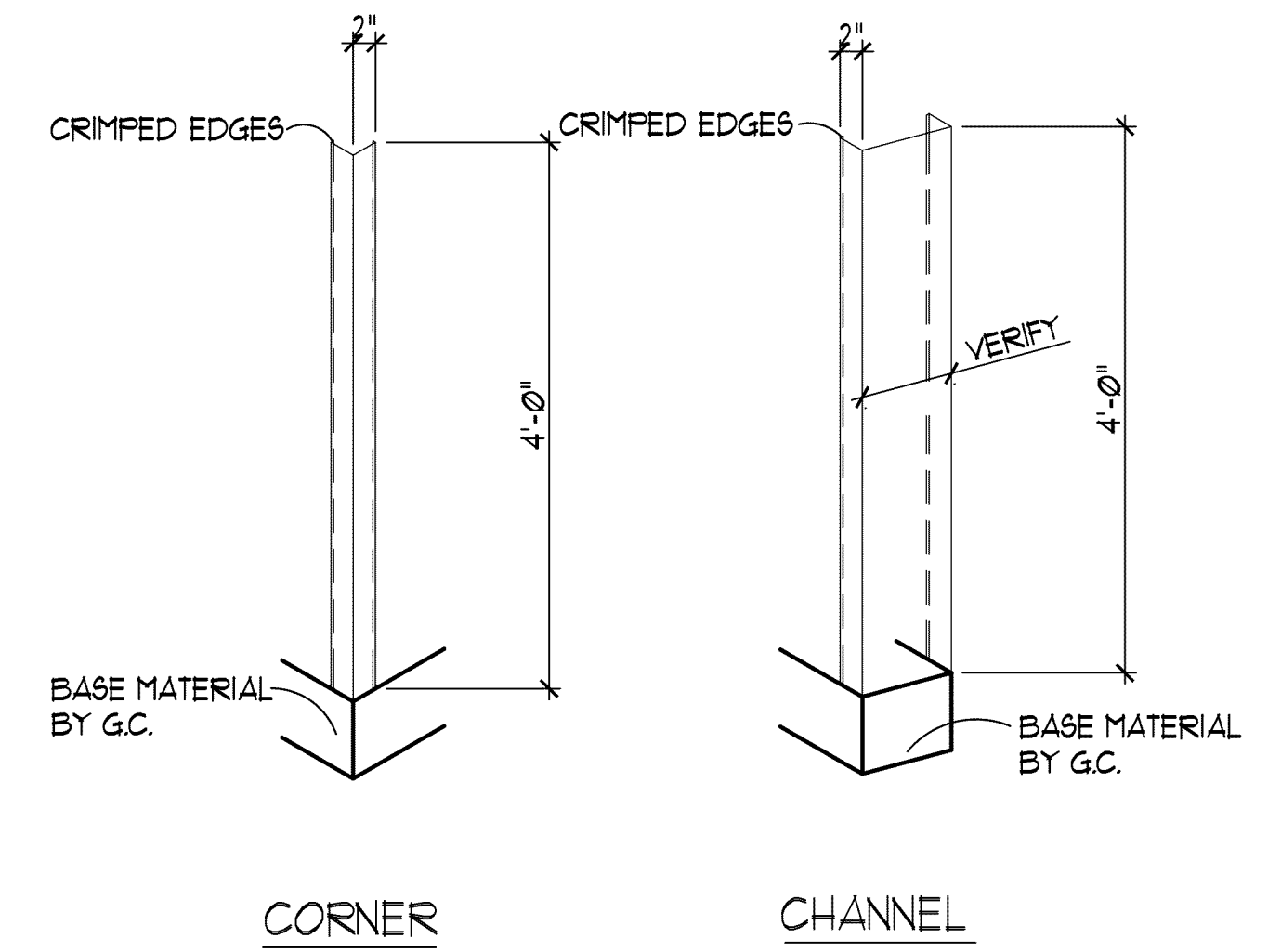


2 ELEVATION
DINING COUNTER & ICE MACHINE
3/4" = 1'-0"

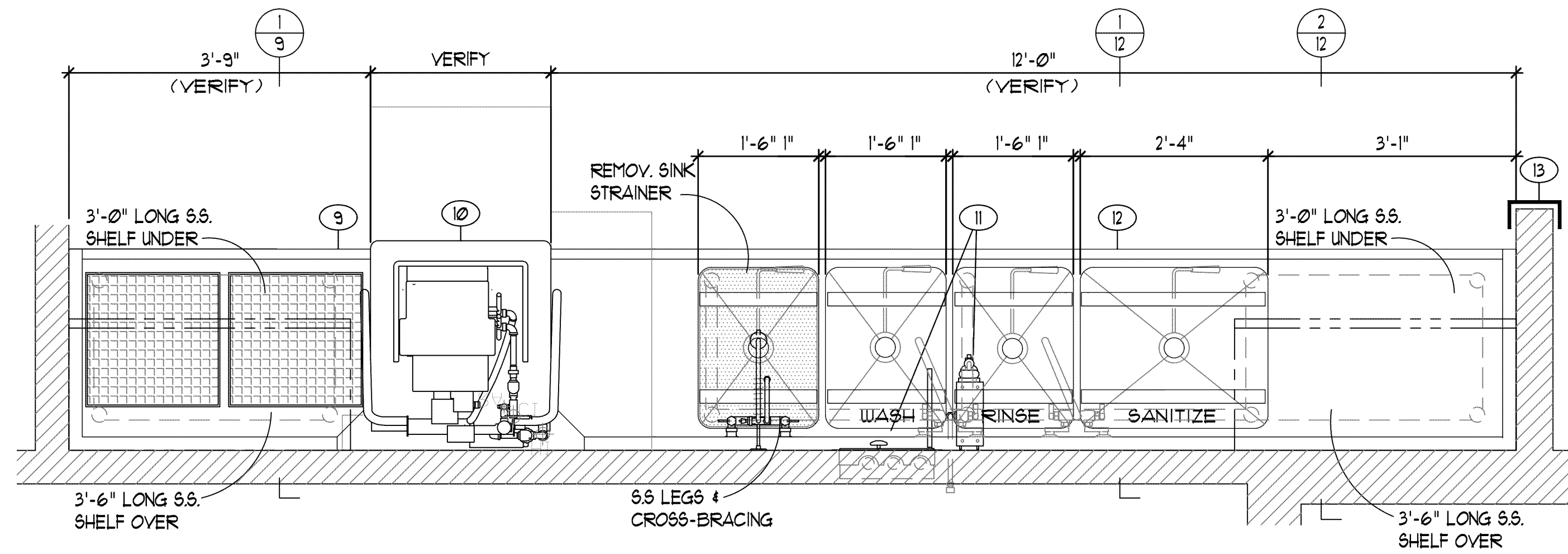


1 SECTION
3/4" = 1'-0"

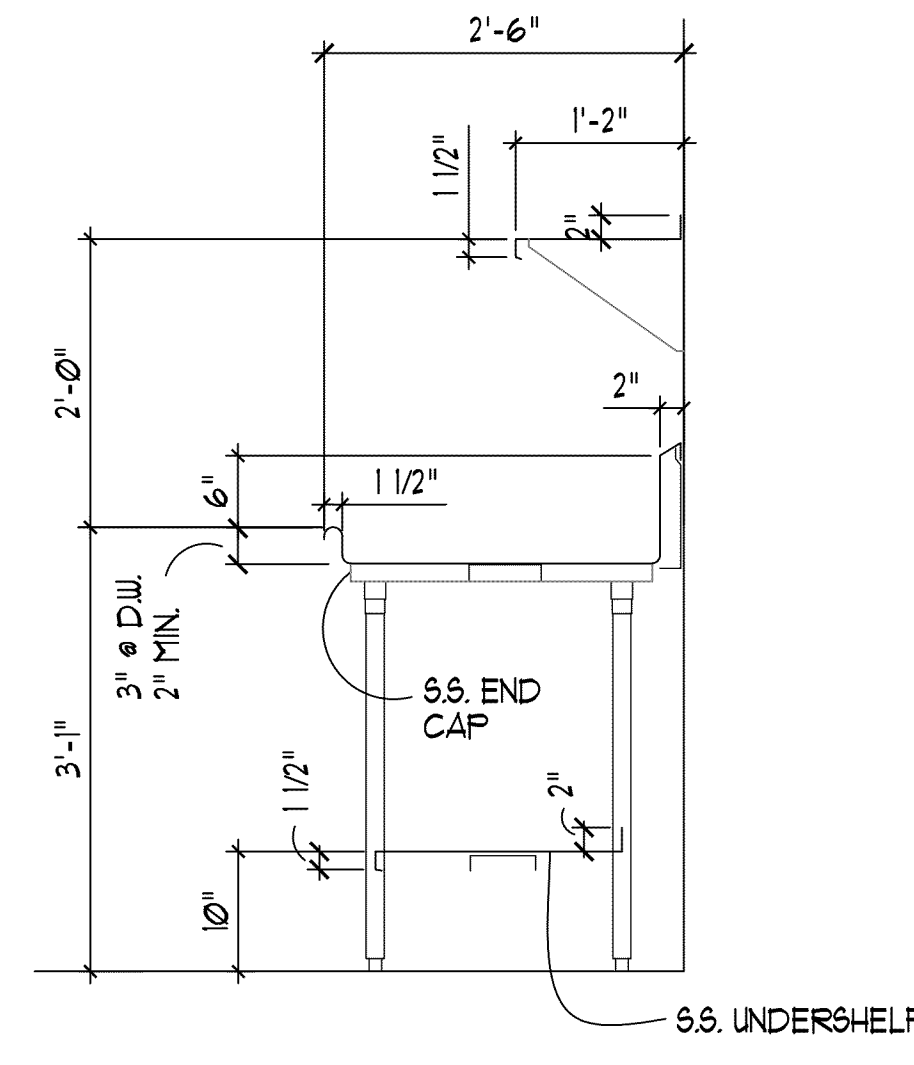
NOTE: SEE SHEET F61.01 FOR LOCATIONS AND QUANTITIES OF THESE ITEMS



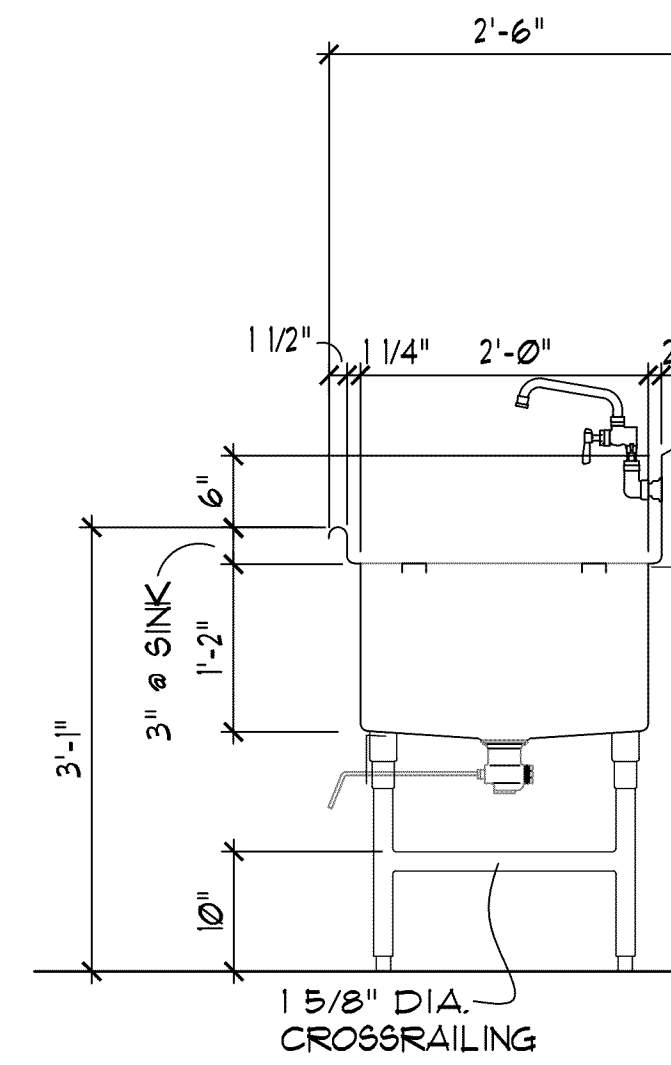
A DETAILS CORNER & CHANNEL GUARDS
3/4" = 1'-0"



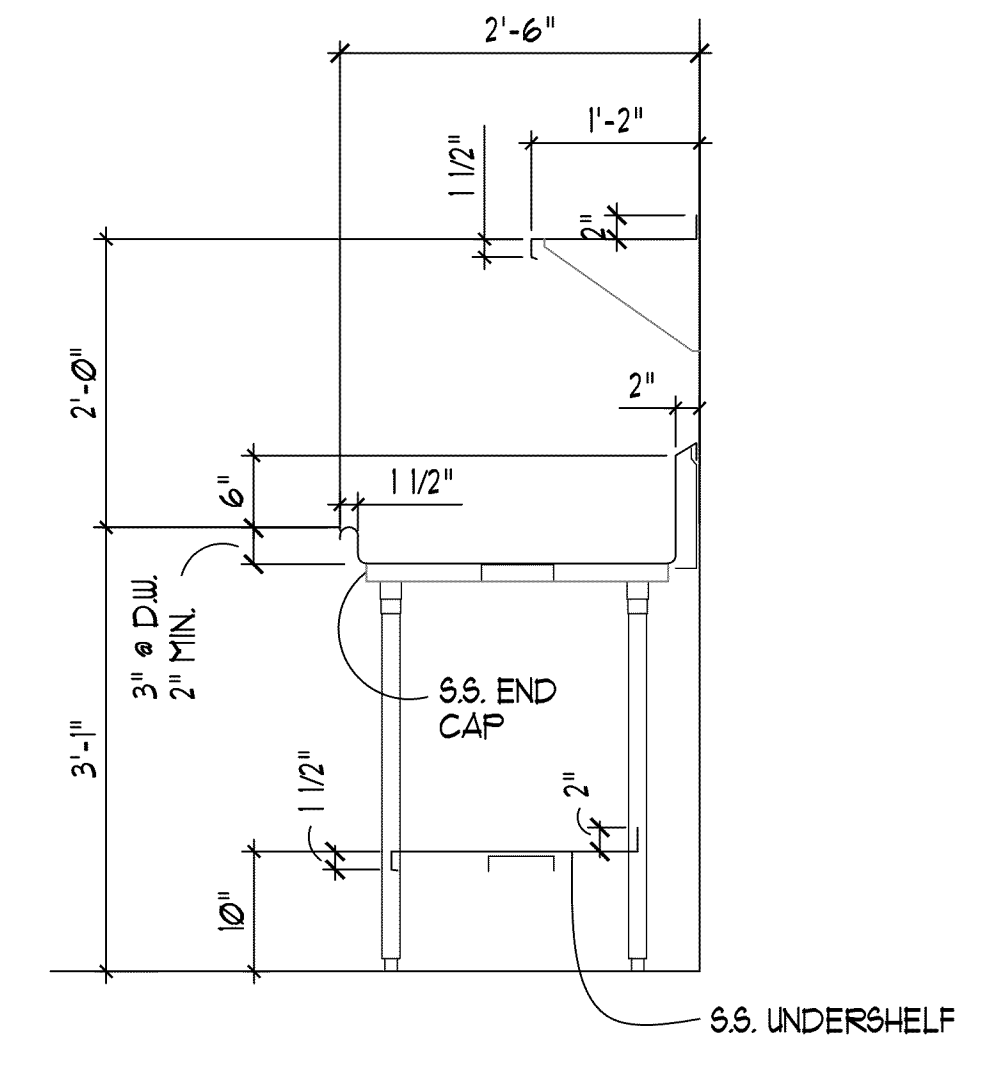
A PLAN VIEW WAREWASHING AREA
3/4" = 1'-0"



9 SECTION
3/4" = 1'-0"



12 SECTION
3/4" = 1'-0"



2 SECTION
3/4" = 1'-0"

1 FLOOR PLAN - FOOD SERVICE ELEVATION & FABRICATION DETAILS
AS NOTED

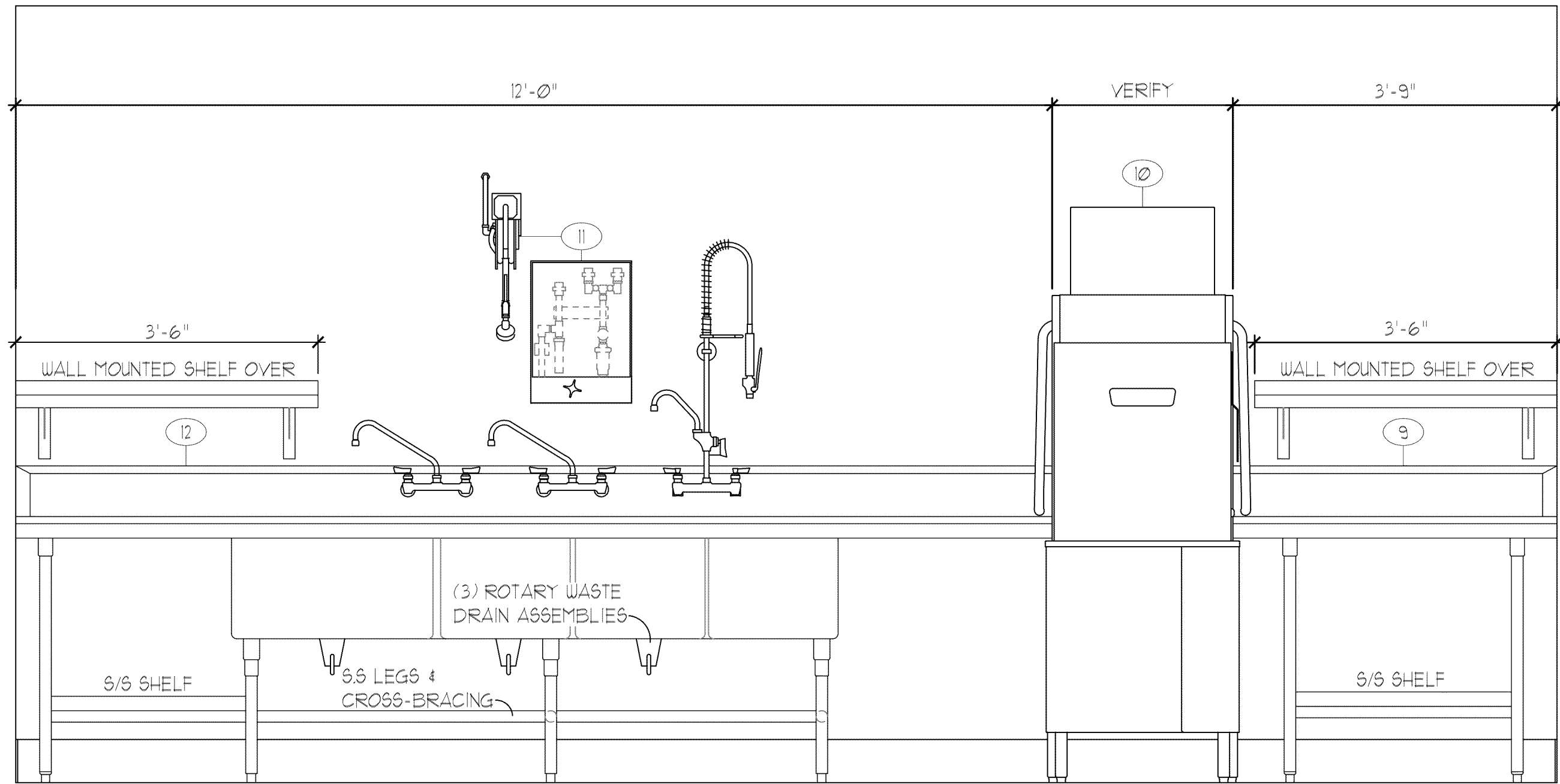


DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233
FOOD SERVICE ELEVATION AND FABRICATION DETAILS

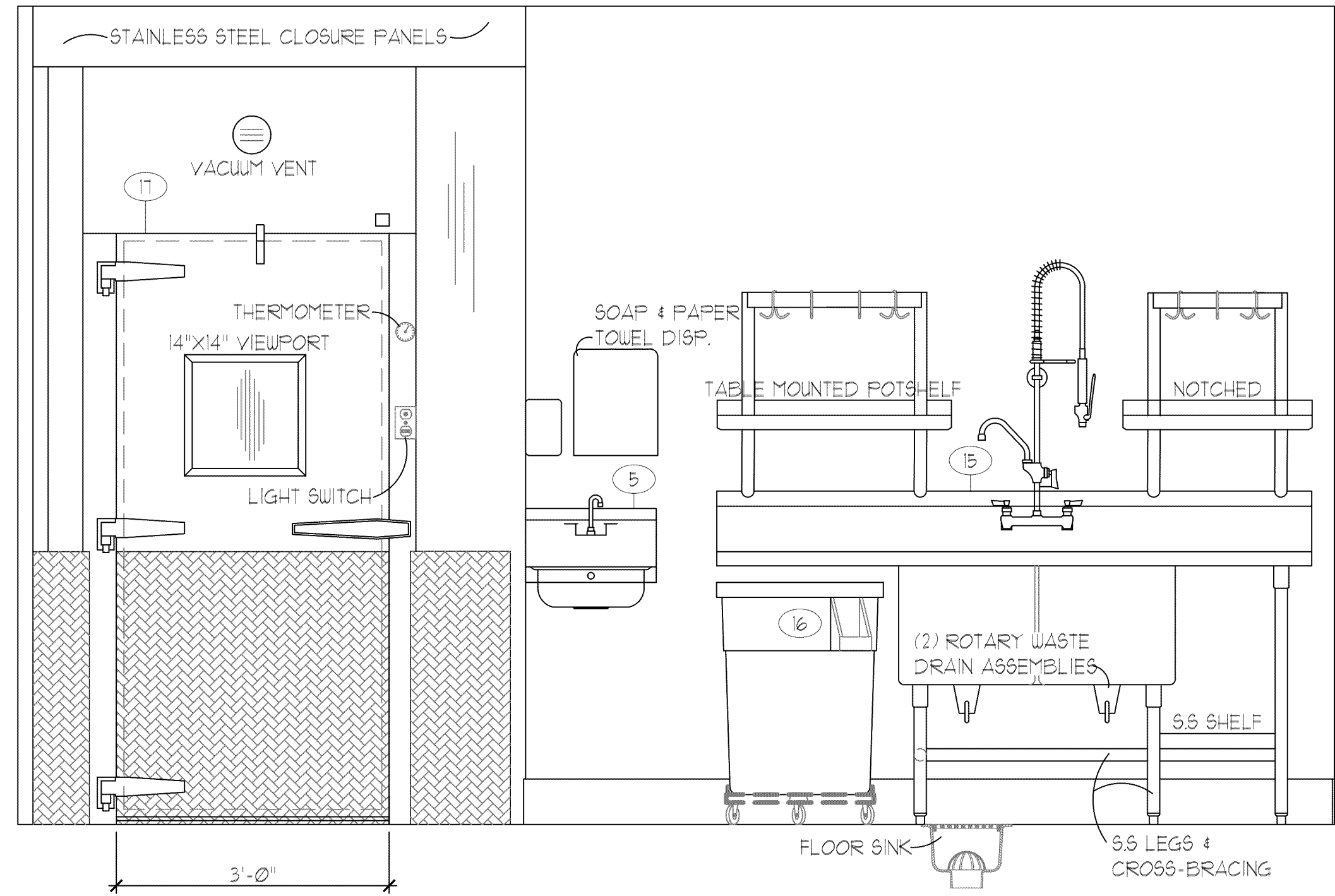
BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034

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PROJECT NUMBER
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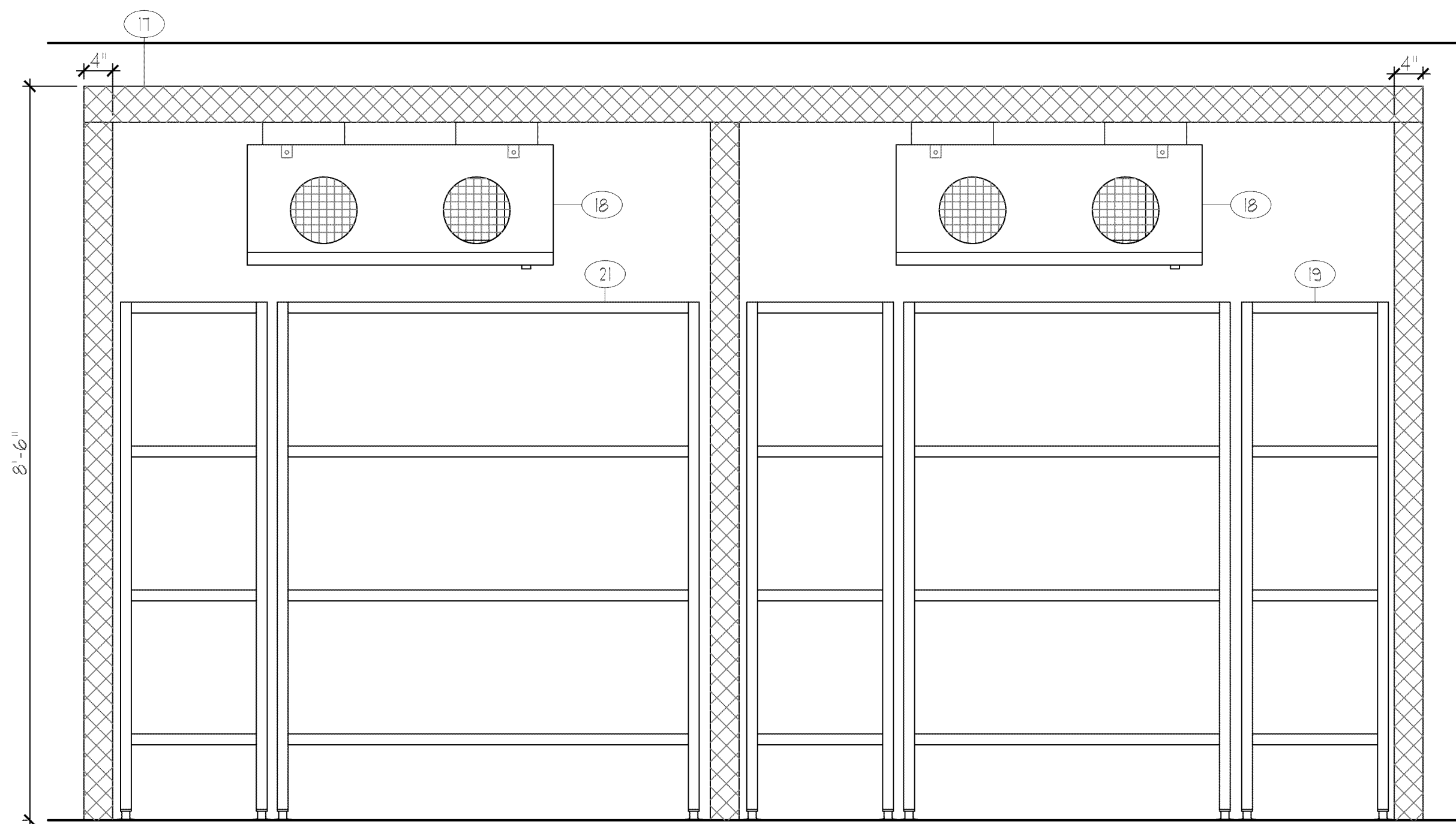
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BID SET



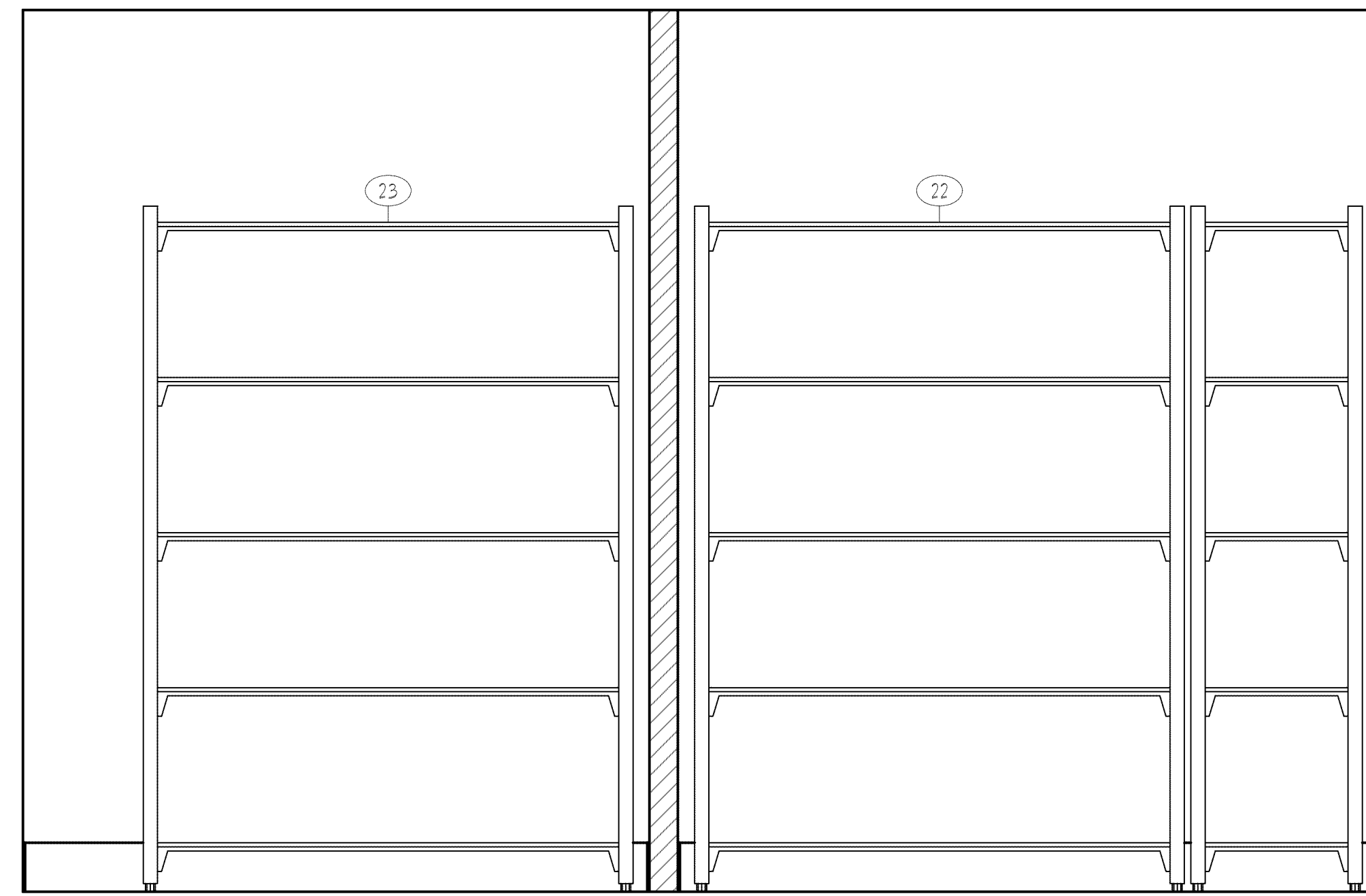
3 ELEVATION CLEAN/SOILED DISHTABLES & WAREWASHER
3/4" = 1'-0"



4 ELEVATION VEGETABLE PREP SINK TABLE & COOLER
3/4" = 1'-0"

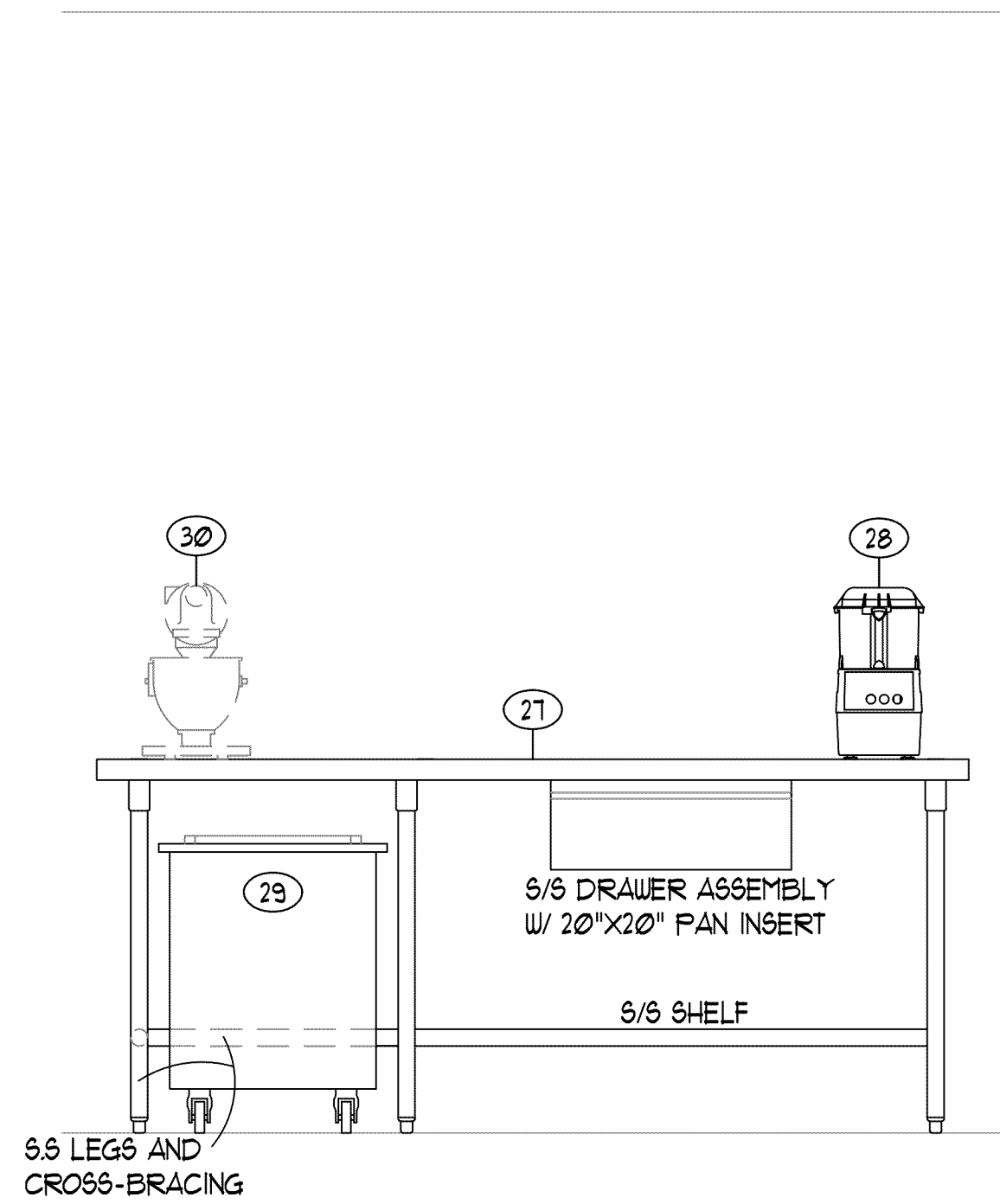


5 ELEVATION WALK-IN COOLER/FREEZER BANK - (INTERIOR)
3/4" = 1'-0"

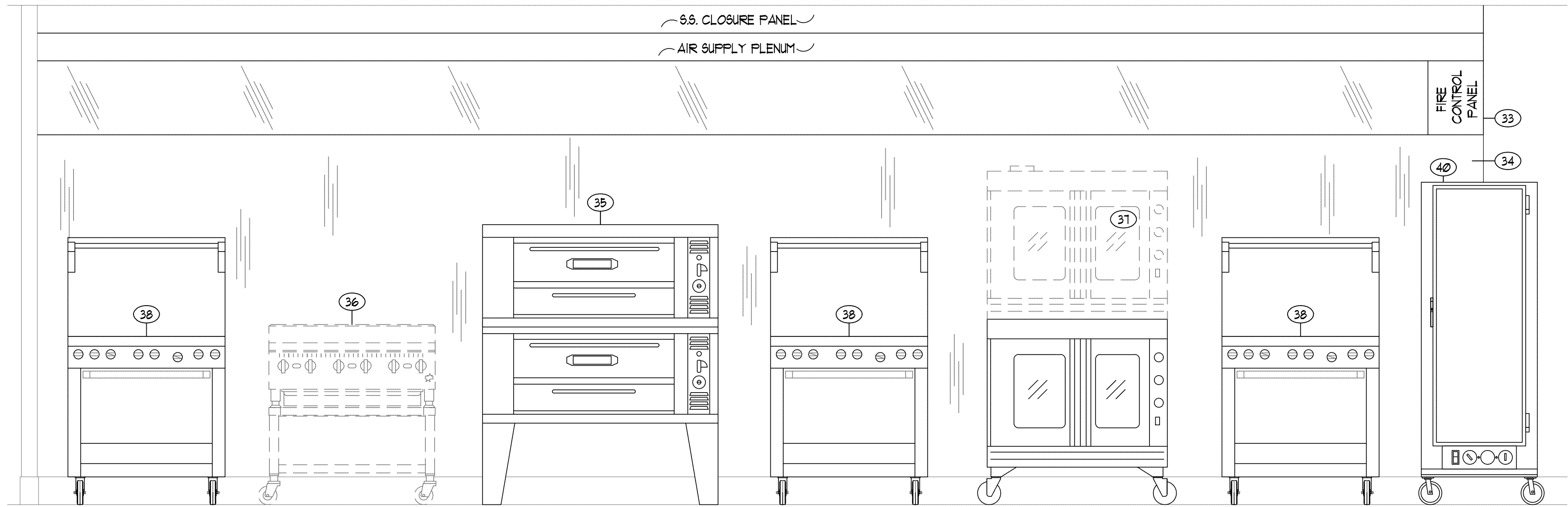


6 ELEVATION APPLIANCE & DRY STORAGE SHELVING
3/4" = 1'-0"

1 FLOOR PLAN - FOOD SERVICE ELEVATION & FABRICATION DETAILS
AS NOTED

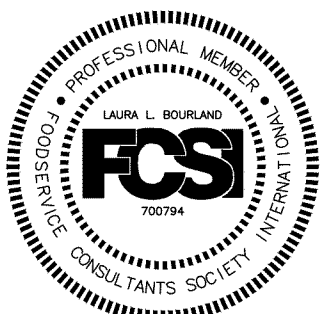


1 ELEVATION STUDENT WORK STATION
3/4" = 1'-0"



8 ELEVATION COOKING LINE
3/4" = 1'-0"

1 FLOOR PLAN - FOOD SERVICE ELEVATION & FABRICATION DETAILS
AS NOTED



DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT KITCHEN
MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233

10039.00-1
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DATE

F33.4

BID SET

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FOOD SERVICE ELEVATION AND FABRICATION DETAILS

DAVID DOUGLAS SCHOOL DISTRICT

DAVID DOUGLAS HS SOUTH KILT KITCHEN MODIFICATIONS



ABBREVIATIONS (NOT ALL ABBREVIATIONS ARE USED)

4 L C S 1 RE # SQ.	AND ANGLE CENTERLINE DEGREES DIAMETER OR ROUND PERPENDICULAR PLATE FOUND OR NUMBER SQUARE	EXP. EXT. EXIST. OR (E)	EXPANSION EXTERIOR EXISTING	FL. FLAM PLYWD. FR. P.T. PTD PTD/R	PLATE PLASTIC LAMINATE PLYWOOD PAIR PRESSURE TREATED PAPER TOWEL DISPENSER COMBINATION PAPER TOWEL DISPENSER / RECEPTACLE PARTITION
A.B. ACQUST. ADJ. A.F.F. ALT. ALUM. A.N.S.I.	ANCHOR BOLT ACQUATICAL ADJUSTABLE ABOVE FINISH FLOOR ALTERNATE ALUMINUM AMERICAN NATIONAL STANDARDS INSTITUTE A11.1-1982	F.D. FDN. F.E. F.E.C. F.H.C. FIN. FLR. FLUOR.	FLOOR DRAIN FOUNDATION FIRE EXTINGUISHER FIRE EXTINGUISHER CAB. FIRE HOSE CABINET FINISH FLOOR FLUORESCENT FACE OF CONCRETE FACE OF FINISH FACE OF STUD FIRE RETARDANT TREATED FOOT OR FEET FOOTING	PTN. R. RAD. R.D. REF. REINF. REQ'D. REQ.MTS. RESEL. REV. RHY. R.O.	RIER RADIUS ROOF DRAIN REFRIGERATOR OR REFERENCE REINFORCED REQUIREMENTS RESILIENT REVERSE RIDGE ROUGH OPENING
B.D. BIT. BLDG. BLK. BLKG. BM. B.O. B.O.C. BRNG. BTM.	BOARD BUTYRHOS OR BUTYREN BUILDING BLOCK BLOCKING BEAM BOTTOM OF BOTTOM OF CURB BEARING BOTTOM	G.A. GALV. GC GFCI G.L.B. G.M.U. G.Y.P.	GAUGE GALVANIZED GENERAL CONTRACTOR GROUND-FULL CIRCUIT INTERRUPTER GLUE LAMINATED BEAM GLASS MASONRY UNIT GYPSUM	S.C. SCD SCHED. SD SECT. S.F. OR SQ. FT. SHT'G. SIM. SM SND SNR SPEC. SS STL. STOR. STRUCT. SUSP.	SOLID CORE SEAT COVER DISPENSER SCHEDULE SCUP DISPENSER SECTION SQUARE FEET SHEATHING SHULDER SHEET METAL SANITARY NAPKIN DISPENSER SANITARY NAPKIN RECEPTACLE STAINLESS STEEL STEEL STORAGE STRUCTURAL SUSPENDED
CAB. C.B. C.I. C.J. C.L. C.L.R. CMU CO COIN. CONC. CONN. CONST. CONT. COORD. CORR. CTR. CUST.	CABINET CATCH BASIN CAST IRON CONTROL JOINT CLOSET CLEAR CLEAR CONCRETE MASONRY UNIT CLEANOUT COUN CONCRETE CONNECT OR CONNECTION CONSTRUCTION CONTINUOUS COORDINATE CORROSION CENTER CUSTODIAL	I.D. INSUL. INT. JT. LAM. LAY. LT. MAX. M.B. M.D.O. MECH. MEMB. MFR. OR MANUF.	INSIDE DIAMETER OR INSIDE DIMENSION INSULATION INTERIOR JOINT LAMINATE LAVATORY LIGHT TEMP. T.O.C. T.O.F. T.O.W. T.P.D. T.S. TYP.	T. TIG TEL. TEMP. T.O.C. T.O.F. T.O.W. T.P.D. T.S. TYP.	TREAD TONGUE AND GROOVE TELEPHONE TEMPERED TOP OF TOP OF CURB TOP OF PAVEMENT TOP OF WALL TOILET PAPER DISPENSER TUBE STEEL TYPICAL
DBL. D.F. DIA. DIA.G. DIM. DISP. DN. DR. DS DTL. DWG	DOUBLE DRINKING FOUNTAIN DIAMETER DIAGONAL DIMENSION DISPENSER DOWN DOOR DOWNPOUT DETAIL DRAWING	N.H. MIN. MISC. M.O. MOD. BIT. MTL. (N) N.I.C. NO. OR # NOM. N.T.S.	MAN HOLE MINOR MISCELLANEOUS MAJORITY OPENING MODIFIED BUTYREN METAL NEW NOT IN CONTRACT NUMBER NORMAL NOT TO SCALE	U.B.C. U.O.N. VERT. VEST. V.P.	UNKNOWN BUILDING CODE UNLESS OTHERWISE NOTED VERTICAL VESTIBULE VENEER PLASTER
EJ EL. ELEC. ELEV. EQ.	EXPANSION JOINT ELEVATION ELECTRICAL ELEVATOR EQUAL	O.C. O.D. O.P.C.I. O.F.O.I. OPENING OPP. O.S.B.C.	O.C. CENTER OUTSIDE DIAMETER OWNER FURNISHED CONTRACTOR INSTALLED OWNER FURNISHED OWNER INSTALLED OPENING OPPOSITE OREGON STRUCTURAL SPECIALTY CODE	W/ W.C. W.D. W.H. W/O W.P. WT.	WITH WATER CLOSET WOOD WATER HEATER WITHOUT WATERPROOF WEIGHT

STANDARD SYMBOLS

	EXTERIOR ELEVATION TAG		DOOR TAG
	BUILDING SECTION FLAG - DIRECTION FLAG OMITTED		KEYNOTE TAG
	WALL SECTION FLAG - DIRECTION FLAG MAY BE OMITTED		SHEET NOTE TAG
	INTERIOR ELEVATION TAG		DEMOLITION NOTE TAG
	DETAIL FLAG		REVISION TAG
	DETAIL CALLOUT		WINDOW TYPE TAG
	NORTH ARROW		WALL TYPE TAG
	GRID BUBBLE & GRID LINE		CEILING HEIGHT TAG
			FLOOR PLAN ROOM LABEL & NUMBER
			ELEVATION TAG

GENERAL NOTES

- COORDINATE ALL WORK WITH THE DRAWINGS AND SPECIFICATIONS.
- DO NOT SCALE DRAWINGS.
- CONTRACTOR AND SUB-CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS, LOCATIONS, AND PROJECT REQUIREMENTS PRIOR TO SUBMITTING A BID.
- CONTRACTOR AND SUB-CONTRACTORS SHALL FIELD VERIFY DIMENSIONS, AND FAMILIARIZE THEMSELVES WITH PROJECT REQUIREMENTS PRIOR TO COMMENCING WITH THE WORK. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO ARCHITECT.
- WORK SHALL INCLUDE ALL REQUIRED PERMITS, LABOR, MATERIALS, AND EQUIPMENT TO COMPLETE ALL WORK INDICATED ON DRAWINGS AND SPECIFICATIONS.
- PROVIDE TEMPORARY DUST-PROOF PARTITIONS AS REQUIRED TO PROTECT ALL EXISTING AREAS AND EQUIPMENT FROM DAMAGE DUE TO DEMOLITION OR NEW CONSTRUCTION ACTIVITIES. COORDINATE LOCATIONS AND REQUIREMENTS WITH OWNER.
- GENERAL CONTRACTOR TO PATCH, REPAIR AND PAINT (REFINISH) SURFACES AND BUILDING ELEMENTS DAMAGED BY MECHANICAL, ELECTRICAL, AND PLUMBING WORK AND WHERE ITEMS ARE REMOVED, RELOCATED OR ADDED.
- REPAIR FLOORS WHERE DAMAGED BY THE WORK OF THIS PROJECT.
- PATCH AND REPAIR ALL SURFACES TO MATCH EXISTING WHERE ITEMS ARE REMOVED OR ALTERED - FIELD VERIFY EXTENT REQUIRED.
- ALL PAINTING SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ADJACENT FINISHES AND CLEANUP.
- CONTRACTOR IS RESPONSIBLE FOR FINAL CLEAN-UP OF WORK AREAS AND ALL EXPOSED BUILDING SURFACES AT SUBSTANTIAL COMPLETION.
- ALL TRASH AND TOOLS SHALL BE REMOVED FROM PREMISES EACH DAY AND THE AREA LEFT CLEAN WHENEVER UNATTENDED. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP. COORDINATE WITH OWNER IF SECURE STORAGE IS NEEDED ON-SITE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO FINISHED SURFACES, EQUIPMENT, FURNITURE, EXISTING MATERIALS OR FINISHES, CAUSED AS A RESULT OF HIS WORK. REPAIR OR REPLACE DAMAGED ITEMS AS DIRECTED BY ARCHITECT.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- WORK SHALL BE DONE BY THOSE SKILLED AND EXPERIENCED IN THEIR RESPECTIVE TRADES. WORK SHALL BE OF THE HIGHEST QUALITY WORKMANSHIP.

CONTACTS

OWNER

DAVID DOUGLAS SCHOOL DISTRICT
1300 NE HALSEY ST
PORTLAND, OREGON 97220
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CONTACT: DAVID CALLAWAY

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LAKE OSWEGO, OREGON 97034
PHONE: (503) 635-4425 FAX: (503) 635-3581
CONTACT: DOUG PRUITT

STRUCTURAL ENGINEERS

MILLER CONSULTING ENGINEERS, INC.
9510 SW BARBUR BLVD., SUITE 100
PORTLAND, OR 97219
PHONE: (503) 246-1250
CONTACT: ANDREW LEIGHTY

FOOD SERVICE CONSULTANT

HALLIDAY AND ASSOCIATES
333 SW SECOND AVENUE, SUITE 100
CAMAS WA 99601
PHONE: (360) 834 5453
CONTACT: LAURA BOURLAND

MECHANICAL / ELECTRICAL / PLUMBING ENGINEERS

SYSTEM DESIGN CONSULTANTS
333 SW SECOND AVENUE, SUITE 100
PORTLAND, OR 97219
PHONE: (503) 248-0221 FAX: (503) 248-0240
CONTACT: GARY BARNES (MECHANICAL)
NEIL BOYER (PLUMBING)
JOHN ROGERS (ELECTRICAL)

DRAWING INDEX

GENERAL

G1 - TITLE SHEET
G2 - CODE FLOOR PLAN

ARCHITECTURAL

D1.1 - DEMOLITION FLOOR PLAN, DEMOLITION REFLECTED CEILING PLAN
A1.1 - FLOOR PLAN, REFLECTED CEILING PLAN
A4.1 - BUILDING SECTION, ELEVATIONS
A5.1 - DETAILS
A5.2 - DETAILS
A5.3 - DETAILS
A6.1 - SCHEDULE

STRUCTURAL

S0.1 - STRUCTURAL NOTES
S0.2 - SPECIAL INSPECTION
S1.1 - FOUNDATION PLAN
S1.2 - ROOF FRAMING PLAN
S3.1 - FRAMING ELEVATION
S5.1 - CONCRETE DETAILS
S6.1 - WOOD FRAMING DETAILS

PLUMBING

P1.0 - PLUMBING LEGENDS, SCHEDULES AND NOTES
P2.0 - PLUMBING ENLARGED KITCHEN DEMO FLOOR PLAN
P2.1 - PLUMBING HW, CW, GAS ENLARGED KITCHEN NEW FLOOR PLAN
P2.2 - PLUMBING WASTE AND VENT ENLARGED KITCHEN NEW FLOOR PLAN
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MECHANICAL

M1.0 - MECHANICAL SCHEDULE AND DETAILS
M1.1 - HVAC ENLARGED KITCHEN FLOOR PLANS
M3.1 - SEISMIC DETAILS
M3.2 - SEISMIC DETAILS

ELECTRICAL

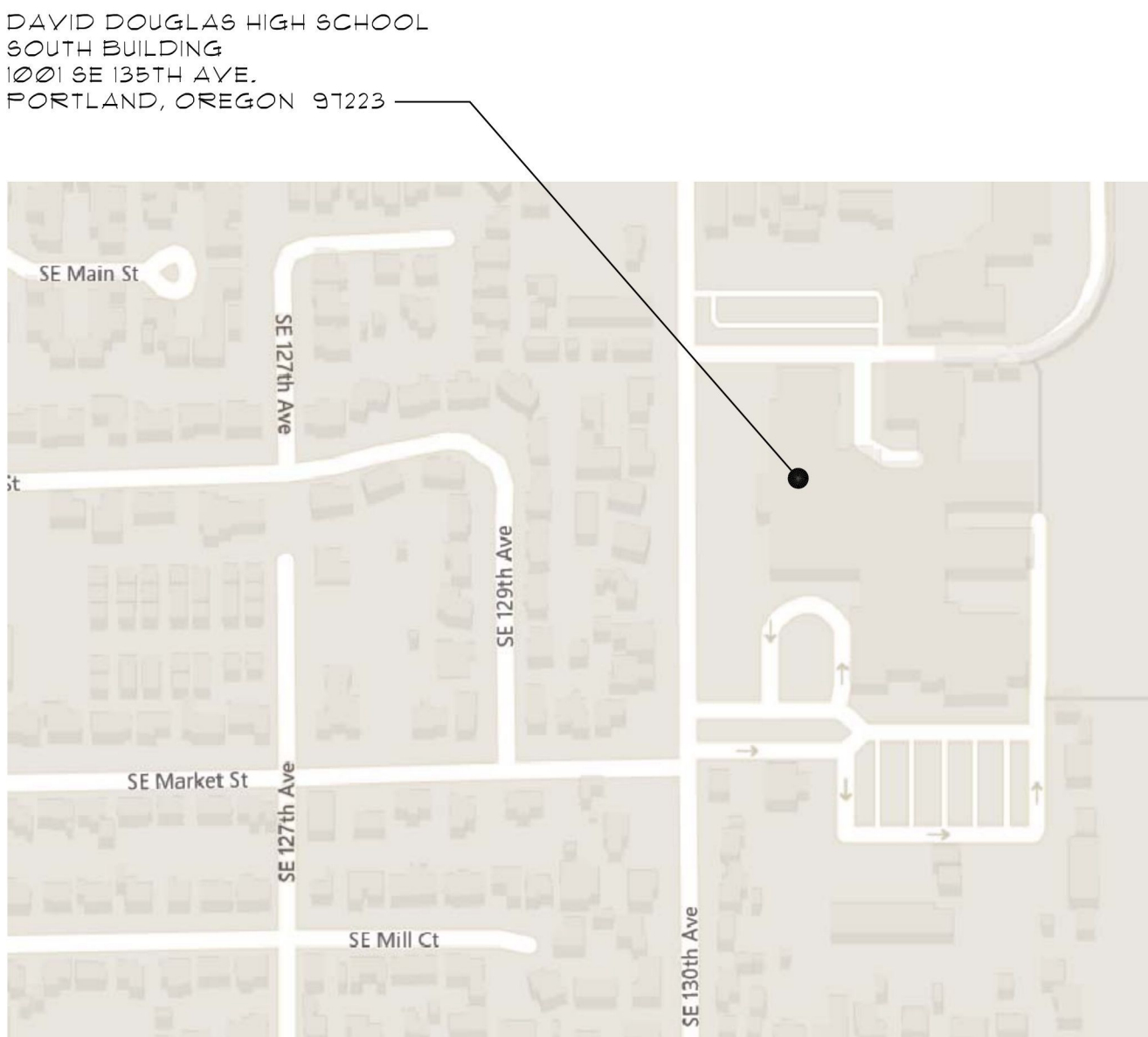
E1.1 - ENLARGED KITCHEN DEMO FLOOR PLAN
E1.2 - ENLARGED KITCHEN NEW FLOOR PLAN - LIGHTING
E1.3 - ENLARGED KITCHEN NEW FLOOR PLAN - EGRESS PHOTOMETRICS
E2.1 - ENLARGED KITCHEN DEMO FLOOR PLAN - POWER
E2.2 - ENLARGED KITCHEN NEW FLOOR PLAN - POWER
E2.3 - ENLARGED KITCHEN NEW FLOOR PLAN - EQUIPMENT
E2.4 - OVERALL FLOOR PLAN - EQUIPMENT
E3.0 - ELECTRICAL SCHEDULES
E3.1 - LIGHTING CONTROLS

FOOD SERVICE

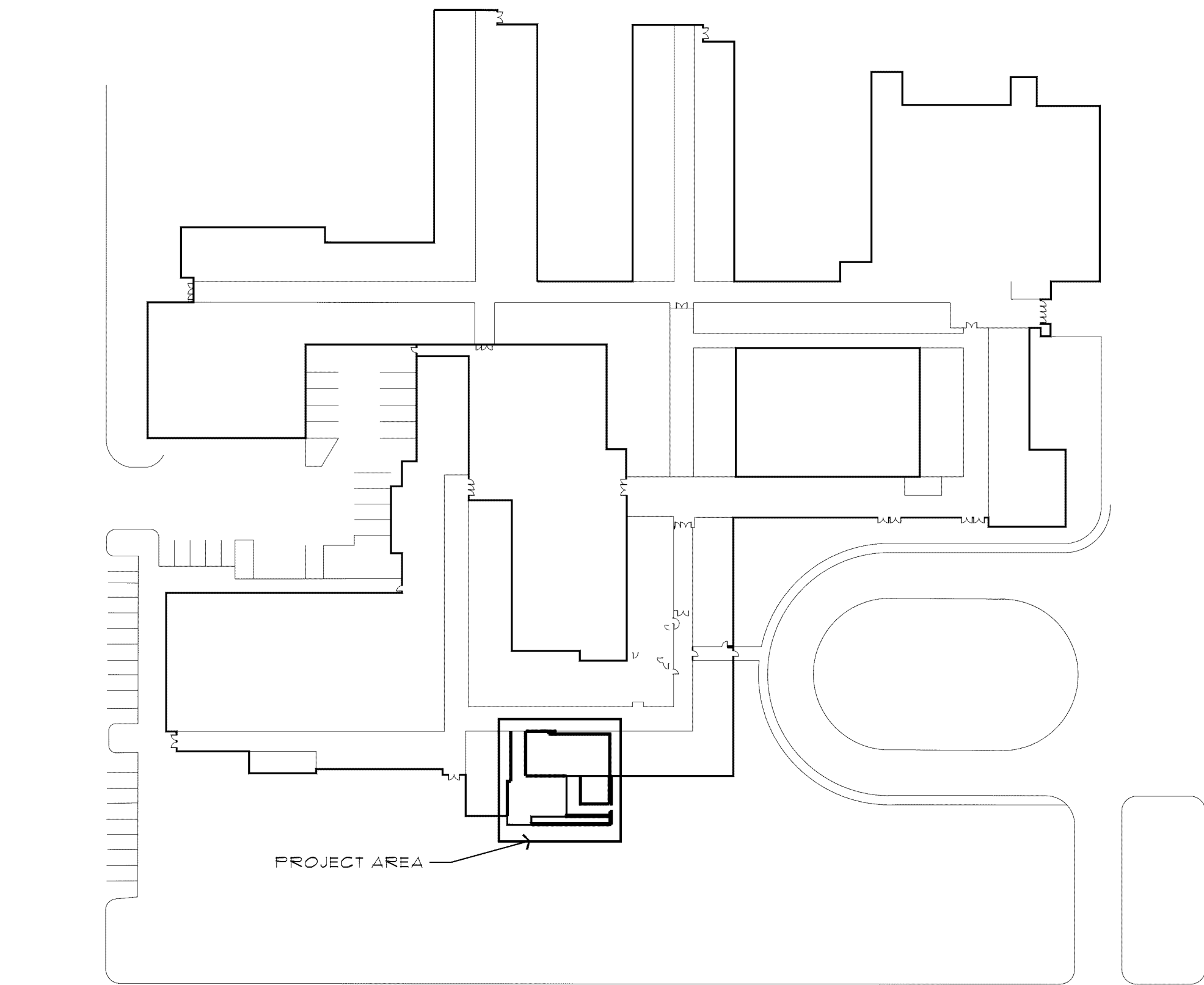
F0.1 - FOOD SERVICE EQUIPMENT PLAN
F0.1.2 - FOOD SERVICE PLUMBING PLAN
F0.1.3 - FOOD SERVICE MECHANICAL PLAN
F0.1.4 - FOOD SERVICE ELECTRICAL / REFRIGERATION PLAN
F0.2.1 - FOOD SERVICE CANOPY HOOD DETAILS
F0.2.2 - FOOD SERVICE CANOPY HOOD DETAILS
F0.2.3 - FOOD SERVICE CANOPY HOOD DETAILS
F0.2.4 - FOOD SERVICE CANOPY HOOD DETAILS
F0.2.5 - FOOD SERVICE CANOPY HOOD DETAILS
F0.3.1 - FOOD SERVICE WALK-IN DETAILS
F0.3.2 - FOOD SERVICE ELEVATION & FABRICATION DETAILS
F0.3.3 - FOOD SERVICE ELEVATION & FABRICATION DETAILS
F0.3.4 - FOOD SERVICE ELEVATION & FABRICATION DETAILS



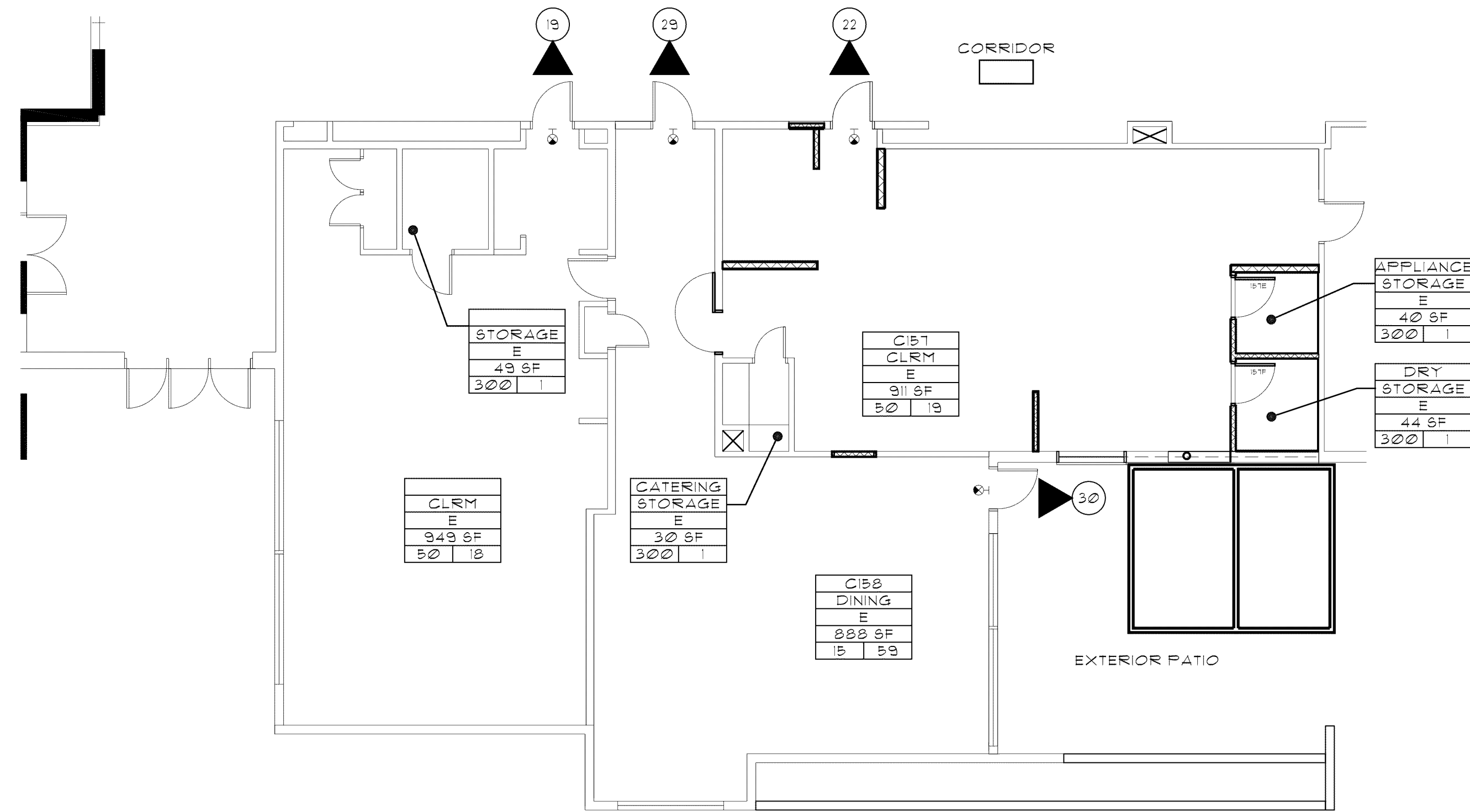
LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.



1 SITE PLAN - EXISTING DAVID DOUGLAS HIGH SCHOOL SOUTH CAMPUS
1/64" = 1'-0"



2 CODE FLOOR PLAN
1/16" = 1'-0"

CODE PLAN LEGEND

121A	ROOM NUMBER
STORAGE	ROOM NAME / USE
6 OCC.	OCCUPANCY GROUP
120 SF	SQUARE FEET / AREA
300 1	NUMBER OF OCCUPANTS

CONSTRUCTION TYPE: YB
OCCUPANCY: E

EXIT ACCESS TRAVEL DISTANCE

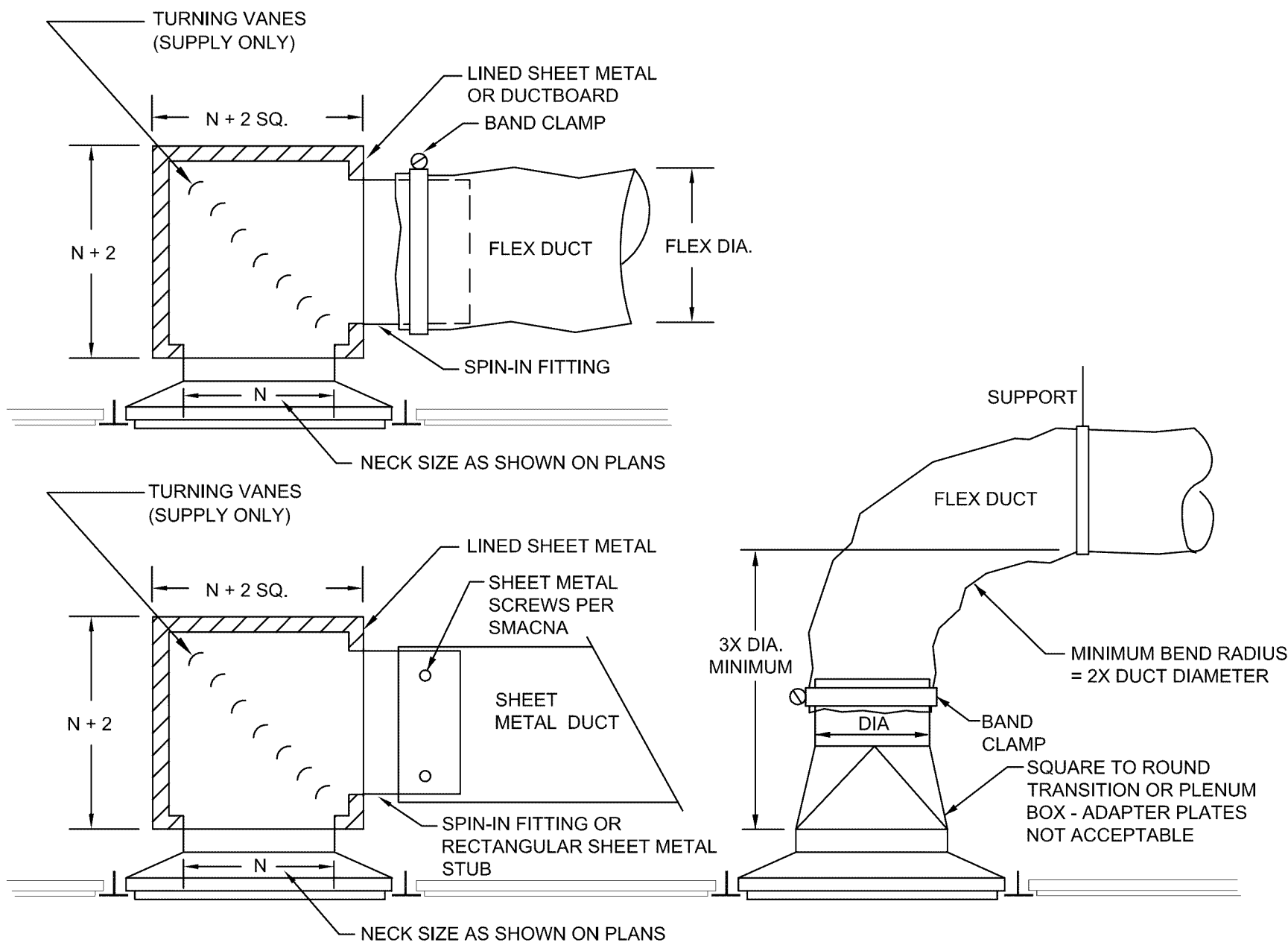
EXIT SIGN INTERNALLY OR EXTERNALLY ILLUMINATED

MINIMUM CORRIDOR WIDTH 42"
RATED CORRIDORS NOT REQUIRED

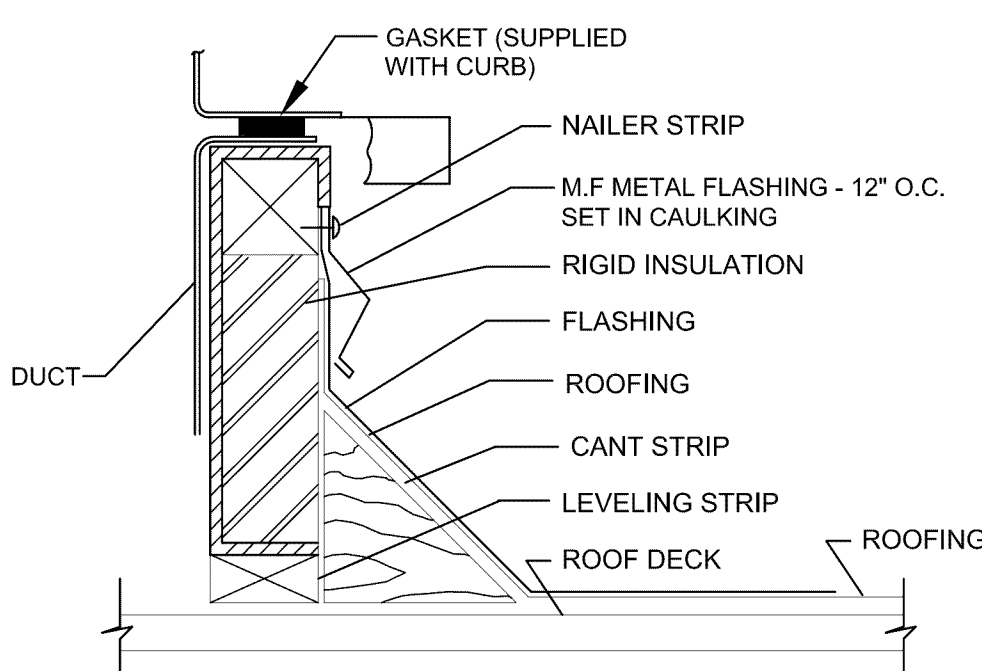
EXISTING CLASSROOM REMODEL;
OCCUPANCY REMAINS THE SAME

STANDARD Q SPRINKLER SYSTEM
TRAVEL DISTANCE: < 250'-0" MAX.

MECHANICAL VENTILATION SCHEDULE														
STANDARD CASE: 2014 OREGON MECHANICAL SPECIALTY CODE														
OCCUPANCY CATEGORY	ZONE	AREA SQ. FT.	PEOPLE OUTDOOR AIR RATE	AREA OUTDOOR AIR RATE	OCCUPANT DENSITY #/1000 SQ. FT.	BREATHING ZONE OSA FLOW RATE	ABLE 403.3.1 ONE AIR DIST EFFECTIVENESS	ZONE OUTDOOR AIR ZONE	TABLE 403.3.2.3.2 VENT FLOW	MINIMUM OSA INTAKE FLOW	ZONE PRIMARY AIRFLOW	SYSTEM OSA CFM SUPPLIED	EXH RATE CFM	
		(Pa)	(Az)	(Pa)	(Pa)	-	(Pa*Pa+Az*Pa)	Vbz (CFM)	(Ez)	Vbz/Ez	Ev	Vbz/Vbz/Ev	Vpz/(CFM)	
FOOD PREP	KITCHEN	0	940	0	0	0	0	1.0	0	1.0	0	300	100	1564
MUA-1			940				0		0			300	100	



1
M1.0
CEILING DIFFUSERS AND GRILLES
DIAGRAMMATIC TYPICAL DIFFUSERS AND GRILLES



2
M1.0
RTU CURB DETAIL
DIAGRAMMATIC TYPICAL ROOFTOP UNITS

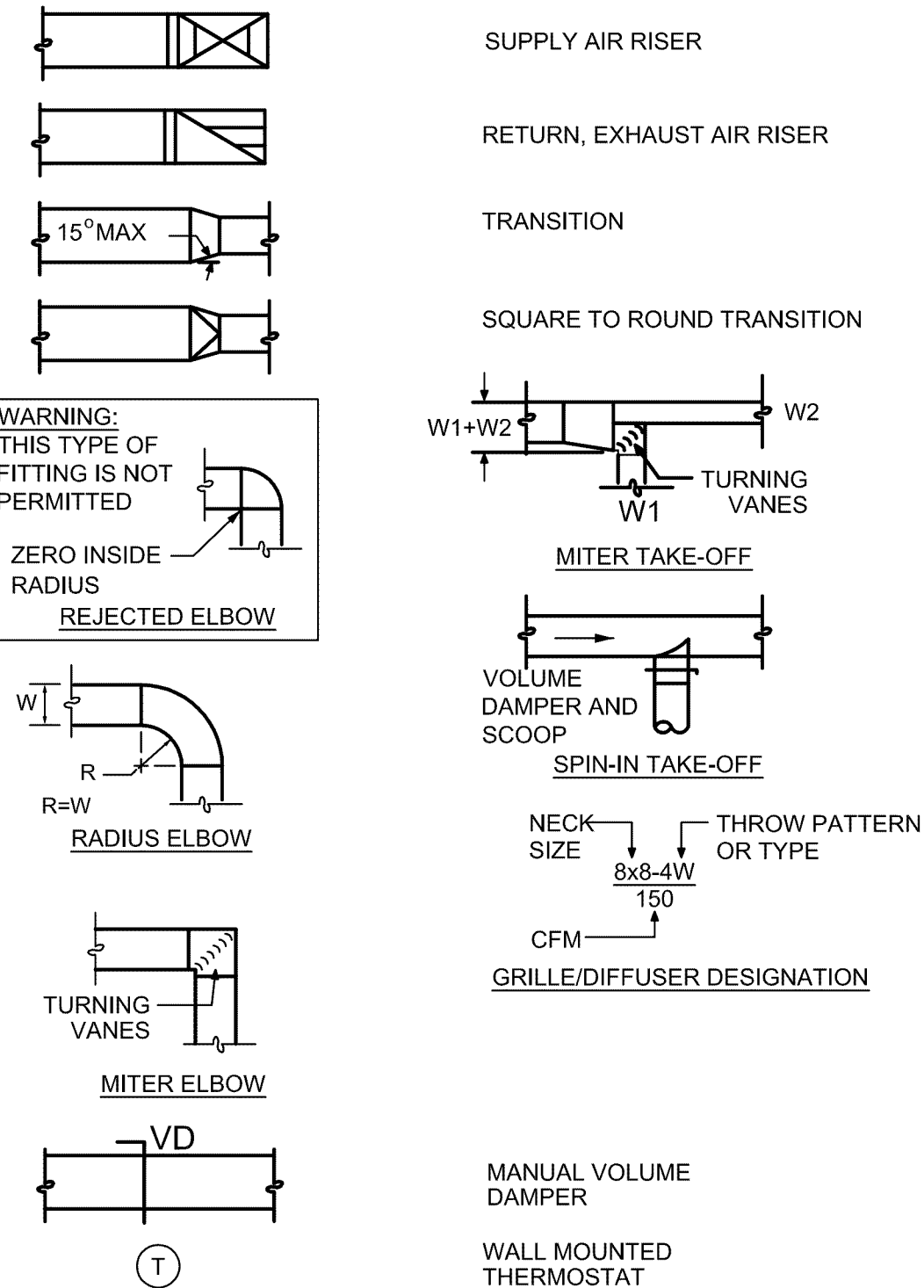
NOTE:
MECHANICAL ROOF EQUIPMENT CURBS TO
BE INSULATED WITH NOT LESS THAN R-5
INSULATION PER SECTION: 2014 OSSC
506.2.1.1

THIS DETAIL DENOTES GENERAL
FLASHING AND CURB CONFIGURATION.
VERIFY THE EXACT REQUIREMENTS OF
THE EQUIPMENT CURBS AND THE
ARCHITECTURAL ROOFING SYSTEM
USED. INSTALL CURBS IN ACCORDANCE
WITH THE ROOFING MANUFACTURER'S
INSTRUCTIONS. COORDINATE WITH
ARCHITECTURAL DETAILS AND
SPECIFICATIONS

MECHANICAL EQUIPMENT SCHEDULE		
SYMBOL	DESCRIPTION	ELECTRICAL
MUA-1	MAKE UP AIR UNIT, DIRECT FIRED GAS HEATED - 5050 CFM SUPPLY AIR DESIGNED, 2500 CFM MINIMUM, 100% OUTSIDE AIR, 0.50 ESP, BELT DRIVE, 5.0 HP MOTOR, BACKDRAFT DAMPER, ECONOMIZER, HEATING: 38.5 MBH TOTAL INPUT / 35.4 MBH TOTAL OUTPUT BASIS OF DESIGN: CAPTIVEAIRE MODEL A2-D500-20D OPERATING WEIGHT = 1,250 LBS	18.2 MCA 30 MOCP 208V, 3 PH
KEF-1	ROOF EXHAUST FAN - BELT DRIVE, UPBLAST DISCHARGE 3,312 CFM AT 1.25" ESP. 1317 MAX RPM, 2.0 HP MOTOR, 20 SONES MAX. BASIS OF DESIGN: CAPTIVEAIRE MODEL DU180HFA OPERATING WEIGHT = 310 LBS	9.2 MCA 15 MOCP 208V, 3 PH
KEF-2	ROOF EXHAUST FAN - BELT DRIVE, UPBLAST DISCHARGE 3,312 CFM AT 1.25" ESP. 1317 MAX RPM, 2.0 HP MOTOR, 20 SONES MAX. BASIS OF DESIGN: CAPTIVEAIRE MODEL DU180HFA OPERATING WEIGHT = 310 LBS	9.2 MCA 15 MOCP 208V, 3 PH

MECHANICAL SEISMIC DESIGN CRITERIA			
BUILDING SYSTEM	OCCUPANCY CLASSIFICATION	SEISMIC DESIGN CATEGORY	COMPONENT IMPORTANCE FACTOR (Ip)
OTHER HVAC COMPONENTS	III	D	1.5

MECHANICAL LEGEND

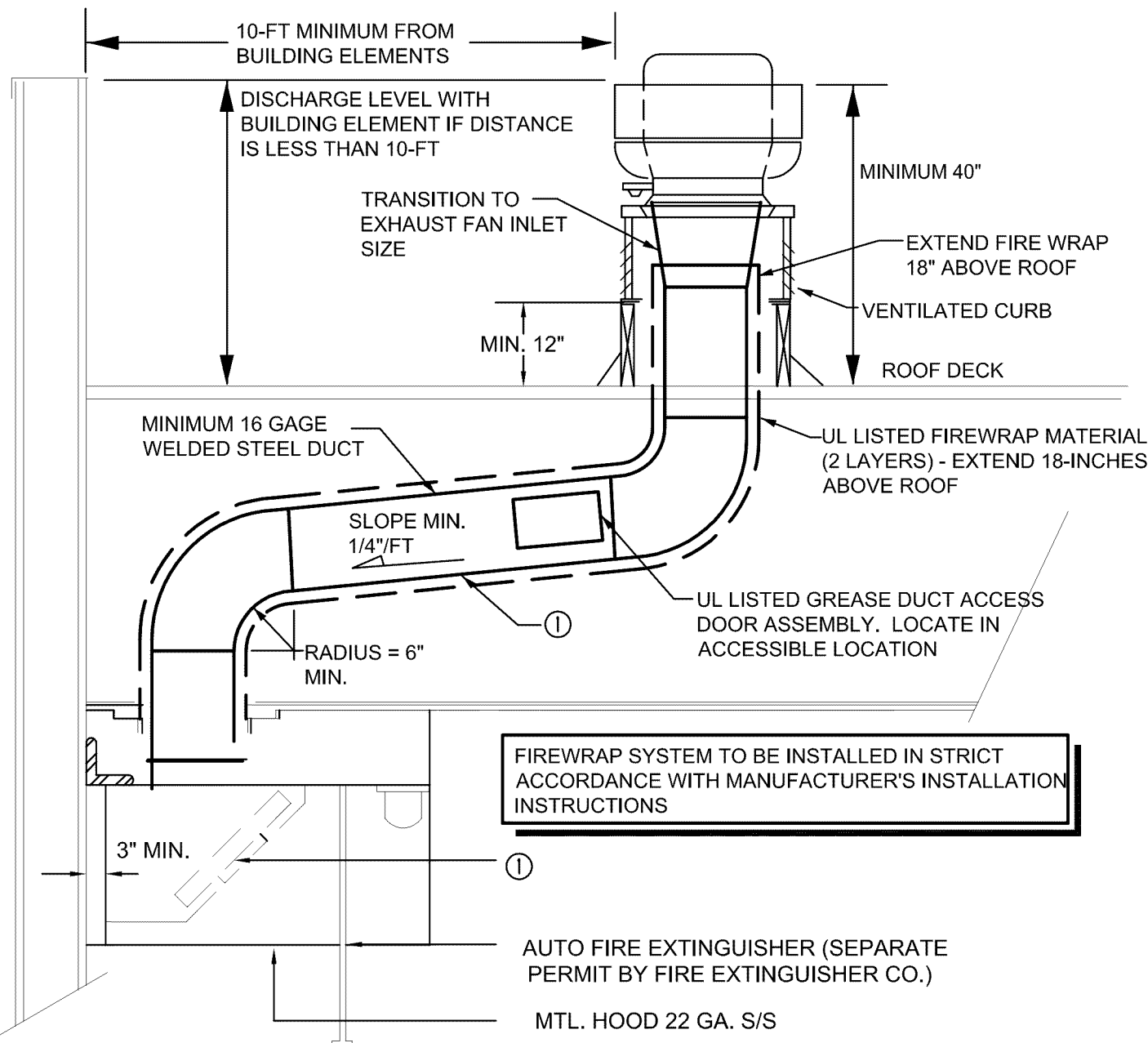


ABBREVIATIONS

8Ø	ROUND DUCT DIAMETER, INCHES
12X8	RECTANGULAR DUCT SIZE, INCHES
DN	DOWN
RA	RETURN AIR
SA	SUPPLY AIR

SYMBOLS

Ⓢ	CONNECT TO EXISTING
ⓔ	EXISTING TO REMAIN
Ⓡ	RELOCATE EXISTING
ⓧ	REMOVE EXISTING



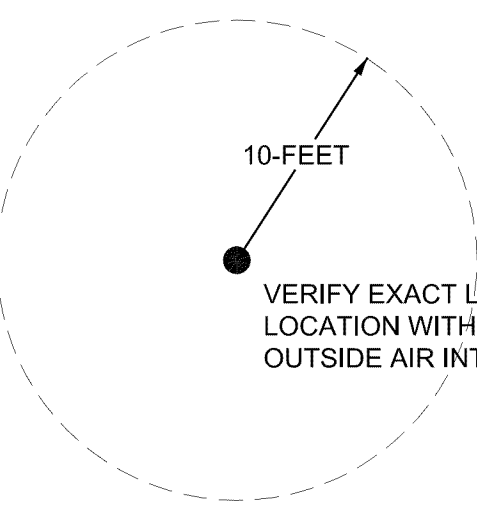
3
M1.0
GREASE DUCT / FAN
DIAGRAMMATIC

GENERAL NOTES

WORK UNDER THE MECHANICAL TEST AND BALANCE SCOPE INCLUDES SYSTEMS CONTROLS
COMMISSIONING - REFER TO SPECIFICATION SECTION 23 05 93 FOR COMPLETE SYSTEMS TEST AND
BALANCE SCOPE UNDER THIS CONTRACT

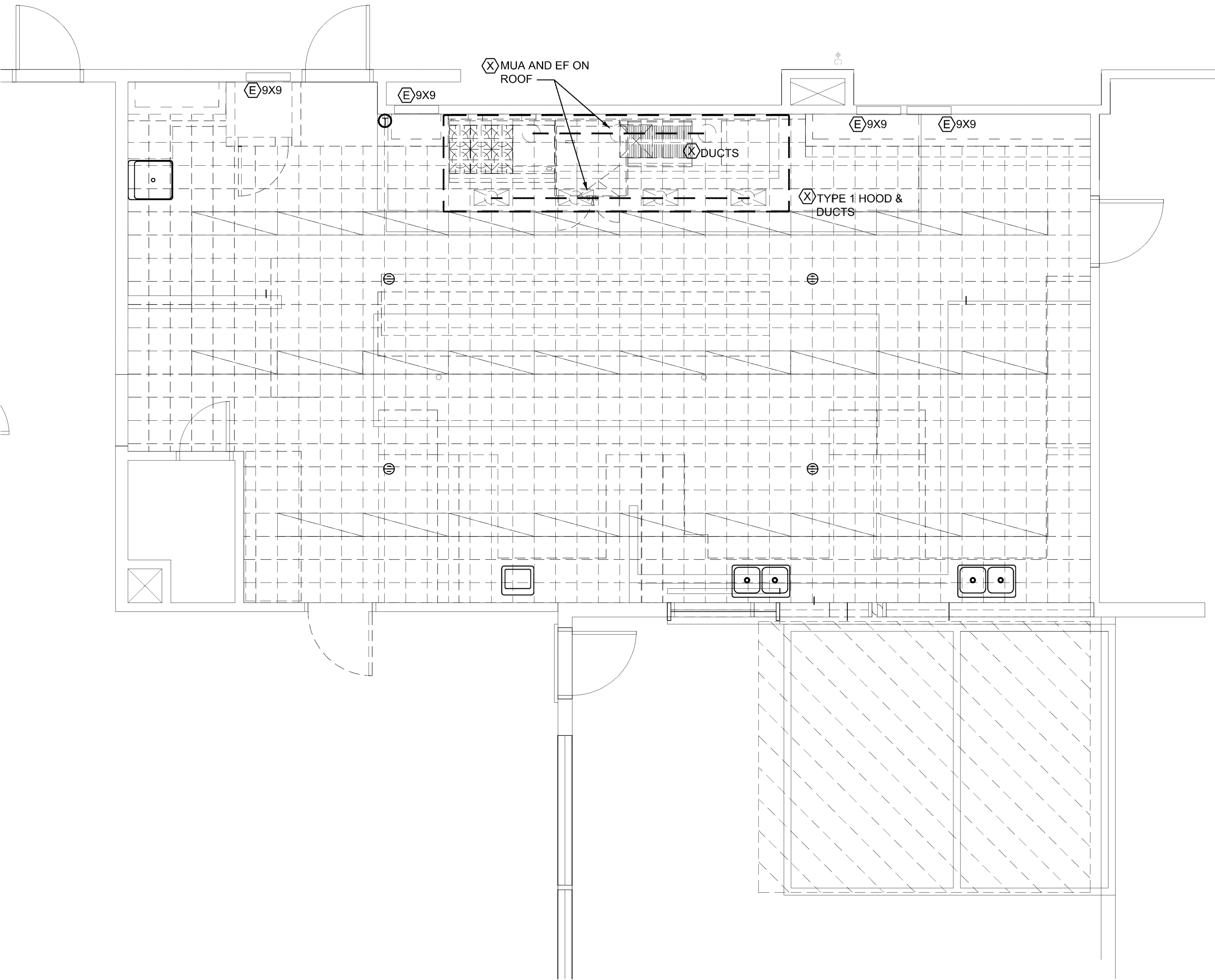
HORIZONTAL TRANSITIONS FROM DUCT DROPS AND MAIN TAKEOFFS TO BE WITH 90-DEGREE
ELBOWS W/ VANES

VERTICAL AND HORIZONTAL DUCT TAKEOFFS FROM MAINS AND BRANCHES TO BE WITH BRANCH
TAP TYPE TAKEOFFS (SEE LEGEND / SHEET M1.00)

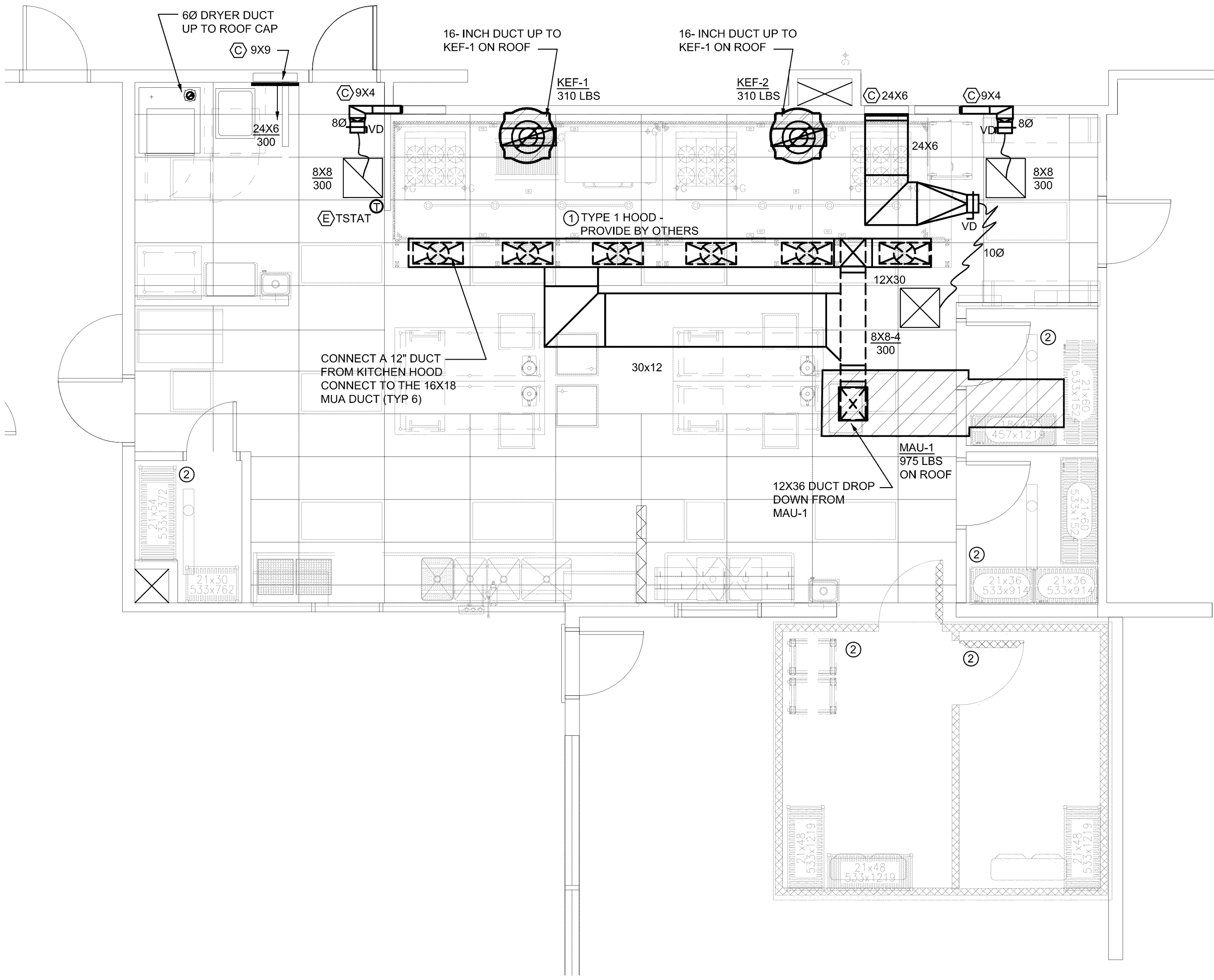


SHEET NOTES

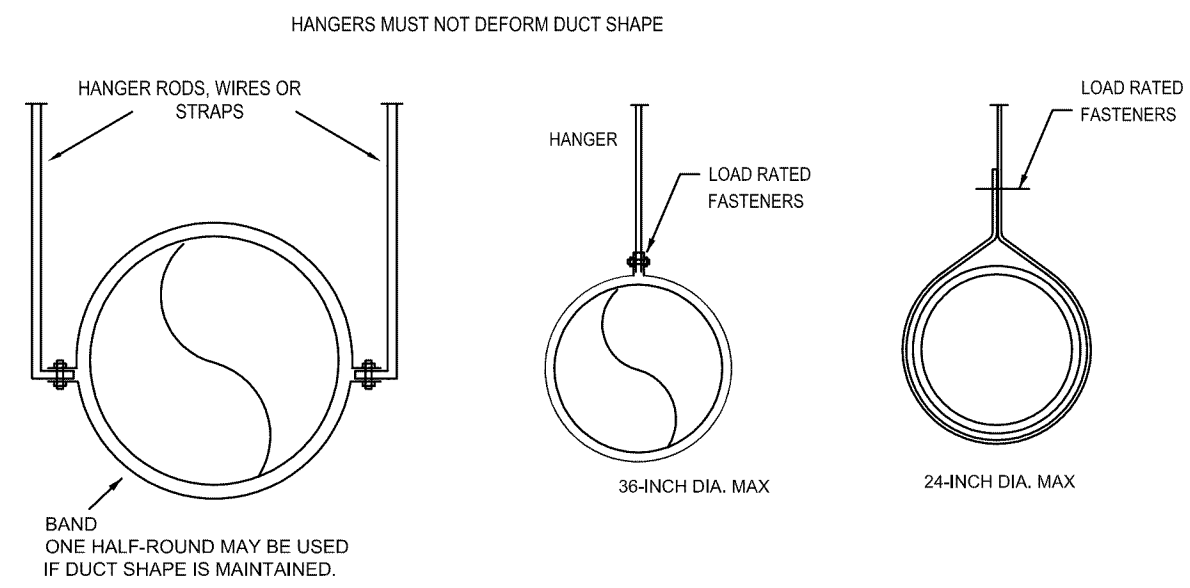
- 1 GREASE DUCT TEST SHALL BE PERFORMED PRIOR TO CONCEALMENT; SECTION 2014
OSSC 506.3.2.5 - FURNISHED BY OTHERS - INSTALLED IN THIS MECHANICAL CONTRACT
- 2 REFRIGERATED CASE EQUIPMENT - PROVIDED BY OTHERS
- 3 USE CAPTIVE AIRE EQUIPMENT SCHEDULE AND CONTROLS FOR KITCHEN EQUIPMENT



1 MECHANICAL ENLARGED DEMO KITCHEN FLOOR PLAN
1/4" = 1'-0"

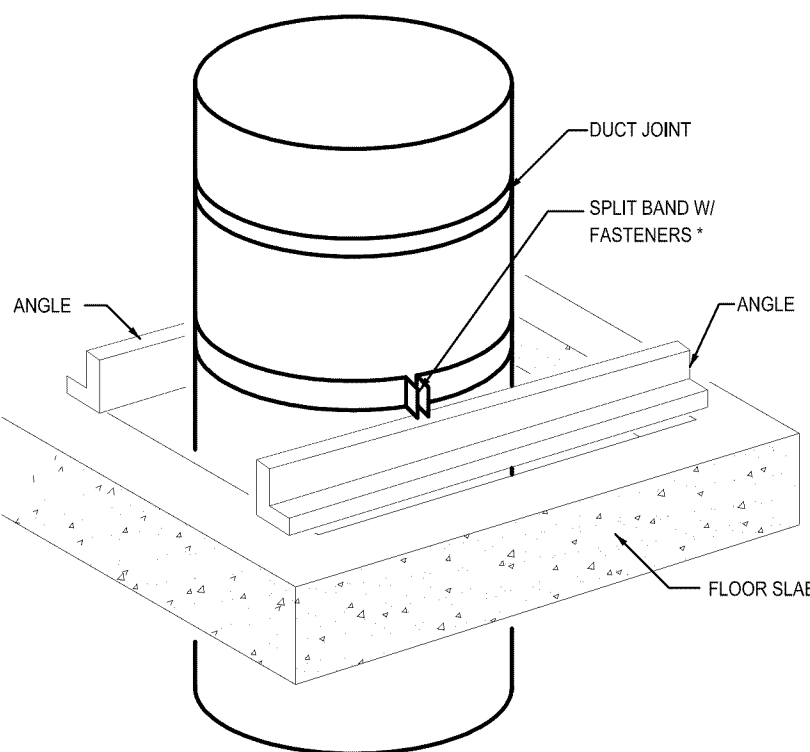
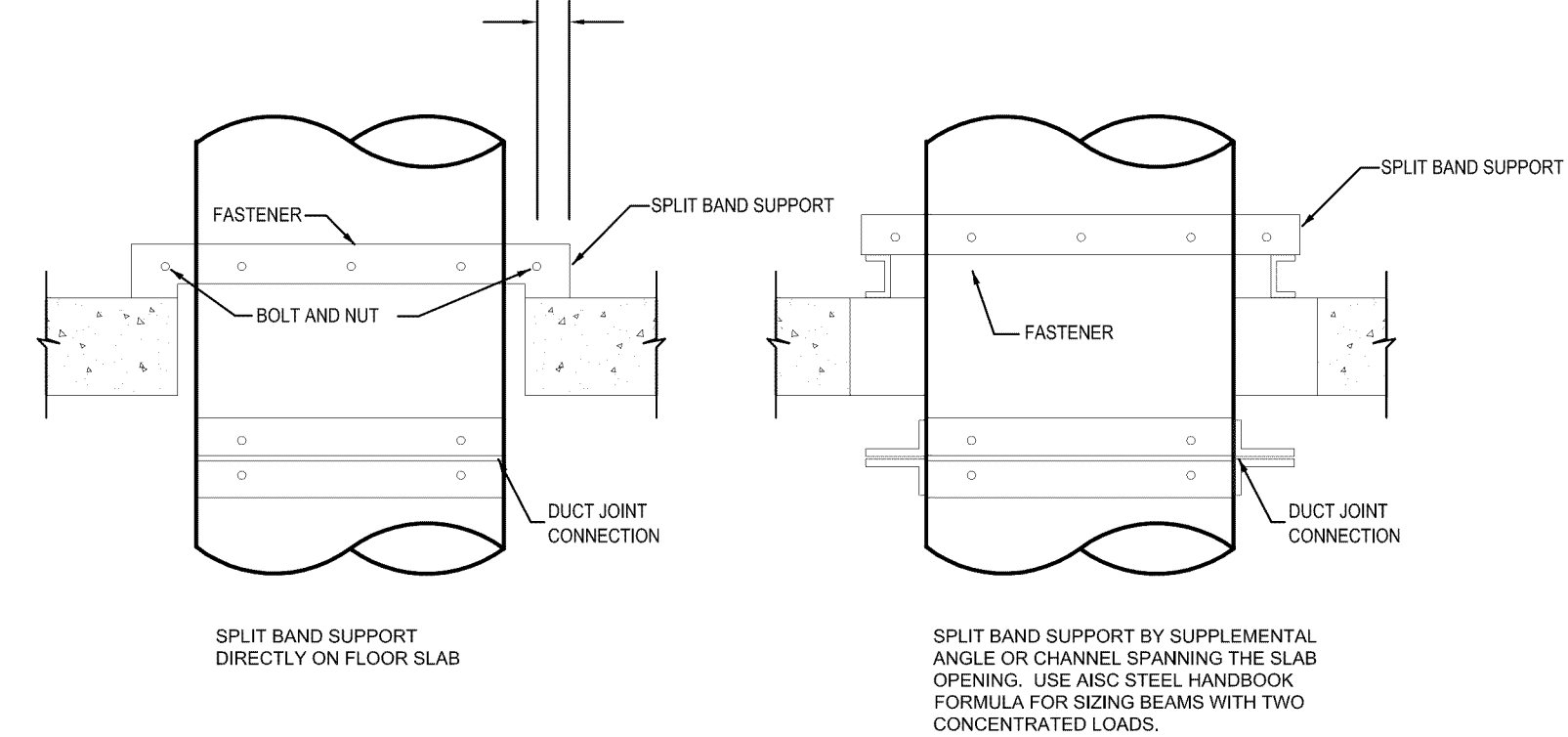


2 MECHANICAL ENLARGED NEW KITCHEN FLOOR PLAN
1/4" = 1'-0"



1 LOWER HANGER ATTACHMENTS

M3.1 DIAGRAMMATIC

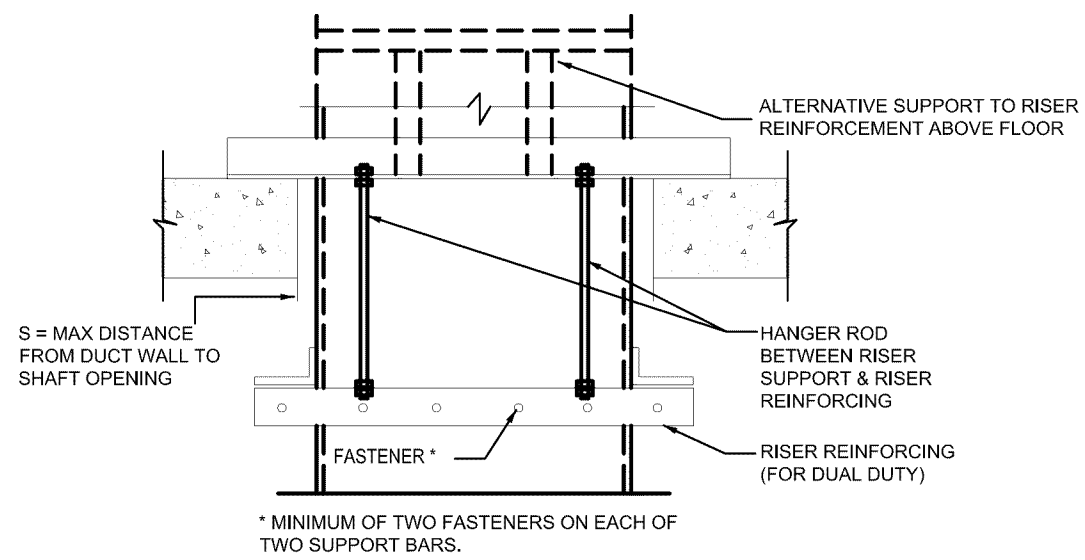


BOLT DIA	BAND SIZE	DUCT DIA.
1/4"	1" X 16 GA	UP TO 12" DIA 24 GA
1/4"	1-1/2" X 16 GA	13" TO 24" DIA 20 GA
3/8"	2" X 16 GA	25" TO 36" DIA 20 GA
3/8"	2" X 10 GA	37" TO 60" DIA 18 GA

* MINIMUM OF TWO FASTENERS IN EACH HALF OF BAND. OTHERWISE SPACE THEM AT 8-INCH (200 MM) AND SO THAT THE LOAD SATISFIES MXX

4 RISER SUPPORT FROM FLOOR

M3.1 DIAGRAMMATIC



LARGEST DUCT DIM	MINIMUM NUMBER OF FASTENERS
16" AND DOWN	2
17" - 24"	3
OVER 24"	LARGEST DUCT DIM DIVIDED BY 8

DUCT SIZE	ANGLE
36X16	1-1/2X1-1/2X1/8"
48X24	1-1/2X1-1/2X1/8"
60X30	1-1/2X1-1/2X3/16
60X60	1-1/2X1-1/2X1/4 OR 2X2X1/8

OVER 60-INCH - INCREASE ANGLE SIZE AS REQUIRED FOR SPACE & DUCT SIZE

SUPPORT RISERS SO THAT THEY ARE IN TENSION:

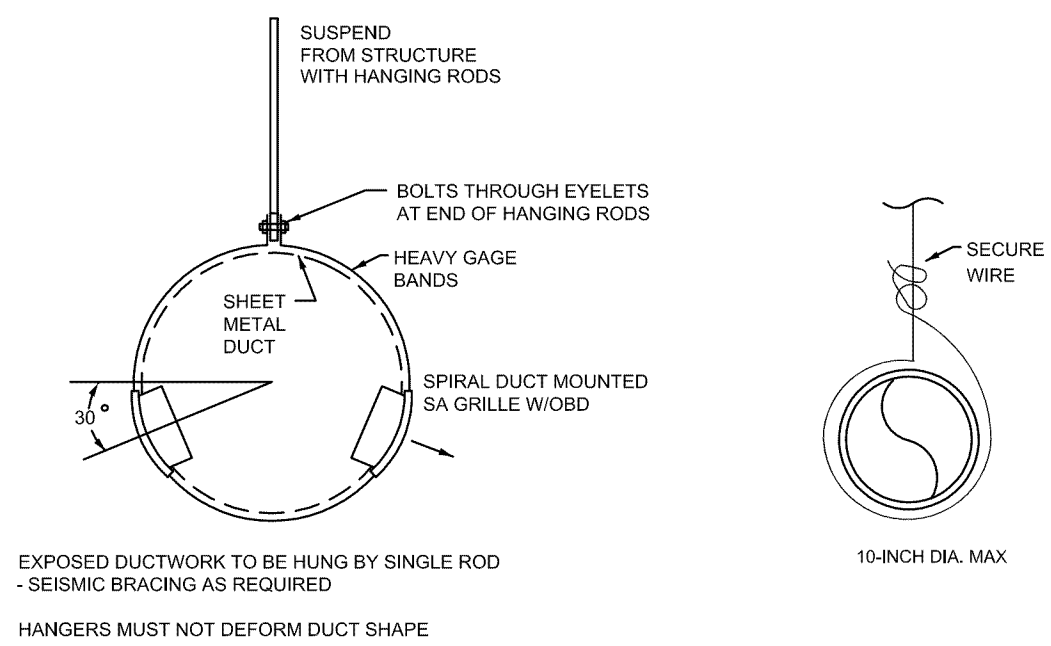
FOR DUCTS UP TO 96" - S = 6" MAX.

FOR DUCTS OVER 96" - S = 6" MAX.

SELECT A PAIR OF ANGLES FROM TABLE S-3 OF WHICH HAS A CAPACITY OF AT LEAST 50 % OF THE DUCT WEIGHT BEING SUPPORTED.

5 RISER SUPPORT FROM FLOOR

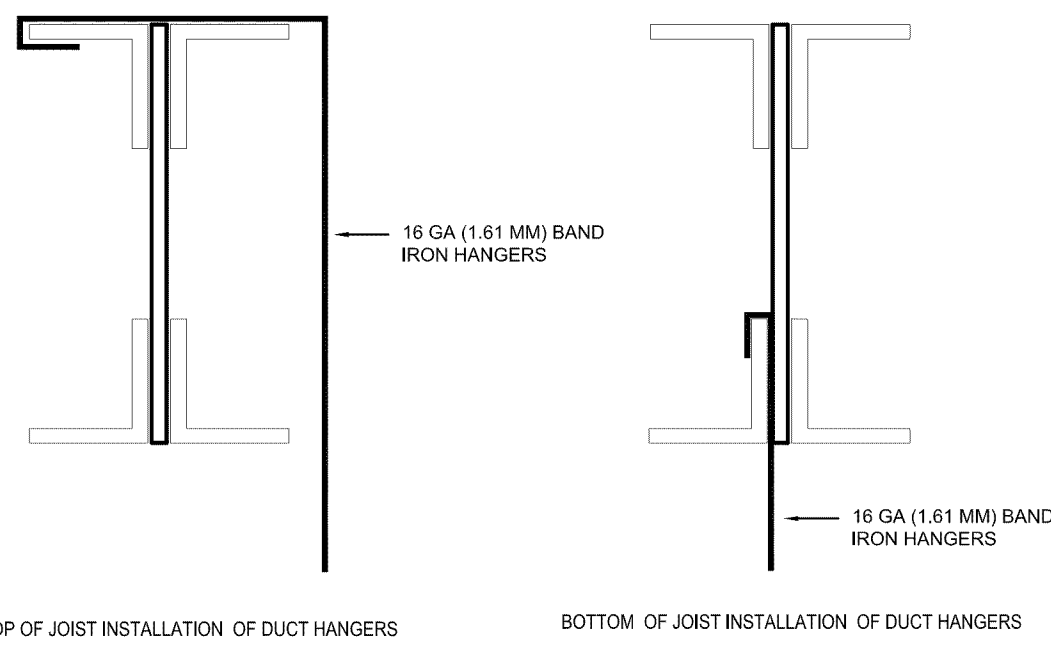
M3.1 DIAGRAMMATIC



2 EXPOSED DUCTWORK DETAIL

M3.1 DIAGRAMMATIC

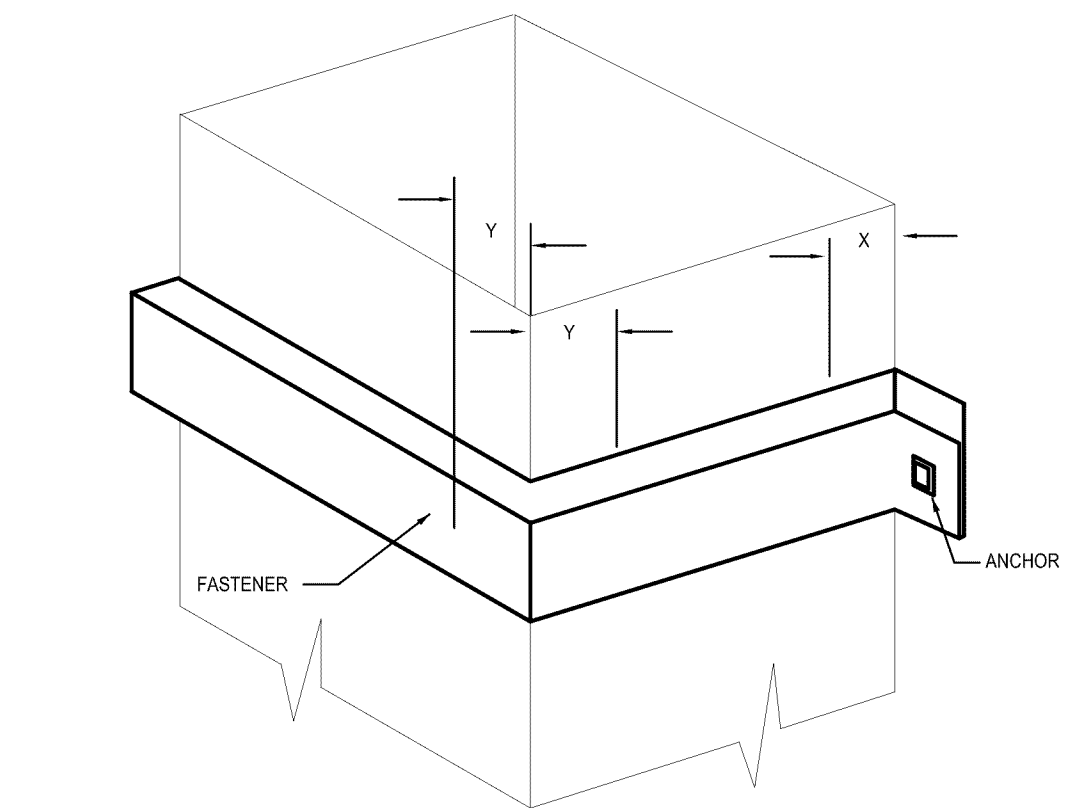
TYPICAL EXPOSED SPIRAL DUCTWORK



3 ALTERNATIVE JOIST ATTACHMENTS

M3.1 DIAGRAMMATIC

FIGURE 5-3



DUCT SIZE	BAND
18X12	1-1/2" X 16 GA
24X20	1X18

DUCT GAGE	LOAD PER FASTENER*
28, 26	25 LB
24, 22, 20	35 LB
18, 16	50 LB

* WELD, BOLT OR NO. 8 SCREW (MIN.) DEVIATION PERMITTED BY OTHER ANALYSIS. X=1"-INCH, Y=2"-INCH; ADD OTHERS TO ACCOMMODATE LOAD. MINIMUM OF 3 ON 24" WIDTH AND UP. ADD ALONG SIDES NEAREST ANCHORS. MXX

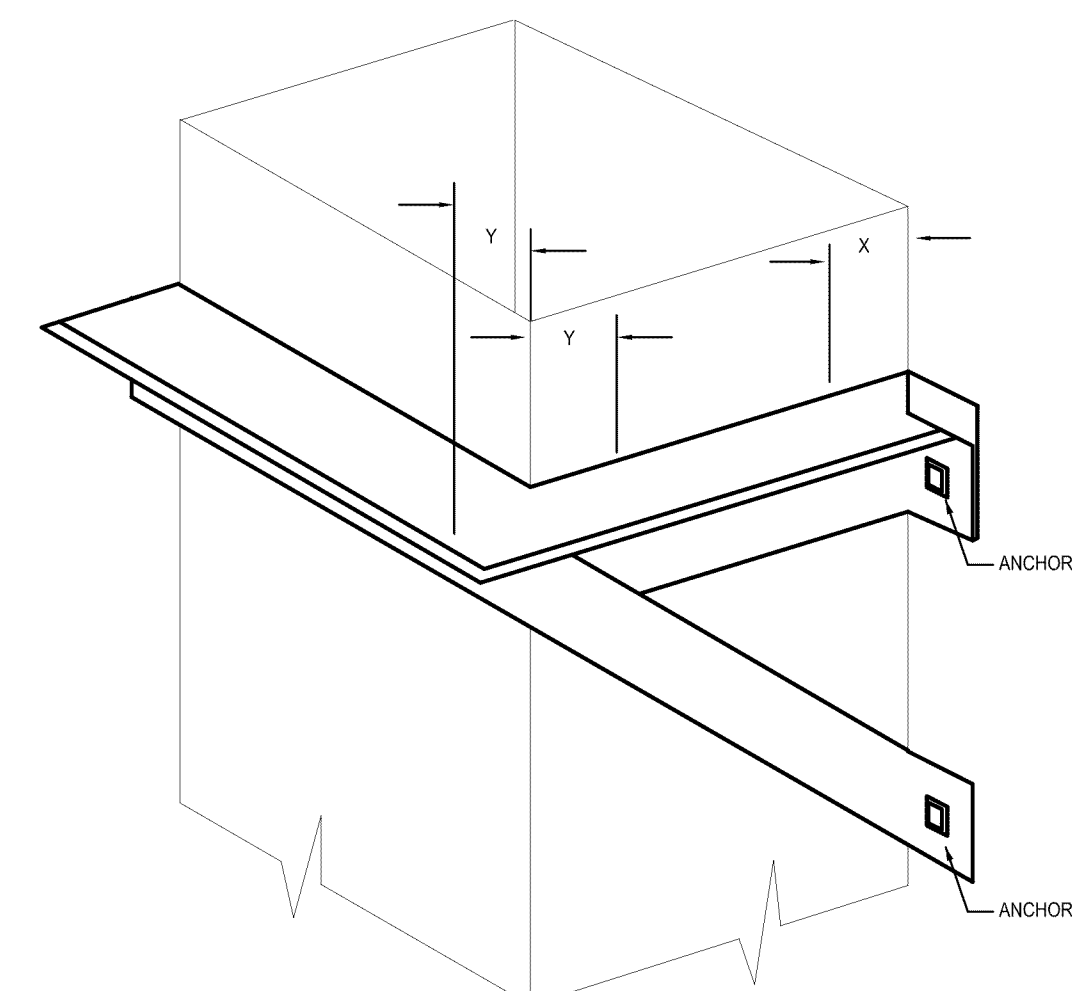
1.) BRACKETS ARE SIZED FOR 12 FEET OF DUCT, MAXIMUM.

2.) LOCATE DUCTS AGAINST WALL OR MAXIMUM OF 2" AWAY FROM WALL.

3.) EACH WALL ANCHOR SHALL SATISFY THE FOLLOWING CRITERIA UNLESS OTHER ANALYSIS IS MADE:

A.) TENSILE LOAD = 3/8 X DUCT WEIGHT; SAFETY FACTOR 4.

B.) SHEAR LOAD X 1/2 X DUCT WEIGHT; SAFETY FACTOR 4.



DUCT SIZE	BAND
18X12	1-1/2" X 16 GA
24X20	1X18

DUCT GAGE	LOAD PER FASTENER*
28, 26	25 LB
24, 22, 20	35 LB
18, 16	50 LB

* WELD, BOLT OR NO. 8 SCREW (MIN.) DEVIATION PERMITTED BY OTHER ANALYSIS. X=1"-INCH, Y=2"-INCH; ADD OTHERS TO ACCOMMODATE LOAD. MINIMUM OF 3 ON 24" WIDTH AND UP. ADD ALONG SIDES NEAREST ANCHORS. MXX

1.) BRACKETS ARE SIZED FOR 12 FEET OF DUCT, MAXIMUM.

2.) LOCATE DUCTS AGAINST WALL OR MAXIMUM OF 2" AWAY FROM WALL.

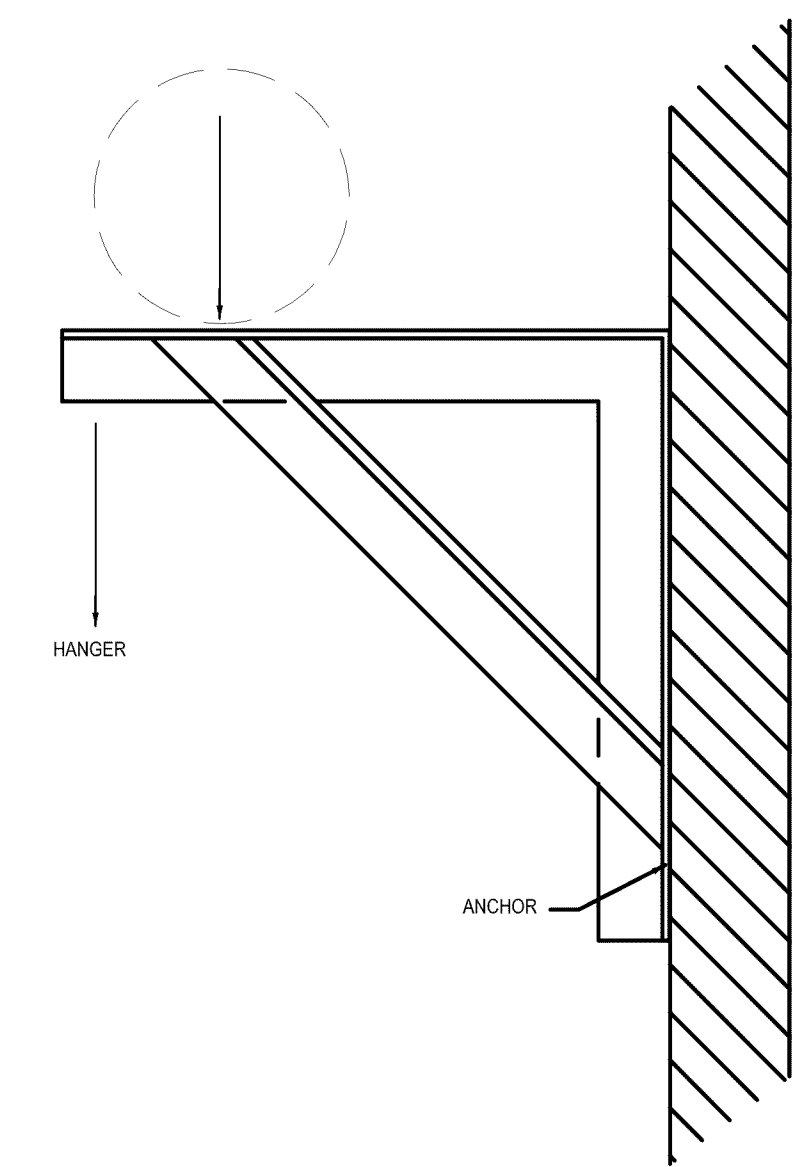
3.) EACH WALL ANCHOR SHALL SATISFY THE FOLLOWING CRITERIA UNLESS OTHER ANALYSIS IS MADE:

A.) TENSILE LOAD = 3/8 X DUCT WEIGHT; SAFETY FACTOR 4.

B.) SHEAR LOAD X 1/2 X DUCT WEIGHT; SAFETY FACTOR 4.

6 DUCT SUPPORT FROM WALL

M3.1 DIAGRAMMATIC



DUCT SIZE	ANGLE
36X12	1X1X1/8"
36X16	1X1X1/8"
42X24	1-1/4X1-1/4X1/8"
48X30	1-1/4X1-1/4X1/8"

1.) BRACKETS ARE SIZED FOR 12 FEET OF DUCT, MAXIMUM.

2.) LOCATE DUCTS AGAINST WALL OR MAXIMUM OF 2" AWAY FROM WALL.

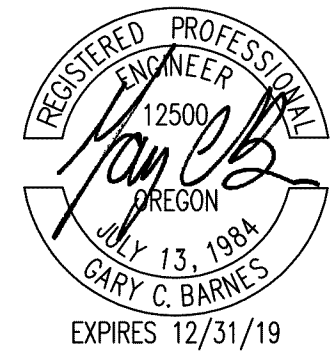
3.) EACH WALL ANCHOR SHALL SATISFY THE FOLLOWING CRITERIA UNLESS OTHER ANALYSIS IS MADE:

A.) TENSILE LOAD = 3/8 X DUCT WEIGHT; SAFETY FACTOR 4.

B.) SHEAR LOAD X 1/2 X DUCT WEIGHT; SAFETY FACTOR 4.

7 DUCT SUPPORT FROM WALL - ROUND

M3.1 DIAGRAMMATIC



BBL ARCHITECTS

ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN

200 North State Street ■ Lake Oswego, Oregon 97034

DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233

SEISMIC DETAILS

BBL1903
180319.00.1
PROJECT NUMBER
21 FEB 2019
DATE
REVISIONS

M3.1

BID SET

PLUMBING FIXTURE SCHEDULE						
MARK	FIXTURE	BRANCH PIPE SIZE				REMARKS
		CW	HW	W	V	
FD-1	FLOOR DRAIN	-	-			PRIME
FS-1	FLOOR SINK	-	-	2"	1-1/2"	1/2"GRATE
FS-2	FLOOR SINK	-	-	3"	2"	1/2"GRATE

GREASE INTERCEPTOR SIZING			
FIXTURE	QTY	SANITARY FIXTURE UNITS	TOTAL FIXTURE UNITS
FLOOR DRAIN	4	2	8
COMMERCIAL WASHER	2	4	8
HAND WASHING SINK	3	1	3
ICE MACHINE WITH BIN	1	1	1
WAREWASHER	3	1	3
SINK	2	3	6
			29
HYDROMECHANICAL GREASE INTERCEPTOR TO HAVE MINIMUM (HGI) FLOW OF 75 GPM PER TABLE 10-2 OREGON PLUMBING SPECIALTY CODE.			
GREASE INTERCEPTOR BASIS OF DESIGN: MANUFACTURER= SCHIER PRODUCTS MODEL= GB3 MAXIMUM FLOW RATE= 75 GPM FLOW RATE			
19 GALLONS SOLIDS CAPACITY, 40 GALLONS LIQUID CAPACITY. INDOOR/OUTDOOR INSTALLATION, INTEGRAL FLOW CONTROL. PROVIDE MANUFACTURER'S 3" INLET AND OUTLET ADAPTORS AND RISER EXTENSIONS AS REQUIRED.			

PLUMBING EQUIPMENT SCHEDULE		
SYMBOL	DESCRIPTION	ELECTRICAL
GI-1	GREASE INTERCEPTOR: GREASE INTERCEPTOR SIZING AND INFORMATION ON THIS SHEET.	-
MV-1	MIXING VALVE - POINT OF USE: THERMOSTATIC TYPE, LEAD FREE BODY CONSTRUCTION, COMPLETE WITH STOPS AND CHECKS. SET TO DELIVER 120" F HW. MINIMUM FLOW OF 0.5 GPM. BASIS OF DESIGN: WATTS LFMMV -1/2" INLETS AND OUTLETS	-

PLUMBING SEISMIC DESIGN CRITERIA			
BUILDING SYSTEM	RISK CATEGORY	SEISMIC DESIGN CATAGORY	COMPONENT IMPORTANCE FACTOR (Ip)
PLUMBING COMPONENTS	II	D	1.0
NATURAL GAS PIPING SYSTEM	II	D	1.5

KITCHEN EQUIPMENT PLUMBING SCHEDULE							
KITCH. P. NO.	SERVICE TO :	BRANCH PIPE SIZE					REMARKS:
		CW	HW	V	W	GAS	
P1	FLOOR DRAIN			1-1/2"	2"		(C)
P2	FLOOR SINK			2"	3"		(C)
P3	STACKING COMMERCIAL WASHER/DRYER	3/4"	3/4"		(A)		(B)(C)
P4	STACKING COMMERCIAL WASHER/DRYER	3/4"	3/4"		(A)		(B)(C)
P5	HAND WASHING SINK FAUCET	1/2"	1/2"				(B)(C)
P6	HAND WASHING SINK			1-1/2"	2"		(B)(C)
P7	FLOOR SINK			1-1/2"	2"		(C)
P8	ICE MACHINE WITH BIN	1/2"			(A)		(B)(C)
P9	VENTLESS WAREWASHER WITH BOOSTER HEATER		1/2"		(A)		(B)(C)
P10	WAREWASHER INTERNAL CONDENSING SYSTEM	1/2"			(A)		(B)(C)
P11	WAREWASHER DRAIN WATER TEMPERING	1/2"			(A)		(B)(C)
P12	FLOOR SINK			2"	3"		(C)
P13	SINK			1-1/2"	2" (A)		(B)(C)
P14	SINK FAUCETS	1/2"	1/2"				(B)(C)
P15	FLOOR SINK			2"	3"		(C)
P16	HOSE REEL WITH RECESSED CONTROL CABINET	1/2"	1/2"				(B)(C)
P17	NOT USED						
P18	NOT USED						
P19	SINK	1/2"	1/2"		(A)		(B)(C)
P20	FLOOR SINK			2"	3"		(C)
P21	TRIPPLE STACK DECK OVENS					3/4" (3x)	(B)(C) 20 MBH EACH, 60 TOTAL, QUICK DISCONNECT
P22	BROILER					3/4"	(B)(C) 120 MBH, QUICK DISCONNECT
P23	DOUBLE STACK OVENS					3/4"(2X)	(B)(C) 60 MBH EACH, 120 TOTAL, QUICK DISCONNECT
P24	OPEN BURNER RANGE					3/4"	(B)(C) 184 MBH TOTAL, QUICK DISCONNECT
P25	NOT USED						
P26	NOT USED						
NOTES:							
(A) CONNECT TO EQUIPMENT DRAIN AND ROUTE DRAIN FULL SIZE TO TERMINATE WITH AIR GAP TO FLOOR SINK. SEE INDIRECT DRAIN DETAIL ON SHEET P2.1.							
(B) FIXTURE OR EQUIPMENT FURNISHED BY KITCHEN CONTRACTOR. SEE KITCHEN DRAWINGS FOR EXACT DIMENSIONS AND REQUIREMENTS FOR CONNECTION. INSTALL PER MANUFACTURE'S RECOMMENDATIONS.							
(C) SEE KITCHEN DRAWINGS FOR EXACT LOCATION, MOUNTING HIEGHTS AND ADDITIONAL INFORMATION.							

WATER SERVICE PRESSURE LOSS CALCULATION					
Static Pressure:		60			
Total Building Fixture Units		21.5			
Design gpm Flow Rate (Flush Tank)		15			
Elevation Loss - 10 ft. x .433 psi		5			
Flush Valve Required Operating Pressure - psi		15			
Water Meter Pressure Loss - psi		6			
Backflow Preventor Pressure Loss - psi		7			
Pressure Loss Available for Branch Piping - psi		27			
Design Friction Loss - psi/100 ft		213 ft			
PIPE SIZE inches		GPM	FT FU*	FV FU*	VELOCITY
1/2"	3	3	-	5	
3/4"	10	13	-	6	
1"	19	28	-	8	
1-1/4"	30	54	13	8	
1-1/2"	40	86	26	8	
2"	70	225	108	8	
2-1/2"	110	431	295	8	

* FROM THE UNIFORM PLUMBING CODE, APPENDIX A.

FIXTURE LOAD SCHEDULE					
FIXTURE	QTY	SAN. FU*	SAN. TOTAL	FULL H2O L*	H2O TOTAL
HOSE REEL	1	-	-	2.5 (1st) 1 (add.)	2.5
FLOOR DRAIN	4	2	8	-	-
HAND SINKS	3	1	3	1	3
DISHWASHER	1	3	3	3	3
SCULLERY SINK	1	3	3	3	3
PREP SINK	1	3	3	3	3
ICE MACHINE	1	1	1	1	1
CLOTHES WASHER	2	3	6	3	6
BUILDING TOTAL	-	-	30	-	21.5

* FROM THE UNIFORM PLUMBING CODE, APPENDIX A.

PLUMBING LEGEND

	CW	COLD WATER
		PIPE BELOW FLOOR OR GRADE
	HW	HOT WATER, 120°F
		EXISTING PIPE
		REMOVED OR ABANDONED PIPE
	V	VENT
	G	NATURAL GAS
	W	SANITARY WASTE ABOVE FLOOR OR GRADE
	W	SANITARY WASTE BELOW FLOOR OR GRADE
	SD	STORM DRAIN ABOVE FLOOR OR GRADE
	SD	STORM DRAIN BELOW FLOOR OR GRADE
	CTG	CLEANOUT TO GRADE
	FCO	FLOOR CLEANOUT
	WCO, CO	WALL CLEANOUT, CLEANOUT
		PRESSURE REDUCING VALVE
		ASME TEMPERATURE/PRESSURE RELIEF VALVE
		SHUTOFF VALVE, BALL VALVE
		CHECK VALVE, STRAINER
		BALANCING VALVE
		PIPE UP
		PIPE DOWN
	(P)	CAP OR PLUG

ABBREVIATIONS LEGEND

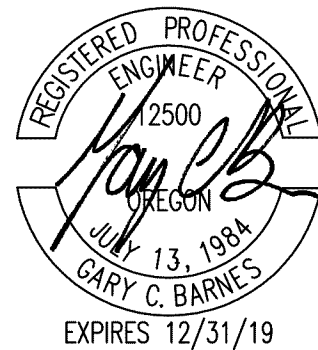
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BV	BALANCING VALVE
DN	DOWN
IE	INVERT ELEVATION
TYP	TYPICAL
VTR	VENT THROUGH ROOF

SYMBOLS

(A)	ABANDON
(C)	CONNECT TO EXISTING
(E)	EXISTING TO REMAIN
(P)	CAP OR PLUG
(R)	RELOCATE EXISTING
(X)	REMOVE EXISTING

GENERAL PLUMBING NOTES

- OBTAIN EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES FROM ARCHITECTURAL DRAWINGS.
- SEE ARCHITECTURAL DRAWINGS FOR A.D.A. COMPLIANT FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
- INSTALL ALL PLUMBING WORK SO AS TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUTURAL FRAMING
- INSTALL ALL CLEANOUTS WHERE READILY ACCESSIBLE AND AS PER SECTION 707 AND 719 OF THE OREGON STATE PLUMBING SPECIALTY CODE. COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENT, CABINETS, ETC., AND THE ARCHITECT PRIOR TO ANY INSTALLATION.
- ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS LINE SIZE UNLESS OTHERWISE INDICATED ON DRAWINGS.
- PROVIDE UNIONS AFTER EACH SCREW TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS.
- ALL WASTE PIPING SHALL SLOPE AT 2% UNLESS OTHERWISE INDICATED.
- ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF ANY STATE OR LOCAL LAWS OR ORDINANCES. OBTAIN AND PAY FOR ALL REQUIRED PERMITS, LICENSES, CODE INSPECTIONS, ETC.
- ROUTE ALL PIPING ON THE WARM SIDE OF BUILDING ENVELOPE INSULATION.
- COORDINATE ALL REQUIREMENTS FOR ALL POINTS OF CONNECTION WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO BID.
- PRIME ALL FLOOR DRAINS, DECK DRAINS, TRENCH DRAINS, FLOOR SINKS AND ALL OTHER SIMILAR FIXTURES.
- COORDINATE THE LOCATION OF ALL CEILING ACCESS PANELS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND LIGHTING LAYOUT.
- ALL PIPING DISCHARGING INTO FLOOR SINKS AND/OR FLOOR DRAINS TO HAVE A MINIMUM AIR GAP AS REQUIRED BY LOCAL CODES AND ARRANGED TO PERMIT EASY REMOVAL OF FLOOR SINK BASKET STRAINERS.
- BEFORE FABRICATION OR INSTALLATION, VERIFY EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND OTHER EQUIPMENT PROVIDED UNDER OTHER SECTIONS OF THE SPECIFICATION. COORDINATE EXACT ROUGH-IN LOCATIONS AND REQUIREMENTS IN THE FIELD.
- INSTALL ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS AND OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS BEHIND AN ACCESS PANEL.



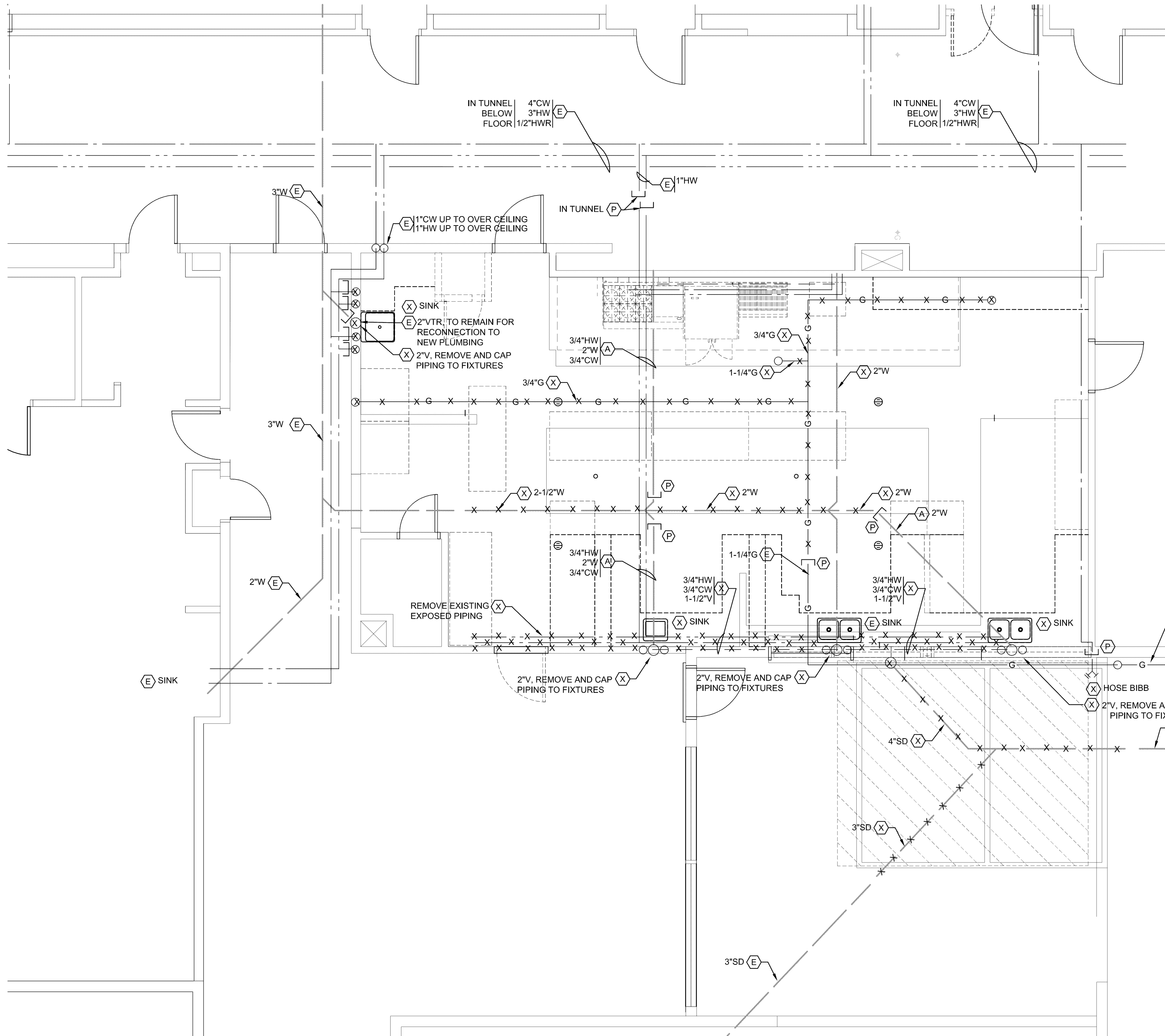
BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034

DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
100 SE 135TH AVE, PORTLAND, OR 97233

BBL1903	180319.00.1
PROJECT NUMBER	21 FEB 2019
DATE	
REVISIONS	

P1.0

BID SET



1 PLUMBING ENLARGED DEMO KITCHEN FLOOR PLAN
P2.0 1/4" = 1'-0"

BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN

200 North State Street ■ Lake Oswego, Oregon 97034

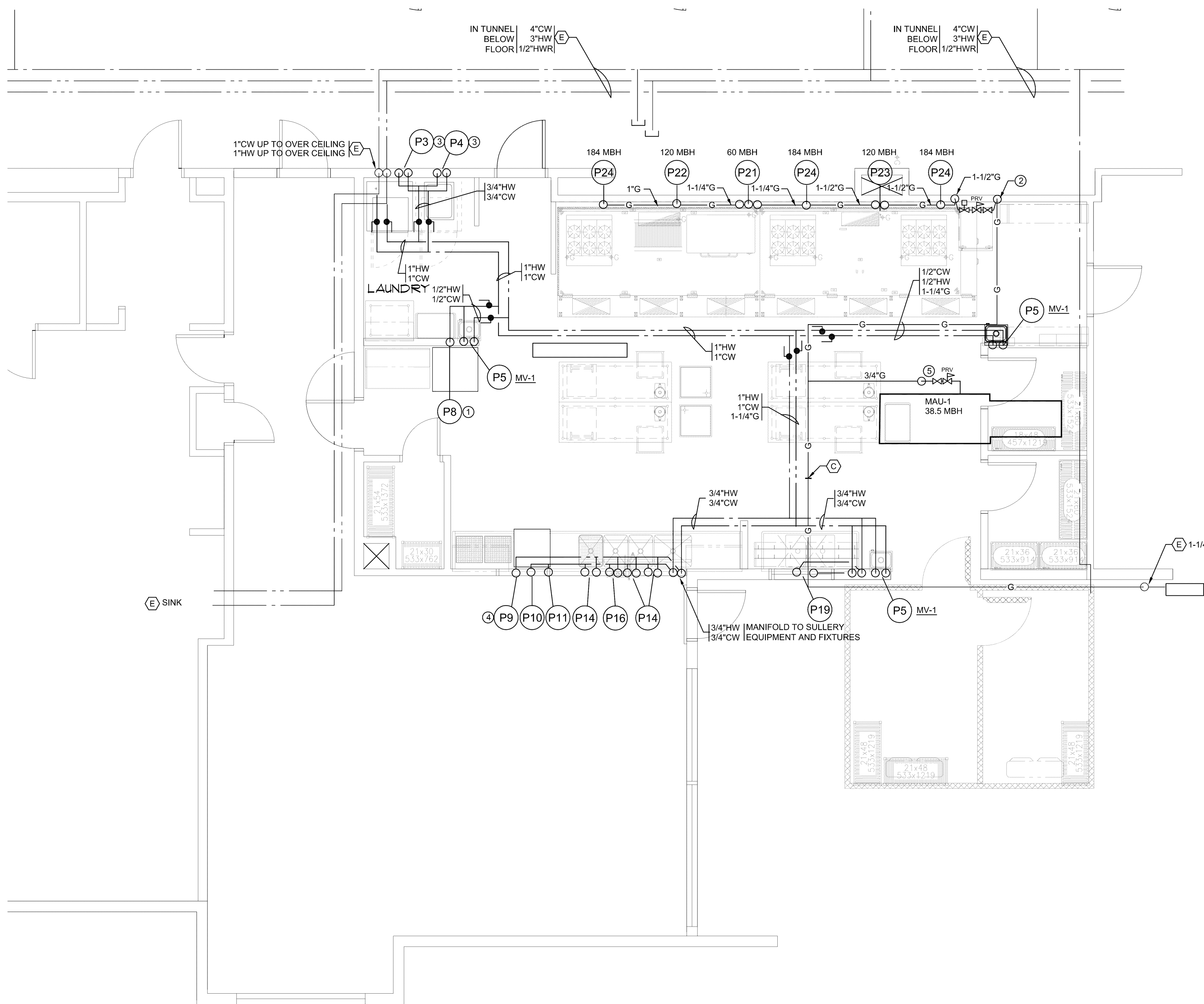
DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1001 SE 135TH AVE, PORTLAND, OR 97233

FLU·BING ENLARGED V·CHEN DE·U·FLO·W FLAN

PROJECT NUMBER	18039.00.1
DATE	21 FEB 2019
REVISIONS	

$\Rightarrow 2.\emptyset$

BID SET



SHEET NOTES

- | | |
|--|--|
| ① SEE ICE MACHINE DETAIL 3, SHEET P3.0. | ⑤ ROUTE GAS THROUGH ROOF, CONNECT TO MAU-1. PROVIDE SHUTOFF VALVE, EQUIPMENT REGULATOR AND DIRT/D RIP LEG. |
| ② SEE KITCHEN APPLIANCE GAS PIPING DETAIL 1, SHEET P3.0. | |
| ③ PROVIDE WATER HAMMER ARRESTOR SIZED PER DETAIL 5, SHEET P3.0. | |
| ④ CONNECT DISHWASHING EQUIPMENT MANUFACTURER'S RECOMMENDATIONS, PROVIDE ALL SHUTOFF VALVES, STRAINERS, PRESSURE REDUCING VALVES, ETC REQUIRED. | |

1 PLUMBING HW, CW & GAS ENLARGED NEW KITCHEN FLOOR PLAN
P2.1 1/4" = 1'-0"

BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034

DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1201 SE 135TH AVE., PORTLAND, OR 97233
PLUMBING HW, CW & GAS ENLARGED KITCHEN NEW FLOOR PLAN

BBL1903	PROJECT NUMBER	DATE	REVISIONS
18039.00.L	21 FEB 2019		

¶ 2.1

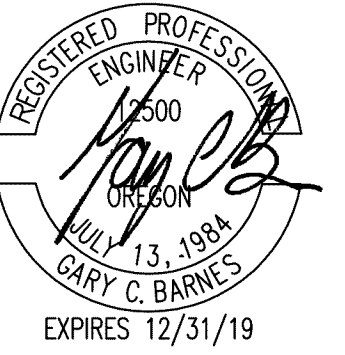
BID SET

① 3/4" CONDENSATE DRAIN FROM COOLER/FREEZER COILS. SEE DETAIL 5, SHEET P3.0

② INDIRECT WASTE FROM FIXTURE TO INDIRECT OVER FLOOR SINK. SEE DETAIL 2, SHEET 3.0.

BBL1903 18039.00.L	PROJECT NUMBER 21 FEB 2019	DATE	REVISIONS
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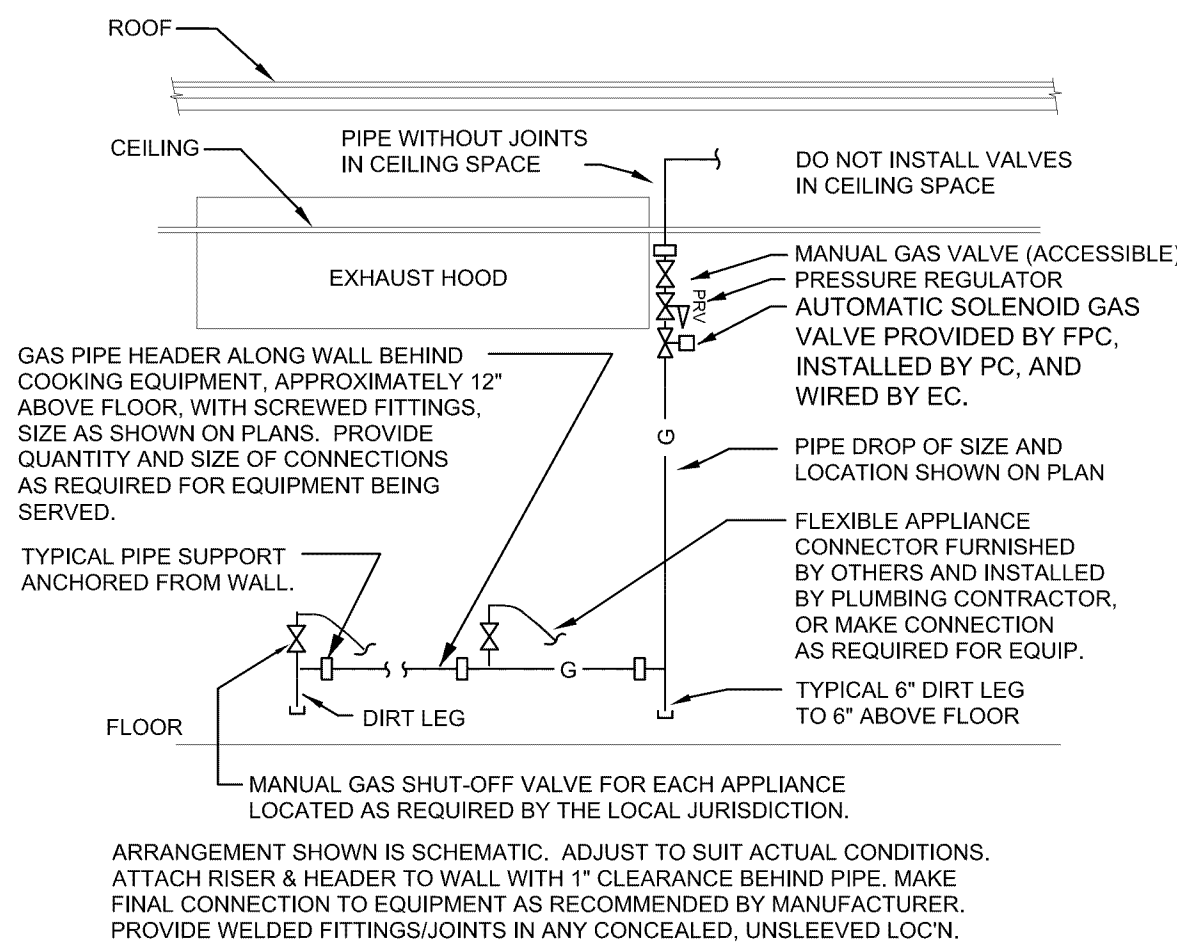
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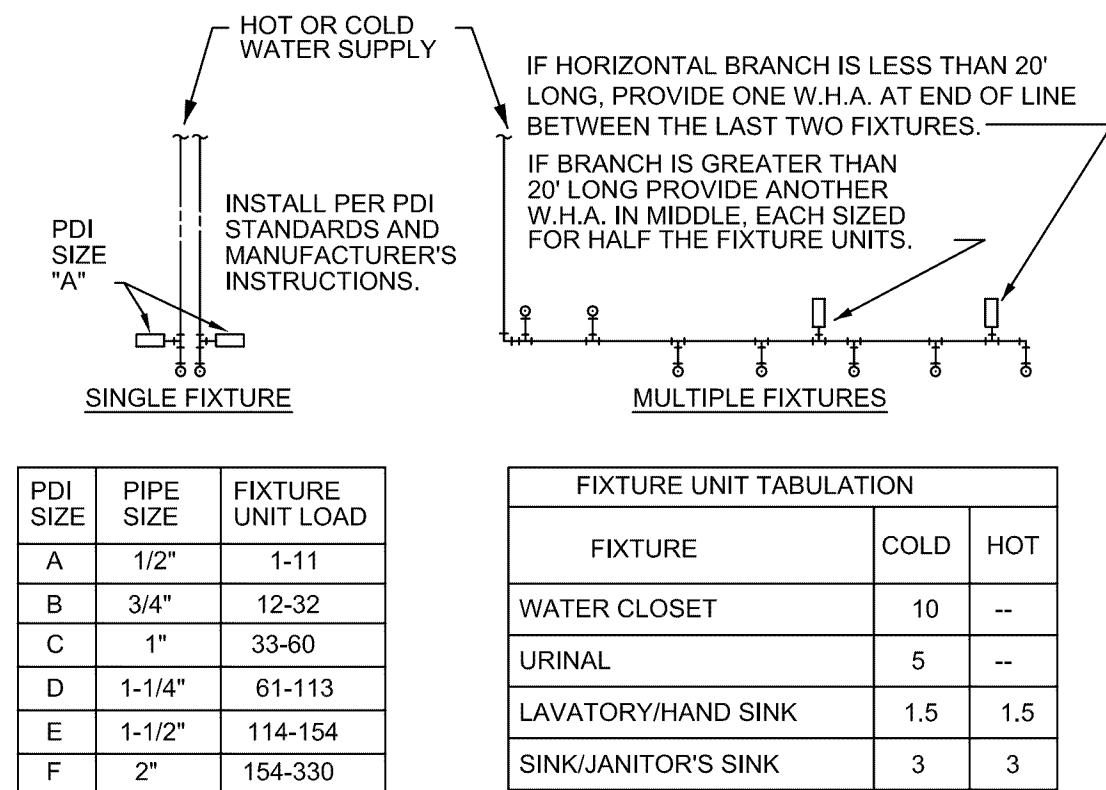
BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN
200 North State Street ■ Lake Oswego, Oregon 97034

DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS SOUTH KILT
KITCHEN MODIFICATIONS
1001 SE 135TH AVE. PORTLAND, OR 97233

PLUMBING WASTE & VENT ENLARGED KITCHEN NEW FLOOR PLAN

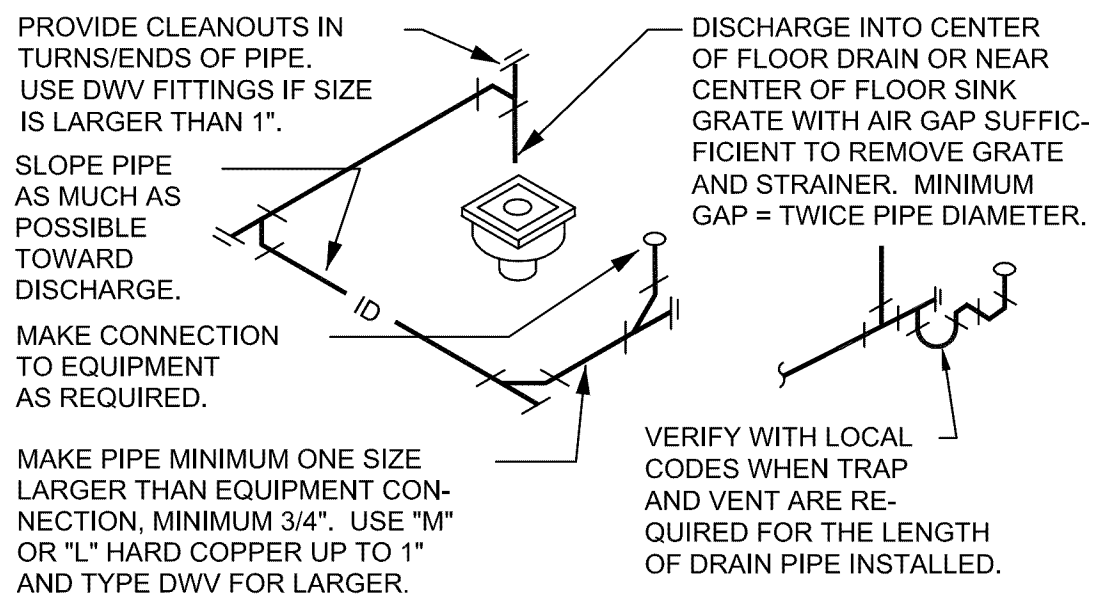


1
KITCHEN APPLIANCE GAS PIPING
P3.0 DIAGRAMMATIC

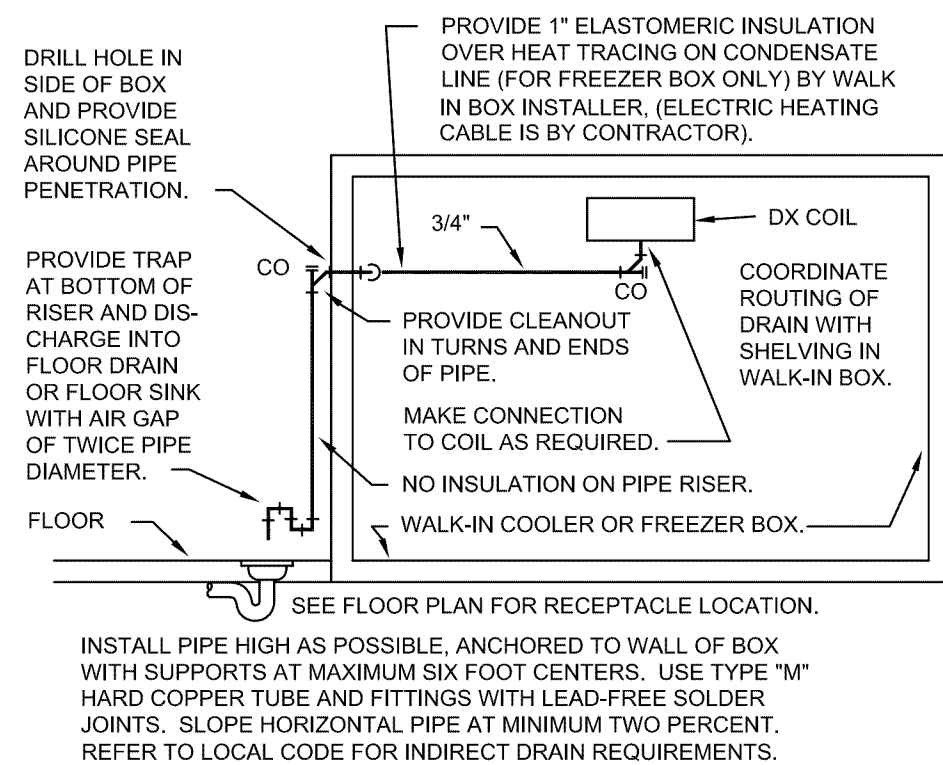


PC TO PROVIDE WATER HAMMER ARRESTORS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS OR WATTS WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #VH-201, ASSE # 1010 AND ANSI # A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. PROVIDE ACCESS DOOR FOR SERVICING.

5
WATER HAMMER ARRESTOR
P3.0 SCALE: NONE



3
ICE MACHINE CONNECTION
P3.0 DIAGRAMMATIC



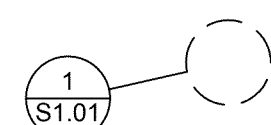
5
WALK-IN COOLER/FREEZER CONDENSATE DETAIL
P3.0 SCALE: NONE

STRUCTURAL ABBREVIATIONS

#	NUMBER OR POUNDS
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
ADJ	ADJACENT
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISH FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALUM	ALUMINUM
APA	AMERICAN PLYWOOD ASSOCIATION
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ASSY	ASSEMBLY
ATR	ALL THREAD ROD
ATRA	ALL THREAD ROD WITH ADHESIVE
AWS	AMERICAN WELDING SOCIETY
B/	BOTTOM OF
BF	BRACED FRAME
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL
BOT	BOTTOM
BRBF	BUCKLING RESTRAINED BRACED FRAME
BRNG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
BU	BUILT-UP
C	CAMBER OR CHANNEL (AMERICAN STANDARD)
CANT	CANTILEVER
CIP	CAST IN PLACE
CG	CENTER OF GRAVITY
COS	CENTER OF GRAVITY OF (PRESTRESSING) STEEL
CJ	CONTROL OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEARANCE; CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CSA	CONCRETE SCREW ANCHOR
d	PENNY (NAIL)
db	NOMINAL BAR DIAMETER
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DBO	DESIGNED BY OTHERS
DEG	DEGREE
DEMO	DEMOLISH; DEMOLITION
DF/L	DOUGLAS FIR-LARCH
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DTL	DETAIL
DWG	DRAWING
(E)	EXISTING
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EN	EDGE NAIL
EQ	EQUAL; EARTHQUAKE
EW	EACH WAY
EXT	EXTERIOR
EXTD	EXTEND; EXTENDED
fc	28 DAY CONC COMPRESSIVE STRENGTH
FF	FINISH FLOOR
FN	FIELD NAIL
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FT	FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GLB	GLUE LAMINATED BEAM
GWB	GYPSUM WALL BOARD
HDG	HOT-DIP GALVANIZED
HDR	HEADER
HF	HEM-FIR
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
ID	INSIDE DIAMETER
IN	INCH
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP(S) (1,000 POUNDS)
KSI	KIPS PER SQUARE INCH
L OR 2L	ANGLE OR DOUBLE ANGLE
LF	LINEAR FOOT
LL	LIVE LOAD
LLBB	LONG LEGS BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LVL	LAMINATED VENEER LUMBER
LWC	LIGHT WEIGHT CONCRETE

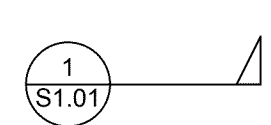
MAX	MAXIMUM
MC	MISCELLANEOUS CHANNEL
MECH	MECHANICAL
MF	MOMENT FRAME
MFR	MANUFACTURER
MEP	MECHANICAL, ELECTRICAL, PLUMBING
NOI	NOMINAL
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MSA	MASONRY SCREW ANCHOR
(N)	NEW
NC	NOT IN CONTRACT
NOI	NOMINAL
NTE	NOT TO EXCEED
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
OWJ	OPEN WEB JOIST
PAF	POWER-ACTUATED FASTENER
PCF	PRECAST
PCF	POUNDS PER CUBIC FOOT
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PLYWD	PLYWOOD
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE-TREATED OR POST TENSIONED
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RAD	RADIUS
REF	REFERENCE
RAD	REFERENCE ARCH DOCUMENTS
REINF	REINFORCING
REQD	REQUIRED
REV	REVISED, REVISION
RO	ROUGH OPENING
SC	SLIP CRITICAL
SER	STRUCTURAL ENGINEER OF RECORD
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SLBB	SHORT LEGS BACK TO BACK
SMS	SHEET METAL SOREW
SOG	SLAB ON GRADE
SQ	SQUARE
SS	STAINLESS STEEL
SSL	SHORT SLOTTED (HOLES)
STD	STANDARD
STL	STEEL
SQ	SQUARE
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROVE
T/	TOP OF
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
URM	UNREINFORCED MASONRY
UT	ULTRASONIC TEST
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE
WP	WORK POINT
WTS	WELDED THREADED STUDS
WWR	WELDED WIRE REINFORCING

STRUCTURAL DRAWING SYMBOLS



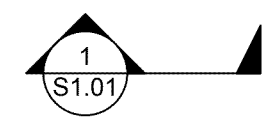
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S1.01

DETAIL REFERENCE



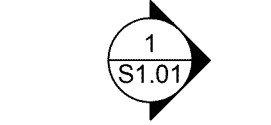
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S1.01

DETAIL SECTION CUT




1
S1.01

BUILDING OR WALL SECTION CUT



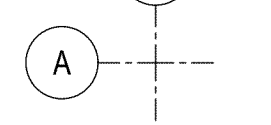
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S1.01

ELEVATION OF WALL OR FRAME



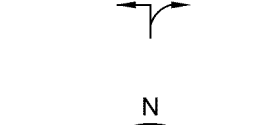
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REVISION SYMBOL

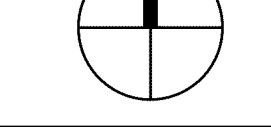


A
1

GRID LINES




ROTATE VIEW SYMBOL




N


NORTH ARROW



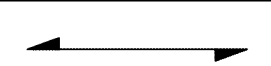
SURFACE - STEPPED



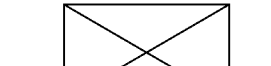
SURFACE - SLOPE UP



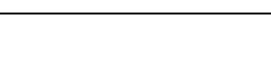
SURFACE - SLOP DOWN



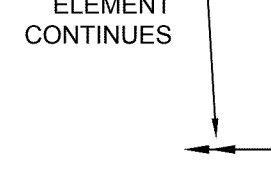
SURFACE - SLOPE TWO DIRECTIONS



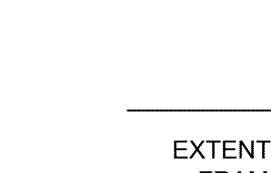
DECKING SPAN DIRECTION



OPENING IN FLOOR OR WALL



INDICATES ELEMENT CONTINUES



EXTENT OF FRAMING

STRUCTURAL DRAWING INDEX

SHEET	DRAWING TITLE	90% SET
S0.1	STRUCTURAL NOTES	●
S0.2	SPECIAL INSPECTION	●
S1.1	FOUNDATION PLAN	●
S1.2	ROOF FRAMING PLAN	●
S3.1	FRAMING ELEVATION	●
S5.1	CONCRETE DETAILS	●
S8.1	WOOD FRAMING DETAILS	●

STRUCTURAL NOTES:

GENERAL
THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND CORRELATION OF ALL ITEMS AND WORK NECESSARY FOR COMPLETION OF THE PROJECT AS INDICATED BY THE CONTRACT DOCUMENTS. SHOULD ANY QUESTION ARISE REGARDING THE CONTRACT DOCUMENTS OR SITE CONDITIONS, THE CONTRACTOR SHALL REQUEST INTERPRETATION AND CLARIFICATION FROM THE ENGINEER BEFORE BEGINNING THE PROJECT. THE ABSENCE OF SUCH REQUEST SHALL SIGNIFY THAT THE CONTRACTOR HAS REVIEWED AND FAMILIARIZED HIMSELF WITH ALL ASPECTS OF THE PROJECT AND HAS COMPLETE COMPREHENSION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL SAFETY REGULATIONS DURING CONSTRUCTION.

THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SPECIFICALLY NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION OR CONSTRUCTION LOADS. ONLY THE CONTRACTOR SHALL PROVIDE ALL METHODS, DIRECTION AND RELATED EQUIPMENT NECESSARY TO PROTECT THE STRUCTURE, WORKMEN AND OTHER PERSONS AND PROPERTY DURING CONSTRUCTION. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN THE FIELD. ANY MATERIAL NOT AS SPECIFIED OR IMPROPER MATERIAL INSTALLATION OR WORKMANSHIP SHALL BE REMOVED AND REPLACED WITH SPECIFIED MATERIAL IN A WORKMANLIKE MANNER AT THE CONTRACTOR'S EXPENSE.

THESE PLANS, SPECIFICATIONS, ENGINEERING AND DESIGN WORK ARE INTENDED SOLELY FOR THE PROJECT SPECIFIED HEREIN. MILLER CONSULTING ENGINEERS DISCLAIMS ALL LIABILITY IF THESE PLANS AND SPECIFICATIONS OR THE DESIGN, ADVICE AND INSTRUCTIONS ATTENDANT THERETO ARE USED ON ANY PROJECT OR AT ANY LOCATION OTHER THAN THE PROJECT AND LOCATION SPECIFIED HEREIN. OBSERVATION VISITS TO THE JOB SITE AND SPECIAL INSPECTIONS ARE NOT PART OF THE STRUCTURAL ENGINEER'S RESPONSIBILITY UNLESS THE CONTRACT DOCUMENTS SPECIFY OTHERWISE.

NON-STRUCTURAL PORTIONS OF PROJECT, INCLUDING BUT NOT LIMITED TO PLUMBING, FIRE SUPPRESSION, ELECTRICAL, MECHANICAL, LAND USE, SITE PLANNING, EROSION CONTROL FLASHING AND WATER-PROOFING ARE BEYOND THE SCOPE OF THESE DRAWINGS AND ARE PROVIDED BY OTHERS.

TEMPORARY SHORING
WHEREVER SHORING IS REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SHORING SYSTEM THAT PREVENTS SETTLEMENT AND/OR DAMAGE TO EXISTING FACILITIES AND PROTECTS PERSONNEL, THE PUBLIC, AND THE BUILDING DURING CONSTRUCTION. AS REQUIRED, THE CONTRACTOR SHALL LOCATE THE SYSTEM CLEAR WITHOUT OBSTRUCTION OF THE PERMANENT STRUCTURE AND TO PERMIT CONSTRUCTION TO PROCEED.

BUILDING CODE
ALL PHASES OF THE WORK SHALL CONFORM TO THE 2014 OREGON STRUCTURAL SPECIALTY CODE, BASED ON THE 2012 INTERNATIONAL BUILDING CODE (IBC), INCLUDING ALL REFERENCE STANDARDS, UNLESS NOTED OTHERWISE.

SPECIAL INSPECTION / STRUCTURAL OBSERVATION
SPECIAL INSPECTION AND/OR TESTING IS REQUIRED IN ACCORDANCE WITH IBC SECTION 1704. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE TO ALLOW SCHEDULING OF SPECIAL INSPECTION. IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE SPECIAL INSPECTION AND TESTING BY A QUALIFIED THIRD PARTY, SUCH AS A TESTING AGENCY REVIEWED BY THE ENGINEER.

REFERENCE THE SPECIAL INSPECTION TABLE ON SHEET S0.2 FOR ITEMS REQUIRING SPECIAL INSPECTION, TESTING, AND STRUCTURAL OBSERVATION.

SHOP DRAWINGS/SUBMITTALS
SHOP DRAWINGS FOR SPECIFIC PRODUCTS GENERATED BY SUPPLIER SHALL BE SUBMITTED FOR THE ITEMS NOTED IN THE SUBMITTAL SCHEDULE. DRAWINGS SHALL BE TO SCALE AND ACCURATELY INDICATE ALL PERTINENT ASPECTS OF THE ITEM(S) AND METHOD OF CONNECTION TO THE WORK. SHOP DRAWINGS SHALL INDICATE ERECTION AND TEMPORARY BRACING INFORMATION FOR CONTRACTORS USE.

THE DESIGN OF DEFERRED SUBMITTAL ITEMS NOTED IN THE SUBMITTAL SCHEDULE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DOCUMENTS FOR THE DESIGN AND FABRICATION OF DEFERRED SUBMITTAL ITEMS (INCLUDING STRUCTURAL CALCULATIONS AND DRAWINGS) SHALL BEAR THE SEAL AND SIGNATURE OF A LICENSED ENGINEER REGISTERED IN THE STATE THAT THE PROJECT IS BEING CONSTRUCTED.

THE CONTRACTOR SHALL REVIEW AND MODIFY ALL SUBMITTALS AS REQUIRED FOR CONFORMANCE WITH DATE AND SIGNATURE ON ALL SETS OF DOCUMENTS PRIOR TO SUBMITTAL TO THE ENGINEER. THE CONTRACTOR SHALL SCHEDULE SUBMITTALS TO ALLOW SUFFICIENT TIME FOR REVIEW AND POSSIBLE RE-SUBMITTAL.

SUBMITTAL SCHEDULE			
ITEM	SUBMITTAL	SHOP DRAWINGS	DEFERRED SUBMITTAL
CONCRETE MIX DESIGNS	X		
CONCRETE REINFORCING STEEL	X	X	
CONCRETE ANCHORAGE	X		
STEEL FASTENERS	X		
GLAZING SYSTEMS		X	X
WALK-IN COOLER/FREEZER DESIGN/ANCHORAGE		X	X
MEP EQUIPMENT ANCHORAGE AND BRACING		X	X

DESIGN LOADS
LIVE LOAD REDUCTION FOR BEAMS AND COLUMNS WAS NOT USED. DESIGN FOR MECHANICAL LOADS INCLUDES ONLY THOSE INDICATED ON STRUCTURAL DRAWINGS. THE FOLLOWING ARE THE DESIGN REQUIREMENTS:

STRUCTURAL DESIGN CRITERIA	
RISK CATEGORY	III
DESIGN DEAD LOADS	
ROOF	15 PSF
ROOF LIVE LOAD	SNOW LOAD CONTROLS DESIGN
ROOF SNOW LOAD	
DESIGN ROOF SNOW LOAD	27 PSF
SNOW DRIFTING	AS NOTED ON PLANS (IF OCCURS)
IMPORTANCE FACTOR	IS = 1.1
GROUND SNOW LOAD	PG = 15 PSF
EXPOSURE FACTOR	CE = 1.0
THERMAL FACTOR	CT = 1.0
FLAT ROOF SNOW LOAD	PF = 11 PSF
WIND DESIGN DATA	
BASIC WIND SPEED (3 SEC GUST)	120 MPH
EXPOSURE	B
SEISMIC DESIGN DATA	
IMPORTANCE FACTOR	IE = 1.25
SPECTRAL RESPONSE ACCELERATIONS	SS = 1.006, S1 = 0.412
SITE CLASS	D
SPECTRAL RESPONSE COEFFICIENTS	SDS = 0.736, SD1 = 0.436
SEISMIC DESIGN CATEGORY	D

FOUNDATION CRITERIA
CONTRACTOR SHALL VERIFY SOIL CONDITIONS AT THE FOOTINGS AND MAKE ANY NECESSARY CORRECTIONS TO PLACE THEM ON FIRM NATIVE SOIL OR STRUCTURAL FILL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT PER ASTM D698 (STANDARD PROCTOR), OR ASTM D1557 (MODIFIED PROCTOR). THE COMPACTOR SHALL BE VERIFIED BY A QUALIFIED INSPECTOR APPROVED BY THE BUILDING OFFICIAL. COMPACTED STRUCTURAL FILL FOR DEPTHS GREATER THAN 12 INCHES SHALL COMPLY WITH PROVISIONS OF AN APPROVED GEOTECHNICAL REPORT. ASSUMED SOIL BEARING PRESSURE 1500 POUNDS PER SQUARE FOOT (PSF).

CONCRETE
MIXING, BATCHING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE, ACI 318, ACI 301 AND IBC CHAPTER 19.

CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMENTS:

CONCRETE MIX DESIGN REQUIREMENTS			
MEMBER TYPE/LOCATION	COMPRESSIVE STRENGTH AT 28 DAYS, F'C (PSI)	MAXIMUM AGGREGATE SIZE	MAXIMUM W/CM RATIO
SLAB ON GRADE/FOUNDATIONS	4500	1"	0.45

ALL CONCRETE SHALL MEET THE FOLLOWING AIR CONTENT REQUIREMENTS:

CONCRETE MIX AIR CONTENT REQUIREMENTS		
MAXIMUM AGGREGATE SIZE	CONCRETE SUBJECT TO FREEZE/THAW CYCLES	CONCRETE SUBJECT TO CONTINUOUS MOISTURE AND/OR DEicing CHEMICALS
3/8"	6%	7.50%
1/2"	5.50%	7%
3/4"	5%	6%
1"	4.50%	6%
1-1/2"	4.50%	5.50%

THE AIR-ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260. ALL CONCRETE WITH REINFORCEMENT SHALL HAVE NO CHLORINE OR CHLORIDES. NO WATER MAY BE ADDED TO THE CONCRETE IN THE FIELD UNLESS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER IN CONJUNCTION WITH THE APPROVED CONCRETE MIX DESIGN.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER BEFORE PLACING CONCRETE.

WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE PER ACI 318 11.6.9.

DESIGN OF FORMWORK, SHORING AND RE-SHORING DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO ACI 347R-14 AND ACI 347.2R-17.

CONCRETE REINFORCING STEEL
ALL REINFORCING STEEL SHALL BE DEFORMED BARS PER ASTM A615 OR A706, GRADE 60 UNLESS NOTED OTHERWISE.

ALL REINFORCING STEEL SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS, PLASTIC CHAIRS OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1 AND SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE PRIOR TO PLACING CONCRETE. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE 'ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES,' ACI 315. BAR LENGTHS DETAILED ARE OUT TO OUT AND DO NOT INCLUDE ALLOWANCE FOR HOOKS OR BENDS.WELDING OR TACK WELDING OF REINFORCING BARS TO OTHER BARS OR EMBEDDED STEEL ITEMS IS PROHIBITED. USE MINIMUM 30" LAP SPLICE FOR #4 BAR.

UNLESS NOTED OTHERWISE, CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS:

CONCRETE COVER (UNLESS NOTED OTHERWISE)					
BAR SIZE	CONCRETE CAST AGAINST EARTH	CONCRETE EXPOSED TO EARTH / WEATHER	SLABS & JOISTS	WALLS	BEAMS & COLUMNS (TIES, STIRRUPS, SPIRALS)
#5 & SMALLER		1 1/2"	TOP BARS: 3/4"		
#6 TO #11	3"	2"	BOTTOM BARS: 1"	1"	1 1/2"
#14 & #18			1 1/2"	1 1/2"	

SPECIFIED CONCRETE COVER SHALL BE MAINTAINED TO ALL REINFORCEMENT AT CONCRETE REVEALS AND INSETS. SHOP DRAWINGS SHOWING CONCRETE REVEALS AND OTHER INSETS SHALL BE SUBMITTED FOR REVIEW.

CONCRETE ANCHORS
POST INSTALLED CONCRETE ANCHORS SHALL CONSIST OF THE FOLLOWING UNLESS NOTED OTHERWISE:

SCREW ANCHORS: HILTI KWIK HUS-EZ OR HILTI KWIK HUS-EZ P

ALL POST INSTALLED CONCRETE ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S INSTALLATION CRITERIA AND PER THE CURRENT ICC EVALUATION REPORT.

STRUCTURAL STEEL STUD WELDING
ALL WELDED THREADED STUDS (WTS) SHALL BE WELDED WITH AUTOMATIC STUD WELDING EQUIPMENT PER THE RECOMMENDATIONS OF THE STUD AND EQUIPMENT MANUFACTURER, UNLESS OTHERWISE SPECIFIED.

WOOD FRAMING
ALL STRUCTURAL WOOD COLUMNS AND BEAMS TO BE DOUGLAS FIR/LARCH (DF/L), #2 UNLESS NOTED OTHERWISE. ALL JOISTS, PURLINS, AND GIRTS TO BE DF/L #2 AND BETTER UNLESS NOTED OTHERWISE. ALL BLOCKING AND NON-STRUCTURAL FRAMING TO BE CONSTRUCTION GRADE AND BETTER. ALL WOOD PLATES IN CONTACT WITH CONCRETE OR MASONRY SHALL BE HEM-FIR #2 PRESSURE TREATED UNLESS NOTED OTHERWISE. ALL COLUMNS SHALL HAVE SOLID BLOCKING FOR THE FULL COLUMN AREA TO SUPPORTING MEMBERS BELOW. COLUMNS SHALL ALIGN THROUGH ALL FLOORS TO THE FOUNDATION.

ALL SHEATHING SHALL BE APA RATED GROUP 1, EXPOSURE 1 IN COMPLIANCE WITH VOLUNTARY PRODUCT STANDARDS DOCUMENT PS1 AND DOCUMENT PS2.

15/32" (1/2" NOMINAL) SHEATHING TO BE C-D WITH SPAN RATINGS OF 32/16.

UNLESS OTHERWISE SPECIFIED BY THE PANEL MANUFACTURER, PROVIDE A MINIMUM GAP OF 1/8" BETWEEN ALL SHEATHING PANELS. ALL SHEATHING WALLS AND/OR SHEAR WALLS SHALL HAVE 2X BLOCKING AT PANEL EDGES UNLESS NOTED OTHERWISE.

WOOD FRAMING FASTENING SCHEDULE
ALL NAILS SHALL BE COMMON AND NAILING SHALL BE PER THE NAILING SCHEDULE UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE FOLLOWING NAIL SIZES SHALL BE USED UNLESS NOTED OTHERWISE:

6D NAIL: 0.113 INCH DIA. X 2 INCHES LONG WITH MIN HEAD DIA. 17/64 IN.
8D NAIL: 0.131 INCH DIA. X 2 1/2 INCHES LONG WITH MIN HEAD DIA. 9/32 IN.
10D NAIL: 0.148 INCH DIA. X 3 INCH LONG WITH MIN HEAD DIA. 5/16 IN.
12D NAIL: 0.148 INCH DIA. X 3 1/4 INCHES WITH MIN HEAD DIA. 5/16 IN.
16D NAIL: 0.182 INCH DIA. X 3 1/2 INCHES WITH MIN HEAD DIA. 11/32 IN.

STAPLE OF EQUIVALENT VALUE MAY BE SUBSTITUTED AFTER REVIEW BY ENGINEER. NAILS AND STAPLES SHALL NOT BE OVERDRIVEN.

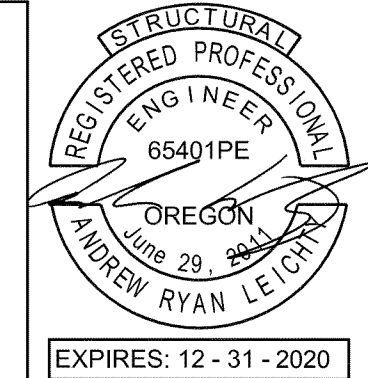
WOOD FRAMING FASTENING SCHEDULE	
ITEM	FASTENERS
BOT PL/TOP PL TO STUDS (END NAIL)	(2) 16D AT 2X4, (3) 16D AT 2X6
BUILT-UP DBL STUDS (FACE NAIL)	10D AT 8" OC STAGGERED
DBL TOP PL (FACE NAIL)	10D AT 12" OC STAGGERED
BLOCKING TO STUDS (TOE NAIL)	(2) 10D
STUDS TO HDRS (END NAIL)	(6) 16D AT 4XB/4X8
HDRS TO CRIPPLE STUDS (TOE NAIL)	(8) 16D AT 4X10/4X12
SHEATHING	(4) 10D
WALLS	8D AT 6" OC AT ALL PANEL EDGES AND AT 12" OC AT ALL INTERMEDIATE FRAMING MEMBERS

PRESSURE TREATED LUMBER
ALL STRUCTURAL WOOD MEMBERS EXPOSED TO WEATHER OR AS NOTED ON DRAWINGS OR AS REQUIRED BY IBC SECTION 2303.1.8, SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH AMERICAN WOOD-PRESERVERS ASSOCIATION USING (ACQ, CA-B, DOT) STANDARD U1 AND M4 FOR SPECIES, PRODUCT, PRESERVATIVE, AND END USE. RETENTION AMOUNTS SHALL BE AS REQUIRED FOR AWPA USE CATEGORY STANDARDS FOR STRUCTURAL APPLICATIONS. FOR ABOVE GROUND APPLICATIONS RETENTION OF 0.25 LBS PER CUBIC FOOT OF ACQ OR 0.10 LBS PER CUBIC FOOT OF CA-B BASED ON AWPA USE CATEGORY STANDARDS UC1, UC2, UC3A, UC3B. FOR GROUND CONTACT, FRESH WATER IMMERSION APPLICATIONS RETENTION OF 0.40 LBS PER CUBIC FOOT OF ACQ OR 0.25 LBS PER CUBIC FOOT OF CA-B BASED ON AWPA USE CATEGORY STANDARDS UC4A, UC4B. FOR IN GROUND STRUCTURAL APPLICATIONS RETENTION OF 0.80 LBS PER CUBIC FOOT OF ACQ OR 0.31 LBS PER CUBIC FOOT OF CA-B BASED ON AWPA USE CATEGORY STANDARD UC4B. FOR ABOVE GROUND, CONTINUOUSLY PROTECTED FROM LIQUID WATER APPLICATIONS (SILL PLATE) RETENTION OF 0.25 LBS PER CUBIC FOOT OF ACQ OR 0.10 LBS PER CUBIC FOOT OF CA-B OR 0.25 LBS PER CUBIC FOOT BASED ON AWPA USE CATEGORY STANDARDS UC1, UC2.

FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED MATERIAL SHALL BE IN ACCORDANCE WITH IBC SECTION 2304.9.5. TIMBER CONNECTORS/FASTENERS INCLUDING NUTS AND WASHERS IN CONTACT WITH PRESERVATIVE-TREATED MATERIAL SHALL HAVE PROTECTIVE COATINGS AS RECOMMENDED BY CONNECTOR/FASTENER MANUFACTURER.

ALL LAMINATED VENEER LUMBER, ORIENTED STRAND LUMBER, GLUE LAMINATED LUMBER EXPOSED TO WEATHER AND SUBJECT TO DECAY, SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR PRESERVATIVE MATERIALS, RETENTION RATES, AND END USE. LAMINATED TIMBERS SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH IBC SECTION 2304.11.3.

ALL TRIMMED SECTIONS, CUTS, DAPS, OR HOLES IN PRESSURE TREATED MATERIALS SHALL BE TREATED WITH COPPER NAPHTHENATE, IN ACCORDANCE WITH AWPA STANDARD M4. FOR ADDITIONAL REQUIREMENTS, SEE IBC SECTION 2304.11 FOR PROTECTION AGAINST DECAY AND TERMITES.



BBL ARCHITECTS
ARCHITECTURE ■ PLANNING ■ INTERIOR DESIGN

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DAVID DOUGLAS SCHOOL DISTRICT
DAVID DOUGLAS HS - KILT KITCHEN

1001 SE 135TH AVENUE, PORTLAND, OREGON 97233

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SPECIAL INSPECTION:

TABLE 2 REQUIRED STRUCTURAL SPECIAL INSPECTIONS					
SYSTEM or MATERIAL	INSPECTION		FREQUENCY		REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE			
			Continuous	Periodic	
CONCRETE					
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	*1909.1 TABLE 1705.3"	*ACI 318: 3.8.6, 8.1.3, 21.1.8"		X	SPECIAL INSPECTIONS APPLY TO ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, ADHESIVE EXPIRATION DATE, ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE
REINFORCING STEEL PLACEMENT	*1705.3 1910.4 1901.3.2"	*ACI 318: 3.5 ACI 318: 7.1-7.7"		X	TOLERANCES AND REINFORCING PLACEMENT PER ACI 7.5; SPACING LIMITS FOR REINFORCING ACI 7.6 PROTECTION OF REINFORCEMENT PER ACI 7.7
VERIFYING USE OF REQUIRED MIX DESIGN(S)	*TABLE 1705.3 1904 1904.2 1910.2 1910.3"	*ACI 318: CHAPTER 4 ACI 318: 5.2-5.4"		X	
CONCRETE PLACEMENT	*TABLE 1705.3"	*ACI 318: 1.3.2.D ACI 318: 5.9 - 5.10"	X		
STEEL					
WELDING STUDS		*AISC 360 N6 AWS D1.1 SECTION 7"	X		*CONTINUOUS INSPECTION IS NOT REQUIRED WHEN WELDS INSTALLED WITH AN AUTOMATICALLY TIMED STUD WELDING MACHINE PER SECTION 7 OF AWS D1.1 (ONLY PERIODIC), 1705.2 (3) ALL WELDS VISUALLY INSPECTED PER AWS D1.1 7.8.1"

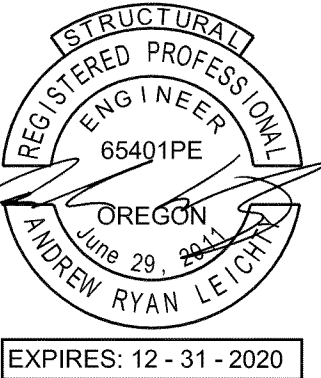
TABLE 5 REQUIRED TESTING FOR SPECIAL INSPECTIONS					
SYSTEM or MATERIAL	TESTING			REMARKS	
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY		
			Continuous Periodic		
CONCRETE					
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	*TABLE 1705.3"	*ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8"	X		FABRICATE SPECIMENS AT TIME FRESH CONCRETE IS PLACED ONCE EACH DAY FOR A GIVEN CLASS OF CONCRETE, OR LESS THAN ONCE FOR EACH 150 YDS OF CONCRETE, OR LESS THAN ONCE FOR EACH 5,000 FT2 OF SURFACE AREA FOR SLABS/WALLS.
CONCRETE STRENGTH	*TABLE 1705.3"	ASTM C39	X		
CONCRETE SLUMP	*TABLE 1705.3"	ASTM C143	X		
CONCRETE AIR CONTENT		ASTM C231	X		
CONCRETE TEMPERATURE		ASTM C1064	X		
STEEL					
PRE-CONSTRUCTION TESTING OF WELDING STUDS	1705.2.2	AWS D1.1 7.7.1	EACH SIZE AND TYPE OF STUD EACH SHIFT	THIS TESTING PERFORMED BY CONTRACTOR AND CONFIRMED BY SPECIAL INSPECTOR.	



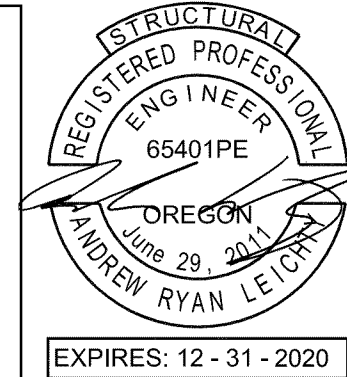
DAVID DOUGLAS SCHOOL DISTRICT
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MCE #181509
PROJECT NUMBER
21 FEB 2019
DATE
REVISIONS

BID SET



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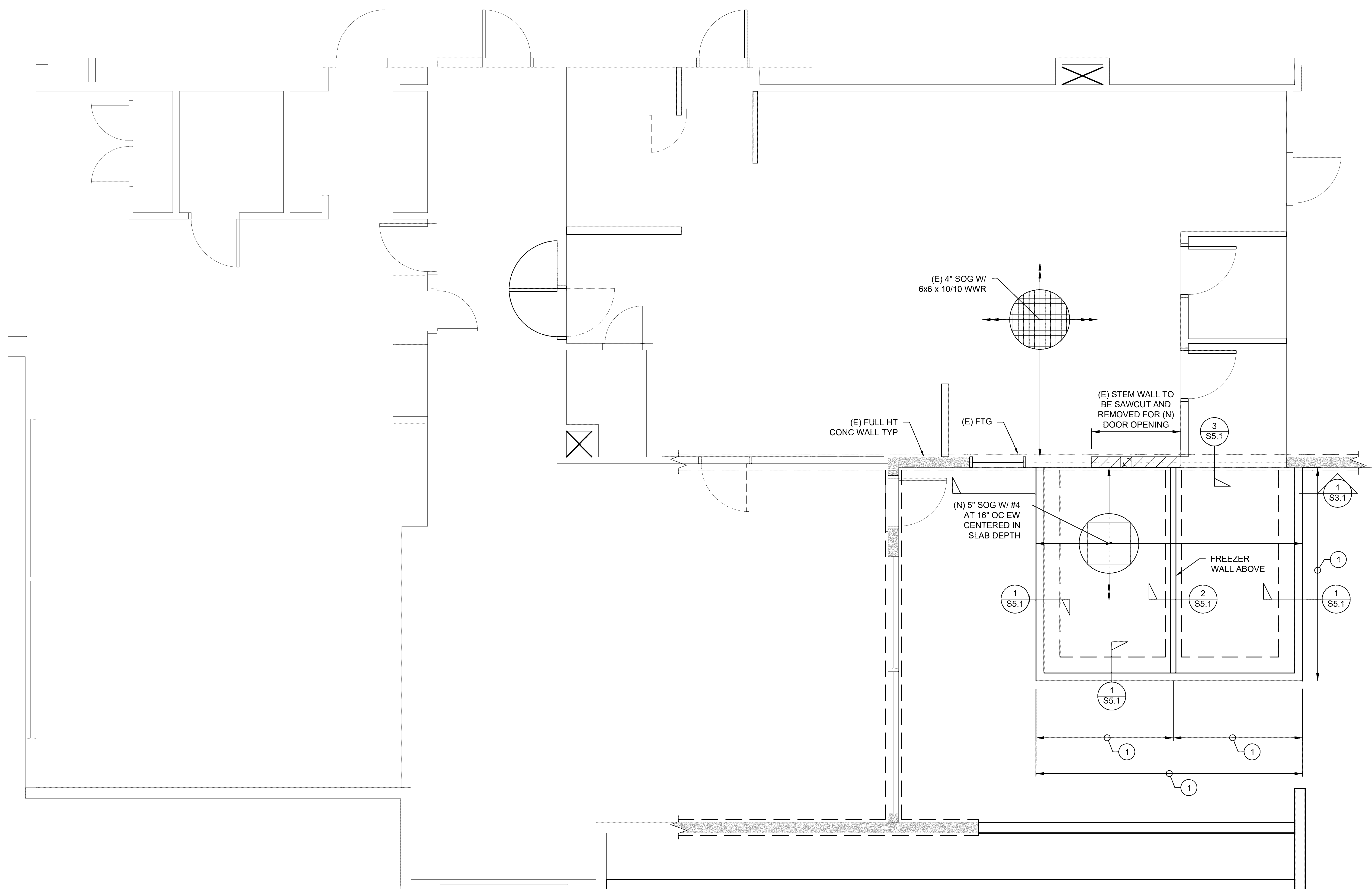
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FOUNDATIONS

NYCE #181509
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S1.

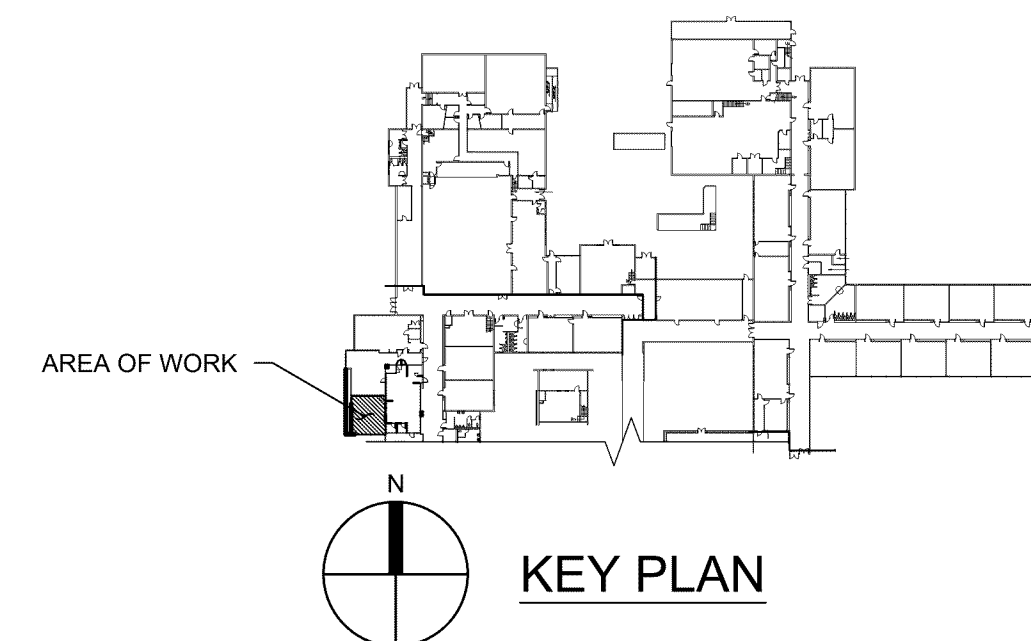
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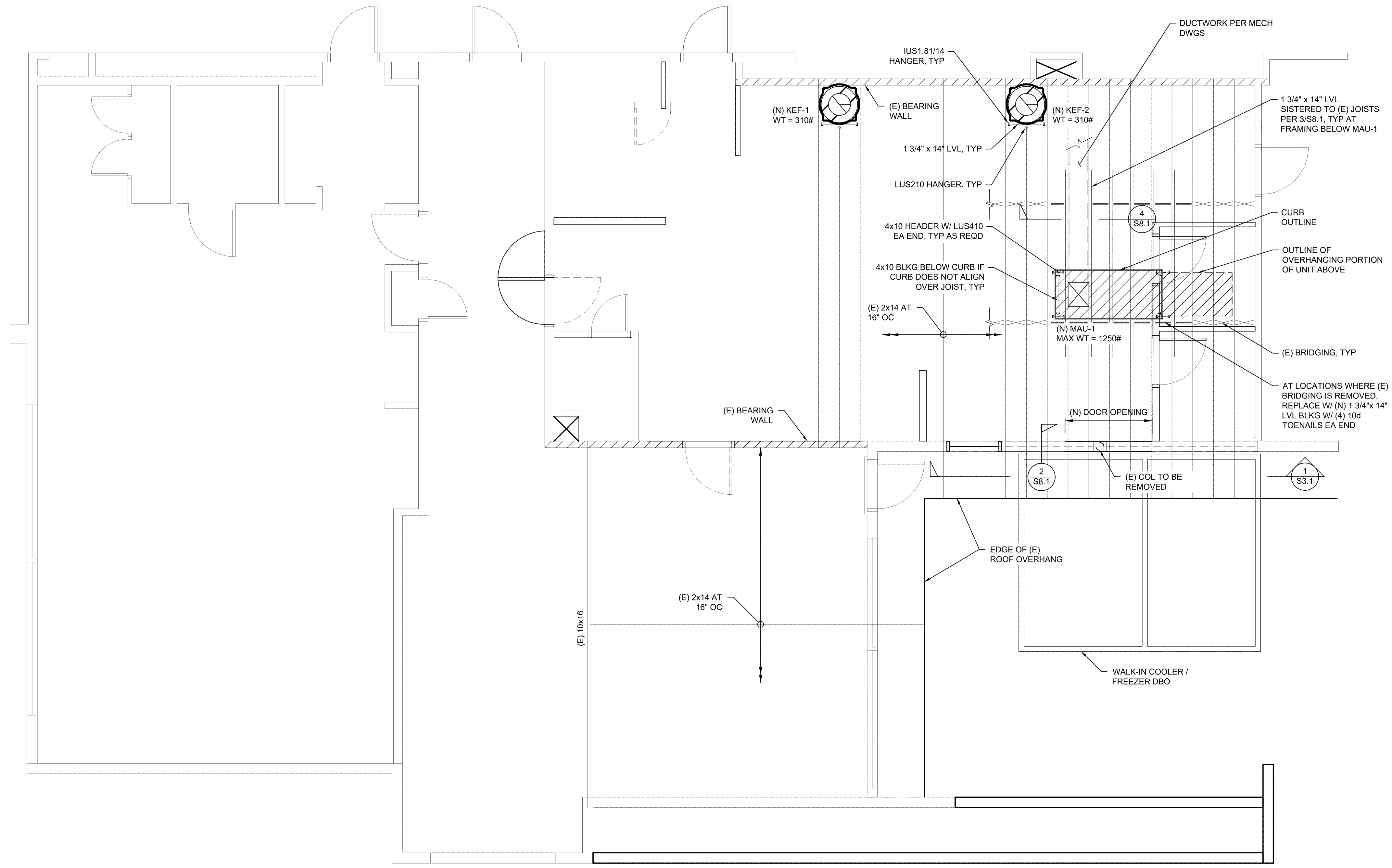
A Venn diagram with two overlapping circles. The left circle is labeled 'z' and has a shaded region. The right circle is labeled '1' and 'S1.1'.

FOUNDATION PLAN

1/4" = 1'-0"

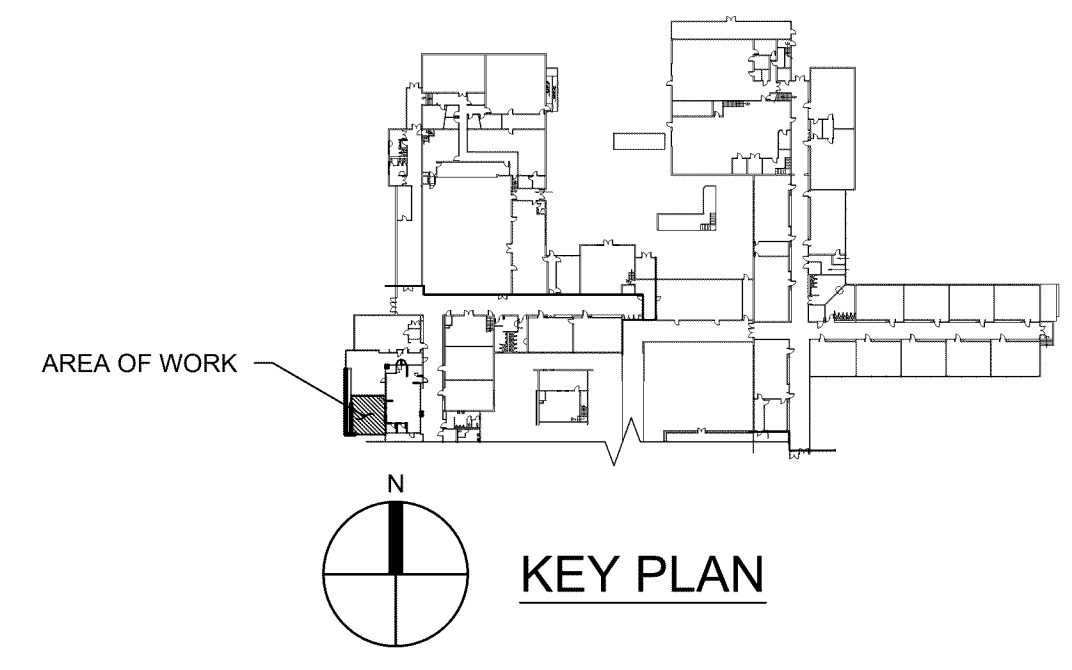


KEY PLAN

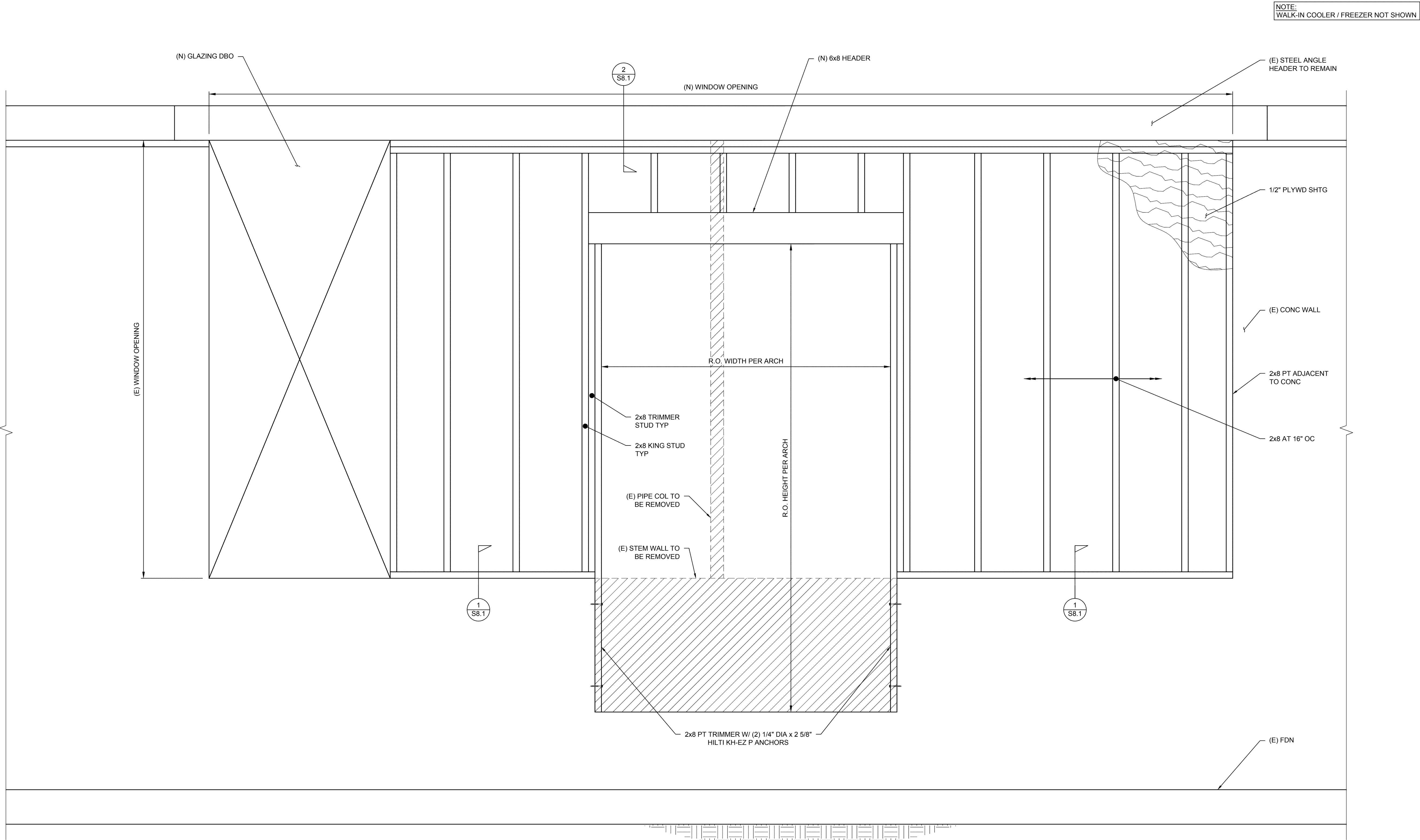


1 S1.2 ROOF FRAMING PLAN

1/4" = 1'-0"

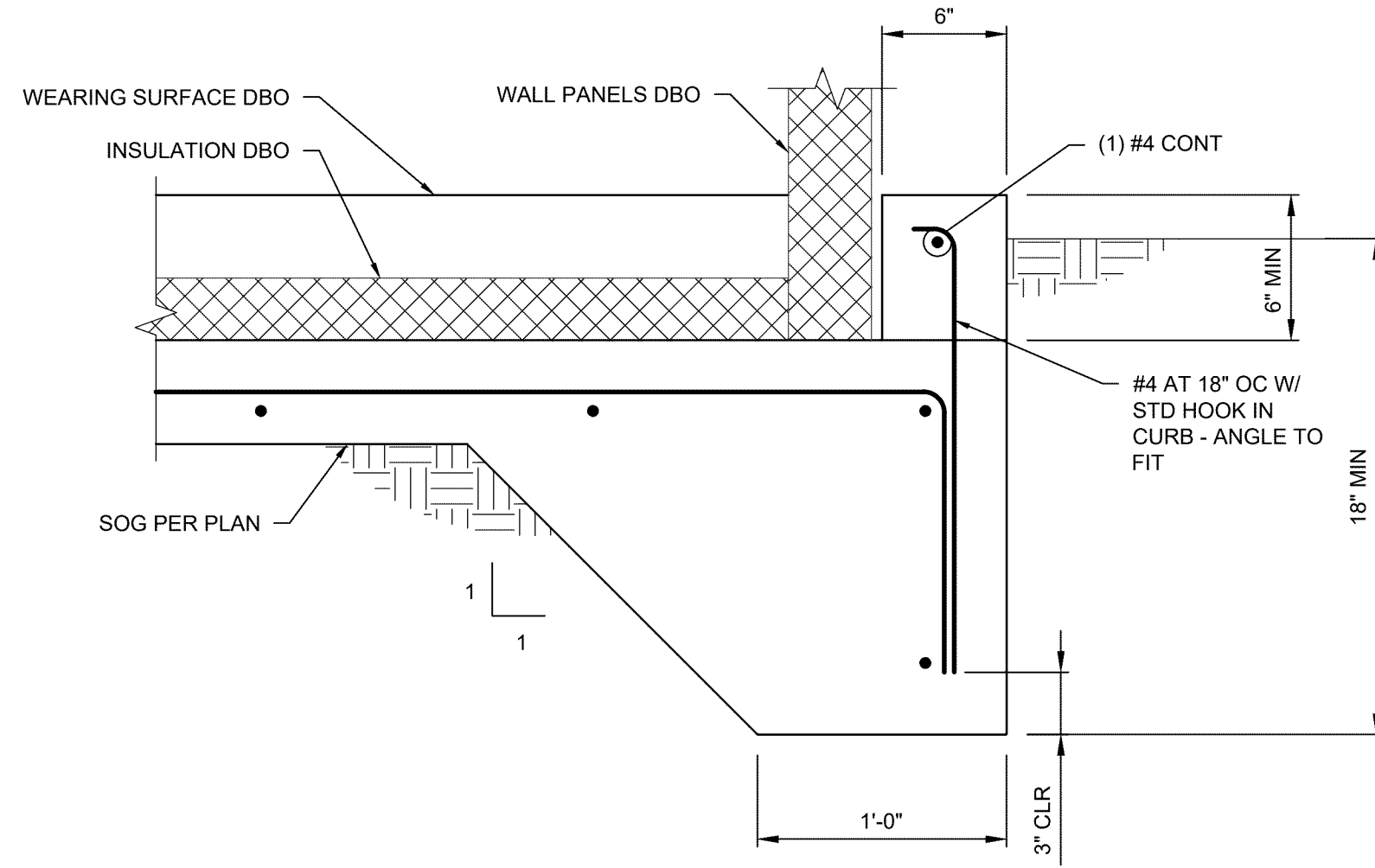


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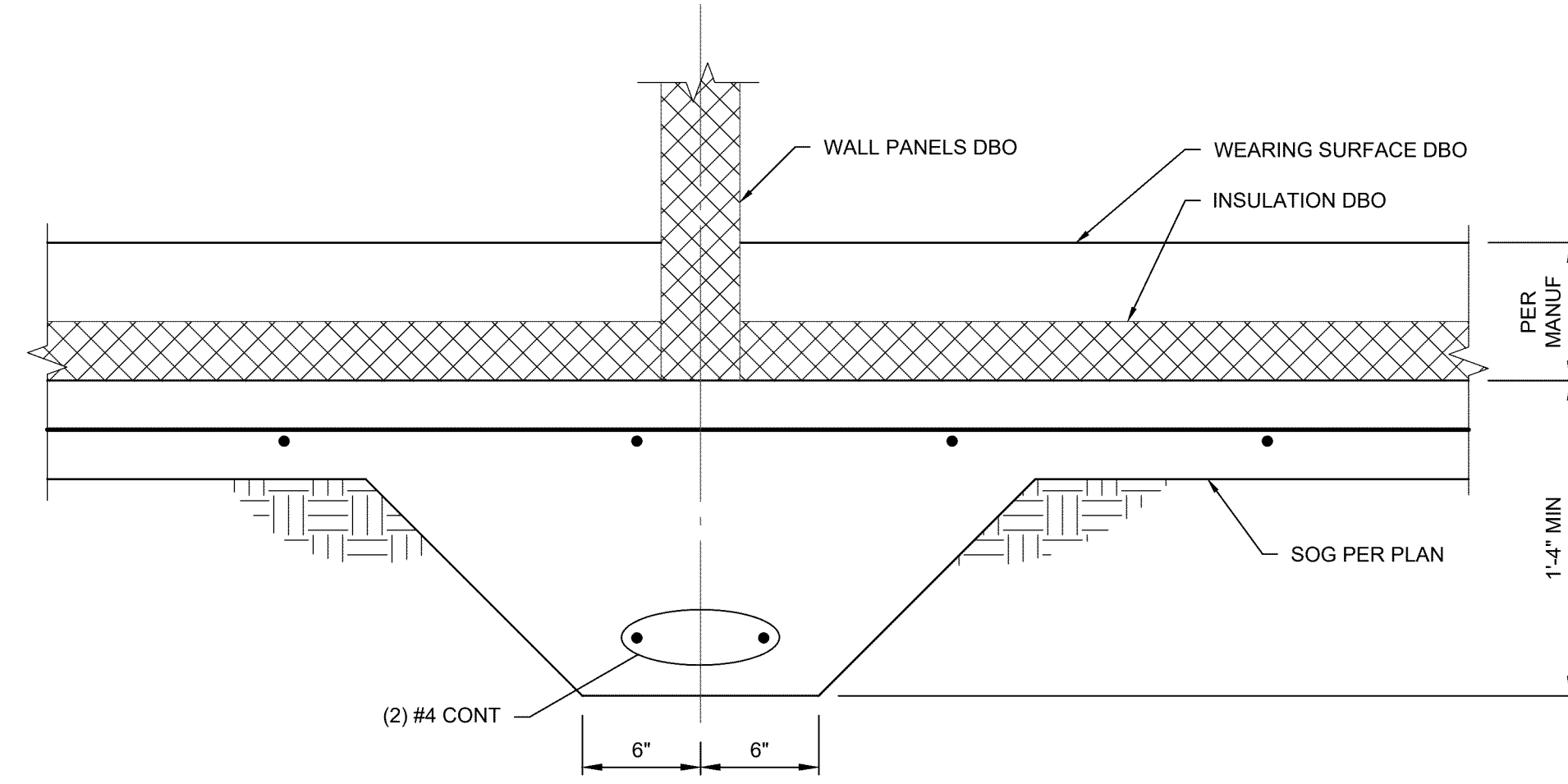


1 S3.1 WALL FRAMING ELEVATION

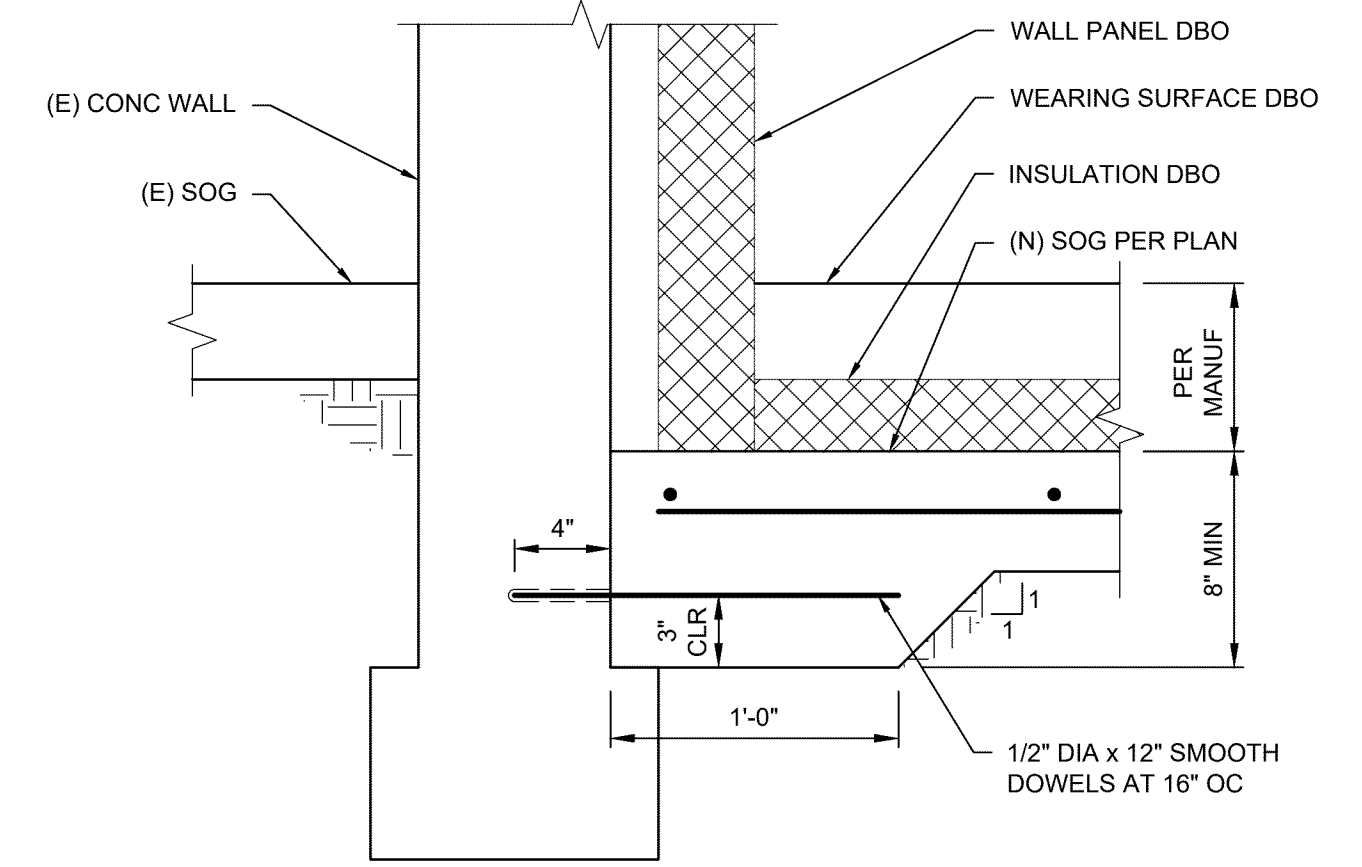
1" = 1'-0"



1 S5.1 SECTION AT COOLER/FREEZER FDN 1 1/2" = 1'-0"



SECTION AT THICKENED SLAB



3 S5.1 SECTION AT COOLER/FREEZER - (E) FDN 1 1/2" = 1'-0"



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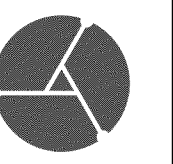
CONCRETE DETAILS

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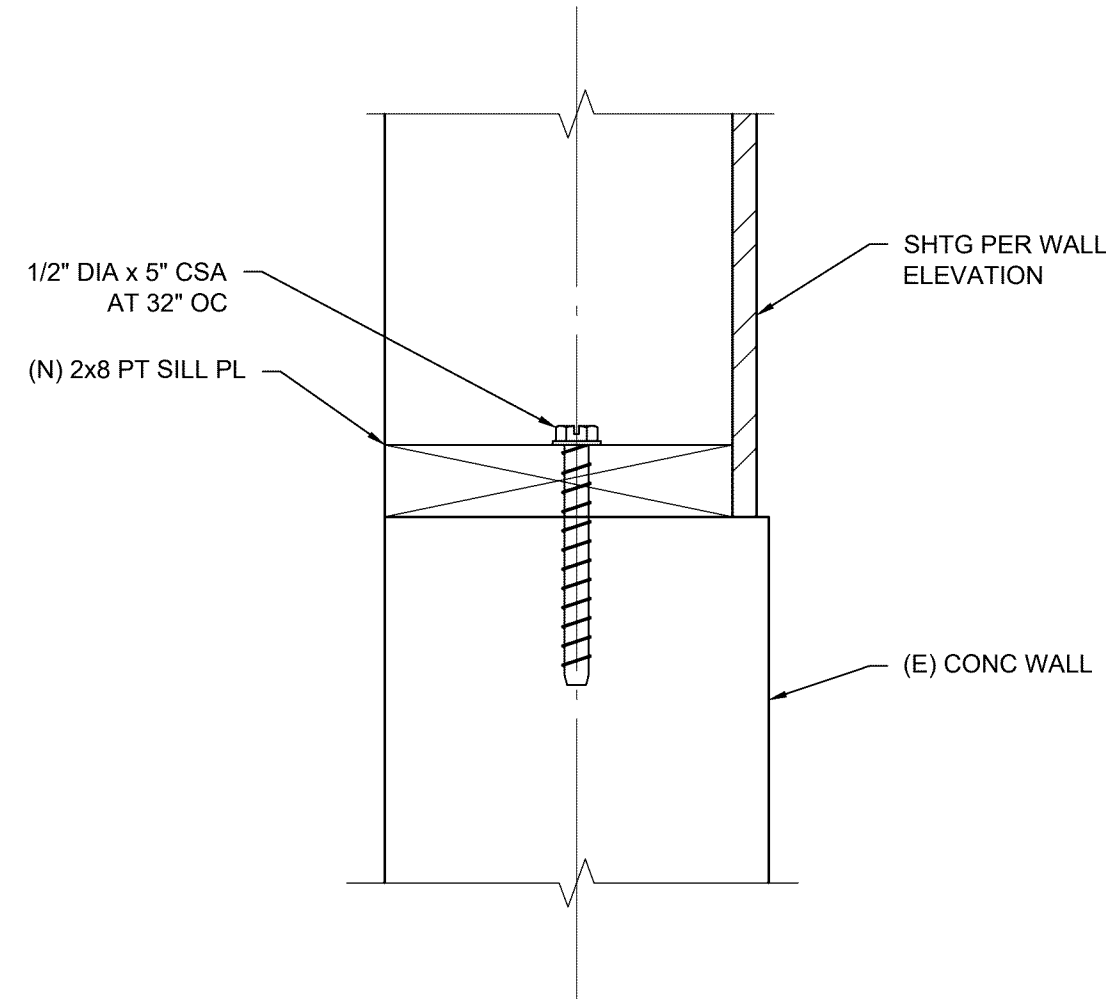
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35.1

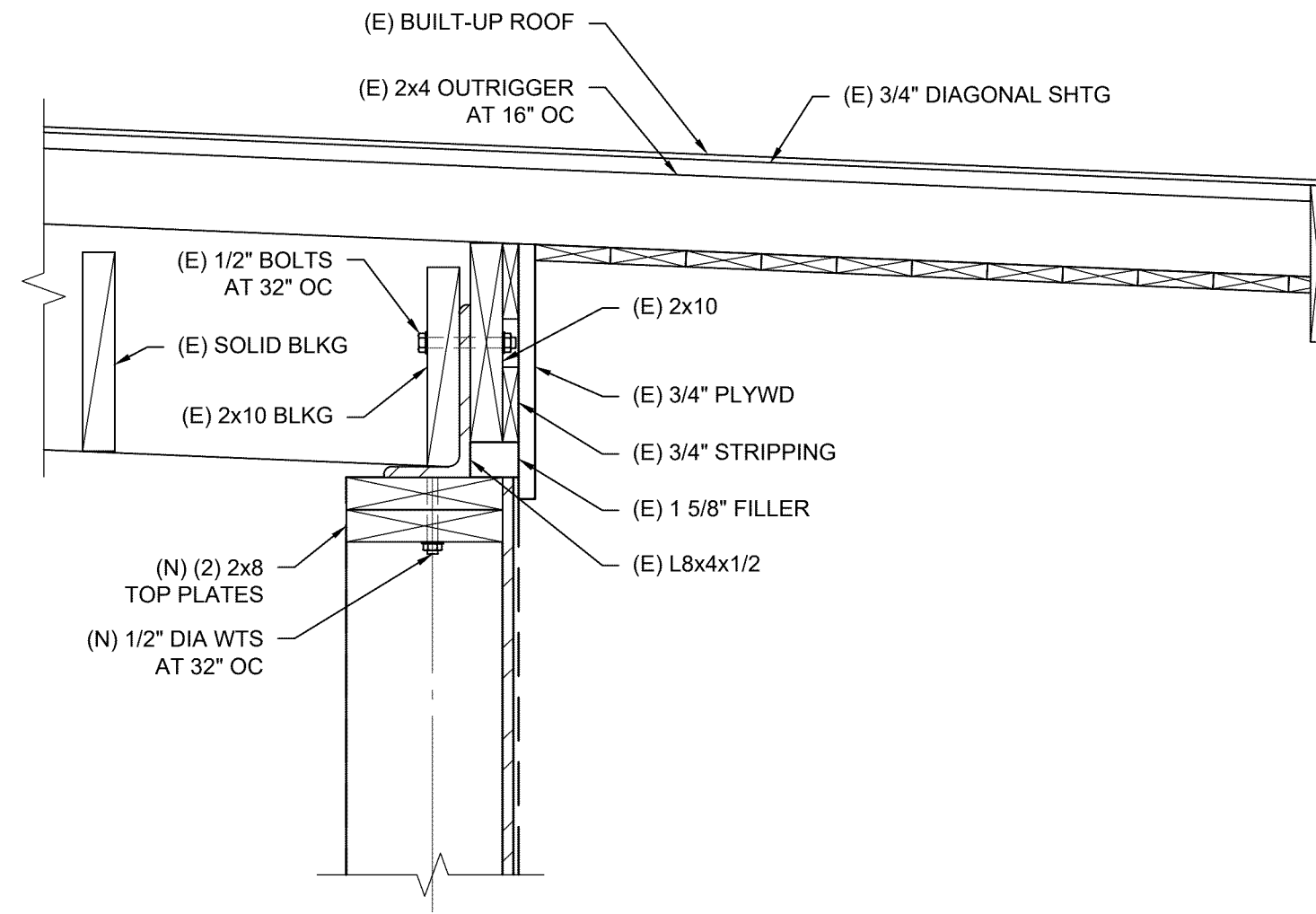
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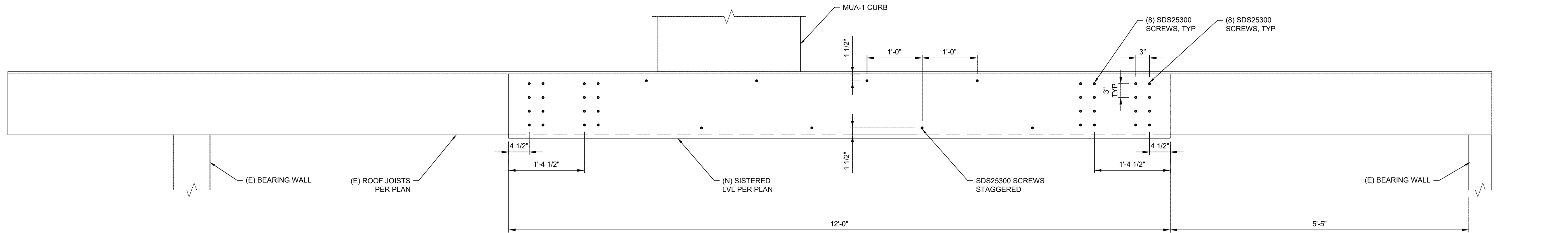
MILLER
CONSULTING
ENGINEERS



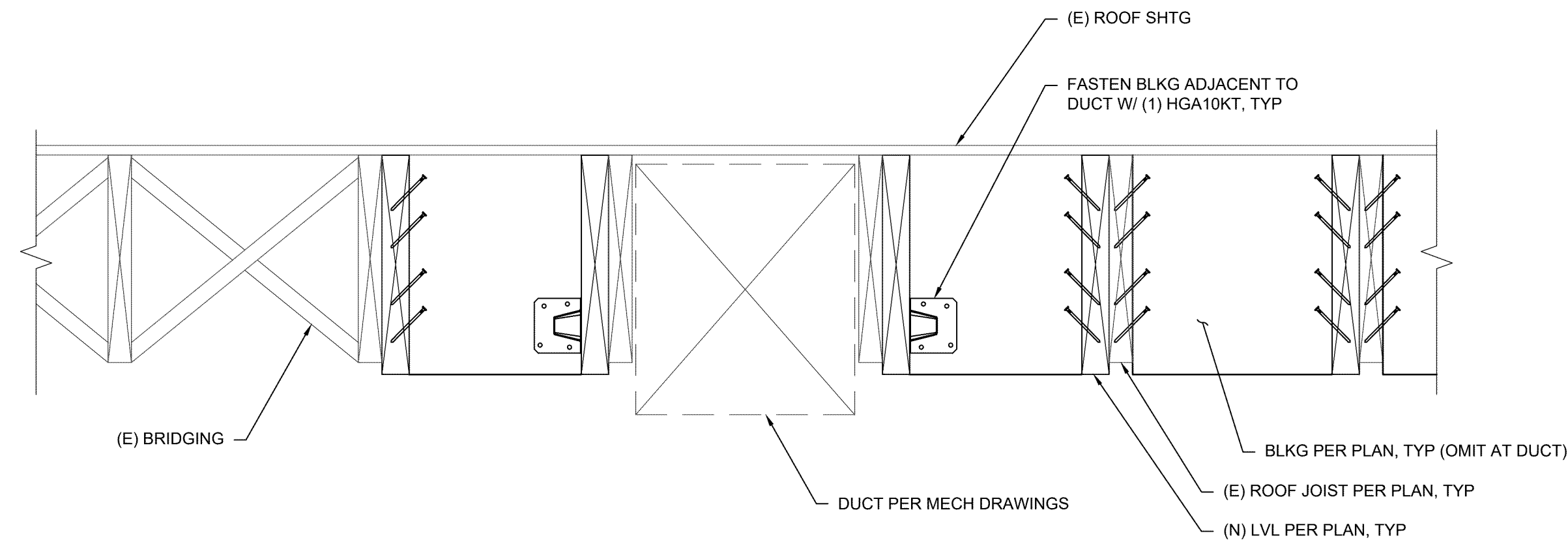
1
S8.1 SECTION AT SILL PL 3" = 1'-0"



2
S8.1 SECTION AT TOP OF WALL 1 1/2" = 1'-0"



3
S8.1 SISTERED LVL DETAIL 1" = 1'-0"



4
S8.1 SECTION AT DUCT 1 1/2" = 1'-0"