GENERAL NOTES

1. **CODE CONFLICTS**
   ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH MOST CURRENT APPLICABLE CODE AND ORDINANCES OF PIERCE COUNTY
2. **DISCREPANCY**
   IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPORT DISCREPANCIES FOUND WITHIN THESE DOCUMENTS TO THE ARCHITECT AS SOON AS THEY ARE DISCOVERED
3. **SCALING DRAWINGS**
   DO NOT SCALE THE DRAWINGS. CONTACT ARCHITECT WITH ANY CONFLICTS
4. **DIMENSIONS**
   DIMENSIONS ARE TO FACE OF STUD AND FACE OF CONC. U.N.O.
   CONTRACTOR SHALL VERIFY ALL DIMENSIONS, EXISTING CONDITIONS, AND MEMBER SIZES PERTAINING TO THE WORK PRIOR TO PROCEEDING. ALL DIMENSIONS OF EXISTING CONDITIONS SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. THE ARCHITECT MUST BE NOTIFIED IN WRITING OF ANY VARIATION FROM THE DIMENSIONS AND/OR CONDITIONS SHOWN ON THESE DRAWINGS.
5. **DOORS AND WINDOWS**
   ALL WINDOW AND DOOR SIZES SHALL BE VERIFIED AND FIELD MEASURED PRIOR TO FABRICATION
6. **EXISTING CONDITIONS**
   THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT THE SITE AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY UNCERTAINTIES OR DISCREPANCIES WITHIN THESES DOCUMENTS
   CONTRACTOR SHALL PROTECT THE EXISTING SITE WORK, LANDSCAPING, AND AREAS OF THE SITE NOT IN THE SCOPE OF WORK
7. **DEMOLITION**
   CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. PROTECT EXISTING STRUCTURE TO REMAIN
8. **HEALTH AND SAFETY**
   CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY PRECAUTIONS AND THE MEANS AND METHODS TO PERFORM THE WORK.
   CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS
9. **QUALITY STANDARDS**
   ALL CONSTRUCTION SHALL MEET OR EXCEED INDUSTRY STANDARDS. DETAILS ARE PROVIDED FOR MINIMUM QUALITY AND TO GIVE STANDARDS OF CONSTRUCTION. IF CONDITION IS NOT SPECIFICALLY DETAILED, SUBMIT A DETAIL FOR GUIDANCE AND REVIEW FOR ACCEPTANCE.
   CONTRACTOR SHALL PROVIDE BLOCKING AS REQUIRED FOR ALL CASEWORK, FIXTURE, AND SPECIALTY ITEMS.

SYMBOLS LEGEND

ROOM IDENTIFICATION — XXX / XXX

DOOR NUMBER — XXX

WINDOW NUMBER — XX

EQUIPMENT NUMBER — XX

WALL TYPE — W1

CENTERLINE

NORTH ARROW

HOSE BIB

DATUM

REVISION — #

SMOKE DETECTOR — S

SMOKE &CO DETECTOR — SCO

COLUMN GRID/LINE — X

ENLARGED DETAIL MARK — X / A#_##

BUILDING SECTION MARK — X / AX.X

DETAIL MARK — X / A#_##

EXTERIOR ELEVATIONS SYMBOL — X / AX.X

INTERIOR ELEVATION SYMBOL — N / W AX.X E / S

2021 IBC REFERENCE

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION
303.3 ASSEMBLY GROUP A-2 | RESTAURANTS & BARS

CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS
PROPOSED BUILDING DESIGN: A-2 OCCUPANCY | SPRINKLER | TYPE II-B

	PROPOSED	IBC		CITY
HEIGHT	34'-0"	75'-0"	(TABLE 504.3)	50'-0"
STORY	1	3	(TABLE 504.4)	
AREA	24,863 SF	28,500 SF*	(TABLE 506.2)	

*WITHOUT FRONTAGE INCREASE, THIS BUILDING MEETS IBC REQ'T

CHAPTER 6: TYPES OF CONSTRUCTION
TABLE 601 FIRE-RESISTANCE RATING REQUIREMENT FOR TYPE II-B

PRIMARY STRUCTURAL FRAME	0 HR
BEARING WALLS (EXT & INT)	0 HR
FLOOR AND ASSOCIATED SECONDARY MEMBERS	0 HR
ROOF AND ASSOCIATED SECONDARY MEMBERS	0 HR

TABLE 602 FIRE-RESISTANCE RATING REQUIREMENT
X>=30 0 HR (PROVIDE >40' SEPARATION THROUGHOUT ALL PHASES)
602.2 TYPE I AND II: NON COMBUSTIBLE MATERIAL

CHAPTER 9: FIRE PROTECTION SYSTEMS
903.2.1.2 GROUP A-2: PROVIDED AUTOMATIC FIRE SPRINKLER SYSTEM
903.2.1.6 ASSEMBLY OCCUPANCIES ON ROOF: PROVIDE AUTOMATIC SPRINKLER
903.3.1.1 NFPA 13 SPRINKLER SYS REQ'D
906.1 PORTABLE FIRE EXTINGUISHER SHALL BE INSTALLED: 2A:10B:C MIN
906.4 COOKING EQUIPMENT FIRES: CLASS K-RATED
906.9.1 EXTINGUISHERS WEIGHING 40 LB OR LESS: THEIR TOPS ARE NOT MORE THAN 5' ABOVE THE FLOOR
907.2.1 GROUP A FIRE ALARM IS REQUIRED UNLESS.... EXCEPTION: MANUAL FIRE ALARM BOXES ARE NOT REQ'D WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM AND THE OCCUPANT NOTIFICATION (PER 907.5.2) APPLIANCES WILL ACTIVATE THROUGHOUT THE NOTIFICATION ZONES UPON SPRINKLER WATER FLOW
907.2.1.1 GROUP A OCCUPANCIES WITH AN OCCUPANT LOAD OF 1,000 OR MORE... SHALL INITIATE A SIGNAL USING EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM
907.5.2.2 EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM AT ELEVATOR GROUP

CHAPTER 10: MEANS OF EGRESS
TABLE 1004.5 MAX FLOOR AREA ALLOWANCES PER OCCUPANT

ACCESSORY STORAGE	300 GROSS
ASSEMBLY-UNCONCENTRATED:	15 NET
KITCHEN, COMMERCIAL	200 GROSS

1004.7 OUTDOOR AREAS
OCCUPIED ROOFS...SIMILAR OUTDOOR AREAS ACCESSIBLE TO... SHALL BE PROVIDED WITH MEANS OF EGRESS AS REQUIRED.
1004.9 POSTING OF OCCUPANT LOAD
EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM THE ROOM OR SPACE
1005.3.1 STAIRWAYS: THE CAPACITY SHALL BE CALCULATED BY MULTIPLYING THE OCCUPANT LOAD SERVED BY SUCH STAIRWAYS BY A MEANS OF EGRESS CAPACITY FACTOR 0.3 INCH PER OCCUPANT.
1005.3.2 OTHER EGRESS COMPONENTS SIZING EXCEPTION 1
MULTIPLIED BY 0.15" PER OCCUPANT
1006.2.1.1 THREE EXITS SHALL BE PROVIDED... WITH AN OCCUPANY LOAD OF 501 TO 1,000
1006.3 EGRESS FROM... OCCUPIED ROOF: PROVIDE EGRESS EXIT BASED ON THE AGGREGATE OCCUPANT LOAD
TABLE 1006.3.2 MINIMUM NUMBER OF EXITS PER STORY: 501-1000 PEOPLE. 3 EXITS
1007.1.1 TWO EXITS OR EXIT ACCESS DOORWAY: WHERE TWO EXITS ARE REQUIRED...(EXCEPTIONS 2 WHERE A BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM), THE SEPARATION DISTANCE SHALL BE NOT LESS THAN ONE-THIRD OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE AREA SERVE.
1007.1.2 THREE OR MORE EXITS: NOT LESS THAN TWO EXIT...SHALL BE ARRANGED IN ACCORDANCE WITH SECTION1007.1.1, AND ADDITIONAL REQ'D EXIT...SHALL BE ARRANGED A REASONABLE DISTANCE APART
1008.2.1 MEANS OF EGRESS ILLUMINATION, NORMAL POWER: SHALL BE NOT LESS THAN 1 FOOTCANDLE AT THE WALKING SURFACE. ALONG EXIT ACCESS STAIRWAYS... THE ILLUMINATION SHALL NOT BE LESS THAN 10 FOOTCANDLES AT THE WALKING SURFACE WHEN THE STAIRWAY IS IN USE
1008.3.2 EMERGENCY POWER FOR ILLUMINATION, BUILDINGS: ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE... 1) INTERIOR EXIT ACCESS STAIRWAYS 2) EXIT STAIRWAYS. 3) EXIT PASSAGEWAY...5) EXTERIOR LANDINGS
1008.3.3 ROOMS AND SPACES: ELECTRICAL SYS SHALL AUTOMATICALLY ILLUMINATES... 1) ELECTRICAL EQUIPMENT ROOMS...3) FIRE PUMP ROOMS... 5) PUBLIC RESTROOMS W/ AN AREA GREATER THAN 300 SQFT
1008.3.4 DURATION: NOT LESS THAN 90 MIN AND SHALL CONSIST OF STORAGE BATTERIES
1009.1 ACCESSIBLE MEANS OF EGRESS REQ'D: ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS. WHERE MORE THAN ONE MEANS OF EGRESS IS REQ'D FROM ANY ACCESSIBLE SPACE, EACH ACCESSIBLE PORTION OF THE SPACE SHALL BE SERVED BY NOT LESS THAN TWO ACCESSIBLE MEANS OF EGRESS.
1009.3.2 STAIRWAY WIDTH EXCEPTIONS 1: THE CLEAR WIDTH OF 48" BETWEEN HANDRAILS I NOT REQUIRED IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM
1009.3.3 AREA OF REFUGE...EXCEPTION 1) ARE NOT REQ'D AT EXIT STAIRWAYS WHERE TWO-WAY COMMUNICATION IS PROVIDED AT THE ELEVATOR LANDING 2) ARE NOT REQUIRED AT STAIRWAYS IN BLDG EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM
1010.1.1 SIZE OF DOOR: THE REQUIRED CAPACITY OF EACH DOOR OPENING SHALL BE SUFFICIENT FOR THE OCCUPANT LOAD THEREOF AND SHALL PROVIDE A MIN CLEAR OPENING WIDTH OF 32".
1010.1.5 LANDING AT DOORS... IN ANY POSITION SHALL NOT REDUCE THE LANDING TO LESS THAN ½ ITS REQUIRED WIDTH, NOT LESS THAN 44"
1010.1.6 THRESHOLDS...AT DOORWAYS SHALL NOT EXCEED ¾"
1010.2.3 HARDWARE HEIGHT... INSTALLED 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE FINISHED FLOOR
1010.2.9 PANIC AND FIRE EXIT HARDWARE: PROVIDE PANIC HARDWARE OR FIRE EXIT HARDWARE
1011.5.2 RISER HEIGHT AND TREAD DEPTH: STAIR RISER HEIGHTS SHALL BE 7" MAX AND 4" MIN. RECTANGULAR TREAD DEPTHS SHALL BE 11 INCHES MIN
1011.5.5.1 NOSING PROJECTION SIZE... NO MORE THAN 1-1/4"
1011.7.3 ENCLOSURES UNDER INTERIOR STAIRWAYS... 1 HOUR FIRE-RESISTANCE RATED
1013.1 EXIT SIGNS REQUIRED...READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL...EXIT SIGN PLACEMENT SHALL BE SUCH THAT ANY POINT IN AN EXIT ACCESS CORRIDOR OR EXIT PASSAGEWAY IS WITHIN 100 FEET OR THE LISTED VIEWING DISTANCE OF THE SIGN, WHICHEVER IS LESS
1013.6.3 POWER SOURCE: TO ENSURE CONTINUED ILLUMINATION FOR A DURATION OF NOT LESS THAN 90 MIN IN CASE OF PRIMARY POWER LOSS....PROVIDED FROM STORAGE BATTERIES...
1014.2 HANDRAIL HEIGHT: NOT LESS THAN 34" AND NOT MORE THAN 38"
1014.6 HANDRAIL DETENTION... HORIZONTALLY NOT LESS THAN 12" BEYOND THE TOP AND THE BOTTOM RISER.
1014.7 HANDRAIL CLEARANCE: CLEAR SPACE BETWEEN A HANDRAIL AND A WALL OR OTHER SURFACE SHALL NOT BE LESS THAN 1 ½"
1015.2 GUARDS REQUIRED: GUARDS SHALL BE LOCATED ALONG OPEN SIDED WALKING SURFACES...MORE THAN 30" MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36"
1015.3 GUARDS HEIGHT SHALL BE NOT LESS THAN 42"
1015.4 GUARDS OPENING LIMITATIONS: REQUIRED GUARDS SHALL NOT HAVE OPENINGS THAT ALLOW PASSAGE OF A SPHERE 4" IN DIAMETER FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT
EXCEPTION: THE TRIANGULAR OPENINGS AT THE OPEN SIDES OF A STAIR, FORMED BY THE RISER, TREAD AND BOTTOM RAIL SHALL NOT ALLOW PASSAGE OF A SPHERE 6"
1015.6 MECHANICAL EQUIPMENT...GUARD...LOCATED WITHIN 10' OF A ROOF EDGE, MORE THAN 30" ABOVE THE FLOOR. GUARD SHALL EXTEND NOT LESS THAN 30" BEYOND EACH END OF EACH COMPONENTS...TO PREVENT THE PASSAGE OF A SPHERE 21" DIAMETER
EXCEPTION: GUARDS ARE NOT REQ'D WHERE PERSONAL FALL ARREST ANCHORAGE CONNECTOR DEVICE THAT COMPLY WITH ANSI/ASSE Z 359.1 ARE INSTALLED.
TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE: A, WITH SPRINKLER = 250
1023.2 INTERIOR EXIT STAIRWAYS...NOT LESS THAN 1 HOUR WHERE CONEECTING LESS THAN 4 STORIES

CHAPTER 12 INTERIOR ENVIRONMENT
1202.3 UNVENTED ENCLOSED RAFTER ASSEMBLY IS PERMITTED WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET
1. UNVENTED ATTIC SPACE IS COMPLETELY WITHIN THE BLDG THERMAL ENVELOPE
2 NO INTERIOR CLASS I VAPOR RETARDERS
5.1.2 WHERE AIR-PERMEABLE INSULATION IS PROVIDED INSIDE THE BLDG THERMAL ENVELOPE, IT SHALL INSTALLED DIRECTLY CONTACT WITH THE UNDERSIDE OF THE STRUCTURAL ROOF SHEATHING. R-10 RIGID BOARD SHALL BE INSTALLED DIRECTLY ABOVE THE STRUCTURAL ROOF SHEATHING IN ACCORDANCE WITH THE TABLE 1202.3

SECTION 29 PLUMBING SYSTEMS
TABLE 2902.1 | **A-2: BANQUET, FOOD COURT**
WATER CLOSET: MALE 1 PER 75 | FEMALE 1 PER 75
LAVATORIES: MALE & FEMALE 1 PER 200
2902.1.1.2 URINALS IN MEN'S FACILITIES... ONE WATER CLOSET LESS THAN THE NUMBER SPECIFIED MAY BE PROVIDED FOR EACH URINAL INSTALLED... EXCEPT THE NUMBER OF WATER CLOSETS...SHALL NOT BE REDUCED TO LESS THAN ONE QUIARTER
2902.3.33 LOCATION OF TOILET FACILITIES IN OCCUPANCIES... THE PATH OF TRAVEL TO SUCH FACILITIES SHALL NOT EXCEED A DISTANCE OF 500 FEET
2902.5 DRINKING FOUNTAIN LOCATION: PUBLIC DRINKING FOUNTAINS ARE LOCATED WITHIN A DISTANCE OF TRAVEL OF 500 FEET
2902.5.1 DRINKING FOUNTAIN EXCEPTION 2) NEED TO BE PROVIDED IN A DRINKING OR DINING ESTABLISHMENT

Deferred submittal: See S1.13 for managing deferred submittal; provide Contractors Statement of Qualifications prior to starting construction.

Fire Prevention:

1) See permit conditions,

2) Separate permit submittal is required for fire alarm and fire sprinkler. Please provide wall/floor sections with these submittal to indicate beam pockets and/or accessible ceiling spaces that require total coverage detection.

3) Separate permit required for hood suppression; may be submitted with single application; PLEASE match systems to the hood schedule and provide corresponding floor plan.

See Earth Solutions NW - January 11, 2024

GEOTECHNICAL ENGINEERING STUDY - ES-9092

PROPOSED FAIRGROUND IMPROVEMENTS

Provide recommended reports for soil sub-grade preparation prior to requesting footing and at project completion.

Provide plans on site printed in color for all inspections; provide plans to Special inspector for reference in reports.

Inspections are subject to reinspection fees when not prepared for requested inspection.

Call for Building Comment Inspection; at project mobilization for pre-construction review with city building inspector.

ABBREVIATIONS

&	AND	GWB	GYPSUM WALL BOARD
<	ANGLE	HDR	HEADER
@	AT	INT.	INTERIOR
°	DEGREE	MFR	MANUFACTURE
ø	DIAMETER	NTS	NOT TO SCALE
B/W	BETWEEN	O.C.	ON CENTER
BLCK	BLOCKING	RC	RAIN CHAIN
℄	CENTERLINE	PW, PLW	PLY WOOD
APP.	APPROXIMATE(LY)	REF	REFRIGERATOR
CLR.	CLEAR(ANCE)	SCHD	SCHDULE
C.O.	CLEAR OPENING	SHTG	SHEATHING
COL.	COLUMN	S.D.	SMOKE DETECTOR
CONC.	CONCRETE	TEM	TEMPER/SAFETY GLASS
C.J.	CONTROL JOINT		
DEMO	DEMOLISH (ION)	T.O.BM	TOP OF BEAM
DN	DOWN	T.O.P.	TOP OF PLATE
DIM	DIMENSION	T.O.S.	TOP OF STEEL
D/W	DISH WASHER	TYP.	TYPICAL
ELEC.	ELECTRIC (AL)	U.N.O.	UNLESS NOTICED OTHERWISE
E.Q.	EQUAL		
E.J.	EXPANSION JOINT	VIF	VERIFY IN FIELD
EXT.	EXTERIOR	WIN	WINDOW
F.O.F.	FACE OF FINISH	W.T.	WEATHER THRESHOLD
F.F.	FINISH FLOOR	W/	WITH
FT	FOOT (FEET)	W/O	WITHOUT
FTG	FOOTING	WD	WOOD
FND	FOUNDATION		

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E5.05	KITCHEN SCHEDULE
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7~13	FIRE SYSTEM PACKAGE
14~28	EXHAUST PACKAGE
29-39	ELECTRICAL PACKAGE

City of Puyallup
Building
REVIEWED FOR COMPLIANCE
BSnowden
10/14/2024
8:51:26 AM

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

City of Puyallup
Planning Division
APPROVED
See permit conditions.
NComstock
09/23/2024
3:12:33 PM

PROJECT INFORMATION

PROJECT NAME
WASHINGTON STATE FAIR - INTERNATIONAL VILLAGE
PROJECT ADDRESS
110 9TH AVE SW
PUYALLUP, WA 98371
PROJECT DESCRIPTION
RECONSTRUCT EXISTING FAIR FOOD-SERVICE VENUES AND ROOFTOP BAR
TAX PARCEL NUMBER
0420331121
SITE REVIEW PERMIT
SITE REVIEW PERMIT# PLPSP20240052
DEFERRED PERMITS
SPRINKLER, FIRE ALARM, STAIRS, RAILING
LEGAL DESCRIPTION
SEE SITE CIVIL PERMIT

PROJECT DIRECTORY

THE OWNER
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CODE/ZONING INFORMATION

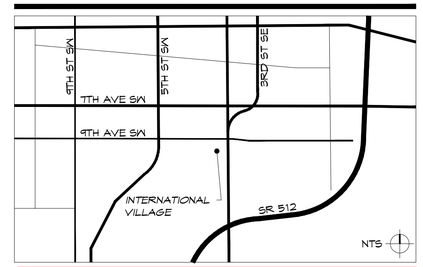
GOVERNING CODE
2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 UNIFORM PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 WASHINGTON STATE ENERGY CODE, COMMERCIAL AND ANY CITY OF PUYALLUP ORDINANCE

ZONING
FAIR GROUNDS ZONE
HEIGHT LIMIT: 50'

ENERGY COMPLIANCE: UA CALCULATED COMPLIANCE PATH 2
AIR BARRIER TESTING PER 2021 WSEC
- ALL JOINTS AND SEAMS SHALL BE SEALED, INCLUDING SEALING TRANSITIONS IN PLACES AND CHANGES IN MATERIAL.
- ALL PENETRATIONS OF THE AIR BARRIER SHALL BE CAULKED, GASKETED, OR OTHERWISE SEALED IN A MANNER COMPATIBLE WITH THE CONSTRUCTION MATERIALS AND LOCATIONS.
- AIR LEAKAGE TESTING SHALL BE PERFORMED PER ASTM C779 AND THE TARGET LEAKAGE RATE IS 0.25 cfm/ft2 AT 0.3 in.wg
- SUBMIT BLDG ENCLOSURE AIR LEAKAGE TEST TO JURISDICTION & OWNER. IF FAIL, CORRECTIVE ACTION SHALL BE TAKEN UNTI THE REQUIRED AIR LEAKAGE RATING IS ACHIEVED
- RECESSED LIGHTING FIXTURES SHALL COMPLY WITH SECTION C402.5.10

PROJECT CLOSURE DOCUMENT
PROVIDE PROJECT CLOSE DOCUMENTATION INCLUDING WSEC ENVELOPE COMPLIANCE FORM AND CALCULATION AND FENESTRATION NFRC RATING CERTIFICATES

LOCATION MAP



Approval of submitted plans is not an approval of omissions or oversights by this office or non compliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

The approved construction plans, documents, and all engineering must be posted on the job at all inspections in a visible and readily accessible location.

Full sized legible color plans are required to be provided by the permitee on site for inspection.

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3774 REGISTERED ARCHITECT JEFFREY E. BROWN STATE OF WASHINGTON

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	1
09.26.24	CITY-REV	
10.15.24	IFC	2

SHEET TITLE
GENERAL INFORMATION

SHEET #
G0.1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

	ROOM #	ROOM NAME	OCCUPANCY	SQFT	OCC LOAD	OCC	TOTAL
MAIN FLOOR	101-103	VENDORS	KITCHEN	1615	200	8	
	105A	FOOD COURT	UNCONCENTRATED	310	15	21	
	105B	FOOD COURT	UNCONCENTRATED	1746	15	117	
	106-107	VENDORS	KITCHEN	928	200	5	
	109-110	VENDOR & KITCHEN	KITCHEN	3230	200	16	
	116	DELIVERY/RECYCLING	ACCESSORY STORAGE	1186	300	4	171
ROOFTOP	201A	LOWER DECK	UNCONCENTRATED	1059	15	71	
	201B	LOWER DECK	UNCONCENTRATED	273	15	18	
	202A	LOWER DECK	UNCONCENTRATED	167	15	11	
	202B	LOWER DECK	UNCONCENTRATED	262	15	18	
	203A	LOWER DECK	UNCONCENTRATED	572	15	38	
	203B	LOWER DECK	UNCONCENTRATED	409	15	27	
	206A	UPPER DECK	UNCONCENTRATED	1054	15	70	
	206B	UPPER DECK	UNCONCENTRATED	669	15	45	
	207A	UPPER DECK	UNCONCENTRATED	473	7	68	
	207B	UPPER DECK	UNCONCENTRATED	487	7	70	
	208	UPPER DECK	UNCONCENTRATED	921	7	132	
	209	UPPER DECK	UNCONCENTRATED	610	15	41	
	210	BAR	KITCHEN	327	200	2	
	214A	UPPER DECK	UNCONCENTRATED	640	7	91	
	214B	UPPER DECK	UNCONCENTRATED	997	7	142	844

3 OCCUPANCT LOAD

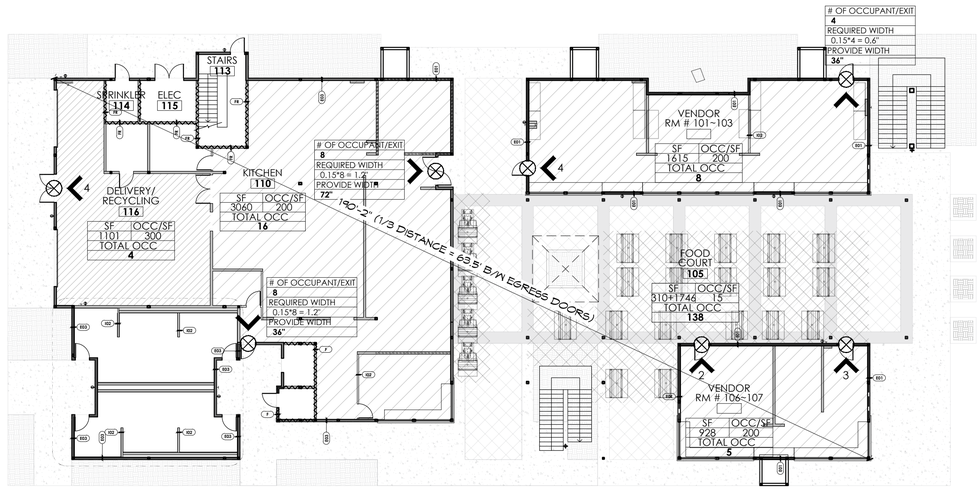
OCCUPANCY	OCCUPANY LOAD			WC				LAV			
	TOTAL OCC LOAD	MALES (TOTAL/2)	FEMALE (TOTAL/2)	M		F		M		F	
				CODE	REQ'D	CODE	REQ'D	CODE	REQ'D	CODE	REQ'D
A-2 BAR	844	422	422	1 PER 40	11	1 PER 40	11	1 PER 75	6	1 PER 75	6
A-2 FOOD COURTS	187	93.5	93.5	1 PER 75	1	1 PER 75	1	1 PER 200	1	1 PER 200	1
			TOTAL REQ'D		12		12		7		7

4 PLUMBING FIXTURE CALC

	REQUIRED	PROVIDED	STATUS
WATER CLOSET			
MALE (WC)	MIN 4	5	COMPLIED
MALE (URINAL)	MAX 8	7	COMPLIED
FEMALE (WC)	12	11+2*	COMPLIED
UNISEX		2	* COUNT FOR FEMALE

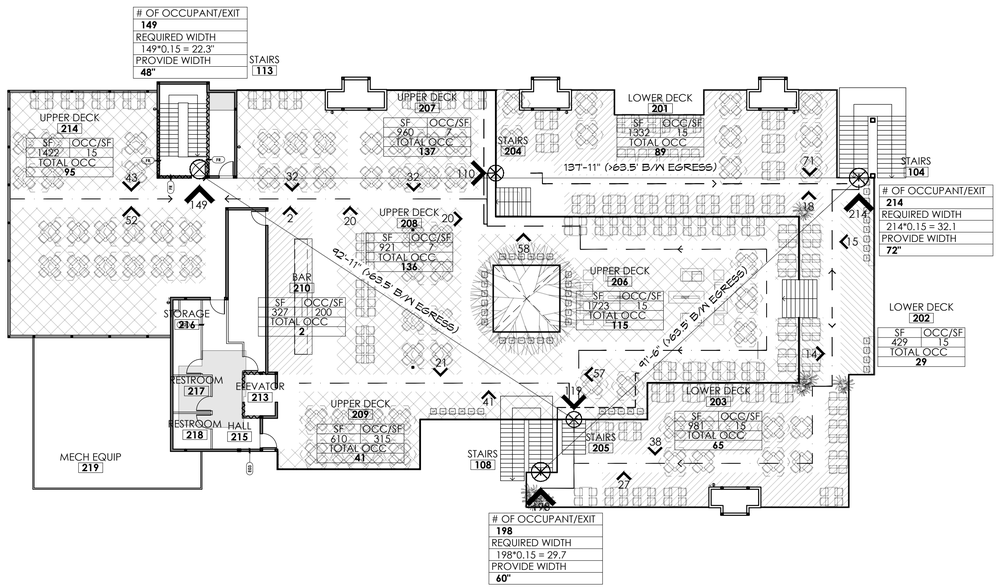
	REQUIRED	PROVIDED	STATUS
LAVATORY			
MALE	7	7	COMPLIED
FEMALE	7	7	COMPLIED
UNISEX		2	

5 PLUMBING FIXTURE



1 EXIST ACCESS ROUTE - MAIN FLOOR

(11X17) SCALE: 1/32" = 1'-0"
(22X34) SCALE: 1/16" = 1'-0"



2 EXIST ACCESS ROUTE - ROOFTOP

(11X17) SCALE: 1/32" = 1'-0"
(22X34) SCALE: 1/16" = 1'-0"

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PROJECT NUMBER
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DRAWING TYPE
CONSTRUCTION DOCUMENTS

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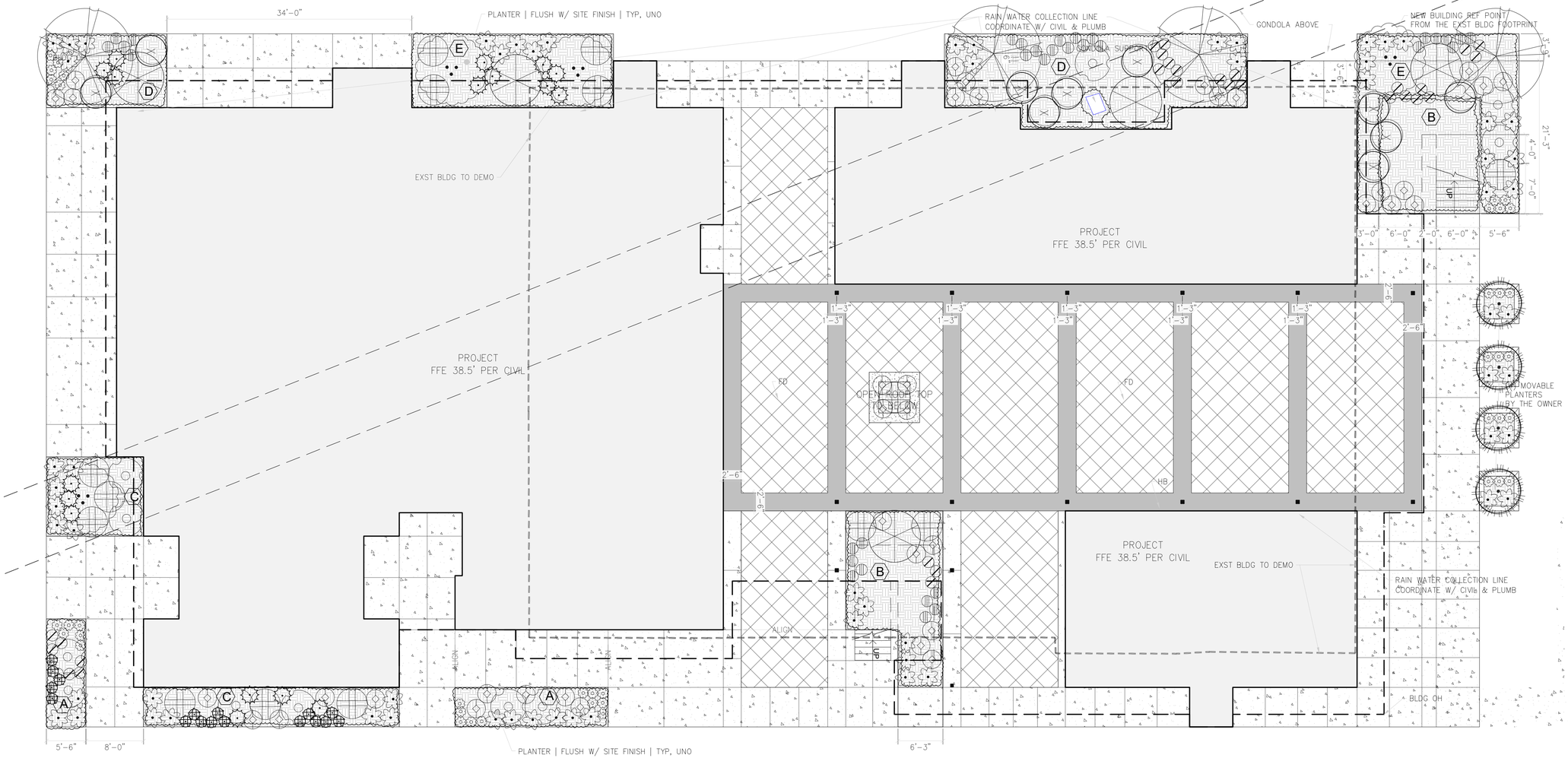
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
EXIT ACCESS CODE & PLUMBING CALC

SHEET #
G0.2

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



SEE SHEET L2.0 FOR PLANT LEGEND

HATCHING LEGEND & NOTES

- 4" CONC, FIELD
- 4" CONC, ACCENT #1
- 4" CONC, ACCENT #2

GENERAL NOTES

SEE CIVIL DRAWINGS FOR.
DEMOLITION | GRADING UNDERGROUND UTILITY (STORM, SANITARY, GAS, AND WATER) | FOOTING DRAINS | GREASE INTERCEPTOR
SEE PLUMBING DRAWINGS FOR
DRAIN | HOSE BIB
SEE ELECTRICAL DRAWINGS FOR
ELEC OUTLETS

SITE PLAN
(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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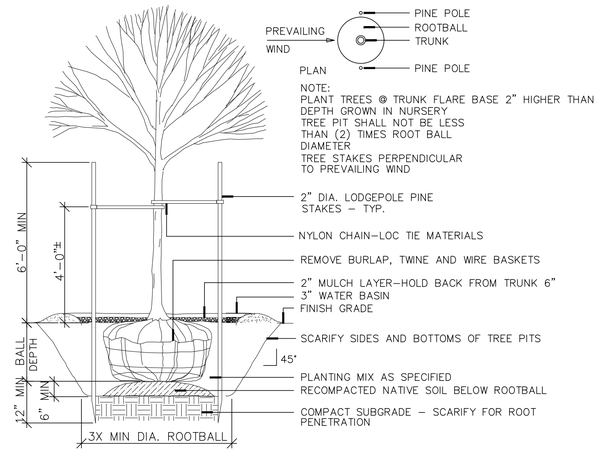
PLANTING PLAN

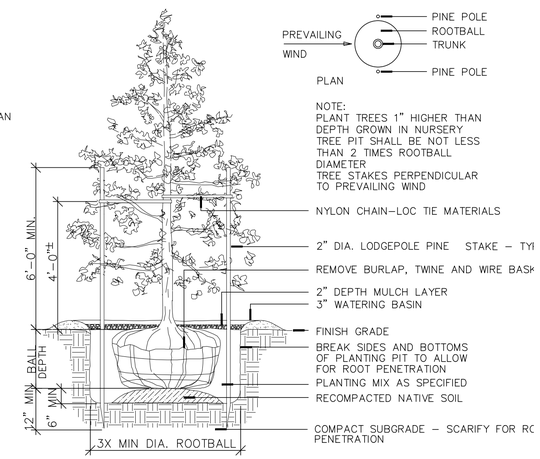
SHEET NUMBER
L1.0

Xref ..\23002-TB.dwg

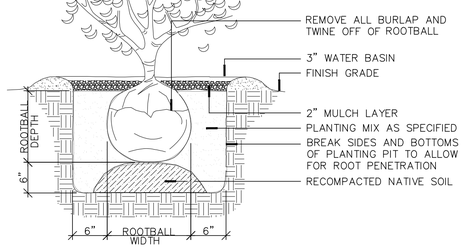
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



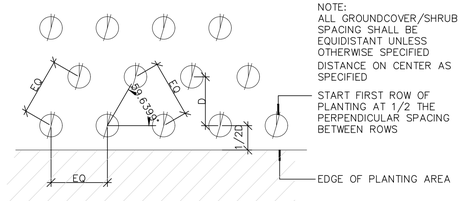
A TYPICAL DECIDUOUS TREE PLANTING
NOT TO SCALE TREE–DECID1



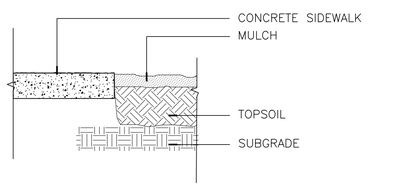
B TYPICAL CONIFEROUS TREE PLANTING
NOT TO SCALE TREE–CON1



C TYPICAL SHRUB PLANTING DETAIL
NOT TO SCALE SHRUB–1



D TRIANGULAR PLANT SPACING
NOT TO SCALE TRI–SPACE



E TYPICAL PAVING TO PLANTING EDGE
NOT TO SCALE

PLANTING SCHEDULE:

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE AT PLANTING	QTY.	SPACING	NATIVE/ ADAPTIVE	MATURE HEIGHT / SPREAD	85% SPREAD @ MATURITY
TREES							
	ACER GINNALA 'FLAME' / AMUR MAPLE	2" CALIPER, 8' HT. TREE FORM, BRANCHED AT 4'		AS SHOWN	NO	15' / 10'	8'
	ACER CIRCINATUM 'PACIFIC FIRE'/ HYBRID VINE MAPLE	8' HT. MULTI–STEM FORM		AS SHOWN	YES	15' / 10'	8'
	CHAMAECYPARIS OBTUSA 'GRACILIS' / SLENDER HINOKI CYPRESS	6' HT., FULL SYMMETRICAL SHAPE		8'–0"	NO	20' / 8'	7'
SHRUBS							
	VIBURNUM TINUS "SPRING BOUQUET"	36" HT., 5–GAL POT		3'–0" O.C.	NO	4' / 4'	3'–6"
	RIBES SANGUINIUM / RED FLOWERING CURRENT	36" HT., 5–GAL POT		3'–0" O.C.	YES	5' / 8'	7'
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	24" HT., 5–GAL POT		3'–0" O.C.	YES	3' / 6'	4'–6"
	RHODODENDRON OCCIDENTALE / WESTERN AZALEA	36" HT., 5–GAL POT		3'–0" O.C.	YES	6' / 4'	3'–6"
	BLECHNUM SPICANT / DEER FERN	18" HT., 1–GAL POT		3'–0" O.C.	YES	3' / 3'	2'–6"
	CORNUS STOLONIFERA 'KELSEYI'/DWARF RED–TWIG	12" HT., 2–GAL POT MAX. HT. 20"		2'–0" O.C.	YES	1'–6"' / 2'	1'–6"
	MAHONIA AQUIFOLIUM 'COMPACTA' / COMPACT OREGON GRAPE	12" HT., 2–GAL POT		2'–0" O.C.	YES	1'–6"' / 2'	1'–6"
GROUNDCOVERS							
A	SEDUM DIVERGENS / STONECROP	4–INCH POT		1'–6" O.C.	YES		
B	CORNUS CANADENSIS / BUNCHBERRY	4–INCH POT		1'–6" O.C.	YES		
C	LIRIOPE SPICATA / CREEPING LILY TURF	4–INCH POT		1'–6" O.C.	NO		
D	MAHONIA REPENS / CREEPING MAHONIA	4–INCH POT		1'–6" O.C.	YES		
E	FRAGARIA CHILOENSIS 'LIPSTICK' / SAND STRAWBERRY	4–INCH POT		1'–6" O.C.	YES		
ACCENT PLANTS							
	DESCHAMPSIA CAESPITOSA / TUFTED HAIR GRASS	8" HT., 1–GAL POT		2'–0" O.C.	NO	1.5'/ 2'	1'–6"
	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY' /FOUNTAIN GRASS	8" HT., 1–GAL POT		2'–0" O.C.	NO	1.5'/ 2'	1'–6"
	ERICA VAGANS 'MRS. D.F. MAXWELL' / CORNISH HEATH	8" HT., 1–GAL POT		2'–0" O.C.	NO	1.5'/ 2'	1'–6"
	LIRIOPE MUSCARI / BIG BLUE LILY TURF	10" HT., 2–GAL POT		2'–0" O.C.	NO	1.5' / 1.5'	1'–6"

NOTES

1. ALL NEW PLANTING AREAS ON SITE SHALL RECEIVE MINIMUM 6" OF IMPORTED SANDY LOAM TOPSOIL MIX CONTAINING 10% ORGANIC COMPOST TILLED INTO THE TOP 12" AND MINIMUM 2" OF FINE GRADE BARK MULCH.
2. ALL PLANTING OF SHRUBS AND TREES WITHIN CRITICAL ROOT ZONE OF EXISTING TREES TO SAVE AND PROTECT SHALL BE PLANTED BY HAND METHODS.

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REVISIONS/DRAWING ISSUES:

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PLANTING SCHEDULE AND DETAILS

SHEET NUMBER
L2.0

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

DIVISION 1 – GENERAL REQUIREMENTS

00 21 00 **EXAMINATION OF SITE AND DOCUMENTS**
It is recommended that before submitting a bid proposal, each bidder should:
1. Carefully examine drawings and specifications
2. Visit the site of the work.
3. Be fully informed of all existing conditions and ask requisite questions to the owner to understand the site and document requirements.
4. Include a contract price sufficient to cover all work described in the Contract Documents

00 10 00 **SUMMARY OF WORK**
Phase II Lobby and restroom exterior and interior addition to existing Phase I Gymnasium

01 21 19 **INSPECTION TESTING ALLOWANCES:**
All inspections required by the City or County building department and/or indicated on the Contract documents shall be arranged by the General Contractor.

01 31 00 **COORDINATION**
The General Contractor shall coordinate (but not be limited to) demolition, excavation, foundations and a concrete slabs, framing, structure, interior and exterior finishes, mechanical, electrical, plumbing, fore protection, site and special inspections and work by others.

01 31 00 **TEMPORARY CONSTRUCTION FACILITIES:**
The General Contractor shall provide temporary sanitary facilities, fire protection and barrier protections. Sub-Contractors shall provide secure storage facilities.

01 56 36 **SECURITY:**
The General Contractors shall provide protection of construction work, stored materials, and property.

01 66 00 **MATERIAL AND EQUIPMENT:**
Store materials above grade and protect from moisture and physical damage per product and material manufacturer's recommendations. Coordinate with the owner for location of storage on the property.

01 70 00 CONTRACT CLOSEOUT
Substantial Completion: The following are prerequisites to the substantial completion. Provide the following:
1. Punch-list prepared by Contractor, Owner and Architect as applicable.
2. Supporting Documentation
3. Warranties.
4. Certifications.
5. Occupancy permit.
6. Start-up and testing of building systems.
7. Changeover of locks.
8. Meter readings.
9. Commissioning documentation.

Final Acceptance:

Provide the following prerequisites to final acceptance.
1. Final payment request with supporting affidavits.
2. Completed punch list.

As-Built Drawings:
Provide a marked-up set of drawings including changes which occurred during construction.
Project Closeout: Provide the following during project closeout.
1. Submission of recorded documents.
2. Submission of maintenance manual
3. Training and turnover to Owner's personnel.
4. Final cleaning and touch-up.
5. Final cleaning and touch-up.

Cutting and Patching: Provide cutting and patching work to properly complete the work of the project, complying with project requirements for:
1. Structural work.
2. Mechanical/electrical systems.
3. Visual requirements, including detailing and tolerances.
4. Operational and safety limitations.
5. Final cleaning and touch-up.
6. Removal of temporary facilities.

DIVISION 3 – CONCRETE

03 30 00 Refer to structural construction notes and specifications.

DIVISION 4 – Masonry

No work in this division

DIVISION 5 – Metals

05 10 00 **STRUCTURAL STEEL AND METAL STUDS** Refer to structural notes and specifications.

05 12.13 **ARCHITECTURALLY EXPOSED STEEL**

GENERAL
Summary: This Section includes requirements regarding the appearance and surface preparation of Architecturally Exposed Structural Steel

Definitions: This Section includes requirements regarding the appearance and surface preparation of Architecturally Exposed Structural Steel
1. AESS 2: Structural Steel designated as "AESS 2 in the contract documents and conforming to ANSI/AISC 303-16, Chapter 10 definition of AESS2. These are feature elements viewed at a distance greater than 20 feet. The art of metalworking is intended to be visible to the viewer.
2. AESS 3: Structural Steel designated as "AESS 3 in the contract documents and conforming to ANSI/AISC 303-16, Chapter 10 definition of AESS3. These are feature elements viewed at a distance less than 20 feet. The art of metalworking is intended to be visible to the viewer.
3. AESS 4: Structural Steel designated as "AESS 4 in the contract documents and conforming to ANSI/AISC 303-16, Chapter 10 definition of AESS4. These are showcase elements with

2. The tolerance on overall profile dimensions of welded built-up members shall one-half of that specified in AWS D1.1/D1.1M: 2015 Structural Welding Code – Steel (AWS D1.1).
3. All concealed steel shall have AESS 2 level of fabrication.

FABRICATION AESS 3
1. Fabricate AESS with exposed surfaces smooth, square and of surface quality consistent with the approved mock-up.
2. Grind projections at butt and plug welds to be smooth with the adjacent surface.
3. Copes, miters, and cuts in surfaces exposed to view shall have a maximum gap of 1/8" in an open joint. If the gap is shown to be in contact, the contact shall be uniform within 1/16".
4. All exposed steel work outside of 10 feet of viewing shall receive AESS 4 level of fabrication.

FABRICATION AESS 4
1. Contouring and blending of welds: Where welds are indicated to be ground contoured, or blended, oversize welds as required and grind to provide a smooth transition and match profile on approved mock-up
2. Minimize Weld Show Through: At locations where welding on the opposite side of an exposed connection creates distortion, weld show through shall be minimized to conform to the approved mock-up.
3. All exposed steel work within 10 feet of viewing shall receive AESS 4 level of fabrication.

SHOP PRIMING
1. Provide surface preparations to SSPC-SP6. Coordinate the required surface profile with the approved paint submittal prior to beginning surface preparation. Prior to blasting remove any grease and oil using solvent cleaning to meet SSPC-SP 1. Weld spatter, slivers and similar surface discontinuities shall be removed. Sharp corners resulting from shearing, flame cutting or grinding shall be eased.
   a. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches.
   b. Surfaces to be field welded.
   c. Surfaces to be high-strength bolted with slip-critical connections.
2. Priming: Immediately after surface preparation, apply primer according to manufacturer's instructions to provide a dry film thickness of not less than 1.5 mils (0.038 mm). Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.
   a. Stripe paint corners, crevices, bolts, welds, and sharp edges
   b. Apply two coats of shop primer to surfaces that are inaccessible after assembly or erection.

EXECUTION
EXAMINATION
1. The erector shall check all AESS members upon delivery for twist, kinks, gouges or other imperfections which may result in rejection of the appearance of themember. Coordinate remedial action with fabricator prior to erecting steel.

ADJUSTING AND CLEANING

1. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint shall be completed to blend with the adjacent surfaces of AESS. Such touch up work shall be done in accordance with manufacturer's instructions and as specified in Division 9, Section "Painting."

05 30 00 **METAL DECKING**
Refer to structural notes and specifications.

05 50 00 **METAL FABRICATIONS**
Refer to structural notes and specifications.

Metal welding and fabrication:
See Special Inspection Program requirements in S-sheets and applicable Building Codes

PART 1. GENERAL
Summary: This Section includes specialty metal fabrications including prefabricated Steel Stairs with grating treads. Structural steel stair framing and supports

Quality Assurance:
1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of five years documented experience.
2. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located, or personnel under direct supervision of such an engineer.
3. Welder Qualifications: Show certification of welders employed on the Work
4. Provide mock-up of tread, risers and rails.

Delivery, Storage, and Handling:
1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
2. Protect from damage due to weather, excessive temperature, and construction operations

PART 2. PRODUCTS
Structural Performance for Railings and Guard Rails:
1. The structural conformance shall comply with the project Structural Documents by PCS Structural Solutions.
2. Conform to all IBC and ANSI standards.

Design:
1. Provide items, of design specified, complete with landing platforms, vertical and horizontal supports, railings, and guards, fabricated accurately for anchorage to each other and to building structure:
   a. Regulatory Requirements: Complying with the most stringent requirements of local, state, and federal regulations; where requirements of the contract documents exceed those of regulations, comply with the contract documents.
   b. Dimensions: As indicated in the drawings.
   c. Shop assemble components; disassemble into largest practical sections suitable for transport and access to site.
   d. AESS 4 standards finish standards
   e. Separate dissimilar metals using paint or permanent tape

Metal Exterior Stairs
1. Risers: Closed perforated Stainless Steel
2. Treads: 304 Stainless Steel Grate – Grating Pacific, Bar Grating Stair Treads Type7 -SLS -4 with Cast Abrasive Nosing.

special surface and edge treatment beyond fabrication. The intent is the form is the only feature showing in an element.

ACTION ITEMS
Fabrication Documents: Detailing for fabrication of AESS components. Provide erection documents clearly indicating which members are AESS members and the AESS category of each part
1. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length and type of each weld. Identify grinding, finish and profile of welds as defined herein.
2. Indicate orientation of HSS seams and mill marks (where applicable).
3. Indicate type, size, finish and length of bolts, distinguishing between shop and field bolts. Identify high-strength bolted slip-critical, direct-tensioned shear/bearing connections.
4. Clearly indicate which surfaces or edges are exposed and what class of surface preparation is being used.
5. Indicate special tolerances and erection requirements as noted on the drawings or defined herein.
1. Indicate vent or drainage holes for HSS members.

MOCK-UP
Provide mock-ups of the nature and extent indicated on the contract documents.\
1. Locate mockups on-site or in the fabricator's shop as directed by Architect. Mockups shall be full size unless the Architect approves smaller models. Alternatively, when a mockup is not practical, the first piece of an element or connection can be used to determine acceptability.
2. The mock-up shall demonstrate weld quality and contouring of the welds at the aligned walls of the members.
3. The mock-up shall demonstrate the specified surface preparation and finish coating
4. Retain and maintain mockups during construction in an undisturbed condition as a standard for judging the completed work.

PRODUCTS
MATERIALS
General: Meet requirements Division 5 Section 'Structural Steel 05 12 23' as amended below.

PAINT SYSTEMS
Compatibility: All components/procedures of the AESS paint system shall conform to the coating system specified, submitted, and approved per Division 9. As a minimum identify required surface preparation, primer, intermediate coat (if applicable), and finish coat. Primer, intermediate coatings, and finish coatings shall be from a single manufacturer combined in a system documented by the manufacturer with adequate guidance for the fabricator to procure and execute.

Finish Coating: Field apply intermediate and top coats per Division 9.

FABRICATION AESS 2
1. The as-fabricated straightness tolerance shall be one-half of that specified in ASTM A6/A6M, ASTM A500/A500M, or ASTM A1085/A1085M.

3. Stringer: 4" Tube Steel or rolled steel channels
   a. 12" depth
   b. End Closure: Sheet steel of same thickness as risers welded across ends.

Metal Interior Stairs (Prefabricated Egress Stairs)
1. Risers: Closed perforated Stainless Steel
2. Treads: Grating Pacific, Bar Grating Stair Treads Type7 -SL -4 with Cast Abrasive Nosing.
3. Stringer: 4" Tube Steel or rolled steel channels
   a. 12" depth
   b. End Closure: Sheet steel of same thickness as risers welded across ends.

Exterior Handrails and Guard Rails: Match Custom Roof Deck Rails, similar to VIVA. Railing, 151 W Vista Ridge Mall DR, Lewisville, TX; vivrailings.com (Price for Owner options)
1. Provide 2" IPA wood cap rail with integral LED lighting
   a. Light Color: Warm While 3000K
   b. IP Rating: IP67
   c. Light Output: 185 Lumens or 250 Lumens (Owner's Option)
   d. Beam Angle 120 degrees
   e. Finish wood form manufacturer's selections criteria
2. Railings and Posts:
   a. Material Options: Stainless Steel vs Primed and Painted Steel. (Provide cost options)
3. Rail Panels: Provide cost options for VIVA Rail Panels:
   a. Wire mesh infill
   b. Perf Metal
   c. Blade Railing, Multiline Infill
   d. Lazer Cut Panel Railing

Interior Handrails and Guard Rails:
1. Railing Materials:
   a. Tubing: (ASTM A500/A500M (cold formed) or[ASTM A513/A513M, Type 5, IBC (current)
   b. Pipe: Pipe: ASTM A53/A53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.
2. Fasteners:
   a. Anchor Railings to Other Construction: Fasteners types, grades, and classes needed to produce connections and withstand design loads.
   b. Interconnecting Railings: Concealed fasteners unless exposed fasteners are unavoidable.

Metals Ladders:
1. Comply with ANSI A14.3.
2. For Elevator Pit Ladders: ASME A17.1
3. Rungs
   a. Rung Shape: Square steel bars.
   b. Nonslip Surfaces: On top of each rung from single manufacturer.
      i. Aluminum-oxide granules in epoxy-resin adhesive
      ii. Manufactured rung filled with aluminum-oxide grout
   c. Coating with abrasive material metallically bonded to rung
4. Ladder Support: At top and bottom and not more than 60 inches (1500 mm) on center with bolted steel brackets.
5. Ladder Finish: Galvanize and prime ladders, including brackets

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

a. Prime Ladders: Brackets and fasteners, with zinc-rich primer

05 70 00 DECORATIVE METAL
PART 1 GENERAL
This section includes Artisan Decorative Panels indicated on the Architectural Documents on the lower roof deck between steel beams.

PART 2 PRODUCTS
Artisan Decorative Panels: Provide Artisan Decorative Panels Inc.; artisanpanels.com. or approved option. Provide panel options with cost options.

DIVISION 6 Wood and Plastic

06 00 00 WOOD and PLASTIC: Refers to finish wood components and miscellaneous use of wood backing, use of plywood and treated wood.

06 05 73 MARINE GRADE PLYWWOD
PART 1. GENERAL
Section Includes: Marine grade plywood for stainless steel casework substrate.
References:
1. International Building Code (IBC): Section 2304.12 - Wood: Protection Against Decay
2. Federal Standard USA: TT-W-571 - Wood Preservation: Treating Practices

PART 2. PRODUCTS
Marine Sanded Plywood:
1. Basis of design: Marine Sanded Plywood as manufactured and supplied by Roseberg. Made with 100 percent Douglas-fir B grade or better veneers for the face, core, and back. The face and back of each panel is fully sanded and any core gaps are limited to 1/8 inch (3 mm) or less.
2. Thickness: 19mm of ¾"
3. Douglass Fir of Western Larch
4. Ply Layers: 5-plys arranged perpendicular
5. Glue: Marine-grade plywood is bonded together with a waterproof glue
6. Finish: Marine-grade plywood has a water-resistant finish on the exterior
7. Defects: no cracks or voids on the face, back, or edges.

DIVISION 7 – THERMAL

07 21 10 EXTERIOR WALL INSULATION
PART 1. GENERAL
Reference Standards
1. ASTM International (ASTM);
ASTM C167 - [2009], Standard Test Method for Thickness and Density of Blanket or Batt Thermal Insulations;
ASTM C518 - [2010], Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus. 8.
ASTM C665 - [2011], Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing;

ASTM E84 - [2012b], Standard Test Method for Surface Burning Characteristics of Building Materials ;
ASTM E136 - [2011], Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C. B.
US Green Building Council (USGBC). 1.
LEED v4- [2014],
LEED (Leadership in Energy and Environmental Design): Green Building Rating System.

Delivery, Storage and Handling
1. Delivery and Acceptance Requirements:
a. Deliver material in accordance with Section 01 61 00 - Common Product Requirements.
b. Deliver materials and accessories in insulation manufacture's original packaging with identification labels intact and in sizes to suit project.
c. Ensure insulation materials are not exposed to moisture during delivery.
d. Replace wet or damaged insulation materials.
2. Storage and Handling Requirements: Store materials off ground in dry location and protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
a. Store in original packaging until installed. C. Packaging Waste Management: ROCKWOOL™ Blanket (and Batt) Insulation Section 07 21 16 Master Guide Specification (COMFORTBATT®) Page 3 January 2018 1. Separate and recycle waste packaging materials in accordance with Section 01 74 19 - Construction Waste Management and Disposal.
b. Remove waste packaging materials from site and dispose of packaging materials at appropriate recycling facilities.
c. Collect and separate for disposal paper and plastic material in appropriate on-site storage containers for recycling [in accordance with Waste Management Plan].

Manufacturer:
Manufacturer: ROCKWOOL™, 4594 Cayce Road, Byhalia, MS 38611-7550, Phone: 905-878-8474, Toll Free: 1-800-265-6878, e-mail: contactus@rockwool.com, URL: www.rockwool.com.\

Performance Criteria
Batt Insulation for exterior stud walls: To ASTM C665, Type 1. 1. Fire performance: a. Non-combustibility: To ASTM E136. b. Surface Burning Characteristics: To ASTM E84. 1) Flame spread: 0. 2) Smoke developed: 0. 2. Thermal resistance: To ASTM C518. 3. Density: 2 lb/ft3 to ASTM C167. .4 Recycled content: [40] [16] % minimum.

PART 2 PRODUCTS
Materials
1. Thermal / Acoustical Insulation:
a. Product: ROCKWOOL Comfortbatt unfaced.
b. R-Value: as indicated on construction drawings
c. Density: > 2 lbs/ft2 (>32 kg/m^3), nominal.
d. Surface Burning Characteristics: Tested in accordance with ASTM E84
e. Unfaced: Flame Spread 0 and Smoke Developed 0
f. Moisture Resistance: Absorption of less than 0.03 percent by volume, when tested in accordance with ASTM C1104.

g. Corrosion Resistance: Non-corrosive/Passed, when tested in accordance with ASTM C665 for Steel & ASTM C795 for Stress Corrosion Cracking Tendency of Austenitic Stainless Steel.
h. Fungi resistance: Zero mold growth to ASTM C1338
i. Recyclability: Material to be capable of being fully recyclable at end of life with the intention of sending zero waste to landfill.
j. Environmental Product Declaration (EPD): Material must be included on a UL Certified EPD in accordance with EN 15804 and ISO 14025.
k. GREENGUARD Gold Certified

Accessories
Mechanical fasteners in accordance with insulation manufacturer's written recommendations.

PART 3 EXECUTION
Installers
Use only installers with [5] years minimum experience with work similar to work
Examination
Verification of Conditions: Verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for insulation installation in accordance with manufacturer's written recommendations.
1. Visually inspect substrate in presence of Consultant.
2. Ensure surfaces are free of snow, ice, frost, grease and other deleterious materials.

Cleaning
1. Progress Cleaning: Perform cleanup as work progresses.
2. Final Cleaning: Upon completion, remove surplus materials, rubbish, tools, and equipment
3. Waste Management:
a. Co-ordinate recycling of waste materials with 01 74 19 - Construction Waste Management and Disposal.
b. Collect recyclable waste and dispose of or recycle field generated construction waste created during construction or final cleaning related to work of this Section.
c. Remove recycling containers and bins from site and dispose of materials at appropriate facility.

07 22 10 SLAB INSULATION (Concrete slab and walls)
See envelope worksheets and architecturals for slab insulation requirements.
PART 1. GENERAL
Standards, Codes Compliance
Meets ASTM C578 Type VI (FOAMULAR® 400 XPS Insulation; UL Classification Certificate U-19712; Code Evaluation Report UL ER8811-0112; ASTM E119 Fire Resistance Rated Wall Assemblies 12

Description
Owens Corning 'FORMLULAR' 400; 1" THICKNESS R-5; 2" THICKNESS R-10

Technical Information
FOAMULAR® XPS Insulation is a non-structural material and must be installed on framing which is independently braced and structurally adequate to meet required construction and service loading conditions. FOAMULAR® XPS Insulation can be exposed to the exterior during normal construction cycles. During that time some fading of color may begin due to UV exposure, and, if exposed for

extended periods of time, some degradation or "dusting" of the polystyrene surface may begin. It is best if the product is covered within 60 days to minimize degradation. Once covered, the deterioration stops, and damage is limited to the thin top surface layers of cells. Cells below are generally unharmed and still useful insulation. FOAMULAR® Extruded Polystyrene Insulation has a maximum service temperature of 165°F. Taking simple precautions during construction can minimize the potential for heat related damage. Install only as much FOAMULAR® XPS Insulation as can be covered in the same day. For horizontal applications, always turn the print side down so the black print does not show to the sun which may at times act as a solar collector, raising the temperature of the foam under the print to an unacceptable level. Provide a final finish covering or temporary white opaque covering to avoid possible damage when dark (nonwhite) surfaces are used over FOAMULAR® XPS Insulation. Do not cover FOAMULAR® XPS Insulation either stored (factory wrapped or unwrapped), or partially installed, with dark colored (non-white), or clear (non-opaque) coverings and leave it exposed to the sun. If improperly covered, and exposed to the right combination of sun, time and temperature, FOAMULAR® XPS Insulation deformation damage may occur rapidly. See Owens Corning publication number 10015704.

07 27 00 CONTINUOUS AIR AND VAPOR BARRIER
PART 1 GENERAL
Applicable Standards:
Model Building Codes: ICC National Building Code
Water Vapor Permeance: ASTM C665, section 7.4 Water-vapor Permeance
ASTM E96

Fire Properties:
ASTM E84; Flame Spread < 25Smoke Developed Index < 450

Product
CertainTeed 'MemBrain' Continuous Air barrier and Smart Vapor Retarder

Limitations
Do not use low permeance and interior finishes such as wall paper or vapor retarding paints with MemBrain.

07 42 13 METAL WALL PANELS
PART 1 GENERAL
References
1. ASCE 7: Minimum Design Loads for Buildings and Other Structures.
2. ASTM A653: Steel Sheet, Zinc Coated (Galvanized) or Zinc Iron Alloy Coated (Galvannealed) by the Hot Dip Process.
3. ASTM A792: Steel Sheet, 55 % Aluminum Zinc Alloy Coated by the Hot Dip Process.
4. ASTM C1371: Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.
5. ASTM E283: Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
6. ASTM E331: Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
7. ASTM E1592: Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.

8. SMACNA Architectural Sheet Metal Manual

Submittals
1. Product Data.
2. Shop Drawings:
a. Indicate thickness and dimensions of parts, fastenings and anchoring methods, details and locations of joints, transitions and other provisions necessary for thermal expansion and contraction.
b. Indicate locations of field- and factory-applied sealant.
c. Samples:
i. Submit two samples, 12 inches long by full panel width, showing proposed metal thickness and seam profile.
ii. Submit standard color samples of metal for Architect's selection.
3. Manufacturer Qualifications.
4. Installer Qualifications: Submit list of completed projects, with names and contact information for architects and contractors.
5. Test Reports: Indicating compliance of products with project requirements.
6. Warranty Documentation.
7. Insurance Documentation.

Quality Assurance
1. Manufacturer Qualifications:
a. Ten years' experience, minimum, in factory fabrication of metal panels.
b. Manufacturer shall carry $2,000,000 liability insurance, minimum, for metal panel system.
2. Installer Qualifications:
a. Three years' experience, minimum, in application of metal roof or wall panels.
b. Five satisfactory projects with metal panel work of similar scope and complexity to Work of this Project.
3. Product Testing Agency Qualifications: Agency compliant with ISO/IEC Standard 17025, or an accredited independent agency recognized by the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement or ANSI.
4. Mock-Ups:
a. Visual Mock-Up: Construct mock-up, 10 by 10 feet or larger as required to show at least two pattern repeats

Delivery and Storage
1. Storage and Handling Requirements:
a. **Ke**ep panels and accessory items dry.
b. Protect against damage and discoloration.
c. Handle panels with non-marring slings.
d. Support panels to prevent permanent deformation.
e. Store panels above ground, with one end elevated for drainage.
f. Protect panels against standing water and condensation between adjacent surfaces.
g. If panels become wet, immediately separate sheets, wipe dry with clean cloth, and keep sheets separate for air-drying.

h. Painted panels shall be shipped with protective plastic sheeting or a strippable film coating between panels. Remove strippable film coating prior to installation. Do not allow strippable film coating to remain on panels in extreme heat, cold, or direct sunlight or other UV source.

Warranty
1. Manufacturer's Warranty: Manufacturer's standard 25-year performance warranty, stating the following:
2. Architectural fluorocarbon finish:
a. Will be free of fading or color change in excess of 5 Hunter delta-E units as determined by ASTM D2244-02.
b. Will not chalk in excess of numerical rating of 8 when measured in accordance with standard procedures specified in ASTM D4214-98 method D659.
c. Will not peel, crack, chip, or de-laminate.
d. Metal substrate will not rupture, fail structurally, or perforate.
3. Installer's Warranty: Warrant panels, flashings, sealants, fasteners and accessories against defective materials and/or workmanship, covering repairs required to maintain wall panels watertight and weatherproof with normal usage for two years following Project Substantial Completion date. Furnish written warranty, signed by installer.

PART 2 PRODUCTS
System Description
1. AEP Span, a Division of ASC Profiles LLC.; Nu-Wave® Corrugated. Net coverage 32" (roof) or 34-2/3" (wall), rib depth 7/8" @ 2-2/3" o.c.

Materials
1. Panels
a. Base Metal Material
i. Steel conforming to ASTM A792 Zincalume®/Galvalume®, minimum yield 50,000 psi, thickness 22
ii. Base Metal Protective Coating :
1. Conform to ASTM A792, AZ50
2. Conform to ASTM A924, G-90 Galvanized.
Exterior Finish
a. DuraTech® 5000 (Polyvinylidine Fluoride), full 70% Kynar® 500/Hylar 5000® consisting of a baked-on 0.15-0.20 mil corrosion resistant primer and a baked-on 0.70-0.80 mil finish coat with a specular gloss of 10-30% when tested in accordance with ASTM D-523- 89 at 60°.
Interior Finish:
a. Primer Coat Material: Corrosion-resistant primer; primer coat dry film thickness: 0.15 mils; finish coat material: polyester paint, finish coat dry film thickness: 0.35 mils.
b. Color: Off-White to Light Gray
Color
a. Manufacturer's standard selection of not less than 22 colors.
2. Fabrication
a. Unless otherwise shown on drawings or specified herein, panels shall be full length. Fabricate flashings and accessories in longest practical lengths.

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.2

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

b. Roofing panels shall be factory formed. Field formed panels are not acceptable.

PART 3 EXECUTION

Examination

1. Existing Conditions
   a. Inspect installed work of other trades and verify that such work is complete to a point where this work may continue.
   b. Verify that installation may be made in accordance with approved shop drawings and manufacturer's instructions.

Preparation

1. Field Measurements
   a. Verify prior to fabrication.
   b. If field measurements differ from drawing dimensions, notify Architect/Engineer prior to fabrication.

Protection

1. Treat, or isolate with protective material, and contacting surfaces of dissimilar materials to prevent electrolytic corrosion.
2. Require workmen who will be walking on Roofing Panels to wear clean soft-soled work shoes that will not pick up stones or other abrasive material, which could cause damage or discoloration.
3. Protect work of other trades against damage and discoloration.
4. Surface Preparation
   a. Clean and dry surfaces prior to applying sealant.

Installation

1. Panels:
   a. Follow roof panel manufacturer's directions
   b. Install panel seams (choose one) vertically or horizontally.
   c. Lap panels away from prevailing wind direction.
   d. Do not stretch or compress panel side-laps.
   e. Secure panels without warp or deflection.
2. Allowable Erection Tolerance
   a. Maximum Alignment Variation: 1/4 inch in 40 feet.
3. Flashing:
   a. Follow manufacturer's directions and architect approved Shop Drawings.
   b. Overlap roof panels at least 6 inches.
   c. Install flashings to allow for thermal movement.
   d. Remove strippable protective film, if used, immediately preceding flashing installation.
4. Cutting and Finishing
   a. Neat, square and true. Torch cutting is prohibited where cut is exposed to final view.
   b. Openings 6 inches and larger in any direction: Shop fabricate and reinforce to maintain original load capacity.
   c. Where necessary to saw-cut panels, debur cut edges.

Clean up and Close Out

1. Panel Damages and Scratches
   a. Do not apply touch-up paint to damaged paint areas that involve minor scratches.
   b. Panels or flashings that have severe paint and/or substrate damage shall be replaced as directed by the Architect's or Owner's representative

6. Finish Performance
   a. Humidity Resistance: No cracking, checking, crazing, erosion, delamination, distress, tested to ASTM D2247.
   b. Salt Spray Resistance: No cracking, checking, crazing, Erosion, Delamination, or distress, tested to ASTM B117.
   c. Weather Exposure: Maximum gray scale change of 3-4 according to DIN EN 438-2 when tested to ASTM D2244 at accelerated – 3000 Hours in Atlas Type Weatherometer using cycle of 102 minutes light and 18 minutes diminished light and demineralized water.

Fabrication

1. Panels: Solid phenolic impregnated kraft paper wall panels with no voids, air spaces or foamed insulation in the core material.
2. Panel Dimensions: Field fabrication shall be allowed where necessary but shall be kept to an absolute minimum. All fabrication shall be done under controlled shop conditions when possible.
3. Fabrication Tolerances: Manufacturer to provide shop fabrication and pre-finishing for a warranted finish.
   a. NEMA Testing Results
      i. Dimensional Change, 3.11 test
      ii. Length (Machine Direction): 0.25 percent
      iii. Width (Cross Direction): 0.50 percent

Accessories

1. Fasteners: Manufacturer approved austenitic stainless-steel fastener with bi metal welded carbon steel point.
   a. Exposed Fasteners (as selected by architect)
2. Attachment System: Manufacturer approved sub-frame system to support a cladding weight of up to 8 pounds per square foot, fabricated of 0.09-inches 6063 T5 extruded aluminum or 16-gauge G90 Galvanized steel.
3. Weather Barrier: Provide weather barrier app

PART 3 EXECUTION

Examination

1. Examine materials, installation instructions, and review manufacturer's instructions on site.
2. Verify panel style, color, and fasteners are approved by architect\
3. Verify substrates and adjacent surfaces are level and plumb for installation.
   a. Do not begin work until construction has progressed to allow installation of materials.
   b. Confirm sheathing is plumb and level, with no deflection greater than 1/4- inch in 20 feet.
   c. Verify manufacturers fastener spacing requirements.
   d. Verify proper hole diameter in panels per manufacturer's instructions.

Installation

1. Install in accordance with manufacturer's instructions and Shop Drawings, maintaining required 1-inch ventilation spacing requirement.
2. Fasten panels to an approved attachment system structurally supported by aluminum, galvanized steel or wood stud supported wall.
3. Install panel square, edges clean and true to size.
   a. Cut panels to fit at perimeter and around penetrations with minimum 3/8-inch gap.

2. Cleaning and Repairing
   a. At completion of each day's work and at work completion, sweep panels, flashings and gutters clean. Do not allow fasteners, cuttings, filings or scraps to accumulate.
   b. Remove debris from project site upon work completion or sooner, if directed.

07 42 43 COMPOSITE WALL PANELS

PART 1 GENERAL

Summary

1. Section Includes
   a. Phenolic wall cladding panels.
   b. Attachments and fasteners.

Action Submittals

1. Shop Drawings: Include plans, elevations, and details, size and layout panels, flashing, rainscreen airflow, supports and attachments.
2. Product Data: Technical data, physical properties and installation instructions for each component.
3. Color Charts: Manufacturers standard color options.
4. Samples: Submit manufacturers finished samples 12-inch x 12-inch in specified colors
5. Warranty:
   a. Manufacturer's warranty certificate.
   b. Installers written warranty statement.

Informational Submittals

1. Installer: Installation experience statement.
2. Testing and Evaluation Reports: Independent testing laboratory for the following for ASTM E84 and NFPA 285

Quality Assurance

1. Manufacturer Qualifications:
   a. Minimum of 10 years successful experience producing phenolic materials.
   b. Produce FSC (®FSC-C115183) certified materials
   c. Domestic factory assembly, shop fabrication and pre-finishing
2. Installer Qualifications:
   a. Minimum 2-years [documented] installation experience of specified materials.
3. Single Source Responsibility
   a. Materials from a single manufacturer for each component and warranty.
4. Pre-Installation Conference: Convene to review the following:
   a. Areas of installation.
   b. Framing and rough carpentry.
   c. Connections to adjacent surfaces and transitions.
5. Mock-Up:
   a. 8-foot x 8-foot mockup erected at site, to verify color, workmanship and details as determined by architect.
   b. Complete assembly, color, sheen, and model.

Field Conditions

1. Do not install panels on wet or frozen substrate.

Delivery, Storage, and Handling

1. Deliver, store, and handle materials following manufacturer instructions.
2. Immediately upon delivery notify the manufacturer of damaged or defective materials for replacement.

   b. Re-chamfer field cut edges.
4. Do not install damaged, irregular or defective panels.

Field Quality control

1. Inspect panel ventilation at top and bottom of wall for proper vertical air flow required for rainscreen systems.
2. Comply with manufacturer's written installation instructions applicable to products and applications indicated.
3. Verify installation, fasteners and connections with adjacent materials, and transitions have been completed in accordance with shop drawings.
4. Installer is responsible for engineering the connection between the Stonewood system and the supporting wall.

07 45 70 CEMENTITIOUS PANELS

PART 1 GENERAL

References

1. ASTM B136 - Standard Method for Measurement of Stain Resistance of Anodic Coatings on Aluminum.
2. ASTM B244 - Standard Test Method for Measurement of Thickness of Anodic Coatings on Aluminum and of Other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy-Current Instruments.
3. ASTM C834 - Standard Specification for Latex Sealants.
4. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
5. ASTM C1186 - Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets.
6. ASTM D523 - Standard Test Method for Specular Gloss.
7. ASTM D1117 - Standard Guide for Evaluating Nonwoven Fabrics.
8. ASTM D1730 - Standard Practices for Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting.
9. ASTM D2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
10. ASTM D3363 - Standard Test Method for Film Hardness by Pencil Test.
11. ASTM D3359 - Standard Test Methods for Rating Adhesion by Tape Test.
12. ASTM D4585 - Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation.
13. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
14. ASTM E96 - Test Methods for Water Vapor Transmission of Materials.
15. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
16. AATCC127 - Water Resistance: Hydrostatic Pressure Test
17. TAPPI – T460 - Air Resistance of Paper (Gurley Method).

Quality Assurance

1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques Finish areas designated by Architect.
2. Refinish mock-up area as required to produce acceptable work.

Delivery, Storage and Handling

1. Store products in manufacturer's unopened packaging until ready for installation.
2. Store siding flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing.

   a. Verify manufactures labels meet approved product name, color, texture and finish.
3. Store factory sealed materials indoors, above grade and protected from sun, weather and materials that could cause staining or discoloration of finish.
   a. Maintain humidity levels less than 65 percent relative humidity prior to installation

Warranty

1. Manufacturer to warrant against material defects and manufacturing tolerances for a period of 10-years.
2. Installer to warrant against installation defects for a period of 4 years. Repair or replace materials during warranty period at no cost to Owner.

PART 2 PRODUCTS

Manufacturers

1. Basis of Design: Fiberesin Industries, Inc. N48W37031 E. Wisconsin Avenue, Oconomowoc, WI: (262) 567- 4427 www.stonewoodpanels.com; email: info@fiberesin.com
2. Substitutions will be considered

Materials

1. Phenolic Exterior Wall Cladding: Solid phenolic laminate panel with UV protective clear coat.
   a. Color: Washington Cherry, 6404-AA
   b. Install pattern: As indicated on Construction Documents
   c. Finish; Factory #60 matte
   d. Thickness: 3/8"
   e. Panel Core: Phenolic resin treated layer, black and natural brown kraft paper.
   f. Decorative Layer: Melamine resin, proprietary pigmented and treated.
   g. Weather and UV Resistant Layer: 2-mil, proprietary layer combining pigment protection, Ultraviolet light and weather resistant layer

Physical Properties

1. Flexural Strength, ASTM D790
   a. Machine Direction: 16,000 psi
   b. Cross Direction: 12,000 psi
2. Flexural Modulus, ASTM D790
   a. Machine Direction: 1,500,000 psi
   b. Cross Direction: 1,100,000 psi
3. Tensile Modulus, ASTM D638
   a. Machine Direction: 15,000 psi
   b. Cross Direction: 10,000 psi
4. Fastening Strength, ASTM D1761:
   a. Structural Performance: Withstand design wind load based on building code, but not less than 23psf with maximum L/180 tested to ASTM E330.
5. Fire Performance:
   a. Flame Spread/Smoke Developed: [Class A,] [Class B,] tested to ASTM E84
   b. Ignition Temperature: Greater than 650 degrees F (350 degrees C) above ambient, tested to ASTM D1929.
   c. Extended Surface Burn: Max Flame Front less than 10 feet, tested to ASTM E2768
   d. When required for compliance with local building codes, wall assemblies shall not ignite when exposed to a radiant heat energy source, NFPA 268
   e. When required for compliance with local building codes, wall assemblies shall meet performance requirements of NFPA 285

3. Store and dispose of solvent-based materials, and materials used with solvent based materials, in accordance with requirements of local authorities having jurisdiction.

Project Conditions

1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside the manufacturer's limits.

Warranty

1. Manufacturer's Warranty: Provide Hardie HZ10 Reveal Panel Limited Product Warranty, with 30-year limited product warranty against manufacturing defects.

Manufacturer

1. Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at: 231 South LaSalle Street Unit 2000, Chicago, IL 60606. ASD. Toll Free Tel: 866-274-3464; Tel: 312-705-6000;
   Email: request info (info@jameshardie.com);
   Web:http://www.jameshardiepros.com/Products/Hardie-Reveal-Panel-System

Cement Cladding Panels

1. Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at: 231 South LaSalle Street Unit 2000, Chicago, IL 60606. ASD. Toll Free Tel: 866-274-3464; Tel: 312-705-6000; Email: request info (info@jameshardie.com); Web: http://www.jameshardiepros.com/Products/Hardie-Reveal-Panel-System
2. Manufacturer's Climate Zone Product: HZ5 for freezing wet climates with a green tint primer.

Weather Barrier

1. Weather Barrier: James Hardie Hardie-Wrap and Hardie-Wrap Flashing and Seam Tapes.
2. Code Compliance Requirement for Weather Barrier:
   a. Thickness, 11 mil sheet.
   b. Breathability in accordance with ASTM E96.
   c. Tear strength in accordance with ASTM D1117.
   d. Water resistance in accordance with AATCC127.
   e. Air Penetration in accordance with TAPPI – T460.
   f. Hardie-Wrap Weather Barrier ICC-ES Evaluation Report ESR-2258

Furring Strapping

1. Rainscreen Cavity: Install Hardie Reveal Panels on a drained and vented rainscreen cavity, with a minimum 3/4 inch (19mm) air cavity. Selection of cavity vent materials shall be incorporated into the design to prevent insect and pest entry.

Accessories

1. Trims: Reveal™ Trims manufactured by Custom Aluminum of Elgin, IL in the following profiles supplied by James Hardie. Aluminum alloy 6063-T5 with a minimum thickness of 0.050 inch. All reveal trims are 8 feet in length.
   a. Surround horizontal trim.
   b. Surround vertical trim.
   c. Surround horizontal end cut transition trim.
   d. Surround outside corner trim.
   e. Surround inside corner trim.
   f. Surround J channel trim.
   g. Surround drainage flashing.
   h. Recess horizontal trim.
   i. Recess vertical trim.

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.3

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

j. Recess horizontal edge trim.
k. Recess vertical F-trim.
l. outside corner trim.
m. Recess drainage flashing
n. Finishes of Reveal Trims:

2. Primed for field painting; coating tested to ASTM D3363, ASTM D3359, D2794, D4585, D523, and D1308.
3. Fasteners: For attaching Hardie Reveal Panel direct to sheathing to a rain screen provide the following:
   a. Wood Framing, Countersunk Screws: No 8 by 0.39 inch head diameter by 1-5/8 inch long
   b. Fasteners shall be of high-quality stainless steel to ensure resistance to corrosion. For field painting, fasteners shall be treated to accept paint adhesion.
      i. Alternatives must be approved by the architect. e.g. decorative screws, nails, bugle head screws, and similar items.

Finishes
1. Factory Primer: Provide factory applied universal primer.
   a. Primer: Factory applied sealer/primer by James Hardie. Apply flat sheen finishes to panels.
   b. Factory Finish for Trim: Trim for Factory-Applied Coating and Field-Applied Finish: Chem Film.

Examination
1. Do not begin installation until the substrates have been properly prepared.
   a. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

Preparation
1. Clean surfaces thoroughly prior to installation.
2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
3. Ensure that drainage plane in intact and all penetrations are sealed.

Installation
1. Steel Framing: See architectural framing plans complying with local building codes, including the use of water-resistive barriers or vapor barriers where required. Minimum 1-1/2 inches (38mm) face and straight, true, of uniform dimensions and properly aligned.
2. Install water-resistive barriers and claddings to dry surfaces.
3. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
4. Protect siding from other trades.
5. Furring: Install furring on a minimum 3/4 inch (19mm) rainscreen cavity, or in accordance with local building code for rainscreen requirements.
6. Installation: Install materials in strict accordance with manufacturer's installation instructions.
7. Fastening Method: Countersunk and filled.
   a. Place fasteners no closer than 3/4 inch (9.5 mm) from panel edges and 2 inch (51 mm) from panel corners.
   b. Use fasteners as specified in the James Hardie Tech Data sheet and in the Hardie Reveal Panel Installation Instruction.

Applicator that the FiberTite Roofing System has reached 100 percent completion, a quality installation has been completed in accordance with the approved contract specifications, and all field welds have been probed and inspected.

Coordination
1. Prior to installation of materials, a pre-roofing conference shall be held with the Authorized Applicator, and Owner or Owner's Representatives to discuss the specified roofing system, coordinate its proper application and the expectations of all parties involved. The Authorized Applicator and the Owner or Owner's representative shall notify all parties a minimum of fourteen days prior to the meeting.
2. Plan and coordinate the installation of the roofing system with other trades in such a manner to avoid membrane damage, keeping the complete installation weather tight and in accordance with all approved details and warranty requirements.
3. FTS shall be available to make recommendations necessary to ensure compliance with project specifications and specification alternatives due to unforeseen job conditions.

Delivery, Storage and Handling
1. Deliver all materials to the job site in manufacturer's original, unopened containers, with legible labels and in sufficient quantity to allow for continuity of work
2. Store and handle in strict compliance with manufacturer's written instructions and recommendations
   a. Store rolls of membrane lying down, elevated above the roof deck and completely protected from moisture with tarpaulins. The
   b. Elevate insulation and cover board materials on pallets and fully protect from moisture with tarpaulins. Manufacturer's packaging is not considered adequate protection from moisture.
   c. Store adhesives and sealants between 50 and 80-degrees F (10 and 26.7 degrees C) prior to use.
   d. Store flammable materials in cool dry areas away from sparks and open flames.
   e. Follow all precautions as outlined in manufacturer's material safety data sheets.
3. Materials, having been determined by the Owner or Owner's representative to be damaged, shall be immediately removed from the construction site and replaced at no cost to the Owner.

Job Conditions
1. Safety:
   a. Take necessary precautions regarding worker health and safety when using solvents, adhesives or hot asphalt.
   b. FiberTite is slippery when wet, exhibits dew, frost, ice or other form of.
   c. Comply with OSHA requirements for roof construction and fall protection.
   d. Take necessary precautions when using solvents and adhesives.
   e. Daily site cleanup to minimize debris and hazardous congestion.
2. Protection:
   a. Schedule installation sequence to limit access and utilization of installed membrane
   b. Provide proper protection on newly completed roofing.
   c. Minimize traffic on freshly laid roofing.
   d. Protect walls, rooftop units, windows and other components during installation.
3. Additional Precautions:

8. Install panel using 1/2 inch (13 mm) spacers at horizontal joints. Leave bottom edge of panel above all horizontal trims exposed, no caulking shall be placed at this overlap of Horizontal Reveal Trim. Factory primed edge shall always be used.
9. Install a kickout flashing to deflect water away from the siding at the roof intersection.
10. Install a self-adhering membrane on the wall before the sub-fascia and trim boards are nailed in place, and then install the kickout.
11. Allow minimum vertical clearance between the bottom edge of siding and any other material in strict accordance with the manufacturer's installation instructions and as determined by James Hardie Zone.
12. Maintain clearance between siding and adjacent finished grade.
13. Specific framing and fastener requirements - refer to the applicable building code compliance reports.

Finishing:
1. Finish factory primed siding with a minimum of one coat of high quality 100 percent acrylic exterior flat grade paint with flat finish within 180 days of installation.
2. Follow paint manufacturer's written product recommendation and written application instructions
3. Field cut edges shall be coated during the installation process using an exterior grade primer/sealer that is compatible with the type of paint to used on project.

Protection
1. Protect installed products until completion of project.
2. Touch-up, repair or replace damaged products before Substantial Completion.

07 54 00 Multiply SBS Roofing System

PART 1 GENERAL

Section Includes: Multi-ply SBS Roofing System (Mfr. FiberTite or approved substitution)
1. ASTM International (ASTM):
2. ASTM D6754 - Standard Specification for Ketone Ethylene Ester Based Sheet Roofing.
3. ASTM D312 - Standard Specification for Asphalt Used in Roofing.
4. ASTM D4601 - Standard Specification for Asphalt-Coated Glass Fiber Base Sheet Used in Roofing.
5. ASTM D4897 - Standard Specification for Asphalt-Coated Glass-Fiber Venting Base Sheet Used in Roofing.
6. ASTM D 7654 - Standard Specification for Asphalt Used in Roofing Measured by Dynamic Shear Rheometer.
7. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
8. ASTM C473 - Standard Test Methods for Physical Testing of Gypsum Panel Products.
9. ASTM D6163 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements
10. ASTM D6164 - Standard Specification for Styrene Butadiene Styrene (SBS) Bituminous Sheet Materials Using Polyester Reinforcements
11. FM Approvals (FM):
    a. FM Standard 4470 - Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction.
    b. Loss Prevention Data Sheets 1-28, 1-29.
12. UL - Fire Resistance Directory.

   a. Adverse weather conditions, e.g. extreme temperature, high winds, high humidity and moisture, could have a detrimental effect on adhesives, general production efforts and the quality of the finished installation
   b. Daily production schedules shall be limited to what can be made 100 percent watertight at the end of each day, including flashing and night seals.
   c. All surfaces to receive the new roof system, including insulation and flashing, shall be free from all dirt, debris and be thoroughly dry.
   d. Comply with local EPA requirements as published by local, state and federal authorities.
   e. During the construction process temporary ballast, especially in the and corner areas may be required to provide protection against high winds.

Design Conditions
1. Applications and project specifications require review by FiberTite Technical Services (FTS) for acceptance prior to commitment to provide a commercial warranty.
2. Seaman Corporation Project: Registration, must be completed by an Authorized Applicator, submitted to and approved by FTS before any consideration for warranty or the release of any materials can be authorized.
3. Special Design Considerations:
   a. The building Owner may be required to submit an engineering study, or Statement of Sound Roof Structure, to FTS, indicating that the structure is able to accommodate additional live and dead loads including snow and water retention.
   b. Moisture conditions in existing roofs, new structural concrete or new lightweight insulating concrete that would impair or prohibit the desired performance of the new roof system.
   c. Positive slope to promote adequate drainage to avoid the potential damage to the substrate or components.
   d. Roof areas subject to heavy or excessive mechanical traffic.
4. Exterior Fire Test Exposure: Roof system shall achieve a FM or UL Class rating for roof slopes indicated as follows:
   a. FM Approvals Class A Rating.
   b. Underwriters Laboratory Class A Rating.
5. Design Requirements:
   a. Uniform Wind Uplift Load Capacity.
   b. Installed roof system shall withstand negative (uplift) design wind loading pressures complying with the following criteria.
   c. Design Code: ASCE 7, Method 2 for Components and Cladding.
   d. Dead Load: Installation of new roofing materials shall not exceed the dead load capacity of the existing roof structure.
6. Energy Star: Roof System shall comply with the initial and aged reflectivity required by the U.S. Federal Government's Energy Star program.
7. Environmental Considerations:
   a. Chemical discharge not listed on the Seaman Corporation/FiberTite chemical resistance publication.
   b. Environmental conditions such as fog, dew, rain or snow and freezing temperatures can have a detrimental effect on the application and performance of adhesives.
   c. Compliance with EPA and OSHA requirements as published by local, and federal authorities.

   a. UL-790 - Standard Test Method for Fire Tests of Roof Coverings.

Submittals:
1. Product Data:
   a. Most recent published technical literature and guide specifications
   b. Authorized Applicator's approved copy of the Project Registration.
   c. Preparation instructions and recommendations.
   d. Storage and handling requirements and recommendations.
   e. Typical installation methods.
   f. Dimensioned shop drawings, including roof plan detailing perimeter enhancement, flashing methods, terminations and acceptance by FTS
   g. Written approval from FTS confirming any accessories submitted, not manufactured or expressly approved in FiberTite literature are acceptable and compatible with the proposed FiberTite Roofing System.
   h. Safety Data Sheets (SDS) relating to all products, chemicals and solvents
   i. Certification that the system specified complies with identifiable building code and insurance requirements.
   j. FiberTite roofing systems (FTR) References:
      i. FTR GS 01/21 FiberTite General Guide Specification.
      ii. FTR 07-54-16.70 Adhered Roofing Specifications
      iii. FiberTite Construction Details.
      iv. FiberTite Foreman's Manual.
      v. FiberTite Technical Bulletins
2. Verification Samples: Two representative units of each type, size, pattern and color.
3. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction
4. For Project Registration and Warranty Acceptance: FTS will review the following
   a. Authorized Applicator's proposal outlining design parameters.
   b. Complete list of accessories or materials not manufactured or expressly authorized for use in FiberTite literature.
   c. Dimensioned outline of the roof indicating all FTR-Detail references.
   d. Dimensioned shop drawings illustrating non-FiberTite details. Details that do not conform with standard FiberTite details shall be returned with appropriate recommendations.

Quality Assurance
1. FiberTite Multi-Ply Roofing Systems shall be installed only by an Applicator, authorized by Seaman Corporation to install FiberTite Multi-Ply Roofing Systems prior to bid or contract award. Herein, the term Authorized Applicator is synonymous with Applicator.
2. Applicator's key personnel shall have received specialized training by Seaman Corporation.
3. FiberTite Roofing Systems shall be installed in accordance with the most current guide specifications and details as amended or authorized by FTS for specific project requirements.
4. Any and all work found to be substandard or in violation of manufacturer's specifications shall be subject to rejection including complete removal and replacement with new materials at the expense of the Applicator.
5. There shall be no deviations from approved contract specifications or shop drawings without prior written approval by the Owner or Owner's representative and FTS.
6. A quality assurance inspection of the roof system shall be performed by FTS for acceptance and approval. This inspection shall be performed upon completion and certification by the

   d. Follow adhesive storage and application precautions and guidelines.
   e. Do not apply waterborne adhesives (FTR-490 or FTR-390) if the ambient air temperature is expected to drop below 32 degrees F (0 degrees C) within 72 hours of application.

Warranty
1. Upon Inspection and Acceptance by a FiberTite Technical Service Representative: Seaman Corporation will issue the preauthorized warranty, subject to the terms and conditions of the sample warranty.
   a. Provide Standard Warranty provides the building owner protection against the cost of repairing leaks as a direct result of either defects in the membrane or the workmanship involved in its installation for a period of 10-years.
   b. Maintenance Requirements: A set of instructions included detailing preventative maintenance requirements on the part of the building Owner and noting a list of harmful substances that may damage the FiberTite membrane.

PART 2 PRODUCTS

Manufacturers
1. Acceptable Manufacturer: FiberTite, Seaman Corporation, which is located at: 1000 Venture Boulevard; Wooster, OH 44691-9360; Toll Free Tel: 800-927-8578; Tel: 330-262-1111; Fax: 800-649-2737; Email: marketing@seamancorp.com; Web: https://www.fibertite.com or approved alternative

General
1. All products and components for the FiberTite Multi-Ply System shall be supplied by Seaman Corporation.
2. Components other than those manufactured and supplied by Seaman Corporation shall be submitted for review, prior to ordering. Any products not specifically authorized in writing for the project by Seaman Corporation, shall be considered unacceptable and their performance excluded from the warranty
3. FiberTite Multi-Ply membranes are to be adhered directly to preapproved insulation, coverboard or composites thereof. Contact FTS for additional information regarding compatible substrates.

Membrane
1. Standards Compliance: ASTM D6754-15 Standard Specification for Ketone Ethylene Ester (KEE) Based Sheet Roofing
2. Acceptable Substrates:
   a. Authorized rigid insulation or cover board.
   b. Insulated steel decking.
   c. Authorized base sheet with an adhered insulation and coverboard assembly.
3. FiberTite Membranes:
   a. FiberTite-XTreme 60-mil FB (Fleece-back) Membrane: Nominal 60 mil (1.5 mm) ketone ethylene ester (KEE), reinforced with 12.5 oz per sq yd (423.8 grams per sq m) woven polyester mat and heat bonded 4 oz (113.4 grams) polyester backing. ***Contractor to provide cost/performance analysis for project*** application
   b. FiberTite-XTreme 60-mil FB (Fleece-back) Membrane: Nominal 60 mil 1.5 mm) ketone ethylene ester (KEE), reinforced with 12.5 oz per sq yd (423.8 grams per sq m) woven polyester mat and heat bonded 4 oz (113.4 grams) polyester backing.
4. Flashing Membrane

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.4

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

a. Requirements to match field membrane and warranty expectations for roofing system.

5. FibreTite SBS Ply
   a. FiberTite Approved FTR SBS modified asphalt coated sheets as provided by Seaman Corporation.

Ancillary Materials

1. Field Membrane Adhesive – *provide per manufacturer's recommendation and stipulation the following*:
   a. FTR-601 PG: Dual component, low pressure spray applied (spatter) urethane adhesive. Adhesive is a non-solvent, elastomeric, urethane adhesive, specifically designed for bonding FiberTite Fleece-back membranes to preauthorized horizontal substrates.
   b. FTR-390: Rubberized asphalt water borne emulsion adhesive, VOC, one side application (substrate only), designed for bonding FiberTite Fleeceback membranes to properly prepared and pre- horizontal substrates.
   c. FiberTite CR-20: Dual component elastomeric polyurethane froth adhesive designed for bonding FiberTite Fleece-back (spatter application) to properly prepared and preauthorized horizontal substrates.
   Hot Asphalt: Type III or Type IV steep asphalt, according to ASTM D312
2. Flashing Adhesive: *provide per manufacturer's recommendation and stipulation of the following:*
   a. Alpha-Tite: VOC compliant solvent borne, (two-sided) contact adhesive bonding smooth-back FiberTite membranes to properly prepared preauthorized horizontal and vertical substrates.
   b. FTR-190e: VOC compliant solvent borne, (two-sided) bonding adhesive, for bonding smooth-back FiberTite membranes to properly prepared and preauthorized horizontal and vertical substrates.
   c. FTR-201 Mastic: Trowel grade elastomeric adhesive and sealant used to adhere FiberTite flashing membranes to pre-approved vertical substrates.
3. FiberTite SBS Adhesive: *provide per manufacturer's recommendation and stipulation of the following:*
   a. FTR SBS Adhesive: highly elastomeric, one-part asphalt modified urethane adhesive, designed for use as an adhesive for bonding FTR Base Sheets to approved substrates.
   b. Hot Asphalt: Type III or Type IV steep asphalt, according to ASTM D312.
   c. Torch Applied: Torch on base sheet using a suitable heat source.
4. Fasteners: provide per manufacturer's recommendation and stipulation of the following:
   a. Securing membranes to steel, wood and structural concrete decks.
      i. FiberTite MAGNUM Series: No. 15-13, buttress threaded, No. 3 Phillips head fastener constructed of case-hardened carbon with a reduced diameter drill point and corrosion resistant coating.
   b. Securing insulation to steel, wood and structural concrete decks.
      i. FiberTite-HD: No. 14-13, heavy duty threaded steel No. 3 Phillips truss, self-tapping corrosion resistant fastener.
   c. Secure insulation, base sheet or membrane to steel, wood, cement fiber,
      i. FiberTite Peel Rivets: Threadless, high magnesium alloy fastener.
5. FTR Stress plates: Used to anchor membranes.

a. FTR MAGNUM Series Barbed Stress Plates: When required, used to anchor membrane at roof transitions are 2.5 x 1.5 inch (64 x 38 mm) rectangular in dimension with 3/4 inch (19 mm) radial corners, manufactured from 20-gauge AZ-50 galvalume steel with a 0.25 inch (6 mm) diameter hole in its center. The plate has a raised reinforcement area and eight barbs.
b. Plates to Anchor Membrane at Roof Transitions: 2.375 inch (60 mm) round steel plate manufactured from 20 gauge galvalume steel with a 0.25 inch (6 mm) diameter hole in its center. The plate has a raised reinforcement area and barbs
c. FTR 3-in Metal Round Insulation Stress Plates: Finished with AZ-50 gavalume and have a flat and flush profile for use on rigid board surfaces.

6. Additional Components
   a. Flashing Terminations Sealant: FTR-101. Single-component gun-grade polyether.
   b. Sealant for Pitch Pans: FTR-SLS Sealant. Single -component self-leveling polyether.
   c. Fabricated Metal Flashing: FiberClad Metal. 48 x 120 inch (1219 x 3048 mm) sheets.
      i. Steel: 24 gauge hot dipped G-90.
      ii. Aluminum 300H14: 0.040 inch (1.02 mm) thick laminated with a 0.02 mil (0.0005 mm) polymeric coating.
   d. FTR Pre-molded Flashings: Injection molded vent stack, split Wrapid Flash and inside and outside corner flashing using FiberTite vinyl.
   e. FTR Non-Reinforced Membrane: Field fabrication membrane, 60 mil (1.5 mm) non-reinforced vinyl membrane.
   f. FTR SA Primer: A blend of synthetic polymers, solvents and resins, low VOC primer for VaporTite self-adhered vapor retarder.
   g. Forti-Lock: A rapid-curing, proprietary formulation of polymethyl-methacrylate (PMMA) liquid flashing resin. Forti-Lock is combined with Forti-Lock Primer and Forti-Lock Fleece reinforcing fabric to form a flexible and monolithic, reinforced membrane used in aberrant FiberTite and detail applications.
   h. Forti-Lock Metal Primer: An acrylic primer used with various metal substrates to promote adhesion of Forti-Lock waterproofing and surfacing components.
   i. Forti-Lock Fleece: a proprietary non-woven polyester reinforcement used in Forti-Lock liquid flashing applications.
   j. Walkway and Protection Pads: FTR-Tuff Track. High grade walkway and protection material with slip-resistant design.
   k. FTR-Termination Bar: Membrane flashings restraint and termination seals. 0.125 x 1 x 120 inch (3 x 25 x 3048 mm) 6060-T5 extruded aluminum bar with pre-punched slots, 8 inches (203 mm) on center.
   l. FiberTite Metal Fascia System: Two piece "snap-on" pre-formed, architectural Kynar metal edge systems.
   m. FTR-Value Insulation: Polyisocyanurate and extruded polystyrene flat or tapered insulation.
   n. FTR-601 & FTR-601 PG: Dual component, single bead (ribbon applied) urethane insulation adhesive. Adhesive is a non-solvent, elastomeric, urethane adhesive, specifically designed for bonding single or multiple layers of roof insulation and insulation composites or cover boards to structural roof decks and base sheets.
   o. FiberTite Seam Cleaner: FiberTite Seam Cleaner is to be used with clean white cotton cloths or rags to clean contamination from the seam areas of the membrane prior to welding.

p. FTR T Joint Covers: Pre-cut 4 x 4 inch (102 x 102 mm) 60 mil (1.5 mm) non-reinforced membrane to reinforce areas where three overlapping sheets of membrane intersect.

Insulation:

1. Insulation shall be installed, where specified or required to provide a suitable surface for the FiberTite Roofing Systems and meet desired thermal values.
2. Products must be pre-approved in writing by Seaman Corporation and comply with minimal characteristics and classification listed for the products below:
   a. Polyisocyanurate Rigid Insulation (ASTM C1289):
      i. FTR-Value Brand XPS Rigid Insulation.
   b. FTR-Value Brand XPS Rigid Insulation.
      i. FTR-Value Brand XPS Rigid Insulation
3. Adhesives for Insulation Attachment: Preauthorized by Seaman Corporation.
   a. Listed and approved by FM Approvals in conjunction with specified insulation and substrate.
   b. Meet minimum roofing system design requirements, evidenced by testing in conjunction with the proposed substrate and or composite.
      i. Testing to be performed under FM Global requirements or acceptable third-party laboratory.
   c. Provide written specifications regarding the safe handling, storage and surface preparation for a quality application of the product.
   d. Insulation Adhesives:
      i. Polyurethane Adhesive: Either a dual or single component polyurethane, dispensed from a portable pressurized container or traditional foam equipment.
         1. Preapproved products
            a. FTR-601
            b. FTR-601 PG.
            c. Polyset CR20.
         2. Hot Asphalt: Type III or Type IV steep asphalt, according to ASTM D312.
            a. Asphalt shall be applied within 25 degrees F (minus 3.9 degrees C) of the asphalt manufacturer's recommended Equiviscous Temperature (EVT). If the manufacturer does not supply the EVT Seaman Corporation recommends a temperature range of 425 degrees F (218.3 degrees C) for mopping and 450 degrees F (232.2 degrees C) for mechanical spreaders. Asphalt applied within 25 degrees F (minus 3.9 degrees C) of the EVT, under normal environmental conditions; will provide a nominal 23 to 25 lbs (10.4 to 11.3 kg) of asphalt per 100 sq ft (9.3 sq ft).
            b. The Applicator is responsible for maintaining the temperature tolerances at the kettle as well as the rooftop at all times.
            c. Cold weather application can cause significant drops in the temperature of the asphalt during transport to the roof and points of application. Insulated equipment is recommended during cold weather applications

Base Sheet

1. Base sheets:
   a. Preapproved base sheet shall be installed, where specified or required, provide a suitable surface for installation over or adhering the insulation or FiberTite-FB Roofing System.
   b. Acceptable products must be preapproved or approved in writing by Seaman Corporation and comply with the following minimal characteristics and classifications.
      i. FiberTite SBS Base Sheets as provided by Seaman Corporation.
      ii. ASTM D4601 Type II Asphalt Coated Glass-Fiber Base Sheet.
      iii. ASTM D4897 Type II Asphalt Coated Glass-Fiber Venting Base Sheet.

Vapor Retarder

1. Vapor Retarders:
   a. Provide as directed by the architect.
   b. Vapor retarder for use in a FiberTite roof system shall comply with identifiable code and/or insurance requirements
   c. Preapproved vapor retarders shall be installed, where specified or required, to provide a suitable surface for installation over or adhering the insulation or FiberTite-FB Roofing System.
   d. Acceptable products must be preapproved or approved in writing by Seaman Corporation and comply with the following minimal characteristics and classifications.
      i. ASTM D4601, Type II Asphalt Coated Glass-Fiber Base Sheet. ASTM D4897, Type II Asphalt Coated Glass-Fiber Venting Base Sheet.
      ii. ASTM D6163, Type I, Grade S, FTR SBS modified membrane.
      iii. ASTM D6163, Type I, Grade S, FTR SBS modified membrane.
   e. Preapproved Products:
      i. VaporTite.
      ii. FiberTite Approved FTR SBS Base Sheet as provided by Seaman Corporation.

PART 3 EXECUTION

General

1. Authorized Applicator:
   a. Provide suitable substrate surface for proper installation of roofingsystem, roof insulation and specified components.
   b. Coordinate installation ensuring system remains watertight at end of each working day.
2. Application of Seaman Corporation/FiberTite materials constitutes an agreement that Applicator has inspected and found the substrate suitable for installation of roofing system.

Substrate Preparation

1. Authorized Applicator: Verify the deck condition and existing roof construction is suitable for the specified installation.
2. Seaman Corporation requires fastener withdrawal values (pull out tests) on roofing projects to verify suitability of decking to accept a mechanically fastened insulation or membrane roof system.

3. Examine surfaces for inadequate anchorage, low areas that will not drain properly, foreign material, ice, wet insulation, unevenness or any other defect which would prevent the proper execution and quality application roofing system as specified.
4. Prepared substrate shall be smooth, dry, and free of debris and any other irregularities which would interfere with proper installation.
5. Do not proceed with any part of the application until all defects and preparation work have been corrected and complete.

Substrate Preparation (New Construction)

1. Steel Deck
   a. Steel decking shall conform to FM guidelines for Class-1 insulated steel deck construction.
   b. Steel decking shall be constructed of a minimum 22-gauge cold rolled sheets with factory G-90 galvanized coating.
   c. Steel decking that is less than 22-gauge may be considered for application by Seaman Corporation. Fastener withdrawal tests shall be performed on all non-FM Approved steel decking, (decking less than 22-gauge) to determine suitability and appropriate fastener patterns and for mechanical attachment of the new components of the Multi-Ply Roofing Systems.
   d. Steel decking shall be installed in compliance with specified design criteria and local building code requirements
   e. Steel decking that is less than 22-gauge may be considered for application by Seaman Corporation. Fastener withdrawal tests shall be performed on all non-FM Approved steel decking, (decking less than 22-gauge) to determine suitability and appropriate fastener patterns and for mechanical attachment of the new components of the FiberTite Multi-Ply Roofing Systems.

Base Sheets

1. General
   a. General Install no more than can be covered or made 100 percent during the same working day.
   b. Field pull-out tests must be performed for mechanically attached base sheets to determine fastener withdrawal performance.
   c. Base sheets shall be installed starting at the low point of the roof deck.
   d. Base sheet shall be side lapped, a minimum of 3 inch (76 mm), and shingled to shed water
2. Mechanically Attached Base Sheet:
   a. All base ply fasteners and stress plates for the mechanical attachment of base sheets shall be provided by Seaman Corporation.
   b. For 1-90 attachment, approved base sheet is secured to the deck in the field of the roof, with FiberTite Fasteners, spaced a maximum of 7-inch (178 mm) on center through the minimum 3 (76 mm) side laps and staggered at a maximum 7-inch (178 mm) on center in two rows within the field of the sheet.
   c. The number of fasteners securing the base sheet shall be increased over the field spacing by 70 percent in the perimeter and 100 percent in the corners of the roof area.
   d. Fastening increases can be obtained by adding rows of fasteners or additional fasteners along each row.

Roof Insulation

1. General:

   a. Insulation Boards: Adhered in approved adhesives. Maximum 4 x 4 ft
   b. Insulation Boards: Mechanically fastened. 4 x 4 ft (1219 x 1219 mm) or 4 x 8 ft (1219 x 2438 mm).
   c. Insulation: Installed where by the long dimension of the boards run in parallel alignment and the short dimensions are staggered a minimum of 12 inches (305 mm).
   d. Install insulation with minimum joint dimensions and tightly butted where possible.
      i. Maximum Joint Widths: 3/8 inch (9.5 mm).
      ii. Damaged Corners: Cut out and replaced with an insulation piece a minimum of 12 x 12 inches (305 x 305 mm). Pieces that are cut from larger panels and are smaller than one square foot are not acceptable.
   e. Taper roof insulation to drain sumps using tapered edge strips.
   f. If insulation layer is 1.5 inches (38 mm) or less, taper 12 inches (305 mm) from drain bowl.
   g. If insulation thickness exceeds 1.5 inches (38 mm), taper 18 inches (457 mm) from drain bowl.
   h. Taper boards or pieces must be adhered to or mechanically fastened with a minimum of two fasteners per board.
   i. When a cover board or multiple layers are installed each layer must be offset from the previous layer a minimum of 12 inches (305 mm) on center.
2. Mechanically Attached Insulation:
   a. Apply insulation over properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture.
   b. Fasteners and stress plates for the mechanical attachment of insulation or coverboard materials shall be FTR Fasteners as provided by Seaman Corporation.
   c. Fasteners and stress plates shall be Factory Mutual Research approved for mechanical attachment of insulation and comply with FM Standard 4470 for corrosion resistance.
   d. Attachment 1-90 for insulation coverboard in the field of the roof requires 1 fastener and stress plate per 2 sq ft (0.186 sq m) of insulation, when the top layer is less than 2 inches (51 mm) thick and the membrane is adhered.
      i. Perimeter areas require a 50 percent increase in the fastener density.
      ii. Corner areas require a 100 percent increase in the fastener density.
   e. Roof insulation shall be fastened in accordance with the roof insulation manufacturer's recommendations and must be approved by the FTS.
   f. Adhered roof systems incorporating mechanically attached insulations and coverboards may require mechanically fastened perimeter and corner membranes systems to comply with guidelines articulated in FM LPD 1-29
   g. Fasteners shall be installed in accordance with manufacturer's recommendations, complying with minimum penetration requirements for specific deck types.
   h. Fasteners shall be installed using depth sensing tool attachments to ensure proper installation.
3. Adhered Insulation
   a. Polyurethane
      i. Adhesive shall be applied only to properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture.
      ii. The minimum product temperature at time of application shall be 70 degrees F (21.1 degrees C).

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.5

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

iii. Adhesives shall not be applied when surface or ambient temperatures are below 40 degrees F (4.4 degrees C) or above 110 degrees F (43.3 degrees C).
iv. Insulation shall be fully bonded to the substrate with a maximum board size of 48 x 48 inches (1219 x 1219 mm).
v. Insulation shall be set into a continuous 0.5 inch (13 mm) bead of adhesive at a minimum rate of one linear foot of adhesive for every 1 sq ft (0.093 sq m) of insulation board.
vi. Adhesive rates are to be increased in roof perimeter and corner zones according to specific project requirements and manufacturer's design recommendations.
vii. Place the boards onto the adhesive beads and walk on the boards, spreading the adhesive for maximum contact.
viii. A second walking may be required after 10 minutes to ensure maximum contact and bond strength.

4. Hot Asphalt
a. Hot asphalt shall be applied only to properly prepared and pre-approved substrates, free of any debris, dirt, grease, oil or moisture
b. Insulation shall be set into a continuous flood coat of hot Type III or IV steep asphalt applied to compatible substrate or properly attached base sheet/vapor retarder at a minimum application rate of 25 lbs (11.3) per 100 sq ft (9.3 sq m). shall be fully bonded to the substrate with a maximum board size of 48 x 48 inches (1219 x 1219 mm).
c. Insulation shall be laid in such a manner to avoid squeezing hot asphalt between insulation joints.
d. Adhered insulation application may require mechanical enhancement of exterior perimeter and corner areas as outlined in FM LPD 1-29
5. Installation of membranes
a. Quality Control
i. It is the responsibility of the Applicator to initiate and maintain a Quality Control program to govern all aspects of the installation.
ii. The project foreman and or supervisor will be responsible for the daily execution of the Quality Control program which will include but is not limited to the supervision, inspection and probing of all heat welded seams incorporated within roofing system.
iii. If inconsistencies in quality of the application of the composite, membrane or welds are found, work shall cease until corrective actions are taken to ensure the continuity of the installation.
b. Adhered FiberTite Multi-Ply Roofing Systems – Base Ply
i. The Authorized Applicator shall assume full responsibility for any and all irregularities, defects or quality issues that arise due to failure to follow published installation guidelines for the proper installation of the adhered FiberTite Multi-Ply membrane roofing systems.
ii. FiberTite Approved SBS Base Ply:
1. Fully bond the base ply to the prepared substrate.
2. Utilize a minimum 3-inch (76 mm) side and 6-inch (152mm) end laps.
3. Apply directly behind the (adhesive, asphalt, or torch) applicator.
4. Cut a dog ear angle at the end laps on overlapping selvage edges.

iv. Installer's Warranty Period: Three years from date of Substantial Completion.

PART 2 PRODUCTS

Source Limitations
1. Obtain roof paver units and pedestal support system from single source or producer.

Performance Requirements
1. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design[pedestal support system and] perimeter containment system.
2. Pedestal Support System: Capable of withstanding effects of gravity loads and the following loads and stresses, within limits and under conditions indicated prescribe by the IBC
a. Roof Terraces: Uniform load of 125#/SF or a concentrated load or2000 lbf, whichever is greater.
b. Walkways and Elevated Platforms Other Than Exits: Uniform load of 60 lbf/sq. ft. (293 kg/sq. m).
c. Walkways and Elevated Platforms Used as Exits: Uniform load of 100 lbf/sq. ft. (488 kg/sq. m).
d. All Roof Zones (Corner, Perimeter, and Field-of-Roof) Uplift Pressures verified with the structural engineer of record.
e. Perimeter Containment System: Capable of resisting lateral forces in pedestal roof paver support system without displacement exceeding 1/8 inch

Roof Paver Units
1. Porcelain Pavers: Impervious vitreous roof paver units with a water-absorption rate of 0.5 percent or less when tested in accordance with ASTM C373; resistant to freezing and thawing when tested in accordance with ASTM C1026; abrasion-, chemical-, and stain-resistant; intended for exterior use with roof paver support system.
a. Basis-of-Design Product
i. Manufacturer: Tile Tech
ii. Nominal Weight: 9 lb/sq. ft.
iii. Nominal Size: 24” x 24”
iv. Nominal Thickness: 3/4 inch
v. Edge: Manufacturer's standard.
vi. Color and Texture: As selected by Architect from manufacturer's full range
vii. Breaking Strength (ISO 10545-4): 2200 lbf/sq. ft. minimum.
viii. Bending Strength (EN 1339): Class 14.
ix. Static Load Capacity (EN 12825): 1700 lbf/sq. ft. minimum.
x. Modulus of Rupture (ISO 10545-4): 7000 lbf/sq. in. minimum.
2. Concrete Pavers: Complying with ASTM C936/C936M and resistant to freezing and thawing when tested in accordance with ASTM C1645/C1645M; made from normal-weight aggregates, molded- or extruded-concrete roof paver units, with integral color, and free of surface imperfections; intended for exterior use with roof paver support system
a. Basis-of-Design Product
i. Manufacturer: Tile Tech Inc
ii. Nominal Weight: 11 lb/sq. ft. -22 lb/sq. ft.
iii. Nominal Size: 24” x 24”
iv. Nominal Thickness: 3/4 “
v. Edge: Manufacturer's standard.
vi. Color and Texture: As selected by Architect from manufacturer's full range

5. Using a clean trowel, apply pressure to top seal T-Laps immediately following base ply application.
6. Stagger end laps a minimum of 3 ft (914 mm).
7. Fully bond the "second" base ply (if applicable) in the same manner as the first ply.
8. Stagger side laps of the second base ply a minimum 12 inch (305 mm) from the side laps of the underlying base ply.
9. Stagger end laps a minimum 3 ft (914 mm) from the end laps of the underlying base ply.
c. Installation of other components of selected roof system in accordance with the manufacturer's instructions.
6. Final Inspection for Warranty
a. Upon completion of the project, the Authorized Applicator shall register the completion of the project with FiberTite Technical Services.
b. Upon notice of completion, an FTS representative will schedule an inspection with a representative of the Authorized Applicator to thoroughly review the installation and verify compliance with Seaman Corporation specifications.
c. Any corrections or modifications necessary for compliance with the specifications and acceptance for warranty (punch list) will be noted on the Final Inspection for Warranty Form.
d. Upon completion of all punch list items and final acceptance of the installation, a warranty as authorized by the approved Seaman Corporation/FiberTite Project Registration will be issued.

07 76 00 ROOF PAVERS

PART 1 GENERAL

Summary
1. Includes:
a. Roof paver units
b. Pedestal support system.
c. Support tray units.
d. Other system components, provided by Installer.
2. Action Submittals
a. Product Data: For each type of product and system indicated.
i. Include manufacturer's specifications for materials, finishes, construction details, installation instructions, and recommendations for maintenance.
b. Shop Drawings: For roof paver units and pedestal support system layout; indicate adjacent construction, perimeter containment components, penetrations, attachment details, and other conditions.
i. Include data indicating compliance with performance requirements.
c. Samples for Initial Selection: For each type of roof paver unit, provide representative charts of manufacturer's full range of patterns, textures, and colors.
d. Samples for Verification: For each type of exposed finish for each roof paver unit selected.
i. Roof Paver Units: Manufacturers' standard size 24” x 24”
ii. Accessories: [Adjustable pedestal support] [base pad] [shims] [and] [support tray unit].

Pedestal Support System
1. Adjustable-Height-Pedestal Paver Supports: Continuously variable, adjustable-height, high-impact and flame-resistant high-density polypropylene system components. Accommodate height adjustments from 1/2 to 52 inches to provide level paver installation. System shall maintain 1/8- to 1/4-inch paver joint width and alignment of pavers while allowing for drainage, air circulation, and prevention of water accumulation.
a. Basis-of-Design Product: Subject to compliance with requirements, provide Tile Tech Inc.; Hybrid Uni-Just or comparable product as proposed by the Contractor
b. Load Capacity: not less than 2000 lbf
2. Paver Support System Components and Accessories: Provide manufacturer's high-impact and flame-resistant high-density polypropylene or ABS plastic spacer tabs, shims, extenders, reducers, lateral bracing support members, and other accessories as necessary for a complete assembly.
a. Roof Paver Lock-Down System: Pedestal and cap plate mounting components.
i. Basis-of-Design Product: Subject to compliance with requirements, provide Tile Tech Inc.; Wind-Lock or comparable product
b. Lateral Bracing System:
i. Basis-of-Design Product: Subject to compliance with requirements, provide Tile Tech Inc.; Lateral Bracing System or \comparable product

Support Tray Units
1. Wind Uplift and Safety System Paver Unit Support Trays: Manufacturer's honeycomb structural trays with adhesive tracks in perimeter, center, and auxiliary zones. Include locking disks with fasteners, spacer joint pegs, and roofing adhesive as approved in writing by manufacturer.
a. Basis-of-Design Product: Subject to compliance with requirements, provide Tile Tech Inc.; Hex-Tray Wind Uplift and Safety System or comparable product
b. Nominal Weight: 1.25 lb/sq. ft.
c. Nominal Size: 24 by 24 inches
d. Nominal Thickness: 1-1/2 inch
2. Other System Component, Provided by Installer
a. Protection Course: As recommended by roofing membrane manufacturer to prevent damage to roofing while allowing adequate flow to drainage system.
b. PVC Pipe: Nominal 4-inch (102-mm) OD SDR35 PVC sewer pipe complying with requirements of ASTM D3034 or ASTM F679. Cut pipe to heights to suit Project.
c. Perimeter Containment System: Materials and components provided by Installer to restrain pedestal roof paver support system
3. Materials
a. ABS Plastic: Complying with ASTM F2806.
b. High-Density Polypropylene: Having a self-ignition temperature of 650 deg F (343 deg C) or greater when tested in accordance with ASTM D1929

PART 3 EXECUTION

Examination
1. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
2. Examine roofing membrane installation, with roofing Installer present, for protection from perimeter containment system and pedestal support system installation.

e. Delegated Design Submittal: For [pedestal support system] [and] [perimeter containment system] installation, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
3. Closeout Submittals
a. Operation and Maintenance Data: For roof paver units[and pedestal support system] to include in operation and maintenance manuals.
4. Maintenance Materials Submittals
a. Extra Stock Material: Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Include inventory list of items delivered.
i. Roof Paver Units: Full-size units in quantity equal to 3% percent of quantity installed for each type, pattern, color, and size.
ii. Pedestal Supports: Units in quantity equal to 2% of quantity installed for each type and size. Include manufacturer-furnishedadjustment tool.
iii. Support Tray Units: Units in quantity equal to 2% percent of quantity installed for each type and size.
iv. Deliver materials to location determined by Owner.
5. Quality Assurance
a. Delegated Design Engineer: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated.
6. Mockups
a. Mockup: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.
i. Build mockup in size and location indicated on Drawings, or if not indicated, no fewer than 8 roof paver units with pedestal supports.
ii. Acceptance of mockups does not constitute acceptance of deviations from the Contract Documents contained in mockups unless Architect specifically accepts such deviations in writing.
iii. Subject to compliance with requirements, accepted mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
7. Delivery, Storage and Handling
a. Protect products during shipping, handling, and storage to prevent staining, chipping, deterioration of components, or other damage. Store unused materials in original packaging.
8. Warranty
a. Manufacturer's Warranty: Manufacturer and Installer agree to repair or replace the following:
i. Damaged roof paver units that are delivered to Project site chipped, cracked, or broken prior to being unpackaged.
ii. Roof paver units and pedestal supports that fail in materials or workmanship within specified warranty period when installed and used in accordance with manufacturer's written instructions.
iii. Manufacturer's Warranty Period: 10 years from date of Substantial Completion.

3. Examine areas where roofing system is turned up or flashed against vertical surfaces and horizontal roofing.
4. Proceed with installation only after unsatisfactory conditions have been corrected.

Preparation
1. Install protection course over roofing membrane in accordance with roofing manufacturer's written instructions.
2. Coordinate placement of pedestal support system with roofing membrane Work.

Installation, General
1. Install systems and components in accordance with manufacturer's written instructions and accepted Shop Drawings.
2. Mix roof paver units from several pallets or cubes, as they are placed, to produce uniform blend of colors and textures.
3. Cut roof paver units with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full roof paver units without cutting where possible. Hammer cutting is not acceptable.
4. Joint Pattern: Grid as indicated
5. Units over Roofing: Exercise care in placing roof paver units and setting materials over roofing so protection materials are not displaced and roofing is not punctured or otherwise damaged. Carefully replace protection materials that become displaced and arrange for repair of damaged roofing before covering with roof paver units.

Installation of Pedestal Support System
1. Lay out and mark pedestal support locations on top of protection course. Install bearing pads below pedestal supports.
2. Accurately set pedestal supports in locations coordinated with approved roof paver layout.
3. Install wind uplift and safety system components and lateral bracing support system components.
4. Adjust pedestal support heights prior to, and following, installation of roof paver units. Shim where fine adjustment is necessary using manufacturer-provided shims.

Installation of Roof Paver Units
1. Do not use roof paver units with chips, cracks, voids, discolorations, edge damage, and other defects that might be visible or cause staining in finished work.
2. Install roof paver units over pedestal support system, maintaining a uniform joint width. Align joint patterns parallel in each direction.
3. Lay out units to avoid less-than-half-width units at perimeter or other terminations.
4. Set roof paver units in place using placement methods that result in stable installation free from rocking.
Tightly seat roof paver units against spacers to eliminate lateral movement or drift of paving assembly. Make final in-place level adjustments using manufacturer's furnished tool to adjust paver support heights.

Construction Tolerances
1. Variation of Level Across Width of Each Roof Paver Unit: 1/16 inch (1.6 mm), maximum.
2. Variation from Level: Do not exceed 1/4 inch in 10 ft. (6.4 mm in 3.0 m), when measured at any location and in any direction.
3. Variation in Joint Width: Do not vary joint thickness more than one-fourth of nominal joint width.
4. Variation in Plane at Joints (Lipping): Do not exceed 1/16 inch (1.6 mm) difference between planes of adjacent roof paver units.

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.6

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

5. Variation in Line of Edge at Joints (Lipping): Do not exceed 1/16 inch (1.6 mm) difference between edges of adjacent roof paver units, where edge line continues across joint.

Cleaning and Protection

1. and replace loose, chipped, broken, stained, or otherwise damaged roof paver units or units that do not match adjoining units or pattern indicated on Drawings.
2. Cleaning: Remove soiling from exposed surfaces; wash and scrub clean. Leave joints between roof paver units open and clean of debris to allow for proper drainage and airflow.
3. Provide final protection and maintain roof paver units without damage or deterioration at time of Substantial Completion.

07 54 00 THERMOPLASTIC SINGLE-PLY ROOF SYSTEM (alternate system)

Summary

This is an alternate system.

References

American Society for Testing and Materials (ASTM) - Annual Book of ASTM Standards
ASTM D-751 – Standard Test Methods for Coated Fabrics
ASTM D-2137 - Standard Test Methods for Rubber Property—Brittleness Point of Flexible Polymers and Coated Fabrics
ASTM E-96 - Standard Test Methods for Water Vapor Transmission of Materials
ASTM D1204 - Standard Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature
ASTM D-471 - Standard Test Method for Rubber Property—Effect of Liquids
ASTM D-1149 - Standard Test Methods for Rubber Deterioration—Cracking in an Ozone Controlled Environment
ASTM C-1549 - Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer
ASTM C-1371 - Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers
ASTM E 903 – Standard Test Method for Solar Absorptance, Reflectance, and Transmission of Materials Using Integrating SpheresASTM G155 - Standard Practice for Operating Xenon Arc Light Apparatus For Exposure Of Non-Metallic Materials
ASTM D573 - Standard Test Method for Rubber - Deterioration In An Air Oven
Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) Architectural Sheet Metal Manual
National Roofing Contractors Association (NRCA)
American Society of Civil Engineers (ASCE)
Factory Mutual (FM Global) - Approval Guide
Underwriters Laboratories (UL) - Roofing Systems and Materials Guide (TGFU R1306)

Submittals

1. Product Data: Provide product data sheets for each type of product indicated in this section.
2. Shop Drawings: Provide manufacturers standard details and approved shop drawings for the roof system specified.
3. Samples: Provide samples of insulations, fasteners, membrane materials and accessories for verification of quality.
4. Certificates: Installer shall provide written documentation from the manufacturer of their authorization to install the roof system, and eligibility to obtain the warranty specified in this section.

Quality Assurance

1. Manufacturer's Qualifications: GAF shall provide a roofing system that meets or exceeds all criteria listed in this section.
2. Installer's Qualifications: Installer shall be certified by GAF.
3. Source Limitations: All components listed in this section shall be provided by a single manufacturer or approved by the primary roofing manufacturer.
4. Final Inspection: Manufacturer's representative shall provide a comprehensive final inspection after completion of the roof system. All application errors must be addressed, and final punch list completed.

Performance Requirements

1. Provide an installed roofing membrane and base flashing system that does not permit the passage of water, and will withstand the design pressures calculated in accordance with the most current revision of ASCE 7.
2. GAF shall provide all primary roofing materials that are physically and chemically compatible when installed in accordance with manufacturers current application requirements.

Delivery, Storage and Handling

1. Deliver all roofing materials to the site in original containers, with factory seals intact. All products are to carry a GAF® label.
2. Store all pail goods in their original undamaged containers in a clean, dry location within their specified temperature range.
3. Do not expose materials to moisture in any form before, during, or after delivery to the site. Reject delivery of materials that show evidence of contact with moisture.
4. Remove manufacturer supplied plastic covers from materials provided with such. Use "breathable" type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Cover and protect materials at the end of each work day. Do not remove any protective tarpaulins until immediately before the material will be installed.
5. Materials shall be stored above 55°F (12.6°C) a minimum of 24 hours prior to application.

Project Conditions

1. Weather:
   a. Proceed with roofing only when existing and forecasted weather conditions permit.
   b. Ambient temperatures must be above 45°F (7.2°C) when applying hot asphalt or water-based adhesives.

Warranty

1. Provide Manufacturers standard EverGuard® Diamond Pledge™ Guarantee with single source coverage and no monetary limitation where the manufacturer agrees to repair or replace components in the roofing system, which cause a leak due to a failure in materials or workmanship.
2. Materials and workmanship of listed products within this section when installed in accordance with current GAF application and specification requirements. Contact GAF Contractor Services for the full terms and conditions of the guarantee.

Manufacturer

1. GAF® - 1 Campus Drive, Parsippany, NJ 07054

Insulation

1. Rigid polyisocyanurate board: with a glass-reinforced cellulosic felt facer. Conforms to or exceeds the requirements of ASTM C 1289 Type II, Class 1, Grade 2. **EnergyGuard™ Polyiso Insulation**, with the following characteristics:
   a. R-Value: R-38 or as shown on construction drawings
   b. Compressive Strength: 20 psi
2. Rigid polyisocyanurate cover board: with coated polymer-bonded glass fiber mat facers on both major surfaces of the core foam conforming to or exceeding the requirements of ASTM C 1289, Type 2, Class 4, Grade 1. **EnergyGuard™ HD Polyiso Insulation**, with the following characteristics:
   a. Board Thickness: ½" or 12.7mm
   b. Minimum Compressive Strength: 80psi (551kPa)
   c. Thermal Resistance (LTTR value) of: >2.5

Membrane Material

1. A smooth type, polyester scrim reinforced thermoplastic polyolefin membrane with a nominal 0.060 inch (60 mil) thickness, for use as a single ply roofing membrane. Meets or exceeds the minimum requirements of ASTM D-6878. UL Listed, FM Approved, Dade County Product Approval, Florida Building Code Approved. White membrane is Energy Star Listed, CRRC Listed and Title 24 Compliant. **EverGuard® TPO 60 mil** thermoplastic single-ply roofing membrane by GAF. 10' X 100', each roll contains 1000 sq. ft. of roofing material weighing 322 lbs. Each half sheet roll contains approximately 500 sq. ft. of roofing material, 5' X 100', weighing 162 lbs. Color: Energy Grey

Flashing Materials

1. A smooth type, polyester scrim reinforced thermoplastic polyolefin membrane with a nominal 0.060 inch (60 mil) thickness, for use as a single ply roofing membrane. Meets or exceeds the minimum requirements of ASTM D-6878. UL Listed, FM Approved, Dade County Product Approval, Florida Building Code Approved. White membrane is Energy Star Listed, CRRC Listed and Title 24 Compliant. **EverGuard® TPO 60 mil** thermoplastic single-ply roofing membrane by GAF.

Insulation Adhesive

1. Insulation Adhesive: **Oly-Bond 500™** distributed by GAF®.

Accessories

1. Mechanical Fasteners
   a. **Drill•Tec™ Standard Screws**: Standard duty alloy steel insulation fastener with CR-10 coating with a .220" diameter thread. Factory Mutual Standard 4470 Approved, #3 Phillips head for use on steel and wood decks.
   b. **Drill•Tec™ Insulation Plates**: Galvalume, 3" (76 mm) diameter, suitable for use with Drill•Tec™ Standard and HD screws, and Drill•Tec™ Spikes. design available for use with Drill•Tec™ Polymer Screws.

Flashing Accessories

1. A smooth type, unreinforced thermoplastic polyolefin based membrane for use as an alternative flashing/reinforcing material for penetrations and corners. Required whenever preformed vent boots cannot be used, available in White, Tan, Gray, Regal Red, Regal Blue, and Hartford Green, 0.055 inches (55 mils) nominal thickness and sheet size: 24in x 50ft. EverGuard® TPO Detailing Membrane, by GAF.
2. An 8 inch (20 cm) wide smooth type, polyester scrim reinforced thermoplastic polyolefin membrane strip for use as a cover strip over coated metal and stripping-in coated metal flanges and general repairs: 0.045 inches (45 mils) nominal thickness with 100 foot length, available in White, Tan, Gray, Regal Red, Regal Blue, and Hartford Green EverGuard® TPO Flashing Membrane, by GAF.

3. Extruded aluminum termination bar with angled lip caulk receiver and lower leg bulb stiffener. Pre-punched slotted holes at 6" on center or 8" on center. ¾" x 10' with 0.090" cross section, Drill-Tec™ Termination Bar, by GAF.
4. A 6 inch (14 cm) wide, smooth type, heat-weldable polyester scrim reinforced thermoplastic polyolefin membrane strip. Designed for use as a cover strip over non-coated metal edges and flanges. Each full roll contains approximately 100 Lineal Ft. of material, 6" X 100'. EverGuard® TPO Heat-Weld Cover Tape, by GAF.
5. .045" reinforced TPO membrane with pressure sensitive adhesive, to be installed on horizontal surfaces using plates and fasteners as a base attachment in fully adhered systems. Size 6" x 100', EverGuard® RTA (Roof Transition Anchor) Strip™, by GAF
6. 24 gauge steel with 0.025" thick TPO based film as required for fabrication into metal gravel stop and drip edge profiles, metal base and curb flashings, sealant pans, and scupper sleeves. Standard sheet size 4' x 10', sheet weight 47 lbs. Custom sizes available, EverGuard® TPO Coated Metal, by GAF.

Wall and Curb Accessories

1. 55 mil TPO membrane and 24 gauge coated metal prefabricated into standard and custom size thru wall scuppers. Available in two sizes: 4" x 6" x 12" (l x w x d) with a 5.75" x 3.75" opening and 8" x 10" x 12" (l x w x d) with a 9.75" x 7.75" opening, **EverGuard® TPO Scupper**, by GAF
2. .045" thick reinforced TPO membrane fabricated corners. Available in four standard sizes to flash curbs. Four corners are required to flash the curb, **EverGuard® Corner Curb Wraps**, by GAF.
3. 0.045" thick molded TPO membrane outside corners of base and curb flashing. Hot-air welds directly to EverGuard TPO membrane. Size 4" x 4" with 6" flange, D. **EverGuard® TPO Universal Corners** by GAF.
4. 0.055" molded TPO membrane inside corners of base and curb flashing. Hot-air welds directly to EverGuard TPO membrane. Size 6" x 6" x 5.5" high **EverGuard® TPO Preformed Corners** by GAF.
5. 8" diameter, nominal .050" vacuum formed unreinforced TPO membrane for use in flashing outside corners of base and curb flashings, **EverGuard® TPO Fluted Corner**, by GAF.

Penetration Accessories

1. 0.075" thick molded TPO membrane sized to accommodate most common pipe and conduits, (1" to 6" diameter pipes), including square tube. Hot-air welded directly to EverGuard TPO membrane, supplied with stainless steel clamping rings, **EverGuard® TPO Preformed Vent Boots** by GAF.
2. 0.045" thick molded TPO membrane preformed boots are split to accommodate most common pipes and conduits and available in three standard sizes, **EverGuard® TPO Split Pipe Boots**, by GAF.
3. 0.045" thick molded TPO membrane preformed square boots are split to accommodate most common square penetrations and conduits and available in three standard sizes, EverGuard® **TPO Square Tube Wraps**, by GAF.
4. 070 thick molded penetration pocket to provide structure and foundation for the application of a pourable sealant for a variety of roof penetrations, weldable and 9" x 6" x 4" (l x w x h). **EverGuard® TPO Pourable Sealer** Pocket
5. Constructed from spun aluminum and preflashed using .055" thick smooth type, unreinforced thermoplastic polyolefin membrane. Available in a wide range of sizes to allow a proper fit into any size roofing drain. **EverGuard® TPO Drain** by C. GAF Aluminum drain unit coated with a weldable TPO compound.

6. TPO membrane can be heat welded directly to the drain body, resulting in a strong, secure installation. Each drain is fitted with a BlueSeal® mechanical drain seal for a secure, tight seal into the building drain system. Available in two sizes (3" and 4"), and custom sizes are available. **EverGuard® TPO Coated Metal Drain** by GAF®

Roof Edge Accessories

1. Coping system with pre-punched holes and snap-on design. Contains a metal clip that functions as a gutter to help channel water back onto the roof. Available for wall sizes 4" to 32" (102 mm – 813 mm). M-Weld™ Snap-On B. Coping (contains 20 gauge clip) or M-Weld™ Snap-On Coping Plus (contains 16 gauge clip) by GAF®.
2. Three piece fascia system with continuous galvanized steel spring cant, exterior decorative snap-on fascia and available in 10 foot lengths in standard or custom colors, EverGuard® Snap-on Fascia by GAF®.
3. Two piece fascia system with rigid terminator base plate and exterior decorative fascia cover available in 10 foot lengths in standard or custom colors for use with 45 mil and 60 mil only, EverGuard® EZ Fascia by GAF®.
4. Two piece fascia system with rigid extruded terminator base plate and exterior decorative snap-on fascia cover available in 10 foot lengths in standard or custom colors, EverGuard® EZ Fascia EX by GAF®.
   a. Standard Colors: Statuary Bronze Mission Red Forest Green Slate Blue Concord Cream Black Patina Green Mint Green Redwood Dove Gray Rocky Gray Bone White Siam Blue Rawhide Regal Blue Hartford Green Medium Bronze Chocolate Brown Turquoise Boysenberry Sandstone Ascot White Shale Gray Sierra Tan

Examination

1. Verify that the surfaces and site conditions are ready to receive work.
2. Verify that the deck is supported and secured.
3. Verify that the deck is clean and smooth, free of depressions, waves, or projections, and properly sloped to drains, valleys, eaves, scuppers or gutters.
4. Verify that the deck surfaces are dry and free of ice or snow.
5. Verify that all roof openings or penetrations through the roof are solidly set, and that all flashings are tapered.

Installation General

1. Install GAF's EverGuard® TPO roofing system according to all current application requirements in addition to those listed in this section.
   Start the application of membrane plies at the low point of the roof or at the drains, so that the flow of water is over or parallel to, but never against the laps.

Installation General

1. Do not apply roof insulation or roofing until all other work trades have completed jobs that require them to traverse the deck on foot or with equipment. A vapor retarder coated lightly with asphalt may be applied to protect the inside of the structure prior to the insulation and final roofing installation. Before the application of the insulation, any damage or deterioration to the vapor retarder must be repaired.
2. Do not install wet, damaged or warped insulation boards.
3. Install insulation boards with staggered board joints in one direction (unless taping joint).
4. Install insulation boards snug. Gaps between board joints must not exceed ¼" (6 mm). All gaps in excess of ¼" (6 mm) must be filled with like insulation material.
5. Miter and fill the edges of the insulation boards at ridges, valleys and other changes in plane to prevent open joints or irregular surfaces. Avoid breaking or crushing of the insulation at the corners.

6. Insulation should not be installed over new lightweight insulating concrete.
7. Do not install any more insulation than will be completely waterproofed each day.

Insulation – Base Layer

1. The insulation must be securely attached to the roof deck. A minimum FMRC 1-60 attachment is recommended. Refer to FMRC Approval Guide for FM fastening patterns. Factory Mutual requires fastener density increased in corner areas for FM 1-60 as well as perimeter and corner area fastener density increases for FM 1-90 or greater. Refer to FM Loss Prevention Data Sheets 1-7, 1-28, and 1-49.
2. Use only fasteners with a minimum 3 inch (7.6 cm) stress plate when mechanically attaching insulation. Do not attach insulation with nails.

Insulation Sub-layers

1. The substrate must be free of and debris, dust, dirt, oil, grease, and standing water before applying the adhesive.
2. OlyBond 500 must be applied using the specially designed PaceCart dispenser. OlyBond 500 SpotShot shall be applied using one of the specially designed dual cartridge dispensers. OlyBond 500 Equipment Free Canister System dispenses with 25' hose and gun assembly included with product.
3. Install insulation layers applied with bands of OlyBond 500 spaced 12" O.C. Approximate coverage rate is ½ to 1 gallon per 100 square feet, depending on the substrate. Allow the foam to rise ¾" to 1". Walk each board firmly into place. Stagger the joints of additional layers in relation to the insulation joints in the layer(s) below by a minimum of 6" (15.2 cm) to eliminate continuous vertical gaps.
4. Do not install any more insulation than will be completely waterproofed each day.

Membrane Application

1. Adhered:
   a. Place membrane so that wrinkles and buckles are not formed. Any wrinkles or buckles must be removed from the sheet prior to permanent attachment. Roof membrane shall be fully adhered immediately after it is rolled out, followed by welding to adjacent sheets.
   b. Overlap roof membrane a minimum of 3" (15 cm) for side laps and 3" (15 cm) for end laps.
   c. Install membrane so that the side laps run across the roof slope lapped towards drainage points.
2. All exposed sheet corners shall be rounded a minimum of 1".
3. Use full width rolls in the field and perimeter region of roof.
4. Use appropriate bonding adhesive for substrate surface, applied with a solvent-resistant roller, brush or squeegee.
5. Apply bonding adhesive at 3 squares of finished, mated surface area per 5 gallons. A greater quantity of bonding adhesive may be required based upon the substrate surface condition.
6. Prevent seam contamination by keeping the adhesive application a few inches back from the seam area.
7. Adhere approximately one half of the membrane sheet at a time. One half of the sheet's length shall be folded back in turn to allow for adhesive application.
8. Lay membrane into adhesive once the bonding adhesive is tacky to the touch.
9. Roll membrane with a weighted roller to ensure complete bonding between adhesive and membrane.

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.7

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

10. Membrane laps shall be heat-welded together. All welds shall be continuous, without voids or partial welds. Welds shall be free of burns and scorch marks.
11. Weld shall be a minimum of 1-1/2" in width for automatic machine welding and a minimum 2" in width for hand welding.
12. All cut edges of reinforced membrane must be sealed with EverGuard® TPO Cut Edge Sealant.
13. Supplemental membrane attachment is required at the base of all walls and curbs, and where the angle of the substrate changes by more than five (5) degrees (1" in 12"). Roofing membrane shall be secured to the structural deck with appropriate Drill-Tec™ screws and plates spaced every 12" o.c. The screws and plates must be installed no less than ½" from the membrane edge. Alternatively, the roofing membrane may be turned up the vertical plane a minimum of 3" and secured with screws and termination bar. Fastener spacing is the same as is used for in-lap attachment. The termination bar must be installed within 1-1/2" to 2" of the plane of the roof membrane, with a minimum of 1" of membrane extending above the termination bar.
14. Supplemental membrane attachment to the structural deck is required at all penetrations unless the insulation substrate is fully adhered to the deck. Roofing membrane shall be secured to the deck with appropriate Drill-Tec™ screws and plates.
15. Fasteners must be installed to achieve the proper embedment depth. Install fasteners without lean or tilt.
16. Install fasteners so that the plate or termination bar is drawn down tightly to the membrane surface. Properly installed fasteners will not allow the plate or termination bar to move (underdriving), but will not cause wrinkling of the membrane (overdriving).

Flashings

1. General:
   a. All penetrations must be at least 24" (61 cm) from curbs, walls, and edges to provide adequate space for proper flashing.
   b. Flash all perimeter, curb, and penetration conditions with coated metal, membrane flashing, and flashing accessories as appropriate to the site condition.
   c. All coated metal and membrane flashing corners shall be reinforced preformed corners or non-reinforced membrane.
2. Hot-air weld all flashing membranes, accessories, and coated metal. A minimum 2" wide (hand welder) weld or minimum 1 - 1/2" automatic machine weld is required.
3. All cut edges of reinforced membrane must be sealed with EverGuard® TPO Cut Edge Sealant.
4. Consult the EverGuard® Application and Specifications Manual or GAF Contractor Services for more information on specific construction details, or those not addressed in this section.

Coated Metal Flashings:

1. Coated metal flashings shall be formed in accordance with current EverGuard construction details and SMACNA guidelines.
2. Coated metal sections used for roof edging, base flashing and coping shall be butted together with a ¼" gap to allow for expansion and contraction. Hot-air weld a 6" wide reinforced membrane flashing strip to both sides of the joint, with approximately 1" on either side of the joint left un-welded to allow for expansion and contraction. 2" wide aluminum tape can be installed over the joint as a bond-breaker, to prevent welding in this area.

3. Lap seams shall not be located within the sump area. Where lap seams will be located within the sump area, a separate roof membrane drain flashing a minimum of 12" larger than the sump area must be installed. The roof membrane shall be mechanically attached 12" on center around the drain with screws and plates. The separate roof drain flashing shall be heat welded to the roof membrane beyond the screws and plates, extended over the drain flange, and secured as above.
4. Tighten the drain compression ring in place.

Traffic Protection

1. Install walkway rolls at all roof access locations and other designated locations including roof-mounted equipment work locations and areas of repeated rooftop traffic.
2. Walkway pads must be spaced 2" apart to allow for drainage between the pads.
3. Heat-weld walkway rolls to the roof membrane surface continuously around the perimeter of the roll.
4. Walkway rolls may be installed with TPO primer and 3" seam tape.
   Roll or brush the TPO primer on the back of the TPO pad along the edges and down the middle length of the pad.
5. Clean and prime the roof membrane where the pad will be installed.

Roof Protection

1. Protect all partially and fully completed roofing work from other trades until completion.
2. Whenever possible, stage materials in such a manner that foot traffic is minimized over completed roof areas.

Clean-up

1. All work areas are to be kept clean, clear and free of debris at all times.
2. Do not allow trash, waste, or debris to collect on the roof. These items shall be removed from the roof on a daily basis.
3. Properly clean the finished roof surface after completion, and make sure the drains and gutters are not clogged.
4. Clean and restore all damaged surfaces to their original condition.

07 62 00 FLASHING AND SHEET METAL

PART 1 GENERAL

Description

1. Formed sheet metal work for wall and roof flashing, copings, roof edge metal, fasciae, drainage specialties, and formed expansion joint covers are specified in this section.

Wind Design Standard:

1. Fabricate and install copings, roof-edge flashings, tested per ANSI/SPRI/FM ES-1 to resist design pressure required by the IBC.

Submittals

1. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

PART 2 PRODUCTS

Flashing and Sheet Metal Materials

1. 24 gauge pre-finished sheet metal formed into details indicated throughout the construction documents.

Installation

3. Coated metal used for sealant pans, scupper inserts, corners of roof edging, base flashing and coping shall be overlapped or provided with separate metal pieces to create a continuous flange condition, and pop-riveted securely. Hot-air weld a 6" wide reinforced membrane flashing strip over all seams that will not be sealed during subsequent flashing installation.
4. Provide a ½" hem for all exposed metal edges to provide corrosion protection and edge reinforcement for improved durability.
5. Provide a ½" hem for all metal flange edges whenever possible to prevent wearing of the roofing and flashing membranes at the flange edge.
6. Coated metal flashings shall be nailed to treated wood nailers or otherwise mechanically attached to the roof deck, wall or curb substrates, in accordance with construction detail requirements.

Reinforced Membrane Flashings:

1. The thickness of the flashing membrane shall be the same as the thickness of the roofing membrane.
2. Membrane flashing may either be installed loose or fully adhered to the substrate surface in accordance with "Construction Detail Requirements".
3. Where flashings are to be fully adhered, apply bonding adhesive at a rate resulting in 60 square feet/gallon of finished roofing material for solvent-based bonding adhesives, and at a rate of 125 square feet/gallon of finished roofing material for water-borne bonding adhesive. Apply bonding adhesive to both the underside of the membrane and the substrate surface at 120 square feet per gallon (Solvent Based) and 250 square feet per gallon (Water Based). A greater quantity of bonding adhesive may be required based upon the substrate surface condition. The bonding adhesive must be allowed to dry until tacky to the touch before flashing membrane application.
4. Apply the adhesive only when outside temperature is above 40°F. E. Recommended minimum application temperature is 50°F to allow for easier adhesive application.
5. The membrane flashing shall be carefully positioned prior to application to avoid wrinkles and buckles.

Un-reinforced Membrane Flashings:

1. Un-reinforced membrane is used to field-fabricate penetration or reinforcement flashings in locations where preformed corners and pipe boots cannot be properly installed.
2. Penetration flashings constructed of un-reinforced membrane are typically installed in two sections, a horizontal piece that extends onto the roofing membrane and a vertical piece that extends up the penetration. The two pieces are overlapped and hot-air welded together.
3. The un-reinforced membrane flashing shall be adhered to the penetration surface. Apply bonding adhesive at a rate resulting in 60 square feet/gallon of finished roofing material for solvent-based bonding adhesives, and at a rate of 125 square feet/gallon of finished roofing material for water-borne bonding adhesive. Apply bonding adhesive to both the underside of the membrane and the substrate surface at 120 square feet per gallon (Solvent Based) and 250 square feet per gallon (Water Based). A greater quantity of bonding adhesive may be required based upon the substrate surface condition. The bonding adhesive must be allowed to dry until tacky to the touch before flashing membrane application.

Roof Edges:

1. Roof edge flashings are applicable for gravel stop and drip edge conditions as well as for exterior edges of parapet walls.
2. B. Flash roof edges with metal flanges nailed 4" O.C. to pressure-treated wood nailers. Where required, hot-air weld roof membrane to coated metal flanges.
3. When the fascia width exceeds 4", coated metal roof edging must be attached with a continuous cleat to secure the lower fascia edge. The cleat must be secured to the building no less than 12" O.C.
4. Alternatively, roof edges may be flashed with a 2-piece snap on fascia system, adhering the roof membrane to a metal cant and face nailing the membrane 8" on center prior to installing a snap-on fascia.
5. Flash roof edge scuppers with a coated metal insert that is mechanically attached to the roof edge and integrated as a part of the metal edging.

Parapet and Building Walls:

1. Flash walls with EverGuard TPO membrane adhered to the substrate with bonding adhesive, loose applied (Less than 24" in height) or with coated metal flashing nailed 4" on center to pressure-treated wood nailers.
2. Secure membrane flashing at the top edge with a termination bar. Water Block shall be applied between the wall surface and membrane flashing underneath all exposed termination bars. Exposed termination bars shall be mechanically fastened 8" on center; termination bars that are counter flashed shall be fastened 12" on center.
3. Roof membrane must be mechanically attached along the base of walls with screws and plates (deck securement) or screws and inverted termination bar (wall securement) at the following rate: Adhered systems 12" OC

Curbs and Ducts:

1. Flash curbs and ducts with EverGuard TPO membrane adhered to the curb substrate with bonding adhesive, loose applied (Less than 18" in height) or with coated metal flashing nailed 4" on center to pressure-treated wood nailers.
2. Secure membrane flashing at the top edge with a termination bar. Water Block shall be applied between the curb/duct surface and membrane flashing underneath all termination bars. Exposed termination bars shall be mechanically fastened every 8"o.c.; termination bars that are counter flashed shall be fastened 12" on center.
3. Roof membrane must be mechanically attached along the base of walls with screws and plates (deck securement) or screws and inverted termination bar (wall securement) at the following rate: 12" OC
4. Metal counterflashing may be optional with fully adhered flashings depending on guarantee requirements. Exposed termination bars must be sealed with FlexSeal® roofing cement or FlexSeal® caulk grade.

Roof Drains

1. Roof drains must be fitted with compression type clamping rings and strainer baskets. Original-type cast iron and aluminum drains, as well as retrofit-type cast iron, aluminum or molded plastic drains are acceptable.
2. Roof drains must be provided with a minimum 36" x 36" sump. Slope of tapered insulation within the sump shall not exceed 4" in 12".
   Extend the roofing membrane over the drain opening. Locate the drain and cut a hole in the roofing membrane directly over the drain opening. Provide a ½" of membrane flap extending past the drain flange into the drain opening. Punch holes through the roofing membrane at drain bolt locations.

1. Install counterflashing over and in conjunction with installation of base flashings, except as otherwise specified or shown. Install counterflashing to lap base flashings not less than 100 mm (4 inch). Install upper edge or top of counterflashing not less than 225 mm (9 inch) above top of the roofing. Lap joints not less than (4 inch). Stagger joints with relation to metal base flashing joints. Use surface applied counterflashing on existing surfaces and new work where not possible to integrate into item. When fastening to concrete or masonry, use screws driven in expansion shields set in concrete or masonry. Use screws to wood and sheet metal. Set fasteners in mortar joints of masonry work.

One Piece Counterflashing:

1. Where flashing is installed at new masonry, coordinate to insure proper height, embed in mortar, and end lap. Where flashing is installed in reglet in concrete insert upper edge into reglet. Hold flashing in place with lead wedges spaced not more than 200 mm (8 inch) apart. Fill joint with sealant. Where flashing is surface mounted on flat surfaces.
   a. When top edge is double folded anchor flat portion below sealant "V" joint with fasteners spaced not over 400 mm (16 inch) on center:
      i. Locate fasteners in masonry mortar joints.
      ii. Use screws to sheet metal or wood.
   b. Fill joint at top with sealant.
2. Where receiver is installed at new masonry coordinate to ensure proper height, embed in mortar, and lap.
   a. Surface applied type receiver:
      i. Secure to face construction in accordance, with manufacturer's instructions.
      ii. Completely fill space at the top edge of receiver with sealant.
3. Insert counter flashing in receiver in accordance with fabricator or manufacturer's instructions and to fit tight against base flashing.
   Where vented edge occurs install so lower edge of counterflashing is against base flashing. When counter flashing is a component of other flashing install as shown.

Reglets

1. Install reglets in a manner to provide a watertight installation.
2. Locate reglets not less than (9 inch) nor more than (16 inch) above roofing, and not less than (5 inch) nor more than inch) above 'cant strip'.
3. Butt and align end joints or each section of reglet and securely hold in position until concrete or mortar are hardened:
4. Coordinate reglets for anchorage into concrete with formwork construction.
5. Coordinate reglets for masonry to locate horizontally into mortar joints.

07 92 00 JOINT SEALANTS

PART 1

References

ASTM C 510 - Standard Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants.
ASTM C 661 - Standard Test Method for Indentation Hardness of Elastomeric Type Sealants by Means of a Durometer.
ASTM C 719 - Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle).
ASTM C 794 - Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
ASTM C 834 - Specification for Latex Sealants.

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.8

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

ASTM C 920 - Specification for Elastomeric Joint Sealants.
ASTM C 1087 - Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems.
ASTM C 1193 - Guide for Use of Joint Sealants.
ASTM C 1247 - Standard Test Method for Durability of Sealants Exposed to Continuous Immersion in Liquids.
ASTM C 1248 - Test Method for Staining of Porous Substrate by Joint Sealants.
ASTM C 1311 - Specification for Solvent Release Sealants.
ASTM C 1330 - Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants.
ASTM D 412 - Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension.
ASTM D 624 - Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
ASTM D 2203 - Standard Test Method for Staining from Sealants.
ASTM D 2240 - Test Method for Rubber Property - Durometer Hardness.

Administrative Requirements

1. Coordination: Coordinate installation of joint sealants with cleaning of joint substrates and other operations that may impact installation or finished joint sealant work.

Samples for Color Selection: For each joint sealant type.

Quality Assurance

1. Installer Qualifications: Company with minimum of three years' experience specializing in work of this section, employing applicators trained for application of joint sealants required for this project, with record of successful completion of projects of similar scope, and approved by manufacturer.

Single Source Responsibility:

1. Provide exterior joint sealants by a single manufacturer responsible for testing of Project substrates to verify compatibility and adhesion of joint sealants.

Delivery Storage and Handling

1. Accept materials on site in manufacturer's unopened original packaging. Store primers and sealants in dry location with ambient temperature range of 60 to 80 deg. F (15 to 27deg. C).

Warranty

1. Special Manufacturer's Warranty: Manufacturer's standard form in which joint sealant manufacturer agrees to furnish joint sealants to repair or replace those that demonstrate deterioration or adhesive or cohesive failure under normal use within warranty period specified. Warranty Period for Silicone Sealants: [Five] years date of Substantial Completion.
   Special Installer's Warranty: Original statement on Installer's letterhead in which Installer agrees to repair or replace joint sealants that demonstrate deterioration or failure within warranty period specified.

PART 2 PRODUCTS

Manufacturer

1. Basis-of-Design Products: Provide joint sealant products manufactured byA. **Tremco, Inc., Commercial Sealants and Waterproofing Division, An RPM Company**, Beachwood OH; (866) 321-6357; email: techresources@tremcoinc.com; www.tremcosealants.com,

Materials

1. VOC Content for Interior Applications: Provide sealants and sealant primers complying with the following VOC content limits per 40 CFR 59, Subpart D (EPA Method 24):

   a. Test a sheet steel specimen, replicating finish 'as shipped' with the product manufacturer's production primer.
   b. Provide Verification of Compliance from an Independent 3rd party which indicates compliance with the acceptance criteria of the standard.

Quality Assurance

1. Manufacturer's Qualifications
   a. Provide evidence of having personnel and plant equipment capable of fabricating hollow metal door and frame product of the types specified.
   b. Provide evidence of having a written quality control system in place.
2. Quality Criteria
   a. Compliance with Section 1.05 is required for all door and frame product provided under this Section.
   b. Fabricate in accordance with the contract documents and approved submittal drawings.
   c. Meet product quality standards and fabrication methods set by the Metal Manufacturers Association, HMMA, a division of the National Association of Architectural Metal Manufacturers, NAAMM.

Submittals

1. Submittal Drawings
   a. Show dimensioned door and frame product elevations and sections.
   b. Show listing of opening descriptions including locations, material thickness, and anchors.
   c. Show location and details of openings.
   d. Provide manufacturer's recommended installation instructions and procedures.
2. Samples, upon request, provide the following
   a. Door: 1 ft. x 1 ft. (305 mm x 305 mm) corner section with hinge preparation showing top and internal construction.
   b. Frame: 1 ft. x 1 ft. (305 mm x 305 mm) section showing assembled corner joint at head and jamb. Include hinge reinforcement [and grout guard] in one rabbet. When glazed frame product is specified, apply and install glazing stop as specified in the opposite rabbet. Apply glazing stop to both head and jamb section to show their intersection.
   c. All samples submitted must represent, in all respects, the minimum quality of work to be furnished by the manufacturer. Do not fabricate any work represented by the samples until the samples are approved. Any deviation of fabrication quality compared to the approved samples is cause for rejection of the work.

Contractor's Responsibility

1. Contractor is responsible for coordination and installation of products covered under this section and is required to:
   a. Verify that substrate conditions, whether existing or installed under other Sections, are as detailed in the Architect's drawings.
   b. Coordinate procuring products provided under this Section and Section 1.03 - Related Sections, and comply with the hollow metal manufacturer's ordering instructions and lead time requirements to avoid delays.
   c. Provide to the manufacturer

   a. Architectural Sealants: 250 g/L.
   b. Sealant Primers for Nonporous Substrates: 250 g/L.
2. Sealant Primers for Porous Substrates: 775 g/L
   a. Compatibility: Provide joint sealants and accessory materials that are compatible with one another, and with adjacent materials, as demonstrated by sealant manufacturer using ASTM C 1087 testing and related experience.

Silicone Joint Sealants

1. Sealant A: Tremco Spectrem 1: Single-Component, Non-sag, Non-Staining, Neutral-Curing Silicone Joint Sealant [SJS#__]: ASTM C 920, Type S, Grade NS, Class 100/50, Use NT; SWRI validated.
   Basis of Design Product: Tremco, Inc., Spectrem 1.
   Volatile Organic Compound (VOC) Content: 1 g/L maximum.
   Volatile Organic Emissions (VOE): Not greater than Greenguard Children & Schools Certification emissions levels.
   Staining, ASTM C 1248: None on concrete, marble, granite, limestone, and brick.
   Color: As selected by Architect from manufacturer's standard line of not less than 12 colors.
2. SEALANT B: Tremco Spectrem 2
   Single-Component, Non-sag, Non-Staining, Neutral-Curing Silicone Joint Sealant [SJS#__]: ASTM C 920, Type S, Grade NS, Class 50, Use NT; SWRI validated.
   Basis of Design Product: Tremco, Inc., Spectrem 2.
   Volatile Organic Compound (VOC) Content: 50 g/L maximum.
   Volatile Organic Emissions (VOE): Not greater than Greenguard Children & Schools Certification emissions levels.
   Staining, ASTM C 1248: None on concrete, marble, granite, limestone, and brick.
   Color: As selected by Architect from manufacturer's standard line of not less than 10 colors.
3. SEALANT C: Tremco Tremsil 200:
   Mildew-Resistant, Single-Component, Acid-Curing Silicone Joint Sealant [SJS#__]: ASTM C 920, Type S, Grade NS, Class 25, Use NT.
   Basis of Design Product: Tremco, Inc., Tremsil 200 Sanitary.
   Volatile Organic Compound (VOC) Content: 1 g/L maximum.
   Volatile Organic Emissions (VOE): Not greater than Greenguard Children & Schools Certification emissions levels.
   Color: [White] [and] [Clear].
4. SEALANT D: Tremco Tremflex 834
   Latex Joint Sealant [LJS#___]: Siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
   Basis of Design Product: Tremco, Inc., Tremflex 834.
   Volatile Organic Compound (VOC) Content: 35 g/L maximum.
   Volatile Organic Emissions (VOE): Not greater than Greenguard Children & Schools Certification
   emissions levels.
   Color: White, paintable.
5. SEALANT E: Tremco Butyl Sealant
   Butyl-Rubber-Based Joint Sealant: ASTM C 1311.
   Basis of Design Product: Tremco, Inc., Tremco Butyl Sealant.
   Volatile Organic Compound (VOC) Content: 250 g/L maximum.
   Color: As selected by Architect from manufacturer's standard colors

   i. Approved submittal drawings, approved hardware schedules, templates and/or template numbers and all pertinent information prior to the fabrication of product.
   ii. Field measurements and opening conditions of openings when so noted on approved submittal drawings.

PART 2 PRODUCTS

Steel

1. Used in the fabrication of hollow metal door and frame products shall meet one, or more, of the following requirements.
2. Cold-rolled steel conforming to ASTM A1008/A 1008M, "Specification for Steel, Sheet, ColdRolled, Carbon, Structural, High Strength Low-Alloy and High Strength Low-Alloy with Improved Formability, Solution Hardened and Bake Hardenable" and ASTM A 568/A 568M "Standard Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low Alloy, Hot-Rolled and Cold-rolled, General Requirements for."
3. Hot-rolled, pickled and oiled (HRPO) steel conforming to ASTM A 1011/A 1011M, "Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High Strength Low-Alloy and High Strength Low-Alloy with ImprovedFormability, Solution Hardened, and Bake Hardenable" and ASTM A 568/A 568M "Standard Specification for Steel, Sheet, Carbon, Structural, and HighStrength, Low Alloy, Hot-Rolled and Cold-rolled, General Requirements for."
4. Zinc-coated steel conforming to ASTM A 653/A 653M, "Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process" and ASTM A 924/A 924M, "Standard Specification for General Requirements for Steel Steet,Metallic Coated by the Hot-dipped Process".
5. Factory prime painted doors indicated on door schedule as HM.

Hollow Metal Doors

1. Fabricate types, sizes, and construction in accordance with the contract documents and approved submittal drawing meeting the performance requirements of Section 1.05. Steel thickness and material type at manufacturer's option, unless specified.
   a. Interior Doors: Cold rolled steel, A 1008, 16 gauge [0.042") cold rolled or galvannealed steel.
      i. Include galvannealed components and internal reinforcements with galvannealed doors.
   b. Exterior Doors: Hot-dip galvannealed steel, ASTM A 653, Class A60, 16 gauge [0.053") , hot dipped galvannealed steel, with closed tops.
      i. Include galvannealed components and internal reinforcements with galvannealed doors.
      ii. Close tops of exterior swing-out doors to eliminate moisture penetration. Galvannealed steel top caps are permitted
   c. Factory prime painted doors indicated on door schedule as HM.
   d. Hardware Reinforcements:
      i. Hinge reinforcements for full mortise hinges: minimum 7 gauge [0.180" (4.7 mm)].
      ii. Lock reinforcements: minimum 16 gauge [0.053" (1.3 mm)].
      iii. Closer reinforcements: minimum 14 gauge [0.067" (1.7 mm)], 20" long.
      iv. Galvannealed doors include galvanized hardware reinforcements.
      v. Projection welded hinge and lock reinforcements to the edge of the door.
      vi. Provided adequate reinforcements for other hardware as required.

2. Full Flush Type Doors Construction
   a. Doors construction conforming to ANSI-A250.4 criteria and tested to 5,000,000 operating cycles.
   b. Approved door core constructions:
      i. Polystyrene: Reinforced, stiffened, sound deadened and insulated with a rigid polystyrene core bonded to the inside faces of both panels with contact adhesive. All Polystyrene doors are full width and height polystyrene core filled.
   c. Vertical edge seams: Provide doors with continuous vertical mechanical inter-locking joints at lock and hinge edges with visible edge seams, or a one piece full height 14 gauge channel. Apply a continuous bead of structural epoxy in the internal vertical connection.
   d. Hinge reinforcements: minimum 7 gauge [0.167" (4.4 mm)] galvanized steel, projection welded to the edge of the door.
   e. Reinforce door faces with vertical stiffeners manufactured from steel conforming to ASTM A653 and A924 and welded to each face sheet
   f. Reinforce lock stiles with full-height 12 gauge [0.093" (2.3 mm)] channels.
   g. Fire Rated doors: Provide door units bearing Labels for fire ratings required in locations indicated.
3. Electrical Requirements:
   a. General: Coordinate electrical requirements for doors and frames. Make provisions for installation of electrical items arranged so that wiring can be readily removed and replaced.
   b. Doors with Electric Hinges:
      i. General: Furnish conduit raceway to permit wiring from electric door hardware.
      ii. Hinge Locations: Provide electric hinge at intermediate or center location. Top or bottom electric hinge locations are not acceptable.

Door Frames

Construct exterior and metal door frames to the profiles, designs and gauges as specified.

1. Exterior Frames: Hot-dip galvannealed steel, ASTM A 653, Class A60, 14 gauge [0.067" (1.7 mm)] hot dipped galvannealed steel.
   a. Include galvannealed components and internal reinforcements with galvannealed frames.
2. Interior Frames in Drywall: 16 gauge [0.053" (1.3 mm)] cold rolled frames.
3. Flush Frames: knocked down for field assembly or set-up and arc-welded with temporary shipping bars. Factory die-mitered corner connections reinforced with four integral tabs to secure and interlock at jambs to head. Unless otherwise indicated, frame will have 2" faces and 5/8" stops. Frame depths per the architectural door schedule
   a. Provide frames with a minimum of six wall anchors and two base anchors of manufacturer's standard design.
4. Prepare all frames to receive inserted type door silencers (3) per strike jamb on single doors, and (2) per head for pair of doors. Stick on silencers are not permitted.
5. Frame Hardware Reinforcements:
   a. Mortise hinge reinforcement: minimum 7 gauge [0.180" (4.7 mm)].
   b. Provide high frequency hinge reinforcement for top hinge on all exterior, cross corridor, and stairwell frames, in accordance with SDI 111-H, Example "A" Application, full mortise hinges are specified.

08 14 16 HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

Summary

1. This Section includes hollow metal door and frame products as shown in the contract documents and approved shop drawing.

Products

1. Hollow metal doors, swinging type, including glass moldings and stops, as shown in the approved submittal drawings.
2. Hollow metal panels, fixed or removable, flush or rabbeted bottom edge, glass moldings and stops, similar in construction to hollow metal doors.
3. Hollow metal frame products

References

ANSI/NAAMM HMMA 841, Tolerances and Clearances for Commercial Hollow Metal Doors and Frames
ANSI/SDI A250.4, Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, and Frame Anchors
ANSI/SDI A250.10, Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames
ANSI/NFPA 80 , Standard for Fire Doors and Other Opening Protectives
ANSI/NFPA 105, Standard for Smoke Door Assemblies and Other Opening Protectives.
ANSI/NFPA 252, Standard Methods of Fire Tests of Door Assemblies
ANSI/NFPA 257, Standard on Fire Test for Windows and Glass Block Assemblies
ANSI/UL 9, Standard for Fire Tests of Window Assemblies
ANSI/UL 10B, Standard for Fire Test of Door Assemblies
ANSI/UL 10C, Standard for Positive Pressure Fire Tests of Door Assemblies
ANSI/UL 1784, Standard for Air Leakage Tests of Door Assemblies
ASTM A 653/A 653M, Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or ZincIron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM A 1008/A 1008M, Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High Strength Low-Alloy, and High Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable
ASTM A 1011/A 1011M, Standard Specification for Steel, Sheet, and Strip, Hot-Rolled, Carbon, Structural, High Strength Low-Alloy, and High Strength Low-Alloy with Improved Formability and Ultra High Strength
ASTM C 143/A 143M, Standard Test Method for Slump of Hydraulic-Cement Concrete
CAN/ULC-S104, Standard Method for Fire Tests of Door Assemblies
CAN4/ULC-S106, Standard Method for Fire Tests of Window and Door Assemblies

Testing and Performance

1. Physical Endurance Test - ANSI/SDI A250.4, "Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, and Frame Anchors"
   a. Test a 3 ft. x 7 ft. (914 mm x 2134 mm), 1.75 in. (44 mm) thick nominal size door and frame assembly representative of the construction and material to be provided.
   b. Provide Performance Report, or Certificate of Compliance, from an Independent 3rd party which indicate compliance, Level A
2. Prime Paint Performance, ANSI/SDI A250.10 "Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames".

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.9

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

c. Strike reinforcements: minimum 16 gauge [0.053"(1.3 mm)] and prepared for an ANSI-A115.1-2 strike.
d. Closer reinforcement: minimum 14 gauge [0.067" (1.7 mm)] steel.
e. Projection weld hinge and strike reinforcements to the door frame.
f. Provide metal plaster guards for all mortised cutouts.
g. f. adequate reinforcements for other hardware as.
h. Include galvanized hardware reinforcements in all frames.

6. Electrical Requirements
a. Coordination all electrical requirements for doors and frames. Make provisions for installation of electrical items arranged so that wiring can be readily removed and replaced.
i. Provide cutouts and reinforcements required for metal door frames to accept electric components.
ii. Frame with Electrical Hinges: Weld UL listed grout guard cover box welded over center hinge reinforcing. Top or bottom hinge locations are not permitted. Contractor to reference 3.01.D, for continuous hinges
iii. Provide cutouts and reinforcements required to accept security system components.
iv. Provide mortar box, welded in head of door frame at exterior frames for future door contact switch provided by owner. Size, type, location and conduit requirements to be provided by owner

Constriction of Architectural Sticks

1. Fabricate architectural stick frame assemblies from standard frame components, fabricated from 14 gauge galvanized steel A60 for exterior, and 16 gauge cold rolled steel for interior.
2. Construct architectural stick frame assemblies of standard frame components, fabricated as specified.
a. Exterior Frames: Hot-dip galvannealed steel, ASTM A 653, Class A60, 14 gauge [0.053"] hot dipped galvannealed steel, with closed tops. a. Include galvannealed components and internal reinforcements with all galvannealed frames.
b. Interior Frames in Masonry: 16 gauge [0.053" (1.3 mm)] cold rolled or galvannealed steel.
i. Include galvannealed components and internal reinforcements with all galvannealed frames.
3. Frame Component Requirements
a. Prepare required sticks at door openings and frame assemblies for hardware as specified.
b. Fabricate frame assemblies from three basic components:
c. Open Sections (perimeter members) identical in configuration to standard frames
d. Closed sections (intermediate members) with identical jamb depth, face dimensions, and stops as open sections.
e. Sill sections: Fabricated from galvanized steel, flush with both faces of adjacent vertical members. Cut individual componentsto length and notched to assure square joints and corners.
f. Welded and ground smooth joints and corners of the frame at the intersecting faces of the sections. Externally welded face joints at meeting mullions or between mullions and other frame members on the face surfaces only.

a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
b. American Gypsum Co. Core: [1/2 inch (12.7 mm), regular type] [5/8 inch (15.9 mm), Type X]. b. Performance: Rating of 10 per ASTM D3273. Acceptable Product: M-Bloc with Mold and Moisture Resistance

4. Trim Accessories
Interior Trim: ASTM C 1047. 1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel sheet.
a. Shapes:
i. L-Bead: L-shaped; exposed long flange receives joint compound.
ii. U-Bead: J-shaped; exposed short flange does not receive joint compound. Expansion (control). Install straight a true. Miter intersections of control joints

5. Aluminum Trim:
Extruded accessories of profiles and dimensions indicated.
a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
i. Fry Reglet Corp.
ii. Gordon, Inc.
iii. Pittcon Industries.
c. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221/B221M, Alloy 6063-T5. 4. Finish: Corrosion-resistant primer compatible with joint compound and finish materials specified.

6. Joint Treatment Materials
a. General: Comply with ASTM C 475/C 475M.
i. Joint Tape:
1. Interior Gypsum Wallboard: Paper.
2. Exterior Gypsum Soffit Board: Paper.
3. Tile Backing Panels: As recommended by panel manufacturer.
b. Joint Compound for Interior Gypsum Wallboard:
i. For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
ii. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
iii. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use drying-type or setting-type taping compound.
iv. Use drying-type or setting-type compound for installing paper-faced metal trim accessories.
1. Fill Coat: For second coat, use drying-type or setting-type, sandable topping compound.
2. Finish Coat: For third coat, use drying-type or setting-type, sandable topping compound.

g. Ship frame assemblies to the jobsite completely welded. Field joints will be permitted only with the size of the total assemblyexceeds shipping limitations.
h. Field splice joins will be permitted when the fabricated frame assemblies if large openings are subject to shipping limitations. Oversized frames will be fabricated in sections designated for splicing in the field. Frames to be provided with joint reinforcements 14 gauge, 8" long. Field weld joint reinforcement inside and tack weld outside joint at both faces, grind, and finish smooth and uniform in appearance, after installation.
i. Pierced and dimpled glazing beads for use with manufacturers' standard fasteners.
j. Provide necessary anchors for jambs, heads, and sills of .
i. Verification of field dimensions as required. Frame fabrication will not begin until these dimensions have been verified, submitted, and approved.

4. Fabrication
a. Face Welded Frames:
i. Continuous face weld the joint between the head and jamb faces along their length either internally or externally. Grind, primepaint, and finish smooth face joints with no visible face seams.
ii. Externally weld, grind, prime paint, and finish smooth face joints at meeting mullions or between mullions and other frame members as per ANSI/SDI A250.8 – 2003.
iii. Provide two temporary steel spreaders (welded to the jambs at each rabbet of door openings) on welded frames during shipment. Remove temporary steel spreaders prior to installation of the frame.

5. Finish
a. Doors, frames and frame components are required to be cleaned, , and finished with one coat of baked-on rust-inhibiting prime paint in accordance with the ANSI/SDI "Test Procedures and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames."

PART 3 EXECUTION

Examination

1. Installation
a. Install doors and frames in accordance with Steel Door Institute's recommended erection instructions for steel frames ANSI A250.11.
b. Install label doors and frames in accordance with NFPA-80.
c. Remove temporary steel spreaders prior to installation of frames.
d. Set frames accurately in position; plumb, align and brace until permanent anchors are set. After wall construction is complete, remove temporary wood spreaders.
i. Field splice only at approved locations indicated on the shop drawings. Weld, grind, and finish as required to conceal evidence of splicing on exposed faces.
e. Provide full height 3/8" to 1 1/2" strip of polystyrene insulation at frames requiring grouting where continuous hinges are specified. Apply the strip to the back of the frame, where the hinge is to be installed, to allow for field drilling or tapping.
f. Where grouting is required in masonry, provide and install temporary bottom and intermediate wood spreaders to maintain proper width and avoid bowing or deforming of frame members. Refer to ANSI A250.11-2012, Standard.

3. Skim Coat: For final coat of Level 5 finish, use drying-type or setting-type, sandable topping compound.

7. Joint Compound for Exterior Applications:
a. Exterior Gypsum Soffit Board: Use setting-type taping compound and setting-type, sandable compound.

8. Joint Compound for Tile Backing Panels:
a. Water-Resistant Gypsum

Ancillary Materials

1. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
2. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
a. Use adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
3. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
a. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch (0.84 to 2.84 mm) thick.
b. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer

PART 3 EXECUTION

Examination

1. Examine areas and substrates, with Installer present, and including welded hollow-metal frames and framing, for compliance with requirements and other conditions affecting performance.
2. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
3. Proceed with installation only after unsatisfactory conditions have been corrected.

Applying and Finishing Panels

1. Comply with ASTM C 840, GA-216 or GA-214.
2. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
3. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.
4. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
5. Form control and expansion joint with space between edges of adjoining gypsum panels
6. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
a. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. (0.7 sq. m) in area.
b. Fit gypsum panels around ducts, pipes, and conduits.

i. Hollow Metal Frames to receive grouting comply with ANSI/SDI Standard A250.8.2003, 4.2.2, whereby grout will be mixed to provide a 4" maximum slump consistency and hand troweled into place. Do not use grout mixed to a thinner, pumpable consistency is not recommended and not be used. Refer to HMMA 820 TN01-Grouting Hollow Metal Frames
g. Provide a vertical wood brace during grouting of frame at openings over 4 ´0" wider, to prevent sagging of frame header.
h. Apply hardware in accordance with hardware manufacturers' instructions and Section 08710 FINISH HARDWARE of these Specifications. Install all hardware with only factory provided fasteners. Adjust door installation to provide uniform clearance at head and jambs, to achieve maximum operational effectiveness and appearance.

2. Adjusting
a. Final Adjustments: Adjust operating doors and hardware items just prior to final inspection and acceptance by the Owner and Architect. Leave work in complete and proper operating condition. Remove and replace defective work, including doors or frames that are damaged, bowed or otherwise unacceptable.
b. Prime Coat Touch-Up: Immediately after erection, sand smooth any rusted or damaged areas of prime coat, and apply touch-up of compatible air-drying primer.

3. Protection
a. Provide protective measures required throughout the construction period to ensure

09 29 00 GYPSUM WALL BOARD

PART GENERAL

General

1. PROJECT CONDITIONS A. Environmental Limitations: Comply with ASTM C 840 or GA-216 requirements, whichever are more stringent. B. Do not install interior products until installation areas are enclosed and conditioned. C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
a. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape. 2. Indications that panels are mold dam

PART 2 PRODUCTS

Interior Gypsum Wall Board

1. Type 'X' (General Use)
a. Thickness: 5/8 inch (15.9 mm).
b. Long Edges: Tapered.
2. Moisture and Mold-Resistant - Type X: With moisture and mold-resistant core and surfaces.
a. Complying with ASTM C 1396/C1396M as applicable to type of gypsum board indicated.
i. Core: 5/8 inch (15.9 mm).
ii. Long Edges: Tapered.
iii. Performance: Rating of 10 per ASTM D3273. d. Acceptable Product: M-Bloc Type X with Mold and Moisture Resistance
3. Tile Backing Panels
Water-Resistant Gypsum Backing Board: ASTM C1396/C1396M

c. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4 to 3/8 inch (6 to 9 mm) wide joints to install sealant.
7. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4 to ½ inch wide spaces at these locations, and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
8. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
9. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members, or provide control joints to counteract wood shrinkage.
10. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
11. Install sound attenuation blankets before installing gypsum panels, unless blankets are readily installed after panels have been installed on one side.

Applying Interior Gypsum Wall Board in the following locations:

1. Type X: Where required for fire-resistance-rated assembly.
2. Moisture-and Mold-Resistant Type: Restrooms and Kitchens

Single-Layer Application:

1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing, unless otherwise indicated.
2. On partitions/walls, apply gypsum panels vertically (parallel to framing), unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
b. At stairwells and other high walls, install panels horizontally, unless otherwise indicated or required by fire-resistance-rated assembly.
3. On furring members, apply gypsum panels vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.
4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

Multilayer Application:

1. On ceilings, apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints 1 framing member, 16 inches (400 mm) minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly.
2. On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.10

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

3. On furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.
4. Fastening Methods: Fasten base layers and face layers separately to supports with screws.
5. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board written recommendations and temporarily brace or fasten gypsum panels until fastening adhesive has set.

Applying Exterior Gypsum Panels for Ceilings and Soffits

1. Apply panels perpendicular to supports, with end joints staggered and located over supports.
   a. Install with 1/4-inch (6.4 mm) open space where panels abut other construction or structural penetrations.
   b. Fasten with corrosion-resistant screws.

Water-Resistant Gypsum Backing Board:

1. Install at showers, tubs, and where indicated. Install with 1/4 inch (6.4 mm) gap B. where panels abut other construction or penetrations.

Areas Not Subject to Wetting:

1. Install regular-type (or type X where required by code) gypsum wallboard panels to produce a flat surface except at showers, tubs, and other locations indicated to receive water-resistant panels.

Installing Trim Accessories

1. General:
   a. For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
2. Control Joints:
   a. Install control joints at locations indicated on Drawings and if not shown, according to ASTM C 840 or GA-216 and in specific locations approved by Architect for visual effect.
3. Interior Trim:
   a. Install in the following locations:
      i. Cornerbead: Use at outside corners, unless otherwise indicated.
      ii. LC-Bead: Use at exposed panel edges.
4. Exterior Trim:
   a. Install in the following locations:
      i. Cornerbead: Use at outside corners.
      ii. LC-Bead: Use at exposed panel edges.
5. Aluminum Trim:
   a. Install in locations indicated on Drawings

Finishing Gypsum Board

1. General:
   a. Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
2. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840, GA216 or GA-214:

   a. Locations to receive Level 0 finish (no taping, finishing, or accessories required): Non-fire-rated , non-sound-rated, and non-smoke-rated assemblies in ceiling plenums and concealed areas, and in temporary construction
   b. Locations to receive Level 1 finish (all joints and interior angles shall have tape set in joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable): Fire rated, sound rated, and smoke rated assemblies in plenum areas above ceilings, in attics, and in areas where the assembly would generally be concealed.
   c. Locations to receive Level 2 finish (all joints and interior angles shall have tape embedded in joint compound and wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. Fastener heads and accessories shall be covered with a coat of joint compound): Surfaces to receive moisture resistant gypsum board as a surfacing.Z
   d. Locations to receive Level 3 finish (all joints and interior angles shall have tape embedded in joint compound and one additional coat of joint compound applied over all joints and interior angles. Fastener heads and accessories shall be covered with two separate coats of joint compound): Areas which are to receive heavy or medium-texture (spray or hand applied) before final painting, or where heavy-grade wall coverings are to be applied as the final decoration. This level of finish is not recommended where smooth painted surfaces or light to medium wall coverings are specified.
   e. Locations to receive Level 4 finish (all joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints): All flat and eggshell paints, light textures, or wall coverings.
   f. Locations to receive Level 5 finish (all joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints. A thin skim coat of joint compound trowel applied, or a material manufactured especially for this purpose and applied in accordance with manufacturer's recommendations, shall be applied to the entire surface. The surface shall be smooth and free of tool marks and ridges): Gloss or semi-gloss paints, and areas where severe lighting conditions occur.

09 50 00 ACOUSTICAL CEILINGS

PART 1 GENERAL

References

American Society for Testing and Materials (ASTM):
ASTM A 1008 Standard Specification for Steel, Sheet, Cold Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability
ASTM A 641 Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
ASTM A 653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process
ASTM C 423 Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
ASTM C 635 Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings
ASTM C 636 Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels

ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
ASTM E 119 Standard Test Methods for Fire Tests of Building Construction and Material Armstrong Fire Guard Products
ASTM E 580 Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint
ASTM E 1111 Standard Test Method for Measuring the Interzone Attenuation of Ceilings Systems
ASTM E 1414 Standard Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum
ASTM E 1264 Classification for Acoustical Ceiling Products

Quality Assurance

1. Single-Source Responsibility: Provide acoustical panel units and grid components by a single manufacturer.
   a. Fire Performance Characteristics: Identify acoustical ceiling components with appropriate markings of applicable testing and inspecting organization.
   b. Surface Burning Characteristics: As follows, tested per ASTM E 84 and complying with ASTM E 1264 Classification.
   c. Fire Resistance: As follows tested per ASTM E119 and listed in the appropriate floor or roof design in the Underwriters Laboratories Fire Resistance Directory
2. Acoustical Panels: As with other architectural features located at the ceiling, may obstruct or skew the planned fire sprinkler water distribution pattern through possibly delay or accelerate the activation of the sprinkler or fire detection systems by channeling heat from a fire either toward or away from the device. Designers and installers are advised to consult a fire protection engineer, NFPA 13, or their local codes for guidance where automatic fire detection and suppression systems are present.

Delivery Storage and Handling

1. Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
2. Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content.
3. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.
4. Coordination of Work: Coordinate acoustical ceiling work with installers of related work including, but not limited to building insulation, gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.

Warranty

1. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace panels that fail within the warranty period. Failures include, but are not limited to the following:
   a. Acoustical Panels: Sagging and warping
   b. Grid System: Rusting and manufacturer's defect
2. Warranty Period
   a. Acoustical panels: One (1) year from date of substantial completion
   b. Grid: One (1) year from date of substantial completion
3. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and runconcurrent with

other warranties made by the Contractor under the requirements of the Contract Documents.

Maintenance

1. Extra Materials: Deliver extra materials to Owner. Furnish extra materials described below that match products installed. Packaged with protective covering for storage and identified with appropriate labels.
   a. Acoustical Ceiling Units: Furnish quality of full-size units equal to 5.0 percent of amount installed.
   b. Exposed Suspension System Components: Furnish quantity of each exposed suspension component equal to 2.0 percent of amount installed.

PART 2 PRODUCT

Manufacturers

1. Ceiling Panels:
   a. Armstrong World Industries, Inc.
2. Suspension Systems:
   a. Armstrong World Industries, Inc.
3. Perimeter Tim System
   a. Armstrong World Industries

Armstrong World Industries, Inc.

1. Acoustical Ceiling Units
   a. Surface Texture: Smooth Texture
   b. Composition: Mineral Fiber
   c. Color: White
   d. Size: 24 in x 24 in, 24 in x 48 in
   e. Edge Profile: Square Lay-in
   f. Ceiling Attenuation Class (CAC): ASTM E1414/E1414M; Classified with UL label on product carton: 33
   g. Flame Spread: ASTM E 1264; Class A
   h. Light Reflectance (LR) White Panel: ASTM E 1477; 0.89
   i. Stability: HumiGuard Plus
   j. Recycle Content: Up to 36% total recycled content. (Total recycled content: pre-consumer, post-consumer and post-industrial)
   k. Material Ingredient Transparency: Health Product Declaration (HPD); Declare Label
   l. Life Cycle Assessment: Third Party Certified Environmental Product Declaration (EPD)
   m. Indoor Air Quality Certified to SCS-105 v4.2-2023
   n. Basis of Design: KITCHEN ZONE, item number _____, as manufactured by Armstrong World Industries, Inc.

Installation

1. Follow manufacturer installation instructions.
2. Install suspension system and panels in accordance with the manufacturer's instructions, and in compliance with ASTM C 636 and with the authorities having jurisdiction.
3. Suspend main beam from overhead construction with hanger wires spaced 4-0 on center along the length of the main runner. Install hanger wires plumb and straight.
4. Install wall moldings at intersection of suspended ceiling and vertical surfaces. Miter corners where wall moldings intersect or install corner caps.

5. For reveal edge panels: Cut and reveal or rabbet edges of ceiling panels at border areas and vertical surfaces.
6. Install acoustical panels in coordination with suspended system, with edges resting on flanges of main runner and cross tees. Cut and fit panels neatly against abutting surfaces. Support edges by wall moldings.

Adjusting and Cleaning

1. Replace damaged and broken panels.
2. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage. Remove any ceiling products that cannot be successfully cleaned and or repaired. Replace with attic stock or new product to eliminate evidence of damage.
3. Before disposing of ceilings, contact the Armstrong Recycling Center at 877-276-7876, select option #1 then #8 to review with a consultant the condition and location of building where the ceilings will be removed. The consultant will verify the condition of the material and that it meets the Armstrong requirements for recycling. The Armstrong consultant with provide assistance to facilitate the recycle of the ceiling

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PUYALLUP, WA 98371

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

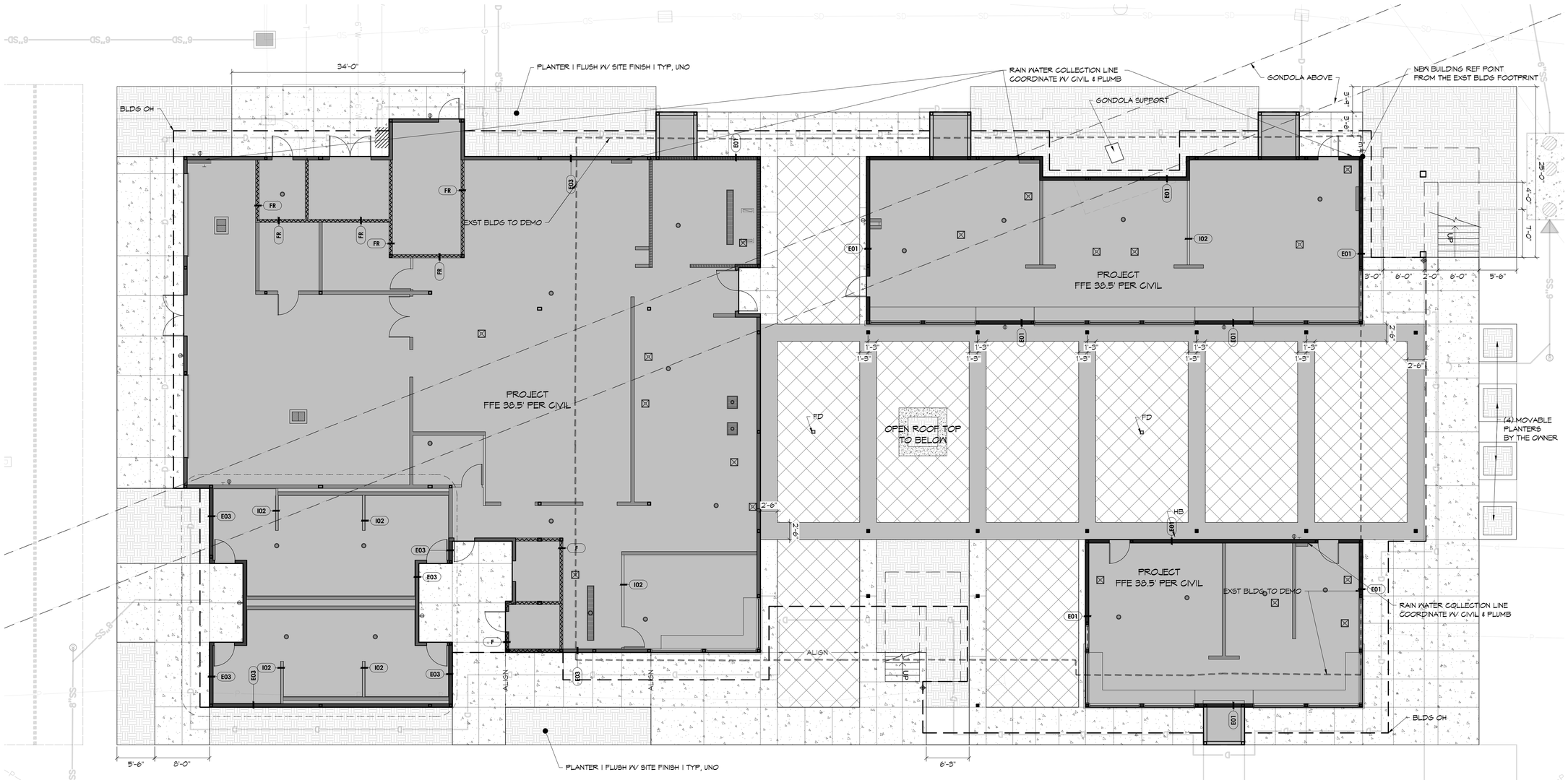
DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
SPECIFICATIONS

SHEET #
A0.11

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



HATCHING LEGEND & NOTES

- 4" CONC, FIELD
- 4" CONC, ACCENT #1
- 4" CONC, ACCENT #2

GENERAL NOTES

SEE CIVIL DRAWINGS FOR.
DEMOLITION | GRADING UNDERGROUND UTILITY
(STORM, SANITARY, GAS, AND WATER) |
FOOTING DRAINS | GREASE INTERCEPTOR
SEE PLUMBING DRAWINGS FOR
DRAIN | HOSE BIB
SEE ELECTRICAL DRAWINGS FOR
ELEC OUTLETS

SITE PLAN

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE

SITE PLAN

SHEET #

A1.1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

CALL TWO BUSINESS DAYS BEFORE YOU DIG
1-800-424-5555
UTILITIES UNDERGROUND LOCATION CENTER

Owner/Developer:
Washington State Fair
110 9th Ave SW
Puyallup, WA 98371
(253) 841-5356

Architect:
Jeff Brown Architecture
12181 C Street South
Tacoma, WA 98444
(253) 606- 8324
Contact: Jeff Brown

Engineer:
Justin Jones, PE
905 Main St. Suite 200
Sumner, WA 98390
(206) 596-2020

Project:
Washington State Fair
International Village
Redevelopment

ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Civil Construction Permit

JUSTIN M. JONES
STATE OF WASHINGTON
41829
REGISTERED
PROFESSIONAL ENGINEER
10-04-24

REV	DATE	DESCRIPTION
1	09-20-24	City Comment Cycle #1
2	10-04-24	City Comment Cycle #2

DRAWN BY: MO	DESIGN BY: JJ
PROJ.NO:	1507-014
DATE:	October 4, 2024

SHEET NAME
WSF Map

REFERENCE

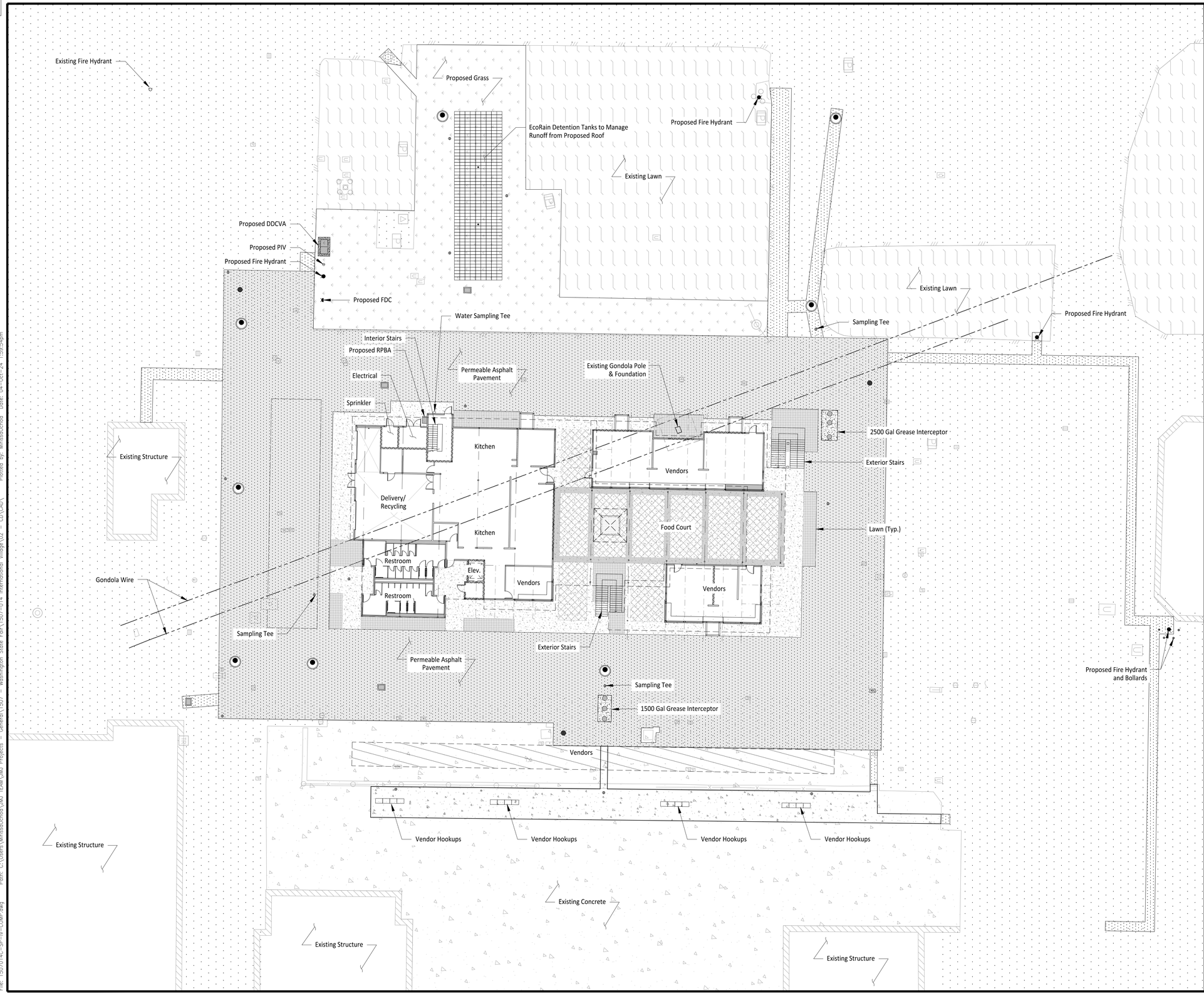
DWG.
C1-101

5 OF 39

File: 1507014C-SP-FAIR.dwg Path: C:\Users\MrissaOchoa\JMJ TEAM\JMJ Projects - General\1507 - Washington State Fair\1507-014 International Village\02 - CD\CAD\ Plotted by: MrissaOchoa Date: 04-Oct-24 1:59:43pm

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



LEGEND

- Existing Lawn
- Existing Aspahlt
- Existing Concrete
- Proposed Concrete
- Proposed Permeable Asphalt
- Proposed Asphalt
- Proposed Grass
- Existing Catch Basin
- Existing Fire Hydrant
- Proposed Manhole
- Proposed Catch Basin
- Proposed FDC
- Proposed Fire Hydrant
- Proposed Vendor Hookups
- Proposed Grease Interceptor
- Proposed Double Check Valve Assembly

0 20 40 FEET
1" = 20'

APPROVED

BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING

DATE _____

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International Village
Redevelopment

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IF NOT, SCALE ACCORDINGLY

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10-04-24

REV	DATE	DESCRIPTION
1	09-20-24	City Comment Cycle #1
2	10-04-24	City Comment Cycle #2

DRAWN BY: MO | DESIGN BY: JJ
PROJ.NO: 1507-014
DATE: October 4, 2024

SHEET NAME
Composite Site Plan

REFERENCE

DWG.
C1-102
6 OF 39

Plotted by: MirissaOchoa Date: 04-Oct-24 1:59:54pm
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City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

MAIN FLOOR PLAN

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

HATCHING LEGEND & NOTES

- E01: EXTERIOR WALL, 6" STEEL STUD @ 16" OC W/ R-21 BATT + R-10 RIGID INSULATION SEE A4.2 (SATELLITE KITCHEN)
- E02: EXTERIOR WALL, 6" STEEL STUD @ 16" OC W/ R-21 BATT + R-4 RIGID; SEE A4.2 (RM 120 & 119)
- E03: EXTERIOR WALL, 6" STEEL STUD @ 16" OC W/ R-21 INSULATION SEE 1/A4.1 (TYP, UNO)
- FR: 1 HR FIRE-RATED WALL | TYP, UNO ON PLAN | SEE A4.2
- I01: INTERIOR 6" STUD WALL | TYP, UNO (@ MAIN FLOOR)
- I02: INTERIOR 4" STUD WALL | NOTED ON A2.1
- INT CONC STEM WALL (6" ABV FF., SEE A4.1)

HANDRAILS AND GUARDRAILS NOTES - ALSO REFER GO.1

HANDRAIL
- MEASURED ABV STAIR TREAD NOSINGS, SHALL BE UNIFORM, NOT LESS THAN 34" AND NOT MORE THAN 38"
- GRASPABILITY PER IBC 1014.3
- CONTINUOUS HANDRAIL SHALL EXTEND HORIZONTALLY NOT LESS THAN 12" BEYOND THE TOP AND BOTTOM RISER

GUARDRAIL
- NOT LESS THAN 42", MEASURED VERTICALLY FROM THE LEADING EDGES OF THE TREAD NOSING
- SHALL NOT HAVE OPNG THAT ALLOW PASSAGE OF A SPHERE 4" IN Ø
- TRIANGULAR OPNG AT THE OPEN SIDE OF A STAIR, SHALL NOT ALLOW PASSAGE OF A SPHERE 6" IN Ø

STAIRS NOTE ALSO REFER GO.1

STAIRS
- PROVIDE MIN 1 FOOTCANDLE ILLUMINATION

GENERAL NOTES

SEE A1.1 FOR SITE HARDSCAPE & LANDSAPE DESIGN
ALL EXT & INT WALL TO BE 6" STEEL STUD, UNO
ALL EXT WALL TO HAVE 6" STEM WALL ABV FINISHED FLOOR
SEE CMA RESTAURANT SUPPLY & DESIGN DRAWINGS FOR KITCHEN DESIGN, SPECIFICALLY ROOM # 101, 102, 103, 106, 107, AND 110.
SEE SUE GENTY INTERIOR DESIGN INC. DRAWINGS FOR INTERIOR DESIGN INCLUDING SEATING ARRANGEMENT, BATHROOM DESIGN, AND ADDITIONAL ADA COMPLIANCE

SEE MIDDLEBROOK ENGINEERING, LLC FOR MECHANICAL & PLUMBING DRAWINGS
SEE CROSS ENGINEERING, INC FOR ELECTRICAL DRAWINGS

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

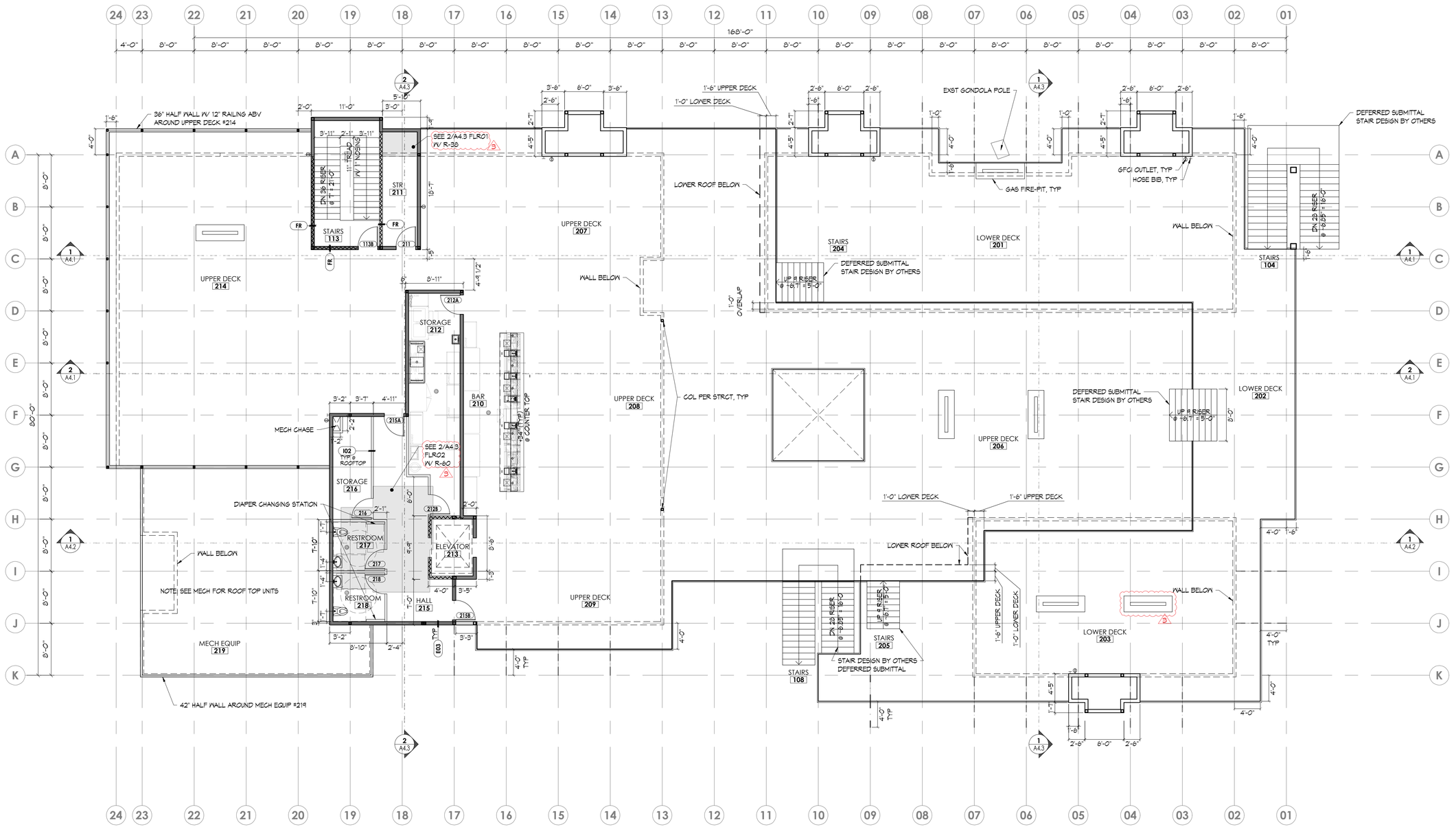
DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	1
09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE
MAIN FLOOR PLAN

SHEET #
A2.11

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



ROOFTOP PLAN

(11X17) SCALE: 1/16" = 1'-0"
(22X34) SCALE: 1/8" = 1'-0"

HATCHING LEGEND & NOTES

3 EO3: EXTERIOR WALL, 6" STEEL STUD @ 16" OC W/ R-21 INSULATION SEE A4.1 (TYP, UNO)

1 HR FIRE-RATED WALL | TYP, UNO ON PLAN, SEE A4.2

INTERIOR 4" STUD WALL, TYP @ ROOF TOP LEVEL

3 FLOOR INSULATION | SEE A4.3

HANDRAILS AND GUARDRAILS NOTES - ALSO REFER GO.1

HANDRAIL
- MEASURED ABV STAIR TREAD NOSINGS, SHALL BE UNIFORM, NOT LESS THAN 34" AND NOT MORE THAN 38"
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- CONTINUOUS HANDRAIL SHALL EXTEND HORIZONTALLY NOT LESS THAN 12" BEYOND THE TOP AND BOTTOM RISER

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STAIRS NOTE ALSO REFER GO.1

STAIRS
- PROVIDE MIN 1 FOOTCANDLE ILLUMINATION

GENERAL NOTES

ALL EXT & INT WALL TO BE 6" STEEL STUD, UNO
SEE CMA RESTAURANT SUPPLY & DESIGN DRAWINGS FOR KITCHEN DESIGN, SPECIFICALLY ROOM # 210.
SEE SUE GENTY INTERIOR DESIGN INC. DRAWINGS FOR INTERIOR DESIGN INCLUDING SEATING ARRANGEMENT, BATHROOM DESIGN, AND ADDITIONAL ADA COMPLIANCE
SEE MIDDLEBROOK ENGINEERING, LLC FOR MECHANICAL & PLUMBING DRAWINGS
SEE CROSS ENGINEERING, INC FOR ELECTRICAL DRAWINGS

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DRAWING TYPE

CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE

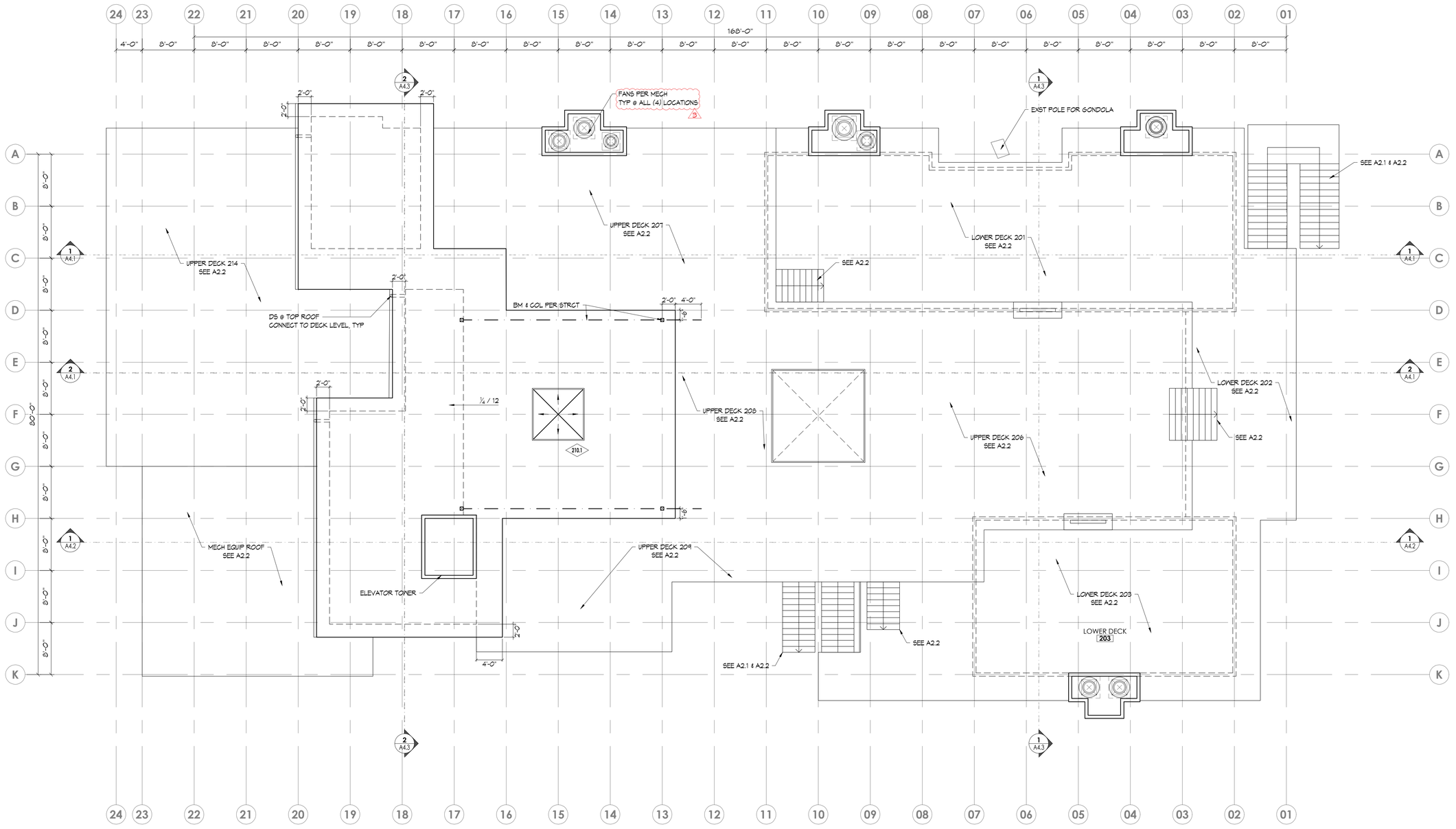
ROOFTOP PLAN

SHEET #

A2.12

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



ROOF PLAN

(11X17) SCALE : 1/16: = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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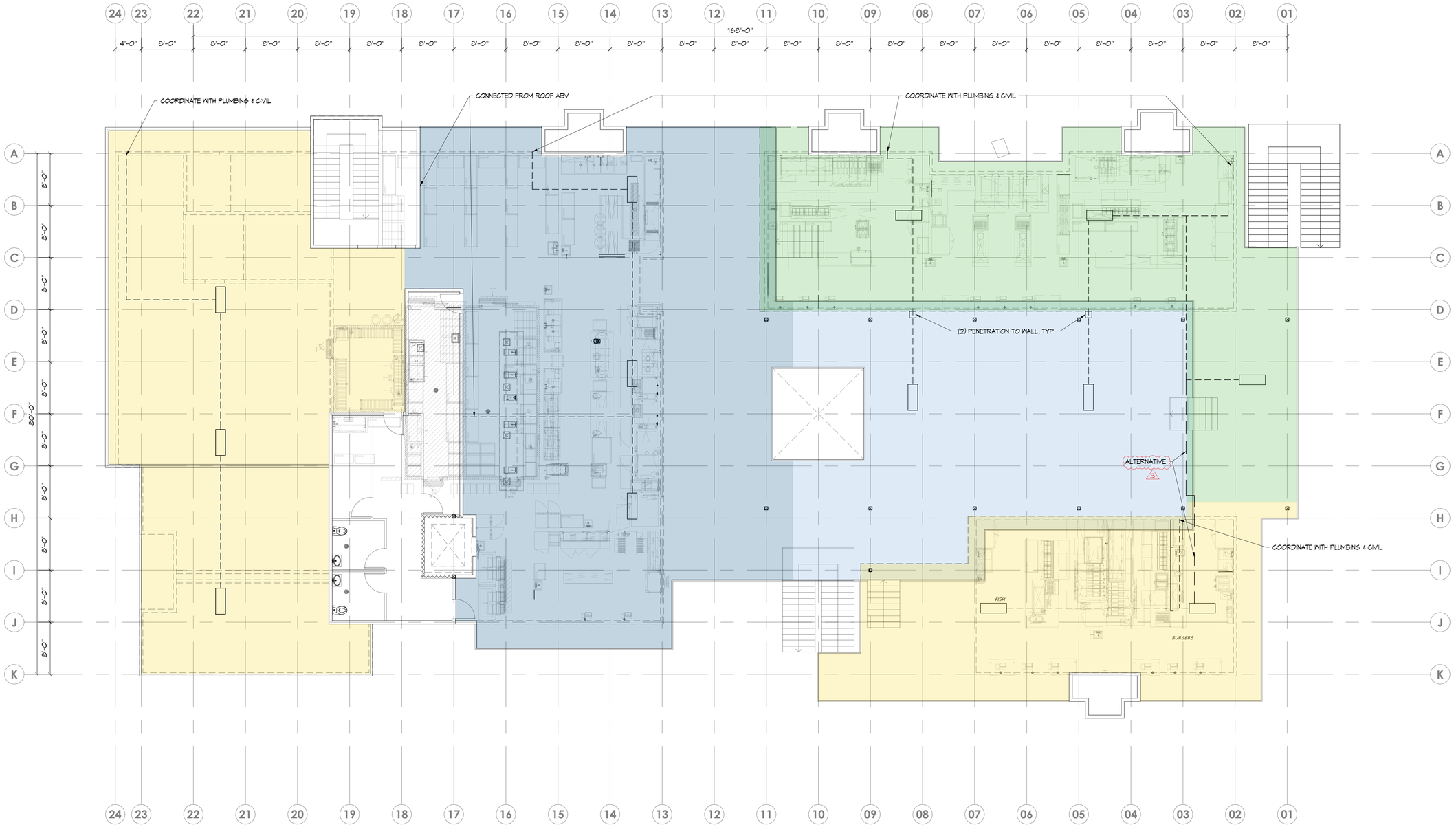
09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE
ROOF PLAN

SHEET #
A2.13

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



LOWER ROOFTOP DRAINAGE DIAGRAM

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

JEFF BROWN ARCHITECTURE

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TACOMA, WA 98444

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STATE OF WASHINGTON

PROJECT NAME/ADDRESS

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PUYALLUP, WA 98371

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PROJECT NUMBER
23002

DRAWING TYPE

CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE

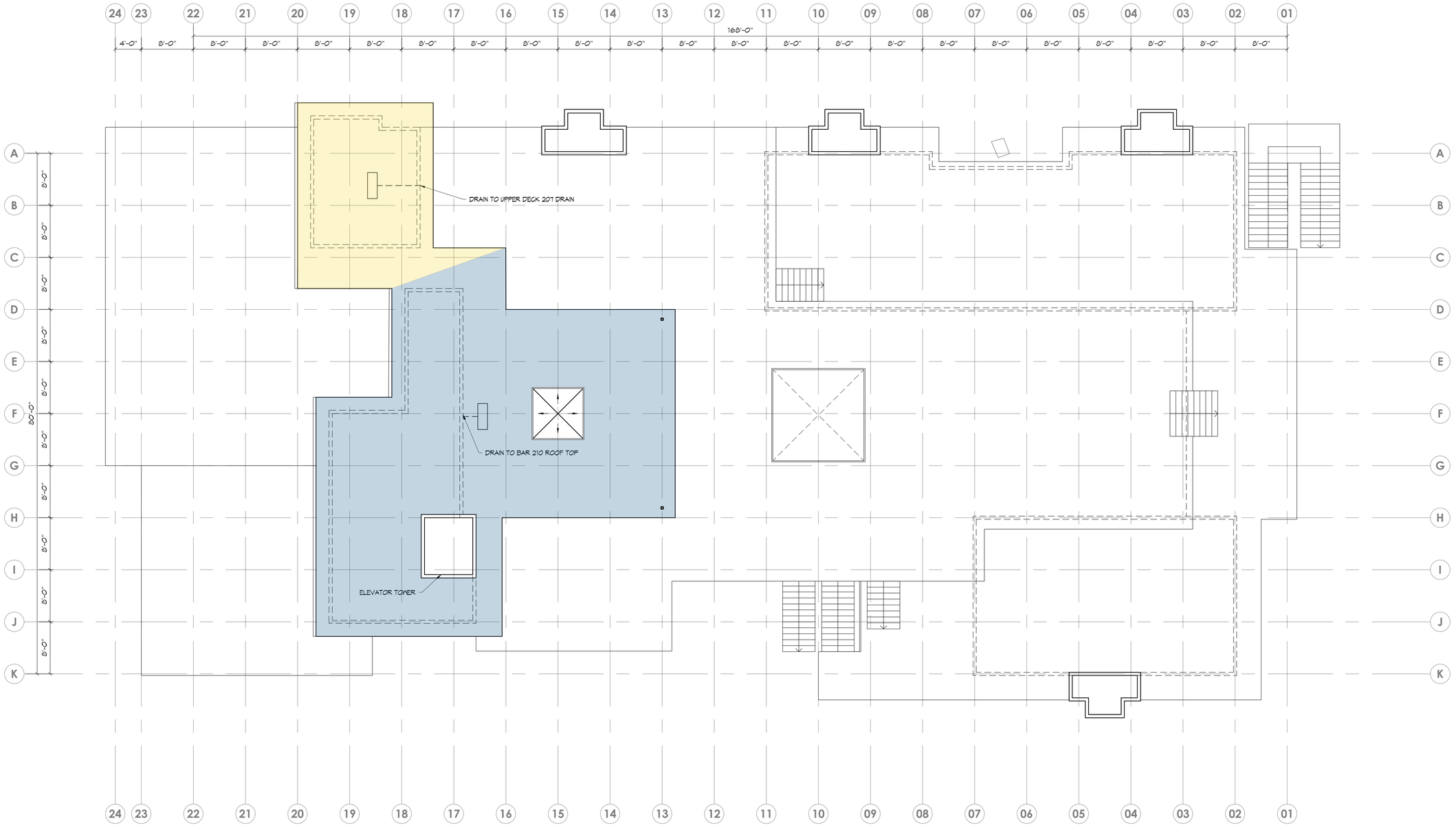
ROOFTOP DECK DRAINAGE DIAGRAM

SHEET #

A2.14

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



UPPER ROOFTOP DRAINAGE DIAGRAM

(11X17) SCALE : 1/16: = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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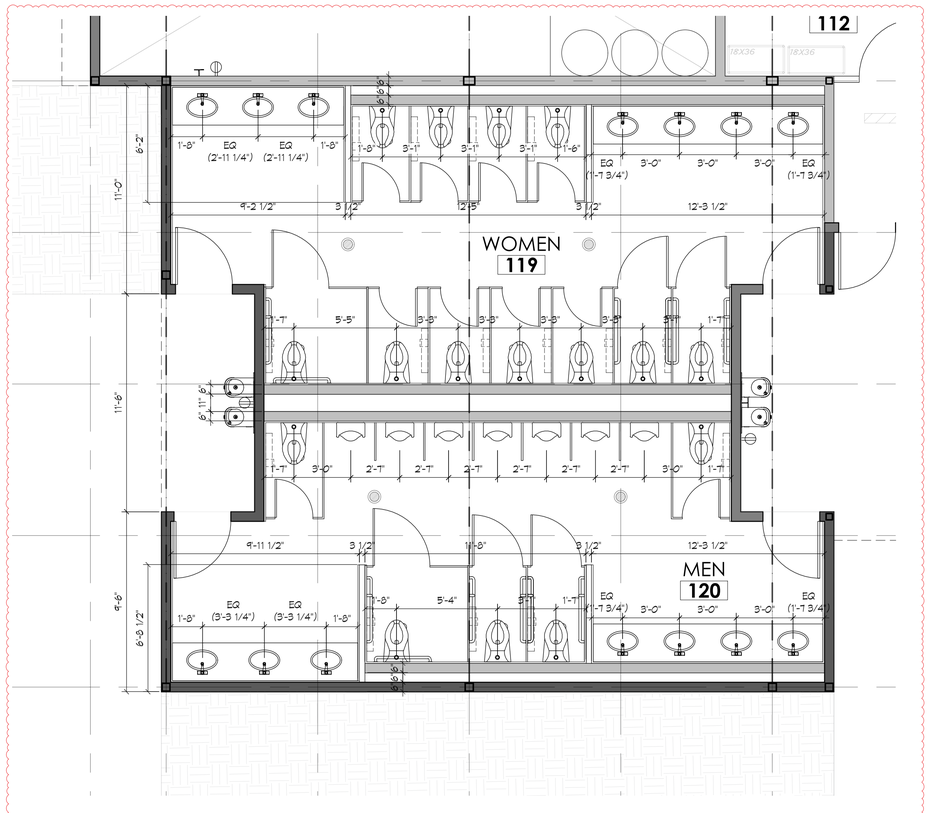
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
UPPER ROOF DRAINAGE DIAGRAM

SHEET #
A2.15

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



DIMENSION PLAN - BATHROOM

(11X17) SCALE : 1/8" = 1'-0"
(22X34) SCALE : 1/4" = 1'-0"

3

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09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE

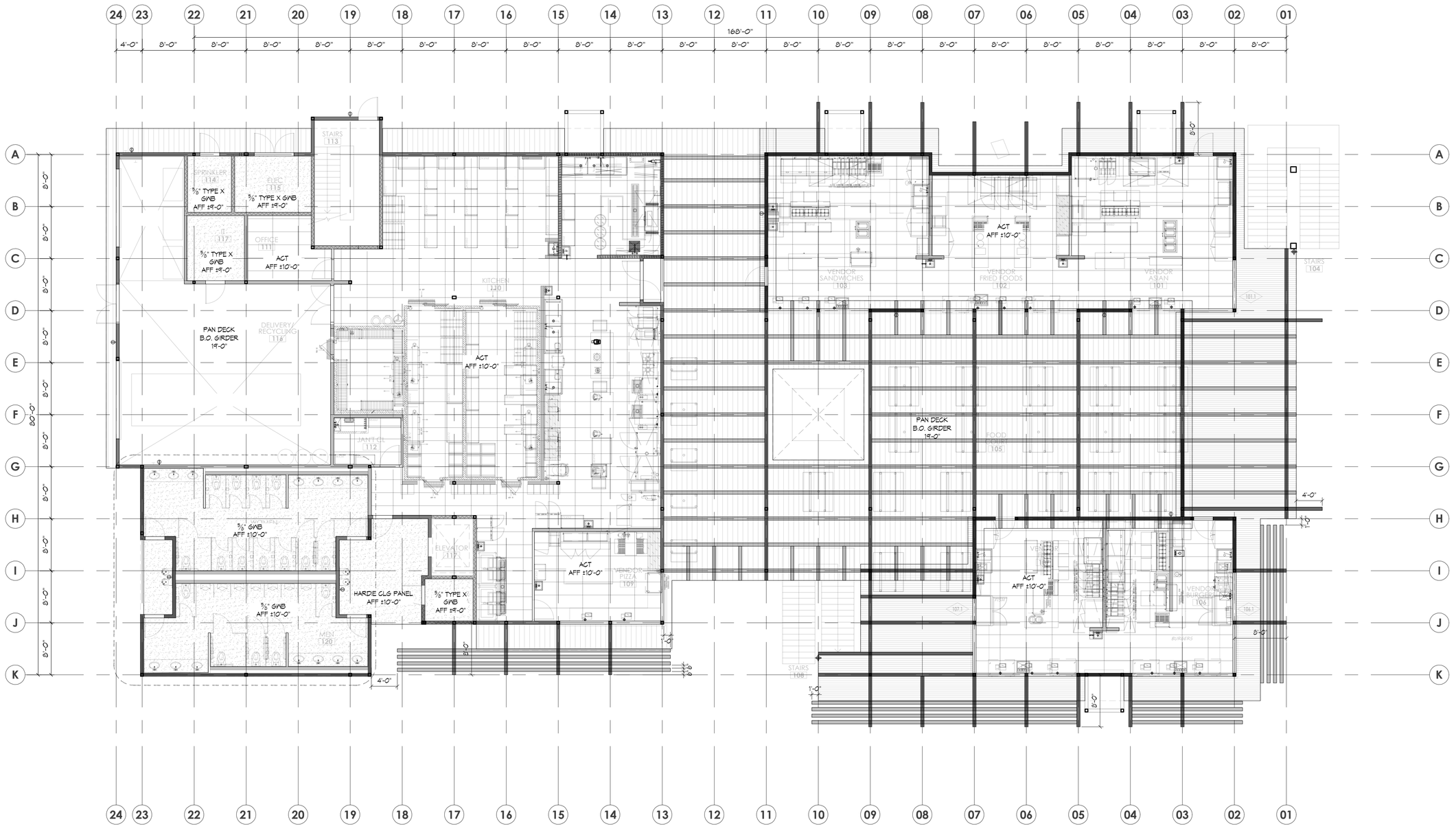
DIMENSION PLAN

SHEET #

A2.16

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



MAIN FLOOR LIGHTING & RCP

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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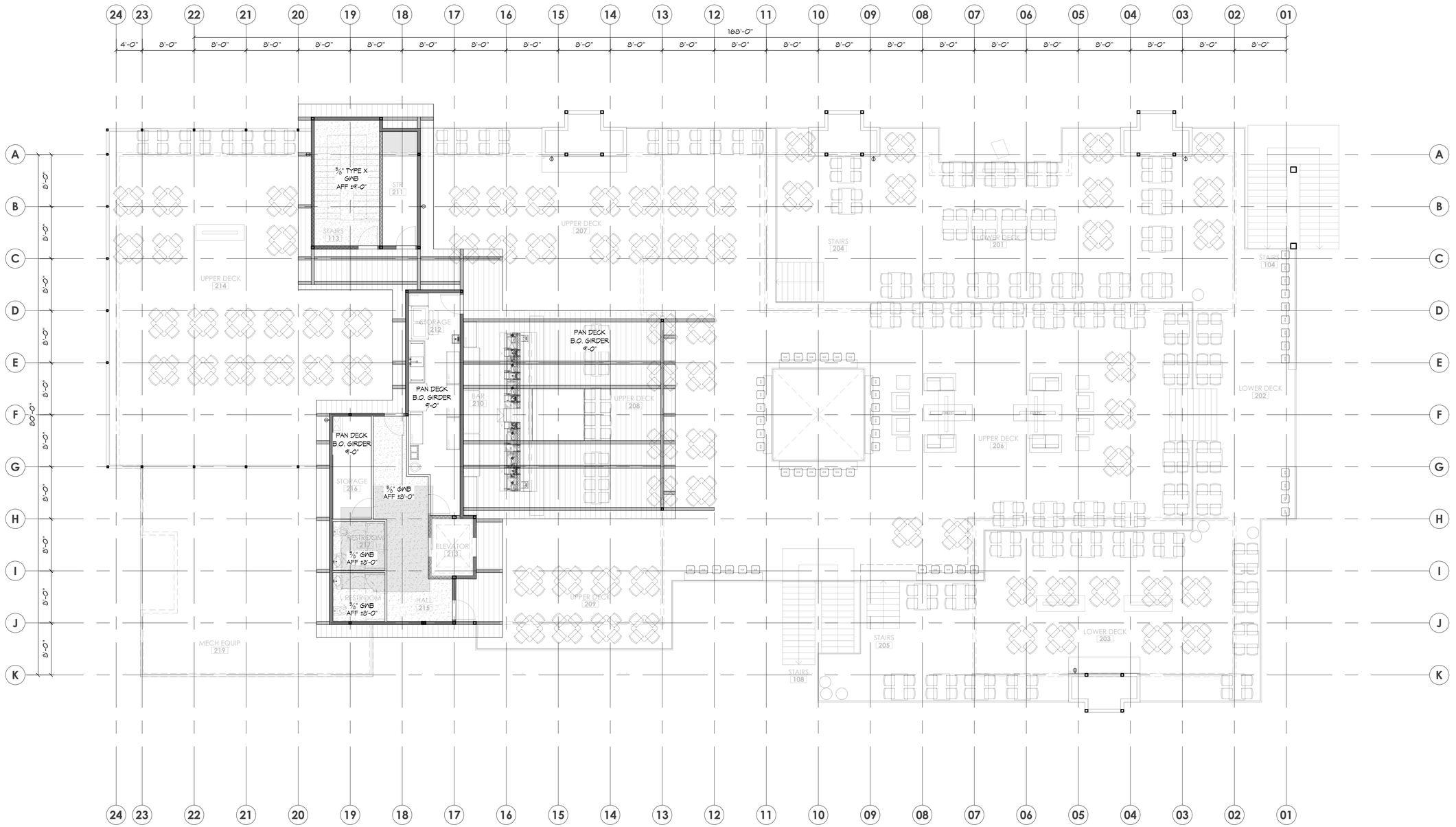
10.15.24	IFC	

SHEET TITLE
MAIN FLOOR LIGHTING & RCP

SHEET #
A2.21

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



ROOF TOP LIGHTING & RCP PLAN

(11X17) SCALE: 1/16" = 1'-0"
(22X34) SCALE: 1/8" = 1'-0"

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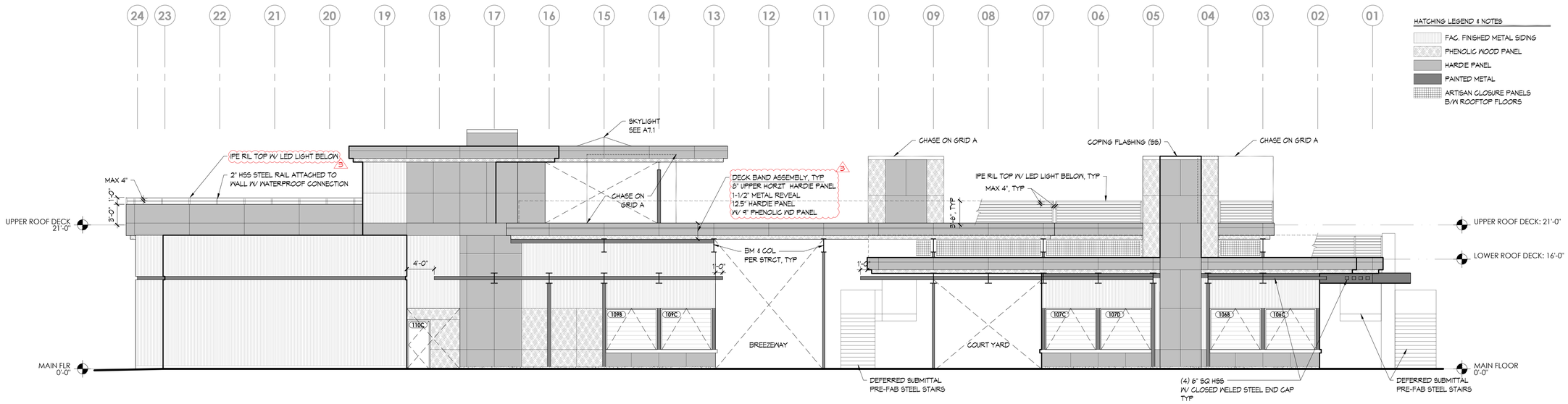
10.15.24	IFC	

SHEET TITLE
ROOF TOP LIGHTING & RCP

SHEET #
A2.22

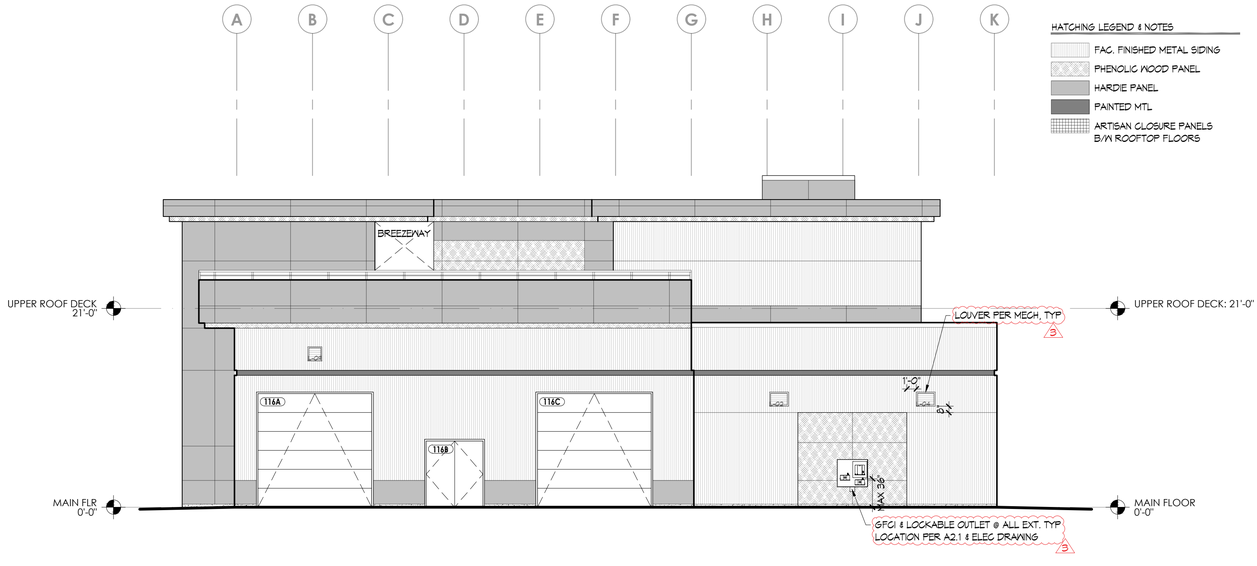
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



1 EAST ELEVATION

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"



2 NORTH ELEVATION

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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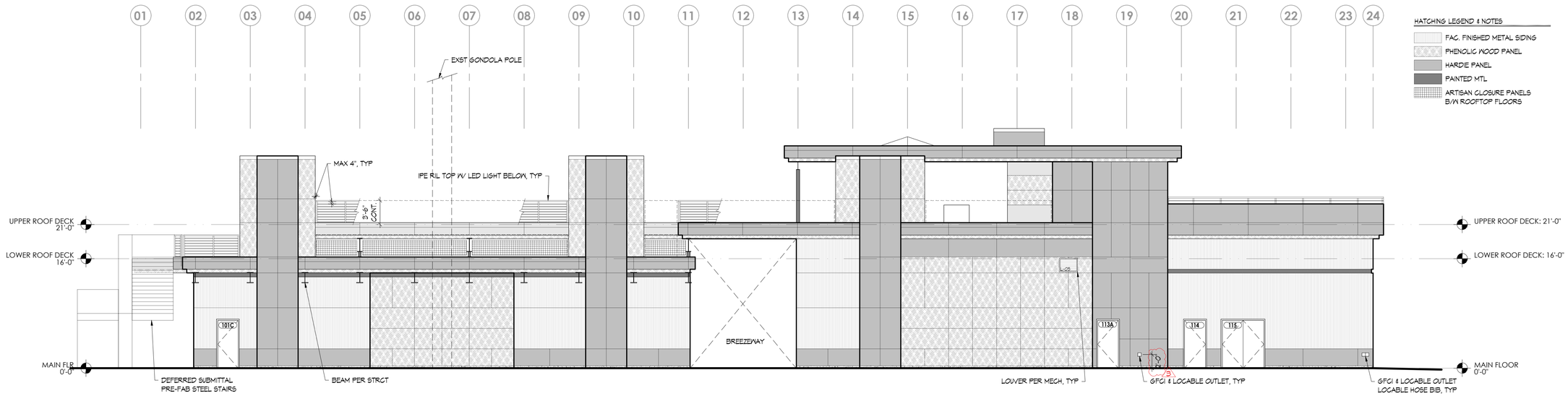
09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE
BUILDING ELEVATIONS

SHEET #
A3.1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



HATCHING LEGEND & NOTES

- FAC. FINISHED METAL SIDING
- PHENOLIC WOOD PANEL
- HARDIE PANEL
- PAINTED MTL
- ARTISAN CLOSURE PANELS B/W ROOFTOP FLOORS

1 WEST ELEVATION

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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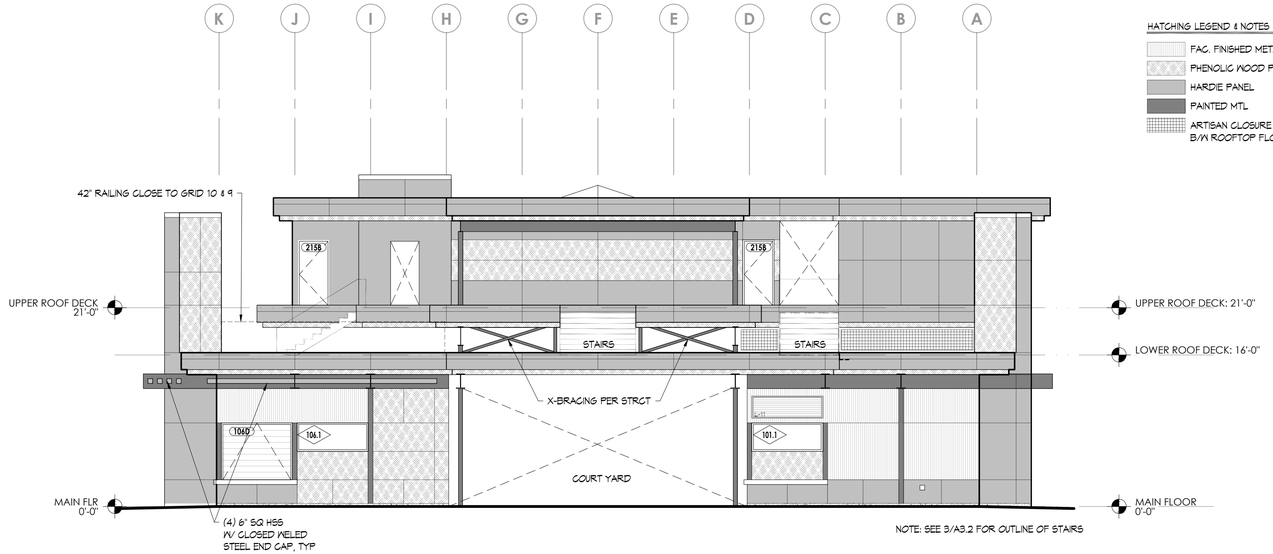
09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE
BUILDING ELEVATIONS

SHEET #
A3.2

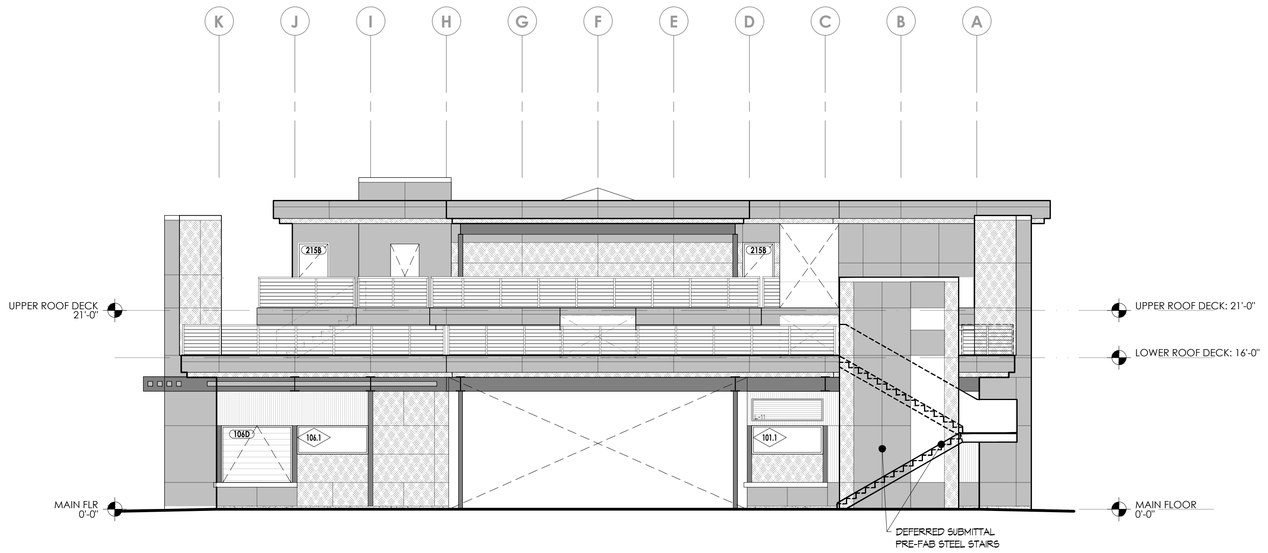
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



1 SOUTH ELEVATION (W/O RAILING)

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"



1 SOUTH ELEVATION (W/ RAILING)

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

JEFF BROWN ARCHITECTURE

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09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE
BUILDING ELEVATIONS

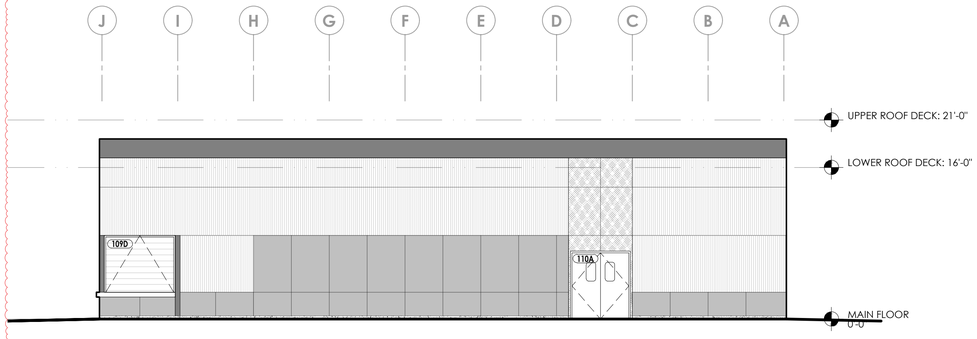
SHEET #
A3.3

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

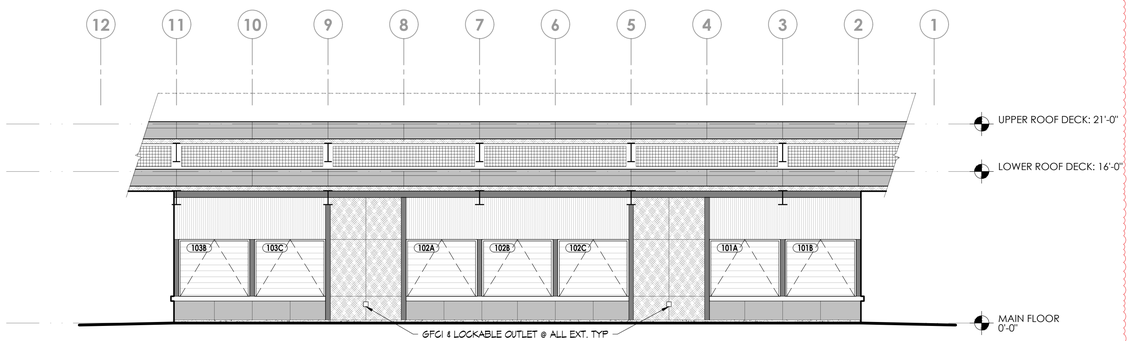
HATCHING LEGEND & NOTES

- FAC. FINISHED METAL SIDING
- PHENOLIC WOOD PANEL
- HARDIE PANEL
- PAINTED MTL
- ARTISAN CLOSURE PANELS B/W ROOFTOP FLOORS



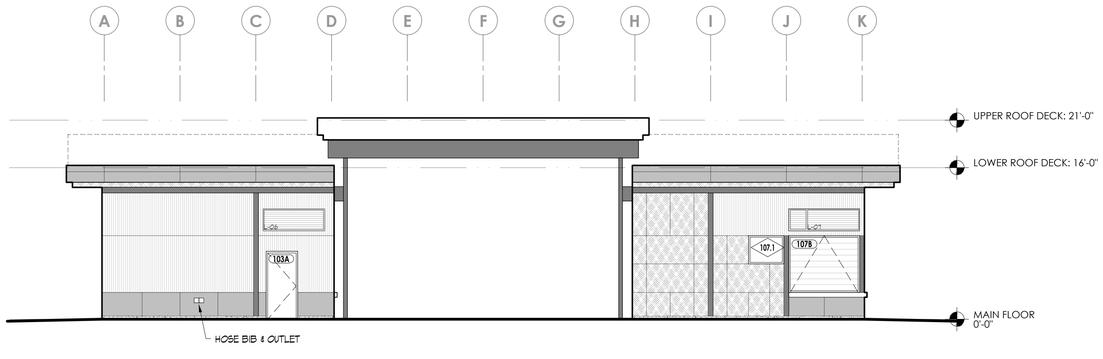
S COURT YARD

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"



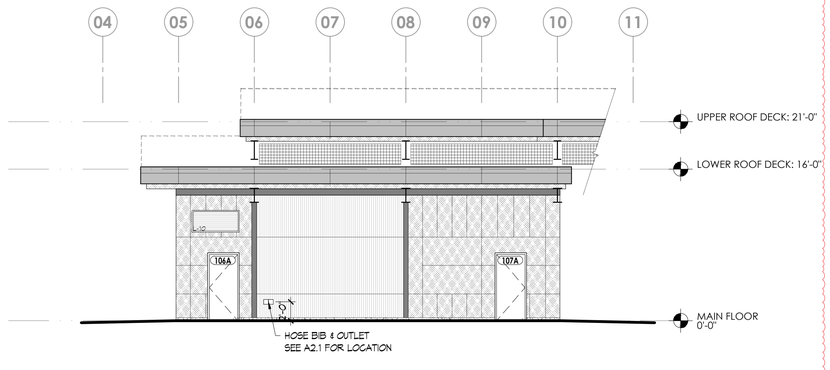
W COURT YARD

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"



N COURT YARD

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"



E COURT YARD

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

JEFF BROWN ARCHITECTURE

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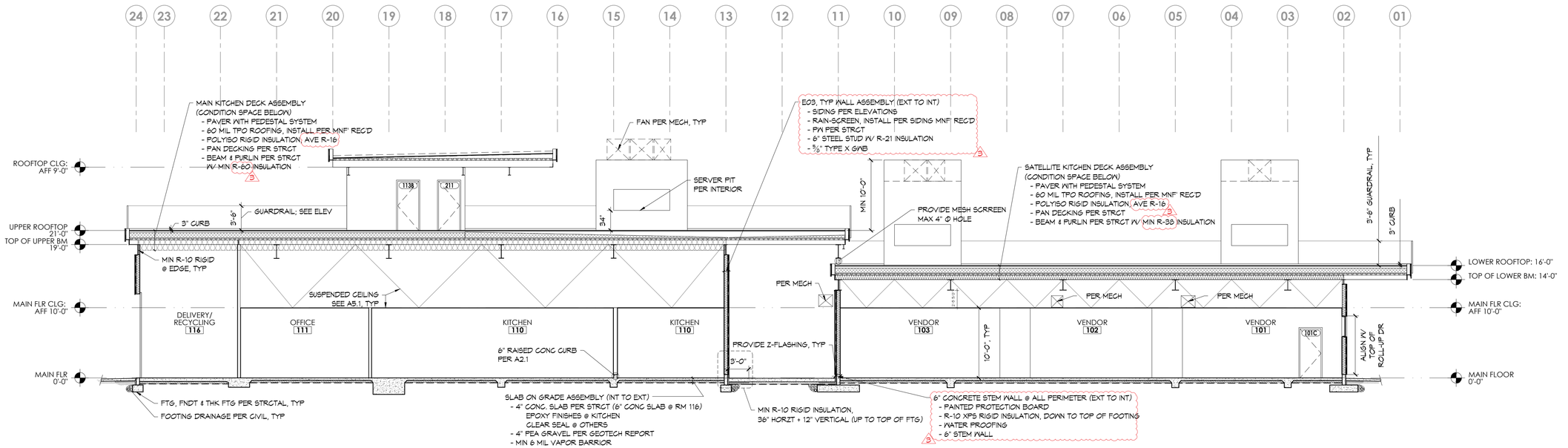
09.26.24	CITY-REV	
10.15.24	IFC	3

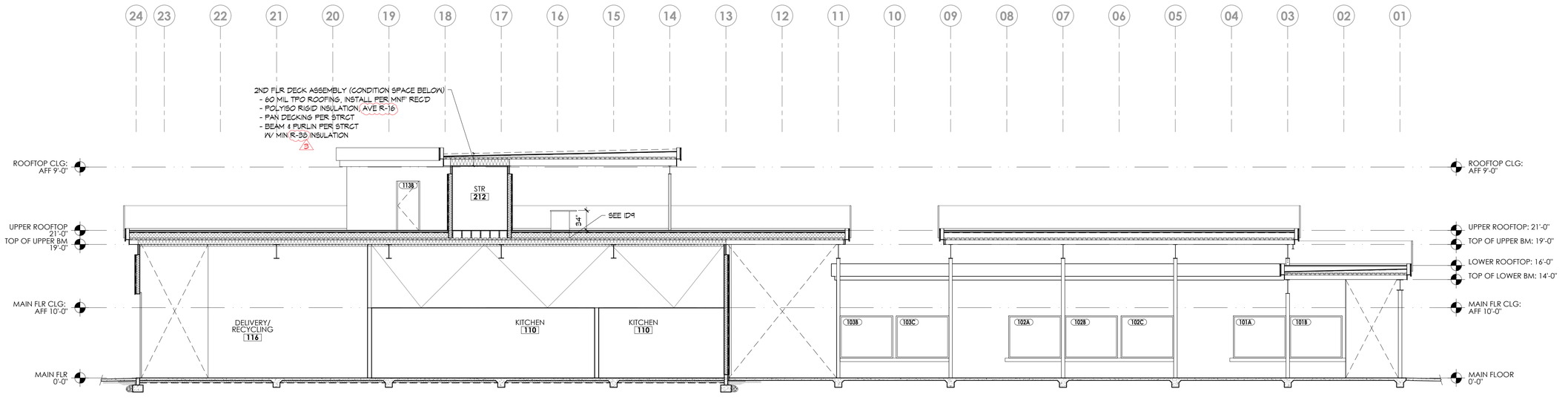
SHEET TITLE
BUILDING ELEVATIONS

SHEET #
A3.4

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



1 BUILDING SECTION
(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"



2 BUILDING SECTION
(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

JEFF BROWN ARCHITECTURE
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TACOMA, WA 98444

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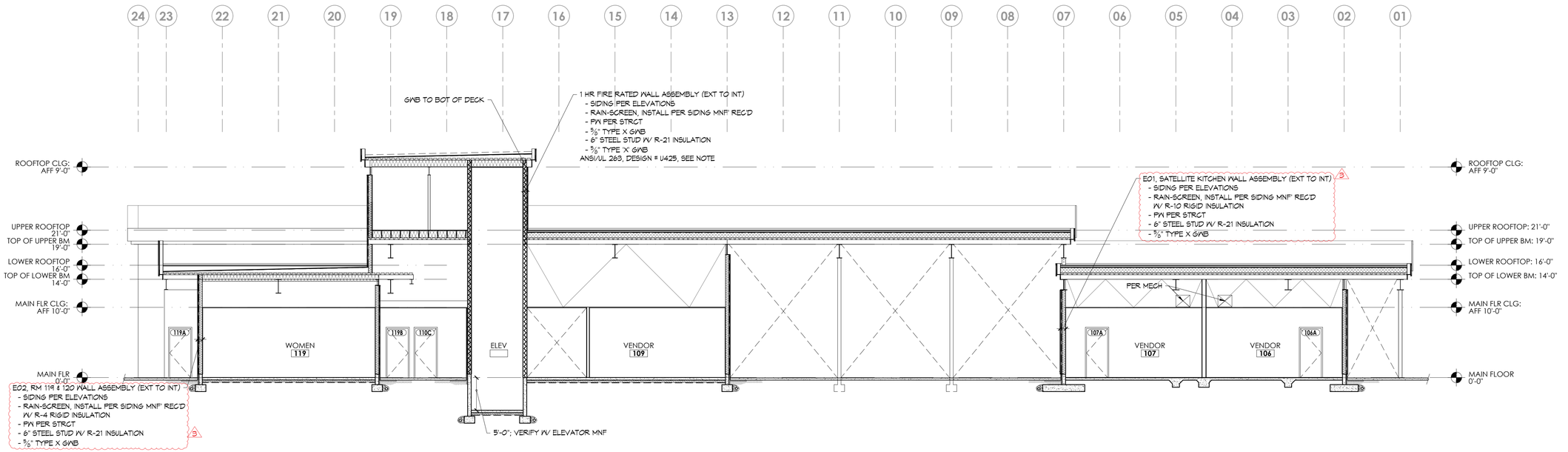
09.26.24	CITY-REV	
10.15.24	IFC	3

SHEET TITLE
BUILDING SECTIONS

SHEET #
A4.1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



NOTE:

ANSI/UL 263, DESIGN # U425 ASSEMBLY

1. STEEL FLR & CLG TRACKS, MIN 20 MSG, FASTENERS SPACED @ 24" OC
2. 6" STEEL STUD @ 16" OC, ATTACHED CLG & FLR TRACKS W/ ½" LONG TYPE S-12 STEEL SCREWS ON BOTH SIDES OR BY WELDED/BOLTED CONNECTIONS
3. LATERAL SUPPER PER STRUCTURAL
4. (1) LAYER OF 5/8" TYPE X ON BOTH SIDE, APPLIED VERTICALLY W/ JOINTS B/W LAYERS STAGGERED (NOTE: USE GREENGLASS GWB AT EXTERIOR FACING)
5. NOT IN USE
6. FASTENERS | SELF-TAPPING BUGLE HEAD SHEET STEEL TYPE SPACED 12" OC, TYPE S-12 BY 1" LONG
7. MINERAL INSULATION PER A4.##
8. JOINT TAPE & COMPOUND | VINYL OR CASEIN, DRY OR PREMIXED APPLIED IN (2) COATS TO JOINTS AND SCREW HEADS OF OUTER LAYER. PERFORATED PAPER TAPE, 2" WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS OF OUTER LAYER
9. FURRING CHANNELS - OPTIONAL

1 BUILDING SECTION

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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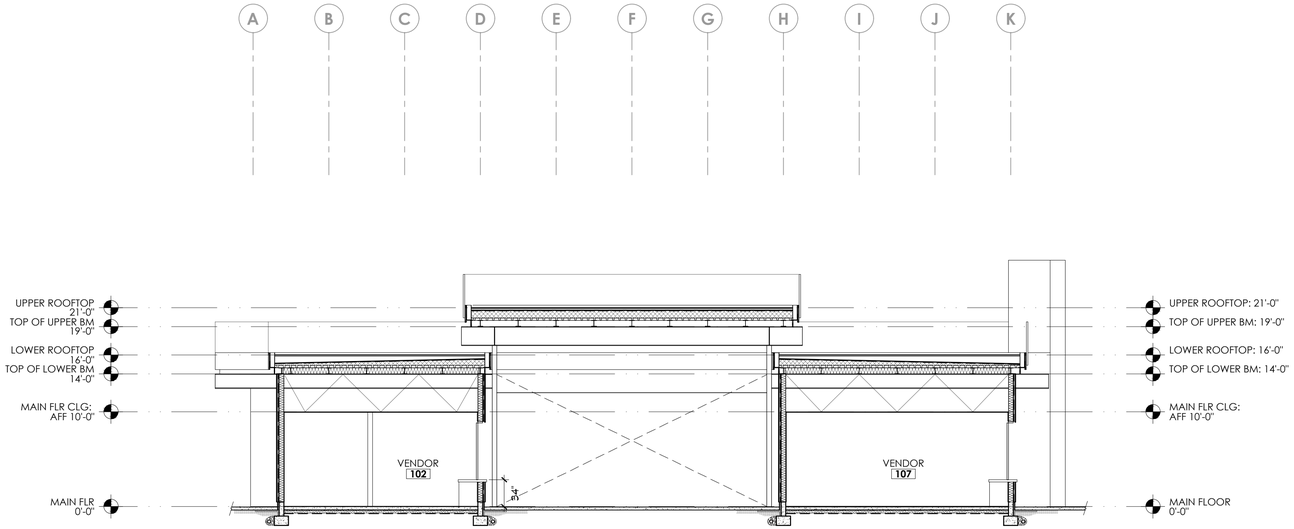
09.26.24	CITY-REV	2
10.15.24	IFC	3

SHEET TITLE
BUILDING SECTION

SHEET #
A4.2

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



1 BUILDING SECTION

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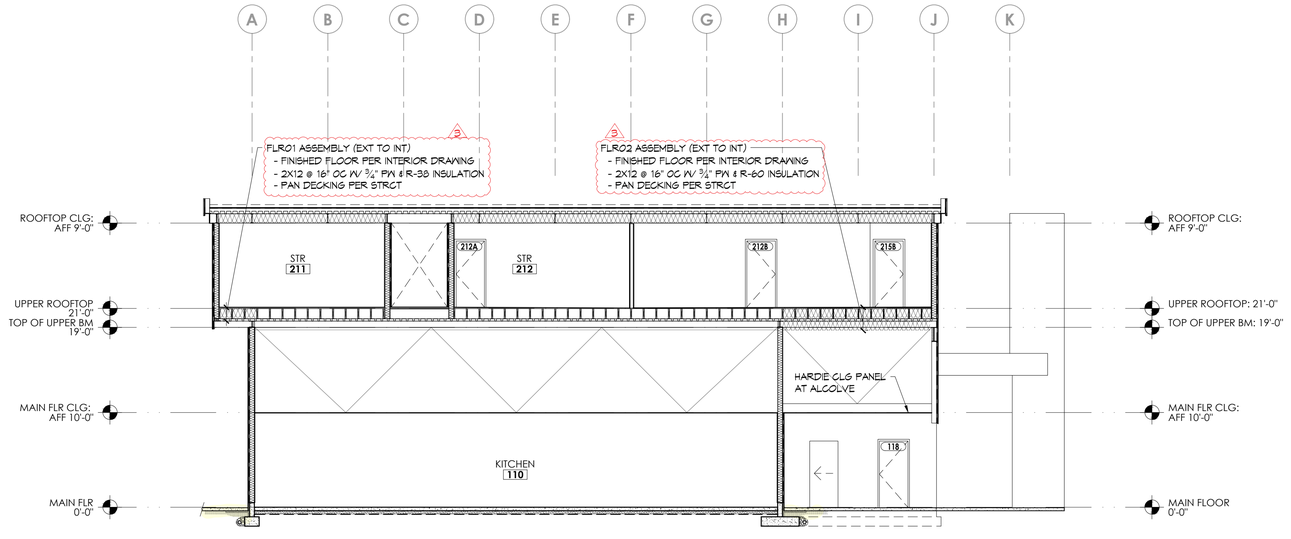
(22X34) SCALE : 1/8" = 1'-0"



2 BUILDING SECTION

(11X17) SCALE : 1/16" = 1'-0"
(22X34) SCALE : 1/8" = 1'-0"

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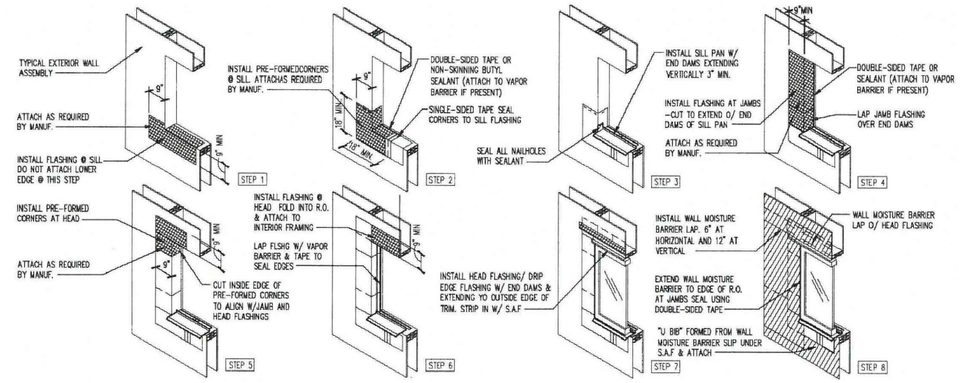
SHEET TITLE
BUILDING SECTIONS

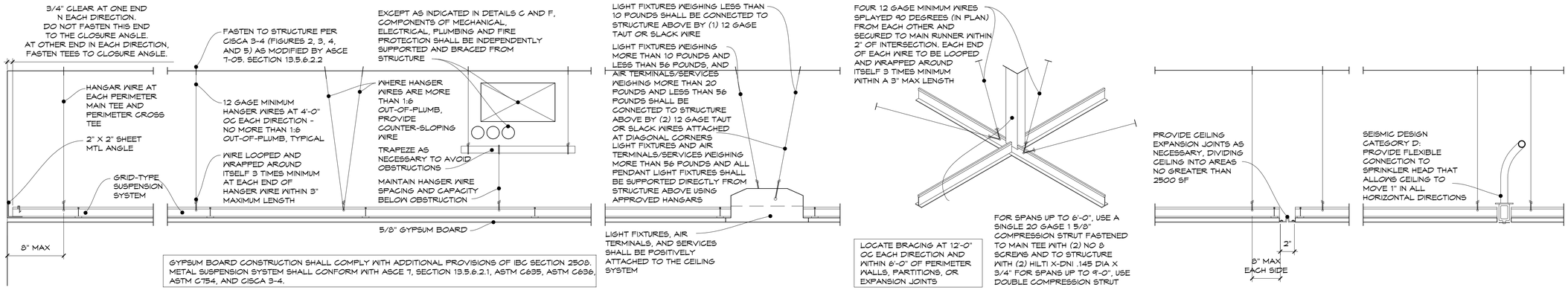
SHEET #
A4.3

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



1 TYPICAL OPNG FLASHING INSTALLATION
NTS



(A) PERIMETER SUPPORT | (B) GENERAL SUPPORT | (C) LIGHT FIXTURE AND MECHANICAL SERVICE SUPPORT | (D) LATERAL BRACING REQUIRED IF ANY OF THE FOLLOWING EXISTS -GYPSUM BOARD CEILING THAT EXTENDS WALL-TO-WALL | (E) EXP. JOINT FOR CLG EXCEEDING 2500 SF | (F) SPRINKLER HEAD CLEARANCE

2 INSTALLATION OF SUSPENDED CEILING
NTS

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PROJECT NUMBER
23002

DRAWING TYPE
CONSTRUCTION DOCUMENTS

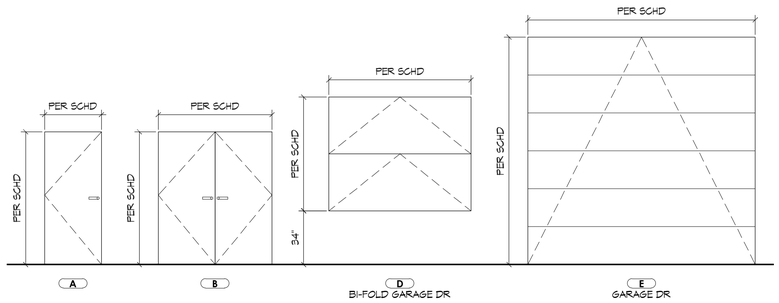
DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE
DETAILS

SHEET #
A5.1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



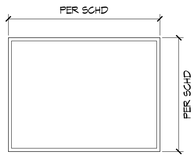
1 DOOR TYPE

(11X17) SCALE: 1/8" = 1'-0"
(22X34) SCALE: 1/4" = 1'-0"

NOTE:
1. ALL EXT WOOD DOOR TO BE SOLID-CORE
2. SG = SAFETY GLAZING
3. DOOR SWING PER A2.11-A2.12
4. DOOR WIDTH AND HEIGHT PER SCHD, TYP

NO.	LOCATION	DOORS					FRAME		REMARKS
		TYPE	WIDTH	HEIGHT	MAT	FINISH	MAT	FINISH	
101A	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
101B	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
101C	VANDOR	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | CLOSER | HOLDER | FLUSH BOLT
102A	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
102B	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
102C	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
103A	VANDOR	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | CLOSER | HOLDER | FLUSH BOLT
103B	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
103C	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
106A	VANDOR	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | CLOSER | HOLDER | FLUSH BOLT
106B	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
106C	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
106D	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
107A	VANDOR	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | CLOSER | HOLDER | FLUSH BOLT
107B	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
107C	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
107D	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
109A	VANDOR	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | CLOSER | HOLDER | FLUSH BOLT
109B	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
109C	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
109D	VANDOR	D	7'-6"	6'-0"		POWDER COATED	STEEL	POWDER COATED	ROLL-UP/GARAGE DOOR (U-0.25)
110A	KITCHEN	C	(2) 3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP
110B	KITCHEN	B	(2) 3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	REMOVABLE MULLION
110C	KITCHEN	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | PEEP HOLE
111	OFFICE	A	3'-0"	7'-0"	WD	PAINTED	HM	PAINTED	RELITE
112	JANITOR'S CL	A	3'-0"	7'-0"	WD	PAINTED	HM	PAINTED	CLOSER
113A	STAIRS	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP| PANIC BAR| CLOSER | TEP
114	SPRINKLER	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | PANIC BAR | CLOSER
115	ELEC	B	(2) 3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | PANIC BAR | CLOSER
116A	DELIVERY	E	12'-0"	12'-0"	HM	PAINTED	HM	PAINTED	GARAGE DOOR
116B	DELIVERY	B	(2) 3'-0"	7'-0"	HM	PAINED	HM	PAINTED	WEATHER STRIP | REMOVABLE MULLION
116C	DELIVERY	E	12'-0"	12'-0"	HM	PAINTED	HM	PAINTED	GARAGE DOOR
117	IT	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	CLOSER
118	ELEVATOR	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	W.T.| SELF-CLOSING & SELF LOCKING | AND PER MNF'S REQ'T
119A	WOMEN	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | TOE KICK PLATE | CLOSER
119B	WOMEN	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | TOE KICK PLATE | CLOSER
120A	MEN	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | TOE KICK PLATE | CLOSER
120B	MEN	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	WEATHER STRIP | TOE KICK PLATE | CLOSER
113B	STAIRS	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	1 HR FIRE-RATED| CLOSER
211	STORAGE	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	
212A	STORAGE	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	
212B	STORAGE	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	
215A	HALL	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	
215B	HALL	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	
216	STORAGE	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	
217	RESTROOM	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	TOE KICK PLATE | CLOSER
218	RESTROOM	A	3'-0"	7'-0"	HM	PAINTED	HM	PAINTED	TOE KICK PLATE | CLOSER

2 DOOR SCHEDULE



3 WINDOW TYPE

(11X17) SCALE: 1/8" = 1'-0"
(22X34) SCALE: 1/4" = 1'-0"

MARK	WIDTH		HEIGHT		TYPE	GLASS	REMARKS
	FT	IN	FT	IN			
101.1	8	0	3	0	FIXED	LOW-E| DBL	SG | MAX U=0.26
106.1	8	0	3	0	FIXED	LOW-E| DBL	SG | MAX U=0.26
107.1	3	6	3	0	FIXED	LOW-E| DBL	SG | MAX U=0.26
210.1	8	0	8	0	SKYLIGHT	N/A	SG | NOT PART OF ENERGY ENVELOPE CALCULATION

4 WINDOW SCHEDULE

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PROJECT NUMBER
23002

DRAWING TYPE

CONSTRUCTION DOCUMENTS

DATE	ISSUE	NO.
05.03.24	PERMIT	
09.11.24	CITY-REV	
09.26.24	CITY-REV	
10.15.24	IFC	

SHEET TITLE

DOOR SCHD & TYPE
WIN SCHD & TYPE

SHEET #

A7.1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES

THESE GENERAL NOTES ARE TO BE USED AS A SUPPLEMENT TO THE SPECIFICATIONS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATIONS, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE STRUCTURE HAS BEEN DESIGNED TO RESIST CODE SPECIFIED VERTICAL AND LATERAL FORCES AFTER THE CONSTRUCTION OF ALL STRUCTURAL ELEMENTS HAS BEEN COMPLETED. STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THIS RESPONSIBILITY INCLUDES BUT IS NOT LIMITED TO JOB SITE SAFETY; ERECTION MEANS, METHODS, AND SEQUENCES; TEMPORARY SHORING, FORMWORK, BRACING; USE OF EQUIPMENT AND CONSTRUCTION PROCEDURES. PROVIDE ADEQUATE RESISTANCE TO LOADS ON THE STRUCTURES DURING CONSTRUCTION PER SEI/ASCE STANDARD NO. 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION."

CONSTRUCTION OBSERVATION BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH DESIGN ASPECTS ONLY AND IS NOT INTENDED IN ANY WAY TO REVIEW THE CONTRACTOR'S CONSTRUCTION PROCEDURES.

STANDARDS
ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED AND ADOPTED BY THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION.

CONTRACT DRAWINGS / DIMENSIONS

ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. CONSULTANT DRAWINGS BY OTHER DISCIPLINES ARE SUPPLEMENTARY TO ARCHITECTURAL DRAWINGS. REPORT DIMENSIONAL OMISSIONS OR DISCREPANCIES BETWEEN ARCHITECTURAL DRAWINGS AND STRUCTURAL, MECHANICAL, ELECTRICAL OR CIVIL DRAWINGS TO ARCHITECT PRIOR TO PROCEEDING WITH WORK.

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. PRIMARY STRUCTURAL ELEMENTS ARE DIMENSIONED ON STRUCTURAL PLANS AND DETAILS AND OVERALL LAYOUT OF STRUCTURAL PORTION OF WORK. SOME SECONDARY ELEMENTS ARE NOT DIMENSIONED, SUCH AS WALL CONFIGURATIONS, INCLUDING EXACT DOOR AND WINDOW LOCATIONS, ALCOVES, SLAB SLOPES AND DEPRESSIONS, CURBS, ETC. VERTICAL DIMENSIONAL CONTROL IS DEFINED BY ARCHITECTURAL WALL SECTIONS AND BUILDING SECTIONS. STRUCTURAL DETAILS SHOW DIMENSIONAL RELATIONSHIPS TO CONTROL DIMENSIONS DEFINED BY ARCHITECTURAL DRAWINGS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN **BOTH** ARCHITECTURAL AND STRUCTURAL DRAWINGS.

DESIGN CRITERIA

VERTICAL LOADS

AREA	DESIGN DEAD LOAD	LIVE LOAD (2)	PARTITION LOAD	CONCENTRATED LOADS
ROOF	20 PSF	25 PSF (1)		300#
ASSEMBLY	60 PSF	100 PSF (3)		
MECHANICAL	60 PSF	100 PSF		

2

(1) DRIFT AND UNBALANCED SNOW LOAD PER ASCE 7-16, CHAPTER 7.
(2) LIVE LOADS EXCEPT SNOW LOADS ARE REDUCED PER IBC SECTION 1607.12.
(3) LIVE LOAD REDUCTION NOT PERMITTED.

SNOW: (MINIMUM ROOF SNOW LOAD = 25 PSF)

Pg = 20 PSF = GROUND SNOW LOAD
Pf = 0.7CeCtIsPg = FLAT ROOF SNOW LOAD
Ps = CsPf = SLOPED ROOF SNOW LOAD
Is = 1.10, Ce = 1.0, Ct = 1.0, Cs = VARIES

LATERAL FORCES

LATERAL FORCES ARE TRANSMITTED BY DIAPHRAGM ACTION OF ROOF AND FLOORS TO SHEAR WALLS. LOADS ARE THEN TRANSFERRED TO FOUNDATION BY SHEAR WALL ACTION WHERE ULTIMATE DISPLACEMENT IS RESISTED BY PASSIVE PRESSURE OF EARTH AND/OR SLIDING FRICTION. OVERTURNING IS RESISTED BY DEAD LOAD OF THE STRUCTURE.

LATERAL FORCE RESISTING SYSTEM: ALL MEMBERS AND CONNECTIONS REFERRED TO AS LATERAL FORCE RESISTING SYSTEM (LFRS) SHALL COMPLY WITH REQUIREMENTS OF THE SEISMIC FORCE RESISTING SYSTEM AND THE WIND FORCE RESISTING SYSTEM SET FORTH IN THE SPECIAL INSPECTION REQUIREMENTS OF IBC SECTION 1704 AND 1705, AND AS NOTED IN THE STATEMENT OF SPECIAL INSPECTIONS.

WIND:

THE BUILDING MEETS THE CRITERIA TO USE THE "ENCLOSED, PARTIALLY ENCLOSED, AND OPEN BUILDING OF ALL HEIGHTS PROCEDURE" PER ASCE 7-16.

- EXPOSURE CATEGORY = B
- BASIC WIND SPEED, (3 SEC. GUST), V_{ULT} = 110 MPH; V_{ASD} = 85 MPH
- RISK CATEGORY PER IBC TABLE 1604.5 = III
- TOPOGRAPHIC FACTOR K_{ZT} = 1.0
- INTERNAL PRESSURE COEFFICIENT (ENCLOSED) = ± 0.18
- COMPONENTS AND CLADDING LOADS, SEE SHEET S1.14.

SEISMIC: (ASCE 7-16) V = CsW

WHERE $C_s = \frac{S_{DS}}{(\frac{R}{I_e})}$; WITH

C_s MINIMUM = $0.044\, S_{DS} I_E \geq 0.01$
OR
C_s MINIMUM = $\frac{0.5S_1}{\frac{R}{I_e}}$ FOR $S_1 > 0.6g$

C_s MAXIMUM = $\frac{S_{D1}}{T(\frac{R}{I_e})}$ FOR $T \leq T_L$
OR
C_s MAXIMUM = $\frac{S_{D1}T_L}{T^2(\frac{R}{I_e})}$ FOR $T > T_L$

SEISMIC IMPORTANCE FACTOR, Ie = 1.25
RISK CATEGORY OF BUILDING PER IBC TABLE 1604.5 = III
SPECTRAL RESPONSE ACCELERATIONS S_S = 1.271 & S_1 = 0.438
SITE CLASS PER TABLE 20.3-1 = E
DESIGN SPECTRAL RESPONSE ACCELERATIONS S_{DS} = 1.017 & S_{D1} = 0.679
SEISMIC DESIGN CATEGORY = D
W = EFFECTIVE SEISMIC WEIGHT OF BUILDING = 936 K
ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC FORCE-RESISTING SYSTEM PER TABLE 12.2-1:
LIGHT-FRAME (COLD FORMED STEEL) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
RESPONSE MODIFICATION FACTOR, R = 6.5
OVERSTRENGTH FACTOR, Ω = 2.5
DEFLECTION AMPLIFICATION FACTOR, Cd = 4
Cs = 0.196
DESIGN BASE SHEAR V = 183 K
REDUNDANCY FACTOR PER 12.3.4, ρ = 1.0

PIPES, DUCTS AND MECHANICAL EQUIPMENT SUPPORTED OR BRACED FROM STRUCTURE SHALL CONFORM TO SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION, INC. PUBLICATION "SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS". SPRINKLER LINE ATTACHMENTS SHALL CONFORM TO NFPA PAMPHLET 13.

FOUNDATION DESIGN CRITERIA (REFER TO GEOTECHNICAL ENGINEERING STUDY BY EARTH SOLUTIONS NW, LLC DATED JANUARY 11, 2024)).

ALLOWABLE SOIL BEARING PRESSURE: 2500 PSF*

ACTIVE PRESSURE - RESTRAINED: 60 PCF +16H SEISMIC SURCHARGE
ACTIVE PRESSURE - UNRESTRAINED: 40 PCF +8H SEISMIC SURCHARGE
PASSIVE RESISTANCE: 225 PCF (INCLUDES F.O.S. ≥ 1.5)
COEFFICIENT OF FRICTION: .35 (INCLUDES F.O.S. ≥ 1.5)
*1/3 INCREASE ALLOWED FOR SEISMIC OR WIND LOADING
STATIC DIFFERENTIAL SETTLEMENT: 1/2" TO 1 1/2" PER GEO-TECHNICAL REPORT.

ALL FOOTINGS SHALL BEAR ON SUBGRADE PREPARED BY OVEREXCAVATING A MINIMUM OR TWO FEET BELOW THE DESIGN FOUNDATION SUBGRADE AND MECHANICALLY COMPACTING THE EXPOSED SOIL SURFACE WITH HEAVY MACHINARY UNTIL A FIRM AND UNYIELDING CONDITION IS ESTABLISHED. PLACE A GEOTEXTILE FABRIC (AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION) ATOP THE COMPACTED SUBGRADE. RESTORE GRADES USING CRUSHED ROCK OR SUITABLE GRANULAR FILL. MAXIMUM SIZE OF ROCK 4". FROZEN SOIL, ORGANIC MATERIAL AND DELETERIOUS MATTER NOT ALLOWED. COMPACT TO AT LEAST 95% OF ITS MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. CONTRACTOR SHALL EXERCISE EXTREME CARE DURING EXCAVATION TO AVOID DAMAGE TO BURIED LINES, TANKS, AND OTHER CONCEALED ITEMS. UPON DISCOVERY, DO NOT PROCEED WITH WORK UNTIL RECEIVING WRITTEN INSTRUCTIONS FROM ARCHITECT. A COMPETENT REPRESENTATIVE OF THE OWNER SHALL INSPECT ALL FOOTING EXCAVATIONS FOR SUITABILITY OF BEARING SURFACES PRIOR TO PLACEMENT OF REINFORCING STEEL. PROVIDE DRAINAGE AND DEWATERING AROUND ALL WORK TO AVOID WATER-SOFTENED FOOTINGS.

FREE DRAINING BACKFILL MATERIAL FOR RETAINING & BASEMENT WALLS

A CLEAN, FREE DRAINING, WELL GRADED GRANULAR MATERIAL CONFORMING TO ASTM D2487 GW OR SW WHOSE MAXIMUM PARTICLE SIZE DOES NOT EXCEED 3/4" AND WHOSE FINES CONTENT (MATERIAL PASSING THE NO. 200 SIEVE) DOES NOT EXCEED 5%,

WITH A MAXIMUM DUST RATIO $\frac{\%\text{ PASSING U.S. NO. 200 SIEVE}}{\%\text{ PASSING U.S. NO. 40 SIEVE}}$ = 2/3 MAX.

CONCRETE

CAST-IN-PLACE CONCRETE

CODES, SPECIFICATIONS, AND STANDARDS. CONCRETE WORK SHALL CONFORM TO THE FOLLOWING CODES, SPECIFICATIONS, AND STANDARDS, AND THE STANDARDS AND SPECIFICATIONS THEY REFERENCE. THE CONTRACTOR SHALL OBTAIN AND HAVE READILY AVAILABLE ON SITE THE LATEST VERSION OF THE "ACI MANUAL OF CONCRETE PRACTICE":

ACI:
1. ACI-117 'SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY'.
2. ACI-301 'SPECIFICATIONS FOR CONCRETE CONSTRUCTION'.
3. ACI-302.1 'GUIDE TO CONCRETE FLOOR AND SLAB CONSTRUCTION'.
4. ACI-304 'GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE'.
5. ACI-305.1 'SPECIFICATIONS FOR HOT WEATHER CONCRETING'.
6. ACI-306.1 'STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING'.
7. ACI-308.1 'STANDARD SPECIFICATION FOR CURING CONCRETE'.
8. ACI-309 'GUIDE FOR CONSOLIDATION OF CONCRETE'.
9. ACI-311.4 'GUIDE FOR CONCRETE INSPECTION'.
10. ACI-315 'GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS'.
11. ACI-318 'BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE'.
12. ACI-506.2 'SPECIFICATION FOR SHOTCRETE'.
13. ACI 347 'GUIDE TO FORMWORK FOR CONCRETE'.
14. ACI 303 'GUIDE TO CAST-IN-PLACE ARCHITECTURAL CONCRETE PRACTICE'.

ASTM:
1. ASTM C33 'STANDARD SPECIFICATION FOR CONCRETE AGGREGATES'.
2. ASTM C94 'STANDARD SPECIFICATION FOR READY-MIX CONCRETE'.
3. ASTM C150 'STANDARD SPECIFICATION FOR PORTLAND CEMENT'.
4. ASTM C260 'STANDARD SPECIFICATION FOR AIR-ENTRAINED ADMIXTURES FOR CONCRETE'.
5. ASTM C309 'STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE'.
6. ASTM C494 'STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR CONCRETE'.
7. ASTM C595 'STANDARD SPECIFICATION FOR BLENDED HYDRAULIC CEMENTS'.
8. ASTM C618 'STANDARD SPECIFICATION FOR ... COAL-ASH...'.
9. ASTM C989 'STANDARD SPECIFICATION FOR SLAG...'.
10. ASTM C1017 'STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR USE IN PRODUCING FLOWING CONCRETE'.
11. ASTM C1116 'STANDARD SPECIFICATION FOR FIBER-REINFORCED CONCRETE'.
12. ASTM C1218 'STANDARD TEST METHOD FOR WATER-SOLUBLE CHLORIDE IN MORTAR AND CONCRETE'.
13. ASTM C1315 'STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS HAVING SPECIAL PROPERTIES FOR CURING AND SEALING CONCRETE'

MIX DESIGNS: THE CONTRACTOR SHALL DESIGN CONCRETE MIXES THAT MEET OR EXCEED THE REQUIREMENTS OF THE CONCRETE MIX TABLE. ALL CONCRETE MIXES SHALL BE NORMAL WEIGHT, UNLESS NOTED OTHERWISE. THE MIX DESIGNS SHALL FACILITATE ANTICIPATED PLACEMENT METHODS, WEATHER, REBAR CONGESTION, ARCHITECTURAL FINISHES, CONSTRUCTION SEQUENCING, STRUCTURAL DETAILS, AND ALL OTHER FACTORS REQUIRED TO PROVIDE A STRUCTURALLY SOUND, AESTHETICALLY ACCEPTABLE FINISHED PRODUCT. WATER REDUCING ADMIXTURES WILL LIKELY BE REQUIRED TO MEET THESE REQUIREMENTS. CONCRETE MIX DESIGNS SHALL CLEARLY INDICATE THE TARGET SLUMP. SLUMP TOLERANCE SHALL BE ± 1-1/2 INCHES.

AGGREGATE: COARSE AND FINE AGGREGATE SHALL CONFORM TO ASTM C33

CEMENT: CEMENT SHALL CONFORM TO ASTM C150, TYPE II PORTLAND CEMENT OR ASTM C595 - TYPE IL PORTLAND LIMESTONE CEMENT, UNLESS NOTED OTHERWISE. CEMENT IN CONCRETE EXPOSED TO EARTH SHALL BE TYPE II OR TYPE IL-MS.

FLYASH: SHALL CONFORM TO ASTM C618 CLASS C OR F, MAXIMUM LOSS OF IGNITION SHALL BE 1.0%.

SLAG: GROUND GRANULATED BLAST-FURNACE (GGBF) SLAG SHALL CONFORM TO ASTM C989 GRADE 100 OR 120.

ALTERNATE MIX DESIGNS: VARIATIONS TO THE MIX DESIGN PROPORTIONS MAY BE ACCEPTED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318, CHAPTER 19. PROVIDE SUBMITTALS A MINIMUM OF TWO WEEKS PRIOR TO BID FOR DETERMINATION OF ACCEPTABILITY.

ADMIXTURES: ADMIXTURES SHALL BE BY MASTER BUILDERS, W.R. GRACE, OR PRE-APPROVED EQUAL. ALL MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED.

WATER: SHALL BE CLEAN AND POTABLE.

MAXIMUM CHLORIDE CONTENT: THE MAXIMUM WATER SOLUBLE CHLORIDE CONTENT SHALL NOT EXCEED 0.15% BY WEIGHT OF CEMENTITIOUS MATERIAL UNLESS NOTED OTHERWISE.

CONCRETE EXPOSED TO WEATHER: PROVIDE 5.0% TOTAL AIR CONTENT FOR ALL CONCRETE EXPOSED TO WEATHER. TOTAL AIR CONTENT IS THE SUM OF ENTRAINED AIR PROVIDED BY ADMIXTURES AND NATURALLY OCCURRING ENTRAPPED AIR. AIR CONTENT SHALL BE TESTED PRIOR TO BEING PLACED IN THE PUMP HOPPER OR BUCKET; IT IS NOT REQUIRED TO BE TESTED AT THE DISCHARGE END OF THE PUMP HOSE. THE TOLERANCE ON ENTRAPPED AIR SHALL BE +2.0% AND -1.5% WITH THE AVERAGE OF ALL TESTS NOT LESS THAN THE SPECIFIED AMOUNT.

TOTAL CEMENTITIOUS MATERIAL: THE SUM OF ALL CEMENT PLUS FLYASH AND SLAG. AT THE CONTRACTORS OPTION FLYASH OR SLAG MAY BE SUBSTITUTED FOR CEMENT BUT SHALL NOT EXCEED 25% BY WEIGHT OF TOTAL CEMENTITIOUS MATERIAL. IN NO CASE SHALL THE AMOUNT OF FLYASH OR SLAG BE LESS THAN REQUIRED BY THE CONCRETE MIX DESIGN TABLE. FOOTING MIXES SHALL CONTAIN NOT LESS THAN **5 SACKS** OF CEMENTITIOUS MATERIAL PER CUBIC YARD, ALL OTHER MIXES SHALL CONTAIN NOT LESS THAN **5-1/2 SACKS** OF CEMENTITIOUS MATERIAL PER CUBIC YARD, UNLESS NOTED OTHERWISE.

STRUCTURAL DRAWING INDEX

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S5.13	STEEL FRAMING DETAILS
S5.14	STEEL FRAMING DETAILS
S5.15	STEEL FRAMING DETAILS
S5.16	STEEL FRAMING DETAILS
Grand total: 31	

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PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1
09.27.24	REVISION 2	2

SHEET TITLE
GENERAL NOTES

SHEET #
S1.10

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City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

ITEM	DESIGN f'c (PSI) (AT 28 DAYS U.N.O.)	MAX. W/C RATIO	MIN. FLYASH OR SLAG (PCY)	AGGREGATE GRADING ASTM AASHTO	NOTES
SLABS ON GRADE - UNO	4000	0.45	100	57 OR 67	
ARCHITECTURALLY EXPOSED SLABS ON GRADE	4000	0.45	100	57 OR 67	1, 2
FOUNDATIONS - UNO	4000	0.50	--	57 OR 67	
STEM WALLS AND OTHER WALLS	4500	0.45	100	57 OR 67	
ALL OTHER CONCRETE	4000	0.50	--	57 OR 67	

2

CONCRETE MIX NOTES:

1. MAXIMUM WATER CONTENT 240 PCY.
2. THIS MIX SHALL CONTAIN 1 GALLON PER CY OF "ECLIPSE FLOOR 200" SHRINKAGE REDUCING ADMIXTURE BY GCP APPLIED TECHNOLOGIES, MASTER BUILDERS MASTERLIFE CRA 007 OR APPROVED ALTERNATE. FOR CONCRETE REQUIRING AN AIR ENTRAINMENT ADMIXTURE, GCP "ECLIPSE 4500" OR MASTERLIFE "SRA 035" SHALL BE USED.

2

CONCRETE PLACEMENT

PLACE CONCRETE FOLLOWING ALL APPLICABLE ACI RECOMMENDATIONS. CONCRETE SHALL BE PROPERLY CONSOLIDATED PER ACI 309 USING INTERIOR MECHANICAL VIBRATORS, DO NOT OVER-VIBRATE. CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR EXPANSION JOINTS. IF CONCRETE IS PLACED BY THE PUMP METHOD, HORSES SHALL BE PROVIDED TO SUPPORT THE HOSE, THE HOSE SHALL NOT BE ALLOWED TO RIDE ON THE REINFORCING. WEATHER FORECASTS SHALL BE MONITORED AND ACI RECOMMENDATIONS FOR HOT AND COLD WEATHER CONCRETING SHALL BE FOLLOWED AS REQUIRED. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FEET DURING PLACEMENT WITHOUT WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

FLOATING & FINISHING OPERATIONS

WATER SHALL NOT BE ADDED TO THE CONCRETE SURFACE DURING FLOATING & FINISHING OPERATIONS. PRE-APPROVED EVAPORATION RETARDER SPECIFICALLY DESIGNED FOR FLOATING & FINISHING OPERATIONS ARE ACCEPTABLE.

FORMED SURFACES:

FORMWORK CLASS OF SURFACE PER ACI 347 TABLE 5.3.1	
ITEM	CLASS OF FINISH
ALL SURFACES EXPOSED TO PUBLIC VIEW, U.N.O.	A
ALL SURFACES RECEIVING A COURSE TEXTURED COATING SUCH AS PLASTER OR STUCCO, UNLESS NOTED OTHERWISE	B
ALL OTHER SURFACES, UNLESS NOTED OTHERWISE	C

FORMWORK STRIPPING:

COLUMNS & WALLS: COLUMNS AND WALLS NOT SUPPORTING FRAMING WEIGHT MAY BE STRIPPED AS SOON AS FORMS CAN BE REMOVED WITHOUT DAMAGING THE CONCRETE AND THE CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 500 PSI.

COLD WEATHER PLACEMENT:

1. COLD WEATHER IS DEFINED BY ACI 306 AS "A PERIOD WHEN FOR MORE THAN 3 SUCCESSIVE DAYS THE MEAN DAILY TEMPERATURE DROPS BELOW 40° F."
2. NO CONCRETE SHALL BE PLACED ON FROZEN OR PARTIALLY FROZEN GROUND. THAWING THE GROUND WITH HEATERS IS PERMISSIBLE.
3. CONCRETE MIX TEMPERATURES SHALL BE AS SHOWN BELOW. HEATING OF WATER AND/OR AGGREGATES MAY BE REQUIRED TO ATTAIN THESE TEMPERATURES.
4. THE CONCRETE MAY REQUIRE PROTECTION FOR 4-7 DAYS AFTER POURING. IF TEMPERATURES REMAIN BELOW FREEZING, INSULATING BLANKET COVERAGE IS REQUIRED. IF TEMPERATURES ARE SLIGHTLY BELOW FREEZING (30° F MIN.) AT NIGHT AND ABOVE FREEZING DURING THE DAY, KRAFT PAPER WITH COMPLETE COVERAGE MAY BE USED IN LIEU OF INSULATED BLANKETS.
5. NO ADDITIVES CONTAINING CHLORIDES SHALL BE USED. USE "POZZUTEC 20+" BY MASTER BUILDERS OR "POLARSET" BY W.R. GRACE OR PRE-APPROVED EQUAL.

CONDITION OF PLACEMENT AND CURING		WALLS & SLABS	FOOTINGS
MIN. TEMP. FRESH CONCRETE AS MIXED FOR WEATHER INDICATED, DEGREES F.	ABOVE 30° F. 0° TO 30° F. BELOW 0° F.	60° 65° 70°	55° 60° 65°
MIN. TEMP. FRESH CONCRETE AS PLACED AND MAINTAINED, DEGREES F.		55°	50°
MAX. ALLOWABLE GRADUAL DROP IN TEMP. THROUGHOUT FIRST 24 HOURS AFTER END OF PROTECTION, DEGREES F.		50°	40°

HOT OR WINDY WEATHER PLACEMENT

HOT WEATHER IS DEFINED BY ACI 305 AS "ANY COMBINATION OF HIGH AIR TEMPERATURE, LOW RELATIVE HUMIDITY, AND WIND VELOCITY, TENDING TO IMPAIR THE QUALITY OF FRESH HARDENED CONCRETE. ACI 305 FIGURE 2.1.5 SHALL BE USED BY THE CONTRACTOR TO ESTIMATE THE RATE OF EVAPORATION. WHEN THE ESTIMATED RATE OF EVAPORATION IS GREATER THAN O.2 PSF/HOUR THE PLACEMENT SHALL BE CONSIDERED A HOT WEATHER PLACEMENT. PRECAUTIONS AGAINST PLASTIC SHRINKAGE CRACKING ARE NECESSARY. PRECAUTIONS TAKEN BY THE CONTRACTOR VARY DEPENDING UPON THE FACTORS ASSOCIATED WITH WATER EVAPORATION AND INCLUDE BUT ARE NOT LIMITED TO:

1. LIMITING CONCRETE TEMPERATURE TO 100°F AT TIME OF PLACEMENT.
2. APPLICATION OF AN EVAPORATION RETARDER.
3. USE OF FOG SPRAY.
4. REDUCTION OF POUR SIZE.
5. PLACING CONCRETE AT NIGHT.

CONTROL AND CONSTRUCTION JOINTS

CONSTRUCTION JOINTS SHALL MEET THE REQUIREMENTS OF ACI 301 SECTIONS 2.2.2.5 AND 5.3.2.6. SPECIAL BONDING METHODS PER SECTION 5.3.2.6 SHALL BE SATISFIED BY ITEM 6 BELOW UNLESS OTHERWISE DETAILED ON THE STRUCTURAL DRAWINGS. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN ON PLAN OR ADDITIONAL CONSTRUCTION JOINTS ARE REQUIRED SUBMIT PROPOSED JOINTING FOR STRUCTURAL ENGINEERS APPROVAL. PROVIDE CONSTRUCTION JOINTS AS INDICATED BELOW UNLESS NOTED OTHERWISE ON THE PLANS:

1. SLABS ON GRADE: PROVIDE CONSTRUCTION AND/OR CONTROL JOINTS AT 16 FEET O.C. MAXIMUM FOR UNEXPOSED SLABS ON GRADE AND 12 FEET O.C. FOR EXPOSED SLABS ON GRADE. COORDINATE JOINTS WITH ARCHITECTURAL DRAWINGS.
2. ATTACHMENT OF NEW CONCRETE TO EXISTING: WHERE SHOWN, ROUGHEN CONCRETE TO A MINIMUM AMPLITUDE OF 1/4" USING IMPACT HAMMER. REMOVE ALL LOOSE OR DAMAGED CONCRETE, THOROUGHLY FLUSH ALL SURFACES WITH POTABLE WATER, AIR BLAST WITH OIL FREE COMPRESSED AIR TO REMOVE ALL WATER.

EMBEDDED ITEMS

1. NO ALUMINUM ITEMS SHALL BE EMBEDDED IN ANY CONCRETE.
2. ALL EMBED PLATES SHALL BE SECURELY FASTENED IN PLACE.
3. ALL EMBEDDED STEEL ITEMS EXPOSED TO EARTH SHALL BE GALVANIZED.
4. ALL EMBEDDED STEEL ITEMS EXPOSED TO WEATHER SHALL BE PAINTED UNLESS NOTED AS GALVANIZED. SEE DRAWINGS AND SPECIFICATIONS FOR PAINT, PRIMER, AND GALVANIZING REQUIREMENTS.

CONCRETE CURING AND SEALING

CURING PROCEDURES SHALL COMMENCE IMMEDIATELY AFTER FINISHING CONCRETE TO MAINTAIN CONCRETE IN A MOIST CONDITION. VERIFY CURING AND/OR SEALING PRODUCTS ARE COMPATIBLE WITH FLOOR COVERINGS SHOWN ON THE ARCHITECTURAL DRAWINGS. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS. SLABS ARE DEFINED AS SLABS ON GRADE, CONCRETE ON METAL DECK, ELEVATED POST-TENSIONED OR MILD REINFORCED DECKS, AND TOPPING SLABS.

ITEM	CONCRETE CURING NOTES
SLABS EXPOSED TO EARTH OR WEATHER OR VEHICLE OR FORKLIFT TRAFFIC INCLUDING LOADING DOCKS	1, (3 OR 4 OR 5), 6
ALL OTHER SLABS	1, (3 OR 4 OR 5)
FORMED SURFACES EXCLUDING FOUNDATIONS	2
ALL OTHER CONCRETE	NONE

CONCRETE CURING NOTES:

1. WHEN THE ESTIMATED EVAPORATION RATE IS GREATER THAN 0.2 PSF/HOUR PROVIDE A SPRAY APPLIED EVAPORATION RETARDER IMMEDIATELY AFTER CONCRETE PLACEMENT. THE EVAPORATION RATE MAY BE CALCULATED PER ACI 305 FIGURE 2.1.5.
2. APPLY A LIQUID MEMBRANE FORMING CURING COMPOUND, CONFORMING TO ASTM C309 TYPE 1 CLASS B SPECIFICATIONS, PER MANUFACTURER'S RECOMMENDATIONS TO ALL FORMED SURFACES IMMEDIATELY AFTER FINAL FORM REMOVAL. NOT REQUIRED IF FORMWORK REMAINS IN PLACE FOR MORE THAN 7 DAYS.
3. PROVIDE PRE-APPROVED CONTINUOUS WET CURE METHOD FOR A MINIMUM OF 14 DAYS.
4. APPLY A LIQUID MEMBRANE FORMING CURING COMPOUND, CONFORMING TO ASTM C309 TYPE 1 CLASS B SPECIFICATIONS OR ASTM C1315 TYPE 1 CLASS A SPECIFICATIONS, PER MANUFACTURER'S RECOMMENDATIONS IMMEDIATELY AFTER FINAL FINISHING. CURING COMPOUND SHALL BE COMPATIBLE WITH ARCHITECTURAL FLOOR COVERINGS AND SEALERS.
5. PROVIDE "ULTRACURE DOT" MOISTURE RETAINING COVER BY MCTECH GROUP, OR APPROVED EQUAL, FOR A MINIMUM OF 14 DAYS.
6. APPLY A SILANE SEALER WITH MINIMUM SOLIDS CONTENT OF 40% PER MANUFACTURER'S RECOMMENDATIONS.

GROUT

NON-SHRINK GROUT: MASTER BUILDERS "MASTERFLOW 928" OR PRE-APPROVED EQUAL. GROUT SHALL CONFORM TO CRD-C621 AND ASTM C1107 WHEN TESTED AT A FLUID CONSISTENCY PER CRD-C611-85 FOR 30 MINUTES. GROUT MAY BE PLACED FROM A 25 SECOND FLOW TO A STIFF PACKING CONSISTENCY. FILL OR PACK ENTIRE SPACE UNDER PLATES OR SHAPES. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PREPARATION, INSTALLATION, AND CURING. 28-DAY MINIMUM STRENGTH SHALL BE 7,500 PSI MINIMUM

REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO:

ASTM A615, GRADE 60 TYPICAL UNLESS NOTED OTHERWISE.

DETAIL FABRICATE AND PLACE PER ACI 315 AND ACI 318.

WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A1064. LAP ONE FULL MESH ON SIDES AND ENDS BUT NOT LESS THAN 8 INCHES. WELDED WIRE REINFORCING SHALL BE SUPPORTED TO WITHSTAND CONCRETE PLACEMENT. PULLING OF MESH INTO PLACE AFTER PLACEMENT IS NOT ALLOWED.

REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE, Fy=60 KSI (UNLESS NOTED OTHERWISE)					
BAR SIZE	MINIMUM LAP SPLICE LENGTHS ("Ls")		MINIMUM DEVELOPMENT LENGTHS ("Ld")		MINIMUM EMBEDMENT LENGTH FOR STANDARD END HOOKS ("Ldh")
	TOP BARS (1)	OTHER BARS	TOP BARS (1)	OTHER BARS	
#3	2'-0"	1'-6"	1'-6"	1'-3"	0'-6"
#4	2'-8"	2'-0"	2'-0"	1'-7"	0'-6"
#5	3'-4"	2'-7"	2'-7"	2'-0"	0'-8"
#6	4'-0"	3'-1"	3'-1"	2'-4"	0'-10"
#7	5'-10"	4'-6"	4'-6"	3'-6"	1'-0"
#8	6'-8"	5'-2"	5'-2"	3'-11"	1'-3"

SPLICE TABLE NOTES:

1. "TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM.

REINFORCING STEEL COVER

PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS, UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH ---------- 3"
EXPOSED TO WEATHER OR EARTH ---------- 2"
TIES ON BEAMS AND COLUMNS ---------- 1-1/2"
WALLS AND SLABS NOT EXPOSED TO WEATHER---- 3/4"

POST-INSTALLED ANCHORS

POST-INSTALLED ANCHORS: SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH REBAR. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. INSTALLER SHALL BE QUALIFIED AND TRAINED BY THE MANUFACTURER. HOLES SHALL BE HAMMER DRILLED ONLY (ROTARY DRILLED ONLY AT UNREINFORCED MASONRY - NO HAMMER TOOLS).

SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED FOR APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO BID, ALONG WITH CALCULATIONS THAT SHALL BE STAMPED BY A PROFESSIONAL ENGINEER (LICENSED IN THE STATE OF THE PROJECT) DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.

CONCRETE ANCHORS:
- ADHESIVE ANCHORS: HILTI HIT-HY 200 V3 (ICC-ESR-4868), HILTI HIT-RE 500 V3 (ICC-ESR-3814), DEWALT PURE 110+ (ICC-ESR-3298) OR SIMPSON SET-3G (ICC-ESR-4057) OR PRE-APPROVED EQUAL.
  - *CONCRETE SHALL BE A MINIMUM OF 21 DAYS OLD AT TIME OF INSTALLATION.
  - *CONCRETE SHALL BE IN THE TEMPERATURE RANGE AS REQUIRED BY THE CONCRETE MANUFACTURER.
  - *HOLE SHALL BY HAMMER-DRILLED ONLY.
  - *DO NOT INSTALL IN WATER-FILLED HOLES.
  - *INSTALLER OF HORIZONTAL OR UPWARDLY INCLINED (ANY POSITION EXCEPT DIRECTLY DOWNWARD) ANCHORS SHALL ALSO BE CERTIFIED BY THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.
- EXPANSION ANCHORS: KWIKBOLT TZ2 (ICC ESR-4266) BY HILTI, INC., OR PRE-APPROVED EQUAL.
- SCREW ANCHORS: KWIK HUS-EZ (ICC ESR-3027) BY HILTI, INC., OR PRE-APPROVED EQUAL.

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PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
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PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1
09.27.24	REVISION 2	2

SHEET TITLE
GENERAL NOTES

SHEET #
S1.11

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10/10/2024 4:07:49 PM

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

STRUCTURAL STEEL

DETAILING, FABRICATION AND ERECTION

ALL WORKMANSHIP SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION, 15TH EDITION, THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS JULY 7, 2016, THE AISC CODE OF STANDARD PRACTICE, JUNE 15, 2016 AND THE AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, JULY 12, 2016.

STEEL MEMBERS ARE EQUALLY SPACED BETWEEN COLUMNS AND/OR DIMENSION POINTS UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDES AND JOINT PREPARATIONS THAT INCLUDE BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES, AND OTHER AIDES, WELDING PROCEDURES, REQUIRED ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, WELD EXTENSION TABS, COPES, SURFACE ROUGHNESS VALUES AND TAPERS OF UNEQUAL PARTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLIANCE WITH ALL CURRENT OSHA REQUIREMENTS.

HOLES, COPES OR OTHER CUTS OR MODIFICATIONS OF THE STRUCTURAL STEEL MEMBERS SHALL NOT BE MADE IN THE FIELD WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

STEEL FABRICATORS

ALL STEEL FABRICATION SHALL BE PERFORMED BY A FABRICATOR CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. THE FABRICATOR SHALL BE DESIGNATED AN AISC CERTIFIED PLANT, CATEGORY BU AT THE TIME OF BID AND SHALL MAINTAIN THIS CERTIFICATION FOR THE DURATION OF THE PROJECT.

NON-AISC CERTIFIED STEEL FABRICATORS SHALL HAVE FIVE YEARS MINIMUM EXPERIENCE ON SIMILAR PROJECTS OF EQUAL OR LARGER COMPLEXITY AND SCOPE. QUALIFICATIONS SHALL BE SUBMITTED TWO WEEKS PRIOR TO SHOP DRAWING PRODUCTION.

STEEL ERECTORS

ALL STEEL ERECTION SHALL BE PERFORMED BY AN ERECTOR CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. THE ERECTOR SHALL BE DESIGNATED AN AISC CERTIFIED ERECTOR, CATEGORY CSE AT THE TIME OF BID AND SHALL MAINTAIN THIS CERTIFICATION FOR THE DURATION OF THE PROJECT.

NON-AISC CERTIFIED STEEL ERECTORS MAY BE ACCEPTABLE PROVIDED THEY HAVE A MINIMUM OF (5) YEARS EXPERIENCE ON PROJECTS OF EQUAL OR LARGER COMPLEXITY AND SCOPE. QUALIFICATIONS SHALL BE SUBMITTED TO STRUCTURAL ENGINEER (2) WEEKS PRIOR TO SHOP DRAWING PRODUCTION.

STEEL DETAILERS

ALL STEEL DETAILING SHALL BE PERFORMED BY A DETAILER WITH FIVE YEARS MINIMUM EXPERIENCE ON SIMILAR PROJECTS OF EQUAL OR LARGER COMPLEXITY AND SCOPE. QUALIFICATIONS SHALL BE SUBMITTED TWO WEEKS PRIOR TO SHOP DRAWING PRODUCTION.

MATERIAL PROPERTIES

WIDE FLANGE SECTIONS: ASTM A992 (Fy = 50 KSI)

OTHER SHAPES AND PLATES: ASTM A36 (Fy = 36 KSI) TYP. U.N.O.; ASTM A572 (Fy = 50 KSI) WHERE INDICATED

HOLLOW STRUCTURAL SECTIONS: RECTANGULAR & SQUARE - ASTM A500, GRADE C (Fy = 50 KSI) ROUND - ASTM A500, GRADE C (Fy = 46 KSI)

STRUCTURAL STEEL PIPES: ASTM A53, GRADE B, TYPE E OR S (Fy = 35 KSI)

MACHINE BOLTS (M.B.): ASTM A307, GRADE A

HIGH-STRENGTH BOLTS: ASTM 3125, GRADE F1852, UNLESS NOTED OTHERWISE, ASTM 3125, GRADE F2280 WHERE INDICATED

ANCHOR BOLTS (A.B.): ASTM F1554, GRADE 55, UNLESS NOTED OTHERWISE, ASTM F1554, GRADE 105 WHERE INDICATED.

WIDE FLANGE STRUCTURAL MEMBERS WHICH ARE ASTM A6 GROUP 3 SHAPES WITH FLANGE THICKNESS 1-1/2" THICK AND THICKER, AND ALL ASTM A6 GROUP 4 AND 5 SHAPES AND PLATE THAT IS 1-1/2" THICK OR THICKER SHALL HAVE A CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LBS @ 70 DEG F.

WELDING

STRUCTURAL STEEL: WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE" AWS D1.1.

LATERAL FORCE-RESISTING SYSTEM: WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE SEISMIC SUPPLEMENT" AWS D1.8.

CERTIFICATION: ALL WELDING SHALL BE PERFORMED BY WABO CERTIFIED WELDERS. WELDERS SHALL BE PREQUALIFIED FOR EACH POSITION AND WELD TYPE WHICH THE WELDER WILL BE PERFORMING.

WELD TABS (ALSO KNOWN AS WELD "EXTENSION" TABS OR "RUN OFF" TABS) SHALL BE USED. AFTER THE WELD HAS BEEN COMPLETED THE WELD TABS SHALL BE REMOVED AND THE WELD END GROUND TO A SMOOTH CONTOUR. WELD "DAMS" OR "END DAMS" SHALL NOT BE USED.

THE PROCESS CONSUMABLES FOR ALL WELD FILLER METAL INCLUDING TACK WELDS, ROOT PASS AND SUBSEQUENT PASSES DEPOSITED IN A JOINT SHALL BE COMPATIBLE.

ALL WELD FILLER METAL AND WELD PROCESS SHALL PROVIDE THE TENSILE STRENGTH AND CHARPY V-NOTCH RATINGS AS FOLLOWS:

GRAVITY FRAME

WELD TYPE	FILLER METAL TENSILE STRENGTH	CHARPY V-NOTCH (CVN) RATING
FILLET	70 KSI	-----
PARTIAL PENETRATION	70 KSI	-----
COMPLETE PENETRATION	70 KSI	20 FT-LBS @ 40 DEG F

LATERAL FORCE-RESISTING SYSTEM

WELD TYPE	FILLER METAL TENSILE STRENGTH	CHARPY V-NOTCH (CVN) RATING
FILLET	70 KSI	20 FT-LBS @ 0 DEG F
PARTIAL PENETRATION	70 KSI	20 FT-LBS @ 0 DEG F
COMPLETE PENETRATION	70 KSI	20 FT-LBS @ 0 DEG F
FILLET (1)	70 KSI	40 FT-LBS @ 70 DEG F
PARTIAL PENETRATION (1)	70 KSI	40 FT-LBS @ 70 DEG F
COMPLETE PENETRATION (1)	70 KSI	40 FT-LBS @ 70 DEG F

(1) DCW LOCATIONS ARE INDICATED IN THE DETAILS.

WELDED CONNECTIONS INSPECTION:

1. ALL WELDING SHALL BE CHECKED BY VISUAL MEANS AND BY OTHER METHODS DEEMED NECESSARY BY THE WELDING INSPECTOR.
2. ALL FULL PENETRATION WELDS TO MEMBERS WHICH FORM A PORTION OF THE LATERAL FORCE-RESISTING SYSTEM SHALL BE CHECKED 100 PERCENT BY ULTRASONIC TESTING.
3. THE CONTRACTOR SHALL SUBMIT A WRITTEN WELDING PROCEDURE SPECIFICATION FOR SHOP AND FIELD WELDING OF ALL LATERAL FORCE-RESISTING SYSTEM CONNECTIONS FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION.

THE STANDARDS OF ACCEPTANCE FOR WELDS TESTED BY ULTRASONIC METHODS SHALL CONFORM TO AWS D1.1.

ALL WELDS FOUND TO BE DEFECTIVE SHALL BE REPAIRED AND REINSPECTED BY THE SAME METHODS ORIGINALLY USED, AND THIS REPAIR AND REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR

GENERAL REQUIREMENTS

HIGH-STRENGTH BOLTS: ALL A325 HIGH-STRENGTH BOLTS (HSB) INDICATED AS A325 IN THE DRAWINGS SHALL BE ASTM F3125, GRADE F1852, UNLESS OTHERWISE INDICATED AS A490. ALL HSB INDICATED AS A490 SHALL BE ASTM F3125, GRADE F2280. ALL HSB SHALL BE BY "LEJEUNE BOLT COMPANY" OR PRE-APPROVED EQUAL AND SHALL BE INSTALLED PER SECTION 8.2 OF THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS", JUNE 2020 BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC SPECIFICATION). ALL BOLT HOLES SHALL BE STANDARD ROUND HOLES UNLESS NOTED OTHERWISE. THE FAYING SURFACES OF ALL PLIES WITHIN THE GRIP OF SLIP-CRITICAL BOLTS (A325SC OR A490SC) SHALL MEET THE REQUIREMENTS FOR A CLASS A SURFACE PER SECTION 3.2 OF THE RCSC SPECIFICATION.

BOLTED CONNECTIONS INSPECTION: CONNECTIONS MADE WITH BEARING TYPE BOLTS SHALL BE INSPECTED PER SECTION 9.1 AND CONNECTIONS MADE WITH SLIP-CRITICAL TYPE BOLTS (A325SC OR A490SC) SHALL BE INSPECTED PER SECTION 9.3 OF RCSC SPECIFICATION.

ADHESIVE ANCHOR RODS: FULLY THREADED ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE.

HEADED STUDS: SHALL BE "H4L HEADED CONCRETE ANCHORS" FOR STUDS 5/8" DIAMETER AND SMALLER AND "S3L SHEAR CONNECTORS" FOR STUDS 3/4" DIAMETER AND LARGER AS MANUFACTURED BY NELSON STUD WELDING, INC. OR PRE-APPROVED EQUAL AND SHALL CONFORM TO AWS D1.1. ALL HEADED STUDS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS USING A NELSON WELD GUN, UNLESS NOTED OTHERWISE ON DETAILS. ALL WELDS SHALL BE MADE AND INSPECTED IN ACCORDANCE WITH AWS D1.1.

FINISH: STRUCTURAL STEEL SHALL BE PRIMER PAINTED, UNLESS NOTED OTHERWISE, AND SHALL BE CLEAN OF LOOSE RUST, LOOSE MILL SCALE, OIL, GREASE AND OTHER FOREIGN SUBSTANCES AND SHALL MEET THE REQUIREMENTS OF SSPC-SP1. WHERE STRUCTURAL STEEL IS NOTED TO BE PAINTED, ALL AREAS COMPRISING THE FAYING SURFACES OF BOLTED CONNECTIONS MADE WITH SLIP-CRITICAL TYPE BOLTS (A325SC OR A490SC) SHALL COMPLY WITH THE REQUIREMENTS OF THE RCSC SPECIFICATION. WHERE STRUCTURAL STEEL IS NOTED TO BE GALVANIZED, IT SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123, A384, AND A385. ALL SURFACES WITHIN TWO INCHES OF ANY FIELD WELD LOCATION SHALL BE FREE OF MATERIALS THAT WOULD PREVENT PROPER WELDING OR PRODUCE OBJECTIONABLE FUMES. FIELD TOUCH-UP OF PRIMED, PAINTED, AND GALVANIZED SURFACES SHALL BE PERFORMED TO REPAIR COATING ABRASIONS, AS WELL AS TO PROTECT ALL AREAS AT CONNECTIONS.

ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS): ALL MEMBERS DESIGNATED AS AESS SHALL CONFORM TO SECTION 10, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL, OF THE AISC CODE OF STANDARD PRACTICE.

AESS CATEGORY	DESCRIPTION
AESS 1	BASIC ELEMENTS
AESS 2	FEATURE ELEMENTS NOT IN CLOSE VIEW (ELEMENTS VIEWED AT A DISTANCE > 20 FEET)
AESS 3	FEATURE ELEMENTS IN CLOSE VIEW (ELEMENTS VIEWED AT A DISTANCE < 20 FEET)
AESS 4	SHOWCASE ELEMENTS (ELEMENTS WITH SPECIAL SURFACE & EDGE TREATMENT BEYOND FABRICATION)
AESS C	CUSTOM ELEMENTS (ELEMENTS WITH CHARACTERISTICS DESCRIBED IN THE CONTRACT DOCUMENTS)

METAL ROOF DECK: SHALL CONTAIN THE MINIMUM PROPERTIES SHOWN ON THE STRUCTURAL DRAWINGS AND SHALL BE MANUFACTURED BY VERCO MANUFACTURING CO., ASC STEEL DECK, EPIC METALS, OR PRE-APPROVED EQUAL. THE ROOF DECK SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A611 OR A653, AND SHALL BE GALVANIZED PER ASTM A924. THE ROOF DECK SHALL BE PLACED ON THE SUPPORTING FRAMEWORK WITH A MINIMUM END LAP OF TWO INCHES. SUBMIT SHOP DRAWINGS SHOWING LAYOUT AND FASTENING PATTERN. ALL ACCESSORIES SHALL BE PROVIDED TO COMPLETE THE ERECTION OF THE STEEL DECK.

PREFABRICATED METAL STAIRS AND LANDINGS: SHALL BE DESIGNED PER AISC AND IBC REQUIREMENTS. STRINGERS AND LANDINGS SHALL BE DESIGNED FOR A MINIMUM OF 100 PSF LIVE LOAD. INDIVIDUAL TREADS SHALL BE DESIGNED FOR 300 POUND CONCENTRATED LOAD. EGRESS STAIRS AND LANDINGS SHALL BE DESIGNED WITH CONNECTIONS THAT ALLOW FOR SLIDING OR PROVIDE DUCTILITY TO ACCOMMODATE A HORIZONTAL SEISMIC INTERSTORY DRIFT OF 2" BETWEEN EACH LEVEL PER SECTION 13.5.10 OF ASCE 7-16. THE STAIR DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD SHOWING THE COMPLETE ASSEMBLY AND ATTACHMENTS TO THE SURROUNDING STRUCTURE. THE ATTACHMENTS SHALL BE DETAILED SUCH THAT NO TORQUE IS APPLIED TO THE SURROUNDING STRUCTURAL MEMBERS. THE CALCULATIONS AND SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT.

STEEL SAFETY GRATING: SHALL BE "GRIP-STRUT" BY EATON, INC., OR APPROVED EQUAL. GRATING SHALL BE DESIGNED TO CARRY THE LOADS LISTED IN THE DESIGN CRITERION AND ANY ADDITIONAL LOADS INDICATED ON THE FRAMING PLANS. PROVIDE SHOP AND INSTALLATION DRAWINGS PRODUCED UNDER THE SUPERVISION OF AND BE STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. DETAIL DRAWINGS TO INDICATE TYPES, SIZE, SPACING, CONNECTIONS, ANCHORING AND OTHER PERTINENT DETAILS.

BAR GRATING: SHALL BE RYERSON "RY-WELD" STEEL GRATING OR PRE-APPROVED EQUAL AND DESIGNED TO OSHA STANDARDS. GRATING SHALL BE DESIGNED TO CARRY THE LOADS LISTED IN THE DESIGN CRITERION AND ANY ADDITIONAL LOADS INDICATED ON THE FRAMING PLAN. PROVIDE SHOP AND INSTALLATION DRAWINGS PRODUCED UNDER THE SUPERVISION OF AND BE STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF PROJECT. DETAIL DRAWINGS TO INDICATE TYPES, SIZE, SPACING, CONNECTIONS, ANCHORING AND OTHER PERTINENT DETAILS.

COLD-FORMED STEEL FRAMING CONSTRUCTION:

THE DESIGN, INSTALLATION AND CONSTRUCTION OF COLD-FORMED CARBON OR LOW-ALLOY STEEL, STRUCTURAL AND NON-STRUCTURAL STEEL FRAMING, SHALL BE IN ACCORDANCE WITH IBC SECTION 2211 AND AMERICAN IRON AND STEEL INSTITUTE (AISI) STANDARD S100-16 AND S240-20 AND SHALL BE MANUFACTURED BY A MEMBER OF THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA), CERTIFIED STEEL STUD ASSOCIATION (CSSA), STEEL FRAMING INDUSTRY ASSOCIATION (SFIA), OR PRE-APPROVED EQUAL, IN ACCORDANCE WITH A CURRENT ICC EVALUATION SERVICE REPORT, AISI S202-20 AND S240-20. ALL 54 MIL AND HEAVIER GALVANIZED MEMBERS SHALL BE FORMED FROM STEEL THAT MEETS THE REQUIREMENTS OF ASTM A653, QUALITY SQ, GRADE 50, CLASS 1, FY= 50 KSI. ALL 43 MIL AND LIGHTER GALVANIZED MEMBERS SHALL BE FORMED FROM STEEL THAT MEETS THE REQUIREMENTS OF ASTM A653, QUALITY SQ, GRADE 33, FY=33 KSI. BRIDGING PER MANUFACTURER'S REQUIREMENTS AND AS SHOWN IN THE STRUCTURAL DRAWINGS SHALL BE IN PLACE PRIOR TO PLACING OF ANY CONSTRUCTION LOADS. ALL RUNS SHALL BE RIGIDLY ANCHORED TO END WALLS.

EXTERIOR WALL AND BEARING WALL COLD-FORMED STEEL FRAMING: COLD-FORMED STEEL FRAMING MEMBERS SHALL MEET THE TYPE, SIZE AND THICKNESS AS INDICATED ON THE STRUCTURAL PLANS AND SPECIFICATIONS.

INTERIOR NON-BEARING WALL, CEILING, SOFFIT, AND OTHER MISC. COLD-FORMED STEEL FRAMING: COLD-FORMED STEEL FRAMING MEMBERS SHALL MEET THE TYPE, SIZE, AND THICKNESS AS INDICATED IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS, AND SHALL CONFORM TO THE MINIMUM PERSCRIPTIVE REQUIREMENTS OF THE GYPSUM CONSTRUCTION HANDBOOK BY CGC, INC. FRAMING CONDITIONS THAT EXCEED THE WEIGHT, SPAN OR HEIGHT LIMITATIONS SHALL BE CONSTRUCTED USING APPLICABLE DETAILS ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, FABRICATION AND ERECTION OF ALL COLD-FORMED FRAMING NOT SPECIFICALLY DETAILED IN THE GYPSUM CONSTRUCTION HANDBOOK OR ON THE STRUCTURAL DRAWINGS. THE DESIGN AND DETAILING OF THE COLD-FORMED STEEL FRAMING AND CONNECTION TO THE STRUCTURE SHALL BE PREPARED UNDER THE DIRECTION OF AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO CONSTRUCTION.

POWDER ACTUATED FASTENERS: SHALL BE X-U UNIVERSAL KNURLED SHANK FASTENER BY HILTI OR PRE-APPROVED EQUAL. INSTALL PER ALL MANUFACTURER'S PUBLISHED RECOMMENDATIONS. COLD-FORMED STEEL TO STRUCTURAL STEEL: UNLESS NOTED OTHERWISE, PROVIDE 0.157" SHANK DIAMETER X-U LOW-VELOCITY FASTENER - FASTENER TIP SHALL PENETRATE STRUCTURAL STEEL. COLD-FORMED STEEL TO CONCRETE: UNLESS NOTED OTHERWISE, PROVIDE 0.157" SHANK DIAMETER X-U LOW-VELOCITY FASTENER - EMBED 1-1/2" MINIMUM INTO CONCRETE, UNLESS NOTED OTHERWISE.

CARPENTRY:

WOOD SHEATHING (STRUCTURAL): SHEATHING ON WALLS SHALL BE PLYWOOD OR ORIENTED STRAND BOARD (OSB). WOOD SHEATHING SHALL BE "STRUCTURAL I" CONFORMING TO PS1-09 AND/OR PS2-10. ALL PANELS SHALL BEAR THE STAMP OF AN APPROVED GRADING AGENCY. SPAN RATING SHALL BE PROVIDED AS FOLLOWS: WALLS (32/16); ALL WOOD SHEATHED WALLS SHALL BE BLOCKED AT ALL PANEL EDGES UNLESS NOTED OTHERWISE.

FIRE-RETARDANT TREATED PLYWOOD: FIRE-RETARDANT TREATED PLYWOOD SHALL COMPLY WITH IBC 2303.2.

MISCELLANEOUS:

PRE-APPROVED SUBSTITUTIONS: SUBSTITUTIONS MAY BE ALLOWED ONLY IF THEY MEET THE REQUIREMENTS OF THESE GENERAL NOTES AND THE SPECIFICATIONS, AND IF COMPLETE WRITTEN ENGINEERING DATA FOR EACH CONDITION REQUIRED FOR THIS PROJECT IS PROVIDED TO THE STRUCTURAL ENGINEER TWO WEEKS PRIOR TO BID DATE AND APPROVED IN WRITTEN ADDENDA BY THE ARCHITECT. DATA IS TO INDICATE CODE BASIS BY YEAR, AUTHORITY FOR STRESSES AND STRESS INCREASES, IF ANY, AND AMOUNT OF EXPECTED DEFLECTION FOR FLEXURAL MEMBERS UNDER (1) TOTAL LOAD AND (2) LIVE LOAD ONLY. ALL INCREASED COSTS IN MECHANICAL, SPRINKLER, ELECTRICAL OR GENERAL INSTALLATION AND ANY ARCHITECTURAL OR STRUCTURAL REDESIGN RESULTING FROM SUBSTITUTION SHALL BE BORNE BY THE GENERAL CONTRACTOR.

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PROJECT NAME/ADDRESS

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110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1
09.27.24	REVISION 2	2

SHEET TITLE
GENERAL NOTES

SHEET #
S1.12

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City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

SHOP DRAWINGS/SUBMITTALS

THE FOLLOWING SHOP DRAWINGS/SUBMITTALS SHALL BE PROVIDED FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OR DELIVERY.

		STRUCTURAL ENGR.	BLDG. DEPT.
1.	CONCRETE MIX DESIGNS	X	X
2.	REINFORCING STEEL SHOP DRAWINGS	X	
3.	STRUCTURAL STEEL	X	X
4.	METAL DECK	X	X
5.	COLD-FORMED STEEL FRAMING	X	X
6.	PREFABRICATED METAL STAIRS AND LANDINGS	X	X
7.	MISCELLANEOUS STEEL	X	X
8.	CONTRACTOR'S STATEMENT OF RESPONSIBILITY	X	X

DEFERRED SUBMITTALS

THE FOLLOWING ARE NOT INCLUDED WITH THE BUILDING PERMIT DRAWINGS AND SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL AS A DEFERRED SUBMITTAL. SUBMITTALS SHALL BE STAMPED BY A ENGINEER LICENSED IN THE STATE OF THE PROJECT AS NOTED.

		ENGINEER STAMP REQUIRED
1.	PREFABRICATED METAL STAIRS AND LANDINGS	PE

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED BY AN INDEPENDENT TESTING LABORATORY PER THE REQUIREMENTS OF IBC CHAPTER 17 AND THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION AND THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SUBMIT INSPECTION REPORTS AND A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL FOR THE ITEMS LISTED IN THE QUALITY ASSURANCE/SPECIAL INSPECTION SECTION:

STATEMENT OF SPECIAL INSPECTIONS:

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED PER THE REQUIREMENTS OF IBC SECTION 1704 AND 1705 AND AS NOTED HEREIN.

STRUCTURAL SYSTEM	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	COMMENTS	REFERENCES
SOILS	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X		IBC 1705.6
	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X		
	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		X		
	DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X			
	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X		
	CONSTRUCTION OF AGGREGATE PIER	X			IBC 1705.8
STEEL CONSTRUCTION	VISUAL WELDING INSPECTION A. INSPECTION PRIOR TO WELDING B. INSPECTION DURING WELDING C. INSPECTION AFTER WELDING		 X X X	SPECIAL INSPECTIONS IN THIS SECTION **MAY BE** WAIVED WHERE FABRICATION IS PERFORMED ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED IN ACCORDANCE WITH IBC SECTION 1704.2.5 **AND WITH THE APPROVAL OF THE BUILDING OFFICIAL.**	AISC 360 CHAPTER N5.4 AISC 341 CHAPTER J6.1 TABLE N5.4-1; TABLE J6.1 TABLE N5.4-2; TABLE J6.2 TABLE N5.4-3; TABLE J6.3
	NON-DESTRUCTIVE TESTING OF WELDED JOINTS	X			AISC 360 CHAPTER N5.5 AISC 341 CHAPTER J6.2
	HIGH STRENGTH BOLTING INSPECTION A. INSPECTION PRIOR TO BOLTING B. INSPECTION DURING BOLTING C. INSPECTION AFTER BOLTING		 X X X		AISC 360 CHAPTER N5.6 AISC 341 CHAPTER J7 TABLE N5.6-1; TABLE J7.1 TABLE N5.6-2; TABLE J7.2 TABLE N5.6-3; TABLE J7.3
	INSPECTION OF GALVANIZED STRUCTURAL STEEL MAIN MEMBERS		X		AISC 360 CHAPTER N5.7
	OTHER INSPECTION TASKS A. ANCHOR RODS AND OTHER EMBEDMENTS PRIOR TO CONCRETE PLACEMENT B. INSPECT STEEL FRAME FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS		 X X		AISC 360 CHAPTER N5.8 AISC 341 CHAPTER J8 AISC 360 CHAPTER N5.8 AISC 360 CHAPTER N5.8
STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL	MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS B. MANUFACTURER'S CERTIFIED TEST REPORTS		 X X		APPLICABLE ASTM MATERIAL STANDARDS & IBC 2210.1.1
	INSPECTION OF WELDING A. COLD-FORM STEEL DECK WELDS		X		AWS D1.3 AWS D1.4

STRUCTURAL SYSTEM	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	COMMENTS	REFERENCES
CONCRETE	INSPECT REINFORCEMENT AND VERIFY PLACEMENT		X	SPECIAL INSPECTIONS NOT REQUIRED FOR THE FOLLOWING CONDITIONS: NON-STRUCTURAL SLAB ON GRADE ISOLATED SPREAD FOOTINGS FOR BUILDINGS THREE-STORIES AND LESS ABOVE GRADE PLANE	ACI 318: CH 20, 25.2, 25.3, 26.6-1 TO 26.6-3, IBC 1908
	ANCHORS CAST IN CONCRETE-PRIOR TO AND DURING PLACEMENT OF CONCRETE		X		ACI 318: 26.7 AISC 360 SECTION N7
	VERIFY USE OF REQUIRED DESIGN MIX		X		ACI 318, CH 19
	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X			ASTM C172, C31 ACI 318: 26.4, 26.12
	CONCRETE PLACEMENT FOR PROPER APPLICATION	X			ACI 318: 26.5
	MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X		ACI 318: 26.5.3 TO 26.5.5
	ANCHORS POST-INSTALLED IN HARDENED CONCRETE (MECHANICAL ANCHORS INSTALLED IN ANY DIRECTION AND ADHESIVE ANCHORS INSTALLED DOWNWARD)		X	PERIODIC INSPECTION TO INCLUDE A QUANTITY OF 10% WITH A MINIMUM OF (5) ANCHORS INSPECTED PER INSTALLER ON A DAILY BASIS.	ACI 318: 26.7 MFR EVAL REPORT MFR PUBLISHED INSTALLATION INSTRUCTIONS
	ANCHORS POST-INSTALLED IN HARDENED CONCRETE (ADHESIVE ANCHORS INSTALLED HORIZONTAL OR UPWARDLY INCLINED)	X			ACI 318: 26.7 MFR EVAL REPORT MFR PUBLISHED INSTALLATION INSTRUCTIONS
	VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X		ACI 318: 26.11.2
	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X		ACI 318: 26.11.1.2(b)
	MATERIAL VERIFICATION OF REINFORCEMENT STEEL FOR ASTM A615 REINFORCING		X	MANUFACTURER SHALL PROVIDE MILL TEST REPORTS. CONTINUOUS INSPECTION FOR ALL WELDS GREATER THAN 5/16" FILLET. PERIODIC INSPECTION FOR FILLET WELD 5/16" AND SMALLER	ACI 318: 26.6.4 AWS D1.4 IBC 1705.3.1
	TESTING OF MATERIALS		X		IBC 1705.3.2
	INSPECTION OF WELDING FOR REINFORCING STEEL A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706 B. REINFORCING STEEL IN MOMENT FRAMES AND BOUNDARY ELEMENTS C. SHEAR REINFORCEMENT D. OTHER REINFORCING STEEL	 X X X	 X		AWS D1.3 AWS D1.4 ACI 318 SECTION 26.6.4
COLD-FORMED STEEL FRAMING	SCREW ATTACHMENT, WELDING, BOLTING, ANCHORING AND FASTENING OF ELEMENTS OF SEISMIC RESISTING SYSTEM INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, COLLECTORS (DRAG STRUTS) AND HOLDOWNS		X	NOT REQUIRED WHERE SCREWS SPACED GREATER THAN 4" O.C.	IBC 1705..12.2, 1705.13.3 AWS D1.3
	EXTERIOR WALLS		X		IBC 1705.11.3, 1705.12.5

TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED FOR EACH INSPECTION ITEM ON A DAILY BASIS WHENEVER WORK IS PERFORMED ON THAT ITEM. REPORTS SHALL BE DISTRIBUTED TO OWNER, CONTRACTOR, BUILDING OFFICIAL, ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.

STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD OR DESIGNATED REPRESENTATIVE IN ACCORDANCE WITH IBC 1704.6. STRUCTURAL OBSERVATION SHALL BE PERFORMED AS FOLLOWS:

- PERIODIC VISUAL OBSERVATION OF STRUCTURAL SYSTEMS FOR GENERAL CONFORMANCE TO CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES.
- REVIEW OF TESTING AND INSPECTION REPORTS.
- REPORTS SHALL BE PREPARED FOR EACH SITE VISIT AND SHALL BE DISTRIBUTED TO ARCHITECT.

GENERAL CONTRACTOR SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL INCLUDE ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.

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PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1

SHEET TITLE
GENERAL NOTES

SHEET #
S1.13

10/10/2024 4:07:52 PM C:_Revit Models\24318 WSF International Village R2023 (Central)_rwelfinger.rvt

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

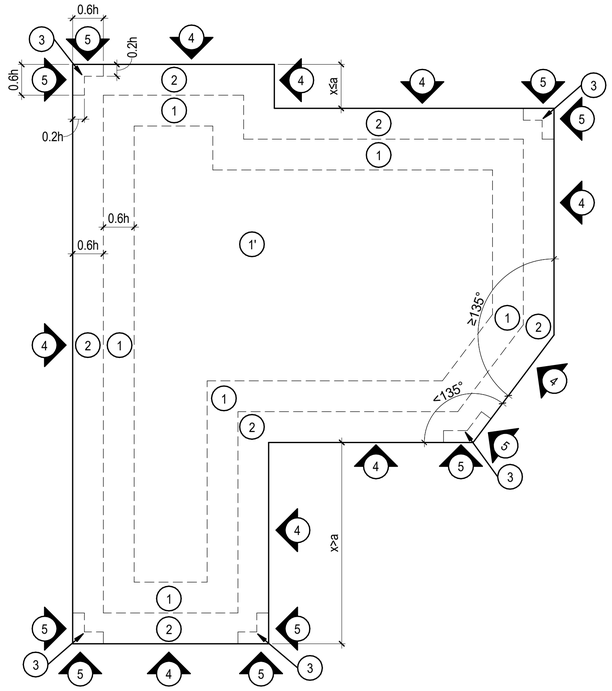
Building	Planning
Engineering	Public Works
Fire	Traffic

ROOF SURFACES [1]					
EFFECTIVE WIND AREA	POSITIVE PRESSURES (PSF)	NEGATIVE PRESSURES (PSF)			
		ZONE [3]			
	ALL ZONES	1'	1	2	3
10 SF	16.0	-17.6	-30.7	-40.5	-55.2
20 SF	16.0	-17.6	-28.7	-37.9	-50.0
50 SF	16.0	-17.6	-26.0	-34.4	-43.1
100 SF	16.0	-17.6	-24.0	-31.8	-37.9

WALL SURFACES [1]				
EFFECTIVE WIND AREA	POSITIVE PRESSURE (PSF)		NEGATIVE PRESSURE (PSF)	
	ZONE [2]			
	4	5	4	5
10 SF	19.3	19.3	-20.9	-25.8
20 SF	18.4	18.4	-20.0	-24.1
50 SF	17.2	17.2	-18.9	-21.8
100 SF	16.4	16.4	-18.0	-20.0
500 SF	16.0	16.0	-16.0	-16.0

ROOF OVERHANGS [1]				
EFFECTIVE WIND AREA	NEGATIVE PRESSURE (PSF)			
	ZONE [3]			
	1'	1	2	3
10 SF	-27.8	-27.8	-37.5	-52.2
20 SF	-27.3	-27.3	-34.1	-46.2
50 SF	-26.6	-26.6	-29.5	-38.1
100 SF	-26.1	-26.1	-26.0	-32.1
500 SF	-25.0	-25.0	-18.0	-18.0

1. VALUES SHOWN IN TABLE ARE GROSS ULTIMATE WIND PRESSURES.
2. WALL ZONES ARE AS DEFINED BY FIGURE 30.3-1 IN ASCE 7-16 FOR LOW RISE BUILDINGS.
3. ROOF ZONES ARE AS DEFINED BY FIGURES 30.3-2 THROUGH 30.3-7 IN ASCE 7-16 FOR LOW RISE BUILDINGS.



ENCLOSED AND PARTIALLY ENCLOSED FLAT/HIP/GABLE ROOF WITH θ ≤ 7° - OR MONOSLOPE ROOF WITH θ ≤ 3°
- COMPONENTS AND CLADDING WIND PRESSURE ZONES

NOTES:
1. a = 8'; h = 12'.
2. IF OVERHANGS EXIST, THE EDGE DISTANCE, A, SHALL BE MEASURED FROM THE OUTSIDE EDGE OF THE OVERHANG.
3. IF x ≤ a, ZONES 3 AND 5 NEED NOT APPLY AT CORNER.
4. DIAGRAMS ARE GENERIC REPRESENTATIONS OF PROJECT WIND PRESSURES ZONES TO AID WITH APPLICATION OF WIND PRESSURES. SEE PLANS FOR EXACT REPRESENTATION OF THE BUILDING.

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JACK J. PINKERTON — STATE OF WASHINGTON — 26161 — REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE

PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1

SHEET TITLE

GENERAL NOTES

SHEET #

S1.14

C:_Revit Models\24318 WSF International Village R2023 (Central)_rwelfringer.rvt
10/10/2024 4:07:53 PM

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

ABBREVIATION LIST

@	AT	DCW	DEMAND CRITICAL WELD	HGR	HANGER	P.P.	PARTIAL PENETRATION
A.B.	ANCHOR BOLT	D.F.	DOUGLAS FIR	HORIZ.	HORIZONTAL	P.P.T.	PRESERVATIVE PRESSURE TREATED
ADD'L	ADDITIONAL	DIA. OR Ø	DIAMETER	HSS	HOLLOW STRUCTURAL SECTION	P.S.F.	POUNDS PER SQUARE FOOT
A.F.F.	ABOVE FINISH FLOOR	DIAG.	DIAGONAL	HT	HEIGHT	PSL	PARALLAM
ALT.	ALTERNATE	DIM.	DIMENSION	INT.	INTERIOR	P.T.	POST TENSION
ARCH.	ARCHITECTURAL	D.L.	DEAD LOAD	JST	JOIST	PW.	PLYWOOD
BLD'G	BUILDING	DWG	DRAWING	JT	JOINT	REINF.	REINFORCEMENT
BLK'G	BLOCKING	DWL	DOWEL	L	ANGLE	REQ'D	REQUIRED
BM	BEAM	(E)	EXISTING	L.F.R.S.	LATERAL FORCE-RESISTING SYSTEM	SCHED.	SCHEDULE
B.O.F.	BOTTOM OF FOOTING	EA.	EACH	L.L.	LIVE LOAD	SCL	STRUCTURAL COMPOSITE LUMBER
BOT.	BOTTOM	E.F.	EACH FACE	LLH	LONG LEG HORIZONTAL	SHT'G	SHEATHING
BRB	BUCKLING RESTRAINED BRACE	EL.	ELEVATION	LLV	LONG LEG VERTICAL	SIM.	SIMILAR
BRG	BEARING	ELEV.	ELEVATOR	LOC.	LOCATION	S.O.G.	SLAB ON GRADE
BTWN	BETWEEN	ENGR	ENGINEER	LSL	LAMINATED STRAND LUMBER	SQ.	SQUARE
B.U.	BUILT UP	EQ.	EQUAL	LVL	LAMINATED VENEER LUMBER	STD	STANDARD
(C=)	CAMBER	E.W.	EACH WAY	MAX.	MAXIMUM	STIFF.	STIFFENER
CANT.	CANTILEVER	EXP.	EXPANSION	M.B.	MACHINE BOLT	STL	STEEL
CFS	COLD-FORMED STEEL	EXT.	EXTERIOR	MECH.	MECHANICAL	STRUCT.	STRUCTURAL
C.J.	CONTROL/CONSTRUCTION JOINT	FDN	FOUNDATION	MEZZ.	MEZZANINE	T&B	TOP & BOTTOM
℄	CENTERLINE	F.F.	FAR FACE	MFR	MANUFACTURER	T&G	TONGUE AND GROOVE
CLR.	CLEARANCE	FLR	FLOOR	MIN.	MINIMUM	THR'D	THREADED
CMU	CONCRETE MASONRY UNIT	F.O.M.	FACE OF MASONRY	MISC.	MISCELLANEOUS	T.O.F.	TOP OF FOOTING
COL.	COLUMN	F.O.S.	FACE OF STUD	MTL	METAL	T.O.S.	TOP OF STEEL
CONC.	CONCRETE	FRM'G	FRAMING	N.F.	NEAR FACE	TRT'D	TREATED
CONN.	CONNECTION	F.R.T.	FIRE RETARDANT TREATED	N.S.	NEAR SIDE	TYP.	TYPICAL
CONST.	CONSTRUCTION	F.S.	FAR SIDE	NTS	NOT TO SCALE	U.N.O.	UNLESS NOTED OTHERWISE
CONT.	CONTINUOUS	FTG	FOOTING	O.C.	ON CENTER	U.T.	ULTRASONIC TESTED
CONTR.	CONTRACTOR	GA.	GAGE/GAUGE	OPN'G	OPENING	VERT.	VERTICAL
COORD.	COORDINATE	GALV.	GALVANIZED	OPP.	OPPOSITE	W/	WITH
C.P.	COMPLETE PENETRATION	GL.	GLULAM	P.A.F.	POWDER ACTUATED FASTENER	W.P.	WORK POINT
CTR'D	CENTERED	GR.	GRADE	PERP.	PERPENDICULAR	WT	WEIGHT
C.Y.	CUBIC YARD	GWB	GYPSUM WALL BOARD	PL	PLATE	W.W.R.	WELDED WIRE REINFORCING
DBL.	DOUBLE	HDR	HEADER				

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GENERAL NOTES

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S1.15

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City of Puyallup
Development & Permitting Services
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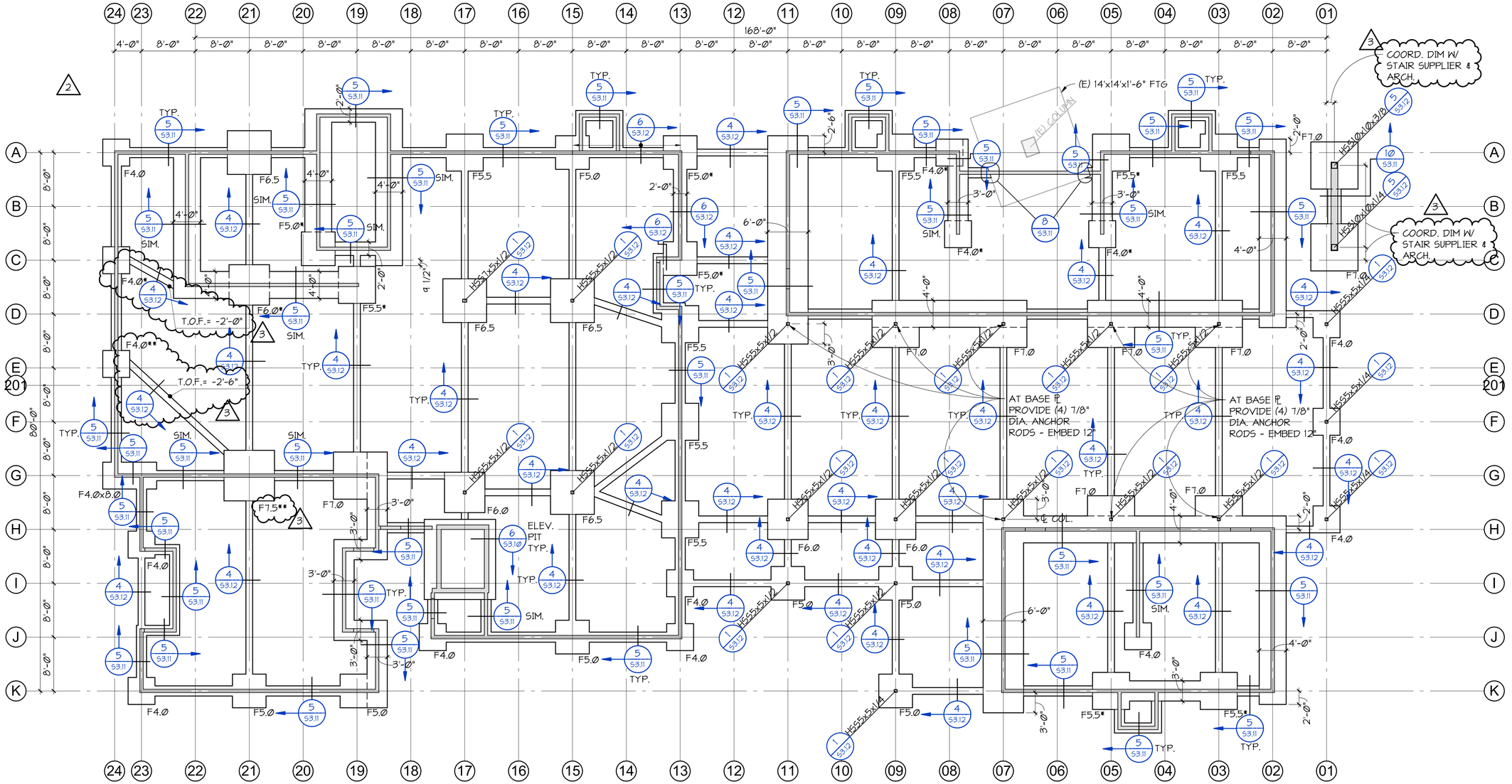
Engineering	Public Works
Fire	Traffic



NORTH

1 / S2.10 FOUNDATION PLAN
1/8" = 1'-Ø"

FOUNDATION NOTES

1. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
3. TOP OF SLAB = Ø'-Ø" UNLESS NOTED OTHERWISE.
4. TOP OF FOOTING ELEVATIONS = -1'-Ø"
5. INDICATES CONCRETE STEM WALL. FOR TOP OF WALL REQUIREMENTS AND CALLOUTS SEE GRADE LEVEL FRAMING PLANS.
6. INDICATES CONTINUOUS CONCRETE WALL FOOTING. FOR TYPICAL FOOTING AND STEM WALL DETAILS SEE SHEETS S3.11 & S3.12. FOOTING WIDTH ("W") = 1'-6" UNLESS NOTED OTHERWISE ON PLAN. CENTER FOOTINGS ON CONCRETE STEM WALL. EXTEND FOOTINGS 6" MINIMUM PAST ENDS OF WALL UNLESS NOTED OTHERWISE.
7. "F_" INDICATES CONCRETE SPREAD FOOTING. FOR SCHEDULE SEE 7/S3.11.
9. HSS5x5x3/8 INDICATES STEEL COLUMNS ORIGINATING AT FOUNDATION LEVEL. ALL COLUMNS ARE CONTINUOUS TO ROOF UNLESS NOTED OTHERWISE. FOR TYPICAL ANCHOR ROD/BOLT DETAIL SEE 1/S3.12.
10. FOR TYPICAL FOUNDATION DETAILS SEE SHEETS S3.11.
11. FOR TYPICAL PLACEMENT OF STEM WALL REINFORCEMENT, STEPS IN FOOTING, AND FOUNDATION CONSTRUCTION JOINTS, SEE DETAILS 3/S3.11, 1/S3.11, & 4/S3.11.

See architectural and energy code for slab insulation typical.

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SHEET TITLE
FOUNDATION PLAN

SHEET #
S2.10

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City of Puyallup
Development & Permitting Services
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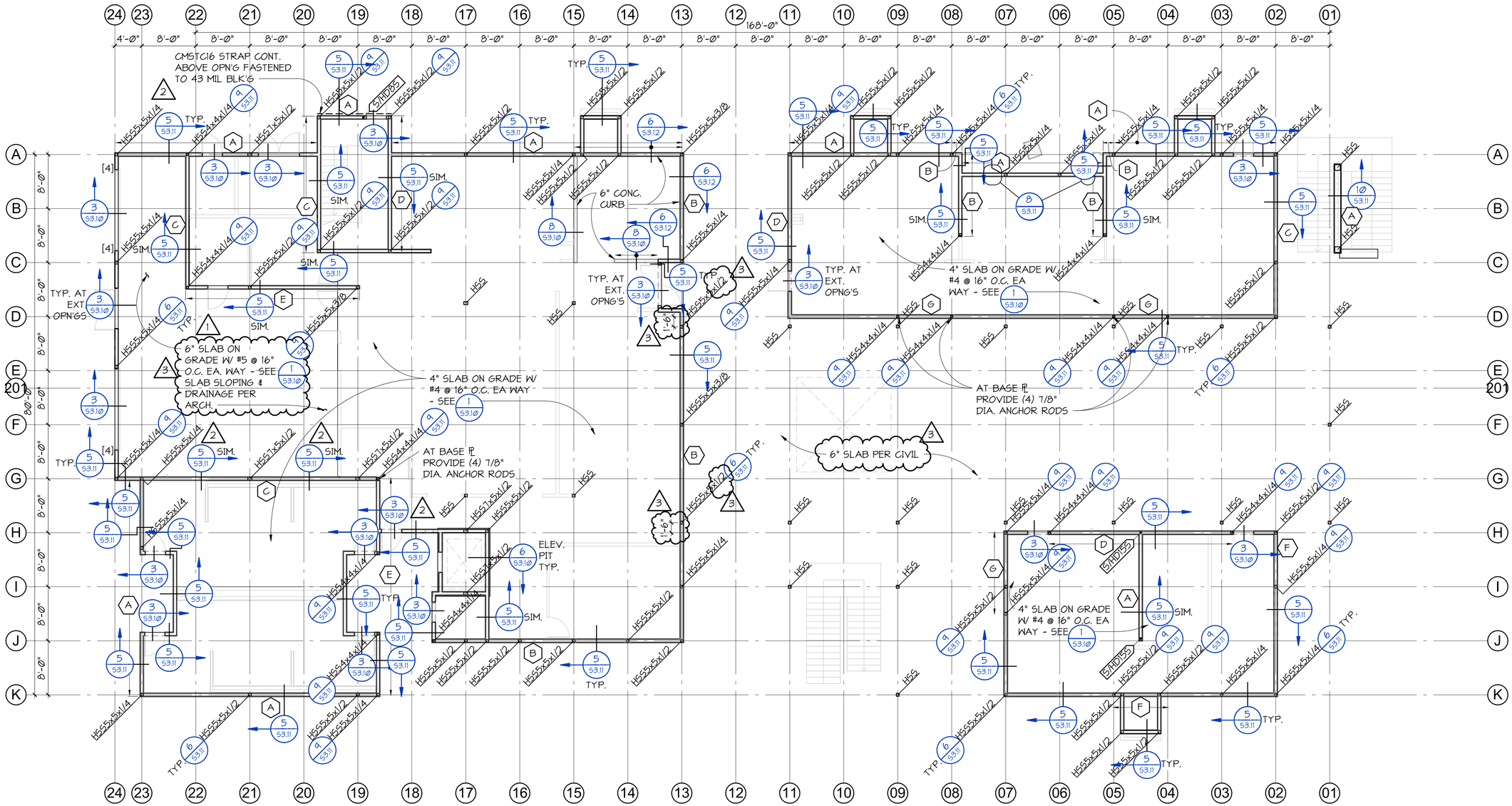
Engineering	Public Works
Fire	Traffic



NORTH

1 S2.11 GRADE LEVEL FRAMING PLAN

1/8" = 1'-Ø"

GRADE LEVEL FRAMING NOTES

1. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. TOP OF SLAB = Ø'-Ø" UNLESS NOTED OTHERWISE.
3. INDICATES 600S162-43 AT 16" ON CENTER EXTERIOR METAL STUD WALL UNLESS NOTED OTHERWISE IN PLANS OR DETAILS. FOR SCHEDULE SEE 2/S5.1Ø. FOR TYPICAL METAL STUD WALL DETAILS SEE SHEETS S5.1Ø THROUGH S5.16.
4. HSS5x5x3/8 — INDICATES STEEL COLUMNS ORIGINATING AT GRADE LEVEL UNLESS SHOWN ON FOUNDATION PLAN. ALL COLUMNS ARE CONTINUOUS TO ROOF UNLESS NOTED OTHERWISE. FOR TYPICAL ANCHOR ROD/BOLT DETAIL SEE 6/S3.11.
5. HSS — INDICATES TYPE OF CONTINUOUS COLUMN FROM LEVEL BELOW AND CONTINUING ON TO LEVEL ABOVE.
6. INDICATES SLOPED AND/OR DEPRESSED SLAB-ON-GRADE. SEE ARCHITECTURAL FOR EXACT LOCATIONS. FOR TYPICAL REINFORCING SEE SHEET 5/S3.1Ø.
7. FOR TYPICAL CONCRETE SLAB-ON-GRADE DETAILS SEE SHEETS S3.1Ø.
8. INDICATES NON-STRUCTURAL STUD WALLS. ALL WALLS ARE NOT SHOWN. FOR LOCATION SEE ARCHITECTURAL FOR BRACING AT TOPS OF WALLS SEE SHEET S5.15. FOR SCHEDULE AND TYPICAL FRAMING SEE SHEETS S5.15 & S5.16.
9. FOR SITE STRUCTURES INCLUDING CANOPIES, WALKWAYS, SITE SIGNS, ETC., SEE ARCHITECTURAL.
10. [X] — INDICATES NUMBER OF FULL HEIGHT JAMB STUDS AT EDGE OF OPENING. PROVIDE [2] UNLESS NOTED OTHERWISE.
11. 5/HD85 — INDICATES HOLDOWN. SEE 2/S3.12.
12. XX — INDICATES SPECIAL WALL TYPE. SEE 2/S5.1Ø.
13. ALL EXPOSED STRUCTURAL STEEL FRAMING SHOULD BE AESS CATEGORY 3.

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SHEET TITLE
GRADE LEVEL FRAMING PLAN

SHEET #
S2.11

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City of Puyallup
Development & Permitting Services
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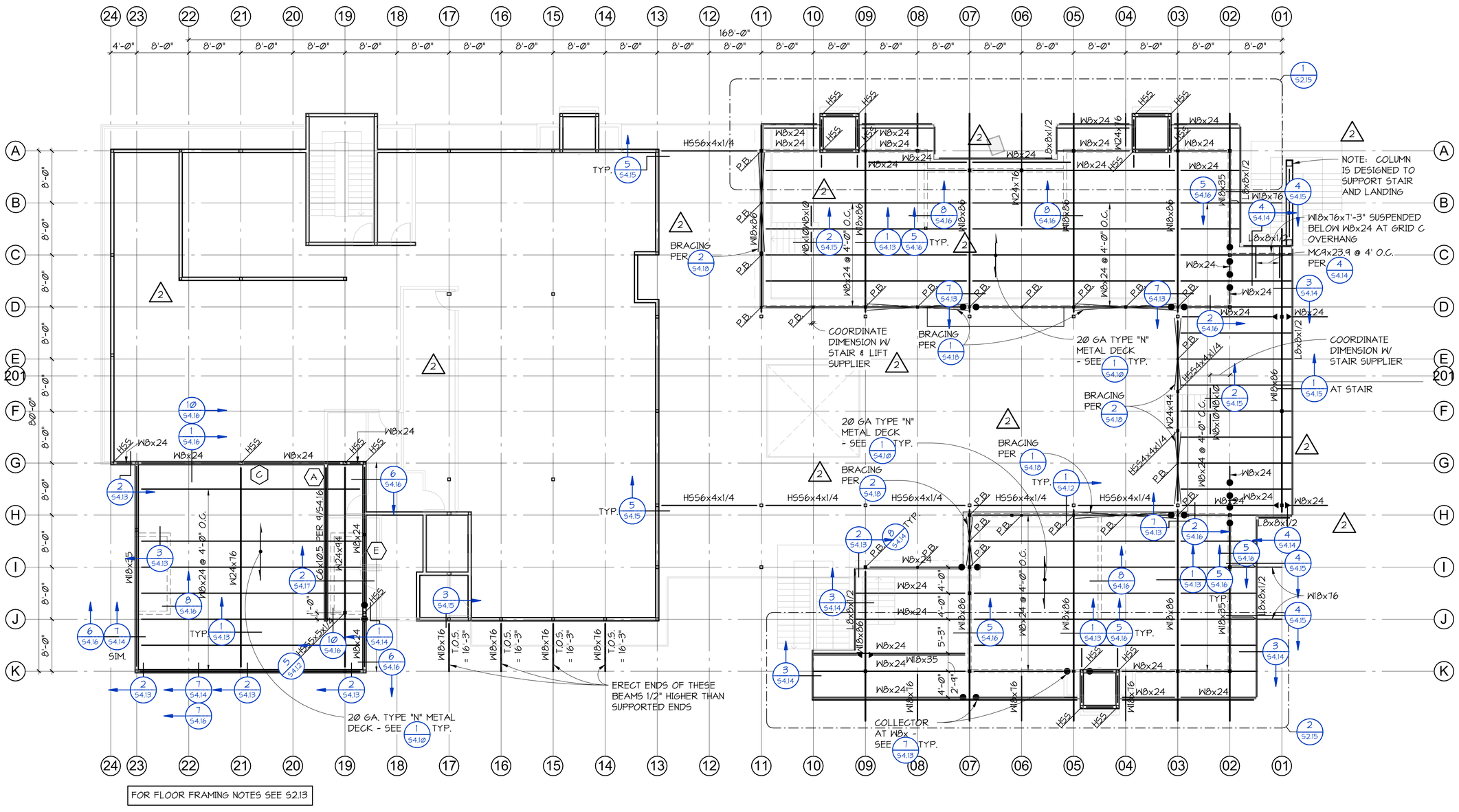
Building	Planning
Engineering	Public Works
Fire	Traffic



NORTH

1 / 52.12 LOWER DECK FRAMING PLAN

1/8" = 1'-Ø"

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SHEET TITLE

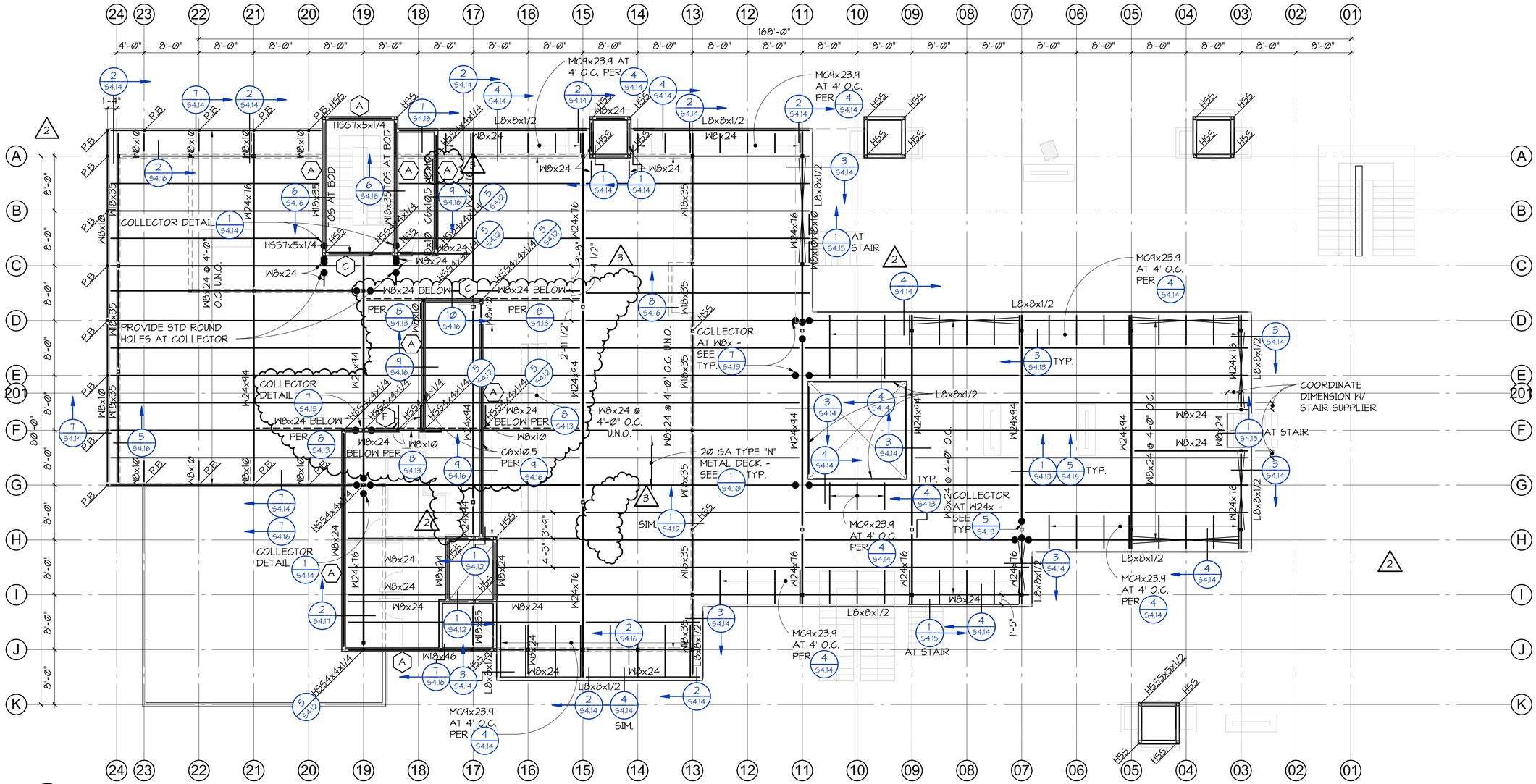
LOWER FLOOR FRAMING PLAN

SHEET #

S2.12

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

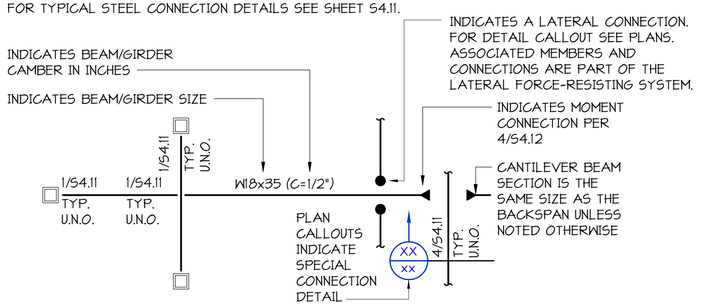


UPPER FLOOR FRAMING PLAN

1/8" = 1'-0"

FLOOR FRAMING NOTES

1. SEE FOUNDATION NOTES FOR EXTERIOR STUD WALL REQUIREMENTS.
2. HSS5x5x3/8 — INDICATES STEEL COLUMNS ORIGINATING AT FLOOR LEVEL UNLESS NOTED OTHERWISE.
3. HSS — INDICATES TYPE OF CONTINUOUS COLUMN FROM LEVEL BELOW AND CONTINUING ON TO LEVEL ABOVE.
4. ▫ — INDICATES STEEL COLUMN DISCONTINUING AT FLOOR LEVEL.
5. ⊠ — INDICATES PENETRATION IN FLOOR STRUCTURE. SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL FOR ADDITIONAL OPENINGS. FOR TYPICAL REINFORCING AROUND OPENINGS SEE 2/54.10 & 3/54.10.
6. FOR TYPICAL BEAM AND METAL DECK DETAILS SEE SHEET S4.10. FOR HANGING LOADS FROM METAL DECK SEE 6/54.10.
7. NON-STRUCTURAL STUD WALLS ARE SHOWN SCREENED FOR REFERENCE ONLY. FOR LOCATION SEE ARCHITECTURAL. FOR BRACING AT TOPS OF STUD WALLS SEE S5.15.RR.
8. ⟵ INDICATES DIRECTION OF SPAN FOR METAL DECK.
9. FOR TYPICAL STEEL CONNECTION DETAILS SEE SHEET S4.11.



10. 1500# — INDICATES MECHANICAL UNIT BELOW HUNG FROM FLOOR WITH MAXIMUM WEIGHT SHOWN. SEE MECHANICAL FOR LOCATIONS.
11. 1500# — INDICATES MECHANICAL UNIT AND MAXIMUM WEIGHT. SEE MECHANICAL FOR OPENINGS IN FLOOR AND PROVIDE FRAMING AROUND OPENINGS PER 3/54.10. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION INCLUDING PERIMETER WALL FRAMING.
12. INDICATES STRUCTURAL WALL BELOW EXTENDING TO FLOOR STRUCTURE.
13. SEE ARCHITECTURAL FOR DEPRESSED/SLOPED ELEVATED SLABS. MAXIMUM DEPRESSION = 1/2".
14. INDICATES NON-STRUCTURAL STUD WALLS. ALL WALLS ARE NOT SHOWN. FOR LOCATION SEE ARCHITECTURAL. FOR BRACING AT TOPS OF WALLS SEE SHEET S5.15.
15. STEEL MEMBERS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS UNLESS NOTED OTHERWISE.
16. ALL EXPOSED STRUCTURAL STEEL FRAMING SHOULD BE AESS CATEGORY 3.
17. P.B. INDICATES PARAPET BRACE, HSS3x3x1/4. SEE 7/54.14 OR 8/54.14.

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SHEET TITLE
UPPER FLOOR FRAMING PLAN

SHEET #
S2.13

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City of Puyallup
Development & Permitting Services
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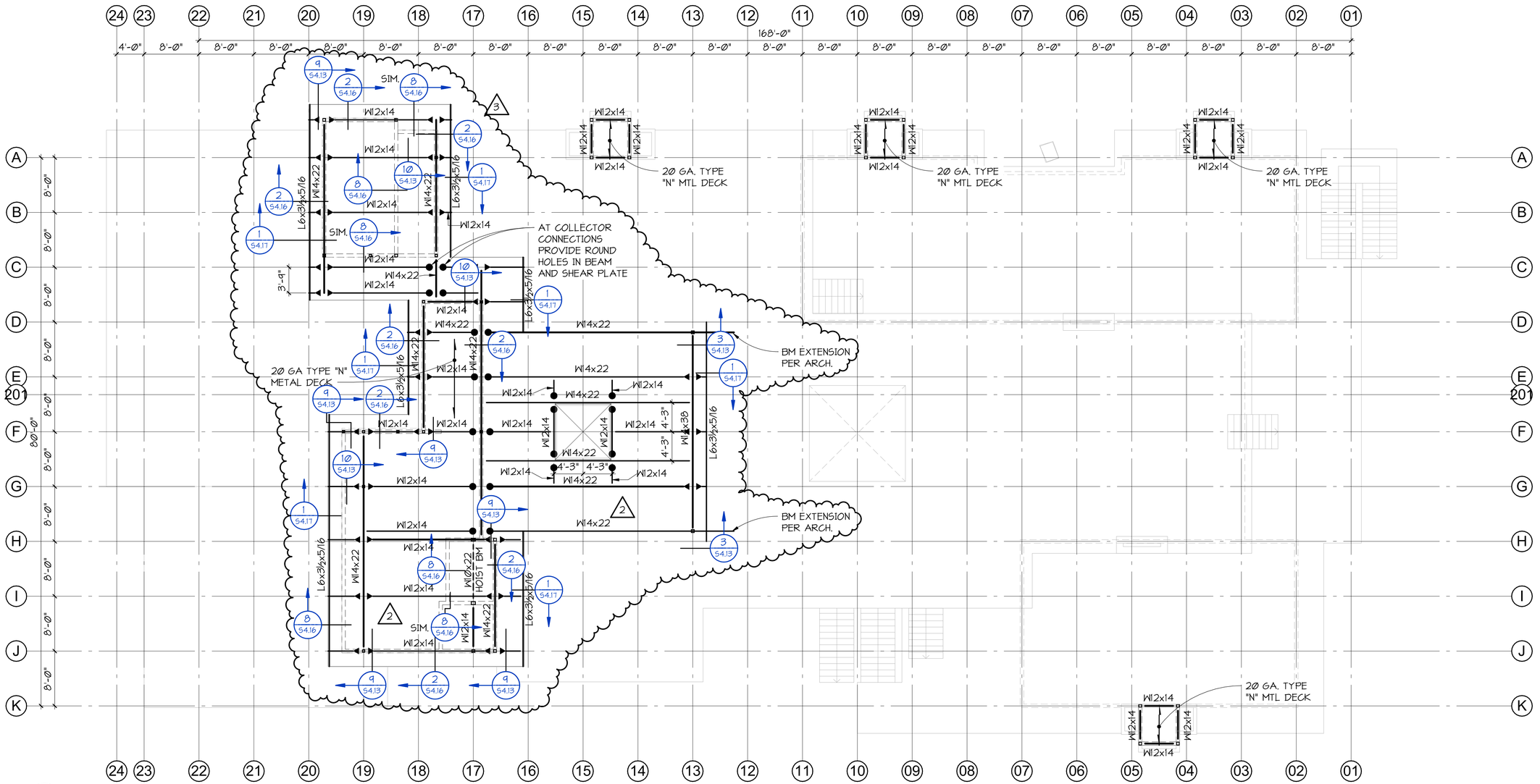
Building | Planning
Engineering | Public Works
Fire | Traffic

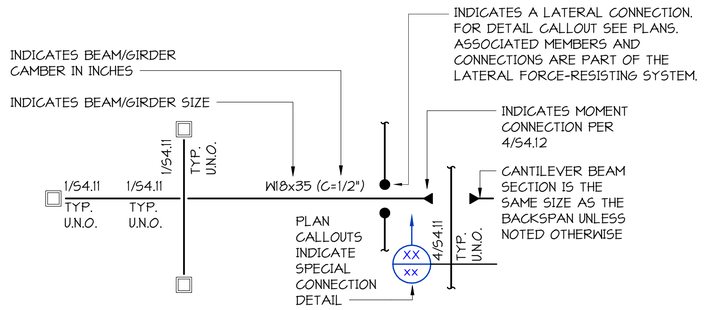


UPPER ROOF FRAMING PLAN

NORTH — 1/8" = 1'-Ø"

ROOF FRAMING NOTES

1. INDICATES LIGHT GAUGE METAL STUD WALL EXTENDING ABOVE ROOF TO FORM A PARAPET.
2. INDICATES WALL BELOW EXTENDING TO ROOF STRUCTURE.
3. 1500# — INDICATES MECHANICAL UNIT BELOW HUNG FROM ROOF JOISTS WITH MAXIMUM WEIGHT SHOWN. SEE MECHANICAL FOR LOCATIONS.
4. INDICATES DIRECTION OF SPAN FOR METAL DECK. FOR TYPICAL METAL DECK SEE SHEET S4.1Ø.
5. INDICATES PENETRATION IN ROOF. NOT ALL OPENINGS ARE SHOWN, FOR ADDITIONAL MISCELLANEOUS OPENINGS IN ROOF SEE ARCHITECTURAL AND MECHANICAL DRAWINGS. SEE 2/S4.1Ø & 3/S4.1Ø FOR TYPICAL SUPPORT AROUND OPENINGS.
6. FOR TYPICAL STEEL CONNECTION DETAILS SEE SHEET S4.11.



7. HSS — INDICATES TYPE OF CONTINUOUS COLUMN FROM LEVEL BELOW AND CONTINUING ON TO LEVEL ABOVE.
8. INDICATES STEEL COLUMN DISCONTINUING AT ROOF LEVEL.
9. SEE ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS / ORNAMENTAL (NON-STRUCTURAL) STEEL THROUGHOUT THE BUILDING.
1Ø. STEEL MEMBERS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS UNLESS NOTED OTHERWISE.

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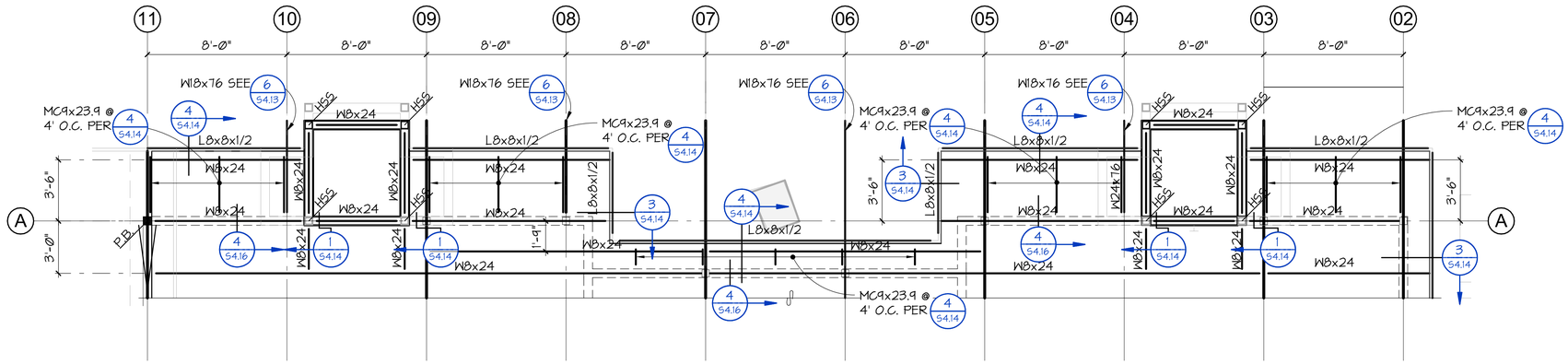
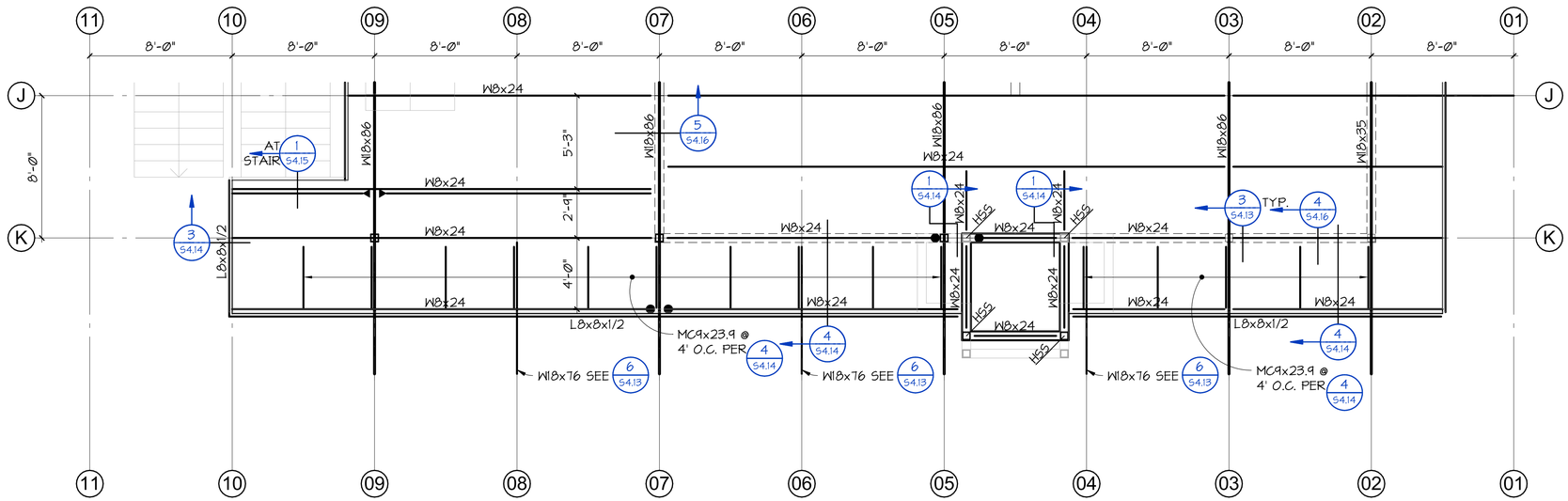


NORTH 1 / 52.15

ENLARGED LOWER DECK FRAMING PLAN

1/4" = 1'-Ø"



NORTH 2 / 52.15

ENLARGED LOWER DECK FRAMING PLAN

1/4" = 1'-Ø"

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ENLARGED FRAMING PLANS

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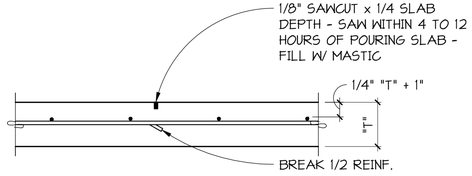
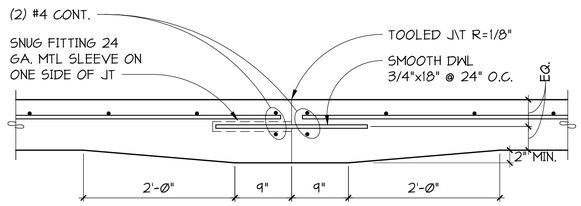
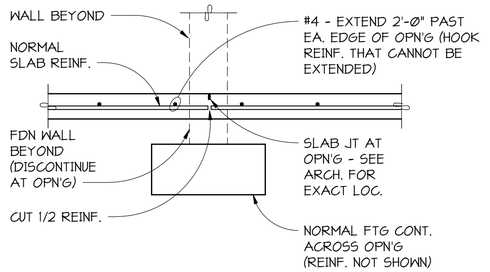


TYPICAL CONTROL JOINT FOR SLAB ON GRADE

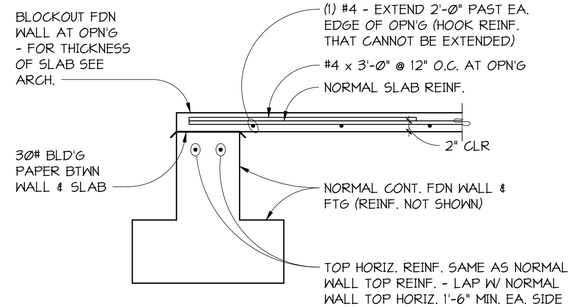


TYPICAL CONSTRUCTION JOINT FOR SLAB ON GRADE

1 S3.10 **SECTION**
NO SCALE

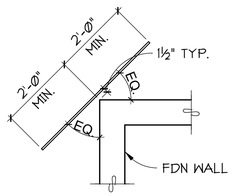


2 S3.10 **SECTION**
NO SCALE

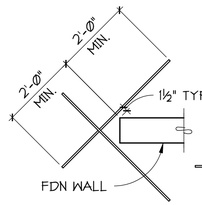


TYPICAL SLAB AT EXTERIOR OPENING

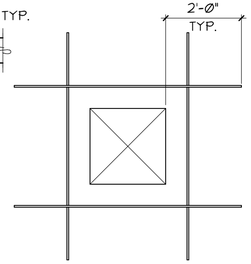
3 S3.10 **SECTION**
NO SCALE



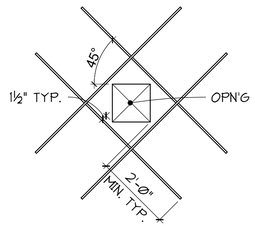
AT CORNERS



AT ENDS OF WALL



AT OPENINGS MORE THAN 2'-Ø"

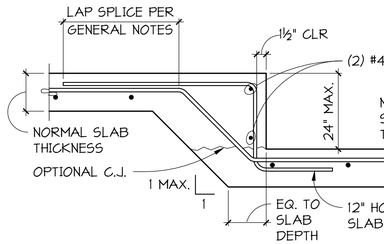


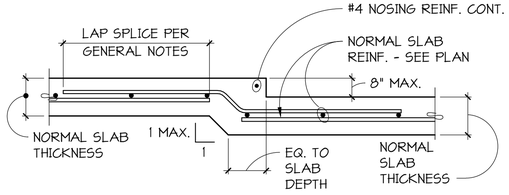
AT OPENINGS LESS THAN 2'-Ø"

NOTES:
1. AROUND OPENINGS 6"ø OR LESS, NO ADDITIONAL REINFORCEMENT REQUIRED.
2. REINFORCEMENT SHOWN IS #4 AT SLAB MID-DEPTH. HOOK REINFORCEMENT THAT CANNOT BE EXTENDED.

TYPICAL SLAB ON GRADE DISCONTINUITY REINFORCEMENT

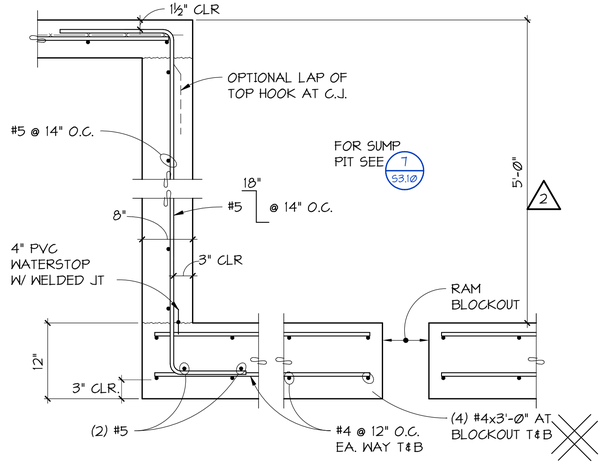
4 S3.10 **PLAN DETAILS**
NO SCALE





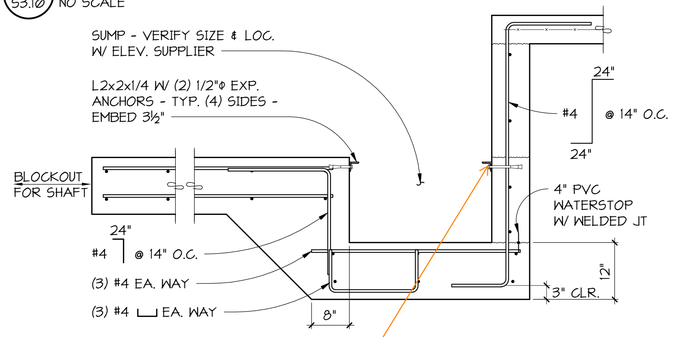
TYPICAL SLAB STEPS OR DEPRESSIONS

5 S3.10 **SECTION**
NO SCALE



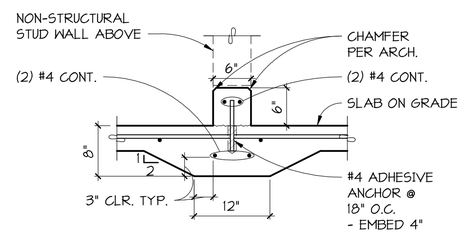
TYPICAL ELEVATOR PIT

6 S3.10 **SECTION**
NO SCALE



TYPICAL ELEVATOR PIT SUMP

7 S3.10 **SECTION**
NO SCALE



8 S3.10 **SECTION**
NO SCALE

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JACK J. PINKERTON — STATE OF WASHINGTON — 26161 — REGISTERED PROFESSIONAL ENGINEER

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110 9TH AVE SW
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PROJECT NUMBER
23002

DRAWING TYPE
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09.27.24	REVISION 2	2

SHEET TITLE
FOUNDATION DETAILS

SHEET #
S3.10

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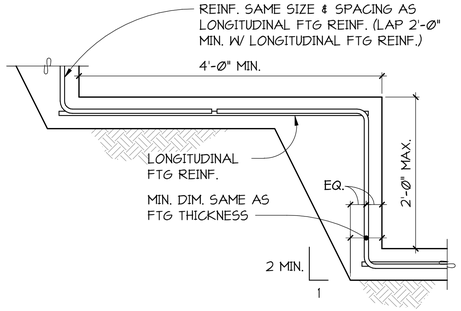
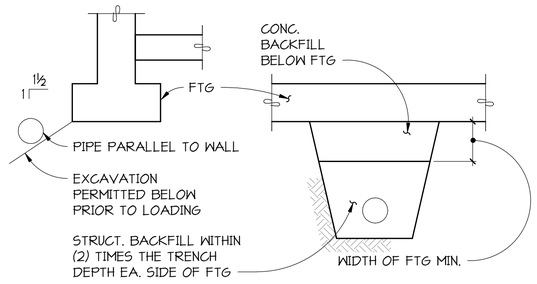
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



TYPICAL STEPPED FOOTING

1 S3.11 DETAIL
NO SCALE

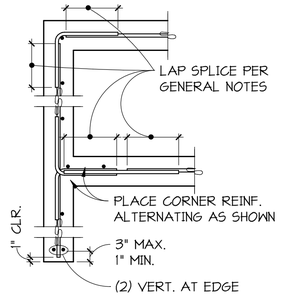


TYPICAL FOR PARALLEL PIPES ADJACENT TO FOOTINGS

TYPICAL FOR PERPENDICULAR PIPES UNDER FOOTINGS

NOTES:
1. FOUNDATIONS SHALL NOT BE LOADED PRIOR TO COMPLETING STRUCTURAL BACKFILL UNDER AND NEAR FOOTINGS.
2. CONCRETE BACKFILL SHALL BE USED UNDER FOOTINGS WHERE 95% COMPACTION CANNOT BE ACCOMPLISHED.
3. ALL STRUCTURAL BACKFILL NOTED SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY PER ASTM.
4. A PIPE SLEEVE SHALL BE PROVIDED FOR SHALLOW PIPES CAST IN CONCRETE.
5. PIPES SHALL NOT BE PLACED IN THE FOOTING WITHOUT SPECIFIC APPROVAL FROM THE ENGINEER.
6. FOR VARIATIONS CONTACT ENGINEER.

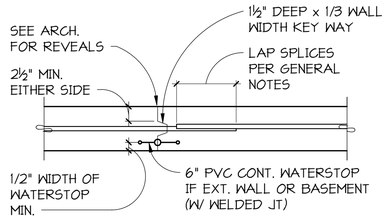
2 S3.11 SECTION
NO SCALE



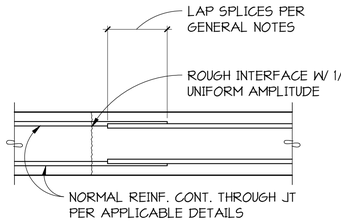
NOTES:
1. VERTICAL REINFORCEMENT SHOWN IS ADDITIONAL IF NORMAL STEM WALL REINFORCEMENT IS NOT IN PROPER LOCATION.
2. CORNER REINFORCEMENT IS SAME SIZE AND SPACING AS HORIZONTAL REINFORCEMENT.
3. STANDARD HOOK MAY BE SUBSTITUTED FOR CORNER REINFORCEMENT.

TYPICAL REINFORCEMENT PLACEMENT PLAN FOR CONCRETE STEM WALLS

3 S3.11 SECTION
NO SCALE



TYPICAL AT VERTICAL WALL JOINTS



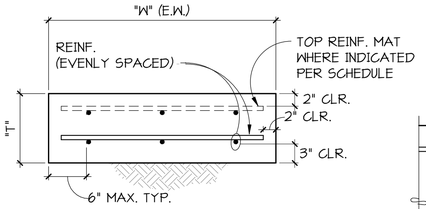
TYPICAL AT CONCRETE GRADE BEAMS & FOOTINGS

NOTE:
OBTAIN APPROVAL OF ENGINEER FOR LOCATION OF ANY CONSTRUCTION JOINT.

TYPICAL FOR CAST IN PLACE CONCRETE WALLS, GRADE BEAMS AND FOOTINGS

4 S3.11 CONSTRUCTION JOINTS
NO SCALE

MARK	DIMENSIONS		REINFORCEMENT EACH WAY
	"W"	"T"	
F4.0	4'-0"	12"	(4) #5
F4.0*	4'-0"	24"	(4) #5 T&B
F4.0**	4'-0"	30"	(5) #5 T&B
F4.5	4'-6"	12"	(4) #5
F4.5*	4'-6"	24"	(4) #5 T&B
F5.0	5'-0"	12"	(5) #5
F5.0*	5'-0"	18"	(5) #5 T&B
F5.5	5'-6"	12"	(5) #6
F5.5*	5'-6"	24"	(5) #6 T&B
F6.0	6'-0"	14"	(6) #6
F6.0*	6'-0"	24"	(6) #6 T&B
F6.5	6'-6"	16"	(6) #6
F7.0	7'-0"	16"	(7) #6
F7.5	7'-6"	16"	(7) #6
F7.5**	7'-6"	30"	(7) #6 T&B
F4.0x8.0	4'-0"x8'-0"	12"	(4) #5 LONG. & (8) #5 TRANSV.

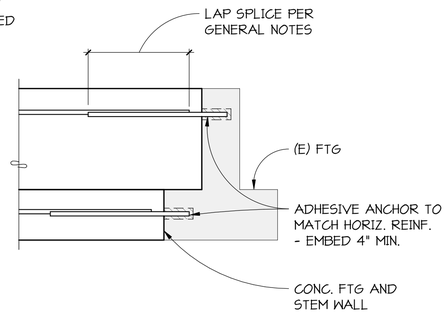


SECTION

NOTES:
1. CENTER ALL FOOTINGS ON COLUMN ABOVE EXCEPT AS SHOWN OTHERWISE.
2. FOOTINGS SHALL BEAR ON UNDISTURBED OR COMPACTED MATERIAL PER GENERAL NOTES. DESIGN BEARING PRESSURE IS 2500 POUNDS PER SQUARE FOOT.

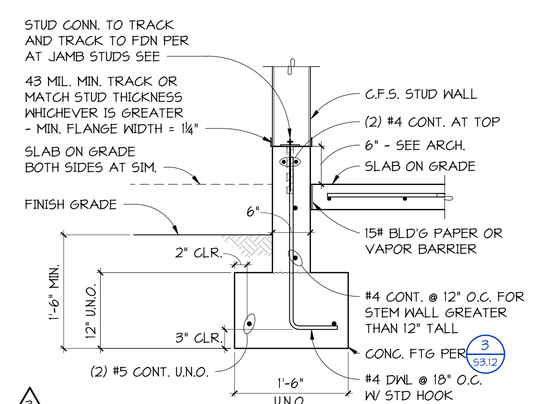
TYPICAL CONCRETE SPREAD FOOTING

7 S3.11 SECTION
NO SCALE



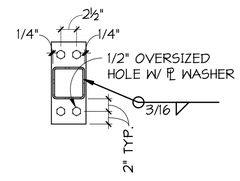
NEW FOOTING/EXISTING FOOTING CONNECTION

8 S3.11 SECTION
NO SCALE

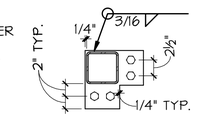


TYPICAL FOUNDATION AT EXTERIOR COLD-FORMED STEEL STUD WALL

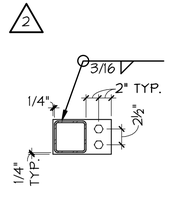
5 S3.11 SECTION
NO SCALE



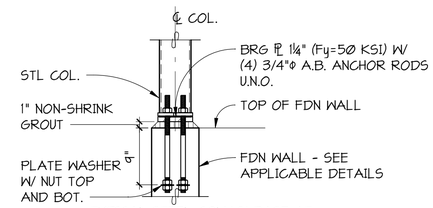
TYPICAL BEARING PLATE



BEARING PLATE AT CORNER

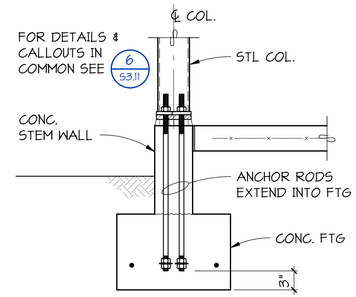


BEARING PLATE AT WALL END

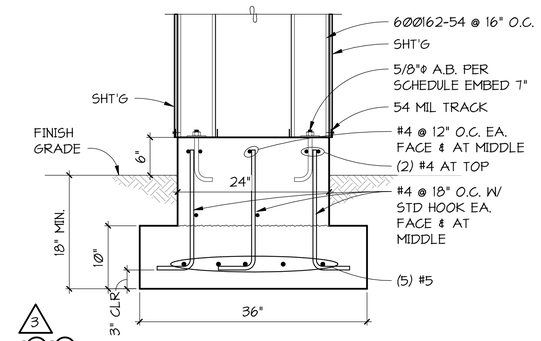


TYPICAL STEEL COLUMN BASE AT CONTINUOUS FOUNDATION WALL

6 S3.11 SECTION
NO SCALE



9 S3.11 SECTION
1" = 1'-0"



10 S3.11 SECTION
1" = 1'-0"

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JACK J. PINKERTON STATE OF WASHINGTON 26161 REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

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110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1
09.27.24	REVISION 2	2
10.10.24	REVISION 3	3

SHEET TITLE
FOUNDATION DETAILS

SHEET #
S3.11

C:_Revit Models\24318 WSF International Village R2023 (Central)_rwelfinger.rvt
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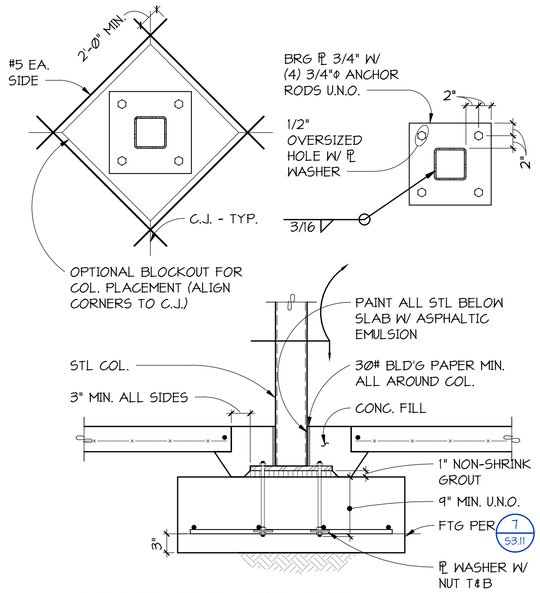
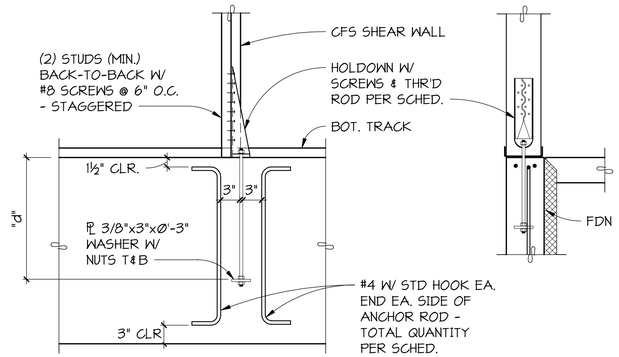
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



TYPICAL STEEL COLUMN AT SPREAD FOOTING

1 S3.12 **SECTION**
NO SCALE



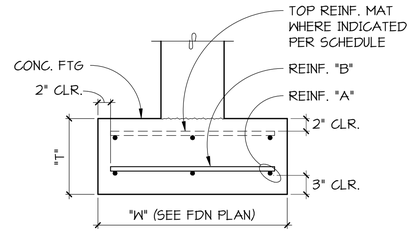
TYPICAL FOUNDATION ANCHOR ROD HOLDOWN

2 S3.12 **SECTION**
NO SCALE

TYPICAL HOLDOWNS

SIZE	SCREWS	THREADED ROD	"d"
S/HD8S	(17) #14	7/8"Φ	1'-3"
S/HD15S	(30) #14	1"Φ	1'-3"

NOTES:
1. SEE FOUNDATION PLANS FOR HOLDOWN LOCATIONS.
2. ALL HOLDOWNS NOT OCCURRING AT WALL CORNER SHALLBE LOCATED AT THE EDGE OF A WINDOW OR A DOOR. EDGE SCREW EACH HOLDOWN STUD.
3. STEP FOOTINGS AS REQUIRED TO MEET EMBEDMENT REQUIREMENTS PER 1/S3.11.

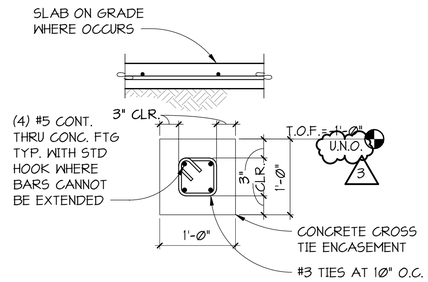


WIDTH "W"	"T"	REINFORCEMENT "A" CONT.	REINFORCEMENT "B"
1'-6"	12"	(2) #5	---
2'-Ø"	18"	(2) #5 T&B	---
3'-Ø"	24"	(3) #5 T&B	#4 @ 18" O.C.
4'-Ø"	30"	(4) #6 T&B	#5 @ 12" O.C.
6'-Ø"	30"	(6) #6 T&B	#6 @ 12" O.C.

TYPICAL CONTINUOUS FOOTING

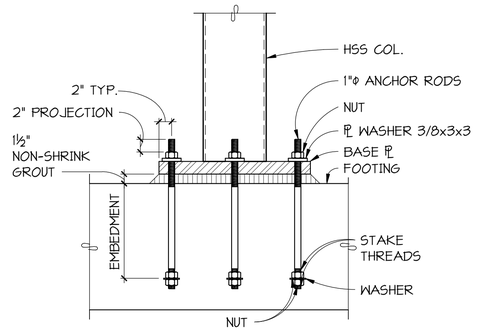
NOTES:
1. FOOTINGS SHALL BEAR ON UNDISTURBED OR COMPACTED MATERIAL PER GENERAL NOTES.
2. EXTEND FOOTINGS 6" MINIMUM PAST ENDS OF WALL UNLESS OTHERWISE NOTED.
3. WHERE FOOTINGS CHANGE WIDTHS LAP REINFORCEMENT "A". LAP SPLICE PER GENERAL NOTES.

3 S3.12 **SECTION**
NO SCALE

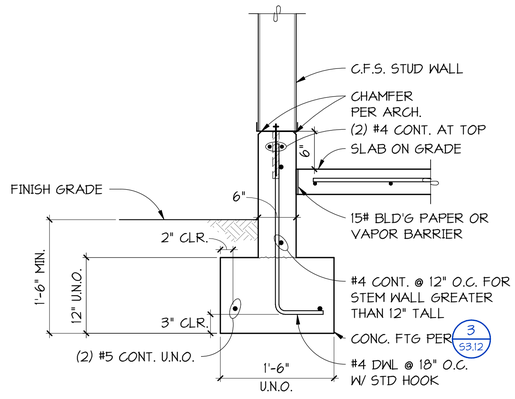


4 S3.12 **SECTION**
1" = 1'-Ø"

COLUMN	BASE PLATE	# BOLTS	EMBEDMENT
HSS10x10x1/4	2"x2'-Ø"x2'-Ø"	(8)	15"
HSS10x10x3/8	1½"x1'-6"x1'-6"	(4)	9"



5 S3.12 **DETAIL**
1" = 1'-Ø"



6 S3.12 **SECTION**
NO SCALE

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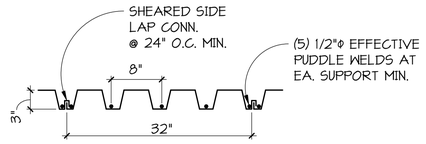
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



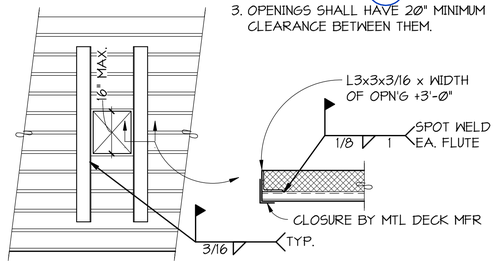
TYPE "N" DECK PROPERTIES		
GAGE	I = (in.^{4}/ft.)	+S/-S = (in.^{3}/ft)
20	.890	0.452/.509
18	1.229	0.611/.722
16	1.570	0.883/0.932

NOTES:
1. (2) SPAN MINIMUM, (3) PREFERRED.
2. AT SUPPORTS PARALLEL TO CORRUGATIONS, PROVIDE PUDDLE WELDS AT 24" ON CENTER MAXIMUM.
3. "SHEARED SIDE LAP" CONNECTION REFERS TO "PUNCHLOK" BY VERCO DECKING, INC. OR "DELTAGRIP" BY ASC STEEL DECK, OR PREAPPROVED EQUAL.
4. MINIMUM DECK PROPERTIES AND WELD PATTERN SHOWN. PROVIDE HEAVIER GAGE AND/OR WELD PATTERN AS REQUIRED TO DEVELOP DIAPHRAGM SHEARS.
5. ROOF DECK REQUIRED ALLOWABLE DIAPHRAGM SHEARS = 812 PLF U.N.O.
6. SECTION PROPERTIES ARE BASED ON Fy = 50 KSI.

TYPICAL ROOF METAL DECK

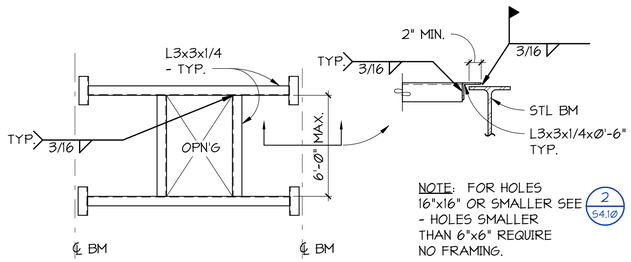
1 / S4.10 DETAIL
NO SCALE

NOTES:
1. OPENINGS LESS THAN 6"x6" REQUIRE NO FRAMING.
2. FOR OPENINGS GREATER THAN 16" OR 75# LOAD SEE 3/S4.10.
3. OPENINGS SHALL HAVE 20" MINIMUM CLEARANCE BETWEEN THEM.



TYPICAL AT ISOLATED OPENINGS IN NON-COMPOSITE METAL DECK LESS THAN 16 INCH SQUARE

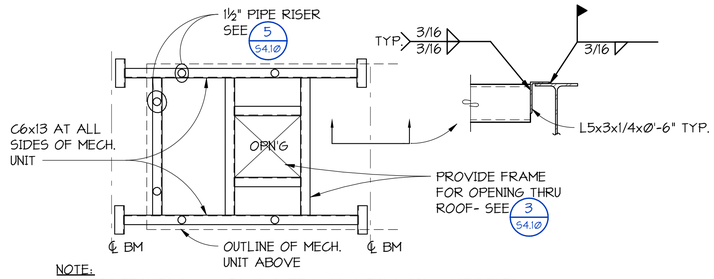
2 / S4.10 DETAIL
NO SCALE



NOTE: FOR HOLES 16"x16" OR SMALLER SEE 2/S4.10 - HOLES SMALLER THAN 6"x6" REQUIRE NO FRAMING.

TYPICAL FRAMING AT OPENINGS IN METAL DECK (MAXIMUM LOAD = 600 POUNDS)

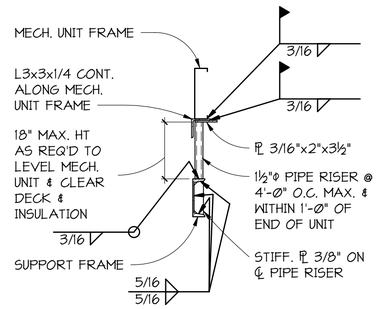
3 / S4.10 DETAIL
NO SCALE



NOTE:
PROVIDE FRAMES IN ALL BAYS OVER WHICH MECHANICAL UNIT RESTS. VERIFY SIZE AND LOCATION OF UNIT WITH MECHANICAL CONTRACTOR

TYPICAL MECHANICAL UNIT SUPPORT FRAME (MAX. WT = 6000#)

4 / S4.10 DETAIL
NO SCALE



RISER SUPPORT FOR MECHANICAL UNIT FRAME

5 / S4.10 DETAIL
NO SCALE

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PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
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09.12.24	PERMIT REVISION 1	1

SHEET TITLE
STEEL FRAMING DETAILS

SHEET #
S4.10

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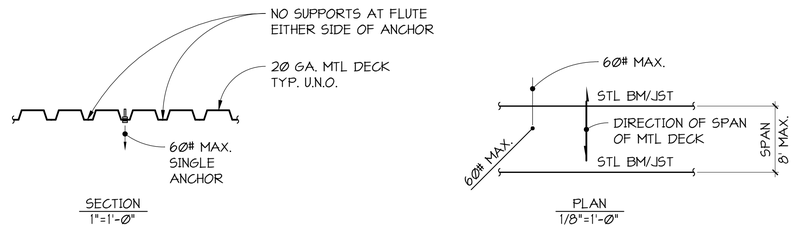
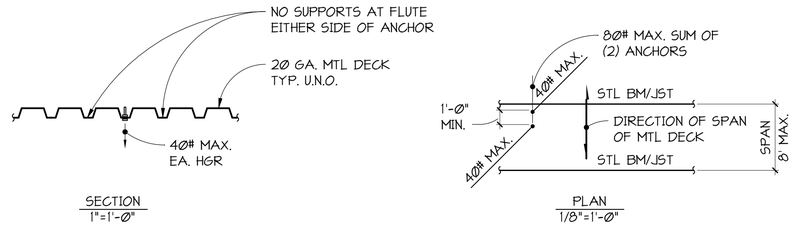
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

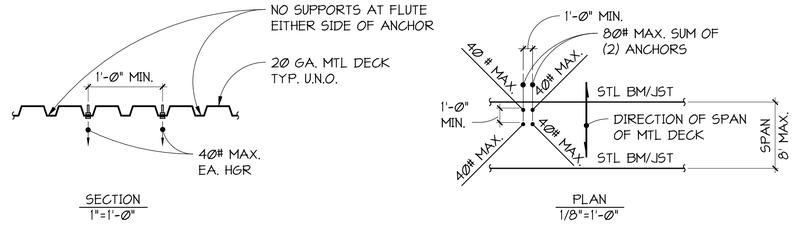
Building	Planning
Engineering	Public Works
Fire	Traffic



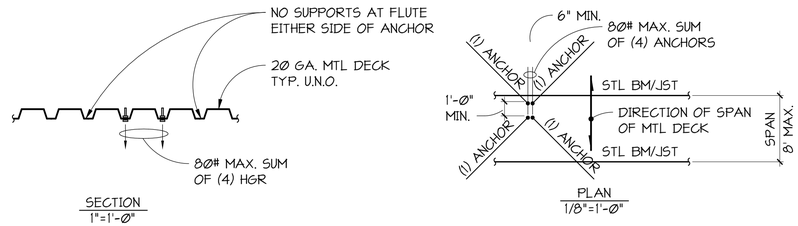
(a) METAL DECK LOADING DIAGRAM



(b) METAL DECK LOADING DIAGRAM



(c) METAL DECK LOADING DIAGRAM



NOTES:
1. MAXIMUM LOAD FROM ANY (1) HANGER IS 80#.
2. HANGER SYSTEM AND ATTACHMENT TO METAL DECK PER MEP CONTRACTOR.
3. ACCEPTABLE FASTENERS ARE ITW BUILDEX "SAMMY X-PRESS" OR SIMPSON STRONG-TIE "BLUE BANGER".

(d) METAL DECK LOADING DIAGRAM

TYPICAL LOADS UNDER 80# SUSPENDED FROM METAL DECK

(2/S4.11) SECTION

NO SCALE

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SHEET TITLE
STEEL FRAMING DETAILS

SHEET #
S4.11

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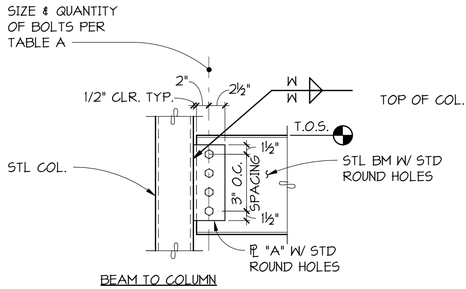
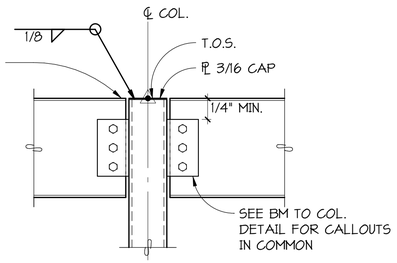
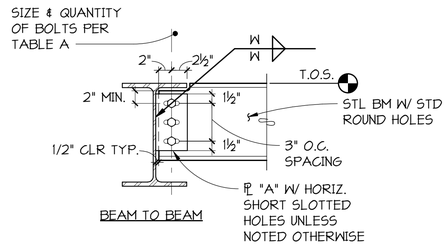
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



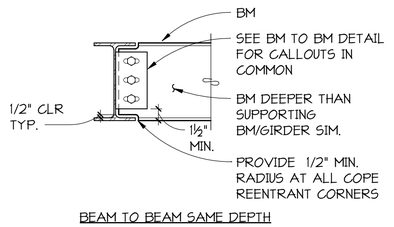
BEAM TO COLUMN



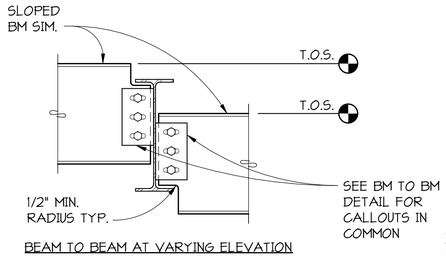
BEAM TO COLUMN (SLOPED FRAMING)



BEAM TO BEAM



BEAM TO BEAM SAME DEPTH



BEAM TO BEAM AT VARYING ELEVATION

TABLE A			
SUPPORTED BEAM SIZE	QUANTITY OF 7/8"ø A325N BOLTS	SHEAR PLATE THICKNESS "A"	WELD "W" NOTE 1.
W8, W10	2	3/8"	5/16"
W12, W14	3	3/8"	5/16"
W16, W18	4	3/8"	5/16"
W21	5	3/8"	5/16"
W24	6	3/8"	5/16"

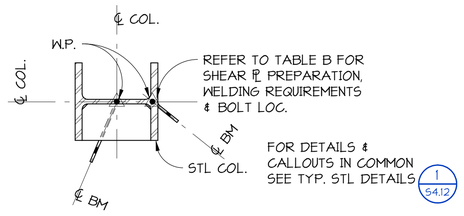
NOTE:
1. WELD SIZE SHOWN IS FOR BEAM/GIRDERS FRAMING PERPENDICULAR INTO SUPPORTS. FOR SKEWED FRAMING CONNECTIONS SEE TYPICAL STEEL DETAIL (2 / S4.12).

TYPICAL STEEL DETAIL

1 / S4.12 DETAIL
NO SCALE

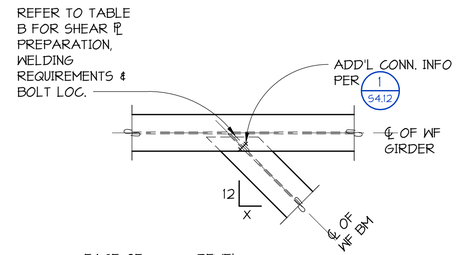
TABLE B					
"t"	SKEW ANGLE ∅	DETAIL CASE	X	W_N	W_F
3/8"	∅ ≤ 2°	CASE I	X ≤ 1/2	5/16	5/16
3/8"	2 < ∅ ≤ 11°	CASE I	1/2 < X ≤ 2 5/16	3/8	5/16
3/8"	11° < ∅ ≤ 25°	CASE I	2 5/16 < X ≤ 5½	1/2	5/16
3/8"	25° < ∅ ≤ 30°	CASE I	5½ < X ≤ 7	9/16	5/16
3/8"	30° < ∅ < 45°	CASE II	7 < X < 12	3/8	5/16
3/8"	∅ = 45°	CASE III	X = 12	1/4"	5/16
3/8"	∅ > 45°	CASE IV	X < 12	CP	-

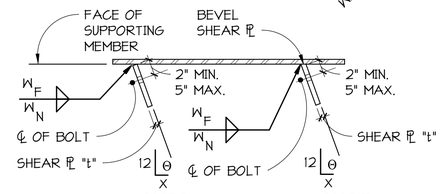
NOTES:
1. THE NUT MAY BE PLACED ON THE ACUTE ANGLE SIDE OF SHEAR PLATE. WHEN THIS SITUATION OCCURS, THE BOLT ASSEMBLY MAY BE INSTALLED AS SNUG TIGHT IN LIEU OF FULLY PRETENSIONED.
2. PROVIDE A COMPLETE PENETRATION WELD OF THE SHEAR PLATE TO THE SUPPORTING MEMBER WHERE THERE IS INSUFFICIENT CLEARANCE TO PLACE FILLET WELDS ON BOTH SIDES OF THE SHEAR PLATE.
3. *W_N IS THE EFFECTIVE THROAT OF A PARTIAL PENETRATION WELD.



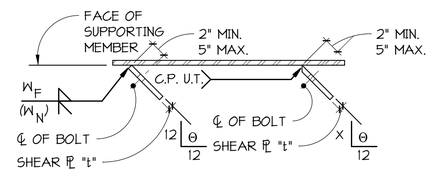
TYPICAL STEEL DETAIL AT ANGLED CONNECTIONS

2 / S4.12 DETAIL
NO SCALE

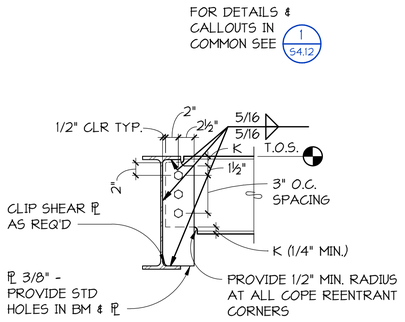




CASE I CASE II

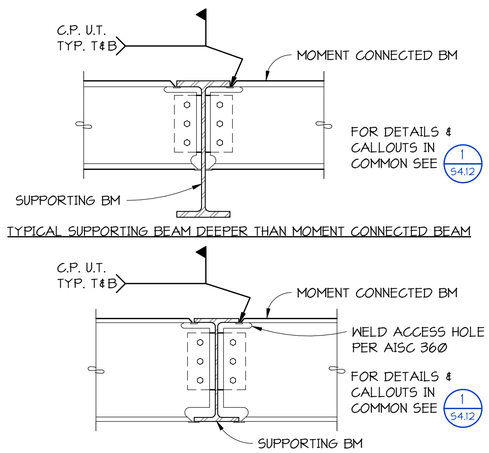


CASE III CASE IV



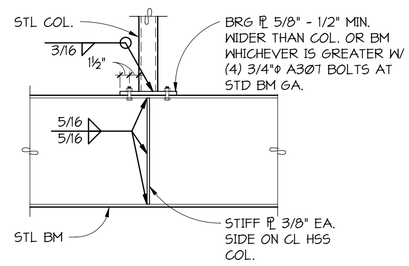
TYPICAL BEAM FRAMING AT FULL DEPTH SHEAR PLATE

3 / S4.12 DETAIL
NO SCALE



TYPICAL MOMENT CONNECTION

4 / S4.12 DETAIL
NO SCALE



TYPICAL STEEL BEAM CONNECTION TO COLUMN ABOVE

5 / S4.12 DETAIL
NO SCALE

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PROJECT NUMBER
23002

DRAWING TYPE
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STEEL FRAMING DETAILS

SHEET #
S4.12

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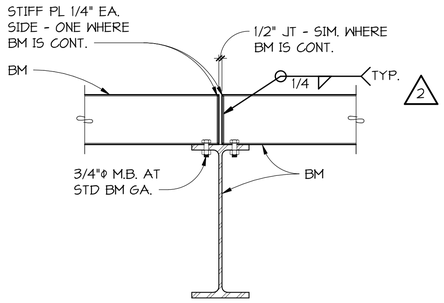
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



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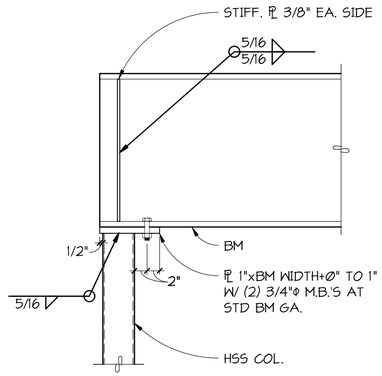

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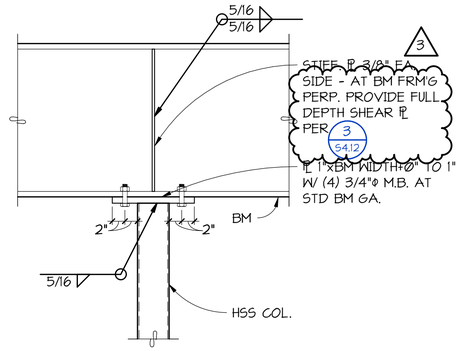

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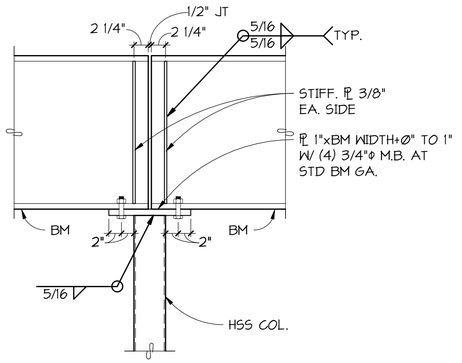

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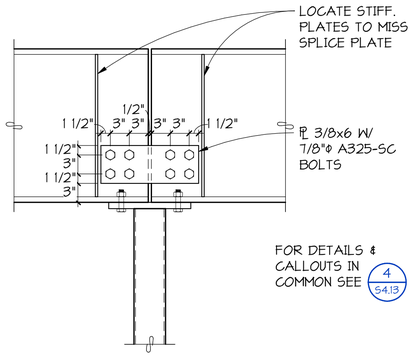

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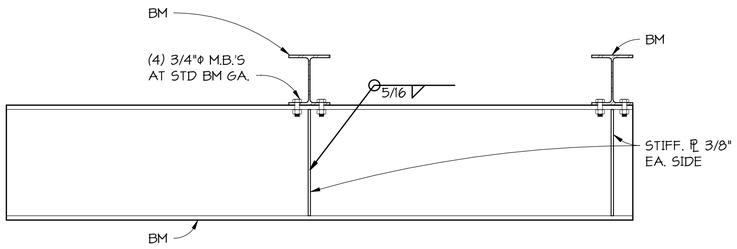

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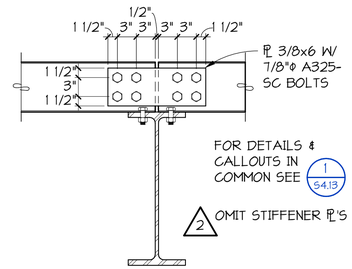

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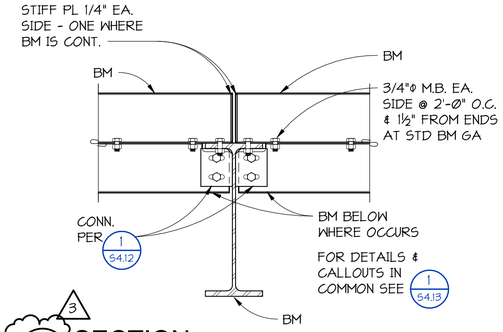

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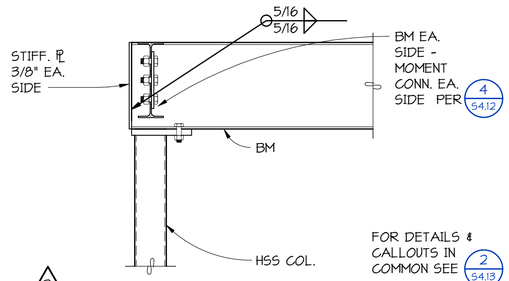

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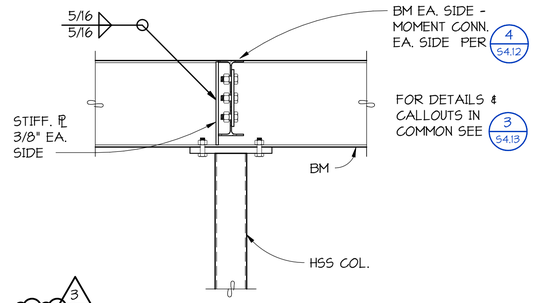

10 S4.13 SECTION
NO SCALE

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09.27.24	REVISION 2	2
10.10.24	REVISION 3	3

SHEET TITLE

STEEL FRAMING DETAILS

SHEET #

S4.13

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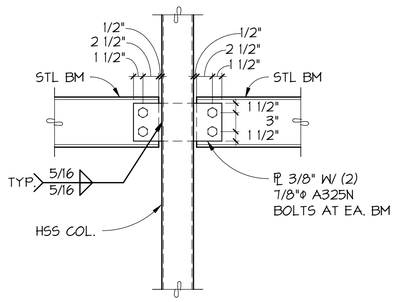
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



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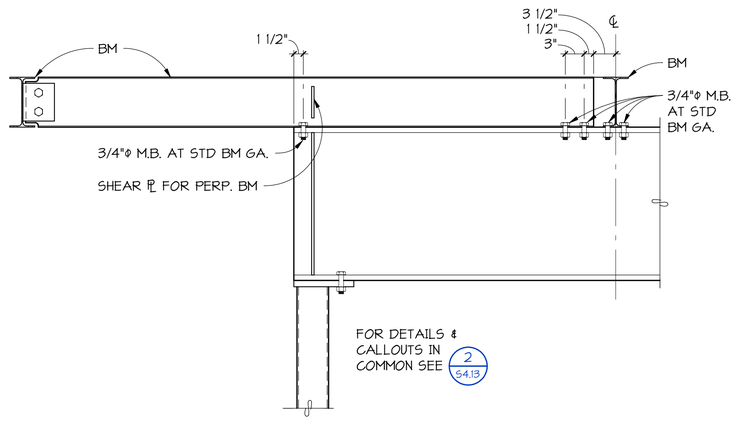

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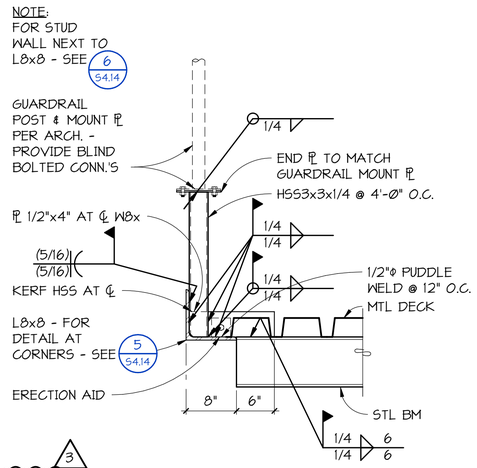

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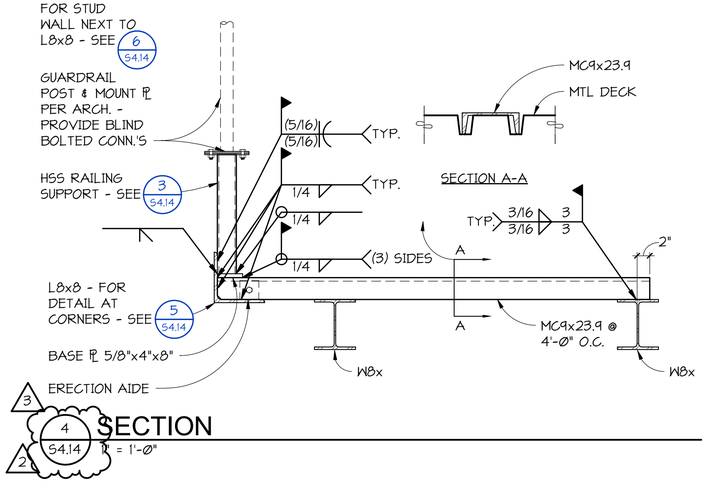

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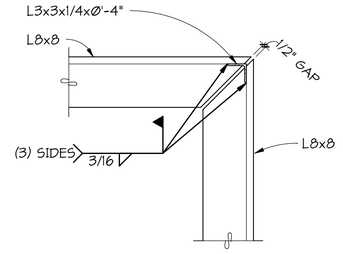

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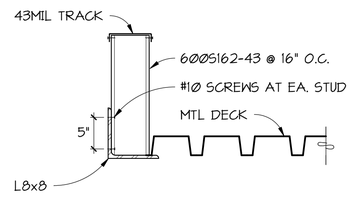

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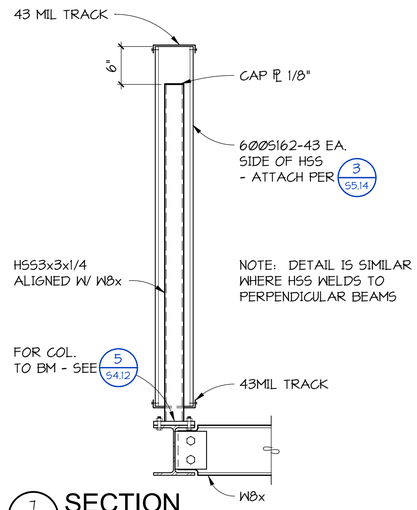

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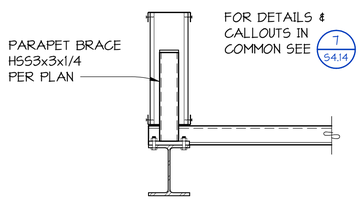

8 S4.14 SECTION
1" = 1'-0"

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PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1
09.27.24	REVISION 2	2
10.10.24	REVISION 3	3

SHEET TITLE
STEEL FRAMING DETAILS

SHEET #
S4.14

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City of Puyallup
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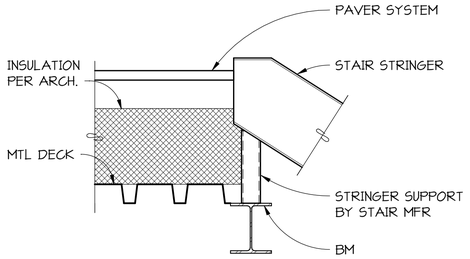
Engineering	Public Works
Fire	Traffic



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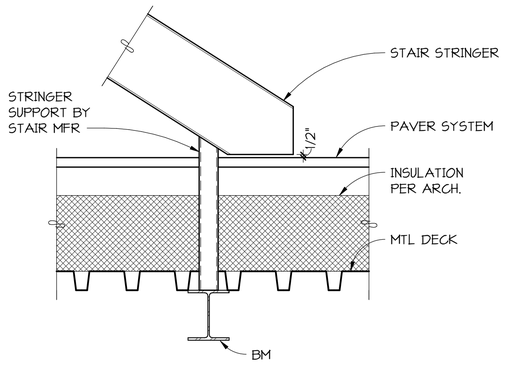

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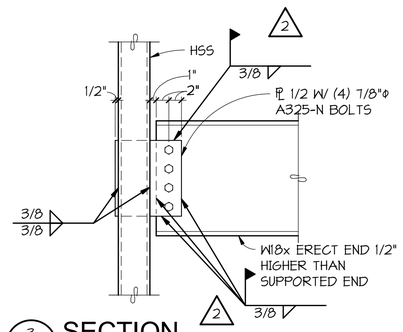

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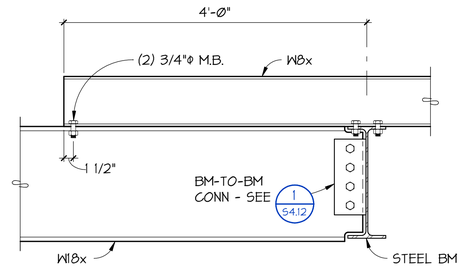

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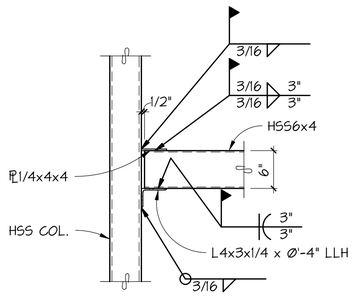

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1" = 1'-0"

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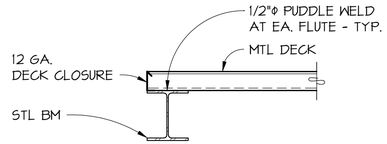

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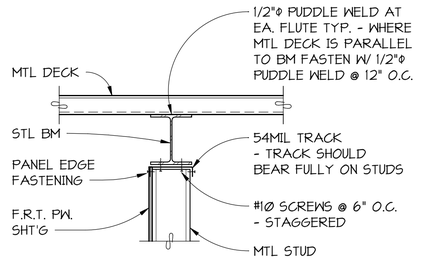

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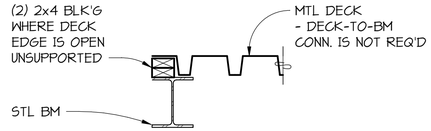

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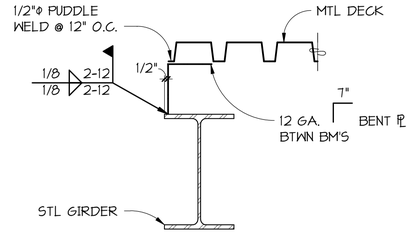

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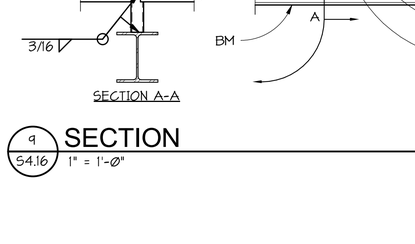

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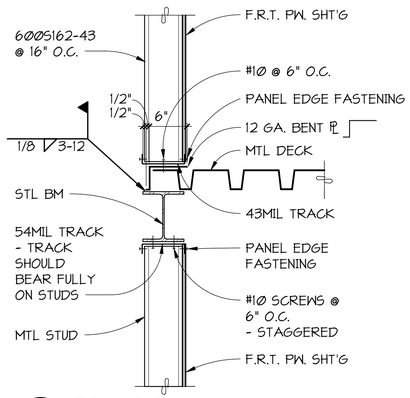
1" = 1'-0"

NOTE:
DETAIL IS SIMILAR WITHOUT WALL BELOW



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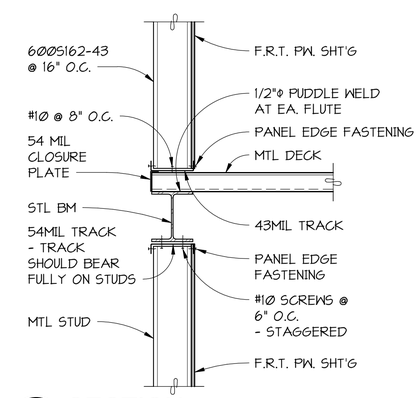
1" = 1'-0"

NOTE:
DETAIL IS SIMILAR WITHOUT WALL BELOW



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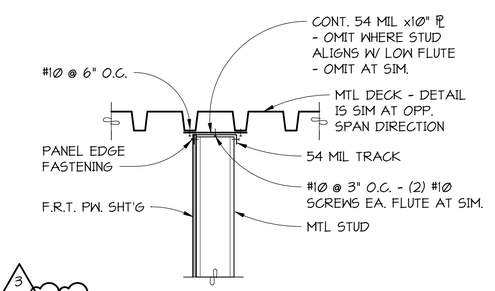

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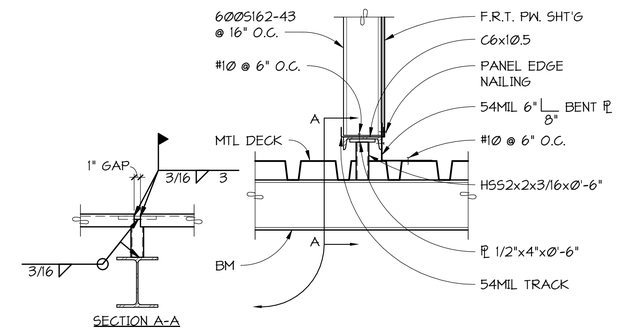

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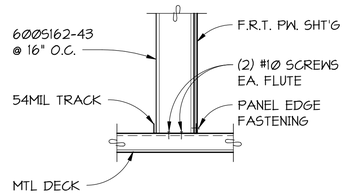

10 S4.16 SECTION
1" = 1'-0"

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STEEL FRAMING DETAILS

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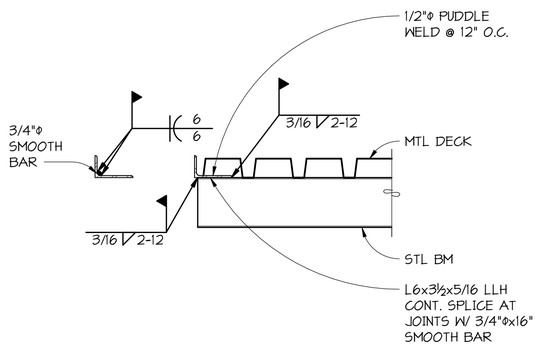
Building	Planning
Engineering	Public Works
Fire	Traffic



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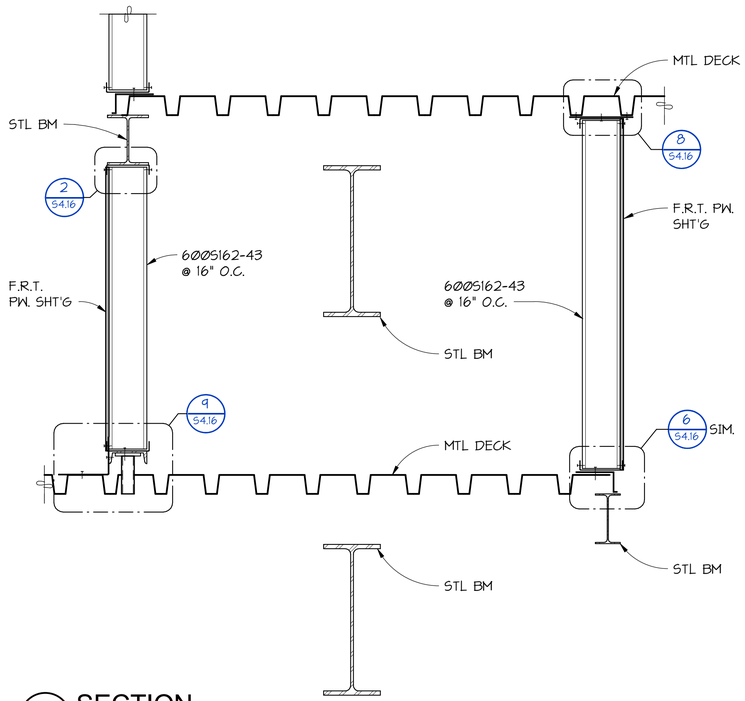
1" = 1'-0"



2 S4.17 SECTION
1" = 1'-0"

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STEEL FRAMING DETAILS

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City of Puyallup
Development & Permitting Services
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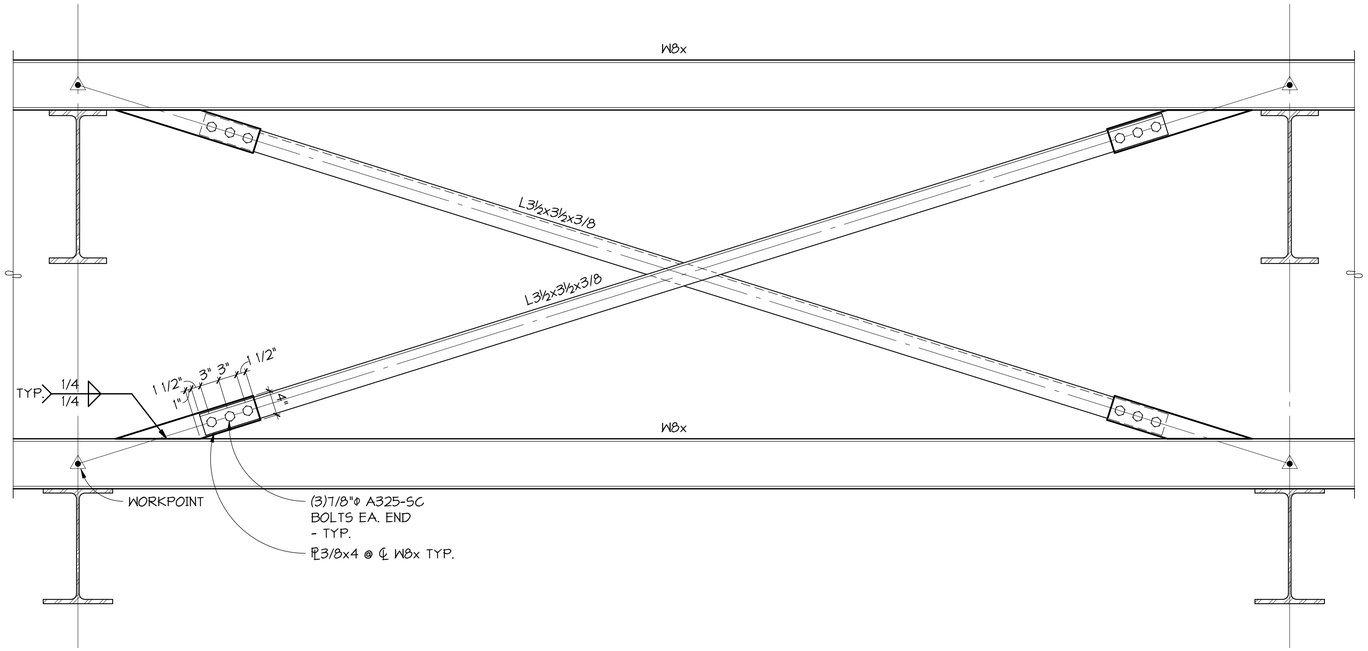
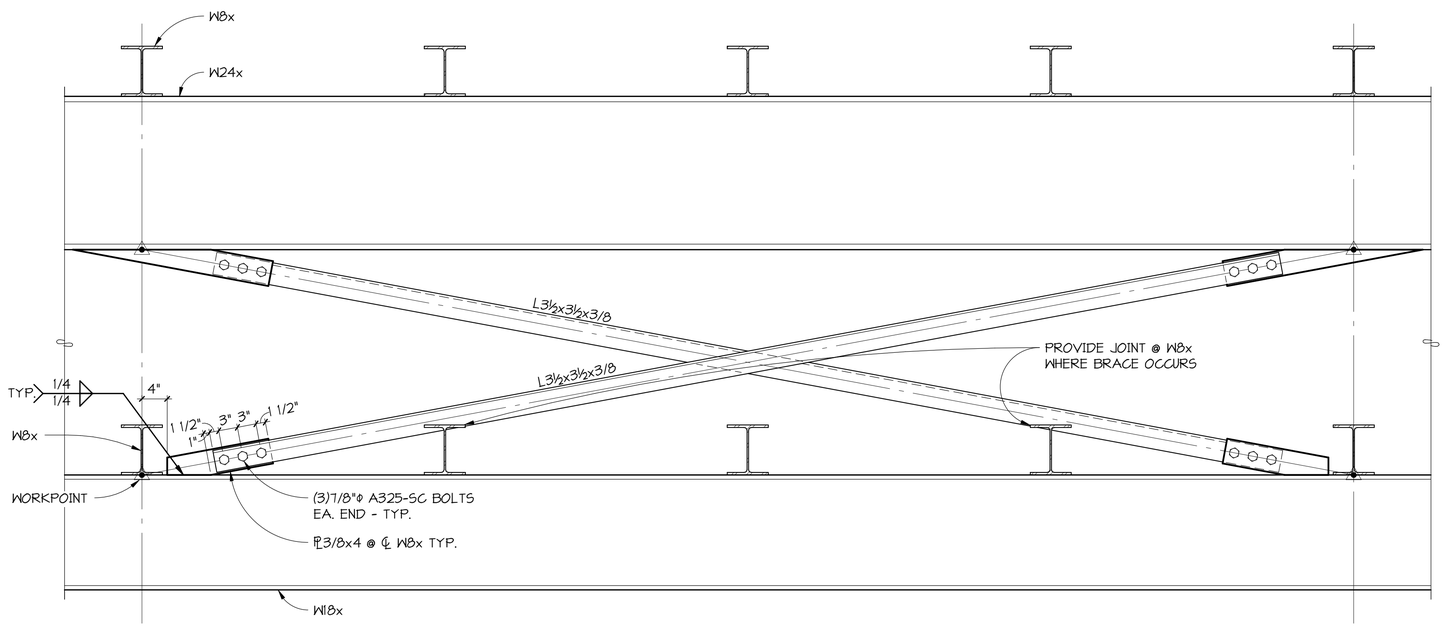
Building	Planning
Engineering	Public Works
Fire	Traffic



1
S4.18
ELEVATION
1" = 1'-Ø"



2
S4.18
ELEVATION
1" = 1'-Ø"

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STEEL FRAMING DETAILS

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City of Puyallup
Development & Permitting Services
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Building | Planning
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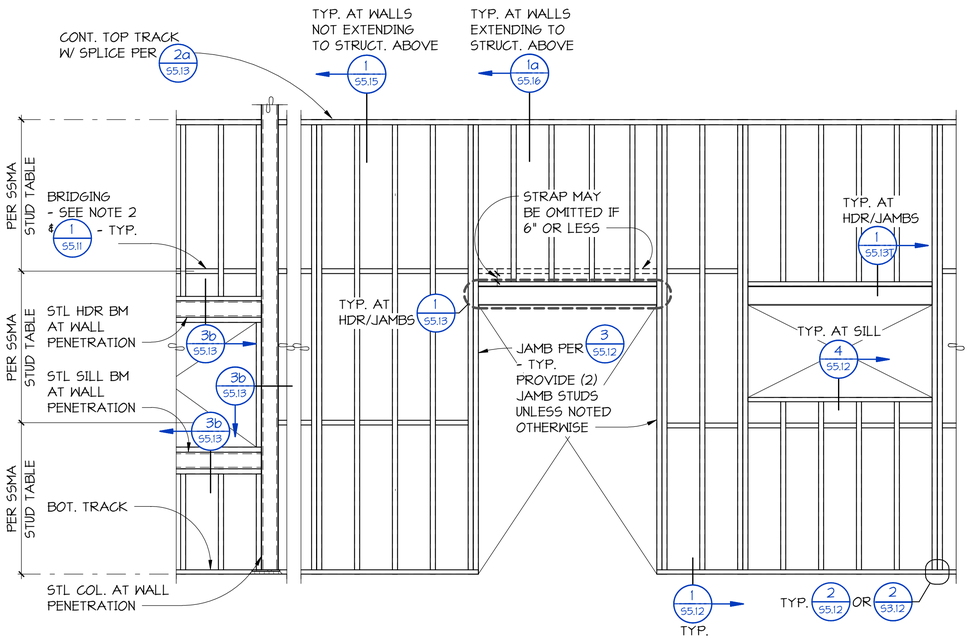
Fire | Traffic



MILS/GAUGE SCHEDULE		
MILS	MINIMUM THICKNESS	GAGE
30	.0312	20
33	.0346	20
43	.0451	18
54	.0566	16
68	.0713	14
97	.1017	12

COLD FORMED STEEL STUD WALL FRAMING NOTES:

1. ALL WALL STUDS SHALL BE 600S162-43 AT 16" O.C. UNLESS NOTED OTHERWISE. FOR WALL TYPE AND PROPER LOCATION SEE ARCHITECTURAL DRAWINGS.
2. PROVIDE BRIDGING AT ALL NON-BEARING WALLS WITHOUT FULL HEIGHT QUALIFIED SHEATHING EITHER SIDE OF STUD PER 1/S5.11 NOTE #1.
3. ALL WELDS SHALL BE 1/8" FILLET MAXIMUM. FOR MATERIALS THINNER THAN 0.15", EFFECTIVE THROAT SHALL NOT BE LESS THAN THINNEST MATERIAL. WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE -- SHEET METAL" AWS D1.3.
4. STUD PUNCHOUTS SHALL NOT BE SPACED LESS THAN 24" ON CENTER, NOR WITHIN 10" CLEAR OF MEMBER END AT STUDS, HEADERS, BEAMS, JOISTS, ETCETERA FOR TYPICAL ALLOWABLE PUNCHOUT DETAIL - SEE 1/S5.14.
5. SCREWS SHALL BE THREAD-FORMING OR THREAD-CUTTING, WITH OR WITHOUT A SELF DRILLING POINT. SCREWS SHALL BE INSTALLED AND TIGHTENED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MINIMUM SPACING IS THREE SCREW DIAMETERS. A MINIMUM OF (3) THREADS SHALL BE ENGAGED.
6. FOR TYPICAL COLD-FORMED STEEL WALL CORNER REQUIREMENTS - SEE 2/S5.13.
7. FOR POWER ACTUATED FASTENER REQUIREMENTS - SEE GENERAL NOTES.

1 S5.10 — TYPICAL COLD-FORMED STEEL STUD WALL FRAMING ELEVATION
NO SCALE

COLD-FORMED STEEL STUD WALL CONSTRUCTION SCHEDULE						
TABLE 1 - SHEAR WALL REQUIREMENTS						
MARK	WALL SHEATHING	SIDES WITH SHEATHING	SHEATHING FASTENING	EDGE FASTENING 2.5 ON CENTER SPACING	FIELD FASTENING ON 5 CENTER SPACING	5/8" ADHESIVE ANCHOR SPACING (EMBED 7") PER 1/S.12RR
A	15/32" PLYWOOD	(1)	#8 SCREW	6"	12"	32"
B	15/32" PLYWOOD	(1)	#8 SCREW	4"	12"	16"
C	15/32" PLYWOOD	(1)	#8 SCREW	3"	12"	16"
D	15/32" PLYWOOD	(1)	#8 SCREW	2"	12"	12"
E	15/32" PLYWOOD	(2)	#8 SCREW	4"	12"	8"
F	15/32" PLYWOOD	(2)	#8 SCREW	3"	12"	8"
G	15/32" PLYWOOD	(2)	#8 SCREW	2"	12"	6"
H	NONE	-	#8 SCREW	-	-	32"

TABLE 2 - STUD REQUIREMENTS	
MARK	STUD SIZE AND SPACING
1	600S162-43 @ 16" O.C.
2	600S162-54 @ 16" O.C.

NOTES:

FIRST CHARACTER INDICATES SPECIAL SHEAR WALL REQUIREMENTS PER TABLE 1

SECOND CHARACTER INDICATES SPECIAL STUD SPACING PER TABLE 2

1. XX INDICATES STRUCTURAL WALL MARK. FOR TYPICAL WALL STUD BRIDGING DETAIL AND ADDITIONAL WALL FRAMING REQUIREMENTS - SEE 1/S5.10 AND 1/S5.11.
2. ALL EXTERIOR AND INTERIOR WALLS DESIGNATED AS SHEAR WALLS SHALL BE BLOCKED AT ALL UNSUPPORTED PANEL EDGES. EDGE FASTENING APPLIES TO TOP AND BOTTOM TRACK, PANEL VERTICAL AND HORIZONTAL JOINTS, WALL CORNERS, HOLDOWN ANCHOR STUDS, AND WALL END STUDS. SHEAR WALL STUD FLANGE WIDTH SHALL BE S162 MINIMUM. BLOCKING SHALL MATCH THICKNESS OF WALL STUDSx 1½" MINIMUM.
3. ADDITIONAL REQUIREMENTS AT WALL PENETRATIONS, FOR TYPICAL DETAILS - SEE 1/S5.10.
4. SHEATHING PANELS MAY BE INSTALLED PARALLEL OR PERPENDICULAR TO FRAMING.
5. SCREWS SHALL BE SELF-DRILLING - SELF - TAPPING FLAT HEAD SCREW WITH MINIMUM 0.292" HEAD DIAMETER.
6. PROVIDE 3"x3"x1/4" PLATE WASHER AT EACH ADHESIVE ANCHOR - WELD TO TRACK WITH FILLET ALL AROUND. DISTANCE FROM ANCHOR TO END OF TRACK TO BE 6" MAXIMUM, 3" MINIMUM.

2 S5.10 — SCHEDULE
NO SCALE

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SHEET TITLE
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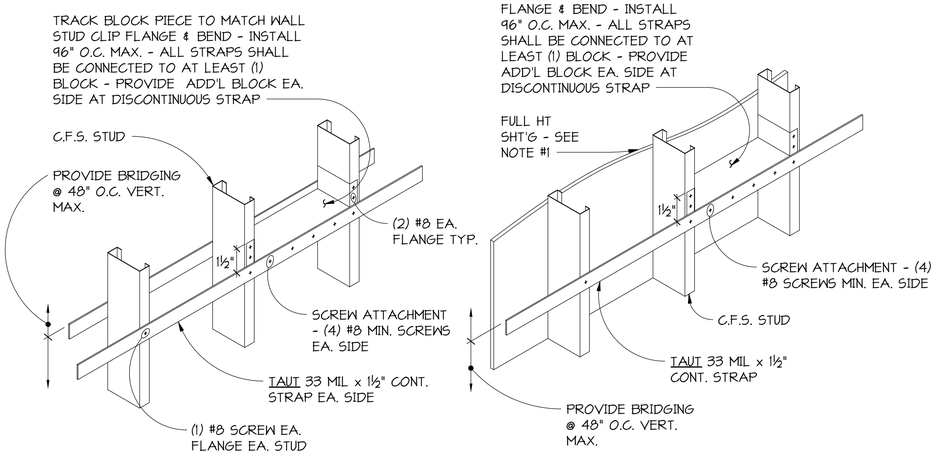
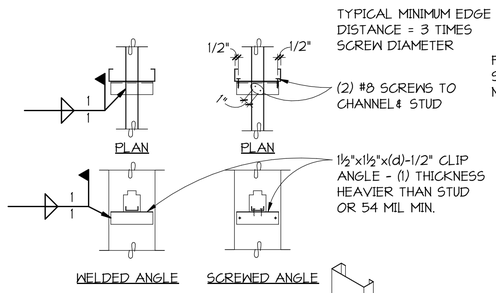
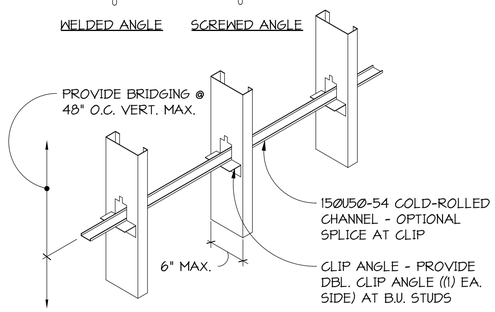
Fire | Traffic



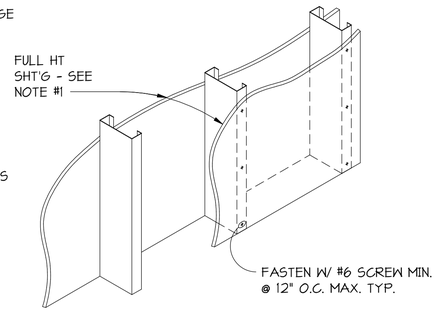
OPTION 1: BRIDGING CONSISTS OF DOUBLE FLAT STRAP WITH BLOCKING

OPTION 3: BRIDGING CONSISTS OF SINGLE FLAT STRAP WITH BLOCK AND FULL HEIGHT SHEATHING OPPOSITE FACE





OPTION 2: BRIDGING CONSISTS OF COLD-ROLLED CHANNEL WITH CLIP ANGLE (6" MAXIMUM STUD SIZE)



OPTION 4: FULL HEIGHT SHEATHING EACH FACE

NOTES:

1. QUALIFIED SHEATHING SHALL BE GYPSUM WALL BOARD, GYPSHEATHING, PLYWOOD, OR ORIENTED STRAND BOARD ONLY AND SHALL OCCUR FULL HEIGHT OF WALL.
2. OPTIONS 3 & 4 ARE NOT ALLOWED FOR STUD BRACING AT LOAD BEARING WALL CONDITION.

TYPICAL BRIDGING AT COLD-FORMED STEEL WALL

1 / S5.11 DETAIL
NO SCALE

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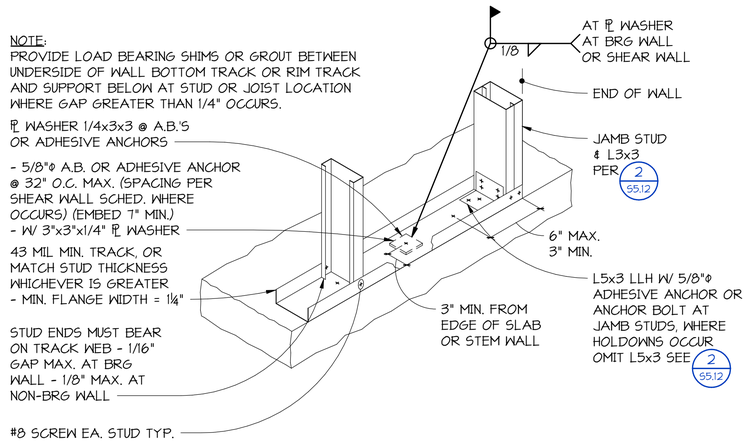
DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1

SHEET TITLE
STEEL FRAMING DETAILS

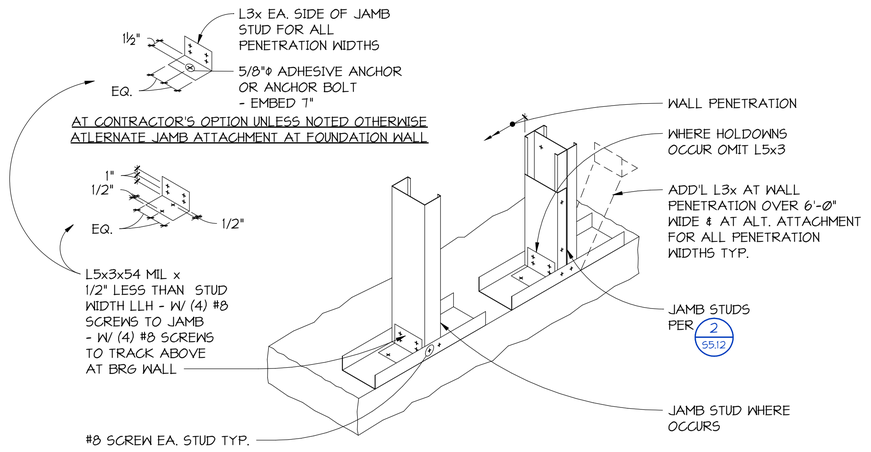
SHEET #
S5.11

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



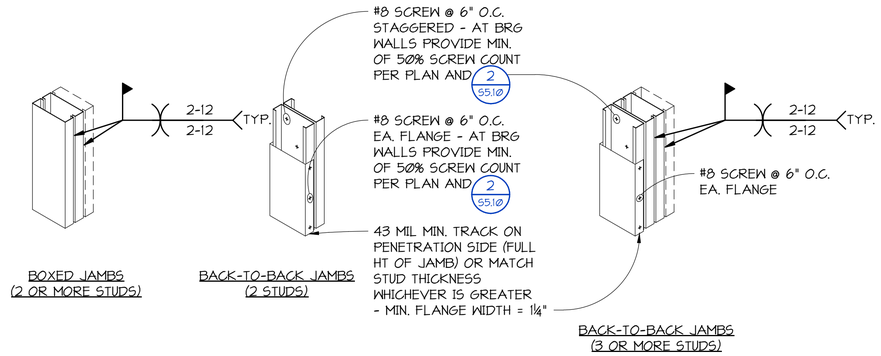
TYPICAL COLD-FORMED STEEL STUD AND TRACK ATTACHMENT

1 S5.12 **DETAIL** NO SCALE



TYPICAL COLD-FORMED STEEL JAMB STUD ATTACHMENT

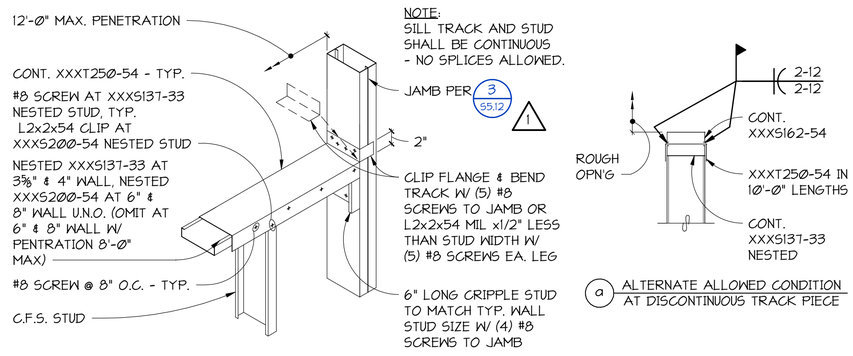
2 S5.12 **DETAIL** NO SCALE



NOTE:
PROVIDE (2) JAMB STUD SIZE UNLESS NOTED OTHERWISE ON PLAN.

TYPICAL JAMB STUD CONFIGURATIONS AT BEARING WALLS

3 S5.12 **DETAIL** NO SCALE



a ALTERNATE ALLOWED CONDITION AT DISCONTINUOUS TRACK PIECE

TYPICAL SILL AT COLD-FORMED STEEL WALL PENETRATION

4 S5.12 **DETAIL** NO SCALE

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PCS Structural Solutions
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JACK J. PINKERTON STATE OF WASHINGTON 26161 PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1

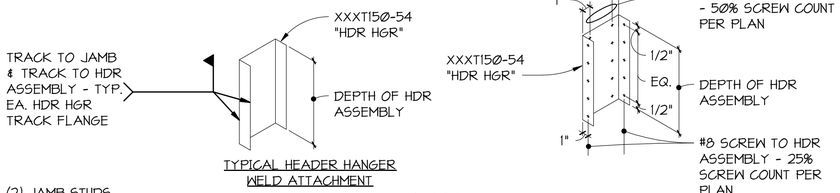
SHEET TITLE
STEEL FRAMING DETAILS

SHEET #
S5.12

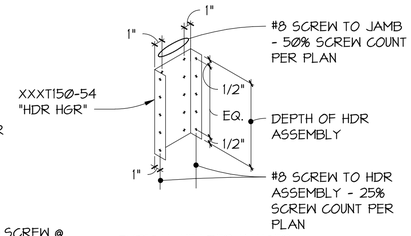
10/10/2024 4:08:42 PM C:_Revit Models\24318 WSF International Village R2023 (Central)_rwelfringer.rvt

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

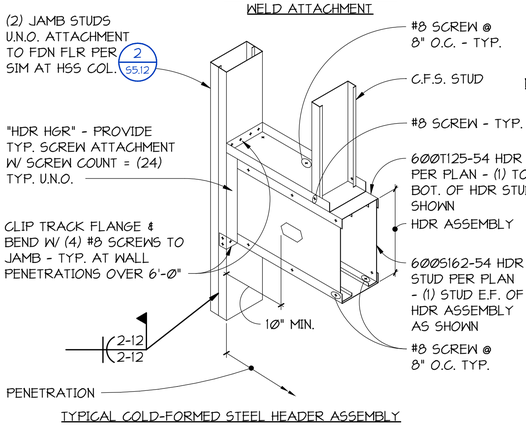


TYPICAL HEADER HANGER
WELD ATTACHMENT



TYPICAL HEADER HANGER
SCREW ATTACHMENT

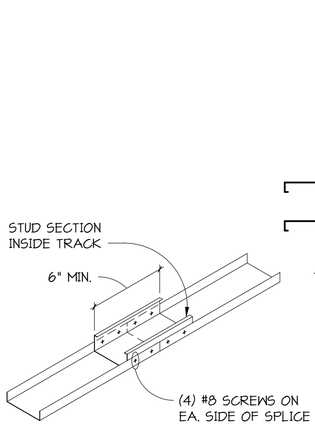
NOTE: SCREW COUNT = (24) U.N.O.



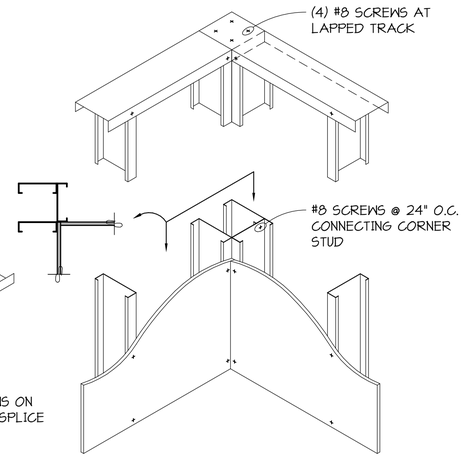
TYPICAL COLD-FORMED STEEL HEADER ASSEMBLY

NOTES:
SEE HEADER ASSEMBLY ON FRAMING PLAN FOR HEADER HANGER WELD ATTACHMENT OR SPECIAL SCREW COUNT REQUIREMENTS.

1 S5.13 **DETAIL**
NO SCALE

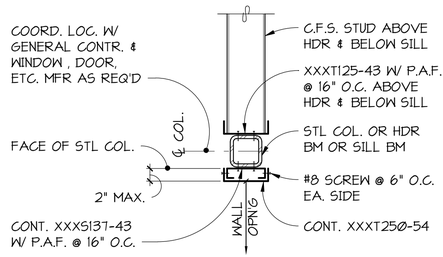


a TYPICAL COLD-FORMED STEEL
BOTTOM/TOP TRACK SPLICE



b TYPICAL COLD-FORMED
STEEL WALL CORNER

2 S5.13 **DETAIL**
NO SCALE



b CONDITION AT OPENING

3 S5.13 **DETAIL**
NO SCALE

JEFF BROWN
ARCHITECTURE

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JACK J. PINKERTON
STATE OF WASHINGTON
26161
PROFESSIONAL ENGINEER

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INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE

PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1

SHEET TITLE

STEEL FRAMING DETAILS

SHEET #

S5.13

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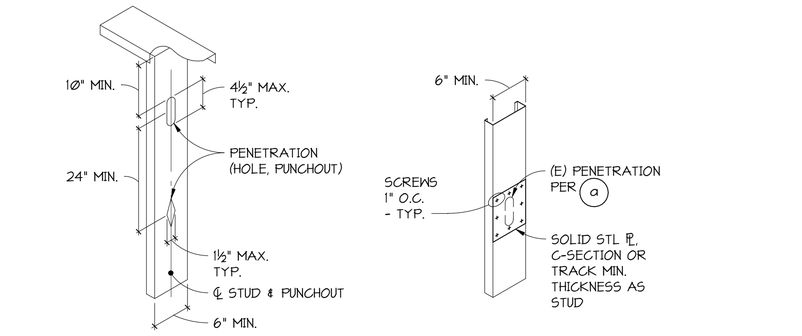
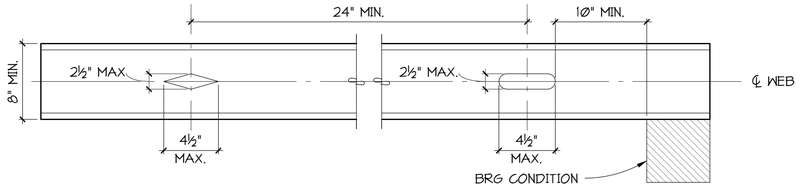
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



(a) TYPICAL ALLOWABLE COLD-FORMED STEEL STUD PUNCHOUT

(b) TYPICAL INFILL OF FACTORY COLD-FORMED STEEL STUD PUNCHOUT

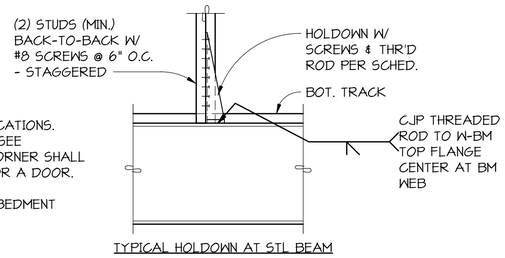


(c) TYPICAL ALLOWABLE COLD-FORMED STEEL JOIST PUNCHOUT

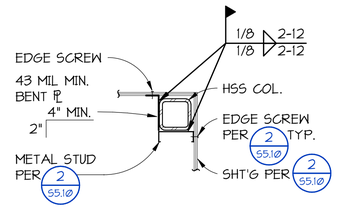
TYPICAL HOLDOWNS

SIZE	SCREWS	THREADED ROD	"d"
S/HD10S	(22) #14	7/8"ϕ	1'-3"

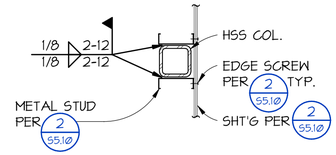
NOTES:
1. SEE FOUNDATION PLANS FOR HOLDOWN LOCATIONS.
2. FOR HOLDOWN TO CONCRETE FOUNDATION SEE
3. ALL HOLDOWNS NOT OCCURING AT WALL CORNER SHALL BE LOCATED AT THE EDGE OF A WINDOW OR A DOOR. EDGE SCREW EACH HOLDOWN STUD.
4. STEP FOOTINGS AS REQURIED TO MEET EMBEDMENT REQUIREMENTS PER 1/S3.11.



TYPICAL HOLDOWN AT STL BEAM



COLUMN AT PERPENDICULAR SHEAR WALL



TYPICAL COLUMN AT SHEAR WALL

1 S5.14 DETAIL NO SCALE

2 S5.14 DETAIL NO SCALE

3 S5.14 DETAIL NO SCALE

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JACK J. PINKERTON STATE OF WASHINGTON 26161 REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
09.12.24	PERMIT REVISION 1	1

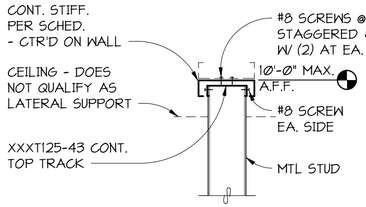
SHEET TITLE
STEEL FRAMING DETAILS

SHEET #
S5.14

10/10/2024 4:08:45 PM C:_Revit Models\24318 WSF International Village R2023 (Central)_rwelfringer.rvt

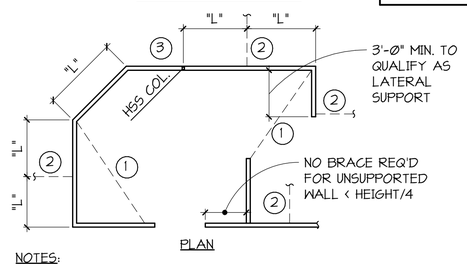
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



TOP OF WALL STIFFENER

TOP OF WALL STIFFENER SCHEDULE	
UNBRACED WALL LENGTH "L"	STIFFENER MEMBER CONTINUOUS
< 10'	NONE REQ'D
10'-13'	600S137-33
13'-16'	(2) 600S137-33
16'-24'	(2) 800S162-43



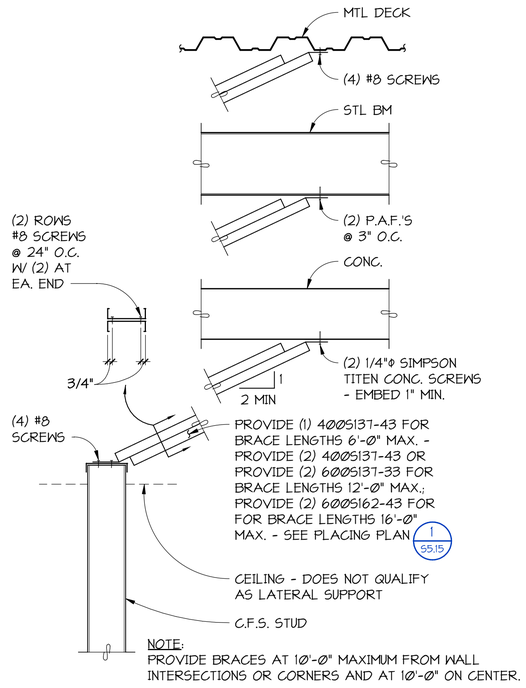
PLAN

NOTES:

1. THIS PLAN IS AN EXAMPLE ONLY. IT DOES NOT REPRESENT A SPECIFIC WALL.
2. "L" INDICATES UNBRACED LENGTH OF WALLS - SEE SCHEDULE FOR TOP OF WALL STIFFENER SIZE.
3. AT CONTRACTORS OPTION, IN LIEU OF TOP OF WALL STIFFENER:
   - (1) INDICATES HORIZONTAL BRACE EXTENDING TO ADJACENT CORNER - SEE 3/S5.15
   - (2) INDICATES BRACE UP TO STRUCTURE - SEE 2/S5.15.
   - (3) INDICATES WALL BRACED AT HOLLOW STRUCTURAL SECTION COLUMN - PROVIDE L2"x2"x1/2" LESS THAN STUD WIDTH x54MIL. WITH (4) #8 SCREWS TO TOP TRACK. - WELD CONNECTION ANGLE TO HOLLOW STRUCTURAL SECTION COLUMN OR PROVIDE (4) POWER ACTUATED FASTENERS AT CONTRACTOR'S OPTION.
4. ALL TOP TRACK SPLICES SHALL BE AT BRACE LOCATIONS.

TYPICAL LATERAL SUPPORT FOR COLD-FORMED STEEL STUD WALLS NOT EXTENDING TO STRUCTURE ABOVE

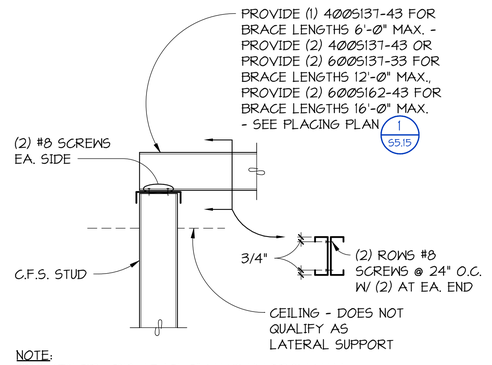
1 / S5.15 DETAIL
NO SCALE



NOTE:
PROVIDE BRACES AT 10'-0" MAXIMUM FROM WALL INTERSECTIONS OR CORNERS AND AT 10'-0" ON CENTER.

TYPICAL COLD-FORMED STEEL STUD WALL BRACE UP TO STRUCTURE

2 / S5.15 DETAIL
NO SCALE



NOTE:
PROVIDE BRACES AT 10'-0" MAXIMUM FROM WALL INTERSECTIONS OR CORNERS AND AT 10'-0" ON CENTER.

TYPICAL COLD-FORMED STEEL STUD WALL HORIZONTAL BRACE

3 / S5.15 DETAIL
NO SCALE

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WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
PERMIT DOCUMENTS

ISSUE DATE	ISSUE DESCRIP.	NO.
05.06.24	PERMIT	
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SHEET TITLE
STEEL FRAMING DETAILS

SHEET #
S5.15

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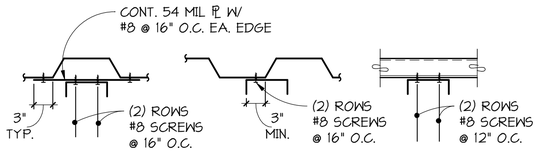
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

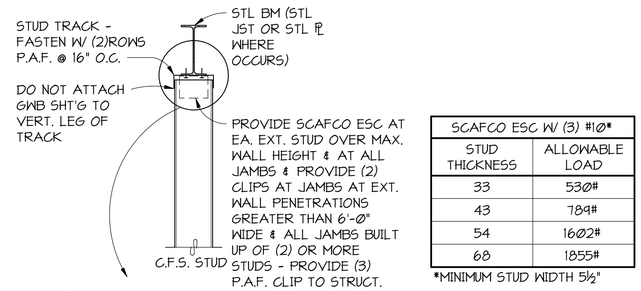
SLOTTED TOP TRACK THICKNESS		
2½" TRACK WITH 3/4" GAP		
TRACK THICKNESS (MILS)	ALLOWABLE LOAD (POUNDS)	INTERIOR WALL HEIGHT
33	106	31'-10"
43	174	52'-4"
54	344	
68	475	

*DISTANCE BETWEEN WALL STUD SUPPORTS

TOP TRACK SCHEDULE

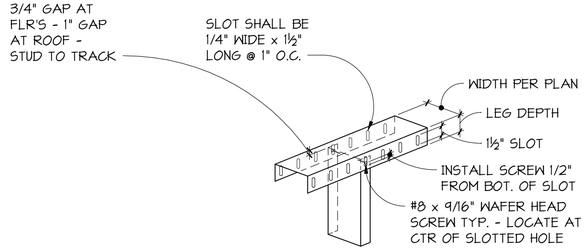


TOP TRACK TYPICAL CONNECTION TO STRUCTURE ABOVE

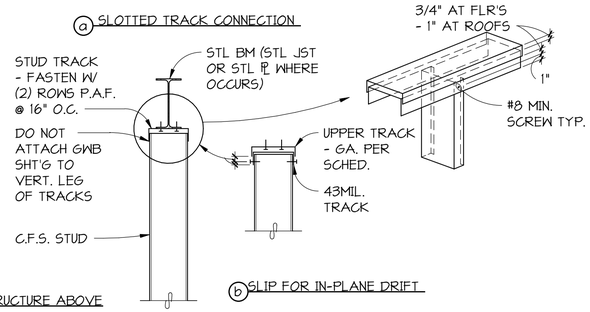


SCAFCO ESC W/ (3) #10*	
STUD THICKNESS	ALLOWABLE LOAD
33	530#
43	784#
54	1602#
68	1855#

*MINIMUM STUD WIDTH 5½"



ⓐ SLOTTED TRACK CONNECTION



ⓑ SLIP FOR IN-PLANE DRIFT

TYPICAL NON-BEARING COLD-FORMED STEEL WALL EXTENDING TO STRUCTURE ABOVE

1 / S5.16 SECTION
NO SCALE

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INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

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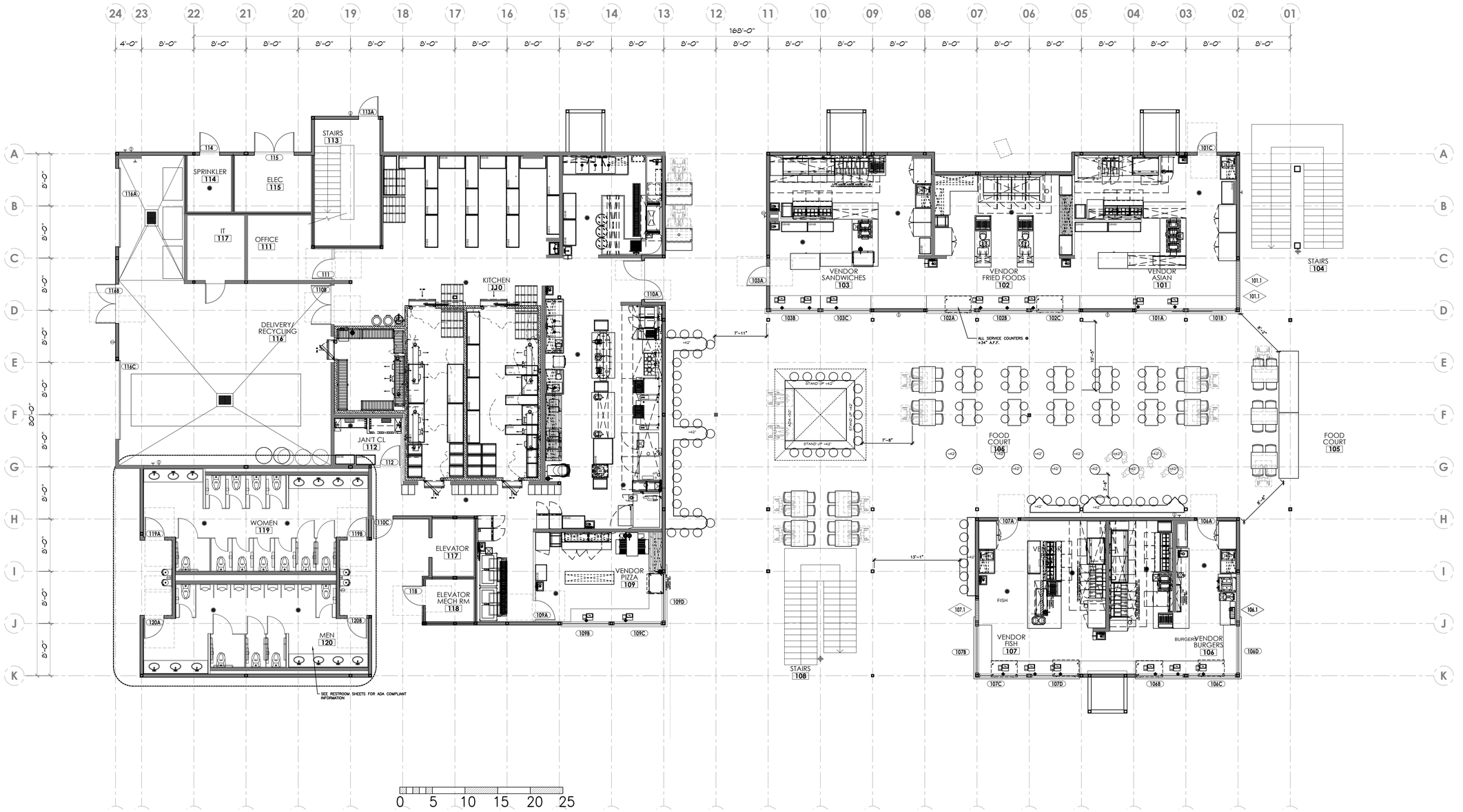
SHEET TITLE
STEEL FRAMING DETAILS

SHEET #
S5.16

10/10/2024 4:08:48 PM C:_Revit Models\24318 WSF International Village R2023 (Central)_rwelfringer.rvt

City of Puyallup
Development & Permitting Services
TENANT REVIEW

Building	Planning
Engineering	Public Works
Fire	Traffic



ADA COMPLIANT SEATING
5% REQUIRED

TOTAL TABLE COUNT:
32 TABLES - STANDARD HT:
13 TABLES - ADA COMPLIANT
TOTAL 40% ADA COMPLIANT

CODE COMPLIANCE PLAN-FLR 1

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

NORTH

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

CODE
COMP
PLAN

Date: 10/15/24

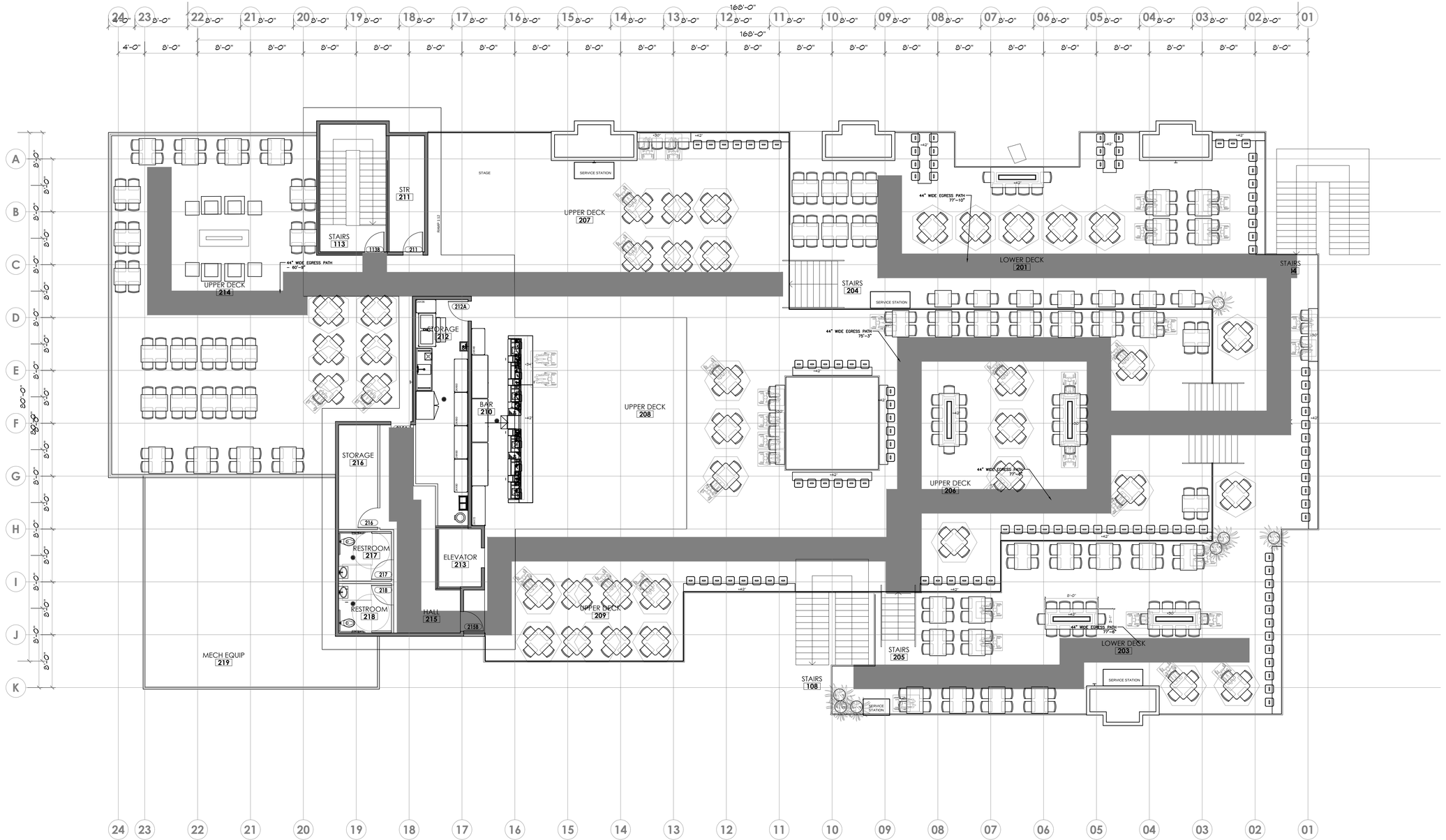
Scale: NOTED

Drawn by: SG

Job: WSF-INTL VIL
PUYALLUP, WA

ID01

City of Puyallup
Development & Permitting Services
10/15/2024 4:57:02 PM
Building | Planning
Engineering | Public Works
Fire | Traffic



ADA COMPLIANT SEATING
5% REQUIRED

TOTAL TABLE COUNT:
138 TABLES - STANDARD HT:
32 TABLES - ADA COMPLIANT
TOTAL 23% ADA COMPLIANT

CODE COMPLIANCE PLAN-FLR 2

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

NORTH

REVISION		
	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

CODE
COMP
PLAN

Date: 10/15/24

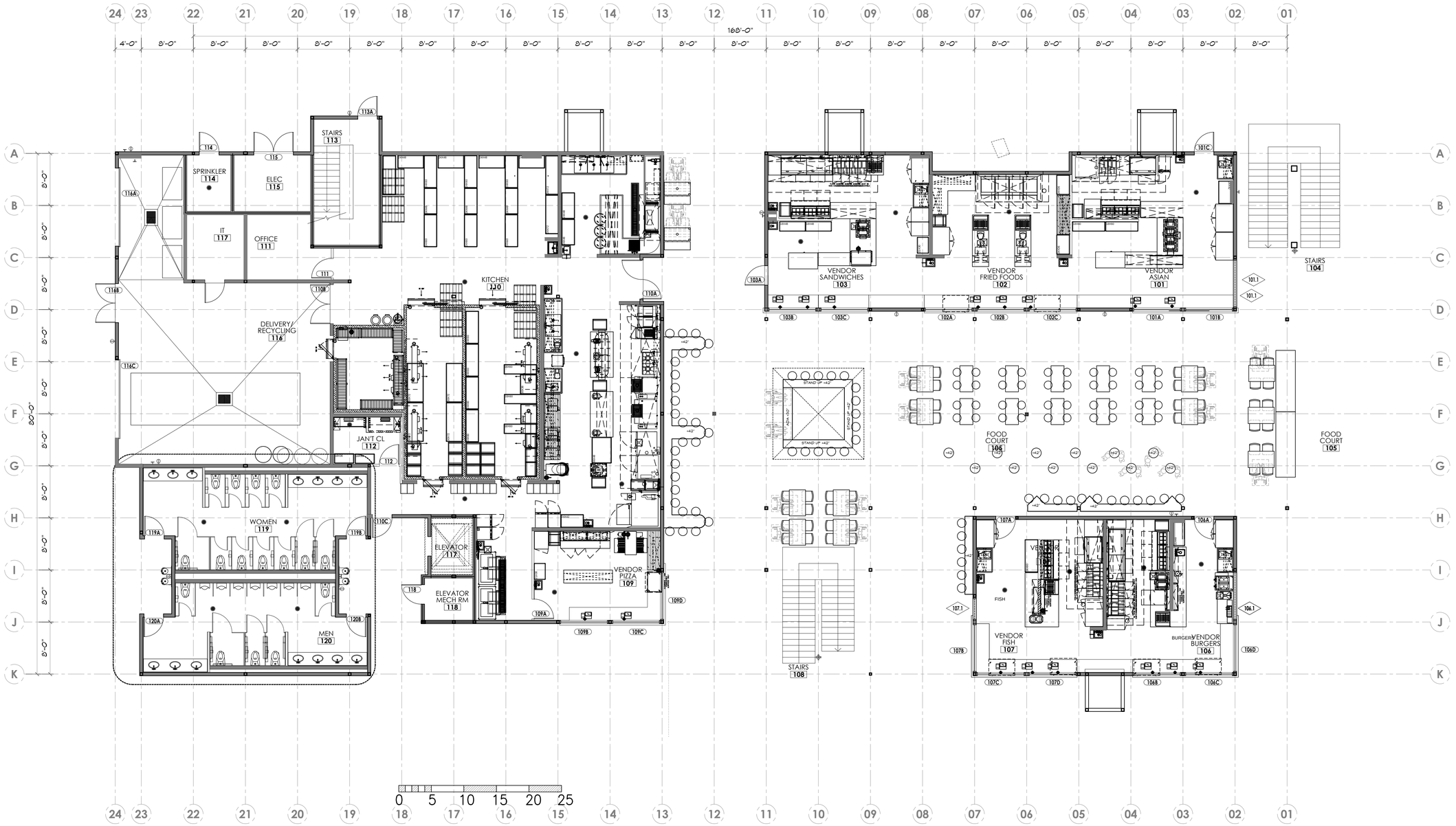
Scale: NOTED

Drawn by: SG

Job: WSF-INTL VIL
PUYALLUP, WA

ID01.1

City of Puyallup
Development & Permitting Services
ROUTING STAMP
Building | Planning
Engineering | Public Works
Fire | Traffic



COMPOSITE PLAN-FLR 1

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

NORTH

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

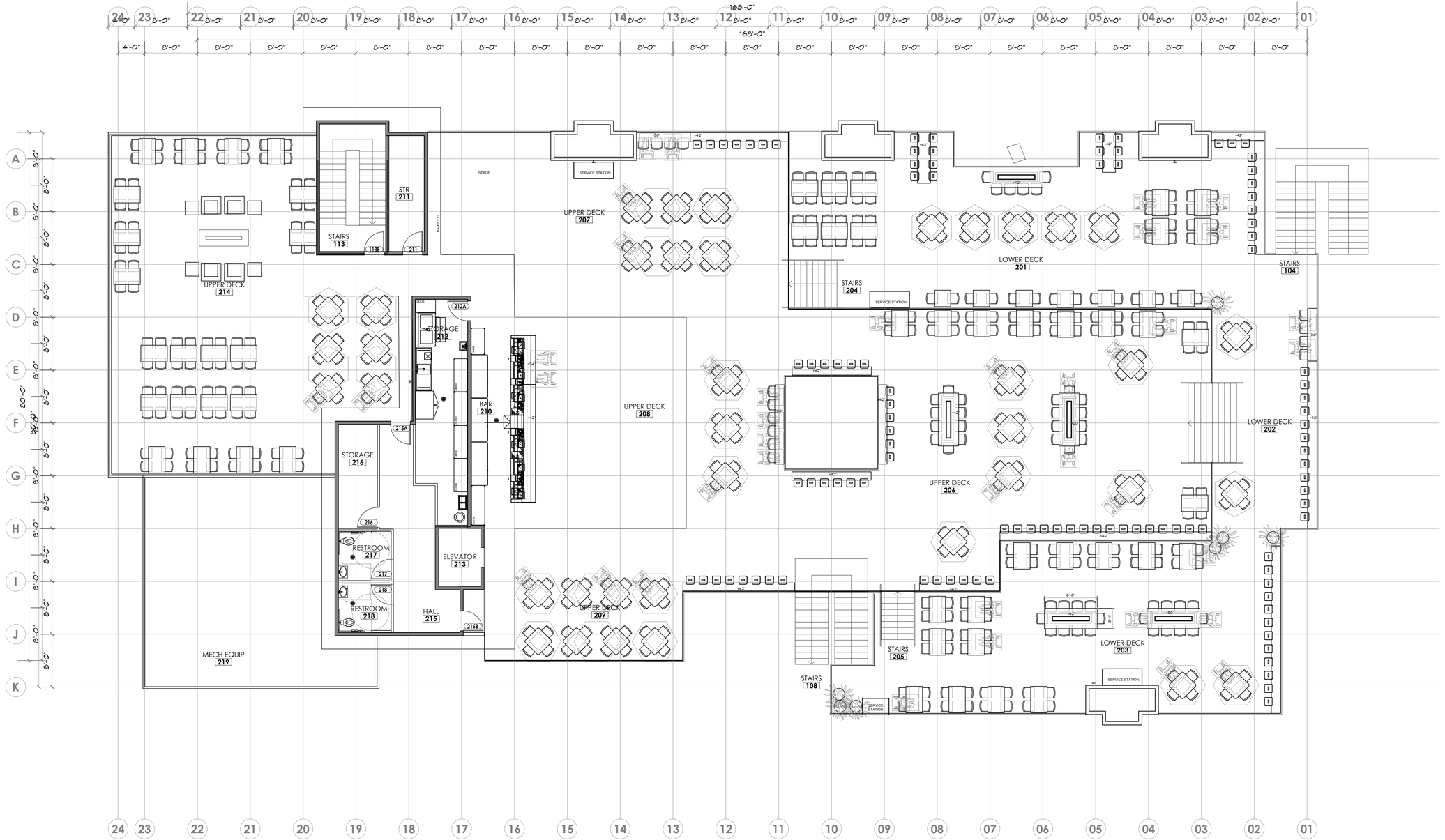
SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

COMPOSITE PLAN

Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID1

City of Puyallup
Development & Permitting Services
10/24/2024 4:57:00 PM
Building | Planning
Engineering | Public Works
Fire | Traffic



COMPOSITE PLAN-FLR 2

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

NORTH

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

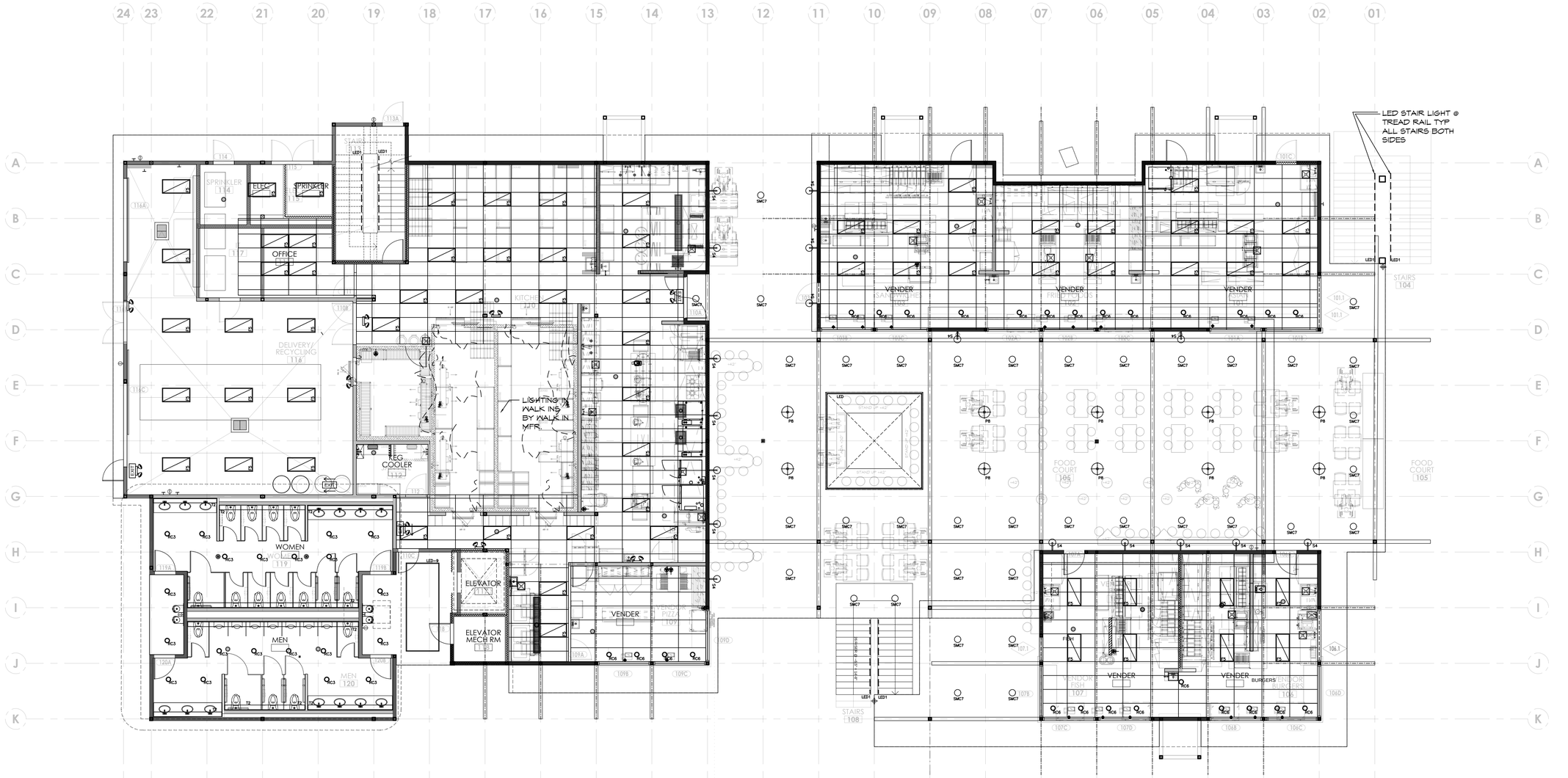
COMPOSITE PLAN

Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID1.1

City of Puyallup
Development & Permitting Services
ISSUED ITEMS

Building	Planning
Engineering	Public Works
Fire	Traffic



1ST FLOOR RCP/LIGHTING PLAN
SCALE: 1/8" = 1'-0"

NORTH

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
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SUE GENTY
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425-827-3438

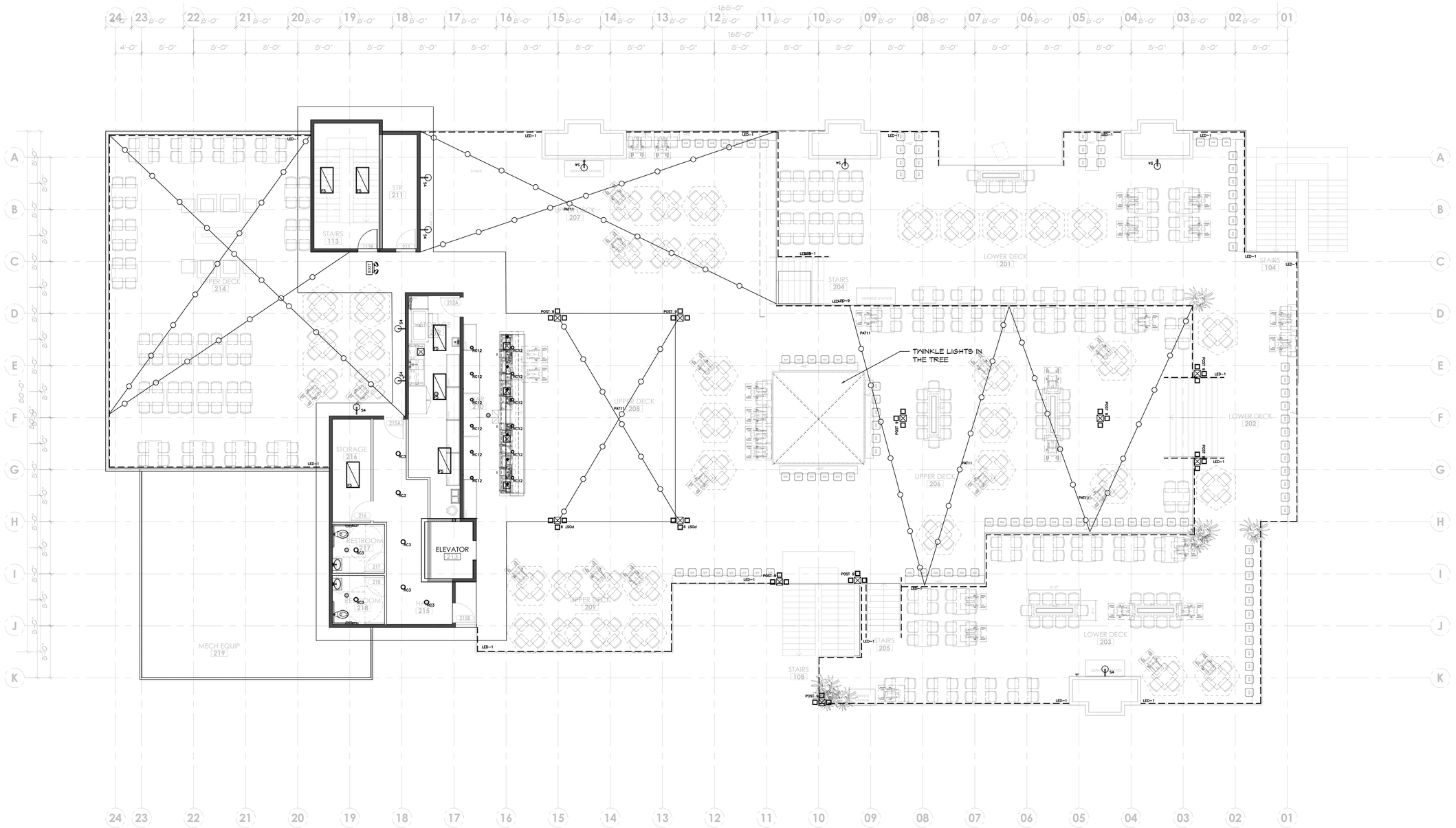
RCP/LTG
1ST FLR

Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL
PUYALLUP, WA

ID3.0

City of Puyallup
Development & Permitting Services
ISSUED FOR:

Building	Planning
Engineering	Public Works
Fire	Traffic



2ND FLOOR RCP/LIGHTING PLAN

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

NORTH

REVISION		
	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
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SUE GENTY
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425-827-3438

RCP/LTG
2ND FLR

Date: 10/15/24

Scale: NOTED

Drawn by: SG

Job: WSF-INTL VIL
PUYALLUP, WA

ID 3.1

City of Puyallup
Development & Permitting Services
10/24/2024 REVIEW
Building | Planning
Engineering | Public Works
Fire | Traffic

LIGHTING SCHEDULE - INTL VILLAGE FOOD 10-27-24 UPDATE

	SYMBOL	QTY.	DESCRIPTION	MANUFACTURER	MODEL #	LAMP	DIMMER	REMARKS
	1		LED CONCEALED LIGHT	KELVIX OR EQ	MAX 100 OUTDOOR -MAX 1002700K WR-24V (117 LUMEN PER FT.)	0.92/FT	YES	DAMP/WET LABELED
	2		TROFFER/CONCEALED COVE LIGHT 8'/4' V.I.F.	LITHONIA LED STRIP	ZL1D - 8'/4' TO FILL LENGTH OF COVE	3000K 2500 LM 90 CRI WHITE SURFACE MOUNT - 22W PER 8' FIXTURE	NO	DAMP LABELED
3	RC3 3		4" RC CAN	JUNO OR EQ	TC1RC TRIM: V4017 WET LABELED	PAR 20-FLOOD - 3000K 6.5W DAMP/WET LABELED	NO	DAMP/WET LABELED - WET LABELED LAMPING
	S4 4		WALL MOUNTED SCONCE LIGHT - GOOSENECK-14" SHADE	BASELIGHT	CN14 - COLOR/MOUNTING TO BE DETERMINED	PAR 38 3000K WET LABELED 14W 90CRI	NO	WET LABELED
3	F5 5		2 X 4 LED TROFFER	COOPER METALUX	4 LAMP 428T8	T8-32W 3500K	NO	CHAIN HUNG IN LOCATIONS WHERE THERE IS NO ACT
	RC6 6		6" RC CAN	JUNO OR EQ	IC22R W/29CWH - TRIM WET LOCATION RATED	PAR 30 -7.5W (VERIFY)	NO	DAMP/WET LABELED - WET LABELED LAMPING
	SMC7 7		SURFACE MOUNTED CAN	PROGRESS OR EQ.	P5741-31/30K	PAR 30 LED 14 W	YES	DAMP/WET LABELED - WET LABELED LAMPING
3	P8 8		LARGE PENDANT LIGHT - HALOPHANE FIXTURE	BASELIGHT	RP16-58-STXX-STC-58-(SEE LAMPING OPTIONS)-X-X-X-FWG16-58	2500 LUMIN 80-90 CRI PAR 38 OR A-21 BASE SEE CUT SHEETS	NO	DAMP/WET LABELED - WET LABELED LAMPING-PROVIDE SAMPLES OF BOTH LAMPING FOR CLIENT APPROVAL
	9		POST LIGHTS	BARN LIGHT	WILCOX SPS-0272 POST MOUNT COLLECTION - VERIFY 1, 2 AND 3 FIXTURE MOUNTS	LED 11 850 LUMEN LAMPS 11W	NO	DAMP/WET LABELED - WET LABELED LAMPING
	R#10 10		THIS LINE NOT USED					
	11		PATIO STRING LIGHTS	CALI LIGHTING INC	ML2000-CA	1W LAMPS POLYMER FROSTED PLASTIC LAMPS. 2.7k	NO	DAMP/WET LABELED - WET LABELED LAMPING-VERIFY LAMP SEAL FOR WATERPROOF INSTALLATION
3	RC12 12		4" RC CAN	JUNO OR EQ	TC1RC TRIM: V4017 WET LABELED	PAR 20-FLOOD - 3000K 6.5W DAMP/WET LABELED	NO	DAMP/WET LABELED - WET LABELED LAMPING

NORTH

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG
3	10-27-24	SG

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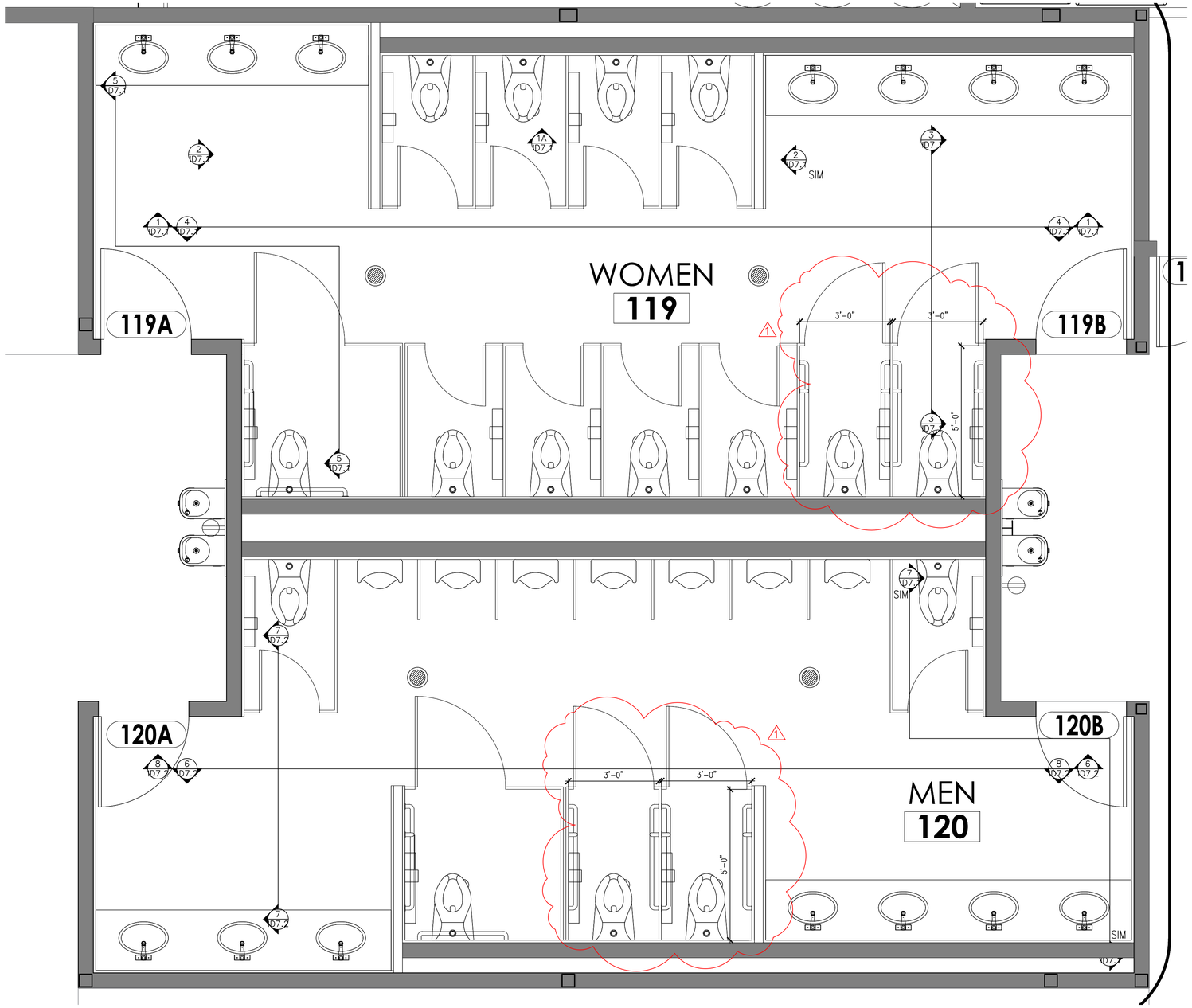
LIGHTING SCHEDULE

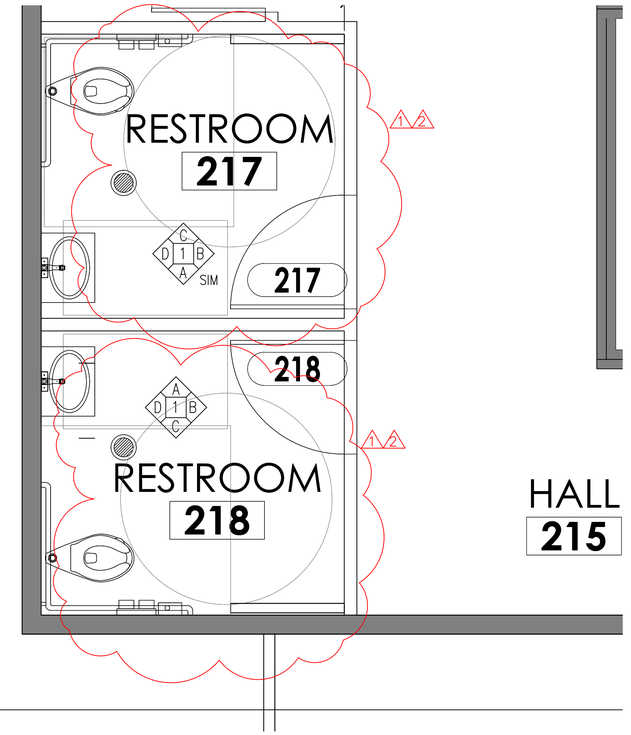
Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID3.2

City of Puyallup
Development & Permitting Services
ISSUED STAMP
Building | Planning
Engineering | Public Works
Fire | Traffic



1 RESTROOMS 1ST FLOOR
SCALE: 1/2" = 1'-0"



2 RESTROOMS 2ND FLOOR
SCALE: 1/2" = 1'-0"

RESTROOM GENERAL NOTES:

1. TOILET ROOM PLAN & ELEVATIONS ILLUSTRATE FIXTURE CLEARANCE DIMENSIONS, MOUNTING HEIGHTS AND ACCESSORY PLACEMENT. ACTUAL LAYOUT MAY VARY. SEE FLOOR PLAN FOR CORRECT LAYOUT.
2. LOWER EDGES OF LAVATORY TO BE 2'-3" MIN. ABOVE FINISH FLOOR FOR KNEE CLEARANCE.
3. MIRROR TO BE MOUNTED (BOTTOM EDGE OF REFLECTIVE SURFACE) 3'-4" MAX. ABOVE FINISH FLOOR.
4. GRAB BARS TO BE 1-1/4" – 1-1/2" IN DIAMETER, MOUNTED 1-1/2" FROM WALL. BARS SHALL BE CAPABLE OF SUPPORTING 300LB LIVE LOAD WITHOUT PERMANENT DEFLECTION.
5. LAVATORY RIM TO BE 34" ABOVE FINISH FLOOR.
6. FLOORS SHALL BE SMOOTH, HARD, NON-ABSORBENT SURFACE SUCH AS SHEET VINYL OR OTHER AS ACCEPTABLE BY LOCAL HEALTH AND BUILDING DEPARTMENTS. FLOORING MATERIAL MUST EXTEND ONTO THE WALLS AT LEAST 6". SEE FINISH SCHEDULE FOR MORE INFORMATION.
7. DIMENSIONS, NOTES AND EQUIPMENT TYPICAL FOR ALL TOILET ROOMS, UNLESS NOTED OTHERWISE.
8. SEE FINISH SCHEDULE FOR FINISH INFORMATION.
9. TOILET ROOM FAN TO BE INTEGRALLY SWITCHED WITH TOILET LIGHT AND VENTED TO THE OUTSIDE.
10. CONCRETE OR CMU WALLS IN TOILET ROOMS SHALL BE FURRED OUT AND FINISHED SIMILAR TO ADJACENT WALLS.
11. PROVIDE PAPER TOWEL DISPENSER. UNIT TO BE MOUNTED SO THAT CONTROLS OR OPENING ARE LOCATED 40" MAX. ABOVE FINISH FLOOR.
12. GYPSUM BOARD APPLIED TO PLUMBING WALLS SHOULD BE WATER-RESISTANT.
13. WATER CLOSET FLUSH VALVE TO BE ON OPEN SIDE OF TANK.
14. PROVIDE BLOCKING AS REQUIRED TO SUPPORT SINK, GRAB BARS, AND OTHER HARDWARE.
15. TOILET PAPER DISPENSERS SHALL COMPLY WITH SECTION 309.4. WHERE THE DISPENSER IS LOCATED ABOVE THE GRAB BAR, THE OUTLET OF THE DISPENSER SHALL BE LOCATED WITHIN AN AREA 24 INCHES (610 MM) MINIMUM AND 36 INCHES (915 MM) MAXIMUM FROM THE REAR WALL. WHERE THE DISPENSER IS LOCATED BELOW THE GRAB BAR, THE OUTLET OF THE DISPENSER SHALL BE LOCATED WITHIN AN AREA 24 INCHES (610 MM) MINIMUM AND 42 INCHES (1065 MM) MAXIMUM FROM THE REAR WALL. THE OUTLET OF THE DISPENSER SHALL BE LOCATED 18 INCHES (455 MM) MINIMUM AND 48 INCHES (1220 MM) MAXIMUM ABOVE THE FLOOR. DISPENSERS SHALL COMPLY WITH SECTION 609.3. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROL DELIVERY, OR DO NOT ALLOW CONTINUOUS PAPER FLOW.
16. OUTLET SHALL BE 15" MIN AND 48" MAX ABOVE FINISH FLOOR. THERE SHALL BE 1-1/2" MIN. CLEARANCE BELOW AND 12" MIN. ABOVE THE GRAB BAR.
17. OTHER DISPENSERS AND DISPOSAL FIXTURES SHALL BE LOCATED 40" MAX. ABOVE FINISH FLOOR, MEASURED TO ANY RACK, OPERATING CONTROL, RECEPTACLE OR DISPENSER.
18. WALLS WITHIN 2 FEET OF URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NON-ABSORBENT SURFACE TO A HEIGHT OF 4'-0" ABOVE FINISH FLOOR.

REVISION

	DATE	INIT
1	09-11-24	SG
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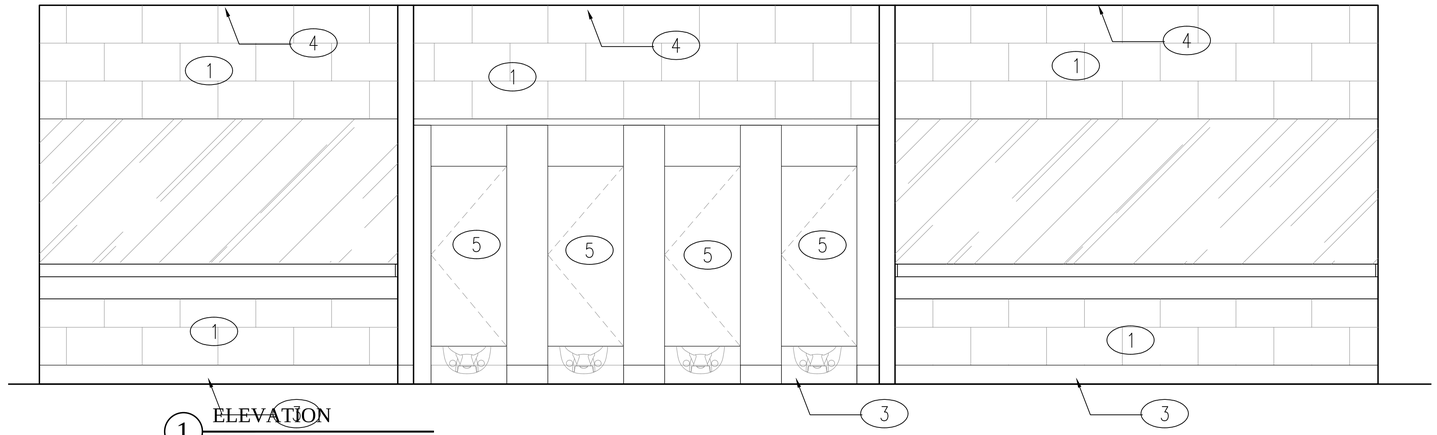
RESTROOM DETAILS

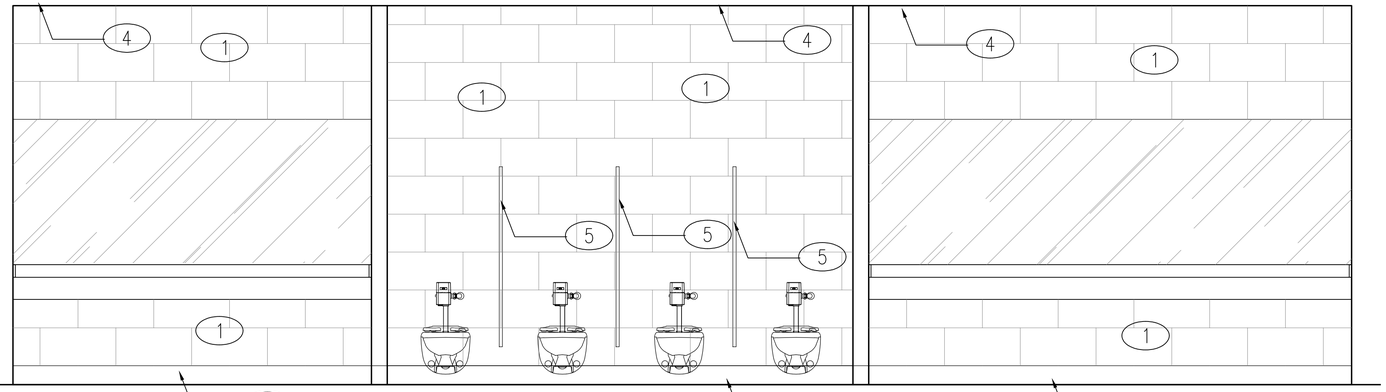
Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL
PUYALLUP, WA

ID7

City of Puyallup
Development & Permitting Services
ISSUED FOR:
Building | Planning
Engineering | Public Works
Fire | Traffic



1 ELEVATION
SCALE: 1/2" = 1'-0"



1A ELEVATION
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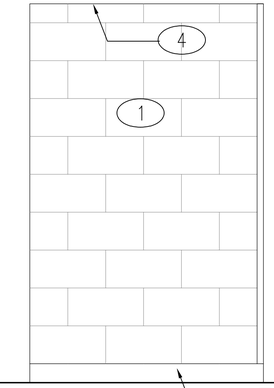

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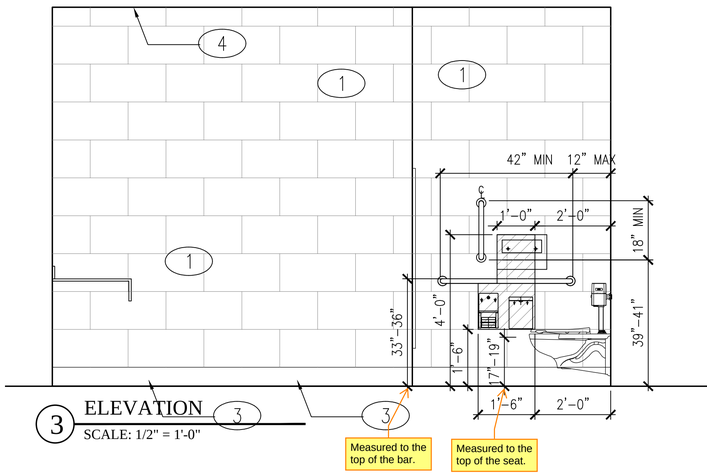
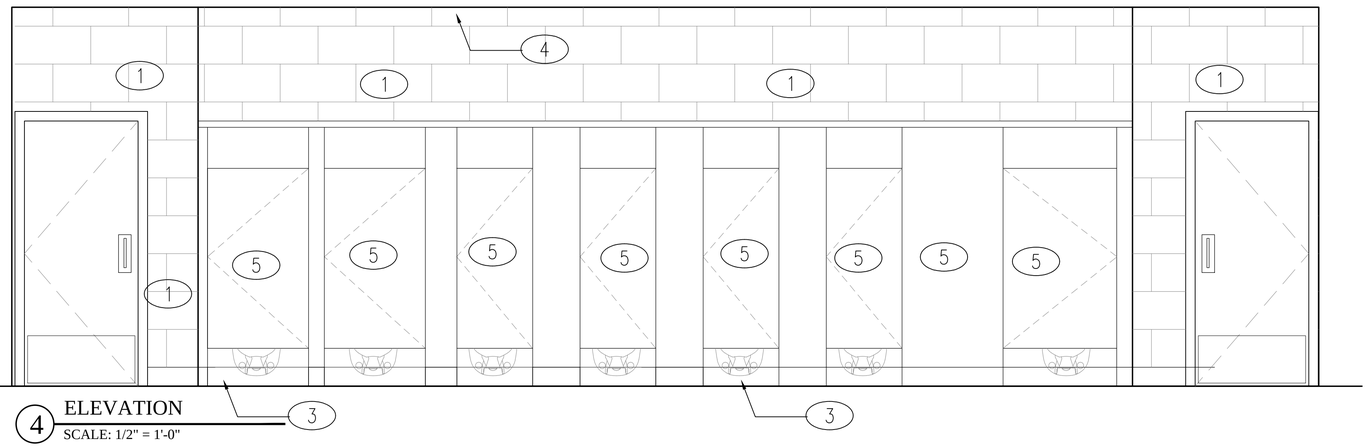


3 ELEVATION
SCALE: 1/2" = 1'-0"



4 ELEVATION
SCALE: 1/2" = 1'-0"

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

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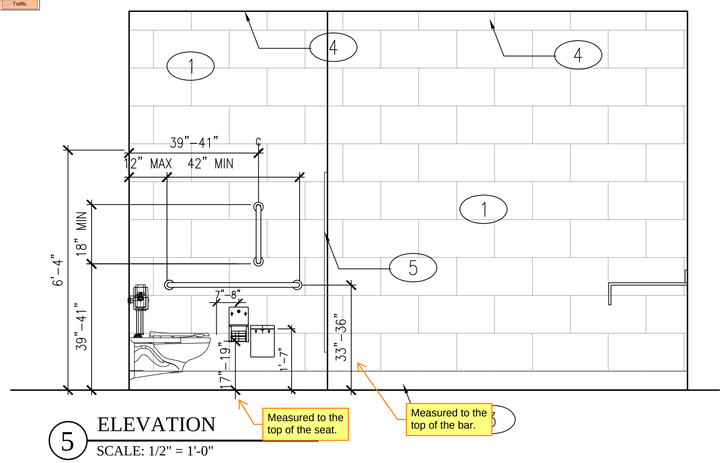
RESTROOM DETAILS

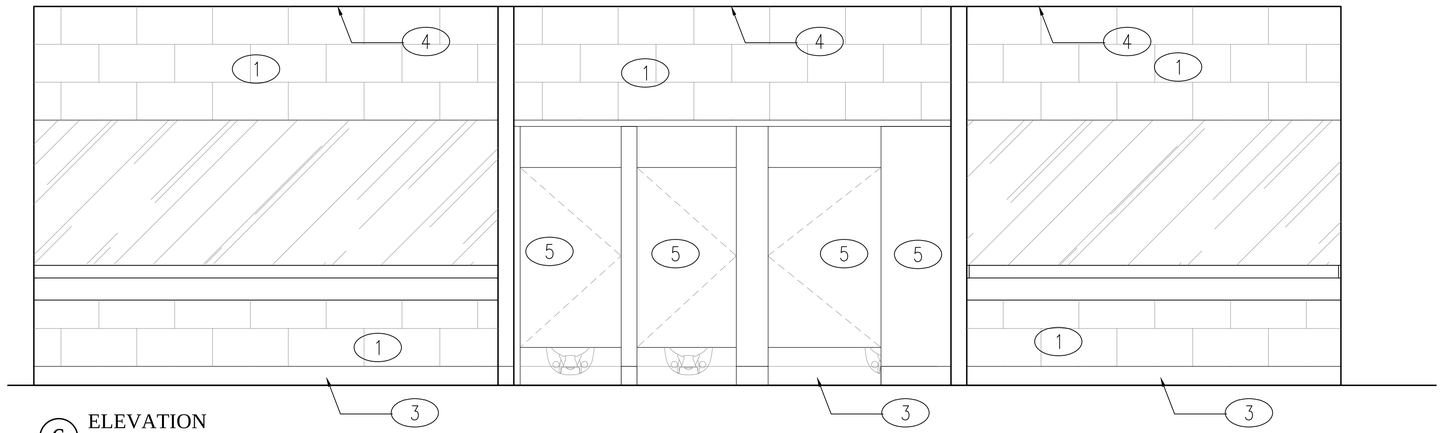
Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID7.1

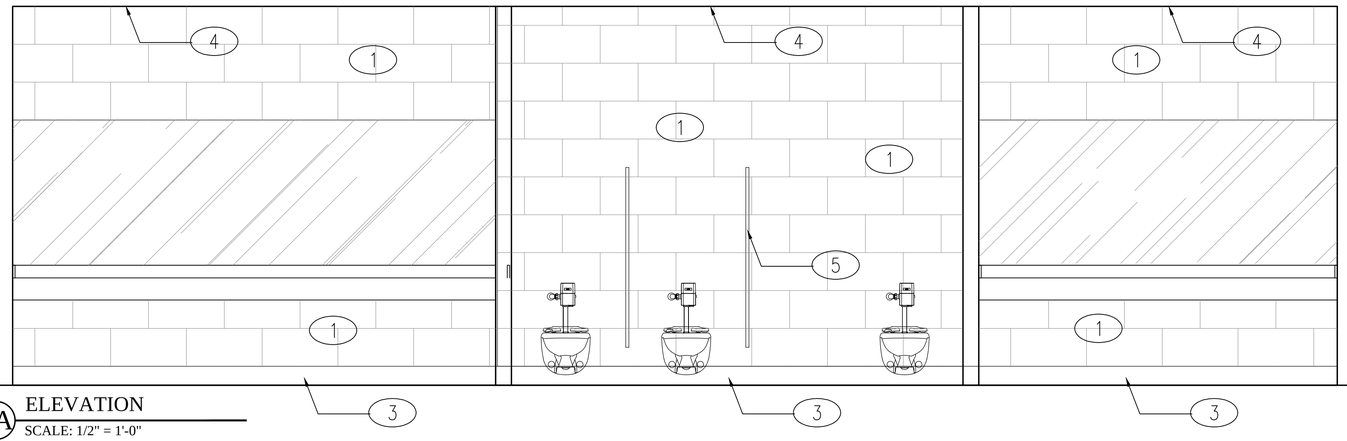
City of Puyallup
Development & Permitting Services
ISSUED STAMP
Building | Planning
Engineering | Public Works
Fire | Traffic



5 ELEVATION
SCALE: 1/2" = 1'-0"

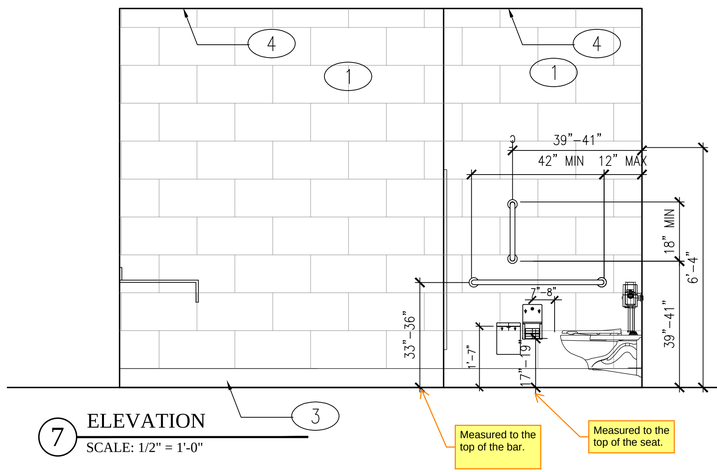


6 ELEVATION
SCALE: 1/2" = 1'-0"

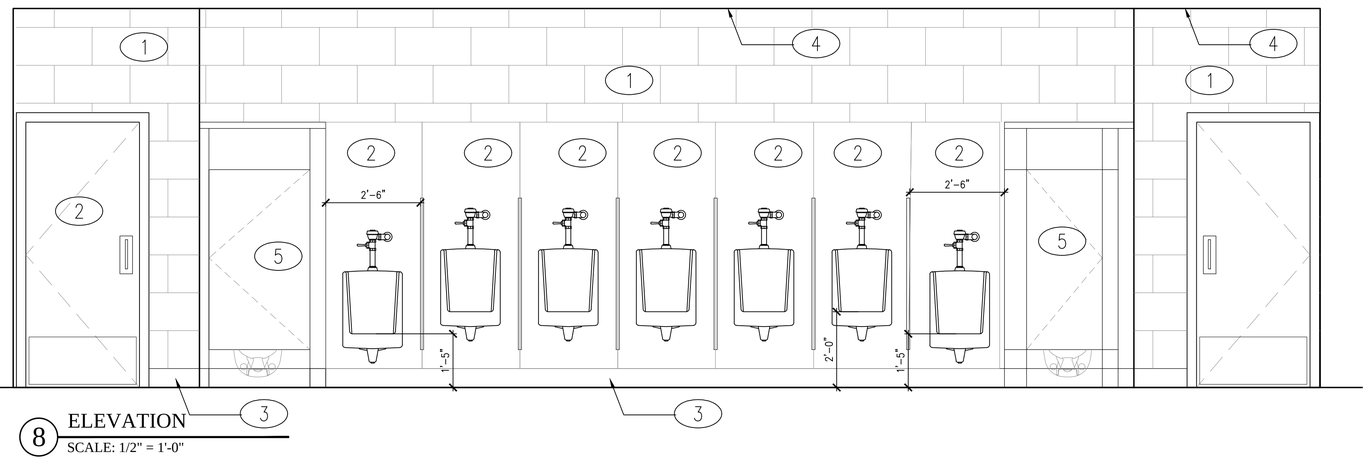


6A ELEVATION
SCALE: 1/2" = 1'-0"

FINISH SCHEDULE-WSF - INTL. PAV. 10-15-24					
KEY	LOCATION	DESCRIPTION	MANUFACTURER	SPECIFICATION	REMARKS
1	RESTROOM	12 X 24 TILE	AMERICAN OLEAN	CLAY VANVAS - COLOR TBD	GROUT - TBD
2	RESTROOM	LARGE FORMAT	PANORAMIC PORCELAIN	TBD	GROUT - TBD
3	RESTROOM	6" COVE TILE BASE	DAL TILE	COLOR WHEEL LINER - A34C1MOD 4 X 12 FLAT TOP COVE BASE - BLACK MATTE #K711	
4	RESTROOM CEILING	EPOXY PAINT	SHERWIN WILLIAMS OR EQ.	CEILING WHITE	SATIN
5	TOILET PARTITIONS	METAL TOILET PARTITIONS	BOBRICK	STEEL - RAW STEEL-NO PAINT	PROVIDE SUBMITTAL FOR APPROVAL
6					
7					
8					
9					
10					



7 ELEVATION
SCALE: 1/2" = 1'-0"



8 ELEVATION
SCALE: 1/2" = 1'-0"

REVISION

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1	09-11-24	SG
2	09-26-24	SG

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425-827-3438

RESTROOM DETAILS

Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID7.2

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
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ACCESSIBLE RESTROOM SIGN

NO SCALE

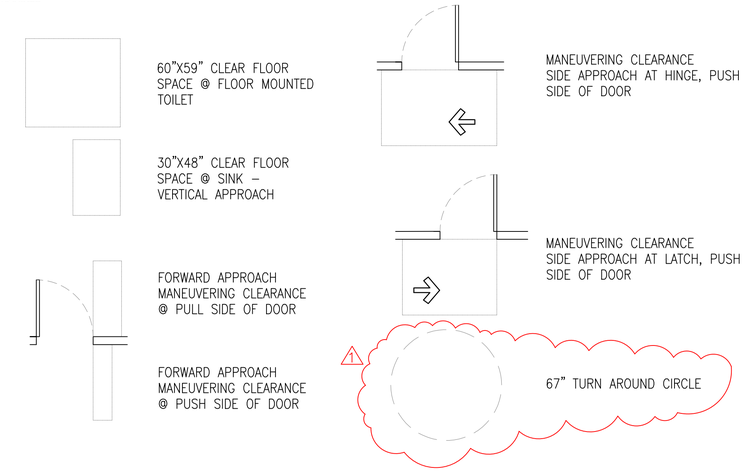
ALL HANDICAP ROOMS TO HAVE SIGNAGE PER (ICC A117.1 SECTION 703.6.3.1) ALL INTERIOR SIGNS DEPICTING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL COMPLY WITH SECTION 703 (ICC A117.1 SECTION 703)

ALL ACCESSIBLE SIGNAGE DEPICTING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE WHITE ON A BLUE BACKGROUND PER 1101.2.6 IN THE WA STATE AMENDMENTS TO THE IBC.

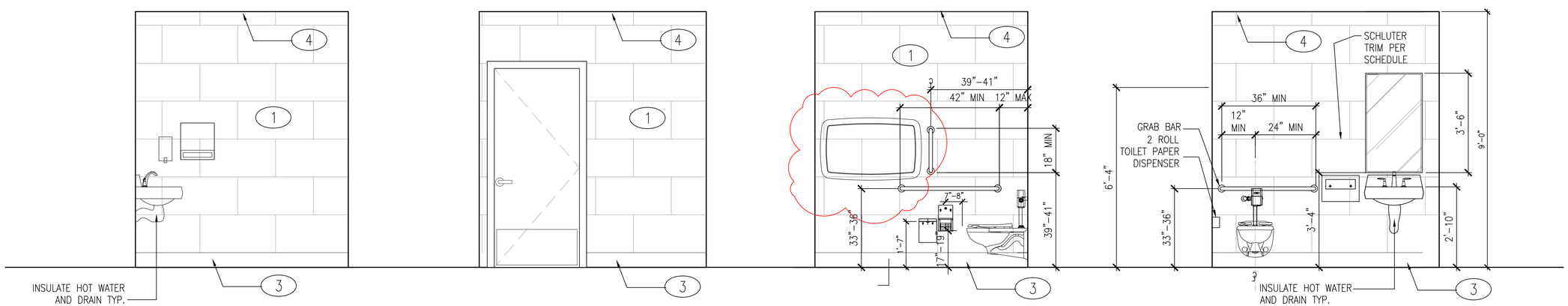
MOUNT ACCESSIBLE SIGNS 40" MIN A.F.F., MEASURED TO THE BASELINE OF THE CHARACTER PER ICC/ANSI 117.1–2017 SECTION 703.4.5 (1)

ACCESSIBLE SYMBOLS KEY

NO SCALE



1 RESTROOMS 2ND FLOOR
SCALE: 1/2" = 1'-0"



A ELEVATION
SCALE: 1/2" = 1'-0"

B ELEVATION
SCALE: 1/2" = 1'-0"

C ELEVATION
SCALE: 1/2" = 1'-0"

D ELEVATION
SCALE: 1/2" = 1'-0"

REVISION

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1	09-11-24	SG
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RESTROOM DETAILS

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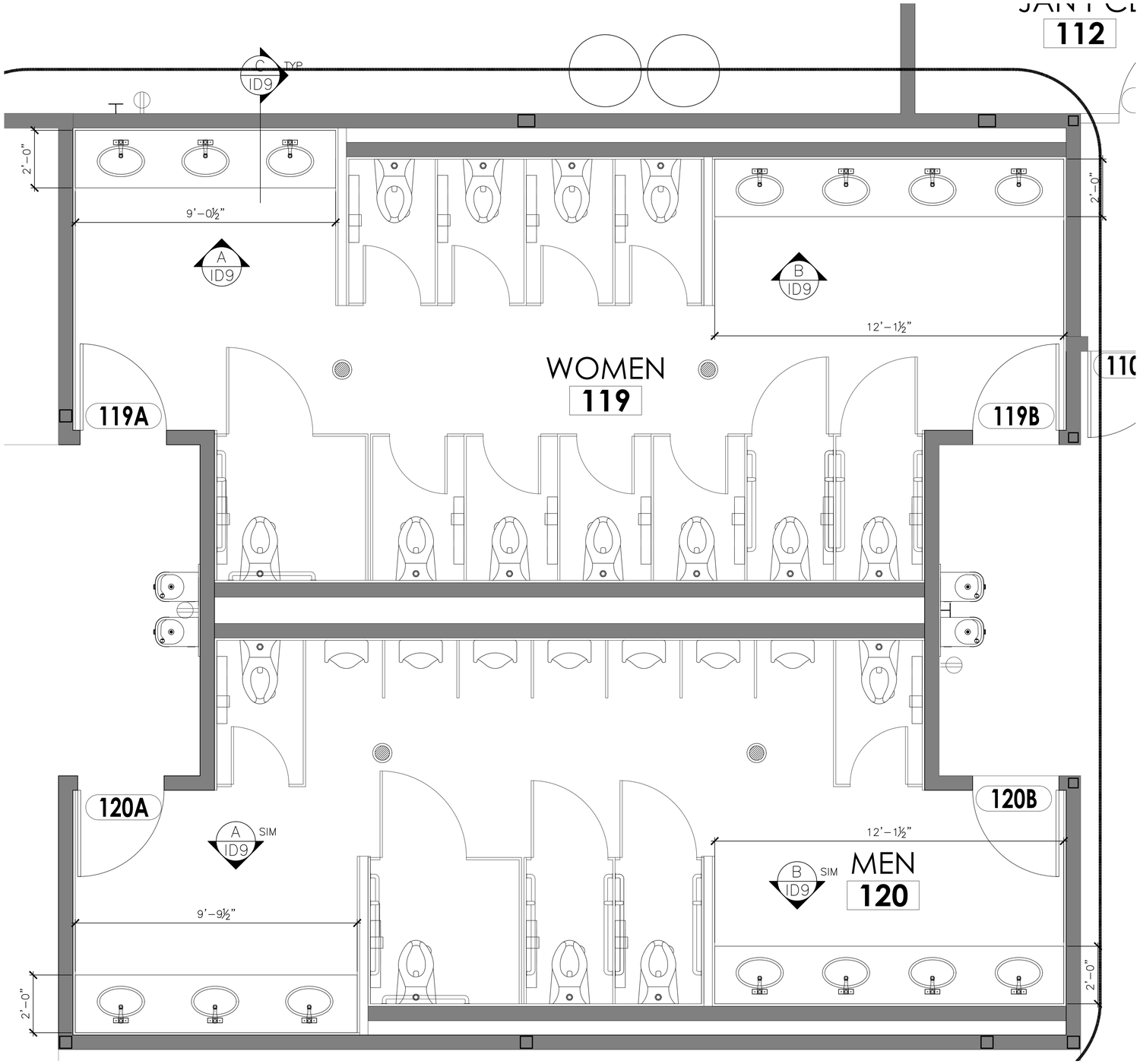
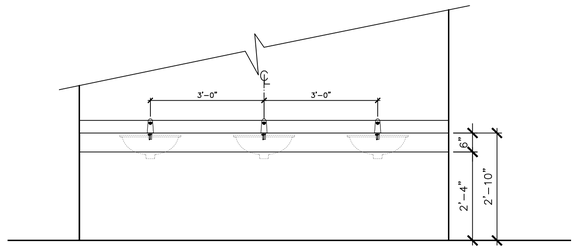
Job: WSF-INTL VIL PUYALLUP, WA

ID7.3

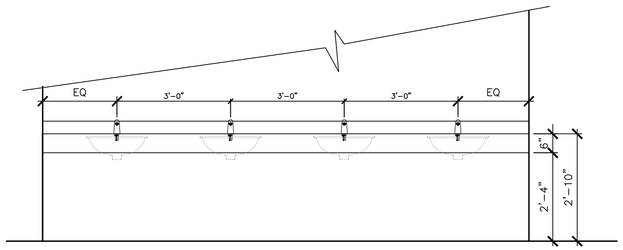
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



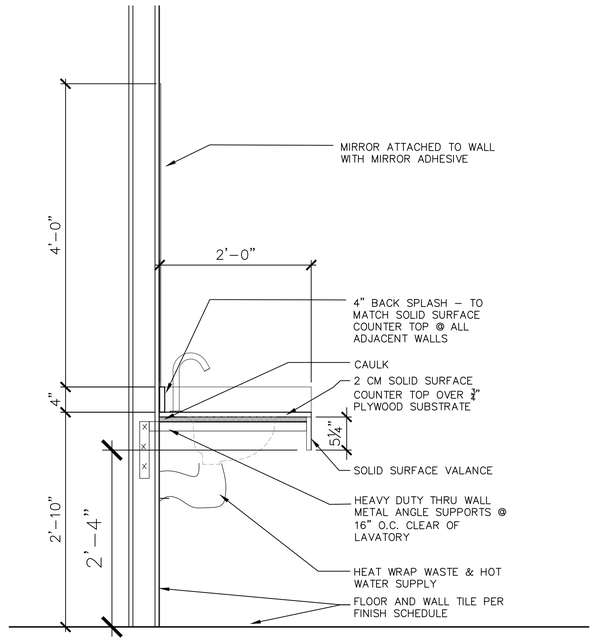
RESTROOM VANITY PLANS
SCALE: 1/2" = 1'-0"



A TYPICAL VANITY ELEVATION 3 LAVS
SCALE: 1/2" = 1'-0"



B TYPICAL VANITY ELEVATION 4 LAVS
SCALE: 1/2" = 1'-0"



C SECTION DETAIL
SCALE: 1" = 1'-0"

REVISION

	DATE	INIT
1	09-11-24	SG
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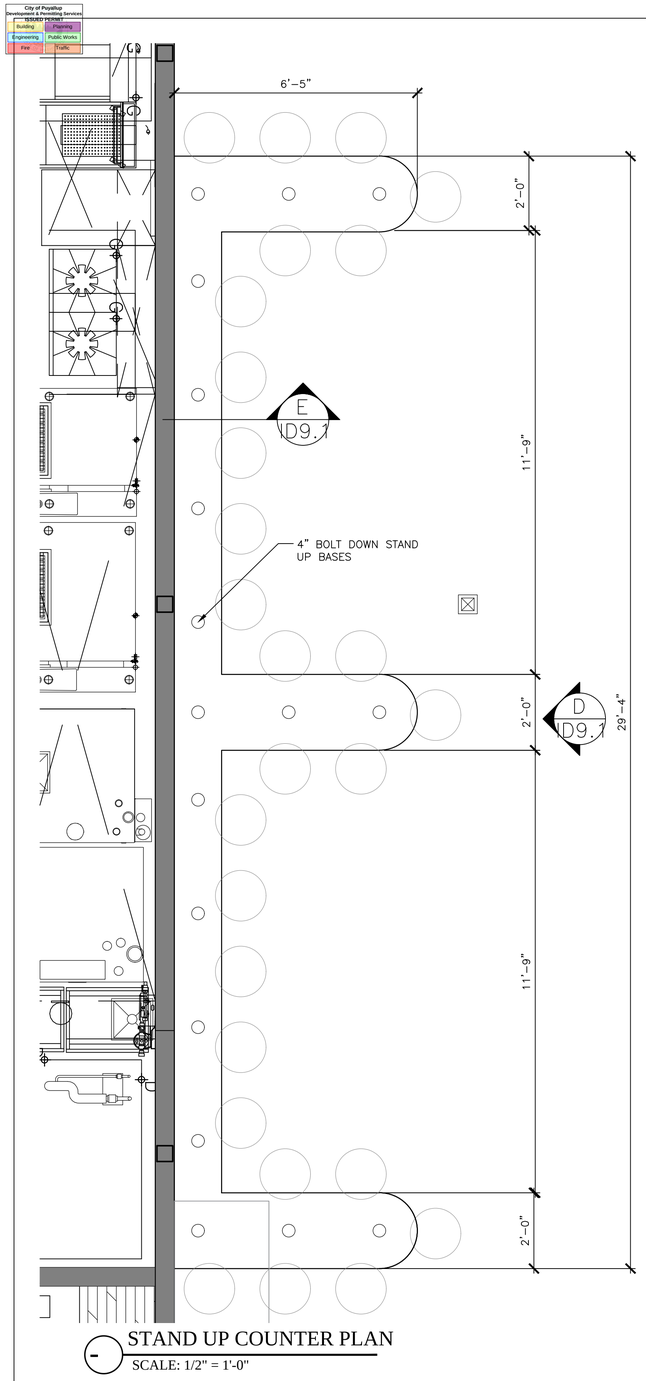
CASEWORK DETAILS

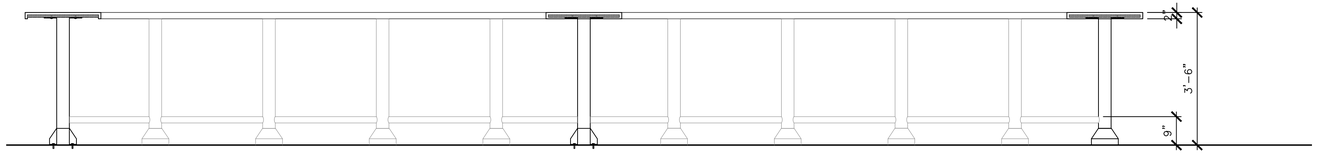
Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID9



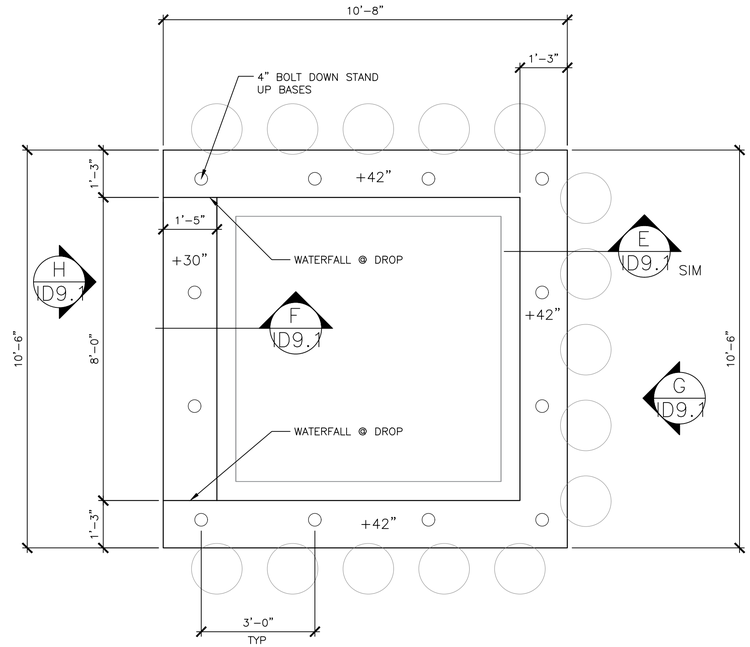
STAND UP COUNTER PLAN

SCALE: 1/2" = 1'-0"



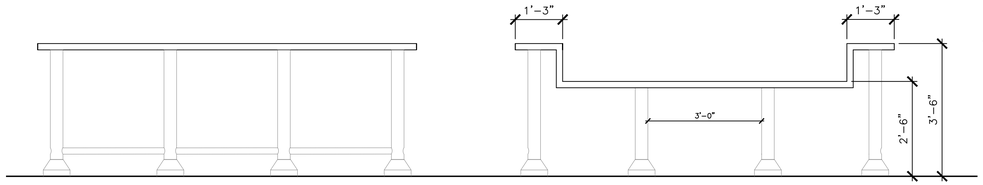
STAND UP TABLE ELEVATION

SCALE: 1/2" = 1'-0"



STAND UP COUNTER PLAN

SCALE: 1/2" = 1'-0"

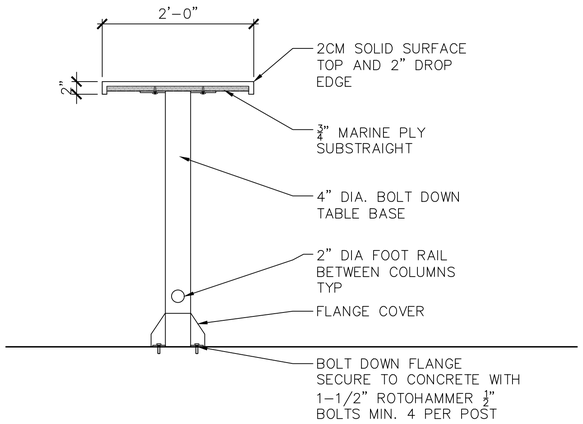


STAND UP TABLE ELEVATION

SCALE: 1/2" = 1'-0"

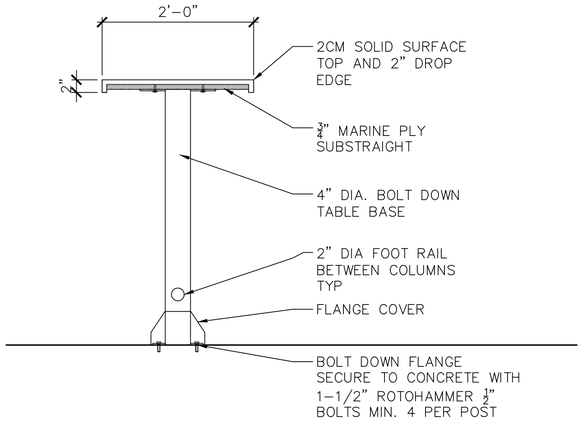
STAND UP TABLE ELEVATION

SCALE: 1/2" = 1'-0"



SECTION DETAIL

SCALE: 1" = 1'-0"



SECTION DETAIL

SCALE: 1" = 1'-0"

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

CASEWORK DETAILS

Date: 10/15/24

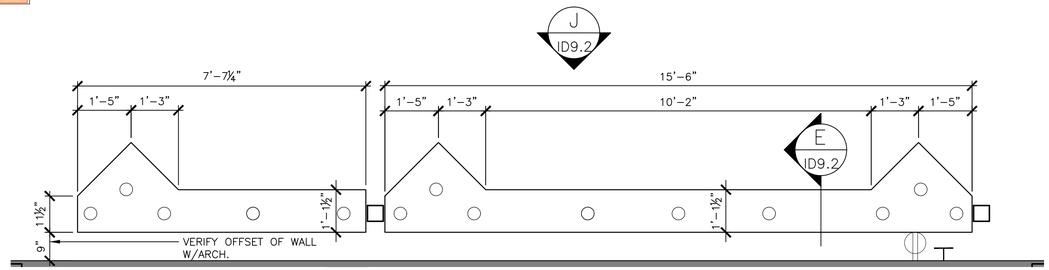
Scale: NOTED

Drawn by: SG

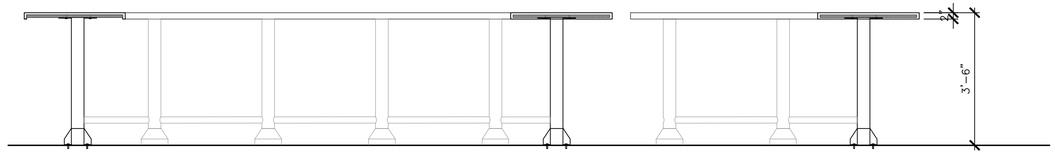
Job: WSF-INTL VIL
PUYALLUP, WA

ID9.1

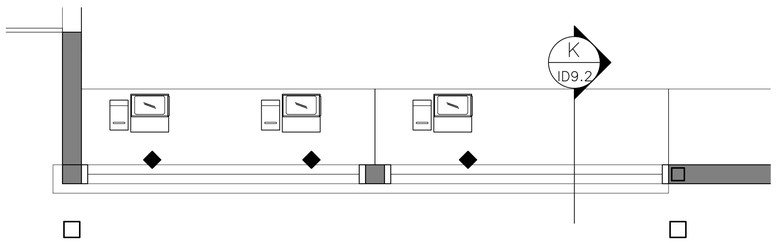
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



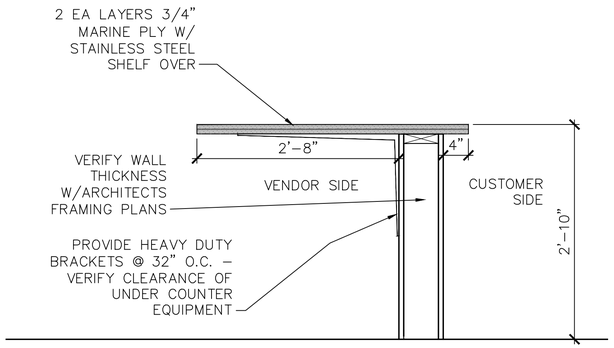
STAND UP COUNTER PLAN
SCALE: 1/2" = 1'-0"



J STAND UP TABLE ELEVATION
SCALE: 1/2" = 1'-0"



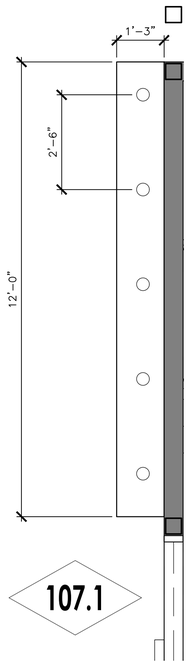
ORDER COUNTER PLAN-TYP
SCALE: 1/2" = 1'-0"



K ORDER COUNTER SECTION
SCALE: 1/2" = 1'-0"

GENERAL CASEWORK NOTES:

- SHOP DRAWINGS REQUIRED FOR APPROVAL PRIOR TO FABRICATION.
- ALL CASEWORK TO BE CONSTRUCTION OF 3/4" PLY
- NO MDF, MELAMINE OR PARTICLE BOARD IS TO BE USED IN THE FABRICATION OF CASEWORK.
- ALL HINGES ARE TO BE HEAVY DUTY BLUM OR EQUAL, SELF CLOSING THE LAST PORTION OF THE SWING.
- ALL DRAWER GLIDES ARE TO BE HEAVY DUTY BLUM OR EQUAL, SELF CLOSING THE LAST 2" OF THE GLIDE.
- ALL DOORS AND DRAWERS TO BE ADJUSTED TO PLUMB AND SQUARE SETTING AND RE-ADJUSTED AT PUNCH LIST IF NEEDED.
- ALL OPEN ENDS TO BE FINISHED AND SEALED.
- ALL BASES TO BE RUBBER BASE UNLESS OTHERWISE NOTED IN ELEVATIONS AND DETAILS.
- P-LAM TO BE AS INDICATED IN SECTIONS/PLANS AND FINISH SCHEDULE.
- BOTTOM OF CASEWORK AT OPEN SHELVES TO HAVE METAL EDGE ON BOTTOM EDGE.
- ALL CASEWORK TO BE SECURED TO FRAMEWORK OF ADJOINING WALL.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
- CASEWORK DRAWINGS PROVIDED FOR INSTALLATION CLARIFICATION ONLY.
- SEE ELEVATIONS AND FINISH SCHEDULE FOR FINISH INFORMATION



STAND UP COUNTER PLAN
SCALE: 1/2" = 1'-0"

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

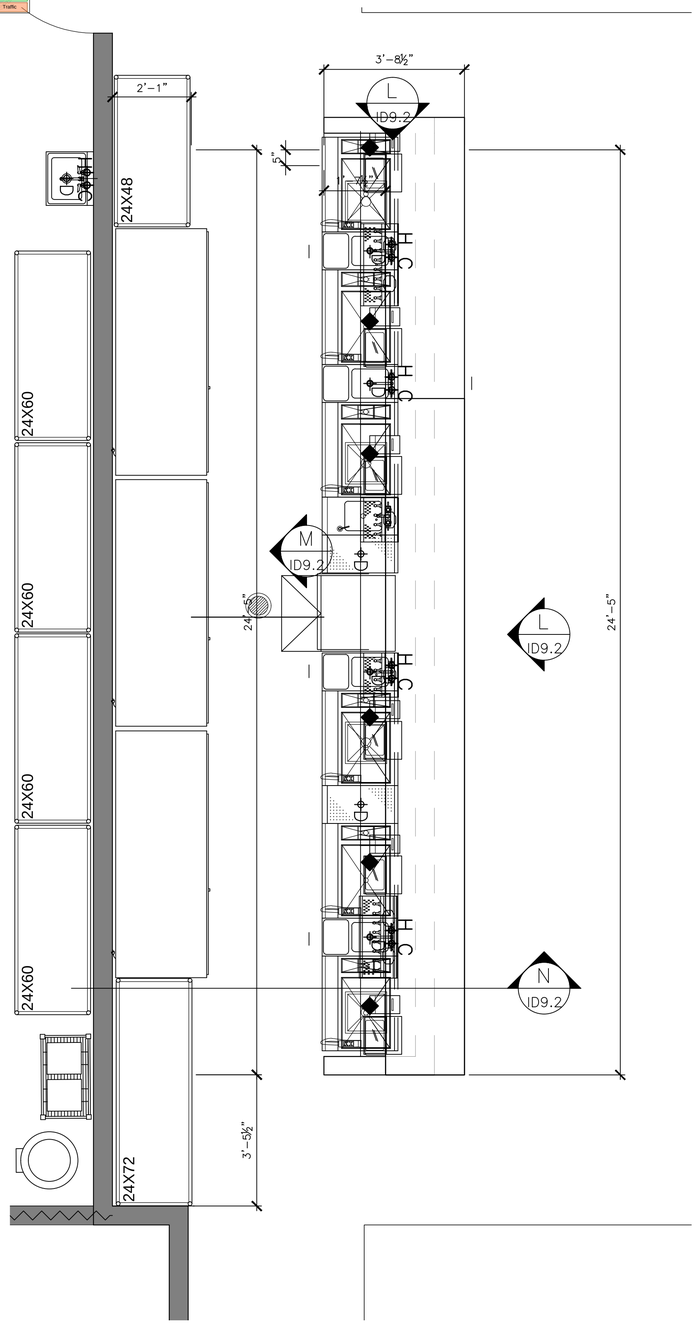
SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

CASEWORK DETAILS

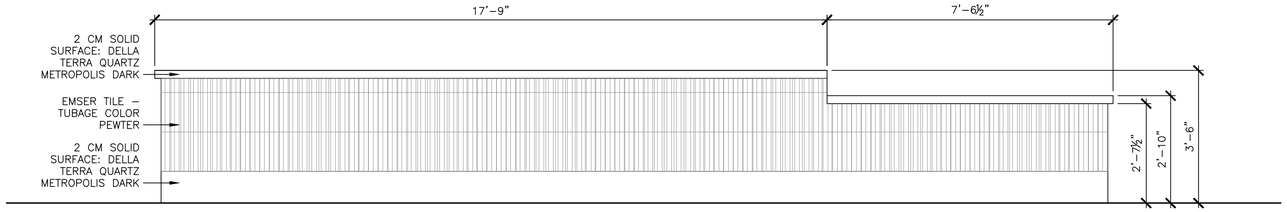
Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID9.2

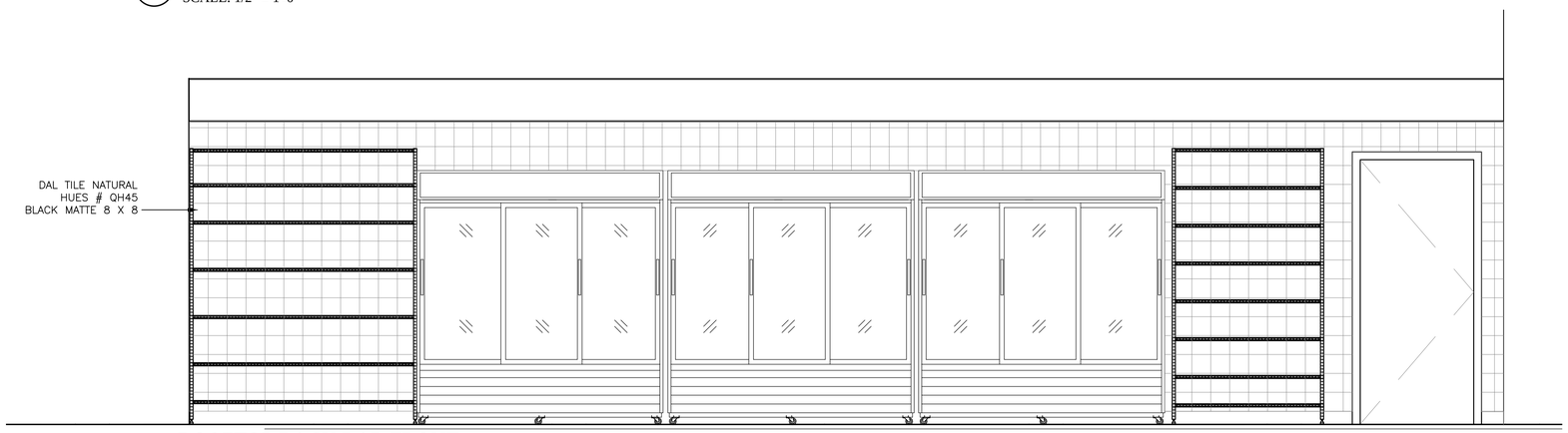
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



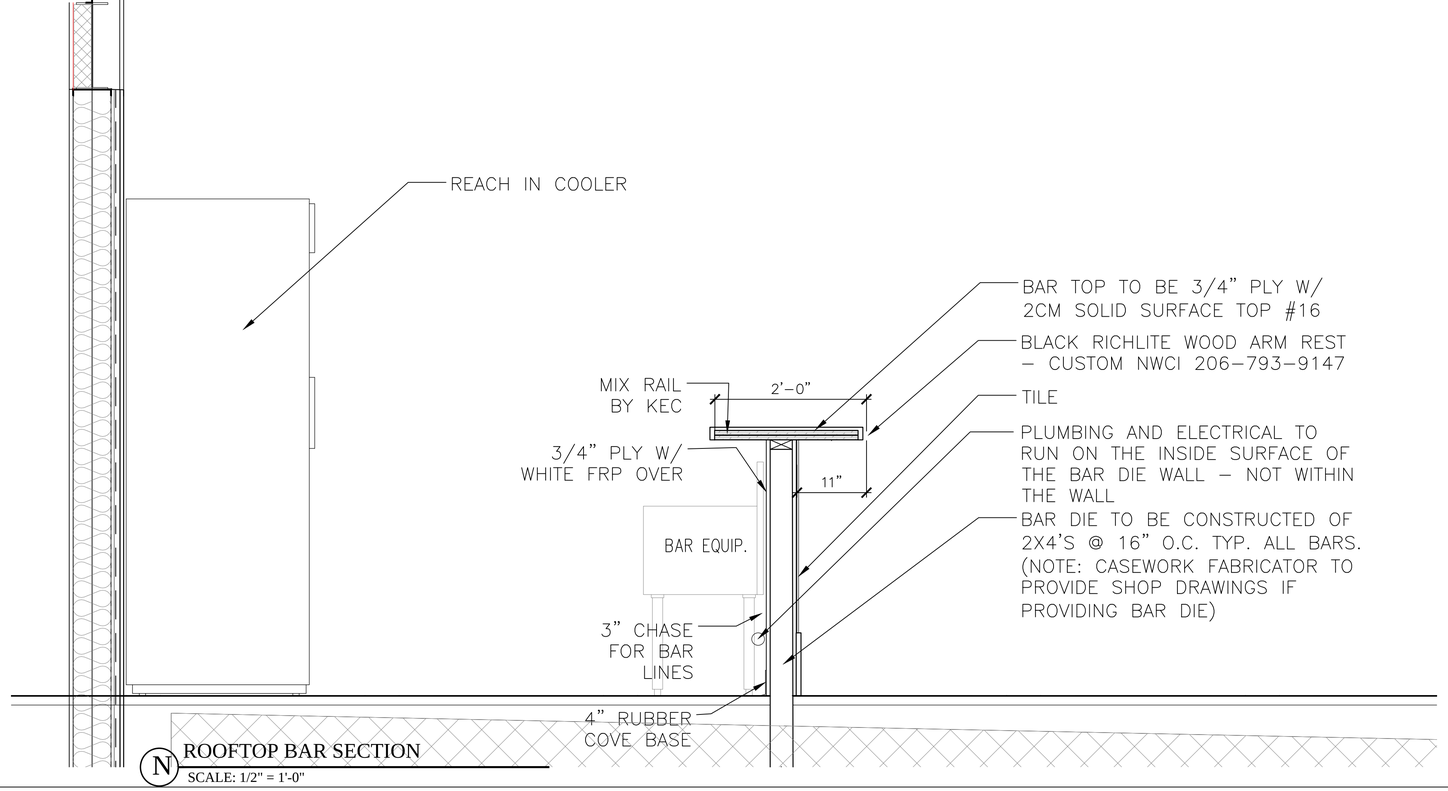
ROOFTOP BAR PLAN
SCALE: 1/2" = 1'-0"



L ROOFTOP BAR FRONT ELEVATION
SCALE: 1/2" = 1'-0"



M ROOFTOP BACK BAR FRONT
SCALE: 1/2" = 1'-0"



N ROOFTOP BAR SECTION
SCALE: 1/2" = 1'-0"

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

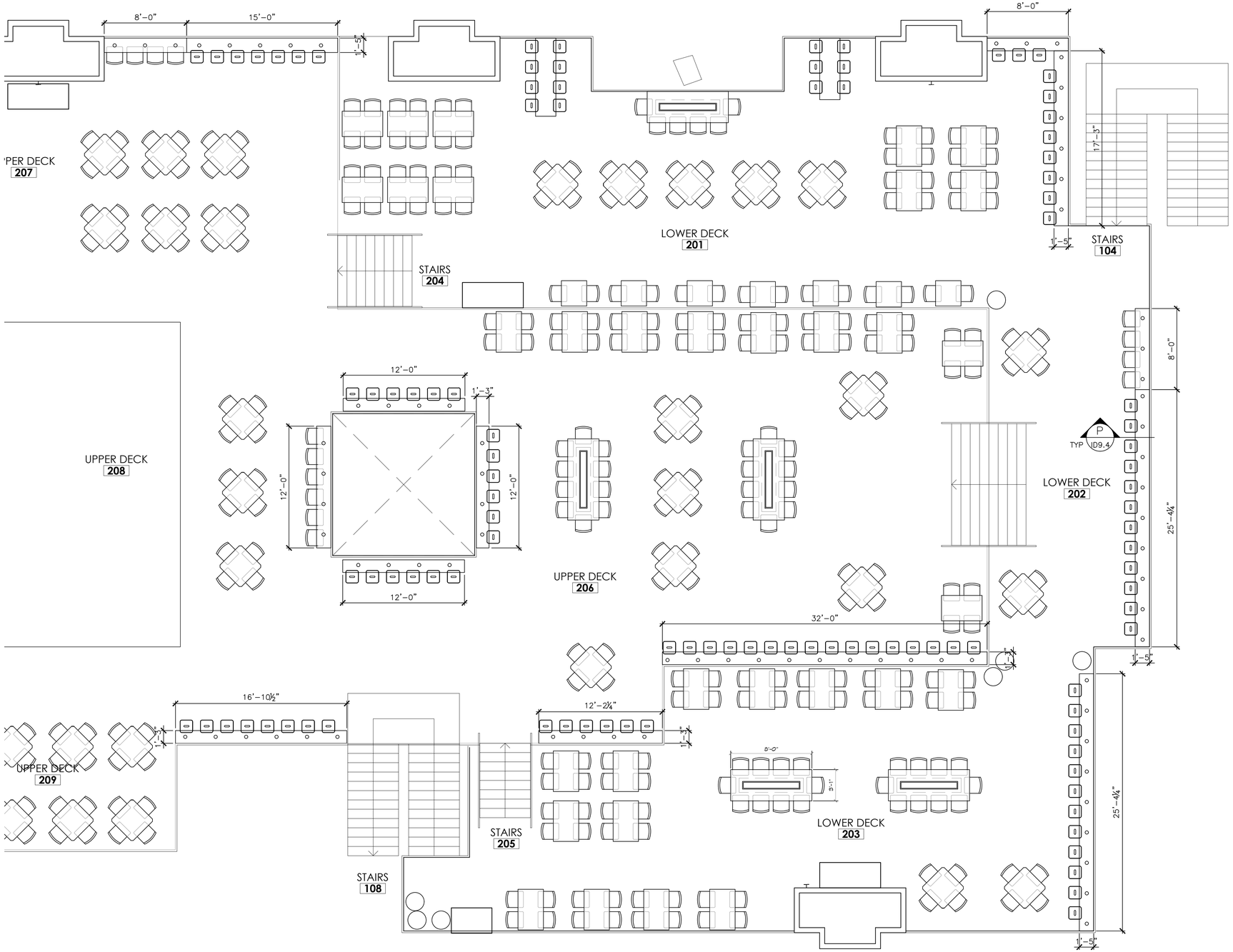
SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

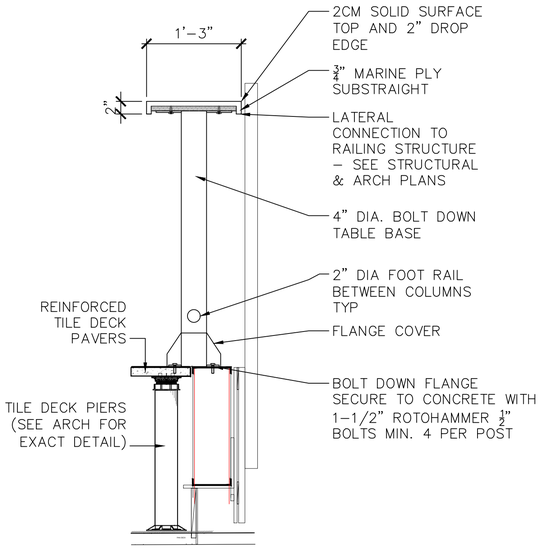
CASEWORK DETAILS

Date: 10/15/24
Scale: NOTED
Drawn by: SG
Job: WSF-INTL VIL PUYALLUP, WA

ID9.3

City of Puyallup
Development & Permitting Services
ISSUED ITEMS
Building | Planning
Engineering | Public Works
Fire | Traffic





P STAND UP@ RAISED DECK DETAIL
SCALE: 1" = 1'-0"

REVISION

	DATE	INIT
1	09-11-24	SG
2	09-26-24	SG

WASHINGTON ST. FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

SUE GENTY
INTERIOR DESIGN INC.
12811 NE 126TH PL.
KIRKLAND, WA 98034
425-827-3438

CASEWORK DETAILS

Date: 10/15/24

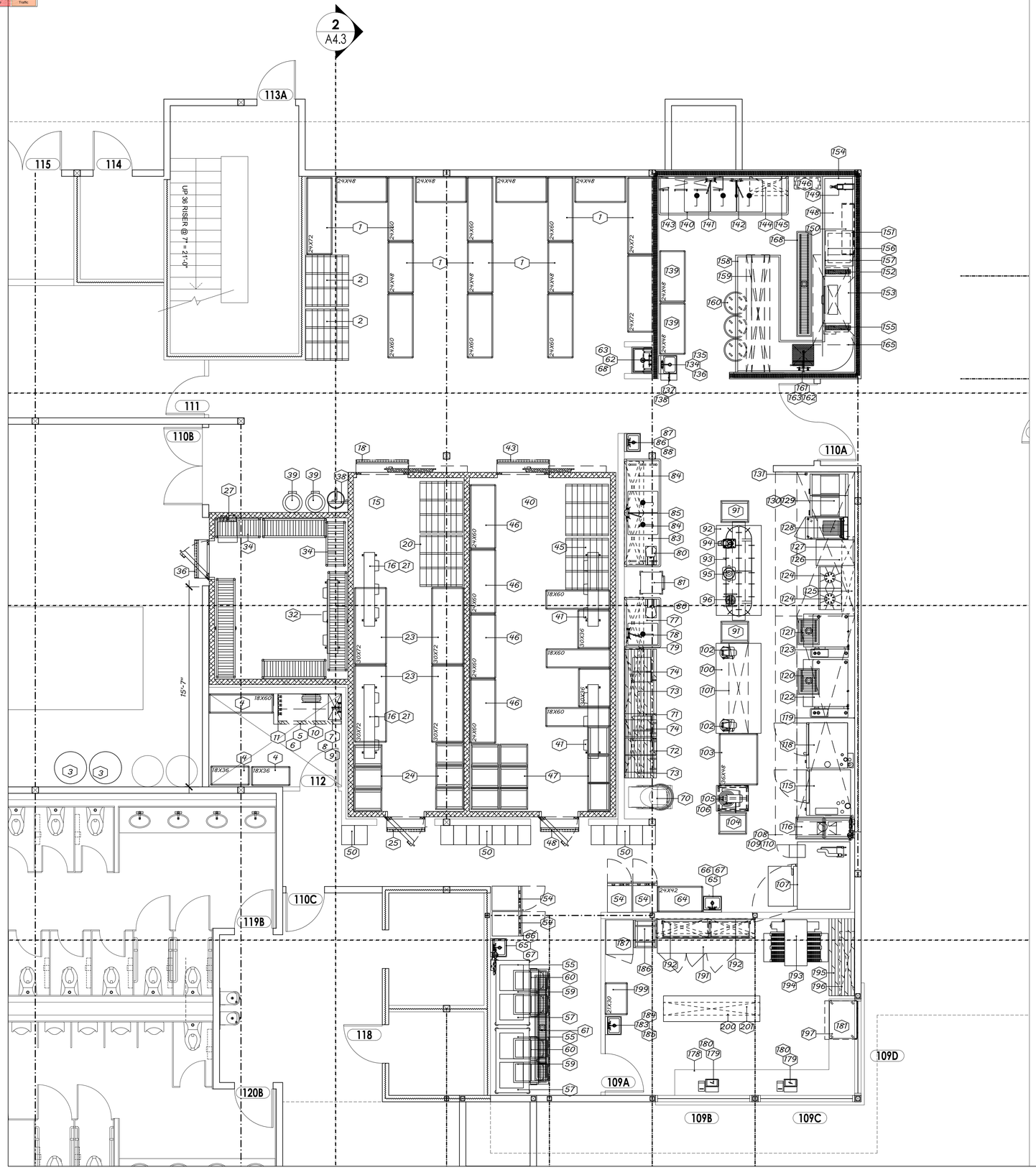
Scale: NOTED

Drawn by: SG

Job: WSF-INTL VIL
PUYALLUP, WA

ID9.4

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



GENERAL NOTES

IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS TO VERIFY THE ACTUAL SPACE AND MECHANICAL REQUIREMENTS OF ALL ITEMS SHOWN AS FUTURE, NIC, SUPPLIED BY "OTHERS", ETC., WITH THE OWNER PRIOR TO ROUGH-IN AND CONNECTION.

THE GENERAL CONTRACTOR SHALL IMMEDIATELY INFORM CMA RESTAURANT SUPPLY & DESIGN, INC., AND THE OWNER OF ANY RED LINES, CORRECTIONS, ETC., ON THE PERMIT PLANS AND OF ANY INSPECTION CORRECTIONS REQUESTED CONCERNING THESE DRAWINGS OR EQUIPMENT AS LISTED FOR THIS PROJECT.

THE GENERAL CONTRACTOR SHALL PROPERLY SEAL ALL WALL AND FLOOR PENETRATIONS AFTER THE INSTALLATION OF RELATED EQUIPMENT AND FURNISHINGS ITEMS.

IT SHALL BE NOTED BY THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS THAT THIS SET OF PLANS AND THE INFORMATION CONTAINED WITHIN IN NO WAY RELIEVES SAID PARTIES OF THEIR RESONSIBILITY TO INVESTIGATE AND COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES, AND TO PERFORM ALL WORK TO THE HIGHEST STANDARDS.

EXHAUST VENTS AND MAKE-UP AIR BY HVAC CONTRACTOR.

THE GENERAL CONTRACTOR SHALL PROVIDE: FLOOR, CEILING, WALL AND ROOF PENETRATIONS: FIRE-RATED SHAFTS FOR EXHAUST DUCTS.

IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE WEATHER PROTECTION FOR ALL ROOF AND ALL WALL PENETRATIONS PRIOR TO AND DURING THE INSTALLATION OF EQUIPMENT AND FURNISHINGS

SUITABLE WALL BACKING AS SHOWN ON THESE PLANS AND AS REQUIRED BY THE OWNER SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR.

EXHAUST SYSTEM SHALL BE SUBJECT TO PERFORMANCE TEST AS REQUIRED PRIOR TO ISSUANCE OF BUILDING PUBLIC OCCUPANCY BY LOCAL BUILDING OFFICIALS.

PLANS FOR WALK-IN COOLER WILL BE SUBMITTED TO THE CITY PRIOR TO CONSTRUCTION. INCLUDE WORKING DRAWINGS WITH SUBMITTAL.

THESE PLANS SHALL BE READ IN CONJUNCTION WITH THE EQUIPMENT INFORMATION MANUAL SUPPLIED BY CMA RESTAURANT SUPPLY & DESIGN INC. AND BY THIS REFERENCE IS MADE A PART HEREOF.

VERIFY EQUIPMENT REQUIREMENTS WITH FINAL EQUIPMENT SELECTIONS

ROOF EQUIPMENT

SEE ARCHITECTURAL OR MECHANICAL DRAWINGS

56 58 532

UNPUBLISHED WORK
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1

2

INTERNATIONAL VILLAGE
PUYALLUP FAIRGROUNDS

PUYALLUP, WA

CMA
RESTAURANT SUPPLY AND DESIGN, INC.
12811 NE 126th Place, Kirkland, Washington 98034
EMAIL: SteveG@cmarestaurantsupply.com
Cell: 206 713 5785
Office: 425 747 7223

KITCHEN EQUIPMENT PLAN
CONSTRUCTION SET 10-15-24

DATE:3-31-24

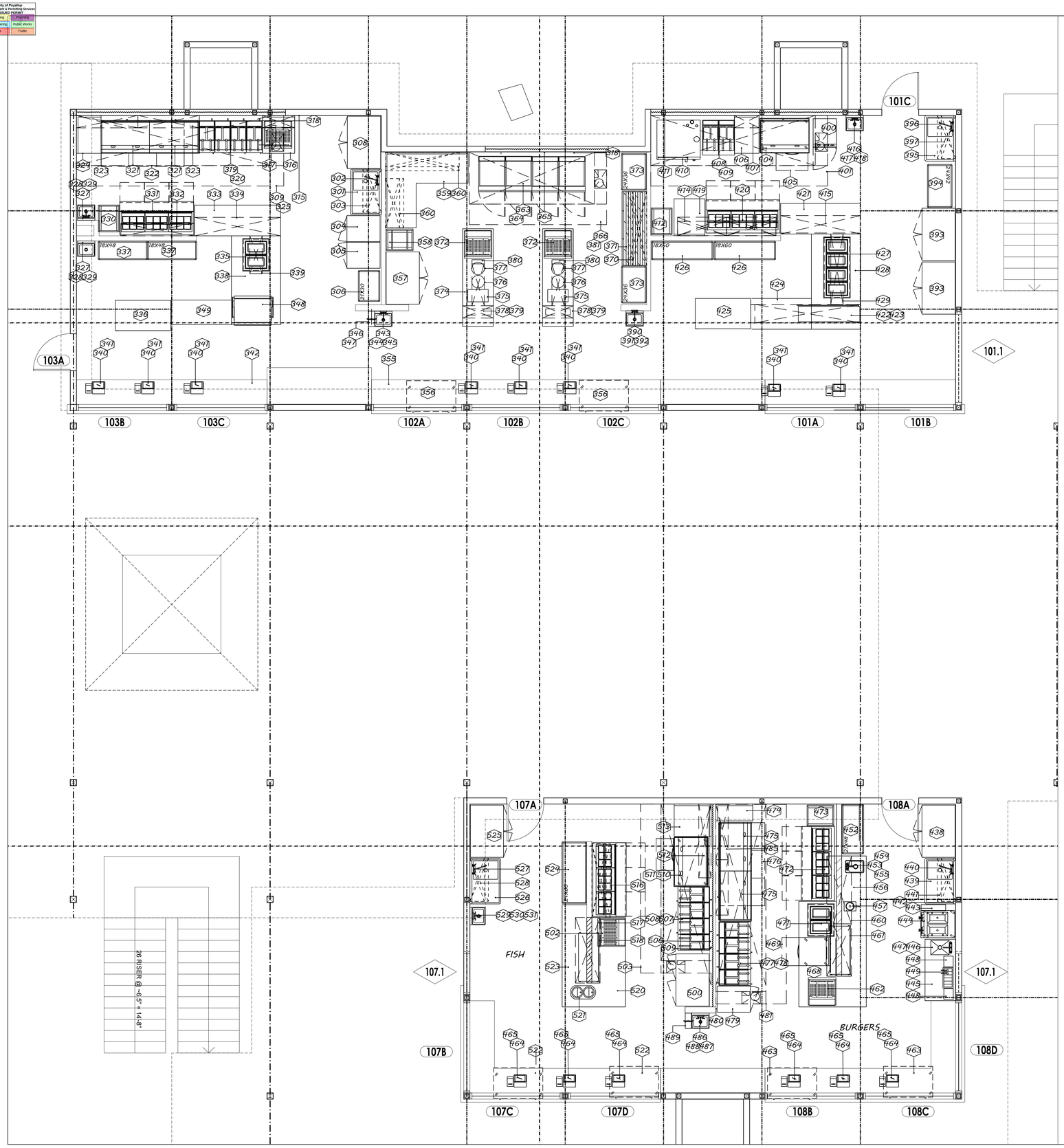
S· GENDREAU

SCALE: 1/4"= 1'-0"

PROJECT NO· 1734

K-1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



GENERAL NOTES

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VERIFY EQUIPMENT REQUIREMENTS WITH FINAL EQUIPMENT SELECTIONS

ROOF EQUIPMENT

SEE ARCHITECTURAL OR MECHANICAL DRAWINGS

56 58 532

UNPUBLISHED WORK
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1

2

INTERNATIONAL VILLAGE
PUYALLUP FAIRGROUNDS
PUYALLUP, WA

CMA
RESTAURANT SUPPLY AND DESIGN, INC.
12811 NE 126th Place, Kirkland, Washington 98034
EMAIL: SteveG@cmarestaurantsupply.com
Cell: 206 713 5785
Office: 425 747 7223

KITCHEN EQUIPMENT PLAN
CONSTRUCTION SET 10-15-24

DATE:3-31-24

S· GENDREAU

SCALE: 1/4"= 1'-0"

PROJECT NO· 1734

K-1·1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	HC Plumbing
Engineering	Public Works
Fire	Traffic

1. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL SEAL–TITE FLEX CONDUIT TO ALL FOOD SERVICE EQUIPMENT IN DAMP AREAS, I.E., SCULLERY, BAR ROOF, ETC. FLEX CONNECTIONS AT ALL FANS ON THE ROOF SHALL BE OF EXTRA LENGTH TO ALLOW FULL FAN REMOVAL FOR THE EASE OF CLEANING.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FUSED DISCONNECTS FOR EQUIPMENT HOOK–UPS AS REQUIRED BY CODE AND LABELING.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECTS IN A CONVENIENT ACCESSIBLE LOCATION AT AT THE POWER BOX FOR EACH ICE MACHINE HEAD.
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN INTERCONNECT CIRCUIT BETWEEN THE ICE MACHINE HEADS (ITEM) AND THE REMOTE CONDENSING UNITS ON THE ROOF AS REQUIRED BY THE MANUFACTURER.
5. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A VAPOR–PROOF SWITCH AT EACH BLOWER COIL IN THE WALK–IN COOLER (ITEM).
6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A CONNECTOR CIRCUIT BETWEEN THE DISH TABLE LIMIT SWITCH AND THE DISHWASHER CONTROL PANEL.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING TO THE STRIP HEAT LAMPS ON THE PASS SHELF AND CABINET FROM THE JUNCTION BOX BELOW AND TO THE REMOTE INIFINTE CONTROLS FOR SWITCHING.
8. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A 48" MINIMUM CORD AND PLUG FOR EACH PIECE OF EQUIPMENT SO NOTED. USE 90° ELBOW OUT OF UNIT.
9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FOR THE GLASSWASHER (ITEM 260) A FOUR–WIRE SYSTEM. THREE EACH 8AWG WIRES (75 C) INCLUDING A CURRENT CARRYING NEUTRAL WITH THE FOURTH WIRE BEING A MACHINE GROUND.
10. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FOR HOOK–UP OF A THERMOSTAT, SOLENOID, BLOWER COIL AND COMPRESSOR FOR EACH REFRIGERATED UNIT. MAGNETIC STARTERS AND/OR THERMAL PROTECTORS SHALL BE INCLUDED AS NECESSARY.
11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE 1" CONDUIT AND JUNCTION BOXES AT EACH CASH REGISTER TERMINAL SO AS TO INTERCONNECT ALL UNITS TO EACH OTHER AND TO THE CENTRAL PROCESSING TERMINAL. CONSULT WITH THE OWNER'S REPRESENTATIVE FOR EXACT LOCATIONS OF ALL TIE–IN UNITS.
12. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A FOUR–WIRE SERVICE TO THE DISH MACHINE. THREE WIRES SHALL BE 8 AWG RATED 75DC TO CARRY CURRENT. THE FOURTH WIRE SHALL BE A GROUND.
13. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL ALL DRAIN LINES FROM WALK–IN BLOWER COILS TO FLOOR SINKS. HEAT TAPE SHALL BE PROVIDED AND WRAPPED AT ALL DRAIN LINES SUBJECT TO THE POSSIBILITY OF FREEZING, SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
14. ALL DRAIN LINES FROM EQUIPMENT REQUIRING CONDENSATION REMOVAL SHALL BE DONE IN COPPER.
15. IT SHALL BE THE RESPONSIBILITY OF "OTHERS" TO INTERCONNECT THE HOOD FIRE PROTECTION SYSTEMS TO THE BUILDING FIRE DETECTION UNITS AS REQUIRED.
18. THE OWNER'S VENDOR OF CHOICE SHALL SUPPLY AND INSTALL A CO2 STORAGE CANISTER IN THE LIQUOR STORAGE ROOM. AN EXTERIOR FILL VALVE AND ALL CO2 UNITS SHALL BE SUPPLIED AND INSTALLED BY THE VENDOR.
19. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL TO EACH PIECE OF ROOF–TOP EQUIPMENT (FANS, MOTORS, COMPRESSORS, CONDENSERS, ETC.) A SEPARATE WEATHER–PROTECTED DISCONNECT SWITCH.
20. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL ANTI–SIPHON VALVE ASSEMBLIES FOR SODA DISPENSING SYSTEM.
21. PLUMBING CONTRACTOR SHALL FULLY INSULATED 180 F DISHWASHER/BOOSTER HEATER CIRCUILATION LOOP.
22. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING AND ELECTRICAL CONTRACTORS TO MAKE ALL REQUIRED WATER, GAS, DRAIN AND ELECTRICAL FINAL CONNECTIONS FOR ALL MAKE–UP AIR SYSTEM UNITS.
23. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INSTALL ALL OWNER SUPPLIED COMPUTER/COMMUNICATIONS CABLES AS PER OWNERS DIRECTION.
24. IT SHALL BE THE RESPONSIBILITY OF PLUMBING CONTRACTOR TO COMPLY WITH ALL LOCAL CODES CONCERNING GAS VALVE REGULATOR VENTING.
25. ELECTRICAL CONTRACTOR SHALL PROVIDE A INDIVIDUAL DISCONNECT BOX FOR EACH PIECE OF ROOF TOP ELECTRICALLY POWERED EQUIPMENT.
26. THE GENERAL CONTRACTOR SHALL PHOTOGRAPH ALL WALLS CONTAINING BACKING PRIOR TO SHEETROCK/FRP INSTALLATION.
27. THE PLUMBING CONTRACTOR SHALL PROVIDE CLEANOUTS AT 1ST ELBOW ON EACH WALK–IN BLOWER COIL DRAIN.
28. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL FREEZE PROTECTED HOT/COLD WATER VALVES AT CAN WASH AREA.
29. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL WATER LINE BACK CHECK VALVES AS REQUIRED PER CODE.
30. THE ELECTRICAL CONTRACTOR SHALL PROVIDE INTERCONNECT SWITCHING BETWEEN THE KITCHEN EXHAUST HOOD EXHAUST FANS AND THE KITCHEN MAKE–UP AIR SYSTEMS AS REQUIRED PER LOCAL CODE AND AUTHORITIES.
31. COMMUNICATIONS CABLES ARE SUPPLIED BY OWNER AND INSTALLED BY ELECTRICAL CONTACTOR.
32. ELECTRICAL AND MECHANICAL CONTRACTOR TO VERIFY REQUIREMENTS OF OWNER PROVIDED EQUIPMENT.
33. ELECTRICAL CONTRACTOR TO INTERWIRE WITH REMOTE MANUAL REVERSING SWITCH PER DISPOSER MANUFACTURER'S SPEC. SHEET.
34. PLUMBING CONTRACTOR TO INSTALL DISPOSER PER MANUFACTURER'S SPEC. SHEET.
35. PRESSURE REGULATORS FOR GAS COOKING EQUIPMENT SUPPLIED BY CMA AND INSTALLED PER CODE AND MANUFACTURER'S SPECIFICATIONS BY PLUMBING CONTRACTOR.
36. ELECTRICAL CONTRACTOR SHALL PROVIDE INTER CONNECT FOR FREEZER COIL & TIMECLOCK CIRCUIT DEFROST SYSTEM.
37. ELECTRICAL CONTRACTOR SHALL CONNECT QUARTZ HEATING ELEMENTS ON CHEESEMELTER.
38. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL SHUT–OFF VALVE ON DRAIN.
39. THE ELECTRICAL CONTRACTOR SHALL SUPPLY A FOUR WIRE, 2 HOT , 1 NEUTRAL AND 1 GROUND CONNECTION.

Item No	PROVIDED BY: KEC	GC	OWNER	Quantity	Description	ELECTRICAL: KW	Amps	HP	Voltage	Phase	Connection	Electrical Notes	PLUMBING: Hot	Cold	Waste	Gas Pipe Size	BTU	Plumbing Notes
1	X			1	DRY STORAGE SHELVING 5 TIERS													
2			X	1	PALLET STORAGE AREA													
3			X	1	OIL RECLAIM TANKS		X		120		Cord & Plug	5-15P						
4	X			1	CHEMICAL STORAGE SHELF													
5		X		1	MOP SINK CURB													
6	X			1	SS MOP SINK PAN INSERT										3"			
7	X			1	MOP SINK FAUCET								1/2"	1/2"				
8	X			1	SS WALL MOUNT SHELF													
9	X			1	SS FLUTED WALL FLASHING													
10	X			1	HOSE REEL								3/4"	3/4"				
11	X			2	MOP BROOM HOLDER													
12-14					SPARE NUMBER													
15	X			1	WALK-IN FREEZER		5		120	1	Direct							
16	X			1	FREEZER BLOWER COIL		2.5/16.5		208	1		2.5a FANS/16.5A HEATER			3/4"			
17	X			1	REMOTE REFRIGERATION SYSTEM		23.9		208	3								
18	X			1	AIR CURTAIN			1/5	208	1								
19					SPARE NUMBER													
20			X	1	FREEZER PALLET LANDING AREA													
21		X		1	FREEZER DRAIN LINE CONDENSATE HEAT TAPE		3		115	1		5-15P						
22	X			1	DOOR FRAME HEATER / DEFROST													
23	X			1	FREEZER STORAGE SHELF													
24	X			6	BUN / SHEET PAN RACK													
25	X			1	AIR CURTAIN			1/5	208	1								
26	X			1	SLIDING DOOR TRACK HEATER		1.4		1	115								
27	X			1	BEER SYSTEM POWER PACK		14.5		208	1								
28-30					SPARE NUMBER													
31	X			1	WALK-IN BEER KEG COOLER		3		115	1								
32	X			1	KEG COOLER BLOWER COIL		1.1		208	1					3/4"			
33	X			1	KEG COOLER REFRIGERATION SYSTEM		10.6		208	3		DIRECT						
34	X			1	KEG STORAGE RACK													
35	X			5	WIRE SHELVING													
36	X			1	AIR CURTAIN			1/5	208	1								
37					SPARE NUMBER													
38			X	1	NITROGEN GENERATOR		12.0		115	1								
39					SPARE NUMBER													
40	X			1	WALK-IN COOLER		15		208	3		DIRECT						
41	X			1	COOLER BLOWER COIL		3.6		115	1		DIRECT			3/4"			
42	X			1	COOLER REMOTE REFRIGERATION SYSTEM		15.2		208	3		DIRECT						
43	X			1	AIR CURTAIN			1/5	208	1								
44					SPARE NUMBER													
45			X	1	COOLER PALLET STORAGE AREA													
46	X			5	WIRE STYLE COOLER STORAGE SHELF													
47	X			9	BUN / SHEET PAN RACK													
48	X			1	AIR CURTAIN			1/5	208	1								
49					SPARE NUMBER													
50-53					SPARE NUMBER													
54	X			4	MOBILE HEATED CABINET	1.65	13.8		120	1	Cord & Plug	5-15P						
55	X			2	ICE MACHINE HEAD							VOLTAGE FROM #56		1/2"	3/4"			
56	X			2	REMOTE CONDENSING UNIT		11.6		208-230	1		INTERCONNECT TO 55						
57	X			2	ICE MACHINE HEAD							VOLTAGE FROM #58		1/2"	3/4"			
58	X			2	REMOTE CONDENSING UNIT		11.6		208-230	1		INTERCONNECT TO 57						
59	X			2	ICE MACHINE BIN W/ CART										1"			
60	X			2	ICE SHUTTLE CART													
61	X			1	SS DRAIN TROUGH										3"			
62					SPARE NUMBER													
63					SPARE NUMBER													
64	X			5	WIRE SHELVING													
65	X			1	HAND SINK										1-1/2"			
66	X			1	HAND SINK FAUCET								1/2"	1/2"				
67			X	1	SOAP AND TOWEL DISPENSER													
68					SPARE NUMBER													
69					SPARE NUMBER													
70	X			1	130 LB SPIRAL MIXER		23	4	208	3	Cord Only	L15-20P						
71	X			2	WOOD BLOCK WORK TABLE													
72	X			4	INGREDIENT BIN													
73	X			2	WALL MOUNT SHELF UNIT													
74	X			2	DOUGH SHEETER			1/2	115	1								
75					SPARE NUMBER													
76					SPARE NUMBER													
77	X			1	1 COMP MEAT PREP SINK										1-1/2"			
78	X			1	SPLASH MOUNT FAUCET								1/2"	1/2"				
79	X			2	WALL MOUNT SHELF UNIT													
80	X			2	CURLY FRY CUTTER		X		120	1								
81					SPARE NUMBER													
82					SPARE NUMBER													
83	X			1	2 COMP VEGETABLE PREP SINK										1-1/2"			
84	X			2	WALL MOUNT SHELF UNIT													
85	X			1	WALL / SPLASH MOUNT FAUCET								1/2"	1/2"				
86	X			1	HAND SINK										1-1/2"			
87	X			1	HAND SINK FAUCET								1/2"	1/2"				
88			X	1	SOAP AND TOWEL DISPENSER													
88					SPARE NUMBER													
90					SPARE NUMBER													
91	X			1	BUN / SHEET PAN RACK													
92	X			1	42" X 84" SS WORKTABLE													
93	X			1	TABLE MOUNT OVERHEAD SHELF / POT RACK													
94	X			1	COUNTERTOP FOOD PROCESSOR		.7	1	120	1	Cord & Plug	5-15P						
95	X			1	FOOD BLENDER		15	4.2	120	1	Cord & Plug	5-15P						
96	X			1	ONION CHOPPER													
97-99					SPARE NUMBER													
100	X			1	42" X 84" SS WORKTABLE													
101	X			1	TABLE MOUNT DOUBLE OVERHEAD SHELF													
102	X			2	COUNTERTOP MIXER	.8	4.0		115	1	Cord & Plug	5-15P						
103	X			5	SHELVING, WIRE													
104	X			1	BUN / SHEET PAN RACK													
105	X			1	20 QUART MIXER		6.0		115	1	Cord & Plug	5-15p						
106	X				MOBILE MIXER STAND													
107	X			1	ROLL IN BLAST CHILLER	14.3	45		208	3					1-1/4"			
108	X			2	CLASS I EXHAUST HOOD													
109	X			1	HOOD CONTROL PANEL													
110	X			1	FIRE SUPPRESSION SYSTEM													
111	X			1	EXHAUST FAN		9.5		208	3		DIRECT						
111.1	X			1	EXHAUST FAN		15		208	3		DIRECT						
112		X		1	CLASS I HOOD DUCTWORK													
113	X			1	MAKE UP AIR FAN		33.8		208	3		DIRECT				1"	378k	
114		X		1	MAKE UP AIR DUCTWORK													
115	X			1	ROLL IN COMBI OVEN	67.9	10.3/9.0		208	1				3/4" GHT	2"	1"	304k	
116	X			2	OVEN RACK, ROLL-IN													
117					SPARE NUMBER													
118	X			2	COMBI OVEN GAS	22.4	4.3/3.8		208	1				3/4" GHT	2"	1"	107k	
119	X			1	SS FLUTED WALL FLASHING													
120	X			1	SS FLOOR TROUGH										3			
121	X			1	SS FLOOR TROUGH										3			
122	X			1	40 GALLON TILT SKILLET		1.4		120	1	5-15p		1/2"	1/2"		3/4"	200k	
123	X			1	26 GALLON TILT SKILLET		1.4		120	1	5-15p		1/2"	1/2"		3/4"	125k	

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PUYALLUP FAIRGROUNDS
PUYALLUP, WA

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EQUIPMENT SCHEDULE
CONSTRUCTION SET 10-15-24

DATE:3-31-24
S· GENDREAU
SCALE: 1/4"= 1'-0"
PROJECT NO· 1734

K-2

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	HC Plumbing
Engineering	Public Works
Fire	Traffic

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19. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL TO EACH PIECE OF ROOF–TOP EQUIPMENT (FANS, MOTORS, COMPRESSORS, CONDENSERS, ETC.) A SEPARATE WEATHER–PROTECTED DISCONNECT SWITCH.
20. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL ANTI–SIPHON VALVE ASSEMBLIES FOR SODA DISPENSING SYSTEM.
21. PLUMBING CONTRACTOR SHALL FULLY INSULATED 180 F DISHWASHER/BOOSTER HEATER CIRCUILATION LOOP.
22. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING AND ELECTRICAL CONTRACTORS TO MAKE ALL REQUIRED WATER, GAS, DRAIN AND ELECTRICAL FINAL CONNECTIONS FOR ALL MAKE–UP AIR SYSTEM UNITS.
23. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INSTALL ALL OWNER SUPPLIED COMPUTER/COMMUNICATIONS CABLES AS PER OWNERS DIRECTION.
24. IT SHALL BE THE RESPONSIBILITY OF PLUMBING CONTRACTOR TO COMPLY WITH ALL LOCAL CODES CONCERNING GAS VALVE REGULATOR VENTING.
25. ELECTRICAL CONTRACTOR SHALL PROVIDE A INDIVIDUAL DISCONNECT BOX FOR EACH PIECE OF ROOF TOP ELECTRICALLY POWERED EQUIPMENT.
26. THE GENERAL CONTRACTOR SHALL PHOTOGRAPH ALL WALLS CONTAINING BACKING PRIOR TO SHEETROCK/FRP INSTALLATION.
27. THE PLUMBING CONTRACTOR SHALL PROVIDE CLEANOUTS AT 1ST ELBOW ON EACH WALK–IN BLOWER COIL DRAIN.
28. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL FREEZE PROTECTED HOT/COLD WATER VALVES AT CAN WASH AREA.
29. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL WATER LINE BACK CHECK VALVES AS REQUIRED PER CODE.
30. THE ELECTRICAL CONTRACTOR SHALL PROVIDE INTERCONNECT SWITCHING BETWEEN THE KITCHEN EXHAUST HOOD EXHAUST FANS AND THE KITCHEN MAKE–UP AIR SYSTEMS AS REQUIRED PER LOCAL CODE AND AUTHORITIES.
31. COMMUNICATIONS CABLES ARE SUPPLIED BY OWNER AND INSTALLED BY ELECTRICAL CONTACTOR.
32. ELECTRICAL AND MECHANICAL CONTRACTOR TO VERIFY REQUIREMENTS OF OWNER PROVIDED EQUIPMENT.
33. ELECTRICAL CONTRACTOR TO INTERWIRE WITH REMOTE MANUAL REVERSING SWITCH PER DISPOSER MANUFACTURER'S SPEC. SHEET.
34. PLUMBING CONTRACTOR TO INSTALL DISPOSER PER MANUFACTURER'S SPEC. SHEET.
35. PRESSURE REGULATORS FOR GAS COOKING EQUIPMENT SUPPLIED BY CMA AND INSTALLED PER CODE AND MANUFACTURER'S SPECIFICATIONS BY PLUMBING CONTRACTOR.
36. ELECTRICAL CONTRACTOR SHALL PROVIDE INTER CONNECT FOR FREEZER COIL & TIMECLOCK CIRCUIT DEFROST SYSTEM.
37. ELECTRICAL CONTRACTOR SHALL CONNECT QUARTZ HEATING ELEMENTS ON CHEESEMELTER.
38. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL SHUT–OFF VALVE ON DRAIN.
39. THE ELECTRICAL CONTRACTOR SHALL SUPPLY A FOUR WIRE, 2 HOT , 1 NEUTRAL AND 1 GROUND CONNECTION.

Item No	PROVIDED BY: KEC	GC	OWNER	Quantity	Description	ELECTRICAL: KW	Amps	HP	Voltage	Phase	Connection	Electrical Notes	PLUMBING: Hot	Cold	Waste	Gas Pipe Size	BTU	Plumbing Notes
124	X			2	STOCK POT BURNER												3/4"	45.0
125	X			1	SHELVING, WALL MOUNTED													
126	X			1	SS WORK CABINET													
127	X			1	SS WALL MOUNT SHELF													
128	X			1	FRYER DUMP STATION		6.3		120	1								
129	X			2	DEEP FAT FRYER		1.0		120	1	5-15p						1"	300.0
130	X			1	FRYER FILTRATION SYSTEM		1.0		115	1	5-15p							
131		X		1	OIL PORT FOR OIL RECLAIM SYSTEM													
132					SPARE NUMBER													
133					SPARE NUMBER													
134	X			1	HAND SINK										1-1/2"			
135	X			1	HAND SINK FAUCET								1/2"	1/2"				
136			X	1	SOAP AND TOWEL DISPENSER													
137	X			1	SS EYE WASH FAUCET MOUNT													
138	X			1	EYE WASH FAUCET									1/2"				
139	X			2	CLEAN DISH STORAGE SHELVING													
140	X			1	3 COMPARTMENT SINK										1-1/2"			
141	X			1	SPLASH MOUNT FAUCET								1/2"	1/2"				
142	X			1	SPLASH MOUNT FAUCET W/ PRE RINSE								1/2"	1/2"				
143	X			1	SS SHELF W/ POT RACK													
144	X			2	WALL MOUNT SHELF UNIT													
145	X			1	48" SPLASH UP FLUTED SS WALL FLASHING													
146			X	1	TRASH CAN													
147					SPARE NUMBER													
148	X			1	SS CLEAN DISHTABLE													
149	X			1	HOSE REEL									3/8"				
150	X			2	SS WALL MOUNT SHELF													
151	X			1	48" SPLASH UP FLUTED SS WALL FLASHING													
152	X			1	SS BUILT IN QUICK DRAIN										3/4"			
153	X			1	44" CONVEYOR DISHMACHINE		51.9		208	3	DIRECT		1/2"		1-1/2"			
154	X			1	RACK LIMIT SWITCH													
155	X			1	SS BUILT IN QUICK DRAIN										3/4"			
156	X			1	GAS BOOSTER HEATER		3.0		120	1	DIRECT	JBOX	1/2"			3/4"	105K	
157	X			1	SS EXHAUST SNORKEL FOR BOOSTER HTR.													
158	X			1	SS SOILED DISHTABLE													
159	X			1	SS DBL SIDED SLANT RACK W/ SHELF ABOVE													
160			X	3	MOBILE TRASH CAN													
161	X			1	PRE RINSE SINK										1-1/2"			
162	X			1	PRE RINSE SPRAY FAUCET								1/2"	1/2"				
163	X			1	SS LIFT OUT SCRAP BASKET													
164					SPARE NUMBER													
165	X			1	CONDENSATE EXHAUST HOOD													
166	X			1	EXHAUST FAN FOR DISHMACHINE		6.3		115	1		DIRECT						
167		X		1	CLASS 2 DUCTWORK													
168-177					SPARE NUMBER													
178		X		1	CUSTOMER TRANSACTION COUTER													
179			X	2	POINT OF SALE SYSTEM		3		115	1		5-15P						
180			X	2	TICKET PRINTER		1.0		115	1		5-15P						
181	X			1	UNDERCOUNTER BEVERAGE REFRIGERATOR		3.86	1/4	115	1	Cord & Plug	5-15P						
182					SPARE NUMBER													
183	X			1	HAND SINK										1-1/2"			
184	X			1	HAND SINK FAUCET								1/2"	1/2"				
185			X	1	SOAP AND TOWEL DISPENSER													
186	X			1	DOUGH LUG PAN RACK													
187	X			1	1 DOOR REACH IN REFRIGERATOR		5.2	1/4	115	1	Cord & Plug	5-15P						
188-190					SPARE NUMBER													
191	X			1	PIZZA PREPARATION REFRIGERATOR		6.5	1/5	115	1	Cord & Plug	5-15P						
192	X			2	WALL MOUNT SHELF UNIT													
193	X			1	CONVEYOR PIZZA OVEN, VENTLESS		37.0		208	3								
194	X			1	PIZZA OVEN STAND													
195	X			1	24" X 72" WOODBLOCK WORKTABLE													
196	X			1	60" WALL MOUNT SHELF UNIT													
197	X			1	PIZZA MERCHANDISER WARMING SHELVES		10.2		115	1	Cord & Plug	5-15p						
198					SPARE NUMBER													
199	X			1	21 X 30" WIRE SHELVING UNIT										1-1/2"			
200	X			1	24" X 90" SS WORKTABLE													
201	X			1	SS DOUBLE OVERHEAD TABLE MOUNT SHELF													
202	X			1	MAKE UP AIR FAN		3.9		208	3	DIRECT					1"	92k	
203					SPARE NUMBER													
204-300					SPARE NUMBER													
301	X			1	ONE (1) COMPARTMENT SINK										1-1/2"			
302	X			1	WALL / SPLASH MOUNT FAUCET								1/2"	1/2"				
303	X			2	WALL MOUNT SHELF UNIT													
304	X			1	REACH-IN FREEZER		7.6	1/2	115	1	Cord & Plug	5-15P						
305	X			1	1 DOOR REACH IN REFRIGERATOR		5.2	1/4	115	1	Cord & Plug	5-15P						
306	X			5	WIRE SHELVING													
307					SPARE NUMBER													
308	X			1	2 DOOR REACH IN REFRIGERATOR		6.9	1/3	115	1	Cord & Plug	5-15P						
309	X			1	CLASS 1 EXHAUST HOOD													
310	X			1	EXHAUST FAN		10.1		208	3								
311		X		1	CLASS 1 DUCTWORK													
312	X			1	MAKE UP AIR FAN		11.8		208	3						1"	208k	
313		X		1	MAKE UP AIR DUCTWORK													
314	X			1	FIRE SUPPRESSION SYSTEM													
315	X			1	SS FLUTED WALL FLASHING													
316	X			1	SS WORKTOP CABINET													
317	X			1	FRENCH FRY WARMER	1.44	12		120	1	Cord & Plug	5-15P						
318		X		1	OIL RECLAIM PORT													
319	X			1	4 POT DEEP FAT FRYER		9.0		120	1						1"	160.0	1" CONNECTION IN 2 PLACES
320	X			1	FRYER FILTRATION SYSTEM													
321	X			2	GRIDDLE, GAS, COUNTERTOP		1.0		120	1	Cord & Plug	5-15P				3/4"	112.0	
322	X			1	EQUIPMENT STAND, REFRIGERATED BASE			1/4										
323	X			2	SHELVING, WALL MOUNTED													
324	X			1	SS WOKTOP CABINET STYLE													
325					SPARE NUMBER													
326					SPARE NUMBER													
327	X			2	HAND SINK										1-1/2"			
328	X			2	HAND SINK FAUCET								1/2"	1/2"				
329			X	2	SOAP AND TOWEL DISPENSER													
330	X			6	BUN / SHEET PAN RACK													
331	X			1	SANDWICH / SALAD PREPARATION REFRIGERATOR		6.1	1/3	115	1	Cord & Plug	5-15P						
332	X			1	WALL MOUNT SHELF UNIT													
333	X			1	SS WORKTABLE													
334	X			1	SS DOUBLE OVERHEAD SHELF													
335	X			1	HOT FOOD WELL UNIT, DROP-IN, ELECTRIC		10.0		208-240	1					1/2"			
336	X			1	2 DOOR BEVERAGE REFRIGERATOR		8.5	1/2	115	1	Cord & Plug	5-15P						
337	X			5	SHELVING, WIRE													
338	X			1	SS WORKTABLE													
339	X			1	SS DOUBLE OVERHEAD SHELF													
340			X	2	POINT OF SALE SYSTEM		3		115	1		5-15P						
341			X	2	TICKET PRINTER		1.0		115	1		5-15P						
342		X		1	CUSTOMER TRANSACTION COUNTER													
343	X			1	HAND SINK										1-1/2"			
344	X			1	HAND SINK FAUCET								1/2"	1/2"				
345			X	1	SOAP AND TOWEL DISPENSER													
346	X			1	EYE WASH FAUCET									1/2"				
347	X			1	SS EYE WASH FAUCET MOUNT													

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⚠1
⚠2

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15. IT SHALL BE THE RESPONSIBILITY OF "OTHERS" TO INTERCONNECT THE HOOD FIRE PROTECTION SYSTEMS TO THE BUILDING FIRE DETECTION UNITS AS REQUIRED.
18. THE OWNER'S VENDOR OF CHOICE SHALL SUPPLY AND INSTALL A CO2 STORAGE CANISTER IN THE LIQUOR STORAGE ROOM. AN EXTERIOR FILL VALVE AND ALL CO2 UNITS SHALL BE SUPPLIED AND INSTALLED BY THE VENDOR.
19. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL TO EACH PIECE OF ROOF–TOP EQUIPMENT (FANS, MOTORS, COMPRESSORS, CONDENSERS, ETC.) A SEPARATE WEATHER–PROTECTED DISCONNECT SWITCH.
20. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL ANTI–SIPHON VALVE ASSEMBLIES FOR SODA DISPENSING SYSTEM.
21. PLUMBING CONTRACTOR SHALL FULLY INSULATED 180 F DISHWASHER/BOOSTER HEATER CIRCUILATION LOOP.
22. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING AND ELECTRICAL CONTRACTORS TO MAKE ALL REQUIRED WATER, GAS, DRAIN AND ELECTRICAL FINAL CONNECTIONS FOR ALL MAKE–UP AIR SYSTEM UNITS.
23. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INSTALL ALL OWNER SUPPLIED COMPUTER/COMMUNICATIONS CABLES AS PER OWNERS DIRECTION.
24. IT SHALL BE THE RESPONSIBILITY OF PLUMBING CONTRACTOR TO COMPLY WITH ALL LOCAL CODES CONCERNING GAS VALVE REGULATOR VENTING.
25. ELECTRICAL CONTRACTOR SHALL PROVIDE A INDIVIDUAL DISCONNECT BOX FOR EACH PIECE OF ROOF TOP ELECTRICALLY POWERED EQUIPMENT.
26. THE GENERAL CONTRACTOR SHALL PHOTOGRAPH ALL WALLS CONTAINING BACKING PRIOR TO SHEETROCK/FRP INSTALLATION.
27. THE PLUMBING CONTRACTOR SHALL PROVIDE CLEANOUTS AT 1ST ELBOW ON EACH WALK–IN BLOWER COIL DRAIN.
28. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL FREEZE PROTECTED HOT/COLD WATER VALVES AT CAN WASH AREA.
29. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL WATER LINE BACK CHECK VALVES AS REQUIRED PER CODE.
30. THE ELECTRICAL CONTRACTOR SHALL PROVIDE INTERCONNECT SWITCHING BETWEEN THE KITCHEN EXHAUST HOOD EXHAUST FANS AND THE KITCHEN MAKE–UP AIR SYSTEMS AS REQUIRED PER LOCAL CODE AND AUTHORITIES.
31. COMMUNICATIONS CABLES ARE SUPPLIED BY OWNER AND INSTALLED BY ELECTRICAL CONTACTOR.
32. ELECTRICAL AND MECHANICAL CONTRACTOR TO VERIFY REQUIREMENTS OF OWNER PROVIDED EQUIPMENT.
33. ELECTRICAL CONTRACTOR TO INTERWIRE WITH REMOTE MANUAL REVERSING SWITCH PER DISPOSER MANUFACTURER'S SPEC. SHEET.
34. PLUMBING CONTRACTOR TO INSTALL DISPOSER PER MANUFACTURER'S SPEC. SHEET.
35. PRESSURE REGULATORS FOR GAS COOKING EQUIPMENT SUPPLIED BY CMA AND INSTALLED PER CODE AND MANUFACTURER'S SPECIFICATIONS BY PLUMBING CONTRACTOR.
36. ELECTRICAL CONTRACTOR SHALL PROVIDE INTER CONNECT FOR FREEZER COIL & TIMECLOCK CIRCUIT DEFROST SYSTEM.
37. ELECTRICAL CONTRACTOR SHALL CONNECT QUARTZ HEATING ELEMENTS ON CHEESEMELTER.
38. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL SHUT–OFF VALVE ON DRAIN.
39. THE ELECTRICAL CONTRACTOR SHALL SUPPLY A FOUR WIRE, 2 HOT , 1 NEUTRAL AND 1 GROUND CONNECTION.

Item No	PROVIDED BY			Quantity	Description	ELECTRICAL							PLUMBING					
	KEC	GC	OWNER			KW	Amps	HP	Voltage	Phase	Connection	Electrical Notes	Hot	Cold	Waste	Gas Pipe Size	BTU	Plumbing Notes
355		X		1	CUSTOMER TRANSACTION COUNTER													
356	X			2	UNDERCOUNTER BEVERAGE REFRIGERATOR		3.86	1/4	115	1	Cord & Plug	5-15P						
357	X			1	2 DOOR REACH IN REFRIGERATOR		6.9	1/3	115	1	Cord & Plug	5-15P						
358	X			1	DOUGH LUG PAN RACK													
359	X			1	SS "L" SHAPED WORKTABLE													
360	X			2	WALL MOUNT SHELF UNIT													
361					SPARE NUMBER													
362					SPARE NUMBER													
363	X			4	GAS FLOOR FRYER		6.1	1/3	115	1	Cord & Plug	5-15P				1"	120.0	
364	X			1	FRYER FILTRATION SYSTEM		6.1		115	1		5-15P						
365	X			1	SS WALL FLASHING													
366	X			1	CLASS 1 EXHAUST HOOD													
367		X		1	CLASS 1 DUCTWORK													
368		X		1	MAKE UP AIR DUCTWORK													
369	X			1	FIRE SUPPRESSION SYSTEM													
370	X			1	WALL MOUNT SHELF UNIT													
371	X			1	WOODBLOCK WORKTABLE													
372	X			2	FRIED FOOD WARMING DUMP STATION	1.44	12		120	1	Cord & Plug	5-15P						
373	X			1 LOT	WIRE SHELF UNIT													
374	X			2	SS WORKTABLE													
375	X			2	CUT OUT FOR 12 X 20 SUGAR PAN													
376	X			2	DROP IN WARMING WELL FOR BUTTER	.8	6.7		120	1					3/4"			
377	X			2	CUT OUT FOR 11 QT JAM INSERT													
378	X			3	24" SS STRIP HEAT LAMP		4.2		120	1								
379	X			2	SS DOUBLE LEVEL PASS SHELF													
380	X			2	SS MECHANICAL CHASE TO CEILING													
381	X			1	SS HOOD TO CEILING CLOSURES													
382	X			1	EXHAUST FAN		11.6		115	1								
383	X			1	MAKE UP AIR FAN		5.5		208	3						1"	94k	
384-389					SPARE NUMBER													
390	X			1	HAND SINK										1-1/2"			
391	X			1	HAND SINK FAUCET								1/2"	1/2"				
392			X	1	SOAP AND TOWEL DISPENSER													
393	X			1	2 DOOR REACH IN REFRIGERATOR		6.9	1/3	115	1	Cord & Plug	5-15P						
394	X			1	WIRE SHELVING													
395	X			1	1 COMP PREP SINK										1-1/2"			
396	X			1	WALL / SPLASH MOUNT FAUCET								1/2"	1/2"				
397	X			2	WALL MOUNT SHELF UNIT													
398	X			1	EXHAUST FAN		8.3		208	3								
399	X			1	MAKE UP AIR FAN		9.5		208	3						1"	174k	
400	X			1	MOBILE HEATED CABINET	1.65	13.8		120	1	Cord & Plug	5-15P						
401	X			1	CLASS 1 EXHAUST HOOD													
402		X		1	CLASS 1 DUCTWORK													
403	X			1	FIRE SUPPRESSION SYSTEM													
404	X			1	48" GRIDDLE		1.0		120	1	Cord & Plug	5-15P				3/4"	112.0	
405	X			1	REFRIGERATED EQUIPMENT STAND		2.9	1/5	115	1	Cord & Plug	5-15P						
406	X			1	SS SPREADER CABINET													
407	X			1	SS WALL MOUNT SHELF													
408	X			1	GAS FRYER		9.0		120	1						1"	160.0	
409	X			1	FRYER FILTRATION SYSTEM													
410	X			1	COMBI OVEN GAS		4.3		208	1	Direct			3/4" GHT	2"	1/2"	107K	
411	X			1	SS FLUTED WALL FLASHING													
412	X			6	BUN / SHEET PAN RACK													
413					SPARE NUMBER													
414	X			1	WALL MOUNT SHELF UNIT													
415	X			1	SS DOUBLE OVERHEAD SHELF													
416	X			1	HAND SINK										1-1/2"			
417	X			1	HAND SINK FAUCET								1/2"	1/2"				
418			X	1	SOAP AND TOWEL DISPENSER													
419	X			1	SS WORK CABINET													
420	X			1	SANDWICH / SALAD PREPARATION REFRIGERATOR		6.1	1/3	115	1	Cord & Plug	5-15P						
421	X			1	SS WORKTABLE													
422	X			1	SS DBL OVERHEAD SHELF W/ MECH. CHASE													
423	X			1	60" HEAT STRIP LAMP	2.1	15.0		120	1								
424					SPARE NUMBER													
425	X			1	2 DOOR BEVERAGE REFRIGERATOR		8.5	1/2	115	1	Cord & Plug	5-15P						
426	X			1 LOT	WIRE STYLE SHELF UNIT													
427	X			1	4 WELL HOT FOOD PAN		20.0		208	1	JBOX				1/2"			
428	X			1	SS WORKTABLE													
429	X			1	SS DOUBLE OVERHEAD SHELF													
430	X			1	SS WORKTABLE													
431-437					SPARE NUMBER													
438	X			1	2 DOOR REACH IN REFRIGERATOR		6.9	1/3	115	1	Cord & Plug	5-15P						
439	X			1	1 COMP PREP SINK										1-1/2"			
440	X			1	WALL / SPLASH MOUNT FAUCET								1/2"	1/2"				
441	X			2	WALL MOUNT SHELF UNIT													
442	X			1	SS SPLASH GUARD													
443	X			1	ICE CREAM CONE DISPENSER													
444	X			1	SOFT SERVE MACHINE		14.0/18.0	(2) 2	208-230	3								
445	X			1	SS WORKTABLE CABINET STYLE													
446	X			1	BUILT-IN DUMP SINK										1-1/2"			
447	X			1	DECK MOUNT FAUCET								1/2"	1/2"				
448	X			2	MIXER, DRINK / BAR	.75	2.2	1	120	1		5-15P						
449	X			1	TOPPING DISPENSER, AMBIENT													
450					SPARE NUMBER													
451					SPARE NUMBER													
452	X			5	WIRE STYLE SHELF UNIT													
453	X			1	BUILT-IN HAND SINK										1-1/2"			
454	X			1	DECK MOUNT FAUCET								1/2"	1/2"				
455			X	1	SOAP AND TOWEL DISPENSER													
456	X			1	SS EXPEDITE WORK CABINET													
457	X			1	FOOD TOPPING WARMER, COUNTERTOP	.517	4.3		120	1	Cord & Plug	5-15P						
458					SPARE NUMBER													
459					SPARE NUMBER													
460	X			1	SS DOUBLE LEVEL PASS SHELF													
461	X			1	HEATED DISPLAY MERCHANDISER	1.92	16		120	1	Cord & Plug	5-20P						
462	X			1	FRENCH FRY WARMER	1.44	12		120	1	Cord & Plug	5-15P						
463	X			2	UNDERCOUNTER BEVERAGE REFRIGERATOR		3.86	1/4	115	1	Cord & Plug	5-15P						
464			X	6	POINT OF SALE SYSTEM		3		115	1		5-15P						
465			X	6	TICKET PRINTER		1.0		115	1		5-15P						
466					SPARE NUMBER													
467					SPARE NUMBER													
468	X			1	SS WORK TABLE CABINET STYLE													
469	X			1	UNDERCOUNTER REFRIGERATOR W/ DRAWERS		2.46	1/5	115	1	Cord & Plug	5-15P						
470					SPARE NUMBER													
471	X			1	HOT FOOD WELL UNIT, DROP-IN, ELECTRIC		16.6		120	1					1/2"			
472	X			1	REFRIGERATED PAN TOP TABLE		6.1	1/3	115	1	Cord & Plug	5-15P						
473	X			6	BUN / SHEET PAN RACK													
474	X			1	SS SPREADER CABINET													
475	X			2	GRIDDLE, GAS, COUNTERTOP		1.0		120	1	Cord & Plug	5-15P				3/4"	112.0	
476	X			1	EQUIPMENT STAND, REFRIGERATED BASE			1/4										
477	X			1	4 POT DEEP FAT FRYER		9.0		120	1						1"	160.0	2 CONNECTIONS FOR 4 POTS
478	X			1	FRYER FILTRATION SYSTEM													
479	X			1	REACH-IN FREEZER		7.6	1/2	115	1	Cord & Plug	5-15P						
480	X			1	SS FLUTED WALL FLASHING													
481	X			1	CLASS 1 EXHAUST HOOD													
482	X			1	EXHAUST FAN		15		208	3								

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INTERNATIONAL VILLAGE
PUYALLUP FAIRGROUNDS
PUYALLUP, WA

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12611 NE 126th Place, Kirkland, Washington 98034
EMAIL: Steve@cmarestaurantsupply.com

EQUIPMENT SCHEDULE
CONSTRUCTION SET 10-15-24

DATE:3-31-24
S· GENDREAU
SCALE: 1/4"= 1'-0"
PROJECT NO· 1734

K-2·2

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | HC Plumbing
Engineering | Public Works
Fire | Traffic

1. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL SEAL–TITE FLEX CONDUIT TO ALL FOOD SERVICE EQUIPMENT IN DAMP AREAS, I.E., SCULLERY, BAR ROOF, ETC. FLEX CONNECTIONS AT ALL FANS ON THE ROOF SHALL BE OF EXTRA LENGTH TO ALLOW FULL FAN REMOVAL FOR THE EASE OF CLEANING.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FUSED DISCONNECTS FOR EQUIPMENT HOOK–UPS AS REQUIRED BY CODE AND LABELING.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECTS IN A CONVENIENT ACCESSIBLE LOCATION AT AT THE POWER BOX FOR EACH ICE MACHINE HEAD.
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL AN INTERCONNECT CIRCUIT BETWEEN THE ICE MACHINE HEADS (ITEM) AND THE REMOTE CONDENSING UNITS ON THE ROOF AS REQUIRED BY THE MANUFACTURER.
5. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A VAPOR–PROOF SWITCH AT EACH BLOWER COIL IN THE WALK–IN COOLER (ITEM).
6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A CONNECTOR CIRCUIT BETWEEN THE DISH TABLE LIMIT SWITCH AND THE DISHWASHER CONTROL PANEL.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING TO THE STRIP HEAT LAMPS ON THE PASS SHELF AND CABINET FROM THE JUNCTION BOX BELOW AND TO THE REMOTE INIFINTE CONTROLS FOR SWITCHING.
8. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A 48" MINIMUM CORD AND PLUG FOR EACH PIECE OF EQUIPMENT SO NOTED. USE 90° ELBOW OUT OF UNIT.
9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FOR THE GLASSWASHER (ITEM 260) A FOUR–WIRE SYSTEM. THREE EACH 8AWG WIRES (75 C) INCLUDING A CURRENT CARRYING NEUTRAL WITH THE FOURTH WIRE BEING A MACHINE GROUND.
10. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FOR HOOK–UP OF A THERMOSTAT, SOLENOID, BLOWER COIL AND COMPRESSOR FOR EACH REFRIGERATED UNIT. MAGNETIC STARTERS AND/OR THERMAL PROTECTORS SHALL BE INCLUDED AS NECESSARY.
11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE 1" CONDUIT AND JUNCTION BOXES AT EACH CASH REGISTER TERMINAL SO AS TO INTERCONNECT ALL UNITS TO EACH OTHER AND TO THE CENTRAL PROCESSING TERMINAL. CONSULT WITH THE OWNER'S REPRESENTATIVE FOR EXACT LOCATIONS OF ALL TIE–IN UNITS.
12. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A FOUR–WIRE SERVICE TO THE DISH MACHINE. THREE WIRES SHALL BE 8 AWG RATED 75DC TO CARRY CURRENT. THE FOURTH WIRE SHALL BE A GROUND.
13. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL ALL DRAIN LINES FROM WALK–IN BLOWER COILS TO FLOOR SINKS. HEAT TAPE SHALL BE PROVIDED AND WRAPPED AT ALL DRAIN LINES SUBJECT TO THE POSSIBILITY OF FREEZING, SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.
14. ALL DRAIN LINES FROM EQUIPMENT REQUIRING CONDENSATION REMOVAL SHALL BE DONE IN COPPER.
15. IT SHALL BE THE RESPONSIBILITY OF "OTHERS" TO INTERCONNECT THE HOOD FIRE PROTECTION SYSTEMS TO THE BUILDING FIRE DETECTION UNITS AS REQUIRED.
18. THE OWNER'S VENDOR OF CHOICE SHALL SUPPLY AND INSTALL A CO2 STORAGE CANISTER IN THE LIQUOR STORAGE ROOM. AN EXTERIOR FILL VALVE AND ALL CO2 UNITS SHALL BE SUPPLIED AND INSTALLED BY THE VENDOR.
19. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL TO EACH PIECE OF ROOF–TOP EQUIPMENT (FANS, MOTORS, COMPRESSORS, CONDENSERS, ETC.) A SEPARATE WEATHER–PROTECTED DISCONNECT SWITCH.
20. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL ANTI–SIPHON VALVE ASSEMBLIES FOR SODA DISPENSING SYSTEM.
21. PLUMBING CONTRACTOR SHALL FULLY INSULATED 180 F DISHWASHER/BOOSTER HEATER CIRCUILATION LOOP.
22. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING AND ELECTRICAL CONTRACTORS TO MAKE ALL REQUIRED WATER, GAS, DRAIN AND ELECTRICAL FINAL CONNECTIONS FOR ALL MAKE–UP AIR SYSTEM UNITS.
23. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INSTALL ALL OWNER SUPPLIED COMPUTER/COMMUNICATIONS CABLES AS PER OWNERS DIRECTION.
24. IT SHALL BE THE RESPONSIBILITY OF PLUMBING CONTRACTOR TO COMPLY WITH ALL LOCAL CODES CONCERNING GAS VALVE REGULATOR VENTING.
25. ELECTRICAL CONTRACTOR SHALL PROVIDE A INDIVIDUAL DISCONNECT BOX FOR EACH PIECE OF ROOF TOP ELECTRICALLY POWERED EQUIPMENT.
26. THE GENERAL CONTRACTOR SHALL PHOTOGRAPH ALL WALLS CONTAINING BACKING PRIOR TO SHEETROCK/FRP INSTALLATION.
27. THE PLUMBING CONTRACTOR SHALL PROVIDE CLEANOUTS AT 1ST ELBOW ON EACH WALK–IN BLOWER COIL DRAIN.
28. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL FREEZE PROTECTED HOT/COLD WATER VALVES AT CAN WASH AREA.
29. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL WATER LINE BACK CHECK VALVES AS REQUIRED PER CODE.
30. THE ELECTRICAL CONTRACTOR SHALL PROVIDE INTERCONNECT SWITCHING BETWEEN THE KITCHEN EXHAUST HOOD EXHAUST FANS AND THE KITCHEN MAKE–UP AIR SYSTEMS AS REQUIRED PER LOCAL CODE AND AUTHORITIES.
31. COMMUNICATIONS CABLES ARE SUPPLIED BY OWNER AND INSTALLED BY ELECTRICAL CONTACTOR.
32. ELECTRICAL AND MECHANICAL CONTRACTOR TO VERIFY REQUIREMENTS OF OWNER PROVIDED EQUIPMENT.
33. ELECTRICAL CONTRACTOR TO INTERWIRE WITH REMOTE MANUAL REVERSING SWITCH PER DISPOSER MANUFACTURER'S SPEC. SHEET.
34. PLUMBING CONTRACTOR TO INSTALL DISPOSER PER MANUFACTURER'S SPEC. SHEET.
35. PRESSURE REGULATORS FOR GAS COOKING EQUIPMENT SUPPLIED BY CMA AND INSTALLED PER CODE AND MANUFACTURER'S SPECIFICATIONS BY PLUMBING CONTRACTOR.
36. ELECTRICAL CONTRACTOR SHALL PROVIDE INTER CONNECT FOR FREEZER COIL & TIMECLOCK CIRCUIT DEFROST SYSTEM.
37. ELECTRICAL CONTRACTOR SHALL CONNECT QUARTZ HEATING ELEMENTS ON CHEESEMELTER.
38. THE PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL SHUT–OFF VALVE ON DRAIN.
39. THE ELECTRICAL CONTRACTOR SHALL SUPPLY A FOUR WIRE, 2 HOT , 1 NEUTRAL AND 1 GROUND CONNECTION.

Item No	PROVIDED BY KEC	PROVIDED BY GC	PROVIDED BY OWNER	Quantity	Description	ELECTRICAL KW	Amps	HP	Voltage	Phase	Connection	Electrical Notes	PLUMBING Hot	Cold	Waste	Gas Pipe Size	BTU	Plumbing Notes
483		X		1	CLASS 1 DUCTWORK / FYREWRAP													
484	X			1	FIRE SUPPRESSION SYSTEM													
485	X			2	SHELVING, WALL MOUNTED													
486	X			1	HAND SINK										1-1/2"			
487	X			1	HAND SINK FAUCET								1/2"	1/2"				
488			X	1	SOAP AND TOWEL DISPENSER													
489	X			1	EYE WASH FAUCET									1/2"				
489.1	X			1	SS EYE WASH FAUCET MOUNT													
490	X			1	MAKE UP AIR FAN		33.8		208	3						1"	368k	
491		X		1	MAKE UP AIR DUCTWORK													
492-499					SPARE NUMBER													
500	X			1	2 DOOR REACH IN FREEZER		9.0	1/3	115	1	Cord & Plug	5-15P						
501	X			1	EXHAUST FAN		9.5		208	3								
502	X			1	FRENCH FRY WARMER	1.44	12		120	1	Cord & Plug	5-15P						
503	X			1	CLASS 1 EXHAUST HOOD													
504		X		1	CLASS 1 DUCTWORK / FYREWRAP													
505	X			1	FIRE SUPPRESSION SYSTEM													
506	X			1	SS FLUTED WALL FLASHING													
507	X			1	4 POT DEEP FAT FRYER		9.0		120	1						1"	160.0	
508	X			1	FRYER FILTRATION SYSTEM													
509		X		1	OIL RECLAIM PORT													
510	X			1	GRIDDLE, GAS, COUNTERTOP		1.0		120	1	Cord & Plug	5-15P				3/4"	112.0	
511	X			1	REFRIGERATED EQUIPMENT STAND		2.9		115	1	Cord & Plug	5-15P						
512	X			1	SHELVING, WALL MOUNTED													
513	X			1	SS WORKTABLE CABINET STYLE													
514					SPARE NUMBER													
515					SPARE NUMBER													
516	X			1	REFRIGERATED PAN TOP TABLE		6.1	1/3	115	1	Cord & Plug	5-15P						
517	X			1	SS DOUBLE LEVEL PASS SHELF													
518	X			1	HEATED DISPLAY MERCHANDISER	1.92	16		120	1	Cord & Plug	5-20P						
519					SPARE NUMBER													
520	X			1	SS WORKTABLE CABINET STYLE													
521	X			1	FOOD PAN WARMER/COOKER, COUNTERTOP	2.0	9.8-11.3		208	1	Cord & Plug	6-15P						
522	X			2	UNDERCOUNTER BEVERAGE REFRIGERATOR		3.86	1/4	115	1	Cord & Plug	5-15P						
523	X			1	SS WORKTABLE EXPEDITE CABINET													
524	X			5	WIRE SHELVING													
525	X			1	2 DOOR REACH IN REFRIGERATOR		6.9	1/3	115	1	Cord & Plug	5-15P						
526	X			1	1 COMPARTMENT PREP SINK										1-1/2"			
527	X			1	SPLASH MOUNT FAUCET								1/2"	1/2"				
528	X			2	WALL MOUNT SHELF UNIT													
529	X			1	WALL MOUNT HAND SINK										1-1/2"			
530	X			1	HAND SINK FAUCET								1/2"	1/2"				
531	X			2	ICE MACHINE HEAD									1/2"	3/4"			
532	X			2	REMOTE CONDENSING UNIT		11.6		208-230	1								
533	X			1	ICE BIN FOR ICE MACHINES										3/4"			
534	X			1	1 COMP PREP SINK										1-1/2"			
535	X			1	SPLASH MOUNT FAUCET								1/2"	1/2"				
536	X			2	WALL MOUNT SHELF UNIT													
537	X			1	2 DOOR REACH-IN REFRIGERATOR		6.9	1/3	115	1	Cord & Plug	5-15P						
538	X			1	DRY STORAGE SHELVING													
539			X	1	BAG N BOX SODA CARBONATOR		3		115	1		5-15P		1/2"				
540	X			1	WIRE SHELVING													
541	X			3	REFRIGERATED MERCHANDISER		7.3	1/2	115	1	Cord & Plug	5-15P						
542	X			1	WIRE SHELVING													
543					SPARE NUMBER													
544			X	6	POINT OF SALE SYSTEM		3		115	1		5-15P						
545			X	6	TICKET PRINTER		1.0		115	1		5-15P						
546					SPARE NUMBER													
547					SPARE NUMBER													
548	X			1	HAND SINK										1-1/2"			
549	X			1	HAND SINK FAUCET								1/2"	1/2"				
550			X	1	SOAP AND TOWEL DISPENSER													
551		X		1	MILLWORK CUSTOMER BAR TOP													
552		X		1	MILLWORK BAR DIE WALL													
553					SPARE NUMBER													
554					SPARE NUMBER													
555	X			6	ICE BIN WITH BOTTLE WELLS										3/4"			
556	X			6	SPEED RAIL / RACK													
557			X	1	SODA GUN													
558	X			4	UNDERBAR MIXOLOGY SINK UNIT								3/8"	3/8"	1-1/2"			
559	X			1	HAND SINK								3/8"	3/8"	1-1/2"			
560	X			2	DRAINBOARD										1-1/2"			
561	X			1	GLASSWASHER, UNDERCOUNTER / UNDERBAR		16	1	115	1			1/2"		2"			
562	X			2	8 TAP BEER TOWER										1/2"			
563	X			2	4 TAP BEER TOWER										1/2"			

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INTERNATIONAL VILLAGE
PUYALLUP FAIRGROUNDS
PUYALLUP, WA

CMA
RESTAURANT SUPPLY AND DESIGN, INC.
12811 NE 126th Place, Kirkland, Washington 98034
Cell: 206 713 5785
Office: 425 747 7223
EMAIL: Steve@cmarestaurantsupply.com

EQUIPMENT SCHEDULE
CONSTRUCTION SET 10-15-24

DATE:3-31-24
S· GENDREAU
SCALE: 1/4"= 1'-0"
PROJECT NO· 1734

K-2·3

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

ROOF

SEE ARCHITECTURAL OR MECHANICAL DRAWINGS

17	33	42	56	58	111	111.1	113	166
195	X	X	X	X	X	X	X	X

ELECTRICAL NOTES

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL STAINLESS STEEL OUTLET AND RECEPTACLE COVERS IN SERVICE AREAS.
2. THE ELECTRICAL CONTACTOR SHALL PROVIDE POWER TO AND INTERCONNECT ALL REFRIGERATION THERMOSTATS, SOLENOIDS, TIME CLOCKS, DEFROST CIRCUITS, ETC.
3. THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL REMOTE COMPRESSORS AND PROVIDE DISCONNECTS, MAGNETIC STARTERS, AND THERMAL OVERLOAD PROTECTION AS REQUIRED.
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL HEAT TAPE ON DRAIN LINES IN DANGER OF FREEZING.
5. THE ELECTRICAL CONNECTIONS, SPECIFICATIONS AND DIMENSIONS SHOWN ON THESE PLANS ARE FOR FOOD SERVICE EQUIPMENT ONLY. SEE THE ARCHITECT'S PLAN SET FOR ALL OTHER ELECTRICAL REQUIREMENTS FOR THIS PROJECT.
6. ALL ELECTRICAL ROUGH-IN WORK AND ALL FINAL CONNECTIONS FOR ALL ITEMS SHOWN AND SPECIFIED ON THESE PLANS BY CMA RESTAURANT SUPPLY & DESIGN SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR.
7. UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR OTHER WRITTEN CONTRACTS, IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ALL ELECTRICAL-TYPE MATERIALS INCLUDING WIRING, SWITCHES, DISCONNECTS, FLEX, CONDUIT, CONTACTORS, TRANSFORMERS, THERMAL OVERLOAD PROTECTORS, MAGNETIC STARTERS, ELECTRICAL PANELS, CORDS, PLUGS, COVERS, ETC.
8. THE ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECTS AT THE POWER BOX FOR EACH ICE MACHINE HEAD.
9. ALL DIMENSIONS SHOWN ARE FROM GRID LINES, FINISHED WALLS OR FINISHED FLOORS TO CENTER LINE OF ELECTRICAL OUTLET BOXES. HEIGHTS ARE NOT TO BE TAKEN FROM CURBS OR PLATFORMS.
10. THE SYMBOLS SHOWN ON THIS PLAN ARE FOR INDICATION OF ROUGH-IN LOCATION AND TYPE OF CONNECTION ONLY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUITS AND CONDUIT RUNS AS PER GOOD PRACTICE AND CODE.
11. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE INTERCONNECT SWITCHING BETWEEN THE KITCHEN EXHAUST HOOD EXHAUST FANS AND THE KITCHEN MAKE UP AIR SYSTEMS AS REQUIRED PER LOCAL CODE AND AUTHORITIES.
12. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ELECTRICAL CONTACTORS ON ALL ELECTRICAL OUTLET, JUNCTION BOXES, ETC. LOCATED UNDER ANY CLASS I EXHAUST HOOD SO AS TO DISCONNECT UPON ACTIVATION OF THE FIRE SUPPRESSION SYSTEM.
13. THE ELECTRICAL CONTRACTOR SHALL MOUNT AND WIRE REMOTE INFINITE CONTROL SWITCHES FOR STRIP HEAT UNITS AS REQUIRED AND RUN POWER LINES FROM J-BOX IN CABINET BELOW.
14. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FUSED DISCONNECTS FOR EQUIPMENT HOOK-UPS AS REQUIRED BY CODE AND LABELING.

1 / A4.1

2 / A4.1

ELECTRICAL LEGEND

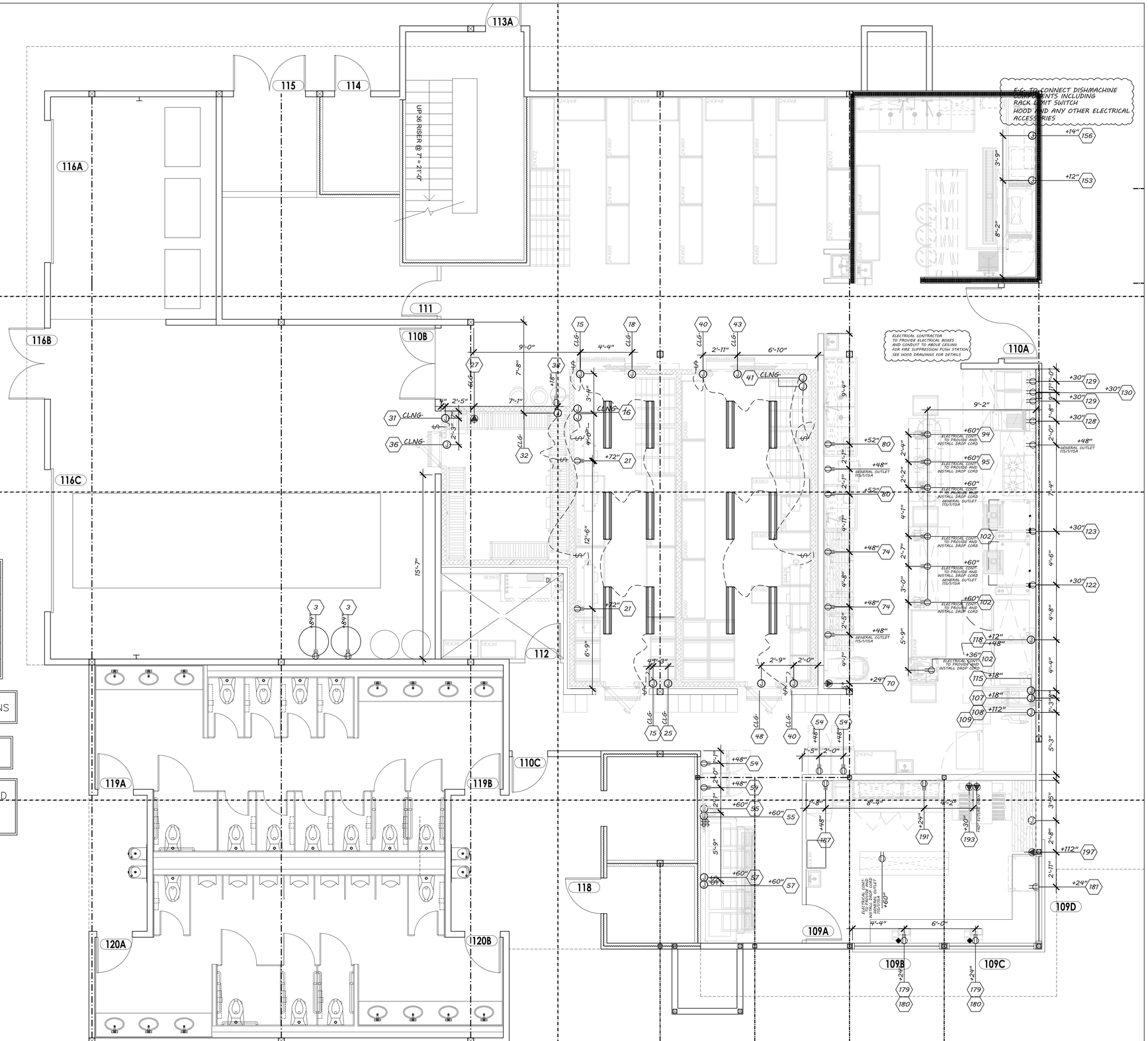
⊖	115 VOLT DUPLEX OUTLET	$p	SWITCH w/ PILOT LIGHT
⊖=	115 VOLT FOURPLEX OUTLET	$	ON/OFF SWITCH
⊖ DI	115 VOLT DCO, DEDICATED/ISOLATED	◆	COMMUNICATIONS CABLE – VERIFY SPEC'S AND REQUIREMENTS WITH OWNER
◀	208 VOLT, SPECIAL OUTLET	□ PS	FIRE SUPPRESSION PULL/PUSH STATION VERIFY ON HOOD DRAWINGS
J	JUNCTION BOX		
☼	LIGHT FIXTURE/SERVICE MOUNTED		

VERIFY EQUIPMENT REQUIREMENTS WITH FINAL EQUIPMENT SELECTIONS

GFCI RECEPTACLES SHALL BE PASS & SEYMOUR NO. 2095-W

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL WIRING, LINE AND LOW VOLTAGE, BETWEEN HOOD, CONTROL PANEL, EXHAUST AND MAKE-UP AIR FANS, ETC. PER MANUFACTURERS SHOP DRAWINGS

1 / A4.2



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INTERNATIONAL VILLAGE
PUYALLUP FAIRGROUNDS
PUYALLUP, WA

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ELECTRICAL ROUGH-IN PLAN
CONSTRUCTION SET 10-15-24

DATE: 10-30-24

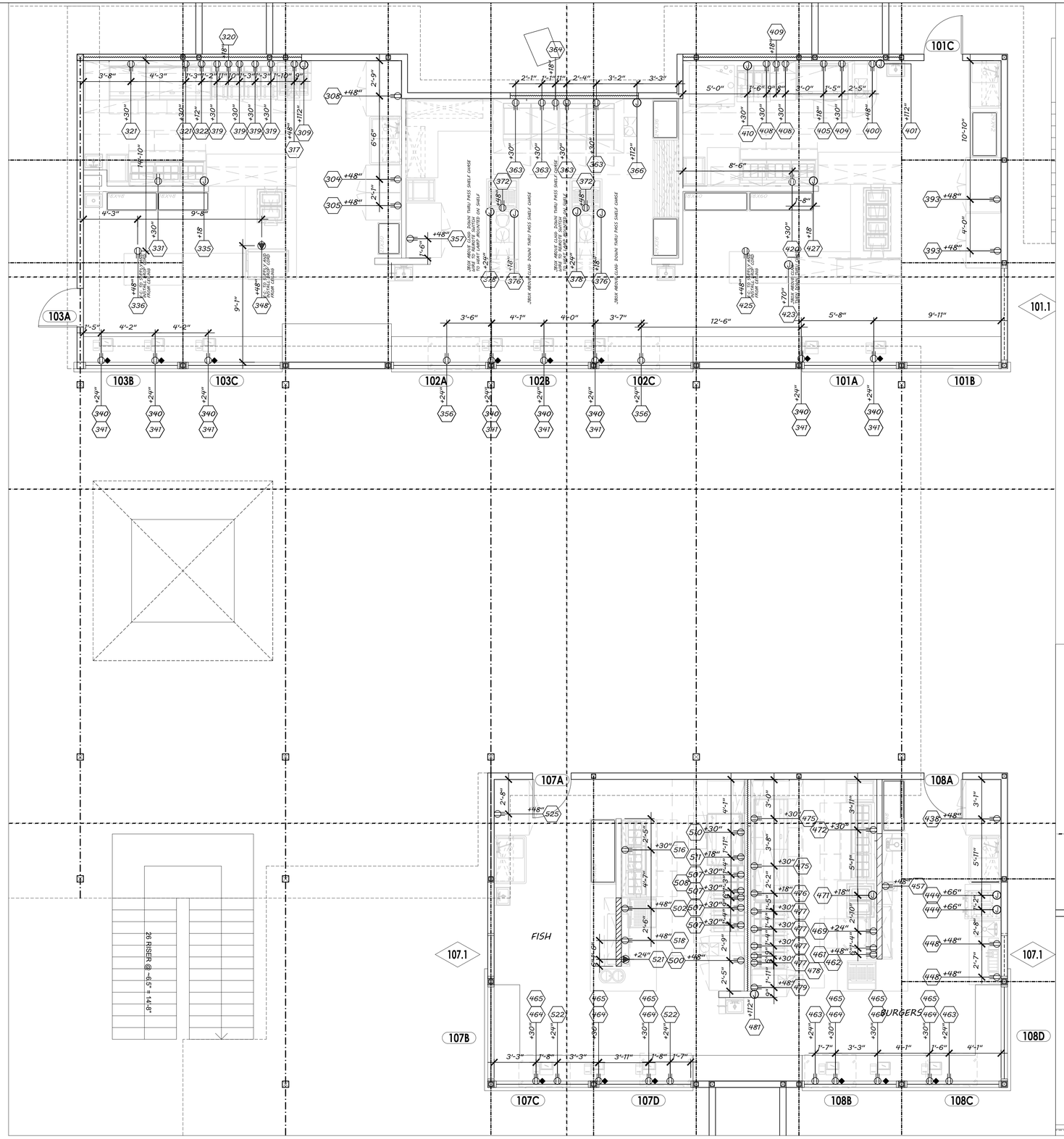
S· GENDREAU

SCALE: 1/4"= 1'-0"

PROJECT NO· XXXX

K-3

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



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ROOF

SEE ARCHITECTURAL OR MECHANICAL DRAWINGS

17 33 42 56 58 111 111.1 113 166
310 312 382 383 398 399 482
490 501 532

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1
2

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ELECTRICAL ROUGH-IN PLAN
CONSTRUCTION SET 10-15-24

DATE: XX-XX-2XXX
S· GENDREAU
SCALE: 1/4"= 1'-0"
PROJECT NO· XXXX

K-3·1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

PLUMBING NOTES

1. IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO SIZE, SUPPLY AND INSTALL A GREASE INTERCEPTOR/TRAP IF ONE IS REQUIRED.
2. ALL FIRE PROTECTION SYSTEM GAS SHUT-OFF VALVES SHALL BE SUPPLIED BY THE OWNER AND INSTALLED BY THE PLUMBER
3. THE PLUMBING CONNECTIONS, SPECIFICATIONS AND DIMENSIONS SHOWN ON THESE PLANS ARE FOR FOOD SERVICE EQUIPMENT ONLY. SEE ARCHITECT'S PLAN SET FOR ALL OTHER PLUMBING REQUIREMENTS FOR THIS PROJECT.
4. ALL PLUMBING ROUGH-IN WORK AND FINAL CONNECTIONS FOR ALL ITEMS SHOWN AND SPECIFIED ON THESE PLANS BY CMA RESTAURANT SUPPLY & DESIGN SHALL BE PERFORMED BY THE PLUMBING CONTRACTOR.
5. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL INSULATIOIN MATERIAL ON ALL DRAIN LINES FROM ICE BINS, ICE PANS, ETC., SO AS TO ELIMINATE CONDENSATION FORMATION.
6. UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR OTHER WRITTEN CONTRACTS, IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO PROVIDE ALL PLUMBING-TYPE MATERIALS INCLUDING VALVES, TRAPS, LINE STRAINERS, FLOOR SINK COVERS, PRESSURE REGULATORS, SIPHON BREAKERS, ETC.
7. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THAT THE LOCATIONS FOR ALL MECHANICAL REQUIREMENTS WHICH REQUIRE FLOOR PENETRATIONS DO NOT CONFLICT WITH STRUCTURAL MEMBERS IN THE FLOOR.
8. THE GENERAL CONTRACTOR SHALL SUPERVISE THE LOCATION OF ALL FLOOR DRAINS ON THE JOB SITE SO AS TO ENSURE THE BEST SLOPE POSSIBLE OF THE SURROUNDING FLOOR TO THESE DRAINS.
9. ALL DRAIN LINES FROM EQUIPMENT REQUIRING CONDENSATION REMOVAL SHALL BE RUN IN COPPER.
10. PLUMBING CONTRACTOR TO SUPPLY WATER PRESSURE REDUCING VALVE SET AT 20 PSI FOR EACH DISHWASHER AND GLASS WASHER.

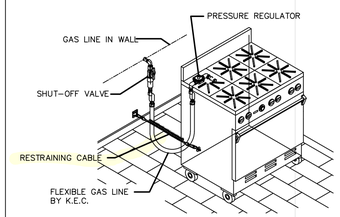
REMOTE

SEE ARCHITECTURAL OR MECHANICAL DRAWINGS

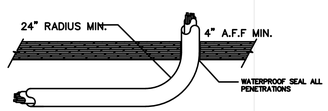
113 202

PLUMBING LEGEND

○	CW-COLD WATER
○F	CW-COLD WATER - FILTERED
●	HW-HOT WATER
●	CLOSED DRAIN - DIRECT WASTE
FS	12" X 12" FLOOR SINK - INDIRECT WASTE
FN	8" FUNNEL DRAIN - INDIRECT WASTE
	NATURAL GAS
FD	FLOOR DRAIN

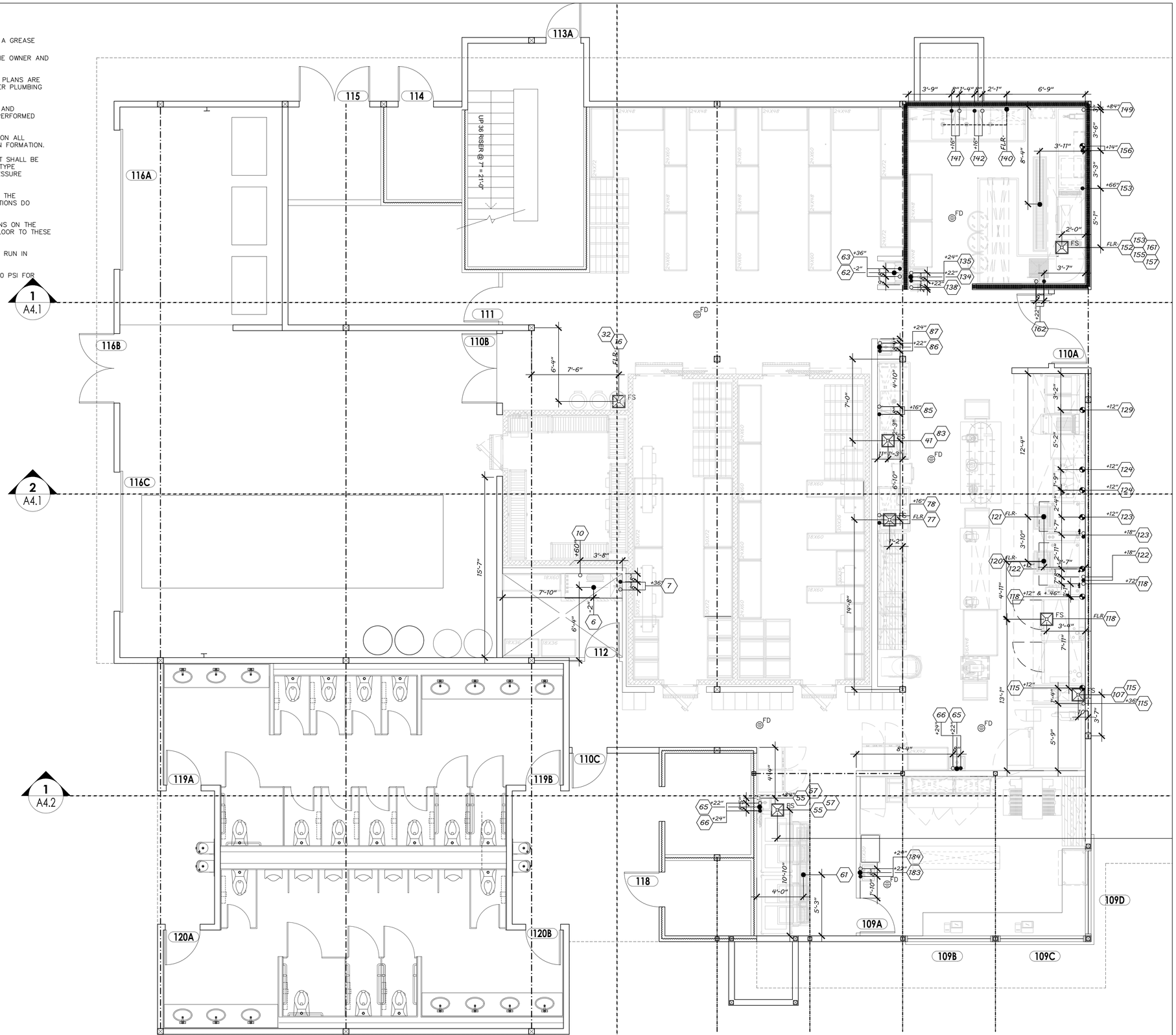


TYP. GAS CONNECTION



UNDER-FLOOR TUBING CHASE MUST HAVE A MIN. 6" I.D. DIMENSION (DIMENSION VARIES BASED ON APPLICATION), A CONTINUOUS SMOOTH INSIDE SURFACE AND ONLY ONE 24" MIN. RADIUS BEND AT EACH END. PLUMBING TYPE PVC SHORT RADIUS "ELLS" ARE NOT ACCEPTABLE. ALL JOINTS AND SEAMS TO BE WATERTIGHT AND SMOOTH.

TYP. CHASE DETAIL



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PLUMBING ROUGH-IN PLAN
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S· GENDREAU
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K-4

City of Puyallup
Developing & Permitting Services
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INTERNATIONAL VILLAGE
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PUYALLUP, WA

REMOTE

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113 312 383 399 490

PLUMBING LEGEND

○	CW–COLD WATER
○F	CW–COLD WATER – FILTERED
●	HW–HOT WATER
●	CLOSED DRAIN – DIRECT WASTE
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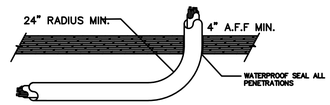

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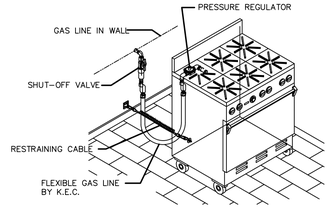
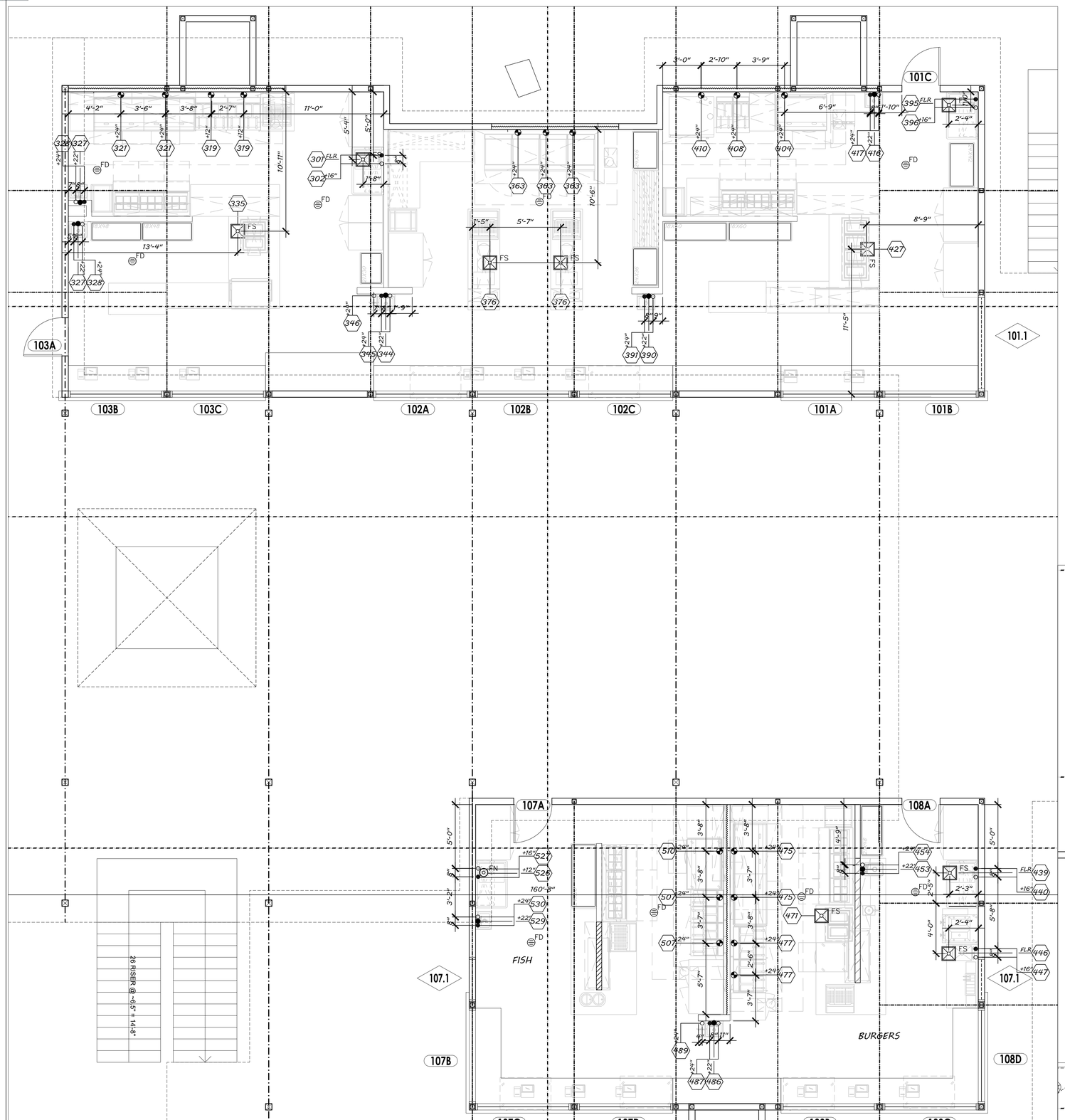


TYP. GAS CONNECTION



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PLUMBING ROUGH-IN PLAN
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S· GENDREAU
SCALE: 1/4"= 1'-0"
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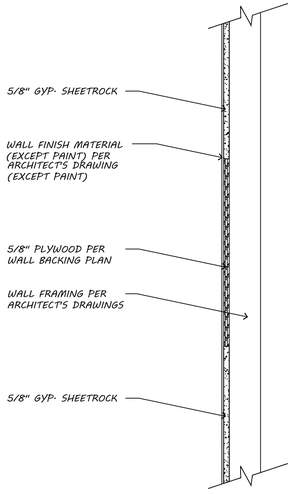
K-4·1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

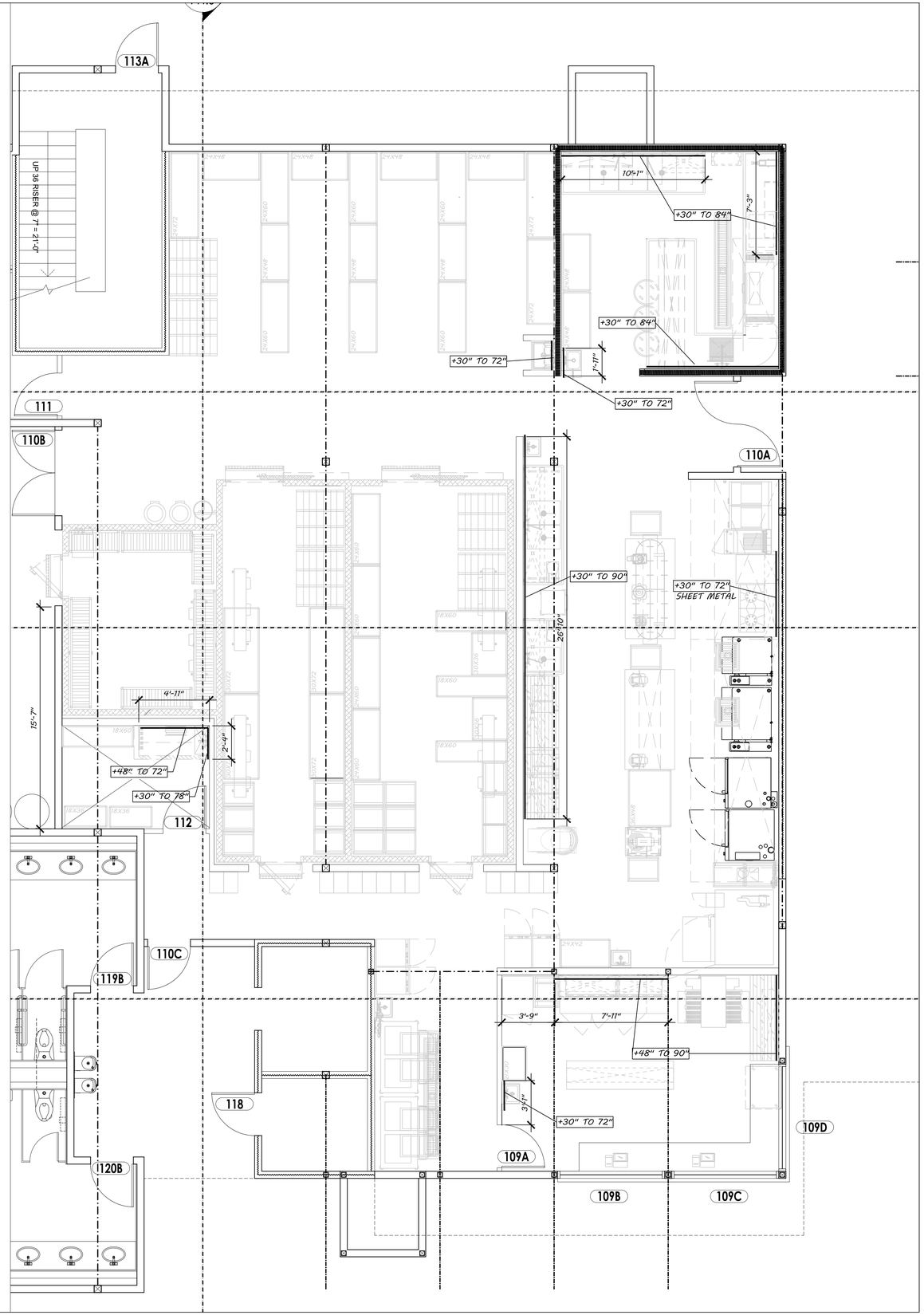
WALL BACKING NOTES:

1. GENERAL CONTRACTOR SHALL CONSULT WITH OWNER AND CMA RESTAURANT SUPPLY AT THE TIME OF LAYOUT FOR WALL BACKING CONFIRMATION OF ALL DIMENSIONS OF ALL AND UP-DATE REQUIREMENTS.
2. WALL BACKING TO BE USED FOR WALL MOUNTED EQUIPMENT AND SHELVES.
3. WALL BACKING TO BE 5/8" PLYWOOD.
4. WALL WALL BACKING TO BE BUILT INTO WALL SO THAT FINISH WALL IS FLUSH SURFACE.

VERIFY EQUIPMENT REQUIREMENTS WITH FINAL EQUIPMENT SELECTIONS



PLYWOOD BACKING DETAIL
SCALE: NONE



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ELEVATIONS / WALL BACKING
CONSTRUCTION SET 10-15-24

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SCALE: 1/4"= 1'-0"
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K-5

City of Puyallup
Developing & Building Services
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Engineering | Public Works
Fire | Traffic

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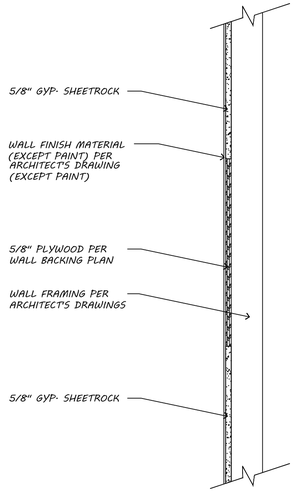
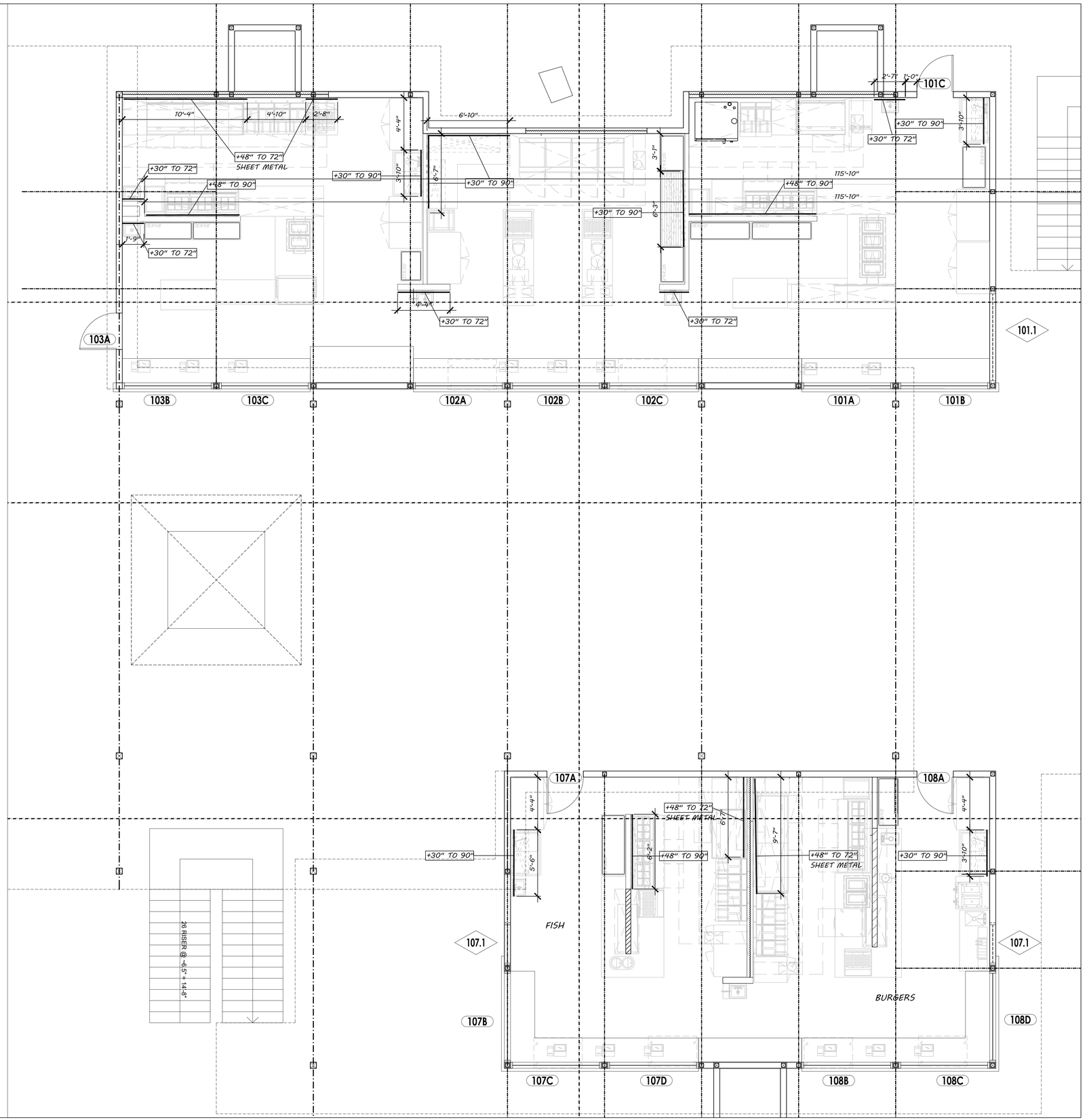


PLYWOOD BACKING DETAIL

SCALE: NONE



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GENERAL NOTES

1. ALL WORK PERFORMED SHALL BE DONE IN STRICT ACCORDANCE TO ALL APPLICABLE MECHANICAL, BUILDING, ENERGY, FUEL GAS, AND LOCAL CODES, WITH AMENDMENTS.
2. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
3. COORDINATE MECHANICAL WORK WITH ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL AND LANDSCAPE WORK SHOWN ON OTHER CONTRACT DOCUMENTS. PROVIDE ADDITIONAL OFFSETS FOR COORDINATED INSTALLATION WHERE REQUIRED.
4. COORDINATE HVAC, PLUMBING, AND FIRE PROTECTION WORK PRIOR TO INSTALLATION. DUCTWORK AND EQUIPMENT ACCESS TAKES PRECEDENCE OVER ALL PIPING EXCEPT GRAVITY SYSTEMS FOR AVAILABLE SPACE.
5. CONTRACTOR IS RESPONSIBLE FOR CONFORMANCE WITH ALL PLANS AND SPECIFICATIONS. IF A DISCREPANCY EXISTS BETWEEN ANY PLAN AND/OR SPECIFICATION, THE MORE STRINGENT REQUIREMENT SHALL BE FOLLOWED. CONTRACTOR IS ENCOURAGES TO SUBMIT RFI'S BEFORE BID TO CLARIFY PLAN AND SPECIFICATION INTENT.
6. COORDINATE EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.
7. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSE BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT. BEFORE SUBSTANTIAL COMPLETION, CLEAN EQUIPMENT, FIXTURES, EXPOSED DUCTS, PIPING AND SIMILAR ITEMS.
8. PROVIDE EQUIPMENT THAT FITS INTO THE SPACE ALLOTTED AND ALLOWS ADEQUATE ACCEPTABLE CLEARANCE FOR INSTALLATION, REPLACEMENT, SERVICING, AND MAINTENANCE. COORDINATE WITH OTHER TRADES TO ENSURE NO CONFLICT WITH REQUIRED CLEARANCES.
9. CONTRACTOR SHALL OBTAIN & PAY FOR ALL PERMITS AND CONSTRUCTION FEES. FURNISH FINAL CERTIFICATE TO OWNER SHOWING COMPLIANCE WITH CODE REQUIREMENTS.
10. REFER TO TYPICAL DETAILS PROVIDED IN THIS DRAWING SET FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR CONFORMANCE WITH DETAILS.
11. A SHORT DASH IN A SCHEDULE TABLE CELL INDICATES THAT THE COLUMN HEADING IS NOT USED OR NOT APPLICABLE TO THAT SCHEDULED ITEM.
12. PROVIDE COMMISSIONING FOR MECHANICAL SYSTEMS. COMMISSIONING AGENT SHALL PROVIDE A COMMISSIONING PLAN OUTLINING ORGANIZATION, SCHEDULE, NARRATIVE, RESPONSIBILITIES MATRIX, LIST OF EQUIPMENT TO BE TESTED, FUNCTIONS TO BE TESTED, CONDITIONS UNDER WHICH TESTS SHALL BE PERFORMED, AND MEASURABLE CRITERIA FOR PERFORMANCE. COMMISSIONING SHALL BE PER C408 OF THE 2021 WSEC.
13. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70 STANDARDS AND LOCAL REQUIREMENTS.
14. ALL FIELD WIRING SHALL REQUIRE AN ELECTRICAL PERMIT AND SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.
15. COORDINATE ELECTRICAL REQUIREMENTS SHOWN ON PLANS AND SPECS WITH AVAILABLE VOLTAGES AND PANEL SPACE ONSITE AS WELL AS WITH ELECTRICAL ENGINEER AND ELECTRICAL CONTRACTOR. IF DISCREPANCIES EXIST BETWEEN THESE PLANS AND AVAILABLE ONSITE ELECTRICAL UTILITIES, DO NOT PURCHASE OR INSTALL EQUIPMENT BEFORE FIRST CONTACTING MEL AND RECEIVING INSTRUCTION.
16. LOCATE VALVES, CLEANOUTS, DAMPERS, CONTROLS AND SIMILAR COMPONENTS SO THAT THEY ARE ACCESSIBLE. PROVIDE ACCESS DOORS FOR MECHANICAL EQUIPMENT INSTALLED BEHIND WALLS, ABOVE INACCESSIBLE CEILINGS AND BELOW FLOORS. COORDINATE ACCESS DOOR LOCATIONS WITH ARCHITECT/ENGINEER.
17. ACCESS PANELS SHALL BE 16 GA, STEEL, FLUSH TYPE ACCESS DOOR WITH CONCEALED HINGE AND SLOT SCREWDRIVER TYPE CAM LATCH. PROVIDE FACTORY PRIMED IN PAINTED SURFACE AREAS FOR FIELD PAINTING. PROVIDE STAINLESS STEEL FOR ALL OTHER AREAS. PROVIDE UL LISTED AND LABELED DOOR WHERE FIRE-RESISTANCE RATING IS INDICATED ON DRAWINGS. ACCESS DOOR SHALL BE SIZED SO THAT ADJACENT EQUIPMENT IS ACCESSIBLE. PROVIDE ACUDOR, ELMDOR, MILCOR, OR APPROVED.
18. INSTALL TAG ON CEILING GRID FRAME TO INDICATE LOCATION AND TYPE OF EQUIPMENT THAT REQUIRES MAINTENANCE.

PIPING:

1. INSULATE PIPING PER WASHINGTON STATE ENERGY CODE SECTION C403.10.3.
2. ALL PRESSURES LISTED ARE GAGE PRESSURES UNLESS OTHERWISE NOTED.
3. PROVIDE COMPLETE CONDENSATE DRAINAGE SYSTEM FOR ALL INDOOR UNITS. FIELD ROUTE DRAINAGE PIPING FROM EQUIPMENT TO NEAREST DRAIN LOCATION (SUCH AS SERVICE SINK, FUNNEL DRAIN, ETC.). SLOPE NON-PRESSURIZED DRAIN PIPING TO DRAIN LOCATION. PIPING & FITTINGS SHALL BE PVC. MINIMUM PIPE SIZE SHALL BE 3/4". INCREASE PIPE SIZE WHERE APPLICABLE PER IMC 307.2.2.
4. VALVES SHALL BE INSTALLED SO THAT SYSTEM REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
5. VALVES (EXCEPT CONTROL VALVES) AND STRAINERS SHALL BE FULL SIZE OF PIPE BEFORE REDUCING SIZE TO MAKE CONNECTIONS TO EQUIPMENT AND CONTROLS UNLESS OTHERWISE NOTED.
6. PROVIDE UNIONS AND/OR FLANGES AT EACH PIECE OF EQUIPMENT, AT EACH CONTROL VALVE, IN BYPASSES, AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
7. THE PROPOSED ROUTING FOR THE REFRIGERATION PIPING BETWEEN THE INDOOR AND OUTDOOR UNITS IS INDICATED AS A SINGLE LINE ON THE PLANS. THAT SINGLE LINE REPRESENTS ALL THE PIPING RUNS REQUIRED FOR THE SYSTEM DESIGNED. SIZE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATION.

HVAC/SHEET METAL:

1. THE FIRST FIGURE OF DUCT SIZE CALLOUTS INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS. PROVIDE ANY APPLICABLE DUCT LINING AND INSULATION PER THESE PLANS.
2. DUCT SIZE NOT SHOWN SHALL BE SIZED TO VELOCITIES NO GREATER THAN UP STREAM SECTIONS USING SIMILAR ASPECT RATIOS.
3. TOTAL STATIC PRESSURE NOTED IN SCHEDULES SHALL BE ASSUMED TO INCLUDE DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.
4. ALL SUPPLY AIR FILTERS SHALL BE MERV-8 RATED. ALL RETURN/EXHAUST/OUTSIDE AIR FILTERS SHALL BE MERV-8 RATED. UNLESS OTHERWISE NOTED.
5. AIR TERMINAL SIZES SHOWN ON PLANS ARE NECK SIZES. PROVIDE ADDITIONAL PANS, HARDWARE, ETC., REQUIRED TO INSTALL AIR TERMINAL IN CEILING SYSTEM.
6. AIR TERMINALS IN UNFINISHED SPACES OR OPEN CEILING AREAS SHALL BE INSTALLED AT 8' AFF UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
7. DUCTWORK SHALL BE 2.0" PRESSURE CLASS UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
8. CONSTRUCT DUCTWORK ACCORDING TO WASHINGTON STATE ENERGY CODE SECTION C403.10.2. ALL DUCT WORK SHALL BE PRIMED GALVANIZED SHEET STEEL, LOCK FORMING QUALITY, FABRICATED IN ACCORDANCE TO SMACNA STANDARDS.
9. PROVIDE TURNING VANES IN ALL MITERED RECTANGULAR DUCT ELBOWS & TEES.
10. PROVIDE MOTORIZED DAMPERS ON OUTDOOR AIR SUPPLY AND EXHAUST OPENINGS. DAMPERS SHALL HAVE A MAXIMUM LEAKAGE RATE OF 4 CFM PER SQUARE FOOT AT 1" W.C.
11. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED AND SEALED PER WASHINGTON STATE ENERGY CODE SECTION C403.10.1.
12. OUTSIDE AIR DUCTWORK SHALL BE INSULATED IN ACCORDANCE WITH C403.10.1.1.
13. VENTILATION AND EXHAUST AIR IS PROVIDED IN ACCORDANCE WITH C403.2.2.
14. PROVIDE EACH ZONE WITH THERMOSTATIC CONTROLS THAT PROVIDE A DEADBAND OF AT LEAST 5 DEGREES FAHRENHEIT IN WHICH HEATING OR COOLING ENERGY IS CAPABLE OF BEING SHUT OFF OR REDUCED TO A MINIMUM. THERMOSTAT SHALL BE CAPABLE OF THERMOSTATIC SETBACK, AUTOMATIC SETBACK AND SHUTDOWN, AND AUTOMATIC START CAPABILITIES PER WASHINGTON STATE ENERGY CODE SECTION C403.4.
15. PROVIDE TEMPORARY COVERS OVER OPEN ENDS OF EQUIPMENT AND DUCTWORK DURING CONSTRUCTION.
16. PROVIDE MANUAL VOLUME DAMPER FOR EACH DIFFUSER, REGISTER, AND GRILLE. OPPOSED BLADE DAMPERS LOCATED AT THE DIFFUSER, REGISTER, AND GRILLE SHALL NOT BE USED FOR SYSTEM BALANCE.
17. PROVIDE DUCT ACCESS DOORS AT DUCT SMOKE DETECTORS, BACKDRAFT DAMPERS, MOTORIZED CONTROL DAMPERS, FIRE DAMPERS, SMOKE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS, DUCT MOUNTED COILS, DUCT AIRFLOW STATIONS AND LOUVER PLENUMS.
18. COORDINATE FINAL LOCATION OF EQUIPMENT WITH OWNER OR REPRESENTATIVE.

APPLICABLE CODES

AS ADOPTED BY THE CITY OF PUYALLUP, WA

INTERNATIONAL MECHANICAL CODE, IMC 2021
INTERNATIONAL BUILDING CODE, IBC 2021
WASHINGTON STATE ENERGY CODE, WSEC 2021
INTERNATIONAL FUEL GAS CODE, IFGC 2021
UNIFORM PLUMBING CODE, UPC 2021

AND ASSOCIATED WASHINGTON ADMINISTRATIVE CODE AMENDMENTS

DESIGN CONDITIONS

OUTDOOR CONDITIONS (PUYALLUP, WA)
COOLING: 86dF DB, 64°F WB (WSEC APPENDIX C)
HEATING: 19dF DB (WSEC APPENDIX C)

INDOOR CONDITIONS
COOLING: 75°F DB, 50% RH
HEATING: 70°F DB
SEMI HEATED: 8 BTU/SF

SCOPE OF WORK

1. INSTALL GAS MAKE UP AIR UNITS, TYPE I & II HOODS, AND EXHAUST SYSTEMS AS SHOWN ON PLANS. NOTE EQUIPMENT PROVIDED BY OTHER, DEPICTED ON THESE PLANS.
2. INSTALL FREEZE PROTECTION IN SATELLITE KITCHENS.
3. INSTALL GAS RADIANT HEATERS FOR OCCUPANT COMFORT OUTSIDE OF THE THERMAL ENVELOPE.
4. INSTALL OTHER MISCELLANEOUS SYSTEMS SHOWN.

ABBREVIATIONS

(E)	EXISTING
AABC	AMERICAN AIR BALANCE COUNCIL
AFF	ABOVE FINISHED FLOOR
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
AG	AIR GAP
AGA	AMERICAN GAS ASSOCIATION
AHRI	AIR CONDITIONING, HEATING, & REFRIGERATION INSTITUTE
AMP	AMPERAGE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BAS	BUILDING AUTOMATION SYSTEM
BHP	BRAKE HORSEPOWER
CB	CATCH BASIN
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
COND	CONDENSATE
CONFIG	CONFIGURATION
CSA	CANADIAN STANDARDS ASSOCIATION
DB	DRY BULB
DC	DOUBLE CHECK
DDC	DIRECT DIGITAL CONTROLS
DIA	DIAMETER
DN	DOWN
DOAS	DEDICATED OUTSIDE AIR SYSTEM
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECM	ELECTRICALLY COMMUTATED MOTOR
EFF	EFFICIENCY
ESP	EXTERNAL STATIC PRESSURE
ETC	ET CETERA
EX. SP.	EXTERNAL STATIC PRESSURE
FLA	FULL LOAD AMPS
FM	FACTORY MANUAL
FPM	FEET PER MINUTE
FT	FEET
GA	GAUGE
HP	HORSEPOWER
HR	HOUR
IBC	INTERNATIONAL BUILDING CODE
IFGC	INTERNATIONAL FUEL GAS CODE
IMC	INTERNATIONAL MECHANICAL CODE
IN	INCH
IU	INDOOR UNIT
LAT	LATERAL
LB/LBS/#	POUND/ POUNDS
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MCA	MAXIMUM CIRCUIT AMPACITY
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MFG/MFR	MANUFACTURER
MIN	MINIMUM
MOCP/ MOP	MAXIMUM OVER CURRENT PROTECTION
MSS	MANUFACTURER'S STANDARDIZATION SOCIETY
NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
OC	ON CENTER
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OSA	OUTSIDE AIR
PH	PHASE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH, GAUGE
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RP	REDUCED PRESSURE
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SF	SQUARE FEET
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SPEC	SPECIFICATION
STM	STEAM
THRD	THREADED
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UPC	UNIFORM PLUMBING CODE
V	VENT/ VOLT
VOLT	VOLTAGE
VRF	VARIABLE REFRIGERANT FLOW
VTR	VENT TO ROOF
VAV	VARIABLE AIR VOLUME
VERT	VERTICAL
W/	WITH
WIN	WINTER
WSEC	WASHINGTON STATE ENERGY CODE

MECHANICAL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY DUCT, OSA DUCT UP	X/X	SQUARE DUCT
	SUPPLY DUCT, OSA DUCT DOWN	X/X"Ø	OVAL DUCT
	RETURN, RELIEF, TRANSFER UP		POINT OF CONNECTION
	RETURN, RELIEF, TRANSFER DOWN		LIMIT OF DEMOLITION
	EXHAUST AIR UP		ROUND 4-WAY CEILING DIFFUSERS
	EXHAUST AIR DOWN		SQUARE 4-WAY CEILING DIFFUSERS
	RECTANGULAR ELBOW WITH TURNING VANES		RETURN GRILLE
	ROUND/ RECTANGULAR ELBOW		EXHAUST GRILLE
	RECTANGULAR DUCT SQUARE ELBOW UP		SQUARE 3-WAY CEILING DIFFUSERS
	RECTANGULAR DUCT, RADIUS ELBOW UP		SQUARE 2-WAY CEILING DIFFUSERS
	RECTANGULAR DUCT, SQUARE ELBOW DOWN		SQUARE 1-WAY CEILING DIFFUSERS
	RECTANGULAR DUCT, RADIUS ELBOW DOWN	G	NATURAL GAS PIPING
	ROUND DUCT ELBOW UP	R	REFRIGERANT PIPING
	ROUND DUCT ELBOW DOWN		EXISTING PIPING
P-01	EQUIPMENT ABBREVIATION AND NUMBER (TAG)		CROSSING LINES, NON CONNECTING
SD-X, XX/XX XXX CFM	AIR TERMINAL TYPE, SIZE, AND CFM		PIPE CONTINUATION
X / XX	DETAIL NUMBER / DRAWING NUMBER WHERE DRAWN		PUMP
A	COMPRESSED AIR		CAP
C	CONDENSATE		PIPE ANCHOR
	GATE VALVE (GV)		PIPE GUIDE
	GLOBE VALVE		FLEXIBLE CONNECTION (PIPE)
	BUTTERFLY VALVE		REDUCER
	PRESSURE REDUCING VALVE (PRV)		SUCTION DIFFUSER
	CHECK VALVE (CV)	CS	CURRENT SENSOR
	TEMP./PRESS. RELIEF VALVE (T&PRV)	CR	CURRENT RELAY
	BALL VALVE	SD	SMOKE DETECTOR
	BALANCING COCK (BC)	SP	SPACE PRESSURE SENSOR
	2-WAY CONTROL VALVE	S	SWITCH
	3-WAY CONTROL VALVE	PE	PRESSURE ELEMENT
	GAS COCK	DP	DIFFERENTIAL PRESSURE ELEMENT
	STRAINER WITH BLOWDOWN VALVE	H	HUMIDISTAT (H'STAT)
	UNION	HE	HUMIDITY ELEMENT
VB	VACUUM BREAKER	FA	FIRE ALARM
AV	MANUAL AIR VENT	FS	FLOW SWITCH
	DRAIN VALVE	M	MOTOR/ ACTUATOR
	WALL HYDRANT	OS	OCCUPANCY SENSOR
	FLOAT AND THERMOSTATIC STEAM TRAP	T	THERMOSTAT (T'STAT)
	FLEXIBLE DUCT	TI	TEMPERATURE INDICATOR
	VOLUME DAMPER (VD)	TE	TEMPERATURE ELEMENT
M	MOTORIZED DAMPER	FI	FLOW INDICATOR
	BACKDRAFT DAMPER	FE	FLOW ELEMENT
	CEILING RADIATION DAMPER	CE	CONDUCTIVITY SENSOR
	FIRE DAMPER	ECM	ELECTRONICALLY COMMUTATED MOTOR
	SMOKE DAMPER	VFD	VARIABLE FREQUENCY DRIVE
	COMBINATION FIRE/SMOKE DAMPER	CO2	CARBON DIOXIDE SENSOR
X"Ø	ROUND DUCT	EPO	EMERGENCY POWER OFF SWITCH
CS	CONDENSER SUPPLY	NO	NITROGEN OXIDE SENSOR
CR	CONDENSER RETURN	CO	CARBON MONOXIDE SENSOR
CWS	CHILLED WATER SUPPLY	NO2	NITROGEN DIOXIDE SENSOR
CWR	CHILLED WATER RETURN		
HWS	HOT WATER SUPPLY		
HWR	HOT WATER RETURN		

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
LEGEND, ABBREVIATIONS, AND GENERAL NOTES

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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SHEET
MH001

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

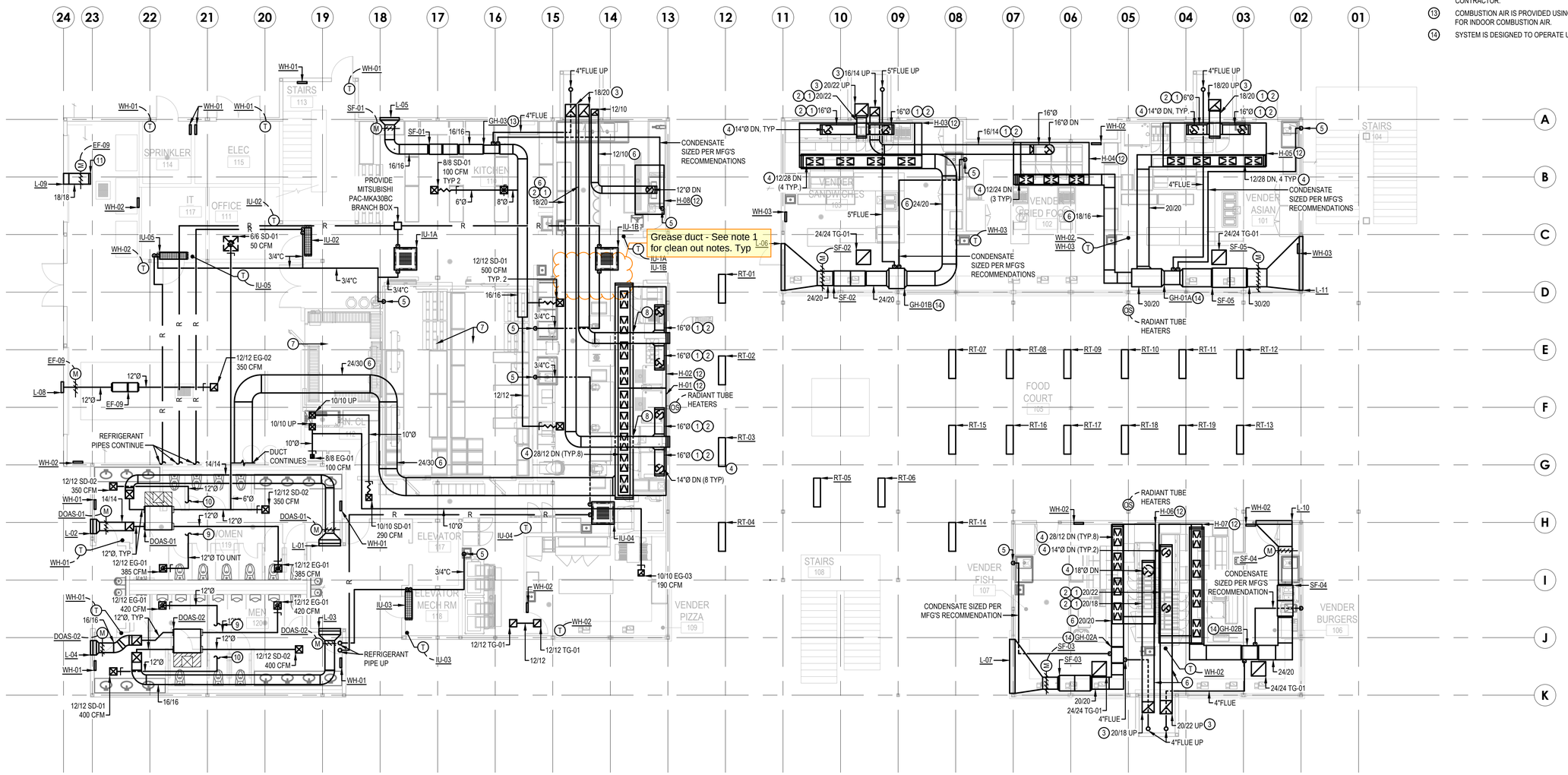
Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES

1. DUCTWORK AND PIPING IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.

PLAN NOTES

1. GREASE CLEANOUTS IN HORIZONTAL DUCT SHALL BE PLACED AT REGULAR INTERVALS ON GREASE DUCTWORK, NOT TO EXCEED 20 FEET. CLEANOUTS SHALL BE LOCATED NOT MORE THAN 10' FROM CHANGES OF DIRECTION THAT ARE GREATER THAN 45 DEGREES. ALL CLEANOUTS SHALL BE LOCATED ON THE SIDE OF THE DUCTWORK, AND NOT BE CLOSER THAN 1" FROM THE EDGE OF THE DUCTWORK. CLEANOUT MINIMUM OPENING SHALL BE 12"X12".
2. UL LISTED, FIELD APPLIED FIRE WRAP SHALL BE INSTALLED OVER THE DUCTWORK. FIRE WRAP SHALL HAVE AN F AND T RATING OF 2 HOURS. WRAP SHALL EXTEND TO GREASE EXHAUST FAN ON ROOF.
3. GREASE DUCT UP TO ROOF IN 2 HOUR SHAFT. CONSTRUCT OF MINIMUM 16 GAGE STEEL. ALL DUCT JOINTS AND SEAMS SHALL BE MADE WITH A CONTINUOUS, LIQUID TIGHT WELD.
4. PROVIDE BALANCE DAMPERS ON INTAKE AND EXHAUST BRANCHES PER MANUFACTURER'S RECOMMENDATIONS. BALANCE SEGMENTS EQUALLY. SEE SCHEDULES FOR TOTAL AIR VOLUMES.
5. TERMINATE CONDENSATE INTO INDIRECT RECEPTOR WITH 1" AIR GAP. COORDINATE LOCATIONS WITH PLUMBING CONTRACTOR AND AS BUILT CONDITIONS.
6. ROUTE DUCT AS HIGH AS POSSIBLE THROUGH SPACE.
7. COOLER SPACE N.I.C.
8. STACKED DUCTWORK.
9. CONNECT DUCT TO RETURN AIR INLET.
10. CONNECT DUCT TO SUPPLY AIR INLET.
11. PROVIDE SCREENED OPENING TO COVER OPEN DUCT.
12. MECHANICAL UNIT PROVIDED BY OTHERS, INSTALLED BY THIS CONTRACTOR.
13. COMBUSTION AIR IS PROVIDED USING IFGC 304.5.1 STANDARD METHOD FOR INDOOR COMBUSTION AIR.
14. SYSTEM IS DESIGNED TO OPERATE UNTIL ROLL UP DOORS OPEN.



1 NORTH

MECHANICAL FIRST FLOOR PLAN

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

2 MH501 | 3 MH501 | 4 MH501 | 6 MH501 | 7 MH501 | 8 MH501 | 9 MH501 | 10 MH501 | 1 MH502 | 2 MH502 | 3 MH502 | 4 MH502 | 5 MH502 | 7 MH502 | 8 MH502 | 10 MH502 | 11 MH502

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
MECHANICAL FIRST FLOOR PLAN

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

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SHEET
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City of Puyallup
Development & Permitting Services
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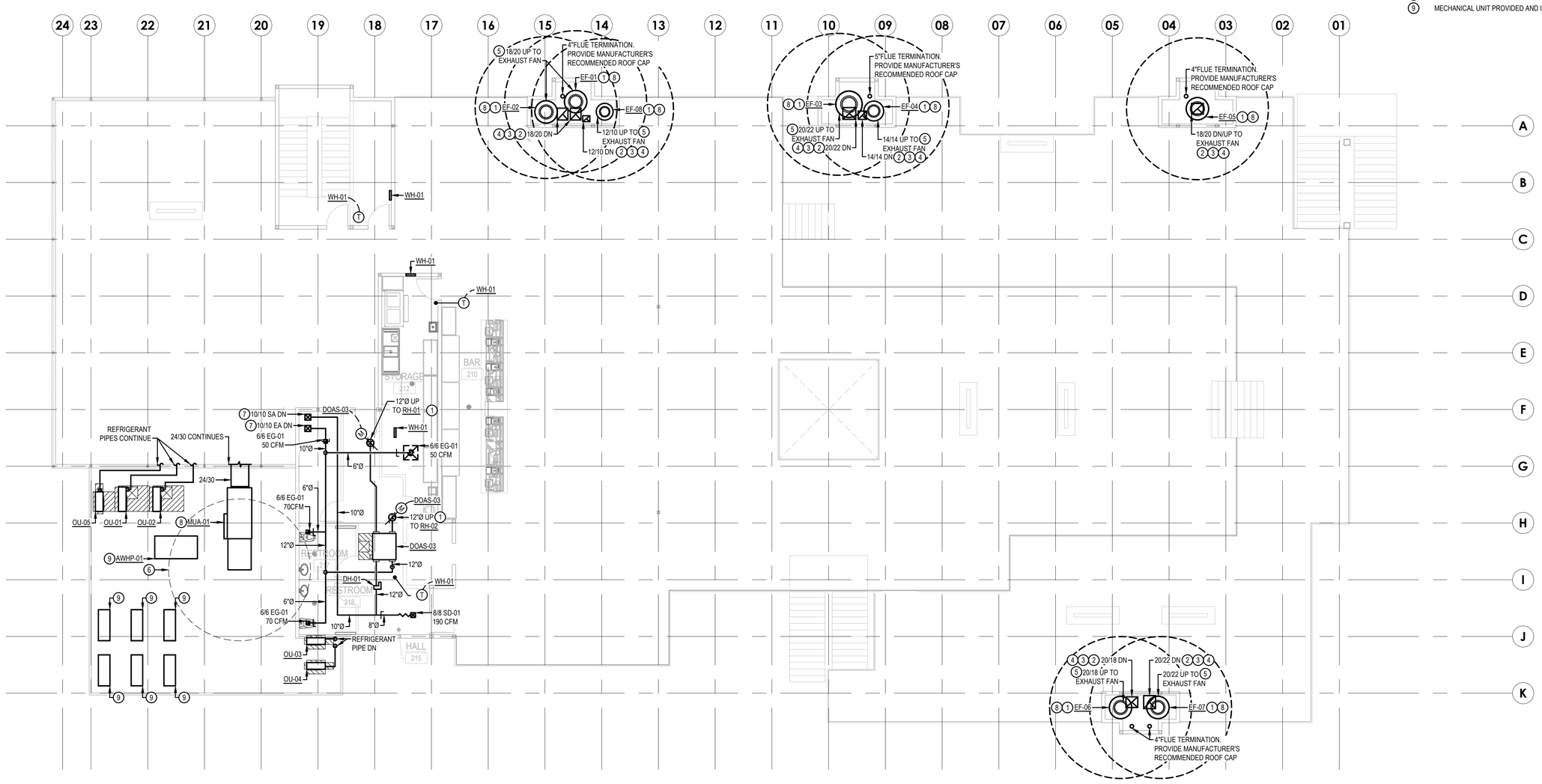
Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES

1. DUCTWORK IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.

PLAN NOTES

1. UNIT ON ROOF ABOVE THIS APPROXIMATE LOCATION. COORDINATE AND PROVIDE TRANSITION TO UNIT IN ACCORDANCE WITH MANUFACTURER'S SHOP DRAWING AND RECOMMENDATIONS.
2. UL LISTED, FIELD APPLIED FIRE WRAP SHALL BE INSTALLED OVER THE DUCTWORK. FIRE WRAP SHALL HAVE AN F AND T RATING OF 2 HOURS. WRAP SHALL EXTEND TO GREASE EXHAUST FAN ON ROOF.
3. GREASE DUCT UP TO ROOF IN 2 HOUR SHAFT. CONSTRUCT OF MINIMUM 16 GAGE STEEL. ALL DUCT JOINTS AND SEAMS SHALL BE MADE WITH A CONTINUOUS, LIQUID TIGHT WELD.
4. LOCATE CLEANOUT NEAR BOTTOM OF DUCT, AT LEAST 12" AFTER CHANGE OF DIRECTION. CLEANOUTS SHALL BE ACCESSED FROM BELOW DUCT ENCLOSURE FROM GROUND LEVEL. PROVIDE ACCESS PANEL IN ENCLOSURE WALL SIZED APPROPRIATELY TO ALLOW ACCESS TO CLEANOUT.
5. TRANSITION IN CAVITY APPROXIMATELY 3' AFF.
6. NO EXHAUST OUTLETS OR VENT TERMINATIONS WITHIN 10' OF MAKEUP AIR UNIT.
7. COORDINATE ARCHITECTURAL DUCT ENCLOSURE FOR DUCTWORK DOWN TO FIRST FLUE.
8. UNIT PROVIDED BY OTHERS INSTALLED BY THIS CONTRACTOR.
9. MECHANICAL UNIT PROVIDED AND INSTALLED BY OTHERS.



NORTH

1 MECHANICAL SECOND FLOOR PLAN

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

1 MH501 | 2 MH501 | 4 MH501 | 5 MH501 | 8 MH501 | 9 MH501 | 1 MH502 | 2 MH502 | 6 MH502 | 7 MH502 | 9 MH502

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
MECHANICAL SECOND FLOOR PLAN

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
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SHEET
MH102

City of Puyallup
Development & Permitting Services
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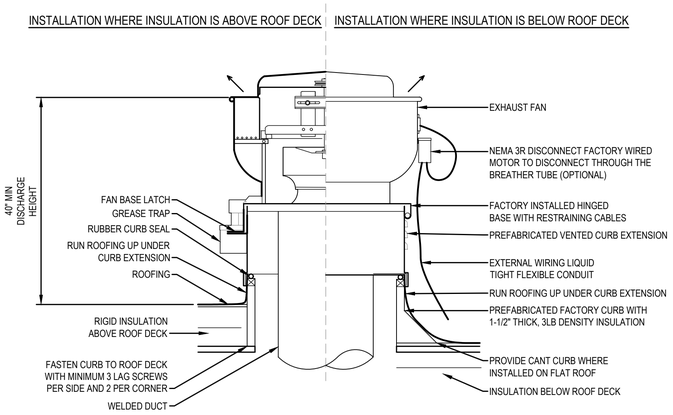
Building | Planning
Engineering | Public Works
Fire | Traffic

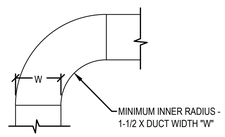


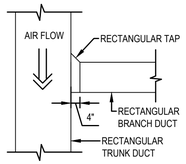
NOTES

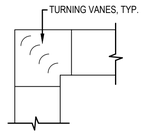
1. REFER TO ARCHITECTURAL PLANS FOR LOCATION OF INSULATION AT ROOF.
2. IN THE CASE WHERE THE FLASHING PORTION OF THIS DETAIL CONFLICTS WITH ARCHITECTURAL, THE ARCHITECTURAL FLASHING DETAIL SHALL PREVAIL.
3. PROVIDE WITH FACTORY MOUNTED HINGED BASE.
4. NO DAMPERS ARE TO BE INSTALLED IN THE SYSTEM.
5. TRANSITION STAINLESS STEEL DUCT SIZE PER PLAN TO FAN INLET AS REQUIRED.

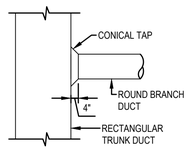
1 TYPE 1 EXHAUST FAN INSTALLATION DETAIL

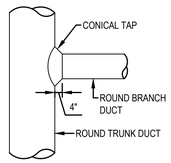
SCALE: NTS







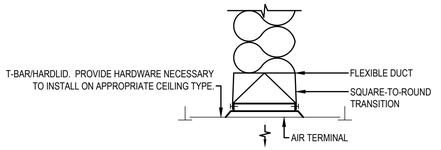




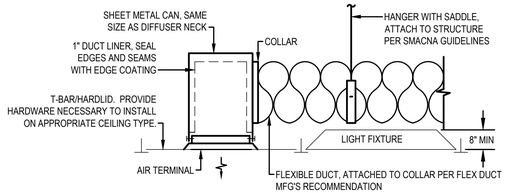
NOTE:
1. CONSTRUCT PER SMACNA DUCT CONSTRUCTION GUIDE, LATEST VERSION.

4 TYPICAL DUCT ELBOW AND DUCT TEE DETAILS

SCALE: NTS



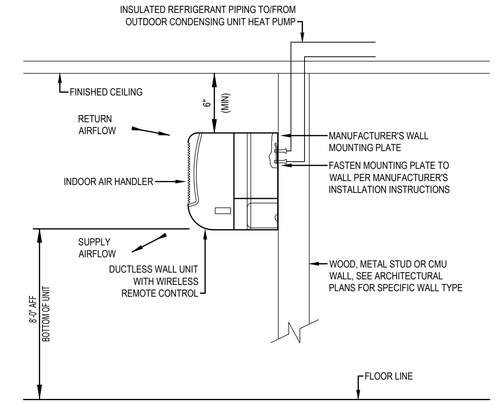
NOTE:
USE THIS TYPE OF CONNECTION WHERE THERE IS ENOUGH CEILING SPACE TO KEEP KINKS OUT OF FLEXIBLE DUCT



NOTE:
USE THIS TYPE OF CONNECTION IN CONSTRICTED CEILING SPACES

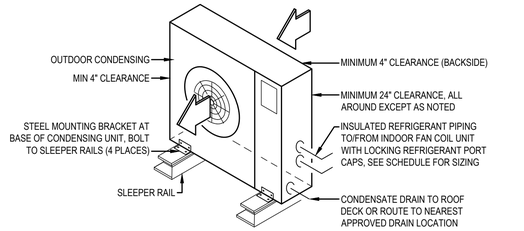
2 TYPICAL SUPPLY AIR TERMINAL INSTALLATION

SCALE: NTS



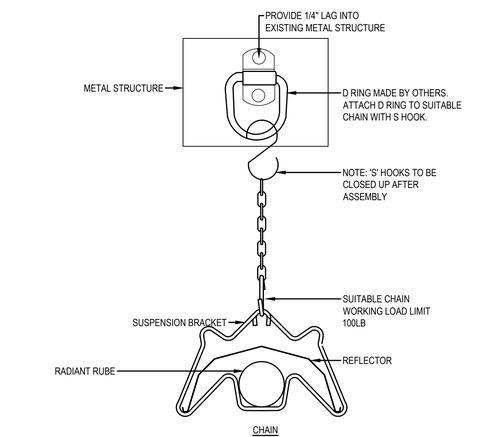
3 DUCTLESS AIR HANDLING UNIT

SCALE: NTS



5 CONDENSING UNIT MOUNTING DETAIL

SCALE: NTS

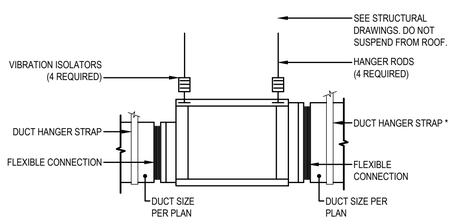


6 RADIANT TUBE HEATER SUSPENSION DETAIL

SCALE: NTS

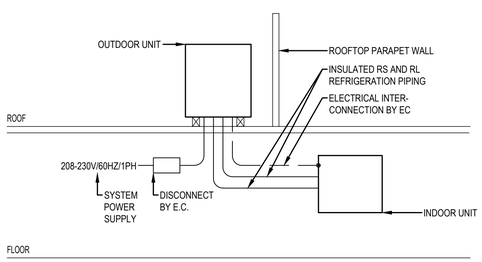
NOTE:
MAINTAIN ACCESS CLEARANCE ON BOTH SIDES FOR SERVICE OF BLOWER

* INSTALL DUCT HANGER STRAPS ADJACENT TO FLEX CONNECTION



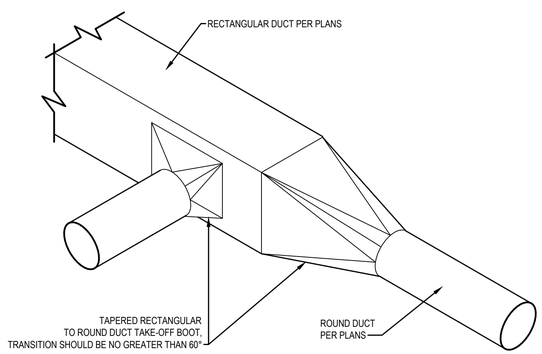
7 INLINE FAN INSTALLATION DETAIL

SCALE: NTS



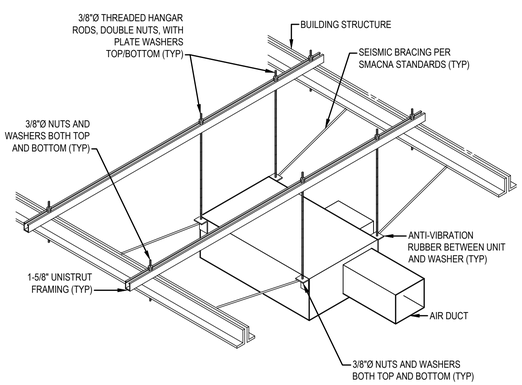
8 DUCTLESS AH / HP SCHEMATIC

SCALE: NTS



9 RECTANGULAR TO ROUND DUCT TRANSITION INSTALLATION DETAIL

SCALE: NTS



10 TYPICAL SUSPENDED EQUIPMENT DETAIL

SCALE: NTS

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
LONGBRANCH, WA 98351
253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE: DETAILS I

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024
DRAWN BY:		RPG
CHECKED BY:		BSM
PROJECT MANAGER:		BSM/RMC

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SHEET
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City of Puyallup
Development & Permitting Services
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Engineering | Public Works
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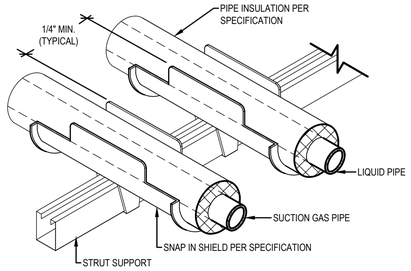
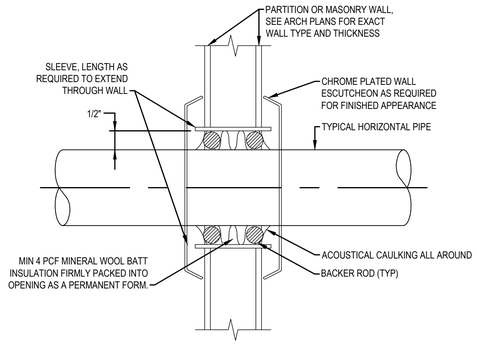


NOTES:

1. SUCTION GAS, DISCHARGE GAS, AND LIQUID PIPES SHALL BE INDIVIDUALLY SUPPORTED. AT NO TIME SHALL PIPES BE COMBINED AND INSTALLED WITHIN THE SAME SNAP IN SHIELD SUPPORT.
2. DETAIL APPLIES TO STRUT AND TRAPEZE STYLE SUPPORTS.

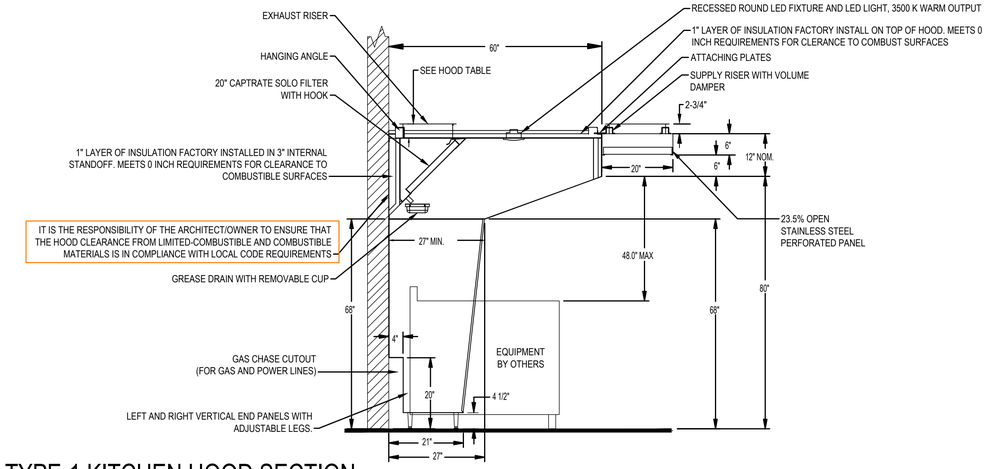
1 REFRIGERANT PIPE SUPPORT DETAIL

SCALE: NTS



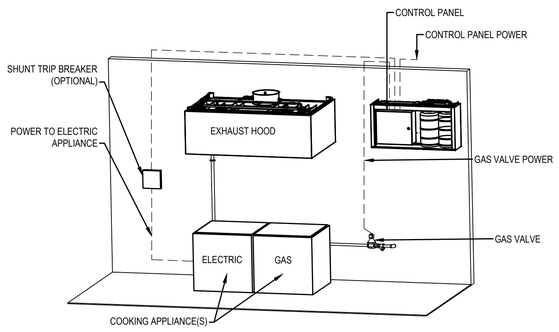
2 PIPE PENETRATION DETAIL (HORIZONTAL ASSEMBLY)

SCALE: NTS



3 TYPE-1 KITCHEN HOOD SECTION

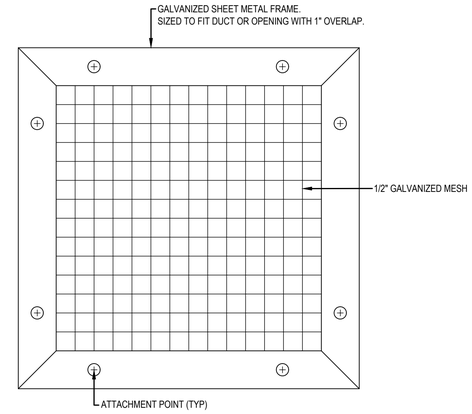
SCALE: NTS



NOTE:
36 INCHES CLERANCE REQUIRED IN FRONT OF ALL UTILITY CABINET DOORS. THE PANEL SHALL ALSO BE LOCATED IN AN ACCESSIBLE AREA WHERE THE AUDIBLE AND VISUAL ALARMS CAN BE HEARD AND SEEN

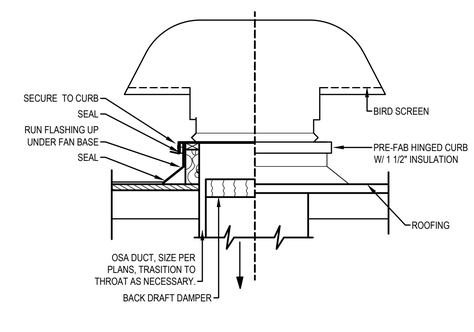
4 FIRE SUPPRESSION CABINET DETAIL

SCALE: NTS



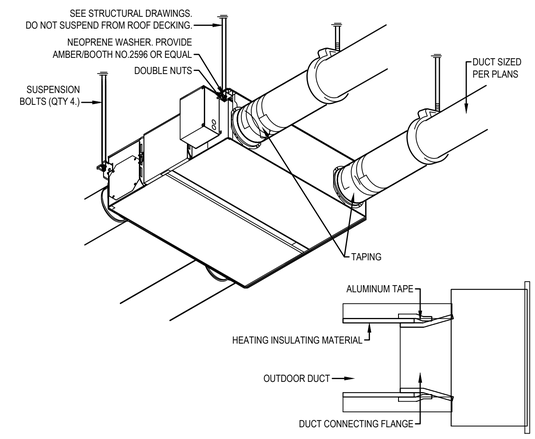
5 SCREENED OPENING INSTALLATION

SCALE: NTS



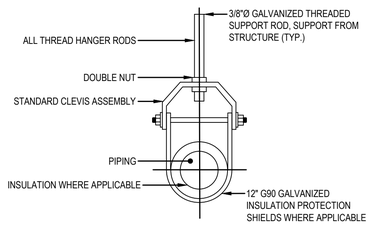
6 TYPICAL ROOF HOOD INSTALLATION DETAIL

SCALE: NTS



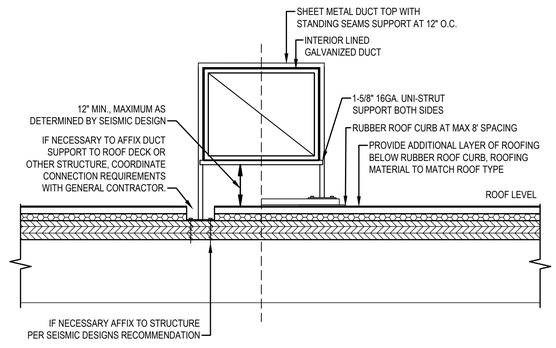
7 DOAS MOUNTING DETAIL

SCALE: NTS



8 PIPE HANGER DETAIL

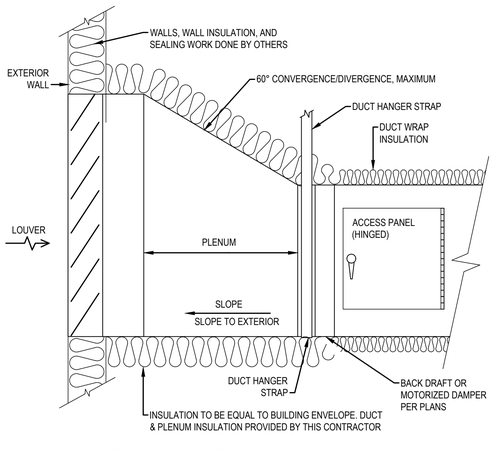
SCALE: NTS



NOTE:
1. ALL DUCT JOINTS SHALL BE COVERED WITH C-CHANNEL AND SEALED WEATHER TIGHT.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL SEISMIC REQUIREMENTS.
3. CONTRACTOR TO PROVIDE SEISMICALLY STABLE AND WIND RESISTANT DUCT SUPPORT DETAIL. CONTRACTOR TO ENSURE WATER AND WEATHER TIGHT DUCT AND ROOF CONSTRUCTION.

9 ROOF TOP DUCT AND DUCT SUPPORT DETAIL

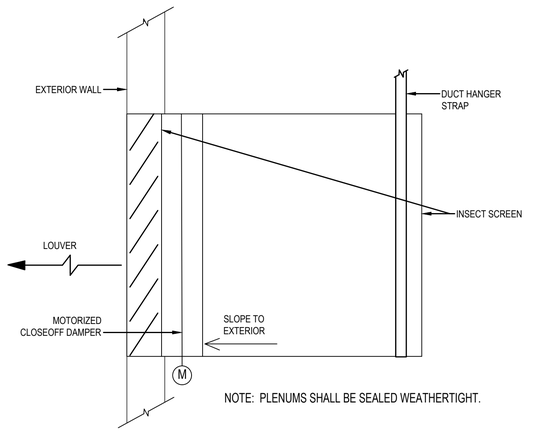
SCALE: NTS



NOTE: PLENUMS SHALL BE SEALED WEATHERTIGHT.

10 DUCT AT LOUVER INSTALLATION DETAIL

SCALE: NTS



NOTE: PLENUMS SHALL BE SEALED WEATHERTIGHT.

11 DUCT AT LOUVER INSTALLATION DETAIL 2

SCALE: NTS

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
LONGBRANCH, WA 98351
253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE: DETAILS II

PROJECT: INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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SHEET: MH502

City of Puyallup
Development & Permitting Services
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MAKE UP AIR UNIT SCHEDULE

UNIT NO	MFR.	MODEL	LOCATION	CONFIGURATION	AREA SERVED	MAX CFM	MIN CFM	GAS DATA					INTERLOCKED WITH	MOTOR DATA				WEIGHT (LBS)	FILTERS	ELECTRICAL				NOTES
								TYPE	INLET SIZE	GAS PRESSURE	INPUT MBH	OUTPUT MBH		ESP (IN W.C.)	RPM	HP	BHP			MCA	MOP	V	PH	
MUA-01	CAPTIVE AIR	A3-D.500-24D	MECH ROOF	DIRECT DRIVE	KITCHEN	6,524	3,500	NG	1"	7 IN W.C.-14 ON W.C.	378208	347951	H-01/H-02	0.5	1403	10	5.4800	922	MERV 8	33.8	60	208	3	1,2,3,4,5

NOTES:

1. SET GAS FIRED HEATING TO COME ON WHEN OUTSIDE AIR IS BELOW 60°F.
2. UNIT TO BE PROVIDED WITH SINGLE POINT POWER CONNECTION.
3. PROVIDE WITH BUTTERFLY MODULATING VALVE OPTION .
4. PROVIDE WITH MANUFACTURER'S RECOMMENDED GAS TRAIN.
5. UNIT PROVIDED BY OTHERS, INSTALLED BY THIS CONTRACTOR. SEE KITCHEN DOCUMENTS.

KITCHEN HOOD SCHEDULE

UNIT NO	MFR.	MODEL	SERVICE	APPLIANCE DUTY	TOTAL SUPPLY CFM	CFM	FILTERS					LENGTH	EXHAUST PLENNUM			MAX COOKING TEMP	WEIGHT	NOTES
							TYPE	QTY	HEIGHT IN	LENGTH IN	EFFIECIENCY @ 7 MICRONS	L (IN)	DIAMETER	HEIGHT	CFM PER CONNECTION	(DEG)	(LBS)	
H-01	CAPTIVE AIR	6024 SND-2-PSP-F	KITCHEN 110	HEAVY	3168	3521	CAPTRATE SOLO FILTER	10	20	16	85%	14'1"	14	4	1760	600	945	1, 2
H-02	CAPTIVE AIR	6024 SND-2-PSP-F	KITCHEN 110	HEAVY	3356	3729	CAPTRATE SOLO FILTER	11	20	16	85%	14'11"	14	4	1864	600	1064	1, 2
H-03	CAPTIVE AIR	5424 SND-2-PSP-F	VENDOR 103	HEAVY	3581	3979	CAPTRATE SOLO FILTER	12	20	16	85%	15'11"	14	4	1989	600	1425	1, 2
H-04	CAPTIVE AIR	5424 SND-2-PSP-F	VENDOR 102	HEAVY	1924	2138	CAPTRATE SOLO FILTER	5	20	16	85%	9'6"	16	4	2138	600	1032	1, 2
H-05	CAPTIVE AIR	5424 SND-2-PSP-F	VENDOR 101	HEAVY	2999	3333	CAPTRATE SOLO FILTER	10	20	16	85%	13'4"	14	4	1666	600	1391	1, 2
H-06	CAPTIVE AIR	5424 SND-2-PSP-F	VENDOR 107	HEAVY	2869	3188	CAPTRATE SOLO FILTER	9	20	16	85%	12'9"	18	4	3188	600	1164	1, 2
H-07	CAPTIVE AIR	5424 SND-2-PSP-F	VENDOR 106	HEAVY	3468	3854	CAPTRATE SOLO FILTER	11	20	16	85%	15'5"	14	4	1927	600	1352	1, 2
H-08	CAPTIVE AIR	4824 SND-2	KITCHEN 110	-	-	1025	-	-	-	-	-	6'10"	12	4	1025	700	203	1, 2

NOTES

1. PROVIDED WITH BALANCE DAMPER THAT IS ETL LISTED AND BUILT IN COMPLIANCE WITH NFPA-96
2. UNIT PROVIDED BY OTHERS, INSTALLED BY THIS CONTRACTOR. SEE KITCHEN DOCUMENTS.

AIR TERMINAL SCHEDULE

UNIT NO	MFR	MODEL	MOUNTING TYPE	STYLE	NOTES
SD-01	TITUS	MCD	LAY IN	MODULAR CORE	1,2
SD-02	TITUS	350	SURFACE	LOUVERFACE	1,2
TG-01	TITUS	50F	LAY IN	EGGCRATE	1,2
EG-01	TITUS	50F	SURFACE	EGGCRATE	1,2
EG-02	TITUS	50F	DUCT MOUNT	EGGCRATE	1,2
EG-03	TITUS	50F	LAY IN	EGGCRATE	1,2

NOTES:

1. PROVIDE AIR BALANCING DEVICE AT EACH AIR TERMINAL.
2. COORDINATE FINISH WITH ARCHITECT.

FAN SCHEDULE

UNIT NO	MFR	MODEL	CONFIGURATION	AREA SERVED	PERFORMANCE				NOISE	SPEED CONTROL	CONTROLLED BY OR INTERLOCKED WITH	WEIGHT LBS	ELECTRICAL					NOTES
					MAX CFM	MIN CFM	EX. S.P.	RPM					HP	BHP	FLA	VOLTS	PH	
EF-01	CAPTIVE AIRE	DU180HFA	UPBLAST	OPEN SPACE/KITCHEN	3521	-	1.5	1402	23 SONES	VAV	H-01 CONTROL PANEL	185	3	2	9.5	208	3	2, 3, 4, 5, 8
EF-02	CAPTIVE AIRE	DU200HFA	UPBLAST	OPEN SPACE/KITCHEN	3729	-	1.5	1268	25.3 SONES	VAV	H-02 CONTROL PANEL	215	5	2.1	15	208	3	2, 3, 4, 5, 8
EF-03	CAPTIVE AIRE	DU85HFA	UPBLAST	VENDOR 103	1750	-	1.5	1536	14.8 SONES	VAV	H-03 CONTROL PANEL	94	1	0.7	11.6	120	1	2, 3, 4, 5, 8
EF-04	CAPTIVE AIRE	DU240HFA	UPBLAST	VENDOR 102	3979	-	1.5	884	15.3 SONES	VAV	H-04 CONTROL PANEL	375	3	2	10.1	208	3	2, 3, 4, 5, 8
EF-05	CAPTIVE AIRE	DU85HFA	UPBLAST	VENDOR 101	1800	-	1.2	1443	13.4 SONES	VAV	H-05 CONTROL PANEL	94	1	0.5	11.6	208	3	2, 3, 4, 5, 8
EF-06	CAPTIVE AIRE	DU180HFA	UPBLAST	VENDOR 107	3333	-	1.3	1316	20.9 SONES	VAV	H-06 CONTROL PANEL	197	2	1.7	8.3	208	3	2, 3, 4, 5, 8
EF-07	CAPTIVE AIRE	DU180HFA	UPBLAST	VENDOR 106	3188	-	1.6	1364	21.3 SONES	VAV	H-07 CONTROL PANEL	185	3	1.8	9.5	208	3	2, 3, 4, 5, 8
EF-08	CAPTIVE AIRE	DU50HFA	UPBLAST	DISHWASHER	1025	-	0.5	1440	14.2 SONES	VAV	H-08 CONTROL PANEL	76	0.5	0.3	6.3	208	3	2, 3, 4, 5, 8
EF-09	GREENHECK	SQ-90-VG	INLINE	TRASH	350	-	0.5	1624	51 DBA	CV	TIMER	27	0.1	0.1	-	120	1	1, 2, 3, 6, 7
SF-01	GREENHECK	SQ-120-VG	INLINE	KITCHEN	1200	-	0.625	1725	54 DB	CV	TIMER, H-08	110	1/2	-	-	120	1	1, 2, 3, 6
SF-02	GREENHECK	SQ-15-M2-VG	INLINE	SATELLITE KITCHEN/ HOODS	3581	-	0.75	1576	69 DB	VAV	H-03 CONTROL PANEL	138	2	1.6	-	208	3	1, 2, 3, 6
SF-03	GREENHECK	SQ-160-VG	INLINE	HOOD-06	2869	-	0.75	1356	68 DB	VAV	H-06 CONTROL PANEL	233	2	0.9	-	208	3	1, 2, 3, 6
SF-04	GREENHECK	SQ-160-VG	INLINE	HOOD-07	3468	-	0.75	1542	72 DB	VAV	H-07 CONTROL PANEL	233	2	1.4	-	208	3	1, 2, 3, 6
SF-05	GREENHECK	SQ-20-M2-VG	INLINE	HOOD-04/HOOD-05	4923	-	0.75	1173	66DB	VAV	H-04,H-05 CONTROL PANEL	326	3	1.7	-	208	3	1, 2, 3, 6

GENERAL NOTES:

1. PROVIDE ALL FANS WITH 70% OR GREATER EFFICIENCY MOTORS OR ELECTRONICALLY COMMUTATED MOTORS AS REQUIRED BY 2021 WSEC SECTION C405.8 FOR FRACTIONAL HORSEPOWER FAN MOTORS THAT ARE 1/2 HP AND LARGER
2. EQUIPMENT MAY BE SUBSTITUTED UPON ENGINEER'S APPROVAL FOR EQUAL OR OTHER MFG/MODEL. REFER TO EQUIPMENT SCHEDULES FOR FINAL SELECTIONS.

NOTES:

1. PROVIDE WITH HANGING MOUNTING OPTION AND VIBRATION ISOLATION
2. FAN TO BE PRE-WIRED FROM MOTOR TO BOX ON EXTERIOR OF FAN ENCLOSURE.
3. SPEED CONTROL TO BE FACTORY WIRED TO THE INSIDE HOUSING OF ROOFTOP FANS AND TO THE OUTSIDE HOUSING OF INLINE FANS.
4. PROVIDE WITH MANUFACTURER'S RECOMMENDED ROOF CURB SLOPED TO MATCH ROOF PITCH. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
5. FAN SHALL BE LISTED AND LABELLED IN ACCORDANCE WITH UL 762. PROVIDE WITH GREASE SPOUT AND RESEVOIR.
6. PROVIDE WITH MERV 8 FILTER BOX OPTION.
7. PROVIDE 2" CARBON FILTERS INSTEAD OF STANDARD MERV 8 FILTERS.
8. UNIT PROVIDED BY OTHERS, INSTALLED BY THIS CONTRACTOR. SEE KITCHEN DOCUMENTS.

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
LONGBRANCH, WA 98351
253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
SCHEDULES I

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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SHEET
MH601

City of Puyallup
Development & Permitting Services
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Engineering | Public Works
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DEDICATED OUTSIDE AIR UNIT SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	CONFIG	AREA SERVED	SUPPLY FAN DATA			EXHAUST FAN DATA			HEAT EXCHANGER DATA				FILTER	WEIGHT	ELECTRICAL				DISCON	NOTES
						CFM	HP	ESP	CFM	HP	ESP	WIN EAT	WIN EFF	SUM EAT	SUM EFF		LBS	MCA	MOP	V	PH	FURN BY	
DOAS-01	LOSSNAY	LGH-F940	WOMENS	INDOOR	WOMENS	750	-	0.56	740	-	0.56	19	69	86	57	MERV 8	225	10.1	15	208	1	EC	1
DOAS-02	LOSSNAY	LGH-F940	MENS	INDOOR	MENS	800	-	0.56	840	-	0.56	19	64	86	51	MERV 8	225	10.1	15	208	1	EC	1
DOAS-03	LOSSNAY	LGH-F470	SECOND FLOOR	INDOOR	SECOND FLOOR	480	-	0.56	480	-	0.56	19	69	86	57	MERV 8	110	5.1	15	208	1	EC	1

NOTES

1. DOAS UNIT FAN POWER LESS THAN 1 W/CFM IN ACCORDANCE WITH WSEC 403.3.5.1 *ENERGY RECOVERY VENTILATION WITH DOAS* FOR DOAS SYSTEMS WITH MOTOR NAMEPLATE HP LESS THAN 5 HP.

INDOOR UNIT SCHEDULE

UNIT NO	MFR	MODEL	TYPE	AREA SERVED	AIRFLOW CFM	COOLING (MBH)		HEATING (MBH)	WEIGHT	ELECTRICAL				NOTES
						TOTAL	SENSIBLE	TOTAL		MCA	MOP	V	PH	
IU-01A	MITSUBISHI	PLA-A18BA6	CEILING MOUNTED	KITCHEN	600	18	-	19	49	1	-	208	1	1,2,3,4
IU-01B	MITSUBISHI	PLA-A18B16	CEILING MOUNTED	KITCHEN	600	18	-	19	49	1	-	208	1	1,2,3,4
IU-02	MITSUBISHI	MSZ-GS12NA	WALL MOUNTED	OFFICE	381	13.6	-	18.1	23	1	-	208	1	1,2,3,4
IU-03	MITSUBISHI	MSZ-GS12NA	WALL MOUNTED	ELEVATOR MACHINE ROOM	381	13.6	-	18.1	23	1	-	208	1	1,2,3,4
IU-04	MITSUBISHI	PLA-A36BA4	CEILING MOUNTED	KITCHEN	839	36	-	42	56	2	-	208	1	1,2,3,4
IU-05	MITSUBISHI	MSY-GE24	WALL MOUNTED	IT	738	22.5	-	-	37	1	-	208	1	1,2,3,4

NOTES

1. PROVIDE WITH CONDENSATE DRAIN PAN AND CONDENSATE PUMP OPTION.
2. PROVIDE WITH ALL APPURTUNANCES NECESSARY FOR A COMPLETE INSTALLATION.
3. SYSTEM INCLUDES A SINGLE POINT POWER CONNECTION; INDOOR UNIT WIRED FROM OUTDOOR UNIT.
4. SEE CORRESPONDING OUTDOOR UNIT SCHEDULE FOR EFFICIENCY DATA.

OUTDOOR UNIT SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	COOLING (MBH)			HEATING (MBH)		WEIGHT	NOISE	ELECTRICAL				NOTES
				TOTAL	SENSIBLE	IEER (SEER)	TOTAL	COP (HPSF)	(LBS)	(DBA)	MCA	MOP	V	PH	
OU-01	MITSUBISHI	MXZ-SM36	MECH ROOF	36	-	23	42	4	271	-	35	50	208	1	1, 2, 3, 4, 5, 6, 7
OU-02	MITSUBISHI	MUZ-G12	MECH ROOF	13.6	-	23.1	18.1	3.84	87	49	10	15	208	1	1, 2, 3, 4, 5, 6
OU-03	MITSUBISHI	MUZ-G12	MECH ROOF	13.6	-	23.1	18.1	3.84	87	49	10	15	208	1	1, 2, 3, 4, 5, 6
OU-04	MITSUBISHI	PUZ-A36	MECH ROOF	35	-	(14)	42	4.38	214	52	25	31	208	1	1, 2, 3, 4, 5, 6
OU-05	MITSUBISHI	MUY-GE24	MECH ROOF	22.5	-	(19)	-	-	119	55	17.1	24	208	1	1, 2, 3, 4, 5, 6

NOTES

1. COOLING CAPACITY MBH AT 95 D.B. OUTDOOR AND 77 D.B./67 W.B. INDOOR.
2. HEATING CAPACITY AND EFFICIENCY AT 47 D.B. OUTDOOR AND 70 D.B. INDOOR.
3. PROVIDE ADDITIONAL REFIRGERANT CHARGE AS REQUIRED TO FULLY CHARGE SYSTEM.
4. PROVIDE WITH ALL APPUTUNANCES NECESSARY FOR A COMPLETE INSTALLATION.
5. PROVIDE WITH R410-A REFRIGERANT.
6. PROVIDE ALL UNITS LOCATED OUTDOOSR WITH LOCKING REFRIGERANT ACCESS PORT PER IMC 1101.10
7. BRANCH BOX POWERED BY OUTDOOR UNIT.

ROOF HOOD SCHEDULE

UNIT NO	MFR.	MODEL	SERVICE	CFM	THROAT SIZE			HEIGHT	WEIGHT	FREE AREA	MAX PD	MAX VEL	NOTES
					L (IN)	W (IN)	DIA (IN)	(IN)	(LBS)	(SF)	(IN)	(FPM)	
RH-01	GREENHECK	GRSI	DOAS-03 INTAKE	480	-	-	12	10	10	0.82	0.08	585	1, 2
RH-02	GREENHECK	GRSR	DOAS-03 EXHAUST	480	-	-	12	10	10	0.82	0.06	585	1, 2

NOTES

1. PROVIDE WITH MANUFACTURER'S RECOMMENDED ROOF CURB SLOPED TO MATCH ROOF PITCH. INSTALL PER MANUFACTURER'S RECOMMENDATIONS
2. PROVIDE WITH INSECT SCREEN.

LOUVER SCHEDULE

UNIT NO	MFR	MODEL	SERVICE	SIZE (IN)			CFM	FREE AREA	MAXIMUM VELOCITY	NOTES
				WIDTH	HEIGHT	DEPTH		(SF)	(FPM)	
L-01	GREENHECK	ESD-403	INTAKE	36"	18"	4"	700	1.81	387	1, 2, 3
L-02	GREENHECK	ESD-403	EXHAUST	24"	18"	4"	770	1.16	664	1, 2, 3
L-03	GREENHECK	ESD-403	INTAKE	36"	18"	4"	800	1.81	442	1, 2, 3
L-04	GREENHECK	ESD-403	EXHAUST	24"	18"	4"	840	1.16	724	1, 2, 3
L-05	GREENHECK	ESD-403	INTAKE	32"	24"	4"	1200	2.9	414	1, 2, 3
L-06	GREENHECK	ESD-403	INTAKE	78"	28"	4"	3581	7.4	484	1, 2, 3
L-07	GREENHECK	ESD-403	INTAKE	90"	28"	4"	2869	6.2	463	1, 2, 3
L-08	GREENHECK	ESD-403	EXHAUST	18"	12"	4"	350	0.5	700	1, 2, 3
L-09	GREENHECK	ESD-403	INTAKE	18"	18"	4"	350	0.83	422	1, 2, 3
L-10	GREENHECK	ESD-403	INTAKE	60"	28"	4"	3468	5.6	619	1, 2, 3
L-11	GREENHECK	ESD-403	INTAKE	90"	28"	4"	4923	8.6	572	1, 2, 3

NOTES:

1. PROVIDE WITH BIRD AND INSECT SCREEN.
2. INSTALL PER MANUFACTURER'S RECOMMENDATION
3. COORDINATE COLOR WITH ARCHITECT.

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
SCHEDULES II

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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MH602

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

Sun-star Heating installation instructions.
If the heater is installed indoors, ventilation by gravity or mechanical means shall be provided to supply at least 4 CFM of exhaust air per 1,000 Btu/hr of operating heat input. pg 2
https://sunstarheaters.com/product/sgl-glass-series/

GAS RADIANT TUBE HEATER SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	HEATING CAPACITY (MBH)	LENGTH (FT)	GAS PRESSURE (PSI)	WEIGHT (LBS)	ELECTRICAL KW	ELECTRICAL VOLTS	ELECTRICAL PH	DISCONNECT FURN. BY	NOTES
RT-01	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-02	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-03	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-04	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-05	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-06	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-07	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-08	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-09	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-10	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-11	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-12	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-13	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-14	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-15	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-16	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-17	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-18	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-19	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1
RT-20	SUNSTAR	SGL35-N7	OPEN SPACE SEATING	35	11	6	55	-	120	1	EC	1

NOTES:

1. PROVIDE WITH HEAT SHIELD. INSTALL IN ACCORDANCE WITH MANUFACTURER'S DIRECTION.

GAS DUCT HEATER SCHEDULE

UNIT NO	MFR	MODEL	AREA SERVED	CFM	GAS HEATING INPUT MBH	GAS HEATING OUTPUT MBH	GAS HEATING EFFICIENCY	WEIGHT	EAT	LAT	ELECTRICAL FLA	ELECTRICAL MOP	ELECTRICAL V	ELECTRICAL PH	DISCON FURN BY	NOTES
GH-01A	REZNOR	EEDU200	SATELLITE KITCHEN	3581	200	160	80	172	19	60	2	-	120	1	EC	1,3,4
GH-01B	REZNOR	EEDU300	SATELLITE KITCHEN	4923	300	240	80	262	19	60	2	-	120	1	EC	1,2,3,4
GH-02A	REZNOR	EEDU170	SATELLITE KITCHEN	2869	170	136	80	150	19	60	2	-	120	1	EC	1,3,4
GH-02B	REZNOR	EEDU200	SATELLITE KITCHEN	3468	200	160	80	172	19	60	2	-	120	1	EC	1,3,4
GH-03	REZNOR	EEDU075	DISHWASHING	1200	75	60	80	104	19	70	2	-	120	1	EC	1,3,4

NOTES

1. PROVIDE WITH STAINLESS STEEL HEAT EXCHANGER.
2. PROVIDE WITH INTERMITTEN IGNITION OR INTERUPTED DEVICE AND MECHANICAL DRAFT OR FLUE DAMPER FOR ALL EQUIPMENT OVER 225,000 BTU/H INPUT CAPACITY.
3. PROVIDE WITH MANUFACTURER'S RECOMMENDED GAS TRAIN, VALVES, AND THE LIKE. PROVIDE ALL NECESSARY COMPONENTS FOR A COMPLETE INSTALLATION.
4. PROVIDE WITH DUCT MOUNTED THERMOSTAT, AIRFLOW PROVING SWITCH, AND COMBUSTION AIR PROVING SWITCH.

ELECTRIC DUCT HEATER SCHEDULE

UNIT NO	MFR	MODEL	AREA SERVED	CFM	WEIGHT	EAT	LAT	ELECTRICAL KW	ELECTRICAL MCA	ELECTRICAL MOP	ELECTRICAL V	ELECTRICAL PH	DISCON FURN BY	NOTES
DH-01	INDEECO	QUZ	DOAS-03	480	-	56	80	5	-	-	208	3	EC	1, 2, 3

NOTES

1. PROVIDE WITH CONTROL OPTION K, PROPORTIONAL CONTROLLER.
2. PROVIDE WITH DUCT THERMOSTAT.
3. PROVIDE WITH AIRFLOW SENSING DEVICE.

ELECTRIC HEATER SCHEDULE

UNIT NO	MFR	MODEL	AREA SERVED	WEIGHT	ELECTRICAL WATTS	ELECTRICAL MCA	ELECTRICAL MOP	ELECTRICAL V	ELECTRICAL PH	DISCON FURN BY	NOTES
WH-01	INDEECO	950	VARIES	11	375	-	-	208	1	EC	1, 2, 3
WH-02	INDEECO	950	VARIES	6	1125	-	-	208	1	EC	1, 2, 3
WH-03	INDEECO	950	VARIES	11	1500	-	-	208	1	EC	1, 2, 3

NOTES

1. PROVIDE WITH SINGLE POLE THERMOSTAT.
2. MOUNT HEATER AT 12" ABOVE FINISHED FLOOR, AWAY FROM WET LOCATIONS. COORDINATE FINAL LOCATION WITH OWNER.
3. PROVIDE WITH RECESS WALL CAN.

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BRIAN SCOTT MIDDLEBROOK
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52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
SCHEDULES III

PROJECT
INTERNATIONAL VILLAGE
1110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
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SEQUENCE OF OPERATIONS

GENERAL
1. PROVIDE AND INSTALL ALL NECESSARY DEVICES INCLUDING BUT NOT LIMITED TO: ACTUATORS, RELAYS, SWITCHES, SENSORS, DAMPERS, CONDUIT, AND WIRING NECESSARY TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

TIMING OF CONTROL WORK
1. THE CONTROL SYSTEM SHALL BE COMPLETE PRIOR TO BALANCING OF THE PROJECT. CONTROL PERSONNEL ARE TO ASSIST IN SYSTEM OPERATION FOR THE BALANCER. THE CONTROL SYSTEM SHALL BE COMPLETE PRIOR TO HVAC SYSTEM COMMISSIONING AND CONTROL PERSONNEL ARE TO ASSIST IN SYSTEM OPERATION AND TESTING DURING COMMISSIONING. THE CONTROL SYSTEM SHALL BE COMMISSIONED PRIOR TO OWNER OCCUPANCY.

TYPICAL SYSTEM SCHEDULE:
1. OFF HOURS ARE 6:00 PM TO 6:00 AM AND WEEKENDS, ADJUSTABLE.
2. MORNING WARM-UP IS TO BE STARTED AT AN "OPTIMAL START" TIME.

TYPICAL SETPOINTS (ADJUSTABLE):
HEATING SPACE TEMPERATURE - 70 DEGREES FAHRENHEIT
COOLING SPACE TEMPERATURE - 75 DEGREES FAHRENHEIT

DEDICATED OUTDOOR AIR SYSTEM

GENERAL
1. ZONE SPACE TEMPERATURE SENSORS SHALL BE AUGMENTED TO INCLUDE A UNOCCUPIED OVERRIDE REQUEST. OVERRIDE RUNTIME SHALL BE 2 HOURS (ADJUSTABLE). DEDICATED OUTDOOR AIR UNITS SHALL SHARE OPERABILITY WITH ZONE AIR HANDLING UNIT(S).
2. UNIT SHALL BE PROGRAMMED FOR START/STOP BASED ON DESIGNED OCCUPIED MODES WITH WEEKDAYS, WEEKEND, AND HOLIDAY SCHEDULES.

SUPPLY FAN
1. SUPPLY FAN SHALL START VIA A SCHEDULE (ADJUSTABLE) OR OVERRIDE COMMAND (ADJUSTABLE). OVERRIDE COMMAND CAN BE TRIGGERED BY A ZONE SPACE TEMPERATURE SENSOR UNOCCUPIED OVERRIDE REQUEST.
2. OUTSIDE AIR DAMPER SHALL OPEN UPON ACTIVATION AND FAN SHALL START VIA DAMPER END SWITCH. DAMPER SHALL FAIL CLOSED

EXHAUST FAN
1. EXHAUST FAN OPERATES WHENEVER THE SUPPLY FAN IS PROVEN ON.
2. EXHAUST DAMPER SHALL OPEN UPON ACTIVATION AND FAN SHALL START VIA DAMPER END SWITCH. DAMPERS SHALL FAIL CLOSED.

ELECTRIC DUCT HEATERS

GENERAL
1. DUCT HEATER SHALL NOT ACTIVATE UNLESS FAN AIRFLOW IS PROVEN.

ELECTRIC HEATING
1. ELECTRIC HEATING IS OFF WHEN FAN STATUS IS OFF.
2. ELECTRIC HEAT ACTIVATE TO MAINTAIN TEMPERATURE SETPOINT.

TEMPERATURE SETPOINT
1. TEMPERATURE SETPOINT IS 70°F (ADJUSTABLE).

TYPE 1 HOOD SEQUENCE OF OPERATIONS

GENERAL
1. DAILY STARTUP WHEN SYSTEM IS FIRST STARTED A DAILY STARTUP ROUTINE WILL BE EXECUTED:
   A. THE EXHAUST FAN(S) WILL BE STARTED AND RAMP TO 50% SPEED FOR 1 MINUTE.
   B. AFTER 1 MINUTE WARM-UP CYCLE EXHAUST FAN(S) WILL MODULATE TO MEET REQUIRED AIRFLOW.

FAN OPERATION
1. EXHAUST FAN WILL START UNDER THE FOLLOWING CONDITIONS:
   A. HOOD TEMPERATURE EXCEEDS AMBIENT TEMPERATURE BY THE TEMPERATURE LOW LIMIT (TL) VALUE AS SET DURING SYSTEM COMMISSIONING.
   B. THE FAN IS ACTUATED AT THE TOUCHSCREEN. PANEL SHALL CONTROL SYSTEM
   C. THE OVERRIDE BUTTON ON A HOOD IS PRESSED.
2. EXHAUST FAN WILL STOP WHEN THERE ARE NONE FOR THE FOLLOWING:
   A. DEMAND AT HOOD (AFTER 15 MINUTE (ADJUSTABLE DELAY)
   B. OVERRIDES
   C. MANUAL OR EXTERNAL COMMANDS
3. EXHAUST FAN SHALL MODULATE BETWEEN MINIMUM SPEED AND MAXIMUM SPEED (AS SET DURING COMMISSIONING) ACCORDING TO THE AIRFLOW DEMAND OF THE HOOD.
4. FAN SHALL RUN AT MINIMUM SPEED AT ALL OTHER TIMES DURING OCCUPIED HOURS (ADJUSTABLE).

HOOD OPERATION
1. HOOD DEMAND AIRFLOW SHALL BE BASED ON:
   A. MAXIMUM AIRFLOW SETPOINT WILL BE SET TO DESIGN AIRFLOW.
   B. MINIMUM AIRFLOW WILL BE SET TO 50% (ADJUSTABLE) OF DESIGN AIRFLOW.
   C. DEMAND IS DETERMINED BY SENSIBLE HEAT LOAD AT THE CANOPY TO THE LOW TEMPERATURE LIMIT VALVE.
2. HOOD LIGHTING WILL ACTIVATE UNDER ANY OF THE FOLLOWING CONDITIONS:
   A. WHEN THE HOOD IS RESPONDING TO COOKING ACTIVITY.
   B. WHEN THE HOOD OVERRIDE BUTTON IS PRESSED.
   C. WHEN THE LIGHTING FOR HOOD IS ACTIVATED AT THE TOUCHSCREEN PANEL.

SYSTEM OVERRIDES
1. OVERRIDE CONDITIONS:
   A. THE OVERRIDE BUTTON IS PRESSED ON THE HOOD, THE EXHAUST FAN WILL RAMP TO 100% FOR 5 MINUTES (ADJUSTABLE), THEN RETURN TO NORMAL CONTROL.
   B. WHEN THERE IS A RAPID TEMPERATURE CHANGE DETECTED INSIDE THE HOOD, THE EXHAUST FAN WILL RAMP TO 100% FOR 5 MINUTES, THEN RETURN TO NORMAL CONTROL.
   C. WHEN THERE IS A FIRE PROTECTION DISCHARGE, THE EXHAUST FAN WILL RAMP TO 100%. CONTROLS WILL SEND SIGNAL TO GAS SOLENOID VALVE TO SHUTOFF GAS TO KITCHEN APPLIANCES.
   D. IF THE POWER CIRCUIT FAILS ON THE HOOD DURING COOKING OPERATIONS, THE EXHAUST FAN WILL RAMP TO 100%.
   E. IF SYSTEM COMMUNICATION IS LOST TO THE HOOD DURING COOKING OPERATIONS, THE EXHAUST FAN WILL RAMP TO 100%.

HOOD CONTROL PANEL OPTIONS

AUTOMATIC
1. THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD VACITY OF EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS 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 DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021)

MANUAL
1. THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.

SCHEDULE
1. 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 OCCUPIED 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
1. THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).

FIRE
1. UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTIVATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

MAKE UP AIR UNITS HEAT SEQUENCE

GENERAL
1. SUPPLY FAN SHALL TRACK WITH ASSOCIATED HOOD'S EXHAUST FAN. SUPPLY FAN SHALL ALWAYS RUN AT MINIMUM SPEED DURING OCCUPIED TIMES BASED ON THE SYSTEM SCHEDULE.
2. OUTSIDE AIR DAMPER SHALL OPEN UPON ACTIVATION AND FAN SHALL START VIA DAMPER END SWITCH. DAMPER SHALL FAIL CLOSED.
3. HEATING SHALL STAGE OR MODULATE TO MAINTAIN DISCHARGE AIR TEMPERATURE AT 60°F.

GAS DUCT HEATERS
1. COMBUSTION AIR SWITCH SHALL SHUT OFF GAS UNIT HEATERS UPON INADEQUATE COMBUSTION AIRFLOW CONDITIONS.
2. SAIL SWITCH SHALL PROVE AIRFLOW BEFORE ACTIVATION OF GAS DUCT HEATER.

SPLIT SYSTEM CONTROL SEQUENCE (DUCTLESS)

GENERAL
1. SPLIT SYSTEMS INDOOR/OUTDOOR UNITS SHALL BE CONTROLLED BY LOCAL THERMOSTAT. UNITS SHALL OPERATE ON INTERNAL CONTROLS TO MAINTAIN ROOM SETPOINT.

TEMPERATURE SETPOINT
1. SPACE AIR TEMPERATURE SETPOINT IS 70°F (ADJUSTABLE) FOR HEATING CONTROL AND 75°F (ADJUSTABLE) FOR COOLING CONTROL.

GAS RADIANT HEATER

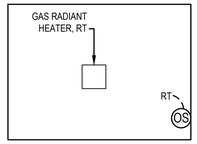
EXTERIOR RADIANT HEATING
1. UPON SENSING MOVEMENT IN AREA, GAS RADIANT HEATER SHALL ENABLE. GAS RADIANT HEATER SHALL HEAT AREA FOR 30 MIN (ADJUSTABLE). AFTER TIME LIMIT, RADIANT HEATERS SHALL DISABLE.

WALL HEATERS

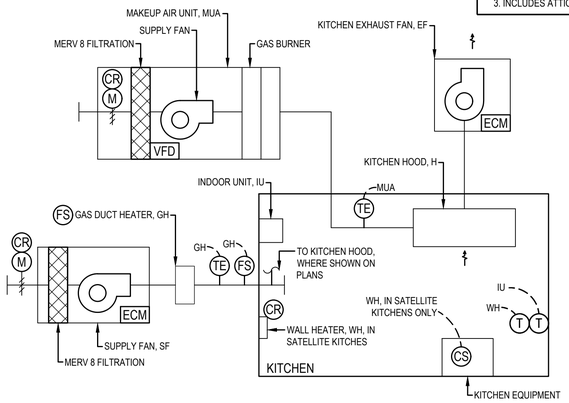
GENERAL
1. UNIT ARE SIZED AT 8 BTU/SF FOR FREEZE PROTECTION.
2. UNITS SHALL OPERATE TO CONTROL SPACE TEMPERATURE TO 70°F (ADJUSTABLE).

SATELLITE KITCHENS

1. CORRECT SENSOR SHALL SENSE OPERATION OF ANY PIECE OF KITCHEN EQUIPMENT UNDER HOOD.
2. CURRENT RELAY SHALL CUT POWER TO WALL HEATER IF KITCHEN EQUIPMENT IS ACTIVATED.

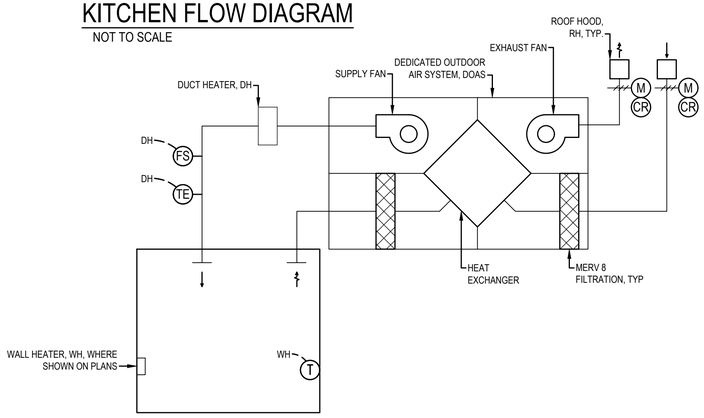


GAS RADIANT HEATERS
NOT TO SCALE



NOTE: MISCELLANEOUS HEATERS ARE SHOWN ON PLAN

KITCHEN FLOW DIAGRAM
NOT TO SCALE



MISCELLANEOUS SPACE
NOT TO SCALE

SUPPLY, RETURN, EXHAUST, AND RELIEF AIR DUCTWORK INSULATION SCHEDULE

DUCT SYSTEM	DUCT LOCATION AND USE	CLIMATE ZONE	MINUMUM INSTALLED DUCT INSULATION R-VALUE	NOTES
SUPPLY AIR OR RETURN AIR	OUTSIDE THE BUILDING (OUTDOORS AND EXPOSED TO WEATHER)*	4C	R-8	SEE SECTION C403.10.1.2 FOR DETAILS
SUPPLY AIR OR RETURN AIR	OUTSIDE THE BUILDING (OUTDOORS AND EXPOSED TO WEATHER)*	5B	R-12	SEE SECTION C403.10.1.2 FOR DETAILS
SUPPLY AIR OR RETURN AIR	UNCONDITIONED SPACE (ENCLOSED BUT NOT IN THE BUILDING CONDITIONED ENVELOPE)	4C AND 5B	R-5	SEE SECTION C403.10.1.2 FOR DETAILS
SUPPLY AIR OR RETURN AIR	UNCONDITIONED SPACE WHERE THE DUCT CONVEYS AIR THAT IS WITHIN 15°F OF THE AIR TEMPERATURE OF THE SURROUNDING UNCONDITIONAL SPACE.	4C AND 5B	R-3.3	SEE IMC SECTION 603.12 FOR ADDITIONAL REQUIREMENTS FOR CONDENSANTION CONTROL AT DUCTWORK
SUPPLY AIR OR RETURN AIR	WHERE LOCATED IN A BUILDING ENVELOPE ASSEMBLY	4C AND 5B	R-16	DUCT OR PLENUM IS SEPARATED FROM BUILDING ENVELOPE ASSEMBLY WITH THE MINIMUM INSULATION VALUE
SUPPLY AIR	WITHIN CONDITIONED SPACE WHERE THE SUPPLY DUCT CONVEYS AIR THAT IS LESS THAN 55°F OR GREATER THAN 105°F	4C AND 5B	R-3.3	SEE SECTION C403.10.1.2 FOR DETAILS
SUPPLY AIR	WITHIN CONDITIONED SPACE THAT DUCT DIRECTLY SERVES WHERE THE SUPPLY DUCT CONVEYS AIR THAT IS KLESS THAN 55°F OR GREATER THAN 105°F	4C AND 5B	NONE	SEE SECTION C403.10.1.2 FOR DETAILS
SUPPLY AIR	WITHIN CONDITIONED SPACE WHERE THE SUPPLY DUCT CONVEYS AIR THAT IS LESS THAN 55°F OR GREATER THAN 105°F OR LESS	4C AND 5B	NONE	
RETURN OR EXHAUST AIR	WITHIN CONDITIONED SPACE, DOWNSTREAM OF AN ENERGY RECOVERY MEDIA, UPSTREAM OF AN AUTOMATIC SHUT OFF DAMPER.	4C	R-8	
RETURN OR EXHAUST AIR	WITHIN CONDITIONED SPACE, DOWNSTREAM OF AN ENERGY RECOVERY MEDIA, UPSTREAM OF AN AUTOMATIC SHUT OFF DAMPER.	5B	R-12	
RELIEF OR EXHAUST AIR	CONDITIONED SPACE DOWNSTREAM OF AN AUTOMATIC SHUT OFF DAMPER.	4C AND 5B	R-16	

GENERAL NOTES:

1. INSULATION R-VALUES, MEASURED IN h · ft² x °F/BTU, ARE FOR THE INSULATION AS INSTALLED AND DO NOT INCLUDE FILM RESISTANCE. THE REQUIRED MINIMUM THICKNESSES DO NOT CONSIDER WATER VAPOR TRANSMISSION AND POSSIBLE SURFACE CONDENSATION. INSULATION RESISTANCE MEASURED ON A HORIZONTAL PLANE IN ACCORDANCE WITH ASTM C518 AT A MEAN TEMPERATURE OF 75°F AT THE INSTALLED THICKNESS.

2. SEE INTERNATIONAL MECHANICAL CODE SECTIONS 603.12 AND 604 FOR FURTHER DETAILS ON DUCT INSTALLATION REQUIREMENTS.

3. INCLUDES ATTIC ABOVE INSULATED CEILINGS, PARKING GARAGES AND CRAWL SPACES.

OSA DUCT INSULATION SCHEDULE

DUCT SYSTEM	DUCT LOCATION AND USE	CLIMATE ZONE	AIRFLOW	MINUMUM INSTALLED DUCT INSULATION R-VALUE	NOTES
OUTDOOR AIR	INSIDE CONDITIONED SPACE AND UPSTREAM OF AUTOMATIC SHUT OFF DAMPER.	4C AND 5B	≥2800 CFM	4.5	SEE SECTION C403.10.1.1 FOR ADDITIONAL REQUIREMENTS
OUTDOOR AIR	INSIDE CONDITIONED SPACE AND DOWNSTREAM OF AUTOMATIC SHUT OFF DAMPER TO HVAC UNIT OR ROOM.	4C	≥2800 CFM	3.0	
OUTDOOR AIR	INSIDE CONDITIONED SPACE AND DOWNSTREAM OF AUTOMATIC SHUT OFF DAMPER TO HVAC UNIT OR ROOM.	5B	≥2800 CFM	2.5	
OUTDOOR AIR	INSIDE CONDITIONED SPACE	4C AND 5B	<2800	1.5	SEE EXCEPTION 1 TO SECTION C403.10.1.1 FOR ADDITIONAL DETAILS

GENERAL NOTES:

1. INSULATION R-VALUES, MEASURED IN h · ft² x °F/BTU, ARE FOR THE INSULATION AS INSTALLED AND DO NOT INCLUDE FILM RESISTANCE. THE REQUIRED MINIMUM THICKNESSES DO NOT CONSIDER WATER VAPOR TRANSMISSION AND POSSIBLE SURFACE CONDENSATION. INSULATION RESISTANCE MEASURED ON A HORIZONTAL PLANE IN ACCORDANCE WITH ASTM C518 AT A MEAN TEMPERATURE OF 75°F AT THE INSTALLED THICKNESS.

2. SEE INTERNATIONAL MECHANICAL CODE SECTIONS 603.12 AND 604 FOR FURTHER DETAILS ON DUCT INSTALLATION REQUIREMENTS.

PIPE INSULATION SCHEDULE

FLUID OPERATING AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL OR TUBE SIZE (inches)				
	BTU · in./(h · ft² · °F)	TEMPERATURE, °F	< 1	1 to 1-1/2	1-1/2 to < 4	4 to < 8	≥8
> 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0
105 - 140	0.21 - 0.28	100	1	1.0	1.5	1.5	1.5
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0
< 40	0.20 - 0.26	75	0.5	1.0	1.0	1.0	1.5

GENERAL NOTES:

1. FOR PIPING SMALLER THAN 1-1/2 INCH (38mm) AND LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION OF THESE THICKNESESS BY 1 INCH (25mm) SHALL BE PERMITTED (BEFORE THICKNESSES REQUIRED IN FOOTNOTE b) NOT TO A THICKNESS LESS THAN 1 INCH (25mm).

2. FOR INSULATION OUTSIDE THE STATED CONDUCTIVITY RANGE, THE MINUMUM THICKNESS (T) SHALL BE DETERMINED AS FOLLOWS:

$T = r\{(1 + t/r)^{K/k} - 1\}$

WHERE:

T = MINIMUM INSULATION THICKNESS,

r = ACTUAL OUTSIDE RADIUS OF PIPE,

t = INSULATION THICKNESS LISTED IN THE TABLE FOR APPLICABLE FLUID TEMPERATUREAND PIPE SIZE.

K = CONDUCTIVITY OF ALTERNATE MATERIAL AT MEAN RATING TEMPERATURE INDICATED FOR THE APPLICABLE FLUID TEMPERATURE (Btu · in/h · ft² x °F)

k = THE UPPER VALUE OF THE CONDUCTIVITY RANGE LISTED IN THE TABLE FOR THE APPLICABLE FLUID TEMPERATURE.

3. FOR DIRECT-BURIED HEATING AND HOT WATER SYSTEM PIPING, REDUCTION OF THESE THICKNESSES BY 1-1/2 INCHES (38mm) SHALL BE PERMITTED (BEFORE THCKNESS ADJUSTMENT REQUIRED IN FOOTNOTE b BY BUT NOT TO THICKNESS LESS THAN 1 INCH (25mm)

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
SEQUENCE OF OPERATIONS

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
3	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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GENERAL CONTRACT REQUIREMENTS

1. MECHANICAL, PLUMBING, AND CONTROLS SCOPE SHALL FALL UNDER THE ULTIMATE RESPONSIBILITY OF ONE CONTRACTOR, WHO IS RESPONSIBLE FOR UNDERSTANDING ALL MECHANICAL AND PLUMBING DOCUMENTS, DISTRIBUTING CONTRACT DOCUMENTS TO ALL SUBCONTRACTORS, AND SHALL BE RESPONSIBLE FOR CONTRACT COMPLETION.
2. THE DRAWINGS ARE DIAGRAMMATIC. COORDINATE INSTALLATION WITH THE BUILDING. PROVIDE ALL NECESSARY OFFSETS, CHANGES IN DIRECTION, EXTENSIONS AND ASSOCIATED MATERIALS FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
3. COORDINATE MECHANICAL WORK WITH ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, AND LANDSCAPE WORK SHOWN ON OTHER CONTRACT DOCUMENTS. PROVIDE ADDITIONAL PIPE OR DUCT OFFSETS WHERE REQUIRED TO COORDINATE INSTALLATION.
4. LOCATIONS AND SIZES OF (FLOOR, WALL, AND ROOF OPENINGS) SHALL BE COORDINATED WITH OTHER TRADES INVOLVED. INCLUDE THE FOLLOWING IN THE COST OF MECHANICAL WORK: CUTTING, CORING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS, FLOORS, AND ROOFS AS REQUIRED TO ACCOMMODATE WORK AS INDICATED IN THE MECHANICAL CONTRACT DOCUMENTS UNLESS SPECIFICALLY SHOWN ON ARCHITECTURAL DOCUMENTS.
5. MAINTAIN A SET OF PLANS ON SITE. RECORD ALL CHANGES TO ACTUAL ARRANGEMENTS ON THESE PLANS. PROVIDE THIS SET OF PLANS TO THE OWNER'S REPRESENTATIVE WHEN WORK IS COMPLETE.
6. ALL WORK PERFORMED SHALL BE DONE IN STRICT ACCORDANCE TO ALL APPLICABLE MECHANICAL, BUILDING, ENERGY, FUEL GAS, AND LOCAL CODES, WITH AMENDMENTS.
7. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND CONSTRUCTION FEES. FURNISH FINAL CERTIFICATE TO OWNER SHOWING COMPLIANCE WITH CODE REQUIREMENTS.
8. PROJECT SCHEDULING: COMPLY WITH OWNER'S REQUIREMENTS
9. OPERATION AND MAINTENANCE MANUAL: PROVIDE COMPLETE OPERATIONS AND MAINTENANCE MANUAL IN HARD COVER. PROVIDE OPERATIONS, MAINTENANCE AND PARTS DATA ON ANY ITEM OF EQUIPMENT THAT HAS MOVING PARTS.
10. PROVIDE THE FOLLOWING DOCUMENTS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. FINAL PAYMENT OF THE CONTRACT WILL BE CONTINGENT UPON RECEIVING THESE DOCUMENTS:
    A. RECORD (AS-BUILT) DRAWINGS.
    B. MAINTENANCE AND OPERATING INSTRUCTIONS (3 SETS).
    C. EXTENDED WARRANTIES (OTHER THAN THE ONE-YEAR).
    D. BALANCING LOGS (AIR AND HYDRONIC SYSTEMS) (3 SETS).
    E. FINAL CERTIFICATES OF INSPECTION AND CODE COMPLIANCE.
    F. COMMISSIONING DOCUMENTATION PER WSEC
11. WARRANTY PROVISIONS: THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT AND SYSTEMS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIAL, EQUIPMENT, OR POOR WORKMANSHIP, WHICH MAY SHOW ITSELF DURING THIS WARRANTY PERIOD.

Provide installation instructions for all equipment at inspections.

SEISMIC AND VIBRATION REQUIREMENTS

1. HANGERS AND SEISMIC BRACING FOR THE MECHANICAL SYSTEMS SHALL BE DESIGNED AND PROVIDED BY THE MECHANICAL CONTRACTOR. REFER TO CONTRACTOR SHOP DRAWINGS FOR LOCATIONS OF EQUIPMENT AND HUNG MECHANICAL SYSTEMS. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE SUPPORT SYSTEMS AND DESIGN LOADS FOR HUNG MECHANICAL SYSTEMS WITH THE GENERAL CONTRACTOR AND OTHER TRADES THAT MAY BE IMPACTED.
    A. PROVIDE ALL SEISMIC RESTRAINT REQUIRED BY THE AUTHORITY HAVING JURISDICTION AND THE APPLICABLE CODES.
    B. EMPLOY A LICENSED STRUCTURAL ENGINEER, IF NECESSARY, TO ACHIEVE COMPLIANCE.
    C. THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) SEISMIC RESTRAINT MANUAL GUIDELINES MAY BE USED FOR PIPING AND DUCTWORK. INSURE THE PROPER HAZARD LEVEL IS EMPLOYED FOR THE AREA OF INSTALLATION.
2. VIBRATION CRITERIA: PROVIDE VIBRATION ISOLATION IN ACCORDANCE WITH THE AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE): APPLICATIONS HANDBOOK.

BASIC MATERIALS AND METHODS

1. ALL MATERIALS AND EQUIPMENT SHALL BE LISTED OR LABELED BY A RECOGNIZED AGENCY. UL, AGA, FM, CSA, ARI, ETC.
2. EQUIPMENT SHALL BE AS INDICATED ON THE DRAWING SCHEDULES. THE DRAWING SCHEDULES ESTABLISH THE LEVEL OF QUALITY. SUBSTITUTIONS WILL BE CONSIDERED, SUBMIT TECHNICAL DATA (PERFORMANCE AND CONSTRUCTION) TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. ALLOW TWO WEEKS FOR TURN-AROUND.
3. MECHANICAL SYSTEM PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE WITH THE BUILDING CODE IN FORCE IN THE AUTHORITY HAVING JURISDICTION FOR THIS PROJECT. THIS INCLUDES PIPING, DUCTWORK, SUPPORTS, CONDUIT, AND ANY OTHER SYSTEM AND APPURTENANCE PROVIDED AS PART OF THE MECHANICAL WORK OF THIS CONTRACT. IN ADDITION, ALL THROUGH-PENETRATION SEALING METHODOLOGIES SHALL BE LISTED IN THE UNDERWRITER'S LABORATORIES (UL) FIRE RESISTANCE DIRECTORY, ISSUE CURRENT AT TIME OF BID.
4. MOTORS SHALL COMPLY WITH THE WSEC.
5. ALL MOTORS SHALL BE ELECTRONICALLY COMMUTATED UNLESS NOTED ON SCHEDULE.
6. ELECTRICAL INSTALLATION SHALL COMPLY WITH THE NEC.
7. PROTECT STORED MATERIALS. REPLACE DAMAGED MATERIALS PRIOR TO INSTALLATION.
8. PROVIDE WATER-TIGHT SEAL FOR OPENINGS TO THE BUILDING THROUGH WHICH PIPE PASSES.
9. PROVIDE AND INSTALL PIPE SUPPORTS IN ACCORDANCE WITH MANUFACTURER'S STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY (MSS) STANDARDS, SPECIFICALLY STANDARD SP-69, "PIPE HANGERS AND SUPPORTS - SELECTION AND APPLICATION" AND STANDARD SP-58, "PIPE HANGERS AND SUPPORTS - MATERIALS, DESIGN AND MANUFACTURE". PROVIDE PIPE SUPPORT SPACING IN ACCORDANCE WITH THE UPC OR IMC.
10. TESTING: ALL WORK UNDER THIS CONTRACT SHALL BE THOROUGHLY AND SYSTEMATICALLY TESTED, BOTH DURING CONSTRUCTION AND AFTER COMPLETION. PIPE TESTING SHALL BE EITHER AS SPECIFIED IN THE APPROPRIATE SPECIFICATION SECTION, OR AS SPECIFIED IN THE APPLICABLE PLUMBING OR MECHANICAL CODE. DUCTWORK SHALL BE TESTED AS PART OF THE AIR BALANCING PROCESS. NOTIFY THE OWNER'S REPRESENTATIVE 48-HOURS IN ADVANCE OF ALL TESTS. TESTS SHALL BE MAINTAINED UNTIL APPROVED.
11. START-UP, BALANCING AND COMMISSIONING.
    A. EQUIPMENT STARTUP SHALL BE PERFORMED BY QUALIFIED PERSONNEL. THE TECHNICAL SPECIFICATION SECTIONS WILL DETAIL OTHER SPECIAL REQUIREMENTS, IF ANY. PROVIDE A STATEMENT OF THE STARTUP TECHNICIAN'S QUALIFICATIONS IF REQUESTED BY THE OWNER'S REPRESENTATIVE OR ELSEWHERE SPECIFIED.
    B. BALANCE ALL AIR SYSTEMS. BALANCE IN ACCORDANCE WITH EITHER NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR AMERICAN AIR BALANCE COUNCIL (AABC) CRITERIA.
    C. PROVIDE COMMISSIONING IN ACCORDANCE WITH THE WSEC, UNLESS ENHANCED COMMISSIONING IS REQUIRED. PROVIDE DOCUMENTATION OF COMMISSIONING.
        a. A CERTIFIED COMMISSIONING AGENT SHALL PROVIDE A COMMISSIONING PLAN OUTLINING THE RESPONSIBILITY MATRIX, SCHEDULE, AND EQUIPMENT FUNCTIONAL PERFORMANCE TESTING PER WSEC 408.1.2.
        b. THE COMMISSIONING REPORT SHALL BE COMPLETED PRIOR TO FINAL MECHANICAL INSPECTION PER C408.1.3.
        c. FINAL REPORT SHALL BE MADE AVAILABLE TO CODE OFFICIAL PER COMPLETION REQUIREMENTS OF WSEC C408.1.4

LOW PRESSURE STEEL DUCTWORK

1. GALVANIZED CARBON STEEL PER SMACNA STANDARDS.
2. FLEXIBLE DUCTWORK SHALL BE VINYL COATED SPRING STEEL HELIX BONDED TO A VINYL COATED FIBERGLASS MECH LINER WRAPPED WITH FIBERGLASS WOOL INSULATION. JACKET WITH A REINFORCED METALIZED MYLER/ NEOPRENE LAMINATE OUTER CASING.
3. PROVIDE GREASE DUCT PER IMC. CH. 5 AND AS INDICATED IN PLANS.

AIR DISTRIBUTION SYSTEM - GENERAL

1. PROVIDE PER THE IMC, THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) "DUCT CONSTRUCTION MANUAL, METAL AND FLEXIBLE", AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
2. IN ADDITION TO THE REQUIREMENTS ABOVE, INSTALL EQUIPMENT AND COMPONENTS IN ACCORDANCE WITH THE PUBLISHED MANUFACTURER'S INSTALLATION REQUIREMENTS.
3. FIRE/SMOKE DAMPERS: UL LISTED FOR SERVICE INTENDED, INSTALL IN ACCORDANCE WITH THE LISTING.
4. FLEXIBLE CONNECTIONS: PROVIDE AT EACH FAN AND AIR HANDLING UNIT CONNECTION TO DUCT.
5. ACCESS PANELS: PROVIDE FOR MAINTENANCE OF ALL DUCT-MOUNTED EQUIPMENT (FIRE DAMPERS, CONTROL DAMPERS, COILS, ETC.).
6. LOCATE VALVES, CLEANOUTS, DAMPERS, CONTROLS AND SIMILAR COMPONENTS SO THAT THEY ARE ACCESSIBLE.
    A. INSTALL TAG ON CEILING GRID FRAME TO INDICATE LOCATION AND TYPE OF EQUIPMENT THAT REQUIRES MAINTENANCE.
7. PROVIDE ACCESS DOORS FOR MECHANICAL EQUIPMENT INSTALLED BEHIND WALLS, ABOVE INACCESSIBLE CEILINGS AND BELOW FLOORS. COORDINATE ACCESS DOOR LOCATIONS WITH ARCHITECT/ENGINEER. ACCESS DOOR SHALL BE SIZED SO THAT ADJACENT EQUIPMENT IS ACCESSIBLE.
    A. PROVIDE 16 GA, STEEL, FLUSH TYPE ACCESS DOOR WITH CONCEALED HINGE AND SLOT SCREWDRIVER TYPE CAM LATCH. PROVIDE FACTORY PRIMED IN PAINTED SURFACE AREAS FOR FIELD PAINTING.
    B. PROVIDE STAINLESS STEEL FOR ALL OTHER AREAS. PROVIDE UL LISTED AND LABELED DOOR WHERE FIRE-RESISTANCE RATING IS INDICATED ON DRAWINGS.
    C. PROVIDE DUCT ACCESS PANELS FOR FIRE DAMPER ACTUATOR ACCESS AGENT EQUIPMENT IS ACCESSIBLE.
8. VOLUME DAMPERS
    A. FABRICATED IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS AND AS INDICATED.
    B. FABRICATE SPLITTER DAMPERS OF SAME MATERIAL AND GAGE AS DUCT TO 24 INCHES (600 MM) SIZE IN EITHER DIRECTION, AND TWO GAGES HEAVIER FOR LARGER SIZES, SECURED WITH CONTINUOUS HINGE OR ROD, OPERATED WITH MINIMUM 1/4-INCH (6 MM) DIAMETER ROD.
    C. FABRICATE SINGLE BLADE DAMPERS FOR DUCT SIZES TO 9-1/2 X 30 INCH. FABRICATE MULTI-BLADE DAMPER OF OPPOSED BLADE PATTERN WITH MAXIMUM BLADE SIZES 12 X 72 INCH. ASSEMBLE CENTER AND EDGE CRIMPED BLADES IN PRIME COATED OR GALVANIZED CHANNEL FRAME WITH SUITABLE HARDWARE.
    D. EXCEPT IN ROUND DUCTWORK 12 INCHES (300 MM) IN DIAMETER AND SMALLER, PROVIDE END BEARINGS.
    E. PROVIDE LOCKING, INDICATING QUADRANT REGULATORS ON SINGLE AND MULTI-BLADE DAMPERS. WHERE WIDTH EXCEEDS 30 INCHES (750 MM), PROVIDE REGULATOR AT BOTH ENDS.
    i.
9. MOTORIZED DAMPERS
    A. GENERAL:
        a. COORDINATE ACTUATOR TYPE WITH CONTROLS CONTRACTOR.
        b. DAMPER ACTUATORS AND ACTUATOR LINKAGES SHALL BE MOUNTED IN THE AIRSTREAM FOR ALL ROOFTOP FANS/ROOF HOODS AND MOUNTED EXTERNAL OF THE AIRFLOW AT ALL OTHER LOCATIONS, UNLESS SPECIFICALLY INDICATED OTHERWISE ON PLANS.
        c. MULTI SECTION DAMPER ASSEMBLIES SHALL BE PROVIDED WITH A FACTORY INSTALLED COMMON JACKSHAFT.
        d. PROVIDE WITH DOUBLE FLANGE DUCT CONNECTION.
        e. SHALL BE CLASS IA LEAKAGE RATED.
        f. PROVIDE PARALLEL BLADE AIRFOIL TYPE FOR OPEN/CLOSED CONTROL AND OPPOSED BLADE AIRFOIL TYPE FOR MODULATING/THROTTLING CONTROL.
    B. DAMPER BLADES:
        a. EXTRUDED ALUMINUM OR GALVANIZED STEEL AIR FOILS WITH REPLACEABLE RUBBER BLADE SEALS, 6-INCHES WIDE MAXIMUM.
        b. 304 STAINLESS STEEL WHEN INSTALLED IN DISHWASHER HOOD DUCTWORK.
        c. JAMB SEALS SHALL BE FLEXIBLE METAL COMPRESSION TYPE.
    C. PERFORMANCE:
        a. MAXIMUM LEAKAGE RATE SHALL BE 3 CFM/SQ. FT. OF DAMPER AREA PER 1.0-INCH W.G. IN ACCORDANCE WITH AMCA STANDARD 500D.
        b. MAXIMUM PRESSURE DROP FOR A 12"X12" DAMPER SHALL BE 0.08" W.G. AT 1,000 FPM FACE VELOCITY.
    D. APPROVED MANUFACTURERS:
        a. RUSKIN (CD50/CD60)
        b. GREENHECK (VCD-33/VCD-43)

DUCTWORK SOUNDLINER

1. MAXIMUM VELOCITY ON MAT OR COATED SIDE SHALL BE 5000 FT/MIN.
2. NOISE REDUCTION COEFFICIENT: 0.65 OR HIGHER, TYPE A MOUNTING, ASTM C423.
3. K = 0.25 AT 75 DF, ASTM C518.
4. PROVIDE ACOUSTIC LINING IN CONNECTING DUCTWORK 10' UPSTREAM AND DOWNSTREAM OF FAN POWERED MECHANICAL UNIT, UNLESS OTHERWISE NOTED ON PLANS.
5. APPROVED MANUFACTURERS
    A. MANVILLE PERMACOTE LINACOUSTIC
    B. MANVILLE PERMACOTE SPIRACOUSTIC LINER

DUCT INSULATION

1. FLEXIBLE FIBERGLASS DUCTWORK SHALL MEET ASTM C553, TYPE 1, CLASS B2 FLEXIBLE BLANKET. K VALUE SHALL BE 0.27 @ 75 DF.
2. VAPOR BARRIER JACKET: PROVIDE FSK, ALUMINUM FOIL REINFORCED WITH FIBER GLASS YARN AND LAMINATED FIRE RESISTANT KRAFT. SECURE WITH UL LISTED PRESSURE SENSITIVE TAPE AND/OR OUTWARD CINCHED EXPANED STABLES.
3. INSULATION SHALL MEET THE REQUIREMENTS OF THE INSULATION SCHEDULE, SHOWN ON PLANS.
4. APPROVED MANUFACTURERS: MANVILLE, OWENS CORNING, OR APPROVED EQUAL.

FANS

1. SCHEDULED FANS SHALL BE THE BASIS OF DESIGN. UNITS OF SIMILAR CONSTRUCTION AND CAPABILITIES MAY BE SUBMITTED FOR REVIEW.
2. PROVIDE CURBS SLOPED TO MATCH ROOF PITCH FOR ROOF TOP FANS.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND AS NOTED ON PLANS.

FILTERS

1. PROVIDE 2" MERV 8, PLEATED, DISPOSABLE FILTERS, UNLESS OTHERWISE INDICATED ON PLANS. SIZE OF FILTER SHALL BE COMPATIBLE WITH FILTER BOX OR AIR HANDLER.

SPLIT SYSTEM UNITS

1. BASIS OF DESIGN SHALL REPRESENT THE QUALITY OF UNITS.
2. MAJOR COMPONENTS INCLUDE:
    A. EVAPORATOR AND CONDENSER UNITS.
    B. CONTROLS - UNITS SHALL BE CONTROLLED BY MANUFACTURER'S PROPRIETARY TEMPERATURE CONTROL SYSTEM.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
4. PROVIDE ACOUSTIC LINING IN CONNECTING DUCTWORK 10' UPSTREAM AND DOWNSTREAM OF FAN, UNLESS OTHERWISE NOTED ON PLANS.

WALL HEATERS

1. BASIS OF DESIGN SHALL REPRESENT QUALITY OF UNIT.
2. APPROVED MANUFACTURERS: INDEECO, CADET

CONTROLS

1. STAND ALONE CONTROL SYSTEMS
    A. SCOPE: PROVIDE UNIT CONTROLS, ZONE TEMPERATURE CONTROLS AND ANY OTHER CONTROL ITEMS REQUIREMENT FOR A COMPLETE AND FUNCTIONAL SYSTEM. PROVIDE ALL REQUIRED WIRING, CONDUIT, COMPONENTS (RELAYS, TRANSFORMERS, ETC) AND EQUIPMENT. OBTAIN AND UNDERSTAND ALL MECHANICAL AND PLUMBING DOCUMENTS BEFORE BIDDING WORK.
    B. APPROVED MANUFACTURERS ARE TRANE, MITSUBISHI, AND HONEYWELL. NO OTHER MANUFACTURER IS ACCEPTABLE UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
    C. SPECIFIC REQUIREMENTS: EACH UNIT SHALL HAVE INDIVIDUAL STANDALONE CONTROLS THAT PERFORM THE FUNCTIONS LISTED IN THE DRAWINGS. PNEUMATIC CONTROLS ARE NOT ACCEPTABLE.
2. ROOM TEMPERATURE SENSORS - ROOM TEMPERATURE SENSORS SHALL BE MOUNTED 54" AFF UNLESS OTHERWISE NOTED ON PLANS. VERIFY ALL LOCATIONS WITH OWNER'S REPRESENTATIVE.
3. ACTUATION EQUIPMENT:
    A. SPRING RETURN IS REQUIRED IN ALL EQUIPMENT EXPOSED TO OUTDOOR AIR AND/OR FAILSAFE CONDITIONS.
    B. ALL AIR HANDLER AND DOAS DAMPER AND VALVE ACTUATION SHALL BE SPRING RETURN AND PROPORTIONALLY CONTROLLED.
    C. ALL 120V ACTUATORS SHALL HAVE DISCONNECTS IN ACCORDANCE WITH ELECTRICAL STANDARDS.
    D. ALL CONTROLS ACTUATORS SHALL BE SIZED CAPABLE OF CLOSING AGAINST THE MAXIMUM SYSTEM SHUTOFF PRESSURE.
4. WIRING:
    A. ALL CLASS 2 (24VAC OR LESS) CONTROLS WIRING SHALL BE CONCEALED IN CONDUIT, UNLESS CONCEALED IN ACCESSIBLE LOCATIONS.
    B. WIRE SUPPORTS SHALL BE INSTALLED PER LOCAL WIRING CODE REQUIREMENTS. DEFAULT SUPPORT SPACING SHALL BE 5'. SUPPORTS SHALL HANG FROM THE BUILDING STRUCTURE AND BE DESIGNED FOR THIS APPLICATION.
    C. PROVIDE FIRE STOPPING FOR ALL PENETRATIONS USED BY CONTROLS CONDUIT AND RACEWAYS.
    D. WIRING SHALL NOT PENETRATE STRUCTURAL ELEMENTS.
5. PROVIDE FULL COMMISSIONING OF THE CONTROL SYSTEM IN ACCORDANCE WITH THE WSEC.
6. PROVIDE 2 HOURS OF SCHEDULED INSTRUCTION PERIOD TO THE OWNER. COST FOR TIME INVOLVED SHALL BE INCLUDED IN THE BID.
7. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS, THE NEC AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

GAS RADIANT HEATER

1. PROVIDED WITH GAS VALVE AND COMBUSTION FAN. BURNER CONTROL SYSTEM SHALL BE 24 VOLTS.
2. PROVIDE APPROVED FLEXIBLE CONNECTOR FOR GAS CONNECTION.
3. TUBE LENGTHS AND CONFIGURATION SHALL BE PER PLANS. TUBES SHALL BE CONNECTED WITH STAINLESS STEEL COUPLINGS. TUBES SHALL BE SUSPENDED WITH STAINLESS SUSPENSION HANGERS, CHAINS, AND S-HOOKS.
4. PROVIDED WITH TUBE REFLECTORS.
5. APPROVED MANUFACTURER.
    A. REZNOR

DUCT HEATERS

1. HEATING ELEMENT SHALL BE OPEN COIL, 80/20 NICKEL/CHROMIUM. STAINLESS TERMINALS SHALL EXTEND AT LEAST 1" INTO AIRSTREAM. COILS SHALL BE SUPPORTED BY CERAMIC BRACKETS.
2. HEAT FRAMES AND TERMINALS SHELL BE MADE OF CORROSION-RESISTANT STEEL. UNLESS INDICATED ON SCHEDULE, TERMINAL BOX SHALL BE NEMA 1.
3. HEATERS SHALL BE RATED FOR THE VOLTAGE, PHASE, AND NUMBER OF STAGES LISTED ON SCHEDULE. ALL INTERNAL WIRING SHALL BE COPPER.
4. HEATERS SHALL BE FURNISHED WITH THE CONTROLS OPTION LISTED IN THE SCHEDULE. HEATERS SHALL BE PROVIDED WITH AN AIRFLOW PROVING SWITCH.
5. UNLESS INDICATED ON THE PLANS, DUCT HEATERS SHALL BE PROVIDED WITH DUCT THERMOSTATS COMPATIBLE WITH CONTROLS OPTION.
6. INSTALL WITH 4' STRAIGHT DUCT BEFORE DUCT HEATER AND 2' AFTER. ENSURE THAT CONTRACTOR SHOP DRAWINGS TAKE THESE MEASUREMENTS INTO ACCOUNT BEFORE INSTALLATION.
7. FINAL SIZE OF THE DUCT HEATER SHALL NOT FALL BELOW MINIMUM ALLOWABLE DUCT HEATER VELOCITIES AS DESCRIBED IN THE INSTALLATION/ OPERATIONS MANUAL. PROVIDE PROPER SIZE TO ENSURE THAT MINIMUM VELOCITIES ARE MET.
8. APPROVED MANUFACTURERS:
    A. INDEECO

DEDICATED OUTDOOR AIR UNITS

1. BASIS OF DESIGN SHALL REPRESENT THE QUALITY OF UNIT.
2. CABINET SHALL INCLUDE FACTORY WIRING, CONTROLS, BLOWERS, FILTERS, INSTALLED INLET AIR THERMISTERS, AND ENTHALPIC HEAT EXCHANGER.
3. APPROVED MANUFACTURER: LOSSNAY.
4. PROVIDE ACOUSTIC LINING IN CONNECTING DUCTWORK 10' UPSTREAM AND DOWNSTREAM OF FAN, UNLESS OTHERWISE NOTED ON PLANS.

DUCT HEATERS

1. BASIS OF DESIGN SHALL REPRESENT THE QUALITY OF UNITS.
2. PROVIDE WITH ALUMINIZED STEEL BURNER WITH STAINLESS INSERTS. PROVIDE WITH ALUMINIZED-STEEL HEAT EXCHANGER WITH VENTURI TUBES. STAINLESS STEEL HEAT EXCHANGER SHALL BE PROVIDED ON ALL APPLICATIONS WITH RETURN AIR TEMPERATURE LESS THAN 40°F.
3. PROVIDE WITH CORROSION RESISTANT CABINET, SEALED COMBUSTION.
4. INSTALL PER MANUFACTURER'S RECOMMENDATION.
5. APPROVED MANUFACTURERS:
    A. REZNOR

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BRIAN SCOTT MIDDLEBROOK
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10/15/2024

SHEET TITLE
SPECIFICATIONS

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
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Fire	Traffic

LIGHTING SCHEDULE - INTL VILLAGE FOOD-2-25-24 UPDATE

TYPE:

TYPE:	SYMBOL	QTY.	DESCRIPTION	MANUFACTURER	MODEL #	LAMP	DIMMER	REMARKS
LED-1	1		LED CONCEALED LIGHT	KELVIX OR EQ	MAX 100 OUTDOOR -MAX 1002700K WR-24V (117 LUMEN PER FT.)	0.92/FT	YES	DAMP/WET LABELED
T2	2		TROFFER/CONCEALED COVE LIGHT 8'/4' V.I.F.	LITHONIA LED STRIP	ZL1D - 8'/4' TO FILL LENGTH OF COVE	3000K 2500 LM 90 CRI WHITE SURFACE MOUNT - 22W PER 8' FIXTURE	NO	DAMP LABELED
RC3	RC3 3		4" RC CAN	JUNO OR EQ	TC1RC TRIM: 17PTSC	PAR 20-FLOOD - 3000K 6.5W DAMP/WET LABELED	NO	(1) DAMP/WET LABELED - WET LABELED LAMPING
S4	4		WALL MOUNTED SCONCE LIGHT - GOOSENECK-14" SHADE	BASELIGHT	CN14 - COLOR/MOUNTING TO BE DETERMINED	PAR 38 3000K WET LABELED 14W 90CRI	YES	WET LABELED
T5	5		2 X 4 LED TROFFER	ENVISIONLED	LED-PNL-2X4 50W30K-LF	50W-INTEGRAL	YES	(1) CHAIN HUNG IN LOCATIONS WHERE THERE IS NO ACT
RC6	RC6 6		6" RC CAN	JUNO OR EQ	IC22R W/29CWH - TRIM WET LOCATION RATED	PAR 30 -7.5W (VERIFY)	YES	DAMP/WET LABELED - WET LABELED LAMPING
SMC7	SMC7 7		SURFACE MOUNTED CAN	PROGRESS OR EQ.	P5741-31/30K	PAR 30 LED 14 W	YES	(1) DAMP/WET LABELED - WET LABELED LAMPING
P8	P8 8		LARGE PENDANT LIGHT - HALOPHANE FIXTURE	ALCON LIGHTING	15209-12	30K -SEE SPEC SHEET - 56W	NO	DAMP/WET LABELED - WET LABELED LAMPING
P1	9		POST LIGHTS	BARN LIGHT	WILCOX SPS-0272 POST MOUNT COLLECTION - VERIFY 1, 2 AND 3 FIXTURE MOUNTS	LED 11 850 LUMEN LAMPS 11W	NO	DAMP/WET LABELED - WET LABELED LAMPING
R10	R10 10		RAILING LIGHTS -DOWNLIGHTS	KITCHLER	16801MZ-LL	2700K 1.5W T3 LED	NO	DAMP/WET LABELED - WET LABELED LAMPING
S1	11		PATIO STRING LIGHTS	CALI LIGHTING INC	ML2000-CA	1W LAMPS POLYMER FROSTED PLASTIC LAMPS. 2.7k	NO	DAMP/WET LABELED - WET LABELED LAMPING
RC12	RC12 12		2" APERATURE RECESSED CAN LIGHTS	JUNO OR EQ	2CPNC G2 DC HZSN TRIM	2700K CRI 90 SP 7.5W	NO	DAMP/WET LABELED
X1		EXIT SIGN	SURE-LITES	APXH7-RG	3W			
X3		EXIT SIGN WITH EMERGENCY BUG-EYES	SURE-LITES	APC-H-7-RG	3W			
X4		EMERGENCY BUG-EYES	SURE-LITES	AP2SQLED	10W			
L1		LED STRIP FIXTURE	DAY-BRITE	FSSEZ-4-40L-UNV	4000K, 32W			
L1X		LED STRIP FIXTURE WITH BATTERY	DAY-BRITE	SAME AS TYPE L1 WITH EMERGENCY BATTERY PACK	4000K, 32W			
P		LED VAPOR-TIGHT	LITHONIA	VAP-4000LM-FST-WD-MVOLT-GZ10-35K-80CRI (1)	3500K, 33W			

LIGHTING NOTES:

(1) FIXTURE I.D.'S WITH AN "X" AT END OF NAME SHALL BE PROVIDED WITH INTEGRAL BATTERY BACK-UP FOR EGRESS.

ELECTRICAL SYMBOLS LEGEND

- A/B — DETAIL/SECTION IDENTIFICATION: A = DETAIL/SECTION LETTER, B = SHEET NUMBER WHERE DETAIL/SECTION IS DRAWN.
- A/B — EQUIPMENT CONNECTION CALLOUT. A,B EQUAL EQUIPMENT IDENTIFICATION ON MECHANICAL OR KITCHEN EQUIPMENT CONNECTION SCHEDULES. VERIFY EXACT EQUIPMENT REQUIREMENTS ON SHOP DRAWING EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN. DO NO ROUGH-IN FOR EQUIPMENT PRIOR TO REVIEW OF SUBMITTALS. REPORT ANY DIFFERENCES IN REQUIREMENTS TO ENGINEER IN WRITING.
- CONDUIT CONCEALED. HASH MARKS INDICATE NUMBER OF #12 CONDUCTORS IN CODE SIZE CONDUIT. NO HASH MARKS INDICATES 2-#12 CONDUCTORS PLUS GROUND IN 3/4" CONDUIT, LONG HASH MARKS INDICATES NEUTRAL CONDUCTOR. INDICATES GROUND CONDUCTOR.
- FLEXIBLE RACEWAY, PROVIDE GROUND CONDUCTORS PER NEC.
- A-1,3 ADJACENT TO ARROW INDICATES HOMERUN OF CONDUCTORS IN CONDUIT FOR CIRCUITS 1 AND 3 TO PANEL "A".
- EXIT LIGHT WITH BATTERY, UNIVERSAL MOUNTING.
- A1 — LIGHT FIXTURE TYPE. A1 = SPECIFIC LIGHTING FIXTURE REFERENCED ON LIGHTING FIXTURE SCHEDULE.
- PC — PHOTOCELL, MOUNT ON ROOF FACING NORTH.
- POWER PANEL
- DUPLEX RECEPTACLE 20A, 125 VOLT WALL MOUNTED AT 18 INCHES AFF. G = GROUND FAULT INTERRUPTING, T = TAMPERPROOF.
- DUPLEX RECEPTACLE 20A, 125 VOLT WALL MOUNTED HORIZONTALLY 2" ABOVE COUNTERTOP BACKSPLASH TO THE BOTTOM OF THE RECEPTACLE COVERPLATE.
- FOURPLEX RECEPTACLE 20A, 125 VOLT, WALL MOUNTED AT 18 INCHES AFF.
- SPECIAL RECEPTACLE. AMPERAGE AND VOLTAGE AS SHOWN.
- EQUIPMENT CONNECTION. PROVIDE PER NEC AND MANUFACTURERS REQUIREMENTS AND/OR RECOMMENDATIONS.
- S — LIGHT SWITCH TOGGLE TYPE, SINGLE POLE, SUBSCRIPTS; 3 = THREE WAY, 4 = FOUR WAY, D = DIMMER CONTROL, K = KEY OPERATED, P = PILOT LIGHT, a, b, c, ETC = NUMBER OF SWITCHES AT THE LOCATION AND SPECIFIC FIXTURES CONTROLLED. MOUNT AT 42 INCHES AFF.
- S_T — DIGITAL 0-12 HOUR TIMER SWITCH. SENSORWORX #SWX-843-12H OR EQUAL.
- S_Y — AUTOMATIC/MANUAL OCCUPANCY SENSOR AND SINGLE POLE TOGGLE SWITCH. SENSORWORX #SWX-123 OR EQUAL. SWITCH SHALL BE PROGRAMMED FOR MANUAL ON, AUTOMATIC OFF.
- S_{LV} — LOW VOLTAGE LIGHT DESPARD ROCKER SWITCH WITH LED LIGHT. SUBSCRIPT a, b, c, ETC = NUMBER OF SWITCHES AT THE LOCATION AND SPECIFIC FIXTURES CONTROLLED. MOUNT AT 42 INCHES AFF. PROVIDE 3/4"C-(2)#18 CU CONDUCTORS BACK TO LOW VOLTAGE CONTROL PANEL (AS INDICATED BY LOW VOLTAGE LIGHTING PANEL SCHEDULE).
- OS — DUAL TECHNOLOGY AUTOMATIC OCCUPANCY SENSOR DEVICE WITH POWER PACK (WATT STOPPER #DT-300).
- PS — DAYLIGHT PHOTOSENSOR
- FUSED DISCONNECT SWITCH WITH FUSES.
- FLUSH MOUNTED DUAL TELEPHONE/DATA OUTLET, MOUNT AT 18" AFF. PROVIDE 4-11/16" SQUARE BOX WITH 1-1/4" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING SPACE.
- GROUND PER NEC.
- F — MANUAL FIRE ALARM PULL STATION. WALL MOUNT AT 42 INCHES AFF.
- F/L XX — FIRE ALARM MINI ADA STROBE, WALL MOUNT AT 80 INCHES AFF. SUBSCRIPT INDICATES CANDELA LEVEL.
- F XX — FIRE ALARM HORN/ADA STROBE. WALL MOUNT AT 80 INCHES AFF. SUBSCRIPT INDICATES CANDELA LEVEL.
- S — SMOKE DETECTOR
- H — HEAT DETECTOR
- XXX — AVAILABLE FAULT CURRENT
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSION. TPS3-X-11-15-D2, SIEMENS OR EQUAL. "X" = VOLTAGE/ PHASE (VARIES), SEE POWER RISER DIAGRAM AND/OR PANEL SCHEDULES FOR VOLTAGE AND PHASE REQUIREMENTS.
- (E) — EXISTING
- WP — WEATHERPROOF
- J — JUNCTION BOX.

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PROJECT NAME/ADDRESS

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INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
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ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
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SHEET TITLE
ELECTRICAL SYMBOLS LEGEND

SHEET #
E0.01

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

GENERAL NOTES:

1. ELECTRICAL REQUIREMENTS ARE NOT LIMITED TO ELECTRICAL DRAWINGS AND SPECIFICATIONS. THERE IS ADDITIONAL ELECTRICAL WORK REQUIRED TO BE INCLUDED IN THE BID, INDICATED ON ARCHITECTURAL AND MECHANICAL DRAWINGS. ADDITIONAL ELECTRICAL WORK REQUIRED IN THE BID IS ALSO LOCATED IN THE SPECIFICATIONS. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL AND MECHANICAL SPECIFICATIONS FOR ADDITIONAL ELECTRICAL INFORMATION AND INCLUDE COSTS FOR THIS WORK IN THE BID.

2. CONTRACTOR SHALL INCLUDE IN HIS BID LIGHTING CONTROL COMMISSIONING COSTS. CONTRACTOR SHALL PROVIDE THE OWNER A COMPLETE REPORT OF TEST PROCEDURES AND RESULTS INDICATING ALL LIGHTING CONTROLS HAVE BEEN TESTED, ADJUSTED AND OPERATE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS AND THE WASHINGTON STATE NONRESIDENTIAL ENERGY CODE, SECTION C408. CONTRACTOR SHALL PROVIDE A SPREAD SHEET INDICATING ROOM NUMBER, TYPE OF CONTROL (OCCUPANCY SENSOR, LOW VOLTAGE, ETC.), VERIFICATION OF PROPER WORKING ORDER, AND ADJUSTMENTS MADE.

3. CONTRACTOR SHALL CONCEAL CONDUIT WHEREVER POSSIBLE. CONTRACTOR SHALL SUBMIT TO ARCHITECT FOR REVIEW AND APPROVAL, ALL ROUTINGS OF ANY EXPOSED CONDUIT PRIOR TO ROUGH-IN. NO EXPOSED CONDUIT SHALL BE INSTALLED UNTIL APPROVAL IS PROVIDED IN WRITING FROM THE ARCHITECT. ALL EXPOSED CONDUIT SHALL BE ROUTED IN A NEAT AND WORKMANSHIP LIKE MANNER.

4. CONTRACTOR SHALL PROVIDE A HOT-WIRE OF THE SAME CIRCUIT FOR ALL LIGHT FIXTURES WITH BATTERY PACKS, SO THAT THE BATTERY PACK IS BEING CHARGED AT ALL TIMES.

5. CONTRACTOR SHALL SEE ARCHITECTURAL DRAWINGS FOR THE FIRE WALL SEPARATIONS. CONTRACTOR SHALL PROVIDE CAULKING, SEAL-OFFS, ETC. AS REQUIRED BY CODE TO RETAIN FIRE WALL SEPARATION RATINGS.

6. CONTRACTOR SHALL INCLUDE IN THE BID ALL COSTS TO HAVE A DEPARTMENT OF LABOR AND INDUSTRIES APPROVED FIRM TO EVALUATE THE INSTALLATION, SAFETY, AND COMPLIANCE WITH CODE AS REQUIRED PER W.A.C. 296-46B-901. FOR ANY EQUIPMENT SPECIFIED OR FURNISHED THAT IS NOT UL LABELED.

7. ALL WALL PENETRATIONS SHALL BE NEATLY CORE-DRILLED, CAULKED AND SEALED TO MAINTAIN FIRE, AND WATERPROOF RATING. PATCH, REPAIR, AND PAINT TO MATCH EXISTING.

8. ALL JANITOR CLOSETS, STORAGE ROOMS, MECHANICAL/ELECTRICAL ROOMS, AND BACK OF HOUSE SPACES WILL BE PROVIDED WITH A 0-12 HOUR DIGITAL TIMER SWITCH. THE TIMER SWITCH SHALL BE SET TO 1 HOUR. LIGHTS SHALL BLINK THREE TIMES 1 MINUTE PRIOR TO TURNING OFF TO WARN OCCUPANTS. OCCUPANT MAY ACTIVATE THE SWITCH FOR ADDITIONAL TIME.

9. ALL SINGLE OCCUPANT OFFICES, WORK ROOMS AND SIMILAR SPACES SHALL BE PROVIDED WITH OCCUPANCY SENSORS. OCCUPANCY SENSORS SHALL TURN LIGHTS OFF AFTER 30 MINUTES OF NOT SENSING OCCUPANTS.

10. LARGE OPEN SPACES SHALL BE CONTROLLED VIA A NETWORKED LIGHTING CONTROL SYSTEM WITH AN INTEGRAL TIME CLOCK. THE WINDOW (DAYLIGHTING) ZONES SHALL BE CIRCUITED AND CONTROLLED SEPARATELY FROM THE REMAINDER OF THE ROOM BY SEPARATE SWITCHES. THE TIME CLOCK SHALL SWEEP THE LIGHTS AT 11:00PM AND 12:00AM.

11. CORRIDORS, LOBBIES, ENTRIES, AND SIMILAR SPACES WILL BE CONTROLLED VIA NETWORKED LIGHTING CONTROL SYSTEM WITH INTEGRAL TIME CLOCK. THESE SPACES WILL TURN ON AT 4:00AM AND TURN OFF AT 12:00AM.

12. EXTERIOR LIGHTING WILL BE CONTROLLED VIA NETWORKED LIGHTING CONTROL SYSTEM WITH INTEGRAL TIME CLOCK AND PHOTOSENSOR. THE PHOTOSENSOR TAKES PRECEDENCE ON THE LIGHTING CONTROL. IF THE SENSOR MEASURES ADEQUATE NATURAL LIGHT, ALL EXTERIOR LIGHTING WILL BE OFF. BUILDING PERIMETER LIGHTS WILL BE ON FROM 6:00AM TO 8:00AM AND 4:00PM TO 10:00PM.

13. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-(800)-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR MAINTAINING ALL LOCATE MARKS ONCE THE UTILITIES HAVE BEEN LOCATED.

14. CONDUIT (OR PLENUM RATED CABLE WHERE ALLOWED) AND WIRING IS NOT SHOWN ON THE ELECTRICAL DRAWINGS FOR THE SIGNAL/SYSTEM DEVICES (FIRE ALARM, SECURITY, AND CAMERA) CONTRACTOR SHALL PROVIDE MANUFACTURER'S REQUIRED WIRING IN MINIMUM 3/4"C TO ALL SIGNAL/SYSTEM DEVICES OR PLENUM RATED CABLE WHERE ALLOWED BY CODE.

15. CONNECT FIRE/SMOKE DAMPERS SUPPLIED BY MECHANICAL CONTRACTOR AND POWERED BY 120 VAC FROM MECHANICAL PANEL THRU A CONTROL RELAY SUCH THAT DAMPERS ARE POWERED OPEN WHEN CONTROL RELAY IS ENERGIZED AND DAMPERS ARE CLOSED WHEN PANEL IS IN ALARM. PROVIDE SMOKE DETECTOR OR DUCT SMOKE DETECTOR WITHIN 5' OF EACH FIRE/SMOKE DAMPER. SEE MECHANICAL PLANS, SCHEDULES AND SPECIFICATIONS FOR FIRE/SMOKE DAMPER LOCATIONS. COORDINATE WITH MECHANICAL CONTRACTOR.

16. CONNECT ALL DOOR HOLDERS AND DOOR CLOSERS SUPPLIED WITH DOOR HARDWARE. THESE ITEMS SHALL BE POWERED BY THE FIRE ALARM CONTROL PANEL WITH 24V THRU A CONTROL RELAY SUCH THAT ALL DOORS RELEASE TO CLOSE WHEN PANEL IS IN ALARM. PROVIDE A SMOKE DETECTOR WITH AUXILIARY RELAY ON EACH SIDE OF DOOR. SEE ARCHITECTURAL PLANS, SCHEDULES AND SPECIFICATIONS FOR FIRE DOOR LOCATIONS.

17. PROVIDE FIRE ALARM CONDUIT AND WIRE CONNECTION FOR SHUTDOWN OF AIR HANDLING UNIT(S) AND EXHAUST FANS FOR SHUTDOWN ON ALARM AS REQUIRED PER THE UNIFORM MECHANICAL CODE. PROVIDE MONITOR/CONTROL MODULES FOR EXHAUST FANS LOCATED WITHIN 3 FEET OF FAN CONTROLLER, THRU ENERGIZED CONTROL RELAY SUCH THAT THE EXHAUST FANS SHUTDOWN UPON ALARM. SEE MECHANICAL PLANS, SCHEDULES AND SPECIFICATIONS FOR LOCATIONS. COORDINATE WITH MECHANICAL CONTRACTOR.

18. FURNISH DUAL CONTACT DUCT SMOKE DETECTOR, INCLUDING SAMPLING TUBE, TO MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL LOCATE AND MOUNT THE DUCT SMOKE DETECTOR ENCLOSURE/SAMPLING TUBE FOR FIRE ALARM SYSTEM SHUTDOWN. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR SAMPLING TUBE LENGTH AND SIZE REQUIRED. ELECTRICAL CONTRACTOR SHALL PROVIDE NECESSARY CONDUIT (OR PLENUM RATED CABLE WHERE ALLOWED), WIRING, REMOTE INDICATORS AND ACCESSORIES TO SHUTDOWN EACH UNIT UPON ACTIVATION OF THAT UNIT'S SMOKE DETECTOR(S) REQUIRED PER THE MECHANICAL CODE. CONNECTIONS SHALL BE HARDWIRED, INDEPENDENT OF ANY CONTROL SYSTEM LOGIC, SO FAILURE OF THE CONTROL SYSTEM OR LOSS OF CONTROL SYSTEM POWER WILL NOT PREVENT THE FIRE ALARM SYSTEM, SHUTDOWN OF THE UNIT. IN ADDITION TO SHUTTING DOWN THE UNIT WITH THE ALARMED SMOKE DETECTOR, ALL EQUIPMENT INTERLOCKED OR SERVED BY THAT UNIT SHALL BE OFF. OTHER UNITS SHALL ALSO SHUT OFF TO AVOID BUILDING PRESSURE DIFFERENTIALS AND SIMILAR UNDESIRABLE EFFECTS. UPON RESET OF ALARMED DEVICE, SYSTEM SHALL AUTOMATICALLY RETURN TO NORMAL. MECHANICAL CONTRACTOR TO PROVIDE TIME DELAY START OF EQUIPMENT TO PREVENT EXCESS LOAD STARTING AT THE SAME TIME. CONTRACTOR SHALL PROVIDE CONDUIT AND WIRE AND CONNECT TO FIRE ALARM CONTROL PANEL. SEE MECHANICAL DRAWINGS, SCHEDULES AND SPECIFICATIONS FOR LOCATIONS.

19. CONTRACTOR SHALL PROVIDE CONDUIT, WIRE, AND CONNECT THE EXTERIOR FIRE ALARM BELL FURNISHED BY THE SPRINKLER CONTRACTOR. THE SPRINKLER SYSTEM IS A DESIGN BUILD SYSTEM. COORDINATE FINAL LOCATION WITH THE SPRINKLER CONTRACTOR. FOR 24V SPRINKLER BELLS, CONNECT THE BELL TO THE FIRE ALARM PANEL. FOR 120V SPRINKLER BELLS, CONNECT TO A DEDICATED SPARE 120V CIRCUIT.

20. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR FIRE WALL SEPARATIONS AND RATINGS. CONTRACTOR SHALL PROVIDE CAULKING, SEAL-OFFS, RATED PENETRATION BLOCK-OUTS, ETC. REQUIRED BY CODE TO RETAIN FIRE WALL SEPARATION RATINGS.

21. CONTRACTOR SHALL INCLUDE IN THE BID ALL COSTS TO HAVE A DEPARTMENT OF LABOR AND INDUSTRIES APPROVED FIRM TO EVALUATE THE INSTALLATION, SAFETY, AND COMPLIANCE WITH CODE AS REQUIRED PER W.A.C. 296-46B-901. FOR ANY EQUIPMENT SPECIFIED OR FURNISHED THAT IS NOT UL LABELED.

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PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
GENERAL NOTES

SHEET #
E0.02

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

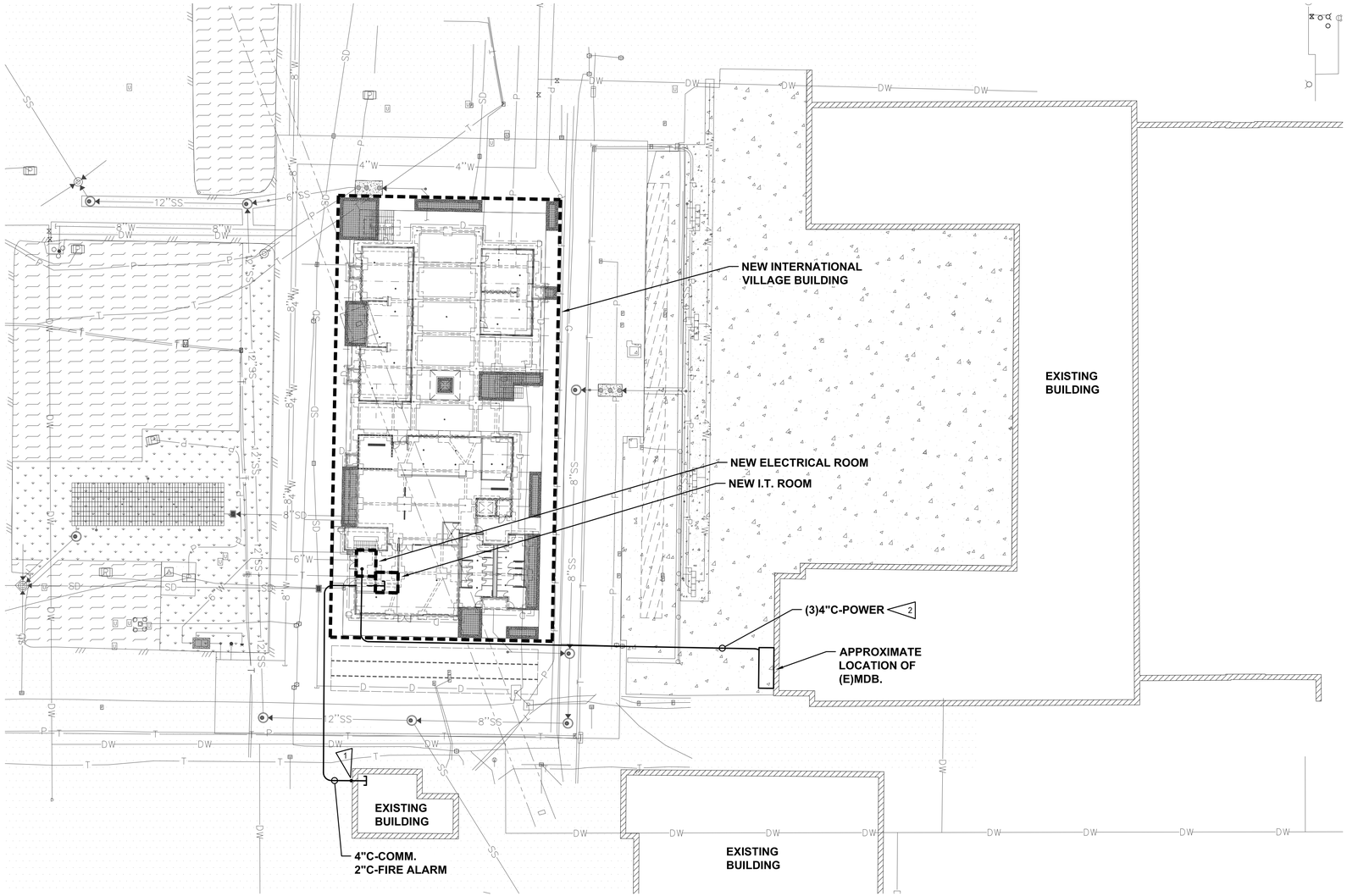
Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES:

1. SEE GENERAL NOTES, SHEET E0.02.

ELECTRICAL NOTES:

1. CONTRACTOR SHALL ROUTE NEW CONDUITS UP EXTERIOR OF BUILDING, UTILIZE LB JUNCTION AND STUB CONDUITS INTO EXISTING I.T. BUILDING.
2. SEE POWER RISER DIAGRAM, SHEET E5.00 FOR ADDITIONAL INFORMATION.



ELECTRICAL SITE PLAN

SCALE: 1"=30'-0"

N

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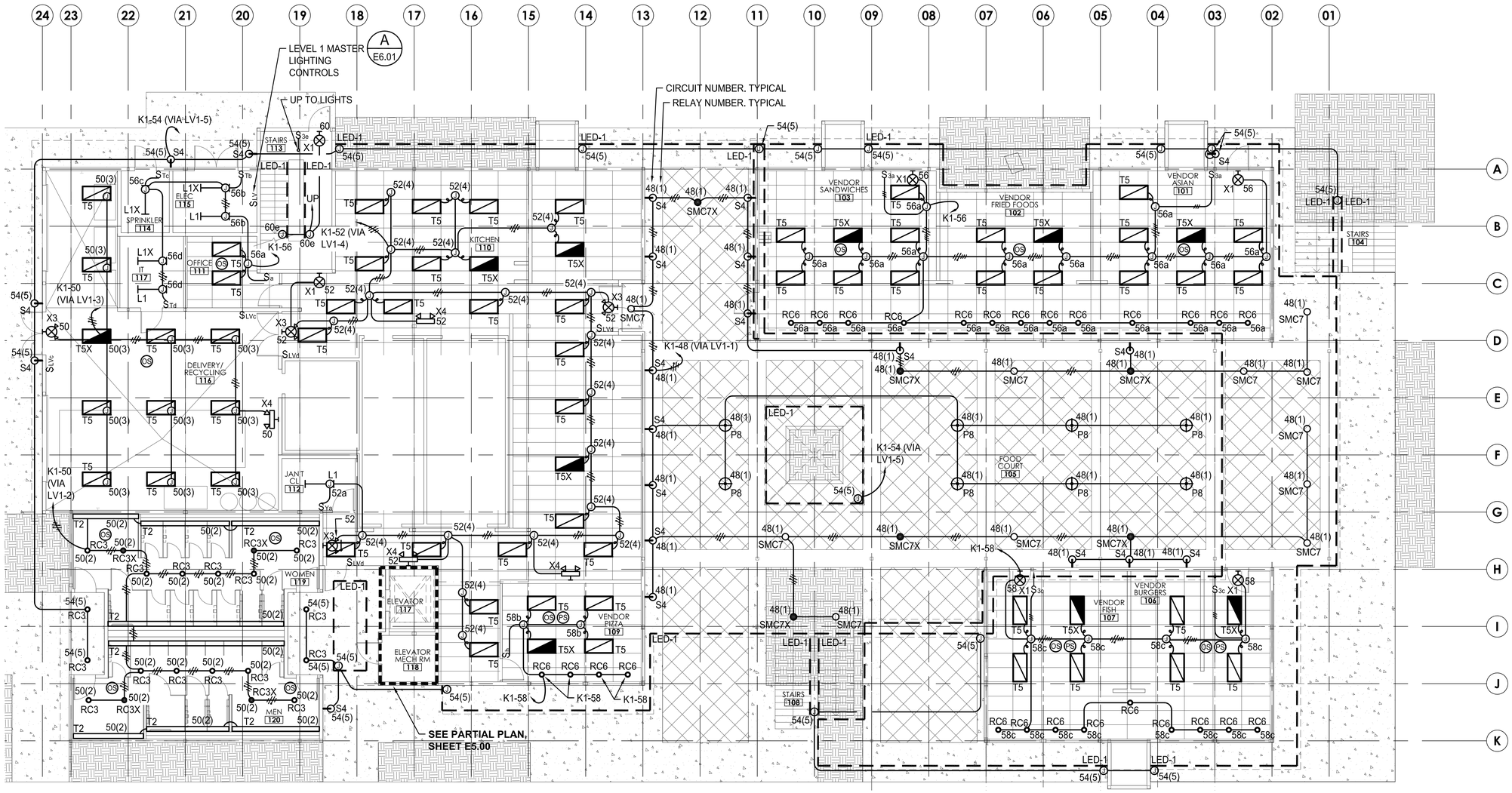
SHEET TITLE
ELECTRICAL SITE PLAN

SHEET #
E1.00

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

GENERAL NOTES:

1. SEE GENERAL NOTES, SHEET E0.02.



LIGHTING FLOOR PLAN - LEVEL 1

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

N

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SHEET TITLE
LIGHTING FLOOR PLAN-LEVEL 1

SHEET #
E2.00

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

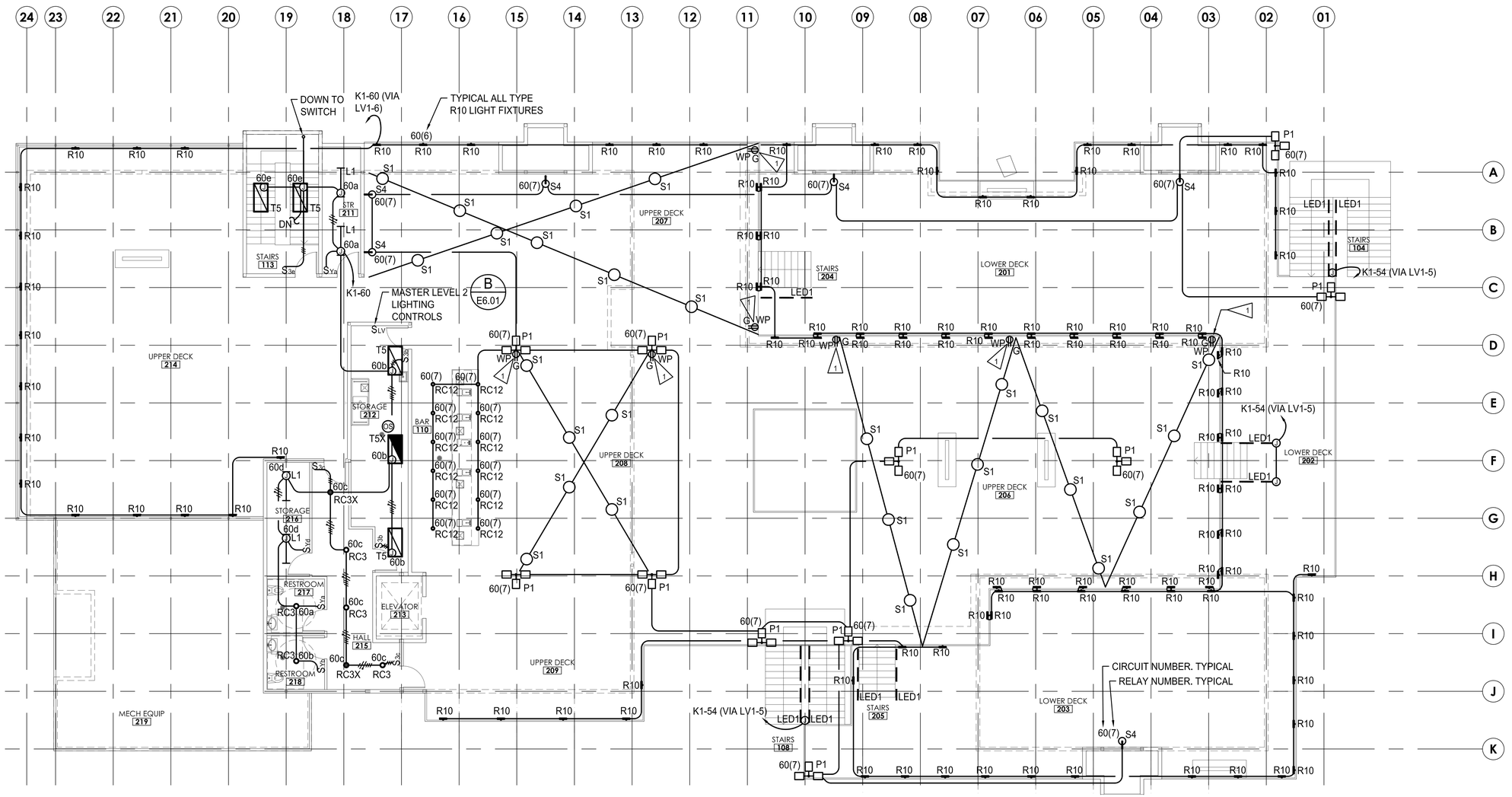
Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES:

1. SEE GENERAL NOTES, SHEET E0.02.

ELECTRICAL NOTES:

1. POLE MOUNTED RECEPTACLE. TO POWER STRING LIGHTING. SEE ARCHITECTURAL AND STRUCTURAL FOR POLE DETAILS. PROVIDE 3/4"C-#12 CU CONDUCTORS AND CONNECT TO K1-60, VIA LV1-7.



LIGHTING FLOOR PLAN - LEVEL 2

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

N

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110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
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SHEET TITLE
LIGHTING FLOOR PLAN-LEVEL 2

SHEET #
E2.01

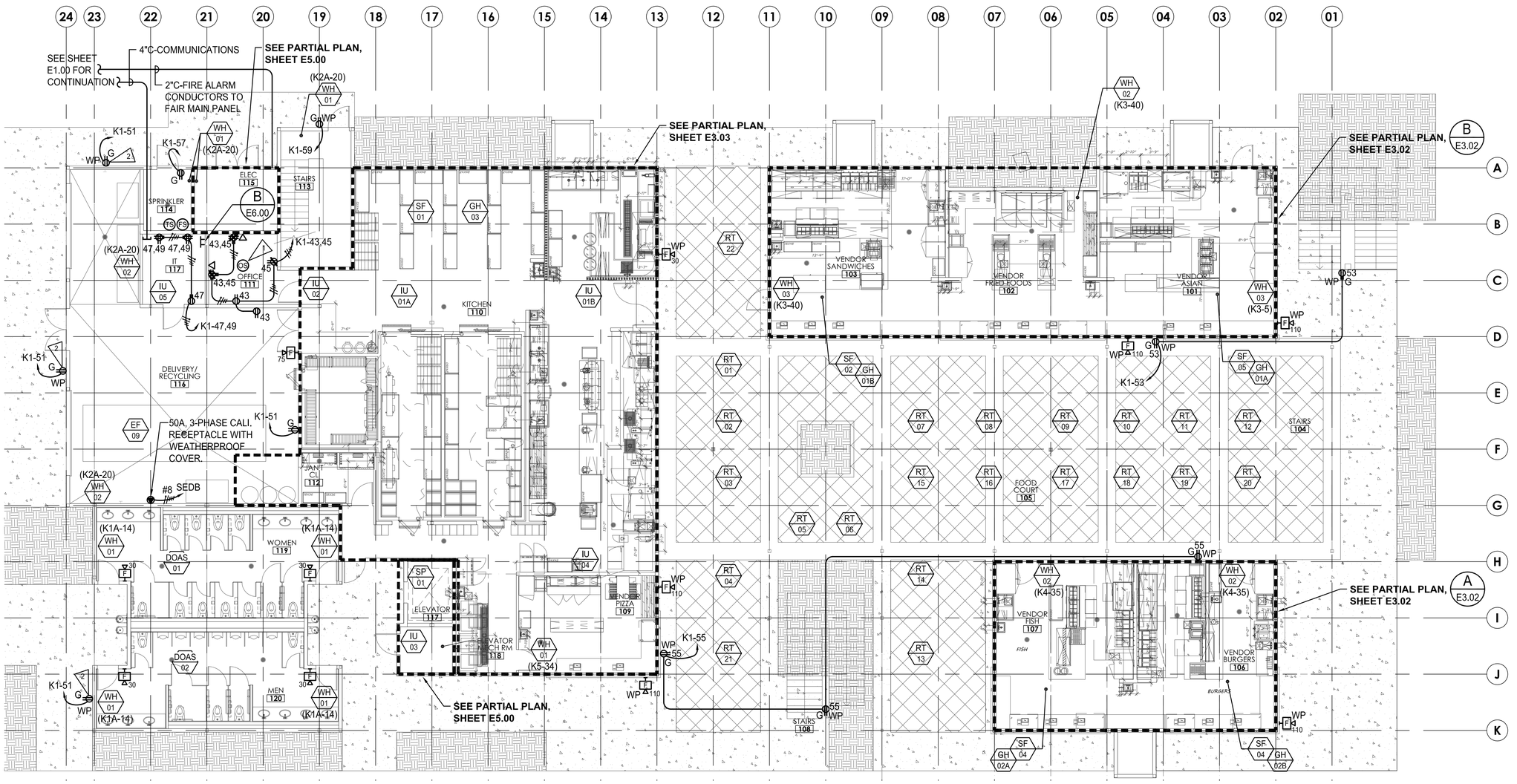
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

GENERAL NOTES:

1. SEE GENERAL NOTES, SHEET E0.02.

ELECTRICAL NOTES:

1. CEILING MOUNTED OCCUPANCY SENSOR SHALL CONTROL 50% OF THE RECEPTACLES IN THIS ROOM PER WASHINGTON STATE ENERGY CODE SECTION C405.10.
2. PROVIDE "IN-USE" LOCKABLE, WEATHERPROOF COVER.



POWER/SIGNAL FLOOR PLAN - LEVEL 1

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

N

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SHEET TITLE
POWER/SIGNAL FLOOR PLAN- LEVEL 1

SHEET #
E3.00

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

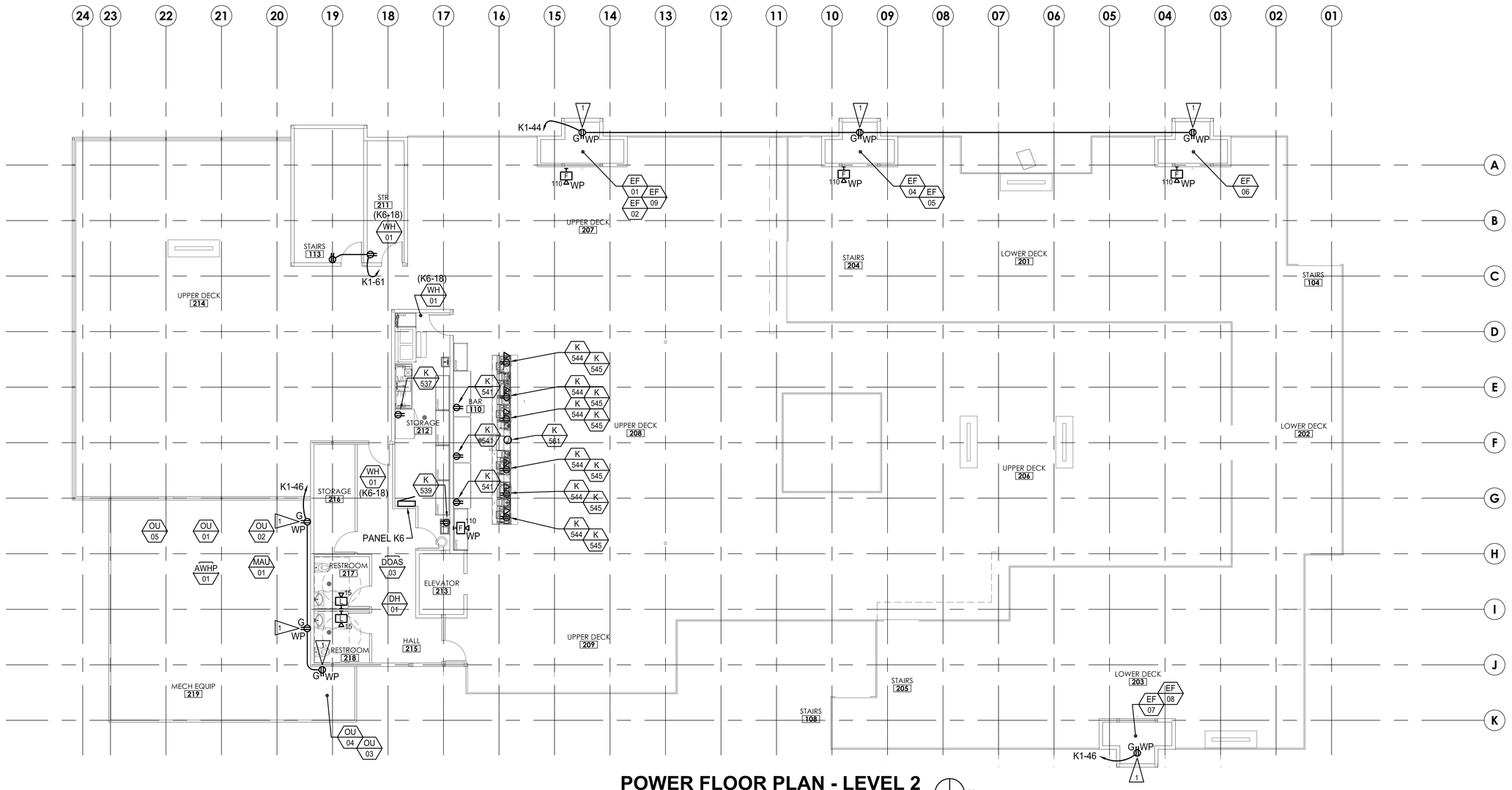
Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES:

1. SEE GENERAL NOTES, SHEET E0.02.

ELECTRICAL NOTES:

1. LOCATE ON MECHANICAL ROOF PLATFORM ADJACENT TO MECHANICAL EQUIPMENT PER N.E.C.



POWER FLOOR PLAN - LEVEL 2

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

N

JEFF BROWN ARCHITECTURE

JEFF BROWN ARCHITECTURE
12181 C STREET SOUTH
TACOMA, WA 98444

CONSULTANT

CROSS ENGINEERS, INC
923 MLK Jr. Way
Tacoma, WA 98405
info@crossengineers.com
Phone: (253) 759-0118
Job Number: 24-062

STEVEN L. HUBBS
STATE OF WASHINGTON
0029060
REGISTERED
PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

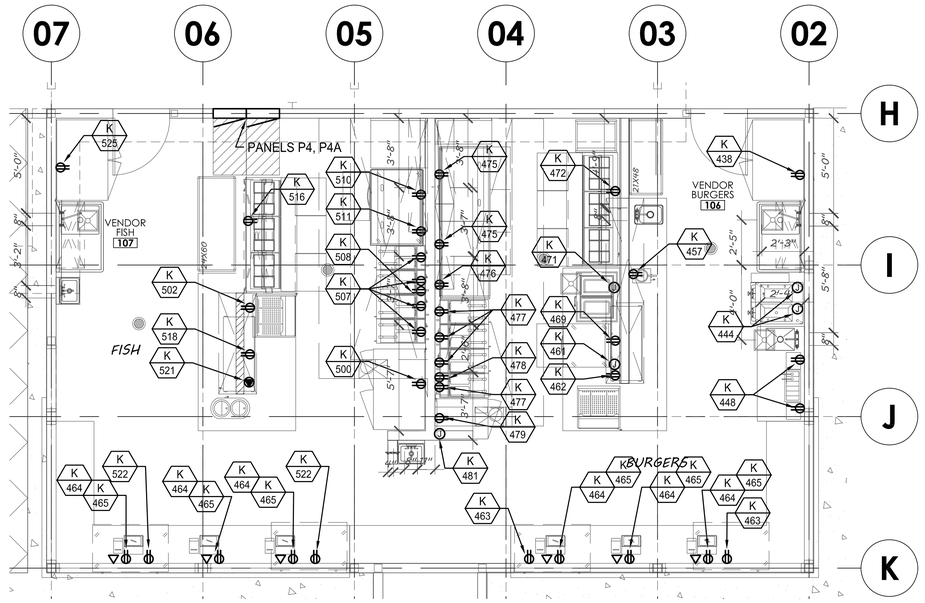
ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
POWER/SIGNAL FLOOR PLAN- LEVEL 2

SHEET #
E3.01

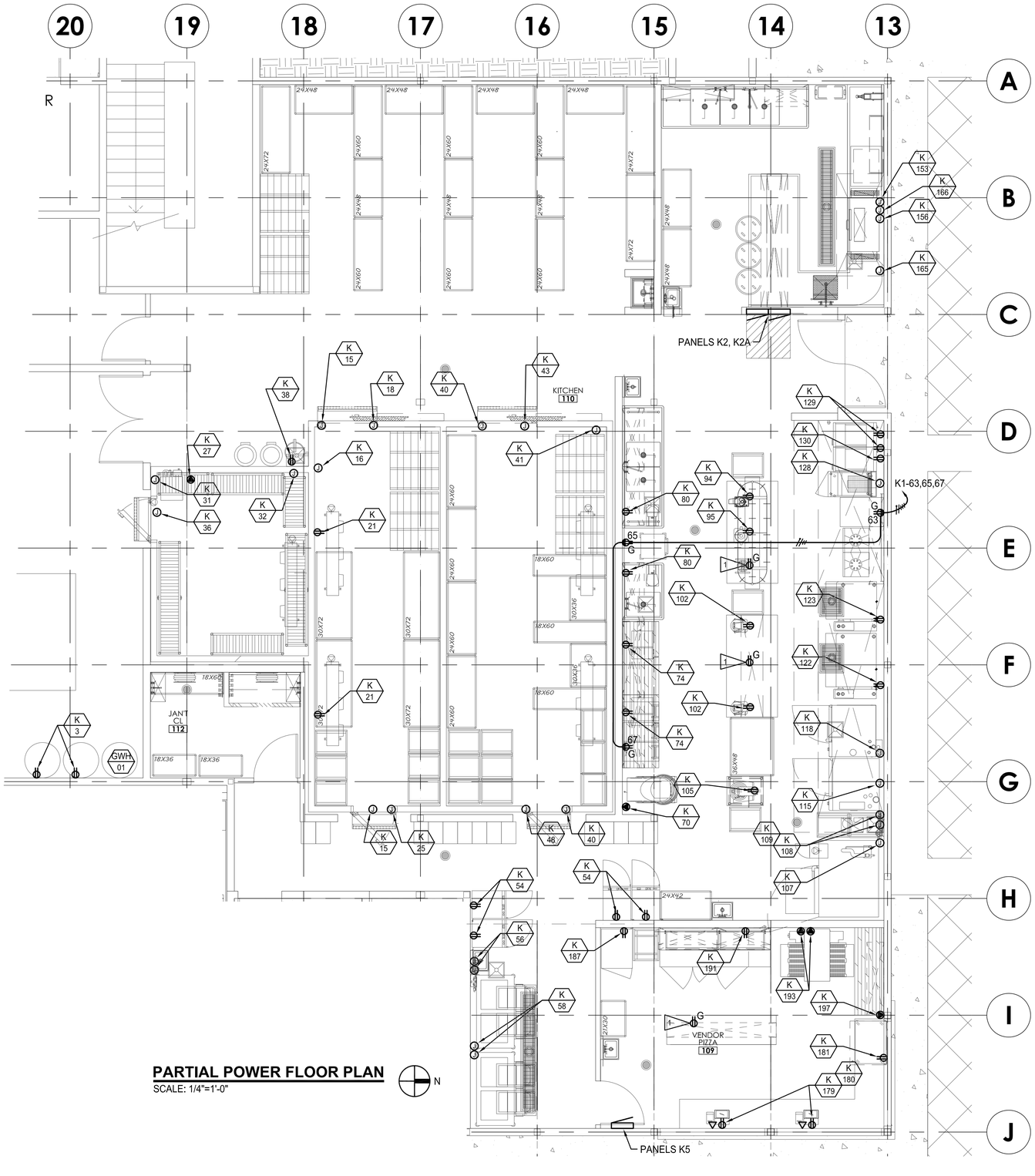
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



PARTIAL POWER FLOOR PLAN

SCALE: 1/4"=1'-0"

N

GENERAL NOTES:

1. SEE GENERAL NOTES, SHEET E0.02.

ELECTRICAL NOTES:

1. CONTRACTOR SHALL PROVIDE CEILING MOUNTED CORD DROP AT THIS LOCATION WITH KELLEM GRIPS.

JEFF BROWN ARCHITECTURE

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1218 C STREET SOUTH
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PROJECT NUMBER
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DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
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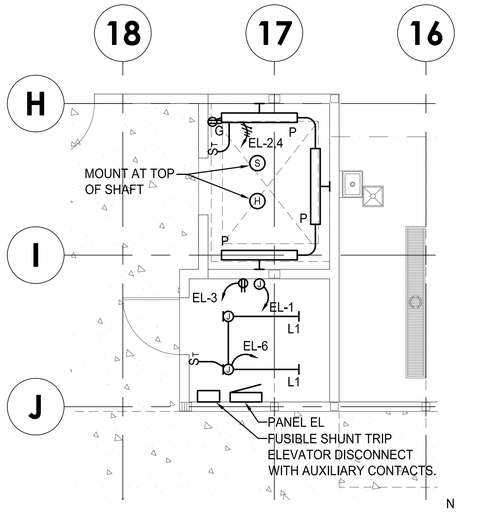
10.10.24		

SHEET TITLE
PARTIAL POWER FLOOR PLANS

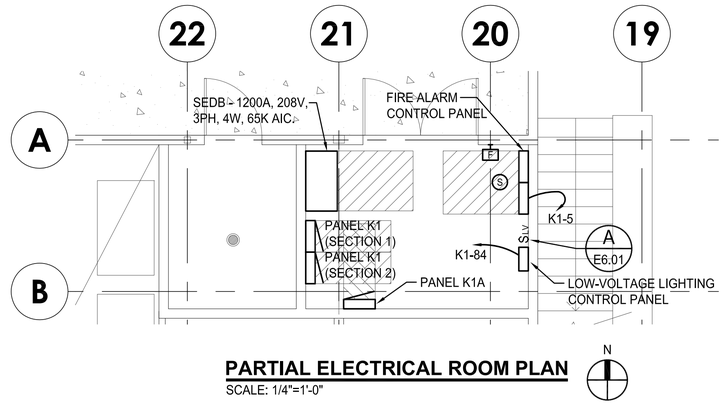
SHEET #
E3.03

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



PARTIAL ELEVATOR ELECTRICAL PLAN

SCALE: 1/4"=1'-0"



PARTIAL ELECTRICAL ROOM PLAN

SCALE: 1/4"=1'-0"

CONDUIT AND CONDUCTOR SCHEDULE:

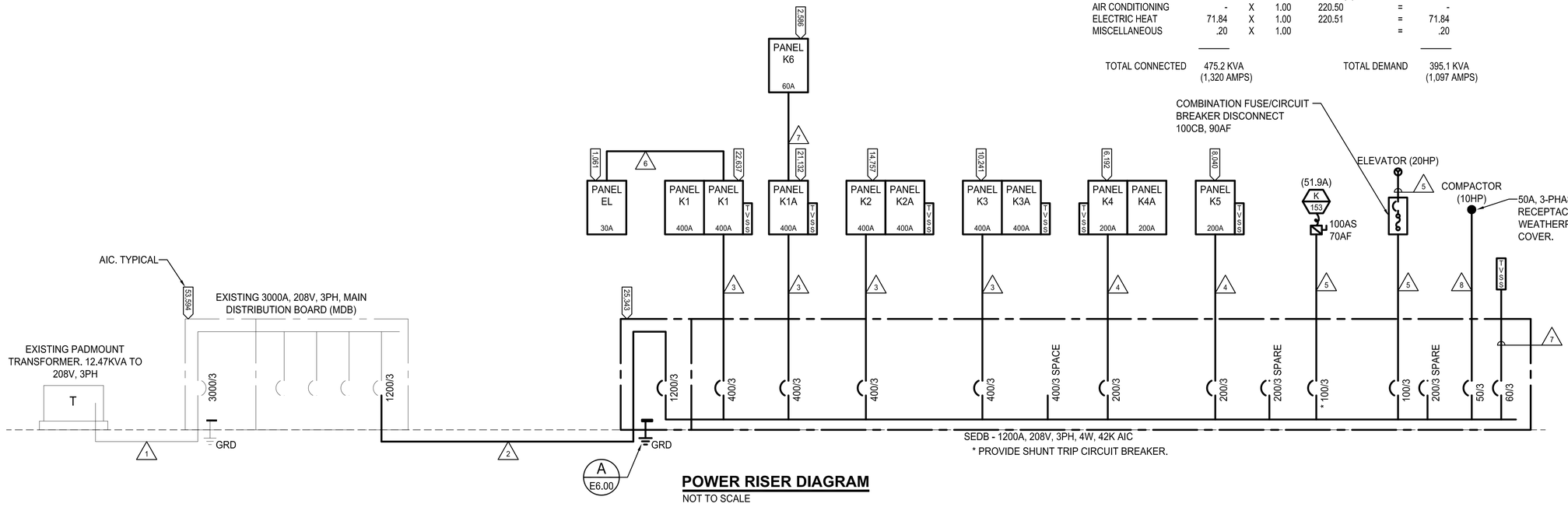
1. (E)(8)4"C-(4)#500 KCM CU EACH.
2. (4)4"C-(4)#500 KCM AL & (1)#250 KCM AL GRD EACH.
3. (2)4"C-(4)#250 KCM AL & (1)#1 AL GRD
4. 3"C-(4)#250 KCM AL & (1)#4 AL GRD
5. 1-1/2"C-(4)#2 CU & (1)#8 CU GRD
6. 3/4"C-(3)#10 CU & (1)#10 CU GRD
7. 1"C-(4)#6 CU & (1)#10 CU GRD
8. 1"C-(4)#8 CU & (1)#10 CU GRD

LEGEND:

- EXISTING (E)
- NEW (N)

SEDB LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.		DEMAND LOAD
LIGHTING	.90	X	1.25	210.19(A)(1)	=	1.13
RECEPTS TO 10KW	.54	X	1.00	220.44	= =	.54
RECEPTS OVER 10KW	-	X	0.50	220.44	= =	-
MOTORS (LARGEST)	22.36	X	1.25	430.24	=	27.95
MOTORS	133.71	X	1.00	430.24	= =	133.71
KITCHEN EQUIP.	245.67	X	0.65	220.56	= =	159.69
WELDERS	-	X	1.00	630.11(B)	= =	-
AIR CONDITIONING	-	X	1.00	220.50	= =	-
ELECTRIC HEAT	71.84	X	1.00	220.51	= =	71.84
MISCELLANEOUS	.20	X	1.00		= =	.20
TOTAL CONNECTED	475.2 KVA (1,320 AMPS)				TOTAL DEMAND	395.1 KVA (1,097 AMPS)



POWER RISER DIAGRAM

NOT TO SCALE

JEFF BROWN ARCHITECTURE
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PROJECT NUMBER
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DRAWING TYPE
96% CD
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05.03.24		
10.10.24		

SHEET TITLE
POWER RISER DIAGRAM

SHEET #
E5.00

City of Puyallup
Development & Permitting Services
ISSUED FOR:

Building	Planning
Engineering	Public Works
Fire	Traffic

(SECTION 1)

PANEL SCHEDULE

SURFACE MOUNTING
42,000 AIC

NO. **K1** LOCATION: ELECTRICAL ROOM
SERVING: MECHANICAL

120/208 VOLTS 3PHASE 4WIRE
400 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.
	1	CP-01, EWH-1	.85	20		30	7.60	EF-01,EF-05	2
	3	SF-01	1.18						4
*	5	FIRE ALARM PANEL	.10			3			6
	7	EF-03	1.42			30	7.06	EF-04,EF-07	8
	9	EF-09	.10	20					10
	11	PANEL EL	2.10	30		3			12
	13			2		30	2.27	EF-08	14
	15	EF-02	5.40	30					16
	17					3			18
	19			3		30		SPARE	20
	21	OU-01	7.28	60					22
	23			2		3			24
	25	OU-02	2.08	20		30	4.18	K-312	26
	27			2					28
	29	OU-03	2.08	20		3			30
	31			2		30	2.77	K-383	32
	33	OU-04	5.20	40					34
	35			2		3			36
	37	TVSS	-	30		60	12.17	MUA-01 K-113	38
	39								40
	41			3		3			42

REMARKS: PROVIDE FEED THRU LUGS TO PANEL K1 SECTION 2.

CONNECTED LOAD: 63.4 KVA 176 AMPS
DEMAND LOAD: 66.7 KVA 185 AMPS

* PROVIDE HANDLE LOCK.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K1 (SECTION 1) LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.		DEMAND LOAD
LIGHTING	.90	X	1.25	220.19(A)(1)	=	1.13
RECEPTS TO 10KW	.54	X	1.00	220.44	=	.54
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	12.17	X	1.25	430.24	=	15.21
MOTORS	49.60	X	1.00	430.24	=	49.60
KITCHEN EQUIP.	-	X	1.00	220.56	=	-
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	-	X	1.00	220.51	=	-
MISCELLANEOUS	.20	X	1.00		=	.20
TOTAL CONNECTED	63,4 KVA (176 AMPS)			TOTAL DEMAND		66,7 KVA (185 AMPS)

PANEL SCHEDULE

FLUSH MOUNTING
22,000 AIC

NO. **K2** LOCATION: ELECTRICAL ROOM
SERVING: KITCHEN EQUIPMENT

120/208 VOLTS 3PHASE 4WIRE
400 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.
*	1	K-3	.60	20		30	5.80	K-33	2
*	3	K-15,K-21 (QTY 2)	.96	20					4
	5	K-31	.36	20		3			6
	7	K-32	.21	20		20		SPARE	8
	9			2		30	2.41	K-58	10
	11	K-41	.43	20		2			12
	13	SPARE				30	2.41	K-56	14
*	15	K-54	1.65			2			16
*	17		1.65			30	2.41	K-56	18
*	19		1.65			2			20
*	21	K-54	1.65			30	7.85	K-42	22
*	23	K-74	1.18						24
*	25	K-74	1.18	20		3			26
	27	SPARE		30		30	5.40	K-40	28
	29			2					30
*	31	K-25,K-36,K-43,K-48	2.08	30		3			32
	33			2		30	2.41	K-58	34
	35	K-18	.52	30		2			36
	37			2		60	11.77	K-17	38
	39	K-16	3.81	30					40
	41			2		3			42

REMARKS: PROVIDE FEED THRU LUGS TO PANEL K2A.

CONNECTED LOAD: 119.4 KVA 332 AMPS
DEMAND LOAD: 78.8 KVA 219 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210,4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K2 LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.		DEMAND LOAD
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	116.04	X	0,65	220,56	=	75.43
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	3.40	X	1.00	220.51	=	3.40
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	119,4 KVA (332 AMPS)			TOTAL DEMAND		78,8 KVA (219 AMPS)

(SECTION 2)

PANEL SCHEDULE

SURFACE MOUNTING
42,000 AIC

NO. **K1** LOCATION: ELECTRICAL ROOM
SERVING: RECEPTACLES

120/208 VOLTS 3PHASE 4WIRE
400 AMPS WITH MAIN LUGS

CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.
43	RECEPTACLES	.72	20		20	.54	ROOF RECEPTACLES	44
45	RECEPTS. "CONTROLLED"	.54				.72	ROOF RECEPTACLES	46
47	RECEPTACLES	.54				.88	LIGHTING (LEVEL-1)	48
49		.36				.96	LIGHTING (LEVEL-1)	50
51		.54				1.19	LIGHTING (LEVEL-1)	52
53		.36				.82	EXTERIOR LIGHTS	54
55		.36				1.26	LIGHTING (LEVEL-1)	56
57		.18				.70	LIGHTING (LEVEL-1)	58
59		.18				.93	LIGHTING (LEVEL-2)	60
61		.36					SPARE	62
63		.18						64
65		.18						66
67	RECEPTACLES	.18						68
69	GWH-01	.36						70
71	SPARE							72
73								74
75								76
77								78
79								80
81							SPARE	82
83	SPARE		20		20	.10	LIGHTING CONTROL	84

REMARKS: .

CONNECTED LOAD: KVA AMPS
DEMAND LOAD: KVA AMPS

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K1 (SECTION 2) LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.		DEMAND LOAD
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	-	X	1.00	220.56	=	-
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	-	X	1.00	220.51	=	-
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	0,0 KVA (00 AMPS)			TOTAL DEMAND		0,0 KVA (00 AMPS)

PANEL SCHEDULE

FLUSH MOUNTING
22,000 AIC

NO. **K2A** LOCATION: ELECTRICAL ROOM
SERVING: KITCHEN EQUIPMENT

120/208 VOLTS 3PHASE 4WIRE
400 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
*	1	K-80	1.00	20		30	5.40	K-108	2	
*	3	K-80	1.00						4	
*	5	K-94	.84			3			6	
*	7	K-95	1.80			30	3.42	K-111	8	
*	9	K-102 (QTY 2)	.96						10	
**	11	K-166	.76	20		3			12	
	13			-		30	5.40	K-111.1	14	
	15	K-38	1.44	20					16	
**	17	K-156	.36	20		3			18	
	19			-		30	3.40	WH-01(3),WH-02(2)	20	
*	21	K-105	.72	20		2			22	
*	23	K-109	1.20	20		20	.76	K-165	24	
**	25	K-129 (QTY 2),K-130	.36	20		60	16.20	K-107	26	
	27			-					28	
**	29	K-122,K-123,K-128	1.09	20		3			30	
	31			-		30	8.28	K-70	32	*
***	33	K-115,K-118 (QTY 2)	3.04	30					34	
	35			2		3			36	
	37			-		30	-	TVSS	38	
	39	K-27	3.02	30					40	
	41			2		3			42	

REMARKS: .

CONNECTED LOAD: 60.5 KVA 168 AMPS
DEMAND LOAD: 40.5 KVA 112 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.
** PROVIDE SHUNT TRIP, GFCI CIRCUIT BREAKER.
*** PROVIDE SHUNT TRIP CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K2A LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.		DEMAND LOAD
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	57.05	X	0.65	220.56	=	37.08
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	3.40	X	1.00	220.51	=	3.40
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	60,5 KVA (168 AMPS)			TOTAL DEMAND		40,5 KVA (112 AMPS)

PANEL SCHEDULE

SURFACE MOUNTING
42,000 AIC

NO. **K1A** LOCATION: ELECTRICAL ROOM
SERVING: MECHANICAL

120/208 VOLTS 3PHASE 4WIRE
400 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
	1	RT-01 THRU 11	2.29	20		30	5.62	SF-02,SF-03	2	
	3	SPARE							4	
	5	RT-12 THRU 22	2.29			3			6	
	7	SPARE		20		30	6.77	SF-04,SF-05	8	
	9	OU-05	3.56	30					10	
	11			2		3			12	
	13	PANEL K6	14.60	60		30	1.51	WH-01 (QTY 4)	14	
	15			2		2			16	
	17	EF-06	2.99	30				SPACE	18	
	19					30	1.43	SP-01	20	*
	21			3		2			22	
	23	DOAS-02,03	3.17	30		30	-	TVSS	24	
	25			2					26	
	27	DOAS-01	2.10	30		3			28	
	29			2		20	1.20	GH-01A - 03	30	
	31	DH-01	5.00	30		30	3.42	K-399	32	
	33								34	
	35			3		3			36	
	37	AWHP-01	48.24	200		60	12.60	K-490	38	
	39								40	
	41			3		3			42	

REMARKS: .

CONNECTED LOAD: 116.8 KVA 324 AMPS
DEMAND LOAD: 115.2 KVA 320 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K1A LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.		DEMAND LOAD
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	12.60	X	1.25	430.24	=	15,75
MOTORS	29.06	X	1.00	430.24	=	29.06
KITCHEN EQUIP.	13.45	X	0.65	220.56	=	8.74
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	61.67	X	1.00	220.51	=	61.67
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	116.8 KVA (324 AMPS)			TOTAL DEMAND		115,2 KVA (320 AMPS)

PANEL SCHEDULE

SURFACE MOUNTING
22,000 AIC

NO. **K3** LOCATION: ELECTRICAL ROOM
SERVING: KITCHEN EQUIPMENT

120/208 VOLTS 3PHASE 4WIRE
400 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS		TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
**	1	K-319	1.08	20		20	1.44	K-340 (QTY 4)	2	*
	3			-			.48	K-341 (QTY 4)	4	*
	5	WH-03	1.50	20			.83	K-357	6	*
	7			2			1.61	K-376 (QTY 2)	8	
*	9	K-304	.91	20			1.44	K-340 (QTY 4)	10	*
*	11	K-305	.62				.48	K-341 (QTY 4)	12	*
*	13	K-331	.73			20	1.46	K-363 (QTY 2)	14	**
*	15	K-336	1.02			-			16	
*	17	K-356 (QTY 2)	.93			20	1.46	K-363 (QTY 2)	18	**
**	19	K-321 (QTY 2),K-322	.86	20		-			20	
	21			-		30	2.08	K-335	22	
**	23	SPARE		20		2			24	
	25			-		30	3.64	K-310	26	
**	27	K-317	1.44	20					28	
	29			-		3			30	
**	31	SPARE		20		20	.73	K-364	32	**
	33			-		-			34	
*	35	K-308	.83	20		20	1.08	K-408	36	**
*	37	K-320	.96	20		-			38	
*	39	K-348	2.12	20		30	2.63	WH-02,WH-03	40	
	41			2		2			42	

REMARKS: PROVIDE FEED THRU LUGS TO PANEL K3A.

CONNECTED LOAD: 54.1 KVA 150 AMPS
DEMAND LOAD: 36.6 KVA 102 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.
** PROVIDE SHUNT TRIP, GFCI CIRCUIT BREAKER.
*** PROVIDE SHUNT TRIP CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K3 LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.		DEMAND LOAD
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	49.99	X	0.65	220.56	=	32,49
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	4.13	X	1.00	220.51	=	4,13
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	54.1 KVA (150 AMPS)			TOTAL DEMAND		36,6 KVA (102 AMPS)

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Phone: (253) 759-0118

Job Number: 24-062

STEVEN L. HUBBS
STATE OF WASHINGTON
20029060
REGISTERED
PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
PANEL SCHEDULES

SHEET #
E5.01

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

PANEL SCHEDULE

SURFACE MOUNTING
22,000 AIC

NO. **K3A** LOCATION: ELECTRICAL ROOM
SERVING: KITCHEN EQUIPMENT

120/208 VOLTS 3PHASE 4WIRE
400 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS			TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
*	1	K-378	1.01	20			20	.96	K-409	2	*
	3	K-378	.50						SPARE	4	*
*	5	K-372	1.44							6	
	7	K-382	1.39							8	
*	9	K-393 (QTY 2)	1.66							10	*
**	11	K-400	1.66	20						12	*
	13			-			20		SPARE	14	**
**	15	K-404,K-405	.47	20			-			16	
	17			-			30		SPARE	18	
**	19	SPARE		20			30		SPARE	20	
	21			-						22	
*	23	K-420	.73	20			3			24	
*	25	K-423	1.80				30	4.16	K-427	26	
*	27	K-425	1.02				2			28	
*	29	SPARE					20		SPARE	30	
*	31	SPARE					30	2.63	K-398	32	
*	33	SPARE								34	
*	35	K-372	1.44	20			3			36	
***	37	K-410	.89	20			30	-	TVSS	38	
	39			2						40	
	41			-			3			42	

REMARKS: .

CONNECTED LOAD: 21.8 KVA 61 AMPS
DEMAND LOAD: 14.1 KVA 39 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.
** PROVIDE SHUNT TRIP, GFCI CIRCUIT BREAKER.
*** PROVIDE SHUNT TRIP CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K3A LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.	DEMAND LOAD	
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	21.76	X	0.65	220.56	=	14.14
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	-	X	1.00	220.51	=	-
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	21.8 KVA (61 AMPS)			TOTAL DEMAND		14.1 KVA (39 AMPS)

PANEL SCHEDULE

SURFACE MOUNTING
10,000 AIC

NO. **K5** LOCATION: PIZZA KITCHEN
SERVING: PIZZA KITCHEN

120/208 VOLTS 3PHASE 4WIRE
200 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS			TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
*	1	K-179 (QTY 2)	.72	20			20	.78	K-191	2	*
*	3	K-180	.24						SPARE	4	
*	5	K-181	.46							6	
*	7	K-187	.62							8	
*	9	SPARE								10	
*	11	SPARE		20						12	
	13	K-193	13.32	50						14	
	15									16	
	17			3						18	
*	19	SPARE		50						20	
	21									22	
	23			3						24	
*	25	K-197	1.22	20						26	
	27	SPARE								28	
	29									30	
	31						20		SPARE	32	
	33						20	.38	WH-01	34	
	35	SPARE		20			2			36	
	37	TVSS	-	30			30	1.40	K-202	38	
	39									40	
	41			3			3			42	

REMARKS: .

CONNECTED LOAD: 19.1 KVA 53 AMPS
DEMAND LOAD: 12.6 KVA 35 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.
** PROVIDE SHUNT TRIP, GFCI CIRCUIT BREAKER.
*** PROVIDE SHUNT TRIP CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K5 LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.	DEMAND LOAD	
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	18.76	X	0.65	220.56	=	12.19
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	.38	X	1.00	220.51	=	.38
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	19.1 KVA (53 AMPS)			TOTAL DEMAND		12.6 KVA (35 AMPS)

PANEL SCHEDULE

FLUSH MOUNTING
10,000 AIC

NO. **K4** LOCATION: ELECTRICAL ROOM
SERVING: GENERAL LOADS

120/208 VOLTS 3PHASE 4WIRE
200 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS			TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
**	1	K-477	1.08	20			20		SPARE	2	*
	3			-				1.08	K-464 (QTY 3)	4	*
*	5	K-479	.91	20				1.08	K-464 (QTY 3)	6	*
*	7	K-500	1.08					.72	K-465 (QTY 6)	8	*
*	9	K-502	1.44					.30	K-469	10	*
**	11	K-507,K-510	1.20	20					SPARE	12	*
	13			-			20	.36	K-510 (QTY 3)	14	**
*	15	K-516	.73	20			-			16	
*	17	SPARE					20	1.92	K-518	18	*
*	19	K-522 (QTY 2)	.93				30	1.99	K-471	20	
*	21	K-525	.83				30		SPARE	22	
*	23	K-438	.83				2			24	
*	25	K-448 (QTY 2)	.53				30	-	TVSS	26	
*	27	K-457	.52							28	
*	29	K-463 (QTY 2)	.93				3			30	
	31	K-461	1.92				30	3.42	K-501	32	
	33	SPARE		20						34	
	35	WH-02 (QTY 2)	2.26	30			3			36	
	37			2			30	5.40	K-482	38	
*	39	K-521	2.04	20			3			40	
	41			2			3			42	

REMARKS: PROVIDE FEED THRU LUGS TO PANEL K4A.

CONNECTED LOAD: 49.7 KVA 138 AMPS
DEMAND LOAD: 33.1 KVA 92 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.
** PROVIDE SHUNT TRIP, GFCI CIRCUIT BREAKER.
*** PROVIDE SHUNT TRIP CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K4 LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.	DEMAND LOAD	
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	47.43	X	0.65	220.56	=	30.83
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	2.26	X	1.00	220.51	=	2.26
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	49.7 KVA (138 AMPS)			TOTAL DEMAND		33.1 KVA (92 AMPS)

PANEL SCHEDULE

SURFACE MOUNTING
10,000 AIC

NO. **K6** LOCATION: LEVEL 2
SERVING: LEVEL 2 BAR

120/208 VOLTS 3PHASE 4WIRE
60 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS			TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
	1	K-532	2.41	30			30	2.41	K-532	2	
	3			2			2			4	
*	5	K-544 (QTY 3)	1.08	20			20	.83	K-537	6	*
*	7	K-544 (QTY 3)	1.08					.36	K-539	8	*
*	9	K-545 (QTY 3)	.36					.88	K-541	10	*
*	11	K-545 (QTY 3)	.36					.88	K-541	12	*
	13	SPARE						.88	K-541	14	*
	15	SPARE					20		SPARE	16	*
	17	SPARE		20			20	1.14	WH-01 (QTY 3)	18	
	19	K-561	1.92	30			2			20	

REMARKS: .

CONNECTED LOAD: 14.6 KVA 41 AMPS
DEMAND LOAD: 9.9 KVA 28 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.
** PROVIDE SHUNT TRIP, GFCI CIRCUIT BREAKER.
*** PROVIDE SHUNT TRIP CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K6 LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.	DEMAND LOAD	
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	13.45	X	0.65	220.56	=	8.74
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	1.14	X	1.00	220.51	=	1.14
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	14.6 KVA (41 AMPS)			TOTAL DEMAND		9.9 KVA (28 AMPS)

PANEL SCHEDULE

FLUSH MOUNTING
10,000 AIC

NO. **K4A** LOCATION: VENDOR FISH/BURGERS
SERVING: VENDOR FISH/BURGERS

120/208 VOLTS 3PHASE 4WIRE
200 AMPS WITH MAIN LUGS

	CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS			TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
	1	K-444	5.04	30			30	6.48	K-444	2	
	3									4	
	5			3			3			6	
**	7	K-462	1.44	20			20	.73	K-472	8	*
	9			-					SPARE	10	
**	11	K-478	.96	20						12	
	13			-						14	
**	15	K-475 (QTY 2)	.24	20						16	
	17			-						18	
**	19	K-476,K-511	.94	20						20	
	21			-						22	
**	23	SPARE		20			20		SPARE	24	
	25			-					SPACE	26	
**	27	SPARE		20						28	
	29			-						30	
**	31	SPARE		20						32	
	33			-						34	
**	35	SPARE		20						36	
	37			-						38	
**	39	SPARE		20						40	
	41			-					SPACE	42	

REMARKS: .

CONNECTED LOAD: 16.2 KVA 45 AMPS
DEMAND LOAD: 10.5 KVA 29 AMPS

* PROVIDE GFCI CIRCUIT BREAKER.
** PROVIDE SHUNT TRIP, GFCI CIRCUIT BREAKER.
*** PROVIDE SHUNT TRIP CIRCUIT BREAKER.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL K4A LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.	DEMAND LOAD	
LIGHTING	-	X	1.25	220.19(A)(1)	=	-
RECEPTS TO 10KW	-	X	1.00	220.44	=	-
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	-	X	1.25	430.24	=	-
MOTORS	-	X	1.00	430.24	=	-
KITCHEN EQUIP.	16.19	X	0.65	220.56	=	10.52
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	-	X	1.00	220.51	=	-
MISCELLANEOUS	-	X	1.00		=	-
TOTAL CONNECTED	16.2 KVA (45 AMPS)			TOTAL DEMAND		10.5 KVA (29 AMPS)

PANEL SCHEDULE

SURFACE MOUNTING
10,000 AIC

NO. **EL** LOCATION: ELEVATOR ROOM
SERVING: ELEVATOR EQUIPMENT

120/208 VOLTS 1PH 3WIRE
30 AMPS WITH MAIN LUGS

CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS			TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	
1	ELEV. SHUNT TRIP COIL	.10	20			20	.50	PIT LIGHTS	2	*
3	ELEV. ROOM RECEPT.	.18	20				.36	PIT RECEPTACLES	4	*
5	AC-1	.20	15				.40	CAB LIGHTS	6	*
7	SPARE		20				.40	EXHAUST FANS	8	*
9			20					SPARE	10	
11			20			20			12	

REMARKS: .

CONNECTED LOAD: 2.1 KVA 10 AMPS
DEMAND LOAD: 2.4 KVA 12 AMPS

* PROVIDE HANDLE LOCKS.

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

PANEL EL LOAD CALCULATIONS

SERVICE	KVA LOAD		FACTOR	NEC REF.	DEMAND LOAD	
LIGHTING	.90	X	1.25	220.19(A)(1)	=	1.13
RECEPTS TO 10KW	.54	X	1.00	220.44	=	.54
RECEPTS OVER 10KW	-	X	0.50	220.44	=	-
MOTORS (LARGEST)	.40	X	1.25	430.24	=	.50
MOTORS	.20	X	1.00	430.24	=	.20
KITCHEN EQUIP.	-	X	1.00	220.56	=	-
WELDERS	-	X	1.00	630.11(B)	=	-
AIR CONDITIONING	-	X	1.00	220.50	=	-
ELECTRIC HEAT	-	X	1.00	220.51	=	-
MISCELLANEOUS	.10	X	1.00		=	.10
TOTAL CONNECTED	2.1 KVA (10 AMPS)			TOTAL DEMAND		2.4 KVA (12 AMPS)

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STEVEN L. HUBBS
STATE OF WASHINGTON
20029060
REGISTERED
PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
PANEL SCHEDULES

SHEET #
E5.02

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
AWHP 01	WATER HEATER	MECH. ROOM	208	3	- / -	134.0	3P200	150	-	1-1/4"C-4#2 CU & 1#8 CU GRD	K1A-37	(3)
CP 01	CIRC. PUMP	MECH. ROOM	120	1	.17 / -	- -	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1-1	
DH 01	DUCT HEATER	SF-01	208	3	- / 5.0		3P30	20	-	3/4"C-4#10 CU & 1#10 CU GRD	K1A-31	
DOAS 01	DEDICATED OUTDOOR AIC	WOMENS	208	1	- / -	10.1 FLA	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K1A-27	
DOAS 02	DEDICATED OUTDOOR AIC	MENS	208	1	- / -	10.1 FLA	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K1A-23	
DOAS 03	DEDICATED OUTDOOR AIC	LEVEL 2	208	1	- / -	5.1 FLA	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K1A-23	
EF 01	EXHAUST FAN	KITCHEN	208	3	3 / -	9.5 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-2	(3)
EF 02	EXHAUST FAN	KITCHEN	208	3	5 / -	15.0 FLA	3P30	20	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-15	(3)
EF 03	EXHAUST FAN	PIZZA	120	1	1 / -	11.8 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1-7	
EF 04	EXHAUST FAN	SANDWICH	208	3	3 / -	10.1 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-8	(3)
EF 05	EXHAUST FAN	FRIED FOODS	208	3	1 / -	11.6 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-2	
EF 06	EXHAUST FAN	ASIAN	208	3	2 / -	8.3 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1A-17	(3)
EF 07	EXHAUST FAN	FISH	208	3	3 / -	9.5 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-8	(3)
EF 08	EXHAUST FAN	BURGERS	208	3	.5 / -	6.3 FLA	3P30	10	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-14	
EF 09	EXHAUST FAN	DISHWASHER	120	1	.10 / -	- -	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1-9	
EWH 01	WATER HEATER (GAS)	MECH. ROOM	120	1	- / -	5.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1-1	
GH 01A	GAS DUCT HEATER	SATELLITE KITCHEN	120	1	- / -	2.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-30	
GH 01B	GAS DUCT HEATER	SATELLITE KITCHEN	120	1	- / -	2.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-30	
GH 02A	GAS DUCT HEATER	SATELLITE KITCHEN	120	1	- / -	2.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-30	
GH 02B	GAS DUCT HEATER	SATELLITE KITCHEN	120	1	- / -	2.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-30	
GH 03	GAS DUCT HEATER	DISHWASHER	120	1	- / -	2.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-30	
IU 01A	SPLIT SYSTEM INDOOR	KITCHEN	208	1	- / -	1.0	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	(4)	
IU 01B	SPLIT SYSTEM INDOOR	KITCHEN	208	1	- / -	1.0	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	(4)	
IU 02	SPLIT SYSTEM INDOOR	OFFICE	208	1	- / -	1.0	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	(4)	

MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
IU 03	SPLIT SYSTEM INDOOR	ELEV. MECH. ROOM	208	1	- / -	1.0	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	(4)	
IU 04	SPLIT SYSTEM INDOOR	OFFICE	208	1	- / -	1.0	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	(4)	
IU 05	SPLIT SYSTEM INDOOR	SEE MECH.	208	1	- / -	1.0	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	(4)	
MUA 01	MAKE-UP AIR UNIT	ROOF	208	3	- / -	33.8	3P60 NEMA 3R	50	-	1"C-4#6 CU & 1#10 CU GRD	K1-38	(3)
OU 01	SPLIT SYSTEM OUTDOOR	ROOF	208	1	- / -	35.0	2P60 NEMA 3R	50	-	1"C-3#6 CU & 1#10 CU GRD	K1-21	
OU 02	SPLIT SYSTEM OUTDOOR	ROOF	208	1	- / -	10.0	2P30 NEMA 3R	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K1-25	
OU 03	SPLIT SYSTEM OUTDOOR	ROOF	208	1	- / -	10.0	2P30 NEMA 3R	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K1-29	
OU 04	SPLIT SYSTEM OUTDOOR	ROOF	208	1	- / -	25.0	2P60 NEMA 3R	35	-	1"C-3#6 CU & 1#10 CU GRD	K1-33	
OU 05	SPLIT SYSTEM OUTDOOR	ROOF	208	1	- / -	17.1	2P30 NEMA 3R	25	-	1"C-3#6 CU & 1#10 CU GRD	K1A-9	
RT 01	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 02	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 03	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 04	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 05	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 06	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 07	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 08	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 09	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 10	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 11	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-1	
RT 12	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 13	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 14	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	

MECHANICAL EQUIPMENT CONNECTION SCHEDULES NOTES:

(1) PROVIDE 20A MOTOR RATED TOGGLE SWITCH

(2) PROVIDE FULL VOLTAGE, NON-REVERSING STARTER, SIZE AND BREAKER AS NOTED. PILOT LIGHT "ON", PILOT LIGHT "OFF", 3-POSITION SWITCH H-O-A, (1) N.C. STARTER AUXILIARY CONTACT, (1) N.O. STARTER AUXILIARY CONTACT.

(3) PROVIDE DUCT SMOKE DETECTOR. DIVISION 26 SHALL FURNISH DUCT SMOKE DETECTOR TO DIVISION 23 CONTRACTOR FOR LOCATE AND INSTALLATION. ALL CONNECTIONS TO FIRE ALARM BY DIVISION 26.

(4) INDOOR UNIT POWERED FROM OUTDOOR UNIT . PROVIDE POWER AND CONTROL WIRING BETWEEN UNITS PER MANUFACTURER REQUIREMENTS. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

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Phone: (253) 759-0118
Job Number: 24-062

STEVEN L. HUBBS STATE OF WASHINGTON 0029060 REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
MECHANICAL SCHEDULE

SHEET #
E5.03

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
RT 15	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 16	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 17	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 18	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 19	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 20	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 21	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
RT 22	GAS RADIANT HEATER	OPEN SEATING	120	1	- / -	1.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1A-5	
SF 01	EXHAUST FAN	KITCHEN	120	1	- / -	9.8 FLA	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1-3	
SF 02	EXHAUST FAN	SATELLITE KITCHEN	208	3	2 / -	7.8 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1A-2	
SF 03	EXHAUST FAN	HOOD 06	208	3	2 / -	7.8 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1A-2	
SF 04	EXHAUST FAN	HOOD 07	208	3	2 / -	7.8 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1A-8	
SF 05	EXHAUST FAN	HOOD 04/05	208	3	3 / -	11.0 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1A-8	
SP 01	ELEVATOR SUMP	ELEVATOR	208	1	3/4 / -	6.9 FLA	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K1A-20	
WH 01	WALL HEATER	SEE DRAWINGS	208	1	- / .38	-	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	SEE DWG	
WH 02	WALL HEATER	SEE DRAWINGS	208	1	- / 1.13	-	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	SEE DWG	
WH 03	WALL HEATER	SEE DRAWINGS	208	1	- / 1.5	-	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	SEE DWG	
01 03	GAS WATER HEATER	KITCHEN	120	1	- / -	3.0	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K1-69	

MECHANICAL EQUIPMENT CONNECTION SCHEDULES NOTES:

1. PROVIDE 20A MOTOR RATED TOGGLE SWITCH
2. PROVIDE FULL VOLTAGE, NON-REVERSING STARTER, SIZE AND BREAKER AS NOTED. PILOT LIGHT "ON", PILOT LIGHT "OFF", 3-POSITION SWITCH H-O-A, (1) N.C. STARTER AUXILIARY CONTACT, (1) N.O. STARTER AUXILIARY CONTACT.
3. PROVIDE DUCT SMOKE DETECTOR. DIVISION 26 SHALL FURNISH DUCT SMOKE DETECTOR TO DIVISION 23 CONTRACTOR FOR LOCATE AND INSTALLATION. ALL CONNECTIONS TO FIRE ALARM BY DIVISION 26.
4. INDOOR UNIT POWERED FROM OUTDOOR UNIT . PROVIDE POWER AND CONTROL WIRING BETWEEN UNITS PER MANUFACTURER REQUIREMENTS. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

KITCHEN EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
K 3	OIL RECLAIM TANKS	KITCHEN	120	1	- / -	-	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2-1	
K 15	WALK-IN FREEZER	KITCHEN	120	1	- / -	5.0 FLA	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2-3	
K 16	FREEZER BLOWER COIL	KITCHEN	208	1	- / -	18.3 FLA	2P30	25	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-39	
K 17	REMOTE REFER SYSTEM	KITCHEN	208	3	- / -	32.7 FLA	3P60	50	-	1"C-4#6 CU & 1#10 CU GRD	K2-38	
K 18	AIR CURTAIN	KITCHEN	208	1	1/5 / -	2.5 FLA	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-35	
K 21	FREEZER DRAIN HEAT TAPE	KITCHEN	120	1	- / -	3.0 FLA	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2-35	3
K 25	AIR CURTAIN	KITCHEN	208	1	1/5 / -	2.5 FLA	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-31	
K 27	BEER SYSTEM POWER PACK	KITCHEN	208	1	- / -	14.5 FLA	2P30	20	-	3/4"C-3#10 CU & 1#10 CU GRD	K2A-39	
K 31	WALK-IN BEER COOLER	KITCHEN	120	1	- / -	3.0 FLA	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2-5	
K 32	KEG COOLER BLOWER COIL	KITCHEN	208	1	- / -	1.0 FLA	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-7	
K 33	KEG COOLER REFER SYSTEM	KITCHEN	208	3	- / -	16.1 FLA	3P30	20	-	3/4"C-4#10 CU & 1#10 CU GRD	K2-2	
K 36	AIR CURTAIN	KITCHEN	208	1	1/5 / -	2.5 FLA	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-31	
K 38	NITROGEN GENERATOR	KITCHEN	120	1	- / -	12.0 FLA	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-15	
K 40	WALK-IN COOLER	KITCHEN	208	3	- / -	15.0 FLA	3P30	25	-	3/4"C-4#10 CU & 1#10 CU GRD	K2-28	
K 41	COOLER BLOWER COIL	KITCHEN	120	1	- / -	3.6 FLA	1	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2-11	
K 42	COOLER REFER SYSTEM	KITCHEN	208	3	- / -	21.8 FLA	3P30	25	-	3/4"C-4#10 CU & 1#10 CU GRD	K2-22	
K 43	AIR CURTAIN	KITCHEN	208	1	1/5 / -	2.5 FLA	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-31	
K 48	AIR CURTAIN	KITCHEN	208	1	1/5 / -	2.5 FLA	1	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-31	
K 54	MOBILE HEATER CABINET	KITCHEN	120	1	- / 1.65	13.8 FLA	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2-15,17, 19,21	4
K 56	REMOTE CONDENSING UNIT	KITCHEN	208	1	- / -	11.6 FLA	2P30	20	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-14,18	3 13
K 58	REMOTE CONDENSING UNIT	KITCHEN	208	1	- / -	11.6 FLA	2P30	20	-	3/4"C-3#10 CU & 1#10 CU GRD	K2-10,34	3 13
K 70	130 LB SPIRAL MIXER	KITCHEN	208	3	4 / -	23.0 FLA	5	-	-	3/4"C-4#10 CU & 1#10 CU GRD	K2A-32	
K 74	DOUGH SHEETER	KITCHEN	120	1	1/2 / -	9.8 FLA	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2-23,25	3
K 80	CURLY FRY CUTTER	KITCHEN	120	1	- / -	-	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-1,3	3
K 94	COUNTER TOP FOOD PROCESSOR	KITCHEN	120	1	1 / -	7.0 FLA	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-5	
K 95	FOOD BLENDER	KITCHEN	120	1	4.2 / -	15.0 FLA	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-7	
K 102	COUNTER TOP MIXER	KITCHEN	120	1	- / -	4.0 FLA	2	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-9	3

KITCHEN EQUIPMENT CONNECTION SCHEDULES NOTES:

1. PROVIDE 20A MOTOR RATED TOGGLE SWITCH
2. PROVIDE 120V, 20A, DUPLEX RECEPTACLE.
3. QUANTITY OF TWO(2).
4. QUANTITY OF FOUR(4).
5. PROVIDE NEMA L15-20 RECEPTACLE.
6. QUANTITY OF THREE(3).
7. QUANTITY OF SIX(6).
8. PROVIDE NEMA 6-15 RECEPTACLE.
9. QUANTITY OF EIGHT(8).
10. PROVIDE NEMA 15-50 RECEPTACLE.
11. PROVIDE NEMA L14-20 RECEPTACLE.
12. PROVIDE DUCT SMOKE DETECTOR, DIVISION 26 SHALL FURNISH DUCT SMOKE DETECTOR TO DIVISION 23 CONTRACTOR FOR LOCATE AND INSTALLATION. ALL CONNECTION TO FIRE ALARM BY DIVISION 26.
13. PROVIDE CONNECTION TO "ICE MACHINE HEAD" PER KITCHEN DRAWINGS.

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Job Number: 24-062

STEVEN L. HUBBS STATE OF WASHINGTON 0029060 REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
MECHANICAL/ KITCHEN SCHEDULE

SHEET #
E5.04

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

KITCHEN EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
K 105	20 QUART MIXER	KITCHEN	120	1	- / -	6.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-21	
K 107	ROLL-IN BLAST CHILLER	KITCHEN	208	3	- / 14.3	45.0 FLA	3P60	60	-	1"C-4#6 CU & 1#10 CU GRD	K2A-26	
K 108	CLASS 1 EXHAUST HOOD	KITCHEN	208	3	- / -	15.0 FLA	3P30	25	-	3/4"C-4#10 CU & 1#10 CU GRD	K2A-2	(12)
K 109	HOOD CONTROL PANEL	KITCHEN	120	1	- / -	10.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-23	
K 111	EXHAUST FAN	KITCHEN	208	3	- / -	9.5 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K2A-8	
K 111.1	EXHAUST FAN	KITCHEN	208	3	- / -	15.0 FLA	3P30	20	-	3/4"C-4#10 CU & 1#10 CU GRD	K2A-14	
K 113	MAKE-UP AIR FAN	KITCHEN	208	3	- / -	33.8 FLA	3P60	50	-	1"C-4#6 CU & 1#10 CU GRD	K1-38	SEE (12) MUA-01
K 115	COMBI OVEN	KITCHEN	208	1	- / -	10.3 FLA	2P30	20	-	3/4"C-3#10 CU & 1#10 CU GRD	K2A-33	
K 118	COMBI OVEN	KITCHEN	208	1	- / -	4.3 FLA	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K2A-33	(3)
K 122	40 GAL. TILT SKILLET	KITCHEN	120	1	- / -	1.4 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-29	
K 123	20 GAL. TILT SKILLET	KITCHEN	120	1	- / -	1.4 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-29	
K 128	FRYER DUMP STATION	KITCHEN	120	1	- / -	6.3 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-29	
K 129	DEEP FAT FRYER	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-25	(3)
K 130	FRYER FILTER SYSTEM	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-25	
K 153	44" HIGH TEMP DISHMACHINE	KITCHEN	208	3	- / -	51.9	3P100	70	-	1-1/2"C-4#2 CU & 1#8 CU GRD	SEDB	
K 156	GAS BOOSTER HEATER	KITCHEN	120	1	- / -	3.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-17	
K 165	EXHAUST HOOD	KITCHEN	120	1	- / -	6.3 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-24	
K 166	EXHAUST FAN DISHMACHINE	KITCHEN	120	1	- / -	6.3 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K2A-11	
K 179	P.O.S.	KITCHEN	120	1	- / -	3.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K5-1	(3)
K 180	TICKET PRINTER	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K5-3	(3)
K 181	UNDERCOUNTER REFER	KITCHEN	120	1	1/4 / -	3.86 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K5-5	
K 187	REACH-IN REFER	KITCHEN	120	1	1/4 / -	5.2 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K5-7	
K 191	PIZZA PREP REFER	KITCHEN	120	1	1/5 / -	6.5 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K5-2	
K 193	PIZZA BAKE OVEN	KITCHEN	208	3	- / -	37.0 FLA	3P60	50	-	1"C-4#6 CU & 1#10 CU GRD	K5-13	
K 197	PIZZA WARMING MERCHANDISER	KITCHEN	120	1	- / -	10.2 FLA	(2)	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K5-25	
K 202	MAKE-UP AIR	KITCHEN	208	3	- / -	3.9 FLA	3P30	10	-	3/4"C-4#10 CU & 1#10 CU GRD	K5-38	
K 304	REACH-IN FREEZER	KITCHEN	120	1	1/2 / -	7.6 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-9	
K 305	REACH-IN REFER	KITCHEN	120	1	1/4 / -	5.2 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-11	
K 308	REFRIGERATOR	KITCHEN	120	1	- / -	6.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-35	
K 310	EXHAUST FAN	KITCHEN	208	3	- / -	10.1 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K3-26	(12)
K 312	MAKE-UP AIR FAN	KITCHEN	208	3	- / -	11.6 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-26	(12)
K 317	FRENCH FRY WARMER	KITCHEN	120	1	- / 1.44	12.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-27	

KITCHEN EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
K 319	4 POT DEEP FRYER	KITCHEN	120	1	- / -	9.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-1	
K 320	FRYER FILTRATION SYSTEM	KITCHEN	120	1	- / -	8.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-37	
K 321	GRIDDLE (GAS)	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-19	(3)
K 322	REFRIGERATED BASE	KITCHEN	120	1	1/4 / -	5.2 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-19	
K 331	SANDWICH PREP REFER	KITCHEN	120	1	1/3 / -	6.1 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-13	
K 335	HOT FOOD WELL	KITCHEN	208	1	- / -	10.0 FLA	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K3-22	
K 336	BEVERAGE REFER	KITCHEN	120	1	1/2 / -	8.5 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-15	
K 340	P.O.S.	KITCHEN	120	1	- / -	3.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-2,10	(9)
K 341	TICKET PRINTER	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-4,12	(9)
K 348	FOOD WARMING MERCHANDISER	KITCHEN	208	1	- / -	10.2 FLA	(11)	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K3-39	
K 356	UNDERCOUNTER BEVERAGE REFER	KITCHEN	120	1	1/4 / -	3.86 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-17	(3)
K 357	REACH-IN REFER	KITCHEN	120	1	1/3 / -	6.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-6	
K 363	GAS FRYER	KITCHEN	120	1	1/3 / -	6.1 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-14,18	(4)
K 364	FRYER FILTRATION SYSTEM	KITCHEN	120	1	- / -	6.1 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-32	
K 372	FRIED FOOD DUMP STATION	KITCHEN	120	1	- / 1.44	12.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-5,35	(3)
K 376	DROP-IN WARMING WELL	KITCHEN	120	1	- / .80	6.7 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-8	(3)
K 378	24" STRIP HEAT LAMP	KITCHEN	120	1	- / -	4.2 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-1,3	(6)
K 382	EXHAUST FAN	KITCHEN	120	1	- / -	11.6 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-7	(12)
K 383	MAKE-UP AIR FAN	KITCHEN	208	3	- / -	7.7 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1-32	(12)
K 393	REACH-IN REFER	KITCHEN	120	1	1/3 / -	6.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-9	(3)
K 398	EXHAUST FAN	KITCHEN	208	3	- / -	7.3 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K3A-32	(12)
K 399	MAKE-UP AIR FAN	KITCHEN	208	3	- / -	9.5 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K1A-32	(12)
K 400	MOBILE HEATED CABINET	KITCHEN	120	1	- / 1.65	13.8 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-11	
K 404	48" GRIDDLE	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-15	
K 405	REFRIGERATED EQUIPMENT STAND	KITCHEN	120	1	1/5 / -	2.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-15	
K 408	GAS FRYER	KITCHEN	120	1	- / -	9.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3-36	
K 409	FRYER FILTRATION SYSTEM	KITCHEN	120	1	- / -	8.0 FLA	(2)	-	-	3/4"C-2#10 CU & 1#10 CU GRD	K3A-2	

KITCHEN EQUIPMENT CONNECTION SCHEDULES NOTES:

(1) PROVIDE 20A MOTOR RATED TOGGLE SWITCH
(2) PROVIDE 120V, 20A, DUPLEX RECEPTACLE.
(3) QUANTITY OF TWO(2).
(4) QUANTITY OF FOUR(4).
(5) PROVIDE NEMA L15-20 RECEPTACLE.
(6) QUANTITY OF THREE(3).
(7) QUANTITY OF SIX(6).
(8) PROVIDE NEMA 6-15 RECEPTACLE.
(9) QUANTITY OF EIGHT(8).
(10) PROVIDE NEMA 15-50 RECEPTACLE.
(11) PROVIDE NEMA L14-20 RECEPTACLE.
(12) PROVIDE DUCT SMOKE DETECTOR, DIVISION 26 SHALL FURNISH DUCT SMOKE DETECTOR TO DIVISION 23 CONTRACTOR FOR LOCATE AND INSTALLATION. ALL CONNECTION TO FIRE ALARM BY DIVISION 26.
(13) PROVIDE CONNECTION TO "ICE MACHINE HEAD" PER KITCHEN DRAWINGS.

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STEVEN L. HUBBS STATE OF WASHINGTON 20029060 REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
KITCHEN SCHEDULE

SHEET #
E5.05

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

KITCHEN EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
K 410	COMBI OVEN	KITCHEN	208	1	- / -	4.3 FLA	2P30	10	-	3/4"C-3#10 CU & 1#10 CU GRD	K3A-37	
K 420	SANDWICH PREP REFER	KITCHEN	120	1	1/3 / -	6.1 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-23	
K 423	60" HEAT STRIP LAMP	KITCHEN	120	1	- / -	15.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-25	
K 425	BEVERAGE REFER	KITCHEN	120	1	1/2 / -	8.5 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K3A-27	
K 427	5 WELL HOT FOOD	KITCHEN	208	1	- / -	20.0 FLA	2P30	30	-	3/4"C-3#10 CU & 1#10 CU GRD	K3A-26	
K 438	REACH-IN REFER	KITCHEN	120	1	1/3 / -	6.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-23	
K 444	SOFT SERVE MACHINE	KITCHEN	208	3	(2)2 / -	14.0/18.0 FLA	(2)3P30	20	-	3/4"C-4#10 CU & 1#10 CU GRD	K4A-1,2	(3)
K 448	MIXER DRINK BAR	KITCHEN	120	1	- / .75	2.2 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-25	(3)
K 457	FOOD TOPPING WARMER	KITCHEN	120	1	- / .52	4.3 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-27	
K 461	HEATED DISPLAY	KITCHEN	120	1	- / -	16.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-31	
K 462	FRENCH FRY WARMER	KITCHEN	120	1	- / 1.44	12.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4A-7	
K 463	UNDERCOUNTER BEVERAGE REFER	KITCHEN	120	1	1/4 / -	3.86 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-29	(3)
K 464	P.O.S.	KITCHEN	120	1	- / -	3.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-4,6	(7)
K 465	TICKET PRINTER	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-8	(7)
K 469	UNDERCOUNTER REFER W/ DRAWERS	KITCHEN	120	1	1/5 / -	2.46 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-10	
K 471	HOT FOOD WELL	KITCHEN	120	1	- / -	16.6 FLA	1P30	-	-	3/4"C-2#10 CU & 1#10 CU GRD	K4-20	
K 472	REFRIGERATED PAN TOP	KITCHEN	120	1	1/3 / -	6.1 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4A-8	
K 475	GRIDDLE (GAS)	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4A-15	(3)
K 476	REFRIGERATED EQUIPMENT STAND	KITCHEN	120	1	1/4 / -	-	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4A-19	
K 477	4 POT DEEP FRYER	KITCHEN	120	1	- / -	9.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-1	
K 478	FRYER FILTRATION SYSTEM	KITCHEN	120	1	- / -	8.0 FLA	(2)	-	-	3/4"C-2#10 CU & 1#10 CU GRD	K4A-11	
K 479	REACH-IN FREEZER	KITCHEN	120	1	1/2 / -	7.6 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-5	
K 482	EXHAUST FAN	KITCHEN	208	3	- / -	15.0 FLA	3P30	20	-	3/4"C-4#10 CU & 1#10 CU GRD	K4-38	(12)
K 490	MAKE-UP AIR FAN	KITCHEN	208	3	- / -	33.8 FLA	3P60	60	-	1"C-4#6 CU & 1#10 CU GRD	K1A-38	(12)
K 500	REACH-IN REFER	KITCHEN	120	1	1/3 / -	9.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-7	
K 501	EXHAUST FAN	KITCHEN	208	3	- / -	9.5 FLA	3P30	15	-	3/4"C-4#10 CU & 1#10 CU GRD	K4-32	(12)
K 502	FRENCH FRY WARMER	KITCHEN	120	1	- / 1.44	12.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-9	
K 507	4 POT DEEP FRYER	KITCHEN	120	1	- / -	9.0 FLA	(1)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-11	
K 510	GRIDDLE (GAS)	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-11,14	(4)
K 511	REFRIGERATED EQUIP. STAND	KITCHEN	120	1	- / -	2.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4A-19	
K 516	REFRIGERATED PAN TOP	KITCHEN	120	1	1/3 / -	6.1 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-15	
K 518	HEATED DISPLAY	KITCHEN	120	1	- / -	16.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-18	

KITCHEN EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

ITEM	DESCRIPTION	LOCATION	VOLTS	PHASE	HP / KW	MIN. CIRCUIT AMPS	DISC. SWITCH	FUSES	MAGNETIC STARTER	FEEDER	CIRCUIT NUMBER	NOTES
K 521	FOOD PAN WARMER	KITCHEN	208	1	- / 2.0	9.8 FLA	(8)	-	-	3/4"C-3#10 CU & 1#10 CU GRD	K4-39	
K 522	UNDERCOUNTER BEVERAGE REFER	KITCHEN	120	1	1/4 / -	3.86 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-19	(3)
K 525	REACH-IN REFER	KITCHEN	120	1	1/3 / -	6.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K4-21	
K 532	REMOTE CONDENSING UNIT	KITCHEN	208	1	- / -	11.6 FLA	2P30	15	-	3/4"C-3#10 CU & 1#10 CU GRD	K6-1,2	(3)
K 537	REACH-IN REFER	KITCHEN	120	1	1/3 / -	6.9 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K6-6	
K 539	SODA CARBONATOR	KITCHEN	120	1	- / -	3.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K6-8	
K 541	REFRIGERATED MERCHANDISER	KITCHEN	120	1	- / -	7.3 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K6-10, 12,14	(6)
K 544	P.O.S.	KITCHEN	120	1	- / -	3.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K6-5,7	(7)
K 545	TICKET PRINTER	KITCHEN	120	1	- / -	1.0 FLA	(2)	-	-	3/4"C-2#12 CU & 1#12 CU GRD	K6-9,11	(7)
K 561	GLASSWASHER	KITCHEN	120	1	- / -	16.0 FLA	1P30	-	-	3/4"C-2#10 CU & 1#10 CU GRD	K6-19	

KITCHEN EQUIPMENT CONNECTION SCHEDULES NOTES:

(1) PROVIDE 20A MOTOR RATED TOGGLE SWITCH

(2) PROVIDE 120V, 20A, DUPLEX RECEPTACLE.

(3) QUANTITY OF TWO(2).

(4) QUANTITY OF FOUR(4).

(5) PROVIDE NEMA L15-20 RECEPTACLE.

(6) QUANTITY OF THREE(3).

(7) QUANTITY OF SIX(6).

(8) PROVIDE NEMA 6-15 RECEPTACLE.

(9) QUANTITY OF EIGHT(8).

(10) PROVIDE NEMA 15-50 RECEPTACLE.

(11) PROVIDE NEMA L14-20 RECEPTACLE.

(12) PROVIDE DUCT SMOKE DETECTOR, DIVISION 26 SHALL FURNISH DUCT SMOKE DETECTOR TO DIVISION 23 CONTRACTOR FOR LOCATE AND INSTALLATION. ALL CONNECTION TO FIRE ALARM BY DIVISION 26.

(13) PROVIDE CONNECTION TO "ICE MACHINE HEAD" PER KITCHEN DRAWINGS.

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Phone: (253) 759-0118
Job Number: 24-062

STEVEN L. HUBBS
STATE OF WASHINGTON
20029060
REGISTERED
PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

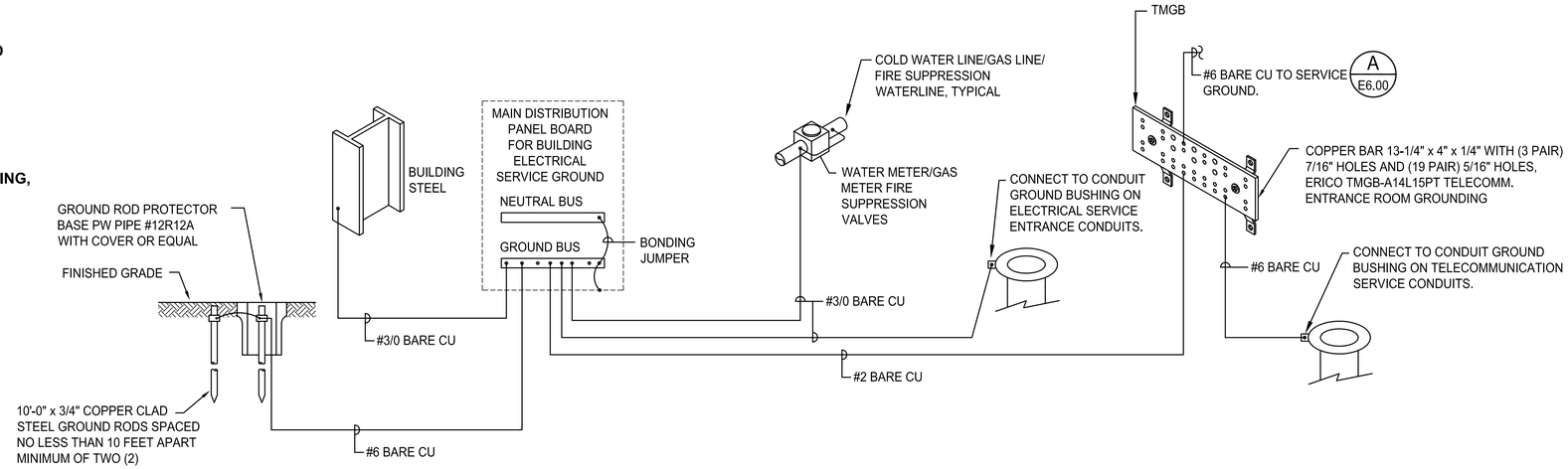
SHEET TITLE
KITCHEN SCHEDULE

SHEET #
E5.06

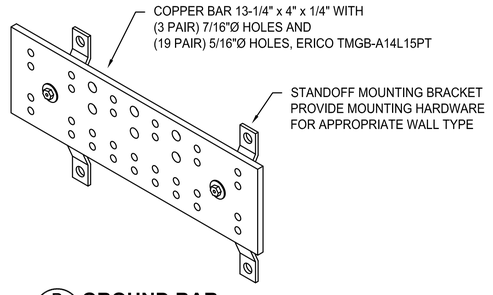
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

NOTES:

1. **CONTRACTOR MAY SIZE WIRES PER NEC 250.66 AND 250.104 IF SMALLER SIZES ARE ALLOWED PER THE NEC.**
2. **CONTRACTOR SHALL PROVIDE GROUNDING SHOP DRAWING FOR REVIEW. SHOP DRAWING SHALL INCLUDE SCALED SITE PLAN AND/OR FLOOR PLAN LOCATIONS OF GROUND RODS, GROUND WELLS, STEEL GROUNDING POINT(S), WATER PIPE GROUNDING, GROUND BARS, UFER GROUND AND BONDING.**



A E6.00 **BUILDING SERVICE GROUNDING TYPICAL**
NO SCALE



B E6.00 **GROUND BAR**
NOT TO SCALE

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Job Number: 24-062

STEVEN L. HUBBS
STATE OF WASHINGTON
0029060
REGISTERED
PROFESSIONAL ENGINEER

PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE

96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

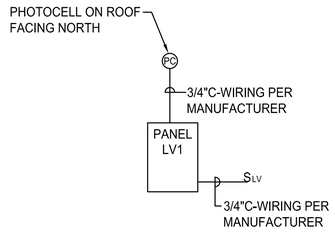
SHEET TITLE

ELECTRICAL DETAILS

SHEET #

E6.00

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

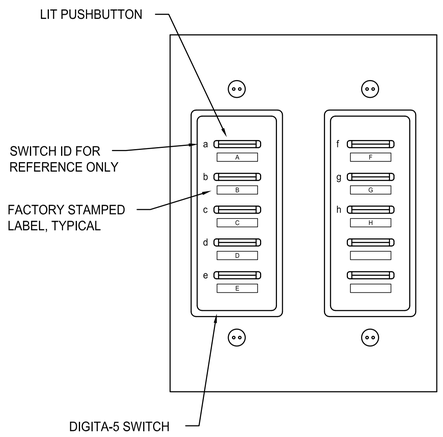


LOW-VOLTAGE LIGHTING CONTROL PANEL
NOT TO SCALE

LOW VOLTAGE LIGHTING CONTROL PANEL - LV1
(20 RELAY PANEL)

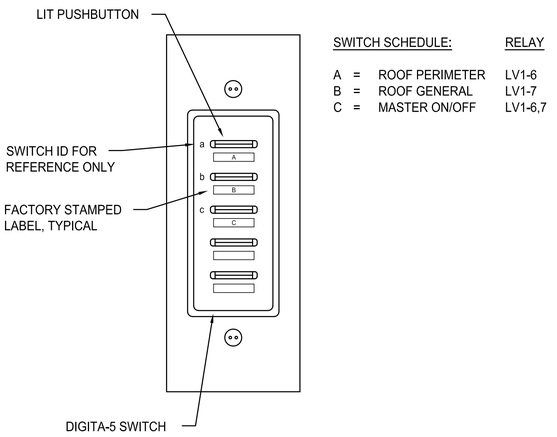
CIRCUIT	RELAY	LOCAL SWITCH	AREA	CONTROL
K1-48	LV1-1 *	LOW-VOLTAGE	FOOD COURT	TC1,a
K1-50	LV1-2	LOW-VOLTAGE	RESTROOM	TC1,OS,b
K1-50	LV1-3	LOW-VOLTAGE	DELIVERY/RECYCLING	TC1,OS,c
K1-52	LV1-4	LOW-VOLTAGE	KITCHEN 110	TC1,d
K1-54	LV1-5 *	LOW-VOLTAGE	EXTERIOR (LVL 1)	TC2
K1-60	LV1-6 *	LOW-VOLTAGE	ROOF PERIMETER	TC2,a
K1-60	LV1-7 *	LOW-VOLTAGE	ROOF GENERAL	TC2,b
SPARE	LV1-8-12	-	-	-
SPARE	LV1-13-15 *	-	-	-

LIGHTING CONTROL NOTES:
TC1 = TIMECLOCK. LIGHTS SHALL TURN ON AT 6AM AND OFF AT 12AM.
TC2 = EXTERIOR TIMECLOCK. LIGHTS SHALL TURN ON AT DUSK AND OFF AT DAWN.
OS = OCCUPANCY SENSOR
PS = PHOTOSENSOR
* = DIMMING RELAY



SWITCH SCHEDULE:			RELAY
A	=	FOOD COURT	LV1-1
B	=	RESTROOMS	LV1-2
C	=	DELIVERY/RECYLCLING	LV1-3
D	=	KITCHEN 110	LV1-4
E	=	EXTERIOR	LV1-5
F	=	ROOF PERIMETER	LV1-6
G	=	ROOF GENERAL	LV1-7
H	=	MASTER	LV1-1,2,3,4,5,6,7

A E6.01 LIGHTING CONTROL SWITCH PLATE - LEVEL 1
NOT TO SCALE



SWITCH SCHEDULE:			RELAY
A	=	ROOF PERIMETER	LV1-6
B	=	ROOF GENERAL	LV1-7
C	=	MASTER ON/OFF	LV1-6,7

B E6.01 LIGHTING CONTROL SWITCH PLATE - LEVEL 2
NOT TO SCALE

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0029060
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PROJECT NAME/ADDRESS

WASHINGTON STATE FAIR
INTERNATIONAL VILLAGE
110 9TH AVE SW
PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
ELECTRICAL DETAILS

SHEET #
E6.01

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

A. BIDDING DOCUMENTS INCLUDING DIVISION 1 GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, PUBLISHED ADDENDA AND RELATED WORK IN OTHER DIVISIONS FORM AN INTEGRAL PART OF THESE SPECIFICATIONS AND SHALL BE BINDING ON THE CONTRACTOR FOR ALL WORK PERFORMED.

1.02 DEFINITIONS

A. THE TERM "PROVIDE" SHALL MEAN FURNISH, INSTALL AND CONNECT EQUIPMENT AND MATERIALS COMPLETE IN OPERATING CONDITION.

B. THE TERM "APPROVED" AS USED HEREIN SHALL MEAN THE WRITTEN APPROVAL OF THE ENGINEER.

C. THE TERM "CONTRACTOR" AS USED HEREIN SHALL MEAN THE ORGANIZATION RESPONSIBLE FOR ACCOMPLISHING ALL WORK WITHIN THE CONTRACT DOCUMENTS. THE PLURAL TERM "CONTRACTORS" AS USED HEREIN SHALL INCLUDE ALL OF THE TRADE ORGANIZATIONS THAT COMPRISE THE PROJECT WORKFORCE.

D. THE TERM "DRAWINGS" AS USED HEREIN SHALL MEAN ALL CONTRACT DRAWINGS.

E. NEC MEANS NATIONAL ELECTRICAL CODE.

F. THE TERM "CODE" AS USED HEREIN SHALL MEAN ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.

1.03 SCOPE OF WORK

A. THE WORK CONSISTS OF FURNISHING, INSTALLING, TESTING AND PLACING IN SATISFACTORY OPERATION ALL EQUIPMENT, MATERIALS, DEVICES AND APPURTENANCES, NECESSARY TO PROVIDE COMPLETE SYSTEMS ACCORDING TO THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. IN GENERAL THIS INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, ETC. TO COMPLETE THE WORK.

B. THE PROJECT CONSISTS OF RE-CONFIGURING THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM TO ALLOW NEW EQUIPMENT TO BE INSTALLED. EXISTING ELECTRICAL EQUIPMENT NOT TO BE RETAINED SHALL BE REMOVED AND CLEANED UP TO MAKE THE SPACE USEABLE.

C. ALL MATERIALS SHALL BE NEW, FREE FROM DEFECTS, OF THE QUALITY SPECIFIED HEREIN AND ON THE DRAWINGS. MATERIALS SHALL BE DESIGNED TO INSURE SATISFACTORY OPERATION AND RATED LIFE IN THE PREVAILING ENVIRONMENTAL CONDITIONS WHERE THEY ARE BEING INSTALLED. THEY SHALL BE LISTED BY UNDERWRITER'S LABORATORIES OR A RECOGNIZED TESTING LABORATORY FOR USE UNDER THESE CONDITIONS.

D. EACH TYPE OF MATERIAL SHALL BE OF THE SAME MAKE AND QUALITY THROUGHOUT THE JOB. THE MATERIALS FURNISHED SHALL BE THE LATEST STANDARD DESIGN PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THEIR PRODUCTION.

1.04 INTENT OF DRAWINGS

A. THE DRAWINGS ARE INTENDED TO SERVE AS WORKING DRAWINGS FOR GENERAL LAYOUT. EQUIPMENT, RECEPTACLES, LIGHTS, TELEPHONE/DATA OUTLETS AND RACEWAYS ARE PARTIALLY DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE ACTUAL ROUTINGS OR ALL APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.

B. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. WHAT IS CALLED FOR IN EITHER IS BINDING AS IF CALLED FOR IN BOTH. IN CASE OF CONFLICT WITHIN THE DRAWINGS, SPECIFICATIONS OR BETWEEN DRAWINGS AND SPECIFICATIONS THE ARCHITECT/ENGINEER WILL SELECT THE METHOD TO BE TAKEN.

C. TAKE ALL WORKING DIMENSIONS FROM FIELD MEASUREMENTS. IN THE EVENT OF CONFLICT, REPORT DISCREPANCIES TO THE ARCHITECT/ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

D. MINOR CHANGES IN THE LOCATIONS OF RACEWAYS, DEVICES AND THE LIKE, FROM THOSE SHOWN ON THE PLANS, SHALL BE MADE WITHOUT EXTRA CHARGE IF SO DIRECTED BY THE ARCHITECT/ENGINEER/OWNER BEFORE INSTALLATION.

E. ALL SYSTEMS SPECIFIED HEREIN AND SHOWN ON THE DRAWINGS SHALL BE COMPLETE AND OPERATIONAL IN EVERY DETAIL. MENTION OF CERTAIN MATERIALS IN BIDDING DOCUMENTS SHALL NOT BE CONSTRUED AS RELEASING THE CONTRACTOR FROM FURNISHING SUCH ADDITIONAL MATERIALS AND PERFORMING ALL LABOR REQUIRED TO PROVIDE A COMPLETE AND OPERABLE SYSTEM.

1.05 MANUFACTURERS' RECOMMENDATIONS

A. MAKE ALL INSTALLATIONS IN STRICT ACCORDANCE WITH MANUFACTURERS' PUBLISHED RECOMMENDATIONS AND DETAILS. ALL EQUIPMENT AND MATERIALS RECOMMENDED BY THEM SHALL BE CONSIDERED AS PART OF THIS CONTRACT.

1.06 SUPERVISION AND COORDINATION

A. CONTACT ELECTRICAL INSPECTION AND OBTAIN PERMIT BEFORE STARTING WORK.

B. MAINTAIN ADEQUATE SUPERVISION OF THE WORK AND HAVE A RESPONSIBLE PERSON IN CHARGE AT THE SITE ANY TIME WORK IS IN PROGRESS OR WHEN NECESSARY FOR COORDINATION WITH OTHER TRADES.

C. SCHEDULE WORK TO BEST SERVE THE INTERESTS OF THE OWNER. THE BUILDING WILL BE FULLY OCCUPIED BY THE OWNER DURING CONSTRUCTION. COOPERATE WITH OTHER CONTRACTORS ON THE JOB AND COORDINATE WORK TO AVOID INTERFERENCE WITH THEM.

D. DETERMINE A SATISFACTORY SPACE ALLOCATION ARRANGEMENT WHERE ELECTRICAL MATERIAL IS INSTALLED IN PROXIMITY TO WORK OF OTHER TRADES. NO EXTRA PAYMENTS WILL BE ALLOWED TO RELOCATE WORK THAT INTERFERES WITH THAT OF OTHER TRADES.

1.07 CODES AND REGULATIONS

A. ALL WORK SHALL CONFORM TO CURRENT APPLICABLE NATIONAL, STATE AND LOCAL BUILDING AND ELECTRICAL CODES. THESE CODES SHALL BE REGARDED AS THE MINIMUM STANDARD OF QUALITY FOR MATERIAL AND WORKMANSHIP.

B. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL THAT MAY BE REQUIRED FOR COMPLIANCE WITH CODE REQUIREMENTS OR CODE INTERPRETATIONS, ALTHOUGH NOT SPECIFICALLY DETAILED ON THE DRAWINGS OR IN THE SPECIFICATIONS.

C. NOTHING IN THESE DRAWINGS AND SPECIFICATIONS SHALL BE CONSTRUED AS PERMITTING WORK NOT CONFORMING WITH GOVERNING CODES.

D. THE CONTRACTOR SHALL NOT BE RELIEVED FROM COMPLYING WITH ANY REQUIREMENTS OF THESE CONTRACT DOCUMENTS WHICH MAY EXCEED, BUT NOT CONFLICT WITH, REQUIREMENTS OF THE GOVERNING CODES.

1.08 PERMITS & FEES

A. OBTAIN AND PAY ALL FEES FOR LICENSES, PERMITS AND INSPECTIONS REQUIRED BY LAWS, ORDINANCES AND RULES GOVERNING WORK SPECIFIED HEREIN. ARRANGE FOR INSPECTION OF WORK AND PROVIDE INSPECTORS WITH ALL NECESSARY ASSISTANCE.

1.09 SUBMITTALS

A. CONTRACTOR SHALL PROVIDE AN ELECTRONIC SET OF ELECTRICAL SUBMITTALS DEMONSTRATING THE CONTRACTOR'S UNDERSTANDING OF THE INTENT OF THE DESIGN. SUBMITTAL SHALL INCLUDE CONDUIT, CONDUCTORS, AND LIGHT FIXTURES.

1.10 WORKMANSHIP

A. ALL WORK SHALL BE DONE BY COMPETENT CRAFTSMEN SKILLED IN THE SPECIFIC WORK TO BE DONE. EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER FOLLOWING THE BEST PRACTICE OF THE TRADE.

1.11 AS-BUILT RECORD DRAWINGS

A. CONTINUOUSLY MAINTAIN A SET OF AS-BUILT DRAWINGS TO INDICATE ALL SIGNIFICANT DEVIATIONS FROM THE ORIGINAL DESIGN AND THE ACTUAL PLACEMENT OF EQUIPMENT AND CONDUITS. LOCATION OF SURFACE CONDUIT RUNS SHALL BE DIMENSIONED FROM ACCEPTED REFERENCE LINES. CHANGES SHALL BE SHOWN WITH RED COLORED PENCIL WHILE WORK IS IN PROGRESS. THIS "AS-BUILT" SET SHALL BE CLEARLY MARKED: "AS-BUILT RECORD DRAWINGS - DO NOT REMOVE FROM JOB."

B. FINAL "AS-BUILT" PRINTS SHALL BE PREPARED BY A COMPETENT DRAFTER ON A CLEAN SET OF BLUELINE DRAWINGS. DATE, FIRM NAME, AND DRAFTER'S NAME SHALL BE INCLUDED WITH TITLE "CORRECTED AS-BUILT" ON EACH DRAWING. IF THERE ARE NO CHANGES, DRAWING SHALL BE MARKED "NO CHANGES, INSTALLATION PER PLAN."

C. "AS-BUILT RECORD DRAWINGS" AND "CORRECTED TO AS-BUILT" PRINTS SHALL BE DELIVERED TO THE ENGINEER FOR TRANSMITTAL TO THE OWNER.

1.12 FINAL INSPECTION

A. THE ELECTRICAL FOREMAN OR SUPERINTENDENT SHALL ACCOMPANY THE OWNER AND ENGINEER ON THE FINAL INSPECTION, AND ON ANY NECESSARY POST-FINAL INSPECTIONS, TO CONFIRM THAT ALL WORK HAS BEEN SATISFACTORILY COMPLETED.

B. DEFECTS AND DEFICIENCIES FOUND DURING THIS FINAL INSPECTION SHALL BE CORRECTED WITHIN 15 DAYS OF CONTRACTOR'S RECEIPT OF ARCHITECT/ENGINEER FINAL PUNCH LIST.

1.13 GUARANTEE

A. THE CONTRACTOR SHALL PROVIDE WRITTEN GUARANTEE TO REPAIR OR REPLACE (WITHOUT ADDITIONAL EXPENSE) ANY DEFECTIVE MATERIALS OR WORKMANSHIP WHICH BECOME EVIDENT WITHIN A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OR FOR SUCH LONGER PERIOD AS ELSEWHERE SPECIFIED. ALL WARRANTY WORK SHALL BE TO THE SATISFACTION OF THE OWNER.

END OF SECTION 26 00 00

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PROJECT NAME/ADDRESS

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PUYALLUP, WA 98371

PROJECT NUMBER
23002

DRAWING TYPE
96% CD
-

ISSUE DATE	ISSUE DESCRIP.	NO.
05.03.24		
10.10.24		

SHEET TITLE
DIVISION 26 SPECIFICATION

SHEET #
E7.00

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building
Engineering
Fire

GENERAL NOTES

1. ALL WORK PERFORMED SHALL BE DONE IN STRICT ACCORDANCE TO ALL APPLICABLE MECHANICAL, BUILDING, ENERGY, FUEL GAS, AND LOCAL CODES, WITH AMENDMENTS.
2. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
3. COORDINATE MECHANICAL WORK WITH ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL AND LANDSCAPE WORK SHOWN ON OTHER CONTRACT DOCUMENTS. PROVIDE ADDITIONAL OFFSETS FOR COORDINATED INSTALLATION WHERE REQUIRED.
4. COORDINATE HVAC, PLUMBING, AND FIRE PROTECTION WORK PRIOR TO INSTALLATION. DUCTWORK AND EQUIPMENT ACCESS TAKES PRECEDENCE OVER ALL PIPING EXCEPT GRAVITY SYSTEMS FOR AVAILABLE SPACE.
5. CONTRACTOR IS RESPONSIBLE FOR CONFORMANCE WITH ALL PLANS AND SPECIFICATIONS. IF A DISCREPANCY EXISTS BETWEEN ANY PLAN AND/OR SPECIFICATION, THE MORE STRINGENT REQUIREMENT SHALL BE FOLLOWED. CONTRACTOR IS ENCOURAGES TO SUBMIT RFIS BEFORE BID TO CLARIFY PLAN AND SPECIFICATION INTENT.
6. COORDINATE EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.
7. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSE BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT. BEFORE SUBSTANTIAL COMPLETION, CLEAN EQUIPMENT, FIXTURES, EXPOSED DUCTS, PIPING AND SIMILAR ITEMS.
8. PROVIDE EQUIPMENT THAT FITS INTO THE SPACE ALLOTTED AND ALLOWS ADEQUATE ACCEPTABLE CLEARANCE FOR INSTALLATION, REPLACEMENT, SERVICING, AND MAINTENANCE. COORDINATE WITH OTHER TRADES TO ENSURE NO CONFLICT WITH REQUIRED CLEARANCES.
9. CONTRACTOR SHALL OBTAIN & PAY FOR ALL PERMITS AND CONSTRUCTION FEES. FURNISH FINAL CERTIFICATE TO OWNER SHOWING COMPLIANCE WITH CODE REQUIREMENTS.
10. REFER TO TYPICAL DETAILS PROVIDED IN THIS DRAWING SET FOR DUCTWORK, PIPING, AND EQUIPMENT INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR CONFORMANCE WITH DETAILS.
11. A SHORT DASH IN A SCHEDULE TABLE CELL INDICATES THAT THE COLUMN HEADING IS NOT USED OR NOT APPLICABLE TO THAT SCHEDULED ITEM.
12. ALL PIPING & DUCTWORK IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN A FURRED CHASE OR ABOVE THE HARD LID CEILING. COORDINATE WITH ARCHITECTURAL DOCUMENTS FOR FURRING & CHASE LOCATIONS & SIZES.
13. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70 STANDARDS AND LOCAL REQUIREMENTS.
14. ALL FIELD WIRING SHALL REQUIRE AN ELECTRICAL PERMIT AND SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.
15. COORDINATE ELECTRICAL REQUIREMENTS SHOWN ON PLANS AND SPECS WITH AVAILABLE VOLTAGES AND PANEL SPACE ONSITE AS WELL AS WITH ELECTRICAL ENGINEER AND ELECTRICAL CONTRACTOR. IF DISCREPANCIES EXIST BETWEEN THESE PLANS AND AVAILABLE ONSITE ELECTRICAL UTILITIES, DO NOT PURCHASE OR INSTALL EQUIPMENT BEFORE FIRST CONTACTING MEL AND RECEIVING INSTRUCTION.
16. PROVIDE 4" MINIMUM CONCRETE BASES (HOUSEKEEPING PADS) UNDER FLOOR MOUNTED MECHANICAL EQUIPMENT. THIS INCLUDES, BUT IS NOT LIMITED TO AIR TO WATER HEAT PUMP, PUMPS, EXPANSION TANKS, WATER HEATERS, AND STORAGE TANKS. COMPLY WITH REQUIREMENTS FOR EQUIPMENT BASES AND FOUNDATIONS SPECIFIED IN DIVISION 03.
17. LOCATE VALVES, WATER HAMMER ARRESTERS, CLEANOUTS, DAMPERS, CONTROLS AND SIMILAR COMPONENTS SO THAT THEY ARE ACCESSIBLE. PROVIDE ACCESS DOORS FOR MECHANICAL EQUIPMENT INSTALLED BEHIND WALLS, ABOVE INACCESSIBLE CEILINGS AND BELOW FLOORS. COORDINATE ACCESS DOOR LOCATIONS WITH ARCHITECT/ENGINEER.
18. ACCESS PANELS SHALL BE 16 GA, STEEL, FLUSH TYPE ACCESS DOOR WITH CONCEALED HINGE AND SLOT SCREWDRIVER TYPE CAM LATCH. PROVIDE FACTORY PRIMED IN PAINTED SURFACE AREAS FOR FIELD PAINTING. PROVIDE STAINLESS STEEL FOR ALL OTHER AREAS. PROVIDE UL LISTED AND LABELED DOOR WHERE FIRE-RESISTANCE RATING IS INDICATED ON DRAWINGS. ACCESS DOOR SHALL BE SIZED SO THAT ADJACENT EQUIPMENT IS ACCESSIBLE. PROVIDE ACUDOR, ELMDOR, MILCOR, OR APPROVED.
19. INSTALL TAG ON CEILING GRID FRAME TO INDICATE LOCATION AND TYPE OF EQUIPMENT THAT REQUIRES MAINTENANCE.

PLUMBING:

1. DOMESTIC WATER TUBE, PIPE, FITTINGS, JOINING MATERIALS, SPECIAL TIES, PLUMBING EQUIPMENT, PLUMBING FIXTURES, PLUMBING FITTINGS AND ALL OTHER APPURTENANCES IN CONTACT WITH DRINKING WATER SHALL BE LEAD-FREE EXCEPT THOSE EXPLICITLY EXEMPTED IN SECTION 3874 OF THE SAFE WATER DRINKING ACT. LEAD-FREE SHALL MEAN (A) NOT CONTAINING MORE THAN 0.2 PERCENT LEAD WHEN USED WITH RESPECT TO SOLDER AND FLUX; AND (B) NOT MORE THAN A WEIGHTED AVERAGE OF 0.25 PERCENT LEAD WHEN USED WITH RESPECT TO WETTED SURFACES OF DOMESTIC WATER TUBE, PIPE, FITTINGS, JOINING MATERIALS, SPECIALTIES, PLUMBING EQUIPMENT, PLUMBING FIXTURES, AND PLUMBING FITTINGS.
2. PROVIDE 5 W/FT HEAT TRACE FOR ALL DCW, DHW, W, AND DHWC PIPING & P-TRAPS IN UNHEATED, SEMI HEATED, OR LOW SPACES.
3. PROVIDE WATER HAMMER ARRESTORS IN DOMESTIC WATER PIPING IN ACCORDANCE WITH PDI-WH201.
4. INSULATE HOT AND COLD WATER AND HEAT TRACED SYSTEMS PER WASHINGTON STATE ENERGY CODE C403.10.3.
5. CIRCULATION SYSTEM SHALL AUTOMATICALLY DISABLE PUMP WHEN THE WATER IN THE CIRCULATION LOOP TEMPERATURE REACHES THE SUPPLY TEMPERATURE AND SHALL NOT ENABLE PUMP UNTIL CIRCULATION LOOP TEMPERATURE IS A MINIMUM OF 10 dF LOWER THAN SUPPLY TEMPERATURE PER WSEC C404.7.1.
6. HEAT TRACE SYSTEM CONTROLS SHALL COMPLY WITH C404.7.2.
7. DISCHARGE TEMPERATURE OF PUBLIC LAVATORIES SHALL BE 104 DEGREES FAHRENHEIT.
8. VALVES, EXPANSION FITTINGS/LOOPS, AND PIPING SPECIALTIES SHALL BE FULL SIZE OF PIPE UNLESS NOTED OTHERWISE.
9. REVIEW ALL PLUMBING PRIOR TO INSTALLATION FOR CROSS CONNECTION PROTECTION, RPBA REQUIRED ON ESPRESSO, SODA (CARBONATED) DISPENSERS, ICE MACHINES, AND OTHERS AS REQUIRED.

APPLICABLE CODES

AS ADOPTED BY THE CITY OF PUYALLUP, WA

INTERNATIONAL MECHANICAL CODE, IMC 2021
INTERNATIONAL BUILDING CODE, IBC 2021
WASHINGTON STATE ENERGY CODE, WSEC 2021
INTERNATIONAL FUEL GAS CODE, IFGC 2021
UNIFORM PLUMBING CODE, UPC 2021

AND ASSOCIATED WASHINGTON ADMINISTRATIVE CODE AMENDMENTS

DESIGN CONDITIONS

WATER PRESSURE
60 PSI

SCOPE OF WORK

1. PROVIDE SUMP PUMP DESIGN AT BOTTOM OF ELEVATOR SUMP. PLEASE VERIFY DRAIN LOCATION WITH ENGINEERING LOCATION. OIL WATER SEPARATOR BY OTHERS.
2. PROVIDE ROOF DRAINAGE AND OVERFLOW SYSTEMS.
3. PROVIDE WATER HEATER PLANT SERVING ENTIRE BUILDING.
4. PROVIDE HEAT TRACE FOR ALL PIPING IN AREAS EXPOSED TO AMBIENT CONDITIONS.
5. PROVIDE FULL DWV DESIGN FOR FIXTURES SHOWN ON PLAN, INSULATE PIPING PER PLANS.
6. PROVIDE GREASE WASTE SYSTEM.

ABBREVIATIONS

(E)	EXISTING
AABC	AMERICAN AIR BALANCE COUNCIL
AFF	ABOVE FINISHED FLOOR
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
AG	AIR GAP
AGA	AMERICAN GAS ASSOCIATION
AHRI	AIR CONDITIONING, HEATING, & REFRIGERATION INSTITUTE
AMP	AMPERAGE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AW	ACID WASTE
BAS	BUILDING AUTOMATION SYSTEM
BHP	BRAKE HORSEPOWER
CB	CATCH BASIN
CFH	CUBIC FEET PER HOUR
CI	CAST IRON
CO	CLEANOUT
CONFIG	CONFIGURATION
CSA	CANADIAN STANDARDS ASSOCIATION
CW	COLD WATER
DB	DRY BULB
DC	DOUBLE CHECK
DDC	DIRECT DIGITAL CONTROLS
dF	DEGREES FAHRENHEIT
DFU	DRAINAGE FIXTURE UNIT
DIA	DIAMETER
DN	DOWN
DX	DIRECT EXPANSION
EFF	EFFICIENCY
ESP	EXTERNAL STATIC PRESSURE
ETC	ET CETERA
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FLA	FULL LOAD AMPS
FM	FACTORY MANUAL
FPM	FEET PER MINUTE
FS	FLOOR SINK
FT	FEET
GA	GAUGE
GAL	GALLON
GPF	GALLONS PER FLUSH
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HP	HORSEPOWER
HR	HOUR
HW	HOT WATER
HWC	HOT WATER CIRCULATING
IBC	INTERNATIONAL BUILDING CODE
IFGC	INTERNATIONAL FUEL GAS CODE
IMC	INTERNATIONAL MECHANICAL CODE
IN	INCH
IPS	IRON PIPE SIZE
LAT	LATERAL
LB/LBS/#	POUND/ POUNDS
LF	LINEAR FEET
LVL	LEVEL
MAX	MAXIMUM
MBH	MILLIONS OF BRITISH THERMAL UNITS PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MAXIMUM CIRCUIT AMPACITY
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MFG/MFR	MANUFACTURER
MIN	MINIMUM
MOCP/ MOP	MAXIMUM OVER CURRENT PROTECTION
MSS	MANUFACTURER'S STANDARDIZATION SOCIETY
NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
OC	ON CENTER
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NUMBER
NOM	NOMINAL
NPCW	NON-POTABLE COLD WATER
NPHW	NON-POTABLE HOT WATER
NPHWC	NON-POTABLE HOT WATER CIRC
NTS	NOT TO SCALE
PD	PUMPED DISCHARGE
PH	PHASE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH, GAUGE
PVC	POLYVINYL CHLORIDE
RP	REDUCED PRESSURE
RPM	REVOLUTIONS PER MINUTE
SD	STORM DRAIN
SF	SQUARE FEET
SPEC	SPECIFICATION
STM	STEAM
THRD	THREADED
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UPC	UNIFORM PLUMBING CODE
V	VENT/ VOLT
VOLT	VOLTAGE
VRF	VARIABLE REFRIGERANT FLOW
VTR	VENT TO ROOF
VAV	VARIABLE AIR VOLUME
VERT	VERTICAL
W/	WITH
W	WASTE
W.C.	WATER COLUMN
WCO	WALL CLEANOUT
WIN	WINTER
WSEC	WASHINGTON STATE ENERGY CODE
WSFU	WATER SUPPLY FIXTURE UNITS

MECHANICAL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
P-01	EQUIPMENT ABBREVIATION AND NUMBER (TAG)		2-WAY CONTROL VALVE
SD-X, XX/XX XXX CFM	AIR TERMINAL TYPE, SIZE, AND CFM		BRANCH-BOTTOM CONNECTION
X / XX	DETAIL NUMBER		3-WAY CONTROL VALVE
	DRAWING NUMBER WHERE DRAWN		CAP
	DOMESTIC COLD WATER (CW)		PIPE ANCHOR
	DOMESTIC HOT WATER (HW)		PIPE GUIDE
	DOMESTIC HOT WATER CIRCULATING (HWC)		FLEXIBLE CONNECTION (PIPE)
W	SOIL, WASTE (S, W)		REDUCER
GW	GREASE WASTE		SUCTION DIFFUSER
	VENT (V), OR HIDDEN BELOW WASTE		FLOOR DRAIN
	EXISTING PIPING		FLOOR FUNNEL DRAIN
	DRAIN VALVE		FLOOR SINK
	WALL HYDRANT		TRAP PRIMER WITH ACCESS PANEL
	CROSSING LINES, NON CONNECTING		DRAIN
	PIPE CONTINUATION	TI	TEMPERATURE INDICATOR
	FLOW DIRECTION	TE	TEMPERATURE ELEMENT
	PUMP	FI	FLOW INDICATOR
	WASTE/ VENT UP, SURFACE/ FLOOR CLEANOUT (SCO/FCO)	FE	FLOW ELEMENT
	WALL CLEANOUT	FS	FLOW SWITCH
	CLEANOUT (CO)	CE	CONDUCTIVITY SENSOR
	P-TRAP	PI	PRESSURE INDICATOR
	PIPE DOWN	PE	PRESSURE ELEMENT
	PIPE UP	DP	DIFFERENTIAL PRESSURE ELEMENT
	BRANCH-TOP CONNECTION	H	HUMIDISTAT (H'STAT)
	WATER HAMMER ARRESTOR	HE	HUMIDITY ELEMENT
	PLUMBING STOP	LW	LOW WATER CUT OFF SWITCH
	TEMP./PRESS. RELIEF VALVE (T&PRV)	RL	STORM
	BALL VALVE	OFL	STORM OVERFLOW
	BALANCING COCK (BC)		

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
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PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
LEGEND, ABBREVIATIONS, AND GENERAL NOTES

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024
DRAWN BY:		RPG
CHECKED BY:		BSM
PROJECT MANAGER:		BSM/RMC

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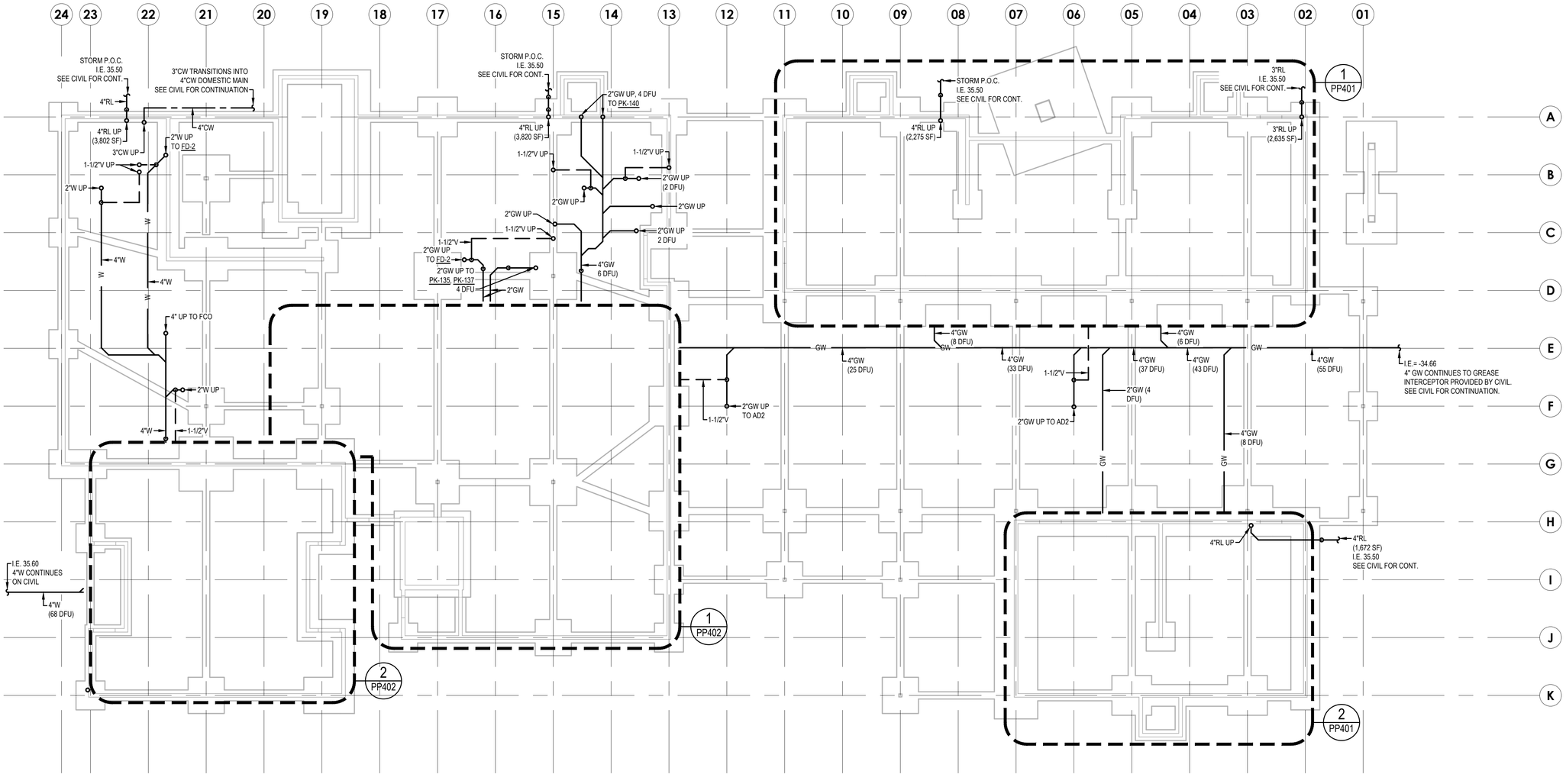
SHEET
PP001

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES

1. PIPING IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.
2. WASTE PIPING 4" AND LARGE SHALL BE SLOPED AT 1/8" PER FOOT. WASTE PIPING 3" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT.
3. PLANS ASSUME ELEVATION OF FLOOR IS SET AT 0 FEET. COORDINATE FINAL ELEVATIONS WITH STRUCTURAL AND CIVIL PLANS.



1 NORTH

FOUNDATION PLAN

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

3 PP502 | 5 PP502 | 6 PP502 | 3 PP503 | 4 PP503

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
LONGBRANCH, WA 98351
253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
FOUNDATION PLAN

PROJECT
INTERNATIONAL VILLAGE
110 97TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
1	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024
DRAWN BY:		RPG
CHECKED BY:		BSM
PROJECT MANAGER:		BSM/RMC

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SHEET
PP101

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

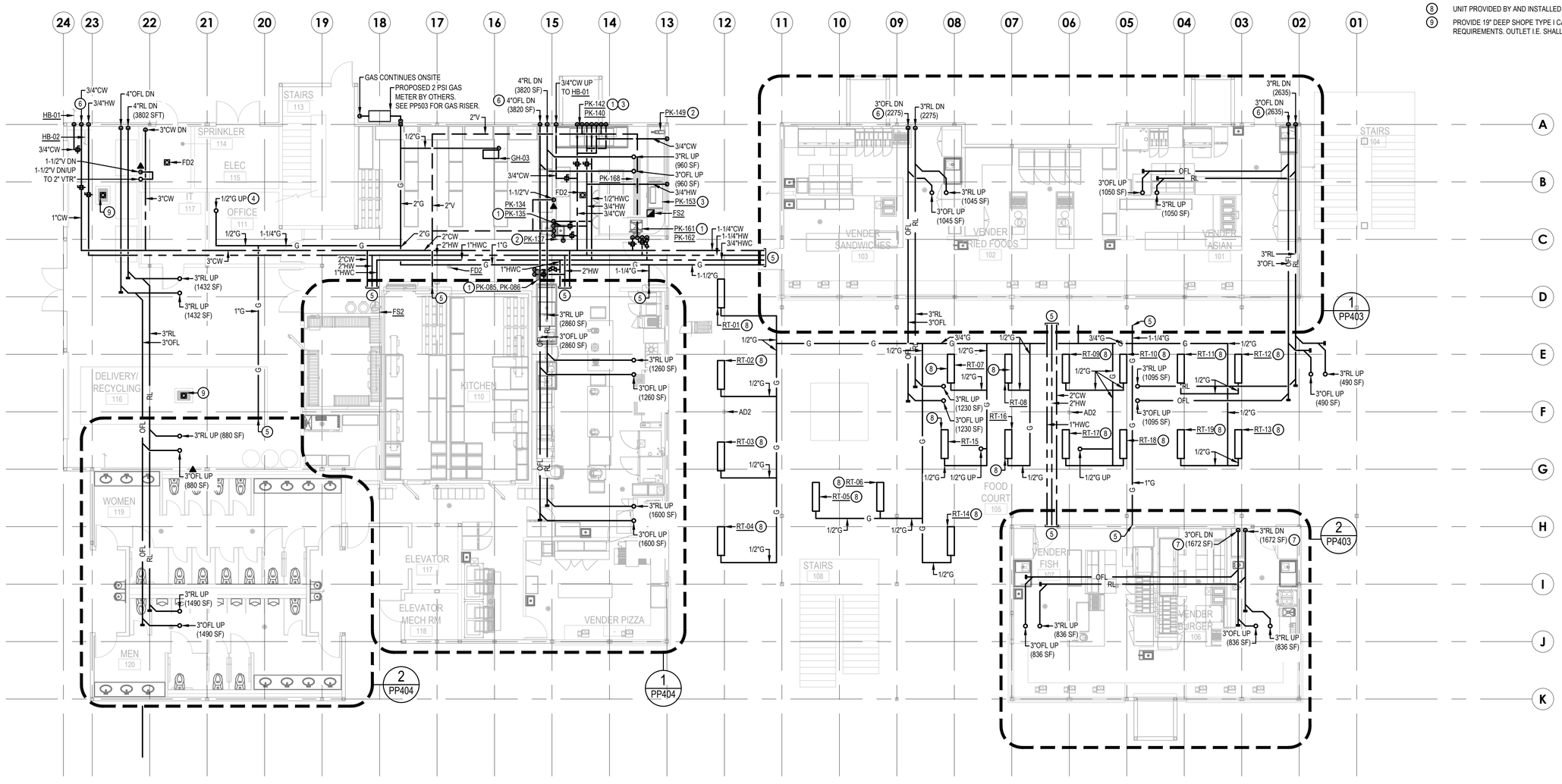
Building	Planning
Engineering	Public Works
Fire	Traffic

GENERAL NOTES

1. PIPING IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.
2. WASTE PIPING 4" AND LARGE SHALL BE SLOPED AT 1/8" PER FOOT. WASTE PIPING 3" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT.
3. PLANS ASSUME ELEVATION OF FLOOR IS SET AT 0 FEET. COORDINATE FINAL ELEVATIONS WITH STRUCTURAL AND CIVIL PLANS.

PLAN NOTES

1. 2"W, 1-1/2"V, 3/4"CW, 3/4"HW, 1/2"HWC
2. 3/4"CW
3. INDIRECTLY DRAIN FIXTURE TO NEAREST FLOOR SINK, MOP SINK OR APPROVED TRENCH DRAIN LOCATION. COORDINATE WITH PLUMBING.
4. 1/2"G UP TO GAS FIRE PIT.
5. PIPING CONTINUES ON INSET.
6. OVERFLOW RAIN LEADER TO DAYLIGHT 24" AFF WITH COW'S TONGUE ON BUILDING EXTERIOR.
7. 3"OFL SHALL CONNECT INTO THE VERTICAL PIPING OF THE PRIMARY 3"RL. PROVIDE A CLEANOUT 24" AFF. COMBINED OFL AND RL SIZED AT 2IN/HR RAINFALL RATE.
8. UNIT PROVIDED BY AND INSTALLED BY OTHERS.
9. PROVIDE 19" DEEP SHOPE TYPE I CATCH BASIN PER CITY OF PUYALLUP REQUIREMENTS. OUTLET I.E. SHALL BE 15".



1 NORTH

PLUMBING FIRST FLOOR PLAN

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

2 PP501 | 3 PP501 | 4 PP501 | 5 PP501 | 7 PP501

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
LONGBRANCH, WA 98351
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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
PLUMBING FIRST FLOOR PLAN

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024
DRAWN BY:		RPG
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PROJECT MANAGER:		BSM/RMC

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SHEET
PP102

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

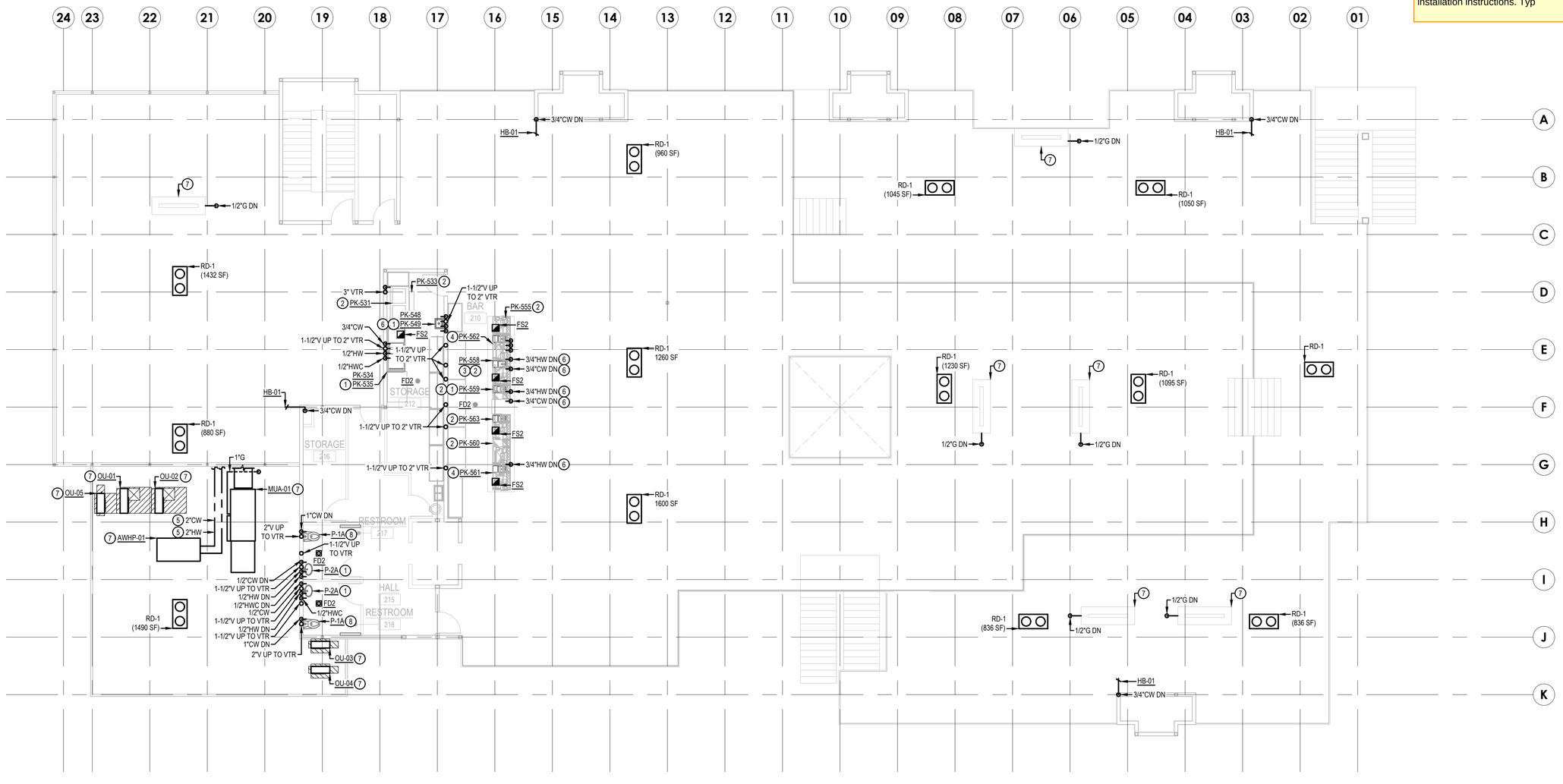
GENERAL NOTES

1. PIPING IS SCHEMATIC IN NATURE. CONTRACTOR TO PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.
2. WASTE PIPING 4" AND LARGE SHALL BE SLOPED AT 1/8" PER FOOT. WASTE PIPING 3" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT.
3. PLANS ASSUME ELEVATION OF FLOOR IS SET AT 0 FEET. COORDINATE FINAL ELEVATIONS WITH STRUCTURAL AND CIVIL PLANS.

PLAN NOTES

1. 2"W, 1-1/2"V, 3/4"CW, 3/4"HW, 1/2"HWC
2. INDIRECTLY DRAIN FIXTURE TO NEAREST FLOOR SINK.
3. 1-1/2"W, 3/4"CW, 3/4"HW
4. 2"W, 1-1/2"V, 3/4"HW
5. PROVIDE HEAT TRACE FOR 20 LF AT 5W/LF 208V 1PH.
6. PROVIDE HEAT TRACE FOR 5 LF AT 5W/LF 208V 1PH.
7. UNIT PROVIDED AND INSTALLED BY OTHERS.
8. 4"W, 2"V, 1"CW

Subject to applicable building and mechanical codes; provide installation instructions. Typ



1 NORTH

PLUMBING SECOND FLOOR PLAN

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

1 PP502 | 2 PP502 | 4 PP502

MIDDLEBROOK ENGINEERING, LLC
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LONGBRANCH, WA 98351
253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
PLUMBING SECOND FLOOR PLAN

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024
DRAWN BY:		RPG
CHECKED BY:		BSM
PROJECT MANAGER:		BSM/RMC

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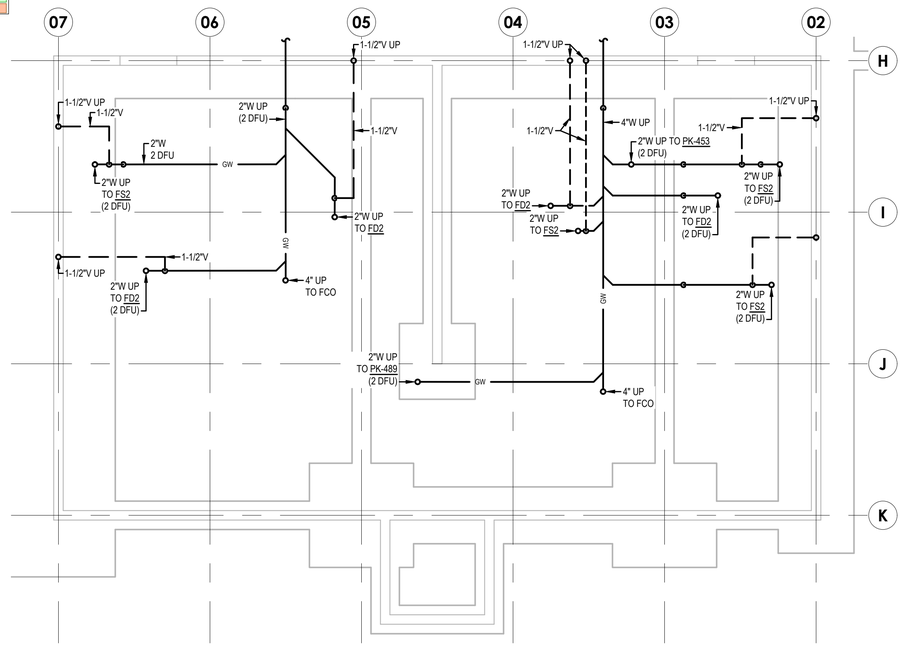
SHEET
PP103

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

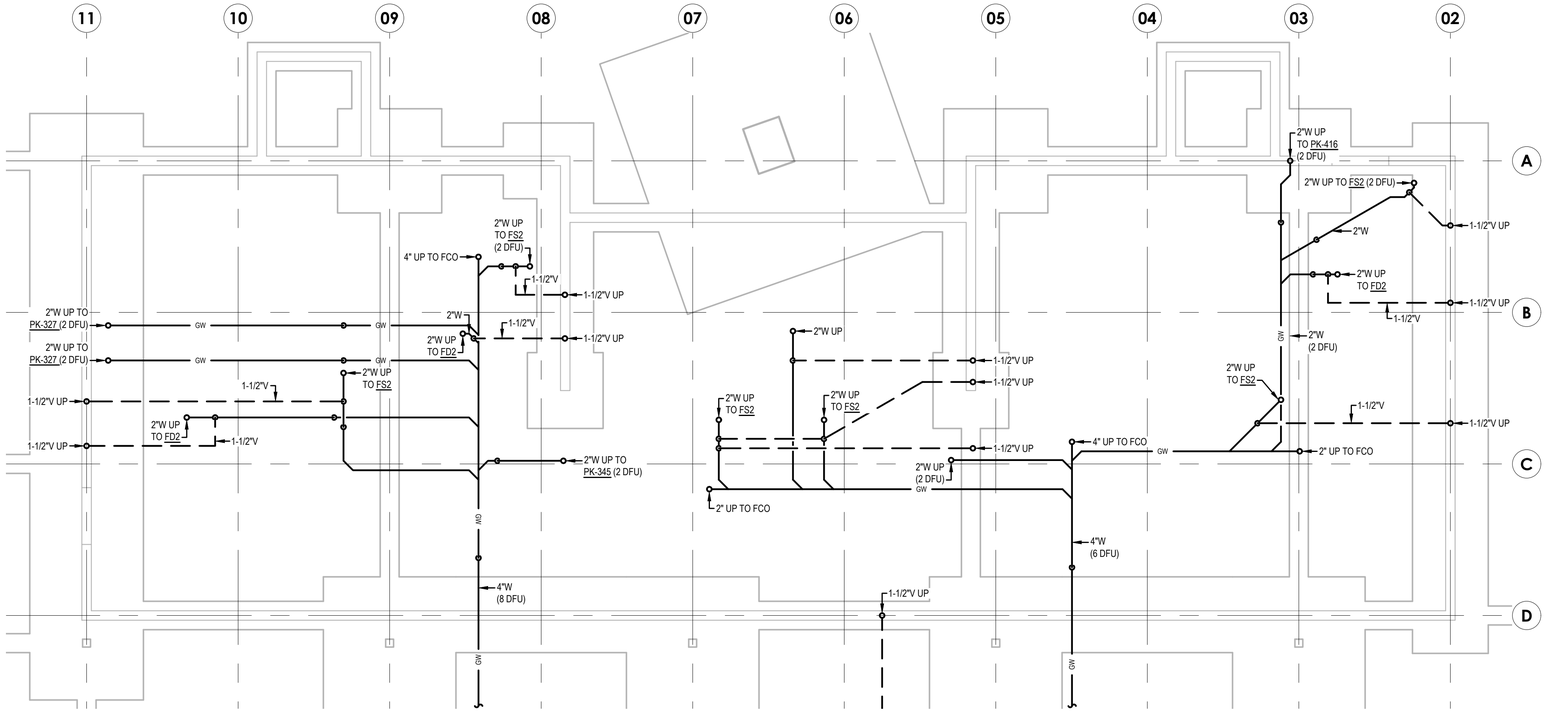


2 NORTH

ENLARGED FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

3 PP502 | 5 PP502 | 6 PP502 | 3 PP503 | 4 PP503



1 NORTH

ENLARGED FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

3 PP502 | 5 PP502 | 6 PP502 | 3 PP503 | 4 PP503

GENERAL NOTES

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
ENLARGED FOUNDATION PLANS I

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

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PROJECT MANAGER:	BSM/RMC

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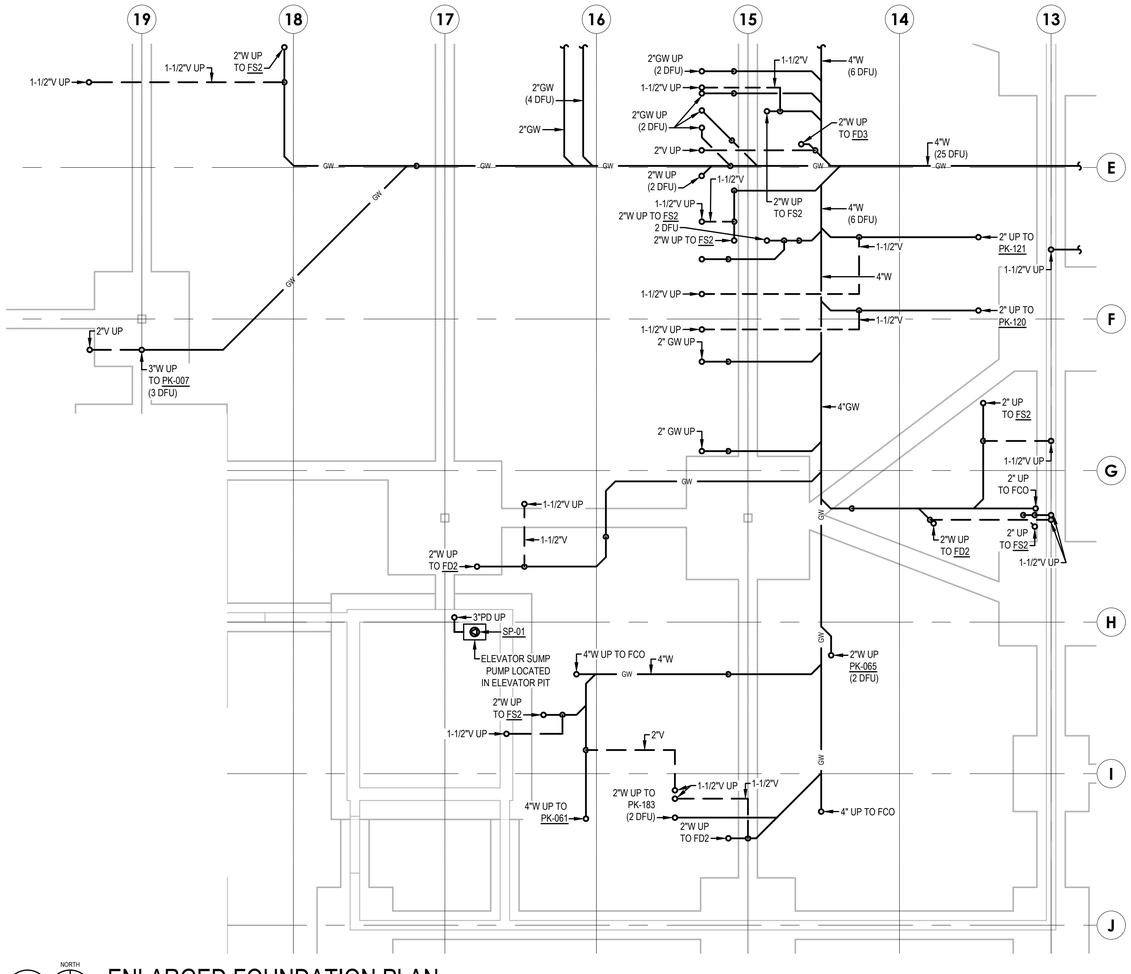
SHEET
PP401

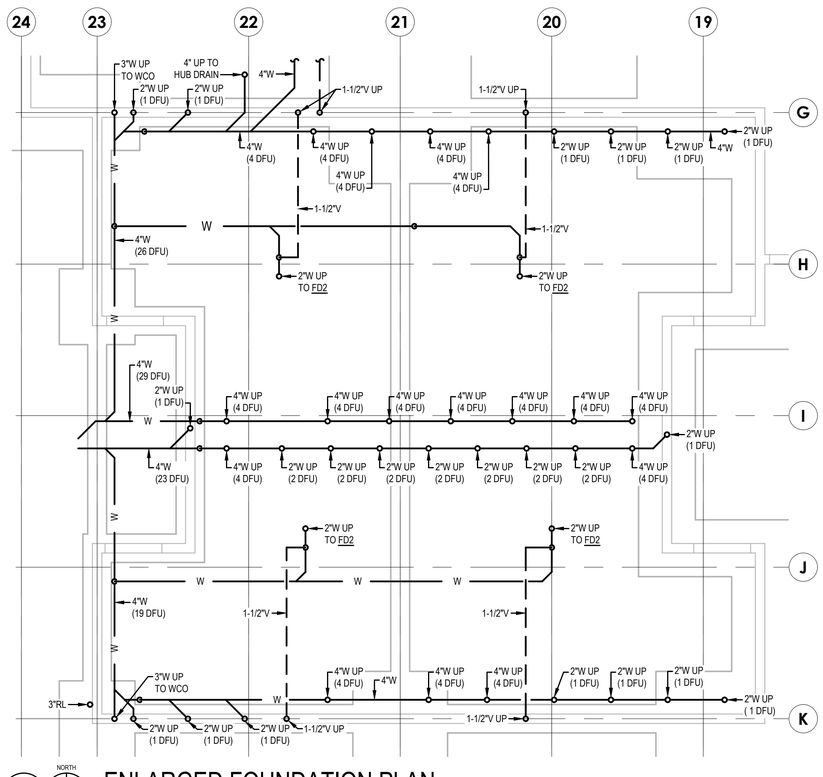
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



1 NORTH

ENLARGED FOUNDATION PLAN

SCALE: 1/4" = 1'-0"



2 NORTH

ENLARGED FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

GENERAL NOTES

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253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
ENLARGED FOUNDATION PLANS II

PROJECT
INTERNATIONAL VILLAGE
110 97TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
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	CONSTRUCTION DOCS.	10/15/2024
DRAWN BY:		RPG
CHECKED BY:		BSM
PROJECT MANAGER:		BSM/RMC

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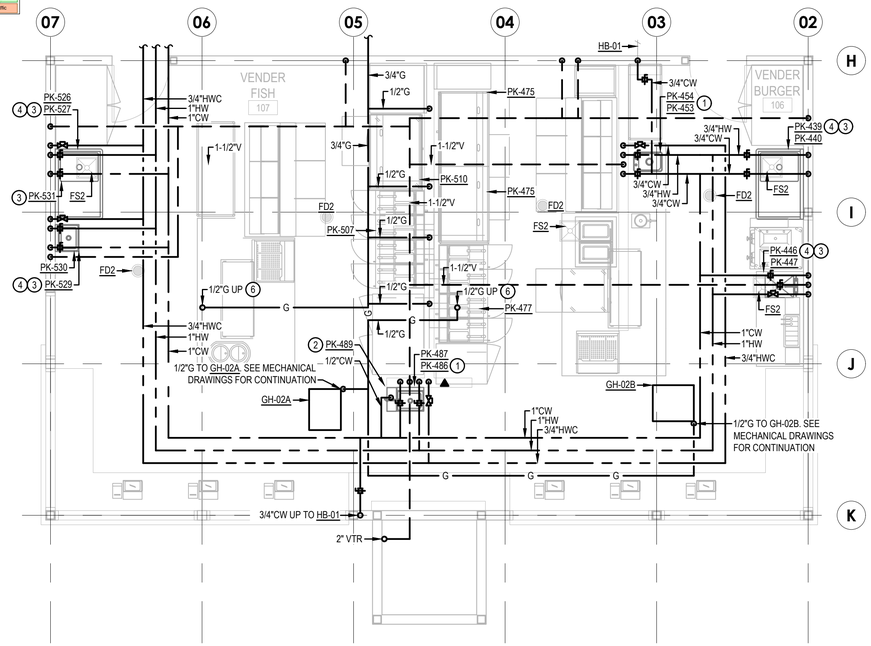
SHEET
PP402

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

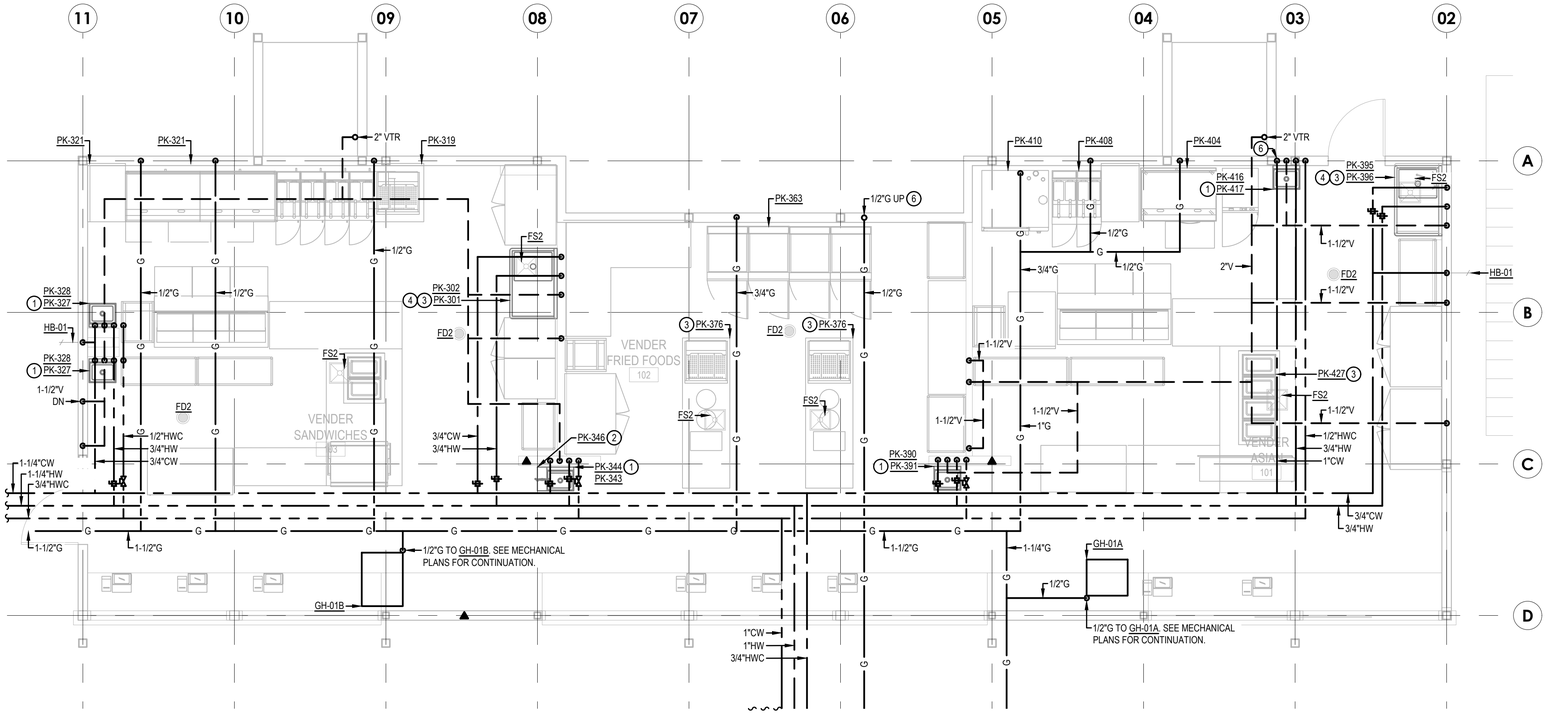


NORTH

2 PLUMBING ENLARGED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

2 PP501 | 3 PP501 | 4 PP501 | 5 PP501 | 5 PP502 | 6 PP502 | 4 PP503



NORTH

1 PLUMBING ENLARGED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

2 PP501 | 3 PP501 | 4 PP501 | 5 PP501 | 5 PP502 | 6 PP502 | 4 PP503

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PLAN NOTES

1. 2"W, 1-1/2"V, 3/4"CW, 3/4"HW, 1/2"HWC
2. 3/4"CW
3. INDIRECTLY DRAIN FIXTURE TO NEAREST FLOOR SINK, MOP SINK OR APPROVED TRENCH DRAIN LOCATION. COORDINATE WITH PLUMBING.
4. 3/4" CW, 3/4"HW, 3/4"HWC
5. 3/4" CW DN TO PK-417, 3/4" CW UP TO HB-01.
6. 1/2"G UP TO FIRE PIT.

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
LONGBRANCH, WA 98351
253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE

PLUMBING ENLARGED FIRST FLOOR PLANS

PROJECT

INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
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PROJECT MANAGER:	BSM/RMC

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SHEET

PP403

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

PLAN NOTES

1. 2"W, 1-1/2"V, 3/4"CW, 3/4"HW, 1/2"HWC
2. 3/4"CW
3. 1"CW, 4"W, 2"V
4. INDIRECTLY DRAIN FIXTURE TO NEAREST FLOOR SINK, MOP SINK OR APPROVED TRENCH DRAIN LOCATION. COORDINATE WITH PLUMBING.
5. 2"W, 1-1/2"V, 3/4"CW
6. 2"W, 1-1/2"V, 3/4"CW
7. 2"W, 1-1/2"V, 3/4"HW
8. PUMP DISCHARGES DIRECTLY INTO 4" HUB DRAIN. TERMINATE WITH 1" AIR GAP.
9. 3/4"CW UP
10. 3/4"HW UP
11. 1/2"HWC UP
12. 2"W UP
13. 3"W, 2"V, 1/2"HW, 3/4"CW
14. CONTINUES TO HOT WATER PLANT. SEE DETAIL 1/PP501.
15. 1/2" NORMALLY CLOSED VALVE. FIELD ROUTE 1/2" DRAIN LINE TO NEAREST FLOOR SINK. TERMINATE WITH 1" AIR GAP.
16. SEE FLOW DIAGRAMS AND DETAILS FOR PIPING INSTRUCTIONS.
17. TERMINATE ON MECHANICAL ROOF WITH CONCENTRIC VENT KIT.

GENERAL NOTES

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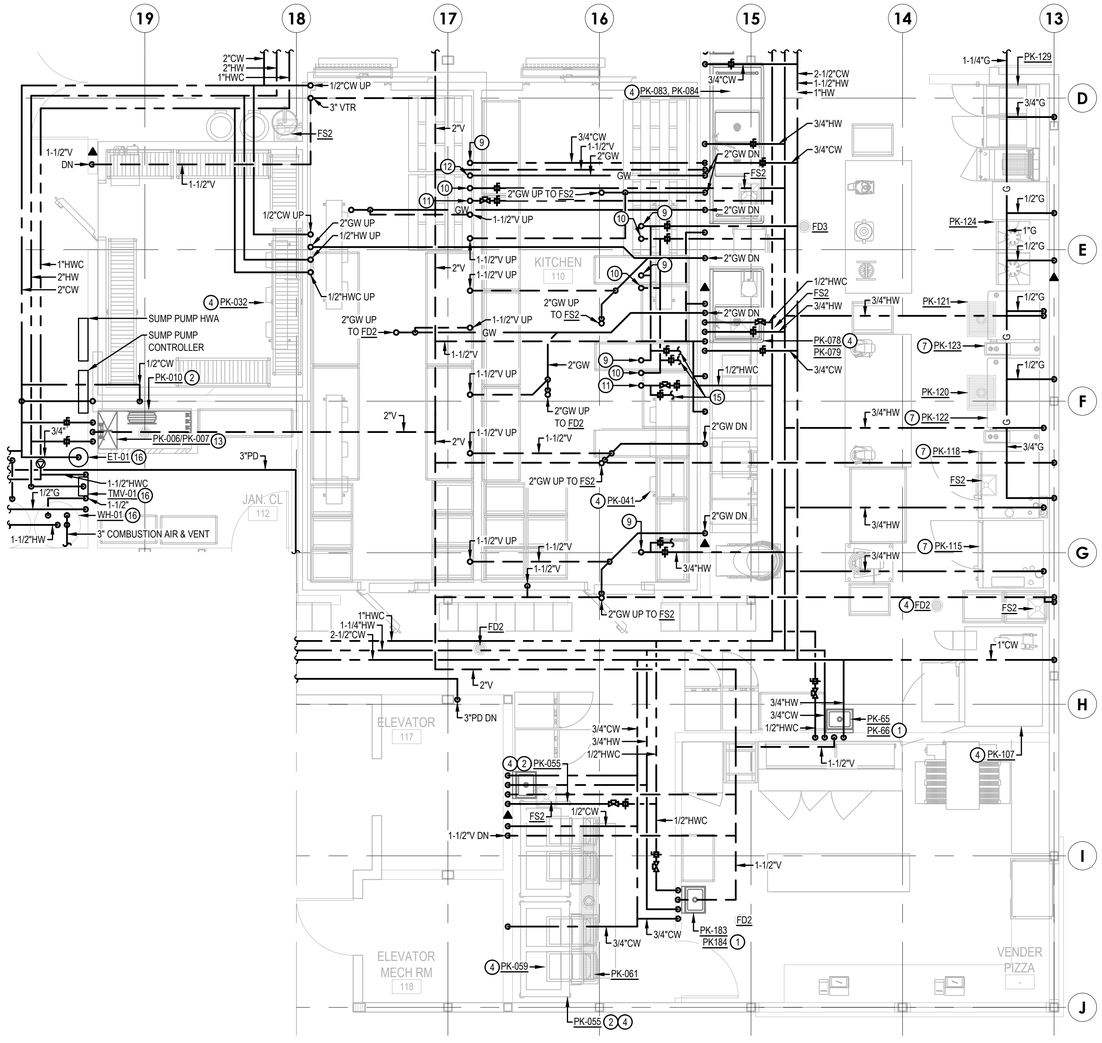
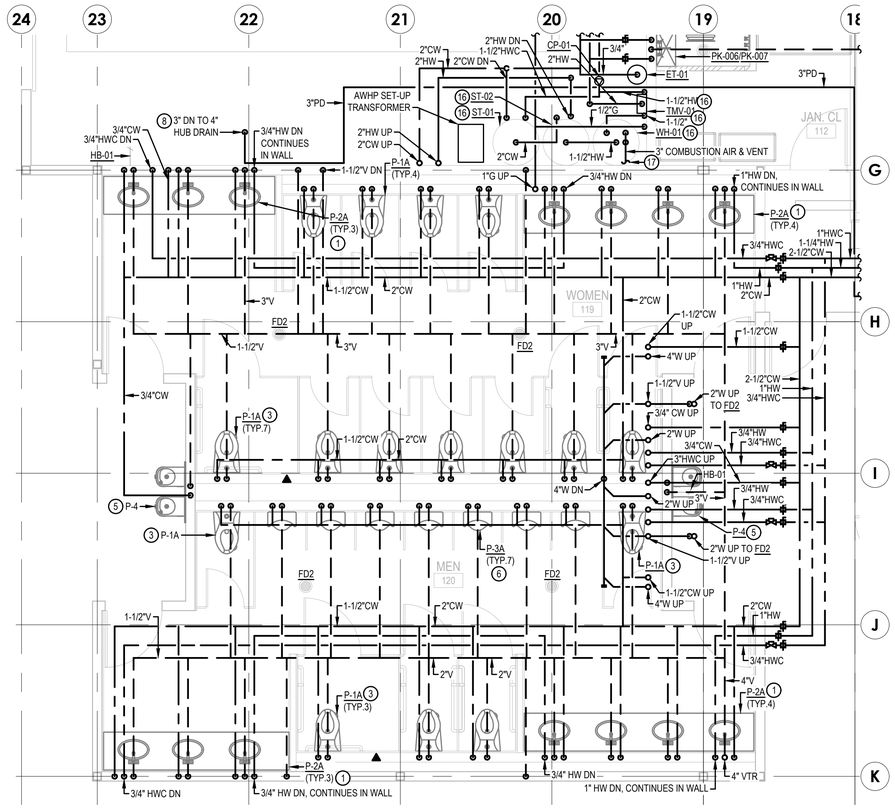


1 NORTH
PLUMBING ENLARGED FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



2 NORTH
PLUMBING ENLARGED FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

MIDDLEBROOK ENGINEERING, LLC
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253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
PLUMBING ENLARGED FIRST FLOOR PLANS II

PROJECT
INTERNATIONAL VILLAGE
1110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS	10/15/2024
DRAWN BY:		RPG
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PROJECT MANAGER:		BSM/RMC

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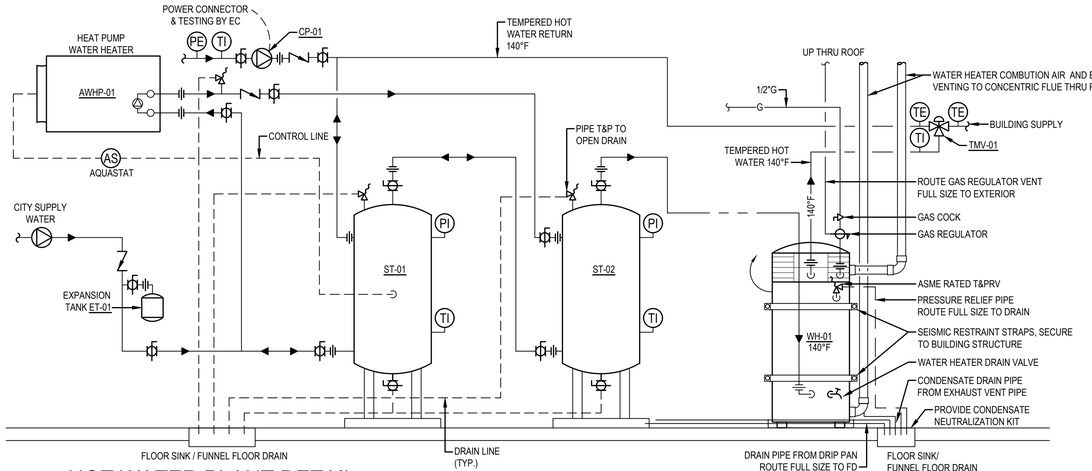
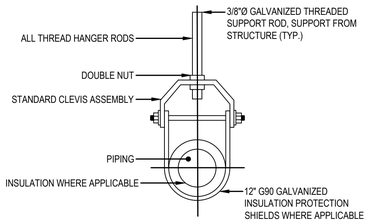
SHEET
PP404

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



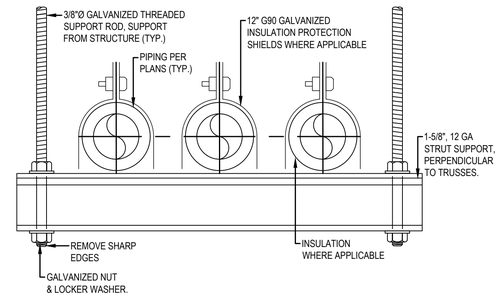
1 HOT WATER PLANT DETAIL

SCALE: NTS



2 PIPE HANGER DETAIL

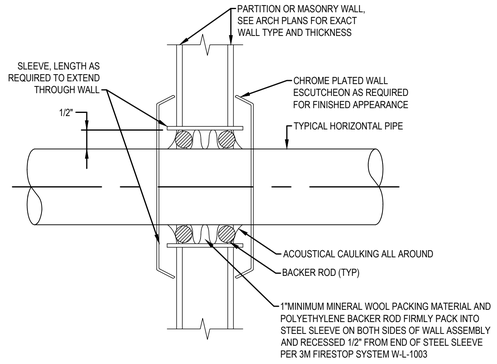
SCALE: NTS



NOTE:
PROVIDE THREE SUPPORT RODS FOR STRUT LONGER THAN 24"

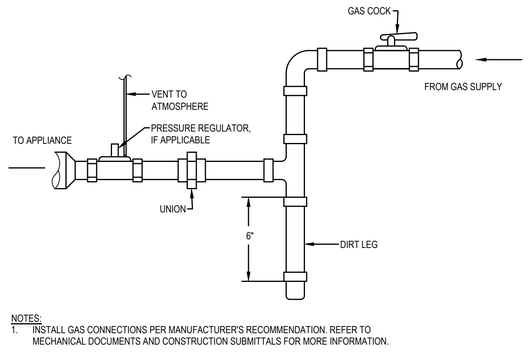
3 PIPE TRAPEZE DETAIL

SCALE: NTS



4 PIPE PENETRATION DETAIL (HORIZONTAL ASSEMBLY)

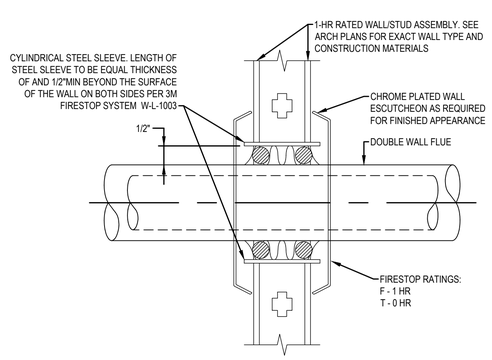
SCALE: NTS



NOTES:
1. INSTALL GAS CONNECTIONS PER MANUFACTURER'S RECOMMENDATION. REFER TO MECHANICAL DOCUMENTS AND CONSTRUCTION SUBMITTALS FOR MORE INFORMATION.

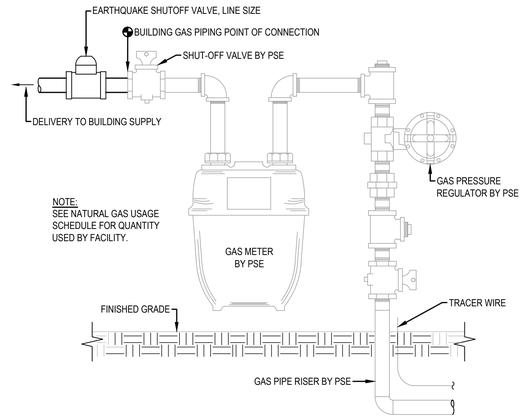
5 GAS APPLIANCE CONNECTION DETAIL

SCALE: NTS



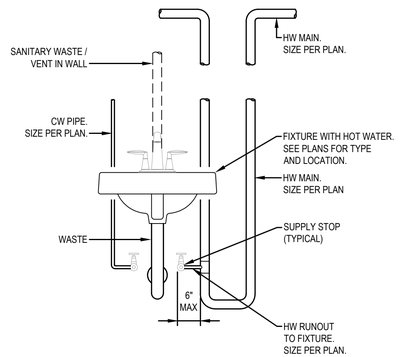
6 METALLIC FLUE PENETRATION DETAIL

SCALE: NTS



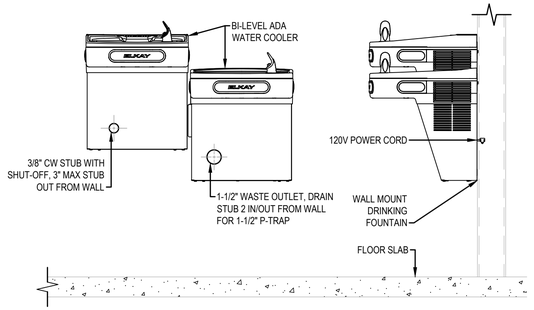
7 GAS SERVICE CONNECTION

SCALE: NTS



8 HOT WATER PIPE TO PLUMBING FIXTURE DETAIL

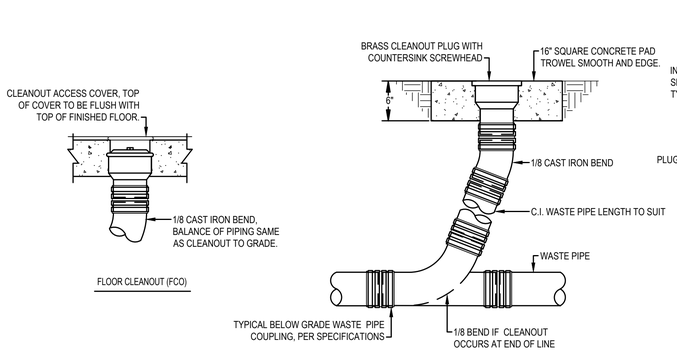
SCALE: NTS



NOTES:
1. BASIS OF DESIGN IS BI-LEVEL ADA COOLER, NON-FILTERED REFRIGERATED, STAINLESS STEEL.
2. SEE PLUMBING FIXTURE SCHEDULE FOR EXACT ELKAY MODEL NUMBERS AND CONFIGURATION.
3. SEE ARCH PLANS AND SPECIFICATION FOR ACCESSIBILITY COMPLIANT FIXTURE MOUNTING HEIGHTS AND OTHER REQUIREMENTS.

9 DRINKING FOUNTAIN

SCALE: NTS



NOTE:
1. CLEANOUTS SHALL BE PLACED PER UPC 707.0.

10 CLEANOUT DETAIL

SCALE: NTS

MIDDLEBROOK ENGINEERING, LLC
6216 174TH AVE SW
LONGBRANCH, WA 98351
253.765.8292

BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
DETAILS I

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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SHEET
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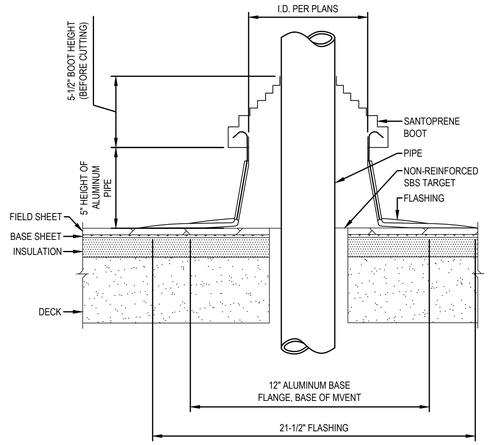
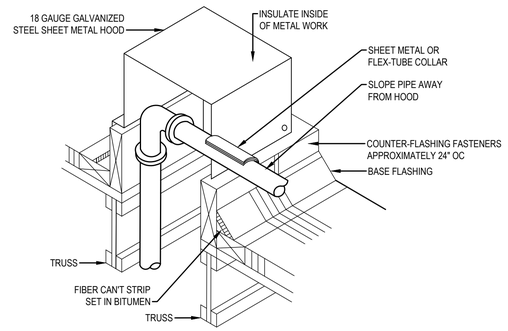
City of Puyallup
Development & Permit Services
ISSUED PERMIT

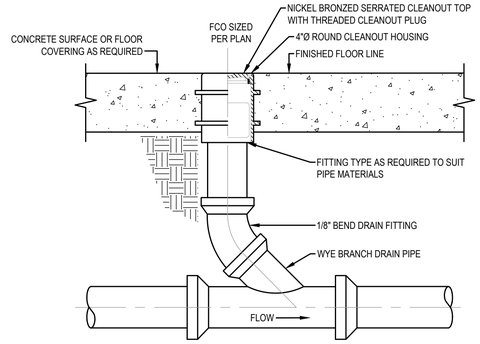
Building	Planning
Engineering	Public Works
Fire	Traffic



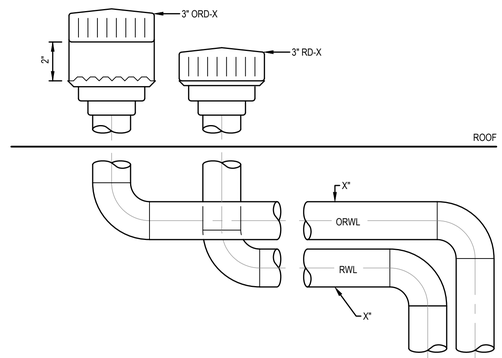
1 ROOFTOP PIPE PENETRATION DETAIL
SCALE: NTS



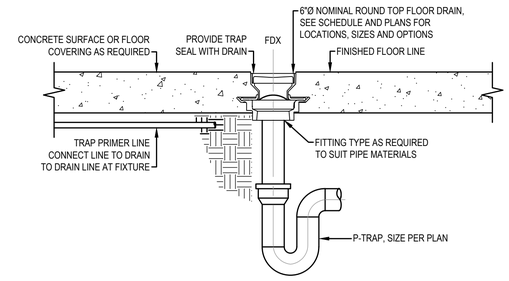
2 ROOFTOP PIPE PENETRATION DETAIL
SCALE: NTS



3 FLOOR CLEANOUT
SCALE: NTS

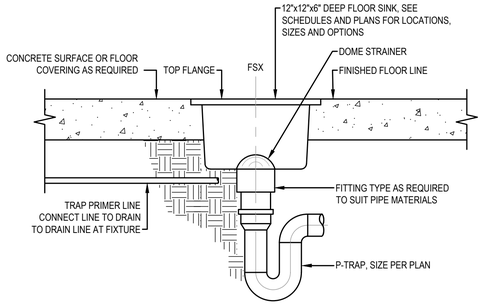


4 ROOF/OVERFLOW DRAIN
SCALE: NTS

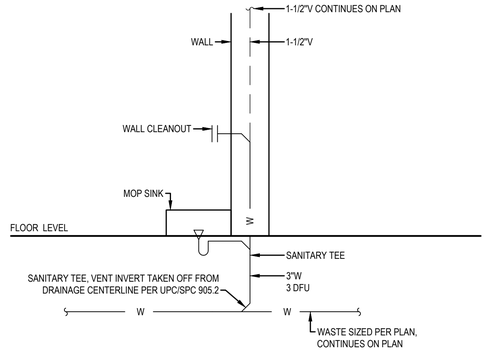


NOTE: FLOOR DRAIN SHOWN, AREA DRAIN SIMILAR.

5 FLOOR / AREA DRAIN
SCALE: NTS

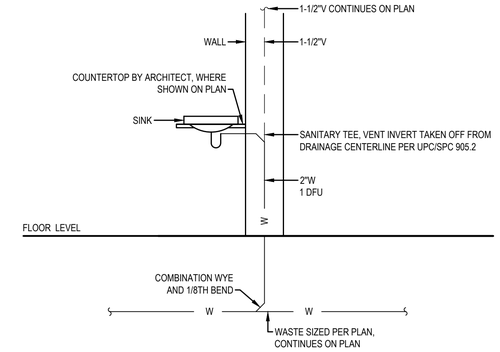


6 FLOOR SINK
SCALE: NTS



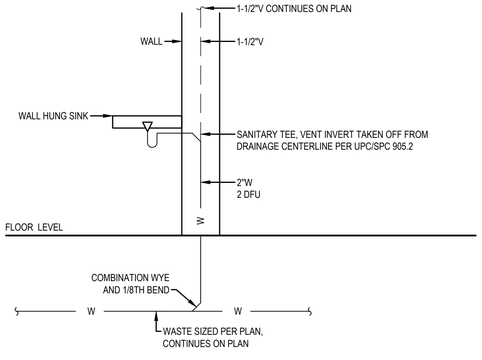
NOTE: LINE INVERT = FINISH FLOOR -2.313' MINIMUM

SERVICE SINK WASTE RISER (MOP SINK RISER)
SCALE: NTS



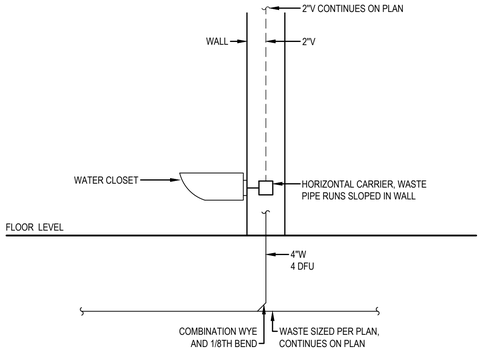
NOTE: LINE INVERT = FINISH FLOOR -1.208' MINIMUM

8 LAVATORY WASTE RISER
SCALE: NTS



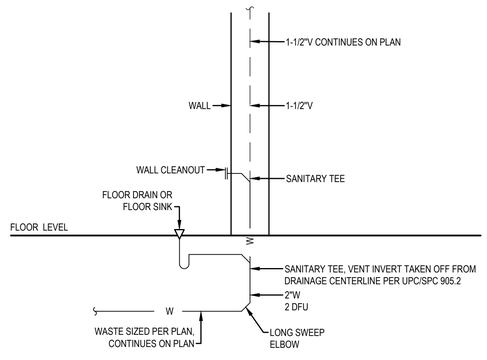
NOTE: LINE INVERT = FINISH FLOOR -1.208' MINIMUM

9 TYPICAL SINK WASTE RISER
SCALE: NTS



NOTE: LINE INVERT = FINISH FLOOR -1.208' MINIMUM

10 WALL MOUNTED WATER CLOSET WASTE RISER
SCALE: NTS



NOTE: LINE INVERT = FINISH FLOOR -1.760 MINIMUM

11 FLOOR DRAIN / FLOOR SINK WASTE RISER
SCALE: NTS

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
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REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
DETAILS II

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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SHEET
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City of Puyallup
Development & Permitting Services
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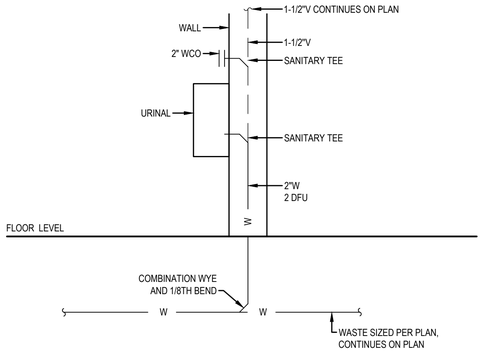
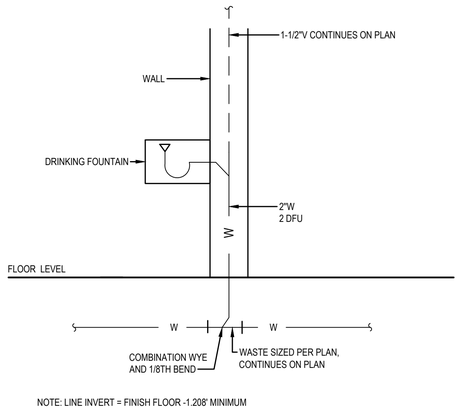
Building | Planning
Engineering | Public Works
Fire | Traffic



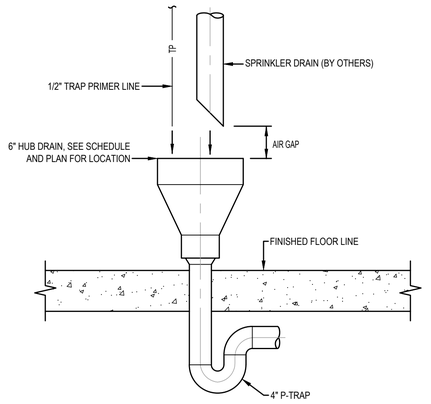
NOTE: LINE INVERT = FINISH FLOOR -1.208' MINIMUM

1 URINAL WASTE RISER
SCALE: NTS

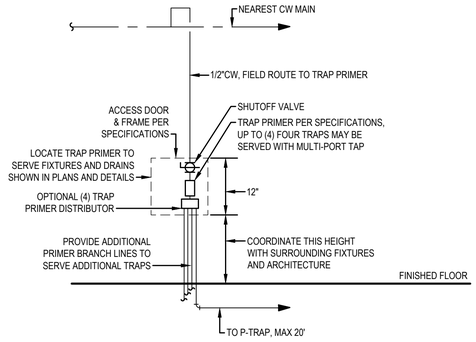


NOTE: LINE INVERT = FINISH FLOOR -1.208' MINIMUM

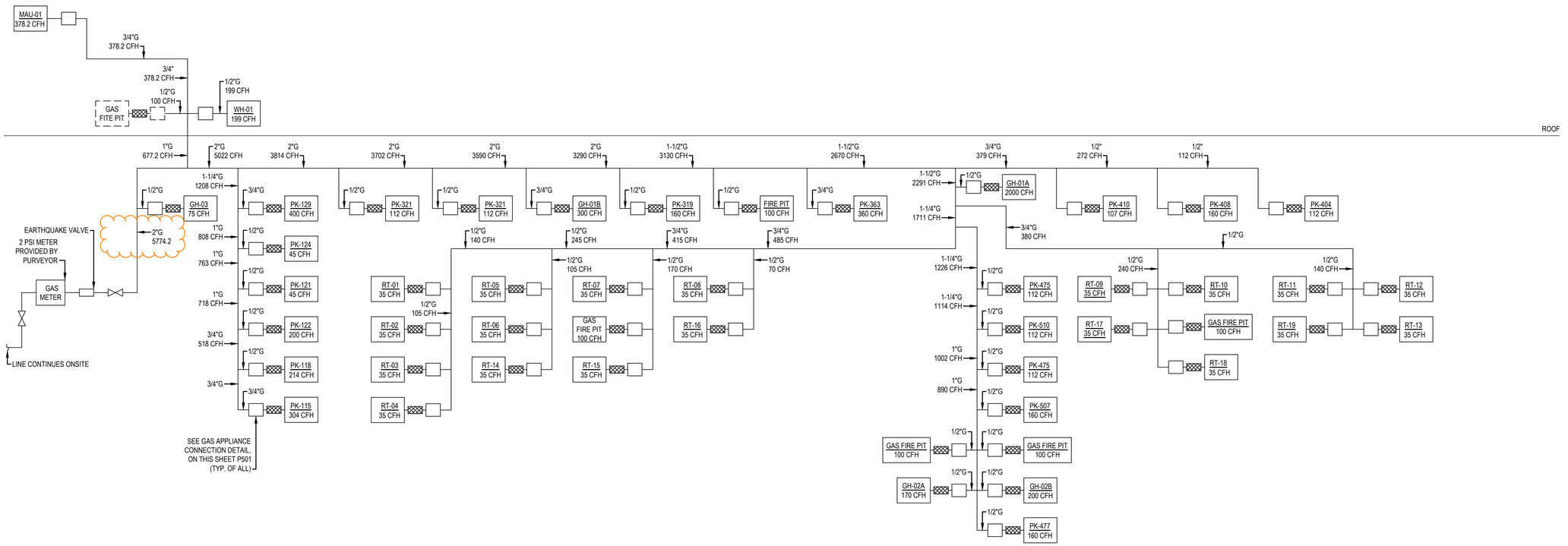
2 DRINKING FOUNTAIN RISER
SCALE: NTS



3 HUB DRAIN
SCALE: NTS



4 TRAP PRIMER PIPING DIAGRAM
SCALE: NTS



NOTES:
1. GAS PIPING SIZING BASED ON TABLE 402.4(5) IFGC 2021, 2PSI INLET PRESSURE USING THE LONGEST LENGTH METHODOLOGY.
2. GAS METER SHALL ACCOMMODATE 5774.2 CFH MIN. OF NATURAL GAS THROUGH 250 LF.

4 NATURAL GAS RISER
SCALE: NTS

MIDDLEBROOK ENGINEERING, LLC
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PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
DETAILS III

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

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Building	Planning
Engineering	Public Works
Fire	Traffic

Note: Hose Bibs with atmospheric vacuum breakers (AVB) - No valves or spray nozzles on connections. TYPICAL, All hoses to be clear of flood rim levels - Clearance above sink or drains.

PLUMBING FIXTURE SCHEDULE

UNIT NO	FIXTURE	MOUNTING	MANUFACTURER AND MODEL NUMBERS		W	V	HW	CW	GPF	GPM	NOTES
P-1A	WATER CLOSET ADA	WALL	TOILET:	AMERICAN STANDARD AFWALL 2257.101	4"	2"	-	-	-	-	2,3,
			SEAT:	BEMIS - 1955CT	-	-	-	-	-	-	
			FLUSH VALVE:	TOTO TET1LA	-	-	-	1	1.28	-	4
			CARRIER:	JAY R SMITH: 0925	-	-	-	-	-	-	
P-2A	LAVATORY ADA	UNDERMOUNT	LAVATORY:	TOTO LT641	2"	1-1/2"	-	-	-	-	
			FAUCET:	TOTO TEL105i2	-	-	1/2"	1/2"	-	0.5	1,3,
			TRAP:	DEARBORN BRASS - 17GA W/ GROUND JOINT	1-1/2"	-	-	-	-	-	
P-3A	URINAL	WALL	URINAL	AMERICAN STANDARD WASHBROOK FLO WISE 6590.001	2"	1-1/2"	-	-	-	-	2,3,
			FLUSH VALVE:	TOTO TEU1LAi	-	-	-	3/4"	0.5	-	4
			CARRIER:	JAY R SMITH: 0925	-	-	-	-	-	-	
P-04	DRINKING FOUNTAIN	WALL	UNIT:	ELKAY- EDFPVR217C	2"	1-1/2"	-	3/8"	-	-	
HB-01	HOSE BIB	WALL	UNIT:	WOODFORD MODEL 68	-	-	-	3/4"	-	-	
HB-02	HOSE BIB HOT/COLD	WALL	UNIT:	WOODFORD MODEL B22	-	-	3/4"	3/4"	-	-	
RD-1	ROOF DRAIN	ROOF	UNIT	JAY R SMITH 1800	3"	-	-	-	-	-	
FCO	FLOOR CLEANOUT	FLOOR	UNIT:	JAY R SMITH - 4040	-	-	-	-	-	-	
WCO	WALL CLEANOUT	WALL	UNIT:	JAY R R SMITH - 4422	-	-	-	-	-	-	
FS2	FLOOR SINK,2"	FLOOR	UNIT:	JAY R SMITH 320-Y02	2"	1-1/2"	-	-	-	-	
FD2	FLOOR DRAIN, 2"	FLOOR	UNIT:	ZURN FD-2200	2"	1-1/2"	-	-	-	-	
FD3	FLOOR DRAIN, 3"	FLOOR	UNIT:	ZURN Z-511	3"	1-1/2"	-	-	-	-	

GENERAL NOTES:

1. EQUIPMENT MAY BE SUBSTITUTED UPON ENGINEER'S APPROVAL FOR EQUAL OR OTHER MFG/MODEL. REFER TO EQUIPMENT SUBMITTAL FOR FINAL SELECTIONS.
2. TRANSISTION PIPE SIZE SHOWN ON PLAN TO STOP OR CONNECTION SIZE SHOWN ON SCHEDULE.
3. IF COLOR/FINISH OPTIONS EXISIT FOR FIXTURES, COORDINATE FINAL COLORS/FINISHES WITH ARCHITECT.

NOTES:

1. MAXIMUM DELIVERY TEMPERATURE SHALL BE 105 DEGREES FAHRENHEIT. PROVIDE WITH BELOW DECK MIXING VALVE OPTION.
2. PROVIDE WITH BOLTS AND BOLT COVERS.
3. ADA COMPLIANT FIXTURE. COORDINATE FIXTURE HEIGHT WITH ARCHITECT.
4. SELF-POWERED HYDROELECTRIC FLUSH VALVE SYSTEM.

EXPANSION TANK SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	TANK SIZE (GAL)	ACCEPTANCE (GAL)	WEIGHT (LBS)	NOTES
ET-01	WESSELS	TTA-100	COMPACTOR	45	53	30	1

NOTES:

1. FILL PRESSURE SHALL BE SET TO 150 PSI RELIEF.

STORAGE TANK SCHEDULE

UNIT NO	TYPE	MFG	MODEL	DESCRIPTION/ DATA	NOTES
ST-01	STORAGE TANK	LOCHINVAR	RJA120	119 GAL, 365 LBS	1,2
ST-02	STORAGE TANK	LOCHINVAR	RJA120	119 GAL, 365 LBS	1,2

NOTES:

1. GLASS LINED.
2. PROVIDE WITH MAGNESIUM ANODE.

WATER HEATER SCHEDULE

UNIT NO	MFR.	MODEL	LOCATION	DIMENSIONS HEIGHT	DIMENSIONS WIDTH	TANK SIZE (GAL)	INPUT (MBH)	OUTPUT (MBH)	COP	EFF	CFM	RECOVERY (GPH)	TEMP RISE (F)	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL VOLT	ELECTRICAL PH	DISCON FURN. BY	WEIGHT	NOTES
AWHP-01	LOCHINVAR	AHP200	MECH ROOM	71.75	38.5	-	-	203.6	4.38	-	17224	-	-	134	150	208	3	EC	2032	3,4
WH-01	LOCHINVAR	SWA200N	MECH ROOM	76	28	-	199	180	-	96	-	232	100	-	-	-	-	EC	725	1,2

NOTES

1. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT.
2. PROVIDE WITH HORIZONTAL CONCENTRIC VENT KIT.
3. PROVIDE WITH SINGLE POINT ELECTRICAL BUS PANEL.
4. PROVIDE WITH NEMA3R RATED STEP UP TRANSFORMER

ELEVATOR SUMP PUMP SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	FLOW (GPM)	HEAD FT	RPM	ELECTRICAL HP	ELECTRICAL WATT	ELECTRICAL VOLTS	ELECTRICAL PH	STARTER FURN. BY	DISCONNECT FURN. BY	NOTES
SP-01	LIBERTY	ELV 290	ELEVATOR SUMP	50	26	3400	3/4	-	208	1	MC	EC	1, 2, 3

NOTES:

1. ALARM SHALL SOUND IF OIL IS DETECTED IN SUMP.
2. UNIT CONTINUES TO OPERATE IF OIL IS DETECTED.
3. PROVIDE WITH MANUFACTURER'S RECOMMENDED CONTROL BOX AND HIGH WATER ALARM.

PUMP SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	FLOW (GPM)	HEAD FT	RPM	ELECTRICAL HP	ELECTRICAL WATT	ELECTRICAL VOLTS	ELECTRICAL PH	DISCONNECT FURN. BY	NOTES
CP-01	BELL & GOSSETT	ECOCIRC 20	MECHANICAL RM	10.5	18	3600	0.17	-	120	1	EC	1

NOTES:

1. PROVIDE WITH AQUASTAT AND TIMER AS UNIT STARTER.

BACKFLOW PREVENTER SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	TYPE RP	TYPE DC	TYPE AG	SIZE (IN)	PRESSURE DROP (PSI)	SERVICE	NOTES
BFP-01	WATTS	SD-3	MECH. ROOM	-	X	-	3/8, 1/2	12	BEVERAGE	3

NOTES:

1. SIZE TO MATCH WATER LINE.

THERMOSTATIC MIXING VALVE SCHEDULE

UNIT NO	MFR	MODEL	SERVICE	INLET SIZES (IN)	OUTLET SIZE (IN)	MINIMUM FLOW	PRESSURE DROP (PSI)	NOTES
TMV-01	WATTS	LFN270-M3	LOW TEMP FIXTURES	2	2	7GPM	10	1
TMV-02	BRADLEY	S59-2007	LOW TEMP FIXTURES	0.5	0.5	2GPM	5	-

NOTES:

1. SET OUTLET DISCHARGE TEMP TO 140ºF .

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10/15/2024

SHEET TITLE
SCHEDULES I

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
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SHEET
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City of Puyallup
Development & Permitting Services
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PLUMBING PIPE SIZING CHART

COLD WATER				HOT WATER			WASTE				VENT	
PIPE SIZE	GPM RANGE	TANK UNITS	VALVE UNITS	PIPE SIZE	GPM RANGE	FIXTURE UNITS	PIPE SIZE	VERTICAL	HORIZONTAL (1/4"/FT)	HORIZONTAL (1/8"/FT)	VENT UNITS	MAX VENT LENGTH
1/2"	0-1.8	0-0.8	-	1/2"	0-1.8	0-0.8	1/2"	-	-	-	-	-
3/4"	1.9-4.8	0.9-5.8	-	3/4"	1.9-4.8	0.9-5.8	3/4"	-	-	-	-	-
1"	4.9-9.9	5.9-12.9	-	1"	4.9-9.9	5.9-12.9	1"	-	-	-	-	-
1-1/4"	10-17.0	13-24	-	1-1/4"	10-17.0	13-24	1-1/4"	1.0	1.0	-	1.0	15'
1-1/2"	18-27	25-46	0-10	1-1/2"	18-27	25-46	1-1/2"	2.0	1.0	-	2-8.0	20'
2"	28-58	47-165	11-69.0	2"	28-46	47-111	2"	3-16.0	2-8.0	-	9-24.0	40'
2-1/2"	59-100	166-380	70-245	2-1/2"	47-73	112-241	2-1/2"	17-32	9-14.0	-	25-48	60'
3"	101-170	381-748	246-700	3"	74-110	242-431	3"	33-48	15-35	-	49-84	70'
4"	171-300	749-1755	701-1755	4"	111-180	432-809	4"	49-256	36-216	1-172	85-256	100'
5"	301-470	1756-3340	1756-3340	5"	181-290	810-1688	5"	257-600	217-428	173-342	257-600	130'
6"	471-670	3341-5110	3341-5110	6"	291-420	1689-2862	6"	601-1380	429-720	343-576	601-1380	170'
8"	671-1300	5111-11500	5111-11500				8"	1381-3600	721-2640	577-2112	1381-3600	250'
							10"	3601-5600	2641-4680	2113-3744	3601-5600	-
							12"	5601-8400	4681-8200	3745-6560	5601-8400	-

NOTES

1. THIS CHART IS BASED ON THE UPC APPENDIX A, WATER PIPE COPPER TYPE L
2. COLD WATER IS BASED ON A MAXIMUM OF 8FPS.
3. HOT WATER IS BASED ON A MAXIMUM OF 5 FPS
4. THIS CHART IS BASED ON 3PSI/100 FT FRICTION LOSS.

PIPE INSULATION SCHEDULE

FLUID OPERATING	INSULATION CONDUCTIVITY		NOMINAL OR TUBE SIZE (inches)				
AND USAGE (°F)	BTU · in./(h · ft² · °F)	TEMPERATURE, °F	< 1	1 to 1-1/2	1-1/2 to < 4	4 to < 8	≥8
> 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0
105 - 140	0.21 - 0.28	100	1	1.0	1.5	1.5	1.5
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0
< 40	0.20 - 0.26	75	0.5	1.0	1.0	1.0	1.5

GENERAL NOTES:

1. FOR PIPING SMALLER THAN 1-1/2 INCH (38mm) AND LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION OF THESE THICKNESESS BY 1 INCH (25mm) SHALL BE PERMITTED (BEFORE THICKNESSES REQUIRED IN FOOTNOTE b) NOT TO A THICKNESS LESS THAN 1 INCH (25mm).

2. FOR INSULATION OUTSIDE THE STATED CONDUCTIVITY RANGE, THE MINUMUM THICKNESS (T) SHALL BE DETERMINED AS FOLLOWS:

$$T = r\{(1 + t/r)^{K/k} - 1\}$$

WHERE:

T = MINIMUM INSULATION THICKNESS,

r = ACTUAL OUTSIDE RADIUS OF PIPE,

t = INSULATION THICKNESS LISTED IN THE TABLE FOR APPLICABLE FLUID TEMPERATUREAND PIPE SIZE.

K = CONDUCTIVITY OF ALTERNATE MATERIAL AT MEAN RATING TEMPERATURE INDICATED FOR THE APPLICABLE FLUID TEMPERATURE (Btu · in/h · ft² x °F)

k = THE UPPER VALUE OF THE CONDUCTIVITY RANGE LISTED IN THE TABLE FOR THE APPLICABLE FLUID TEMPERATURE.

3. FOR DIRECT-BURIED HEATING AND HOT WATER SYSTEM PIPING, REDUCTION OF THESE THICKNESSES BY 1-1/2 INCHES (38mm) SHALL BE PERMITTED (BEFORE THCKNESS ADJUSTMENT REQUIRED IN FOOTNOTE b BY BUT NOT TO THICKNESS LESS THAN 1 INCH (25mm)

KITCHEN FIXTURE SCHEDULE

UNIT NO	FIXTURE	MANUFACTURER AND MODEL NUMBERS		W	V	HW	CW	IDW	G	NOTES
PK-006	MOP SINK	UNIT:	CUSTOM SS MOP PAN, T&S BRASS - B-0665-BSTP	3"	2"	1/2"	1/2"	-	-	
PK-007	MOP SINK FAUCET	UNIT:	T&S BRASS B-0665-BSTP	-	-	1/2"	1/2"	-	-	
PK-010	HOSE REEL	UNIT:	T&S - B-1439-BF12-C12	-	-	3/4"	3/4"	-	-	
PK-019	DRAIN THORUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-026	DRAIN THORUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-032	KEG COOLER BLOWER COIL	UNIT:	NEXT-GEN-ALL-TEMP- RL6A094ADA	3/4"	-	-	-	-	-	
PK-037	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-041	COOLER BLOWER COIL	UNIT:	NEXT-GEN-ALL-TEMP- RL6A094ADA	3/4"	-	-	-	-	-	
PK-044	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-049	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-055	ICE MACHINE	UNIT:	HOSHIZAKI - KMS-1122MLJ	3/4"	-	1/2"	-	-	-	1
PK-057	ICE MACHINE	UNIT:	HOSHIZAKI - KMS-1122MLJ	3/4"	-	1/2"	-	-	-	1
PK-059	ICE MACHINE BIN	UNIT:	FOLLETT PRODUCTS - DEV1080SG-60-75	1"	-	-	-	-	-	
PK-061	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-065	HAND SINK	UNIT:	JOHN BOOS - PBHS-14-SS	2"	1-1/2"	-				
PK-066	HAND SINK FAUCET	UNIT:	T&S BRASS 1B18244-1D24R-X	-	-	1/2"	1/2"	-	-	
PK-077	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS -1B-1D B SERIES	2"	1-1/2"	-	-	-	-	
PK-078	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0230-KIT	-	-	1/2"	1/2"	-	-	
PK-083	2 COMPARTMENT SINK	UNIT:	JOHN BOOS 42PB2028-2D	2"	1-1/2"	-	-	-	-	
PK-084	SPLASH MOUNT FAUCET	UNIT:	T&S BRAASS B-0231	-	-	1/2"	1/2"	-	-	
PK-085	HAND SINK	UNIT:	JOHN BOOS PBHS-2-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-086	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-107	ROLL IN BLAST CHILLER	UNIT	IRINOX - MULTIFRESH MF 100.2 SC	1-1/4"	-	-	-	-	-	
PK-115	COMBINATION OVEN ELECTRIC	UNIT:	RATIONAL - ICOMBI PRO 20	2"	-	3/4"	-	-	-	
PK-118	COMBINATION OVEN ELECTRIC	UNIT:	RATIONAL - ICOMBI PRO 20	2"	-	3/4"	-	-	-	
PK-122	40 GAL TILT SKILLET	UNIT:	RATIONAL - IVARIOPRO XL	2"	-	3/4"	-	-	-	
PK-123	26 GAL TILT SKILLET	UNIT	RATIONAL - IVARIOPRO L	2"	-	3/4"	-	-	-	
PK-124	STOCK POT BURNER	UNIT:	US RANGE SP-1844	-	-	-	-	-	3/4"	
PK-129	DEEP FAT FRYER	UNIT:	FRY MASTER/DEAN - SCFD260G	-	-	-	-	-	1"	
PK-134	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-135	HAND SINK FAUCET	UNIT:	T&S BRASS B-1105	-	-	1/2"	1/2"	-	-	
PK-137	EYE WASH FAUCET	UNIT:	T&S BRASS : EW-7612LH	-	-	1/2"	-	-	-	
PK-140	3 COMPARTMENT SINK	UNIT:	JOHN BOOS 3B-2D B SERIES	2"	1-1/2"	-	-	-	-	
PK-141	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0133-01	-	-	1/2"	1/2"	-	-	
PK-149	HOSE REEL	UNIT:	T&S BRASS B-7222-C01-STB	-	-	-	3/8"	-	-	
PK-152	SS BUILT IN QUICK DRAIN	UNIT:	CUSTOM SS QUICK DRAIN	3/4"	-	-	-	-	-	
PK-153	44" HIGH TEMP CONVEYOR OR DISHWASHER	UNIT:	INSINGER: ADMIRAL 44 ADVANCED R-L	1-1/2"	-	1/2"	-	-	-	1
PK-155	SS BUILT IN QUICK DRAIN	UNIT:	CUSTOM SS BUILT IN DRAIN	3/4"	-	-	-	-	-	
PK-161	PRE RINSE SINK	UNIT:	PACIFIC STAINLESS PRE RINSE	2"	1-1/2"	-	-	-	-	
PK-162	PRE RINSE SINK FAUCET	UNIT:	T&S BRASS AND BRONZE - B-0133	-	-	1/2"	1/2"	-	-	
PK-168	DRAIN THROUGH	UNIT:	CUSTOM SS DRAIN THROUGH	3"	-	-	-	-	-	
PK-183	HAND SINK	UNIT:	JONH BOOS PBHS -W-1410-SS;R-X	2"	1-1/2"	-	-	-	-	
PK-184	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-301	ONE COMPARTMENT SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-302	WALL/ SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0230-KIT	-	-	1/2"	1/2"	-	-	
PK-319	4TOP DEEP FAT FRYER	UNIT:	FRYMASTER - FPPH455	-	-	-	-	-	1"	
PK-321	GRIDDLE, GAS, COUNTERTOP	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-327	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-328	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-335	HOT FOOD WELL UNIT, DROP-IN, ELECTRIC	UNIT:	DELFIELD N8731-D	1/2"	-	-	-	-	-	
PK-343	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-344	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-346	EYE WASH FAUCET	UNIT:	T&S BRASS EW-7612LH	-	-	-	1/2"	-	-	
PK-363	GAS FLOOR FRYER	UNIT:	PITCO FBG24	-	-	-	-	-	1"	
PK-370	ONE COMPARTMENT SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-371	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-376	DROP IN WARMING WELL FOR BUTTER	UNIT:	HATCO HWBHI-11QTD	3/4"	-	-	-	-	-	
PK-390	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-391	HAND SINK FAUCET	UNIT	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-395	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-396	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-404	48" GRIDDLE	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-408	GAS FRYER	UNIT	FRYMASTER/DEAN FPPH255	-	-	-	-	-	1"	
PK-410	COMBINATION OVEN ELECTRIC	UNIT:	RATIONAL ICC 6-FULL E (LM200CE)	2"	-	-	3/4"	-	1/2"	
PK-416	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-417	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-427	5 WELL HOT FOOD TABLE	UNIT:	DELFIELD F14EI572	1/2"	-	-	-	-	-	
PK-439	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	

MIDDLEBROOK ENGINEERING, LLC
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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
SCHEDULES II

PROJECT
INTERNATIONAL VILLAGE
1110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

KITCHEN FIXTURE SCHEDULE CONT

PK-440	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-446	BUILT IN DUMP SINK	UNIT:	PACIFIC STAINLESS BUILT IN DUMP SINK	2"	1-1/2"	-	-	-	-	
PK-447	DECK MOUNT FAUCET	UNIT:	T&S BRASS B-1122	-	-	1/2"	1/2"	-	-	
PK-453	BUILT IN HAND SINK	UNIT:	PACIFIC STAINLESS BUILT IN HAND SINK	2"	1-1/2"	-	-	-	-	
PK-454	DECK MOUNT FAUCET	UNIT:	T&S BRASS B-1141	-	-	1/2"	1/2"	-	-	
PK-471	HOT FOOD WELL UNIT, DROP-IN, ELECTRIC	UNIT:	DELFIELD N8731-D	1/2"	-	-	-	-	-	
PK-475	GRIDDLE GAS COUNTERTOP	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-477	4 POT DEEP FAT FRYER	UNIT:	FRYMASTER - FPPH455	-	-	-	-	-	1"	
PK-486	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-487	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-489	EYE WASH FAUCET	UNIT:	T&S BRASS EW-7612LH	-	-	-	1/2"	-	-	
PK-507	4 POT DEEP FAT FRYER	UNIT:	FRYMASTER - FPPH455	-	-	-	-	-	1"	
PK-510	GRIDDLE GAS COUNTERTOP	UNIT:	GARLAND COMMERCIAL RANGES GTGG48-GT48M	-	-	-	-	-	3/4"	
PK-526	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1B18244-1D24R-X	2"	1-1/2"	-	-	-	-	
PK-527	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-529	HAND SINK FAUCET	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-530	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-531	ICE MACHINE HEAD	UNIT:	HOSHIZAKI - KMS-1122MLJ	3/4"	-	1/2"	-	-	-	1
PK-533	ICE MACHINE BIN	UNIT:	HOSHIZAKI B-1650SS	3/4"	-	-	-	-	-	
PK-534	1 COMPARTMENT PREP SINK	UNIT:	JOHN BOOS 1PB-2D	2"	1-1/2"	-	-	-	-	
PK-535	SPLASH MOUNT FAUCET	UNIT:	T&S BRASS B-0231	-	-	1/2"	1/2"	-	-	
PK-548	HAND SINK	UNIT:	JOHN BOOS PBHS-W-1410-SSLR-X	2"	1-1/2"	-	-	-	-	
PK-549	HAND SINK FAUCET	UNIT:	T&S BRASS B-1146	-	-	1/2"	1/2"	-	-	
PK-555	ICE BIN WITH BOTTLE WELLS	UNIT:	GLASTENDER CBA-30L3-CP10	3/4"	-	-	-	-	-	1
PK-557	SODA GUN	UNIT:	OWNER							1
PK-558	UNDERBAR MIXOLOGY SINK UNIT	UNIT:	GLASTENDER MFS-12	1-1/2"	-	3/8"	3/8"	-	-	
PK-559	HAND SINK	UNIT:	GLASTENDER DHSB-12	1-1/2"	-	3/8"	38"	-	-	
PK-560	DRAIN BOARD	UNIT:	GLASTENDER DBB-12	1-1/2"	-	-	-	-	-	
PK-561	GLASSWAHSER UNDERCOUNTER/UNDERBAR	UNIT:	JACKSON WWS DELTA 5-E	2"	-	1/2"	-	-	-	
PK-562	8 TAP BEER TOWER	UNIT:	GLASSTENDER BT-8-SS	1/2"	-	-	-	-	-	
PK-563	4 TAP BEER TOWER	UNIT:	GLASSTENDERBT-4-SS	1/2"	-	-	-	-	-	

GENERAL NOTES:

1. UNITS ON THIS SCHEDULE ARE PROVIDED AND INSTALLED BY OTHERS. THIS CONTRACTOR SHALL MAKE PLUMBING CONNECTIONS AS SHOWN ON THE DOCUMENTS. SEE KITCHEN DOCUMENTS FOR MORE INFORMATION.

2. TRANSISTION PIPE SIZE SHOWN ON PLAN TO STOP OR CONNECTION SIZE SHOWN ON SCHEDULE.

3. COORDINATE FINAL EQUIPMENT SIZES, SELECTIONS, AND REQUIREMENTS WITH ARCHITECT BEFORE INSTALLATION.

NOTES:

1.PROVIDE BFP-01 ON ALL ICE MACHINES, ESPRESSO AND SODA (CARBONATED) DISPENSERS.

MIDDLEBROOK ENGINEERING, LLC
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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
SCHEDULES III

PROJECT
INTERNATIONAL VILLAGE
1110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS	10/15/2024

DRAWN BY:	RPG
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PROJECT MANAGER:	BSM/RMC

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City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building
Engineering
Fire
Traffic

GENERAL CONTRACT REQUIREMENTS

1. MECHANICAL, PLUMBING, AND CONTROLS SCOPE SHALL FALL UNDER THE ULTIMATE RESPONSIBILITY OF ONE CONTRACTOR, WHO IS RESPONSIBLE FOR UNDERSTANDING ALL MECHANICAL AND PLUMBING DOCUMENTS, DISTRIBUTING CONTRACT DOCUMENTS TO ALL SUBCONTRACTORS, AND SHALL BE RESPONSIBLE FOR CONTRACT COMPLETION.
2. THE DRAWINGS ARE DIAGRAMMATIC. COORDINATE INSTALLATION WITH THE BUILDING. PROVIDE ALL NECESSARY OFFSETS, CHANGES IN DIRECTION, EXTENSIONS AND ASSOCIATED MATERIALS FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
3. ***COORDINATE MECHANICAL WORK WITH ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, AND LANDSCAPE WORK SHOWN ON OTHER CONTRACT DOCUMENTS. PROVIDE ADDITIONAL PIPE OR DUCT OFFSETS WHERE REQUIRED TO COORDINATE INSTALLATION.***
4. *** LOCATIONS AND SIZES OF (FLOOR, WALL, AND ROOF OPENINGS) SHALL BE COORDINATED WITH OTHER TRADES INVOLVED. INCLUDE THE FOLLOWING IN THE COST OF MECHANICAL WORK: CUTTING, CORING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS, FLOORS, AND ROOFS AS REQUIRED TO ACCOMMODATE WORK AS INDICATED IN THE MECHANICAL CONTRACT DOCUMENTS UNLESS SPECIFICALLY SHOWN ON ARCHITECTURAL DOCUMENTS.***
5. MAINTAIN A SET OF PLANS ON SITE. RECORD ALL CHANGES TO ACTUAL ARRANGEMENTS ON THESE PLANS. PROVIDE THIS SET OF PLANS TO THE OWNER'S REPRESENTATIVE WHEN WORK IS COMPLETE.
6. ALL WORK PERFORMED SHALL BE DONE IN STRICT ACCORDANCE TO ALL APPLICABLE MECHANICAL, BUILDING, ENERGY, FUEL GAS, AND LOCAL CODES, WITH AMENDMENTS.
7. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND CONSTRUCTION FEES. FURNISH FINAL CERTIFICATE TO OWNER SHOWING COMPLIANCE WITH CODE REQUIREMENTS.
8. PROJECT SCHEDULING: COMPLY WITH OWNER'S REQUIREMENTS
9. OPERATION AND MAINTENANCE MANUAL: PROVIDE COMPLETE OPERATIONS AND MAINTENANCE MANUAL IN HARD COVER. PROVIDE OPERATIONS, MAINTENANCE AND PARTS DATA ON ANY ITEM OF EQUIPMENT THAT HAS MOVING PARTS.
10. PROVIDE THE FOLLOWING DOCUMENTS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. FINAL PAYMENT OF THE CONTRACT WILL BE CONTINGENT UPON RECEIVING THESE DOCUMENTS:
    A. RECORD (AS-BUILT) DRAWINGS.
    B. MAINTENANCE AND OPERATING INSTRUCTIONS (3 SETS).
    C. EXTENDED WARRANTIES (OTHER THAN THE ONE-YEAR).
    D. BALANCING LOGS (AIR AND HYDRONIC SYSTEMS) (3 SETS).
    E. FINAL CERTIFICATES OF INSPECTION AND CODE COMPLIANCE.
    F. COMMISSIONING DOCUMENTATION PER WSEC
11. WARRANTY PROVISIONS: THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT AND SYSTEMS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIAL, EQUIPMENT, OR POOR WORKMANSHIP, WHICH MAY SHOW ITSELF DURING THIS WARRANTY PERIOD.

SEISMIC AND VIBRATION REQUIREMENTS

1. HANGERS AND SEISMIC BRACING FOR THE MECHANICAL SYSTEMS SHALL BE DESIGNED AND PROVIDED BY THE MECHANICAL CONTRACTOR. REFER TO CONTRACTOR SHOP DRAWINGS. FOR LOCATIONS OF EQUIPMENT AND HUNG MECHANICAL SYSTEMS. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE SUPPORT SYSTEMS AND DESIGN LOADS FOR HUNG MECHANICAL SYSTEMS WITH THE GENERAL CONTRACTOR AND OTHER TRADES THAT MAY BE IMPACTED.
    A. PROVIDE ALL SEISMIC RESTRAINT REQUIRED BY THE AUTHORITY HAVING JURISDICTION AND THE APPLICABLE CODES.
    B. EMPLOY A LICENSED STRUCTURAL ENGINEER, IF NECESSARY, TO ACHIEVE COMPLIANCE.
    C. THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) SEISMIC RESTRAINT MANUAL GUIDELINES MAY BE USED FOR PIPING AND DUCTWORK. INSURE THE PROPER HAZARD LEVEL IS EMPLOYED FOR THE AREA OF INSTALLATION.
2. VIBRATION CRITERIA: PROVIDE VIBRATION ISOLATION IN ACCORDANCE WITH THE AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE): APPLICATIONS HANDBOOK.

BASIC MATERIALS AND METHODS

1. ALL MATERIALS AND EQUIPMENT SHALL BE LISTED OR LABELED BY A RECOGNIZED AGENCY. UL, AGA, FM, CSA, ARI, ETC.
2. EQUIPMENT SHALL BE AS INDICATED ON THE DRAWING SCHEDULES. THE DRAWING SCHEDULES ESTABLISH THE LEVEL OF QUALITY. SUBSTITUTIONS WILL BE CONSIDERED, SUBMIT TECHNICAL DATA (PERFORMANCE AND CONSTRUCTION) TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. ALLOW TWO WEEKS FOR TURN-AROUND.
3. MECHANICAL SYSTEM PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE WITH THE BUILDING CODE IN FORCE IN THE AUTHORITY HAVING JURISDICTION FOR THIS PROJECT. THIS INCLUDES PIPING, DUCTWORK, SUPPORTS, CONDUIT, AND ANY OTHER SYSTEM AND APPURTENANCE PROVIDED AS PART OF THE MECHANICAL WORK OF THIS CONTRACT. IN ADDITION, ALL THROUGH-PENETRATION SEALING METHODOLOGIES SHALL BE LISTED IN THE UNDERWRITER'S LABORATORIES (UL) FIRE RESISTANCE DIRECTORY, ISSUE CURRENT AT TIME OF BID.
4. MOTORS SHALL COMPLY WITH THE WSEC.
5. ELECTRICAL INSTALLATION SHALL COMPLY WITH THE NEC.
6. PROTECT OF STORED MATERIALS. REPLACE DAMAGED MATERIALS PRIOR TO INSTALLATION.
7. PROVIDE WATER-TIGHT SEAL FOR OPENINGS TO THE BUILDING THROUGH WHICH PIPE PASSES.
8. PROVIDE AND INSTALL PIPE SUPPORTS IN ACCORDANCE WITH MANUFACTURER'S STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY (MSS) STANDARDS, SPECIFICALLY STANDARD SP-69, "PIPE HANGERS AND SUPPORTS - SELECTION AND APPLICATION" AND STANDARD SP-58, "PIPE HANGERS AND SUPPORTS - MATERIALS, DESIGN AND MANUFACTURE". PROVIDE PIPE SUPPORT SPACING IN ACCORDANCE WITH THE UPC OR IMC.
9. TESTING: ALL WORK UNDER THIS CONTRACT SHALL BE THOROUGHLY AND SYSTEMATICALLY TESTED, BOTH DURING CONSTRUCTION AND AFTER COMPLETION. PIPE TESTING SHALL BE EITHER AS SPECIFIED IN THE APPROPRIATE SPECIFICATION SECTION, OR AS SPECIFIED IN THE APPLICABLE PLUMBING OR MECHANICAL CODE. DUCTWORK SHALL BE TESTED AS PART OF THE AIR BALANCING PROCESS. NOTIFY THE OWNER'S REPRESENTATIVE 48-HOURS IN ADVANCE OF ALL TESTS. TESTS SHALL BE MAINTAINED UNTIL APPROVED.
10. START-UP, BALANCING AND COMMISSIONING.
    A. EQUIPMENT STARTUP SHALL BE PERFORMED BY QUALIFIED PERSONNEL. THE TECHNICAL SPECIFICATION SECTIONS WILL DETAIL OTHER SPECIAL REQUIREMENTS, IF ANY. PROVIDE A STATEMENT OF THE STARTUP TECHNICIAN'S QUALIFICATIONS IF REQUESTED BY THE OWNER'S REPRESENTATIVE OR ELSEWHERE SPECIFIED.
    B. BALANCE ALL AIR AND WATER SYSTEMS. BALANCE IN ACCORDANCE WITH EITHER NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR AMERICAN AIR BALANCE COUNCIL (AABC) CRITERIA.
    C. PROVIDE COMMISSIONING IN ACCORDANCE WITH THE WSEC, UNLESS ENHANCED COMMISSIONING IS REQUIRED. PROVIDE DOCUMENTATION OF COMMISSIONING.

COPPER PIPING

1. COPPER PIPING SHALL BE USED FOR DOMESTIC HOT AND COLD WATER.
2. MATERIALS FOR ABOVE GROUND COPPER PIPE, FITTINGS AND ACCESSORIES. ASTM B88, TYPE "L".
3. PROVIDE LEAD-FREE SOLDER JOINTS FOR PIPING 2" AND SMALLER.
4. PROVIDE ROLLED GROVE MECHANICAL JOINTS FOR PIPING 2-1/2" AND LARGER.
5. MATERIAL FOR BELOW GROUND COPPER PIPE SHALL BE ASTM B42, HARD DRAWN, TYPE K. FITTINGS SHALL BE ASME B16.18 CAST COPPER ALLOY OR ASME B16.22 WROUGHT COPPER OR BRONZE. JOINTS SHALL BE BRAZED UTILIZING AWS A5.8M/A5.8 BCuP COPPER SILVER BRAZE.

CROSS-LINKED POLYETHYLENE PIPE

1. INTERIOR SERVICE: CONFORM TO ASTM F877, "CROSSLINKED POLYETHYLENE (PEX) PLASTIC HOT- AND COLD- WATER DISTRIBUTION SYSTEMS."

PLASTIC PIPE, DWV & SEWER

1. PVC PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS SHALL BE PER IAPMO INSTALLATION STANDARD (IS) 09-03, "PVC BUILDING DRAIN, WASTE, AND VENT PIPE AND FITTINGS."

NATURAL GAS PIPING

1. ABOVE GROUND NATURAL GAS SYSTEM PIPING, VALVES, FITTINGS, AND APPURTENANCES: CARBON STEEL PER THE UPC AND IFGC.

PIPING SYSTEM SPECIALTIES

1. SPECIALITY PIPE SYSTEMS SHALL BE CONSTRUCTED OF MATERIALS THAT ARE COMPATIBLE WITH THE TYPE OF PIPING MATERIAL AND FLUIDS IN THE SYSTEM. THEY SHALL BE RATED FOR THE TEMPERATURES AND PRESSURES OF THE SYSTEMS IN WHICH THE VALVES ARE INSTALLED
2. PROVIDE SENSORS WHERE INDICATED ON THE PLANS.
3. PROVIDE DIELECTRIC BREAKS BETWEEN DISSIMILAR METALS.
4. TRAP PRIMERS:
    A. BRASS CONSTRUCTION WITH OPERATING RANGE FROM 20-80 PSI. SUITABLE FOR 1-4 LOW USE FIXTURES.
    B. APPROVED MANUFACTURERS: PPP

VALVES

1. VALVES SHALL BE CONSTRUCTED OF MATERIALS THAT ARE COMPATIBLE WITH THE TYPE OF PIPING MATERIAL AND FLUIDS IN THE SYSTEM. VALVES SHALL BE RATED FOR THE TEMPERATURES AND PRESSURES OF THE SYSTEMS IN WHICH THE VALVES ARE INSTALLED.
2. LOCATE AND ORIENT VALVES TO PERMIT PROPER OPERATION AND ACCESS FOR MAINTENANCE OF PACKING, SEAT, AND DISK. GENERALLY, LOCATE VALVES IN OVERHEAD PIPING IN HORIZONTAL POSITION. PROVIDE A UNION ADJACENT TO ONE END OF EACH THREADED VALVE.

PIPE TESTING

1. DOMESTIC PLUMBING PIPING SHALL BE TESTED AT A PRESSURE NOT LESS THAN THE DESIGN PRESSURE FOR A PERIOD OF NOT LESS THAN 15 MINUTES. TESTS SHALL BE PER UPC CHAPTER 6. TEST GAUGES SHALL BE PER UPC 318.
2. WASTE AND VENT PIPING SHALL BE TESTED WITH AT LEAST 10 FOOT HEAD OF WATER FOR A PERIOD OF NOT LESS THAN 15 MINUTES. TESTS SHALL BE PER UPC CHAPTER 7. TEST GAUGES SHALL BE PER UPC 318.
3. GAS PIPING SHALL BE TESTED USING AIR, NITROGEN, OR CARBON DIOXIDE. TEST PRESSURE SHALL BE NOT LESS THAT 1.5 TIMES THE PROPOSED MAXIMUM WORKING PRESSURE, BUT NOT THAN 3 PSI IRRESPECTIVE OF THE DESIGN PRESSURE. TEST LENGTH SHALL BE NOT LESS THAN ONE HALF HOUR FOR EVERY 500 CUBIC FEET OF PIPE VOLUME OR FRACTION THEREOF. ALL GAS PIPING TESTING SHALL BE IN ACCORDANCE WITH IFGC 406.
4. PIPING IS CONSIDERED "PASSED" IF THE PRESSURE REMAINS UNCHANGED FOR THE DURATIONS LISTED ABOVE.

WATER PIPE INSULATION

1. PRE-FORMED FIBERGLASS INFORMATION FOR PIPE, VALVES, FITTINGS, EQUIPMENT, AND ACCESSORIES.
2. PROVIDE PER THE WSEC AND THE MIDWEST INSULATION CONTRACTORS ASSOCIATION (MICA) STANDARDS. INSULATION THICKNESSES SHALL COMPLY WITH WSEC.
3. PROVIDE INSULATION ON THE FIRST 10' OF OVERFLOW PIPING.

HEAT TRACE CABLE

1. PROVIDE FOR EXTERIOR PIPING SYSTEMS NOT PROVIDED WITH GLYCOL.
2. THE SELF-REGULATING HEATING CABLE SHALL CONSIST OF TWO 16A W.G. NICKEL-COPPER BUS WIRES EMBEDDED IN PARALLEL IN A SELF-REGULATING POLYMER CORE THAT VARIES ITS POWER OUTPUT TO RESPOND TO TEMPERATURE ALL ALONG ITS LENGTH, ALLOWING THE HEATING CABLE TO BE CUT TO LENGTH IN THE FIELD.
3. THE HEATING CABLE SHALL BE COVERED BY A RADIATION-CROSS LINKED, MODIFIED POLYOLEFIN DIELECTRIC JACKET.
4. HEATING CABLE CIRCUIT SHALL BE PROTECTED BY A GROUND-FAULT DEVICE FOR EQUIPMENT PROTECTION. THIS REQUIREMENT IS IN ACCORDANCE WITH SECTION 427-22 OF THE NEC.
5. PROVIDE 5 WATT/ LF CABLE FOR PIPING UNDER 3" IN DIAMETER.
6. INSTALL PER MANUFACTURER'S RECOMMENDATION.

PLUMBING - GENERAL

1. PROVIDE PLUMBING PER THE UPC AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
2. PLUMBING FIXTURES AND EQUIPMENT SHALL BE AS INDICATED ON THE DRAWING SCHEDULES.
3. ACCESS PANELS: PROVIDE FOR MAINTENANCE OF VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS, AND OTHER ITEMS REQUIRING ACCESS WHEN OBSTRUCTED BY WALLS, AND HARD LID CEILING.
4. LOCATE VALVES, CONTROLS, AND SIMILAR COMPONENTS SO THAT THEY ARE ACCESSIBLE.
    A. INSTALL TAG ON CEILING GRID FRAME TO INDICATE LOCATION AND TYPE OF EQUIPMENT THAT REQUIRES MAINTENANCE.
5. PROVIDE ACCESS DOORS FOR EQUIPMENT INSTALLED BEHIND WALLS, ABOVE INACCESSIBLE CEILINGS AND BELOW FLOORS. COORDINATE ACCESS DOOR LOCATIONS WITH ARCHITECT/ENGINEER. ACCESS DOOR SHALL BE SIZED SO THAT ADJACENT EQUIPMENT IS ACCESSIBLE.
    A. PROVIDE 16 GA, STEEL, FLUSH TYPE ACCESS DOOR WITH CONCEALED HINGE AND SLOT SCREWDRIVER TYPE CAM LATCH. PROVIDE FACTORY PRIMED IN PAINTED SURFACE AREAS FOR FIELD PAINTING.
    B. PROVIDE STAINLESS STEEL FOR ALL OTHER AREAS. PROVIDE UL LISTED AND LABELED DOOR WHERE FIRE-RESISTANCE RATING IS INDICATED ON DRAWINGS.

PLUMBING - FLOOR DRAINS

1. DRAINS SHALL BE JAY R. SMITH, SIOUX CHIEF, ZURN, WADE, OR APPROVED EQUAL.
2. FLOOR DRAINS: DUCO CAST IRON BODY WITH FLASHING COLLAR, SQUARE POLISHED NICKEL BRONZE ADJUSTABLE STRAINER HEAD AND GRATE, TRAP PRIMER CONNECTION AND VANDAL PROOF SCREWS. SIZE AS PER PLANS.
3. FLOOR SINKS: STAINLESS STEEL FLANGED RECEPTOR FABRICATED OF 304 STAINLESS STEEL WITH 12" HALF GRATE STAINLESS STEEL TOP, SEDIMENT BUCKET AND FLASHING CLAMP. SIZES AS SHOWN ON PLANS.
4. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

PLUMBING - CLEANOUTS

1. CLEANOUTS SHALL BE JAY R. SMITH, SIOUX CHIEF, ZURN, WADE OR APPROVED EQUAL.
2. WALL CLEANOUT, DUCO CAST IRON CAULK FERRULE WITH CAST IRON COUNTERSUNK CLOSURE PLUG. PROVIDE WITH STAINLESS STEEL COVER AND SCREW.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

PLUMBING FIXTURE AND TRIM

1. FIXTURES ARE SPECIFIED IN THE PLUMBING FIXTURE SCHEDULE AND ARE THE BASIS OF THIS DESIGN. SIMILAR FIXTURES OF EQUAL QUALITY CAN BE SUBMITTED UPON.
2. PROVIDE STOP VALVES, WATER SUPPLY, TRAPS, TRAP ARMS, INSULATION, AND WASTE AS APPLICABLE AND INDICATED ON DRAWINGS.
3. PROVIDE CARRIER AND/OR MOUNTING BRACKETS.
4. PROVIDE ESCUTCHEON PLATES FOR ALL LINES THROUGH WALL OR FLOOR, UNLESS PLANS INDICTATE A DIFFERENT PENETRATION.
5. INSTALL FIXTURE PER MANUFACTURER'S RECOMMENDATIONS.

DOMESTIC WATER HEATERS

1. TANK SHALL BE RATED AT 1.5 TIMES THE WORKING PRESSURE. WATER HEATER SHALL COMPLY WITH STATE AND LOCAL ENERGY CODES.
2. PROVIDE HOUSEKEEPING PAD FOR TANK.
3. PROVIDE ASME RATED PRESSURE RELIEF VALVE.
4. INSTALL WATER HEATERS PER THE UPC AND MANUFACTURER'S RECOMMENDATIONS. PROVIDE CATCHPAN. DRAIN TO NEARBY SERVICE SINK.

CIRCULATION PUMPS

1. BASIS OF DESIGN REPRESENTS QUALITY OF UNIT.
2. MATERIALS SHALL BE BRONZE OR STAINLESS STEEL.
3. PUMP MUST BE CAPABLE OF BEING SERVICES WITHOUT DISTURBING PIPING CONNECTIONS. PUMP SHALL BE WATER LUBRICATED FOR HORIZONTAL OR VERTICAL INSTALLATION. PUMP SHALL BE NSF 372 CERTIFIED.
4. APPROVED MANUFACTURERS
    A. BELL AND GOSSETT
    B. ARMSTRONG
    C. GRUNDFOS

EXPANSION TANKS

1. BASIS OF DESIGN REPRESENTS QUALITY OF UNIT.
2. WELDED STEEL/STAINLESS STEEL CONSTRUCTION, TESTED AND STAMPED IN ACCORDANCE WITH AMSE BPVC-VIII-1. RATED FOR WORKING PRESSURE OF 125PSI AT 200 DEGREES FAHRENHEIT, WITH FLEXIBLE BUTYL DIAPHRAGM SEALED INTO TANK. PRECHARGE TO 55 PSIG AND ADJUST AS INDICATED ON PLAN.
3. PROVIDED WITH ANTIMICROBIAL LINER.
4. APPROVED MANUFACTURERS
    A. AMTROL

ELEVATOR SUMP PUMPS

1. BASIS OF DESIGN REPRESENTS QUALITY OF UNIT.
2. PREPACKAGED WITH CONTROLS, ALARMS, SUMP BASIN, PUMPS, AND INTERNAL PIPING INTERNAL TO BASIN. FIELD LOCATE CONTROL PANEL AND REMOTE ALARM.
3. CASING SHALL BE CONSTRUCTED OF CLASS 25 CAST IRON. MOTOR HOUSING SHALL BE OIL FILLED FOR HEAT DISSIPATION. ALL MATING PARTS SHALL BE MACHINED AND SEALED WITH BUNA-N O- RINGS. ALL FASTENERS EXPOSED TO LIQUID SHALL BE STAINLESS STEEL. IMPELLER SHALL BE VORTEX STYLE MADE OF POLYMER.
4. SUPPLIED WITH A 50' MULTI CONDUCTOR POWER CORD.
5. CONTROLS SHALL BE HOUSED IN A NEMA 4X RATED ENCLOSURE. OPERATOR INTERFACE SHALL BE TOUCH SCREEN.
6. REVIEW SCHEDULES FOR OIL DETECTION OPTIONS.
7. APPROVED MANUFACTURERS
    A. LIBERTY

BACKFLOW PREVENTERS

1. TYPE AND CONFIGURATION SHALL CONFORM TO LOCAL AHJ REQUIREMENTS. PROVIDE A LETTER OF CERTIFICATION TO OWNER.
2. REDUCED PRESSURE BACKFLOW PREVENTERS
    A. ASSE 1013, CAST BRONZE BODY AND STAINLESS STEEL SPRINGS. TWO INDEPENDENTLY OPERATING, SPRING LOADED CHECK VALVES, DIAPHRAGM TYPE DIFFERENTIAL PRESSURE RELIEF VALVE LOCATED BETWEEN CHECK VALVES, THIRD CHECK VALVE THAT OPENS UNDER BACKPRESSURE IN CASE OF DIAPHRAGM FAILURE.
3. POTABLE WATER SYSTEMS SHALL BE NFS 61 CERTIFIED LEAD FREE.
4. APPROVED MANUFACTURERS
    A. WATTS

THERMOSTATIC MIXING VALVE

1. BRONZE BODY CONSTRUCTION WITH CORROSION RESISTANT COMPONENTS. VALVE SHALL BE EQUIPPED WITH CHECKSTOPS. PROVIDE THERMOSTATS, GAUGES, AND STRAINERS AS INDICATED ON PLANS. TMV SHALL CONTROL THE TEMPERATURE TO WITHIN 3 DEGREES FAHRENHEIT FROM THE LOW FLOW TO THE MAXIMUM FLOW RATE
2. APPROVED MANUFACTURERS:
    A. WATTS

AIR TO WATER HEAT PUMP

1. HEAT PUMP SHALL HAVE A SCROLL COMPRESSOR WITH ADDITIONAL CONTROL FOR MONITORING OPERATION OF COMPRESSOR. CONTROL SHALL PROVIDE DIAGNOSIS OF THE COMPRESSOR WITH INDICATION LIGHTS FOR STATUS AND CODES.
2. HEAT PUMP SHALL BE FACTORY CHARGED WITH 513A REFRIGERANT, ECM VARIABLE SPEED CIRCULATOR PUMP, AND DOUBLE WALL STAINLESS STEEL CONDENSER FOR POTABLE WATER APPLICATIONS.
3. HEAT PUMP SHALL ADJUST THE EVAPORATOR FAN SPEED DEPENDING ON AMBIENT TEMPERATURE TO OPTIMIZE THE PERFORMANCE OF THE HEAT PUMP.
4. HEAT PUMP REFRIGERANT CIRCUIT SHALL CONTAIN AN ELECTRONIC EXPANSION VALVE, RECEIVER, ACCUMULATOR, FILTER DRIER AND SERVICE PORTS FOR REFRIGERANT GAUGES.
5. HEAT PUMP SHALL BE CERTIFIED AND LISTED BY UL TO UL 60335-2-40 STANDARD. CERTIFIED FOR BOTH INDOOR AND OUTDOOR INSTALLATIONS.
6. HEAT PUMP SHALL BE CONSTRUCTED WITH HEAVY GAUGE SHEET METAL ASSEMBLY AND PAINTED ON BOTH SIDES. MANUFACTURER SHALL PROVIDE RESULTS AS OF 9,000-HOUR SALT SPRAY TEST.
7. HEAT PUMP CONTROL SHALL PROVIDE FOR "CASCADE" TO SEQUENCE AND ROTATE WHILE MAINTAINING OPERATION OF UP TO SIXTY-FOUR HEAT PUMP MODULES.
8. HEAT PUMP SHALL BE EQUIPPED WITH TERMINAL STRIPS FOR ELECTRICAL CONNECTION. A HIGH VOLTAGE TERMINAL STRIP SHALL BE PROVIDED FOR SUPPLY VOLTAGE. SUPPLY VOLTAGE SHALL BE 40-480V/3PH/60HZ. OPTIONAL FIELD INSTALLED VOLTAGE TRANSFORMER SHALL BE OFFERED BY MANUFACTURER FOR ADDITIONAL VOLTAGE THAT SHALL BE REQUIRED.

SEQUENCE OF OPERATIONS

1. GENERAL
    A. HOT WATER SETPOINT SHALL BE 140DF (ADJUSTABLE). ARMSTRONG
    B. PUMP DELAY SHALL BE SET TO 5 MINUTES (ADJUSTABLE).

AWHP SEQUENCE

1. UPON A CALL FOE HEAT, THE CONTROL TURNS ON THE INTERNAL PUMP.
2. DAMPERS SHALL OPEN VIA 24V CONTROLS CONNECTION. DAMPERS SHALL FAIL OPEN. SEE MECHANICAL.
3. INTERNAL CONTROLS CONFIRMS THAT THE REFRIGERANT HIGH AND LOW PRESSURE SWITCHES, BLOCKED DRAIN SWITCH, LIMITS, AND CONTACTS CLOSE.
4. INTERNAL CONTROLS CONFIRMS THE FAN COMES UP TO THE DESIRED SPEED. COMPRESSOR INITIALS, AND WATER VALVES OPEN.
5. ONCE THE DHW CALL FOR HEAT IS SATISFIED, THE INTERNAL CONTROL WILL TURN OFF THE COMPRESSOR. ANY PUMPS THAT ARE RUNNING WILL BEGIN THEIR RESPECTIVE PUMP DELAY CYCLES.
6. AT THE END OF THE PUMP CYCLE, THE LOUVER RELAY CONTACTS WILL DE-ENERGIZE.
7. AT THE END OF THE PUMP DELAY CYCLE(S), THE PUMP(S) WILL BE TURNED OFF.

GAS WATER HEATER

1. UNIT OPERATES ON INTERNAL CONTROLS TO MAINTAIN HOT WATER TEMP SETPOINT.

CIRCULATION PUMP

1. CIRCULATION PUMP SPEED SHALL MODULATE SPEED TO MAINTAIN PRESSURE SETPOINT. INITIAL SETPOINT SHALL BE DETERMINED BY BALANCER IN FIELD.

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BRIAN SCOTT MIDDLEBROOK
STATE OF WASHINGTON
52770
REGISTERED
PROFESSIONAL ENGINEER

10/15/2024

SHEET TITLE
SPECIFICATIONS

PROJECT
INTERNATIONAL VILLAGE
110 9TH SVE SW
PUYALLUP, WA 98371

REVISIONS

NO	DESCRIPTION	DATE
	PERMIT	5/06/2024
1	PERMIT RESUB.	9/11/2024
	UNDERGROUND BID SET	9/23/2024
2	REV 2	9/25/2024
	CONSTRUCTION DOCS.	10/15/2024

DRAWN BY:	RPG
CHECKED BY:	BSM
PROJECT MANAGER:	BSM/RMC

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SHEET
PP801

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

FOR QUESTIONS, CALL THE
Seattle Office
REGION 85
PHONE: (425) 212 - 5996
EMAIL: reg85@captiveaire.com

HOOD INFORMATION – JOB#6960956

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	HOOD CONFIG ROW
1	ITEM 108 - L	6024 ND-2-PSP-F	CAPTIVEAIRE	14' 1"	600 DEG	I	HEAVY	250	3521			4"	14"	1760	1646	-0.740"	3168	430 SS WHERE EXPOSED	LEFT	ALONE
												4"	14"	1760	1646	-0.740"				
2	ITEM 108 - R	6024 ND-2-PSP-F	CAPTIVEAIRE	14' 11"	600 DEG	I	HEAVY	250	3729			4"	14"	1864	1744	-0.831"	3356	430 SS	RIGHT	ALONE
												4"	14"	1864	1744	-0.831"				
3	ITEM 309	5424 ND-2-PSP-F	CAPTIVEAIRE	15' 11"	600 DEG	I	HEAVY	250	3979			4"	14"	1989	1861	-0.945"	3581	430 SS WHERE EXPOSED	ALONE	ALONE
												4"	14"	1989	1861	-0.945"				
4	ITEM 366	5424 ND-2-PSP-F	CAPTIVEAIRE	9' 6"	600 DEG	I	HEAVY	225	2138			4"	16"	2138	1531	-0.711"	1924	430 SS WHERE EXPOSED	ALONE	ALONE
5	ITEM 401	5424 ND-2-PSP-F	CAPTIVEAIRE	13' 4"	600 DEG	I	HEAVY	250	3333			4"	14"	1666	1558	-0.732"	2999	430 SS WHERE EXPOSED	ALONE	ALONE
												4"	14"	1666	1558	-0.732"				
6	ITEM 503	5424 ND-2-PSP-F	CAPTIVEAIRE	12' 9"	600 DEG	I	HEAVY	250	3188			4"	18"	3188	1804	-1.074"	2869	430 SS WHERE EXPOSED	ALONE	FRONT
7	ITEM 481	5424 ND-2-PSP-F	CAPTIVEAIRE	15' 5"	600 DEG	I	HEAVY	250	3854			4"	14"	1927	1803	-0.888"	3468	430 SS WHERE EXPOSED	ALONE	BACK
												4"	14"	1927	1803	-0.888"				
8	ITEM 165	4824 VHB-G	CAPTIVEAIRE	6' 10"	700 DEG	II	N/A	150	1025			4"	12"	1025	1305	-0.136"	0	430 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	ITEM 108 - L	CAPTRATE SOLO FILTER	10	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO							YES	955 LBS
2	ITEM 108 - R	CAPTRATE SOLO FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO							YES	1074 LBS
3	ITEM 309	CAPTRATE SOLO FILTER	12	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1425 LBS
4	ITEM 366	CAPTRATE SOLO FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1032 LBS
5	ITEM 401	CAPTRATE SOLO FILTER	10	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1391 LBS
6	ITEM 503	CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	1164 LBS
7	ITEM 481	CAPTRATE SOLO FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0/4.0			YES	1352 LBS
8	ITEM 165						0									NO	203 LBS

HOOD OPTIONS

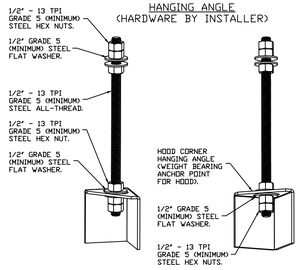
HOOD NO	TAG	OPTION
1	ITEM 108 - L	LEFT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED.
		BALANCE DAMPERS.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
		LEFT WALL AS END PANEL.
2	ITEM 108 - R	BALANCE DAMPERS.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		SENSOR-CV.
3	ITEM 309	LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
		LEFT WALL AS END PANEL.
4	ITEM 366	INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		SENSOR-CV.
5	ITEM 401	INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		SENSOR-CV.
6	ITEM 503	LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
		LEFT WALL AS END PANEL.
7	ITEM 481	RIGHT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		SENSOR-CV.
		RIGHT WALL AS END PANEL.

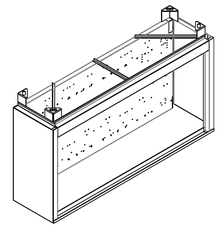
WALL-MOUNT UTILITY CABINET ASSEMBLY INSTRUCTIONS

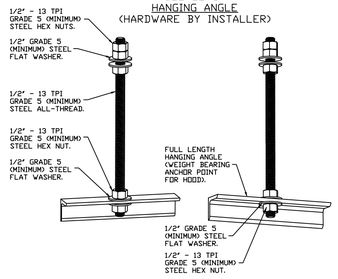
CABINET TO BE HUNG BY OTHERS. SEE UTILITY CABINET SCHEDULE FOR CABINET SIZE.

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 UTILITY CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

UTILITY CABINET HANGING ANGLE (HARDWARE BY INSTALLER)



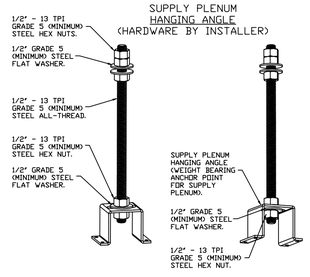




FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)

ASSEMBLY INSTRUCTIONS

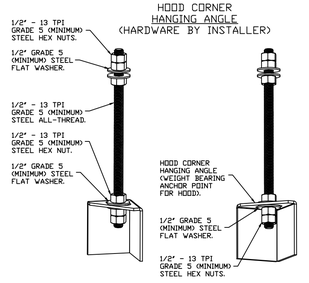
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE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



SUPPLY PLENUM HANGING ANGLE (HARDWARE BY INSTALLER)

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.



HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)

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.

REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

CAPTIVEAIRE
Seattle Office
114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
www.captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 1

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1	ITEM 108 - L	Front	170"	20"	6"	MUA	12"	28"		792	0.234"
						MUA	12"	28"		792	0.234"
						MUA	12"	28"		792	0.234"
						MUA	12"	28"		792	0.234"
2	ITEM 108 - R	Front	179"	20"	6"	MUA	12"	28"		671	0.171"
						MUA	12"	28"		671	0.171"
						MUA	12"	28"		671	0.171"
						MUA	12"	28"		671	0.171"
						MUA	12"	28"		671	0.171"
3	ITEM 309	Front	204"	20"	6"	MUA	12"	28"		893	0.292"
						MUA	12"	28"		893	0.292"
						MUA	12"	28"		893	0.292"
						MUA	12"	28"		893	0.292"
4	ITEM 366	Front	126"	16"	6"	MUA	12"	24"		641	0.183"
						MUA	12"	24"		641	0.183"
						MUA	12"	24"		641	0.183"
5	ITEM 401	Front	172"	18"	6"	MUA	12"	28"		749	0.210"
						MUA	12"	28"		749	0.210"
						MUA	12"	28"		749	0.210"
						MUA	12"	28"		749	0.210"
6	ITEM 503	Front	166"	18"	6"	MUA	12"	28"		717	0.194"
						MUA	12"	28"		717	0.194"
						MUA	12"	28"		717	0.194"
						MUA	12"	28"		717	0.194"
7	ITEM 481	Front	198"	18"	6"	MUA	12"	28"		866	0.276"
						MUA	12"	28"		866	0.276"
						MUA	12"	28"		866	0.276"
						MUA	12"	28"		866	0.276"

WALL-MOUNT UTILITY CABINET

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S)				
			FIRE SYSTEM		ELECTRICAL	SWITCHES	WEIGHT
			TYPE	SIZE	MODEL #	QUANTITY	
1	WALL MNT	12"x60"x24"	TANK FS	4.0/4.0/4.0/4.0			500.00 LBS

CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	*CLEARANCE
1,4,5	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	18"
2	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	18"
	RIGHT	18"
3,6,7	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	0"

- *0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

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.

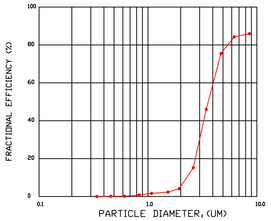
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

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

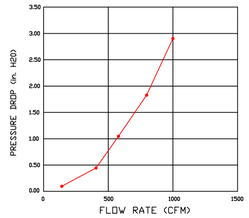
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

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.

BUILT IN ACCORDANCE WITH NFPA No. 96

PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

REVISIONS

	DESCRIPTION	DATE:
△		
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CAPTIVEAIRE
Seattle Office
114 NW Canal St. #300, Seattle, WA. 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

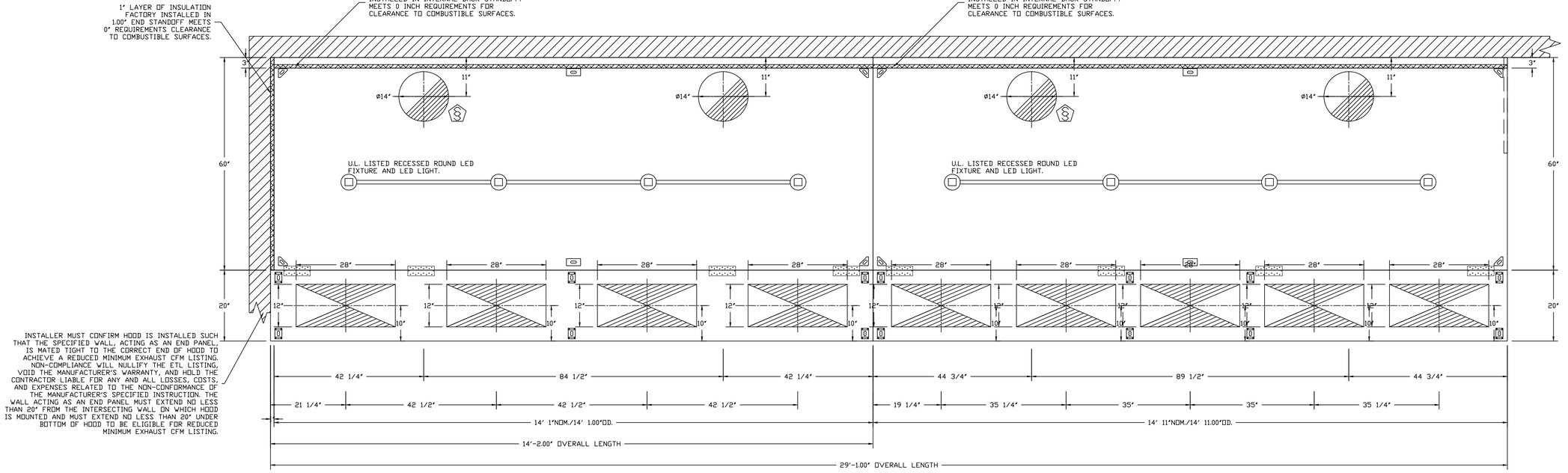
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 2

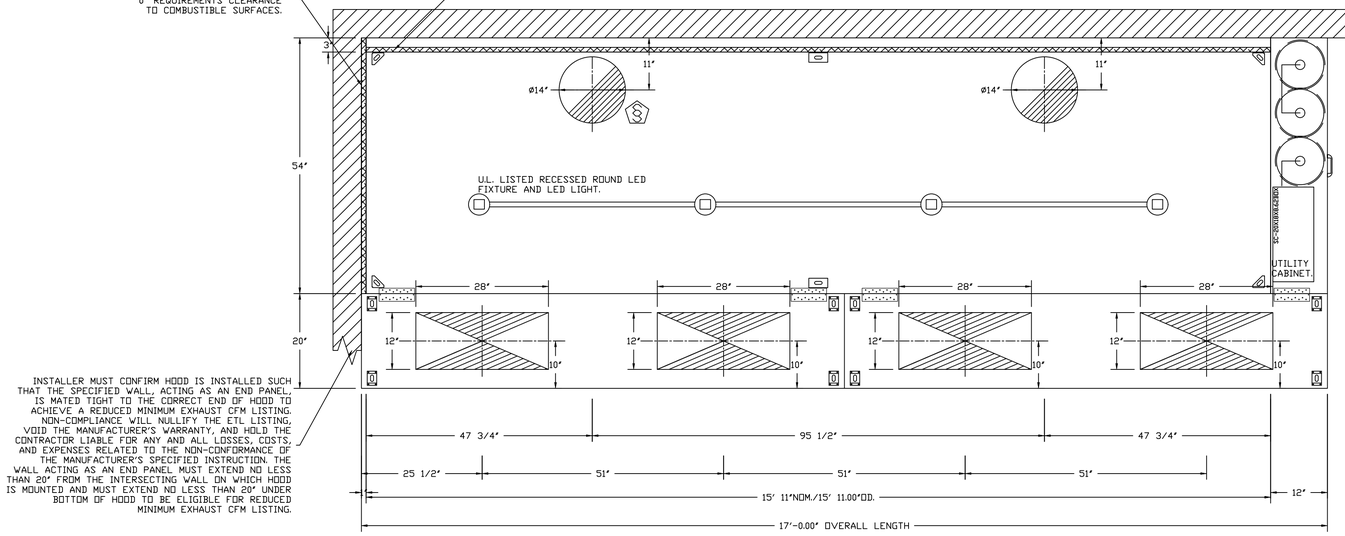
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

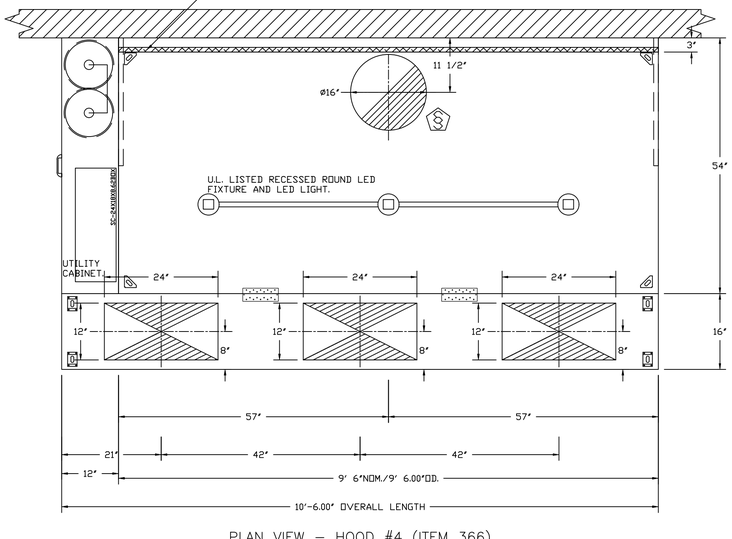


PLAN VIEW – HOOD #1 (ITEM 108 – L)
14' 1.00" LONG 6024ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

PLAN VIEW – HOOD #2 (ITEM 108 – R)
14' 11.00" LONG 6024ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.



PLAN VIEW – HOOD #3 (ITEM 309)
15' 11.00" LONG 5424ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.



PLAN VIEW – HOOD #4 (ITEM 366)
9' 6.00" LONG 5424ND-2-PSP-F

REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

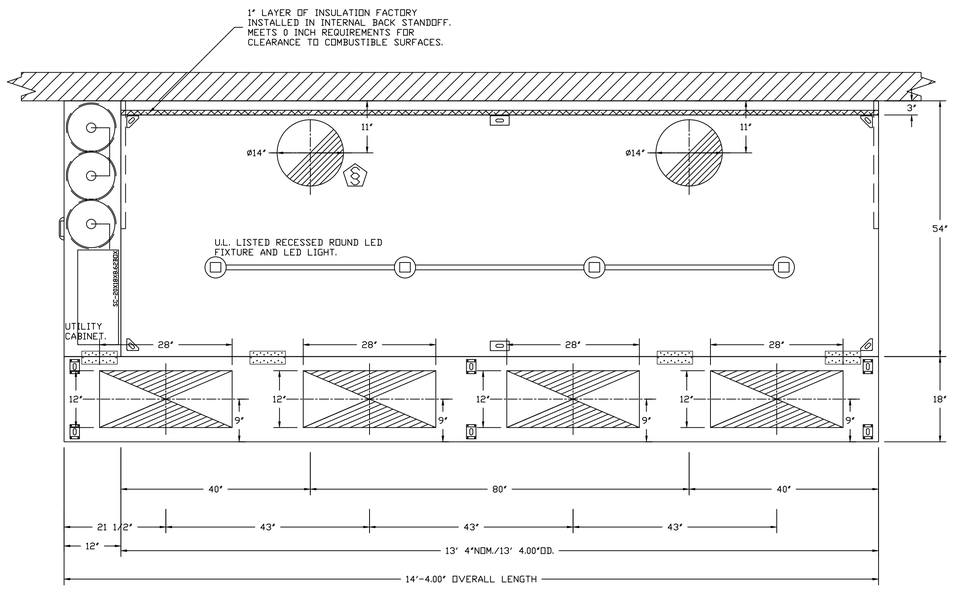
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 3

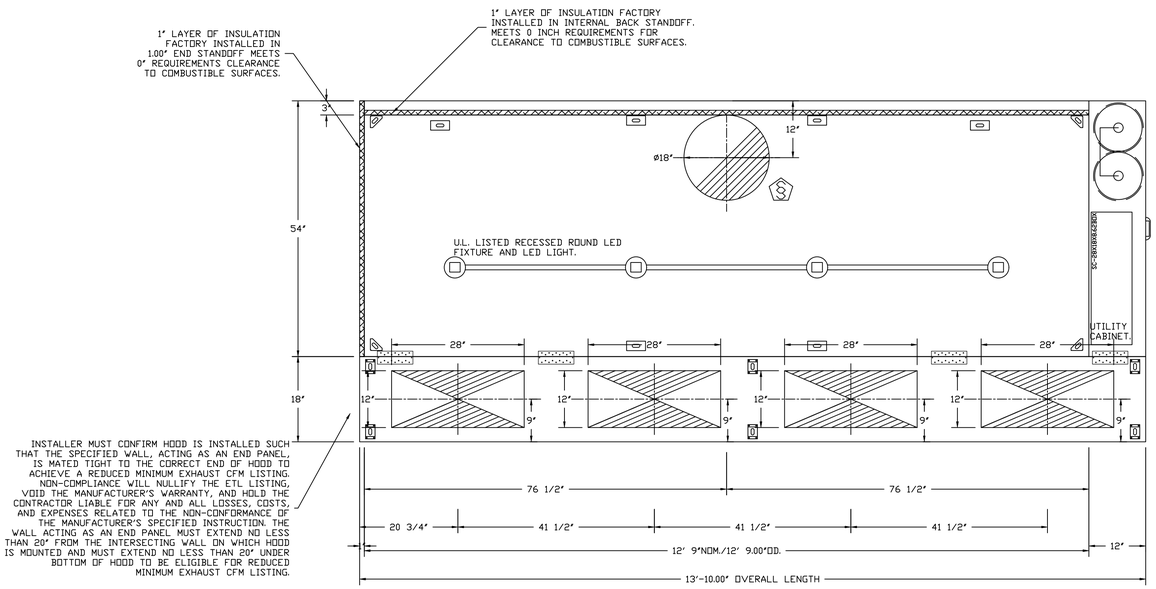
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



PLAN VIEW – HOOD #5 (ITEM 401)
13' 4.00" LONG 5424ND-2-PSP-F

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

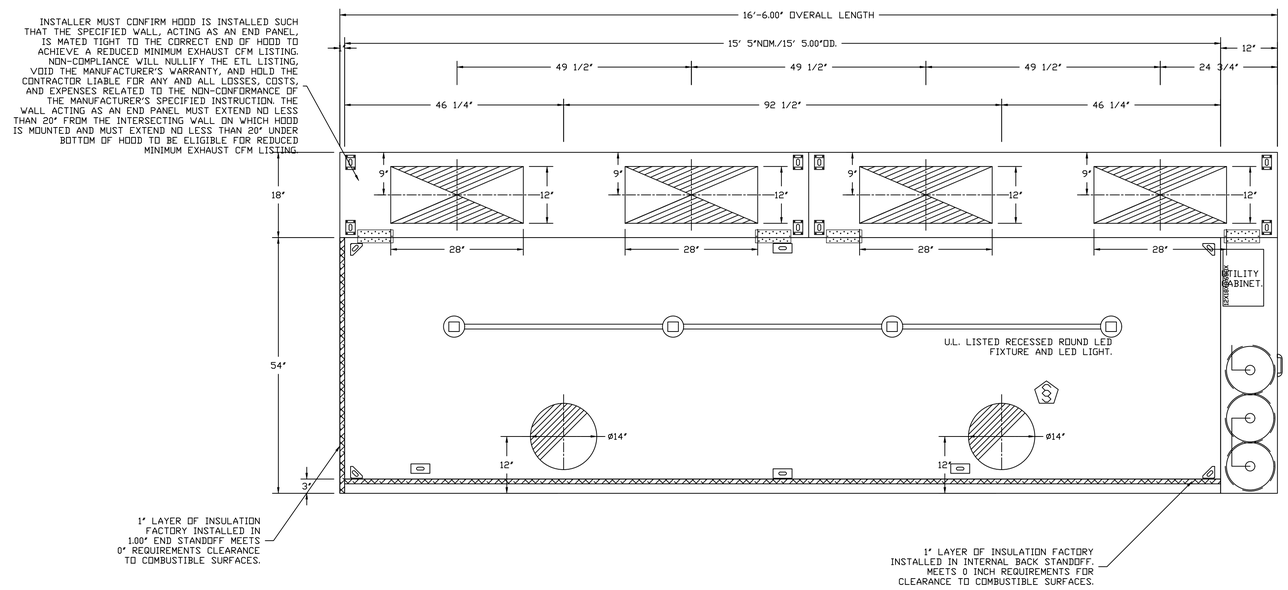


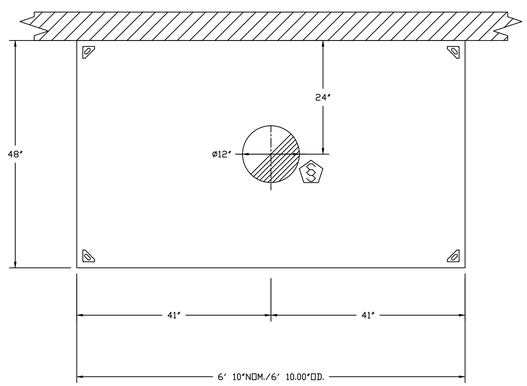
PLAN VIEW – HOOD #6 (ITEM 503)
12' 9.00" LONG 5424ND-2-PSP-F

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

PLAN VIEW – HOOD #7 (ITEM 481)
15' 5.00" LONG 5424ND-2-PSP-F





PLAN VIEW – HOOD #8 (ITEM 165)
6' 10.00" LONG 4824VHB-G

REVISIONS		
	DESCRIPTION	DATE:
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PUYALLUP, WA, 98371

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DWG.#: 6960956

DRAWN BY: JL - R85

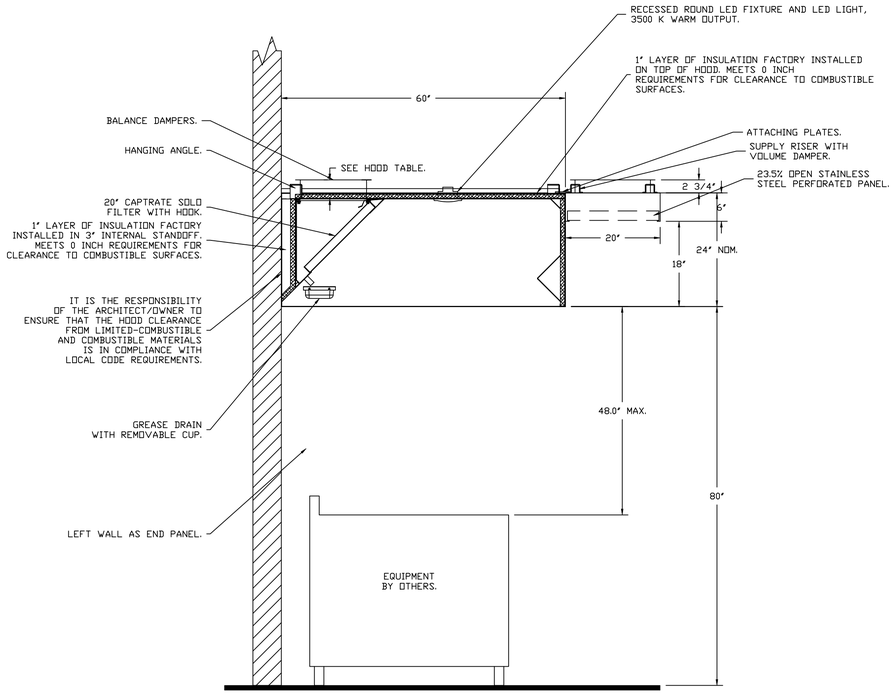
SCALE: 3/4" = 1'-0"

MASTER DRAWING

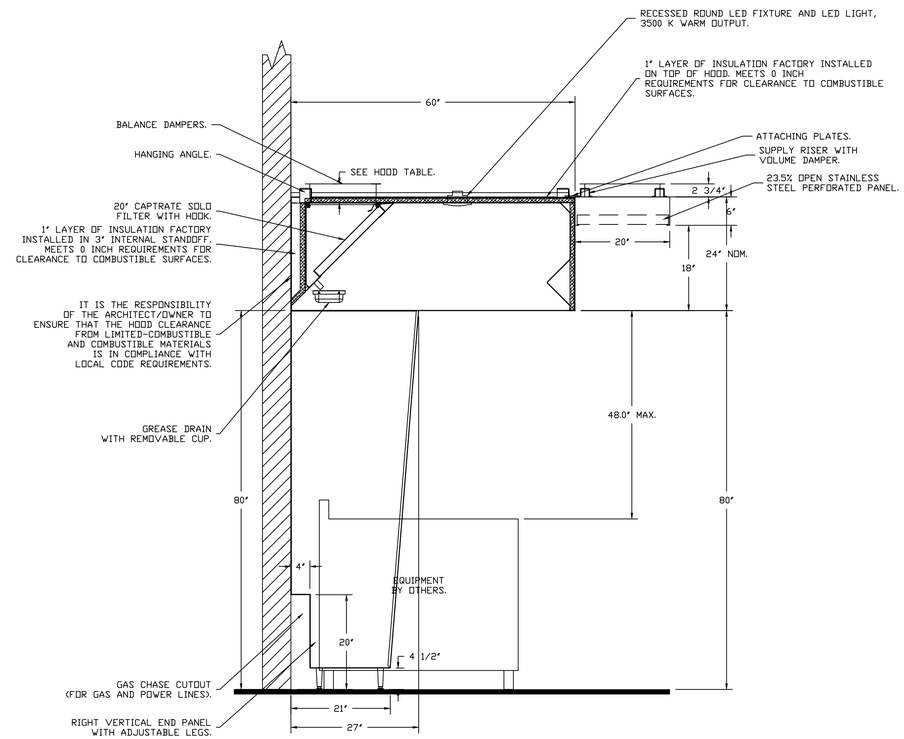
SHEET NO. 4

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

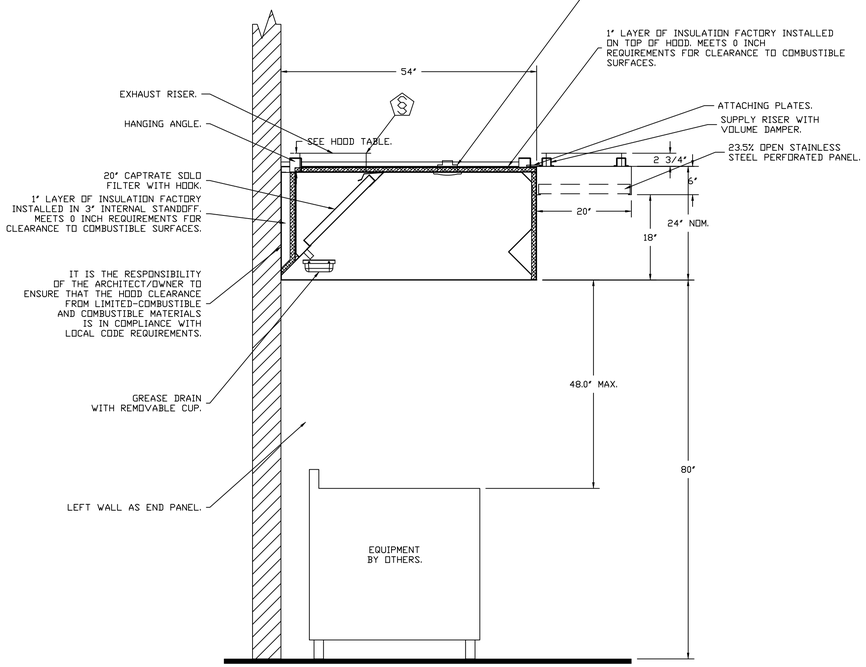
Building	Planning
Engineering	Public Works
Fire	Traffic



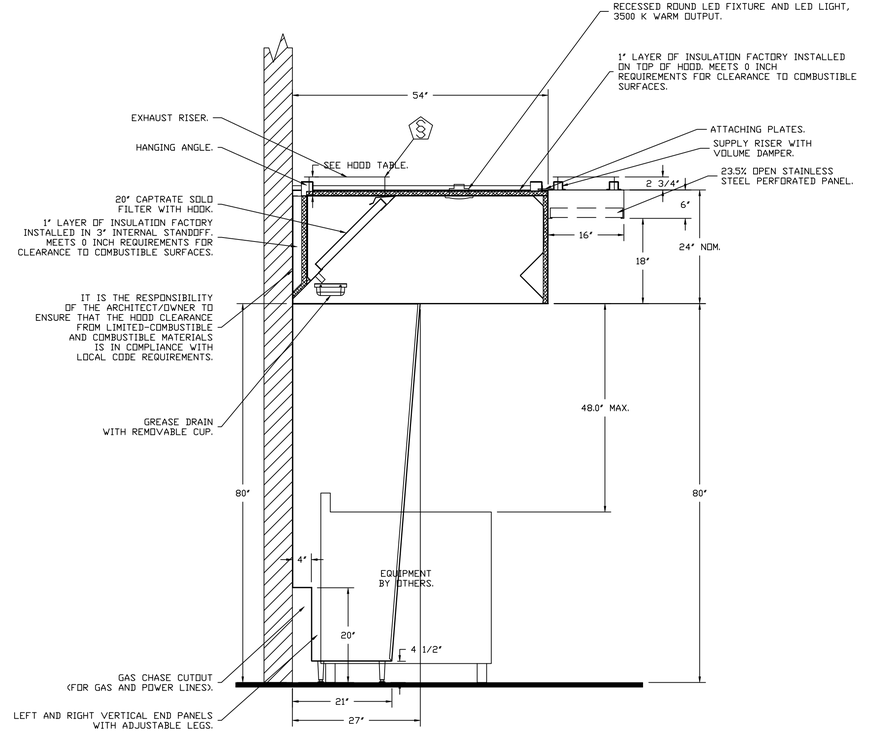
SECTION VIEW – MODEL 6024ND-2-PSP-F
HOOD – #1 (ITEM 108 – L)



SECTION VIEW – MODEL 6024ND-2-PSP-F
HOOD – #2 (ITEM 108 – R)



SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #3 (ITEM 309)



SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #4 (ITEM 366)

REVISIONS

	DESCRIPTION	DATE:
1		
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DRAWN BY: JL - R85

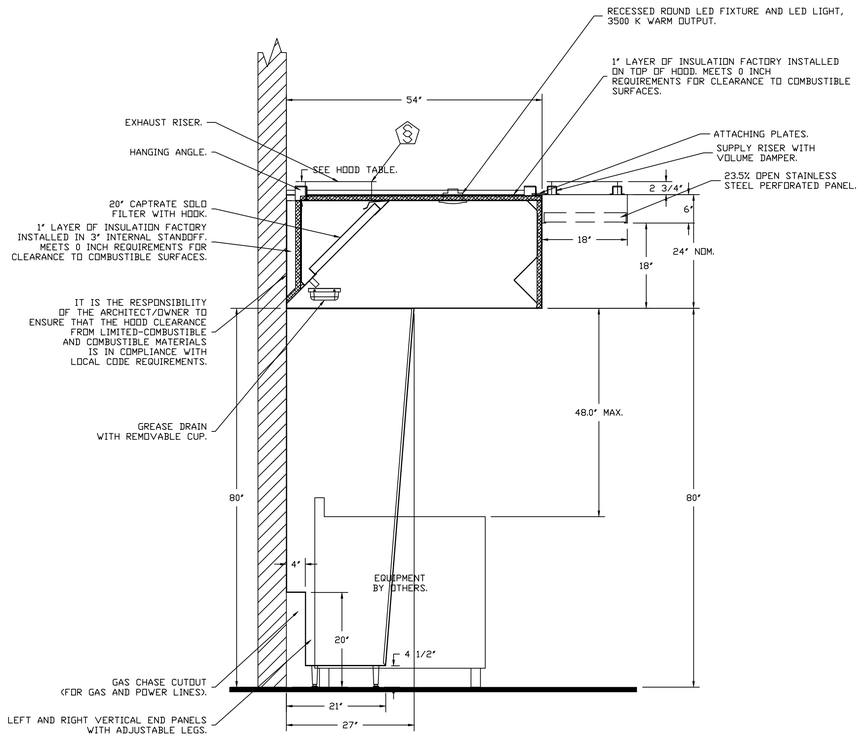
SCALE: 3/4" = 1'-0"

MASTER DRAWING

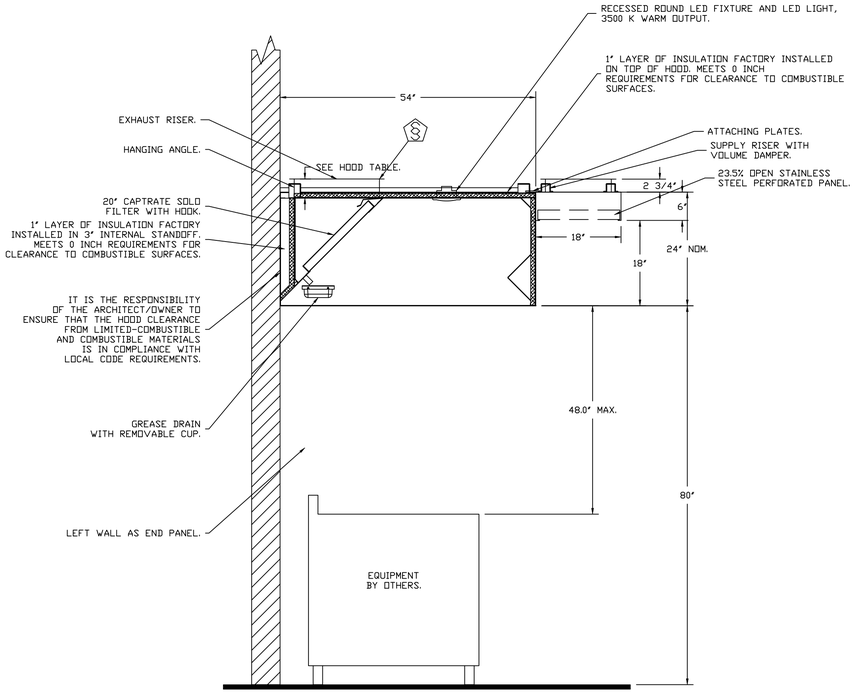
SHEET NO. 5

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

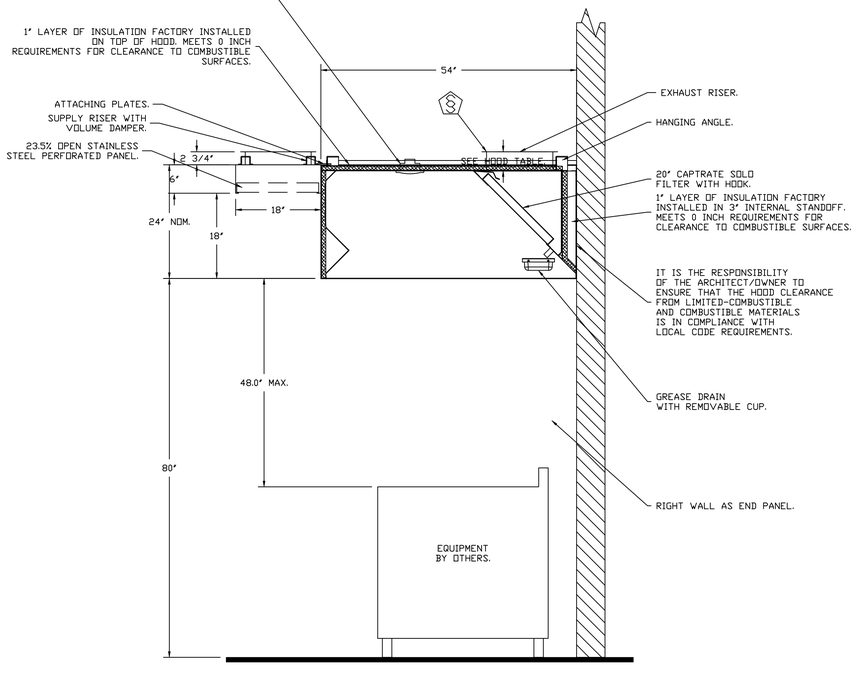
Building	Planning
Engineering	Public Works
Fire	Traffic



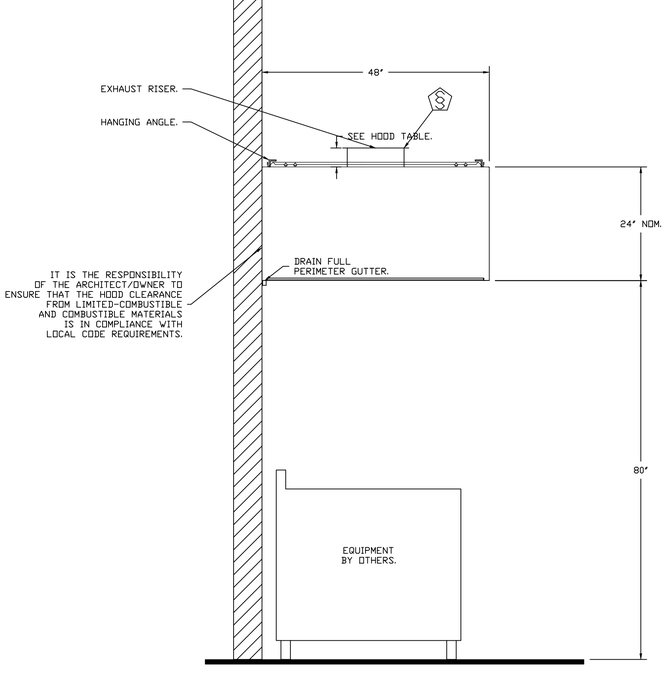
SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #5 (ITEM 401)



SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #6 (ITEM 503)



SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #7 (ITEM 481)



SECTION VIEW – MODEL 4824VHB-C
HOOD – #8 (ITEM 165)

REVISIONS

	DESCRIPTION	DATE:
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DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 6

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

FIRE SYSTEM INFORMATION – JOB#6960956

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1	ITEM 110 - FS	TANK FS	4.0/4.0/4.0/4.0	80	77	WALL UTILITY CABINET LEFT	N/A
2	ITEM 314 - FS	TANK FS	4.0/4.0/4.0	60	51	FIRE CABINET RIGHT	RIGHT, HOOD 3
3	ITEM 366 - FS	TANK FS	4.0/4.0	40	28	FIRE CABINET LEFT	LEFT, HOOD 4
4	ITEM 403-FS	TANK FS	4.0/4.0/4.0	60	46	FIRE CABINET LEFT	LEFT, HOOD 5
5	ITEM 505/484 FS	TANK FS	4.0/4.0/4.0	60	83	FIRE CABINET LEFT	LEFT, HOOD 7
			4.0/4.0	40		FIRE CABINET RIGHT	RIGHT, HOOD 6

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1	ITEM 110 - FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
2	ITEM 314 - FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
3	ITEM 366 - FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
4	ITEM 403-FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
5	ITEM 505/484 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS
5	ITEM 505/484 FS	SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY 1

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1	ITEM 110 - FS	0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	4	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	4	0
		0 - 0 - 361091 3/8" BRASS PLUG.	7	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	4	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 - 0 - 79425 3/8" NPT FEMALE TO 1/2" MALE PROPRESS ADAPTER.	7	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	4	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	4	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	16	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	13	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	16	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	8	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - SLPCON-05FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 4' GAP. KIT CONTAINS 7 FEET OF BLACK MG WIRE, 7 FEET OF TAN MG WIRE, 5 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - SLPCON-10FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 9' GAP OR BACK TO BACK HOODS. KIT CONTAINS 12 FEET OF BLACK MG WIRE, 12 FEET OF TAN MG WIRE, 10 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - SLPCON-30FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UPTO 29' GAP. KIT CONTAINS 32 FEET OF BLACK MG WIRE, 32 FEET OF TAN MG WIRE, 30 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	12	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	4	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	17	0
		16 - 16 - DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	17	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	17	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0
2	ITEM 314 - FS	0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	2	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	2	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	3	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	3	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	12	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	14	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	9	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	6	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	4	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	9	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	3	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	11	0
		16 - 16 - DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	11	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	11	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0
3	ITEM 366 - FS	0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	1	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	1	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	2	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	1	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 7

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FIRE SYSTEM PARTS LIST KEY 2

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
3 (CONTINUE)		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	6	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	5	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	1	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	2	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	6	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	6	0
		16 - 16 - OL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	6	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	6	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0
4	ITEM 403-FS	0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	2	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	2	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	3	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	3	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	12	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	14	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	8	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	6	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	4	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	3	0
5	ITEM 505/484 FS	0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	3	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	3	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	5	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	3	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	3	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	5	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	5	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	20	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	21	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	15	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	10	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	2	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	3	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	7	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	5	0
		0 - 0 - SLPCON-03FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 2' GAP. KIT CONTAINS 5 FEET OF BLACK MG WIRE, 5 FEET OF TAN MG WIRE, 3 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - SLPCON-15FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 14' GAP OR BACK TO BACK HOODS. KIT CONTAINS 17 FEET OF BLACK MG WIRE, 17 FEET OF TAN MG WIRE, 15 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	15	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	5	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	5	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	18	0
		16 - 16 - OL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	18	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	18	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	2	0

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

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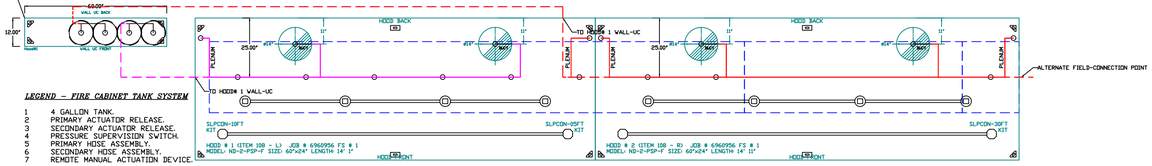
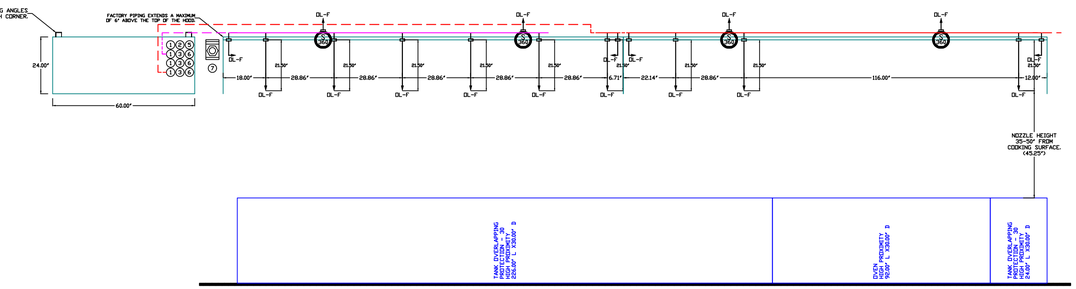
Engineering	Public Works
Fire	Traffic

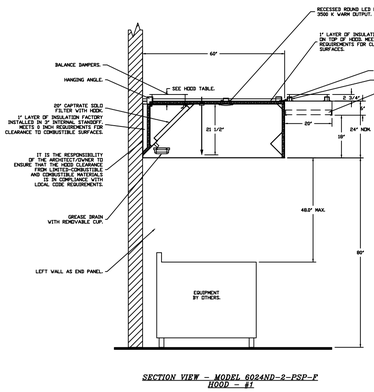
- SYSTEM REQUIRES A MINIMUM OF 7 FT OF EQUIVALENT PIPE LENGTH BETWEEN TANK AND NEAREST APPLIANCE NOZZLE FOR MOST APPLIANCES EACH 90 DEGREE ELBOW ADDS 1.5 FT OF EQUIVALENT LENGTH. SEE MANUAL FOR DETAILS



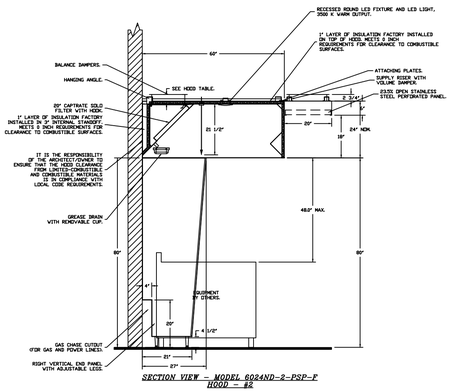
LEGEND - FIRE CABINET TANK SYSTEM

1. 4 GALLON TANK.
2. PRIMARY ACTUATOR RELEASE.
3. SECONDARY ACTUATOR RELEASE.
4. PRESSURE SUPERVISION SWITCH.
5. PRIMARY HOSE ASSEMBLY.
6. SECONDARY HOSE ASSEMBLY.
7. REMOTE MANUAL ACTUATION DEVICE.





SECTION VIEW - MODEL 6024ND-2-PSP-F HOOD - #1



SECTION VIEW - MODEL 6024ND-2-PSP-F HOOD - #2

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED 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 UL. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 6960956.
JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R2.

SYSTEM SIZE: TANK-SP-4-WC DESIGN FP: 77, MAXIMUM FP: 80.
HOOD # 1 14' 1.00" LONG x 60" WIDE x 24" HIGH.
RISER # 1 SIZE: 1¼" DIA.
RISER # 2 SIZE: 1¼" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 2 14' 11.00" LONG x 60" WIDE x 24" HIGH.
RISER # 1 SIZE: 1¼" DIA.
RISER # 2 SIZE: 1¼" DIA.
HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/8" = 1'-0"

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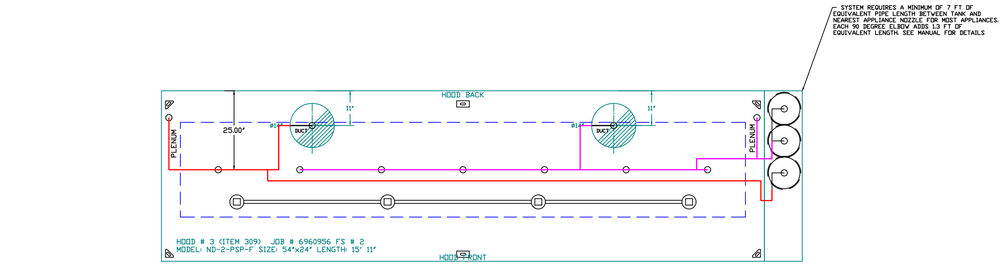

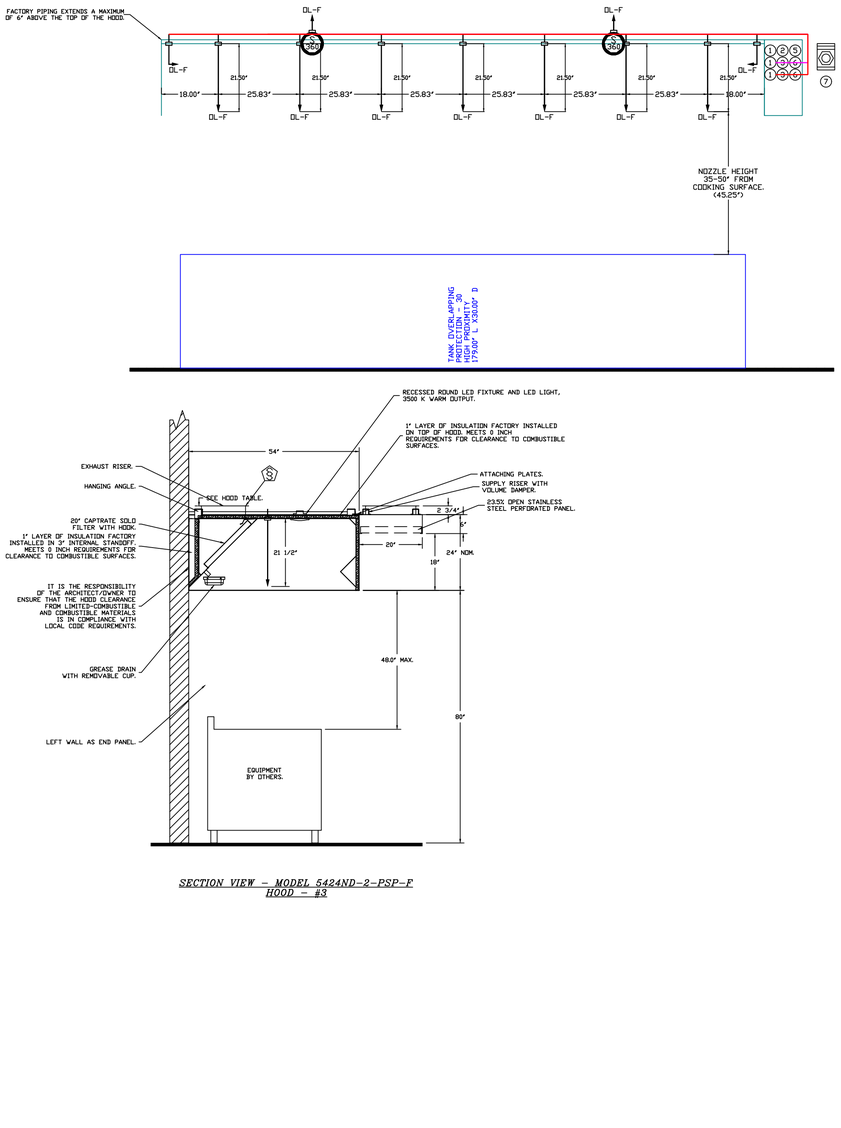

SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #3

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED 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 UL. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 6960956.
JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R2.

SYSTEM SIZE: TANK-SP-3 DESIGN FP: 51. MAXIMUM FP: 60.
HOOD # 3 15' 11.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 1¼" DIA.
RISER # 2 SIZE: 1¼" DIA.
HOOD # 3 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

REVISIONS

	DESCRIPTION	DATE:
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CAPTIVE-AIRE
Seattle Office
114 NW Canal St. #300, Seattle, WA. 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
www.captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

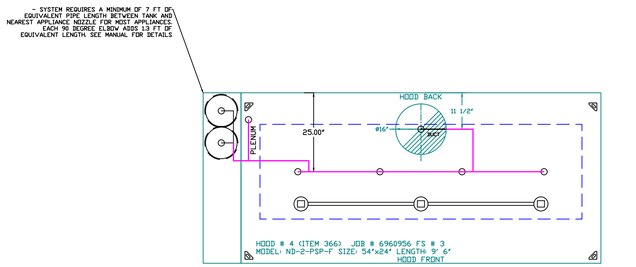
SCALE: 1/2" = 1'-0"

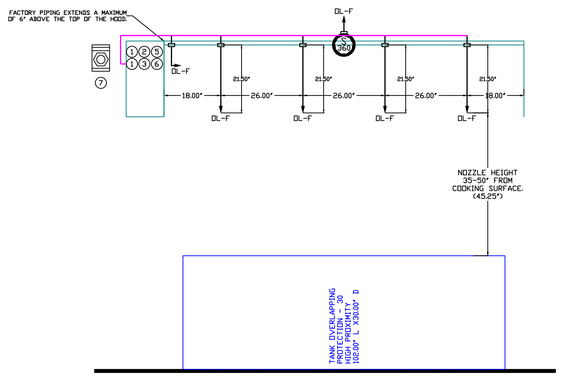
MASTER DRAWING

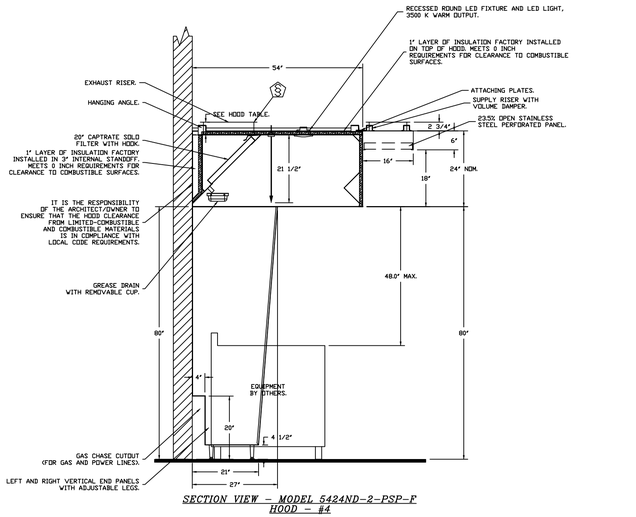
SHEET NO. 10

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic







SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #4

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED 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.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 6960956.
JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R2.

SYSTEM SIZE: TANK-SP-2 DESIGN FP: 28. MAXIMUM FP: 40.
HOOD # 4 9' 6.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 4 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO. 11

City of Puyallup
Development & Permitting Services
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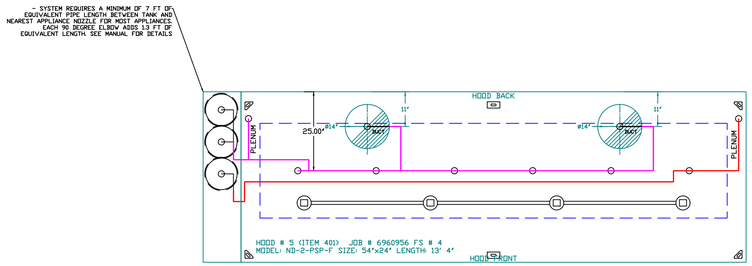
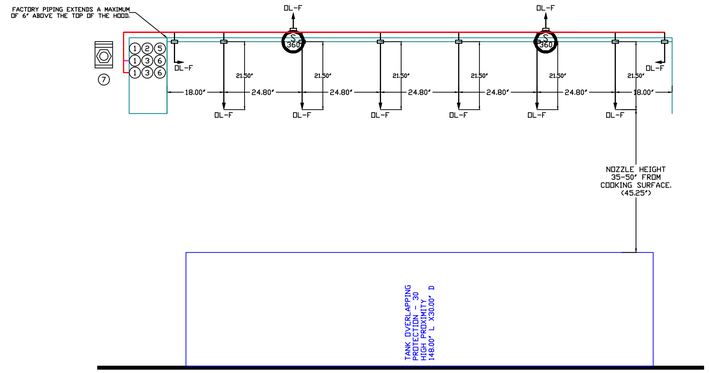
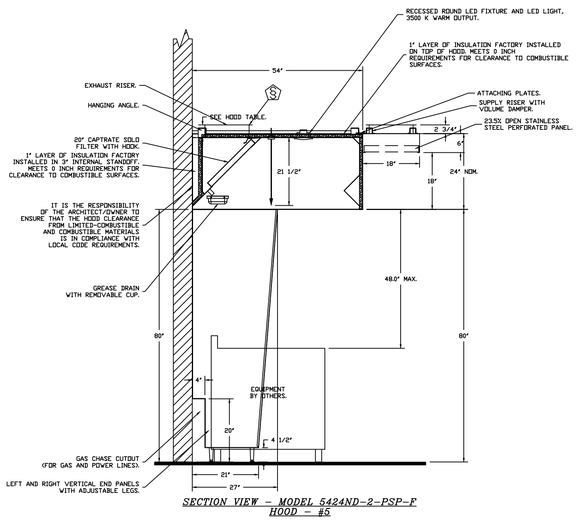
Building	Planning
Engineering	Public Works
Fire	Traffic







SECTION VIEW – MODEL 5424ND-2-PSP-F HOOD – #5

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED 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.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 6960956.
JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R2.

SYSTEM SIZE: TANK-SP-3 DESIGN FP: 46. MAXIMUM FP: 60.
HOOD # 5 13' 4.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 14" DIA.
RISER # 2 SIZE: 14" DIA.
HOOD # 5 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO. 12

City of Puyallup
Development & Permitting Services
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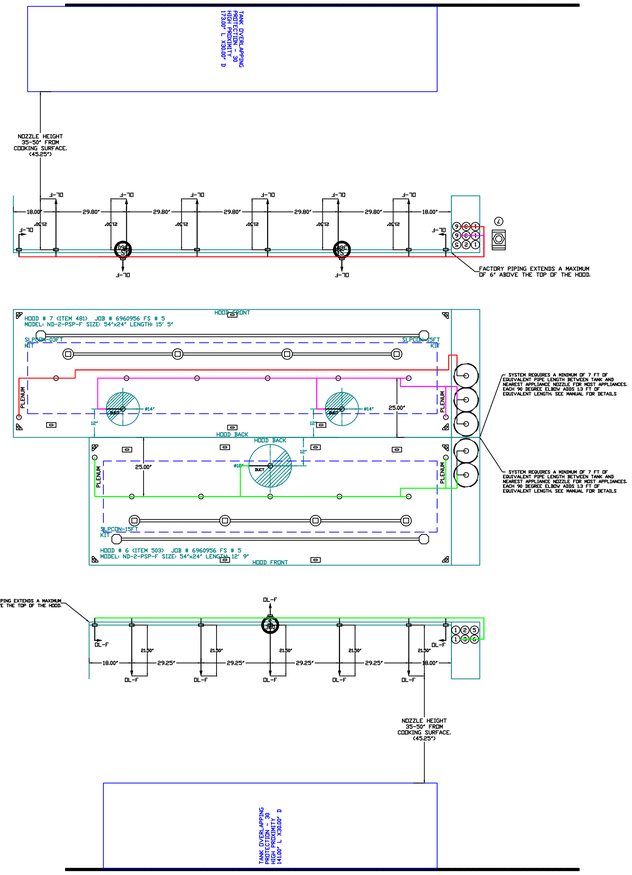
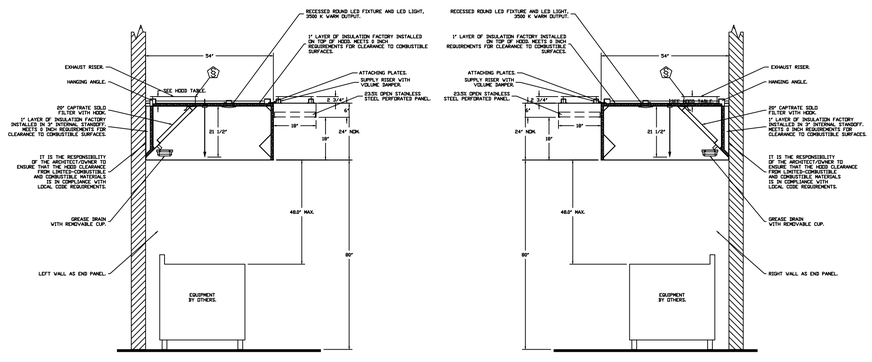
Building	Planning
Engineering	Public Works
Fire	Traffic





SECTION VIEW – MODEL 5424ND-2-PSP-F HOOD – #6

SECTION VIEW – MODEL 5424ND-2-PSP-F HOOD – #7

NOTES
- FIELD PIPE DROPS AS SHOWN.
  PIPING, ELBOWS, TEES AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROPS: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE, TO BE FIELD-INSTALLED.
- SHIP-LOOSE DROPS: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE, TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED 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 UL. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 6960956.
JOB NAME: INTERNATIONAL VILLAGE (GAS) - PUYALLUP - R2.

SYSTEM SIZE: TANK-SP-3 WITH REMOTE TANK-SP-2 DESIGN FP: 83. MAXIMUM FP: 100.
HOOD # 6 12' 9.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 18" DIA.
HOOD # 6 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 7 15' 5.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 14" DIA.
RISER # 2 SIZE: 14" DIA.
HOOD # 7 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND – FIRE CABINET TANK SYSTEM

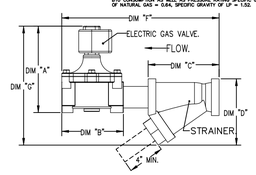
1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE; TWO SITE VISITS FOR ONE TANK, ONE FOR TWO TANKS; ONE FUNCTIONAL TEST AND ONE VISIT FOR ONE TEST; ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES; ONE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE); GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

GAS VALVE FOR FS@1, FS@2, FS@3, FS@4, FS@5

GAS VALVES AND STRAINERS																
GAS VALVE SIZING						GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS			
TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
ELECTRICAL	2"	120 VAC	0 PSI (0 W.C.)	5 PSI (138 W.C.)	2,940,000 BTU/HR	1,908,046 BTU/HR	7-5/8"	6-3/8"	7-1/4"	7-13-16"	15-5/8"	13-15/16"	HORIZONTAL	8214280	4417658	(SCJEDVA2

ELECTRIC GAS VALVES ONLY:
3/4"-2" (2016) GAS VALVES CAN BE MOUNTED WITH THE SOLENOID IN ANY POSITION ABOVE HORIZONTAL.
2 1/2"-3" (2016) GAS VALVES MUST BE MOUNTED WITH THE SOLENOID VERTICAL AND UPRIGHT.
(MOD) GAS VALVES MUST BE MOUNTED WITH THE SOLENOID VERTICAL AND UPRIGHT.



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 BOWL OF THE STRAINER CUSTOMER MUST VERIFY BTU CONVERSION AT GAS PRESSURE AND 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$^{0.5}$
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)$^{0.5}$.

REVISIONS

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/8" = 1'-0"

MASTER DRAWING

SHEET NO. 13

City of Puyallup
Development & Permitting Services
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EXHAUST FAN INFORMATION – JOB#6960956

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF-111	1	DU180HFA	CAPTIVEAIRE	3521	1.500	1402	ODP,PREMIUM	3.000	1.9790	3	208	9.5	813 FPM	185	23.1
2	KEF-111.1	1	DU200HFA	CAPTIVEAIRE	3729	1.500	1268	ODP,PREMIUM	5.000	2.1150	3	208	15.0	907 FPM	215	25.3
3	KEF-310	1	DU240HFA	CAPTIVEAIRE	3979	1.500	884	TEFC,PREMIUM	3.000	1.9760	3	208	10.1	904 FPM	375	15.3
4	KEF-382	1	DU85HFA	CAPTIVEAIRE	2138	1.200	1553	TEAD-ECM	1.000	0.6770	1	115	11.6	677 FPM	94	16.1
5	KEF-398	1	DU180HFA	CAPTIVEAIRE	3333	1.300	1316	TEFC,PREMIUM	2.000	1.6370	3	208	7.3	770 FPM	213	20.9
6	KEF-501	1	DU180HFA	CAPTIVEAIRE	3188	1.600	1364	ODP,PREMIUM	3.000	1.8160	3	208	9.5	736 FPM	185	21.3
7	KEF-481	1	DU200HFA	CAPTIVEAIRE	3854	1.500	1286	ODP,PREMIUM	5.000	2.2090	3	208	15.0	938 FPM	215	26.6
8	KEF-165	1	DU50HFA	CAPTIVEAIRE	1025	0.500	1440	TEAD-ECM	0.500	0.3080	1	115	6.3	390 FPM	76	14.2

MUA FAN INFORMATION – JOB#6960956

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
9	MAU-113	1	A3-D.500-24D	24MF-3-MOD	A3-D.500	3500	6524	0.500	1403	ODP,PREMIUM	10.000	5.5120	3	208	27.0	33.8A	60A	922	13.4
10	MAU-312	1	A2-D.250-20D	20MF-2-MOD	A2-D.250	2000	3581	0.500	1386	ODP,PREMIUM	2.000	1.5600	3	208	8.3	11.6A	15A	727	12.2
11	MAU-383	1	A1-D.250-15D	15MF-1-MOD	A1-D.250	1000	1924	0.500	2017	ODP,PREMIUM	2.000	1.3260	3	208	6.1	7.7A	15A	541	19.7
12	MAU-399	1	A2-D.250-20D	20MF-2-MOD	A2-D.250	2000	2999	0.500	1223	ODP,PREMIUM	1.500	1.0580	3	208	6.6	9.5A	15A	721	9.8
13	MAU-490	1	A3-D.500-24D	24MF-3-MOD	A3-D.500	3500	6337	0.500	1368	ODP,PREMIUM	10.000	5.1430	3	208	27.0	33.8A	60A	922	12.7

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
9	MAU-113	378208	347951	50°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92
10	MAU-312	104778	96396	25°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92
11	MAU-383	56296	51792	25°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92
12	MAU-399	87749	80729	25°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92
13	MAU-490	185417	170584	25°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

REVISIONS

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 14

City of Puyallup
Development & Permitting Services
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Engineering | Public Works
Fire | Traffic

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF-111	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
2	KEF-111.1	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR200HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
3	KEF-310	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR240HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	VFD MOUNTING BRACKET FOR DU/DR 240
		1	EXHAUST FAN HEAT BAFFLE
		1	2 YEAR PARTS WARRANTY
4	KEF-382	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR85HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
5	KEF-398	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	EXHAUST FAN HEAT BAFFLE
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	VFD MOUNTING BRACKET FOR DU/DR 180 - 200
		1	2 YEAR PARTS WARRANTY
6	KEF-501	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
7	KEF-481	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR200HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
8	KEF-165	1	ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -MSC-(TELCO), CCW ROTATION
		1	SCR-13 BIRD SCREEN
		1	I 15-BDD DAMPER
		1	2 YEAR PARTS WARRANTY
9	MAU-113	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 3 (1" MOD VALVE)
		1	SHIP LOOSE GAS STRAINER 1"
		1	MOTORIZED BACKDRAFT DAMPER FOR A3-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	DF3 INDOOR HANGING OPTION - INCLUDES 2 HSA200 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
10	MAU-312	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE)
		1	SHIP LOOSE GAS STRAINER 1"
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	DF2 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	SIZE 2 DIRECT FIRED HEATER LOW CFM PROFILE PACKAGE - USED ON HEATERS UNDER 2500 CFM
		1	2 YEAR PARTS WARRANTY
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
11	MAU-383	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	SHIP LOOSE GAS STRAINER 3/4"
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	DF1 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
12	MAU-399	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE)
		1	SHIP LOOSE GAS STRAINER 1"
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	DF2 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	SIZE 2 DIRECT FIRED HEATER LOW CFM PROFILE PACKAGE - USED ON HEATERS UNDER 2500 CFM
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	2 YEAR PARTS WARRANTY
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
13	MAU-490	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 3 (1" MOD VALVE)
		1	SHIP LOOSE GAS STRAINER 1"
		1	MOTORIZED BACKDRAFT DAMPER FOR A3-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	DF3 INDOOR HANGING OPTION - INCLUDES 2 HSA200 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET

REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 15

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

FAN ACCESSORIES

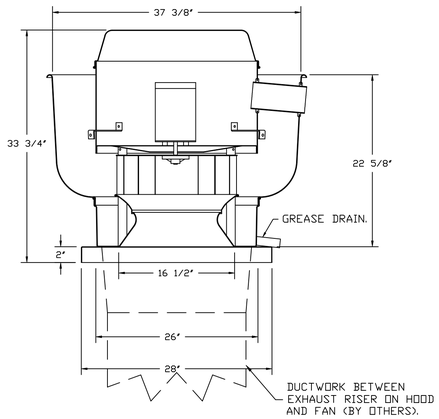
FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-111	YES						
2	KEF-111.1	YES						
3	KEF-310	YES						
4	KEF-382	YES						
5	KEF-398	YES						
6	KEF-501	YES						
7	KEF-481	YES						
8	KEF-165		YES					
9	MAU-113				YES		YES	
10	MAU-312				YES		YES	
11	MAU-383				YES		YES	
12	MAU-399				YES		YES	
13	MAU-490				YES		YES	

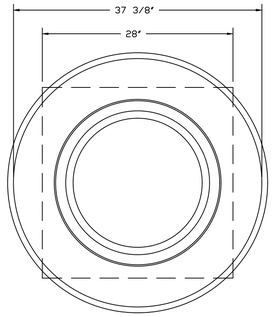
CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-111	52 LBS	CURB	26.500"W X 26.500"L X 24.000"H VENTED HINGED.
2	# 2	KEF-111.1	52 LBS	CURB	26.500"W X 26.500"L X 24.000"H VENTED HINGED.
3	# 3	KEF-310	48 LBS	CURB	31.500"W X 31.500"L X 24.000"H VENTED HINGED.
4	# 4	KEF-382	41 LBS	CURB	23.000"W X 23.000"L X 24.000"H VENTED HINGED.
5	# 5	KEF-398	52 LBS	CURB	26.500"W X 26.500"L X 24.000"H VENTED HINGED.
6	# 6	KEF-501	52 LBS	CURB	26.500"W X 26.500"L X 24.000"H VENTED HINGED.
7	# 7	KEF-481	52 LBS	CURB	26.500"W X 26.500"L X 24.000"H VENTED HINGED.
8	# 8	KEF-165	18 LBS	CURB	19.500"W X 19.500"L X 14.000"H.

HMI SCHEDULE				
UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #9	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #10	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #11	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #12	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55
FAN #13	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55

FANS #1 (KEF-111), #6 (KEF-501) - DU180HFA EXHAUST FAN





TOP VIEW

FEATURES:

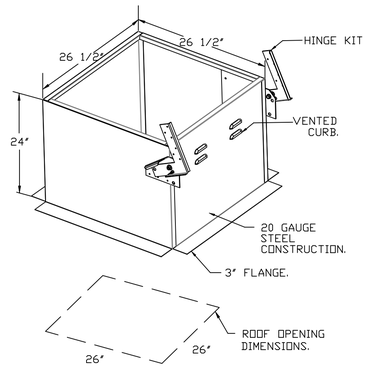
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR180HFA
- INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.



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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 16

City of Puyallup
Development & Permitting Services
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Building | Planning
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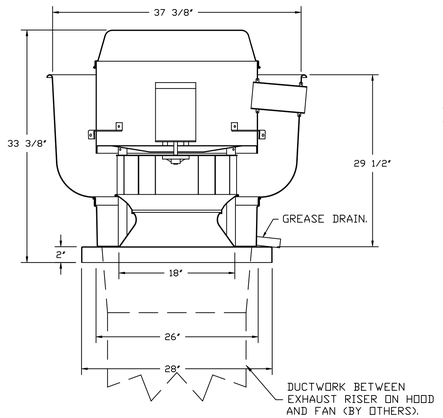
FANS #2 (KEF-111.1), #7 (KEF-481) - DU200HFA EXHAUST FAN



FEATURES:

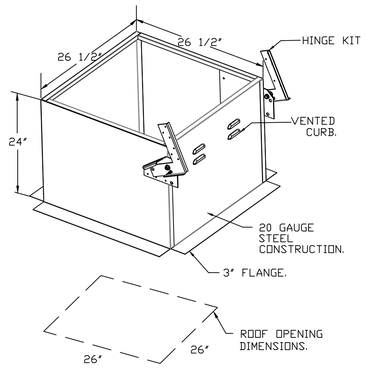
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

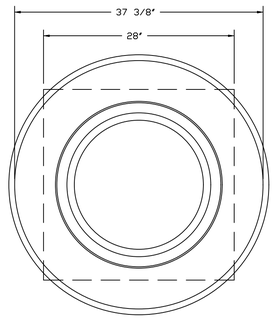
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

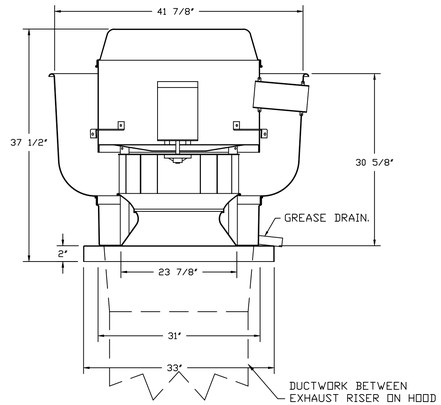
- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR200HFA - INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.





TOP VIEW

FAN #3 DU240HFA - EXHAUST FAN (KEF-310)



FEATURES:

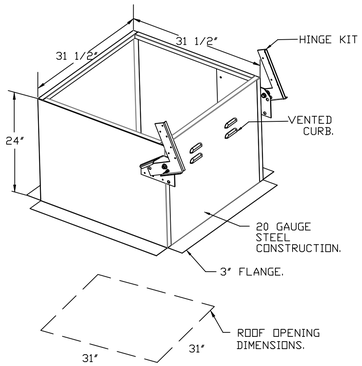
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

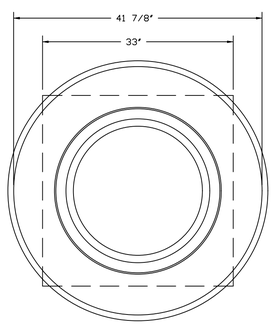
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR240HFA - INSTALLED AT PLANT - FOR GREASE DUCTS.
- UNIT MOUNTED VFD FOR USE WITH ECPM03.
- VFD MOUNTING BRACKET FOR DU/DR 240.
- EXHAUST FAN HEAT BAFFLE.
- 2 YEAR PARTS WARRANTY.





TOP VIEW

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

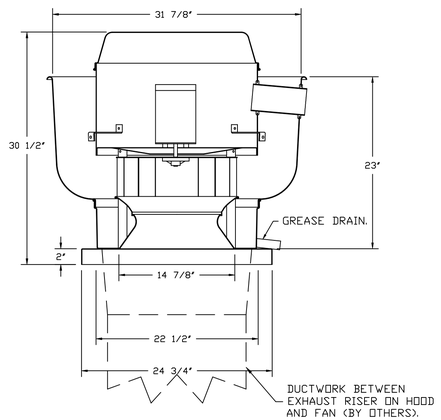
MASTER DRAWING

SHEET NO. 17

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

FAN #4 DU85HFA - EXHAUST FAN (KEF-382)



FEATURES:

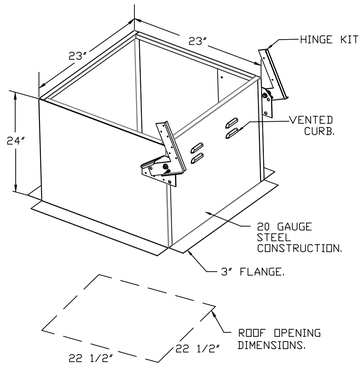
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

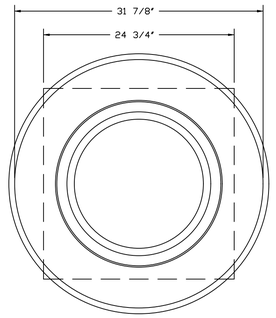
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

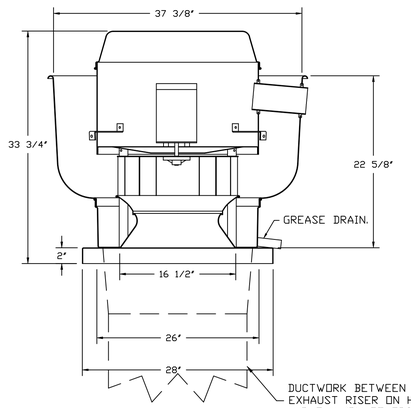
- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR85HFA
- INSTALLED AT PLANT - FOR GREASE DUCTS.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.





TOP VIEW

FAN #5 DU180HFA - EXHAUST FAN (KEF-398)



FEATURES:

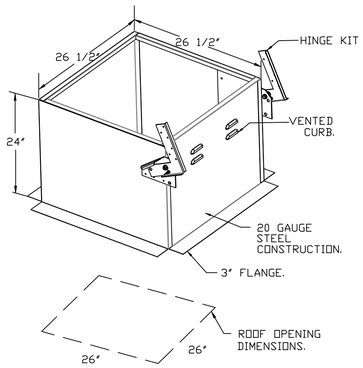
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

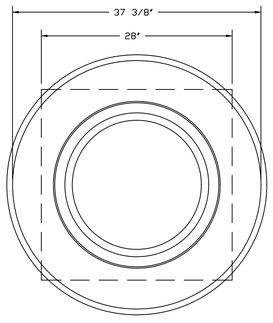
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR180HFA
- INSTALLED AT PLANT - FOR GREASE DUCTS.
- EXHAUST FAN HEAT BAFFLE.
- UNIT MOUNTED VFD FOR USE WITH ECPM03.
- VFD MOUNTING BRACKET FOR DU/DR 180 - 200.
- 2 YEAR PARTS WARRANTY.





TOP VIEW

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

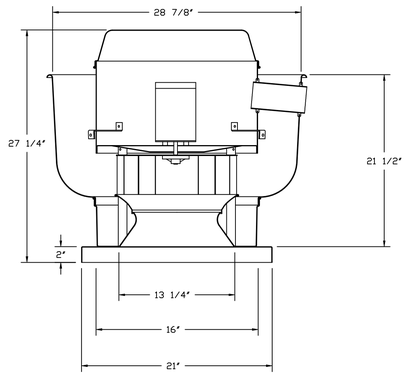
MASTER DRAWING

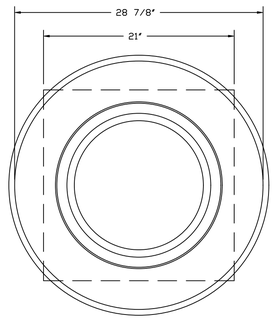
SHEET NO. 18

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

FAN #8 DU50HFA - EXHAUST FAN (KEF-165)





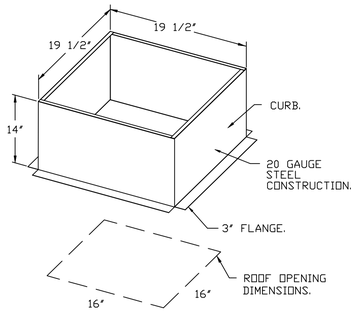
TOP VIEW

FEATURES:

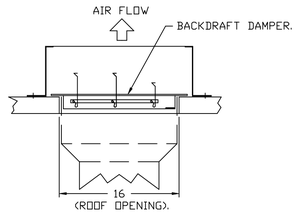
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- NEMA 3R SAFETY DISCONNECT SWITCH.

OPTIONS

- ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -MSC- (TELCO), CCW ROTATION.
- SCR-13 BIRD SCREEN.
- 1 15-BDD DAMPER.
- 2 YEAR PARTS WARRANTY.



BACKDRAFT DAMPER INSTALLATION



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114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 19

City of Puyallup
Development & Permitting Services
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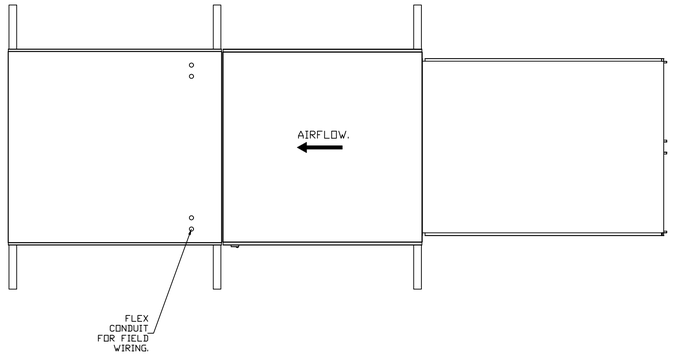
Building | Planning
Engineering | Public Works
Fire | Traffic

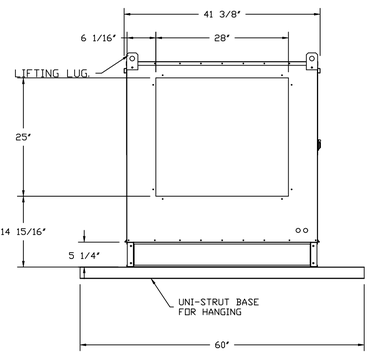
FAN #9 A3-D.500-24D - HEATER (MAU-113)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 24" MIXED FLOW DIRECT DRIVE FAN AND 12" BURNER.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 3 (1" MOD VALVE).
7. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION. 1" CONNECTION.
8. MOTORIZED BACK DRAFT DAMPER 30" X 30" FOR SIZE 3 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, NFBUP-S ACTUATOR INCLUDED.
9. INDOOR HANGING CRADLE FOR THE SIZE 3 DIRECT FIRED UNIT. 2 HSA200 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
10. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
11. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
12. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.
13. 2 YEAR PARTS WARRANTY.

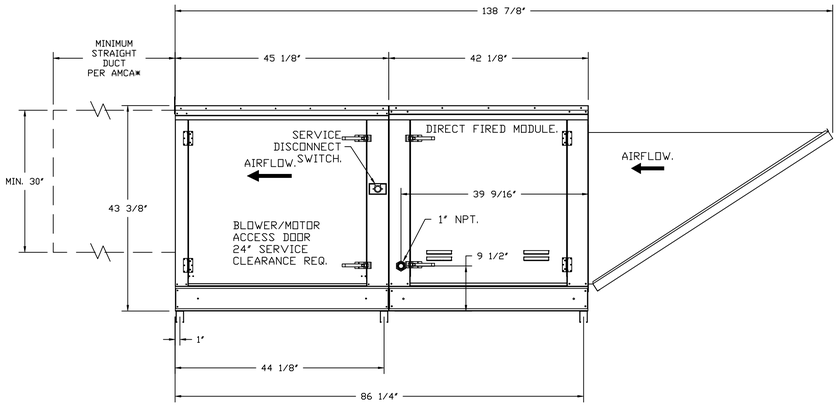
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 30" x 30".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 25°F. TEMP. RISE = 50°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 348493.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 378796.
OUTPUT BTUs AT ALTITUDE OF 43 FT. = 347951.
INPUT BTUs AT ALTITUDE OF 43 FT. = 378208.







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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 20

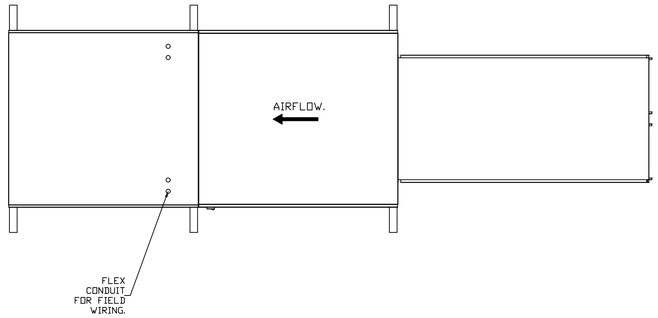
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

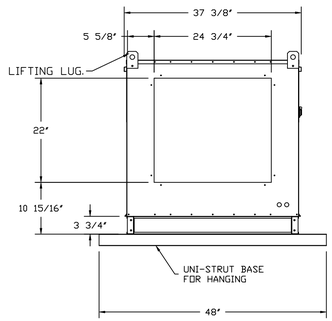
FAN #10 A2-D.250-20D - HEATER (MAU-312)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE).
7. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION. 1" CONNECTION.
8. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED.
9. INDOOR HANGING CRADLE FOR THE SIZE 2 DIRECT FIRED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
10. UNIT MOUNTED VFD FOR USE WITH ECPM03.
11. PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LOW CFM APPLICATIONS.
12. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
13. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.
14. 2 YEAR PARTS WARRANTY.

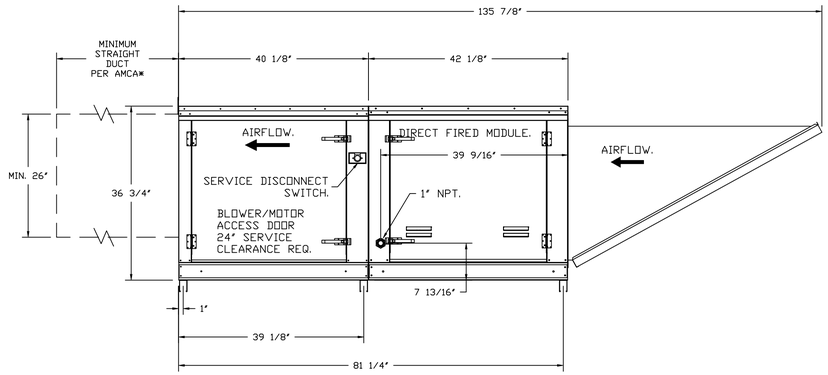
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 26" x 26".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 45°F. TEMP. RISE = 25°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 96546.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 104941.
OUTPUT BTUs AT ALTITUDE OF 43 FT. = 96396.
INPUT BTUs AT ALTITUDE OF 43 FT. = 104778.







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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 21

City of Puyallup
Development & Permitting Services
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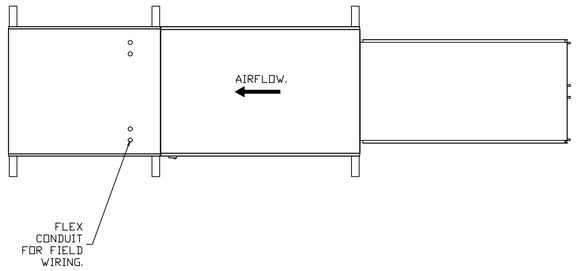
Fire | Traffic

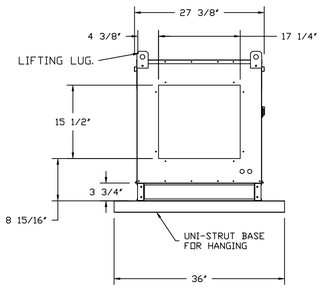
FAN #11 A1-D250-15D - HEATER (MAU-383)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION. 3/4" CONNECTION.
7. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TF8120S ACTUATOR INCLUDED.
8. INDOOR HANGING CRADLE FOR THE SIZE 1 DIRECT FIRED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
9. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
10. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
11. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.
12. 2 YEAR PARTS WARRANTY.

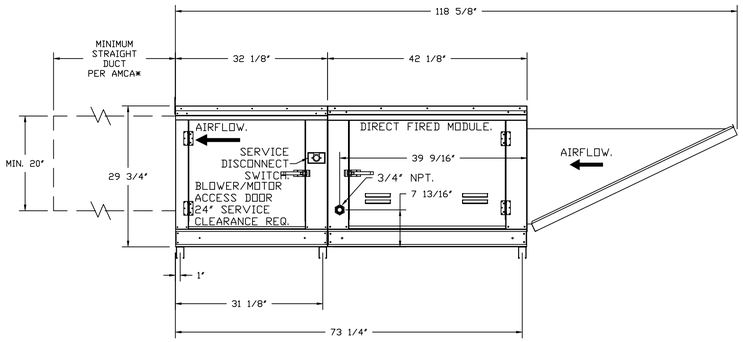
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 45°F. TEMP. RISE = 25°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 51872.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 56383.
OUTPUT BTUs AT ALTITUDE OF 43 FT. = 51792.
INPUT BTUs AT ALTITUDE OF 43 FT. = 56295.







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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 22

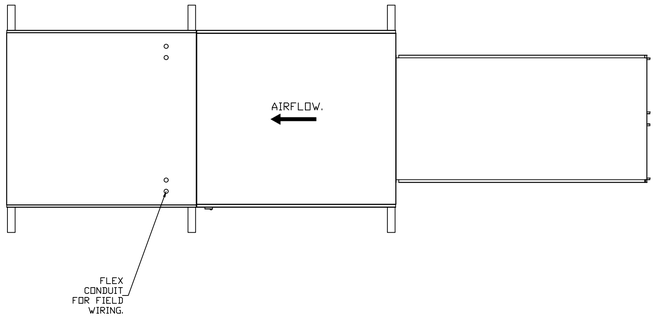
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

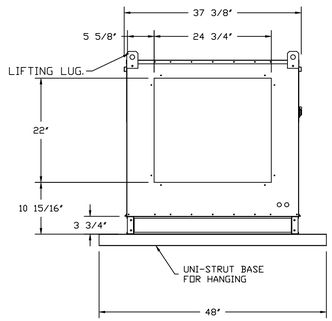
FAN #12 A2-D.250-20D - HEATER (MAU-399)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE).
7. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION. 1" CONNECTION.
8. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED.
9. INDOOR HANGING CRADLE FOR THE SIZE 2 DIRECT FIRED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
10. PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LOW CFM APPLICATIONS.
11. UNIT MOUNTED VFD FOR USE WITH ECPM03.
12. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
13. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.
14. 2 YEAR PARTS WARRANTY.

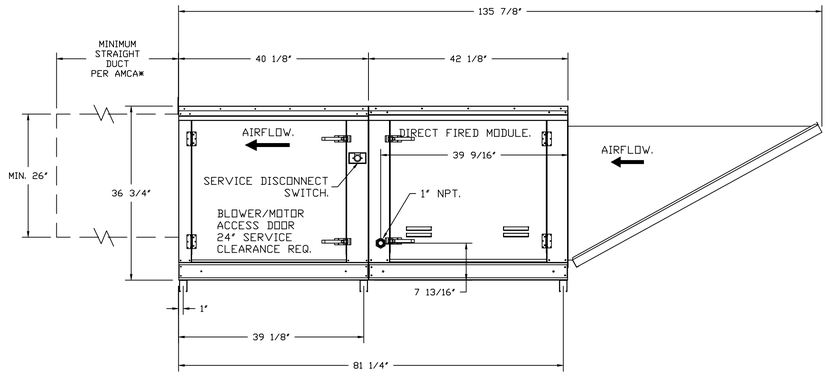
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 26" x 26".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 45°F. TEMP. RISE = 25°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 80855.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 87886.
OUTPUT BTUs AT ALTITUDE OF 43 FT. = 80729.
INPUT BTUs AT ALTITUDE OF 43 FT. = 87749.







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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 23

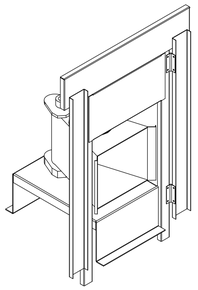
City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

FAN #13 A3-D.500-24D - HEATER (MAU-490)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 24" MIXED FLOW DIRECT DRIVE FAN AND 12" BURNER.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 3 (1" MOD VALVE).
7. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION. 1" CONNECTION.
8. MOTORIZED BACK DRAFT DAMPER 30" X 30" FOR SIZE 3 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, NFBUP-S ACTUATOR INCLUDED.
9. INDOOR HANGING CRADLE FOR THE SIZE 3 DIRECT FIRED UNIT. 2 HSA200 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
10. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
11. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
12. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.
13. 2 YEAR PARTS WARRANTY.

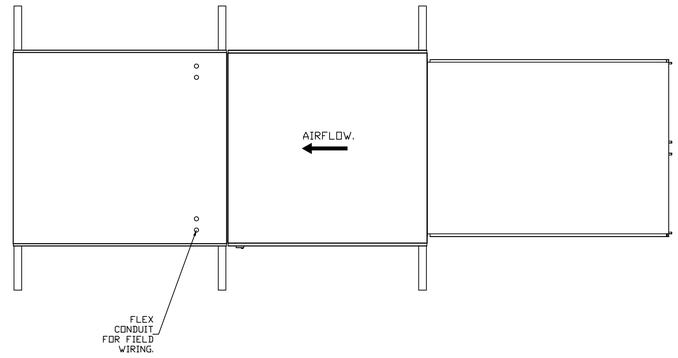
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 30" x 30".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 45°F. TEMP. RISE = 25°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 170849.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 185706.
OUTPUT BTUs AT ALTITUDE OF 43 FT. = 170584.
INPUT BTUs AT ALTITUDE OF 43 FT. = 185418.



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

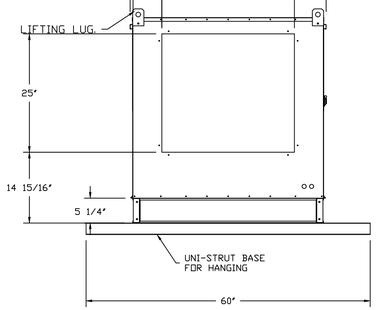


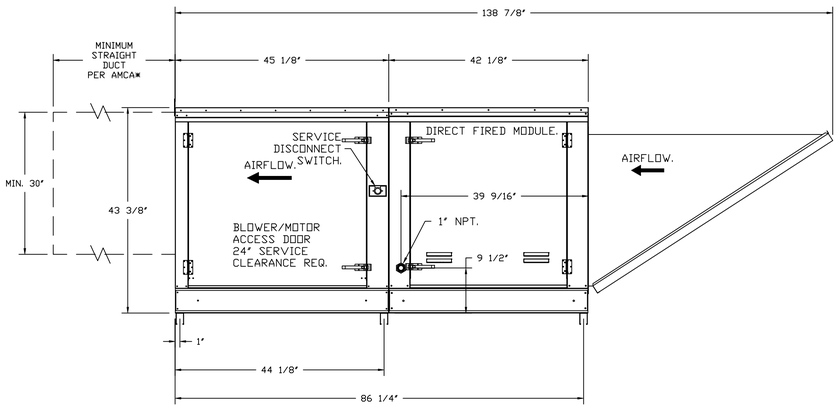
DIRECT FIRED PROFILE PLATE SPECIFICATIONS:
DESCRIPTION:
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO: US6629523B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2)DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:
-PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
-PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
-PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
-DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
-SPRING HINGES SHALL BE MADE FROM PLATED STEEL.





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114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
www.captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 24

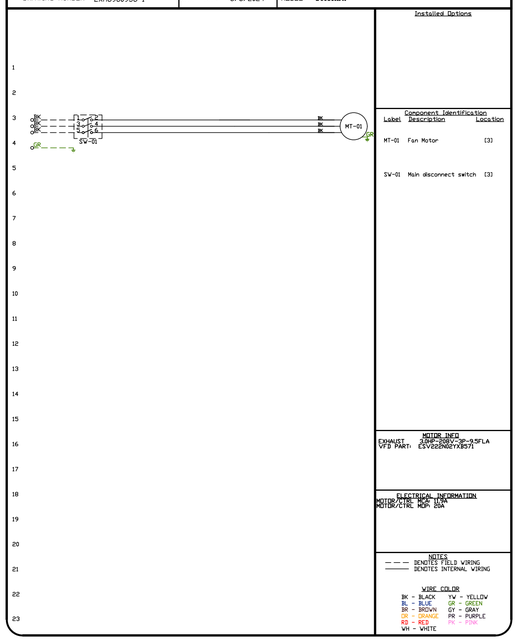
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-1 | SHIP DATE 8/5/2024 | MODEL DU180HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO
EXHAUST 2.0HP-208V-3P-9.7FLA
VFD PART: ESV202N02YXB571

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 15A
MOTOR/CTRL MOP 20A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

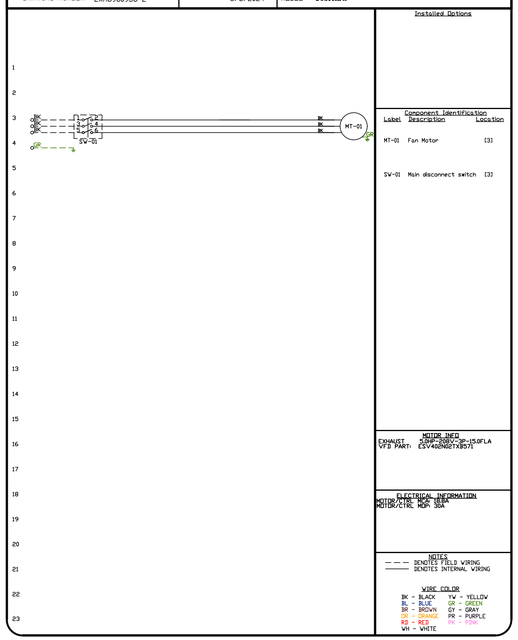
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-2 | SHIP DATE 8/5/2024 | MODEL DU200HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO
EXHAUST 2.5HP-208V-3P-11.0FLA
VFD PART: ESV402N02YXB571

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 18.6A
MOTOR/CTRL MOP 25A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

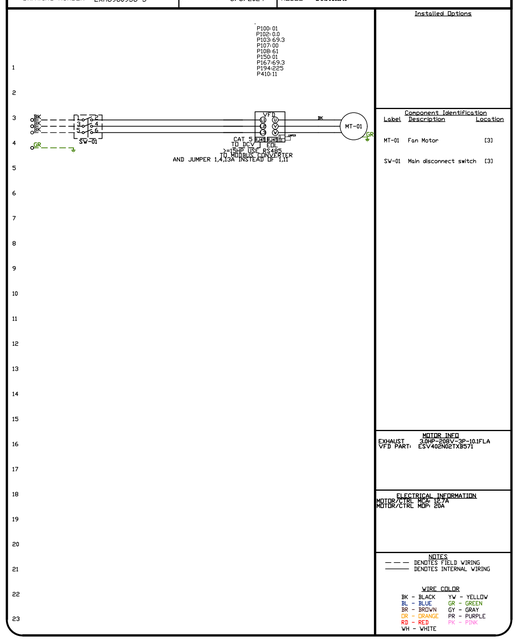
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-3 | SHIP DATE 8/5/2024 | MODEL DU240HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO
EXHAUST 3.0HP-208V-3P-10.1FLA
VFD PART: ESV402N02YXB571

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 18.6A
MOTOR/CTRL MOP 25A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

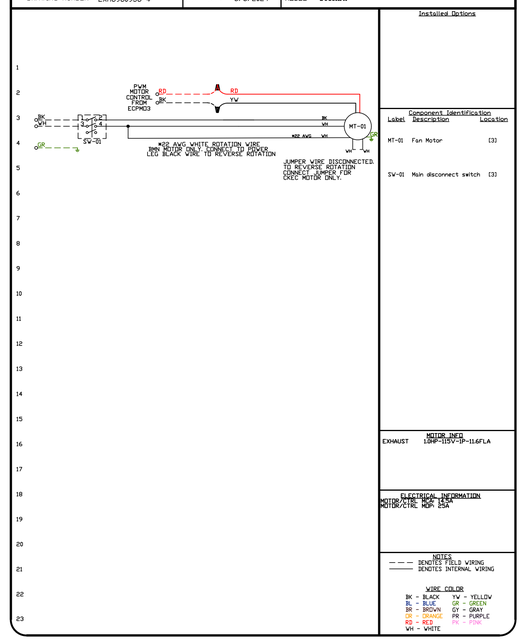
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-4 | SHIP DATE 8/5/2024 | MODEL DU50HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO
EXHAUST 1.0HP-115V-1P-11.6FLA

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 15A
MOTOR/CTRL MOP 15A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

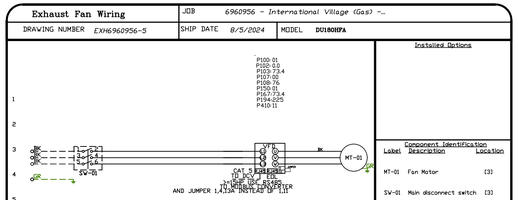
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-5 | SHIP DATE 8/5/2024 | MODEL DU180HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO
EXHAUST 2.0HP-208V-3P-7.3FLA
VFD PART: ESV202N02YXB571

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 12A
MOTOR/CTRL MOP 15A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

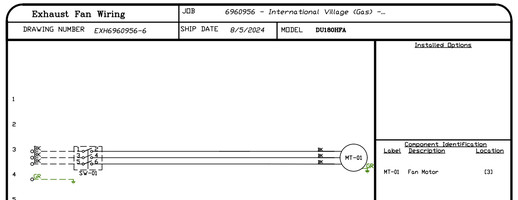
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-6 | SHIP DATE 8/5/2024 | MODEL DU180HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO
EXHAUST 3.0HP-208V-3P-9.5FLA
VFD PART: ESV202N02YXB571

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 17.5A
MOTOR/CTRL MOP 20A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

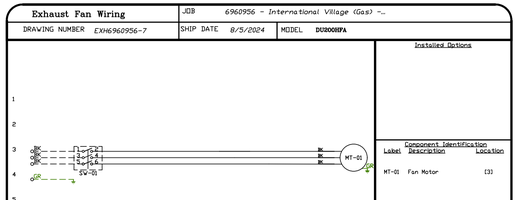
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-7 | SHIP DATE 8/5/2024 | MODEL DU200HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO
EXHAUST 3.0HP-208V-3P-15.0FLA
VFD PART: ESV402N02YXB571

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 18.6A
MOTOR/CTRL MOP 30A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

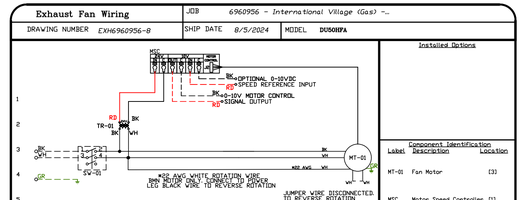
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

Exhaust Fan Wiring

JOB 6960956 - International Village (Gas) -...

DRAWING NUMBER EXH6960956-8 | SHIP DATE 8/5/2024 | MODEL DU50HFA



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
MSC	Motor Speed Controller	[1]
SV-01	Main disconnect switch	[3]
TR-01	24VAC 20VA Transformer	[2]

MOTOR INFO
EXHAUST 0.5HP-115V-1P-6.3FLA

ELECTRICAL INFORMATION
MOTOR/CTRL MCA 7.9A
MOTOR/CTRL MOP 15A

NOTES
- - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

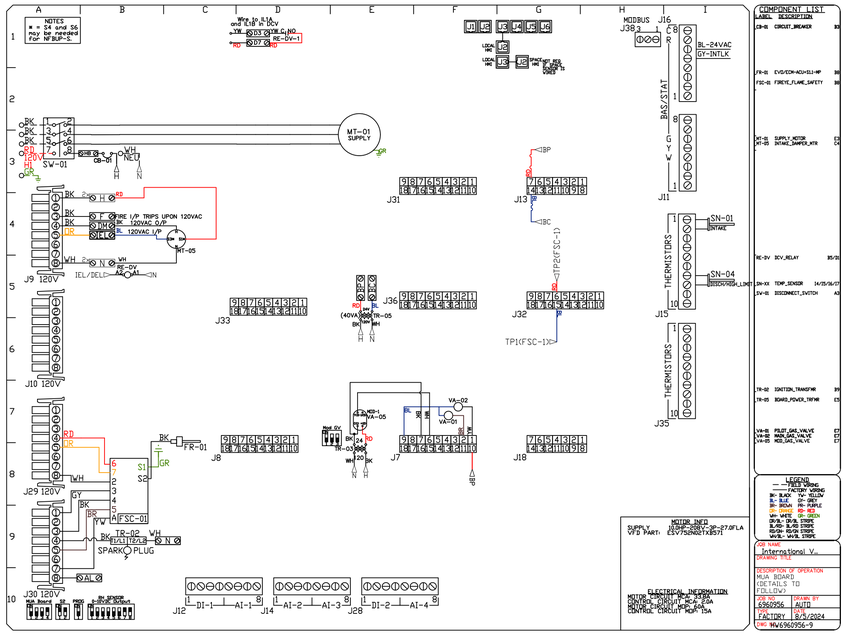
SCALE: 3/4" = 1'-0"

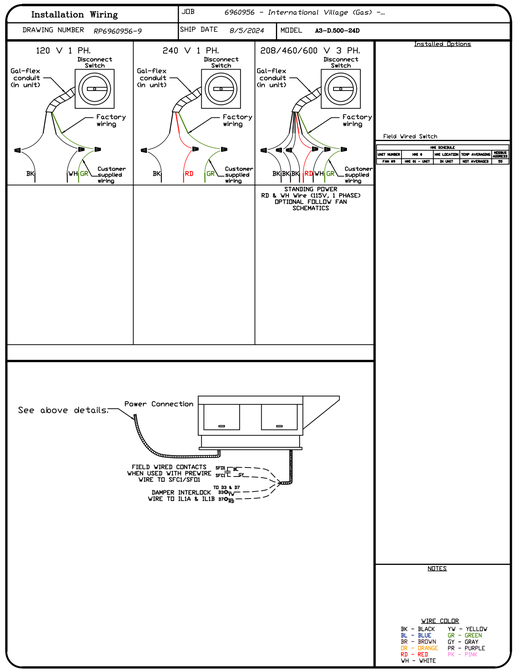
MASTER DRAWING

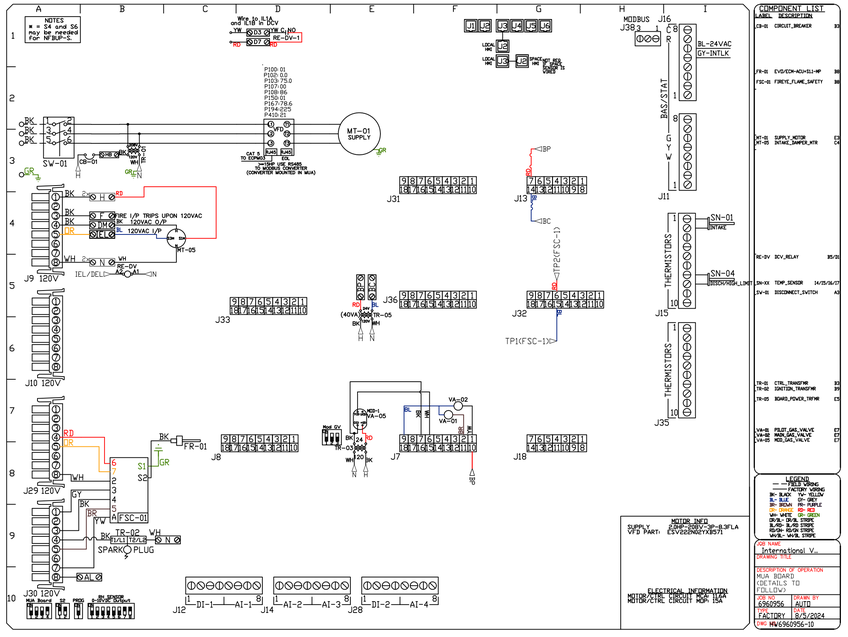
SHEET NO. 25

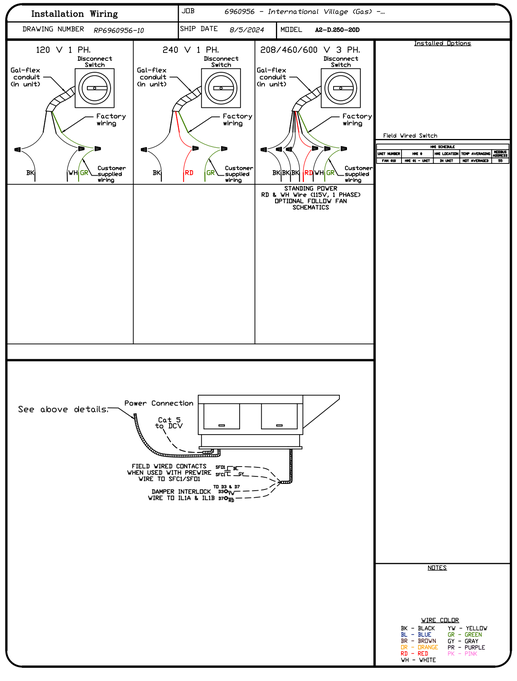
City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic









REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

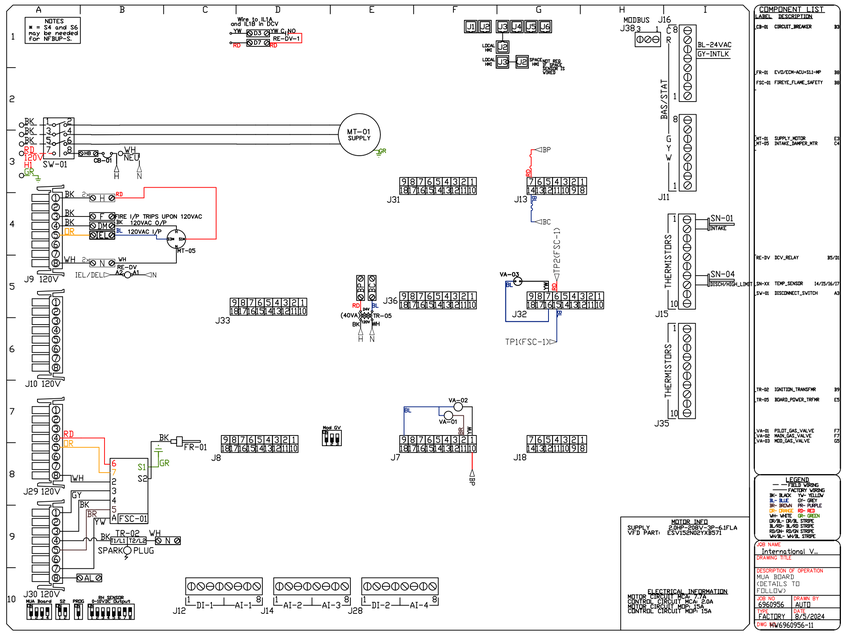
DRAWN BY: JL - R85

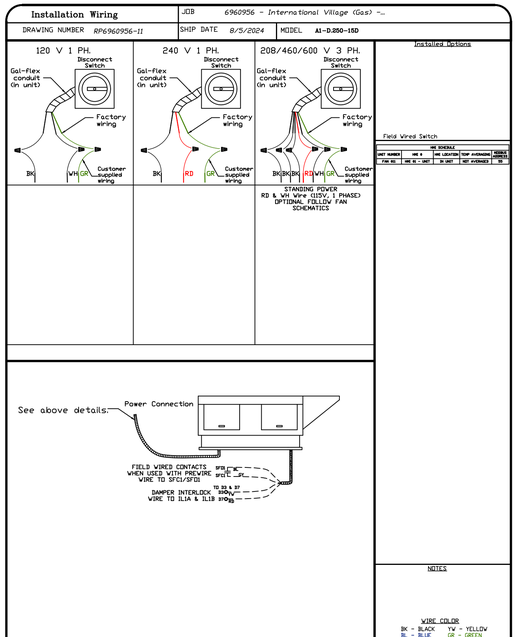
SCALE: 3/4" = 1'-0"

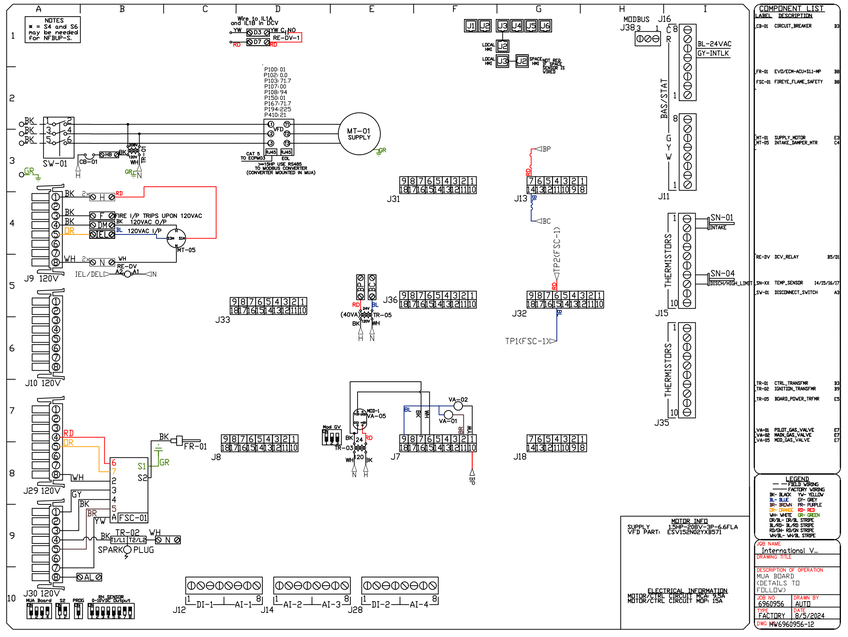
MASTER DRAWING

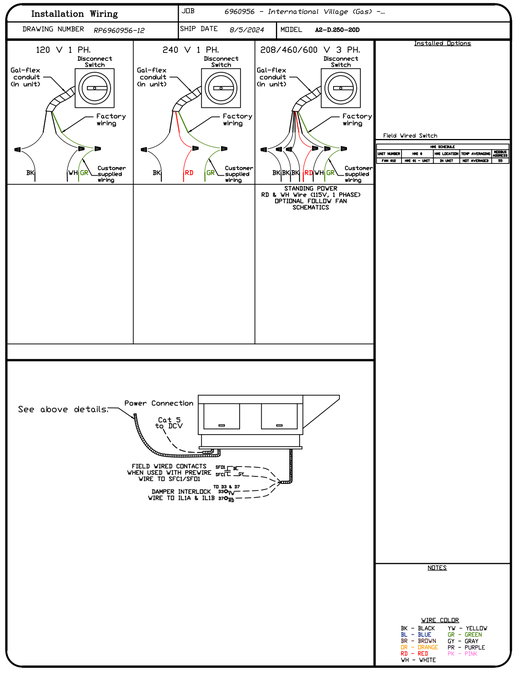
SHEET NO. 26

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic









REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

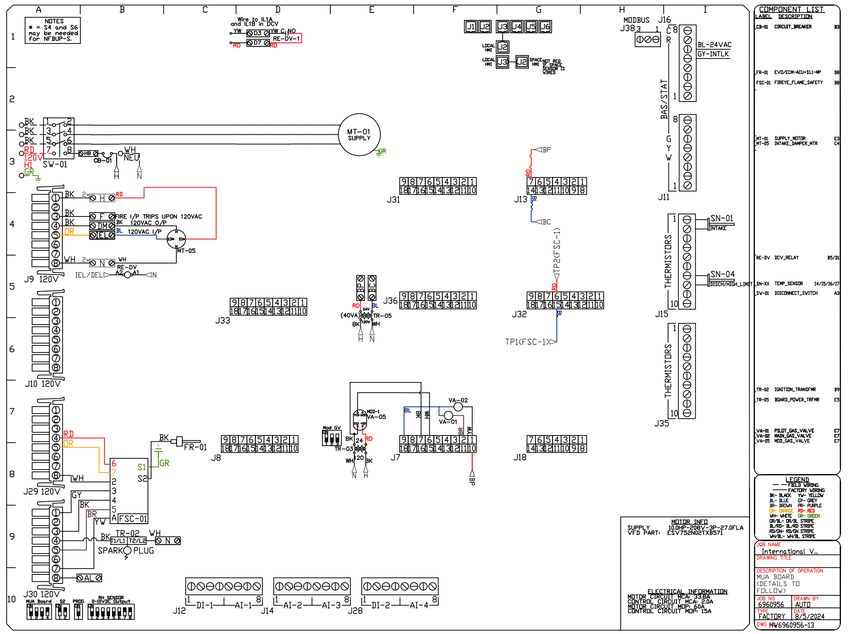
SCALE: 3/4" = 1'-0"

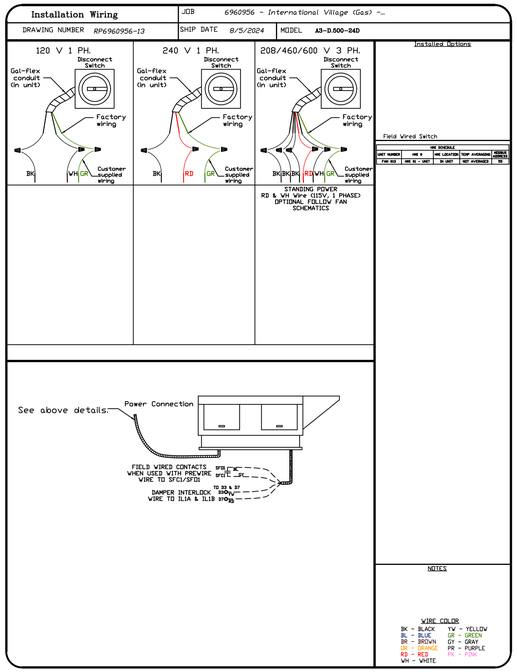
MASTER DRAWING

SHEET NO. 27

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic





REVISIONS

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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 28

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

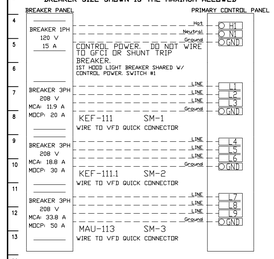
ELECTRICAL PACKAGE — JOB#6960956

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		FAN TAG	TYPE	ϕ	HP	VOLT	FLA
1	DCV-109	DCV-2111	WALL MOUNT IN SS BOX	SHIP LOOSE W/ PREWIRE	1 LIGHT 1 FAN	SMART CONTROLS DCV	KEF-111	EXHAUST	3	3.000	208	9.5
							KEF-111.1	EXHAUST	3	5.000	208	15.0
							MAU-113	SUPPLY	3	10.000	208	27.0
2	DCV-309	DCV-1111	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT HOOD # 3	1 LIGHT 1 FAN	SMART CONTROLS DCV	KEF-310	EXHAUST	3	3.000	208	10.1
							MAU-312	SUPPLY	3	2.000	208	8.3
3	DCV-366	DCV-1111	UTILITY CABINET LEFT	UTILITY CABINET LEFT HOOD # 4	1 LIGHT 1 FAN	SMART CONTROLS DCV	KEF-382	EXHAUST	1	1.000	115	11.6
							MAU-383	SUPPLY	3	2.000	208	6.1
4	DCV-401	DCV-1111	UTILITY CABINET LEFT	UTILITY CABINET LEFT HOOD # 5	1 LIGHT 1 FAN	SMART CONTROLS DCV	KEF-398	EXHAUST	3	2.000	208	7.3
							MAU-399	SUPPLY	3	1.500	208	6.6
5	DCV481/503	DCV-2111	UTILITY CABINET RIGHT	SHIP LOOSE W/ PREWIRE	1 LIGHT 1 FAN	SMART CONTROLS DCV	KEF-501	EXHAUST	3	3.000	208	9.5
							KEF-481	EXHAUST	3	5.000	208	15.0
							MAU-490	SUPPLY	3	10.000	208	27.0

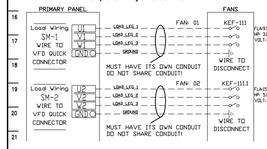
JOB NO 6960956 | MODEL NUMBER DCV-2111 | JOB NAME International Village (Gas) -_ | DRAWN BY | DATE 8/5/2024 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-1

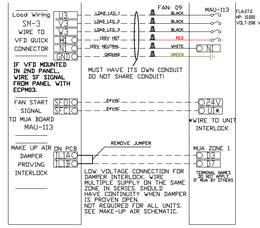
DESCRIPTION OF OPERATION:
Demand Control Ventilation, w/ control for 2 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation/Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

BREAKER PANEL TO PRIMARY CONTROL PANEL
Responsibility: Electrician
BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED

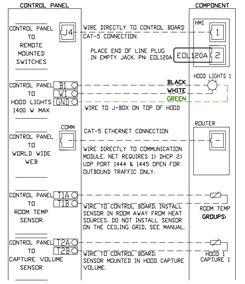


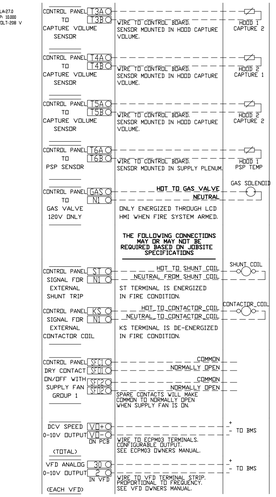
CONTROL PANEL TO FANS
Responsibility: Electrician





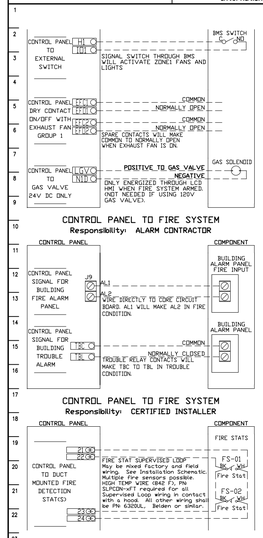
CONTROL PANEL TO ACCESSORY ITEMS
Responsibility: Electrician

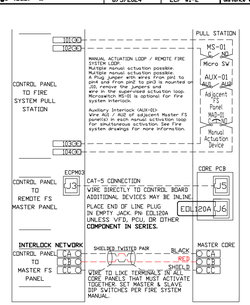




JOB NO 6960956 | MODEL NUMBER DCV-2111 | JOB NAME International Village (Gas) -_ | DRAWN BY | DATE 8/5/2024 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-2

DESCRIPTION OF OPERATION:
Demand Control Ventilation, w/ control for 2 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation/Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.





JOB NO 6960956 | MODEL NUMBER DCV-2111 | JOB NAME International Village (Gas) -_ | DRAWN BY | DATE 8/5/2024 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-3

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 40/48/48/48 QTEM 110 - FS1.

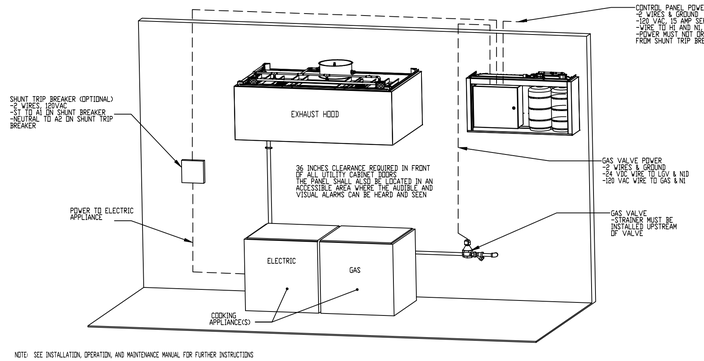
WALL MOUNT UTILITY CABINET TANK PROTECTION ELECTRICAL DETAIL

10/01/2023 Rev. 03

FS-1: MASTER

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & NI	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	HI & NI + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & NI		120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N3 (IF 24 VDC) GAS & NI (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 10 AMPS	IF 24 VDC - 2 WIRES & GROUND, N3 TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, NI TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

REVISIONS

	DESCRIPTION	DATE:
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Seattle Office
114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
www.captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 29

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

JOB NO 6960956 | MODEL NUMBER DCV-2111 | JOB NAME International Village (Gas) -_- | DRAWN BY | DATE 8/5/2024 | SCHEDULE TYPE INSTALL | DWG NO ECP #1-4

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 42/42/42/42 CITCH 110 - FSI.

WALL MOUNT UTILITY CABINET TANK PROTECTION LOW-VOLTAGE DETAIL

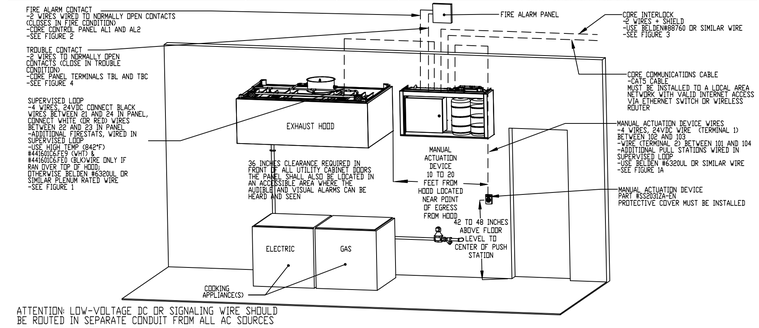
10/01/2023 Rev. 3

FS-1: MASTER

ALARM CONTRACTOR:
1. VOICE MANUAL ACTUATION DEVICE(ES), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. TEMPEST FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT

ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED. IF SURFACE MOUNTED, USE COVER EXTENSION STI-65318
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) 8441605DCFS (WHT) & 8441606DCFS (BLK)WIRE OR SIMILAR ONLY IF RAN OF HOOD, OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL.
CORE INTERLOCK(S)	CA, CB, CC	CA, CB, CC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN 9870 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<10 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

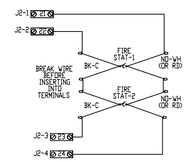
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

DESCRIPTION OF OPERATION:

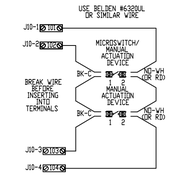
TOTAL PROTECTION LOW-VOLTAGE FIGURES

10/01/2023 Rev. 17

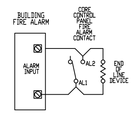
FS-1: MASTER



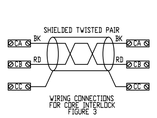
WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1



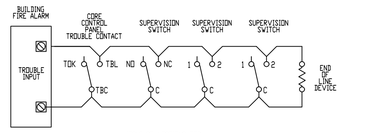
WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP
FIGURE 1A



WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2



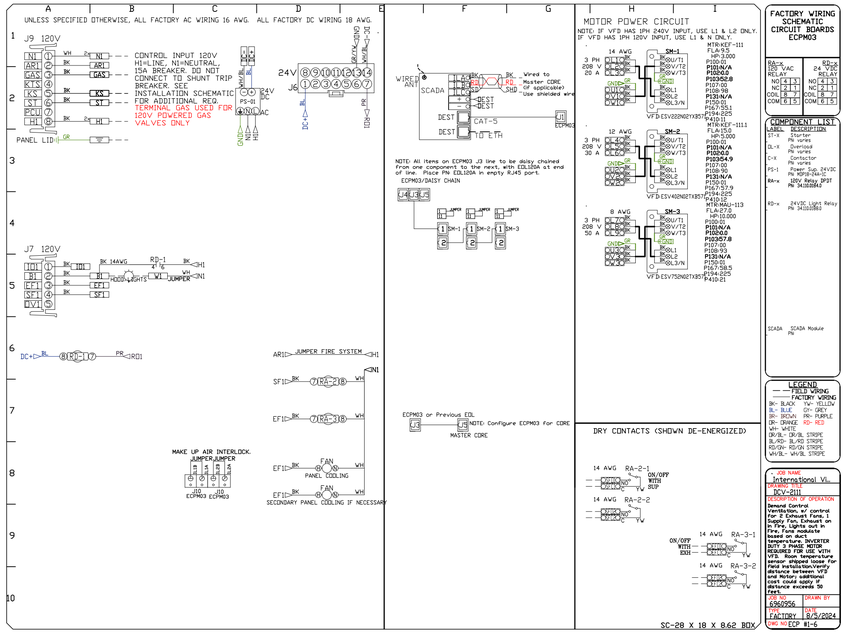
WIRING CONNECTIONS FOR CORE INTERLOCK
FIGURE 3



WIRING CONNECTIONS FOR TROUBLE CONTACT
FIGURE 4

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES



SC-28 X 10 X 8.62 BOX

FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03

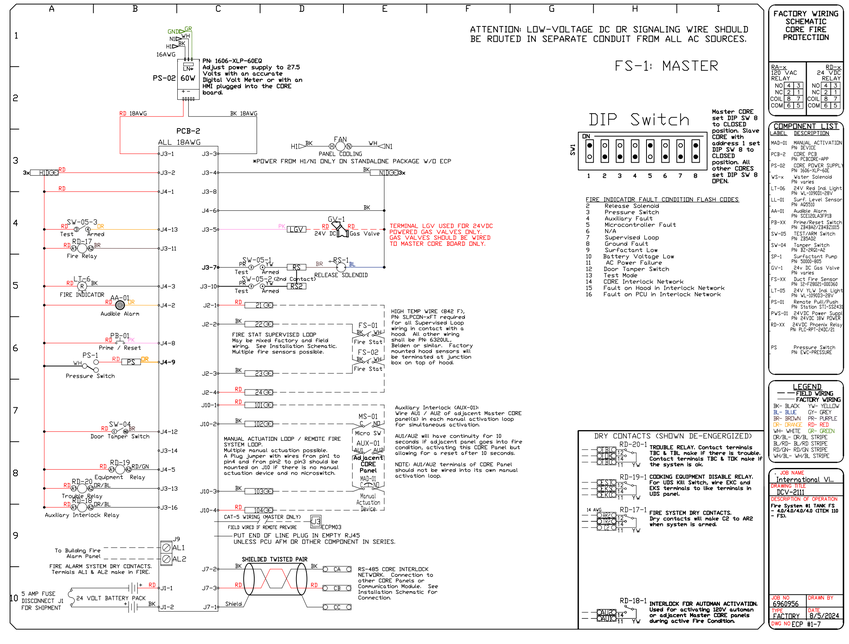
RELAY	RD-A 24 VDC RELAY	RD-B 120 VAC RELAY
NO	4 | 1	4 | 1
NC	4 | 3	4 | 3
COIL	8 | 2	8 | 2
COM	8 | 5	8 | 5

COMPONENT LIST

LABEL	DESCRIPTION
CR-x	Control Relay Starter PN varies
DL-x	Duplex Receptacle PN varies
C-x	Contactor PN varies
PS-1	Power Sup. 24VDC PN MDR-60-24-U
RA-x	120V Relay SPST PN 3410008R
RD-x	24VDC Light Relay PN 3410035R3
SCADA	SCADA Module PN

LEGEND
—— FIELD WIRING
—— FACTORY WIRING
BK= BLACK YW= YELLOW
BL= BLUE GY= GREY
BR= BROWN PR= PURPLE
OR= ORANGE RD= RED
WH= WHITE
GR/BL= GR/BL STRIPE
BL/RD= BL/RD STRIPE
RD/GN= RD/GN STRIPE
WH/BL= WH/BL STRIPE

JOB NAME International Vi.
JOB NO DCV-2111
DESCRIPTION OF OPERATION
Demand Control Ventilation, or control for 2 Exhaust Fans. 3 Phase, 208 VAC, 60 Hz. In Fire, Lights out in Fire, Fans modulate based on Temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE With VFD. Shielded cable required with VFD. Ground wire for Fans installation/varity distance between VFD & motor. Improper cord could apply for distance exceeds 50 Feet.
JOB NO 6960956 | DRAWN BY
DWG NO ECP #1-5 | FACTORY | 8/5/2024



FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

RELAY	RD-A 24 VDC RELAY	RD-B 120 VAC RELAY
NO	4 | 1	4 | 1
NC	4 | 3	4 | 3
COIL	8 | 2	8 | 2
COM	8 | 5	8 | 5

COMPONENT LIST

LABEL	DESCRIPTION
MAS-01	MANUAL ACTIVATION PN 3EV03
PCB-2	CORE PCB PN 1736CBR-MP
PS-02	CORE POWER SUPPL PN 1606-XLP-60EO
VS-x	Valve Solenoid PN varies
LT-56	24V Red Ind. Light PN VL-1PRD-24M
LL-01	Low Surfactant Sensor PN 46050
AA-01	Audible Alarm PN 1310ALX3P19
PB-XX	Prime/Reset Switch PN 1310PBX3P19
SV-05	Test/Lamp Switch PN 139582
SV-04	Tamper Switch PN EZ-1902-A2
SP-1	Surfactant Pump PN varies
DV-1	24v DC Gas Valve PN varies
FS-XX	Duct Fire Sensor PN CP-FIRDS-SB2360
LT-05	24V 1/2w Ind. Light PN 1310LX3P19
PS-01	Remote Pull/Push PN 1310sn STI-SD4101
PVS-01	24VDC Power Supply PN MDR-20-24U SLIM
RD-XX	24VDC Relay PN RTC-MP1-24D-22
PS	Pressure Switch PN EVC-PRESS08

LEGEND
—— FIELD WIRING
—— FACTORY WIRING
BK= BLACK YW= YELLOW
BL= BLUE GY= GREY
BR= BROWN PR= PURPLE
OR= ORANGE RD= RED
WH= WHITE
GR/BL= GR/BL STRIPE
BL/RD= BL/RD STRIPE
RD/GN= RD/GN STRIPE
WH/BL= WH/BL STRIPE

JOB NAME International Vi.
JOB NO DCV-2111
DESCRIPTION OF OPERATION
Fire System #1 TANK FS - 42/42/42/42 CITCH 110 - FSI.
JOB NO 6960956 | DRAWN BY
DWG NO ECP #1-7 | FACTORY | 8/5/2024

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REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 30

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE
6960956	DCV-1111		INSTALL
	JOB NAME International Village (Gas) -.-	DATE 8/5/2024	DWG NO ECP #2-1

DESCRIPTION OF OPERATION:
Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan. Exhaust on in Fire. Lights out in Fire, Fans Shutdown in Fire. Fans Shutdown in Fire. Fans Shutdown in Fire.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #2 TANK FS - 48/48/48 (ITEM 304 - FS).
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #2-3	

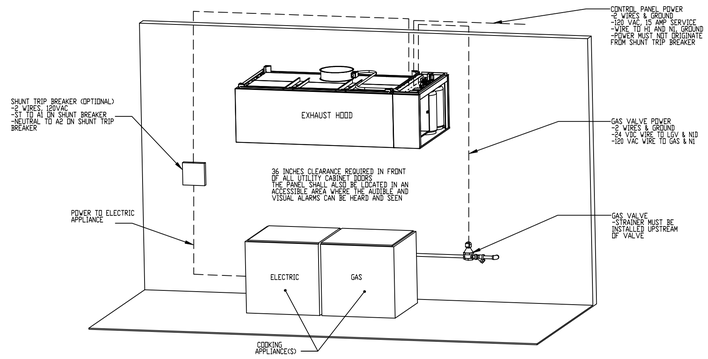
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-2: MASTER

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE SIDE APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N3 (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 10 AMPS	IF 24 VDC - 2 WIRES & GROUND, N3 TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #2 TANK FS - 48/48/48 (ITEM 304 - FS).
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #2-4	

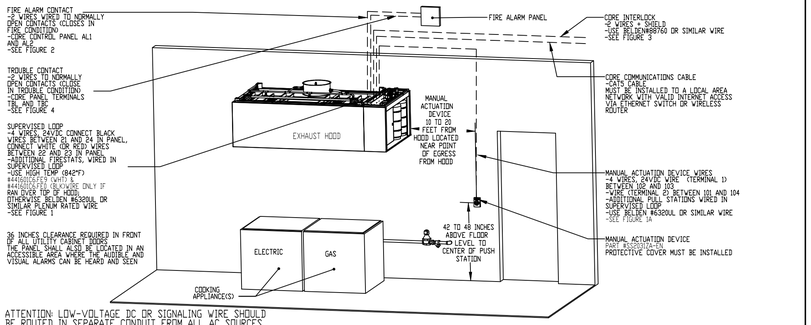
TANK PROTECTION LOW-VOLTAGE DETAIL

10/01/2023 Rev. 3

FS-2: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION ST-SD318
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (640°F) 844500EGTES (WHT) & 844500EGTES (BLK)WIRE OR SIMILAR ONLY IF SUN OF HOOD, OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL.
CORE INTERLOCK(S)	CA, CB, CC	CA, CB, CC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA. CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB. CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CATS CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

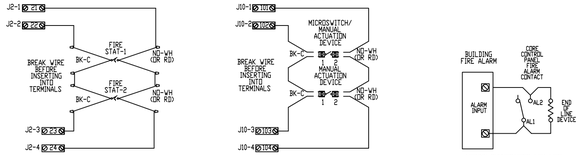
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #2 TANK FS - 48/48/48 (ITEM 304 - FS).
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #2-5	

TANK PROTECTION LOW-VOLTAGE FIGURES

10/01/2023 Rev. 17

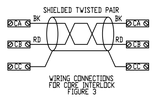
FS-2: MASTER

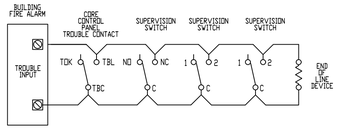


WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1

WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP
FIGURE 1A

WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2

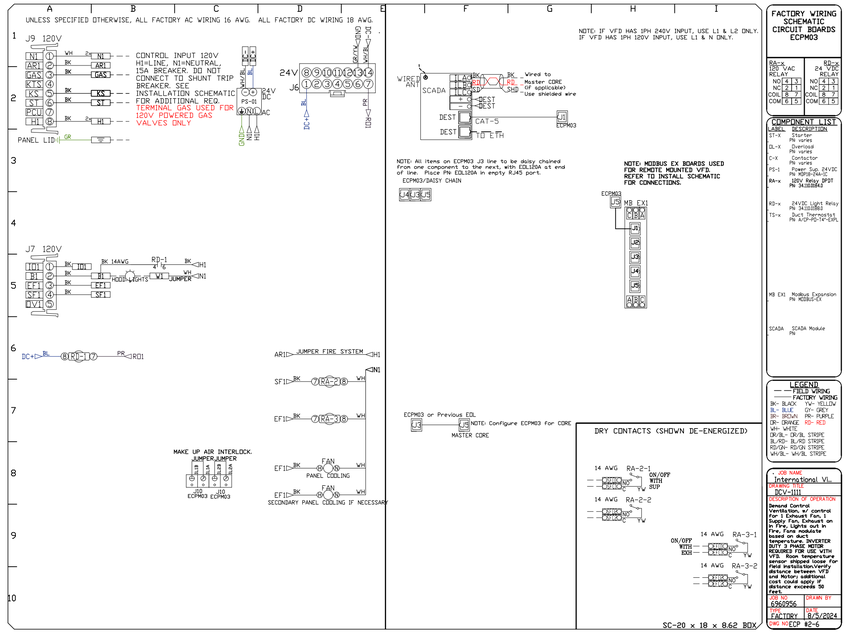




WIRING CONNECTIONS FOR TROUBLE CONTACT
FIGURE 4

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES



FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03

BA-x 120 VAC RELAY		RC-x 24 VDC RELAY	
NO	4 3	NO	4 3
NC	2 1	NC	2 1
COIL	6 5	COIL	6 5
COM	8 7 5	COM	8 7 5

COMPONENT LIST

LABEL	DESCRIPTION
ST-x	Starter PN varies
OL-x	Overload PN varies
C-x	Contactor PN varies
PS-1	Power Sup. 24VDC PN MDR-40-24
RA-x	24V Relay DPDT PN 14.31.9.024.0000
RD-x	24VDC Light Relay PN 14.31.0.060.0000
TS-x	Duct Thermostat PN ACP-PS-14-120L
MB EX1	Modbus Expansion PN MOBUS-EX
SCADA	SCADA Module PN

LEGEND

FIELD WIRING
FACTORY WIRING

BK- BLACK	YW- YELLOW		
BL- BLUE	GY- GREY		
BR- BROWN	PR- PURPLE		
OR- ORANGE	RD- RED		
WH- WHITE			
OR/BL- OR/BL STRIPE			
BL/RD- BL/RD STRIPE			
RD/GY- RD/GY STRIPE			
WH/BL- WH/BL STRIPE			

JOB NAME: International Vi...
DRAWING TITLE: DCV-1111
DESCRIPTION OF OPERATION: Demand Control Ventilation (DCV) control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in fire, Lights out in fire. Two modulating sensors on outside temperature, INVERTER DUTY 3 PHASE MOTOR WITH VFD. 1 PHASE MOTOR WITH VFD. Room temperature sensor shipped loose for field installation. If distance between VFD and Motor; additional cost could apply if distance exceeds 50 Feet.
JOB NO: 6960956
DRAWN BY: JL
DATE: 8/5/2024
DWG NO: ECP #2-6

CAPTIVEAIRE
Seattle Office
114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
www.captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 32

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

MOTOR POWER CIRCUITS, SEE INSTALLATION DIAGRAM FOR FIELD WIRING REQUIREMENTS.

SM-1
14 AWG TO MOTOR
3 PH 208 V 30 A
GND
VFD-ESV452ND2TX3S71 Mounted in Fan
MTR-KEF-310
FLA-13.1
HP-3.000
P100-01
P101-01
P102N/A
P103N/A
P127-00
P128-01
P129-01
P131-N/A
P132-01
P167-09.3
P194-22.5
P410-11

SM-2
14 AWG TO MOTOR
3 PH 208 V 20 A
GND
VFD-ESV222ND2TX3S71 Mounted in Fan
MTR-MAU-312
FLA-8.32
HP-2.000
P100-01
P120N/A
P120N/2
P103-75.0
P104-01
P128-01
P130-N/A
P150-01
P167-78.6
P194-22.5
P410-21

SC-20 x 10 x 8.62 BOX

FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03
DCV Rev. 2.10.00
HMI Rev. 2.10.00

Relay 120 VAC		Relay 24 VDC
NO	4 3	NO
NC	2 1	NC
COIL	8 5	COIL
COM	6 5	COM

COMPONENT LIST

LABEL	DESCRIPTION
ST-X	Starter Ms varies
C-X	Contactor Ms varies
SM-X	VFD Ms varies
LR-X	Line/Load Reactor Ms varies

LEGEND
FIELD WIRING
FACTORY WIRING
BK- BLACK YW- YELLOW
BL- BLUE GY- GREY
BR- BROWN PR- PURPLE
OR- ORANGE RD- RED
WH- WHITE
BK/BL- BK/BL STRIPE
BL/RD- BL/RD STRIPE
RD/GR- RD/GR STRIPE
WH/BL- WH/BL STRIPE

JOB NAME International Vi..
JOB NO DCV-1111
DESCRIPTION OF OPERATION
Ground Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for Field installation.Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.
DRAWN BY
DWG NO 6960956
FACTORY 8/5/2024
ENG NO ECP #2-7

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES.

FS-2: MASTER

PN 1606-XLP-60EG
Adjust power supply to 27.5 Volts with an accurate Digital Volt Meter or with an HMI plugged into the CORE board.

PS-02 60W
PCB-2 ALL 18AWG
GND NEU HOT 16AWG
R2 18AWG BK 18AWG

HOOD
RD
SW-DS-3 Test / Armed
RD/BK Fire Relay
LT-6 FIRE INDICATOR
RD BK AA-01 Audible Alarm
PS-01 Prime / Reset
PS-1 WH PS Pressure Switch
SV-04 Door Tamper Switch
RD/GR Equipment Relay
RD-20 RD/GR/BL Trouble Relay
RD-18 RD/GR/BL
Auxiliary Interlock Relay

To Building Fire Alarm Panel
FIRE ALARM SYSTEM DRY CONTACTS Termials AL1 & AL2 make in FIRE.
5 AMP FUSE DISCONNECT JI FOR SHIPMENT
24 VOLT BATTERY PACK

J3-1 J3-2 J4-1 J4-13 J3-11 J4-3 J4-2 J4-8 J4-9 J4-12 J3-14 J4-5 J3-13 J3-16

J3-3 J3-4 J3-8 J4-6 J3-5 J3-7 J3-10 J2-1 J2-2 J2-3 J2-4 J10-1 J10-2 J10-3 J10-4 J2-7 J2-8 J2-9 J1-1 J1-2

NOOO
BK
CLV-1 24V Gas Valve
LGV
R2 RS-1 RELEASE SOLENOID
TERMINAL LGV USED FOR 24VDC POWER TO GAS VALVES ONLY. DO NOT WIRE GAS VALVES SHOULD BE WIRED TO MASTER CORE BOARD ONLY.

SV-DS-1 NC Test / Armed
SV-DS-2 (2nd Contact) NO Test / Armed
RS2

HIGH TEMP WIRE (842 F), PN 3LFCCN-xxFT required for all wiring that will loop wiring in contact with a hood. All other wiring shall be PN 6300UL, Belden or similar. Factory mounted hood sensors will be terminated at junction box on top of hood.

FS-01 Micro SW / Fire Stat
FS-02 Fire Stat

Auxiliary Interlock (AUX-01) Wire #22 / #18 of adjacent Master CORE panel(s) in each manual activation loop for simultaneous activation.

AUS/AU2 will have continuity for 10 seconds if adjacent panel is not in alarm, preventing CORE panel from slowing for a reset after 10 seconds.

NOTE: AU1/AU2 terminals of CORE Panel should not be wired into its own manual activation loop.

MS-01 Micro SW
AUX-01 Adjacent CORE Panel
NO-01 Manual Actuation Device

MANUAL ACTUATION LOOP / REMOTE FIRE SYSTEM LOOP.
Multiple manual actuation possible. A Plug Jumper with wires from pin1 to pin2 is required. If CORE is not mounted on JS5 remove the jumper and wire in the supervised actuation loop. Supervised loop is optional for fire system interface.

CAT-5 WIRING (MASTER ONLY)
ECPM03
PUT END OF LINE PLUG IN EMPTY RJ45 UNLESS PCU AFM OR OTHER COMPONENT IN SERIES.

SHIELDED TWISTED PAIR
RS-485 CORE INTERLOCK NETWORK. Connection to other CORE Panels or to Communication Module. See Installation Schematic for Connection.
Shield

DIP Switch
SW1 ON 1 2 3 4 5 6 7 8
Master CORE set DIP SW 8 to CLOSED position. Slave CORE with address 1 set DIP SW 8 to CLOSED position. All other CORES set DIP SW 8 OPEN.

FIRE INDICATOR FAULT CONDITION FLASH CODES
2 Release Solenoid
3 Pressure Switch
4 Auxiliary Fault
5 Microcontroller Fault
7 Valve
8 Supervised Loop
9 Ground Fault
10 Surfactant Low
11 Battery Voltage Low
11 AC Power Failure
12 Door Tamper Switch
13 Test Mode
14 CORE Interlock Network
15 Fault on Hood in Interlock Network
16 Fault on PCU in Interlock Network

DRY CONTACTS (SHOWN DE-ENERGIZED)
RD-20-1 TROUBLE RELAY. Contact terminals TBC & TBL make if there is trouble. Contact terminals TBC & TBK make if the system is ok.
RD-19-1 COOKING EQUIPMENT DISABLE RELAY. For UBS KS1 Switch, wire EXC and EX1 terminals to the terminals in UBS panel.
RD-17-1 FIRE SYSTEM DRY CONTACTS. Dry contacts will make C2 to AR2 when system is armed.
RD-18-1 INTERLOCK FOR AUTOMAN ACTIVATION. Used for activating 120V automan on adjacent Heating CORE panels during active fire condition.

FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

Relay 120 VAC		Relay 24 VDC
NO	4 3	NO
NC	2 1	NC
COIL	8 5	COIL
COM	6 5	COM

COMPONENT LIST

LABEL	DESCRIPTION
MAS-02	MANUAL ACTIVATION STATION Ms 3LW-1
PCB-2	CORE PCB Ms PCB2CRE-APP
PS-02	CORE POWER SUPPLY Ms 3606-XLP-60E
WS-x	Water Solenoid Ms varies
LT-06	24V Red Ind. Light Ms w. 10900-28V
LL-01	Surf. Level Sensor Ms 4000
AA-01	Audible Alarm Ms 3SCOUL4XF18
PB-XX	Prime/Reset Switch Ms 2SM4N73H2301
SV-05	TEST/ARM Switch Ms 3SW-1
SV-04	Door Tamper Switch Ms 3D-2N2-NC
SP-1	Surfactant Pump Ms 1500-805
CV-1	24v DC Gas Valve Ms 3CV-1
FS-XX	Duct Fire Sensor Ms 12-12-2002-100362
LT-05	24V YLW IND LIGHT Ms w. 10900-28V
PS-01	Remote Pull/Push Station Ms 3PS-1-2002
PWS-01	24VDC Power Supply Ms 24VDC 3W POWER
RD-XX	24VDC Phoenix Relay Ms PLC-RPT-24DC/21
PS	Pressure Switch Ms EVC-PRESSURE

LEGEND
FIELD WIRING
FACTORY WIRING
BK- BLACK YW- YELLOW
BL- BLUE GY- GREY
BR- BROWN PR- PURPLE
OR- ORANGE RD- RED
WH- WHITE GR- GREEN
BK/BL- BK/BL STRIPE
BL/RD- BL/RD STRIPE
RD/GR- RD/GR STRIPE
WH/BL- WH/BL STRIPE

JOB NAME International Vi..
JOB NO DCV-1111
DESCRIPTION OF OPERATION
Fire System #1 Tank FS Ms 8743/43 ITEM 304 - Fds.
DRAWN BY
DWG NO 6960956
FACTORY 8/5/2024
ENG NO ECP #2-8

JOB NO 6960956
MODEL NUMBER DCV-1111
JOB NAME International Village (Gas) -..
DRAWN BY
DATE 8/5/2024
SCHEMATIC TYPE INSTALL
DWG NO ECP #3-1
DESCRIPTION OF OPERATION: Ground Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for Field installation.Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

BREAKER PANEL TO PRIMARY CONTROL PANEL
Responsibility: Electrician
BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED

BREAKER PANEL: BREAKER 1PH 120 V 15 A — CONTROL POWER. DO NOT WIRE TO GFCI OR SHUNT TRIP BREAKER. 1ST HOOD LIGHT BREAKER SHARED W/ CONTROL POWER. SWITCH #1
BREAKER 1PH 208 V MCA: 7.6 A MOCP: 15 A — MAU-383 SM-1 WIRE TO VFD QUICK CONNECTOR
PRIMARY CONTROL PANEL: Hot, Neutral, Ground; LINE, LINE, LINE, Ground; H1 H2 H3 H4 N G

BREAKER PANEL TO FANS
Responsibility: Electrician
BREAKER PANEL: BREAKER 1PH 115V MCA: 14.5A MOCP: 25A — KEF-382
FANS: POWER TO ECM FANS

CONTROL PANEL TO FANS
Responsibility: Electrician
PRIMARY PANEL: PWM SPEED SIGNAL ECM-01 CONTROL PANEL TO ECM
FEED STP THROUGH INNER COOLING TUBE ALLOW FOR ENOUGH SLACK ON STP FOR PROPER HINGING. EXHAUST ONLY. NOTE: PWM SIGNAL IS POLARITY SENSITIVE.
SHIELDED TWISTED PAIR: PWM+ BK TO P1A1; PWM- WH/BL TO P1B1
Load Wiring SM-1 WIRE TO VFD QUICK CONNECTOR: U1 BK, V1 WH, W1 RD, U2 BK, V2 WH, W2 RD, GND GN
IF VFD MOUNTED IN END PANEL, WIRE SP SIGNAL FROM PANEL WITH ECPM03.
MUST HAVE ITS OWN CONDUIT DO NOT SHARE CONDUIT!
FANS: RD TO RD NIDEC MOTOR BK TO GR TECO MOTOR BK TO YW ZIEHL MOTOR BK TO BK
FAN 1: KEF-382; FAN 2: ECM-01
FAN 11: LOAD_LEG_1 BLACK, LOAD_LEG_2 BLACK, LOAD_LEG_3 RED, 208V REF WHITE, PRV NEUTRAL GREEN, GROUND
MAU-383: FLA 61 HP: 2200 VOLT: 208 V

CONTROL PANEL TO ACCESSORY ITEMS
Responsibility: Electrician

CONTROL PANEL		COMPONENT
TO SWITCHES	J4	ALL SWITCHES FACTORY WIRED CAT-5 CONNECTION
TO HOOD LIGHTS 1400 W MAX	R1 BK, W1 WH, GND GN	BLACK, WHITE, GREEN → HOOD LIGHTS 1; WIRE TO J-BOX ON TOP OF HOOD
TO ROOM TEMP SENSOR	T2A, T2B	WIRE TO CONTROL BOARD. INSTALL SENSOR IN ROOM AWAY FROM HEAT SOURCES. DO NOT INSTALL SENSOR ON THE CEILING GRID, SEE MANUAL. → ROOM TEMP GROUP5
TO CAPTURE VOLUME SENSOR	T2A, T2B	FACTORY WIRED TEMPERATURE SENSOR MOUNTED IN HOOD CAPTURE VOLUME. → HOOD 4 CAPTURE 1
TO PSP SENSOR	T2A, T2B	WIRE TO CONTROL BOARD. SENSOR MOUNTED IN SUPPLY PLENUM. → ROOF 4 PSP TEMP
TO GAS VALVE 120V ONLY	GAS, N	HOT TO GAS VALVE; NEUTRAL. ONLY ENERGIZED THROUGH LCD HMI WHEN FIRE SYSTEM ARMED. → GAS SOLENOID

THE FOLLOWING CONNECTIONS MAY OR MAY NOT BE REQUIRED BASED ON JOBSITE SPECIFICATIONS

FAN START SF1 SF2 — 24VAC — 24V COM; WIRE TO UNIT INTERLOCK
TO MUA BOARD MAU-383
MAKE UP AIR ON PCB DAMPER PROVING INTERLOCK: MUA1 MUA2
REMOVE JUMPER
LOW VOLTAGE CONNECTION FOR DAMPER INTERLOCK WIRE. MULTIPLE SUPPLY ON THE SAME MUA ZONE CAN BE WIRED. HAVE CONTINUITY WHEN DAMPER IS PROVEN OPEN. NOT REQUIRED FOR ALL UNITS. SEE MAKE-UP AIR SCHEMATIC.
MUA ZONE 1: D3 D2 D1; TERMINAL MARKS (P-BLK-N-GRN)

CONTROL PANEL TO FIRE SYSTEM
Responsibility: ALARM CONTRACTOR

CONTROL PANEL		COMPONENT
SIGNAL FOR BUILDING FIRE ALARM	J9 AL1, AL2	CORE DIRECTLY TO CORE CIRCUIT BOARD. AL1 WILL MAKE AL2 IN FIRE CONDITION. → BUILDING ALARM PANEL FIRE INPUT

CONTROL PANEL SIGNAL FOR EXTERNAL SHUNT TRIP: SST, SN1 — HOT_TO_SHUNT_COIL; NEUTRAL_FROM_SHUNT_COIL → SHUNT COIL
ST TERMINAL IS ENERGIZED IN FIRE CONDITION.
CONTROL PANEL SIGNAL FOR EXTERNAL CONTACTOR COIL: KS, KN — HOT_TO_CONTACTOR_COIL; NEUTRAL_TO_CONTACTOR_COIL → CONTACTOR_COIL
KS TERMINAL IS DE-ENERGIZED IN FIRE CONDITION.
CONTROL PANEL DRY CONTACT: SPC, SPN — COMMON; NORMALLY OPEN
ON/OFF WITH SUPPLY FAN GROUP 1: SVC, SVN — COMMON; NORMALLY OPEN
SPARE CONTACTS WILL MAKE COMMON TO NORMALLY OPEN WHEN SUPPLY FAN IS ON
DCV SPEED 0-10V OUTPUT: VDC, VAC ON PCB — WIRE TO ECPM03 TERMINALS (TOTAL) → TO BMS; SEE ECPM03 OWNERS MANUAL.
VFD ANALOG 0-10V OUTPUT: SO, SG IN VFD (EACH VFD) → TO BMS; WIRE TO VFD TERMINAL STRIP. PROPORTIONAL TO FREQUENCY. SEE VFD OWNERS MANUAL.
CONTROL PANEL TO EXTERNAL SWITCH: H1, H2 — SIGNAL SWITCH THROUGH BMS WILL ACTIVATE ZONE1 FANS AND LIGHTS → BMS SWITCH
CONTROL PANEL DRY CONTACT: EVC, EVN — COMMON; NORMALLY OPEN
ON/OFF WITH EXHAUST FAN GROUP 1: EVC, EVN — COMMON; NORMALLY OPEN
SPARE CONTACTS WILL MAKE COMMON TO NORMALLY OPEN WHEN EXHAUST FAN IS ON.
CONTROL PANEL TO GAS VALVE 24V DC ONLY: GVO, GVN — POSITIVE_TO_GAS_VALVE; NEGATIVE. ONLY ENERGIZED THROUGH LCD HMI WHEN FIRE SYSTEM ARMED. (NOT NEEDED IF USING 120V GAS VALVE.) → GAS SOLENOID

CONTROL PANEL TO FIRE SYSTEM
Responsibility: ALARM CONTRACTOR
CONTROL PANEL SIGNAL FOR BUILDING TROUBLE ALARM: TBC, TBL, TBK
NORMALLY CLOSED. TROUBLE RELAY CONTACTS WILL MAKE TBC TO TBL IN TROUBLE CONDITION. → BUILDING ALARM PANEL

CONTROL PANEL TO FIRE SYSTEM
Responsibility: CERTIFIED INSTALLER
CONTROL PANEL TO DUCT MOUNTED FIRE DETECTION STAT(S): 21, 24
FIRE STAT SUPERVISED LOOP. May be mixed factory and field wiring. See Installation Schematic. Multiple fire sensors possible. Hood Fire Stat: Use PN 3LFCCN-xxFT required for all Supervised Loop wiring in contact with a hood. All other wiring shall be PN 6300UL, Belden or similar. → FIRE STATS: FS-01 Micro SW / Fire Stat; FS-02 Fire Stat
CONTROL PANEL TO FIRE SYSTEM PULL STATION: 101, 102, 103, 104 → PULL STATION: MS-01 Micro SW; AUX-01 Adjacent CORE Panel; NO-01 Manual Actuation Device
MANUAL ACTUATION LOOP / REMOTE FIRE SYSTEM LOOP. Multiple manual actuation possible. A Plug Jumper with wires from pin1 to pin2 is required. If CORE is not mounted on JS5 remove the jumper and wire in the supervised actuation loop. Supervised loop is optional for fire system interface.
Auxiliary Interlock (AUX-01) Wire #22 / #18 of adjacent Master FS panel(s) in each manual activation loop for simultaneous activation. See fire system drawings for more information.
ECPM03 → CORE PCB
CONTROL PANEL TO MASTER FS BOARD. CAT-5 CONNECTION → JS
ADDITIONAL DEVICES MAY BE INLINE. PLACE END OF LINE PLUG IN EMPTY JACK. PN EOL120A UNLESS VFD. PCU. OR OTHER COMPONENT IN SERIES → EOL120A, J6
INTERLOCK NETWORK: CONTROL PANEL TO MASTER FS PANEL: AR, BR, CC — SHIELDED TWISTED PAIR: BLACK, RED, SHIELD
WIRE TO LIKE TERMINALS ON ALL CORE PANELS THAT MUST ACTIVATE TOGETHER. SET MASTER & SLAVE DIP SWITCHES PER FIRE SYSTEM MANUAL. → MASTER CORE J5, J6

JOB NO 6960956
MODEL NUMBER DCV-1111
JOB NAME International Village (Gas) -..
DRAWN BY
DATE 8/5/2024
SCHEMATIC TYPE INSTALL
DWG NO ECP #3-2
DESCRIPTION OF OPERATION: Ground Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for Field installation.Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

CONTROL PANEL SIGNAL FOR BUILDING TROUBLE ALARM: TBC, TBL, TBK
NORMALLY CLOSED. TROUBLE RELAY CONTACTS WILL MAKE TBC TO TBL IN TROUBLE CONDITION. → BUILDING ALARM PANEL

CONTROL PANEL TO FIRE SYSTEM
Responsibility: CERTIFIED INSTALLER
CONTROL PANEL TO DUCT MOUNTED FIRE DETECTION STAT(S): 21, 24
FIRE STAT SUPERVISED LOOP. May be mixed factory and field wiring. See Installation Schematic. Multiple fire sensors possible. Hood Fire Stat: Use PN 3LFCCN-xxFT required for all Supervised Loop wiring in contact with a hood. All other wiring shall be PN 6300UL, Belden or similar. → COMPONENT: FIRE STATS: FS-01 Micro SW / Fire Stat; FS-02 Fire Stat
CONTROL PANEL TO FIRE SYSTEM PULL STATION: 101, 102, 103, 104 → PULL STATION: MS-01 Micro SW; AUX-01 Adjacent CORE Panel; NO-01 Manual Actuation Device
MANUAL ACTUATION LOOP / REMOTE FIRE SYSTEM LOOP. Multiple manual actuation possible. A Plug Jumper with wires from pin1 to pin2 is required. If CORE is not mounted on JS5 remove the jumper and wire in the supervised actuation loop. Supervised loop is optional for fire system interface.
Auxiliary Interlock (AUX-01) Wire #22 / #18 of adjacent Master FS panel(s) in each manual activation loop for simultaneous activation. See fire system drawings for more information.
ECPM03 → CORE PCB
CONTROL PANEL TO MASTER FS BOARD. CAT-5 CONNECTION → JS
ADDITIONAL DEVICES MAY BE INLINE. PLACE END OF LINE PLUG IN EMPTY JACK. PN EOL120A UNLESS VFD. PCU. OR OTHER COMPONENT IN SERIES → EOL120A, J6
INTERLOCK NETWORK: CONTROL PANEL TO MASTER FS PANEL: AR, BR, CC — SHIELDED TWISTED PAIR: BLACK, RED, SHIELD
WIRE TO LIKE TERMINALS ON ALL CORE PANELS THAT MUST ACTIVATE TOGETHER. SET MASTER & SLAVE DIP SWITCHES PER FIRE SYSTEM MANUAL. → MASTER CORE J5, J6

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

CAPTIVE AIRE
Seattle Office
www.captiveaire.com
114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024
DWG.#: 6960956
DRAWN BY: JL - R85
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 33

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #3 TANK FS - 48/42 QTEM 366 - FS3.
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #3-3	

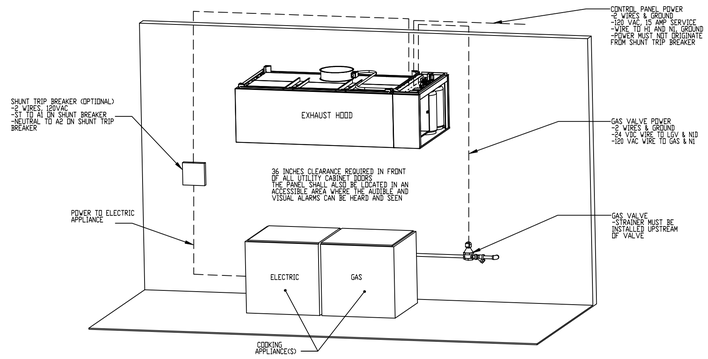
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-3: MASTER

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE SEE APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N3 (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 10 AMPS	IF 24 VDC - 2 WIRES & GROUND, N3 TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #3 TANK FS - 48/42 QTEM 366 - FS3.
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #3-4	

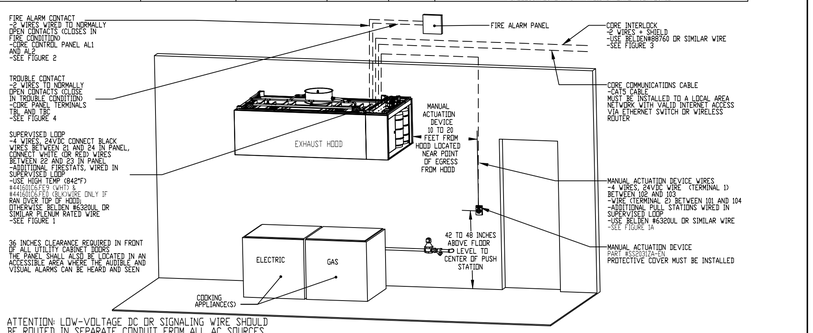
TANK PROTECTION LOW-VOLTAGE DETAIL

10/01/2023 Rev. 3

FS-3: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION ST-52018
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #44502GBTE5 (WHT) & #44502GBTE5 (BLK)WIRE OR SIMILAR ONLY IF SUN OF HOOD, OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL.
CORE INTERLOCK(S)	CA, CB, CC	CA, CB, CC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA. CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB. CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CATS CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

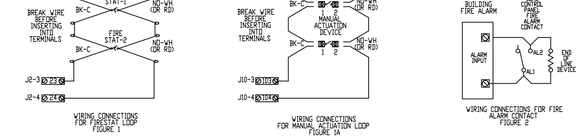
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #3 TANK FS - 48/42 QTEM 366 - FS3.
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #3-5	

TANK PROTECTION LOW-VOLTAGE FIGURES

10/01/2023 Rev. 17

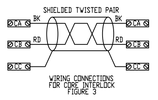
FS-3: MASTER

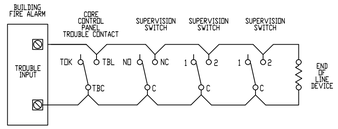


WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1

WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP
FIGURE 1A

WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2

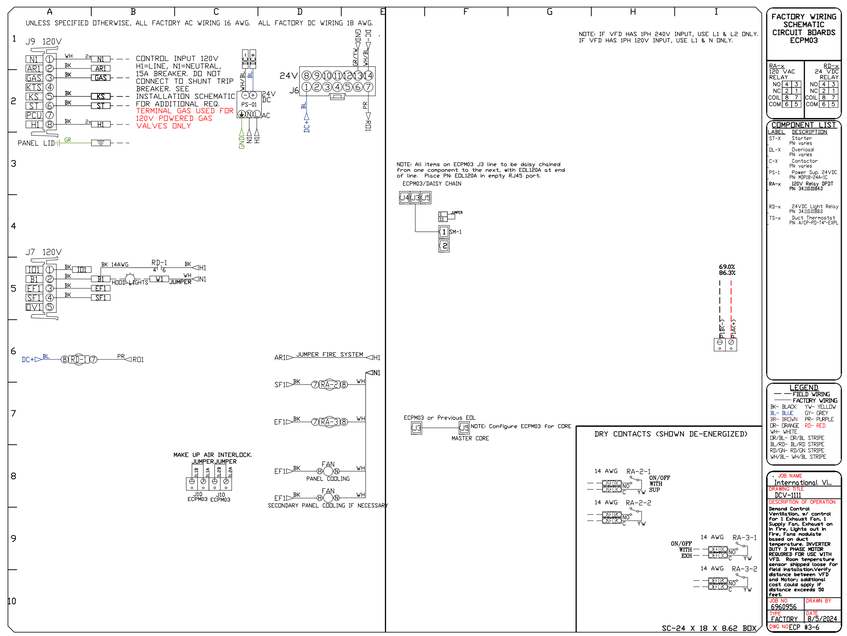




WIRING CONNECTIONS FOR TROUBLE CONTACT
FIGURE 4

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES



NOTE: IF VFD HAS 3PH 240V INPUT, USE L1 & L2 ONLY.
IF VFD HAS 1PH 120V INPUT, USE L1 & N ONLY.

FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03

RA-x 120 VAC RELAY		RB-x 24 VDC RELAY	
NO	4 3	NO	4 3
NC	2 1	NC	2 1
COIL	8 7	COIL	8 7
COM	6 5	COM	6 5

COMPONENT LIST

LABEL	DESCRIPTION
ST-x	Starter PN varies
OL-X	Overload PN varies
C-x	Contactor PN varies
PS-1	Power Sup. 24VDC PN MDR-60-24
RA-x	24V Relay DPDT PN 24VDR3PDT
RB-x	24VDC Light Relay PN 24VDR1
TS-x	Duct Thermostat PN A/P-PS-14-120L

LEGEND
FIELD WIRING
FACTORY WIRING
BK- BLACK YW- YELLOW
BL- BLUE GY- GREY
BR- BROWN PR- PURPLE
OR- ORANGE RD- RED
WH- WHITE
OR/BL- OR/BL STRIPE
BL/RD- BL/RD STRIPE
RD/GN- RD/GN STRIPE
WH/BL- WH/BL STRIPE

JOB NAME: International Vi...
DRAWING TITLE: DCV-1111
DESCRIPTION OF OPERATION: Demand Control Ventilation (DCV) control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in fire, Lights out in fire. Includes auto temperature setback, temperature, INVERTER DUTY 3 PHASE VFD WITH BYPASS FOR EACH MOTOR VFD. Room temperature sensor shipped loose for field installation. Max distance between VFD and Motor: additional cost could apply if distance exceeds 50 feet.
JOB NO: 6960956
DRAWN BY: JL
DATE: FACTORY | 8/5/2024
DWG NO: ECP #3-6

CAPTIVE AIRE
Seattle Office
114 NW Canal St, #300, Seattle, WA, 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
www.captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

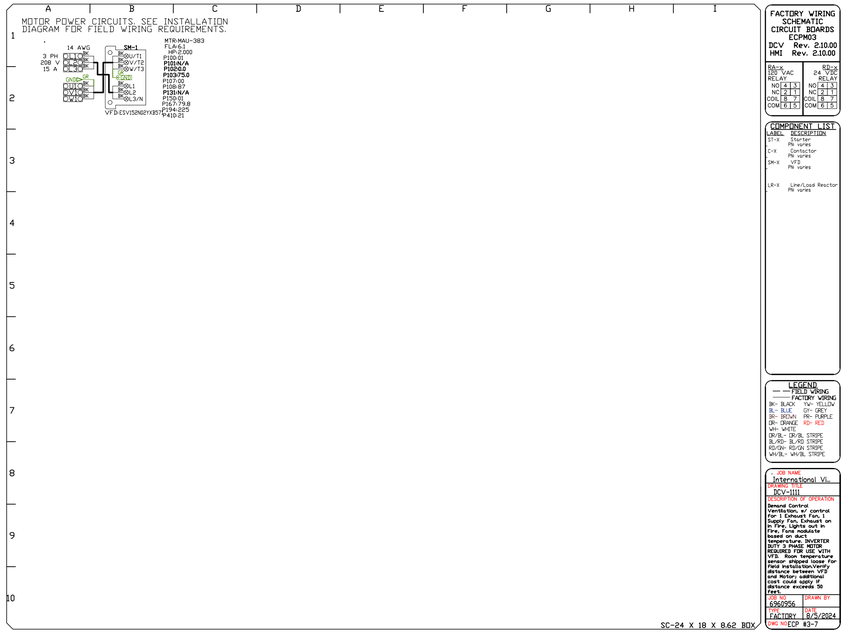
SHEET NO. 34

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03

DCV Rev. 2.10.00
HMI Rev. 2.10.00

RDuc 120 VAC RELAY		RDuc 24 VDC RELAY
NO	4 | 3	NO
NC	2 | 1	NC
COM	5 | 6	COM

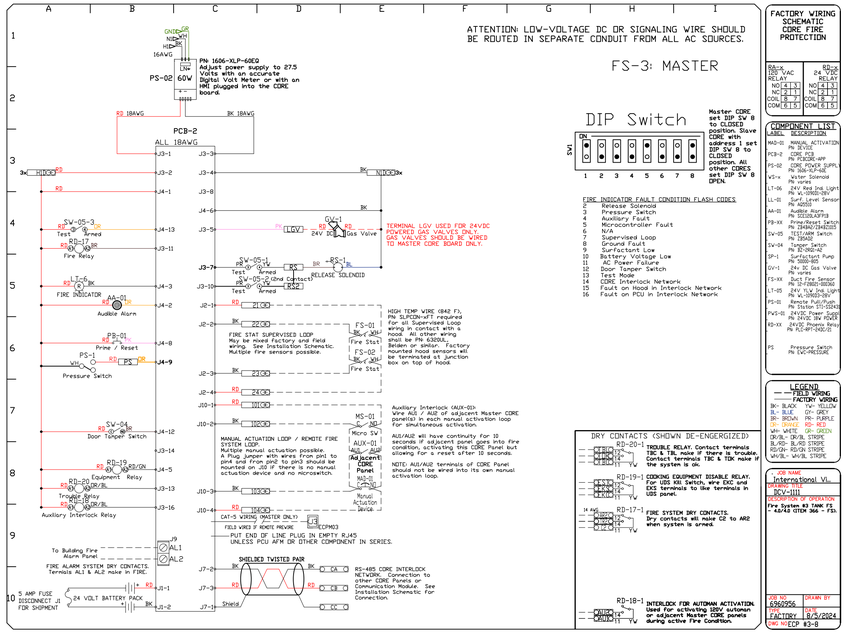
COMPONENT LIST

LABEL	DESCRIPTION
ST-X	Starter PN varies
C-X	Contactor PN varies
SM-X	VFD PN varies
LR-X	Line/Load Reactor PN varies

LEGEND
FIELD WIRING
FACTORY WIRING
BK= BLACK YW= YELLOW
BL= BLUE GY= GREY
BR= BROWN PR= PURPLE
OR= ORANGE RD= RED
WH= WHITE
BK/BL= BK/BL STRIPE
BL/RD= BL/RD STRIPE
RD/GN= RD/GN STRIPE
WH/BL= WH/BL STRIPE

JOB NAME International Vi..
JOB NO 6960956
MODEL NUMBER DCV-1111
DESCRIPTION OF OPERATION:
Ground Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation/verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.
DRAWN BY
SCHEMATIC TYPE INSTALL
DATE 8/5/2024
DWG NO 6960956
FACTORY 8/5/2024
ENG NO ECP #3-7

SC-24 X 18 X 8.62 BOX



FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

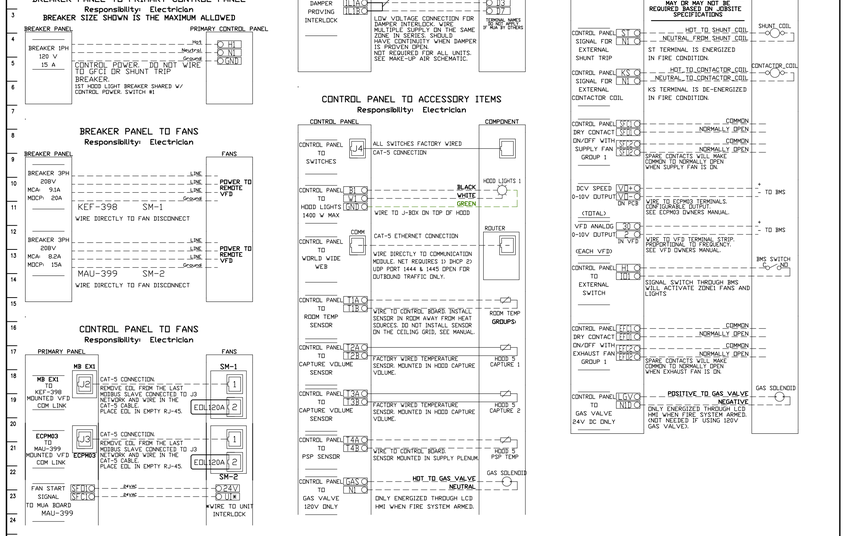
RDuc 120 VAC RELAY		RDuc 24 VDC RELAY
NO	4 | 3	NO
NC	2 | 1	NC
COM	5 | 6	COM

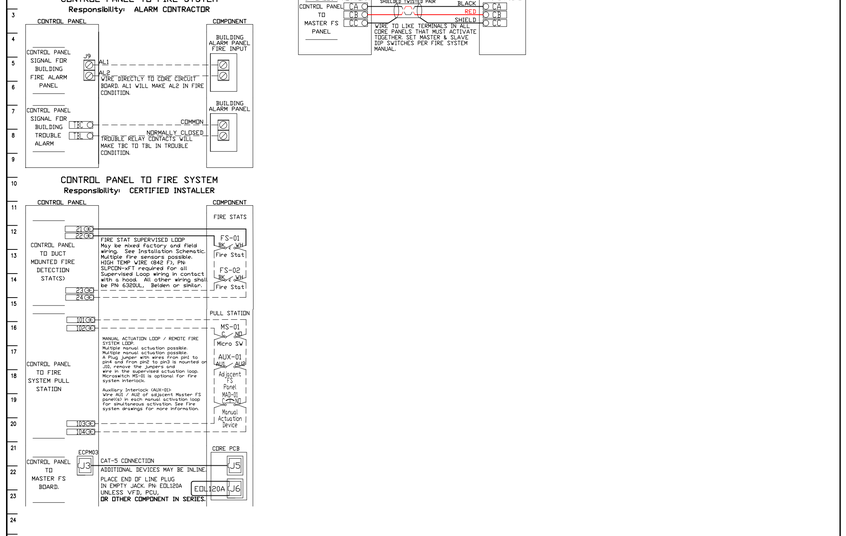
COMPONENT LIST

LABEL	DESCRIPTION
MAU-XX	MANUAL ACTIVATION UNIT (MAU)
PCB-2	CORE PCB PN PCB2XE-APP
PS-02	CORE POWER SUPPLY PN 3606-XLP-60E
WS-x	Water Solenoid PN varies
LT-06	24V Red 2nd Light PN W-109SD-3RKV
LL-SI	Surf. Level Sensor PN 4099
AA-01	Audible Alarm PN 3SD3LAXP18
PB-XX	Prime/Reset Switch PN 2SM4N73H2SD
Sw-05	TEST/ARM Switch PN 3SM4
Sw-04	Door Tamper Switch PN 3SD4N24G
SP-1	Surfactant Pump PN 1SSD-805
Gv-1	24v DC Gas Valve PN 3SD
FS-XX	Duct Fire Sensor PN 12F1SBD1-SSCNX
LT-05	24V YLW 2nd Light PN W-109SD-3YKV
PS-01	Remote Pull/Push PN 2SM4N73H2SD
Pw5-01	24VDC Power Supply PN 24VDC 5W MDN5S
RD-XX	24VDC Mowrey Relay PN MLR-4PT-24DC-D
PS	Pressure Switch PN EVC-PRESSURE

LEGEND
FIELD WIRING
FACTORY WIRING
BK= BLACK YW= YELLOW
BL= BLUE GY= GREY
BR= BROWN PR= PURPLE
OR= ORANGE RD= RED
WH= WHITE GR= GREEN
BK/BL= BK/BL STRIPE
BL/RD= BL/RD STRIPE
RD/GN= RD/GN STRIPE
WH/BL= WH/BL STRIPE

JOB NAME International Vi..
JOB NO 6960956
MODEL NUMBER DCV-1111
DESCRIPTION OF OPERATION:
Fire System #3 TANK FS. = 48/48 QTEM 366 = FS3.
DRAWN BY
SCHEMATIC TYPE INSTALL
DATE 8/5/2024
DWG NO 6960956
FACTORY 8/5/2024
ENG NO ECP #3-8





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REVISIONS

	DESCRIPTION	DATE:
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△		
△		
△		

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 35

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #4 TANK FS - 48/48/48 (ITEM 403-FS3).
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #4-3	

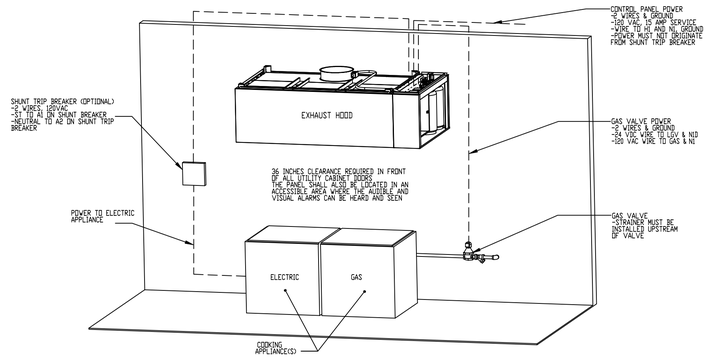
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-4: MASTER

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE SEE APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N3 (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N3 TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #4 TANK FS - 48/48/48 (ITEM 403-FS3).
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #4-4	

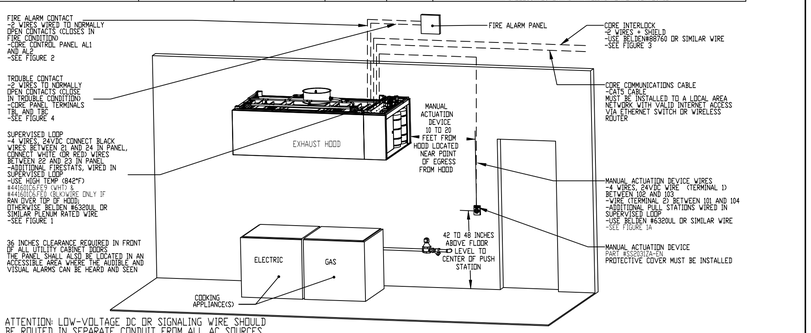
TANK PROTECTION LOW-VOLTAGE DETAIL

10/01/2023 Rev. 3

FS-4: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION ST-SC018
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (640°F) 844500FSET65 (WHT) & 844500FSET65 (BLK) WIRE OR SIMILAR ONLY IF SUN OF HOOD, OTHERWISE BELDEN #6300UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL.
CORE INTERLOCK(S)	CA, CB, CC	CA, CB, CC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA. CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB. CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CATS CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

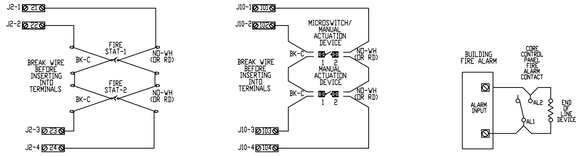
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-1111		INSTALL	Fire System #4 TANK FS - 48/48/48 (ITEM 403-FS3).
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #4-5	

TANK PROTECTION LOW-VOLTAGE FIGURES

10/01/2023 Rev. 17

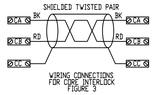
FS-4: MASTER



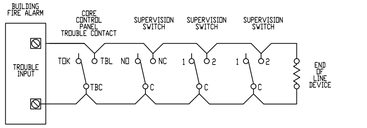
WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1

WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP
FIGURE 1A

WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2



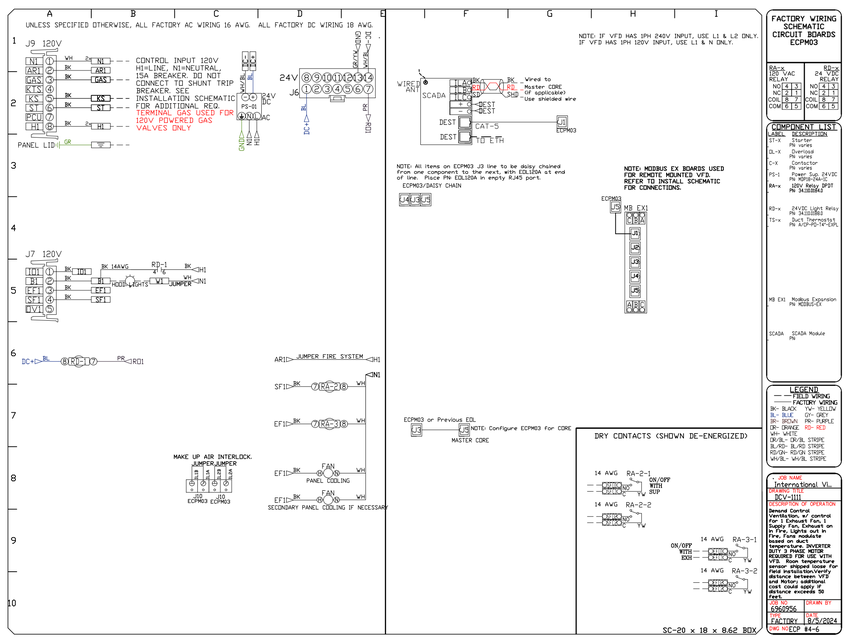
WIRING CONNECTIONS FOR CORE INTERLOCK
FIGURE 3



WIRING CONNECTIONS FOR TROUBLE CONTACT
FIGURE 4

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES



FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03

RELAY	120 VAC	RELAY	24 VDC
NO	4 3	NO	4 3
NC	2 1	NC	2 1
COM	6 5	COM	6 5

COMPONENT LIST

LABEL	DESCRIPTION
ST-x	Starter PN varies
OL-x	Overload PN varies
C-x	Contactor PN varies
PS-1	Power Sup. 24VDC PN MDR-60-24
RA-x	24V Relay SPDT PN 3A1DB8P
RD-x	24VDC Light Relay PN 3A1DB8P
TS-x	Duct Thermostat PN ACP-PS-14-120L
MB EX1	Modbus Expansion PN MOBUS-EX
SCADA	SCADA Module PN

LEGEND

FIELD WIRING
FACTORY WIRING

BK- BLACK	YW- YELLOW		
BL- BLUE	GY- GREY		
BR- BROWN	PK- PURPLE		
OR- ORANGE	RD- RED		
WH- WHITE			
OR/BL- OR/BL STRIPE			
BL/RD- BL/RD STRIPE			
RD/GY- RD/GY STRIPE			
WH/BL- WH/BL STRIPE			

JOB NAME: International Vi...
DRAWING TITLE: DCV-1111
DESCRIPTION OF OPERATION: Demand Control Ventilation (DCV) control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in fire, Lights out in fire. Includes auto temperature tempering. INVERTER DUTY 3 PHASE MOTOR WITH VFD. 1 PHASE MOTOR WITH VFD. Room temperature sensor shipped loose for field installation. If distance between VFD and Motor; additional inductance may be necessary. If distance exceeds 50 feet.
JOB NO: 6960956
DRAWN BY: JL
DATE: 8/5/2024
DWG NO: ECP #4-6

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REVISIONS

	DESCRIPTION	DATE:
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International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 36

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

MOTOR POWER CIRCUITS. SEE INSTALLATION DIAGRAM FOR FIELD WIRING REQUIREMENTS.

SM-1
14 AWG TO MOTOR
GND
3 PH 208 V 20 A
SW1/T1 SW2/T2 SW3/T3 GND
L1 L2 L3
VFD:CSV202HGY:X357 Mounted in Fan
MTR:KEF-398 FLA:7.3 HP:2.000 P100:00 P100:02 **P100:04** P103:24 P127:00 P128:76 P131:N/A P167:72.4 P167:73.4 P194:225 P410:11

SM-2
14 AWG TO MOTOR
GND
3 PH 208 V 15 A
SW1/T1 SW2/T2 SW3/T3 GND
L1 L2 L3
VFD:CSV152HGY:X357 Mounted in Fan
MTR:MAU-399 FLA:6.6 HP:1.500 P100:03 **P130:N/A** **P130:02** **P193:71** P194:225 P410:21

LEGEND
FIELD WIRING
FACTORY WIRING
BK- BLACK YW- YELLOW
BL- BLUE GY- GREY
BR- BROWN PR- PURPLE
OR- ORANGE RD- RED
WH- WHITE
BK/BL- BK/BL STRIPE
BL/RD- BL/RD STRIPE
RD/GN- RD/GN STRIPE
WH/BL- WH/BL STRIPE

JOB NAME International Vi.
DWG NO DCV-1111
DESCRIPTION OF OPERATION
Demand Control Ventilation, w/ control for 2 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor; additional cost could apply IF distance exceeds 50 feet.
JOB NO 6960956
DRAWN BY JL
DWG NO ECP #4-7

FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPMO3
DCV Rev. 2.10.00
HMI Rev. 2.10.00

RELAY	120 VAC	24 VDC RELAY
NO	4 | 3	NO 4 | 3
NC	2 | 1	NC 2 | 1
COM	5 | 6	COM 5 | 6

COMPONENT LIST

LABEL	DESCRIPTION
ST-X	Starter Mfr varies
C-X	Contactor Mfr varies
SM-X	VFD Mfr varies
LR-X	Line/Load Reactor Mfr varies

SC-20 x 18 x 8.62 BOX

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES.

FS-4: MASTER

PS-02 60W
PN 1606-XLP-60EG
Adjust power supply to 27.5 Volts with an accurate Digital Volt Meter or with an HMI plugged into the CORE board.
16AWG GNDEQ NEUT HOT
PCB-2 ALL 18AWG
J3-1 J3-2 J4-1 J4-13 J3-11 J4-3 J4-2 J4-8 J4-9 J4-12 J3-14 J4-5 J3-13 J3-16
HOOD
SW-05-3 Test / Armed
Fire Relay
LT-6 FIRE INDICATOR
AA-01 Audible Alarm
PB-01 Prime / Reset
PS-1 Pressure Switch
SV-04 Door Tamper Switch
RD-15 Equipment Relay
RD-20 Trouble Relay
RD-18 Auxiliary Interlock Relay
To Building Fire Alarm Panel
FIRE ALARM SYSTEM DRY CONTACTS. Termials AL1 & AL2 make in FIRE.
AL1 AL2
5 AMP FUSE DISCONNECT J1 FOR SHIPMENT
24 VOLT BATTERY PACK
J1-1 J1-2
J7-1 J7-2 J7-3 J7-4 J7-5 J7-6 J7-7 J7-8 J7-9 J7-10
SV-05-1 Test / Armed
SV-05-2 (2nd Contact) Test / Armed
RS-1 RELEASE SOLENOID
CV-1 24V DC Gas Valve
LGV
TERMINAL LGV USED FOR 24VDC POWERED GAS VALVES ONLY. 120V VALVES SHOULD BE WIRED TO MASTER CORE BOARD ONLY.
HIGH TEMP WIRE (842 F), PN 3LPFC2M-xFT required for all wiring in contact with a hood. All other wiring shall be PN 6300UL, Belden or similar. Factory mounted hood sensors will be terminated at junction box on top of hood.
FIELD WIRED IF REMOTE MOUNT.
PUT END OF LINE PLUG IN EMPTY RJ45 UNLESS PCU AFM OR OTHER COMPONENT IN SERIES.
ECPMO3
CAT-5 WIRING (MASTER ONLY)
SHIELDED TWISTED PAIR
RS-485 CORE INTERLOCK Network. Connects on to other CORE Panels on Communication Module. See Installation Schematic for Connection.
Shield
FS-01 Fire Stat
FS-02 Fire Stat
MS-01 Micro SW
AUX-01 Adjacent CORE Panel
MS-01 Manual Actuation Device
Auxiliary Interlock ANSI-03: Wire NO / NUT of adjacent Master CORE panel(s) in each manual activation loop for simultaneous activation.
AUS/AUX will have continuity for 10 seconds if adjacent panel is not in fire condition, allowing CORE Panel to slowing for x reset after 10 seconds.
NOTE: AUS/AUX terminals of CORE Panel should not be wired into its own manual activation loop.

DIP Switch
SW1 ON 1 2 3 4 5 6 7 8
Master CORE set DIP SW 8 to CLOSED position. Slave CORE with address 1 set DIP SW 8 to CLOSED position. All other CORES set DIP SW 8 OPEN.

FIRE INDICATOR FAULT CONDITION FLASH CODES
2 Release Solenoid
3 Pressure Switch
4 Auxiliary Fault
5 Microcontroller Fault
6 Not Used
7 Supervised Loop
8 Ground Fault
9 Surfactant Low
10 Battery Voltage Low
11 AC Power Failure
12 Door Tamper Switch
13 Test Mode
14 CORE Interlock Network
15 Fault on Hood in Interlock Network
16 Fault on PCU in Interlock Network

DRY CONTACTS (SHOWN DE-ENERGIZED)
RD-20-1 TROUBLE RELAY. Contact terminals TBC & TBL make if there is trouble. Contact terminals TBC & TDK make if the system is ok.
RD-19-1 COOKING EQUIPMENT DISABLE RELAY. For UDS RX1 Switch, wire EXC and EX1 terminals to like terminals in UDS panel.
RD-17-1 FIRE SYSTEM DRY CONTACTS. Dry contacts will make C2 to AR2 when system is armed.
RD-18-1 INTERLOCK FOR AUTOMAN ACTIVATION. Used for activating 120V automan on adjacent Master CORE panels during active Fire Condition.

FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

RELAY	120 VAC	24 VDC RELAY
NO	4 | 3	NO 4 | 3
NC	2 | 1	NC 2 | 1
COM	6 | 5	COM 6 | 5

COMPONENT LIST

LABEL	DESCRIPTION
MAN-00	MANUAL ACTIVATION Mfr SILVA Mfr PLS3CRE-APP
PCB-2	CORE DEVICE Mfr PLS3CRE-APP
PS-02	CORE POWER SUPPLY Mfr 1606-XLP-60E
WS-x	Water Solenoid Mfr TBD
LT-06	24V Red Ind. Light Mfr W-109SD-28RV
LL-01	Surf. Level Sensor Mfr ADS1
AA-01	Audible Alarm Mfr 3SCDLXAF18
PB-XX	Prime/Reset Switch Mfr 2SM0672HR2SD
SV-05	TEST/ARM Switch Mfr 3SM0672
SV-04	Door Tamper Switch Mfr 2SM0672HR2
DP-1	Surfactant Pump Mfr 1500-805
CV-1	24V DC Gas Valve Mfr TBD
FS-XX	Duct Fire Sensor Mfr 2SF0882-0B2N2
LT-05	24V YLW IND LIGHT Mfr W-109SD-28YV
PS-01	Remote Pull/Push Mfr 2SM0672HR2SD
PWS-01	24VDC Power Supply Mfr 24VDC 3W MDR20
RD-XX	24VDC Process Relay Mfr PLC-RPT-24DC-2I
FS	Pressure Switch Mfr EVC-PRESSURE

LEGEND
FIELD WIRING
FACTORY WIRING
BK- BLACK YW- YELLOW
BL- BLUE GY- GREY
BR- BROWN PR- PURPLE
OR- ORANGE RD- RED
WH- WHITE GN- GREEN
BK/BL- BK/BL STRIPE
BL/RD- BL/RD STRIPE
RD/GN- RD/GN STRIPE
WH/BL- WH/BL STRIPE

JOB NAME International Vi.
DWG NO DCV-1111
DESCRIPTION OF OPERATION
Demand Control Ventilation, w/ control for 2 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor; additional cost could apply IF distance exceeds 50 feet.
JOB NO 6960956
DRAWN BY JL
DWG NO ECP #4-8

JOB NO 6960956
MODEL NUMBER DCV-2111
JOB NAME International Village (Gas) -~
DRAWN BY JL
DATE 8/5/2024
SCHEMATIC TYPE INSTALL
DWG NO ECP #5-1
DESCRIPTION OF OPERATION: Demand Control Ventilation, w/ control for 2 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor; additional cost could apply IF distance exceeds 50 feet.

BREAKER PANEL TO PRIMARY CONTROL PANEL
Responsibility: Electrician
BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED

BREAKER PANEL — PRIMARY CONTROL PANEL
BREAKER 1PH 120 V 15 A — Hot1, Neutral, Ground
CONTROL POWER. DO NOT WIRE TO GFCI OR SHUNT TRIP BREAKER. 1ST HOOD LIGHT BREAKER SHARED W/ CONTROL POWER SWITCH #1
BREAKER 3PH 208 V MCA: 11.9 A MOCP: 20 A — KEF-501 SM-1 — WIRE TO VFD QUICK CONNECTOR
BREAKER 3PH 208 V MCA: 18.8 A MOCP: 30 A — KEF-481 SM-2 — WIRE TO VFD QUICK CONNECTOR
BREAKER 3PH 208 V MCA: 33.8 A MOCP: 50 A — MAU-490 SM-3 — WIRE TO VFD QUICK CONNECTOR

CONTROL PANEL TO FANS
Responsibility: Electrician

PRIMARY PANEL — FANS
Load Wiring SM-1 WIRE TO VFD QUICK CONNECTOR — U1 V1 W1 GND — FAN 06 KEF-501 FLA:5 HP: 3.000 VOLT:208 V — MUST HAVE ITS OWN CONDUIT DO NOT SHARE CONDUIT! — WIRE TO DISCONNECT
Load Wiring SM-2 WIRE TO VFD QUICK CONNECTOR — U2 V2 W2 GND — FAN 07 KEF-481 FLA:3.0 HP: 3.000 VOLT:208 V — MUST HAVE ITS OWN CONDUIT DO NOT SHARE CONDUIT! — WIRE TO DISCONNECT

Load Wiring SM-3 WIRE TO VFD QUICK CONNECTOR — U3 V3 W3 MOT GND — FAN 13 BLACK, BLACK, BLACK, RED, WHITE, GREEN — MAU-490 FLA:17.0 HP: 5.000 VOLT:208 V
IF VFD MOUNTED IN 2ND PANEL: WIRE SF SIGNAL FROM PANEL WITH ECPMO3.
FAN START SIGNAL TO MUA BOARD MAU-490 — SF:01 SF:02 — 24VAC 24VAC
MAKE UP AIR DAMPER PROVING INTERLOCK — 1LA:X 1LB:X — REMOVE JUMPER
LOW VOLTAGE CONNECTION FOR DAMPER INTERLOCK. WIRE MULTIPLE SUPPLY ON THE SAME ZONE IN SERIES. SHOULD NOT BE ENERGIZED WHEN DAMPER IS PROVEN OPEN. NOT REQUIRED FOR ALL UNITS. SEE MAKE-UP AIR SCHEMATIC.
*WIRE TO UNIT INTERLOCK — MUA ZONE 1 D6 D7 — TERMINALS MAY BE IN DIFFERENT SPOTS IF MUA IS STACKED
MUST HAVE ITS OWN CONDUIT DO NOT SHARE CONDUIT!

CONTROL PANEL TO ACCESSORY ITEMS
Responsibility: Electrician

CONTROL PANEL — COMPONENT
CONTROL PANEL TO REMOTE MOUNTED SWITCHES — J4 — WIRE DIRECTLY TO CONTROL BOARD CAT-5 CONNECTION — HMI
PLACE END OF LINE PLUG IN EMPTY JACK PN EDL120A — EDL120A — J1 J2 — HOOD LIGHTS 1
CONTROL PANEL TO HOOD LIGHTS 1400 V MAX — BL WH GN — BLACK WHITE GREEN — WIRE TO J-BOX ON TOP OF HOOD
CONTROL PANEL TO WORLD WIDE WEB — COMM — CAT-5 ETHERNET CONNECTION — ROUTER — WIRE DIRECTLY TO COMMUNICATION MODULE. NET REQUIRES 1) DHCP 2) UDP PORT 1444 & 1445 OPEN FOR OUTBOUND TRAFFIC ONLY.
CONTROL PANEL TO ROOM TEMP SENSOR — T1A T1B — WIRE TO CONTROL BOARD. INSTALL SENSOR IN ROOM AWAY FROM HEAT SOURCES. DO NOT INSTALL SENSOR ON THE CEILING GRID, SEE MANUAL. — ROOM TEMP GROUP5
CONTROL PANEL TO CAPTURE VOLUME SENSOR — T2A T2B — FACTORY WIRED TEMPERATURE SENSOR. MOUNTED IN HOOD CAPTURE VOLUME. — HOOD 6 CAPTURE 1

CONTROL PANEL TO CAPTURE VOLUME SENSOR — T3A T3B — WIRE TO CONTROL BOARD SENSOR MOUNTED IN HOOD CAPTURE VOLUME. — HOOD 7 CAPTURE 1
CONTROL PANEL TO CAPTURE VOLUME SENSOR — T4A T4B — WIRE TO CONTROL BOARD SENSOR MOUNTED IN HOOD CAPTURE VOLUME. — HOOD 7 CAPTURE 2
CONTROL PANEL TO PSP SENSOR — T5A T5B — WIRE TO CONTROL BOARD SENSOR MOUNTED IN SUPPLY PLENUM. — HOOD 6 PSP TEMP
CONTROL PANEL TO GAS VALVE 120V ONLY — GAS N1 — HOT TO GAS VALVE NEUTRAL — ONLY ENERGIZED THROUGH LCD HMI WHEN FIRE SYSTEM ARMED. — GAS SOLENOID
THE FOLLOWING CONNECTIONS MAY OR MAY NOT BE REQUIRED BASED ON JOBSITE SPECIFICATIONS
CONTROL PANEL SIGNAL FOR EXTERNAL SHUNT TRIP — ST N1 — ST TERMINAL IS ENERGIZED IN FIRE CONDITION. — HOT TO SHUNT COIL, NEUTRAL FROM SHUNT COIL — SHUNT COIL
CONTROL PANEL SIGNAL FOR EXTERNAL CONTACTOR COIL — K5 N1 — K5 TERMINAL IS DE-ENERGIZED IN FIRE CONDITION. — HOT TO CONTACTOR COIL, NEUTRAL TO CONTACTOR COIL — CONTACTOR COIL
CONTROL PANEL DRY CONTACT TO EXHAUST FAN GROUP 1 — 1C1 1C2 2C1 2C2 — COMMON, NORMALLY OPEN, COMMON, NORMALLY OPEN — SPARE CONTACTS WILL MAKE COMMON TO NORMALLY OPEN WHEN EXHAUST FAN IS ON.
ON/OFF WITH SUPPLY FAN GROUP 1 — 1P1C 1P2C 2P1C 2P2C — COMMON, NORMALLY OPEN, COMMON, NORMALLY OPEN — SPARE CONTACTS WILL MAKE COMMON TO NORMALLY OPEN WHEN SUPPLY FAN IS ON.
DCV SPEED 0-10V OUTPUT (TOTAL) — VFD 0-10V OUTPUT — W1+ W1- 1M PCB — W2+ W2- 2M PCB — WIRE TO ECPMO3 TERMINALS. CONFIGURABLE OUTPUT. SEE ECPMO3 OWNERS MANUAL. — TO BMS
VFD ANALOG 0-10V OUTPUT (EACH VFD) — 3Q 3R 1M VFD — WIRE TO VFD TERMINAL STRIP PROPORTIONAL TO FREQUENCY. SEE VFD OWNERS MANUAL. — TO BMS
CONTROL PANEL TO EXTERNAL SWITCH — H1 H2 — SIGNAL SWITCH THROUGH BMS WILL ACTIVATE ZONE1 FANS AND LIGHTS — BMS SWITCH NO

JOB NO 6960956
MODEL NUMBER DCV-2111
JOB NAME International Village (Gas) -~
DRAWN BY JL
DATE 8/5/2024
SCHEMATIC TYPE INSTALL
DWG NO ECP #5-2
DESCRIPTION OF OPERATION: Demand Control Ventilation, w/ control for 2 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor; additional cost could apply IF distance exceeds 50 feet.

CONTROL PANEL TO FIRE SYSTEM
Responsibility: ALARM CONTRACTOR

CONTROL PANEL — COMPONENT
CONTROL PANEL SIGNAL FOR BUILDING FIRE ALARM PANEL — J5 AL1 AL2 — VIA DIRECTLY TO ZONE CIRCUIT BOARD. AL1 WILL MAKE AL2 IN FIRE CONDITION. — BUILDING ALARM PANEL FIRE INPUT
CONTROL PANEL SIGNAL FOR BUILDING TROUBLE ALARM — TRC TRL — TROUBLE RELAY CONTACTS WILL MAKE TRC TO TRL IN TROUBLE CONDITION. — BUILDING ALARM PANEL

CONTROL PANEL TO DUCT MOUNTED FIRE DETECTION STAT(S) — 1C1O 1C2O 2C1O 2C2O — FIRE STAT SUPERVISED LOOP. May be mixed Factory and Field wiring. See Installation Schematic. Multiple Fire sensors possible. HIGH TEMP WIRE (842 F), PN 3LPFCON-xFT required for all Supervised Loop wiring in contact with a hood. All other wiring shall be PN 6300UL, Belden or similar. — FIRE STATS — FS-01 Fire Stat, FS-02 Fire Stat

CONTROL PANEL TO FIRE SYSTEM
Responsibility: CERTIFIED INSTALLER

CONTROL PANEL — COMPONENT
CONTROL PANEL TO EXTRA FIRE SYSTEM PRESSURE SWITCH — PRX1O PRX2O — WIRING DIAGRAM FOR ALL OTHER PRESSURE SWITCHES IN SERIES. — PS-X
CONTROL PANEL TO FIRE SYSTEM RELEASE SOLENOID — RS2O N1OO — WIRING DIAGRAM FOR REMOTE RELEASE SOLENOID. — RS-2

CONTROL PANEL TO REMOTE FS MASTER PANEL — J3 — CAT-5 CONNECTION. WIRE DIRECTLY TO CONTROL BOARD. ADDITIONAL DEVICES MAY BE INLINE. PLACE END OF LINE PLUG IN EMPTY JACK PN EDL120A UNLESS VFD, PCU, OR OTHER COMPONENT IN SERIES. — CORE PCB — J3 EDL120A J6
INTERLOCK NETWORK — SHIELDED TWISTED PAIR — BLACK, RED, SHIELD — WIRE TO LIKE TERMINALS ON THE REMOTE FS MASTER PANEL. OPERATE TOGETHER SET MASTER & SLAVE DIP SWITCHES PER FIRE SYSTEM MANUAL. — MASTER CORE
CONTROL PANEL TO MASTER FS PANEL — TA TB TC — TA TB TC

CONTROL PANEL TO FIRE SYSTEM PULL STATION — 1O1O 1O2O — MANUAL ACTUATION LOOP / REMOTE FIRE SYSTEM LOOP. May be mixed activation possible. Multiple manual activation possible. A Plug Jumper with wires from pin1 to pin2 is required if no pull stations or AS, remove the jumpers and wire in the supervised activation loop wiring. Multiple AS is optional for Fire system interlock. Auxiliary Interlock ANSI-03: Wire NO / NUT of adjacent Master FS panel(s) in each manual activation loop for simultaneous activation. See FS system drawings for more information. — PULL STATION — MS-01 Micro SW, AUX-01 Adjacent FS Panel MS-01 Manual Actuation Device

REVISIONS
DESCRIPTION | DATE:

CAPTIVE AIRE
Seattle Office
114 NW Canal St. #300, Seattle, WA. 98107 PHONE: (425) 212 - 5996 FAX: 4252125998 EMAIL: reg85@captiveaire.com
www.captiveaire.com

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024
DWG.#: 6960956
DRAWN BY: JL - R85
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 37

City of Puyallup
Development & Permitting Services
ISSUED FOR:

Building	Planning
Engineering	Public Works
Fire	Traffic

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-2111		INSTALL	Fire System #5 TANK FS - 48/48/48 / Remote - 48/48 CITEK 505/484 FSD.
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #5-3	

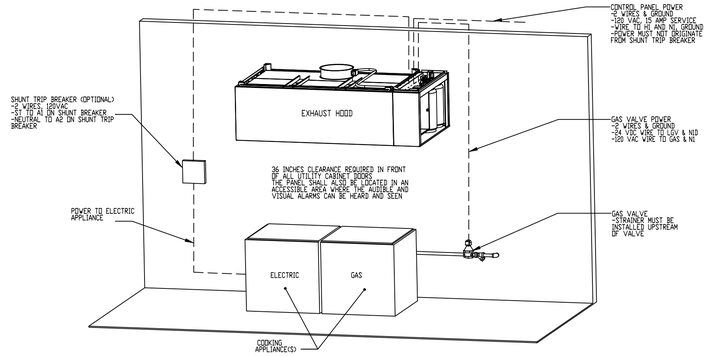
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-5: MASTER

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE GAS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KS1 & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N3 (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N3 TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-2111		INSTALL	Fire System #5 TANK FS - 48/48/48 / Remote - 48/48 CITEK 505/484 FSD.
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #5-4	

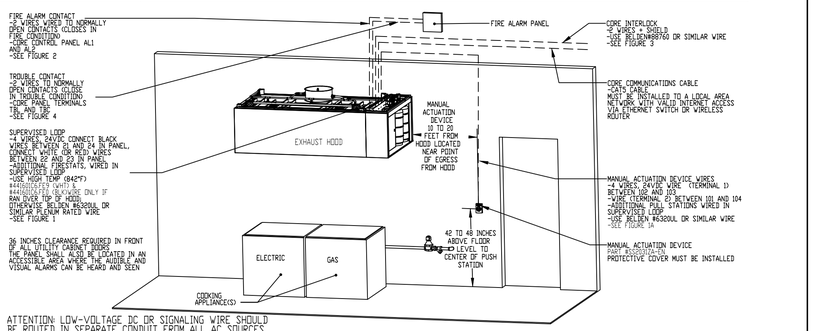
TANK PROTECTION LOW-VOLTAGE DETAIL

10/01/2023 Rev. 3

FS-5: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION ST-50318
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) 844500EQ1E1S (WHT) & 844500EQ1E1S (BLK) WIRE OR SIMILAR ONLY IF SUN OF HOOD, OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL.
CORE INTERLOCK(S)	CA, CB, CC	CA, CB, CC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA. CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB. CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMP	TYPICAL CONNECTION CATS CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

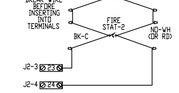
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
6960956	DCV-2111		INSTALL	Fire System #5 TANK FS - 48/48/48 / Remote - 48/48 CITEK 505/484 FSD.
	JOB NAME: International Village (Gas) -_	DATE: 8/5/2024	DWG NO: ECP #5-5	

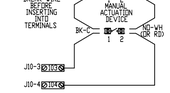
TANK PROTECTION LOW-VOLTAGE FIGURES

10/01/2023 Rev. 17

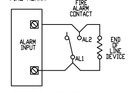
FS-5: MASTER



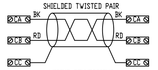
WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1



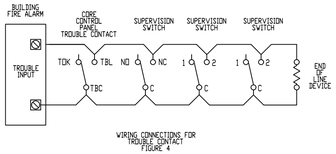
WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP
FIGURE 1A



WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2



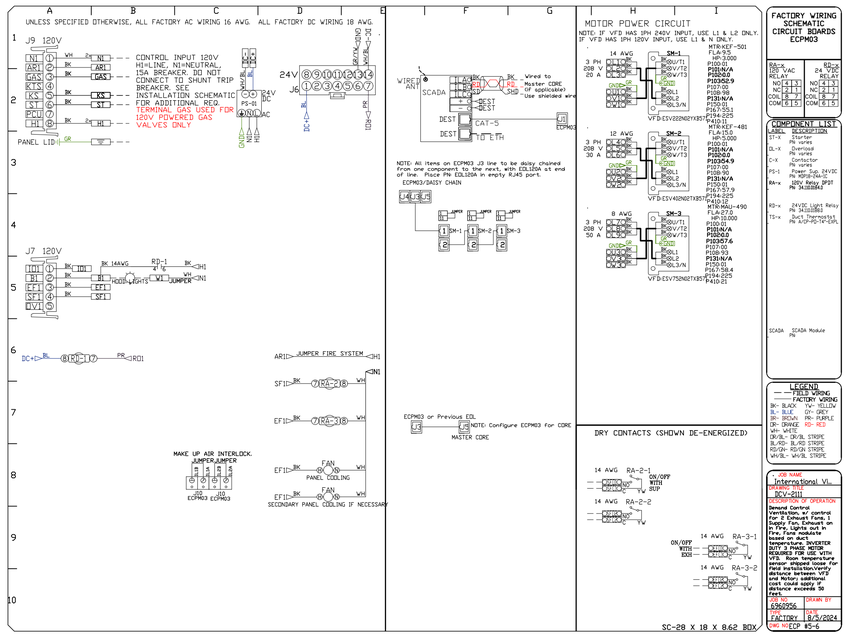
WIRING CONNECTIONS FOR CORE INTERLOCK
FIGURE 3



WIRING CONNECTIONS FOR TROUBLE CONTACT
FIGURE 4

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES



CAPTIVEAIRE
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REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

International Village (Gas) - Puyallup - R2
PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

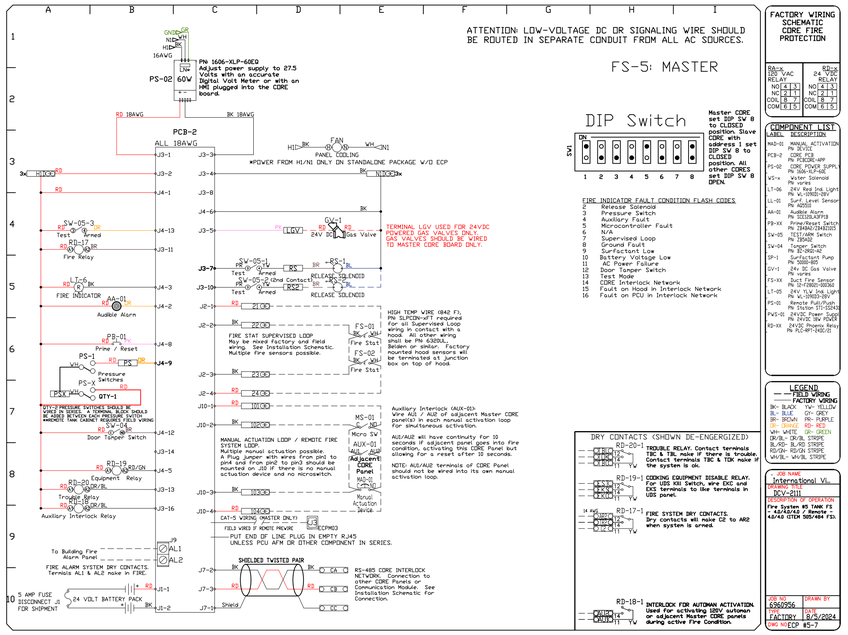
DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 38

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic



SYSTEM DESIGN VERIFICATION (SDV)

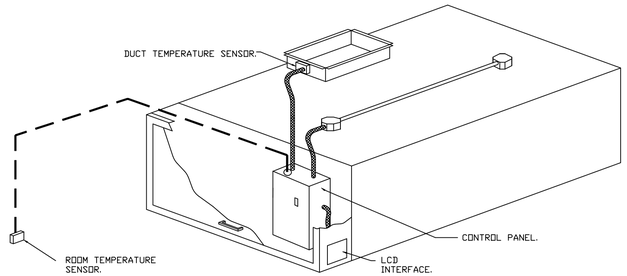
IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

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 403.7.5 (2021).
- 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 FAILURE 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 STATIC OR DYNAMIC. THESE TERMS 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 DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- 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 (DDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

REVISIONS

	DESCRIPTION	DATE:
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PUYALLUP, WA, 98371

DATE: 8/5/2024

DWG.#: 6960956

DRAWN BY: JL - R85

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 39