### CITY OF CRAIG WASTE WATER TREATMENT PLANT ROOF REPLACEMENT

CRAIG, ALASKA FEBRUARY, 2024

### A001 COVER SHEET AD202 DEMOLITION ROOF PLAN AD301 DEMOLITION BUILDING SECTION A201 SECOND FLOOR PLAN A202 ROOF PLAN A301 BUILDING SECTION

WASTE WATER — TREATMENT PLANT

**VICINITY MAP** 

A801 EXTERIOR DETAILS

S100 GENERAL NOTES
S202 ROOF FRAMING PLAN

S301 STRUCTURAL DETAILS

AREA MAP

E201 SECOND FLOOR PARTIAL LIGHTING PLANS

# 



### CONSULTANTS

### ARCHITECT JENSEN YORBA WALL, INC.

522 WEST 10TH STREET JUNEAU, ALASKA 99901 (907) 586-1070 FAX (844) 350-5352

### STRUCTURAL ENGINEER PND ENGINEERING, INC. CONSULTING ENGINEERS

9360 GLACIER HIGHWAY, SUITE 100 JUNEAU, ALASKA 99801 (907) 586-2093 FAX (907) 586-2099

### ELECTRICAL ENGINEER BEGENYI ENGINEERING, LLC

217 2ND STREET, SUITED 208 JUNEAU, ALASKA 99801 (907) 586-5900 FAX (907) 586-5901

### CODE SUMMARY

### **CODE SUMMARY**

CODE EDITION: 2021 INTERNATIONAL BUILDING CODE
AS ADOPTED BY THE STATE OF ALASKA

EXISTING OCCUPANCY:	GROUP	AREA		# OCC	<b>EXITS</b>
FIRST FLOOR					
WASTE WATER TREATMENT	F1	4030	SF	(1	.)
SUBTOTAL		4030	SF	8	1
SECOND FLOOR			SF		
WASTE WATER TREATMENT	F1	4030	SF	8 (1	.)
SUBTOTAL		4030	SF	8	1
TOTAL (1) ASSUMED AT 500 SF/OCCUPA	ANT	8060	SF	16	2

### TYPE OF CONSTRUCTION:

NEW ROOF: STEEL PURLINS AND INSULATED METAL PANELS

### BUILDING HEIGHT:

ACTUAL OF BUILDING: 30 FT ALLOWABLE HEIGHT: 55 FT

SITE DESCRIPTION:	FIRE SEPARATION	FIRE RATING
NORTH SIDE - OPEN AREA	100+ FT	0 HOU
EAST SIDE - OPEN AREA	100+ FT	0 HOU
SOUTH SIDE - OPEN AREA	100+ FT	0 HOU
WEST SIDE - OPEN AREA	100+ FT	0 HOU

PERIMETER FRONTING ON PUBLIC WAY OR OPEN SPACE: 254 FEET

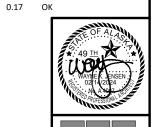
ALLOWABLE AREA INCREASE DUE TO FRONTAGE: 50%

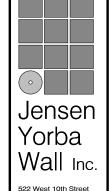
<b>ALLOWAB</b>	LE AREA	<u>AREA</u>			<u>ALLOWED</u>		<u>RATIO</u>	<b>STATUS</b>
FIRST F	LOOR							
WA	STE WATER TREATMENT		4030	SF	23,250	SF	0.17	OK
	SUBTOTA	AL	4030	SF	23,250	SF	0.17	OK
CECON	ID 51 00D							
SECON	ID FLOOR							
WA	STE WATER TREATMENT		4030	SF	23,250	SF	0.17	OK
	SUBTOT	AL	4030	SF	23,250	SF	0.17	OK

8060 SF 46,500

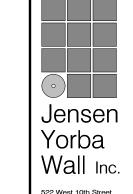
OCCUPANCY SEPARATIONS: NONI

TOTAL





Juneau, Alaska 99801 907.586.1070 AECC137 jensenyorbawall.com





## WASTE WATER TREATMENT PLANT ROOF REPLACEMENT

REVISIONS

SHEET TITLE

DEMOLITION ROOF
PLAN

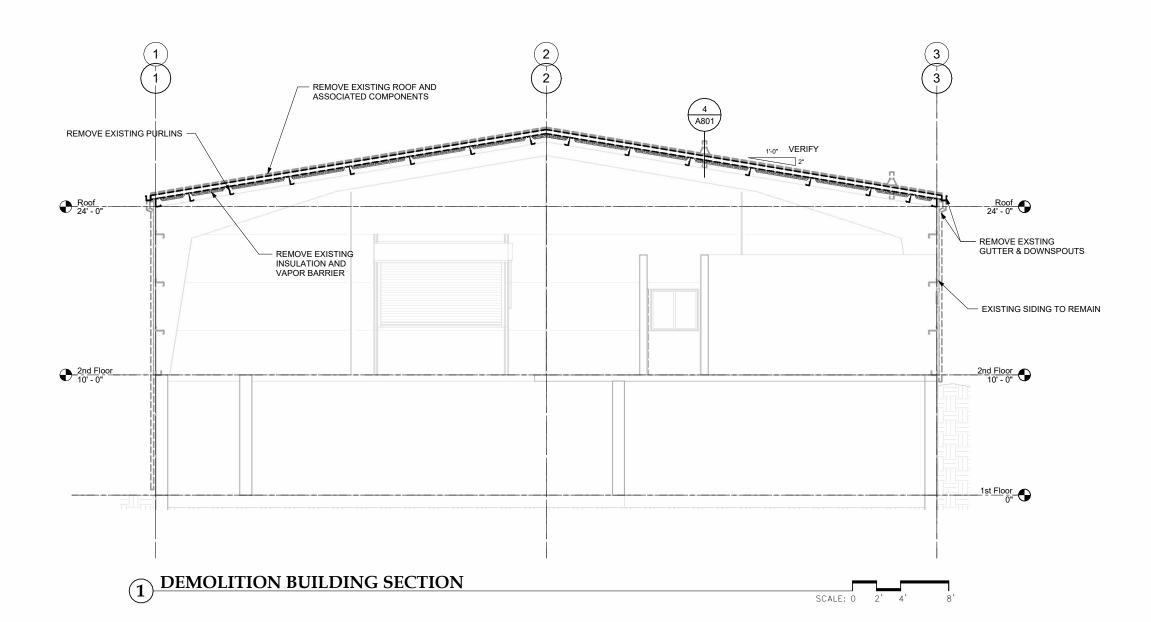
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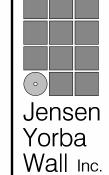
**AD202** 

DEMOLITION BUILDING SECTION

REVISIONS

SHEET TITLE

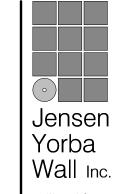




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### WASTE WATER TREATMENT PLANT ROOF REPLACEMENT CRAIG, ALASKA CITY OF CRAIG





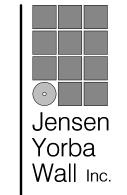
# CITY OF CRAIG WASTE WATER TREATMENT PLANT ROOF REPLACEMENT CRAIG, ALASKA

REVISIONS

SHEET TITLE

SECOND FLOOR
PLAN

DATE: FEBRUARY, 2024 FILE: 22011





# CITY OF CRAIG WASTE WATER TREATMENT PLANT ROOF REPLACEMENT CRAIG, ALASKA

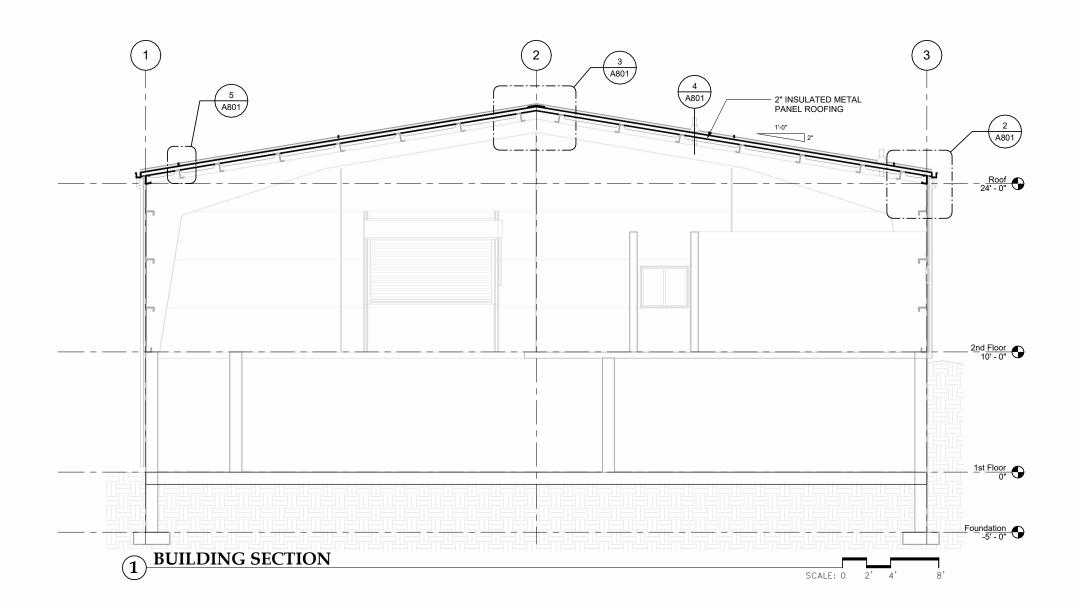
REVISIONS

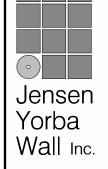
SHEET TITLE

ROOF PLAN

DATE: FEBRUARY, 2024 FILE: 22011

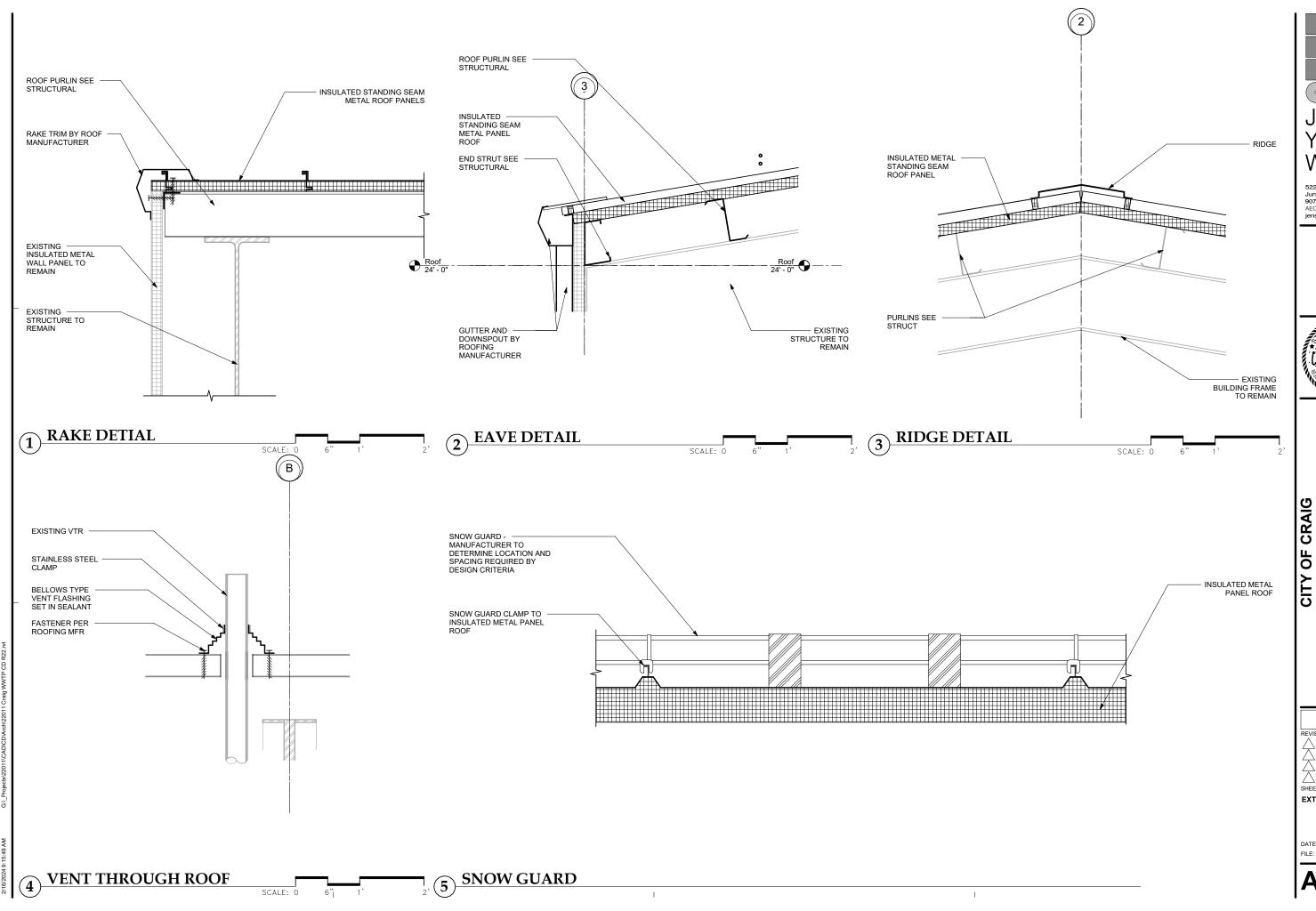
DATE: FEBRUARY, 2024 FILE: 22011

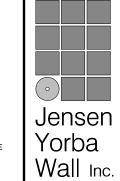




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## WASTE WATER TREATMENT PLANT ROOF REPLACEMENT CRAIG, ALASKA

REVISIONS

SHEET TITLE

EXTERIOR DETAILS

DATE: FEBRUARY, 2024 FILE: 22011

AB ANCHOR BOLT
ACI AMERICAN CONCRETE INSTITUTE
AISC AMERICAN INSTITUTE OF STEEL CONSTR.
ALT ALTERNATE
APA AMERICAN PLYWOOD ASSOCIATION
ARCH ARCHITECTURAL
ASTM AMERICAN SOCIETY FOR TESTING & MATERIALS
BLOKSING
BM BEAM
BCC BOTTOM OF CONCRETE
BOD BOTTOM OF DECK

BOD BOTTOM OF BOS BOTTOM OF BOT BOTTOM BTWN BETWEEN BOTTOM OF DECK BOTTOM OF STEEL

CAST IN PLACE (CONCRETE)
COMPLETE JOINT PENETRATION

CLEAR

CLR CLEAR

COL COLLUMN

CONN CONNECTION

CONT CONTINUOUS

CVN CHARPY V NOTCH

DIAM DIAMETER

DWGS DRAWINGS

(E) EXISTING

EA EACH

EL ELEVATION

ELEC ELECTRICAL

FIFEY EI EVATION EL ELEVATION
ELEC ELECTRICAL
ELEV ELEVATION
EW EACH WAY
EQ EQUAL
F'C CONCRETE

CONCRETE COMPRESSIVE STRENGTH

FOUNDATION FACE OF CONCRETE

FOC FACE OF CONCRETE
FT FEET
FTG FOOTING
GA GAGE OR GAUGE
GALV GALVANIZED
HI HIGH
HORIZ HORIZONTAL
HS HEADED STUD
HSH HORIZONTAL SLOTTED HOLE
HSS HOLLOW STRUCTURAL SECTION
IE INVERT ELEVATION
INV INVERT
LO LOW
MAX MAXIMUM
MECH MECHANICAL

MECH MECHANICAL
MF MOMENT FRAI
MIN MINIMUM
MT MAGNETIC PA MOMENT FRAME MINIMUM MAGNETIC PARTICLE STRIP

MIN MINIMUM MINIMUM MT MAGNETIC PARTICLE STRIP NA NOT APPLICABLE NES NON FROST SUSCEPTIBLE NIC NOT IN CONTRACT NTS NOT TO SCALE OC ON CENTER OWNS. OPEN WEB STEEL JOIST PLF POUNDS PER SUARE FOOT PSF POUNDS PER SOUARE INCH REINF REINFORCING RT RADIGGRAPHIC TEST SDI STEEL DECK INSTITUTE SQ SQUARE INCH REINFORCING THE ADDIGGRAPHIC TEST SDI STEEL JOIST INSTITUTE SQ SQUARE INCH TENDER JOHN STEEL JOIST INSTITUTE SQ SQUARE STO STANDARD TBD TO BE DETERMINED TEMP TEMPERATURE TO COP OF CONCRETE TO TOP OF CONCRETE TO TOP OF STEEL TYP TYPICAL UNCO WINESS NOTED OTHERWISE

TOP OF CONCRETE
TOP OF STEEL
TUBE STEEL
TYPICAL
UNLESS NOTED OTHERWISE
ULTRASONIC
VEDITION

VERTICAL WIDE FLANGE DESIGNATION

WIDE FLANGE WORK POINT WELDED WIRE FABRIC

### STATEMENT OF SPECIAL INSPECTIONS

THE FOLLOWING SPECIAL INSPECTIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL EMPLOYED BY THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE

### SPECIAL INSPECTOR QUALIFICATIONS:

THE SPECIAL INSPECTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING THEIR COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING.

### INSPECTION TASKS:

INSPECTION TASKS ARE LISTED IN THE ATTACHED TABLES AND IN THE 2012 EDITION OF THE IBC CHAPTER 17.

### FABRICATOR APPROVAL:

SPECIAL INSPECTIONS REQUIRED BY SECTION 1705 ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION (IBC 1704.2.5.2). HOWEVER, NON DESTRUCTIVE TESTING REQUIREMENTS CANNOT BE WAIVED PER AISC 360-10 SECTION N7 THE CONTRACTOR'S FABRICATOR SHALL PERFORM OR ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM REQUIRED TESTING ON THE PREMISES OF THE FABRICATOR. TESTING DOCUMENTATION SHOWING COMPLIANCE SHALL BE SUBMITTED TO THE OWNER UPON COMPLETION

### REPORT REQUIREMENTS:

REPORTS SHALL BE COMPLETED ON A DAILY BASIS AND DISTRIBUTED ON A WEEKLY BASIS. COPIES OF REPORTS SHALL BE DISTRIBUTED TO THE GENERAL CONTRACTOR. THE ENGINEER OF RECORD AND THE ARCHITECT OF RECORD. REPORTS SHALL INDICATE WHETHER THE WORK WAS OR WAS NOT COMPLETED IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR. IF THEY ARE NOT CORRECTED, DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE A FINAL REPORT DOCUMENTING THE SPECIAL INSPECTIONS PERFORMED AND THE CORRECTION OF ANY DISCREPANCIES SHALL BE DISTRIBUTED AS NOTED ABOVE

### STRUCTURAL OBSERVATIONS:

THE OWNER SHALL EMPLOY THE REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS AS FOLLOWS:

WIND:
FOR STRUCTURES SITED WHERE Vasd EXCEEDS 110 MPH AND WHERE ONE OR MORE OF THE FOLLOWING CONDITIONS EXIST:

- WHERE THE STRUCTURE IS CLASSIFIED AS RISK CATEGORY III OR IV
- THE BUILDING HEIGHT IS GREATER THAN 75 FT. WHEN REQUIRED BY THE DESIGN PROFESSIONAL OR THE BUILDING

WHERE THE STRUCTURE IS ASSIGNED TO SEISMIC DESIGN CATEGORY D. E OR F AND WHERE ONE OR MORE OF THE FOLLOWING CONDITIONS

- WHERE THE STRUCTURE IS CLASSIFIED AS RISK CATEGORY III OR IV
- THE BUILDING HEIGHT IS GREATER THAN 75 FT.
- WHEN REQUIRED BY THE DESIGN PROFESSIONAL OR THE BUILDING

	STRUCTURAL DESIGN CF	RITERIA SCHED	ULE		
CRITERIA	DESCRIPTION	VALUE	COMMENTS		
CODE	IBC 2021				
WIND	BASIC WIND SPEED (3 SECOND GUST) RISK CATEGORY EXPOSURE FACTOR INTERNAL PRESSURE COEFFICIENT, GCpi qu	150 MPH II 1.16 ±0.18 53.6 PSF	PER ASCE 7-11 BASIC WIND SPEED MAP  ENCLOSED BUILDING PER ASLE 7-10		
COMP. & CLADDING PRESSURES	ROOF INTERIOR - ZONE ① PERIMETER - ZONE ② CORNER - ZONE ③	10 Ft 2 100 Ft 2 58.2 PSF 52.8 PSF 101.3 PSF 74.4 PSF 149.9 PSF 117.5 PSF	WIND VALUES SHOWN ARE ULTIMATE LOADS MULTIPLY BY 0.6 FOR ALLOWABLE LOADS VALUES MAY BE NEGATIVE OR POSITIVE VALUES MAY BE INTERPOLATED BETWEEN 10 SQFT AND 100 SQFT SEE ASCE 7-16 FOR ZONE LOCATIONS		
ROOF LIVE LOADS	GROUND SNOW LOAD SNOW LOAD EXPOSURE FACTOR, Ct THERMAL FACTOR, Ct SNOW IMPORTANCE FACTOR, Is	40 PSF 0.9 1.1 1.0			

### STRUCTURAL NOTES

ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS, THE SPECIFICATIONS AND NOTES LISTED BELOW. MINIMUM PROVISIONS OF THE INTERNATIONAL BUILDING CODE (IBC 2017), AND LOCAL AMENDMENTS SHALL APPLY WHERE DETAILS ARE NOT SHOWN OR DESCRIBED.

ALL PRE-FABRICATED HANGERS AND CONNECTORS NOTED IN THE PLANS ARE THE PRODUCT OF THE SIMPSON STRONG-TIE COMPANY. HANGERS AND CONNECTORS MADE BY OTHER MANUFACTURER'S MAY BE CONSIDERED FOR SUBSTITUTION IF THE HANGER OR CONNECTOR HAS EQUAL OR GREATER LOAD CAPACITY, EQUAL OR GREATER CORROSION RESISTANCE AND BE OF AN APPROPRIATE EQUAL CONFIGURATION. SUBMIT ICBO FOR REVIEW AND APPROVAL WITH ANY REQUEST FOR SUBSTITUTION.

27.72 PSF

PER ASCE 7-16

### STRUCTURAL OBSERVATIONS

THE OWNER SHALL EMPLOY AN REGISTERED DESIGN PROFESSION TO PERFORM STRUCTURAL OBSERVATIONS AS DEFINED IN SECTION 1704.6 OF THE IBC AT SIGNIFICANT STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY OF SPECIAL INSPECTIONS REQUIRED BY SECTION 1704 OF THE CODE

### AS-BUILT DRAWINGS

CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS ON SITE, MODIFIED TO REFLECT ALL DESIGN CHANGES TO THE ORIGINAL DRAWING SET.

FLAT ROOF SNOW LOAD, Pf

SNOW DRIFT LOADS

### NOTE TO CONTRACTOR

ATTACHMENT OF ROOF BY OTHERS

PND ENGINEERS INC IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS, OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A

### **DEFERRED SUBMITTALS**

DEFERRED SUBMITTAL ITEMS SHALL BE REVIEWED BY THE EOR AND THEN SUBMITTED TO THE BUILDING OFFICIAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING CALCULATION AND DRAWINGS STAMPED BY AN ALASKA REGISTERED PROFESSIONAL ENGINEER FOR THE FOLLOWING CONTRACTOR DESIGNED ITEMS

- SEISMIC RESTRAINT OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENTS
- ROOFING ATTACHMENT

SPECIAL INSPECTION FOR WIND RESISTANCE						
	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION	REMARKS			
1	ARCHITECTURAL COMPONENTS: ROOF AND WALL CLADDING.	PERIODIC				
2	COLD-FORMED STEEL IN LIGHT-FRAME CONSTR.: NAILING, BOLTING, ANCHORING AND FASTENING OF COMPONENTS.	PERIODIC				

(A) (A)						
A	2	3	3	2		
	1	2	2	1		
	2	3 PL	3   AN	2		

### REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION	REF. STANDARD	REMARKS
1 MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:			
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	PERIODIC	APPLICABLE ASTM MATERIALS STANDARDS	
b. MANUFACTURER'S CERTIFIED TEST REPORTS	PERIODIC		

SCHEDULE OF CONSTRUCTION MATERIALS					
LIGHT GAGE	APPLICATION	PROFILE/SIZE	TYPE	GRADE	GALV
STEEL	LIGHT GUAGE STUDS	350S200x43MIL UNO	ASTM A653	GRADE 33	G60
	ZEE & CEE PURLINS	SEE PURLINS	ASTM A653	GRADE 50	G60

NOTE: ALL SCREWS SECURRING COLD FORMED STEEL & CONNECTOR SHALL HAVE A MINIMUM OF 3-THREADS EXPOSED

Yorba

Juneau, Alaska 99801 907.586.1070







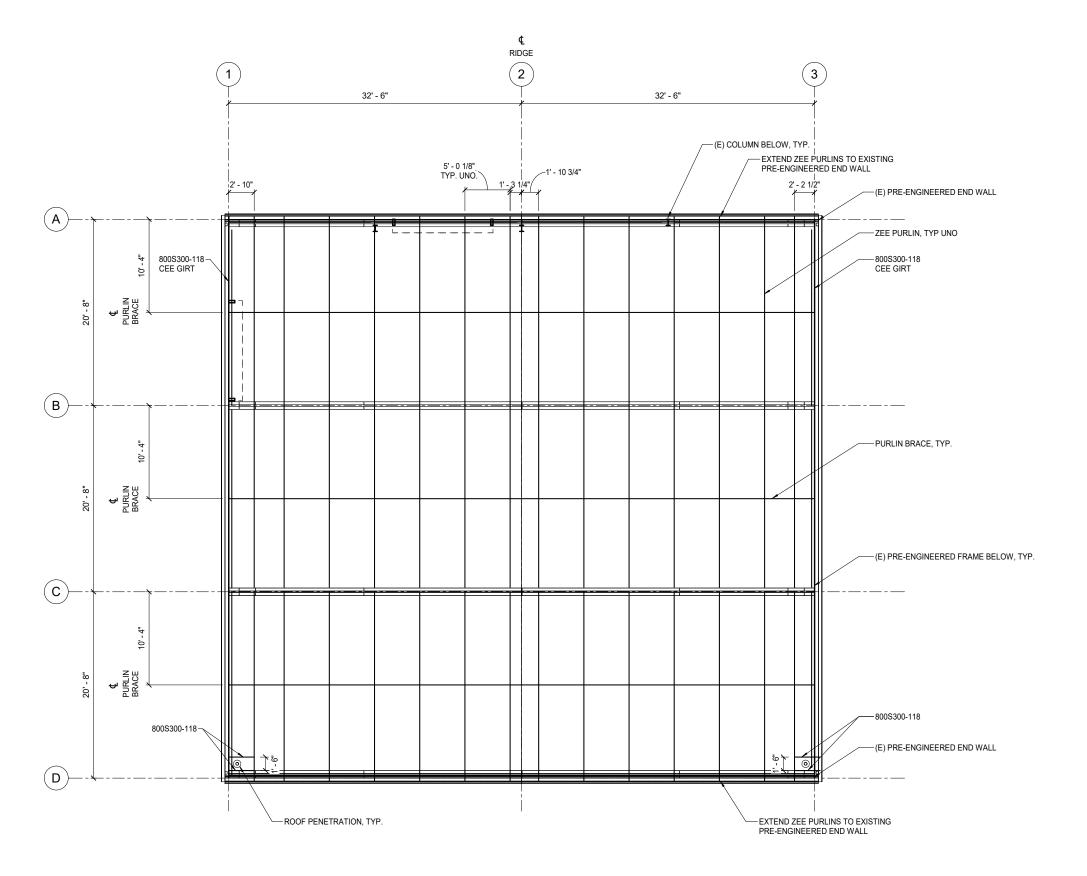
360 GLACIER HIGHWAY, SUITE 100 JUNEAU, AK 99801 907-586-2093 C.A.N. # AECC250 PND PROJECT #222050



### **PLANT ACEMENT** WATER TREATMENT **CRAIG** ALASKA REPLA OF CITY 8 Ш

REVISIONS GENERAL NOTES

DATE: FEBRURARY, 2024 FILE: 222050



1 ROOF FRAMING PLAN
3/16" = 1'-0"

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ENGINEERS, INC.

9360 GLACIER HIGHWAY, SUITE 100 JUNEAU, AK 99801 907-586-2093 C.A.N. # AECC250 PND PROJECT #222050

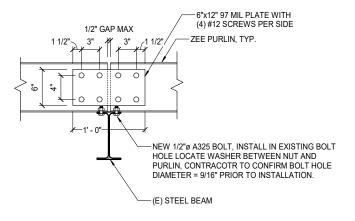


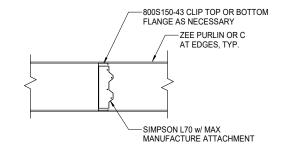
### CITY OF CRAIG WASTE WATER TREATMENT PLANT ROOF REPLACEMENT CRAIG, ALASKA

SHEET TITLE

ROOF FRAMING PLAN

DATE: FEBRURARY, 2024 FILE: 222050



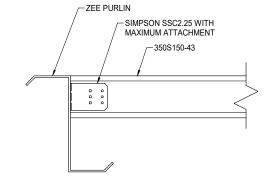


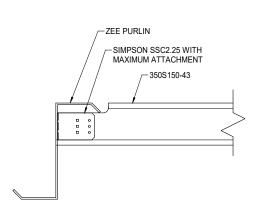
TYPICAL ZEE PURLIN
3" = 1'-0"

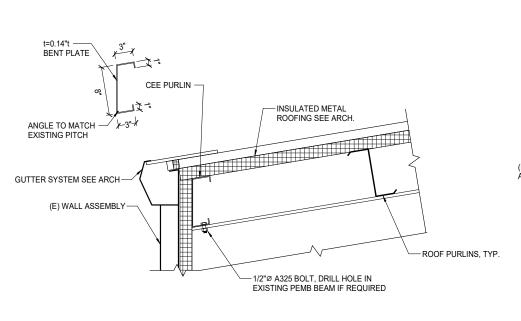
TYPICAL PURLIN TO BEAM CONNECTION
1 1/2" = 1'-0"

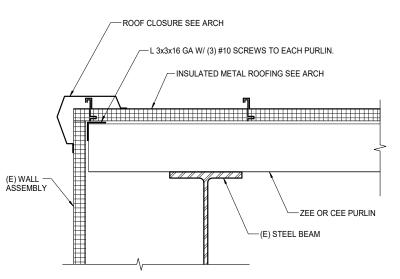
TYPICAL PURLIN BRACE ATTACHMENT

1 1/2" = 1'-0"









TYPICAL ROOF PENETRATION SUPPORT

3" = 1'-0"

5 RAKE DETAIL

6 RAKE DETAIL 2

Jensen Yorba Wall Inc.

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P

ND

ENGINEERS, INC.

3360 GLACIER HIGHWAY, SUITE 100
JUNEAU, AK 99801
907-586-2093
C.A.N. # AECC250
PND PROJECT #222050

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CITY OF CRAIG
WASTE WATER TREATMENT PLANT
ROOF REPLACEMENT
CRAIG, ALASKA

REVISIONS

SHEET TITLE

STRUCTURAL

DETAILS

DATE: FEBRURARY, 2024

FILE: 222050

S301

### WIRING SWITCHING CONDUIT S3 3-WAY TOGGLE SWITCH HOT CONDUCTOR REFERENCE SYMBOLS

(E) EXISTING

(X) REMOVE

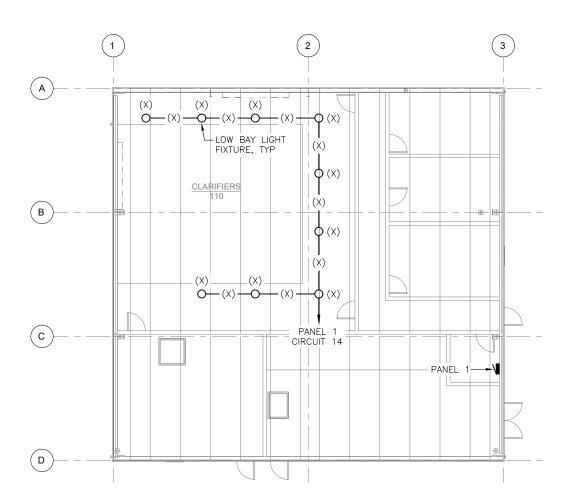
DESTINATION

NOTE: WIRING NOT SHOWN WHERE ONLY A HOT, NEUTRAL, AND GROUND ARE REQUIRED.

NEUTRAL CONDUCTOR

GROUND CONDUCTOR

HOMERUN TO INDICATED

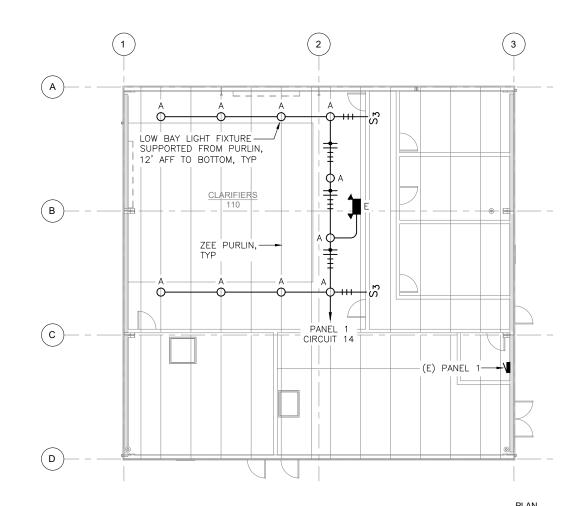


SECOND FLOOR LIGHTING DEMOLITION PLAN

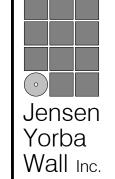
SCALE: 0 4' 8' 16'

### NOTES:

- 1. CLARIFIERS 110 IS A CLASS I, DIVISION 2, GROUP D HAZARDOUS LOCATION. THE ELECTRICAL INSTALLATION SHALL COMPLY WITH NFPA 820 AND NEC ARTICLES 500 AND 501.
- 2. TYPE A LIGHT FIXTURE: HAZARDOUS RATED LOW BAY, HEAT RESISTANT, INTERNAL PRISMATIC GLASS GLOBE, BOROSILICATE LENS, DOME REFLECTOR, PENDANT MOUNTED, HOLOPHANE HRLL 8L GO AS 50K PM HRLLDR, OR SIMILAR.
- 3. TYPE E LIGHT FIXTURE: HAZARDOUS RATED EMERGENCY LIGHTING UNIT, FULLY ADJUSTABLE HEADS, EMERGI-LITE HPHRL D L15, OR SIMILAR.
- 4. RACEWAY: RIGID METAL CONDUIT AND INTERMEDIATE METAL CONDUIT WITH LISTED THREADED OR THREADLESS FITTINGS. SEAL AS REQUIRED. 1/2-INCH MINIMUM SIZE.
- 5. WIRE: #12 AWG, STRANDED COPPER, THHN OR THWN-2 INSULATION.
- 6. HANGERS AND SUPPORTS: GALVANIZED STEEL.
- 7. HARDWARE: STAINLESS STEEL.



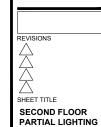








CITY OF CRAIG
ASTE WATER TREATMENT PLANT
ROOF REPLACEMENT
CRAIG, ALASKA



PLANS

DATE: FEBRUARY, 2024 FILE: Project Number

E201