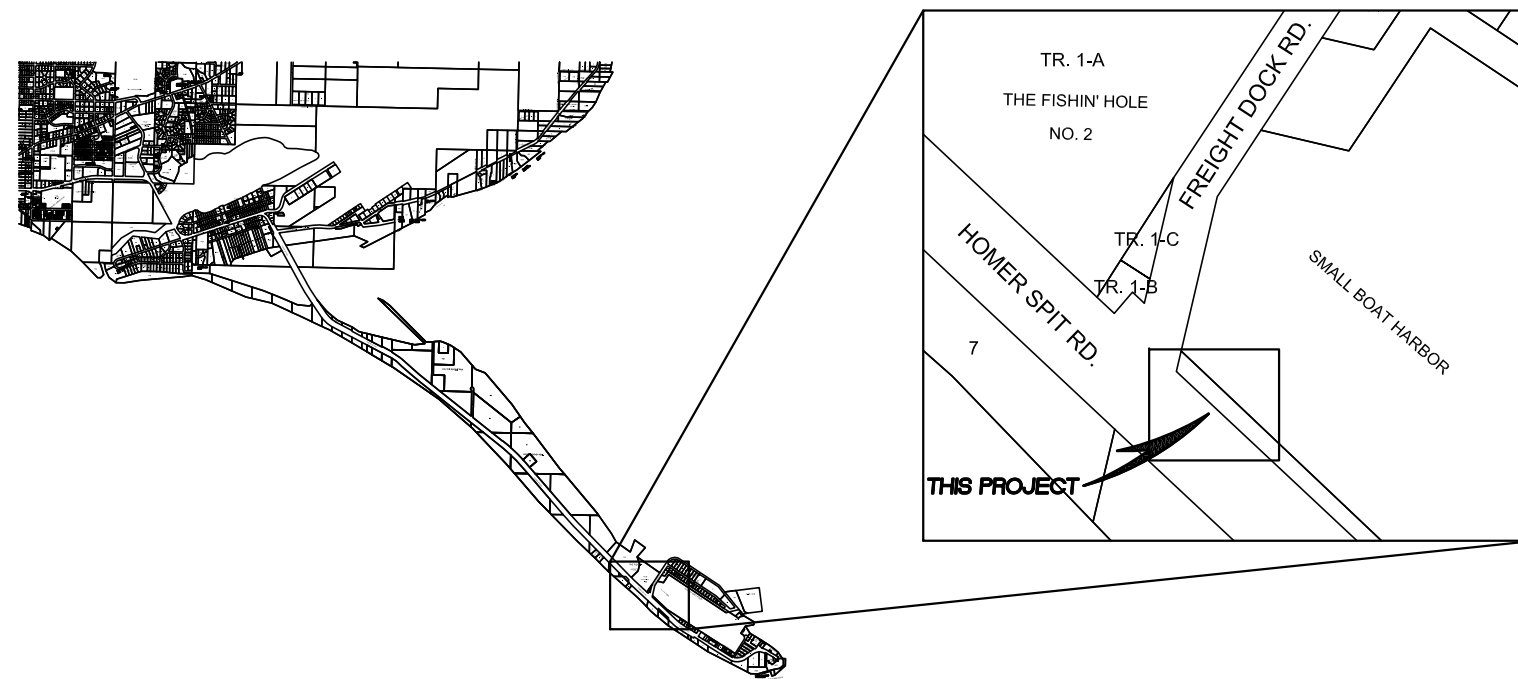


RAMP 5 RESTROOMS

CITY OF HOMER



MAYOR
 MARY E. (BETH) WYTHE
CITY MANAGER
 KATIE KOESTER
PUBLIC WORKS DIRECTOR
 CAREY S. MEYER, P.E.
CITY COUNCIL MEMBERS:
 DAVID LEWIS
 GUS VAN DYKE
 CATRIONA REYNOLDS
 FRANCIE ROBERTS
 BRYAN ZAK
 BEAUREGARD BURGESS

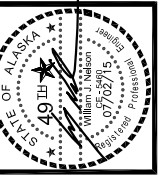


<u>DRAWING</u>	<u>SHEET</u>	<u>DRAWING</u>	<u>SHEET</u>
TITLE SHEET AND LOCATION MAP	C1.0	SPECIFICATIONS AND EQUIPMENT LIST	M1.0
SITE PLAN	C2.0	PLUMBING PLAN	M2.0
GRADING PLAN	C3.0	HEATING PLAN	M3.0
UTILITY PLAN	C4.0	VENTILATION PLAN	M4.0
SITE SECTIONS	C5.0	BOILER DETAILS	M5.0
DETAILS	C6.0	MECHANICAL DETAILS	M6.0
NOTES AND SPECIFICATIONS	S1.0	ELECTRICAL SPECIFICATIONS	E1.0
FOUNDATION PLAN	S2.0	ELECTRICAL PLAN	E2.0
FLOOR PLAN	S3.0		
ROOF FRAMING PLAN	S4.0		
TYPICAL BUILDING SECTION	S5.0		
BUILDING ELEVATIONS	S6.0		
DETAILS	S7.0		
DETAILS	S8.0		
SCHEDULES	S9.0		

VICINITY MAP
 SCALE: NOT TO SCALE

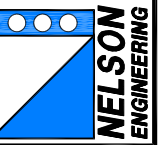


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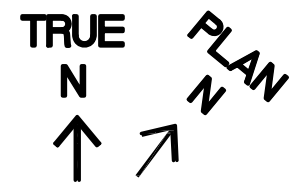
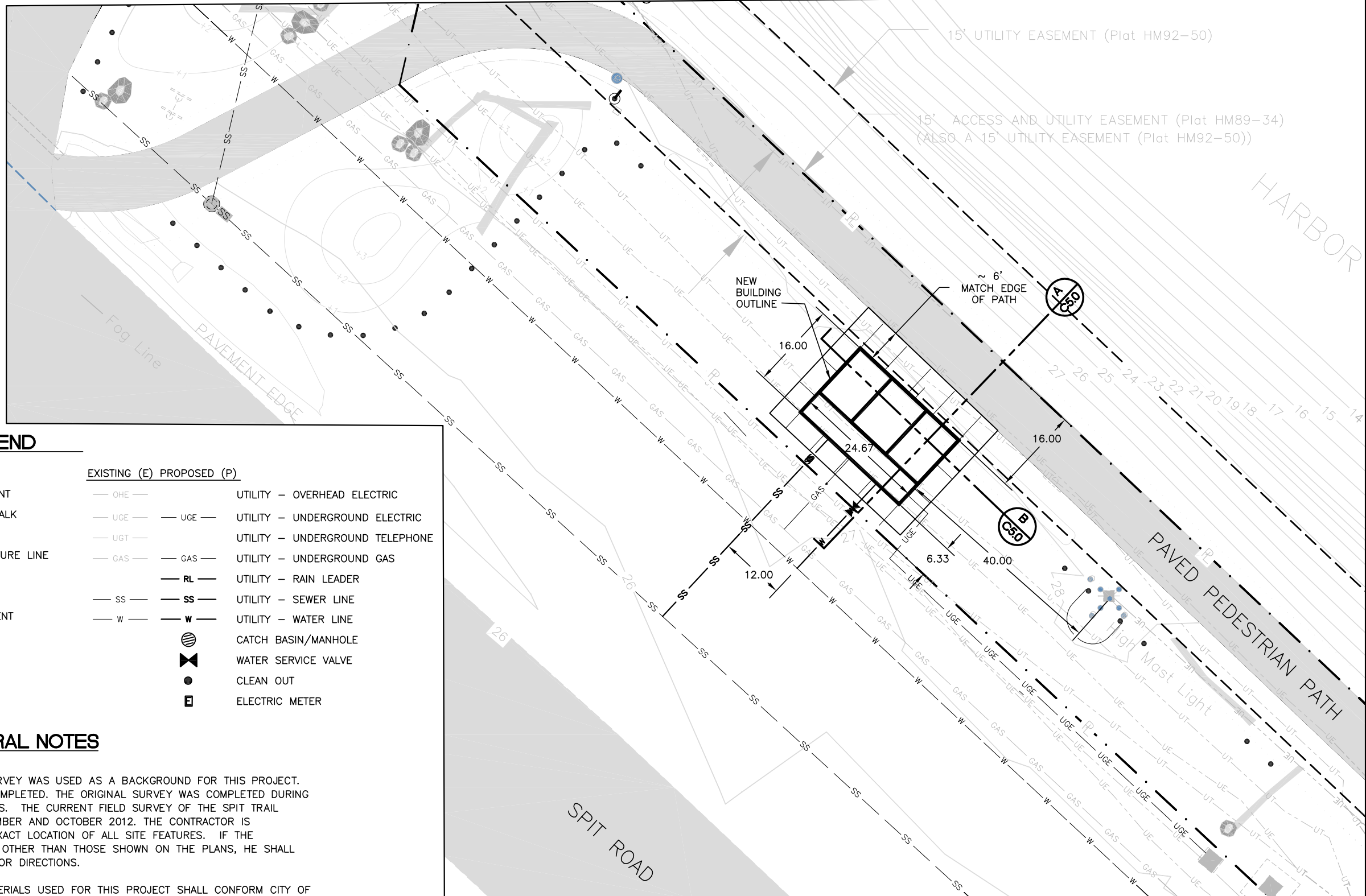
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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
SITE PLAN

PROJECT NO.
1515
DRAWN BY:
MJD
CHECKED BY:
WJN
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET: C20



LEGAL DESCRIPTION:
T 6S & 7S R 13W SEC 35 &
36 & 1 & 2 Seward MERIDIAN
HM 0910003 HOMER SPIT SUB
NO TWO LOT 12A

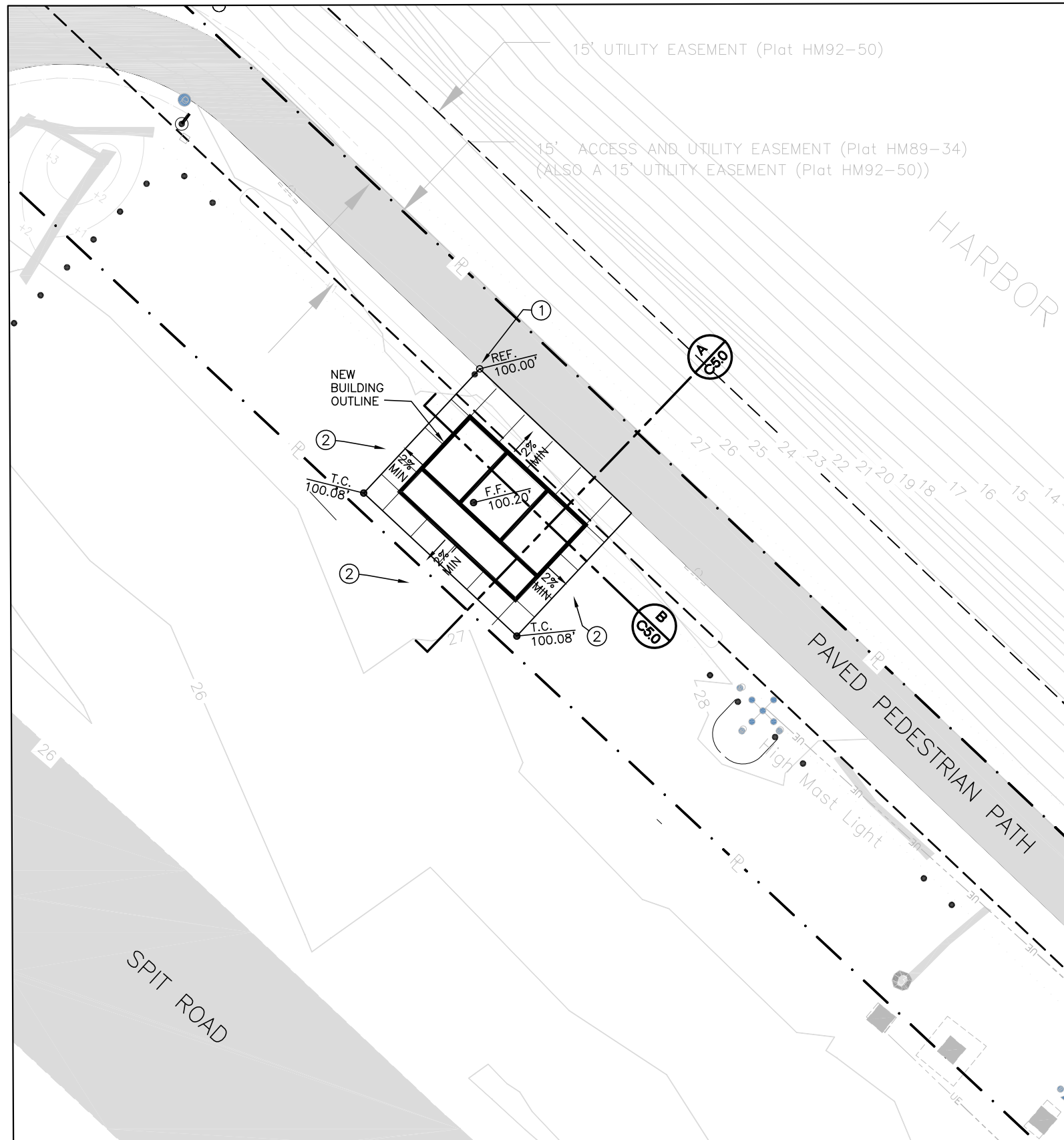
LEGEND

EXISTING (E)	PROPOSED (P)	EXISTING (E)	PROPOSED (P)
ASPHALT PAVEMENT	CONCRETE SIDEWALK	UTILITY - OVERHEAD ELECTRIC	UTILITY - UNDERGROUND ELECTRIC
	GRAVEL ROAD		
BUILDING/STRUCTURE LINE	CONCRETE LINE	UTILITY - UNDERGROUND TELEPHONE	UTILITY - UNDERGROUND GAS
EASEMENT	EDGE OF PAVEMENT		
PROPERTY LINE		UTILITY - RAIN LEADER	UTILITY - SEWER LINE
		UTILITY - WATER LINE	CATCH BASIN/MANHOLE
			WATER SERVICE VALVE
			CLEAN OUT
			ELECTRIC METER
			SECTION

GENERAL NOTES

1. THE SPIT TRAIL EXTENSION DESIGN SURVEY WAS USED AS A BACKGROUND FOR THIS PROJECT. NO PROJECT SPECIFIC SURVEY WAS COMPLETED. THE ORIGINAL SURVEY WAS COMPLETED DURING JUNE-JULY 2003 BY MULLIKIN SURVEYS. THE CURRENT FIELD SURVEY OF THE SPIT TRAIL EXTENSION WAS CONDUCTED IN SEPTEMBER AND OCTOBER 2012. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL SITE FEATURES. IF THE CONTRACTOR ENCOUNTERS CONDITIONS OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY CONTACT THE ENGINEER FOR DIRECTIONS.
2. ALL CONSTRUCTION METHODS AND MATERIALS USED FOR THIS PROJECT SHALL CONFORM CITY OF HOMER STANDARD CONSTRUCTION SPECIFICATIONS, 2011 EDITION.
3. ALL WORK ON UTILITIES SHALL BE COORDINATED WITH CITY OF HOMER PUBLIC WORKS.
4. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. ACTUAL DEPTH, NUMBER AND LOCATION UNKNOWN. BURIED UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, IDENTIFYING, AND WORKING AROUND ALL UTILITIES WITHIN THE PROJECT LIMITS AT NO ADDITIONAL COST TO THE OWNER. CALL FOR LOCATES PRIOR TO EXCAVATION. BURIED UTILITIES ARE SHOWN FROM LOCATES AND SURVEY DONE IN 2004. ABOVE GROUND FACILITIES HAVE BEEN CHECKED IN THE CURRENT SURVEY AND ANY CHANGES HAVE BEEN NOTED. EVERY EFFORT WAS MADE TO PRECISELY LOCATE BURIED UTILITIES. THERE ARE AREAS WHERE UTILITIES ARE VERY CONGESTED AND PRECISE LOCATES OF EACH LINE ARE INCONCLUSIVE OR IMPOSSIBLE.

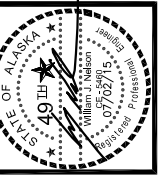
RESTROOM SITE PLAN
SCALE: 1" = 10' (22X34), 1" = 20' (11X17)



GRADING PLAN KEY NOTES

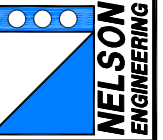
- ① NOTE: REFERENCE ELEVATION 100 IS BASED OFF THE SOUTH EDGE OF THE PEDESTRIAN PATH ADJACENT TO THE NORTH CORNER OF THE RESTROOM BUILDING. SET ELEVATION OF RESTROOM FINISH FLOOR 0.15' HIGHER THAN ELEVATION OF PATH.
- ② GRADE GRAVEL SURFACES AROUND BUILDING TO DRAIN AWAY FROM BUILDING. PROVIDE NFS GRAVEL FILL AS REQUIRED TO SLOPE EXISTING GRAVEL SURFACES AWAY FROM SLAB PERIMETER AT 6% MAXIMUM GRADE AND 2% MINIMUM GRADE.

A RESTROOM GRADING PLAN
C3.0 SCALE: 1" = 10' (22X34), 1" = 20' (11X17)



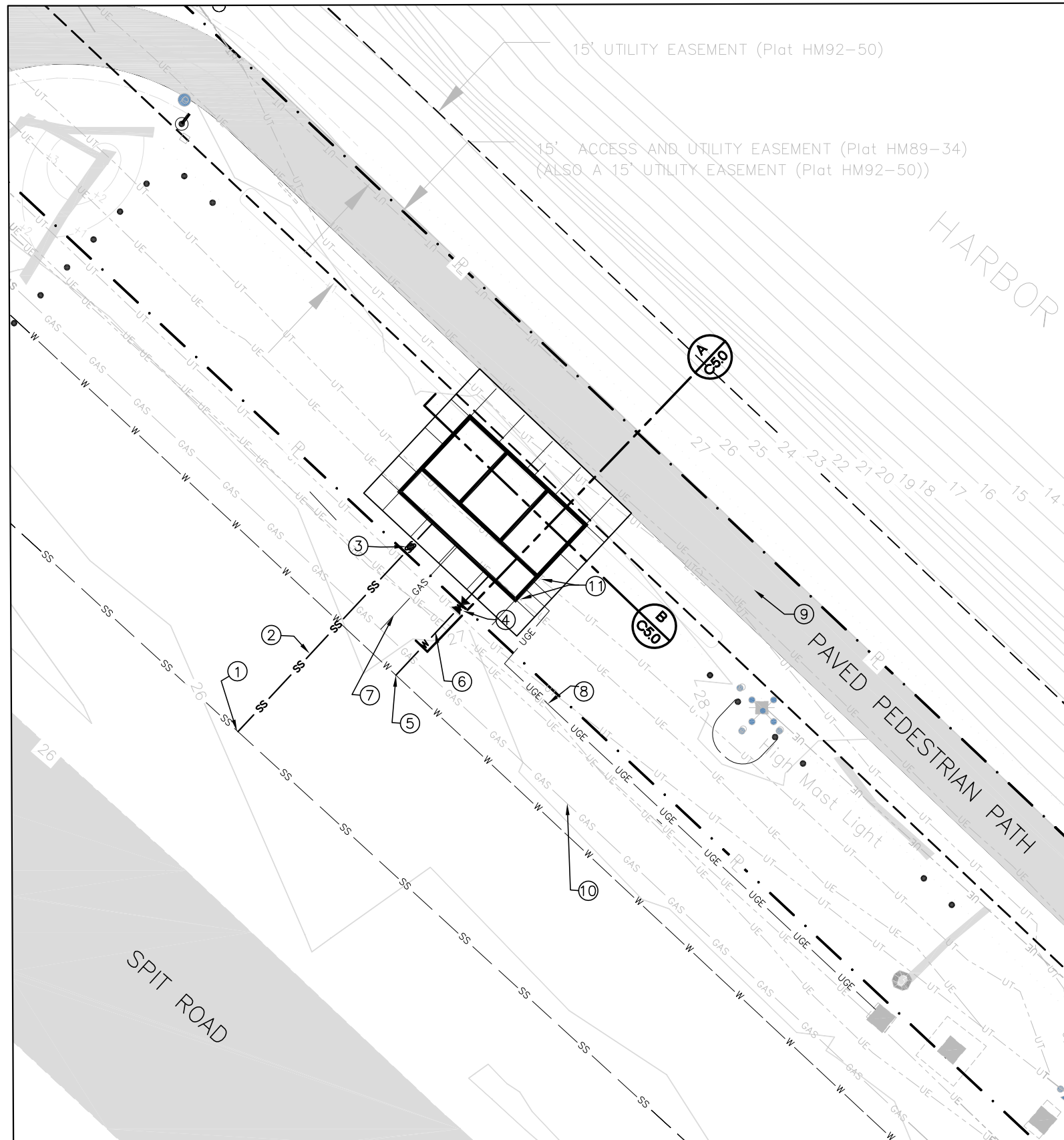
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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
 GRADING PLAN

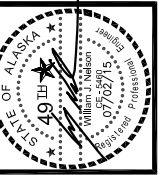
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 HORIZ. NOTED
 VERT. NOTED
 SHEET: **C3.0**
 3 OF 15



A RESTROOM UTILITY PLAN
C4.0 SCALE: 1" = 10' (22X34), 1" = 20' (11X17)

UTILITIES PLAN KEY NOTES

- ① CONNECT 4" CAST IRON 'TY-SEAL' SEWER SERVICE TO EXISTING 8" PVC SEWER MAIN WITH TOP ENTRY TAP AND DROP PER CITY OF HOMER STANDARD DETAIL 500.14. REMOVE ASPHALT AS REQ'D AND REPLACE PER CITY OF HOMER STANDARD DETAIL 400.01. SEWER MAIN INV: 10.5'± PER CITY OF HOMER AS-BUILTS (FIELD VERIFY)
- ② F&I 4" CAST IRON 'TY-SEAL' SEWER SERVICE @ MIN. 2% SLOPE. SEE MECHANICAL PLANS FOR CONTINUATION INTO BUILDING. MIN. 5' BURY
- ③ F&I CLEANOUT WITHIN 5' FROM EDGE OF BUILDING PER DETAIL C/C5.0.
- ④ F&I WATER SERVICE RISER PER DETAIL A/C6.0.
- ⑤ CONNECT 1.5" TYPE K COPPER WATER SERVICE TO EXISTING PRE-INSULATED 18" HDPE WATER MAIN PER CITY OF HOMER STANDARD DETAIL 600.08. PROVIDE WATERTIGHT CLAMSHELL INSULATION KIT AT SERVICE TAP. INV: 16.5'± PER CITY OF HOMER AS-BUILTS (FIELD VERIFY)
- ⑥ F&I 1.5" TYPE K COPPER WATER SERVICE LINE. SEE MECHANICAL PLANS FOR CONTINUATION INTO BUILDING. PROVIDE MIN. 7' BURY
- ⑦ CONTRACTOR TO COORDINATE NEW METER & UNDERGROUND GAS LINES TO BE PROVIDED BY GAS UTILITY. SEE MECHANICAL PLANS FOR CONTINUATION INTO BUILDING
- ⑧ CONTRACTOR TO COORDINATE NEW METER & UNDERGROUND ELECTRIC LINES TO BE PROVIDED BY ELECTRICAL UTILITY. SEE ELECTRICAL PLANS FOR CONTINUATION INTO BUILDING.
- ⑨ EXISTING PAVED PEDESTRIAN PATH (NOT IN CONTRACT)
- ⑩ ESTIMATED LOCATION OF GAS LINE BASED ON GIS DATA PROVIDED BY ENSTAR. SHOWN LOCATION IS NOT FROM SURVEYED LOCATES. VERIFY LOCATION OF ALL UTILITIES VIA LOCATES PRIOR TO CONSTRUCTION.
- ⑪ CONTRACTOR TO COORDINATE RELOCATION OF EXISTING UTILITIES FROM BENEATH THE BUILDING FOOTPRINT PRIOR TO CONSTRUCTION



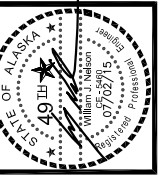
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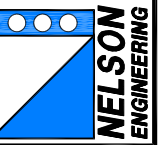
RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
 SITE PLAN

PROJECT NO.	1515
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HORIZ.	NOTED
VERT.	NOTED
SHEET:	C4.0
	4 OF 15



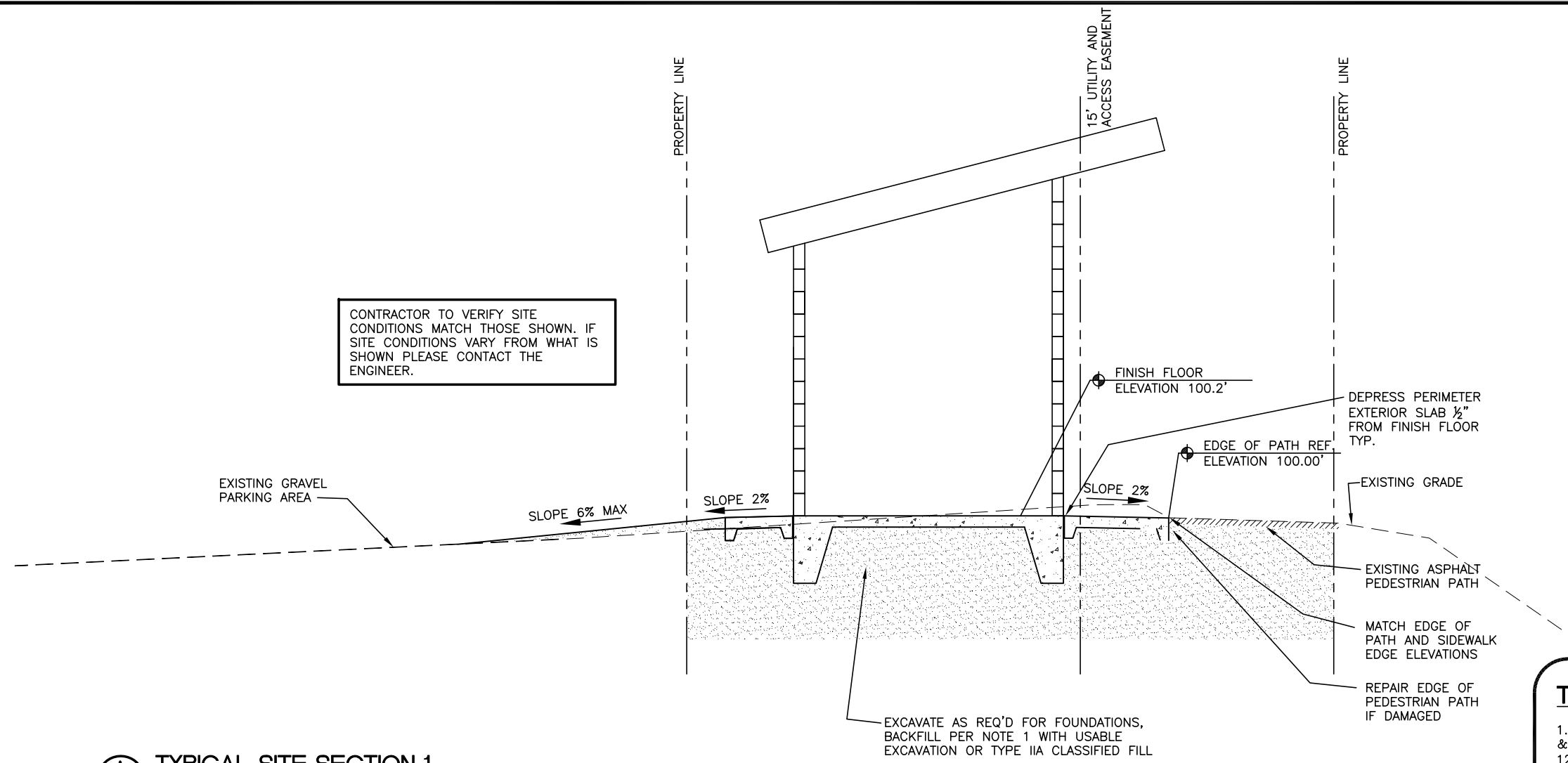
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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
SITE SECTIONS

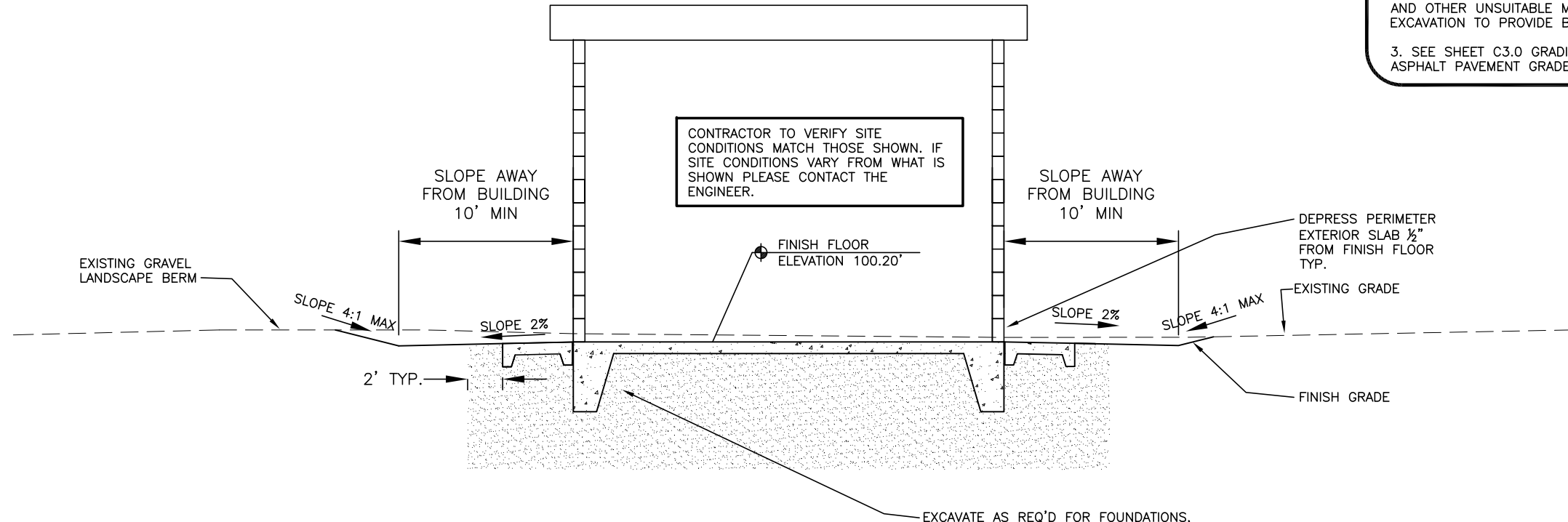
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HORIZ. NOTED
VERT. NOTED
SHEET: C5.0



A TYPICAL SITE SECTION 1
C5.0 HORIZONTAL SCALE: 1" = 4' (22X34), 1" = 8' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)

TYPICAL SITE SECTION NOTES:

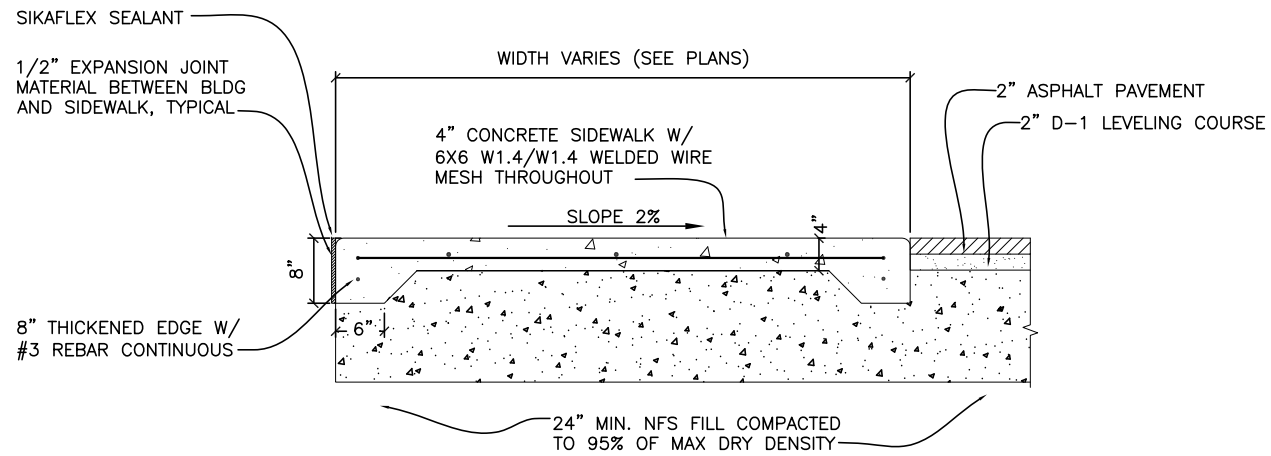
1. ALL FILLS UNDER BUILDING FOOTPRINT, EXTERIOR SLABS & PARKING LOT SHALL BE PLACED IN LIFTS NOT EXCEEDING 12" AND COMPACTED TO 95 PERCENT OF MAXIMUM DRY DENSITY.
2. GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NONCOMPLYING FILL, TOPSOIL, AND OTHER UNSUITABLE MATERIALS. SCARIFY BOTTOM OF EXCAVATION TO PROVIDE BOND WITH NEW FILL.
3. SEE SHEET C3.0 GRADING PLAN FOR CONCRETE AND ASPHALT PAVEMENT GRADES.



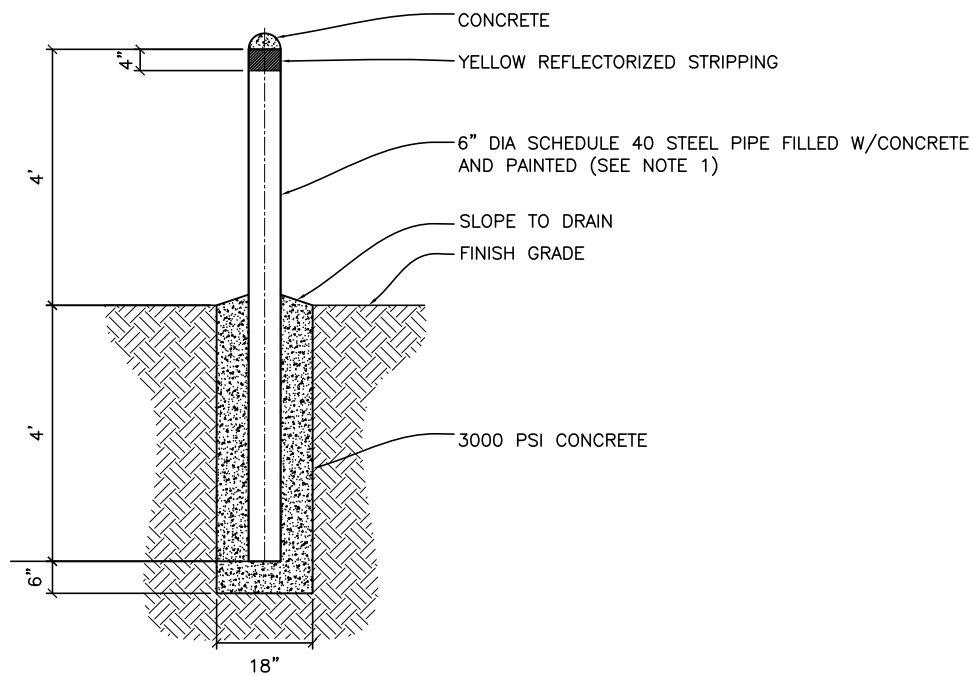
B TYPICAL SITE SECTION 2
C5.0 HORIZONTAL SCALE: 1" = 4' (22X34), 1" = 8' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)

CONTRACTOR TO VERIFY SITE CONDITIONS MATCH THOSE SHOWN. IF SITE CONDITIONS VARY FROM WHAT IS SHOWN PLEASE CONTACT THE ENGINEER.

CONTRACTOR TO VERIFY SITE CONDITIONS MATCH THOSE SHOWN. IF SITE CONDITIONS VARY FROM WHAT IS SHOWN PLEASE CONTACT THE ENGINEER.

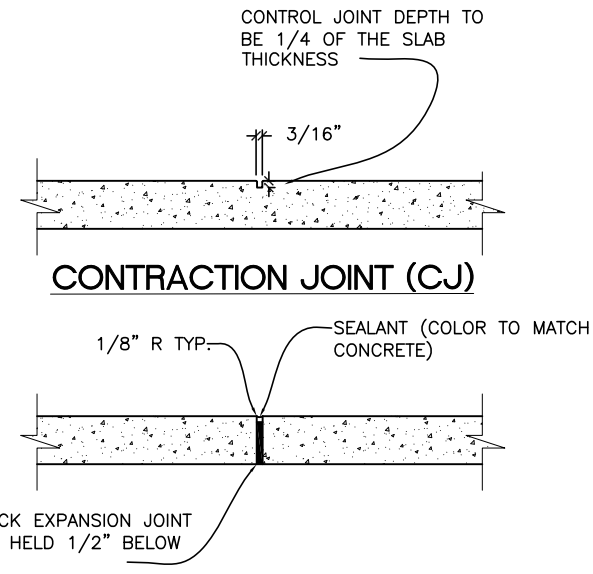


A TYPICAL EXTERIOR SLAB CONSTRUCTION
C6.0 SCALE: NTS



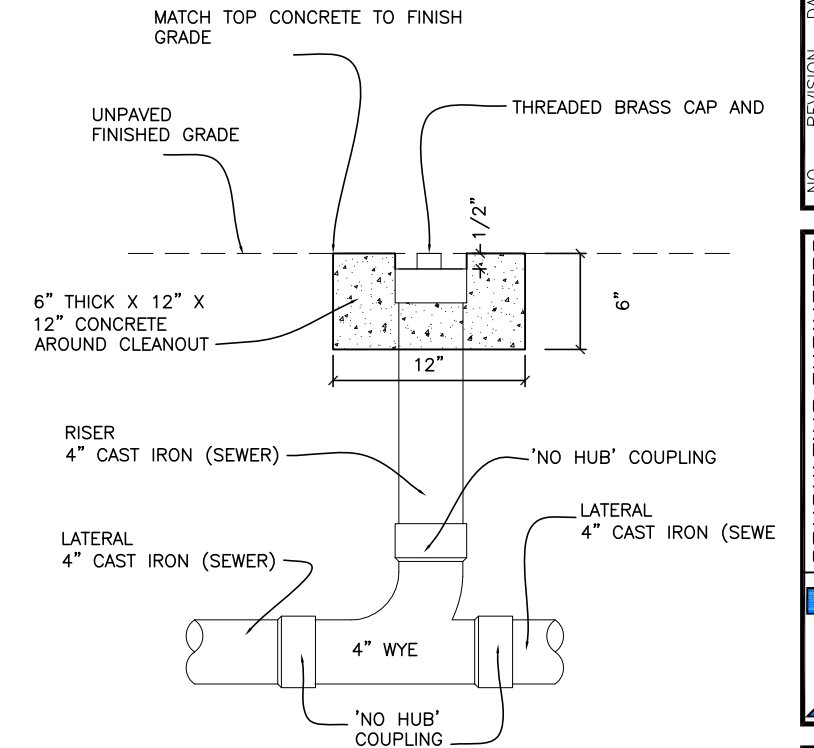
NOTES:
 1. PROVIDE OIL BASED AYKLD ENAMEL

B TYPICAL BOLLARD CONSTRUCTION
C6.0 SCALE: NTS

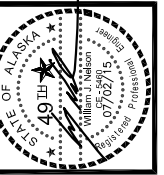


C TYPICAL SLAB JOINTS
C6.0 SCALE: NTS

NOTES:
 1. UNLESS OTHERWISE NOTED, CONTRACTION JOINTS SHALL OCCUR AT DISTANCES EQUAL TO WIDTH OF SIDEWALKS, WITH EXPANSION JOINTS NO FARTHER THAN 30 FEET APART.
 2. UNLESS OTHERWISE NOTED, ALL CONCRETE FLATWORK TO BE OF BROOM FINISH, WITH PATTERN RUNNING PERPENDICULAR TO FLOW OF TRAFFIC.



C TYPICAL SEWER LINE CLEANOUT
C6.0 SCALE: NTS



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RAMP 5 RESTROOMS
 CITY OF HOMER
 SMALL BOAT HARBOR
 SITE SECTIONS

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HORIZ.	NOTED
VERT.	NOTED
SHEET:	C6.0
	6 OF 15

NOTES & SPECIFICATIONS

GENERAL

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF THE INTERNATIONAL CODE COUNCIL INTERNATIONAL BUILDING CODE (IBC) 2009 EDITION. WHERE EXPLICIT DETAILS ARE NOT SHOWN OR DESCRIBED, THE MINIMUM REQUIREMENTS OF THE ABOVE CODE SHALL APPLY. UNLESS OTHERWISE NOTED, ALL CODES, STANDARDS AND OTHER PUBLICATIONS CITED SHALL REFER TO THE LATEST EDITION.

LOCATION

THESE DRAWINGS ARE INTENDED FOR THE CONSTRUCTION OF ONE RESTROOM BUILDING LOCATED AT RAMP #5 NEAR THE HOMER SMALL BOAT HARBOR.

DESIGN LOADS

IN ADDITION TO DEAD LOADS, THE FOLLOWING LOADS WERE USED FOR DESIGN:
OCCUPANCY CATEGORY: II

ROOF:

GROUND SNOW LOAD	Pg=50 PSF
FLAT-ROOF SNOW LOAD	Pf=50 PSF
SNOW EXPOSURE FACTOR	Ce=1.0
SNOW LOAD IMPORT. FACTOR	Is= 1.0
DRIFT LOAD	Pd=0 PSF

WIND:

BASIC WIND SPEED (3 SEC GUST)	V=120 MPH
EXPOSURE D	EXP=1.47
WIND LOAD IMPORT. FACTOR	Iw=1.0
METHOD 1 SIMPLIFIED PROCEDURE	USED FOR DESIGN.
COMP AND CLADDING WIND LOADS	TO BE LOADS SHALL BE PER ASCE 7-05.

SEISMIC:

SEISMIC LOAD IMPORT. FACTOR	Ie=1.0
SPECT. RESPONSE ACCEL.	Ss=152%, S1=58%
SITE CLASS D.	
SPECTRAL RESPONSE COEFF.	Sds=1.01 Sd1=0.58
SEISMIC DESIGN CATEGORY: D	
LATERAL LOADS ARE RESISTED BY SPECIAL REINFORCED MASONRY SHEAR WALLS AND WOOD DIAPHRAGMS.	
BUILDING SEISMIC BASE SHEAR	V=20.5k
SEISMIC RESPONSE COEFF.	Cs=0.203
RESPONSE MODIFICATION FACTOR	R=5
EQUIVALENT LATERAL FORCE PROCEDURE USED FOR DESIGN	

SITE WORK

PREPARATION OF A SAFE AND SUITABLE BUILDING SITE SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS AND SLABS. THE FOUNDATION DESIGN IS BASED ON THE ASSUMPTION THAT SOILS BENEATH THE FOUNDATION ARE WELL DRAINED NON FROST SUSCEPTIBLE SAND OR GRAVEL WITH LOAD CAPACITIES IN ACCORDANCE IBC TABLE 1804.2. ALLOWABLE BEARING CAPACITY OF 2000 PSF WAS USED FOR DESIGN.

FOUNDATIONS

EXCAVATE AND REMOVE ALL ORGANIC MATTER, DEBRIS AND FROST SUSCEPTIBLE SOILS FROM UNDER THE BUILDING FOOTPRINT TO 72" BELOW SLAB AND TO 24" BEYOND THE BUILDING FOOTPRINT. PLACE ALL INTERIOR AND EXTERIOR FOOTINGS ON NATURAL UNDISTURBED, NON-FROST SUSCEPTIBLE (N.F.S.) SOIL OR ON COMPACTED NON-FROST SUSCEPTIBLE GRAVEL BACKFILL FREE OF ORGANIC MATTER AND DEBRIS, AND CONFORMING TO THE FOLLOWING GRADATION:

NON-FROST SUSCEPTIBLE GRAVEL BACKFILL	
SIEVE:	PERCENT PASSING:
3"	100
1"	80 - 100
#4	30 - 70
#200	0 - 5

NO MORE THAN 3% OF PARTICLES BY WEIGHT SHALL BE FINER THAN 0.02 MM. BACKFILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 INCHES IN LOOSE THICKNESS AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-1557.

CONCRETE

GENERAL:
MIXING, SELECTION OF MATERIALS, AND PLACING OF ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE IBC, CHAPTER 19. AN AIR ENTRAINING AGENT SHALL BE USED IN ALL CONCRETE MIXES FOR CONCRETE WORK WHICH IS TO BE EXPOSED TO EARTH OR WEATHER. AIR ENTRAINMENT SHALL BE 5% +/- 1% BY VOLUME. ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'c) = 3000 P.S.I. EXCEPT CONCRETE GROUT FOR MASONRY WALLS WHICH SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'c)= 2000 P.S.I. CONCRETE FOR INTERIOR AND EXTERIOR SLABS SHALL CONTAIN 0.1% BY VOLUME 'GENESIS FIBER' COLLATED FIBRILLATED POLYPROPYLENE FIBER PER CUBIC YARD OF CONCRETE. THE FIBER SHALL BE THOROUGHLY MIXED INTO THE CONCRETE IN TRANSIT TO THE SITE, IN ACCORDANCE WITH THE FIBER MANUFACTURER'S RECOMMENDATIONS.

REINFORCING STEEL

UNLESS NOTED OTHERWISE, ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO IBC CHAPTER 19. REINFORCING BARS SHALL BE GRADE 60. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 DOUBLE ANNEALED IRON WIRE. REINFORCING IN FOOTINGS SHALL BE SUPPORTED ON WELL CURED CONCRETE BLOCKING OR APPROVED METAL CHAIRS. REINFORCING BARS SHALL BE SPLICED BY A LAP OF AT LEAST 30 BAR DIAMETERS. A MINIMUM LAP FOR ALL BARS SHALL BE 24". CONCRETE COVER OVER REINFORCING SHALL BE 3" FOR CONCRETE CAST AGAINST EARTH. CONCRETE COVER FOR FORMED CONCRETE THAT WILL BE EXPOSED TO WEATHER OR EARTH SHALL BE 2" MINIMUM FOR #6 THROUGH #18 BARS AND 1 1/2" MINIMUM FOR #5 BARS AND SMALLER, INCLUDING WELDED WIRE FABRIC (WWF). OTHER REINFORCEMENT SHALL HAVE A MINIMUM COVERAGE OF NOT LESS THAN 3/4".

CONCRETE FORM MASONRY UNIT CONSTRUCTION

ALL CONCRETE FORM MASONRY UNIT (CFMU) WALLS SHALL BE CONSTRUCTED IN CONFORMANCE WITH SECTION 04230. NOMINAL UNIT DIMENSION SHALL BE 8"Hx12"Wx16"L. WALLS SHALL BE CONTINUOUSLY REINFORCED WITH #4 REBAR HORIZONTAL, SPACED AT 24" ON CENTER AND #5 REBAR VERTICAL SPACED AT 16" O/C. WALLS SHALL BE FULLY GROUTED SOLID. (2) #5 REBAR HORIZONTAL SHALL BE PROVIDED AT THE TOP OF ALL MASONRY WALLS, UNDER ALL BEARING POINTS, AND AT FLOOR AND ROOF LEVELS. EXTEND HORIZONTAL REINFORCING A MINIMUM OF 24" BEYOND OPENINGS. ALL INTERSECTING MASONRY WALLS SHALL BE TIED TOGETHER WITH (2) #5 X 24" X 24" CORNER REBARS AT EACH HORIZONTAL REBAR COURSE. MINIMUM VERTICAL REINFORCING AT SIDES OF OPENINGS AND AT CORNERS AND ENDS OF WALLS SHALL BE (2) #5 REBAR. LAP REINFORCING 24" AT ALL SPLICES. WALLS SHALL BE FULLY SOLID GROUTED. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. MORTAR SHALL CONFORM TO IBC CHAPTER 21, TYPE M. CONCRETE FORM MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C-90 STANDARD, GRADE N, F'M = 1900 P.S.I. ALLOWABLE STRESS METHOD HAS BEEN USED FOR DESIGN.

STRUCTURAL STEEL AND CONNECTORS

STRUCTURAL STEEL SHALL CONFORM TO UBC CHAPTER 22. FOR ASTM SPECIFICATION A-36, FY = 36 K.S.I. EXCEPT WHERE NOTED OTHERWISE. STEEL TUBING (TS) SHALL CONFORM TO ASTM A500, GRADE B, FY = 46 K.S.I. DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE IBC CHAPTER 22, DIVISION IX, ALLOWABLE STRESS DESIGN. MACHINE BOLTS (MB) SHALL CONFORM TO ASTM 325 AND SHALL BE PROVIDED WITH STANDARD HEX HEAD NUTS CONFORMING TO ASTM A563, GRADE A AND HARDENED STEEL CIRCULAR WASHERS CONFORMING TO ASTM F436. ALL BOLTS SHALL BE "SNUG TIGHT" UNLESS OTHERWISE NOTED ON DRAWINGS. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY D1.1. ALL WELDS SHALL BE CONTINUOUS 3/16" MINIMUM UNLESS OTHERWISE NOTED. ELECTRODES SHALL BE A.W.S. E-70. ANCHOR ALL COLUMNS WITH MINIMUM (4) 3/4" X 10" ANCHOR BOLTS UNLESS SHOWN OTHERWISE. PROVIDE ADEQUATE LATERAL BRACING FOR STRUCTURE DURING CONSTRUCTION.

ANCHOR BOLTS AND CONCRETE EXPANSION ANCHORS

ANCHOR BOLTS, THREADED RODS AND CONCRETE EXPANSION ANCHORS SHALL CONFORM TO ASTM A 307. CONCRETE EXPANSION ANCHORS (KB) SHALL BE "HILTI KWIK BOLT II" CONCRETE EXPANSION ANCHORS OR STRUCTURAL EQUIVALENT, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ANCHOR BOLTS SHALL BE PROVIDED WITH HEX HEAD NUTS AND 2"x2"x4" STEEL PLATE WASHERS. WHERE BOLTS OR RODS ARE USED WITH CEDAR SILL PLATES, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED OR SHALL BE STAINLESS STEEL. PROVIDE 3/8" X 10" ANCHOR BOLTS AT 48" O/C SPACING UNLESS NOTED OTHERWISE AND WITHIN 6" OF WALL OPENINGS AND BUILDING CORNERS.

SLABS ON GRADE

PREPARE THE SITE BY REMOVING ALL ORGANIC AND FROST SUSCEPTIBLE SOILS AND DEBRIS. AFTER EXCAVATION, COMPACT THE EXISTING SOIL TO 95% OF MAXIMUM DENSITY AND BACKFILL TO BOTTOM OF SLAB ELEVATION WITH NON-FROST SUSCEPTIBLE GRAVEL AND COMPACT AS DESCRIBED ABOVE. PLACE REINFORCING STEEL AT MID-DEPTH OF SLAB AND SUPPORT AT 4'O/C MAXIMUM WITH WELL CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS. DO NOT SUPPORT ON STONES. PROVIDE PREFORMED CONTROL OR CONSTRUCTION JOINTS (C.J.) AT LOCATIONS SHOWN ON THE PLANS AND AT 17' O/C MAXIMUM.

PROVIDE SMOOTH TROWEL FINISH AT INTERIOR LOCATIONS AND LIGHT BROOM FINISH AT EXTERIOR LOCATIONS. PROVIDE 1/2" RADIUS AT PERIMETER EDGES OF SLAB.

DRAINAGE:

SLOPE ALL EXTERIOR SLABS ADJACENT TO BUILDINGS TO DRAIN AWAY FROM BUILDING PERIMETER AT 1/8" PER FOOT MINIMUM SLOPE.

FIBERGLASS REINFORCED PLASTIC (FRP) DOORS

FIRE-RATED DOOR, PANEL AND FRAME CONSTRUCTION SHALL CONFORM TO ASTM E152, UL10C & NFPA 252. ALL PRODUCTS SHALL BE SUPPLIED BY 'FIB-R-DOR' OR APPROVED EQUAL. OBTAIN ALL FRP DOORS AND FRAMES FROM A SINGLE MANUFACTURER TO ENSURE CONSISTENT QUALITY. TOTAL DOOR THICKNESS SO BE A NOMINAL 1-3/4" THICK. PROVIDE DOORS WITH COMPLETELY SEAMLESS CONSTRUCTION ON ALL SIX SURFACES. THE CORE OF THE DOOR SHALL BE 1-1/2" THICK POLYURETHANE FOAM CORE WITH AN R-12 INSULATION FACTOR. THE FOAM PROPERTIES SHALL COMPLY WITH ASTM E-84 AND IBC.

FIBERGLASS REINFORCED PLASTIC (FRP) WALL PANELS

PROVIDE FRP PANELS FROM 'SYMMETRIX, OR APPROVED EQUAL, WITH STANDARD ORANGE PEEL TEXTURE AND WHITE COLOR. FRP PANELS SHALL BE SUPPLIED AT INTERIOR WOOD WALLS UP TO 8' HIGH. THE PANELING PROPERTIES SHALL COMPLY WITH ASTM E-84 AND IBC.

RESTROOM SIGNS

MCKINNEY HCLAV01-M AND HCLAV01-W, 6" X 9"X 1/8" BLUE PLASTIC WITH RAISED WHITE LETTERS, PICTOGRAPHS AND BRAILLE. PROVIDE TWO OF EACH TYPE. LOCATE BOTH MENS AT ONE RESTROOM AND BOTH WOMEN'S AT ONE RESTROOM.

PAINT

CMU INTERIOR:

- PRIME WITH WITH ONE COAT OF 'COLUMBIA HI-PERFORMANCE INT/EXT ACRYLIC LATEX BLOCK FILLER 05-055', 16 TO 20 WET MILS, 8.7 TO 10.9 DRY MILS THICKNESS.
- PAINT WITH TWO COATS OF 'COLUMBIA MASTERPIECE LIFETIME EXTERIOR ACRYLIC LATEX VELVET 01-006', 6.0 TO 7.0 WET MILS, 2.5 TO 2.9 DRY MILS PER COAT. COLOR: WHITE.

- FINISH WITH ONE COAT 'SHERWIN WILLIAMS NON-SACRIFICIAL ANTI-GRAFFITI COATING B97C00150', 8.0 TO 12.0 WET MILS AND 6.0 TO 9.0 DRY MILS THICKNESS PER COAT. COLOR: CLEAR.

CMU EXTERIOR:

- FINISH WITH TWO COATS 'SHERWIN WILLIAMS NON SACRIFICIAL ANTI-GRAFFITI COATING B97C00150', 8.0 TO 12.0 WET MILS AND 6.0 TO 9.0 DRY MILS THICKNESS PER COAT. COLOR: CLEAR.

DOORS:

PRIMED DOORS AND FRAMES SHALL BE PAINTED WITH TWO COATS MASTERPIECE LIFETIME EXTERIOR ACRYLIC LATEX VELVET 01-006. COLOR: PER OWNER'S SELECTION FROM MANUFACTURER'S STANDARD PALLETTE.

MISCELLANEOUS STEEL:

PRIME THEN PAINT STEEL WITH 2 COATS MASTERPIECE LIFETIME EXTERIOR ACRYLIC LATEX VELVET 01-006. COLOR: PER OWNER'S SELECTION FROM MANUFACTURER'S STANDARD PALLETTE.

WOOD:

PAINT WITH TWO COATS 'COLUMBIA WOODTECH SEMI-TRANSPARENT WATERBORNE U.V. WOOD STAIN. 4.0 TO 10.0 WET MILS, 0.8 TO 2.0 DRY MILS PER COAT. COLOR PER OWNER SELECTION FROM MANUFACTURER'S STANDARD PALLETTE.

ADHESIVE ANCHORING SYSTEM

THREADED ROD ANCHORS AND REINFORCING BAR DOWELS SHALL BE SET IN SIMPSON ACRYLIC TIE ADHESIVE OR STRUCTURAL EQUIVALENT. ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE ADHESIVE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. MINIMUM EMBEDMENT IN CONCRETE AND MASONRY FOR ALL ANCHORS SHALL BE 3 1/2", AND 5 1/2" RESPECTIVELY UNLESS NOTED OTHERWISE.

TUBULAR DAYLIGHTING DEVICE

PROVIDE 'SOLATUBE' BRAND OR APPROVED EQUAL. THE DEVICE SHALL BE TRANSPARENT ROOF-MOUNTED SKYLIGHT DOME AND SELF-FLASHING CURB, REFLECTIVE TUBE, AND CEILING LEVEL DIFFUSER ASSEMBLY, TRANSFERRING SUNLIGHT TO INTERIOR SPACES, COMPLYING WITH ICC AC-16. PROVIDE 'SOLATUBE' MODEL 160 DS, 10 INCH DAYLIGHTING SYSTEM. THE DOME ASSEMBLY SHALL BE UV AND IMPACT RESISTANT DOME WITH FLASHING BASE SUPPORTING DOME AND TOP OF TUBE.

ADA GRAB BARS

ADA GRAB BARS: 1 1/4" OUTSIDE DIAMETER, 18 GAGE, TYPE 304 STAINLESS STEEL TUBING WITH EXPOSED SURFACES POLISHED TO SATIN FINISH. PROVIDE 'BOBRICK' B-5806 SERIES. ALL GRAB BARS SHALL BE PROVIDED AT LOCATIONS INDICATED ON THE DRAWINGS.

PLYWOOD

ALL PLYWOOD SHALL CONFORM TO UBC STANDARD 23-2 AND SHALL BE AMERICAN PLYWOOD ASSOCIATION GRADE TRADE MARKED. PLYWOOD SHALL BE GROUP I OR GROUP II DOUGLAS FIR. ALL PANELS SHALL BE NOMINAL 4' X 8' PANELS. UTILIZE FULL SHEETS WHEREVER POSSIBLE. LAY FACE GRAIN OF ROOF AND FLOOR SHEATHING PANELS PERPENDICULAR TO JOISTS AND WITH PANEL CONTINUOUS OVER THREE OR MORE SPANS. STAGGER END JOINTS OF SUCCESSIVE COURSES 4' - 0". WALL SHEATHING SHALL BE INSTALLED WITH THE FACE GRAIN PARALLEL TO STUDS, (LONG DIMENSION VERTICAL).

ROOF SHEATHING: SHALL BE 5/8" THICK GRADE APA 40/20 SPAN RATED PLYWOOD WITH EXTERIOR GLUE. ROOF SHEATHING SHALL BE FASTENED TO END SUPPORTS WITH 10D GALVANIZED NAILS (0.148"x3") AT 6" O/C. AT BLOCKED DIAPHRAGM LOCATIONS, FASTEN PLYWOOD TO FRAMING AT ALL PANEL EDGES WITH 10D GALVANIZED NAILS @ 4" O/C. AT ALL LOCATIONS, FASTEN PLYWOOD TO INTERMEDIATE SUPPORTS WITH 10D GALVANIZED NAILS AT 12 INCHES ON CENTER. PROVIDE 2X4 BLOCKING ALONG ALL PANEL EDGES WHERE SHOWN ON THE DRAWINGS. FASTEN ROOF SHEATHING TO BLOCKING OVER EXTERIOR WALLS WITH 10D GALVANIZED NAILS AT 4" O/C.

WALL SHEATHING: EXCEPT WHERE NOTED OTHERWISE, WALL SHEATHING SHALL BE 15/32" THICK STRUCTURAL 1 PLYWOOD WITH EXTERIOR GLUE AND SHALL BE FASTENED TO FRAMING WITH 8D (0.131"x2.5" COMMON, 0.113"x2.5" GALVANIZED BOX) GALV NAILS @ 3" O.C ALONG PANEL EDGES AND 8D GALV NAILS @ 12" O/C ALONG INTERMEDIATE FRAMING. WALL SHEATHING SHALL BE BLOCKED AT ALL EDGES WITH NOMINAL 2" SOLID BLOCKING.

SAWN LUMBER AND TIMBER

LUMBER SHALL CONFORM TO THE CLASSIFICATION, DEFINITION, AND GRADING REQUIREMENTS OF IBC CHAPTER 23 WITH ALLOWABLE UNIT STRESSES AS GIVEN IN THE AMERICAN FOREST & PAPER ASSOCIATION 'NATIONAL DESIGN SPECIFICATION 2001 SUPPLEMENT', TABLE 4A. LUMBER SHALL BE GRADE MARKED BY THE WEST COAST LUMBER INSPECTION BUREAU /WESTERN WOOD PRODUCTS ASSOCIATION.

<u>ITEM</u>	<u>SPECIES</u>
4X AND LARGER	WESTERN RED CEDAR #2
ROOF DECKING	HEM FIR #2
ALL OTHER LUMBER	HEM FIR #2

ALL LUMBER SHALL BE FASTENED IN CONFORMANCE WITH TABLE 2304.9.1 OF THE IBC, UNLESS NOTED OTHERWISE. FASTENERS SHALL BE HOT DIP GALVANIZED UNLESS OTHERWISE NOTED. FASTEN DECKING TO SUPPORTS WITH (3) 16D GALVANIZED NAILS AT EACH SUPPORT.

BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH FLAT WASHERS. SOLID BLOCKING OF NOT LESS THAN 2" NOMINAL THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORTS OF JOISTS AND RAFTERS, UNLESS SHOWN OTHERWISE. BEAM AND JOIST HANGERS SHALL HAVE A CAPACITY EQUAL TO THE SHEAR STRENGTH OF THE BEAM OR JOIST WHICH IT IS SUPPORTING, UNLESS NOTED OTHERWISE.

PROVIDE METAL FRAMING ANCHORS AND HANGERS SHOWN ON DRAWINGS. ALL CONNECTORS SHALL BE " SIMPSON STRONG TIE" AS MANUFACTURED BY SIMPSON COMPANY OR APPROVED EQUAL. ALL SIMPSON CONNECTORS SHALL BE 'Z-MAX' COATED.

STEEL ROOFING PANELS:

ARCHITECTURAL/STRUCTURAL INTEGRAL STANDING SEAM PANEL, 24 GAUGE, 18" COVERAGE WITH 1 3/4" INTEGRAL STANDING SEAM RIB, SNAP TOGETHER SYSTEM WITH FACTORY APPLIED SIDE LAP SEALANT. CONCEALED CLIP DESIGNED FOR THERMAL MOVEMENT. KYNAR 500 PVDF FACTORY APPLIED FINISH. UL263 FIRE RESISTANCE. VERTICAL SEAM, FLAT PAN. 'METAL SALES VERTICAL SEAM'.

PANELS SHALL BE CONNECTED TO ROOF DECKING WITH VERTICAL SEAM CLIPS AT 32" ON CENTER. FASTEN CLIPS TO WOOD DECK WITH (2) #10-12X1" PLATED PANCAKE HEAD SCREW AT 12" O/C ALONG PANEL EDGE.

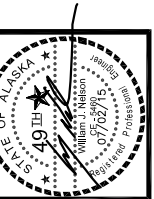
PROVIDE COLOR MATCHED FACTORY TRIMS AT RAKE, RIDGE AND EAVE. INSTALL TRIMS PER MFR'S RECOMMENDATIONS.

SPECIAL INSPECTION

OWNER SHALL PROVIDE A SPECIAL INSPECTION PROGRAM IN ACCORDANCE WITH IBC CHAPTER 17.

CONCRETE

- INSPECTION OF REINFORCING STEEL AND PLACEMENT, PRIOR TO POURING CONCRETE.
 - SUBMITTAL OF CONCRETE MIX DESIGN TO VERIFY CONFORMANCE TO SPECIFICATIONS.
 - TESTING OF CONCRETE MATERIALS FOR CONCRETE USED IN CONSTRUCTION.
- ### MASONRY
- PERIODIC INSPECTION OF MASONRY AND REBAR AND INSPECTION DURING GROUTING OPERATIONS.



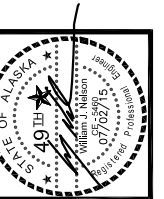
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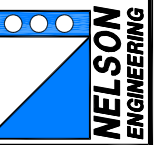
RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
GENERAL NOTES

PROJECT NO.	1515
DRAWN BY:	MJD
CHECKED BY:	WJN
DATE:	07/02/2015
SCALES:	NOTED
HORIZ.	NOTED
VERT.	NOTED
SHEET:	S10
	7 of 15



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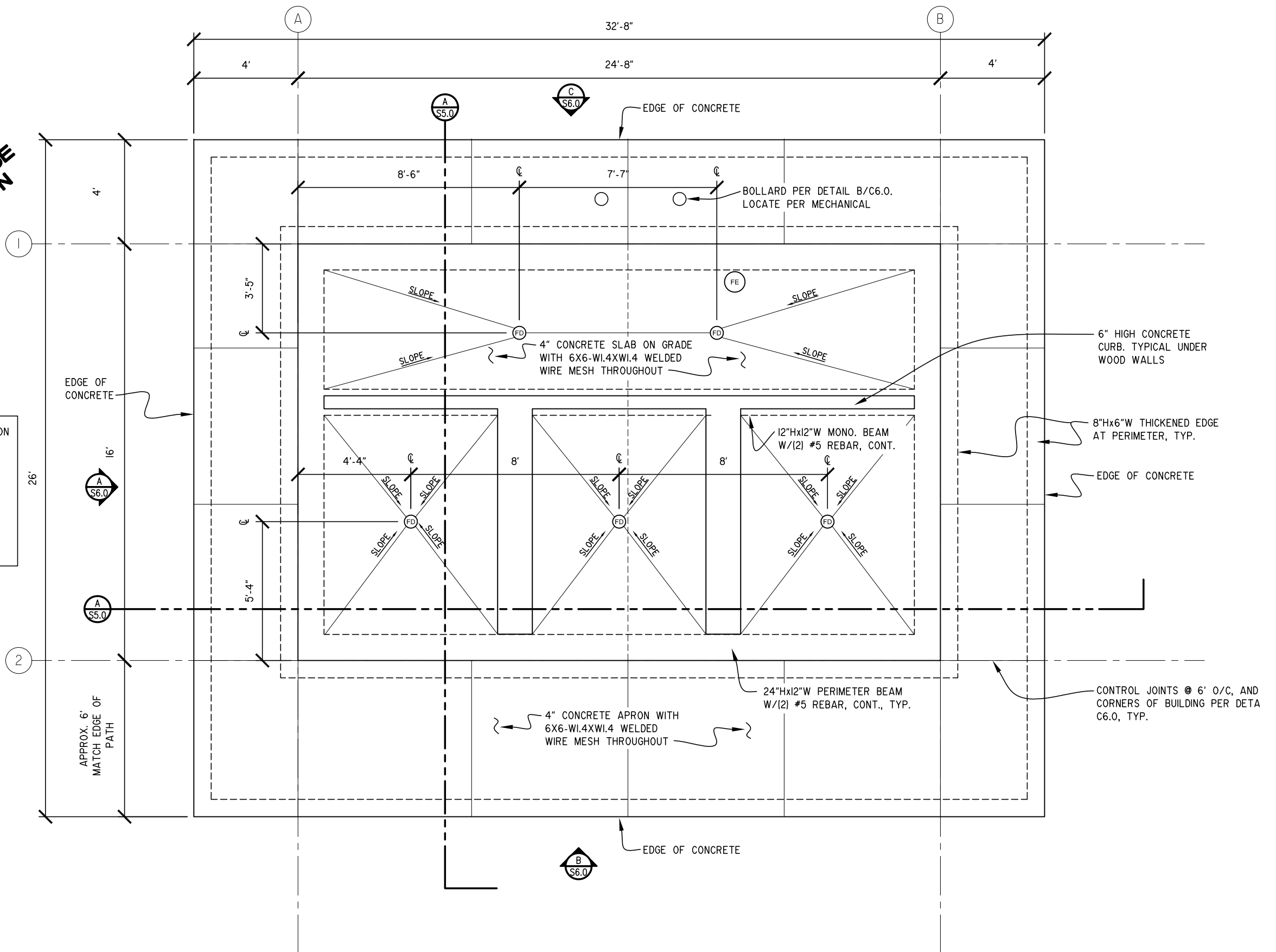
RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
FOUNDATION PLAN

PROJECT NO.
1515
DRAWN BY:
MJD
CHECKED BY:
WJN
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET: **S2.0**
8 OF 15

PLAN TRUE N

LEGEND

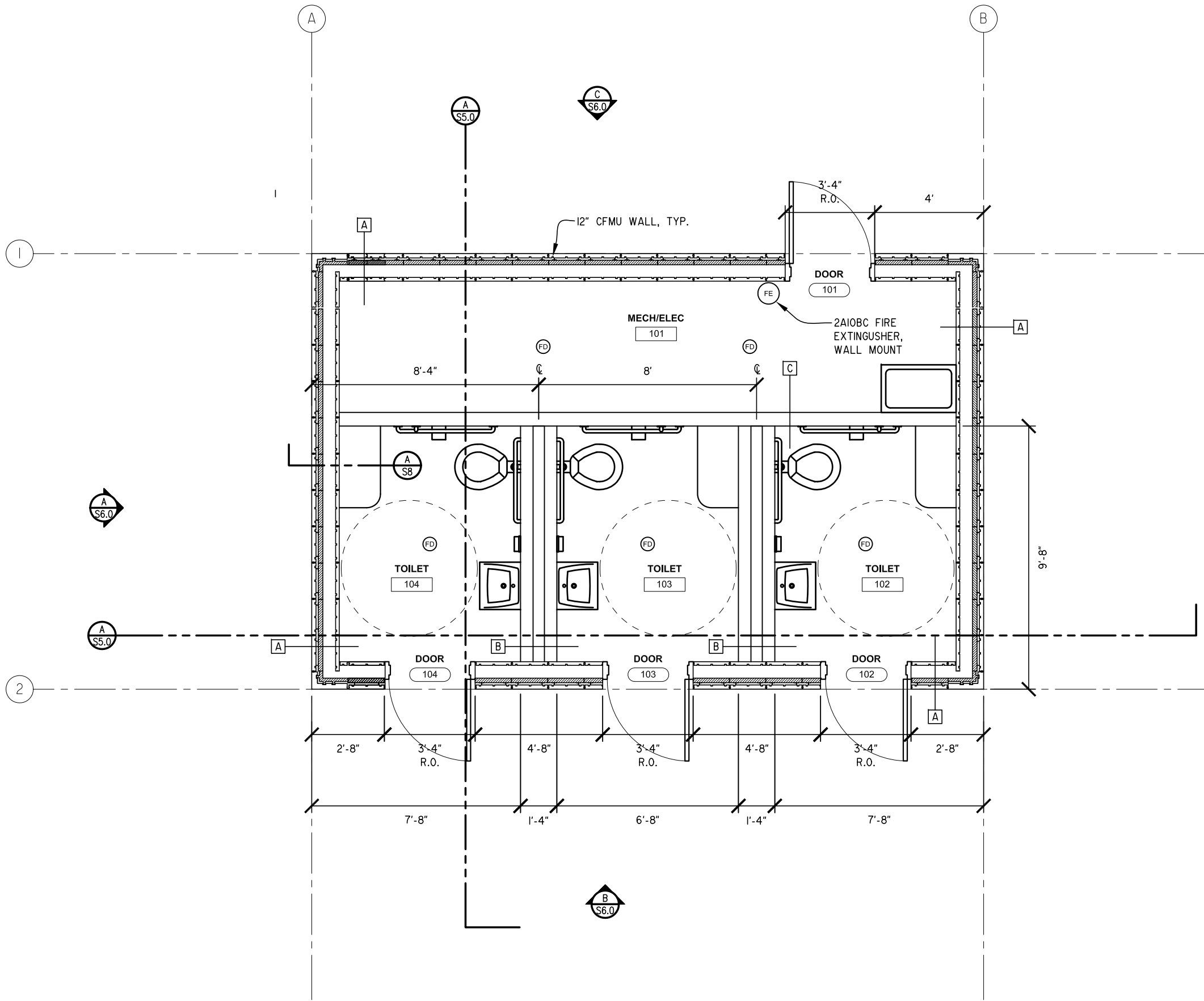
(FD) - FLOOR DRAIN SLAB PENETRATION



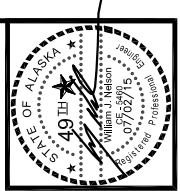
A RESTROOM FOUNDATION PLAN
SCALE: 1/2"=1'-0" (22X34) 1/4"=1'-0" (11X17)

2009 IBC CODE DATA	
OCCUPANCY GROUP	B
CONSTRUCTION TYPE	V-B
ALLOWABLE AREA PER STORY	1 STORY - 9000SF
NUMBER OF STORIES	1 STORY
BLDG AREA	394 SF
B OCCUPANT LOAD	394SF/100SF = 4
EXITS REQUIRED	1
EXIT WIDTH REQUIRED	32 INCHES
MAX ALLOWED EXIT DISTANCE	200 FEET
ACTUAL EXIT DISTANCE	16 FEET

↓ ↓
PLAN TRUE N

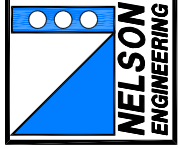


RESTROOM FLOOR PLAN
 SCALE: 1/2"=1'-0" (22X34) 1/4"=1'-0" (11X17)



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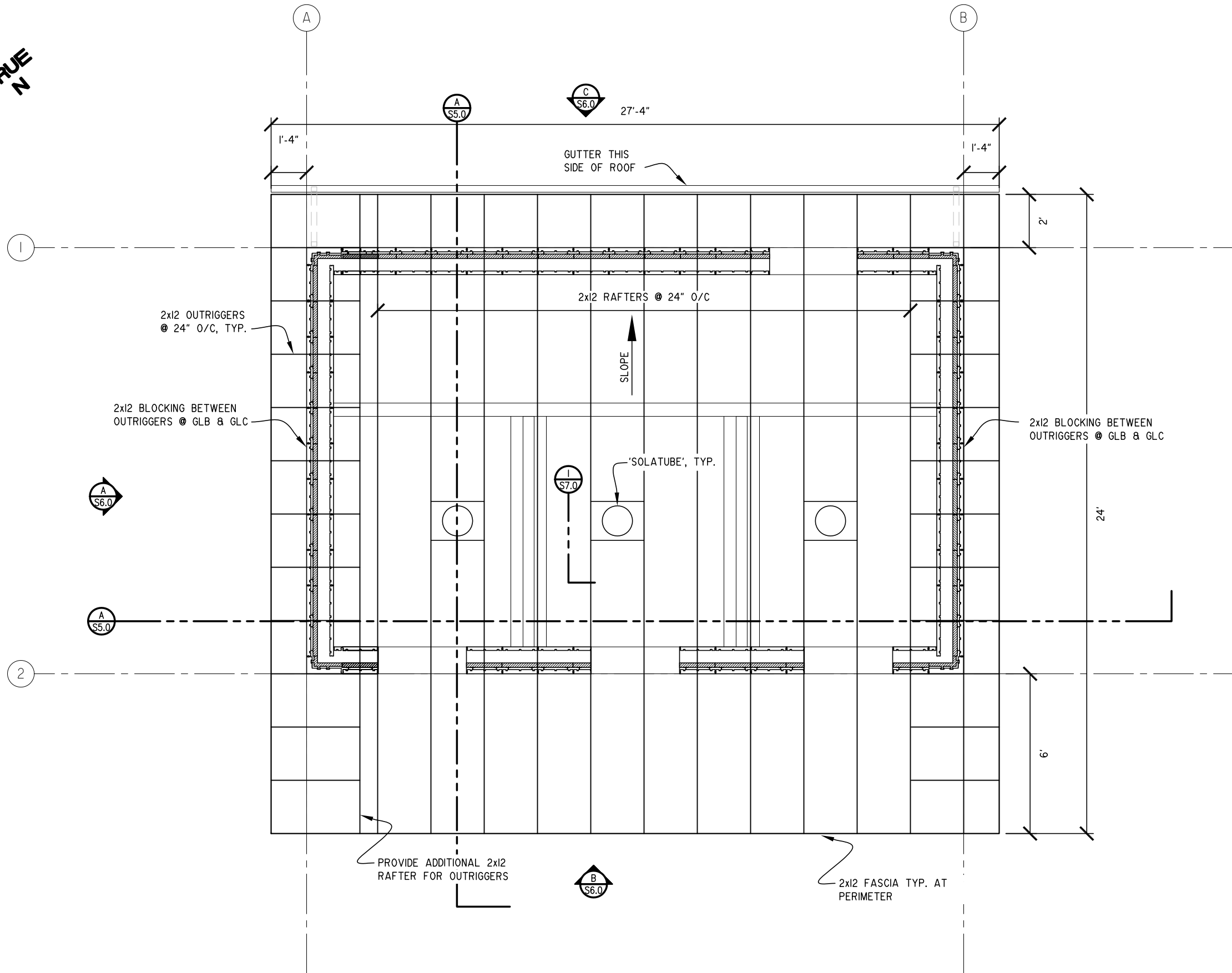
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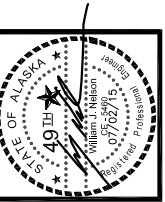
RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
 FLOOR PLAN

PROJECT NO.	1515
DRAWN BY:	MJD
CHECKED BY:	WJN
DATE:	07/02/2015
SCALES:	NOTED
HORIZ.:	NOTED
VERT.:	NOTED
SHEET:	S3.0
	9 OF 15

PLAN TRUE N

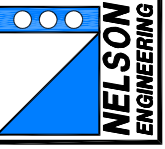


A ROOF FRAMING PLAN
 S4.0 SCALE: 1/2"=1'-0" (22X34) 1/4"=1'-0" (11X17)



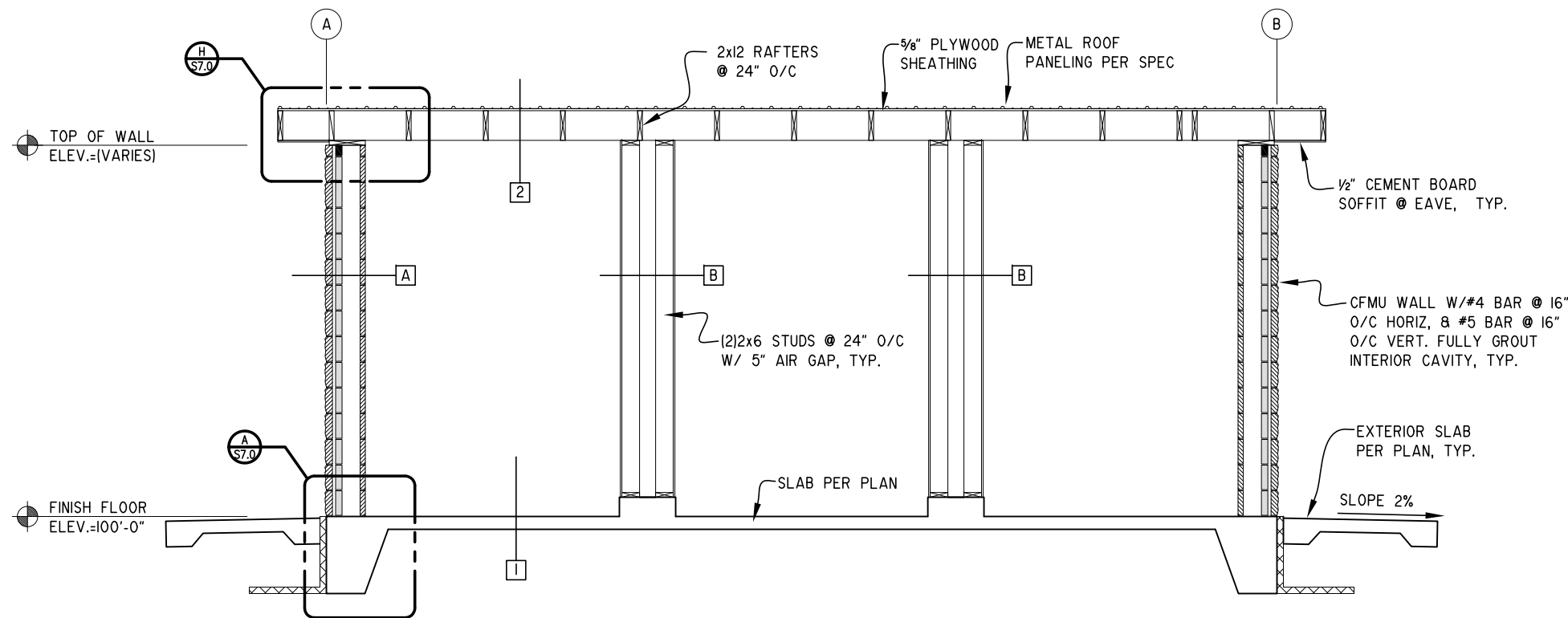
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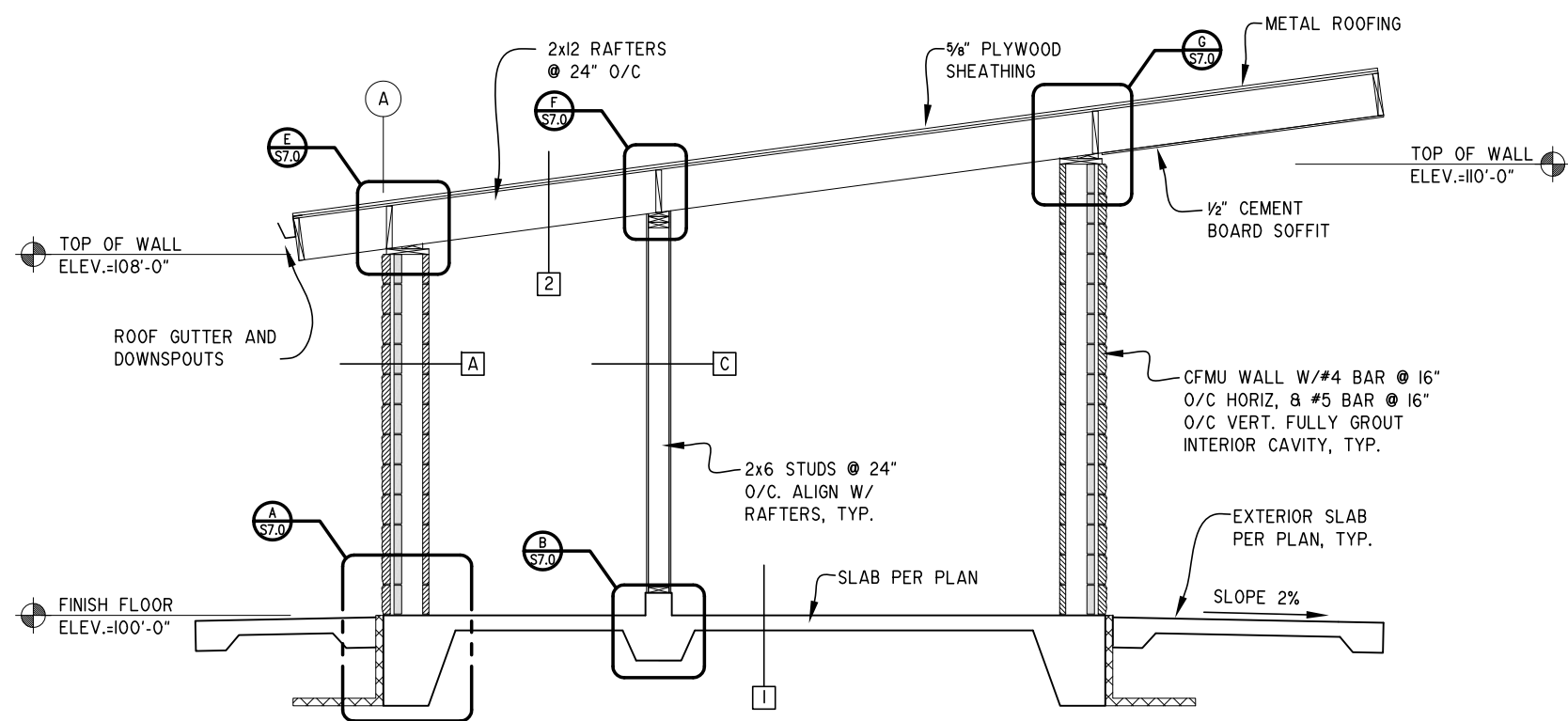
RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
 ROOF FRAMING PLAN

PROJECT NO. 1515
 DRAWN BY: MJD
 CHECKED BY: WJN
 DATE: 07/02/2015
 SCALES: NOTED
 HORIZ. NOTED
 VERT. NOTED
 SHEET: **S4.0**
 10 OF 15



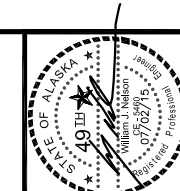
A BUILDING LONGITUDINAL SECTION

S5.0 SCALE: 1/2"=1'-0" (22X34) 1/4"=1'-0" (11X17)



B BUILDING TRANSVERSE SECTION

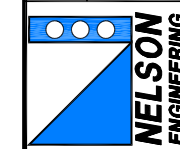
S5.0 SCALE: 1/2"=1'-0" (22X34) 1/4"=1'-0" (11X17)



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**RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR**
TYPICAL SECTIONS

PROJECT NO.
1515

DRAWN BY:
MJD

CHECKED BY:
WJN

DATE: 07/02/2015

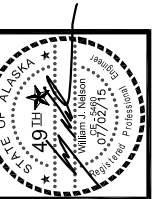
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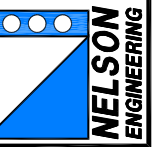
SHEET: **S5.0**

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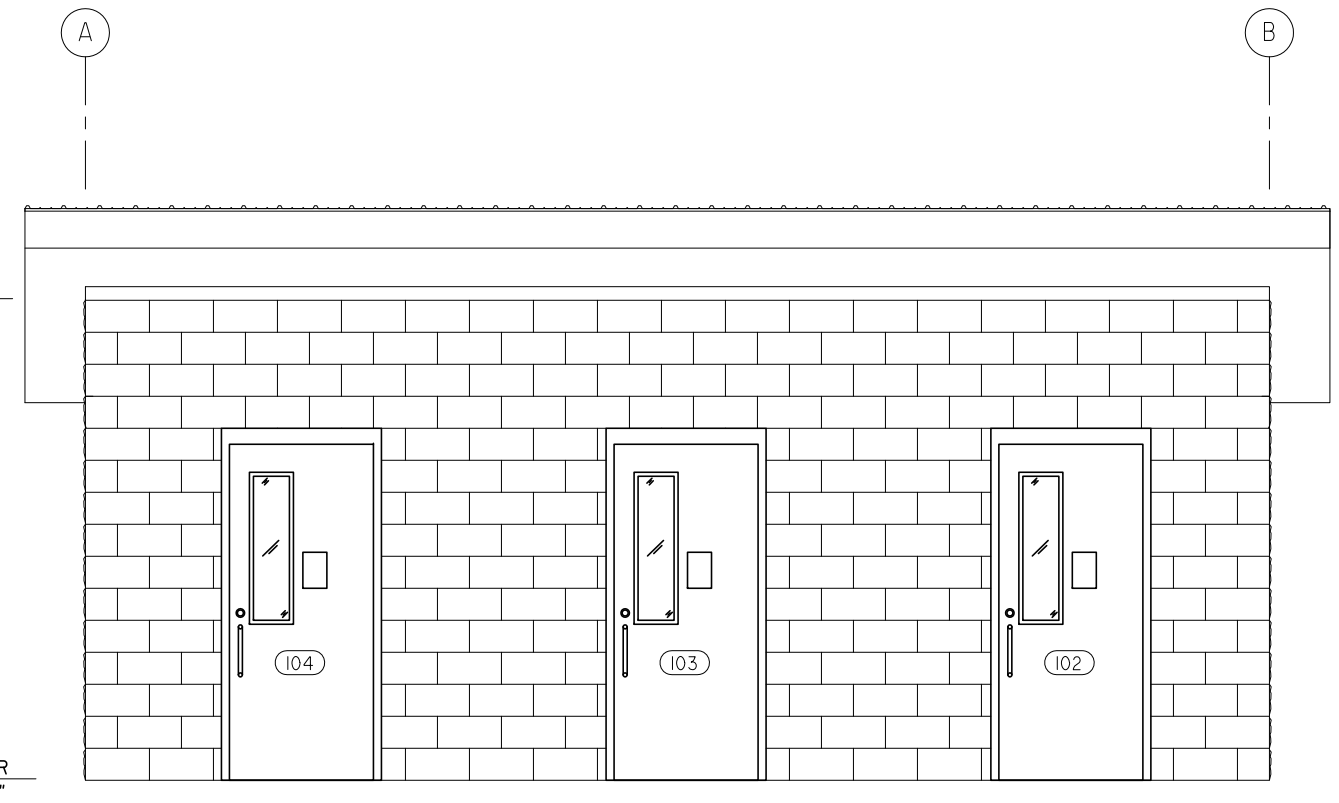
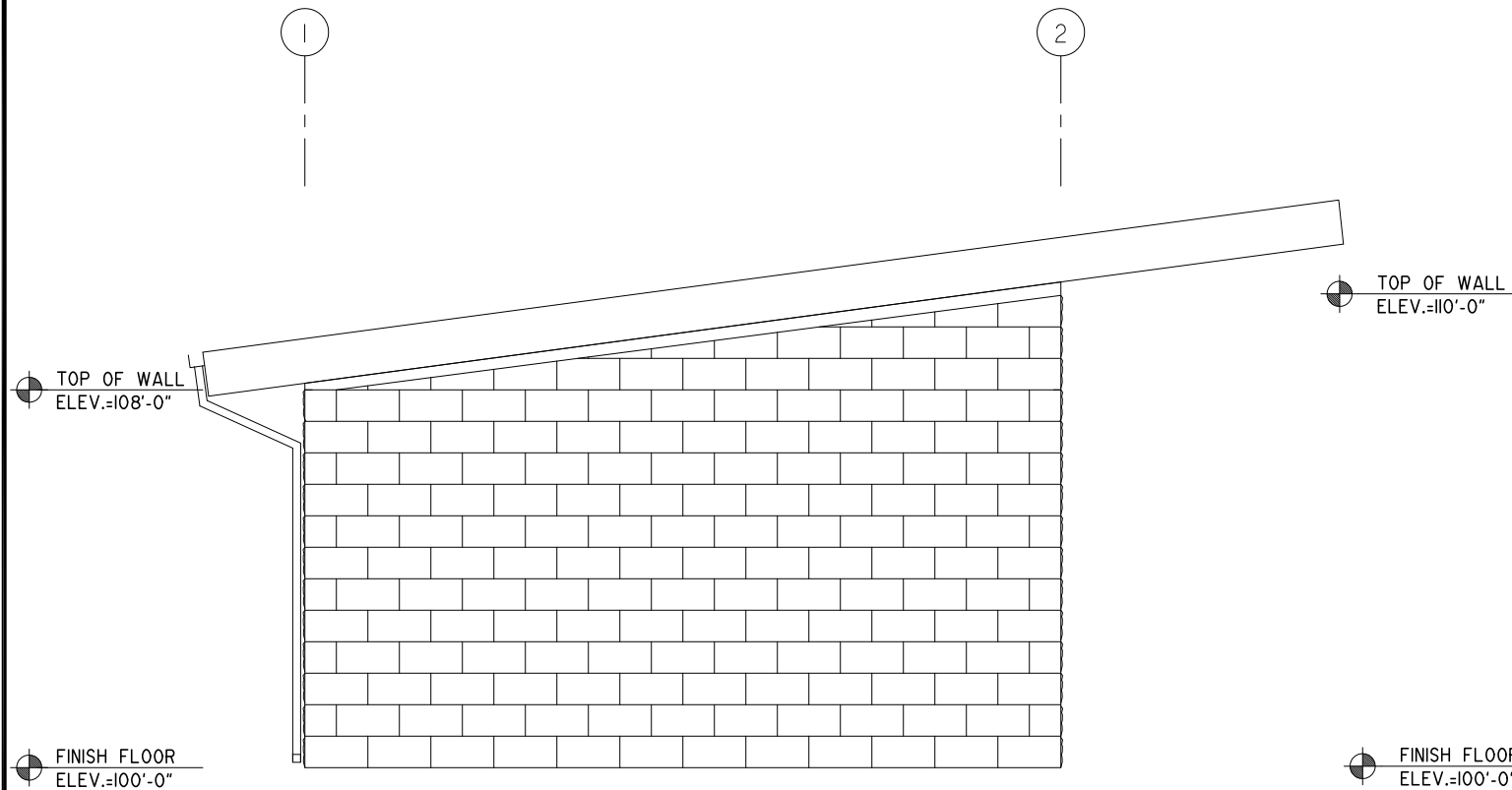
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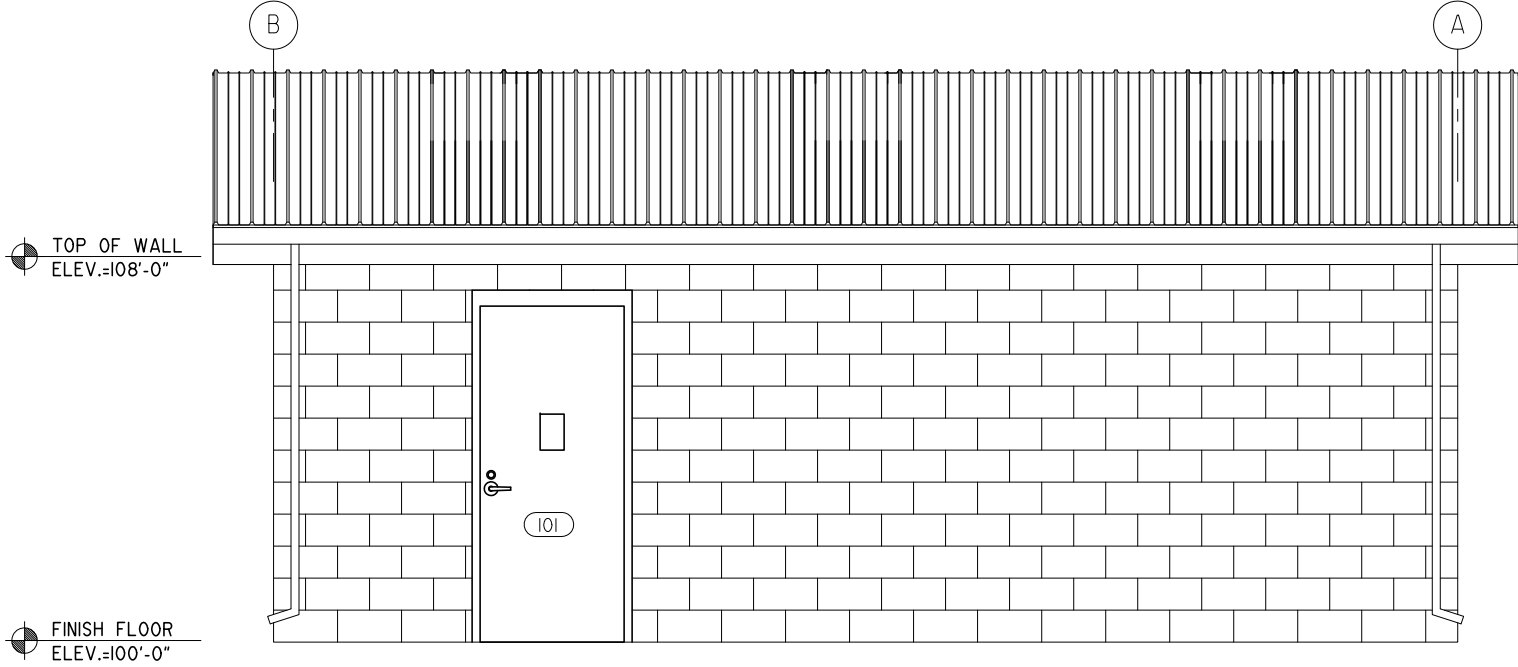
RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
ELEVATIONS

PROJECT NO.
1515
DRAWN BY:
MJD
CHECKED BY:
WJN
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET: **S6.0**
12 OF 15

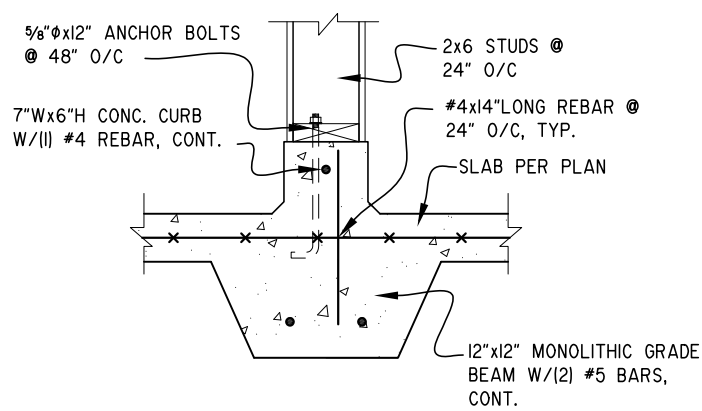
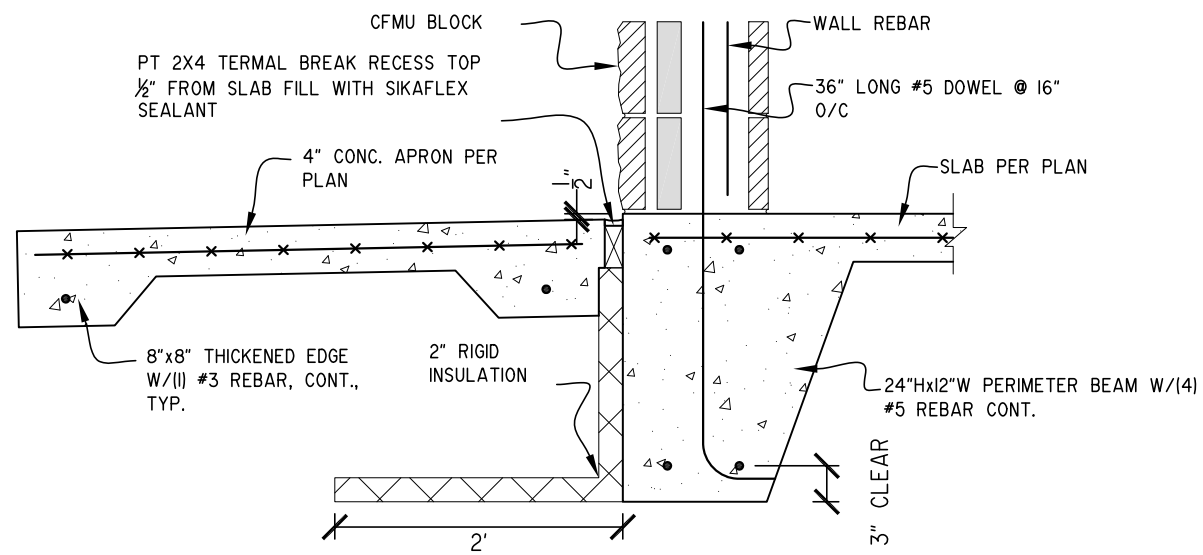


A SIDE ELEVATION
S6.0 SCALE: 1/2"=1'-0"(22X34) 1/4"=1'-0" (11X17)

B FRONT ELEVATION
S6.0 SCALE: 1/2"=1'-0"(22X34) 1/4"=1'-0" (11X17)



C REAR ELEVATION
S6.0 SCALE: 1/2"=1'-0"(22X34) 1/4"=1'-0" (11X17)

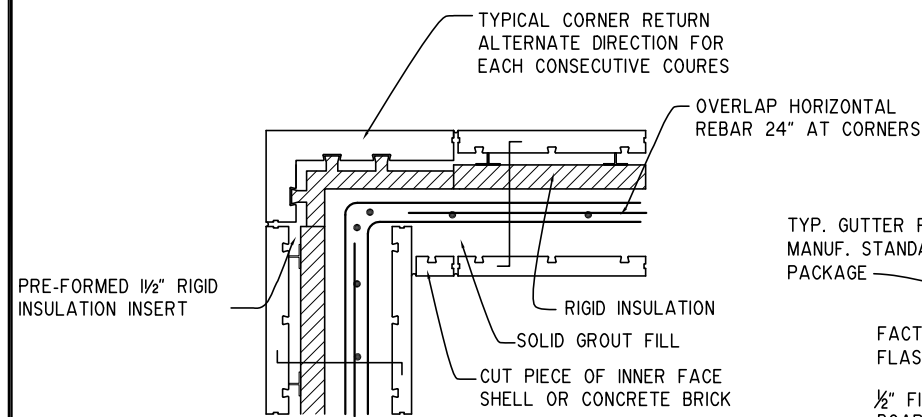


A PERIMETER BEAM @ CONC. APRON

S7.0 SCALE: 1-1/2"=1'-0" (22X34) 3/4"=1'-0" (11X17)

B INTERIOR GRADE BEAM

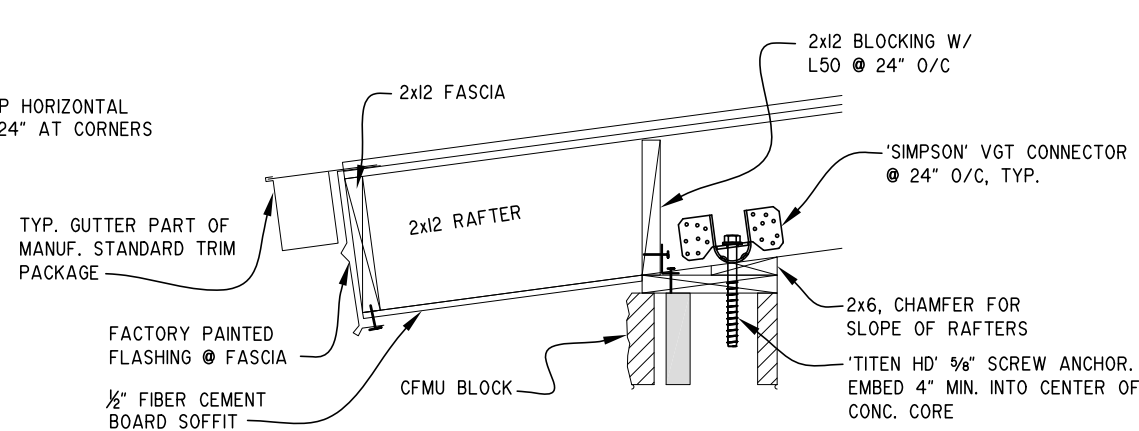
S7.0 SCALE: 1-1/2"=1'-0" (22X34) 3/4"=1'-0" (11X17)



D CFMU REINFORCEMENT @ CORNERS

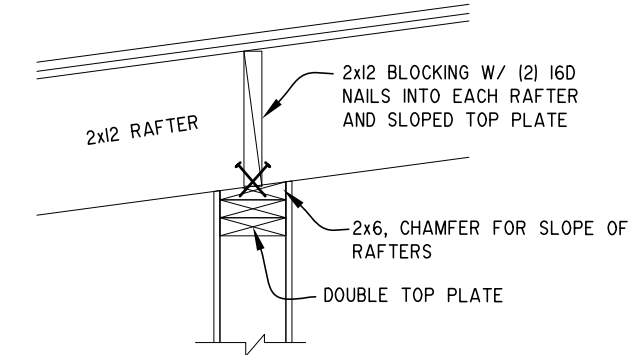
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INTERIOR



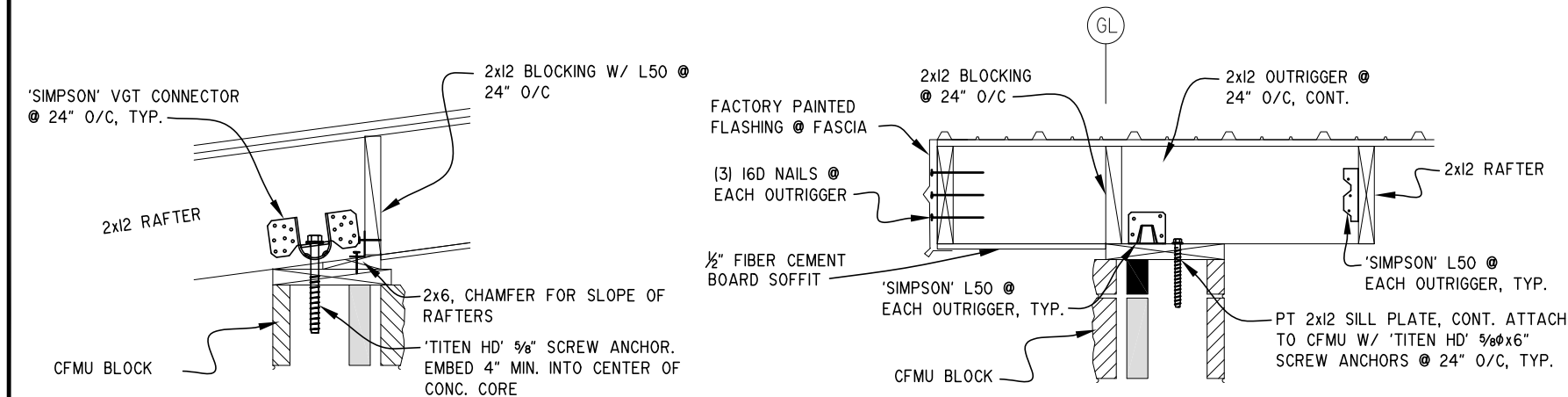
E RAFTER BEARING @ CFMU

S7.0 SCALE: 1-1/2"=1'-0" (22X34) 3/4"=1'-0" (11X17)



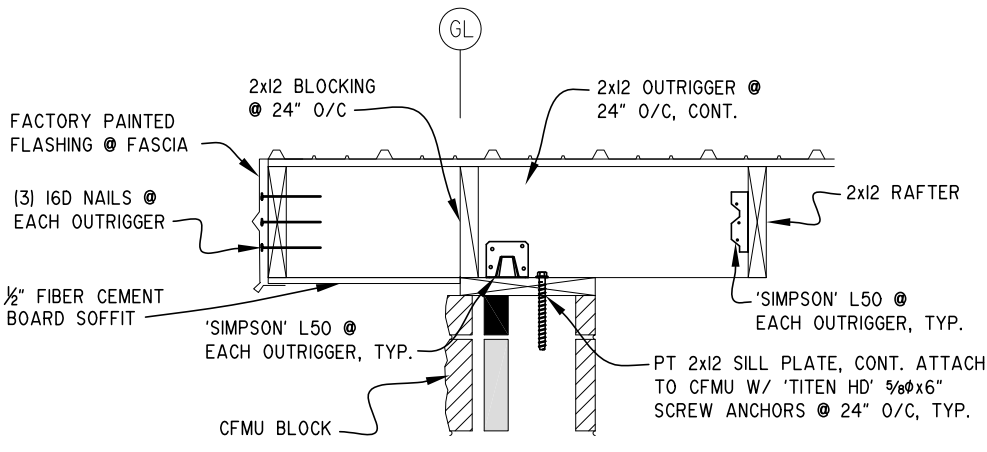
F RAFTER BEARING @ INTERIOR WALL

S7.0 SCALE: 1-1/2"=1'-0" (22X34) 3/4"=1'-0" (11X17)



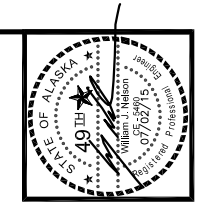
G RAFTER BEARING @ CANTILEVER

S7.0 SCALE: 1-1/2"=1'-0" (22X34) 3/4"=1'-0" (11X17)



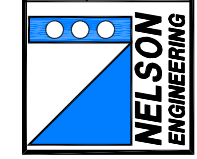
H OUTRIGGER FRAMING

S7.0 SCALE: 1-1/2"=1'-0" (22X34) 3/4"=1'-0" (11X17)



NO.	REVISION	DATE

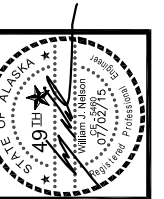
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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
DETAILS

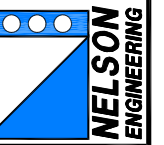
PROJECT NO.
1515
DRAWN BY:
MJD
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WJN

DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET: **S7.0**
13 OF 15



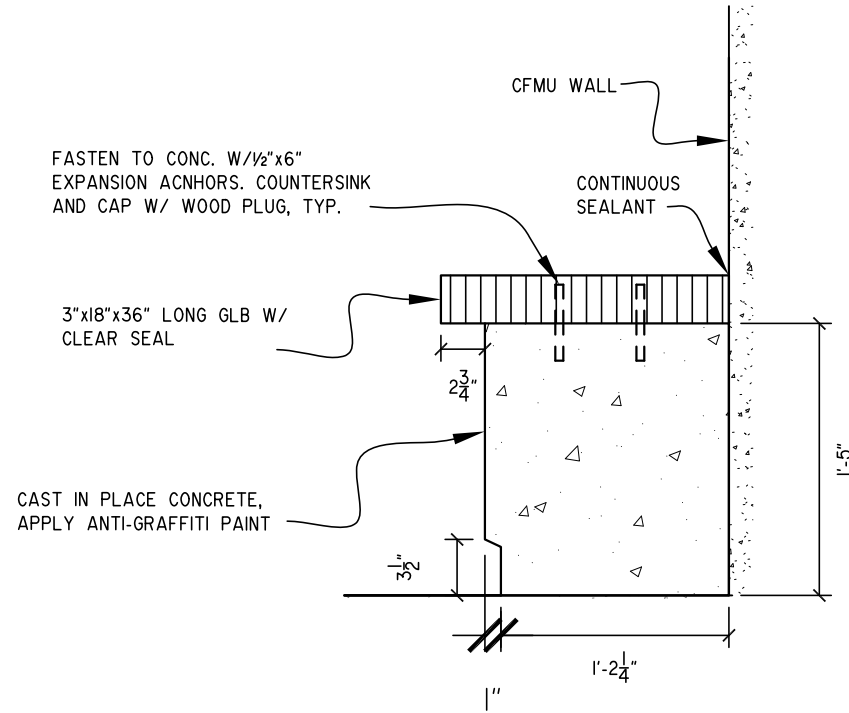
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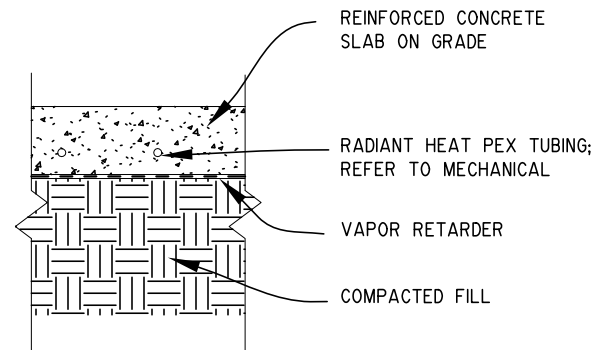


RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
DETAILS

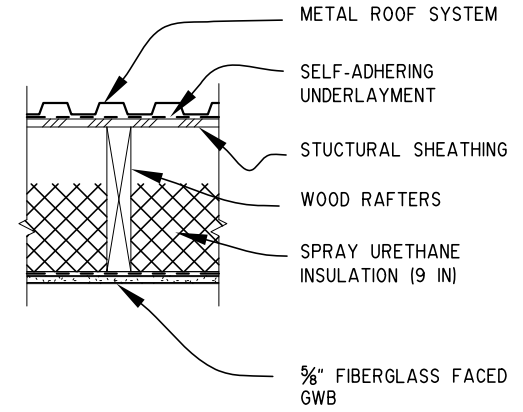
PROJECT NO.
1515
DRAWN BY:
MJD
CHECKED BY:
WJN
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET: **S8.0**
14 OF 15



A BATHROOM BENCH
SCALE: 2"=1'-0" (22X34) 1"=1'-0" (11X17)

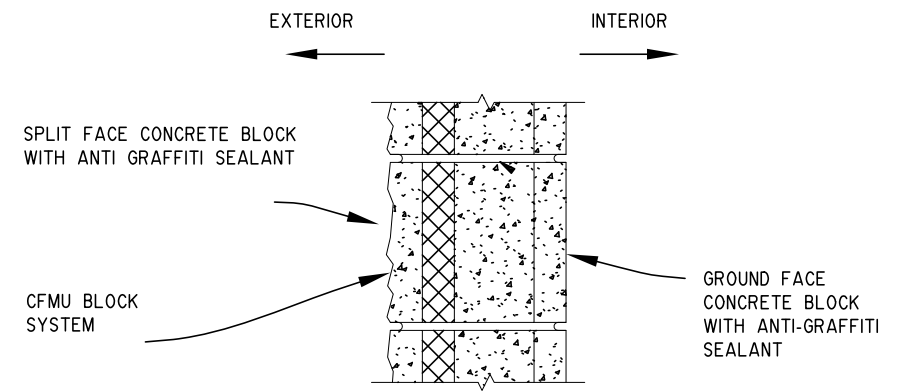


1 CONCRETE SLAB ON GRADE

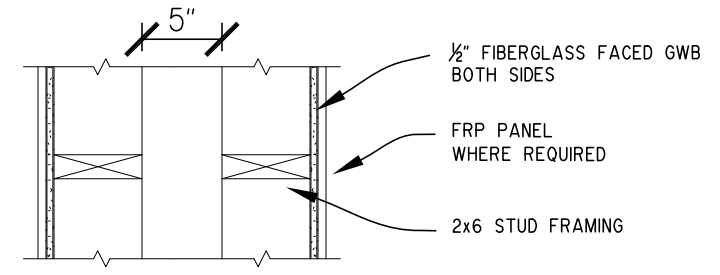


2 ROOF ASSEMBLY - METAL

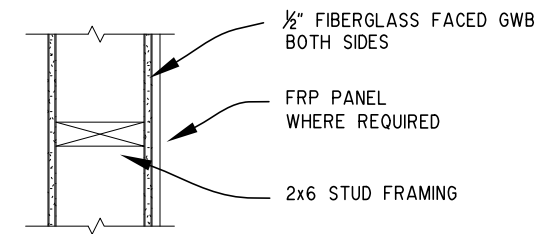
B FLOOR AND ROOF ASSEMBLIES
SCALE: NTS



A EXTERIOR CFMU WALL

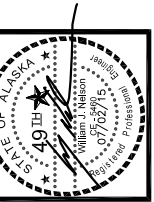


B INTERIOR PARTITION WALL



C INTERIOR PARTITION WALL

C WALL ASSEMBLIES
SCALE: NTS



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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
SCHEDULES

PROJECT NO.
1515
DRAWN BY:
MJD
CHECKED BY:
WJN
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET: **S9.0**
15 OF 15

NOTES:
SIGNS SHALL CONFORM TO THE 2009 IBC SECTION 1011 AND THE AMERICANS WITH DISABILITIES ACT

SIGNS SHALL BE MOUNTED 60" ABOVE FINISH FLOOR AND SHALL BE MOUNTED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR.

3/4" HIGH, UPPER CASE, PROVIDE LEVEL 2 BRAILLE, NON GLARE FINISH, LETTERS TO CONTRAST WITH BACKGROUND COLOR.

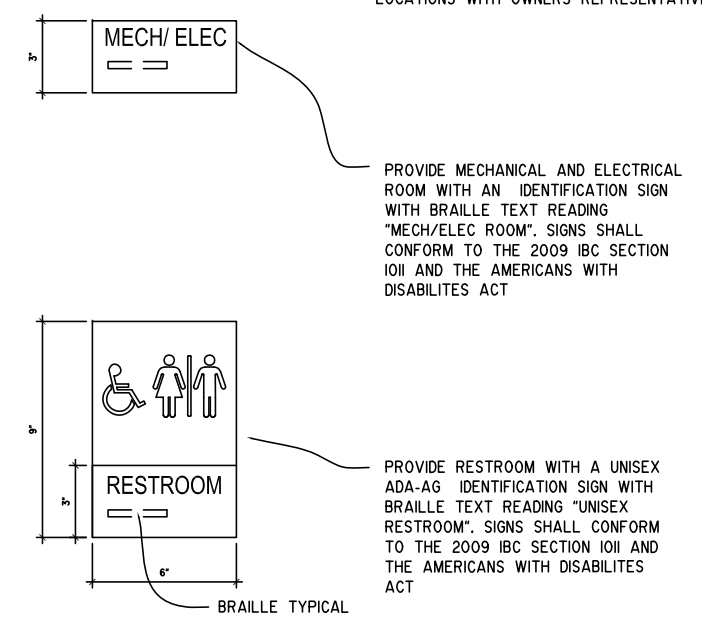
CONTRACTOR TO SUBMIT SIGNAGE PACKAGE FOR REVIEW TO OWNERS REPRESENTATIVE. CONTRACTOR TO VERIFY SIGNAGE LOCATIONS WITH OWNERS REPRESENTATIVE.

OPENING SCHEDULE (XXX)													
NUMBER	TYPE	SIZE	MATERIAL				FINISH	GLAZING	NOTES				
			DOOR		FRAME								
			HOLLOW METAL WELDED OVER HEAD DOOR	VINYL WINDOW	FIBERGLASS	HOLLOW METAL	STEEL BY DOOR MFR.	VINYL WINDOW	POLY-FIBER COMPOSITE	FACTORY FINISH	PAINT	1" INSUL'D DBL. GLAZED	PROVIDE FROSTED GLASS
101	A	3'W 7'H											
102	B	3'W 7'H											
103	B	3'W 7'H											
104	B	3'W 7'H											

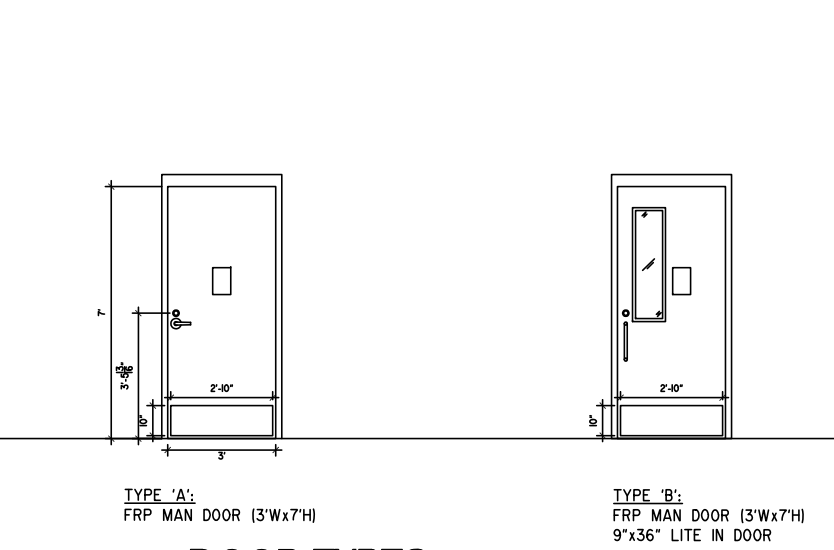
NOTES:
1. FIELD VERIFY SIZES BASED ON ROUGH OPENINGS PRIOR TO ORDER
2. COORDINATE KEYS, LOCKS, & HARDWARE ACCESSORIES WITH OWNERS REP.
3. EXTERIOR WINDOWS ARE DOUBLE PANED.
4. SEE SPECIFICATIONS FOR DOOR HARDWARE SCHEDULE

ROOM FINISH SCHEDULE (XXX)									
ROOM #	ROOM NAME	FLOOR	BASE	WALLS	CEILING	CLG HT	NOTES		
101	MECH./ELEC.		SEALED CONC. SLAB PLYWOOD, PAINTED	NO BASE 4" RESILIENT BASE VINYL WINDOW	GYPSUM BOARD, PAINTED MTL. BLDG. WALL PNL. GYP. BOARD & FRP PANELS	SUSP. AC TILE & GRID PAINTED GYPSUM BOARD EXPOSED STRUCTURE	8'-11" B.O. ROOF DECK		
102	TOILET								
103	TOILET								
104	TOILET								

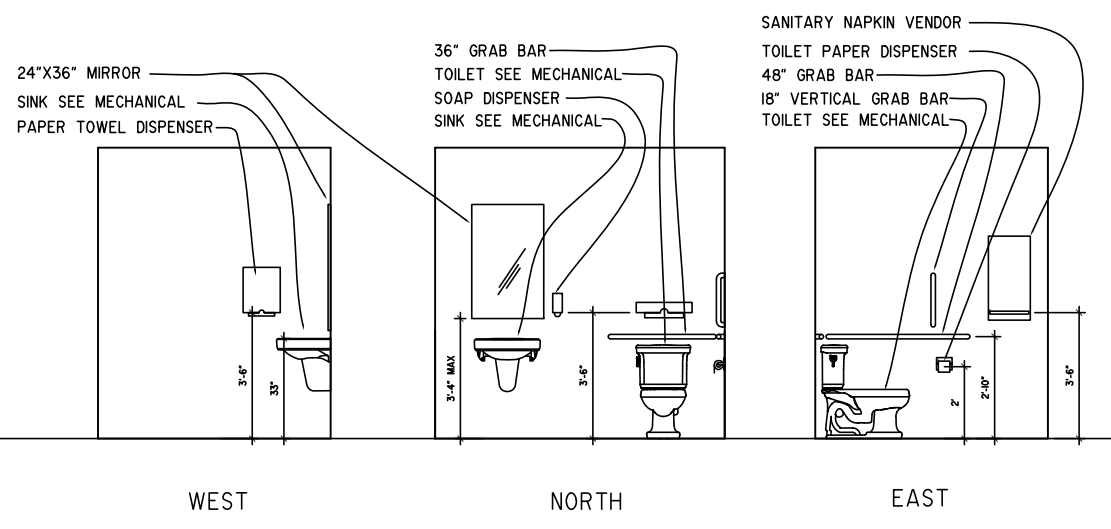
NOTES:
1. GYPSUM BOARD TO HAVE ORANGE PEEL TEXTURE WITH RADIUS STYLE CORNER BEAD
2. PROVIDE WATER RESISTANT GYPSUM BOARD WITH FULL HEIGHT ADHESIVE APPLIED FRP PANELS FOR ALL FOUR WALLS IN THE BATHROOM.



A
9.0
SCHEDULES
SCALE: NTS



C
9.0
DOOR TYPES
SCALE: 3/8"=1'-0" (22X34) 3/16"=1'-0" (11X17)



D
9.0
BATHROOM ELEVATIONS
SCALE: 3/8"=1'-0" (22X34) 3/16"=1'-0" (11X17)

NOTE:
PROVIDE BLOCKING IN FRAMED WALL TO MOUNT ALL HARDWARE AND ACCESSORIES

SEE SPECIFICATIONS FOR BATHROOM ACCESSORIES SCHEDULE

SPECIFICATIONS

PLANS:

THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR A COMPLETE, FUNCTIONAL AND COORDINATED INSTALLATION. THE DRAWINGS ARE DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF FITTINGS, PIPING AND DUCTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THEIR WORK WITH OTHER TRADES AND FIELD CONDITIONS. ANY DEVIATIONS FROM THE PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER.

PERMITS:

THE CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND FEES. CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS WITH THE CITY DURING THE COURSE OF CONSTRUCTION.

CODE:

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), UNIFORM PLUMBING CODE (UPC), AND NATIONAL ELECTRICAL CODE (NEC). SHEET METAL WORK SHALL BE DONE IN ACCORDANCE WITH SMACNA STANDARDS.

SUBMITTALS:

THE CONTRACTOR SHALL PROVIDE SUBMITTAL DATA ON ALL MECHANICAL SYSTEMS. THIS INFORMATION SHALL BE BOUND IN A BINDER, PROPERLY MARKED AND TAGGED. DATA SUBMITTED SHALL BE COMPLETE AND SUBMITTED TOGETHER. SUBMITTALS SHALL BE CLEARLY MARKED TO INDICATE EXACT ITEM TO BE SUPPLIED.

EQUIPMENT SUBSTITUTIONS:

ALL EQUIPMENT LISTED IS REPRESENTATIVE OF THE STANDARD OF QUALITY AND PERFORMANCE REQUIRED. "OR EQUAL" SUBSTITUTIONS WILL BE CONSIDERED IF THE SUBSTITUTIONS ARE SHOWN TO BE EQUAL OR BETTER QUALITY, INCLUDING EFFICIENCY OF PERFORMANCE, SIZE, AND WEIGHT.

AS-BUILTS:

PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS AT THE END OF THE PROJECT. AS-BUILT DRAWINGS SHALL SHOW ALL CHANGES MADE TO THE PROJECT DURING CONSTRUCTION.

OPERATIONS AND MAINTENANCE MANUAL:

AT THE END OF THE PROJECT PROVIDE THE OWNER WITH TWO SETS OF AN OPERATIONS AND MAINTENANCE MANUAL ASSEMBLED SPECIFICALLY FOR THIS PROJECT TO INCLUDE ALL MECHANICAL EQUIPMENT FURNISHED FOR THIS CONTRACT.

WARRANTY:

ALL WORK PERFORMED UNDER THIS CONTRACT IS TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE GUARANTEE PERIOD.

PENETRATIONS:

ALL PENETRATIONS THROUGH FIRE RATED CONSTRUCTION (FIRE BARRIERS, SHAFTS AND HORIZONTAL ASSEMBLIES) SHALL BE PREMANUFACTURED, UL LISTED ASSEMBLIES AND MUST COMPLY WITH IBC CHAPTER 7.

CLEARANCE:

PROVIDE RECOMMENDED MANUFACTURERS CLEARANCE AND ACCESS TO ALL EQUIPMENT.

SEISMIC RESTRAINT:

ALL PIPING, DUCT WORK AND EQUIPMENT SHALL BE SEISMICALLY RESTRAINED IN ACCORDANCE WITH THE SMACNA SEISMIC RESTRAINT MANUAL FOR MECHANICAL SYSTEMS.

MECHANICAL IDENTIFICATION:

PIPING, DUCTWORK AND EQUIPMENT SHALL BE PROVIDED WITH IDENTIFICATION. EXPOSED PIPING SHALL BE LABELED WITH PREFABRICATED, SEMI RIGID PLASTIC, PAINTER STENCIL, INDICATING SERVICE AND FLOW DIRECTION, AT NOT LESS THAN 20 FEET ON CENTER AND AT EACH SIDE OF WALL, FLOOR, AND CEILING PENETRATIONS.

PIPING:

SANITARY WASTE AND VENT PIPING SHALL BE OF ABS TYPE MATERIAL. DOMESTIC WATER PIPING SHALL BE TYPE L HARD DRAWN COPPER TUBING AND WROUGHT SOLDER TYPE FITTINGS. USE LEAD FREE SILVER BEARING SOLDER ONLY. PEX TUBING MAY BE USED WHERE APPROVED BY CODE. GAS PIPING TO BE SCHEDULE 40 CARBON STEEL, WITH THREADED FITTINGS. CONCEAL ALL PIPING IN FINISHED AREAS UNLESS AUTHORIZED BY OWNER. PROVIDE BACK FLOW PREVENTER DEVICES WHERE REQUIRED BY THE UPC. PROVIDE ISOLATION VALVES (BALL VALVES) FOR EACH FIXTURE BATTERY AND WHERE INDICATED ON THE DRAWINGS. TEST ALL PLUMBING AND PIPING SYSTEMS IN ACCORDANCE WITH THE UPC. FLUSH, DRAIN, AND STERILIZE THE DOMESTIC WATER LINES IN ACCORDANCE WITH AWWA C601. FILL ALL HEATING PIPING WITH TRISODIUM PHOSPHATE SOLUTION AND OPERATE FOR SEVERAL HOURS AT TEMPERATURE BEFORE FLUSHING AND FILLING WITH WATER.

INSULATION:

INSULATE ALL COLD PIPES WITH 1 INCH FIBERGLASS BATT INSULATION. INSULATE ALL HOT WATER PIPES UP TO 2 INCHES WITH 1 INCH FIBERGLASS INSULATION. INSULATE ALL HOT WATER PIPES 2-1/2 INCHES AND GREATER WITH 1-1/2 INCH FIBERGLASS INSULATION. PROVIDE VAPOR BARRIER JACKET COVER ON ALL INSULATED PIPE. INSULATE EXHAUST DUCT WORK FROM FAN TO THE EXTERIOR WITH A MINIMUM R-7 DUCT INSULATION. DUCT WORK INSTALLED OUTSIDE OF THE BUILDING THERMAL BOUNDARY SHALL BE INSULATED WITH SEMI-RIGID BONDED GLASS FIBER DUCT INSULATION WITH A 2 INCH MINIMUM THICKNESS AND A DENSITY OF 3 POUNDS PER CUBIC FOOT WITH A FOIL OUTER SURFACE. ALTERNATIVE INSULATION METHOD CAN BE USED WHEN SUBMITTED AND APPROVED BY THE PROJECT ENGINEER BEFORE STARTING WORK.

PLUMBING:

PLUMBING FIXTURES SHALL BE COMMERCIAL GRADE COMPLETE WITH ALL TRIM, MANUFACTURER AND MODEL AS INDICATED ON THE PLUMBING FIXTURE SCHEDULE, OR APPROVED EQUAL. PROVIDE SHOCK CONTROL DEVICES OR WATER HAMMER ARRESTORS FOR ALL BATTERIES OF FIXTURES.

TRAP SEAL PROTECTION:

FLOOR DRAINS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS. AUTOMATIC TRAP PRIMING DEVICES SHALL BE ACCESSIBLE FOR MAINTENANCE.

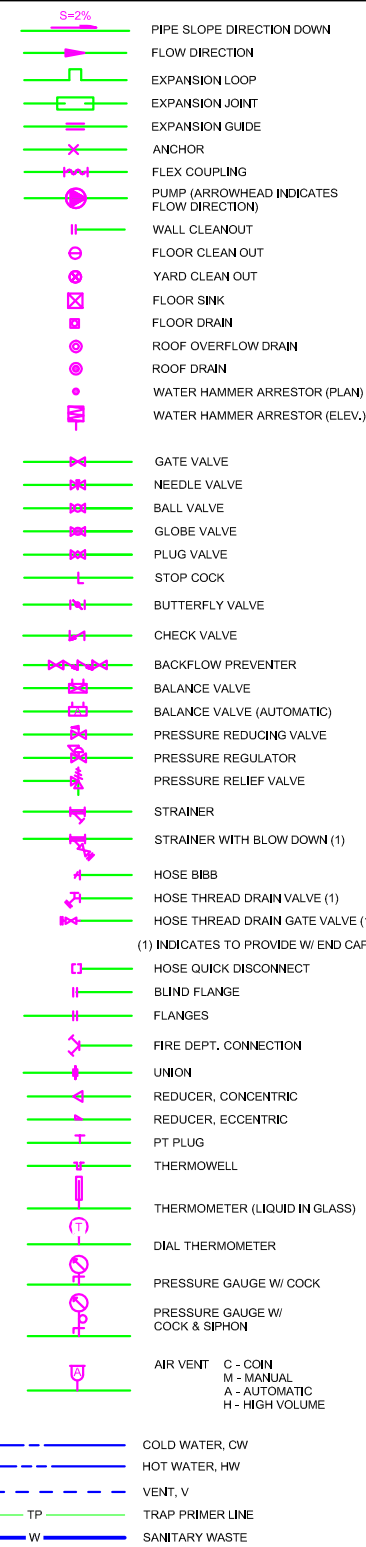
HYDRONIC AND DHW HEATING:

HYDRONIC HEATING AND DOMESTIC HOT WATER HEATING EQUIPMENT SHALL BE COMMERCIAL GRADE COMPLETE WITH ALL SAFETIES AND TRIM, MANUFACTURER AND MODEL AS INDICATED ON THE EQUIPMENT SCHEDULES, OR APPROVED EQUAL. AIR VENTS SHALL BE PROVIDED AT ALL HIGH POINTS OF THE PIPING SYSTEM, LOW POINT DRAINS SHALL BE PROVIDED AT ALL LOW POINTS OF THE PIPING SYSTEM.

CONTROLS:

THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROL SYSTEM AS REQUIRED TO PROVIDE EQUIPMENT CONTROL AND PROPER OPERATION.

PIPING SYMBOLS



GENERAL

NOTES:

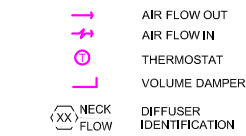
- 1. SPECIFIC TO LOCATION INDICATED.
- NOTE APPLIES TO ENTIRE SHEET.
- UNDERLINED DESIGNATOR HAS SCHEDULED VALUES. SEE MECHANICAL SCHEDULES.

PIPE & DUCT SIZES:
INCH MARKS (") ARE NOT USED WHEN INDICATING PIPE AND DUCT SIZES ON PLANS, DETAILS, OR DIAGRAMS, EXCEPT FOR THE NUMERAL 1.

LINETYPES

- EXISTING (THIN)
- NEW (MEDIUM)
- EXISTING TO BE DEMOLISHED
- (E) EXISTING
- (N) NEW
- CONNECT TO EXISTING

HVAC SYMBOLS

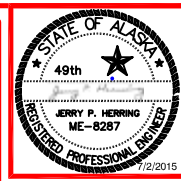


ABBREVIATIONS

AAV	AUTOMATIC AIR VENT	MBH	THOUSANDS BTU PER HOUR
AF	AIR FLOW SWITCH	MFR	MANUFACTURER
AFF	ABOVE FINISH FLOOR	MIN	MINIMUM OR MINUTES
AG	ABOVE GROUND	NC	NORMALLY CLOSED
AL	ACOUSTIC LINED	N.I.C.	NOT IN CONTRACT
ARCH	ARCHITECT OR ARCHITECTURAL	NO	NORMALLY OPEN
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	NPT	NATIONAL PIPE THREAD
AWT	AVERAGE WATER TEMPERATURE	NTS	NOT TO SCALE
BA	BREATHING AIR	PH	PHASE
BTU	BRITISH THERMAL UNIT	PLCS	PLACES
BV	BALANCING VALVE	PRV	PRESSURE REGULATING VALVE
BGW	BELOW GRADE WASTE	PSI	POUNDS PER SQUARE INCH
BG	BELOW GROUND	PSIG	POUNDS PER SQUARE INCH GAUGE
CFM	CUBIC FEET PER MINUTE	PT	PRESSURE/TEMPERATURE
CLG	CEILING	REQD	REQUIRED
CMU	CONCRETE MASONRY UNIT	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
CO	CLEANOUT	RPM	REVOLUTION PER MINUTE
CU	COPPER	SSTL	STAINLESS STEEL
CW	COLD WATER	SW	SOCKET WELDED
DB	DRY BULB	T, TEMP	TEMPERATURE
ø	DIAMETER OR PHASE	TAB	TEST, ADJUST & BALANCE
DEMO	DEMOLISH	THD	THREADED
DN	DOWN	TP	TRAP PRIMER
DWG	DRAWING	TYP	TYPICAL
(E)	EXISTING	UF	UNDER FLOOR
EA, E/A	EXHAUST AIR	UG	UNDERGROUND
EAT	ENTERING AIR TEMPERATURE	UH	UNIT HEATER
EF	EXHAUST FAN	US	UNDERSLAB
EXH	EXHAUST	V	VENT OR VOLTS
EXIST	EXISTING	VAC	VOLTAGE ALTERNATING CURRENT
F	FIRE PROTECTION	VTR	VENT THRU ROOF
FCO	FLOOR CLEANOUT	W	WASTE
FD	FLOOR DRAIN	WB	WET BULB
FF	FINISH FLOOR	W/	WITH
FT	FLASH TANK OR FEET	WC	WATER CLOSET
GAL	GALLONS	W.C.	WATER COLUMN
GALV	GALVANIZED	WCO	WALL CLEANOUT
GPH	GALLONS PER HOUR	WH	WATER HEATER
GPM	GALLONS PER MINUTE	WHA	WATER HAMMER ARRESTOR
HB	HOSE BIBB		
HC	HEATING COIL		
HL	HIGH LIMIT		
HP	HORSEPOWER		
HR	HOUR		
HTG	HEATING		
HW	HOT WATER		
LF	LINEAL FOOT		
MAX	MAXIMUM		

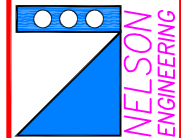
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CENTRAL ALASKA ENGINEERING COMPANY, LLC.
 32215 LANGRANT DR., SULLYTONA, AK 99689
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 E-mail: jherring@akengineer.com



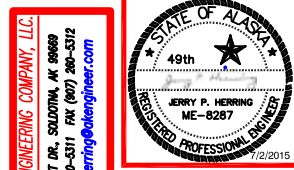
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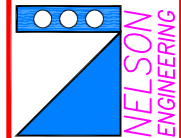
RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
SPECIFICATIONS AND EQUIPMENT LIST

PROJECT NO. 1515
DRAWN BY: JPH
CHECKED BY: JPH
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET M1.0
 1 OF 6



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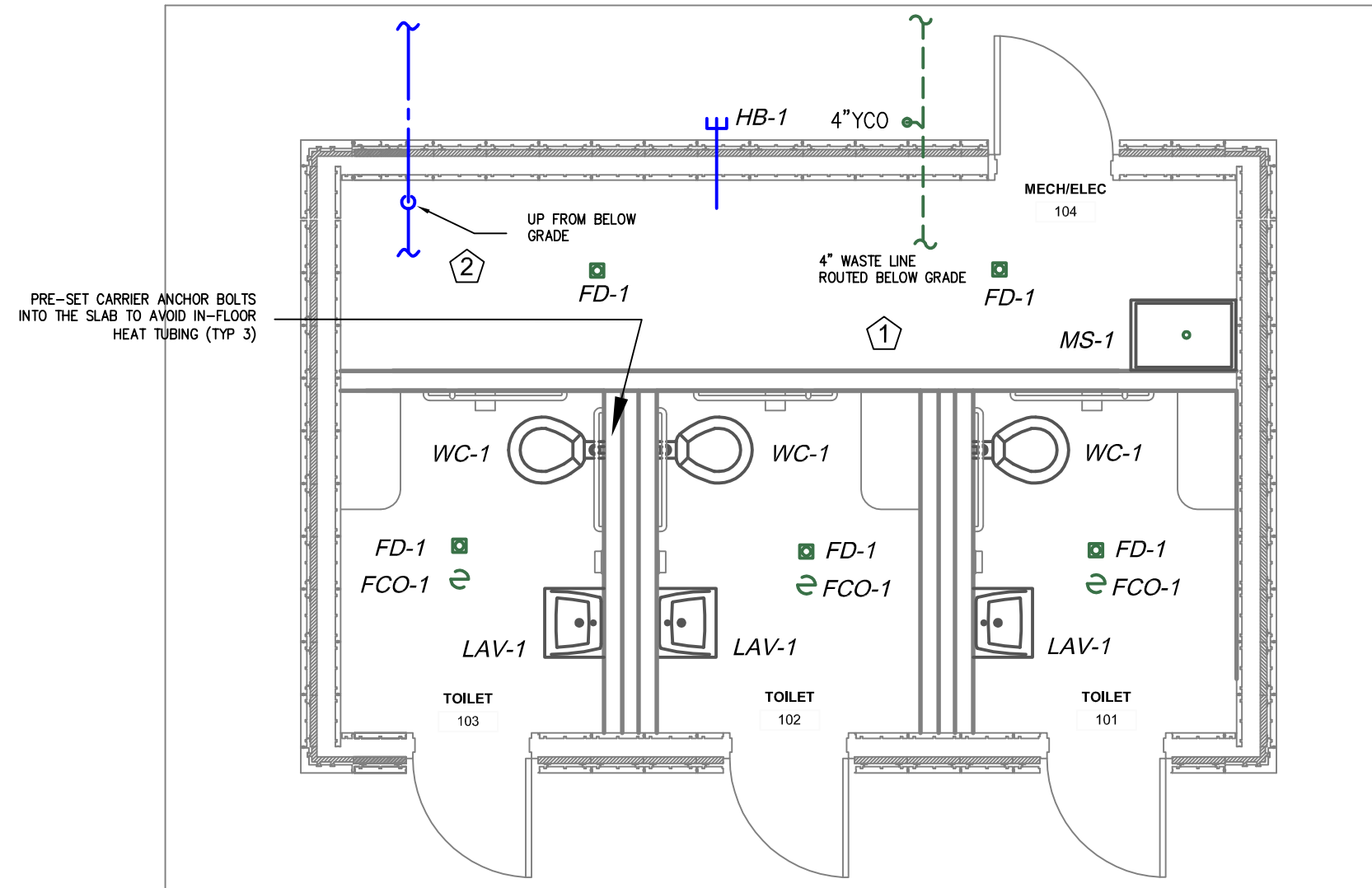


RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
PLUMBING PLAN

PROJECT NO.
1515
DRAWN BY:
JPH
CHECKED BY:
JPH
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET M2.0
2 OF 6

REFER TO CIVIL DESIGN FOR CONTINUATION OF WATER LINE

REFER TO CIVIL DESIGN FOR CONTINUATION OF SEWER LINE



PRE-SET CARRIER ANCHOR BOLTS INTO THE SLAB TO AVOID IN-FLOOR HEAT TUBING (TYP 3)

1
M2.0
PLUMBING PLAN
SCALE: 1/2" = 1'0" ON 22"x34"
SCALE: 1/4" = 1'0" ON 11"x17"

SHEET NOTES:

- THIS DRAWING IS DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF MECHANICAL EQUIPMENT.
- ALL PLUMBING FIXTURES WILL BE ROUTED TO A COMMON 3" VENT THROUGH THE SIDEWALL. FLASH AND SEAL WALL PENETRATIONS AS REQUIRED. SIDE WALL PENETRATION AT 18" ABOVE FINISHED FLOOR.
 - INSTALL SHUTOFF VALVE AND LOW POINT DRAIN AT SERVICE ENTRANCE. REFER TO DETAIL 1, DRAWING M6.0

Homer Boat Harbor Ramp 5 Restrooms Fixture and Waste Count
Completed by Jerry Herring 02/28/2015

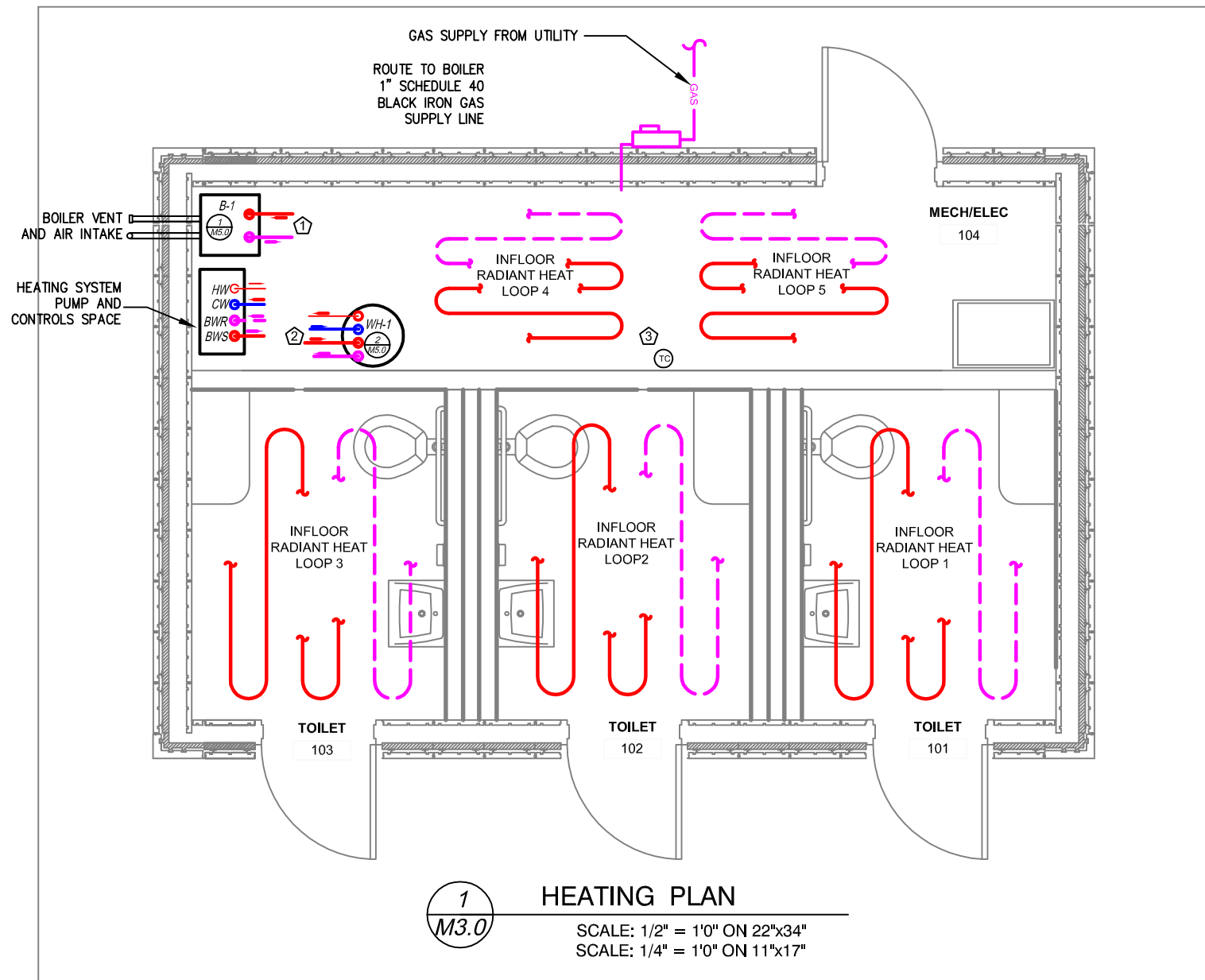
Fixture	number	Supply Count		Waste Count	
		each	lots	each	total
WC-1 Water Closet Flushometer	3	20.0	60.0	4.0	12.0
LAV-1 Lavatory	3	2.0	6.0	1.0	3.0
MS-1 Mop Sink	1	3.0	3.0	3.0	3.0
HB-1 Hose Bib	1	2.5	2.5	0.0	0.0
FD-1 Floor Drain	4	0.0	0.0	2.0	8.0
Total:			71.5 W&FL		28.0 DFL

From UPC Table 8-3, 2" Service Max Allowable Length = 175 ft @ 72 W&FU
From UPC Table 5-6, 1-1/2" Service Max Allowable Length = 145 ft @ 72 W&FU
From UPC Chart A-3 Demand Load = 58 GPM

From UPC Table 7-5, Max 3' @ 1/4" Slope = 35 DFL
From UPC Table 7-6, Max 4' @ 1/4" Slope = 216 D-U

2
M2.0
FIXTURE COUNT DATA
NOT TO SCALE

PLUMBING FIXTURE SCHEDULE								
TAG	ITEM	CONNECTIONS				BASIS OF DESIGN		REMARKS
		WASTE	VENT	C.W.	H.W.	MANUFACTURER	MODEL	
WC-1	WATER CLOSET	4	2	1	-	KOHLER	KINGSTON K-4323-L-G9	ADA COMPLIANT WALL MOUNT, 1.28 GPF, VITREOUS CHINA, WITH KOHLER STRONGHOLD SEAT MODEL K-4731-GC-G9, WITH SLOAN FLUSHOMETER ROYAL MODEL 140-1.28 ES-S-TMO-SWB WITH MANUAL OVERRIDE BUTTON, ACCESS FROM MECHANICAL ROOM. USE KOHLER STRONGHOLD SEAT MODEL K-4731-GC-G9. INSTALL WITH FLOOR MOUNTED CARRIER AND TRIM.
	FAUCET					SLOAN	140-1.28 ES-S-TMO-SWB	
LAV-1	LAVATORY	2	2	-	-	KOHLER	CHESAPEAKE K-1722-G9	ADA COMPLIANT WALL MOUNT WITH 4" CENTERS, 0.5 GPM AERATOR, VITREOUS CHINA, SLOAN ELECTRONIC HAND WASHING FAUCET MODEL EFT-880, ACCESS FROM MECHANICAL ROOM. INSTALL WITH WALL MOUNTED CARRIER AND TRIM.
	FAUCET	-	-	1/2	1/2	SLOAN	ETF-880	
MS-1	MOP SINK	3	2	-	-	ELKAY	EFS3321C	SERVICE SINK, FLOOR MOUNTED, STAINLESS STEEL, SINGLE COMPARTMENT 8" DEEP.
	FAUCET	-	-	3/4	3/4	ELKAY	LKB940C	COMMERCIAL FAUCET, WALL MOUNT WITH 8" CENTER BUCKET HOOK.
HB-1	HOSE BIB COLD WATER	-	-	3/4	-	ZURN	Z1300	WALL HYDRANT, ENCASED, NON FREEZE, ANTI SIPHON, AUTO DRAINING, POLISHED BRONZE FACE WITH KEY ENTRY.
FD-1	FLOOR DRAIN	2	2	-	-	JR SMITH	2005	CAST IRON BODY W/ ADJUSTABLE 5" ROUND NB TOP, SEEPAGE FLANGE AND FLASHING CLAMP. CONNECT TO ETP-1
FCO-1	FLOOR CLEANOUT	-	-	-	-	JR SMITH	4020-F-C	ADJUSTABLE FLOOR CLEANOUT, NICKEL BRONZE TOP, WITH FLASHING FLANGE AND CLAMP
ETP-1	ELECTRONIC TRAP PRIMER	-	-	1/2	-	PPI	MP-500	120V CONNECTION

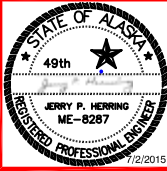


SHEET NOTES:

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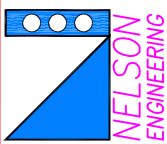
- 1 B-1 CONDENSING BOILER, LOCHINVAR MODEL KBN210, 190 MBH OUTPUT. INSTALL WITH HORIZONTAL CONCENTRIC VENT KIT TO SIDE-WALL PENETRATION. INSTALL SEISMIC BRACING TO BUILDING STRUCTURE.
- 2 WH-1 SIDE-ARM DOMESTIC HOT WATER MAKER.
- 3 INSTALL TEMPERATURE CONTROLLER AS SHOWN IN MECHANICAL ROOM TO CONTROL SLAB HEAT SYSTEM.
4. HYDRONIC RADIANT HEAT LOOPS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE DETAILS AS SHOWN ON THE DRAWINGS.
5. ALL FITTINGS SHOULD BE ACCESSIBLE FOR MAINTENANCE. TUBING LOOPS SHALL BE INSTALLED WITHOUT SPLICES, AS A MINIMUM, FROM THE POINT AT WHICH THE TUBING ENTERS THE SLAB TO THE POINT AT WHICH IT EXITS THE SLAB.
6. MANIFOLD LOCATIONS AND LOOP ROUTES ARE DIGRAMATIC ONLY. LOCATE AND OFFSET AS NECESSARY. LOOP LENGTHS SHALL NOT EXCEED 330' ±5%. TUBE SPACING SHALL BE 8"OC IN RESTROOM AREAS, 12" OC IN ALL OTHER AREAS.
7. THE TUBING SYSTEM SHALL BE PRESSURIZED, WITH WATER OR AIR, IN ACCORDANCE WITH APPLICABLE CODES, OR TO A PRESSURE OF 60 PSIG 24 HOURS PRIOR TO ENCASEMENT IN THE RADIANT SLAB. THE TUBING SYSTEM SHALL REMAIN AT THIS PRESSURE DURING THE SLAB INSTALLATION, AND FOR A MINIMUM OF 24 HOURS THEREAFTER TO ENSURE SYSTEM INTEGRITY. THE CONTRACTOR SHALL PROVIDE THE WATER OR AIR FOR THE PRESSURIZATION OF THE TUBING SYSTEM. THE CONTRACTOR ASSUMES ALL LIABILITIES FOR SUITABLE PRECAUTIONS AND TESTING, INCLUDING THE USE OF COMPRESSED AIR, WHEN APPLICABLE.
8. AT START UP TIME, THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR SYSTEM WATER AND TEMPERATURE BALANCING, RECORD BALANCE SETTINGS AT EACH MANIFOLD LOCATION, AND DELIVER TO THE OWNER A COMPLETE RECORD OF THESE SETTINGS FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUAL.

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RAMP 5 RESTROOMS
 CITY OF HOMER
 SMALL BOAT HARBOR
 HEATING PLAN

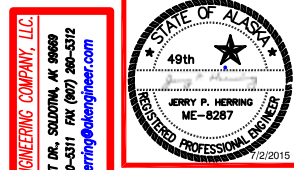
BOILER SCHEDULE						
SYMBOL	MFGR/MODEL	FUEL	CAPACITY (MBH)	ELECTRICAL (VOLTS/HZ/PH)	FLUE # (IN)	REMARKS
B-1	LOCHINVAR/KBN210	GAS	42/210	120/60/1	3	190 MBH CAPACITY 3" CPVC SCH 80 DIRECT VENT

WATER HEATER SCHEDULE					
SYMBOL	MFGR/MODEL	CAPACITY (GAL)	FIRST-HOUR RATING (GPH)	CONTINUOUS FLOW (GPH)	REMARKS
WH-1	TRIANGLE TUBE SMART-60	50	110	200	SET WATER TEMP TO 140° F ANTI-SCALD VALVE SET TO 120° F

PUMP SCHEDULE			
SYMBOL	MFGR/MODEL	ELECTRICAL (VOLTS/HZ/PH/W)	REMARKS
CP-1	GRUNDFOS/UPS15-58FC	120/60/1(87)	SYSTEM PUMP 18-GPM/1.5-FT
CP-2	GRUNDFOS/UP26-64F	120/60/1(185)	HEAT LOOP 7-GPM/6.5-FT
CP-3	GRUNDFOS/UP26-64F	120/60/1(185)	DHW LOOP 20-GPM/4-FT

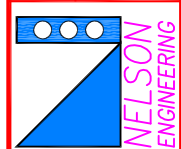
GLYCOL STORAGE TANK SCHEDULE					
SYMBOL	MFGR/MODEL	CAPACITY (GAL)	GLYCOL-WATER MIXTURE (%)	ELECTRICAL (VOLTS/HZ/PH)	REMARKS
GT-1	AXIOM/SF100	55	50	120/60/1	INSTALL WITHIN DRAIN PAN

PROJECT NO. 1515
 DRAWN BY: JPH
 CHECKED BY: JPH
 DATE: 07/02/2015
 SCALES: NOTED
 HORIZ. NOTED
 VERT. NOTED
 SHEET M3.0
 3 OF 6



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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
VENTILATION PLAN

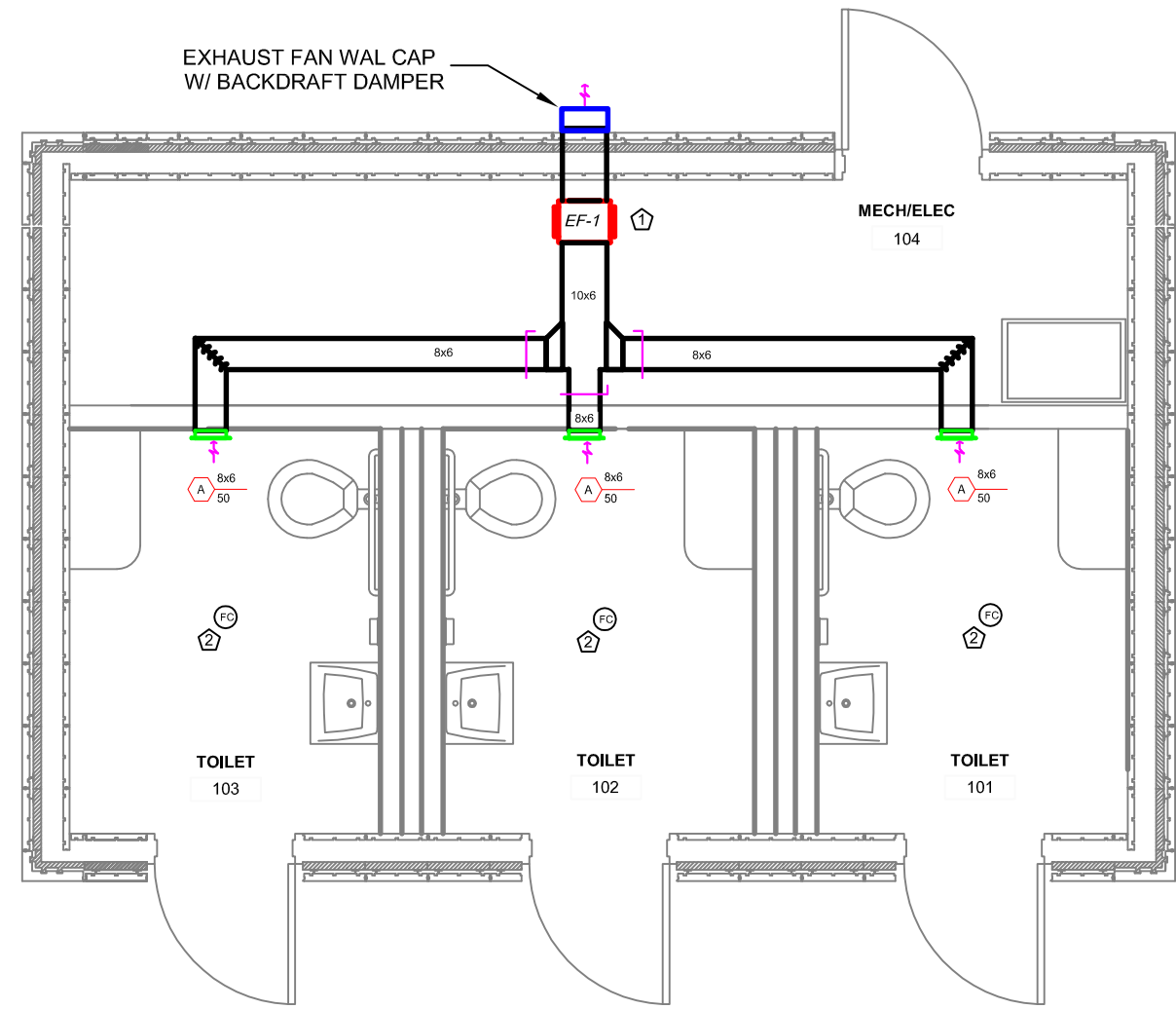
PROJECT NO.
1515
DRAWN BY:
JPH
CHECKED BY:
JPH

DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET M4.0
4 OF 6

SHEET NOTES:

THIS DRAWING IS DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF MECHANICAL EQUIPMENT.

- ① EF-1 GREENHECK MODEL CSP-A150.
- ② FAN TO ENERGIZE BY OCCUPANCY SENSORS INSTALLED IN EACH RESTROOM. (FC)



1
M4.0
VENTILATION PLAN
SCALE: 1/2" = 1'0" ON 22"x34"
SCALE: 1/4" = 1'0" ON 11"x17"

FAN SCHEDULE

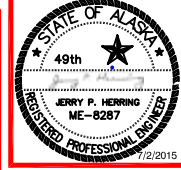
TAG	TYPE	SERVES	CFM	ESP (IN. W.C.)	DRIVE	MOTOR				BASIS OF DESIGN		NOTES
						FAN RPM	MOTOR HP OR W	VOLTS	PHASE	MANUFACTURER	MODEL	
EF-1	CENTRIFUGAL	RESTROOM EXHAUST	152	0.25	DIRECT	950	48 W	120	1	GREENHECK	CSP-A150	OR APPROVED EQUAL

NOTES: FAN TO ENERGIZE BASED ON OCCUPANCY SENSORS.

AIR INLET & OUTLET SCHEDULE

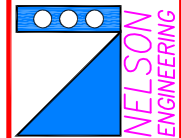
TAG	TYPE	FACE SIZE (IN.)	COLOR	BORDER TYPE	BASIS OF DESIGN		REMARKS
					MFR	MODEL	
A	EXHAUST GRILLE	8x6	SSTL	SURFACE	TITUS	33R	OR APPROVED EQUAL

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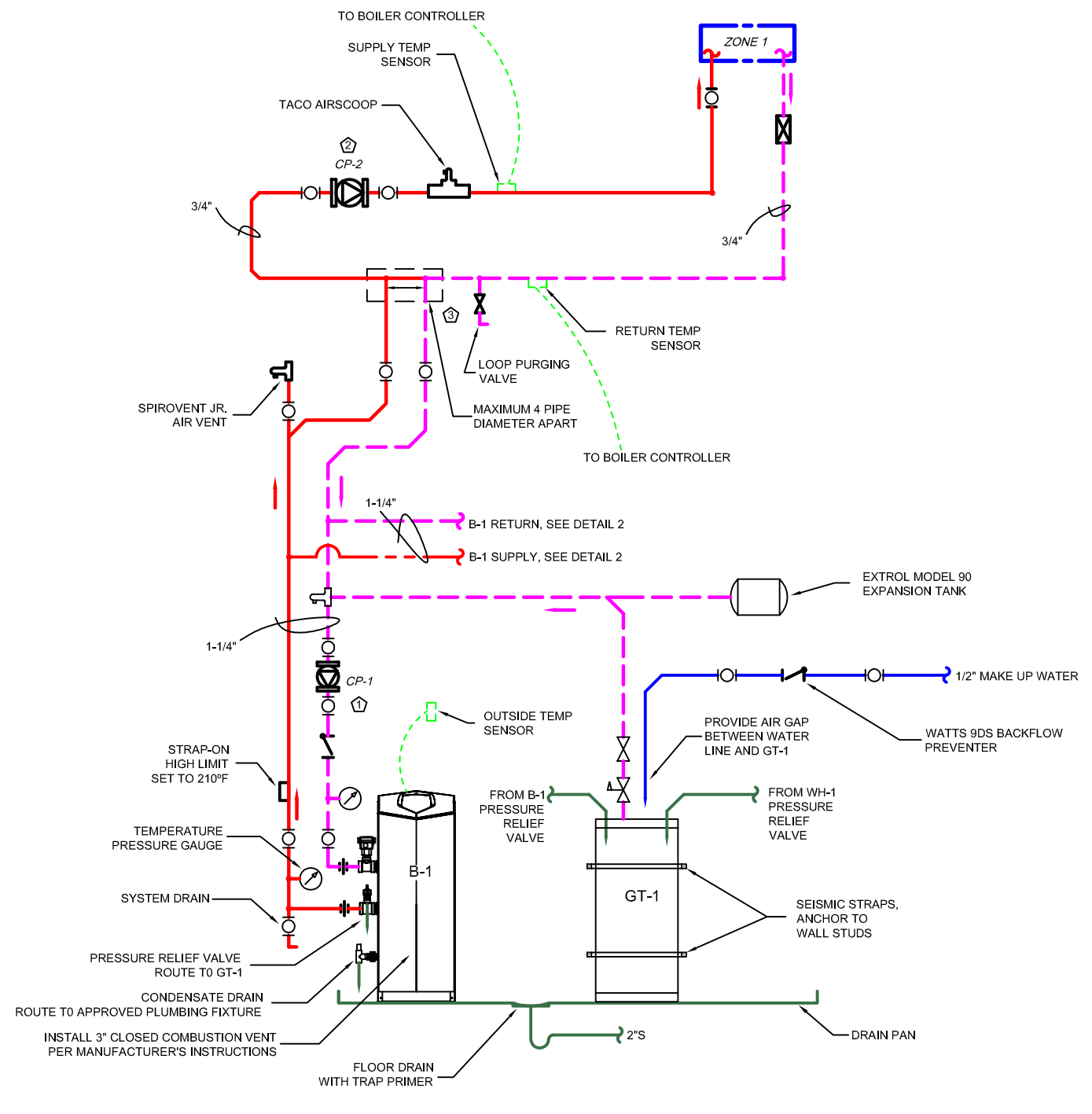
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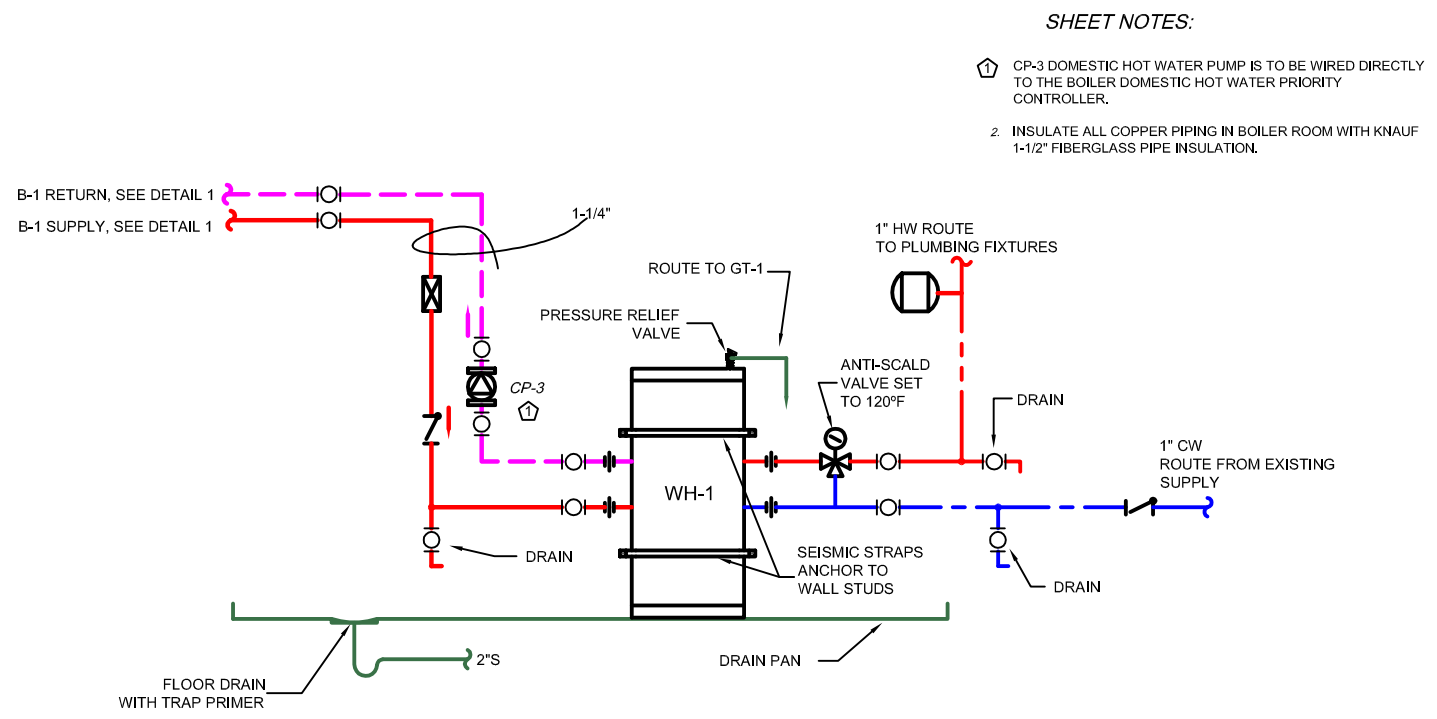
RAMP 5 RESTROOMS
 CITY OF HOMER
 SMALL BOAT HARBOR
 BOILER DETAILS

PROJECT NO. 1515
 DRAWN BY: JPH
 CHECKED BY: JPH
 DATE: 07/02/2015
 SCALES: NOTED
 HORIZ. NOTED
 VERT. NOTED
 SHEET M5.0
 5 OF 6



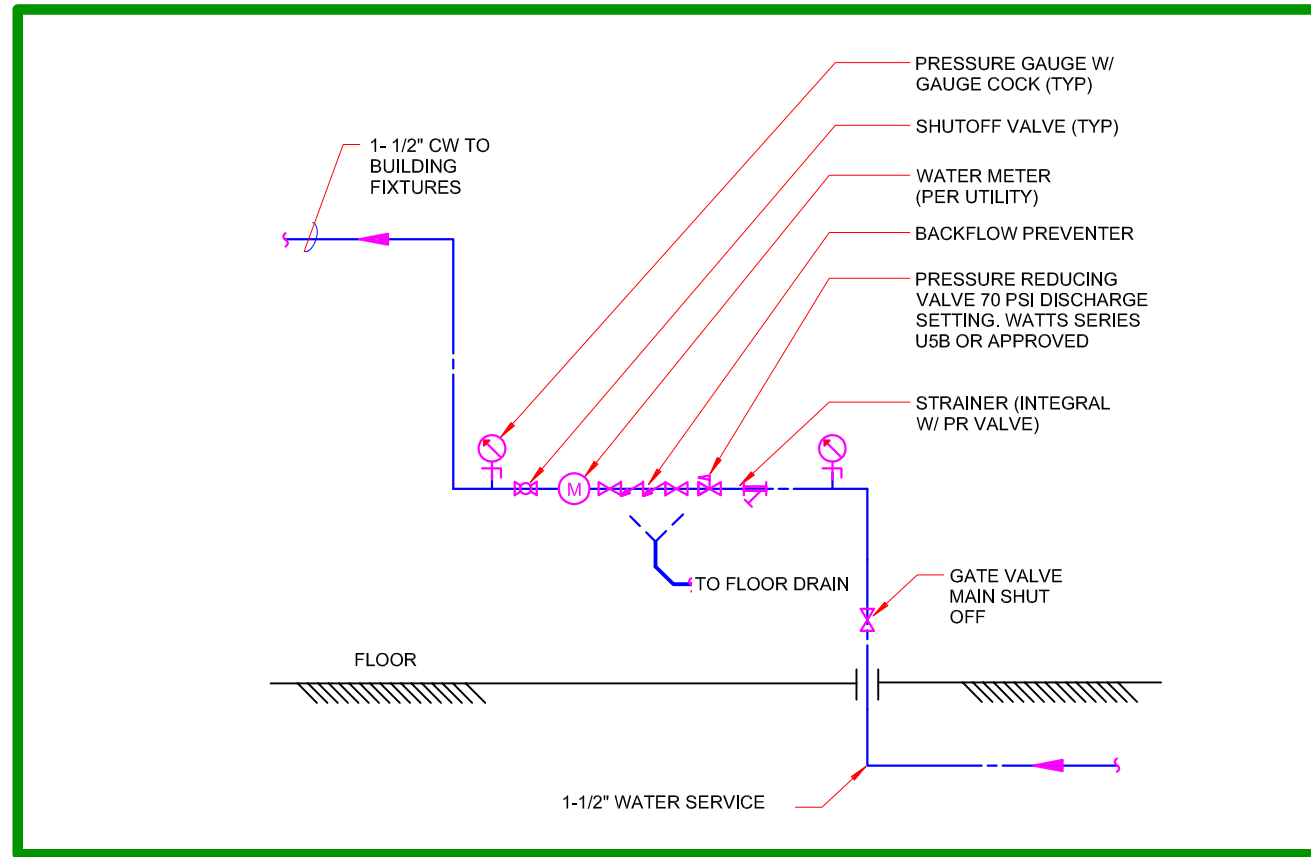
1 BOILER SCHEMATIC
 M5.0 NOT TO SCALE

- SHEET NOTES:**
- CP-1 PRIMARY PUMP IS TO BE WIRED DIRECTLY TO THE BOILER.
 - VARIABLE SPEED INJECTION PUMP CP-2 TO BE CONTROLLED BY A TACO PC705-2 VARIABLE SPEED TEMPERATURE CONTROLLER WIRED TO TACO SR503-EXP. INSTALL BOILER RETURN TEMPERATURE SENSOR, MIXED SUPPLY TEMPERATURE SENSOR AND OUTDOOR SENSOR.
 - MAXIMUM SPACING BETWEEN CENTERS OF TEE SHALL NOT EXCEED 4 TIMES THE NOMINAL DIAMETER OF THE PRIMARY PIPING. THERE SHOULD BE A STRAIGHT LENGTH OF PIPING UPSTREAM OF THE FIRST TEE OF A PRIMARY / SECONDARY CONNECTION NOT LESS THAN 6 TIMES THE NOMINAL DIAMETER OF THE PRIMARY PIPING.
 - BOILER REQUIRES CERTIFIED FACTORY START-UP WITH COMBUSTION ANALYSIS TEST.
 - INSULATE ALL COPPER PIPING IN BOILER ROOM WITH KNAUF 1-1/2\"/>

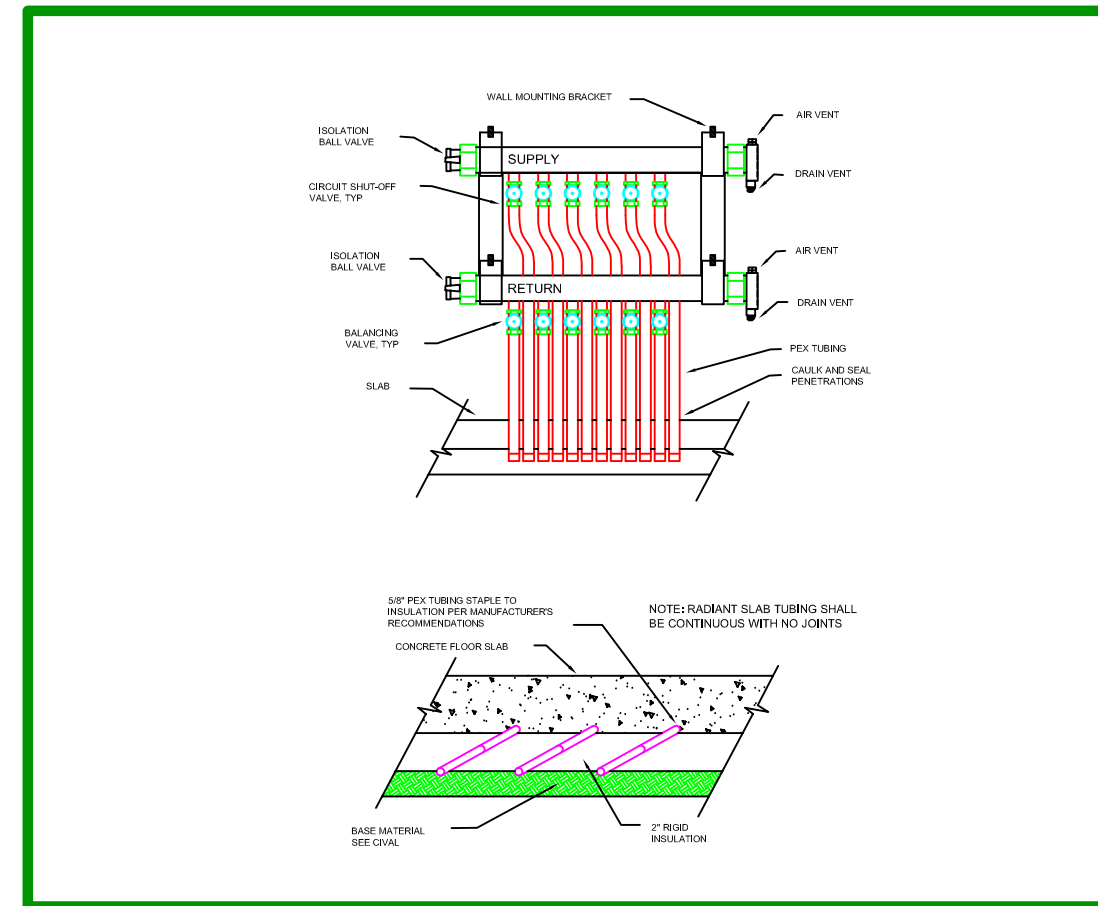


2 DOMESTIC HOT WATER MAKER SCHEMATIC
 M5.0 NOT TO SCALE

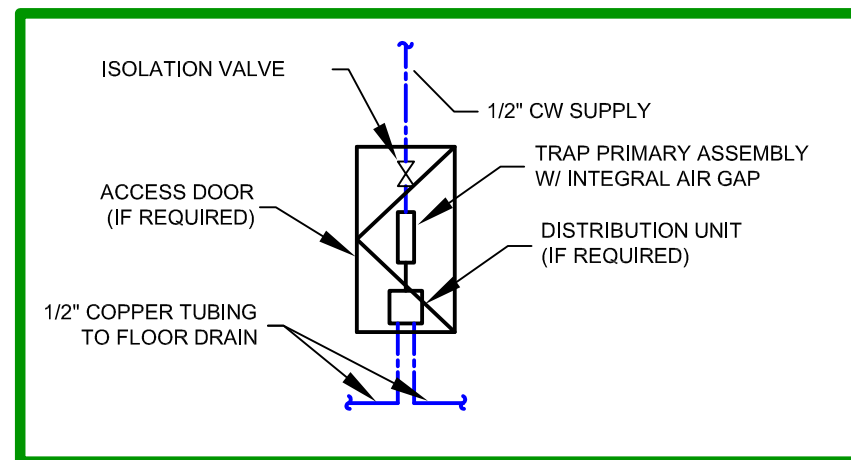
- SHEET NOTES:**
- CP-3 DOMESTIC HOT WATER PUMP IS TO BE WIRED DIRECTLY TO THE BOILER DOMESTIC HOT WATER PRIORITY CONTROLLER.
 - INSULATE ALL COPPER PIPING IN BOILER ROOM WITH KNAUF 1-1/2\"/>



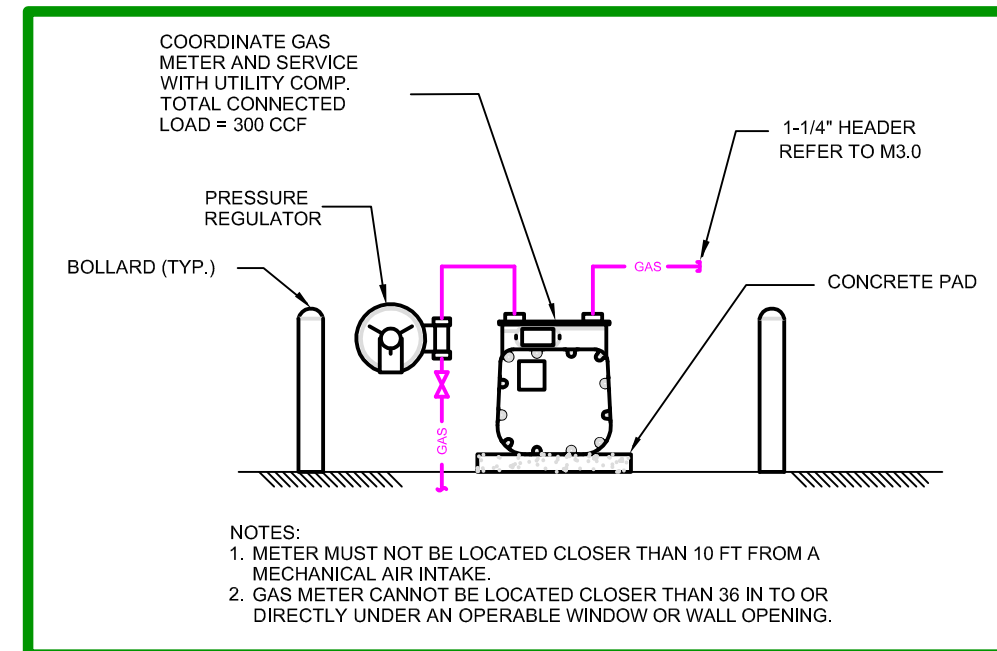
1
M6.0 WATER SUPPLY DETAIL
NOT TO SCALE



2
M3.0 TYPICAL TUBING MANIFOLD
NOT TO SCALE

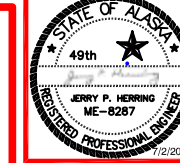


2
M6.0 TRAP PRIME DETAIL
NOT TO SCALE



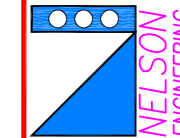
3
M6.0 GAS METER DETAIL
NOT TO SCALE

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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
MECHANICAL DETAILS

PROJECT NO. 1515
DRAWN BY: JPH
CHECKED BY: JPH
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET M6.0
6 OF 6

GENERAL

PROVIDE ALL LABOR, PRODUCTS, AND SERVICES AS REQUIRED TO COMPLETE THE WORK INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.

WHERE THE WORK OF OTHER CRAFTS IS INVOLVED, COORDINATE ALL RELATED WORK TO PROVIDE EACH SYSTEM IN A PROPER OPERATING CONDITION.

THE CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS IN ORDER TO BECOME FAMILIAR WITH THE SCOPE OF WORK AND TO ASCERTAIN AND EVALUATE THE EXISTING CONDITIONS AFFECTING THE SCOPE OF WORK.

PERFORM ALL WORK IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES; INCLUDING, BUT NOT LIMITED TO THE LATEST ENACTED EDITIONS OF THE FOLLOWING.

1. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), NATIONAL ELECTRIC CODE.
2. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), LIFE SAFETY CODES.
3. INTERNATIONAL BUILDING CODE (IBC).
4. INTERNATIONAL FIRE CODE (IFC).

PROVIDE INSTALLATION, EQUIPMENT AND MATERIALS THAT ARE DESIGNED, TESTED, APPROVED, AND LISTED TO THE FOLLOWING STANDARDS AS APPLICABLE.

1. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
2. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
3. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE).
4. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
5. NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION (NECA).
6. UNDERWRITERS LABORATORY (UL).

THE PLANS AND SPECIFICATIONS ARE COMPLEMENTARY. WHAT IS SHOWN ON ONE IS BINDING AS IF CALLED FOR IN BOTH. THE PLANS ARE DIAGRAMMATIC AND DO NOT SHOW PRECISE ROUTING OF CONDUIT AND WIRING. REFERENCE ARCHITECTS PLAN FOR INTENDED INSTALLATION AND PROVIDE FITTINGS, BOXES, AND ROUTING AS REQUIRED. DO NOT SCALE THE PLANS. LOCATIONS OF DEVICES, FIXTURES AND EQUIPMENT IS APPROXIMATE UNLESS DIMENSIONED.

PROVIDE LABELS, TAGS, AND MARKERS, AS REQUIRED TO IDENTIFY THE COMPONENTS OF THE ELECTRICAL SYSTEM. PROVIDE ENGRAVED LAMINATED LABELS ON PANELS, DISCONNECTS, AND STARTERS. PROVIDE SLEEVE TYPE WIRE MARKERS FOR CIRCUIT CONDUCTORS.

MAINTAIN A SET OF RECORD DRAWINGS TO RECORD AS-CONSTRUCTED CONDITIONS. MARKED UP DRAWINGS SHALL BE MAINTAINED ON SITE AND SHALL BE UPDATED DAILY.

PROVIDE CONNECTIONS TO ALL EQUIPMENT FURNISHED TO THE PROJECT. REFERENCE SHOP DRAWINGS AND VENDOR DATA FOR SPECIFIC CONNECTION REQUIREMENTS PRIOR TO ROUGH IN. COORDINATE WITH EQUIPMENT INSTALLER FOR FINAL LOCATION/ELEVATION OF CONNECTIONS

PROVIDE COMPLETE TESTING FOR THE ELECTRICAL SYSTEM TO VERIFY PROPER PERFORMANCE AND CONFORMANCE WITH THE INTENT OF THE DESIGN.

CONTRACTOR SHALL BE REQUIRED TO COORDINATE IN ADVANCE WITH THE OWNER AND PROVIDE NOTIFICATION MINIMUM OF 72 HOURS IN ADVANCE FOR ALL REQUIRED PROGRESS INSPECTIONS DURING THE COURSE OF CONSTRUCTION.

SUBMIT A COMPLETE SET OF CUT SHEETS AND VENDOR DATA FOR ALL ELECTRICAL MATERIALS AND EQUIPMENT INTENDED FOR INSTALLATION. ALL WORK SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURERS INSTRUCTIONS.

RACEWAYS, BOXES, AND FITTINGS

ALL WIRING INSTALLED IN RACEWAY. UTILIZE NEC/NEMA APPROVED BOXES AND FITTINGS. FITTINGS SHALL BE INSTALLED ACCORDING TO THE MATERIAL LISTING TO MAINTAIN CONTINUITY OF GROUND PATH. PROVIDE FIRESTOPPING AT ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS. RACEWAYS SHALL BE INSTALLED CONCEALED IN FINISHED LOCATIONS UNLESS APPROVED OTHERWISE.

ELECTRICAL METALLIC TUBING (EMT): ANSI C80.3, GALVANIZED TUBING, COMPRESSION TYPE FITTINGS WITH INSULATED THROAT. APPROVED IN ALL INTERIOR DRY LOCATIONS.

RIGID METAL CONDUIT: ANSI C80.1, GALVANIZED STEEL, THREADED TYPE FITTINGS AND HUBS. APPROVED IN ALL WET OR DRY LOCATIONS.

FLEXIBLE METAL CONDUIT: FS WW-C-566, STEEL, FULL WALL THICKNESS, STEEL FITTINGS WITH INSULATED THROAT. APPROVED FOR CONNECTIONS TO LIGHTING FIXTURES AND EQUIPMENT.

LIQUDTIGHT FLEXIBLE CONDUIT: FLEX STEEL CONDUIT WITH PVC COATING, ANSI FB-1 STEEL FITTINGS. APPROVED FOR CONNECTIONS TO MECHANICAL EQUIPMENT.

METALLIC JUNCTION BOXES: PRESSED STEEL, FACTORY PUNCHED FOR 1/2" AND 3/4" KNOCKOUTS. PROVIDE SUITABLE DEVICE RINGS TO PERMIT MOUNTING OF EACH DEVICE STRAP. PROVIDE BLANK COVERS ON ALL BOXES NOT EQUIPPED WITH OUTLETS.

PULL BOXES: COLD ROLLED STEEL, NEMA RATED ACCORDING TO THE INSTALLED ENVIRONMENT, WITH MATCHING SCREW OR HINGED COVER AS APPROPRIATE.

PANELBOARDS

PROVIDE PANELBOARDS AS SCHEDULED ON THE DRAWINGS. PANELS SHALL BE DEAD FRONT ASSEMBLIES, NEMA RATED. PANELS SHALL BE INSTALLED SUCH THAT TOP BREAKER IS NO MORE THAN 78" ABOVE FINISHED FLOOR. PROVIDE A TYPWRITTEN DIRECTORY OF ALL CIRCUITS, TO RELECT THE FINAL, AS CONSTRUCTED CONFIGURATION OF THE PANELS.

PROVIDE COPPER BUS BARS WITH FULLY RATED NEUTRAL BUS. EQUIP ALL PANELS WITH AN EQUIPMENT GROUND BUS.

PROVIDE SHORT CIRCUIT RATINGS TO MEET THE EXPECTED FAULT LEVELS.

EACH PANEL SHALL BE EQUIPPED WITH LOCKING HINGED COVER.

ALL CIRCUIT BREAKERS SHALL BE BOLT ON, THERMOMAGNETIC.

WIRE AND CABLE

ALL CONDUCTORS SHALL BE COPPER, SIZED ACCORDING TO AMERICAN WIRE GAUGE (AWG). ALL CONDUCTORS #10AWG AND SMALLER SHALL BE SOLID. ALL CONDUCTORS LARGER THAN #10 AWG SHALL BE STRANDED. DO NOT INSTALL CONDUCTORS UNTIL RACEWAY IS COMPLETE, CLEAN, AND FREE FROM OBSTRUCTIONS. PROVIDE A GREEN EQUIPMENT GROUND, SIZED ACCORDING TO THE NEC, IN ALL BRANCH CIRCUIT AND FEEDERS. PROVIDE NAIL PLATES IN ACCORDANCE WITH NEC TO PROVIDE PROTECTION FOR ALL BRANCH CIRCUITS AND FEEDERS. PROVIDE COLOR-CODED CONDUCTORS ACCORDING TO THE FOLLOWING.

PHASE COLOR - 240, 1PH
A BLACK
B RED

NEUTRAL WHITE WITH TRACER
GROUND GREEN/BARE

PROVIDE UNIQUE IDENTIFICATION OF ALL SYSTEM CONDUCTORS PER NEC. IDENTIFICATION METHOD SHALL BE POSTED AT EACH PANELBOARD AND DISTRIBUTION EQUIPMENT LOCATION. CONDUCTORS FROM DIFFERENT SYSTEMS SHALL NOT BE PULLED IN COMMON RACEWAYS.

BRANCH CIRCUIT CONDUCTORS, 40A AND ABOVE: XHHW-2 INSULATION, BLACK OUTER FINISH. PROVIDE COMPRESSION TYPE SPLICES AND TAPS.

BRANCH CIRCUIT CONDUCTORS, 30A AND BELOW: 600V, THHN INSULATION, COLORED OUTER FINISH ACCORDING TO THE CIRCUIT PHASING. PROVIDE INSULATED SPRING TYPE CONNECTORS FOR SPLICES AND TAPS.

FEEDER CONDUCTORS: XHHW-2 INSULATION, BLACK OUTER FINISH. PROVIDE COMPRESSION FITTINGS FOR SPLICES, TAPS, AND LUGS.

WIRING DEVICES AND PLATES

PROVIDE WIRING DEVICES AS INDICATED ON THE DRAWINGS. ALL DEVICES SHALL BE NEW, COMMERCIAL GRADE QUALITY, IVORY FINISH.

RECEPTACLES: NEMA 5-15R, 125V, BACK AND SIDE WIRED, IVORY FINISH FOR ALL GENERAL PURPOSE RECEPTACLES. NEMA 5-20R FOR DEDICATED CIRCUITS. SPLIT SWITCHED AS NOTED ON THE DRAWINGS.

GFCI RECEPTACLES: DUPLEX, 20A, WITH INTEGRAL TEST AND RESET. PROVIDE NEMA 3R WEATHER PROOF COVER ON EXTERIOR RECEPPTS.

SWITCHES: 15A, 120/277V, TOGGLE TYPE, SINGLE POLE OR THREE WAY AS INDICATED ON THE DRAWINGS.

PLATES: 306 STAINLESS STEEL, BRUSHED FINISH, GANG AND ORIENTATION AS REQUIRED FOR EACH LOCATION.

PHOTOCONTROL CELL SHALL BE CADMIUM SULPHIDE, WEATHERPROOF ENCLOSURE, -20 DEG RATING, PROVIDED WITH THREE COLOR CODED LEADS, FIXED BASE FOR MOUNTING, TORK MODEL 2000, 120 VAC OR EQUAL.

OCCUPANCY SENSORS SHALL BE CAPABLE OF DETECTING PRESENCE BY ULTRASOUND AND PASSIVE INFRARED HEAT CHANGES. SENSORS SHALL BE CEILING MOUNTED AND PROVIDE 360° COVERAGE. 120 VAC, 60 HZ, WATTSTOPPER DT-355 OR EQUAL.

DISCONNECTS AND STARTERS

PROVIDE FUSIBLE AND NON-FUSIBLE DISCONNECTS AND STARTERS AS SHOWN ON THE DRAWINGS. PROVIDE ALL CODE REQUIRED DISCONNECTS, WHETHER SPECIFICALLY SHOWN OR NOT. ALL EXTERIOR MOUNTED EQUIPMENT SHALL BE RATED MINIMUM NEMA 3R.

ALL DISCONNECTS SHALL BE HEAVY DUTY TYPE, WITH SWITCH BLADES FULLY VISIBLE IN THE "OFF" POSITION. SWITCHES SHALL BE QUICK MAKE, QUICK BREAK, WITH DEFEATABLE INTERLOCK TO PREVENT UNAUTHORIZED ENTRY WHILE IN THE "ON" POSITION. ENCLOSURE SHALL BE CODE GAUGE STEEL, TREATED WITH RUST INHIBITING PHOSPHATE AND FINISHED IN GRAY, BAKED ENAMEL.

ALL STARTERS SHALL BE HEAVY DUTY CIRCUIT BREAKER TYPE. STARTERS SHALL BE EQUIPPED WITH MAGNETIC STARTER AND HEAVY DUTY CONTACTS. COVER SHALL BE EQUIPPED WITH DEFEATABLE INTERLOCK TO PREVENT UNAUTHORIZED ENTRY WHILE ENERGIZED. ENCLOSURE SHALL BE CODE GAUGE STEEL, TREATED WITH RUST INHIBITING PHOSPHATE AND FINISHED IN GRAY, BAKED ENAMEL.

LIGHTING

PROVIDE A COMPLETE AND OPERATIONAL LIGHTING SYSTEM IN ACCORDANCE WITH THE PROJECT DRAWINGS. PROVIDE ALL LAMPS, BALLASTS, AND ACCESSORIES AS REQUIRED FOR A COMPLETE SYSTEM. REFERENCE THE REFLECTED CEILING PLAN FOR CEILING TYPES AND PROVIDE PLASTER FRAMES AS REQUIRED. PROVIDE SEISMIC BRACING FROM STRUCTURE FOR ALL RECESSED LUMINAIRES.

INTERIOR FLUORESCENT LUMINAIRES: COLD ROLLED STEEL HOUSING, ELECTRONIC BALLAST, VANDAL RESISTANT LENS AS SHOWN IN THE LUMINAIRE SCHEDULE. HOUSINGS SHALL BE EQUIPPED WITH GASKETS AND TRIM TO PREVENT LIGHT LEAKAGE.

LED LUMINAIRES: INTERIOR OR EXTERIOR PER SCHEDULE, -20 DEG F AND DAMP LABEL RATING FOR EXTERIOR LOCATIONS.


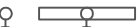












BALLASTS: FLUORESCENT BALLASTS SHALL BE ELECTRONIC TYPE, HIGH POWER FACTOR, HARMONIC DISTORTION UNDER 10% AND CLASS "A" SOUND RATING.

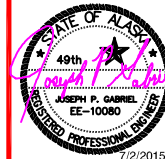
LAMPS: FLUORESCENT LAMPS SHALL BE T5 OR T8, WATTAGE AND TYPE AS INDICATED ON THE ELECTRICAL DRAWINGS.

LUMINAIRE SCHEDULE

- A LINEAR FLUORESCENT, 120V, EXTRUDED ALUMINUM HOUSING, 2 T832W LAMPS PER 48" LENGTH, ELECTRONIC BALLAST, POLYCARBONATE LENS, KENALL IBZ SERIES OR APPROVED. 350VA MAX INPUT.
- B EXTERIOR WALL MOUNTED LED, 120V, TRAPEZOIDAL FULL CUIT OFF DIE-CAST ALUMINUM SINGLE PIECE MOUNTING BASE, SINGLE PIECE COVER WITH GLASS LENS, 80WATT LED, WET LOCATION, -20 DEG RATING. SYLVANIA TWP SERIES, 85VA MAX INPUT

SYMBOLS (NOTE: NOT ALL SYMBOLS APPEAR ON DWGS)

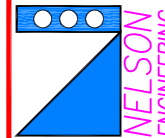
	FLUORESCENT LUMINAIRE
	SURFACE LUMINAIRE; WALL PACK OR LINEAR FLUORESCENT
	SWITCH: SINGLE POLE, THREE WAY
	GFCI RECEPTACLE (PROVIDED NEMA 3R COVER WHERE NOTED ON DWGS)
	RECEPTACLE: DUPLEX, QUAD
	OCCUPANCY SENSOR
	PHOTOELECTRIC CELL
	JUNCTION BOX
	MOTOR CONNECTION
	DISCONNECT, STARTER
	BRANCH CIRCUIT WIRING
	SHEET NOTE CALL OUT
	BRANCH PANEL: PLAN VIEW
	SERVICE CT AND METER: PLAN VIEW



NO.	REVISION	DATE

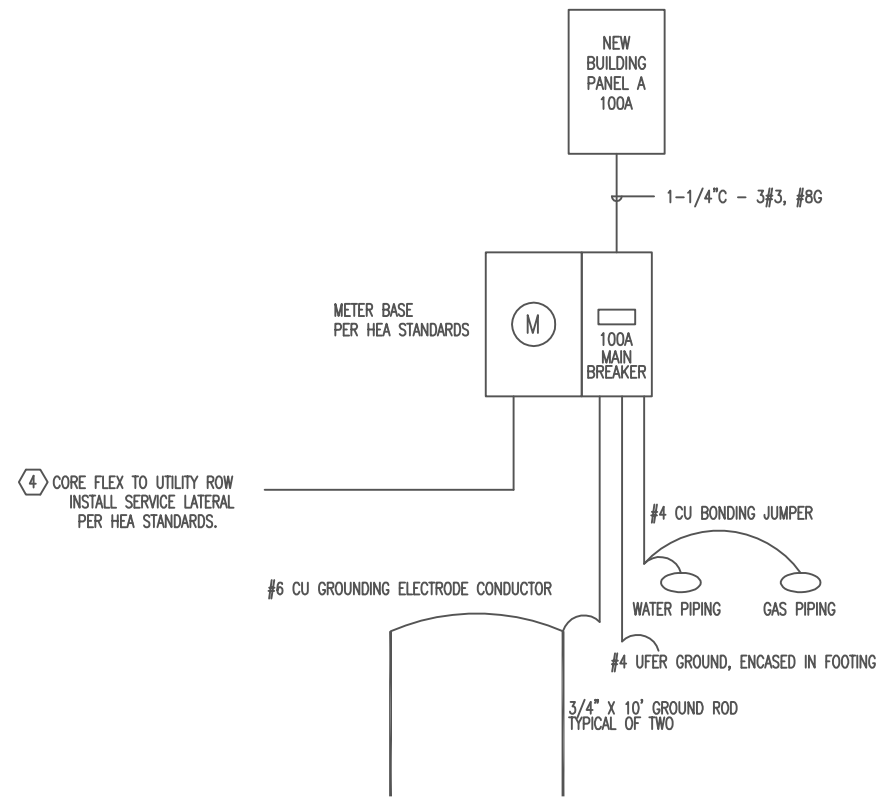
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RAMP 5 RESTROOMS
CITY OF HOMER
SMALL BOAT HARBOR
ELECTRICAL SPECIFICATIONS

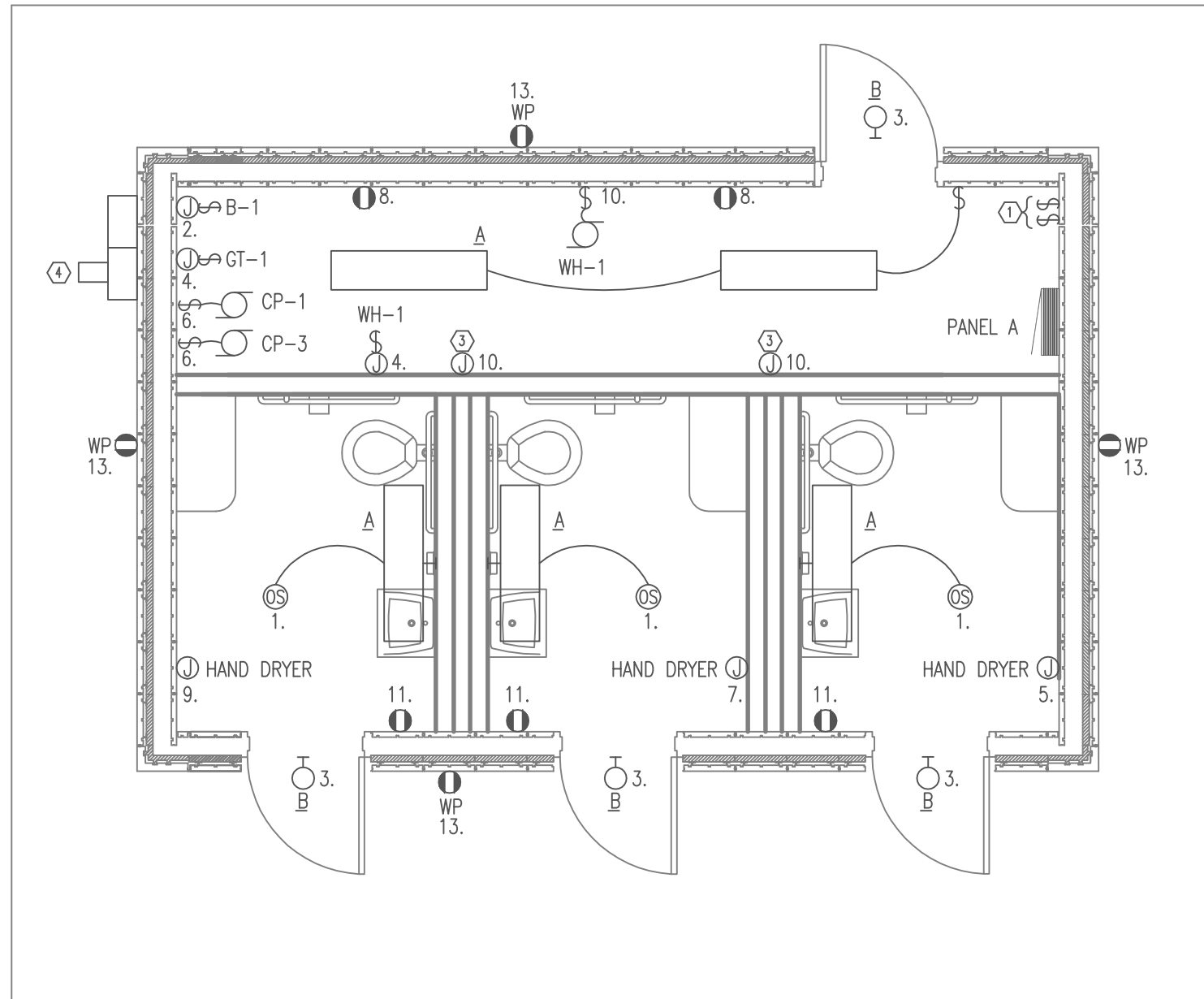
PROJECT NO. 1515
DRAWN BY: JG
CHECKED BY: JG
DATE: 07/02/2015
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET E1.0
1 OF 2



2 ONE LINE DIAGRAM - 120/240V, 1 PHASE
 SCALE: NONE

VOLTS		120/240		100		AMP BUS	
HERTZ		60		---		AMP MAIN CB	
PHASE		1		YES		SOLID NEUTRAL	
WIRE		3		SURFACE		MOUNTING	
PANEL: A							
LOAD DESCRIPTION	BKR SIZE	CKT NO.	BUS		CKT NO.	BKR SIZE	LOAD DESCRIPTION
LIGHTING	20/1	1	●	●	2	20/1	BOILER B-1
EXT LIGHTING	20/1	3	●	●	4	20/1	WTR HTR WH-1, GLY TK GT-1
HAND DRYER	20/1	5	●	●	6	20/1	CIRC PMPs CP-1,3
HAND DRYER	20/1	7	●	●	8	20/1	RECEPTS, MECH RM
HAND DRYER	20/1	9	●	●	10	20/1	EX FAN, FLUSH CONT, TRAP PR
RECEPTS, TOILET RMS	20/1	11	●	●	12	20/1	
RECEPTS, EXTERIOR	20/1	13	●	●	14	20/1	
	20/1	15	●	●	16	20/1	
		17	●	●	18		
		19	●	●	20		
		21	●	●	22		
		23	●	●	24		
LOAD TYPE	LOAD/PHASE (VA)		CALCULATED LOAD (VA)				
	A	B	TOTAL VA	MULT	VA LOAD		
LIGHTING	375	120	495	1.25	619		
ELECTRIC HEAT	0	0	0	1.00	0		
MOTOR LOADS	275	0	275	1.00	275		
OTHER LOADS	3400	1750	5150	1.00	5150		
RECEPTACLES	720	900	1620	1.00	1620		
LOAD TOTALS	4770	2770	7540	1.02	7664		
TOTAL CALCULATED VA LOAD (INCLUDES 125% LARGEST MOTOR)					7664		
TOTAL AMPERES AT 120/240V					41		

3 PANEL SCHEDULE
 SCALE: NONE



1 ELECTRICAL PLAN
 SCALE: 1/2" = 1'0" ON 22"x34"
 SCALE: 1/4" = 1'0" ON 11"x17"

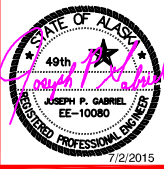
GENERAL NOTES

- BRANCH CIRCUIT LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE ALL REQUIRED CONDUIT, SUPPORTS, CONDUCTORS, AND CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATIONAL FACILITY IN ACCORDANCE WITH CODE RULES.
- COORDINATE MOUNTING HEIGHTS OF EQUIPMENT, APPLIANCES, AND APPURTANCES PRIOR TO ROUGH IN.
- RACEWAYS SHALL BE INSTALLED CONCEALED AT BUILDING EXTERIOR AND TOILET ROOM LOCATIONS. THE ONLY PERMITTED SURFACE INSTALLATIONS SHALL BE WITHIN THE MECHANICAL ROOM AND THE SERVICE EQUIPMENT.

SHEET NOTES

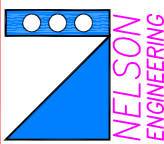
- PROVIDE SWITCH CONTROL STATIONS IN THE MECH ROOM. ONE SWITCH TO CONTROL TOILET ROOM RECEPT CIRCUIT AND ONE SWITCH TO CONTROL EXTERIOR RECEPT CIRCUIT
- PROVIDE PHOTOCELL CONTROL FOR EXTERIOR LIGHTING CIRCUIT.
- PROVIDE CONNECTION POINT FOR MECHANICAL EQUIPMENT CONTROL INCLUDING TRAP PRIMERS, AND ELECTRONICALLY ACTUATED FAUCETS.
- COORDINATE WITH HEA FOR FINAL LOCATION OF SERVICE EQUIPMENT AND PROVIDE ALL REQUIREMENTS TO CONFORM TO THE UTILITY CONSTRUCTION STATNDARDS.

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NO.	REVISION	DATE

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RAMP 5 RESTROOMS
CITY OF HOMER
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ELECTRICAL PLAN

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