- 2. BUILDING DESIGN IS TO BE REVIEWED AND APPROVED BY THE LOCAL FIRE CHEIF OR EQUIVALENT AUTHORITY.
- 3. THE ORGANIZATION OF THESE DRAWINGS IS NOT INTENDED TO CONTROL THE DIVISION OF WORK AMONG SUB-CONTRACTORS. THE DIVISION OF THE WORK SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- 4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC, ENVIRONMENT AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION. CONTRACTOR ASSUMES ALL LIABILITY FOR DAMAGES INCURRED DURING CONSTRUCTION.
- 5. CONTRACTOR SHALL COORDINATE WORK SCHEDULE, LOCATION OF STORAGE AREAS, COLLECTION OF TRASH, AND DELIVERY OF MATERIALS WITH THE OWNER.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL RUBBISH AND DEBRIS RESULTING FROM CONSTRUCTION AND DEMOLITION ACTIVITIES. DISPOSAL SHALL BE IN AN APPROVED SITE AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- 7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EXISTING FACILITIES FOR HEAT, LIGHT AND POWER WITHIN THE PREMISES AND IN THE CONSTRUCTION AREA DURING THE ENTIRE CONSTRUCTION PERIOD. PROVIDE NECESSARY MATERIALS AND LABOR FOR TEMPORARY POWER CONNECTIONS FOR MACHINES, PORTABLE EQUIPMENT, TOOLS, ETC. AS USED BY TRADES, REGARDLESS OF SIZE.
- 8. IN GENERAL, THE WORKING DETAILS WILL INDICATE DIMENSIONS, POSITIONS AND KIND OF CONSTRUCTION. THE SPECIFICATIONS WILL INDICATE QUALITIES AND METHODS. ANY WORK INDICATED ON THE WORKING DETAILS MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, SHALL BE FURNISHED AS THOUGH FULLY SET FORTH IN BOTH. WORK NOT PARTICULAR DETAILED, MARKED OR SPECIFIED, SHALL BE THE SAME AS SIMILAR PARTS THAT ARE DETAILED, MARKED OR SPECIFIED. IF CONFLICTS OCCUR BETWEEN DRAWINGS AND SPECIFICATIONS, THE MOST EXPENSIVE MATERIALS OR METHODS WILL PREVAIL.
- 9. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION. IF A CONDITION NOT COVERED IN THE DRAWINGS IS ENCOUNTERED, OR IF A DIMENSIONAL ERROR IS FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER BEFORE COMMENCING WITH THAT PORTION OF THE WORK.
- 10. SHOULD AN ERROR APPEAR IN THE WORKING DETAILS OR SPECIFICATIONS OR IN WORK DONE BY OTHERS AFFECTING THIS WORK, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER AT ONCE AND IN WRITING. IF THE CONTRACTOR PROCEEDS WITH THE WORK SO AFFECTED WITHOUT HAVING GIVEN SUCH WRITTEN NOTICE AND WITHOUT RECEIVING THE NECESSARY APPROVAL, DECISIONS OR INSTRUCTION IN WRITING FROM THE OWNER, THE CONTRACTOR SHALL HAVE NO VALID CLAIM AGAINST THE OWNER, FOR THE COST OF SO PROCEEDING AND SHALL MAKE GOOD ANY RESULTING DAMAGE OR DEFECT. NO VERBAL APPROVAL, DECISION, OR INSTRUCTION SHALL BE VALID OR BE THE BASIS FOR ANY CLAIM AGAINST THE OWNER, ITS OFFICERS, EMPLOYEES OR AGENTS. THE FOREGOING INCLUDES TYPICAL ERRORS IN THE SPECIFICATIONS OR NOTATIONAL ERRORS IN THE WORKING DETAILS WHERE THE INTERPRETATIONS IS DOUBTFUL OR WHERE THE ERROR IS SUFFICIENTLY APPARENT AS TO PLACE A REASONABLY PRUDENT CONTRACTOR ON NOTICE THAT SHOULD IT BE ELECTED TO PROCEED, IT IS DONE SO AT THE CONTRACTOR'S OWN RISK.

- 11. WHERE NO SPECIFIC DETAILS IS SHOWN, THE CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THIS PROJECT OR TO APPROPRIATE STANDARDS OF WORKMANSHIP OF CONTEMPORARY CONSTRUCTION PRACTICES. SHOULD THERE BE ANY QUESTIONS, CONTACT THE ARCHITECT OR ENGINEER PRIOR TO PROCEEDING.
- 12. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER WHERE A CONFLICT OR A DISCREPANCY OCCURS BETWEEN THE DRAWINGS AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS OR EXISTING FIELD CONDITIONS. SUCH NOTIFICATION SHALL BE GIVEN IN DUE TIME SO AS NOT TO AFFECT THE CONSTRUCTION SCHEDULE. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH THE DRAWINGS PRIOR TO COMMENCING ANY WORK.
- 13. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS, AS THEY APPLY TO THIS PROJECT, OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF ALASKA LATEST EDITION, AND ALL OSHA REQUIREMENTS. THE OWNER AND THE ARCHITECT OR ENGINEER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS AND SHORING OR OTHER TEMPORARY CONSTRUCTION DESIGNS REQUIRED.
- 14. ANY SUBSTITUTIONS FOR MATERIALS, STRUCTURAL MEMBERS, HARDWARE, EQUIPMENT OR DETAILS SHALL BE REVIEWED BY THE ARCHITECT OR ENGINEER. SUCH REVIEW MAY BE BILLED ON A TIME AND MATERIALS BASIS TO THE GENERAL CONTRACTOR UNDER APPROVED AGREEMENT WITH NO GUARANTEE THAT THE SUBSTITUTION WILL BE ALLOWEDALL COMPONENTS, EQUIPMENT, ETC., SHALL BE INSTALLED PER MANUFACTURERS WRITTEN RECOMMENDATIONS AND INSTRUCTIONS.
- 15. ALL COMPONENTS, EQUIPMENT, ETC., SHALL BE INSTALLED PER MANUFACTURERS WRITTEN RECOMMENDATIONS AND INSTRUCTIONS.
- 16. DO NOT SCALE DRAWINGS. CONTACT THE ARCHITECT OR ENGINEER FOR ANY DIMENSIONS NOT SHOWN.
- 17. THESE DRAWINGS ARE NOT COMPLETE UNTIL REVIEWED AND ACCEPTED BY THE LOCAL BUILDING OFFICIALS AND SIGNED BY THE ARCHITECT AND/OR ENGINEER.
- 18. ALL DRAWINGS AND WRITTEN MATERIAL APPEARING HEREIN CONSTITUTES THE ORIGINAL AND UNPUBLISHED WORK OF THE ARCHITECT AND/OR ENGINEER AND ARE THE PROPERTY OF THE OWNER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT WRITTEN CONSENT OF THE ARCHITECT AND/OR ENGINEER AND FOR APPROVED COMPENSATION.

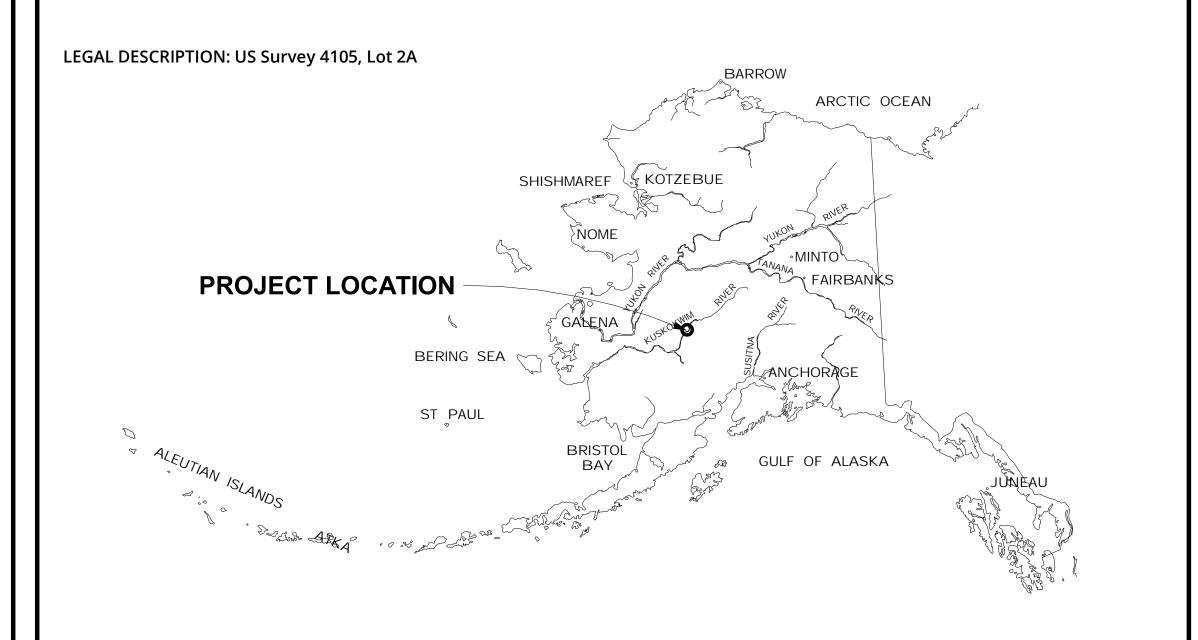
### TAKOTNA HEALTH CLINIC

#### SOUTHCENTRAL FOUNDATION TAKOTNA, AK

#### 100% DRAWING SET

08/07/2020

#### PROJECT LOCATION



#### **CODE SUMMARY**

ALLOWABLE AREA:

OCCUPANT LOAD:

NUMBER OF EXITS:

TRAVEL DISTANCE:

COMMON PATH OF TRAVEL:

**INTERIOR FINISH CLASS:** 

**ACTUAL AREA:** 

<u>APPLIC</u>	<u> ABLE</u>	CODES

- ALASKA STATE BUILDING CODE (13 AAC 50-55)
- 2012 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
- 2012 INTERNATIONAL BUILDING CODE (IBC)
- 2012 INTERNATIONAL RESIDENTIAL CODE (IRC)
- 2012 INTERNATIONAL FIRE CODE (IFC)
- 2012 INTERNATIONAL MECHANICAL CODE (IMC)
- 2012 UNIFORM PLUMBING CODE (UPC)
- 2014 NFPA 70 NATIONAL ELECTRICAL CODE (NEC)
- ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG)

OCCUPANCY CLASSIFICATION: B, HEALTH CLINIC

TYPE OF CONSTRUCTION: V-B

SPRINKLER SYSTEM:

Jancech Inc

NO SYSTEM REQUIRED (LOW OCCUPANCY)

FIRE ALARM SYSTEM: SYSTEM PROVIDED (DEFERRED SUBMITTAL)

FIRE EXTINGUISHER: UL RATED 3-A, 40-B:C (NOTED ON FLOOR PLAN)

#### PROJECT TEAM

ARCHITECTURE, SURVEY, CIVIL AND STRUCTURAL ENGINEERING

250 H Street Anchorage, AK 99501 P (907) 243-8985 F (907) 243-5629 www.lcgak.com

MECHANICAL AND ELECTRICAL ENGINEERING

9,000 SF, ONE STORY (B, V-B)

1,860 SF, ONE STORY

1,860 / 100 = 19 [18.6]

200'-0"

100'-0"

TYPICAL:

1 REQUIRED, 2 PROVIDED

EXIT CORRIROR: CLASS B

EXIT VESTIBULE: CLASS A

CLASS C

Mechanical & Electrical Consulting Engineers 113 W. Northern Lights Blvd., Suite 240 Anchorage, Alaska 99503 Tel. (907) 562-1012 Fax (907) 562-1013

#### PROJECT DESCRIPTION

NEW 1,860 SF CLINIC IN TAKONA, ALASKA. THIS PROJECT INCLUDES CIVIL, ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DESIGN. SITE WORK IS DESIGNED TO COORDINATE WITH FUTURE ADDITIONAL SITE DEVELOPMENT. PROJECT UTILIZES PROPRIETARY FOUNDATION SYSTEM. BUILDING IS METAL STUD FRAMED WITH INSULATED METAL PANEL EXTERIOR AND METAL ROOF.

#### DRAWING LIST

#### **CIVIL DRAWINGS**

- C0.0 CIVIL NOTES, ABBREVIATIONS, LEGEND
- C1.0 OVERALL SITE PLAN
- SITE PLAN
- **GRADING PLAN**
- CIVIL DETAILS
- C3.1 WATER AND SEWER SERVICE DETAILS
- C3.2 SERVICE CONNECTION DETAILS
- C3.3 SEPTIC TANK DETAILS
- C3.4 ABSORPTION FIELD DETAILS C4.0 GUARDRAIL DETAILS

#### ARCHITECTURAL DRAWINGS

- FLOOR PLAN AND ASSEMBLIES
- ROOF PLAN AND ROOF DETAILS
- REFLECTED CEILING PLAN, COLOR AND SIGN SCHEDULE
- **EXTERIOR ELEVATIONS**
- **BUILDING SECTION AND DETAILS**
- ENLARGED RESTROOM PLAN, ELEVATIONS, AND
- **COLOR SCHEDULE**
- CASEWORK ELEVATIONS A4.1
  - MISCELLANEOUS DETAILS
- DOOR & WINDOW TYPES, DOOR HARDWARE
- **DOOR & WINDOW DETAILS**
- HOUSE FLOOR PLAN AND ASSEMBLIES
- HOUSE ROOF PLAN AND ROOF DETAILS
- **HOUSE ELEVATIONS**
- A300 HOUSE SECTION

#### STRUCTURAL DRAWINGS

- **DESIGN CRITERIA AND NOTES**
- FLOOR FRAMING PLAN
- SHEARWALL PLAN
- ROOF FRAMING PLAN
- SECTIONS SECTIONS
- **ROOF FRAMING DETAILS**

#### **MECHANICAL DRAWINGS**

- M0.1 MECHANICAL SCHEDULES AND LEGEND
- M0.2 MECHANICAL SCHEDULES, ABBREV. AND SEQ. OF
- M1.1 UNDERFLOOR PIPING AND PLAN DETAILS
- M1.2 PLUMBING PLAN AND DETAILS
- M2.1 UTILIDOR HEATING PLAN AND DETAILS
- M2.2 FIRST FLOOR HEATING PLAN AND DETAILS
- M3.1 VENTILATION PLAN AND DETAILS
- M4.1 ENLARGED MECHANICAL ROOM PLAN AND BOILER

#### PIPING DIAGRAM

#### **ELECTRICAL DRAWINGS**

- E0.1 LEGEND, FIXTURE SCHEDULE, DIAGRAMS
- E1.1 SITE PLAN
- E2.1 LIGHTING PLAN
- E3.1 POWER PLAN
- E4.1 SIGNAL PLAN
- E4.2 TELECOMMUNICATION DETAILS
- MECHANICAL ROOM POWER PLAN AND PANEL SCHEDULES

C

#### **GENERAL CIVIL NOTES**

- 1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TRANSPORTATION NECESSARY TO CONSTRUCT ALL ELEMENTS OF THIS PROJECT AS DESCRIBED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS.
- 2. RULES, REGULATIONS, AND REFERENCE SPECIFICATIONS WHICH MAY BE ENUMERATED HEREIN, SHALL BE CONSIDERED TO BE MINIMUM REQUIREMENTS. THEY SHALL NOT RELIEVE THE CONTRACTOR OF FURNISHING AND INSTALLING HIGHER GRADES OF MATERIAL AND WORKMANSHIP THAN ARE SPECIFIED HEREIN, WHEN SO REQUIRED.
- 3. ALL PROPERTY CORNERS AND MONUMENTS DISTURBED DURING CONSTRUCTION, SHALL BE REPLACED BY OR UNDER THE DIRECT SUPERVISION OF A PERSON WHO IS REGISTERED IN THE STATE OF ALASKA AS A PROFESSIONAL LAND SURVEYOR.
- 4. CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, AND EQUIPMENT AS NECESSARY TO COMPLETE THE PROJECT.
- 5. THE CONTRACTOR SHALL TRANSFER ALL REMOVED AND SALVAGEABLE (AS DETERMINED BY THE OWNER'S REPRESENTATIVE) PIPE AND OTHER ASSOCIATED MATERIALS, TO A LOCATION SPECIFIED BY THE OWNER'S REPRESENTATIVE.
- 6. DEPTH OF PERMAFROST AND GROUND WATER MAY VARY SIGNIFICANTLY THROUGHOUT THE PROJECT SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PERMAFROST EXCAVATION AND CONTROL OF GROUND OR SURFACE WATER.
- 7. ADEQUATE BACK SLOPES, SHORING, BRACING OR OTHER METHODS ARE REQUIRED TO PREVENT FAILURE OF THE EXCAVATION OR SOILS, AND SHALL BE USED TO PROTECT EXCAVATIONS AND ADJACENT STRUCTURES. CONSTRUCTION PROCEDURES USED DURING TRENCH EXCAVATION SHALL COMPLY WITH CURRENT OSHA REGULATIONS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OVERALL CARE OF PROPERTY USED TO STAGE MATERIALS AND EQUIPMENT, AND THE DRILLING SITE DURING THE CONSTRUCTION PROJECT. STORAGE OF FUEL, OIL, HYDRAULIC FLUID AND OTHER PETROLEUM OR COMBUSTIBLE PRODUCTS SHALL BE STORED AND MAINTAINED IN ACCORDANCE WITH THE ATTACHED SITE PLAN OR AT A LOCATION ACCEPTABLE TO THE OWNERS REPRESENTATIVE.
- 9. ALL EQUIPMENT OWNED BY THE CONTRACTOR SHALL BE KEPT IN GOOD REPAIR AT ALL TIMES. ALL POWERED EQUIPMENT AND DRILL RIGS SHALL BE INSPECTED BEFORE AND AFTER EACH USE FOR ANY FUEL, HYDRAULIC OIL OR COOLANT LEAKS. THE USE OF POWERED EQUIPMENT WITH KNOWN LEAKS IS PROHIBITED. SITE CLEAN-UP OF ANY ACCIDENTAL PETROLEUM LEAKS OR SPILLS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REMEDIED IMMEDIATELY UPON DISCOVERY. ANY SPILL, REGARDLESS OF SIZE, MUST BE REPORTED TO THE OWNERS REPRESENTATIVE AS SOON AS PRACTICAL. IN ADDITION, THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE ADEC IN ACCORDANCE WITH 18 AAC 75.
- 10. REFUELING OR OTHER FLUID HANDLING ACTIVITIES MAY HAVE SPECIAL RESTRICTIONS IN SENSITIVE AREAS, SUCH AS WITHIN 100 FEET OF THE WELL. ACCEPTABLE LOCATIONS FOR SUCH ACTIVITIES, IF NOT IDENTIFIED IN THE SITE PLAN, SHALL BE APPROVED BY THE OWNERS REPRESENTATIVE. AN ADEQUATE SUPPLY OF ABSORBENT PADS SHALL BE KEPT ON SITE TO FACILITATE INITIAL REMEDIATION OF SMALL PETROLEUM SPILLS.

#### **ON-SITE SEPTIC GENERAL NOTES**

- 1. CONTRACTOR SHALL ABIDE BY THE MOST RECENT STATE OF ALASKA WASTEWATER REGULATIONS AND ONSITE INSTALLATION GUIDELINES.
- 2. CONTRACTOR SHALL VERIFY THAT ALL SEPARATION DISTANCE WAIVERS FOR SEPTIC TANK AND DRAINFIELD LOCATIONS STATED ON PLANS HAVE BEEN MET.
- 3. CONTRACTOR SHALL FURNISH ALL ON-SITE SEPTIC RELATED SUBMITTALS FOR APPROVAL PRIOR TO BEGINNING WORK. ON-SITE SEPTIC SUBMITTALS SHALL INCLUDE SEPTIC TANK, SEPTIC TANK INSULATION, AND COATING, SEPTIC TANK RISERS, DISTRIBUTION BOXES, DRAINFIELD INFILTRATOR CHAMBERS AND END CAPS, ARCTIC PIPE AND FITTINGS, RIGID BOARD INSULATION, BACK FILL, PIPE BEDDING, AND DRAINFIELD SAND.
- 4. THE CONTRACTOR SHALL MAINTAIN A CLEAN SET OF "AS-BUILT" DRAWINGS SHOWING THE LOCATION AND SWING TIES TO ALL BENDS AND APPURTENANCES. ALL ELEVATIONS SHALL BE MARKED ASB (AS-BUILT) WITH THE CORRECT VALUE INSERTED. DRAWINGS SHALL BE KEPT CURRENT IN RED PENCIL ON A DAILY BASIS IN A NEAT, LEGIBLE FASHION.
- 5. CONTRACTOR SHALL SUBMIT AS-BUILT REDLINE DRAWINGS TO ENGINEER AND OWNER'S REPRESENTATIVE.

#### **PROJECT RESTORATION NOTES**

- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RETURNED TO PRE-CONSTRUCTION CONDITION OR BETTER. CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE PROJECT AREA AND DISPOSED OF IN A MANNER AND LOCATION ACCEPTABLE TO THE CITY. CONTRACTOR SHALL EXERCISE DUE CARE AND CAUTION TO AVOID DISTURBING PRIVATE PROPERTY.
- 2. DISTURBED AREAS OUTSIDE TRAVELED WAYS SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS.
- 3. ALL DISTURBED AREAS OR SLOPES OUTSIDE THE GRADING LIMITS SHALL BE REGRADED, REPAIRED AND BROADCAST SEEDED AT A RATE OF 10LBS PER 1000 SF WITH THE FOLLOWING SEED MIX:

ARCTARED RED FECUE (FESTUCA RUBRA) - 50%
GRUENING ALPINE BLUEGRASS (POA ALPINA) - 20%
TUNDRA GLAUCOUS BLUEGRASS (POA GLAUCA) - 20%
NORTRAN TUFTED HAIRGRASS (DESCHAMPIA CAESPITOSA) - 10%

#### **ABBREVIATIONS**

APPROX	APPROXIMATE	HP	HIGH POINT
BV	BALL VALVE	IE	INVERT ELEVATION
BTU	BRITISH THERMAL UNITS	LF	LINEAR FEET
CMP	CORRUGATED METAL PIPE	MAX	MAXIMUM
CORP	CORPORATION	ME	MATCH EXISTING
q_	CENTER LINE	МН	MANHOLE
DIA	DIAMETER	MIN	MINIMUM
DNR	DEPARTMENT OF NATURAL RESOURCES	NIC	NOT IN CONTACT
D/W	DRIVEWAY	PF	PEAKING FACTOR
EA	EACH	PI	POINT OF INTERSECTION
ELEV	ELEVATION	PL	PROPERTY LINE
ESMT	EASEMENT	PP	POWER/UTILITY POLE
EXIST	EXISTING	R	RADIUS
F	FAHRENHEIT	ROW	RIGHT OF WAY
FF	FINISH FLOOR	SEC	SECOND
FG	FINISH GRADE	SF/SQFT	SQUARE FOOT
FH	FIRE HYDRANT	SSCO	SANITARY SEWER CLEAN-OUT
FL	FLOW LINE	SSMH	SANITARY SEWER MANHOLE
FM	FORCE MAIN	SS	SEWER SERVICE
FT	FOOT	STA	STATION
GAL	GALLON	TBM	TEMPORARY BENCHMARK
GALV	GALVANIZED	TYP	TYPICAL
GB	GRADE BREAK	WS	WATER SERVICE
GPD	GALLONS PER DAY	.,,	TO THE SERVICE
GPCD	GALLONS PER CAPITA DAY		

#### **DESIGN CRITERIA**

**GALLONS PER MINUTE** 

HIGH DENSITY POLYETHYLENE

#### **SUMMARY OF WORK**

- ABSORPTION FIELD SHALL USE 9 INFILTRATOR CHAMBERS AND SHALL BE CONSTRUCTED AS SPECIFIED IN PLANS.
- SEPTIC EFFLUENT PUMP SHALL BE A LIBERTY FL32M 1/3HP 208/230V I-PHASE MANUAL 1-1/2" DISCHARGE PUMP OR APPROVED EQUAL, CAPABLE OF PROVIDING A MINIMUM OF 22 GPM WITH A RESIDUAL HEAD LOSS OF 10 FT.
- CONTROL PANEL SHALL BE 120/208-230V SINGLE PHASE UNIT WITH NEMA 4X ENCLOSURE. PANEL SHALL BE A LIBERTY, 5XL24=3 I-PH, 0-14.9A, WITH MINIMUM 50' CORD, OR APPROVED EQUAL.
- SEPTIC TANK LIFT STATION ASSEMBLY SHALL BE A LIFEWATER SYSTEM INFILTRATOR IM 1530 OR APPROVED EQUAL

#### ABSORPTION FIELD SIZING

- HEALTH CLINIC : ESTIMATED AVG DAILY FLOW = 30 GPD
- HEALTH CLINIC: ESTIMATED PEAK DAILY FLOW = 60 GPD (2X AVG DAILY)
- DRAINFIELD DESIGN CAPACITY = 125 GPD (2X PEAK DAILY)
- SAND FILTER LOADING RATE = 1.0 GPD/SF
- BASAL SOIL TYPE: BORROW BACKFILL
- BASAL SOIL LOADING RATE = 0.6 GPD/SF
- LINEAR LOADING RATE = 5.0 GPD/FT

(ALTHOUGH THERE IS A SHALLOW SLOPE (3%±) A SMALL LOADING RATE WAS USED TO ACCOUNT FOR A RELATIVELY SHALLOW IMPERMEABLE LAYER AND TO PREVENT THE POSSIBILITY OF LEAKAGE AT THE TOE OF THE SYSTEM.)

• MOUND SLOPE = 2.5:1

#### **LATERALS AND PUMP DESIGN**

- LATERAL LENGTH = 3 LATERALS @ 12 FT PER LATERAL
- PIPE TYPE = 1-1/2" SCHEDULE 80 PVC
- ORIFICE SIZE AND SPACING = 1/4" HOLES SPACED AT 24" EVENLY
- ORIFICES PER LATERAL = 6 ORIFICES/LATERAL = 18 TOTAL ORIFICES
- NETWORK FLOW RATE = 1.17 GPM/ORIFICE = 7 GPM/LATERAL = 21 GPM
- FORCE MAIN LENGTH = 33 FT
- TOTAL DYNAMIC HEAD LOSS = 10 FT
   SYSTEM HEAD LOSS = 4.6 FT
- FORCE MAIN HEAD LOSS = 4.6 FT FORCE MAIN HEAD LOSS = 1.4 FT ELEVATION HEAD LOSS = 4 FT
- PROVIDE A PUMP CAPABLE OF PROVIDING A MINIMUM OF 22 GPM WITH A RESIDUAL HEAD LOSS OF 10 FT

## • SAND INFILTRATION AREA DIMENSIONS = 8.5' X 14.7' = 125 SF MINIMUM BASAL INFILTRATIVE AREA = 14.5' X 14.7' = 247 SF

(BASAL INFILTRATIVE AREA FOR THIS SITE IS GREATER THAN THE MINIMUM REQUIRED AREA.)

**LEGEND** 

PROPOSED

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- NUMBER OF CHAMBERS = 9
- NUMBER OF END CAPS = 6
- NUMBER OF FIELDS = 1 @ 8.5' X 14.7' = 125 SF

#### **DISTRIBUTION DOSING**

- DOSING VOLUME = 16.6 GAL/DOSE
   (ASSUMES 0.92 GAL/FT FOR 1-1/2" PIPE AND 5 TIMES THE PIPE VOLUME)
- BACK FLOW FROM FORCE MAIN = 3.0 GAL

  (ASSUMES 0.92 GAL/FT F VOID SPACE FOR 1-1/2" PIPE)
- TOTAL DOSE VOLUME = 19.6 ≈ 20 GAL/DOSE
- PUMP RUN TIME = 20 GAL / 22 GPM = 0.91 MIN
- PUMP DAILY CYCLES AT PEAK DAILY FLOW = 60 GPD/ 20 GAL = 3 (USE 3 DOSE CYCLES PER DAY)
- PUMP DAILY CYCLES AT MAXIMUM CAPACITY FLOW = 125 GPD/ 20 GAL = 6 (USE 6 DOSE CYCLES PER DAY)

# EXISTING DESCRIPTION

PROPERTY LINE

**EASEMENT LINE** 

MAJOR CONTOUR

MINOR CONTOUR

**BLOCK NUMBER** 

DRAINAGE SWALE

**GRAVEL ROAD/PAD** 

SEWER MAIN LINE

WATER MAIN LINE

**FUEL LINE** 

CULVERT

**CLEANOUT** 

FIRE HYDRANT

WATER VALVE

SEWER MANHOLE

UTILITY POLE WITH GUY WIRE

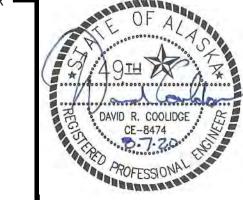
SEWER SERVICE LINE

WATER SERVICE LINE

OVERHEAD UTILITY LINE

LOT NUMBER

FENCE LINE



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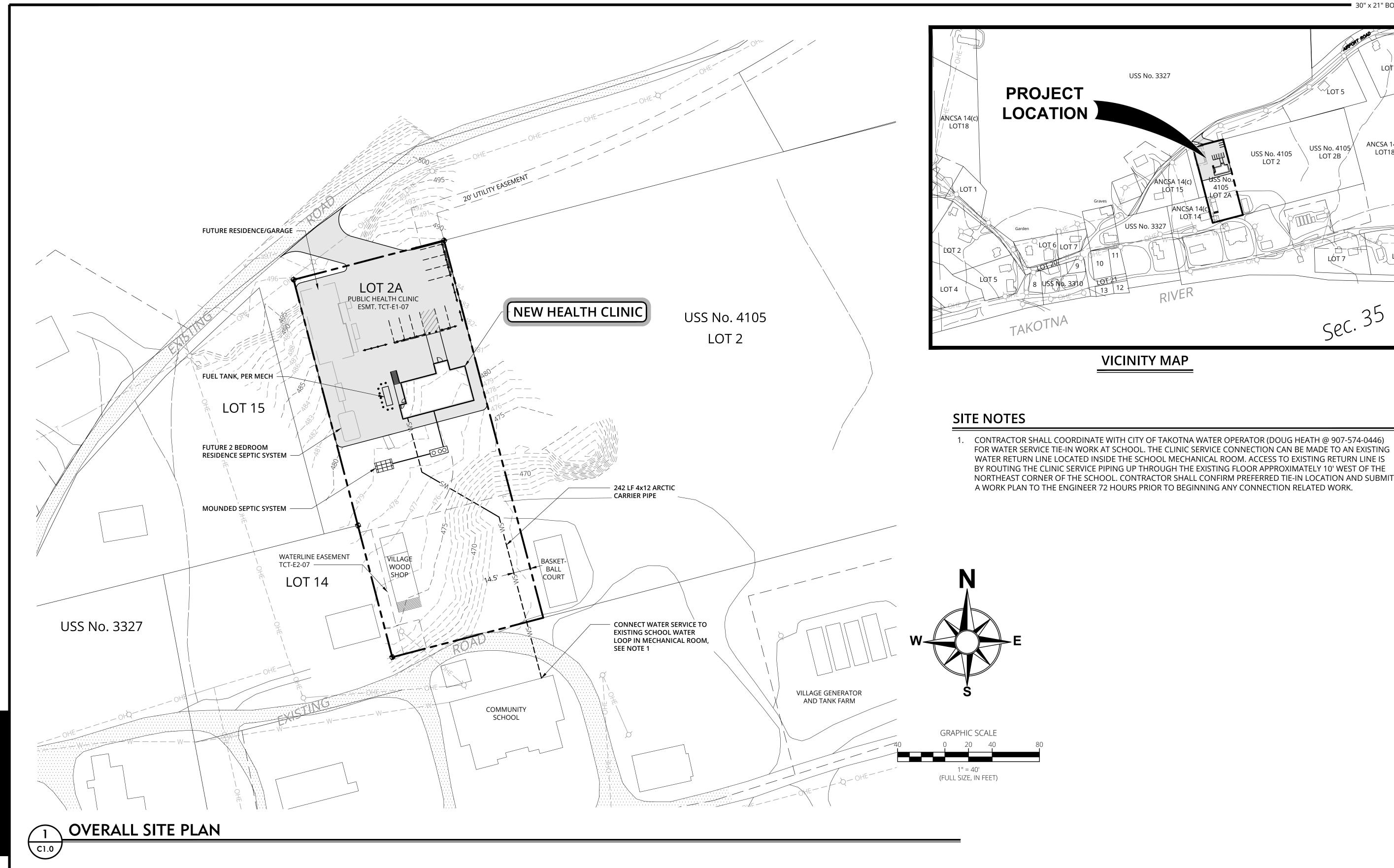
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OTNA HEALTH CLINIC
TAKOTNA, AK
L NOTES, ABBREVIATIONS,
AND LEGEND

SHEET SIZE: 34X22
DESIGNED BY: CS
DRAWN BY: CS
CHECKED BY: DC
DATE: 08.07.2020
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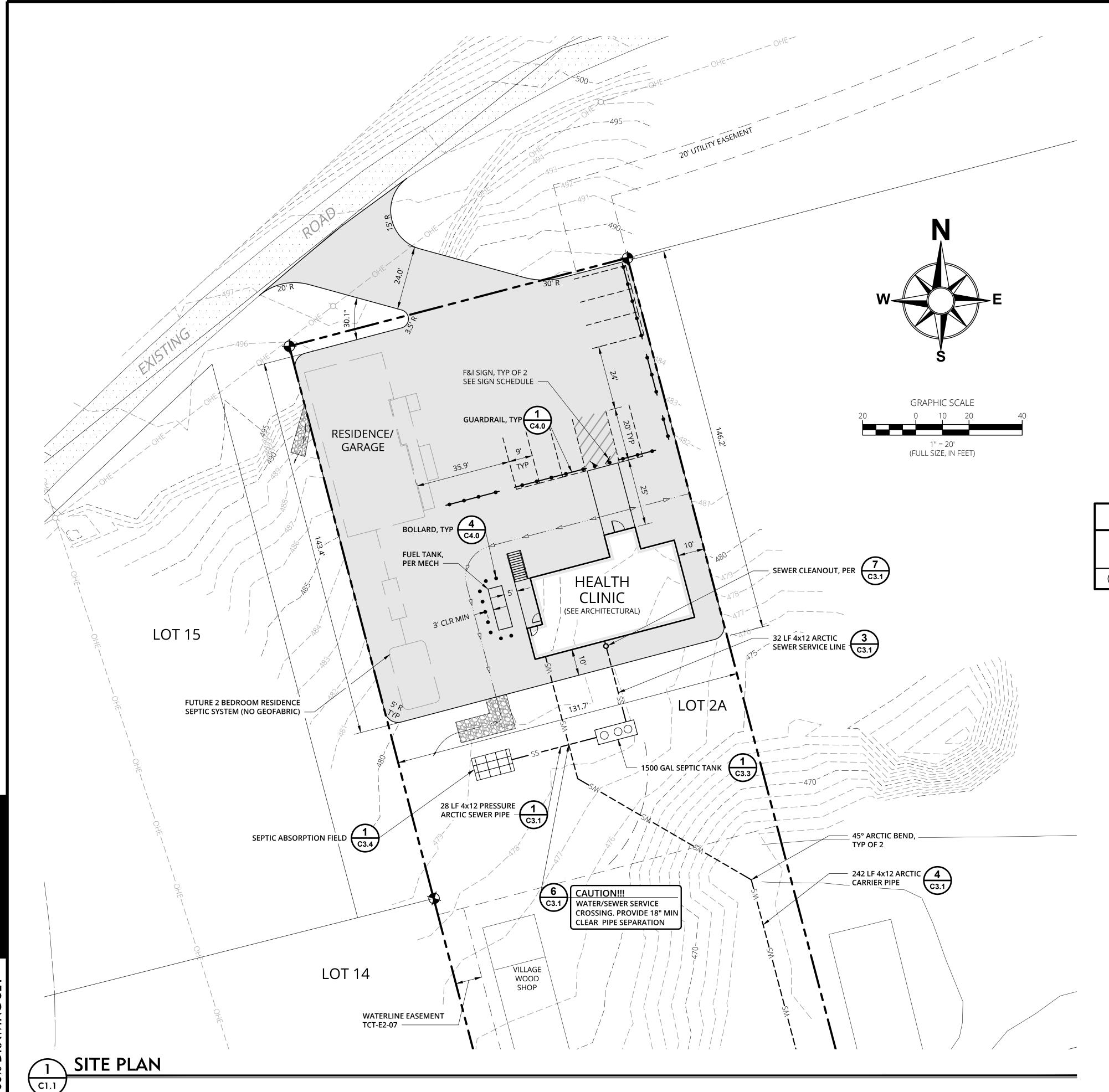
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#### SITE NOTES

- EXISTING GROUND CONTOURS AND SURFACE UTILITY IMPROVEMENTS ARE BASED ON A TOPOGRAPHIC SURVEY PERFORMED MAY 2020 BY SLANA SURVEY. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND CONTROL.
- 2. DIMENSIONS SHOWN ARE TO PROPERTY LINE, EDGE OF GRAVEL PAD OR EXTERIOR GRID LINE OF BUILDING.



SIGN SCHEDULE							
ΙC	FACINIC	TVDE	MOLINIT		COLOR		CICNI DECCRIPTIONI
ID	FACING	TYPE	MOUNT	LEGEND	BACKGROUND	SYMBOL	SIGN DESCRIPTION
A	E	12x18	POLE	RED	WHITE	RED/BLACK	NO PARKING EMERGENCY VEHICLE DROP-OFF

#### SIGN SCHEDULE NOTES

MOUNT SIGN ON GUARDRAIL USING GALVANIZED FASTENERS.



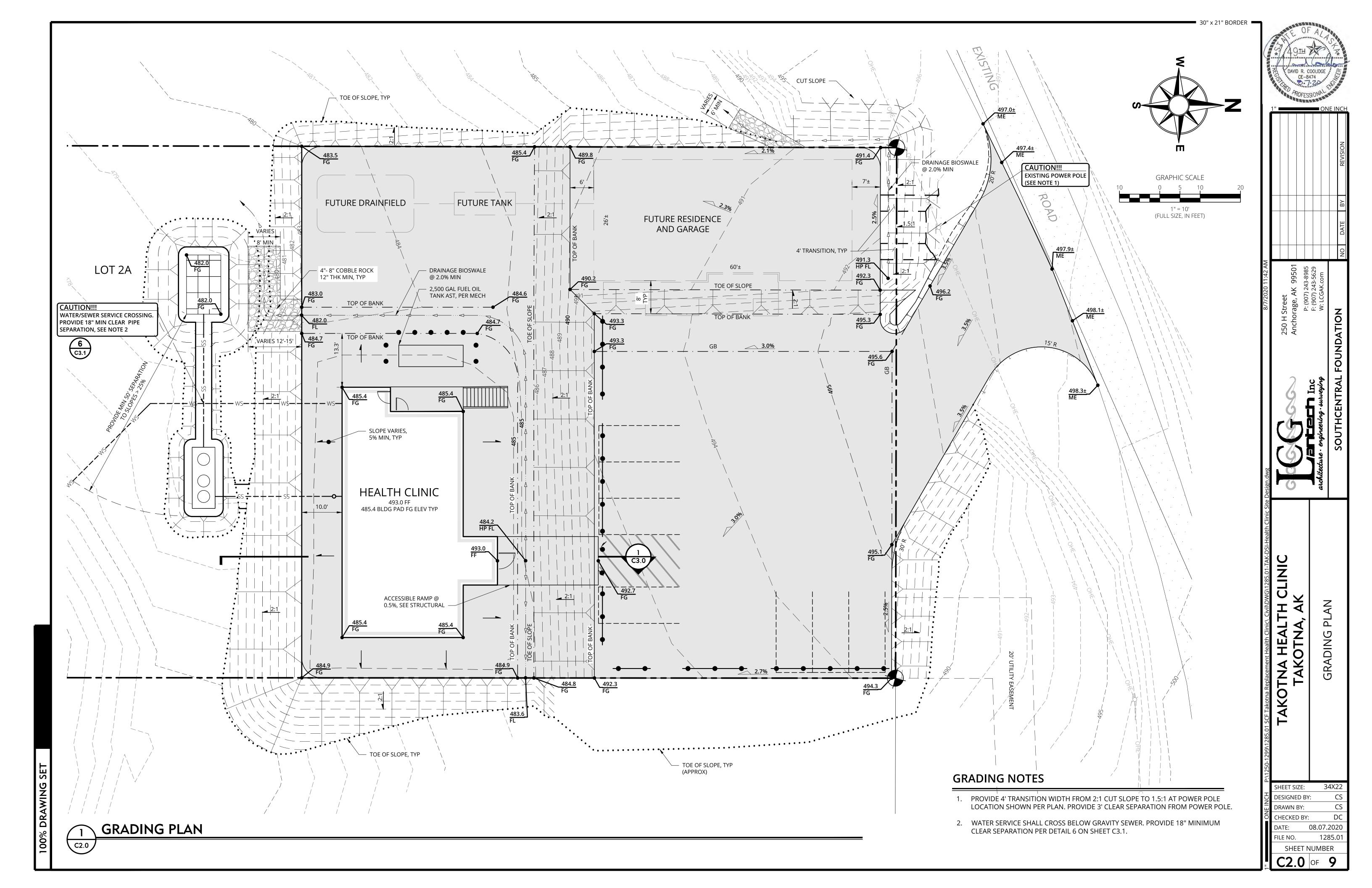
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TAKOTNA, AK

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- EXISTING GROUND AND ORGANIC MAT LAYER

MOUND 6" MIN

PIPE ZONE

6" MIN

# TOPSOIL & SEEDING LIMITS SEE NOTE 7 SLOPE PER PLAN 24" MIN TYPE IV CLASSIFIED FILL BORROW, SEE NOTE 4 DEPTH VARIES, TYPE IV CLASSIFIED FILL BORROW SEE NOTE 4 GEOTEXTILE FABRIC PROPEX GEOTEX 350 OR APPROVED EQUAL

#### PAD NOTES:

- 1. DEPTH VARIES UNDER THE 24" SECTION TO ACHIEVE ELEVATION SPECIFIED IN THE PLANS. THE FIRST LIFT MAY BE INCREASED TO 18-INCH AND/OR STATIC ROLLED TO ACHIEVE A STABLE BASE FOR FURTHER FILL. ALL SUBSEQUENT FILL SHALL BE PLACED IN A MAXIMUM LIFT THICKNESS OF 12 INCHES AND COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY.
- 2. CONTRACTOR SHALL RECONNECT EXISTING DRIVEWAY ENTRIES WHERE REQUIRED, AND SHAPE AND TRIM THE EDGE OF ROADWAY CUTS AND FILLS TO BLEND WITH EXISTING NATURAL GROUND.
- 3. CONTRACTOR SHALL PERFORM CLEARING OF SITE WITHOUT DISTURBING ORGANIC MAT. LEVELING COURSE SHALL BE PLACED OVER UNDISTURBED ORGANIC MAT LAYER.
- 4. FILL MATERIAL SHALL BE LOCALLY AVAILABLE BORROW GRANULAR MATERIAL.
- 5. BUILDING PAD AND DRIVEWAY SHALL BE SLOPED AS INDICATED PER PLAN.
- 6. PROVIDE 3" TOPSOIL PRIOR TO SEEDING SCARIFY AND TRACK WALK PERPENDICULAR TO THE SLOPE WITH SMALL TRACK DOZER. PAD SLOPES SHALL BE BROADCAST SEEDED AT A RATE OF 5 LBS PER 1000 SF WITH SEED MIX PER SHEET CO.
- 7. TOPSOIL MATERIAL SHALL BE REASONABLY FREE FROM ROOTS, CLODS, WEEDS, BRUSH, STICKS, STUBBLE, OR OTHER LITTER AND BE FREE DRAINING.

#### TRENCH NOTES

CLASSIFIED FILL OR EXISTING TRENCH BACKFILL COMPACT

TO 90% MAXIMUM DENSITY

2" RIGID BOARD INSULATION IF COVER

ARCTIC INSULATED PIPE, PER PLAN

COMPACT TO 95% MAX. DENSITY

GEOTEXTILE GEOTEX 801 OR EQUAL.

NO SCALE

REQUIRED AS TYPICAL OF ALL PIPE

- UTILITY MARKING TAPE

IS LESS THAN 36" MIN

PIPE BEDDING MATERIAL

BEDDING INSTALLATIONS

OVER-EXCAVATION ZONE, IF

REQUIRED, SEE NOTE 1

SEE NOTE 2

- 1. IF ORGANICS, SILTS AND/OR ICE RICH PERMAFROST ARE ENCOUNTERED BENEATH THE PIPE ZONE, OVER-EXCAVATE A MINIMUM OF 12" AND INSTALL GEOTEXTILE FABRIC (PROPEX GEOTEX 350 OR EQUAL) AS SHOWN. REPLACE THE DELETERIOUS MATERIAL WITH LOCALLY AVAILABLE 2" MINUS GRANULAR COMPATIBLE FILL (WITH <15% PASSING THE NO. 200 SIEVE) OR ENGINEER APPROVED TRENCH EXCAVATION MATERIAL. PLACE FILL, IN THAWED CONDITION, WITH MAXIMUM 12" LIFTS AND COMPACT TO 95% OF MAXIMUM DENSITY.
- 2. ALL TRENCHES AND OTHER EXCAVATIONS SHALL BE SLOPED OR SHORED IN ACCORDANCE WITH OSHA STANDARDS.
- 3. AFTER BACKFILLING, REGRADE ALL DITCH LINES AND RESTORE ALL DRAINAGE SLOPES AND STRUCTURES TO PRE-CONSTRUCTION
- 4. FOR SHALLOW PIPE BURY SITUATIONS, MOUND FILL ABOVE PIPE AS NEEDED TO ACHIEVE MINIMUM 24" COVER OVER PIPE. FOR STANDARD TRENCH PROVIDE MINIMUM OF 6" OF MOUNDED FILL FOR DRAINAGE.

4 TYPICAL TRENCH SECTION

C3.0

MIN

PIPE OD MIN

MOUND TRENCH FILL 6" MIN,

SEE NOTE 4

SHEET SIZE: 34X22

DESIGNED BY: CS

DRAWN BY: CS

CHECKED BY: DC

DATE: 08.07.2020

FILE NO. 1285.01

SHEET NUMBER

C3.0 OF 9

UNINSULATED PAD AND DRIVEWAY SECTION

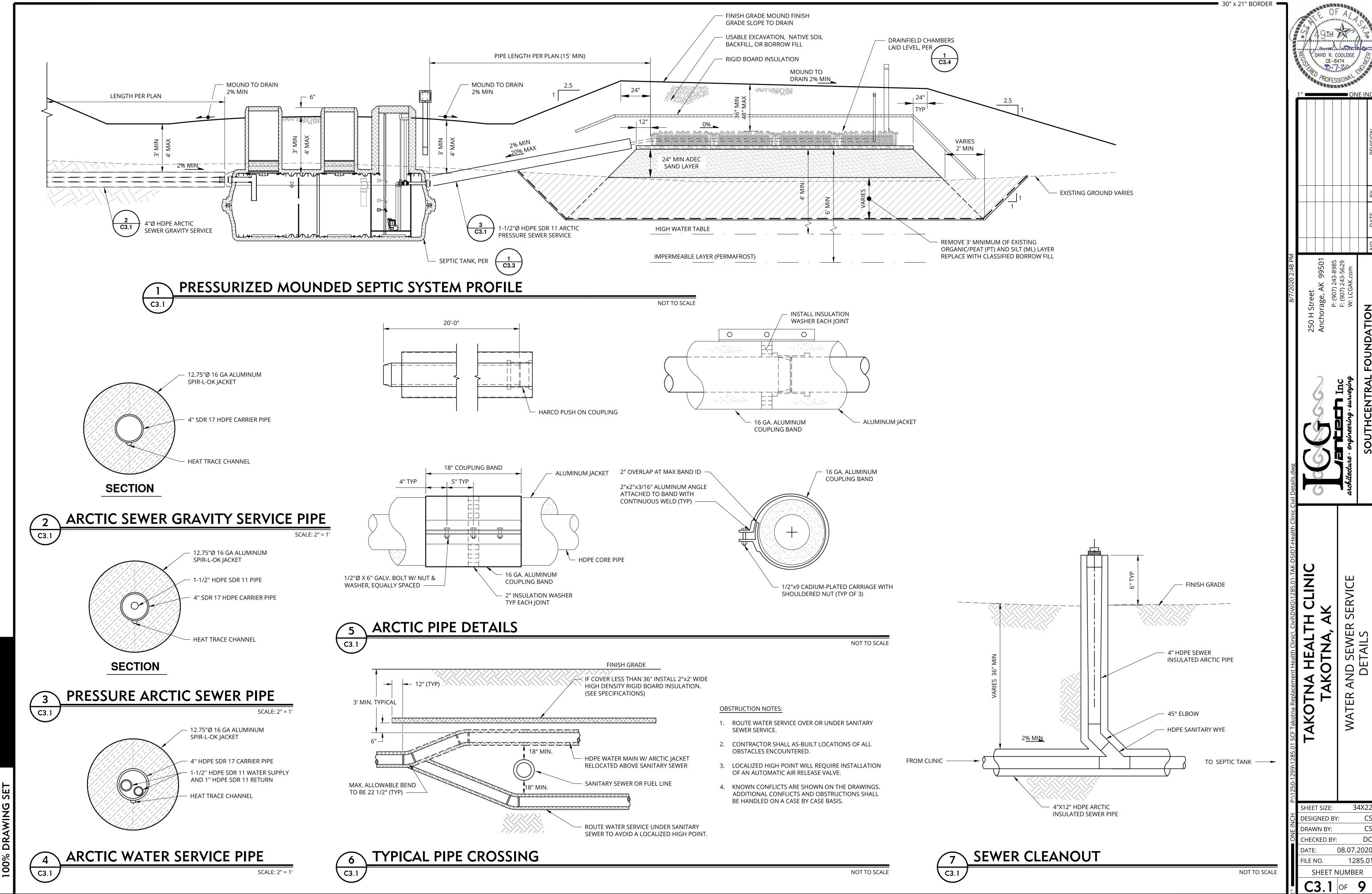
C3.0

TAKOTNA HEALTH CLINIC

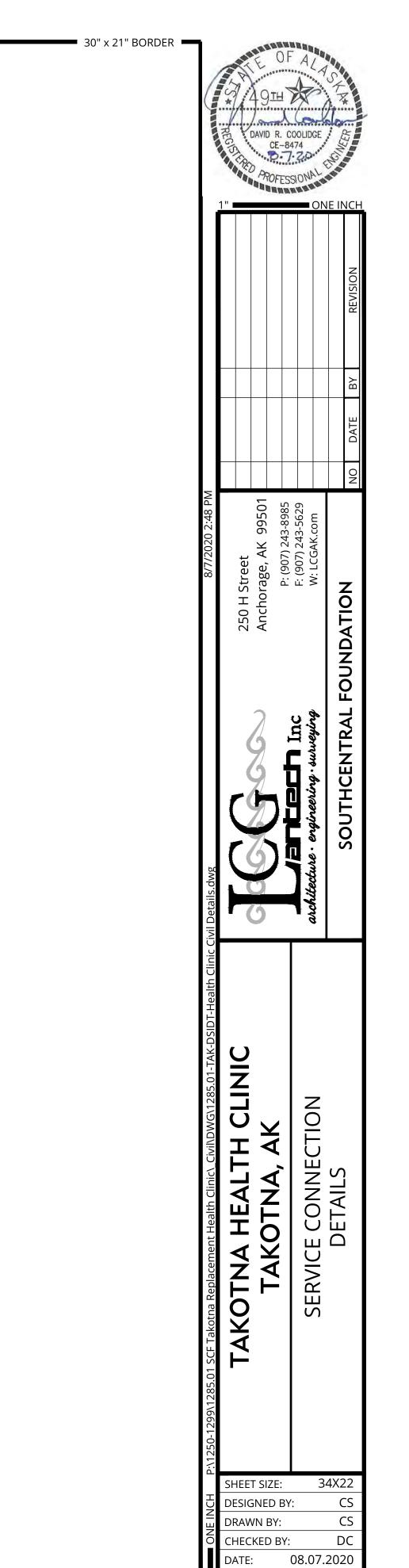
TAKOTNA HEALTH CLINIC

TAKOTNA, AK

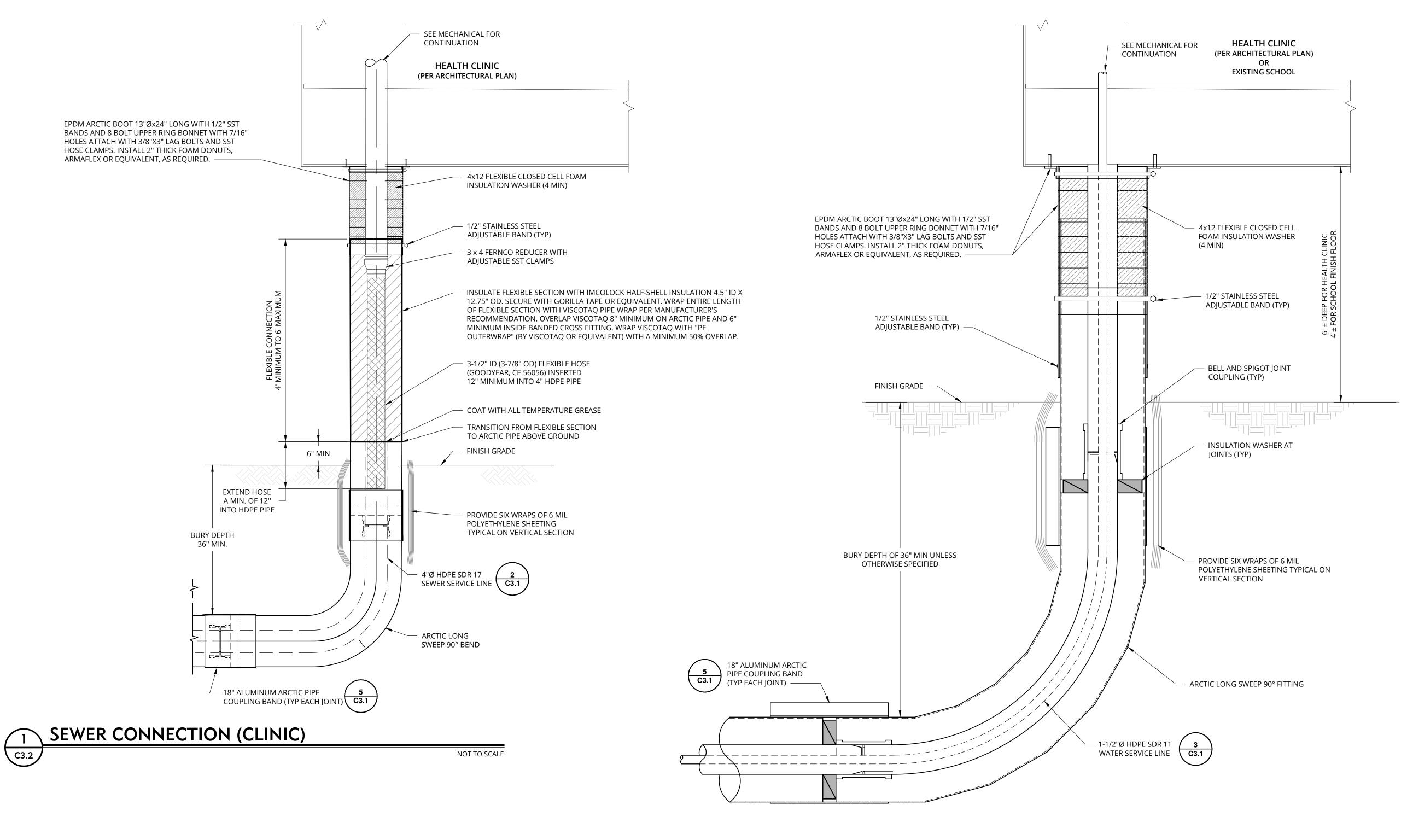
CIVIL DETAILS



08.07.2020 1285.0



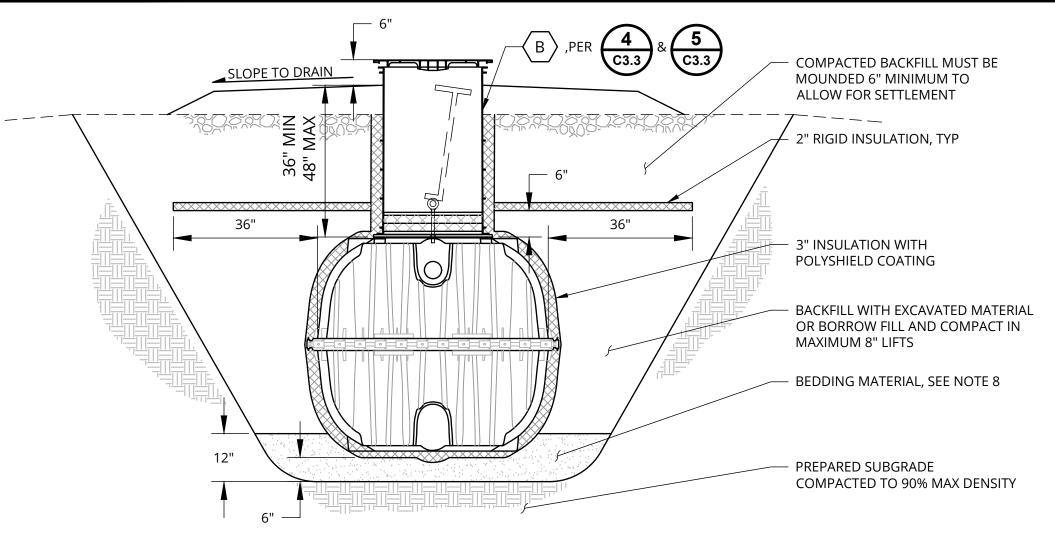
C3.2 OF 9



C3.2

WATER SERVICE CONNECTION (CLINIC AND SCHOOL)

NOT TO SCALE



#### SUBMERGED SEPTIC TANK BUOYANCY CALCULATIONS

SOUMERGED SETTIC TAINE DOCTAINET CALCOLATIONS				
1500 GALLON TAN	K (INFILTRATOR IM153	0)		
TANK RISER VOLUME (3X)	GAL	281		
GROSS TANK VOLUME W/RISER	GAL	1818		
TANK UPLIFT FORCE	LBS	15162		
TANK FOOTPRINT	SF	76		
COVER SOIL DEPTH	FT	3.0		
COVER SOIL (120 PCF - 62.4 PCF)	(LBS/CF)	83		
TOTAL COVER SOIL	(LBS)	18924		
TANK WEIGHT	(LBS)	501		
RESULTANT DOWNWARD FORCE (LBS)	(LBS)	4263		

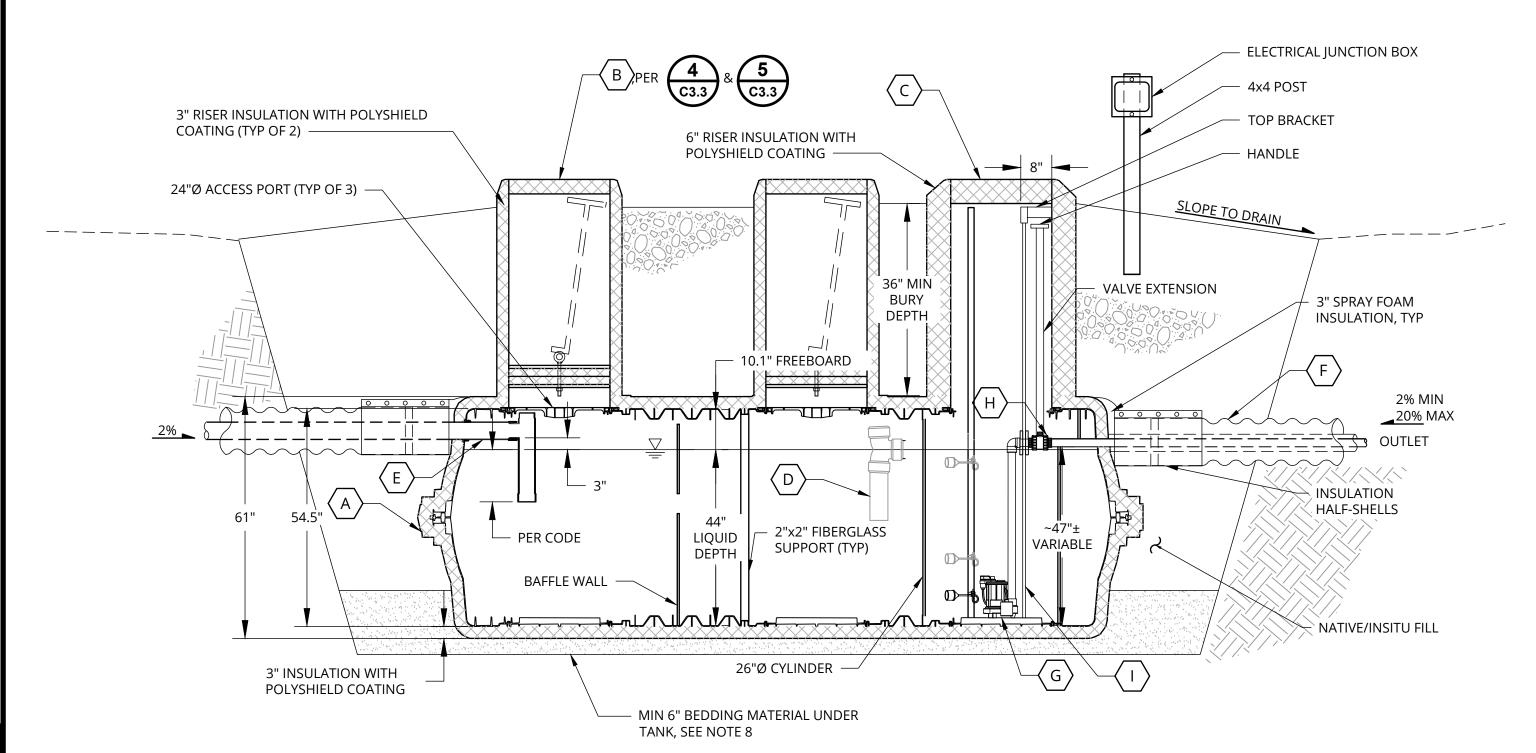
TANK DIMENSION TABLE						
STORAGE CAPACITY (GALLONS)	WIDTH (INCHES)	LENGTHS (INCHES)	HEIGHT (INCHES)	MODEL#		
1,537	62.2	176	55.0	IM-1530		

	PARTS TABLE				
ID	DESCRIPTION				
A	POLYETHYLENE SEPTIC TANK, INFILTRATOR, SEE TANK DIMENSION TABLE				
B	24" BOLTING LID WITH 4" INSULATION (TYP OF 2)				
<b>(</b> C)	24" BOLTING LID WITH 6" INSULATION				
(D)	BAFFLE OVERFLOW				
E	DOUBLE SANITARY TEE ROTATED 90° 4" PVC INLET TEE				
F	4" HDPE SDR 17 WITH 12.75" SPIR-L-OK ALUMINUM JACKET WITH 1-1/2" SCH 80 PVC PRESSURE SEWER PIPE. SEE SHEET C3.1				
<b>G</b>	LIBERTY FL32M 1/3 HP 208/230V I-PH LIFT STATION PUMP WITH PUMP FLOAT AND HIGH WATER ALARM, 1-1/2" DISCHARGE AND 3/4" SOLIDS HANDLING.				
H	1-1/2" PVC BALL VALVE				
<u> </u>	LIBERTY PUMPS, GUIDE RAIL SYSTEM FOR 1-1/2" DISCHARGE. MODEL 4808000				

#### **SEPTIC TANK - ELEVATION** C3.3

**SEPTIC TANK - SECTION** 

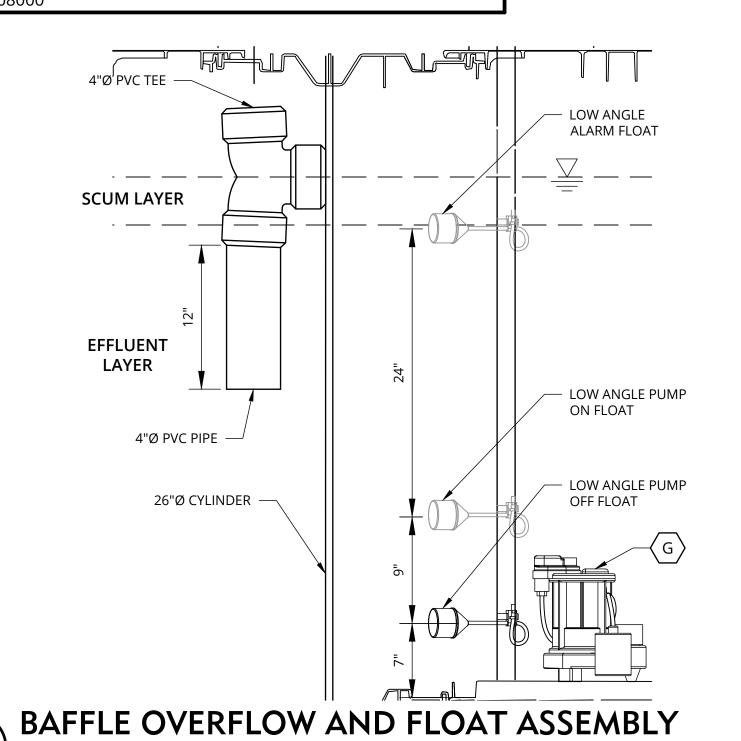
NO SCALE

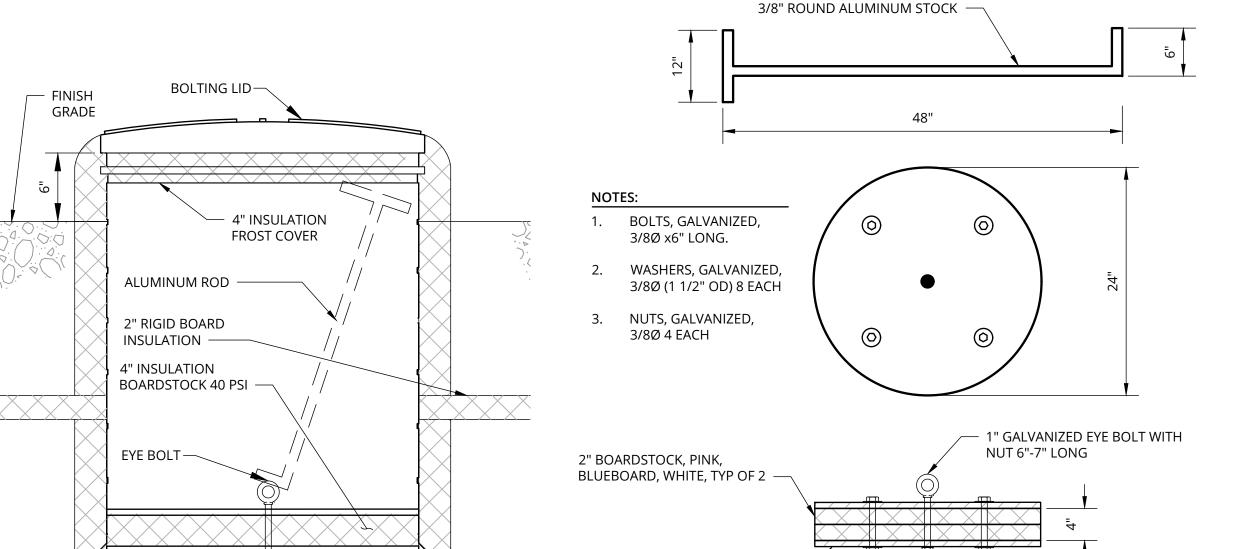


1. INSTALL TANK IN ACCORDANCE WITH ALL MANUFACTURER INSTRUCTIONS, GUIDELINES AND RECOMMENDATIONS.

- 2. TANK SHALL BE INFILTRATOR IM-1530 OR APPROVED EQUAL. TANK SHALL HAVE A CAPACITY OF 1,500 GALLONS OR GREATER.
- 3. THE TANK SHALL BE POLYETHYLENE AND HAVE AN ALARM SYSTEM, WITH BOTH AUDIBLE AND VISUAL ALARMS, TO ALERT THE CLINIC OPERATORS IN CASE OF HIGH WATER.
- 4. PUMP SHALL MEET THE FLOW AND HEAD REQUIREMENTS SPECIFIED ON SHEET CO.O.
- 5. PLACE AND COMPACT BACKFILL AROUND TANK IN MAX 12" LOOSE LIFTS. PLACE AND COMPACT BACKFILL TO BOTTOM OF INLET AND OUTLET PIPE FOR FULL SUPPORT BEFORE INSTALLING PIPES INTO AND OUT OF TANK, PLACE AND COMPACT BACKFILL TO TOP OF TANK BEFORE INSTALLING INSULBOARD, IF REQUIRED, OVER TANK.
- 6. EXTEND BACKFILL TO 1" BELOW BOTTOM OF RISER LID, SLOPE AWAY FROM TANK AT MINIMUM 2% FOR 5-FEET TO DIRECT RUN-OFF AWAY FROM RISER.
- 7. RIGID BOARD INSULATION SHALL BE DOW STYROFOAM HIGHLOAD 40 OR APPROVED EQUIVALENT.

8. BEDDING MATERIAL SHALL BE 1-INCH MINUS GRANULAR SAND OR BORROW FILL MATERIAL PER SPECIFICATIONS.





C3.3

NO SCALE

FROST COVER AND J HOOK ASSEMBLY

NUT AND WASHER, TYP

TAKOTNA TAK 34X22

> **DESIGNED BY:** DRAWN BY:

CHECKED BY:

FILE NO.

NO SCALE

08.07.2020

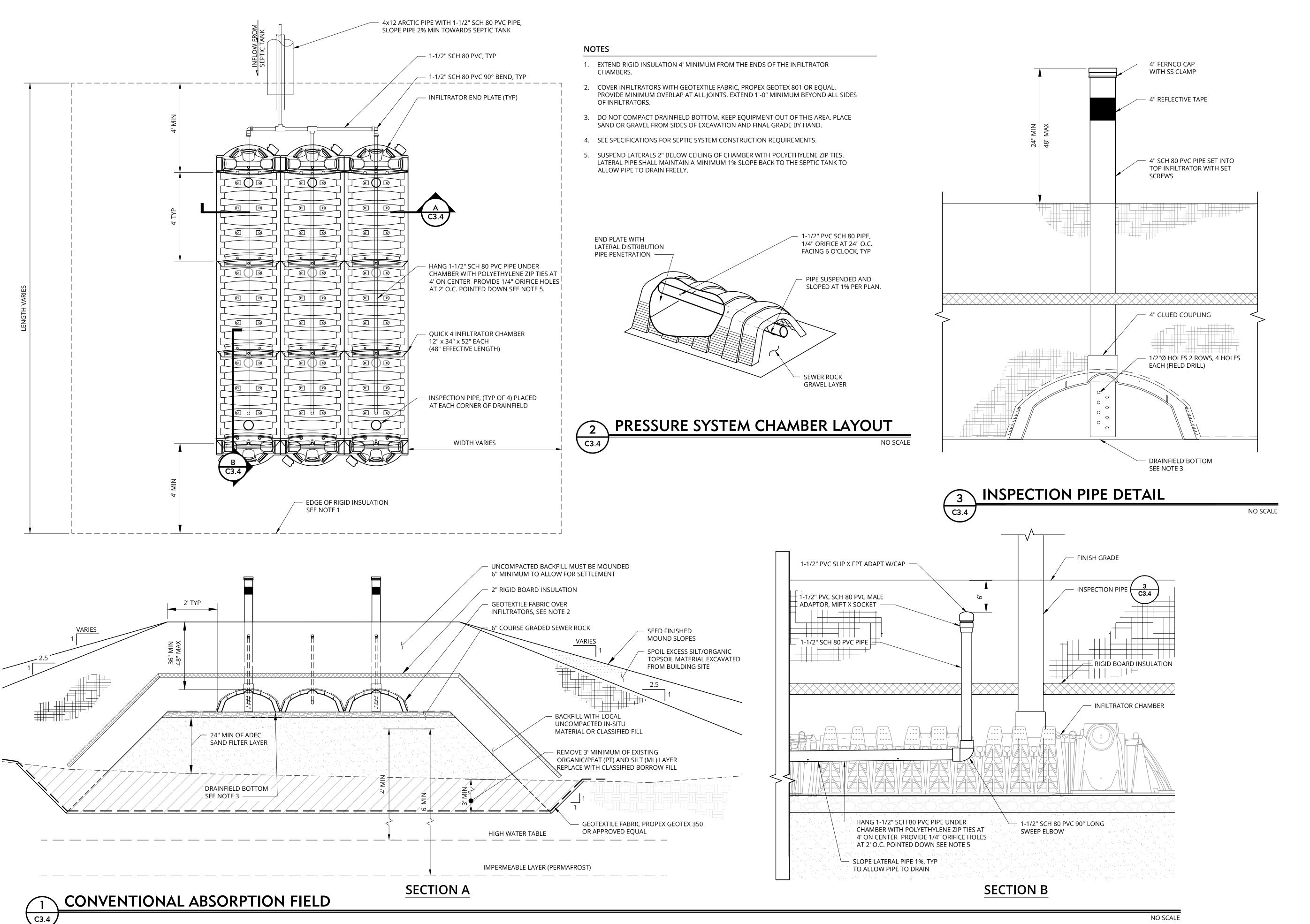
SHEET NUMBER

C3.3 OF 9

1285.01

2 C3.3

1/2" PT PLYWOOD (URETHANE VARNISHED OR PAINT SEALED) TANK RISER LID C3.3 NO SCALE



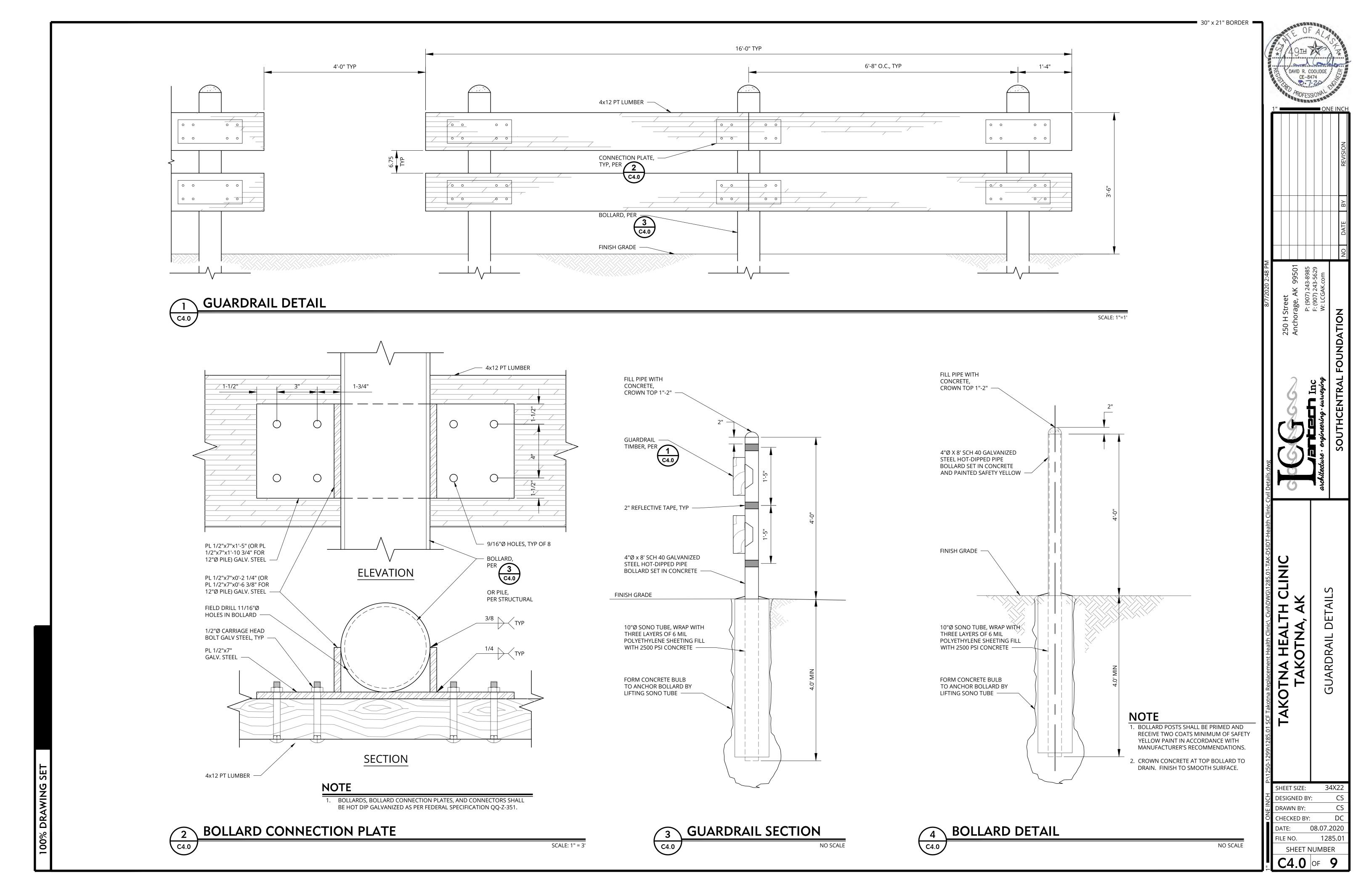
FAKOTNA TAK

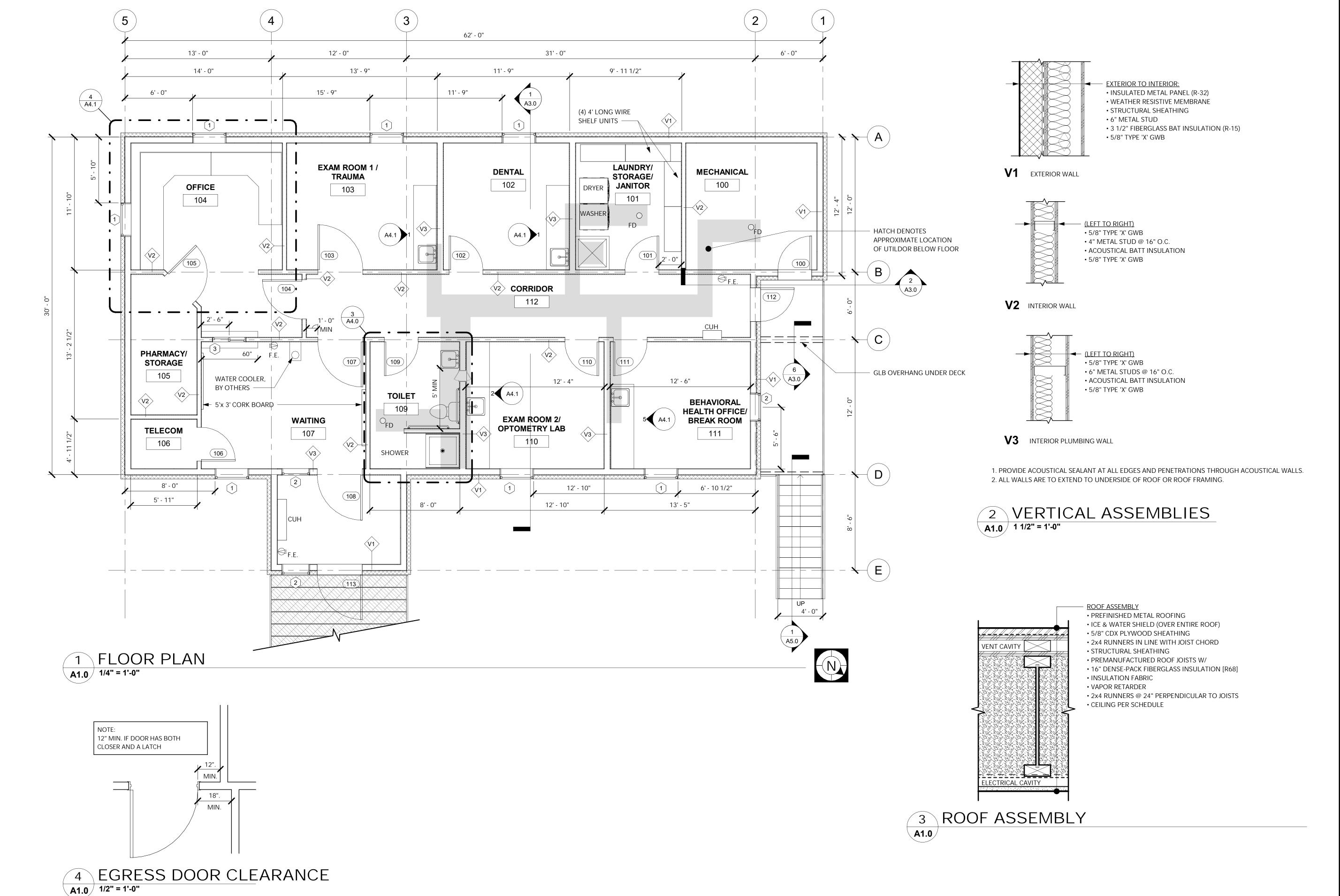
34X22 SHEET SIZE: **DESIGNED BY:** DRAWN BY: CHECKED BY: 08.07.2020 DATE:

1285.01 FILE NO. SHEET NUMBER

C3.4 of 9

NO SCALE

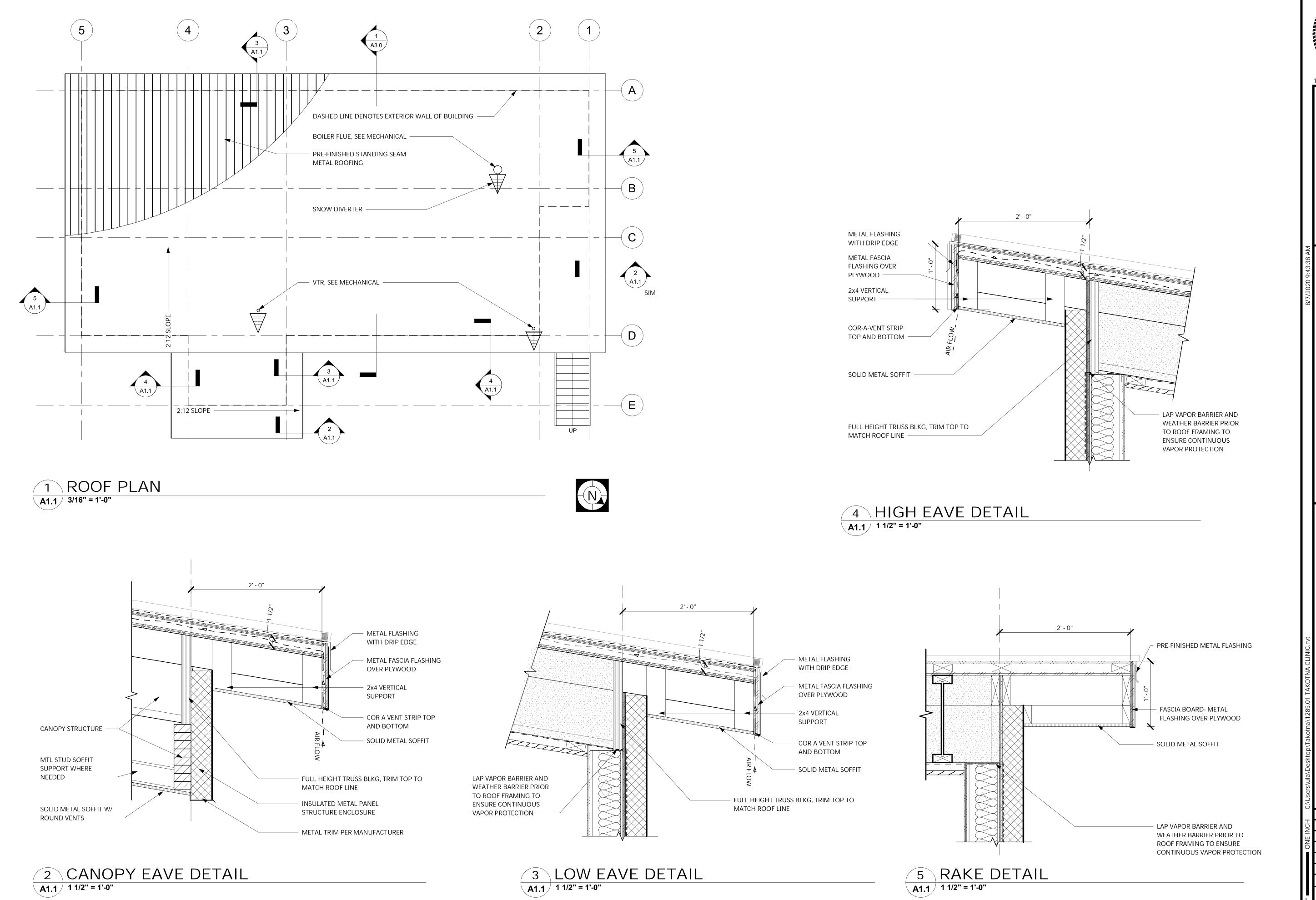




CLINIC

SHEET SIZE:

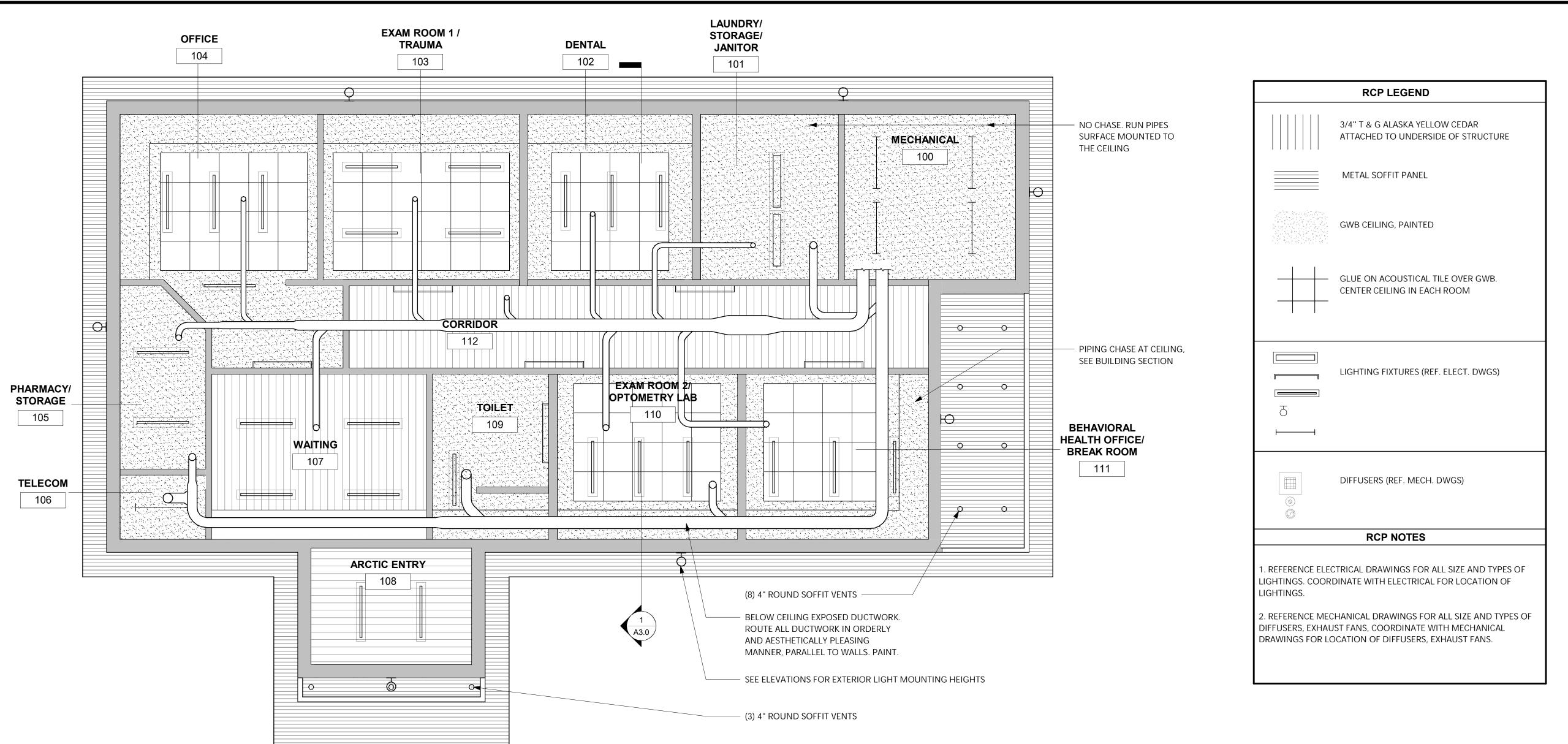
1285.01 SHEET NUMBER



CLINIC

SHEET SIZE: DESIGNED BY:

DRAWN BY: 08/07/2020 1285.01





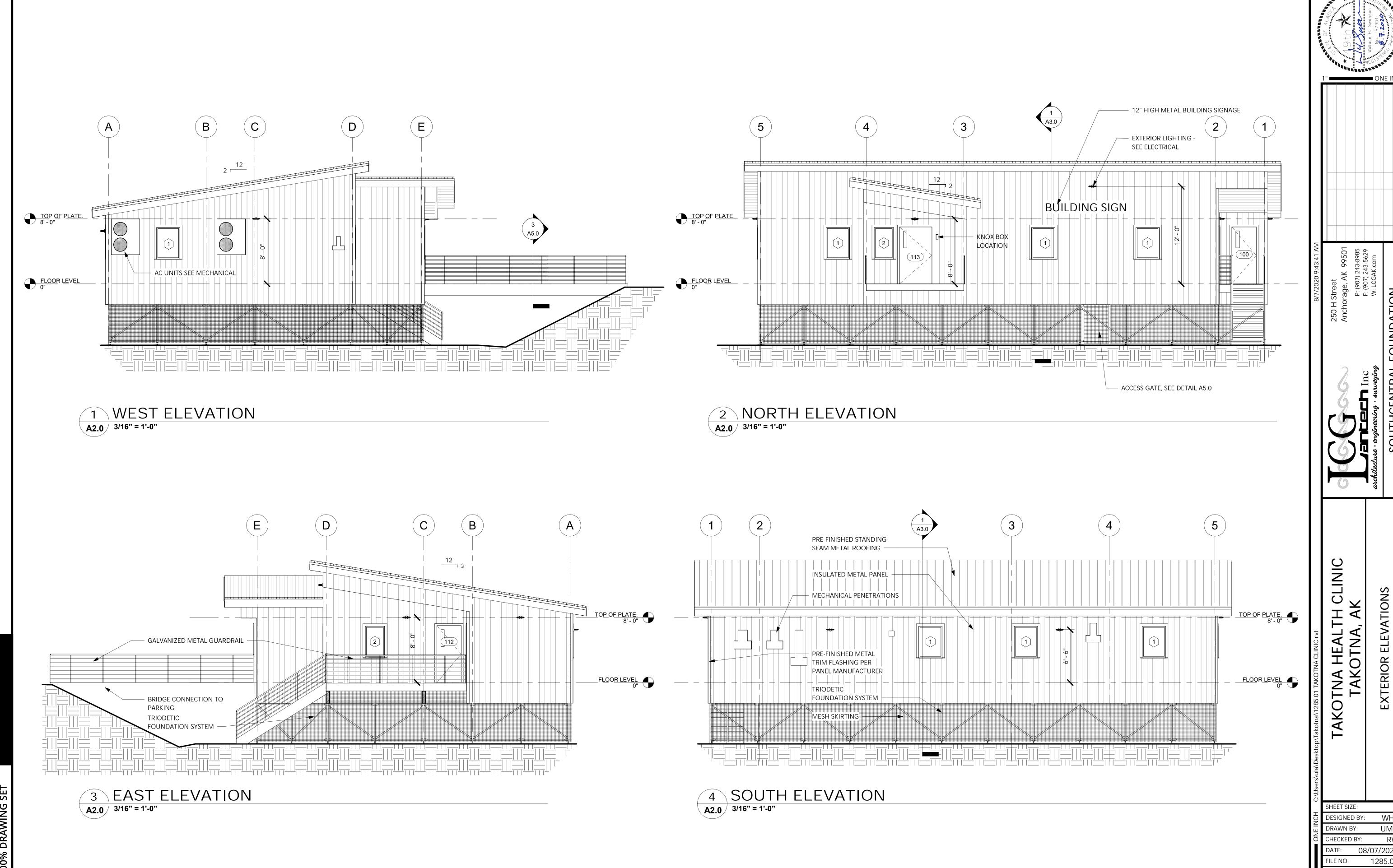
# 1 REFLECTED CEILING PLAN A1.2 1/4" = 1'-0"

SIGN SCHEDULE				
ROOM NUMBER ROOM FUNCTION				
100	MECHANICAL			
101	LAUNDRY/ STORAGE/ JANITOR			
102	DENTAL			
103	EXAM ROOM 1 / TRAUMA			
104	OFFICE			
105	PHARMACY/ STORAGE			
106	TELECOM			
109	TOILET			
110	EXAM ROOM 2/ OPTOMETRY LAB			
111	BEHAVIORAL HEALTH OFFICE/ BREAK ROOM			

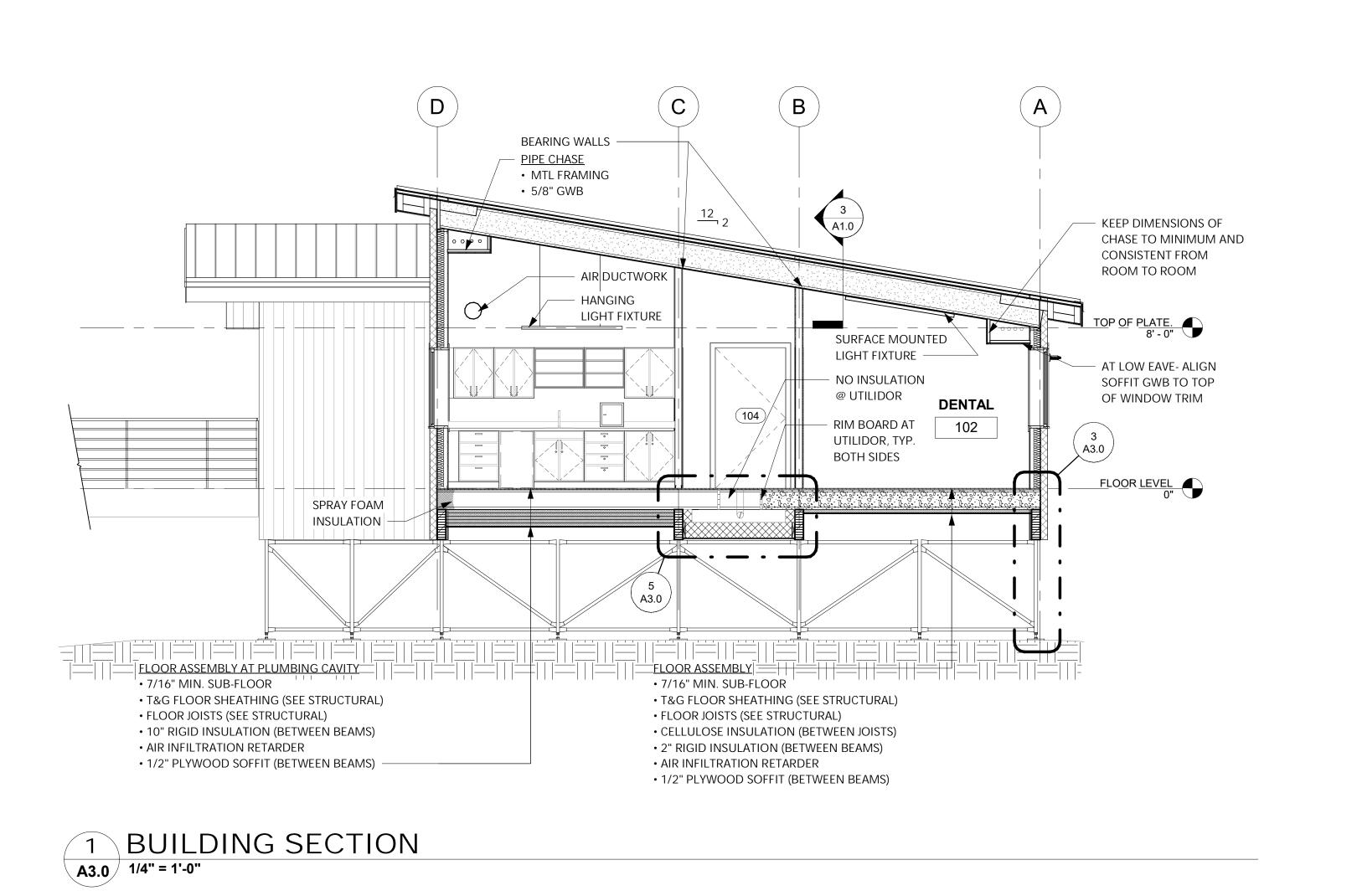
	OR SCHEDULE	
UUL	ON SCHEDULE	

OOLOH SOHLDOLL								
FINISH		COLOR INFORMATION						
MATERIALS	LOCATION	MANUFACTURER	STYLE	COLOR NAME	REMARKS			
SHEET VINYL	ENTIRE FACILITY	ARMSTRONG	MEDITONE	GRAYED BLUE MID	*SEE NOTES*			
WALK-OFF MAT	ARCTIC ENTRY		REMOVABLE MAT					
RUBBER BASE	*SEE NOTES*	ARMSTRONG		GRAPHITE GRAY				
WOOD TRIM	ENTIRE FACILITY			TO MATCH CEILING				
SIGNAGE	ENTIRE FACILITY	INPRO CORP	ASPEN STANDARD SIGN					
DOOR/FRAME PAINT	ENTIRE FACILITY	SHERWIN-WILLIAMS						
DUCTWORK PAINT	ENTIRE FACILITY	SHERWIN-WILLIAMS						
PLASTIC LAMINATE	COUNTER TOPS	FORMICA	FP2510	GOLDEN MORNING OAK				
PLASTIC LAMINATE	CABINETS	FORMICA	F8822	DENIM				
SIDING	EXTERIOR	METAL SALES		OCEAN BLUE				
ROOF	EXTERIOR	METAL SALES		CHARCOAL				
BLINDS	ENTIRE FACILITY	LEVELOR	SOLAR SHADES					
RIGID SHEET VINYL	CORRIDOR, WAITING ROOM, ENTRY	INPRO CORP		GALA				

1. COVE BASE IN EXAM ROOM 1, EXAM 2, DENTAL, TOILET. ALL OTHER ROOMS TO RECEIVE RUBBER BASE.



08/07/2020 1285.01 SHEET NUMBER



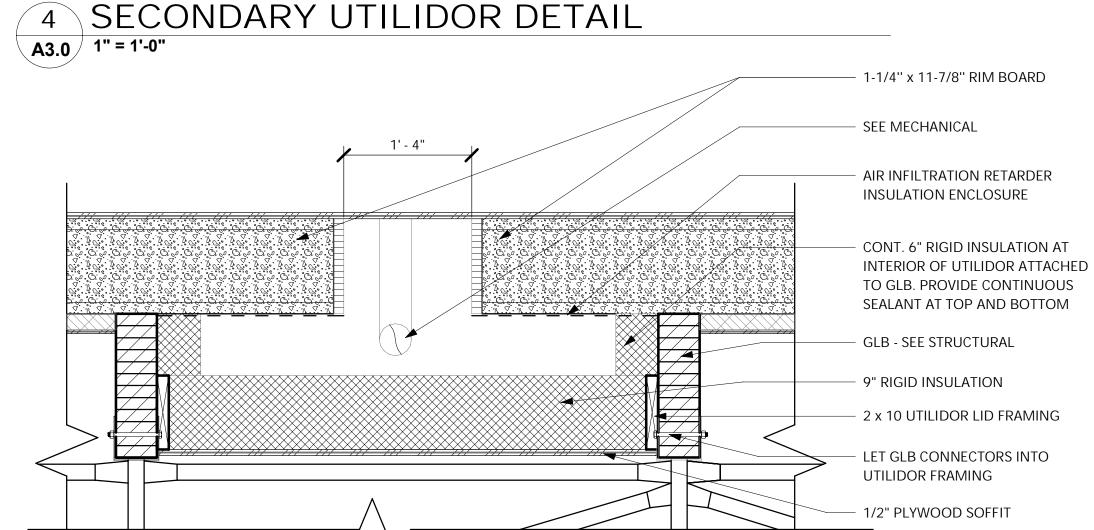
FLOOR FRAMING - SEE STRUCTURAL

AIR INFILTRATION RETARDER INSULATION ENCLOSURE

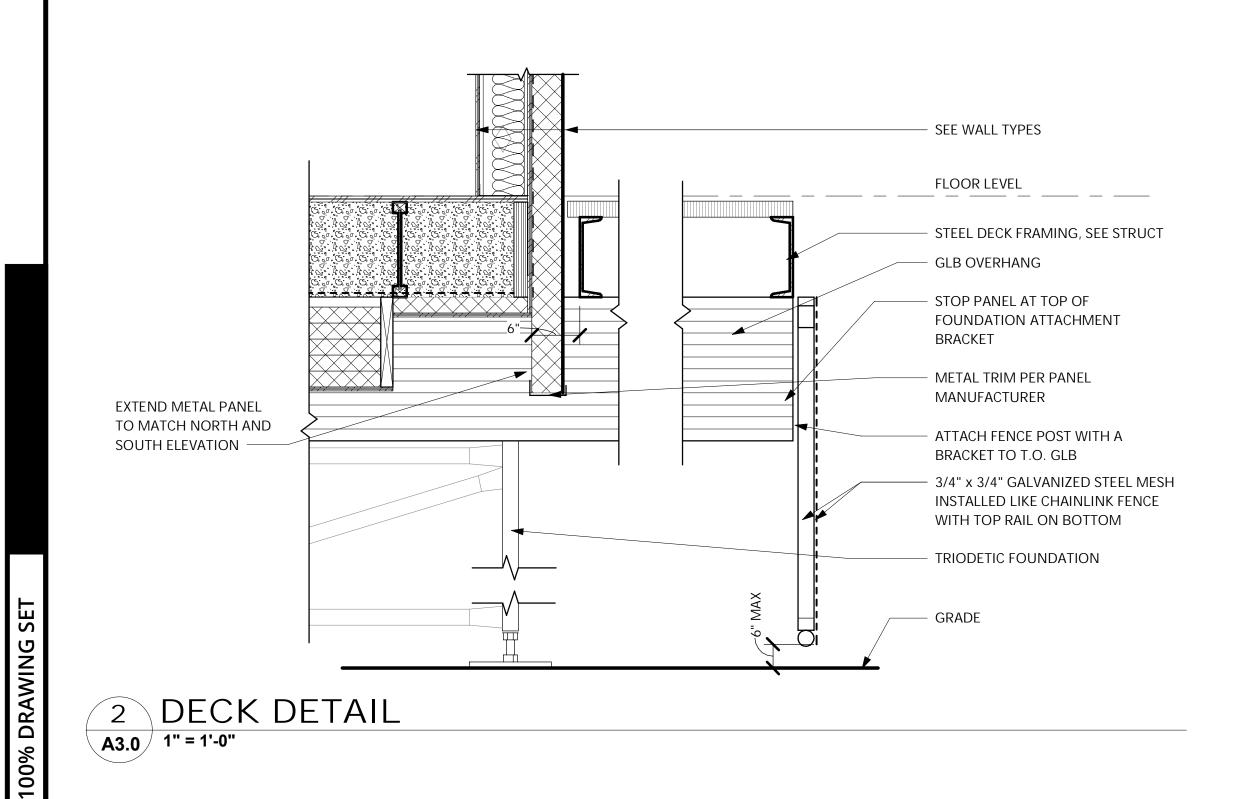
10" RIGID INSULATION ATTACHED TO BOTTOM OF FLOOR FRAMING @ PLUMBING CAVITY

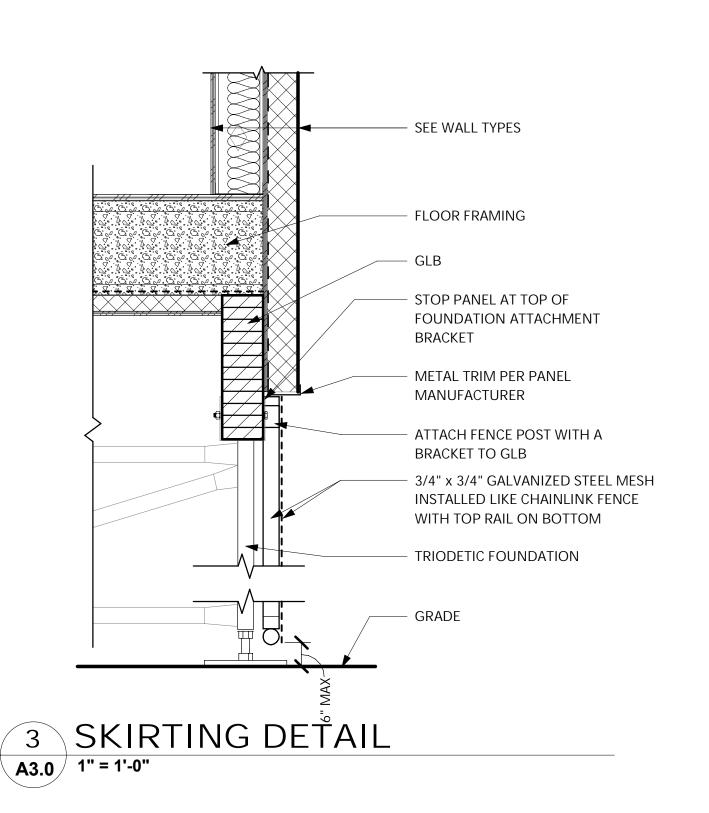
2x FRAMING BETWEEN GLB

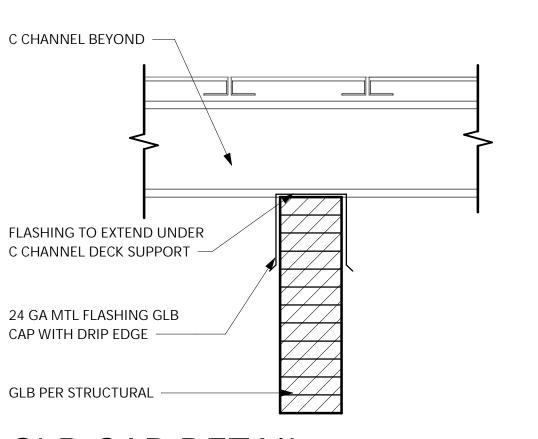
1/2" PLYWOOD SOFFIT



5 UTILIDOR DETAIL
A3.0 1" = 1'-0"







6 GLB CAP DETAIL
A3.0 1 1/2" = 1'-0"

SHEET SIZE:

DESIGNED BY: WHS

DRAWN BY: UMD

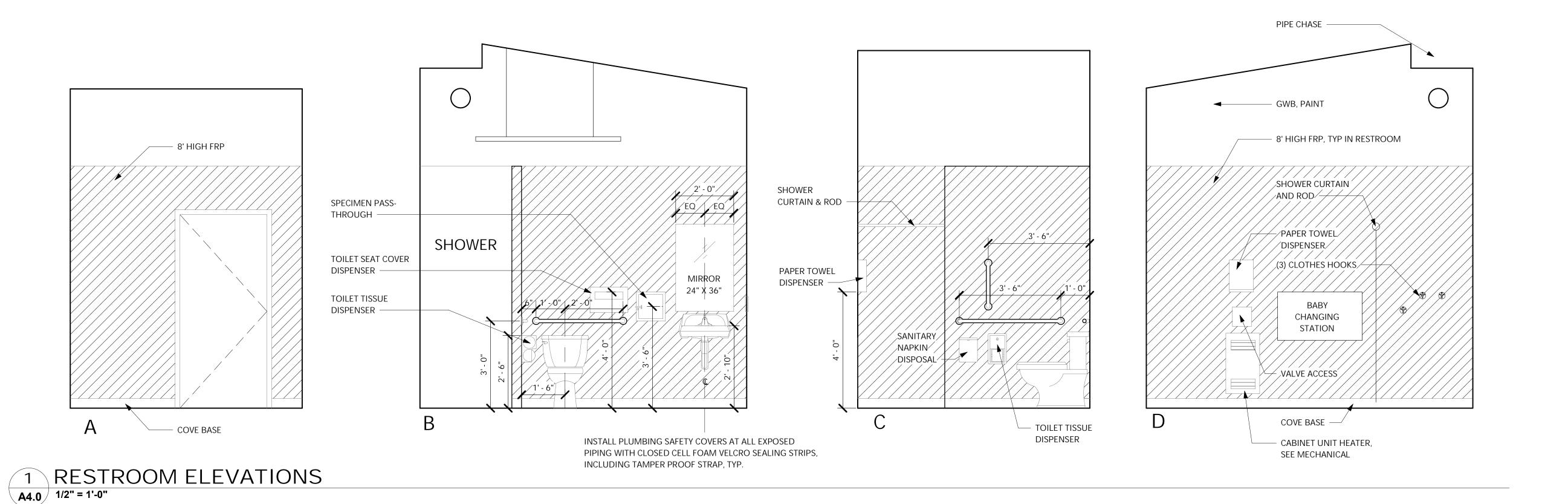
CHECKED BY: WHS

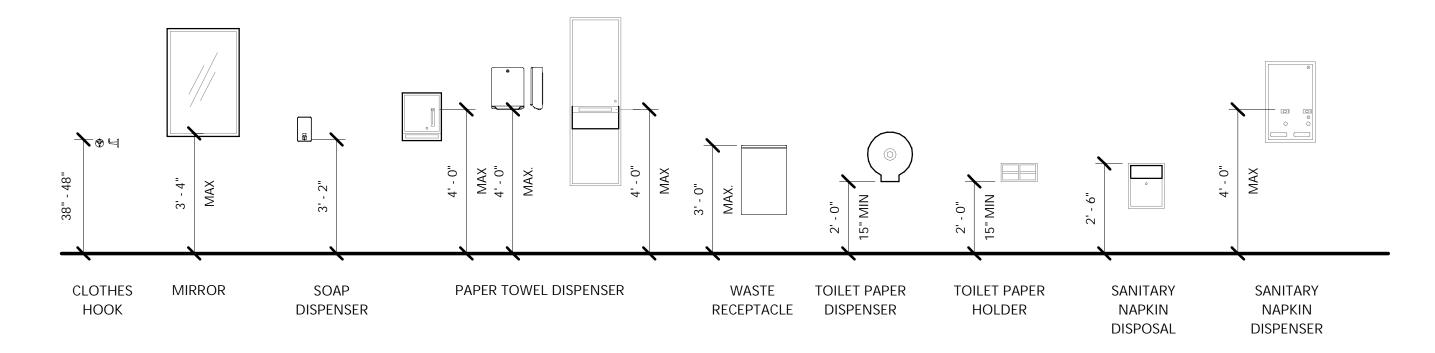
DATE: 08/07/2020

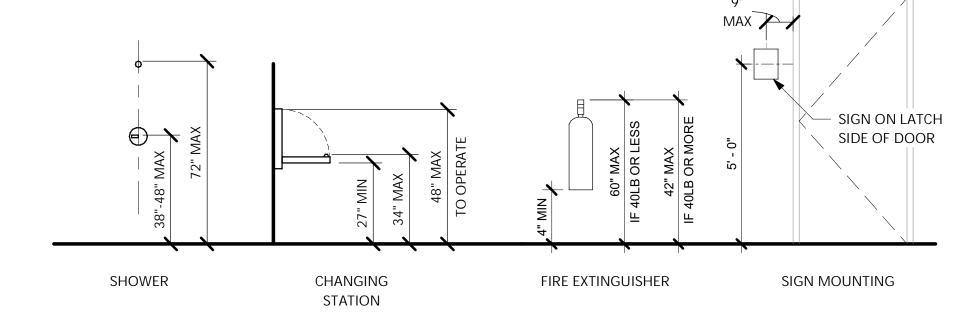
DATE: 08/07/2020
FILE NO. 1285.01
SHEET NUMBER

TAKOTNA HEALTH CLINIC
TAKOTNA HEALTH CLINIC
TAKOTNA, AK
BUILDING SECTION AND DETAILS

AIL

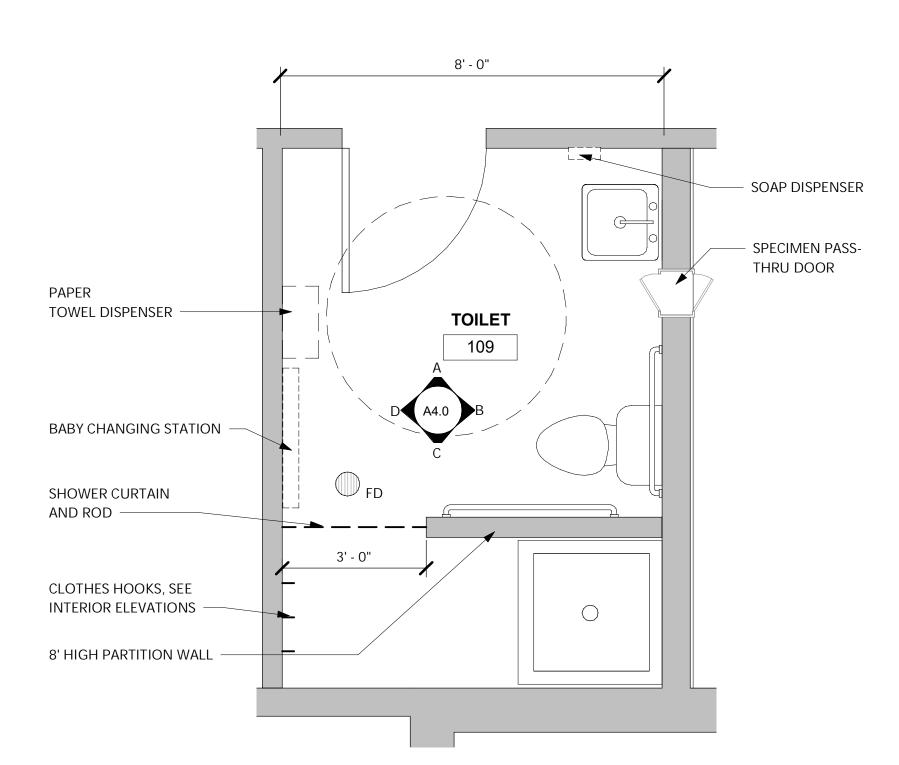






2 TYPICAL MOUNTING HEIGHTS

A4.0 3/8" = 1'-0"



3 ENLARGED RESTROOM
A4.0 1/2" = 1'-0"

MAINTE OF ALAST

AK 99501
77) 243-8985
77) 243-5629
CGAK.com
NO DATE BY REVISION

Anchorage, AK 99501
Anchorage, AK 99501
ALECT Inc

sqineering - surveying
W: LCGAK.com
WITHCENTRAL FOLINDATION

TH CLINIC

A, AK

N, ELEVATIONS, AND

Anchitecture

TAKOTNA HEALTH CLINIC
TAKOTNA, AK
ARGED RESTROOM PLAN, ELEVATIONS,
COLOR SCHEDULE

SHEET SIZE:

DESIGNED BY: WHS

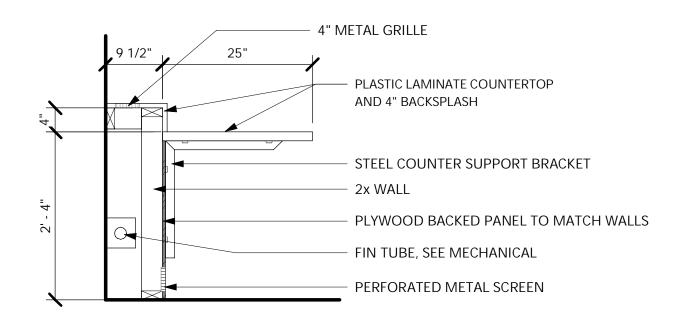
DRAWN BY: UMD

CHECKED BY: RW

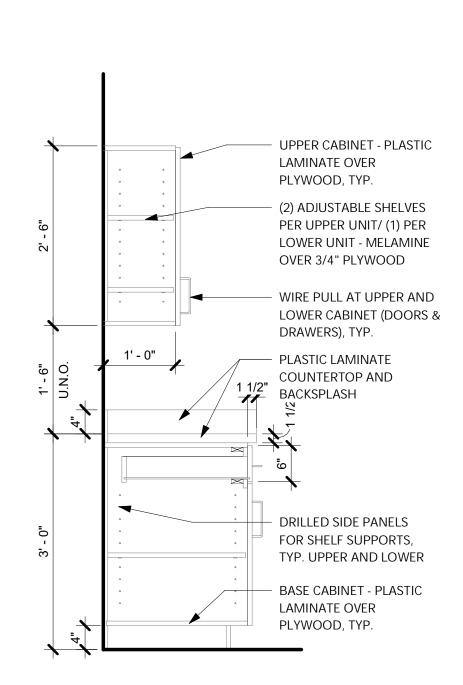
DATE: 08/07/2020

SHEET NUMBER
Δ 1 Ω Ω Ω 8

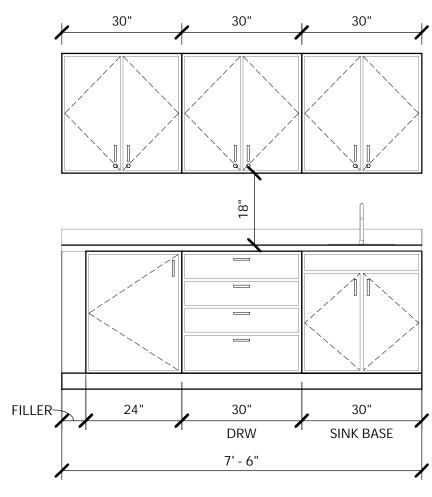
## 6 OFFICE WORKSTATION CASEWORK



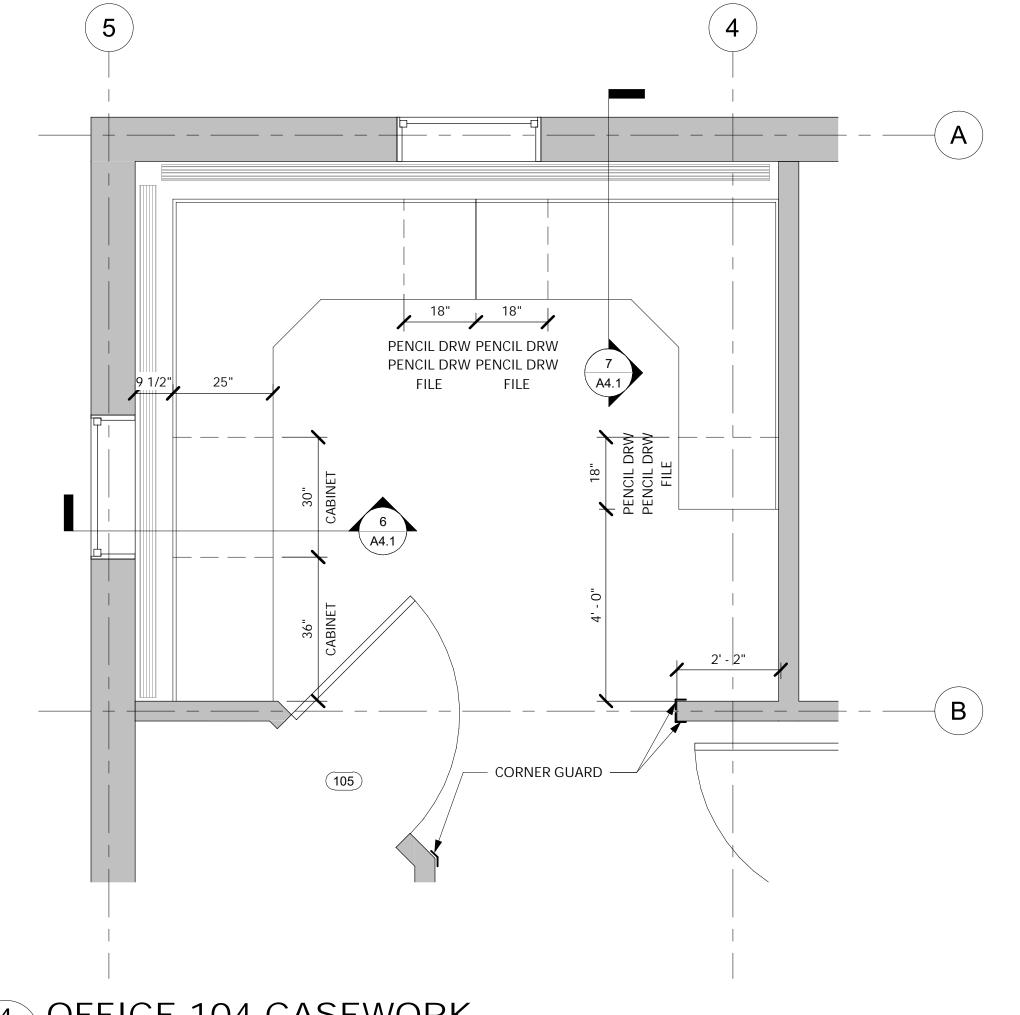
#### OFFICE WORKSTATION COUNTER A4.1 3/4" = 1'-0"



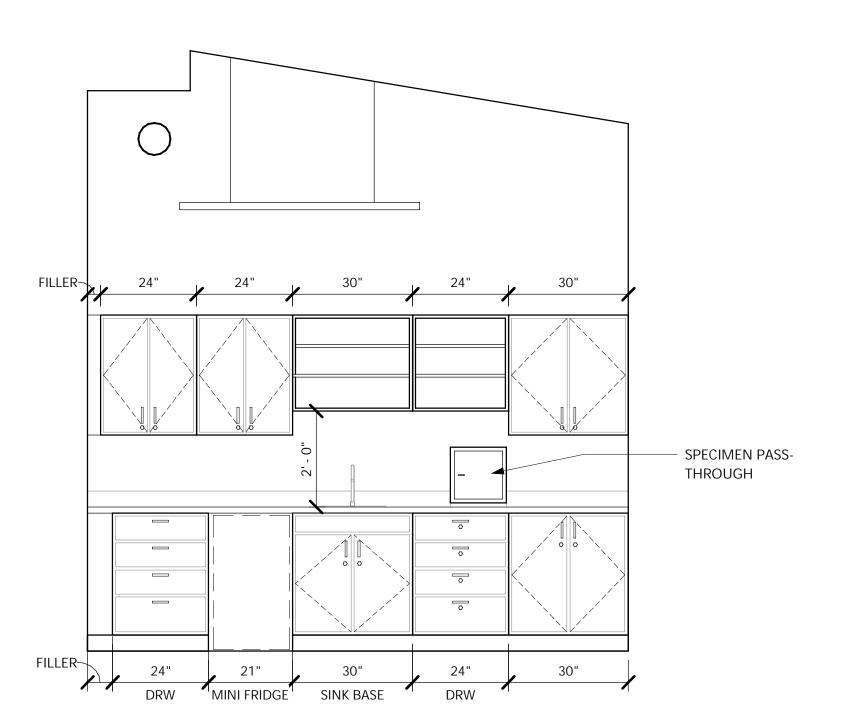
TYP. CASEWORK SECTION 3 TYP. ( A4.1) 3/4" = 1'-0"



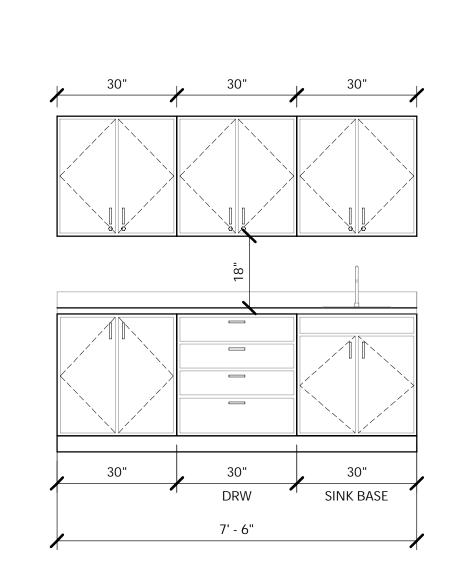
5 ROOM 111 CASEWORK A4.1 1/2" = 1'-0"



4 OFFICE 104 CASEWORK A4.1 1/2" = 1'-0"







1 ROOM 102, 103 CASEWORK

A4.1 1/2" = 1'-0"

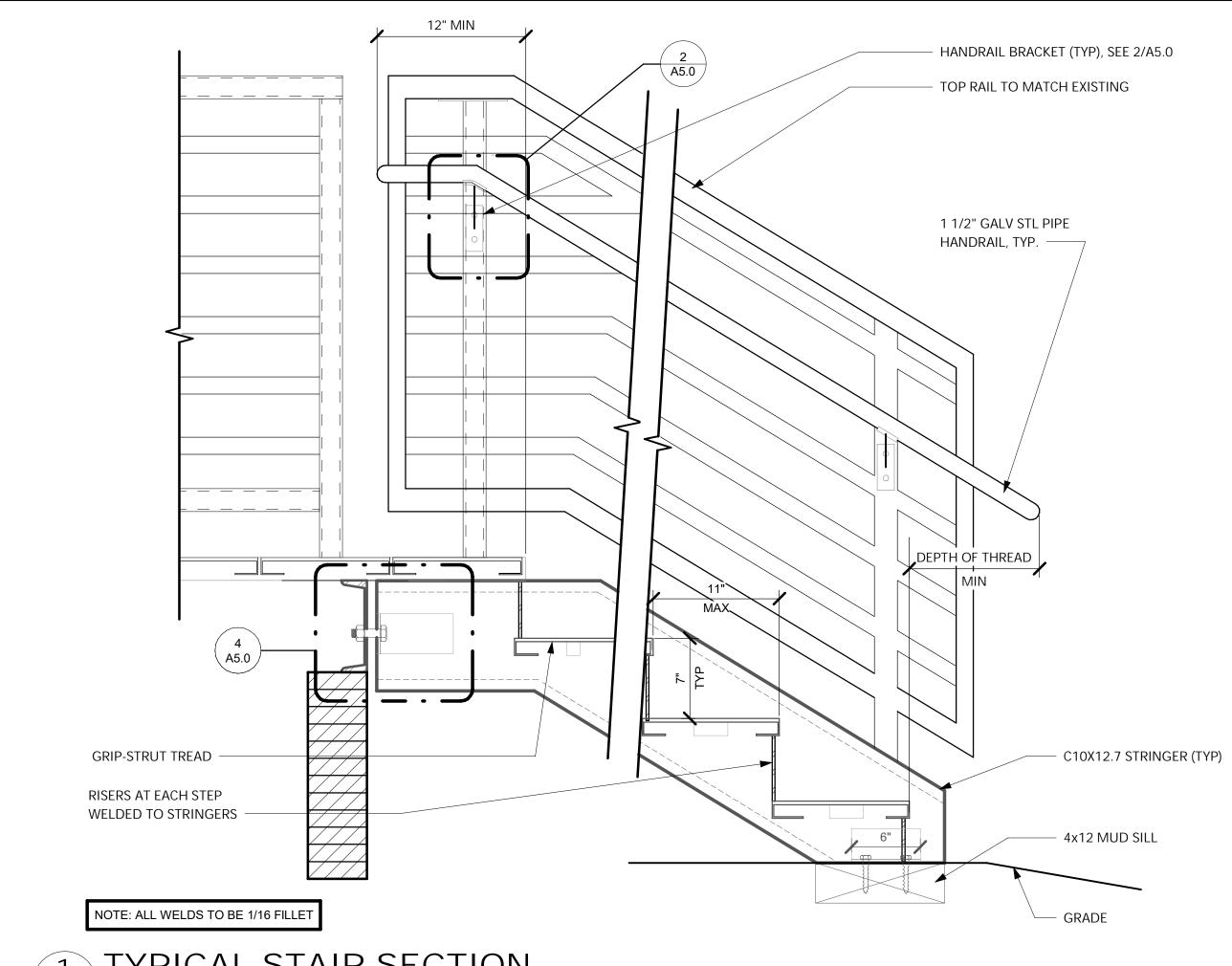
CLINIC

CASEWORK

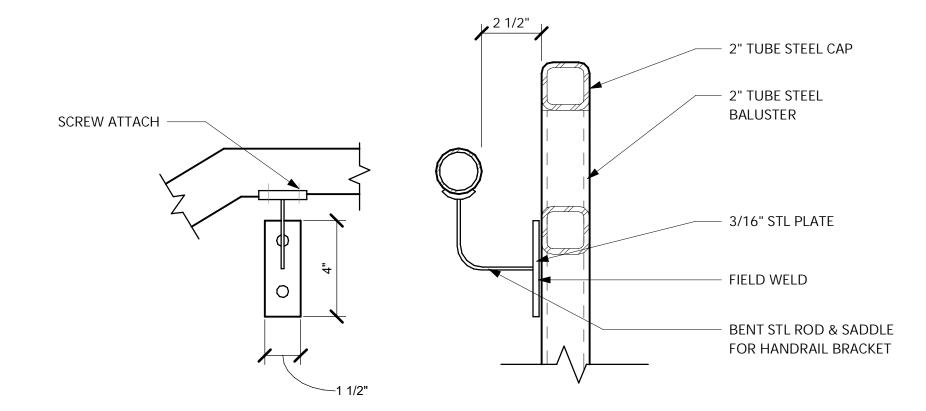
**TAKOTNA** 

SHEET SIZE: DESIGNED BY: Designer DRAWN BY: Author CHECKED BY: Checker 08/07/2020

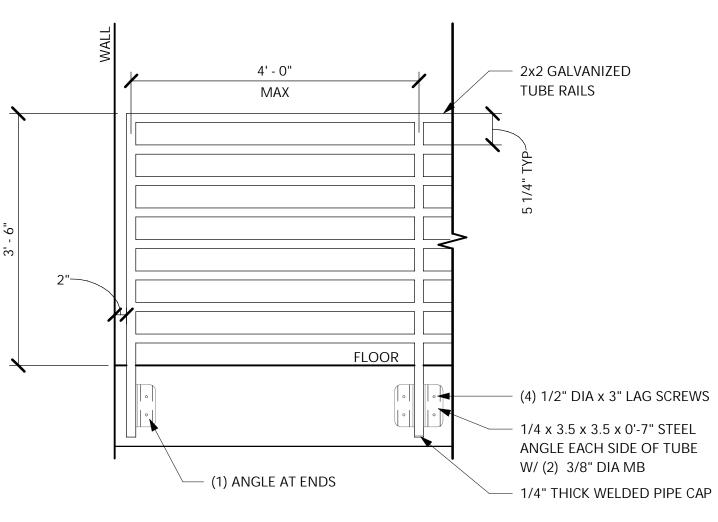
1285.01 SHEET NUMBER



TYPICAL STAIR SECTION A5.0 1 1/2" = 1'-0"



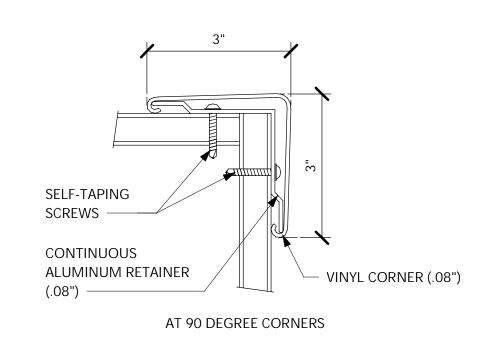
2 HANDRAIL BRACKET A5.0 3" = 1'-0"



3 GUARDRAIL ELEVATION

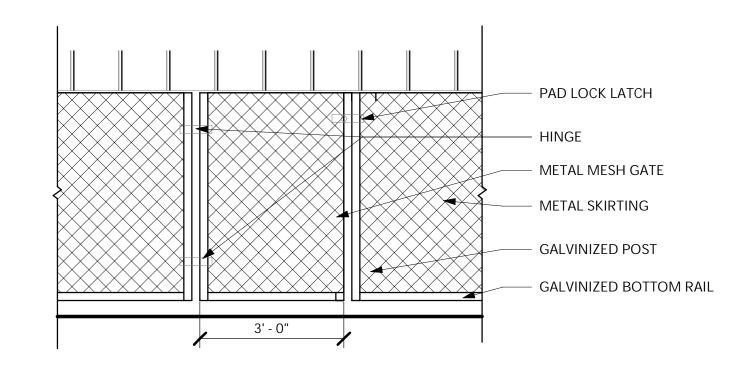
A5.0 3/4" = 1'-0" 3/4"Ø GALV. > STRINGER 13/16"Ø HOLE (TYP.) **ELEVATIONS** 

STAIR HINGE BRACKET DETAIL A5.0 3" = 1'-0"

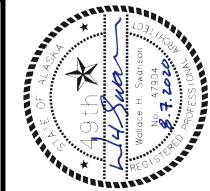


1. CORNER GUARDS TO BE MOUNTED FROM 4" A.F.F. (TOP OF COVE BASE). TOP TO ALIGH WITH TOP OF DOOR FRAMES

CORNER GUARD A5.0 6" = 1'-0"



6 GATE AT SKIRTING A5.0 1/2" = 1'-0"



A HEALTH CLINIC KOTNA, AK

1285.01

	DOOR SCHEDULE														
	DOO	R SIZE		DOOR		FR	AME					HARDWARE			
#	WIDTH	HEIGHT	TYPE	MATERIAL	UNDERCUT	TYPE	MATERIAL	LOCKSET	BOLT	HINGE	CLOSER	SEALS	THRESHOLD	STOP	PLATE
100	3' - 0"	7' - 0"	FL	INS. H.M.		TF	INS. HM.	L2	DEAD	H1		G1, G2, G3	T1	S4	
101	3' - 0"	7' - 0"	FL	S.C. WOOD	1"	D.R.	HM	L5		H4		G1	T2	S4	K2
102	3' - 0"	7' - 0"	FL	S.C. WOOD		D.R.	HM	L3		H3		G4		S3	K1
103	4' - 0"	7' - 0"	FL	S.C. WOOD		D.R.	HM	L3		НЗ		G4		S4	K3, K4
104	3' - 6"	7' - 0"	NL	S.C. WOOD		D.R.	HM	L3		НЗ		G4		S3	K2
105	3' - 6"	7' - 0"	FL	S.C. WOOD		D.R.	HM	L4		Н3		G3		S4	K2
106	3' - 0"	7' - 0"	FL	S.C. WOOD	1"	D.R.	HM	L4		НЗ		G3		S4	K2
107	4' - 0"	7' - 0"	NL	S.C. WOOD		D.R.	HM	L3		НЗ	C1	G4		S2	K2
108	4' - 0"	7' - 0"	NL	INS. H.M.		D.R.	HM	L1	DEAD	H2	C2	G3	T2	S4	K2
109	3' - 0"	7' - 0"	FL	S.C. WOOD	1"	D.R.	HM	L6	DEAD	H4		G3		S3	K2
110	3' - 0"	7' - 0"	FL	S.C. WOOD		D.R.	HM	L3		НЗ		G4		S3	K2
111	3' - 0"	7' - 0"	FL	S.C. WOOD		D.R.	HM	L3		H3		G4		S3	K2
112	3' - 0"	7' - 0"	NL	INS. H.M.		TF	INS. HM.	L1	DEAD	H1	C2	G1, G2, G3	T1	S1, S5	K1
113	4' - 0"	7' - 0"	NL	INS. H.M.		TF	INS. HM.	L1	DEAD	H1	C2	G1, G2, G3	T1	S1, S5	K1

LOCKSETS1						
KEY	MANUFACTURER	PRODUCT	FUNCTION	FINISH		
L1	SARGENT	8904	EXIT DEVICE (RETRATCH LATCHBOLT)	630		
L2	SCHLAGE	L9453	ENTRANCE LOCK WITH DEADBOLT	630		
L3	SCHLAGE	L9050	OFFICE WITH INNER ENTRY LOCK	626		
L4	SCHLAGE	L9080	STOREROOM LOCK	626		
L5	SCHLAGE	L9080	STOREROOM LOCK	630		
L6	SCHLAGE	L9010 & L496	PASSAGE LOCK WITH OCCUPANCY INDICATOR DEADLOCK	630		

			CLOSERS		
KEY	MOUNTING	CYLINDER	ARM	COVER	FINISH
C1	TOP JAMB	HEAVY DUTY	HEAVY DUTY PARALLEL	METAL	626
C2	TOP JAMB	HEAVY DUTY	HEAVY DUTY PARALLEL W/ CONCEALED STOP	METAL	626

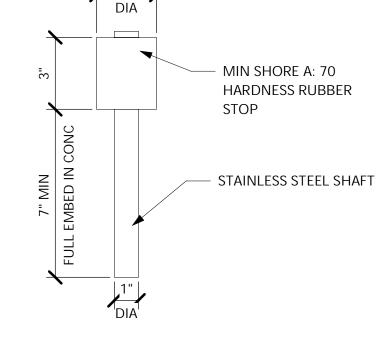
HINGES1							
KEY	WEIGHT	CONFIGURATION	MOUNTING	SIZE	FINISH		
H1	HEAVY	FIVE-KNUCKLE BEARING	FULL MORTISE	5 x 4.5	630		
H2	HEAVY	FIVE-KNUCKLE BEARING	FULL MORTISE	5 x 4.5	626		
Н3	STANDARD	FIVE-KNUCKLE BEARING	FULL MORTISE	4.5 x 4.5	626		
H4	STANDARD	FIVE-KNUCKLE BEARING	FULL MORTISE	4.5 x 4.5	630		

SEALS & GASKETS							
KEY	MANUFACTURER	PRODUCT	LOCATION				
G1	PEMKO	18175DNB	BOTTOM				
G2	PEMKO	290DS	JAMB				
G3	PEMKO	2891DS	HEAD				
G4	PEMKO	S88	FRAME				
G5	ROCKWOOD	608-RKW	FRAME				

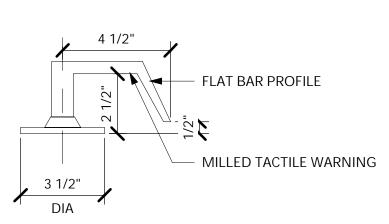
DOOR STOPS						
KEY	FINISH					
S1	SARGENT	690S	626			
S2	ROCKWOOD	490	626			
S3	ROCKWOOD	430-RKW	626			
S4	ROCKWOOD	445	626			
S5	ROCKWOOD	468-RKW	630			

DOOR PLATES						
KEY	MANUFACTURER	PRODUCT	SIZE	FINISH	LOCATION	
K1	ROCKWOOD	K1050	KICK PLATE	630	PUSH	
K2	ROCKWOOD	K1050	KICK PLATE	630	вотн	
K3	ROCKWOOD	K1050	KICK PLATE	630	PULL	
K4	ROCKWOOD	K1050	ARMOR PLATE	630	PUSH	

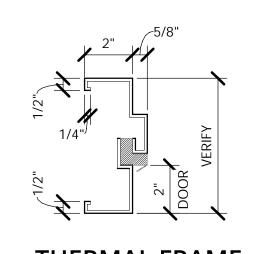
]	THRESHOLDS						
	KEY	MANUFACTURER	PRODUCT				
	T1	PEMKO	273X_DFG				
	T2	PEMKO	271_D				



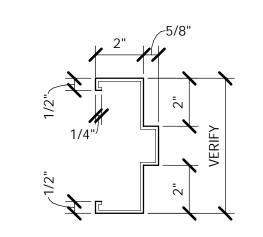
6 EXTERIOR DOOR STOP
A6.0 3" = 1'-0"



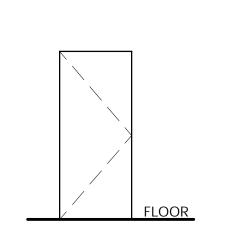




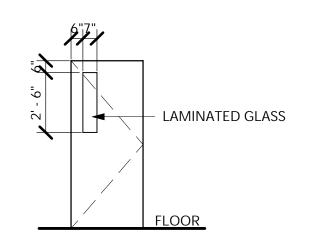




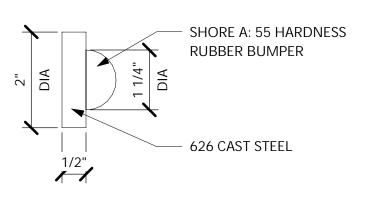
DOUBLE RABBET



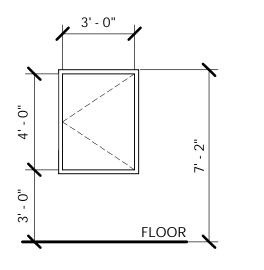
FL FLUSH PANEL



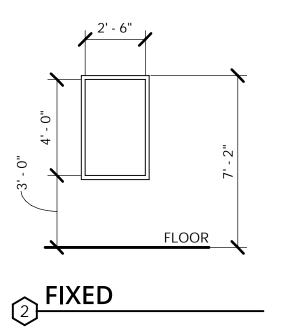
NARROW LITE







30"	FLOOR
(1)-	CASEMENT



3' - 0"	3' - 8"  SLIDER	7' - 2"				
	FLOOR					
<sup>3</sup> PASS THROUGH						

WIN	DOWS NOTES:
1.	PROVIDE INSECT SCREENS AT ALL OPERABLE WINDOWS.
2.	PROVIDE BLINDS FOR ALL EXTERIOR WINDOWS

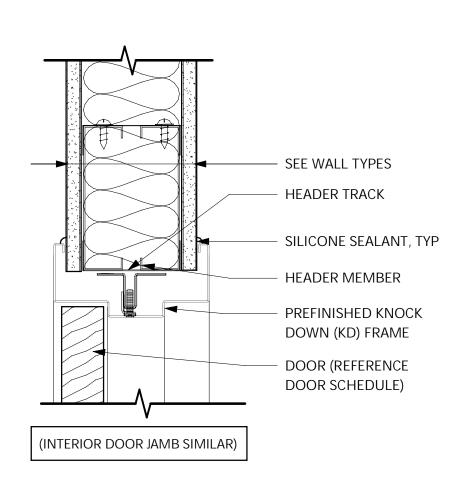
TAKOTNA HEALTH CLINIC TAKOTNA, AK

SHEET SIZE	<u>:</u> :	
DESIGNED	BY:	WHS
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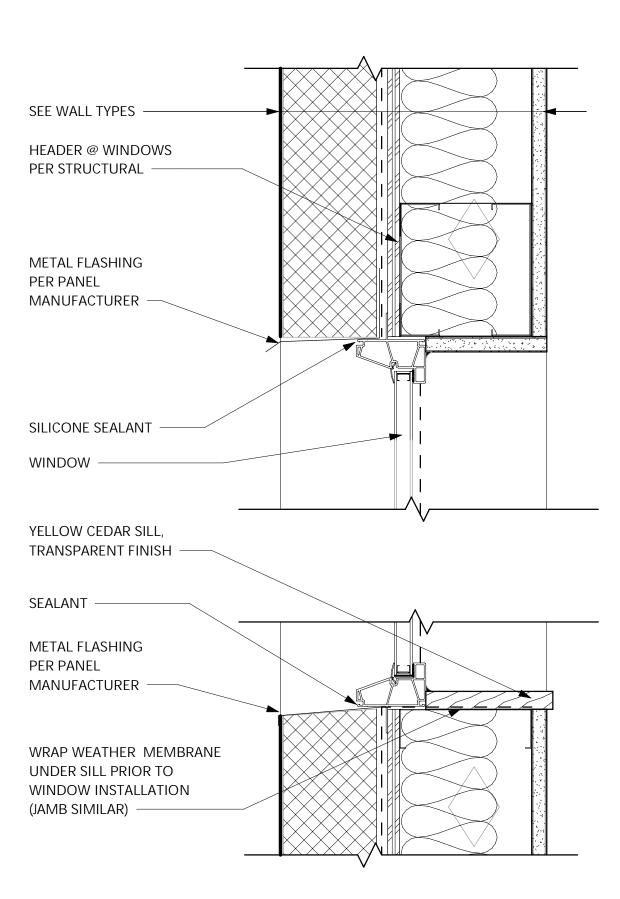
TYPES, DOOR HARDWARE

WINDOW

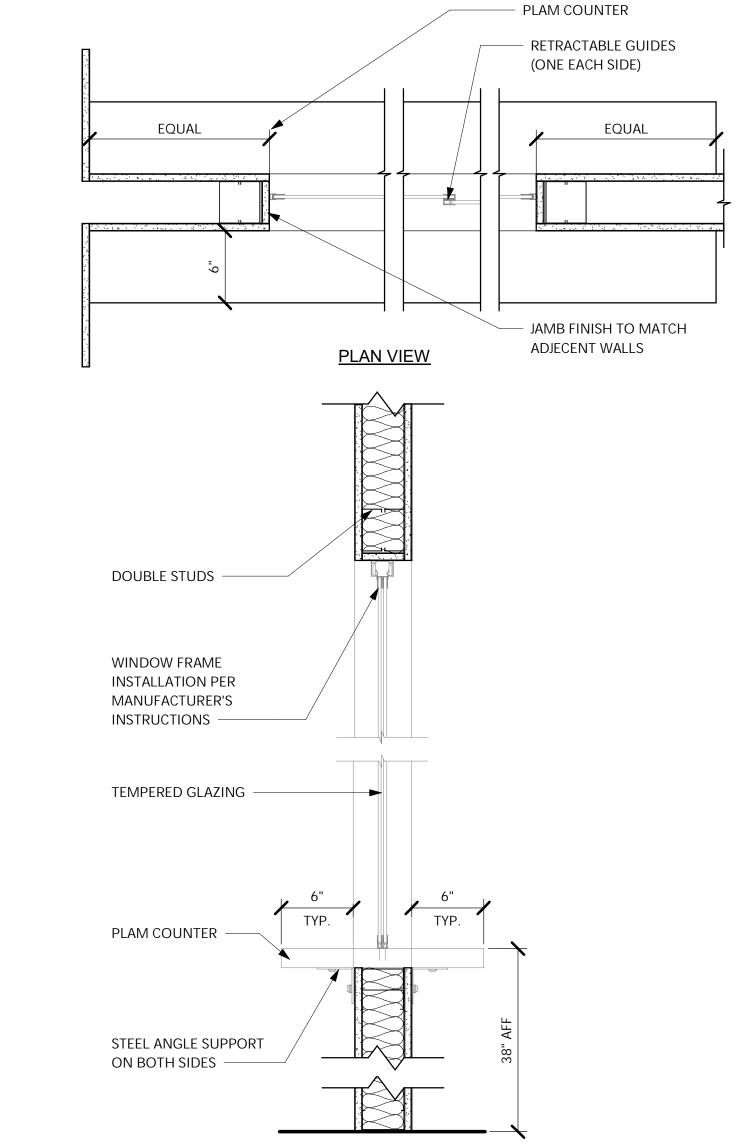
DOOR &



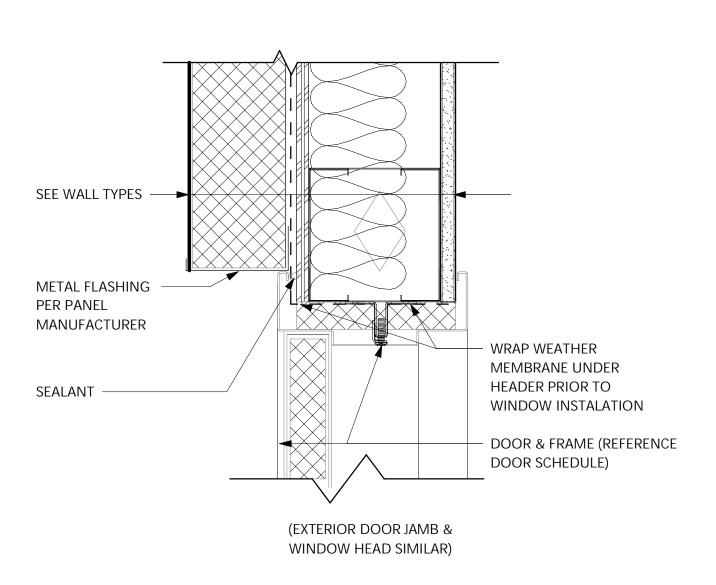




2 EXTERIOR WINDOW HEAD/SILL A6.1 3" = 1'-0"



6 RECEPTION WINDOW COUNTER A6.1 1 1/2" = 1'-0"



3 EXT. DOOR HEAD - JAMB SIMILAR A6.1 3" = 1'-0"

CLINIC

SHEET SIZE: **DESIGNED BY** DRAWN BY: UMD CHECKED BY:

08/07/2020 1285.01

SHEET NUMBER A6.1 OF 8

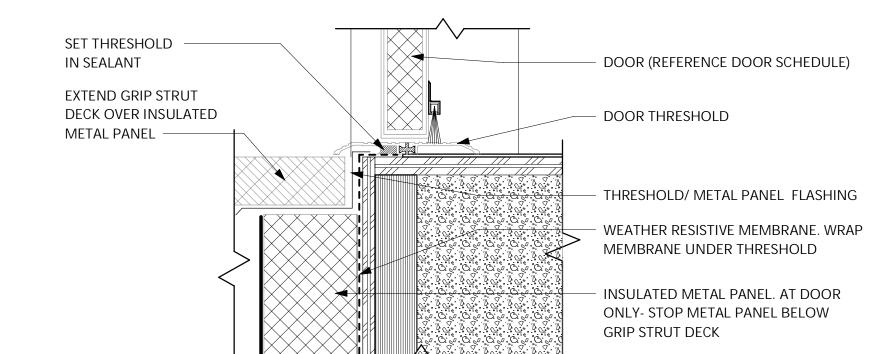
EXTERIOR DOOR THRESHOLD A6.1 3" = 1'-0"

SEE WALL TYPES DOUBLE STUDS - SILICONE SEALANT - RETURN WALL WHERE OCCURS UNLESS DIMENSIONED OTHERWISE INTERIOR DOOR JAMB DETAIL A6.1 1 1/2" = 1'-0"

FRAME WIDTH REF. DOOR SCHED.

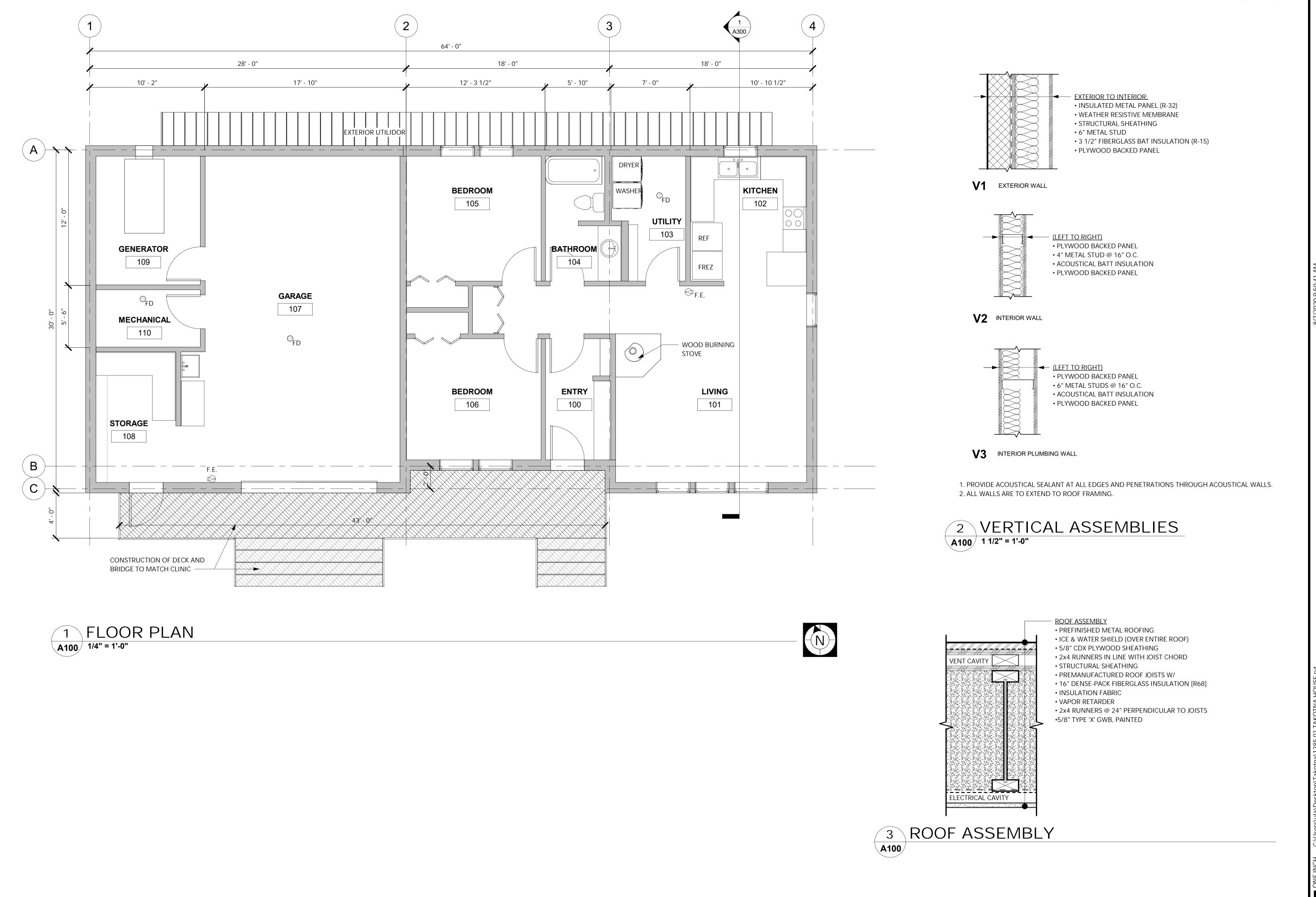
DOOR WIDTH

REF. DOOR SCHED.



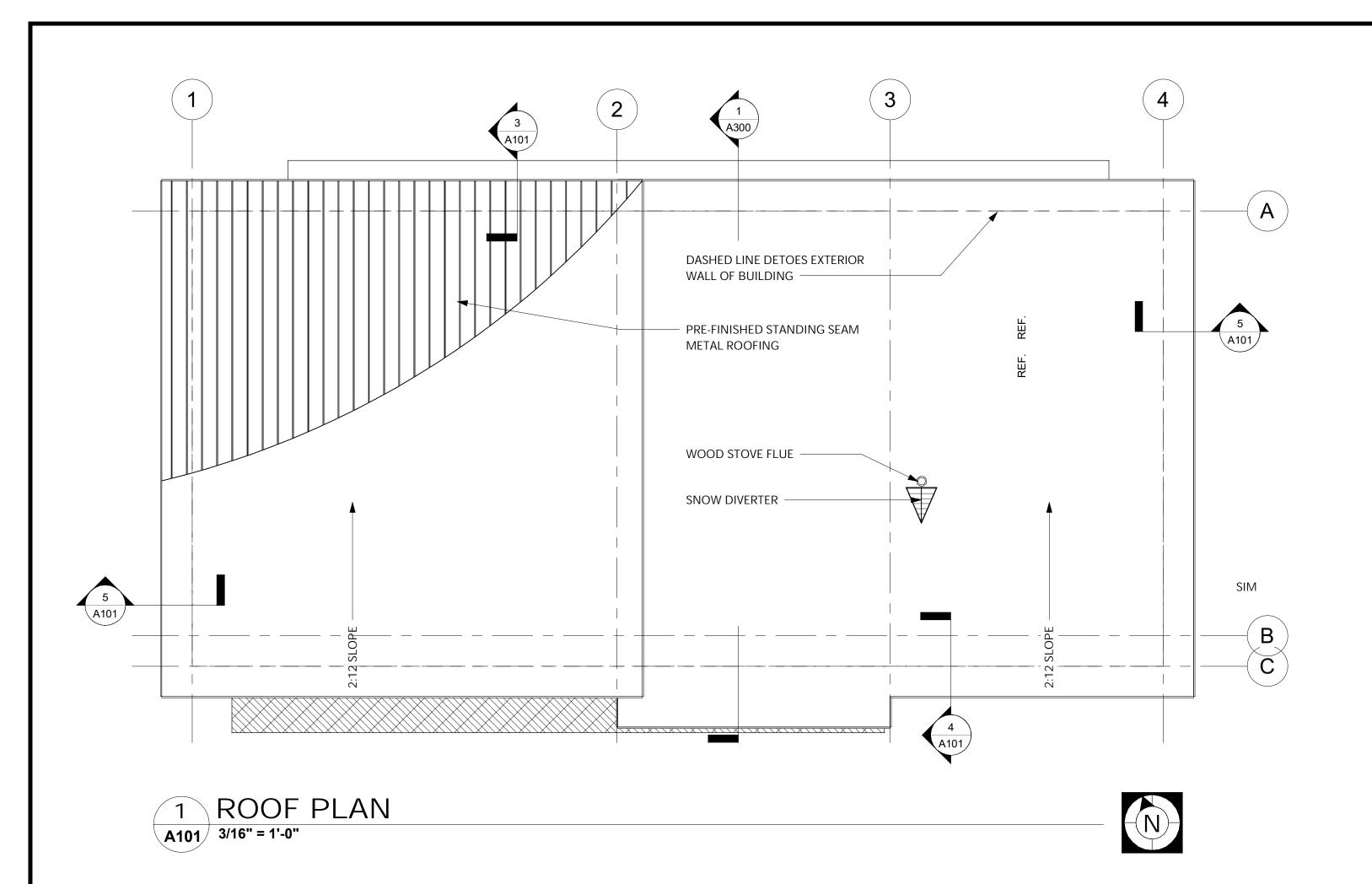
INTERIOR DOOR (TYP) -

SEE DOOR TYPES



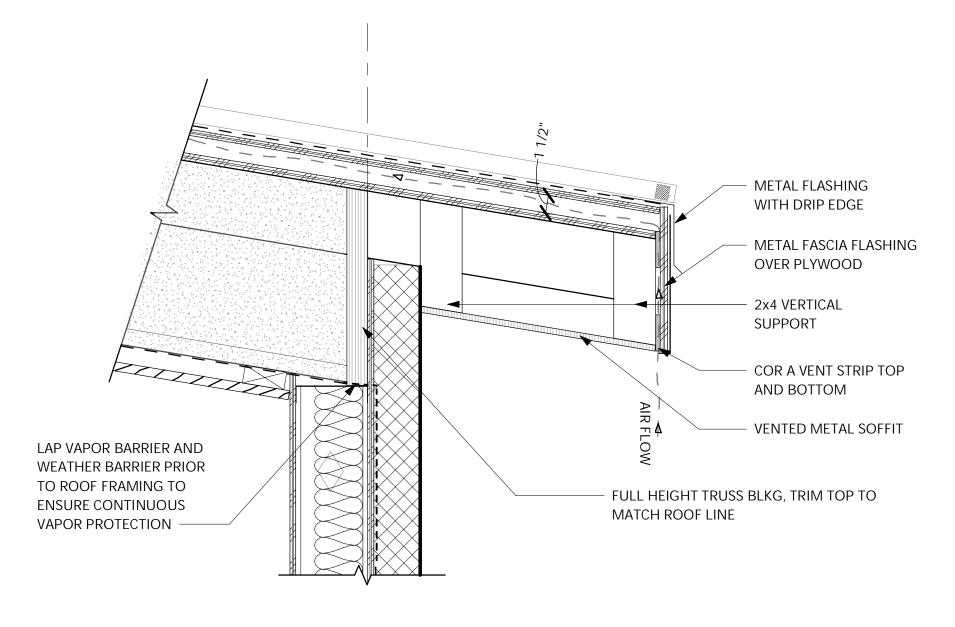
SHEET SIZE:

**DESIGNED BY:** DRAWN BY: CHECKED BY: 7/31/20 1285.02

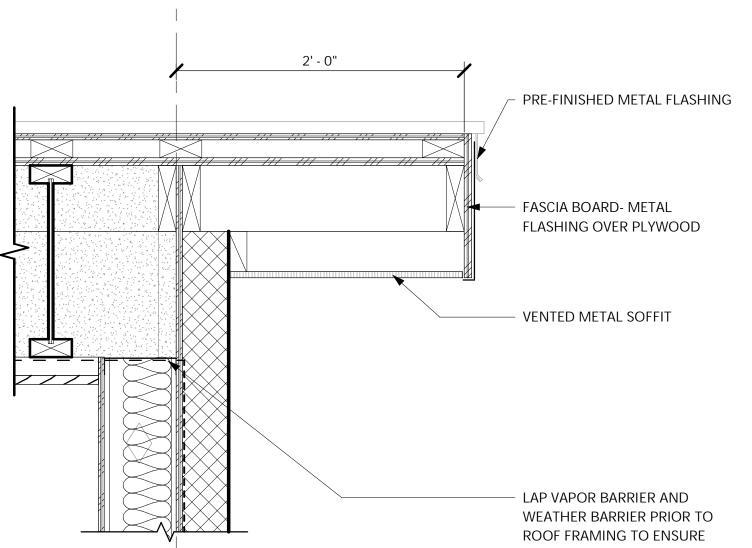


2' - 0" METAL FLASHING WITH DRIP EDGE METAL FASCIA FLASHING OVER PLYWOOD -2x4 VERTICAL SUPPORT COR-A-VENT STRIP TOP AND BOTTOM VENTED METAL SOFFIT LAP VAPOR BARRIER AND WEATHER BARRIER PRIOR FULL HEIGHT TRUSS BLKG, TRIM TOP TO MATCH ROOF LINE TO ROOF FRAMING TO ENSURE CONTINUOUS VAPOR PROTECTION

4 HIGH EAVE DETAIL A101 1 1/2" = 1'-0"



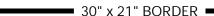
3 LOW EAVE DETAIL A101 1 1/2" = 1'-0"

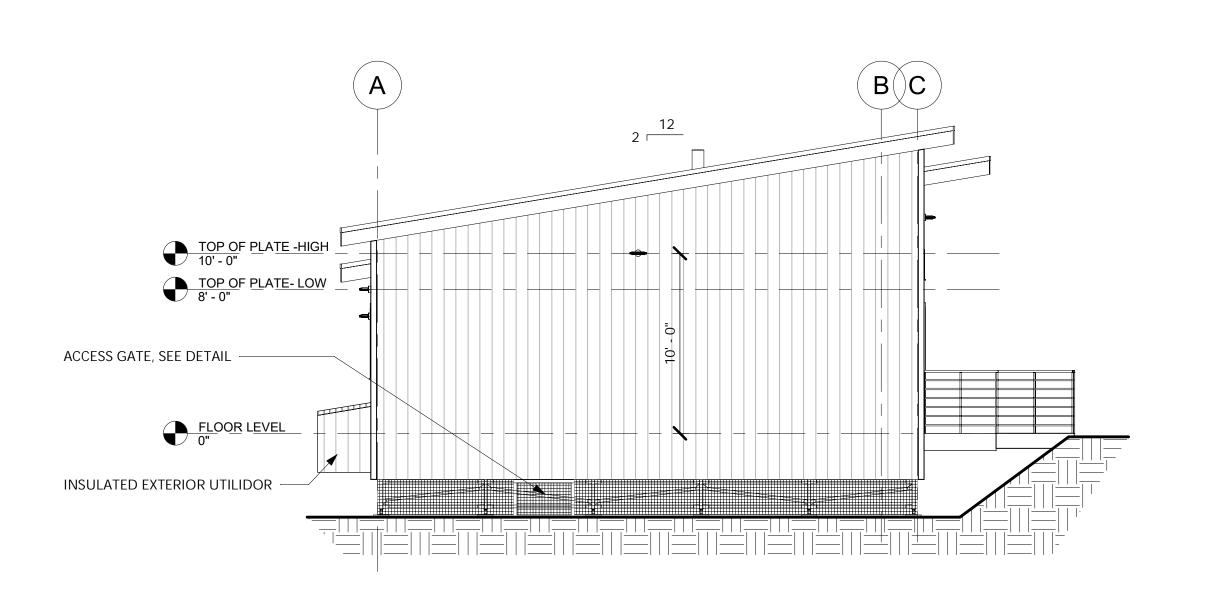


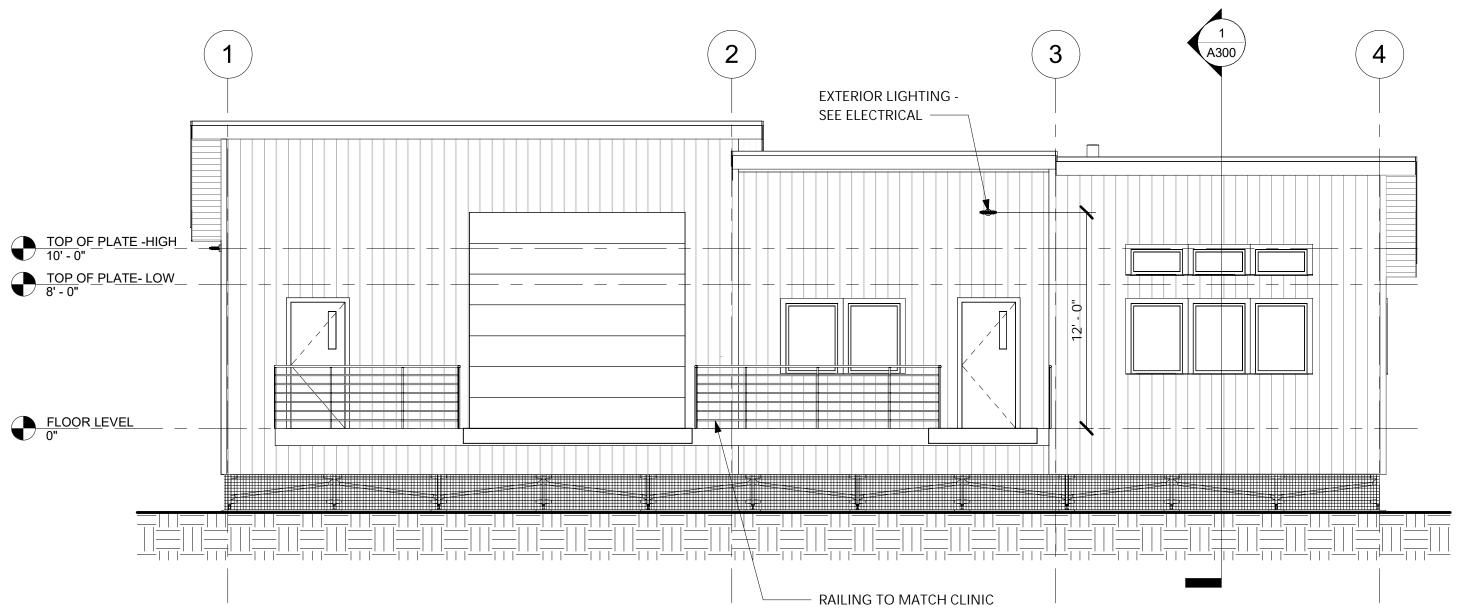
CONTINUOUS VAPOR PROTECTION 5 RAKE DETAIL A101 1 1/2" = 1'-0"

TAKOTNA I DRAWN BY:

SHEET SIZE: DESIGNED BY: UMD CHECKED BY: 7/31/20 1285.02

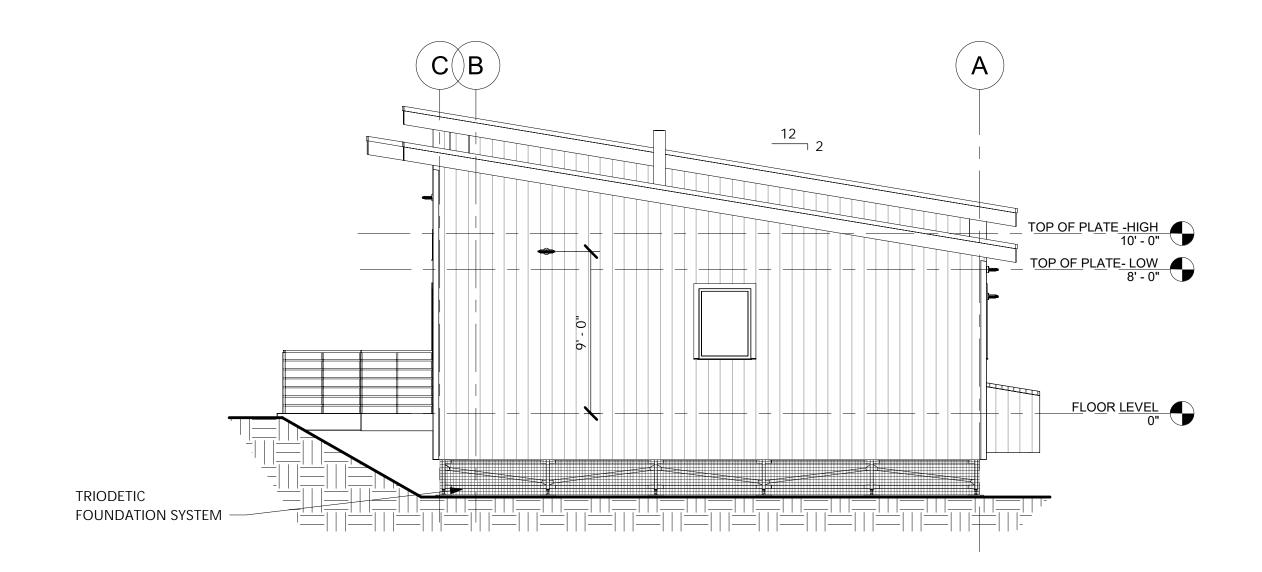


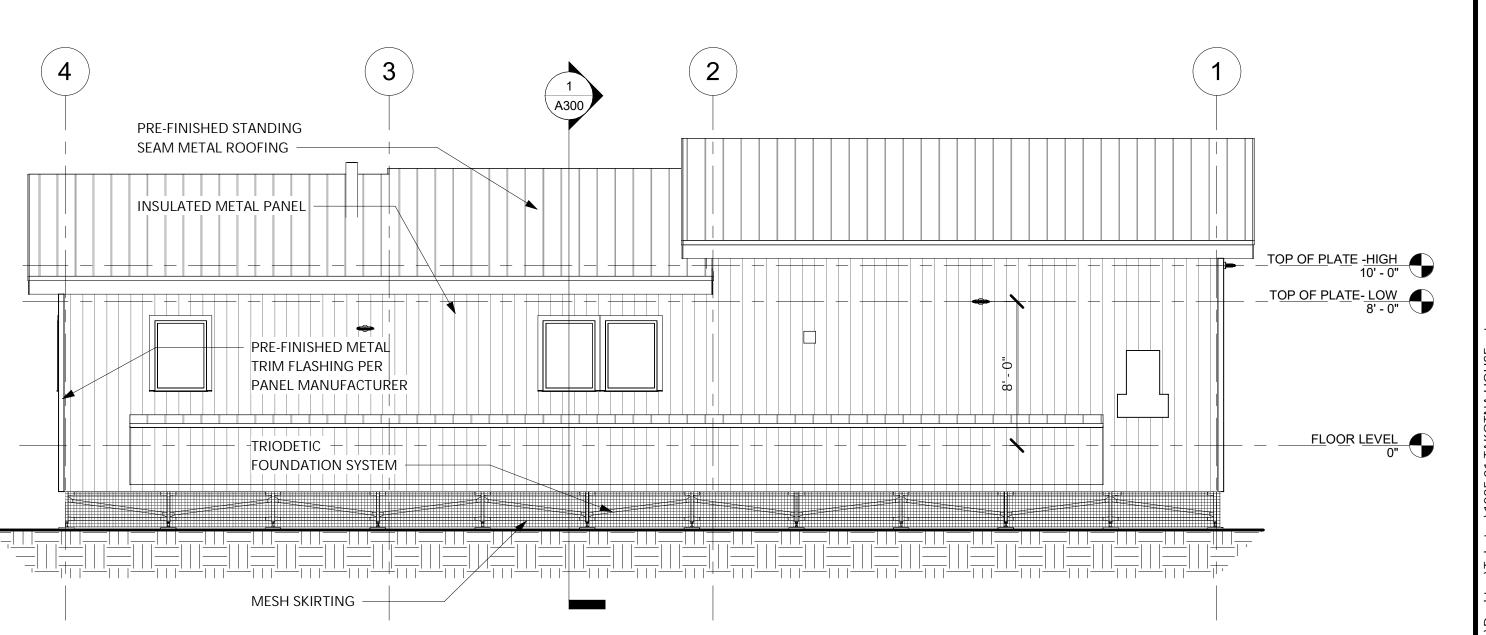




1 SOUTH ELEVATION
A200 3/16" = 1'-0"

2 EAST ELEVATION A200 3/16" = 1'-0"



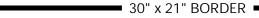


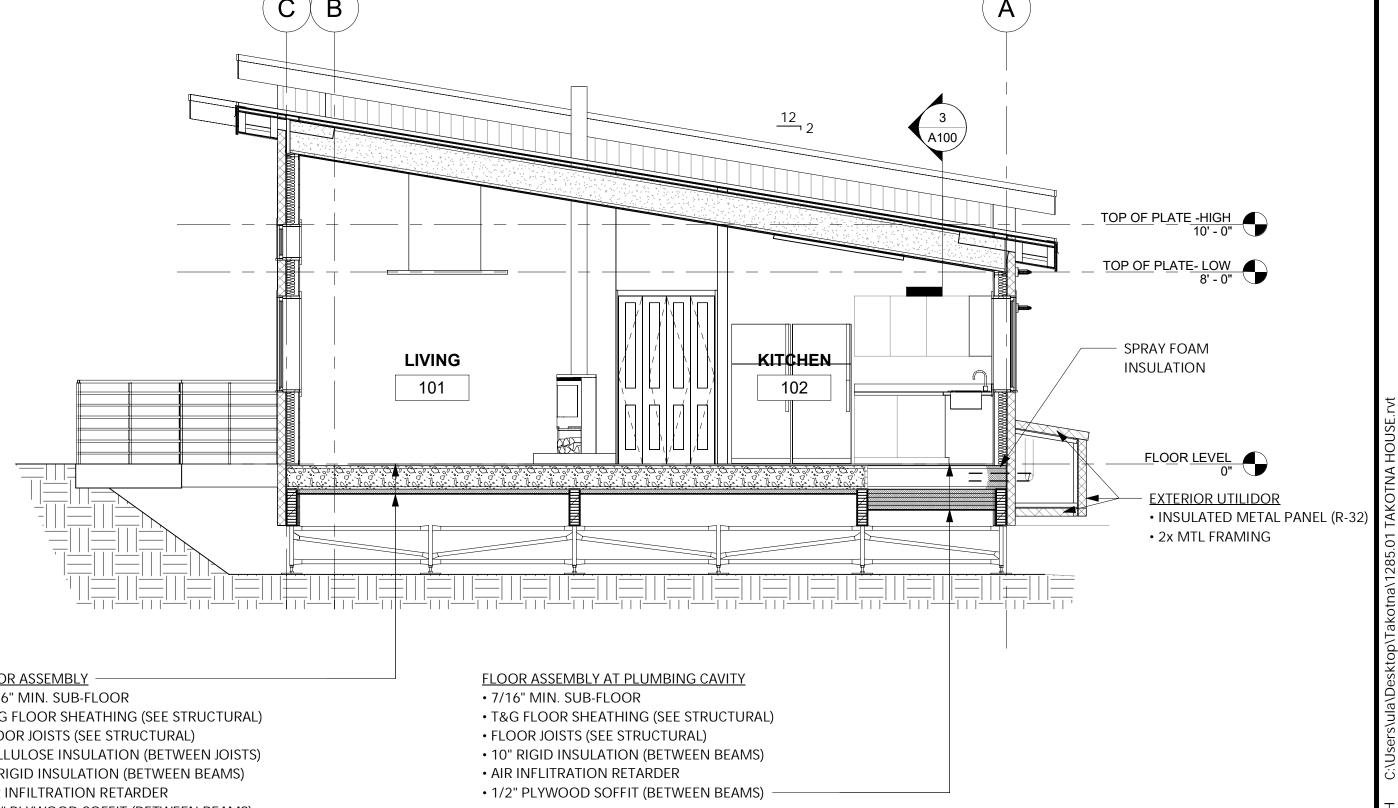
3 NORTH ELEVATION A200 3/16" = 1'-0"

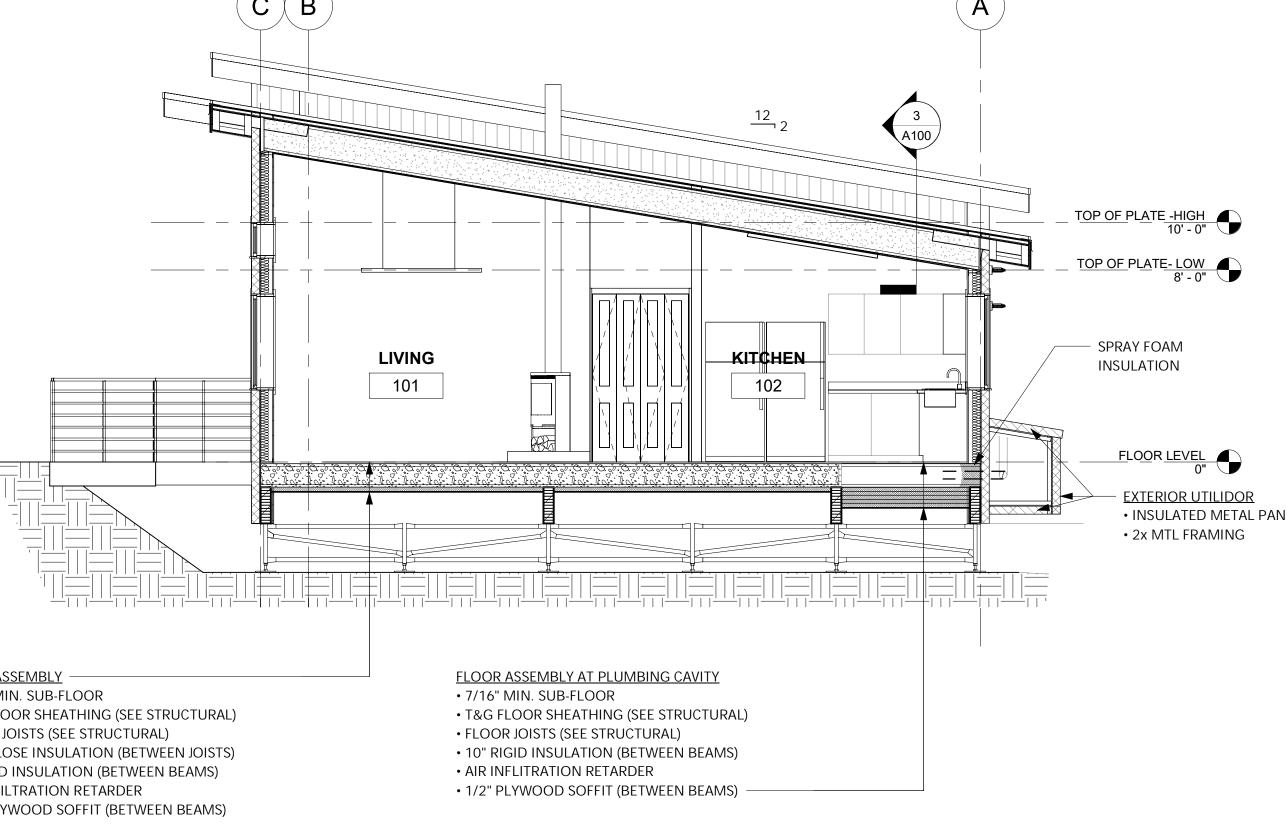
4 WEST ELEVATION A200 3/16" = 1'-0"

SHEET SIZE: DESIGNED BY: DRAWN BY: CHECKED BY:

UMD 7/31/20 FILE NO. 1285.02







BUILDING SECTION A300 1/4" = 1'-0"

SECTION BUILDING AKOTN/ TAKOTI HOUSE

SHEET SIZE: DESIGNED BY: DRAWN BY: UMD WHS CHECKED BY: 7/31/20 FILE NO. 1285.02 SHEET NUMBER

A300 of 4

FLOOR ASSEMBLY • 7/16" MIN. SUB-FLOOR T&G FLOOR SHEATHING (SEE STRUCTURAL) FLOOR JOISTS (SEE STRUCTURAL) CELLULOSE INSULATION (BETWEEN JOISTS) 2" RIGID INSULATION (BETWEEN BEAMS) • AIR INFILTRATION RETARDER

• 1/2" PLYWOOD SOFFIT (BETWEEN BEAMS)

THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN ITS COMPLETED FORM. THE STABILITY OF THIS STRUCTURE DEPENDS ON THE DIAPHRAGM AND BRACING MEMBERS SHOWN. THE CONTRACTOR IS TO PROVIDE FOR THE DESIGN AND CONSTRUCTION OF SHORING FOR ALL EARTH, FORMS, CONCRETE, STEEL, WOOD, AND MASONRY TO RESIST GRAVITY, EARTH, WIND, SEISMIC, AND CONSTRUCTION LOADS. SHORING SHALL REMAIN IN PLACE UNTIL ALL DIAPHRAGM AND LATERAL RESISTING ELEMENTS ARE IN

STRUCTURAL NOTES

- 2. EQUIPMENT FRAMING LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL, PLUMBING OR ELECTRICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL COORDINATE THIS INFORMATION WITH THE INVOLVED TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN THESE REQUIREMENTS SHALL BE BORNE BY THE APPROPRIATE CONTRACTOR.
- 3. SHOP DRAWINGS SHALL BE SUBMITTED IN THE FORM OF FULL SIZED PDF FILES. THE PURPOSE OF SHOP DRAWINGS SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE STRUCTURAL ENGINEER THAT HE UNDERSTANDS THE DESIGN CONCEPT BY INDICATING WHICH MATERIALS HE INTENDS TO FURNISH AND INSTALL, AND BY DETAILING THE FABRICATION AND INSTALLATION METHODS HE INTENDS TO USE. PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW TO THE STRUCTURAL ENGINEER. SHOP DRAWINGS SUBMITTALS SHALL INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO STRUCTURAL STEEL, REINFORCED STEEL, PRE-FABRICATED WALL PANELS. PRIOR TO SUBMISSION THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND SHALL STAMP SUBMITTALS AS BEING "REVIEWED FOR CONFORMANCE". SHOP DRAWINGS SUBMITTALS PROCESSED BY THE STRUCTURAL ENGINEER ARE NOT CHANGE ORDERS. ANY DETAIL ON THE SHOP DRAWING THAT DEVIATES FROM THE CONTRACT DOCUMENTS SHALL CLEARLY BE MARKED WITH THE NOTE "THIS IS A CHANGE". SHOP DRAWINGS OR CALCULATIONS SUBMITTED FOR REVIEW THAT REQUIRE RESUBMITTAL FOR RE-REVIEW SHALL BE BILLED HOURLY FOR SUCH TIME TO THE GENERAL CONTRACTOR. RE-REVIEW WILL NOT PROCEED WITHOUT WRITTEN APPROVAL FROM THE GENERAL CONTRACTOR FOR ADDITIONAL ENGINEERING REVIEW SERVICES.
- 4. SPECIAL INSPECTIONS REQUIRED FOR THIS PROJECT BY CHAPTER 17 OF THE IBC SHALL BE PROVIDED DURING CONSTRUCTION. THE ENGINEER OF RECORD OR OTHER LICENSED AND CERTIFIED INDIVIDUALS SHALL BE RETAINED FOR THESE INSPECTIONS AND SHALL BE IN ACCORDANCE WITH ALL APPLICABLE ANCHORAGE MUNICIPAL CODES.
  - A. SOILS (IBC TABLE 1705.6):

PLACE IN THEIR ENTIRETY.

**EXCAVATION LOCATIONS AND PLACEMENT** (PERIODIC) (PERIODIC) FILL MATERIAL CLASSIFICATION SUBGRADE PREPARATION (PERIODIC) **COMPACTION TESTS** (CONTINUOUS) (CONTINUOUS) LIFT THICKNESSES

B. STRUCTURAL WOOD (IBC 1705.10.1 & 1705.11.2):

HOLDOWNS, HANGERS, BLOCKING (PERIODIC) DIAPHRAGM THICKNESS AND FASTENING (CONTINUOUS) SHEARWALL THICKNESS AND FASTENING (CONTINUOUS)

- DEFERRED SUBMITTAL ITEMS ARE THOSE PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF APPLICATION AND HAVE RECEIVED PRIOR APPROVAL FROM THE BUILDING OFFICIAL TO BE DEFERRED. DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED, REVIEWED AND APPROVED BY THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL PRIOR TO INSTALLATION. THE FOLLOWING ITEMS ARE DEFERRED SUBMITTALS:
  - TRIODETIC FOUNDATION
  - PLYWOOD WEB JOISTS
  - LAMINATED VENEER LUMBER
  - MANUFACTURED GLU-LAMINATED BEAMS

CODES AND STANDARDS PER INTERNATIONAL BUILDING CODE (IBC) 2012 IN ADDITION TO DEAD LOADS, THE FOLLOWING MINIMUM LIVE LOADS APPLY TO THE CONSTRUCTION OF ALL BUILDINGS AND FACILITIES SHOWN UNLESS OTHER- WISE NOTED.

FLOOR LOADINGS:

**50psf OFFICE** 15psf PARTITION 100psf EXITING

ROOF LIVE LOAD:

**SEISMIC LOADS:** 

"D" SEISMIC DESIGN GROUP IMPORTANCE FACTOR 1.25 SPECTRAL RESPONSE COEF Sds = 0.48

OCCUPANCY CATEGORY: III

SITE CLASS **COLD-FORMED STEEL BASIC FORCE SYSTEM** 

R = 6.5

WIND LOADS:

120 MPH, 3 SECOND GUST BASIC WIND SPEED

> 1.0 "B"

C&C (20sf) FIGURE 30.5-1 (ASCE 7-10)

> 13.6psf, -23.0psf 13.6psf, -38.0psf 13.6psf, -57.1psf 24.7psf, -26.9psf 24.7psf, -32.4psf -48.5psf

18.0 Kips (WIND-TRANSVERSE) 11.0 Kips (WIND-LONGITUDINAL)



CLINIC

7/29/2020 1285.01 SHEET NUMBER

SHEET SIZE: 34x22 DESIGNED BY:

STRUCTURAL DESIGN CRITERIA

IMPORTANCE FACTOR

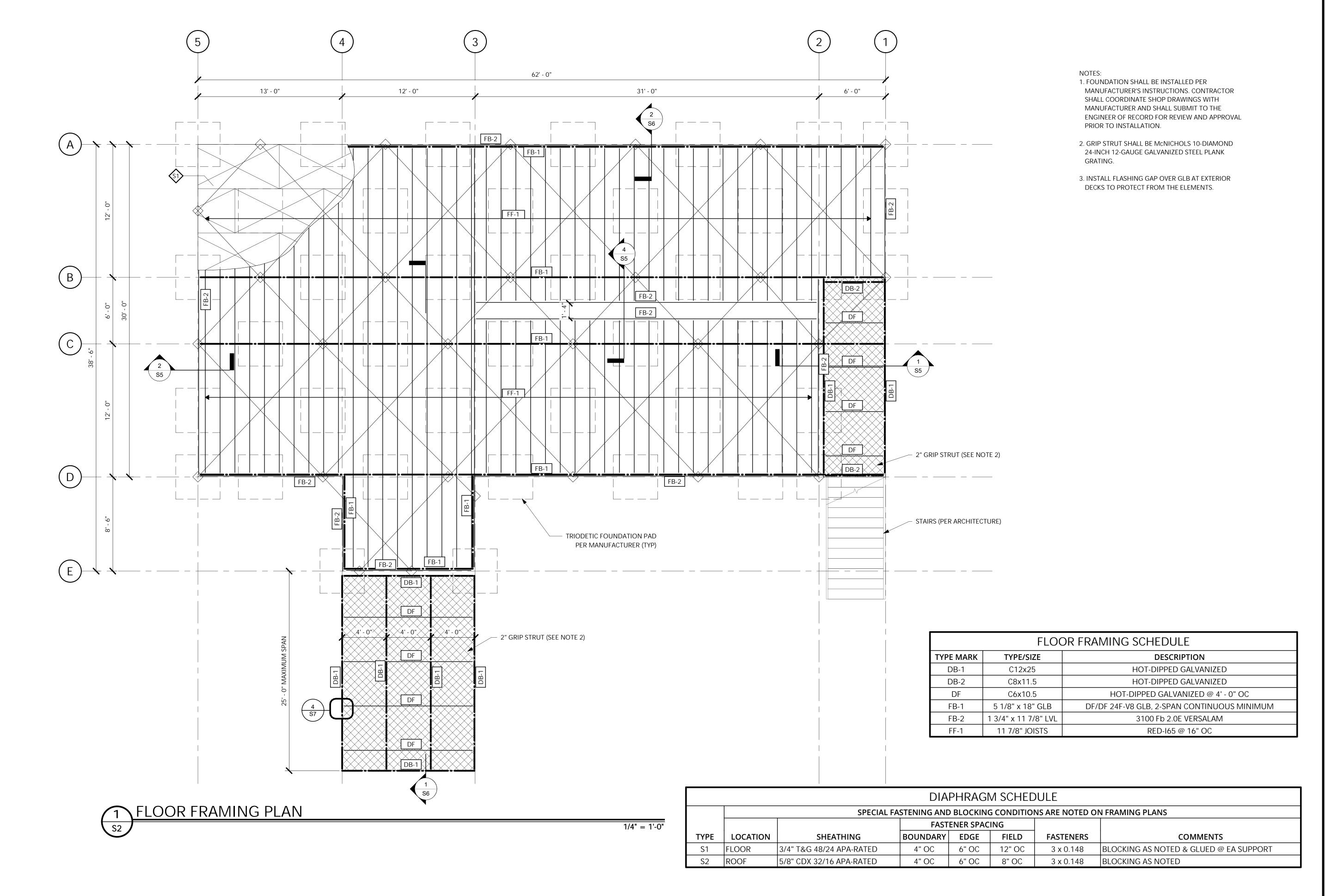
**EXPOSURE** HORIZONTAL DISTANCE "a" 3.0 feet

ZONE 1 ZONE 2 ZONE 3 **ZONE 4** 

**ZONE 5** 70psf SNOW OH ZONE 2 -73.5psf OH ZONE 3

**DESIGN BASE SHEAR** 

10.1 Kips (SEISMIC)

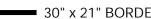


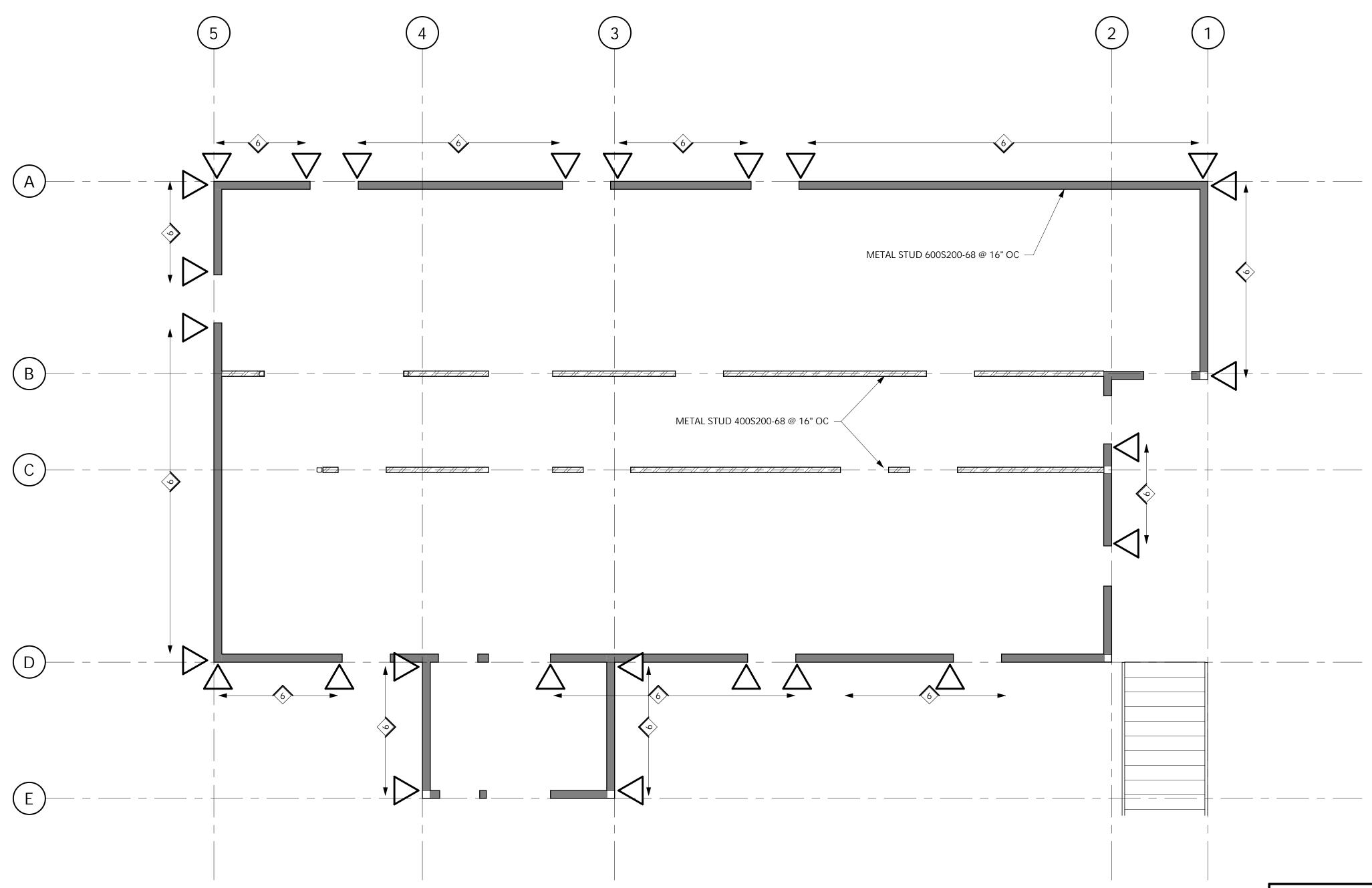
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HEALTH CLINIC OTNA, AK

SHEET SIZE: DESIGNED BY: 7/29/2020

1285.01 SHEET NUMBER





1/4" = 1'-0"

SHEARWALL SCHEDULE:	REMARKS:	SILL P NAILING/BOLTING
7/16" OSB SHEATHING W/ #8 METAL SCREW @ 6" OC ALL EDGES	SEE NOTES	PLATE @ 16" OC W/ (4) #8 SCREWS AND (4) 10d

#### LEGEND:

METAL STUD WALL W/ SHEARWALL SHEATHING

SIMPSON MSTC66B3 WALL TO FLOOR BEAMS

- 1. SEE DIAPHRAGM SCHEDULE FOR FASTENER SIZING AND SPACING.
- 2. FIELD FASTENING FOR SHEARWALLS SHALL BE 12" OC MAXIMUM.
- 3. SIMPSON MSTC66B3 TO BE INSTALLED TO METAL STUDS PER MANUFACTURER'S RECOMMENDATIONS.

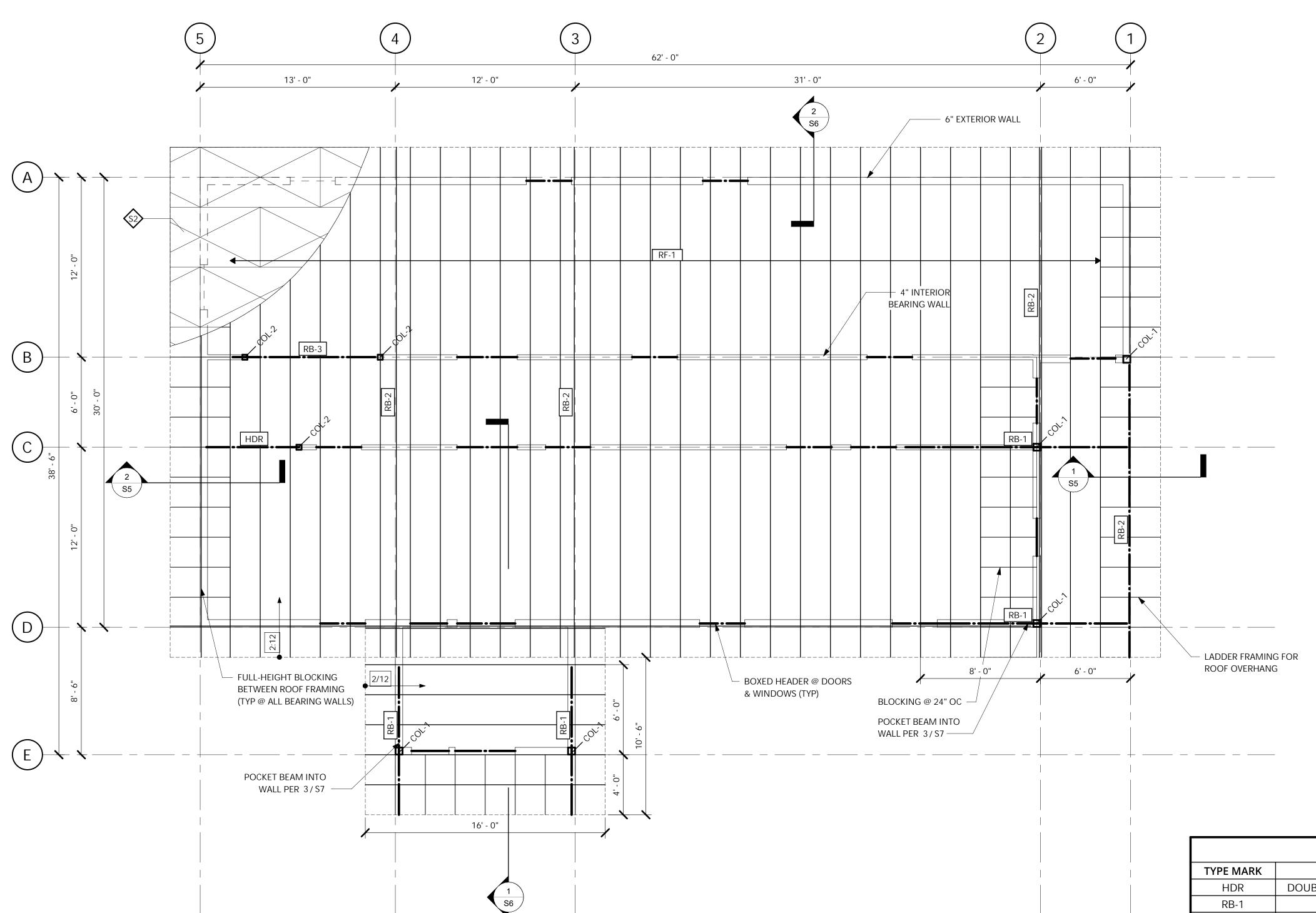
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						1"
	250 H Street					·
	Anchorage AK 99501					
Ţ	P: (907) 243-8985					
<b>■</b> Inc	F: (907) 243-5629					
· swirreying	W: LCGAK.COM					ΟN
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		ON	DATE	RY	BEVISION	NC

HEALTH CLINIC COTNA, AK

TAKOTNA HEALTI TAKOTNA, A

SHEET SIZE:	34x22
DESIGNED BY:	DM
DRAWN BY:	SC
CHECKED BY:	DM
DATE:	7/29/2020
FILE NO.	1285.01
SHEET N	UMBER

SHEARWALL PLAN
S3



NOTES:

- 1. ALL HEADERS AND COLUMNS TO BE SUPPORTED BY A MINIMUM OF ONE TRIMMER AND KING STUD.
- 2. ALL WALL STUDS SHALL BE FULL HEIGHT TO THE BOTTOM OF THE ROOF FRAMING.
- TRACK SPLICE PER STUD MANUFACTURER REQUIRED AT ALL WALL TOP PLATE JOINTS.

STRUCT	TURAL COLUMN	N SCHEDULE		
TYPE MARK	TYPE/ SIZE	DESCRIPTION		
COL-1	DOUBLE 6" STUD	(2) 600S200-68 W/		
	COLUMN	400S200-68 EACH SIDE		
COL-2	TRIPLE 4" STUD	(3) 400S200-68 W/		
	COLUMN	600S200-68 EACH SIDE		

	ROOF FRAMII	NG SCHEDULE
TYPE MARK	TYPE/ SIZE	DESCRIPTION
HDR	DOUBLE STUD BOX HEADER	(2) 600S200-68 W/ 400S200-68 TOP & BOTTOM
RB-1	5 1/8" x 12" GLB	DF/DF 24F-V8 GLB
RB-2	1 3/4" x 16" LVL	3100 Fb 2.0E Versalam
RB-3	6" BOX BEAM	(3) 600S200-68 W/ 400S200-68 TOP & BOTTOM
RF-1	16" JOISTS	RED-I65 @ 16" OC

1 ROOF FRAMING PLAN

1/4" = 1'-0"

			DIA	PHRAGI	M SCHED	ULE	
		SPECIAL F	ASTENING AND	BLOCKING	CONDITIO	NS ARE NOTED O	N FRAMING PLANS
			FASTI	ENER SPAC	ING		
TYPE	LOCATION	SHEATHING	BOUNDARY	EDGE	FIELD	<b>FASTENERS</b>	COMMENTS
S1	FLOOR	3/4" T&G 48/24 APA-RATED	4" OC	6" OC	12" OC	3 x 0.148	BLOCKING AS NOTED & GLUED @ EA SUPPORT
S2	ROOF	5/8" CDX 32/16 APA-RATED	4" OC	6" OC	8" OC	3 x 0.148	BLOCKING AS NOTED

DALE L. MCCOY

CE 13357
08/07/2020
08/07/2020

250 H Street
Anchorage, AK 99501
P: (907) 243-8985
F: (907) 243-5629
W: LCGAK.com

TRAL FOUNDATION

PS 44/2020 9:17:48 AM

Anchorage, AK 99501
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Anchorage AK 99501
P: (907) 243-8085
P: (907) 243-808

SOUTHCENTRAL FOUN

TAKOTNA HEALTH CLINIC TAKOTNA, AK

SHEET SIZE: 34x22

DESIGNED BY: DM

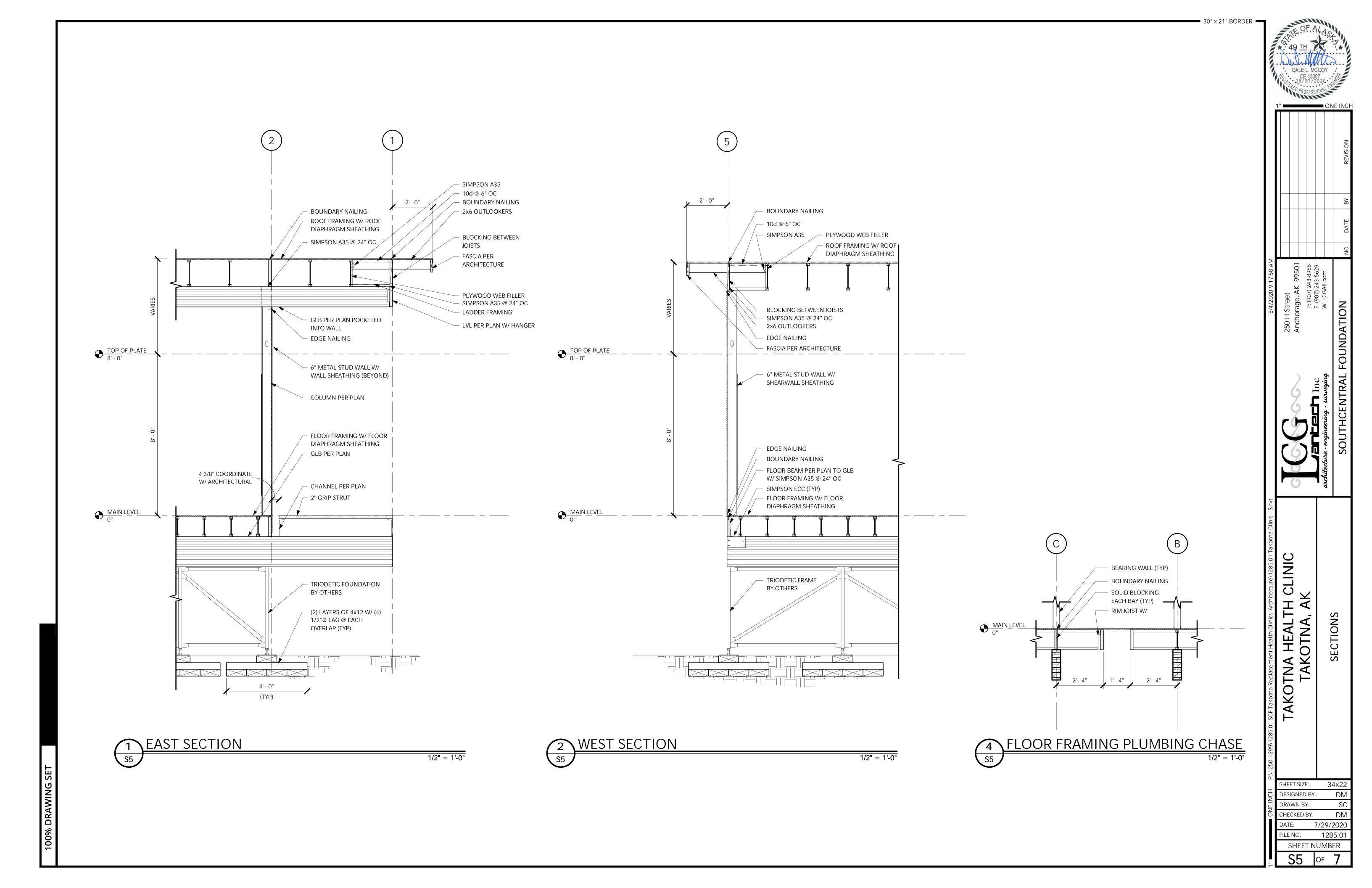
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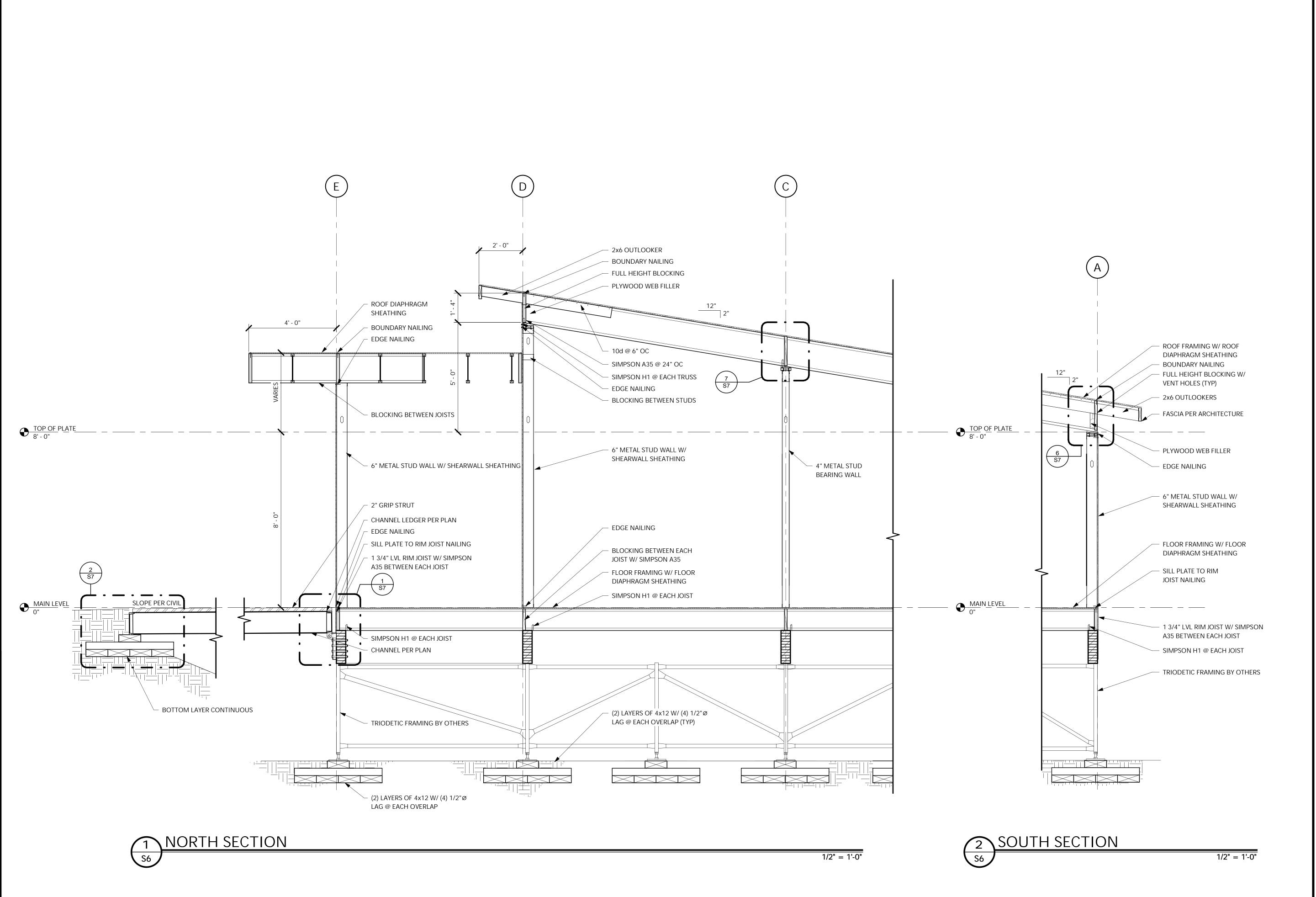
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DATE: 7/29/2020

OATE: 7/29/2020
FILE NO. 1285.01
SHEET NUMBER

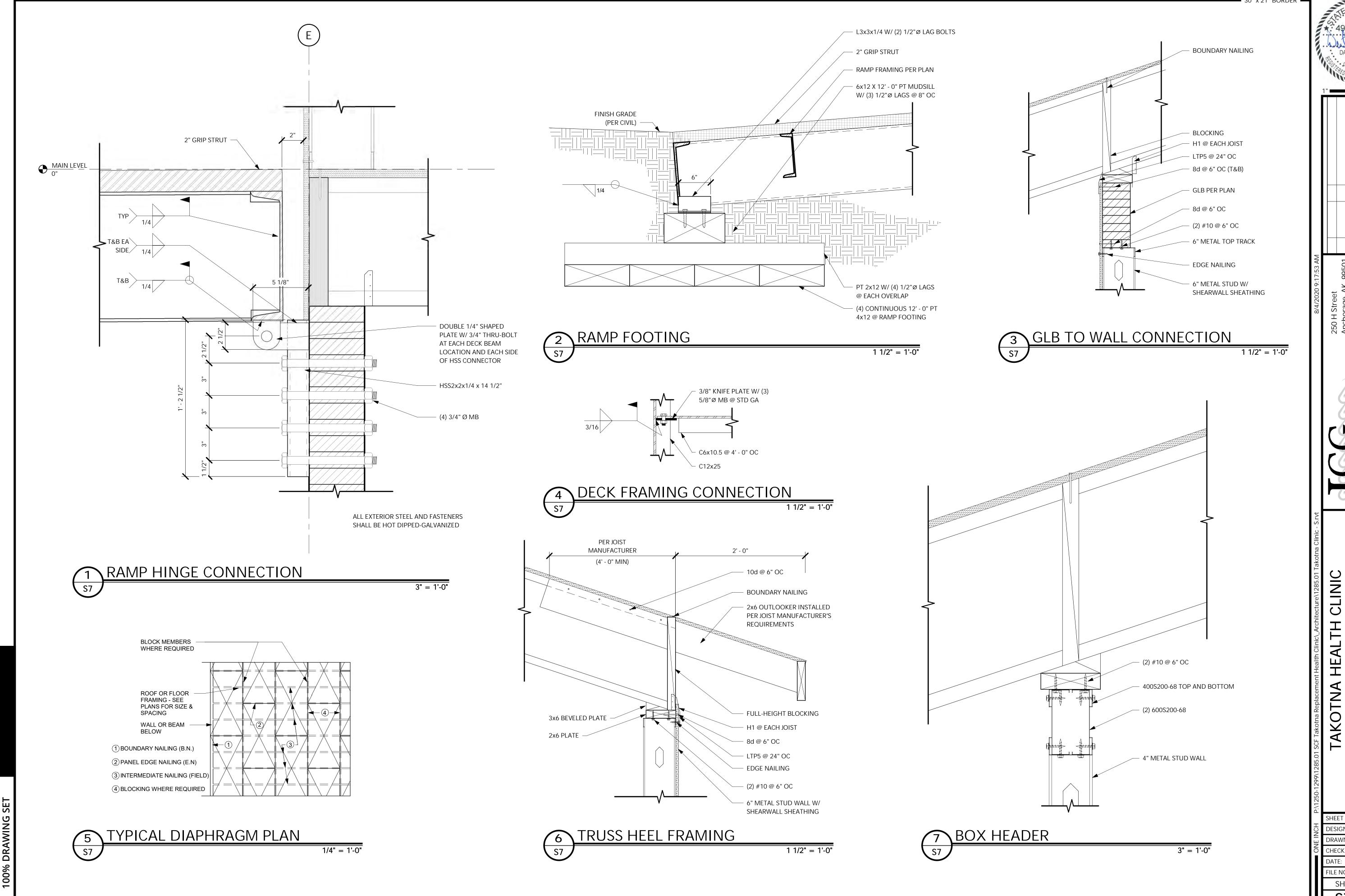
S4 OF 7





TAKOTNA HEALTH CLINIC TAKOTNA, AK SECTIONS SHEET SIZE: 34x22 DESIGNED BY: DRAWN BY: CHECKED BY: 7/29/2020 1285.01 SHEET NUMBER S6 OF 7

30" x 21" BORDER



250 H Street				
Anchorage AK 99501				
P: (907) 243-8985				
F: (907) 243-5629				
W. EUGAN.COIII				
DATION	NO	DATE	ВУ	REVISIC

DETAILS

TAKOTNA HEALTH CLINIC TAKOTNA, AK FRAMING

SHEET SIZE: 34x22 DESIGNED BY: DRAWN BY:

7/29/2020 1285.01 SHEET NUMBER

MECHANICAL LEGEND

----- HOT WATER RECIRCULATED

PIPE UP PIPE DOWN

SEE ABBREVIATIONS FOR MEDIA

----- VENT PIPING

#### ABBREVIATIONS

Α	COMPRESSED AIR
	AUTOMATIC AIR VENT
AD	
AF	AIR FOIL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALI	ALTERNATE AMPERES
AMPS APD	AMPERES AIR PRESSURE DROP
ARCH	ARCHITECTURAL
AWT	ARCHITECTURAL AVERAGE WATER TEMPERATURE
BDD	BACKDRAFT DAMPER
BHD	BOTTOM HORIZONTAL DISCHARGE
BI	BACKWARD INCLINE
	BUILDING
	BOTTOM OF DUCT
	BRITISH THERMAL UNIT PER HOUR
	COMBUSTION AIR CUBIC FEET PER MINUTE
	CEILING
CONT	
	CLEANOUT
CONN	CONNECTION
CP	CIRCULATION PUMP
CUH	CABINET UNIT HEATER
CW	COLD_WATER
ø	DIAMETER
dB DBD	DECIBELS DOWNBLAST DISCHARGE
DEG	DEGREE
DN	DOWN
	DRAWING
	EXHAUST AIR
	ENTERING AIR TEMPERATURE
EF	
EG	
ET	EXPANSION TANK
EXH FWT	EXHAUST ENTERING WATER TEMPERATURE
	EXTERNAL STATIC PRESSURE
	ENTERING GLYCOL TEMPERATURE
EXIST	EXISTING
ГТ	FEET
FPM FPF	FEET PER MINUTE
FPF FC	FINS PER FOOT
	FORWARD CURVE FAHRENHEIT
FCO	FAHRENHEII FLOOR CLEAN OUT
FD	FIRE DAMPER, FLOOR DRAIN
FSD	FIRE SMOKE DAMPER
G	NATURAL GAS
GPH	
GPM	
GI	GREASE INTERCEPTOR
GT HB	
HC	HEATING COIL
HD	HEAD
HGR	HEATING GLYCOL RETURN
HGS	HEATING GLYCOL SUPPLY
HW HWC HP	HOT WATER
HWC	HOT WATER CIRCULATED
ID	HORSEPOWER INSIDE DIAMETER
INI	INCHES
LAT	LEAVING AIR TEMPERATURE
LF	LINEAL FEET
LGT	LEAVING GLYCOL TEMPERATURE
LPG	
LWT	
MAU	MAKE UP AIR UNIT MAXIMUM
MBH	
	MANUFACTURER
	MAKEUP AIR
MÍN	MINIMUM
MTD	MOUNTED
NC N.C.	NOISE CRITERIA
N.C. N.O.	NORMALLY CLOSED NORMALLY OPEN
NSF	NATIONAL SANITARY FOUNDATION
NTS	NOT TO SCALE
0/A	OUTSIDE AIR
OD	OUTSIDE DIAMETER
	PRESSURE DROP
PG	
	PHASE POUNDS PER INCH
	RETURN AIR
RP RP	RADIANT PANEL
RPM	REVOLUTIONS PER MINUTE
RL	RAIN LEADER
S/A	SUPPLY AIR
SD SP	STORM DRAIN STATIC PRESSURE
TEMP	TEMPERATURE
TW	TEMPERED WATER
TWC	TEMPERED WATER CIRCULATED
TYP UH	TYPICAL UNIT HEATER
V	VENT
V VEL	VELOCITY
VF	VENTILATION FAN
VFD	VARIABLE FREQUENCY DRIVE
VTR	
WC	WATER COLUMN
WG	WATER GAGE

WALL CLEAN OUT

WATER HEATER

YARD CLEAN OUT

WASTE

WATER HAMMER ARRESTOR

WATER PRESSURE DROP

WCO

WHA

WH

WPD YCO

#### PLUMBING FIXTURE SCHEDULE

1 2 0 1	WIDING TIME OCTIED		•							
			MINIMU	IM CONNE	CTION SIZE	<u> </u>				
SYMBOL	FIXTURE	CW	HW	WASTE	VENT	TRAP	MFGR	MODEL	COLOR	TRIM / REMARKS
WC-1	WATER CLOSET - FLOOR MOUNT - ADA	1/2"		3"	2"		KOHLER	HIGHLINE K-3999-UT	WHITE	ELONGATED BOWL, SPLIT RIM SEAT WITH COVER, INSULATED TANK, TANK LOCKS
SK-1	SINK - DENTAL	1/2"	1/2"	2"	1-1/2"	2"	ELKAY	LR1722PD	STAINLESS	DELTA FAUCET 26C3944 WITH GOOSENECK SPOUT, LAMINAR FLOW, AND SANITARY BLADES
SK-2	SINK - EXAM ROOM/BEHAVIORAL HEALTH	1/2"	1/2"	2"	1-1/2"	2"	ELKAY	LR1722PD	STAINLESS	DELTA FAUCET 26C3944 WITH GOOSENECK SPOUT, LAMINAR FLOW, AND SANITARY BLADES
SK-3	SINK - EXAM ROOM 1/TRAUMA	1/2"	1/2"	2"	1-1/2"	2"	ELKAY	LR1722PD	STAINLESS	SPEAKMAN SEF-1800-CA-TW FAUCET WITH EYEWASH, ACTIVATOR, FLIP-TOP DUST
										CAPS, GOOSENECK, BLADE HANDLES, AND THERMOSTATIC MIXING VALVE
SK-4	SINK - JANITOR	1/2"	1/2"	3"	2"	3"	FIAT	MSB-2424	WHITE	FIAT FAUCET 830-AA, 832-AA HOSE AND BRACKET, E-77-AA VINYL
										BUMPERGUARD, AND 889-CC MOP HANGER
LV-1	LAVATORY - WALL MOUNT - ADA	1/2"	1/2"	1-1/2"	1-1/2"	1-1/4"	KOHLER	KINGSTON K-2005	WHITE	DELTA FAUCET 515LF-HDF WITH POP-UP STRAINER, CONCEALED ARM SUPPORTS, ADA
										WALL CARRIER, PROTECTIVE COVER FOR WASTE/HOT/COLD PIPING AND ANGLE STOPS
WB-1	WASHER BOX	1/2"	1/2"	2"	1-1/2"	2"	OATEY	38541		WITH WATER HAMMER ARRESTORS
FD-1	FLOOR DRAIN	1/2"		2"	1-1/2"	2"	J.R. SMITH	DX-2010		ROUND TOP, TRAP PRIMER, SECURING HOLES FOR WOOD FLOOR INSTALLATION
FS-1	FLOOR SINK	1/2"		2"	1-1/2"	2"	J.R. SMITH	DX 3001		TRAP PRIMER, SECURING HOLES FOR WOOD FLOOR INSTALLATION, 3/4 SS GRATE
SH-1	SHOWER - ADA	1/2"	1/2"	2"	1-1/2"	2"	MAAX	OPS-3636	WHITE	DELTA T13H152 WITH R10000-UNWS VALVE BODY, 70" FLEX HOSE, METAL LEVER, ADJUSTABLE
										MAXIMUM TEMPERATURE, INTEGRAL CHECK STOPS, PRESSURE BALANCED, 24" STAINLESS STEEL
										SLIDE BAR, ONE PIECE FIBERGLASS UNIT, ONE HORIZONTAL L-SHAPED TEXTURED STAINLESS
										STEEL GRAB BAR, FOLD UP SEAT, RECESSED SOAP DISH, CHROME CURTAIN ROD WITH VINYL
										SHOWER CURTAIN, BRASS DRAIN WITH CHROME PLATED STAINLESS STEEL GRID, INSTALL PER ADA
										REQUIREMENTS, PROVIDE BACKING IN WALL AS REQUIRED FOR GRAB BAR INSTALLATION

TEM	IPERING VAL	VE SCH	EDULE						
				MINIMUM FLOW RATE	FLOW RATE AT 10 PSI				
SYMBOL	MFGR / MODEL	INLET SIZES	OUTLET SIZE	(GPM)	DROP (GPM)	FINISH	LISTING	APPROVAL	REMARKS
TV-1	WATTS / LF1170-M2	1"	1"	0.5	10	BRASS	ASSE 1017	CSA B125	INTEGRAL CHECK VALVES & FILTER WASHERS, LEAD FREE, SET OUTLET TO 120°F, CONNECTION AS REQUIRED

	<b>EXPANSION</b>	<b>TANK</b>	<b>SCHEDULE</b>
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SYMBOL	MFGR / MODEL	FUNCTION	FLUID	TOTAL VOLUME (GALLONS)	ACCEPTANCE VOLUME (GALLONS)	DIMENSIONS	MATERIAL	LABEL	REMARKS
ET-1	AMTROL / EXTROL AX-40V	HYDRONIC EXPANSION	50% P.G.	23.0	11.3	15"ø x 33"	STEEL/BUTYL	ASME	SET PRE-CHARGE TO 12 PSIG
ET-2	AMTROL / THERM-X-TROL ST-12	DOMESTIC HOT WATER EXPANSION	WATER	4.4	3.2	11"ø x 15"	STEEL/BUTYL	NSF	SET PRE-CHARGE TO 40 PSIG

TAN	K SCHEDULE							
SYMBOL	MFGR / MODEL	FUNCTION	FLUID	CAPACITY (GALLONS)	DIMENSIONS	MATERIAL	LABEL	REMARKS
GT-1	AXIOM / MF200	GLYCOL MIX	50% P.G.	6.6	16"x12"x12"	PLASTIC	ETL	WITH PACKAGED PUMP, SHELF, LOW PRESSURE ALARM, AND CONTROLS: 50 WATTS, 120V/1PH
FOT-1	GREER TANK / PER MFGR	FUEL OIL STORAGE	#1 F.O.	2,500	64"øx204"L	STEEL	UL-142	DOUBLE WALL ABOVE GROUND SKID TANK WITH WEATHERPROOF COATING

ГОН	HOT WATER GENERATOR SCHEDULE											
		DOMESTIC HOT WATER	HEATING MEDIUM									
SYMBOL	MFGR / MODEL	RECOVERY CAPACITY (GPH) (GAL) EWT LWT	FLUID FLOW WPD (FT HD) EFT LFT	LABEL	REMARKS							

0	o / ob 22	(0)	(0, 12)			. 20.5	(9)	,				1 I
HWG-1	TRIANGLE TUBE / SMART 40	150	36	40°F	140°F	50% P.G.	7 1.	0 180°	140°F		STAINLESS STEEL, TANK-IN-TANK HEAT EXCHANGER	ıl
PUM	P SCHEDULE											
0.4.50		055)	105					HEAD -		IOTOR DA	NTA	

					HEAD	MOTOR DATA					
SYMBOL	MFGR / MODEL	SERVICE	FLUID	GPM	FT.	HP	WATTS	VOLTS/PH	REMARKS		
BC-1	GRUNDFOS / UPS 26-99 FC	BOILER CIRCULATION	50% P.G.	14	5'	1/6		120/1	CAST IRON, SET INITIALLY TO SPEED ONE		
CP-1A	GRUNDFOS / MAGNA3 32-100F	BUILDING HEAT	50% P.G.	14.7	22'		178.3	120/1	CAST IRON, INTEGRAL VFD, AUTOADAPT CONTROL MODE		
CP-1B	GRUNDFOS / MAGNA3 32-100F	BUILDING HEAT	50% P.G.	14.7	22'		178.3	120/1	CAST IRON, BACKUP PUMP, INTEGRAL VFD, AUTOADAPT CONTROL MODE		
CP-2	GRUNDFOS / UP 26-64 F	HOT WATER GENERATOR	50% P.G.	7	16'	1/12		120/1	CAST IRON		
CP-3	GRUNDFOS / ALPHA2 26-99	WATER SERVICE RECIRCULATION	WATER	5.0	20'		120	120/1	RATED FOR OPEN SYSTEMS, STAINLESS STEEL, ECM MOTOR		

AIR	AIR SEPARATOR SCHEDULE												
SYMBOL	MFGR / MODEL	SYSTEM	FLUID	FLOW RATE (GPM)	WPD (FT. HD)	INLET/OUTLET SIZE	DIMENSIONS	MATERIALS	LABEL	REMARKS			
AS-1	SPIROTHERM / VDT-200	HEATING SYSTEM	50% P.G.	14.7	<1.0'	2"	25.3"H x 6.3"ø	STEEL		COMBINATION AIR AND DIRT SEPARATOR WITH AUTO AIR VENT			

BOIL	ER SCHEDULE									
					GROSS INPUT	AHRI HEATING	Е	LEC. DATA		
SYMBOL	MFGR / MODEL	TYPE	FLUID	FUEL	(GPH)	CAPACITY (MBH)	HP	VOLTS/PH	LABEL	REMARKS
B-1	WEIL-McLAIN / WGO-6	CAST IRON	50% PG	#1 F.O.	1.75	184	FR	120/1	ASME	TRIM PER IMC CHAPTER 10, ASME CSD-1 COMPLIANT,
										30 PSI RELIEF, BECKETT BURNER



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**TAKOTNA** MECHANICAL SA ABBREVIATIONS, A TAKO

34x22 SHEET SIZE: DESIGNED BY: DRAWN BY: CHECKED BY: TCH 7/31/2020 DATE: 2020.025.0 FILE NO. SHEET NUMBER

			1							l			
		OUTPUT				TUBE		FIN PER				ENCLOSURE	
SYMBOL	. MFGR / MODEL	(BTU/LF)	FLUID	EFT	LFT	SIZE	ELEMENT FIN SIZE	FOOT	THICKNESS	OF TIERS	HEIGHT	THICKNESS	REMARKS
BB-1	STERLING / JVB-S14B C3/4-435	1,120	50% P.G.	180°F	160°F	3/4"ø Cu	4-1/4" x 3-5/8"	50	0.020" AL	1	18"	18 GA	SLOPED TOP, COLOR PER ARCHITECT
BB-2	STERLING / B C3/4-435	980	50% P.G.	180°F	160°F	3/4"ø Cu	4-1/4" x 3-5/8"	50	0.020" AL	1			BARE FINTUBE

DUCT COIL SCHEDULE

	<b>700</b> .														
					AIR P.D.	VELOCITY							WF		
S	YMBOL	MFGR	SIZE	CFM	(IN. W.C.)	(FPM)	EAT	LAT	GPM	FLUID	EFT	LFT	(FT.	HD.)	REMARKS
D	C-1	GREENHECK	12"W x 10.5"H	330	<0.1	<380	40°F	75°F	1.4	50% P.G.	180°F	160°F	<0	.5'	COIL CONNECTIONS AS REQUIRED

UNIT HEATER SCHEDULE

	CAPACITY	FLOW		EFT	LFT	WPD		El	LEC. DATA	
SYMBOL MFGR / MODEL	(MBH)	(GPM)	FLUID	(°F)	(°F)	(FT HD)	CFM	HP	VOLTS/PH	REMARKS
CUH-1 EMBASSY / HAV-48	4.5	1.0	50% PG	180	160	0.2	53	FR	120/1	RECESSED VERTICAL WALL MOUNTING KIT, SET FAN TO HIGH SPEED
CUH-2 MODINE / CW-03	16.2	2.2	50% PG	180	160	0.3	330	FR	120/1	EXPOSED WALL MOUNTED
CUH-3 EMBASSY / HAV-88	7.9	1.5	50% PG	180	160	0.5	103	FR	120/1	RECESSED VERTICAL WALL MOUNTING KIT, SET FAN TO HIGH SPEED
UH-1 MODINE / HC-33	16.0	2.3	50% PG	180	160	0.2	630	FR	120/1	HORIZONTAL UNIT HEATER, SIDE CONNECTIONS

HEAT RECOVERY VENTILATOR SCHEDULE

	THE COVERT VE		OII BUILD C	, 111	
		AIDELOW	TOD @ HICH ODEED	ELEC. DATA	
SYMBOL	MFGR / MODEL	AIRFLOW (CFM)	TSP @ HIGH SPEED (IN. WG)	WATTS/VOLTS/PH	REMARKS
HRV-1	LIFEBREATH / 350DCS	330	0.5	610/120/1	99-DXPL02 CONTROLLER WITH 5 USER SELECTED OPERATION MODES, INTERLOCK WITH THIRD PARTY OCCUPANCY SENSOR AS REQUIRED

FAN SCHEDULE

					ESP		MOTOR D	DATA			
SYMBOL	MFGR / MODEL	SERVICE	TYPE	CFM	(IN. WG)	AMPS	HP	VOLTS/PH	DRIVE	SONES	REMARKS
VF-1	GREENHECK / SQ-90-VG	MECH. ROOM VENT	INLINE	300	0.5"		1/4	120/1	DIRECT	<9	EC MOTOR, UL LISTED, INSULATED HOUSING, SPEED CONTROLLER, OUTLET GUARD
PF-1	GREENHECK / SQ-60-VG	UTILIDOR PRESSURE	INLINE	30	0.15"		1/6	120/1	DIRECT	<7	EC MOTOR, UL LISTED, INSULATED HOUSING, SPEED CONTROLLER, INLET GUARD
EF-1	GREENHECK / SP-B150	TELECOM EXHAUST	CENTRIFUGAL	100	0.375"	1.7		120/1	DIRECT	<4	WITH SPEED CONTROLLER
EF-2	GREENHECK / SP-A390	EXAM ROOM EXHAUST	CENTRIFUGAL	300	0.375"	1.4		120/1	DIRECT	<5	WITH SPEED CONTROLLER

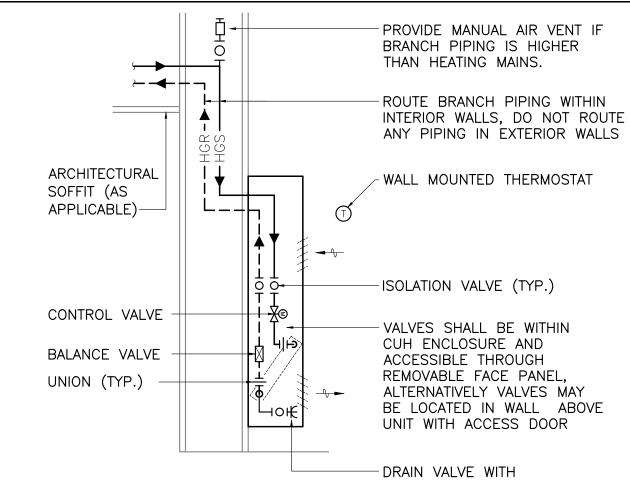
GRILLE - REGISTER - DIFFUSER SCHEDULE

0111	THE THE GIFT DITT COLIT OCTIL									
SYMBOL	MFGR / MODEL	TYPE	SERVICE	MATERIAL	FINISH	FACE SIZE	DIFFUSER NECK SIZE	THROW	REMARKS	
SA	LIFEBREATH / TECHGRILLE	DIFFUSER	S/A	POLYPROPYLENE	WHITE	5.9"ø	4"ø	360°	ROUND FACE, AIRFLOW ADJUSTABLE BY POSITIONING CENTER CONE	
SB	LIFEBREATH / TECHGRILLE	DIFFUSER	S/A	POLYPROPYLENE	WHITE	6.25"ø	5"ø	360°	ROUND FACE, AIRFLOW ADJUSTABLE BY POSITIONING CENTER CONE	
EA	LIFEBREATH / TECHGRILLE	DIFFUSER	E/A	POLYPROPYLENE	WHITE	7.5"ø	6"ø		ROUND FACE, AIRFLOW ADJUSTABLE BY POSITIONING CENTER CONE	
EB	LIFEBREATH / TECHGRILLE	DIFFUSER	E/A	POLYPROPYLENE	WHITE	9.75"ø	8"ø		ROUND FACE, AIRFLOW ADJUSTABLE BY POSITIONING CENTER CONE	
BG	TITUS / CT-PP-0	GRILLE	T/A	ALUMINUM	ALUMINUM	4" WIDTH			FRAME FOR COUNTER, LOCATE ABOVE BB-1 IN ROOM 104, LENGTH AS REQUIRED, COORDINATE INSTALL WITH ARCHITECT/COUNTER	

AIR CONDITIONING UNIT SCHEDULE

			NOMINAL COOLING		APORATOR TRICAL DATA	ı		DENSER CAL DATA	
SYMBOL	MFGR / MODEL	SERVICE	(TONS)	MCA	VOLTS/PHASE	MCA	BRKR	VOLTS/PHASE	REMARKS
AC-1	MITSUBISHI / PKA-A36NKA7	EVAPORATOR	3.0	1	230/1				WALL MOUNT, R-410A, WIRED WALL-MOUNT CONTROLLER, <u>CU-1</u> REMOTE CONDENSER, CONDENSATE PUMP, AIRFLOW DIRECTION CONTROL,
									POWERED BY <u>CU-1</u> , DRAIN PAN LEVEL SENSOR
CU-1	MITSUBISHI / PUY-A36NKA7-BS	CONDENSER	3.0			25	30	230/1	EXTERIOR WALL MOUNT, R-410A, SEACOAST PROTECTION, FRONT/SIDE/REAR WIND BAFFLE FOR OPERATION DOWN TO -40°F, PROVIDE FIELD
			•				•		FABRICATED OR PRE-MANUFACTURED SUPPORT BRACKETS FOR WALL MOUNTING

ALL THREAD SUPPORT TRANSITION AS REQUIRED (TYP.) TO STRUCTURE (TYP.)-14/8 EXHAUST HEAT TRANSFER 10"ø EXHAUST AIR DUCT-CORE (TYP. OF 2)— AIR DUCT —10"ø SUPPLY 8/14 OUTSIDE AIR DUCT AIR DUCT-HRV INTAKE HOOD, SEE/ 2 <u>HRV-1</u> M3.1 INSULATION (TYP.) — CONDENSATE DRAIN -8"ø DUCT FOR DEFROST CYCLE, **MECHANICAL** TUBE WITH TRAP, ROUTE TO CORRIDOR AND TERMINATE 100 ROUTE TO FS-1 WITH SCREEN AND FIRE DAMPER EXTERIOR WALL PROVIDE FLEXIBLE DUCT CONNECTIONS -CHANNEL SUPPORTS, PROVIDE ASSEMBLY, SEE AT ALL INTAKE AND EXHAUST DUCTS VIBRATION ISOLATORS ARCHITECTURAL



M0.2

HOSE CONNECTION CABINET UNIT HEATER DETAIL

SCALE: NONE

#### SEQUENCE OF OPERATION

BOILER (B-1) AND CIRCULATION PUMP (BC-1)BOILER AND BOILER CIRCULATION PUMP SHALL BE CONTROLLED BY BOILER CONTROLLER TO MAINTAIN HEATING WATER/GLYCOL SUPPLY HEADER TEMPERATURE SETPOINT. BOILER SHALL MAINTAIN SUPPLY HEADER TEMPERATURE BETWEEN 180°F AND 160°F (ADJUSTABLE) BASED ON OUTSIDE AIR TEMPERATURE RESET UPON CALL FOR HEAT. THE BOILER CONTROLLER SHALL DISABLE BOILER AND BOILER CIRCULATION PUMP, BC-1, ON OUTSIDE AIR TEMPERATURES OF 65°F (ADJUSTABLE) AND HIGHER. EITHER HIGH LIMIT CONTROLLER SHALL DISABLE BOILER ABOVE 210°F. AT LOW WATER CONDITION, EITHER LOW WATER CUT-OFF SHALL DISABLE BOILER, PROVIDE MANUAL RESET. PROVIDE DOMESTIC HOT WATER OVERRIDE SUCH THAT BOILER IS ENABLED TO FIRE WHEN IT IS DISABLED UPON OUTSIDE AIR TEMPERATURE (>65°F) AND THE HOT WATER GENERATOR HAS A CALL FOR HEAT.

GLYCOL MAKE-UP TANK (GT-1)

INTEGRAL CONTROLS SHALL CONTROL PUMP TO MAINTAIN SYSTEM PRESSURE SETPOINT (ADJUSTABLE). PROVIDE LOW LEVEL ALARM PANEL WITH SELECTABLE AUDIBLE ALARM.

CIRCULATION PUMPS (CP-1A/B)

PUMPS SHALL OPERATE IN A LEAD/LAG CONFIGURATION. UPON FAILURE OF THE LEAD PUMP, THE LAG PUMP SHALL OPERATE. THE LEAD AND LAG PUMPS SHALL ALTERNATE EVERY MONTH OR AS SCHEDULED BY THE USER. SPACE THERMOSTATS SHALL ENERGIZE THE CORRESPONDING ZONE VALVES OPEN ON CALL FOR HEAT. WHEN ANY ZONE VALVE IS OPENED OR WHEN BOILERS ARE FIRING, THE LEAD CIRCULATION PUMP SHALL OPERATE. PUMPS SHALL REMAIN OPERATIONAL DURING <u>HWG-1</u> CALL FOR HEAT.

WATER SERVICE CIRCULATION PUMP (CP-3)
PUMP SHALL RUN CONTINUOUSLY. PROVIDE WITH ON-OFF WALL SWITCH FOR MAINTENANCE.

HOT WATER GENERATOR ( $\underline{HWG-1}$ ,  $\underline{CP-2}$  AND  $\underline{TV-1}$ )

HOT WATER GENERATOR'S AQUASTAT SHALL CALL FOR HEAT TO MAINTAIN TANK WATER TEMPERATURE OF 140°F (ADJUSTABLE). ON CALL FOR HEAT FROM THE HOT WATER GENERATOR THE CIRCULATION PUMP, CP-2, SHALL OPERATE. TV-1 SHALL BE MANUALLY SET TO 120°F (ADJUSTABLE). BOILER SHALL FIRE AS REQUIRED TO MAINTAIN HEADER TEMPERÀTURE SETPÓINT OF 180°F DURING HOT WATER GENERATOR CALL FOR HEAT.

BASEBOARD RADIATION (BB-1 AND BB-2)

UPON CALL FOR HEAT FROM ZONE THERMOSTAT, SIGNAL BOILER AND CYCLE 2-WAY CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE.

CABINET UNIT HEATER (CUH-1 THRU CUH-3)

UPON CALL FOR HEAT FROM ZONE THERMOSTAT, SIGNAL BOILER, CYCLE 2-WAY CONTROL VALVE AND CYCLE UNIT FAN TO MAINTAIN SPACE TEMPERATURE.

UNIT HEATER (UH-1)

UPON CALL FOR HEAT FROM ZONE THERMOSTAT, SIGNAL BOILER AND CYCLE BLOWER TO MAINTAIN SPACE TEMPERATURE. COIL SHALL RUN WILD.

DUCT COIL (DC-1)

THREE WAY CONTROL VALVE SHALL MODULATE TO MAINTAIN DUCT SUPPLY AIR TEMPERATURE (70°F ADJUSTABLE). PROVIDE CONTACTS ON VALVE SO THAT ON GREATER THAN 10% OPEN A CALL FOR HEAT IS PROVIDED TO THE BOILER AND CIRCULATION PUMP, CP-1A/B, OPERATE.

ON-OFF CONTROL VIA REVERSE ACTING THERMOSTAT. ON TEMPERATURE RISE ABOVE ADJUSTABLE SETPOINT FAN SHALL OPERATE.

EXHAUST FAN (EF-2)ON-OFF CONTROL VÍA LOCAL WALL SWITCH.

VENTILATION FAN - MECHANICAL ROOM (VF-1)

ON-OFF CONTROL VIA REVERSE ACTING THERMOSTAT (ADJUSTABLE). ON TEMPERATURE RISE ABOVE ADJUSTABLE SETPOINT FAN SHALL OPERATE. OUTSIDE AND RETURN AIR DAMPERS SHALL MODULATE TO MAINTAIN 55°F (ADJUSTABLE) SUPPLY AIR TEMPERATURE. WHEN FAN IS OFF, RETURN AIR DAMPER SHALL BE OPEN AND OUTSIDE AIR DAMPER SHALL BE CLOSED. SPEED CONTROLLER TO BE USED FOR

BALANCING.

PRESSURIZATION FAN – UTILIDOR (PF-1)ON-OFF CONTROL VIA ILLUMINATED WALL SWITCH, COORDINATE WITH ELECTRICAL. SPEED CONTROLLER TO BE USED FOR BALANCING.

HEAT RECOVERY VENTILATOR (HRV-1)

UNIT SHALL OPERATE CONTINUOUSLY UPON ACTIVATION OF THIRD PARTY OCCUPANCY SENSOR, SEE ELECTRICAL FOR SENSOR LOCATION. OCCUPANCY SENSOR SHALL HAVE A 0-2 HOUR TIME DELAY FEATURE, COORDINATE WITH END USER FOR DESIRED TIME DELAY DURATION SETTING. UNIT MOUNTED ELECTRONIC CONTROLLER SHALL CONTROL FAN SPEED. HUMIDISTAT SHALL INCREASE SPEED AUTOMATICALLY AS REQUIRED TO MAINTAIN 50% RH (ADJUSTABLE). ELECTRONIC CONTROLLER SHALL AUTOMATICALLY ENGAGE DEFROST CYCLE AS REQUIRED TO MAINTAIN HEAT TRANSFER COIL FROST FREE. REMOTE DIGITAL ELECTRONIC 99-DXPL02 CONTROLLER SHALL ENGAGE HRV IF UNIT IS OFF, OR BOOST HRV TO HIGH SPEED IF UNIT IS ON, FOR 20-MINUTE TIME DURATIONS.

AIR CONDITIONING SYSTEM (AC-1 AND CU-1)

INTEGRAL PACKAGED CONTROLS SHALL OPERATE INDOOR UNIT, IN CONJUNCTION WITH CONDENSING UNIT, TO MAINTAIN SPACE TEMPERATURE SETPOINT (75°F, ADJUSTABLE) VIA WIRED CONTROLLER. CONDENSATE PUMP SHALL AUTOMATICALLY OPERATE AS REQUIRED TO DRAIN CONDENSATE FROM THE INDOOR UNIT.

> ENGINEERING SOLUTIONS HZA Engineering, LLC 113 W. Northern Lights Blvd., Suite 240 Anchorage, Alaska 99503 Tel. (907) 562-1012 Fax (907) 562-1013

AK Corporation #: AECL881

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SHEET SIZE: 34x22 PJB DESIGNED BY: DRAWN BY: TCH CHECKED BY: 7/31/2020 DATE: 2020.025.0 FILE NO.

SHEET NUMBER

HRV SECTION SCALE: NONE

CONNECTIONS MAY VARY DEPENDING ON SPECIFIC PRIMARY TANK EMERGENCY VENT 18" LONG STAINLESS STEEL TANK MODEL TYPE PROVIDED. FLEXIBLE CONNECTOR SECONDARY TANK EMERGENCY VENT VISUAL LEVEL GAUGE TRI-TAP BUSHING WITH TWO UNION-EACH 3/4" CONNECTIONS CAPPED FOR FUTURE USE-3.5 GAL. SPILL CONTAINER WITH LOCKABLE COVER INTERSTITIAL SPACE -DOUBLE TAP BUSHING - FILL PIPE WITH LIMITING DEVICE LEAK GAUGE WITH VISUAL LEAK INDICATOR-MANUAL GAUGE OPENING (STICK)— - LABEL TANK, BOTH SIDES, LETTERING SHALL BE 12" HIGH MINIMUM — LADDER 3/4"FOS WITH FOOT VALVE — - 3/4" SECONDARY TANK DRAIN WITH LOCKABLE VALVE <u>FOT-1</u>, FILL TANK AND HOSE CONNECTION -FOOT VALVE AT JOB COMPLETION -FORMED SADDLE WITH SKID NOTE: ENSURE OIL BURNER FUEL INLET IS HIGHER THAN TOP OF FUEL OIL TANK. -GRAVEL PAD, SEE CIVIL

2 FUEL OIL TANK DETAIL

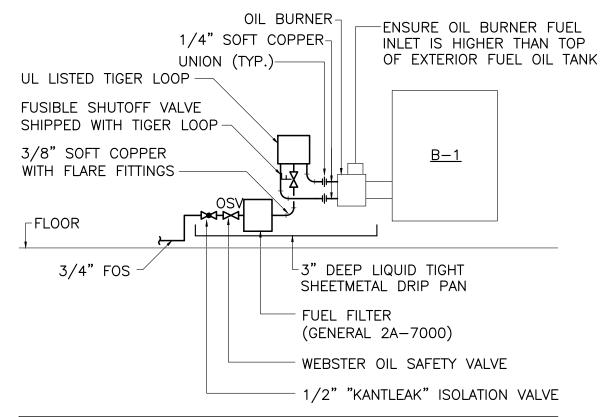
SCALE: NONE

#### SHEET NOTES

- 1. BRANCH PIPING TO INDIVIDUAL PLUMBING FIXTURES SHALL EQUAL THE SIZE REQUIRED BY THE PLUMBING FIXTURES SCHEDULE UNLESS OTHERWISE INDICATED.
- 2. PROVIDE CLEANOUTS ON ALL INDIVIDUAL SINK, LAVATORY, AND WASHER BOX
- 3. DO NOT ROUTE ANY PIPING IN EXTERIOR WALLS UNLESS OTHERWISE INDICATED.
- 4. ENSURE WASTE PIPING IS ROUTED ABOVE FLOOR ASSEMBLY INSULATION. DO NOT ROUTE ANY WASTE PIPING WITHIN INSULATION. COORDINATE WASTE PIPE PENETRATIONS OF FLOOR JOIST WITH STRUCTURAL. COORDINATE WASTE PIPE ROUTING WITHIN UTILIDOR WITH ARCHITECTURAL.
- 5. SLOPE 3"W PIPING AND SMALLER AT 1/4" PER FOOT. SLOPE 4"W PIPING AT 1/8" PER FOOT.

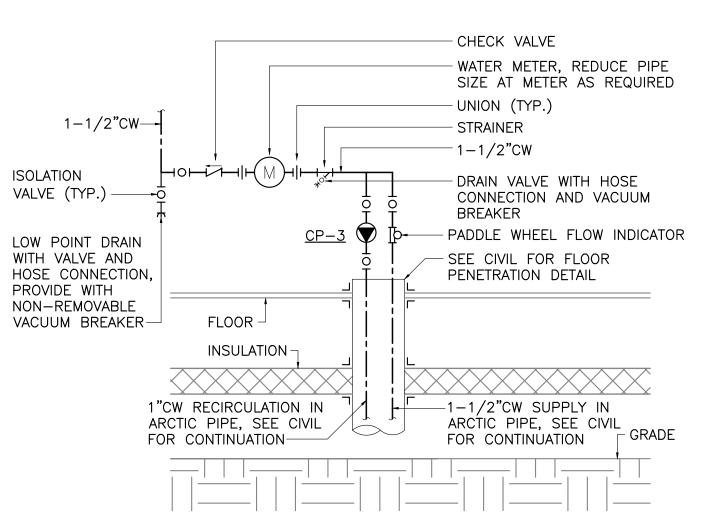
#### **KEY NOTES**

- 1) 1/2"CW UP TO TRAP PRIMER, SEE 2/M1.2.
- 2 COORDINATE UTILITY PENETRATIONS WITH FOUNDATION DESIGN.



NOTE:
1. TIGER LOOP TO BE SUPPORTED OFF THE EQUIPMENT OR BURNER ASSEMBLY AND NOT OFF PIPING.
2. OIL BURNER MODEL SHALL BE AS SUGGESTED BY OIL BURNING APPLIANCE MANUFACTURER.
3. OIL BURNER SHALL BE EQUIPPED WITH A FUEL OIL PUMP CAPABLE OF 10' LIFT AND 30' HORIZONTAL RUN AT 3/4" O.D. TUBE.

#### 3 FUEL CONNECTION DETAIL



4 WATER METER DETAIL

M1.1 SCALE: NONE





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SOUTHCENTRAL FOUR

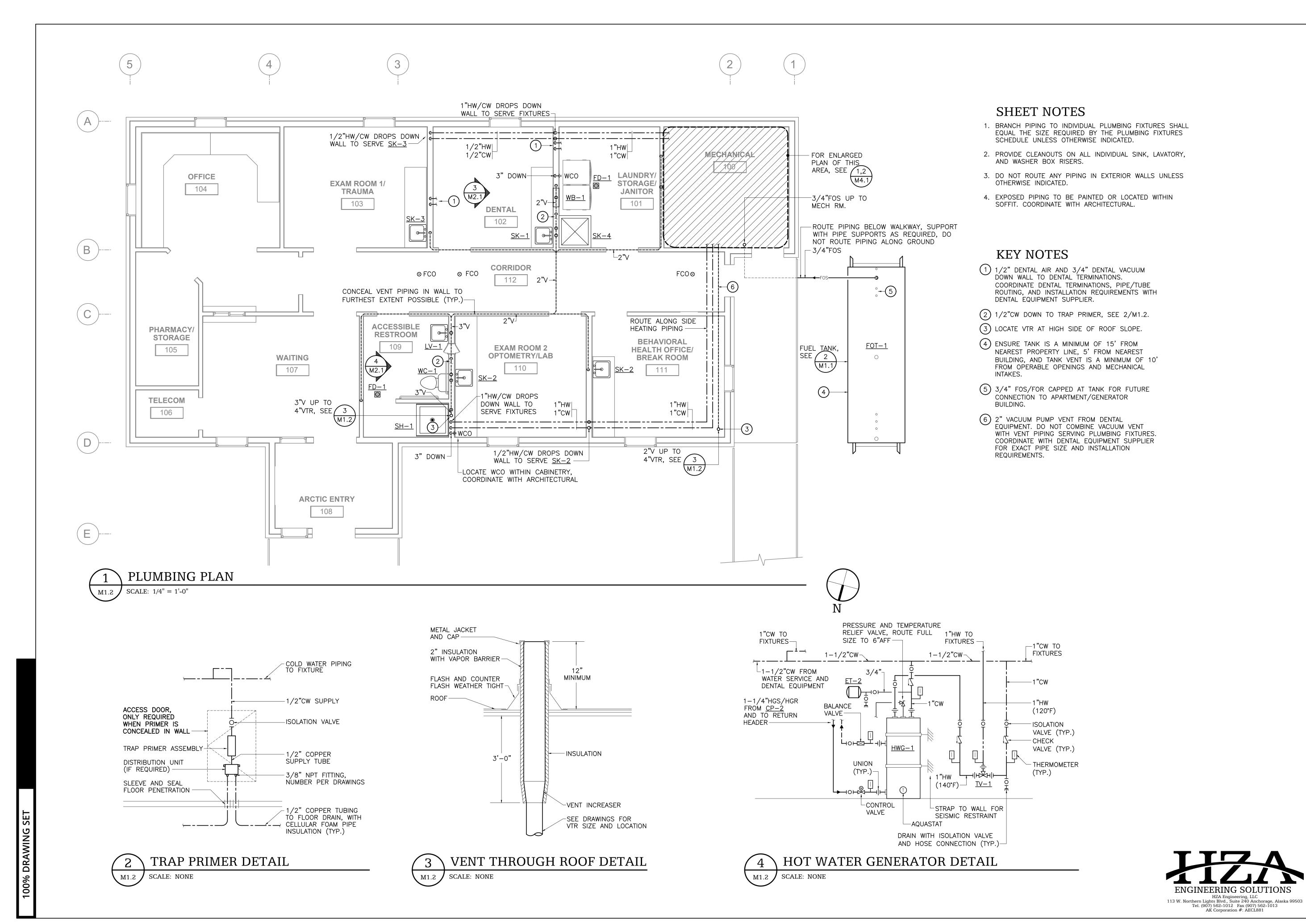
TAKOTNA HEALTH CLINIC

TAKOTNA, AK

UNDERFLOOR PIPING PLAN AND DETAILS

SHEET SIZE: 34x22
DESIGNED BY: PJB
DRAWN BY: PJB
CHECKED BY: TCH
DATE: 7/31/2020
FILE NO. 2020.025.0
SHEET NUMBER

SHEET NUMBER **M1.1** of **8**/



Jemoby C. Hickman

Timothy C. Hickman

ME-14669

07/31/20

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TAKOTNA HEALTH CLINIC
TAKOTNA, AK
PLUMBING PLAN AND DETAILS

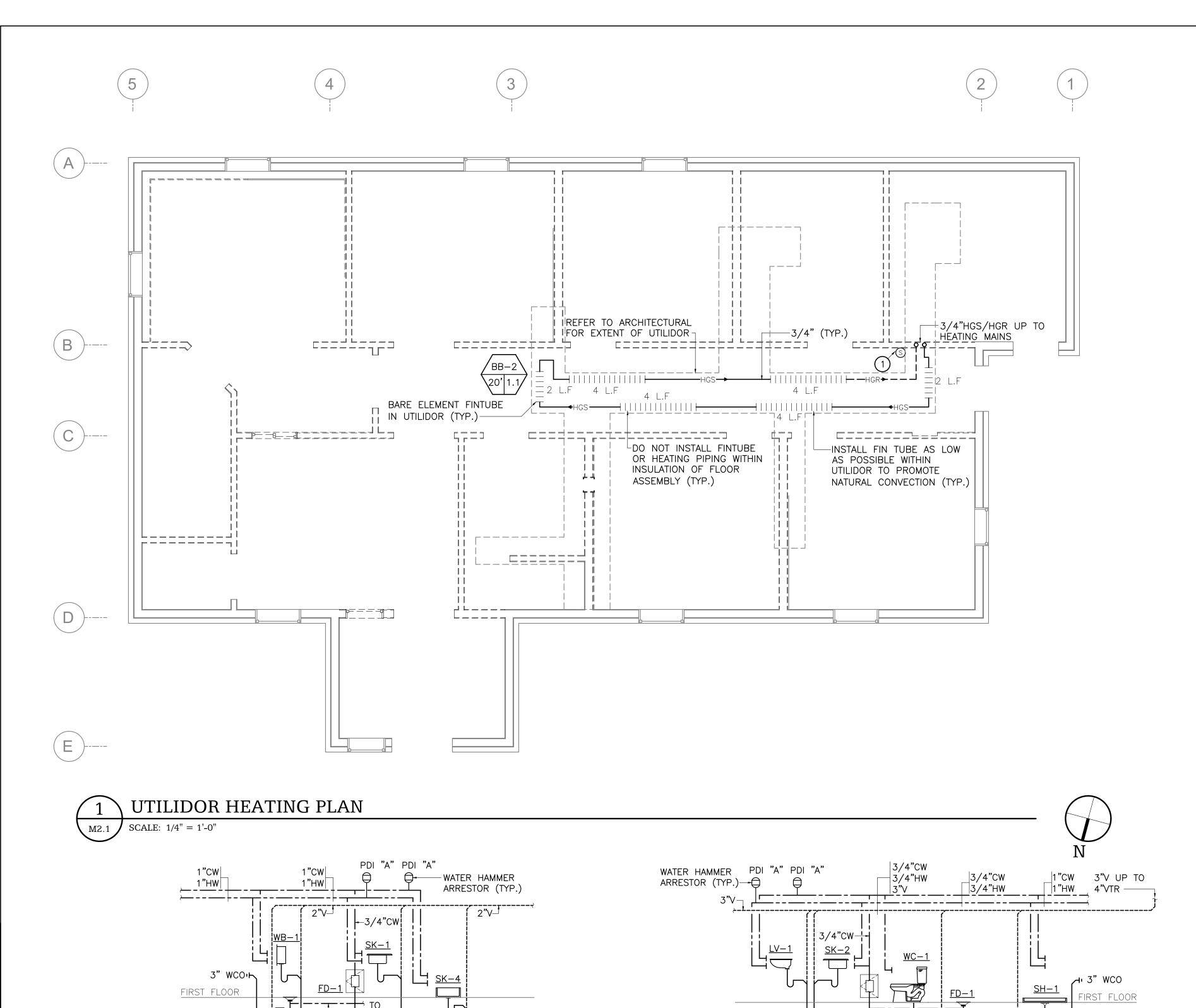
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SHEET NUMBER

M1.2 of 8M



ROOM

PRIMER (TYP. OF 3)

<sup>L</sup>1/2"CW TO TRAP

PIPING IS TO BE ROUTED EITHER CONCEALED IN

PLUMBING RISER DIAGRAM

SCALE: NONE

M2.1

WALL OR WITHIN ARCHITECTURAL SOFFIT. PROVIDE

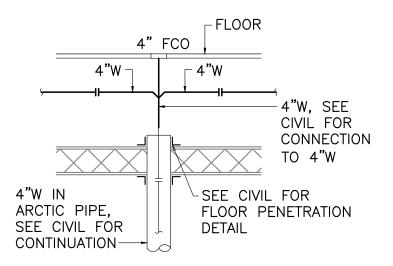
ACCESS DOOR IN WALL FOR WATER HAMMER ACCESS.

SHEET NOTES

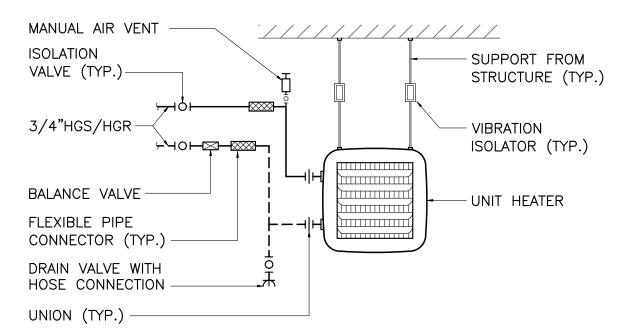
- 1. BRANCH PIPING TO INDIVIDUAL TERMINAL HEATING UNITS SHALL BE 3/4" UNLESS OTHERWISE INDICATED.
- 2. DO NOT ROUTE ANY PIPING IN EXTERIOR WALL ASSEMBLIES.
- 3. PROVIDE ACCESS DOORS OF APPROPRIATE SIZE AS REQUIRED TO ALL EQUIPMENT AND VALVES LOCATED BELOW HARD FLOOR ASSEMBLIES OR WITHIN WALLS REQUIRING PERMANENT ACCESS.
- 4. INSTALL THERMOSTATS/SENSORS ON STRUCTURAL MEMBERS AT APPROXIMATE LOCATIONS INDICATED.

#### **KEY NOTES**

1 TEMPERATURE SENSOR FOR UNDERFLOOR BASEBOARD CONTROL VALVE OPERATION. LOCATE IN UTILIDOR WITH EITHER ACCESS DOOR IN FLOOR ABOVE OR REMOVABLE UTILIDOR ACCESS PANEL BELOW, ATTACH TO STRUCTURAL MEMBER. ENSURE SENSOR IS LOCATED ABOVE ANY INSULATION WITHIN UNDERFLOOR SPACE. UNDERFLOOR SPACE TEMPERATURE SETPOINT SHALL BE USER ADJUSTABLE VIA A REMOTE MOUNTED THERMOSTAT LOCATED IN THE MECHANICAL









PLUMBING RISER DIAGRAM

<sup>1</sup>/2"CW TO

TRAP PRIMER

PIPING IS TO BE ROUTED EITHER CONCEALED IN

WALL OR WITHIN ARCHITECTURAL SOFFIT. PROVIDE

ACCESS DOOR IN WALL FOR WATER HAMMER ACCESS.

<sup>t</sup>\_3"w <sup>°</sup>

SCALE: NONE M2.1

\_\_\_\_3"W





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CLINIC **TAKOTNA TAKOTNA** 

**DETAIL** 

**HEATING PLAN AND** 

UTILIDOR

34x22 SHEET SIZE: DESIGNED BY: TCH 7/31/2020 2020.025.0 FILE NO.

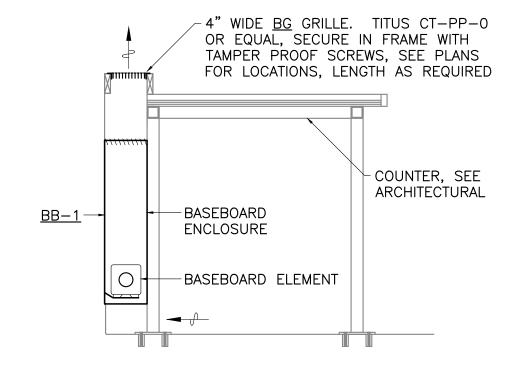
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#### SHEET NOTES

- 1. BRANCH PIPING TO INDIVIDUAL TERMINAL HEATING UNITS SHALL BE 3/4" UNLESS OTHERWISE INDICATED.
- 2. DO NOT ROUTE ANY PIPING IN EXTERIOR WALL ASSEMBLIES.
- 3. PROVIDE ACCESS DOORS OF APPROPRIATE SIZE AS REQUIRED TO ALL EQUIPMENT AND VALVES LOCATED BELOW HARD FLOOR ASSEMBLIES OR WITHIN WALLS REQUIRING PERMANENT ACCESS.
- 4. EXPOSED PIPING TO BE PAINTED OR LOCATED WITHIN SOFFIT. COORDINATE WITH ARCHITECTURAL.
- 5. INSTALL THERMOSTATS ON WALLS AT APPROXIMATE LOCATIONS INDICATED AFTER INSTALLATION OF FURNISHINGS. COORDINATE FINAL LOCATION AS REQUIRED SO THAT FURNISHINGS DO NOT COVER OR BLOCK ACCESS TO THERMOSTATS. DO NOT INSTALL ANY THERMOSTATS BEHIND DOORS.
- 6. COORDINATE PIPE ROUTING WITH DUCTWORK AND OTHER TRADES AS REQUIRED.
- 7. COORDINATE LOCATIONS WHERE BASEBOARD TERMINATES AT CABINETRY TO ENSURE CABINET ACCESS AND CABINET DOOR SWINGS ARE NOT COMPROMISED.

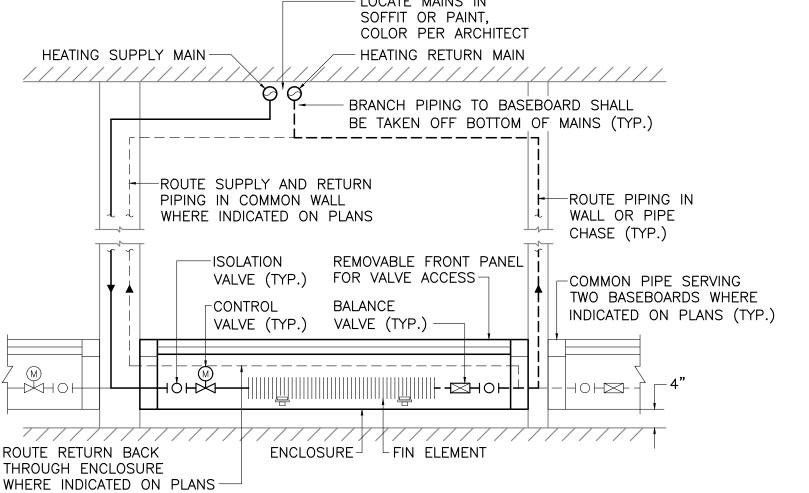
#### **KEY NOTES**

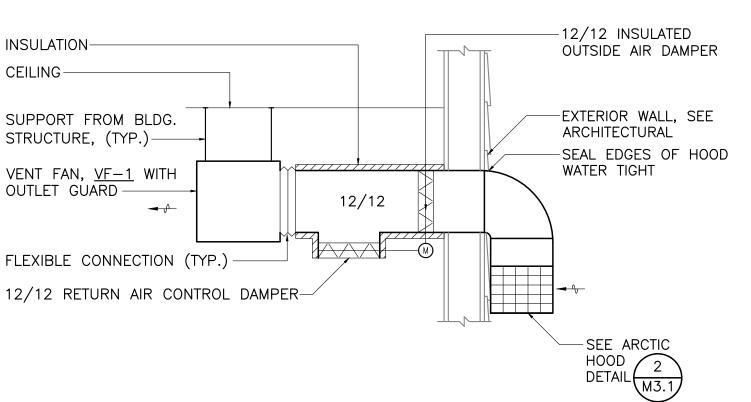
- 1) PROVIDE A DOOR STOP TO PREVENT ANY DOOR FROM CONTACTING THE CABINET UNIT HEATER WHEN DOOR IS OPENED, COORDINATE WITH ARCHITECTURAL.
- 2 3/4"HGS/HGR DOWN. PROVIDE CONTROL VALVE, BALANCE VALVE, AND ISOLATION VALVE SIMILAR TO BASEBOARD DETAIL, SEE 2/M2.2. INSTALL ALL VALVES IN CEILING SPACE OF MECH ROOM. BALANCE VALVE TO BE BALANCED TO 1.1 GPM.
- PROVIDE CONTROL VALVE, BALANCE VALVE AND ISOLATION VALVES SIMILAR TO CABINET UNIT HEATER DETAIL, SEE 2/MO.2. VALVES MAY BE INSTALLED ABOVE CABINET UNIT HEATER IN WALL WITH ACCESS DOOR IF VALVES DO NOT FIT INSIDE CABINET UNIT HEATER. COORDINATE FINAL CABINET UNIT LOCATION WITH ARCHITECTURAL AND INTERIOR ELEVATIONS.
- 4 ROUTE PIPING DOWN TO BASEBOARD WITHIN INTERIOR PARTITION, NOT IN EXTERIOR WALL ASSEMBLY.
- 5 ROUTE PIPING DOWN TO CABINET UNIT HEATER WITHIN INTERIOR PARTITION, NOT IN EXTERIOR WALL ASSEMBLY.

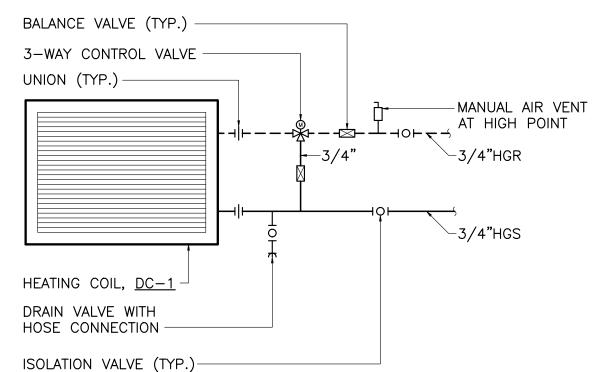


5 BASEBOARD AT COUNTER DETAIL

M2.2 SCALE: NONE







BASEBOARD DETAIL

SCALE: NONE

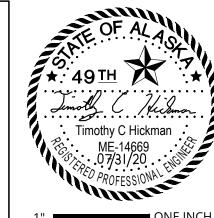
M2.2

3 VENT FAN DETAIL

M2.2 SCALE: NONE







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TAKOTNA HEALTH CLINIC TAKOTNA , AK

SHEET SIZE: 34x22

DESIGNED BY: PJB

DRAWN BY: PJB

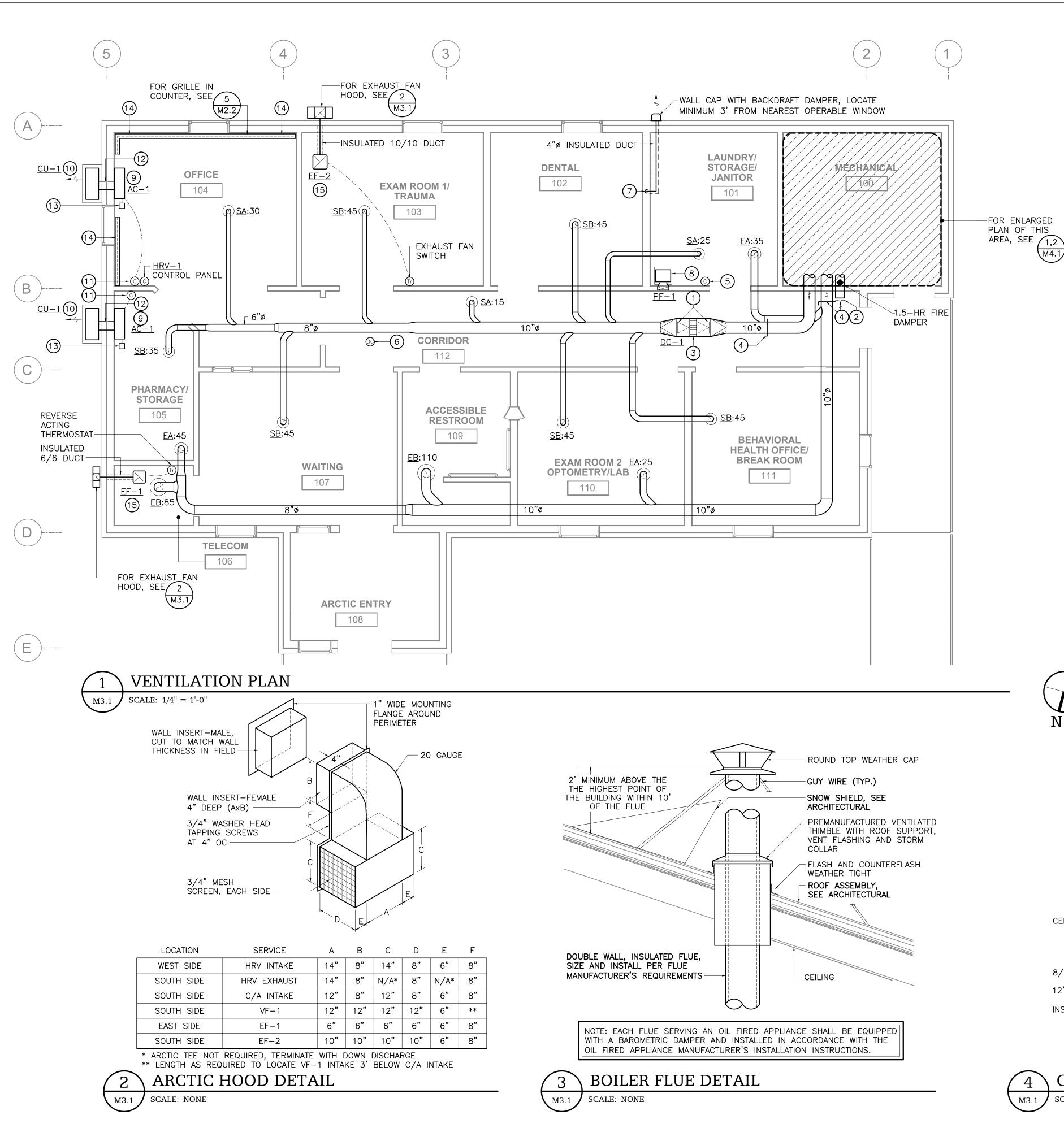
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M2.2 of 8M



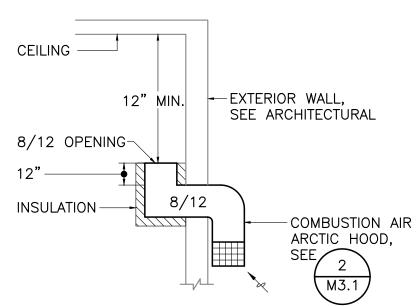
#### SHEET NOTES

- 1. BRANCH DUCTWORK TO INDIVIDUAL DIFFUSERS SHALL EQUAL THE DIFFUSER NECK SIZE UNLESS OTHERWISE INDICATED.
- 2. COORDINATE FINAL DIFFUSER AND GRILLE LOCATIONS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN AND LIGHTING.
- 3. PROVIDE ACCESS DOORS AS REQUIRED FOR EQUIPMENT ACCESS.
- 4. COORDINATE DUCT ROUTING WITH LIGHTING, STRUCTURAL, AND PIPING TO AVOID CONFLICTS.
- 5. EXPOSED DUCTWORK TO BE PAINTED OR LOCATED WITHIN SOFFIT. COORDINATE WITH ARCHITECTURAL.

#### **KEY NOTES**

M4.1

- 1) MINIMUM 10/10 DUCT ACCESS DOORS FOR COIL CLEANING. PROVIDE DUCTWORK, SAME SIZE AS COIL FACE, BEFORE AND AFTER COIL AS REQUIRED FOR ACCESS DOOR
- 2 PROVIDE SCREEN ON 8"Ø DEFROST DUCT LOCATED ABOVE HALLWAY CEILING.
- 3 <u>DC-1</u>, SEE 4/M2.2.
- 4 BALANCE DAMPER.
- 5 PF-1 WALL SWITCH, ILLUMINATE WHEN ACTIVE. PROVIDE WITH LABEL AND COVER TO PREVENT UNWANTED TAMPERING.
- 6 OCCUPANCY SENSOR AT HALLWAY CEILING FOR HRV OPERATION, COORDINATE WITH ELECTRICAL.
- 7 4"ø DRYER DUCT TO DRYER, CONNECT PER DRYER MANUFACTURER'S INSTALLATION REQUIREMENTS. ENSURE INSTALLED DRYER IS CAPABLE OF HANDLING THE LENGTH OF INSTALLED EXHAUST DUCT, WITH PROPER LENGTH ADDED FOR NUMBER OF EXPECTED DUCT ELBOWS. PROVIDE A PERMANENT LABEL BY THE DRYER CONNECTION INDICATING THE TOTAL EQUIVALENT INSTALLED DUCT LENGTH PER IMC 504.6.5. DO NOT INSTALL ANY DAMPERS WITHIN THE DRYER DUCT.
- 8 MOUNT FAN FROM CEILING WITH 3/10 DUCT DOWN THROUGH WALL INTO UTILIDOR.
- 9 INSTALL AC-1 UNIT HIGH ON WALL PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- 10 INSTALL CU-1 UNIT ON EXTERIOR WALL SUCH THAT BOTTOM OF UNIT IS AT LEAST 8' ABOVE GRADE. INSTALL UNIT WITH REQUIRED CLEARANCES, VIBRATION ISOLATORS, AND OTHER APPURTENANCES AS REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. FIELD FABRICATE OR PROVIDE PRE-MANUFACTURERED SUPPORT BRACKETS FOR ATTACHING UNIT TO EXTERIOR WALL ENSURE SUFFICIENT BACKING IS PROVIDED FOR ATTACHING UNIT SUPPORTS TO WALL. ENSURE SUFFICIENT AIR SPACE IS PROVIDED BETWEEN UNIT'S AIR INTAKE AND EXTERIOR WALL SURFACE AS INDICATED BY MANUFACTURER.
- (11) WIRED CONTROLLER FOR AC-1 SYSTEM OPERATION CONTROL, INSTALL AT 48" AFF, COORDINATE LOCATION WITH FURNITURE/EQUIPMENT AS REQUIRED.
- (12) SIZE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 13 MOUNT CONDENSATE PUMP ON WALL ADJACENT TO AC-1 AND ROUTE DISCHARGE TUBING THRU SOFFIT. OR ABOVE HEATING PIPING IF NO SOFFIT PRESENT, TO JANITOR SINK FOR INDIRECT DISCHARGE INTO SINK WITH 1" AIR GAP.
- 14) BG GRILLE IN ARCHITECTURAL COUNTER TO ALLOW BASEBOARD HEAT TO TRANSFER UP THROUGH OBSTRUCTION. COORDINATE WITH ARCHITECTURAL AS REQUIRED FOR NECESSARY GRILLE LENGTH AND FRAMING.
- 15 SUPPORT FAN FROM CEILING WITH VIBRATION ISOLATORS. PROVIDE FLEX DUCT BETWEEN FAN OUTLET AND DUCT.



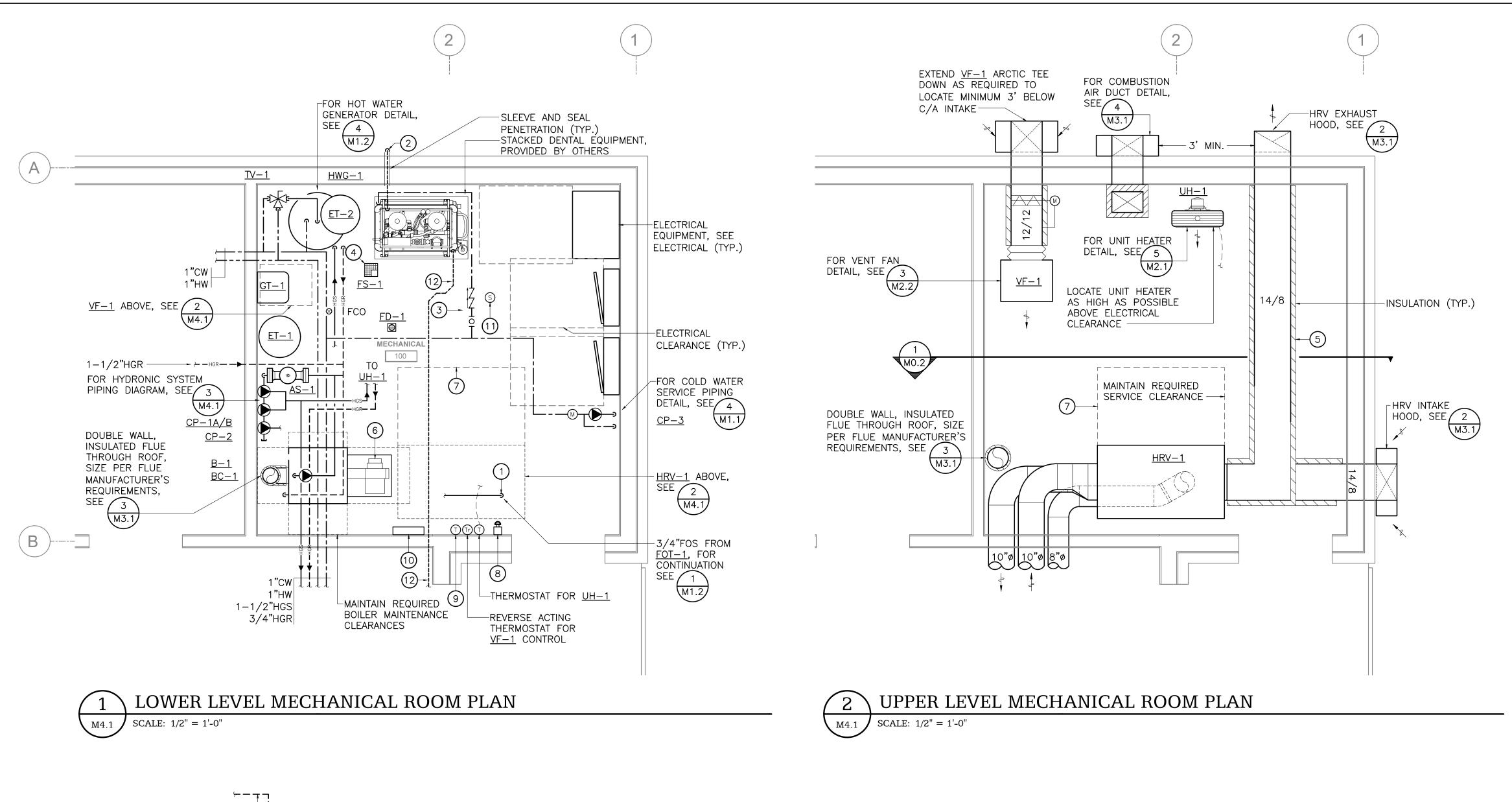
COMBUSTION AIR DETAIL SCALE: NONE M3.1



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SHEET SIZE: 34x22 DESIGNED BY: DRAWN BY: TCH CHECKED BY: 7/31/2020 DATE: 2020.025.0 FILE NO.



TEMPERATURE SENSOR (TYP.) 1-1/2"HGR THERMOMETER (TYP.) AS-1 F-AUTO AIR VENT (TYP.) FROM BUILDING-OUTSIDE AIR —2"HGR 1-1/4"HGR -2"HGS **TEMPERATURE** FROM <u>HWG-1</u> SENSOR-—3/4"HGS TO <u>UH-1</u> —1**-**1/2"-\_\_\_1−1/2"HGS —1-1/2"HGS TO BOILER SERVE BUILDING CONTROL PANEL <u>BC-1</u> -ISOLATION -1-1/4"HGS VALVE (TYP.) —1-1/2**"** TO <u>HWG-1</u> SECONDARY LOW -BALANCE WATER CUT-OFF VALVE (TYP.) UNION -SECONDARY HIGH (TYP.)-LIMIT CONTROLLER -CHECK -PROVIDE SPRING-LOADED VALVE (TYP.) CHECK VALVE AT THIS LOCATION **O-**-BOILER PRESSURE/ TEMPERATURE GAUGE <u>GT-1</u> PRESSURE GAUGE WITH -OPERATING CONTROLLER SHUT-OFF VALVES (TYP.) SHELF -PRESSURE RELIEF <u>ET-1</u> CP-1A VALVE, PIPE FULL SEISMICALLY RESTRAIN SIZE TO GT-1 (TYP.) BOILER PER APPLICABLE BOILER BURNER REQUIREMENTS — \_ 2"HGS HEADER <del>∥</del>но⊢чон DRAIN VALVE WITH HOSE PIPE SUPPORT (TYP.)-INSTALL BOILER AS REQUIRED -BOILER DRAIN -STRAP TO WALL FOR FOR INSTALLATION UPON CONNECTION (TYP.) -DRIP PAN UNDERNEATH SEISMIC RESTRAINT (TYP.) COMBUSTIBLE FLOORING-

BOILER BURNER

HYDRONIC SYSTEM PIPING DIAGRAM

SCALE: NONE

M4.1

#### SHEET NOTES

- 1. BRANCH PIPING TO INDIVIDUAL PLUMBING FIXTURES SHALL EQUAL THE SIZE REQUIRED BY THE PLUMBING FIXTURES SCHEDULE UNLESS OTHERWISE INDICATED.
- 2. DO NOT ROUTE ANY PIPING IN EXTERIOR WALLS UNLESS OTHERWISE INDICATED.
- 3. BRANCH PIPING TO INDIVIDUAL TERMINAL HEATING UNITS SHALL BE 3/4" UNLESS OTHERWISE INDICATED.
- 4. PROVIDE ACCESS DOORS OF APPROPRIATE SIZE AS REQUIRED TO ALL EQUIPMENT AND VALVES LOCATED WITHIN WALLS REQUIRING PERMANENT ACCESS.
- 5. INSTALL THERMOSTATS/SENSORS ON WALLS AT APPROXIMATE LOCATIONS INDICATED. DO NOT INSTALL THERMOSTATS/SENSORS BEHIND EQUIPMENT.
- 6. PROVIDE LABELING AT THE HOT WATER GENERATOR AS REQUIRED PER SECTION 505.4.1 (3) OF THE 2012
- 7. EXPOSED DUCTWORK/PIPING TO BE PAINTED OR LOCATED WITHIN SOFFIT. COORDINATE WITH ARCHITECTURAL.

#### **KEY NOTES**

- 1) 3/4"FOS TO BOILER. ROUTE PIPING ALONG WALL TO BOILER, SHOWN OFFSET FOR CLARITY. SLEEVE AND SEAL PENETRATION THROUGH FLOOR.
- 2 AIR COMPRESSOR INTAKE. COORDINATE WITH DENTAL EQUIPMENT SUPPLIER FOR SIZE AND INSTALLATION REQUIREMENTS. ENSURE MINIMUM 3' SEPARATION FROM ANY MECHANICAL EXHAUST TERMINATION.
- 3 1/2"CW TO DENTAL EQUIPMENT WITH ISOLATION VALVE AND RPZ BACKFLOW PREVENTION DEVICE, WATTS 009-QT OR EQUAL.
- (4) COORDINATE EXACT LOCATION OF FLOOR SINK WITH DENTAL EQUIPMENT AS REQUIRED TO ACCOMMODATE EQUIPMENT DRAINS, COORDINATE WITH DENTAL EQUIPMENT SUPPLIER.
- (5) ROUTE DUCTWORK AS CLOSE TO STRUCTURE AS POSSIBLE AND AS REQUIRED TO AVOID ELECTRICAL PANEL CLEARANCES.
- (6) FOR FUEL CONNECTION AT BURNER DETAIL, SEE 3/M1.1.
- (7) PROVIDE MINIMUM OF 30" CLEARANCE AT HRV SIDE FOR MAINTENANCE ACCESS.
- (8) EMERGENCY BOILER SHUTDOWN SWITCH, INSTALL PER ASME CSD-1. PROVIDE TAMPER RESISTANT SWITCH TYPE.
- (9) REMOTE MOUNTED, USER ADJUSTABLE SETPOINT THERMOSTAT FOR UTILIDOR BASEBOARD CONTROL, SEE 1/M2.1. PROVIDE LABEL ABOVE THERMOSTAT INDICATING SERVICE AREA.
- (10) BOILER CONTROL PANEL.
- (11) OUTSIDE AIR TEMPERATURE SENSOR, LOCATE UNDERNEATH BUILDING ATTACHED TO EXTERIOR FLOOR ASSEMBLY SOFFIT. ENSURE SENSOR IS NOT PLACED WITHIN DIRECT SUNLIGHT.
- (12) 2" VACUUM PUMP VENT. DO NOT COMBINE VACUUM VENT WITH VENT PIPING SERVING PLUMBING FIXTURES. COORDINATE WITH DENTAL EQUIPMENT SUPPLIER FOR EXACT PIPE SIZE AND INSTALLATION REQUIREMENTS. ROUTE TO NORTH SIDE OF BUILDING TO TERMINATE VTR AT HIGH POINT OF ROOF SLOPE.

**ENGINEERING SOLUTIONS** HZA Engineering, LLC 113 W. Northern Lights Blvd., Suite 240 Anchorage, Alaska 99503 Tel. (907) 562-1012 Fax (907) 562-1013 AK Corporation #: AECL881

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PLAN M AL ROOM | G DIAGRAN MECHANICA OILER PIPING OTNA TAK ED B( 0

SHEET SIZE: 34x22 DESIGNED BY: DRAWN BY: TCH CHECKED BY: 7/31/2020 DATE: 2020.025.0 FILE NO. SHEET NUMBER

M4.1 of 8M

ENLARGE AND

PANELBOARDS (TOP)	70"
SPECIAL SYSTEM PANELS (TOP)	66"
POWER METER BASE (CENTER LINE OF SOCKET)	66"
CONTACTORS, MOTOR STARTERS, DISCONNECT SWITCHES (TOP)	66"
RECEPTACLES (UNLESS OTHERWISE NOTED)	18" SEE NOTES
ABOVE COUNTER DEVICES (DENOTED "AC")	SEE NOTES
WALL MOUNTED SWITCHES	46"
TELECOMMUNICATION OUTLETS (UNLESS OTHERWISE NOTED)	18"
HORNS/STROBES/HORN STROBES	80" ТО ВОТТОМ
PULL STATIONS, PUSH BUTTONS	46"

COORDINATE AND INSTALL ALL EQUIPMENT AND DEVICES WITH THE ARCHITECTURAL PLANS AND ANY SPECIFICALLY DENOTED REQUIREMENTS.

MOUNTED HEIGHTS SHALL PREVAIL UNLESS OTHERWISE NOTED OR FIELD CONDITIONS REQUIRE DEVIATION.

MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO THE CENTERLINE OF THE DEVICE UNLESS OTHERWISE NOTED.

COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS DENOTED AS ABOVE COUNTER TO BE INSTALLED 6" ABOVE COUNTERS OR BACKSPLASHES, WHICHEVER IS

COORDINATE AND INSTALL ALL EQUIPMENT AND DEVICES RELATED TO DENTAL, PER DENTAL PLANS.

COORDINATE MOUNTING HEIGHTS OF POWER AND TELECOMMUNICATION DEVICES WITH MECHANICAL BASEBOARD. WHERE LOCATED ABOVE BASEBOARD. RAISE DEVICES TO HEIGHT WHERE THE DEVICE COVER PLATES WILL CLEAR THE BASEBOARD

	ELECTRICAL SY	MBOLS	LEGEND
Ю	LIGHT FIXTURE - SURFACE WALL MOUNTED		PANEL
	LED FIXTURE - 4' SURFACE/WALL/PENDANT MNTD	0	DUPLEX RECEPTACLE
н	LED STRIP FIXTURE - SURFACE MOUNTED	<b>⇔</b>	GROUND FAULT CURRENT INTERRUPTER RECEPTACLE
	LIGHT FIXTURE — WALL MOUNTED	₩	QUADRAPLEX RECEPTACLE
•	EXIT LIGHT — CEILING MOUNTED	<u>A−1</u> A−3	CAPITAL LETTER AND # INDICATES SUPPLY PANEL AND
Ю	EXIT LIGHT — WALL MOUNTED		BRANCH CIRCUIT, UNLESS OTHERWISE NOTED 1/2" CONDUIT AND 3#12 AWG
\$	SINGLE POLE SWITCH	•	SPECIAL PURPOSE RECEPTACLE
\$ <sub>0</sub> a	LOWER CASE LETTER INDICATES SWITCHING CONTROL REQUIREMENTS PER ROOM, AREA OR ZONE. REFER TO	0	JUNCTION BOX
	LIGHTING CONTROL SCHEDULE FOR REQUIREMENTS	마	DISCONNECT SWITCH
\$3 \$4	THREE WAY SWITCH AND FOUR WAY SWITCH	머	FUSED DISCONNECT SWITCH
\$ <sub>P</sub>	PILOT LIGHT SWITCH	\$,	FRACTIONAL HP MOTOR SWITCH
\$0	SWITCH WITH DIMMING CONTROLS	9	MOTOR
4_4	SELF-CONTAINED EMERGENCY LIGHT	M	TELECOMMUNICATION OUTLET
<b>&amp;</b>	REMOTE HEAD ASSOCIATED W/ EMERGENCY LIGHT	<b>②</b>	FA SMOKE DETECTOR
WP	WEATHERPROOF	① <sub>135°F</sub>	FA HEAT DETECTOR (FIXED TEMP. NOTED)
WR	WEATHER RESISTANT		FA HORN STROBE
FACP	FIRE ALARM CONTROL PANEL	•	FA MANUAL PULL STATION
AC	ABOVE COUNTER - REFERENCE MOUNTING	×	STROBE
GFCB	HEIGHT SCHEDULE ON THIS SHEET  TO BE PROTECTED BY GROUND FAULT CIRCUIT	(TV)	TELEVISION OUTLET
GICB	INTERRUPTER CIRCUIT BREAKER	D	DOOR CONTACTOR FOR SECURITY SYSTEM
WIFI	WIRELESS ACCESS ROUTER	MS	SECURITY SYSTEM MOTION DETECTOR
IDS	INTRUSION DETECTION SYSTEM PANEL	<b>V</b>	SECURITY ALARM SIREN
EM	FIXTURE WITH EMERGENCY BATTERY BACK UP	KP	INTRUSION DETECTION SYSTEM KEY PAD
CLG	CEILING MOUNTED	<u>(S)</u>	OCCUPANCY SENSOR SEE LIGHTING CONTROL SCHEDULE
$\overline{X}$	NOTE TAG (No. INDICATES NOTE)		EMERGENCY SHUTDOWN SWITCH
$\langle X \rangle$	FIXTURE IDENTIFICATION (LETTER INDICATES TYPE)		

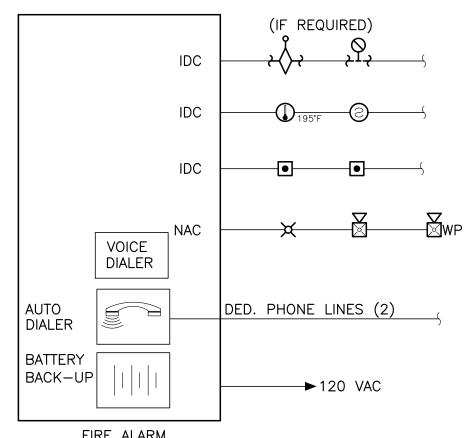
	LIGHTING CONTROL SCHEDULE
(S) \$0S	PROVIDE WALL OR CEILING MOUNT OCCUPANCY SENSOR CONTROLS TO BE USED IN CONJUNCTION WITH MANUAL OVERRIDE "ON/OFF" (WHERE SHOWN). CONTROLS ARE TO BE OF A TYPE, QUANTITY, AND LOCATED AS APPROPRIATE FOR COVERAGE AS REQUIRED.
\$ \$ <sub>3</sub> \$ <sub>4</sub>	MANUAL "ON/OFF" WALL MOUNT SWITCH CONTROLS (LINE OR LOW VOLTAGE AS APPROPRIATE) TO BE USED IN CONJUNCTION WITH AUTOMATIC LIGHTING CONTROLS WHERE INDICATED ON THE DRAWINGS.
\$0	PROVIDE WALL MOUNT "ON/OFF" DIMMING CONTROLS (LINE OR LOW VOLTAGE AS APPROPRIATE). CONTROLS ARE TO BE OF A TYPE. QUANTITY AND LOCATED AS APPROPRIATE FOR CONTROL AS REQUIRED.

TIPE, QUANTITY AND LOCATED AS APPROPRIATE FOR CONTROL AS REQUIRED. LOWER CASE LETTER ADJACENT TO SWITCH, OCCUPANCY SENSOR, OR LIGHT FIXTURE INDICATES LIGHTING CONTROL ZONES.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING VENDOR DESIGN, LAYOUT, PROGRAMMING, AND STARTUP AS NECESSARY FOR LIGHTING CONTROLS AS INDICATED AND INTENDED FOR PROPER OPERATION. LIGHTING CONTROLS SHALL BE SELECTED, PROVIDED, CONNECTED, AND PROGRAMMED TO PROVIDE ADEQUATE CONTROL AND COVERAGE OF THE SPACES CONTROLLED.

#### **GENERAL NOTES**

- ALL BRANCH CIRCUITRY (SUPPLYING RECEPTACLES, LIGHTS, LIGHT SWITCHES, DEVICES, EQUIPMENT ETC.), SERVING "PATIENT CARE SPACES", AS DEFINED BY NEC 517 (EXAM ROOMS, DENTAL ROOMS, LABORATORIES, STERILE SUPPLY, SUPPORT SPACES, WAITING ROOMS, ETC.) SHALL BE OF A TYPE LISTED FOR A REDUNDANT GROUNDING PATH (WIRING WITH A COPPER EQUIPMENT GROUNDING CONDUCTOR RUN IN A METALLIC CONDUIT THAT COMPLIES WITH THE LISTING REQUIREMENTS OF NEC 250.118) BACK TO THE SOURCE ELECTRICAL PANEL AS REQUIRED BY NEC 517.
- 2. ELECTRICAL PENETRATIONS THROUGH THE FLOOR ARE TO BE AVOIDED. ANY REQUIRED PENETRATIONS THROUGH THE FLOOR WILL HAVE TO BE APPROVED BY THE ARCHITECT.
- 3. COORDINATE EXACT LOCATIONS AND REQUIREMENTS OF MECHANICAL ITEMS PRIOR TO ROUGH-IN. PROVIDE ALL REQUIRED CONTROLS AND CONNECTIONS AS NEEDED FOR FULLY OPERATIONAL SYSTEMS, AND THE INTENDED OPERATION AS INDICATED BY MECHANICAL SEQUENCE OF OPERATIONS.
- COORDINATE WITH GENERAL CONTRACTOR TO ENSURE THAT NEC REQUIRED WORKING CLEARANCES AND SPACES AROUND ALL ELECTRICAL EQUIPMENT, PANELS, DISCONNECTS, MOTOR STARTERS, VFD'S, ETC. ARE MAINTAINED AND ARE NOT AFFECTED BY THE WORK PROVIDED AS PART OF THIS PROJECT. WHERE NECESSARY, PROVIDE STRUCTURAL CHANNEL (UNISTRUT) SUPPORT FOR INSTALLATION.
- COORDINATE EXACT HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES WITH ARCHITECTURAL MECHANICAL, FURNITURE, DENTAL, AND EQUIPMENT DRAWINGS PRIOR TO ROUGH-IN. LOCATE DEVICES ABOVE MECHANICAL BASEBOARD HEATING UNITS.
- GFCI RECEPTACLES SHALL BE LOCATED IN A READILY ACCESSIBLE LOCATION PER NEC 210.8. IF NOT POSSIBLE, PROVIDE CIRCUITS SUPPLIED BY A 5mA GFCI CIRCUIT BREAKER.
- 7. SIZE CONDUCTORS TO PROVIDE MAXIMUM VOLTAGE DROP NOT TO EXCEED 3% IN BRANCH CIRCUITS OR FEEDERS. IN GENERAL, FOR A 20 AMP 120V CIRCUIT, MINIMUM WIRE SIZE SHALL BE #12 (CU.) FOR BRANCH CIRCUITS LESS THAN 75', #10 (CU.) FOR CIRCUITS 75' TO 125' AND #8 (CU.) FOR CIRCUITS 125 TO 200'.
- PROVIDE SEISMIC BRACING AND SUPPORT FOR ALL ELECTRICAL EQUIPMENT WHERE REQUIRED BY THE IBC AND OTHER APPLICABLE CODES.
- ALL REQUIRED FIRE ALARM DEVICES MAY NOT BE SHOWN ON THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESIGN OF FIRE ALARM AND DETECTION SYSTEMS FOR FULL DETECTION COVERAGE. PROVIDE ALL NECESSARY DEVICES, WIRING, ETC. AS REQUIRED FOR COMPLIANCE WITH GOVERNING CODES INCLUDING DETECTORS THAT MAY NOT BE SHOWN.



#### FIRE ALARM CONTROL PANEL (FACP)

#### **DETAIL NOTES:**

- 1. REFERENCE DRAWINGS AND SPECIFICATIONS FOR PROPOSED QUANTITY, LOCATION OF DEVICES AND ADDITIONAL REQUIREMENTS. PROVIDE NUMBER OF INITIATING (IDC), NOTIFICATION (NAC) AND SUPERVISORY (SC) LOOPS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE FIRE ALARM DÈSIGN FOR FULL DETECTION COVERAGE IN COMPLIANCE WITH GOVERNING CODES INCLUDING ANY NECESSARY DEVICES AND DETECTORS NOT SHOWN IN THESE DRAWINGS.
- 2. PROVIDE ALL NECESSARY AUXILIARY CONTACTS, CONNECTIONS, ETC. TO PROVIDE A COMPLETE SYSTEM.

#### FIRE ALARM SYSTEM RISER DIAGRAM

SCALE: NTS



LIGHTING FIXTURE SCHEDULE

DESCRIPTION

MANUFACTURER AND

MODEL NUMBER

MARK LIGHTING

LAMP

TYPE

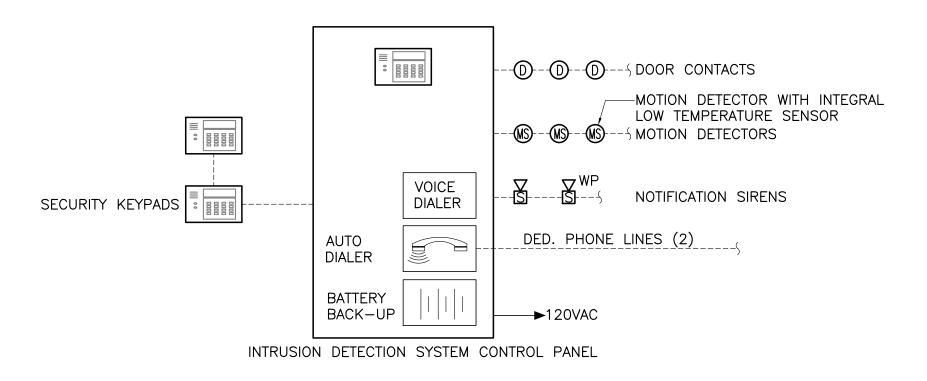
LUMENS

MOUNTING

HEIGHT

TYPE

2. ALL LIGHT FIXTURE LOCATIONS ARE DIAGRAMMATIC IN NATURE, REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS.



#### **DETAIL NOTES:**

- 1. REFERENCE SPECIFICATIONS FOR ALL REQUIREMENTS.
- 2. SEE PLANS FOR PROPOSED QUANTITY AND LOCATION OF DEVICES.
- 3. INSTALL TEMPERATURE SENSORS AND ANY CONTROLLERS IN LOCATIONS AS APPROPRIATE. CONNECT ALARM CONTACTS TO INTRUSION DETECTION SYSTEM FOR DIAL OUT ANNUNCIATION OF LOW TEMPERATURE CONDITION.







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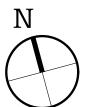
SCALE: 1/16" = 1'-0"



INDICATED BY: (#)

1. APPROXIMATE ROUTING OF HEAT TRACE IN SEWER LINE ARCTIC PIPING ASSEMBLY. SEE CIVIL DRAWINGS FOR EXACT LOCATIONS, ROUTING, DISTANCES, ETC.

- APPROXIMATE ROUTING OF HEAT TRACE IN WATER LINE ARCTIC PIPING ASSEMBLY. SEE CIVIL DRAWINGS FOR EXACT LOCATIONS, ROUTING, DISTANCES, ETC.
- 3. PROPOSED LOCATION FOR ELECTRICAL SERVICE ENTRANCE EQUIPMENT. CONTRACTOR TO COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SERVING UTILITY. ELECTRICAL SERVICE IS TO COMPLY WITH REQUIREMENTS OF SERVING UTILITY.
- 4. APPROXIMATE LOCATION OF TELECOMMUNICATION BACKBOARD. BACKBOARD SHALL COMPLY WITH UTILITY REQUIREMENTS.
- 5. INTELLIGENT HEAD BOLT OUTLET (IPLC M210TN OR EQUAL), WITH 20 AMP 120V WEATHER RESISTANT DUPLEX RECEPTACLE. PROVIDE WITH WEATHERPROOF WHILE—IN—USE COVER. RECEPTACLE IS TO BE SPLIT WIRED WHERE SHOWN FED WITH 2 CIRCUITS. MOUNT TO BULLRAIL. EACH CIRCUIT IS TO BE FED FROM AND PROTECTED BY A 5mA GFCI CIRCUIT BREAKER.
- 6. LIFT STATION TANK AND SIMPLEX PUMP. COORDINATE WITH CIVIL AND EQUIPMENT MANUFACTURER FOR EXACT LOCATIONS AND REQUIREMENTS. ENTIRE LIFT STATION WELL CONSIDERED AS CLASS 1, DIVISION 1 HAZARDOUS LOCATION. ALL SYSTEMS, DEVICES, WIRING, AND CONNECTIONS SHALL BE IN CONFORMANCE WITH AND INSTALLED IN COMPLIANCE WITH ALL REQUIREMENTS OUTLINED IN THE NATIONAL ELECTRICAL CODE, ARTICLES 500 AND 501 AS WELL AS LOCAL AND STATE OF ALASKA SPECIFICATIONS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE SEAL—OFFS AS APPROPRIATE AND AS REQUIRED BY GOVERNING CODES.
- 7. LIFT STATION CONTROLLER, WITH 1/3HP 240V SINGLE PHASE PUMP. PROVIDE POWER AND CONTROL CONNECTIONS BETWEEN CONTROL PANEL, PUMP, AND FLOATS AS REQUIRED FOR OPERATION, INCLUDING ANY NECESSARY CONDUIT AND WIRING FOR A REMOTE ALARM IF A REMOTE ALARM IS PROVIDED. COORDINATE WITH CIVIL FOR LOCATIONS AND REQUIREMENTS.
- 8. TELECOMMUNICATION UTILITY NETWORK CONNECTION BOX.
  CONTRACTOR TO COORDINATE WITH TELECOM UTILITY FOR THE PROVIDING AND INSTALLING OF MAST CONDUIT, WEATHERHEAD, AND EXTERIOR RATED BOX ON EXTERIOR OF THE BUILDING FOR CONNECTION OF INCOMING OVERHEAD TELECOM SERVICE.
  PROVIDE ONE 2" CONDUIT WITH CABLING AS REQUIRED FROM TELECOM BOX TO TELECOM BACKBOARD WITHIN BUILDING.
  COORDINATE AND CONFIRM EXACT LOCATION, SIZE AND TYPE OF BOX, CONDUIT SIZE, CABLING REQUIREMENTS, AND ANY OTHER REQUIREMENTS WITH TELECOM UTILITY







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	P: (907) 243-8985					
	F: (907) 243-5629					
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TAKOTNA HEALTH CLINIC
TAKOTNA, AK
SITE PLAN

SHEET SIZE: 34x22

DESIGNED BY:

DRAWN BY: JWA

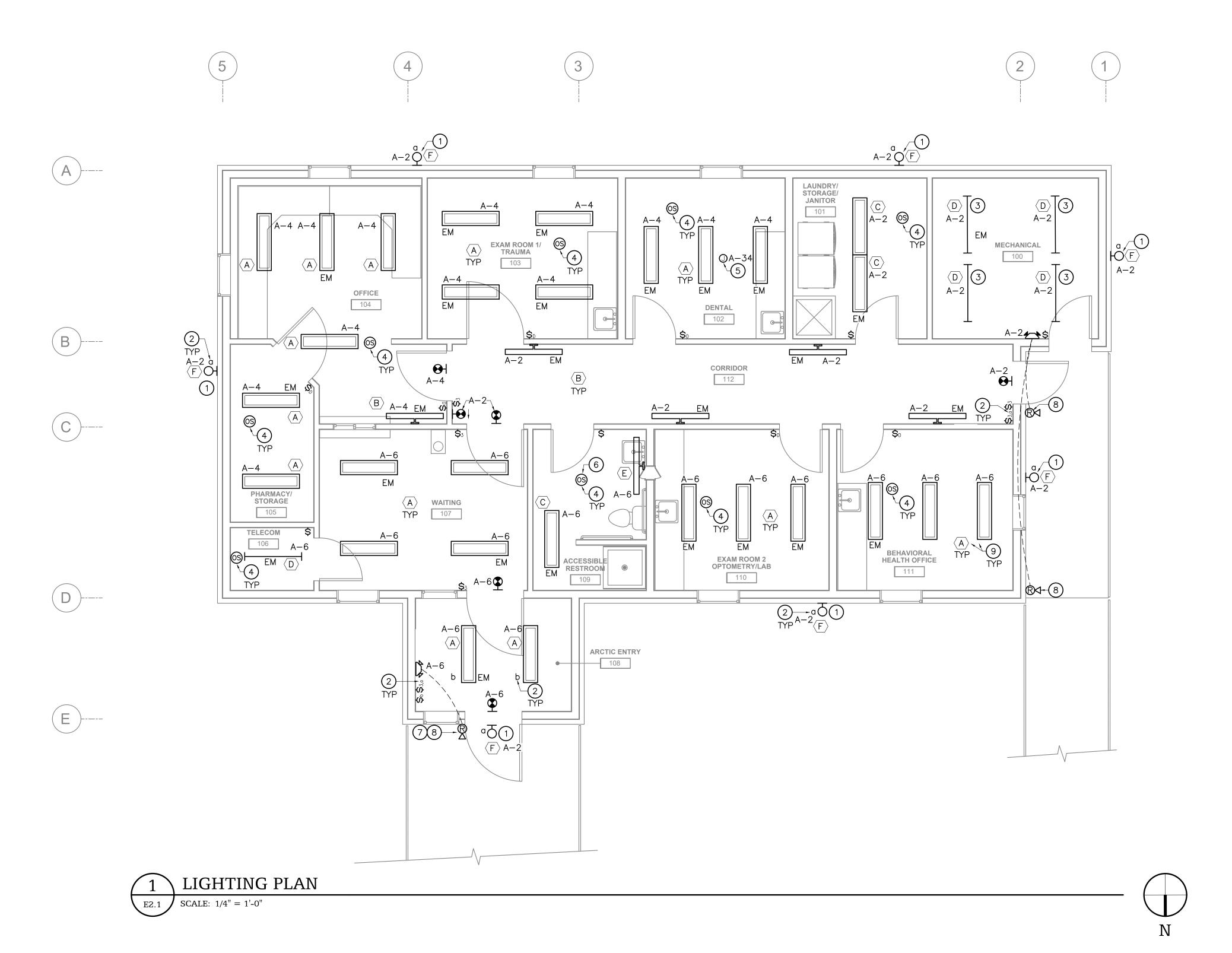
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- 1. PROVIDE SEISMIC BRACING AND SUPPORT FOR ELECTRICAL LIGHTS AND EQUIPMENT WHERE REQUIRED BY THE IBC AND OTHER APPLICABLE CODES. REFERENCE ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS.
- 2. ALTHOUGH NOT SHOWN, AND UNLESS CONDUCTORS ENTER THE BOX THROUGH A RACEWAY, SWITCH BOXES SHALL INCLUDE A "GROUNDED CONDUCTOR" (NEUTRAL) OF THE CONTROLLED LIGHTING CIRCUIT AS REQUIRED BY NEC 404.2(C).
- 3. ALTHOUGH NOT SHOWN, THE CONTRACTOR SHALL PROVIDE LINE AND/OR LOW VOLTAGE CONTROL WIRING AS REQUIRED FOR LIGHT FIXTURE SWITCHING CONTROLS, DIMMING, ETC.
- 4. CONNECT EMERGENCY LIGHT BATTERIES AND EXIT SIGNAGE TO UNSWITCHED "HOT" LEG OF LOCAL AREA LIGHTING BRANCH CIRCUIT.
- 5. CONTRACTOR TO VERIFY LOCATIONS OF ALL SWITCHES WITH TENANT PRIOR TO ROUGH—IN.
- 6. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES TO AVOID CONFLICTS WITH MECHANICAL DUCTWORK, PIPING, ARCHITECTURAL AND STRUCTURAL ELEMENTS.
- 7. CONTRACTOR TO COORDINATE WORK WITH OWNER SUPPLIED FURNISHINGS, FIXTURES, EQUIPMENT AND DENTAL EQUIPMENT.

#### SHEET NOTES

INDICATED BY: (#)

- 1. EXTERIOR LIGHT FIXTURES ARE TO BE SURFACE MOUNTED ON INTEGRAL BACK BOX. CONTRACTOR TO MINIMIZE ANY EXPOSED RACEWAY AS MUCH AS POSSIBLE. THE LIGHTS ARE TO BE CONTROLLED BY INTEGRAL PHOTOCELL AND THE TWO 3-WAY OVERRIDE OFF SWITCHES LOCATED AT ENTRANCE/EGRESS DOORS
- 2. LOWER CASE LETTER INDICATES LIGHT FIXTURE SWITCHING CONTROL CORRESPONDING TO CONTROLS LOCATED AT WALL AND CEILING, TYPICAL WHERE SHOWN.
- COORDINATE WITH MECHANICAL FOR THE BEST PLACEMENT OF LIGHT FIXTURE, TO ADEQUATELY ILLUMINATE THE SPACE AND TO AVOID CONFLICTS WITH MECHANICAL EQUIPMENT, PIPING, DUCTWORK, ETC.
- 4. TYPE, QUANTITY, AND LOCATION OF OCCUPANCY SENSORS FOR CONTROL OF EACH AREA'S LIGHTING IS TO BE DESIGNED BY CONTRACTOR'S VENDOR. TYPICAL OF ALL. REFERENCE ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS.
- 5. JUNCTION BOX FOR CONNECTION TO OWNER FURNISHED DENTAL OPERATING LIGHT, (120V). PROVIDE BACKING PER MANUFACTURERS REQUIREMENTS.
- 6. OCCUPANCY SENSOR IS TO BE DAMP LOCATION LISTED.
- 7. CONTRACTOR TO ADJUST THE DISTRIBUTION OF THIS FIXTURE TO PROVIDE FORWARD THROW TO PROPERLY ILLUMINATE THE PATH OF EGRESS.
- 8. CONTRACTOR TO MOUNT REMOTE EMERGENCY FIXTURES ON CONTRACTOR SUPPLIED SURFACE MOUNTED JUNCTION BOX APPROPRIATE FOR THE USE. CONTRACTOR TO MINIMIZE ANY EXPOSED RACEWAY AS MUCH AS POSSIBLE.
- 9. FIXTURES TYPE 'A' ARE TO BE SUSPENDED FROM A SLOPED CEILING. REFERENCE THE ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS. PROVIDE MOUNTING AS NEEDED. TYPICAL OF ALL.



Brett A. Bingham

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Anchorage, AK 99501 P: (907) 243-8985 F: (907) 243-5629 W: LCGAK.com

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COTNA HEALTH C TAKOTNA, AK LIGHTING PLAN

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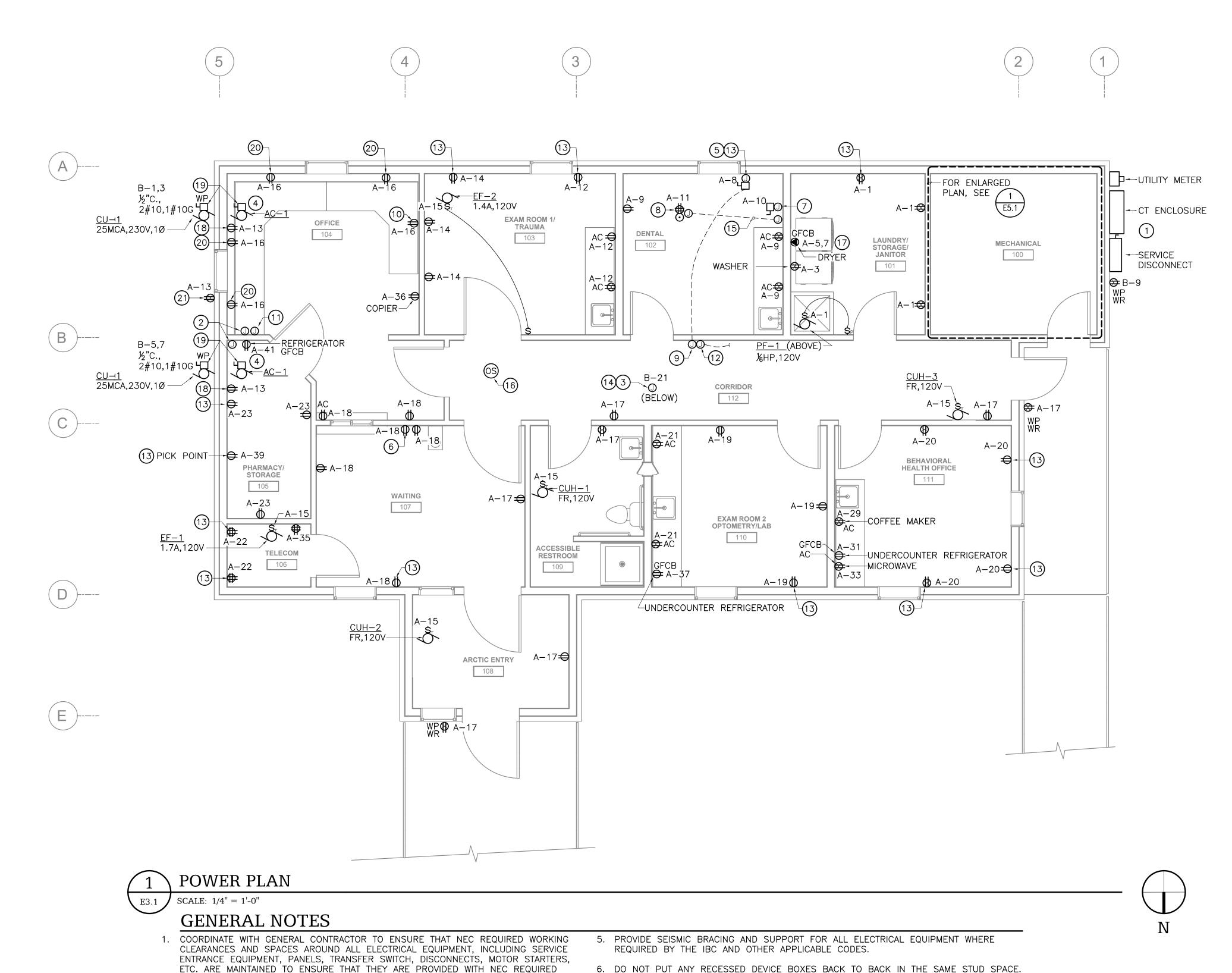
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7. ALL EXTERIOR MOUNTED DEVICES AND FIXTURES ARE TO BE MOUNTED ON SURFACE

8. DENTAL REQUIREMENTS ARE ASSUMED AS DENTAL DESIGN DRAWINGS HAVE NOT BEEN

DEVELOPED. THE CONTRACTOR SHALL CONFIRM DENTAL REQUIREMENTS, INCLUDING

DRAWINGS BECOME AVAILABLE AND PROVIDE THE NECESSARY CIRCUITS, BREAKERS,

9. COORDINATE EXACT LOCATIONS AND REQUIREMENTS OF MECHANICAL ITEMS PRIOR TO

FULLY OPERATIONAL SYSTEMS, AND THE INTENDED OPERATION AS INDICATED BY

ROUGH-IN. PROVIDE ALL REQUIRED CONTROLS AND CONNECTIONS AS NEEDED FOR

QUANTITY AND SIZE OF CIRCUITS, LOCATION OF DEVICES, ETC., ONCE DENTAL DESIGN

MOUNTED JUNCTION BOXES.

RACEWAYS, WIRING, DEVICES, ETC., AS REQUIRED.

MECHANICAL SEQUENCE OF OPERATIONS.

WORKING CLEARANCE AND DEDICATED SPACES AS REQUIRED BY NEC 110.26. WHERE NECESSARY, PROVIDE STRUCTURAL CHANNEL (UNISTRUT) SUPPORT FOR INSTALLATION.

2. GFCI RECEPTACLES SHALL BE LOCATED IN A READILY ACCESSIBLE LOCATION PER NEC

3. ALL NON-LOCKING 125 VOLT AND 250 VOLT TYPE 15 AND 20 AMP RECEPTACLES ARE

4. COORDINATE EXACT QUANTITY, HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES WITH

ROUGH-IN. LOCATE DEVICES ABOVE MECHANICAL BASEBOARD HEATING UNITS.

ARCHITECTURAL, MECHANICAL, FURNITURE, DENTAL, AND EQUIPMENT DRAWINGS PRIOR TO

210.8. IF NOT POSSIBLE, PROVIDE CIRCUITS SUPPLIED BY A 5mA GFCI CIRCUIT

TO BE TAMPER-RESISTANT TYPE RECEPTACLES PER NEC 406.12.

BREAKER.

SHEET NOTES

INDICATED BY: (#)

- . COORDINATE LOCATION AND TYPE OF UTILITY SERVICE DROP WITH SERVING UTILITY. COORDINATE LOCATION WITH ARCHITECT.
- 2. PROVIDE POWER AND CONTROL CONNECTIONS AS REQUIRED BETWEEN  $\underline{\mathsf{AC}}-\underline{\mathsf{1}}$  AND RESPECTIVE WIRED REMOTE CONTROLLER.
- 3. JUNCTION BOX FOR BRANCH CIRCUIT FOR CONNECTION TO SEWER LINE ARCTIC PIPE/HEAT TRACE ASSEMBLY. CIRCUIT BREAKER TO HAVE PROVISIONS TO BE LOCKED OFF IN THE OPEN POSITION. PROVIDE AND INSTALL HEAT TRACE FROM CLINIC TO LOCATION AS SHOWN ON CIVIL DRAWINGS. COORDINATE WITH CIVIL FOR THE INSTALLATION OF HEAT TRACE. SEE CIVIL AND MECHANICAL DRAWINGS FOR EXACT LOCATION, LENGTHS, DETAILS, AND REQUIREMENTS. COORDINATE EXACT LOCATION OF JUNCTION BOX TO AVOID CONFLICTS WITH TRIODETIC FOUNDATION, STRUCTURE. ETC., AND TO ENSURE BOX AND HEATTRACE ARE ACCESSIBLE. IF LOCATED OUTDOORS, INSTALLATION SHALL BE APPROPRIATE FOR THE CONDITIONS.
- 4. UNIT IS TO BE POWERED FROM CU-1,
- 5. DENTAL X-RAY COMPONENT, (120V). COORDINATE EXACT LOCATION AND CONNECTION TYPE WITH DENTAL SUPPLIER.
- 6. COORDINATE EXACT HEIGHT AND LOCATION OF DEVICES FOR TV.
- 7. DENTAL UNIT UTILITY CENTER, PROVIDE 120V CONNECTION PER MANUFACTURER'S REQUIREMENTS.
- 8. RECEPTACLE FOR CONNECTION OF DENTAL CHAIR. COORDINATE WITH EQUIPMENT MANUFACTURER FOR EXACT LOCATION AND TYPE OF RECEPTACLE REQUIRED.
- 9. DENTAL X-RAY COMPONENT, 120V. COORDINATE EXACT LOCATION AND CONNECTION TYPE WITH DENTAL SUPPLIER. PROVIDE JUNCTION BOX WITH SINGLE GANG MUDRING FOR X-RAY CONTROL STATION AT +60". PROVIDE ½" CONDUIT WITH PULL STRING TO SIMILAR BOX IN SPECIALTY/DENTAL ROOM.
- 10. COORDINATE EXACT HEIGHT AND LOCATION OF DEVICES WITH FURNITURE SUPPLIER.
- 11. HRV CONTROL PANEL. PROVIDE JUNCTION BOX WITH CONNECTIONS FROM HRV CONTROL PANEL TO <u>HRV-1</u> AS NECESSARY.
- 12. DENTAL CONTROL PANEL FOR REMOTE CONTROL OF COMPRESSOR AND VACUUM PUMP. COORDINATE EXACT LOCATION. PROVIDE LOW VOLTAGE CONTROL WIRING AS REQUIRED BY DENTAL DRAWINGS.
- 13. COORDINATE EXACT HEIGHT OF DEVICE TO AVOID CONFLICTS WITH MECHANICAL BASEBOARD. REFERENCE MECHANICAL DRAWINGS SHEET M2.2 DETAIL 2.
- 14. HEAT TRACE IS TO BE CONTROLLED BY A FREEZE PROTECTION THERMOSTAT WITH TEMPERATURE SENSOR INSTALLED IN THE ARCTIC PIPING, OUTSIDE OF THE UTILIDOR.
- 15. PROVIDE 2" CONDUIT BETWEEN CHAIR AND DENTAL UTILITY FOR DENTAL WIRING.
- 17. PROVIDE ½"C,4#10 (CU) AND NEMA 14-30R FOR CONNECTION TO DRYER.
- 18. COORDINATE HEIGHT OF RECEPTACLE FOR CONDENSATE PUMP WITH MECHANICAL.
- 19. PROVIDE POWER AND CONTROL CONNECTIONS BETWEEN CONDENSING UNIT (CU-1) OUTSIDE AND COOLING UNIT (AC-1) LOCATED INDOORS.
- 20. COORDINATE EXACT HEIGHT OF DEVICE TO AVOID CONFLICTS WITH MECHANICAL BASEBOARD AND FURNITURE. REFERENCE MECHANICAL DRAWINGS SHEET M2.2 DETAIL 5 AND COORDINATE WITH FURNITURE DRAWINGS.
- 21. WEATHER RESISTANT TYPE GFCI RECEPTACLE WITH "EXTRA DUTY", "WET WHILE IN USE" COVER. GFCI RECEPTACLE TO BE AT SAME LEVEL AND WITHIN 25 FEET OF EQUIPMENT AS PER NEC 210.63. COORDINATE LOCATION OF GFCI RECEPTACLE SO IT WILL BE READILY ACCESSIBLE.

ENGINEERING SOLUTIONS

HZA Engineering, LLC

113 W. Northern Lights Blvd., Suite 240 Anchorage, Alaska 99503

Tel. (907) 562-1012 Fax (907) 562-1013

AK Corporation #: AECL881

DATE BY REVISION

50 H Street nchorage, AK 99501 P: (907) 243-8985 F: (907) 243-5629

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POWER

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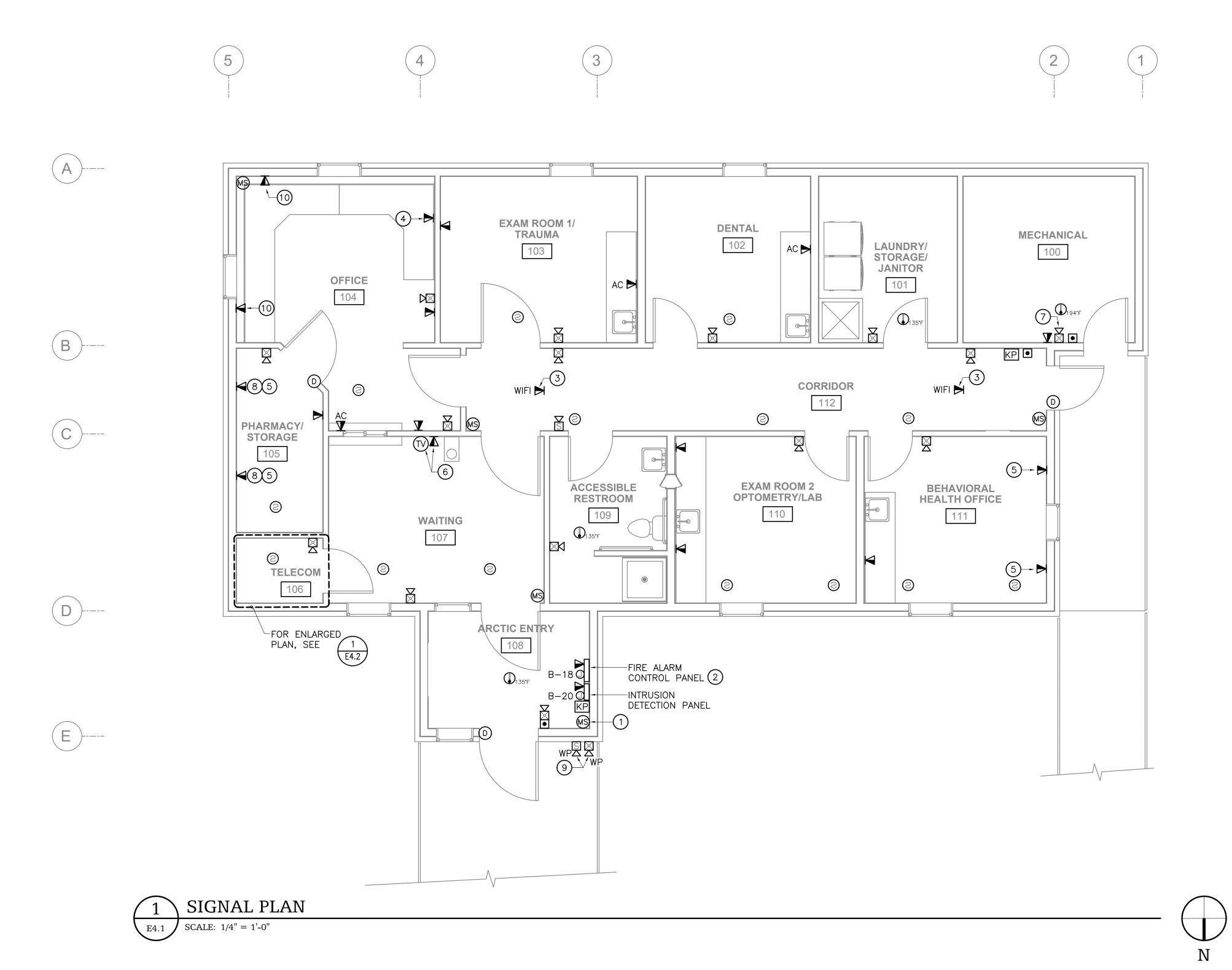
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- 1. COORDINATE EXACT QUANTITY, HEIGHTS, AND LOCATIONS OF ELECTRICAL DEVICES WITH ARCHITECTURAL, MECHANICAL, FURNITURE, DENTAL, AND EQUIPMENT DRAWINGS PRIOR TO ROUGH—IN. LOCATE DEVICES ABOVE MECHANICAL BASEBOARD HEATING UNITS.
- 2. ALL REQUIRED FIRE ALARM DEVICES MAY NOT BE SHOWN ON THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESIGN OF FIRE ALARM AND DETECTION SYSTEMS FOR FULL DETECTION COVERAGE. PROVIDE ALL NECESSARY DEVICES, WIRING, ETC. AS REQUIRED FOR COMPLIANCE WITH GOVERNING CODES INCLUDING DETECTORS THAT MAY NOT BE SHOWN.
- 3. DO NOT PUT ANY RECESSED DEVICE BOXES BACK TO BACK IN THE SAME STUD SPACE.
- 4. RUN MINIMUM OF 1" CONDUIT BACK TO TELECOM ROOM FOR EACH TELECOM OUTLET.
- 5. ALL TELECOM OUTLETS SHALL HAVE A MINIMUM OF 3 CAT6 HOMERUNS UNLESS OTHERWISE NOTED. SEE 4/E4.2.
- 6. ALL EXTERIOR MOUNTED DEVICES AND FIXTURES ARE TO BE MOUNTED ON SURFACE MOUNTED JUNCTION BOXES.
- 7. DENTAL REQUIREMENTS ARE ASSUMED AS DENTAL DESIGN DRAWINGS HAVE NOT BEEN DEVELOPED. THE CONTRACTOR SHALL CONFIRM DENTAL REQUIREMENTS, INCLUDING QUANTITY, LOCATION OF DEVICES, ETC., ONCE DENTAL DESIGN DRAWINGS BECOME AVAILABLE, PROVIDE THE NECESSARY RACEWAYS, CABLING, DEVICES, ETC., AS REQUIRED.

#### SHEET NOTES

INDICATED BY: (#)

- 1. THIS MOTION SENSOR IS TO COME WITH BUILT IN LOW TEMPERATURE SENSOR. REFERENCE DETAIL 2/E0.1 AND SPECIFICATIONS.
- 2. COORDINATE EXACT LOCATION OF FIRE ALARM PANEL WITH AUTHORITY HAVING JURISDICTION AND ARCHITECT.
- 3. PROVIDE TELECOMMUNICATION CONNECTION WITH TWO DATA JACKS/CABLES EACH AT CEILING FOR WIRELESS TELECOMMUNICATION ACCESS PORT.
- 4. COORDINATE EXACT HEIGHT AND LOCATION OF DEVICES WITH FURNITURE SUPPLIER.
- 5. COORDINATE EXACT HEIGHT AND LOCATION OF DEVICES TO AVOID CONFLICTS WITH MECHANICAL BASEBOARD.
- 6. COORDINATE EXACT HEIGHT AND LOCATION OF DEVICES FOR TV. TELEVISION CABLING IS TO BE RUN FROM EACH OUTLET LOCATION TO 'TELECOM' ROOM 106. TYPICAL OF ALL SHOWN.
- 7. COORDINATE EXACT LOCATION SO DEVICE IS VISIBLE AFTER ALL EQUIPMENT, DUCTWORK, PIPING, ETC. HAS BEEN INSTALLED.
- 8. TELECOMMUNICATION OUTLETS FOR COMPUTER WORKSTATION AND PICKPOINT. COORDINATE LOCATIONS PRIOR TO ROUGH—IN.
- 9. DEVICES ARE TO BE SURFACE MOUNT EITHER WITH INTEGRAL BACK BOXES OR PROVIDE WITH WEATHERPROOF JUNCTION BOX AS NEEDED. CONTRACTOR TO MINIMIZE THE AMOUNT OF EXPOSED CONDUIT AS MUCH AS POSSIBLE.
- 10. COORDINATE EXACT HEIGHT AND LOCATION OF DEVICES TO AVOID CONFLICTS WITH MECHANICAL BASEBOARD AND FURNITURE.





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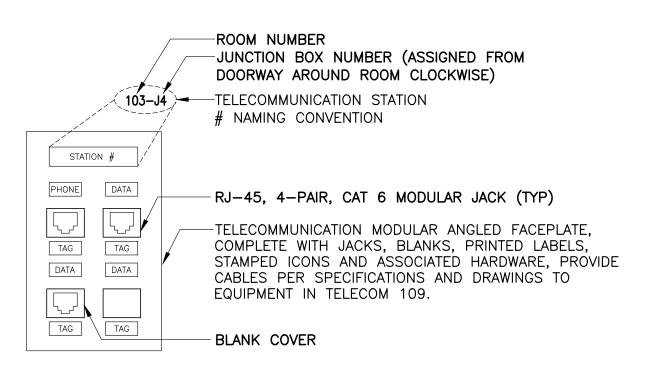
#### **DETAIL NOTES**

- (1) COORDINATE LAYOUT OF ROOM, LOCATIONS, AND HEIGHTS OF DEVICES WITH THE MECHANICAL DRAWINGS TO AVOID CONFLICTS WITH MECHANICAL BASEBOARD HEATER. REFERENCE MECHANICAL DRAWINGS, SHEET M2.2.
- 2. POWER RECEPTACLES ARE SHOWN FOR REFERENCE ONLY SEE SHEET E3.1 FOR CIRCUITING.



#### TELECOM ROOM DETAIL

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

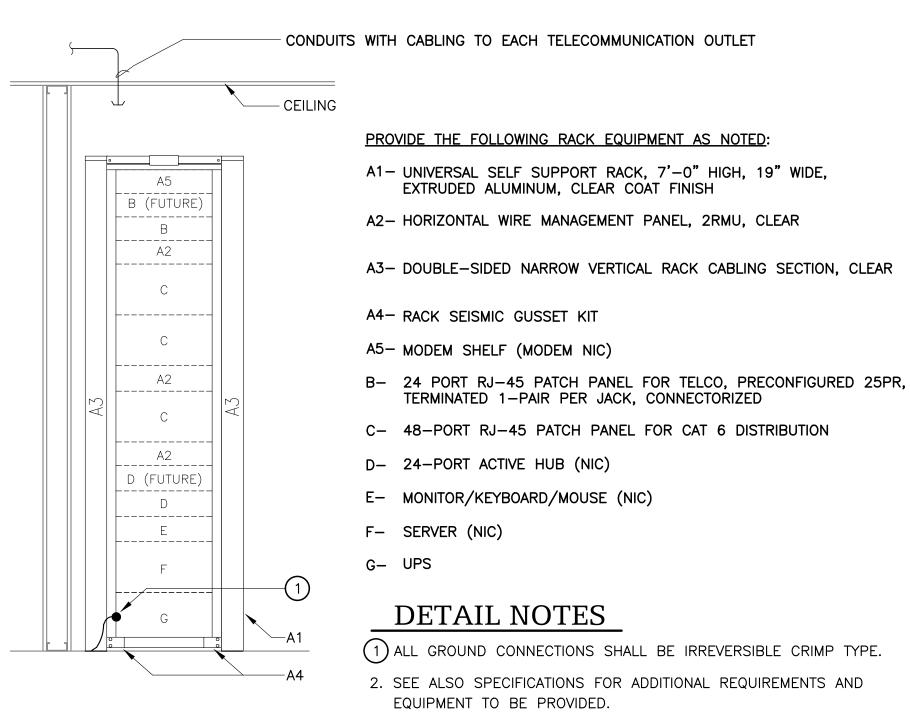


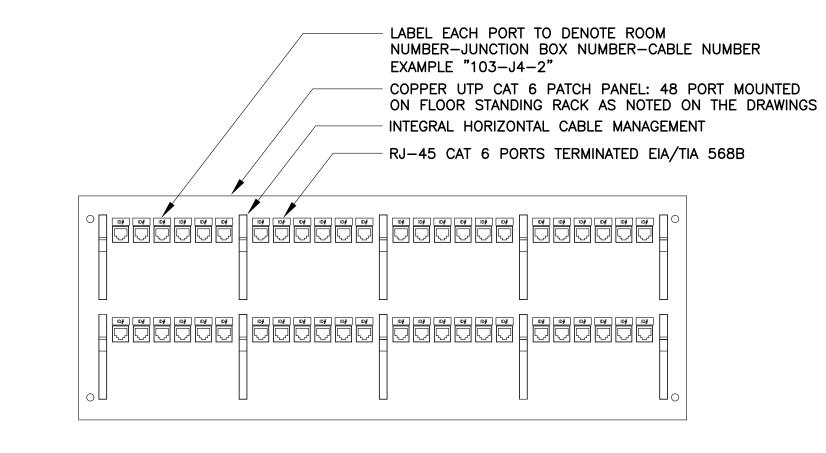
#### **DETAIL NOTES**

- 1. EACH DEVICE PLATE SHALL BE 4 PORT MINIMUM WITH (3) RJ-45 JACK CAT 6 RATED, UON ON THE DRAWINGS.
- 2. FILL ACTIVE PORTS IN FACEPLATE FROM LEFT TO RIGHT AND TOP TO BOTTOM.
- 3. TERMINATE EACH CAT 6 CABLE ON RJ-45 CAT 6 RATED JACK AS INDICATED.
- 4. PROVIDE BLANKS FOR UNUSED PORT SPACES.
- 5. PROVIDE LABEL DENOTING ROOM NUMBER AND JUNCTION BOX NUMBER AS SHOWN ON THE FLOOR PLANS ON EACH DEVICE PLATE WHERE NOTED ABOVE AS STATION NUMBER.
- 6. ALL LABELS SHALL BE PRINTED WITH THERMAL OR LASER PRINTER SYSTEM.



THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT DEPICT EXACT EQUIPMENT OR REQUIREMENTS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER'S 'IT' REPRESENTATIVE, AND SHALL PROVIDE ALL EQUIPMENT, CONNECTIONS, ETC. AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.



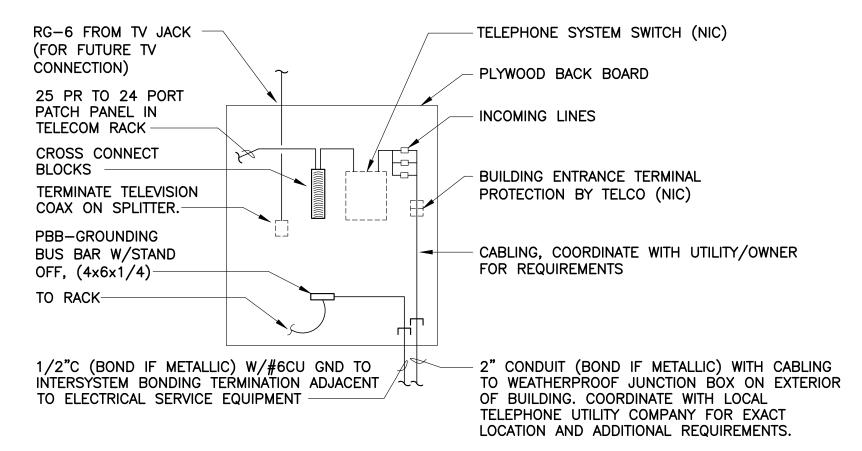


SCALE: NTS

TELECOM PATCH PANEL (TYP)

THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT DEPICT EXACT EQUIPMENT OR LOCATIONS OF UTILITY PROVIDED ITEMS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE TELECOMMUNICATION UTILITY PROVIDER, AND SHALL PROVIDE ALL CONDUITS, CABLING, CONNECTIONS, ETC. AS REQUIRED FOR A COMPLETE AND OPERABLE INFRASTRUCTURE AS INTENDED.

TELECOM ROOM RACK DETAIL A-A



TELCO SERVICE DEMARC DETAIL B-B SCALE: NTS

**ENGINEERING SOLUTIONS** 

HZA Engineering, LLC 113 W. Northern Lights Blvd., Suite 240 Anchorage, Alaska 99503 Tel. (907) 562-1012 Fax (907) 562-1013 AK Corporation #: AECL881

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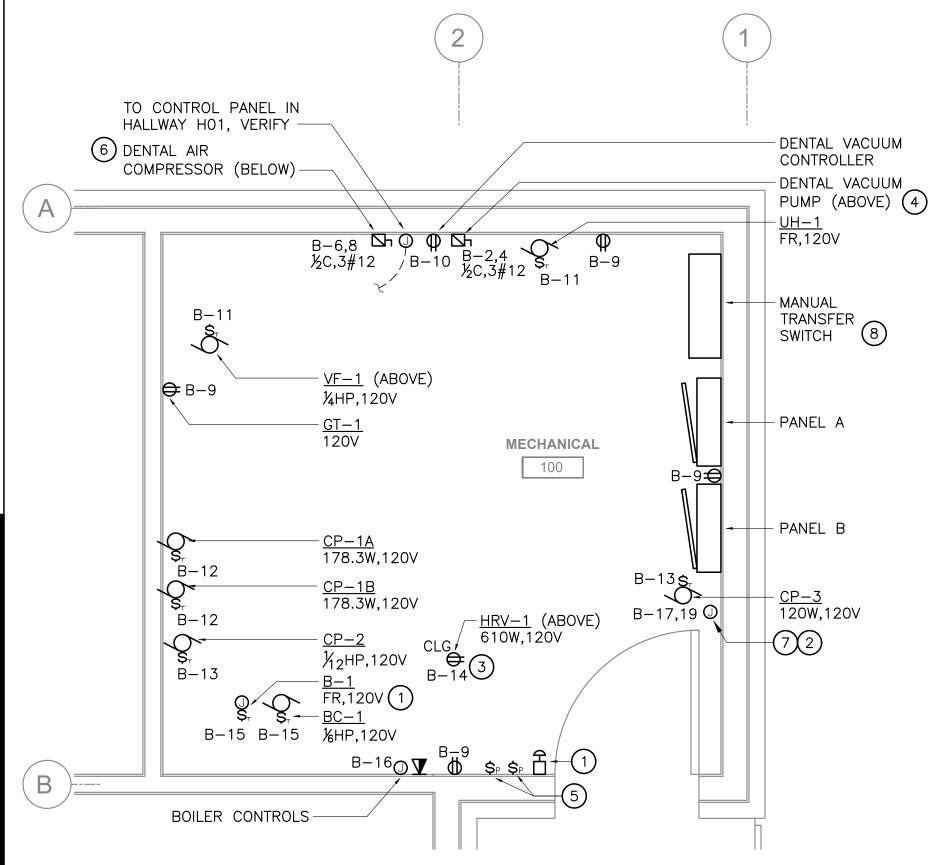
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#### **GENERAL NOTES**

- 1. COORDINATE WITH GENERAL CONTRACTOR TO ENSURE THAT NEC REQUIRED WORKING CLEARANCES AND SPACES AROUND ALL ELECTRICAL EQUIPMENT, INCLUDING SERVICE ENTRANCE EQUIPMENT, PANELS, TRANSFER SWITCH, DISCONNECTS, MOTOR STARTERS, ETC. ARE MAINTAINED TO ENSURE THAT THEY ARE PROVIDED WITH NEC REQUIRED WORKING CLEARANCE AND DEDICATED SPACES AS REQUIRED BY NEC 110.26. WHERE NECESSARY. PROVIDE STRUCTURAL CHANNEL (UNISTRUT) SUPPORT FOR INSTALLATION.
- 2. GFCI RECEPTACLES SHALL BE LOCATED IN A READILY ACCESSIBLE LOCATION PER NEC 210.8. IF NOT POSSIBLE, PROVIDE CIRCUITS SUPPLIED BY A 5mA GFCI CIRCUIT BREAKER.
- 3. ALL NON-LOCKING 125 VOLT AND 250 VOLT TYPE 15 AND 20 AMP RECEPTACLES ARE TO BE TAMPER-RESISTANT TYPE RECEPTACLES PER NEC 406.12.
- 4. COORDINATE EXACT QUANTITY, HEIGHTS, AND LOCATIONS OF ELECTRICAL DEVICES WITH ARCHITECTURAL, MECHANICAL, FURNITURE, DENTAL, AND EQUIPMENT DRAWINGS PRIOR TO ROUGH-IN.
- 5. PROVIDE SEISMIC BRACING AND SUPPORT FOR ALL ELECTRICAL EQUIPMENT WHERE REQUIRED BY THE IBC AND OTHER APPLICABLE CODES.
- 6. DO NOT PUT ANY RECESSED DEVICE BOXES BACK TO BACK IN THE SAME STUD SPACE.
- 7. IMMEDIATELY UPON PROJECT INCEPTION THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL ELECTRICAL UTILITY COMPANY FOR THE INSTALLATION OF A NEW ELECTRICAL SERVICE TO THE BUILDING AS SHOWN. ALL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE LOCAL ELECTRICAL UTILITY COMPANY STANDARDS AND THE LATEST ADOPTED NEC.
- 8. PROVIDE ARC FLASH WARNING SIGNS ON THE PANELBOARDS, METER SOCKET ENCLOSURES, ETC AS REQUIRED PER NFPA 70 (NEC) ARTICLE 110.16.
- 9. PROVIDE IDENTIFICATION AT ALL DISCONNECTS, SERVICE EQUIPMENT, AND PANELS AS APPROPRIATE AND AS REQUIRED BY THE NEC AND LOCAL CODES.
- 10. SIZE CONDUCTORS TO PROVIDE MAXIMUM VOLTAGE DROP NOT TO EXCEED 3% IN BRANCH CIRCUITS OR FEEDERS. IN GENERAL, FOR A 20 AMP 120V CIRCUIT, MINIMUM WIRE SIZE SHALL BE #12 (CU.) FOR BRANCH CIRCUITS LESS THAN 75', #10 (CU.) FOR CIRCUITS 75' TO 125' AND #8 (CU.) FOR CIRCUITS 125 TO 200'.
- 11. DENTAL REQUIREMENTS ARE ASSUMED AS DENTAL DESIGN DRAWINGS HAVE NOT BEEN DEVELOPED. THE CONTRACTOR SHALL CONFIRM DENTAL REQUIREMENTS, INCLUDING QUANTITY AND SIZE OF CIRCUITS, LOCATION OF DEVICES, ETC., ONCE DENTAL DESIGN DRAWINGS BECOME AVAILABLE AND PROVIDE THE NECESSARY CIRCUITS, BREAKERS, RACEWAYS, WIRING AND CONTROL CONNECTIONS, DEVICES, ETC., AS REQUIRED.
- 12. COORDINATE EXACT LOCATIONS AND REQUIREMENTS OF MECHANICAL ITEMS PRIOR TO ROUGH-IN. PROVIDE ALL REQUIRED CONTROLS AND CONNECTIONS AS NEEDED FOR FULLY OPERATIONAL SYSTEMS, AND THE INTENDED OPERATION AS INDICATED BY MECHANICAL SEQUENCE OF OPERATIONS.



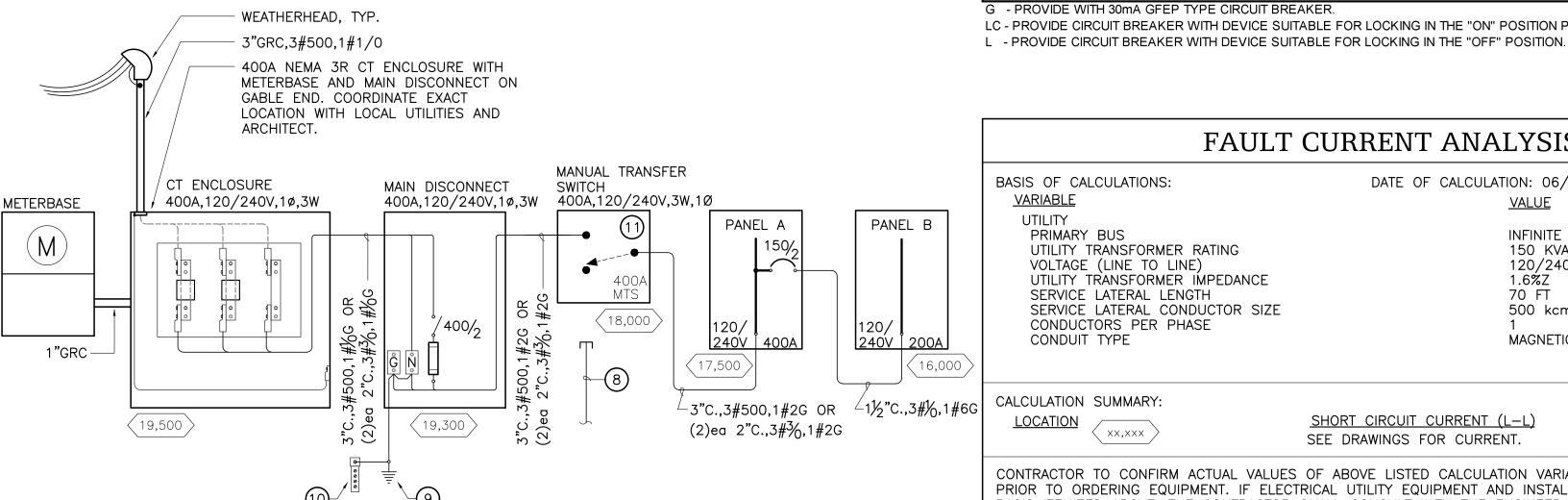
ENLARGED MECHANICAL ROOM POWER PLAN

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

E5.1

SHEET NOTES INDICATED BY: (#)

- 1. COORDINATE WITH MECHANICAL FOR THE PROVIDING AND INSTALLING OF BOILER EMERGENCY SHUTDOWN CONTROLS. PROVIDE ALL CONNECTIONS AND APPURTENANCES AS REQUIRED BY ASME CSD-1 AND MECHANICAL DRAWINGS.
- 2. HEAT TRACE IS TO BE CONTROLLED BY A FREEZE PROTECTION THERMOSTAT WITH TEMPERATURE SENSOR INSTALLED IN THE ARCTIC PIPING, LOCATED OUTSIDE OF THE UTILIDOR.
- 3. HRV-1, COORDINATE WITH MECHANICAL FOR EXACT EXACT LOCATION AND HEIGHT OF RECEPTACLE. PROVIDE CONNECTIONS TO OCCUPANCY SENSOR IN CORRIDOR FOR CONTROL.
- 4. VACUUM PUMP UNIT 220 VOLTS, 12 AMPS (ASSUMED), COORDINATE ELECTRICAL REQUIREMENTS, INCLUDING CONNECTION TYPE, OF DENTAL EQUIPMENT WITH DENTAL SUPPLIER. MAXIMUM VOLTAGE PERMITTED IS BELIEVED TO BE 240 VOLTS (CONTRACTOR TO VERIFY). ELECTRICIAN IS TO VERIFY THE VOLTAGE LEVEL AT EQUIPMENT AND COORDINATE WITH DENTAL SUPPLY/EQUIPMENT MANUFACTURER FOR THE PROVIDING AND INSTALLING OF A BUCK/BOOST TRANSFORMER TO BUCK VOLTAGE IF REQUIRED.
- 5. PILOT LIGHT SWITCHES FOR CONTROL OF WATER AND SEWER HEAT TRACE SUPPLY CIRCUITS. PROVIDE IDENTIFICATION LABEL FOR EACH SWITCH. HEAT TRACE IS ALSO TO BE CONTROLLED BY A FREEZE PROTECTION THERMOSTAT WITH TEMPERATURE SENSOR INSTALLED IN EACH RESPECTIVE ARCTIC PIPE.
- 6. AIR COMPRESSOR 208/230 VOLTS, 8 AMPS (ASSUMED). COORDINATE ELECTRICAL REQUIREMENTS, INCLUDING CONNECTION TYPE, OF DENTAL EQUIPMENT WITH DENTAL SUPPLIER. VERIFY MAXIMUM VOLTAGE PERMITTED AS WELL AS ACTUAL VOLTAGE LEVEL AT EQUIPMENT, COORDINATE WITH DENTAL SUPPLY/EQUIPMENT MANUFACTURER FOR THE PROVIDING AND INSTALLING OF A BUCK/BOOST TRANSFORMER TO BUCK VOLTAGE IF REQUIRED.
- 7. JUNCTION BOX FOR BRANCH CIRCUIT FOR CONNECTION TO WATER LINE ARCTIC PIPE/HEAT TRACE ASSEMBLY. PROVIDE AND INSTALL HEAT TRACE FROM FLOOR PENETRATION IN MECHANICAL ROOM CLINIC TO LOCATION AS SHOWN ON CIVIL DRAWINGS. COORDINATE WITH CIVIL FOR THE INSTALLATION OF HEAT TRACE. SEE CIVIL AND MECHANICAL DRAWINGS FOR EXACT LOCATION, LENGTHS, DETAILS, AND REQUIREMENTS.
- 8. PROVIDE TWO (2) 3" CONDUITS BELOW THE TRANSFER SWITCH STUBBED DOWN BELOW BUILDING AND CAPPED FOR CONNECTION TO FUTURE GENERATOR.
- 9. PROVIDE GROUNDING ELECTRODE SYSTEM AS FOLLOW: #1/0 CU. TO METALLIC WATER MAIN (IF PRESENT), #1/0 CU. TO BUILDING STEEL (IF PRESENT), 20' OF #4 CU. ENCASED IN FOOTING CONCRETE AND BONDED TO REBAR. (IF PRESENT) AND #4 CU. TO 2 DRIVEN ROD ELECTRODES. STEEL PILES (IF PRESENT) ARE TO BE BONDED TO BUILDING STEEL.
- 10. INTERSYSTEM BONDING TERMINATION PER NEC 250.94 FOR CONNECTION TO COMMUNICATIONS BONDING AND GROUNDING CONDUCTORS. PROVIDE #6 COPPER TO TELECOM ROOM GROUND
- 11. TRANSFER SWITCH IS TO BE A 3 POLE SWITCHED TYPE FOR FUTURE FLEXIBILITY OF SWITCHING THE NEUTRAL IF THE FUTURE GENERATOR IS A SEPARATELY DERIVED SYSTEM. UNTIL THIS CAN BE DETERMINED, ASSUME THAT THE FUTURE GENERATOR WILL BE A NON-SEPARATELY DERIVED SYSTEM, AND SOLIDLY CONNECT THE NEUTRAL (NOT SWITCHED) AT THE TRANSFER SWITCH. PROVIDE LABELING TO INDICATE SUCH.



ELECTRICAL SINGLE LINE DIAGRAM

SCALE: NTS

F	PA	NE	L	4	S	CHE	DULE			400A	MLC	)
					12	20/240V	,1PH,3W	1				
	동	AMP	POLE	LOAD DESCRIPTION	PHASE A PHASE B VA LOAD DESCRIPTION		POLE	AMP	CKT			
-	1	20		PF-1, REC - LAUNDRY	1070	580			LTS - MECH,JAN,HALLWAY,EXT	+ + + + + + + + + + + + + + + + + + + +	20	2
H	3	20	1	REC - WASHING MACHINE			1500		LTS - DENTAL,EXAM1,OFFICE,PHARM	1	20	4
卜	5	30		REC - DRYER	2500	680			LTS-BEHAV,EXAM2,RR,WAIT,ENTRY,TEL	1	20	6
r	7	$\overline{}$	2				2500		DENTAL X-RAY	1	20	8
r	9	20	1	REC - DENTAL	540	1200			DENTAL UNIT UTILITY CENTER	1	20	10
F	11	20	1	REC - DENTAL CHAIR			360	540	REC - EXAM ROOM 1 WEST	1	20	12
r	13	20	1	REC - CONDENSATE PUMP, REC - EXT	830	540	<u> </u>		REC - EXAM ROOM 1 EAST	1	20	14
尸	15	20	1	CUH-1 RR, CUH-2, EF-1,2 ,CUH-1 HALL			1300	900	REC - OFFICE SOUTH	1	20	16
厂	17	20	1	REC - ENTRY,RR,EXTERIOR,HALLWAY	1260	1080			REC - OFFICE N, WAITING, TV	1	20	18
尸	19	20	1	REC - EXAM ROOM 2 S,W			540	720	REC - BEHAV HEALTH OFFICE	1	20	20
[2	21	20	1	REC - EXAM ROOM 2 EAST	360	720	•		REC - TELECO PHONE BRD	1	20	22
2	23	20	1	REC - PHARMACY			540	1200	REC - HEADBOLT HEATERS	1	20	24
[2	25	20		LIFT STATION PUMP	1260	1200			REC - HEADBOLT HEATERS	1	20	20
[2	27		2		•		1260	1200	REC - HEADBOLT HEATERS	1	20	28
	29	20	1	REC - COFFEE MAKER	1000	1200			REC - HEADBOLT HEATERS	1	20	30
	31	20	1	REC - UC FRIDGE, BEHV OFFICE			900	1200	REC - HEADBOLT HEATERS	1	20	32
	33	20	1	REC - MICROWAVE	1200	1200			DENTAL EXAM LIGHT	1	20	34
	35	20	1	REC - TELECOM RACK			360	1200	REC - COPIER	1	20	36
	37	20		REC - UC FRIDGE, EXAM RM 2	900				SPARE	1	20	38
	39	20	1	REC - PHARMACY PICK POINT			900	13620	PANEL B		*	40
	41	20	1	REC - PHARMACY FRIDGE	900	13840				2		42
				LOAD (VA)		34,060		32,590	,			
				LOAD (AMPERES)		284		272		8 A		
				AD (VA)		35,290		33,968	,			
				AD (AMPERES)		294		283	l .			
				ERUPT RATING E WITH 5mA GFCI TYPE CIRCUIT BREAK			1	<u>AS IND</u>	ICATED BY THE FAULT CURRENT ANA	LYSIS	3	

- PROVIDE WITH 5MA GFCL TYPE CIRCUIT BREAKER \* - SEE SINGLE LINE DIAGRAM FOR CIRCUIT BREAKER RATING.

. По Пиі Т		12		DULE ,1PH,3W			200A	MLC	)
CKT AMP POLE	LOAD DESCRIPTION	PHAS VA		PHAS VA		LOAD DESCRIPTION	POLE	AMP	CKT
	CU-1 OFFICE	3000	1440			DENTAL VACUUM PUMP		20	2
3 2		1		3000	1440		2		4
5 30 0	CU-1 PHARMACY	3000	960			DENTAL AIR COMPRESSOR		20	6
7 2		<u>'</u>		3000	960		2		8
9 20 1 0	GT-1, REC - MECHANICAL EXTERIOR	720	500			DENTAL VACUUM CONTROLLER	1	20	10
11 20 1 \	VF-1,UH-1	'		1000	360	CP-1A,1B	1	20	12
13 20 1 0	CP-2, CP-3	500	610	'		HRV-1	1	20	14
15 20 1 E	B-1, BC-1	'		1000	500	BOILER CONTROLS	1	20	16
17 20 F	HEAT TRACE WATER	1200	500	,		FIRE ALARM SYSTEM	1	20	18
19 2				1200	500	INTRUSION DETECTION SYSTEM	1	20	20
21 20 1 H	HEAT TRACE WASTE	600		•		SPARE	1	20	22
23 20 1 5	SPARE					SPARE	1	20	24
25 20 1 5	SPARE			•		SPARE	1	20	26
27 20 1 5	SPARE					SPARE	1	20	28
29 20 1 5	SPARE			•		SPARE	1	20	30
31 20 1 5	SPARE					SPACE	-	20	32
33 20 1 5	SPARE					SPACE	<b>-</b>	20	34
35 20 - 8	SPACE					SPACE	-	20	36
37 20 - 5	SPACE			•		SPACE	-	20	38
39 20 - 5	SPACE					SPACE	-	20	40
41 20 - 5	SPACE			•		SPACE	-	20	42
CONNECTED L	OAD (VA)		13,030		12,960	25,9	90 VA	•	
CONNECTED L	OAD (AMPERES)		109		108	11	08 A		
DEMAND LOAD	D (VA)		13,840		13,620	27,4	60 VA		
DEMAND LOAD	O (AMPERES)		115		114	1	14 A		

G - PROVIDE WITH 30mA GFEP TYPE CIRCUIT BREAKER

LC - PROVIDE CIRCUIT BREAKER WITH DEVICE SUITABLE FOR LOCKING IN THE "ON" POSITION PER NEC 760.41(A).

FAULT CURRENT ANALYSIS

BASIS OF CALCULATIONS: DATE OF CALCULATION: 06/17/2020 <u>VARIABLE</u> <u>VALUE</u> UTILITY PRIMARY BUS INFINITE MVA

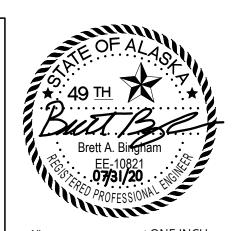
UTILITY TRANSFORMER RATING 150 KVA (ASSUMED) VOLTAGE (LINE TO LINE) 120/240 VOLTS, 1ø UTILITY TRANSFORMER IMPEDANCE 1.6%Z (ASSUMED) SERVICE LATERAL LENGTH 70 FT (ASSUMED 500 kcmil CU (ASSUMED) SERVICE LATERAL CONDUCTOR SIZE CONDUCTORS PER PHASE (ASSUMED) **MAGNETIC** CONDUIT TYPE

CALCULATION SUMMARY:  $\times \times, \times \times$ 

SHORT CIRCUIT CURRENT (L-L) SEE DRAWINGS FOR CURRENT.

CONTRACTOR TO CONFIRM ACTUAL VALUES OF ABOVE LISTED CALCULATION VARIABLES WITH SERVING UTILITY PRIOR TO ORDERING EQUIPMENT. IF ELECTRICAL UTILITY EQUIPMENT AND INSTALLATION DEVIATES FROM THE BASIS ITEMIZED ABOVE, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER OF RECORD TO CONFIRM THE AIC RATING REQUIRED FOR ELECTRICAL DISTRIBUTION EQUIPMENT. ALL EQUIPMENT SHALL BE RATED FOR AVAILABLE FAULT CURRENT AND LABELED PER NEC 110.24 WITH THE MAXIMUM AVAILABLE FAULT CURRENT WITH THE DATE THE CALCULATIONS WERE PERFORMED.





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POWER | CAL ROOM
PANEL SCH OTNA TAK CHANICAL ME

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SHEET SIZE: 34x22 DESIGNED BY: DRAWN BY: BAB CHECKED BY: 7/31/2020 DATE: 2020.025.0 FILE NO.