



DUCHESNE COUNTY

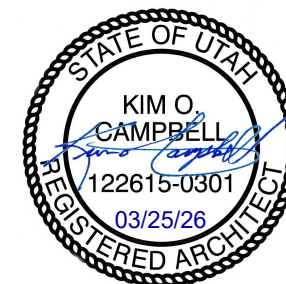
FAIRGROUNDS NORTH RESTROOM BUILDING

DRAWINGS

MARCH 26, 2026

FOR BIDDING ONLY

Project #: (2508-062)



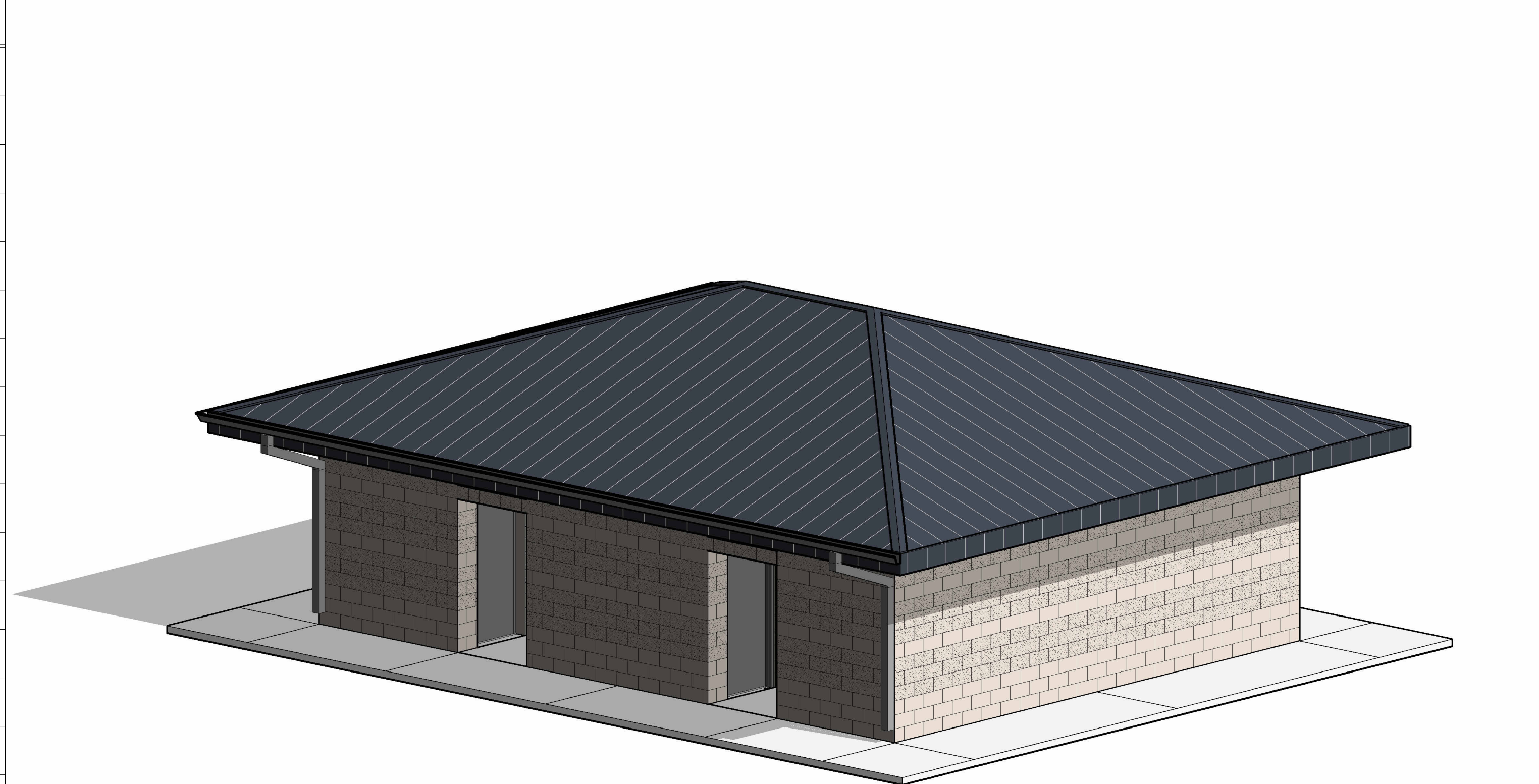
NORTH RESTROOM

DUCHESNE COUNTY

3/24/2026

60 W 400 S ST., DUCHESNE, UT 84021

CODE REVIEW & DESIGN CRITERIA

[illegible]

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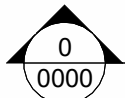
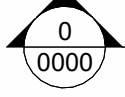
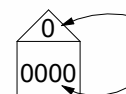
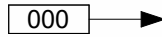
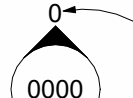
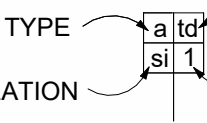
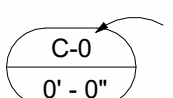
PLUMBING FIXTURE COUNT

### OCCUPANTS			
REQUIRED			
WATER CLOSETS	LAVATORIES	DRINKING FOUNTAINS	SERVICE SINK
MEN: XXX OCC. (1/150) = X	MEN'S LAVATORIES	1/1000, 2 REQUIRED	SERVICE SINKS
WOMEN: XXX OCC. (1/75) = X	WOMEN'S LAVATORIES		
PROVIDED			
MEN: XX WATER CLOSETS, XX URINALS	MEN'S LAVATORIES - PROVIDED	DRINKING FOUNTAINS - PROVIDED	SERVICE SINKS - PROVIDED
WOMEN: XX WATER CLOSETS	WOMEN'S LAVATORIES - PROVIDED		
UNISEX: XX WATER CLOSETS	UNISEX LAVATORIES - PROVIDED		
THE 2021 EDITION OF THE IBC, IECC, IPC, IMC AND THE 2023 EDITION OF THE NEC ANSI A117			

DEFERRED SUBMITTALS

PRE-ENGINEERD TRUSSES

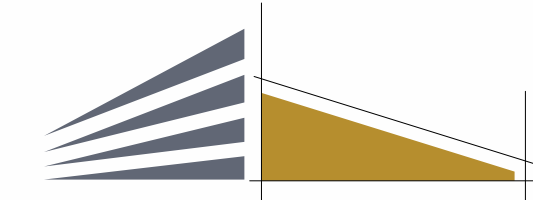
SYMBOLS

	SECTION NUMBER SHEET NUMBER	WALL SECTION		ROOM NUMBER
	DETAIL NUMBER SHEET NUMBER	BUILDING SECTION		DOOR NUMBER
	DETAIL NUMBER SHEET NUMBER	DETAIL		WINDOW NUMBER
	VIEW NUMBER SHEET NUMBER	EXTERIOR ELEVATION		KEYNOTE
	VIEW NUMBER SHEET NUMBER	INTERIOR ELEVATION		GRIDLINE
	HEIGHT OF WALL FIRE RATING	WALL TAG		LEVEL ELEVATION
	CEILING TYPE CEILING HEIGHT	CEILING TAG		SPOT ELEVATION

VICINITY MAP

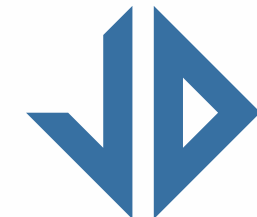


ARCHITECT & CONSULTANTS



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46 NORTH 200 EAST
ST GEORGE, UT 84770
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1535 SOUTH 100 WEST
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(435).896.8266

**RESOLUT**

230 NORTH 1680 EAST, BUILDING V
ST GEORGE, UT 84790
(435).674.4800

PROJECT NO.	2508-062	SHEET NO.	G-001
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GENERAL NOTES

- EROSION & SEDIMENT CONTROL NOTES:

- SITE UTILITY NOTES:

- ### CONCRETE SLAB-ON-GRADE JOINTS

- | MAXIMUM CONTROL JOINT SPACING | | |
|-------------------------------|----------------------------|------------|
| SLAB THICKNESS, IN. | MAXIMUM JOINT SPACING, FT. | |
| | UNREINFORCED | REINFORCED |
| 4 | 8 | 10 |
| 5 | 10 | 12 |
| 6 | 12 | 15 |
| 8 | 16 | 20 |

TBC	TOP BACK OF CURB	R/W	RIGHT-OF-WAY
FLG	FLOW LINE OF GUTTER	T.C.E.	TEMPORARY CONSTRUCTION EASEMENT
LOC	LIP OF CURB		
TSW	TOP OF SIDEWALK	P.U.E.	PUBLIC UTILITY EASEMENT
TCC	TOP OF CONCRETE	LDD	LIMITS OF DISTURBANCE
EOA	EDGE OF ASPHALT	STA	STATION
LTA	TOP OF ASPHALT	L / LT	LEFT
TGC	TOP OF GRATE	R / RT	RIGHT
FLG	FLOW LINE OF CULVERT		
SW	SIDEWALK		CONCRETE SURFACING
EG	EXISTING GROUND		ASPHALT SURFACING
FG	FINISHED GRADE		
CIP	CAST-IN-PLACE		

	SANITARY SEWER LINE
	CULINARY WATER LINE
	BURIED POWER LINE
	OVERHEAD POWER LINE
	BURIED TELEPHONE LINE
	OVERHEAD TELEPHONE LINE
	BURIED CABLE TV LINE
	OVERHEAD CABLE TV LINE
	FIBER OPTIC LINE
	NATURAL GAS LINE
	IRRIGATION LINE
	STORM DRAIN / DRAINAGE CULVERT
	FENCE LINE (BARBED OR STOCKTIGHT)
	FENCE LINE (CHAIN LINK)
	CONCRETE SURFACING SIDEWALK, CURB, GUTTER, ETC.)
	FLOW LINE OF DITCH
	EDGE OF ASPHALT SURFACING
	EDGE OF GRAVEL SURFACING
	EDGE OF DIRT SURFACING
	FIRE HYDRANT
	WATER METER
	GAS METER
	IRRIGATION METER
	CULINARY WATER VALVE
	GAS VALVE
	IRRIGATION VALVE
	STRUCTURE
	POWER POLE & GUY WIRE
	SANITARY SEWER CLEAN OUT
	TREE
	DELINEATOR POST
	STREET SIGN
	TELEPHONE PEDESTAL
	MAILBOX
	CABLE TV PEDESTAL
	SANITARY SEWER MANHOLE
	STORM DRAIN MANHOLE
	WATER MANHOLE
	IRRIGATION MANHOLE
	COMMUNICATION MANHOLE
	LIGHT POLE

	SANITARY SEWER LINE
	SANITARY SEWER SERVICE
	CULINARY WATER LINE
	BURIED POWER LINE
	OVERHEAD POWER LINE
	BURIED TELEPHONE LINE
	OVERHEAD TELEPHONE LINE
	BURIED CABLE TV LINE
	OVERHEAD CABLE TV LINE
	FIBER OPTIC LINE
	NATURAL GAS LINE
	IRRIGATION LINE
	STORM DRAIN / DRAINAGE CULVERT
	FENCE LINE (GARBLED OR STOCKTIGHT)
	FENCE LINE (CHAIN LINK)
	EDGE OF ASPHALT
	EDGE OF CONCRETE
	FIRE HYDRANT
	WATER METER
	GAS METER
	IRRIGATION METER
	CULINARY WATER VALVE
	GAS VALVE
	IRRIGATION VALVE
	POWER POLE & GUY WIRE
	SANITARY SEWER CLEAN OUT
	STRUCTURE
	DELINEATOR POST
	STREET SIGN
	MAILBOX
	SANITARY SEWER MANHOLE
	STORM DRAIN MANHOLE
	WATER MANHOLE
	IRRIGATION MANHOLE
	COMMUNICATION MANHOLE
	LIGHT POLE
	TOP OF CUT LIMITS
	TOE OF FILL LIMITS

The diagram illustrates various boundary line types used in land surveying. It consists of a vertical list of line styles on the left and their corresponding labels on the right:

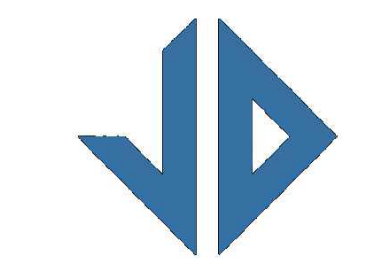
- SUBDIVISION BOUNDARY LINE**: Represented by a solid black line.
- LOT LINES**: Represented by a dashed line.
- EXISTING RIGHT OF WAY LINE**: Represented by a line with short, perpendicular tick marks on one side.
- EXISTING N/A LINE**: Represented by a line with small, regular cross-hatches.
- EXISTING CITY BLOCK LINES**: Represented by a line with small, regular cross-hatches.
- PROPOSED RIGHT-OF-WAY LINE**: Represented by a line with long, perpendicular tick marks on one side.
- SECTION LINE**: Represented by a line with small, regular cross-hatches.
- QUARTER SECTION LINE (P.U.E.)**: Represented by a line with small, regular cross-hatches.
- PUBLIC UTILITY EASEMENT**: Represented by a line with small, regular cross-hatches.
- DEED LINE**: Represented by a line with small, regular cross-hatches.
- PROPERTY LINE**: Represented by a line with small, regular cross-hatches.

JDE No.

SUBMITTAL

REVISIONS

STAMP



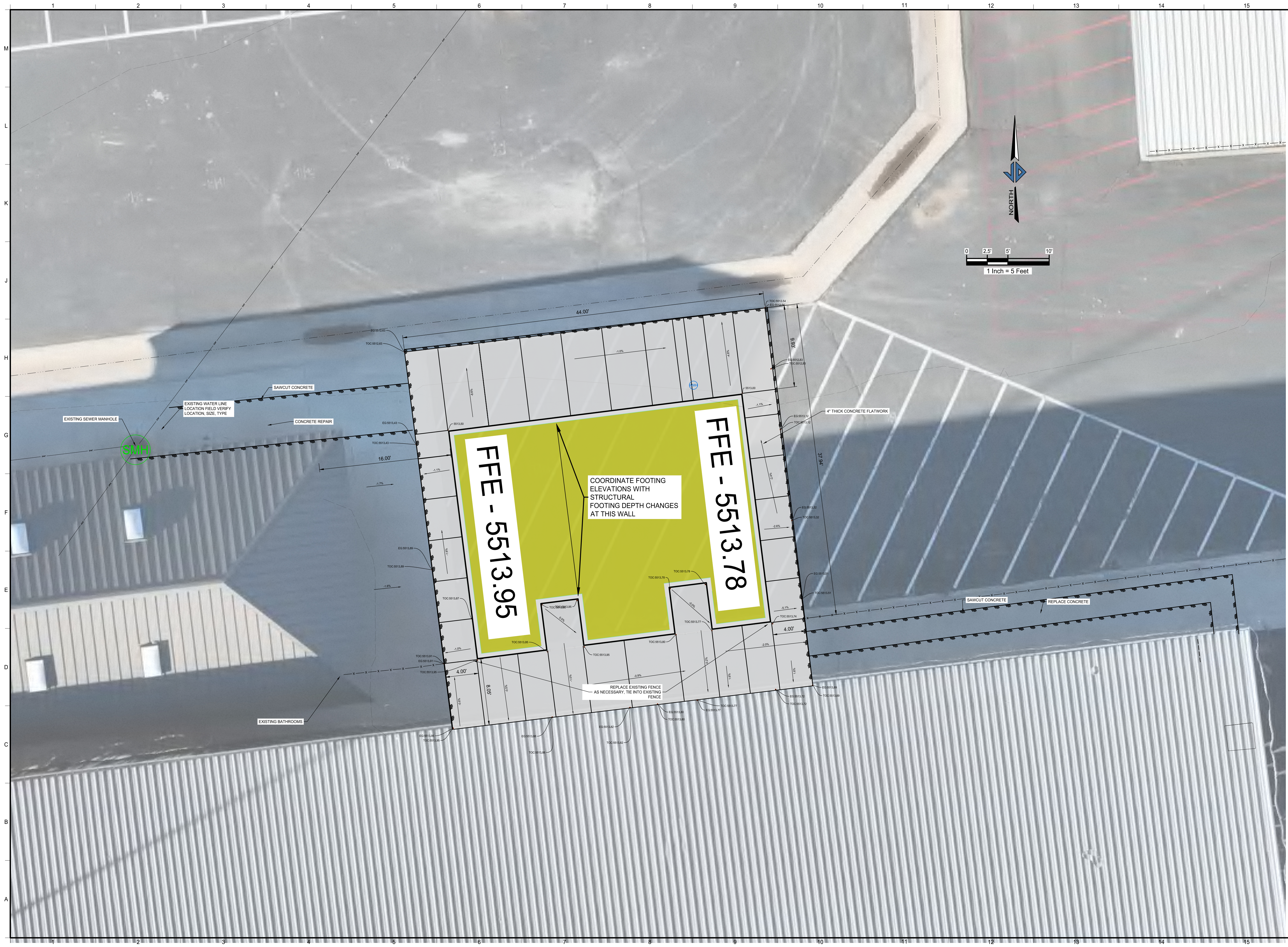
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IT'S FREE AND IT'S THE LAW.

C-001

UTILITY INFORMATION		
UTILITY	OWNER	CONTACT
WATER		
SEWER		
POWER		
TELEPHONE / DATA		
NATURAL GAS		
CABLE TELEVISION		

MAXIMUM CONTROL JOINT SPACING		
SLAB THICKNESS, IN.	MAXIMUM JOINT SPACING, FT.	
	UNREINFORCED	REINFORCED
4	8	10
5	10	12
6	12	15
8	16	20

C-002



DUCHESNE
COUNTY

DUCHESNE
FAIRGROUNDS
RESTROOM

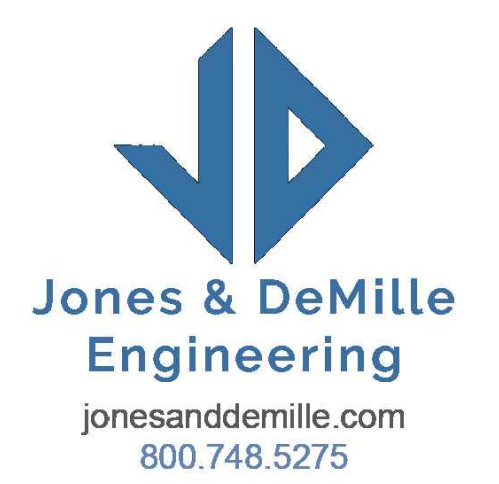
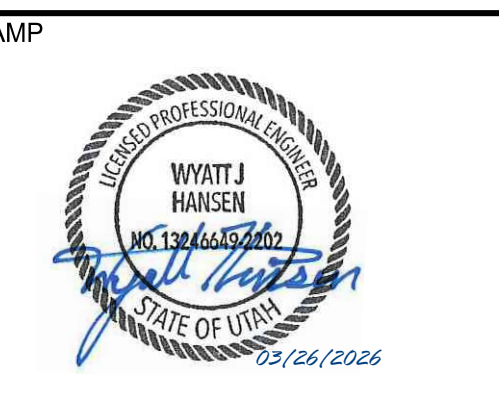
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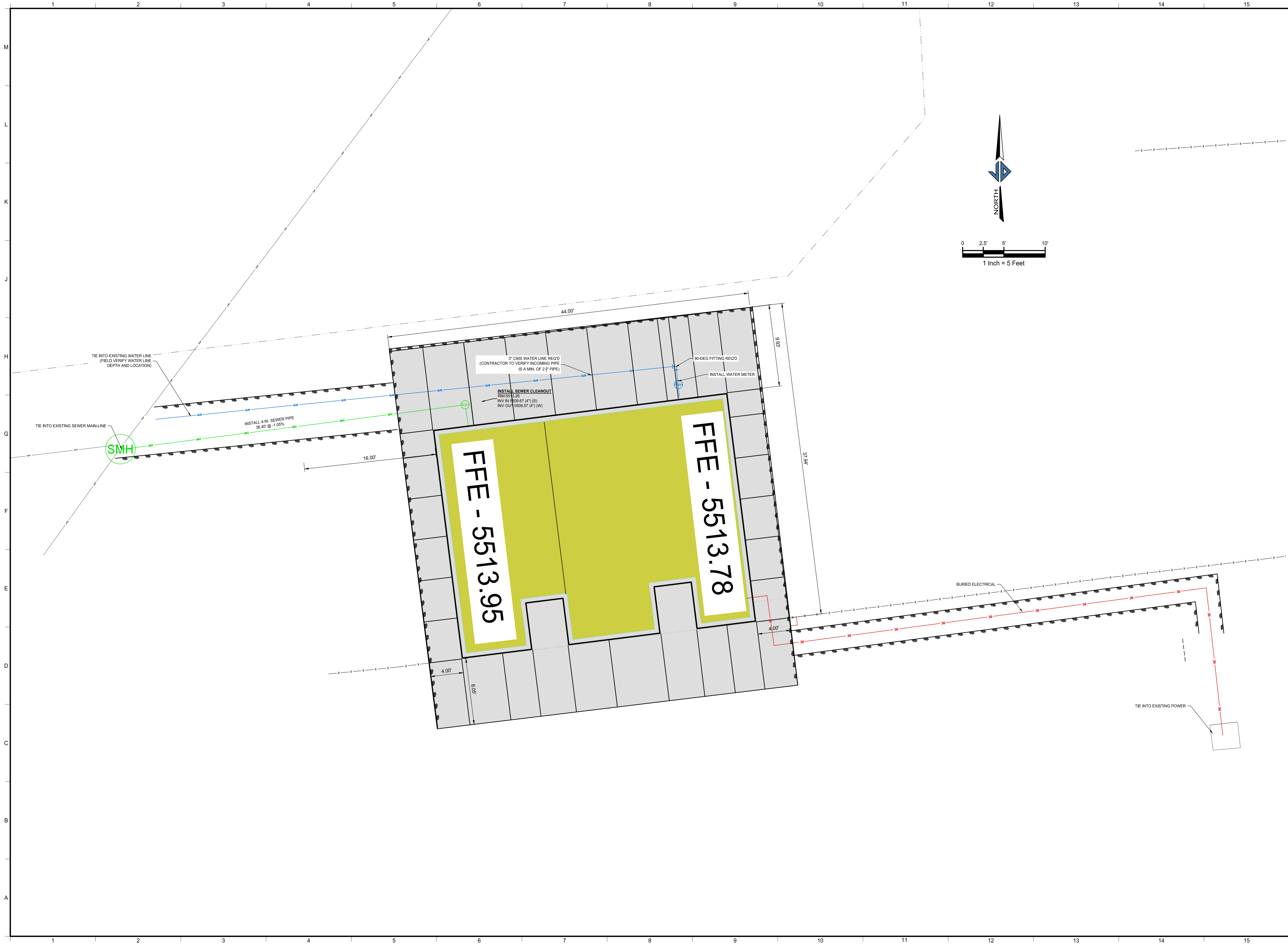
REVISIONS

NO.	DATE	DESCRIPTION



SITE & GRADING PLAN

C-100



DUCHESNE
COUNTY

DUCHESNE
FAIRGROUNDS
RESTROOM

2508-062

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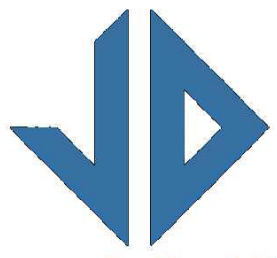
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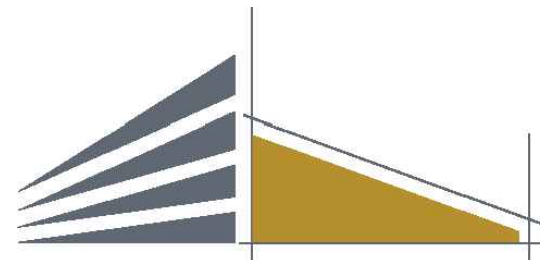
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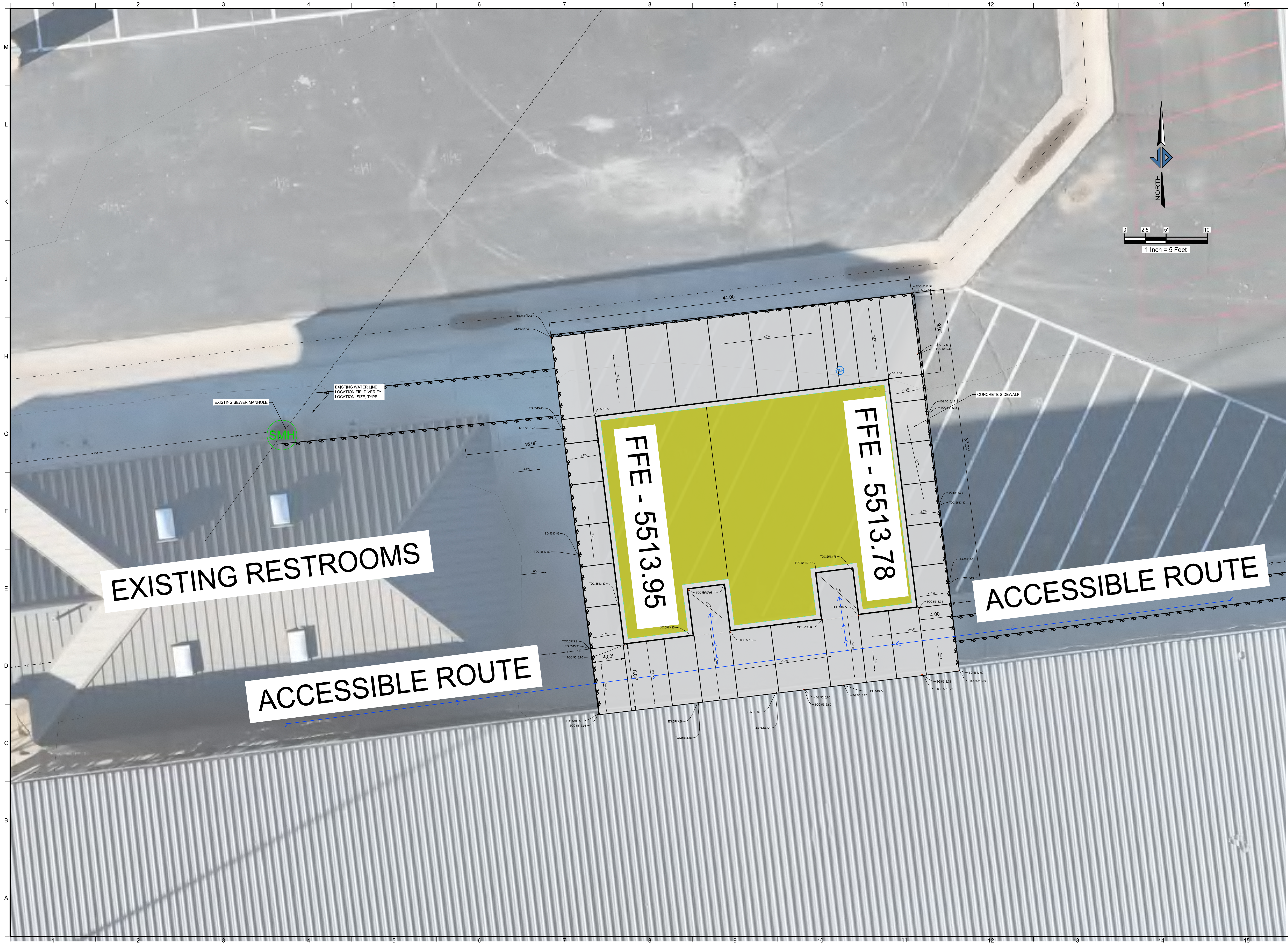

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UTILITY PLAN

C-101



DUCHESNE COUNTY

DUCHESNE FAIRGROUNDS RESTROOM

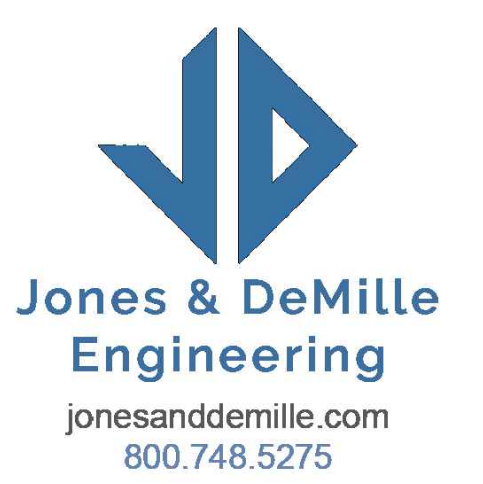
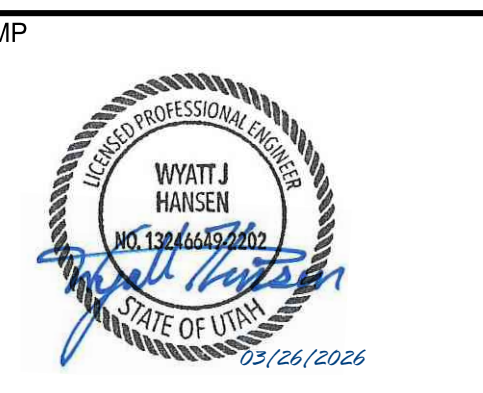
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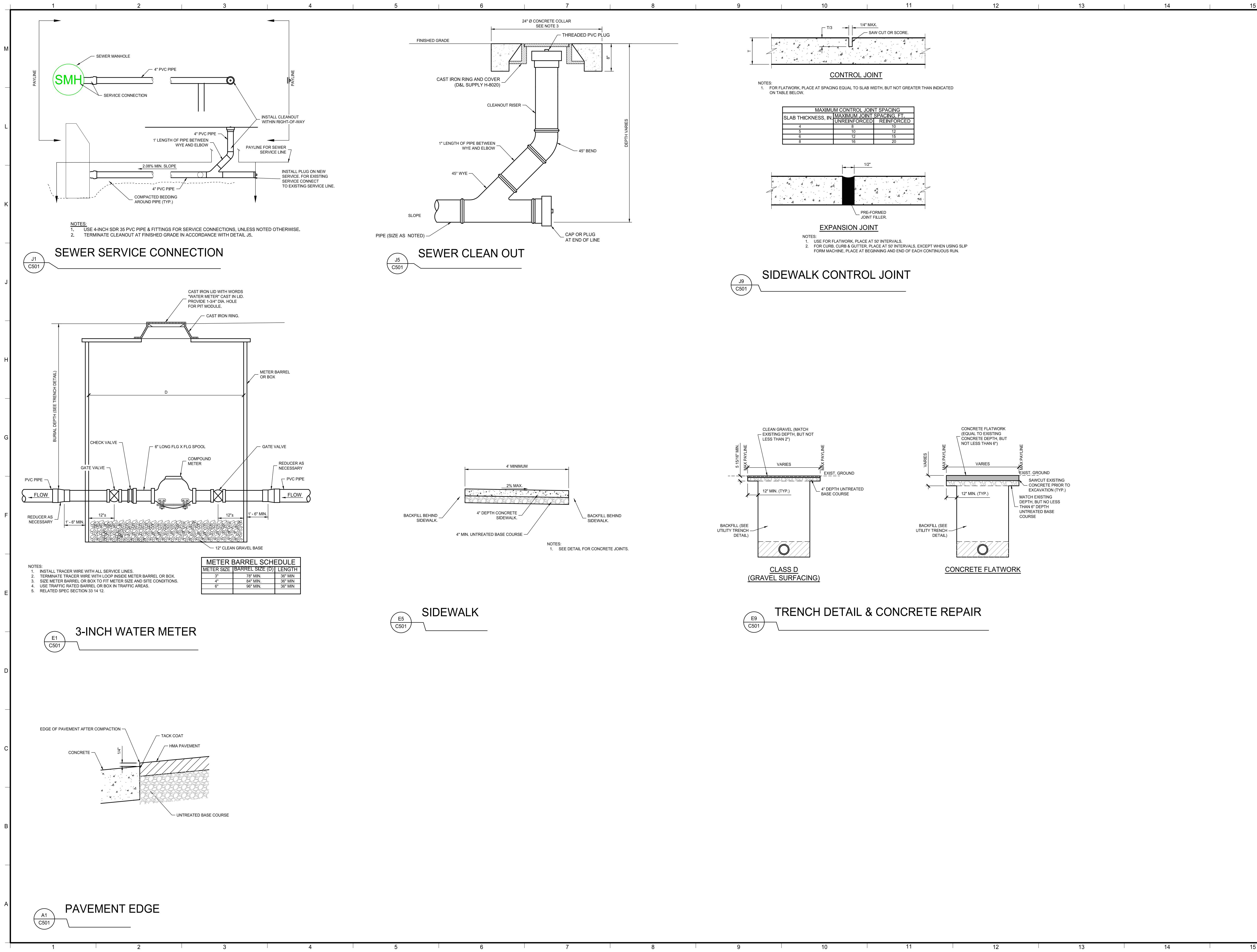
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REVISIONS

NO.	DATE	DESCRIPTION





DUCHESNE
COUNTY

DUCHESNE
FAIRGROUNDS
RESTROOM

2508-062

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DETAILS

C-501

DESIGN CRITERIA

BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE
CLASSIFICATION: RISK CATEGORY II

LIVE LOADING
ROOF: 20 PSF (REDUCIBLE)

DEAD LOADING
ROOF: 20 PSF (INCLUDES 5 PSF FOR SELF WEIGHT OF TRUSSES)

SNOW LOADING (BASED ON 2018 UTAH GROUND SNOW LOAD MAP)
ELEVATION: 5,800 FT (APPROX.)
GROUND SNOW LOAD: P_g = 41 PSF
EXPOSURE FACTOR: C_e = 0.9
SNOW IMPORTANCE FACTOR: I_s = 1.0
THERMAL FACTOR: C_t = 1.0
CALCULATED SNOW LOAD: P_f = 25.83 PSF
MIN. SNOW LOAD DESIGNATED BY BUILDING OFFICIAL: 24 PSF
DESIGN SNOW LOAD: P_f = 26 PSF
SLOPE FACTOR: C_s = 1.0

WIND LOADING
WIND EXPOSURE: C
WIND SPEED: 105 MPH
WIND IMPORTANCE FACTOR: I_w = 1.0

SEISMIC LOADING
LOCATION: 40.158349° LAT., -110.401528° LON.
SEISMIC IMPORTANCE FACTOR: I_e = 1.00
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
S_s = 0.316g S₁ = 0.099g
SITE CLASS: D
SPECTRAL RESPONSE COEFFICIENTS:
S_{wp} = 0.328g S_{wp1} = 0.159g
SEISMIC DESIGN CATEGORY: C
SEISMIC FORCE RESISTING SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALLS

OUT-OF-PLANE FORCE: F_p = 0.1304 W_p
SEISMIC RESPONSE COEFFICIENT: C_s = 0.065
RESPONSE MODIFICATION FACTOR: R = 5
OVERSTRENGTH FACTOR: Q = 2.5
ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE METHOD

SOILS
SOIL BEARING PRESSURE: 1,500 PSF
PROJECT GEOTECHNICAL INVESTIGATION: NONE

EARTHWORK

- ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS, AND BACK FILLS, ETC.
- SHORE AND BRACE AS REQUIRED
- DE-WATER AS REQUIRED TO REMOVE STANDING WATER FROM EXCAVATIONS.
- FOUNDATIONS ARE SHOWN AND DIMENSIONED AS BEING FORMED. INCREASE FOOTING WIDTHS BY 2" FOR FOOTINGS PLACED IN NEAT EXCAVATIONS.
- CLEAN ALL DEBRIS FROM EXCAVATIONS.
- NOTIFY ENGINEER 48 HOURS IN ADVANCE OF PLACING CONCRETE
- PROVIDE 30" MINIMUM FOOTING EMBEDMENT FROM FINISH GRADE FOR FROST PROTECTION AT EXTERIOR FOOTINGS.
- SCARIFY SOILS IN BOTTOM OF EXCAVATIONS 6".
- MOISTURE CONDITION TO WITHIN 2% OF OPTIMUM MOISTURE, AND COMPACT TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 PRIOR TO PLACEMENT OF STRUCTURAL FILL
- COUNTY TO PROVIDE GEOFABRIC ON PREPARED EARTH PRIOR TO PLACEMENT OF STRUCTURAL FILL.
- COUNTY TO PROVIDE 18" OF STRUCTURAL FILL BENEATH ALL FOOTINGS.
- EXTEND STRUCTURAL FILL LATERALLY A DISTANCE EQUAL TO 1/2 THE STRUCTURAL FILL DEPTH BEYOND EDGE OF FOOTING ON EACH SIDE.
- IMPORTED STRUCTURAL FILL USED FOR SUPPORT OF FOUNDATIONS AND FLOOR SLABS:
 - WELL-GRADED
 - NON-EXPANSIVE
 - FREE OF ORGANICS AND ALL DELETERIOUS MATERIALS
 - PERCENT PASSING NO. 200 SIEVE: 30% MAX
 - LIQUID LIMIT: 30 OR LESS
 - PLASTICITY INDEX: 10 OR LESS
- COMPACT STRUCTURAL FILL BENEATH FOOTINGS TO 95% OF MAXIMUM DRY DENSITY DETERMINED BY ASTM D1557.
- PLACE STRUCTURAL FILL IN MAXIMUM EIGHT-INCH THICK LOOSE LIFTS TO ACHIEVE ADEQUATE COMPACTION.

SHOP-FABRICATED WOOD TRUSSES

- DESIGN AND FABRICATE TRUSSES IN ACCORDANCE WITH 2021 IBC
- NOTATION AND SYMBOLS FOR LOADS SHOWN ARE PER ASCE 7-16 SECTION 2.2.
- PROVIDE STAMPED CALCULATIONS AND ERECTION DRAWINGS FOR ALL TRUSS-TO-TRUSS CONNECTIONS, BEARING ENHANCERS, ETC.
- DESIGN AND FABRICATE ALL REQUIRED TRUSS BRACING.
- ROOF TRUSS LOADING
 - TOP CHORD:
 - DEAD LOAD: 10.0 PSF (INCLUDES TRUSS SELF-WEIGHT).
 - LIVE ROOF LOAD: 20 PSF.
 - WIND LOAD: USE COMPONENT AND CLADDING WIND LOADING PER ASCE 7-16.
 - SNOW LOADING: USE SNOW LOADING PER ASCE 7-16. REFER TO ROOF FRAMING PLANS FOR DRIFT LOADS AS APPLICABLE.
 - DRAG LOADS: REFER TO ROOF FRAMING PLANS.
 - BOTTOM CHORD
 - DEAD LOAD: 10.0 PSF
 - LIVE LOAD: 10.0 PSF (BOTTOM CHORD LIVE LOAD IS NOT CONCURRENT WITH ROOF LIVE LOAD)
- DESIGN ALL TRUSSES TO TRANSFER AN OUT-OF-PLANE SERVICE SEISMIC OR WIND LOAD OF 0.7 KIPS (F_p) FROM HEEL TO DIAPHRAGM AT BEARING LOCATIONS.
- MAXIMUM DEFLECTION
 - ROOF TRUSSES: TL/180 OR LL/240.
 - FLOOR TRUSSES: TL/240 OR LL/360.
- MINIMUM MEMBER SIZES:
 - TOP CHORDS: 2X6
 - WEBS AND BOTTOM CHORD: 2X4
- ALLOWABLE STRESS INCREASE FOR LOAD DURATION: 15% MAXIMUM.
- DO NOT USE REPETITIVE MEMBER INCREASE FOR GIRDER TRUSSES.
- CONSIDER EFFECTIVE ECCENTRIC LOADING IN ALL JOINTS.
- FABRICATOR: AN APPROVED FABRICATOR AS CURRENTLY LISTED BY THE ICBQ.

STRUCTURAL QA PLAN

- QUALITY ASSURANCE AGENCY (QAA) REQUIREMENTS:
- THE OWNER OR REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL ENGAGE A QUALIFIED QUALITY ASSURANCE AGENCY TO PROVIDE ALL SPECIAL INSPECTION AND QUALITY ASSURANCE TESTING FOR THE PROJECT. ALL QUALITY ASSURANCE PERSONNEL ASSIGNED TO THE PROJECT SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING HIS OR HER COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING.
 - PRIOR TO CONSTRUCTION, THE QAA SHALL PREPARE A WRITTEN QUALITY ASSURANCE IMPLEMENTATION PLAN FOR THE PROJECT. THE PLAN SHALL INCLUDE A LIST OF PERSONNEL ASSIGNED TO THE PROJECT INCLUDING MANAGEMENT PERSONNEL, INSPECTION PROCEDURES AND FREQUENCY, PROPOSED TESTING METHODS AND FREQUENCY OF TESTING, AND REPORTING PROCEDURES. THE PLAN SHALL ALSO OUTLINE METHODS OF DOCUMENTING DEFICIENCIES AND REPORTING CORRECTIONS. A COPY OF THE PLAN SHALL BE GIVEN TO THE CONTRACTOR FOR REVIEW AND COORDINATION WITH SUBCONTRACTORS.
 - THE SPECIAL INSPECTOR SHALL INSPECT THE WORK PER CHAPTER 17 OF THE IBC FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND REPORT TO THE OWNER, BUILDING OFFICIAL, ARCHITECT, ENGINEER, AND CONTRACTOR. ALL NOTED DEFICIENCIES SHALL BE NOTED IN THE REPORT AND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THE QAA SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN CONFORMANCE WITH THE PLANS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.
 - CONTRACTOR IS ADVISED THAT ADDITIONAL SPECIAL INSPECTIONS AND TESTING MAY BE REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

SEISMIC FORCE RESISTING SYSTEMS:
ELEMENTS THAT ARE PART OF THE MAIN SEISMIC FORCE RESISTING SYSTEM FOR THE STRUCTURE MAY REQUIRE INCREASED QUALITY ASSURANCE INSPECTION AND TESTING. CONTACT ENGINEER OF RECORD REGARDING WHICH ELEMENTS ARE PART OF THE MAIN SEISMIC FORCE RESISTING SYSTEM FOR THE STRUCTURE MAY INCLUDE THE FOLLOWING ELEMENTS:

- CONCRETE WALLS
- FOOTING AND FOUNDATION SYSTEM
- CONNECTIONS BETWEEN ELEMENTS REFERENCED ABOVE.

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED FOR THE FOLLOWING ITEMS PER IBC 1704 AND 1707:

- SOILS: SITE SOIL CONDITIONS, FILL PLACEMENT AND LOAD-BEARING REQUIREMENTS SHALL BE INSPECTED AS REQUIRED BY IBC 1705.6, THE APPROVED GEOTECHNICAL REPORT, AND THE CONSTRUCTION DOCUMENTS PREPARED BY THE REGISTERED DESIGN PROFESSIONALS.
- SPECIAL INSPECTION OF SOILS SHALL INCLUDE THE FOLLOWING:
 - VERIFY MATERIALS BELOW SHALLOW FOUNDATION ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.
 - VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.
 - PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.
 - VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.
 - PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.
 - SOILS SHALL RECEIVE CONTINUOUS SPECIAL INSPECTION DURING PLACEMENT OF MATERIALS TO VERIFY PROPER MATERIALS, DENSITIES, AND LIFT THICKNESS.

- CONCRETE AND EMBEDDED ITEMS IN CONCRETE SHALL BE SPECIAL INSPECTED PRIOR TO AND DURING PLACEMENT OF CONCRETE. SPECIAL INSPECTION OF CONCRETE SHALL INCLUDE THE FOLLOWING:
 - REINFORCING STEEL GRADE, SIZE AND PLACEMENT.
 - SURFACE PREPARATION AT COLD JOINTS INCLUDING PLACEMENT OF KEYWAYS
 - BOLT AND EMBED SIZE, CONFIGURATION AND PLACEMENT.
 - CONCRETE SHALL RECEIVE CONTINUOUS SPECIAL INSPECTION DURING PLACEMENT, AND PERIODIC INSPECTION AFTER PLACEMENT TO ENSURE PROPER CURING AND WEATHER PROTECTION PROCEDURES
- POST-INSTALLED ANCHORS, INCLUDING BUT NOT LIMITED TO EXPANSION ANCHORS, ADHESIVE ANCHORS AND REBAR DOWELS, AND LOW VELOCITY FASTENERS, SHALL RECEIVE SPECIAL INSPECTION PER THE CODE EVALUATION REPORTS FOR THE ANCHORS:
 - CONTINUOUS SPECIAL INSPECTION IS REQUIRED DURING THE INSTALLATION OF ALL ADHESIVE ANCHORS AND REBAR DOWELS. SPECIAL INSPECTOR SHALL VERIFY THE FOLLOWING:
 - ANCHOR SIZE AND STEEL GRADE.
 - HOLE DIAMETER, LOCATION AND TYPE OF DRILL BIT.
 - CLEANLINESS OF HOLE AND ANCHOR.
 - ADHESIVE APPLICATION.
 - ANCHOR EMBEDMENT.

STRUCTURAL TESTING: THE FOLLOWING MATERIALS SHALL BE TESTED PER IBC 1705. THE OWNER RESERVES THE RIGHT TO TEST ANY AND ALL MATERIALS USING ANY APPROPRIATE NON-DESTRUCTIVE PROCEDURE. ANY ITEMS FOUND TO BE DEFICIENT SHALL BE CORRECTED AND RETESTED AT NO ADDITIONAL COST TO THE OWNER.

- EARTHWORK: ALL COMPACTED STRUCTURAL FILL SHALL BE TESTED TO VERIFY SOIL GRADATION, LIFT THICKNESS, AND COMPACTION REQUIREMENTS. SEE THE PROJECT SPECIFICATIONS FOR TESTING FREQUENCY AND ACCEPTABILITY CRITERIA.
- CONCRETE STRENGTH VERIFICATION AND TESTING. ALL CONCRETE SHALL BE TESTED TO VERIFY STRENGTH, SLUMP, UNIT WEIGHT, AIR CONTENT, AND TEMPERATURE. SEE THE PROJECT SPECIFICATIONS FOR TESTING CRITERIA, TESTING FREQUENCY AND ACCEPTABILITY CRITERIA.

CONCRETE

- CONSTRUCT CONCRETE ACCORDING TO ACI 318 (LATEST VERSION).
- DETAIL, FABRICATE, AND INSTALL REINFORCING STEEL ACCORDING TO "MANUAL OF STANDARD PRACTICE OF REINFORCED CONCRETE CONSTRUCTION" BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- GENERAL
 - DO NOT PLACE PIPES OR DUCTS IN CONCRETE SLABS OR WALLS UNLESS SPECIFICALLY DETAILED.
 - REFER TO ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL AND MECHANICAL DRAWINGS FOR ALL MOLDS, GROOVES, ORNAMENTS, CLIPS AND GROUNDS TO BE CAST IN CONCRETE.
 - DIMENSIONS SHOWN FOR LOCATION OF REINFORCING ARE TO FACE OF MAIN BARS AND DENOTE CLEAR COVERAGE.
- SUBMIT CONCRETE PLACEMENT PLAN TO ENGINEER 48 HOURS PRIOR TO EACH CONCRETE PLACEMENT.
- CONCRETE MIX DESIGN: PREPARED BY INDEPENDENT LABORATORY AND APPROVED BY ENGINEER OF RECORD.
- CONCRETE
 - LEAN CONCRETE FILL
 - MINIMUM COMPRESSIVE STRENGTH: 1,500 PSI.
 - CEMENT: ASTM C-150, TYPE II
 - MAXIMUM WATER-CEMENT RATIO: 0.55.
 - STRUCTURAL CONCRETE
 - MINIMUM COMPRESSIVE STRENGTH: 4,000 PSI.
 - CEMENT: ASTM C-150, TYPE II
 - MAXIMUM WATER-CEMENT RATIO: 0.45.
- CONCRETE EXPOSED TO EXTERIOR CONDITIONS: AIR ENTRAINMENT TO 5%-7% AIR CONTENT.
- CONCRETE AGGREGATES: NATURAL SAND AND ROCK AGGREGATES CONFORMING TO ASTM C-33 (3/4" MAX).
- REINFORCING STEEL: ASTM A615 GRADE 60 UNO.
- WIRE FABRIC: ASTM A-185.
- WELDING OF REINFORCING STEEL: CONFORM TO AWS D1.4 USING PROPER LOW HYDROGEN ELECTRODES. DO NOT TACK WELD TO REBAR. SEE REBAR WELDING NOTE.
- CONCRETE CLEAR COVERAGE, UNO.
 - CONCRETE PLACED AGAINST FORMS (INCLUDING CONCRETE TO BE BACKFILLED): 2"
 - CONCRETE PLACED AGAINST GROUND: 3"
 - SLABS (ON GROUND): CENTER BAR IN SLAB.
- PROVIDE CLASS B LAP SPLICES UNO. SEE TABLE "CONCRETE REINFORCEMENT LAP SPLICES".
- CONSTRUCT CONSTRUCTION JOINTS ROUGH, OR ROUGHEN JOINTS BY CHIPPING ENTIRE SURFACE, SANDBLASTING, OR HOSING SURFACE 4 TO 6 HOURS AFTER PLACEMENT WITH FINE SPRAY. REMOVE ALL LAITANCE FROM SURFACE.
- REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING ANY CONCRETE.
- SECURELY POSITION REINFORCING DOWELS, BOLTS, ANCHORS, SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE BEFORE PLACING CONCRETE (WET SETTING IS PROHIBITED).
- OBTAIN APPROVAL OF ALL AFFECTED TRADES PRIOR TO PLACING CONCRETE.
- MAXIMUM FREE FALL OF CONCRETE: 5'-0"
- DO NOT USE WOOD SPREADERS. DO NOT USE WOOD STAKES IN AREAS TO BE CONCRETED.
- FOLLOW ACI HOT OR COLD WEATHER PLACEMENT RECOMMENDATIONS FOR CONCRETE PLACEMENT AND CURING.
- EXERCISE SPECIFIC CARE DURING PLACEMENT AND CURING OF CONCRETE SLABS AND EXPOSED CONCRETE FINISHES.

CONCRETE REINFORCEMENT LAP SPLICES

SPlice Length (in.) for F _c = 4000 PSI											
Location	Reinforcement Size										
	#3	#4	#5	#6	#7	#8	#9	#10	#11		
TOP	24	32	40	48	70	80	91	102	113		
OTHER	20	25	31	38	55	62	70	79	87		

- TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS ARE BASED ON ACI 318-19, SECTIONS 25.4.2 AND 25.5.2 RESPECTIVELY. TABULATED VALUES FOR BEAMS OR COLUMNS ARE BASED ON TRANSVERSE REINFORCEMENT AND CONCRETE COVER MEETING MINIMUM CODE REQUIREMENTS.
- LAP SPLICE LENGTHS SHOWN ARE FOR CLASS B AND CASE 1.
- TOP REINFORCEMENT IS HORIZONTAL REINFORCEMENT THAT HAS MORE THAN TWELVE INCHES OF FRESH CONCRETE CAST BELOW IT. THIS INCLUDES HORIZONTAL REINFORCEMENT IN WALLS. ALL VERTICAL BARS ARE CONSIDERED AS "OTHER".
- FOR LIGHTWEIGHT CONCRETE AGGREGATE CONCRETE, MULTIPLY TABULATED VALUES BY 1.3.
- REINFORCEMENT IS ASSUMED TO BE UNCOATED OR GALVANIZED.
- FOR BARS WITH COVER OF LESS THAN 1 BAR DIAMETER OR WITH CLEAR SPACING OF LESS THAN 2 BAR DIAMETERS, MULTIPLY TABULATED VALUES BY 2.0.

MASONRY

- ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATION FOR MASONRY STRUCTURES ACI 530-13/ASCE 6-13/TMS 402-13.
- CONCRETE BLOCK UNITS SHALL BE LIGHT WEIGHT GRADE N (85-105 PCF), TYPE 1 WITH MIN. COMPRESSIVE STRENGTH OF 2000 PSI ON AVERAGE NET AREA. (F'_m = 2000 PSI).
- MORTAR SHALL BE TYPE S CONFORMING TO APPLICABLE STANDARDS PER SPECIFICATION FOR MASONRY STRUCTURES.
- GROUT SHALL HAVE COMPRESSIVE STRENGTH OF 2000 PSI AND CONFORM TO APPLICABLE STANDARDS
- REINFORCING STEEL SHALL COMPLY WITH THE "CONCRETE NOTES" UNO.
- LAP ALL BARS AS INDICATED IN THE MASONRY REINFORCING BAR LAP SPLICE SCHEDULE.
- BEFORE BLOCK IS PLACED ON CONCRETE, THOROUGHLY CLEAN CONCRETE OF ALL LAITANCE AND ALL LOOSE MATERIAL, ROUGHEN AS DIRECTED IN "CONCRETE NOTES".
- CONCRETE BLOCK MASONRY SHALL BE BUILT TO PRESERVE THE UNOBSTRUCTED CONTINUITY OF THE VERTICAL CELLS. WALLS AND CROSS WEBS FORMING SUCH CELLS SHALL BE FULLY BEDDED IN MORTAR. ALL HEAD OR END JOINTS SHALL BE SOLIDLY FILLED WITH MORTAR FOR A DISTANCE IN FROM THE FACE OF THE WALL OR UNITS NOT LESS THAN THE THICKNESS OF THE LONGITUDINAL FACE SHELLS.
- VERTICAL CELLS SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR UNOBSTRUCTED CONTINUOUS VERTICAL CELL MEASURING NOT LESS THAN 3"x3".
- CLEAN OUT OPENINGS SHALL BE PROVIDED AT THE BOTTOMS OF ALL CELLS TO BE POURED AT EACH LIFT OR POUR OF GROUT WHERE SUCH LIFT OR POUR OF GROUT IS IN EXCESS OF 4'-0" IN HEIGHT. ANY OVERHANGING MORTAR OR OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED FROM INSIDE OF SUCH CELLS. THE CLEANOUTS SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.
- VERTICAL REINFORCING SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND INTERVALS NOT EXCEEDING 192 BAR DIAMETERS.
- WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED STOPPING THE POUR 1-1/2 INCHES BELOW THE TOP OF THE UPPER MOST UNIT.
- PLACE ALL HORIZONTAL BARS IN BOND BEAM UNITS, WHEN 2 BARS ARE USED, STAGGER LAPS 6'-0" MIN.
- PROVIDE CONTINUOUS BOND BEAM WITH #5 BAR AT TOP COURSE OF ALL MASONRY WALLS UNLESS NOTED OTHERWISE.
- PROVIDE DOWEL TO FOUNDATION OF EQUAL DIAMETER AND LAP SPLICE PER NOTE #6 AT EACH VERTICAL BAR IN WALLS. DOWELS SHALL BE STRAIGHT AND PLUMB.
- THE CONTRACTOR SHALL MEET THE REQUIREMENTS FOR A "LEVEL 2 QUALITY ASSURANCE" AS SPECIFIED IN TABLE 1704.5.3 OF 2015 IBC.
- ALL MASONRY WALLS, BEAMS, COLUMNS, AND LINTELS SHALL BE FULLY GROUTED UNLESS NOTED OTHERWISE.

MASONRY REINFORCEMENT LAP SPLICES

F _m = 2,000 PSI											
Reinforcement Sizes	#3	#4	#5	#6	#7	#8	#9	#10	#11		
Splice Length, in.	12	15	23	43	58	88	111	137	165		

- LAP SPLICE LENGTHS ARE BASED ON TMS 402-16 SECTION 6.1.6.1.1.
- TABULATED VALUES ARE BASED ON MINIMUM MASONRY COVER OF 3 INCHES.
- FOR EPOXY-COATED BARS, MULTIPLY TABULATED VALUES BY 1.5.

FRAMING NOTES

- REFER TO TYPICAL NOTES, DETAILS, & SCHEDULES.
- SEE ARCHITECTURAL DRAWINGS FOR INFORMATION NOT SHOWN.
- DIMENSIONS FOR SHEARWALLS ARE TO EDGE OF SHEARWALL, NOT LOCATION OF HOLDOWN.
- INSTALL ALL HANGERS, CLIPS, ANCHORS, AND OTHER HARDWARE PER MANUFACTURER'S RECOMMENDATIONS.
- SHOP-FABRICATED WOOD TRUSSES SHALL BE DESIGNED FOR THE UNIFORM LOADS SPECIFIED IN THE SHOP. FABRICATED WOOD TRUSSES NOTES AND ANY CONCENTRATED GRAVITY AND LATERAL LOADS INDICATED ON THE STRUCTURAL FRAMING PLANS, NOTATION AND SYMBOLS FOR LOADS SHOWN ARE PER ASCE 7.
- ALL TRUSSES SHALL BE DESIGNED TO TRANSFER AN OUT-OF-PLANE SERVICE SEISMIC OR WIND LOAD OF 0.7 KIPS (F_p) FROM THE HEEL TO THE DIAPHRAGM AT BEARING LOCATIONS.
- FORM UP & FILL ALL BEAM & JOIST POCKETS W/ NON-SHRINK GROUT PRIOR TO PLACING FINISHES, UNO.
- COORDINATE MECHANICAL UNIT WEIGHTS AND LOCATIONS WITH JOIST MANUFACTURER
- PROVIDE BRIDGING AS REQ'D TO PREVENT CHORD BUCKLING.
- PROVIDE TRUSS BLOCKING AT ALL BEARING WALLS WHERE TRUSS HEEL HEIGHT PROHIBITS USE OF 2X BLOCKING.
- TRUSS BLOCKING SHALL BE ABLE TO RESIST A LATERAL LOAD (WIND OR SEISMIC) OF 250 PLF.

FOUNDATION NOTES

- REFER TO TYPICAL NOTES, DETAILS, & SCHEDULES.
- SEE CIVIL PLANS FOR EXTERIOR CONCRETE WORK AND SITE GRADING.
- SEE ARCHITECTURAL DRAWINGS FOR SLAB SLOPES, DIMENSIONS, AND ELEVATIONS.
- PLACE STRUCTURAL FILL BENEATH FOOTINGS & BUILDING SLABS PER TYPICAL DETAIL "STRUCTURAL FILL PLACEMENT" AND PER EARTHWORK NOTES.
- PROVIDE TEMPORARY SHORING UNTIL MAIN FLOOR FRAMING IS COMPLETE FOR ANY WALL OVER 6' TALL THAT RETAINS SOIL TO RESIST INDUCED LATERAL LOADS.

STRUCTURAL TAGS LEGEND

TAG	DESCRIPTION
AB-1	ANCHOR BOLT, SEE ANCHOR BOLT SCHEDULE
CB-1	CONCRETE BEAM, SEE CONCRETE BEAM SCHEDULE
CC-1	CONCRETE COLUMN, SEE CONCRETE COLUMN SCHEDULE
CF-1	CONCRETE FOOTING, SEE CONCRETE FOOTING SCHEDULE
CS-1	CONCRETE SLAB, SEE CONCRETE SLAB SCHEDULE
CW-1	CONCRETE WALL, SEE CONCRETE WALL SCHEDULE
DB-1	COLD-FORMED STEEL BEAM, SEE COLD-FORMED STEEL BEAM SCHEDULE
DJ-1	COLD-FORMED STEEL JOIST, SEE COLD-FORMED STEEL JOIST SCHEDULE
DW-1	COLD-FORMED STEEL WALL, SEE COLD-FORMED STEEL WALL SCHEDULE
MC-1	MASONRY COLUMN, SEE MASONRY COLUMN SCHEDULE
ML-1	MASONRY LINTEL, SEE MASONRY LINTEL SCHEDULE
MW-1	MASONRY WALL, SEE MASONRY WALL SCHEDULE
SB-1	STEEL BEAM, SEE STEEL BEAM SCHEDULE
SC-1	STEEL COLUMN, SEE STEEL COLUMN SCHEDULE
SD-1	STEEL DECK, SEE STEEL DECK SCHEDULE
SJ-1	STEEL JOIST, SEE STEEL JOIST SCHEDULE
WB-1	WOOD BEAM, SEE WOOD BEAM SCHEDULE
WC-1	WOOD COLUMN, SEE WOOD COLUMN SCHEDULE
WJ-1	WOOD JOIST, SEE WOOD JOIST SCHEDULE
WW-1	WOOD WALL, SEE WOOD WALL SCHEDULE

STRUCTURAL PLAN LEGEND

- JOIST OR TRUSS
- BEAM OR GIRDER
- PURLIN
- STEEL COLUMN
- MASONRY COLUMN
- CONCRETE COLUMN
- CONCRETE FOOTING
- RECESSED FOUNDATION WALL
- NON-BEARING STRUCTURAL WALL
- BEARING WALL
- BEAM IN WALL
- STEEL STRAP
- STEEL DECK
- OWS JOIST CROSS BRIDGING
- STEEL JOIST CROSS BRIDGING
- SHEARWALL TYPE AND LENGTH, SEE SHEARWALL SCHEDULE
- HOLDOWN, SEE HOLDOWN SCHEDULE. "H" INDICATES LOCATION OF HOLDOWN IDENTIFIED ON LEVEL ABOVE.
- SNOW DRIFT AREA AND LOAD, ON TOP OF BASE SNOW LOAD. DRIFT LOAD IS 0 PSF AT DOTTED LINE AND INCREASES LINEARLY TO MAXIMUM LOAD.
- SHEATHING
- PERMANENT EQUIPMENT
- MARK
- FOOTING TAG, SEE FOOTING SCHEDULE
- TOP OF FOOTING ELEVATION

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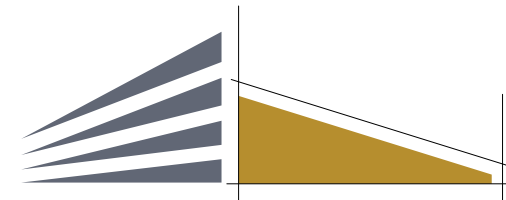
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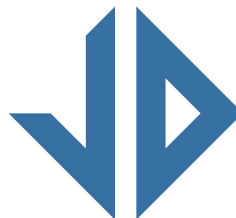
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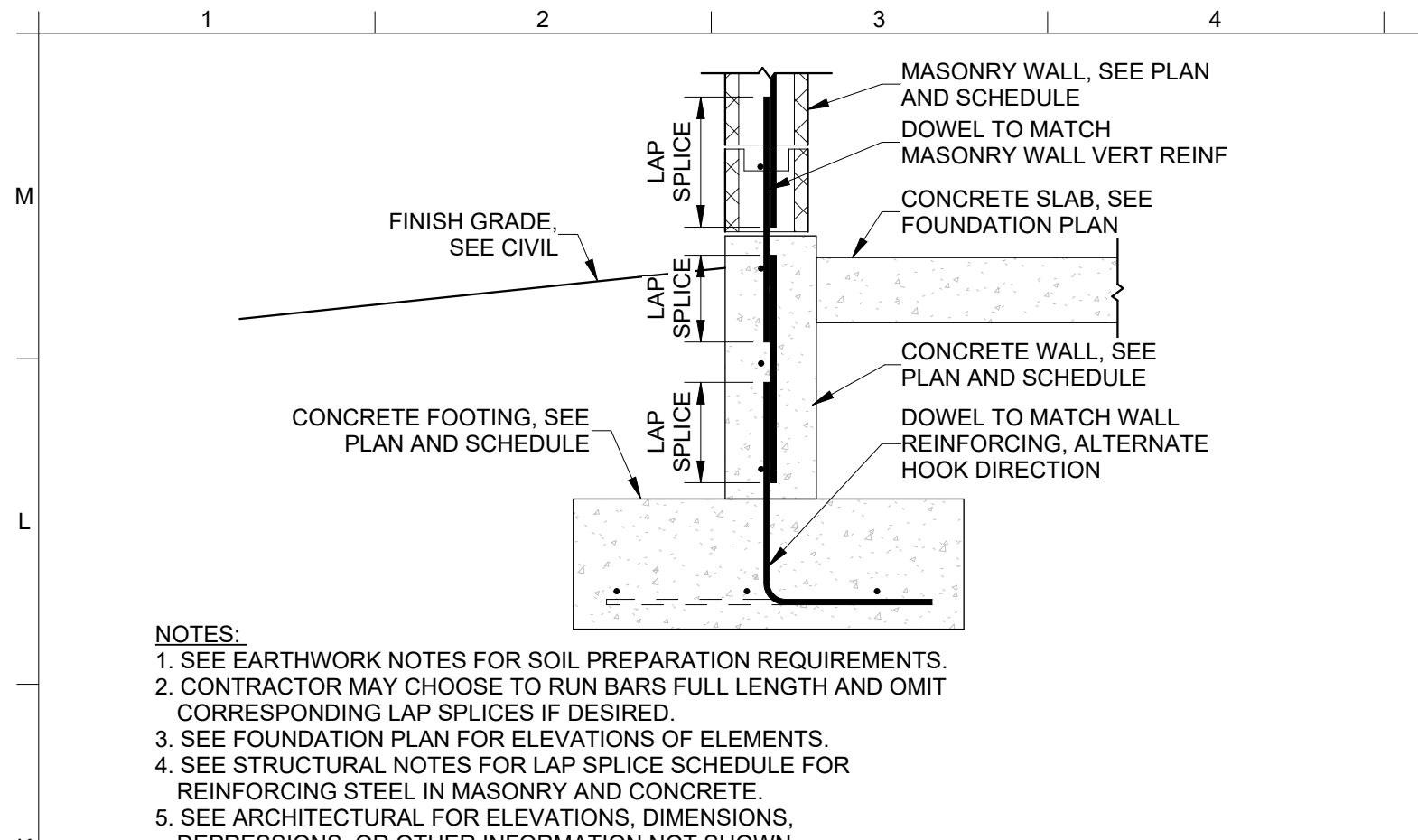
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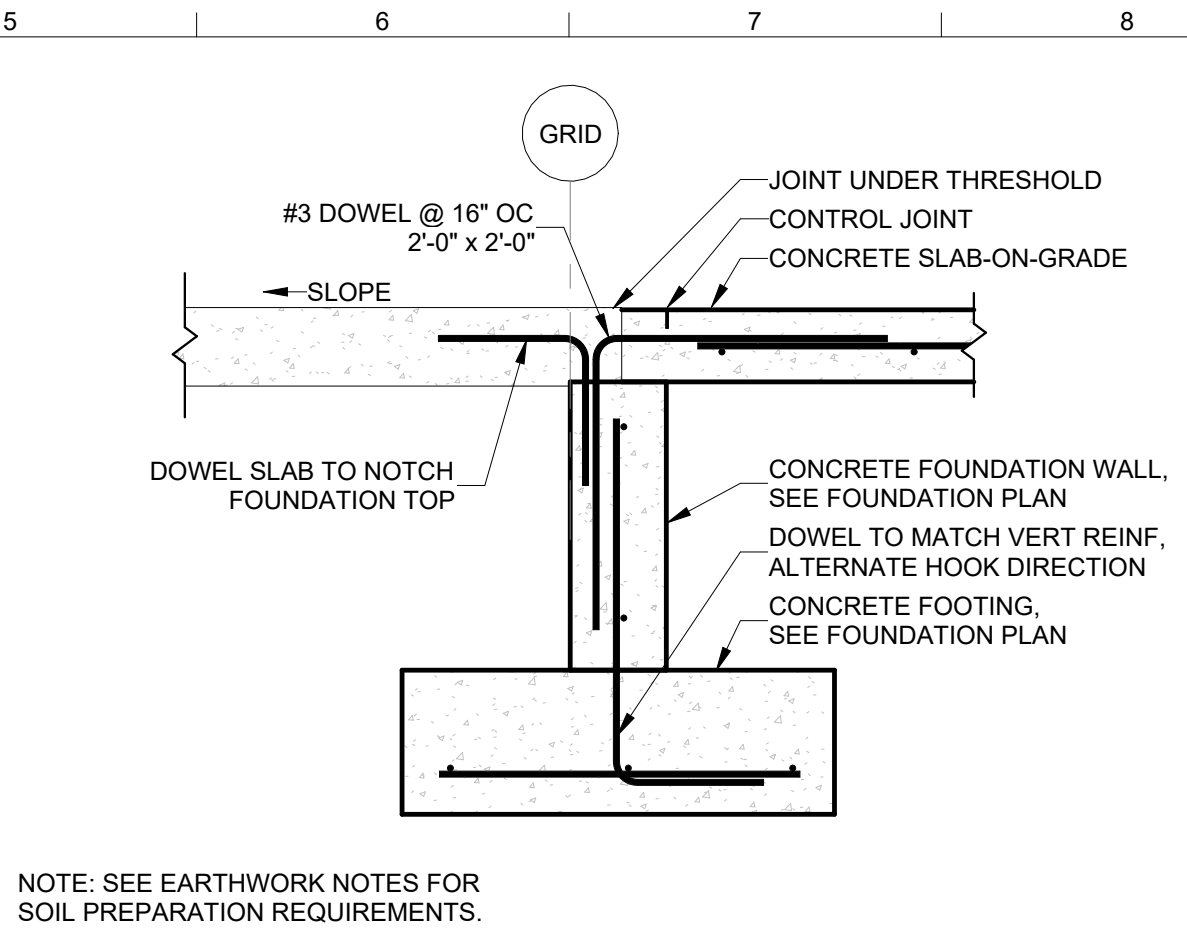
STRUCTURAL NOTES

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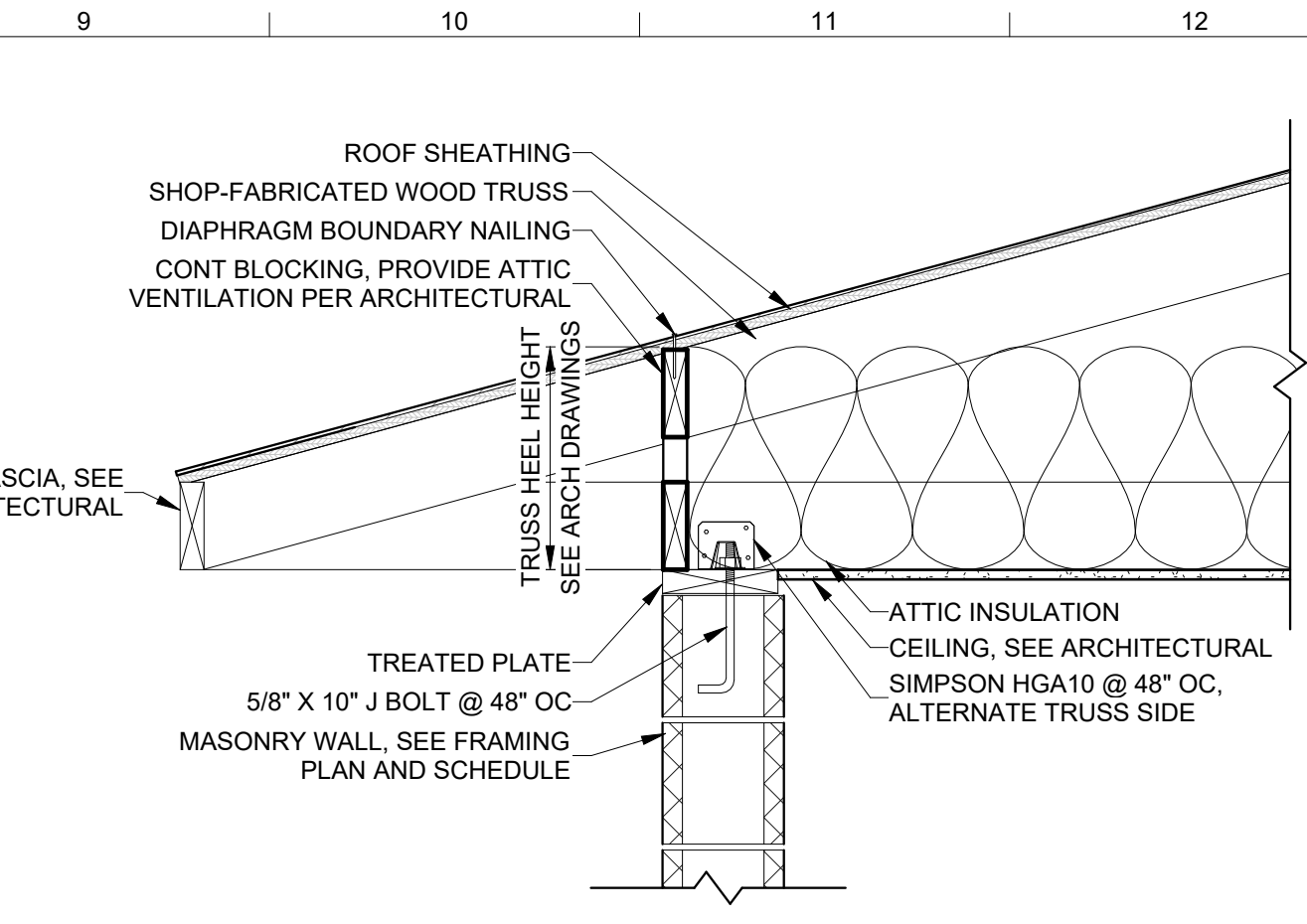
M
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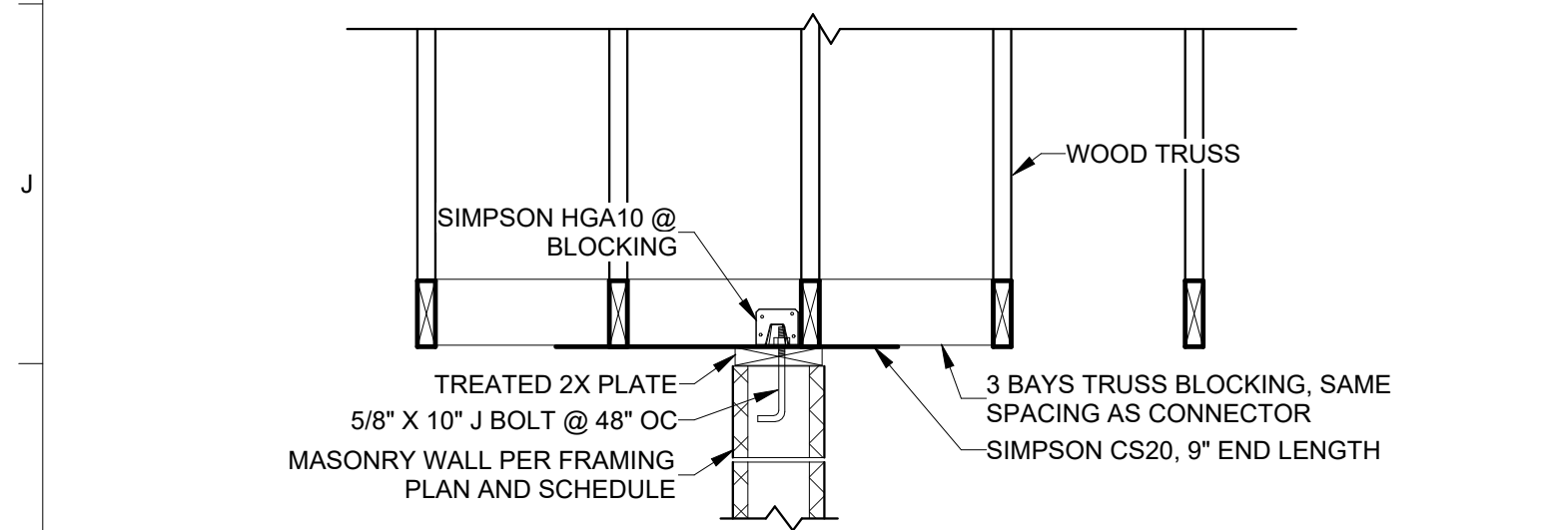
3 MASONRY WALL ON CONCRETE FOUNDATION WALL
N.T.S.



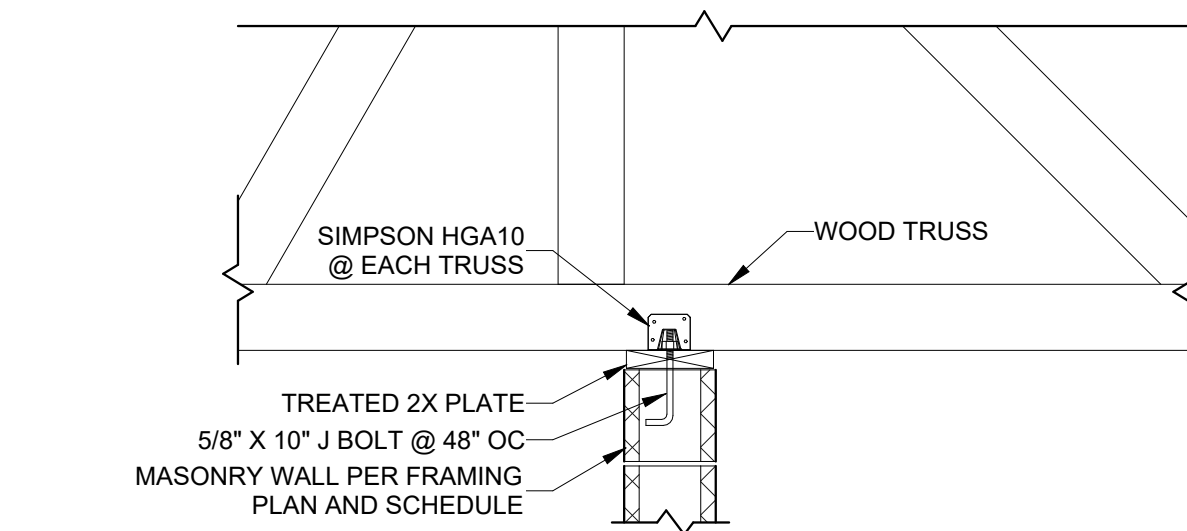
4 SLAB OVER FOUNDATION WALL @ DOORS
N.T.S.



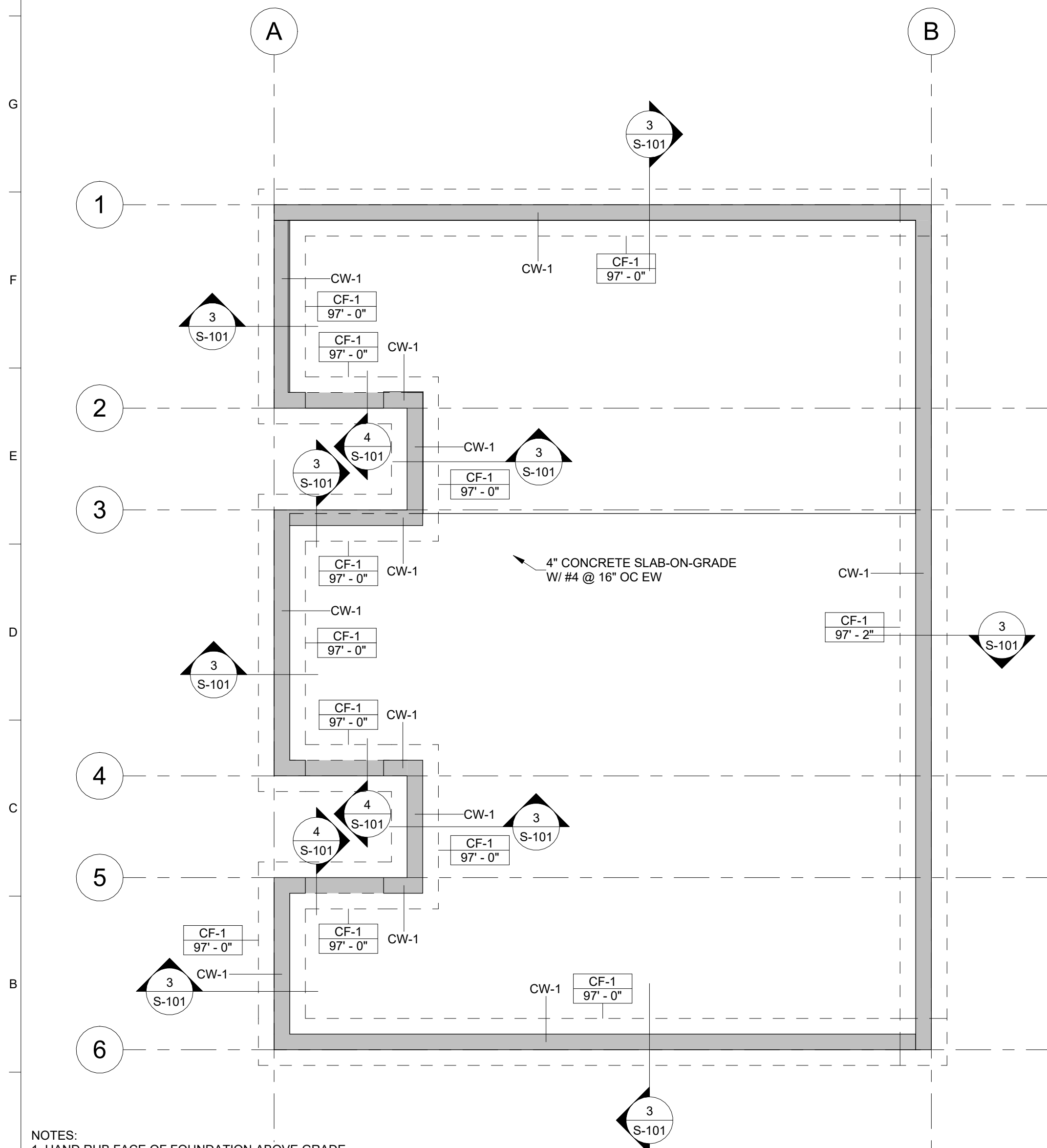
5 WOOD TRUSS ON MASONRY WALL w/ HEEL
N.T.S.



6 WOOD TRUSS PARALLEL TO INT. MASONRY WALL
N.T.S.

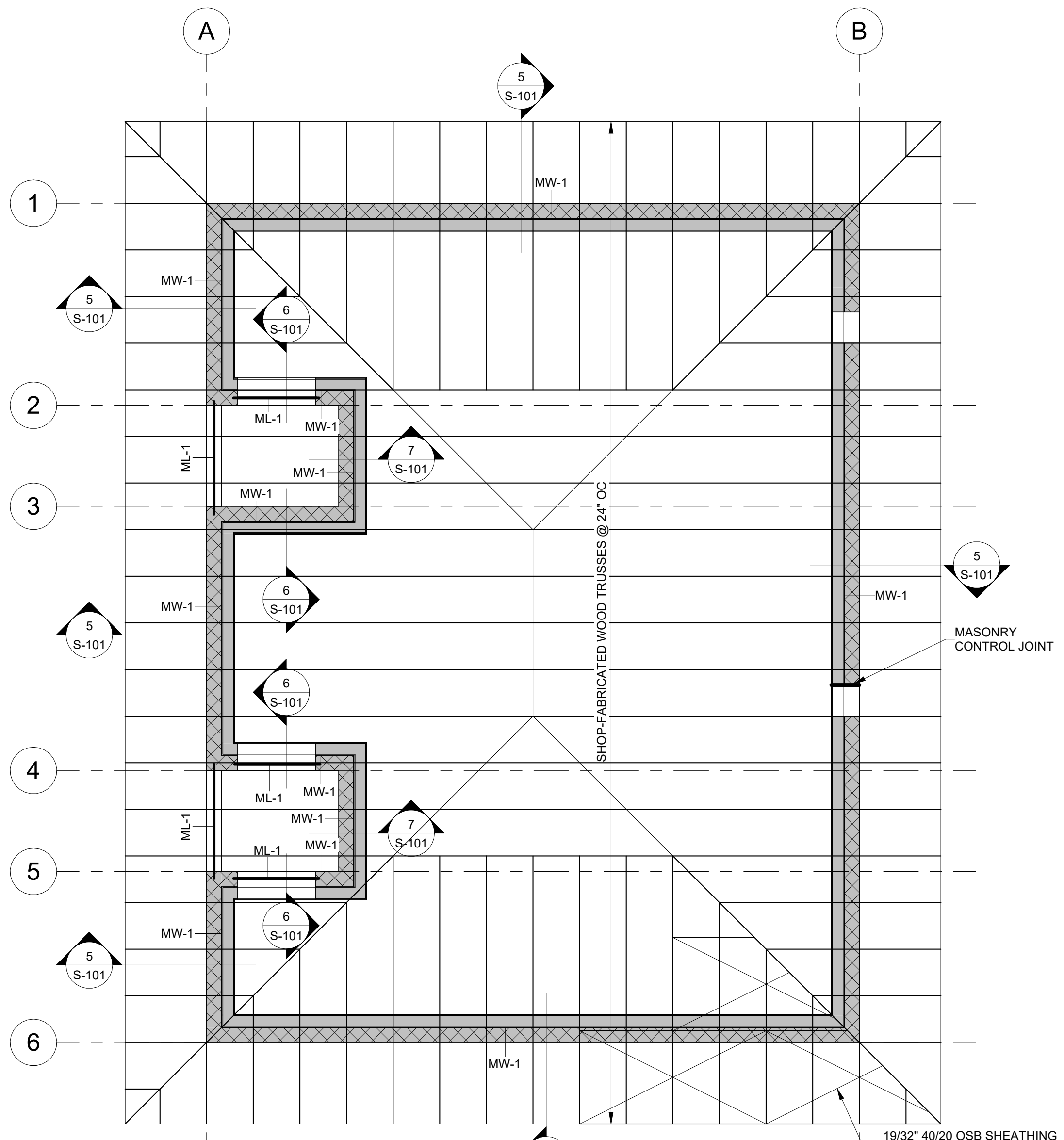


7 WOOD TRUSS PERPENDICULAR TO INT. MASONRY WALL
N.T.S.



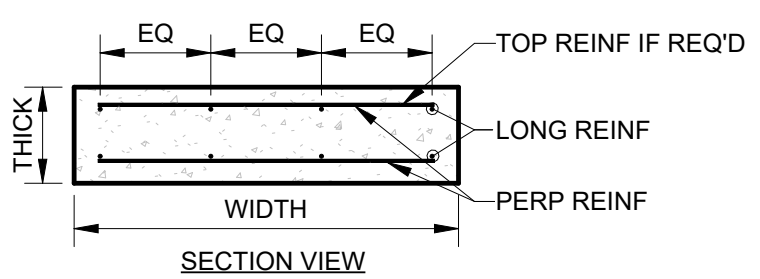
NOTES:
1. HAND RUB FACE OF FOUNDATION ABOVE GRADE.
2. PROVIDE A UNIFORM SLOPE TO FLOOR DRAINS WHEN SLOPE LINES SHOW ON ARCHITECTURAL DRAWINGS.

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



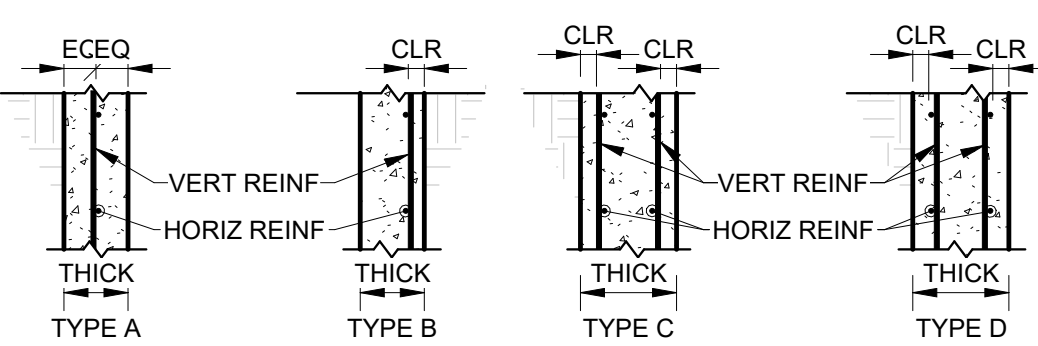
2 FRAMING PLAN - ROOF
1/4" = 1'-0"

CONCRETE FOOTING SCHEDULE						
MARK	WIDTH	LENGTH	THICK	LONG REINF	PERP REINF	REMARKS
CF-1	2'-0"	CONT.	1'-0"	(3) #5 BARS	#5 @ 16" OC	TOP MAT NOT REQ'D



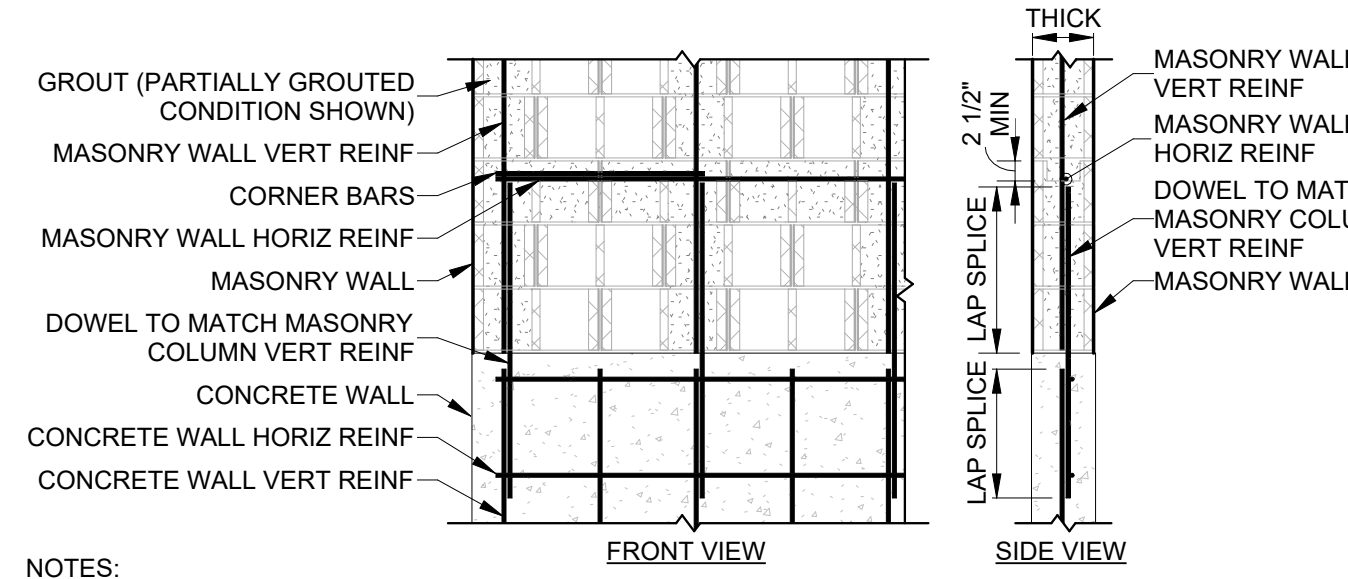
NOTES:
1. SEE CONCRETE NOTES FOR COVERAGE REQUIREMENTS.

CONCRETE WALL SCHEDULE						
MARK	THICKNESS	HORIZ REINF	VERT REINF	TYPE	REMARKS	
CW-1	8"	#5 @ 12" OC	#5 @ 16" OC	A		

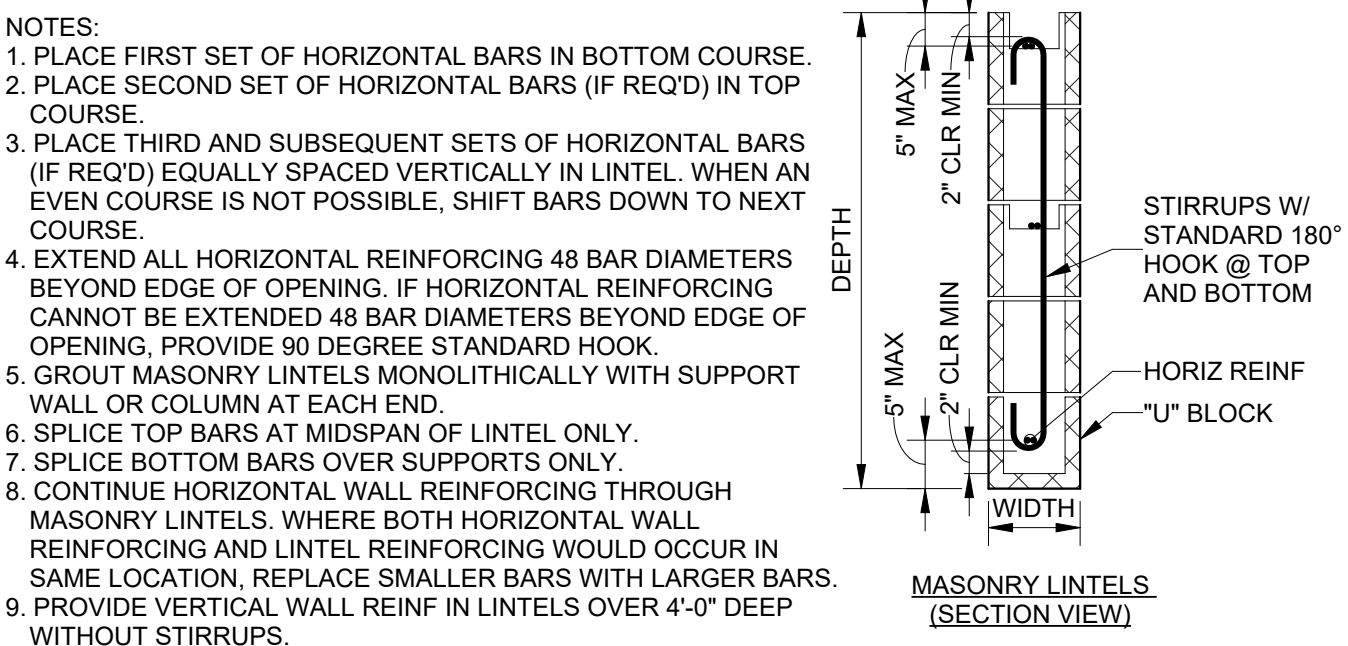


NOTES:
1. EF = EACH FACE
OF = OUTSIDE FACE (AGAINST SOIL)
IF = INSIDE FACE
2. SEE CONCRETE NOTES FOR COVERAGE REQUIREMENTS.

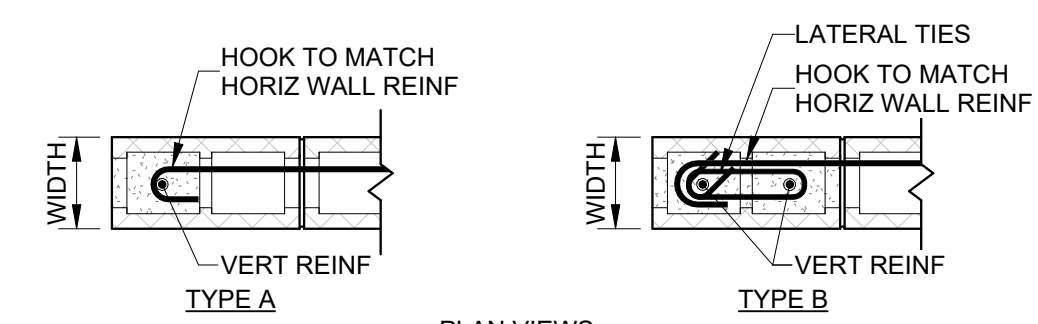
MASONRY WALL SCHEDULE						
MARK	THICK	HORIZ REINF	VERT REINF	GROUTING	REMARKS	
MW-1	8"	(2) #4 @ 32" OC	#5 @ 32" OC	SOLID		



MASONRY LINTEL SCHEDULE						
MARK	WIDTH	DEPTH	HORIZ REINF	STIRRUPS	JAMB	REMARKS
ML-1	8"	1'-4"	1 SET OF (2) #4 BARS	N/A	MJ-1	



MASONRY JAMB SCHEDULE						
MARK	TYPE	WIDTH	CELLS	VERT REINF	TIES	COMMENTS
MJ-1	A	8"	(1) CELL EACH SIDE	(2) #4 BARS EACH CELL	WALL HOOK	



NOTES:
1. CENTERLINE OF VERTICAL BARS SHALL BE LOCATED 2 1/2" FROM FACE OF MASONRY. HORIZONTAL BARS SHALL BE LOCATED TO INSIDE OF VERTICAL BARS.
2. UNLESS NOTED OTHERWISE, VERTICAL REINFORCING AND TIES SHALL EXTEND FULL HEIGHT OF WALL.
3. GROUT ALL CELLS WHERE VERTICAL REINFORCEMENT OCCURS.
4. MASONRY JAMB VERTICAL BARS OR DOWELS IN CONCRETE FOUNDATION WALLS SHALL BE TIED WITH #3 TIES @ 8" O.C.
5. REINFORCEMENT SHALL HAVE A THICKNESS OF GROUT BETWEEN REINFORCEMENT AND MASONRY UNIT NOT LESS THAN 1/2"

DUCHESNE COUNTY

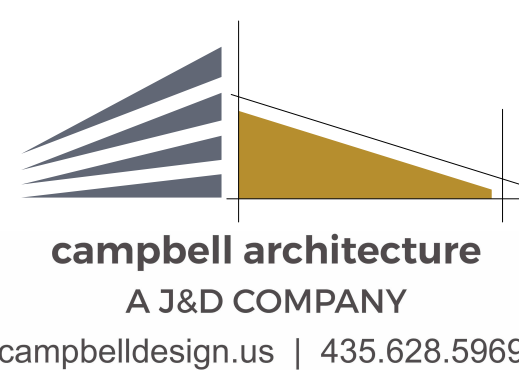
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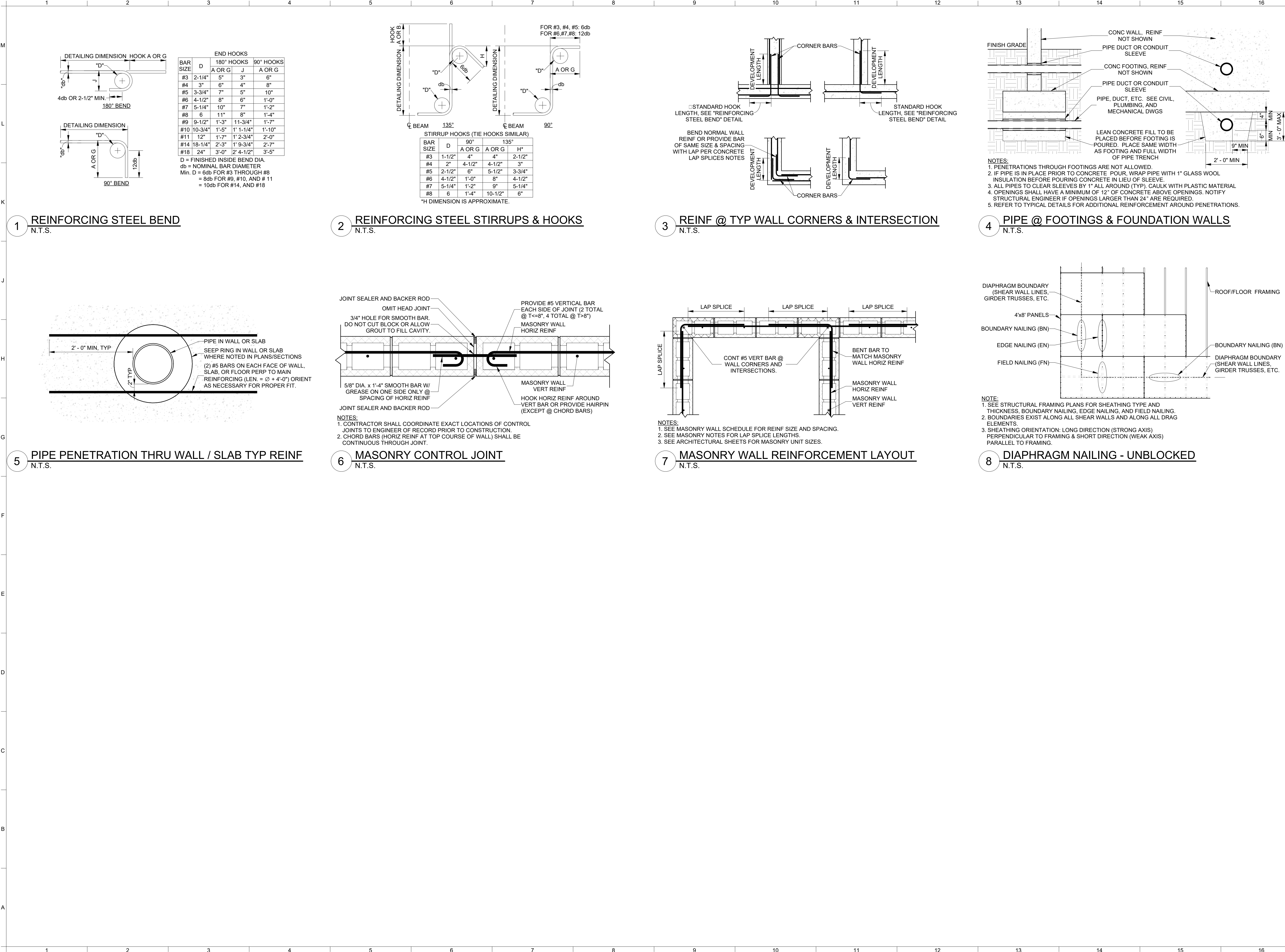
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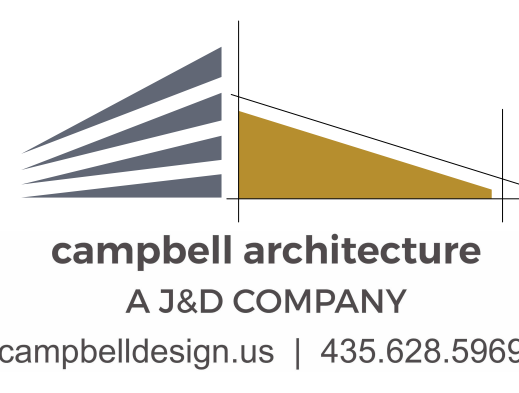
STRUCTURAL PLANS,
DETAILS, & SCHEDULES

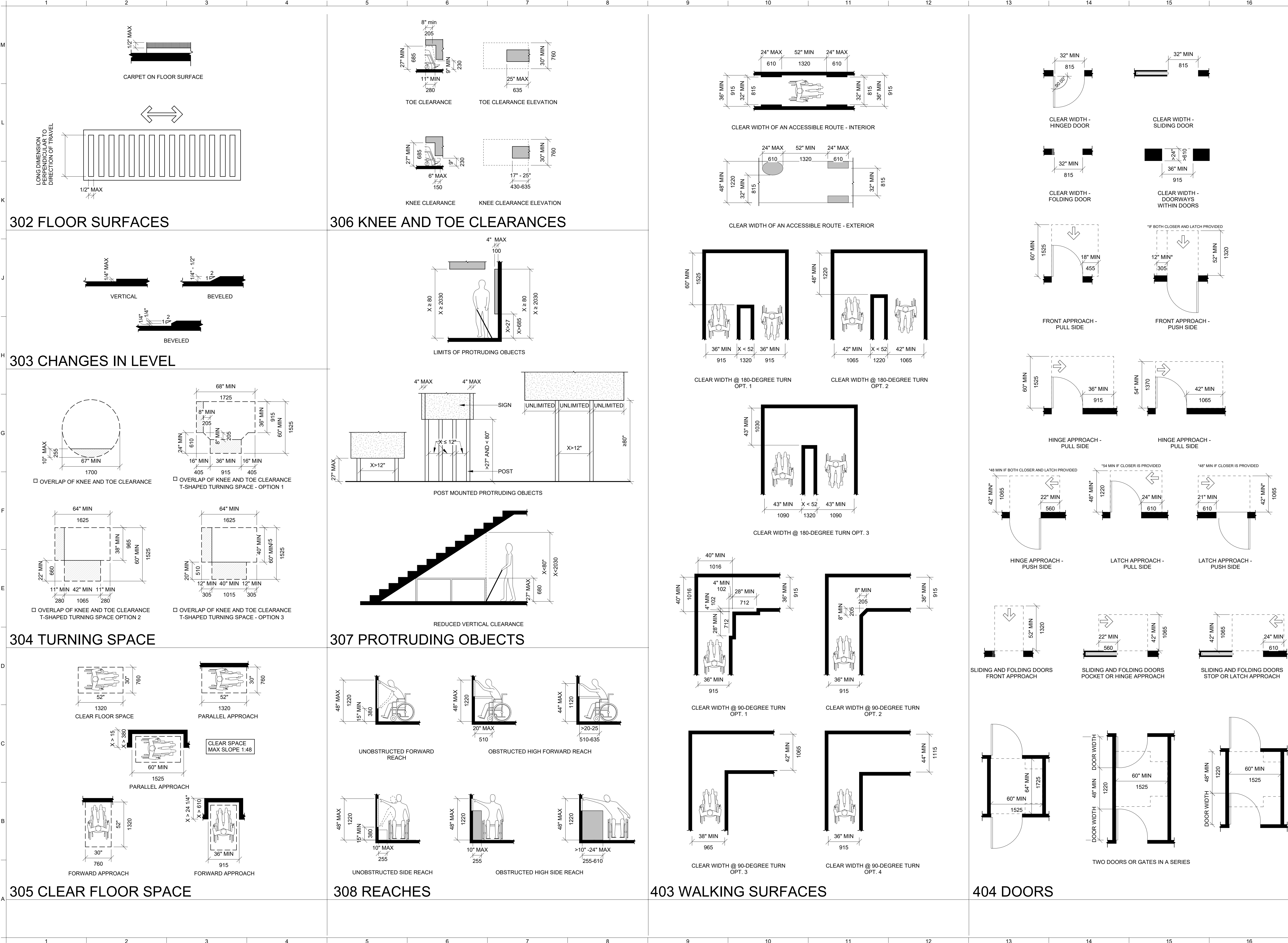
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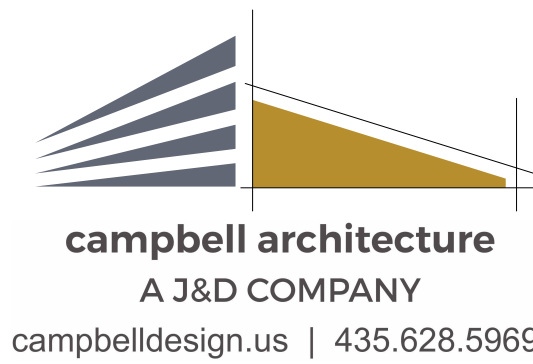
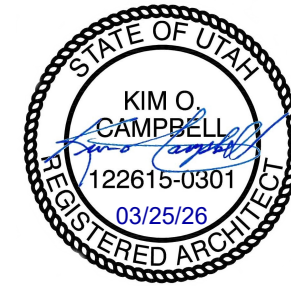
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405 RAMPS

406 CURB RAMPS & BLENDED TRANSITIONS

60" MIN
1525
60" MIN
1525
60" MIN
1525
RAMP RUN WITH RISES < 6" TO HAVE HANDRAILS
RAMP RUN
LANDING
MAX SLOPE: 1:48
RAMP RUN
1:12 MAX SLOPE
30" MAX RISE W/O LANDING
CROSS SLOPE 1:48 MAX
AT LEAST AS WIDE AS RAMP RUN
12" MIN
305
12" MIN
305
4" MIN
100
BARRIER PREVENTS PASSAGE OF 4" SPHERE WITH ANY PORTION W/IN 4" OF FLOOR
FLOOR SURFACE OF RAMP RUNS/LANDINGS SHALL EXTEND 12" MIN BEYOND INSIDE FACE OF RAILING
EDGE PROTECTION
CURB SHALL BE A MINIMUM OF 4" IN HEIGHT
CURB SHALL BE A MINIMUM OF 4" IN HEIGHT
WHEN A PEDESTRIAN CIRCULATION PATH CROSSES, FLARED SIDES SLOPED 1:10 MAX
CURB OF RAMP FLARES PAINTED IF ADJACENT CURB IS PAINTED (SECTION 406.5.6)
PERPENDICULAR CURB RAMP
BUILDING OR SIDEWALK EDGE
48" MIN
1220
48" MIN
1220
SIDEWALK EDGE
PLANTING AREA
PERPENDICULAR CURB RAMP
BUILDING OR SIDEWALK EDGE
48" MIN
1220
60" MIN
1525
SIDEWALK EDGE
PLANTING AREA
PARALLEL CURB RAMP
BUILDING OR SIDEWALK EDGE
48" MIN
1220
48" MIN
1220
CURB AT RAMP PAINTED IF ADJACENT CURB IS PAINTED (SECTION 406.5.6)
PARALLEL CURB RAMP
BUILDING OR SIDEWALK EDGE
48" MIN
1220
60" MIN
1525
PLANTING AREA
PARALLEL CURB RAMP

407 ELEVATORS

504 STAIRWAYS

505 HANDRAILS

602 DRINKING FOUNTAINS

CLEAR SPACE PROVIDED AT CALL CONTROLS
*54 MAX (1370) FOR EXISTING
HEIGHT OF ELEVATOR CALL BUTTONS
ELEVATOR VISIBLE SIGNALS
15"-18"
300-1220
SECTION 506
72" MIN
1830
TREAD AND RISERS FOR STAIRWAYS
11" MIN
280
100-180
1 1/2" MAX
38
CURVED
BEVELED
1 1/2" MAX
38
VERTICAL ANGLED RISER
30.00" MAX
SEAT HEIGHT
17"-19"
430-485
WATER CLOSET SEAT HEIGHT
54" MIN
1370
42" MIN
1065
39"-41"
990-1040
SIDE-WALL GRAB BAR FOR WATER CLOSET
42" MIN
1065
36" MIN
915
6" MAX
150
REAR-WALL GRAB BAR FOR WATER CLOSET
35"-36"
840-915
SECTION 609.4.1
39"-41"
990-1040
DISPENSER OUTLET LOCATION PROTRUDING DISPENSER BELOW GRAB BAR
42" MAX
1070
24" MIN
610
15" MIN
455
DISPENSER OUTLET LOCATION PROTRUDING DISPENSER ABOVE GRAB BAR
36" MAX
915
24" MIN
610
12" MIN
305
48" MAX
1220
DISPENSER OUTLET LOCATION RECESSED DISPENSER
42" MAX
1070
36" max
915
24" MIN
610
18" MIN
455
48" MAX
1220
WHEELCHAIR TOILET COMPARTMENT WALL HUNG CLOSET, ADULT
60 MIN
1525
56 MIN
1420
WHEELCHAIR TOILET COMPARTMENT FLOOR MOUNTED WATER CLOSET, ADULT
60 MIN
1525
59 MIN
1500
WHEELCHAIR TOILET COMPARTMENT ALTERNATE
60 MIN
1525
84 MIN
2135
DOOR SHALL NOT SWING INTO THE REQUIRED MIN AREA OF THE COMPARTMENT
56 MIN
1420
59 MIN
1500
(WALL MOUNTED W.C.)-ADULT
(FLOOR MOUNTED W.C.)-ADULT
WALL AND FLOOR MOUNTED W.C. - CHILDREN
WHEELCHAIR TOILET COMPARTMENT DOOR SWINGING INTO THE TOILET COMPARTMENT
** 8" TOE CLEARANCE DEPTH PROVIDED A MIN OF 12" ABOVE FLOOR AT TOILET PARTITION WALLS
CLEAR FLOOR SPACE @ WHEELCHAIR DRINKING FOUNTAINS
CLEAR FLOOR SPACE @ WHEELCHAIR DRINKING FOUNTAIN FOR CHILDREN
5" MAX
125
15" MIN - ADULT
380
WHEELCHAIR DRINKING FOUNTAIN SPOUT HEIGHT & LOCATION
CHILDREN
ADULT
30" MAX
760
35" MAX
915
WHEELCHAIR DRINKING FOUNTAIN SPOUT LOCATION
STANDING USE ADULT
STANDING USE CHILD
30"-43" MAX
760-1090
35"-43" MAX
965-1090
STANDARD DRINKING FOUNTAIN SPOUT HEIGHT & LOCATION
STANDING USE DRINKING FOUNTAIN SPOUT LOCATION
5" MAX
125

604 WTR CLST & TLT CMPRTMNTS

ACCESSIBLE WATER CLOSETS
16"-18"
405-455
AMBULATORY ACCESSIBLE WATER CLOSETS
42" MIN
1065
17"-19"
430-485
60" MIN
1525
36"-37"
890-940
OTHER FIXTURES NOT ALLOWED WITHIN THIS AREA
56"
60" MIN
1525
SIZE OF CLEARANCE FOR WATER CLOSET
SEAT HEIGHT
17"-19"
430-485
WATER CLOSET SEAT HEIGHT
54" MIN
1370
42" MIN
1065
39"-41"
990-1040
SIDE-WALL GRAB BAR FOR WATER CLOSET
42" MIN
1065
36" MIN
915
6" MAX
150
REAR-WALL GRAB BAR FOR WATER CLOSET
35"-36"
840-915
SECTION 609.4.1
39"-41"
990-1040
DISPENSER OUTLET LOCATION PROTRUDING DISPENSER BELOW GRAB BAR
42" MAX
1070
24" MIN
610
15" MIN
455
DISPENSER OUTLET LOCATION PROTRUDING DISPENSER ABOVE GRAB BAR
36" MAX
915
24" MIN
610
12" MIN
305
48" MAX
1220
DISPENSER OUTLET LOCATION RECESSED DISPENSER
42" MAX
1070
36" max
915
24" MIN
610
18" MIN
455
48" MAX
1220
WHEELCHAIR TOILET COMPARTMENT WALL HUNG CLOSET, ADULT
60 MIN
1525
56 MIN
1420
WHEELCHAIR TOILET COMPARTMENT FLOOR MOUNTED WATER CLOSET, ADULT
60 MIN
1525
59 MIN
1500
WHEELCHAIR TOILET COMPARTMENT ALTERNATE
60 MIN
1525
84 MIN
2135
DOOR SHALL NOT SWING INTO THE REQUIRED MIN AREA OF THE COMPARTMENT
56 MIN
1420
59 MIN
1500
(WALL MOUNTED W.C.)-ADULT
(FLOOR MOUNTED W.C.)-ADULT
WALL AND FLOOR MOUNTED W.C. - CHILDREN
WHEELCHAIR TOILET COMPARTMENT DOOR SWINGING INTO THE TOILET COMPARTMENT
** 8" TOE CLEARANCE DEPTH PROVIDED A MIN OF 12" ABOVE FLOOR AT TOILET PARTITION WALLS
WHEELCHAIR TOILET COMPARTMENT DOOR OPENING LOCATION - DOOR SWINGING IN ON FRONT WALL OF PARTITION
4 MAX
100
OR
56 MIN
1420
42" MIN
1065

605 URINALS

606 LAVATORIES & SINKS

607 PLUMBING ELEMENTS AND FACILITIES

HEIGHT AND DEPTH OF WALL HUNG URINAL TYPE
13 1/2" MIN
345
17" MAX
430
HEIGHT AND DEPTH OF URINAL STALL TYPE
13 1/2" MIN
345
HEIGHT OF LAVATORIES AND SINKS
INSULATED DRAIN AND SUPPLY LINES
34" MAX
865
HEIGHT OF LAVATORIES AND SINKS
15"-16"
380-405
SECTION 610.2
BACKWALL
CONTROL END WALL
HEAD END WALL
LENGTH OF BATHTUB
30" MIN
760
CLEARANCE FOR BATHTUBS W/ REMOVABLE IN TUB SEATS
18" MIN
455
3"-6"
75-150
33"-36"
SECTION 609.4.1
840-915
8"-10"
205-255
17"
10"
GRAB BARS FOR BATHTUBS W/ SEAT AT HEAD END OF TUB - ELEVATION
12" MAX
305
BACKWALL
380
HEAD END WALL
15" MIN
305
15" MAX
SECTION 610.2
380
GRAB BARS FOR BATHTUBS W/ SEAT AT HEAD END OF TUB - PLAN
12" MAX
305
24" MIN
610
BACKWALL
HEAD END WALL
12" MIN
305
24" MAX
610
24" MIN
610
3"-6"
75-150
33"-36"
SECTION 609.4.1
840-915
8"-10"
205-255
GRAB BARS FOR BATHTUBS W/ SEAT AT HEAD END OF TUB - ELEVATION
12" MAX
305
24" MIN
610
BACKWALL
HEAD END WALL
12" MIN
305
24" MAX
610
24" MIN
610
GRAB BARS FOR BATHTUBS W/ SEAT AT HEAD END OF TUB - PLAN
12" MAX
305
24" MIN
610
BACKWALL
HEAD END WALL
12" MIN
305
24" MAX
610
24" MIN
610
LOCATION OF BATHTUB CONTROLS
CONTROL END WALL

DUCHESNE COUNTY

NORTH RESTROOM

JDE No.2508-062

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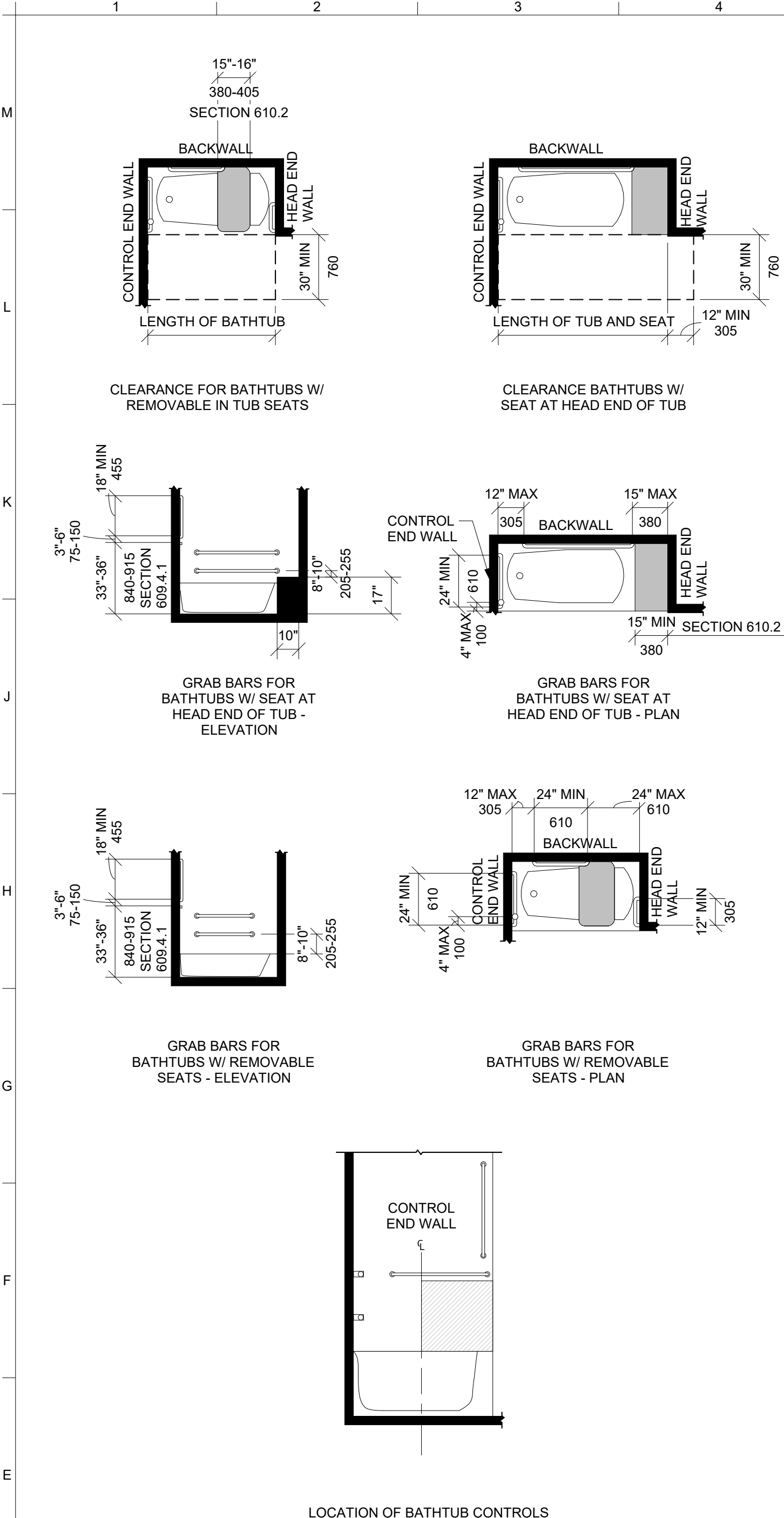
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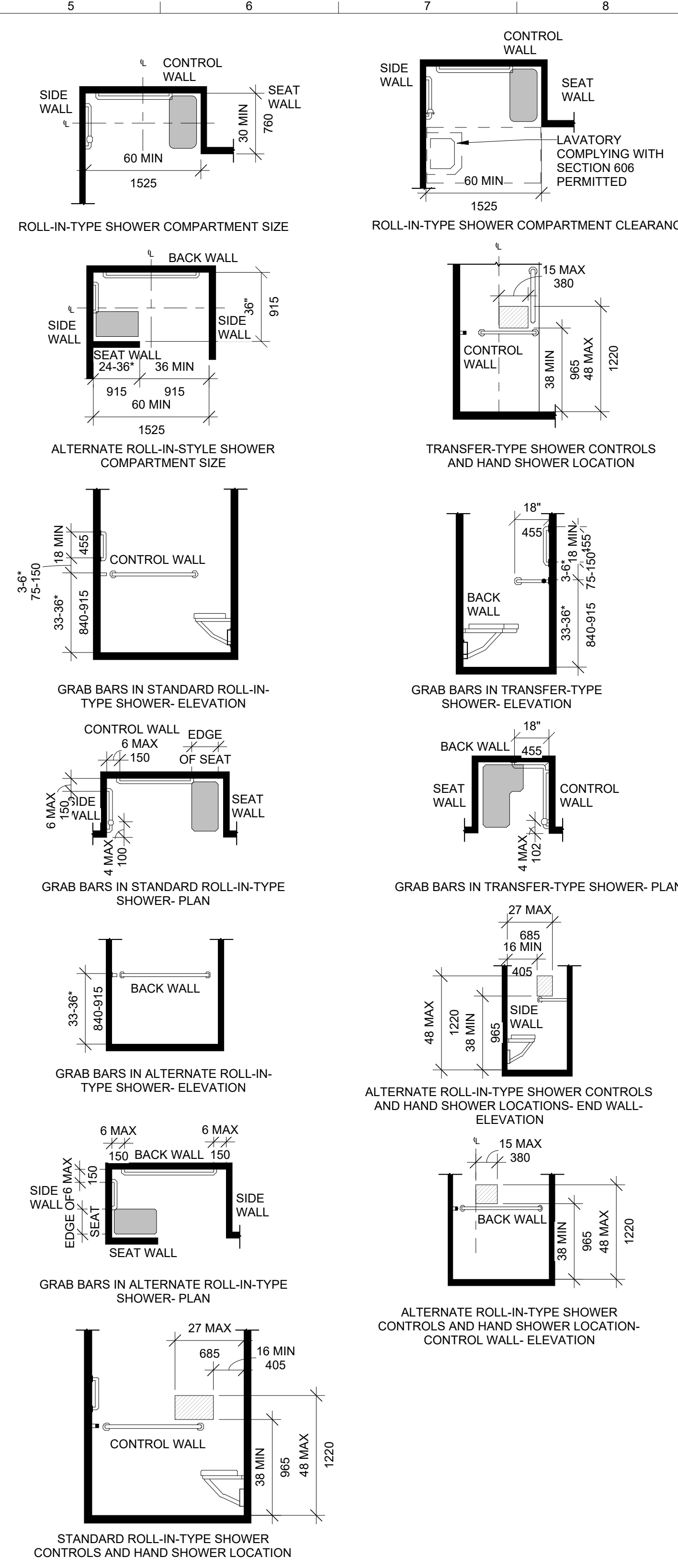
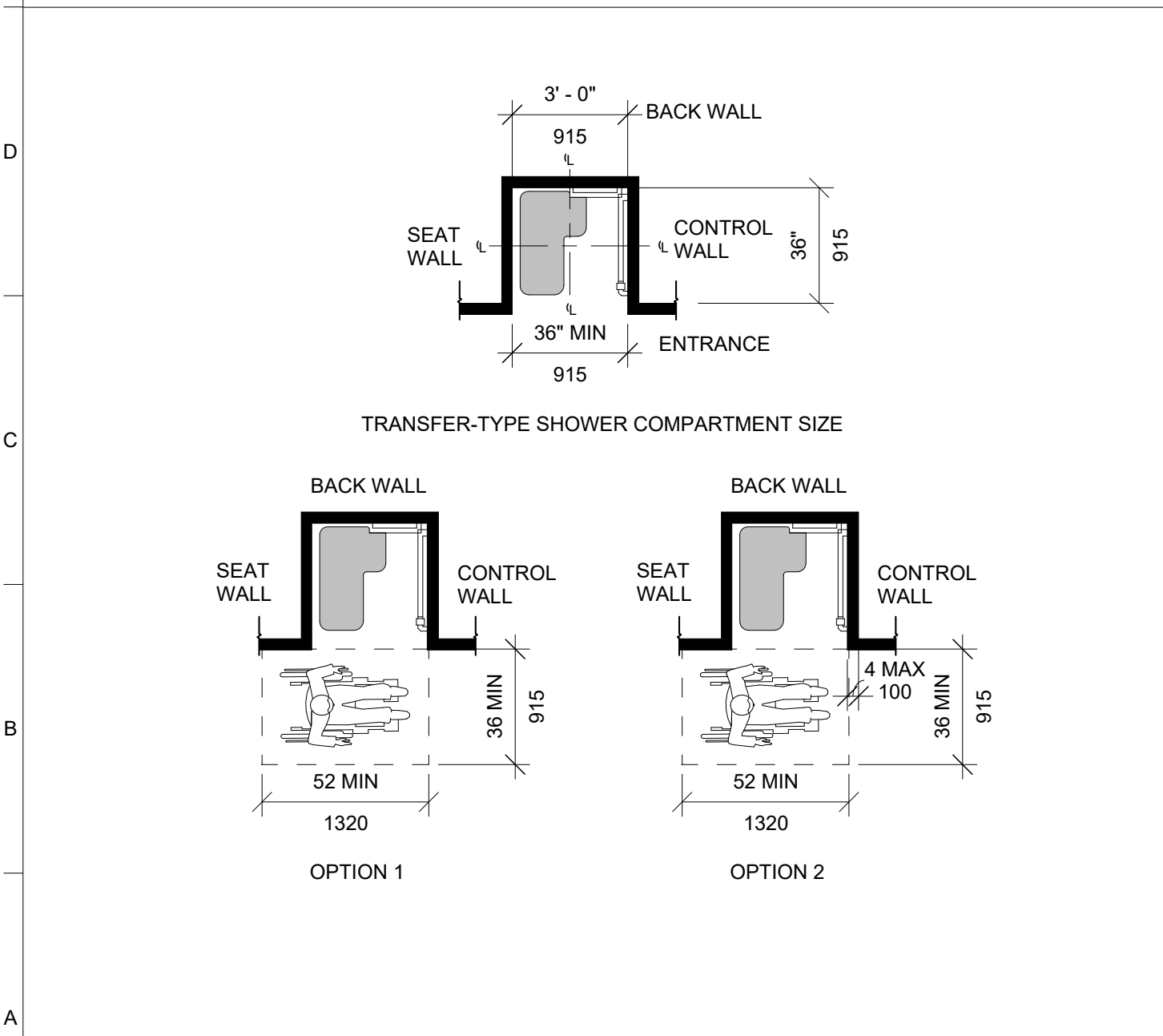
ACCESSIBILITY REQUIREMENTS

A-002

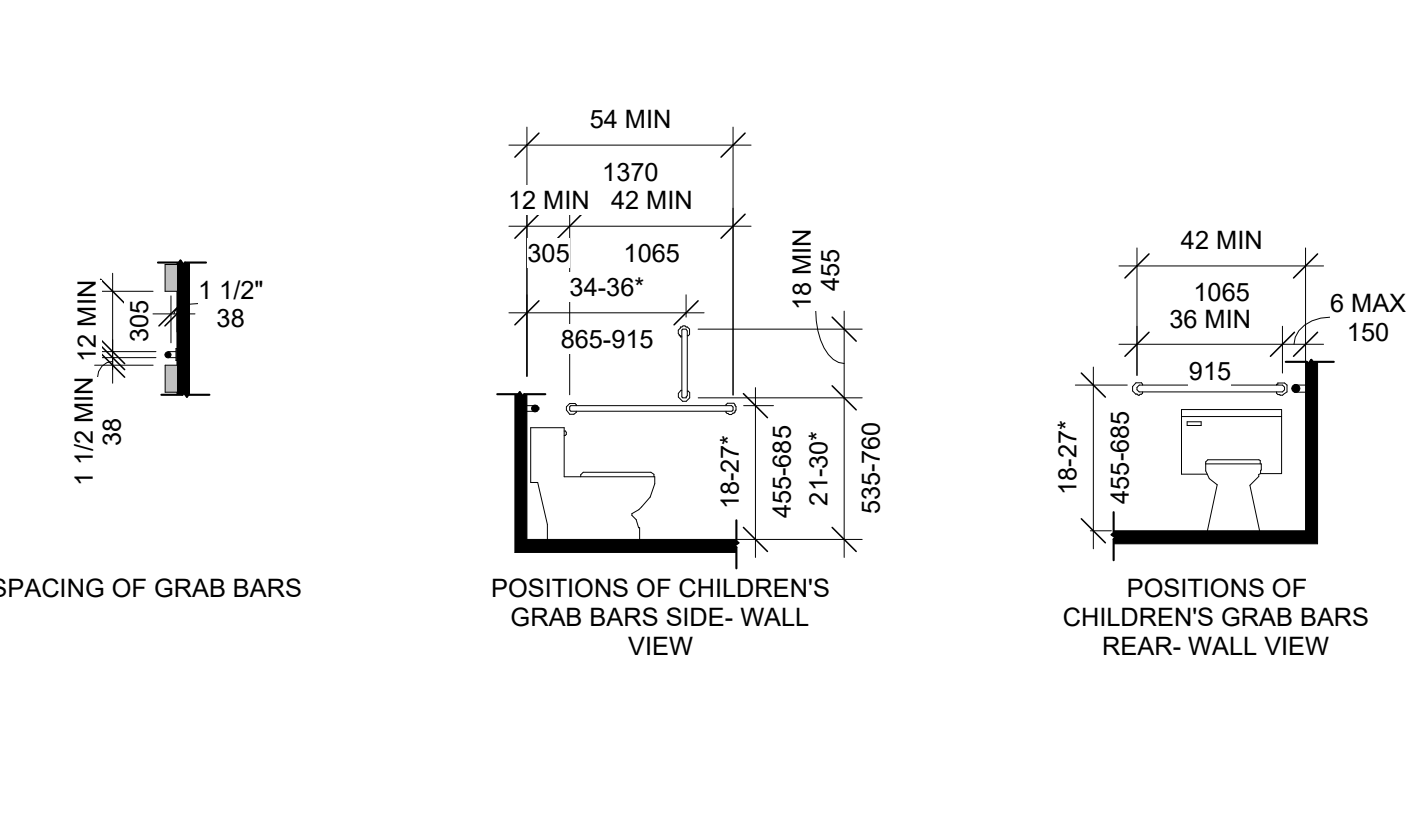
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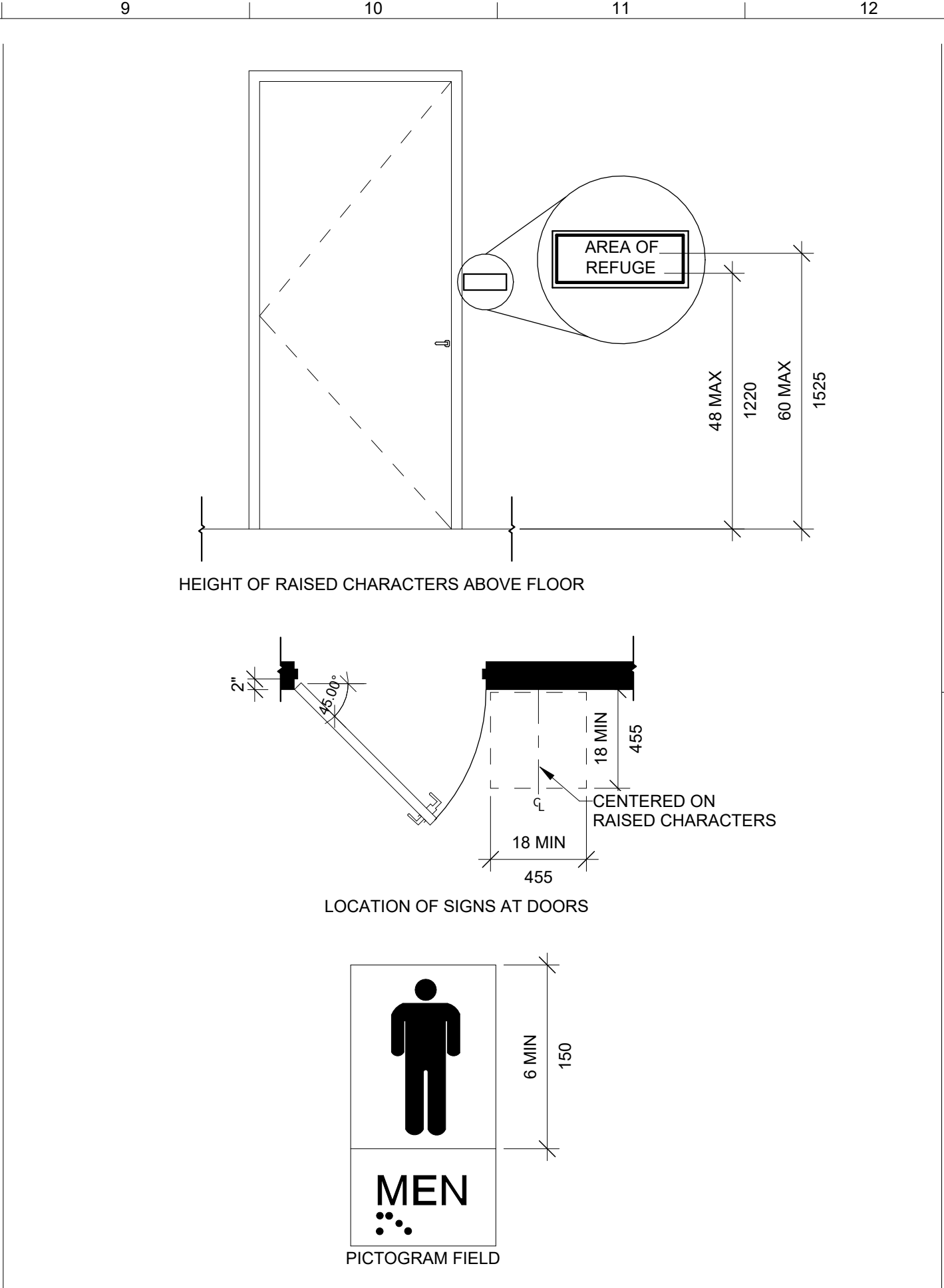
607 PLUMBING ELEMENTS AND FACILITIES



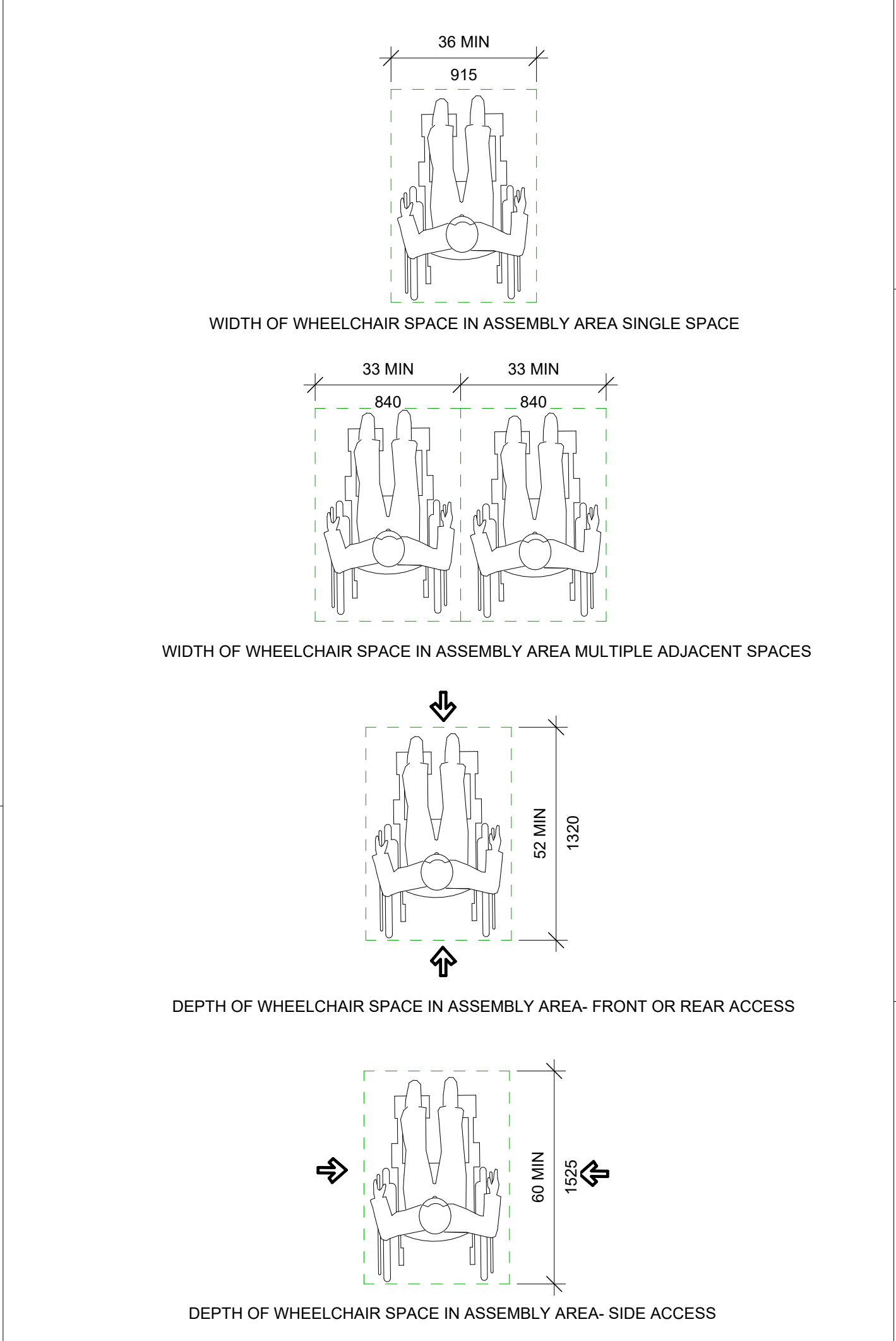
608 SHOWER COMPARTMENTS



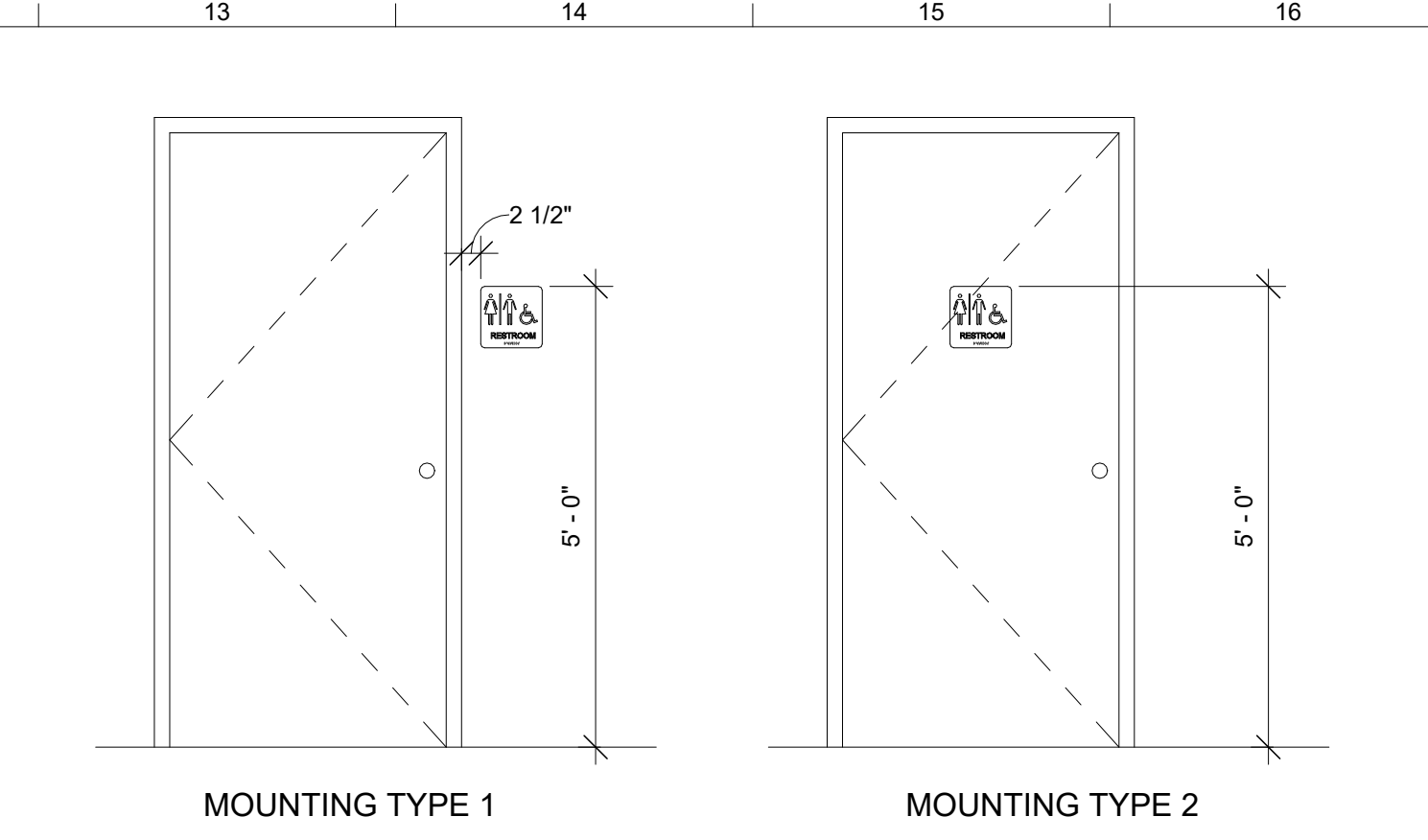
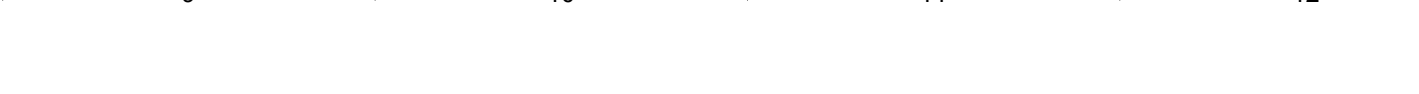
609 GRAB BARS



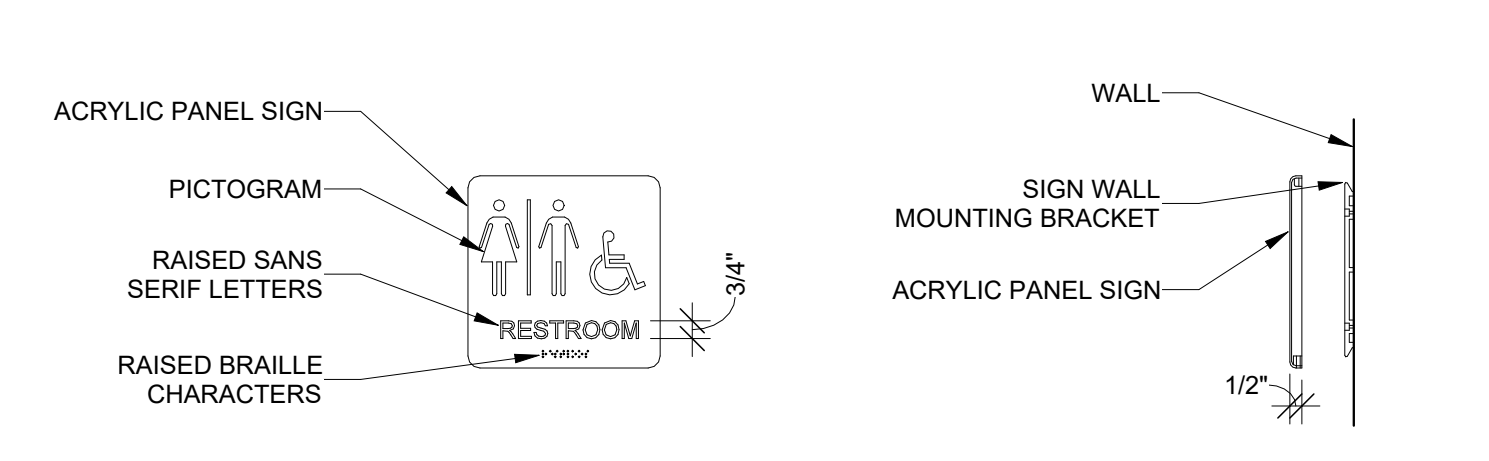
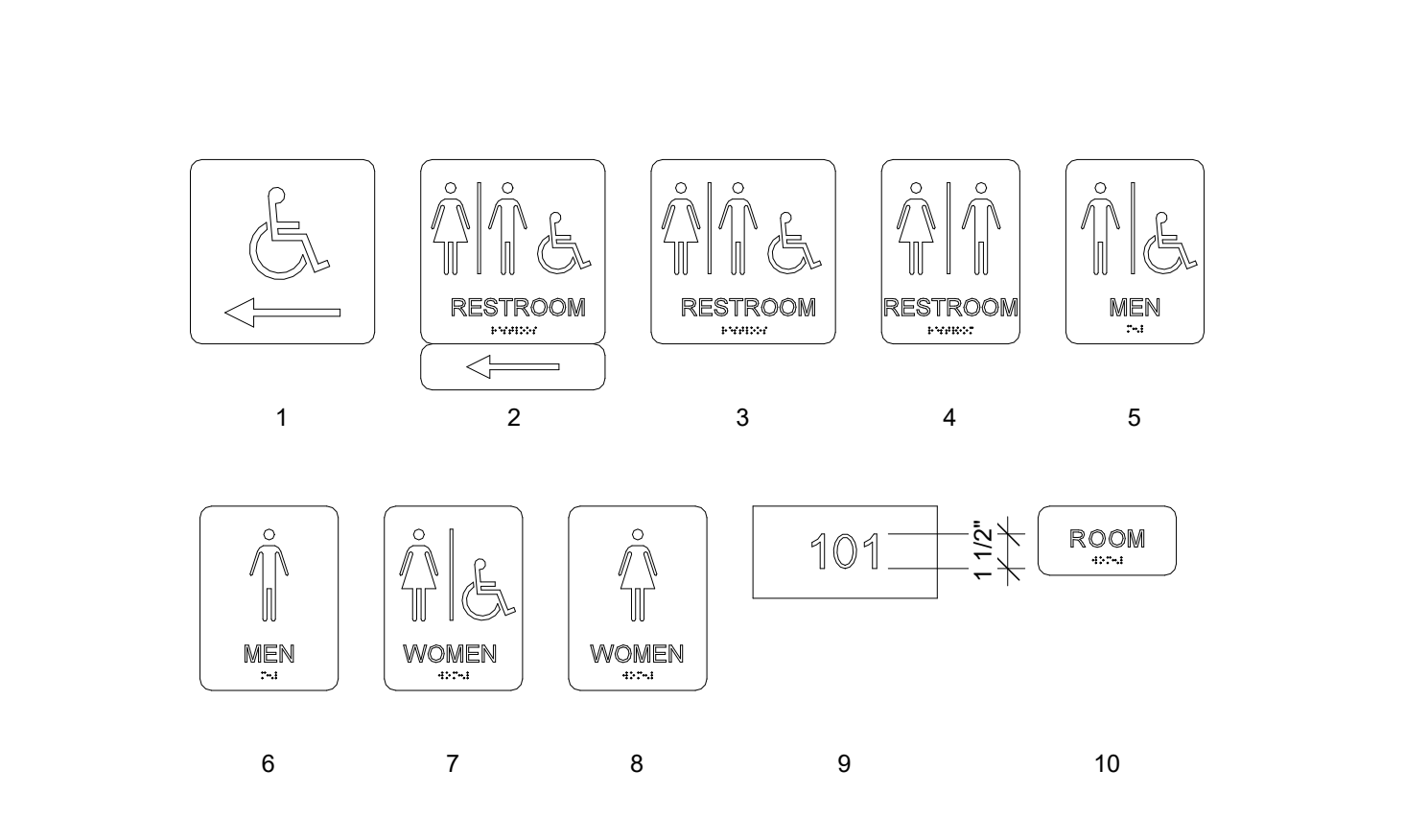
703 COMM. ELEMENTS & FEATURES



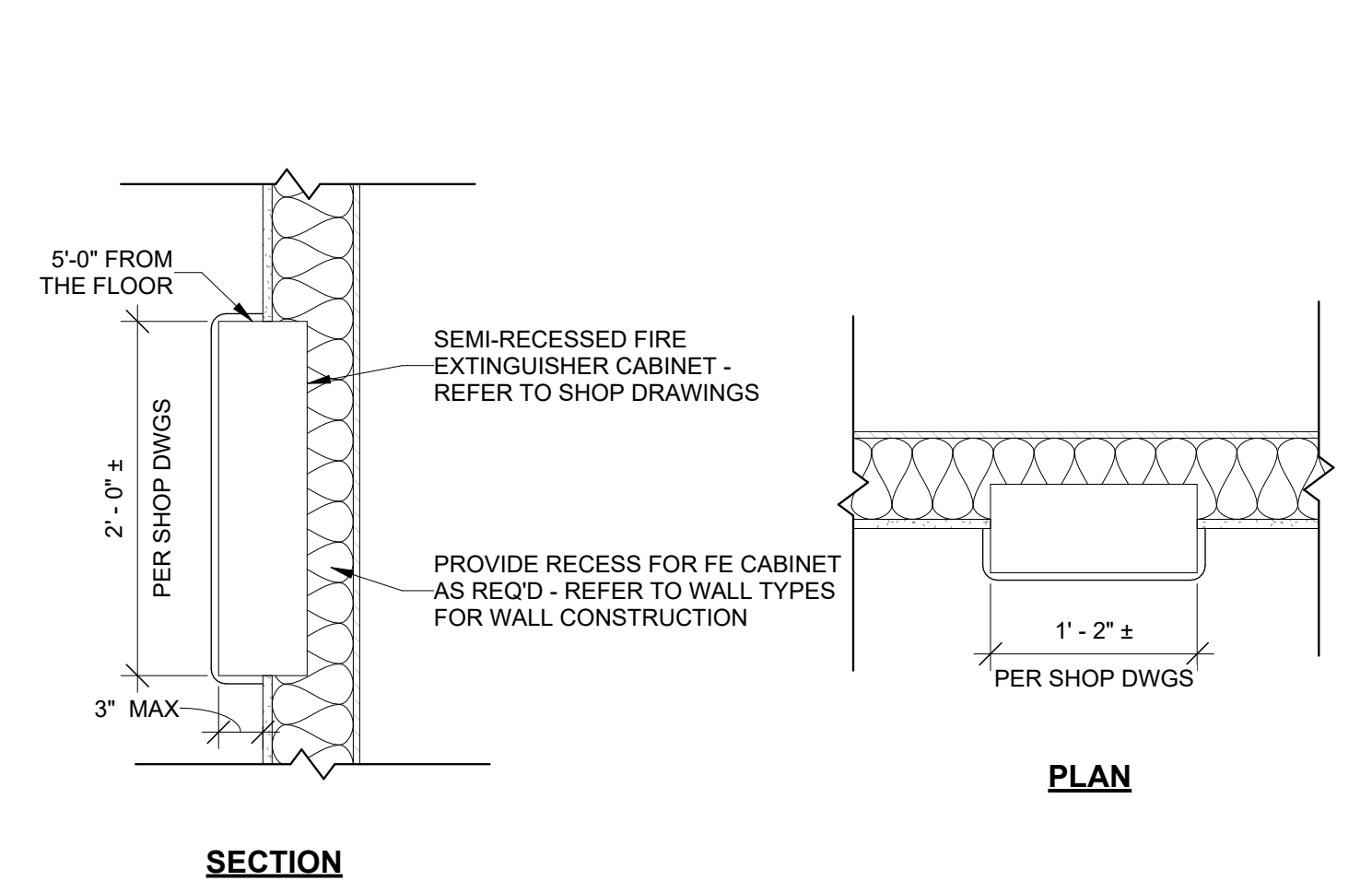
802 SPECIAL ROOMS AND SPACES



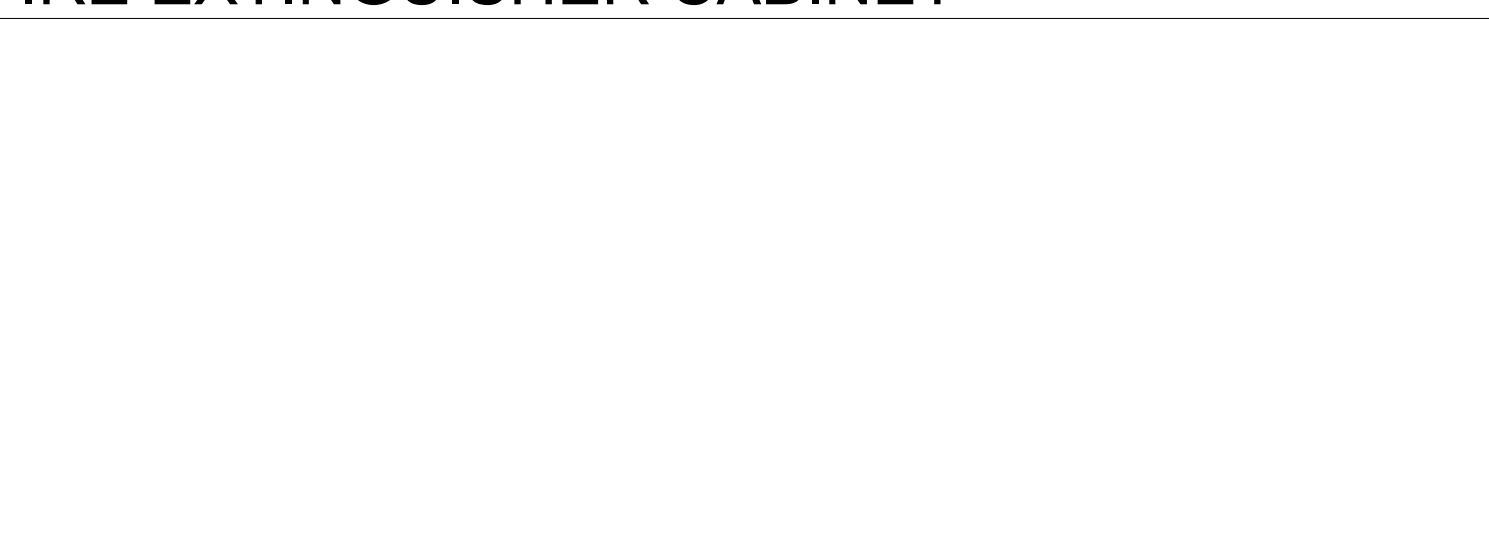
SIGN MOUNTING



SIGNS



FIRE EXTINGUISHER CABINET



DUCHESNE COUNTY

NORTH RESTROOM

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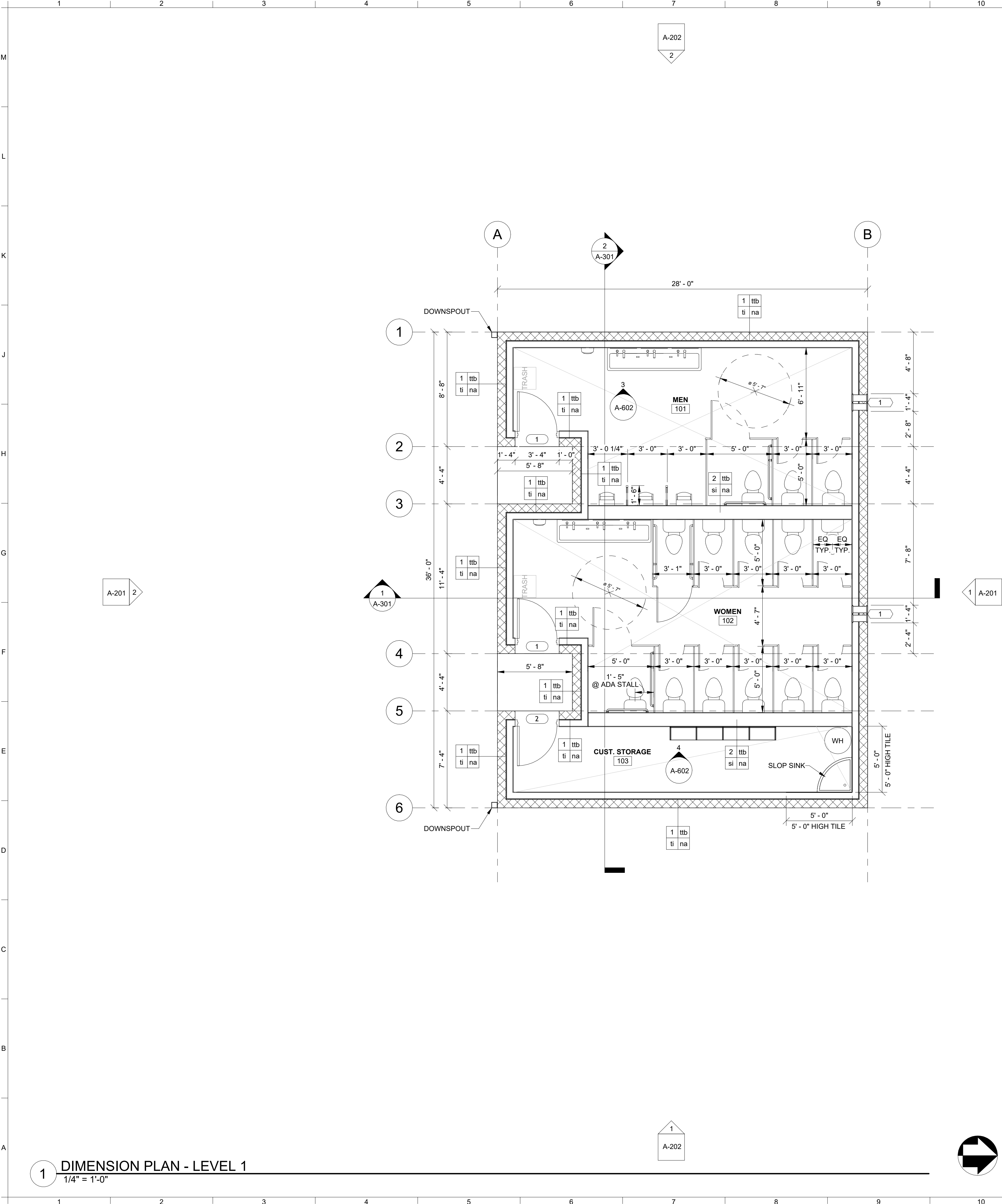
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ACCESSIBILITY REQUIREMENTS

A-003

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ARCHITECTURAL PERFORMANCE SPECS & CRITERIA

(SEE NOTES ON OTHER DISCIPLINES FOR PERFORMANCE SPEC NOTES)
PRODUCTS NOTED WITH A MANUFACTURER'S NAME ARE FOR BASES OF DESIGN AND WILL BE OPEN TO OTHER MANUFACTURERS THAT MEET THE SAME REQUIREMENTS. PRODUCTS THAT HAVE NO MANUFACTURER LISTED ARE OPEN TO ANY MANUFACTURER THAT MEETS THE PERFORMANCE NOTES.

DIV 4 CONCRETE MASONRY UNITS

8x8x16 PRE-COLORED & 8x8x16 PRE-COLORED SPLIT FACE. MORTAR COLOR PER ARCHITECT. MATCH EXISTING ADJACENT RESTROOM CMU COLOR & MORTAR.

DIV 4 GLASS BLOCK

8x8x3" THICK GLASS BLOCK BY VISTABRIK. STRIPPLED PATTERN.

DIV 6 MILLWORK

3/4" MELAMINE MDF CORE PVC EDGED SHELF UNIT W/ 1/4" MELAMINE BACK PANEL. ADJUSTABLE SHELF PIN SYSTEM W/ 4" HIGH BASE TO RECIEVE FLOOR EPOXY.

DIV 7 INSULATION

FIBERGLASS FOIL FACE IN ATTIC & KRAFT FACE IN STUDS W/ R-FACTORS NOTED. FND RIGID INSULATION TO BE EPS OR XPS W/ CORRECT R-FACTOR NOTED.

DIV 7 METAL BATTEN ROOF

PAC-CLAD STEEL 1" HIGH BATTEN 24-GAUGE W/ NON-PENETRATING CLIPS FASTENED @ 18" O.C. MAX. ON HIGH TEMP ICE & WATER SHIELD UNDERLAYMENT. INCLUDES 24-GAUGE PRE-COLORED RIDGE COVERS, DRIP STRIPS, & FASCIA CLADDING IN MATCHING COLOR.

METAL COLOR TO MATCH EXISTING ADJACENT RESTROOM.

DIV 7 METAL SOFFIT PANELS

PAC-CLAD ALUM .032 REVEAL SOFFIT PANELS W/ PERFORATED PANELS @ 4" O.C. TO INCLUDE J-MOLDING. COLOR TO MATCH EXISTING ADJACENT RESTROOM SOFFIT COLOR.

DIV 7 DAMPPROOFING

HENRY HE789-FIB ASPHALT EMULSION DAMP PROOFING 2 TO 3 GALLONS PER 100 SQ.FT. COVERAGE.

DIV 8 HOLLOW METAL DOORS AND FRAMES

STEEL DOOR & FRAMES MEETING ANSI / SDI A250.8 LEVEL 4-14-GAUGE PREPARED FOR HARDWARE PRE-PRIMED.

DIV 8 CEILING ACCESS DOOR

MILCOR INSULATED, RECESSED, PRIMED, LOCKABLE 22.5" x 36"

DIV 9 PAINTING

PAINT ON GYP. BD. MPI 143 SEMI-GLOSS. PAINT ON METAL DOORS & FRAMES MPI 3 PRIMER & MPI 11 FOR FINAL COAT SEMI-GLOSS.

DIV 9 FLOOR EPOXY

EPOXY W/ COLORED QUARTZ GRANULES ON CONC FLOOR & 4" UP GYPSUM BACKER BOARD TO BOTTOM OF WALL TILE. INCLUDE COVED ELEMENT @ FLOOR TO WALL TRANSITION FOR EPOXY TO WRAP UP THE BASE HEIGHT.

DIV 9 TILE

THIN SET PORCELAIN SUBWAY 4x16 WALL TILE W/ SYSTEM TCNA W222 OR W244 ON GYPSUM BACKER BOARD MEETING TCNA F144-13 & THIN SET MORTAR MEETING A118.15. MID-HEIGHT 2-COURSE ACCENT BAND TO BE 4x4 PORCELAIN W/ CONTRASTING COLOR.

PROVIDE METAL CAP @ TOP OF TILE WAINSCOTT & 4" OFF FLOOR FOR EPOXY TO FINISH TOO. INSTALL METAL COVED TRIM @ ALL OUTSIDE CORNERS.

DIV 9 GYPSUM BOARD

5/8" GYPSUM WALL & CEILING BOARD NON-RATED TAPED FOR A SMOOTH-COATED FINISH. SCREW FASTENERS.

DIV 10 TOILET PARTITIONS AND URINAL SCREENS

1"-THICK HDPE TOILET & URINAL PARTITIONS WALL, FLOOR, & CEILING ANCHORED. CONT. DOOR HINGES, BACK-TO-BACK CONT. S.S. WALL BRACKETS, ADA LATCHES, WARDROBE HOOKS ANCHORED TO 2x CEILING BLOCKING @ TRUSS BOTTOMS.

INSTALL PARTITION DOOR STOPS IN GAP OF ALL PARTITION DOORS. GLOBAL PARTITIONS 40-846400 & 40-8262370.

DIV 10 GRAB BARS

1-1/2" Ø S.S. GRAB BARS 42", 36", 18" @ ADA 5x5 STALLS & TWO 42" S.S. GRAB BARS IN AMBULATORY STALLS.

DIV 10 EXTINGUISHERS

10 LB. ABC FIRE EXTINGUISHER HUNG IN CUSTODIAL ROOM.

DIMENSION NOTES

- ALL EXTERIOR WALL DIMENSIONS ARE TO EXTERIOR FACE OF CMU/FOUNDATION/GRID. SEE DETAIL 3/A-301 FOR PLACEMENT OF WALL ON GRIDLINE.
- INTERIOR WALLS ARE DIMENSIONED TO FACE OF STUD.
- COLUMN DIMENSIONS ARE TO CENTER.

FLOOR PLAN LEGEND

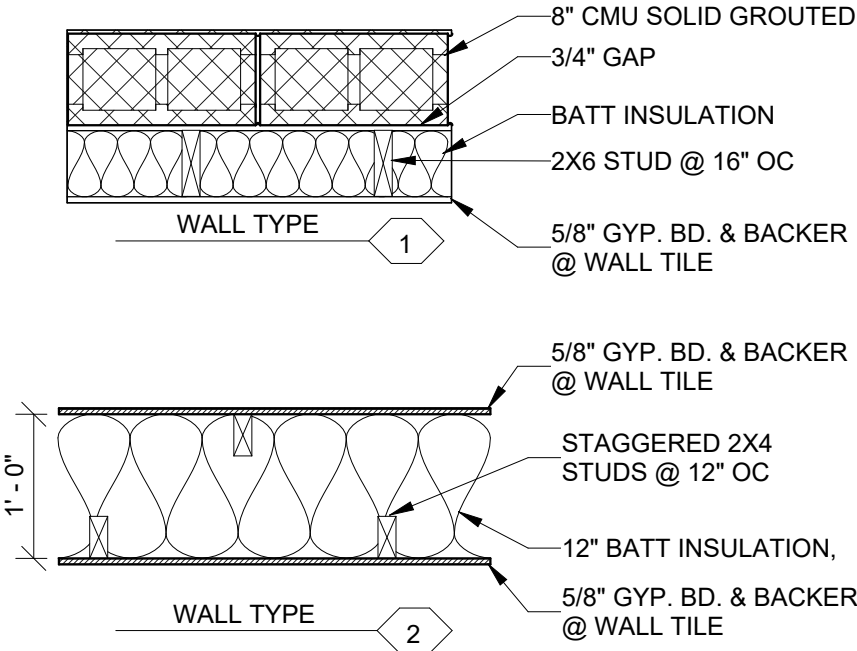
ROOM NAME	ROOM NUMBER MARK
101	
101A	
###	
#	

NOTE:
1. SEE ARCHITECTURAL SCHEDULES SHEET(S) FOR WALL TYPES, DOOR TYPES, WINDOWS TYPES, AND GLAZING TYPES.

WALL TAG LEGEND

WALL TYPE	WALL HEIGHT	FIRE RATING
a	td = TO DECK	
td	tc = TO CEILING	
tc	ttb = TO TRUSS BOTTOM	
ttb	if = IN-FILL	
if		
si		
ti		

WALL TYPES:



DUCHESNE COUNTY

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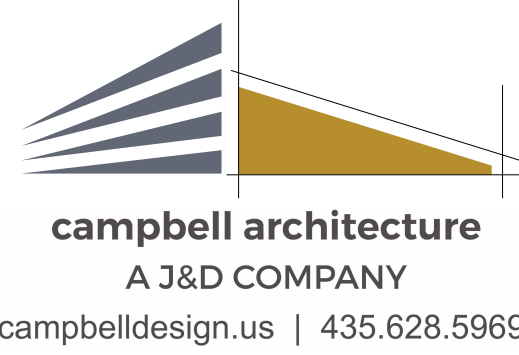
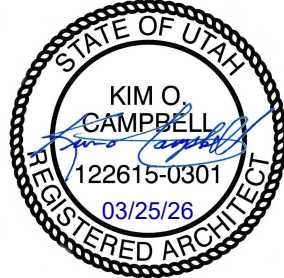
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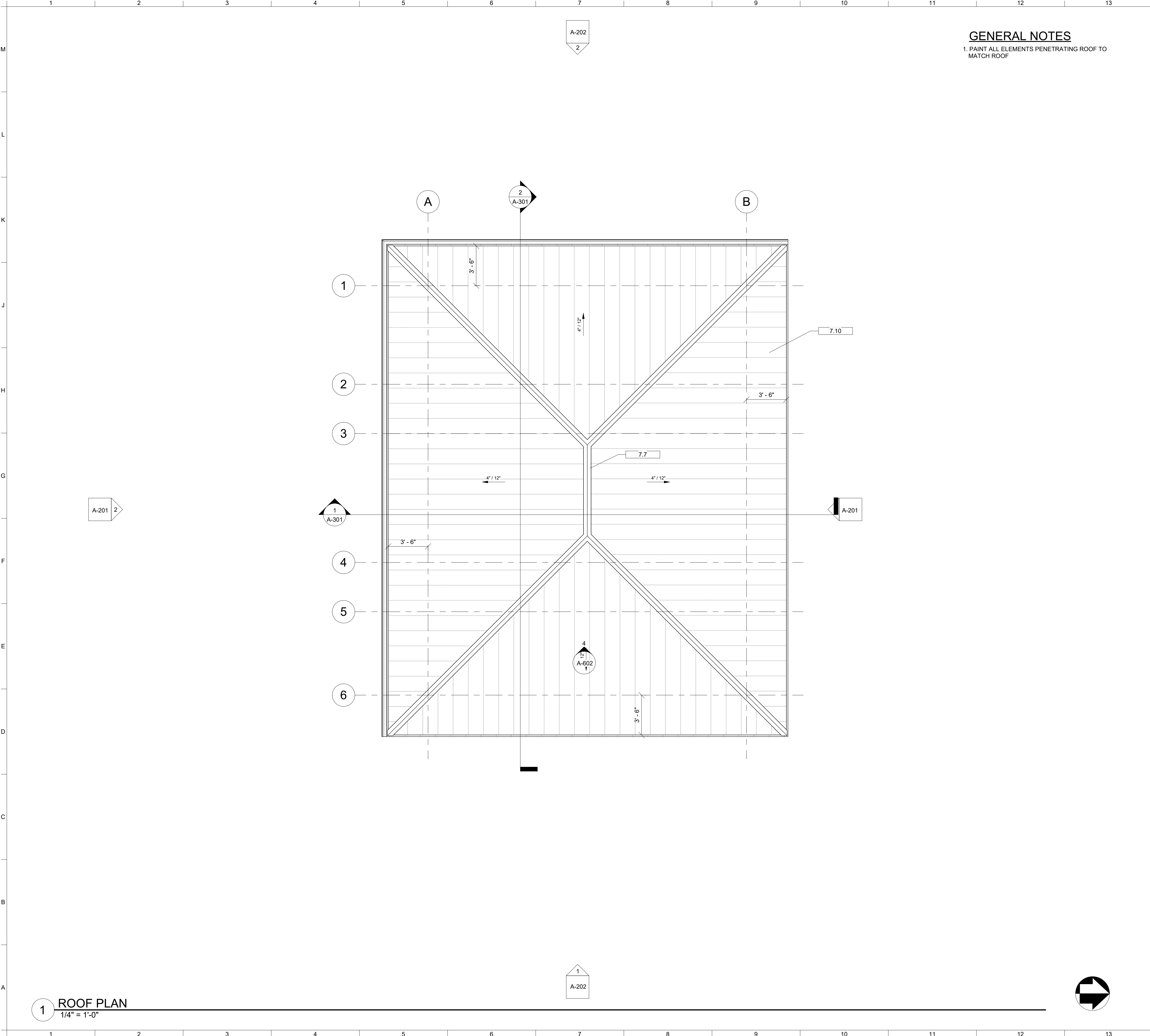
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FLOOR PLAN

A-101



GENERAL NOTES

1. PAINT ALL ELEMENTS PENETRATING ROOF TO MATCH ROOF

Keynote Legend

Key Value	Keynote Text
3.0	- 8" CONCRETE FOUNDATION WALL (SEE STRUCTURAL)
3.2	- REINFORCED CONCRETE FOOTING (SEE STRUCTURAL)
3.4	- CONCRETE SLAB (SEE STRUCTURAL FOR THICKNESS & REINFORCING)
3.5	- CONCRETE SLAB
4.0	- 8X8X16" SOLID GROUTED CMU
4.1	- 8X8X8" SOLID GROUTED SPLIT FACE CMU
5.1	- J-BOLT (SEE STRUCTURAL)
6.3	- DOUBLE TOP PLATE
6.4	- 2X8 TREATED SILL PLATE
6.5	- 2X6 TREATED SILL PLATE
6.6	- MANUFACTURED WOOD TRUSSES @ 24" O.C.
6.7	- 2X BLOCKING
6.11	- FULL HEIGHT TRUSS BLOCKING
6.13	- CONTINUOUS 2X2
6.21	- 2X6 STUD WALL
6.42	- LVL FASCIA
6.43	- CONTINUOUS 2X6
6.45	- 5/8" SHEATHING
6.46	- 1/2" SHEATHING
7.2	- R-20 RIGID INSULATION
7.3	- R-10 CONTINUOUS INSULATION
7.6	- PAC CLAD ALUMINUM SOFFIT
7.7	- RIDGE VENT W/ BUG-RESISTANT MEDIA FABRIC, CONT.
7.10	- BATTEN SEAM METAL ROOF
7.12	- 24 GA PRE-COLORED METAL DRIP/FLASHING
7.24	- R-49 ATTIC INSULATION
7.25	- R-19 WALL INSULATION
7.44	- STAINLESS STEEL FLASHING
7.46	- WEEP HOLES @ 32" O.C.
7.55	- PLASTIC BUG MEDIA
8.12	- GLASS BLOCK VISTABRIK SOLID GLASS BLOCK 8"X 8" SANDBLAST INSIDE FACE ONLY
9.0	- 5/8" GYP. BD.
10.5	- 24" X 42" METAL FRAMED MIRRORS
10.20	- ELECTRIC HAND DRYER. SEE ELECTRICAL
10.21	- LAVATORY RIM HEIGHT 34" PER ANSI 117.1-98 (FIG 606.3), BELOW SINK PIPES TO BE INSULATED PER ANSI 117.7-2017 606.6
31.0	- 4" GRANULAR FILL

DUCHESNE COUNTY

NORTH RESTROOM

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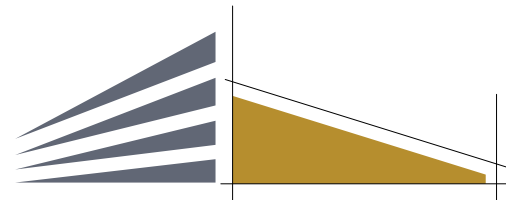
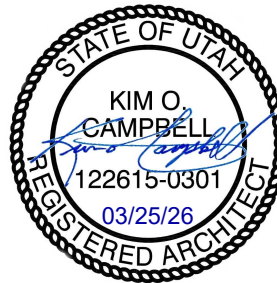
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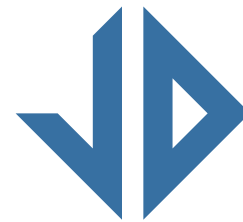
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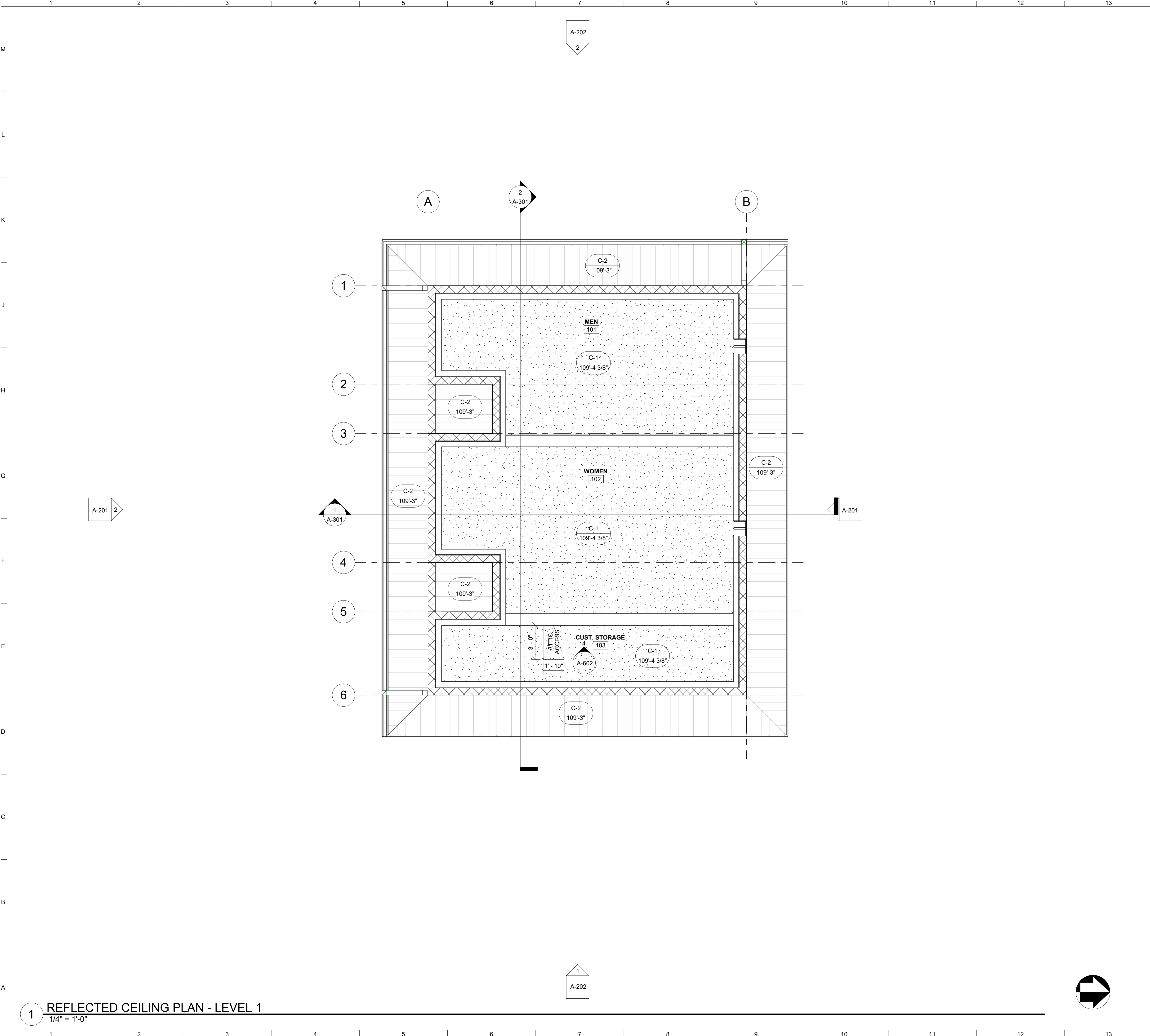


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ROOF PLAN

A-111



**REFLECTED CEILING PLAN
LEGEND**

- LIGHT FIXTURE - SEE LIGHTING PLAN
- RECESSED LIGHT FIXTURE - SEE LIGHT PLAN
- CEILING MOUNTED DUAL TECHNOLOGY OCC. SENSOR
- CEILING MOUNTED POWER PACK
- CEILING MOUNTED EXHAUST FAN
- CEILING MOUNTED SUPPLY AIR DIFFUSER
- CEILING MOUNTED RETURN AIR GRILLE
- EXIT LIGHT

CEILING TYPE
X-X
0'-0"

CEILING IDENTIFICATION

CEILING HEIGHT

CEILING TYPES

- C-1
0'-0"
- 5/8" GYP. BD. ON 1/2" OSB
ATTACHED TO UNDERSIDE
OF WD. TRUSSES
- C-2
0'-0"
- ALUMINUM SOFFIT W/
PERFORATED PANELS @ 48"
OC

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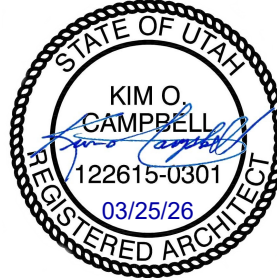
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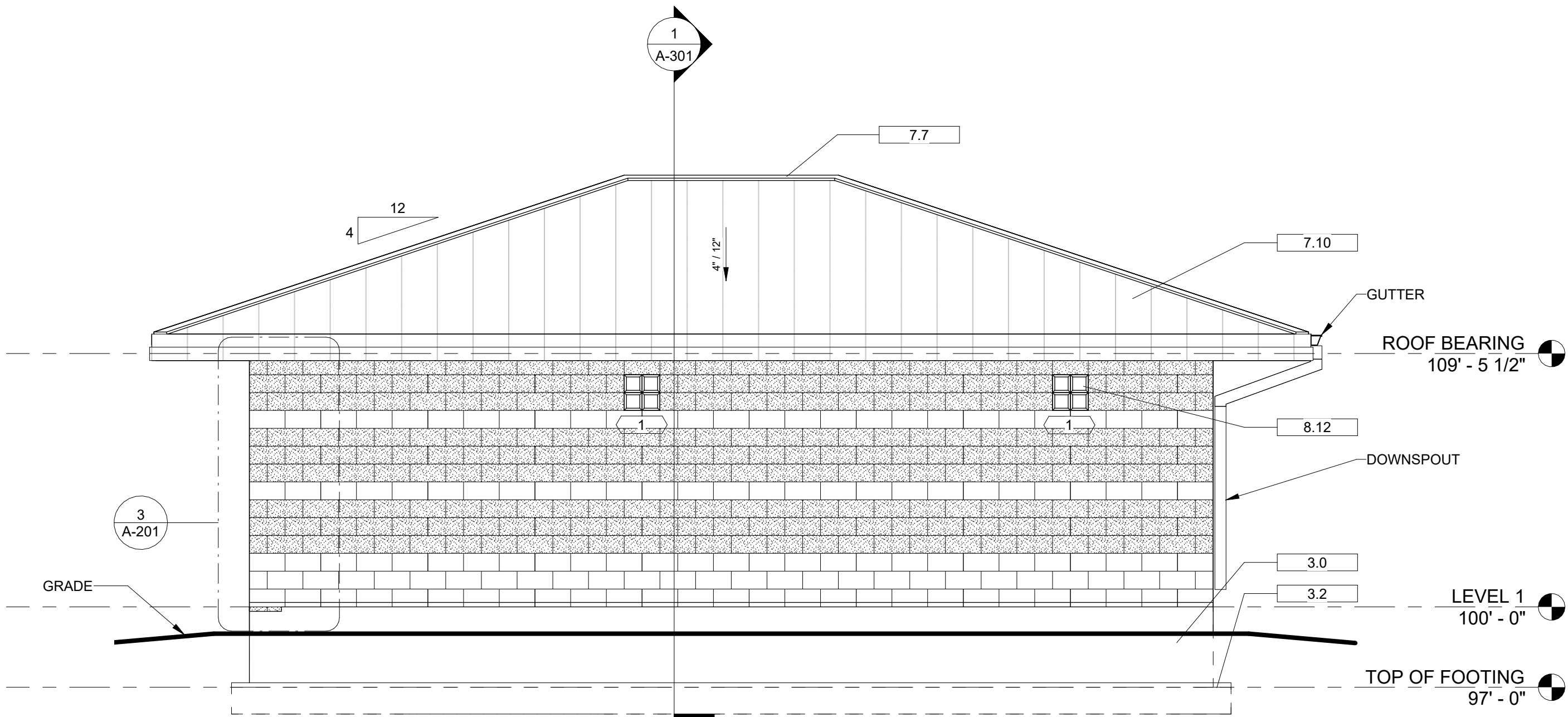


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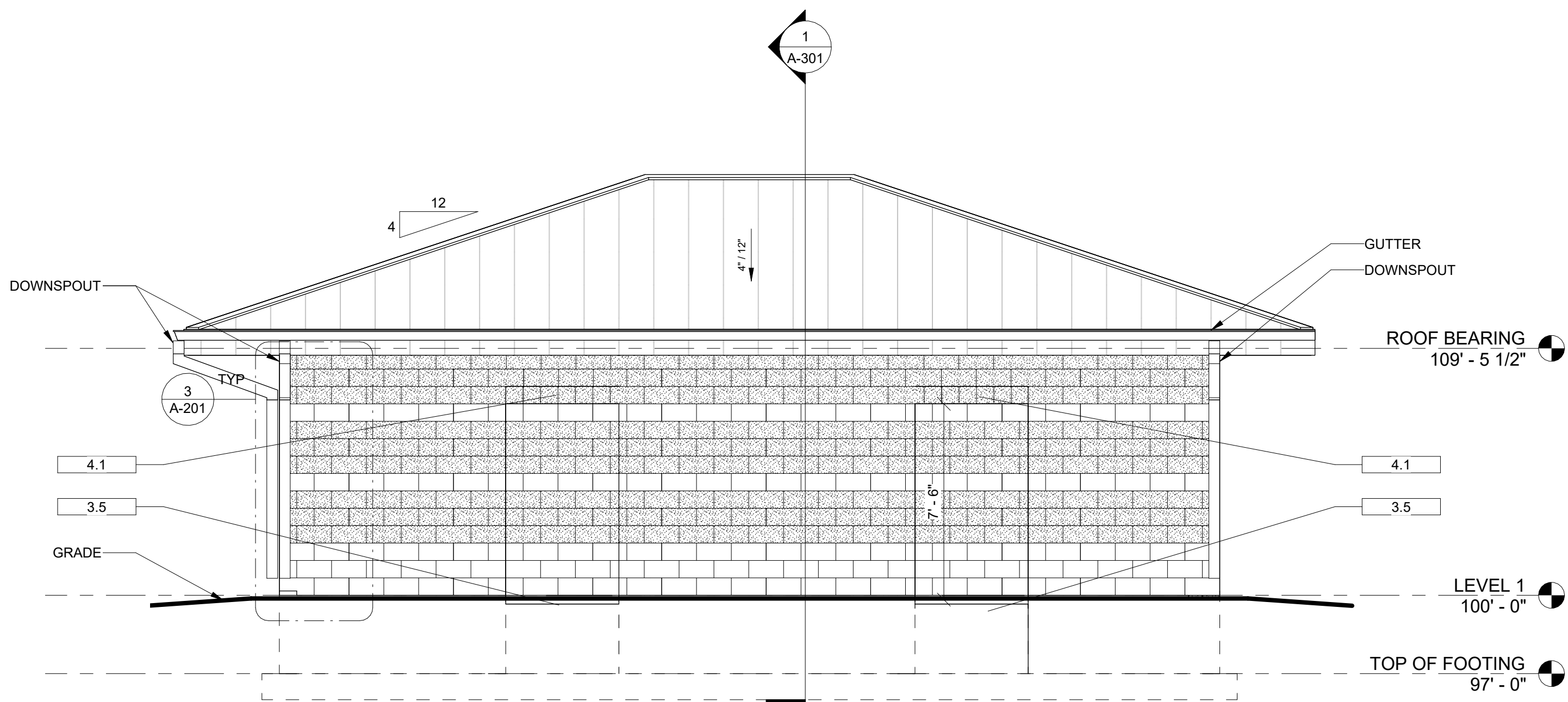
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REFLECTED CEILING PLAN

A-120

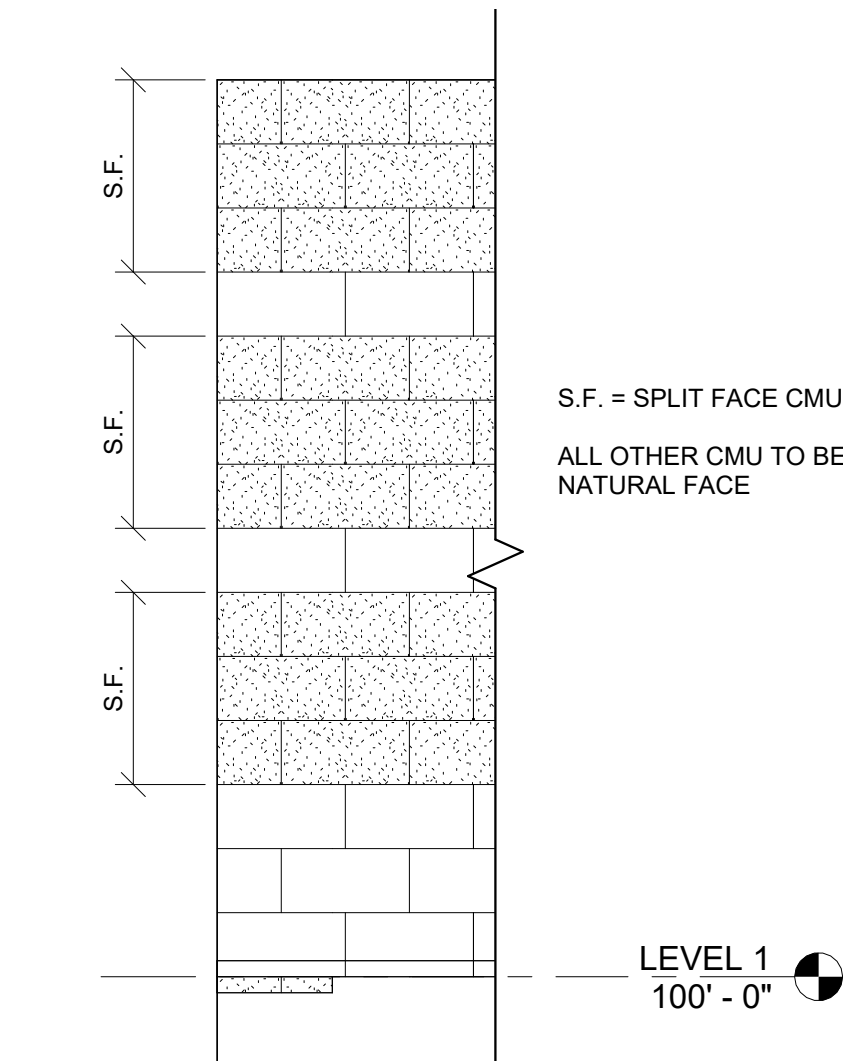


1 NORTH ELEVATION
1/4" = 1'-0"



2 SOUTH ELEVATION
1/4" = 1'-0"

Keynote Legend	
Key Value	Keynote Text
3.0	- 8" CONCRETE FOUNDATION WALL (SEE STRUCTURAL)
3.2	- REINFORCED CONCRETE FOOTING (SEE STRUCTURAL)
3.4	- CONCRETE SLAB (SEE STRUCTURAL FOR THICKNESS & REINFORCING)
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7.3	- R-10 CONTINUOUS INSULATION
7.6	- PAC CLAD ALUMINUM SOFFIT
7.7	- RIDGE VENT W/ BUG-RESISTANT MEDIA FABRIC, CONT.
7.10	- BATTEN SEAM METAL ROOF
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10.20	- ELECTRIC HAND DRYER. SEE ELECTRICAL
10.21	- LAVATORY RIM HEIGHT 34" PER ANSI 117.1-98 (FIG 606.3). BELOW SINK PIPES TO BE INSULATED PER ANSI 117.7-2017 606.6
31.0	- 4" GRANULAR FILL



3 TYPICAL BLOCK PATTERN
1/2" = 1'-0"

DUCHESNE COUNTY

NORTH RESTROOM

JDE No.2508-062

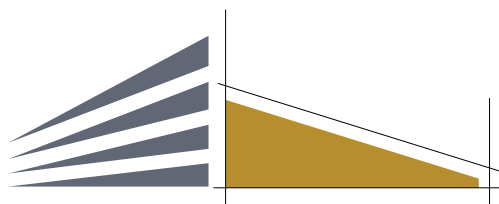
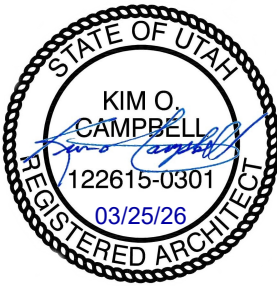
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REVISIONS

NO.	DATE	DESCRIPTION

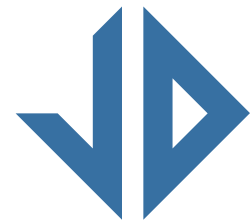
STAMP



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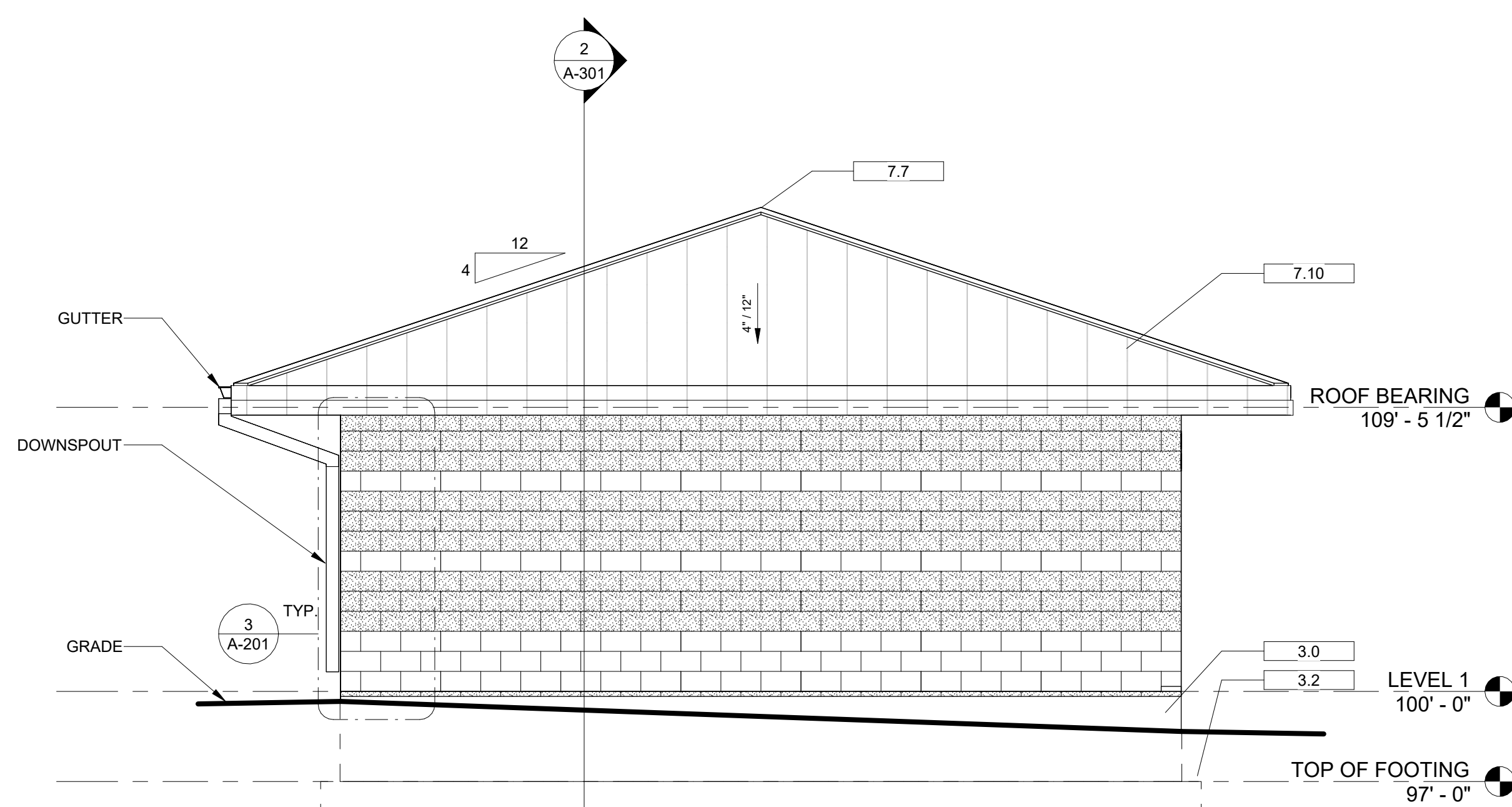


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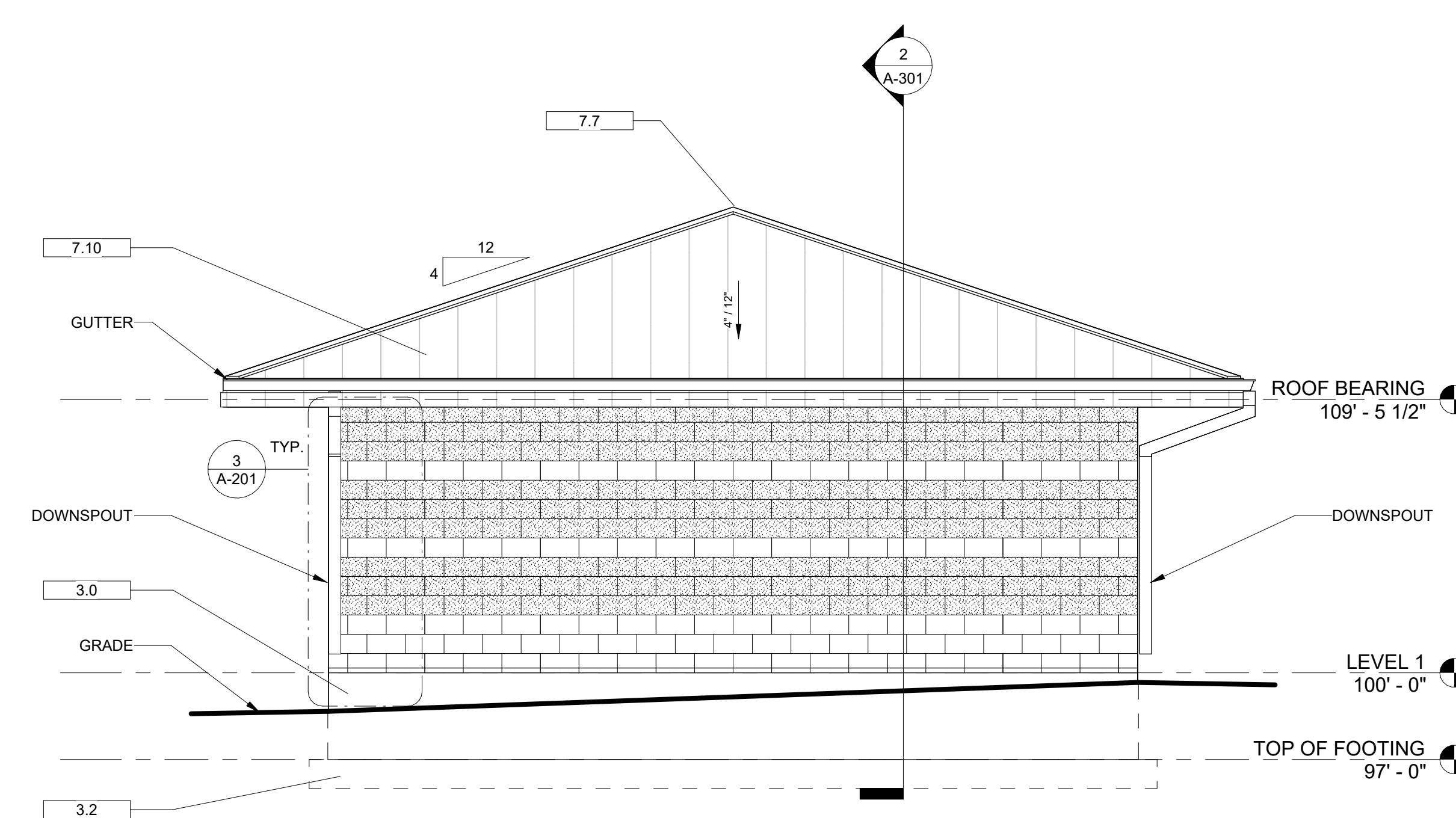
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EXTERIOR ELEVATIONS

A-201



1 EAST ELEVATION
1/4" = 1'-0"



2 WEST ELEVATION
1/4" = 1'-0"

Keynote Legend	
Key Value	Keynote Text
3.0	- 8" CONCRETE FOUNDATION WALL (SEE STRUCTURAL)
3.2	- REINFORCED CONCRETE FOOTING (SEE STRUCTURAL)
3.4	- CONCRETE SLAB (SEE STRUCTURAL FOR THICKNESS & REINFORCING)
3.5	- CONCRETE SLAB
4.0	- 8X8X16" SOLID GROUTED CMU
4.1	- 8X8X8" SOLID GROUTED SPLIT FACE CMU
5.1	- J-BOLT (SEE STRUCTURAL)
6.3	- DOUBLE TOP PLATE
6.4	- 2X8 TREATED SILL PLATE
6.5	- 2X6 TREATED SILL PLATE
6.6	- MANUFACTURED WOOD TRUSSES @ 24" O.C.
6.7	- 2X BLOCKING
6.11	- FULL HEIGHT TRUSS BLOCKING
6.13	- CONTINUOUS 2X2
6.21	- 2X6 STUD WALL
6.42	- LVL FASCIA
6.43	- CONTINUOUS 2X6
6.45	- 5/8" SHEATHING
6.46	- 1/2" SHEATHING
7.2	- R-20 RIGID INSULATION
7.3	- R-10 CONTINUOUS INSULATION
7.6	- PAC CLAD ALUMINUM SOFFIT
7.7	- RIDGE VENT W/ BUG-RESISTANT MEDIA FABRIC, CONT.
7.10	- BATTEN SEAM METAL ROOF
7.12	- 24 GA.PRE-COLORED METAL DRIP/FLASHING
7.24	- R-49 ATTIC INSULATION
7.25	- R-19 WALL INSULATION
7.44	- STAINLESS STEEL FLASHING
7.46	- WEEP HOLES @ 32" O.C.
7.55	- PLASTIC BUG MEDIA
8.12	- GLASS BLOCK, VISTABRIK SOLID GLASS BLOCK 8"X 8" SANDBLAST INSIDE FACE ONLY
9.0	- 5/8" GYP. BD.
10.5	- 24" X 42" METAL FRAMED MIRRORS
10.20	- ELECTRIC HAND DRYER, SEE ELECTRICAL
10.21	- LAVATORY RIM HEIGHT 34" PER ANSI 117.1-98 (FIG 606.3). BELOW SINK PIPES TO BE INSULATED PER ANSI 117.7-2017 606.6
31.0	- 4" GRANULAR FILL

DUCHESNE COUNTY

NORTH RESTROOM

JDE No.2508-062

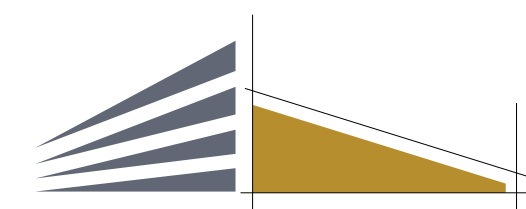
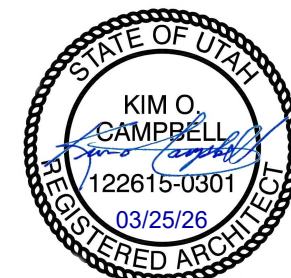
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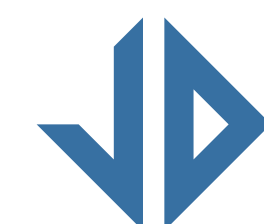
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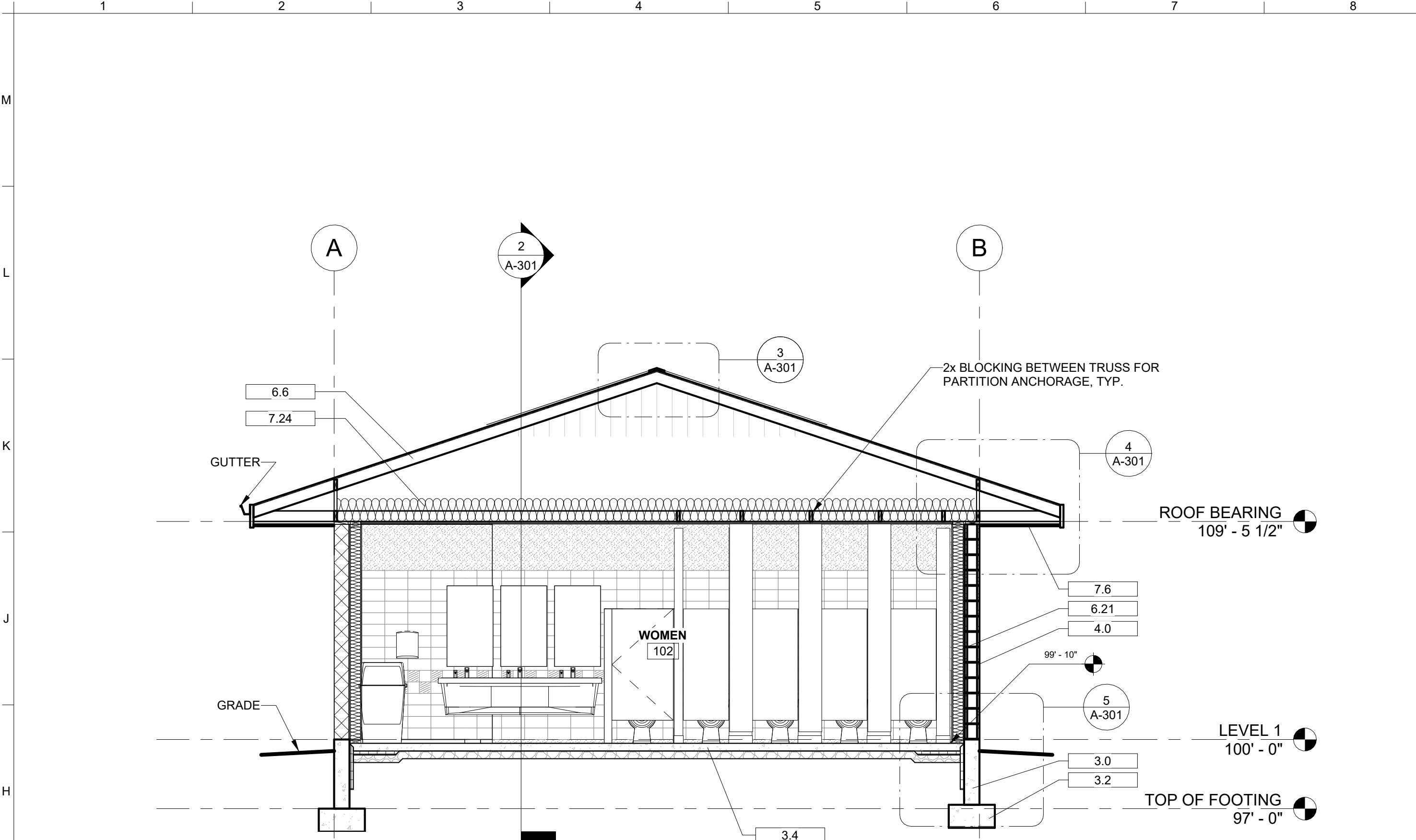


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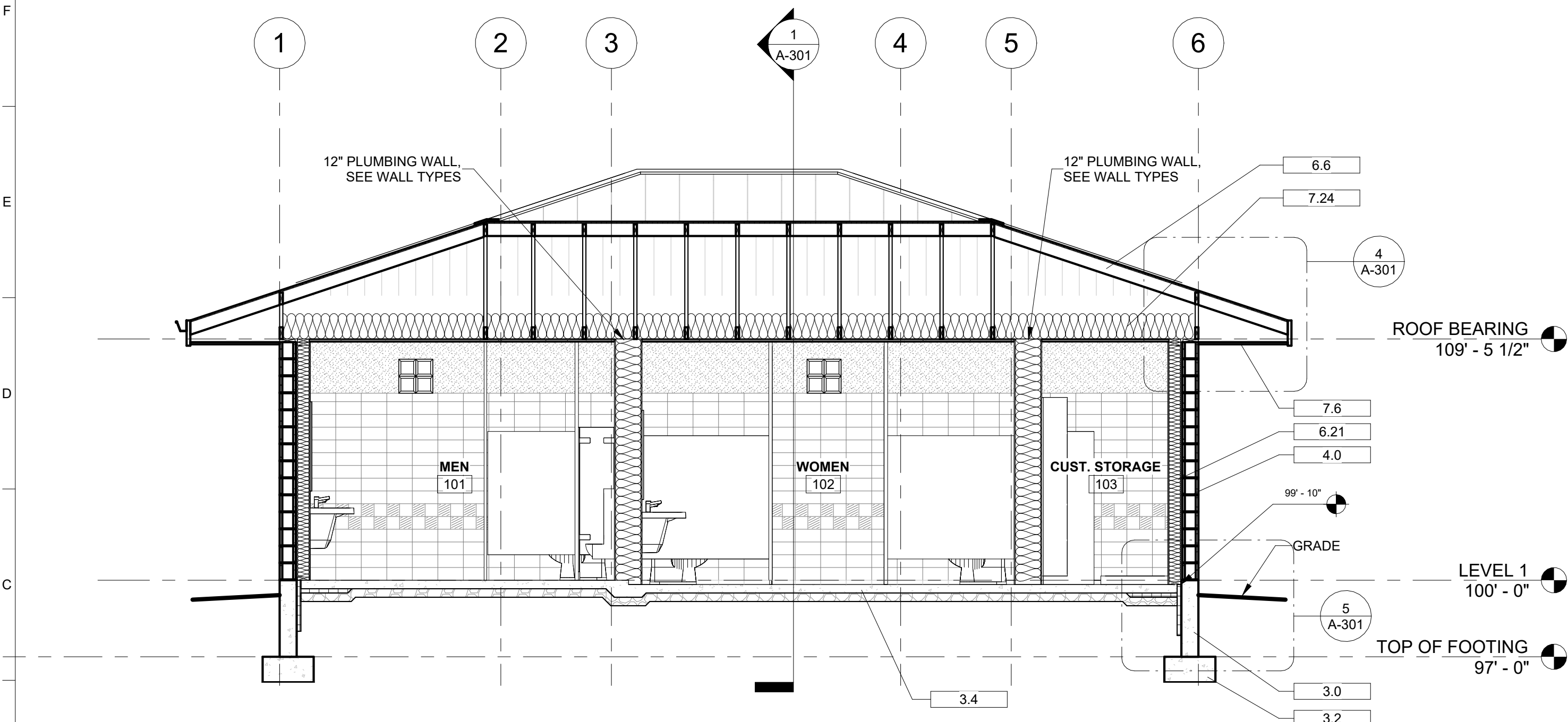
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EXTERIOR ELEVATIONS

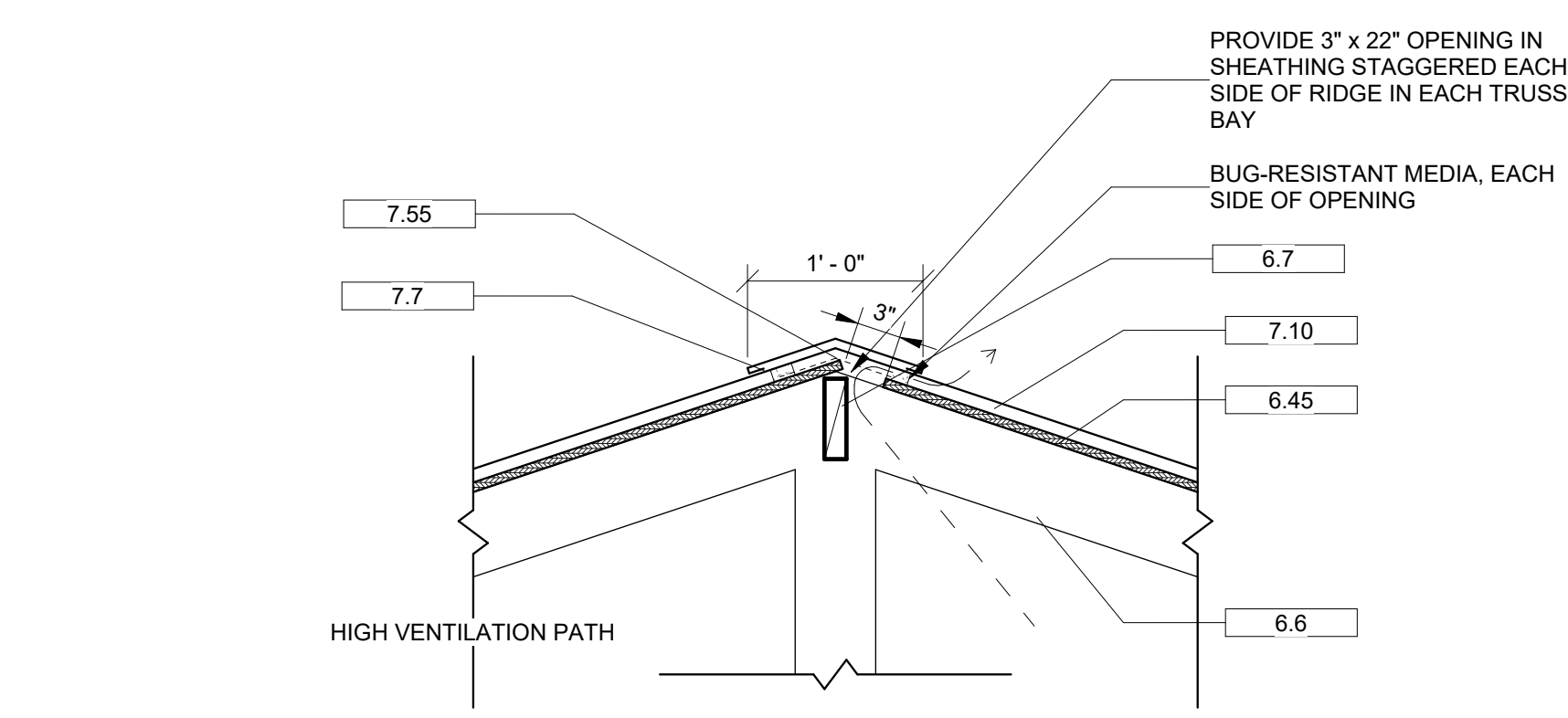
A-202



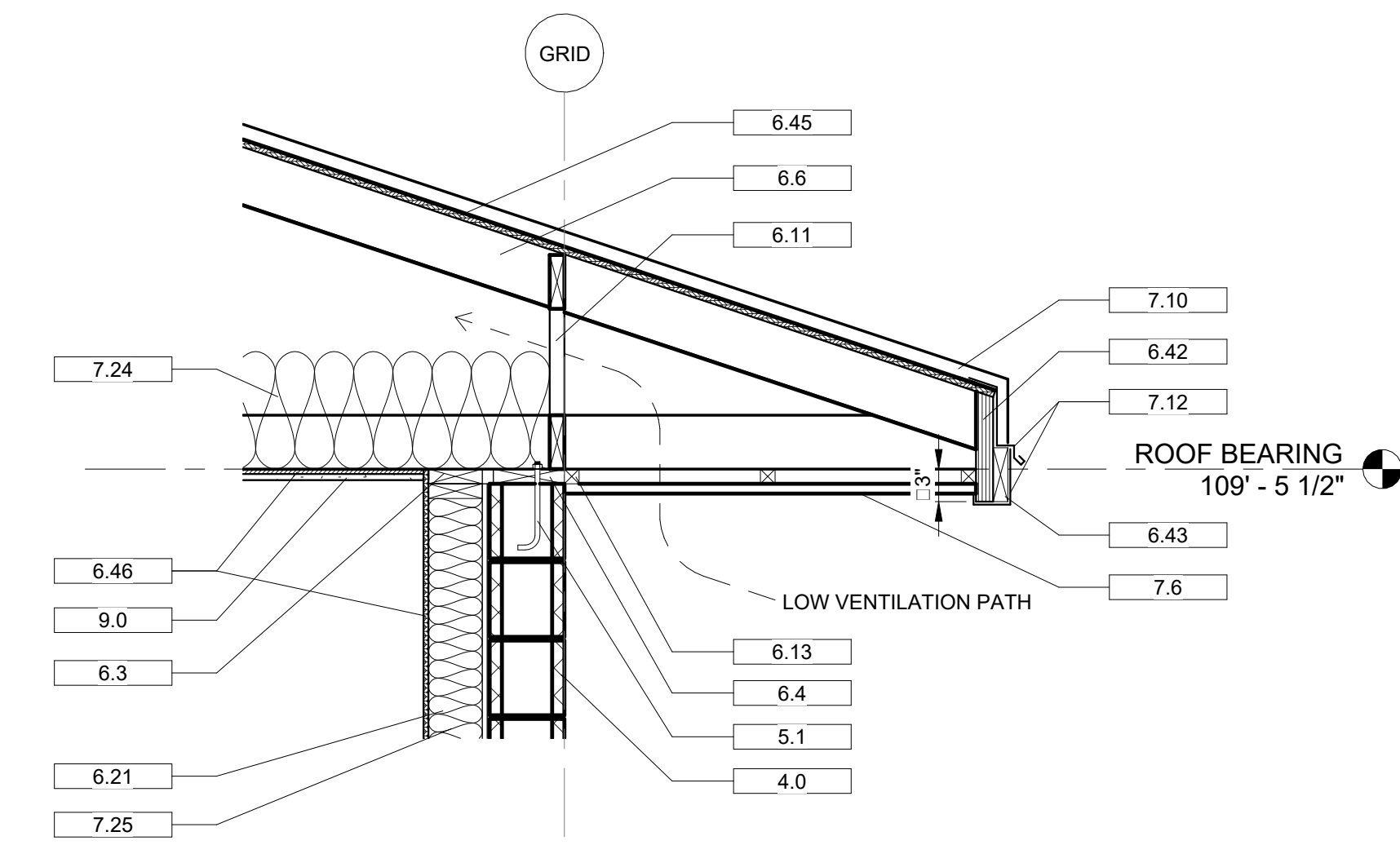
1 BUILDING SECTION
1/4" = 1'-0"



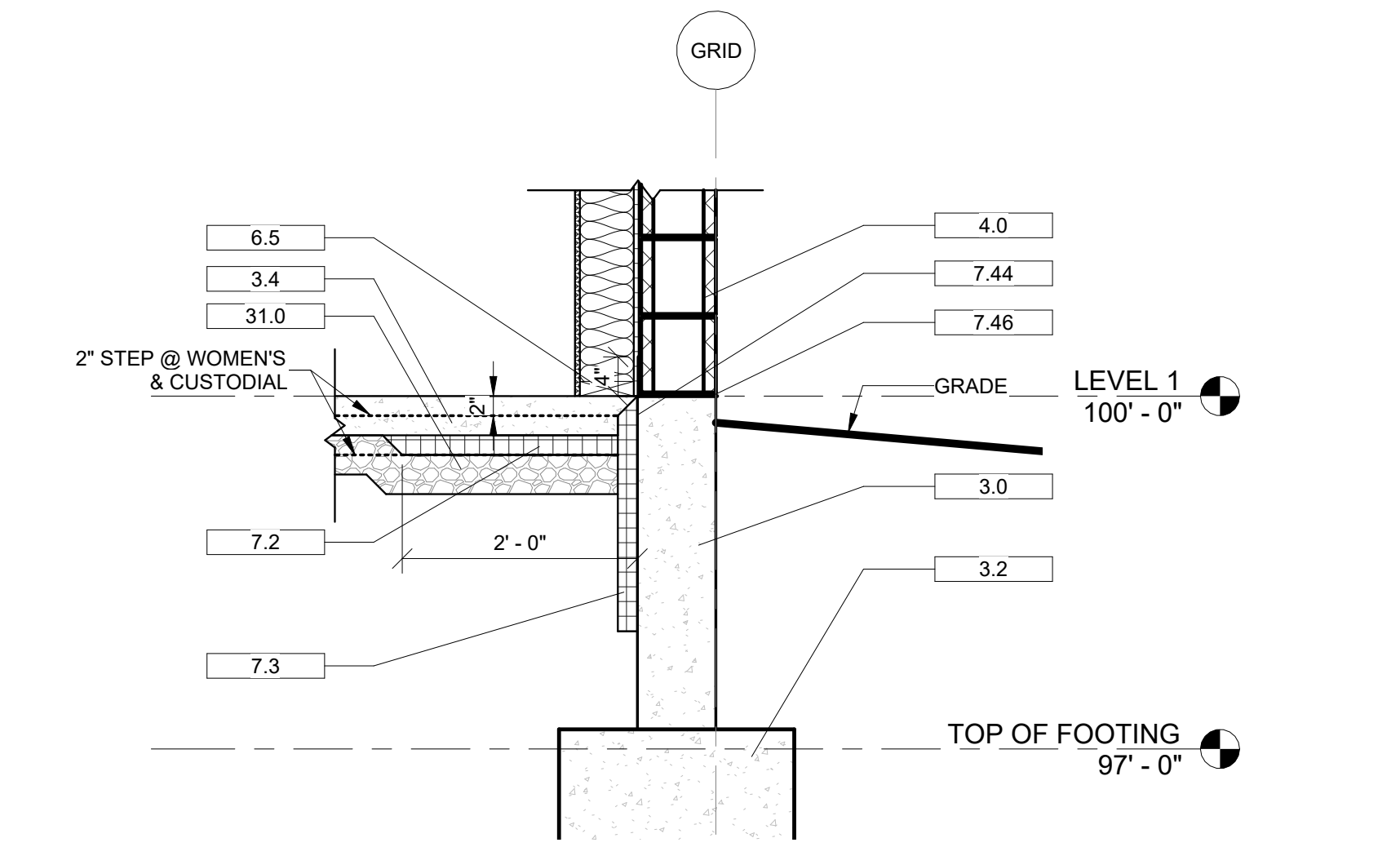
2 BUILDING SECTION
1/4" = 1'-0"



3 RIDGE VENT DETAIL
1" = 1'-0"



4 EAVE DETAIL
3/4" = 1'-0"



5 FOOTING DETAIL
3/4" = 1'-0"

Keynote Legend	
Key Value	Keynote Text
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31.0	- 4" GRANULAR FILL

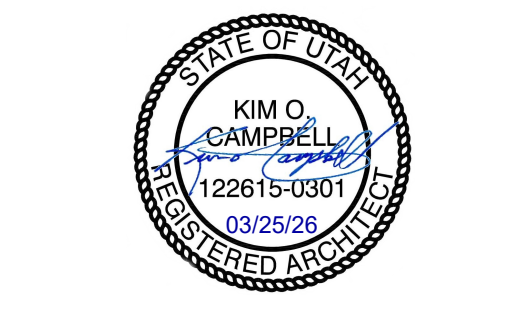
DUCHESNE COUNTY

NORTH RESTROOM

JDE No.2508-062

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REVISIONS		
NO.	DATE	DESCRIPTION



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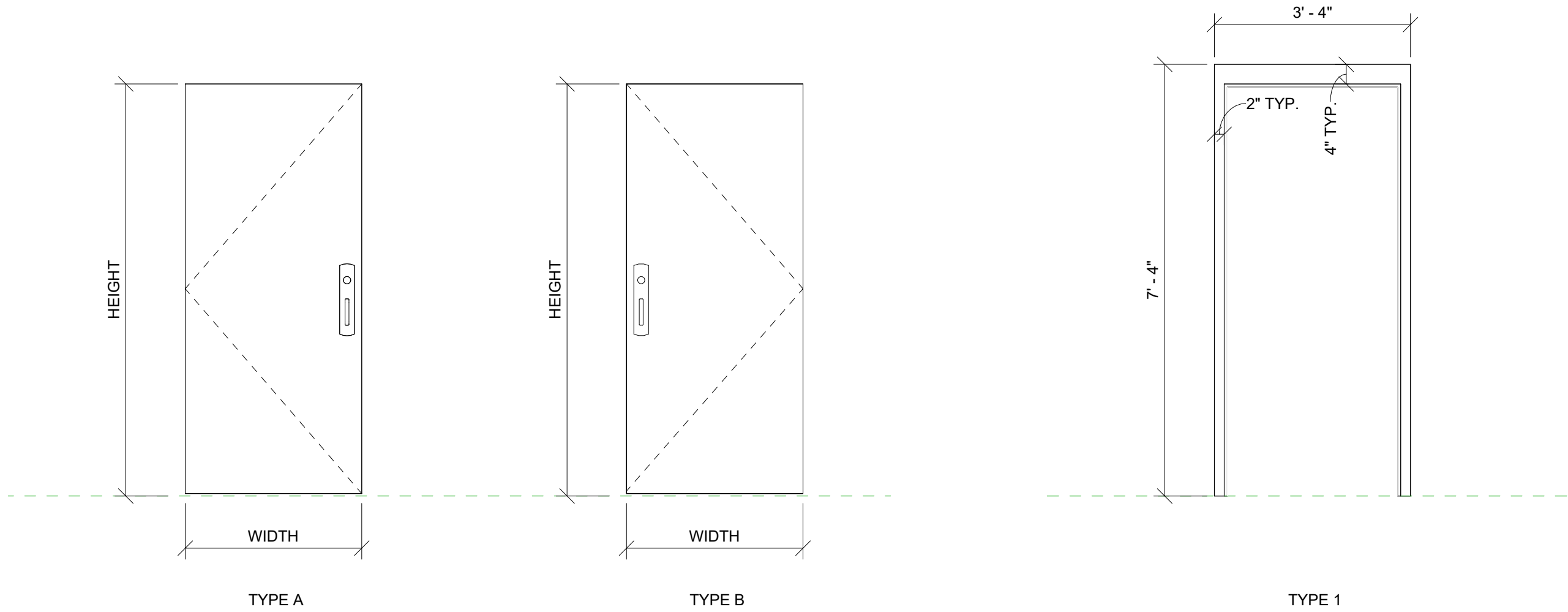
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BUILDING SECTIONS

A-301

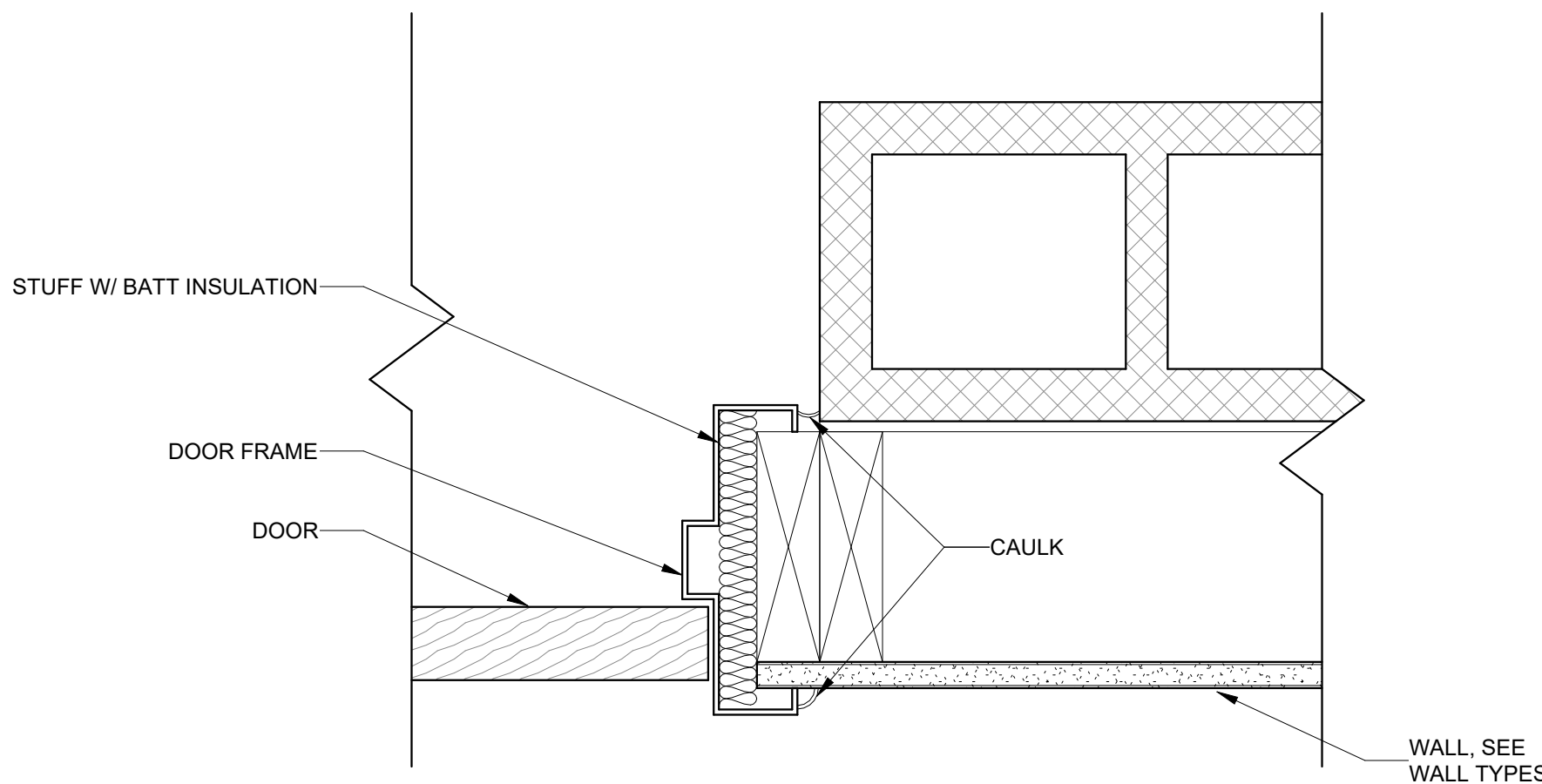
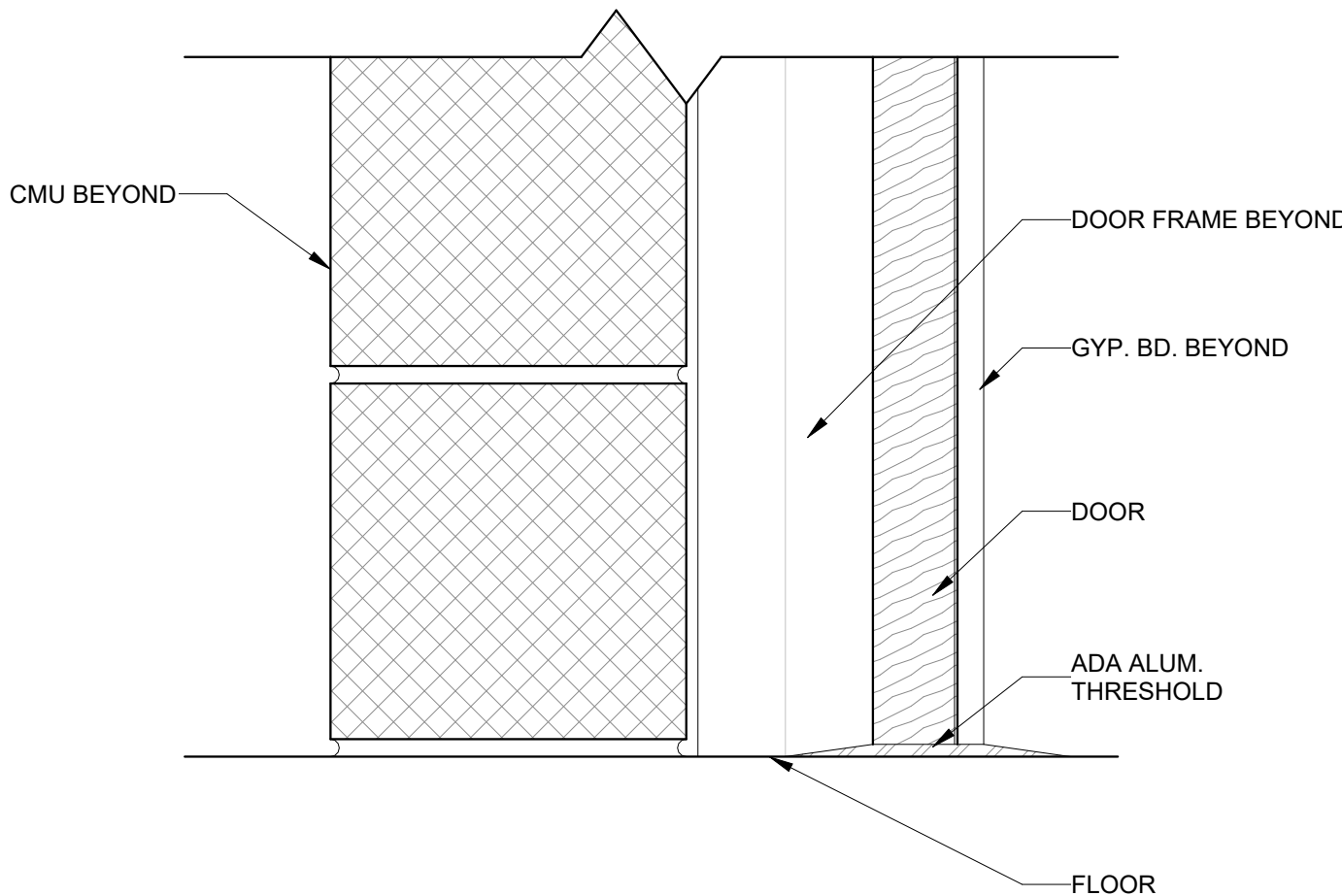
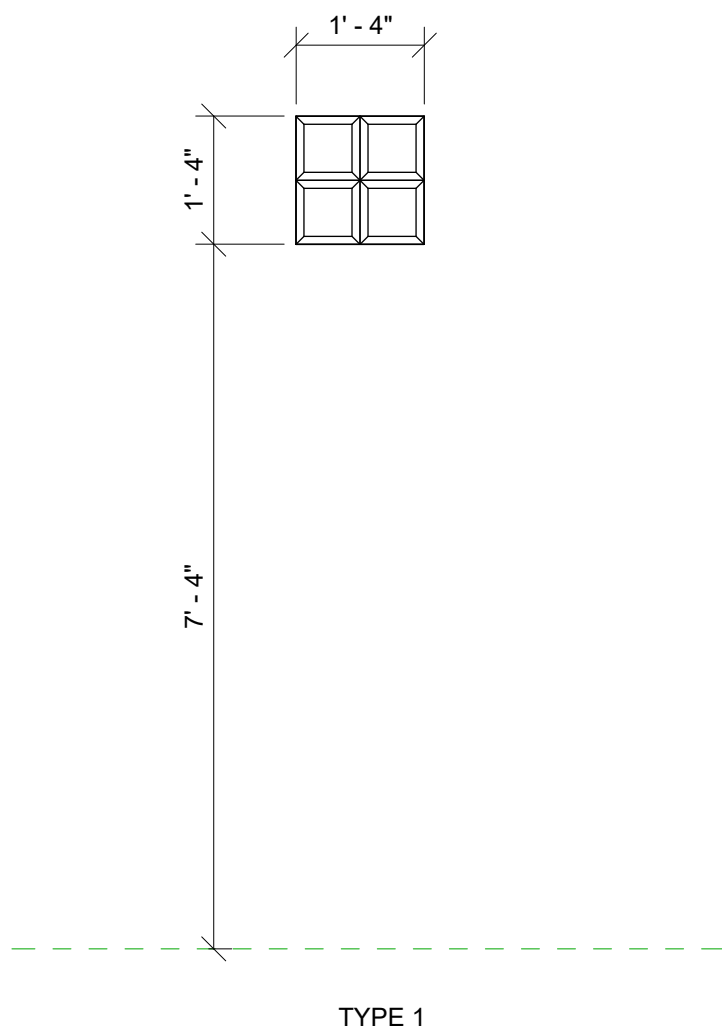
DOOR SCHEDULE										
MARK	ROOM NUMBER	DOOR TYPE	FRAME TYPE	DOOR		HEAD	JAMB	SILL	HARDWARE GROUP	REMARKS
				WIDTH	HEIGHT					
1	101	A	1	3'-0"	7'-0"					
1	102	A	1	3'-0"	7'-0"					
2	103	B	1	3'-0"	7'-0"					

NOTE: PROVIDE \$3,000 ALLOWANCE FOR DOOR HARDWARE.



DOOR TYPES

FRAME TYPES



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31.0	- 4" GRANULAR FILL

DUCHESNE COUNTY

NORTH RESTROOM

JDE No.2508-062

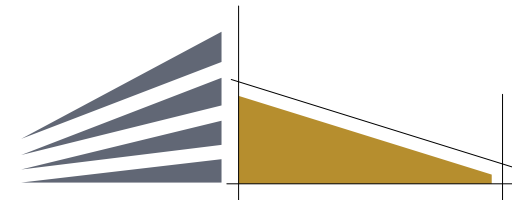
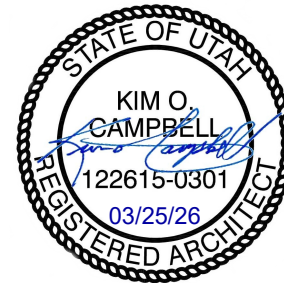
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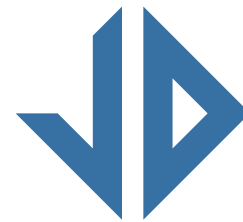
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WINDOW TYPES

1 SILL DETAIL
3" = 1'-0"

2 HEAD/JAMB DETAIL
3" = 1'-0"

ARCHITECTURAL
SCHEDULES

A-601

GENERAL PLAN SYMBOLS	
	PLAN REVISION NUMBER
	DETAIL NUMBER ON SHEET
	SHEET NUMBER WHERE DETAIL IS PLACED
	KEYNOTE SYMBOL
	CONTINUATION SYMBOL
	POINT WHERE NEW CONNECTS TO EXISTING
	POINT WHERE EXISTING IS TO BE DEMOLISHED
	ROOM NAME / NUMBER
	AREA BEING DEMOLISHED
	AREA NOT IN CONTRACT

ABBREVIATIONS			
Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	MA	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MUA	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIV	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRESS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
ENC	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	RIA	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCD	FLOOR CLEAN OUT	REC	RECESSED
FDC	FIRE DEPARTMENT CONNECTION	RED	REDUCER
FL	FLOOR	RH	RELATIVE HUMIDITY
FO	FUEL OIL	RIA	RELIEF AIR
FOV	FUEL OIL VENT	RM	ROOM
FOR	FUEL OIL RETURN	RPM	REVOLUTIONS PER MINUTE
FOS	FUEL OIL SUPPLY	RW	RAIN WATER
FPM	FEET PER MINUTE	SF	SQUARE FOOT
FS	FLOOR SINK	S/A	SUPPLY AIR
FT	FOOT/FEET	SAN	SANITARY
FTR	FIN TUBE RADIATION	SF	SQUARE FOOT
GAL	GALLON	SD	SMOKE DAMPER
GF	GAS-FIRED	SM	SURFACE MOUNT
GC	GENERAL CONTRACTOR	ST	STANDPIPE
GPM	GALLONS PER MINUTE	SP	STATIC PRESSURE
GW	GREASE WASTE	STM	STEAM
HB	HOSE BIB	T	THERMISTAT
HP	HORSE POWER	TD	TEMPERATURE DROP
HTG	HEATING	TR	TRENCH DRAIN
HTR	HEATER	TEMP	TEMPERATURE
HW	HOT WATER	TYP	TYPICAL
HYD	HYDRANT	UG	UNDERGROUND
ID	INDIRECT	VAC	VACUUM
IN	INCH	V	VENT
INV	INVERT	VAV	VARIABLE AIR VOLUME
LB	POUND	VENT	VENTILATION
LBHR	POUNDS PER HOUR	VTR	VENT THROUGH ROOF
LAT	LEAVING AIR TEMPERATURE	W	WASTE
LP	LOW PRESSURE	WB	WET BULB
LPG	LIQUEFIED PETROLEUM GAS	WCO	WALL CLEAN OUT
		WH	WALL HYDRANT

EQUIPMENT ABBREVIATIONS			
AC	AIR CONDITIONING UNIT	ET	EXPANSION TANK
ACCU	AIR COOLING CONDENSING UNIT	EW	ELECTRIC WATER HEATER
AHU	AIR HANDLING UNIT	FCU	FAN COIL UNIT
AS	AIR SEPARATOR	FP	FIRE PUMP
B	BOILER	GI	GREASE INTERCEPTOR
CH	CHILLER	GRV	GRAVITY ROOF VENTILATOR
CT	COOLING TOWER	HWP	HEATING WATER PUMP
CUH	CABINET UNIT HEATER	HRU	HEAT RECOVERY UNIT
CHWP	CHILLED WATER PUMP	PRV	POWER ROOF VENTILATOR
DBP	DOMESTIC WATER BOOSTER PUMP	RE	RETURN/EXHAUST FAN
DC	DUCT MOUNTED COIL	RTU	ROOFTOP UNIT
DCP	DOMESTIC WATER CIRCULATING PUMP	SP	SUMP PUMP
EF	EXHAUST FAN	UH	UNIT HEATER
EDC	ELECTRIC DUCT COIL	WH	WATER HEATER

* NOTE -
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

HVAC SYMBOLS	
	SQ. DUCT SIZE (WIDTH X HEIGHT)
	OVAL DUCT SIZE (WIDTH / HEIGHT)
	ROUND DUCT SIZE (DIAMETER)
	EXISTING DUCT TO REMAIN
	DUCT TO BE DEMOLISHED
	SUPPLY AIR - LOW PRESSURE
	SUPPLY AIR - MEDIUM PRESSURE
	VENTILATION AIR
	OUTDOOR AIR
	RETURN AIR
	TRANSFER AIR
	RELIEF AIR
	GENERAL EXHAUST AIR
	GREASE EXHAUST DUCT
	LABORATORY HOOD
	FLUE GAS VENT
	COMBUSTION AIR
	RECT. SUPPLY DUCT RISE / DROP
	ROUND SUPPLY DUCT RISE / DROP
	RECT. RETURN DUCT RISE / DROP
	ROUND RETURN DUCT RISE / DROP
	RECT. EXHAUST DUCT RISE / DROP
	ROUND EXHAUST DUCT RISE / DROP

GRILLE, REGISTER, DIFFUSERS	
	SQUARE CEILING DIFFUSER
	ROUND CEILING DIFFUSER
	SIDEWALL SUPPLY GRILLE
	LINEAR DIFFUSER
	SIDEWALL RETURN GRILLE
	CEILING RETURN
	MECHANICAL EQUIPMENT
	UNIT IDENTITY
	DESIGN AIRFLOW RATE
	DESIGN WATER FLOW
	BOTTOM OF EQUIPMENT HEIGHT
	EXISTING TO REMAIN EQUIPMENT
	EXISTING RELOCATED EQUIPMENT
	EQUIPMENT BY OTHERS (REFER TO OTHER DISCIPLINES)
	DAMPER TYPES
	MANUAL DAMPER
	MOTORIZED (ATC) DAMPER
	BACKDRAFT DAMPER
	SMOKE DAMPER
	FIRE DAMPER
	COMB. FIRE/ SMOKE DAMPER
	HIGH EFFICIENCY TAKEOFF (HET)

MECHANICAL PIPING SYMBOLS	
	NOMINAL PIPE SIZE
	ABOVE GROUND PIPING
	BELOW GROUND PIPING
	PIPE SLOPE (WHEN APPLICABLE)
	EXISTING PIPE TO REMAIN
	PIPE TO BE DEMOLISHED
	CHILLED-WATER RETURN
	CHILLED-WATER SUPPLY
	GLYCOL CHILLED-WATER RETURN
	GLYCOL CHILLED-WATER SUPPLY
	CONDENSATE DRAIN
	CONDENSER-WATER RETURN
	CONDENSER-WATER SUPPLY
	GLYCOL HEATING-WATER RETURN
	GLYCOL HEATING-WATER SUPPLY
	GROUND LOOP-WATER RETURN
	GROUND LOOP-WATER SUPPLY
	HOT-WATER RETURN
	HOT-WATER SUPPLY
	NET ENERGY LOOP RETURN
	NET ENERGY LOOP SUPPLY
	NATURAL GAS
	LIQUID PROPANE
	REFRIGERANT LIQUID
	REFRIGERANT GAS
	REFRIGERANT DISCHARGE
	LOW PRESSURE STEAM
	CONDENSATE RETURN (LOW PRESSURE)
	PUMPED CONDENSATE
	HIGH PRESSURE STEAM
	CONDENSATE RETURN (HIGH PRESSURE)
	PIPE RISE / DROP

VALVE TYPES	
	SHUTOFF
	BALL VALVE
	BALANCING VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	ALTERNATE CHECK VALVE
	CIRCUIT SETTER
	GATE VALVE
	GLOBE VALVE
	LOCKED SHIELD VALVE
	PRESSURE REDUCING VALVE
	QUICK OPENING VALVE
	FLUID STRAINER
	ELEC. CONTROL VALVE
	3-WAY ELEC. VALVE
	EMERGENCY GAS SHUTOFF
	PLUG VALVE
	GAS SHUTOFF COCK
	GAS REGULATOR

MECHANICAL DEVICES	
	UNIT IDENTITY
	TEMPERATURE SENSOR
	TEMP/HUMIDITY SENSOR
	TEMP/CO2 SENSOR
	THERMOSTAT
	HUMIDISTAT
	HUMIDITY SENSOR
	CARBON DIOXIDE DETECTOR
	CARBON MONOXIDE DETECTOR
	HYDROGEN GAS DETECTOR
	HAZARDOUS GAS DETECTOR
	NITROGEN DIOXIDE DETECTOR
	OXYGEN GAS DETECTOR

- ### PROJECT REQUIREMENTS
- THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
 - REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
 - WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSAID DRAINS AT COMPLETION OF CONSTRUCTION.
 - COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILING, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
 - THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
 - FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
 - LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
 - ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
 - COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
 - FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
 - PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
 - TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
 - REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
 - ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THWIE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
 - FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
 - INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
 - MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
 - INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
 - THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
 - DETAILS REFERENCE ALL SHEETS.
 - INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
 - ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
 - LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STANDING ON A LADDER PLACED BELOW THE CEILING ACCESS.
 - WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
 - CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
 - CONTRACTOR TO PROVIDE DELEGATED DESIGN OF SEISMIC BRACING AS A DEFERRED SUBMITTAL. SEE SPECIFICATION 23.0548 - VIBRATION AND SEISMIC CONTROLS FOR HVAC.

- ### HVAC GENERAL NOTES
- COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES, AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.
 - SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.
 - BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NEAREST INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
 - COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
 - THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
 - PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
 - INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE. SEE DETAILS, TYPICAL.
 - DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION.
 - PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
 - PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
 - PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
 - WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
 - AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER, TYPICAL.
 - THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
 - ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE EQUIPMENT TAG TO MATCH SCHEDULE. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL.
 - PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE MINIMUM 24" X 24".
 - FLEX DUCT IS REQUIRED FOR ALL DIFFUSERS AND GRILLES INSTALLED IN LAY-IN CEILINGS. FOR DIFFUSERS AND GRILLES IN HARD LID CEILINGS, THE DUCTWORK SHALL BE EXTENDED ALL THE WAY TO THE DIFFUSER AND SHALL BE CONNECTED WITH A HARD CONNECTION OR A FLEX DUCT CONNECTION WITH A MUD RING AND LAY-IN DIFFUSER AS SHOWN ON PLANS.
 - THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
 - PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION, WHERE THERE ARE HARD CEILINGS, THE CONTRACTOR SHALL PROVIDE 24" X 24" ACCESS DOOR.
 - SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.
 - CONTRACTOR SHALL LOCATE AND TEMPERATURE SENSORS AT 4'-0" AFF. A MINIMUM OF 8" FROM LIGHT SWITCH, UNLESS OTHERWISE NOTED ON THE ARCHITECT'S ELEVATIONS. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
 - REFER TO MECHANICAL PIPING OR ZONING DRAWINGS FOR THERMOSTAT AND TEMPERATURE SENSOR LOCATIONS.
 - CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPING SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.
 - PROVIDE A 6" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUIPMENT THAT IS FLOOR MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.
 - ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
 - THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.

HVAC SHEET INDEX	
M-001	MECHANICAL TITLE SHEET
M-101	MECHANICAL PLAN
M-601	MECHANICAL DIAGRAMS
M-601	MECHANICAL SCHEDULES
M-701	MECHANICAL SPECIFICATIONS

DEFERRED SUBMITTAL

SEISMIC VIBRATION AND ISOLATION DESIGN SHALL BE A DEFERRED SUBMITTAL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, DETAILS AND CALCULATIONS TO THE BUILDING DEPARTMENT FOR REVIEW.

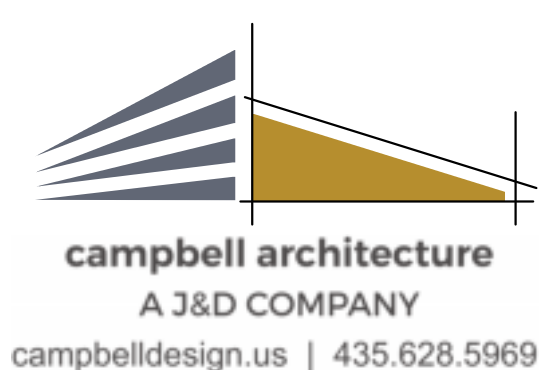
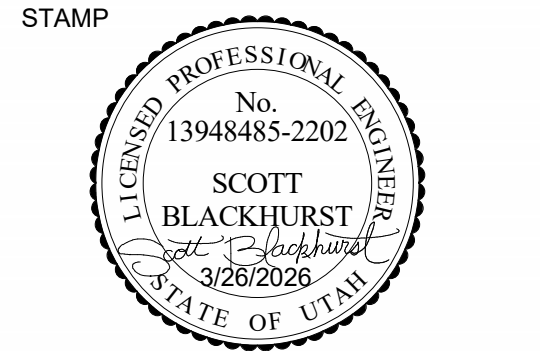
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NORTH RESTROOM

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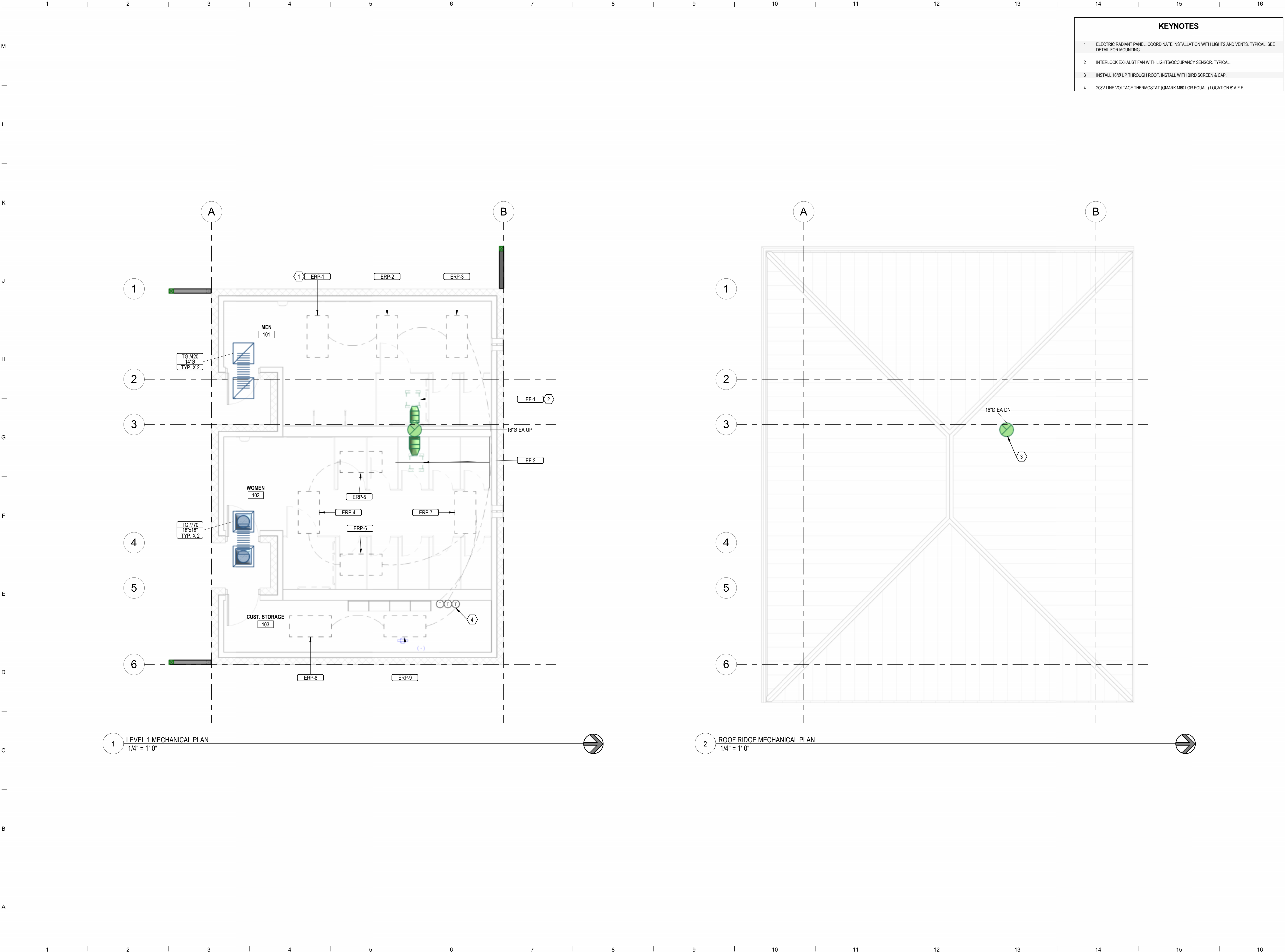
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Project #: 260115

MECHANICAL TITLE SHEET

M-001



KEYNOTES	
1	ELECTRIC RADIANT PANEL. COORDINATE INSTALLATION WITH LIGHTS AND VENTS. TYPICAL. SEE DETAIL FOR MOUNTING.
2	INTERLOCK EXHAUST FAN WITH LIGHTS/OCCUPANCY SENSOR. TYPICAL.
3	INSTALL 16"Ø UP THROUGH ROOF. INSTALL WITH BIRD SCREEN & CAP.
4	208V LINE VOLTAGE THERMOSTAT (QMARK M601 OR EQUAL.) LOCATION 5' A.F.F.

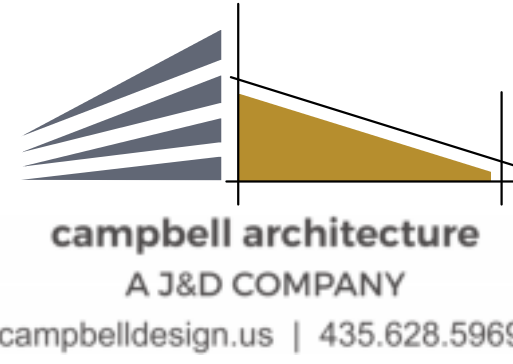
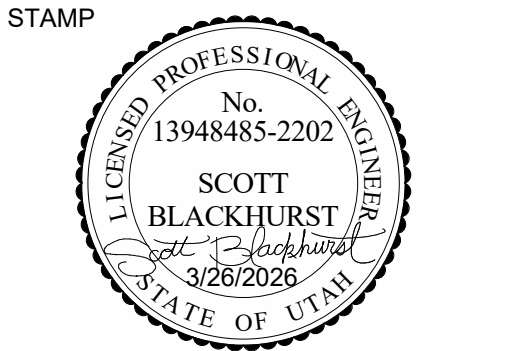
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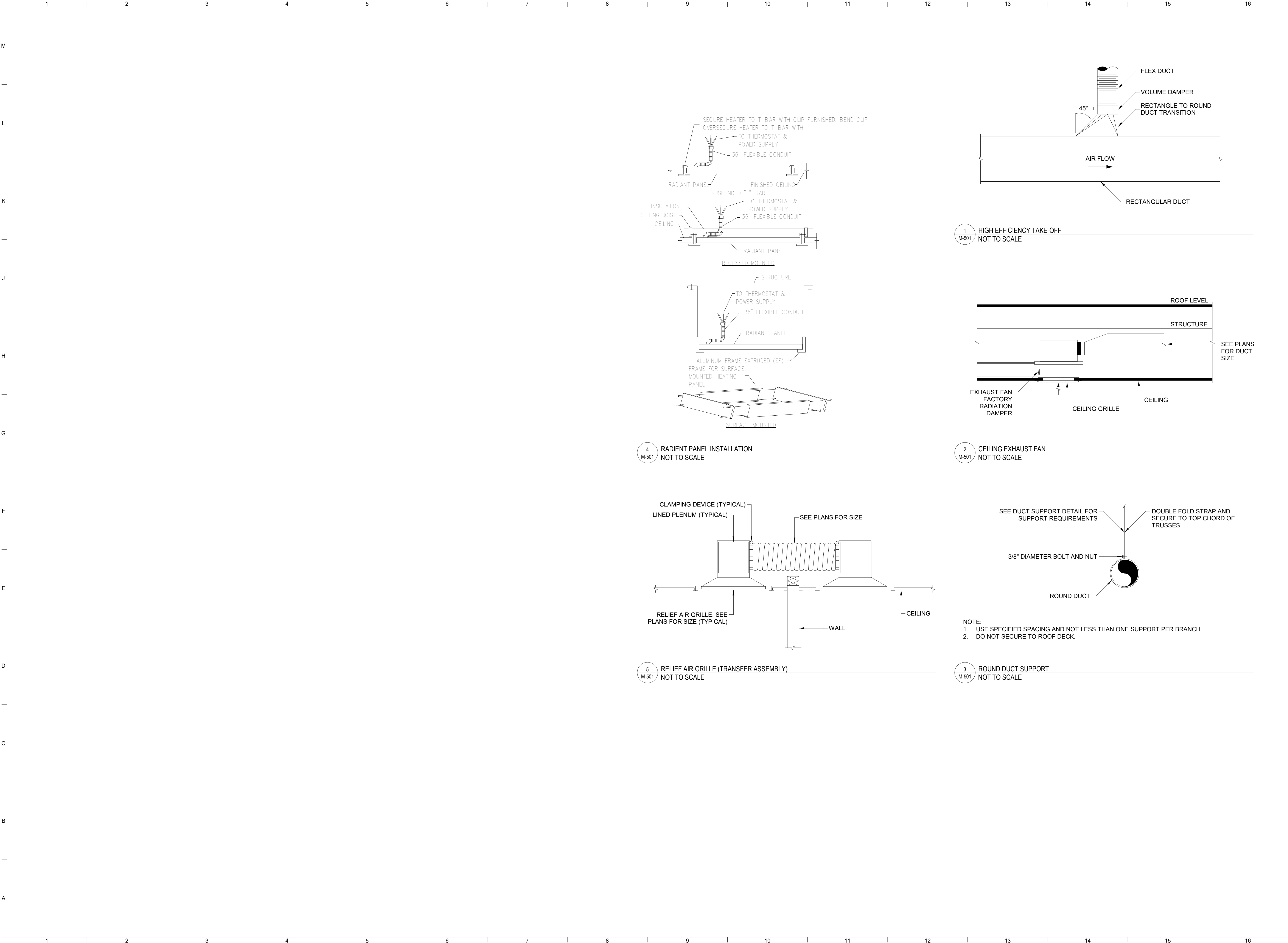
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MECHANICAL PLAN

M-101



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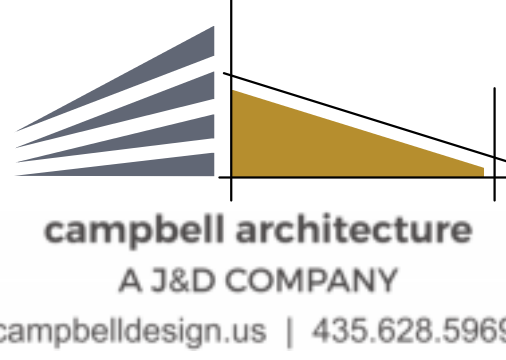
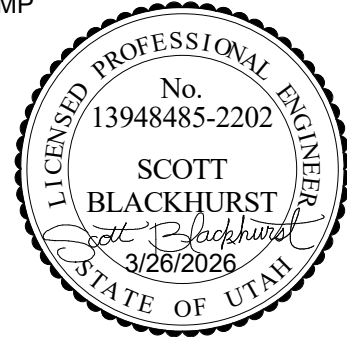
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Project #: 260115

MECHANICAL DIAGRAMS

M-501

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M																
L																
K																
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G																
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E																
D																
C																
B																
A																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

EXHAUST FAN SCHEDULE													
SYMBOL	MANUF. AND MODEL NO.	TYPE	FAN	MOTOR								WEIGHT (LBS)	REMARKS
			TOTAL AIR FLOW RATE (CFM)	TOT. STATIC PRESSURE DROP (IN H2O)	OUTLET VELOCITY (FPM)	FAN SPEED (RPM)	BHP	AMPS	MCA	MOP	VOLT/PH		
EF-1	GREENHECK SP-11050-VG	CEILING MOUNTED	420	0.13	688	688	0.03	4.8	5.9	15	115/1	49	1,2,3
EF-2	GREENHECK SP-11050-VG	CEILING MOUNTED	770	0.13	740	944	0.11	4.8	5.9	15	115/1	49	1,2,3

1. INTERLOCK EXHAUST FAN WITH WALL SWITCH.
2. WALL SWITCH AND WIRING BY ELECTRICAL.
3. DISCONNECT BY ELECTRICAL.

ELECTRIC RADIANT PANEL SCHEDULE						
SYMBOL	MANUFACTURER AND MODEL	DESCRIPTION	ELECTRICAL			REMARKS
			WATTS	VOLTS	PHASE	
ERP-1	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-2	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-3	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-4	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-5	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-6	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-7	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-8	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1
ERP-9	MARLEY ATH24481A	RECESSED CEILING ELECT. PANEL	750	120	1	1

1. DISCONNECT BY ELECTRICAL.

REGISTERS, DIFFUSERS AND GRILLES		
SYMBOL	DESCRIPTION	SPECIFICATION
TG	TRANSFER GRILLE	CEILING MOUNTED TRANSFER GRILLES SHALL BE PRICE PDDR WITH REMOVABLE PERFORATED FACEPLATE AND BORDER TYPE 3 FOR LAY-IN T-BAR APPLICATION OR BORDER TYPE 1 FOR SURFACE MOUNT, BAKED ENAMEL FINISH.

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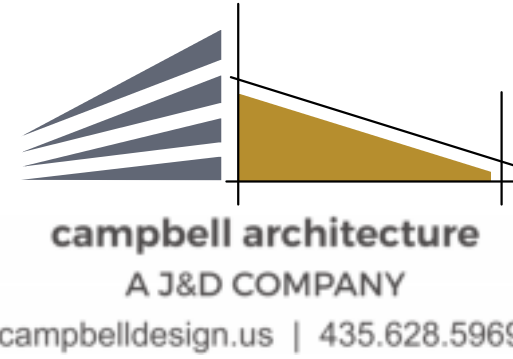
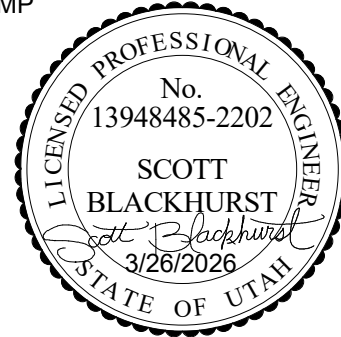
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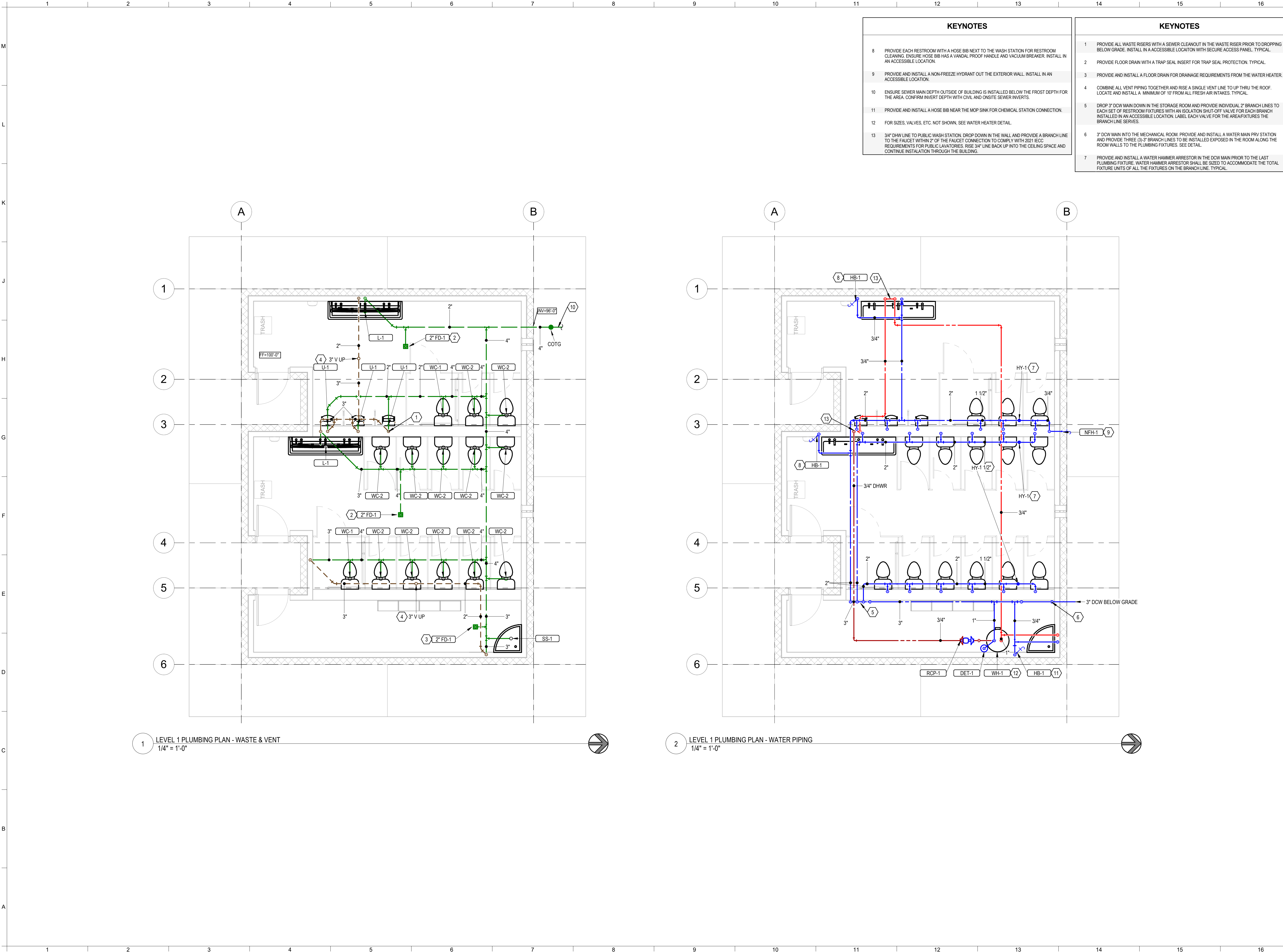


Project #: 260115

MECHANICAL SCHEDULES

M-601

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	DIVISION 230000 MECHANICAL PART 1 - GENERAL			1.05 SUBMITTALS			PART 2 - PRODUCTS			2.06 DIFFUSERS, REGISTERS AND GRILLES			PART 3 - EXECUTION			
	1.01 DESCRIPTION			A. SHOP DRAWINGS: WITHIN 15 DAYS AFTER AWARD OF CONTRACT, AND BEFORE ANY OF THE MATERIALS OF THIS SECTION ARE FABRICATED AND DELIVERED TO THE JOBSITE. SUBMIT COMPLETE SHOP DRAWINGS AND EQUIPMENT SUBMITTALS FOR ENGINEER TO REVIEW IN ACCORDANCE WITH THESE SPECIFICATIONS. SHOW ALL DETAILS OF ALL DUCTWORK, AND EQUIPMENT PADS.			2.01 ELECTRIC RADIANT PANEL			AIR DISTRIBUTION EQUIPMENT SHALL BE OF SIZES AND CAPACITIES INDICATED.			3.01 DISCREPANCIES			
	A. WORK INCLUDED: FURNISH ALL LABOR, MATERIALS, EQUIPMENT, APPLIANCES AND NECESSARY INCIDENTALS FOR THE COMPLETE INSTALLATION OF ALL HEATING, VENTILATION AND AIR CONDITIONING AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.			B. PRODUCT DATA:			PROVIDE QMARK ELECTRIC RADIANT PANELS AS SHOWN IN THE PLANS. PANELS SHALL BE SUPPORTED FROM THE STRUCTURE.			A. REGISTERS, GRILLES, AND DIFFUSERS OF THE SIZES SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN SHALL BE FURNISHED AND INSTALLED. ALL GRILLES, DIFFUSERS, AND REGISTERS SHALL BE COMPLETE WITH FRAMES WITH RUBBER GASKETS SUITABLE FOR THE AREA AND WALL CONSTRUCTION WHERE SHOWN ON THE DRAWINGS.			A. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE OWNER.			
	1. AIR CONDITIONING AND HEATING TO EXISTING A/C UNITS AS INDICATED ON PLANS COMPLETE WITH DUCTWORK, AND CONTROLS.			1. SUBMIT PDFS OF ALL MANUFACTURER'S PRODUCT DATA SIMULTANEOUSLY WITH ALL SHOP DRAWING SUBMITTALS.			UNITS SHALL BE AZTEC, MARKEL, RAYWALL, MARLEY OR QMARK.			B. FINISH FOR ALL REGISTERS, DIFFUSERS, GRILLES, ETC., SHALL BE OFF-WHITE UNLESS OTHERWISE SELECTED BY THE OWNER. APPROVED MANUFACTURERS FOR ALL AIR DISTRIBUTION PRODUCTS SHALL BE PRICE INDUSTRIES, NAILOR, METAL AIR, TUTTLE & BAILEY, J&J, CARNES, HART AND COOLEY, OR ANEMOSTAT.			B. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.			
	B. RELATED WORK INCLUDED IN THIS SECTION:			2. PRODUCT DATA TO INCLUDE ALL AIR CONDITIONING EQUIPMENT, HANGERS, FANS AND OTHER STANDARD ITEMS AS REQUIRED TO COMPLEMENT SHOP DRAWINGS FOR A SUBMITTAL INDICATING PRODUCTS TO BE USED ON THIS WORK.			2.02 HIGH EFFICIENCY BRANCH TAKE-OFFS			C. SUPPLY AIR SHALL BE INTRODUCED INTO CONDITIONED SPACE IN SUCH A MANNER THAT CONDITIONED AIR AND ROOM AIR IS RAPIDLY AND EVENLY MIXED, RESULTING IN EQUALIZATION OF TEMPERATURE AND DRAFTLESS AIR DISTRIBUTION THROUGHOUT ZONES OF OCCUPANCY WITH TEMPERATURE DIFFERENTIALS UP TO 25 DEGREES F FOR BOTH COOLING AND HEATING AIR QUANTITIES AND THROWS SHALL BE AS INDICATED.			3.02 EQUIPMENT IDENTIFICATION			
	1. FURNISHING ELECTRICAL DEVICES NECESSARY FOR MECHANICAL WORK, EXCEPT DISCONNECTS UNLESS INDICATED OTHERWISE.			C. RECORD DRAWINGS: MAINTAIN THROUGHOUT THE PROGRESS OF THE WORK PROJECT RECORD DRAWINGS AND SUBMIT TO THE OWNER.			A. EXPANDED THROAT HIGH EFFICIENCY TAKEOFFS SHALL BE USED FOR ALL BRANCH TAKEOFFS UNLESS SHOWN OTHERWISE ON THE DRAWINGS. AN OPPOSED BLADE VOLUME DAMPER WITH LOCKING QUADRANT SHALL BE PROVIDED AT EACH BRANCH TAKEOFF. WHERE DAMPERS ARE NOT ACCESSIBLE FOR ADJUSTMENT FROM ABOVE, CONCEALED CEILING REGULATORS WITH ADJUSTABLE CHROME-PLATED COVERS SHALL BE PROVIDED. HIGH EFFICIENCY TAKE-OFFS SHALL BE AIR-RITE, HERCULES OR DANIEL.			D. VELOCITY OF MOVING AIR BELOW 5 FOOT LEVEL, DURING COOLING CYCLE, SHALL NOT EXCEED LIMITS OF EITHER 50 FPM AT 1.5 DEGREES F BELOW AVERAGE ROOM TEMPERATURE OR 70 FPM AT 1 DEGREE F BELOW AVERAGE ROOM TEMPERATURE. VELOCITY OF MOVING AIR AT THE 1FOOT LEVEL, DURING HEATING CYCLE, SHALL NOT BE LESS THAN 10 FPM. TEMPERATURE DIFFERENCE AT OR BELOW THE 5 FOOT LEVEL, SHALL NOT EXCEED THE FOLLOWING: 2 DEGREES F BELOW AVERAGE ROOM TEMPERATURE AT 30 FPM, 1.5 DEGREES F BELOW AVERAGE ROOM TEMPERATURE AT 50 FPM, 1.0 DEGREES F BELOW AVERAGE ROOM TEMPERATURE AT 70 FPM. SOUND PRESSURE LEVEL IN ALL OCTAVE BANDS FOR EACH DIFFUSER SHALL NOT EXCEED NC35 NOISE CRITERIA CURVE AT TASK LEVEL WHEN UNITS OPERATE AT DESIGNED CAPACITIES.			A. ALL MAJOR EQUIPMENT SHALL BEAR FIRMLY ATTACHED METAL NAMEPLATES WHICH STATE NAME OF MANUFACTURER, MODEL NUMBER AND ELECTRICAL DATA.			
	2. LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS INCLUDING FINAL CONNECTIONS AS INDICATED ON WIRING DIAGRAMS.			D. OPERATING MANUALS AND MAINTENANCE MANUALS:			2.03 DUCTS AND SHEET METAL WORK			E. CEILING DIFFUSERS, GRILLES AND REGISTERS SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE SO THAT THEY ARE NOT DEPENDING ON THE CEILING FOR SUPPORT.			3.03 INITIAL LUBRICATION, ADJUSTING, AND FILLING SYSTEMS			
	3. CONDUIT FOR LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS INDICATED ON WIRING DIAGRAMS.			1. SUBMIT PDFS OF ALL OPERATING INSTRUCTIONS AND MAINTENANCE MANUALS.			A. PROVIDE DUCTS, PLENUMS, ACCESS DOORS, FRESH AIR INTAKES, AND EXHAUSTS AS INDICATED AND REQUIRED. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF LOCAL REGULATIONS, PROCEDURES DETAILED IN THE ASHRAE HANDBOOK OF FUNDAMENTALS OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION. PROVIDE PREFABRICATED SPIRAL LOCKSEAM DUCTS AND FITTINGS AND RECTANGULAR DUCTS OF GALVANIZED STEEL. ALUMINUM FLEXIBLE DUCTWORK OR GYPSUM BOARD DUCTWORK IS NOT ACCEPTABLE.			F. CEILING DIFFUSERS MAY BE ROUND NECKED OR EQUIVALENT SIZE SQUARE NECK. PROVIDE SQUARE TO ROUND NECK ADAPTER AS NECESSARY. FLEX DUCT SHALL TYPICALLY CONNECT DIRECTLY TO THE DIFFUSER USING A 1-1/2" RADIUS FLEXIBLE DUCT ELBOW. IF SPACE DOES NOT ALLOW FOR A FULL 1-1/2" RADIUS TO BE PROVIDED, THEN A LINED SHEET METAL BOOT SHALL BE PROVIDED. THE FLEXIBLE DUCT SHALL BE CONNECTED TO THE SIDE OF THE SHEET METAL BOOT. THE FLEXIBLE DUCT SHALL NOT BE CONNECT TO THE TOP OF THE SHEET METAL BOOT.			A. BEFORE OPERATING ANY MECHANICAL SYSTEMS, EQUIPMENT BEARINGS SHALL BE LUBRICATED AND BOLTS, PULLEYS, AND OTHER MOVING PARTS CHECKED FOR ALIGNMENT AND TOLERANCES IN ACCORDANCE WITH MANUFACTURER'S OPERATING INSTRUCTIONS. VIBRATIONS AND NOISE SHALL BE SUPPRESSED.			
	4. RESPONSIBILITY FOR OBTAINING CLARIFICATION OF DISCREPANCIES BETWEEN MECHANICAL AND ELECTRICAL WORK FROM ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.			2. FULLY INSTRUCT OWNER'S OPERATING PERSONNEL AND DEMONSTRATE PERFORMANCE, OPERATION AND MAINTENANCE OF EQUIPMENT, AMOUNT OF TIME ALLOCATED FOR SAID INSTRUCTION AND DEMONSTRATION OF EQUIPMENT AND SYSTEMS SHALL BE PART OF THESE OBLIGATIONS. SUBMIT TO ENGINEER A LETTER SIGNED BY OWNER'S REPRESENTATIVE WHO WILL OPERATE SYSTEM STATING THAT HE HAS BEEN FULLY INSTRUCTED BY CONTRACTOR ABOUT OPERATION AND MAINTENANCE OF EQUIPMENT AND SYSTEM.			B. ALL CONNECTIONS TO MAIN DUCTS SHALL BE MADE WITH LOW LOSS FITTINGS.			G. CEILING DIFFUSERS SHALL BE CRIMPED DIAGONALLY REGARDLESS OF SIZE. LONGITUDINAL JOINTS IN ALL DUCT SIZES MAY BE FLAT LOCK JOINTS. TRANSVERSE JOINTS AND INTERMEDIATE BRACING SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL OR GALVANIZED STRUCTURAL ANGLES IN ACCORDANCE WITH REQUIREMENTS OF ASHRAE GUIDE AND PUBLIC AUTHORITIES HAVING JURISDICTION.			A. INSTALL WORK READILY ACCESSIBLE FOR NORMAL OPERATION, READING OF INSTRUMENTS, ADJUSTMENT, SERVICE, INSPECTION AND REPAIR, PROVIDE ACCESS PANELS WHERE INDICATED AND REQUIRED. ACCESS PANELS SHALL BE THE RESPONSIBILITY OF RESPECTIVE SUBCONTRACTORS.			
	5. RESPONSIBILITY FOR PROPER OPERATION OF AUTOMATIC ELECTRICAL CONTROLS AND EQUIPMENT, AND OF ELECTRIC POWER DRIVEN EQUIPMENT FURNISHED UNDER THIS SECTION.			3. SUBMIT ONE (1) ADDITIONAL SET OF APPROVED INSTRUCTIONS AND ONE (1) ADDITIONAL SET OF APPROVED CONTROL DIAGRAMS.			C. FLAT DUCT SURFACES SHALL BE CRIMPED DIAGONALLY REGARDLESS OF SIZE. LONGITUDINAL JOINTS IN ALL DUCT SIZES MAY BE FLAT LOCK JOINTS. TRANSVERSE JOINTS AND INTERMEDIATE BRACING SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL OR GALVANIZED STRUCTURAL ANGLES IN ACCORDANCE WITH REQUIREMENTS OF ASHRAE GUIDE AND PUBLIC AUTHORITIES HAVING JURISDICTION.			H. LONGITUDINAL JOINTS ON DUCTS WITH INTERNAL STATIC PRESSURES IN EXCESS OF 0.75 INCHES OF WATER PRESSURE SHALL BE SEALED WITH MASTIC OR TAPE.			A. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.			
	C. RELATED WORK IN OTHER SECTIONS:			E. GUARANTEES: IN ADDITION TO EQUIPMENT WARRANTIES, FURNISH A WRITTEN GUARANTEE AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR ONE YEAR COMMENCING ON THE DATE OF CERTIFICATION OF SUBSTANTIAL COMPLETION OF THE PROJECT. GUARANTEE SHALL INCLUDE REPAIR OF DAMAGE TO, OR REPLACEMENT OF, ANY PART OF EQUIPMENT OR PREMISES CAUSED BY LEAKS OR BREAKS IN PIPE OR EQUIPMENT PROVIDED UNDER THIS SECTION.			D. TRANSVERSE JOINTS ON ALL DUCTS SHALL BE SEALED WITH MASTIC OR TAPE.			I. IN ADDITION TO MANUFACTURERS SPECIFIED, THE FOLLOWING SHALL ALSO BE CONSIDERED EQUAL, PROVIDED CORRESPONDING MODELS MEET SPECIFIED REQUIREMENTS. EQUIVALENT SUBSTITUTED EQUIPMENT NAMED HEREIN SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL. SUBMIT ALTERNATE SELECTIONS AT TIME OF BID, LISTING MAJOR EQUIPMENT:			3.06 ACCESSIBILITY			
	1. ELECTRICAL WORK AS FOLLOWS WILL BE PROVIDED UNDER ELECTRICAL DIVISION:			1.06 EQUIPMENT IDENTIFICATION			F. LOCK JOINTS SHALL BE HAMMERED TO MAKE THEM AIRTIGHT. INSIDE OF DUCT SHALL PRESENT A SMOOTH SURFACE TO FLOW AIR.			A. EXHAUST FAN(CEILING):			A. BALANCING WORK INCLUDED:			
	a. CONDUIT FOR LINE VOLTAGE WIRING FOR EQUIPMENT AND DEVICES AS INDICATED OR SPECIFIED EXCEPT CONDUIT FOR LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS SPECIFIED UNDER DIVISION 22 000.			A. EXCEPT FOR INDIVIDUAL ROOM HEATING UNITS AND ITEMS FURNISHED UNDER TEMPERATURE CONTROL, ALL ITEMS OF MECHANICAL EQUIPMENT, INCLUDING FANS, PUMPS, BOILERS, AND ELECTRICAL SWITCHES AND STARTERS FOR MECHANICAL EQUIPMENT AND GAUGES SHALL BE LABELED.			G. CHANGES IN SIZE OF DUCTS SHALL INCREASE GRADUALLY WITH A SLOPE OF NOT MORE THAN 12 INCHES IN 5 FEET WHERE POSSIBLE, BUT NOT MORE THAN 12 INCHES IN 3 FEET IN ANY EVENT.			BROAN, COOK, GREENHECK, PANSONIC OR APPROVED EQUAL			1. COMPLETE TESTING AND BALANCING OF THE HVAC SYSTEM AS HEREIN SPECIFIED.			
	b. LINE VOLTAGE WIRING FOR EQUIPMENT AND DEVICES AS INDICATED OR SPECIFIED HEREIN EXCEPT LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS SPECIFIED UNDER DIVISION 22 000.			B. INFORMATION ON LABELS SHALL INCLUDE THE FOLLOWING:			H. TURNS SHALL BE MADE WITH A THROAT RADIUS OF NOT LESS THAN THE DUCT WIDTH.			DIFFUSERS AND GRILLES:			B. VERIFICATION OF CONDITIONS: PRIOR TO TESTING AND BALANCING, INSPECT EQUIPMENT AND MATERIALS AND ARRANGE WITH CONTRACTOR FOR SATISFACTORY CORRECTION OF ALL DEFECTS IN WORKMANSHIP AND/OR MATERIAL THAT COULD AFFECT THE WORK SPECIFIED HEREIN.			
	c. PROVIDING DISCONNECT SWITCHES.			1. IDENTIFICATION NUMBER AND NAME. GENERALLY, THIS NUMBER AND NAME SHALL BE THE SAME AS THAT SHOWN ON THE DRAWINGS OR IN THE SPECS.			2.04 VOLUME DAMPERS			A. DAMPERS: DAMPERS USED IN LOW-VELOCITY BRANCH DUCTS TO CONTROL THE VOLUME OF AIR SHALL BE YOUNG REGULATOR COMPANY 820 OR 5050 SERIES VOLUME CONTROL DAMPERS. AN OPERATING HEAD SHALL BE PLACED ON THE SIDE OF THE DUCT AND SHALL BE LOCKED IN POSITION BY A SET KEY WHERE THE DAMPER IS ACCESSIBLE. APPROVED MANUFACTURERS ARE: YOUNG, AIR BALANCE, RUSKIN, POTTORF, C&S, AIR RITE, GREENHECK, DANIEL, OR CESCO.			C. PROTECTION: AS SPECIFIED HEREIN.			
	d. INSTALLING ELECTRICAL DEVICES SUCH AS STARTERS AND DISCONNECTS, AND, WHEN INDICATED, FURNISHING ALL SUCH DEVICES.			2. IF THE ITEM IS A FAN OR PUMP, THE FLOW AND HEAD SHALL BE INDICATED.			B. CONCEALED DAMPER REGULATOR: WHERE THE DAMPER IS NOT ACCESSIBLE: END BEARING OR MITER GEAR, COUPLING, 3/8" SQUARE ROD, AND REGULATOR FOR OPERATING THE DAMPER SHALL BE PROVIDED. YOUNG MODEL 301 (OR EQUAL) 3/8" CONCEALED LOCKING REGULATOR DESIGNED TO CONTROL DAMPERS FROM THE CEILING LINE. THE 301 REGULATOR IS IMBEDDED IN THE CEILING SO THAT THE UNIT IS FLUSH WITH THE FINISHED SURFACE. IT IS 2-5/8" IN DIAMETER AND 15/16" DEEP. WITH A 3" COVER PLATE WHICH COVERS THE JOINT BETWEEN BOX AND PLASTER. THE COVER PLATE, WHICH SHOULD BE REMOVED BEFORE PLASTERING, IS HELD IN PLACE BY TWO 6-32X5/8" STAINLESS STEEL MACHINE SCREWS THAT ARE EASILY REMOVED FOR DAMPER ADJUSTMENT. THE 301 IS OPERATED BY YOUNG 04 WRENCH, WHICH FITS THE END OF THE 3/8" DAMPER ROD. 301 MUST BE USED WITH 3/8" ROD. COVER PLATE TO BE PROVIDED IN PRIMER COATED FINISH. USED EITHER 927 OR 1200 RIGHT ANGLE CONTROLS ON ANY ROUND OR RECTANGULAR SIDE CONTROL DAMPER INCLUDING THE 5020 AND 820 SERIES. MANUFACTURERS ARE: YOUNG, VENFABRICS, METCO, DURO DYNE, OR CAIN.			E. TEST DATA: SUBMIT COPY OF TEST AND BALANCE REPORT TO THE ENGINEER FOR REVIEW UPON COMPLETION OF WORK UNDER THIS SECTION.			D. SYSTEM OPERATION: CONTRACTOR SHALL PUT ALL PARTS OF SYSTEMS IN FULL OPERATION AND SHALL CONTINUE THE OPERATION OF SAME DURING EACH WORKING DAY OF TESTING AND BALANCING.			
	D. CODES AND STANDARDS:			3. WHERE THE MAIN UNIT IS SERVED BY THE VALVE IS APPARENT, ONLY THE VALVE FUNCTION NEEDS TO BE INCLUDED ON THE NAMEPLATE.			2.05 CEILING MOUNTED FAN (VARIABLE SPEED)			A. VARIABLE SPEED CEILING TYPE EXHAUST FANS OF SIZE AND CAPACITY SHOWN ON DRAWINGS SHALL BE FURNISHED AND INSTALLED. FAN SHALL BE LOW NOISE CEILING MOUNT TYPE FOR CONTINUOUS RUN, ENERGY STAR RATED, HV1 CERTIFIED AND UL LISTED. FANS SHALL HAVE DIRECT DRIVE, VARIABLE SPEED, BRUSHLESS, DC MOTOR WITH THERMAL CUT-OFF FUSE CONTROL, BUILT-IN ADJUSTABLE SPEED AND DELAYED TIMER CONTROLS. FAN HIGH/LOW SPEED AND DELAYED TIMER SHALL BE ACTIVATED BY A SWITCH. FANS SHALL BE COMPLETE WITH FAN HOUSING, INLET GRILLE, AND BACKDRAFT DAMPER. FANS SHALL BE PANASONIC OR EQUAL.			F. TEST AND BALANCE CONTRACTOR SHALL CERTIFY IN WRITING THAT SYSTEM HAS BEEN ADJUSTED AND BALANCED AND DESIGN CONDITIONS HAVE BEEN ATTAINED IN ALL AREAS OF THE BUILDING.			
	1. IN ADDITION TO THE REQUIREMENTS OF ALL GOVERNING CODES, ORDINANCES AND AGENCIES, CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS:			C. THE TYPES OF NAMEPLATES SHALL BE AS FOLLOWS:			A. DAMPERS: DAMPERS USED IN LOW-VELOCITY BRANCH DUCTS TO CONTROL THE VOLUME OF AIR SHALL BE YOUNG REGULATOR COMPANY 820 OR 5050 SERIES VOLUME CONTROL DAMPERS. AN OPERATING HEAD SHALL BE PLACED ON THE SIDE OF THE DUCT AND SHALL BE LOCKED IN POSITION BY A SET KEY WHERE THE DAMPER IS ACCESSIBLE. APPROVED MANUFACTURERS ARE: YOUNG, AIR BALANCE, RUSKIN, POTTORF, C&S, AIR RITE, GREENHECK, DANIEL, OR CESCO.			B. CONCEALED DAMPER REGULATOR: WHERE THE DAMPER IS NOT ACCESSIBLE: END BEARING OR MITER GEAR, COUPLING, 3/8" SQUARE ROD, AND REGULATOR FOR OPERATING THE DAMPER SHALL BE PROVIDED. YOUNG MODEL 301 (OR EQUAL) 3/8" CONCEALED LOCKING REGULATOR DESIGNED TO CONTROL DAMPERS FROM THE CEILING LINE. THE 301 REGULATOR IS IMBEDDED IN THE CEILING SO THAT THE UNIT IS FLUSH WITH THE FINISHED SURFACE. IT IS 2-5/8" IN DIAMETER AND 15/16" DEEP. WITH A 3" COVER PLATE WHICH COVERS THE JOINT BETWEEN BOX AND PLASTER. THE COVER PLATE, WHICH SHOULD BE REMOVED BEFORE PLASTERING, IS HELD IN PLACE BY TWO 6-32X5/8" STAINLESS STEEL MACHINE SCREWS THAT ARE EASILY REMOVED FOR DAMPER ADJUSTMENT. THE 301 IS OPERATED BY YOUNG 04 WRENCH, WHICH FITS THE END OF THE 3/8" DAMPER ROD. 301 MUST BE USED WITH 3/8" ROD. COVER PLATE TO BE PROVIDED IN PRIMER COATED FINISH. USED EITHER 927 OR 1200 RIGHT ANGLE CONTROLS ON ANY ROUND OR RECTANGULAR SIDE CONTROL DAMPER INCLUDING THE 5020 AND 820 SERIES. MANUFACTURERS ARE: YOUNG, VENFABRICS, METCO, DURO DYNE, OR CAIN.			G. INSTRUMENTS: INSTRUMENTS USED BY CONTRACTOR SHALL BE ACCURATELY CALIBRATED AND MAINTAINED IN GOOD WORKING ORDER.			
	a. 2021 INTERNATIONAL MECHANICAL CODE.			1. VALVE TAGS SHALL BE 1/2" EMBOSSED ALUMINUM TAPES WITH IDENTIFICATION ON ONE SIDE FOR VALVES. TAGS FOR MAGNETIC STARTERS SHALL BE SCREWED TO THE METAL STARTER COVER. TAGS SHALL BE ADDRESSOGRAPH NO. B-5300.			1. IDENTIFICATION NUMBER AND NAME. GENERALLY, THIS NUMBER AND NAME SHALL BE THE SAME AS THAT SHOWN ON THE DRAWINGS OR IN THE SPECS.			1. TEST AND RECORD MOTOR FULL LOAD AMPERES AND RPM.			H. AIR DISTRIBUTION TESTING AND BALANCING:			
	b. 2021 INTERNATIONAL BUILDING CODE.			2. IF THE ITEM IS PART OF A UNIT, THE LABEL SHALL HAVE, IN ADDITION TO ITS ITEM NUMBER, THE NUMBER OF THE MAIN ITEM IT IS SERVING.			2. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			2. TEST AND RECORD SYSTEM STATIC PRESSURES, SUCTION AND DISCHARGE.			1. TEST AND RECORD MOTOR FULL LOAD AMPERES AND RPM.			
	c. 2021 INTERNATIONAL PLUMBING CODE.			3. IF THE ITEM IS PART OF A UNIT, THE LABEL SHALL HAVE, IN ADDITION TO ITS ITEM NUMBER, THE NUMBER OF THE MAIN ITEM IT IS SERVING.			3. THE TYPES OF NAMEPLATES SHALL BE AS FOLLOWS:			3. ADJUST ALL SUPPLY AND RETURN AIR DUCTS TO PROPER DESIGN CFM.			2. TEST AND RECORD SYSTEM STATIC PRESSURES, SUCTION AND DISCHARGE.			
	d. 2021 INTERNATIONAL ENERGY CONSERVATION CODE.			4. VALVES SHALL BE TAGGED WITH THE AREA SERVED AND THEIR NORMAL OPERATING POSITIONS SHALL BE INDICATED.			1. VALVE TAGS SHALL BE 1/2" EMBOSSED ALUMINUM TAPES WITH IDENTIFICATION ON ONE SIDE FOR VALVES. TAGS FOR MAGNETIC STARTERS SHALL BE SCREWED TO THE METAL STARTER COVER. TAGS SHALL BE ADDRESSOGRAPH NO. B-5300.			4. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			3. ADJUST ALL SUPPLY AND RETURN AIR DUCTS TO PROPER DESIGN CFM.			
	e. 2021 INTERNATIONAL FUEL AND GAS CODE.			5. WHERE THE MAIN UNIT IS SERVED BY THE VALVE IS APPARENT, ONLY THE VALVE FUNCTION NEEDS TO BE INCLUDED ON THE NAMEPLATE.			2. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			5. UPON COMPLETION, THE CONTRACTOR SHALL INSPECT WORK OF THIS SECTION AND DELIVER TO OWNER A WRITTEN CERTIFICATION THAT INSTALLED MATERIALS AND WORKMANSHIP CONFORM TO SPECIFICATIONS.			4. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			
	f. ASHRAE 90.1-2019.			C. THE TYPES OF NAMEPLATES SHALL BE AS FOLLOWS:			3. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			6. PLACE SYSTEM IN OPERATION AND REGULATE AND ADJUST TO ENGINEER'S SATISFACTION. SUBSYSTEMS SHALL OPERATE QUIETLY AND WITHOUT VIBRATION OR NOISE.			I. WITNESS: NOTIFY ARCHITECT TWO WEEKS PRIOR TO TESTING AND BALANCING OF ALL MAJOR EQUIPMENT IN ORDER TO ARRANGE THAT ENGINEER, ARCHITECT OR OWNER'S REPRESENTATIVE WILL WITNESS THE TESTS.			
	H. ALL GAS FIRED EQUIPMENT SHALL INCLUDE A LABEL INDICATING THAT THE APPLIANCE HAS BEEN ADJUSTED, MODIFIED OR RE-CALIBRATED FOR THE ALTITUDE WHEREIN THE PROJECT IS TO BE LOCATED. THE APPLIANCE SHALL ALSO INCLUDE A COMPLIANCE STATEMENT INDICATING THAT THE APPLIANCE HAS BEEN ADJUSTED, MODIFIED OR RE-CALIBRATED FOR THE PROPER OPERATION AT THE ALTITUDE OF THE PROJECT AND SHALL BE LISTED CAPABLE FOR USE WITH NATURAL GAS OR PROPANE GAS IF PROPANE IS LISTED ON THE DRAWINGS.			1.02 PRODUCT HANDLING			4. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			7. ADJUST ALL SUPPLY AND RETURN AIR DUCTS TO PROPER DESIGN CFM.			J. TEST AND BALANCE CONTRACTOR SHALL CERTIFY IN WRITING THAT SYSTEM HAS BEEN ADJUSTED AND BALANCED AND DESIGN CONDITIONS HAVE BEEN ATTAINED IN ALL AREAS OF THE BUILDING.			
	A. PROTECTION: TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE MATERIALS OF THIS SECTION BEFORE, DURING AND AFTER INSTALLATION.			1.03 JOB CONDITIONS			5. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			8. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			G. INSTRUMENTS: INSTRUMENTS USED BY CONTRACTOR SHALL BE ACCURATELY CALIBRATED AND MAINTAINED IN GOOD WORKING ORDER.			
	B. REPLACEMENTS: IN THE EVENT OF DAMAGE, IMMEDIATELY REPAIR ALL DAMAGED AND DEFECTIVE WORK TO THE APPROVAL OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.			A. EXAMINATION OF SITE: EXAMINE THE SITE AND INCLUDE IN BID PROPOSAL ALL CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED.			6. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			9. ADJUST ALL SUPPLY AND RETURN AIR DUCTS TO PROPER DESIGN CFM.			H. AIR DISTRIBUTION TESTING AND BALANCING:			
	1.04 MISCELLANEOUS			A. PERMIT AND FEES: ARRANGE, APPLY AND PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, EXAMINATIONS AND FEES OR CHARGES REQUIRED BY PUBLIC AUTHORITIES HAVING JURISDICTION.			7. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			10. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			1. TEST AND RECORD MOTOR FULL LOAD AMPERES AND RPM.			
	B. LOCATIONS AND ACCESSIBILITY: CONTRACTOR SHALL FULLY INFORM HIMSELF REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF WORK UNDER THIS SECTION. VALVES, MOTORS, CONTROLS AND OTHER DEVICES REQUIRING SERVICE, MAINTENANCE AND ADJUSTMENT SHALL BE PLACED IN FULLY ACCESSIBLE POSITIONS AND LOCATIONS. PROVIDE ACCESS DOORS WHERE REQUIRED IN DUCTWORK AND/OR CONSTRUCTION WHETHER SPECIALLY DETAILED OR NOT, AND RENDER ALL SUCH DEVICES ACCESSIBLE.			A. PERMIT AND FEES: ARRANGE, APPLY AND PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, EXAMINATIONS AND FEES OR CHARGES REQUIRED BY PUBLIC AUTHORITIES HAVING JURISDICTION.			8. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			11. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			2. TEST AND RECORD SYSTEM STATIC PRESSURES, SUCTION AND DISCHARGE.			
	C. SCAFFOLDING: FURNISH ALL SCAFFOLDING, RIGGING AND HOISTING AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK.			A. PERMIT AND FEES: ARRANGE, APPLY AND PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, EXAMINATIONS AND FEES OR CHARGES REQUIRED BY PUBLIC AUTHORITIES HAVING JURISDICTION.			9. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			12. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			3. ADJUST ALL SUPPLY AND RETURN AIR DUCTS TO PROPER DESIGN CFM.			
	D. DRAWINGS: DRAWINGS INDICATE DESIRED LOCATION AND ARRANGEMENT OF DUCTWORK, EQUIPMENT, AND OTHER ITEMS, AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. ALL OFFSETS AND INTERFERENCES MAY NOT BE SHOWN BECAUSE OF THE SCALE OF DRAWINGS. ASSUME THE RESPONSIBILITY FOR COORDINATING THE WORK WITH ALL OTHER TRADES. WORK SPECIFIED AND NOT CLEARLY DEFINED BY THE DRAWINGS SHALL BE INSTALLED AND ARRANGED IN A MANNER SATISFACTORY TO THE ENGINEER. IN THE EVENT CHANGES IN INDICATED LOCATIONS AND ARRANGEMENTS ARE DEEMED NECESSARY BY ENGINEER, THEY SHALL BE MADE BY THIS CONTRACTOR WITHOUT ADDITIONAL CHARGES.			A. PERMIT AND FEES: ARRANGE, APPLY AND PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, EXAMINATIONS AND FEES OR CHARGES REQUIRED BY PUBLIC AUTHORITIES HAVING JURISDICTION.			10. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			13. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			4. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			
	E. ALL HVAC EQUIPMENT SHALL BE LABELED. INFORMATION ON LABELS SHALL INCLUDE: IDENTIFICATION NUMBER AND NAME SAME AS THE DRAWINGS, FLOW AND STATIC PRESSURE AND THE AREA TO WHICH THE UNIT SERVES. LABELS SHALL BE BLACK FACED FORMICA WITH WHITE ENGRAVED LETTERING AT LEAST 3/16 INCH HIGH.			A. PERMIT AND FEES: ARRANGE, APPLY AND PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, EXAMINATIONS AND FEES OR CHARGES REQUIRED BY PUBLIC AUTHORITIES HAVING JURISDICTION.			11. VALVE TAGS SHALL BE CONNECTED TO VALVE STEMS BY STEEL RINGS OR CHAINS. SCREWS SHALL BE USED FOR EQUIPMENT LABELS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE LIST OF ALL VALVES AND EACH ITEM OF EQUIPMENT TO BE IDENTIFIED WITH THE PROPER IDENTIFICATION.			14. IN COOPERATION WITH THE CONTROL MANUFACTURER'S REPRESENTATIVE, THE SETTING ADJUSTMENT OF AUTOMATICALLY OPERATED CONTROLS TO OPERATE AS SPECIFIED, INDICATED AND/OR NOTED.			I. WITNESS: NOTIFY ARCHITECT TWO WEEKS PRIOR TO TESTING AND BALANCING OF ALL MAJOR EQUIPMENT IN ORDER TO ARRANGE THAT ENGINEER, ARCHITECT OR OWNER'S REPRESENTATIVE WILL WITNESS THE TESTS.			



KEYNOTES	
8	PROVIDE EACH RESTROOM WITH A HOSE BIB NEXT TO THE WASH STATION FOR RESTROOM CLEANING. ENSURE HOSE BIB HAS A VANDAL PROOF HANDLE AND VACUUM BREAKER. INSTALL IN AN ACCESSIBLE LOCATION.
9	PROVIDE AND INSTALL A NON-FREEZE HYDRANT OUT THE EXTERIOR WALL. INSTALL IN AN ACCESSIBLE LOCATION.
10	ENSURE SEWER MAIN DEPTH OUTSIDE OF BUILDING IS INSTALLED BELOW THE FROST DEPTH FOR THE AREA. CONFIRM INVERT DEPTH WITH CIVIL AND ONSITE SEWER INVERTS.
11	PROVIDE AND INSTALL A HOSE BIB NEAR THE MOP SINK FOR CHEMICAL STATION CONNECTION.
12	FOR SIZES, VALVES, ETC. NOT SHOWN, SEE WATER HEATER DETAIL.
13	3/4" DHW LINE TO PUBLIC WASH STATION. DROP DOWN IN THE WALL AND PROVIDE A BRANCH LINE TO THE FAUCET WITHIN 2' OF THE FAUCET CONNECTION TO COMPLY WITH 2021 IECC REQUIREMENTS FOR PUBLIC LAVATORIES. RISE 3/4" LINE BACK UP INTO THE CEILING SPACE AND CONTINUE INSTALLATION THROUGH THE BUILDING.

KEYNOTES	
1	PROVIDE ALL WASTE RISERS WITH A SEWER CLEANOUT IN THE WASTE RISER PRIOR TO DROPPING BELOW GRADE. INSTALL IN A ACCESSIBLE LOCATION WITH SECURE ACCESS PANEL. TYPICAL.
2	PROVIDE FLOOR DRAIN WITH A TRAP SEAL INSERT FOR TRAP SEAL PROTECTION. TYPICAL.
3	PROVIDE AND INSTALL A FLOOR DRAIN FOR DRAINAGE REQUIREMENTS FROM THE WATER HEATER.
4	COMBINE ALL VENT PIPING TOGETHER AND RISE A SINGLE VENT LINE TO UP THRU THE ROOF. LOCATE AND INSTALL A MINIMUM OF 10' FROM ALL FRESH AIR INTAKES. TYPICAL.
5	DROP 3" DOW MAIN DOWN IN THE STORAGE ROOM AND PROVIDE INDIVIDUAL 2" BRANCH LINES TO EACH SET OF RESTROOM FIXTURES WITH AN ISOLATION SHUT-OFF VALVE FOR EACH BRANCH INSTALLED IN AN ACCESSIBLE LOCATION. LABEL EACH VALVE FOR THE AREA/FIXTURES THE BRANCH LINE SERVES.
6	3" DOW MAIN INTO THE MECHANICAL ROOM. PROVIDE AND INSTALL A WATER MAIN PRV STATION AND PROVIDE THREE (3) 3" BRANCH LINES TO BE INSTALLED EXPOSED IN THE ROOM ALONG THE ROOM WALLS TO THE PLUMBING FIXTURES. SEE DETAIL.
7	PROVIDE AND INSTALL A WATER HAMMER ARRESTOR IN THE DOW MAIN PRIOR TO THE LAST PLUMBING FIXTURE. WATER HAMMER ARRESTOR SHALL BE SIZED TO ACCOMMODATE THE TOTAL FIXTURE UNITS OF ALL THE FIXTURES ON THE BRANCH LINE. TYPICAL.

DUCHESNE COUNTY

NORTH RESTROOM

JDE No.NO. 2508-062

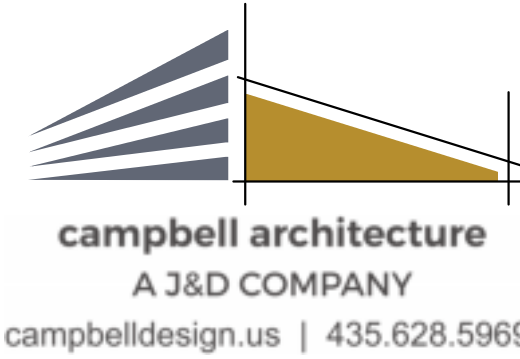
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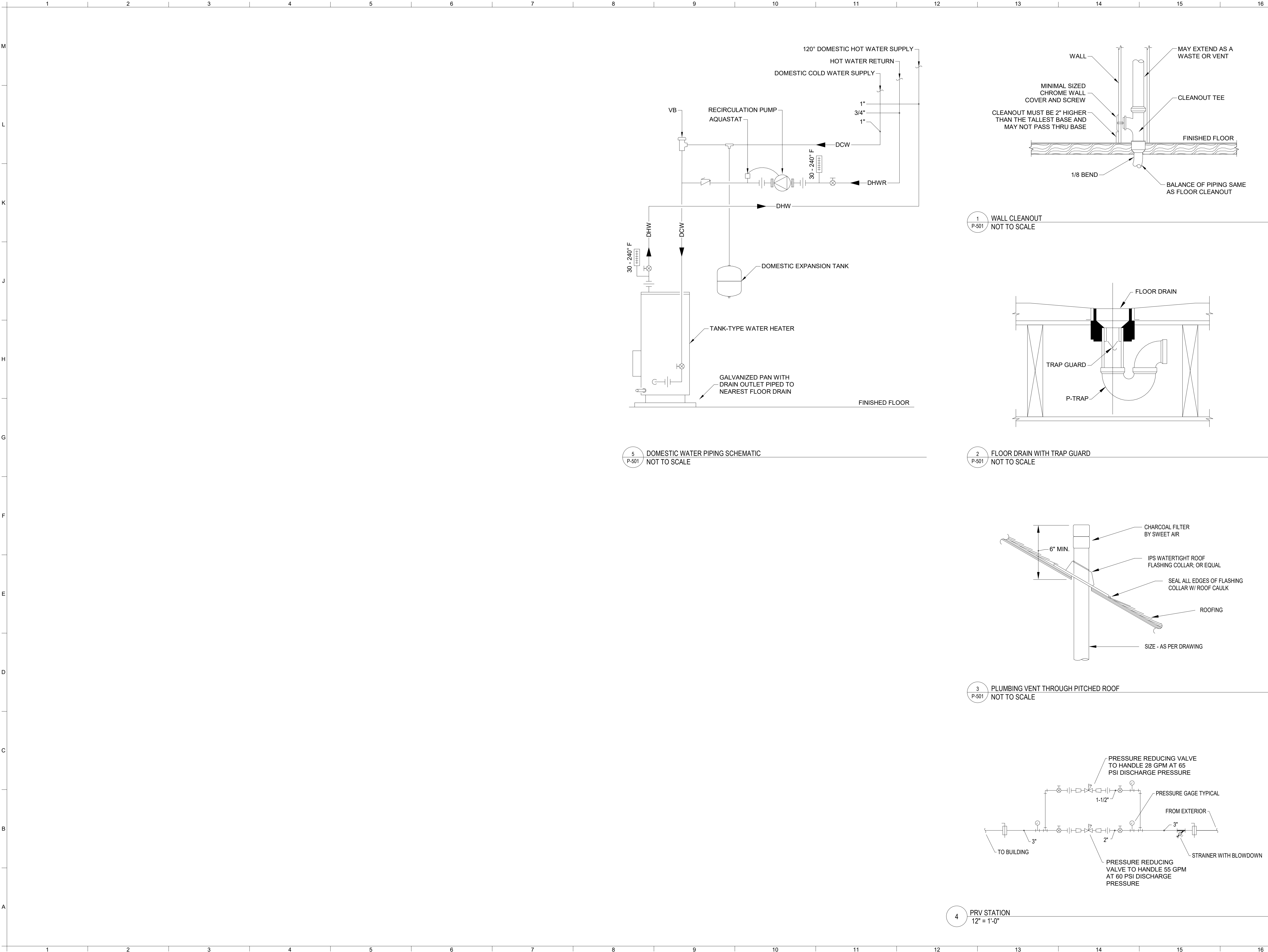
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LEVEL 1 PLUMBING PLAN

P-101



DUCHESNE COUNTY

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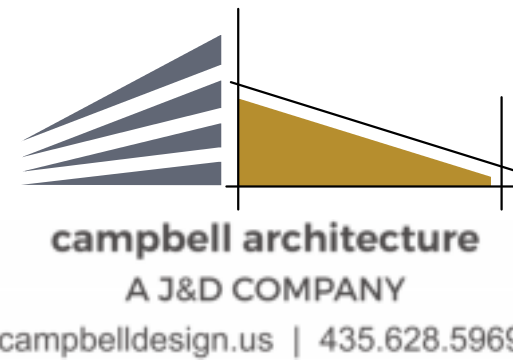
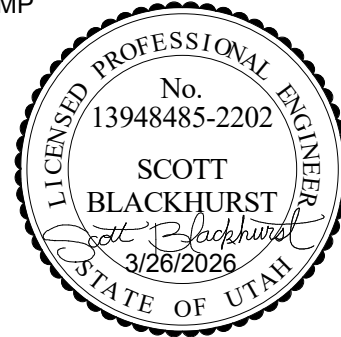
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Project #: 260115

PLUMBING DIAGRAMS

P-501

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M																
L																
K																
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A																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

PLUMBING FIXTURE SCHEDULE						
SYMBOL	FIXTURE	OW (IN)	HW (IN)	W (IN)	V (IN)	REMARKS
FD-1	FLOOR DRAIN	--	--	2	1-1/2	FLOOR DRAIN: SMITH #2005-A WITH 5" DIAMETER NICKEL BRONZE STRAINER WITH 2" #7221 CAST IRON DEEP SEAL P-TRAP. DRAINS SHALL BE SMITH, ZURN, WATTS, WADE OR MIFAB. FLOOR DRAINS SHALL BE FURNISHED WITH CLAMPING COLLARSWHERE A WATERPROOF MEMBRANE IS PROVIDED. MEMBRANES WILL BE REQUIRED FOR ALL DRAINS INSTALLED ABOVE GRADE. PROVIDE WITH TRAP GUARD PART-TG22 2" INSERT TO FIT INSIDE THE STRAINER TAILPIECE. PROVIDE APPROPRIATE TRAP GUARD FOR SPECIFIC APPROVED MANUFACTURER'S DRAIN.
HB-1	HOSE BIBB	3/4	--	--	--	HOSE BIBB: CHICAGO NO. 387, 3/4" SIZE, POLISHED CHROME PLATED CASING, HOSE END, LOOSE KEY AND E-27 VACUUM BREAKER.
HY-1	HAMMER ARRESTOR	--	--	--	--	WATER HAMMER ARRESTOR: SMITH FIGURE 5010 "HYDROTROL", RATED AT 12-32 F.U., SMITH FIGURE 5020 "HYDROTROL", RATED AT 33-60 F.U., SMITH FIGURE 5030 "HYDROTROL", RATED AT 61-113 F.U. OR SMITH FIGURE 5040 "HYDROTROL", RATED AT 114-154 F.U., DETERMINE THE FIXTURE UNITS FOR THE PLUMBING EQUIPMENT AND INSTALL THE ARRESTOR RATED FOR THE FIXTURE UNITS. LOCATE WHERE SHOWN ON THE PLANS OR AT THE END OF DOMESTIC COLD WATER LINES SERVING A SET OF WATER CLOSETS OR URINALS.
L-1	WASH STATION	1/2	1/2	2	1-1/2	WASH STATION (DECK MOUNTED FAUCETS, ADA): WILLOUGHBY WAW-2333-DMF "AQUAWAVE", WILLOUGHBY DECK MOUNTED FACET WAW-2333-DMF, MOLDED CAST POLYMER CONSTRUCTION, CHROME FINISH, PIVOT ACTION LEVER HANDLE WITH AERATOR, POP-UP DRAIN, ANGLE SUPPLIES, P-TRAP, FLEXIBLE SUPPLIES WITH STOPS. SYMMONS 8-210-CK THERMOSTATIC MIXING VALVE WITH INTEGRAL CHECK VALVES, STRAINERS AND 3/8" COMPRESSION FITTINGS. COVER ALL EXPOSED PIPING WITH LIGHT GRAY "HAND-LAV GUARD" PROTECTOR TO MEET ADA REQUIREMENTS.
NFH-1	NON-FREEZE HYDRANT	3/4	--	--	--	WALL HYDRANT: WATTS HY-420 WITH INTEGRAL VACUUM BREAKER, (NON-FREEZE) CHROME FINISH, 12" MINIMUM LENGTH, 18" IF POSSIBLE. PROVIDE SHUTOFF VALVE IN SUPPLY PIPE TO EACH NFH-1. VALVE TO BE LOCATED IN ACCESSIBLE LOCATION, TYPICALLY IN CEILING SPACE. LOCATE VALVE AS CLOSE TO NFH-1 AS FEASIBLE FOR ACCESSIBILITY.
SS-1	SERVICE SINK	1/2	1/2	3	2	SERVICE SINK (CORNER, FLOOR TYPE): KOHLER K-6710-0 "WHITBY" 28" X 28", ENAMELED CAST IRON, WITH K-8940 RIM GUARD, K-8146 PERFORATED STRAINER TAPPED 3" I.P.S., CHICAGO #897-CCP FAUCET WITH VACUUM BREAKER, MUST SUPPLY INTERNAL CHECK STOPS, LEVER HANDLES, LOOSE KEY STOPS, 60" RUBBER HOSE AND WALL HOOK, WITH 3" SMITH #7221 CAST IRON "P" TRAP. MOUNT FAUCET AT 42" A.F.F. SERVICE SINK SHALL BE KOHLER, ELJER, AMERICAN STANDARD OR EQUAL.
U-1	URINAL	3/4	--	2	1-1/2	URINAL (WALL HUNG): KOHLER #K-5016-T "DEXTER", VITREOUS CHINA 1.0 GAL. FLUSH, SIPHON JET, 3/4" TOP SPUD, SLOAN REGAL, 186 SFSM, FOUR C CELL BATTERY POWERED, SENSOR OPERATED FLUSHOMETER, 1.0 GPF, DIAPHRAGM TYPE, CHROME PLATED, 3/4" IPS SCREWDRIVER BAK-CHEK® STOP, SWEAT SOLDER ADAPTER WITH COVER TUBE AND CAST WALL FLANGE WITH SET SCREW, ADJUSTABLE TAILPIECE, VACUUM BREAKER. SMITH 0637 URINAL SUPPORT. SEE ARCHITECT FOR MOUNTING HEIGHTS.
WC-1	WATER CLOSET	1	--	4	2	WATER CLOSET (FLOOR TYPE) (FLUSH VALVE) (ADA): KOHLER K-96057-0"HIGHCLIFF" FLOOR MOUNTED, VITREOUS CHINA, 1.6 GAL FLUSH, SIPHON JET, ELONGATED BOWL, 1-1/2" TOP SPUD, 18" HIGH BOWL, KOHLER K-4670-C-0 OPEN FRONT SEAT, STAINLESS STEEL HINGE POSTS WITH CHECK, SLOAN REGAL 111-SFSM, BATTERY POWERED, SIDE MOUNTED SENSOR OPERATED FLUSHOMETER. CHROME PLATED METAL HOUSING FOR SENSOR AND BATTERIES, SCRATCH RESISTANT, TEMPERED-GLASS REPLACEABLE LENS, DIAPHRAGM OPERATED, SCREW DRIVER STOP WITH VANDAL RESISTANT COVER.
WC-2	WATER CLOSET	1	--	4	2	WATER CLOSET (FLOOR TYPE): KOHLER K-96053-0 "WELLCOMME" FLOOR MOUNTED, VITREOUS CHINA, 1.6 GAL FLUSH, SIPHON JET, ELONGATED BOWL, 1-1/2" TOP SPUD , 15" HIGH BOWL, KOHLER K-4670-C-0 OPEN FRONT SEAT, STAINLESS STEEL HINGE POSTS WITH CHECK, SLOAN REGAL 111-SFSM, BATTERY POWERED, SIDE MOUNTED SENSOR OPERATED FLUSHOMETER. CHROME PLATED METAL HOUSING FOR SENSOR AND BATTERIES, SCRATCH RESISTANT, TEMPERED-GLASS REPLACEABLE LENS, DIAPHRAGM OPERATED, SCREW DRIVER STOP WITH VANDAL RESISTANT COVER.

DOMESTIC PUMP SCHEDULE												
SYMBOL	MANUF. AND MODEL NO.	PUMP		MOTOR								
		FLOW RATE (GPM)	HEAD (FT)	WORKING FLUID	PUMP TYPE	HP	WATTS	FLA	RPM	VOLT/PH	REMARKS	
RCP-1	B&G NBF-22	0.7	10.5	WATER	INLINE	--	92	0.80	2940	115	1	

1. TO INCLUDE TC-1 AUTOMATIC TIMER AND ASQ-3/4 AQUASTAT COMBINATION KIT.

ELECTRIC WATER HEATER SCHEDULE										
SYMBOL	MANUF. AND MODEL NO.	CAP. U.S. GAL.	ELEMENT WATTAGE UPPER/LOWER	GPH @ 80 DEG RISE	WIDTH/ HEIGHT (IN)	ELECTRICAL			EFFICIENCY STANDBY LOSS (%/h if > 12kW)	REMARKS
						WATTS	AMPS	V/PH		
WH-1	A.O. SMITH DEL-30	36	3000/3000	15	24/32	6000	25	240/1	0.8	1.2

1. DISCONNECT BY ELECTRICAL.
2. DUAL ELEMENT SIMULTANEOUS OPERATION

MINIMUM PIPE INSULATION THICKNESS (IN.)								
FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE SIZE (IN)					REMARKS
	CONDUCTIVITY	MEAN RATING TEMPERATURE (°F)	<1	1 TO < 1-1/2	1-1/2 TO < 4	4 TO < 8	≥ 8	
> 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0	1.2
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5	1.2
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0	1.2
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0	1.2,3
105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	1.5	1.5	1.2,3
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0	1.0
< 40	0.20 - 0.26	50	0.5	1.0	1.0	1.0	1.5	1.2,3

1. INSULATION THICKNESS FOR PIPING LOCATED OUTDOORS OR EXPOSED TO OUTSIDE AIR SHALL BE INCREASED BY 1".
2. WHERE SCHEDULED THICKNESS DIFFERS FROM SPECIFICATIONS THE THICKER DIMENSION SHALL BE USED.
3. SERVICE AND DOMESTIC HOT WATER INCLUDES RECIRCULATION LOOP PIPING.

DOMESTIC EXPANSION TANK SCHEDULE									
SYMBOL	MANUFACTOR MODEL NO.	SYSTEM SERVED	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	RELIEF VALVE (PSI)	DIA/ HEIGHT (IN)	NPTM FITTING (IN)	REMARKS	
DET-1	BELL & GOSSETT PT-5	WH-1	DIAPHRAM	2	0.9	112.5	8/12.625	3/4	1

1. NON-ASME RATED

DUCHESNE COUNTY

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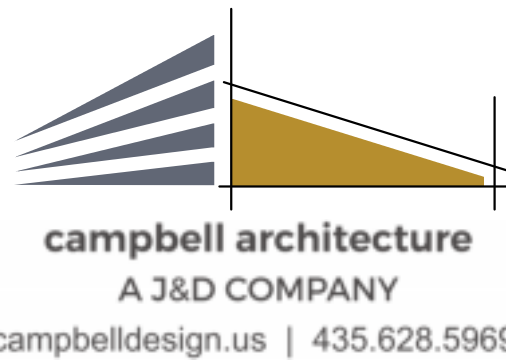
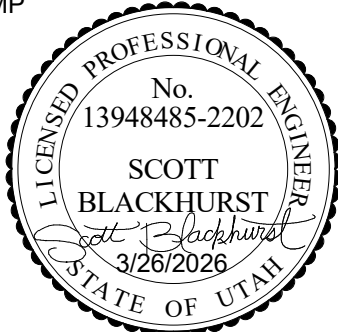
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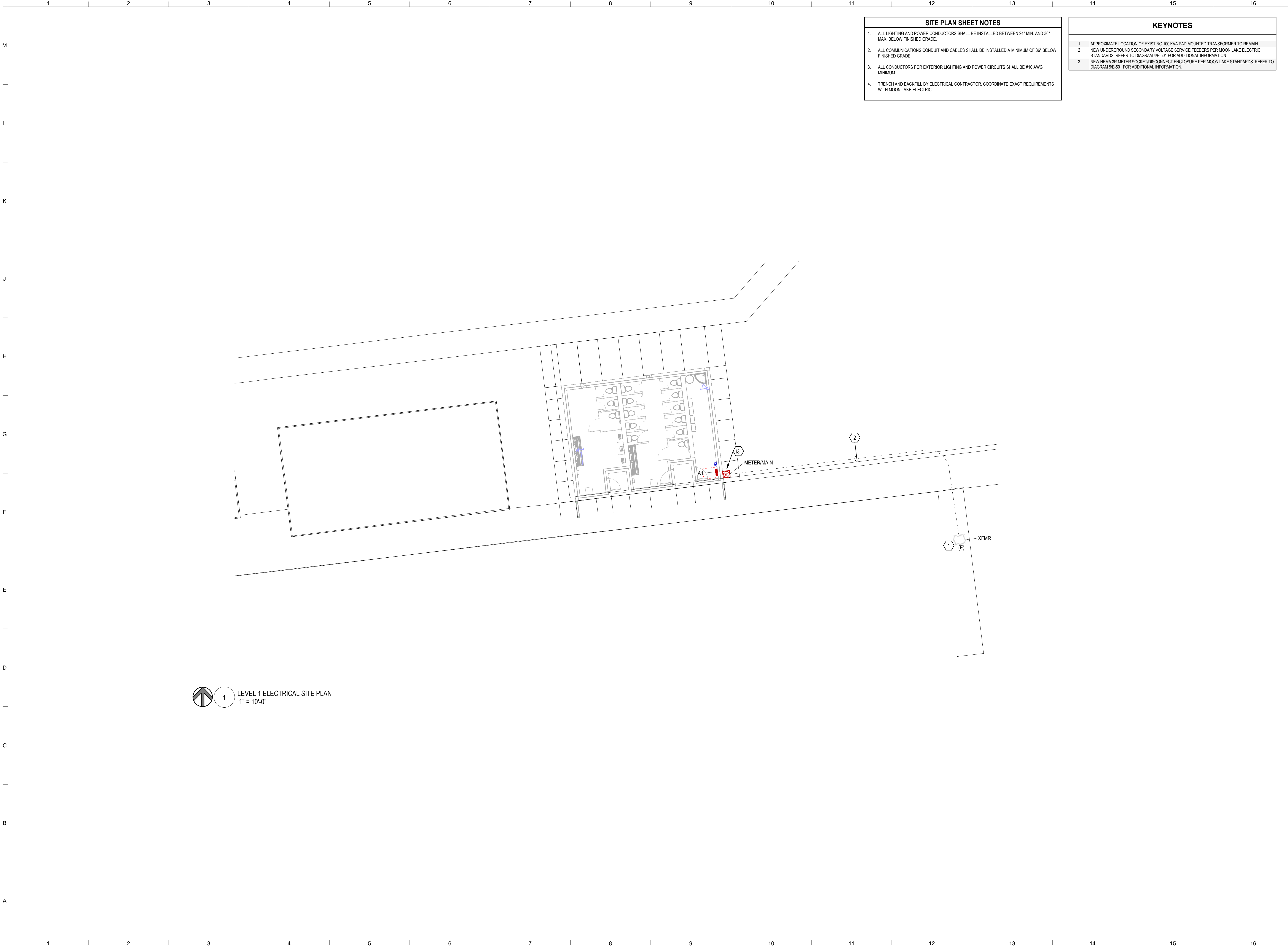


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PLUMBING SCHEDULES

P-601

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SITE PLAN SHEET NOTES	
1.	ALL LIGHTING AND POWER CONDUCTORS SHALL BE INSTALLED BETWEEN 24" MIN. AND 36" MAX. BELOW FINISHED GRADE.
2.	ALL COMMUNICATIONS CONDUIT AND CABLES SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINISHED GRADE.
3.	ALL CONDUCTORS FOR EXTERIOR LIGHTING AND POWER CIRCUITS SHALL BE #10 AWG MINIMUM.
4.	TRENCH AND BACKFILL BY ELECTRICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS WITH MOON LAKE ELECTRIC.

KEYNOTES	
1	APPROXIMATE LOCATION OF EXISTING 100 KVA PAD MOUNTED TRANSFORMER TO REMAIN
2	NEW UNDERGROUND SECONDARY VOLTAGE SERVICE FEEDERS PER MOON LAKE ELECTRIC STANDARDS. REFER TO DIAGRAM 4E-501 FOR ADDITIONAL INFORMATION.
3	NEW NEMA 3R METER SOCKET/DISCONNECT ENCLOSURE PER MOON LAKE STANDARDS. REFER TO DIAGRAM 9E-501 FOR ADDITIONAL INFORMATION.

DUCHESNE COUNTY

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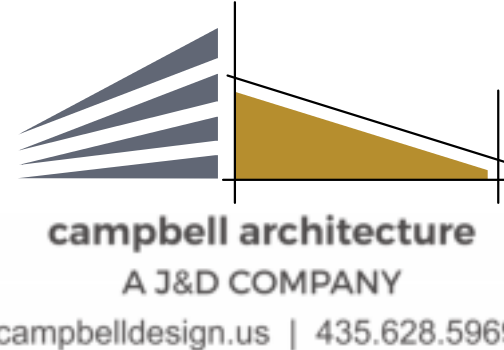
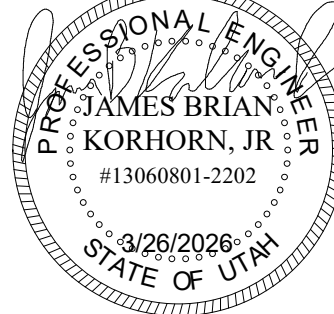
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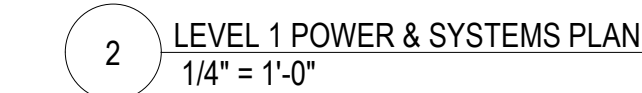
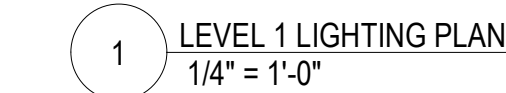


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LEVEL 1 ELECTRICAL SITE
PLAN

ES-101



1	RESTROOM LIGHTING SHALL HAVE FULLY AUTOMATIC CONTROL THROUGH CEILING OCCUPANCY SENSORS.
---	---

1. **GENERAL REQUIREMENTS**

A. WHERE CONNECTED TO A 20A BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED 20A.

B. REFER TO SECTION SHEET E-601 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS DUE TO VOLTAGE DROP.

2. **WIRING & CIRCUITING**

A. WIRE CUTS FOR CIRCUIT CONDUCTORS ARE NOT SHOWN. PROVIDE PROPER NUMBER OF CONDUCTORS TO ACHIEVE THE CIRCUITING AND SWITCHING CONNECTIONS INDICATED.

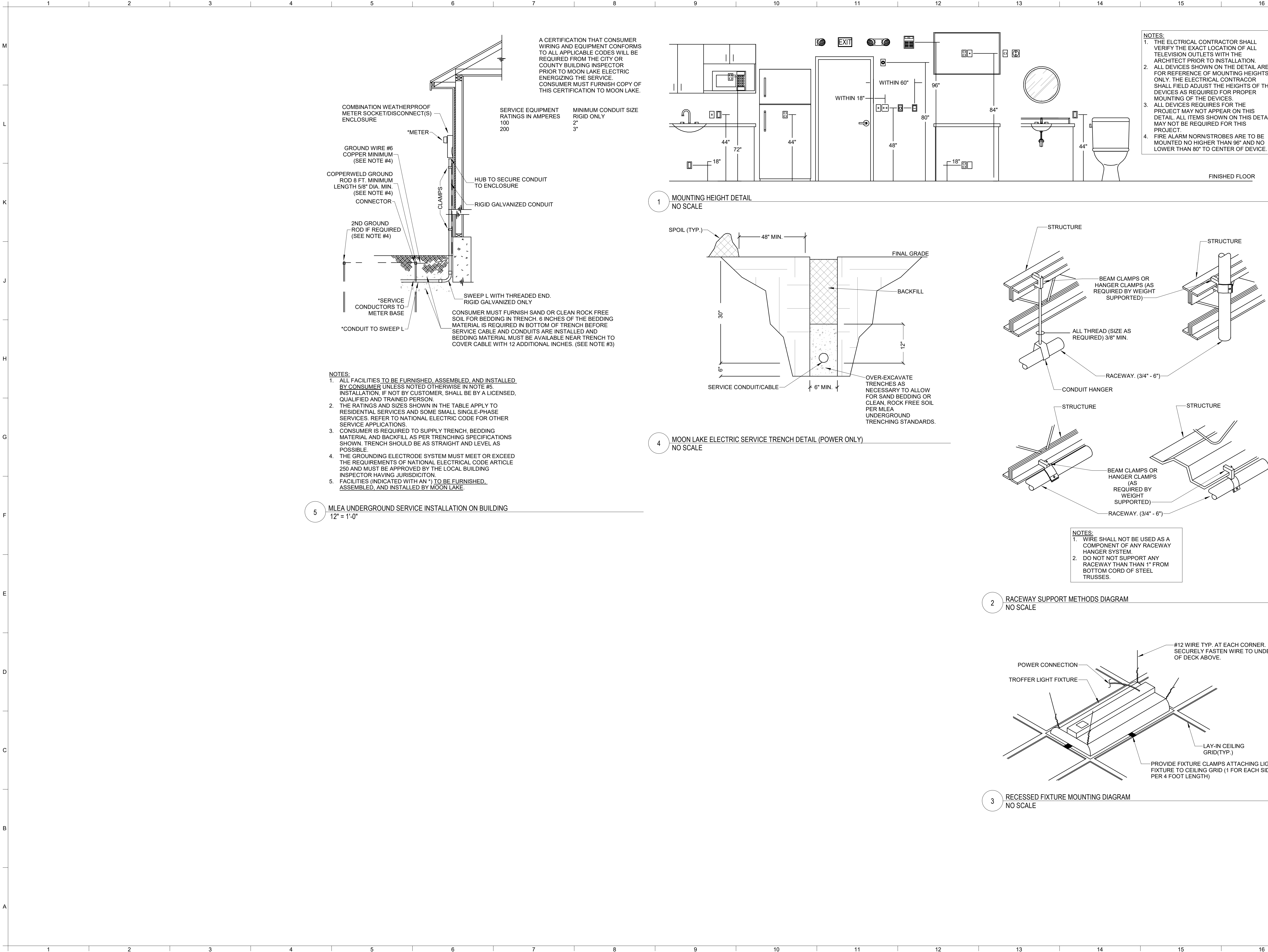
B. MODIFICATIONS TO THE NUMBER OF CONDUCTORS IN HOME RUNS, IN ADDITION TO THE CIRCUITS INDICATED ON THE DRAWINGS, ARE PROHIBITED.

1. **FIXTURE LOCATIONS & COORDINATION**
 - A. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN CEILINGS OR CEILING GRIDS.
 - B. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC; INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS.
 - C. COORDINATE WITH THE PAINTING CONTRACTOR FOR PAINTING OF EXPOSED RACEWAY.
 - D. COORDINATE WITH THE MECHANICAL CONTRACTOR FOR PLACEMENT OF FIXTURES IN MECHANICAL ROOMS.
2. **MOUNTING & SUPPORT**
 - A. ALL RECESSED FIXTURES IN LAY-IN CEILING SHALL BE INSTALLED WITH #6 FLEXIBLE METAL CONDUIT.
 - B. FIXTURES SHALL BE MOUNTED FROM THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED.
 - C. EXTERIOR FIXTURE MOUNTING HEIGHTS SHALL BE PER ARCHITECTURAL EXTERIOR ELEVATIONS.
 - D. ALL LUMINAIRES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE. SUPPORT FROM CEILING GRID OR NON-STRUCTURAL MEMBERS IS PROHIBITED.
3. **WIRING & CIRCUITRY**
 - A. REFER TO SECTION SHEET E-601 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS DUE TO "VOLTAGE DROP".
 - B. PROVIDE PROPER NUMBER OF CONDUCTORS TO ACHIEVE ALL CIRCUITING AND SWITCHING SHOWN.
 - C. WHERE WIRING IS SHOWN, WIRE COUNTS ARE NOT INDICATED; MODIFICATIONS TO CONDUCTOR QUANTITIES IN HOME RUNS ARE PROHIBITED.
 - D. BRANCH CIRCUITS SHALL BE SIZED PER BREAKER RATING UNLESS OTHERWISE NOTED.

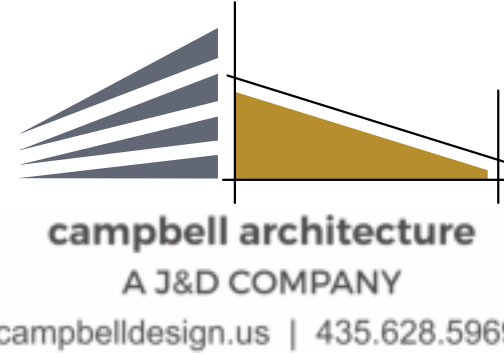
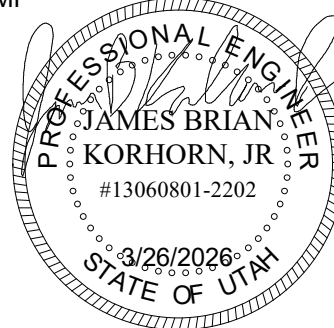
1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE SENSOR MANUFACTURER FOR PROPER PLACEMENT AND ADJUSTMENT OF OCCUPANCY SENSORS.
2. EACH ZONE SHALL HAVE COVERAGE BY OCCUPANCY SENSOR SUCH THAT NO BLIND SPOT EXIST.
3. UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUBLE-FREE INSTALLATION.
4. THE LOCATION AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THOSE WHICH ARE TO BE PROVIDED WITH SENSORS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS IF REQUIRED TO PROPERLY COVER THE RESPECTIVE ROOM.
5. PROVIDE DAYLIGHT ZONE CONTROL REQUIREMENTS PER CURRENT IECC REQUIREMENTS. LOCATE DAYLIGHT SENSOR(S) PER MANUFACTURER'S RECOMMENDATION AND WHERE REQUIRED WITHIN THE ROOM FOR PROPER COVERAGE.
6. PROVIDE OCCUPANCY SENSOR WITH AN ADDITIONAL SET OF DRY CONTACTS FOR HVAC CONTROL AT EACH VAV BOX LOCATION. COORDINATE WITH MECHANICAL DRAWINGS AND THE MECHANICAL CONTRACTOR FOR EXACT LOCATIONS.

Project #: 260115

E-101



NO.	DATE	DESCRIPTION



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EQUIPMENT SCHEDULE														
TYPE	DESCRIPTION	ELECTRICAL								OVER CURRENT PROTECTION				
		V/PH	LOAD	FLA	WIRE				COND SIZE	OCPD/MOCP	TYPE	DISC SIZE/PL	FUSE SIZE	STR NEMA SIZE
					SETS	QTY	SIZE	GND						REMARKS
EF-1	EXHAUST FAN	120/1	4.8 FLA	4.8	1	2	12	12	3/4"	20	C1	-	-	4A,15A
EF-2	EXHAUST FAN	120/1	4.8 FLA	4.8	1	2	12	12	3/4"	20	C1	-	-	4A,15A
ERP-1	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-2	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-3	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-4	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-5	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-6	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-7	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-8	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
ERP-9	ELECTRIC RADIANT PANEL	120/1	750 W	6.3	1	2	12	12	3/4"	20	C1	-	-	13A
RCP-1	RECIRCULATING PUMP	120/1	92 W	0.8	1	2	12	12	3/4"	20	C1	-	-	4A
WH-1	WATER HEATER	240/1	6000 W	25.0	1	2	8	10	3/4"	35	C1	60/2	-	2A
ABBREVIATIONS: V/PH = VOLTAGE/PHASE KW = KILOWATTS W = WATTS HP = HORSEPOWER REMARKS: 1. NEMA 1 FUSED DISCONNECT SWITCH 2. NEMA 1 NON-FUSED DISCONNECT SWITCH 3. BREAKER IN ENCLOSURE 4. MANUAL STARTER WITH THERMAL OVERLOAD 5. MANUAL MOTOR CONTROLLER W/OUT THERMAL OVERLOAD 6. MAGNETIC STARTER 7. MAGNETIC STR/NON-FUSED DISCONNECT COMBINATION 8. MAGNETIC STR/FUSED DISCONNECT COMBINATION 9. NEMA 3R FUSED DISCONNECT SWITCH 10. NEMA 3R NON-FUSED DISCONNECT SWITCH 11. VARIABLE FREQUENCY DRIVE 12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC. 13. DIRECT CONNECTION 14. DUCT DETECTOR IN RETURN AIR DUCT 15. CONTROLLED WITH LIGHTS 16. INDOOR UNIT POWERED FROM OUTDOOR UNIT WITH LINE VOLTAGE GENERAL NOTE: THE EC SHALL COORDINATE ALL REQUIREMENTS (IE: MOCP SIZE, UNIT THERMAL PROTECTION, ETC) WITH APPROVED MECHANICAL SHOP DRAWINGS/ SUBMITTALS AND BRING UP ANY DISCREPANCIES WITH THE ELECTRICAL ENGINEER OF RECORD IN WRITING PRIOR TO ROUGH-IN.														
KVA = KILOVOLT AMPERES VA = VOLT AMPERES MCA = MINIMUM CIRCUIT AMPACITY FLA = FULL LOAD AMPERES					GND = GROUND DISC = DISCONNECT STR = STARTER MOCP = MAXIMUM OCPD (LISTED BY THE MANUFACTURER)					COND = CONDUIT OCPD = OVERCURRENT PROTECTIVE DEVICE PL = POLE				
					OCPD TYPES: C1 = THERMAL MAGNETIC CIRCUIT BREAKER C2 = MAGNETIC ONLY CIRCUIT BREAKER					F1 = INDUCTIVE FUSE (CLASS RK5) F2 = NON-INDUCTIVE FUSE (CLASS RK1)				
					NOTES: - THE DIVISION 26 CONTRACTOR MAY INCREASE THE CONDUIT SIZE BY ONE INCREMENTAL SIZE TO FACILITATE INSTALLATION OR TO HELP WITH MATERIAL AVAILABILITY/COST.									

LUMINAIRE SCHEDULE							
TYPE	DESCRIPTION	MANUFACTURER: CATALOG NUMBER // OPTIONS	VOLTS	LAMPS		MOUNTING	VA
				QTY	MODEL		
L1A	8" WIDE VANDAL RESISTANT SURFACE MOUNT LED LUMINAIRE CONTINUOUS ROW MOUNTING 24' TOTAL LENGTH WITH DIFFUSE OPAL LENS, CORNER MOUNT, AND WHITE FINISH 10 YEAR WARRANTY	LUMINAIRE LED: VPF8L LSL 24FT MSL4 NODIM 40W 40K 120 OP WHT COR STARTEK: STS 24 1000 SD 40K 80 PW SMCB U TP DL FAIL-SAFE: HVSL8 8 LD4 1 HI 40 UNV O EDC 1 // HVSL8-8-CMBKKT (QTY: 3) H.E. WILLIAMS: AVX 4 L45 8 40 WPC AVX-4 CMB DRV UNV (QTY: 6)	120	8	40 W LEDS 4000K	SURFACE CORNER	240 VA
		LUMINAIRE LED: VPF8L LSL 16FT MSL4 NODIM 40W 40K 120 OP WHT COR STARTEK: STS 16 1000 SD 40K 80 PW SMCB U TP DL FAIL-SAFE: HVSL8 8 LD4 1 HI 40 UNV O EDC 1 // HVSL8-8-CMBKKT (QTY: 2) H.E. WILLIAMS: AVX 4 L45 8 40 WPC AVX-4 CMB DRV UNV (QTY: 4)	120	4	40 W LEDS 4000K	SURFACE CORNER	160 VA
L2	8' LED STRIP LIGHT WITH DIFFUSE POLYCARBONATE LENS	LITHONIA: CSS L96 8000LM MVOLT 40K 80CRI COLUMBIA: MPS 8 40LW CP W ED U METALUX: 8SLTP8040DD-UNV H.E. WILLIAMS: 75R 8 L80 8 40 DIM UNV	120	1	72 W LED 4000K	SURFACE CEILING	72 VA
L3	6" LED EXTERIOR RECESSED DOWNLIGHT WITH SWITCHABLE COLOR TEMPERATURE TO MATCH EXISTING ADJACENT LIGHTS	LITHONIA: LDN6 10LM SW61 L S01 R LSS MVOLT	120	1	13 W LED	RECESSED CEILING	13 VA

GENERAL NOTES

1. REFER TO LUMINAIRE DESCRIPTION FOR FIXTURE REQUIREMENTS. MANUFACTURER'S MODEL NUMBERS MAY NOT BE SPECIFIC OR COMPLETE. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE COMPLETE FIXTURES AS DESCRIBED ON THIS SCHEDULE WITH ALL MOUNTING HARDWARE AND EQUIPMENT FOR A COMPLETE INSTALLATION.
2. REFER TO THE ARCHITECTURAL REFLECTED CEILING DRAWINGS FOR EXACT FIXTURE LOCATIONS AND CEILING TYPES. VERIFY EXACT CEILING TYPES AND BRING TO THE ATTENTION OF THE ARCHITECT AND THE ELECTRICAL ENGINEER WITH ANY DISCREPANCIES PRIOR TO BID. FIXTURES SHALL MATCH ARCHITECTURAL CEILING TYPES.
3. PROVIDE ALL FIXTURE SUPPORT AND SEISMIC BRACING TO SECURE FIXTURE TO STRUCTURE, WALLS AND CEILING SYSTEMS. REFER TO MOUNTING DETAILS FOR ADDITIONAL REQUIREMENTS. PROVIDE ALL POLE BASES AS SHOWN ON THE DETAILS.
4. PRIOR APPROVAL SHALL BE REQUIRED FOR ALL MANUFACTURER'S WHO ARE NOT LISTED ON THIS SCHEDULE. THE PRIOR APPROVALS SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER (7) WORKING DAYS PRIOR TO THE BID. PRIOR APPROVALS RECEIVED AFTER THIS TIME CUT-OFF SHALL NOT BE REVIEWED OR APPROVED.
5. SUBMITTALS FOR PRIOR APPROVAL SHALL BE EQUIVALENT TO THE SPECIFIED FIXTURES AND REVIEWED AND SIGNED BY THE PRINCIPLE OF THE ORGANIZATION THAT IS SUBMITTING FOR APPROVAL. PROVIDE COMPLETE FIXTURE SUBMITTALS AS LISTED IN THE SPECIFICATION. ALL INFORMATION THAT DOES NOT APPLY TO THE FIXTURE BEING SUBMITTED SHALL BE CROSSED OUT. THE ELECTRICAL ENGINEER SHALL BE THE FINAL DETERMINATION IF THE FIXTURE IS EQUIVALENT OR NOT.
6. FIXTURES THAT HAVE BEEN REVIEWED AND APPROVED AS EQUIVALENT TO THE SPECIFIED FIXTURES SHALL BE LISTED IN AND ADDENDUM PRIOR TO BID. LIGHT FIXTURES WITHOUT PRIOR APPROVAL ARE REJECTED AND CONTRACTOR SHALL REVERSE THEIR BID ON THE APPROVED LISTED FIXTURES. A VERBAL APPROVAL WILL NOT BE GIVEN OR APPROVED BY VBEA AT ANY TIME.
7. ANY ADDITIONAL TIME REQUIRED TO VERIFY IF SUBMITTED FIXTURE MEETS ALL PHOTOMETRIC REQUIREMENTS SHALL BE PAID BY THE AGENCY REQUESTING APPROVAL. PHOTOMETRIC POINT-BY-POINT PLANS MAY BE REQUIRED FROM THE AGENCY SUBMITTING FOR APPROVAL INDICATING EQUIVALENCY.
8. COLOR TEMPERATURE FOR ALL LAMPING SHALL BE 3500K FOR INTERIOR LIGHTING AND 4000K FOR EXTERIOR LIGHTING UNLESS NOTED OTHERWISE IN THIS SCHEDULE.
9. PROVIDE FACES AND CHEVRONS AS SHOWN ON THE DRAWINGS.

TIME CLOCK CONTROL SCHEDULE

PANEL NAME:		INTERMATIC (ET8415CR)													
LOCATION:		ADJACENT TO PANEL 'A'													
CONTROL CIRCUIT:		A1-27													
VOLTAGE:		120 VOLT													
MOUNTING:		SURFACE		REMARKS											
RELAY #	DESCRIPTION	PANEL-CIRCUIT	LOAD (VA)												
1	SOFFIT LTG	A1-29		-							X				
2	SPARE	-	-	-											
3	SPARE	-	-	-											
4	SPARE	-	-	-											
REMARKS		PROGRAMMING REQUIREMENTS													
A:	1-BUTTON ON/OFF W/MASTER OVERRIDE														
B:	2-BUTTON ON/OFF W/MASTER OVERRIDE														
C:	3-BUTTON ON/OFF W/MASTER OVERRIDE														
D:	4-BUTTON ON/OFF W/MASTER OVERRIDE														
E:	5-BUTTON ON/OFF W/MASTER OVERRIDE														
F:	6-BUTTON ON/OFF W/MASTER OVERRIDE														
G:	TIMED ON/TIMED OFF														
H:	TIMED ON/PHOTOCELL OFF														
I:	PHOTOCELL ON/TIMED OFF														
J:	PHOTOCELL ON/PHOTOCELL OFF														
GENERAL NOTES:		CONFIRM SWITCHING SCHEME WITH OWNER PRIOR TO PROGRAMMING.													

DUCHESNE COUNTY

NORTH RESTROOM

JDE No.NO. 2508-062

SUBMITTAL

FOR BIDDING ONLY

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

