

WASH HOUSE LAUNDRY

711 SE 291 HWY
LEE'S SUMMIT, MO 64063

OWNER: WASH HOUSE LAUNDRY
410 SOUTH WEST STATE
BLUE SPRING, MISSOURI 64014
(816) 988-7775

STRUCTURAL
ENGINEER: VAN DEURZEN AND ASSOCIATES, P.A.
11011 KING STREET SUITE 130
OVERLAND PARK, KANSAS 66210
CONTACT: CHAD STREETER

ARCHITECT: WGN ASSOCIATES INC.
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KANSAS CITY, MO 64108
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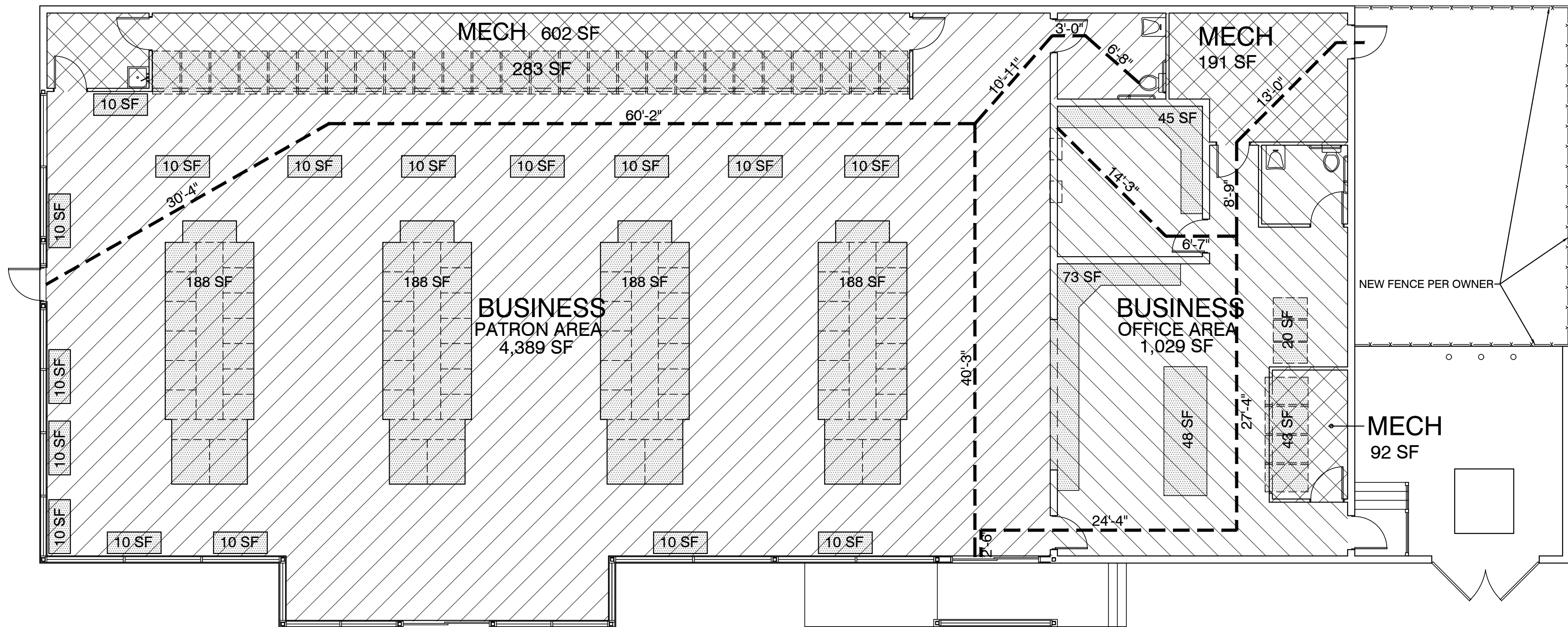
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CODE ANALYSIS

1/8" = 1'-0"



PROJECT & BLDG. DESCRIPTION: THIS IS AN ADAPTIVE REUSE / REMODELING PROJECT OF AN EXISTING BUILDING, PREVIOUSLY USED AS A RESTAURANT. THE BUILDING IS CONVENTIONAL WOOD FRAMING W/ WOOD ROOF TRUSSES & EXTERIOR BEARING WALLS

ADDRESS: 711 ROUTE 291, LEE'S SUMMIT, MISSOURI

LEGAL DESCRIPTION: ALL OF LOT 5A, POLK ADDITION, LOTS 5A & 5B, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, EXCEPT THAT PART DESCRIBED AS FOLLOWS:

ALL THAT PART 5A, POLK ADDITION, LOTS 5A & 5B, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SE CORNER OF SAID LOT 5A, THENCE SOUTH 90°, 0 MINUTES, 0 SECONDS WEST ALONG THE SOUTH LINE OF SAID LOT 5A A DISTANCE OF 26.05 FEET; THENCE NORTH 0°, 0 MINUTES, 0 SECONDS EAST, CONTINUING ALONG THE LOT LINE OF SAID LOT 5A A DISTANCE OF 110 FEET; THENCE NORTH 0°, 0 MINUTES, 0 SECONDS EAST, A DISTANCE OF 26.05 FEET TO A POINT ON THE LOT LOT LINE BETWEEN LOT 5A & LOT 5B OF SAID SUBDIVISION; THENCE SOUTH 0°, 0 MINUTES, 0 SECONDS WEST ALONG THE LOT LINE OF SAID LOT 5A & 5B A DISTANCE OF 110 FEET TO THE POINT OF THE BEGINNING

APPLICABLE CODES: 2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL EXISTING BUILDING CODE
2018 INTERNATIONAL MECHANICAL CODE
2017 NATIONAL ELECTRICAL CODE
2018 UNIFORM PLUMBING CODE
2018 INTERNATIONAL FUEL GAS CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE

AUTOMATIC FIRE SPRINKLER SYSTEM: NOT REQUIRED
MANUAL FIRE ALARM SYSTEM: NOT REQUIRED
REQUIRED FIRE RATINGS: NONE REQUIRED

OCCUPANCY CLASSIFICATION: B
TYPE OF CONSTRUCTION: V-B
BLDG AREA AS DEFINED BY 2018 IBC, SECTION 202: 6,303 SF
OCCUPANT LOAD: 31 OCCUPANTS

OCCUPANCY SPACE / AREA	SF	DEDUCT UNUSABLE FIXED EQUIP SF	# OF USABLE SF	O.L.F.	# OF OCCP	REQ'D TLTS	REQ'D LAVS
BUSINESS PATRON AREA	4,389 SF	- 912 SF	= 3,477 SF	/ 150	= 23.2	1*	1
BUSINESS OFFICE AREA	1,029 SF	- 186 SF	= 843 SF	/ 150	= 5.6	1*	1
MECHANICAL	885 SF	- 326 SF	= 559 SF	/ 300	= 1.9		
BLDG TOTAL SF	6,303 SF		TOTAL # OF OCCUPANTS	30.7			

* THE OCCUPANT LOAD OF THE FACILITY HAS BEEN DETERMINED USING THE USABLE SF, NOT THE GROSS SF BECAUSE WE ASSERT THAT NO OCCUPANTS CAN OCCUPY THE SAME SF AS THE FIXED LAUNDRY EQUIPMENT. SECONDLY, THE REQUIRED # OF PLUMBING FIXTURES HAS BEEN DETERMINED BY SEPARATING THE BUSINESS AREA, PATRONS & OFFICE FROM ONE ANOTHER. PER THE 2018 IBC, SECTION 2902.2, EXCEPTION 4, SEPARATE RESTROOM FACILITIES SHALL NOT BE REQUIRED IN BUSINESS OCCUPANCIES IN WHICH THE MAXIMUM OCCUPANT LOAD IS 25 OR FEWER. THE AUTHORITY TO DO THIS IS ALLOWED BY IBC, SECTION 1004.3 WHERE IT STATES IN THE EXCEPTION THEREIN THAT "WHERE APPROVED BY THE BUILDING OFFICIAL, THE ACTUAL NUMBER OF OCCUPANTS FOR WHOM EACH OCCUPIED SPACE, FLOOR OR BUILDING IS DESIGNED, ALTHOUGH LESS THAN THOSE DETERMINED BY CALCULATION, SHALL BE PERMITTED TO BE USED IN THE DETERMINATION OF THE DESIGN OCCUPANT LOAD. WE HEREBY REQUEST THE BUILDING OFFICIAL OF LEE'S SUMMIT, MO, CONCUR WITH OUR ASSESSMENT."

REQUIRED EGRESS WIDTH: THE BUSINESS PATRON AREA IS SERVED BY 3 DIFFERENT EXITS, 2 AUTOMATIC DOORS, EACH W/ A 3'-10" WIDE OPENING, AND 1 SWINGING DOOR W/ A 3'-0" WIDE OPENING. THE NUMBER OF OCCUPANTS IN THE PATRON AREA IS 23.2 OCCUPANTS. EACH OF THE AUTOMATIC DOORS IS CAPABLE OF EXITING 230 OCCUPANTS (40/2) & THE SWINGING DOOR IS CAPABLE OF EXITING 180 OCCUPANTS (90/2). THE BUSINESS OFFICE AREA IS SERVED BY 2 DIFFERENT EXITS THAT ARE EACH 36" WIDE. THE NUMBER OF OCCUPANTS IN THE OFFICE AREA IS 5.6 OCCUPANTS. EACH OF THE 2 DOORS ARE CAPABLE OF EXITING 180 OCCUPANTS (90/2).

TRAVEL DISTANCE: TABLE 1017.2 IN THE 2018 IBC STATES THE MAXIMUM TRAVEL DISTANCE IN A "B" OCCUPANCY WITHOUT A SPRINKLER SYSTEM IS 200 FEET. WE HAVE CALCULATED THE MAXIMUM TRAVEL DISTANCE WITHIN THE BUSINESS PATRON AREA FROM THE MOST REMOTE LOCATION IN THE RESTROOM TO THE NEAREST EXIT TO BE 60'-10". THE TRAVEL DISTANCE TO THE FURTHEST EXIT IS 111'-1". THE MAXIMUM TRAVEL DISTANCE WITHIN THE BUSINESS OFFICE AREA HAS BEEN CALCULATED TO BE 31'-2". THE TRAVEL DISTANCE TO THE FURTHEST EXIT IS 75'-0".



ISSUE DATE: 3/12/2021
PERMIT: 3/12/2021
REVISIONS:
CITY COMMENTS: 3/12/2021

JOB NO: 3532-2001
DRAWN BY: JUH
DESIGNED BY: CHS

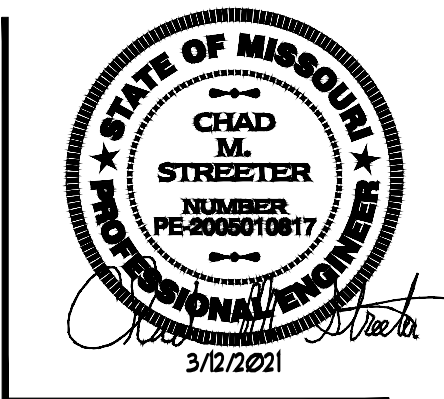
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COVER SHEET FOR:
WASH HOUSE LAUNDRY - LEE'S SUMMIT
711 SE 291 HWY.
LEE'S SUMMIT MO 64063

SHEET NO:

CS1



ISSUE DATE:	3/12/2021
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JOB NO:	3532-2001
DRAWN BY:	JUH
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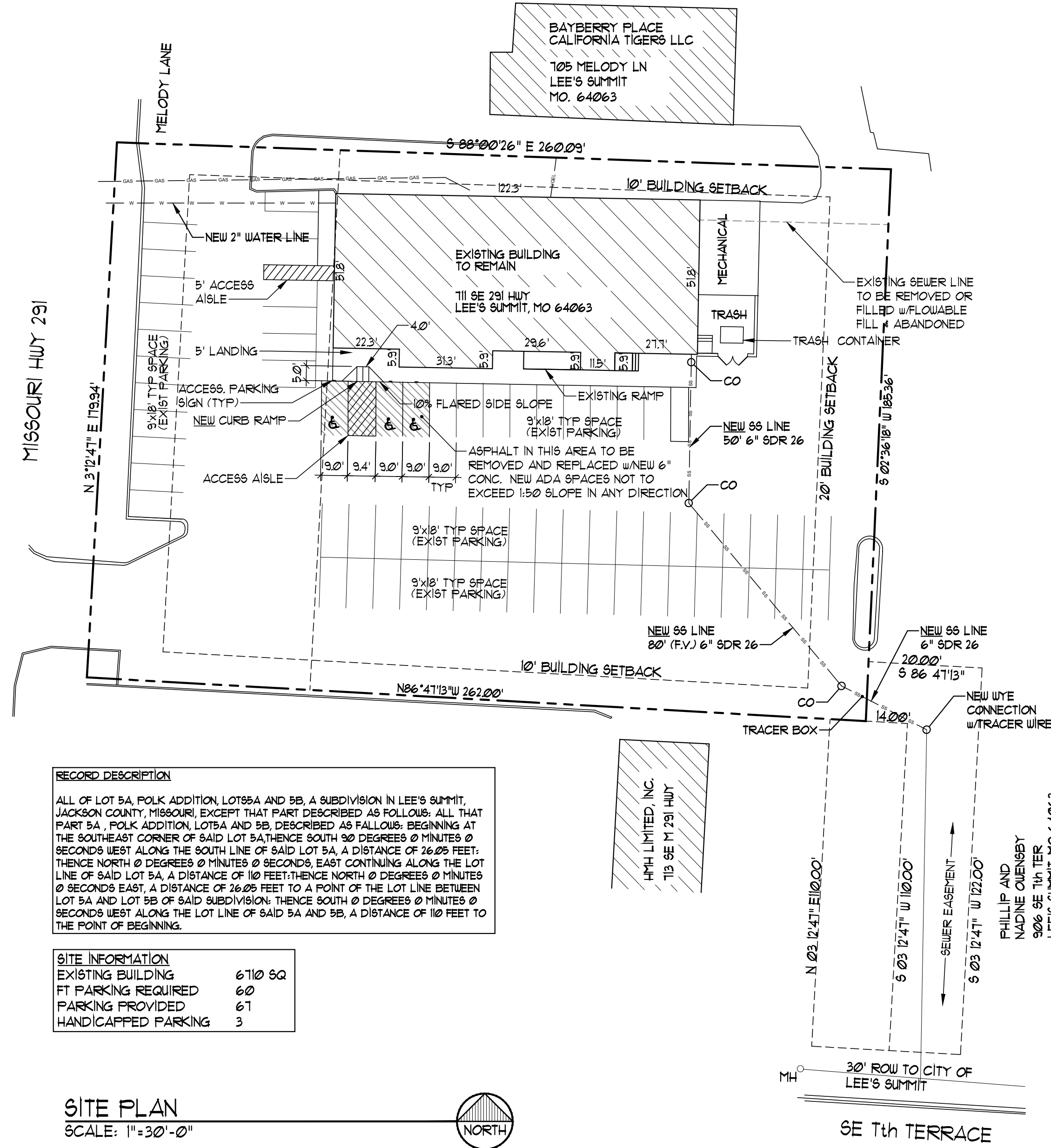
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W&J ARCHITECTS
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SITE PLAN AND DETAILS
WASH HOUSE LAUNDRY - LEE'S SUMMIT
T11 SE 291 HWY.
LEE'S SUMMIT MO 64063

SHEET NO:

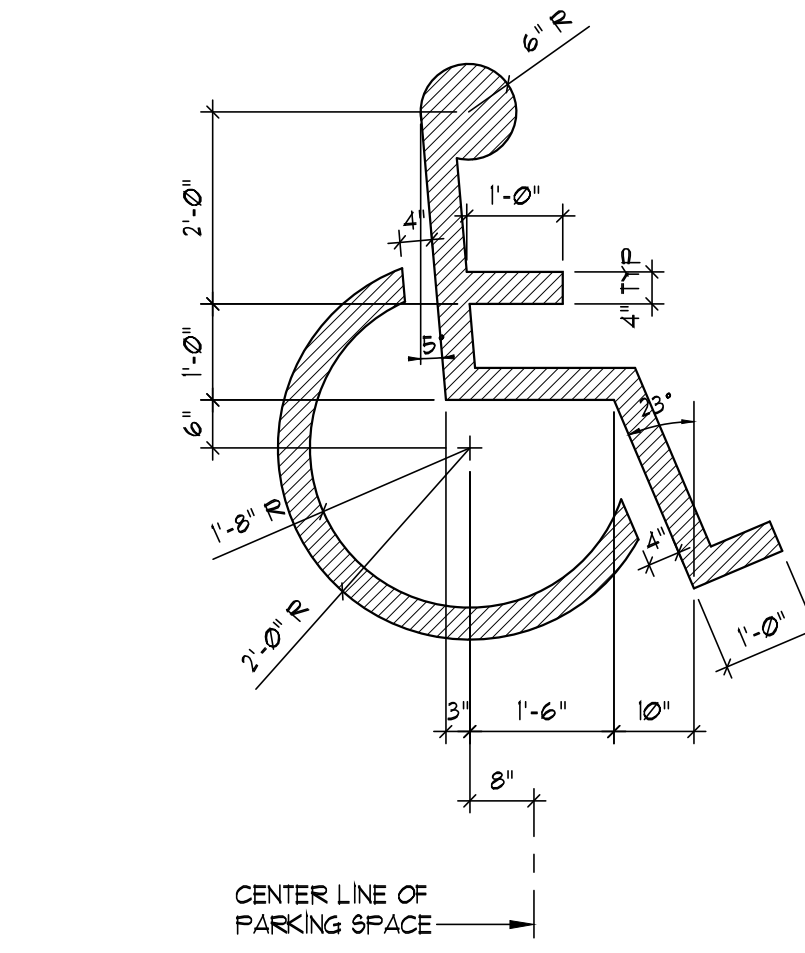
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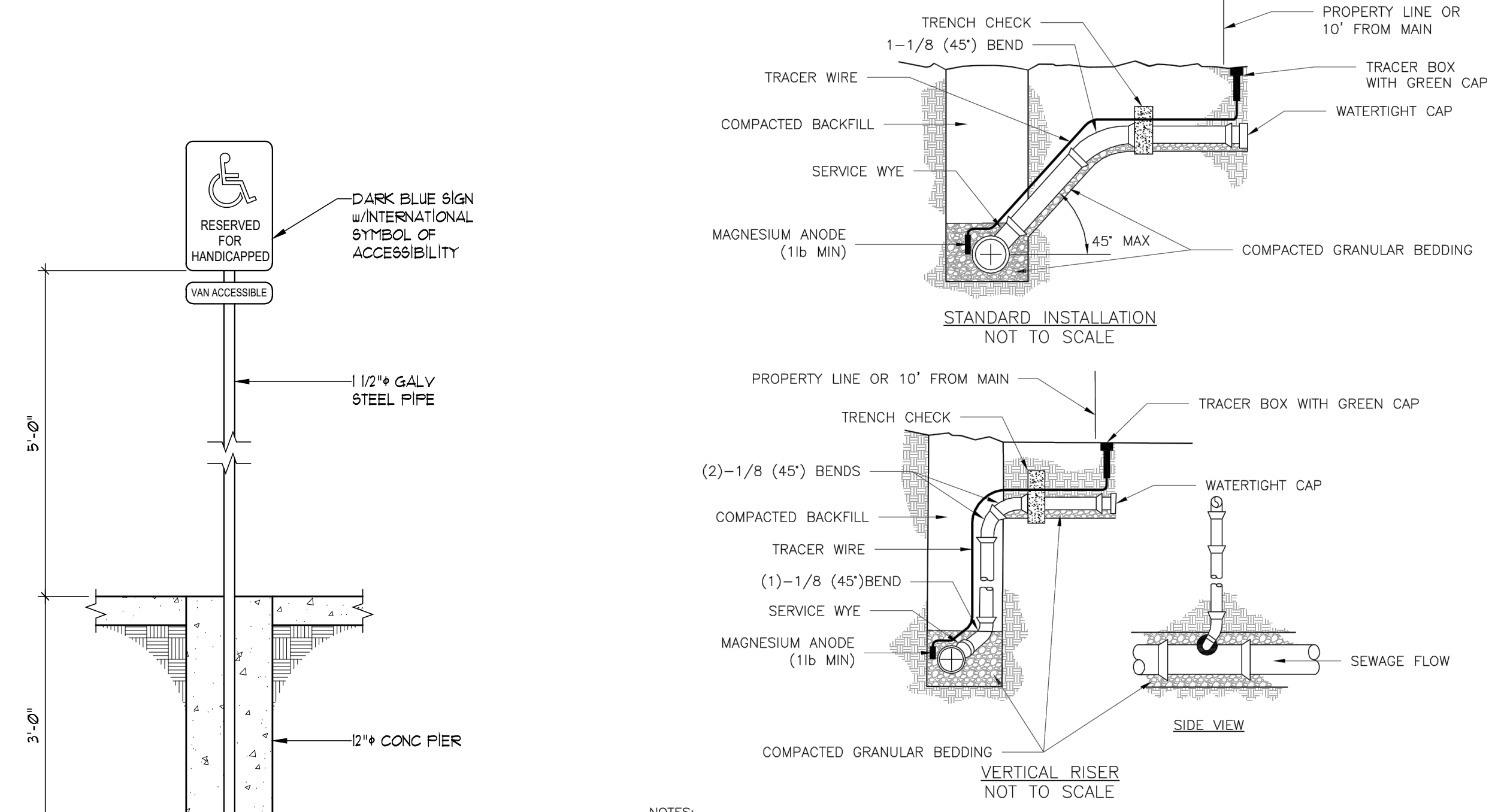
RECORD DESCRIPTION
ALL OF LOT 5A, POLK ADDITION, LOT 5A AND 5B, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI EXCEPT THAT PART DESCRIBED AS FOLLOWS: ALL THAT PART 5A, POLK ADDITION, LOT 5A AND 5B, DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 5A THENCE SOUTH 90 DEGREES 0 MINUTES 0 SECONDS WEST ALONG THE SOUTH LINE OF SAID LOT 5A A DISTANCE OF 26.09 FEET; THENCE NORTH 0 DEGREES 0 MINUTES 0 SECONDS EAST CONTINUING ALONG THE LOT LINE OF SAID LOT 5A A DISTANCE OF 10 FEET; THENCE NORTH 0 DEGREES 0 MINUTES 0 SECONDS EAST, A DISTANCE OF 26.09 FEET TO A POINT OF THE LOT LINE BETWEEN LOT 5A AND LOT 5B OF SAID SUBDIVISION; THENCE SOUTH 0 DEGREES 0 MINUTES 0 SECONDS WEST ALONG THE LOT LINE OF SAID 5A AND 5B, A DISTANCE OF 10 FEET TO THE POINT OF BEGINNING.

SITE INFORMATION	
EXISTING BUILDING	6710 SQ
FT PARKING REQUIRED	60
PARKING PROVIDED	61
HANDICAPPED PARKING	3

SITE PLAN
SCALE: 1"=30'-0"

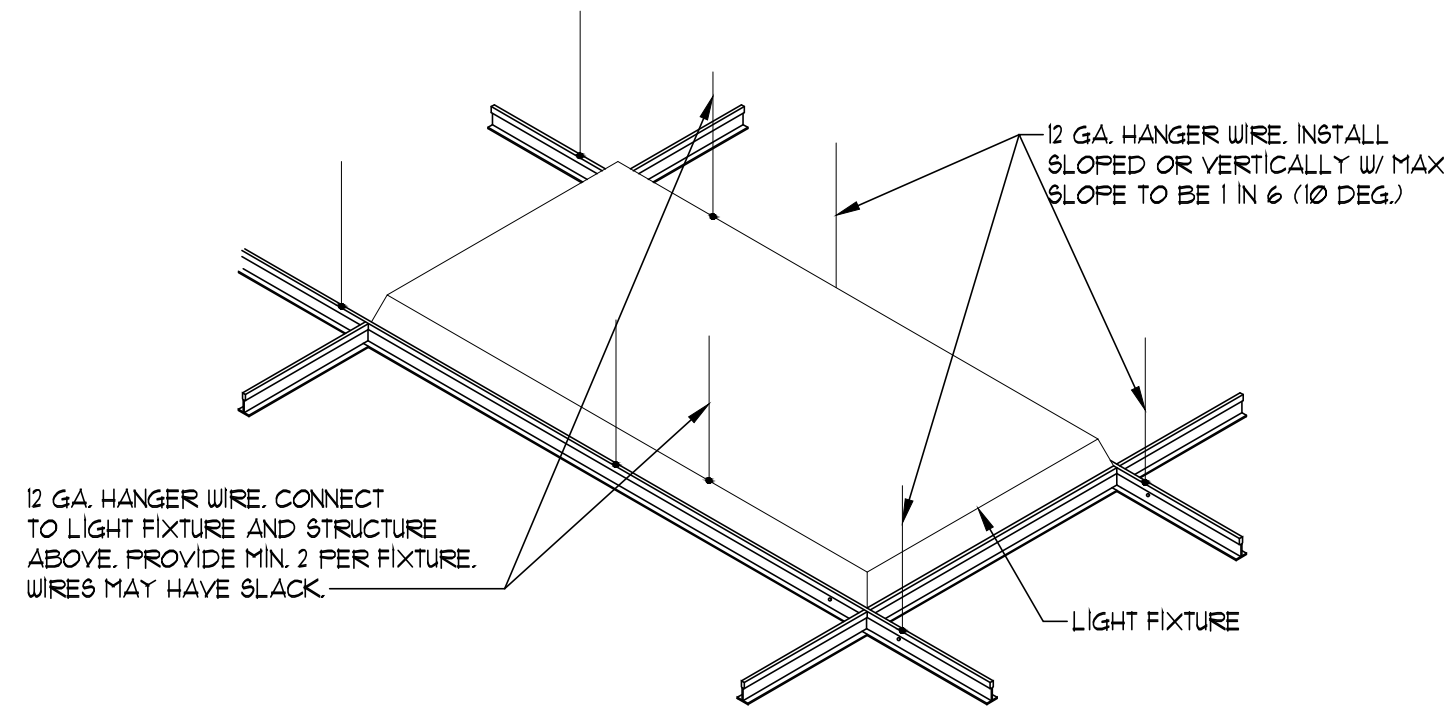
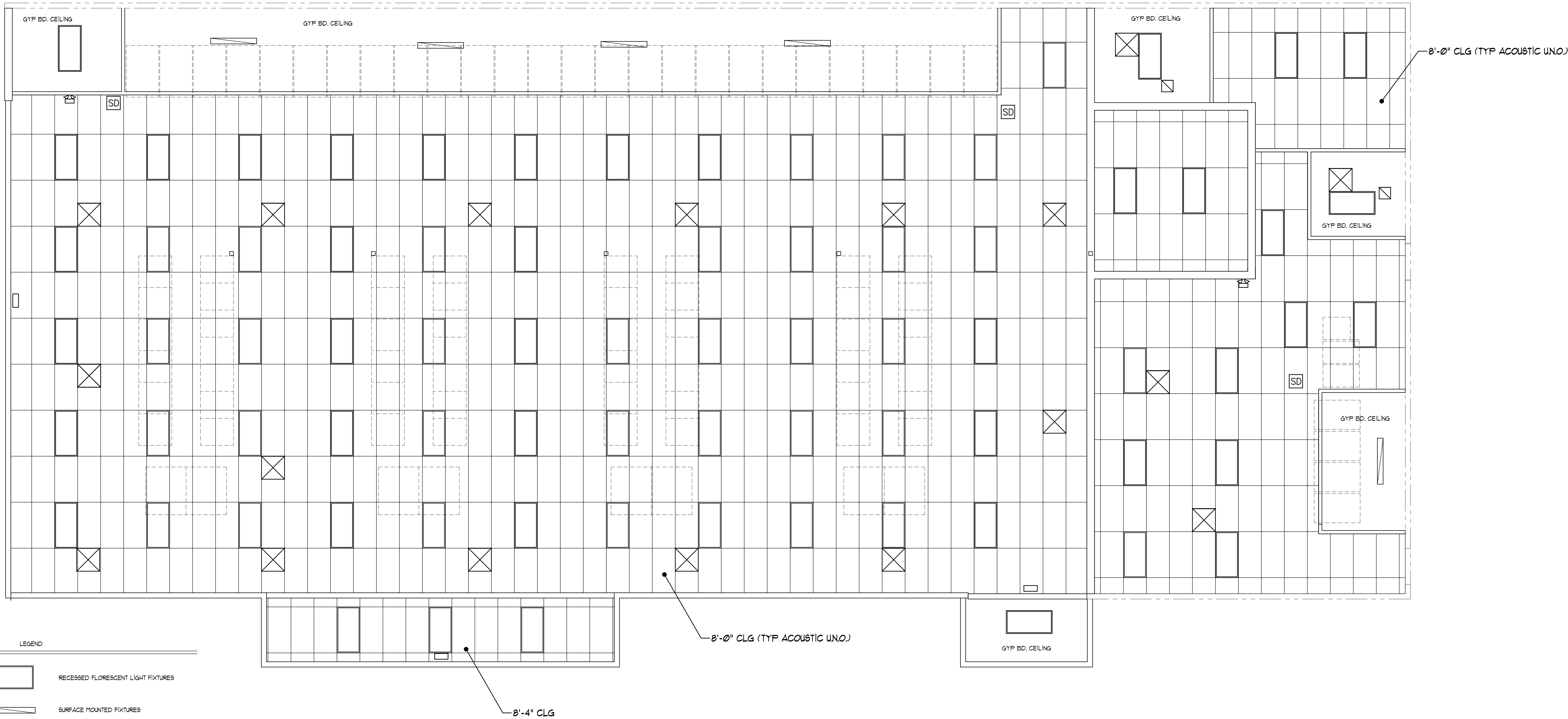


ACCESSIBLE PARKING SPACE SYMBOL
SCALE: 1/2"=1'-0"

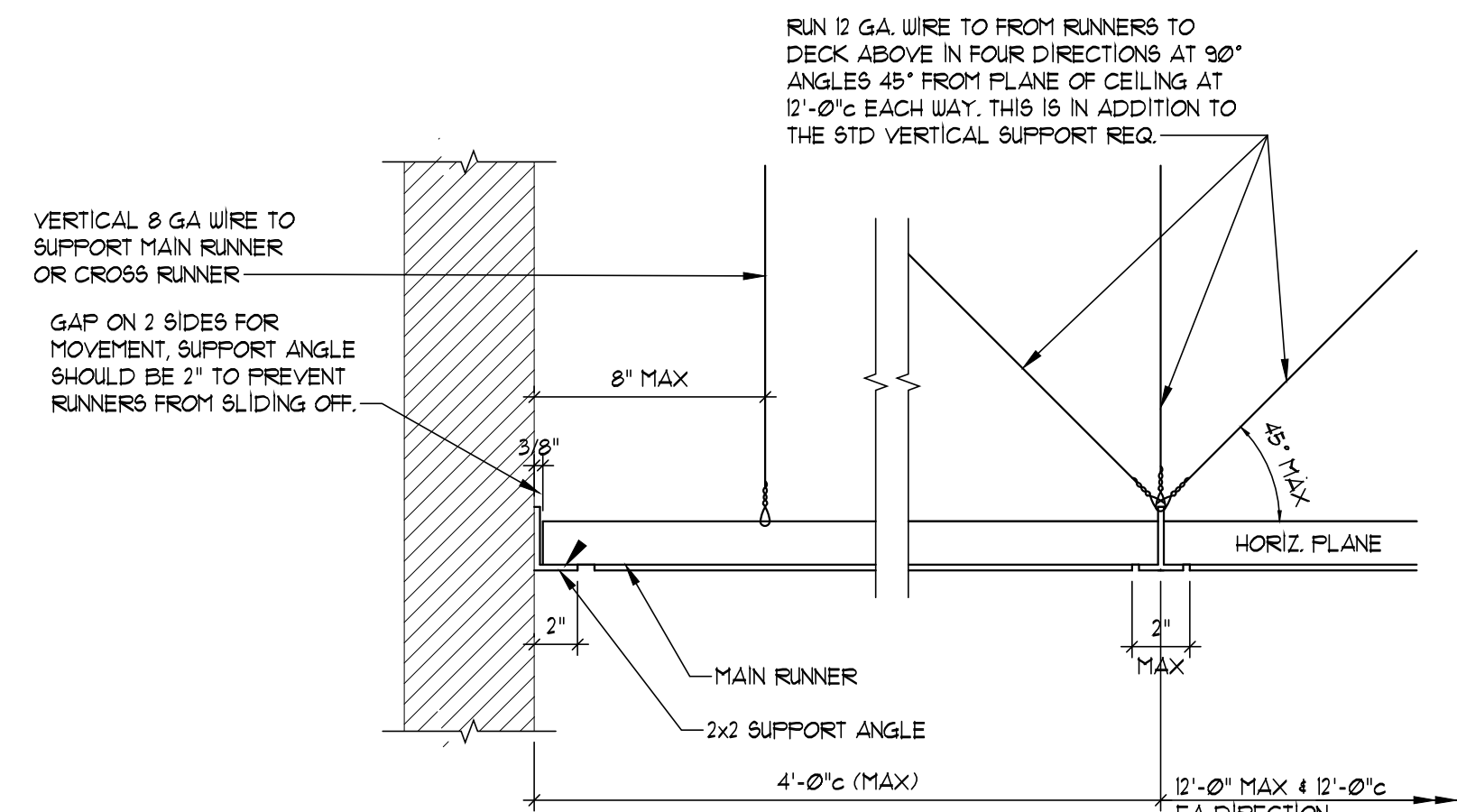


- NOTES:**
- ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
 - ALL NEW CONSTRUCTION OFF SEWER STUBS SHALL BE TEMPORARILY MARKED WITH A MARKING STAKE, 36\"/>
 - IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
 - TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6\"/>
 - THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
 - SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
 - #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
 - FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
 - TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1'-0\"/>
 - THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

ACCESSIBLE PARKING SIGNAGE
SCALE: 3/4"=1'-0"



LIGHT FIXTURE SUPPORT
SCALE: 3/4" = 1'-0"



SUSPENDED CEILING SUPPORT
SCALE: 1 1/2" = 1'-0"

- NOTES:
1. LIGHT FIXTURES ARE TO BE INDEPENDENTLY SUPPORTED AT 6 LOCATIONS
 2. FASTEN CROSS RUNNERS TO MAIN RUNNERS TO PREVENT CROSS TEES FROM PULLING OR TWISTING OUT OF MAIN RUNNERS.
 3. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM E-580



ISSUE DATE:	3/12/2021
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REVISIONS:	
CITY COMMENTS	3/12/2021

JOB NO:	3532-2001
DRAWN BY:	JWH
DESIGNED BY:	CHS

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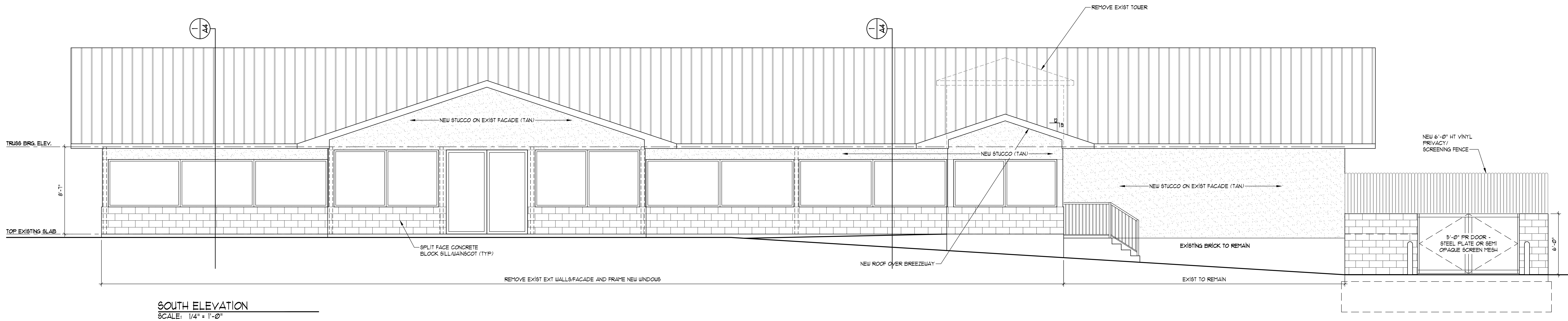
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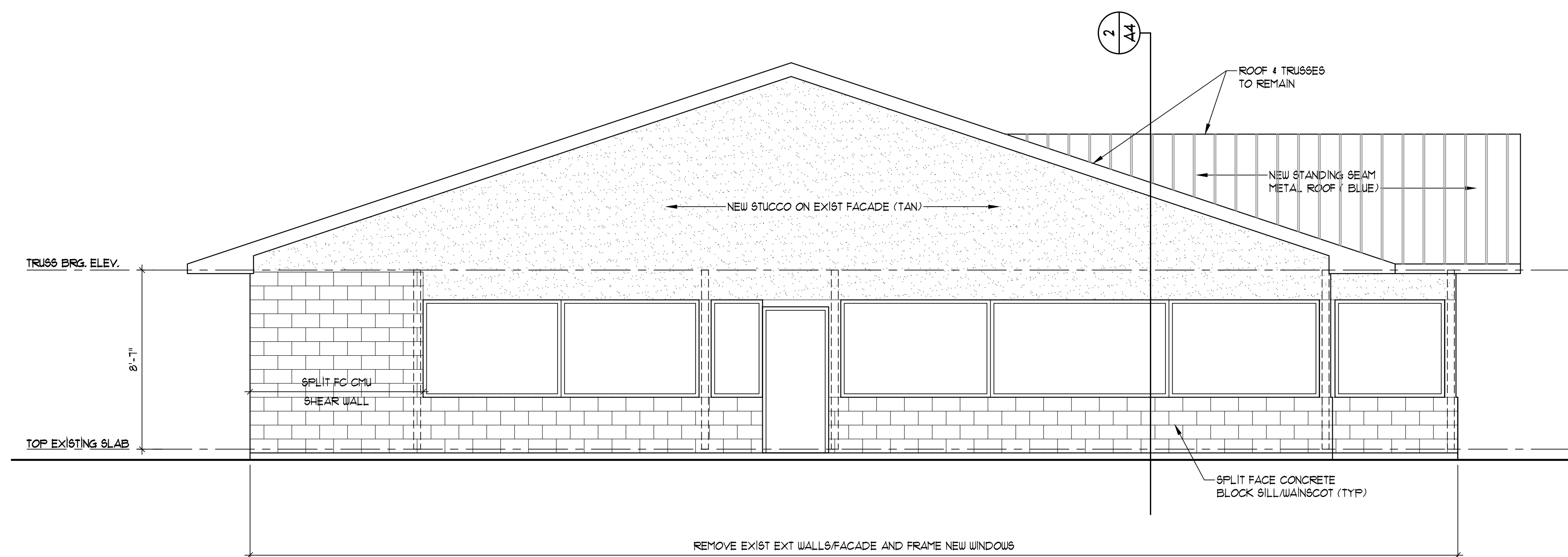
ELEVATIONS FOR:
WASH HOUSE LAUNDRY - LEE'S SUMMIT
TILE 29 LUTY
LEE'S SUMMIT MO 64063

SHEET NO:

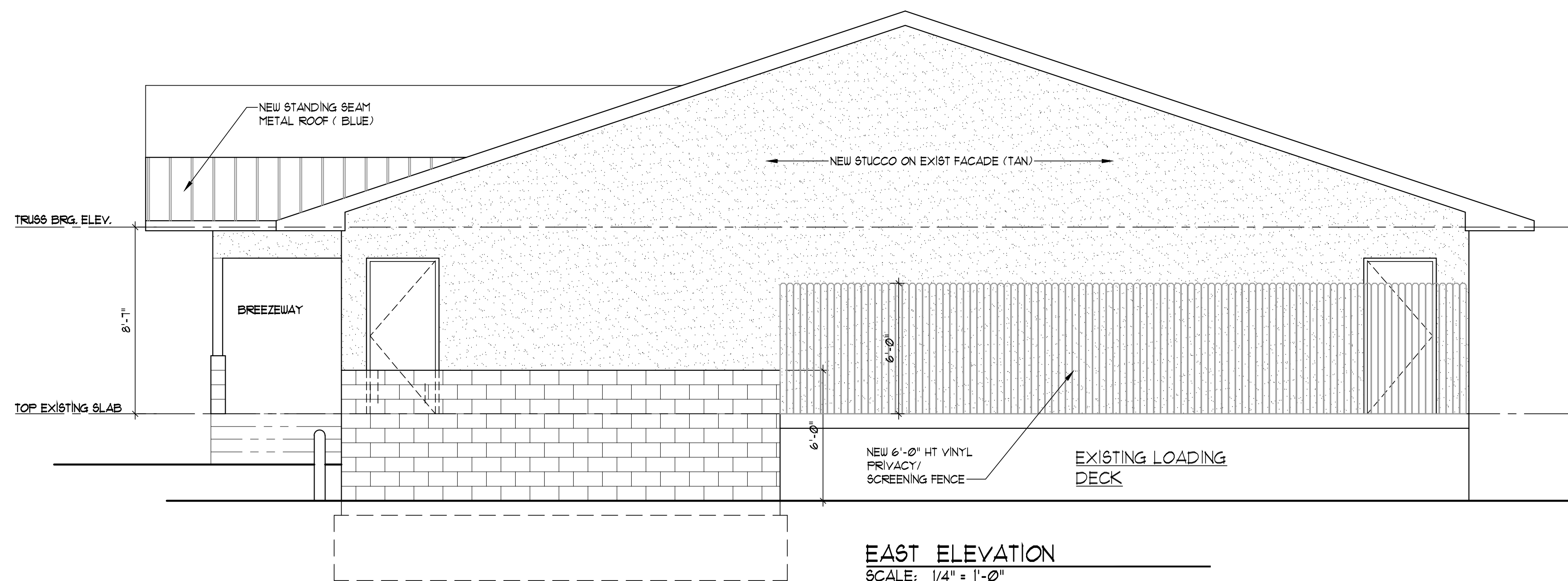
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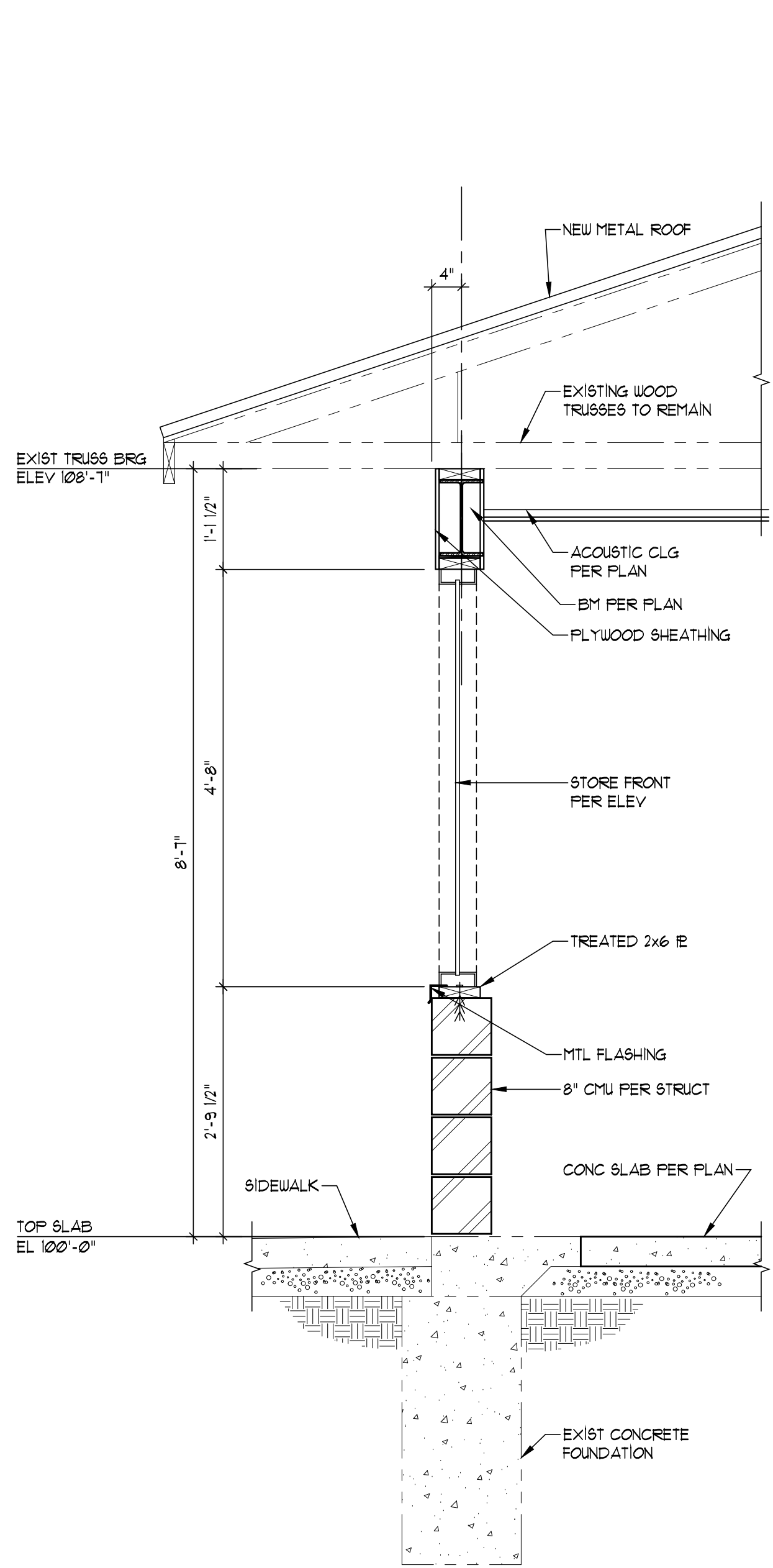
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



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

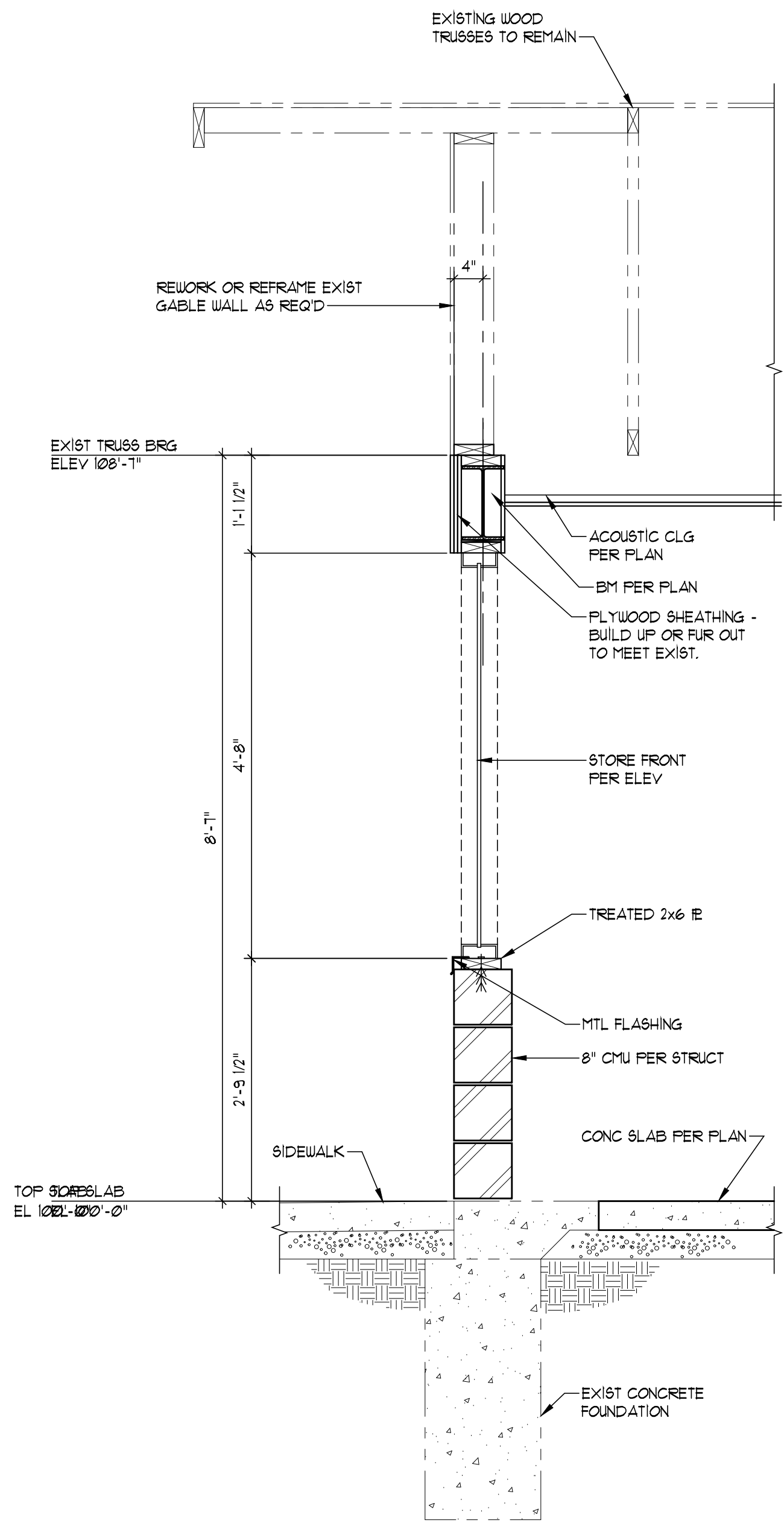


EAST ELEVATION
SCALE: 1/4" = 1'-0"



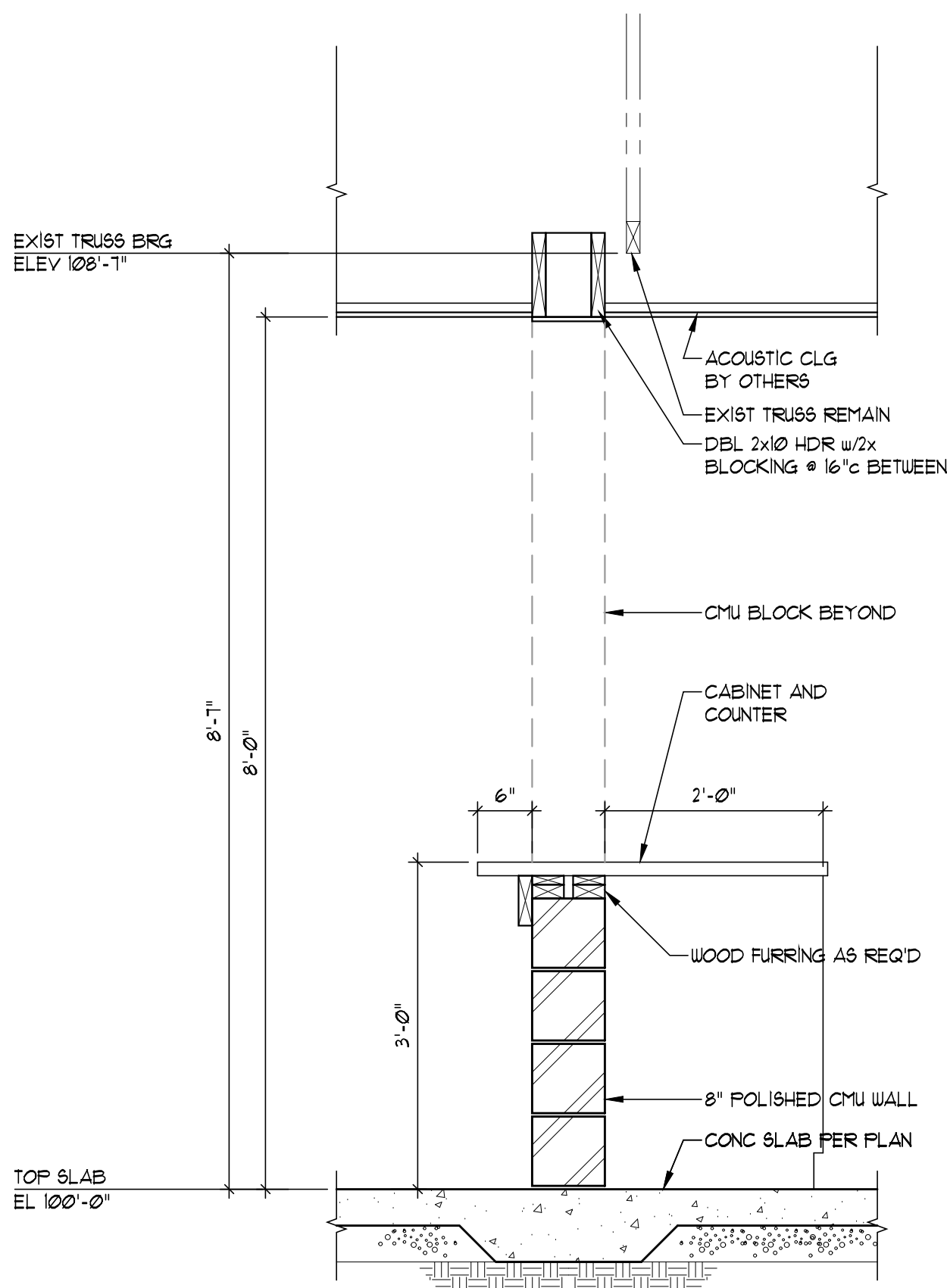
TYP. SOUTH WALL SECTION
SCALE: 1/4" = 1'-0"

1
A4



TYP. WEST WALL SECTION
SCALE: 1/4" = 1'-0"

2
A4



SECTION THRU OFFICE
SCALE: 1/4" = 1'-0"

3
A4



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JOB NO:	3532-2001
DRAWN BY:	JUH
DESIGNED BY:	CHS

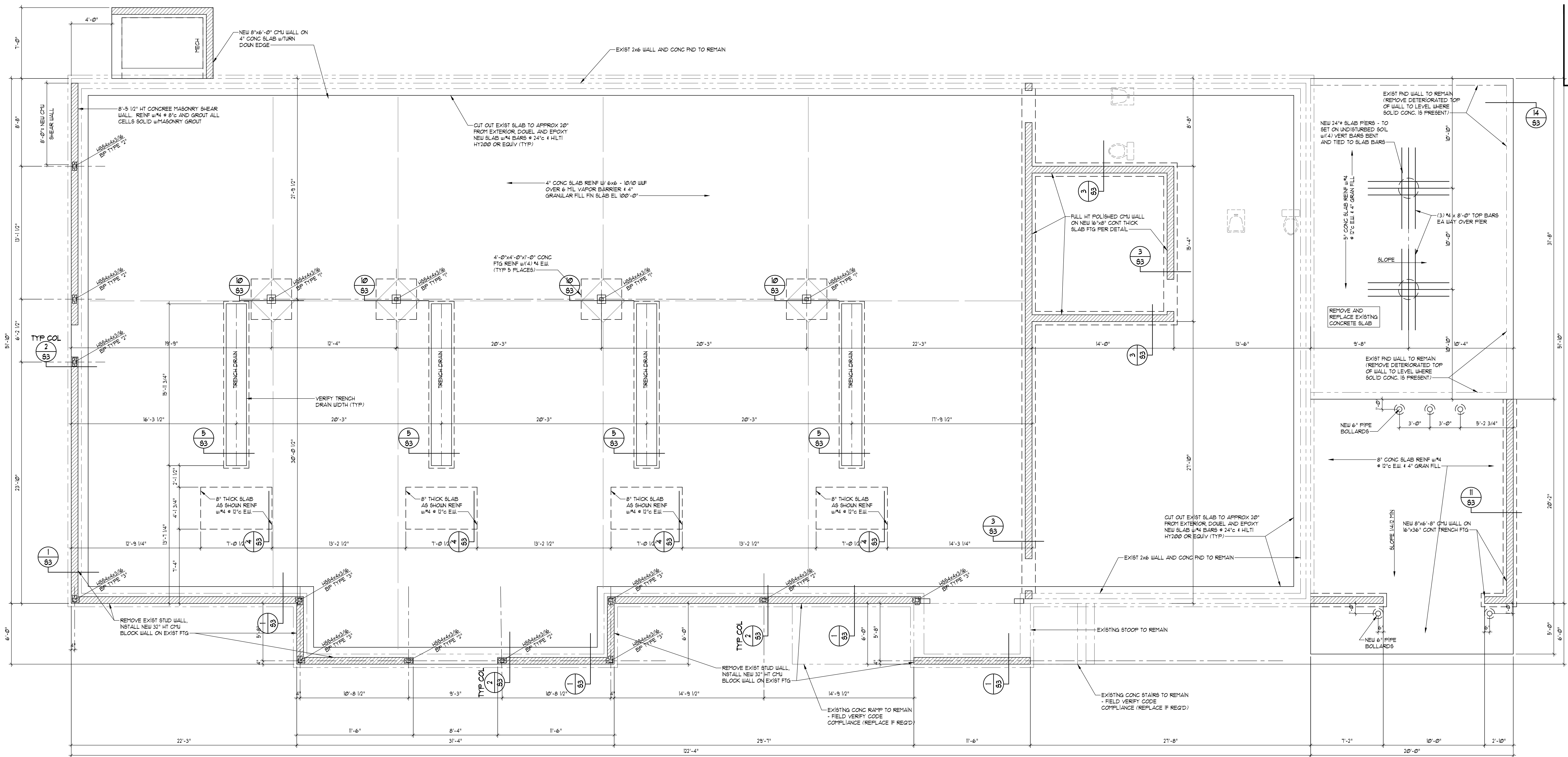
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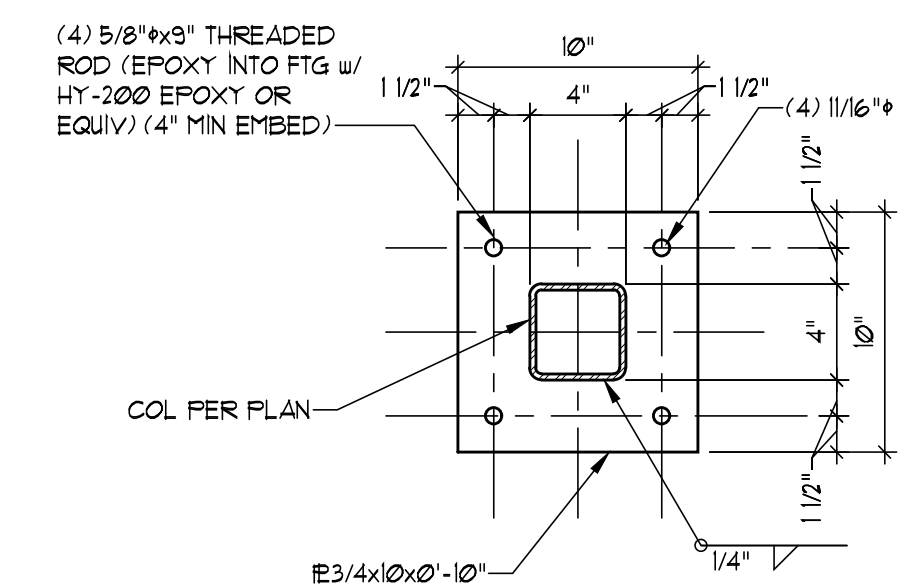
WASH HOUSE LAUNDRY - LEE'S SUMMIT
TUES 29 JULY
LEE'S SUMMIT MO 64063

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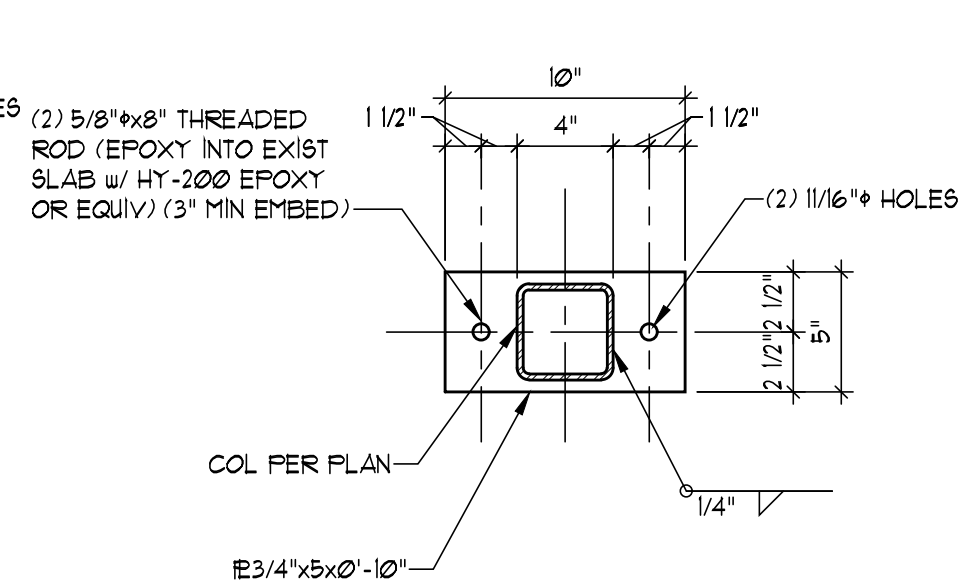
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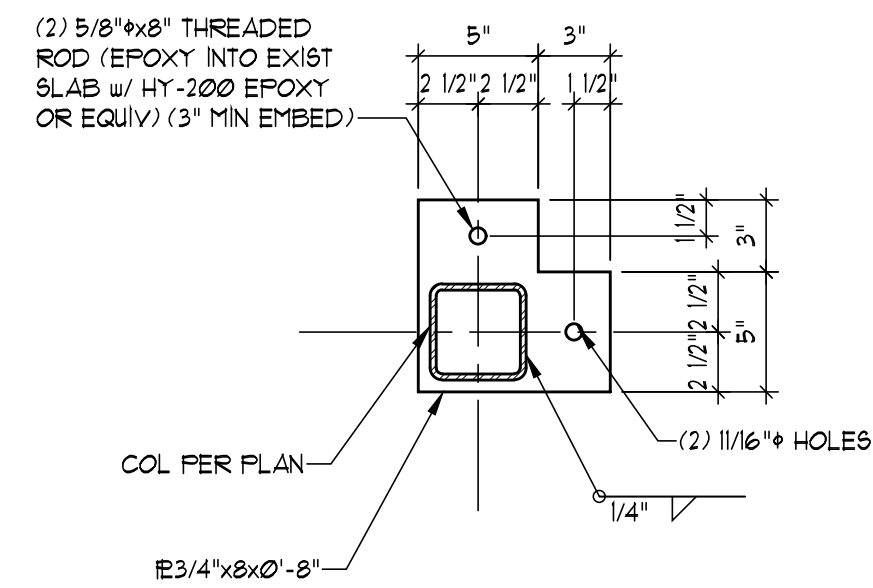
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



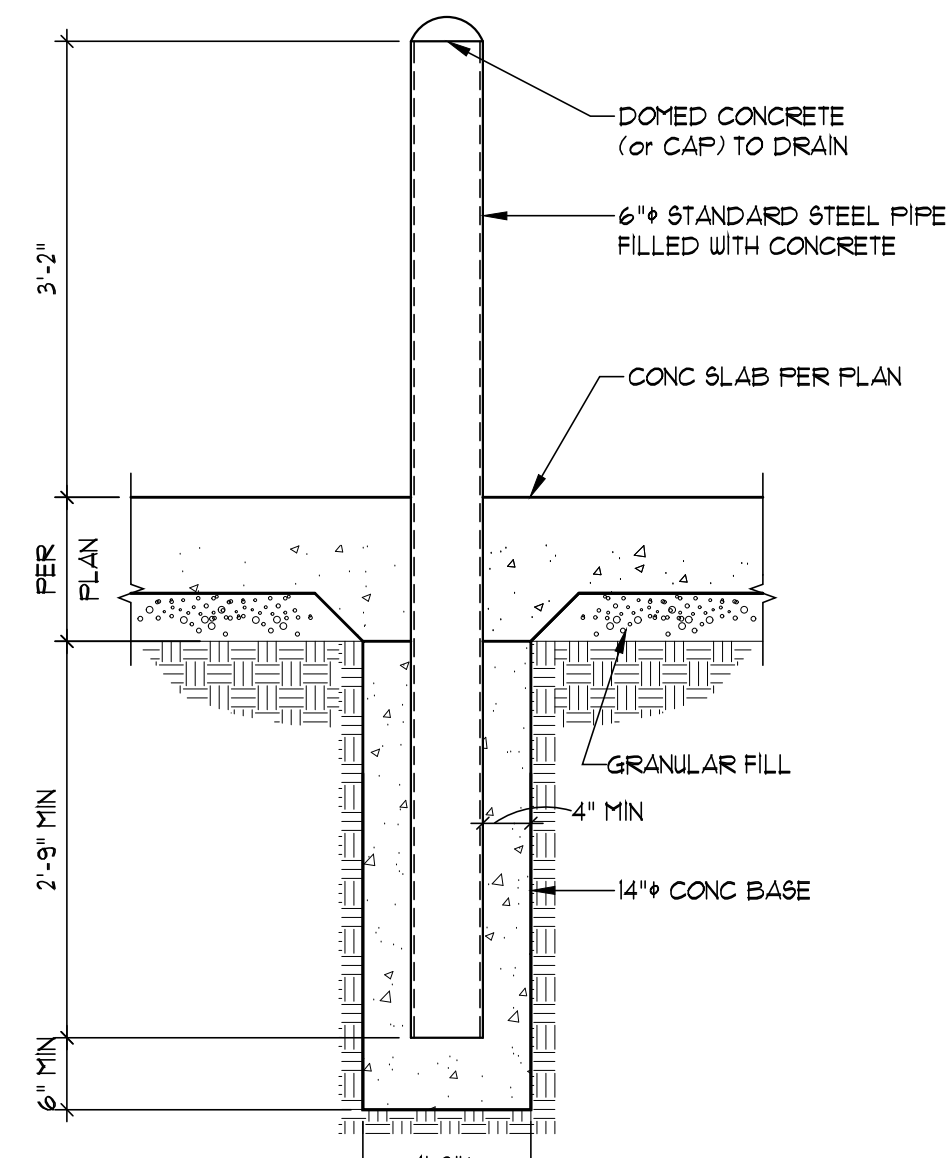
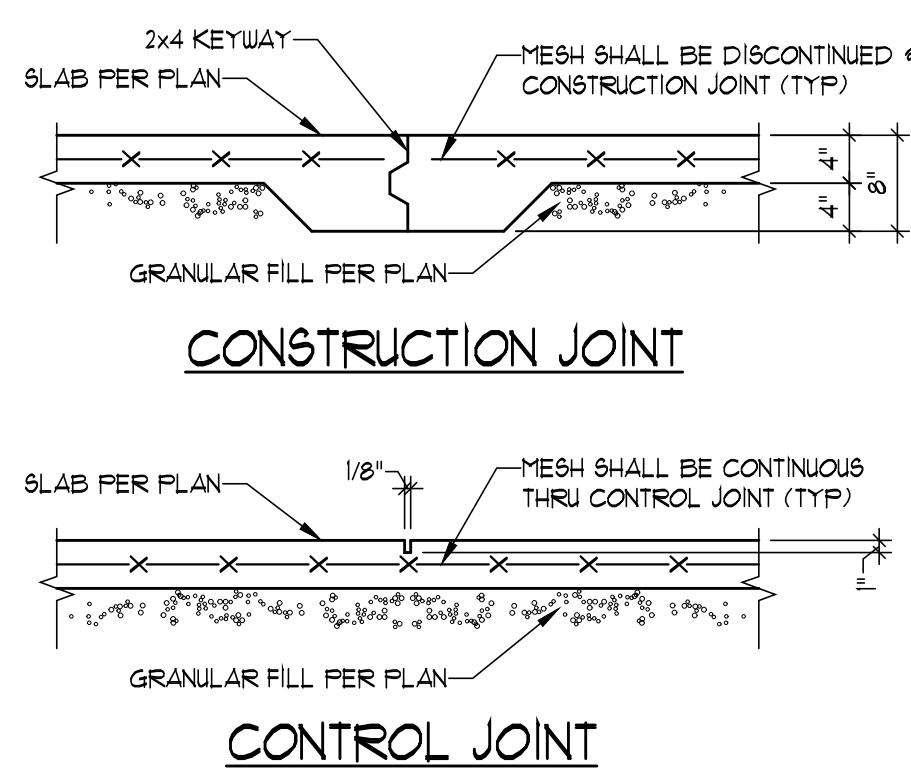
BASE PLATE TYPE #1
SCALE: 1 1/2" = 1'-0"



BASE PLATE TYPE #2
SCALE: 1 1/2" = 1'-0"



BASE PLATE TYPE #3
SCALE: 1 1/2" = 1'-0"



TYPICAL 6" PIPE BOLLARD
SCALE: 3/4" = 1'-0"

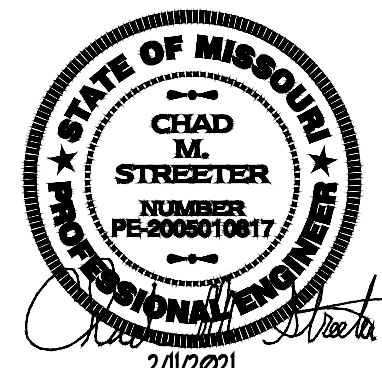
STATE OF MISSOURI
CHAD STREETER
PLANNING
ENGINEERING
3/12/2021

ISSUE DATE: 3/12/2021
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REVISIONS: 3/12/2021
CITY COMMENTS: 3/12/2021
JOB NO: 3532-2001
DRAIN BY: JWH
DESIGNED BY: CM16
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FOUNDATION PLAN FOR:
WASH HOUSE LAUNDRY - LEE'S SUMMIT
TII SEE 291.407.
LEE'S SUMMIT MO 64063

SHEET NO:
S1

PROJECT: 3532-2001 Wash House - Lee's Summit/Sheets/S1.dwg
PLOT: 3/12/2021



ISSUE DATE:	2/1/2021
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REVISIONS:	
JOB NO:	3532-2001
DRAIN BY:	JUH
DESIGNED BY:	CM6



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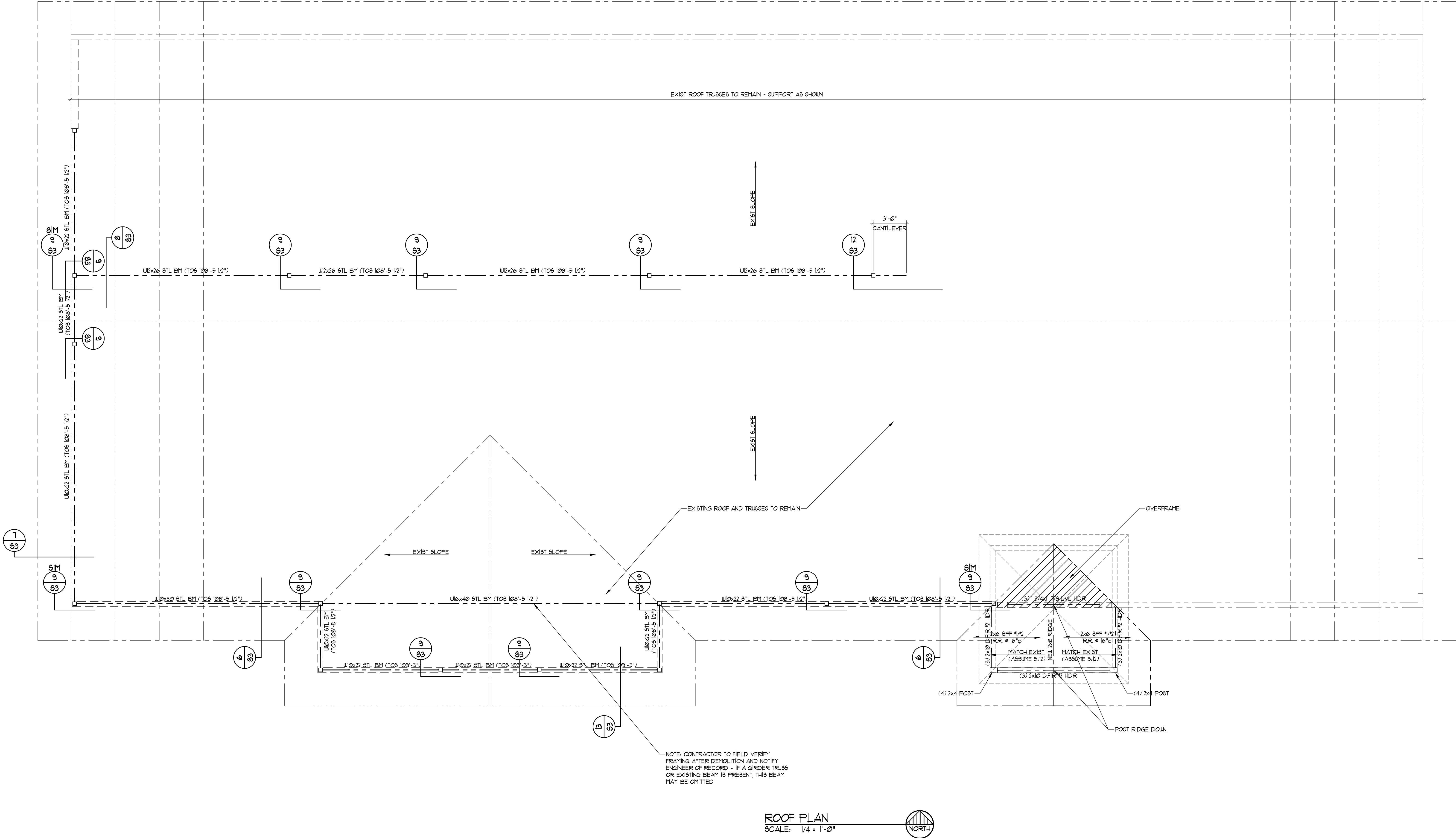
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C:\Projects\3532-2001-Wash House - Lee's Summit\Sheets\S2.dwg Plotted: 2/11/2021

ROOF PLAN FOR:
WASH HOUSE LAUNDRY - LEE'S SUMMIT
TII SE 291 44JT.
LEE'S SUMMIT MO.64063

SHEET NO:

S2





ISSUE DATE:
PERMIT 2/1/2021
REVISIONS:

JOB NO: 3532-2001
DRAIN BY: JUN
DESIGNED BY: CHS

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PROJECT: 3532-2001 Wash House - Lee's Summit/Sheets 63.dwg Plot Date: 2/1/2021

STRUCTURAL GENERAL NOTES

DIVISION 1 - GENERAL REQUIREMENTS

- Design and construction work for this project shall conform to the requirements of the 2018 International Building Code as amended by the City of Lee's Summit, MO.
- Furnish all labor, materials and equipment necessary to complete the work as shown or inferred by the drawings.
- Design Loads:
 - Floor Live Load:
 - General Office (Live Loads) 50 PSF
 - Light Storage (Live Loads) 125 PSF
 - Roof Live Load 20 PSF
 - Roof Snow Load:
 - Ground Snow Load, p_g 15 PSF
 - Flat Roof Snow Load, p_f 20 PSF
 - Snow Exposure Factor, C_e 1.0
 - Snow Load Importance Factor, I_s 1.0
 - Thermal Factor, C_t 1.0
 - Wind Load:
 - Basic Wind Speed (V ult) 115 MPH
 - Risk Category Exposure C
 - Internal Pressure Coefficient ± 0.18
 - Earthquake Design Data:
 - Seismic Use Group I
 - Seismic Importance Factor, I_E 1.0
 - Mapped Spectral Response Acc. S_s 0.14
 - Site Class E
 - Spectral Response Coefficients, S_{DS} 0.23
 - Seismic Design Category C
 - Basic Seismic Force Resisting System Ordinary Reinforced Concrete Shear Walls
 - Response Modification Factor, R 4.5
 - Seismic Modification Factor, C_s 0.051
- The contractor shall examine actual job conditions and be responsible for verifying all dimensions and elevations shown on structural plans with those shown on architectural and mechanical drawings. If errors, omissions or discrepancies are found they shall be reported to the architect before proceeding with the work.
- Plans indicate size, location and general arrangement of construction. Dimensions lacking or not drawn to scale shall not be scaled but referred to the architect for interpretation.
- Reference architectural and mechanical drawings for items not shown herein and to verify size and location of all openings.

DIVISION 2 - EARTHWORK

- The contractor shall employ the services of a geotechnical engineer to observe, test and approve all excavation, fill and backfill work and to determine that subgrade conditions are compatible with those used in the design.
- The minimum soil bearing capacity is 1500 PSF in accordance with Table 1804.2 of the International Building Code.
- All findings are designed to bear on natural undisturbed soil or controlled fill capable of adequately sustaining a maximum bearing pressure of 1500 PSF. If suitable bearing capacity is not encountered at the elevation indicated on the drawings, contractor shall notify the architect immediately.
- All exposed, organic material and existing structures shall be removed from building area and from areas to be paved. Stockpile all topsoil for reuse.
- Controlled Fill Materials:
 - Granular Fill - Granular fill shall consist of washed, evenly graded mixture of crushed stone, or crushed or uncushed gravel, with 100 percent passing a 1 1/2 inch sieve and not more than 5 percent passing a no. 4 sieve.
 - Shrinkage-Swell controlled fill - Shrinkage-swell controlled fill shall consist of material having a relatively low plasticity with a liquid limit of less than 45 percent and a plasticity index of less than 21 percent.
 - Controlled Fill - Controlled fill shall be either granular or shrinkage-swell controlled fill as specified above and as approved by the geotechnical engineer.
- Controlled Fill and Backfill Compaction:
 - Overexcavate building area a minimum of 18 inches below slab subgrade elevation and replace with shrinkage-swell controlled fill.
 - Scarify upper 9 inches of subgrade, moisture condition and compact as specified for controlled fill.
 - Prothol site to identify soft or disturbed areas. Any areas found to be unsuitable for support of footings and/or slab-on-grade shall be undercut and replaced with controlled fill. Undercut excavation to suitable bearing material widening excavation in all directions a minimum of 9 inches for each additional foot of overexcavation.
- Backfill directly under slabs-on-grade with minimum of 4 inches of granular fill.
- Prothol site to identify soft or disturbed areas. Any areas found to be unsuitable for support of footings and/or slab-on-grade shall be undercut and replaced with controlled fill. Undercut excavation to suitable bearing material widening excavation in all directions a minimum of 9 inches for each additional foot of overexcavation.
- Backfill directly under slabs-on-grade with minimum of 4 inches of granular fill consisting of washed, evenly graded mixture of crushed stone, or crushed or uncashed gravel, with 100 percent passing a 1 1/2 inch sieve and not more than 5 percent passing a no. 4 sieve.

- Controlled Fill and Backfill Compaction:
 - All controlled fill and backfill shall be placed in lifts having maximum loose lift thickness of 9 inches.
 - Granular Fill - Compact granular fill below footing bearing elevation to a minimum of 95 percent of material's maximum dry density as determined by ASTM D 698 and to a minimum of 95 percent for material founded above footing bearing elevation.
 - Shrinkage-swell controlled fill - Compact shrinkage-swell controlled fill below footing bearing elevation to minimum of 95 percent of the material's maximum dry density as determined by ASTM D 698 and to a minimum of 95 percent for material founded above footing bearing elevation.
 - Controlled Fill - Compact controlled fill at a moisture content within a range of 0 to 4 percent above optimum moisture content.
- All controlled fill and backfill shall be placed in lifts having maximum loose lift thickness of 9 inches, compact controlled fill to a minimum of 95 percent of the material's maximum dry density as determined by ASTM D 698 at a moisture content within a range of 0 to 4 percent above optimum moisture content.
- The geotechnical engineer shall observe, test and approve all excavation, fill and backfill work to determine that subgrade conditions are compatible with those used in the design.

DIVISION 3 - CONCRETE

- All concrete work shall conform to the requirements of ACI 318 "Building Code Requirements for Reinforced Concrete" and ACI 301 "Specification for Structural Concrete Buildings."
- Concrete materials shall comply with:
 - Cement - ASTM C 150 Type I
 - Aggregate - ASTM C 33, maximum aggregate size 3/4 inch
 - Water - Potable
 - Air-entraining admixture - ASTM C 260
 - Water-reducing admixture - ASTM C 494, including superplasticizers
 - Fly ash - ASTM C 618, Class C
- Concrete shall develop the following minimum 28 day design compressive strength (f'_c):
 - Type of Construction Compressive Strength(f'_c)
 - Footings, walls and slabs 3000 PSI
 - Exterior slabs and curbs (air-entrained concrete) 4000 PSI
 - Gout for masonry walls 2000 PSIand bond beams
- Concrete proportions shall be established on the basis of field experience and/or trial mixtures in accordance with ACI 318-88 Sections 5.2 and 5.3. When fly ash is utilized in the mix, mix shall contain a water-reducer. Fly ash shall be added at the rate of not more than 100 pounds per cubic yard and cement shall be reduced by not more than 15 percent by weight.
- Proportion and design mixes to result in concrete slump at point of placement of not more than 4 inches, except grout for masonry of not more than 6 inches.
- Use air-entraining admixture in exterior exposed concrete to result in concrete at point of placement having air content of 5 to 7 percent entrained air.
- Submit concrete mix proportions prior to start of work. Do not begin concrete production until mixes have been reviewed and are acceptable to the engineer.
- Sampling and testing for quality control during placement of concrete shall include the following, with all sampling and testing does not relieve contractor of responsibility of providing concrete in compliance with specifications.
 - Sampling - ASTM C 172
 - Slump - ASTM C 143, one test for each set of compressive strength test specimens.
 - Air content - ASTM C 173 or ASTM C 231, one test for each set of compressive strength test specimens.

- Compressive test specimens - ASTM C 31, one set of 4 cylinders for each 25 cubic yards or fraction thereof with a minimum of one set for each day's placement.
- Compressive strength test - ASTM C 39, test one specimen at 7 days and two specimens at 28 days and one specimen retained in reserve for later testing if required. Test results shall be reported in writing to architect, engineer, contractor and concrete producer on the same day test are made.
- Reinforcing Steel:
 - Reinforcing bars - ASTM A 615, grade 60, except ties and stirrups may be grade 40, deformed.
 - Welded wire fabric - ASTM A 185, lap at least one full mesh and lace splices with wire.
 - Supports for reinforcement - comply with CRSI recommendations.
 - Submit shop drawings for fabrication, bending and placement of concrete reinforcement. Comply with ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures".
- Concrete Work Execution:
 - Minimum concrete cover for reinforcement shall be, unless noted otherwise on the drawings:
 - Cast against and exposed to earth 3 inches
 - Exposed to earth or weather 2 inches
 - Not exposed to earth or weather 1 1/2 inches
 - All concrete is reinforced, reinforce concrete not otherwise indicated with same reinforcement as similar sections.
 - Protect concrete work from physical damage or reduced strength due to weather extremes:
 - In cold weather comply with ACI 306
 - In hot weather comply with ACI 305
 - In corners of grade beams and walls provide corner reinforcement. Lap two feet each direction in outside face, matching size and spacing of horizontal reinforcement.
 - At openings in walls, add one #5 bar (opening dimension plus 60 bar diameters) each face, each corner of opening.
 - Provide one #5 bar diagonally at each face of all steps in grade beams and foundation walls.
 - Provide construction joints in footings, grade beams and walls at not greater than 80 feet in any direction, key and dowel construction joints.
 - Provide control joints in slabs-on-grade at not greater than 20 feet on center in each direction. Saw cut control joints minimum 1/4 of slab depth, as soon after slab finishing as possible without disturbing aggregate.
- Coordinate concrete work with architectural and mechanical drawings for concrete finishes, recessed areas, embedded items and other conditions.

DIVISION 4 - MASONRY

- All masonry work shall conform to the requirements of NCMA "Design and Construction of Load Bearing Concrete Masonry" and Chapter 21 of the International Building Code.
- Masonry material shall comply with:
 - Concrete Block - ASTM C 90, Grade N, minimum compressive strength (f'_m) of 1350 PSI
 - Cement - ASTM C 150, type I, no masonry cement allowed.
 - lime - ASTM C 207, type S, hydrated lime
 - Masonry Mortar Aggregate - ASTM C 144
 - Masonry Grout Aggregate - ASTM C 404, maximum aggregate size 3/8 inch
 - Water - Potable
 - Mortar - ASTM C 270, proportions by volume:
 - Type M: one part cement, 1 1/2 part lime, 3 parts sand and water to produce a workable consistency.
 - Type S: one part cement, 1/3 part lime, 3 1/2 parts sand and water to produce a workable consistency.
 - Mortar - ASTM C 270, proportions by volume:
 - Type M: one part cement, 1 1/2 part lime, 3 parts sand and water to produce a workable consistency.
 - Type S: one part cement, 1/3 part lime, 3 1/2 parts sand and water to produce a workable consistency.
 - fine aggregate, 2 parts coarse aggregate and water to produce workable consistency, or concrete in compliance with Division 3.
- Keep masonry walls shored during construction until floor slabs and/or roof decks are in place to provide lateral stability.
- Grout solid all masonry units located below grade.
- Grout reinforced masonry in compliance with Chapter of the International Building Code and as follows:
 - Vertical cells to be filled shall have vertical alignment sufficient to maintain a clear, unobstructed continuous cell measuring not less than 2 inches by 3 inches.
 - All cells containing reinforcement shall be filled solidly with grout. Grout shall be consolidated by pumping or mechanical vibration during placement and reconsolidated after excess moisture has been absorbed but before workability is lost.
 - Where grout exceeds 4 feet in height, cleanouts shall be provided by suitable openings in the face shells in the bottom course of each cell to be grouted. The cleanout shall be sealed after cleanup, inspection, and before grouting.
 - When grouting is stopped for one hour or longer, horizontal construction joints shall be formed by stopping the pour of grout approximately 12 inch above or below a bed joint.
 - All reinforcement shall be placed prior to grouting. Vertical reinforcement shall be held in position at the top, bottom and at intervals not exceeding 192 bar diameters.

DIVISION 5 - STRUCTURAL STEEL

- All structural steel work shall conform to the requirements of AISC "Specifications for Design, Fabrication, and Erection of Structural Steel for Buildings"; AISC "Code of Standard Practice for Steel Buildings and Bridges"; AISC "Specifications for Structural Joints Using ASTM A 325 or A 490 Bolts"; AWS D1.1 "Structural Welding Code"; SJI "Standard Specification for Open Web Steel Joist, K-Series"; SDI "Specification for Steel Roof Deck"; and SDI "Specification for Non-Composite Form Deck".
- Structural steel material shall comply with:
 - Structural Steel - ASTM A992
 - Cold-formed Steel Tubing - ASTM A 500 Grade B
 - Anchor Rods - ASTM A 153, non-headed type unless otherwise noted.
 - High-strength Threaded Fasteners - ASTM A 325, heavy hexagon nuts, hardened washers.
- Steel Primer Paint - Fabricator's standard rust-inhibiting primer.
- Submit shop drawing, including complete details and schedule for fabrication and assembly. Indicate welds by standard AWS symbols, and show size, length, and type of each weld. Provide setting drawings, templates, and directions for installation.
- Fabricate and assemble structural assemblies in shop to greatest extent possible. Fabricate in accordance with AISC specifications.
- Provide minimum 3/4 inch round, ASTM A 325, friction type bolted connections, unless otherwise noted. Minimum number of bolts shall be as follows:

Beam Size	No. of Bolts
W10	2
WB	2
- Shop paint structural steel, except those surfaces which are to be welded or high-strength bolted with friction type connections. Apply a 1-coat, nonabrasive primer complying with SSPC-PS Guide 7.00, "Painting System Guide 7.00: Guide for Selecting One-Coat Shop Painting Systems," to provide a dry film thickness of not less than 1.5 mil (0.038 mm).
- Immediately after erection, clean field welds, bolted connections, and abraded areas and apply paint to exposed areas with same material as used for shop painting.

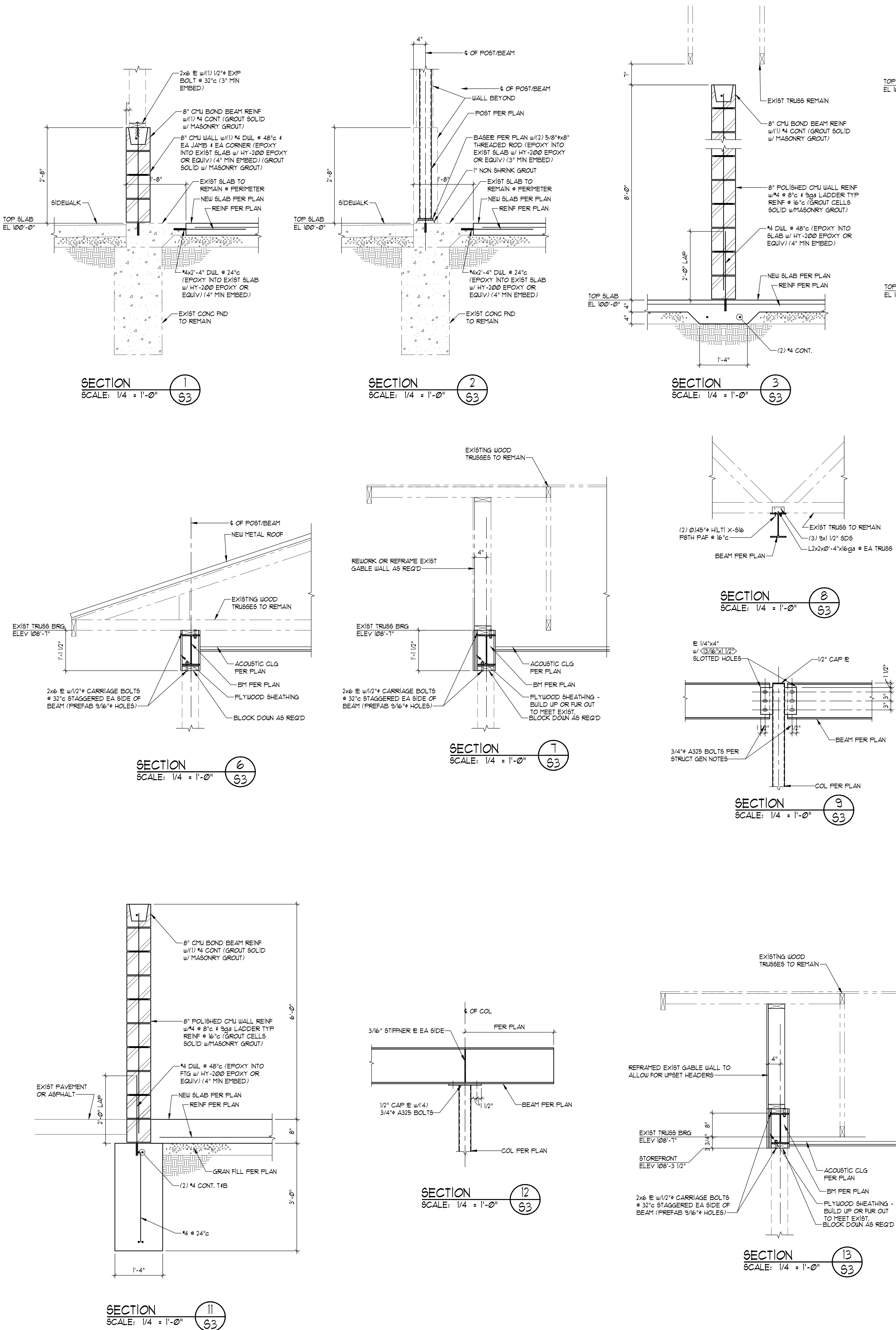
DIVISION 6 - ROUGH CARPENTRY

- All rough carpentry work shall conform to the requirements of NFPA "National Design Specification of Wood Construction"; TPI "Design Specifications for Light Metal Plate Connected Wood Trusses"; APA "Plywood Design Specifications"; DOC PS 1 "Product Standard for Construction and Industrial Plywood"; DOC PS 40 "Structural Glued Laminated Timber" and Chapter 23 of the International Building Code.
- Rough carpentry materials shall comply with:
 - Lumber - S4S, surface dry, grade marked, complying with PS 20; graded under WWPA or SPIB rules:
 - Studs: Stud Grade - Douglas Fir
 - Joist: No. 2 Douglas Fir
 - Header: No. 2 Douglas Fir
 - Rafter: No. 3 Douglas Fir
 - Plates: No. 3 Spruce-Pine-Fir
 - Blocking: No. 3 Spruce-Pine-Fir
 - Metal framing fasteners - ASTM A 153, hot-dip galvanized fasteners; equal to Simpson strong-tie connectors complying with IBCO No. 1258.
 - Plywood - APA rated sheathing and bridging, complying to PS 1.
 - LVL - Laminated veneer lumber shall be grade 2000 F-2 OE and shall meet the requirements of NER-442, NER-472 or ER-4321.
 - Gypsum Sheathing Board - ASTM C 79 and UBC Standard No. 47-10.
 - Gypsum Wallboard - ASTM C 36 and UBC Standard No. 47-11.
- Exterior wall sheathing shall be 1/2 inch APA Rated sheathing 240 exterior grade. Nail sheathing to support members with 8d common nails at 6 inches on center along edge supports and 12 inches on center along field supports. Provide solid blocking at all unsupported panel edges.
- Attach metal framing fasteners to framing members with minimum number and size of nails listed in IBCO Report No. 1258.

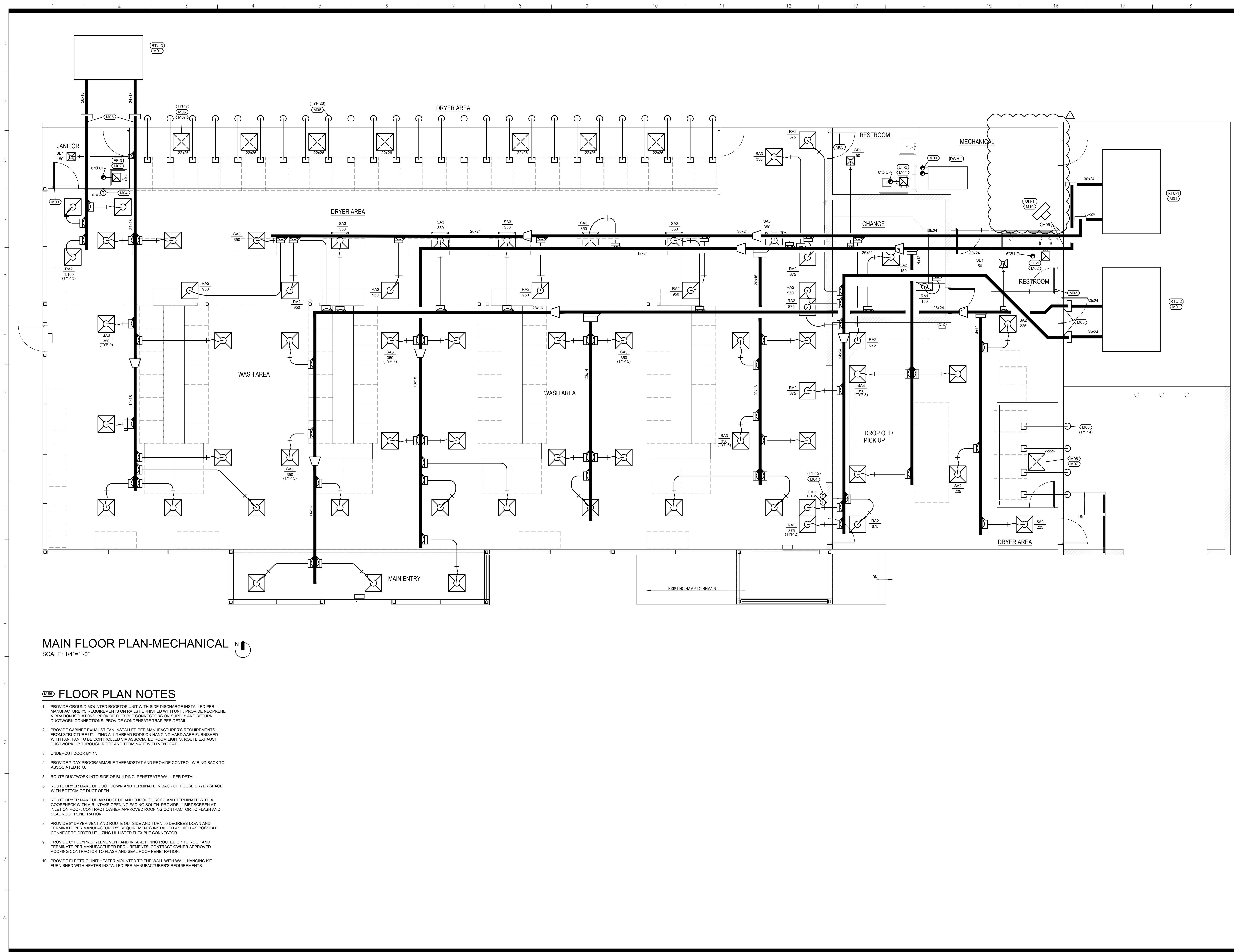
STRUCTURAL DETAILS FOR:
WASH HOUSE LAUNDRY - LEE'S SUMMIT
TUES 29 JUN
LEE'S SUMMIT 11064063

SHEET NO:

63



[illegible]



MAIN FLOOR PLAN-MECHANICAL
SCALE: 1/4"=1'-0"

FLOOR PLAN NOTES

1. PROVIDE GROUND MOUNTED ROOFTOP UNIT WITH SIDE DISCHARGE INSTALLED PER MANUFACTURER'S REQUIREMENTS ON RAILS FURNISHED WITH UNIT. PROVIDE NEOPRENE VIBRATION ISOLATORS. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK CONNECTIONS. PROVIDE CONDENSATE TRAP PER DETAIL.
2. PROVIDE CABINET EXHAUST FAN INSTALLED PER MANUFACTURER'S REQUIREMENTS FROM STRUCTURE UTILIZING ALL THREAD RODS ON HANGING HARDWARE FURNISHED WITH FAN. FAN TO BE CONTROLLED VIA ASSOCIATED ROOM LIGHTS. ROUTE EXHAUST DUCTWORK UP THROUGH ROOF AND TERMINATE WITH VENT CAP.
3. UNDERCUT DOOR BY 1".
4. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT AND PROVIDE CONTROL WIRING BACK TO ASSOCIATED RTU.
5. ROUTE DUCTWORK INTO SIDE OF BUILDING, PENETRATE WALL PER DETAIL.
6. ROUTE DRYER MAKE UP DUCT DOWN AND TERMINATE IN BACK OF HOUSE DRYER SPACE WITH BOTTOM OF DUCT OPEN.
7. ROUTE DRYER MAKE UP AIR DUCT UP AND THROUGH ROOF AND TERMINATE WITH A GOOSENECK WITH AIR INTAKE OPENING FACING SOUTH. PROVIDE 1" BIRDSCREEN AT INLET ON ROOF. CONTRACT OWNER APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ROOF PENETRATION.
8. PROVIDE 8" DRYER VENT AND ROUTE OUTSIDE AND TURN 90 DEGREES DOWN AND TERMINATE PER MANUFACTURER'S REQUIREMENTS INSTALLED AS HIGH AS POSSIBLE. CONNECT TO DRYER UTILIZING UL LISTED FLEXIBLE CONNECTOR.
9. PROVIDE 6" POLYPROPYLENE VENT AND INTAKE PIPING ROUTED UP TO ROOF AND TERMINATE PER MANUFACTURER REQUIREMENTS. CONTRACT OWNER APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ROOF PENETRATION.
10. PROVIDE ELECTRIC UNIT HEATER MOUNTED TO THE WALL WITH WALL HANGING KIT FURNISHED WITH HEATER INSTALLED PER MANUFACTURER'S REQUIREMENTS.

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Fender

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GREGORY Y. FENDER
NUMBER
PE-000037230
02/04/2021
PROFESSIONAL ENGINEER

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SHEET

WASH HOUSE LAUNDRY – LEE'S SUMMIT

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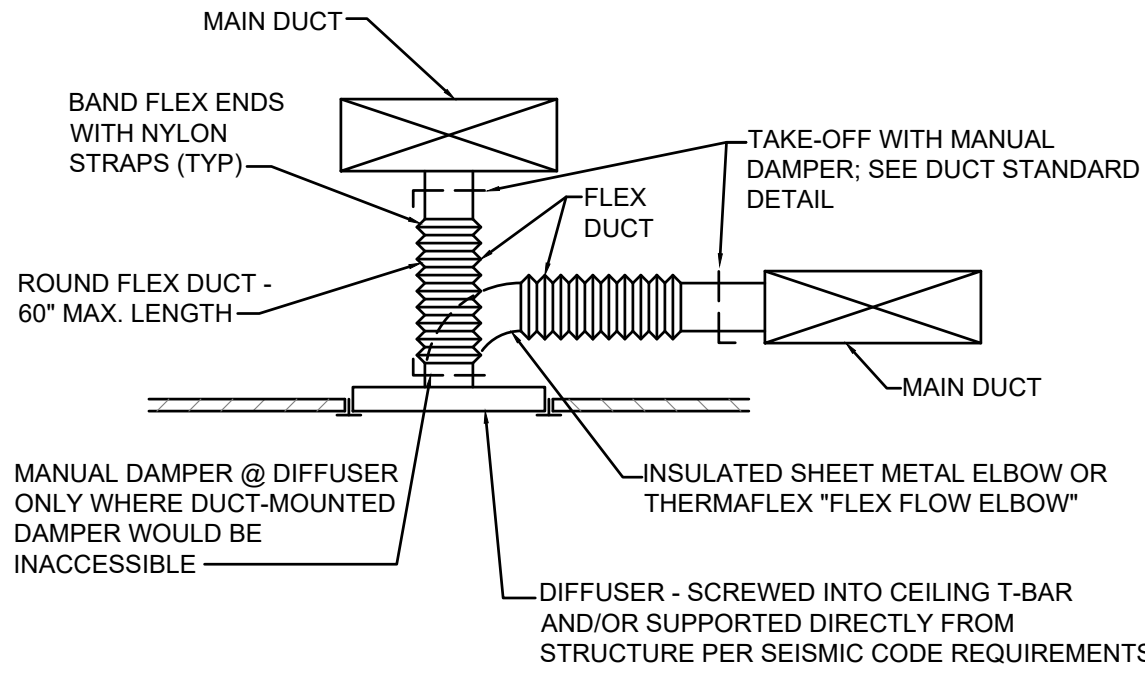
Project Number: 20.6606.00

Date	12/15/2020
Phase	Construction
Issued For	Permit
Drawn By	JSV
P.L.C.	BLH/GIF

Revision	ADDENDUM 1	FEBRUARY 04, 2021
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M1

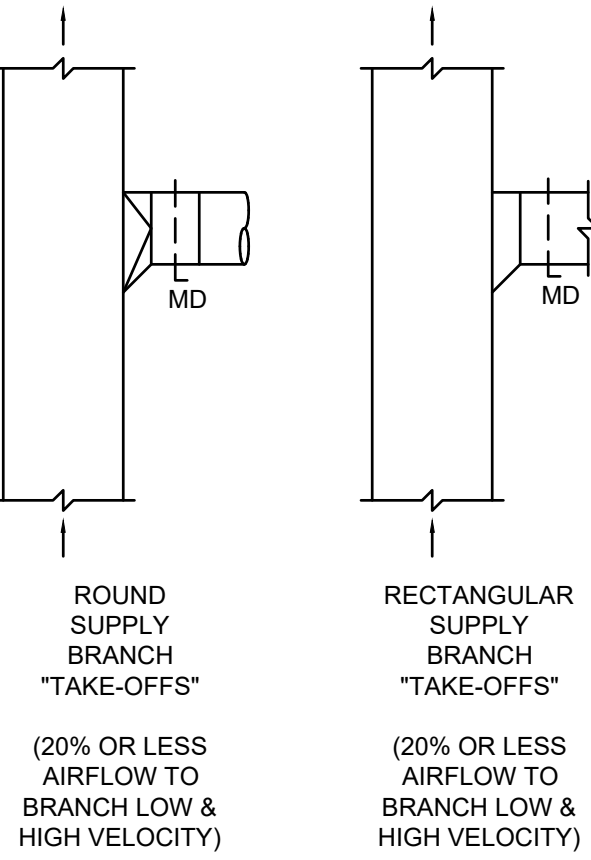
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NOTE: BRANCH DUCT RUNOUT TO DIFFUSER SHALL BE THE SAME SIZE AS THE DIFFUSER NECK UNLESS OTHERWISE INDICATED ON PLAN.

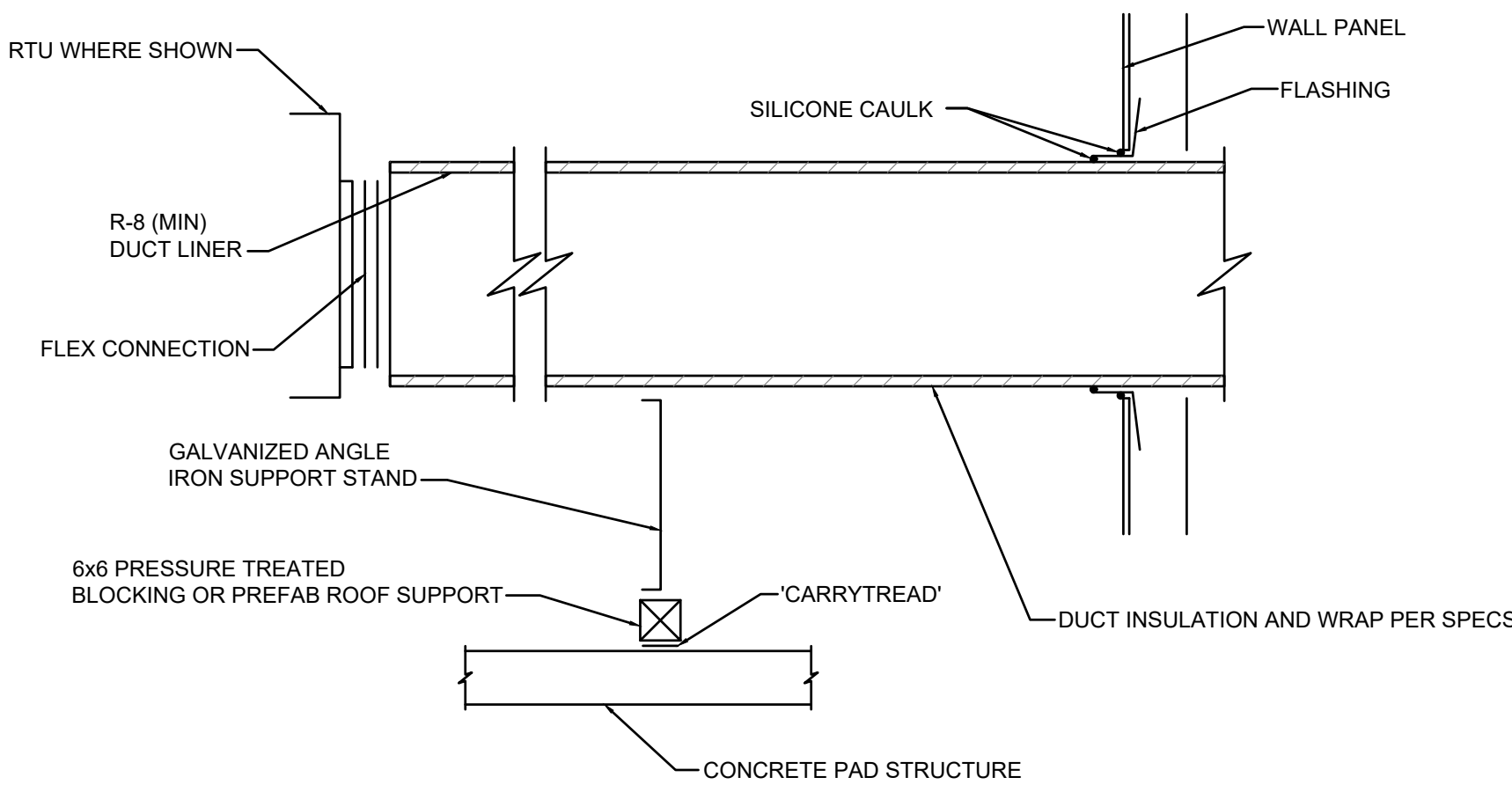
DIFFUSER DETAIL

NO SCALE



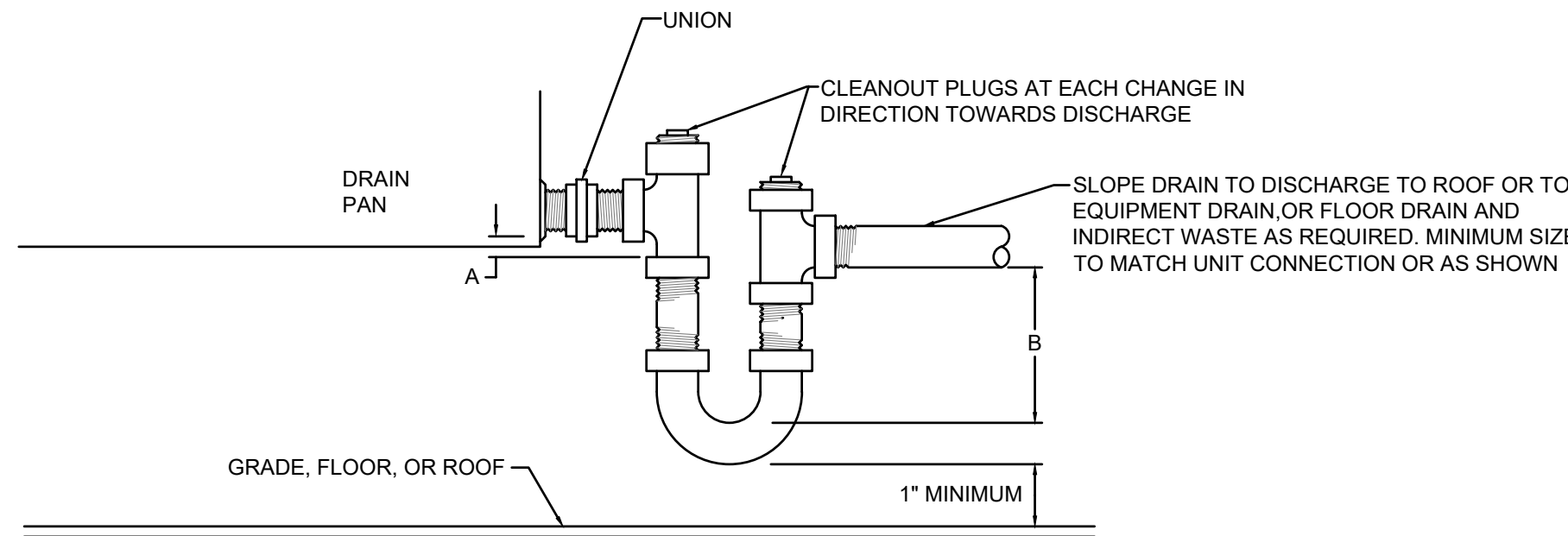
DUCT STANDARDS

NO SCALE



DUCT WALL PENETRATION DETAIL

NO SCALE



DIM. 'A'	DIM. 'A'	DIM. 'B'
BLOW THRU COIL	1"	FAN DISCHARGE STATIC PRESSURE + 1"
DRAW THRU COIL	FAN SUCTION STATIC PRESSURE + 1"	2-1/2"

NOTE: MINIMUM 'A' OR 'B' DIMENSION SHALL BE NOT LESS THAN 1".

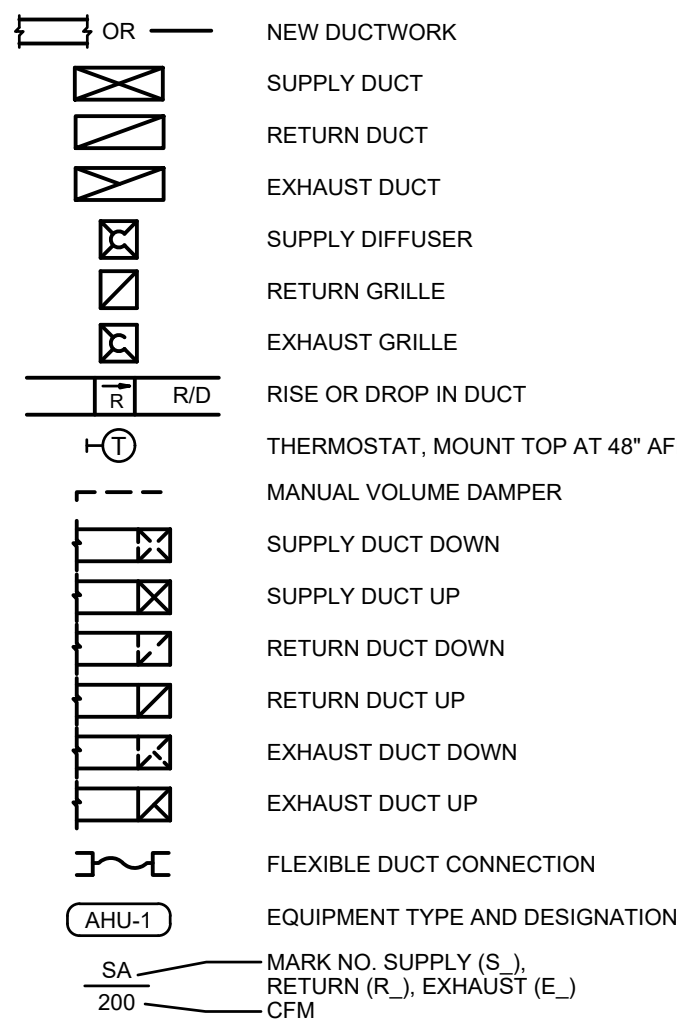
HVAC CONDENSATE TRAP DETAIL

NO SCALE

GENERAL NOTES (TYPICAL ALL SHEETS)

- MECHANICAL CONTRACTOR IS RESPONSIBLE TO SEE THAT WORK MEETS AND IS IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, AND LOCAL LAWS AND CODES AND/OR REQUIREMENTS, INCLUDING HEALTH CODES AND BUILDING OWNER.
- CUTTING AND PATCHING OF FLOORS, WALLS, CEILING, ETC., REQUIRED IN STRICT ACCORDANCE WITH THE RULES AND REGULATIONS OF THE ARCHITECTS AND/OR BUILDING OWNER REQUIREMENTS.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION TO AVOID ROUTING CONFLICTS.
- MECHANICAL CONTRACTOR SHALL AIR BALANCE ALL GRILLES TO CFMS SHOWN ON PLANS.
- ALL DUCTWORK, DIFFUSERS, TERMINAL UNITS, ETC. ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
- INSTALL ELASTOMERIC JOINT SEALER AROUND ALL DUCTS, PIPES, ETC. PASSING THRU INTERIOR NON-RATED CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS. FOR FIRE RATED INTERIOR CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS SEAL ALL DUCTS, PIPES, ETC. INSTALL FIRESTOP MATERIALS IN ALL GAPS PRIOR TO SEALANT APPLICATION. INSTALL SEALER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL TEMPERATURE CONTROL WORK WITH BUILDING OWNER. BUILDING SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES.
- UPON REQUEST FOR ELECTRONIC FILES, CONTRACTOR SHALL FILL OUT, SIGN AND RETURN ELECTRONIC MEDIA RELEASE FORM FROM ENGINEER AND PROVIDE PAYMENT FOR FEES STIPULATED ON ELECTRONIC MEDIA RELEASE FORM. UPON RECEIPT OF COMPLETED RELEASE FORM AND PAYMENT, ELECTRONIC FILES WILL BE RELEASED.
- REPLACE EXISTING THERMOSTATS/SENSORS WITH NEW. THERMOSTAT COVERS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED. THERMOSTATS/SENSORS SHALL BE INSTALLED AND CALIBRATED PRIOR TO TEST AND BALANCE. INTEGRATE NEW DIGITAL THERMOSTATS/SENSORS INTO THE EXISTING BUILDING ENERGY MANAGEMENT SYSTEM AS REQUIRED.

MECHANICAL SYMBOLS



ROOFTOP UNIT SCHEDULE

MARK NO.	MANUFACTURER	MODEL	AIRFLOW CFM	MIN O.A. CFM	EER	SUPPLY FAN					COOLING					HEATING-GAS					ELECTRICAL			NOTES		
						EXT. S.P. (IN.W.G.)	FAN HP	DRIVE TYPE	FAN TYPE	RPM	AMB (°F)	E.D.B. (°F)	E.W.B. (°F)	NOMINAL TONS	TOTAL MBH	SENS. MBH	STAGES	E.D.B. (°F)	L.D.B. (°F)	INPUT MBH	OUTPUT MBH	STAGES	VOLT		ø	HZ
RTU-1	TRANE	YH4240	6475	750	11	1.5	5	BELT	FC	739	95	80	67	20	248.45	195.1	2	70	93	250	200	2	208	3	60	1,2,3,4
RTU-2	TRANE	YH4240	6400	750	11	1.5	5	BELT	FC	739	95	80	67	20	248.45	195.1	2	70	93	250	200	2	208	3	60	1,2,3,4
RTU-3	TRANE	YHC120	3200	400	12.4	1.5	2.75	BELT	FC	1461	95	80	67	10	113.9	94.1	2	70	98	150	120	2	208	3	60	1,2,3,4

- NOTES: 1. PROVIDE WITH DISCONNECT SWITCH, 14" CURB FOR GROUND MOUNTING, COTTONWOOD FILTERS AND HAIL GUARDS.
2. PROVIDE WITH DRY BULB ECONOMIZER, POWERED RELIEF AND HOT GAS REHEAT.
3. PROVIDE WITH 2" MERV 8 FILTERS.
4. UNIT TO BE CONFIGURED FOR SIDE DISCHARGE.

FAN SCHEDULE

MARK NO.	MANUFACTURER	MODEL	SERVES	TYPE	AIRFLOW (CFM)	S.P. (IN.W.G.)	FAN TYPE	SONES	RPM	DRIVE	ELECTRICAL			HP WATTS	NOTES
											VOLT	ø	HZ		
EF-1	GREENHECK	SPA50-80-VG	RESTROOM	CABINET	75	0.3	CENT	2	887	DIRECT	120	1	60	1/20	1,2
EF-2	GREENHECK	SPA50-80-VG	RESTROOM	CABINET	75	0.3	CENT	2	887	DIRECT	120	1	60	1/20	1,2
EF-3	GREENHECK	SPA50-90-VG	JANITOR	CABINET	75	0.3	CENT	2	887	DIRECT	120	1	60	1/20	1,2

- NOTES: 1. PROVIDE WITH DISCONNECT SWITCH, SPEED CONTROLLER, INTEGRAL GRILLE, HANGING HARDWARE AND BACKDRAFT DAMPER.
2. FAN TO BE CONTROLLED WITH LIGHTS.

UNIT HEATER SCHEDULE

MARK NO.	MANUFACTURER	MODEL	TYPE	AIRFLOW (CFM)	EAT (°F)	LENGTH (IN)	HEATING (ELEC.) INPUT (KW)	ELECTRICAL			NOTES
								VOLT	ø	HZ	
UH-1	BERKO	MLH	UNIT HEATER	350	50	N/A	5	208	1	60	1

- NOTES: 1. PROVIDE WITH DISCONNECT SWITCH, WALL MOUNTING HARDWARE AND INTEGRAL THERMOSTAT.

*HEATING KW IS NET CAPACITY AT VOLTAGE AND PHASE INDICATED.

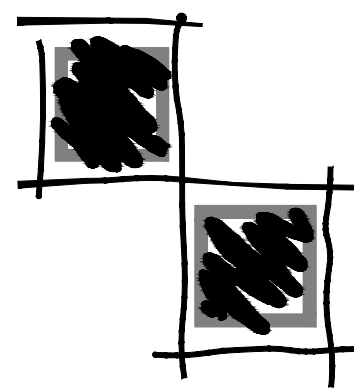
DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	PAGE SIZE (IN.)	NECK SIZE (IN.)	SLOT WIDTH (IN.)	NO. OF SLOTS	FRAME TYPE*	FINISH	NOTES
SA1	PRICE	SPD	24x24	8	-	-	LAY-IN	WHITE	-
SA2	PRICE	SPD	24x24	10	-	-	LAY-IN	WHITE	-
SA3	PRICE	SPD	24x24	12	-	-	LAY-IN	WHITE	-
SB1	PRICE	SPD	12x12	6	-	-	SURFACE	WHITE	-
RA1	PRICE	PDDR	24x12	22x12	-	-	LAY-IN	WHITE	-
RA2	PRICE	PDDR	24x24	14x14	-	-	LAY-IN	WHITE	-

- NOTES: 1. -
*CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING DIFFUSERS.

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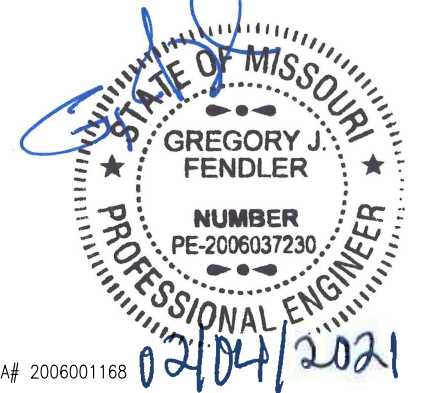
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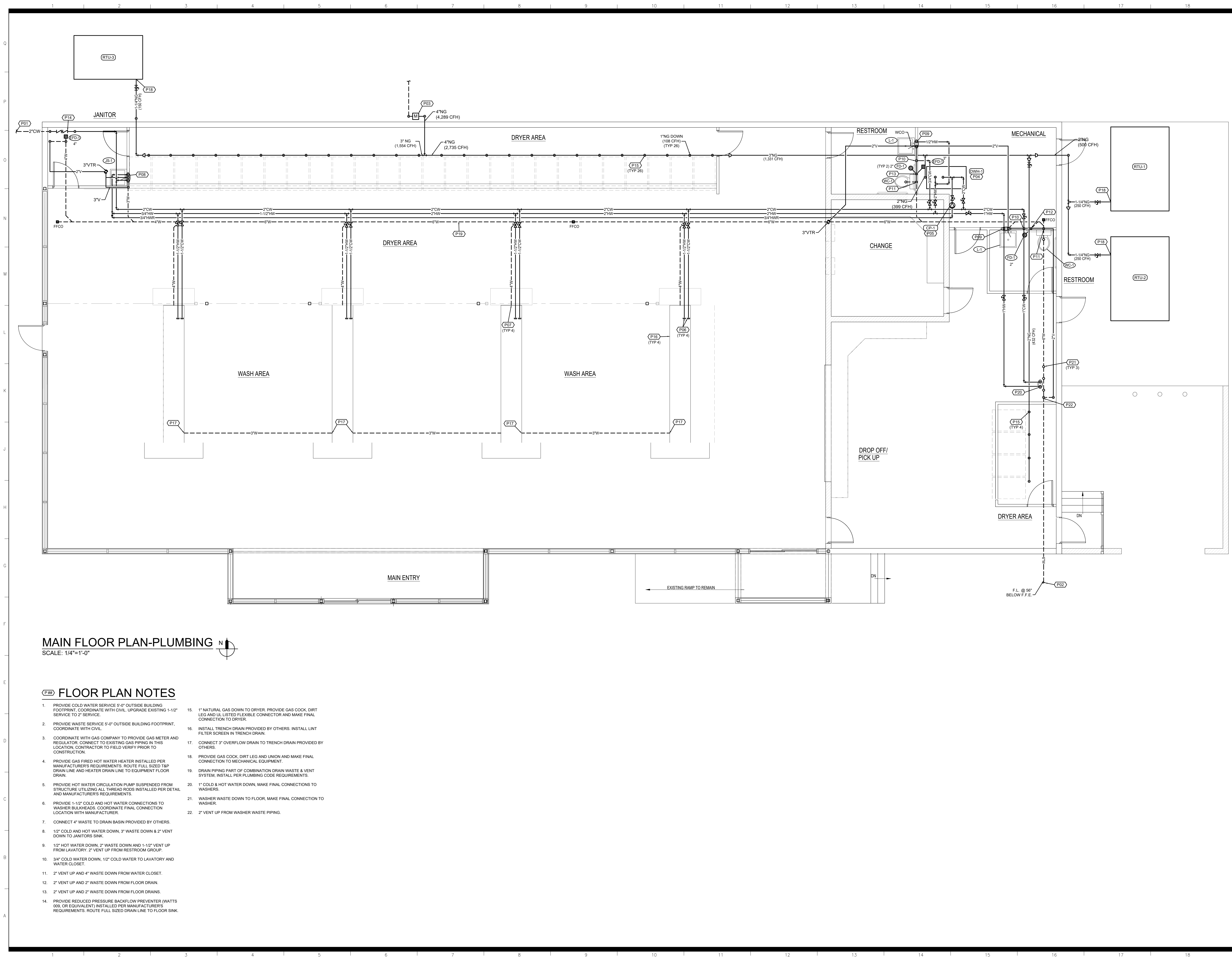
Project Number: 20.6606.00

Date: 12/15/2020
Phase: Construction
Issued For: Permit
Drawn By: JSV
P.L.C.: BLH/GIF

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M2



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WASH HOUSE LAUNDRY – LEE'S SUMMIT

711 SE 291 HWY.
LEE'S SUMMIT, MO. 64063

Project Number: 20.6606.00

Date: 12/15/2020

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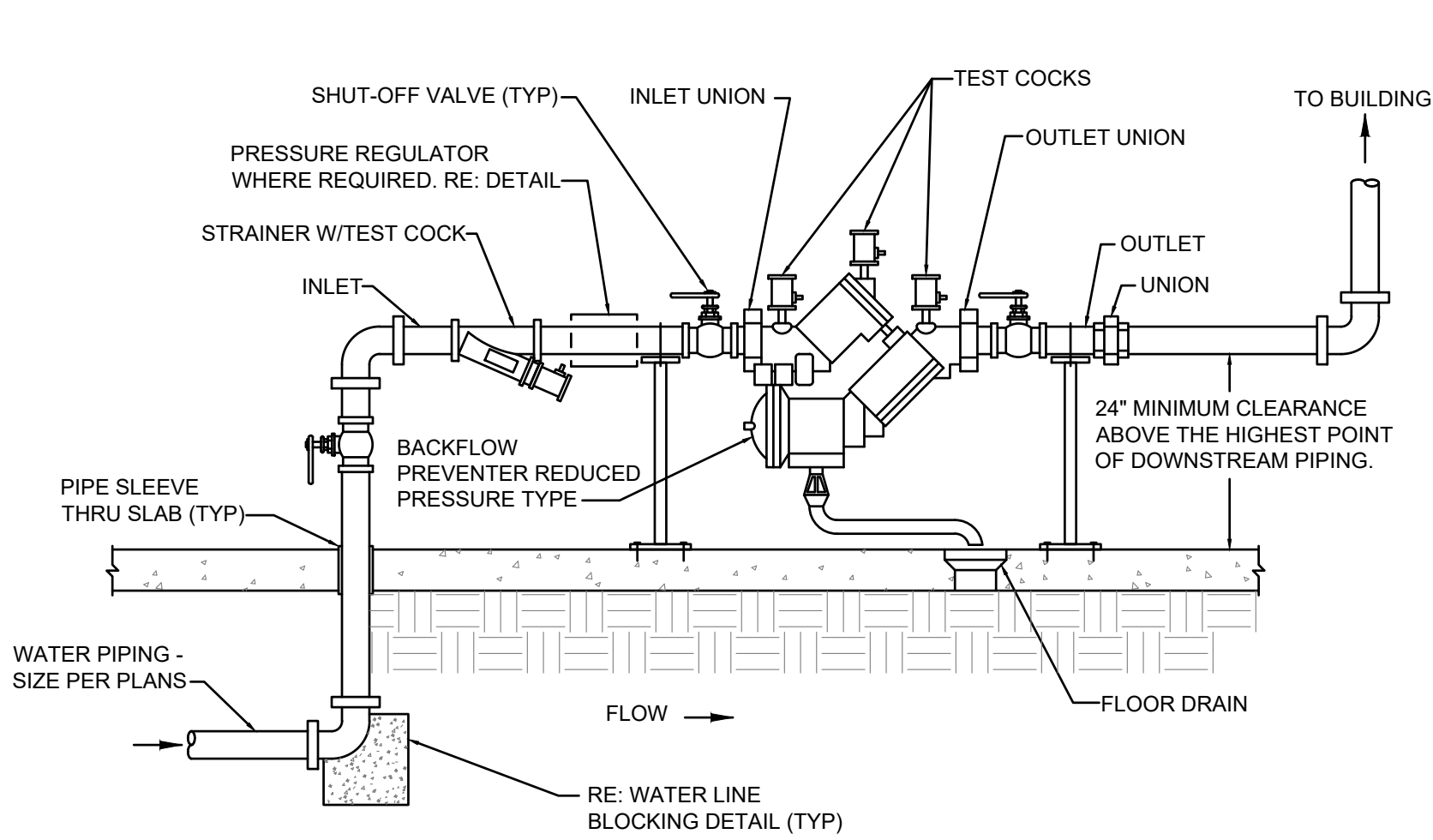
Drawn By: JSV

P.L.C.: BLH/GIF

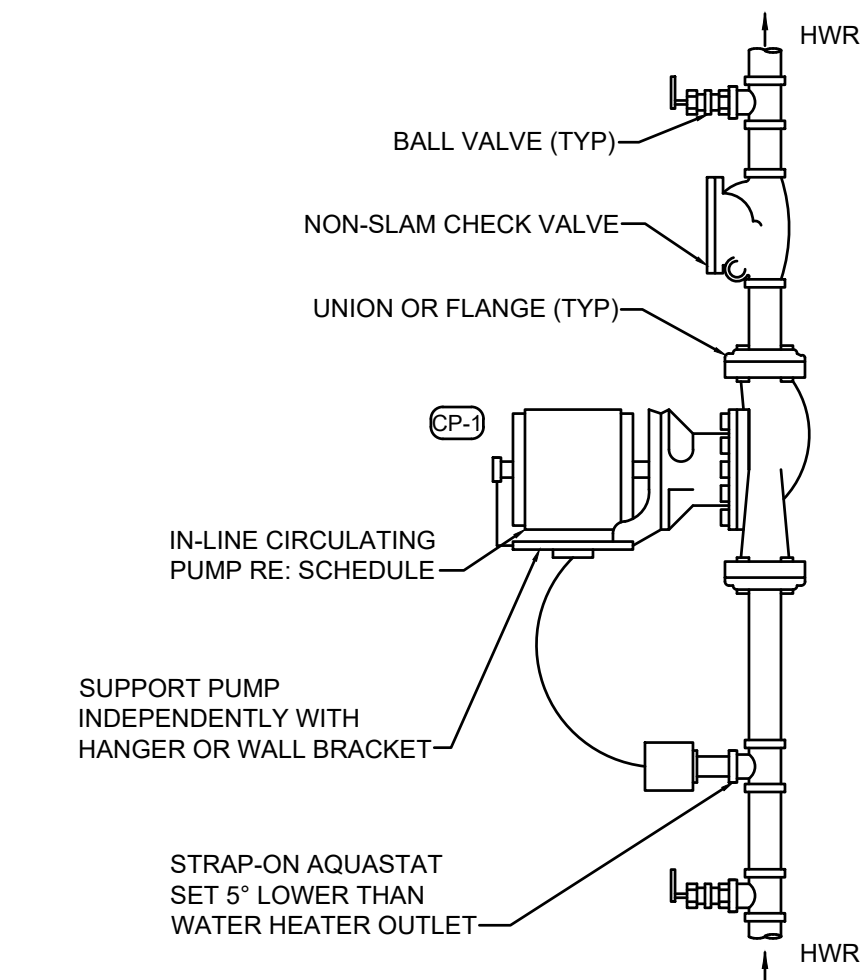
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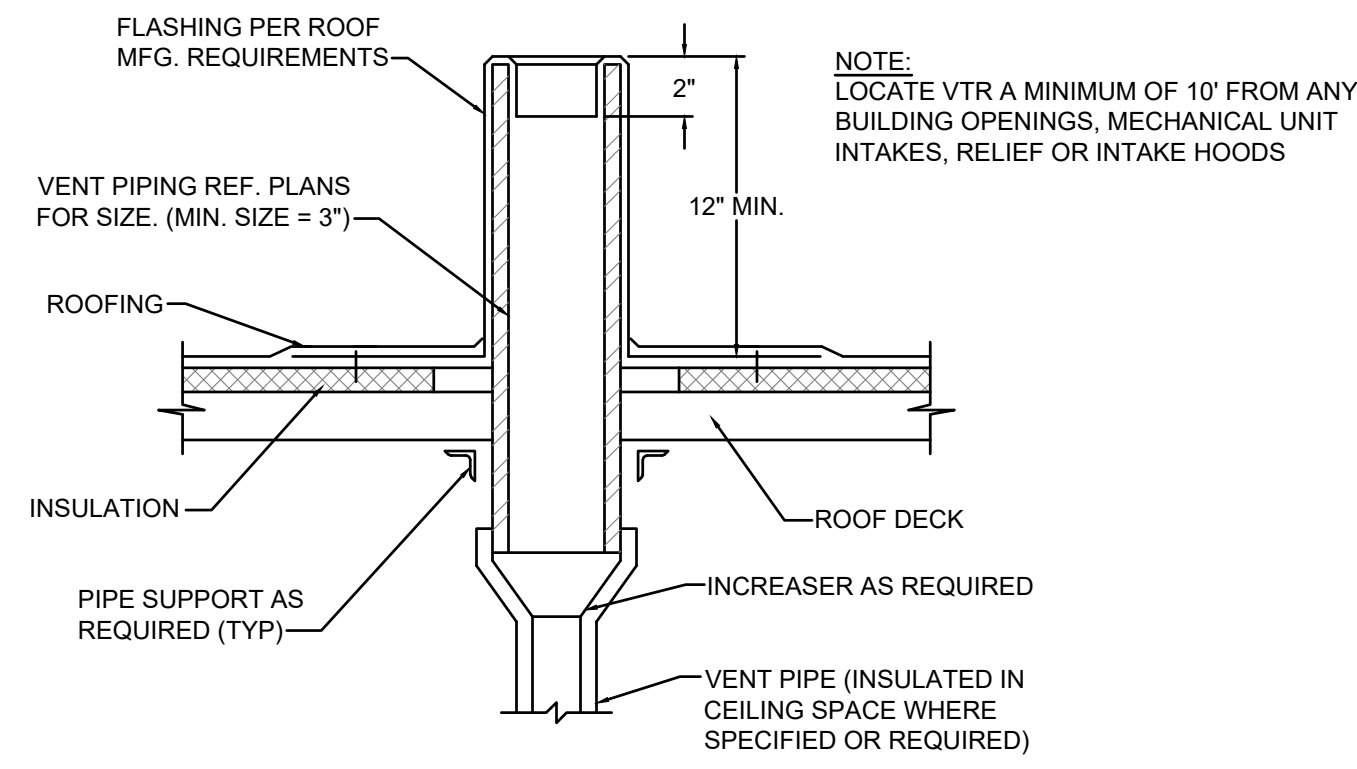
- NOTES:
1. PROVIDE PRESSURE REGULATOR, SET TO 75 PSI WHERE SOURCE PRESSURE EXCEEDS 80 PSI. INSTALL DOWNSTREAM OF BACKFLOW PREVENTER OUTLET. RE: DETAIL.
 2. ARRANGEMENT SHOWN IS SCHEMATIC. MODIFY TO SUIT CONDITIONS. INSTALL SO BFP CAN BE SERVICED AND TESTED IN ACCORDANCE W/ ALL RULES & REGULATIONS OF LOCAL AUTHORITIES.
 3. ROUTE DRAIN AS INDICATED ON PLANS.
 4. SUPPORT AS REQUIRED FROM SLAB.



INTERIOR BACKFLOW PREVENTER DETAIL
NO SCALE

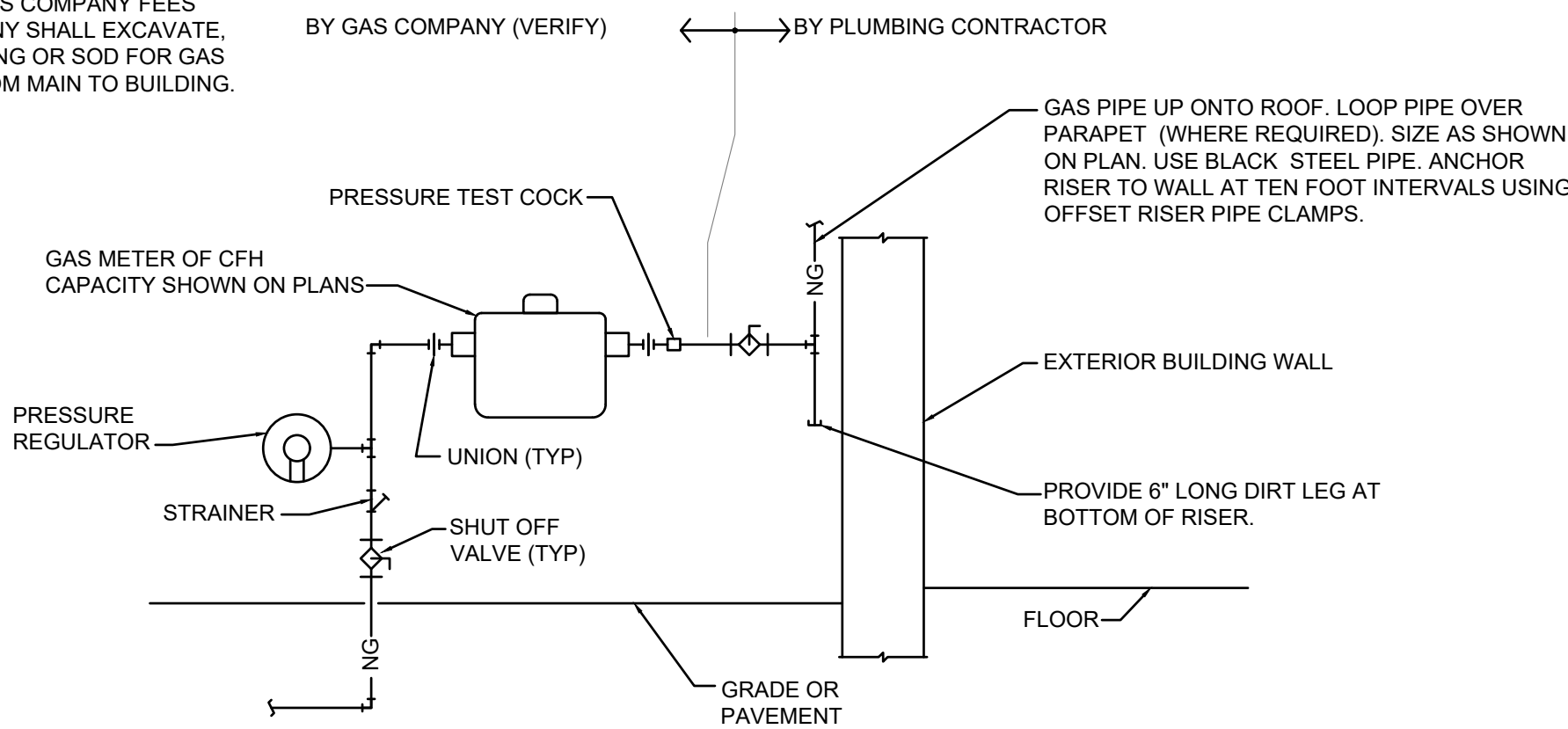


CIRCULATING PUMP DETAIL
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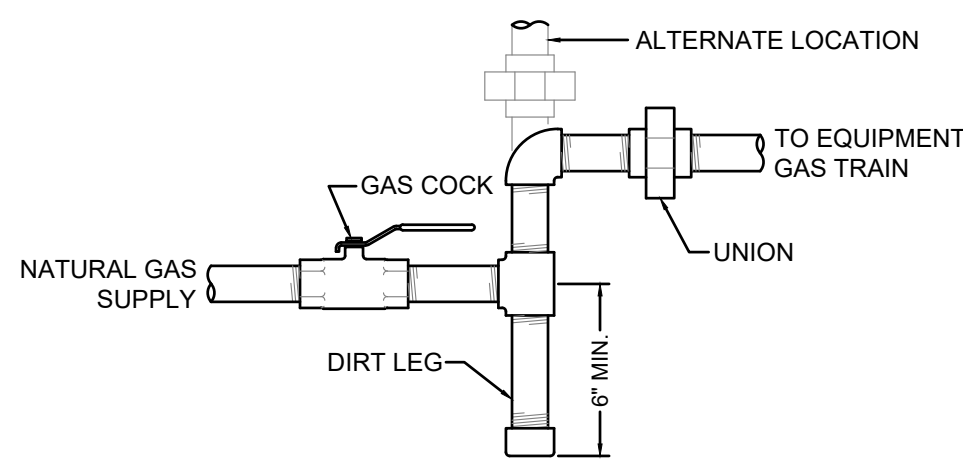


VENT THRU ROOF DETAIL
NO SCALE

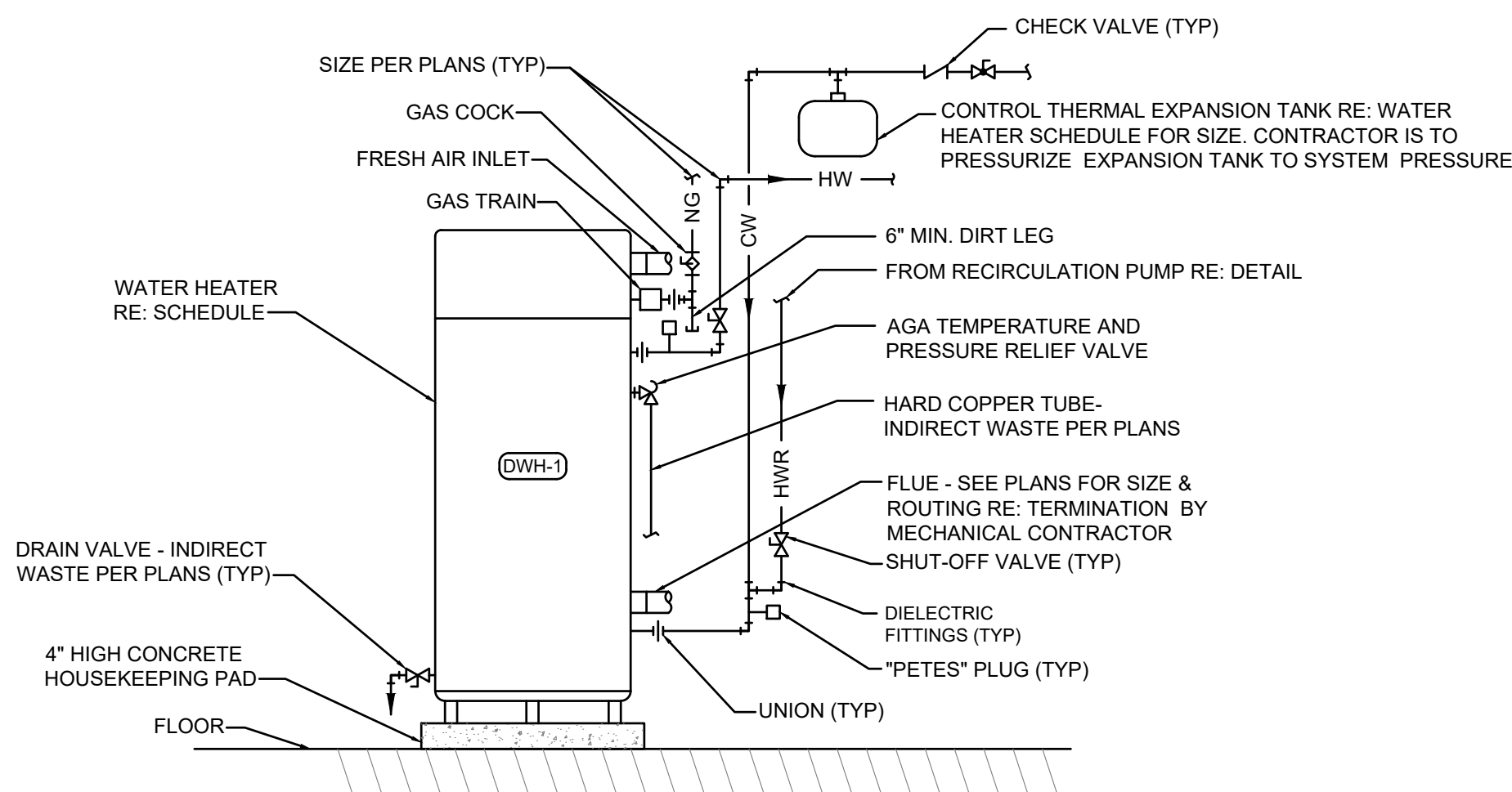
NOTE:
VERIFY REQUIREMENTS FOR METERING AND PIPING WITH GAS COMPANY. INSTALL OTHER UTILITIES MINIMUM TEN FEET FROM GAS LINE. PLUMBING CONTRACTOR SHALL PAY ALL GAS COMPANY FEES FOR INSTALLATION. GAS COMPANY SHALL EXCAVATE, BACKFILL, AND REPAIR ANY PAVING OR SOD FOR GAS SERVICE LINE INSTALLATION FROM MAIN TO BUILDING.



GAS SERVICE DETAIL
NO SCALE

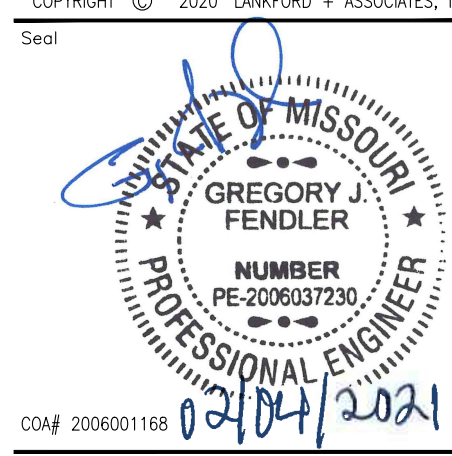
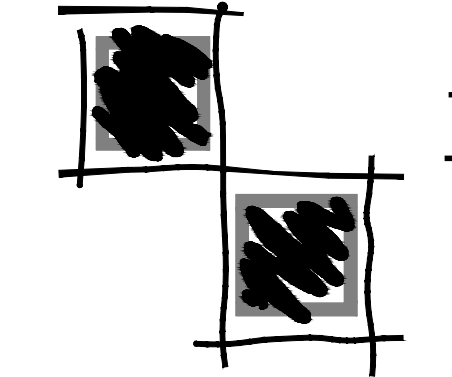


GAS EQUIPMENT CONNECTION DETAIL
NO SCALE



SEALED COMBUSTION GAS WATER HEATER DETAIL
NO SCALE WITH RECIRCULATION PUMP

1730 Walnut Street
Kansas City, Missouri
64108
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WASH HOUSE LAUNDRY – LEE'S SUMMIT
711 SE 291 HWY.
LEE'S SUMMIT, MO. 64063

Project Number:	20.6606.00
Date:	12/15/2020
Phase:	Construction
Issued For:	Permit
Drawn By:	JSV
P.L.C.:	BLH/GIF

Revision	
△	
△	

P2

PLUMBING FIXTURE SCHEDULE								
MARK NO.	FIXTURE TYPE	MANUFACTURER	MODEL NO.	DESCRIPTION	CONNECTION SIZE			
					CW	HW	WASTE	VENT
WC-1	WATER CLOSET (ADA)	AMERICAN-STANDARD	215AA.004 (LEFT HANDLE) 418BA.005 (RIGHT HANDLE) "CADET PRO"	FLOOR MOUNTED FLUSH TANK, WHITE VITREOUS CHINA, HIGH EFFICIENCY (1.6 GPF), ELONGATED POWER WASH BOWL, FULLY GLAZED 2" TRAP WAY, CLOSE-COUPLED TANK, 16-1/2" RM HEIGHT. ACCESSORIES: CHROME HROSSCOT WHITE OVEN FRONT SEAT LESS COVER WITH SELF SUSTAINING CHECK HINGES, BOLTS AND CAPS, LOOSE KEY ANGLE STOP AND CHROME-PLATED RISER. NOTE: HANDLE TO BE ON WIDE SIDE OF FIXTURE.	1/2"	-	4"	2"
L-3	LAVATORY (ADA)	AMERICAN-STANDARD	0355.012 (4" CENTERS) "LUCERNE"	VITREOUS CHINA, 20" X 16", FRONT OVERFLOW, INTEGRAL BACK. CHICAGO FAUCETS MODEL 802-XKA BOP FAUCET WITH CERAMIC OPERATING CARTRIDGE, 4" CENTERS, 4" INTEGRAL SPOUT, LEVER HANDLES. ACCESSORIES: PROVIDE LEGNARD 170-LF LEAD-FREE BRONZE THERMOSTATIC MIXING VALVE WITH 0.25 GPM MINIMUM FLOW RATE, INTEGRAL CHECK VALVES, DISCHARGE SET AT 1/5 F, MOUNTED DOWNSTREAM OF FIXTURE STOPS, WITH HOT AND COLD WATER PIPED TO VALVE, TEMPERED AND COLD WATER TO LAVATORY. CHICAGO FAUCETS MODEL 327-XGP GRID DRAIN, 1-1/4" X 1-1/2" 17 GA. 58M-CAST BRASS P-TRAP WITH CLEANOUT, CHROME-PLATED RISERS WITH LOOSE KEY ANGLE STOPS AND J.R. SMITH CONCEALED ARM LAVATORY SUPPORT. PROVIDE WITH FULLY MOLDED FLEXIBLE VINYL INSULATION KIT COVER TRAP, SUPPLIES AND STOPS, TRUEBRO 6Z LAV GUARD. NOTE: MOUNT FIXTURE RM 34" ABOVE FINISHED FLOOR.	1/2"	1/2"	1-1/2"	1-1/2"
JS-1	JANITOR SINK	STERN-WILLIAMS	MTB-2424	SIZE 24" X 24" X 10", TERRAZZO SERVICE SINK WITH CAST BRASS DRAIN, STAINLESS STEEL STRAINER, 3" DRAIN CONNECTION. CHICAGO FAUCETS MODEL 897-CCP WITH QUATURN OPERATING CARTRIDGE, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE, 3/4" MALE HOSE THREAD OUTLET, 3/8" LEVER HANDLES, FLANGED ADJUSTABLE SUPPLY ARM AND INTEGRAL SUPPLY STOPS AND CHECK VALVES. ACCESSORIES: V-75 EXTRUDED VINYL BUMPER GUARDS ON EXPOSED SIDES, T-35 3/8" RUBBER HOSE WITH STAINLESS STEEL WALL BRACKET.	1/2"	1/2"	3"	2"
FD-1	FLOOR DRAIN	J.R. SMITH	2005YA-NB	GENERAL PURPOSE DUCO CAST IRON BODY WITH FLASHING COLLAR, ADJUSTABLE STRAINER HEAD, ROUND NICKEL BRONZE STRAINER, AND SEEPAGE OPENINGS. OUTLET SIZE PER PLANS. PROVIDE WITH SQUARE GRATE WHERE DRAIN IS INSTALLED IN TILE FLOORS. NOTE: PROVIDE WITH TRAP PRIMER CONNECTION WHERE REQUIRED BY LOCAL CODE OR AS INDICATED ON DRAWINGS.	-	-	2"	1-1/2"
EFD-1	EQUIPMENT FLOOR DRAIN	J.R. SMITH	2210Y	MEDIUM CAPACITY, MEDIUM DUTY DUCO CAST IRON BODY, SEGMENT BUCKET AND GRATE, NO HUB OUTLET. PROVIDE WITH 359I OVAL FUNNEL WHERE DRAIN RECEIVES INDIRECT WASTE.	-	-	2"	1-1/2"

PLUMBING PUMP SCHEDULE

MARK NO.	MANUFACTURER	MODEL	USE	TYPE	FLOW (GPM)	HEAD (FT.)	RPM	ELECTRICAL				NOTES
								VOLT	ø	HZ	HP	
CP-1	BELL & GOSSETT	PL30B	RECIRC	INLINE	3	25	2450	120	1	60	1/12	1
NOTES: 1. -												

WATER HEATER SCHEDULE (GAS TANKLESS)

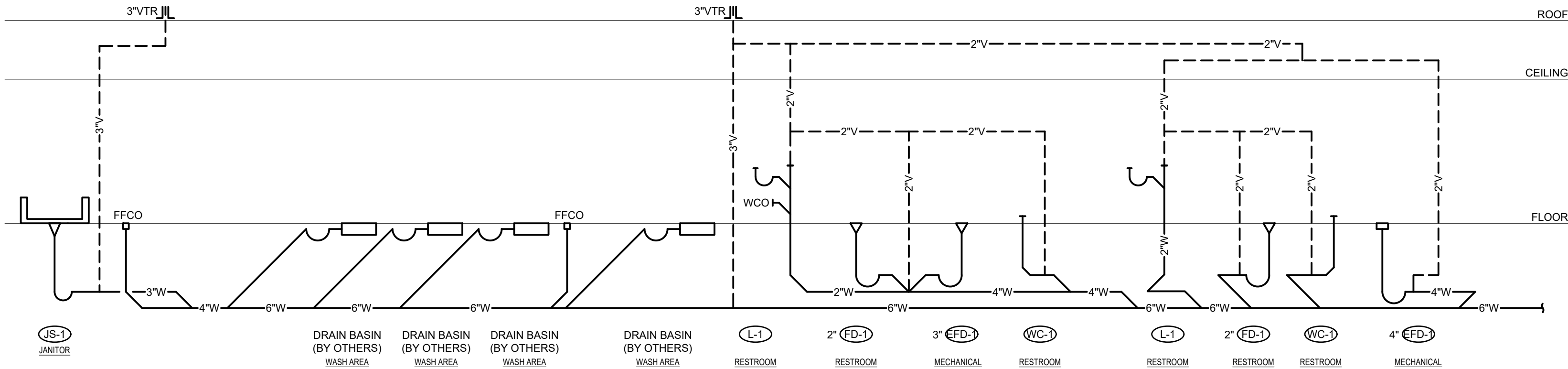
MARK NO.	MANUFACTURER	MODEL NO.	MINIMUM ACTIVATION FLOW, GPM	RECOVERY (GPM @ 80 F)	INPUT MBH	ELECTRICAL			NOTES
						VOLT	ø	HZ	
DWH-1	HAMILTON	HWDG 395-180	0.4	584	399	120	1	60	1,2
NOTES: 1. FLOOR MOUNTED, HIGH EFFICIENCY DIRECT VENTED CONDENSING, FORCED COMBUSTION, MODULATING FIRE, 5:1 TURNDOWN, ELECTRONIC IGNITION, MAXIMUM FLOW RATE PER MODULE 9.8 GPM. 2. PROVIDE WITH ISOLATION AND RELIEF VALVES, GAS TRAIN, CONTROLLER WITH WATER FLOW SENSOR, ELECTRONIC WATER AND BURNER CONTROL, CORD AND PLUG. 3. PROVIDE WITH AMTROL ST-12 C EXPANSION TANK.									

GENERAL NOTES (TYPICAL ALL SHEETS)

- A. PLUMBING CONTRACTOR IS RESPONSIBLE TO SEE THAT WORK MEETS AND IS IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, AND LOCAL LAWS AND CODES AND/OR REQUIREMENTS, INCLUDING HEALTH CODES AND BUILDING OWNER.
- B. CUTTING AND PATCHING OF FLOORS, WALLS, CEILING, ETC., REQUIRED IN STRICT ACCORDANCE WITH THE RULES AND REGULATIONS OF THE ARCHITECT'S AND/OR BUILDING OWNER REQUIREMENTS.
- C. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION TO AVOID ROUTING CONFLICTS.
- D. INSTALL ELASTOMERIC JOINT SEALER AROUND ALL PIPES PASSING THRU INTERIOR NON-RATED CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS. FOR FIRE RATED INTERIOR CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS SEAL ALL PIPES. INSTALL FIRESTOP MATERIALS IN ALL GAPS PRIOR TO SEALANT APPLICATION. INSTALL SEALER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- E. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION TO ALL EQUIPMENT BY OTHERS. VERIFY CONNECTIONS SIZES AND REQUIREMENTS.
- F. PIPING ROUTED BELOW COUNTER IN CABINETS SHALL BE ROUTED AS NOTED. NOT TO INTERFERE WITH DRAWERS, SHELVES, EQUIPMENT, ETC., AND SUPPORT FROM BACK WALL OF CABINET.
- G. PLUMBING CONTRACTOR SHALL PROVIDE PRO-SET SYSTEMS 'TRAP GUARD' IN ALL FLOOR DRAIN TRAPS WITHIN PROJECT SCOPE OF WORK.
- H. UPON REQUEST FOR ELECTRONIC FILES, CONTRACTOR SHALL FILL OUT, SIGN AND RETURN ELECTRONIC MEDIA RELEASE FORM FROM ENGINEER AND PROVIDE PAYMENT FOR FEES STIPULATED ON ELECTRONIC MEDIA RELEASE FORM. UPON RECEIPT OF COMPLETED RELEASE FORM AND PAYMENT, ELECTRONIC FILES WILL BE RELEASED.

PLUMBING SYMBOLS

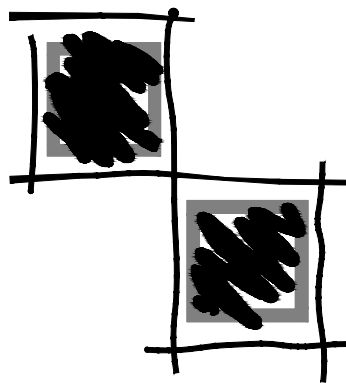
- EXISTING TO REMAIN
- NEW PIPING
- FLOW ARROW
- CW COLD WATER
- HW HOT WATER
- HW-R HOT WATER RETURN
- NG NATURAL GAS
- V SANITARY VENT ABOVE GROUND/FLOOR
- V-- SANITARY VENT BELOW GROUND/FLOOR
- W-- SANITARY WASTE BELOW GROUND/FLOOR
- W GAS SHUT-OFF COCK
- CV CHECK VALVE
- PT PRESSURE & TEMPERATURE RELIEF VALVE
- STV STRAINER WITH BLOW DOWN VALVE
- SOV SHUT OFF VALVE
- ILP IN-LINE PUMP
- U UNION
- F FLANGE CONNECTION
- OR FLOOR DRAIN OR EQMT FLOOR DRAIN
- P PIPE DROP/PIPE RISE
- B BOTTOM OUTLET TEE
- T TOP OUTLET TEE
- FFCO FINISHED FLOOR CLEANOUT
- VTR SANITARY VENT THROUGH ROOF
- R CONCENTRIC REDUCER
- DWH-1 EQUIPMENT TYPE AND DESIGNATION
- PLUMBING FIXTURE DESIGNATION
- ETR EXISTING TO REMAIN
- CONNECT TO EXISTING



WASTE AND VENT RISER DIAGRAM
NO SCALE

1730 Walnut Street
Kansas City, Missouri
64108

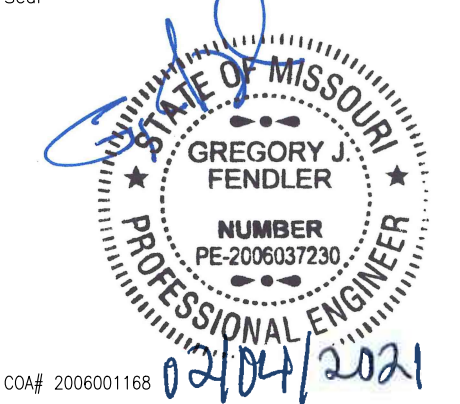
Fender



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Seal



02/04/2021

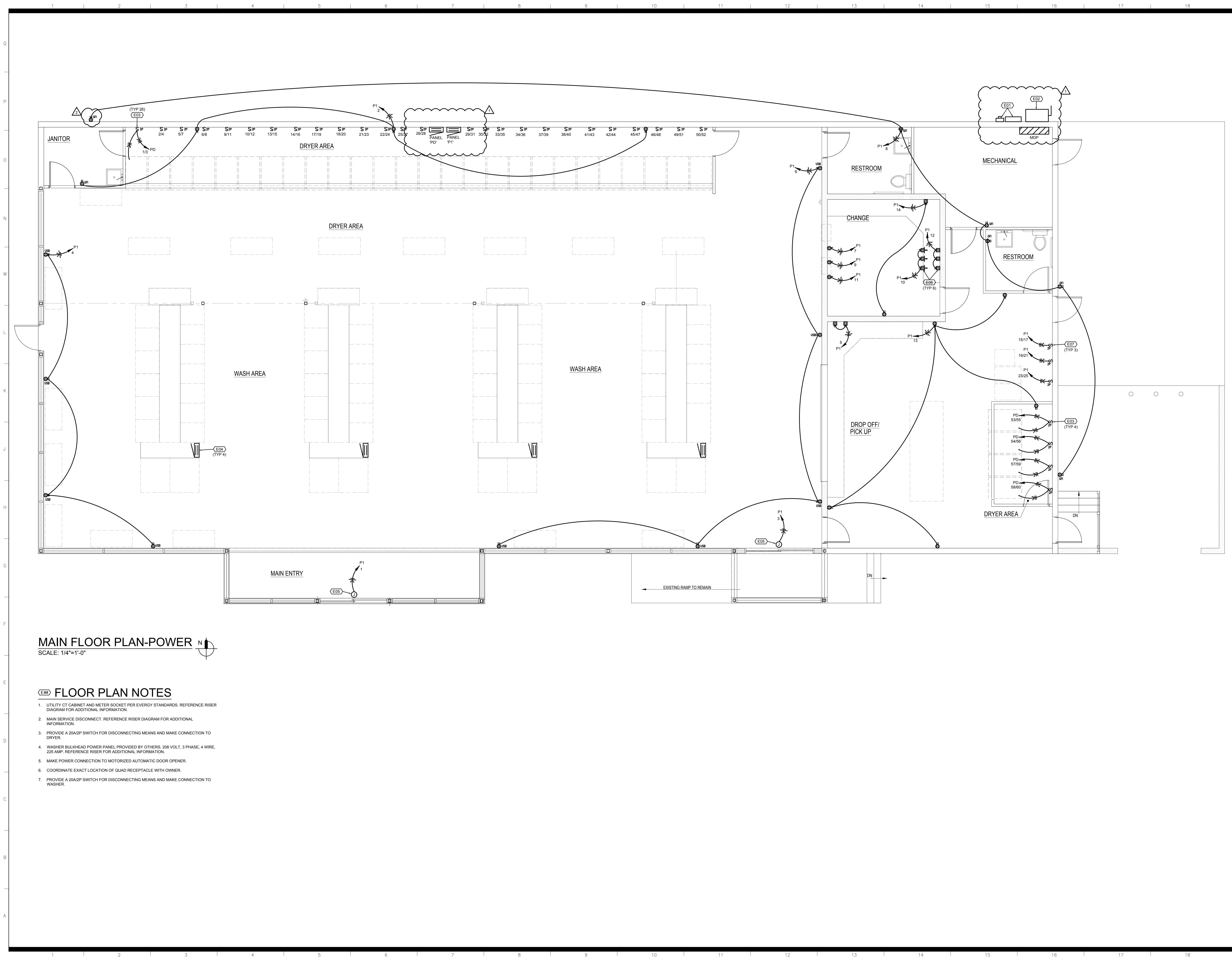
WASH HOUSE LAUNDRY – LEE'S SUMMIT

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P3



MAIN FLOOR PLAN-POWER
SCALE: 1/4"=1'-0"

- FLOOR PLAN NOTES**
- UTILITY CT CABINET AND METER SOCKET PER EVERGY STANDARDS. REFERENCE RISER DIAGRAM FOR ADDITIONAL INFORMATION.
 - MAIN SERVICE DISCONNECT. REFERENCE RISER DIAGRAM FOR ADDITIONAL INFORMATION.
 - PROVIDE A 20A/2P SWITCH FOR DISCONNECTING MEANS AND MAKE CONNECTION TO DRYER.
 - WASHER BULKHEAD POWER PANEL PROVIDED BY OTHERS. 208 VOLT, 3 PHASE, 4 WIRE, 225 AMP. REFERENCE RISER FOR ADDITIONAL INFORMATION.
 - MAKE POWER CONNECTION TO MOTORIZED AUTOMATIC DOOR OPENER.
 - COORDINATE EXACT LOCATION OF QUAD RECEPTACLE WITH OWNER.
 - PROVIDE A 20A/2P SWITCH FOR DISCONNECTING MEANS AND MAKE CONNECTION TO WASHER.

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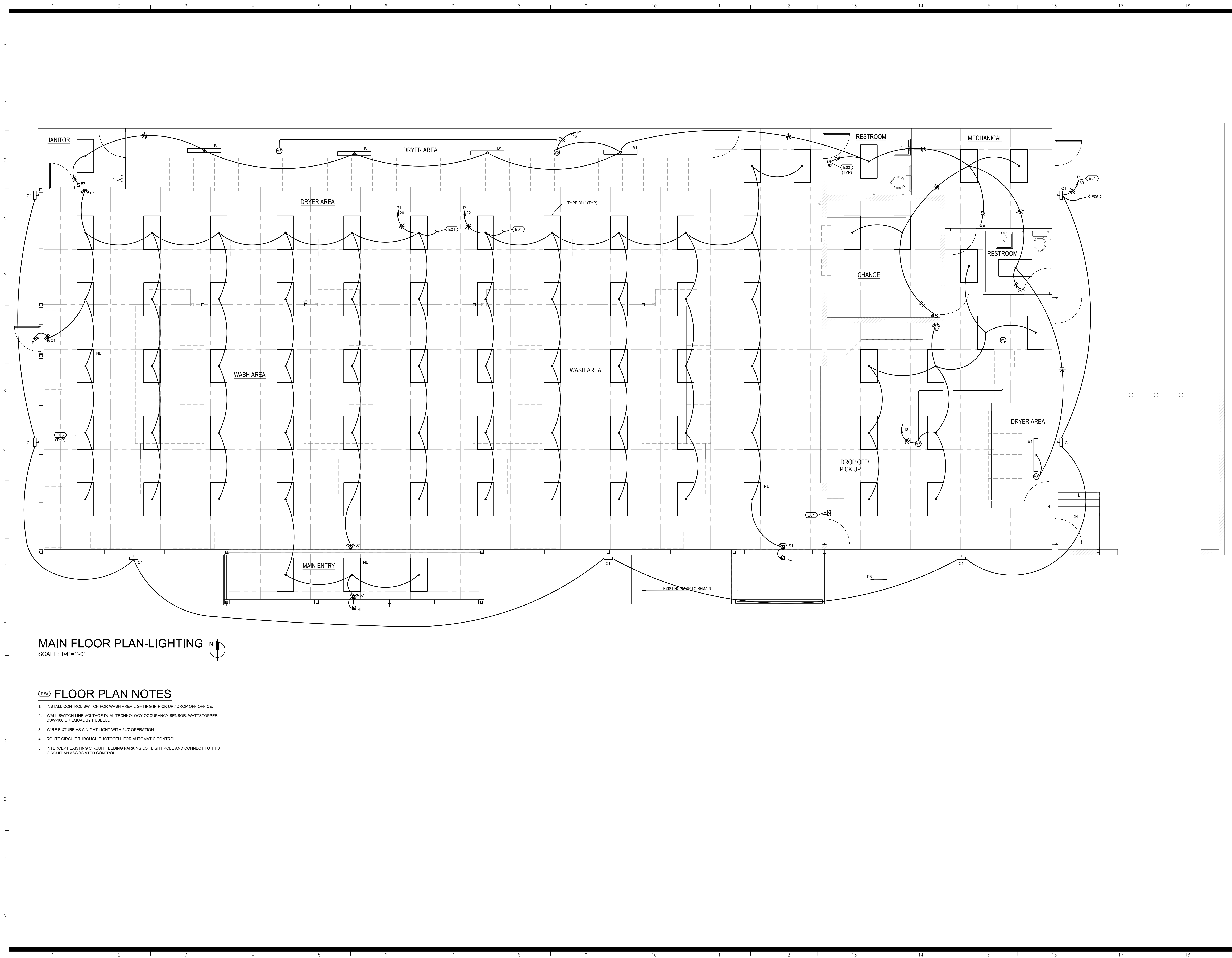
WASH HOUSE LAUNDRY – LEE'S SUMMIT

711 SE 291 HWY.
LEE'S SUMMIT, MO. 64063

Project Number:	20.6606.00
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P.L.C.:	BLH/GIF

Revision		
△	ADDENDUM 1	FEBRUARY 04, 2021
△	CITY COMMENTS	FEBRUARY 26, 2021

E1



MAIN FLOOR PLAN-LIGHTING
SCALE: 1/4"=1'-0"

FLOOR PLAN NOTES

1. INSTALL CONTROL SWITCH FOR WASH AREA LIGHTING IN PICK UP / DROP OFF OFFICE.
2. WALL SWITCH LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR, WATTSTOPPER DSW-100 OR EQUAL BY HUBBELL.
3. WIRE FIXTURE AS A NIGHT LIGHT WITH 24/7 OPERATION.
4. ROUTE CIRCUIT THROUGH PHOTOCELL FOR AUTOMATIC CONTROL.
5. INTERCEPT EXISTING CIRCUIT FEEDING PARKING LOT LIGHT POLE AND CONNECT TO THIS CIRCUIT AN ASSOCIATED CONTROL.

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STATE OF MISSOURI

GREGORY FENDER

NUMBER E-200037280

PROFESSIONAL ENGINEER

02/04/2021

CONC. 2006001168

WASH HOUSE LAUNDRY – LEE'S SUMMIT

711 SE 291 HWY.
LEE'S SUMMIT, MO. 64063

Project Number: 20.6606.00

Date: 12/15/2020

Phase: Construction

Issued For: Permit

Drawn By: JSV

P.L.C.: BLH/GIF

Revision

△

E2

NOTES:

1. ALL WIRING SHALL BE TYPE THINWALL
2. MAIN GROUND RODS ARE TO BE LOCATED AT SERVICE ENTRANCE WITH SIZE AND QUANTITY PER SPECIFICATIONS.
3. EQUIPMENT GROUNDING CONDUCTORS SMALLER THAN 6 AWG SHALL BE PROTECTED PER NEC 250.124(C)

TO MAIN WATER PIPE. CONNECT AHEAD OF MAIN SHUT OFF VALVE

TO BUILDING STEEL

(3) COPPER CLAD GROUND ROD (TYP), 5/8"x10"

GROUND WIRE TO PANELBOARD SIZE AS NOTED

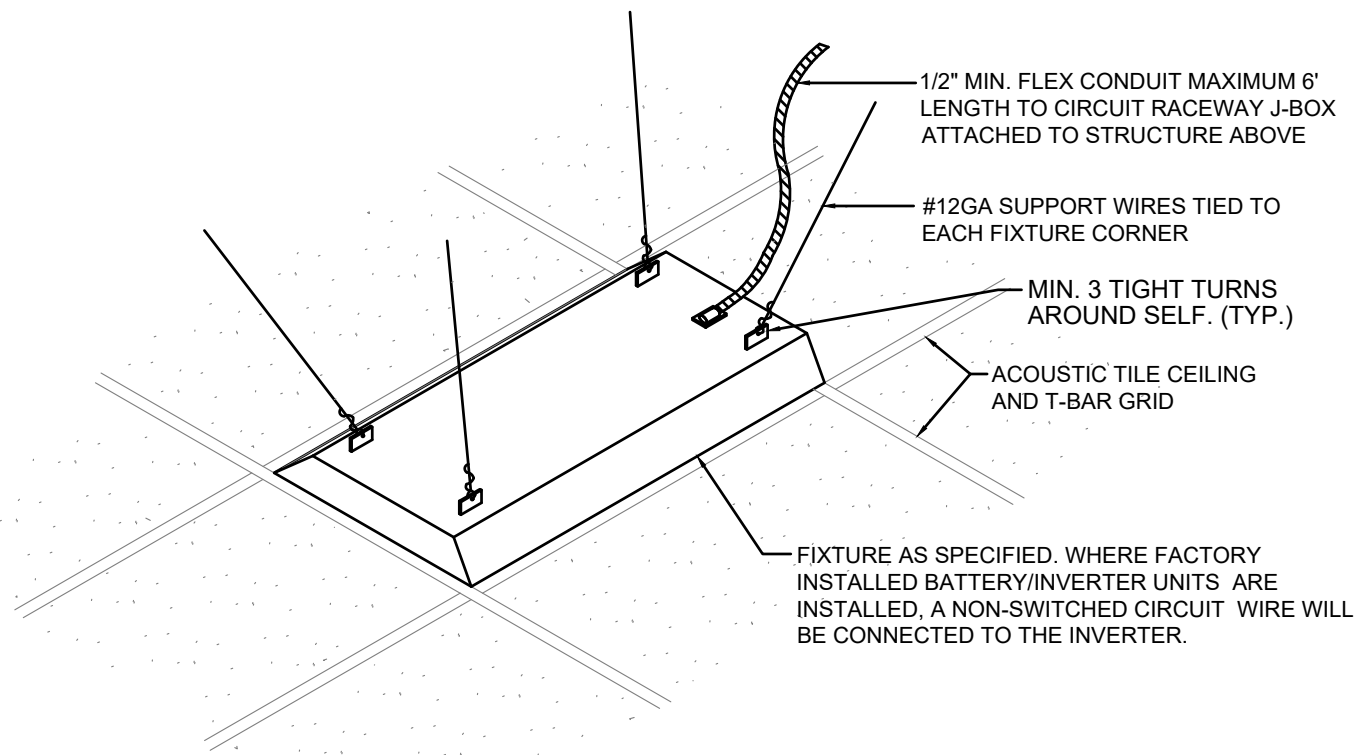
MAIN ELECTRICAL GROUND BUS

REBAR

CONCRETE ENCASED ELECTRODE (UFER) PER NEC 250-52(3)

MAIN SERVICE ENTRANCE GROUNDING DETAIL

NO SCALE



LIGHT FIXTURE MOUNTING AND BRACING DETAIL

NO SCALE

BRANCH CIRCUIT COPPER CONDUCTOR AND CONDUIT SIZING CHART*

OVERCURRENT PROTECTION DEVICE RATING (AMPS)	REQUIRED CONDUCTOR SIZE	EQUIPMENT GROUNDING CONDUCTOR SIZE	SINGLE PHASE 2 WIRE + GND. CONDUIT SIZE	SINGLE PHASE 3 WIRE + GND. CONDUIT SIZE	THREE PHASE 3 WIRE + GND. CONDUIT SIZE	THREE PHASE 4 WIRE + GND. CONDUIT SIZE
15	12 AWG	12 AWG	3/4"	3/4"	3/4"	3/4"
20	12 AWG	12 AWG	3/4"	3/4"	3/4"	3/4"
25	10 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
30	10 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
35	8 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
40	8 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
45	6 AWG	10 AWG	3/4"	3/4"	3/4"	1"
50	6 AWG	10 AWG	3/4"	3/4"	3/4"	1"
60	4 AWG	10 AWG	1"	1"	1"	1-1/4"
70	4 AWG	8 AWG	1"	1"	1"	1-1/4"
80	3 AWG	8 AWG	1"	1-1/4"	1-1/4"	1-1/4"
90	2 AWG	8 AWG	1"	1-1/4"	1-1/4"	1-1/4"
100	1 AWG	8 AWG	1-1/4"	1-1/2"	1-1/2"	1-1/2"

* = UNLESS OTHERWISE NOTED ON THE DRAWINGS.

* = UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL BRANCH CIRCUITS AND FEEDERS TO BE PROVIDED WITH A NEUTRAL WIRE.

* = ALL CONDUCTORS SIZED ON THE POWER RISER DIAGRAM OR IN BRANCH CIRCUIT CONDUCTOR TABLE ARE BASED ON 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY OR CABLE. CONDUCTORS SHALL BE DERATED IN ACCORDANCE WITH THE NEC IF 4 OR MORE CONDUCTORS ARE PLACED IN A RACEWAY OR CABLE.

NEW PANELBOARD MDP SCHEDULE

SERVICE: 208/120 VOLT, 3 - PHASE, 4 - WIRE
AMP FRAME: 1200 AMP
MOUNTING: SURFACE
MAINS: MLO

RATING: 65000 A.I.C.
LOCATION: DRYER ROOM

REV NO.	NOTE NO.	CRT#	DESCRIPTION	BRKR P	AMP	LOAD KVA A	B	C	3PH	CRT#	DESCRIPTION	BRKR P	AMP	LOAD KVA A	B	C	3PH	NOTE NO.	REV NO.
1		1	PANEL P1	3	100				24.27	4	PANEL PD	3	400				98.48		
3		3								6									
5		5								8									
7		7	WASHER BULKHEAD	3	225				30.72	10	WASHER BULKHEAD	3	225				30.72		
9		9								12									
11		11								14									
13		13	WASHER BULKHEAD	3	225				30.72	16	WASHER BULKHEAD	3	225				30.72		
15		15								18									
17		17								20									
19		19	RTU-1	3	125				35.3	22	RTU-2	3	125				35.3		
21		21								24									
23		23								26									
25		25								28									
27		27	RTU-3	3	60				17.3	30	PROVISION	3							
29		29								32									
31		31								34	PROVISION	3							
33		33	PROVISION	3						36									
35		35								38									
37		37								40	PROVISION	3							
39		39	PROVISION	3						42									
41		41																	
TOTAL: 0 0 0 0 38.3125										TOTAL: 0 0 0 0 195.2									
										KVA / PHASE TOTAL: 0 0 0 0 338.3									
										AMP / PHASE TOTAL: 925.8 925.8 925.8									
										TOTAL CONNECTED LOAD: 333.53 KVA									
										TOTAL CONNECTED CURRENT: 925.79 AMPS									
										LIGHTS @ 125%: 0.00 KVA									
										RECEPTACLES @ 100%: 0.00 KVA									
										RECEPTACLES @ 50%: 0.00 KVA									
										LARGEST MOTOR LOAD @ 125%: 0.00 KVA									
										CONTINUOUS LOAD @ 125%: 0.00 KVA									
										OTHER AND NON-CONTINUOUS LOADS @ 100%: 333.53 KVA									
										TOTAL DEMAND LOAD: 333.53 KVA									
										POWER FACTOR: 0.95 % PF									
										TOTAL DEMAND CURRENT: 974.55 AMPS									

NOTES:

REV:

GENERAL NOTE:

CONDUCTOR & CONDUIT SIZING CHART FOR SIZING OF BRANCH CIRCUITS AND OR FEEDERS AT OR BELOW 100 AMPS

NEW PANELBOARD P1 SCHEDULE

SERVICE: 208/120 VOLT, 3 - PHASE, 4 - WIRE
AMP FRAME: 225 AMP
MOUNTING: SURFACE
MAINS: MLO

RATING: 65000 A.I.C.
LOCATION: DRYER ROOM

REV NO.	NOTE NO.	LOAD CRT#	DESCRIPTION	BRKR P	LOAD KVA				LOAD CRT#	DESCRIPTION	BRKR P	LOAD KVA				NOTE NO.	REV NO.		
				A	AMP	A	B	C	3PH			A	B	C	3PH				
		1	AUTO DOOR	1	20	0.5				2	REC. JAN. DRYER	1	20	0.72					
		3	AUTO DOOR	1	20		0.5			4	REC. USB	1	20		0.72				
		5	REC. DO / PU DESK	1	20			0.72		6	REC. USB	1	20			0.72			
		7	REC. CHANGE ROOM	1	20	0.18				8	REC. MECHANICAL RESTROOMS	1	20	0.9					
		9	REC. CHANGE ROOM	1	20		0.18			10	REC. CHANGE ROOM QUAD	1	20		1.08				
		11	REC. CHANGE ROOM	1	20			0.18		12	REC. CHANGE ROOM QUAD	1	20			1.08			
		13	REC. DO / PU	1	20		0.72			14	REC. CHANGE ROOM DEKS	1	20	0.54					
		15	DO / PU T-450 WASHER	2	15		0.74			16	LTG. JAN. DRYER, RR, MECH. CH	1	20		0.59				
		17						0.74		18	LTG. DO / PU	1	20			0.45			
		19	DO / PU T-650 WASHER	2	15	0.74				20	LTG. WASH AREA	1	20	1.5					
		21					0.74			22	LTG. WASH AREA	1	20		1.4				
		23	DO / PU T-650 WASHER	2	15			0.74		24	DWH-1	2	20		0.34		1		
		25				0.74				26				0.34					
		27	CP-1	1	20		0.2			28	SHUNT TRIP								
		29	UH-1	2	30			2.5		30	LTG. EXTERIOR	1	20			0.63			
		31				2.5				32	SPARE	1	20						
		33	SPARE	1	20					34	SPARE	1	20						
		35	SPARE	1	20					36	SPARE	1	20						
		37	PROVISION							38	PROVISION								
		39	PROVISION							40	PROVISION								
		41	PROVISION							42	PROVISION								
TOTAL: 5.38 2.36 4.88 0										TOTAL: 4 3.79 3.22 0.0									
										KVA / PHASE TOTAL: 5.38 2.36 4.88 0.0									
										AMP / PHASE TOTAL: 78.2 51.3 67.5									
										TOTAL CONNECTED LOAD: 23.63 KVA									
										TOTAL CONNECTED CURRENT: 65.59 AMPS									
										LIGHTS @ 125%: 5.71 KVA									
										RECEPTACLES @ 100%: 7.02 KVA									
										RECEPTACLES @ 50%: 0.00 KVA									
										LARGEST MOTOR LOAD @ 125%: 0.00 KVA									
										CONTINUOUS LOAD @ 125%: 0.00 KVA									
										OTHER AND NON-CONTINUOUS LOADS @ 100%: 0.00 KVA									
										TOTAL DEMAND LOAD: 24.27 KVA									
										POWER FACTOR: 0.95 % PF									
										TOTAL DEMAND CURRENT: 70.92 AMPS									

NOTES:
1 PROVIDE SHUNT TRIP BREAKER AND INTERLOCK WITH EPO

REV:

TOTAL CONNECTED LOAD: 23.63 KVA

TOTAL CONNECTED CURRENT: 65.59 AMPS

LIGHTS @ 125%: 5.71 KVA

RECEPTACLES @ 100%: 7.02 KVA

RECEPTACLES @ 50%: 0.00 KVA

LARGEST MOTOR LOAD @ 125%: 0.00 KVA

CONTINUOUS LOAD @ 125%: 0.00 KVA

OTHER AND NON-CONTINUOUS LOADS @ 100%: 0.00 KVA

TOTAL DEMAND LOAD: 24.27 KVA

POWER FACTOR: 0.95 % PF

TOTAL DEMAND CURRENT: 70.92 AMPS

GENERAL NOTE:
CONDUCTOR & CONDUIT SIZING CHART FOR SIZING OF BRANCH CIRCUITS AND OR FEEDERS AT OR BELOW 100 AMPS

EQUIPMENT CONNECTION SCHEDULE																
UNIT ID (PLAN MARKING)	DESCRIPTION	EQUIPMENT LOCATION	SIZE					DISCONNECT SWITCH					FEEDER SIZE	EQUIPMENT BEING FEED FROM PANEL	NOTES	REVISION
			HP	KW	A	VOLTS	PH	SIZE	VOLTAGE RATING	NUMBER OF POLES	NEMA TYPE	MOCP (NOTE 2)				
RTU 1	ROOFTOP UNIT	EXTERIOR	--	--	98	208	3	200	250	3	3R	125	23/23/26	1-1/4" C, 4-#1 & 1-#6G	MDP	3
RTU 2	ROOFTOP UNIT	EXTERIOR	--	--	98	208	3	200	250	3	3R	125	23/23/26	1-1/4" C, 4-#1 & 1-#6G	MDP	3
RTU 3	ROOFTOP UNIT	EXTERIOR	--	--	48	208	3	60	250	3	3R	60	23/23/26	1" C, 4-#6 & 1-#10G	MDP	3
EF 1	EXHAUST FAN	RESTROOM	1/20	--	1	120	1	20	250	1	1	20	26/26/26	3/4" C, 2-#12 & 1-#12G	P1	4,5
EF 2	EXHAUST FAN	RESTROOM	1/20	--	1	120	1	20	250	1	1	20	26/26/26	3/4" C, 2-#12 & 1-#12G	P1	4,5
EF 3	EXHAUST FAN	JANITOR	1/20	--	1	120	1	20	250	1	1	20	26/26/26	3/4" C, 2-#12 & 1-#12G	P1	4,5
UH 1	UNIT HEATER	MECH ROOM	1/4	5	20.8	208	1	30	250	2	1	30	26/26/26	3/4" C, 3-#10 & 1-#10G	P1	
DWH 1	DOMESTIC WATER HEATER	MECH ROOM	--	--	2	208	1	20	250	2	1	20	26/26/26	3/4" C, 3-#12 & 1-#12G	P1	4,6
CP 1	CIRCULATION PUMP	MECH ROOM	1/12	--	1.8	120	1	20	250	1	1	20	26/26/26	3/4" C, 2-#12 & 1-#12G	P1	4

GENERAL NOTE:
A DISCONNECTS SHALL BE 1HP HORSE POWER RATED WHERE APPLICABLE.

NOTES:
1 XYZ
X=FURNISHED BY DIVISION (22, 23 or 26)
Y=INSTALLED BY DIVISION (22, 23 or 26)
Z=CONNECTED BY DIVISION (22, 23 or 26)
2 MAXIMUM OVERCURRENT PROTECTION FUSE OR HACR CIRCUIT BREAKER PER MANUFACTURE'S LABEL
3 PROVIDE WITH RETURN AIR SMOKE DETECTION, INTERLOCK WITH UNIT FOR SHUTDOWN UPON DETECTION OF SMOKE.
4 PROVIDE 20A/1P TOGGLE SWITCH FOR DISCONNECTING MEANS.
5 INTERLOCK WITH LIGHTS SERVING ASSOCIATED ROOM. FAN SHALL OPERATE WHEN LIGHTS ARE TURNED ON.
6 PROVIDE EPO SWITCH AND INTERLOCK WITH SHUNT TRIP BREAKER.

LIGHT FIXTURE SCHEDULE

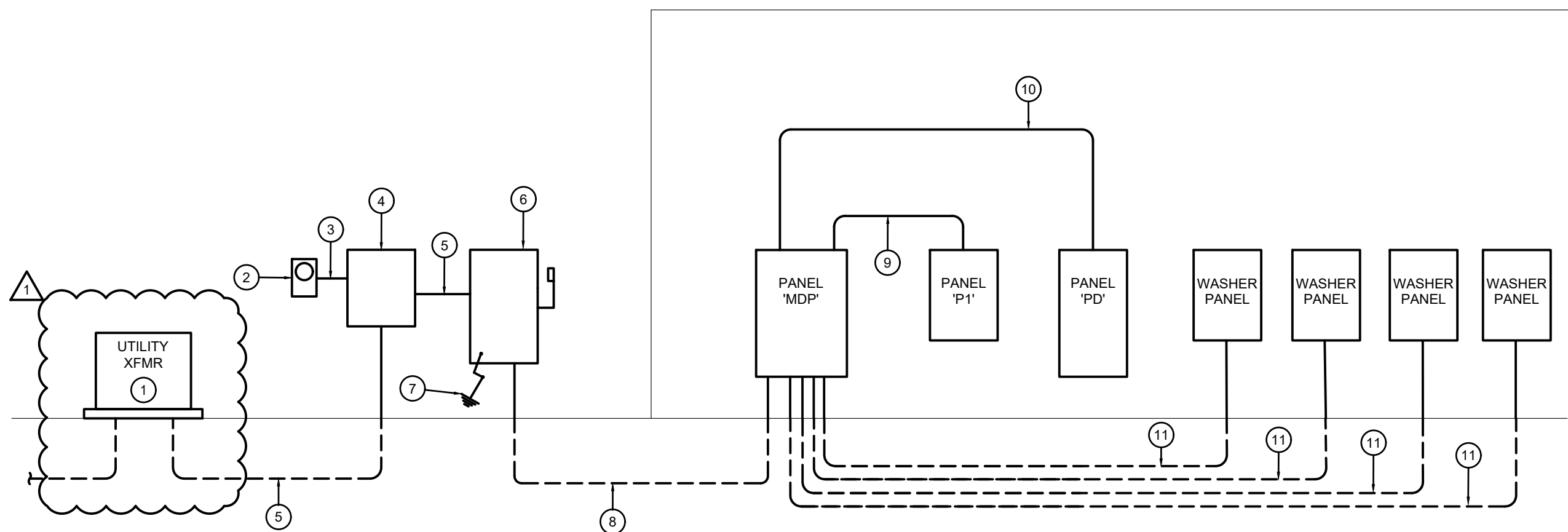
TYPE	MANUFACTURER	LAMPS	WATTS VOLTS	DESCRIPTION	NOTES
A1	LITHONIA CPX-2X4-4000LM-40K-M2	LED 4692 LUMENS 4000K, 80CRI	38.9 120	2X4 RECESSED LED FLAT PANEL.	1
B1	LITHONIA CCS-4-48-4000LM-MVOLT-40K- 80CRI-ZACH	LED 4000 LUMENS 4000K, 80 CRI	35.8 120	NOMINAL 4" LINEAR LED STRIP FIXTURE, ACRYLIC LENS, WHITE HOUSING, AIRCRAFT CABLE MOUNTING SUSPENSION.	1
C1	LITHONIA WDGE4-LED-P4-40K-80CRI-R3- MVOLT	LED 12000 LUMENS 4000K, 80 CRI	88 120	NOMINAL 18" WIDE BY 6" DEEP WALL MOUNTED LED AREA LIGHT, TYPE III DISTRIBUTION, BRONZE FINISH.	1
E1	LITHONIA ELMRL	LED W/ FIXTURE	2.5 120	EMERGENCY LIGHTING UNIT, LED HEADS, WHITE HOUSING.	1
RL	LITHONIA ELA-8-S-Q-L0309-SD	LED W/ FIXTURE	1.5 120	WET LOCATION LISTED EXTERIOR REMOTE EMERGENCY LIGHTING UNIT TO BE WIRED WITH ADJACENT EXIT SIGN.	1
X1	LITHONIA LHQM-LED-R-HQ-SD	LED W/ FIXTURE	4.3 120	COMBINATION EXIT SIGN AND EMERGENCY LIGHTING UNIT, WHITE HOUSING, RED LETTERS, NICAD BATTERY, SELF DIAGNOSTICS. PROVIDE WITH REMOTE HEAD WHERE INDICATED ON PLANS.	1

SPECIFIC NOTES:
1 OR APPROVED EQUAL BY METALUX, HE WILLIAMS

SUBSTITUTION NOTES:

THE LIGHTING DESIGN FOR THIS PROJECT IS BASED UPON THE MANUFACTURERS SPECIFIED. IF AN ADDITIONAL SUBSTITUTION IS DESIRED BY THE CONTRACTOR, A SUBSTITUTION REQUEST SUBMITTAL MUST BE PROVIDED AS FOLLOWS:
S1. SUBSTITUTION REQUEST MUST BE RECEIVED BY THE ENGINEER IN WRITING 10 DAYS PRIOR TO BID. FAILURE TO SUBMIT CONSTITUTES A GUARANTEE TO SUPPLY THE SPECIFIED FIXTURES.
S2. INFORMATION IS TO BE SUPPLIED COMPARING PHOTOMETRY, (WITH FLOOR PLANS INDICATING POINT BY POINT CALCULATIONS) DIMENSIONS, MATERIAL COMPOSITION, FINISH, VISUAL APPEARANCE AS WELL AS THE CONTRACTOR NET PRICING. SAMPLES ARE TO BE PROVIDED UPON REQUEST.
S3. GREAT CARE, TIME AND EXPENSE HAVE BEEN USED TO PROVIDE OUR CLIENT WITH THE LIGHTING AND CONTROLS SYSTEM. THEREFORE, FOR EACH AND EVERY TYPE OF FIXTURE OFFERED AS AN UNSOLICITED ALTERNATE, A \$500.00 FEE WILL BE CHARGED TO THE CONTRACTOR FOR REVIEW OF THE ALTERNATE FIXTURE. THIS CHARGE IS IN NO WAY A GUARANTEE OF APPROVAL, BUT IS SOLELY TO COMPENSATE THE ENGINEER FOR TIME SPENT VALIDATING EQUALITY AND COMPATIBILITY WITH THE PROJECT REQUIREMENTS. THIS REIMBURSEMENT MUST BE RECEIVED BY THE ENGINEER PRIOR TO ANY REVIEW COMMENCING.
S4. PACKAGING OF LIGHT FIXTURES WILL NOT BE CONSIDERED OR APPROVED.
S5. MANUFACTURER'S REPRESENTATIVE AGENTS SHALL BE ALLOWED TO OFFER MINI-LOT PRICING FOR SPECIFIED LIGHTING FIXTURES.
S6. LIGHTING CONTROLS PRICING SHALL BE COMPLETELY SEPARATE OF ANY LIGHT FIXTURE PRICING. ANY LIGHTING CONTROLS PRICING THAT IS SUBMITTED WITH LIGHT FIXTURE PRICING (UNIT OR MINI-LOT) WILL BE IMMEDIATELY REJECTED IN ITS ENTIRETY.

GENERAL NOTE:
G1. ELECTRICAL CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING ANY LIGHT FIXTURES.
G2. ELECTRICAL CONTRACTOR SHALL COORDINATE DIMMING DRIVERS/BALLASTS WITH DIMMING SWITCHES/SYSTEMS AND SHALL INCLUDE ALL REQUIRED CONTROL WIRING.



RISER DIAGRAM

NO SCALE

RISER NOTES

- PAD MOUNT UTILITY TRANSFORMER PER EVERGY STANDARDS.
- METER SOCKET PER EVERGY STANDARDS.
- 1-1/4" EMPTY CONDUIT FOR CT WIRING.
- CT CABINET PER EVERGY STANDARDS.
- 1200 AMP SERVICE ENTRANCE CONDUCTORS, (4) SETS OF 2-1/2" C, 4-#350 KCMIL.
- 1200 AMP, 208 VOLT, 3 PHASE, 4 WIRE DISCONNECT SWITCH, FUSED AT 1200 AMPS IN A NEMA 3R ENCLOSURE. SERVICE ENTRANCE RATED.
- GROUND PER NEC ARTICLE 250 AND DETAIL.
- 1200 AMP FEED: (4) SETS OF 2-1/2" C, 4-#350 KCMIL & 1-#3/0 GROUND WIRE.
- 100 AMP FEED: 1-1/4" C, 4-#3 & 1-#8 GROUND WIRE.
- 400 AMP FEED: 3" C, 4-#500 KCMIL & 1-#3 GROUND WIRE.
- 225 AMP FEED: 2-1/2", 4-#4/0 & 1-#4 GROUND WIRE.

GENERAL NOTES (TYPICAL ALL SHEETS)

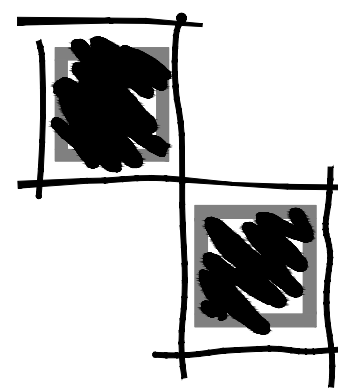
- REFER TO ARCHITECTS REFLECTED CEILING PLANS FOR EXACT PLACEMENT OF LIGHT FIXTURES, SPEAKER AND F.A. DEVICES IN THE CEILING SYSTEM.
- REFER TO ARCHITECTURAL DETAILS AND ELEVATIONS FOR COORDINATION OF LOCATION OF ALL WIRING DEVICES BEFORE ROUGH-IN OF J-BOXES.
- CONTRACTOR TO REFERENCE BRANCH CIRCUIT COPPER CONDUCTOR AND CONDUIT SIZING CHART FOR SIZING OF BRANCH CIRCUITS AND OR FEEDERS AT OR BELOW 100AMPS.
- SUPPORT ALL LIGHT FIXTURES WITH A MINIMUM OF (4) 12 GA. HANGER WIRES TO STRUCTURE ABOVE.
- CONNECT EXIT AND EMERGENCY LIGHTS TO HOT LEG, NOT SWITCH LEG.
- DISCONNECTS FOR MECHANICAL EQUIPMENT ARE PROVIDED BY OTHERS. UNLESS NOTED OTHERWISE.
- PROVIDE HOUSE KEEPING PAD FOR ALL FLOOR MOUNTED EQUIPMENT.
- UPON REQUEST FOR ELECTRONIC FILES, CONTRACTOR SHALL FILL OUT, SIGN AND RETURN ELECTRONIC MEDIA RELEASE FORM FROM ENGINEER AND PROVIDE PAYMENT FOR FEES STIPULATED ON ELECTRONIC MEDIA RELEASE FORM. UPON RECEIPT OF COMPLETED RELEASE FORM AND PAYMENT, ELECTRONIC FILES WILL BE RELEASED.
- REFERENCE EQUIPMENT CONNECTION SCHEDULE FOR CONNECTION REQUIREMENTS TO ALL EQUIPMENT.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR REQUIREMENTS AND LOCATIONS. ELECTRICAL SYSTEMS SHALL BE DESIGNED TO TAKE ADVANTAGE OF UTILITY COMPANY'S REBATE PROGRAM.

ELECTRICAL SYMBOLS

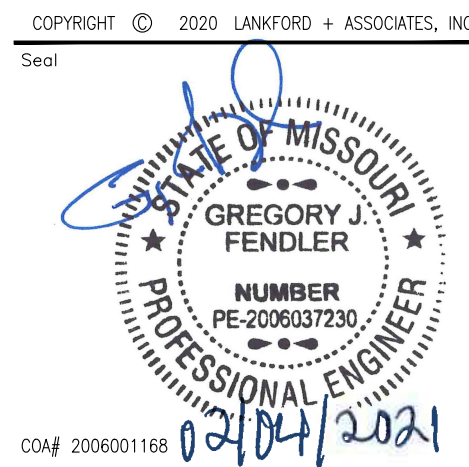
- BRANCH CIRCUIT CONCEALED IN CEILING OR WALL. ARROWS INDICATE HOMERUNS TO PANEL. ALL CONDUCTORS ARE MINIMUM NO.12 UNLESS NOTED OTHERWISE.
- PHASE CONDUCTORS
NEUTRAL CONDUCTOR
SWITCH-LEG AND OR TRAVELER
GROUND CONDUCTOR
- LP1-10
1/3, 1/35
- PANEL - BREAKER NUMBER (IDENTIFICATION)
INDICATES XXX= 2-POLE C.B., XXXX = 3-POLE C.B.
- CONDUIT CONCEALED IN CEILING OR WALL WITH THREE CONDUCTORS:
1-PHASE, 1-NEUTRAL, 1-GROUND WIRE. MINIMUM NO.12 WIRE UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
- CONDUIT RUN UNDERGROUND OR CONCEALED IN FLOOR SLAB.
- GROUNDING CONDUCTOR NO.12 WIRE EXCEPT AS NOTED
- COMBINATION EXIT SIGN/EMERGENCY LIGHTING UNIT - CEILING OR WALL MOUNTED. SHADED SIDE(S) INDICATES FACE SIDE(S) OF EXIT.
- CEILING OR WALL MOUNTED EMERGENCY LIGHTING UNIT WITH INTEGRAL BATTERY AND UNIT MOUNTED HEADS.
- 2x4 / 2x2 LIGHT FIXTURE, LETTER DENOTES FIXTURE TYPE, REFER TO SCHEDULE
- WALL MOUNTED LIGHT FIXTURE, SIZE AND TYPE AS NOTED
- INDIRECT/DIRECT LIGHT FIXTURE, SIZE AND TYPE AS NOTED
- 208Y/120V OR 120/240V PANELBOARD (SURFACE) TOP MOUNTED 6'-0" AFF
- DISTRIBUTION PANEL (SURFACE OR FLOOR MOUNTED).
- SURFACE MOUNTED EQUIPMENT, TYPE AS INDICATED ON DRAWINGS
- CONDUIT UP
- CONDUIT DOWN
- GROUND
- POWER CONNECTION POINT
- DISCONNECT SWITCH, SIZE AND TYPE AS NOTED TOP MOUNTED 5'-0" AFF
- SINGLE POLE SWITCH, TOP OF DEVICE BOX AT +4'-0" AFF
- WALL MOUNTED MOTION SENSOR, TOP OF DEVICE BOX AT +4'-0" AFF, TYPE AS INDICATED
- 20A/3P SWITCH
- PUSH BUTTON +4'-0" AFF.
- DUPLEX RECEPTACLE +1'-6" AFF OR AS NOTED
- DUPLEX RECEPTACLE INSTALLED ABOVE COUNTERTOP
- DUPLEX RECEPTACLE W/GROUND FAULT PROTECTION +1'-6" AFF OR AS NOTED
- DOUBLE DUPLEX RECEPTACLE +1'-6" AFF OR AS NOTED
- CEILING MOUNTED MOTION DETECTOR TYPE AS INDICATED
- WALL MOUNTED OR CEILING MOUNTED JUNCTION BOX.
- DUCT MOUNTED PHOTO-ELECTRIC SMOKE DETECTOR
- INDICATES WIRING DEVICE ABOVE RE. DRAWING
- MECHANICAL EQUIPMENT CALL OUT BUBBLE
- ELECTRICAL EQUIPMENT PROVIDED BY ANS INSTALLED BY E.C.

1730 Walnut Street
Kansas City, Missouri
64108

Fender



Lankford



WASH HOUSE LAUNDRY - LEE'S SUMMIT

711 SE 291 HWY.
LEE'S SUMMIT, MO. 64063

Project Number:	20.6606.00
Date	12/15/2020
Phase	Construction
Issued For	Permit
Drawn By	JSV
P.L.C.	BLH/GIF

Revision	ADDENDUM 1	FEBRUARY 04, 2021
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