

PLAN NOTES

Gray Screen SW 7071

COLOR: SW 7071 GRAY SCREEN



KNOCK DOWN TROWEL FINISH

STUCCO WALL ONE COAT SYSTEM



UTILITY FACE BRICK
GLEN GERRY BRICK COMPANY
EBONITE SMOOTH
UTILITY SIZE

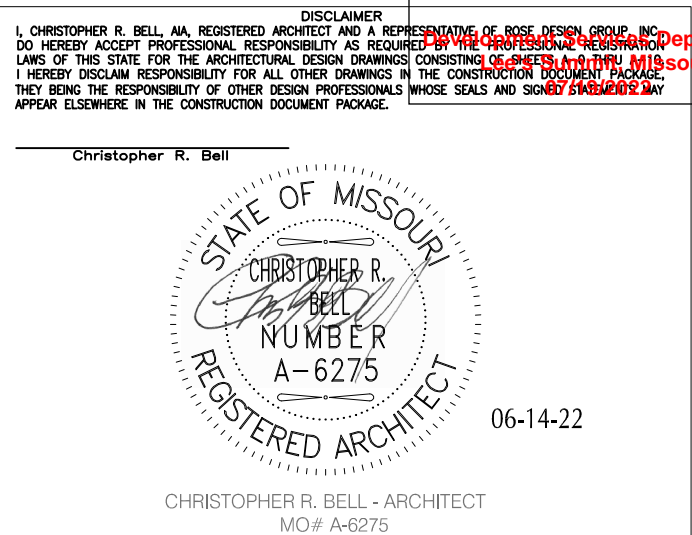


myperfectcolor.com

BERRIDGE TEE PANEL
STANDING SEAM ROOF PANELS
COLOR CHARCOAL GREY

WALL TYPES

- A 5/8" GYP BD ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO STRUCTURE ABOVE W/SOUND BATT INSULATION
- B 5/8" GYP BD ON 6" 20 GA. METAL STUDS @ 16" O.C. TO STRUCTURE ABOVE W/SOUND BATT INSULATION



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A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998

P.O. BOX 100 OLATHE, KS 66051

KANSAS STATE CERTIFICATE OF AUTHORITY # A-6275 www.BuiltWithRose.com



PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY UNIT C

LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
|-----|----------------------|----------|
| 1 | CITY REVIEW COMMENTS | 07-07-22 |
| 2 | CITY REVIEW COMMENTS | 07-13-22 |

PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 22

SHEET NUMBER

A2.0

PHASE I
FLOOR PLAN

| SYMBOL | PRODUCT | MANUFACTURER | PRODUCT / COLOR | NOTES |
|-----------------|----------------------|--------------------------|--|-------|
| FLOORING | | | | |
| F1 | EPOXY FLOORING | DUR-A-FLEX SHOP FLOOR | DOUBLE BROADCAST - GRAY SPECKLED | 3 |
| F2 | SEALED CONCRETE | PROSOCO | CONSOLDECK-SB & LS SYSTEMS W/ JOINT FILLER | |
| WALLS | | | | |
| W1 | PAINT | S.W. PROMAR 400 EGGSHELL | SW CUSTOM SHOP COLOR | 2 |
| W2 | PAINT | S.W. PROMAR 400 EGGSHELL | SW CUSTOM SHOP COLOR & SW 7005 PURE WHITE | 5 |
| W3 | CERAMIC TILE & PAINT | S.W. PROMAR 400 EGGSHELL | SW 7653-SILVERPOINTE | 1 |
| W4 | PAINT | S.W. PROMAR 400 EGGSHELL | SW 7653-SILVERPOINTE | |
| BASE | | | | |
| B1 | 4" RUBBER BASE | ROPPE | 700 SERIES, 129 DOLPHIN | |
| B2 | 6" EPOXY BASE | | | |
| CEILING | | | | |
| C1 | 2X2 ACOUSTICAL TILE | ARMSTRONG | ULTIMA BEVELED TEGULAR 1911A | |

NOTES:

1. CERAMIC WALL TILE SIZE: 12" X 24" X 1/4",TROVATA - DIARY, MANUF: EMSER, PAINT ABOVE, GROUT: MAPEI, COLOR: T.B.D.
2. 60" TALL WAINSCOT FOR CUSTOM COLOR
3. PROVIDE TRANSITION STRIPS WHERE REQUIRED
4. DOOR FRAME COLOR: SW MATCH RUBBER SHE - DOLPHIN - EGGSHELL
5. PAINT COMBO COLOR ON SHOP SIDE OF GYP BD WALLS

SHERWIN-WILLIAMS 703265 08/29/21
815-469-7557 Order# 0321217

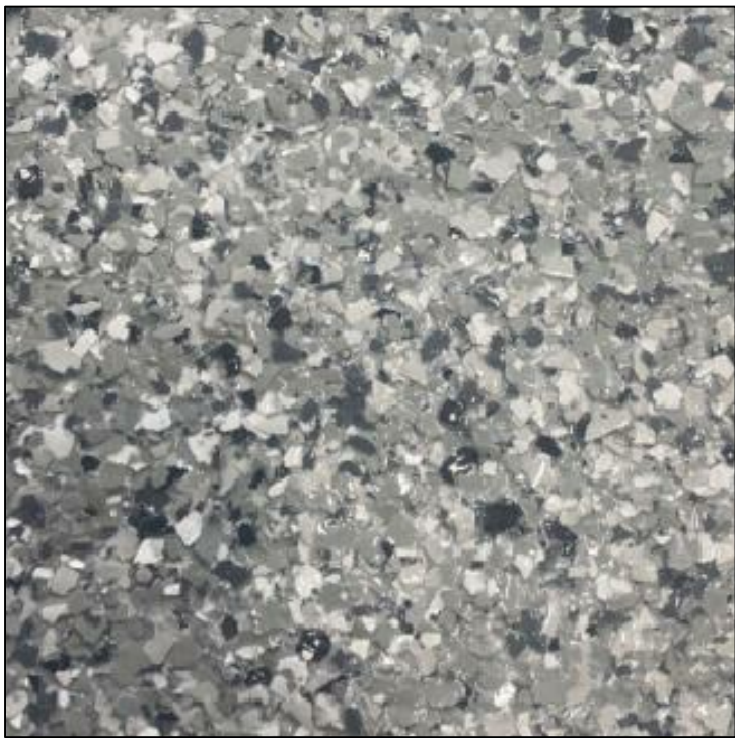
INTERIOR ARCHITECTURAL
PRIMAR 200 ZERO VOC LATEX
SEMI-GLOSS IFC 6012NP

INTERIOR SHOP GRAY
CUSTOM MANUAL MATCH

| | | | | |
|-------------|----|----|----|-----|
| CCECOLORANT | OZ | 32 | 64 | 128 |
| W1-White | 4 | 48 | - | 1 |
| B1-Black | 30 | 13 | 1 | 1 |
| R2-Maroon | - | 38 | 1 | 1 |
| R3-Magenta | 10 | - | - | - |
| Y1-Yellow | 12 | 27 | - | 1 |

FIVE GALLON DEEP
B31W02653 650187230

SW CUSTOM SHOP COLOR



EPOXY COLOR SAMPLE

| DOOR SCHEDULE | | | | | | | | |
|---------------|------------------|---------|------|-----------|------------|-------------|------|---------|
| DOOR NO. | DOOR SIZE | DETAILS | | DOOR TYPE | FRAME TYPE | PATING MAT. | HROW | REMARKS |
| | | HEAD | JAMB | | | | | |
| 01 | 4' X 7' X 1 3/4" | | | 1 | A | | 2 | |
| 02 | 3' X 7' X 1 3/4" | | | 1 | A | | 3 | |
| 04 | 5' X 7' X 1 3/4" | | | 1 | A | | 1 | |
| 06 | 3' X 7' X 1 3/4" | | | 1 | A | | 1 | |

HARDWARE SCHEDULE

HARDWARE SET 1 US32D
3 EA BB NRP HINGES (4.5X4.5)
1 EA PANIC HARDWARE
1 EA THRESHOLD 3/0
1 EA SWEEP
1 EA WEATHERSTRIP 3/0 X 7/
1 EA ALUM CLOSER

HARDWARE SET 2 US32D
3 EA HINGES (4.5X4.5) US32D
1 EA PASSAGE SET
1 WALL STOP

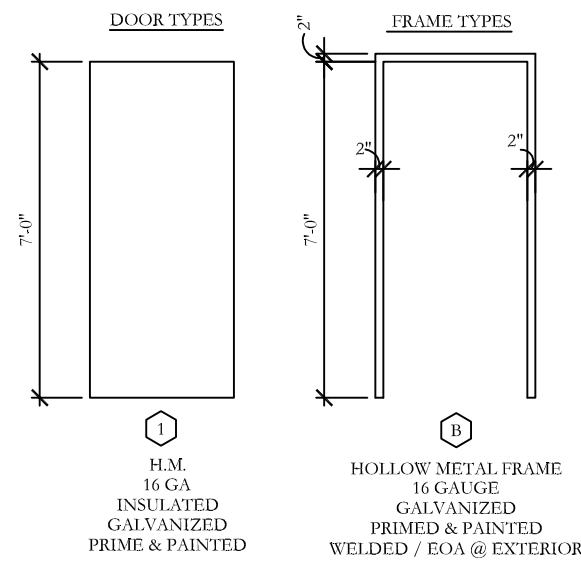
HARDWARE SET 3 US32D
3 EA HINGES (4.5X4.5)
1 EA LEVER PRIVACY
1 WALL STOP

HARDWARE SPECS:
DOOR LEVER: CAL-ROYAL PIONEER SL SERIES (SL)
OR APPROVED EQUAL
CLOSURES: LCN 4040 SERIES
APPROVED EQUAL: CAL-ROYAL 900 SERIES
PANIC HARDWARE: VON DUPRIN #9848
APPROVED EQUAL: CAL-ROYAL 9800 RIM TYPE
SHALL MEET REQUIREMENTS PER IBC SECTION 1008.1.10

INTERIOR HINGES:
STANDARD WEIGHT BALL BEARING CONCEALED

EXTERIOR HINGES:
HEAVY WEIGHT BALL BEARING CONCEALED

ALL COMMERCIAL HARDWARE GRADE LEVEL 1

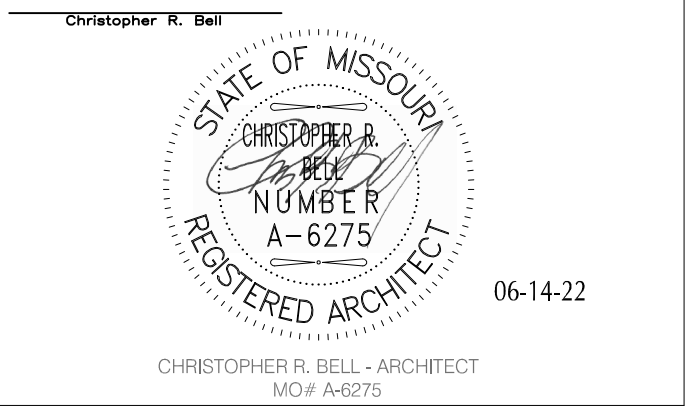


PLAN NOTES

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CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LET'S SUMMIT. MISSOURI

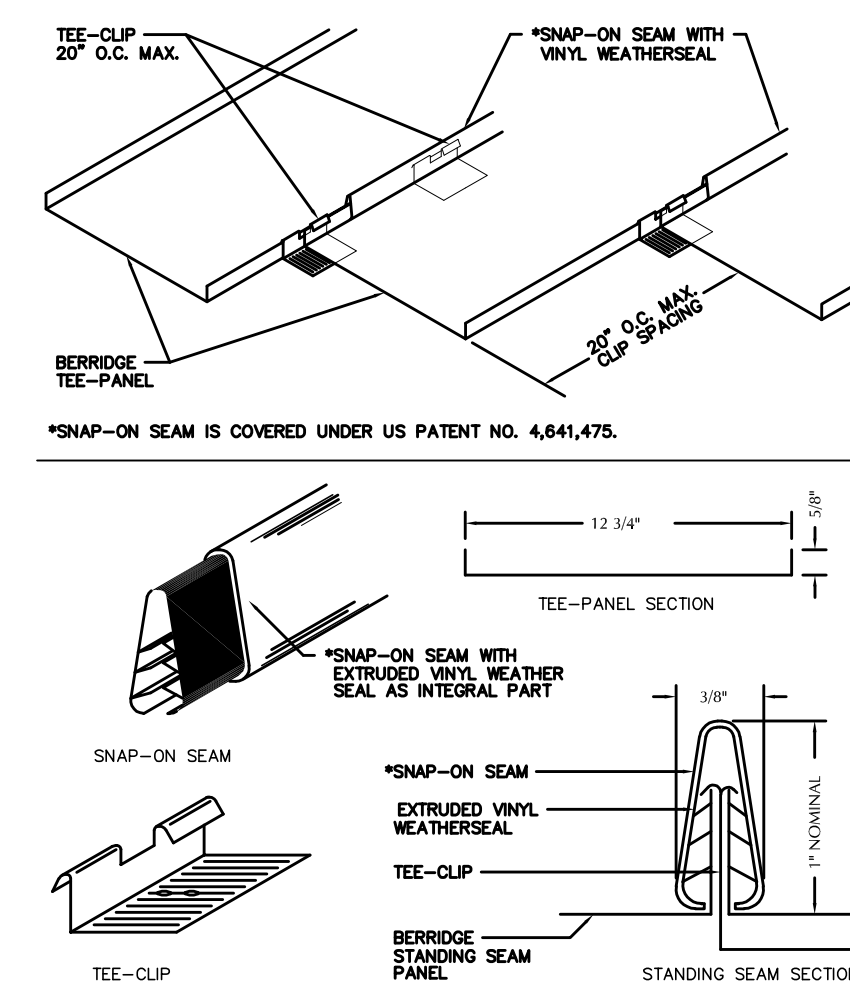
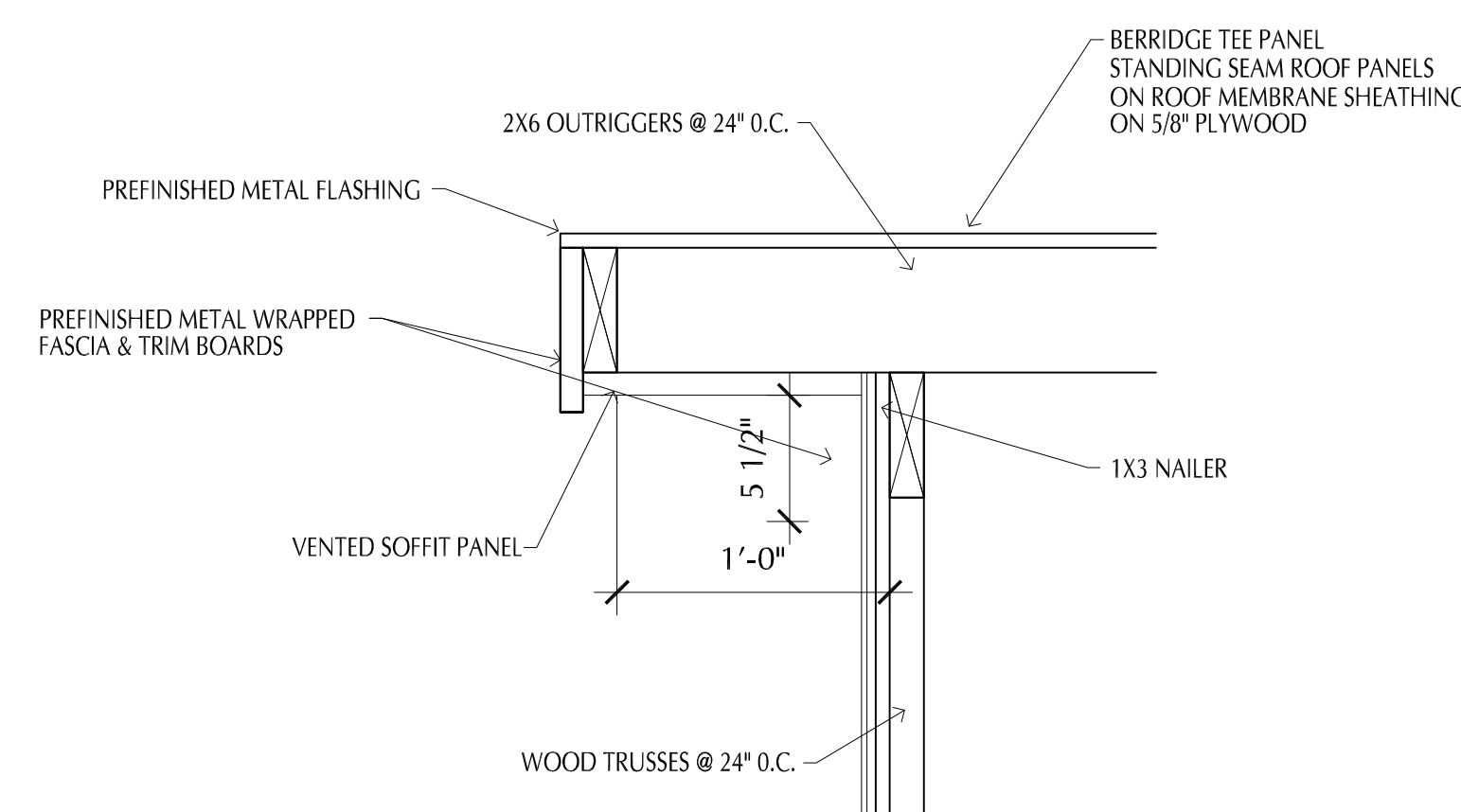
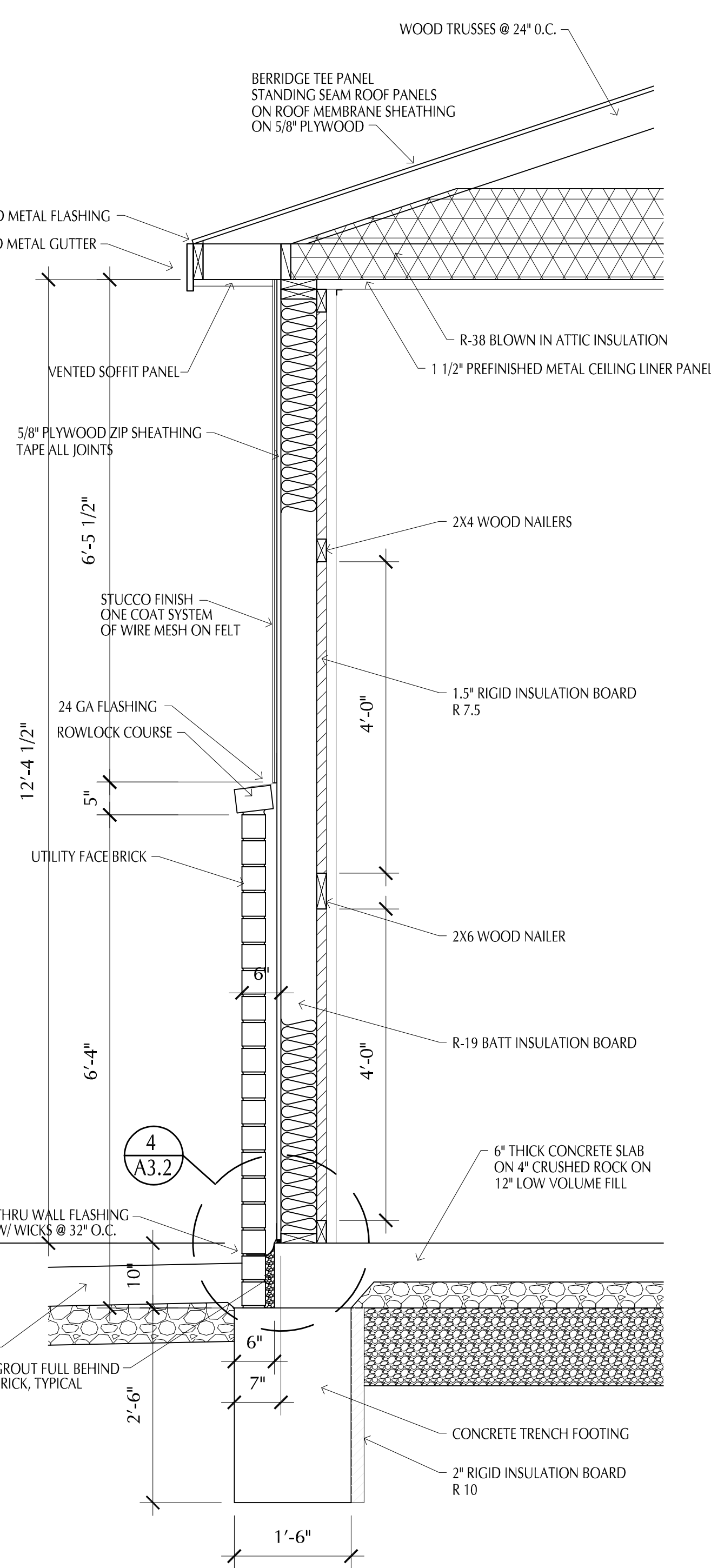
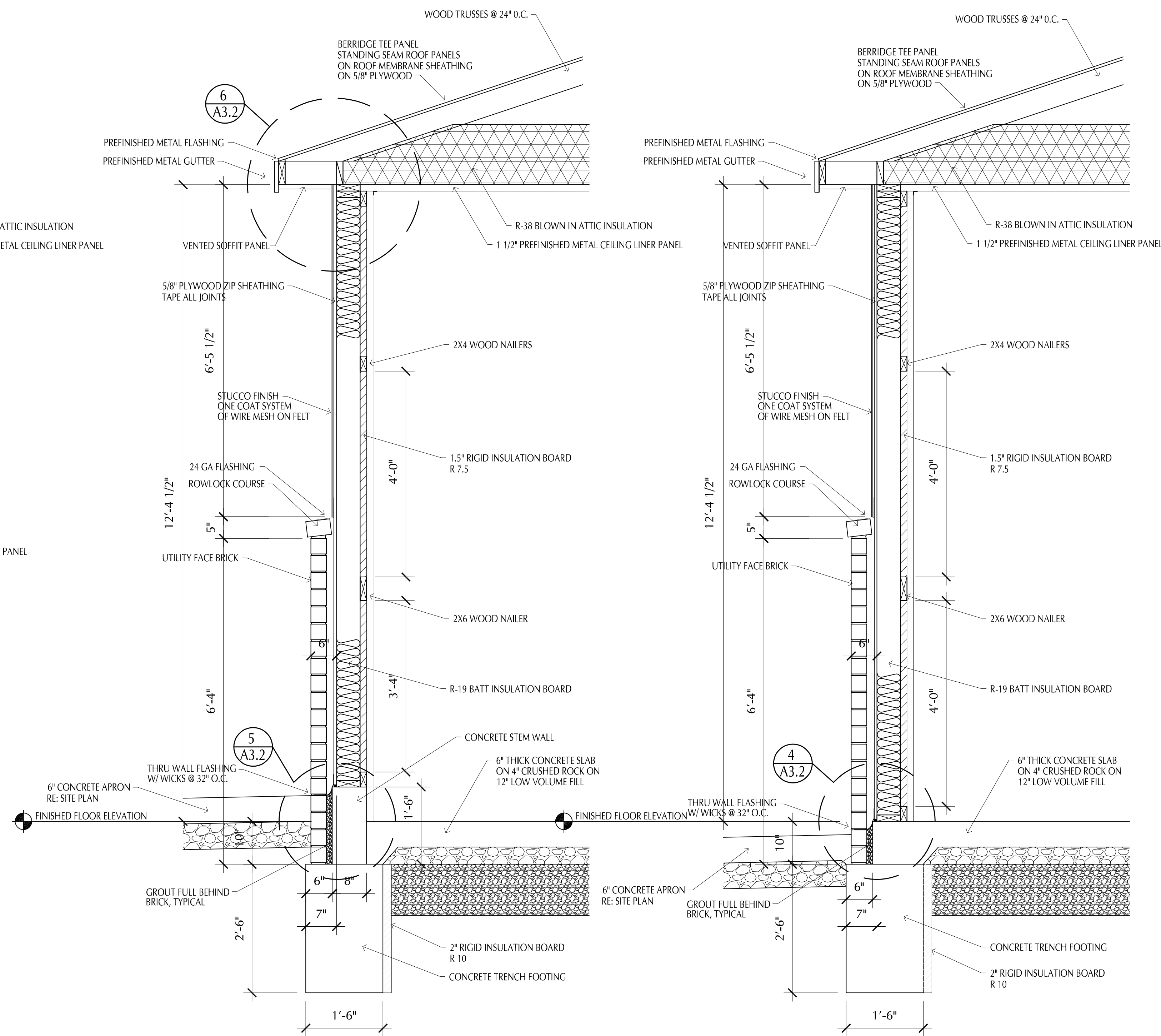
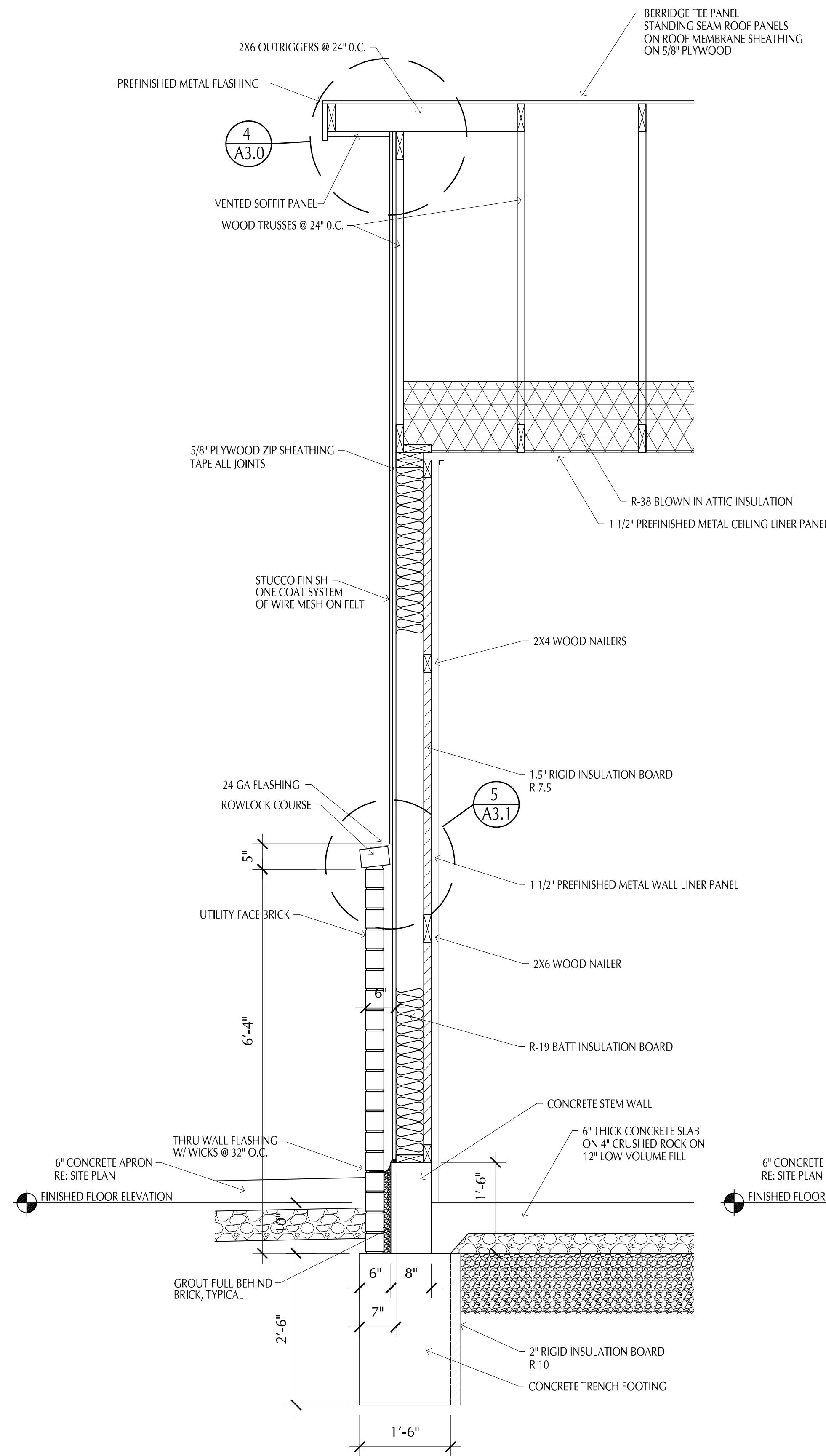
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PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 22

SHEET NUMBER

A2.1

FINISH SCHEDULES



PLAN NOTES

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DESIGN GROUP INC.

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CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

[illegible]

| | |
|----------------|-------|
| PROJECT NUMBER | 22009 |
|----------------|-------|

DATE ISSUED: 06 / 14 / 22

SHEET NUMBER

A3.0

WALL SECTIONS



WALL SECTION 3



SECTION DETAIL 5



SECTION DETAIL 4



WALL SECTION 2

Scale 3/4" = 1'-0"

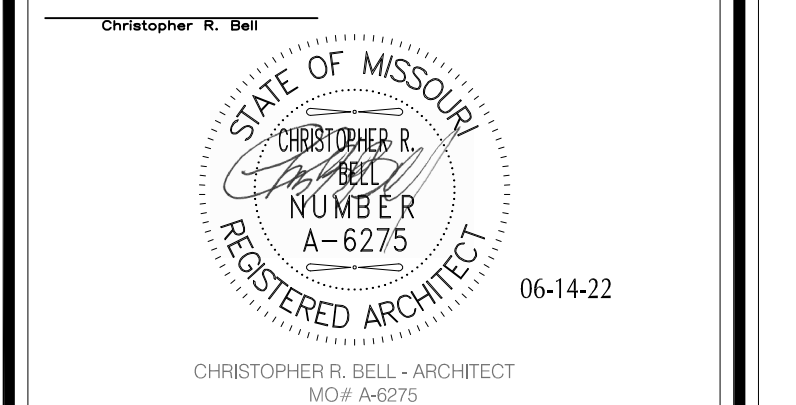


WALL SECTION 1

Scale 3/4" = 1'-0"

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PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT.MISSOURI

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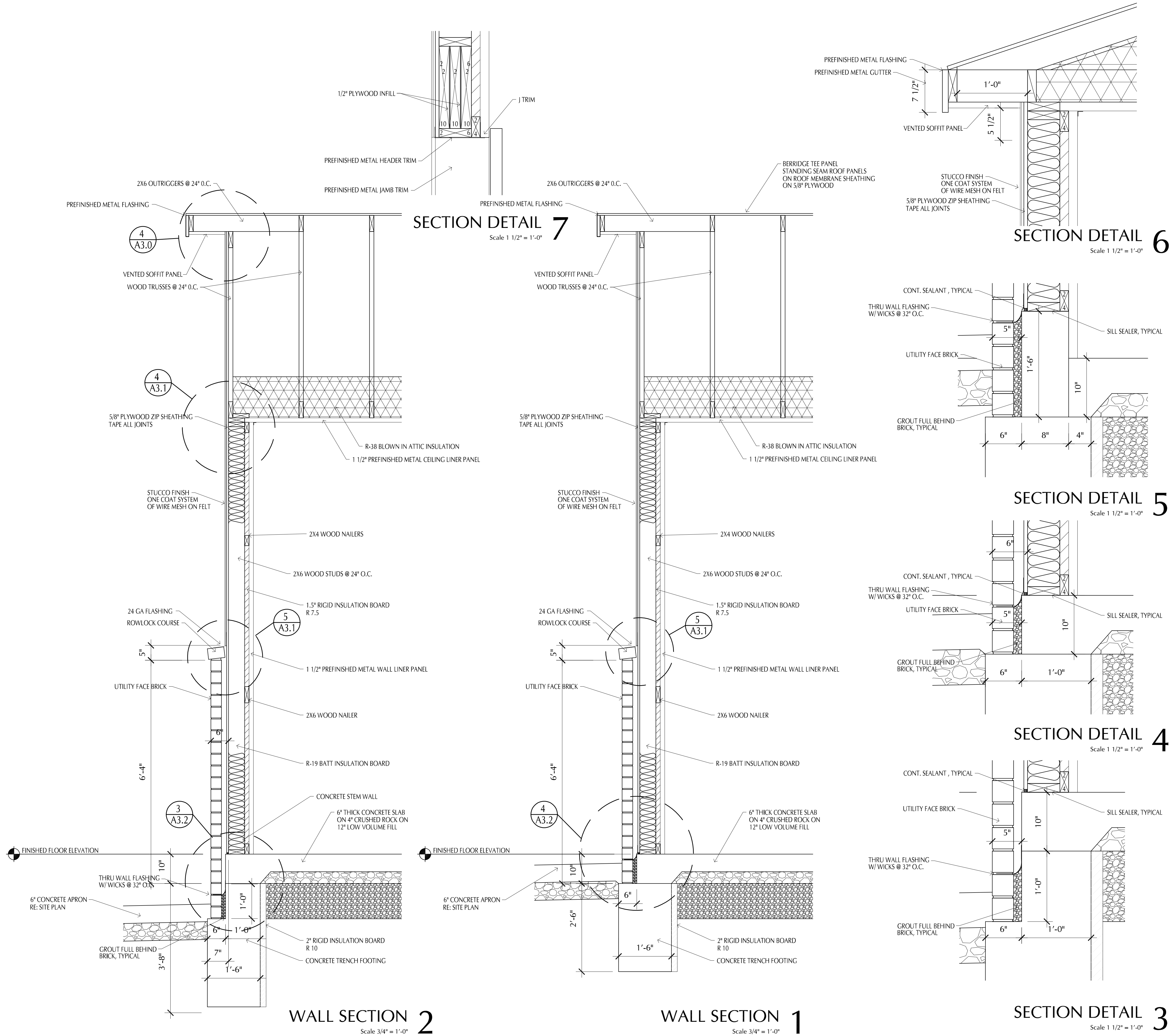
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| PROJECT NUMBER | 22009 |
| DATE ISSUED: | 06 / 14 / 22 |

SHEET NUMBER

A3.1

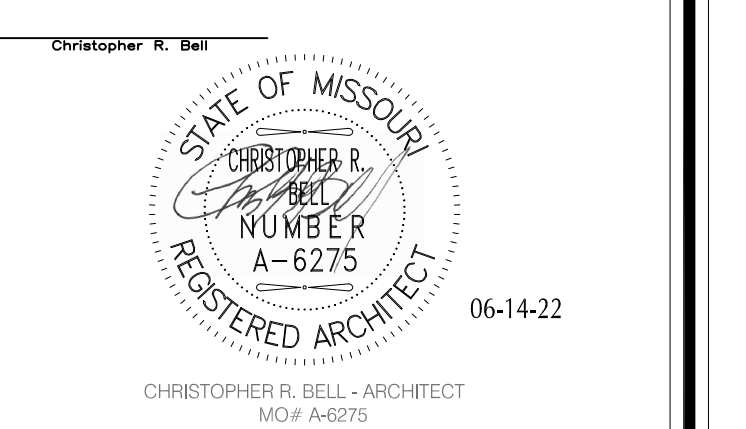
WALL SECTIONS

Jun 13, 2022 - 9:41am - USER ChrisB
T:\Rose\Drawings-Current\22009 Crash Champions Lees Summit Addition\Production\Planning & Zoning\Architectural\A3.2 WALL SECTIONS.dwg
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PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
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PROJECT NUMBER 22009

DATE ISSUED: 06 / 14 / 22

SHEET NUMBER

A3.2

WALL SECTIONS

Jun 15, 2022 -- 10:52am -- USER ged U:\0-S\KCI Projects\VC2210.00 -- Crash Champions Expansion\VC2210.00 Dwg's\S1-2.dwg

Champions Expansion\VC2210.00 Dwg's\S1-2.dwg
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GENERAL NOTES - STRUCTURAL

- The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.
- The contractor shall coordinate all disciplines, verifying size and location of all openings, whether shown on structural drawings or not, as called for on architectural, mechanical, or electrical drawings. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.
- All design and construction work for this project shall conform to the requirements of the 2018 International Building Code, as amended by the City of Lees Summit, MO.
- These drawings are for this specific project and no other use is authorized.
- Structural Design Load Criteria:
 - Roof Live= 25 psf
 - Snow: Pg = 20psf, Pt=14psf, s = 1.0
Ce=1.0, Ct=1.0, Drift per ASCE/SEI T-10
 - Lateral Loads:
 - Wind V = 115 mph, exposure 'C'
Occupancy [Risk] Category II, Iw=1.0
Gcpi=1/-0.8
Design wind pressures to be used for the design of exterior component, and cladding materials on the designated zones of wall and roof surfaces shall be per section 30.7.1 and Table 30.7-2 of ASCE/SEI T-10. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable.
 - This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the 2018 International Building Code.
- Concrete:
 - All concrete for grade beams shall develop minimum ultimate compressive design strength of 3500 psi in 28 days, but not less than 300 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 6 gallons of water per 100 pounds of cement and not over 4 inches of slump.
 - All concrete for interior flat work shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 360 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5 gallons of water per 100 pounds of cement and not over 4 inches of slump.
 - All concrete for exterior flatwork shall have a minimum design compressive strength of 4500 psi in 28 days, with not less than 360 pounds of cement per cubic yard of concrete, not over 5 gallons of water per 100 pounds of cement, with 6% +/- 1% air entrainment, and a maximum of 4 inches of slump.
 - The preceding minimum mix requirements may have water-reducing admixtures conforming to ASTM C494 added to the mix at manufacturer's dosage rates for improved workability.
 - The preceding minimum mix requirements may have up to 15% maximum of the cement content replaced with an approved ASTM C618 Class C fly ash, provided the total minimum cementitious content is not reduced.
 - Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with no more than 10 percent and not less than 5 percent retained on an individual sieve, except that less than 5 percent may be retained on coarsest sieve and on No. 50 and finer sieves. Submit this gradation report with the concrete mix design shop drawings.
 - All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1745 with less than 0.01 perms, tested after mandatory conditioning. All joints shall be lapped and sealed per manufacturer's recommendations. All penetrations, as well as damaged vapor barrier material shall also be sealed per manufacturer's recommendation prior to concrete placement. Install barrier per manufacturer recommended details at all discontinuous edges (at interior corners, exterior edge of slab, etc.) to ensure terms of warranty are followed. The vapor barrier shall be placed over free-draining granular material as prescribed by the project soils report.
 - All concrete is reinforced concrete unless specifically called out as unreinforced. Reinforce all concrete not otherwise shown with same steel as in similar sections or areas. Any details not shown shall be detailed per ACI 315 and meet requirements of ACI 318, current editions.
 - Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.
 - Construction joints in grade beams shall occur at midspan (middle third) unless noted otherwise. Provide 2 x 4 horizontal keys at construction joints for shear transfer.
 - No aluminum items shall be embedded in any concrete.
- Reinforcing Steel:
 - All reinforcing steel shall conform to the requirements of ASTM A615 or A706 grade 60 steel. Welded plain wire fabric shall be supplied in sheets and conform to the requirements of ASTM A1064.
 - Clear coverage of concrete over reinforcing steel shall be as follows:

| | |
|-------------------------------|----|
| Concrete placed against earth | 3" |
| Formed concrete against earth | 2" |
| Slabs | 1" |
| Other | 2" |

All coverage shall be nominal bar diameter minimum.
 - At corners of all grade beams supply corner bars (minimum 2'-6" in each direction or 4# bar diameters) in outside face of wall, matching size and spacing of horizontal bars.
 - Bars marked continuous shall be lapped 48 bar diameters (2'-6" minimum) at splices.
 - Accessories shall be as specified in latest edition of the ACI Detailing Handbook and the concrete Reinforcing Steel Institute Design Handbook. Maximum accessory spacing shall be 4'-0" on center, and all accessories on exposed surfaces are to have plastic coated feet.
 - All slabs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way. Slope porches 1/8" per foot for drainage unless noted otherwise.
- Foundations:
 - Spread footings, grade beams, and retaining walls are designed to bear on engineered fill or undisturbed soil capable of safely sustaining 2000 psf.
 - Contractor shall provide for denaturing at excavations from either surface water or seepage.
 - All foundation excavations shall be inspected by a qualified soil engineer, approved by the architect and/or structural engineer, prior to placement of steel or concrete. This inspection shall be at the owner's expense.
 - Moisture content in soils beneath building locations should not be allowed to change after footing excavations and after grading for slabs on grade are completed. If subgrade materials become desiccated or softened by water or other conditions, recompact materials to the density and water content specified for engineered fill. Do not place concrete on frozen ground.
- Timber and Wood Framing:
 - Quality and construction of wood framing members and their fasteners for load supporting purposes not otherwise indicated on the drawings shall be in accordance with the 2018 International Building Code.

- grade (visually graded) lumber with an allowable fiber stress in compression parallel grain of 900 psi and an elastic modulus of 1,200,000 psi.
- Blocking of stud bearing walls and shear walls shall be solid, matching sheathing joints.
 - Wood members and sheathing shall be fastened with number and size of fasteners not less than that set forth in Table 2304.4.1 of the 2012 International Building Code. Sheathing of shear walls or roof diaphragms shall be edge nailed with 8d common nails at 6" on center and nailed to intermediate framing and/or blocking members with 8d common nails at 12" on center unless otherwise noted on the drawings.
 - Sill plates shall be bolted to concrete walls or steel beams with 1/2" diameter galvanized bolts at 32" on center. Plates in direct contact with concrete shall be treated lumber.
 - Service condition - dry with moisture content at or below 19% in service.
 - Laminated veneer lumber (LVL) shall have an allowable flexural stress (Fb) of 2600 psi (reduced by size factor) and an elastic modulus (E) of 1,800,000 psi.
 - Pre-engineered wood trusses shall be designed in accordance with the Truss Plate Institute's national design standard for metal-plate connected wood truss construction (ANSI/TPI-1 latest edition). Trusses shall be designed and manufactured by an authorized member of the Wood Truss Council of America (WTCOA). Truss design shall conform to specified codes, allowable stress increases, deflection limitations and other applicable criteria of the governing code.
 - Shop drawings showing complete erection and fabrication details and calculations (including connections) shall be submitted to the project architect / engineer for review prior to fabrication and/or erection. Such drawings shall bear the seal of a professional engineer, registered in the state of the project location. Shop drawings shall also be submitted to the local government controlling agency when requested by that agency.
 - All trusses shall be securely braced both during erection and permanently, as indicated on the approved truss design drawings and in accordance with TPI's commentary and recommendations for handling, installing and bracing metal-plate connected wood trusses (WIB-11 booklet) and the latest edition of ANSI/TPI-1.
 - The truss manufacturer shall supply all hardware and fasteners for joining truss members together and fastening truss members to their supports. Metal connector plates shall be manufactured by a member of the Wood Truss Council of America (WTCOA) and shall be 20 gauge minimum. Connector plates shall meet or exceed ASTM A653, grade 33, with ASTM A924 galvanized coating designation 560.
 - Shipment, handling, and erection of trusses shall be by experienced, qualified persons and shall be performed in a manner so as not to endanger life or property. Apparent truss damage shall be reported to the truss manufacturer for evaluation prior to erection. Cutting or alteration of trusses is not permitted.
 - Pre-engineered roof truss design load and deflection criteria are as follows:
 - Top Chord Dead Load= 15psf
 - Top Chord Live Load= 25psf
 - Bottom Chord Dead Load= 10psf
 - Add mechanical unit weight to truss loads
 - Add 20 psf Live Load at Flat Roof Area.
 - Uplift due to wind applied to truss top chord shall be calculated per the governing building code listed in General Note 3 and using the design criteria listed in General Note 5. Superimposed Roof Dead load listed in General Note 5 shall not be included in wind uplift load combinations.
 - Allowable Total Load Deflection= L/300
 - Allowable Live Load Deflection= L/360

10. Shop Drawing Review:

- Bob D. Campbell and Company, Inc. will review the General Contractor's (GC) shop drawings and related submittals (as indicated below) with respect to the ability of the detailed work, when complete, to be a properly functioning integral element of the overall structural system designed by Bob D. Campbell and Company, Inc.
- Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
 - Review each submission for conformance with the means, methods, techniques, sequences and operations of construction and safety precautions and programs incidental thereto, all of which are the sole responsibility of the GC.
 - Review and approve each submission.
 - Stamp each submission as approved.
- Bob D. Campbell and Company, Inc. shall assume that no submission comprises a variation unless the GC advises Bob D. Campbell and Company, Inc. with written documentation.
- Shop drawings and related material (if any) required are indicated below. Should Bob D. Campbell and Company, Inc. require more than ten (10) working days to perform the review, Bob D. Campbell and Company, Inc. shall so notify the GC.
 - Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after placement.
 - Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correct quantities.
 - Wood truss design calculations and detailed erection and fabrication drawings. Standard stick framing shop drawings need not be submitted.
- Bob D. Campbell and Company, Inc. shall review shop drawings and related materials with comments provided that each submission has met the above requirements. Bob D. Campbell and Company, Inc. shall return without comment unrequired material or submissions without GC approval stamp.

11. Structural Special Inspection:

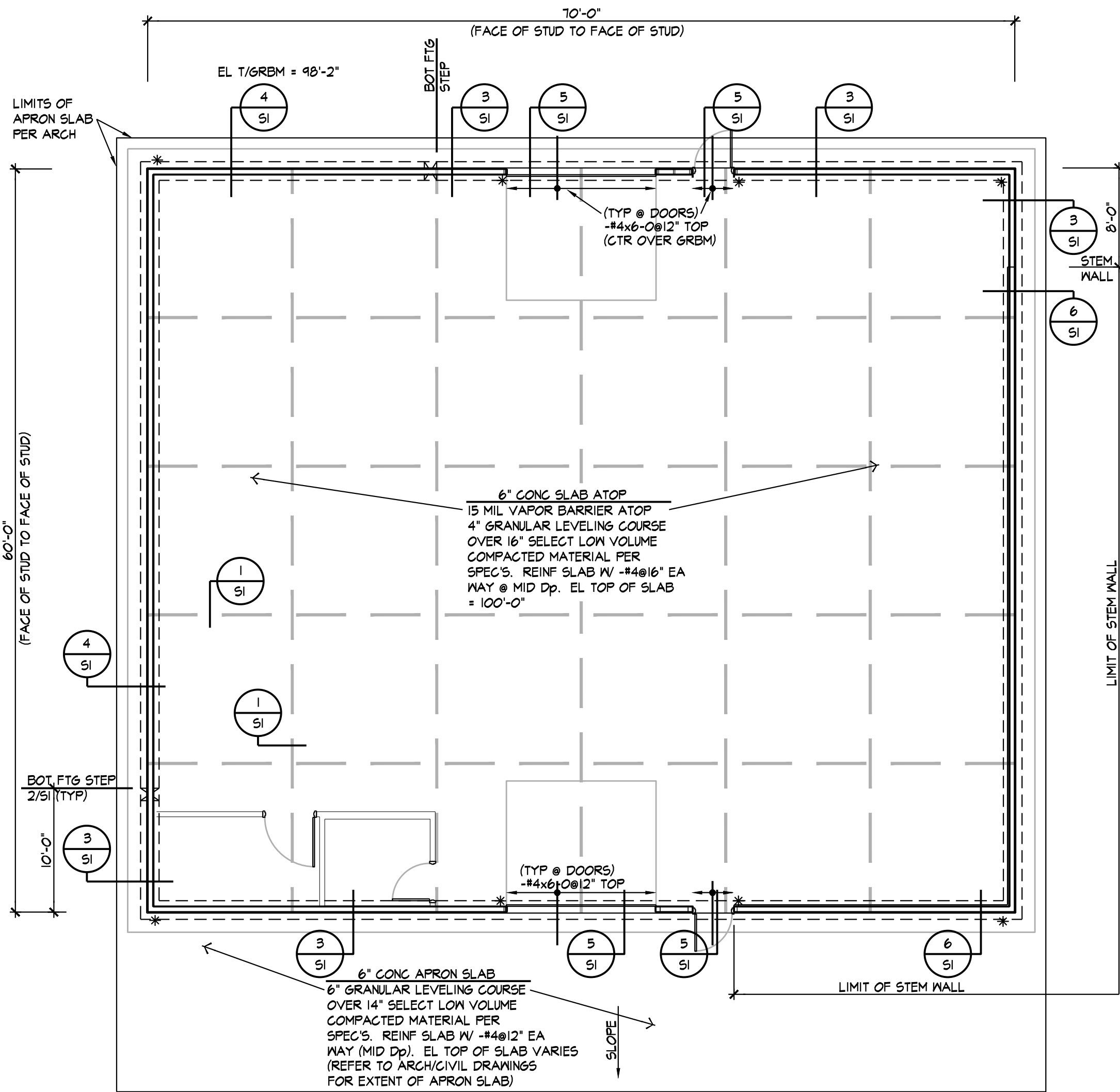
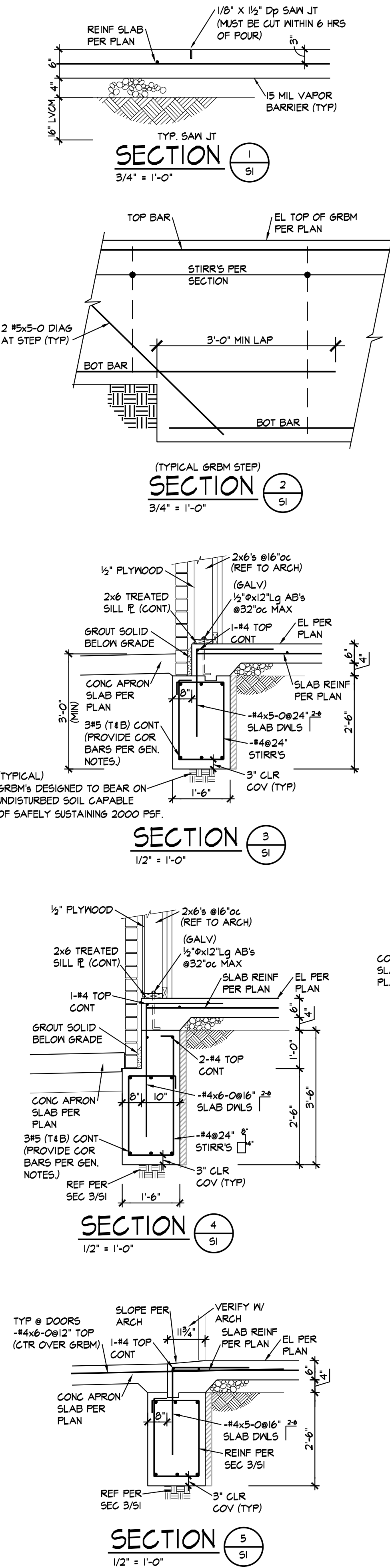
- The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the 2018 International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.
- Special inspections shall be required for the items indicated below. The General Contractor shall provide notification to the inspector when items requiring inspection are ready to be inspected and provide access for those inspections.
 - Placement of Concrete
 - Testing of Concrete
 - Bolts in Concrete
 - Placement of Reinforcing Steel
 - Verification of Soil Bearing Capacities
- The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.
- All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority, building official and structural engineer.
- The special inspector shall submit a final signed report stating that the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the building code.

12. Copyright and Disclaimer:

- All drawings in the structural set (S-series drawings) are the copyrighted work of Bob D. Campbell and company, inc.. These drawings may not be photographed, traced, or copies in any manner without the written permission of Bob D. Campbell and Company, Inc. Exception: Original drawings may be printed for distribution to the owner, architect, and general contractor for coordination, bidding,

and construction. Subcontractors may not reproduce these drawings for any purpose or in any manner.

- Michael J. Falbe, P.E., registered engineer and a representative of Bob D. Campbell and Company, Inc., do hereby accept professional responsibility as required by the professional registration laws of this state for the structural design drawings consisting of S-series drawings. I hereby disclaim responsibility for all other drawings in the construction document package, they being the responsibility of other design professionals whose seals and signed statements may appear elsewhere in the construction document package.



FOUNDATION & FLOOR PLAN NORTH

- 1/8" = 1'-0"
- NOTE:
- REFER TO GENERAL NOTES ON SHEET S-1
 - * - INDICATES SIMPSON HDL5-SD525 HULL DOWN W/ DBL 2x6 STUD
 - 1/8" x 24" LG THREADED ROD (A-36) DRILL & EPOXY 8" MIN INTO GRM.
 - REFER TO ARCH DRAWINGS FOR DIMENSIONS.
 - REFER TO 2/SI FOR TYPICAL GRBM STEP.

PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
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PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 22
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S1

Foundation & Floor Plan,
General Notes

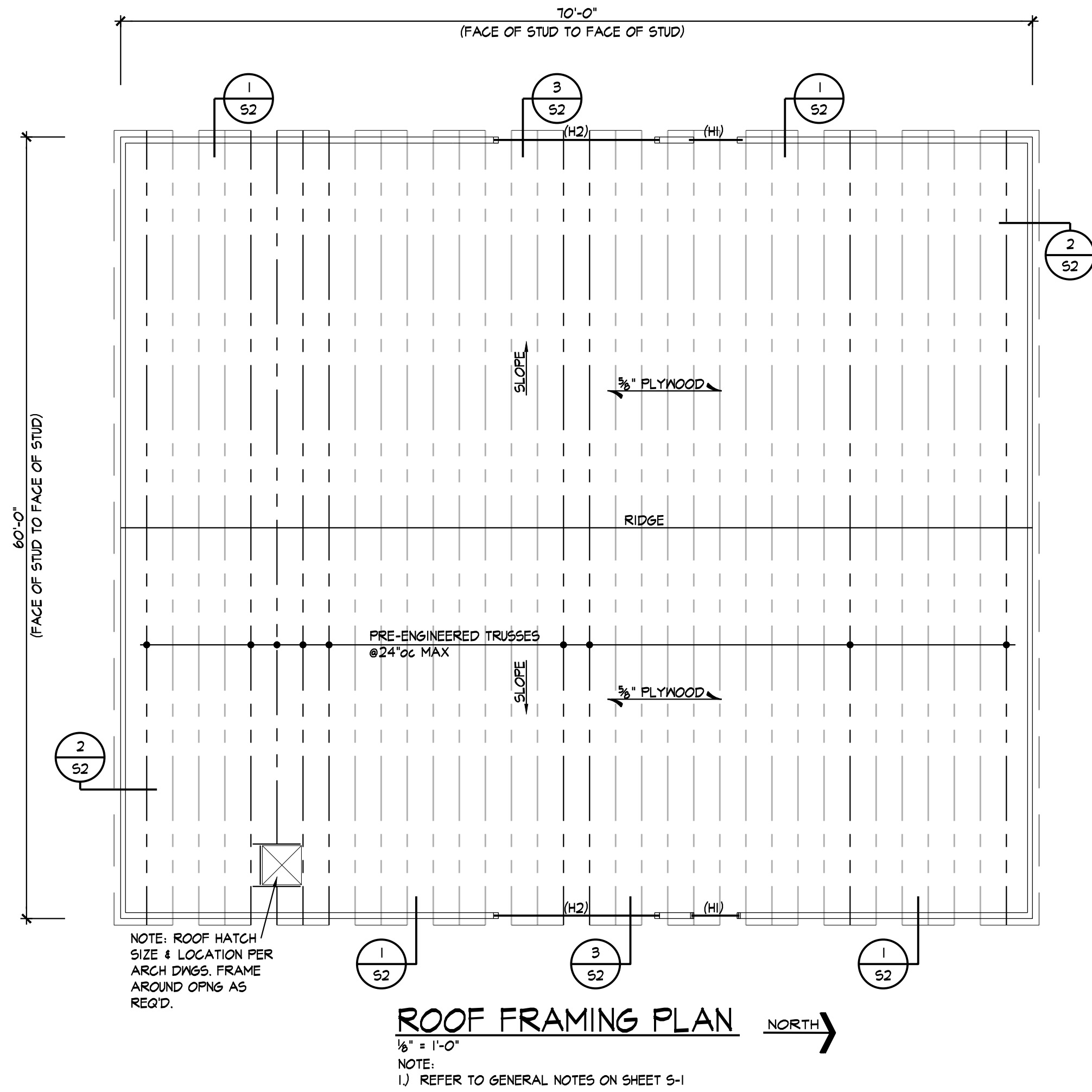
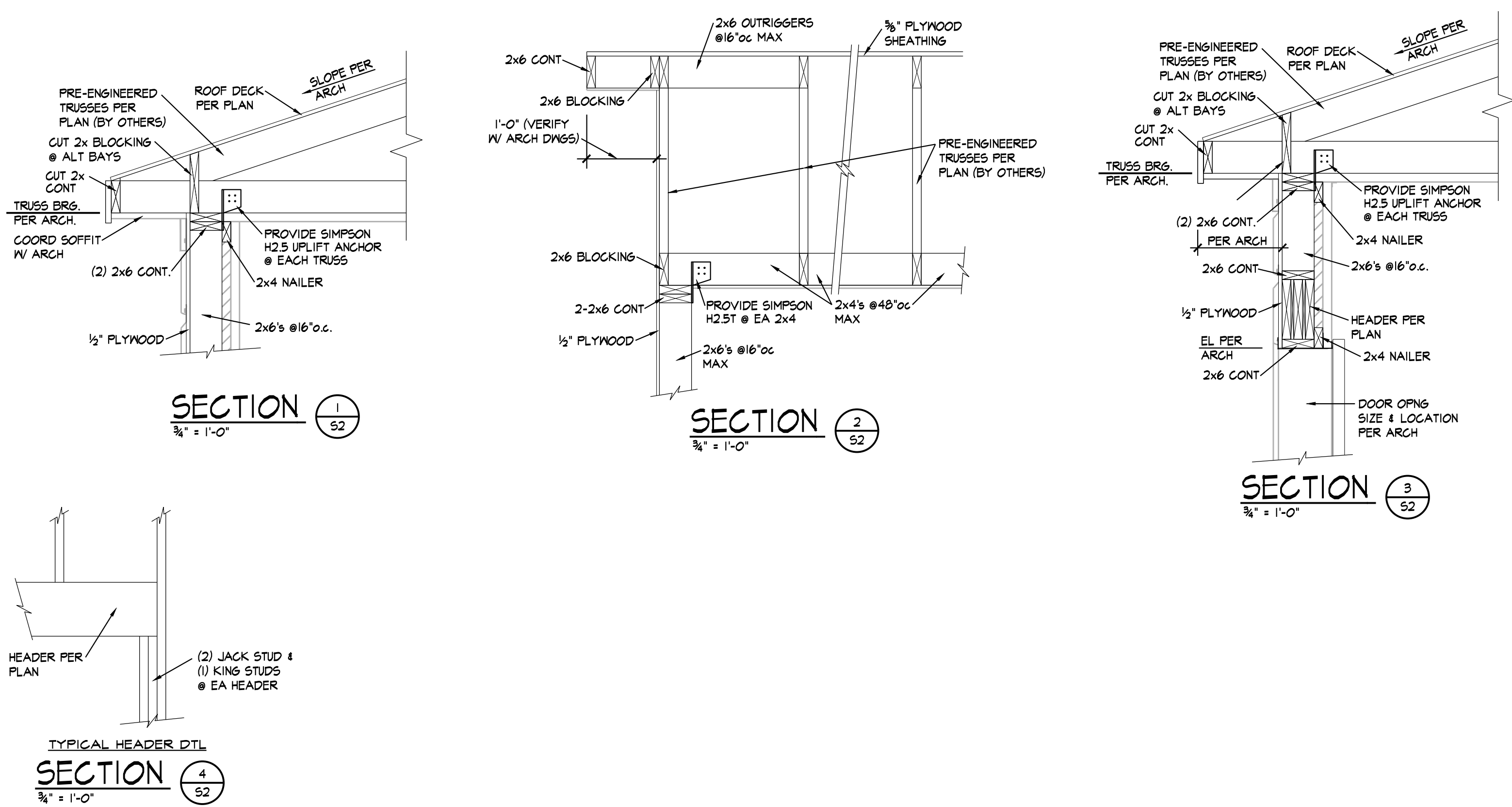
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| LINTEL SCHEDULE | |
|-----------------|--|
| TYPE | DESCRIPTION |
| (H1) | 3- 2x10's W/ 2- 1/2" SPACER B W/ 1 JACK, 2 KING. |
| (H2) | 3- 1 3/4"x14" LVL's W/ 3 JACK, 4 KING. |

NOTE: REFER TO 4/52 FOR TYPICAL HEADER DETAIL

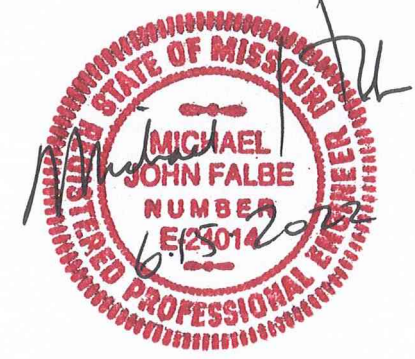
PROPOSED BODY SHOP BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
|-----|-------------|------|
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PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 22
SHEET NUMBER

S2

Roof Framing Plan &
Sections



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Jun 15, 2022 -- 7:42am -- USER ScottGroshans
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LINE TYPES LEGEND:

- NEW
- NEW - ON ROOF
- EXISTING
- EXISTING - ON ROOF
- DEMOLITION

DUCTWORK LEGEND:

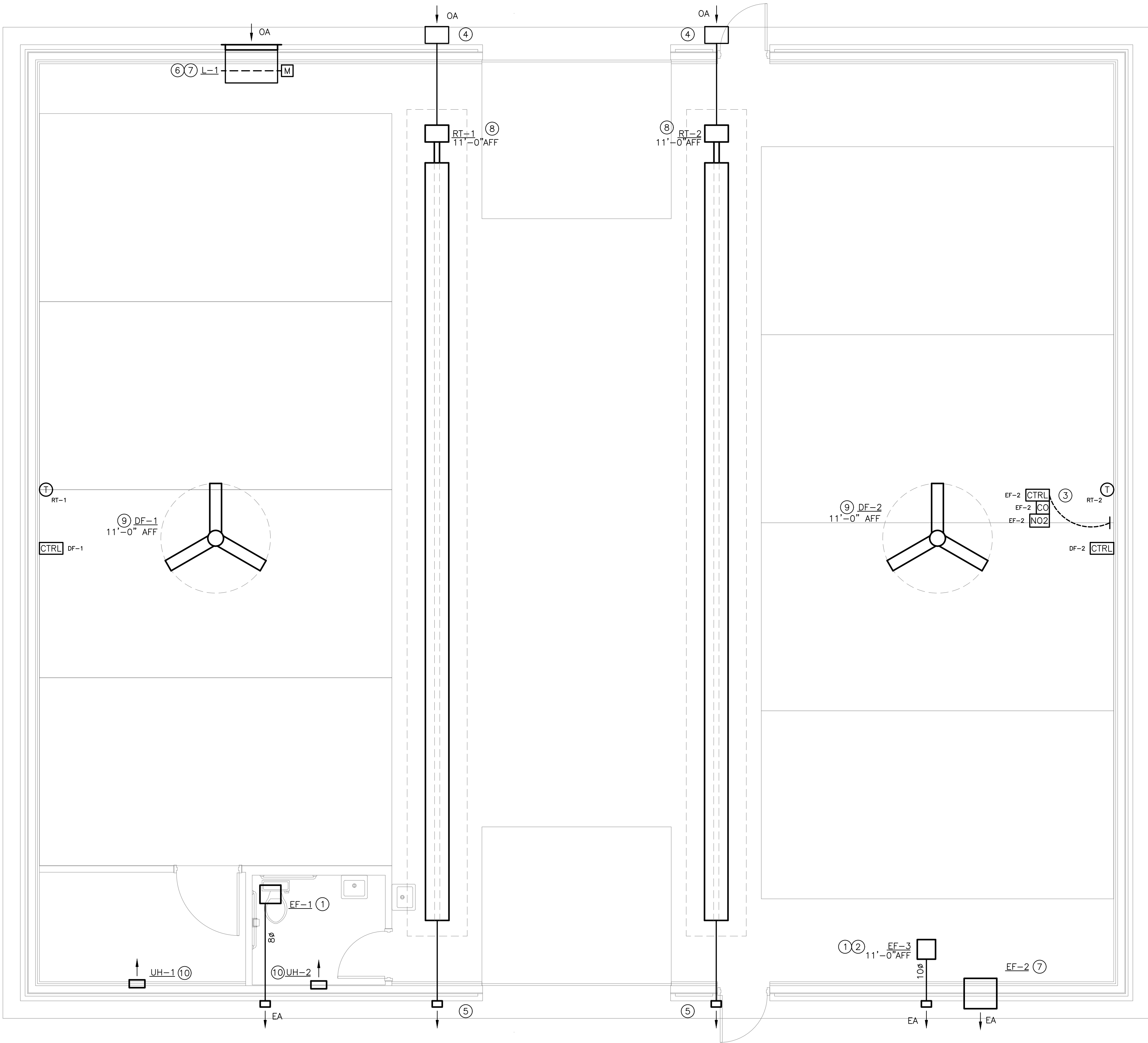
- DUCT (SINGLE LINE)
- DUCT (DOUBLE LINE)
- ROUND O/A OR S/A DOWN
- ROUND O/A OR S/A UP
- ROUND E/A OR R/A DOWN
- ROUND E/A OR R/A UP
- RECTANGULAR O/A OR S/A DOWN
- RECTANGULAR O/A OR S/A UP
- RECTANGULAR E/A OR R/A DOWN
- RECTANGULAR E/A OR R/A UP
- O/A OR S/A DIFFUSER
- E/A OR R/A GRILLE
- AIR DEVICE WITH FLEX DUCT CONNECTION
- AIR DEVICE WITH HARD DUCT CONNECTION
- FLEXIBLE CONNECTION TO EQUIPMENT
- DUCT BREAK/CONTINUATION
- MANUAL BALANCING DAMPER
- MOTOR-OPERATED DAMPER
- BACKDRAFT DAMPER
- FIRE DAMPER
- FIRE/SMOKE DAMPER
- SMOKE DAMPER
- THERMOSTAT
- CARBON MONOXIDE SENSOR
- CTRL CONTROLLER
- NO2 NITROGEN DIOXIDE SENSOR

ANNOTATION LEGEND:

- ABC-1 EQUIPMENT / FIXTURE TAG
- PLAN NOTE
- CONNECT TO EXISTING
- AIR FLOW DIRECTION
- S-1 G/R/D TAG
- 80 NECK SIZE
- 300 AIR FLOW (CFM)

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- APD AIR PRESSURE DROP
- CFM CUBIC FEET PER MINUTE
- EA EXHAUST AIR
- EF EXHAUST FAN
- ESP EXTERNAL STATIC PRESSURE
- FPM FEET PER MINUTE
- HC HEATING CAPACITY
- HP HORSEPOWER
- IN.WG INCHES WATER GAUGE
- MAX MAXIMUM
- MBH 1,000 BTUH
- MIN MINIMUM
- NC NOISE CRITERIA
- OA OUTDOOR AIR
- QTY QUANTITY
- TSP TOTAL STATIC PRESSURE
- VEL VELOCITY



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

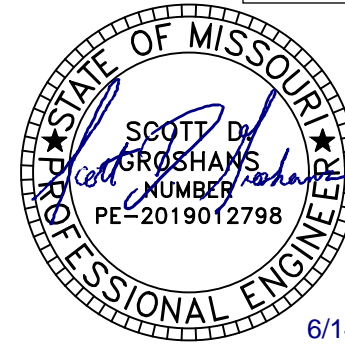
MECHANICAL PLAN NOTES:

- ROUTE EXHAUST DUCT OF SIZE INDICATED ON PLAN FROM EXHAUST FAN THROUGH WALL AS SHOWN. PROVIDE WALL PENETRATION AND VENT CAP PER MANUFACTURER'S RECOMMENDATIONS. LOCATE DISCHARGE AT MINIMUM OF 10'-0" FROM ANY BUILDING OPENINGS OR OUTDOOR AIR INTAKES.
- SUSPEND INLINE EXHAUST FAN FROM STRUCTURE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE CARBON MONOXIDE / NITROGEN DIOXIDE DETECTION SYSTEM, MONOXIVENT MODEL # FDS-SA-CO-NO OR EQUAL, WITH CONTROLLER AND QUANTITY OR SENSORS AS RECOMMENDED BY THE MANUFACTURER. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- PROVIDE 4# COMBUSTION AIR INTAKE THROUGH WALL. TERMINATE WITH KIT FURNISHED WITH TUBE HEATER. REFER TO TUBE HEATER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR INTAKE MATERIAL REQUIREMENTS.
- PROVIDE 4# COMBUSTION AIR EXHAUST THROUGH WALL. TERMINATE WITH KIT FURNISHED WITH TUBE HEATER. REFER TO TUBE HEATER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR COMBUSTION EXHAUST MATERIAL REQUIREMENTS.
- PROVIDE MOTOR OPERATED DAMPER IN LOUVER AS SHOWN. MATCH DAMPER SIZE TO LOUVER FACE DIMENSIONS. ACTUATOR TO BE 120 VOLT, SPRING CLOSED. INTERLOCK DAMPER WITH GAS DETECTION SYSTEM.
- INSTALL INDICATED EQUIPMENT AS HIGH AS POSSIBLE ON EXTERIOR WALL.
- INSTALL RADIANT TUBE HEATER WITH DEFLECTOR SHIELD DIRECTED AT 30° ANGLE TOWARDS EXTERIOR WALL.
- COORDINATE INSTALLATION OF HVLS FAN WITH OTHER TRADES. MAINTAIN OPERATIONAL AND MAINTENANCE CLEARANCES AS REQUIRED BY MANUFACTURER.
- LOCATE UNIT HEATER ON WALL WHERE SHOWN, MIN 1'-0" AFF. INSTALL PER MANUFACTURER'S REQUIREMENTS.

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CONSTRUCTION
Development Services Department
Lee's Summit, Missouri
07/19/2022



SCOTT D. GROSHANS
MO LICENSE # PE-2019012798

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INC.

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PROPOSED BODY SHOP BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
|-----|-------------|----------------|
| --- | FOR PERMIT | 06 / 14 / 2022 |
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PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

M1.0

MECHANICAL PLAN

MECHANICAL GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES PRIOR TO START OF WORK.
- MECHANICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR REQUIRED ELECTRICAL POWER WIRING AND ROUGH-IN FOR LOW-VOLTAGE CONTROL WIRING. PROVIDE ALL CONTROL WIRING AND FINAL CONTROL DEVICE (E.G. THERMOSTATS).
- FABRICATE AND INSTALL DUCTWORK PER SMACNA RECOMMENDATIONS FOR THE PRESSURE CLASSIFICATIONS ENCOUNTERED.
 - EXHAUST AIR (UPSTREAM OF FAN): -2.0 IN.WG
 - EXHAUST AIR (DOWNSTREAM OF FAN): +1.0 IN.WG
- PROVIDE MITERED ELBOWS AT CHANGES IN DIRECTION IN RECTANGULAR DUCTWORK. PROVIDE TURNING VANES IN ALL ELBOWS WHERE AIRFLOW CHANGES DIRECTION AT ANGLES 45° AND GREATER, EXCEPT FOR RETURN AIR TRANSFER DUCTS.
- FLEXIBLE DUCTWORK SHALL HAVE 2" THICK, MINIMUM R-6.0 INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 3'-0" IN LENGTH FOR EXHAUST AIR APPLICATIONS.
- TOILET ROOM EXHAUST FANS SHALL BE AS SCHEDULED. PROVIDE A MINIMUM OF 75 CFM EXHAUST PER FLUSH FIXTURE.
- ALL DIMENSIONS SHOWN ON PLAN ARE IN INCHES, UNLESS EXPLICITLY LABELED OTHERWISE.
- PROVIDE ACCESS PANELS AND ADEQUATE CLEARANCE FOR ACCESS TO ALL EQUIPMENT, VALVES, DAMPERS AND DEVICES.

| DESTRATIFICATION FAN SCHEDULE | | | | | | | | | | |
|--|-------------|--------------|-------|--------------|-------------|------------|-------|--------------|-------|--|
| TAG | AREA SERVED | MANUFACTURER | MODEL | FAN DIAMETER | MOTOR POWER | DRIVE TYPE | V/PH | WEIGHT (LBS) | NOTES | |
| DF-1 | SHOP | HUNTER | XP | 7'-0" | 5/8 HP | DIRECT EC | 120/1 | 100 | ALL | |
| DF-2 | SHOP | HUNTER | XP | 7'-0" | 5/8 HP | DIRECT EC | 120/1 | 100 | ALL | |
| NOTES: A. COORDINATE FINISH COLOR WITH ARCHITECT, PRIOR TO ORDER. B. FURNISH WITH WALL CONTROLLER. REFER TO PLAN FOR MULTIPLE FANS TO BE CONTROLLED BY ONE CONTROLLER. | | | | | | | | | | |

| UNIT HEATER SCHEDULE | | | | | | | | | |
|---|---------------|--------------|---------|----------|---------|-------------|------------|-----|-------|
| TAG | LOCATION | MANUFACTURER | MODEL | MOUNTING | OUTPUT | INPUT | VOLT/PHASE | AMP | NOTES |
| UH-1 | COMPRESSOR RM | QMARK | CWH1201 | WALL | 6.1 MBH | 1,800 WATTS | 120/1/60 | 15 | A,B |
| UH-2 | RESTROOM | QMARK | CWH1201 | WALL | 6.1 MBH | 1,800 WATTS | 120/1/60 | 15 | A,B |
| NOTES: A. PROVIDE WITH UNIT MOUNTED THERMOSTAT AND DISCONNECT SWITCH. B. PROVIDE WITH MANUFACTURER'S STANDARD TRIM FOR WALL MOUNTING. | | | | | | | | | |

| LOUVER SCHEDULE | | | | | | | |
|--|--------------|----------|--------------|------------|--------------------|--------|-------|
| TAG | MANUFACTURER | MODEL | SIZE (W"xH") | FREE AREA | MAX VELOCITY (FPM) | MAX DP | NOTES |
| L-1 | RUSKIN | ELF375DX | 40x40 | 5.97 SQ/FT | 502 | 0.05 | A-D |
| NOTES: A. PROVIDE WITH MANUFACTURER'S STANDARD ALUMINUM BIRDSCREEN. B. PROVIDE WITH STANDARD MILL FINISH. COLOR TO BE SELECTED BY THE ARCHITECT. C. FRAME TYPE SHALL MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECT FOR EXACT FRAME TYPE. D. PROVIDE WITH INTEGRAL MOTORIZED DAMPER, RUSKIN MODEL CD356 OR EQUAL. INTERLOCK MOTORIZED DAMPER WITH GAS DETECTION SYSTEM. COORDINATE WITH ELECTRICAL CONTRACTOR. | | | | | | | |

| RADIANT TUBE HEATER SCHEDULE | | | | | | | | | | | | | | |
|---|-------------|-----------------|------------|---------------|-----------------|-------|---------|------------------|-------|--------|-------|-----|--------------|-------|
| TAG | AREA SERVED | MANUFACTURER | MODEL | HEATER LENGTH | NOM INPUT (MBH) | | MIN EFF | NG PRESS (IN.WG) | | STAGES | V/PH | FLA | WEIGHT (LBS) | NOTES |
| | | | | (MIN) | (MAX) | (MAX) | (%) | (MIN) | (MAX) | | | | | |
| RT-1 | SHOP | DETROIT RADIANT | HL3-50-150 | 50'-9" | 100 | 150 | 80 | 5.0 | 14.0 | 2 | 120/1 | 4.8 | 235 | ALL |
| RT-2 | SHOP | DETROIT RADIANT | HL3-50-150 | 50'-9" | 100 | 150 | 80 | 5.0 | 14.0 | 2 | 120/1 | 4.8 | 235 | ALL |
| NOTES: A. PROVIDE WITH MANUFACTURER'S STANDARD WALL-MOUNTED THERMOSTAT B. COORDINATE WITH ELECTRICAL CONTRACTOR FOR PROVIDE DISCONNECT SWITCH. C. FURNISH INFRARED HEATER WITH COMBUSTION AIR INTAKE KIT AND WALL VENT KIT. D. FURNISH WITH SINGLE MOUNT BRACKETS AND CHAIN HANGING SETS. | | | | | | | | | | | | | | |

| FAN SCHEDULE | | | | | | | | | | | |
|--|-------------|--------------|------------|----------|----------------|-------------|-------------|------------|-------|---------|--|
| TAG | AREA SERVED | MANUFACTURER | MODEL | MOUNTING | AIR FLOW (CFM) | ESP (IN.WG) | MOTOR POWER | DRIVE TYPE | V/PH | NOTES | |
| EF-1 | RESTROOM | COOK | GC-146 | CEILING | 75 | 0.25 | 0.04 HP | DIRECT | 120/1 | A-D,H | |
| EF-2 | SHOP | COOK | 18XP29D132 | WALL | 3000 | 0.2 | 0.75 HP | DIRECT | 120/1 | C,E,G | |
| EF-3 | SHOP | COOK | GC-342 | INLINE | 200 | 0.2 | 0.063 HP | DIRECT | 120/1 | C,D,F,H | |
| | | | | | | | | | | | |
| NOTES: A. PROVIDE WITH MANUFACTURER'S STANDARD HANGING KIT AND CEILING MOUNT TRIM. B. INTERLOCK FAN WITH ASSOCIATED RESTROOM LIGHT SWITCH. C. PROVIDE WITH DISCONNECT SWITCH. D. PROVIDE WITH BACKDRAFT DAMPER. E. PROVIDE WITH MANUFACTURER'S STANDARD WALL MOUNT TRIM KIT AND DISCHARGE SHUTTERS. F. FAN TO OPERATE AT ALL TIMES. COORDINATE WITH ELECTRICAL CONTRACTOR. G. FAN TO OPERATE SUBJECT TO GAS DETECTION SYSTEM STATE. COORDINATE WITH ELECTRICAL CONTRACTOR. H. FURNISH WITH MANUFACTURER'S STANDARD WALL DISCHARGE CAP. | | | | | | | | | | | |

| OUTDOOR AIR CALCULATIONS (MECHANICAL VENTILATION) | | | | | | | |
|---|------------|--------------------------|-------------------------|---------------------------------------|--------------------------|-----------------------------|-------|
| TAG | LOCATION | OCCUPANCY CLASSIFICATION | AREA (FT ²) | R _A (CFM/FT ²) | MIN REQ'D O/A FLOW (CFM) | PROVIDED MIN O/A FLOW (CFM) | NOTES |
| EF-2 | SHOP 03 RM | REPAIR GARAGE | 3,851 | 0.75 | 2,889 | 3,000 | A |
| EF-3 | | PARKING GARAGE | | 0.05 | 193 | 200 | |
| NOTES: A. R _A REPRESENTS AREA OUTDOOR AIRFLOW RATE IN BREATHING ZONE PER TABLE 403.3. | | | | | | | |

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MO LICENSE # PE-2019012798



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PROPOSED BODY SHOP BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT.MISSOURI

| NO. | DESCRIPTION | DATE |
|-----|-------------|----------------|
| --- | FOR PERMIT | 06 / 14 / 2022 |
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PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

M2.0

MECHANICAL SCHEDULES
AND DETAILS

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C:\Users\ScottGroshans\Dropbox (5by5 Engineers)\5BY5 ACTIVE PROJECTS\202200038 Crash Champions Lees Summit
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LINETYPES LEGEND:

- NEW — ABOVE SLAB
- - - NEW — BELOW SLAB
- EXISTING — ABOVE SLAB
- - - EXISTING — BELOW SLAB
- - - - - DEMOLITION

PIPING LEGEND:

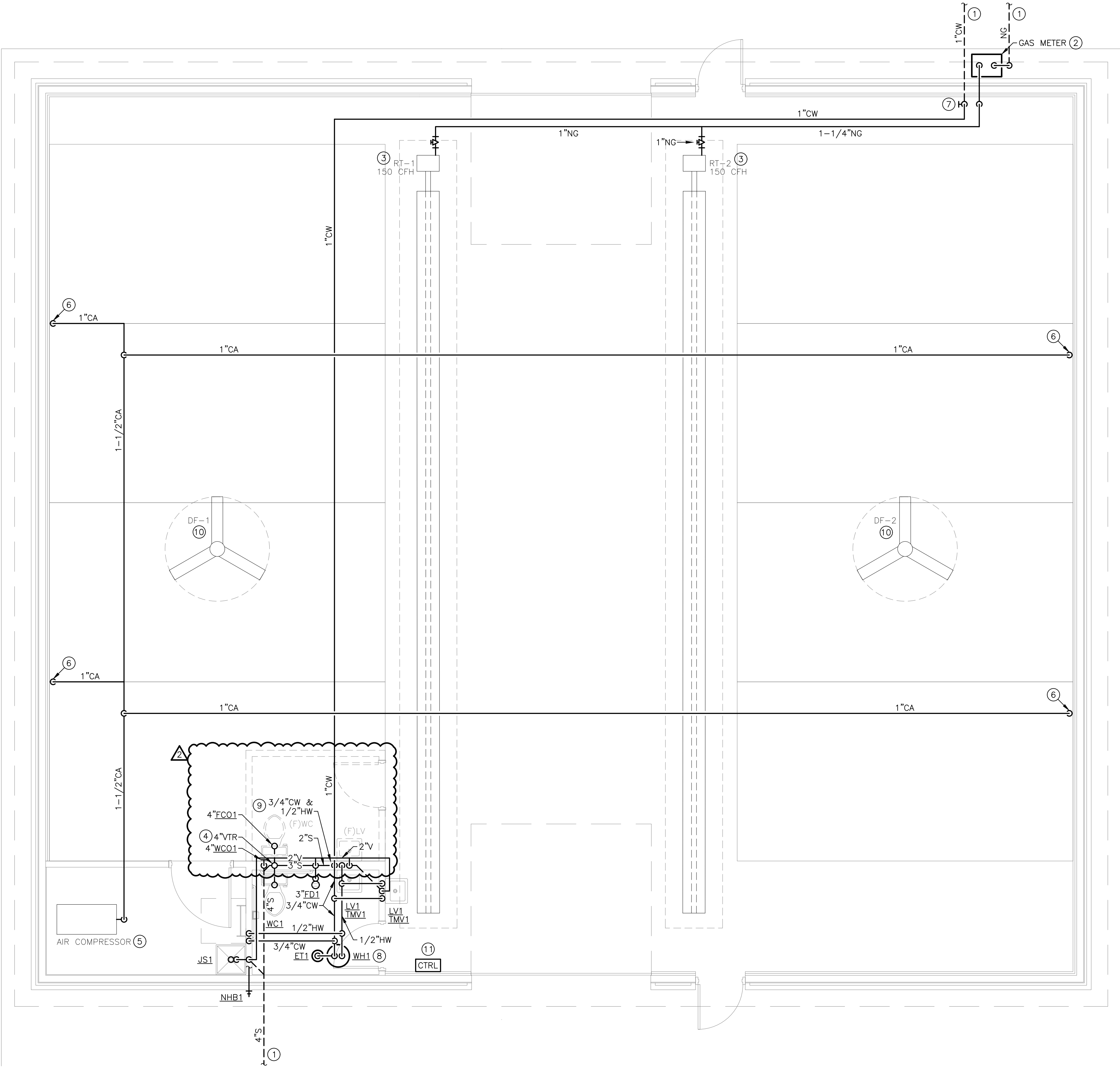
- ↘ ELBOW DOWN
- ↗ ELBOW UP
- ⊘ P-TRAP
- ⊕ TEE DOWN
- ⊖ ELBOW UP
- ⌵ SHUT-OFF VALVE (GENERIC)
- ⌵ BALL VALVE
- ⌵ GLOBE VALVE
- ⌵ BUTTERFLY VALVE
- ⌵ GATE VALVE
- ⌵ CHECK VALVE
- ⌵ BALANCING VALVE
- ⌵ PRESSURE REDUCING VALVE
- ⌵ GAS COCK
- ⌵ WYE-STRAINER
- ⌵ UNION
- ⌵ FLANGE
- ⌵ RELIEF VALVE
- ⌵ AIR VENT (MANUAL / AUTOMATIC)
- ➔ FLOW DIRECTION
- PIPE BREAK / CONTINUATION
- FLOOR DRAIN
- FLOOR SINK
- FLOOR CLEANOUT
- + HOSE BIBB

ANNOTATION LEGEND:

- ABC-1 EQUIPMENT / FIXTURE TAG
- ⊖ PLAN NOTE
- ⊕ CONNECT TO EXISTING

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- BOP BOTTOM OF PIPE
- CFH CUBIC FEET PER HOUR
- CO CLEANOUT
- CW DOMESTIC COLD WATER
- ET EXPANSION TANK
- (F) FUTURE
- FCO FLOOR CLEANOUT
- FD FLOOR DRAIN
- GPM GALLONS PER MINUTE
- HB HOSE BIBB
- IE INVERT ELEVATION
- IN.WG INCHES WATER GAUGE
- LV LAVATORY
- MAX MAXIMUM
- MBH 1,000 BTUH
- MIN MINIMUM
- NG NATURAL GAS
- NHB NON-FREEZE HOSE BIBB
- QTY QUANTITY
- S SANITARY WASTE
- TMV THERMOSTATIC MIXING VALVE
- TRA TO ROOF ABOVE
- V VENT
- WC WATER CLOSET
- WH WATER HEATER
- WCO WALL CLEANOUT



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

PLUMBING GENERAL NOTES:

- REFER TO P2.0 FOR PLUMBING GENERAL NOTES.

PLUMBING PLAN NOTES:

- REFER TO CIVIL UTILITY PLAN FOR CONTINUATION OF PIPING OUTSIDE OF BUILDING FOOTPRINT.
- PROVIDE NEW NATURAL GAS SERVICE ENTRANCE AND METER WHERE SHOWN ON PLAN. REFER TO NATURAL GAS LOAD SCHEDULE FOR LOAD, TOTAL DEVELOPED LENGTH, AND SIZING DETAILS.
- CONNECT NATURAL GAS TO MECHANICAL EQUIPMENT AS SHOWN. PROVIDE DIRT LEG, GAS COCK, AND REGULATOR. REFER TO MECHANICAL EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS. COORDINATE WITH MECHANICAL CONTRACTOR.
- ROUTE 4" VENT UP THROUGH ROOF (VTR). DISCHARGE AT MINIMUM 1'-6" ABOVE FINISHED ROOF. INSTALL AT MINIMUM OF 10'-0" FROM ALL MECHANICAL OUTDOOR AIR INTAKES.
- AIR COMPRESSOR PROVIDED BY OTHERS. PROVIDE COMPRESSED AIR PIPING CONNECTION WITH VALVES AND SPECIALS PER AIR COMPRESSOR MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 1"CA DROP DOWN WALL. TERMINATE WITH SHUTOFF VALVE. COORDINATE CONNECTION TO OWNER EQUIPMENT WITH OTHER TRADES.
- 1" DOMESTIC WATER SERVICE ENTRANCE, FED BY ADJACENT BUILDING. PROVIDE SHUTOFF VALVE AT 4'-0" AFF.
- INSTALL WATER ABOVE CEILING WHERE SHOWN ON PLAN. CONNECT WATER PIPING, VALVES, AND EXPANSION TANK TO WATER HEATER SYSTEM PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAIL 1/P2.0.
- PROVIDE COLD WATER AND HOT WATER PIPING OF SIZES INDICATED ON PLAN DOWN IN WALL. ROUTE PIPING IN WALL CAVITY AND CONNECT TO PLUMBING FIXTURES ALONG WET WALL PER FIXTURE CONNECTION SCHEDULE ON P2.0.
- COORDINATE ALL PIPE ROUTING WITH CLEARANCE REQUIREMENTS OF DESTRATIFICATION FAN.
- PROVIDE HIGH LEVEL ALARM SYSTEM WITH MECHANICAL ALARM FLOAT FOR SANITARY HOLDING TANK, SEPTIC PRODUCTS INC "OBSERVER 200" OR EQUAL. INSTALL CONTROLLER WHERE INDICATED ON PLAN. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

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PROPOSED BODY SHOP BUILDING FOR:
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451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
|-----|---------------|----------------|
| --- | FOR PERMIT | 06 / 14 / 2022 |
| 1 | CITY COMMENTS | 07 / 07 / 2022 |
| | | |
| | | |
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PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

P1.0

PLUMBING PLAN

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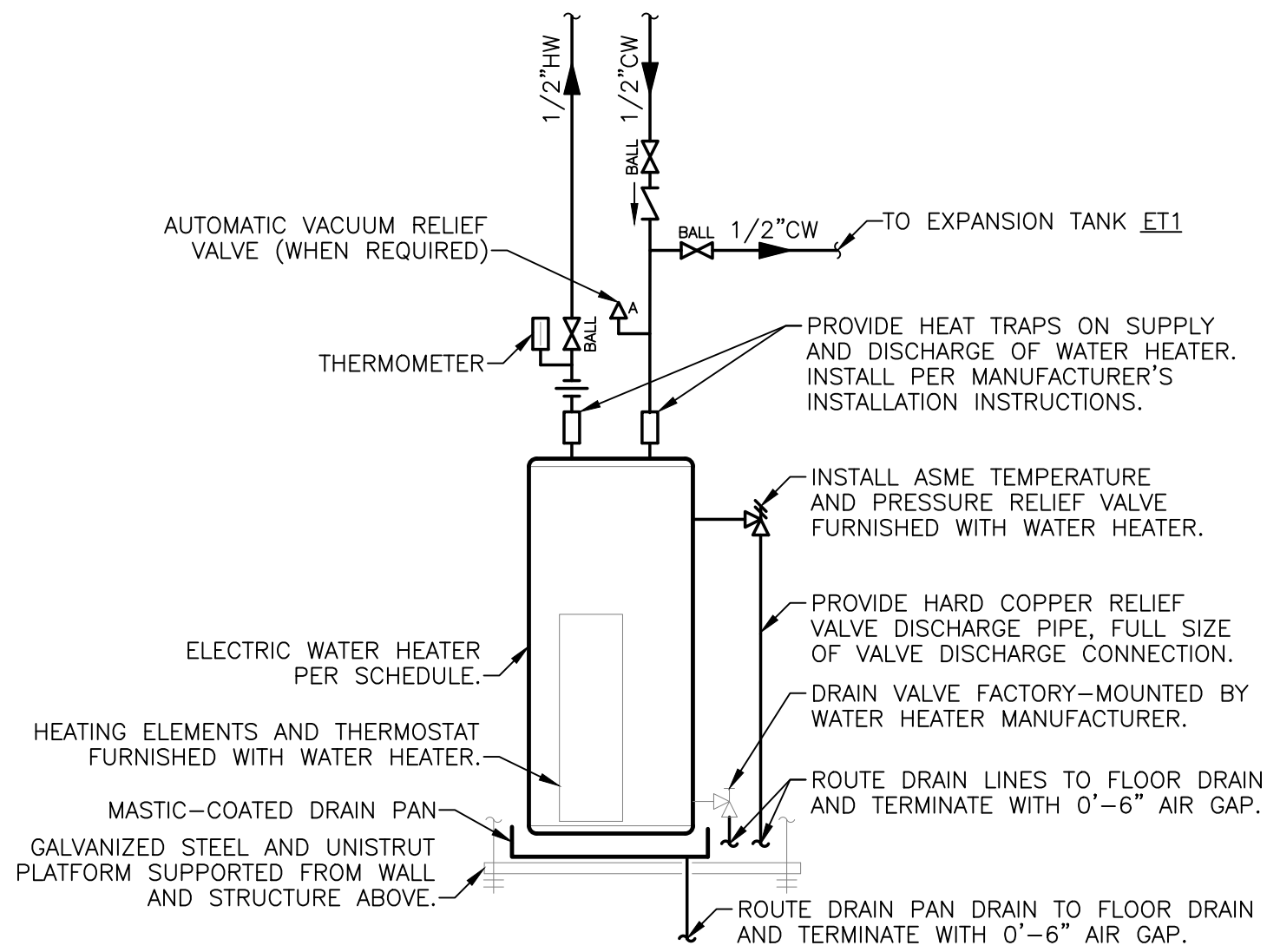
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| FIXTURE CONNECTION SCHEDULE | | | | | |
|-----------------------------|----------|--------|------|------|-------|
| FIXTURE | WASTE | VENT | COLD | HOT | NOTES |
| FLOOR DRAIN | SEE PLAN | 2" | --- | --- | --- |
| HOSE BIBBS | --- | --- | 3/4" | --- | VB |
| JANITOR'S SINK | 2" | 1-1/2" | 1/2" | 1/2" | VB |
| LAVATORY - PUBLIC | 2" | 1-1/2" | 1/2" | 1/2" | TMV |
| WATER CLOSET (TANK TYPE) | 4" | 2" | 1/2" | --- | --- |

NOTES:
TMV: POINT OF USE TYPE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1070.
VB: ATMOSPHERIC TYPE VACUUM BREAKER CONFORMING TO ASSE 1020.

| NATURAL GAS LOAD SCHEDULE | | | | |
|---|-----|---------------------|------------------|-----------|
| EQUIPMENT TAG | QTY | DESCRIPTION | CFH INPUT (EACH) | TOTAL CFH |
| RT-1 | 1 | RADIANT TUBE HEATER | 150 | 150 |
| RT-2 | 1 | RADIANT TUBE HEATER | 150 | 150 |
| SYSTEM TOTAL = | | | | 300 |
| NOTES: A. METER DISCHARGE PRESSURE: 11 IN. WG. B. TOTAL DEVELOPED LENGTH: 100 FT. C. DESIGN NATURAL GAS PIPING SYSTEM PRESSURE DROP: 0.5 IN. WG. D. INLET PRESSURE FOR ALL GAS-FIRED EQUIPMENT: 7 TO 11 IN. WG. | | | | |



- NOTES:
- STRUCTURE AND PLATFORM SHALL BE DESIGNED TO HOLD THE MAXIMUM WEIGHT OF THE WATER HEATER. CONFIRM CAPACITY OF SHELF WITH MANUFACTURER PRIOR TO INSTALLATION.

1 WATER HEATER DETAIL

SCALE: NTS

PLUMBING FIXTURE SCHEDULE:

INFORMATION BELOW IS FOR GENERAL FIXTURE REQUIREMENTS ONLY. PLUMBING CONTRACTOR SHALL COORDINATE WITH OWNER AND ARCHITECT FOR EXACT FIXTURE REQUIRED FOR THE PROJECT. COORDINATE WITH OWNER FOR INFORMATION ON PROCURING FIXTURES AND ASSOCIATED COSTS. CONTRACTOR SHALL BE CLEAR AS TO WHAT FIXTURES ARE INCLUDED IN THEIR PROPOSED COSTS.

FIXTURES IN THIS SCHEDULE, OR THE APPROVED EQUIVALENT, SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER REQUIREMENTS.

- ET1
- EXPANSION TANK: 150 PSIG MAXIMUM WORKING PRESSURE, 2.0-GALLON CAPACITY, 0.45 MAXIMUM ACCEPTANCE FACTOR, AND 3/4" PIPE CONNECTION. SET THE AIR CHARGE PRESSURE TO MATCH EXISTING WATER SYSTEM PRESSURE.
- FC01
- HEAVY DUTY FLOOR CLEANOUT: CAST IRON BODY, FLASHING FLANGE WITH CLAMPING COLLAR, ABS PLUG, AND ADJUSTABLE ROUND SECURED HEAVY-DUTY SCREWED NICKEL BRONZE TOP.

- FD1
- PVC FLOOR DRAIN: FLOOR DRAIN WITH ADJUSTABLE 6" ROUND MEDIUM-DUTY CAST NICKEL STRAINER, WITH FLANGED PVC ADAPTER, CLEAN AND POLISH STRAINER AFTER INSTALLATION. PROVIDE A DEEP SEAL TRAP, FLANGED PVC ADAPTER, AND TRAP GUARD.

- HB1
- HOSE BIBB: ROUGH CHROME-PLATED BRASS, 3/4" FEMALE INLET, 3/4" THREADED HOSE CONNECTION, QUARTER-TURN WHEEL HANDLE, AND INTEGRAL VACUUM BREAKER.

- JS1
- JANITOR'S SINK: 24"W x 24"L x 10"H MOLDED FIBER BASIN WITH INTEGRAL STAINLESS STEEL DRAIN BODY.
 - FAUCET: FAUCET WITH WALL BRACE, INTEGRAL VACUUM BREAKER, PAIL HOOK, AND 3/4" MALE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD.
 - TRIM: TYPE 304 20-GAUGE STAINLESS STEEL WALL SURROUNDS, 3'-0" LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK, EXTRUDED VINYL BUMPER GUARD, AND 2'-0" STAINLESS STEEL MOP HANGER.

- LV1
- WALL-MOUNTED LAVATORY (ADA ACCESSIBLE): RECTANGULAR WALL-MOUNTED WHITE VITREOUS CHINA FIXTURE WITH FAUCET LEDGE AND FRONT OVERFLOW.
 - FAUCET: 4" CENTERSET, VANDAL-RESISTANT FAUCET WITH LEVER HANDLES AND 0.5 GPM AERATOR.
 - TRIM: GRID DRAIN WITH TAILPIECE, QUARTER-TURN BALL TYPE ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, 1-1/4" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR, AND INSULATION KIT FOR WATER AND WASTE PIPES.

- TMV1
- THERMOSTATIC MIXING VALVE: SOLID BRASS BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.5 GPM. MAXIMUM TEMPERATURE STOP SET FOR 110°F. MOUNT BELOW THE PLUMBING FIXTURE WHERE INDICATED ON PLANS.

- WC1
- FLOOR-MOUNTED WATER CLOSET (ADA ACCESSIBLE): TANK TYPE WHITE VITREOUS CHINA FIXTURE WITH ELONGATED BOWL, 1.6 GALLON PER FLUSH, SIPHON FLUSH ACTION, AND CLOSE-COUPLED TANK WITH TRIP LEVER ON THE WIDE SIDE OF THE STALL.
 - TRIM: WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY-DUTY, SEAT-LESS-COVER WITH SELF-SUSTAINING HINGES AND STAINLESS STEEL BOLTS; QUARTER-TURN BALL TYPE ANGLE STOP VALVE WITH RISER AND CHROME-PLATED ESCUTCHEON.

- WC01
- WALL CLEANOUT: CAST IRON CLEANOUT TEE, COUNTER-SUNK CAST IRON PLUG WITH GASKET SEAL, AND STAINLESS STEEL ROUND COVER WITH SCREW.

- WH1
- WATER HEATER: ELECTRIC, 10 GALLON, 1.5 kW INPUT, 8 GALLON PER HOUR RECOVERY AT 80°F TEMPERATURE RISE AND 120°F OPERATING TEMPERATURE. PROVIDE ALL WATER CONNECTIONS, VALVES, AND SPECIALS PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
 - ELECTRICAL REQUIREMENTS: 120-VOLT, SINGLE PHASE, 13 FULL LOAD AMPS.
 - BASIS OF DESIGN: A.O. SMITH MODEL # DEL-10.

PLUMBING GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE. COORDINATE ALL PLUMBING WORK WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES PRIOR TO BID OR START OF WORK.
- PLUMBING WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- EXACT LOCATION AND ELEVATIONS OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO ANY INSTALLATION OF CONNECTIONS THEREOF. ALL CONNECTIONS TO UTILITIES (E.G. DOMESTIC WATER, SEWER, AND NATURAL GAS) SHALL BE MADE WITH APPROVAL OF THE ADMINISTRATIVE AUTHORITY AND THE RESPECTIVE UTILITY COMPANIES.
- SANITARY WASTE AND VENT PIPING BELOW GRADE SHALL BE SCHEDULE 40 PVC WITH SOLVENT-WELDED JOINTS.
- SANITARY WASTE AND VENT PIPING ABOVE GRADE SHALL BE NO-HUB CAST IRON IN RETURN AIR PLENUM APPLICATIONS. SCHEDULE 40 PVC PIPING WITH SOLVENT WELDED JOINTS CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.
- SLOPE SANITARY PIPING AS FOLLOWS: 1/4" PER FOOT FOR PIPE SIZES 2-1/2" AND SMALLER, AND 1/8" PER FOOT FOR PIPE SIZES 3" AND LARGER.
- PROVIDE WATER SUPPLY SHUT-OFF VALVES ON EACH TOILET ROOM GROUP AND TO MISCELLANEOUS EQUIPMENT.
- PROVIDE SIZE "A" WATER HAMMER ARRESTORS ON SUPPLY TO ALL PLUMBING FIXTURES.
- PROVIDE STOP VALVES ON ALL INDIVIDUAL PLUMBING FIXTURE SUPPLIES.
- COORDINATE SELECTION OF ALL PLUMBING FIXTURES WITH ARCHITECT AND OWNER. ALL HANDICAPPED FIXTURES (WHERE REQUIRED) SHALL COMPLY WITH A.D.A. REQUIREMENTS.

- DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE K SOFT COPPER WITH FLARED FITTINGS OR TYPE K HARD COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.
- DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.
- INSULATE NEW DOMESTIC COLD WATER AND HOT WATER PIPING WITH MINIMUM 1" FIBERGLASS INSULATION (MINIMUM R-4.0) WITH PAPER COVERING.
- NATURAL GAS AND COMPRESSED AIR PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH THREADED FITTINGS.
- PROVIDE RUST-INHIBITOR ON PAINT ALL NATURAL GAS PIPING LOCATED EXTERIOR TO THE BUILDING.
- PROVIDE A.G.A. APPROVED GAS COCKS AND DIRT LEGS AT CONNECTIONS TO ALL GAS-FIRED EQUIPMENT.
- INSTALL ALL PLUMBING EQUIPMENT, FIXTURES, VALVES, ETC. PER MANUFACTURER'S INSTALLATION REQUIREMENTS. PROVIDE ADDITIONAL APPURTENANCES PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- INSTALL CLEANOUTS AT EVERY END OF SANITARY PIPING RUNS, AT MINIMUM OF EVERY 100'-0" OF SANITARY PIPING, AND AT EVERY CHANGE IN DIRECTION GREATER THAN 45'. REFER TO SECTION 708 OF THE INTERNATIONAL PLUMBING CODE FOR ADDITIONAL REQUIREMENTS.

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RELEASED FOR
CONSTRUCTION
Development Services Department
Lee's Summit, Missouri
07/19/2022

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KANSAS STATE CERTIFICATE OF
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PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
|-----|---------------|----------------|
| --- | FOR PERMIT | 06 / 14 / 2022 |
| 1 | CITY COMMENTS | 07 / 07 / 2022 |
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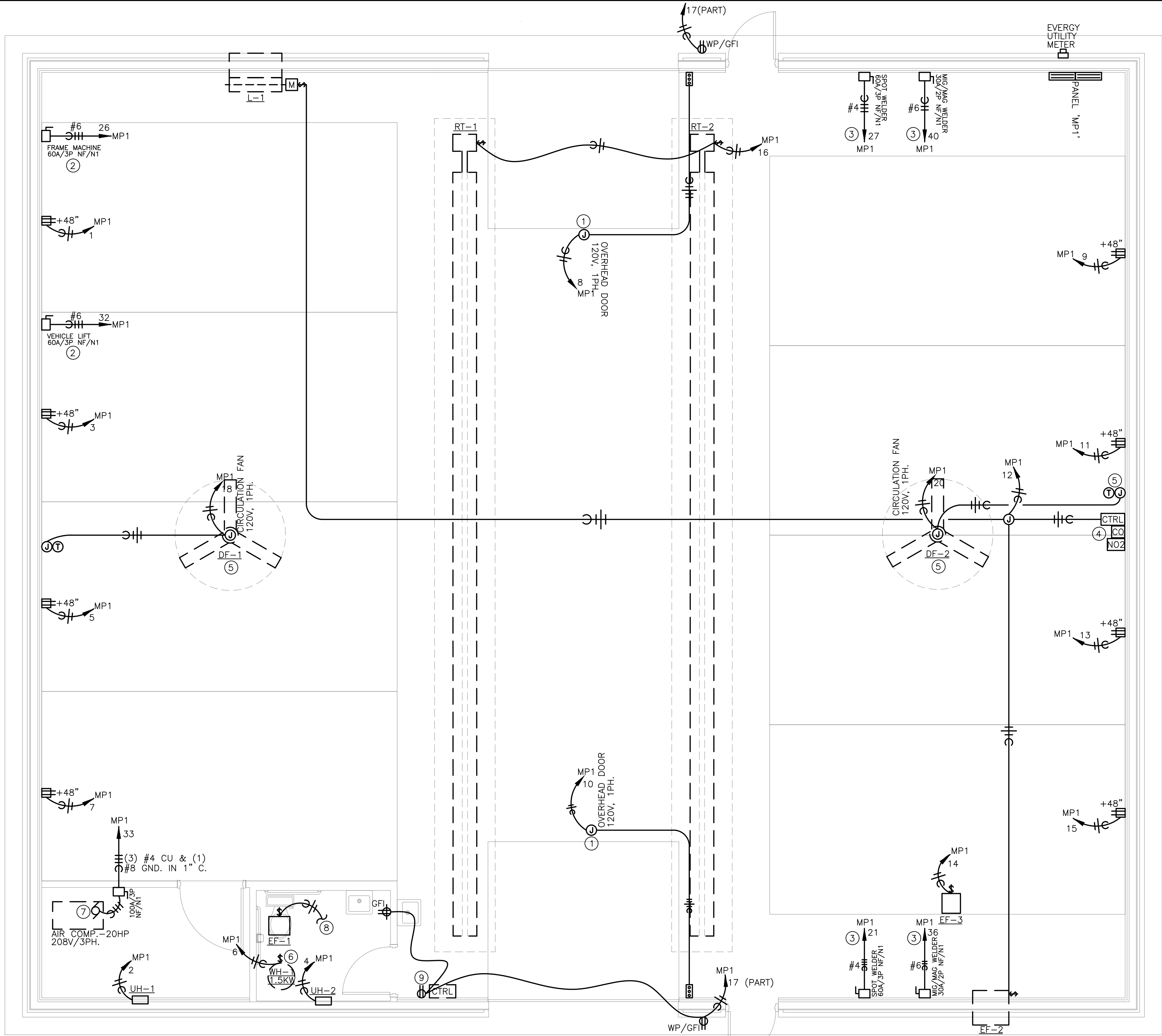
PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

P2.0

PLUMBING DETAILS
& SCHEDULES

Jun 15, 2022 -- 7:42am -- USER ScottGroshans
C:\Users\ScottGroshans\Dropbox (5by5 Engineers)\5BY5 ACTIVE PROJECTS\202200038 Crash Champions Lees Summit
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NEW UTILITY POLE MOUNT
TRANSFORMERS (3) 37.5kva
ESTIMATED AVAILABLE
FCA ~ 15,139A

NOTE: FINAL AVAILABLE FAULT
CURRENT SHALL BE DETERMINED BY
EVERGY.

ALL SERVICE ENTRANCE AND
DISTRIBUTION EQUIPMENT SHALL BE
RATED TO ACCOMMODATE AND SAFELY
INTERRUPT AVAILABLE FAULT CURRENT.
SERIES RATED EQUIPMENT PER NEC,
UL AND MANUFACTURERS
REQUIREMENTS IS ACCEPTABLE.

ELECTRICAL CONTRACTOR SHALL
PROVIDE ENOUGH CONDUCTOR AND
PVC CONDUIT TO EXTEND UP THE
POLE. ALL WORK SHALL BE PER
EVERGY STANDARDS.

METER PER EVERY
STANDARDS.

(2) 2" CONDUITS, EACH
WITH (4) 250kcmil AL.

'MP1'
400A MCB
120/208V
3PH/4W
S.E. RATED
(SECTION 1) (SECTION 2)

#1/0 CU (OR #3/0 AL) GROUND IN 3/4" C. TO
BOND TO BUILDING STEEL, BUILDING WATER SERVICE, AND
CONCRETE ENCASED ELECTRODE (FOOTING REBAR). ALSO
PROVIDE (1) #6 CU CONNECTION TO DRIVEN GROUND ROD.

2 ELECTRICAL RISER PLAN
NO SCALE:

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

ELECTRICAL GENERAL NOTES:

- REFER TO SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

ELECTRICAL PLAN NOTES:

- PROVIDE 120V CONNECTION TO OVERHEAD DOOR OPERATOR. MOUNT CONTROL STATION PROVIDED WITH DOOR IN LOCATION APPROVED BY OWNER ADJACENT TO OVERHEAD DOOR FOR PUSH-BUTTON CONTROLS. PROVIDE CONDUIT AND WIRING BETWEEN CONTROLLER AND OPERATOR. COORDINATE WITH DOOR INSTALLER FOR SPECIFIC ELECTRICAL REQUIREMENTS.
- PROVIDE DISCONNECT AND FLEX CONNECTION TO BODY SHOP EQUIPMENT. VERIFY EXACT LOCATION AND SPECIFIC REQUIREMENTS PRIOR TO ROUGH IN. COORDINATE WITH OWNER LOCATION AND PHASING TO RELOCATE EQUIPMENT.
- PROVIDE DISCONNECT AND FLEXIBLE CONNECTION TO SHOP WELDING EQUIPMENT. CONFIRM ACTUAL REQUIREMENTS WITH SHOP OWNER PRIOR TO ROUGH-IN.
- MOUNT 'CO' CONTROL PANEL ON WALL, AND ROUTE POWER WIRING TO EXHAUST FAN 'EF-2' AND MOTORIZED LOUVER 'L-1'. COORDINATE INSTALL WITH MECHANICAL CONTRACTOR. ALL FANS, LOUVERS & CONTROL DEVICES SHALL BE FURNISHED BY MECHANICAL. MOUNTING OF CONTROL PANEL AND ALL WIRING SHALL BE BY ELECTRICAL CONTRACTOR.
- PROVIDE JUNCTION BOX FOR POWER TO CIRCULATION FAN, AND INSTALL FAN CONTROL DEVICE. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. ALL FANS & CONTROL DEVICES SHALL BE FURNISHED BY MECHANICAL. MOUNTING OF CONTROL PANEL AND ALL WIRING SHALL BE BY ELECTRICAL CONTRACTOR.
- PROVIDE CONNECTION TO 1500 WATT 120V ELECTRIC WATER HEATER MOUNTED ABOVE THE CEILING. PROVIDE TOGGLE SWITCH DISCONNECT SWITCH.
- PROVIDE DISCONNECT AND FLEXIBLE CONNECTION TO AIR COMPRESSOR. COORDINATE HOOK-UP AND EXACT REQUIREMENTS WITH OWNER.
- CONNECT BATHROOM EXHAUST FAN ON TO SWITCHED BATHROOM LIGHTS.
- DUPLEX RECEPTACLE FOR SEPTIC TANK LEVEL MONITORING PANEL. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.

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PROPOSED BODY SHOP BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

| NO. | DESCRIPTION | DATE |
|-----|-------------|----------------|
| --- | FOR PERMIT | 06 / 14 / 2022 |
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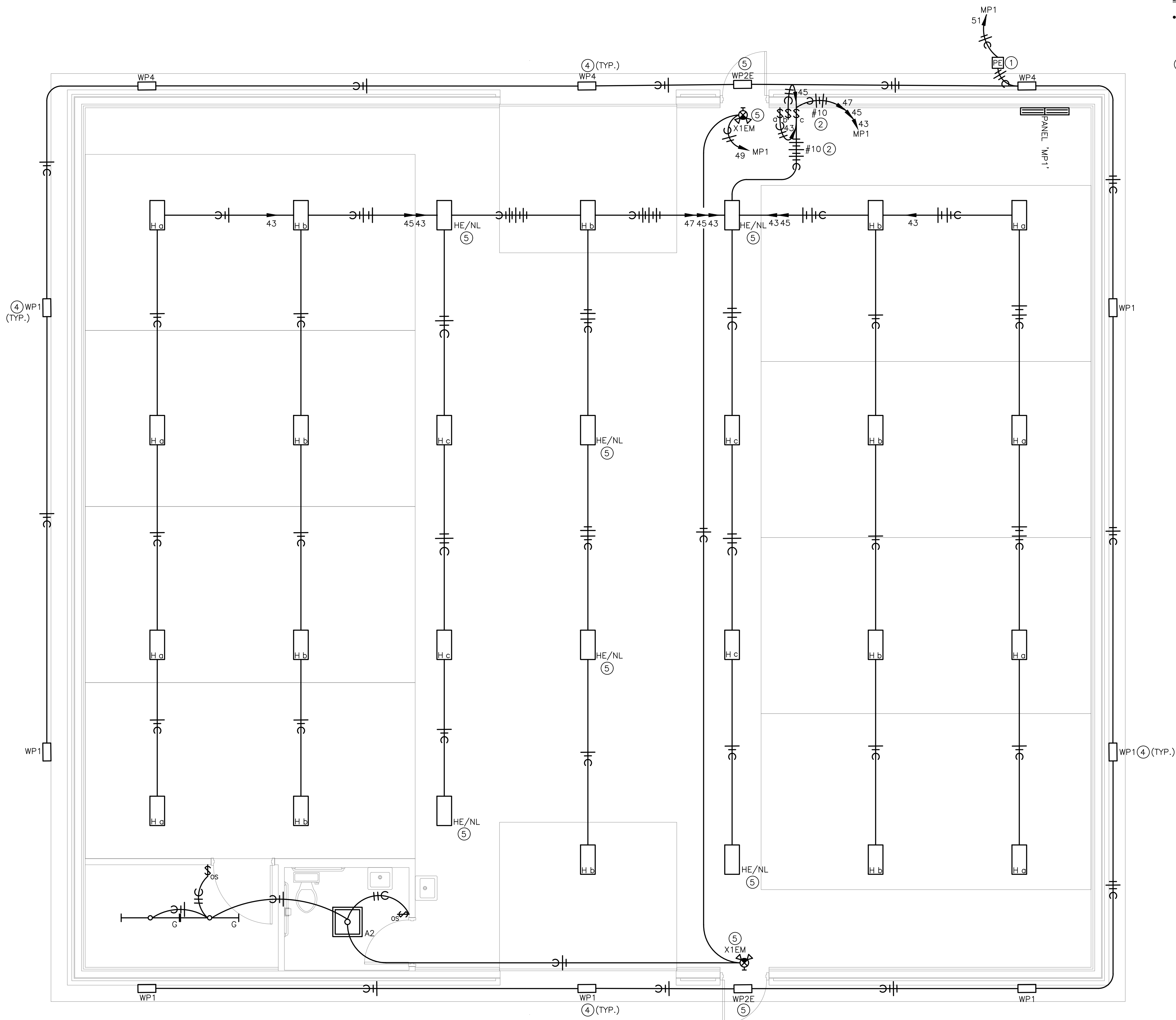
PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

E1.0

ELECTRICAL POWER PLAN

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

- ELECTRICAL GENERAL NOTES:**
- REFER TO E3.0 FOR ELECTRICAL GENERAL NOTES.
- ELECTRICAL LIGHTING PLAN NOTES:**
- PROVIDE BOX MOUNTED LINE VOLTAGE PHOTO-CELL FOR CONTROL OF EXTERIOR LIGHTING. ADJUST TO BRING LIGHTING ON AT DUSK AND OFF AT DAWN.
 - WALL SWITCHES FOR CONTROL OF SHOP LIGHTING. LIGHT FIXTURES SHALL BE ALTERNATELY SWITCHED TO PROVIDE BI-LEVEL LIGHTING. LOWER CASE LETTER INDICATES SWITCHING CONFIGURATION. UPSIZE HOME-RUN PORTION OF CIRCUIT TO MINIMIZE VOLTAGE DROP.
 - MOUNT SHOP HI-BAY FIXTURES AS HIGH AS POSSIBLE TO STRUCTURE.
 - CONFIRM ALL MOUNTING HEIGHTS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
 - CONNECT EXIT AND EMERGENCY FIXTURES TO CONTINUOUS HOT UN-SWITCHED LIGHTING CIRCUIT. HIGH-BAY SHOP NIGHT/EMERGENCY LIGHTING SHALL BE ON CIRCUIT 'HP1-47'.

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CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
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PROJECT NUMBER 22009
DATE ISSUED: 06 / 14 / 2022
SHEET NUMBER

E2.0

ELECTRICAL LIGHTING PLAN

LINETYPES LEGEND:

- NEW
- EXISTING OR BY OTHERS
- DEMOLITION

LIGHTING LEGEND:

- CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4'
- CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4' (NIGHT LIGHT OR EMERGENCY CIRCUIT)
- STRIP LIGHT FIXTURE. REFER TO FIXTURE SCHEDULE FOR LENGTH.
- WALL-MOUNT SCONCE OR WALL BRACKET LIGHT FIXTURE.
- RECESSED WALL WASH CAN LIGHT FIXTURE.
- RECESSED, SURFACE, OR STEM HUNG LIGHT FIXTURE.
- SINGLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
- DOUBLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
- COMBINATION SINGLE FACE EXIT/EMERGENCY LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.

NOTE: REFER TO LIGHT FIXTURE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND MOUNTING HEIGHTS.

POWER LEGEND:

- INDICATES ABOVE COUNTER (TYP)
- DUPLEX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLEX ISOLATED GROUND RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLEX RECEPTACLE ON STAND-BY GENERATOR POWER, MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN ABOVE COUNTER SHALL BE +48" AFF (UNO).
- FLOOR-MOUNTED DUPLEX OR FOURPLEX RECEPTACLE MOUNTED IN PVC FLOORBOX, OR POKE-THRU
- SPECIAL RECEPTACLE, NUMBER REFERS TO "NEMA" CONFIGURATION. MOUNT AT +18" AFF TO CENTER OF RECEPTACLE (UNO).
- FOURPLEX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN TO BE ABOVE COUNTER SHALL BE +48" AFF (UNO)
- FLUSH MOUNT COMBINATION POWER AND VOICE/DATA FLOORBOX.
- SINGLE POLE WALL MOUNT TOGGLE SWITCH. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED OCCUPANCY SENSOR SWITCH. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED OCCUPANCY SENSOR SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED LOW VOLTAGE SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- CEILING MOUNTED OCCUPANCY SENSOR.
- ROOM CONTROLLER/POWER PACK FOR LIGHT FIXTURE CONTROL. DEVICE SHALL BE CONCEALED IN CEILING.
- VOICE OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- COMBINATION VOICE/DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- FLUSH FLOOR MOUNT VOICE/DATA OUTLET MOUNTED IN PVC FLOORBOX.
- DISCONNECT SWITCH, STARTER, & COMBINATION STARTER/DISCONNECT SWITCH. SIZE AS INDICATED ON DRAWINGS.
- ELECTRICAL PANEL BOARD, FLUSH OR SURFACE MOUNT
- JUNCTION BOX
- NOTE: LINE THROUGH DEVICE INDICATES TO BE MOUNTED ABOVE COUNTERTOP OR CABINET. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS IF NOT INDICATED ON POWER PLAN.
- REFER TO LIGHTING CONTROL DEVICE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.

WIRING LEGEND:

- HOMERUN TO PANELBOARD WITH NUMBER AND SIZE OF CONDUCTORS INDICATED ON PLANS.
- GROUNDING CONDUCTOR.
- CONDUIT OR CIRCUIT BREAK/CONTINUATION.
- CONDUIT WITH ENDCAP FOR FUTURE USE.
- GROUNDING SOURCE.

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- ED EXISTING TO BE DEMOLISHED
- EM EMERGENCY
- ER EXISTING TO BE RELOCATED
- ETR EXISTING TO REMAIN
- GFCI GROUND FAULT CURRENT INTERRUPTER
- NL NIGHT LIGHT
- TR TAMPER RESISTANT
- UNO UNLESS NOTED OTHERWISE
- WP WEATHER PROTECTED COVER / GFCI

| LIGHT FIXTURE SCHEDULE | | | | | | | | | | | |
|---|---|--------------|--------|----------------|---------|-----|------------|-------------|-------------|---|-------|
| TYPE | MANUFACTURER AND MODEL # | LIGHT SOURCE | WATT S | MINIMUM LUMENS | VOLTAGE | CRI | COLOR TEMP | DIMMABLE | FINISH | DESCRIPTION | NOTES |
| A2 | METALUX 22FR-LD4-32-UNV-L835-CD1 | INTEGRAL LED | 30 | 3300 | UNV | 80 | 3500 | 0-10V / 10% | WHITE | 2'X2' LED LIGHT TROFFER WITH CENTER BASKET, 3500K COLOR TEMPERATURE DIMMABLE UNIVERSAL VOLTAGE DRIVER. | 1-5 |
| EM | SURE LITES XR-6/9-C | INTEGRAL LED | 6 | 1100 | UNV | 80 | - | 0-10V / 10% | WHITE | EMERGENCY WALL MOUNTED FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK. | 1-5 |
| H | BUILDERS PACK TR08-165W-2FT-40K-PDN | INTEGRAL LED | 165 | 20900 | UNV | 80 | 4000 | 0-10V / 10% | WHITE | LED HIGHBAY CABLE MOUNTED, 20,900 LUMEN PACKAGE. 4000K PROVIDE WITH WIREGUARD. PROVIDE WITH POWER CORD AND AIRCRAFT CABLE. CONFIRM LENGTHS NEEDED PRIOR TO ORDERING. | 1-5 |
| HE | BUILDERS PACK TR08-165W-2FT-40K-PDN -EM | INTEGRAL LED | 165 | 20900 | UNV | 80 | 4000 | 0-10V / 10% | WHITE | LED HIGHBAY CABLE MOUNTED, 20,900 LUMEN PACKAGE. 4000K PROVIDE WITH WIREGUARD. PROVIDE WITH POWER CORD AND AIRCRAFT CABLE. CONFIRM LENGTHS NEEDED PRIOR TO ORDERING.FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK. | 1-5 |
| G | HE WILLIAMS - 75S-4-L6S-8-40-DMA-DIM-UNV | INTEGRAL LED | 43 | 6500 | UNV | 80 | 4000 | 0-10V / 10% | WHITE | LED LINEAR RIGID CHAIN OR AIRCRAFT CABLE SUSPENDED TO 10'-0" AFF. | 1-5 |
| WP1 | MCGRAW EDISON - GLEON-SA3D-740-U-SL4 | INTEGRAL LED | 95 | 22,500 | UNV | 80 | 4000 | NA | DARK BRONZE | LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. MOUNT AT 18'-0" A.G. | 1-5 |
| WP2E | MCGRAW EDISON - IST-SA1-E-740-U-T4FT-XX-CBP | INTEGRAL LED | 25 | 2200 | UNV | 80 | 4000 | NA | DARK BRONZE | EXTERIOR LED WALL PACK. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK. | 1-5 |
| WP4 | MCGRAW EDISON - GLEON-SA3D-740-U-SL2-HSS | INTEGRAL LED | 95 | 19,600 | UNV | 80 | 4000 | NA | DARK BRONZE | LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. PROVIDE WITH HOUSE SHIELD. | 1-5 |
| X1EM | SURELITE SLX70RWH | INTEGRAL LED | 10.3 | - | UNV | NA | NA | NA | WHITE | COMBINATION EMERGENCY EGRESS /SINGLE FACE LED EXIT LIGHT FIXTURE WITH BATTERY PACK, RED LETTERS AND FIELD CONFIGURED ARROWS. | 1-5 |
| NOTES: | | | | | | | | | | | |
| 1. COORDINATE ALL LIGHT FIXTURE SELECTIONS AND/OR SUBSTITUTIONS WITH ARCHITECT, OWNER AND/OR ENGINEER PRIOR TO ORDER. | | | | | | | | | | | |
| 2. PROVIDE LIGHTING CONTROLS THAT ARE COMPATIBLE WITH FIXTURES PROVIDED. | | | | | | | | | | | |
| 3. COORDINATE WITH ARCHITECT, OWNER AND/OR ENGINEER FOR DIMMING REQUIREMENTS PRIOR TO INSTALLATION. | | | | | | | | | | | |
| 4. PROVIDE ALL COMPONENTS AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION. | | | | | | | | | | | |
| 5. EQUIVALENTS MUST BE SUBMITTED AND APPROVED PRIOR TO BID. | | | | | | | | | | | |

| PANELBOARD MP1 | | | | | | | | | | | | | |
|-----------------------------------|---------------------------|--------------|-----------|---------------------------|--------------------------|--------|--------|-------------------------------------|-----------|--------------|---------------------|---------------|----|
| BUS AMPS: 400A | | | | LOCATION: ELECTRICAL ROOM | | | | GROUND BUS: YES | | | | | |
| MAIN SIZE / TYPE: MCB | | | | NEMA RATING: NEMA 1 | | | | ISOL. GROUND BUS: NO | | | | | |
| VOLTS/PHASE: 208Y/120V, 3PH, 4W | | | | AFC VALUE: | | | | FEED THRU LUGS: YES | | | | | |
| MOUNTING: SURFACE | | | | AIC RATING: 22K | | | | SECTIONS: 1 OF 2 | | | | | |
| CKT # | CIRCUIT DESCRIPTION | BREAKER AMPS | WIRE SIZE | LOAD (VA) | CONNECTED PER PHASE (VA) | | | LOAD (VA) | WIRE SIZE | BREAKER AMPS | CIRCUIT DESCRIPTION | CKT # | |
| | | | | | A | B | C | | | | | | |
| 1 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | 2,160 | | | 1,800 | 1 | 20 | UNIT HEATER 'UH-1' | 2 | |
| 3 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | | 2,160 | | 1,800 | 1 | 20 | UNIT HEATER 'UH-2' | 4 | |
| 5 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | | | 1,860 | 1,500 | 1 | 20 | WATER HEATER 'WH-1' | 6 | |
| 7 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | 1,360 | | | 1,000 | 1 | 20 | OVERHEAD DOOR | 8 | |
| 9 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | | 1,360 | | 1,000 | 1 | 20 | OVERHEAD DOOR | 10 | |
| 11 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | | | 1,110 | 750 | 1 | 20 | EXHAUST FAN 'EF-2' | 12 | |
| 13 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | 610 | | | 250 | 1 | 20 | EXHAUST FAN 'EF-3' | 14 | |
| 15 | RECEPTACLES - SERVICE BAY | 20 | 1 | 360 | | 1,460 | | 1,100 | 1 | 20 | RADIANT HEATERS | 16 | |
| 17 | RECEPTACLES | 20 | 1 | 360 | | | 1,110 | 750 | 1 | 20 | CEILING FAN 'DF-1' | 18 | |
| 19 | | | | 5,000 | 5,750 | | | 750 | 1 | 20 | CEILING FAN 'DF-2' | 20 | |
| 21 | SPOT WELDER | 60 | 3 | #4 | 5,000 | | 5,000 | 0 | 1 | 20 | SPARE | 22 | |
| 23 | | | | 5,000 | | | 9,000 | 4,000 | - | - | | 24 | |
| 25 | | | | 5,000 | 9,000 | | | 4,000 | #6 | 3 | 60 | FRAME MACHINE | 26 |
| 27 | SPOT WELDER | 60 | 3 | #4 | 5,000 | | 9,000 | 4,000 | - | - | | 28 | |
| 29 | | | | 5,000 | | | 9,000 | 4,000 | - | - | | 30 | |
| 31 | | | | 7,000 | 11,000 | | | 4,000 | #6 | 3 | 60 | VEHICLE LIFT | 32 |
| 33 | AIR COMPRESSOR | 100 | 3 | #4 | 7,000 | | 11,000 | 4,000 | - | - | | 34 | |
| 35 | | | | 7,000 | | | 9,600 | 2,600 | #6 | 2 | 30 | MG/MAG WELDER | 36 |
| 37 | SPARE | 20 | 1 | 0 | 2,600 | | | 2,600 | | | | 38 | |
| 39 | SPARE | 20 | 1 | 0 | | 2,600 | | 2,600 | #6 | 2 | 30 | MG/MAG WELDER | 40 |
| 41 | SPARE | 20 | 1 | 0 | | | 2,600 | 2,600 | | | | 42 | |
| PER PHASE SUB-TOTALS | | | | | 32,480 | 32,580 | 34,280 | LEGEND: | | | | | |
| TOTAL CONNECTED PANELBOARD (VA) | | | | | 99,340 | | | TS - VIA TIME SWITCH | | | | | |
| TOTAL CONNECTED PANELBOARD (AMPS) | | | | | 276 | | | GF - GROUND FAULT INTERRUPTER | | | | | |
| TOTAL PANELBOARD DEMAND (VA) | | | | | 104,840 | | | FA - FIRE ALARM / RED / LOCKING TAB | | | | | |
| TOTAL PANELBOARD DEMAND (AMPS) | | | | | 291 | | | EM - EMERGENCY LTG. / LOCKING TAB | | | | | |
| | | | | | | | | ST - SHUNT TRIP | | | | | |
| | | | | | | | | LCK - LOCKING TAB | | | | | |
| | | | | | | | | IG - ISOLATED GROUND | | | | | |
| | | | | | | | | OL - RE: ONE-LINE DIAGRAM | | | | | |

| PANELBOARD MP1 | | | | | | | | | | | | | |
|-----------------------------------|----------------------------------|--------------|-----------|---------------------------|--------------------------|-------|-------|-----------------------------------|-----------|-----------|------|---------------------|-------|
| BUS AMPS: 400A | | | | LOCATION: ELECTRICAL ROOM | | | | GROUND BUS: YES | | | | | |
| MAIN SIZE / TYPE: MLO | | | | NEMA RATING: NEMA 1 | | | | ISOL. GROUND BUS: NO | | | | | |
| VOLTS/PHASE: 208Y/120V, 3PH, 4W | | | | AFC VALUE: | | | | FEED THRU LUGS: NO | | | | | |
| MOUNTING: SURFACE | | | | AIC RATING: 22K | | | | SECTIONS: 2 OF 2 | | | | | |
| CKT # | CIRCUIT DESCRIPTION | BREAKER AMPS | WIRE SIZE | LOAD (VA) | CONNECTED PER PHASE (VA) | | | LOAD (VA) | WIRE SIZE | BREAKER P | AMPS | CIRCUIT DESCRIPTION | CKT # |
| | | | | | A | B | C | | | | | | |
| 43 | LIGHTING - SHOP AREA | 20 | 1 | 1,320 | 1,320 | | | 0 | | 1 | 20 | SPARE | 44 |
| 45 | LIGHTING - SHOP AREA | 20 | 1 | 1,650 | | 1,650 | | 0 | | 1 | 20 | SPARE | 46 |
| 47 | LIGHTING - SHOP AREA | 20 | 1 | 1,650 | | | 1,650 | 0 | | 1 | 20 | SPARE | 48 |
| 49 | LIGHTING - RR, EXITS & COMP. RM. | 20 | 1 | 950 | 950 | | | 0 | | 1 | 20 | SPARE | 50 |
| 51 | LIGHTING - EXTERIOR | 20 | 1 | 0 | | 0 | | 0 | | 1 | 20 | SPARE | 52 |
| 53 | SPARE | 20 | 1 | 0 | | | 0 | 0 | | 1 | 20 | SPARE | 54 |
| 55 | SPARE | 20 | 1 | 0 | 0 | | | 0 | | 1 | 20 | SPARE | 56 |
| 57 | SPARE | 20 | 1 | 0 | | 0 | | 0 | | 1 | 20 | SPARE | 58 |
| 59 | SPARE | 20 | 1 | 0 | | | 0 | 0 | | 1 | 20 | SPARE | 60 |
| 61 | SPARE | 20 | 1 | 0 | 0 | | | 0 | | 1 | 20 | SPARE | 62 |
| 63 | SPARE | 20 | 1 | 0 | | 0 | | 0 | | 1 | 20 | SPARE | 64 |
| 65 | SPARE | 20 | 1 | 0 | | | 0 | 0 | | 1 | 20 | SPARE | 66 |
| 67 | SPACE ONLY | | | 0 | 0 | | | 0 | | | | SPACE ONLY | 68 |
| 69 | SPACE ONLY | | | 0 | | 0 | | 0 | | | | SPACE ONLY | 70 |
| 71 | SPACE ONLY | | | 0 | | | 0 | 0 | | | | SPACE ONLY | 72 |
| 73 | SPACE ONLY | | | 0 | 0 | | | 0 | | | | SPACE ONLY | 74 |
| 75 | SPACE ONLY | | | 0 | | 0 | | 0 | | | | SPACE ONLY | 76 |
| 77 | SPACE ONLY | | | 0 | | | 0 | 0 | | | | SPACE ONLY | 78 |
| 79 | SPACE ONLY | | | 0 | 0 | | | 0 | | | | SPACE ONLY | 80 |
| 81 | SPACE ONLY | | | 0 | | 0 | | 0 | | | | SPACE ONLY | 82 |
| 83 | SPACE ONLY | | | 0 | | | 0 | 0 | | | | SPACE ONLY | 84 |
| PER PHASE SUB-TOTALS | | | | | 2,270 | 1,650 | 1,650 | LEGEND: | | | | | |
| TOTAL CONNECTED PANELBOARD (VA) | | | | | 5,570 | | | TS - VIA TIME SWITCH | | | | | |
| TOTAL CONNECTED PANELBOARD (AMPS) | | | | | 15 | | | GF - GROUND FAULT INTERRUPTER | | | | | |
| TOTAL PANELBOARD DEMAND (VA) | | | | | 6,963 | | | IG - ISOLATED GROUND | | | | | |
| TOTAL PANELBOARD DEMAND (AMPS) | | | | | 19 | | | EM - EMERGENCY LTG. / LOCKING TAB | | | | | |
| | | | | | | | | OL - RE: ONE-LINE DIAGRAM | | | | | |



MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: Crash_Champions
P220338

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS) 20300 W 207th Street.

Pages or sheets covered by this seal: I52937126 thru I52937127

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193

SUBMITTAL:

Crash Champions - Body Shop -
Wood Truss - shop drawings



☒ APPROVED

☐ APPROVED AS NOTED

☐ REVISE & RESUBMIT

☐ REJECTED

By: Chris Bell

07/15/2022

This review is only for general conformance of the project and general compliance. Corrections or comments made on these drawings during this review do not relieve Subcontractor from compliance with the requirements of the plans and specifications. Subcontractor is responsible for all dimensions and fabrication to be confirmed and correlated at the job site



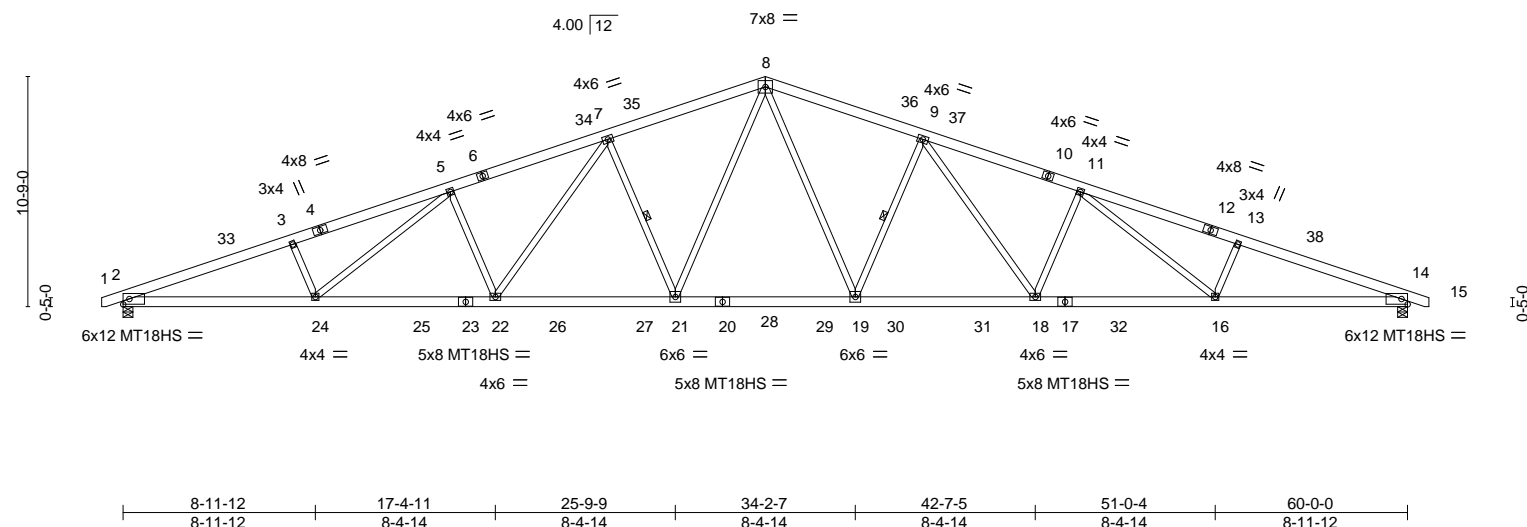
Scott Sevier

July 7, 2022

Sevier, Scott ,Engineer

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

| | | | | | | |
|---|-------|---------------------------|--|---------|--------------------------|---------------------------------|
| Job | Truss | Truss Type | Qty | Ply | P220338 | Development Services Department |
| CRASH_CHAMPIONS | R1 | COMMON | 34 | 1 | Job Reference (optional) | Lee's Summit, Missouri |
| Premier Building Supply (Springhill, KS), | | Spring Hills, KS - 66083, | 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed Jul 6 14:50:38 2022 Page 1 | | | |
| -1-0-0 | | 7-11-3 | 15-3-7 | 22-7-12 | 30-0-0 | 37-4-4 |
| 1-0-0 | | 7-11-3 | 7-4-4 | 7-4-4 | 7-4-4 | 7-4-4 |
| | | | | | | 52-0-13 |
| | | | | | | 60-0-0 |
| | | | | | | 1-0-0 |
| | | | | | | 07/18/2022 |
| | | | | | | Scale = 1:107.6 |



| | | | | | | | | | | | |
|----------------------|-----------|----------------------|------|-------------|------|--------------|----------------------|----------------|--|-------------|--|
| LOADING (psf) | | SPACING- | | CSI. | | DEFL. | | PLATES | | GRIP | |
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.97 | Vert(LL) | -0.60 19-21 >999 240 | MT20 | | 197/144 | |
| Snow (Ps/Pg) | 19.3/25.0 | Lumber DOL | 1.15 | BC | 0.54 | Vert(CT) | -1.11 19-21 >646 180 | MT18HS | | 197/144 | |
| TCDL | 15.0 | Rep Stress Incr | YES | WB | 0.74 | Horz(CT) | 0.28 14 n/a n/a | | | | |
| BCLL | 0.0 * | Code IBC2021/TPI2014 | | Matrix-S | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | |
| | | | | | | | | Weight: 357 lb | | FT = 20% | |

| | | | |
|----------------|-------------------|-----------------|--|
| LUMBER- | | BRACING- | |
| TOP CHORD | 2x6 SPF No.2 | TOP CHORD | Structural wood sheathing directly applied. |
| BOT CHORD | 2x6 SP 2400F 2.0E | BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| WEBS | 2x4 SPF No.3 | WEBS | 1 Row at midpt 7-21, 9-19 |

REACTIONS. (size) 2=0-5-8, 14=0-5-8
 Max Horz 2=123(LC 14)
 Max Grav 2=3318(LC 28), 14=3318(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-8077/76, 3-5=-7889/101, 5-7=-7005/134, 7-8=-5728/167, 8-9=-5728/167,
 9-11=-7005/134, 11-13=-7890/101, 13-14=-8078/76
 BOT CHORD 2-24=-27/7556, 22-24=0/6924, 21-22=0/5900, 19-21=0/4744, 18-19=0/5825,
 16-18=0/6832, 14-16=-19/7464
 WEBS 3-24=-323/108, 5-24=0/751, 5-22=-831/95, 7-22=0/1319, 7-21=-1332/117, 8-21=-7/1739,
 8-19=-7/1739, 9-19=-1332/117, 9-18=0/1319, 11-18=-831/95, 11-16=0/751,
 13-16=-323/108

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=16ft; B=70ft; L=60ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-13 to 5-1-3, Interior(1) 5-1-3 to 30-0-0, Exterior(2R) 30-0-0 to 36-0-0, Interior(1) 36-0-0 to 60-10-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Ps=19.3 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.0; Ct=1.10
 - 4) Roof design snow load has been reduced to account for slope.
 - 5) Unbalanced snow loads have been considered for this design.
 - 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 19.3 psf on overhangs non-concurrent with other live loads.
 - 7) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - 8) All plates are MT20 plates unless otherwise indicated.
 - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



July 7, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

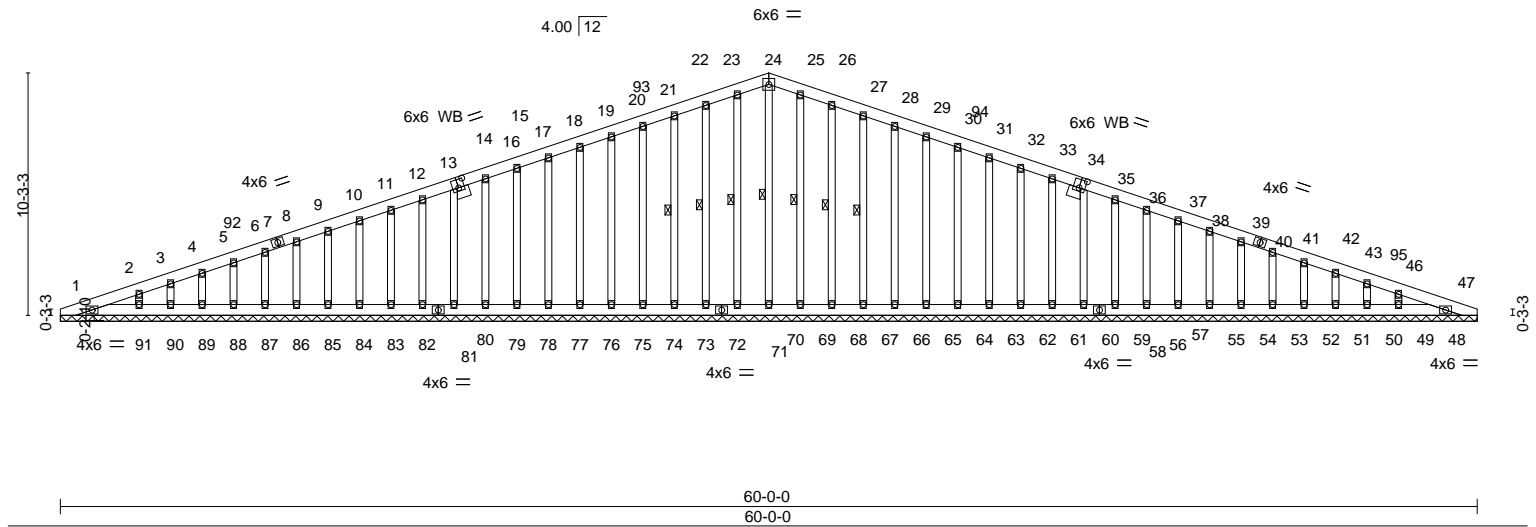
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

| | | | | | | |
|---|-------|------------|---|-----|--------------------------|---|
| Job | Truss | Truss Type | Qty | Ply | P220338 | Development Services Department Lee's Summit, Missouri 07/19/2022 |
| CRASH_CHAMPIONS | R1GB | GABLE | 2 | 1 | Job Reference (optional) | |
| Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, | | | 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed Jul 6 14:59:43 2022 Page 1 | | | |
| 30-0-0 30-0-0 | | | ID:UsnmMoJ??D9rs0dz4hvUoYz4Nax-9UrinjKFEb?HmsTkzC51YDA8VaUINFH2Yujms2.log | | | |
| | | | 60-0-0 30-0-0 | | | |

Scale = 1:97.6



| | | | | | | | | | | | |
|---------------|-----------|----------------------|------|----------|------|----------|------|--------|---------|------|--|
| LOADING (psf) | | SPACING- | | CSI. | | DEFL. | | PLATES | | GRIP | |
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.04 | Vert(LL) | n/a | MT20 | 197/144 | | |
| Snow (Ps/Pg) | 19.3/25.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a | | | | |
| TCDL | 15.0 | Rep Stress Incr | YES | WB | 0.18 | Horz(CT) | 0.00 | | | | |
| BCLL | 0.0 * | Code IBC2021/TPI2014 | | Matrix-S | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | |

| | | | |
|-----------|---------------------------|-----------|---|
| LUMBER- | | BRACING- | |
| TOP CHORD | 2x6 SPF No.2 | TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD | 2x6 SPF No.2 | BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |
| OTHERS | 2x4 SPF No.3 *Except* | WEBS | 1 Row at midpt |
| | 14-14,34-34: 2x6 SPF No.2 | | 24-69, 23-70, 22-72, 21-73, 25-68, 26-67, 27-66 |

REACTIONS. All bearings 60-0-0.
 (lb) - Max Horz 1=117(LC 14)
 Max Grav All reactions 250 lb or less at joint(s) 1, 47, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 88, 89, 90, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 57, 56, 55, 54, 53, 52, 51, 50, 49 except 91=266(LC 34), 48=266(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=16ft; B=70ft; L=60ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-13 to 6-7-13, Interior(1) 6-7-13 to 30-0-0, Exterior(2R) 30-0-0 to 36-0-0, Interior(1) 36-0-0 to 59-4-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Ps=19.3 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Roof design snow load has been reduced to account for slope.
- 6) Unbalanced snow loads have been considered for this design.
- 7) All plates are 3x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 1-4-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



July 7, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

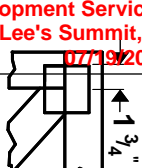


16023 Swingley Ridge Rd
Chesterfield, MO 63017

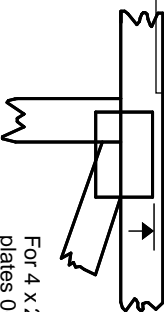
Symbols

PLATE LOCATION AND ORIENTATION

Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.



* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

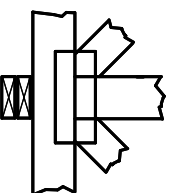
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



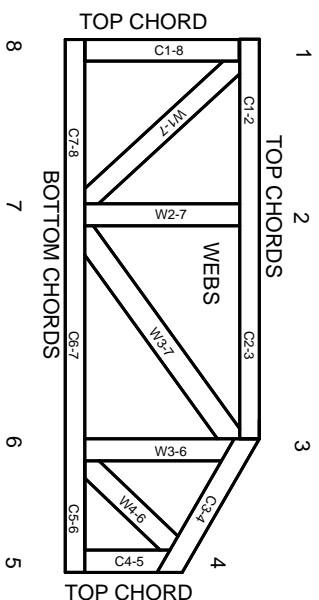
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

| | | | | | |
|-----------------|-------|------------|-----|-----|--------------------------|
| Job | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| CRASH CHAMPIONS | R1 | COMMON | 34 | 1 | |

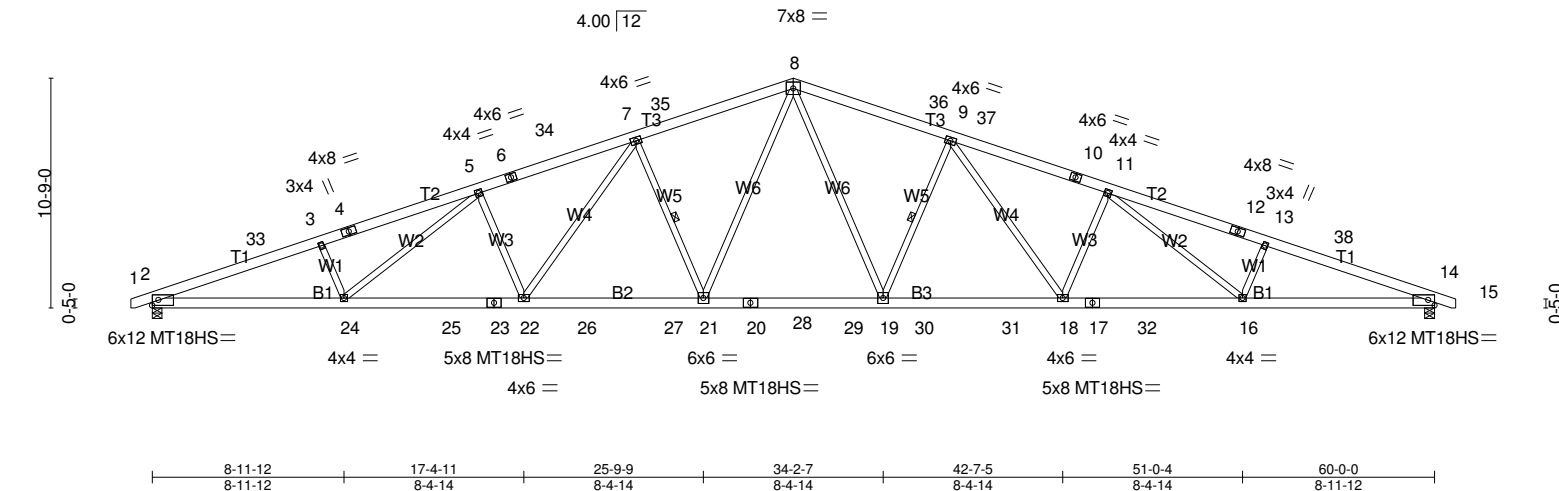
RELEASED FOR
CONSTRUCTION
As Noted on Plans Review

Premier Building Components

8.600 s Jun 14 2022 MiTek
ID:UsnmMoJ??D9rs0dz4hvUoYz4Nax-qf0VkrmuSba7b4uqCAlis-22i6MCx9q4bvMhNyxtlf

Development Services Department
Lee's Summit, Missouri
07/19/2022

Scale = 1:107.8



| | | | | | | | | | | | |
|----------------------|-----------|----------------------|------|-------------|------|--------------|------------------|---------------|----------------|-------------|--|
| LOADING (psf) | | SPACING- | | CSI. | | DEFL. | | PLATES | | GRIP | |
| TCLL (roof) | 25.0 | Plate Grip DOL | 1.15 | TC | 0.97 | Vert(LL) | -0.60 19-21 >999 | 240 | MT20 | 197/144 | |
| Snow (Ps/Pg) | 19.3/25.0 | Lumber DOL | 1.15 | BC | 0.54 | Vert(CT) | -1.11 19-21 >646 | 180 | MT18HS | 197/144 | |
| TCDL | 15.0 | Rep Stress Incr | YES | WB | 0.74 | Horz(CT) | 0.28 14 n/a | n/a | | | |
| BCLL | 0.0 * | Code IBC2021/TPI2014 | | Matrix-S | | | | | | | |
| BCDL | 10.0 | | | | | | | | Weight: 357 lb | FT = 20% | |

LUMBER-
TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-21, 9-19

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=2712/0-5-8 (min. 0-2-12), 14=2712/0-5-8 (min. 0-2-11)
Max Horz2=-123(LC 14)
Max Grav2=3318(LC 28), 14=3318(LC 29)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-33=-8077/60, 3-33=-7961/76, 3-4=-7889/76, 4-5=-7813/101, 5-6=-7005/109, 6-34=-6927/129, 7-34=-6864/134, 7-35=-5728/142, 8-35=-5645/167, 8-36=-5645/167, 9-36=-5728/142, 9-37=-6864/134, 10-37=-6928/129, 10-11=-7005/109, 11-12=-7813/101, 12-13=-7890/76, 13-38=-7961/76, 14-38=-8078/60
BOT CHORD 2-24=-27/7556, 24-25=0/6924, 23-25=0/6924, 22-23=0/6924, 22-26=0/5900, 26-27=0/5900, 21-27=0/5900, 21-28=0/4744, 20-28=0/4744, 20-29=0/4744, 19-29=0/4744, 19-30=0/5825, 30-31=0/5825, 18-31=0/5825, 17-18=0/6832, 17-32=0/6832, 16-32=0/6832, 14-16=-19/7464
WEBS 3-24=-323/108, 5-24=0/751, 5-22=-831/95, 7-22=0/1319, 7-21=-1332/117, 8-21=-7/1739, 8-19=-7/1739, 9-19=-1332/117, 9-18=0/1319, 11-18=-831/95, 11-16=0/751, 13-16=-323/108

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=16ft; B=70ft; L=60ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-13 to 5-1-3, Interior(1) 5-1-3 to 30-0-0, Exterior(2R) 30-0-0 to 36-0-0, Interior(1) 36-0-0 to 60-10-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Ps=19.3 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Roof design snow load has been reduced to account for slope.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 19.3 psf on overhangs non-concurrent with other live loads.
 - WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

LOAD CASE(S) Standard

| | | | | | |
|-----------------------------|-------|------------|-----|-----|--------------------------|
| Job | Truss | Truss Type | Qty | Ply | Job Reference (optional) |
| CRASH CHAMPIONS | R1GB | GABLE | 2 | 1 | |
| Premier Building Components | | | | | |

8.600 s Jun 14 2022 MiTek
ID:UsnmMoJ??D9rs0dz4hvUoYz4Nax-FeieNtorIWyiSYcctfkRKocowvzCPPrmGmZB1lvxtlC

Development 669024 Department
Lee's Summit, Missouri

07/19/2022

Scale = 1:97.2

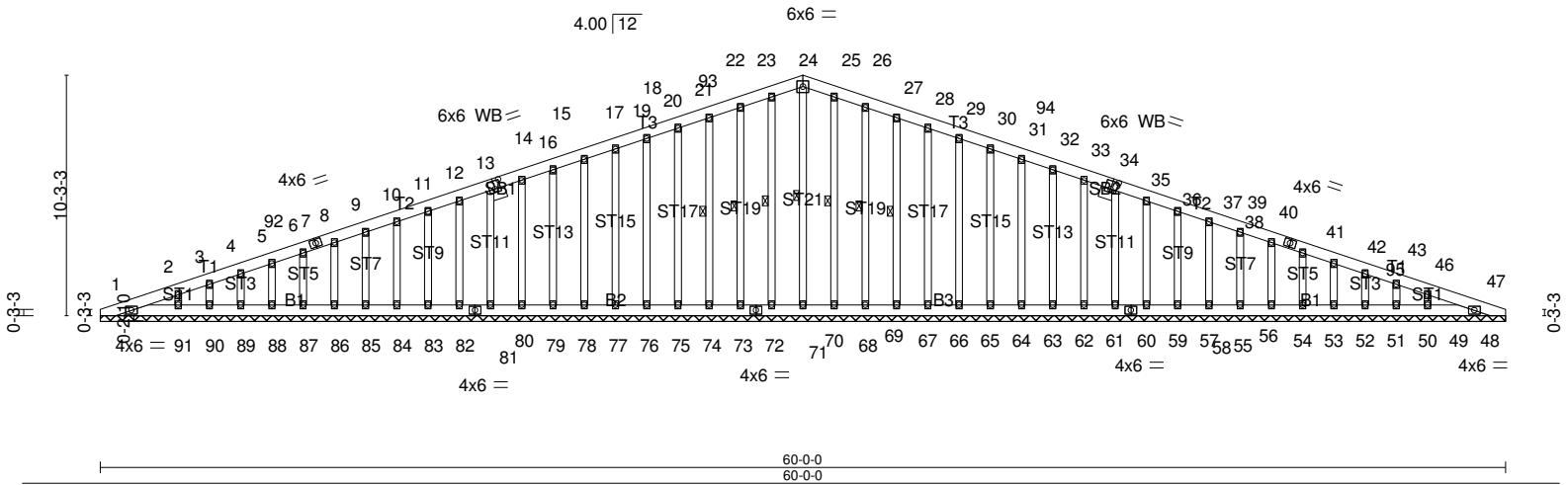


Plate Offsets (X,Y)-- [14:0-3-0,0-4-4], [34:0-3-0,0-4-4]

| LOADING (psf) | | SPACING- | | CSI. | | DEFL. | | PLATES | | GRIP | |
|----------------|-----------|----------------------|-------|----------|------|----------|-----------------|--------|--|----------|--|
| TCLL (roof) | 25.0 | Plate Grip DOL | 2-0-0 | TC | 0.04 | Vert(LL) | n/a - n/a | MT20 | | 197/144 | |
| Snow (Ps/Pg) | 19.3/25.0 | Lumber DOL | 1.15 | BC | 0.02 | Vert(CT) | n/a - n/a | | | | |
| TCDL | 15.0 | Rep Stress Incr | YES | WB | 0.18 | Horz(CT) | 0.00 47 n/a n/a | | | | |
| BCLL | 0.0 * | Code IBC2021/TPI2014 | | Matrix-S | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | |
| Weight: 446 lb | | | | | | | | | | FT = 20% | |

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SPF No.2
OTHERS 2x4 SPF No.3 *Except*
SB1,SB2: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 24-69, 23-70, 22-72, 21-73, 25-68, 26-67, 27-66

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 60-0-0.

(lb) - Max Horz 1=-117(LC 14)

Max Grav All reactions 250 lb or less at joint(s) 1, 47, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 88, 89, 90, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 57, 56, 55, 54, 53, 52, 51, 50, 49 except 91=266(LC 34), 48=266(LC 35)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=16ft; B=70ft; L=60ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-13 to 6-7-13, Interior(1) 6-7-13 to 30-0-0, Exterior(2R) 30-0-0 to 36-0-0, Interior(1) 36-0-0 to 59-4-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCCL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Ps=19.3 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Roof design snow load has been reduced to account for slope.
- Unbalanced snow loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

LOAD CASE(S) Standard

20300 W 207TH St
Spring Hill, KS 66083

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Salesperson:

Tom Lambertz

Designer/Id

ROOF LOADING CRITERIA

TOP CHORD LIVE LOAD (TCLL) 25

TOP CHORD DEAD LOAD (TCDL) 15

BOTTOM CHORD LIVE LOAD (BCLL) 0

BOTTOM CHORD DEAD LOAD (BCDL) 10

DEFLECTION: (LIVE) (TOTAL)

WIND SPEED: EXP:

BUILDING CODE: IRC 2018

Scale:

NTS

Date:

7/15/2022

Job #:

P220338

TRUSS PLACEMENT DIAGRAM

ROOF

RELEASED FOR
CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
07/19/2022

ALL ROOF TRUSS DIMENSIONS ARE FROM OUTSIDE EDGE OF STUD (u.n.o.)
SET ROOF TRUSSES FLUSH WITH FRAMING (u.n.o.)

WARNING: Trusses must be handled with care to prevent damage and injury.

This truss placement diagram is to be used only as an installation aid; it is not a structural diagram. These trusses are designed as individual building components to be incorporated into the building design at the the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing.

Professional advice should be sought regarding handling, installation, temporary and permanent bracing before erecting trusses. Temporary and permanent bracing is required during installation of trusses to prevent possible collapse.

For general guidance regarding bracing, consult "BCSI-06" available jointly from WTCA & TPI.

Premier Building Supply must be notified of any issues requiring a back charge prior to any work being done. Premier Building Supply reserves the right to use it's service staff in lieu of being back charged.

Drop Gable 2x6 out
lookers both ends