Maintenance facility for:

THE SUMMIT CHURCH

3381 NW CHIPMAN ROAD

LEE'S SUMMIT, MISSOURI 64081

PROJECT #: 21-384
ISSUE DATE: 08/22/2023

CONSTRUCTION DOCUMENT DRAWINGS

mantel teter
consulting | architecture | developing

5013 N. Washington St., Gladstone, Missouri 64118
t: 816.931.5600 www.mantelteter.com

CONSULTANTS

Engineering Solutions, Civil Engineer	50 SE 30th Street - Lee's Summit, MO 64082	816-623-9888
Bob D. Campbell & Company, Structural Engineers	4338 Belleview - Kansas City, MO 64111	816-531-4144
Eldecon, Inc, Electrical Engineers	6200-1 NW Kelly Drive - Kansas City, MO 64152	816-587-3322

FINISH NOTES

1. INTENT OF THE CONTRACT DOCUMENTS ARE DEFINED FOR INTERIOR FINISHES AS A COMPLETED AND FINISHED AESTHETIC APPEARANCE CONSISTENT WITH THE DETAILS, MATERIALS AND PERFORMANCE DESCRIPTION THAT THEY INFER.
2. PATCH ALL WALLS, FLOORS, CEILINGS, ETC., AS REQUIRED TO RECEIVE SCHEDULED FINISHES AND/OR FOR CONSISTENT UNIFORM APPEARANCE AS ESTABLISHED FROM ADJACENT/OPPOSITE SURFACE TREATMENTS.
3. ALL MATERIALS ARE NOT ALL NOTED BY WORDS. IT IS INTENDED THAT THEY ARE UNDERSTOOD BY THE MATERIAL SYMBOL DRAWN.
4. WHERE A CONDITION IS NOTED "TYPICAL" (TYP) IT IS UNDERSTOOD THAT ALL SIMILAR CONDITIONS ARE TO BE CONSTRUCTED OF THE SAME MATERIALS AND/OR DIMENSION.
5. ALL DIMENSIONS ARE TO THE FACE OF MASONRY, STUDS AND FURRING OR TO THE CENTER LINE OF STRUCTURAL STEEL. SOFFIT/CEILING ELEVATIONS ARE FINISHED DIMENSIONS.
6. ALL EXTERIOR STEEL SHALL BE GALVANIZED.
7. ALL EXTERIOR LINTELS, LOUVERS, ETC., SHALL BE PRE-FINISHED OR PAINTED TO MATCH THE FINISH COLOR OF THE MATERIAL THEY PENETRATE. SUBMIT SAMPLE FOR ARCHITECT'S APPROVAL.
8. ALL PLYWOOD BACKING PANELS SHALL BE FIRE-RETARDANT TREATED WOOD.
9. ALL INTERIOR FINISH MATERIALS SHALL MEET THE CLASS RATINGS REQUIRED BY TABLE 803.9 OF THE 2018 IBC AS REQUIRED FOR THE OCCUPANCY TYPE AND CONSTRUCTION TYPE SHOWN IN THE CODE SUMMARY ON DRAWINGS SHEET G0.30.
10. ALL INTERIOR WALL GRILLES SHALL BE PRE-FINISHED OR PAINTED TO MATCH SURROUNDING WALL COLOR. VERIFY WITH ARCHITECT PRIOR TO ORDERING.
11. WHERE ALL DISSIMILAR MATERIALS MEET, USE CAULKED JOINTS. USE METAL EDGES, CORNERS AND STOPS AS REQUIRED ON ALL GYPSUM BOARD UNITS.

GENERAL NOTES

1. EVERY CONTRACTOR, SUBCONTRACTOR, INSTALLER, ETC., SHALL STUDY AND COMPARE THE BIDDING DOCUMENTS WITH EACH OTHER, WITH THE EXISTING BUILDING AND THE ORIGINAL CONSTRUCTION DRAWINGS AVAILABLE FOR REVIEW ON SITE. ALL DRAWINGS, SPECIFICATIONS AND THE EXISTING FACILITY ARE AVAILABLE FOR REVIEW TO ENSURE THAT ALL CONDITIONS, BOTH PROPOSED AND EXISTING, CAN BE COMPARED FOR COMPATIBILITY. SHOULD A CONFLICT, ERROR, INCONSISTENCY OR AMBIGUITY BE DISCOVERED IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE ARCHITECT IMMEDIATELY. BIDDERS ARE ADVISED THAT "AS-BUILT" CONDITIONS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. HOWEVER, FROM REVIEW OF ALL THE ITEMS PROVIDED IT SHOULD BE UNDERSTOOD THAT BIDDERS SHALL NOT LATER REQUEST, NOR EXPECT TO RECEIVE, ADDITIONAL PAYMENT FOR WORK RELATED TO VARIATIONS WHICH CAN BE DETERMINED BY EXAMINATION OF THIS INFORMATION, THE BUILDING AND THE SITE BY DATE SET FOR RECEIPT OF BIDS FOR THIS CONTRACT.
2. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS & SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING AND PERFORMING ANY WORK. CONTRACTOR SHALL COORDINATE NEW WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES AND EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT PRIOR TO STARTING THE WORK.
3. THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. THE CONTRACT DOCUMENTS ARE COMPLIMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. SHOULD A CONFLICT OCCUR, THE ARCHITECT WILL DETERMINE THE INTENT OF THE CONTRACT DOCUMENTS TO PROVIDE THE OWNER WITH A COMPLETED AND FUNCTIONAL FACILITY. PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED ONLY TO THE EXTENT CONSISTENT WITH THESE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED "FINISHED" RESULTS.
4. THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL BID DOCUMENTS TO FULLY COORDINATE ALL ITEMS, INCLUDING THEIR PROPER INSTALLATION, THAT WILL BE UTILIZED ON THIS PROJECT PRIOR TO BID SUBMITTAL. IN THE EVENT THAT ANY AMBIGUITY, DISCREPANCY, ERROR, INCONSISTENCY OR OMISSION IN OR BETWEEN THE BID DOCUMENTS EXIST OR APPEARS TO EXIST, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING PRIOR TO THE BID SUBMITTAL FOR CLARIFICATION. THE CONTRACTOR ACKNOWLEDGES THAT HIS/HER SUBCONTRACTORS, FABRICATORS, & SUPPLIERS HAVE THOROUGHLY REVIEWED ALL BID DOCUMENTS AND REPORTED ANY AMBIGUITY, DISCREPANCY, ERROR, INCONSISTENCY OR OMISSION TO THE ARCHITECT IN WRITING PRIOR TO THE BID SUBMITTAL FOR CLARIFICATION. SHOULD A CLARIFICATION, DECISION, OR INTERPRETATION NOT BE REQUESTED BY THE CONTRACTOR OR RENDERED BY THE ARCHITECT, IT SHALL BE ASSUMED THAT THE CONTRACTOR HAS REVIEWED ALL THE BID DOCUMENTS AND HAS INCLUDED THE MOST COSTLY ITEM OR METHOD IN QUESTION REQUIRED TO RESOLVE THE AMBIGUITY, DISCREPENCY, ERROR, INCONSISTENCY OR OMISSION. ONE DOCUMENT DOES NOT TAKE PRECEDENT OVER ANOTHER WHEN INTERPRETING A DISCREPENCY.
5. THE CONTRACTOR AND SUBCONTRACTORS SHALL CHECK AND FIELD VERIFY ALL MEASUREMENTS, DIMENSIONS, ELEVATIONS AND ALIGNMENTS, INCLUDING THE EXISTING BUILDING AND SITE, BEFORE PROCEEDING WITH WORK. DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT.
6. CONTRACTOR SHALL NOT SCALE DRAWINGS EXCEPT FOR GENERAL REFERENCES.
7. ALL DRAWINGS AND SPECIFICATIONS ARE PROVIDED AS ONE UNIT. SHOULD A CONFLICT OCCUR, THE ARCHITECT WILL DETERMINE THE INTENT OF THE CORRECT DOCUMENTS TO PROVIDE THE OWNER WITH COMPLETED, FUNCTIONAL FACILITIES WITH A FULLY "FINISHED" APPEARANCE.
8. THESE DRAWINGS ARE FOR THIS SPECIFIC PROJECT AND NO OTHER USE IS AUTHORIZED.

SITE NOTES

1. THE OWNER PROVIDED SURVEY INFORMATION IS ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEERS & ARCHITECT, THEREFORE THE ARCHITECT CANNOT GUARANTEE THE ACCURACY OF THE SURVEY. THE CONTRACTOR SHALL VERIFY ALL EXISTING GRADES, DIMENSIONS AND/OR UTILITY LINES AS REQUIRED AND REPORT ANY DISCREPANCY TO THE ARCHITECT BEFORE PROCEEDING WITH CONSTRUCTION FOR PROPER INTENT AND LOCATION.
2. ALL EXISTING UTILITIES MAY NOT BE SHOWN ON THE SURVEY. GENERAL CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL UTILITY COMPANIES TO FIELD VERIFY THE EXACT LOCATION OF ALL UNDERGROUND AND ABOVE GROUND UTILITY LINES WITH THE COMPANY OWNING THE RESPECTIVE LINES WHETHER SHOWN OR NOT ON THE DRAWINGS. IN ADDITION, GENERAL CONTRACTOR SHALL PROTECT ALL UTILITY LINES (ABOVE & BELOW GROUND) DURING THE ENTIRE CONSTRUCTION PERIOD. DAMAGED LINES WILL BE REPAIRED AND/OR REPLACED AT NO COST TO THE OWNER. THIS INCLUDES ALL UTILITY LINES SHOWN OR NOT SHOWN.
3. ANY EXISTING TREES TO REMAIN SHALL BE ADEQUATELY PROTECTED WITH FENCING AT LEAST 4' HIGH AND 4' FROM THE TREE. TREES WHICH ARE MARKED TO REMAIN AND ARE DAMAGED OR KILLED UP TO ONE YEAR AFTER COMPLETION OF CONSTRUCTION, DUE TO ROUGH GRADING OR SUPERFICIAL DAMAGE, SHALL BE REPLACED WITH A 4" DIAMETER TREE OF THE SAME SPECIES, OR APPROVED EQUAL BY THE OWNER, AT NO COST TO THE OWNER.
4. STRIP TOP SOIL TO DEPTH OF 6" AND STOCKPILE FOR REDISTRIBUTION AFTER ROUGH GRADING. STOCKPILE TOPSOIL IN SEPARATE LOCALE FROM UNDERLYING SOIL. REDISTRIBUTE TOPSOIL AT DEPTH OF 4" MINIMUM OVER ALL UNPAVED AREAS. IF ADDITIONAL TOPSOIL IS REQUIRED, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL MATERIAL.
5. SEE CIVIL DRAWINGS FOR GRADING AND DRAINAGE REQUIREMENTS. COORDINATE ALL ITEMS WITH MECHANICAL/ELECTRICAL SITE PLAN REQUIREMENTS. REPORT ALL DISCREPANCIES TO ARCHITECT BEFORE PROCEEDING WITH CONSTRUCTION FOR PROPER INTENT.
6. GRADING SHOWN WILL BE FIELD CHECKED BY THE CIVIL ENGINEER AND OWNER AFTER ROUGH GRADING IS COMPLETED. MINOR CHANGES AS FIELD CONDITIONS DICTATE MAY BE REQUIRED. CONTOUR AND SPOT ELEVATIONS ARE CONTROLS ONLY AND ALL GRADING IS TO BE SMOOTH, FLOWING AND CONTINUOUS FOR POSITIVE DRAINAGE AND VISUAL EFFECT.
7. REFERENCE CIVIL DRAWINGS FOR CONCRETE SIDEWALK, CURB AND GUTTER DESIGN. ALL NEW CONCRETE SIDEWALKS, CURBS AND/OR GUTTERS SHALL BE INSTALLED AT AN EXISTING JOINT WITH EXPANSION JOINT MATERIAL AND SEALANT TO PROVIDE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING CONSTRUCTION.
8. VERIFY FINISH CURB ELEVATIONS BEFORE INSTALLATION TO ASSURE POSITIVE DRAINAGE AND TO ALIGN WITH EXISTING.
9. VERIFY LOCATION OF ALL PADS FOR UTILITY EQUIPMENT WITH ARCHITECT, AND/OR MECHANICAL ENGINEER. SET ALL PADS ON COMPACTED SUBGRADE AND 4" AB-3 BASE.
10. ALL UNPAVED AREAS DISTURBED SHALL BE SEEDED, SODDED OR MULCHED ON REDISTRIBUTED TOPSOIL (RE: LANDSCAPE DRAWINGS).
11. EXISTING ASPHALT AREAS DAMAGED BY CONSTRUCTION SHALL BE REPAIRED WITH 5" SOLID ASPHALT AT NO COST TO THE OWNER. PRIOR TO START OF CONSTRUCTION, GENERAL CONTRACTOR SHALL DOCUMENT DETERIORATED AREAS TO BE PREPARED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL NEW ASPHALT AND PATCHED AREAS SHALL PROVIDE SMOOTH TRANSITION BETWEEN NEW AND EXISTING SURFACES WITHOUT DIPS, HUMPS OR BUMPS.

SITE DEMOLITION NOTES

1. THE GENERAL CONTRACTOR WILL REMOVE ANY AND ALL SIDEWALKS, CURBS, SHRUBBERY, TREES, FENCES, CONCRETE CURBS, ASPHALT AND ANY OTHER ITEMS NOT NOTED TO BE REMOVED BUT REQUIRED TO BE REMOVED TO INSTALL THE NEW CONSTRUCTION.
2. ALL POLES, LINES, METERS, PADS, ETC. TO BE REMOVED OR RELOCATED, SHALL BE MODIFIED BY THE UTILITY OWNING THE ITEM. GENERAL CONTRACTOR WILL BE RESPONSIBLE TO FILL ANY HOLES PER DIVISION 2 IF NOT COMPLETED BY UTILITY. COORDINATE WITH OWNING UTILITY COMPANY.
3. GENERAL CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO FIELD VERIFY EXCACT LOCATIONS OF UNDERGROUND AND ABOVE GROUND LINES AND COORDINATE WITH UTILITY COMPANY OWNING LINES THAT MAY NEED TO BE RELOCATED OR REROUTED.
4. GENERAL CONTRACTOR SHALL PROTECT ALL UTILTY LINES (ABOVE & BELOW GROUND) DURING THE ENTIRE CONSTRUCTION PERIOD. DAMAGED LINES WILL BE REPAIRED AND/OR REPLACED AT NO COST TO THE OWNER. THIS INCLUDES ALL UTILITY LINES SHOWN OR NOT SHOWN.
5. UTILITY LINES SHOWN ARE FROM OWNER SUPPLIED SURVEY AND ARCHITECT DOES NOT GUARANTEE THE ACCURACY OR LOCATION. GENERAL CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND AND ABOVE GROUND UTILITY LINES WITH THE COMPANY OWNING LINES WHETHER SHOWN OR NOT SHOWN.
6. GENERAL CONTRACTOR SHALL PROTECT, BRACE AND SHORE THE EXCAVATION AND ALL EXISTING STRUCTURES ADJACENT TO ANY AND ALL EXCAVATIONS. PRIOR TO CONSTRUCTION THE GENERAL CONTRACTOR SHALL ESTABLISH THE DEPTH OF FOUNDATIONS FOR THE WALLS OF THE EXISTING STRUCTURES ADJACENT TO THE EXCAVATIONS. GENERAL CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER A TEMPORARY BRACING METHOD TO BE IMPLEMENTED TO PROTECT THE SLOPE OF THE EXCAVATION AND ADJACENT EXISTING STRUCTURES DURING THE CONSTRUCTION OF THE BASEMENT AREAS FOR REVIEW PRIOR TO CONSTRUCTION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF SUCH METHODS OF PROTECTION OF EXISTING STRUCTURE.

DISCLAIMER

I HEREBY SPECIFY THAT THE DOCUMENTS INTENDED TO BE AUTHENTICATED BY MY SEAL ARE LIMITED TO:

BIDDING DOCUMENTS, CONTRACT DOCUMENTS, DRAWING SHEETS COVER, G0.20, AND A1.10-A3.10, ARCHITECTURAL ONLY.

I HEREBY DISCLAIM ANY RESPONSIBILITY FOR ANY SOILS, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, FIRE ALARM, FIRE SUPPRESSION, AUDIO/VISUAL AND THEATRICAL LIGHTING REQUIREMENTS INDICATED HEREIN AND THOSE FOUND IN THE REMAINDER AS BEING THE RESPONSIBILITY OF OTHER DESIGN PROFESSIONALS WHOSE SEALS APPEAR HEREINAFTER.

mantel teter

WORK BY OWNER

THE FOLLOWING ITEMS ARE NOT INCLUDED AS PART OF THE CONSTRUCTION CONTRACT AS DESCRIBED HEREIN AND IN THE PROJECT SPECIFICATIONS, HOWEVER SHOULD BE CONSIDERED FOR COORDINATION PURPOSES. SEE OWNER FOR SPECIFIC REQUIREMENTS AND CONTACTS FOR COORDINATION:

1. SECURITY SYSTEMS
2. TELEPHONE SYSTEMS
3. I.T. NETWORKING SYSTEMS
4. TELEVISION CABLE SYSTEMS
5. EXHIBIT DISPLAYS
6. FURNISHINGS AND EQUIPMENT
7. BLINDS, DRAPES, POWER SHADES OR ANY OTHER WINDOW TREATMENTS
8. ROOM AND DIRECTIONAL SIGNAGE
9. SOAP DISPENSERS
10. PAPER TOWEL DISPENSERS
11. TRASH CANS
12. THEMED SPACE DESIGN ELEMENTS
13. AUDIO/VIDEO & THEATRICAL LIGHTING SYSTEMS
14. INDOOR & OUTDOOR PLAY EQUIPMENT
15. THIRD-PARTY BUILDING CODE REQUIRED SPECIAL INSPECTIONS

ABBREVIATIONS

@	AT
A.B.	ANCHOR BOLT
ACOUST.	ACOUSTICAL
A.D.A.	AMERICANS WITH DISABILITIES ACT
ADJ.	ADJUSTABLE / ADJACENT
A.F.F.	ABOVE FINISHED FLOOR
ALT.	ALTERNATE
ALUM.	ALUMINUM
ANOD.	ANODIZED
APPROX.	APPROXIMATE / APPROXIMATELY
ARCH.	ARCHITECT/ ARCHITECTURAL
ASPH.	ASPHALT
A.V.L.	AUDIO, VIDEO & LIGHTING
B.C.S.	BABY CHANGING STATION
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B/O	BY OTHERS
B.O.	BOTTOM OF
BOT.	BOTTOM
BRG.	BEARING
B.T.U.	BRITISH THERMAL UNIT
BTWN.	BETWEEN
B.U.	BUILT-UP (ROOF)
℄	CENTER LINE
CAB.	CABINET
CARP.	CARPET
C.J.	CONTROL JOINT
CLG.	CEILING
C.M.U.	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT / CASED OPENING
COL.	COLUMN
COMP.	COMPOSITION
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
COORD.	COORDINATE
C.R.	CRUSHED ROCK
C.S.	COUNTER SINK / CAST STONE / CUT STONE
C.T.	COUNTER TOP
D.	DRYER
DBL.	DOUBLE
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
DIAG.	DIAGONAL
DISP.	DISPENSER
DN.	DOWN
DP.	DEEP
DR.	DOOR
D.S.	DOWN SPOUT
DTL.	DETAIL
D/W	DISHWASHER
D.W.C.	DRYWALL CHANNEL
DWG.	DRAWING
EA.	EACH
E.D.F.	ELECTRIC DRINKING FOUNTAIN
E.I.F.S.	EXTERIOR INSULATED FINISH SYSTEM
E.J.	EXPANSION JOINT
ELECT.	ELECTRICAL
E.P.D.M.	ETHYLENE PROPYLENE DIENE MONOMER
E.P.S.	EXPANDED POLYSTYRENE
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.W.	EACH WAY
E.W.C.	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
F.L.	FLOW LINE
FAB.	FABRICATE / FABRICATED
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.A.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FIN.	FINISH / FINISHED
FIX.	FIXTURE
FLR.	FLOOR
FLRG.	FLOORING
FLSHG.	FLASHING
F.R.	FIRE-RATED
FT.	FOOT
FTG.	FOOTING
F.V.	FIELD VERIFY
GA.	GAUGE
GALV.	GALVANIZED
G.B.	GRAB BARS
G.C.	GENERAL CONTRACTOR
GL.	GLASS
G. & N.	GLUE & NAIL
GRD.	GRADE
GYP.	GYPSUM
H/C	HANDICAPPED
H.C.	HOLLOW CORE
HD.	HEAD
HDR.	HEADER
HDWD.	HARDWOOD
H.M.	HOLLOW METAL
HORZ.	HORIZONTAL
HR.	HOUR
HT.	HEIGHT
HTR.	HEATER
HVYWT.	HEAVYWEIGHT
I.A.	INSIDE DIAMETER
IN.	INCH / INCHES
INST.	INSTRUCTIONS
INSUL.	INSULATED / INSULATION
INT.	INTERIOR
JAN.	JANITOR
JST.	JOIST
JT.	JOINT
LAM.	LAMINATED
LAV.	LAVATORY
LG.	LONG
LOC.	LOCATION / LOCATE
LT.	LIGHT
L.V.A.	LUXURY VINYL TILE
MANUF.	MANUFACTURED
MAS.	MASONRY
MATL.	MATERIAL
MAX.	MAXIMUM
M.C.J.	MASONRY CONTROL JOINT
M..O.	MEDIUM DENSITY OVERLAY
MECH.	MECHANICAL
MEMB.	MEMBRANE
MFR.	MANUFACTURER
MIN.	MINIMUM / MINUTE
MISC.	MISCELLANEOUS
MNTG.	MOUNTING
M.O.	MASONRY OPENING
MTD.	MOUNTED
MTL.	METAL
N	NORTH
NAT.	NATURAL
N.I.C.	NOT IN CONTRACT
NO. / #	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON-CENTER
O.D.	OUTSIDE DIAMETER
OH.	OVERHEAD
OPNG.	OPENING
OZ.	OUNCE
ℙ	PLATE
PC.	PRECAST
P.C.	PLASTIC COATED
P.E.J.	PREMOLDED EXPANSION JOINT
P.F.	PRE-FINISHED
P.L.	PROPERTY LINE
PLAS. LAM.	PLASTIC LAMINATE
PLUMB.	PLUMBING
PLYWD.	PLYWOOD
PR.	PAIR
PRE-FAB.	PRE-FABRICATED
PROJ.	PROJECT / PROJECTOR / PROJECTION
PT.	PAINT
P.T.	PAPER TOWEL
PTD.	PAINTED
PVC.	POLYVINYL CHLORIDE
R.	RADIUS / RISER
R.B.	RUBBER BASE
R.C.	ROUGH CEDAR
R.D.	ROOF DRAIN
REC.	RECESSED
RE:	REFERENCE
REF.	REFRIGERATOR
REINF.	REINFORCED
RELOC.	RELOCATE / RELOCATED
REMOV.	REMOVE / REMOVABLE
REQD.	REQUIRED
REQMT.	REQUIREMENT
RM.	ROOM
RNG.	RANGE
R.O.	RED OAK / ROUGH OPENING
R.S.	ROUGH SAWN
R.S.C.	ROUGH SAWN CEDAR
S.&V.	STAIN & VARNISH
S.C.	SOLID CORE
SCHED.	SCHEDULE
SECT.	SECTION
S.F.	SQUARE FOOT
SHT.	SHEET
SHTG.	SHEATHING
SIM.	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S.	STORM SEWER / SERVICE SINK / STAINLESS STEEL
S.S.C.	SMOOTH SAWN CEDAR
STD.	STANDARD
STL.	STEEL
STRUCT.	STRUCTURE / STRUCTURAL
SUSP.	SUSPENDED / SUSPENSION
SYST.	SYSTEM
T.	TREAD
T. & B.	TOP & BOTTOM
T. & G.	TONGUE & GROOVE
TEMP.	TEMPERED / TEMPORARY
THK.	THICK
T.O.	TOP OF
T.P.	TOILET PAPER
T.S.	TUBE STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.C.T.	VINYL COMPOSITION TILE / VITREOUS CLAY TILE
VERT.	VERTICAL
V.W.C.	VINYL WALL COVERING
W.	WASHER / WIDTH / WIDE
W/	WITH
W.C.	WATER CLOSET
WD.	WOOD
W.F.	WIDE FLANGE
WIN.	WINDOW
W/O	WITHOUT
W.P.	WATERPROOF
W.R.B.	WEATHER RESISTIVE BARRIER
WT.	WEIGHT
W.W.F.	WOVEN WIRE FABRIC

MATERIAL SYMBOL LEGEND

- EARTH
- CONCRETE
- BRICK VENEER
- CONCRETE BLOCK
- GYPSUM BOARD / GROUT / CEMENTITIOUS FIRE PROTECTION
- GLAS-MAT GYP. SHTG. BD.
- MANUFACTURED MASONRY VENEER
- WOOD (ROUGH)
- PLYWOOD
- FINISHED WOOD
- CRUSHED ROCK
- STEEL / METAL
- CAST STONE
- BATT INSULATION
- RIGID INSULATION
- FINISHED STONE / SOLID SURFACE
- CEILING TILE / FIBERBOARD / CEMENTITIOUS ROOF DECK
- NEW STUD WALL
- BLOWN-IN INSULATION
- DEMO WALL / DOOR EXCEPT AS NOTED

NOT ALL MATERIALS ARE INDICATED ON THE SYMBOL LEGEND. THOSE MATERIALS NOT NOTED ABOVE ARE INDICATED ON SPECIFIC DETAILS, SECTIONS, OR ELEVATIONS.

NOT ALL SYMBOLS ARE NOTED, WHERE SYMBOLS ARE NOT NOTED, IT IS UNDERSTOOD THAT THE SYMBOL IS THE SAME AS IDENTICAL SYMBOLS NOTED.

INDEX OF DRAWINGS

STATE OF MISSOURI
BRIAN C. RATHER
NUMBER A-2007035983
ARCHITECT
8/22/2023

mantel teter
consulting | architecture | developing
5013 N. Washington St., Gladstone, Missouri 64118
t: 816.931.5600 www.mantelteter.com

MAINTENANCE FACILITY FOR:
THE SUMMIT CHURCH
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

PROJECT #: 21-834
ISSUE DATE: 8/22/2023
DRAWN BY:
CHECKED BY: BCR
REVISIONS:

SHEET No.
G0.20
INDEX OF DRAWINGS / ABBREVIATIONS/ MATERIALS SYMBOL LEGEND / NOTES

THE SUMMIT CHURCH

PHASE 3
FINAL DEVELOPMENT PLAN

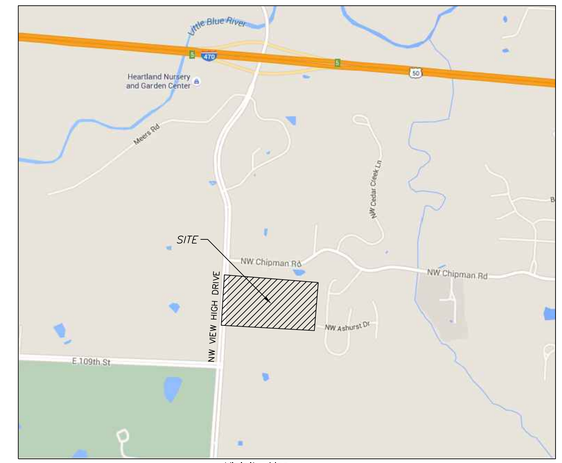
SEC-3 TWP-47 RNG-32 W 1/2 NW 1/4
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

North

0 50' 100' 200'

SITE PLAN

SCALE: 1" = 100'



Vicinity Map

Site Data Table

Existing Phase 1 Impervious Area
(All Property North of Ashurst Drive.)

Existing Area	1,169,284.28 Sq. Ft. (26.84 Ac.)
Existing Building	34,393.00 Sq. Ft. (0.79 Ac.)
Existing Asphalt/Sidewalk	206,250.39 Sq. Ft. (4.74 Ac.)
Existing Impervious Area	240,643.40 Sq. Ft. (5.52 Ac. = 20.6% of Site))
Existing Parking Spaces	388 Standard / 54 Handicap

New Phase 3 Impervious Area
(All Property North of Ashurst Drive.)

Area	1,169,284.28 Sq. Ft. (26.84 Ac.)
Asphalt/Sidewalk	1,365 Sq.Ft. (0.03 Ac.)
New Building	1,221.85 Sq. Ft. (0.03 Ac.)
Impervious Area	2,586.85 Sq.Ft. (0.06 Ac. = 0.2% of Site)
New Parking Spaces	0 Standard / 0 Handicap

Total Impervious Area
(All Property North of Ashurst Drive.)

Area	1,169,284.28 Sq. Ft. (26.84 Ac.)
Asphalt/Sidewalk	207,615 Sq. Ft. (4.77 Ac.)
Impervious Area	243,230.25 Sq. Ft. (5.58 Ac. = 20.8% of Site)

Site Improvement Notes

Chipman Road
–No improvements are anticipated for Chipman Road

View High Drive
–No improvements are anticipated for View High Drive

No new service connections to building.

Developer:
rdawson@reachingthesummit.com
The United Methodist Church of Lee's Summit
3381 NW Chipman Rd
Lee's Summit, MO 64081

LEGEND:

B/L	– BUILDING SET-BACK
C/A	– COMMON AREA
D/E	– DRAINAGE EASEMENT
FND.	– FOUND
L/E	– LANDSCAPE EASEMENT
L.N.A.	– LIMITS OF NO ACCESS
R/W	– RIGHT OF WAY
SAN	– SANITARY SEWER LINE
S/W	– SIDEWALK
U/E	– UTILITY EASEMENT
W	– WATER LINE
ST	– STORM SEWER LINE

PROPERTY DESCRIPTION

Description taken verbatim from Deed of Trust, Instrument No. 2010E0080118

All that part of the West one half of Lot 2 of the NW 1/4 of Section 3, Township 47 N, Range 32 W, in Lee's Summit, Jackson County, Missouri, except the East 16.5 feet, and except that part in existing street rights of way, more particularly described as follows:
Commencing at the Northwest corner of said Section 3; thence S 86°41'55" E along the North line of said 1/4 Section, a distance of 30.00 feet; thence S 03°18'59" W, a distance of 30.00 feet to the Point of Beginning, said point being the intersection of the existing East right of way line of View High Drive and the South line of the existing right of way line of Chipman Road; thence S 86°41'55" E parallel with the North line of said 1/4 Section, a distance of 337.94 feet; thence S 86°35'42" E parallel with the North line of said 1/4 Section, a distance of 945.57 feet; thence S 03°22'09" W, West of, parallel with and 16.5 feet distant from the East line of the West 1/2 of said Lot 2, a distance of 1420.09 feet to a point on the South line of the West 1/2 of said Lot 2; thence N 87°16'57" W along said South line, a distance of 1282.27 feet; thence N 03°18'59" E along a line, East of, parallel with and 30.00 feet distant from the West line of said Lot 2, a distance of 1434.84 feet to the Point of Beginning, containing 42.046 acres, more or less, all being subject to easements, restrictions, and rights of way of record.

OIL - GAS WELLS
ACCORDING TO EDWARD ALTON MAY JR'S ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI IN 1995, THERE ARE NOT OIL AND GAS WELLS WITHIN 185 FEET OF THE PROPERTY AS SURVEYED HEREON.

FLOOD INFORMATION:
THE SUBJECT PROPERTY SURVEYED LIES WITHIN A FLOOD ZONE DESIGNATED ZONE (X), AREAS LOCATED OUTSIDE THE 100 YEAR FLOOD PLAIN, PER F.E.M.A. MAP, COMMUNITY PANEL NO. 29095C0412G EFFECTIVE DATE: JANUARY 20, 2017.

UTILITY COMPANIES:

THE FOLLOWING LIST OF UTILITY COMPANIES IS PROVIDED FOR INFORMATION ONLY. WE DO NOT OFFER ANY GUARANTEE OR WARRANTY THAT THIS LIST IS COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION AND VERIFYING THE ACTUAL LOCATION OF EACH UTILITY LINE. THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.

EVERGY ~ 298-1196
MISSOURI GAS ENERGY ~ 756-5261
SOUTHWESTERN BELL TELEPHONE ~ 761-5011
COMCAST CABLE ~ 795-1100
WILLIAMS PIPELINE ~ 422-6300
CITY OF LEE'S SUMMIT PUBLIC WORKS ~ 969-1800
CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING INSPECTION AT 816.969.1200
CITY OF LEE'S SUMMIT WATER UTILITIES ~ 969-1900
MISSOURI ONE CALL (DIG RITE) ~ 1-800-344-7483

GENERAL NOTES:

1 ~ ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
2 ~ ALL REQUIRED EASEMENTS WITHIN THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR ON THE FINAL PLAT.
3 ~ ANY REQUIRED EASEMENT LOCATED OUTSIDE OF THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR BY SEPARATE INSTRUMENT PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
4 ~ THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.
5 ~ THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH THE IMPROVEMENTS PROPOSED BY THESE PLANS AND SITE CONDITIONS.
6 ~ THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND OBTAIN THE APPROPRIATE BLASTING PERMITS FOR A REQUIRED BLASTING. IF BLASTING IS ALLOWED, ALL BLASTING SHALL CONFORM TO STATE REGULATIONS AND LOCAL ORDINANCES.

ENGINEER'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED AND THESE PLANS PREPARED IN ACCORDANCE WITH THE CURRENT DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT, MISSOURI AND THE STATE OF MISSOURI. I FURTHER CERTIFY THAT THESE PLANS WERE DESIGNED IN ACCORDANCE TO AASHTO STANDARDS.

ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P:(816) 623-9888 F:(816)623-9849

Professional Registration
Missouri
Engineering 2005002188-D
Surveying 2005000319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

The Summit Church
3381 Northwest Chipman Road
Lee's Summit, Jackson County, Missouri

Project: THE SUMMIT CHURCH, LSMO
Issue Date: December 30, 2021

SITE PLAN
The Summit Church
Phase 3
Lee's Summit, Jackson County, Missouri

STATE OF MISSOURI
MATTHEW J. SCHLICHT
NUMBER
PE-2006019708
PROFESSIONAL ENGINEER

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

C.100

GENERAL NOTES - STRUCTURAL

1. General Information

A. The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.

B. 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. In the case of work in an existing building the contractor shall scan existing structure to locate all rebar in the area of the new core/opening using ground penetrating radar and notify the engineer of record for review prior to coring/cutting. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.

C. All design and construction work for this project shall conform to the requirements of the following governing design codes:
1.) International Building Code (IBC 2018) as amended by the city of Lee's Summit, Missouri
2.) Minimum Design Loads for Buildings and Other Structures (ASCE7-16)
3.) Building Code Requirements for Structural Concrete (ACI 318-14)
4.) National Design Specification (NDS) for Wood Constriction with 2012 Supplements (ANSI/AWC NDS-2015)
5.) Special Design Provisions for Wind and Seismic (AWC SDPWS-2015)

D. These drawings are for this specific project and no other use is authorized.

2. Structural Load Design Criteria

A. Roof Live = **20** psf; Roof Collateral Dead = 10psf
B. Snow: Pg = **20**psf, Pf =14psf, Is = 1.0, Ce = 1.0, Ct = 1.0, Drift per ASCE/SEI 7
C. Lateral Loads:
1.) Wind: V = 103mph, Exposure B
Occupancy [Risk] Category I, Iw=1.0 GCpi=+/-0.18
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 and Table 30.7-2 of ASCE/SEI 7. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable
2.) Seismic: Ss = 0.099, S1 = 0.068
Occupancy [Risk] Category I, Ie=1.0,
Site Classification D; Sds = 0.105; Sd1 = 0.109
Seismic Design Category D
Basic Seismic Force-resisting System:
Light-framed (wood) walls sheathed with wood structural panels rated for shear resistance
Equivalent Lateral Force Procedure
R = 6-1/2; Omega = 3; Cd=4

D. This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the International Building Code.

3. Concrete

A. All concrete for foundations (grade beams and footings) shall develop minimum ultimate compressive design strength of 3500 psi in 28 days, but not less than 500 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.

B. All concrete for interior flatwork shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 525 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.75 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).

C. All concrete for exterior flatwork shall have a minimum design compressive strength of 4500 psi in 28 days, with not less than 560 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.

D. 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.

E. 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.

F. Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with no more than 18 percent and not less than 8 percent retained on an individual sieve, except that less than 8 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.

G. 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.

H. Control joints in dirt formed slab to be as shown on plans. Where not shown, limit controlled areas to not more than 144 square feet, or 12 feet on any side. Slab panel side ratio shall not exceed 1 1/2 to 1.

I. Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.

J. Construction joints in beams, slabs, and grade beams shall occur at midspan (middle third) unless noted otherwise. Provide 2 x 4 horizontal keys at construction joints for shear transfer.

K. No aluminum items shall be embedded in any concrete.

4. Reinforcing Steel

A. 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 A185.

B. Clear coverage of concrete over reinforcing steel shall be as follows:
1.) Concrete placed against earth: 3"
2.) Formed concrete against earth: 2"
3.) Slabs: 1"
4.) Beams or Columns: 1-1/2"
5.) Other 2"
All coverage shall be nominal bar diameter minimum.

C. All dowels shall be the same size and spacing as adjoining main bars (splice lap 48 bar diameters or 24" minimum unless noted otherwise).

D. At corners of all walls, beams, and grade beams supply corner bars (minimum 2'-0" in each direction or 48 bar diameters) in outside face of wall, matching size and spacing of horizontal bars. Where there are no vertical bars in outside face of wall, supply 3 - #4 vertical support bars for corner bars.

E. Bars marked continuous and all vertical steel shall be lapped 48 bar diameters (2'-0" minimum) at splices and embedments, unless shown otherwise. Splice top bars near midspan and splice bottom bars over supports, unless noted otherwise.

F. At all holes in concrete walls and slabs, add 2 - #5 bars (opening dimension plus 96 diameters long) at each of four sides and add 2 - #5 x 5'-0" diagonally at each of four corners of hole. Openings in 8" thick walls are reinforced similar, but with 1 - #5 instead of 2 - #5, respectively.

G. Unless otherwise covered on architectural plans or specifications, vertical control joints in concrete wall shall be spaced at a maximum of 20'-0" on center and coordinated with the architect. Every other horizontal wall reinforcing bar shall be discontinuous at control joints except heavy top and bottom bars unless noted otherwise. Provide base seal waterstop style number 772 (by Greenstreak Inc. or approved equal) on dirt face side of wall at all walls below grade.

H. 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.

I. All slabs and stairs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way. All exterior porches and stoops not otherwise detailed may be constructed in any standard manner, solid or hollow, but must be reinforced with #4 bars at 12" on center each way minimum. Porches shall be doweled to adjacent walls or grade beams with #4 bars at 12" on center, hooked or embedded 48 diameters into both members. Slope porches 1/8" per foot for drainage unless noted otherwise.

J. Allow1/2 ton of reinforcing bars #4 or larger to be used as directed in the field for special conditions by the engineer of record (labor for placing same to be included).

6. Post Installed Anchors

A. Post-installed anchors shall be used only where specified on the drawings unless approved in writing by the engineer of record. See drawings for anchor diameter, spacing and embedment. Performance values of the anchors shall be obtained for specified products using appropriate design procedures and/or standards as required by the governing building code. Anchors installed in concrete shall have an ICC-ES Evaluation Service Report. Special inspection is required for all post installed anchors. The contractor shall coordinate an on-site meeting with the post installed anchor manufacturer field representative to educate the construction team on the anchor installation guidelines and requirements.

B. Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 355.2 and ICC-ES AC193. All anchors shall be installed per the anchor manufacturer's written instructions.

C. Adhesive anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC308. All anchors shall be installed per the anchor manufacturer's written instructions.

D. Mechanical anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC01. All anchors shall be installed per the anchor manufacturer's written instructions.

E. Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC58. All anchors shall be installed per the anchor manufacturer's written instructions.

F. Anchors used in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC106 or ICC-ES AC58 as appropriate. All anchors shall be installed per the anchor manufacturer's written instructions with appropriate screen tubes used for adhesives.

7. Foundations

A. Spread footings, grade beams, and retaining walls are designed to bear on engineered fill or undisturbed soil capable of safely sustaining 2,000 psf.

B. Contractor shall provide for dewatering at excavations from either surface water or seepage.

C. 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.

D. All concrete in the structural portion retaining the backfill shall have attained its design strength prior to being backfilled.

E. 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.

8. Timber and Wood Framing

A. 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 International Building Code.

B. All studs and top and bottom plates shall be Douglas Fir No. 2 grade visually graded lumber, with an allowable fiber stress in bending of 900 psi minimum and an elastic modulus of 1,600,000psi unless noted otherwise. All joist, truss members, and headers to be No. grade 2 (min.) unless noted otherwise.

C. Blocking of stud bearing walls and shear walls shall be solid, matching sheathing joints.

D. Joist blocking and bridging shall be solid wood or cross bridging of either wood or metal straps. Spacing, in any case, shall not exceed 8'-0".

E. Wood members and sheathing shall be fastened with number and size of fasteners not less than that set forth in Table 2304.9.1 of the International Building Code. Wall 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.

F. Sill plates shall be bolted to concrete slab with 1/2" diameter bolts at 32" on center. Sill plates in direct contact with concrete or masonry shall be treated lumber.

G. Joist hangers shall have Uniform Building Code approval and shall be equal to Simpson Strong Tie "LUS" for wood application and "LB" for steel weld-on application.

H. Service condition - dry with moisture content at or below 19% in service.

I. 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 (WTCA). Truss design shall conform to specified codes, allowable stress increases, deflection limitations and other applicable criteria of the governing code.

J. 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.

K. 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 (HIB-91, booklet) and the latest edition of ANSI/TPI-1.

L. 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 (WTCA) and shall be 20 gauge minimum. Connector plates shall meet or exceed ASTM A653, grade 33, with ASTM A924 galvanized coating designation G60.

M. 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.

N. Contractor shall coordinate truss layout for openings and penetrations required by other trades including for plumbing, HVAC, electrical, roof access hatches, chases, etc.

O. Pre-engineered roof truss design load and deflection criteria are as follows:

Top Chord Dead Load	= 10psf
Top Chord Live Load	= 25psf
Bottom Chord Dead Load	= 10psf
Allowable Total Load Deflection	= L/300
Allowable Live Load Deflection	= L/360

Roof trusses shall be designed for wind uplift loads indicated in Building Components & Cladding Wind Loads Diagram.

9. Deferred Submittal and Shop Drawing

A. 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.

B. Deferred submittals shall be submitted to the architect of record for review who shall forward to the building official for review and approval. Design calculations for deferred submittals shall be submitted at the same time as the shop drawings for review. Design calculations shall be prepared and sealed by a Professional Engineer licensed in the state of the project. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the building official.

C. Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
1.) 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.
2.) Review and approve each submission.
3.) Stamp each submission as approved.

D. 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.

E. 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.

F. 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.
1.) Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after placement.
2.) Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correct quantities.
3.) Deferred Submittal: Wood truss design calculations and detailed erection and fabrication drawings. Standard stick framing shop drawings need not be submitted.

10. Statement of Structural Special Inspections

A. The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.

B. The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.

C. 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.

D. 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.

E. The following inspections and tests are required with the frequency (continuous or periodic) as defined within the referenced section or standard listed 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.

1. Shop Fabrication - pre-engineered wood trusses per Section 1704.2.5 unless TPI certified shop.
2. Concrete Construction per Section 1705.3 and Table 1705.3
a. Reinforcing Steel Placement
b. Cast in Place Anchors
c. Post Installed Anchors
d. Design Mix Verification
e. Concrete Sampling and Testing
f. Concrete Placement
g. Concrete Curing
3. Wood Construction- Metal-Plate-Connected wood trusses spanning 60 feet or greater per Section 1705.5.2
4. Verification of Soils per Table 1705.6
5. Special Inspection for Wind Resistance - structural wood per Section 1705.10.1
6. Special Inspection for Wind Resistance - wind-resisting components per Section 1705.10.3
7. Special Inspection for Seismic Resistance - structural wood per Section 1705.11.2
8. Wood Lateral System (periodic)
a. Wood shearwalls (include sheathing, rim board and bottom plate attachments)
b. Portal frames
c. Shear wall and portal frame holdowns.

9. Wood Gravity Framing and Placement (adjust frequency of random sampling where indicated as required)
a. Headers and jambs (random sampling)
b. Bearing walls (random sampling)
c. Connector/hardware installation (random sampling)
d. Roof trusses (random sampling)

11. Copyright and Disclaimer

A. 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 copied 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.

B. I, Wayne E. Davis, 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.

LEGEND

H-1 . . . . . (3) 2x8 HEADER
H-2 . . . . . (3) 2x12 HEADER

NAILING SCHEDULE (REFER TO NOTES #1 and #2)

CONNECTION	ATTACHMENTS (REF NOTE #3 and #4)	
JOIST TO SILL OR GIRDER	3- 3" x 0.131" NAILS-TOENAIL	3-8d NAILS-TOENAIL
BRIDGING TO JOIST	2- 3" x 0.131" NAILS-TOENAIL EACH END	2-8d NAILS-TOENAIL EACH END
SOLE PLATE TO JOIST OR BLOCKING	3" x 0.131" NAILS AT 8"o.c.-TYPICAL FACE NAIL 4-3" x 0.131" NAILS AT 16"o.c.-BRACED WALL PANELS	16d BOX NAILSZ AT 16"o.c. MAX. FACE NAILING 3-16d BOX NAILS AT 16"o.c. BRACED WALL PANEL
TOP PLATE TO STUD	3- 3" x 0.131" NAILS-END NAIL	2-16d NAILS-END NAIL
STUD TO SOLE PLATE	4- 3" x 0.131" NAILS-TOENAIL OR 3- 3" x 0.131" NAILS-END NAIL	4-8d NAILS-TOENAIL OR 2-16d NAILS-END NAIL
DOUBLE STUDS	3" x 0.131" NAILS AT 8"o.c.-FACE NAIL	16d BOX NAILS AT 24"o.c. MAX. FACE NAIL
DOUBLED TOP PLATES	3" x 0.131" NAILS AT 12"o.c.-FACE NAIL	16d BOX NAILS AT 16"o.c. MAX. FACE NAIL
DOUBLE TOP PLATE LAPS AND INTERSECTIONS	12-3" x 0.131" NAILS	8-16d NAILS
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3-3" x 0.131" NAILS -TOENAIL	3-8d NAILS-TOENAIL
RIM JOIST TO TOP PLATE	3" x 0.131" NAILS AT 6"o.c.-TOENAIL	8d NAILS AT 6"o.c. MAX.-TOENAIL
TOP PLATE LAPS AND INTERSECTIONS	3- 3" x 0.131" NAILS-FACE NAIL	2-16d NAILS-FACE NAIL
CONTINUOUS HEADER, TWO PIECES	3" x 0.131" NAILS AT 10"o.c. ALONG EACH EDGE	16d NAILS AT 16"o.c. MAX. ALONG EACH EDGE-TOENAIL
CEILING JOISTS TO PLATE	5- 3" x 0.131" NAILS-TOENAIL	3-8d NAILS-TOENAIL
CONTINUOUS HEADER TO STUD	4- 3" x 0.131" NAILS-TOENAIL	4-8d NAILS-TOENAIL
CEILING JOISTS, LAPS OVER PARTITIONS	4- 3" x 0.131" NAILS-FACE NAIL	3-16d NAILS-FACE NAIL
CEILING JOISTS TO PARALLEL RAFTERS	4- 3" x 0.131" NAILS-FACE NAIL	3-16d NAILS-FACE NAIL
RAFTER TO PLATE	3- 3" x 0.131" NAILS-TOENAIL	3-8d NAILS-TOENAIL
1" BRACE TO EACH STUD AND PLATE	2- 3" x 0.131" NAILS-FACE NAIL	2-8d NAILS-FACE NAIL
BUILT-UP CORNER AND MULTIPLE STUDS	3" x 0.131" NAILS AT 16"o.c.	16d NAILS AT 24"o.c. MAX.
BUILT-UP GIRDER AND BEAMS	3" x 0.131" NAILS AT 24"o.c. FACE NAILED TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES 3- 3" x 0.131" NAILS AT ENDS AND EACH SPLICE	20d NAILS AT 32"o.c. MAX. TOP AND BOTTOM, STAGGERED ON OPPSITE SIDES. 2-20d NAILS AT ENDS AND EACH SPLICE
BUILT-UP LAMINATED VENEER LUMBER BEAMS	3" x 0.131" NAILS AT 6"o.c. TOP AND BOTTOM ALONG EDGE	16d NAILS AT 12"o.c. TOP AND BOTTOM ALONG EDGE
2" PLANKING	4- 3" x 0.131" NAILS AT EACH SUPPORT	16d NAILS AT EACH SUPPORT

NOTES:
1.) ALL NAILS SHALL BE AS NOTED UNLESS OTHERWISE SPECIFIED ON STRUCTURAL DRAWINGS OR ALTERNATE PROVIDED BY ENGINEER IN WRITING.
2.) CONDITIONS NOT SPECIFIED SHALL BE IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE.
3.) NAILING DESIGNATION:
4 - 3" x 0.131" NAILS
- 4: QUANITY
- 3": NAIL LENGTH
- 0.131": DIAMETER IN INCHES

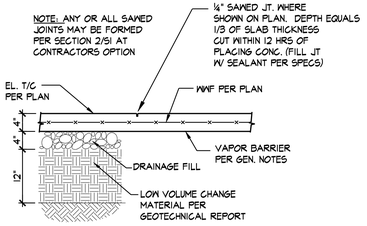
4.) ALL NAILS NOTED AS 8d, 10d, 16d, ETC. SHALL BE COMMON NAILS UNLESS NOTED BOX.

BOB D. CAMPBELL & CO.
Structural Engineers Since 1957
4338 Belleview Ave. 816.531.4144
Kansas City, MO 64111 www.bdc-engrs.com

MAINTENANCE FACILITY FOR:
THE SUMMIT
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

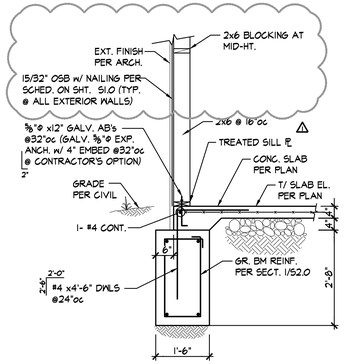
PROJECT #: 21-834
ISSUE DATE: 12/28/2021
DRAWN BY: KEJ
CHECKED BY: WED
REVISIONS:

SHEET No.
S1.00
GENERAL NOTES, NAILING SCHEDULE, AND LEGEND

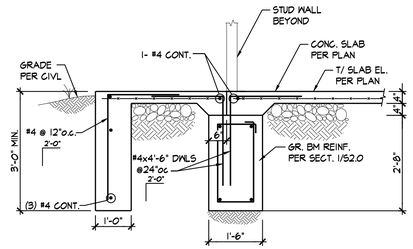


TYPICAL SAW JOINT NOTED "SJ" ON PLAN

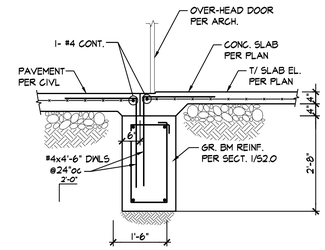
SECTION 1/S1.10
3/4" = 1'-0"



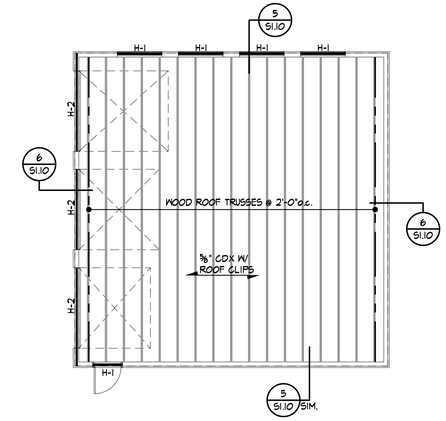
SECTION 2/S1.10
1/2" = 1'-0"



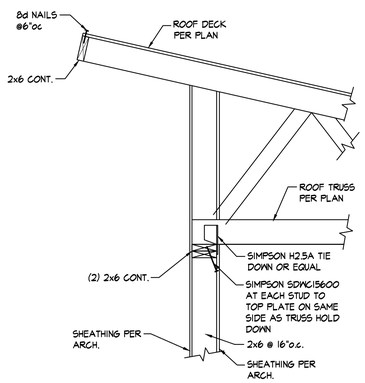
SECTION 3/S1.10
1/2" = 1'-0"



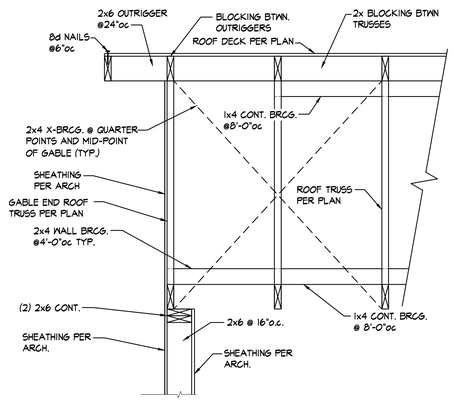
SECTION 4/S1.10
1/2" = 1'-0"



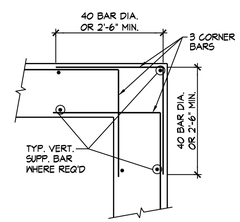
ROOF FRAMING PLAN
1/8" = 1'-0"



SECTION 5/S1.10
3/4" = 1'-0"

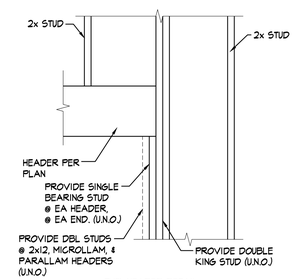


SECTION 6/S1.10
3/4" = 1'-0"



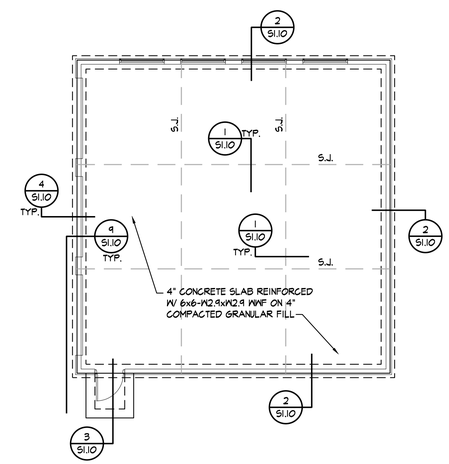
TYPICAL CORNER BARS

SECTION 7/S1.10
3/4" = 1'-0"



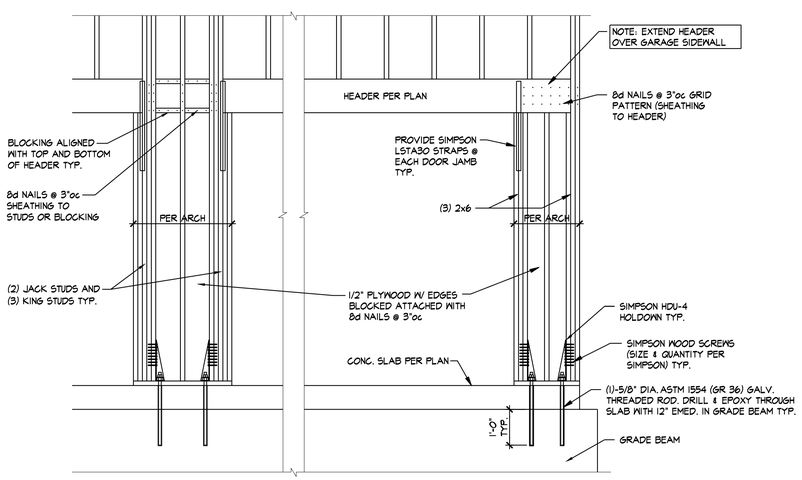
TYP. HEADER DETAIL

SECTION 8/S1.10
3/4"=1'-0"



FOUNDATION PLAN
1/8" = 1'-0"

NOTES:
1. REFER TO GENERAL NOTES, LEGEND AND NAILING SCHEDULE ON SHEET S1.00
2. EXTERIOR WALL SHEATHING SHALL BE 1/2" EXTERIOR GRADE PLYWOOD ATTACHED WITH 8d NAILS AT 6"oc AT EDGES AND 12"oc IN FIELD (U.N.O.)
3. STUD WALLS SHALL HAVE BLOCKING AT 4'-0"oc MAXIMUM.



GARAGE PORTAL FRAMING DETAIL

SECTION 9/S1.10
1/2"=1'-0"

BOB D. CAMPBELL & CO.
Structural Engineers Since 1957
4338 Belleview Ave. 816.531.4144
Kansas City, MO 64111 www.bdc-engrs.com

MAINTENANCE FACILITY FOR:
THE SUMMIT
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

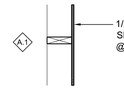
PROJECT #: 21-834
ISSUE DATE: 12/28/2021
DRAWN BY: KEJ
CHECKED BY: WED

REVISIONS:
1 1/17/22

SHEET No.
S1.10
STRUCTURAL PLANS & SECTIONS

WALL TYPE SCHEDULE

1. WALL ASSEMBLIES ARE INDICATED THUS "◇" ON THE PLANS AND SECTIONS HEREIN & DESCRIBED PER THE WALL TYPES BELOW.
2. REFERENCE WALL TYPE NOTES FOR ADDITIONAL REQUIREMENTS.



WALL TYPE NOTES

1. ALL STUD WALLS TO BE PLACED @ 1'-4" O.C. UNLESS NOTED OTHERWISE. SEE STRUCTURAL DRAWINGS FOR STUD SPACING OF STRUCTURAL WALLS.
2. ALL NON-STRUCTURAL STUD WALLS AND SOFFIT SUPPORTS TO RUN TO THE UNDERSIDE OF DRYWALL CEILING, STRUCTURE OR ROOF DECK ABOVE. STRUCTURAL WALLS SHALL TERMINATE PER STRUCTURAL DRAWINGS.

CODE SUMMARY

APPLICABLE CODES

INTERNATIONAL BUILDING CODE, 2018 EDITION
INTERNATIONAL EXISTING BUILDING CODE, 2018 EDITION
NATIONAL ELECTRICAL CODE, 2017 EDITION
INTERNATIONAL ENERGY CONSERVATION CODE, 2018 EDITION
INTERNATIONAL FIRE CODE, 2018 EDITION
INTERNATIONAL FUEL GAS CODE, 2018 EDITION
INTERNATIONAL MECHANICAL CODE, 2018 EDITION
INTERNATIONAL PLUMBING CODE, 2018 EDITION
ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, ICC/ANSI A117.1-2017

OCCUPANCY TYPE: S1

CONSTRUCTION TYPE: VB

BASIC ALLOWABLE AREA (TABLE 503): 9,000 S.F.

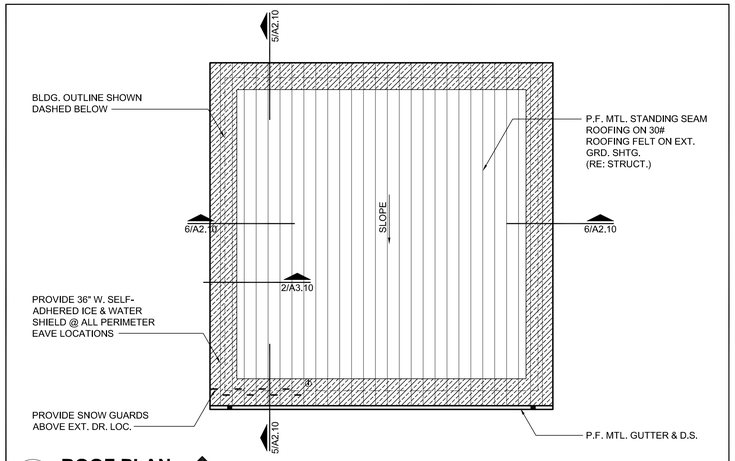
ACTUAL BUILDING AREA: 1,225 S.F.

ALLOWABLE BUILDING HEIGHT (TABLE 503): 40'-0"/ 1-STORY

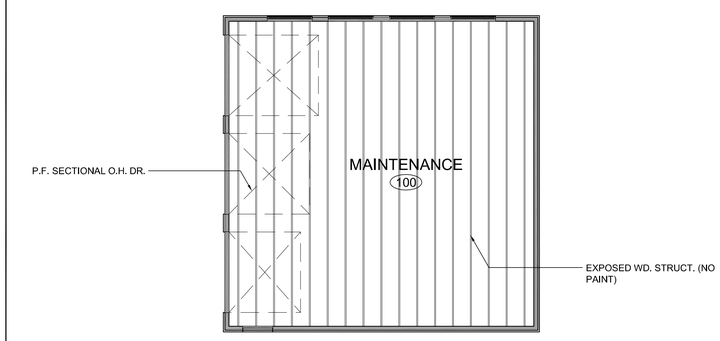
ACTUAL BUILDING HEIGHT: 16'-6"/ 1-STORY

FIRE PROTECTION OF COMPONENTS (TABLE 601):

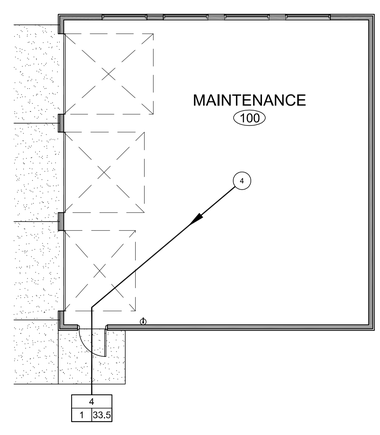
STRUCTURAL FRAME:	0-HOUR
BEARING WALLS	
EXTERIOR:	0-HOUR
INTERIOR:	0-HOUR
NON-BEARING WALLS AND PARTITIONS	
EXTERIOR:	0-HOUR
INTERIOR:	0-HOUR
FLOOR CONSTRUCTION:	0-HOUR
ROOF CONSTRUCTION:	0-HOUR



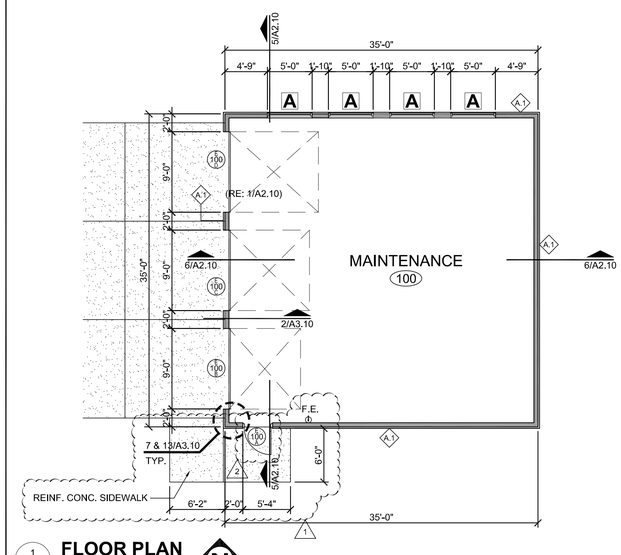
3 A1.10 **ROOF PLAN** 1/8"=1'-0"



2 A1.10 **REFLECTED CEILING PLAN** 1/8"=1'-0"



4 A1.10 **EGRESS PLAN** 1/8"=1'-0"



1 A1.10 **FLOOR PLAN** 1/8"=1'-0"

CODE / EGRESS PLAN LEGEND

(#) OCCUPANT LOAD OF GIVEN SPACE/SPLIT EXIT LOAD ALONG PATH OF EGRESS

OL	
RE	EP

- ACTUAL EXIT LOAD
- EGRESS PROVIDED
- REQUIRED EGRESS

NOTES
1. THIS PLAN IS INTENDED FOR THE CONVENIENCE OF THE CODE OFFICIAL AND FIRE MARSHALL. IT DOCUMENTS THE MAJOR LIFE SAFETY AND EGRESS FEATURES OF THIS PROJECT, INCLUDING EXIT FLOW AND FIRE SEPARATION.

STATE OF MISSOURI
BRIAN C. RAHSE
NUMBER A-2007005983
ARCHITECT
8/22/2023

mantel teter
consulting | architecture | developing
5013 N. Washington St., Gladstone, Missouri 64118
t: 816.931.5600 www.manteltteter.com

MAINTENANCE FACILITY FOR:
THE SUMMIT CHURCH
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

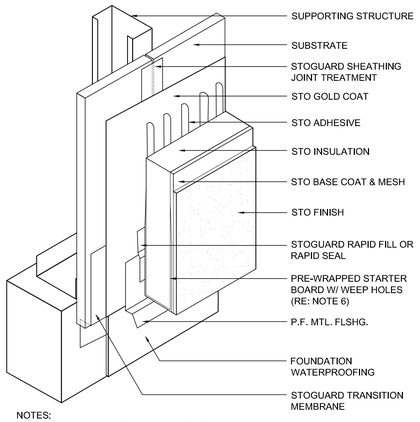
PROJECT #: 21-834
ISSUE DATE: 8/22/2023
DRAWN BY:
CHECKED BY: BCR

REVISIONS:
1. CITY COMMENTS 9/9/2023
2. CITY COMMENTS 9/18/2023

SHEET No.
A1.10
FLOOR PLAN / REFLECTED CEILING PLAN / ROOF PLAN CODE SUMMARY

GENERAL STO E.I.F.S. NOTES:

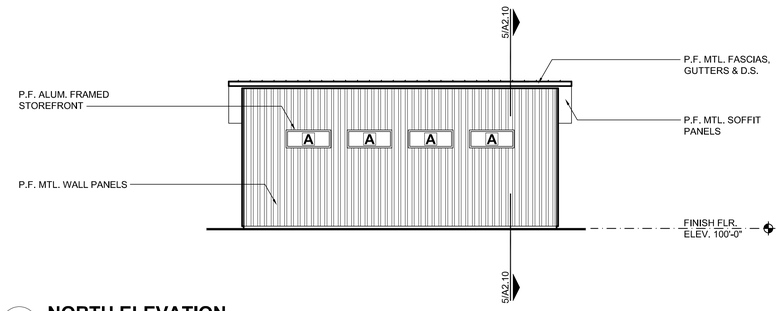
1. STO DETAILS ARE ILLUSTRATIONS OF CONSTRUCTION. THEY ARE GUIDELINES, INTENDED FOR USE BY THE DESIGN/CONSTRUCTION PROFESSIONAL, TO ASSIST IN DEVELOPING PROJECT SPECIFIC DETAILS. THEY SHOULD BE MODIFIED WHERE NECESSARY TO ACCOMODATE INDIVIDUAL PROJECT CONDITIONS. REFER TO APPROPRIATE STO SPECIFICATION FOR DESIGN REQUIREMENTS. REFER TO LOCAL BUILDING CODE FOR ANY SPECIAL REQUIREMENTS (WWW.STOCORP.COM).
2. THE STO DETAILS SHOWN ARE FOR THE SPECIFIED SYSTEM AS OUTLINED IN THE PROJECT MANUAL FOR THIS PROJECT ONLY. NOTIFY THE ARCHITECT OF ANY DEVIATION FROM THE SPECIFIED SYSTEM.



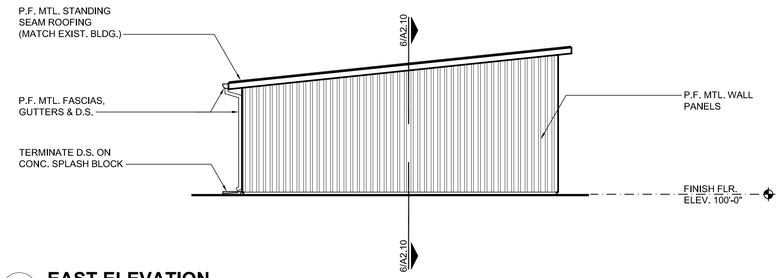
NOTES:

1. PROTECT WALL ASSEMBLY FROM RISING DAMP.
2. TERMINATE SYSTEM A MINIMUM OF 8" ABOVE GRADE OR AS REQUIRED BY CODE OR UNLESS NOTED OTHERWISE.
3. DIRECT SPRINKLERS AWAY FROM THE WALL.
4. PROTECT THE WALL FROM DIRT ACCUMULATION BY COVERING EXPOSED EARTH WHERE SPLASH MAY OCCUR.
5. PROVIDE ULTRA-HIGH IMPACT RESISTANCE (STO DETAIL 1.00B) TO A MINIMUM HEIGHT OF 6'-0" ABOVE FINISHED GRADE AT AREAS ACCESSIBLE TO PEDESTRIAN TRAFFIC AND OTHER AREAS EXPOSED TO ABNORMAL STRESS OR IMPACT.
6. TERMINATION OF BOTTOM OF WALL TO BE PRE-WRAPPED STARTER BOARD (ALTERNATE STARTER TRACK NOT ACCEPTABLE - NOT SHOWN).

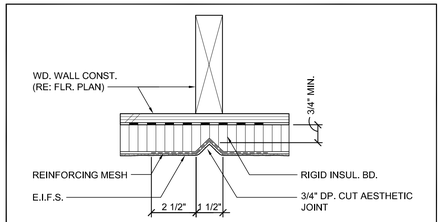
7 / A2.10 **DETAIL**
N.T.S.



4 / A2.10 **NORTH ELEVATION**
1/8"=1'-0"



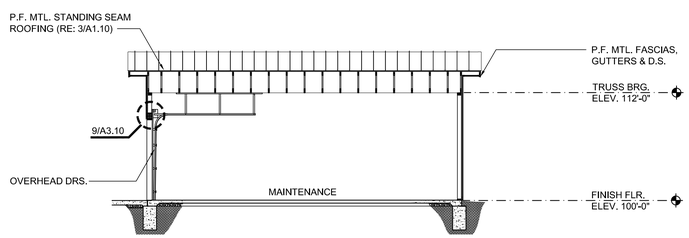
3 / A2.10 **EAST ELEVATION**
1/8"=1'-0"



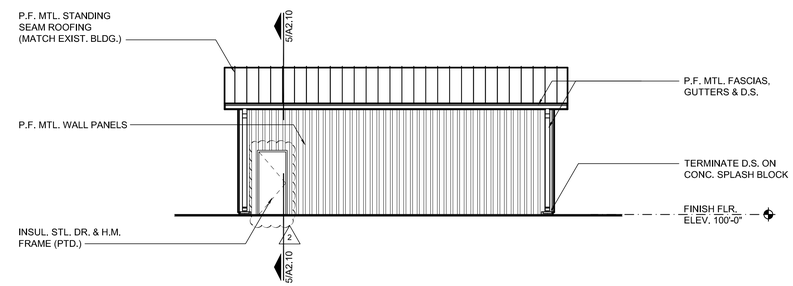
9 / A2.10 **DETAIL**
N.T.S.

NOTE:

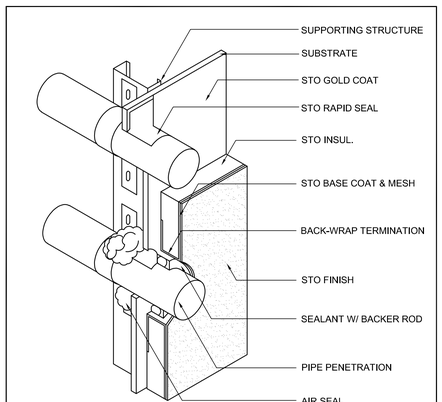
1. SEE EXTERIOR BUILDING ELEVATIONS FOR REVEAL LOCATIONS
2. HORIZONTAL & VERTICAL JOINTS (SIM.)



6 / A2.10 **BUILDING SECTION**
1/8"=1'-0"



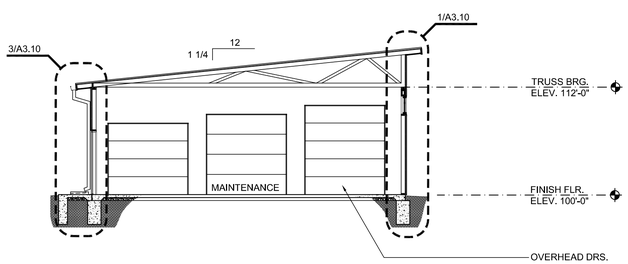
2 / A2.10 **SOUTH ELEVATION**
1/8"=1'-0"



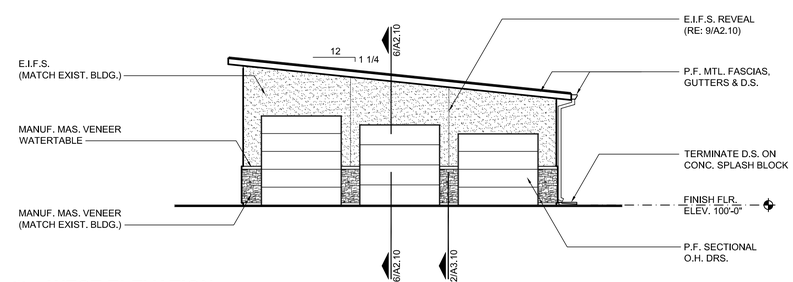
NOTES:

1. DETAIL ASSUMES PIPE IS INSTALLED PRIOR TO THE E.I.F.S. OR THAT ITS LOCATION HAS BEEN IDENTIFIED.
2. PREPARE AN OPENING IN THE E.I.F.S. W/ A JOINT OF 1/2" (13MM) AROUND THE PENETRATION & PROVIDE SEALANT W/ A CLOSED CELL BACKER ROD. PROVIDE AIR SEAL AROUND THE INTERIOR SIDE OF THE PENETRATION TO PROVIDE AIR SEAL & TO REDUCE THE PRESSURE DIFFERENCE ACROSS THE OUTSIDE SEALANT.
3. PROVIDE BARRIER MEMBRANE IN LIEU OF STO GOLD FILL AT PENETRATION WHERE JOINT BETWEEN SHEATHING & PENETRATING ELEMENT EXCEEDS 1/8" (13MM). LAP BARRIER MEMBRANE OVER STO GOLD COAT.

8 / A2.10 **DETAIL**
N.T.S.



5 / A2.10 **BUILDING SECTION**
1/8"=1'-0"



1 / A2.10 **WEST ELEVATION**
1/8"=1'-0"

STATE OF MISSOURI
BRIAN C. RATHSAM
NUMBER A-2007005983
ARCHITECT
8/22/2023

mantel teter
consulting | architecture | developing
5013 N. Washington St., Gladstone, Missouri 64118
t: 816.931.5600 www.mantelteter.com

MAINTENANCE FACILITY FOR:
THE SUMMIT CHURCH
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

PROJECT #: 21-834
ISSUE DATE: 8/22/2023
DRAWN BY:
CHECKED BY: BCR

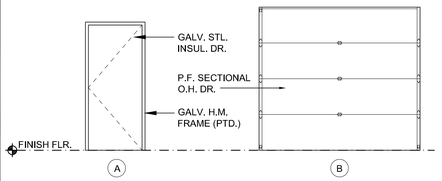
REVISIONS:
2. CITY COMMENTS 9/18/2023

SHEET No.
A2.10
EXTERIOR ELEVATIONS / BUILDING SECTIONS / DETAILS

DOOR HARDWARE NOTES

1 DOOR TO HAVE 3-HINGES, CYLINDRICAL LOCK, THRESHOLD, RAIN GUARD, WEATHER SEALS

DOOR ELEVATIONS 1/4" = 1'-0"



DOOR & FRAME SCHEDULE

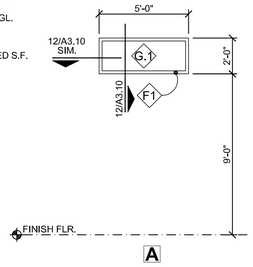
DOOR INFORMATION						FRAMES				F.R.	REMARKS
	No.	SIZE	THKN.	MATL.	ELEV.	MATL.	JAMB	HEAD	SILL		
E	100	A	3'-0" X 7'-0"	1 3/4"	GALV. STL.	A	STL.	7/A3.10	11/A3.10	8/A3.10	SEE DOOR HARDWARE NOTE 1
E	100	B	9'-0" X 8'-0"	1 3/4"	STL.	B	STL.	10/A3.10	9/A3.10	——	
E	100	C	9'-0" X 9'-0"	1 3/4"	STL.	B	STL.	10/A3.10	9/A3.10	——	
E	100	D	9'-0" X 10'-0"	1 3/4"	STL.	B	STL.	10/A3.10	9/A3.10	——	

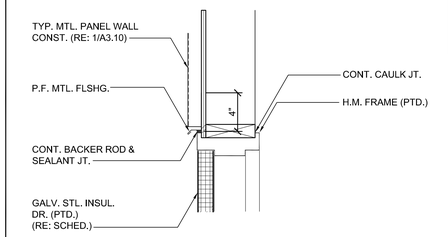
WINDOW ELEVATION ¼" = 1'-0"

GLAZING AND FRAME KEY:

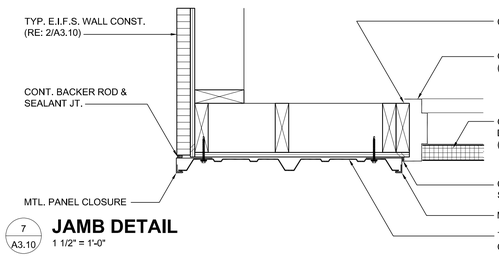
G1 1" INSUL. TINTED GL.

F1 P.F. ALUM. FRAMED S.F.

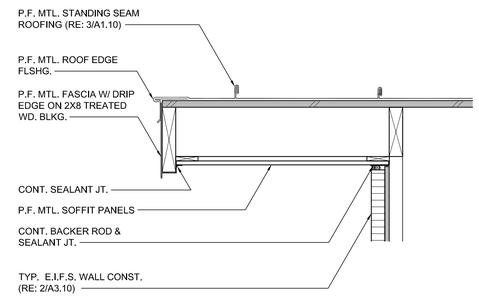




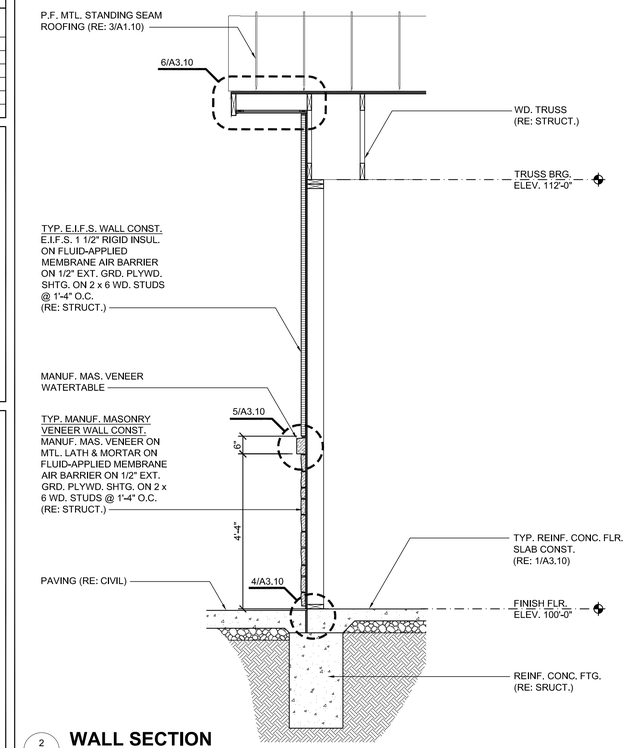
11 A3.10 **HEAD DETAIL** 1 1/2" = 1'-0"



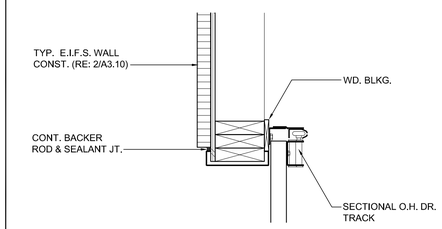
7 A3.10 **JAMB DETAIL** 1 1/2" = 1'-0"



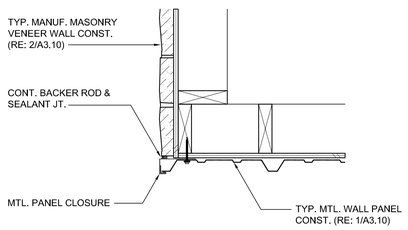
6 A3.10 **DETAIL** 1 1/2" = 1'-0"



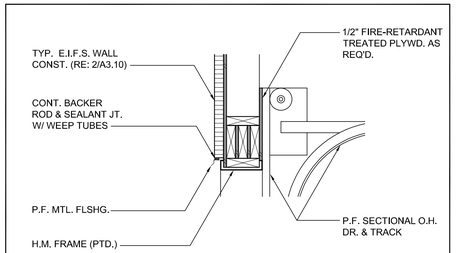
2 A3.10 **WALL SECTION** 1/2"=1'-0"



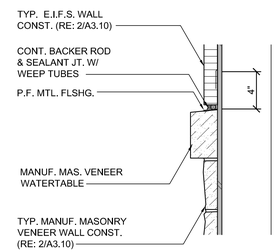
10 A3.10 **JAMB DETAIL** 1 1/2" = 1'-0"



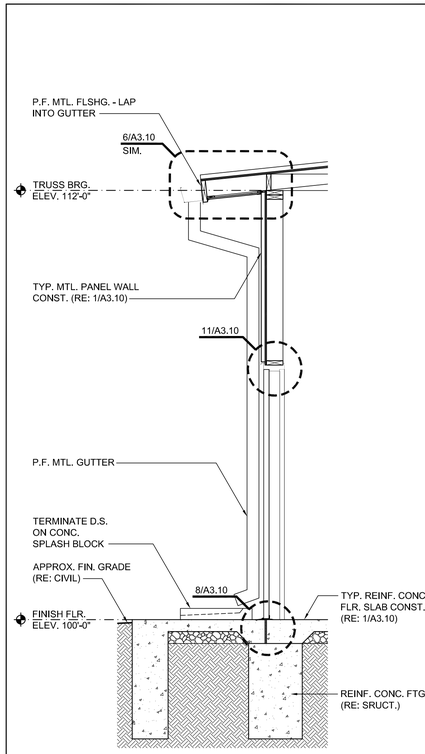
13 A3.10 **DETAIL** 1 1/2" = 1'-0"



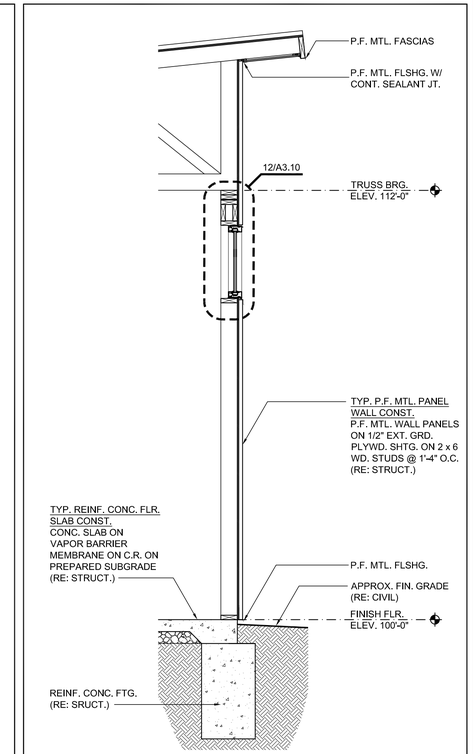
9 A3.10 **HEAD DETAIL** 1" = 1'-0"



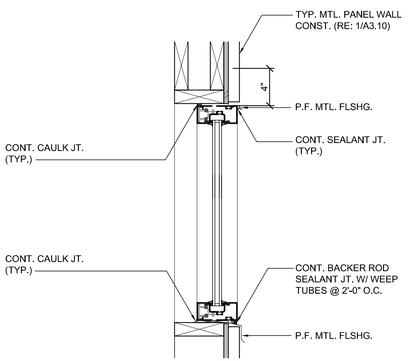
5 A3.10 **DETAIL** 1 1/2" = 1'-0"



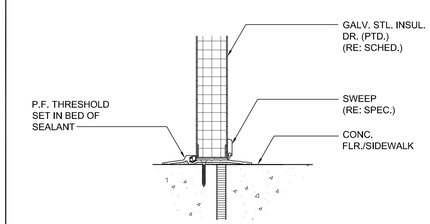
3 A3.10 **WALL SECTION** 1/2"=1'-0"



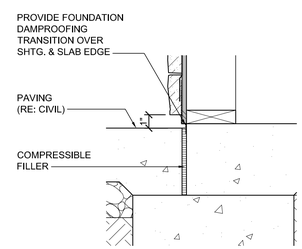
1 A3.10 **WALL SECTION** 1/2"=1'-0"



12 A3.10 **DETAIL** 1 1/2" = 1'-0"



8 A3.10 **DETAIL** 3" = 1'-0"



4 A3.10 **DETAIL** 1 1/2" = 1'-0"

STATE OF MISSOURI
BRIAN C. RATHSAM
NUMBER A-2007035933
ARCHITECT
8/22/2023

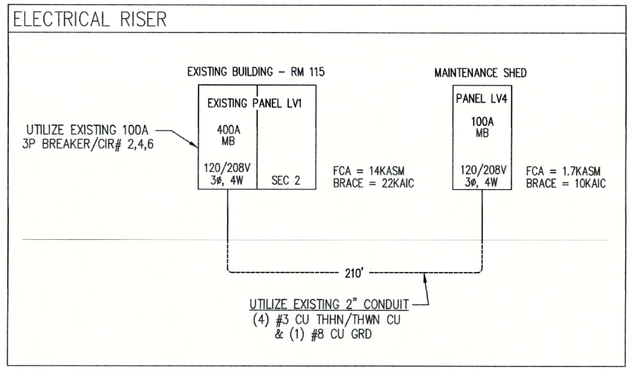
mantel teter
consulting | architecture | developing
5013 N. Washington St., Gladstone, Missouri 64118
t: 816.931.5600 www.mantelteter.com

MAINTENANCE FACILITY FOR:
THE SUMMIT CHURCH
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

PROJECT #: 21-834
ISSUE DATE: 8/22/2023
DRAWN BY:
CHECKED BY: BCR
REVISIONS:

SHEET No.
A3.10
BUILDING SECTIONS / WALL SECTIONS / DOOR & FRAME SCHEDULE / NOTES / DETAILS

ELECTRICAL RISER



PANEL "LV4" SCHEDULE
100A MB, 120/208V, 3ø, 4W, 42 SPACE PANELBOARD

CKT NO.	DESCRIPTION	VOLT AMP/PHASE A	B	C	BKR
1	RECEPTACLES	750			20
3	LIGHTING		600		20
5	DOOR OPENER			500	20
7	DOOR OPENER	500			20
9	SPARE				30
11					
13					
15					
17					
19					
21					
23					
25					
27					
29					
31					
33					
35					
37					
39					
41					
		1,250	600	500	
PHASE TOTALS		2,480	900	1,000	
TOTAL KVA		4.380			

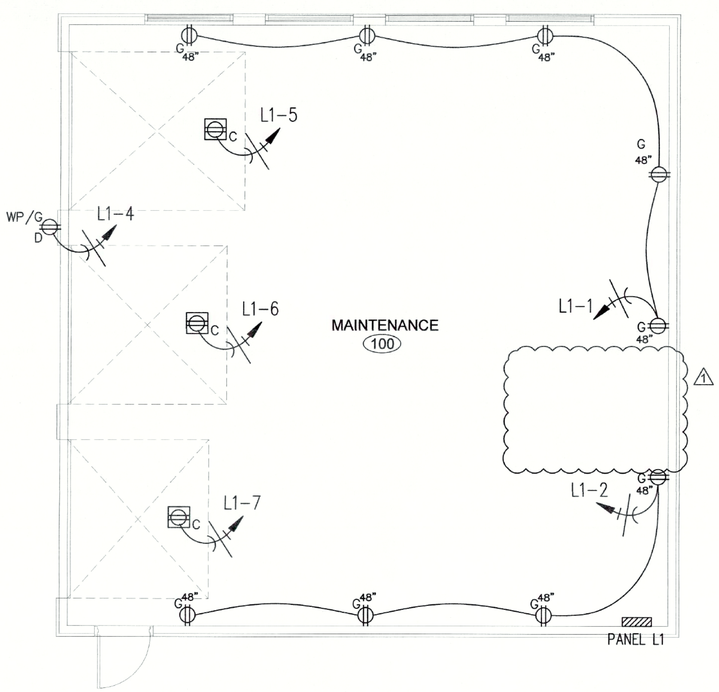
CKT NO.	DESCRIPTION	VOLT AMP/PHASE A	B	C	BKR
2	RECEPTACLES	750			20
4	(D) WP/G RECEP		300		20
6	DOOR OPENER			500	20
8	WALL PACKS	480			20
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					
42					
		1,230	300	500	

FIXTURE AND DEVICE LEGEND

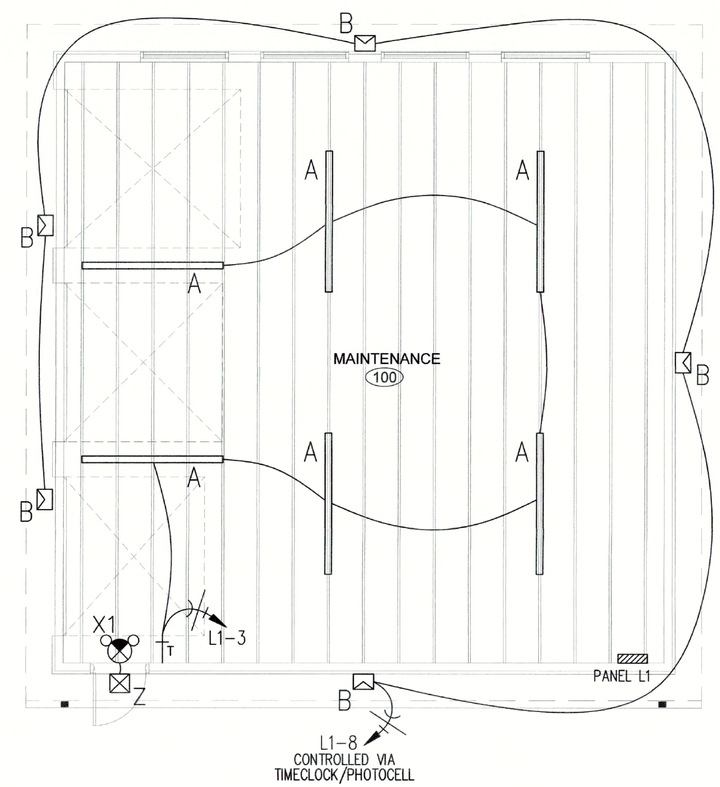
- A — 8' LED STRIP FIXTURE
- B — EXTERIOR LED WALLPACK
- X1 — EXIT/EMERGENCY LIGHT COMBO
- Z — EMERGENCY EGRESS LIGHT
- T — TIMER SWITCH
- DUPLEX RECEPTACLE
- D — DEDICATED DUPLEX RECEPTACLE
- G — GFI DUPLEX RECEPTACLE
- WP/G — WEATHER PROOF GFI DUPLEX RECEPTACLE
- C — CEILING RECEPTACLE FOR OPENERS

ELECTRICAL INSTALLATION NOTES

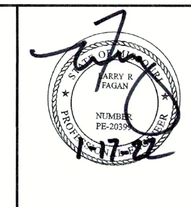
1. CONNECT EXIT AND EMERGENCY LIGHTING TO NEAREST UNSWITCHED CIRCUIT.
2. THE MINIMUM CONDUIT SIZE SHALL BE 1/2". THE CONDUIT SHALL BE SIZED FOR 40% FILL OR LESS AS REQUIRED BY PREVAILING ELECTRICAL CODE.
3. ALL ABOVE SLAB CONDUIT SHALL BE EMT.
4. ALL BELOW SLAB CONDUIT SHALL BE PVC.
5. THE MINIMUM CONDUCTOR SIZE SHALL BE #12 COPPER.
6. ALL ABOVE SLAB CONDUCTORS SHALL BE COPPER THHN.
7. ALL BELOW SLAB CONDUCTORS SHALL BE COPPER THWN.
8. PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2017 IECC.



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



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



ELDECON
ELECTRICAL DESIGN & CONSTRUCTION
6200-1 NW Kelly Drive Kansas City, Missouri 64152
Certificate of Authority Number: #2006013730

MAINTENANCE FACILITY FOR:
THE SUMMIT
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

PROJECT #:
ISSUE DATE: 12/29/2021
DRAWN BY: JDH
CHECKED BY: LRF
REVISIONS:
OWNER CHANGES 01/17/22

SHEET No.
E1.0
ELECTRICAL PLAN

DIVISION 16 - ELECTRICAL

SCOPE

All electrical work as shown on the drawings and as necessary to provide a complete electrical system. Include primary service, transformers, distribution center, grounding, power and lighting panels, wiring, outlet boxes, receptacles, lighting fixtures, switches, conduits, and raceways and all accessories.

QUALITY

All work must conform to the National Electric Code, latest edition, and all other applicable codes and regulations.

WARRANTY

All work shall be warranted against defects in material and labor for a period of one (1) year after date of Substantial Completion.

SUBMITTALS

Submit six (6) copies f shop drawings and/or brochures of all electrical equipment and materials to be incorporated into the building to the Architect for approval prior to ordering materials.

COORDINATION

Electrical contractor shall coordinate the electrical hook-up of equipment provided by others. Also, he shall coordinate the location of electrical items with other trades to prevent interference and to permit access to equipment, controls, and access boxes. All work shall be installed to allow easy removal or repair of all building equipment.

OPERATION AND MAINTENANCE MANUALS

Provide three (3) copies of the operation and maintenance manuals to the Architect at least two (2) weeks prior to completion of the work.

RELATED DOCUMENTS

Drawings and general provisions of the Contract, Standard General and Supplementary General Conditions, Division 1 Specification Sections, and other applicable Specifications Sections including Mechanical and Plumbing drawings.

SUBMITTALS

Product Data: Arrange in order of luminaire designation. The submittals shall include data on features, ratings, listings, certifications, accessories, finishes, dimensions, emergency components, photometric data and luminaire efficiency data.

QUALITY ASSURANCE

Lighting fixtures shall be of specification grade and listed or labeled by the Underwriters Laboratories (UL) or an approved Nationally Recognized Testing Laboratory (NRTL).

LED fixtures shall comply with the following:

UL Standard 8750 "Light Emitting Diode Equipment for Use in Lighting Products", IES Standard LM-79 Electrical and Photometric Measurements of Solid-State Lighting Products", IES Standard LM-80 "Measuring Lumen Maintenance of LED light Sources", and IES Standard TM-21 "Projecting Long Term Lumen Maintenance of LED Light Sources".

Cree, Hubbell, Visionaire or equal.

WARRANTY

For non_LED lighting fixtures and components, provide a complete warranty for parts and labor for a minimum of one (1) year from the date of Substantial Completion.

For LED fixtures, lamps, drivers, and components, provide a complete warranty for parts and labor for a minimum of five (5) years from the date of Substantial Completion.

LIGHTING FIXTURES

Recessed lighting fixtures shall be thermally protected.

LED fixtures shall be modular and allow for separate replacement of LED lamps and drivers. User serviceable LED lamps and drivers shall be replaceable from the room side.

Dimmable LED fixtures shall have either a 0-10 volt, 3-wire dimming driver, or a two-step (50-100%) line voltage, two switch controlled dimming driver, as shown on the drawings.

Prescolite, Juno, Atlantic, or equal.

LAMPS

Except where T5 or T5HO lamps are shown in the Fixture Schedule, tubular fluorescent lamps shall be T8, straight tube, rapid-start, multi-phosphor type with a medium bi-pin base, average rated life of 24,000 hours minimum, 3,000 initial lumens, and 2,820 mean lumens. Fluorescent lamps shall have a correlated color temperature of 3500 degrees K (unless noted otherwise in fixture legend) and a CRI of 85 minimum. GE, Ecolux, Osram/Sylvania, Ecologic, Philips Alto or equal.

Compact fluorescent lamps shall be 4-pin, 13 watt minimum with a color tempature of 3500 degrees K (unless noted otherwise in fixture legend), a CRI of 80 minimum, end-of-life protection, and suitable for use with electronic ballasts. Self-ballasted compact fluorescent lamps are not acceptable except for retrofitting existing incandescent fixtures. Osram/Sylvania, GE, Philips or equal.

LED lamps shall have a color temperature of 3500 degrees K (unless noted otherwise in fixture legend), a CRI of 80 minimum, and a lumen maintenance L70 rating of 50,000 hours minimum. Optimal or equal.

Retrofit LED lamps shall comply with NEMA SSL 4 "SSL Retrofit Lamps: Suggested Minimum Performance Requirements".

High Intensity Discharge (H.I.D.) lamps shall confirm to their applicable ANSI codes.

Incandescent lamps shall be rated 120 volts and shall have a life of 2,000 hours minimum. Standard "A" Type lamps shall be inside frosted.

BALLASTS AND DRIVERS

Except where indicated otherwise, fluorescent fixtures with multiple T8 or T5 lamps shall have two ballasts or a two-step (50-100%) dimming ballast to accommodate dual switching. Fluorescent fixtures with multiple compact fluorescent lamps may have one ballast.

Fluorescent ballast shall be of the electronic, programmed rapid-start, series-circuited, and completely solid-state. Ballasts shall be rated for the specific lamps they are supplying, shall have a maximum crest factor of 1.6, a maximum current total harmonic distortion of 20 percent, a minimum starting temperature of 0 degrees F, and a sound rating of "A". Ballasts for T8 and T5 lamps shall be Osram/Sylvania Quicktronic Professional, Advance Optanium, or Universal Accustart only. Ballasts for compact fluorescent lamps shall be the fixture manufacturer's standard electronic type.

Fluorescent dimming ballasts shall be electronic, comply with the other requirements for electronic ballasts, be capable of smoothly and consistently dimming the amps from full output to 10 percent or less output, and maintain a cathode voltage between 3 to 4 volts. Osram/Sylvania Quicktronic, or Advance.

LED drivers shall be electronic-type, labeled as compliant with radio frequency interference (RFI) requirements of FCC Title 47 Part 15, and comply with NEMA SSl 1 "Electronic Drivers for LED Devices, Arrays, or Systems". LED drivers shall have a sound rating of "A", have a minimum efficiency of 85%, and be rated for a THD of less then 20 percent at all input voltages.

Dimmable LED drivers shall be 0-10V type. Dimmable LED drivers shall be capable of dimming without LED strobing or flicker across their full dimming range.

H.I.D. ballasts shall conform to their applicable ANSI codes. H.I.D. ballasts for use indoors in finished areas shall be of the quietest type available or shall be mounted remote from the fixtures.

Ballasts and drivers shall be rated for the ambient temperatures in which they are located. Outdoor fixtures shall be equipped with ballasts or drivers rated for reliable starting to -20 degrees F. Indoor fixtures located in areas with direct sunlight or above normal ambient temperatures shall have ballasts or drivers rated at 65 degrees C minimum.

EMERGENCY LIGHTING

Emergency lighting shall consist of normal lighting fixtures with generator or battery-inverter system backup, emergency lighting fixtures with individual battery backup, or sealed beam emergency lighting units in accordance with the Fixture Schedule.

Battery-backed fluorescent emergency lighting fixtures shall consist of a fluorescent fixture with one or more lamps connected either to a battery pack and charger mounted remote from the fixture, or to an emergency power ballast mounted internal to the fixture. Minimum light output shall be 600 lumens. The battery shall be nickel cadmium and sized for a minimum of 90 minutes of fixture operation. The charger shall be solid-state and provide overload, short circuit, brownout and low battery voltage protection. The fixture shall include a test/monitor module with LED status indicating lights mounted so as to be visible to the public. The fixture shall not contain an audible alarm.

a. Remote mounted battery packs and chargers: Dual-Lite, Exitronix, or equal.
b. Emergency power ballasts: Bodine or equal.

Battery-backed LED emergency lighting fixtures shall consist of a normal LED fixture with some of all of the LED's connected to a battery and charger. The battery shall be nickel cadmium and sized for a minimum of 90 minutes of fixture operation. The charger shall be solid-state and provide overload, short circuit, brownout and low battery voltage protection. The fixture shall include a test/monitor module with LED status indicating lights mounted so as to be visible to the public. Dual-lite or equal.

Sealed beam emergency lighting units shall consist of sealed beam LED lamps connected to an internally mounted battery and charger. The battery shall be nickel cadmium and sized for a minimum of 90 minutes of battery operation. The charger shall be solid-state and provide overload, short circuit, brownout and low battery voltage protection. The unit shall be suitable for wall or ceiling mounting as required. The unit shall include a test/monitor module with LED status indicating lights mounted so as to be visible to the public. Dual-lite or equal.

EXIT SIGNS

Exit signs shall be of the LED type. Dual-lite, Exitronix, or equal.

LED's shall be wired in parallel to prevent multi-lamp failure, and shall be concealed within the sign by a clear panel and red optical diffuser. Power consumption shall not exceed 2 watts per face.

Exit signs shall have polycarbonate housings with universal mounting brackets; with red or green letters and multi-directional knockout arrows.

Exit signs shall be provided with emergency battery packs and battery chargers when required. Batteries shall be maintenance free nickel cadmium, and shall be mounted within the signs.

INSTALLATION

Support recessed troffers independently of the ceiling grid system by using two safety wires minimum on diagonally opposite corners of the fixtures. Support recessed downlights by using safety wires or by rigidly attaching the fixtures to the building structure of ceiling grid system. Removable T-bar clips shall not be used to attach fixtures to the ceiling grid system.

Install fixtures level, with no gaps between adjacent fixtures or between fixtures and surrounding surfaces. Lenses, reflectors, and trims of fixtures shall be properly and uniformly aligned.

Where fixtures are shown with dual switches, control all inner lamps with one switch and all outer lamps with the other switch. Where dimming or occupancy sensor-controlled fixtures are shown, control the fixtures in accordance with the appropriate wiring diagram or manufacturer's instructions.

Connect night light fixtures and emergency lighting fixtures to the hot (unswitched) side of lighting circuits.

Provide an individual feed with ground conductor from a junction box to each lighting fixture.

Drops to recessed fixtures may be flexible metallic conduit, or manufactured wiring systems may be used where accessible. Fixtures shall be provided with sufficient length to permit removal and lowering of the fixtures 12" below the ceiling.

Provide green grounding conductors back to the panel ground for lighting circuits. Raceways shall not be used as grounding conductors.

Fixtures shall have their exterior labels removed and shall be thoroughly cleaned.

Locate emergency lighting remote battery packs and remote test/monitor modules identically so their status indicating lights are visible to the public and they form a straight line when viewed from the end of the corridor or room. Where a suspended ceiling exists, center the status indicating lights in adjacent

ceiling tiles.

Mount sealed beam emergency lighting units where shown and aim their lamps to light the egress path as uniformly as possible.

FIELD QUALITY CONTROL

A visual inspection shall be performed to verify cleanliness and alignment of the fixtures. Misalignment and light leaks shall be corrected, and rattles due to ventilation system vibration shall be eliminated.

Perform an operational test to verify that all fixtures illuminate properly, dimming systems dim properly (i.e. no flicker), and lighting zones are switched according to the drawings.

TRAINING

Provide a qualified service technician to provide training. Train Owner's maintenance personnel on equipment operation, start-up and shutdown, trouble-shooting, servicing, and preventative maintenance procedures. Review the data contained in the Operating and Maintenance Manuals with Owner's personnel. Training shall occur separate from startup activities.

HVAC HOOK-UP

As shown on drawings.

To be provided and installed by heating and ventilation contractor and wired by electrical contractor.

CONDUIT

Rigid, galvanized - in concrete.
Electrical Metallic Tubing (EMT) - in other locations.
Flexible Conduit - Flexible, plastic jacketed.
Couplings - Set screw.
Rigid P.V.C. - Schedule 40, underground locations.

Make connections to motors and equipment with PVC jacketed flexible conduit. Minimum size 1/2 inch for motor connections. Use 3/8 inch flexible conduit for fixture and control wiring only.

BUILDING WIRE

Interior: THWN and THHN, copper or aluminum, 600 volt insulation.
Exterior: THWN, copper or aluminum.

Conductors size #10 AWG and smaller may be stranded or solid. Conductors #8 AWG and larger shall be stranded.

MC CABLE

MC cable shall consist of interlock armored cable made of three or four type THHN solid (#8 AWG and larger may be stranded) copper conductors insulated with heat and moisture resistant polyvinyl chloride (PVC) with nylon or equivalent UL listed jacket, per UL standard 83. The three conductors shall be twisted together with the copper grounding conductor, suitable fillers and wrapped in binder tape. The assembly shall be armored with spirally wrapped interlocked armor or aluminum or galvanized steel.

Cables shall be tested in accordance with UL standard 1569 for type MC cable and rated at 600 volts, 90 degree C for dry locations and 75 degree C for wet locations.

BOXES

Sheet metal boxes, NEMA OS1, galvanized steel.

WIRING DEVICES

Wall Switches - Hubbell #1221, NEMA, WD-1, specification grade, AC only, 120/277, general use snap switch, 20 amp or equivalent.

Receptacles - Duplex, Hubbell #5361; GFCI, Hubbell #GF5362 or equivalent.

Cover Plates - As designated by architect or customer.

MOTOR DISCONNECTS

Siemens VB11, single phase (2 pole), three phase (3 pole) general duty or heavy duty, fusible, 250 or 600 volt as required, NEMA 1 for indoor and NEMA 3R for outdoor or wet locations.

CONDUIT SUPPORTS

Galvanized conduit strap anchors.

SWITCHBOARDS

Switchboards to meet all UL and NEMA Standards and NEMA Class construction. Switchboards used as service entrance shall carry UL label identifying it as suitable for use as service entrance equipment.

SIEMENS - DISTRIBUTION SWITCHBOARDS

NEMA Class 1, front accessible, rear aligned with group mounted devices, fully enclosed, indoor, rated 600 volts, single-phase, 3-wire service with neutral.

Main service entrance switch shall be switchboard mounted. Main switch shall be manual operation with electrical trip capability.

PANEL BOARDS

Panel boards shall meet UL Standards 50 and 67 and shall bear UL Labels. They shall also meet NEMA Standards.

Siemens P Series panel boards, 120/208 volt, with bolt on breakers.

Breakers shall be thermal magnetic type, quick-make, quick-break, enclosure compensated, bolt-in-type. Two and three pole breakers shall be single unit common trip. Breakers used for lighting shall be approved for that purpose and marked "SWD".

Cabinet shall be for recessed installation with rust-proof prime paint coating and finish coating of ANSI No. 61 paint. Busbars shall be aluminum or copper. Provide panel schedule inside face of door. Door shall have key lock and be hinged to the box. Terminal lugs shall be UL approved for AL/CU termination.

WORKMANSHIP

Shall be performed in compliance with all applicable safety regulations by experienced electricians in first class condition. All electrical equipment shall be tested and then adjusted for proper operation. Final start up of equipment shall include a complete demonstration of operation for the Owner's personnel.

For exposed runs, attach surface mounted conduit with clamps. Route all conduits parallel or perpendicular to building lines. Splice only in accessible junction outlet boxes.

Color code conductors to designate conductor and phase.

Install all conductors, connections, and splices in accordance with National Electric Code. Provide copper grounding conductors and straps.

Mount switches 48 inch above floor and outlets at 18" above floor.

Install identification tags in all switch and outlet boxes to identify that circuit.

Provide mounting brackets, busbars drilled and tapped, and filler pieces for unused spaces.

Prepare and affix typewritten directory to inside cover of panel board indicating loads controlled by each circuit.

Flush mounted panelboards shall have 2-3/4" spare conduits stubbed out to accessible ceiling space.

Provide and install all disconnects for mechanical equipment that do not have a disconnecting means furnished as an integral part of the equipment. Coordinate with Mechanical Contractor.

Electrical Contractor shall receive, uncrate, mount, connect, and adjust electrical equipment furnished under all Sections of the Specifications. This includes controls, detached, motors, controllers, starters, and electrical elements of temperature control systems.

Electrical Contractor shall set, align, and connect all separate motors, and furnish lubrication, start-up and test.

Electrical Contractor shall provide stencil nameplate for each unit he mounts and shall furnish and install required mountings.

Electrical Contractor shall complete Electrical work shown or noted on Electrical Drawings.

Electrical Contractor shall furnish and install power and control wiring associated with HVAC Temperature Control System.

****** END OF DIVISION 16 - ELECTRICAL ******

STATE OF MISSOURI
LARRY R. FAGAN
NUMBER PE-20399
PROFESSIONAL ENGINEER
11-22

ELDECON
ELECTRICAL DESIGN & CONSTRUCTION
6200-1 NW Kelly Drive Kansas City, Missouri 64152
Certificate of Authority Number: #2006013730

MAINTENANCE FACILITY FOR:
THE SUMMIT
3381 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64081

PROJECT #:
ISSUE DATE: 12/29/2021
DRAWN BY: JDH
CHECKED BY: LRF
REVISIONS:

SHEET No.
E2.0
ELECTRICAL SPECIFICATIONS