CITY OF RAYMORE
100 Municipal Circle · Raymore, MO. 64083
Phone · 816-892-3045 · Fax · 816-892-3093

ADDENDUM NO. 1
T.B. Hanna Station House Reno
Project #19-276-204

All plan holders are hereby notified and agree by signature below, that the proposal includes consideration of the following changes, amendments, and/or clarifications and costs associated with these changes and are included in the proposal.

Addendum No. 1 - Clarification.

1. Drawings (Refer to attached drawings for revised language):

1. (Revised) Occupancy Type is S2.
   (Revised) G00 - Project Overview – Delete 'STAINING EXTERIOR DECK'
   (Revised) D100 – Note 14 – EXISTING DECK – NO WORK
   (Revised) A100 – Note 11 – EXISTING DECK – NO WORK
2. (Revised) D100 – Note 7
3. (Revised) D100 – Note 23
4. (Revised) A100 – Note 3
5. (Revised) A100 – Note 4
6. (Revised) A100 – Note 15
7. (Revised) A100 – Note 16
8. (Revised) A100 – Note 18
9. (Revised) A100 – Note 20
10. (ADD) S100 – Note 9 – INSTALL SIMPSON SDWC SCREWS BETWEEN ALL ROOF FRAMING MEMBERS (RAFTERS TO TOP PLATE AND RAFTERS TO BEAM).
11. (ADD) S100 – PROVIDE FULL SISTER OR REPLACEMENT OF DAMAGED RAFTER, IN KIND.
12. (ADD) Sheets PE001, PE002, PE100

2. (Remove): Appendix A; Anticipated Scope of Services, Section 3 Anticipated Scope of Services; Deck.

> "West side deck - remove the current deck, wood storage box and surrounding debris. Grade ground beneath deck to a level surface."

3. Revised Bid Proposal Form E: Attached.

4. Companies attending Pre-Bids:

Infinity Group LLC
Haren Contracting
RL Phillips

Any other questions regarding this proposal shall be submitted to Kim Quade, CPPB by email at kquade@raymore.com or by phone at (816) 892-3045. There will be no questions allowed after May 13th, 2019 at 5 p.m.

I hereby certify that the above have been considered and associated costs have been included in this bid.

Company Name: _____

By: _____

Title: _____

Address: _____

City, State, Zip: _____

Date: _____Phone: _____

Signature of Bidder: _____

ADDENDUM MUST BE SUBMITTED WITH BID

***REVISED* BID PROPOSAL FORM E – Project No. 19-276-204**

T.B. Hanna Station House Renovation

Base Bid

Bid Items	Total
Mobilization, Bonds and Insurance - not to exceed 5%	$
Interior Work	$
Overhead Door	$
Siding	$
Electrical/Lighting	$
Roof	$
TOTAL BASE BID	

Total Base Bid for Project Number: 19-276-204

$_____
In blank above insert numbers for the sum of the bid.

($_____)

In blank above write out the sum of the bid.

REVISED BID PROPOSAL FORM E – RFP 19-276-204
CONTINUED

Company Name _____

By _____
Authorized Person's Signature

_____
Print or type name and title of signer

Company Address _____

_____

_____

Phone _____

Fax _____

Email _____

Date _____

ADDENDA

Bidder acknowledges receipt of the following addendum:

Addendum No. _____

Addendum No. _____

Addendum No. _____

Addendum No. _____

Addendum No. _____

Addendum No. _____

LATE BIDS CANNOT BE ACCEPTED!

TB HANNA STATION PARK

STORAGE BUILDING REMODEL
214 S. Washington Street
Raymore, MO 64083

Bid Documents
04.16.2019

ARCHITECT OF RECORD:

STRATA ARCHITECTURE INC.
1701 OAK STREET, SUITE 100
KANSAS CITY, MISSOURI 64108
T: 816-474-0900

CONTACT:
CLAIRE ASHBROOK, AIA, LEED AP BD + C

STRUCTURAL ENGINEER:

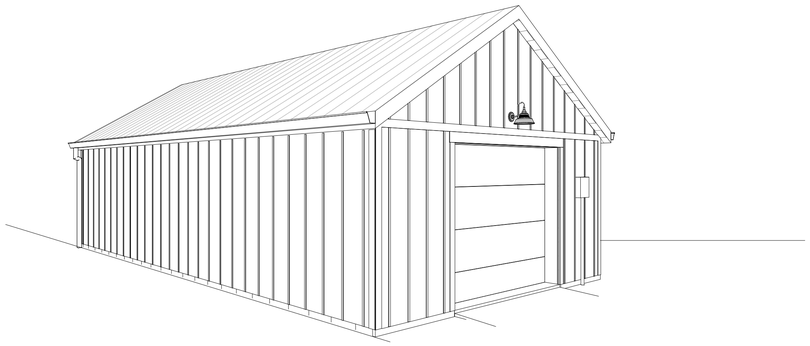
NORTON & SCHMIDT CONSULATING ENGINEERS, LLC
311 EAST 11TH AVENUE
NORTH KANSAS CITY, MISSOURI 64116
T: 816-701-7329

CONTACT:
W.D. "BARNEY" SCHWABAUER, JR, PE

MEP ENGINEER OF RECORD:

PEARSON KENT MCKINLEY RAAF ENGINEERS, LLC
13300 W. 98TH STREET
LENEXA, KANSAS 66215
T: 913.312.0151

CONTACT:
DAVE DEATHERAGE, PE



3D VIEW LOOKING NORTHWEST

PROJECT OVERVIEW:

THIS PROJECT INCLUDES THE RENOVATION OF THE EXISTING ONE-STORY, SINGLE-ROOM CONCRETE MASONRY UNIT BUILDING LOCATED AT THE T.B. HANNA STATION CITY PARK IN RAYMORE, MISSOURI. THE SCOPE INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: SELECTIVE DEMOLITION; CONCRETE MASONRY UNIT INFILL AND SPOT REPOINTING; DIMENSIONAL WOOD FRAMING REPAIRS; INSTALLATION OF NEW BEAMS; CONCRETE SLAB REPAIRS; ELECTRICAL DEMOLITION AND INSTALLATION OF NEW LIGHTING AND RECEPTACLES; PLUMBING DEMOLITION AND INSTALLATION OF NEW PLUMBING ITEMS; INSTALLATION OF NEW EXTERIOR FIBER-CEMENT CLADDING AND TRIM; INSTALLATION OF NEW OVERHEAD GARAGE DOOR; REMOVAL OF EXISTING ROOFING; AND INSTALLATION OF NEW STANDING-SEAM METAL ROOF, GUTTERS, AND DOWNSPOUTS.

CODE INFORMATION:

ADOPTED CODES:
CITY OF RAYMORE BUILDING CODE
2012 INTERNATIONAL BUILDING CODE
2012 UNIFORM PLUMBING CODE
2012 UNIFORM MECHANICAL CODE
2011 NATIONAL ELECTRIC CODE

THERE WILL BE NO CHANGE OF USE OR OCCUPANCY, THERE ARE NO CHANGES TO THIS EXISTING BUILDING FOOTPRINT, NOR ARE THERE CHANGES IN PARKING REQUIREMENTS.

OCCUPANCY TYPE: S2 (STORAGE) - LOW-HAZARD STORAGE

EXISTING BUILDING STORY: 1
EXISTING BUILDING SQUARE FOOTAGE:

TOTAL FLOOR AREA: 490 GSF

TOTAL SQUARE FOOTAGE OF THE BUILDING WILL NOT BE ALTERED.

GENERAL REQUIREMENTS:

A. GENERAL CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE JOB SITE WORK SAFETY CODES AND REGULATIONS INCLUDING SAFETY OF PERSONS AND PROPERTY.

B. GENERAL CONTRACTOR IS TO OBTAIN ALL REQUIRED PERMITS AND APPROVALS FOR RAYMORE, STATE OF MISSOURI, AND ANY OTHER APPLICABLE JURISDICTIONAL ENTITIES FOR EACH PHASE OF THE WORK PRIOR TO PROCEEDING.

C. GENERAL CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE BUILDING AND LIFE-SAFETY CODES.

E. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING FIELD CONDITIONS INCLUDING UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING MEASUREMENTS.

F. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE WORK OF ALL SUBCONTRACTORS. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL ELEMENTS OF THE CONSTRUCTION INCLUDING BUT NOT LIMITED TO ELECTRICAL, MECHANICAL, PLUMBING, AND STRUCTURAL ELEMENTS.

G. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE CONTRACT.

I. ARCHITECT IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES WITH THE PROJECT DOCUMENTS.

J. ANY AND ALL SUBSTITUTIONS MUST BE EVALUATED AND APPROVED BY THE OWNER/ARCHITECT PRIOR TO PROCEEDING WITH WORK.

K. THE ARCHITECT SHALL NOT BE LIABLE FOR ANY PROPERTY DAMAGE OR PERSONAL INJURY TO ANY PERSON OR ENTITY RESULTING FROM ANY HAZARDOUS MATERIALS OR CIRCUMSTANCES EXCLUDED FROM COVERAGE BY ARCHITECT'S INSURANCE.

L. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE LICENSED AND INSURED TO PERFORM WORK, AS REQUIRED BY THE LOCAL AND STATE AUTHORITIES.

M. DO NOT SCALE DRAWINGS FROM DIMENSIONAL INFORMATION NOT SHOWN. CONSULT WITH THE ARCHITECT.

N. THE CONTRACTOR SHALL INCLUDE ALL ITEMS, MATERIAL, LABOR, AND SERVICES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE INTENDED WORK.

O. PIPING SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT OR PANELS. PROVIDE THE CODE REQUIRED WORKING CLEARANCE AROUND ALL ELECTRICAL EQUIPMENT AND PANELS.

P. PROVIDE THE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.

PROJECT INDEX:

STRUCTURAL/COLUMN GRID

DESCRIPTION 000'-0" — ELEVATION HEIGHT TAG

0'-0" — SPOT ELEVATION

SIM X00 / A000 — EXTERIOR ELEVATION

X00 / A000 SIM — INTERIOR ELEVATION

X00 / A000 SIM — SECTION CALLOUT

X00 / A000 SIM — DETAIL CALLOUT

ROOM NAME 000 — ROOM TAG

000-0 — DOOR TAG

XX — WALL TYPE

WINDOW TYPE

00'-00" — CEILING HEIGHT

0 — KEYED NOTE

STRATA ARCHITECTURE + PRESERVATION

TB HANNA STATION
STORAGE BUILDING REMODEL
214 S. WASHINGTON STREET
RAYMORE, MISSOURI 64083

DATE: APRIL 16, 2019

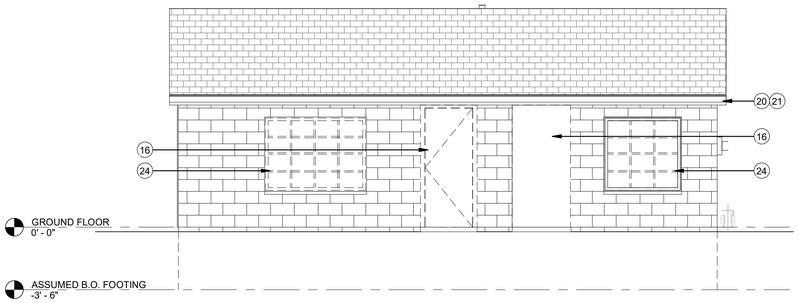
REVISION & DATE:

1	ADDENDUM 1#	5.10.2019

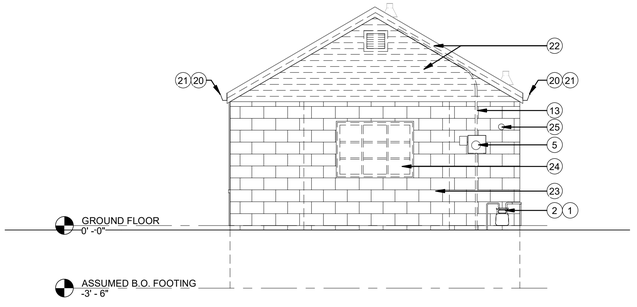
Cover Sheet

SHEET NUMBER:

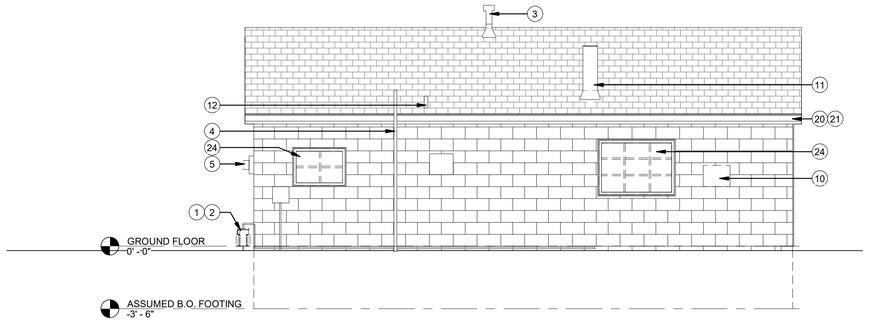
G000



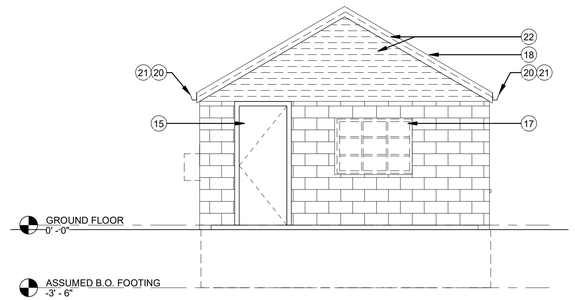
5 Demo South Elevation
1/4" = 1'-0"



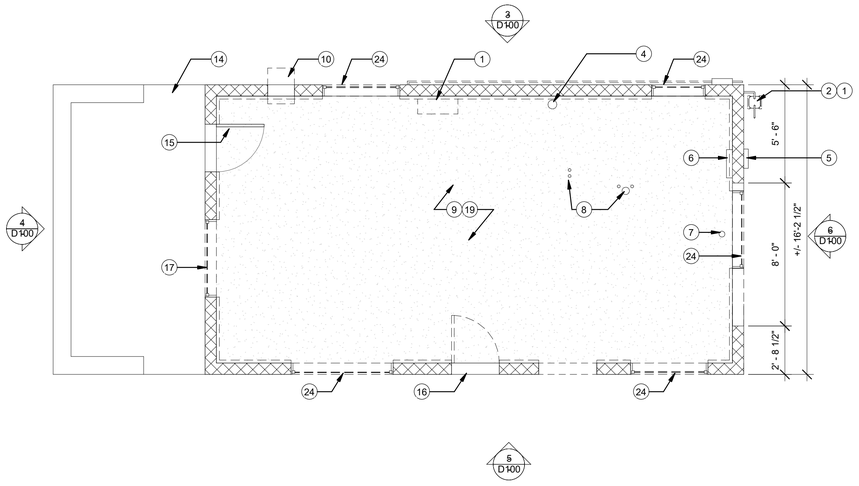
6 Demo East Elevation
1/4" = 1'-0"



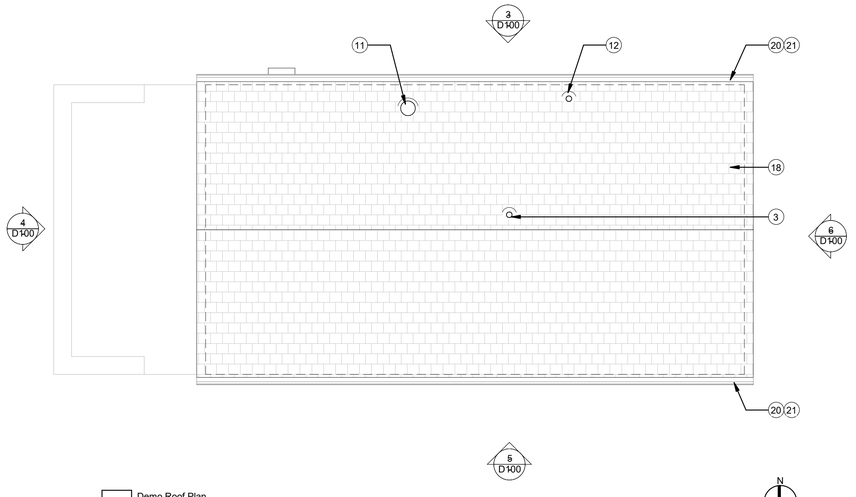
3 Demo North Elevation
1/4" = 1'-0"



4 Demo West Elevation
1/4" = 1'-0"



1 Demo First Floor Plan
1/4" = 1'-0"



2 Demo Roof Plan
1/4" = 1'-0"

GENERAL NOTES:

A. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS.
B. THE CONTRACTOR IS TO COORDINATE DEMOLITION SO THAT ALL EXISTING CONSTRUCTION TO REMAIN IS PROTECTED FROM DAMAGE.
C. ALL NEW REPLACEMENT ROOF SHEATHING SHALL MATCH EXISTING IN MATERIAL AND THICKNESS UNLESS OTHERWISE NOTED.
D. THE TERM "REMOVE" SHALL INCLUDE THE PROPER DISPOSAL OF THE DEMOLISHED MATERIAL, CLEANING OF THE REMAINING CONDITION, AND PREPARATION OF THE AREA FOR THE SUCCESSFUL IMPLEMENTATION OF THE REMAINING WORK UNLESS NOTED OTHERWISE.
E. REMOVE ALL UNUSED PIPING TO THE SOURCE AND CAP. REPAIR SUBSTRATES AS REQUIRED.

KEY NOTES:

1. EXISTING HEATER AND ALL ASSOCIATED ACCESSORIES, VENTING, AND GAS LINE TO BE REMOVED BACK TO GAS METER.
2. EXISTING GAS SERVICE TO BE REMOVED IN ITS ENTIRETY.
3. REMOVE EXHAUST VENT THROUGH THE ROOF AND PATCH/REPAIR SHEATHING, AS REQUIRED.
4. EXISTING SANITARY EXIT TO REMAIN. REMOVE EXTERIOR VENT PIPING AND REPLACE WITH CLEANOUT.
5. EXISTING ELECTRICAL METER TO REMAIN. RELOCATE AS REQUIRED.
6. EXISTING ELECTRICAL PANEL (P1) TO REMAIN. RELOCATE AS REQUIRED.
7. EXISTING WATER SERVICE TO BE MOVED TO NORTH ELEVATION. SEE MEP DRAWINGS.
8. REMOVE ALL INTERIOR PLUMBING AND ASSOCIATED PIPING BACK TO SERVICE LOCATIONS. PATCH FLOOR AS REQUIRED TO MATCH.
9. REMOVE ALL EXISTING INTERIOR ELECTRICAL DEVICES TO THE SOURCE, TYPICAL.
10. THROUGH WALL AIR CONDITIONING UNIT TO BE REMOVED.
11. DEMO EXISTING HEATER FLUE AND PATCH ROOF OPENING.
12. EXISTING PLUMBING VENT TO REMAIN.
13. EXISTING OVERHEAD SERVICE LATERAL TO BE REPLACED WITH UNDERGROUND LATERAL. PROVIDE 3 #1, 1-1/4"C TO EXISTING UTILITY POLE.
14. EXISTING DECK NO WORK.
15. EXISTING DOOR TO REMAIN.
16. EXISTING DOOR AND TRIM TO BE REMOVED. AT LOCATION WHERE EXISTING DOOR OPENING IS INFILLED WITH PLYWOOD. REMOVE PLYWOOD AND ALL ASSOCIATED DOOR TRIM.
17. REMOVAL EXISTING WINDOW AND RELATED TRIM. DISPOSE OF WINDOW AND TRIM FOLLOWING ALL CITY AND STATE GUIDELINES. THE WINDOW HAS BEEN TESTED AND ASBESTOS WAS FOUND IN GLAZING PUTTY. HAZARDOUS MATERIALS REPORT IS AVAILABLE FROM THE CITY.
18. DEMOLISH EXISTING ASPHALT SHINGLES AND UNDERLAYMENT AND DISPOSE OF FOLLOWING ALL CITY AND STATE GUIDELINES.
19. CAREFULLY REMOVE ALL DETERIORATED WOOD TOP SILL PLATES. REFERENCE STRUCTURAL DRAWINGS.
20. REMOVE EXISTING GUTTERS, GUTTER HANGERS, AND DOWNSPOUTS.
21. REMOVE EXISTING WOOD FASCIA BOARD.
22. REMOVE EXISTING WOOD SIDING, LOUVER AND BARGE BOARD.
23. PARTIALLY DEMOLISH EAST CONCRETE MASONRY BLOCK WALL AND PREPARE CONCRETE MASONRY UNIT WALL OPENING FOR INSTALLATION OF NEW OVERHEAD DOOR.
24. REMOVE PLYWOOD INFILL.
25. REMOVE EXISTING HOSE BIBB. REFERENCE A100 FOR NEW LOCATION.

STRATA
ARCHITECTURE + PRESERVATION

TB HANNA STATION PARK
STORAGE BUILDING REMODEL
214 S. WASHINGTON STREET
RAYMORE, MISSOURI 64083

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT
4-16-2019

DATE: APRIL 16, 2019

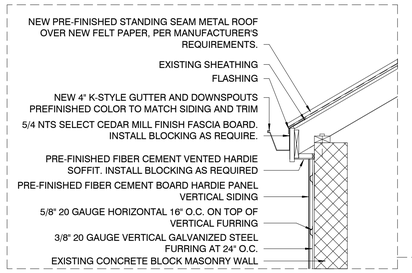
REVISION & DATE:

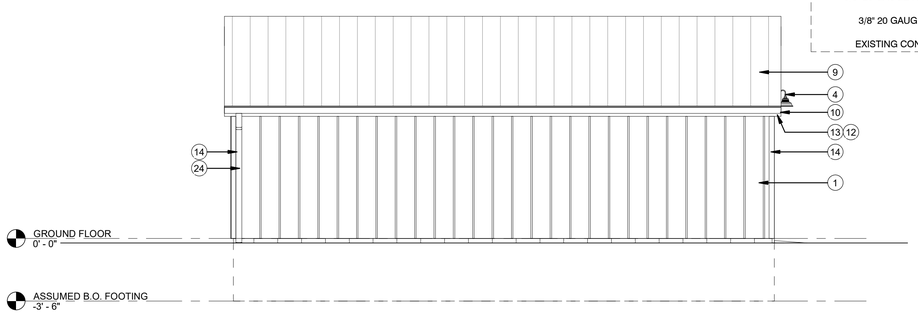
⚠ ADDENDUM 1# 5.10.2019

Demolition Floor Plans & Elevations

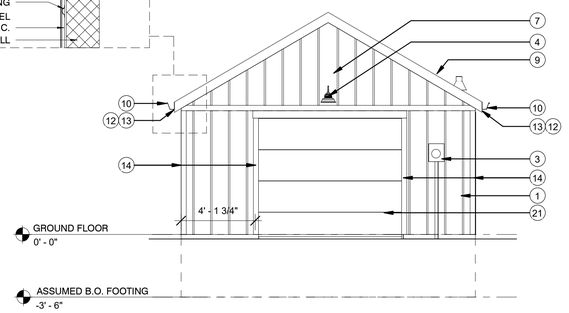
SHEET NUMBER:

D100





5 South Elevation
1/4" = 1'-0"



6 East Elevation
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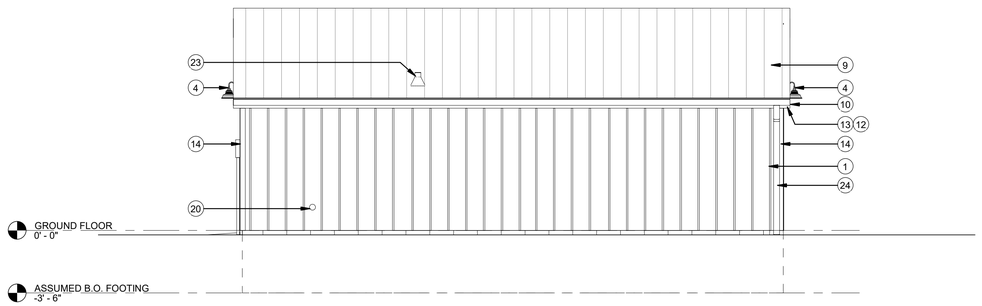

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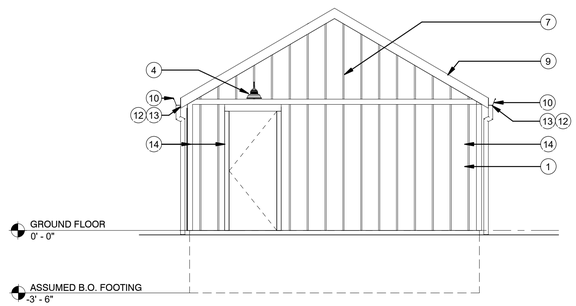

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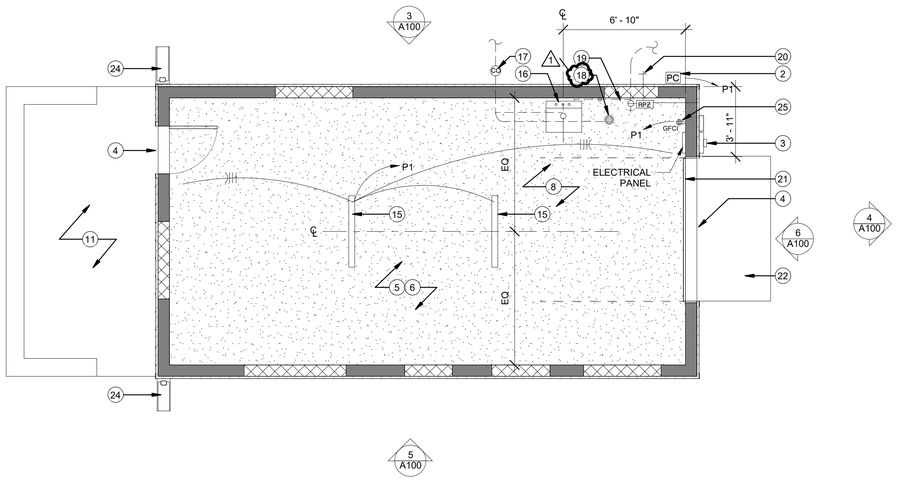

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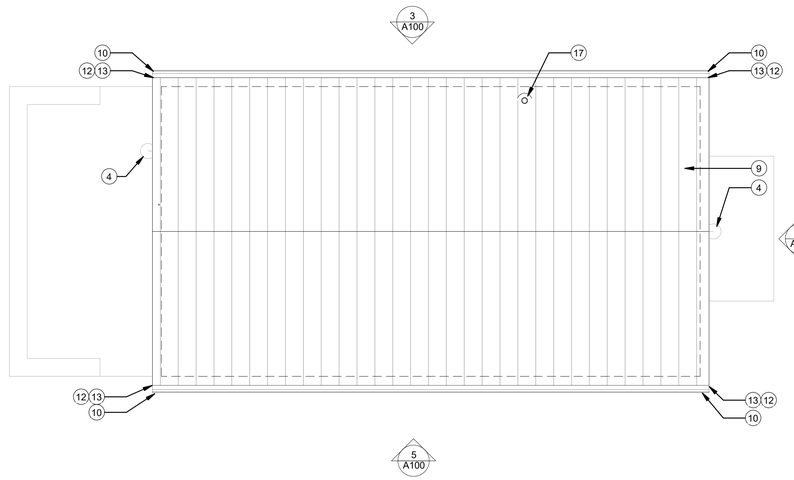


2 Roof Plan
1/4" = 1'-0"

GENERAL NOTES:

A. INSTALL NEW PRE-FINISHED FIBER CEMENT BOARD AND TRIM MATERIALS BY JAMES HARDIE, OR EQUAL. FINAL COLOR TO BE DETERMINED BY OWNER FROM MANUFACTURER'S FULL RANGE OF COLORS. ALL MATERIALS TO BE PROVIDED IN "SELECT CEDAR MILL" FINISH.
B. ALL DIMENSIONS ARE TO FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED.
C. THE CONTRACTOR IS SOLELY RESPONSIBLE TO FIELD VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING WORK OR COMMENCING WORK ONCE AWARDED. ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES TO THE COMPLETION OF THE EXECUTION OF NEW CONSTRUCTION.
D. REPOINT ALL THROUGH WALL CRACKS IN CONCRETE BLOCK MASONRY UNITS.
E. INFILL ANY SMALL HOLES IN CONCRETE BLOCK MASONRY WALL WITH MORTAR.
F. INFILL ALL DOOR AND WINDOW OPENINGS WITH FULL DEPTH CONCRETE BLOCK MASONRY UNITS. ALL CONCRETE BLOCK MASONRY UNITS TO BE PAINTED WITH PRIMER AND LATEX.
G. CAULK ALL PENETRATIONS IN CONCRETE BLOCK MASONRY UNITS WALL.
H. ALL WORK TO COMPLY WITH CITY, STATE, AND FEDERAL REGULATORY CODES AND REQUIREMENTS.

KEY NOTES:

1. NEW EXTERIOR WALL CLADDING CONSTRUCTION
   - DIRECTLY ON TOP OF EXISTING CONCRETE BLOCK MASONRY UNITS INSTALL 3/8" 20 GAUGE. VERTICAL GALVANIZED STEEL FURRING AT 24" O.C. FOR DRAINAGE.
   - ON TOP OF VERTICAL FURRING INSTALL 5/8" 20 GAUGE HORIZONTAL GALVANIZED STEEL HAT CHANNELS AT 16" ON CENTER
   - INSTALL PRE-FINISHED FIBER CEMENT BOARD HARDIE PANEL VERTICAL SIDING, SCALE IS 0.312" X 48" X 120", INSTALL PER MANUFACTURER'S RECOMMENDATIONS
   - INSTALL PRE-FINISHED FIBER CEMENT BOARD HARDIE BATTEN TRIM BOARDS WITH EQUAL SPACING AT APPROXIMATELY 12" O.C.. ALIGN BATTENS TO COVER JOINTS BETWEEN VERTICAL SIDING BOARDS AS INDICATED IN MANUFACTURER'S INSTALLATION INSTRUCTIONS.
   - INSTALL BLACK COR-A-VENT (OR EQUAL) CONTINUOUSLY AT BASE OF AIR SPACE BETWEEN NEW VERTICAL SIDING AND EXISTING EXTERIOR CONCRETE BLOCK MASONRY WALL OF BUILDING. COMPLETELY FILL THE SPACE BETWEEN THE BACK OF THE SIDING AND THE EXTERIOR BLOCK WALL WITH CONTINUOUS VENT OR PROVIDE SYNTHETIC BOARD BLOCKING MATERIAL. COR-A-VENT TO PROVIDE DRAINAGE AND PREVENT INSECT INFILTRATION BEHIND NEW SIDING.
2. PHOTOCELL FOR EXTERIOR LIGHTING. ORIENT TO NORTH
3. EXISTING PANEL P1 AND METER, WITH NEW UNDERGROUND SERVICE REFER TO EAST ELEVATION AND CIVIL PLANS. RELOCATE METER, AS SHOWN ON DRAWING PE100.
4. INSTALL GOOSENECK LIGHT FUTURE CENTERED ABOVE DOOR. BASIS OF DESIGN IS LED GOOSENECK LIGHT FIXTURE, FOUND AT SUPERBRIGHTLED.COM. LIGHT TO BE ON PHOTOCELL.
5. REMOVAL ALL EXISTING CEILING JOISTS AND INSTALL NEW LVL RIDGE BEAM PER STRUCTURAL DRAWINGS.
6. REPLACE LOCATIONS OF TOP SILL PLATE THAT HAVE ROTTED WITH A PRESSURE TREATED SILL ANCHORED INTO THE TOP OF THE CONCRETE BLOCK MASONRY WALL, REFERENCE STRUCTURAL DRAWINGS.
7. AT OPEN GABLE WHERE SIDING WAS REMOVED, INSTALL 7/16" EXTERIOR GRADE SHEATHING. COVER SHEATHING IN TYVEK AIR AND WATER BARRIER, OR PRODUCT EQUAL.
8. COORDINATE FLOOR DEMO WITH PLUMBING REMOVAL. REPAIR FLOOR STRUCTURE IN KIND
9. REPAIR OR REPLACE ALL DAMAGED SHEATHING IN KIND. INSTALL NEW PRE-FINISHED STANDING SEAM METAL ROOF OVER FELT PAPER PER MANUFACTURER'S REQUIREMENTS. BASIS OF DESIGN: COMMON 26 GAUGE, STYLE: IMAGE II - 12" MINOR RIB, BY METAL SALES MANUFACTURING CORP, METALSALES.US.COM, COLOR: RED (24). PROVIDE 20 YEAR WATER TIGHTNESS WARRANTY.
10. INSTALL NEW 4" K-STYLE GUTTER AND DOWNSPOUTS ALONG THE NORTH AND SOUTH SIDES OF THE ROOF. PROVIDE ALL REQUIRED GUTTER HANGERS, END CAPS, DOWNSPOUT ELBOWS AND ANY OTHER REQUIRED ACCESSORIES FOR COMPLETE INSTALLATION. SLOPE GUTTERS TO DRAIN .
11. EXISTING DECK, NO WORK.
12. INSTALL NEW PRE-FINISHED FIBER CEMENT VENTED HARDIE SOFFIT MATERIAL (OR EQUAL) AT NORTH AND SOUTH SOFFITS.
13. INSTALL NEW 5/4 NT3 SELECT CEDAR MILL FINISH FASCIA BOARD ON NORTH AND SOUTH ELEVATION. VERIFY REQUIRED DIMENSIONS IN THE FIELD. FLASH PER MANUFACTURER'S STANDARD DETAILS.
14. INSTALL NEW 9 1/2" WIDE 5/4 NT3 SELECT CEDAR MILL FINISH TRIM BOARDS AT SIDE OF DOOR OPENING AND CORNERS OF BUILDING. INSTALL 5 1/2" 5/4 NT3 SMOOTH TRIM BOARD AT TOP OF DOOR OPENINGS. FLASH PER MANUFACTURER'S STANDARD DETAILS.
15. 4' LONG ROUND LENS LED STRIP.
16. PROVIDE AND INSTALL NEW FREE STANDING UTILITY SINK. .
17. PROVIDE NEW VENTING ON BUILDING INTERIOR AS REQUIRED AND CONNECT TO EXISTING ROOF PENETRATION.
18. PROVIDE NEW FLOOR DRAIN.
19. PROVIDE NEW REDUCED PRESSURE BACKFLOW PREVENTER AND FLOOR DRAIN. PROVIDE MEANS TO BLOW OUT SYSTEM IN WINTER & TURN OFF.
20. INSTALL NEW KEYED FROST FREE HOSE BIBB. INSTALL SHUT-OFF FOR BIBB ON INTERIOR OF BUILDING, PER PE100.
21. INSTALL OVERHEAD DOOR IMPRESSION COLLECTION DOOR (WOOD GRAIN FIBERGLASS) WITH VERTICAL SLAT PANEL #983 TO FIT THE NEW OPENING AND EXISTING CONDITIONS. PROVIDE MANUAL DOOR WITH A TORSION SPRING SIZED TO MANUFACTURER'S RECOMMENDATIONS FOR DOOR SIZE. INSTALL CENTER KEYED SLIDE LOCK ON THE DOOR TO BE OPENED FROM THE EXTERIOR WITH A KEY AND THE INTERIOR BY MOVING THE SLIDE LOCK. INSTALL A CONTINUOUS WATERSTOP THRESHOLD ACROSS THE DOOR OPENING.
22. PROVIDE NEW CONCRETE GARAGE APRON AT NEW OVERHEAD DOOR OPENING.
23. FLASH EXISTING VENT PIPE THROUGH ROOF, PER ROOFING MANUFACTURER'S STANDARD DETAILS.
24. PROVIDE NEW DOWNSPOUT WITH 4'-0" EXTENSION AND CONCRETE SPLASH BLOCK.
25. INSTALL NEW 4-PLEX GFCI RECEPTACLE ON WALL.

STRATA
ARCHITECTURE + PRESERVATION

TB HANNA STATION PARK
STORAGE BUILDING REMODEL
214 S. WASHINGTON STREET
RAYMORE, MISSOURI 64083

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT
4-16-2019

DATE: APRIL 16, 2019

REVISION & DATE:

⚠ ADDENDUM 1# 5.10.2019

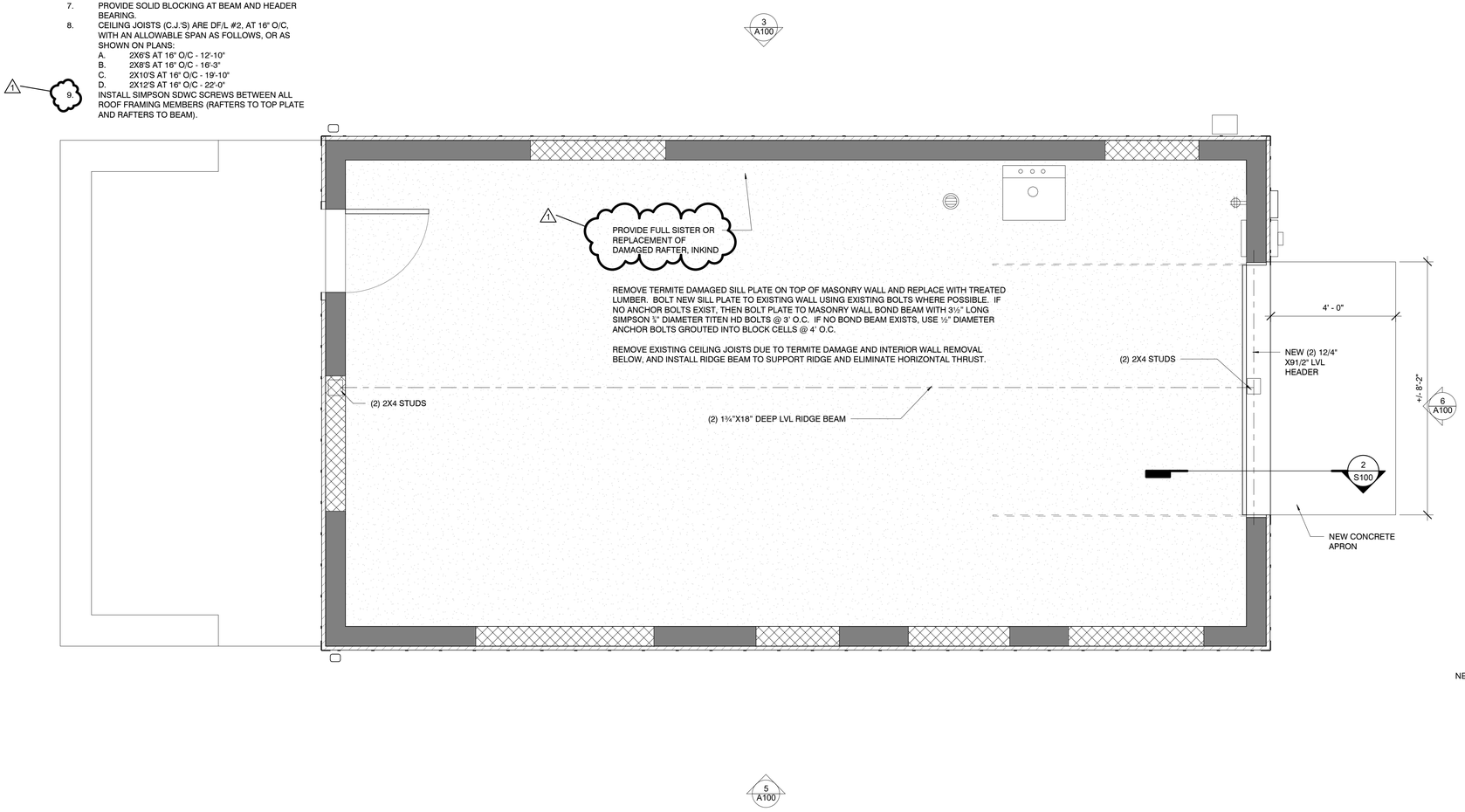
Floor Plans and Elevations

SHEET NUMBER:

A100

GENERAL NOTES

1. ROOF DEAD LOAD = 15 PSF
2. ROOF LIVE LOAD = 20 PSF
3. ROOF SNOW LOAD = 20 PSF
4. CONVENTIONAL LUMBER TO BE #2 DF/L OR BETTER WITH F_B = 875PSI & E = 1,700KSI.
5. LVL LUMBER TO HAVE AN ALLOWABLE F_B = 2,900KSI & E = 2,000KSI.
6. DIMENSIONS ARE TO FACE OF STUD OR CMU AND CENTERLINE OF WALL.
7. PROVIDE SOLID BLOCKING AT BEAM AND HEADER BEARING.
8. CEILING JOISTS (C.J.'S) ARE DF/L #2, AT 16" O/C, WITH AN ALLOWABLE SPAN AS FOLLOWS, OR AS SHOWN ON PLANS:
   - A. 2X6'S AT 16" O/C - 12'-10"
   - B. 2X8'S AT 16" O/C - 16'-3"
   - C. 2X10'S AT 16" O/C - 19'-10"
   - D. 2X12'S AT 16" O/C - 22'-0"
9. INSTALL SIMPSON SDWC SCREWS BETWEEN ALL ROOF FRAMING MEMBERS (RAFTERS TO TOP PLATE AND RAFTERS TO BEAM).



1 First Floor Plan Structural
1/2" = 1'-0"

2 Structural Section at New Garage Door
1/2" = 1'-0"

N

STRATA
ARCHITECTURE + PRESERVATION

TB HANNA STATION PARK
STORAGE BUILDING REMODEL
214 S. WASHINGTON STREET
RAYMORE, MISSOURI 64083

DATE: APRIL 16, 2019

REVISION & DATE:

1	ADDENDUM 1#	5.10.2019

Structural Drawings

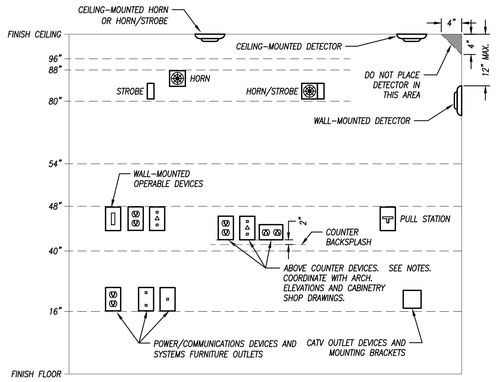
SHEET NUMBER:

S100

STATE OF MISSOURI
KAREN A. SCHMIDT, JR.
NUMBER PE-2012444
PROFESSIONAL ENGINEER

April, 18, 2019

Norton & Schmidt
Consulting Engineers, LLC
Job # 2019-0757 DL # 816-701-7329



GENERAL NOTES:
1. MOUNTING HEIGHTS SHOWN IN THIS DETAIL ARE TYPICAL UNLESS OTHERWISE NOTED ON THE PLANS.
2. SEE ARCHITECTURAL ELEVATIONS FOR SPECIAL CONDITIONS. NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS.
3. ALL INSTALLATIONS SHALL COMPLY WITH ADA.

VISUAL FIRE ALARM NOTIFICATION DEVICES (STROBE)
LOCATE DEVICE SO THE BOTTOM OF THE DEVICE IS BETWEEN 80" AND 96" A.F.F. (NFPA) OR 6" BELOW CEILING, WHICHEVER IS LOWER (ADA 2010).

AUDIBLE FIRE ALARM NOTIFICATION DEVICES (HORN)
LOCATE DEVICE SO THAT THE TOP OF UNIT IS NOT MORE THAN 90" A.F.F. AND NOT LESS THAN 6" BELOW CEILING (NFPA)

FIRE ALARM ACTIVATION DEVICES (PULL STATION)
LOCATE FRONT-APPROACH DEVICES SO THAT THE HIGHEST OPERABLE PORTION OF THE DEVICE IS NOT MORE THAN 48" A.F.F (ADA 2010) AND NOT LESS THAN 42" A.F.F. (NFPA).

POWER/COMMUNICATION DEVICES:
OUTLETS SHALL BE LOCATED AT 16" A.F.F. TO THE BOTTOM OF THE BOX. ABOVE COUNTER DEVICES SHALL BE LOCATED AT 2" ABOVE THE BACKSPLASH OF THE COUNTER TO THE BOTTOM OF THE DEVICES. VERIFY WITH ARCHITECTURAL DETAILS.

WALL-MOUNTED OPERABLE DEVICES:
OPERABLE DEVICES SHALL BE LOCATED AT 48" A.F.F. TO THE TOP OF THE OPERABLE PORTION OF THE DEVICE.

WALL-MOUNTED OPERABLE DEVICES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
LIGHT SWITCHES, DIMMERS, CONTROLS, ETC.
PUSH BUTTONS
NURSE/PATIENT CALL DEVICES (INLUDING THOSE FOR STAFF USE)
OTHER CONTROL OR "CALL" DEVICES

MOUNTING HEIGHTS FOR WALL-MOUNTED DEVICES

NOT TO SCALE

ELECTRICAL SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

CIRCUITING
- HOME RUN (2#12 1#12G UNO)
- INDICATES 2 PHASE, 1 N, & 1 GRD CONDUCTOR
- HOME RUN: INDICATES SHARED CIRCUIT
- HOME RUN: INDICATES #10 CONDUCTORS ENTIRELY

UTILITIES
- UGE — UNDERGROUND ELECTRICAL
- OHE — OVERHEAD ELECTRICAL
- TELE — TELECOMMUNICATIONS CONDUIT
- UGT — UNDERGROUND TELECOMMUNICATIONS CONDUIT

LIGHTING
- GRID-MOUNTED TROFFER LIGHT FIXTURE
- STRIP LIGHT FIXTURE
- SURFACE/RECESSED LIGHT FIXTURE
- WALL-MOUNTED LIGHT FIXTURE
- POLE-MOUNTED LIGHT FIXTURE
- EXIT LIGHT
- BATTERY-OPERATED EMERGENCY LIGHT (WALL MTD)
- BATTERY-OPERATED EMERGENCY LIGHT (CEILING MTD)
- WALL-MOUNTED COMBINATION EXIT LIGHT/ BATTERY-OPERATED EMERGENCY LIGHT
- $ LIGHT SWITCH - SINGLE POLE
- $3 LIGHT SWITCH - 3-WAY
- $4 LIGHT SWITCH - 4-WAY
- $K LIGHT SWITCH - KEY
- $D LIGHT SWITCH - DIMMER
- $PL LIGHT SWITCH - PILOT LIGHT
- $2P LIGHT SWITCH - 2 POLE
- $3D LIGHT SWITCH - 3-WAY DIMMER
- $M WALL-MOUNTED MOTION SWITCH
- (M) CEILING-MOUNTED MOTION SWITCH
- SB SWITCHBANK - REFER TO DETAILS
- FD1 DIMMER BOARD
- RCS-1 REMOTE CONTROL SWITCH AS SCHEDULED
- TC TIMECLOCK - REFER TO PLANS / DETAILS

EQUIPMENT
- DISCONNECT SWITCH. RE: PLANS FOR INFORMATION.
- MAGNETIC MOTOR STARTER
- COMBINATION DISCONNECT SWITCH / MOTOR STARTER
- TOGGLE-TYPE DISCONNECT. FURNISH WITH THERMAL MOTOR PROTECTION WHERE SERVING FANS/PUMPS.
- SURFACE PANELBOARD
- RECESSED PANELBOARD
- DISTRIBUTION PANELBOARD
- SWITCHBOARD. FEEDER/MAIN CIRCUIT BREAKER SECTION AND DISTRIBUTION SECTION.

GENERAL SYMBOLS
- INDICATES CONNECT TO EXISTING
- INDICATES ELEVATION
- XXX EQUIPMENT TAG. REFER TO CONNECTIONS SCHEDULE FOR ELECTRICAL CONNECTIONS AND LOAD INFO FOR KITCHEN, SHOP, ETC. EQUIPMENT

POWER DEVICES
- DUPLEX RECEPTACLE.
- LINE THRU DEVICE INDICATES ABOVE COUNTER
- GFI SPECIAL DUPLEX RECEPTACLE (GFCI, ISOLATED GROUND, ETC.)
- QUADPLEX RECEPTACLE
- 5-50R SIMPLEX RECEPTACLE W/NEMA CONFIG AS NOTED
- 5-50R MULTI-POLE RECEPTACLE W/NEMA CONFIG AS NOTED
- CEILING MOUNTED RECEPTACLE
- RECEPTACLE/DEVICE MOUNTED IN "TOMBSTONE"
- POKE-THRU WITH POWER
- POKE-THRU WITH TELECOMMUNICATIONS
- POKE-THRU W/POWER AND TELECOM
- 1G SINGLE GANG FLOOR BOX (2, 3, 4 GANG SIMILAR)
- DIVIDED POWER POLE
- C CLOCK RECEPTACLE
- PLUG MOLD / WIRE MOLD AS SPECIFIED
- J JUNCTION BOX
- T THERMOSTAT - ELECTRIC
- PUSH BUTTON
- MOTOR

TELEPHONE/DATA
- TELEPHONE OUTLET (SINGLE-GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING)
- LINE THRU DEVICE INDICATES ABOVE COUNTER
- DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CEILING)
- TELEPHONE/DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CLG.)
- 1V PHONE OUTLET WITH NUMBER OF PHONE JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO.
- 1D DATA OUTLET WITH NUMBER OF PHONE JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO.
- 1D/1V PHONE/DATA OUTLET WITH NUMBER OF PHONE/DATA JACKS AS INDICATED - SEE DETAILS FOR ADD'L INFO.
- W WALL-MOUNTED WIRELESS INTERNET TRANSMITTER
- W CEILING-MOUNTED WIRELESS INTERNET TRANSMITTER

PLUMBING SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

PLUMBING PIPING
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- RECIRCULATING DOMESTIC HOT WATER
- SAN WASTE ABOVE GRADE OR FLOOR
- SAN WASTE BELOW GRADE OR FLOOR
- ST STORM ABOVE GRADE OR FLOOR
- ST STORM BELOW GRADE OR FLOOR
- ST/O STORM OVERFLOW ABOVE GRADE OR FLOOR
- ST/O STORM OVERFLOW BELOW GRADE OR FLOOR
- V PLUMBING VENT
- W WATER SERVICE
- G GAS (NATURAL)
- PD FROM SUMP PUMP DISCHARGE
- CA COMPRESSED AIR
- LP PROPANE
- SCW SOFT DOMESTIC COLD WATER
- SHW SOFT DOMESTIC HOT WATER
- SRW SOFT RECIRCULATING HOT WATER
- ACID ACID WASTE
- VACID ACID WASTE VENT
- NP NON-POTABLE
- DI DEIONIZED WATER
- RO REVERSE OSMOSIS WATER
- W&V / XX PLUMBING RISER CALLOUT (REFERS TO RISER DIAGRAM)

PIPING SYMBOLS
- SHUTOFF VALVE
- SHUTOFF VALVE IN RISER
- BALANCING VALVE
- PLUG VALVE
- AUTO FLOW CONTROL VALVE
- PIPING ELBOW UP
- PIPING ELBOW DOWN
- PIPING TEE
- PIPING ELBOW
- PIPING TEE UP
- PIPING TEE DOWN
- INCREASER / REDUCER
- UNION
- CAP
- PIPE FLEX
- STRAINER
- CHECK VALVE
- INLINE STRAINER
- TEST PLUG
- GUIDE
- ANCHOR
- TRIPLE DUTY VALVE
- AUTOMATIC 2-WAY CONTROL VALVE
- AUTOMATIC 3-WAY CONTROL VALVE
- S SOLENOID VALVE

PIPING SPECIALTIES
- P T PRESS/ TEMP GAUGE WITH COCK
- THERMOMETER.
- HI LOW PRESSURE REDUCING VALVE
- RELIEF VALVE
- WATER HAMMER ARRESTER

PLUMBING FIXTURES/EQUIPMENT
- HB HOSE BIBB
- WH WALL HYDRANT
- CLEAN OUT
- RPZ REDUCED PRESSURE BACKFLOW PREVENTER
- DCBP DOUBLE CHECK BACKFLOW PREVENTER
- WC-1 S-1 FD-1 RD-1 PLUMBING FIXTURE AND CALLOUT
- FD: FLOOR DRAIN, AD: AREA DRAIN, FS: FLOOR SINK
- RD: ROOF DRAIN
- ORD: OVERFLOW ROOF DRAIN

GENERAL SYMBOLS
- INDICATES CONNECT TO EXISTING
- INDICATES ELEVATION
- XXX EQUIPMENT TAG. REFER TO CONNECTIONS SCHEDULE FOR MECHANICAL CONNECTIONS AND LOAD INFO FOR KITCHEN, SHOP, ETC. EQUIPMENT

SHEET INDEX

ABBREVIATIONS

A/E	ARCHITECT / ENGINEER	ELEV	ELEVATION	MH	MANHOLE
AFF	ABOVE FINISHED FLOOR	EM	EMERGENCY FIXTURE/DEVICE	MLO	MAIN LUGS ONLY
AFG	ABOVE FINISHED GRADE	EWT	ENTERING WATER TEMPERATURE	NFA	NET FREE AREA
AG	ABOVE GRADE	EX	EXISTING ITEM	NL	NIGHT LIGHT
AHJ	AUTHORITY HAVING JURISDICTION	FFA	FROM FLOOR ABOVE	OA	OUTSIDE AIR
AHU	AIR HANDLING UNIT	FFB	FROM FLOOR BELOW	ORD	OVERFLOW ROOF DRAIN
ARCH	ARCHITECT	FFCO	FINISHED FLOOR CLEAN OUT	P/C	PLUMBING CONTRACTOR
BFP	BACKFLOW PREVENTER	FGCO	FLUSH GRADE CLEAN OUT	PSI	POUNDS PER SQUARE INCH
BG	BELOW GRADE	FL	FLOW LINE	PVC	POLYVINYLCHLORIDE
BLDG	BUILDING	FLR	FLOOR	RA	RETURN AIR
BMS	BUILDING MANAGEMENT SYSTEM	FP	FIRE PROTECTION	RE/REF	REFER / REFERENCE
C	CONDUIT	FPM	FEET PER MINUTE	RF	RELIEF FAN
CD	CANDELA	FWCO	FLUSH WALL CLEAN OUT	RL	RELOCATED ITEM
CD	COLD DECK	G	GROUND / GANG	RPZ	REDUCED PRESSURE ZONE
CLG	COOLING	G/C	GENERAL CONTRACTOR	RR	RESTROOM
CM	COORDINATE MOUNTING HEIGHT	GFI	GROUND FAULT CIRCUIT INTERUPTER	SA	SUPPLY AIR
CO	CLEAN OUT	GFIP	GFI-PROTECTED DEVICE	SPD	SURGE PROTECTIVE DEVICE
CTE	CONNECT TO EXISTING	GPM	GALLONS PER MINUTE	ST	SHUNT TRIP
DCVA	DOUBLE CHECK VALVE ASSEMBLY	HD	HOT DECK	TA	TRANSFER AIR
DCW	DOMESTIC COLD WATER	HTG	HEATING	TFA	TO FLOOR ABOVE
DDC	DIRECT DIGITAL CONTROLS	IG	ISOLATED GROUND	TFB	TO FLOOR BELOW
DF	DRINKING FOUNTAIN	JB	JUNCTION BOX	TP	TAMPERPROOF
DHW	DOMESTIC HOT WATER	LED	LIGHT EMITTING DIODE	TYP	TYPICAL
DHWR	DOMESTIC HOT WATER RETURN	LWT	LEAVING WATER TEMPERATURE	UNO	UNLESS NOTED OTHERWISE
DIA	DIAMETER	M/C	MECHANICAL CONTRACTOR	VRF	VARIABLE REFRIGERANT FLOW
DN	DOWN	MA	MIXED AIR	VTR	VENT THROUGH ROOF
E/C	ELECTRICAL CONTRACTOR	MAU	MAKE UP AIR UNIT	WCO	WALL CLEANOUT
EA	EXHAUST AIR	MCB	MAIN CIRCUIT BREAKER	WG	WIRE GUARD
EDF	ELECTRIC DRINKING FOUNTAIN	MECH	MECHANICAL	WP	WEATHERPROOF

FIRE SEALING NOTES

1. COORDINATE CONSTRUCTION OF OPENINGS AND PENETRATING ITEMS TO ENSURE THAT THROUGH-PENETRATION FIRESTOP SYSTEMS ARE INSTALLED ACCORDING TO SPECIFIED AND APPLICABLE UL REQUIREMENTS.
2. COORDINATE SIZING OF SLEEVES, OPENINGS, CORE-DRILLED HOLES, OR CUT OPENINGS TO ACCOMMODATE THROUGH-PENETRATION FIRESTOP SYSTEMS.
3. DO NOT COVER UP THROUGH-PENETRATION FIRESTOP SYSTEM INSTALLATIONS UNTIL EXAMINED BY INSPECTOR, IF REQUIRED BY AUTHORITIES HAVING JURISDICTION.
4. COMPATIBILITY: PROVIDE THROUGH-PENETRATION FIRESTOP SYSTEMS THAT ARE COMPATIBLE WITH ONE ANOTHER; WITH THE SUBSTRATES FORMING OPENINGS; AND WITH THE ITEMS, IF ANY, PENETRATING THROUGH-PENETRATION FIRESTOP SYSTEMS, UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.
5. PROVIDE COMPONENTS FOR EACH THROUGH-PENETRATION FIRESTOP SYSTEM THAT ARE NEEDED TO INSTALL FILL MATERIALS. USE ONLY COMPONENTS SPECIFIED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER AND APPROVED BY QUALIFIED TESTING AND INSPECTING AGENCY FOR FIRESTOP SYSTEMS INDICATED.
6. PROVIDE SLEEVES THROUGH ALL FIRE-RATED WALLS AND FILL VOIDS SURROUNDING SLEEVES AND INTERIOR TO SLEEVES AROUND PIPING WITH FIRE STOP PUTTY WITH U.L. LISTED 3 HOUR RATING INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
7. FIRE SEAL ALL PIPING, CONDUIT, CABLE, ETC PENETRATIONS ROUTED THROUGH FIRE RATED WALLS.
8. PROVIDE FIRE RATED ENCLOSURES OR WRAPS ON LIGHT FIXTURES AND OTHER ITEMS PENETRATING FIRE RATED CEILINGS, FLOOR/CEILING/ CEILING/ROOF ASSEMBLIES TO MAINTAIN UL LISTING FOR CONSTRUCTION.

GENERAL PLUMBING NOTES

1. COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE INTERNATIONAL PLUMBING CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
2. NO PIPING SHALL BE INSTALLED WHERE IT WILL SUBJECT TO FREEZING TEMPERATURES. PIPING IN EXTERIOR WALLS SHALL BE INSTALLED ON THE WARM SIDE OF BUILDING INSULATION, INSULATED AND THE CHASE SHALL BE VENTILATED WITH GRILLES ALLOWING INDOOR AMBIENT CONDITIONS TO CIRCULATE THROUGH THE CHASE.
3. PROVIDE CLEANOUTS IN THE FOLLOWING LOCATIONS:
   - 3.1. IN ALL HORIZONTAL DRAINS (WITHIN THE BUILDING) NOT MORE THAN 100 FEET APART.
   - 3.2. IN BUILDING SEWERS LOCATED NO MORE THAN 100 FEET APART MEASURED FROM THE UPSTREAM ENTRANCE OF THE CLEANOUT.
   - 3.3. EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING, ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.
   - 3.4. AT THE BASE OF EACH WASTE OR SOIL STACK.
   - 3.5. NEAR THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER.

GENERAL ELECTRICAL NOTES

1. COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
2. COORDINATE LOCATIONS OF RECEPTACLES, SWITCHES, ETC. WITH ARCHITECTURAL CASEWORK AND ELEVATIONS.
3. REFER TO MOUNTING HEIGHTS DETAIL FOR MOUNTING HEIGHTS OF ALL DEVICES NOT INDICATED OTHERWISE.
4. PROVIDE ALL EMPTY CONDUITS WITH PULL STRINGS AND BUSHED ENDS.
5. CONTRACTOR SHALL CONCEAL ALL CONDUIT, FITTINGS, AND DEVICES FROM VIEW WHERE REASONABLY POSSIBLE.

COORDINATION NOTES

1. COORDINATE REQUIREMENTS FOR INSTALLATION OF SYSTEMS AND EQUIPMENT WITH ALL OTHER TRADES.
2. THE CONTRACTOR SHALL COORDINATE THE ROUTING AND PATH OF ALL SYSTEMS, CONDUITS, PIPES, DUCTS, ETC WITH THE POSITION AND LAYOUT OF THE STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY OFFSETS, TURNS, RISES AND DROPS FOR SYSTEMS AND COMPONENTS AS NEEDED TO INSTALL THE MEP SYSTEMS TO CLEAR STRUCTURE, CEILINGS, ETC AND OTHER SYSTEMS IN POTENTIAL CONFLICT WITH ROUTING.
3. COORDINATE WORK WITH OTHER TRADES TO INSTALL SYSTEMS ABOVE CEILING HEIGHTS INDICATED ON ARCHITECTURAL PLANS.
4. CHECK SPACE REQUIREMENTS WITH OTHER TRADES AND STRUCTURE/CONSTRUCTION TO ENSURE THAT ALL MATERIALS AND EQUIPMENT CAN BE INSTALLED IN THE SPACE ALLOTTED INCLUDING FINISHED SUSPENDED CEILINGS AND OTHER SPACES, CHASES, ETC WITHIN THE BUILDING. MAKE MODIFICATIONS THERETO AS REQUIRED AND APPROVED.
5. TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION.
6. WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES, COORDINATE WITH THOSE TRADES TO ENSURE THAT ALL SUBCONTRACTORS HAVE THE INFORMATION NECESSARY SO THAT THEY MAY PROPERLY INSTALL ALL CONNECTIONS AND EQUIPMENT. IDENTIFY ALL ITEMS OF WORK THAT REQUIRE ACCESS SO THAT THE CEILING TRADE WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.
7. COORDINATE, PROJECT AND SCHEDULE WORK WITH OTHER TRADES IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE.
8. DRAWINGS SHOW THE GENERAL RUNS OF CONDUITS, PIPING AND DUCTWORK AND APPROXIMATE LOCATION OF OUTLETS. ANY SIGNIFICANT CHANGES IN LOCATION OF ITEMS NECESSARY IN ORDER TO MEET FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER AND RECEIVE HIS APPROVAL BEFORE SUCH ALTERATIONS ARE MADE. ALL SUCH MODIFICATIONS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND REPAIR OF SURFACES, AREAS AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
10. ADJUST LOCATION OF PIPING, DUCTWORK, ETC. TO PREVENT INTERFERENCES, BOTH ANTICIPATED AND ENCOUNTERED. DETERMINE THE EXACT ROUTE AND LOCATION OF EACH ITEM PRIOR TO FABRICATION. MAKE OFFSETS, TRANSITIONS AND CHANGES IN DIRECTION IN SYSTEMS AS REQUIRED TO MAINTAIN ADEQUATE CLEARANCES AND HEADROOM.
11. WHEREVER THE WORK IS OF SUFFICIENT COMPLEXITY, PREPARE ADDITIONAL COORDINATION DRAWINGS AND ORGANIZE ON-SITE MEETINGS WITH ALL RELATED SUBCONTRACTORS TO COORDINATE THE WORK BETWEEN TRADES . DRAWINGS SHALL CLEARLY SHOW THE WORK AND ITS RELATION TO THE WORK OF OTHER TRADES, AND BE SUBMITTED FOR REVIEW PRIOR TO COMMENCING SHOP FABRICATION OR ERECTION IN THE FIELD.
12. COORDINATE WITH LOCAL UTILITY PROVIDERS FOR THEIR REQUIREMENTS FOR SERVICE CONNECTIONS AND PROVIDE ALL NECESSARY PAYMENTS, MATERIALS, LABOR AND TESTING TO ACCOMPLISH THE WORK.
13. COORDINATE THE MOUNTING OF SUSPENDED LIGHT FIXTURES UTILIZING INDIRECT LIGHT SO THAT CONDUIT, DUCTWORK, STRUCTURAL MEMBERS, ETC. ARE NOT LOCATED DIRECTLY ABOVE THE LIGHT FIXTURE. MAINTAIN A MINIMUM OF 24" CLEARANCE FROM THESE ITEMS WHENEVER POSSIBLE.

DEMOLITION NOTES

1. ALL WORK SHOWN DARK AND DASHED IS TO BE DEMOLISHED. WORK SHOWN LIGHT IS EXISTING TO REMAIN.
2. REFER TO ARCHITECTURAL PLANS FOR FURTHER EXTENT OF DEMOLITION REQUIREMENTS.
3. ALL EXISTING PIPING SCHEDULED FOR DEMOLITION THAT ROUTES BELOW SLAB SHALL BE GROUND FLUSH WITH FLOOR, PLUGGED AND THE FLOOR PATCHED TO MATCH SURROUNDING FLOOR.
4. COORDINATE ALL DEMOLITION WORK WITH OWNER.
5. CONTACT UTILITY LOCATING SERVICE TO LOCATE EXACT LOCATION OF UTILITIES BELOW GRADE.
6. MAINTAIN ALL EXISTING DEVICES, EQUIPMENT, ASSOCIATED CIRCUITS ETC, SHOWN AS EXISTING TO REMAIN OR OTHERWISE UNRELATED TO THE SCOPE OF THE PROJECT IN WORKING ORDER.
7. CONTRACTOR SHALL REMOVE LAY-IN CEILINGS, LIGHT FIXTURES, ETC. AS REQUIRED FOR CONSTRUCTION WHERE NEEDED PRIOR TO DEMOLITION AND REPLACE SAME AFTER CONSTRUCTION. EXISTING CONDUITS ABOVE CEILINGS SHALL BE RELOCATED AND/OR TEMPORARILY REMOVED TO FACILITATE THE INSTALLATION OF NEW EQUIPMENT.
8. THE OWNER SHALL REMOVE ALL ITEMS THEY DESIRED TO SALVAGE PRIOR TO CONSTRUCTION BEGINNING.
9. NOTES AND DRAWINGS ARE BASED UPON A FIELD EXAMINATION OF THE SITE AND MAY NOT INDICATE ALL ITEMS. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE SITE AND THE SCOPE OF WORK FOR THE CONTRACT PRIOR TO BID. ANY EXISTING CONDITION WHICH IS APPARENT OR COULD BE REASONABLY INFERRED FROM A VISIT TO THE SITE SHALL NOT BE THE BASIS FOR A CHANGE IN THE CONTRACT AMOUNT.
10. REFER TO NEW WORK PLANS FOR ANY ITEMS THAT MAY REQUIRE RELOCATION AFTER DEMOLITION.
11. PROPERLY DISPOSE OF ALL DEMOLISHED ITEMS OFF SITE.
12. REMOVE ALL MISCELLANEOUS CONDUITS, PIPES, ETC, THOUGH NOT SPECIFICALLY SHOWN ON PLAN, THAT ARE EITHER UNUSED OR WILL BECOME UNUSED DUE DEMOLITION ACTIVITIES, IN ORDER TO PROVIDE A "CLEAN" SPACE FOR THE OWNER.
13. PROTECT ALL EXISTING SURFACES AND EQUIPMENT DURING CONSTRUCTION. EXISTING ITEMS TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DEMOLITION AND NEW CONSTRUCTION WORK, AS REQUIRED. ANY ITEMS DAMAGED OR MARRED SHALL BE ADEQUATELY CLEANED OR REPLACED TO THE OWNERS SATISFACTION TO ORIGINAL CONDITION BEFORE CONSTRUCTION.
14. PATCH ANY HOLES IN STRUCTURE CREATED BY REMOVAL OF DUCTWORK, CONDUITS, PIPES, ETC.
15. REMOVE ALL ITEMS SHOWN IN WALLS TO BE DEMOLISHED. ALL ELECTRICAL CONDUIT AND WIRING SHALL BE REMOVED BACK TO PANELBOARDS AND PROPERLY TERMINATED.
16. SAW CUT FLOOR FOR THE INSTALLATION OF NEW SANITARY PIPING. REFER TO PLUMBING PLANS SHOWING NEW WORK.
17. SAVE, CLEAN, AND RE-LAMP ALL LIGHT FIXTURES NOTED AS BEING RELOCATED. REFER TO NEW WORK PLANS AND LIGHT FIXTURE SCHEDULE FOR DESCRIPTIONS, QUANTITIES, AND LOCATIONS OF FIXTURES TO BE RE-USED.

GENERAL NOTES

1. SOME ROOM NAMES MAY NOT BE SHOWN FOR PURPOSE OF CLARIFYING PLAN. REFER TO ARCHITECTURAL PLANS FOR REFERENCE TO ROOM NAMES NOT SHOWN.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND KEEP AT THE JOB SITE, AN UP TO DATE SET OF "RECORD DRAWINGS" SHOWING ALL CHANGES FROM THE ORIGINAL PLANS. THE CONTRACTOR SHALL DELIVER THE "RECORD DRAWINGS" TO THE ENGINEER AT THE CONCLUSION OF THE PROJECT ELECTRONICALLY.
3. THESE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS (NEW AND EXISTING), DIMENSIONS, AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK AND SHALL INCLUDE ALL COSTS, EQUIPMENT, MATERIAL, ACCESSORIES, ETC. REQUIRED FOR A FULLY COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION.
4. FINAL LOCATIONS OF ALL DEVICES, LIGHT FIXTURES, EQUIPMENT ETC SHALL BE INDICATED ON THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM ARCHITECTURAL PLANS. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM MEP DRAWINGS.
5. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, APPROVALS, LICENSES, ETC. AS NEEDED FOR THE COMPLETE INSTALLATION AND PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL FEES AND DATA NEEDED FOR THIS.

GEN. RENOVATION NOTES

1. DISCONNECT AND REMOVE ANY EQUIPMENT, PIPING OR DUCTWORK THAT WAS INSTALLED AS PART OF THE BUILDING SHELL THAT IS NOT NEEDED OR CONFLICTS WITH THIS BUILD OUT.
2. EXISTING UNDERGROUND PIPING LOCATIONS ARE ESTIMATED BASED UPON ANTICIPATED ROUTINGS. FIELD VERIFY EXACT LOCATIONS DURING CONSTRUCTION AND PROVIDE ALL NECESSARY MODIFICATIONS.
3. SAWCUT GRADE FLOOR SLABS TO INSTALL NEW PIPING, MECHANICAL SYSTEMS, ELECTRICAL FLOOR BOXES AND ALL ASSOCIATED CONDUIT, ETC. PATCH FLOOR TO MAKE LIKE NEW AFTER INSTALLATION. TAKE CARE TO LOCATE EXISTING CONDUIT, ETC AND AVOID CUTTING EXISTING CONDUITS BY NOT OVER-CUTTING SLAB DEPTH.
4. SAWCUT AND CORE DRILL OPENINGS AS REQUIRED FOR ABOVE GRADE SLAB PENETRATIONS. X-RAY SLABS TO ASCERTAIN STEEL AND EXISTING CONDUIT PENETRATIONS PRIOR TO CUTTING. VERIFY OPENINGS WITH STRUCTURAL ENGINEER PRIOR TO CUTTING.
5. HOMERUN CIRCUITS TO 20 AMP, SINGLE POLE BREAKERS IN PANELBOARDS INDICATED. UTILIZE SPARE BREAKERS MADE AVAILABLE BY DEMOLITION, IF NO SPARE BREAKER IS AVAILABLE, PROVIDE NEW BREAKER.
6. EXISTING CIRCUITING MAY BE RE-USED WHERE POSSIBLE.
7. CONCEAL NEW CIRCUITING IN WALLS WHERE POSSIBLE. FOR NEW DEVICES INSTALLED ON EXISTING SOLID WALLS, CONCEAL CIRCUITING IN WIREMOLD. COORDINATE FINISH AND GENERAL ROUTING OF WIREMOLD WITH ARCHITECT TO BE AS CONCEALED AND/OR ROUTED IN A NEAT AND ORGANIZED CONSISTENT MANNER.
8. ALL LIGHTING FIXTURES THAT ARE RELOCATED OR OTHERWISE AFFECTED BY THE SCOPE OF WORK SHALL BE CLEANED AND RELAMPED.

STRATA
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STATE OF MISSOURI
DAVID LAWRENCE DEATHERAGE
NUMBER E-29880
REGISTERED PROFESSIONAL ENGINEER
5/7/19
David Lawrence Deatherage - Engineer
MO# E-29880

DATE: APRIL 16, 2019
REVISION & DATE:
⚠ CITY COMMENTS 5/7/19

Plumbing/Electrical Cover Sheet

SHEET NUMBER: PE001

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15000 - MECHANICAL SPECIFICATIONS

SECTION 15000 – MECHANICAL REQUIREMENTS

1. GENERAL REQUIREMENTS

A. ALL WORK SHALL BE IN ACCORDANCE W/ LATEST EDITION OF INTERNATIONAL BUILDING, MECHANICAL & PLUMBING CODES, CODES AS ADOPTED BY CITY, COUNTY, STATE & ALL OTHER APPLICABLE CODES.

B. FURNISH & INSTALL ALL LABOR & MATERIALS REQUIRED FOR COMPLETE, FUNCTIONING, MECHANICAL & PLUMBING SYSTEMS W/ ALL ASSOCIATED EQUIPMENT & APPARATUS AS SHOWN ON PLANS. "PROVIDE" MEANS TO FURNISH & INSTALL.

C. OBTAIN & PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THIS WORK & SHALL MAKE ARRANGEMENTS FOR MODIFICATIONS TO WATER, GAS & SEWER CONNECTIONS TO BUILDING AS REQUIRED.

D. VISIT SITE & OBSERVE CONDITIONS UNDER WHICH WORK WILL BE DONE. ANY DISCREPANCIES SHALL BE CALLED TO ARCHITECT'S ATTENTION. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN CONTRACT FOR ANY ERROR OR NEGLIGENCE ON CONTRACTOR'S PART.

E. FINAL ACCEPTANCE OF WALL SHALL BE SUBJECT TO CONDITION THAT ALL SYSTEMS, EQUIPMENT, APPARATUS & APPLIANCES OPERATE SATISFACTORILY AS DESIGNED & INTENDED. WORK SHALL INCLUDE REQUIRED ADJUSTMENT OF SYSTEMS & CONTROL EQUIPMENT INSTALLED UNDER THESE SPECIFICATIONS.

F. WARRANT TO OWNER QUALITY OF MATERIAL, EQUIPMENT, WORKMANSHIP & OPERATION OF EQUIPMENT PROVIDED UNDER THESE SPECIFICATIONS FOR ONE YEAR FROM & AFTER COMPLETION OF BUILDING & ACCEPTANCE OF MECHANICAL SYSTEMS BY OWNER.

G. ALL MATERIALS INSTALLED IN PLENUMS SHALL BE NONCOMBUSTIBLE OR HAVE FLAME/SMOKE INDEX OF NO MORE THAN 25/50 IN ACCORDANCE W/ ASTM E 84.

H. ROOF PENETRATIONS – MADE BY AUTHORIZED ROOFING CONTRACTOR WHEN REQUIRED.

SECTION 15100 – PLUMBING

2. PIPING

A. WATER PIPING – ALL WATER PIPING SHALL BE 95-5 TIN-ANTIMONY JOINED TYPE L COPPER. INSULATE W/ FIBERGLASS W/ ASJ & PVC COVERS. THINCKNESS IN ACCORDANCE W/ ASHRAE 90.1.

B. WASTE & VENT PIPING – CI BELL & SPIGOT OR HUBLESS CI W/ NEOPRENE GASKET FITTINGS W/ STAINLESS STEEL BANDS. SCHED 40 PVC W/ SOLVENT WELDS MAY BE USED WHERE ALLOWED BY LOCAL CODE. PVC NOT ALLOWED IN PLENUMS.

3. VALVES

4. EQUIVALENT VALVES LISTED ON CURRENT COMPARISON CHARTS OF SPECIFIED VALVE MANUFACTURERS BY MILWAUKEE, STOCKHAM, POWELL, RED-WHITE, CRANE, APPOLO, MUELLER, MUESSCO, WATTS, HAYS, ROCKWELL-NORDSTROM.

C. BALL VALVES – 2" & UNDER – BRONZE FULL PORT W/ TEFLOW SEATS, BRONZE BALL & INSULATED HANDLE.

D. BALANCING VALVES – ARMSTRONG MODEL CBV I OR CBV II, 125 PSI-WP AT 250 DEGREES F., METER CONNECTIONS W/ BUILT-IN CHECK VALVES SCREWED OR FLANGED ENDS. PROVIDE POLYURETHANE INSULATION COVER.

E. CHECK VALVES – 2" 7 SMALLER SCREWED OR SOLDER BRONZE CHECK VALVE, 200 PSI-WOG/125 PSI-WSP, TEFLON OR BRONZE DISC & SEAT RING. 2-1/2" & LARGER FLANGED, ASTM 126 IRON BODY, BRONZE TRIMMED, 200 PSI-WOG/125 PSI-WSP.

FIXTURES – SEE SCHEDULES

A. FIXTURES: AMERICAN STANDARD, KOHLER, CRANE, ZURN, TOTO

B. STAINLESS STEEL FIXTURES: ELKAY, JUST, MOEN COMMERCIAL

C. FITTINGS & SUPPORTS: JOSAM, SMITH, WADE, ZURN, OR JONESPEC.

D. TRIM BY MOEN, DELTA, ELJER, KOHLER, AMERICAN STANDARD, CRANE, SLOAN.

E. DRAINS BY WADE, ZURN, WOODFORD, SMITH, JOSAM.

EXECUTION

A. PROVIDE UNIONS OR FLANGED JOINTS IN EACH PIPE LINE PRECEDING CONNECTIONS TO EQUIPMENT TO ALLOW REMOVAL FOR REPAIR OR REPLACEMENT. PROVIDE ALL SCREWED & CONTROL VALVES W/ UNIONS ADJACENT TO EACH CONNECTION. PROVIDE SCREWED END VALVES W/ UNION ADJACENT TO VALVE UNLESS VALVE CAN BE OTHERWISE EASILY REMOVED FROM LINE.

B. AFTER PIPING IS IN PLACE TEST LINES TO INSURE NO LEAKS.

C. ALL PIPING & EQUIPMENT SHALL BE SUPPORTED PROPERLY FROM STRUCTURE.

D. ESCUTCHEONS – PROVIDE NICKEL-BRASS OR CHROME PLATED ON ALL EXPOSED PIPES WHEN PASSING THRU WALL OR CEILING OF FINISHED ROOMS.

E. VERIFY FLOOR MATERIALS USED FROM ARCHITECTURAL PLANS & PROVIDE PROPER CLEANOUT TOPS, WHERE THEY OCCUR IN CARPET, QUARRY TILE, VINYL TILE OR CERAMIC TILE.

F. PROVIDE WATER HAMMER ARRESTORS FOR ALL PLUMBING BANKS W/ FIXTURES UTILIZING FLUSH VALVES IN ANY CAPACITY. LOCATE ARRESTER BETWEEN LAST TWO FIXTURES SERVED ON BRANCH LINE.

16000 - ELECTRICAL SPECIFICATIONS

SECTION 16000 – ELECTRICAL REQUIREMENTS

GENERAL REQUIREMENTS

A. ALL WORK SHALL BE IN ACCORDANCE W/ LATEST EDITION OF INTERNATIONAL BUILDING CODE, NATIONAL ELECTRICAL CODE, NFPA, CODES AS ADOPTED BY CITY, COUNTY, STATE & ALL OTHER APPLICABLE CODES.

B. ALL MATERIALS & EQUIPMENT SHALL BE NEW & SHALL BEAR U.L. LABEL WHERE APPLICABLE. PROVIDE WATERPROOF EQUIPMENT ENCLOSURES WHERE REQUIRED.

C. OBTAIN & PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THIS WORK & SHALL MAKE ARRANGEMENTS FOR MODIFICATIONS TO ELECTRICAL CONNECTIONS TO BUILDING AS REQUIRED.

D. CONTRACTOR SHALL PROVIDE ALL LABOR & MATERIALS REQUIRED TO HAVE COMPLETE FUNCTIONING ELECTRICAL LIGHTING & POWER SYSTEMS TOGETHER W/ ALL ASSOCIATED EQUIPMENT & APPARATUS AS SHOWN ON PLANS.

E. WHERE AN ELECTRICAL DEVICE IS REQUIRED BY CODE BUT NOT SHOWN, IT SHALL BE PROVIDED AS THOUGH FULLY SHOWN & SPECIFIED.

F. CONTRACTOR SHALL VISIT SITE & OBSERVE CONDITIONS UNDER WHICH WORK WILL BE DONE. ANY DISCREPANCIES SHALL BE CALLED TO ARCHITECT'S ATTENTION. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION FOR ANY ERROR OR NEGLIGENCE ON CONTRACTOR'S PART.

G. FINAL ACCEPTANCE OF WORK SHALL BE SUBJECT TO CONDITION THAT ALL SYSTEMS, EQUIPMENT, APPARATUS & APPLIANCES OPERATE SATISFACTORILY AS DESIGNED & INTENDED. WORK SHALL INCLUDE REQUIRED ADJUSTMENT OF SYSTEMS & CONTROL EQUIPMENT INSTALLED UNDER THESE SPECIFICATIONS.

H. WARRANT TO OWNER QUALITY OF MATERIALS, EQUIPMENT, WORKMANSHIP & OPERATION OF EQUIPMENT PROVIDED UNDER THESE SPECIFICATIONS FOR ONE YEAR FROM & AFTER COMPLETION OF BUILDING & ACCEPTANCE OF MECHANICAL SYSTEMS BY OWNER.

I. ALL MATERIALS INSTALLED IN PLENUMS SHALL BE NONCOMBUSTIBLE OR HAVE FLAME/SMOKE INDEX OF NO MORE THAN 25/50 IN ACCORDANCE W/ ASTM E 84.

SECTION 16100 – CONDUIT & CONDUCTORS

A. FOLLOW CIRCUITING SHOWN ON PLANS. USE NO CONDUIT SMALLER THAN 1/2" & NO CONDUCTORS SMALLER THAN #12 GA. UNLESS NOTED OTHERWISE.

B. WIRE SHALL BE IN NON-FLEXIBLE METALLIC CONDUIT (EMT, IMC OR RMC) FOR ALL CIRCUITS AND FEEDERS GREATER THAN 30A, LIGHT SWITCH RISERS, KITCHEN CIRCUITS & HOME RUNS.

C. MC CABLE ACCEPTABLE FOR BRANCH CONVENIENCE CIRCUITS AND LIGHTING CIRCUITS. DO NOT DAISY CHAIN LIGHT FIXTURES. PROVIDE HEALTH CARE RATED MC FOR MEDICAL TREATMENT AREAS WHEN NOT IN CONDUIT.

D. CONDUIT INSTALLED BELOW GRADE SHALL BE SCHEDULE 80 PVC HEAVY WALL PLASTIC CONDUIT MEETING NEMA STANDARDS & UL LISTED FOR UNDERGROUND & EXPOSED USE. PROVIDE GRS RADIUS BENDS & RISERS AS CONDUITS RISE ABOVE GRADE OR ABOVE FLOOR SLAB.

E. PROVIDE INTERLOCKING SPACERS FOR MULT RUNS OF UG CONDUITS IN SAME TRENCH.

F. LIGHTING & RECEPTACLE CIRCUIT CONDUCTORS SHALL BE COPPER THWN/THHN 600 VOLT, 75 DEG C, COLOR CODED AS DESCRIBED UNDER APPLICABLE CODES. NO ROMEX, PLASTIC FLEX TUBING ETC PERMITTED. LIGHT FIXTURE WIRE INSULATION SHALL HAVE TEMP RATING NOT LESS THAN INDIVIDUAL FIXTURE MANUF RECOMMENDED RATING.

G. CIRCUITS W/ NO. 8 OR LARGER CONDUCTORS, MOTOR CIRCUITS, POWER & FEEDER CIRCUITS & BUILDING SERVICE FEEDERS SHALL BE COPPER THWN/THHN 600 VOLT, 75 DEG C.

H. ALL CONDUIT, JUNCTION BOXES, ETC. ABOVE CEILINGS SHALL BE SUPPORTED FROM STRUCTURE. PIPE SLEEVES, HANGERS & SUPPORTS SHALL BE FURNISHED & SET & CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER & PERMANENT LOCATIONS.

SECTION 16200 – GROUNDING

A. SUPPLEMENT GROUNDED NEUTRAL OF SECONDARY DISTRIBUTION SYSTEM W/ EQUIPMENT GROUNDING SYSTEM, INSTALLED SO THAT METALLIC STRUCTURES, ENCLOSURES, RACEWAYS, JUNCTION BOXES, OUTLET BOXES, CABINETS, MACHINE FRAMES, PORTABLE EQUIPMENT & OTHER CONDUCTIVE ITEMS OPERATE CONTINUOUSLY AT GROUND POTENTIAL & PROVIDE LOW IMPEDANCE PATH FOR GROUND FAULT CURRENTS.

B. SYSTEM SHALL COMPLY W/ NATIONAL ELECTRICAL CODE, DRAWINGS & AS SPECIFIED.

C. PROVIDE EQUIPMENT GROUND BUS IN BASE OF LOW VOLTAGE, SWITCHGEAR BRAZED OR OTHERWISE ADEQUATELY CONNECTED BY AN APPROVED METHOD TO GROUND RODS.

D. PROVIDE IN CONDUIT GREEN INSULATED COPPER GROUND CONDUCTOR TO MAIN METALLIC WATER SERVICE ENTRANCE & CONNECT BY MEANS OF ADEQUATE GROUND CLAMPS.

E. EQUIPMENT GROUNDING CONDUCTORS FOR BRANCH CIRCUIT HOME RUNS SHOWN ON DRAWINGS SHALL INDICATE AN INDIVIDUAL & SEPARATE GROUND CONDUCTOR FOR THAT BRANCH CIRCUIT WHICH SHALL BE TERMINATED AT BRANCH CIRCUIT PANELBOARD, SWITCHBOARD, OR OTHER DISTRIBUTION EQUIPMENT.

F. PROVIDE LOW VOLTAGE DISTRIBUTION SYSTEM W/ SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR FOR EACH SINGLE OR THREE-PHASE FEEDER. SINGLE PHASE 120 VOLT BRANCH CIRCUITS FOR LIGHTING & POWER SHALL CONSIST OF PHASE & NEUTRAL CONDUCTORS & GREEN GROUND CONDUCTOR INSTALLED IN COMMON CONDUIT WHICH SHALL SERVE AS GROUNDING CONDUCTOR.

G. GROUNDING CONDUCTORS SHALL BE AS SHOWN ON PLANS OR IF NOT SPECIFICALLY SHOWN SHALL BE NO SMALLER THAN THAT REQUIRED BY NEC.

SECTION 16300 – ELECTRICAL EQUIPMENT

A. JUNCTION BOXES & OUTLET BOXES SHALL BE GALVANIZED KNOCKOUT TYPE. LIGHTING FIXTURE BOXES IN CEILINGS SHALL NOT BE LESS THAN 4" OCTAGONAL KNOCKOUT TYPE. OUTLETS SHALL BE INSTALLED IN LOCATIONS SHOWN ON DRAWINGS EXCEPT OUTLETS MAY BE MOVED 4 FEET IN EITHER DIRECTION IF SO DIRECTED, WITHOUT ADDITIONAL COST. BOXES SHALL BE FLUSH MOUNTED ON WALLS FOR CONCEALED WORK. GANGABLE BOXES SHALL BE USED IN ALL GYPBOARD SURFACES.

PANELBOARDS

A. BRANCH CIRCUIT 208/240V PANELS SHALL BE CAPACITY SHOWN W/ TIN PLATED COPPER BUSSING & BRACED FOR MINIMUM OF 10,000A AIC OR AS OTHERWISE NOTED OR REQUIRED (SERIES RATED ACCEPTABLE). BOLT ON CIRCUIT BREAKERS. 480V PANELS SAME EXCEPT 14,000A AIC MIN. MINIMUM 20" WIDE W/ GALV STEEL ENCLOSURE W/ HINGED DOOR & KEYED LOCK. COORD TRIM WITH MOUNTING LOCATION. PANELS TO BE RECESSED WHENEVER POSSIBLE.

B. DISTRIBUTION PANELS SHALL BE CAPACITY SHOWN & SHALL BE SQUARE D I-LINE W/ TIN PLASTED COPPER BUSSING. 65KAIC MIN OR AS OTHERWISE NOTED/REQ'D. BOLT ON CIRCUIT BREAKERS (SERIES RATED ACCEPTABLE). GALV STEEL ENCLOSURE.

C. EQUIVALENT BY SQUARE D, SIEMENS, CUTLER HAMMER, OR GE.

TRANSFORMERS

A. DRY-TYPE AS SCHEDULED. SOUND LEVEL SHALL NOT EXCEED DB PER ANSI C89.2 & NEMA TR-1. (2)2-1/2% TAPS BELOW & (2)2-1/2% TAPS ABOVE PRIMARY VOLTAGE. ALUMINUM WINDINGS. 150 DEG C. MINIMUM IMPEDANCE OF 2.5%. VENTILATED ENCLOSURE. SUSPEND AS REQ'D.

SECTION 16350 – ELECTRICAL IDENTIFICATION

A. MANUFACTURED LABELS FOR EACH PANELBOARD & TRANSFORMER. TYPEWRITTEN PANEL SCHEDULES MOUNTED IN PANELS

B. PRINTED TAPE STYLE LABEL FOR EACH RECEPTACLE INDICATING PANEL & CIRCUIT #.

C. MANUFACTURED LABELS FOR ALL DISCONNECT SWITCHES INDICATING EQUIPMENT SERVED.

D. BRANCH CIRCUITS – IDENTIFY EACH CIRCUIT W/ WIRE MARKERS WHEN ENCLOSURE LABEL AND WIRE COLORS DO NOT PROVIDE ENOUGH INFORMATION TO IDENTIFY EACH CIRCUIT WITHOUT TRACING. FEEDERS & BRANCH CIRCUIT HOME RUNS W/ WIRE MARKER W/ PANEL & CKT #. BOX COVERS ABOVE LAY-IN CEILINGS NEATLY MARKED W/ INDELIBLE MARKER.

E. FIRE ALARM – NAMEPLATE ON EACH FIRE ALARM TERMINAL CABINET. LABEL ALL WIRING.

SECTION 16400 – WIRING DEVICES

A. CONVENIENCE OUTLETS – SPEC GRADE 20 AMP DUPLEX W/ GROUND & SS WALL PLATES. OTHER OUTLETS SHALL BE VERIFIED W/ EQUIPMENT SUPPLIERS FOR PROPER NEMA CONFIGURATIONS. PROVIDE GFIC RATED DEVICES WHERE INDICATED AND AS REQ'D PER CODE.

B. LIGHT SWITCHES – SPEC GRADE 20 AMP TOGGLE SWITCHES W/ SS WALL PLATES.

C. WALL MOTION SWITCHES – SPEC GRADE, PIR, OVERRIDE.

D. CEILING MOTION SWITCHES – SPEC GRADE, DUAL TECHNOLOGY, MODEL AS REQ'D BY ROOM CONFIGURATION, ALL NECESSARY POWER PACKS AND RELAYS.

E. WALL MOTION SWITCHES (BATHROOM) – DUAL RELAY, SPEC GRADE, PIR, 2ND RELAY FOR OPERATION OF EXHAUST FAN DELAY.

F. COLOR OF DEVICES AS DIRECTED BY ARCHITECT.

G. EQUIVALENT DEVICES BY LEVITON, BRYANT, HUBBEL, WATTSTOPPER, LITHONIA, SENSOR SWITCH.

EXECUTION

A. ALL OUTLETS, SHALL BE MOUNTED W/ BOTTOM AT 18" AFF & SWITCHES W/ BOTTOM AT 44" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE ON PLANS. REFER TO ARCH FOR OTHER REQUIRED ELEVATIONS AND CABINETRY COORDINATION.

SECTION 16500 – LUMINAIRES, LAMPS & BALLASTS

LUMINAIRES

A. PROVIDE LIGHTING FIXTURES W/ LAMPS & ACCESSORIES REQ'D FOR HANGING. COORD MOUNTING OF LIGHTING FIXTURES W/ ARCHITECT & G/C. ADDITIONAL FIXTURE SUPPORTS SHALL BE PROVIDED BY E/C. SUPPORTS SHALL COMPLY W/ LATEST EDITION OF NEC. PROVIDE LIGHTING FIXTURE SECURING CLIPS AS REQUIRED. CONSULT ARCH PLANS FOR CEILING TYPES & PROVIDE SURFACE & RECESSED LIGHTING FIXTURES W/ APPROPRIATE MOUNTING COMPONENTS & ACCESSORIES.

B. REFER TO LIGHTING FIXTURE SCHEDULE PLANS FOR FIXTURE TYPES.

C. EQUIVALENT LUMINAIRES BY HUBBELL, INFINITY, LITHONIA, WILLIAMS, COLUMBIA, EXITRONICS, LITEALARM, EXIDE.

LAMPS

A. LAMPS SHALL BE TYPE RECOMMENDED BY FIXTURE MANUF. LAMP NONE ABOVE MANUF RECOMMENDED MAX WATTAGE.

B. T-8 FLUOR – 32W, 75CRI MIN, 4100 DEG K, 2900 APPROX INITIAL LUMENS

C. T-5HO FLUOR – 54W HIGH OUTPUT, 85CRI MIN, 5000 DEG K. 5000 APPROX INITIAL LUMENS UNLESS OTHERWISE CALLED FOR IN FIXTURE SCHEDULE.

D. EQUIVALENT LAMPS BY G.E., VENTURE, PHILLIPS OR SYLVANIA.

BALLASTS

A. FLUORESCENT – ELECTRONIC, <20%THD

B. METAL HALIDE – PULSE START

C. EQUIVALENT BY ADVANCE, G.E., MOTOROLA, OR MAGNETEK.

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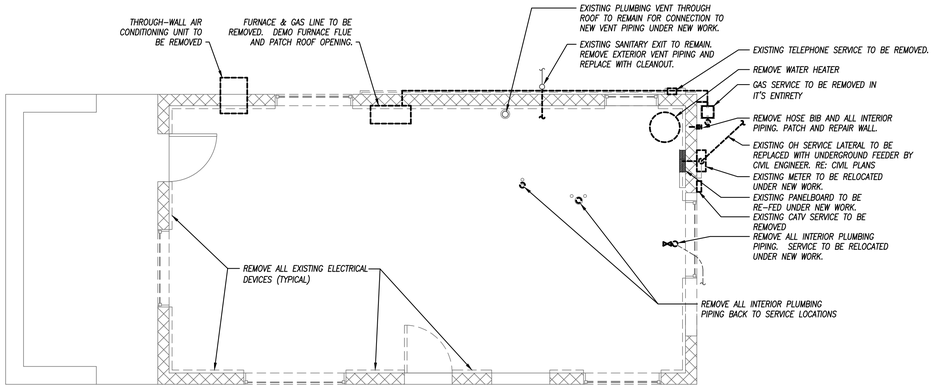
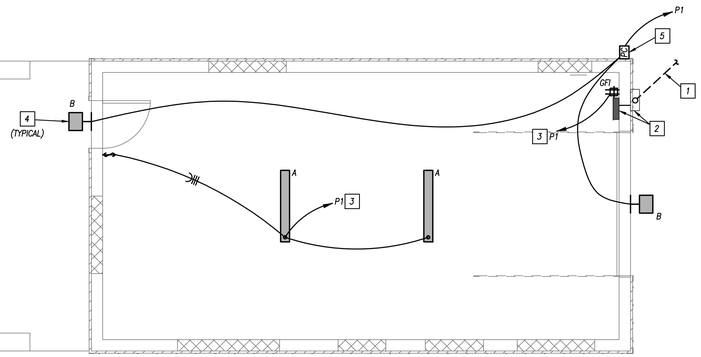


FIRST FLOOR PLAN - MEP DEMOLITION

1/4" = 1'-0"



FIRST FLOOR PLAN - ELECTRICAL

1/4" = 1'-0"

GENERAL ELECTRICAL NOTES

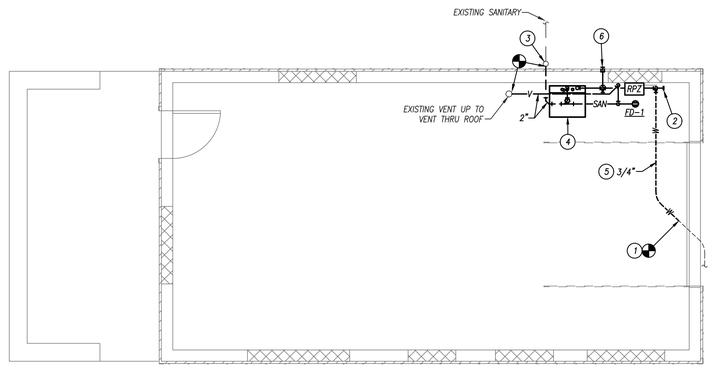
1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. COORDINATE EXACT NEMA CONFIGURATIONS OF RECEPTACLES SERVING EQUIPMENT WITH EXACT EQUIPMENT BEING FURNISHED.
3. REFER TO THE SPECIFICATIONS FOR ADDITIONAL LOCATIONS/REQUIREMENTS FOR RECEPTACLES, INCLUDING GFCI, WEATHER-RESISTANT, HOSPITAL-GRADE, AND TAMPER-RESISTANT RECEPTACLES.
4. EXACT MECHANICAL EQUIPMENT LOCATIONS MAY NOT BE SHOWN FOR CLARITY. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT, DUCT DETECTORS, ETC. WITH MECHANICAL DRAWINGS AND CONTRACTOR.

ELECTRICAL PLAN KEYED NOTES

1. EXISTING OVERHEAD SERVICE LATERAL TO BE REPLACED WITH UNDERGROUND FEEDER BY CIVIL ENGINEER. RE: CIVIL PLANS FOR THIS WORK.
2. NEW LOCATION OF RELOCATED METER AND 100 AMP, 240/120V, 1PH PANELBOARD TO COORDINATE WITH NEW GARAGE DOOR. PROVIDE 3#1, 1-1/4"C. FROM METER TO NEW PANELBOARD LOCATION. PROVIDE #6 GROUNDING ELECTRODE CONDUCTOR TO NEW WATER SERVICE LOCATION AND GROUND PER NEC.
3. CONNECT TO EXISTING SPARE 1P-20A CIRCUIT BREAKER IN PANEL P1. CIRCUIT NUMBERS SHOWN ARE FOR REFERENCE ONLY, FIELD VERIFY EXACT CIRCUIT NUMBERS. CONTRACTOR TO PROVIDE AS-BUILT PANEL SCHEDULES AT COMPLETION OF PROJECT.
4. NEW LIGHT FIXTURE, REFER TO SCHEDULE, THIS SHEET.
5. PROVIDE PHOTOCELL FOR EXTERIOR LIGHTING. ORIENT TO NORTH.

LIGHT FIXTURE SCHEDULE

TAG	DESCRIPTION
A	LED LENSED STRIP FIXTURE, 4'-0" LONG, 5500 LUMENS, 3500K, 44 WATT, 120V, WITH ROUND LENS. WILLIAMS 75R SERIES OR EQUAL.
B	GOOSENECK FIXTURE, FINISH BY ARCHITECT, LED, 3000K, 4000 LUMENS, 120V, UL LISTED FOR WET LOCATIONS. (SUPERBRIGHT LED GBL-30K42-BR SERIES OR EQUAL).

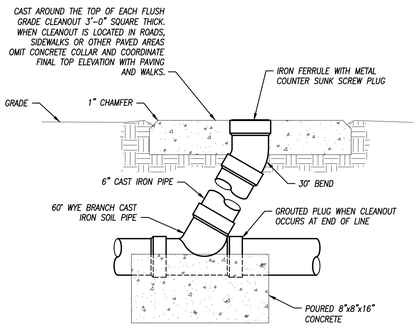


FIRST FLOOR PLAN - PLUMBING

1/4" = 1'-0"

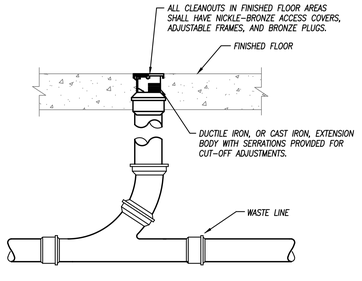
PLUMBING PLAN KEYED NOTES

1. CONNECT TO EXISTING WATER LINE BELOW SLAB AND AND EXTEND AS SHOWN.
2. PROVIDE COMPRESSED AIR QUICK CONNECT FITTING AT WATER ENTRANCE TO ASSIST IN WINTERIZATION OF PIPING SYSTEM.
3. CONTRACTOR TO VERIFY VERTICAL PIPING ABOVE GRADE THAT IT IS ATTACHED TO THE SANITARY. IF IT IS REMOVE PIPING ABOVE GRADE AND USE AS A FINISH GRADE CLEANOUT. PROVIDE CLEANOUT.
4. PROVIDE FREE STANDING UTILITY SINK. BASIS OF DESIGN FIAT PRODUCTS #SF-1-F WITH PLASTIC POLYMER TUB AND STEEL LEGS. PROVIDE WITH DECK TYPE FAUCET OPTION.
5. CONTRACTOR TO VERIFY EXACT SIZE OF WATER LINE SERVING BUILDING AND ADJUST ACCORDINGLY.
6. PROVIDE A NEW KEYED FROST FREE HOSE BIBB.



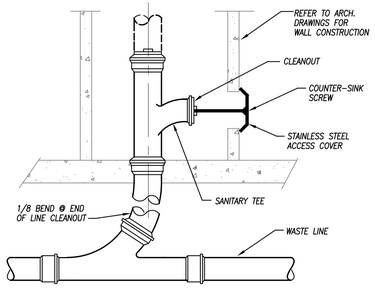
FLUSH GRADE CLEANOUT DETAIL

NOT TO SCALE



FLOOR CLEANOUT DETAIL

NOT TO SCALE



WALL CLEANOUT DETAIL

NOT TO SCALE

PIPING MATERIAL & INSULATION SCHEDULE

PIPING SYSTEM	SIZE	TYPE/SCHED	MATERIAL	ACCEPTABLE FITTINGS	FIELD TEST PRESSURE/TIME	ALLOWABLE IN PLENUMS	INSULATION TYPE	INSULATION THICKNESS
DOMESTIC COLD WATER	1/2"-2-1/2"	L	COPPER	SOLDER, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2"
DOM. COLD BELOW GRADE	1/2"-1-1/4"	K	COPPER	CONTINUOUS TUBING, BRAZED	130 PSI - 1/2HR	YES	ELASTOMERIC	3/4" (HOT ONLY)
SOIL & WASTE ABOVE GRADE	2"-8"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	----	----
SOIL & WASTE BELOW GRADE	2"-8"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	----	----

NOTES
1. ALL PIPING AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50.
2. ALL INSULATION THICKNESSES SHALL MEET ASHRAE 90.1 - 2007 REQUIREMENTS AT A MINIMUM.
3. REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.

WATER HAMMER ARRESTERS:

PROVIDE WATER HAMMER ARRESTORS FOR ALL PLUMBING BANKS WITH FIXTURES UTILIZING FLUSH VALVES IN ANY CAPACITY. LOCATE ARRESTER BETWEEN THE LAST TWO FIXTURES SERVED ON THE BRANCH LINE.

FIXTURE UNITS (FU)	UNIT SIZE
1-11	A
12-32	B
33-60	C
61-113	D
114-154	E
155-330	F

ASSE 1010 OR PDI-WH 201, PISTON TYPE WITH PRESSURIZED METAL-TUBE CUSHIONING CHAMBER. SIZES INDICATED ARE BASED ON ASSE 1010, SIZES AA AND A THROUGH F OR PDI-WH 201, SIZES A THROUGH F. MANUFACTURERS: AMTROL, JOSAM, SIOUX CHIEF, WATTS, ZURN.

WATER CLOSET=10FU, URINALS=5FU, LAVATORIES=1.5FU.

WHEN NO FLUSH VALVES ARE INSTALLED ON A BRANCH OF PIPING PROVICE 3/4"X12" AIR CHAMBERS AT EACH HOT AND COLD WATER SUPPLY CONNECTION TO A PLUMBING FIXTURE. CONTRACTOR MAY PROVIDE WATER HAMMER ARRESTERS ABOVE THE CEILING BEFORE DROPPING INTO MASONRY CONSTRUCTION IN LIEU OF AIR CHAMBERS. CONNECTIONS TO OTHER ITEMS SUCH AS WASHERS, ICE MAKERS, OR OTHER EQUIPMENT SHALL BE PROVIDED WITH AN APPROPRIATELY SIZED WATER HAMMER ARRESTER FOR EACH WATER CONNECTION.

FLOOR / ROOF DRAIN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	SERVICE	TOP/GRATE SIZE	WASTE SIZE	REMARKS
FD-1	WADE	1100	FLOOR DRAIN	6"Ø	2"	1,2

REMARKS:
1. PROVIDE WITH NICKEL BRONZE TOP.
2. PROVIDE WITH 1/2 GRATE.

STRATA
ARCHITECTURE + PRESERVATION

TB HANNA STATION PARK
STORAGE BUILDING REMODEL
214 S. WASHINGTON STREET
RAYMORE, MISSOURI 64083

STATE OF MISSOURI
DAVID LAWRENCE DEATHERAGE
E-29880
REGISTERED PROFESSIONAL ENGINEER
5/7/19
David Lawrence Deatherage - Engineer
MO# E-29880

DATE: APRIL 16, 2019
REVISION & DATE:
1 CITY COMMENTS 5/7/19

First Floor Plan - MEP

SHEET NUMBER: 1
PE100

pkmr ENGINEERS
PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020885

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