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# MISSOURI DEPARTMENT OF TRANSPORTATION

WINONA 150' x 50' POLE BARN  
 106 Industrial Drive, Winona, MO 65588  
 SOUTHEAST DISTRICT  
 Shannon County

CODE REQUIREMENTS

BUILDING CODE - CURRENT IBC  
 ELECTRICAL CODE - CURRENT N.E.C.

ALTERNATE CONDITIONS:

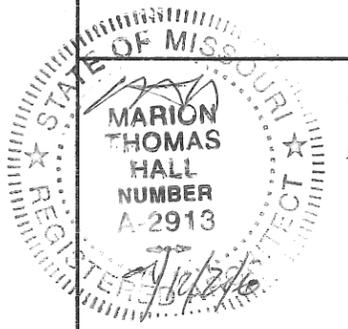
THE VARYING MAKEUP OF SOILS AND OCCURRENCE OF ROCK IN MANY MODOT DISTRICTS MAY REQUIRE CONSIDERABLE REDESIGN OF THE POST PLACEMENT BELOW GRADE FROM THAT SHOWN IN THESE DRAWINGS. THE BIDDER WILL BE RESPONSIBLE FOR OBTAINING ACCURATE INFORMATION FROM THE DISTRICTS FACILITIES MANAGER (I.E. DRILLINGS OR BORINGS INFORMATION 5'-0" DEEP AT EACH BUILDING CORNER AND AT LEAST ONE INTERMEDIATE SAMPLE TO THIS DEPTH ON THE LONG SIDES OF THE PROPOSED STRUCTURE) SO THAT THE BID WILL REFLECT ANY FOUNDATION REQUIREMENTS BEYOND THOSE SHOWN HERE. INFORMATION COULD INCLUDE PREVIOUS EXCAVATIONS THAT VERIFY FOOTING CONDITIONS THAT WILL BE ENCOUNTERED BY THIS CONTRACTOR.

REQUIRED BUILDING ELEMENTS:

2 x 6 WALL GIRTS - #2 SYP OR EQUAL.  
 POSTS TO BE A MINIMUM OF 4'-0" BELOW GRADE IN COMPACTED SOIL.

FABRICATOR NOTES:

THESE DRAWINGS ARE FURNISHED AS A GUIDE TO BIDDERS IN SUBMITTING THE COMPLETE PACKAGE OF DETAILED DRAWINGS OF THEIR PROPOSED STRUCTURE TO BE SEALED BY AN ARCHITECT/ENGINEER. WHERE "AS REQUIRED" IS USED THE BIDDER MUST FURNISH A DETAILED DESCRIPTION OF THE BUILDING ELEMENT TO BE FURNISHED.



## COVER SHEET

MISSOURI DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF GENERAL SERVICES  
FACILITIES MANAGEMENT

Winona 150' x 50' Pole Barn  
106 Industrial Drive, Winona, MO  
Southeast District - Shannon County

DRAWN BY: LARRY CARVER  
DATE: 9-7-16  
Sheet  
1 of 9

**SITE NOTES**

(A) CONTRACTOR TO INSTALL CONDUCTORS IN CONDUIT FROM LPA INSIDE NEW BUILDING WITH 200A DISCONNECT ON OUTSIDE OF BUILDING TO UNDERGROUND METER LOOP AS REQUIRED FOR FUNCTIONAL ELECTRIC SYSTEM. APPROXIMATE LENGTH OF 280'.

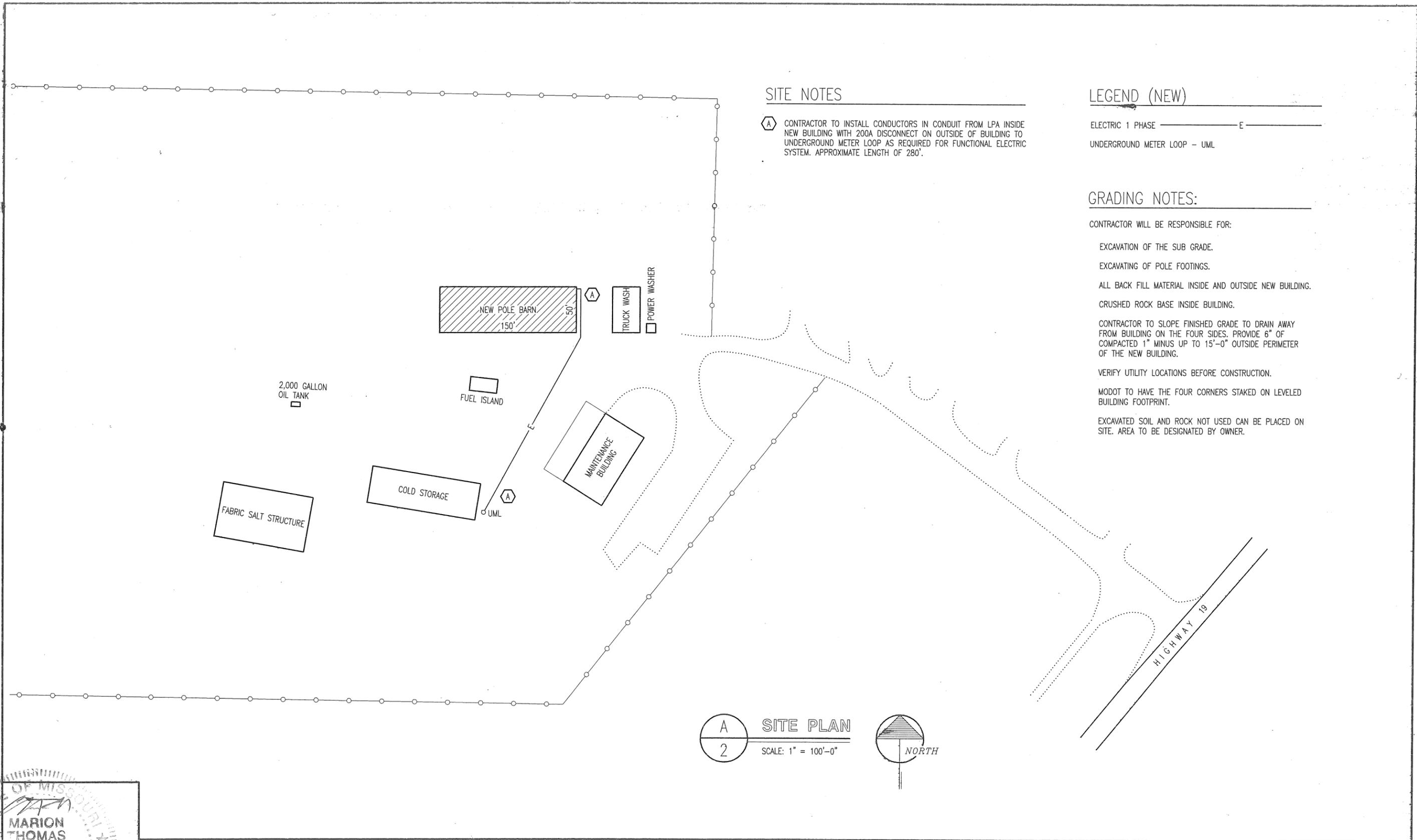
**LEGEND (NEW)**

ELECTRIC 1 PHASE ———— E ————  
 UNDERGROUND METER LOOP - UML

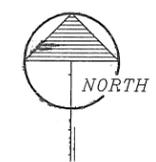
**GRADING NOTES:**

CONTRACTOR WILL BE RESPONSIBLE FOR:

- EXCAVATION OF THE SUB GRADE.
- EXCAVATING OF POLE FOOTINGS.
- ALL BACK FILL MATERIAL INSIDE AND OUTSIDE NEW BUILDING.
- CRUSHED ROCK BASE INSIDE BUILDING.
- CONTRACTOR TO SLOPE FINISHED GRADE TO DRAIN AWAY FROM BUILDING ON THE FOUR SIDES. PROVIDE 6" OF COMPACTED 1" MINUS UP TO 15'-0" OUTSIDE PERIMETER OF THE NEW BUILDING.
- VERIFY UTILITY LOCATIONS BEFORE CONSTRUCTION.
- MODOT TO HAVE THE FOUR CORNERS STAKED ON LEVELED BUILDING FOOTPRINT.
- EXCAVATED SOIL AND ROCK NOT USED CAN BE PLACED ON SITE. AREA TO BE DESIGNATED BY OWNER.



(A) **SITE PLAN**  
 2 SCALE: 1" = 100'-0"



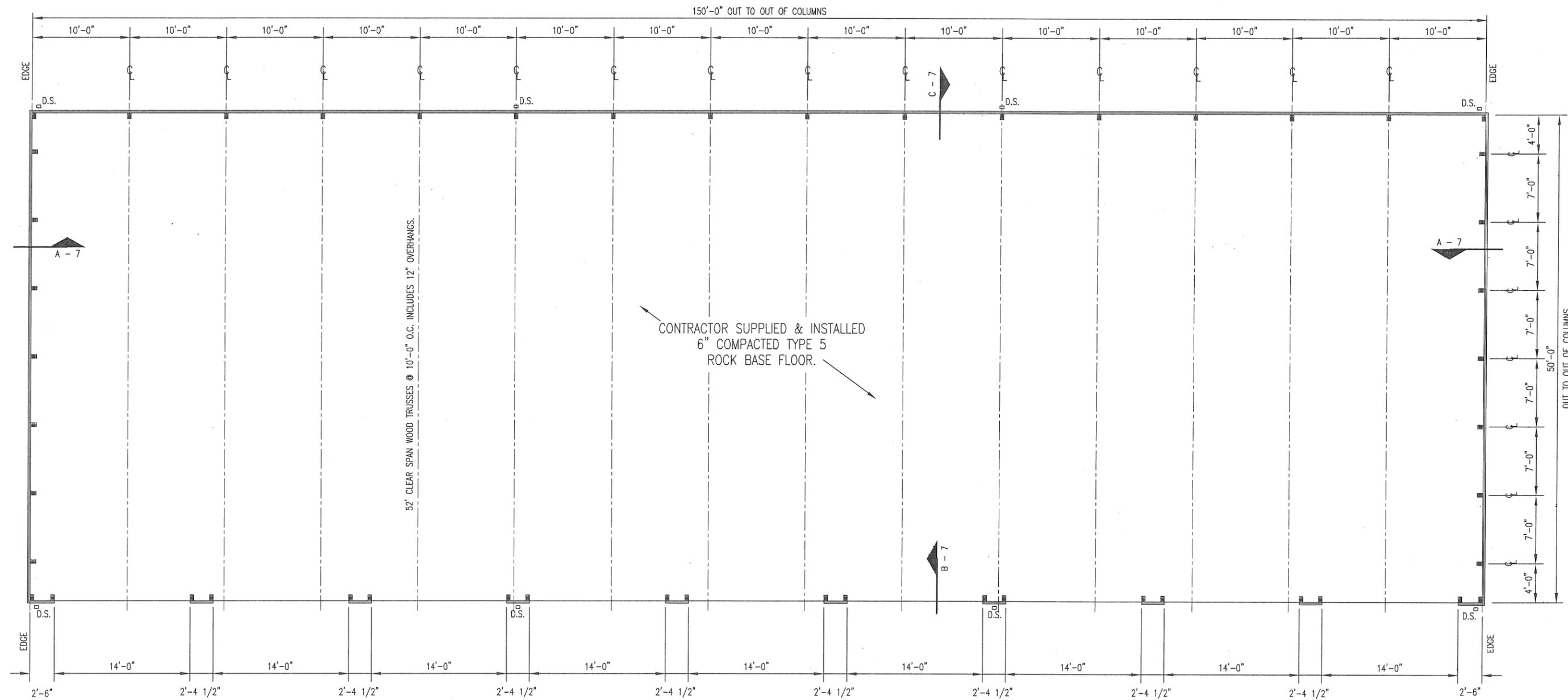
STATE OF MISSOURI  
 REGISTERED PROFESSIONAL ARCHITECT  
 MARION THOMAS  
 HALL NUMBER  
 A-2913  
 9/12/2016

**SITE PLAN**

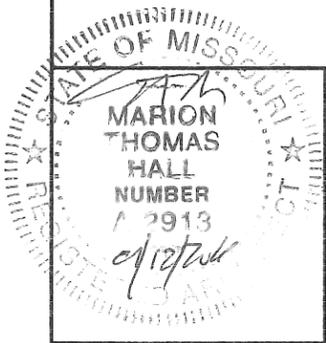
MISSOURI DEPARTMENT  
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Winona 150' x 50' Pole Barn  
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 Southeast District - Shannon County

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A  
3 FLOOR PLAN  
SCALE: 3/32" = 1'-0"

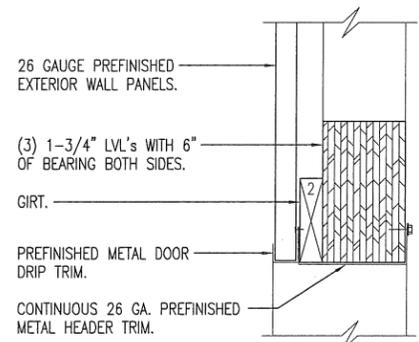


FLOOR PLAN

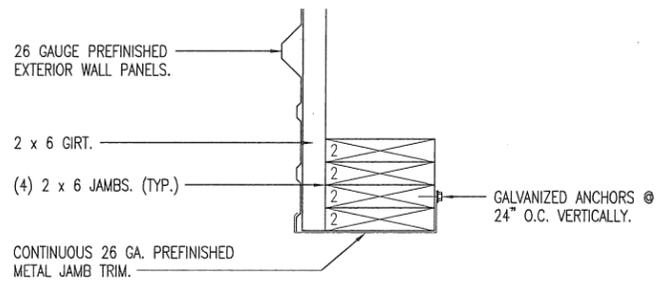
MISSOURI DEPARTMENT  
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FACILITIES MANAGEMENT

Winona 150' x 50' Pole Barn  
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DATE: 8-26-16  
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**A** GARAGE DOOR HEAD  
4 SCALE: 1" = 1'-0"



**B** GARAGE DOOR JAMB  
4 SCALE: 1" = 1'-0"

**CONCRETE NOTES**

1. CONCRETE WORK SHALL BE EXECUTED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (A.C.I.) MANUAL OF CONCRETE PRACTICE.
2. FOUNDATION DESIGN IS BASED UPON AN ASSUMED SOIL BEARING CAPACITY OF 2,000 PSF. IF WET OR UNUSUAL SOIL CONDITIONS ARE ENCOUNTERED, NOTIFY THE DESIGNER AND CONSTRUCTION INSPECTOR BEFORE PROCEEDING WITH THE WORK.
3. IF CONDITIONS REQUIRING ROCK EXCAVATION ARE ENCOUNTERED, NOTIFY THE DESIGNER AND CONSTRUCTION INSPECTOR BEFORE PROCEEDING WITH THE WORK.
4. ALL CONCRETE SHALL BE TYPE 1 CEMENT WITH A COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS AND NOT TO EXCEED 4" SLUMP.

**CONTRACTOR NOTES**

1. MODOT TO STAKE CORNERS ON LEVEL SITE AT 6" BELOW FINISHED FLOOR ELEVATION.
2. CONTRACTOR TO SLOPE FINISHED GRADE TO DRAIN AWAY FROM BUILDING ON THE FOUR SIDES. PROVIDE 6" OF COMPACTED 1" MINUS ROCK UP TO 15'-0" OUTSIDE PERIMETER OF THE NEW BUILDING.

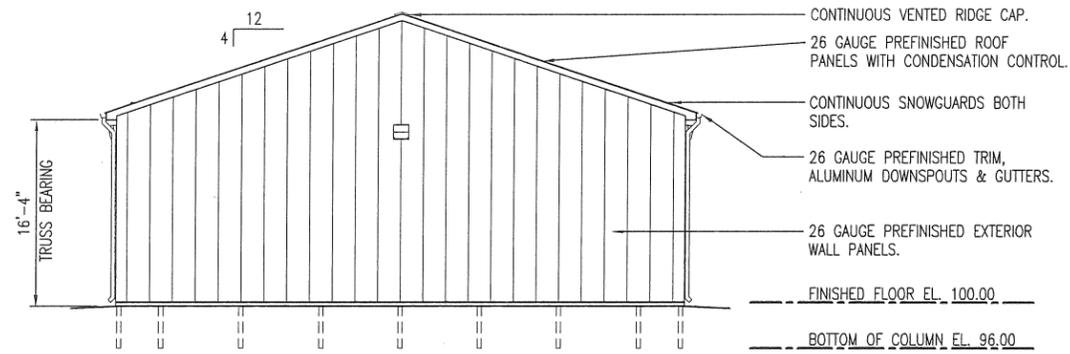
MARION THOMAS HALL NUMBER 1 2913  
9/22/16

**DETAILS**

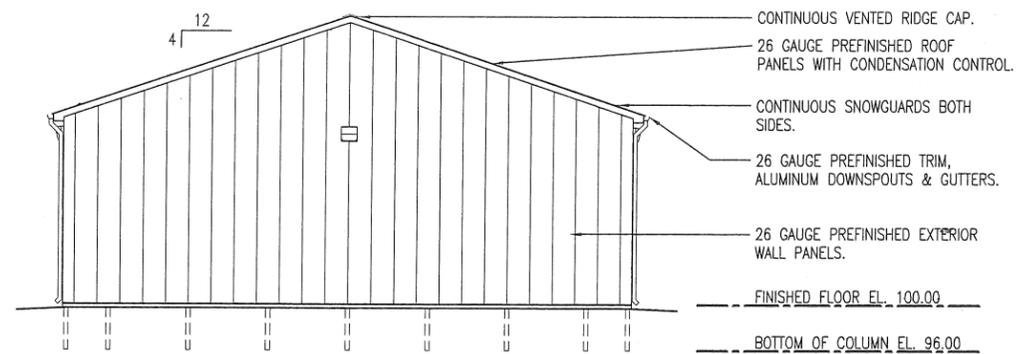
MISSOURI DEPARTMENT OF TRANSPORTATION  
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

Winona 150' x 50' Pole Barn  
106 Industrial Drive, Winona, MO  
Southeast District - Shannon County

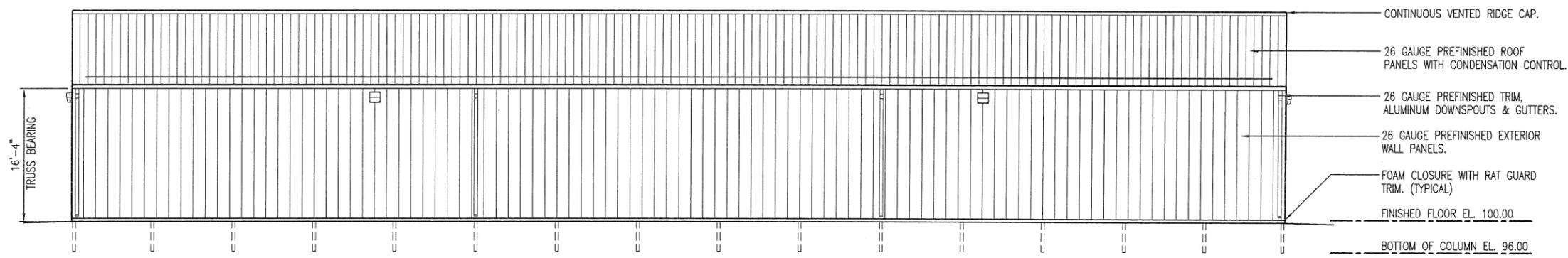
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DATE: 9-2-16  
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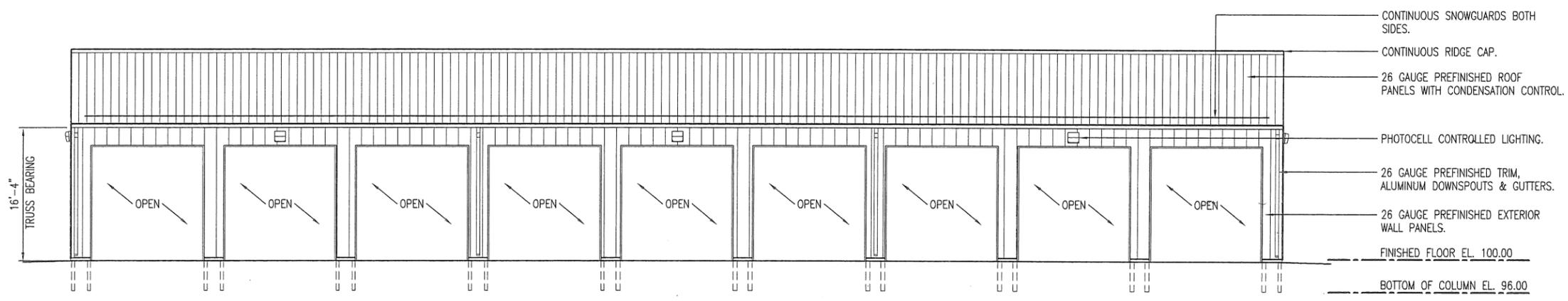
**C**  
**5** LEFT ELEVATION  
SCALE: 1/16" = 1'-0"



**D**  
**5** RIGHT ELEVATION  
SCALE: 1/16" = 1'-0"



**B**  
**5** REAR ELEVATION  
SCALE: 1/16" = 1'-0"



**A**  
**5** FRONT ELEVATION  
SCALE: 1/16" = 1'-0"



**ELEVATIONS**

MISSOURI DEPARTMENT  
OF TRANSPORTATION  
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FACILITIES MANAGEMENT

Winona 150' x 50' Pole Barn  
106 Industrial Drive, Winona, MO  
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DATE: 8-26-16  
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# ROOF FRAMING NOTES

1. DESIGN LOADING FOR ROOF TRUSSES SHALL MEET THE FOLLOWING CRITERIA:

ROOF LIVE LOAD	25 PSF
ROOF DEAD LOAD	4 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
EARTHQUAKE	ZONE 1, LATEST EDITION IBC
WIND	90 MPH, EXPOSURE B
DEFLECTION	L/360
SPACING	AS REQUIRED.

2. TRUSS DESIGN SUBMITTALS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI.

3. ROOF TRUSSES AND BOTTOM CHORDS 2x's SHALL BE ANCHORED TO THE TOP PLATE OF INTERIOR LOAD BEARING WALLS WITH SEISMIC AND HURRICANE ANCHORS EQUAL TO SIMPSON STRONG TIE #H1 ANCHORS AS REQUIRED.

4. ROOF TRUSSES TO BE EACH CENTERED IN A POCKET WHICH IS THE DEPTH OF THE BOTTOM CHORD, MINIMUM, ON THE BACK WALL LAMINATED 2x POST(S) THAT ARE 10'-0" O.C. (TYPICAL) SEE DETAIL B-6.

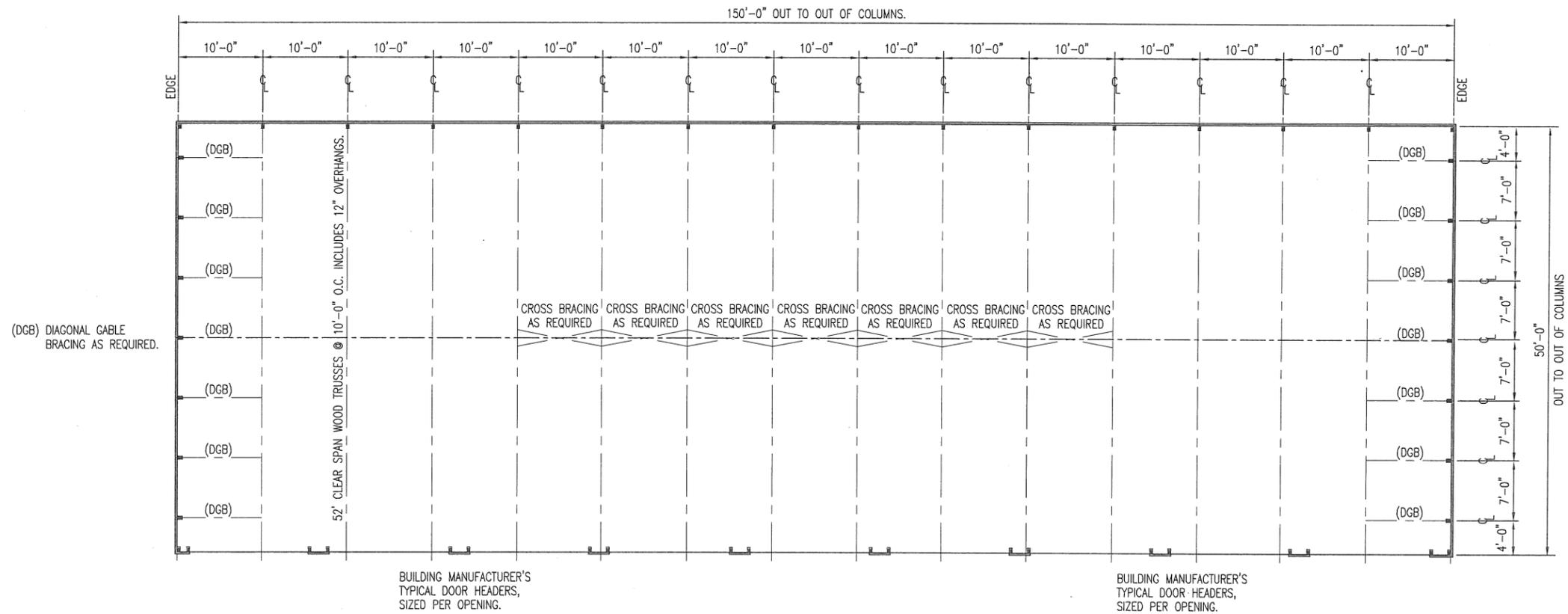
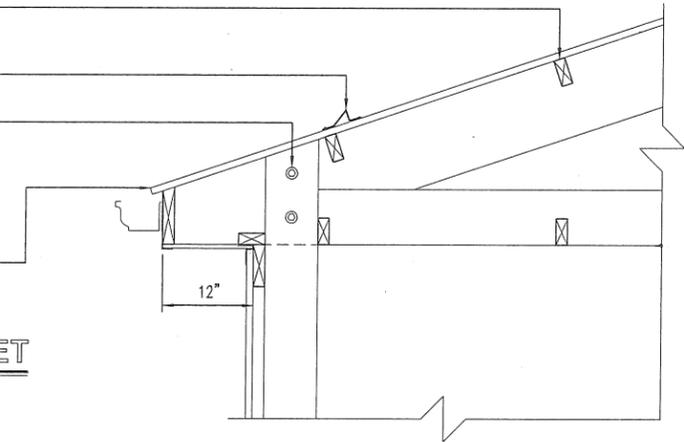
2 x 4 PURLINS. ATTACH WITH SIMPSON STRONG-TIE LUS24Z. (TYPICAL)

SNOWGUARDS BOTH SIDES.

TRUSS SECURED IN COLUMN POCKET WITH (2) 1/2" x 5-1/2" M BOLTS & (8) 16d THS NAILS. TRUSS SITS IN CENTER OF (3) LAMINATED 2 x 6's. (8) 16d THS NAILS. TYPICAL AT BOTH ENDS OF TRUSS.

FOAM CLOSURE WITH RAT GUARD TRIM. (TYPICAL)

**B** TRUSS POCKET  
6 SCALE: 1/2" = 1'-0"



**A** ROOF FRAMING PLAN  
6 SCALE: 1/16" = 1'-0"

# ROOF FRAMING PLAN

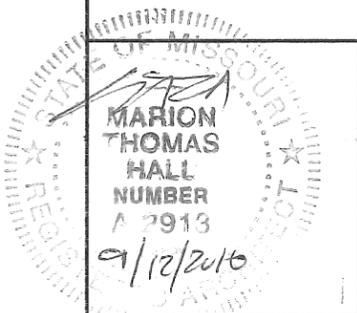
MISSOURI DEPARTMENT OF TRANSPORTATION  
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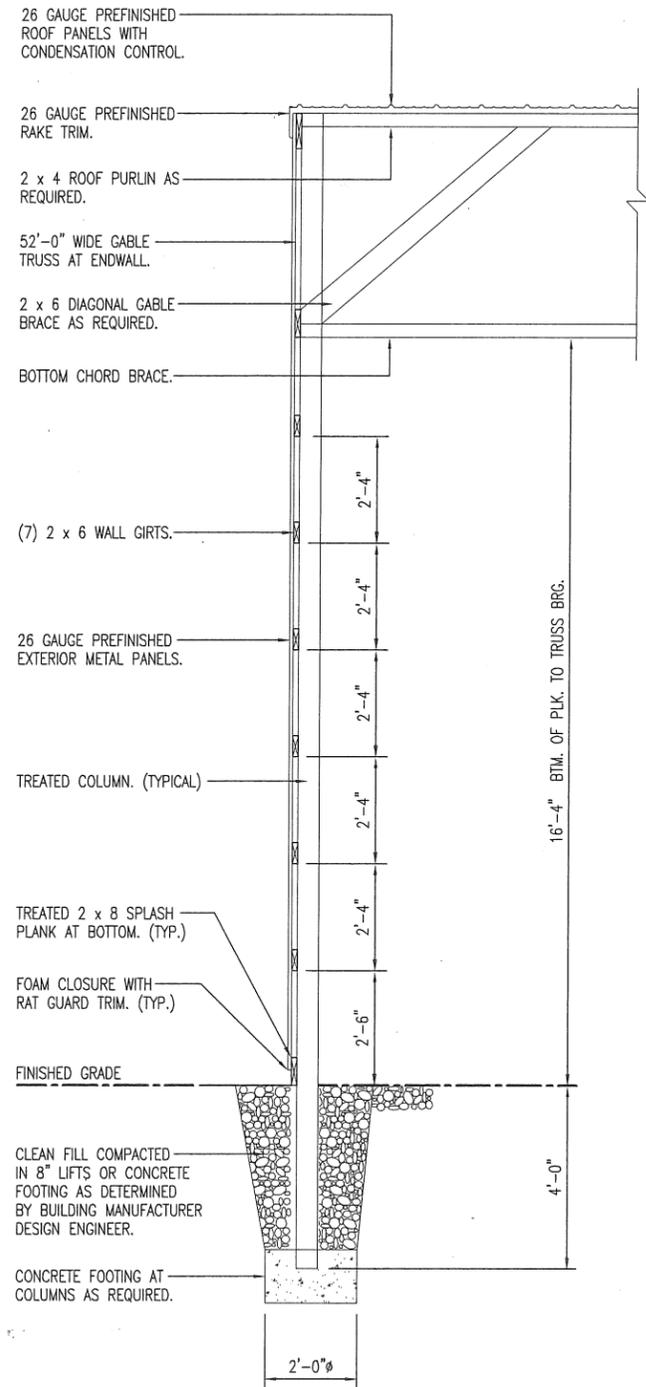
Winona 150' x 50' Pole Barn  
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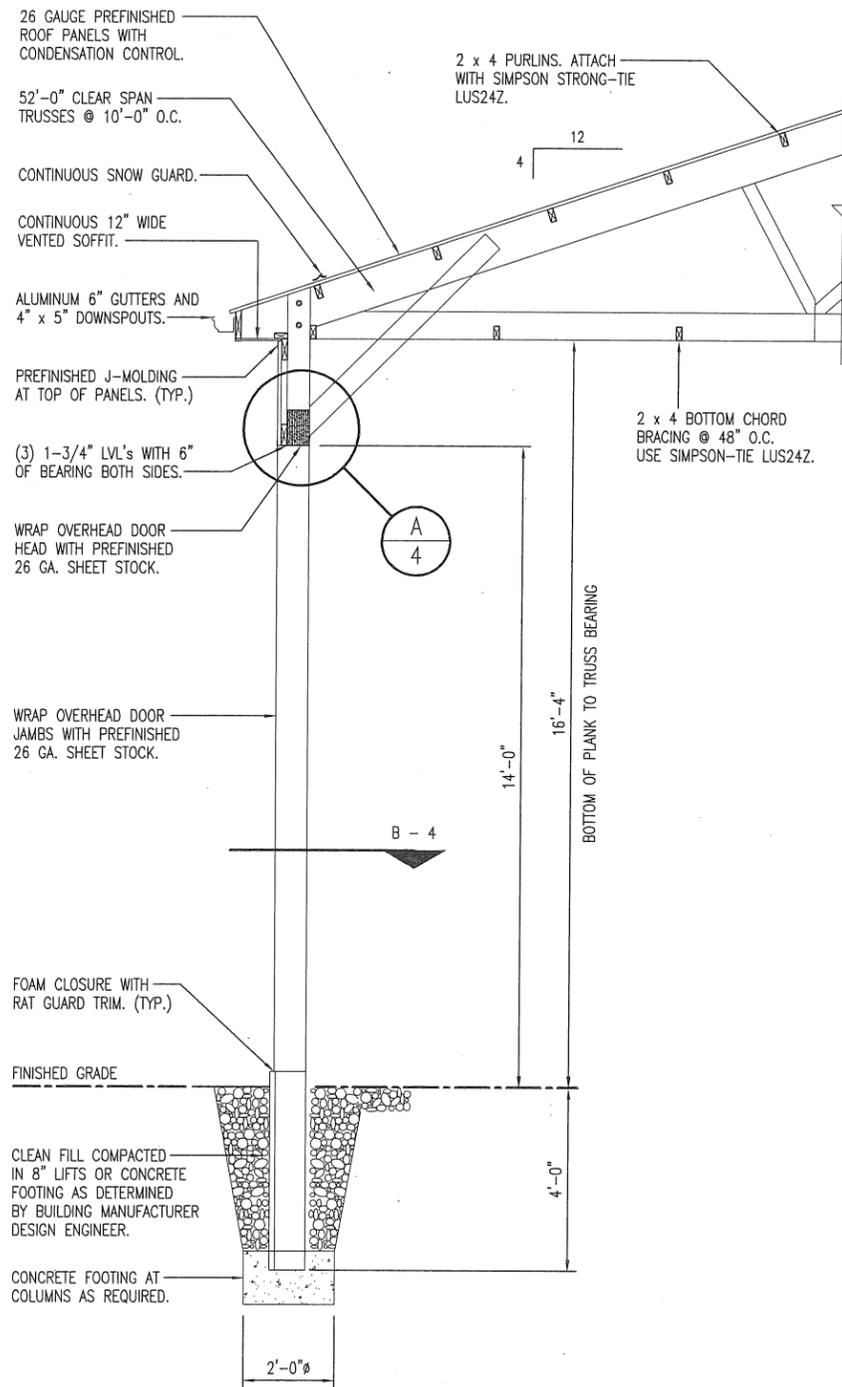
DATE: 8-26-16

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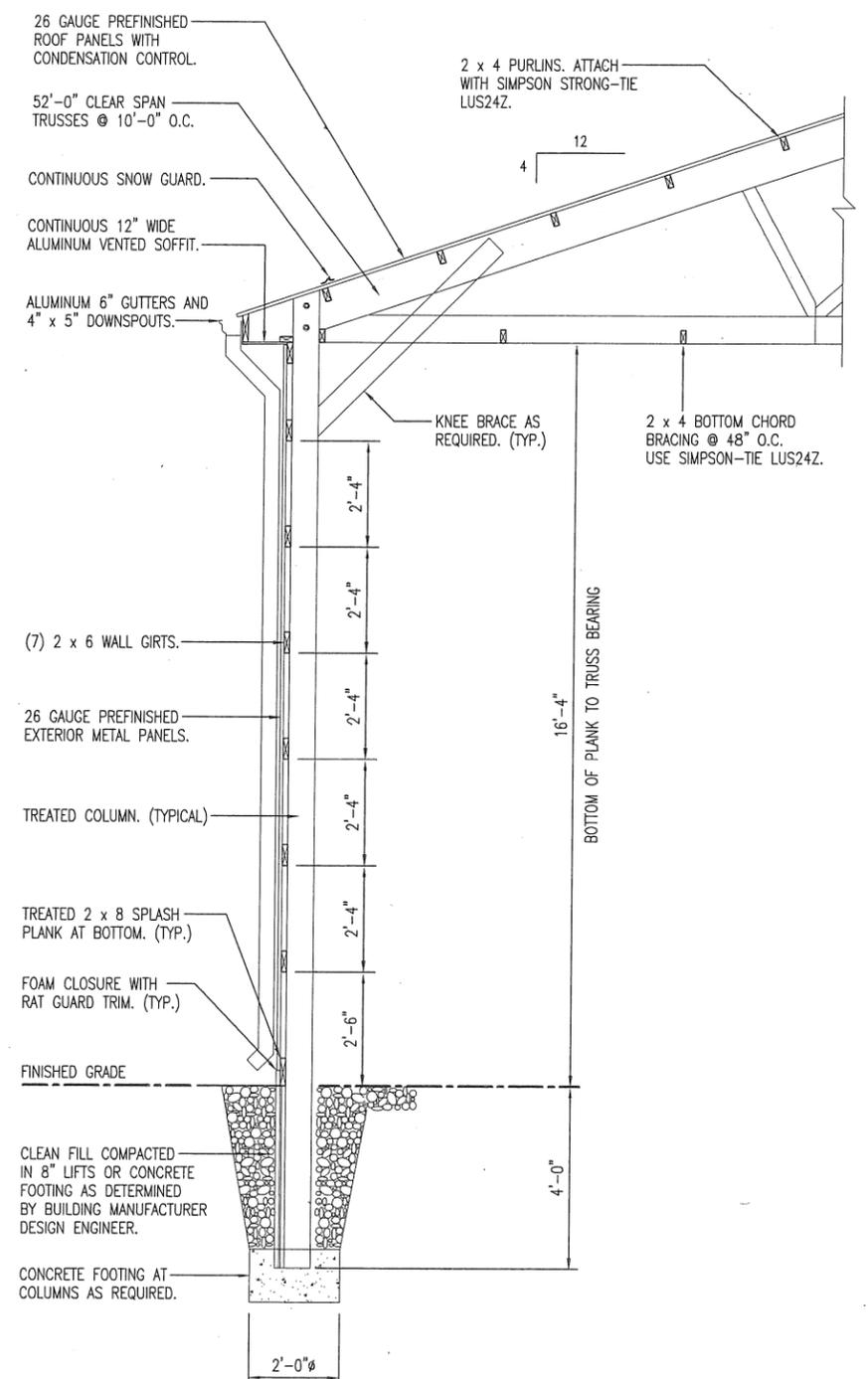




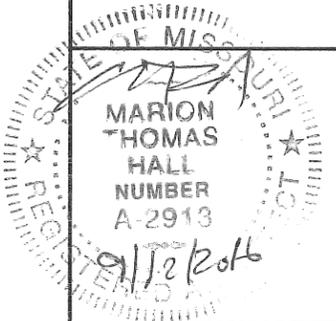
**A**  
7  
**ENDWALL SECTION**  
SCALE: 1/4" = 1'-0"



**B**  
7  
**OVERHEAD DOOR SECTION**  
SCALE: 1/4" = 1'-0"



**C**  
7  
**SIDEWALL SECTION**  
SCALE: 1/4" = 1'-0"

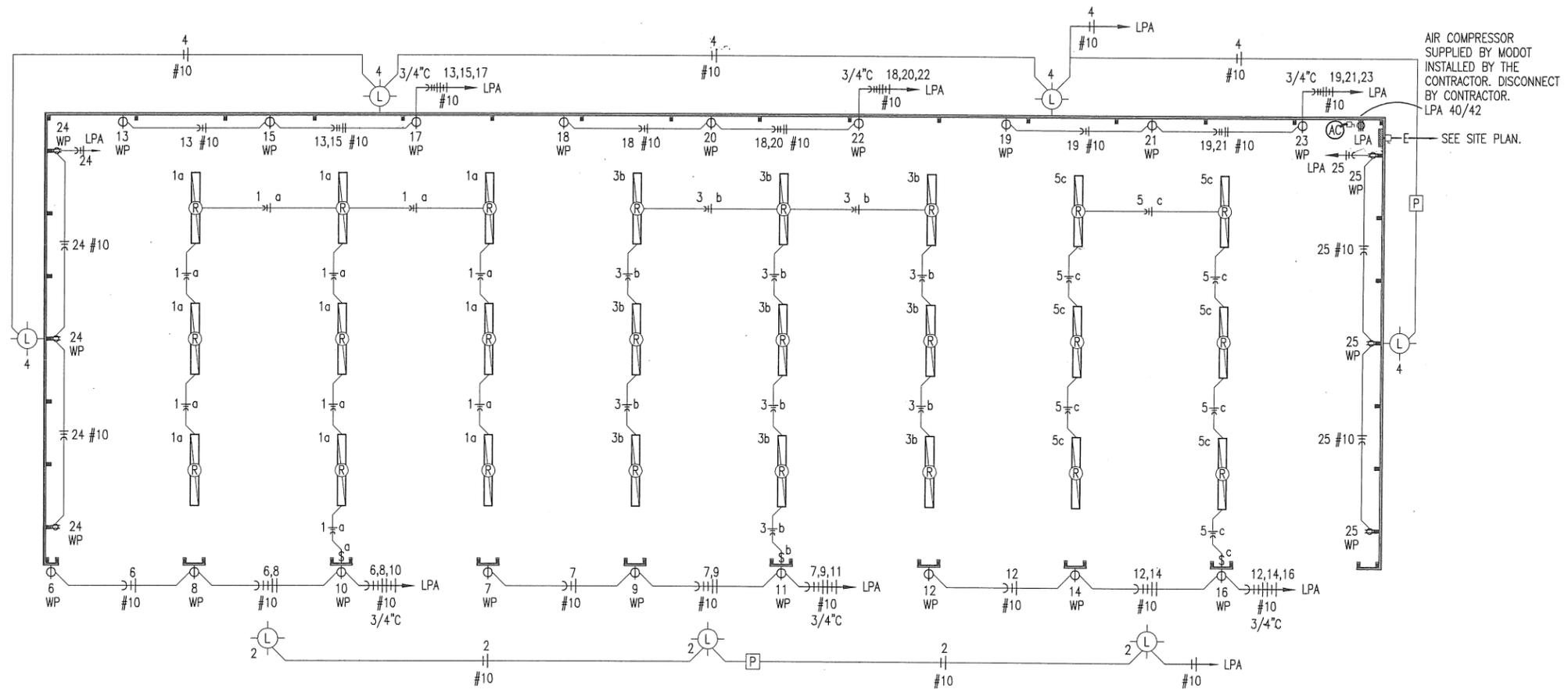


**WALL SECTIONS**

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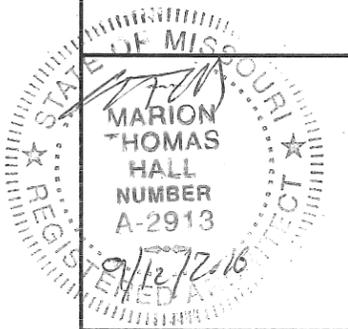
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AIR COMPRESSOR  
 SUPPLIED BY MODOT  
 INSTALLED BY THE  
 CONTRACTOR. DISCONNECT  
 BY CONTRACTOR.  
 LPA 40/42  
 SEE SITE PLAN.

**A** ELECTRICAL PLAN  
**8** SCALE: 1/16" = 1'-0"

SEE ELECTRICAL SCHEDULE  
 & NOTES SHEET 9.



**ELECTRICAL PLAN**

MISSOURI DEPARTMENT  
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### ELECTRIC SCHEDULE

MANUF.	MODEL	#	LAMPS TYPE	W	MNT	REMARKS
COOPER Ⓛ	XTOR9ARL-N		LED	82	WALL	EXTERIOR, SURFACE MOUNT LIGHT FIXTURE, WITH ALUMINUM HOUSING. PRISMATIC GLASS LENS.
TORK Ⓟ	2001				WALL	120V PHOTO ELECTRIC CONTROL OF EXTERIOR LIGHTS.
WILLIAMS Ⓡ	GLN-8-L210/8400 WG11-DRV-UNV		LED	171	WALL	8-11/16" x 96" FIXTURE. HEAVING GAUGE ALUMINUM HOUSING WITH WIRE GUARDS.
ELECTRICAL FIXTURES AND EQUIPMENT ARE SCHEDULED BY MANUFACTURER AND MODEL NUMBER FOR DESIGN INTENT ONLY, APPROVED EQUALS MAY BE SUBSTITUTED.						

### LEGEND

- \$ WP SINGLE POLE OR 3-WAY SWITCH, MOUNT IN FS BOX WITH HUBBELL HBL7420 COVER.
- Ⓟ WP DUPLEX RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL5221 COVER.
- Ⓡ WP SINGLE RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL7423 COVER.
- \$ SINGLE POLE SWITCH.
- Ⓢ AIR COMPRESSOR RECEPTACLE SURFACE MOUNTED 42" A.F.F., MOUNT IN 4" SQUARE BOX WITH RAISED COVER.
- Ⓛ NO FUSED DISCONNECT SWITCH.

- #12 COPPER NEUTRAL CONDUCTOR UNLESS NOTED.
- #12 COPPER PHASE CONDUCTORS UNLESS NOTED.
- 1/2" EMT UNLESS NOTED.
- #12 COPPER GROUNDING CONDUCTOR UNLESS NOTED.

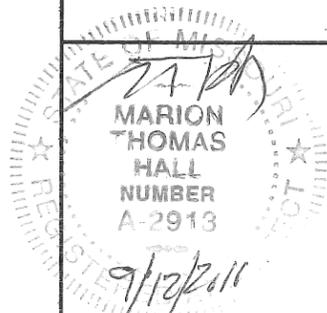
### SERVICE PANEL LPA

MAIN BUS: 200A MLO VOLTS: 240/120, 1PH, 3-WIRE BUS MATERIAL: COPPER MOUNTING: SURFACE		SQUARE "D" NQOD OR EQUAL W/ NEUTRAL BUS & GROUNDING BUS CIRCUIT BREAKERS BOLT-IN 10000 AIC				CONNECTED LOAD A PHASE 16951 VA B PHASE 16007 VA TOTAL 32958 VA 137 A		
CIR	SERVICE	VA	BKR		BKR	VA	SERVICE	CIR
1	LIGHTS	1539	20A1P	A	20A1P	246	EXTERIOR LIGHTING	2
3	LIGHTS	1539	20A1P	B	20A1P	328	EXTERIOR LIGHTING	4
5	LIGHTS	1026	20A1P	A	20A1P	1000	EXTERIOR RECEPTACLE	6
7	EXTERIOR RECEPTACLE	1000	20A1P	B	20A1P	1000	EXTERIOR RECEPTACLE	8
9	EXTERIOR RECEPTACLE	1000	20A1P	A	20A1P	1000	EXTERIOR RECEPTACLE	10
11	EXTERIOR RECEPTACLE	1000	20A1P	B	20A1P	1000	EXTERIOR RECEPTACLE	12
13	RECEPTACLES	1000	20A1P	A	20A1P	1000	EXTERIOR RECEPTACLE	14
15	RECEPTACLES	1000	20A1P	B	20A1P	1000	EXTERIOR RECEPTACLE	16
17	RECEPTACLES	1000	20A1P	A	20A1P	1000	RECEPTACLES	18
19	RECEPTACLES	1000	20A1P	B	20A1P	1000	RECEPTACLES	20
21	RECEPTACLES	1000	20A1P	A	20A1P	1000	RECEPTACLES	22
23	RECEPTACLES	1000	20A1P	B	20A1P	540	RECEPTACLES	24
25	RECEPTACLES	540	20A1P	A				26
27				B				28
29				A				30
31				B				32
33				A				34
35				B				36
37				A				38
39				B	50A2P	4600	AIR COMPRESSOR	40
41				A		4600		42

⊗ CIRCUIT BREAKER SHALL BE GFI RATED

### ELECTRICAL NOTES

- DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- ELECTRICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (N.E.C.).
- PROVIDE ELECTRICAL EQUIPMENT AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
- SWITCHES AND RECEPTACLES SHALL BE EQUAL TO THE AMPERE RATING SHOWN IN THE PANEL SCHEDULE. RECEPTACLES SHALL BE GROUND-FAULT INTERRUPTION TYPE WHERE SHOWN OR AS REQUIRED BY CODE.
- ALL RECEPTACLES IN GARAGE AREA TO BE MOUNTED AT 48" A.F.F.
- COORDINATE WORK WITH OTHER TRADES PRIOR TO COMMENCING WITH ELECTRICAL WORK.
- CONDUCTOR AND BREAKER SIZE MAY VARY PER MANUFACTURER ON THE EQUIPMENT SPECIFIED. ELECTRIC CONTRACTOR TO VERIFY SIZES WITH EXACT EQUIPMENT ORDERED PRIOR TO PURCHASING ELECTRICAL SUPPLIES.
- FIXTURE LOCATIONS ARE APPROXIMATE, EXACT LOCATIONS TO BE DETERMINED AFTER COLLABORATION WITH THE OWNER AND OTHER TRADES.
- CONTRACTOR SHALL PROVIDE SERVICE DISCONNECT AS REQUIRED AT EXTERIOR OF BUILDING.
- PROVIDE BLOCKING FOR ELECTRICAL DEVICES AS REQUIRED FOR A SECURE APPLICATION.
- CONTRACTOR TO INSTALL CONDUCTORS IN CONDUIT FROM LPA INSIDE NEW BUILDING WITH 200A DISCONNECT ON OUTSIDE OF BUILDING TO UNDERGROUND METER LOOP AS REQUIRED FOR A FUNCTIONAL ELECTRIC SYSTEM. APPROXIMATE LENGTH OF 280'. SEE SITE PLAN.



# ELECTRIC PANEL

MISSOURI DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF GENERAL SERVICES  
FACILITIES MANAGEMENT

Winona 150' x 50' Pole Barn  
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