

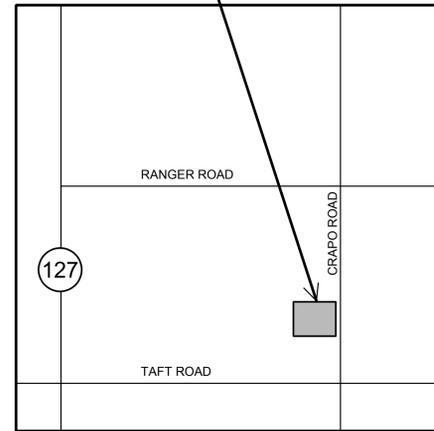
MAPLE RIVER WETLAND UNIT

GRATIOT COUNTY, MICHIGAN

NEW POLE BARN

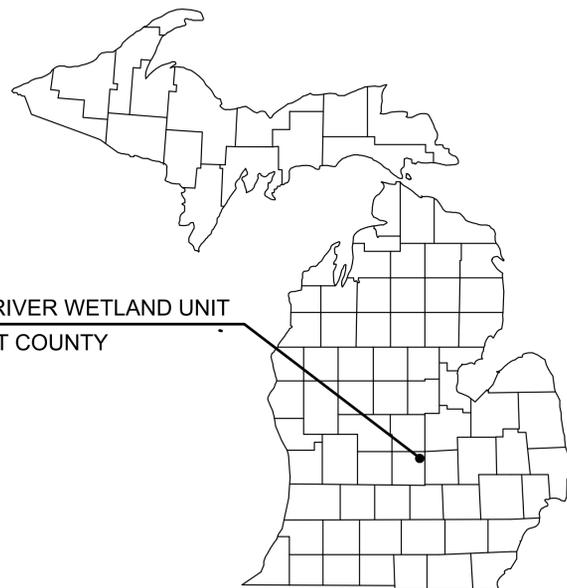
PROJECT NO. 22-4454

MAPLE RIVER WETLAND UNIT
CRAPO ROAD
GRATIOT COUNTY

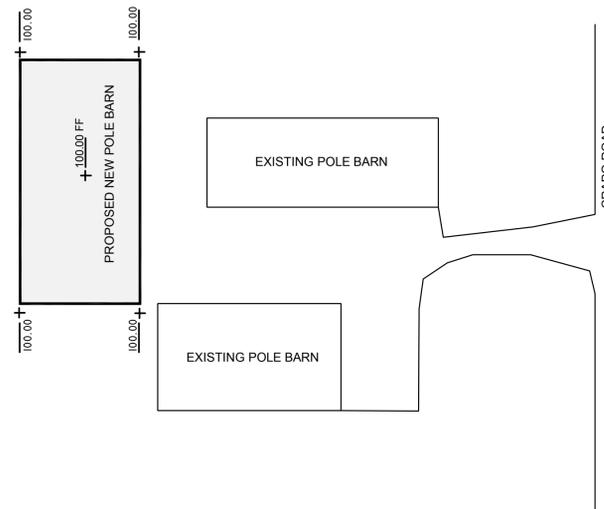


N
LOCATION MAP
NO SCALE

MAPLE RIVER WETLAND UNIT
GRATIOT COUNTY



N
VICINITY PLAN
NO SCALE



N
SITE PLAN
NO SCALE

DRAWING INDEX

- T TITLE SHEET
- ARCHITECTURAL
- A1 FLOOR PLAN, FOUNDATION PLAN, TRUSS BRACING PLAN, ELEVATIONS, WALL SECTION AND GENERAL NOTES



72 HOURS
(3 WORKING DAYS)
**BEFORE YOU DIG
CALL MISS DIG**
800-482-7171
(TOLL-FREE)



STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF LAND AND FACILITIES
DESIGN & CONSTRUCTION SECTION
P.O. BOX 30033 LANSING, MI 48909-7933
517.241.1919 VOICE 517.241.4278 FAX



02/17/10 BIDS & CONSTRUCTION
02/11/10 90% OWNER REVIEW

NEW POLE BARN
**MAPLE RIVER
WETLAND UNIT**
GRATIOT COUNTY

TITLE SHEET

PROJECT NO.	22-4454
INDEX	75420
FCA	49700
DRAWN BY	PS
DESIGNED BY	PS
PROJ. MGR.	PS

T

GENERAL

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND TO CROSS-CHECK DETAILS AND DIMENSIONS ON THE DRAWINGS WITH RELATED SHOP DRAWINGS.
- ALL ENGINEERING DESIGN, CONSTRUCTION, AND TESTING SHALL CONFORM TO THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE 2003 EDITION (HERE IN REFERRED TO AS THE CODE).
- THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION, AND COMPLIANCE WITH LOCAL REGULATIONS REGARDING SAFETY IS, AND SHALL BE, THE CONTRACTOR'S RESPONSIBILITY.
- ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- DESIGN LOADS: PER 2006 MICHIGAN BUILDING CODE AND ANSI/ASCE7-02

BUILDING :

MINIMUM ROOF SNOW	=	30	PSF
GROUND SNOW	=	40	PSF

METAL PLATE CONN. WOOD TRUSSES:

TRUSS TOP CHORD DEAD LOAD	=	7	PSF
TRUSS BOTTOM CHORD DEAD LOAD	=	10	PSF

UNBALANCED ROOF SNOW LOADS:

PER ASCE 7-02, SECTION 7.6	=		
Is, IMPORTANCE FACTOR	=	1.0	
Cs, EXPOSURE FACTOR (B, PART. EXP.)	=	1.0	
Ct, THERMAL FACTOR	=	1.2	
UNBALANCED, LEeward SIDE	=	41	PSF
UNBALANCED, WINDWARD SIDE	=	0	PSF

WIND LOAD INFO. : PER 2006 MBC OR ANSI/ASCE7-02

BASIC WIND SPEED	=	90	MPH
WIND IMPORTANCE FACTOR, Iw	=	1.0	
WIND EXPOSURE	=	B	
INTERNAL PRESSURE COEF.	=	± 0.18	

SECTION 1609.6 AND TABLE 1609.6.2.1(1) OF THE BUILDING CODE IS USED FOR THE MWFRS.
SEISMIC DESIGN : CATEGORY = A
SITE CLASS = D

FOUNDATION

- ALL FOOTINGS SHALL BE CONSTRUCTED ON UNDISTURBED SOIL.
 - ALL FILL AND BACKFILL MATERIALS SHALL BE NON-COHESIVE SOILS COMPACTED TO 95% MAXIMUM DENSITY PER A.S.T.M. D1557-70 METHOD. FILL SHALL BE PLACED IN 9" LIFTS MAXIMUM AND COMPACTED BEFORE PLACING THE NEXT LIFT.
 - NO SOILS REPORT WAS AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS. SHOULD ANY CONDITIONS BE ENCOUNTERED THAT ARE UNUSUAL OR DO NOT GIVE ASSUMED BEARING CAPACITIES, THE OWNER SHALL BE NOTIFIED AND WORK SHALL CEASE. WORK SHALL NOT RESUME UNTIL THE ENGINEER OF RECORD EVALUATES THE EXCAVATION AND GIVES WRITTEN NOTICE TO RESUME FOUNDATION WORK.
- ASSUMED ALLOWABLE SOIL BEARING PRESSURE: 3000 PSF

CONCRETE

- ALL READY MIX CONCRETE SHALL CONFORM TO A.S.T.M. C 94.
- MEASURING, MIXING, TRANSPORTING, AND PLACING OF ALL CONCRETE SHALL COMPLY W/ ACI 304R-89.
- ALL REINFORCING BARS, DOWELS, ANCHOR BOLTS AND ANY INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING OF CONCRETE.
- AIR ENTRAINED CONCRETE SHALL BE USED FOR ALL SIDEWALKS, PAVING, PLATFORMS, CURBS, AND ALL CONCRETE ELEMENTS EXPOSED TO THE WEATHER.
- ALL CONCRETE SHALL DEVELOP THE FOLLOWING FOUNDATIONS 3000 PSI

WOOD

- ALL DIMENSIONAL LUMBER SHALL BE SPRUCE-PINE-FIR W/ A GRADE STAMP OF #2 OR BETTER MIN. .
- ALL WOOD SHEATHING DESIGNATED ON THE CONSTRUCTION DOCUMENTS SHALL BE APA RATED SHEATHING WITH A SPAN RATING CONSISTENT W/ ITS USE.
- ALL P.T. WOOD SHALL BE SOUTHERN PINE WITH A GRADE STAMP OF #2 OR BETTER, MIN. LUMBER THAT IS TREATED W/ ACO MUST BE ISOLATED FROM STEEL THAT IS NOT STAINLESS, OR, IS NOT GALVANIZED. THE HEAVIER THE GALVANIZING THE BETTER.
- THE QUANTITY AND SIZE OF FASTENERS CONNECTING WOOD FRAME MEMBERS TOGETHER AND SHEATHING MATERIALS TO WOOD FRAME MEMBERS SHALL NOT BE LESS THAN THAT SPECIFIED IN TABLE 2304.9.1 OF THE CODE.
- ALL BOLTS THROUGH WOOD SHALL HAVE STANDARD CUT WASHERS EXCEPT WHERE METAL SIDE PLATES ARE SPECIFIED. BOLT HOLES SHALL BE BORED 1/32" TO 1/16" LARGER THAN THE BOLT DIAMETER.
- ALL NAILS AND SCREWS THAT ARE EMBED. IN P.T. LUMBER MUST BE HOT DIP GALVANIZED PER ASTM A153.
- ISOLATE PRESSURE TREATED LUMBER FROM ALL STEEL THAT IS NOT STAINLESS OR GALVANIZED.

METAL WALL FASTENER REQUIREMENTS

- FASTEN METAL SIDING TO PURLINS WITH (5) #9 GASKETED SCREWS AT EACH 36" PANEL WIDTH. IF IN QUESTION, ASK BEFORE SETTING METAL WALL.

METAL WOOD CONNECTIONS

- ALL METAL CONNECTORS SHALL BE INSTALLED AS RECOMMENDED BY THE PRODUCT MANUFACTURER. THE CORRECT NUMBER OF FASTENERS AND SIZE OF FASTENERS SHALL BE USED. IF IN QUESTION, ASK BEFORE PROCEEDING.

METAL PLATE CONNECTED WOOD TRUSSES

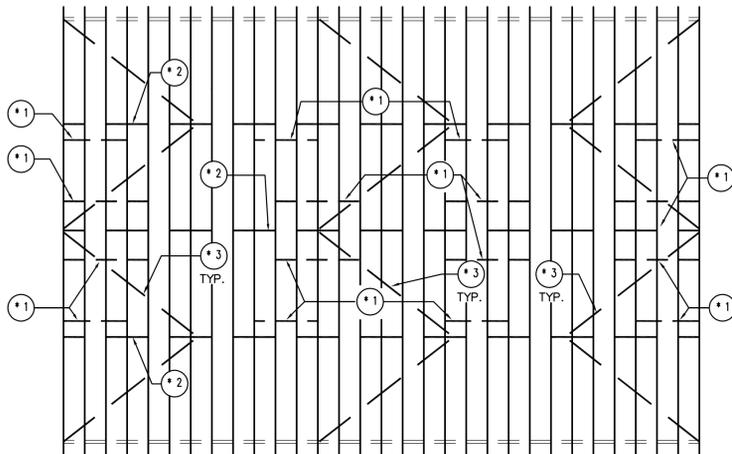
- THE CONTRACTOR SHALL BRACE THE TRUSSES AS SPECIFIED BY THE TRUSS MANUFACTURER. THIS BRACING IS MORE THAN LIKELY ONLY FOR INDIVIDUAL MEMBERS AND IS NOT THE PERMANENT BRACING. THE PERMANENT BRACING SHALL BE AS SHOWN THE PRELIMINARY BRACING PLAN AND AS REQUIRED BY THE BCSI 1-06, GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.

WOOD WALL BRACING

- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE/DESIGN THE TEMPORARY WALL BRACING THAT IS REQUIRED BEFORE SETTING ANY TRUSSES. THE TEMPORARY BRACING MUST INCLUDE IN PLANE AND OUT OF PLANE BRACING FOR THE WALLS.

REINFORCING STEEL

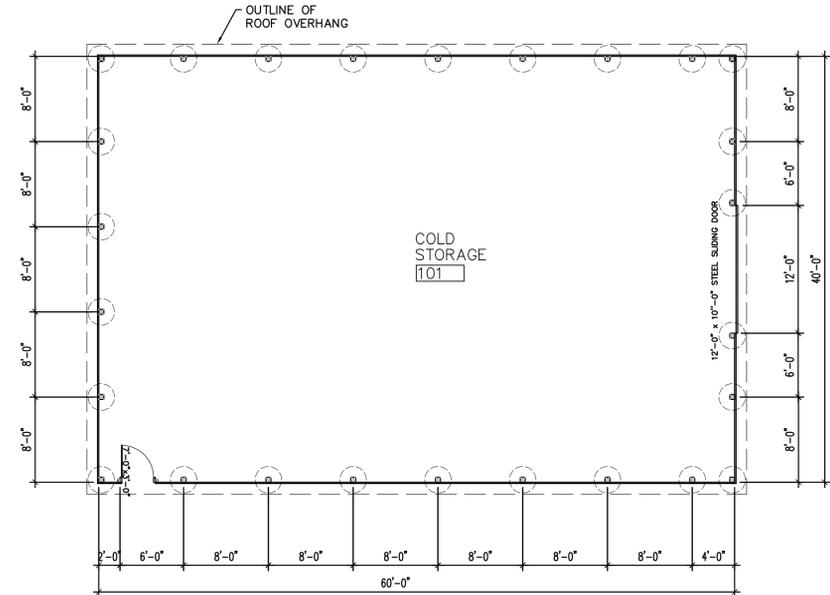
- ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO A.S.T.M. A-615 GRADE 60.
- ALL REINFORCING BARS MARKED "CONTINUOUS" MAY BE SPLICED WITH A LAP OF 24 BAR DIAMETERS IN CONCRETE AND 48 BAR DIAMETERS IN MASONRY, BUT NOT LESS THAN 24 INCHES, UNLESS NOTED OTHERWISE.
- ALL MASONRY REINFORCING SHALL BE PLACED AND SUPPORTED IN CONFORMANCE WITH THE PROVISIONS OF THE LATEST EDITION OF A.C.I. 530.1/ ASCE 6/ TMS 602.
- TIE WIRE SHALL CONFORM TO A.S.T.M. A-82.
- WELDED WIRE FABRIC SHALL BE SPLICED WITH A MINIMUM LAP OF TWO MODULES.
- WELDED WIRE FABRIC SHALL CONFORM WITH A.S.T.M. A-185.
- REINFORCING STEEL: ASTM A-615 GRADE 60.
- ALL REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM CONCRETE COVERAGE, UNLESS NOTED OTHERWISE:



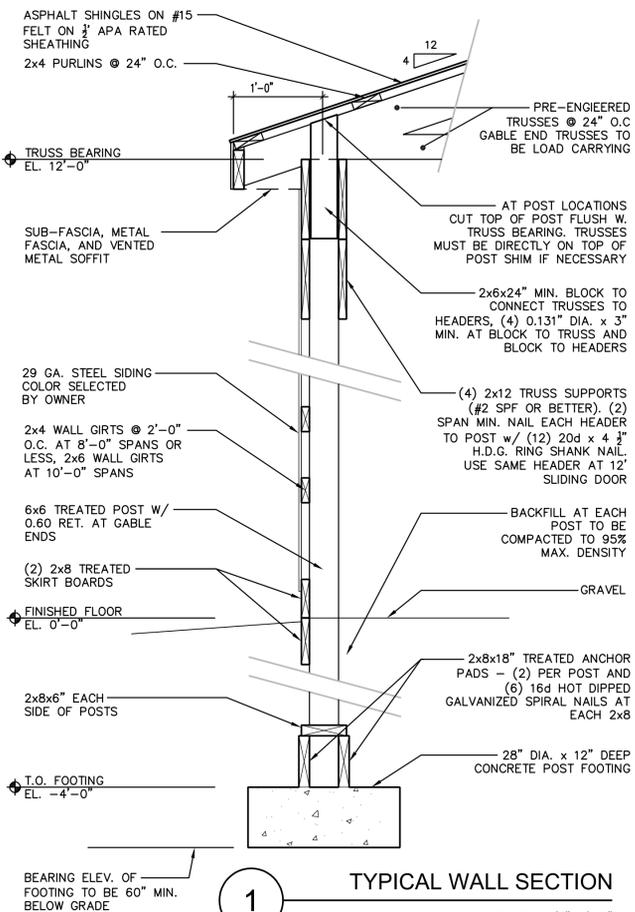
BRACING NOTES:

- THE BRACING SHOWN ON THESE BRACING PLANS IS REQUIRED FOR PERMANENT BRACING. THE BRACING IS BASED ON THE MINIMUM REQUIREMENTS OF THE BUILDING COMPONENT SAFETY INFORMATION, BCSI 2006, GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES. THE TRUSS SHOP DRAWINGS MUST BE CHECKED TO DETERMINE IF ADDITIONAL BRACING IS REQUIRED. THE CONTRACTOR SHALL VERIFY THE FINAL BRACING REQUIREMENTS W/ THE ARCH./ENG. BEFORE SETTING ANY TRUSSES.
- THE BRACING PLANS SHOWN SHALL BE USED IN CONJUNCTION WITH BCSI 2006, GUIDE.
 - ALL CONTINUOUS LATERAL BRACES SHALL BE LAPPED OVER (2) TRUSSES MINIMUM.
 - WHERE A BRACE CROSSES OR ENDS ON A TRUSS, NAIL THE BRACE TO THE TRUSS W/ AT LEAST (2) 0.131" DIA. MIN. x 3 1/2" MIN. NAILS.
 - ALL BRACING LUMBER SHALL BE 2x4 MIN., #2 S-P-F OR BETTER.
 - ALL TOP CHORD TEMPORARY TRUSS BRACING SHALL BE AS REQUIRED BY THE BCSI 2006, GUIDE. THIS TEMPORARY BRACING IS NOT SHOWN, BUT, THE CONTRACTOR IS RESPONSIBLE FOR THIS BRACING DURING ERECTION/CONSTRUCTION. IF IN QUESTION, ASK BEFORE SETTING ANY TRUSSES.
 - ALL CONTINUOUS LATERAL BRACES (CLB) SHOWN ON THE TRUSS MANUFACTURER'S SHOP DRAWINGS MUST BE DIAGONALLY BRACED AT BOTH ENDS OF BUILDING AND AT 20' SPACING MAX.
- ① DIAGONAL BRACING ON WEB OF TRUSS, FROM BOTTOM CHORD TO TOP CHORD.
② CONT. PERMANENT LATERAL BOTTOM CHORD BRACING.
③ CONT. PERMANENT DIAGONAL BOTTOM CHORD BRACING.

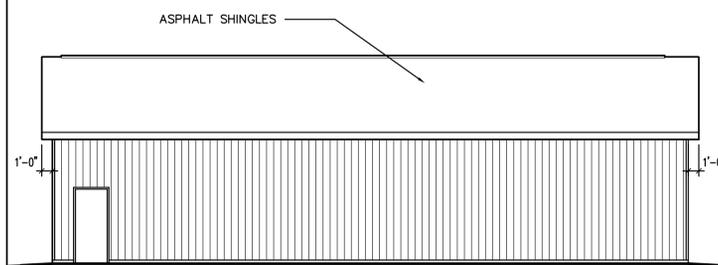
TRUSS BOTTOM CHORD AND WEB BRACING
SCALE: 1/8"=1'-0"



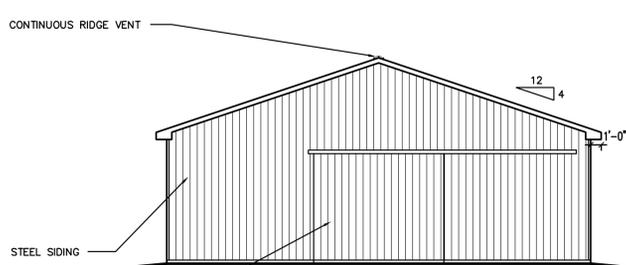
FLOOR PLAN
SCALE: 1/8"=1'-0"



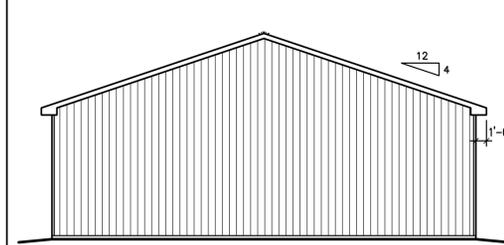
TYPICAL WALL SECTION
SCALE: 3/4"=1'-0"



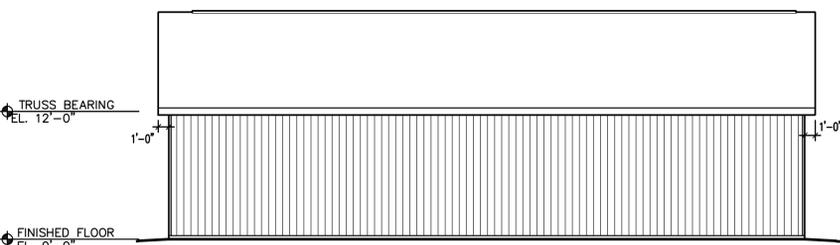
EAST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION



WEST ELEVATION

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FLOOR PLAN, FOUNDATION
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A1