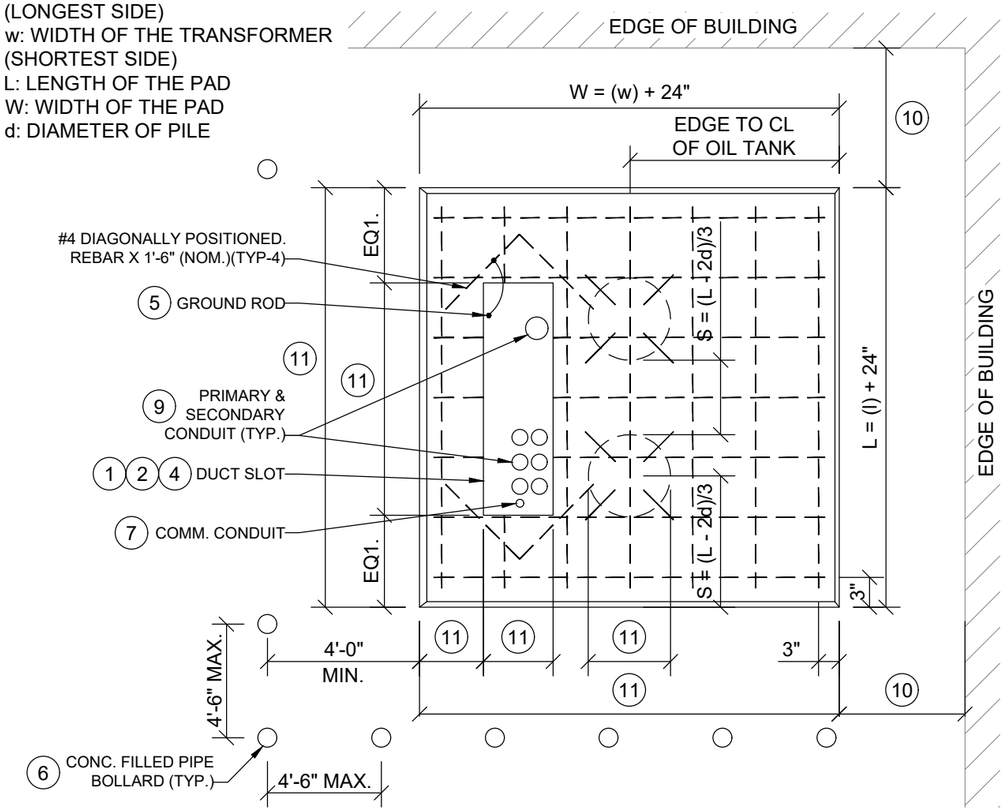
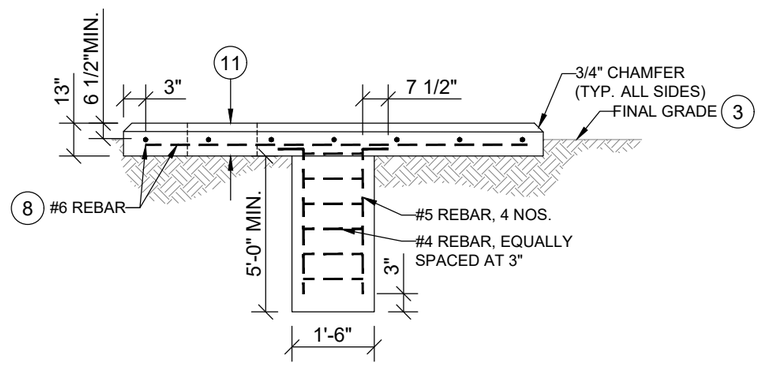
l: LENGTH OF TRANSFORMER (LONGEST SIDE)
w: WIDTH OF THE TRANSFORMER (SHORTEST SIDE)
L: LENGTH OF THE PAD
W: WIDTH OF THE PAD
d: DIAMETER OF PILE





GENERAL NOTES

1. THE TOP 12" OF SUBGRADE BENEATH THE SLAB SHALL BE THOROUGHLY COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D698. IF TOP 36" OF SUBGRADE IS SUBJECT TO HIGH WATER TABLE OR PERIODIC SATURATION, COMPACT SUBGRADE TO 90% PER ASTM D2039 AND D1556. NO FROZEN BACKFILL SHALL BE USED.
2. SLAB TO BE MADE OF FIBER REINFORCED POLYMER (FRP) CONCRETE WITH MINIMUM 28 DAY STRENGTH OF 3,500 PSI WITH 2" LENGTH OF MONOFILAMENT MACROSYNTHETIC FIBERS AT APPROXIMATELY 4 LB/YD^3. ADD AIR-ENTRAINING ADMIXTURE CONFORMING TO ASTM C260/C260M.
3. TOP OF PAD TO BE SMOOTH, LEVEL AND CLEARED OF ALL FRAMING MATERIAL AFTER CONCRETE SETS.
4. NO WALLS SHALL BE BUILT AROUND TRANSFORMER, NOR CANOPIES ABOVE TRANSFORMER.
5. ALL CONDUIT ENTERING SLAB TO BE VERTICAL AND AT A 90° ANGLE WITH TOP OF SLAB. STUB ALL CONDUITS 1" ABOVE TOP OF CONCRETE PAD. PROVIDE ALL SPARE CONDUITS WITH PULLSTRINGS AND PLASTIC CAPS.
6. COORDINATE WITH UNL UTILITIES TO ALLOW ANY AND ALL INSPECTIONS BEFORE, DURING AND AFTER CONSTRUCTION OF PAD.
7. PAD SHALL BE LOCATED A MINIMUM OF 3' FROM ANY GAS METER AND A MINIMUM OF 10' FROM ANY FUEL TANK.
8. PROPER REBAR SPACERS SHOULD BE USED TO KEEP THE REBAR AT PLACE. USE OF CONCRETE BRICKS AS SUBSTITUTE OF SPACERS IS NOT PERMITTED.
9. ALL REBAR SHOULD AT LEAST HAVE 3" COVER FROM THE SIDES OTHERWISE NOTED.

(#) KEY NOTES

1. DUCTS ARE NOT TO BE INSTALLED IN CONCRETE WITHIN THE DUCT SLOT.
2. LOCATION AND DIMENSIONS OF DUCT SLOT AND CONDUITS WITHIN SLOT MUST BE MAINTAINED IN RELATION TO OVERALL SLAB DIMENSIONS.
3. FINAL GRADE AROUND PAD TO SLOPE AWAY FROM TRANSFORMER PAD (ALL SIDES) AND FROM THE ADJACENT BUILDING EXTERIOR WALLS..
4. INSTALL CONDUITS IN DUCT SLOT TIGHT TO BACK OF DUCT SLOT AS MUCH AS POSSIBLE TO ALLOW SPACE FOR FUTURE DUCT INSTALLATION.
5. 5/8" X 10' COPPER CLAD GROUND ROD. STUB 6" ABOVE TOP OF CONCRETE PAD. TIE GROUND ROD TO CONC. REBAR WITH (1) 3/0 BARE CU CONDUCTOR. BOND USING ENCASED MEANS UL LISTED FOR SUCH USES.
6. CONCRETE BOLLARDS WILL BE REQUIRED IF PAD IS WITHIN 6' OF AN AREA SUBJECT TO VEHICULAR TRAFFIC.
7. 1-1/2" SPARE CONDUIT FOR METER CABLING. EXTEND INTO BUILDING PER UNL DIRECTION.
8. PROVIDE THE NUMBER OF LAYERS OF REBAR PER TABLE 'A' ON THIS SHEET.
9. PROVIDE CONDUITS WITH MINIMUM 36" RADIUS SWEEPS. QUANTITY & SIZES OF CONDUITS PER PROJECT REQUIREMENTS.
10. A MINIMUM OF 10' SHALL BE MAINTAINED BETWEEN PAD AND BUILDING EXTERIOR WALL WHERE WALL IS MADE OF COMBUSTIBLE MATERIAL. FOR NON-COMBUSTIBLE WALLS, PROVIDE 12" MINIMUM CLEARANCE BETWEEN PAD AND BUILDING.
11. SEE TABLE 'A', THIS SHEET, FOR SPECIFIC DIMENSIONS BASED ON TRANSFORMER KVA RATING.
12. PILES OR RE-BAR DETAILS CAN NOT BE ALTERED WITHOUT WRITTEN CONSENT FROM THE CIVIL ENGINEER.
13. AN 48 HOUR INSPECTION NOTICE SHALL BE GIVEN BEFORE SCHEDULED POUR WHICH INCLUDES EMAILING THE UNIVERSITY INSPECTOR, ELECTRICAL ENGINEER, AND CIVIL ENGINEER.

TABLE A						
PAD FOOTPRINT (NOTE 1)	PAD THICKNESS	PAD + PILES REINFORCING (NOTE 2)	PIER QUANTITY & POSITIONS (NOTE 3)	PIER DIAMETER	PRIMARY & SECONDARY SLEEVE	OVERALL SLEEVE POSITION
L X W	13"	#6 REBAR @ 15" CC FOR L #6 REBAR @ 13-3/4" CC FOR W	2 PIERS AS SHOWN ON THE PLAN	1'-6"	POSITION SLEEVE CENTERED & 2" INSIDE OF TRANSFORMER CONDUIT WINDOW ALL SIDES. EXACT WINDOW WIDTH & DEPTH SPECIFIC TO PROJECT REQUIREMENTS.	

TABLE A NOTES:

1. PAD FOOTPRINT PROVIDED GENERIC AND FOR BIDDING PURPOSES ONLY. FINAL PAD FOOTPRINT PER PROJECT TRANSFORMER REQUIREMENTS.
2. VERIFY PRIOR TO PIER CONCRETE POUR THAT THE BOTTOM AREA OF THE FORM IS FLAT & FREE OF LOOSE DEBRIS AND LOOSE SOILS.
3. IN ALL CASES TRANSFORMER PAD SHALL EXTEND A 12" BEYOND EDGE OF TRANSFORMER ON ALL SIDES. THIS DISTANCE IS TO BE MEASURED FROM THE FURTHEST PROTRUDING PORTION OF THE TRANSFORMER ON ANY GIVEN SIDE.

University of Nebraska

Facilities Planning & Construction
Standard Detail

Detail No.: 33 70 00 - 07
Scale: N.T.S.
Date: April 2021

Detail Title: Transformer Pad Detail