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Appendix C

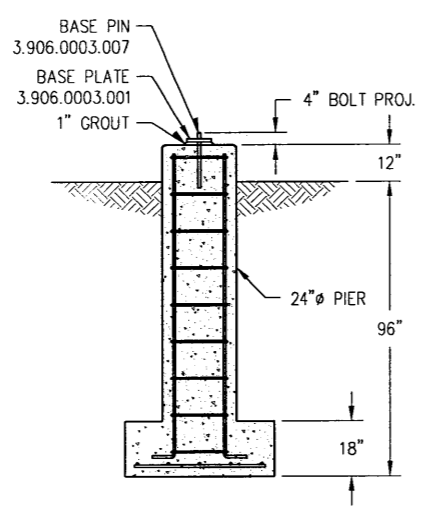
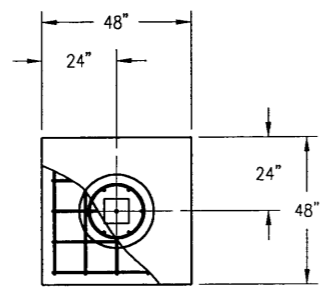
Meteorological Tower Drawing



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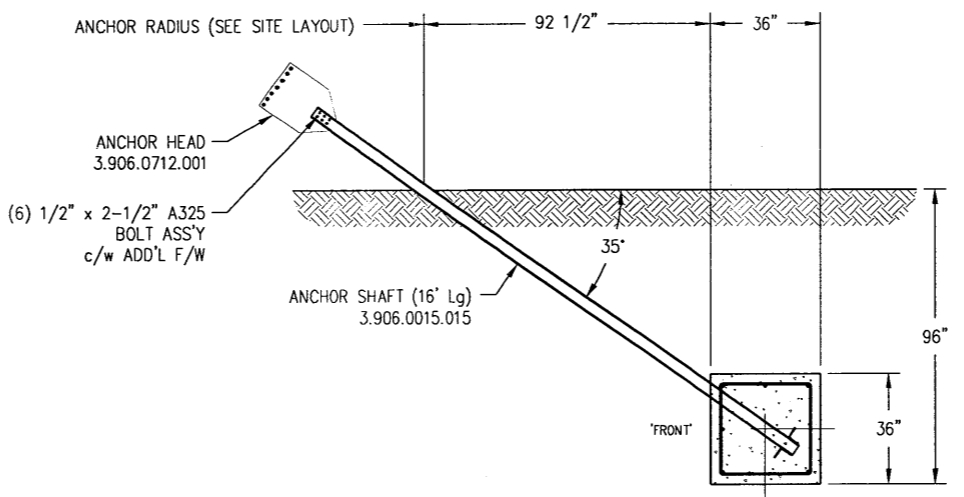
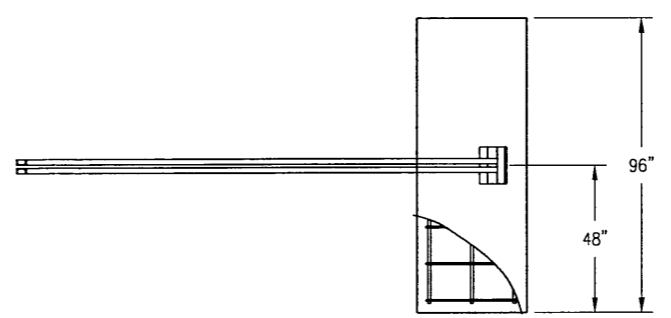
M:\787500.018.0601.dwg, 11/21/2008 9:58:11 AM, detailing



BASE FOUNDATION
(1) REQUIRED

BASE FOUNDATION RE-BAR/TIE SCHEDULE							
PIER DETAILS				PAD DETAILS			
QTY	SIZE	TYPE	SPACING	QTY	SIZE	TYPE	SPACING
6	20M	—	EQUAL	5	20M	—	*
9	10M	○	12"				

- NOTES:**
- 1) QUANTITIES LISTED REPRESENTS THE QUANTITY FOR ONE FOUNDATION ONLY.
 - 2) * - 10 BARS REQUIRED IN TOTAL, EQUALLY SPACED EACH WAY, APPROXIMATE SPACING IS 10".
 - 3) REFER TO REBAR DRAWING 787500.018.0602 FOR CUTTING LENGTHS AND FABRICATION DETAILS.



ANCHOR FOUNDATION
(3) REQUIRED

GUY FOUNDATION RE-BAR/TIE SCHEDULE					
LOCATION	QTY	SIZE	TYPE	SPACING	
N/A	9	10M	□	12	
FRONT	2	25M	—	14.0	
TOP	2		—	14.0	
BACK	1		—	28.0	
BOTTOM	1		—	28.0	

- NOTES:**
- 1) QUANTITIES LISTED REPRESENTS THE QUANTITY FOR ONE FOUNDATION ONLY.
 - 2) REFER TO REBAR DRAWING 787500.018.0602 FOR CUTTING LENGTHS AND FABRICATION DETAILS.

FOUNDATION NOTES:

GENERAL:

- 1) THE CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH THE WORK.
- 2) ALL WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF CSA STANDARDS.
- 3) FOUNDATIONS DESIGNED FOR NORMAL DRY SOIL CONDITIONS
- 4) NORMAL DRY SOIL CONDITIONS ARE ASSUMED AS FOLLOWS: ALLOWABLE BEARING CAPACITY 200 kpa
k_p = 3.0, k_a = 0.33, k_o = 0.5. THESE CONDITIONS SHOULD BE VERIFIED ON SITE BY A GEOTECHNICAL CONSULTANT WHEN THE BEARING SURFACE IS EXPOSED. NOTIFY ENGINEER IF SITE CONDITIONS DO NOT COMPLY WITH DESIGN CONDITIONS.
- 5) THE TOWER BASE PAD, THE ANCHOR BOTTOM AND THE FRONT (TOWER SIDE) FACE OF THE ANCHORS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
- 6) ALL GALVANIZED STEEL IN CONTACT WITH SOIL IS TO BE COATED WITH ROOF PATCH.

CONCRETE:

- 1) CONCRETE CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD CAN3-A23.3-94.
- 2) CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF NOT LESS THAN 30 MPa.
- 3) CONCRETE SHALL CONTAIN AN AIR ENTRAINING AGENT. TOTAL AIR CONTENT TO BE 5% TO 7% AS SPECIFIED IN CSA STANDARD A23, FOR THE PARTICULAR SIZE OF AGGREGATE BEING USED. THE AIR ENTRAINING AGENT SHALL BE COMPATIBLE WITH THE WATER REDUCING AGENT.
- 4) THE MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 19 mm.
- 5) THE USE OF CALCIUM CHLORIDE OR ACCELERATING ADMIXTURES IS PROHIBITED.
- 6) SLUMP SHALL BE 75 mm +/- 25 mm.
- 7) IF THE AIR TEMPERATURE IS 5 DEGREES C OR LESS, THE TEMPERATURE OF THE CONCRETE AT TIME OF PLACING, SHALL BE BETWEEN 15 AND 30 DEGREES C.
- 8) CHAMFER EXPOSED CORNERS OF CONCRETE (APPROX 20 mm).
- 9) PROVIDE EFFECTIVE MEANS OF MAINTAINING THE TEMPERATURE OF CONCRETE IN PLACE AT A MINIMUM OF 10 DEGREES C AND A MAXIMUM OF 30 DEGREES C FOR THREE DAYS AFTER PLACING. WHEN THE MEAN DAILY AIR TEMPERATURE IS LESS THAN 5 DEGREES C PROVIDE PROTECTION FOR NEWLY PLACED CONCRETE BY MEANS OF SUITABLE ENCLOSURES OR RAISED COVERINGS, HEAT AND INSULATION.
- 10) ALL GROUT SHALL BE NON-FERROUS AND NON SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 48 MPa AT 28 DAYS, EDGES GROUT SHALL BE TAPERED OFF AT 45°.
- 11) ALL CONCRETE TO BE TYPE 10 NORMAL PORTLAND CEMENT.

REINFORCEMENT:

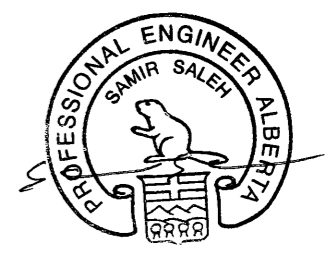
- 1) CLEAN REINFORCEMENT OF ANY LOOSE SCALE, DIRT OR OTHER COATINGS WHICH WOULD DESTROY OR REDUCE BONDING. REJECT BARS WITH KINKS OR BENDS NOT SHOWN ON FOUNDATION DETAILS.
- 2) ALL REINFORCEMENT SHALL HAVE A MINIMUM OF 75 mm CONCRETE COVER.
- 3) REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING WITH CSA STANDARD G30.18-M92 GR 400.

BACKFILLING:

- 1) BACKFILL SHALL BE PLACED IN THIN LIFTS (MAXIMUM 150 mm) AND COMPACTED TO A MINIMUM OF 95 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY. IN THE EVENT THAT EXCAVATED MATERIALS ARE NOT SUITABLE FOR BACKFILL, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY AND COMPACT SUITABLE CLEAN MATERIAL TO MEET THAT REQUIREMENT.

STANDARDS:

- 1) FOUNDATIONS AND ANCHORS DESIGNED IN ACCORDANCE WITH CAN/CSA-S37-01.
- 2) CONCRETE WORK IN ACCORDANCE WITH CSA 23.1/23.2.
- 3) REINFORCEMENT FOR CONCRETE IN ACCORDANCE WITH CAN3-A23.1-94.



NOV 21 2008

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CUSTOMER: TRANSALTA WIND	SITE: BLUE TRAIL	SCALE: 40.000
DATE: 18 NOV 08	BY: CR	CHK: MAW
TITLE: FOUNDATION DETAILS		DRAWING NO. 787500.018.0601

FACTORED FOUNDATION REACTIONS (kips)			
MAST BASE		GUY ANCHOR	
DOWNLOAD	55.95	VERTICAL	21.5
SHEAR	0.35	HORIZONTAL	30.5
		AXIAL	37.3 @ 35.2'

REV.	REV. BY:	CHK. BY:	DESCRIPTION	DATE
A	CR	MAW	ISSUE FOR CONSTRUCTION	19 NOV 08