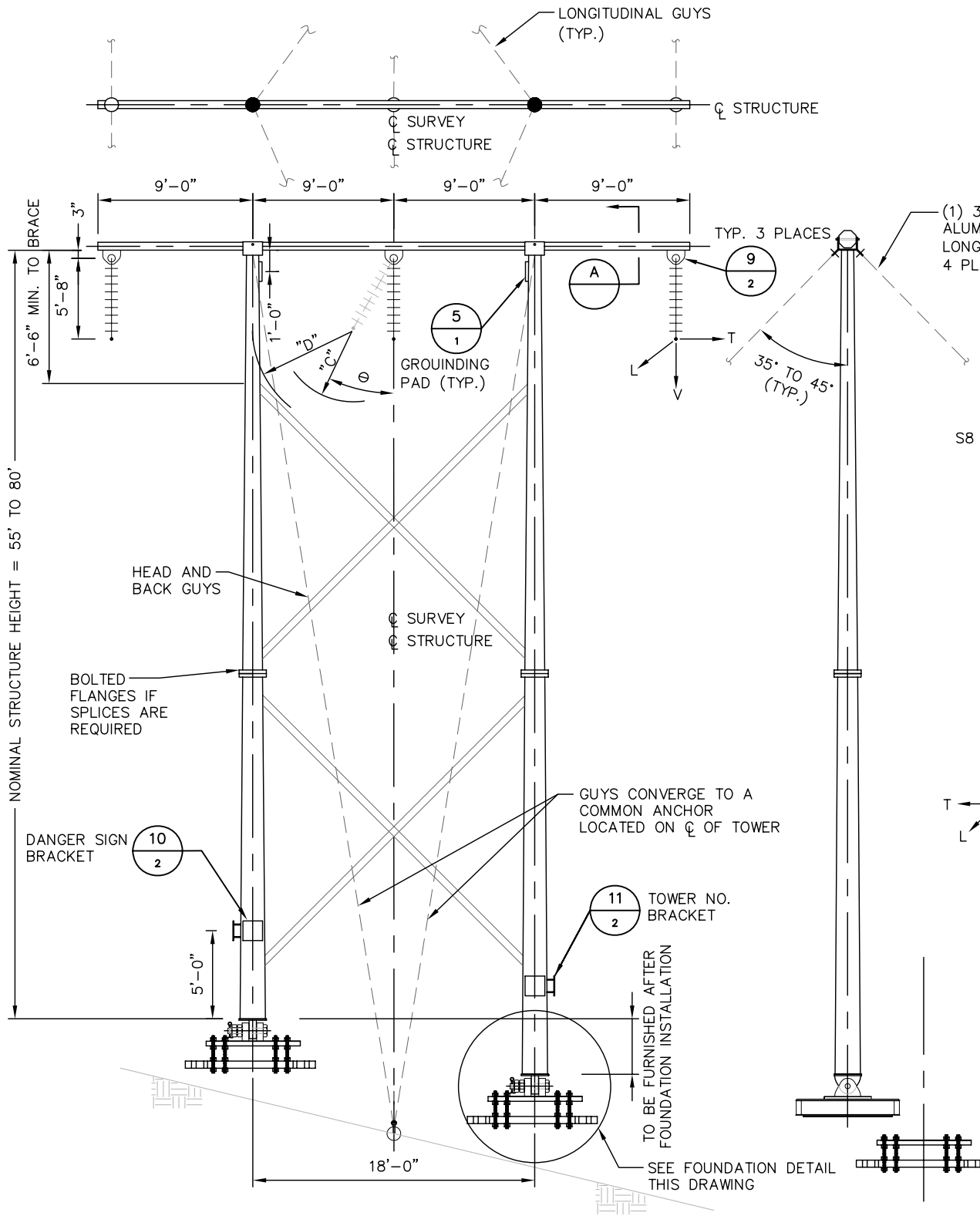
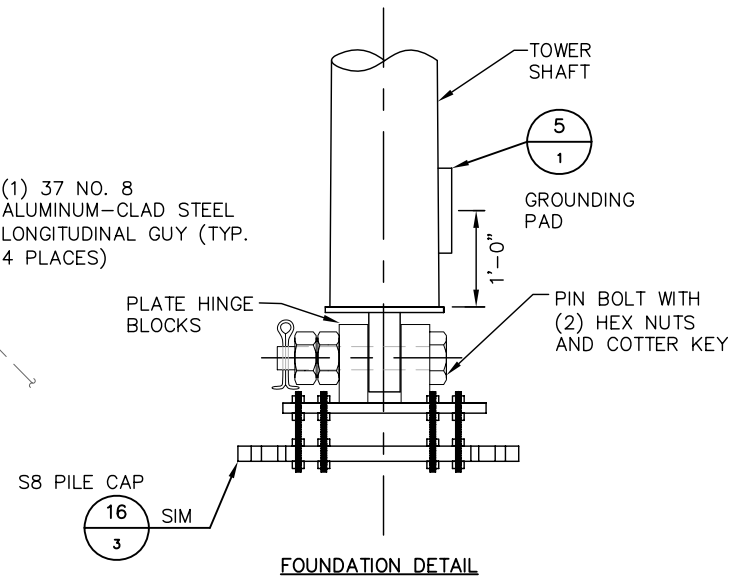
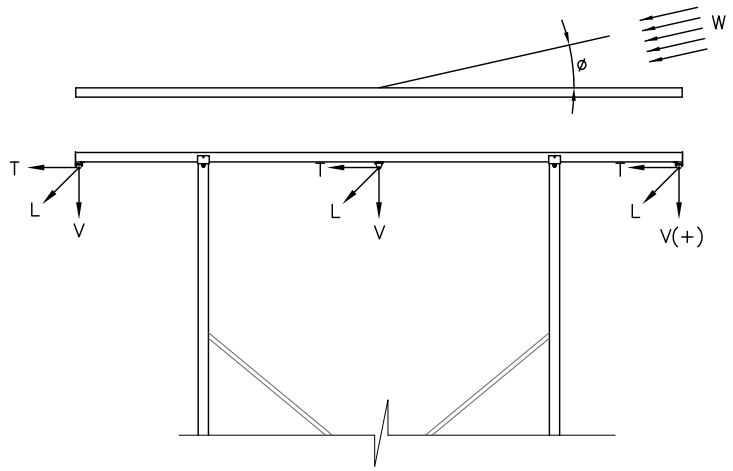


TOWER TYPE HHA



FOUNDATION DETAIL



TOWER HHA

CONDUCTOR: 37 NO. 8 ALUMOWELD

MAX. WIND SPAN AND LINE ANGLE COMBINATIONS: 1600' @ 0° OR 1200' @ 3°

MAX. WEIGHT SPAN:
HEAVY ICE: 2000'
ALL OTHERS: 2500'

NOTES:

1. THE INDICATED LOADS ARE ULTIMATE LOADS WHICH INCLUDE ALL OVERLOAD CAPACITY FACTORS. WEIGHTS OF INSULATORS AND ATTACHMENT HARDWARE ARE INCLUDED.

2. ø IS THE ANGLE BETWEEN THE TRANSVERSE CENTERLINE OF THE TOWER AND THE WIND DIRECTION. "W" IS THE WIND PRESSURE, INCLUDING OVERLOAD CAPACITY FACTORS, TO BE APPLIED TO THE TOWER BASED ON CYLINDRICAL MEMBERS. SEE SPECIFICATIONS FOR SHAPE FACTORS FOR OTHER SECTIONS. "k" IS THE OVERLOAD CAPACITY FACTOR BY WHICH THE DEAD LOAD OF THE TOWER SHALL BE MULTIPLIED.

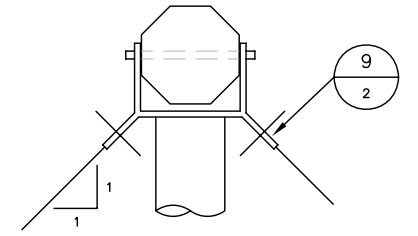
3. FOR UNBALANCED LONGITUDINAL LOAD, INDICATED AS $\frac{X.XX}{Y.YY}$, THE X.XX LOADS SHALL BE APPLIED AT ANY ONE ATTACHMENT POINT WITH THE Y.YY LOADS APPLIED AT THE OTHER TWO ATTACHMENT POINTS.

4. ATTACHMENT PLATES AND VANGS FOR HARDWARE SHALL BE COMPATIBLE WITH THE GUY, INSULATOR AND HARDWARE ASSEMBLIES SHOWN.

5. GUY VANGS SHALL BE DESIGNED FOR 1.2 TIMES THE RATED BREAKING STRENGTH OF THE GUY.

6. SEE DRAWING 1 FOR TYPICAL DETAILS.

CONCEPTUAL



SECTION A–A (A)

ELECTRICAL CLEARANCES		
INSULATOR SWING Θ	MIN. CLEARANCE TO TOWER SURFACE OR GUY WIRE, "C" (ALL PHASES)	MIN. CLEARANCE TO C/L ARM, "D" (ALL PHASES)
0°–26°	4'–0"	6'–4"
50°	3'–5"	–
76°	1'–0"	–

TABLE 1: CLEARANCES

DESCRIPTION	TEMP °F	ICE R–IN	WIND psf	V kip	T kip	L kip	W psf	ø	k
NESC HEAVY	0°	0.5	4.0	5.68	4.62	–	10.0	0	1.5
HEAVY ICE AND WIND	20°	1.75	4.0	14.13	2.58	–	5.2	0	1.1
TRANSVERSE HIGH WIND	40°	0.0	37	1.77	5.55	–	55.0	0	1.1
LONGITUDINAL HIGH WIND	40°	0.0	37	1.77	1.21	0.50	55.0	90°	1.1
UNBALANCE LONGITUDINAL	30°	1.0 / 0	–	5.79 / 1.77	1.92 / 1.21	13.00 / 0	0.0	0	1.1

LOADING DIAGRAM TOWER TYPE HHA

NO.	DATE	BY	REVISION DESCRIPTION
0	06/03/04	GDH	ISSUED FOR PRELIM. STRUC. DESIGN
1	07/27/04	GDH	MISC REVISIONS

CONTRACT No.

BID ISSUE: REV | DATE

STATE OF ALASKA 49th — GREG D. HUFFMAN CE 8349 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED: GDH
DRAWN: GMC
CHECKED:

Dryden & LaRue, Inc. CONSULTING ENGINEERS

APPROVED:
CONTRACT No.:
ORIGINAL DATE: 03/22/04

THE FOUR DAM POOL POWER AGENCY
SWAN LAKE – LAKE TYEE
138KV INTERTIE
TOWER TYPE HHA

DRAWING NO. 11 | SHEET 1 of 1 | REV. 1

PROJECT CODE: FDPINJ010 PLOT DATE:
FILE NAME (CADD): L:\Dryden & LaRue\Projects – Active\Four Dam Pool\Drawing–11–HHA.dwg. Nov 14, 2005 – 3:54pm

T:\Dryden & LaRue\Projects – Active\Four Dam Pool\Drawing–11–HHA.dwg. Nov 14, 2005 – 3:54pm