

LOAD CASE 3 - MEDIUM LOADING

PROJECT REFERENCE NO. U-4010 SHEET NO. Sig. 26 dwg. MP5

FOUNDATION SELECTION TABLE

Denotes Wing Wall Required SEE NOTE 37. **42"/48" Diameter Drilled Pier Length (L) - Feet**
 CONCRETE VOLUME (cu. yds): 42" DIA. = .356xL Denotes 48" Dia. Foundation required for all soil types
 48" DIA. = .465xL
 USE TYPE-2 WING WALL. FOR DETAILS, SEE DRAWING NO. MP-11.

WIND ZONE 1	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35		14.5	10.5	9.0	9.0	14.0	12.0	11.0
LC3-40		15.5	11.0	9.0	9.0	14.5	13.0	11.5
LC3-45		15.5	11.0	9.0	9.0	14.5	13.0	11.5
LC3-50		14.5	10.0	9.0	9.0	13.5	12.0	10.5
LC3-65		18.0	12.0	9.5	9.0	16.0	14.0	12.5
LC3-75		18.0	12.0	10.0	9.0	16.0	14.0	12.5

WIND ZONE 2	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35		13.5	10.0	9.0	9.0	13.0	11.5	10.0
LC3-40		13.5	10.0	9.0	9.0	13.0	11.5	10.0
LC3-45		14.5	10.5	9.0	9.0	14.0	12.0	11.0
LC3-50		13.5	9.5	9.0	9.0	13.0	11.0	10.0
LC3-65		16.5	11.0	9.0	9.0	15.5	13.0	11.5
LC3-75		16.5	11.0	9.0	9.0	15.5	13.0	11.5

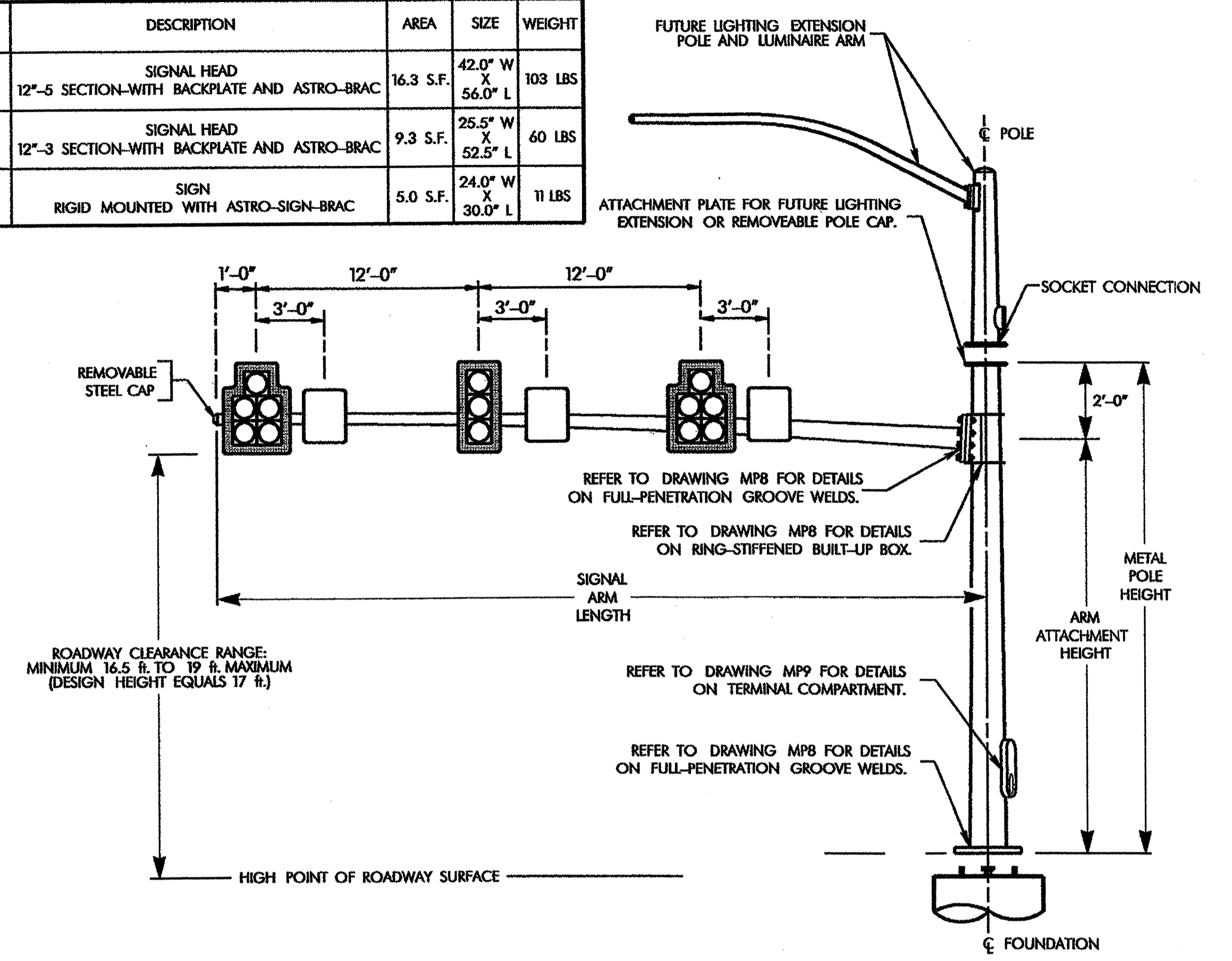
WIND ZONE 3	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35		11.5	9.0	9.0	9.0	12.0	10.5	9.5
LC3-40		11.5	9.0	9.0	9.0	12.0	10.5	9.5
LC3-45		13.5	10.0	9.0	9.0	13.0	11.5	10.0
LC3-50		12.5	9.0	9.0	9.0	12.0	10.5	9.0
LC3-65		15.0	10.5	9.0	9.0	14.0	12.5	11.0
LC3-75		15.0	10.5	9.0	9.0	14.0	12.5	11.0

WIND ZONE 4	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35		11.5	9.0	9.0	9.0	12.0	10.5	9.5
LC3-40		11.5	9.0	9.0	9.0	12.0	10.5	9.5
LC3-45		11.5	9.0	9.0	9.0	12.0	10.5	9.5
LC3-50		10.5	9.0	9.0	9.0	11.0	9.5	9.0
LC3-65		15.0	10.5	9.0	9.0	14.0	12.5	11.0
LC3-75		15.0	10.5	9.0	9.0	14.0	12.5	11.0

WIND ZONE 5	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35		13.5	10.0	9.0	9.0	13.0	11.5	10.0
LC3-40		13.5	10.0	9.0	9.0	13.0	11.5	10.0
LC3-45		13.5	10.0	9.0	9.0	13.0	11.5	10.0
LC3-50		12.5	9.0	9.0	9.0	12.0	10.5	9.0
LC3-65		16.5	11.0	9.0	9.0	15.5	13.0	11.5
LC3-75		16.5	11.0	9.0	9.0	15.5	13.0	11.5

POLE LOADING DETAILS

MAST ARM LOADING SCHEDULE				
LOADING SYMBOL	DESCRIPTION	AREA	SIZE	WEIGHT
	SIGNAL HEAD 12"-5 SECTION-WITH BACKPLATE AND ASTRO-BRAC	16.3 S.F.	42.0" W X 56.0" L	103 LBS
	SIGNAL HEAD 12"-3 SECTION-WITH BACKPLATE AND ASTRO-BRAC	9.3 S.F.	25.5" W X 52.5" L	60 LBS
	SIGN RIGID MOUNTED WITH ASTRO-SIGN-BRAC	5.0 S.F.	24.0" W X 30.0" L	11 LBS



SIGNAL MAST ARM DATA										MIN. POLE DATA		
MAST ARM NUMBER	SIGNAL ARM LENGTH	MINIMUM ARM BASE DIAMETER	MINIMUM ARM WALL THICKNESS	MAST ARM ATT. PLATE SIZE		ATT. PLATE TO FLANGE PLATE ATTACHMENT BOLT SIZE		MAST ARM ATT. PLATE THICKNESS	FLANGE PLATE THICKNESS	POLE BASE DIAMETER	POLE WALL THICKNESS "T"	
				W	H	A	B					
LC3-35	35'-0"	11"	.3125"	22"	30"	16"	24"	1.5"x 7"	2"	2"	16"	.3125"
LC3-40	40'-0"	12"	.3125"	22"	30"	16"	24"	1.5"x 7"	2"	2"	16"	.3125"
LC3-45	45'-0"	13"	.3125"	25"	30"	19"	24"	1.5"x 7"	2"	2"	19"	.3125"
LC3-50	50'-0"	15"	.3125"	25"	30"	19"	24"	1.5"x 7"	2"	2"	19"	.3125"
LC3-65	65'-0"	18"	.3125"	31"	30"	25"	24"	1.5"x 7"	2"	2"	25"	.3125"
LC3-75	75'-0"	21"	.3125"	31"	30"	25"	24"	1.5"x 7"	2"	2"	25"	.3125"

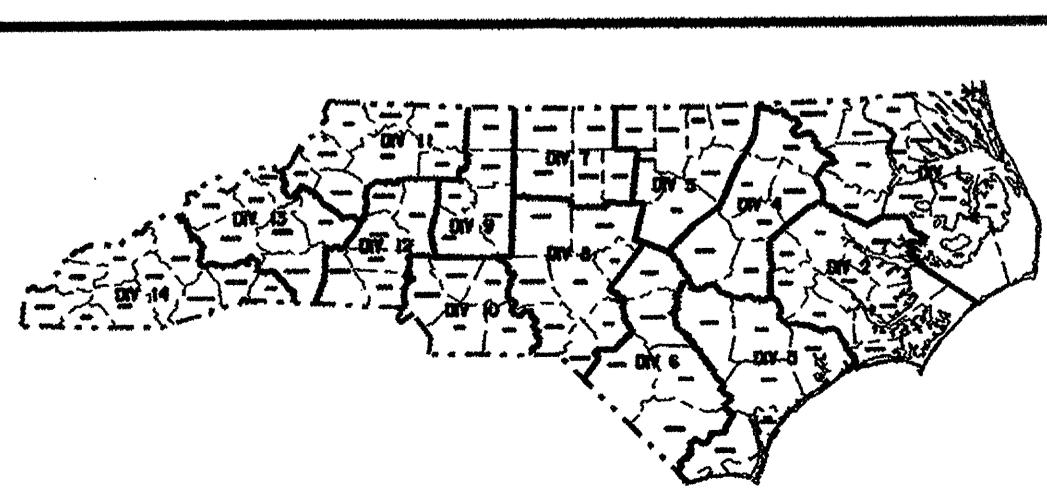
POLE BASE PLATE AND ANCHOR BOLT DATA				
SIGNAL POLE HEIGHT	MAX. BASE PLATE DIAMETER "D"	MAX. BASE PLATE BOLT CIRCLE "BC"	BASE PLATE THICKNESS	ANCHOR BOLT SIZE (8 PER POLE)
22'-0"	39"	32"	2"	2"x 66"
24'-0"	39"	32"	2"	2"x 66"
26'-0"	39"	32"	2"	2"x 66"

MAST ARM AND POLE IDENTIFICATION LEGEND

MAST ARMS AND METAL POLES SELECTED FOR USE FROM THESE STANDARDS SHOULD BE IDENTIFIED USING THE FOLLOWING ALPHA NUMERIC IDENTIFICATION NUMBER:

LCX-XX-XX

Load Case Number (1 THRU 5) Pole Height Mast Arm length



Prepared in the Office of:

 222 N. McDowell St., Raleigh, NC 27603

POLE LOADING DETAILS AND FOUNDATION SELECTION TABLES FOR LOAD CASE 3			
PLAN DATE:	APRIL 2003	REVIEWED BY:	D.C. SARKAR
PREPARED BY:	C.F. ANDREWS	REVIEWED BY:	R.E. MULLINAX
REVISIONS		INIT.	DATE

SEAL

 D. Sankar 6/3/03
 SIGNATURE DATE
 SIG. INVENTORY NO.

METAL POLES WITH MAST ARMS

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