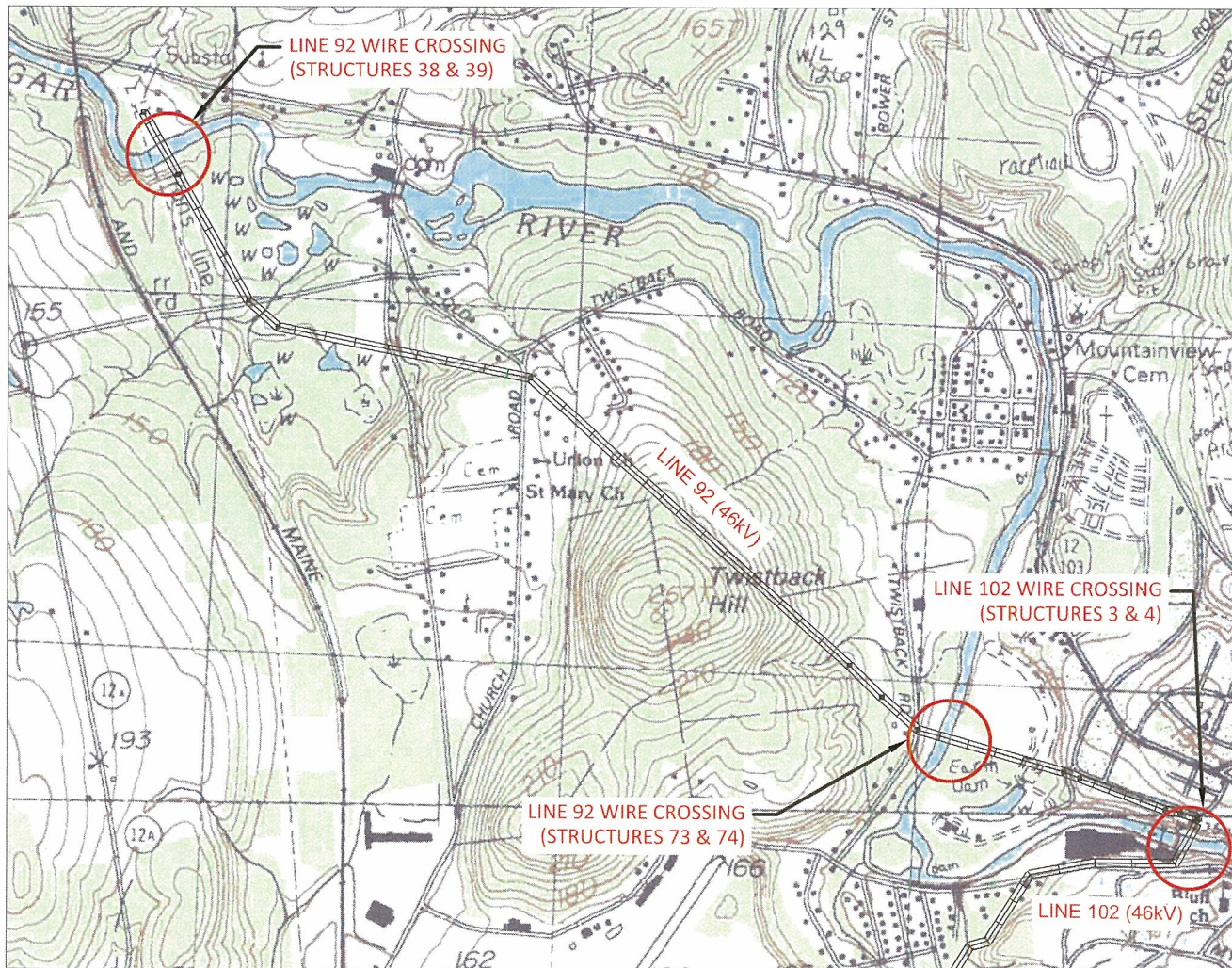


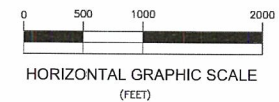
APPENDIX A

GREEN MOUNTAIN POWER CORPORATION SUGAR RIVER CLAREMONT, NH

1. The location of the crossings are shown on the attached location map marked as EXHIBIT 1.
2. The design and proposed construction of this crossing is shown on the attached GMP Drawing entitled "Sugar River Crossing Details" marked as EXHIBIT 2a through EXHIBIT 2c.
3. The GMP crossings on Lines 92 and 102 will span the Sugar River on two (2) round wood pole structures. These will be single pole and double pole structures. The attached GMP Drawings entitled "Transmission Standards" provide details for these structures and are marked as EXHIBIT 3a through EXHIBIT 3c.
4. Flood water elevations for the Sugar River were based on information contained in flood insurance rate maps and Flood Insurance Study Maps 33019C0144E and 33019C0165E for Line 92 and Map 33019C0280E for Line 102 provided by FEMA. The 100-yr water elevation at the crossing for Line 92 is 320' at the structure 38 and 39 crossing and 382' at the structure 73 and 74 crossing. The 100-yr water elevation for Line 102 is approximately 418'. As stated in the petition, and as required by the NESC (Table 232-1.6), for open supply conductors (over 22 kV phase to ground) the minimum required clearances for 46 kV conductors over water surfaces not suitable for sailing is 17'.
5. The maximum sag in the river crossing spans occur at the maximum conductor temperature condition (see Exhibits 2a to 2c). The clearances to the water surface at the maximum sag condition with water at the 100-year flood level for this crossing are as follows:
 - Span 3 to 4: The minimum clearance from the water to the ADSS cable is 37.1'. The ADSS is approximately 2-feet lower than the phase conductors, yielding a vertical clearance from high water to the phase conductors of approximately 39'.
 - Span 38 to 39: The minimum clearance from the water to the ADSS cable is 39.9'. The ADSS is approximately 2-feet lower than the phase conductors, yielding a vertical clearance from high water to the phase conductors of approximately 42'.
 - Span 73 to 74: The minimum clearance from the water to the ADSS cable is 33.21'. The ADSS is approximately 2-feet lower than the phase conductors, yielding a vertical clearance from high water to the phase conductors of approximately 35'.

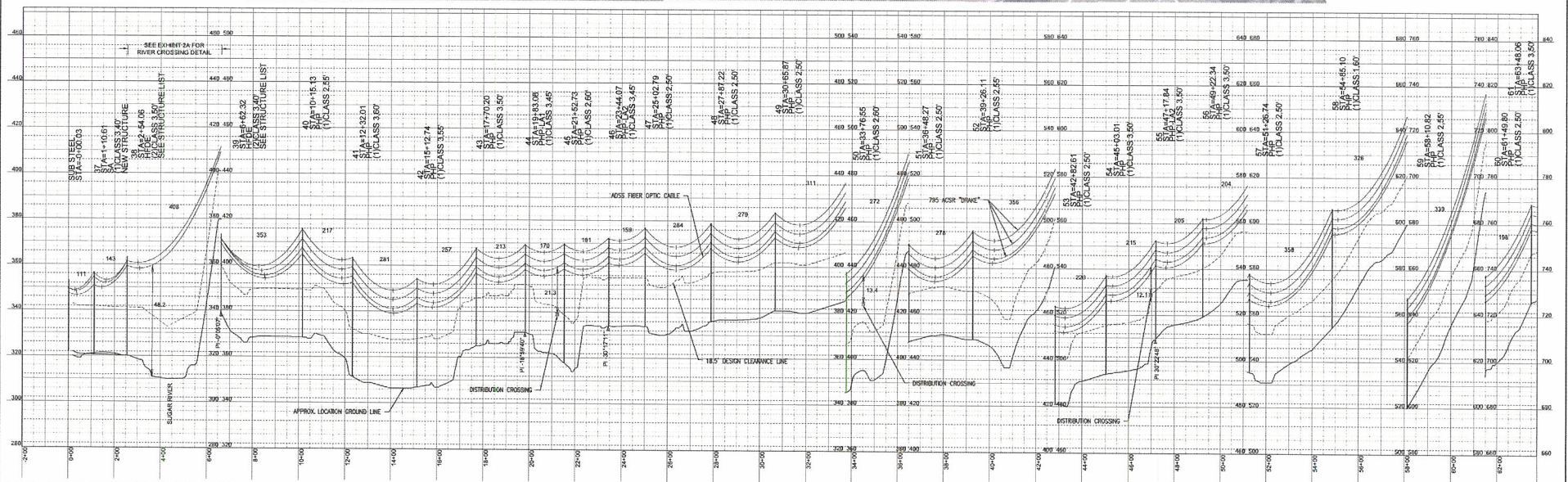


LOCATION PLAN

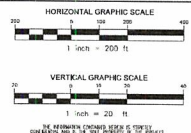
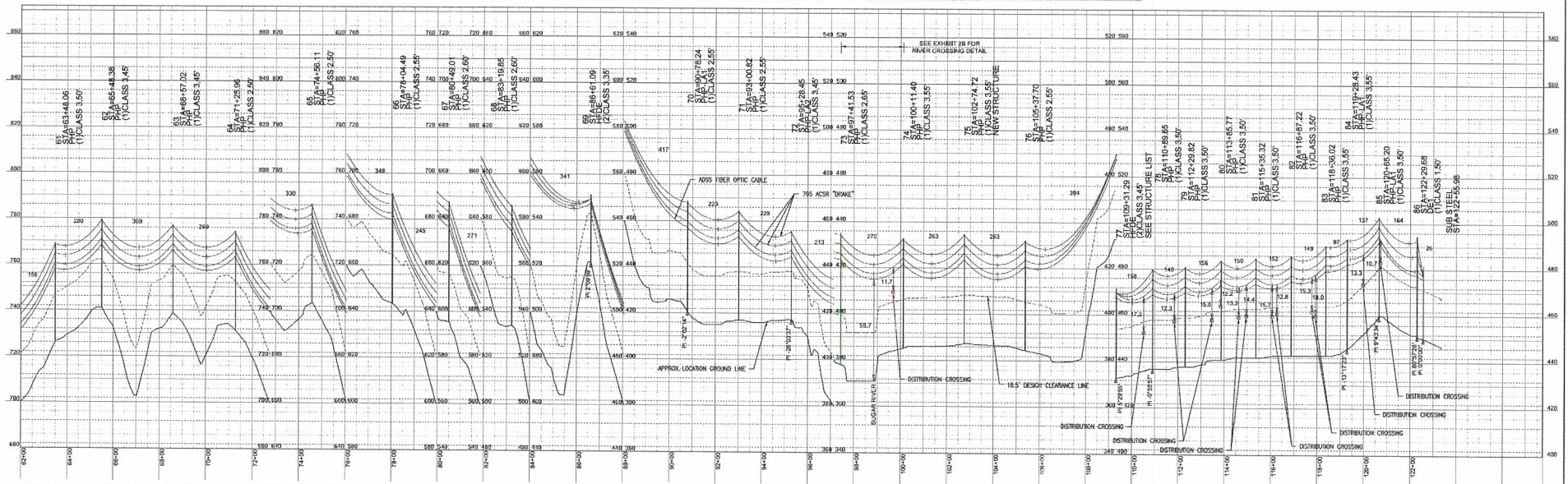


A	11/24/2015	MGL	TMH	ISSUED FOR REVIEW - NOT FOR CONSTRUCTION
REV.	DATE	DR	CK	DESCRIPTION
				Green Mountain Power 163 Acorn Ln, Colchester VT, 05446 LOCATION PLAN SUGAR RIVER WATER CROSSINGS LINES 92 & 102 REBUILD 46KV TRANSMISSION LINE
SCALE: AS NOTED		DRAWN BY:		APPROVED BY:
DATE: 11/24/2015		CHECKED BY:		DATE: 11/24/15
DRAWING NUMBER:				REV. A
EXHIBIT 1				
FILE: L:\SUBSTATION\EXHIBIT 1				

Exhibit 2



SGC Engineering, LLC a part of Senergy	GREEN MOUNTAIN POWER Generating Possibilities Together	HORIZONTAL GRAPHIC SCALE 1 inch = 200 ft VERTICAL GRAPHIC SCALE 1 inch = 20 ft THE INFORMATION SHOWN HEREIN IS THE PROPERTY OF SGC ENGINEERING, LLC AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.	ISSUED FOR REVIEW DATE: NOVEMBER 10, 2015 SCALE: AS NOTED DRAWN: MCL CHECKED: MCL APPROVED: TMH	NO. 1 REVISIONS ISSUED FOR REVIEW - NOT FOR CONSTRUCTION DATE: 11/10/2015 BY: PR ADDED RIVER CROSSING NOTE - NOT FOR CONSTRUCTION DATE: 12/01/2015	APPROVED: DATE: 11/10/2015 BY: PR ADDED RIVER CROSSING NOTE - NOT FOR CONSTRUCTION DATE: 12/01/2015	PROJECT: LINE 92 REBUILD 45 KV TRANSMISSION LINE CLIENT: GREEN MOUNTAIN POWER 163 ACORN LANE, COLCHESTER VERMONT, 05446	SHEET NUMBER: 1 OF 2



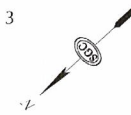
ISSUED FOR REVIEW

DATE: NOVEMBER 10, 2015
SCALE: AS NOTED
DRAWN: MCL
CHECKED: MCL
APPROVED: TMH

NO.	REVISIONS	APPD.	DATE	TITLE
1	ISSUED FOR REVIEW - NOT FOR CONSTRUCTION	TMH	11/10/2015	PLAN AND PROFILE
2	FR - ADDED RIVER CROSSING - NOT FOR CONSTRUCTION	TMH	12/01/2015	STRUCTURE 61 TO LAFAYETTE SUBSTATION
3				
4				
5				
6				
7				
8				
9				
10				

PROJECT	LINE 92 REBUILD 46 KV TRANSMISSION LINE
CLEAR	GREEN MOUNTAIN POWER 163 ACORN LANE, COLICESTER VERMONT, 05446
SGC PROJECT NUMBER	1291002
DRAWING NUMBER	1291-13-1304
REVISION	
SHEET NUMBER	2 OF 2

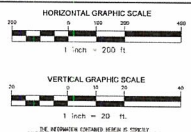
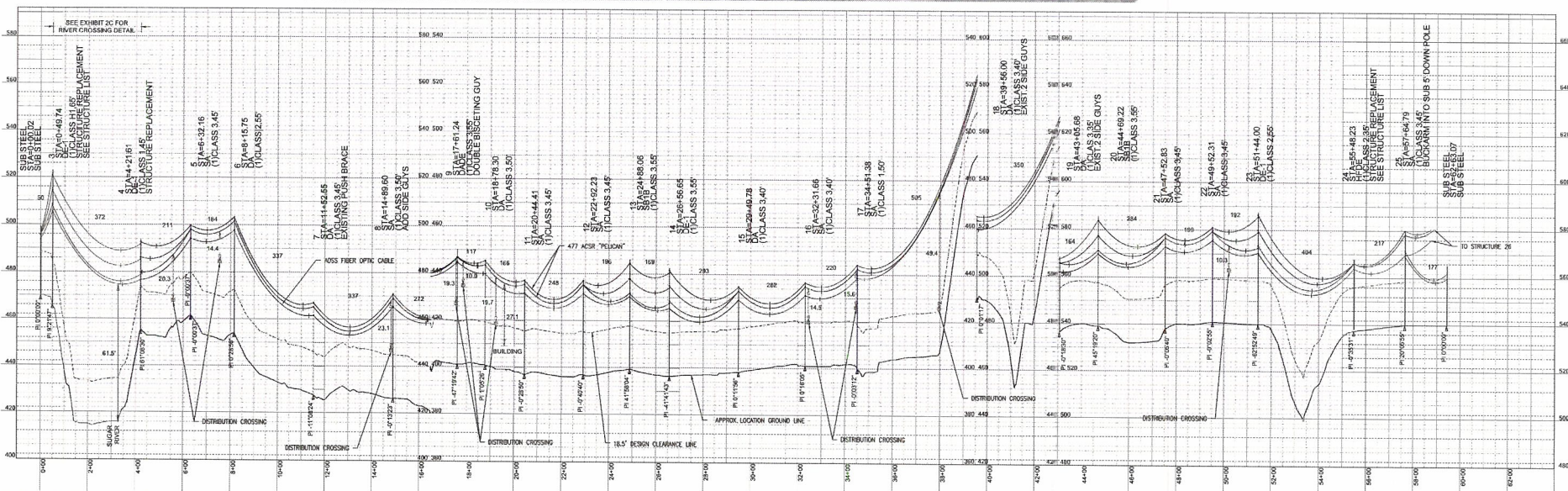
Exhibit 3



STRUCTURE REPLACEMENT LEGEND:

- PROPOSED ANCHOR LOCATION
- EXISTING STRUCTURE (NO CHANGE)
- STRUCTURE REPLACEMENT (NO CHANGE IN HEIGHT)
- STRUCTURE REPLACEMENT (CHANGE IN HEIGHT)
- PROPOSED ALIGNMENT
- EXISTING OVERHEAD LINE

- NOTES:**
- LINE 102 DESIGNED TO MEET 2012 CODE, HEAVY LOADING DISTRICT (2508).
 - 477 ACSP "PELICAN" CONDUCTOR DISPLAYED @ LEFT AND DESIGNED TO A MAX TENSION OF 33500LBS. UNLESS OTHERWISE NOTED.
 - ADDITIONAL FIBER OPTIC CABLE (4x12-3000) DISPLAYED @ RIGHT AND DESIGNED TENSION OF 1000LBS @ 800T UNLESS OTHERWISE NOTED.
 - ADDITIONAL DATA FROM STRUCTURE SURVEY & INSPECTION, INC.
 - SMALL PVS INTENTIONALLY LEFT FOR REMOVAL BUT WILL BE REMOVED DURING FIBER INSTALLATION.



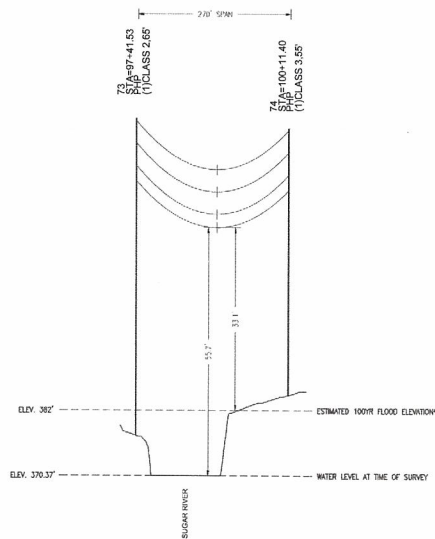
ISSUED FOR REVIEW

DATE	SCALE	DESIGN	CHECK	APPROVED
OCTOBER 12, 2015	AS NOTED	MCL	MCL	TMH

NO	REVISIONS	APPD	DATE	TITLE
A	ISSUED FOR REVIEW - NOT FOR CONSTRUCTION	TMH	10/29/2015	PLAN AND PROFILE
B	FOR REVISIONS - NOT FOR CONSTRUCTION	TMH	11/12/2015	LAFAYETTE SUBSTATION TO MAPLE AVE SUBSTATION
C	FOR ADDED RIVER CROSSING NOTE - NOT FOR CONSTRUCTION	TMH	12/07/2015	PROJECT

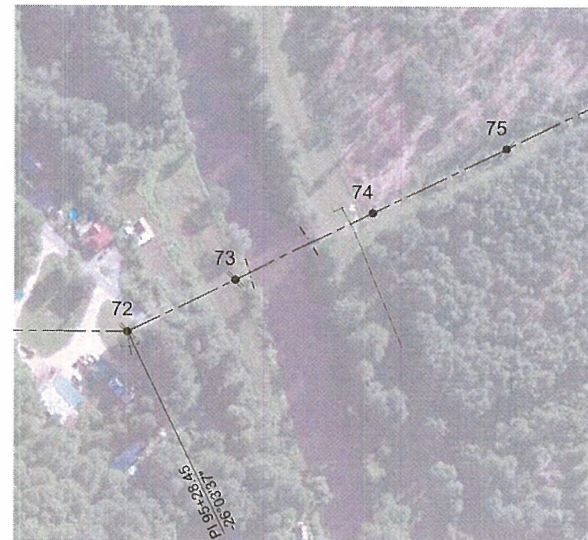
CLIENT	GREEN MOUNTAIN POWER
PROJECT	LINE 102 REBUILD 45 kV TRANSMISSION LINE
LOCATION	163 ACORN LANE, COLCHESTER VERMONT, 05446

SGC PROJECT NUMBER	1201002
DRAWING NUMBER	1001-11-1001
DESIGN	△
SHEET NUMBER	1 OF 2

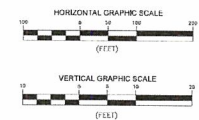


PROFILE

*NOTE: ESTIMATED 100-YEAR FLOOD ELEVATION BASED ON FEMA FLOOD INSURANCE RATE MAP NUMBER 3301900105C



PLAN



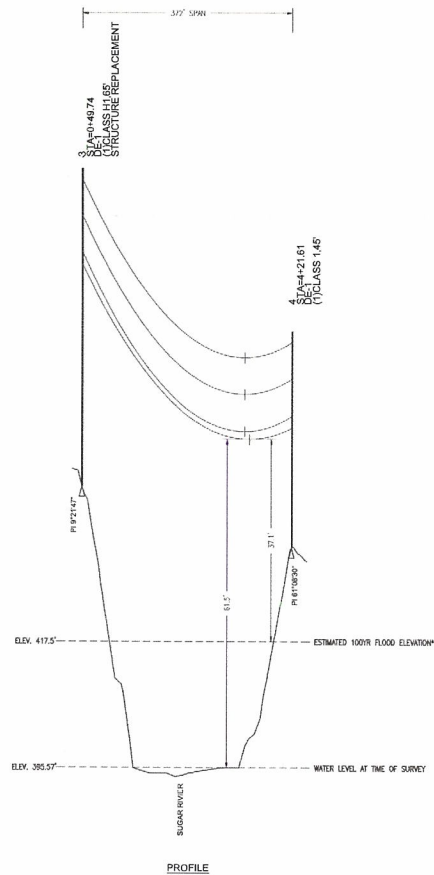
STRUCTURE REPLACEMENT LEGEND:

- PROPOSED ANCHOR LOCATION
- EXISTING STRUCTURE (NO CHANGE)
- NEW STRUCTURE
- STRUCTURE REPLACEMENT (NO CHANGE IN HEIGHT)
- STRUCTURE REPLACEMENT (CHANGE IN HEIGHT)
- PROPOSED ALIGNMENT
- EXISTING OVERHEAD LINE

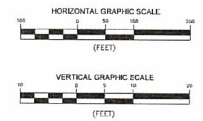
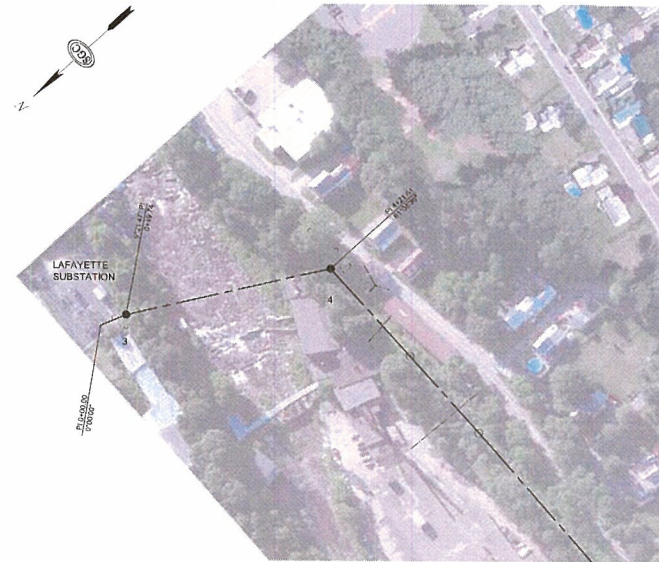
NOTES:

- LINE 102 REMOVED TO MAKE 100' CLEAR, HEAVY LIFTING (STRUCTURE 70500)
- 783 ASH "TREAT" CONDUIT REPLACED @ 710' AND DESIGNED TO A MAX TENSION OF 4000LBS. (LIMITS OVERSPREAD NOTED)
- ADD 100' FREE OPTIC CABLE (40L, 40A, 401A) DISPLAYED @ 100' AND 400'
- SEVERE TENSION OF 1000LBS @ 100' (LIMITS OVERSPREAD NOTED)
- MAINTENANCE DATA FROM VERMONT SUPPLY & ENGINEERING, INC.

3	12/01/12	AGL/TMH	ISSUED FOR REVIEW - NOT FOR CONSTRUCTION
A	12/01/12	AGL/TMH	ISSUED FOR REVIEW - NOT FOR CONSTRUCTION
REV.	DATE	BY	DESCRIPTION
Green Mountain Power 163 Acorn Ln, Colchester VT, 05446 SUGAR RIVER CROSSING DETAIL S STRUCTURE 73 TO STRUCTURE 74 LINE 102 REBUILD 400V TRANSMISSION LINE			
SCALE: AS NOTED	DRAWN BY:	APPROVED BY:	12/01/12
DATE: 11/04/2015	CHECKED BY:	DATE:	B
DRAWING NUMBER:	EXHIBIT 2B		REV.
FILE: L:\SUBSTATION\EXHIBIT 2B			



*NOTE: ESTIMATED 100-YEAR FLOOD ELEVATION BASED ON FEMA FLOOD INSURANCE RATE MAP NUMBER 33019C0280C



STRUCTURE REPLACEMENT LEGEND:

- PROPOSED ANCHOR LOCATION
- EXISTING STRUCTURE (NO CHANGE)
- NEW STRUCTURE
- ▨ STRUCTURE REPLACEMENT (NO CHANGE IN HEIGHT)
- ▩ STRUCTURE REPLACEMENT (CHANGE IN HEIGHT)
- PROPOSED ALIGNMENT
- EXISTING OVERHEAD LINE

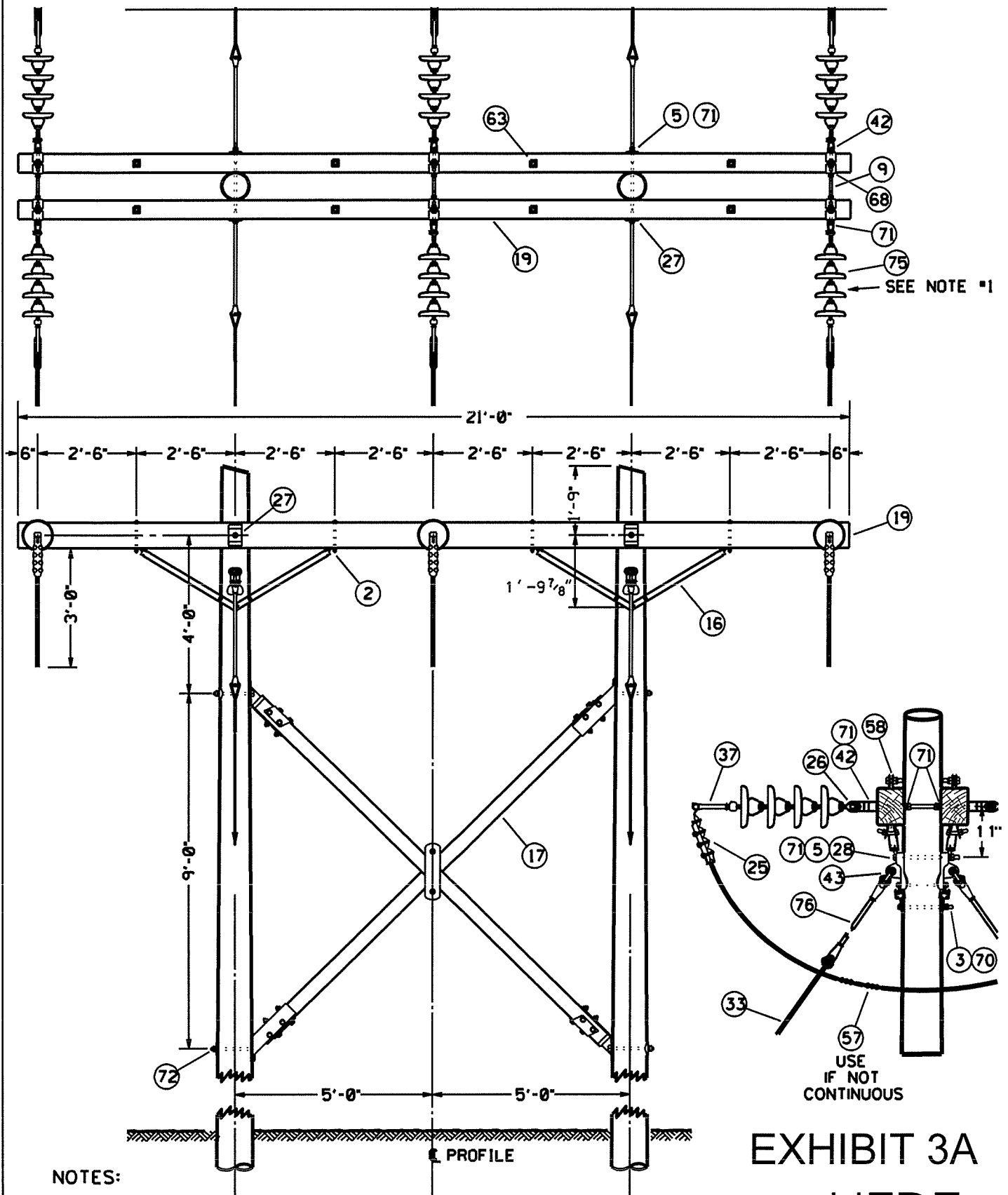
NOTES:

1. THIS PROJECT IS TO BE COMPLETED BY 2019. ALL NEW CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2015 ASCE "MINIMUM DESIGN STANDARD" (ASCE 7-15) AND THE 2015 ASCE "MINIMUM DESIGN STANDARD" (ASCE 7-15).
2. THIS ASCE "MINIMUM DESIGN STANDARD" (ASCE 7-15) SHALL BE USED TO DETERMINE THE DESIGN WIND SPEED AND THE DESIGN FLOOD ELEVATION.
3. THIS PROJECT IS TO BE COMPLETED BY 2019. ALL NEW CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2015 ASCE "MINIMUM DESIGN STANDARD" (ASCE 7-15) AND THE 2015 ASCE "MINIMUM DESIGN STANDARD" (ASCE 7-15).
4. MAPPING DATA FROM VERMONT SURVEY & ENGINEERING, INC.

REV.	DATE	BY	CHK	DESCRIPTION
A	11/24/2015	MM	CK	ISSUED FOR REVIEW - NOT FOR CONSTRUCTION
B				
C				
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E				
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GREEN MOUNTAIN POWER 100 Route 100, Colchester VT, 05441 802.255.1234 www.gmpower.com		Green Mountain Power 100 Route 100, Colchester VT, 05441 SUGAR RIVER CROSSING DETAIL 5 STRUCTURE 3 TO STRUCTURE 4 LINE 102 REBUILD 46KV TRANSMISSION LINE
SCALE: AS NOTED	DRAWN BY:	APPROVED BY:
DATE: 11/24/2015	CHECKED BY:	DATE:
DRAWING NUMBER:	EXHIBIT 2C	
FILE: L-SUBSTATION EXHIBIT 2C	REV:	

46KV H-FRAME STRUCTURE HFDE DEAD END



NOTES:

- INSULATOR STRINGS: 34.5 KV - 3 INSULATORS
46 KV - 4 INSULATORS
69 KV - 5 INSULATORS



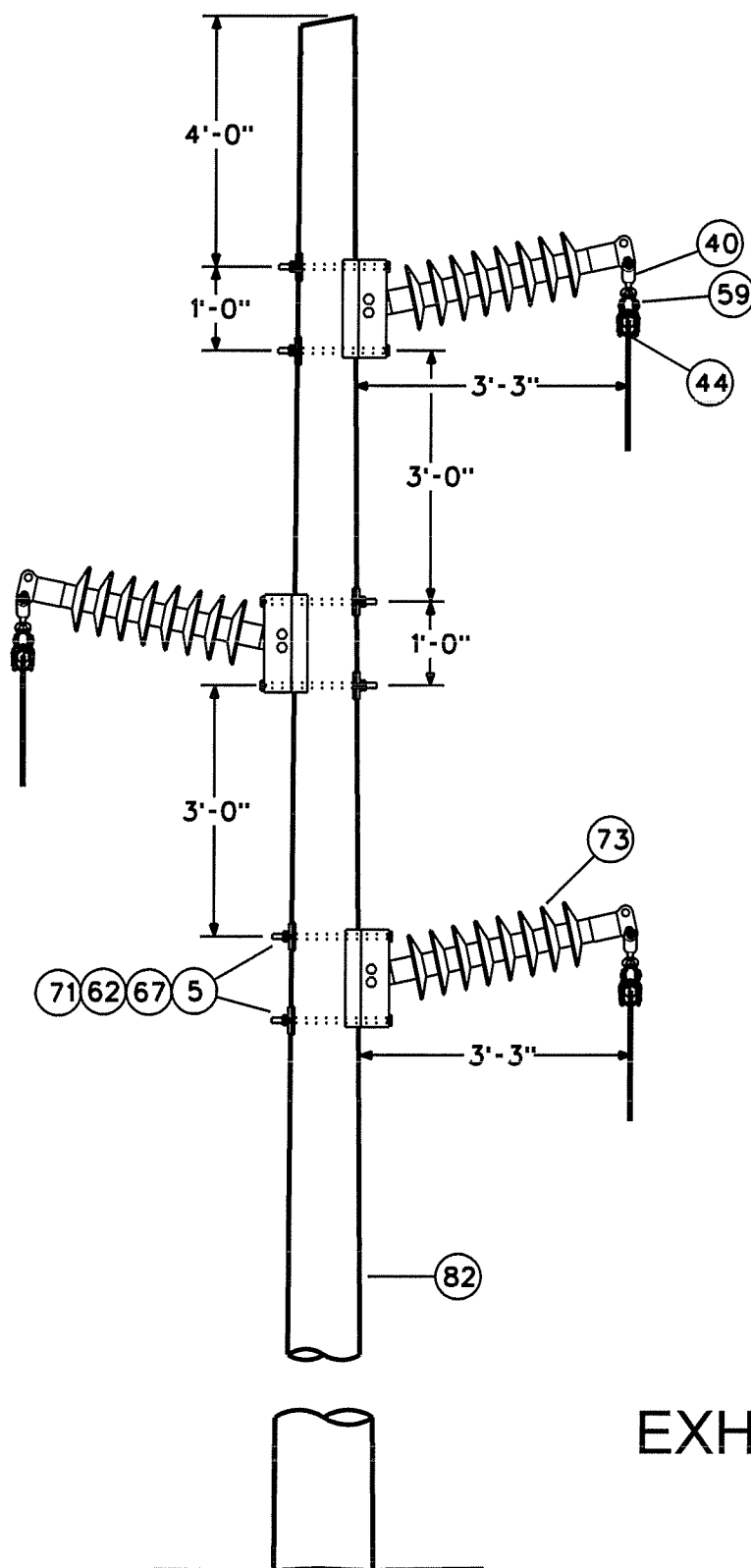
TRANSMISSION STANDARD

App'd: *Ref*

DATE: 06/2015

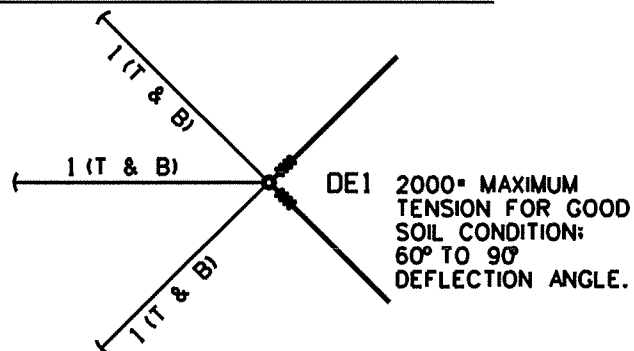
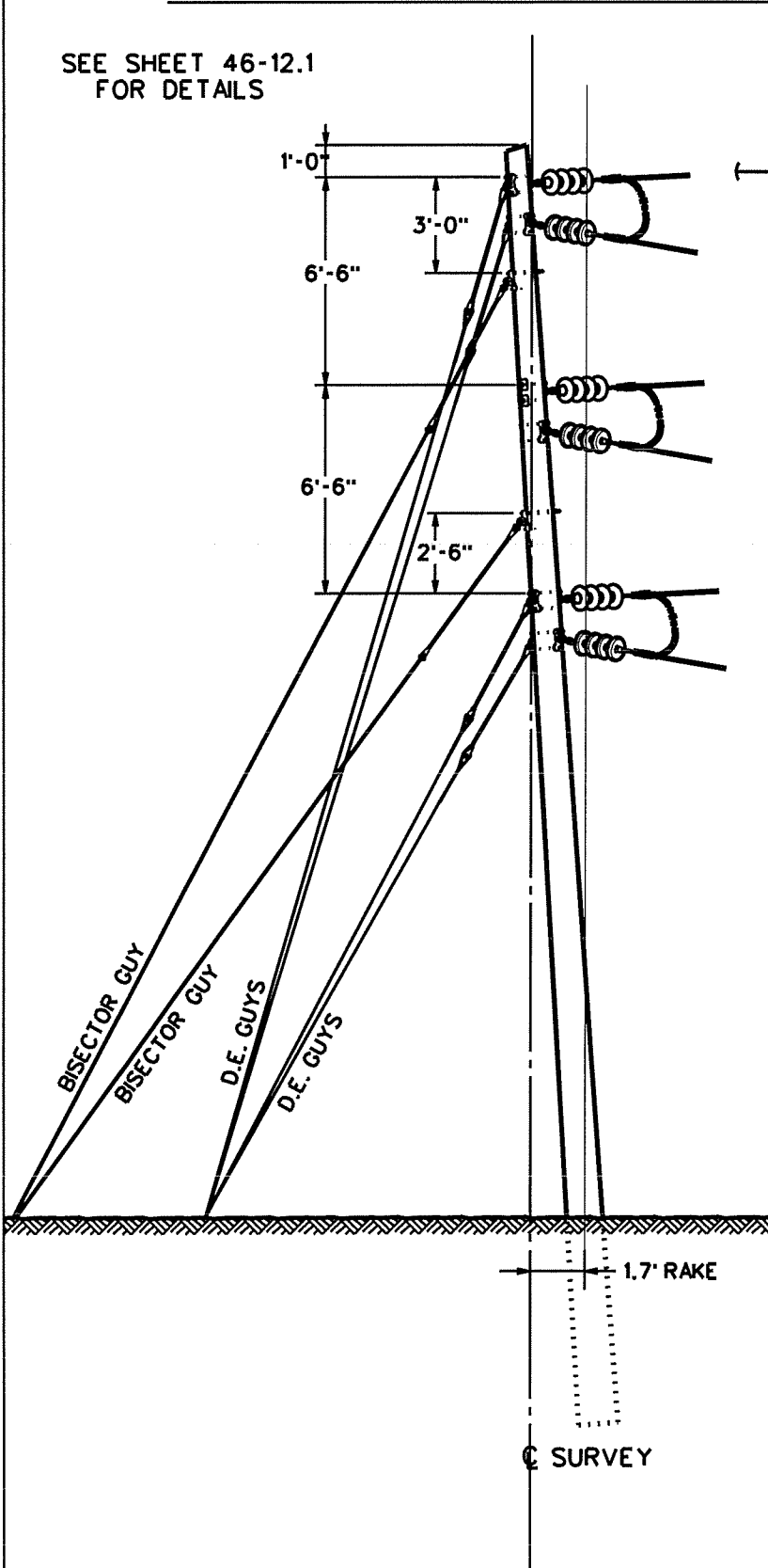
STANDARD NUMBER

46-8.0

46 KV TANGENT
POLYMER HORIZONTAL POST INSULATOREXHIBIT 3B
PHP

46 KV SINGLE POLE D.E. BELL STRUCTURE DE1

SEE SHEET 46-12.1
FOR DETAILS



POLE HEIGHT	* LEAD		
	30° BISECT		45° INLINE
	MINIMUM	NORMAL	
35'	16.2'	30'	28'
40'	18.8'	30'	32.5'
45'	21.7'	30'	37.5'
50'	24.3'	30'	42.0'
55'	26.8'	30'	46.5'
60'	29.4'	30'	51.0'
65'	32.0'	32.0'	55.5'
70'	34.6'	34.6'	60.0'

* USE APPROPRIATE GRAPH FOR LEAD CHANGE; SEE DWG. *

EXHIBIT 3C

UNDER CERTAIN CONDITIONS THIS STRUCTURE WILL BE USED FOR ANGLES LESS THAN 60 BY DECISION OF ENGINEERING DEPARTMENT.

DE1



TRANSMISSION STANDARD

App'd: *Ref*

DATE: 02/2014

STANDARD NUMBER

46-12.0