

# CommScope®

## Spanmaster® Release 3.1 Sag / Tension Computations

SOvernet Fiber Corporation 07/17/13 Mascoma River at Ban  
 Mascona River Crossing North side of Bank St. at Pumping Station St.

Selected Cables	X-SECT AREA (sq.in)	EFF MODULUS (psi)	NOMINAL DIAM (in)	EFF.EXP. COEFF. (1/F)	CABLE WEIGHT (lb/ft)	E*A LOAD BEARING CAPACITY (lbs)	MAX. RATED LOAD (lbs)
5/16"11.2mEHS	0.0595	2.60E+07	0.313	5.60E-06	0.2050	1545960	11200
ORF-2"D-072-LN	4.4300	1.20E+05	2.375	0.00E+00	1.0300	531600	2550
Bundle			2.688		1.2350		

### NESC RESULTS

Loading Condition	Temp. (F)	Ice Load lb/ft	Ice Thick in	Wind Constant lb/ft	Horz Wind Load lb/sq ft	Result Load + Const lb/ft	Sag ft	Tension lb	% Len Chg From Input Conditions
Rule 251 - Heavy	0.0	1.982	.50	.3	4.0	3.744	2.72	3857	0.06
232A1	120.0	0.000	.00	.0	0.0	1.235	1.72	2011	0.01

	Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
Span Length = 150.00 ft					
Span Sag = 1.50 ft (18.0 in)					
Span Tension = 2,316 lb					
Max Load = 11,200 lb	-40.0	1.12	3,078	-0.01	N/A
Usable load (60%) = 6,720 lb	-30.0	1.15	3,003	-0.01	N/A
Catenary Length = 150.040 ft	-20.0	1.18	2,929	-0.01	N/A
Stress Free Length @	-10.0	1.21	2,857	-0.01	N/A
Installed Temperature = 149.816 ft	.0	1.24	2,785	-0.01	N/A
Unloaded Strand	10.0	1.28	2,713	-0.01	N/A
Sag = .30 ft (3.6 in) 0.20 %	20.0	1.31	2,643	-0.01	N/A
Tension = 1,919 lb	30.0	1.35	2,574	-0.01	N/A
	40.0	1.38	2,506	0.00	N/A
	50.0	1.42	2,440	0.00	N/A
	60.0	1.46	2,374	0.00	N/A
	70.0	1.50	2,310	0.00	N/A
	80.0	1.54	2,247	0.00	N/A
	90.0	1.59	2,186	0.00	N/A
	100.0	1.63	2,126	0.00	N/A
	110.0	1.68	2,068	0.01	N/A
	120.0	1.72	2,011	0.01	N/A
	130.0	1.77	1,956	0.01	N/A
	140.0	1.82	1,902	0.01	N/A

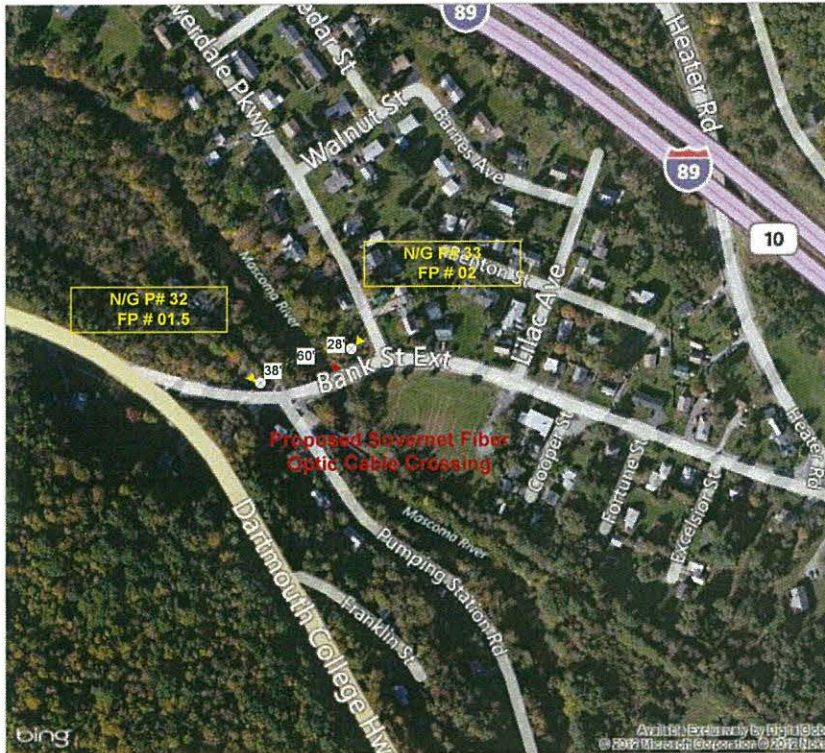
bing Maps

Mascoma River Crossing # 5 Bank St. Ext. Zone 12

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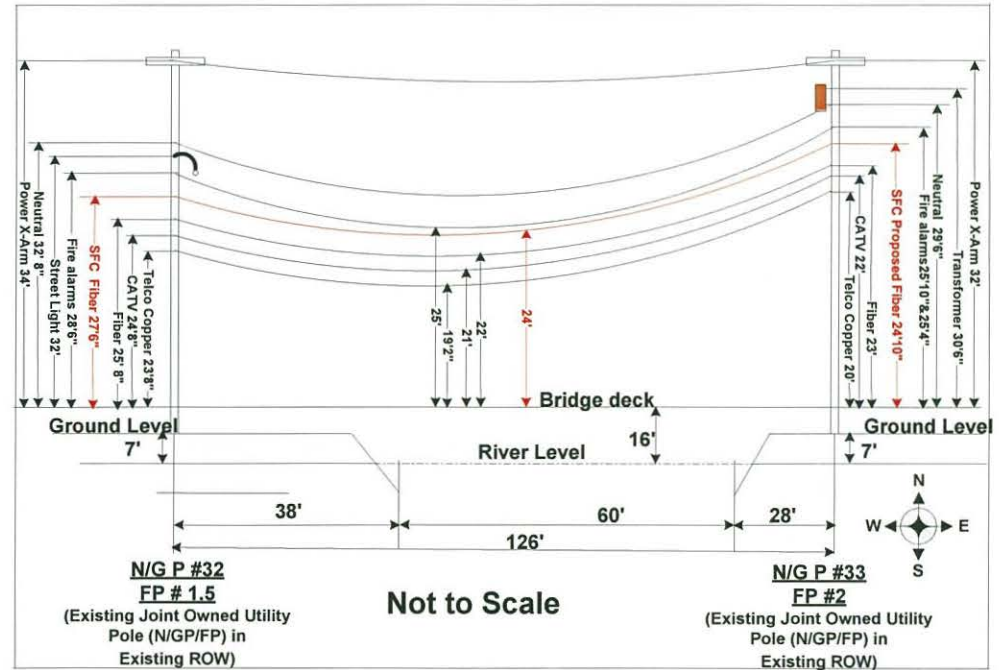
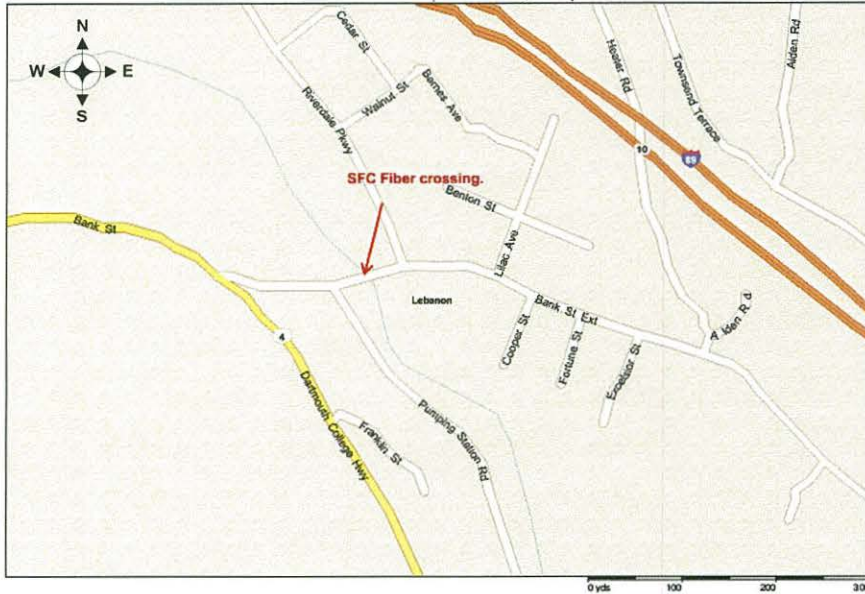
Mascoma River Crossing Bank St. Ext.



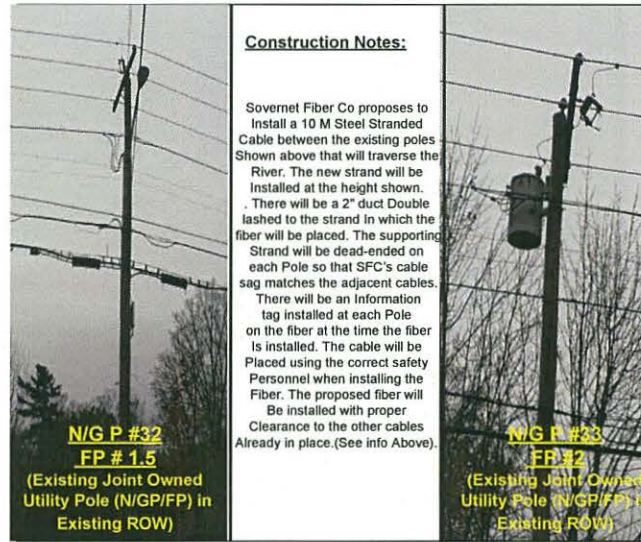
**SOVERNET COMMUNICATIONS**  
 5 Canal Street  
 Bellow Falls, VT 05101  
 802-460-9100

WO:	<b>SOVERNET COMMUNICATIONS</b>		
ROUTE:	Zone 12		
ROW:	Public	DATE	
STAKED BY:	DLY	DATE	3-28-13
REV BY:	DLY	DATE	8-14-13
PROJECT:	Cell Tower on Tower Rd.		
ROUTE:	Mascoma River crossing Bank St. Ext		
SHEET:	1	OF	2

### Mascoma River Crossing at Bank St. Ext.



### Mascoma River Crossing at Bank St. Ext.



#### Construction Notes:

Sovernet Fiber Co proposes to install a 10 M Steel Stranded Cable between the existing poles shown above that will traverse the River. The new strand will be installed at the height shown. There will be a 2" duct Double fashed to the strand in which the fiber will be placed. The supporting Strand will be dead-ended on each Pole so that SFC's cable sag matches the adjacent cables. There will be an information tag installed at each Pole on the fiber at the time the fiber is installed. The cable will be placed using the correct safety Personnel when installing the Fiber. The proposed fiber will be installed with proper Clearance to the other cables already in place. (See info Above).



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