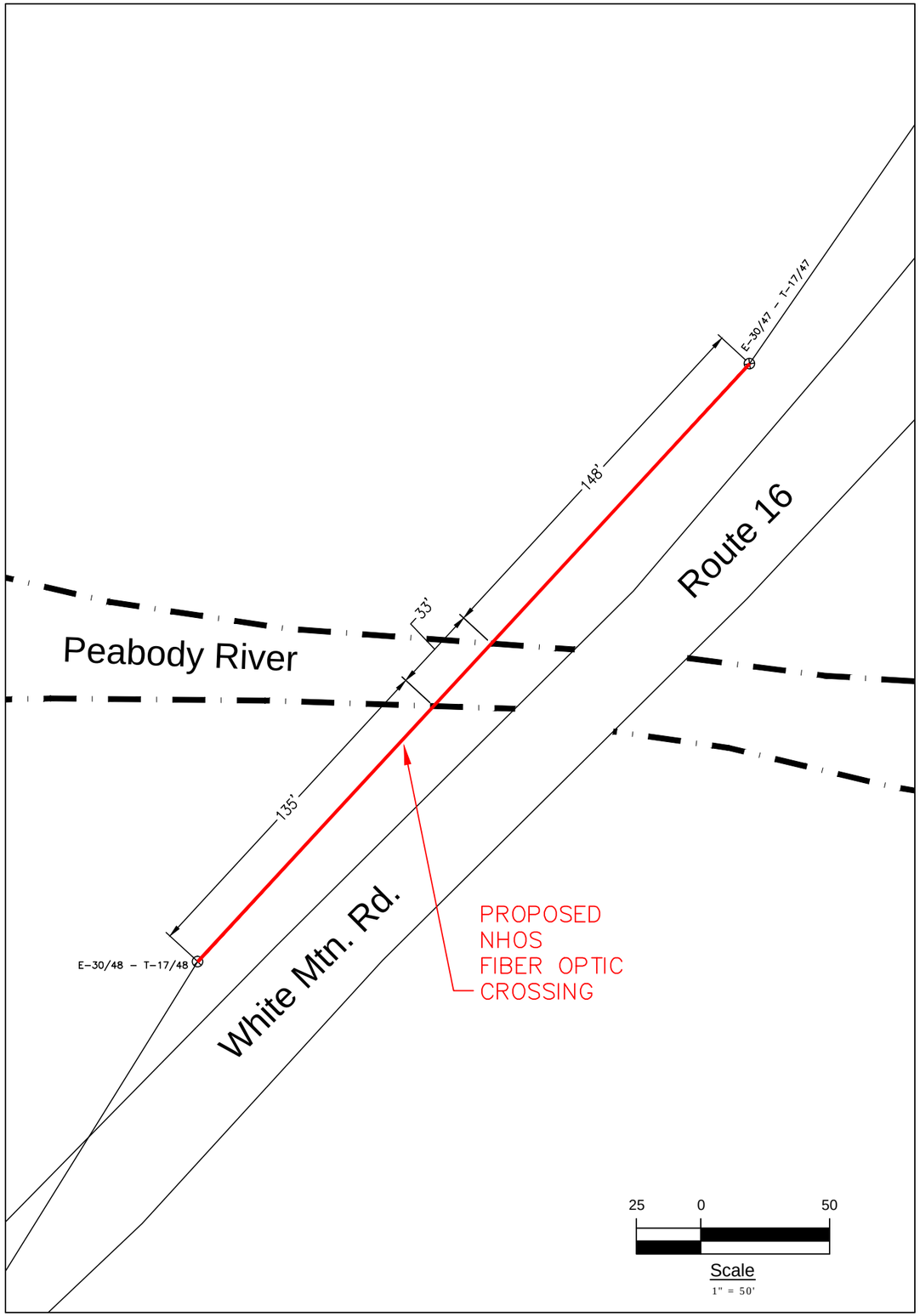

NHOS
New Hampshire Optical Systems
New Hampshire Optical Systems, Inc.
99 Pine Hill Rd.
Nashua, NH 03063
(603-821-6467)

Proposed River Crossing Gorham, NH

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Project # TID-157 - Primary 10
Drawing # AC-GOR-RIV-4

Date: 11/28/11
Revision #

Proposed
River Crossing
Gorham, NH

Location:
White Mtn Rd., Gorham NH
Nearest cross street- White Birch Ln.

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LOCUS MAP
(Not to Scale)

CommScope®

Spanmaster ® Release 3.1 Sag / Tension Computations

Waveguide 09/01/11 Waveguide
River and Rail Crossings

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)
1/4"6.6mEHS	0.0352	2.60E+07	0.250	5.60E-06	0.1210	914940	6650
ORF-O-288-LN	0.5782	2.70E+05	0.858	1.13E-05	0.1960	155982	651
Bundle			1.108		0.3170		

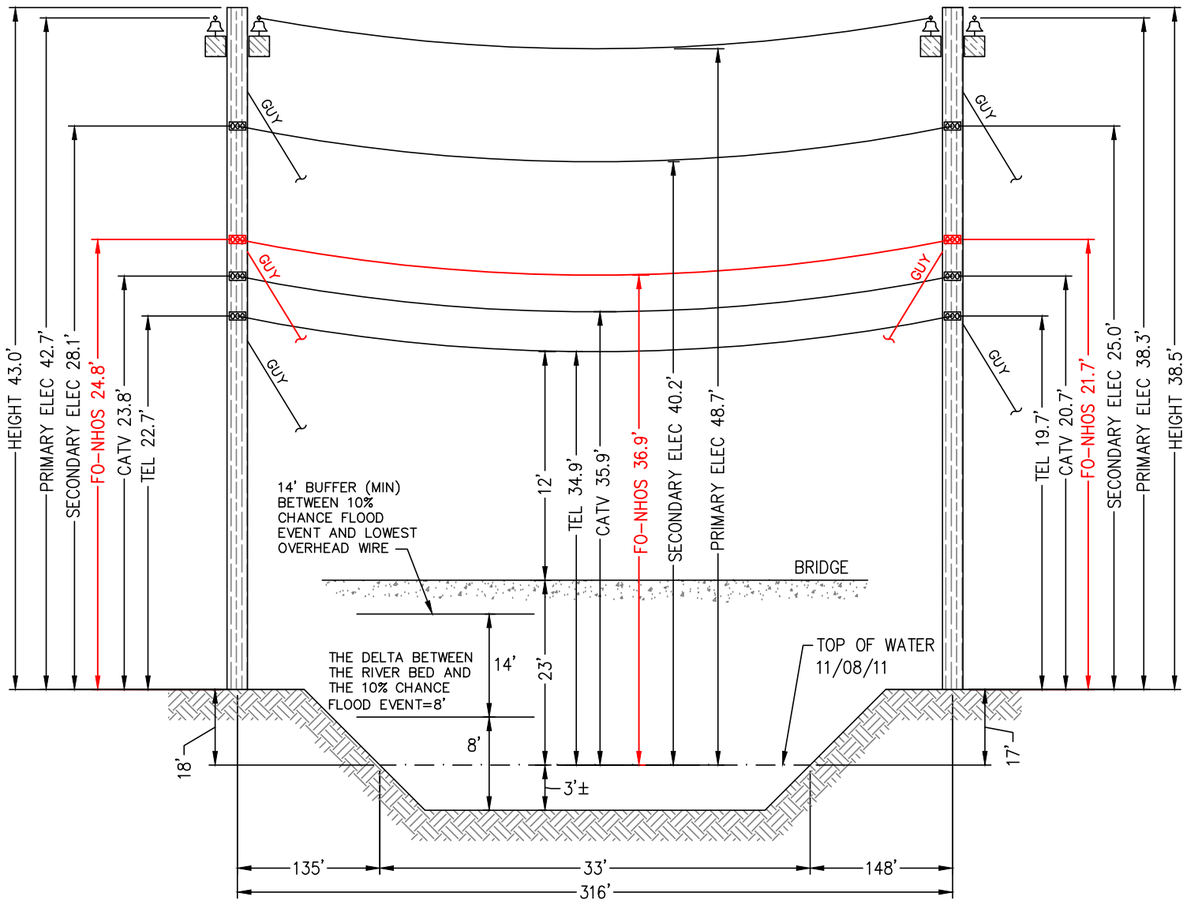
NESC RESULTS

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	Sag @ Point 158 ft	Horz Sag Comp ft	Vert Sag Comp ft	Vector Angle Deg
Rule 251 - Heavy	0.0	1.000	.50	.3	4.0	1.793	7.82	2854	0.14	7.84	3.68	6.90	28.1
232A1	120.0	0.000	.00	.0	0.0	0.317	3.66	1078	0.01	3.67	0.00	3.66	0.0

Span Length = 316.00 ft
Span Sag = 3.16 ft (37.9 in)
Span Tension = 1,252 lb
Max Load = 6,650 lb
Usable load (60%) = 3,990 lb
Catenary Length = 316.084 ft
Stress Free Length @
Installed Temperature = 315.652 ft

Unloaded Strand
Sag = 1.43 ft (17.1 in) 0.45 %
Tension = 1,058 lb

Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
-40.0	2.32	1,698	-0.01	N/A
-30.0	2.38	1,655	-0.01	N/A
-20.0	2.45	1,611	-0.01	N/A
-10.0	2.52	1,568	-0.01	N/A
.0	2.59	1,526	-0.01	N/A
10.0	2.66	1,484	-0.01	N/A
20.0	2.73	1,443	-0.01	N/A
30.0	2.81	1,403	-0.01	N/A
40.0	2.89	1,363	0.00	N/A
50.0	2.98	1,324	0.00	N/A
60.0	3.07	1,287	0.00	N/A
70.0	3.16	1,249	0.00	N/A
80.0	3.25	1,213	0.00	N/A
90.0	3.35	1,178	0.00	N/A
100.0	3.45	1,144	0.01	N/A
110.0	3.56	1,110	0.01	N/A
120.0	3.66	1,078	0.01	N/A
130.0	3.77	1,047	0.01	N/A
140.0	3.89	1,017	0.01	N/A



E-30/48 – T-17/48
(Existing joint owned utility pole (PSNH/Fairpoint) in existing Right-of-Way)

E-30/47 – T-17/47
(Existing joint owned utility pole (PSNH/Fairpoint) in existing Right-of-Way)

E-30/48 – T-17/48

Construction Notes:

NHOS proposes to install a ¼ inch metal supporting strand between the existing utility poles shown above that will traverse the river. The strand will be installed at the proposed height (see above). The supporting strand will be secured to each pole using double dead end attachments to prevent any sag in the wire and maintain proper clearances. NHOS will lash a one inch diameter fiber optic cable (PVC jacket) to the strand using a dual lash method to provide security of the fiber over the right of way. The fiber will be tagged with twenty four hour contact information at each pole clamp. NHOS will employ the proper safety personnel during the crossing installation. The proposed install will meet all proper clearances from other Utilities. (see above). Additional pole guys will be added per NESC Rule 264 and as directed by pole owners.

E-30/47 – T-17/47

NHOS
New Hampshire Optical Systems
New Hampshire Optical Systems, Inc.
99 Pine Hill Rd.
Nashua, NH 03063
(603-821-6467)

Proposed River Crossing Gorham, NH

Notes:

1. The heights of structures shown hereon are based on field measurements taken with a Nikon 362 total station during a site survey on 11/08/11.
2. The horizontal distance between the nearest bridge edge and the existing overhead wires ranges from 24' to 25'.
3. The smallest vertical distance from the top of existing bridge deck to the lowest existing overhead wires is 12'.
4. The vertical distance between the top of water and bridge deck is approximately 23'.
5. The waterway is classified as not suitable for sail boating and per NESC Table 232-1 a vertical clearance of 14' must be maintained between the lowest conductor and 10 year floodplain.
6. Based on the FEMA Flood Profile for the Peabody River (Page 122P) and the Flood Insurance Rate Map for the Town of Gorham, Coos County, (Community Panel Number 330032 0015 C) dated May 2, 1994 the difference between the river bed and the 10% Chance Flood Event is 8'.
7. Vertical distances are representative of attachment heights after utility make ready moves are completed.

Project # TID-157 - Primary 10
Drawing # AC-GOR-RIV-4

Date: 11/28/11
Revision #

Proposed River Crossing Gorham, NH

Location:
White Mtn Rd., Gorham NH
Nearest cross street- White Birch Ln.

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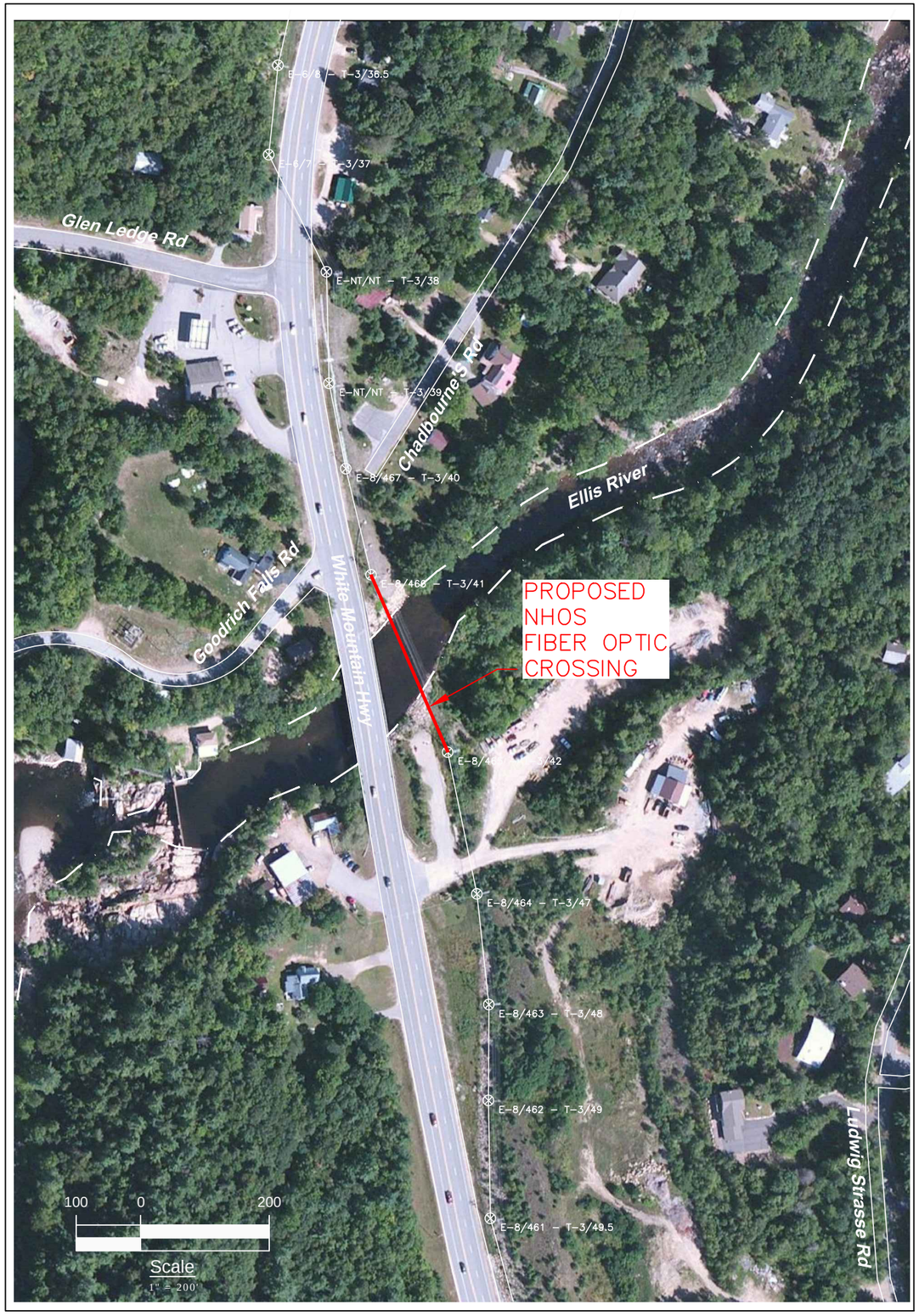

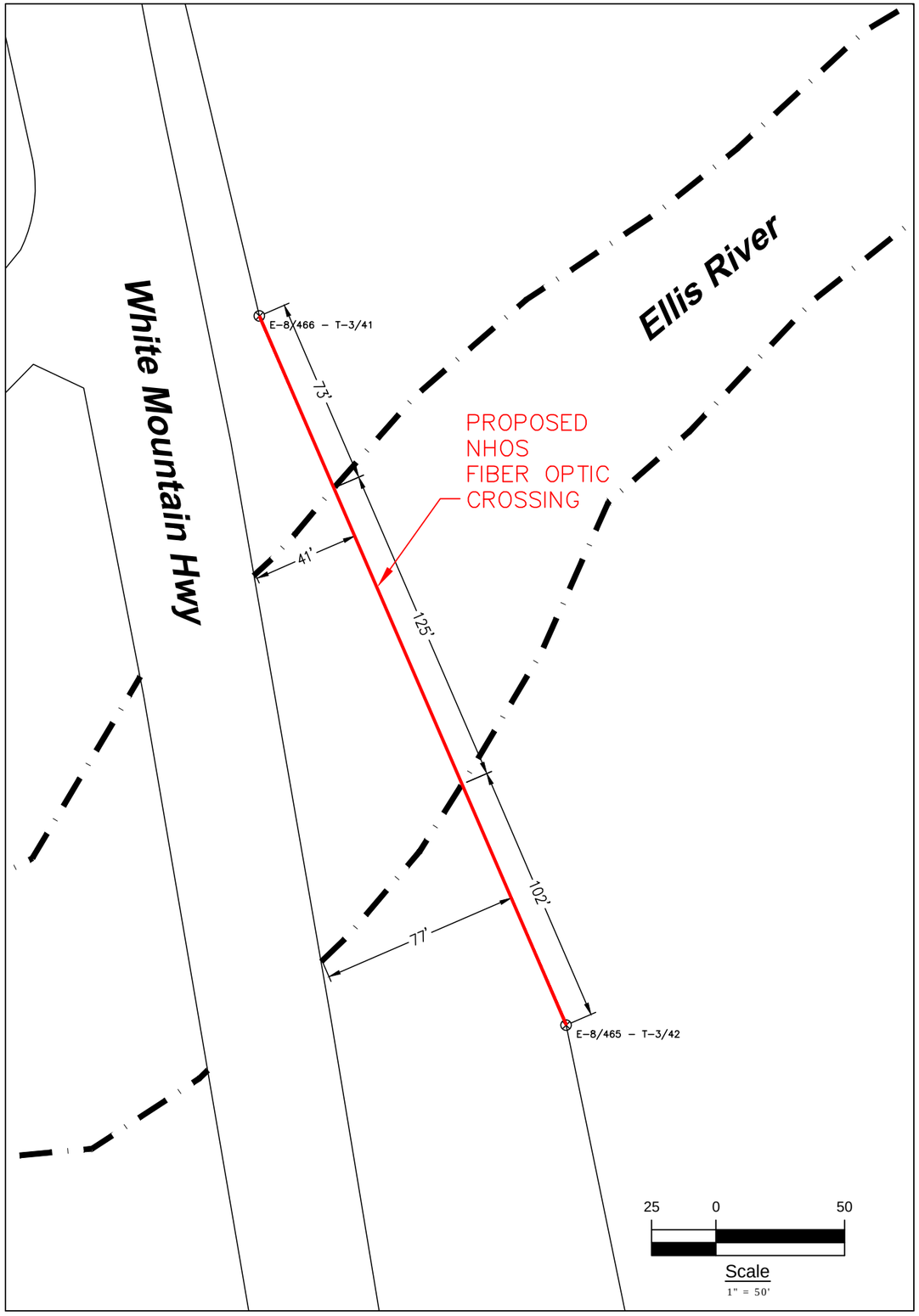

NHOS
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99 Pine Hill Rd.
Nashua, NH 03063
(603-821-6467)

Proposed
River Crossing
Bartlett, NH

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Project # TID-162 - Primary 10
Drawing # AC-BAR-RIV-1

Date: 11/30/11
Revision #

Proposed
River Crossing
Bartlett, NH

Location:
Pinkham Notch Rd., Bartlett NH
Nearest cross street- Goodrich Falls Rd.

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LOCUS MAP
(Not to Scale)

CommScope®

Spanmaster ® Release 3.1 Sag / Tension Computations

Waveguide 09/01/11 Waveguide
River and Rail Crossings

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)
1/4"6.6mEHS	0.0352	2.60E+07	0.250	5.60E-06	0.1210	914940	6650
ORF-O-288-LN	0.5782	2.70E+05	0.858	1.13E-05	0.1960	155982	651
Bundle			1.108		0.3170		

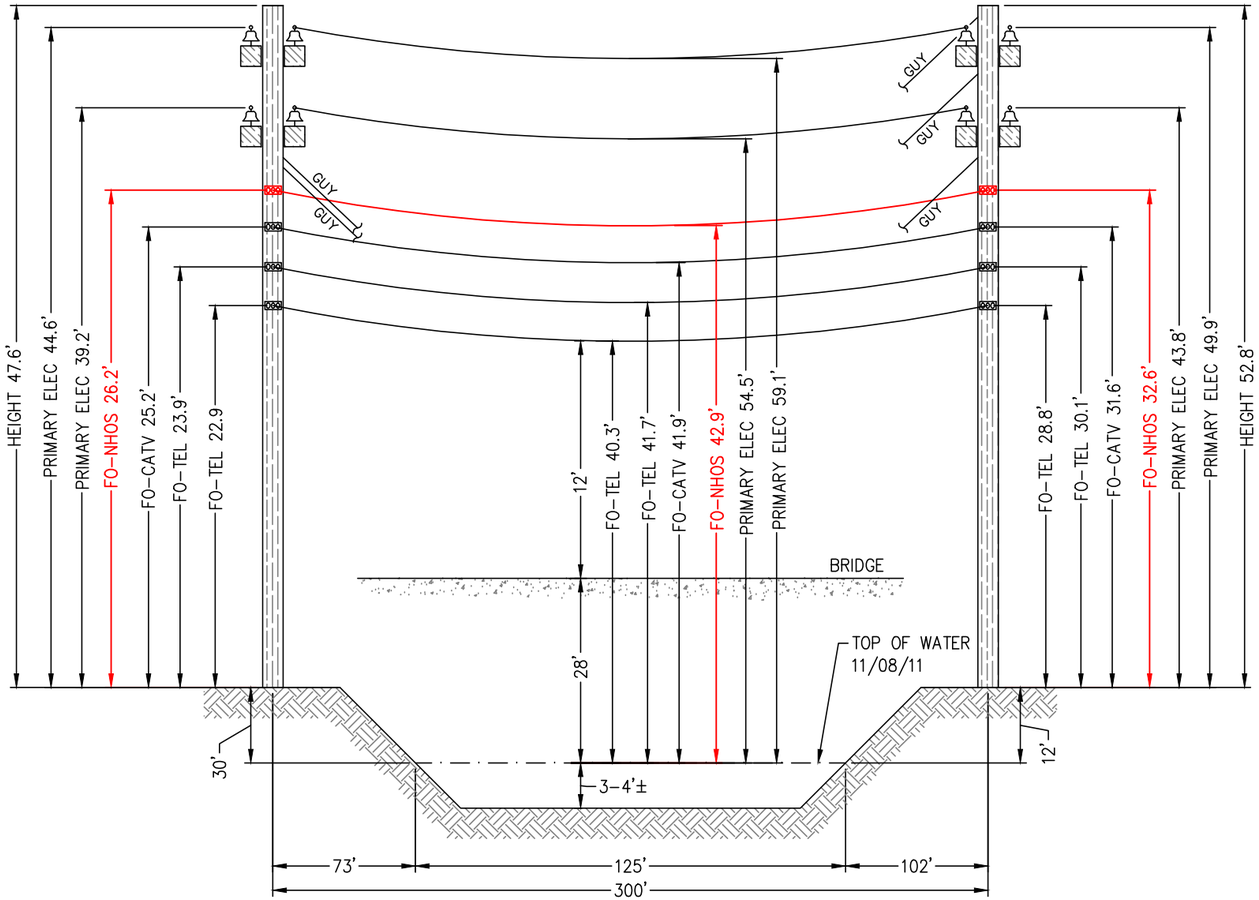
NESC RESULTS

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	Sag @ Point 150 ft	Horz Sag Comp ft	Vert Sag Comp ft	Vector Angle Deg
Rule 251 - Heavy	0.0	1.000	.50	.3	4.0	1.793	7.32	2749	0.13	7.34	3.44	6.45	28.1
232A1	120.0	0.000	.00	.0	0.0	0.317	3.50	1018	0.01	3.50	0.00	3.50	0.0

Span Length = 300.00 ft
Span Sag = 3.00 ft (36.0 in)
Span Tension = 1,189 lb
Max Load = 6,650 lb
Usable load (60%) = 3,990 lb
Catenary Length = 300.080 ft
Stress Free Length @
Installed Temperature = 299.691 ft

Unloaded Strand
Sag = 1.37 ft (16.4 in) 0.46 %
Tension = 995 lb

Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
-40.0	2.18	1,632	-0.01	N/A
-30.0	2.24	1,589	-0.01	N/A
-20.0	2.30	1,545	-0.01	N/A
-10.0	2.37	1,503	-0.01	N/A
.0	2.43	1,461	-0.01	N/A
10.0	2.51	1,419	-0.01	N/A
20.0	2.58	1,378	-0.01	N/A
30.0	2.66	1,338	-0.01	N/A
40.0	2.74	1,299	0.00	N/A
50.0	2.82	1,261	0.00	N/A
60.0	2.91	1,223	0.00	N/A
70.0	3.00	1,186	0.00	N/A
80.0	3.09	1,151	0.00	N/A
90.0	3.19	1,116	0.00	N/A
100.0	3.29	1,082	0.01	N/A
110.0	3.39	1,050	0.01	N/A
120.0	3.50	1,018	0.01	N/A
130.0	3.60	988	0.01	N/A
140.0	3.71	959	0.01	N/A



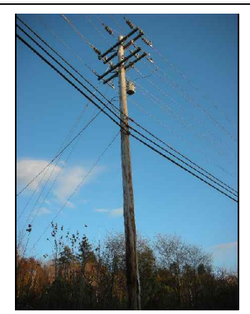
E-8/466 – T-3/41
(Existing joint owned utility pole (NHEC/Fairpoint) in existing Right-of-Way)

E-8/465 – T-3/42
(Existing joint owned utility pole (NHEC/Fairpoint) in existing Right-of-Way)

E-8/466 – T-3/41

Construction Notes:

NHOS proposes to install a ¼ inch metal supporting strand between the existing utility poles shown above that will traverse the river. The strand will be installed at the proposed height (see above). The supporting strand will be secured to each pole using double dead end attachments to prevent any sag in the wire and maintain proper clearances. NHOS will lash a one inch diameter fiber optic cable (PVC jacket) to the strand using a dual lash method to provide security of the fiber over the right of way. The fiber will be tagged with twenty four hour contact information at each pole clamp. NHOS will employ the proper safety personnel during the crossing installation. The proposed install will meet all proper clearances from other Utilities. (see above). Additional pole guys will be added per NESC Rule 264 and as directed by pole owners.



E-8/465 – T-3/42

NHOS
New Hampshire Optical Systems

New Hampshire Optical Systems, Inc.
99 Pine Hill Rd.
Nashua, NH 03063
(603-821-6467)

Proposed River Crossing Bartlett, NH

Notes:

1. The heights of structures shown hereon are based on field measurements taken with a Nikon 362 total station during a site survey on 11/08/11.
2. The horizontal distance between the nearest bridge edge and the existing overhead wires ranges from 41' to 77'.
3. The smallest vertical distance from the top of existing bridge deck to the lowest existing overhead wires is 12'.
4. The vertical distance between the top of water and bridge deck is approximately 28'.
5. The waterway is classified as not suitable for sail boating and per NESC Table 232-1 a vertical clearance of 14' must be maintained between the lowest conductor and 10 year floodplain.
6. Based on the FEMA Flood Insurance Rate Map for the Town of Bartlett, Carroll County, (Community Panel Number 330010 0010 C) dated March 1, 1984 there is no 10% chance flood event information available for this area.
7. Assuming the exising bridge deck was built above the 10% flood event we can safely assume that the lowest existing overhead wire is at least 12' above the 10 year flood plain.
8. Vertical distances are representative of attachment heights after utility make ready moves are completed.

Project # TID-162 - Primary 10
Drawing # AC-BAR-RIV-1

Date: 11/30/11
Revision #

Proposed
River Crossing
Bartlett, NH

Location:
Pinkham Notch Rd., Bartlett NH
Nearest cross street- Goodrich Falls Rd.

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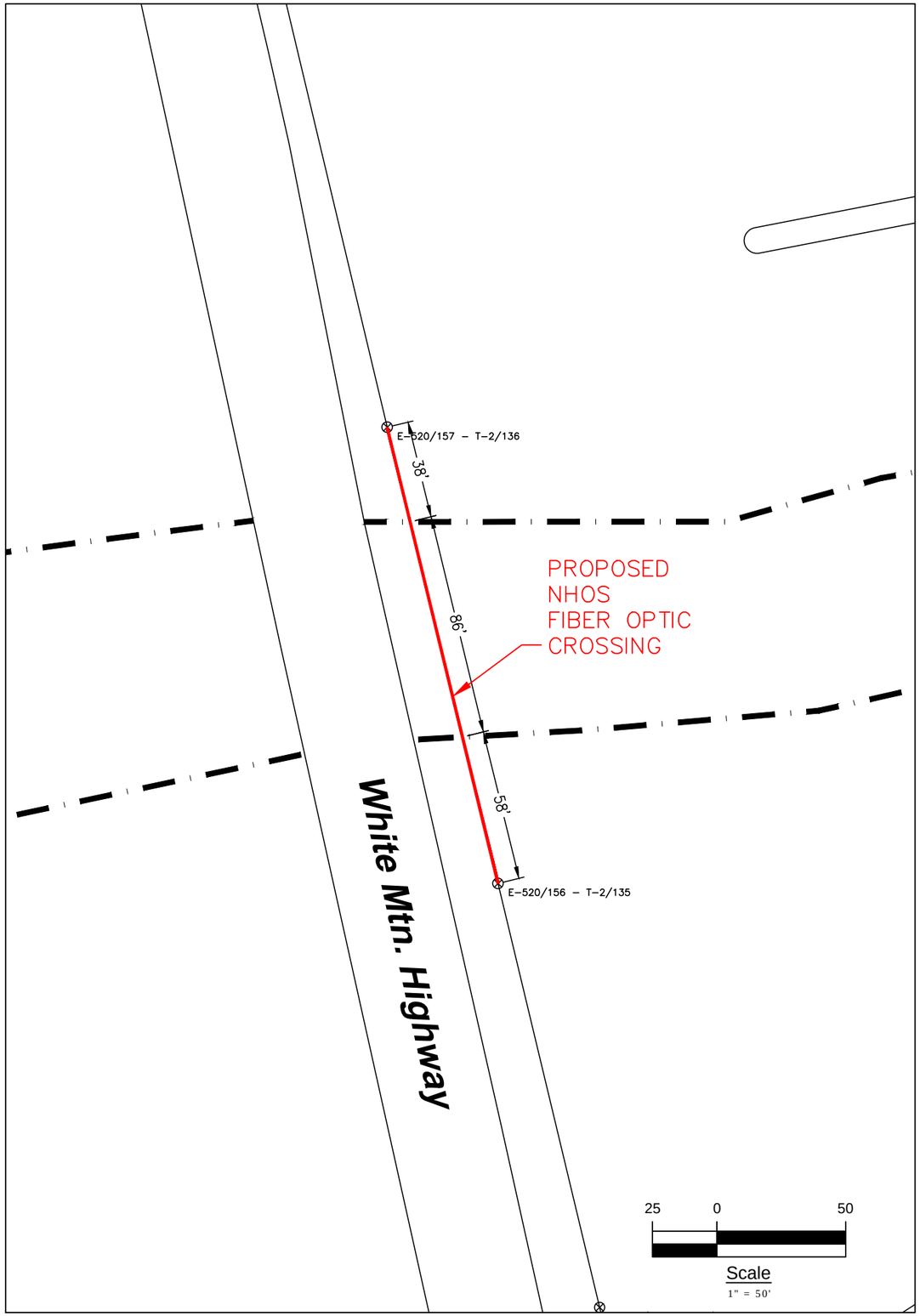

NHOS
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New Hampshire Optical Systems, Inc.
99 Pine Hill Rd.
Nashua, NH 03063
(603-821-6467)

Proposed
River Crossing
Bartlett, NH

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Project # TID-163 - Primary 10
Drawing # AC-BAR-RIV-2

Date: 12/02/11
Revision #

Proposed
River Crossing
Bartlett, NH

Location:
White Mtn. Rd., Bartlett NH
Nearest cross street- Town Hall Rd.

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LOCUS MAP
(Not to Scale)

CommScope®

Spanmaster ® Release 3.1 Sag / Tension Computations

Waveguide 09/01/11 Waveguide
River and Rail Crossings

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)
1/4"6.6mEHS	0.0352	2.60E+07	0.250	5.60E-06	0.1210	914940	6650
ORF-O-288-LN	0.5782	2.70E+05	0.858	1.13E-05	0.1960	155982	651
Bundle			1.108		0.3170		

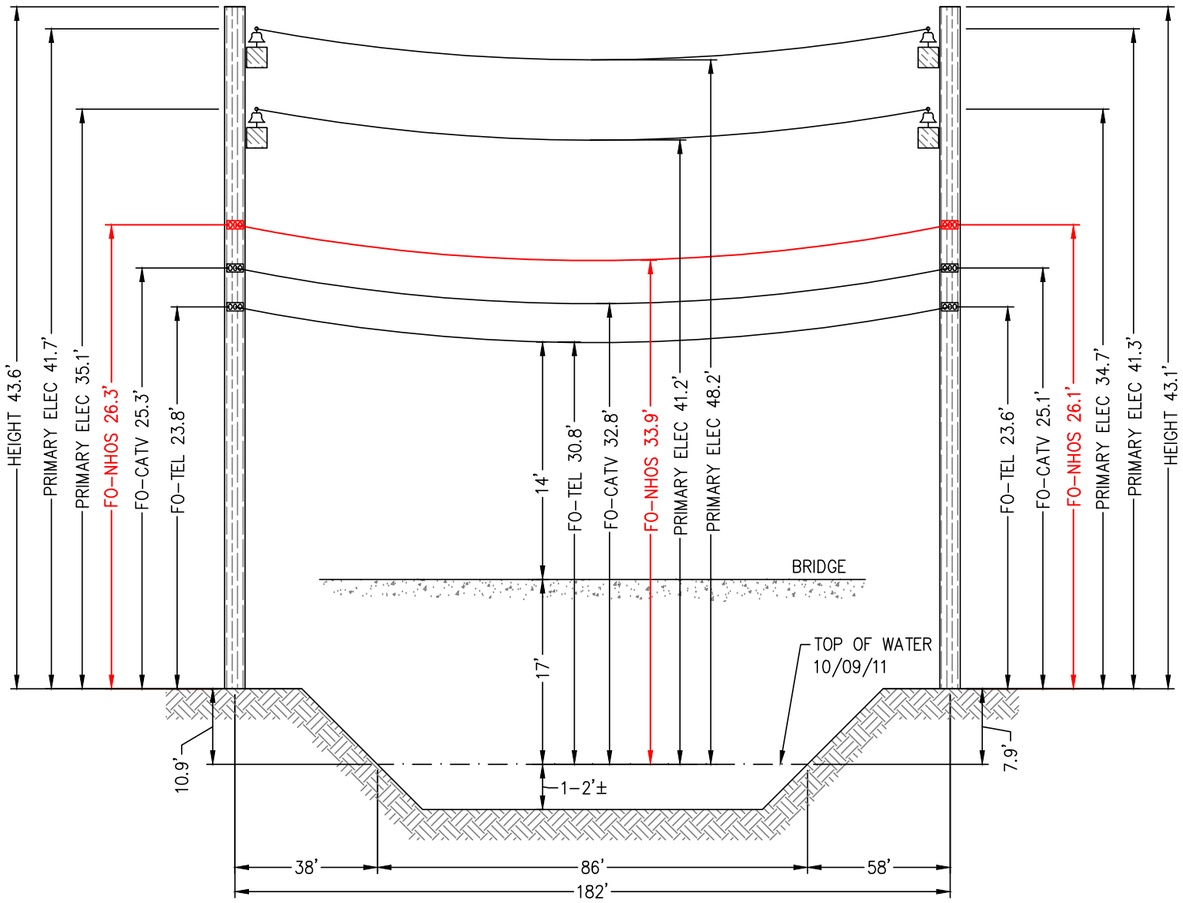
NESC RESULTS

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	Sag @ Point 9/1 ft	Horz Sag Comp ft	Vert Sag Comp ft	Vector Angle Deg
Rule 251 - Heavy	0.0	1.000	.50	.3	4.0	1.793	3.85	1925	0.09	3.86	1.81	3.40	28.1
232A1	120.0	0.000	.00	.0	0.0	0.317	2.23	588	0.01	2.23	0.00	2.23	0.0

Span Length = 182.00 ft
Span Sag = 1.82 ft (21.8 in)
Span Tension = 721 lb
Max Load = 6,650 lb
Usable load (60%) = 3,990 lb
Catenary Length = 182.049 ft
Stress Free Length @
Installed Temperature = 181.905 ft

Unloaded Strand
Sag = .93 ft (11.1 in) 0.51 %
Tension = 540 lb

Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
-40.0	1.15	1,137	-0.02	N/A
-30.0	1.20	1,093	-0.02	N/A
-20.0	1.25	1,051	-0.01	N/A
-10.0	1.30	1,010	-0.01	N/A
.0	1.35	969	-0.01	N/A
10.0	1.41	930	-0.01	N/A
20.0	1.47	891	-0.01	N/A
30.0	1.53	854	-0.01	N/A
40.0	1.60	819	-0.01	N/A
50.0	1.67	784	0.00	N/A
60.0	1.74	752	0.00	N/A
70.0	1.82	720	0.00	N/A
80.0	1.90	691	0.00	N/A
90.0	1.98	663	0.00	N/A
100.0	2.06	636	0.01	N/A
110.0	2.15	611	0.01	N/A
120.0	2.23	588	0.01	N/A
130.0	2.32	566	0.02	N/A
140.0	2.41	545	0.02	N/A



E-520/157 - T-2/136
(Existing joint owned utility pole (NHEC/Fairpoint) in existing Right-of-Way)

E-520/156 - T-2/135
(Existing joint owned utility pole (NHEC/Fairpoint) in existing Right-of-Way)

E-520/157 - T-2/136

Construction Notes:

NHOS proposes to install a ¼ inch metal supporting strand between the existing utility poles shown above that will traverse the river. The strand will be installed at the proposed height (see above). The supporting strand will be secured to each pole using double dead end attachments to prevent any sag in the wire and maintain proper clearances. NHOS will lash a one inch diameter fiber optic cable (PVC jacket) to the strand using a dual lash method to provide security of the fiber over the right of way. The fiber will be tagged with twenty four hour contact information at each pole clamp. NHOS will employ the proper safety personnel during the crossing installation. The proposed install will meet all proper clearances from other Utilities. (see above). Additional pole guys will be added per NESC Rule 264 and as directed by pole owners.

E-520/156 - T-2/135

NHOS
New Hampshire Optical Systems
New Hampshire Optical Systems, Inc.
99 Pine Hill Rd.
Nashua, NH 03063
(603-821-6467)

Proposed River Crossing Bartlett, NH

Notes:

1. The heights of structures shown hereon are based on field measurements taken with a Nikon 362 total station during a site survey on 11/09/11.
2. The horizontal distance between the nearest bridge edge and the existing overhead wires ranges from 14' to 17'.
3. The smallest vertical distance from the top of existing bridge deck to the lowest existing overhead wires is 14'.
4. The vertical distance between the top of water and bridge deck is approximately 17'.
5. The waterway is classified as not suitable for sail boating and per NESC Table 232-1 a vertical clearance of 14' must be maintained between the lowest conductor and 10 year floodplain.
6. Based on the FEMA Flood Insurance Rate Map for Carroll County (Community Panel Number 330010 0010 C) dated March 1, 1984 there is no 10% chance flood event information available for this area.
7. Assuming the exising bridge deck was built above the 10% flood event we can safely assume that the lowest existing overhead wire is 14' above the 10 year flood plain.
8. Vertical distances are representative of attachment heights after utility make ready moves are completed.

Project # TID-163 - Primary 10
Drawing # AC-BAR-RIV-2

Date: 12/02/11
Revision #

Proposed
River Crossing
Bartlett, NH

Location:
White Mtn. Rd., Bartlett NH
Nearest cross street- Town Hall Rd.

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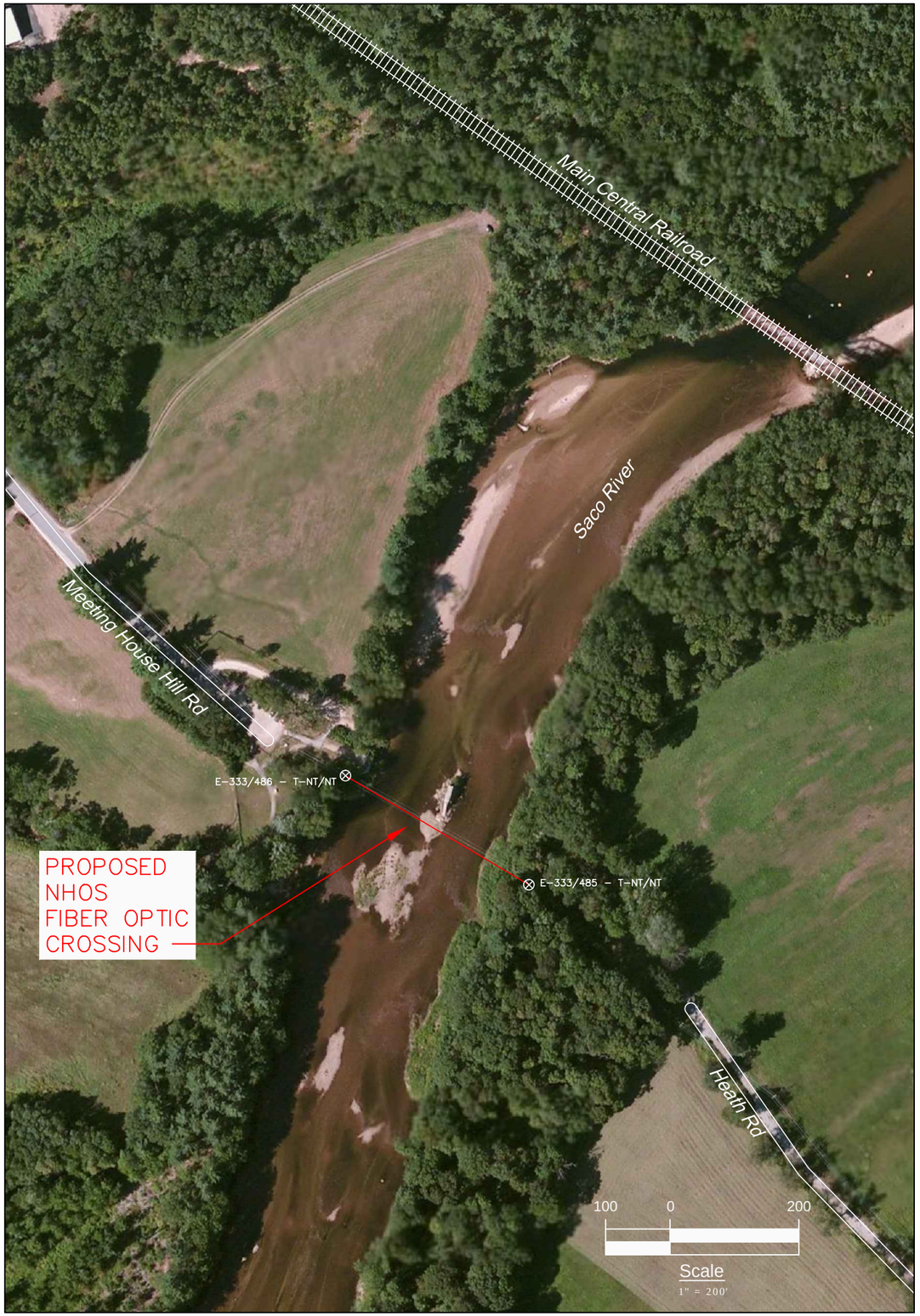

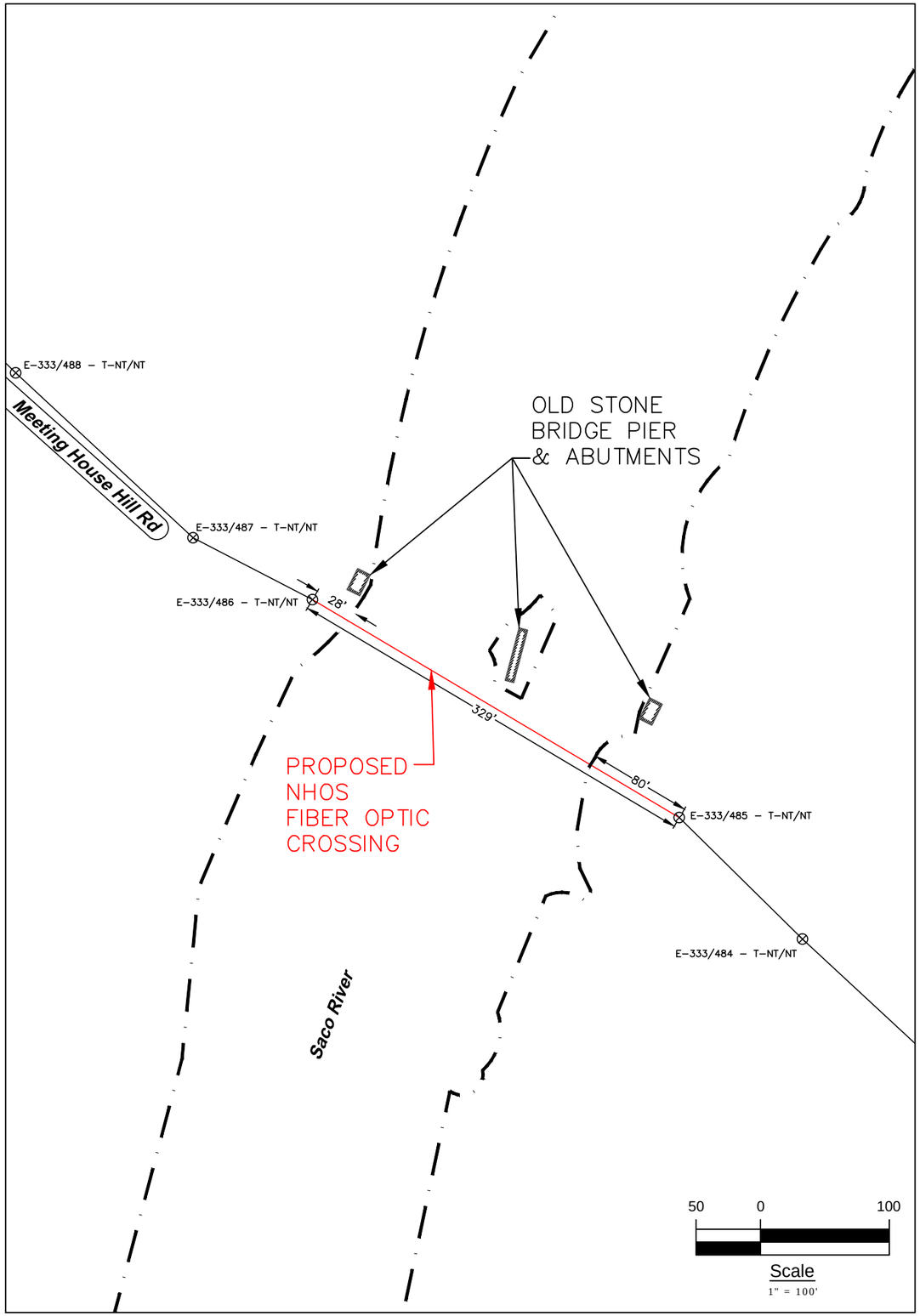

NHOS
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New Hampshire Optical Systems, Inc.
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Nashua, NH 03063
(603-821-6467)

Proposed Crossing
Saco River
Conway, NH

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Project # TID-166-PRI-10
Drawing # AC-CONW-RIV-1

Date: 11/30/2011
Revision #

Proposed Crossing
Saco River
Conway, NH

Location:
Heath Rd, Conway, NH
Nearest cross street: Main St

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LOCUS MAP
(Not to Scale)

CommScope®

Spanmaster ® Release 3.1 Sag / Tension Computations

Waveguide 09/01/11 Waveguide
River and Rail Crossings

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)
1/4"6.6mEHS	0.0352	2.60E+07	0.250	5.60E-06	0.1210	914940	6650
ORF-O-144-LN	0.4307	3.50E+05	0.741	1.09E-05	0.1520	150720	640
Bundle			0.991		0.2730		

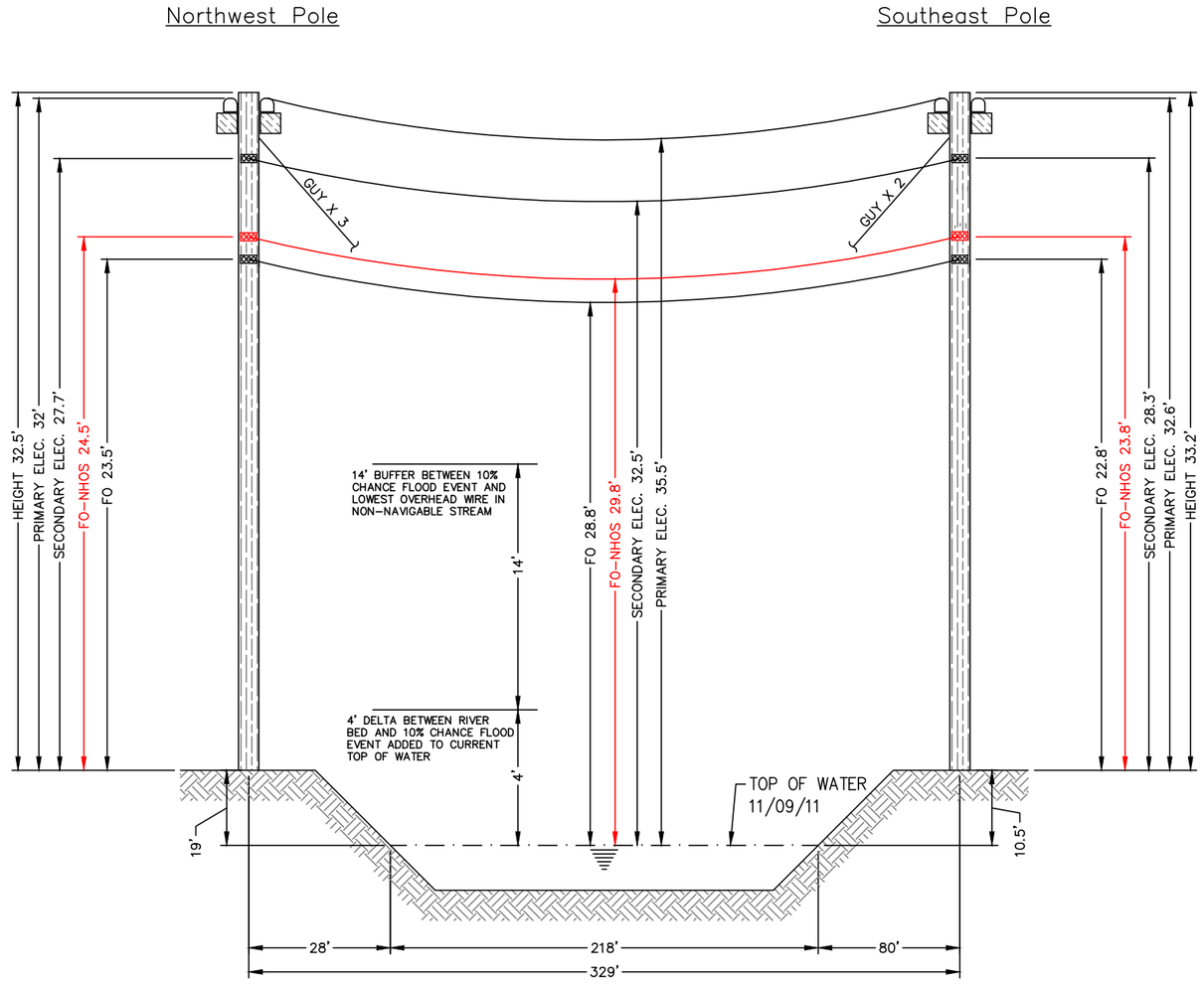
NESC RESULTS

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	Sag @ Point 164.5 ft	Horz Sag Comp ft	Vert Sag Comp ft	Vector Angle Deg
Rule 251 - Heavy	0.0	0.927	.50	.3	4.0	1.671	8.20	2749	0.14	8.23	3.97	7.18	28.9
232A1	120.0	0.000	.00	.0	0.0	0.273	3.86	956	0.01	3.86	0.00	3.86	0.0

Span Length = 329.00 ft
Span Sag = 3.29 ft (39.5 in)
Span Tension = 1,123 lb
Max Load = 6,650 lb
Usable load (60%) = 3,990 lb
Catenary Length = 329.088 ft
Stress Free Length @
Installed Temperature = 328.684 ft

Unloaded Strand
Sag = 1.73 ft (20.8 in) 0.53 %
Tension = 946 lb

Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
-40.0	2.36	1,563	-0.01	N/A
-30.0	2.42	1,520	-0.01	N/A
-20.0	2.49	1,476	-0.01	N/A
-10.0	2.57	1,434	-0.01	N/A
.0	2.65	1,392	-0.01	N/A
10.0	2.73	1,351	-0.01	N/A
20.0	2.81	1,310	-0.01	N/A
30.0	2.90	1,271	-0.01	N/A
40.0	2.99	1,232	0.00	N/A
50.0	3.09	1,194	0.00	N/A
60.0	3.19	1,157	0.00	N/A
70.0	3.29	1,121	0.00	N/A
80.0	3.40	1,086	0.00	N/A
90.0	3.51	1,052	0.00	N/A
100.0	3.62	1,019	0.01	N/A
110.0	3.74	987	0.01	N/A
120.0	3.86	956	0.01	N/A
130.0	3.98	927	0.01	N/A
140.0	4.11	899	0.01	N/A



E-333/486 - T-NT/NT
(Existing single owned utility pole (PSNH) in existing Right-of-Way)

Not to Scale

E-333/485 - T-NT/NT
(Existing single owned utility pole (PSNH) in existing Right-of-Way)

E-333/486 - T-NT/NT

Construction Notes:

NHOS proposes to install a ¼ inch metal supporting strand between the existing utility poles shown above that will traverse the river. The strand will be installed at the proposed height (see above). The supporting strand will be secured to each pole using double dead end attachments to prevent any sag in the wire and maintain proper clearances. NHOS will lash a one inch diameter fiber optic cable (PVC jacket) to the strand using a dual lash method to provide security of the fiber over the right of way. The fiber will be tagged with twenty four hour contact information at each pole clamp. NHOS will employ the proper safety personnel during the crossing installation. The proposed install will meet all proper clearances from other Utilities. (see above). Additional pole guys will be added per NESC Rule 264 and as directed by pole owners.

E-333/485 - T-NT/NT

NHOS
New Hampshire Optical Systems
New Hampshire Optical Systems, Inc.
99 Pine Hill Rd.
Nashua, NH 03063
(603-821-6467)

Proposed Crossing Saco River Conway, NH

Notes:

1. The heights of structures shown hereon are based on field measurements taken with a Nikon 362 total station during a site survey on 11/9/11.
2. The waterway is classified as not suitable for sail boating and per NESC Table 232-1 a vertical clearance of 14' must be maintained between the lowest conductor and 10 year floodplain.
3. Based on the FEMA Flood Profile for the Saco River (Page 59P) and the Flood Insurance Rate Map for Carroll County (County Map Number 3300110040C) dated 6/3/02 a conservative 10 year flood elevation was calculated by adding the delta between the river bed and the 10 year flood elevation to the surveyed water level and then the 14' buffer (for non-navigable streams) was added to that.
4. Vertical distances are representative of attachment heights after utility make ready moves are completed.

Project # TID-166-PRI-10
Drawing # AC-CONW-RIV-1

Date: 11/30/2011
Revision #

Proposed Crossing
Saco River
Conway, NH

Location:
Heath Rd, Conway, NH
Nearest cross street: Main St

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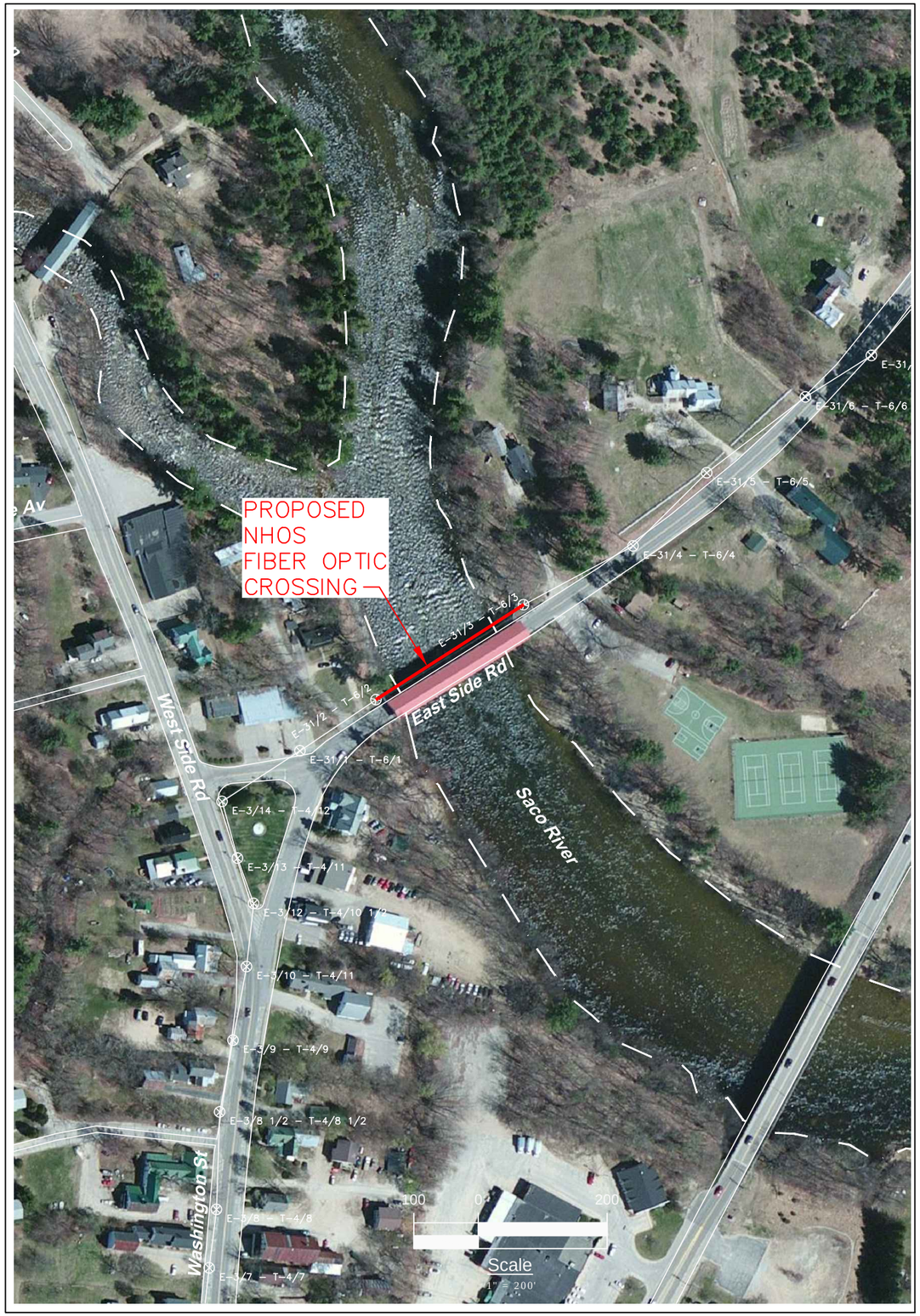

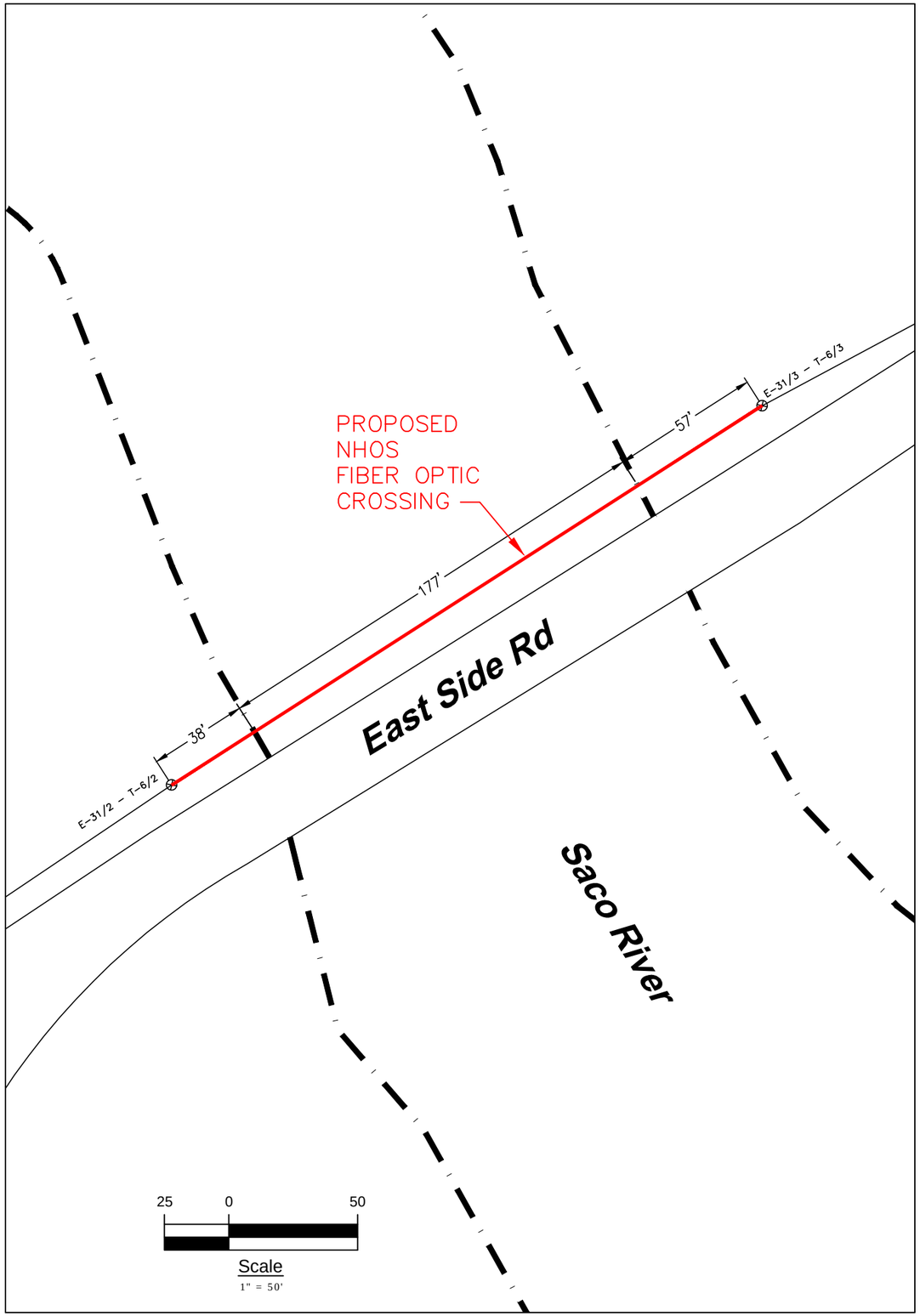

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Proposed
River Crossing
Conway, NH

N
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E
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Project # TID-168 - Lateral 6
Drawing # AC-CONW-RIV-3

Date: 12/06/11
Revision #

Proposed
River Crossing
Conway, NH

Location:
East Side Rd., Conway, NH
Nearest cross street- West Side St.

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LOCUS MAP
(Not to Scale)

CommScope®

Spanmaster ® Release 3.1 Sag / Tension Computations

Waveguide 09/01/11 Waveguide
River and Rail Crossings

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)
1/4"6.6mEHS	0.0352	2.60E+07	0.250	5.60E-06	0.1210	914940	6650
ORF-O-288-LN	0.5782	2.70E+05	0.858	1.13E-05	0.1960	155982	651
Bundle			1.108		0.3170		

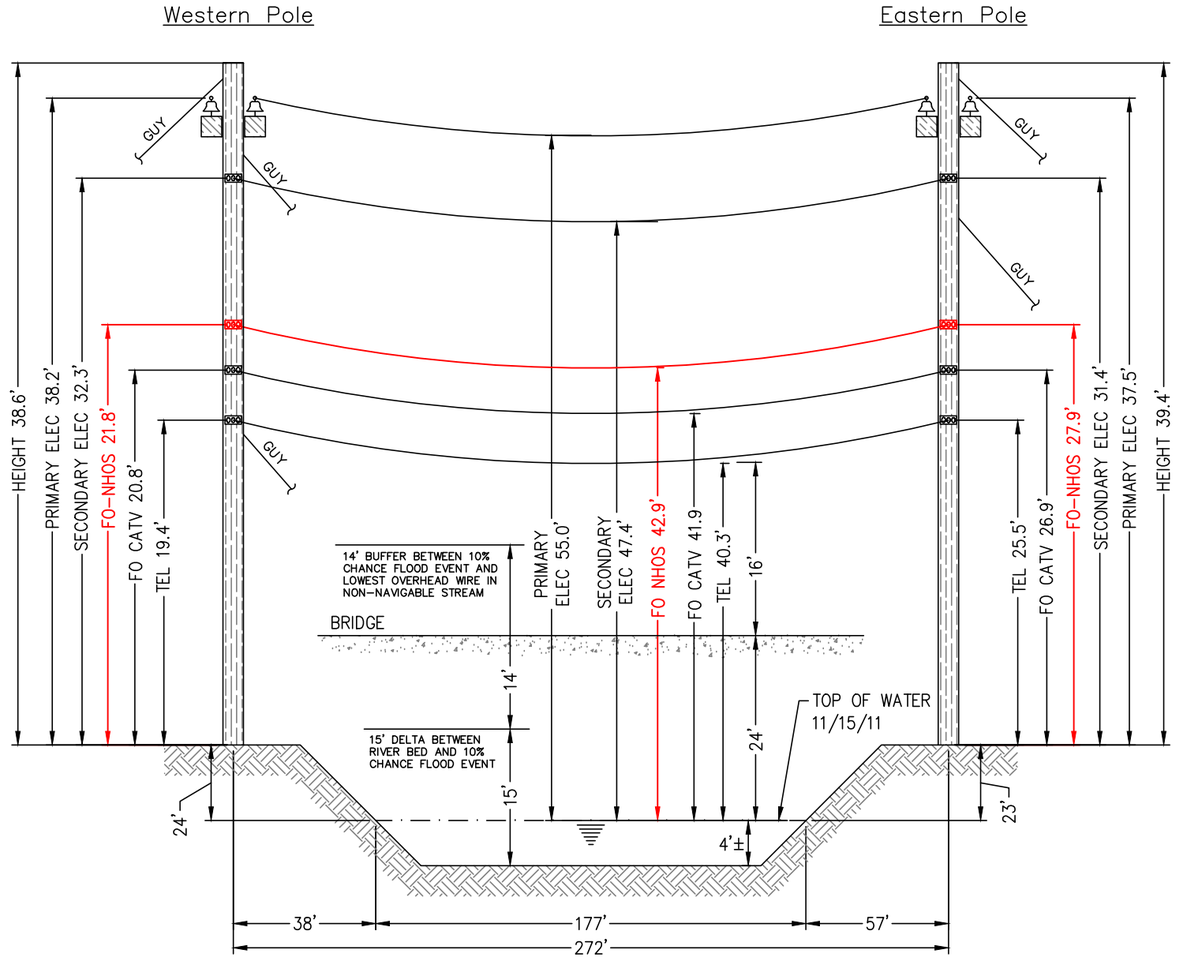
NESC RESULTS

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	Sag @ Point 136 ft	Horz Sag Comp ft	Vert Sag Comp ft	Vector Angle Deg
Rule 251 - Heavy	0.0	1.000	.50	.3	4.0	1.793	6.45	2562	0.12	6.47	3.04	5.69	28.1
232A1	120.0	0.000	.00	.0	0.0	0.317	3.20	914	0.01	3.21	0.00	3.20	0.0

Span Length = 272.00 ft
Span Sag = 2.72 ft (32.6 in)
Span Tension = 1,078 lb
Max Load = 6,650 lb
Usable load (60%) = 3,990 lb
Catenary Length = 272.073 ft
Stress Free Length @
Installed Temperature = 271.752 ft

Unloaded Strand
Sag = 1.26 ft (15.2 in) 0.46 %
Tension = 886 lb

Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
-40.0	1.93	1,516	-0.01	N/A
-30.0	1.99	1,473	-0.01	N/A
-20.0	2.05	1,429	-0.01	N/A
-10.0	2.11	1,387	-0.01	N/A
.0	2.17	1,345	-0.01	N/A
10.0	2.24	1,304	-0.01	N/A
20.0	2.31	1,264	-0.01	N/A
30.0	2.39	1,224	-0.01	N/A
40.0	2.47	1,186	0.00	N/A
50.0	2.55	1,148	0.00	N/A
60.0	2.63	1,112	0.00	N/A
70.0	2.72	1,076	0.00	N/A
80.0	2.81	1,041	0.00	N/A
90.0	2.90	1,008	0.00	N/A
100.0	3.00	975	0.01	N/A
110.0	3.10	944	0.01	N/A
120.0	3.20	914	0.01	N/A
130.0	3.31	886	0.01	N/A
140.0	3.41	858	0.02	N/A



E-31/2 - T-6/2
(Existing joint owned utility pole (Fairpoint/PSNH) in existing Right-of-Way)

E-31/3 - T-6/3
(Existing joint owned utility pole (Fairpoint/PSNH) in existing Right-of-Way)

E -31/2 - T- 6/2

Construction Notes:

NHOS proposes to install a ¼ inch metal supporting strand between the existing utility poles shown above that will traverse the stream. The strand will be installed at the proposed height (see above). The supporting strand will be secured to each pole using double dead end attachments to prevent any sag in the wire and maintain proper clearances. NHOS will lash a one inch diameter fiber optic cable (PVC jacket) to the strand using a dual lash method to provide security of the fiber over the right of way. The fiber will be tagged with twenty four hour contact information at each pole clamp. NHOS will employ the proper safety personnel during the crossing installation. The proposed install will meet all proper clearances from other Utilities. (see above). Additional pole guys will be added per NESC Rule 264 and as directed by pole owners.

E-31/3 - T- 6/3

NHOS
New Hampshire Optical Systems
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Nashua, NH 03063
(603-821-6467)

Proposed River Crossing Conway, NH

Notes:

1. The heights of structures shown hereon are based on field measurements taken with a Nikon 362 total station during a site survey on 11/15/11.
2. The horizontal distance between the nearest bridge edge and the existing overhead wires ranges from 12' to 13'.
3. The smallest vertical distance from the top of existing bridge deck to the lowest existing overhead wires is 16'.
4. The vertical distance between the top of water and bridge deck is approximately 24'.
5. The waterway is classified as not suitable for sail boating and per NESC Table 232-1 a vertical clearance of 14' must be maintained between the lowest conductor and 10 year floodplain.
6. Based on the FEMA Flood Profile for the Saco River (Page 60P) the difference between the stream bottom and the 10% flood elevation is 15'. This 15' was added to the existing stream bed and then the 14' buffer (for non-navigable streams) was added to that.
7. Vertical distances are representative of attachment heights after utility make ready moves are completed.

Project # TID-168 - Lateral 6
Drawing # AC-CONW-RIV-3

Date: 12/06/11
Revision #

Proposed
River Crossing
Conway, NH

Location:
East Side Rd., Conway, NH
Nearest cross street- West Side St.

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