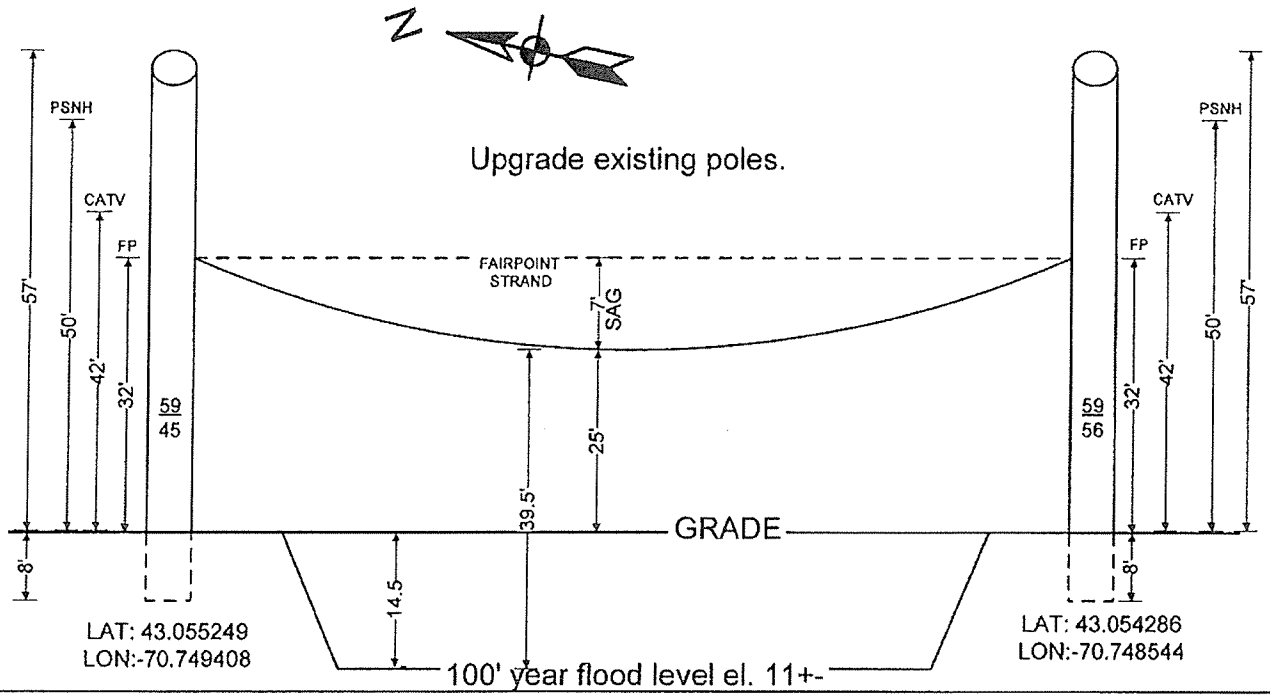
FairPoint License Form

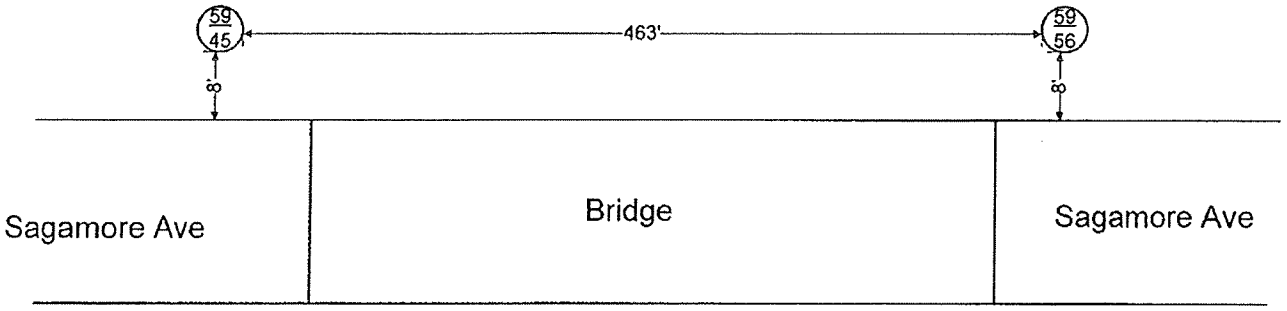
EXHIBIT A

FairPoint No: 264121 **Municipality:** PORTSMOUTH **Exchange Code:** 9176

Engineer Name: JOE CONSIDINE **Engineer Number:** 603-427-5525 **Date:** 03/25/2013

License Detail: Place 16m strand and 48 fiber cable over Sagamore Creek, parallel to East side of bridge.





Sagamore Creek

NOT SCALE
THIS DRAWING IS NOT TO SCALE

Note: Due to span being over 463 ft., 475 ft. span information was used.
16M Suspension Strand:
Stringing Tension (0 deg.)=5575 lbs
Wt. per ft.=.44lbs
48 fiber cable tension (0 deg.)=240 lbs.
Wt.per ft.=.5 lbs
Total wt. per ft. (ca & str.)= .94 lbs
One lbs. per ft tables used.
Span sag per cable = 84"

EXHIBIT B

FAY, SPOFFORD & THORNDIKE, LLC

MEMO

TO:	File
PREPARED BY:	David E. McNamara, P.E. - FST
DATE:	September 5, 2012
PROJECT:	City of Portsmouth – DPW NH Route 1-A over Sagamore Creek (Bridge # 198/034) Portsmouth X-A000 (417), 14493 - Final Design Contract
SUBJECT:	PIM Minutes
ATTENDEES:	Steve Parkinson - City of Portsmouth Tom Richter - City of Portsmouth Paul Harrington - FST David McNamara - FST

Steve Parkinson, DPW Director for the City of Portsmouth thanked everyone for coming and provided a brief introduction of the project team and the project itself. He then turned the presentation over to Paul Harrington and David McNamara of FST to present the technical aspects of the project. Paul and David presented the following:

Paul Harrington:

A. Project Need
   i. The Sagamore Creek Bridge is structurally deficient and on the NHDOT's Red List
      1. The general history of the bridge includes:
         a. It was built in 1941, with repairs completed in 1984 and 2010
         b. The bridge is supported by two girders, making it a fracture critical design, which is generally not allowed per current code. The failure of one girder would result in the failure of the entire bridge.
         c. The Sagamore Creek Bridge is a riveted steel plate girder design from the 1940's, and one of only 4 or 5 left in the State. Modern plate girders are welded rather than riveted.
         d. The clearance over the Sagamore Creek is minimal, forcing commercial fisherman based upstream of the bridge to line up in the center of the channel and cross under the bridge at only low tide.
      2. The bridge was posted for a maximum 6-ton loading in 2009.
      3. Emergency Repairs took place in May of 2010 in order to allow the bridge to remain open, with the 6-ton load rating.

B. Design

i. Bridge
   1. Process
      a. FST prepared a Type, Size and Location (TSL) study, which was reviewed by the City and NHDOT. This resulted in the preferred bridge alternative. In addition to coordinating with the City and NHDOT, FST presented the project at the DOT's monthly Cultural Resource coordination meeting. New Hampshire Division of Historic Resources (NHDHR) concurred with the preferred alternative.
   2. Description of Preferred alternative, includes the following elements:
      a. Variable Depth Steel girders, allows the bridge to gain clearance over the water while maintaining the existing profile. The two existing girders will be replaced with five new girders, further reducing their depth and improving the clearance.
      b. Solid Deck – The existing open steel grating will be replaced with a solid deck, which will be paved. This reduces the noise and also durability of the bridge, as the superstructure of the bridge is no longer directly exposed to the elements.
   3. Additional Clearance – Maintain existing profile

David McNamara presented the remainder of the project, including roadway, permitting, utility, public involvement, and schedule.

ii. The proposed roadway design includes the following elements:
   1. New sidewalk on the west side of the roadway. It will extend an existing sidewalk that terminates at the northerly project limit to the intersection with Route 1B.
   2. Drainage improvements – Existing drainage in the project area is allowed to discharge directly to Sagamore Creek, either via sheetflow, or through a couple of existing culverts. The new roadway will be curbed, allowing stormwater to be collected and treated prior to being discharged to the Creek. FST is working with the City and New Hampshire Department of Environmental Services (NHDES) to determine the most suitable treatment methods.
   3. Retaining Walls – There are two planned retaining walls in the project, one along the southwest approach, replacing the steep gravel slope, and one on the northeast approach, replacing an existing stone block wall that is partially hidden in the tree growth behind the guardrail.
   4. Tree Clearing Limits – Limits of work are shown on the color plan. There will be some clearing for the retaining wall in the northeast

quadrant of the project, along with miscellaneous clearing for utility relocations.

5. ROW
    a. The project is currently designed to remain within existing ROW. The widening is able to take advantage of additional ROW left over from the old bridge layout. If ROW or easements are needed, the City will meet with the affected property owner and inform them of the process and options available.

C. The permitting process is nearing an end, with several of the permits in hand.
    i. The following permits have been obtained for the project already. These expire in 2016.
        1. Dredge and Fill (Wetlands)
        2. Shoreland Protection.
    ii. The following permits are pending.
        1. Categorical Exclusion Checklist – This just needs the finalization of the historical documentation, then this permit can be signed. It has already been reviewed by NHDOT/FHWA, and their minor comments addressed.
        2. Coast Guard – This permit needs a signed Categorical Exclusion document in order to finalize. The application has been submitted and reviewed, the public comment period completed.
        3. Alteration of Terrain – This is a State permit that deals with the water quality and erosion control issues. FST has discussed the project with NHDES, and a smooth process is anticipated in completing this last permit.
    iii. The most significant issue raised in the natural resource permitting process was restrictions on working within the Creek.
        1. In-Water work restrictions are:
            a. November 15 – March 15 – This is the time period where the contractor will be allowed to physically work in the water. Other construction can take place on the project outside this window, just not in the water.
            b. There is some limited work after July 1st allowed, only to remove the temporary trestle erected for construction of the bridge.
    iv. In addition to the natural resource permitting processing, the project was also reviewed for historic impacts, as described earlier.
        1. The bridge itself was considered an historic resource, therefore coordination and approval was required in order to demolish it. This was granted by the appropriate reviewing agencies, with conditions.

2. A Memorandum of Agreement (MOA) is in the process of being signed by City, DOT, and historic agencies allowing the demolition of the historic bridge. This document includes three conditions:
    a. Conditions
        i. Additional Documentation – A second more detailed report is required to be written regarding the history of this bridge, the architect, and how the construction and materials tied in with war efforts during World War II.
        ii. Advertise the Bridge – The bridge must be publicly advertised for sale. Anyone interested in removing the bridge and preserving at a new location can place a bid. The bridge must be preserved; it cannot be sold for scrap.
        iii. NHDOT to include in their upcoming Statewide Report – NHDOT will be preparing Statewide Historic Bridge inventory, and they must feature this particular bridge type in that report. There is no involvement or cost to the City for this condition.

D. The project does require the relocation of existing utility infrastructure within the project area, including:
    i. Relocations
        1. Aerial Lines – There are aerial lines crossing the Creek, which must be moved east to allow for the widening of the bridge. There is also a lateral crossing just north of the bridge that will be removed. These will trigger the replacement of seven poles in total. This work will be carried out by the individual utility companies at no cost to the City.
        2. Fairpoint has a line under the bridge, they will relocate aerially and not move back under the bridge
        3. The City's water line that currently crosses the bridge will be replaced, and a sleeve for a future sewer line installed.

E. The City is committed to keeping the public informed and involved in the project moving forward and continuing through construction. Some of the outreach planned includes:
    i. Business Open signage will be posted along the detours to alert the public that businesses within the detour and/or construction zones remain open.
    ii. Advanced notifications of upcoming project related milestones and events will be provided via the following:
        1. Local Papers
        2. City Website

3. E-mail List – Attendees were asked to provide their contact information if they were interested in being included on an e-mail list that will receive project news directly.

iii. Work Hours are standard for City projects, as follows:
1. No nights (7-6, longer only w/ City permission)
2. Weekends w/City permission

F. The following milestone schedule dates were provided:
i. Design – Complete Winter of 2013
ii. Utility Work
1. Fall 2012 – Summer 2013
iii. Advertise
1. Spring of 2013
iv. Sign Contract
1. Summer of 2013
v. Construction
1. Fall 2013
2. Close bridge - October 2013
3. In Water work November 2013 – March 2014
4. Reopen bridge – Late Fall of 2014

The meeting was then opened to the Public for comments/questions. The following comments and questions were raised. These are followed by the City/FST's responses.

- There was concern regarding an increase in traffic to through the streets of New Castle once the bridge is closed. The Town noticed additional traffic during the two week repair project in May of 2010.
  - The detour specifically routes traffic to Route 1, and not through New Castle. The City will look at additional signage to add to the package to further discourage traffic into New Castle. If the Town sees additional traffic during construction they should contact Steve Parkinson to discuss additional steps that may alleviate the problem at that time. David McNamara displayed a plan of the proposed detour, which drew no objection from the attendees.
- How wide will the channel be during construction? Will the Contractor be allowed to leave a barge used for construction in the channel during non-working times?
  - The temporary trestles are not expected to extend beyond the existing piers. There may be temporary shoring towers located in front of the existing piers, but would leave an open channel of greater than 120'. The channel will be required to remain open throughout construction. There may be temporary shutdowns while work is on-going but the channel will be open during all non-working hours.
- Has the project reconstructing the Route 1 Bypass bridges been taken into account with the planned detour route?
  - Yes, this project is being coordinated with the Route 1 Bypass work. That project could impact the Sagamore Creek Bridge schedule.

- Why is there only one proposed sidewalk, as opposed to new sidewalks on both sides of the bridge and approach roadways?
    - The addition of a second sidewalk would increase environmental impacts and bridge cost, while creating additional utility impacts. There is only the one sidewalk now beyond the project area, with no plans of adding a sidewalk along the easterly side of the roadway beyond the project limits.
- Traffic turning around after getting past the detour signs was a concern, as this was a frequent occurrence during the May 2010 closure.
    - Additional signage will be used, as well as more early notifications. The City is planning to repave and repair the existing Route 1A sidewalk north of the project, which should further reduce traffic ignoring the detour signs.
- It was suggested that Shaw Road be closed at the intersection with Route 1A to stop people from driving through the residential neighborhood if they made it through the detour signs to the bridge.
    - The City will consider this option as a part of the detour planning.
- Will there still be a steel grate deck on the bridge?
    - No, there will be a solid deck.
- Will there be lights on the new bridge?
    - No, the lighting will remain the same, with cobraheads located on the adjacent utility poles providing some roadway lighting.
- If there is a wall proposed along the southwest quadrant, how will people jumping from the bridge get back onto the bridge?
    - The City recognizes there is a local tradition of jumping off the bridge. However, the City does not condone the recreational use of the bridge, and will not provide facilities for this use.
- Where are the temporary trestles planned in relation to the existing docks?
    - The trestles are expected to be located west of the bridge.
- Are there planned accommodations for a future gas line on the bridge?
    - There are none, but the City will reach out to the gas company to determine if they have an interest in establishing future accommodations. The City would provide a sleeve through the abutment, supporting the line under the bridge would be a cost born by the gas company.
- Are navigational lights proposed for the bridge?
    - No, the Coast Guard does not require them on this bridge.
- There is a large gap between hydrants on the south approach to the bridge, can one be added?
    - This will be looked at with the City's Water Department and Fire Department.
- Has placing the aerial utility lines underground been considered? This is similar to a project along Newcastle Ave, where the lines were moved temporarily, but not moved back for aesthetic purposes.
    - There was some talk with the utilities about alternatives or ways to eliminate the wires during construction. However, a permanent underground move would be costly, and the City would be required to pay a significant share of those costs.

At the end of the meeting, all attendees were encouraged to add their contact information to a sign in sheet. The City and FST will develop an e-mail list from that, which will be used to provide notification of any changes, upcoming milestones, or other project related information.

--END---

EXHIBIT C

TABLE M

COPPER CONDUCTOR CABLE, 16M STRAND
SPAN LENGTH (FEET)

CABLE WEIGHT LBS/FT	TEMP (°F)	225		250		275		300		325		350		375		400		425		450		475		500		525		550	
		SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)	SAG (IN.)	TENS (LBS)
1.0	0	22	4825	27	4900	32	4975	37	5025	43	5100	49	5175	56	5275	62	5350	70	5400	77	5500	84	5575	92	5650	100	5725	100	5800
	20	23	4575	28	4650	33	4725	39	4800	45	4875	51	4975	58	5050	65	5125	72	5225	80	5300	87	5375	96	5450	104	5550	112	5625
	40	24	4325	30	4425	35	4500	41	4600	47	4675	54	4760	61	4850	68	4925	75	5025	83	5100	91	5200	99	5275	107	5350	116	5450
	60	26	4100	31	4200	37	4275	43	4375	49	4450	56	4550	63	4650	70	4725	78	4825	86	4925	94	5000	102	5100	111	5175	120	5275
	80	27	3875	33	3975	39	4075	45	4175	52	4250	59	4350	66	4450	73	4550	81	4650	89	4750	97	4825	106	4925	114	5025	123	5100
	100	29	3650	35	3750	41	3875	47	3975	54	4075	61	4175	69	4275	76	4375	84	4475	92	4575	101	4675	109	4775	118	4850	127	4950
1.2	0	24	4925	30	5025	35	5100	41	5200	48	5275	54	5375	61	5450	69	5550	76	5550	84	5750	92	5825	101	5925	109	6025	—	—
	20	25	4700	31	4775	37	4875	43	4975	50	5075	57	5150	64	5250	71	5350	79	5450	87	5550	95	5650	104	5750	113	5825	—	—
	40	27	4450	33	4550	39	4650	45	4750	52	4850	59	4950	66	5075	74	5175	82	5275	90	5375	98	5475	107	5575	116	5675	—	—
	60	29	4225	34	4325	41	4450	47	4550	54	4650	61	4775	69	4875	77	4975	85	5075	93	5200	102	5300	110	5400	120	5500	—	—
	80	30	4000	36	4125	43	4250	49	4350	56	4475	64	4575	71	4700	79	4800	88	4925	96	5025	105	5125	114	5225	123	5325	—	—
	100	32	3800	38	3925	45	4050	52	4175	59	4275	66	4400	74	4525	82	4625	91	4750	99	4850	108	4975	117	5075	127	5175	—	—
1.4	0	27	5025	33	5125	39	5250	45	5350	52	5450	59	5550	67	5675	74	5775	82	5875	91	5975	99	6100	108	6200	—	—		
	20	28	4800	34	4900	40	5025	47	5125	54	5250	61	5350	69	5475	77	5575	85	5700	94	5800	102	5900	111	6025	—	—		
	40	30	4575	36	4700	42	4800	49	4925	56	5050	64	5175	71	5275	80	5400	88	5500	97	5625	106	5750	115	5850	—	—		
	60	31	4350	37	4475	44	4600	51	4725	58	4850	66	4975	74	5100	82	5225	91	5350	100	5450	109	5575	118	5675	—	—		
	80	33	4150	39	4275	46	4400	53	4550	61	4675	69	4800	77	4925	85	5050	94	5175	103	5300	112	5400	121	5525	—	—		
	100	34	3950	41	4075	48	4225	55	4375	63	4500	71	4625	79	4750	88	4875	97	5000	106	5125	115	5250	125	5375	—	—		
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	20	31	4925	37	5050	44	5175	51	5300	58	5425	66	5550	74	5675	82	5800	91	5925	100	6050	109	6175	—	—				
	40	32	4700	39	4825	45	4975	53	5100	60	5225	68	5375	76	5500	86	5625	94	5750	103	5875	112	6000	—	—				
	60	34	4500	40	4625	47	4775	55	4900	62	5050	71	5175	79	5325	88	5450	96	5600	106	5725	115	5850	—	—				
	80	35	4300	42	4425	49	4575	57	4725	65	4875	73	5025	81	5150	90	5300	99	5425	109	5550	118	5700	—	—				
	100	37	4100	44	4250	51	4400	59	4550	67	4700	75	4850	84	5000	92	5125	102	5275	112	5400	122	5550	—	—				