

Tab F. Identification of Character-Defining Features/Qualities

As discussed in National Register Bulletin 15 (“How to Apply the National Register Criteria for Evaluation”), character-defining features are those “essential physical features that enable [a property] to convey its historic identity...those features that define both *why* a property is significant... and *when* it was significant...They are the features without which a property can no longer be identified ...” (National Register of Historic Places 1991:5).

Memorial Bridge’s significance falls chiefly under Criterion C as an example of the work of a master, J.A.L. Waddell, and more generally as an important example of the vertical lift bridge type. It is also the earlier of only two vertical lift bridges in New Hampshire.

In form, function, use, operation and general appearance, the bridge today is much the same as when it was constructed in 1923. In particular, the overall structural form, including the pattern of parallel chords for the movable span and polygonal top chords for the flanking spans; the use of Warren trusses; the towers and their locations all convey the original appearance of the structure. Taken together, these qualities help define the historic identity of the bridge and are thus character-defining features. It should also be noted that after eighty years the mechanical parts of this exceptional structure continue to operate flawlessly, lifting daily, day in and day out, to permit ships to pass underneath. The bridge’s footprint, its location, and its massing are also important characteristics that have not changed over time.

In addition to these more general characteristics, character-defining features also include the materials original to the bridge’s construction. These include foundations, the structural steel which makes up the trusses and towers of the three Waddell-designed spans, and the counterweights. Character-defining features of the Portsmouth Approach include its structural elements as described in Section b. below.

Memorial Bridge Historic Structures Report

a. Character-Defining Features of Memorial Bridge

Major element	Component	Original Fabric?	Character-Defining Element?
Overall structural form			Yes
Vertical Lift Bridge Type			Yes
Location			Yes
Deck	Deck – Approach and Lift Spans	Some	No
	Surface*	No	No
	Curbs	Yes	No
	Side Walk	No	No
	Pedestrian Railing	Yes/Some	Yes
	Bridge Railing	No	Yes
	Gate- Pedestrian	No	No
	Gate- Vehicular	No	No
	Lighting Standards	No	No
Superstructure	General	Yes	Yes
	Tower Trusses	Yes	Yes
	Lift Truss	Yes	Yes
	Stringers	Yes	Yes
	Bottom Lateral bracing	Yes	Yes
	Lower Chord (plates, angles, channels, lattice bars)	Yes	Yes
	Floor Beam	Yes	Yes
	Vertical (plates, angles, channels, lattice bars)	Yes	Yes
	Diagonals (plates, angles, channels, lattice bars)	Yes	Yes
	End Post	Yes	Yes
	Portal Bracing	Yes	Yes
	Top Chord, (plates, angles, channels, lattice bars)	Yes	Yes
	Top Lateral diagonals	Yes	Yes
	Top Lateral Strut	Yes	Yes
	Connections	Yes	Yes
	Walkways	Yes	Yes
	Tower-South	Yes	Yes
	Tower-North	Yes	Yes
	Fixed and Rocker Bearings	Yes/Some	Yes
	Plaque and Bas Relief	Yes	Yes
	Bridge Paint Color	No	No

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Major element	Component	Original Fabric?	Character-Defining Element?	
Lift-Related/Mechanical/Electrical	General*	No	Yes	
	Sheaves*	No	Yes	
	Counterweight (including boxes)	Yes	Yes	
	Equalizers*	No	Yes	
	Hoisting Machinery –General*	No	Yes	
	Ropes*	No	Yes	
	Trunnions*	No	Yes	
	Motors and Engines*	No	Yes	
	Location of Control House	Yes	Yes	
	Control House	Partial	Yes	
	Control House controls, electrical panels etc.	No	Yes	
	Substructure	General	Yes	Yes
		Piers, general stonework/caissons	Yes	Yes
South Pier		Yes	Yes	
North Pier		Yes	Yes	
South Abutment		Yes		
North Abutment (See Maine Approach)				
	Fenders	Yes/Some	Yes	

Figure F-1: Character-Defining Features of Memorial Bridge

*These elements have a limited lifespan and by their nature frequently wear out. They typically need to be replaced after a set number of years and their replacement would have been contemplated in the original design. Although character-defining to the bridge, their form, rather than their physical fabric, is significant.

b. Character-Defining Features of Portsmouth Approach

Major element	Component	Original Fabric?	Character-Defining Element?
Deck/Superstructure			
	Deck	Yes	Yes
	Surface	No	No
	Curbs	Yes	No
	Side Walk	No	No
	South Approach Rail	No	No
	Pedestrian Railing	No	No
	Lighting Standards	No	Yes
Substructure	Piers, general	Yes	Yes
	Fenders	Yes	Yes
	South Abutment	Yes	Yes
	Memorial Bridge Abutment (See Memorial Bridge)		

Figure F-2: Character-Defining Features of Portsmouth Approach

c. Character-Defining Features of Kittery Approach

Major element	Component	Original Fabric?	Character-Defining Element?
Deck/Superstructure			
	Deck	Yes	Yes
	Surface	No	No
	Curbs	Yes	No
	Side Walk	No	No
	Pedestrian Railing	No	No
	Lighting Standards	No	Yes
Substructure	Piers, general	Yes/No	Yes
	Fenders	Yes	Yes
	Memorial Bridge Abutment (See Memorial Bridge)		

Figure F-3: Character-Defining Features of Kittery Approach

