## NORWICH GOLF COURSE GOLF CART BRIDGE REPLACEMENT

The Norwich Golf Course is owned and operated by the City of Norwich, and is located at 685 New London Turnpike, Norwich, Connecticut. Portions of the course are located in the City of Norwich and the Town of Montville. The Town boundary is located along the centerline of Trading Cove Brook. The golf course is located on the east and west side of Trading Cove Brook. An existing wooden golf cart and pedestrian bridge is located on the property for use by golfers to cross Trading Cove Brook moving from the ninth green to the tenth tee as shown on the bridge replacement plans. The bridge is primarily used by golfers (pedestrians) and golf carts playing the course and occasional maintenance staff with light duty equipment. The Golf Course Authority is proposing to replace this bridge due to the structural inadequacy and public safety concerns.

The work proposed in the Montville wetland involves installation of a prefabricated concrete abutment, the temporary staging area for the crane, and a temporary dewatering structure. The work in the upland review area consists of a temporary stockpile area.

A golf cart and pedestrian bridge had been installed in this general located since the golf course was constructed in the early 1920's. A bridge is visible in this location on the 1934 aerial imagery as shown in Figure 5. A call-out for the bridge is not shown on the FEMA mapping and a structure is not shown on the Trading cove Brook Flood profile included in Appendix A; it is assumed that the bridge was not model modeled as part of the FEMA hydraulic analyses.

The existing bridge is an approximately 7-wide wooden construction with eight 4"x4" posts with cross bracing located within the Trading Cove Brook stream channel. The posts are supported in concrete filled 5-gallon buckets resting on the channel bottom. Wood decking and an artificial turf surface are installed over the substructure. Cable tiebacks are attached to the bridge to secure it in place. Photographs of the existing structure are included in Section 5 of this report. The existing bridge provides no upstream detention. Maintenance staff has performed periodic repairs on the existing bridge, but it has become structurally inadequate and is in need of replacement.

The new bridge design will allow the existing natural stream bottom to remain. The existing timber post obstructions within the channel will be removed.

Based on available data, it does not appear that a bridge was modeled as part of the FEMA hydraulic study for Trading Cove Brook. However, a bridge has been in place over Trading Cove Brook in this location since the golf course was constructed in the

1920's. Evidence of a bridge in this location is present on the 1934 aerial. The existing wooden bridge that has been has been in place is constructed with wood posts within the brook channel, creating and obstruction for flow. The proposed bridge creates a negligible rise in the water surface elevations upstream of the bridge (in comparison to the natural condition) that will have no negative impact on Trading Cove Brook or the Surrounding area. The new clear span bridge over the brook will provide improvements to the flow by removing the existing obstructions within the channel. A Hydraulic Report has been submitted as part of this application.