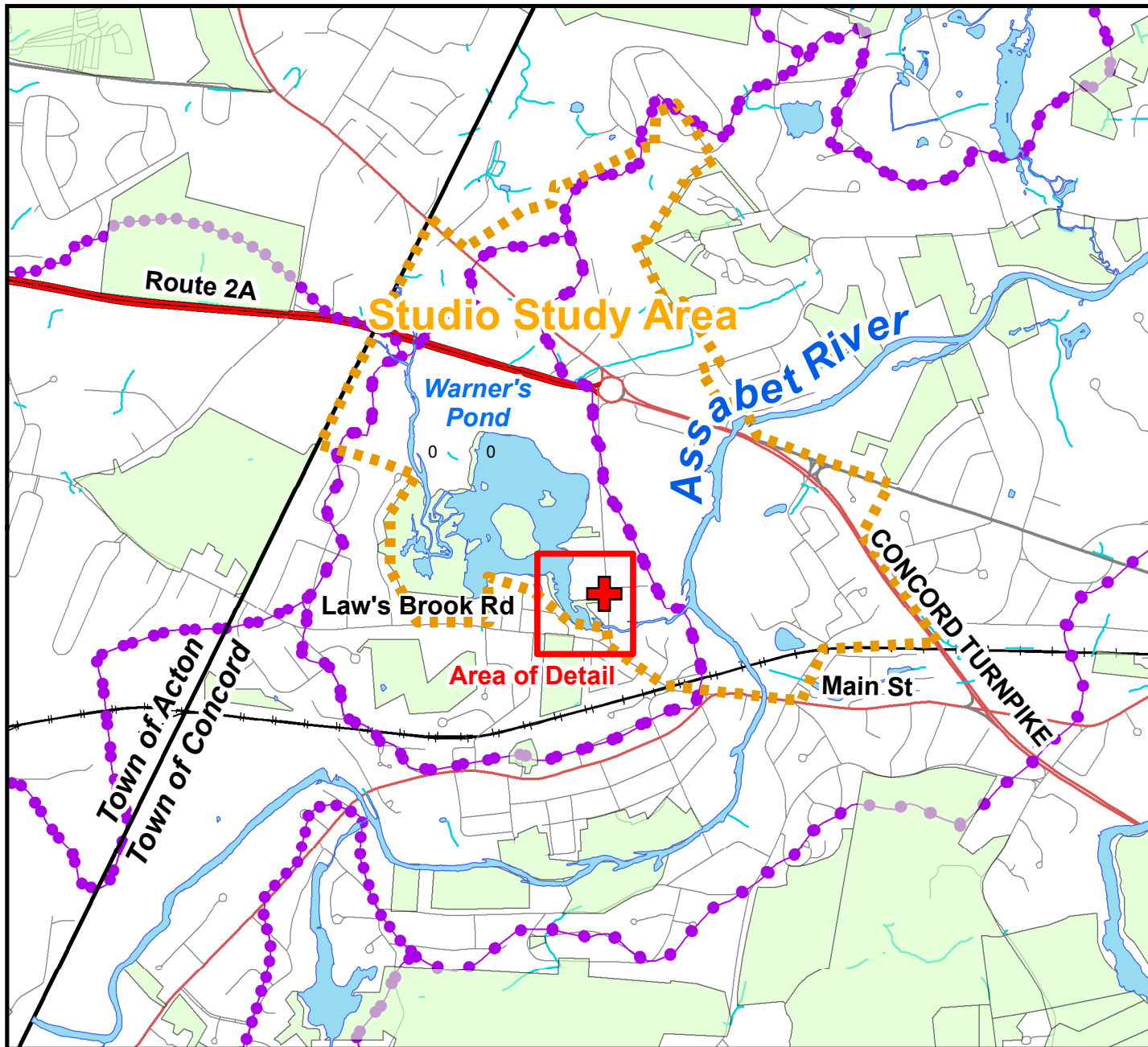
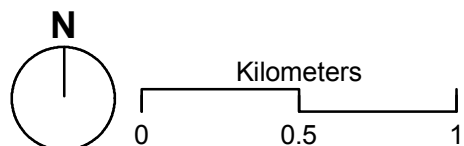


Project Context Map




This site analysis is for an approximately two-hectare parcel of land near an assigned project point. The point is near the eastern bank of Warner's Pond, where a short stream (Nashoba Brook Mill Race) drains the pond to the Assabet River. The town center of West Concord, at the intersection of Commonwealth Avenue, Law's Brook Road and Main Street, lies immediately to the south.



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 2 Hectare Mapping Project
 September 2007



Legend

-  Drainage Sub-basins
-  Protected Open Space
-  Assigned Project Point

Sources:
 Roads, Hydrology and Open Space: MassGIS 2007
 Projection: Massachusetts State Plane Mainland Zone

REVIEWED
 By Paul Cote at 1:56 pm, Oct 01, 2007

Site Topography

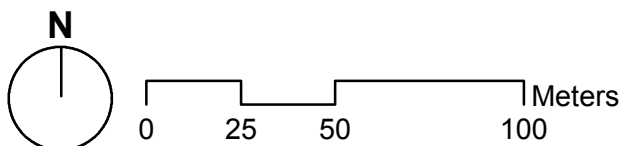
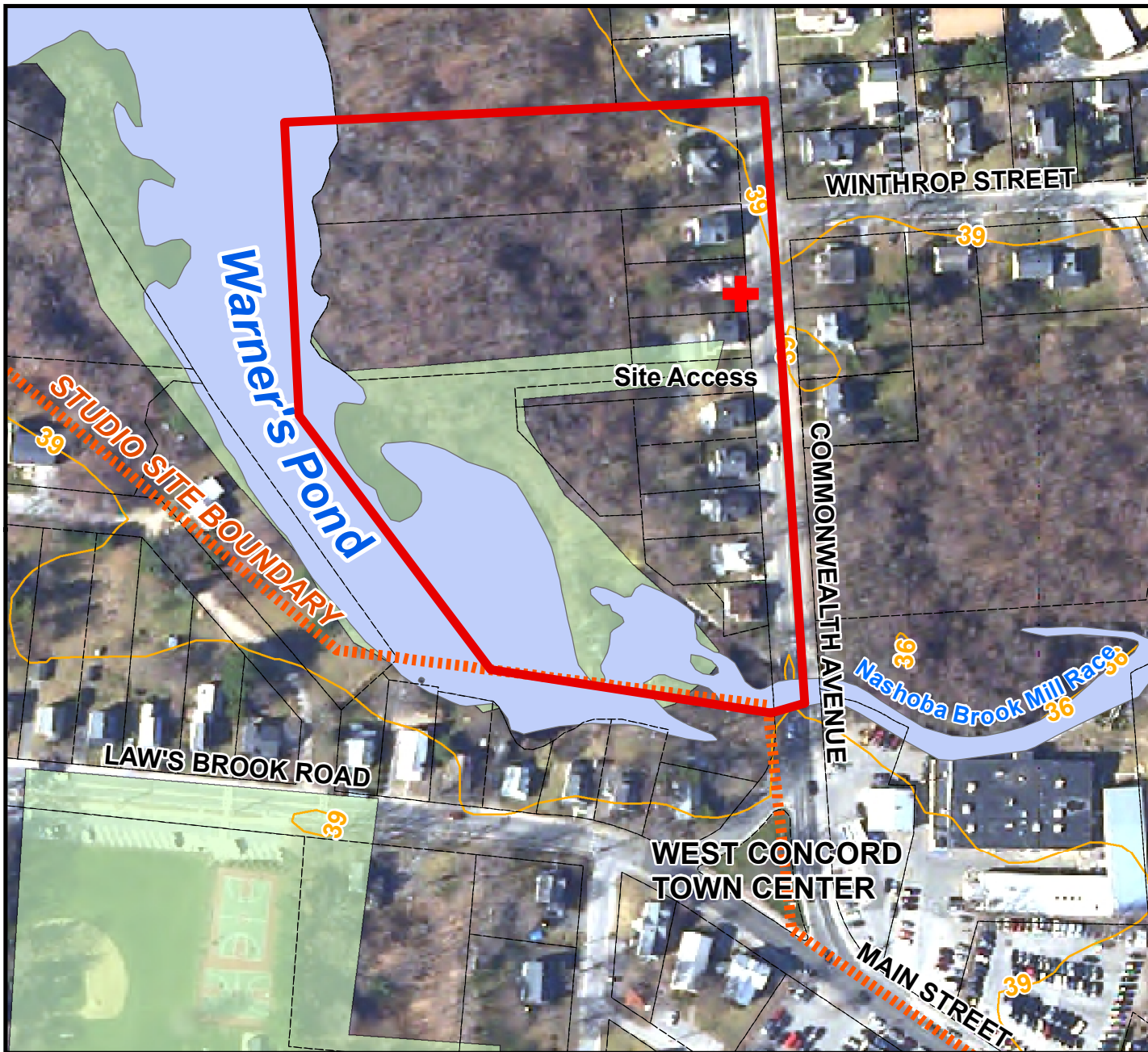
The two hectare site analyzed for this project lies on the eastern bank of the southeastern arm of Warner's Pond, a 27 hectare body of freshwater surrounded by wetlands of varying types. This two hectare study area is a largely flat expanse, rising gradually from the shoreline of the pond to the northeast corner of the site, which lies at 39 meters above sea level. The site lies immediately to the north of the town center of West Concord and the Nashoba Brook Mill Race, which forms the southern boundary of the study area and the lowpoint of the site, approximately 37 meters above sea level. The area includes nine existing single-family homes to the west of Commonwealth Avenue and a parcel of protected open space that provides access from the street to Warner's Pond. It also includes parcels of unprotected forest.


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Sources:
2005 Aerial Photo MassGIS
Parcels: Town of Concord GIS
Open Space: Mass GIS
3 Meter Contours: MassGIS



-  Studio Boundary
-  Site Boundary
-  Parcels
-  3 Meter Contours
-  Protected Open Space

Site Hydrography

The site is bounded to the south and east by Warner's pond and its principal outlet, the Nashoba Brook Mill Race. This in turn joins with the Assabat River approximately 350 meters downstream from the site boundary. The site contains .8 hectares of forest land classified as a deciduous wooded swamp at the margins of Warner's Pond. The site lies almost entirely within a 100-year FEMA designated flood plain, with the balance of the site within a 500 year flood zone. Two of the Town of Concord's storm sewer outfalls lie near the southern boundary of the site.

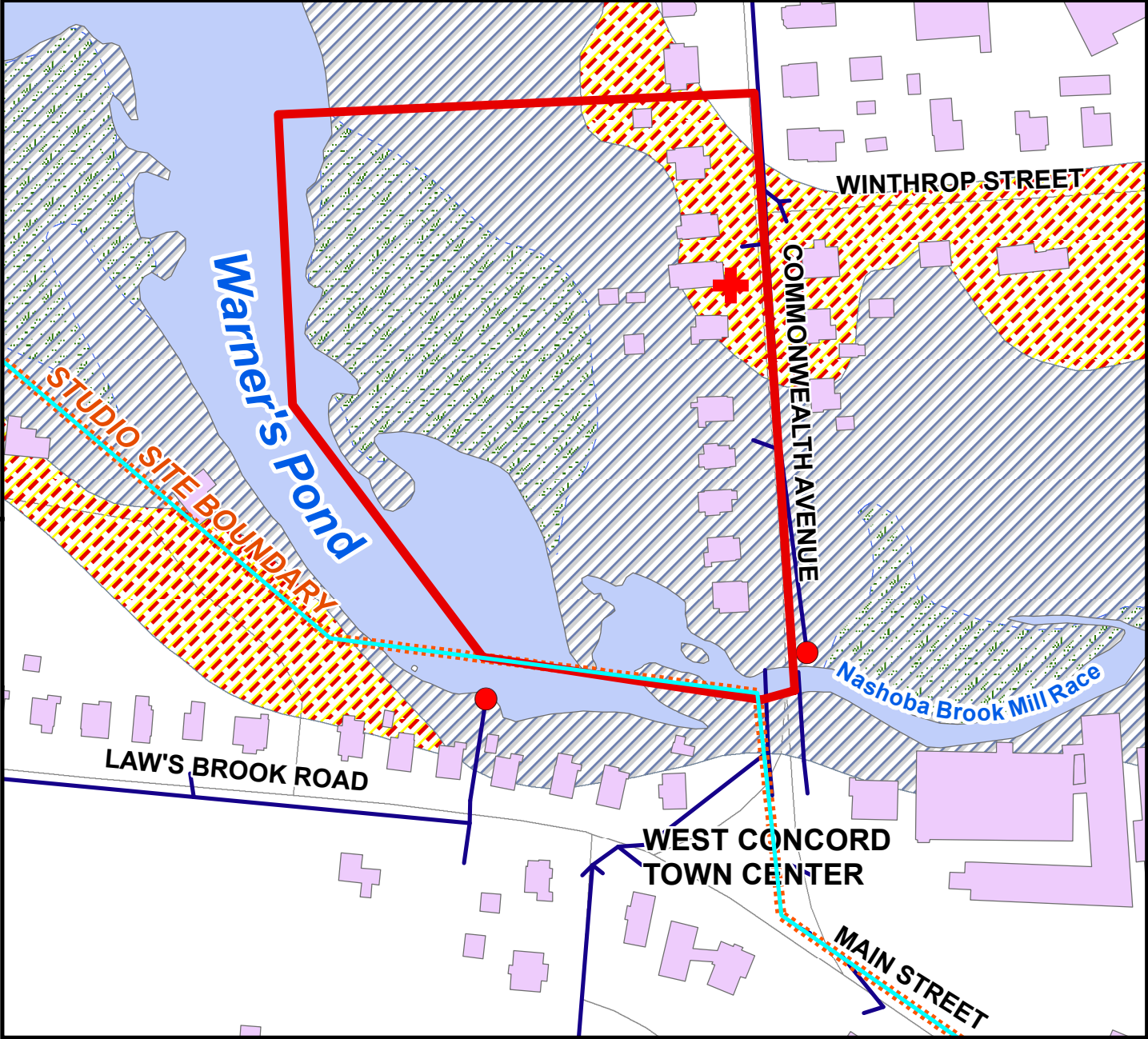


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Sources:
 Wetlands: Mass Dept. of Environmental Prot.
 Flood Plain: FEMA Flood Insurance Rate Maps
 Storm Sewers & Outfalls: Town of Concord GIS
 Buildings: Town of Concord GIS

Projection: Massachusetts State Plane Mainland



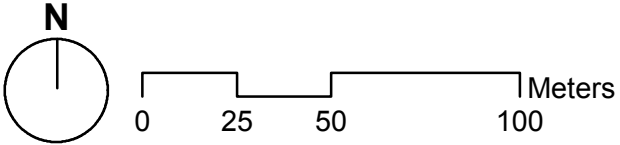
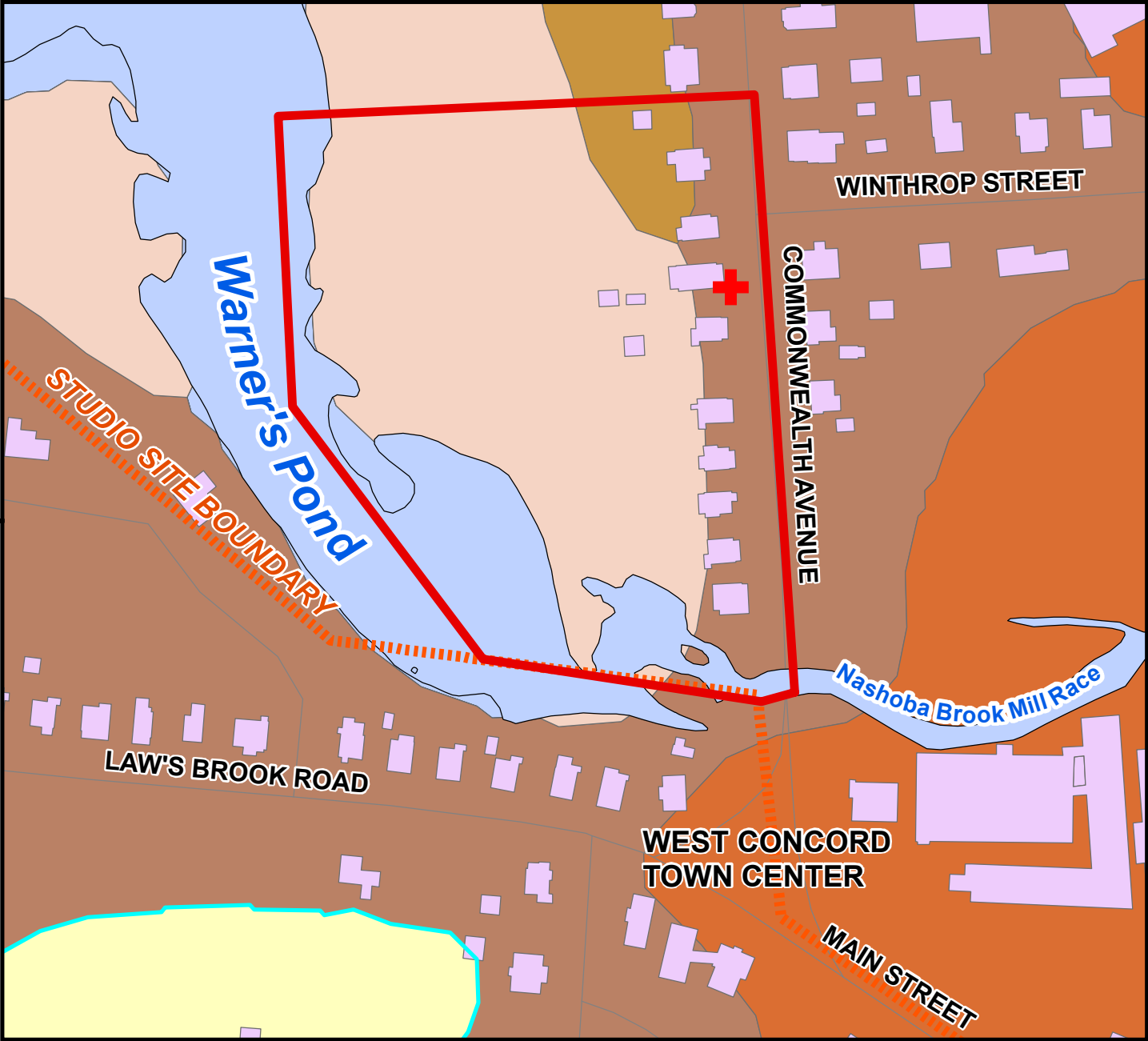
Site Soils

An analysis of the soils on and near the site closely follows the hydrology of the site. Those areas subject to occasional inundation seem to be characterized principally by Deerfield Loamy Sand. This soil gives way in the northeast corner of the site to Carver Loamy Coarse Sand, corresponding roughly with the 500 year flood plain. The impact of urbanization around the site has greatly changed the character of these soils, which are classified in various urban land categories of soils.



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SOILS LEGEND

Carver Loamy Coarse Sand	Merrimac - Urban Land Complex
Deerfield Loamy Coarse Sand	Urban Land
Merrimac Fine Sandy Loam	Water

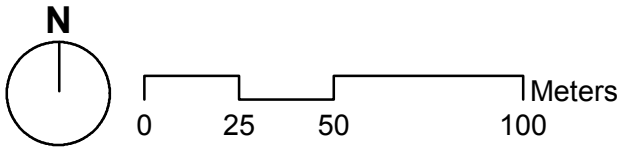
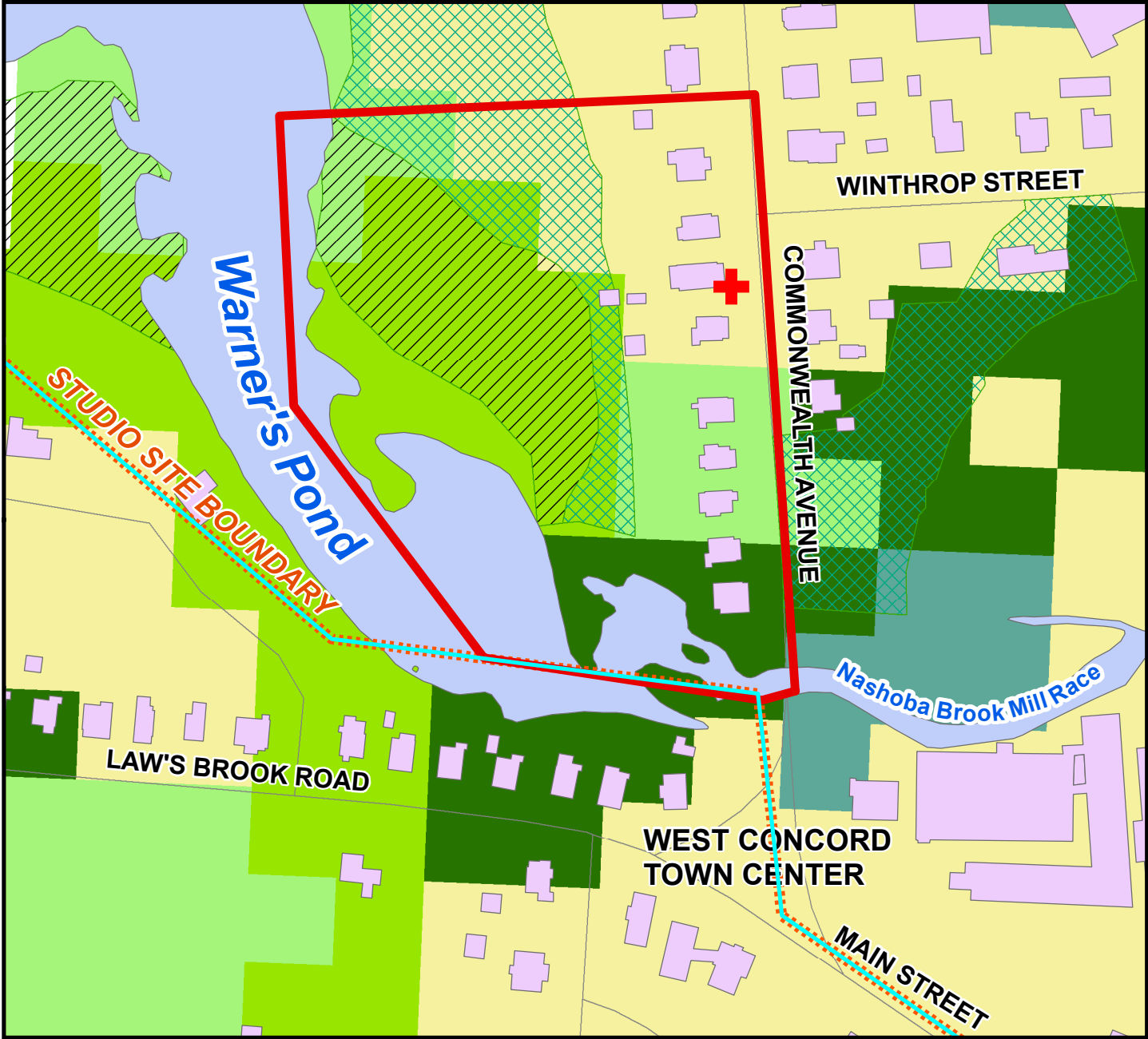
Sources:
 Soils: National Resources Conservation Service by MassGIS
 Buildings: Town of Concord GIS
 Projection: Massachusetts State Plane Mainland

Site Vegetation

The Gap Analysis Data for this site suggests that the vegetation on the site is heavily influenced by development, being predominantly a suburban forest cover with 40-60% tree canopy cover, varying from a predominantly oak mixed forest, to a maple and oak mix. Many of the wetlands have a more natural forest cover. The GAP data do not correlate very well with a visual inspection suggesting this method of analysis is inadequate at a finer scale. Some of the lands on the site are classified as Prime Forest Land by the Department of Natural Resources Conservation. Type 2 Forests have the potential to supply 3.2-3.8 cubic meters of Red Oak lumber per year on a 50 year rotation. Type 3 Wet forests can supply 2.8-3.1 cubic meters of the same.

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Sources:
 Vegetation: USGS Gap Analysis Program
 Prime Forest Data: Dept. Natural Resources Conservation

Projection: Massachusetts State Plane Mainland