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Engineer's Report

Frank P. Langley Co. – Proposed Addition
219 Creekside Drive, Amherst, NY

Prepared for:
Silvestri Architects PC
1321 Millersport Hwy., Suite 100
Amherst, NY 14221

April 17, 2024



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1.0 General

Existing Site Conditions

The project site is located at 219 Creekside Drive, in the Town of Amherst, New York. (See Location Map in Appendix A). The parcel size is 2.181 acres. The site is currently developed and consists of an existing 23,100 +/- sq. ft. block building with an associated asphalt paved parking lot along the eastern portion of the site which accommodates 37 parking spaces including 2 ADA accessible spaces. Existing site improvements also include site landscaping and utilities to service the existing building. The southern portion of the site is undeveloped and consists of woods/brush.

The soils on site according to the USDA NRCS Soil Survey consists of "Raynham silt loam" which is listed as HSG 'C/D' and Getzville silt loam, which is listed as HSG 'B/D'. For soils assigned to a dual hydrologic soil group, the first letter is for drained areas and the second is for undrained areas. Only soils that in their natural condition are in group 'D' are assigned to dual classes.

Upon review of the New York State Historic Preservation Office's GIS for Archeological and National Register online resources tool, neither construction activities nor the stormwater discharge from this site will have an effect on property that is listed on either the State or National Register of Historic Places.

Proposed Site Conditions

Development will consist of a 4,500 square foot building addition along the north side of the existing building and an asphalt paved parking lot addition to the southern portion of the existing parking lot. Upon completion, the site will add 10 new additional parking spaces to provide a total of 47 parking spaces including 2 handicap accessible spaces. Additional site improvements will consist of concrete curbing, site lighting and landscaping.

Upon completion, the proposed project will add 0.20 acres of new impervious cover. The total anticipated ground disturbance during construction of this project will be approximately 0.28 acres. Due to the increase in impervious areas, stormwater detention is required. However, since the construction of this site will disturb less than one acre, a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the New York State Department of Environmental Conservation (NYSDEC) standards and a NOI (Notice of Intent) are not required.

2.0 Stormwater Management

Stormwater Conveyance

Under existing conditions, the site consists of four drainage areas labeled North Drainage Area, East Drainage Area, South Drainage Area and West Drainage Area as shown on the Existing Drainage Analysis Map. The North Drainage Area consists of the northern portion of the existing building and the northern portion of the existing parking lot. Stormwater runoff from the North Drainage Area is collected and piped to the Town of Amherst's drainage system along Creekside Drive. The East Drainage Area consists of the southern portion of the existing building as well as the southern portion of the existing parking lot. Stormwater runoff from the

East Drainage Area is collected in an enclosed drainage system and piped to the existing Town of Amherst regional detention basin, located on the property to the east of this parcel. The South Drainage Area consists of existing brush/trees located along the southern portion of the property. Stormwater runoff from the South Drainage Area sheet flows over the surface towards the south property line. The West Drainage Area consists of a small portion of lawn area, but mostly wooded and brush areas. Stormwater runoff from the West Drainage Area sheet flows over the surface towards the west property line.

Under proposed conditions, the site will consist of four drainage areas as well, labeled North Drainage Area, East Drainage Area, South Drainage Area and West Drainage Area, as shown on the Proposed Drainage Analysis Map. The North Drainage Area consists of the northern portion of the existing building, the new building addition and the northern portion of the existing parking lot. Stormwater runoff from the North Drainage Area will continue to be collected and piped to the Town of Amherst's drainage system along Creekside Drive. The East Drainage Area consists of the southern portion of the existing building, the southern portion of the existing parking lot and the new parking lot addition. Stormwater runoff from the East Drainage Area will continue to be collected in an enclosed drainage system and piped to the existing Town of Amherst regional detention basin, located on the property to the east of this parcel. The South Drainage Area consists of a smaller portion of brush/trees (than the existing condition) located along the southern portion of the property. Stormwater runoff from the South Drainage Area will continue to sheet flow over the surface towards the south property line. The West Drainage Area remains unchanged and consists of a small portion of lawn area, but mostly wooded and brush areas. Stormwater runoff from the West Drainage Area will continue to sheet flow over the surface towards the west property line.

Quantity Control

The Town of Amherst's stormwater regulations require the design of stormwater detention facilities to limit the post-development, 25-year, peak discharge rate to the pre-development, 10-year, peak discharge rate.

Per correspondence with the Town of Amherst Engineering Department, the existing stormwater detention facility located on the adjacent parcel to the east of this parcel, 258 Creekside Drive, was designed to accommodate full buildout of this parcel. Accordingly, the previous site improvements built on this parcel, as well as the proposed improvements, do not require any additional stormwater detention.

Quality Control

The construction of this site will disturb less than one acre of land. Therefore, a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the New York State Department of Environmental Conservation (NYSDEC) standards and a NOI (Notice of Intent) are not required. Furthermore, stormwater management practices to address water quality volume and runoff reduction volume are not required.

3.0 Sanitary Sewer

Based on the previous Site Plans for this parcel, the existing building is serviced by a 4-inch diameter, private, sanitary sewer lateral. The 4-inch lateral connects to the existing 10-inch cast iron sewer main along the south side of Creekside Drive.

There are no new sanitary sewer laterals proposed for this project. The existing 4-inch sewer lateral is to remain. New plumbing from within the proposed building addition will tie into the existing 4-inch sewer lateral from within the building.

4.0 Water

Based on the previous Site Plans for this parcel, the existing building is serviced by a 1 ½ -inch diameter, private, domestic water service. The 1 ½-inch service enters the building and is both metered and backflow protected within the building.

There are no new water services proposed for this project. The existing 1 ½ -inch domestic service is to remain. New plumbing from within the proposed building addition will tie into the existing 1 ½-inch domestic service downstream of the existing backflow prevention device.

Water calculations are included in Appendix D.

5.0 100-YR Floodplain

The proposed building addition, the existing building and the site are not located in the 100-year flood plain. The site is located in "Zone X" per FEMA Firm Panel 36029C0064H, effective date 6/7/2019. See FEMA Firmette in Appendix C.

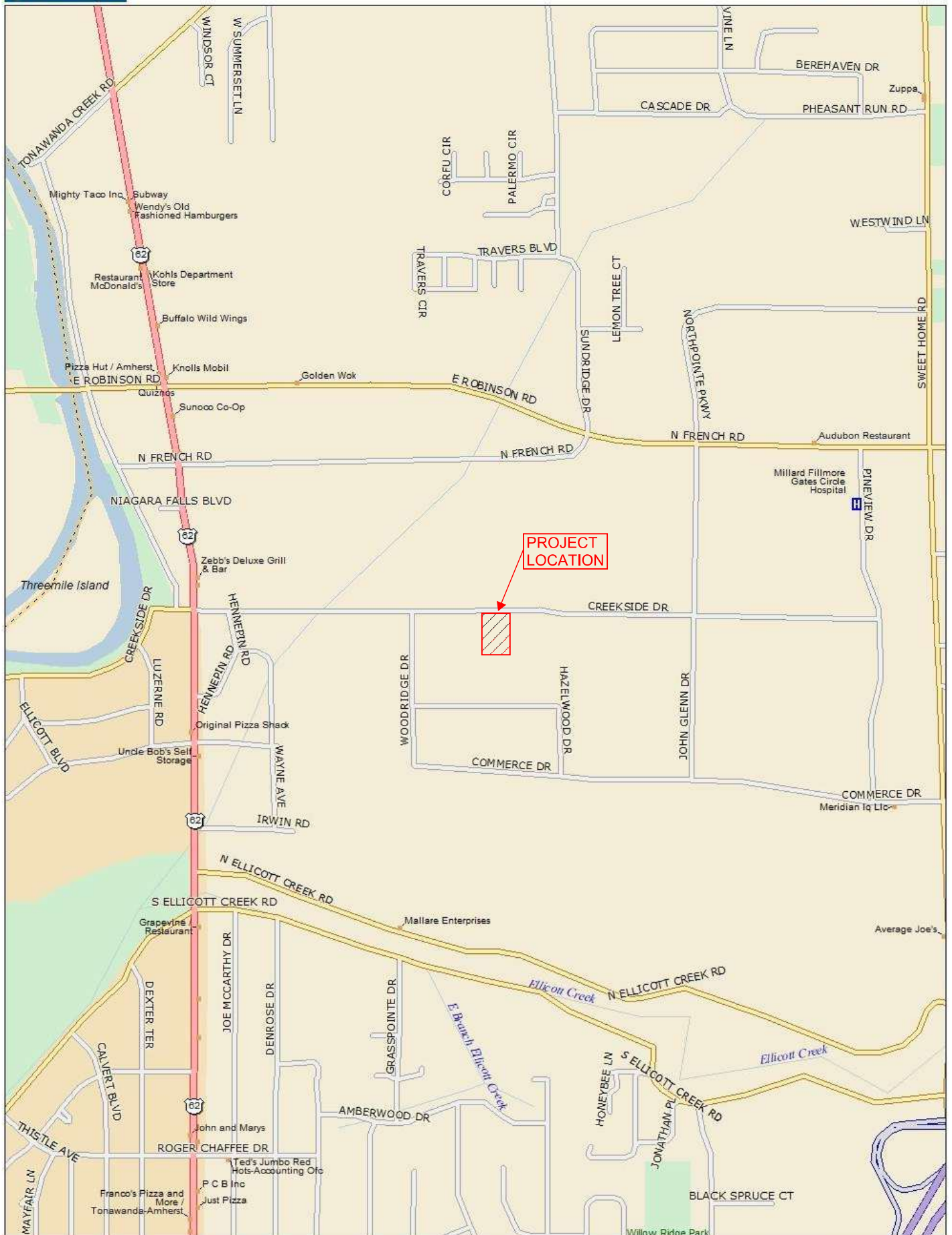
Respectfully Submitted,

C&S ENGINEERS, INC.

Jason P. Utzig, P.E.
Senior Project Engineer



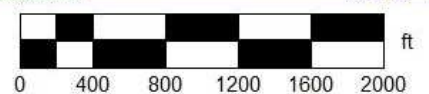
Appendix A – Site Location Map



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Data Zoom 14-0

Appendix B – Stormwater - Existing & Proposed Drainage Maps

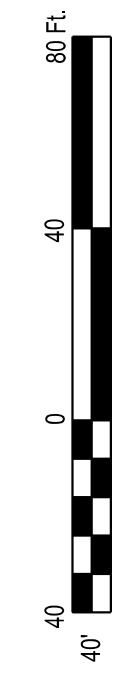


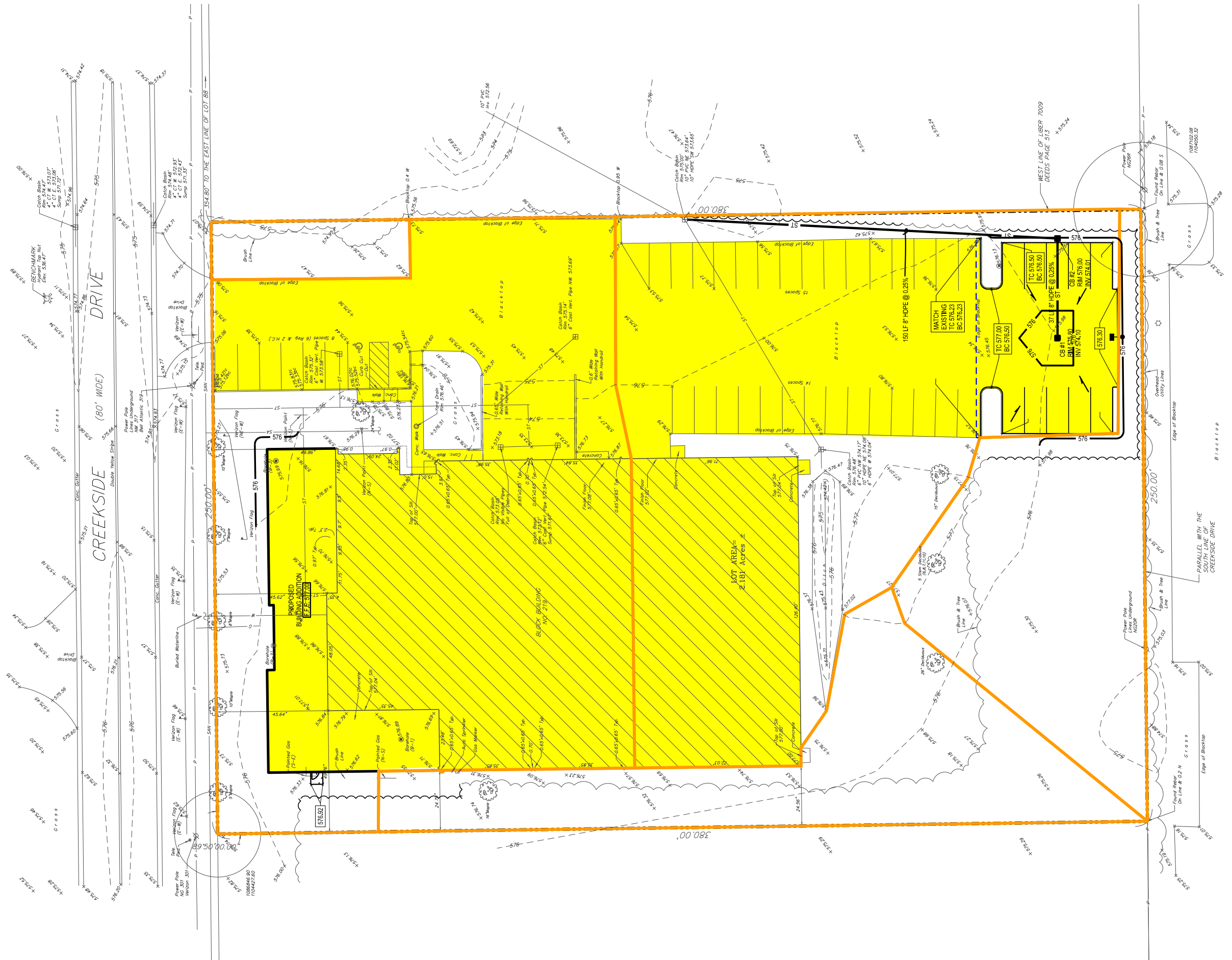
EXISTING DRAINAGE ANALYSIS MAP

LEGEND

- DRAINAGE AREA
- IMPERVIOUS AREA

PLAN NORTH

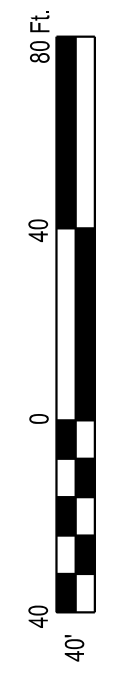
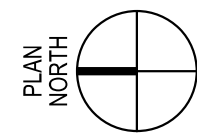




PROPOSED DRAINAGE ANALYSIS MAP

LEGEND

- DRAINAGE AREA
- IMPERVIOUS AREA



Appendix C – 100 YR Floodplain

National Flood Hazard Layer FIRMette

78°49'5"W 43°2'3"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A, V, A99
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- Area of Minimal Flood Hazard *Zone X*
- Effective LOMRS *Zone D*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

CROSS SECTIONS WITH 1% ANNUAL CHANCE WATER SURFACE ELEVATION

- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

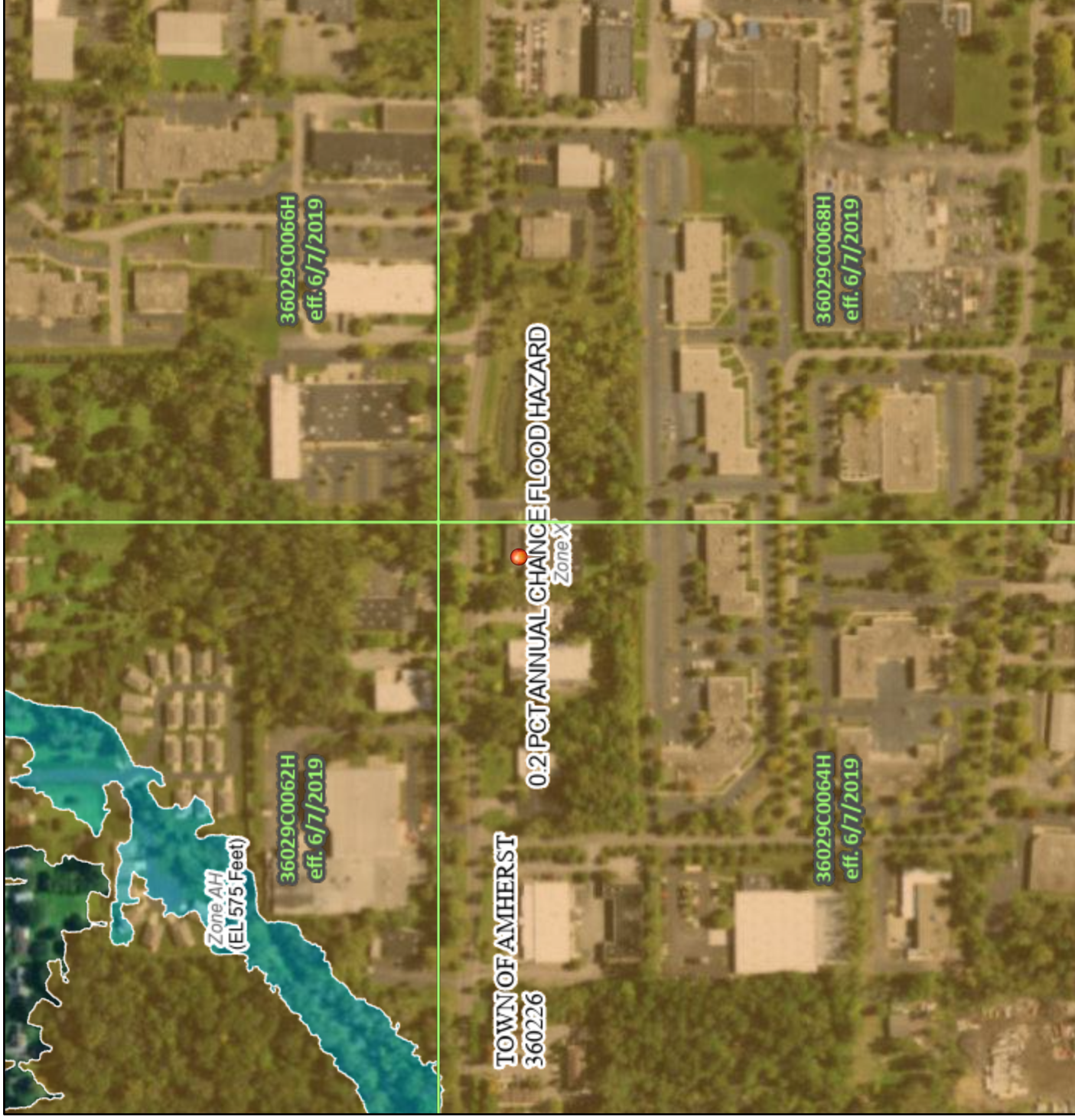
- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **4/3/2024 at 10:24 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



78°48'27"W 43°1'37"N

0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap Imagery Source: USGS National Map 2023



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