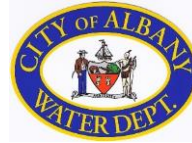




The City of Albany and
the Albany Water Department



Elberon Place CSO Abatement and Flood Mitigation Project

Project Fact Sheet



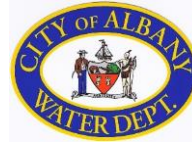
Summary of the Elberon Place CSO Abatement and Flood Mitigation Project:

The City of Albany has historically experienced flash flooding and system surcharging issues throughout the Beaver Creek sewershed; with frequent and substantial damages occurring within the Quail Street Neighborhood along Elberon Place. There is a clearly defined low-lying area in the topography within this flood zone that can become inundated during precipitation events resulting in flash flooding. During these periods, “waters” enter the flood zone either as direct runoff from the local contributory watershed; as surface runoff conveyed through the city street system; and/or as surface discharges from combined sewer flows surcharging the combined sewer system (CSS). These conditions cause flood damage to public and private properties and create potential health hazards to the public. Elberon Place is extremely susceptible to flooding conditions as there is no surface relief provided to drain the area when the system is surcharged. The Albany Water Department is utilizing a combination of “grey” and “green” solutions within the urban, combined sewer environment to decrease street flooding, system surcharging, and combined sewer overflows in order to improve the City's infrastructure and support the sustainability of important City neighborhoods.

Under Phase 1 of the project, green infrastructure practices were implemented as part of the “Quail Street Green Infrastructure Project”. The City constructed infiltration cells or galleries along the linear street corridor (under the sidewalks) to intercept stormwater and promote maximum infiltration to reduce the runoff volume and flow rates conveyed to the existing CSS. Runoff enters the infiltration cells via porous buffer strips along the sidewalks, tree and planting areas, and through interceptor structures in the street which provide for pre-treatment of flows to capture heavy grit and sediment, along with other pollutants and floatable materials. In addition, passive controls were constructed in the system to manage flows and maximize infiltration within the cells.



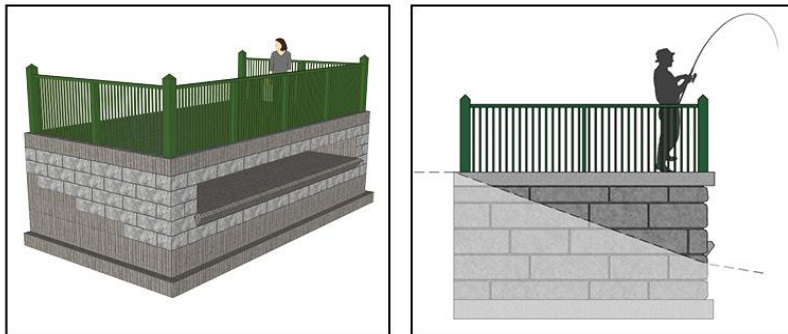
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Under Phase 2 of the project, a dedicated storm sewer line is being constructed along Elberon Place to provide conveyance of runoff from Quail Street and Elberon Place to the Washington Park Lake. The lake currently has more than 4 million gallons of storage available to provide for storm surge protection for the downstream CSS. Conveyance of flows to the lake will provide for the "free drainage" of the low-lying area on Elberon Place and serve to re-establish natural floodplain storage which previously existed along Beaver Creek.

The project is incorporating continuous monitoring, adaptive controls to optimize the performance of the City's existing infrastructure and planned capital investments. Specifically, the continuous monitoring, adaptive controls will inform the City in regards to pre-event planning activities as well as monitoring and management of flows during critical wet weather periods for Washington Park Lake. The adaptive controls will be managed remotely by cloud-based software that will work in conjunction with data from connected on-site sensors, weather forecasts, and site specific parameters to make intelligent and predictive control decisions. Pre-event metrics and predictions will be used to make decisions regarding the lake levels, including potentially lowering the lake below normal levels to provide additional storage capacity, if necessary. Wet-weather metrics at the lake will be used in conjunction with weather pattern predictions and other system monitoring data to determine the optimum release rate for flows from the lake.

The proposed stormwater system along Elberon Place and the continuous monitoring, adaptive controls to be constructed within Washington Park Lake will work in conjunction with the constructed green infrastructure practices along Quail Street to reduce the volume of flow conveyed to the combined sewer system. The overall system will subsequently reduce downstream flooding as well as the environmental impact of flows on receiving waters by reducing combined sewer overflow volumes. The project has received \$1M of grant funding through the DEC Water Quality Improvement Project (WQIP) Program for the proposed improvements and implementation of the real time controls.



Proposed Washington Park Lake Inlet Structure

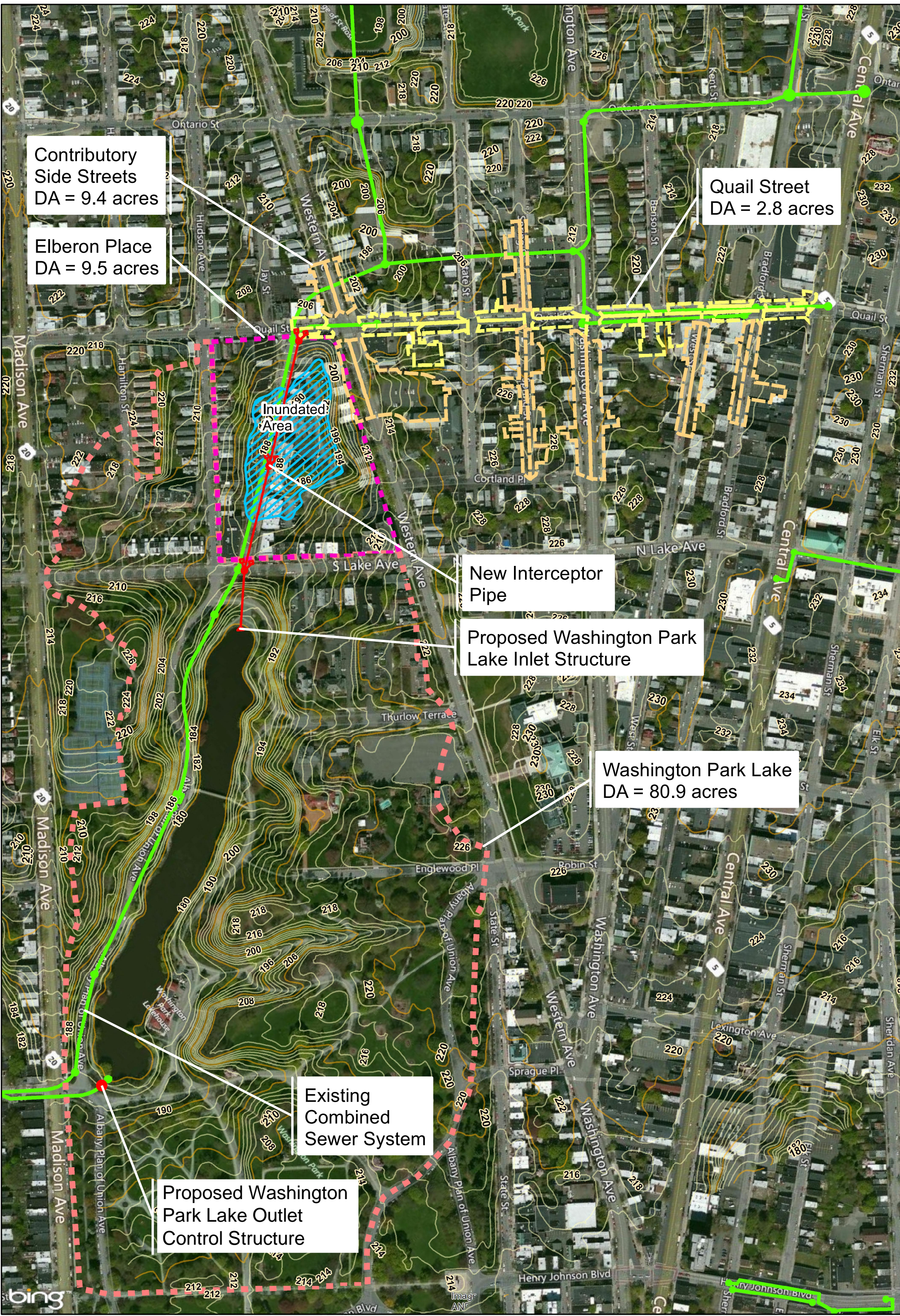


FIG. 1

Elberon Place CSO
and Flood Mitigation

Elberon Place, City of Albany, Albany County, NY

Issue Date: 4/25/2017 Project No. : 29032 Scale: 1 inch = 300 feet

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Legend

- Inundation Area
- Drainage Areas
- Albany City Sewer
- 2 ft
- 10 ft



No.	Submittal/Revision	App'd	By	Date