

Office of the City Engineer

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October 8, 2015

Legistar Item: 15-00847

To: Alderman Jim Morgenroth, Chairman
Public Works and Services Committee

From: John C. Rooney *JCR*
Assistant Commissioner of Public Works/City Engineer

Re: Contract 20150059, PS – Sanitary Sewer I/I Investigation, SEH, Inc., Consultant

SEH has submitted a professional services agreement to analyze rehabilitation strategy and performance of sewer lining. The purpose of this is to establish a baseline inflow/infiltration (I/I) unit of the pipe prior to lining rehabilitation and after to determine the net factor of I/I reduction to prevent clear water from entering the sanitary sewer system. This can be done utilizing the Electro Scan (ES) technology provided by SEH. ES detects electricity loss in a finite column of water trapped in sewer pipe, and provides the City with another tool to detect leakage in a pipe not easily found by operators performing CCTV to identify defects not easily identified by the human eye. The City of Racine, like all municipalities discharging flow to the wastewater treatment plant, is limited to maximum permitted flows by the Racine Wastewater Utility (RWWU). The purpose of this study is to have the ability to measure the level of effectiveness of pipe rehabilitation as alternative to more expensive pipe replacement. This pilot area can provide quantifiable data on I/I reduction as this sewer service area is tributary to the RWWU metered lift station at the southeast corner of E. Westminster and Steeplechase.

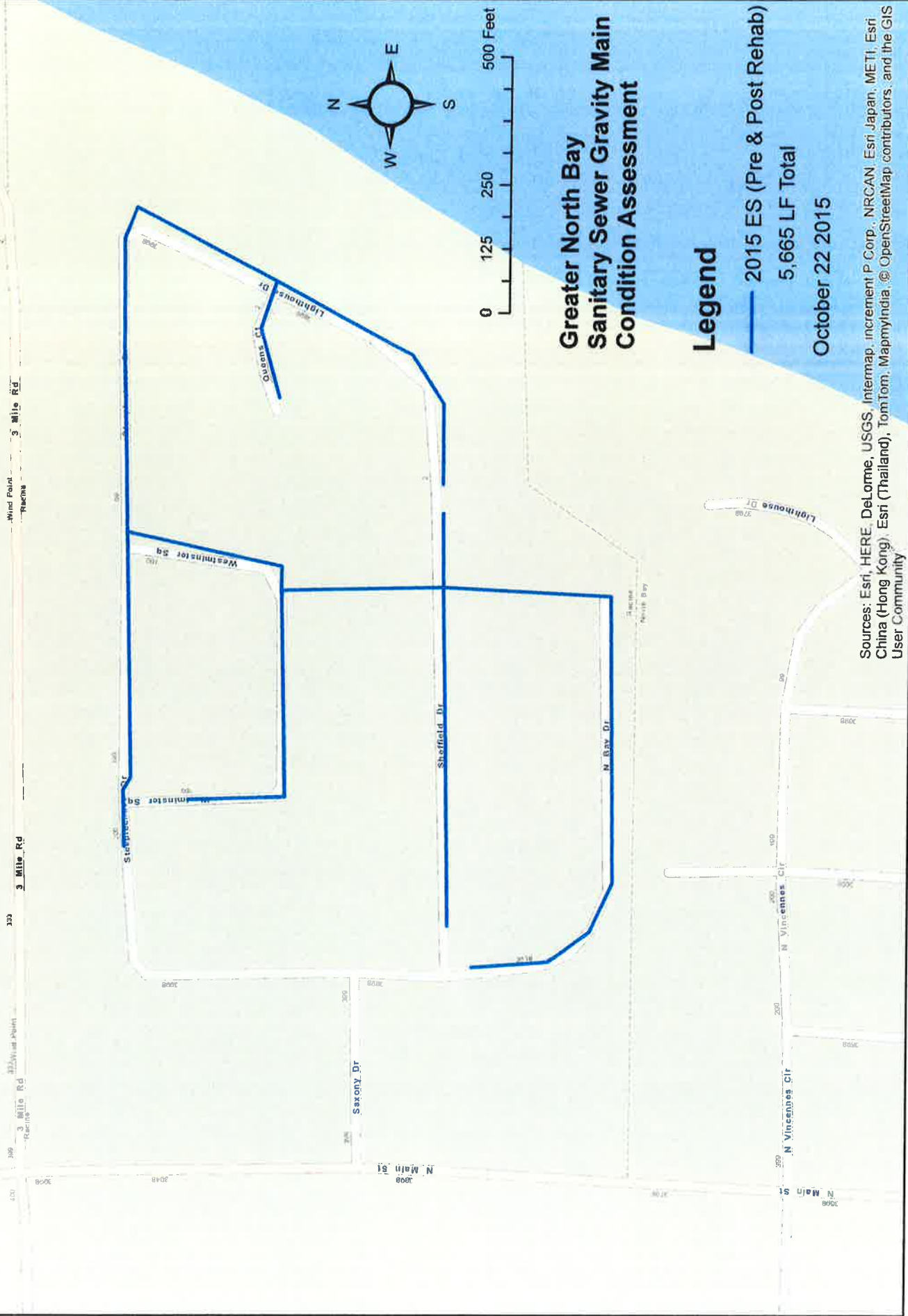
The City of Racine has elected to rehabilitate the sanitary sewer gravity mains in the Greater North Bay Neighborhood during the winter of 2015 – 2016. The City wishes to perform an ES analysis prior to and after rehabilitation to help them estimate the reduction in infiltration as a result of their efforts. The City anticipates that the rehabilitation will begin after November 30, 2015. SEH will perform condition assessment on 5,665 LF of gravity sewer mains in the Greater North Bay Neighborhood, as shown in attached Exhibit 2.

If the committee agrees the appropriate action will be to authorize the Mayor and City Clerk to enter into the agreement. The lump sum proposal is in the amount of \$68,000 and funding is available in: Org – Object 22640-57560, Sanitary Sewers.

JCR:njp

Cc: Joy Hansche
File

EXHIBIT 2



Greater North Bay Sanitary Sewer Gravity Main Condition Assessment

Legend

- 2015 ES (Pre & Post Rehab)
- 5,665 LF Total

October 22 2015

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community