



**CITY OF KIRKLAND**  
**Department of Public Works**  
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## **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** George Minassian, P.E., Project Engineer  
Dave Snider, P.E., Capital Projects Manager  
Kathy Brown, Public Works Director

**Date:** June 4, 2015

**Subject:** NE 85<sup>TH</sup> STREET CORRIDOR IMPROVEMENT PROJECT UPDATE &  
AUTHORIZATION FOR OVERLAY NIGHT WORK CONSTRUCTION

## **RECOMMENDATION:**

Staff recommends that the City Council:

- Receives a general construction update for the NE 85<sup>th</sup> Street Corridor Improvements Project,
- Receives a budget update on the upcoming NE 85<sup>th</sup> Street Overlay Project, including the following:
  - Discovered conditions in the roadway subgrade,
  - Current geotechnical recommendations for more extensive base and pavement repair,
  - Recommendations for increased pavement overlay thickness,
  - Advantages of doing pavement overlay work at night, and
- Authorizes night work for the NE 85<sup>th</sup> Street Overlay Project.

By accepting this memo during approval of the consent calendar, City Council is authorizing night work for the NE 85<sup>th</sup> Street Overlay Project.

## **BACKGROUND DISCUSSION:**

The NE 85<sup>th</sup> Street Corridor Improvements Project consists of eight separate sub-projects, as listed in Table 1 below and as illustrated on Attachment A.

**Table 1 – NE 85th Street Corridor Improvements Project Status**

Reference Number	Project Number	Project	Status
1	NM 51	Rose Hill Business District Sidewalks	Currently under construction
2	TR 78	NE 85 <sup>th</sup> Street & 132 <sup>nd</sup> Ave NE Intersection Imp.	Currently under construction
3	TR 79	NE 85 <sup>th</sup> Street & 114 <sup>th</sup> Ave NE Intersection Imp.	Complete
4	TR 80	NE 85 <sup>th</sup> Street & 124 <sup>th</sup> Ave NE Intersection Imp.	Currently under construction
<b>5 (this memo)</b>	<b>ST 06002</b>	<b>NE 85<sup>th</sup> Street One-Time Overlay</b>	<b>To be Completed fall 2015</b>
6	SD 25	NE 85 <sup>th</sup> Street Detention and Sediment Control	Currently under construction
7	WA 140	NE 85th Street Watermain Replacement	Currently under construction
8	ST 75	NE 85 <sup>th</sup> Street Utility Conversion	Construction Completed

As the construction of the various Project Phases is either complete or continues, the following is a status update for each:

- The Rose Hill Business District Sidewalks (Number 1 above) is a two-phased project. The construction of the first phase, the 124<sup>th</sup> Avenue NE Sidewalk Improvements, between NE 80<sup>th</sup> and NE 90<sup>th</sup> Streets, is complete and the work was accepted by City Council at the June 17, 2014 City Council meeting.
- The construction contract for the Phase 2 sidewalk work, with the accompanying transportation, surface water, and water utility elements for the Corridor Improvement Project (numbers 1, 2, 4, 6, and 7) was awarded on June 17, 2014 and is currently under construction.
- The NE 85<sup>th</sup> Street & 114<sup>th</sup> Avenue NE Intersection Improvement Project (Number 3) is complete with video control functioning in the newly constructed Transportation Management Center (TMC) at City Hall. City Council accepted this project work on June 5, 2012.
- City Council accepted the work for the NE 85<sup>th</sup> Street Utility Underground Conversion Project (Number 8) at the March 3, 2015 meeting.
- The final element, the NE 85<sup>th</sup> Street Overlay Project (number 5), is scheduled to begin in late summer and be complete in late summer to early fall, 2015. The Overlay Project includes the final channelization improvements for the corridor and a recommendation for contract award is scheduled to be brought to City Council at the August 4, 2015 meeting.

**Ongoing Construction Update**

The installation of new replacement water main line throughout the Corridor (Number 7) is now done with the pressure testing and system purification processes all complete. Connecting the new main to the City’s water system is currently in process. The decommissioning of the old watermain as well as bringing the new watermain on-line to provide domestic water and fire suppression supply to thousands of Kirkland water utility customers is scheduled to be complete by mid-July.

The current schedule for the Project’s new storm water improvements shows that work will be completed later this month. Concurrent with the storm system improvements the contractor is nearing completion of the new concrete curb and sidewalk on the street’s north side with the same type of work beginning on the south side on June 8.

The street lighting, pedestrian illumination along the Corridor, and signal improvements (at 124<sup>th</sup> and 132<sup>nd</sup> Avenues NE) have begun and are expected to be complete by late August; all corridor surface improvement work elements remain on-schedule with a complete Project to be delivered in the third quarter of 2015.

**Budget**

Early in 2009, the cities of Kirkland and Redmond jointly filed an application to the State for the removal of State Route designation from NE 85th Street. The Jurisdictional Route Transfer of NE 85th Street allowed for local control over channelization, access, and landscaping decisions. Through the Transfer process, the State also agreed to provide funding for an overlay of the roadway upon the completion of the 85th Street Corridor Improvements; the overlay was previously budgeted by WSDOT in 2008. With the finalization of the Transfer, the State and Federal money has been made available to Kirkland and regular reimbursement billings for the design of the improvements have been on-going.

Today, the current funding for the NE 85th Street Overlay Project is a combination of State, Federal and City contributions with \$324,300 in City (Street Preservation funding), \$22,700 in State funding and \$1,122,000 in Federal dollars; the total budget is \$1,469,000. In 2008, as a State Route, the original State and Federal budget of \$1,144,700 was based on a specific design standard and a defined width. As the Project moved through design, staff presented a total Corridor budget overview at the December 10, 2013 City Council meeting and was authorized to add funding to the Overlay Project budget from Street Preservation. As the overall NE 85<sup>th</sup> Street project progressed, new subgrade deficiencies were uncovered, making overlay preparation requirements more extensive than originally envisioned. As part of the Overlay Project design process, the City's geotechnical engineering consultant has reviewed all currently available information and is now recommending that additional areas of roadway base and pavement repair be performed. In the final design recommendation, the geotechnical engineer on the Project has advised that an additional 1-inch of depth to the asphalt pavement section throughout the Corridor would be a prudent action based on the street's pavement surface condition and the high average daily traffic count of 44,000 trips per day. The added subsurface and pavement repair combined with an increased depth would serve to better insure a 20-year pavement life for the mile-long Corridor.

The addition of another 1-inch of pavement represents a one-third increase in a more normal pavement depth. When combined with added pavement repair the overall Project increase could be on the order of 17% to 25% or, as calculated, to be in the range of \$250,000 to \$350,000.

Staff is not recommending a budget adjustment at this time. Rather, staff is recommending moving ahead with bidding the Project and returning to City Council at the time of award with a more precise cost estimate, as well as scope options based on the geotechnical recommendation. If funding is needed for the additional work, staff will prepare a budget request. Please recall that when City Council awarded the 2015 Street Overlay Project there was an approximate \$300,000 surplus within that project's budget. Also, as staff is preparing the City Council acceptance of the 2014 Street Overlay Project, there now appears to be a surplus from that project as well. The remaining funds from the past two Overlay Projects would be the likely source for to provide additional funding, if needed, for the NE 85<sup>th</sup> Street Overlay Project.

**Street Overlay Work Hours and Schedule**

As the oversight office for the Federal and State funds for the Project, staff worked closely with WSDOT to coordinate all aspects of the grant funding activities throughout the design of the NE 85<sup>th</sup> Street Overlay Project. As part of that regular coordination, it was concluded that the overlay construction work will require that all I-405 ramps be closed during the time of asphalt grinding/planning, as well as during the paving activities; the local WSDOT office will only allow closure of the I-405 on and off-ramps to occur during night time hours of 9 p.m. to 5 a.m.

In order to lessen all traffic congestion impacts during the street overlay phase, staff is recommending that all pavement grinding, asphalt overlay placement, and pavement marking operations be performed at night along the entire length of the corridor. The night construction work will allow the contractor to reduce the traffic flow to one lane in each direction and consequently expedite construction operations with minimal traffic impact. The night

construction work will also minimize impacts to surrounding businesses, reduce costs for traffic control, and will result in a better, more seamless and uniform final pavement surface. The Project plans and specification will also require that adjustments of all utility covers (i.e., manhole lids and valve boxes) within the new pavement area be performed during night construction work for the roadway section between 114<sup>th</sup> and 126<sup>th</sup> Avenues NE. For the area between 126<sup>th</sup> and 132<sup>nd</sup> Avenues NE, the plans and specification would restrict adjustment of utility covers to daytime hours in order to minimize noise disturbance (primarily jack-hammering) adjacent to this more heavily residential zone along the Corridor.

Night construction work will require the contractor to apply for a noise variance and staff will conduct a very vigorous Public Outreach informational campaign ahead of the Overlay Project. The proposed specifications limiting the contractor's operations have been reviewed with the City Attorney's Office and concurrence with the specifications has been reached. During the prior and on-going construction of the NE 85th Street Corridor Project, staff has devoted time to local residents and businesses with regular conversations concerning nighttime construction noise issues. Based on the results of these conversations, and the lessons-learned through the relatively few noise complaints received, staff will include other requirements in contract documents to mitigate specific noise generating activities during defined hours and in specific locations for the Overlay Project.

### Schedule - Cost Impacts

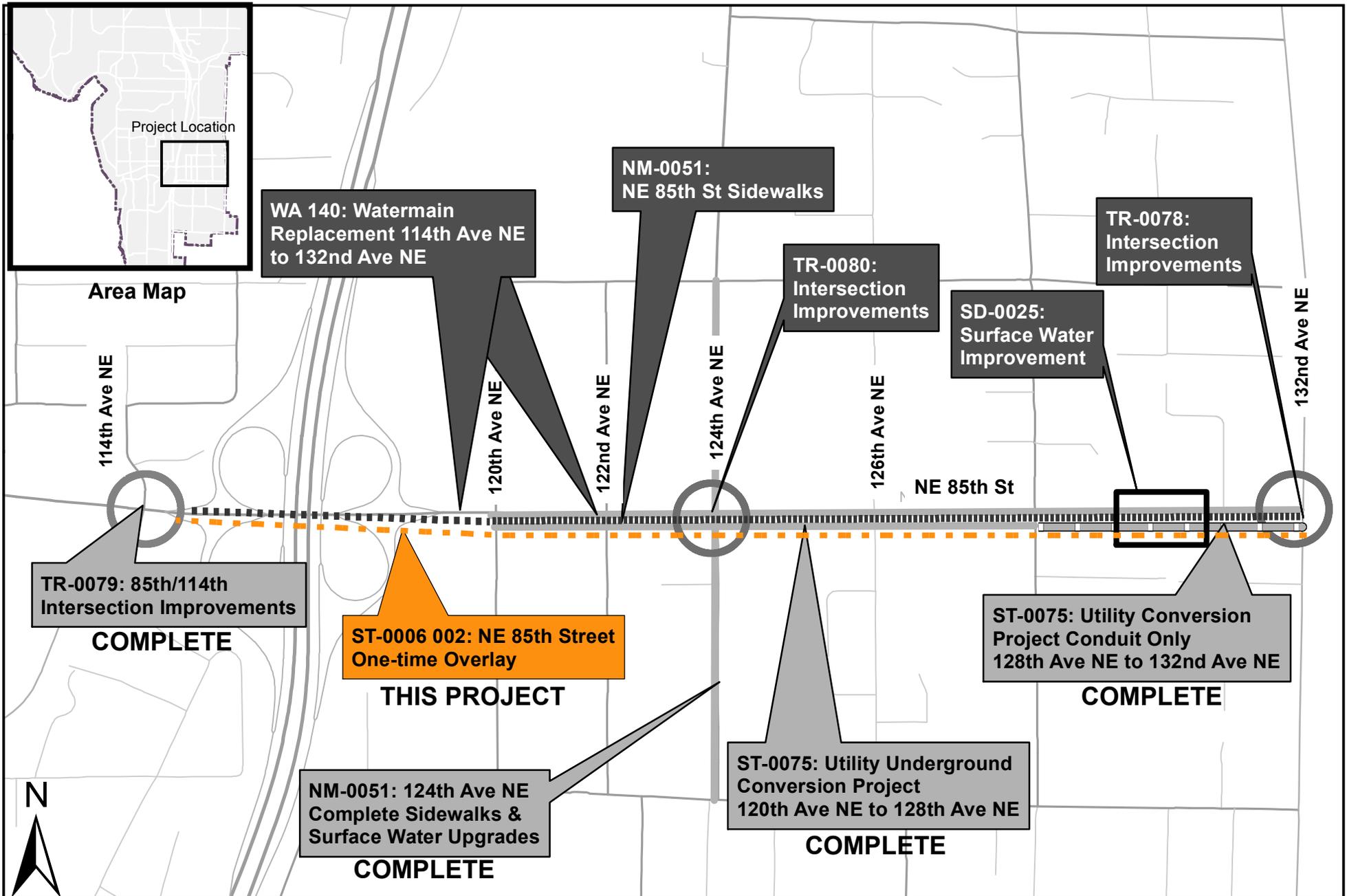
Based on lower night time traffic volumes observed during the Water Main Replacement (Number 7) and the Aerial Utility Conversion (Number 8) Projects, construction activities for planing, paving, and pavement channelization are expected to be completed in approximately half the time as daytime operations.

Reduced construction time translates into reduced cost of construction tasks such as traffic control, use of uniformed police officers at intersections, construction management, and inspection time. However, night work does carry a premium cost for materials such as asphalt; these premiums are dependent on the number of night time construction paving projects occurring in the region and, therefore are somewhat of an unknown at this time. Staff does anticipate; however, that the soft costs for the Project (i.e., inspection and project managements) will be somewhat less for night work as the overall schedule is expected to be compressed with a more efficient operation.

### Overall Project and Public Outreach Overview

Staff continues to provide regular outreach updates to business owners and residents regarding the overall progress of the Corridor Project, providing specific project locations, and an overview for all the various project phases. Outreach information includes the *Project Update* to more than 500 businesses and residents near the corridor, direct emails to all businesses along the corridor, and the overall Project [website](#) that presents in-depth daily progress and schedule updates.





**Vicinity Map**

**NE 85TH STREET CORRIDOR IMPROVEMENT PROJECT – STREET OVERLAY**