

# NE 162<sup>nd</sup> Ave Fiber and Communications Project

NE 45 Street to E Fourth Plain Boulevard

City of Vancouver, WA

## Project Goal:

- Improve transportation communications network within East Vancouver.
- Provide low cost communications improvements to support arterial management of E Fourth Plain Blvd and NE 162<sup>nd</sup> Ave.

## Project Outcome

- Provide opportunity for a redundant communication link between E Mill Plain and E Fourth Plain Corridors along the NE 162<sup>nd</sup>/164<sup>th</sup> Avenue corridor.
- Upgraded traffic signal controller and communications at the intersection of NE 65<sup>th</sup> St & 162<sup>nd</sup>.

## Project Information

**Federal Funding Program:** CMAQ

**RTC Awarded Funding:** \$271,010

**Total Project Cost:** \$226,847

**Project Type:** TSMO

**Project Length:** 1.18 miles

**Function Classification:** E Fourth Plain Blvd – Principal Arterial  
NE 162<sup>nd</sup> Ave – Principal Arterial<sup>1</sup>

### Daily Traffic Volume:

E Fourth Plain Blvd (west of NE 162<sup>nd</sup> Ave) – 19,000 two-way ADT  
NE 162<sup>nd</sup> Ave (south of E Fourth Plain Blvd) – 25,000 two-way ADT<sup>2</sup>

## Project Description

The NE 162<sup>nd</sup> Ave Fiber and Communications Project creates a final link within the City of Vancouver’s NE 162<sup>nd</sup>/164<sup>th</sup> Avenue communications corridor. The project installs a 48-fiber trunk cable on 162<sup>nd</sup> between the intersections of NE 45<sup>th</sup> Street and E Fourth Plain Boulevard, connecting the NE 162<sup>nd</sup>/164<sup>th</sup> Avenue corridor transportation communications network into the E Fourth Plain network. This connection creates a redundant ring in East Vancouver that supports the City of Vancouver as well as other Vancouver Area Smart Trek Agencies. The project also upgrades the controller and communications at the intersection of NE 65<sup>th</sup> Street/162<sup>nd</sup> Avenue allowing it to be connected into the City’s ATMS.now central system.

## Project Funding

Phase	Year	Federal Funds	Other Funds	Total
PE	2014-2015	\$44,000	\$ 6,867	\$50,867
ROW	N/A	\$ 0	\$ 0	\$ 0
CN	2015-2016	\$ 227,010	\$ 35,429	\$ 262,439
<b>Total</b>		<b>\$ 271,010</b>	<b>\$ 42,296</b>	<b>\$ 313,306</b>

<sup>1</sup> Vancouver Comprehensive Plan, 2014.

<sup>2</sup> Twenty-four-hour traffic count obtained from Regional Transportation Council website. Counts conducted September 2015.

## Project Outcome Details

The project successfully provides a vital link in completing the NE 162<sup>nd</sup>/164<sup>th</sup> Avenue and E Fourth Plain Boulevard transportation communications networks by completing a redundant ring for traffic signal communications along E Fourth Plain Boulevard east of NE 117<sup>th</sup> Avenue and NE 162<sup>nd</sup>/164<sup>th</sup> Avenue north of E Mill Plain Boulevard. The lack of redundancy in the system prior to this project meant failure of any communications component along these corridor segments could cause communication failure to any number of downstream intersections.

The State of Washington, Clark County, and the City of Vancouver all have communication networks present at the northern project terminus (intersection of NE 162<sup>nd</sup> Avenue/Fourth Plain Boulevard). The project makes it possible for each of these transportation agencies to utilize the City's infrastructure for communication routing and redundancy in their networks should the need arise.

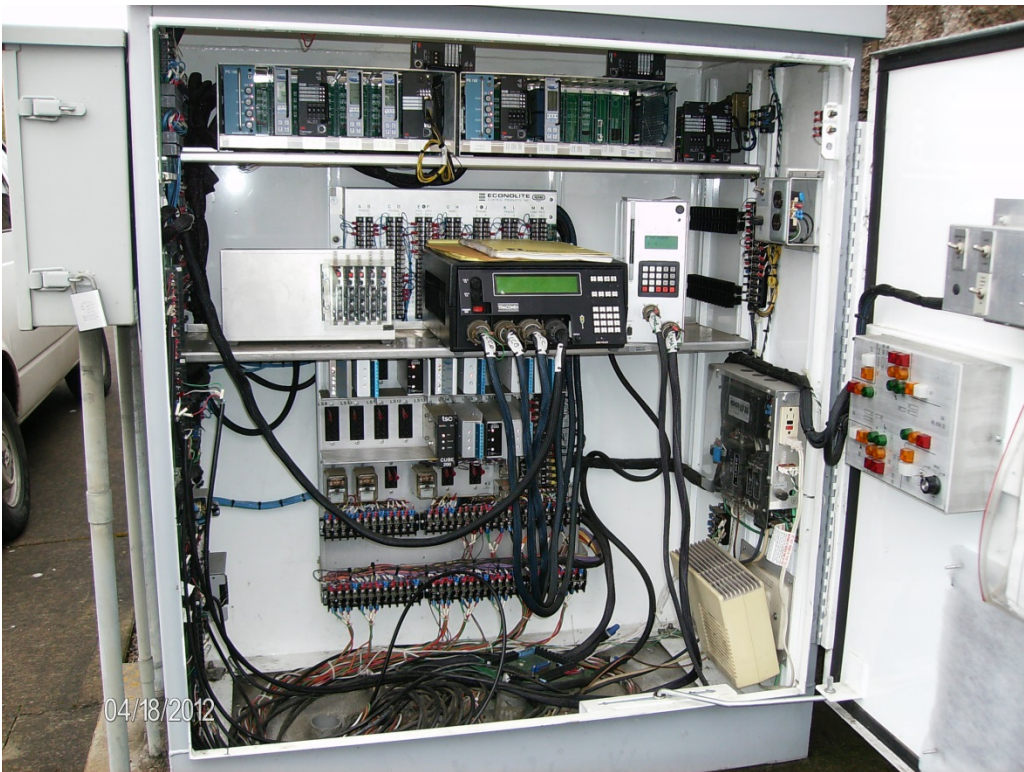
To reduce construction cost, the project utilized existing underground and aerial routing of the fiber optic cabling to the extent possible. The exception to this was one underground roadway crossing at NE 45<sup>th</sup> Street and a second just south of E Fourth Plain Boulevard. The aerial routing utilized Clark Public Utility poles. In-ground vaults and splice closures were used for splicing the new fiber optic cables into the existing NE 162<sup>nd</sup>/164<sup>th</sup> Avenue and E Fourth Plain Boulevard networks.

The intersection of NE 65<sup>th</sup> Street/162<sup>nd</sup> Avenue is now connected into and communicating back to the central system where it can be monitored by maintenance and operations personnel. The intersection is not currently coordinated with other intersections, but the communications upgrade affords the opportunity for interconnect to the existing State-owned intersection of NE 162<sup>nd</sup> Avenue/E Fourth Plain Boulevard and any additional future intersections to the south as the need arises to improve operations along the NE 162<sup>nd</sup> Avenue and E Fourth Plain corridors.

### SITE MAP



Traffic Signal Cabinet Electronics Before



Traffic Signal Cabinet Electronics After

