



Lighting & Safety

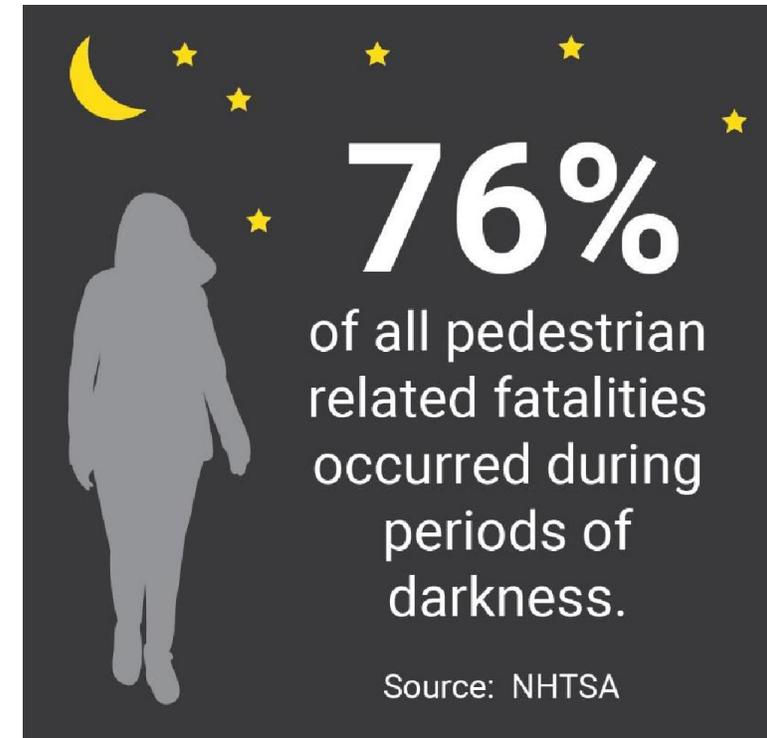
EMCTC

3/18/2024

Crashes and Lighting

- The nighttime fatality rate is 3x the daytime rate
- Only 25% of VMT occurs at night
- Regionally, dark or dim light conditions are a contributing factor in fatal crashes.
 - Pedestrian - 75%
 - Motor vehicle occupant – 57%
 - Bicycle - 50%
 - Motorcycle - 44%
- Lighting reduces crashes up to 42% for nighttime injury pedestrian crashes at intersections

Nationally:



Gresham Street Light Fund

- 8000 streetlights
- \$1.5 million per year average
 - Portion of fees paid by utilities in the right of way
- Covers basic operations and maintenance
 - electricity
 - staff costs for front-line maintenance
 - contracted maintenance
 - replacement parts



Standards

- Used lighting performance software to choose fixtures and determine spacing
- Fixed list of light fixtures and poles for developers
- Use streetlight pole types in street scape design – Downtown, Civic, Rockwood

| Table 6.02.17 STANDARD STREETLIGHT LAYOUT AND TYPE | | | | | | |
|--|-------------------|---------------------------------------|-------------------------------|-----------------------------|--------------------|------|
| FUNCTIONAL CLASSIFICATION | LIGHT HEIGHT (FT) | STREET SIDE | MAXIMUM FRONTAGE SPACING (FT) | LUMINAIRE TYPE ⁴ | WATTAGE LEVEL | |
| Major Arterial ¹ | 35 | Both Sides ² | 150 | Medium Cobra | Medium | |
| Standard Arterial ¹ | 35 | Both Sides ² | 150 | Medium Cobra | Medium | |
| Minor Arterial ¹ | 35 | Both Sides ³ | 160 | Small Cobra | High | |
| Major Collector ¹ | 35 | Staggered ⁶ or One Side | 170 | Large Cobra | Extra-Low | |
| Standard and Minor Collector ¹ | 25 | | 120 | Small Cobra | High | |
| Local Industrial ¹ | 35 | | 185 | Large Cobra | Extra-Low | |
| Local Commercial ¹ | 25 | | 130 | Extra-Small Cobra | High | |
| Local Transitional ¹ | 25 | | 150 | Extra-Small Cobra | Medium | |
| Local Queuing ¹ | 25 | | 150 | Extra-Small Cobra | Medium | |
| Pedestrian Paths | 12 | | 60 | Extra-Small Cobra | Low | |
| Shared Street | 14 | | Staggered ⁶ | 50 | Acorn ⁵ | Low |
| Civic Neighborhood | | | | | | |
| Standard Arterial | 18 | | Both Sides | 85 | Pendant | High |
| Standard Collector | 14 | 110 | | Acorn | Low | |
| Civic Connector | 18 | 100 | | Pendant | High | |
| Civic Local | 14 | 120 | | Acorn | Low | |
| Downtown | | | | | | |
| Downtown Boulevard | 16 | Both Sides | 100 | Acorn | Medium | |
| Non-Boulevard Streets in Downtown | 14 | | 110 | Acorn | Low | |
| Rockwood Design District | | | | | | |
| Designated Boulevards | 18 | | 85 | Pendant | High | |

New Streetlight Projects

- First Oregon city to replace all bulbs with LEDs (2015)

Capital Projects

- Sandy Blvd
- 181st Avenue Safety Improvements
- Centennial HS on 181st Ave
- Rockwood neighborhoods



Sandy Boulevard



Signal Controller Project

EMCTC

3/18/2024

Local Traffic Signal Controller Replacement

- Multi-year project replaces outdated controllers across all of East Multnomah County
- Awarded a joint TSMO grant with Portland - replacing outdated controllers



How does it help?



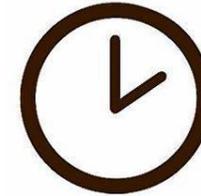
Pedestrian Head Start
(Leading Pedestrian Interval)



3-7 seconds before the green
light



Up to 13% reduction in
crashes



How does it help?

- Allows new Transit Signal Priority

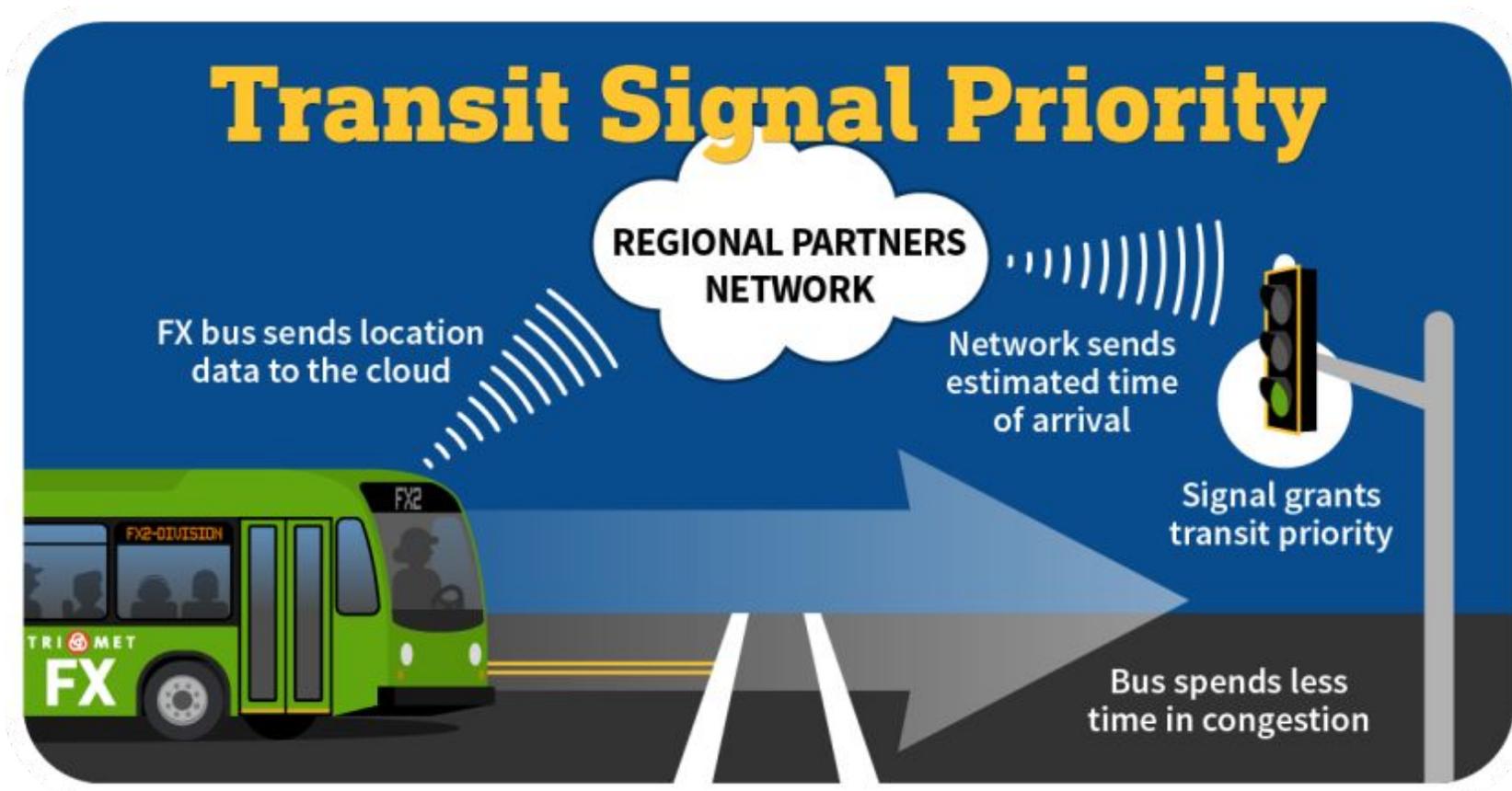
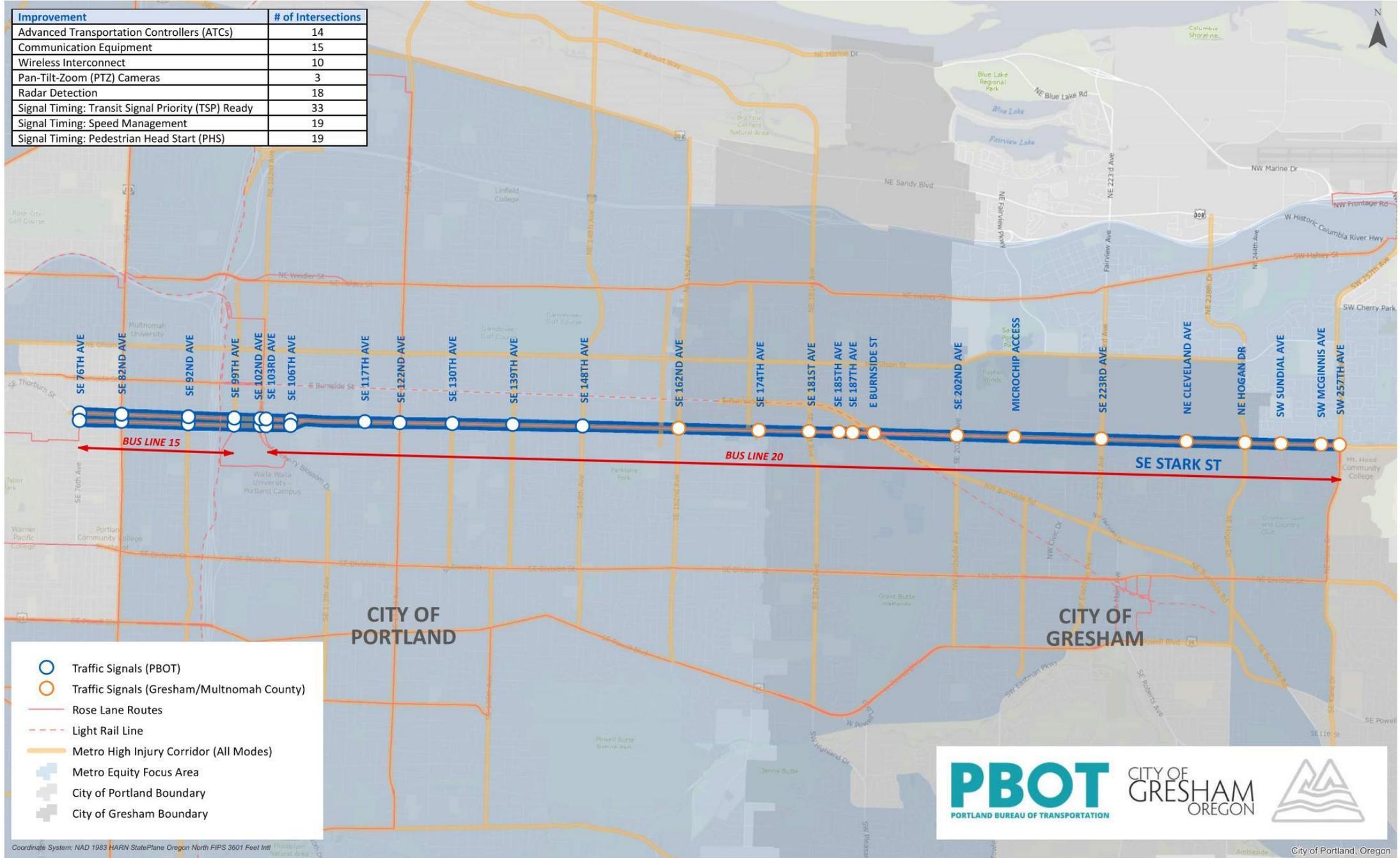


Exhibit 1. Project Map

| Improvement | # of Intersections |
|--|--------------------|
| Advanced Transportation Controllers (ATCs) | 14 |
| Communication Equipment | 15 |
| Wireless Interconnect | 10 |
| Pan-Tilt-Zoom (PTZ) Cameras | 3 |
| Radar Detection | 18 |
| Signal Timing: Transit Signal Priority (TSP) Ready | 33 |
| Signal Timing: Speed Management | 19 |
| Signal Timing: Pedestrian Head Start (PHS) | 19 |

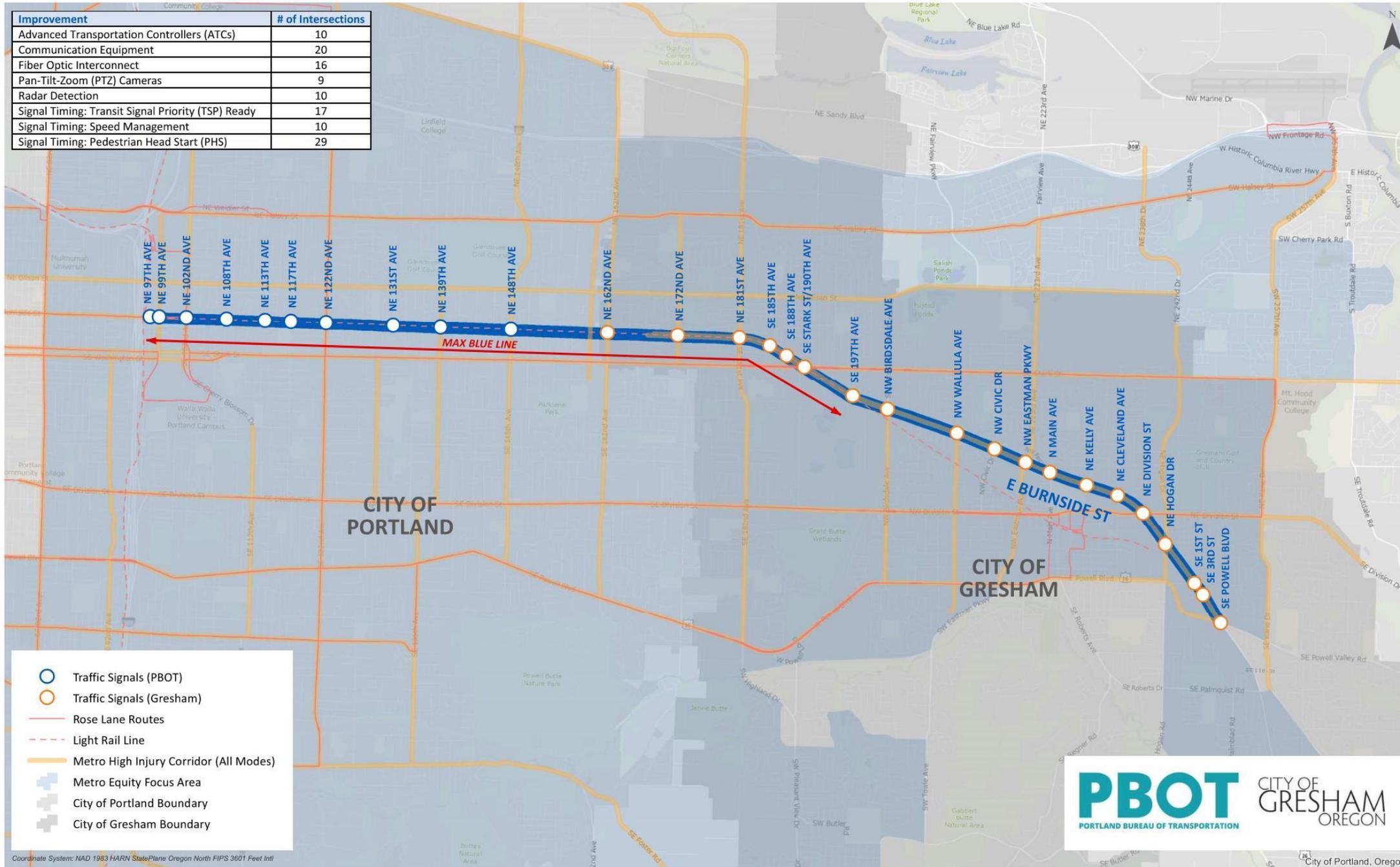


Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Int



Exhibit 1. Project Map

| Improvement | # of Intersections |
|--|--------------------|
| Advanced Transportation Controllers (ATCs) | 10 |
| Communication Equipment | 20 |
| Fiber Optic Interconnect | 16 |
| Pan-Tilt-Zoom (PTZ) Cameras | 9 |
| Radar Detection | 10 |
| Signal Timing: Transit Signal Priority (TSP) Ready | 17 |
| Signal Timing: Speed Management | 10 |
| Signal Timing: Pedestrian Head Start (PHS) | 29 |



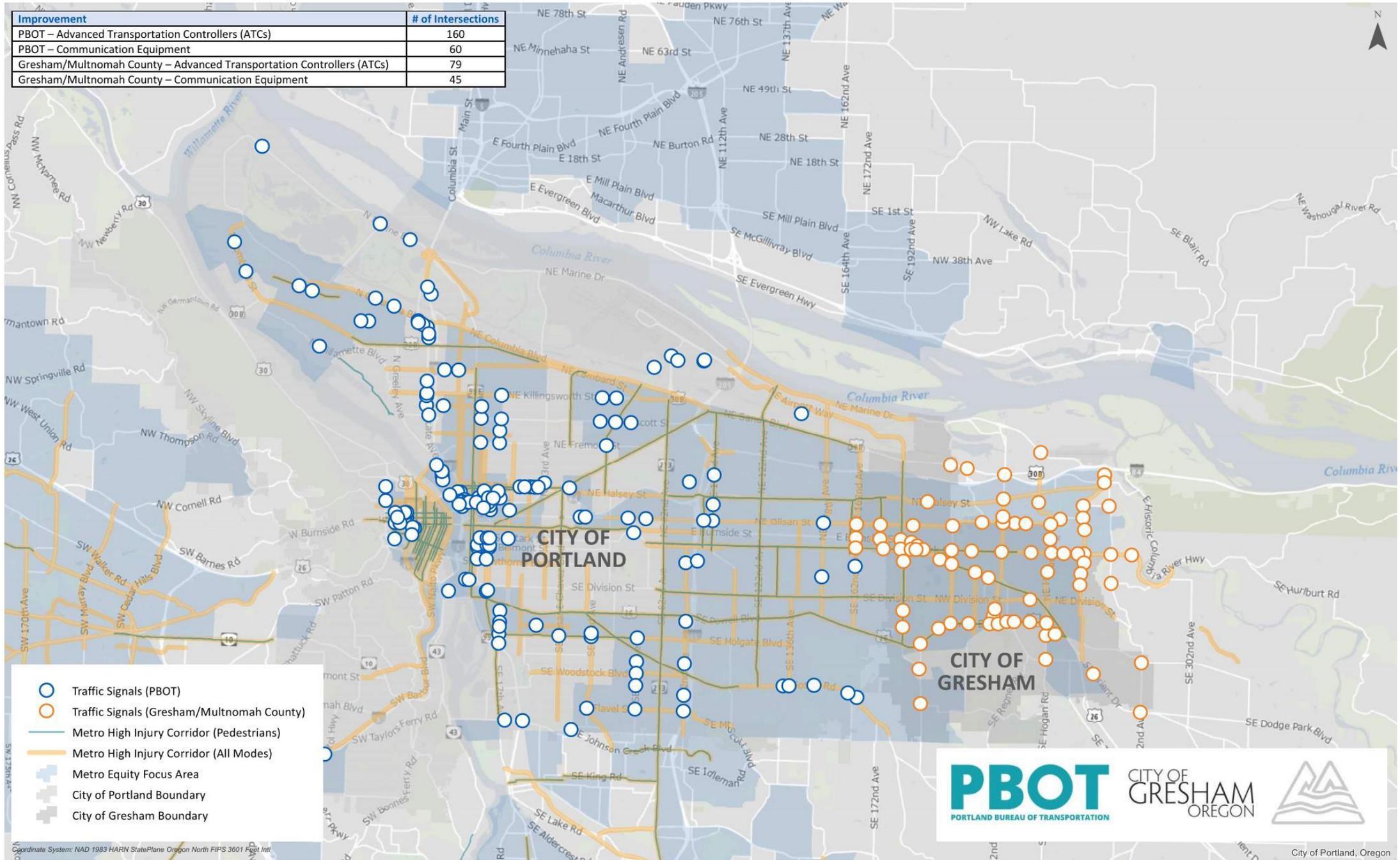
- Traffic Signals (PBOT)
- Traffic Signals (Gresham)
- Rose Lane Routes
- Light Rail Line
- Metro High Injury Corridor (All Modes)
- Metro Equity Focus Area
- City of Portland Boundary
- City of Gresham Boundary

PBOT PORTLAND BUREAU OF TRANSPORTATION

CITY OF GRESHAM OREGON

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Int'l

Exhibit 1. Project Map



Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl