# State & High Streets Two-Way Conversion Feasibility Study

## Public Advisory Committee and Community Advisors Meeting

**June 3, 2015**

T·Y·LIN INTERNATIONAL

MORRIS COMMUNICATIONS
PR ▪ Public Involvement ▪ Public Affairs

# Agenda

- Welcome and Introductions
- Meeting Agenda
- Study Background/Purpose and Need
- New Study Data
- Review of Findings
- What We Heard at Public Workshops
- Discussion
- Vote by Advisory Committee
- Next Steps

# Study Background

- Route 77 Designation via Million Dollar Bridge to Danforth Street to Route 1 – Pre 1938
- Route 77 Designation to State Street – 1955
- State Street and High Street Converted to One-Way – 1972
- PACTS Deering Oaks Park Traffic Study (including two-way conversion of State and High) – 1999
- Portland Peninsula Transportation Study – 2005
- State Street & High Street Preliminary Feasibility Study – 2012

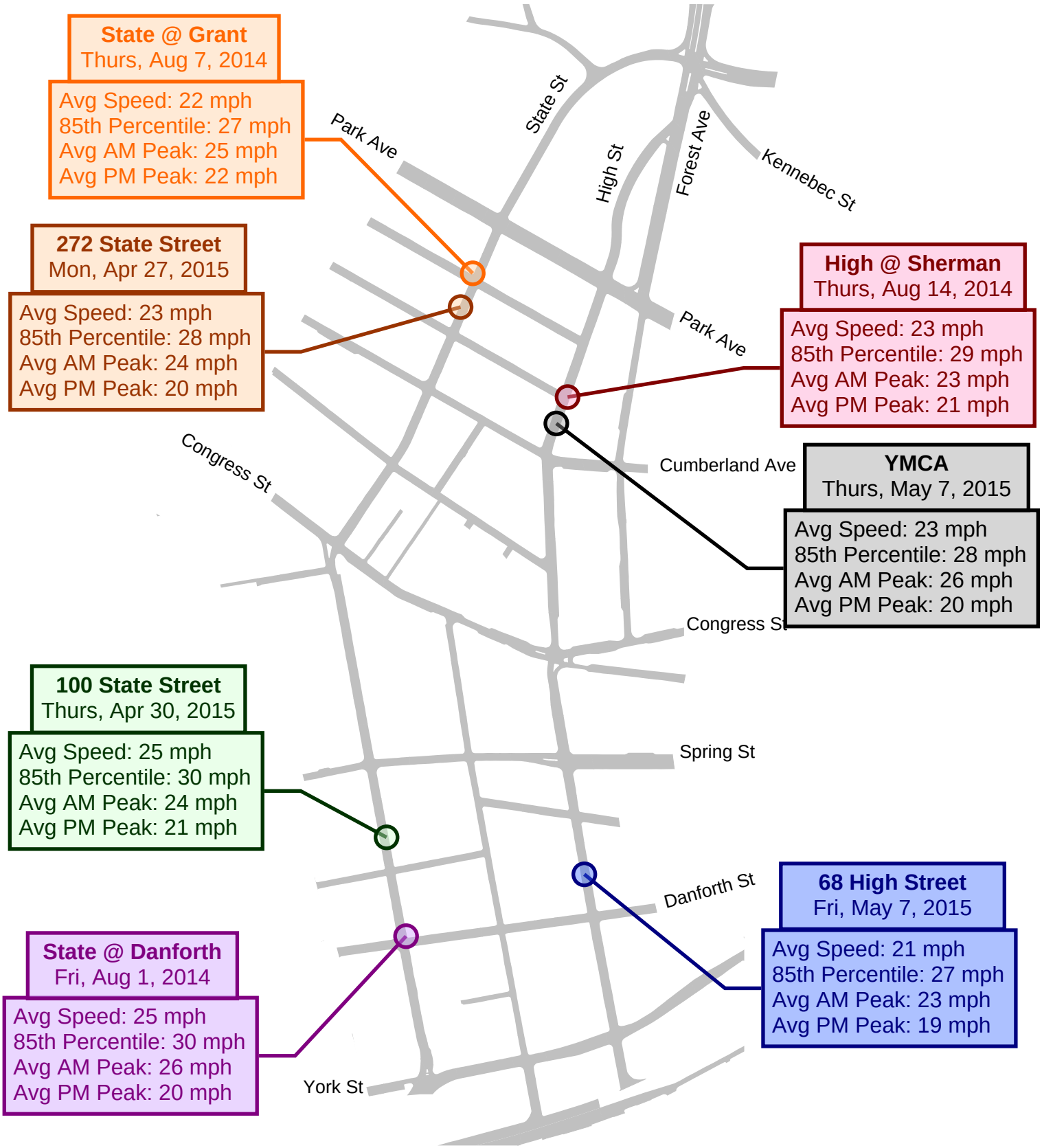
# Purpose and Need Statement

The purpose of the State and High Streets Two-Way Conversion Study is **to study the effects of re-introducing two-way traffic flow on State and High Streets**. The study will evaluate whether changes in transportation infrastructure will support the existing mix of land uses and neighborhoods in the study area. Both streets need to serve automobiles, trucks, transit, pedestrians, and cyclists equitably, as well as serve both those who are traveling within the City as well as through the City. From a safety and health perspective, new infrastructure should be designed to accommodate pedestrian and cyclist safety and increase livability. From an urban design perspective, changes should provide a positive experience, and actively connect historic neighborhoods. Changes should also serve the transportation needs of those living off the peninsula by creating convenient access to city amenities and work places. Changes should be compatible and coordinate with other related City planning projects, including the redesign of Congress Square.

# New Study Data

- Speed analysis
- Unsignalized intersection analysis
- Truck deliveries
- Cost of annual winter maintenance
- Total cost

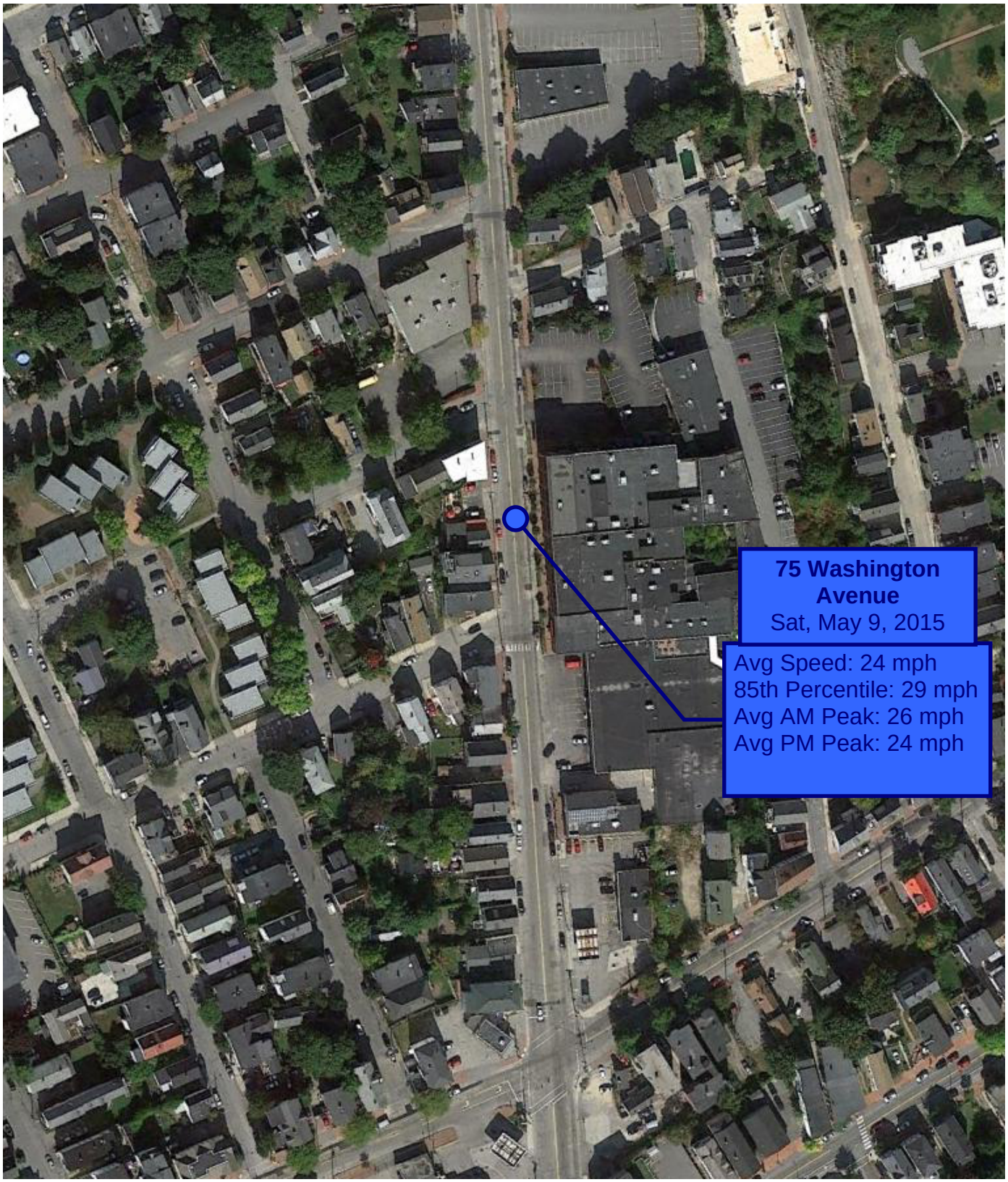
# Speed Study (2014/2015)

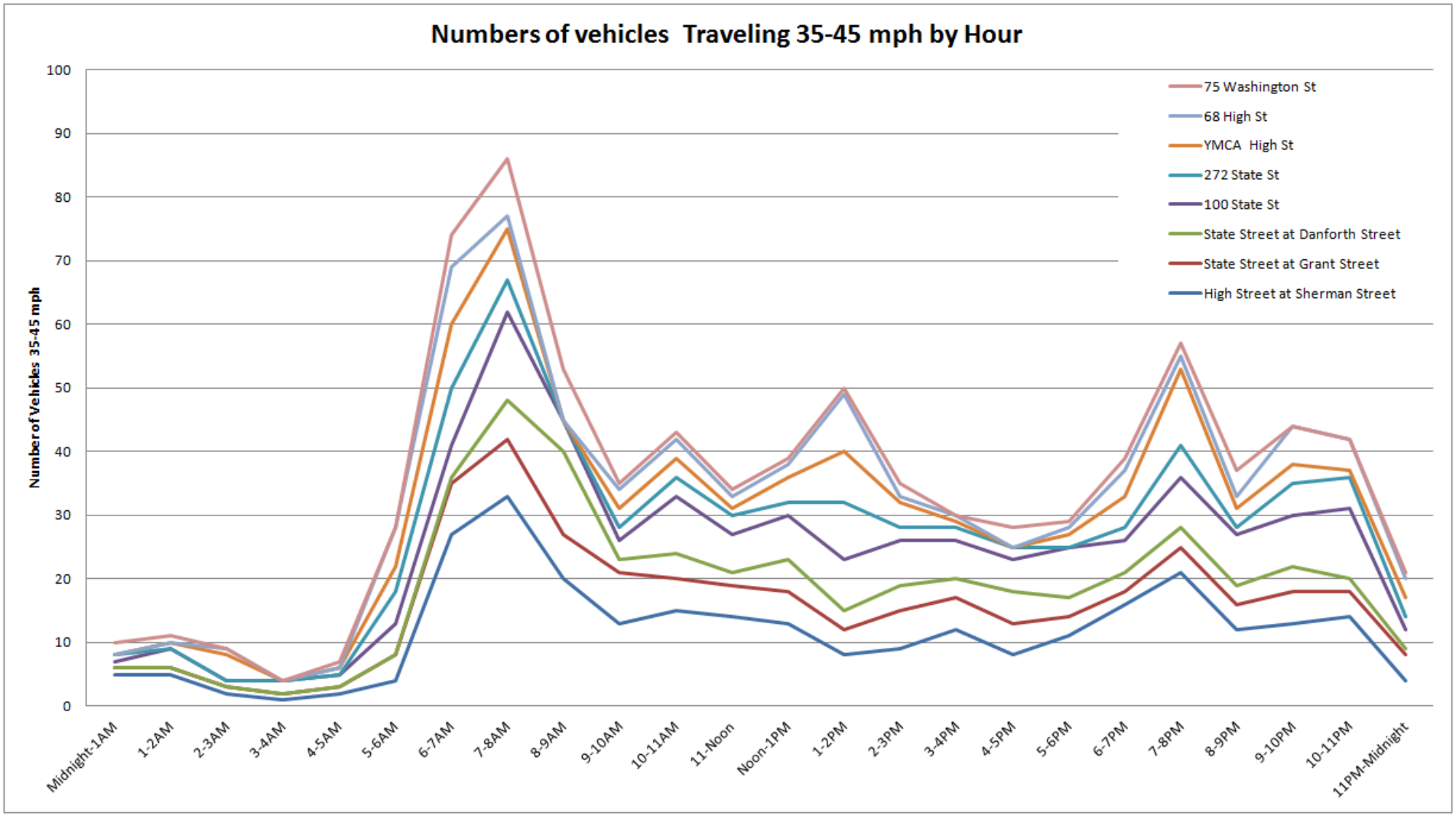



**State and High Street**
Two Way Conversion Study
May 2015

TY LIN INTERNATIONAL
engineers | planners | scientists

# Speed Study
# (Washington Ave)





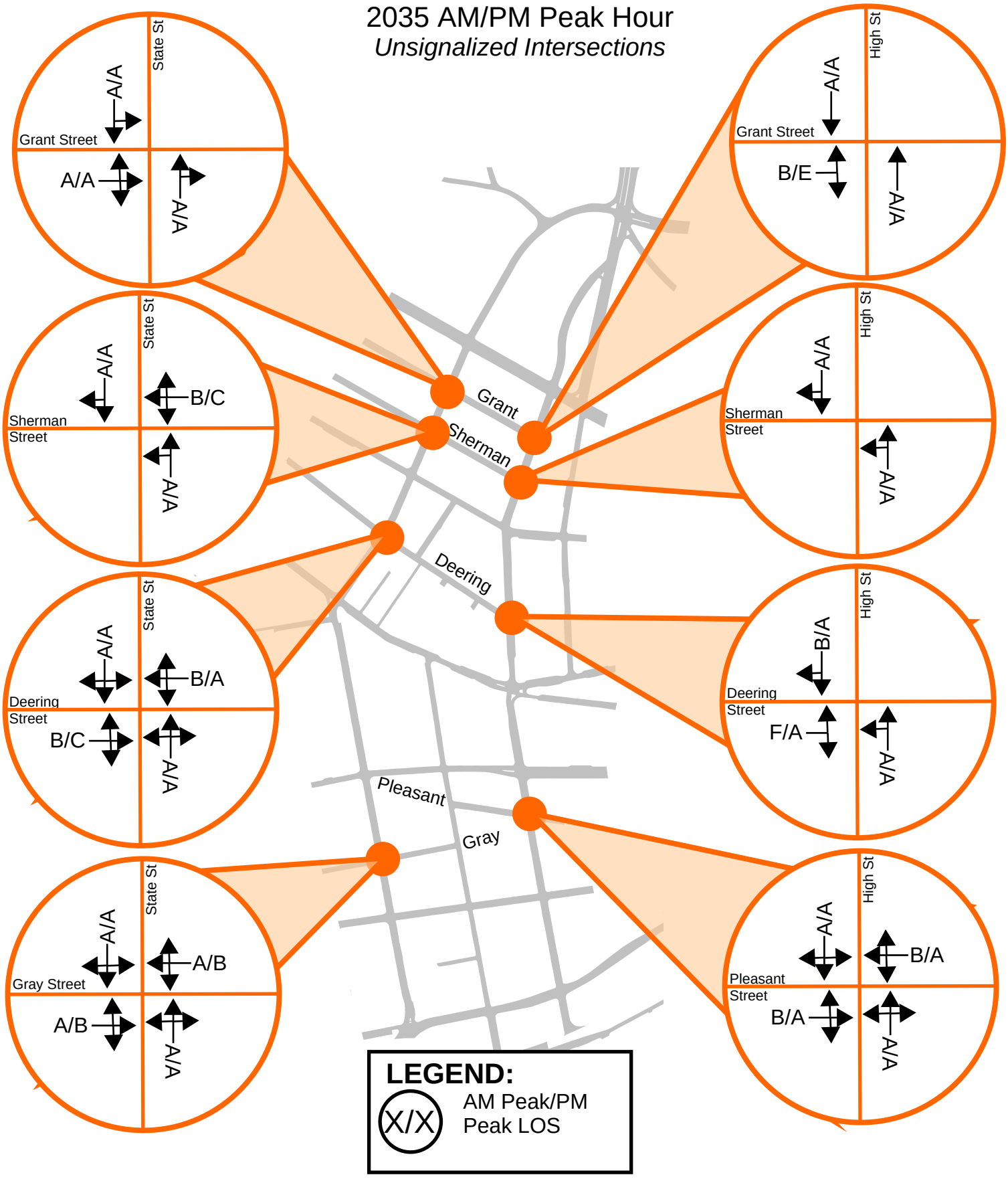

**State and High Street**
Two Way Conversion Study
May 2015

T·Y LIN INTERNATIONAL
engineers | planners | scientists

# SimTraffic Two-Way Vehicular Level of Service

2035 AM/PM Peak Hour

*Unsignalized Intersections*




**State and High Street**

Two Way Conversion Study

May 2015

T·Y LIN INTERNATIONAL

engineers | planners | scientists

# Loading and Deliveries

| Loadings and Deliveries | |
|---|---|
| Location | Delivery Type/Location |
| Residences along State and High Street | UPS and Fed Ex drivers were surveyed; each park anywhere that is available – typically not legal parking and run out to deliver packages. If not parking is available they will go to side streets and use a hand truck – however it can be difficult with the one way flow to get back on their route. It was observed during spot counts that sometimes trucks will completely block lanes to make a delivery under the one way scenario. |
| King of the Roll | Deliveries from Congress or Vernon Place |
| 1 Longfellow Square | Deliveries from Congress |
| 184 State Street | Deliveries from Congress |
| 188 State Street (Miyake) | Deliveries from Pine Street |
| 190 State Street | Deliveries from Pine Street |
| The Frame Shop | Deliveries from Pine Street |
| The Portland Club | Deliveries from the parking lot or on street as needed |
| State Street Congregational Church/St. Luke's Cathedral/Episcopal Diocese of Maine | Deliveries from the front |
| Mercy Hospital | Deliveries from Parking Lot |
| St. Dominic's Roman Catholic Church | Deliveries from Gray Street |
| El Rayo Tacqueria | Deliveries from parking lot |
| The Little Tap House | Deliveries from Spring Street |
| The Cumberland Club | Deliveries from the rear parking lot |
| Portland Museum of Art | Deliveries from Spring Street |
| WCSH | Deliveries from the parking lot |
| Starbucks | Deliveries from Free Street |
| Namaste Salon and Spa | Deliveries from Congress Street or High Street as needed |
| The State Theater | Deliveries from High Street – block the road during deliveries |
| Immanuel Baptist Church | Deliveries from Deering Street or High Street as needed |
| The Eastland | Deliveries from High Street or Forest Avenue as needed |
| YMCA | Deliveries from parking lot |
| Citgo | Deliveries from parking lot |

# Added Winter Snow Removal $$

- Portland budgets for 8-10 major snow events and 22 smaller snow events
- Cost impact would be on major events only
- Per storm cost is $9,100 for enhanced State & High work
- Total projected annual cost: $72,800 - $91,000

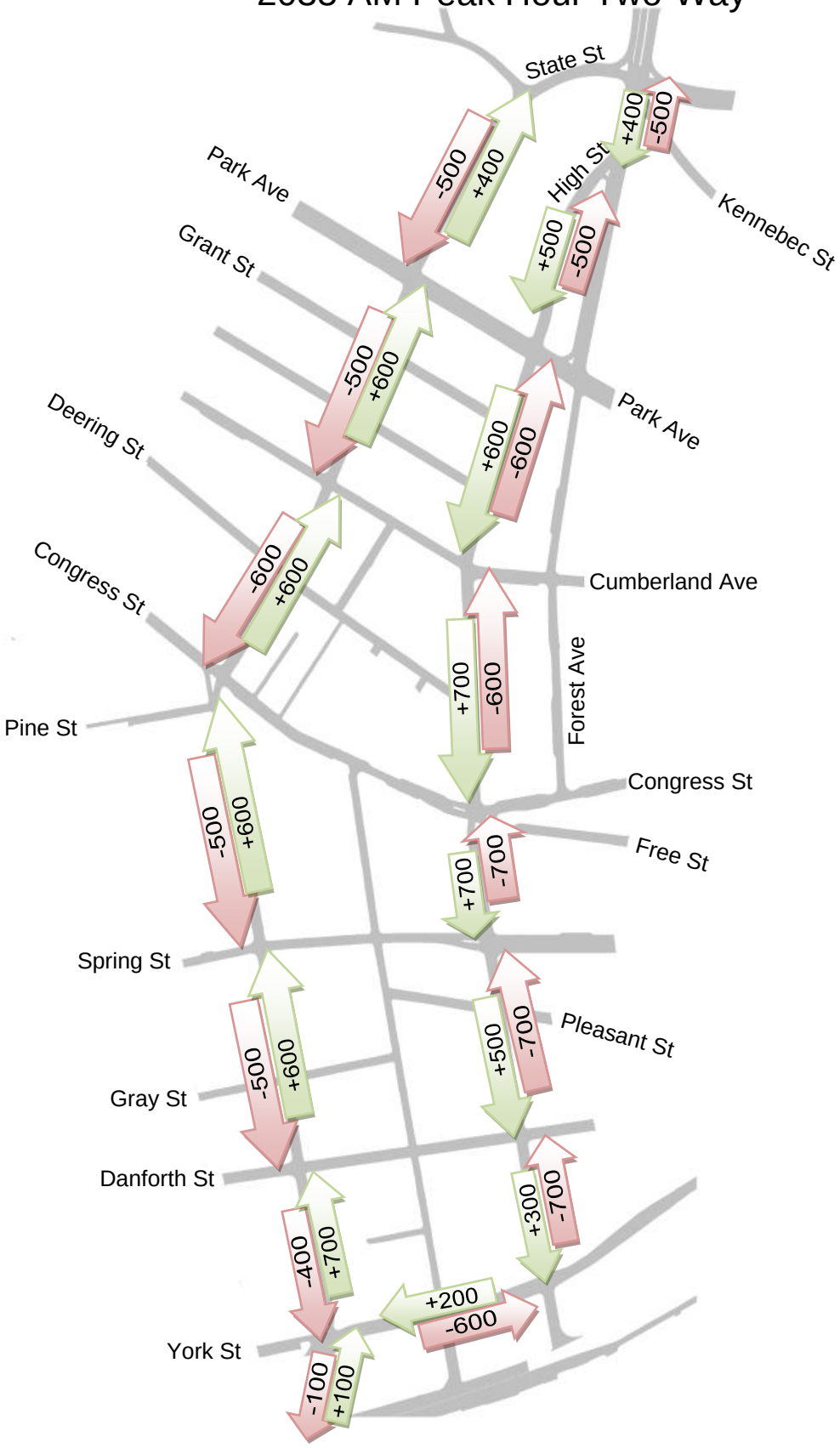
# Total Project Cost

- Total project: $3.225 million
- Needed upgrade to traffic signals: $2 million
- Additional cost of two-way configuration: $1.225 million

# Review Study Findings

- Traffic Volume Changes
- Vehicle Mobility
- Vehicle Speed
- Heavy Vehicles/Truck Deliveries
- On-Street Parking
- Bicycle Safety/Mobility
- Pedestrian Safety/Mobility
- Intersection Geometry
- Winter Maintenance
- Cost

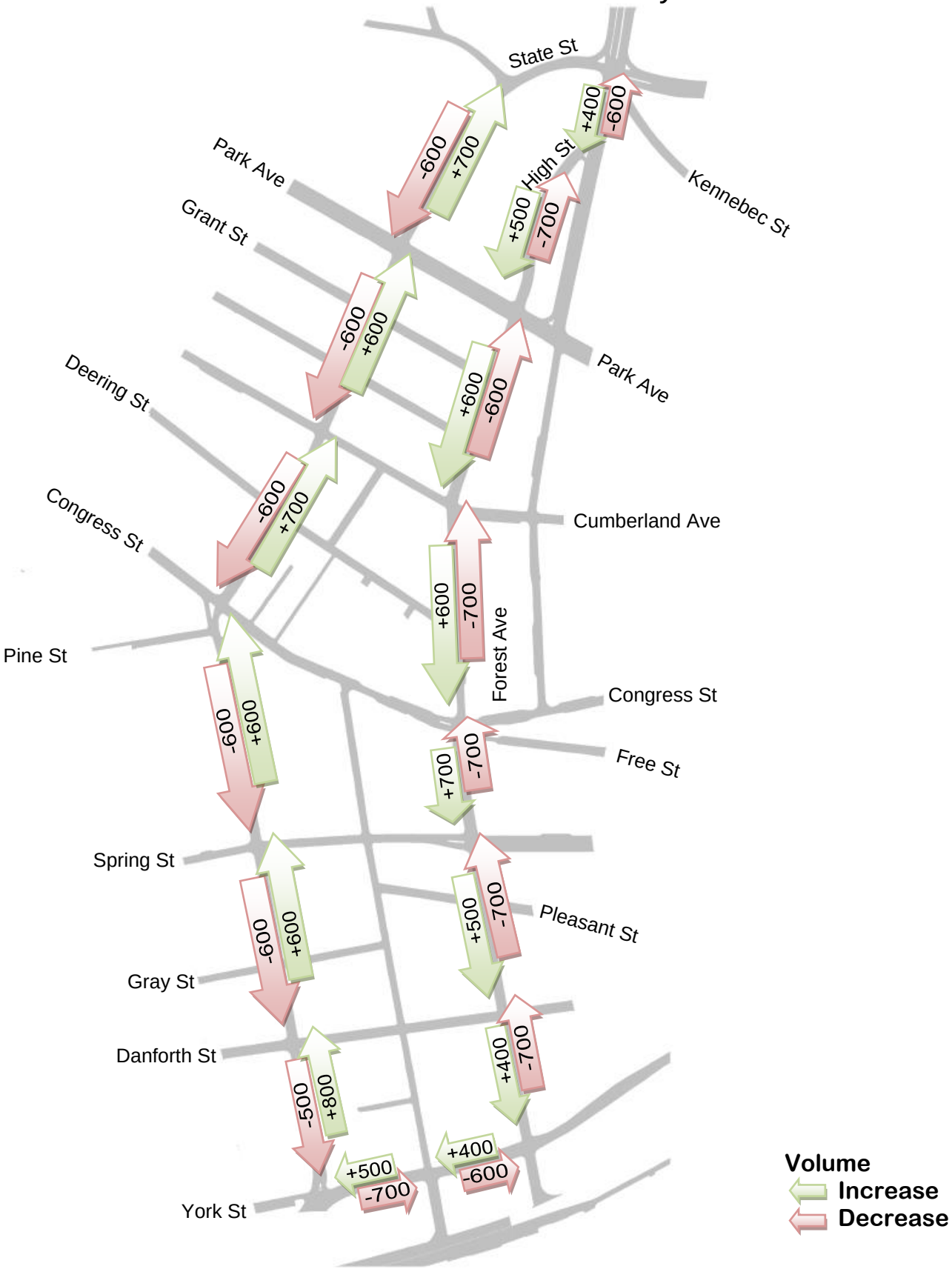
# Volume Change
## 2035 AM Peak Hour Two-Way




# State and High Street
## Two Way Conversion Study
May 2015

T·Y·LIN INTERNATIONAL
engineers | planners | scientists

# Volume Change
2035 PM Peak Hour Two-Way



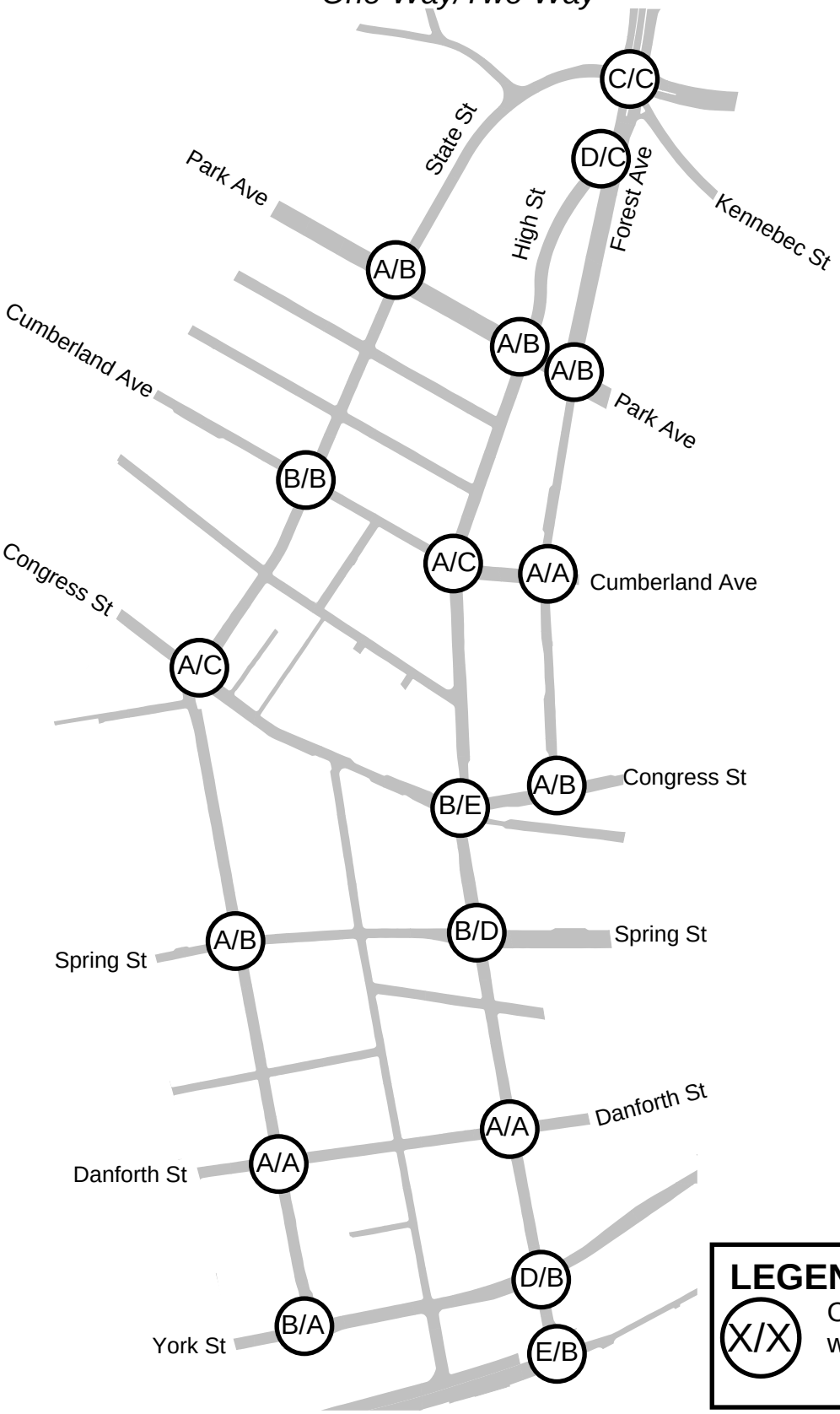

**State and High Street**
Two Way Conversion Study
May 2015

TY LIN INTERNATIONAL
engineers | planners | scientists

# SimTraffic Vehicular Level of Service

2035 AM Peak Hour

*One-Way/Two-Way*




**LEGEND:**

X/X One-Way/Two-way LOS

**State and High Street**

Two Way Conversion Study

May 2015

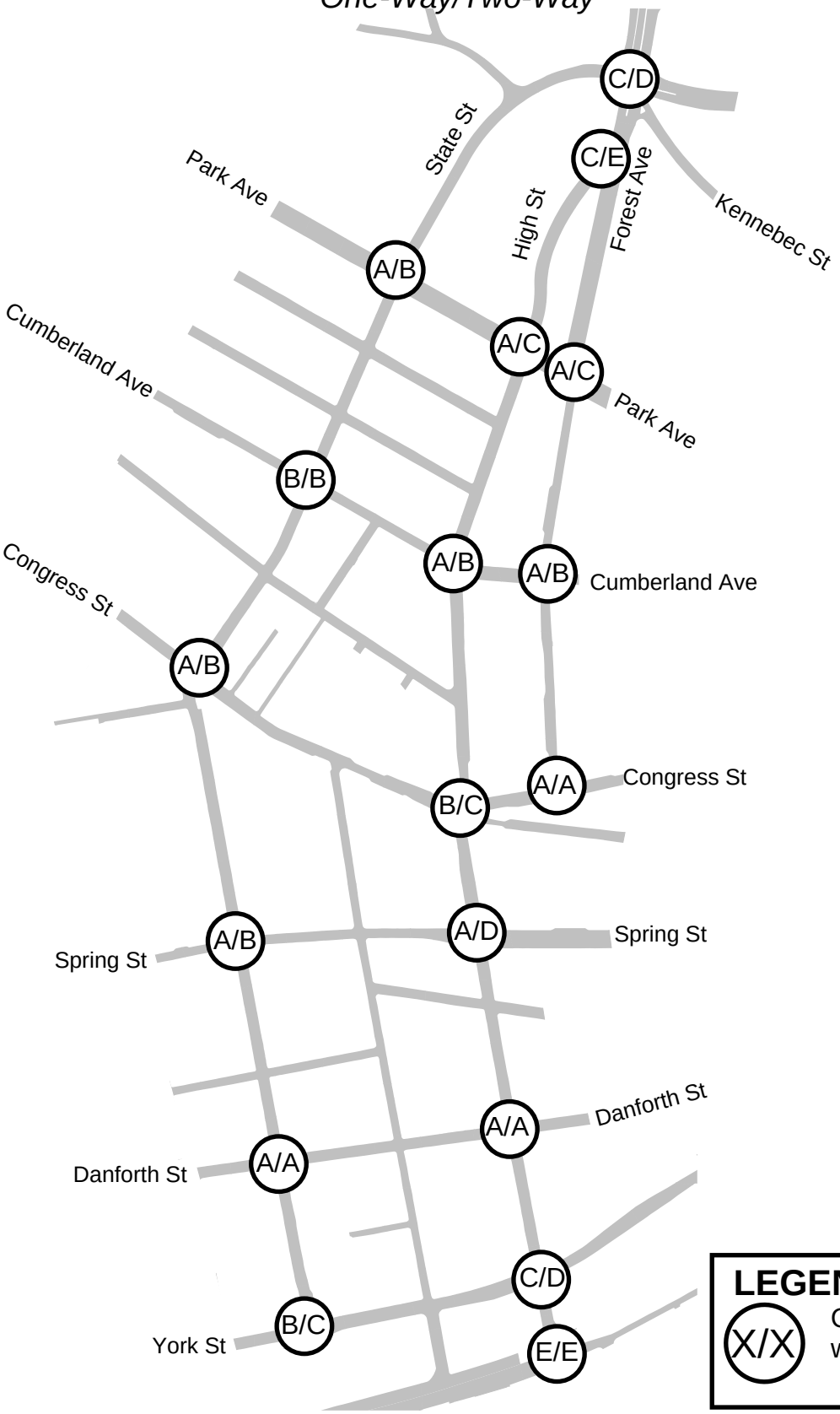
T·Y·LIN INTERNATIONAL

engineers | planners | scientists

# SimTraffic Vehicular Level of Service

2035 PM Peak Hour

*One-Way/Two-Way*




**LEGEND:**

X/X One-Way/Two-way LOS

**State and High Street**

Two Way Conversion Study

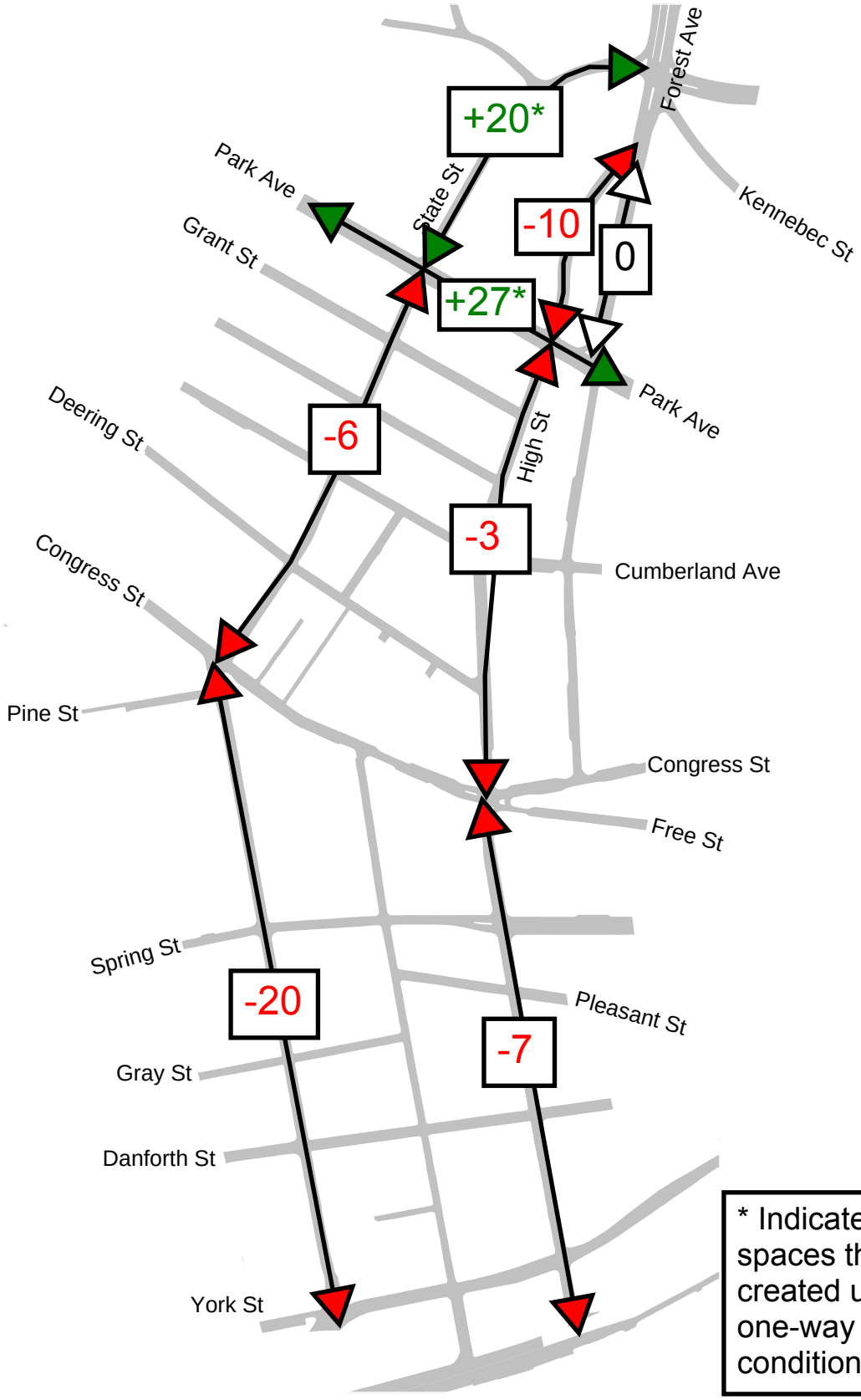
May 2015

T·Y·LIN INTERNATIONAL

engineers | planners | scientists

# On-Street Parking

Change in Parking Between One-Way and Two-Way Conditions




* Indicates parking spaces that could be created under one-way or two-way conditions.

**State and High Street**

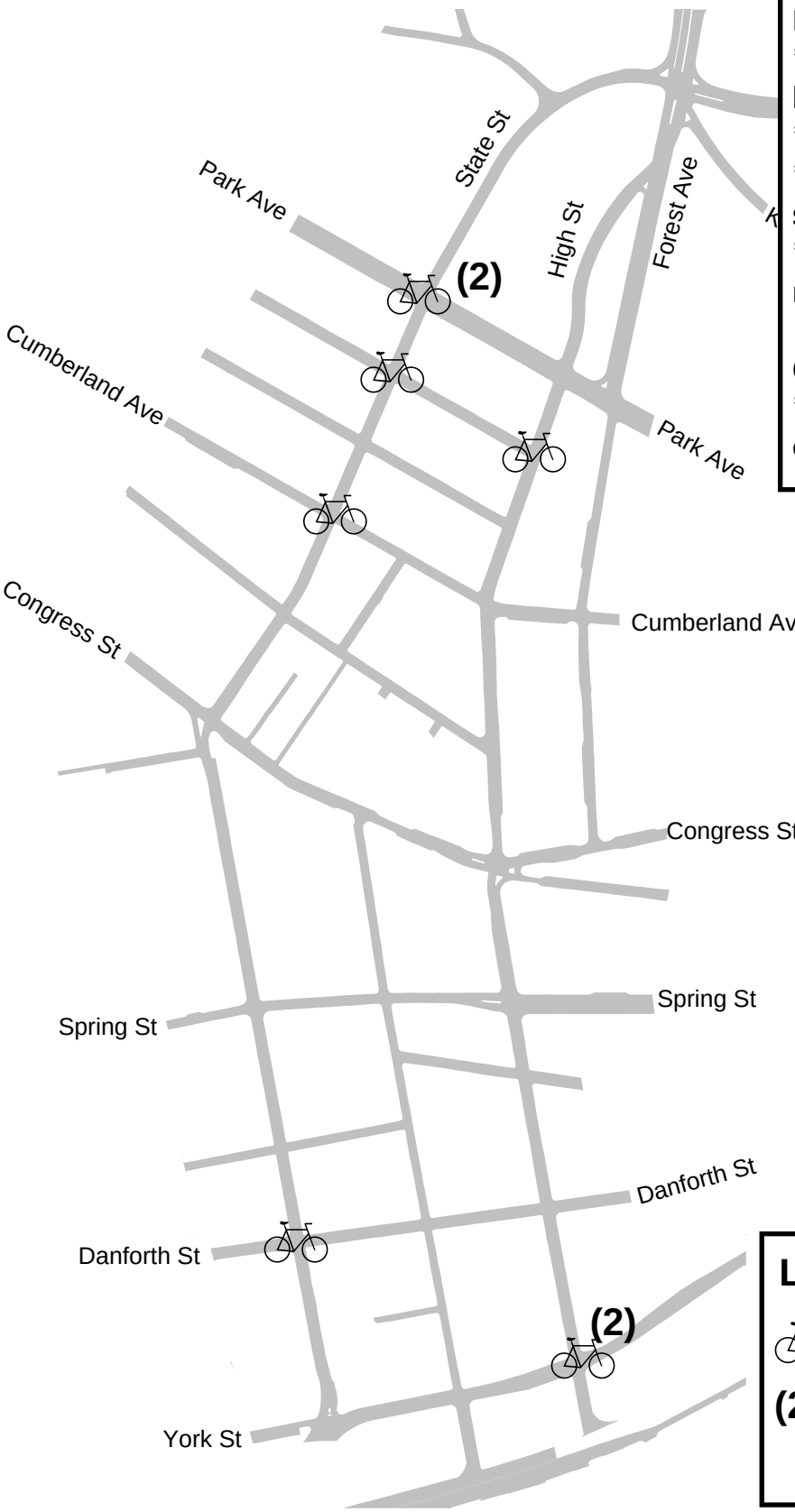
Two Way Conversion Study

May 2015

T·Y·LIN INTERNATIONAL

engineers | planners | scientists

# Figure: Bicycle Crash History (2011-2013)




**Pros:**
* **Eliminates one way bicycle crashes**
* **More direct routing**
* **Reduced vehicle speeds may occur**
* **Safer left-turn movements**

**Cons:**
* **Vehicle passing option reduced**

**LEGEND:**

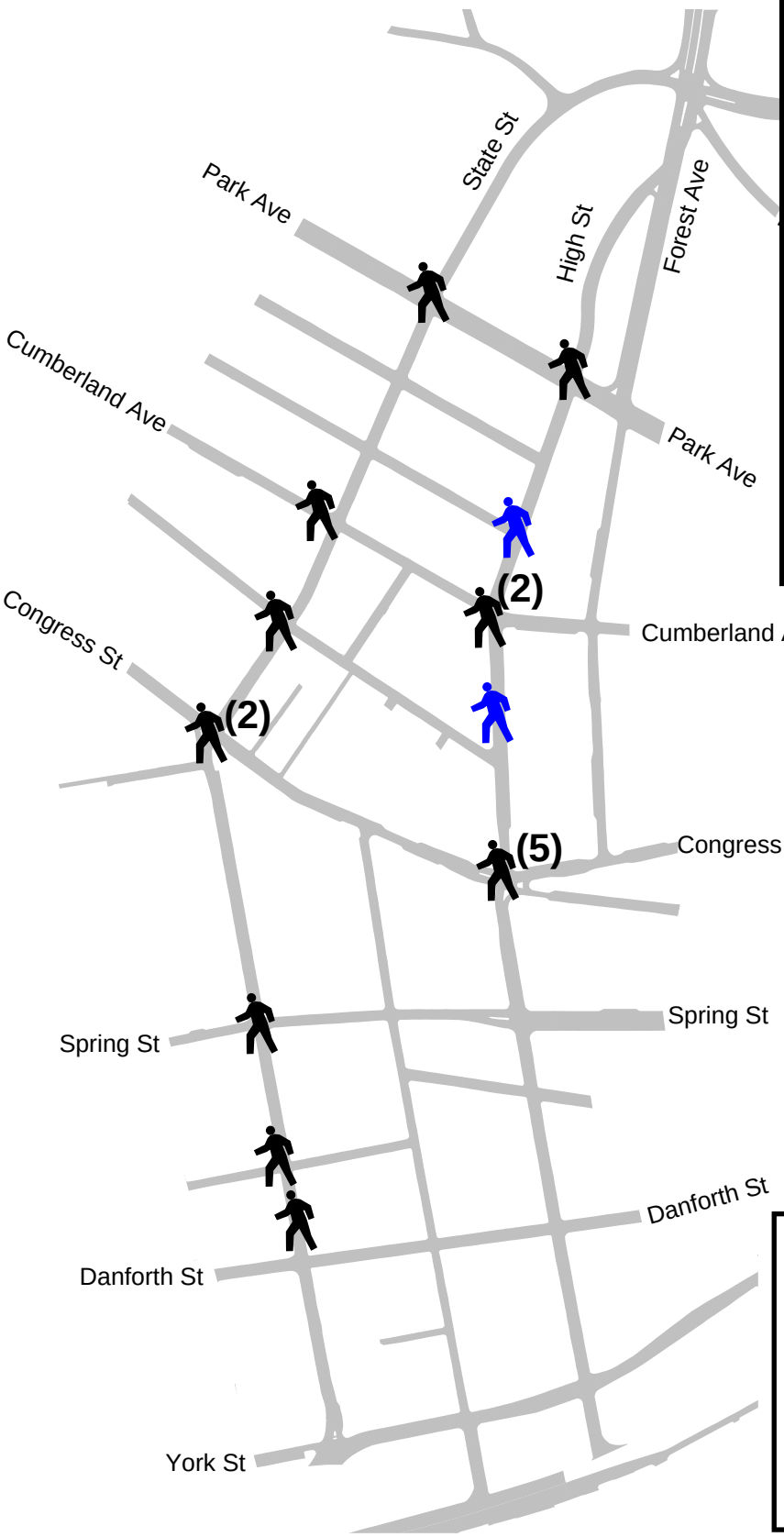
Bicycle Crash

**(2)** # Crashes (no # indicates 1 crash)

**State and High Street**
Two Way Conversion Study
May 2015

T·Y·LIN INTERNATIONAL
engineers | planners | scientists

# Figure: Pedestrian Crash History (2011-2013)




**Pros:**

*** Improved safety with possible slower vehicle speeds**

*** Improved pedestrian/vehicle visibility at unsignalized crossings**

**Cons:**

***Results in more conflicting vehicular movements at intersections (LOS remains unchanged)**

## LEGEND:

Pedestrian Crash (Blue indicates midblock)

**(2)** # Crashes (no # indicates 1 crash)

**State and High Street**
Two Way Conversion Study
September 2014

T·Y·LIN INTERNATIONAL
engineers | planners | scientists

Filename: ...\Sheets\Cut Sheets\Larger 4.dgn Division: Username: Date:4/27/2015


TYLININTERNATIONAL

OF

# PORTLAND
# STATE AND HIGH STREET
## CONVERSION STUDY

| PROJ. MANAGER | T. Errico | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | | | |
| CHECKED-REVIEWED | | | |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

CITY OF PORTLAND

# What We Heard at Public Workshops

- Most attendees and comments were residents of study area or its surrounds
- Comments were mixed, but weighted somewhat toward the positive
- Biggest concerns overall were loss of parking. Potential increased congestion and effect of winter conditions also issues
- Biggest positives were safer, more historic and pedestrian-friendly atmosphere; ability to divert through-traffic

# DISCUSSION

# VOTE

"Given that the findings of the study indicate that a two-way conversion is feasible, does the committee support taking steps to move forward in implementing the conversion?"

# Next Steps

1. Take findings and committee vote to Transportation, Sustainability & Energy Committee Meeting.
2. Take findings, committee vote and TS&E vote to City Council Meeting