



UNION STREET RAPID RECONFIGURATION

Growing Communities
Wilmington, Delaware

The Union Street Rapid Reconfiguration project in Wilmington, Delaware is a highly successful example of a transportation improvement project, born out of community activism, supported by local businesses and residents, then collaboratively studied, designed and implemented in a rapid time-frame through outstanding multi-agency coordination. Organizations responsible for the project include West Side Grows Together (WSGT), a subsidiary of Cornerstone West CDC (Planning); WILMAPCO (Planning); University of Delaware (Planning); Delaware Department of Transportation (DelDOT) (Planning & Design); RK&K (Planning & Design); and the City of Wilmington's Department of Planning and Urban Design (Planning), Department of Economic Development (Planning) and Department of Public Works (Construction).

BACKGROUND

The Union Street Rapid Reconfiguration project was born out of a larger economic development Main Street initiative, outlined in the West Side Grows Together Neighborhood Revitalization Plan (2012) coordinated by The Cornerstone West Community Development Corporation (CDC). The corporation develops housing that meets the needs of New Castle County's low- to moderate-income families and serves as a proactive catalyst for community revitalization in Wilmington's West Side. West Side Grows Together (WSGT), a subsidiary of Cornerstone West CDC, is an active network of residents, organizations, institutions and businesses from Wilmington's West Side that are working together to



improve their neighborhood through façade improvement programs and security camera grants, branding of the business district with banners on light poles, signal cabinet murals, and installations of bicycle racks and new planters.

In 2014, WSGT first joined forces with the Wilmington Area Planning Council (WILMAPCO) to host a Walkable Communities workshop and engage the community in considering proposed infrastructure changes along North Union Street. It was believed that Union Street should be a more complete street with greater consideration given to pedestrians, cyclists, and transit users, rather than a gateway for drivers to get out of the city. Later that year, WSGT partnered with interns from the University of Delaware, and the City of Wilmington's Department of Planning and Urban Design and Department of Economic Development to implement the first Better Block Demonstration on the 700 block of North Union Street. One lane of Union Street was temporarily closed, mimicking the proposed two-lane cross-section from the revitalization plan, including back-in angle parking, outdoor seating for businesses, and, diverging from the revitalization plan, a bicycle lane.



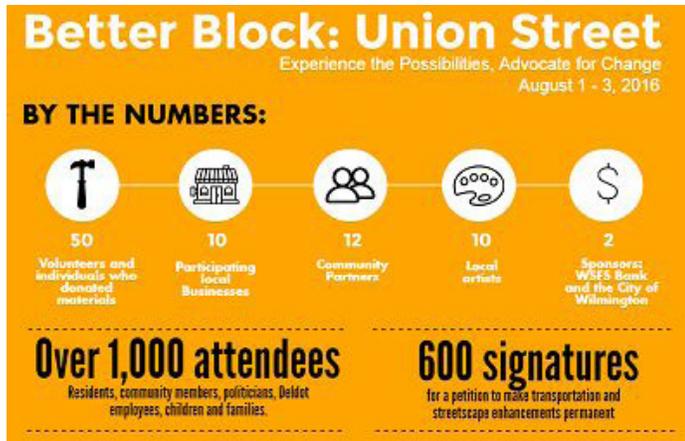


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The three-day demonstration project proved very successful, both in terms of public participation and public outreach. The Better Block event was held again in 2015 and 2016 with increased focus on the physical appearance of the demonstration. The event was even more successful than the first, attracting **over 1,000 attendees, and resulting in over 600 people signing a petition in support of the improvements.**



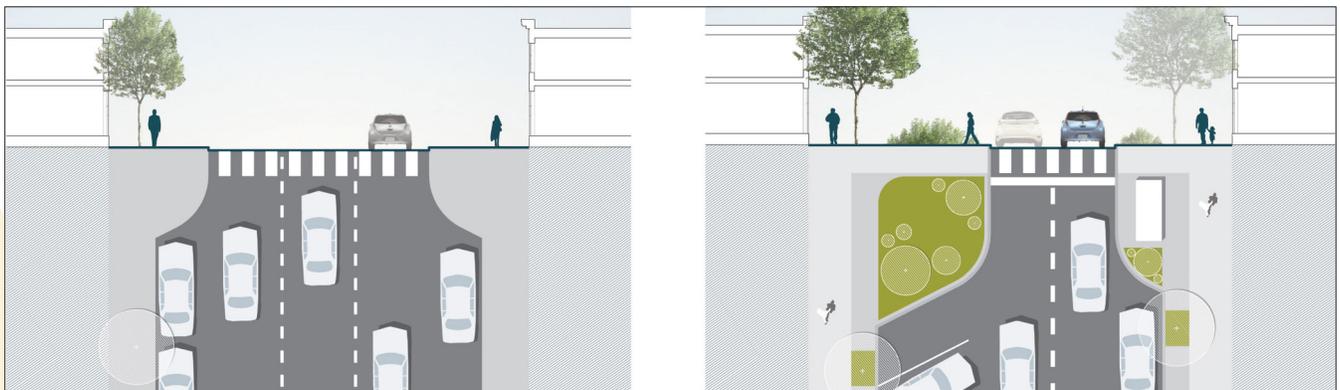
MULTI-AGENCY COORDINATION

Acknowledging the success of the community-driven planning and outreach efforts, in the fall of 2016, DelDOT agreed to study the operational impacts of the proposed

THE PROJECT

The rapid reconfiguration of Union Street between Pennsylvania Avenue and Sycamore Street was completed in November of 2017, less than one year after the Delaware Department of Transportation (DelDOT) began its design. The three-lane, one-way principle arterial roadway has been reconfigured by converting the left-side parking and inside travel lane to back-in angle parking with an adjacent bicycle lane. As part of the reconfigured parking, a total of six (6) accessible parking spaces were added, of which two (2) are van accessible. Numerous curb ramps were also reconstructed to meet ADA requirements. Additionally, new pavement marking lines, turn arrows, pedestrian crosswalks, and stop lines were installed, renewing the existing obfuscated pavement markings along Union Street. The project's cost of \$200K was shared between the City of Wilmington and DelDOT.

roadway diet and concluded that no significant operational impacts would be expected. With concurrence from the City of Wilmington, DelDOT, with support from their consultant, RK&K, developed pavement marking plans based on the Better Block Demonstration that could be installed through one of DelDOT's existing open-end pavement marking contracts. DelDOT coordinated closely with the City of Wilmington to simultaneously incorporate ADA compliance improvements that could be constructed by their on-call contractor. WILMAPCO, the regional transportation planning agency that had been involved with the project planning effort since 2014, coordinated the public outreach effort that consisted of two (2) public workshops. Additionally, WSGT performed extensive public outreach efforts, knocking on doors and meeting with residents and businesses to hear their concerns and report them to the various agencies and organizations involved in the design.



"The two-lane roadway is a return to the way Union Street was at least 50 years ago"
— John Constantinou, owner of Walter's Steakhouse



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RESULTS

After implementation of the project, field observations were made to assess the functionality of back-in angle parking movements, and to take speed measurements which, along with crash data for the corridor, were compared with “before” conditions.

Back-in Angle Parking: The majority (greater than 50%) of back-in angle parking maneuvers were completed in a single movement and it took motorists an average of 14 seconds to perform their parking maneuver. **Generally, the back-in parking movements were made with little difficulty by most motorists.**

Crashes: An analysis of the “before” (4 years of data from 2014-2017) and “after” (8 months from 2018) crash data revealed that **the total number of crashes has**

dropped from 24 to 17 crashes per 8-month period, a reduction of almost 30%. While almost all types of collisions have been reduced, the largest reduction was for sideswipe collisions which decreased by 85%. There were no recorded bicycle or pedestrian crashes after the reconfiguration compared to an average of 1 bicycle and 1 pedestrian related crash per 8-month period before. Injury and property damage collisions have both declined by approximately 25%.

Speeds: Spot speed data was collected at three (3) locations along Union Street during free flow traffic conditions, (e.g., when traffic signals were displaying a green signal), before and after the reconfiguration. Union Street has a posted speed limit of 25 miles per hour (MPH). Comparing the “before” with the “after” data, **speeds at all three locations went down by 3mph to 5mph.**

| Crash Type | “BEFORE” DATA 8-MONTH ANNUAL AVERAGE (2014 – 2017) | | | | “AFTER” DATA 8-MONTHS FROM 2018 | | | |
|---------------------------|---|----------|-----------|-----------|------------------------------------|----------|-----------|-----------|
| | Fatal | Injury | PDO | Total | Fatal | Injury | PDO | Total |
| Angle | 0 | 3 | 3 | 6 | 0 | 2 | 4 | 6 |
| Bicycle crash | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Front to front | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Hit fixed object | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Hit parked vehicle | 0 | 1 | 3 | 3 | 0 | 1 | 3 | 4 |
| Left-turn crash | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 1 |
| Motorcycle Crash | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Pedestrian Crash | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Rear-end | 0 | 1 | 2 | 3 | 0 | 1 | 4 | 5 |
| ROR/HFO | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Sideswipe, same direction | 0 | 1 | 6 | 7 | 0 | 1 | 0 | 1 |
| TOTAL | 0 | 8 | 15 | 24 | 0 | 6 | 11 | 17 |

SUMMARY

1. The Union Street Rapid Reconfiguration is an outstanding example of a project that was initiated through grass-roots community activism, supported by public agencies and officials, and designed and implemented under an aggressive schedule, incorporating public input through the entire process.
2. Crash data shows that reconfiguration resulted in both **traffic safety improvements** and **speed reductions** along the corridor.
3. The project also provided improved accessibility (ADA improvements) and the addition of a bicycle lane, all while maintaining acceptable traffic operations.

The success of this project can be explained by the bottom-up process that has characterized the project, where a community sought change and development through demonstrating their own vision of community, and then created support for their ideas by engaging local, state, and regional officials. In response, the various agencies that were involved formed a skilled team of professionals who were able to complete the project through effective collaboration, driving an aggressive time-line for implementation, all while working closely with residents and business owners to develop the preferred design.